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# ANALYTICAL REPORT

Job Number: 280-159234-1

Job Description: Cornhusker (CHAAP)

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

Attention: Corey Schwabenlander



Approved for release.
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3/21/2022 5:04 AM

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The Lab Certification ID# is 4025.

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

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

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## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Estimated: The analyte was positively identified; the quantitation is an estimation |
| U | Undetected at the Limit of Detection. |

### HPLC/IC

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

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| D | The reported value is from a dilution. |
| J | Estimated: The analyte was positively identified; the quantitation is an estimation |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| M | Manual integrated compound. |
| U | Undetected at the Limit of Detection. |

## Glossary

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

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TNTC | Too Numerous To Count |

# CASE NARRATIVE

## Client: Brice Environmental Services, Corp

## Project: Cornhusker (CHAAP)

## Report Number: 280-159234-1

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 3/2/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.9º C, 1.2º C, 1.3º C and 2.4º C.

**DISSOLVED GASES (GC)**
Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 03/03/2022 and 03/04/2022.

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

**NITROAROMATICS AND NITRAMINES (HPLC)**
Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 03/07/2022 and analyzed on 03/08/2022 and 03/09/2022.

Surrogate recovery for the following sample in preparation batch 280-567869 and analytical batch 280-568014 was outside the upper control limits: G0087-8 (280-159234-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within control limit in the confirmation instrument.

The %RPD between the primary and confirmation column exceeded 40% for RDX for the following samples: NW020-8 (280-159234-1) and G0087-8 (280-159234-9) in preparation batch 280-567869 and analytical batch 280-568014. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

In preparation batch 280-567869, the following samples required filtration to reduce matrix interferences: G0079-8 (280-159234-4) and G0076-8 (280-159234-6). Method 3535/8330A_DOD5.

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

**ALKALINITY**
Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 03/03/2022.

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

**AMMONIA**
Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 03/17/2022.

Ammonia failed the recovery criteria high for the MS of sample G0070-8MS (280-159234-7) in batch 280-568955. Ammonia failed the recovery criteria high for the MSD of sample G0070-8MSD (280-159234-7) in batch 280-568955.

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

**TOTAL KJELDAHL NITROGEN**

Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 03/07/2022 and analyzed on 03/09/2022.

Nitrogen, Total Kjeldahl failed the recovery criteria high for the MS of sample G0070-8MS (280-159234-7) in batch 280-568207. Nitrogen, Total Kjeldahl failed the recovery criteria high for the MSD of sample G0070-8MSD (280-159234-7) in batch 280-568207.

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

**NITRATE-NITRITE AS NITROGEN**

Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/13/2022.

Sample NW020-8 (280-159234-1)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

**SULFIDE**

Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/05/2022, 03/07/2022 and 03/08/2022.

Sulfide was detected in method blank MB 280-568018/2-A at a level that was below one half the LOQ.

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

**ANIONS (28 DAYS)**

Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for anions (28 days) in accordance with 9056A (28 Days). The samples were analyzed on 03/16/2022 and 03/17/2022.

Sulfate failed the recovery criteria high for the MSD of sample G0076-8MSD (280-159234-6) in batch 280-568944.

Samples NW020-8 (280-159234-1)[5X], NW022-8 (280-159234-3)[5X] and G0076-8 (280-159234-6)[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.

**DISSOLVED ORGANIC CARBON**

Samples NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 03/14/2022.

The following samples were improperly preserved in the field: NW020-8 (280-159234-1), NW021-8 (280-159234-2), NW022-8 (280-159234-3), G0079-8 (280-159234-4), G0075-8 (280-159234-5), G0076-8 (280-159234-6), G0070-8 (280-159234-7), G0070-8 (280-159234-7[MS]), G0070-8 (280-159234-7[MSD]), G0080-8 (280-159234-8), G0087-8 (280-159234-9) and G0086-8 (280-159234-10). The pH measured at the bench was >2, it was reduced to <2 using concentrated Sulfuric acid after filtration prior to analysis.

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

# Detection Summary

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

Job ID: 280-159234-1

## Client Sample ID: NW020-8 — Lab Sample ID: 280-159234-1

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,6-Trinitrotoluene | 1.1 | | 0.12 | 0.11 | 0.048 | ug/L | 1 | | 8330A | Total/NA |
| 2-Amino-4,6-dinitrotoluene | 1.0 | | 0.12 | 0.11 | 0.054 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.91 | | 0.16 | 0.13 | 0.061 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.22 | M J1 | 0.22 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.49 | M J1 | 0.22 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| Nitrate Nitrite as N | 55 | | 2.5 | 1.3 | 0.48 | mg/L | 25 | | 353.2 | Total/NA |
| Sulfide | 1.6 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 220 | D | 25 | 13 | 5.2 | mg/L | 5 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 320 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 7.3 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW021-8 — Lab Sample ID: 280-159234-2

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.12 | | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| 2-Amino-4,6-dinitrotoluene | 1.0 | | 0.12 | 0.11 | 0.054 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.92 | | 0.16 | 0.13 | 0.062 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.17 | J M | 0.23 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| Ammonia | 2.4 | | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 2.7 | | 1.0 | 1.0 | 0.69 | mg/L | 1 | | 351.2 | Total/NA |
| Nitrate Nitrite as N | 0.62 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 180 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 350 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.1 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW022-8 — Lab Sample ID: 280-159234-3

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.20 | | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 1.1 | | 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 | 0.34 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfide | 0.88 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 280 | D | 25 | 13 | 5.2 | mg/L | 5 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 380 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.5 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0079-8 — Lab Sample ID: 280-159234-4

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 2.9 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfate | 67 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 230 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 5.1 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

This Detection Summary does not include radiochemical test results.

# Detection Summary

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

Job ID: 280-159234-1

## Client Sample ID: G0075-8 — Lab Sample ID: 280-159234-5

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-Amino-4,6-dinitrotoluene | 0.88 | | 0.11 | 0.099 | 0.050 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.95 | | 0.15 | 0.12 | 0.057 | ug/L | 1 | | 8330A | Total/NA |
| HMX | 0.32 | M | 0.21 | 0.20 | 0.087 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.19 | J M | 0.21 | 0.20 | 0.051 | ug/L | 1 | | 8330A | Total/NA |
| Ammonia | 0.047 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 6.5 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfate | 170 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 280 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.0 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0076-8 — Lab Sample ID: 280-159234-6

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.45 | | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 2.3 | | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 2.5 | | 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 | 310 | D J1 | 25 | 13 | 5.2 | mg/L | 5 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 390 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.6 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0070-8 — Lab Sample ID: 280-159234-7

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.00091 | J | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 0.029 | J J1 | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Sulfate | 48 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 220 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 1.4 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0080-8 — Lab Sample ID: 280-159234-8

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0078 | | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.082 | J | 0.16 | 0.13 | 0.061 | ug/L | 1 | | 8330A | Total/NA |
| Ammonia | 2.0 | | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 1.6 | | 1.0 | 1.0 | 0.69 | mg/L | 1 | | 351.2 | Total/NA |
| Nitrate Nitrite as N | 4.9 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfate | 98 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 380 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.4 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0087-8 — Lab Sample ID: 280-159234-9

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-Amino-4,6-dinitrotoluene | 0.40 | Q | 0.12 | 0.11 | 0.054 | ug/L | 1 | | 8330A | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: G0087-8 (Continued)

## Lab Sample ID: 280-159234-9

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Amino-2,6-dinitrotoluene | 0.85 | Q | 0.16 | 0.13 | 0.061 | ug/L | 1 | | 8330A | Total/NA |
| HMX | 0.74 | M Q | 0.22 | 0.21 | 0.093 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.19 | J M Q J1 | 0.22 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 0.29 | M J1 | 0.22 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| Nitrate Nitrite as N | 6.8 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfate | 130 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 290 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.3 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0086-8

## Lab Sample ID: 280-159234-10

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.018 | | 0.0050 | 0.0013 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| 1,3,5-Trinitrobenzene | 21 | | 0.23 | 0.21 | 0.090 | ug/L | 1 | | 8330A | Total/NA |
| 2,4,6-Trinitrotoluene | 5.8 | | 0.12 | 0.11 | 0.048 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 1.7 | | 0.16 | 0.13 | 0.062 | ug/L | 1 | | 8330A | Total/NA |
| HMX | 0.58 | M | 0.23 | 0.21 | 0.094 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 1.3 | | 0.23 | 0.21 | 0.055 | ug/L | 1 | | 8330A | Total/NA |
| Nitrate Nitrite as N | 5.1 | | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 170 | M | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 310 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.2 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: NW020-8

**Date Collected: 02/28/22 14:05**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-1

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/03/22 20:16 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.089 | ug/L | | 03/08/22 18:29 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.039 | ug/L | | 03/08/22 21:18 | 1 |
| **2,4,6-Trinitrotoluene** | **1.1** | | 0.12 | 0.11 | 0.048 | ug/L | | 03/08/22 18:29 | 1 |
| 2,4-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.029 | ug/L | | 03/08/22 18:29 | 1 |
| 2,6-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.043 | ug/L | | 03/08/22 18:29 | 1 |
| **2-Amino-4,6-dinitrotoluene** | **1.0** | | 0.12 | 0.11 | 0.054 | ug/L | | 03/08/22 18:29 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.091 | ug/L | | 03/08/22 18:29 | 1 |
| 3-Nitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.21 | ug/L | | 03/08/22 18:29 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **0.91** | | 0.16 | 0.13 | 0.061 | ug/L | | 03/08/22 18:29 | 1 |
| 4-Nitrotoluene | 0.42 | U | 0.44 | 0.42 | 0.11 | ug/L | | 03/08/22 18:29 | 1 |
| HMX | 0.21 | U | 0.22 | 0.21 | 0.093 | ug/L | | 03/08/22 18:29 | 1 |
| MNX | 0.42 | U | 2.1 | 0.42 | 0.16 | ug/L | | 03/08/22 18:29 | 1 |
| Nitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.097 | ug/L | | 03/08/22 18:29 | 1 |
| **RDX** | **0.22** | **M J1** | 0.22 | 0.21 | 0.055 | ug/L | | 03/08/22 18:29 | 1 |
| **RDX** | **0.49** | **M J1** | 0.22 | 0.21 | 0.055 | ug/L | | 03/08/22 21:18 | 1 |
| Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 | ug/L | | 03/08/22 18:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *93* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 18:29* | *1* |
| *1,2-Dinitrobenzene* | *97* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 21:18* | *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 | | 03/17/22 12:39 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 17:57 | 1 |
| **Nitrate Nitrite as N** | **55** | | 2.5 | 1.3 | 0.48 | mg/L | | 03/13/22 18:55 | 25 |
| **Sulfide** | **1.6** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/22 13:13 | 1 |
| **Sulfate** | **220** | **D** | 25 | 13 | 5.2 | mg/L | | 03/17/22 19:18 | 5 |
| **Total Alkalinity as CaCO3** | **320** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:02 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **7.3** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 18:52 | 1 |

## Client Sample ID: NW021-8

**Date Collected: 02/28/22 15:00**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-2

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.12** | | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/03/22 20:29 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.090 | ug/L | | 03/08/22 18:52 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 | ug/L | | 03/08/22 18:52 | 1 |
| 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.048 | ug/L | | 03/08/22 18:52 | 1 |

## Client Sample ID: NW021-8

**Date Collected: 02/28/22 15:00**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-2

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.029 | ug/L | | 03/08/22 18:52 | 1 |
| 2,6-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.043 | ug/L | | 03/08/22 18:52 | 1 |
| **2-Amino-4,6-dinitrotoluene** | **1.0** | | 0.12 | 0.11 | 0.054 | ug/L | | 03/08/22 18:52 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.23 | 0.21 | 0.092 | ug/L | | 03/08/22 18:52 | 1 |
| 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 | ug/L | | 03/08/22 18:52 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **0.92** | | 0.16 | 0.13 | 0.062 | ug/L | | 03/08/22 18:52 | 1 |
| 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 | ug/L | | 03/08/22 18:52 | 1 |
| HMX | 0.21 | U M | 0.23 | 0.21 | 0.094 | ug/L | | 03/08/22 18:52 | 1 |
| MNX | 0.43 | U | 2.1 | 0.43 | 0.17 | ug/L | | 03/08/22 18:52 | 1 |
| Nitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.098 | ug/L | | 03/08/22 18:52 | 1 |
| **RDX** | **0.17** | **J M** | 0.23 | 0.21 | 0.055 | ug/L | | 03/08/22 18:52 | 1 |
| Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 | ug/L | | 03/08/22 18:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *103* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 18:52* | *1* |
| *1,2-Dinitrobenzene* | *101* | | *83 - 119* | *03/07/22 15:25* | *03/08/22 21:53* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **2.4** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 12:41 | 1 |
| **Nitrogen, Total Kjeldahl** | **2.7** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 17:57 | 1 |
| **Nitrate Nitrite as N** | **0.62** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 18:57 | 1 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/22 13:13 | 1 |
| **Sulfate** | **180** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/16/22 21:35 | 1 |
| **Total Alkalinity as CaCO3** | **350** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:09 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.1** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 19:13 | 1 |

## Client Sample ID: NW022-8

**Date Collected: 02/28/22 15:55**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-3

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.20** | | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/03/22 20:43 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.086 | ug/L | | 03/08/22 19:15 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.038 | ug/L | | 03/08/22 19:15 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.046 | ug/L | | 03/08/22 19:15 | 1 |
| 2,4-Dinitrotoluene | 0.082 | U | 0.10 | 0.082 | 0.028 | ug/L | | 03/08/22 19:15 | 1 |
| 2,6-Dinitrotoluene | 0.082 | U | 0.10 | 0.082 | 0.041 | ug/L | | 03/08/22 19:15 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.052 | ug/L | | 03/08/22 19:15 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.087 | ug/L | | 03/08/22 19:15 | 1 |
| 3-Nitrotoluene | 0.41 | U | 0.41 | 0.41 | 0.20 | ug/L | | 03/08/22 19:15 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.059 | ug/L | | 03/08/22 19:15 | 1 |
| 4-Nitrotoluene | 0.41 | U | 0.42 | 0.41 | 0.10 | ug/L | | 03/08/22 19:15 | 1 |
| HMX | 0.20 | U M | 0.21 | 0.20 | 0.089 | ug/L | | 03/08/22 19:15 | 1 |

## Client Sample ID: NW022-8

**Date Collected: 02/28/22 15:55**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-3

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| MNX | 0.41 | U | 2.0 | 0.41 | 0.16 | ug/L | | 03/08/22 19:15 | 1 |
| Nitrobenzene | 0.20 | U M | 0.21 | 0.20 | 0.093 | ug/L | | 03/08/22 19:15 | 1 |
| RDX | 0.20 | U | 0.21 | 0.20 | 0.053 | ug/L | | 03/08/22 19:15 | 1 |
| Tetryl | 0.10 | U M | 0.11 | 0.10 | 0.032 | ug/L | | 03/08/22 19:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *105* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 19:15* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **1.1** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 12:43 | 1 |
| **Nitrogen, Total Kjeldahl** | **1.5** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 17:58 | 1 |
| **Nitrate Nitrite as N** | **0.34** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 18:59 | 1 |
| **Sulfide** | **0.88** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/22 13:13 | 1 |
| **Sulfate** | **280** | **D** | 25 | 13 | 5.2 | mg/L | | 03/17/22 19:33 | 5 |
| **Total Alkalinity as CaCO3** | **380** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:17 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.5** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 19:27 | 1 |

## Client Sample ID: G0079-8

**Date Collected: 03/01/22 09:10**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-4

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 13:47 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.22 | U | 0.23 | 0.22 | 0.091 | ug/L | | 03/08/22 19:37 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 | ug/L | | 03/08/22 19:37 | 1 |
| 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.049 | ug/L | | 03/08/22 19:37 | 1 |
| 2,4-Dinitrotoluene | 0.087 | U | 0.11 | 0.087 | 0.030 | ug/L | | 03/08/22 19:37 | 1 |
| 2,6-Dinitrotoluene | 0.087 | U | 0.11 | 0.087 | 0.043 | ug/L | | 03/08/22 19:37 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.055 | ug/L | | 03/08/22 19:37 | 1 |
| 2-Nitrotoluene | 0.22 | U | 0.23 | 0.22 | 0.093 | ug/L | | 03/08/22 19:37 | 1 |
| 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 | ug/L | | 03/08/22 19:37 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.16 | 0.13 | 0.062 | ug/L | | 03/08/22 19:37 | 1 |
| 4-Nitrotoluene | 0.43 | U M | 0.44 | 0.43 | 0.11 | ug/L | | 03/08/22 19:37 | 1 |
| HMX | 0.22 | U | 0.23 | 0.22 | 0.095 | ug/L | | 03/08/22 19:37 | 1 |
| MNX | 0.43 | U | 2.2 | 0.43 | 0.17 | ug/L | | 03/08/22 19:37 | 1 |
| Nitrobenzene | 0.22 | U | 0.23 | 0.22 | 0.098 | ug/L | | 03/08/22 19:37 | 1 |
| RDX | 0.22 | U | 0.23 | 0.22 | 0.056 | ug/L | | 03/08/22 19:37 | 1 |
| Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 | ug/L | | 03/08/22 19:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *100* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 19:37* | *1* |

## Client Sample ID: G0079-8
**Lab Sample ID: 280-159234-4**

**Date Collected: 03/01/22 09:10**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

### 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 | | 03/17/22 12:45 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:00 | 1 |
| **Nitrate Nitrite as N** | **2.9** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:01 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/07/22 18:33 | 1 |
| **Sulfate** | **67** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/16/22 23:35 | 1 |
| **Total Alkalinity as CaCO3** | **230** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:24 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **5.1** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 19:45 | 1 |

## Client Sample ID: G0075-8
**Lab Sample ID: 280-159234-5**

**Date Collected: 03/01/22 10:20**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 14:00 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.083 | ug/L | | 03/08/22 20:00 | 1 |
| 1,3-Dinitrobenzene | 0.099 | U | 0.11 | 0.099 | 0.037 | ug/L | | 03/08/22 23:38 | 1 |
| 2,4,6-Trinitrotoluene | 0.099 | U | 0.11 | 0.099 | 0.045 | ug/L | | 03/08/22 20:00 | 1 |
| 2,4-Dinitrotoluene | 0.079 | U | 0.099 | 0.079 | 0.027 | ug/L | | 03/08/22 20:00 | 1 |
| 2,6-Dinitrotoluene | 0.079 | U | 0.099 | 0.079 | 0.040 | ug/L | | 03/08/22 20:00 | 1 |
| **2-Amino-4,6-dinitrotoluene** | **0.88** | | 0.11 | 0.099 | 0.050 | ug/L | | 03/08/22 20:00 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.085 | ug/L | | 03/08/22 20:00 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.19 | ug/L | | 03/08/22 20:00 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **0.95** | | 0.15 | 0.12 | 0.057 | ug/L | | 03/08/22 20:00 | 1 |
| 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.099 | ug/L | | 03/08/22 20:00 | 1 |
| **HMX** | **0.32** | **M** | 0.21 | 0.20 | 0.087 | ug/L | | 03/08/22 20:00 | 1 |
| MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 | ug/L | | 03/08/22 20:00 | 1 |
| Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.090 | ug/L | | 03/08/22 20:00 | 1 |
| **RDX** | **0.19** | **J M** | 0.21 | 0.20 | 0.051 | ug/L | | 03/08/22 20:00 | 1 |
| Tetryl | 0.099 | U M | 0.11 | 0.099 | 0.032 | ug/L | | 03/08/22 20:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *115* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 20:00* | *1* |
| *1,2-Dinitrobenzene* | *108* | | *83 - 119* | *03/07/22 15:25* | *03/08/22 23:38* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.047** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 12:47 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:00 | 1 |
| **Nitrate Nitrite as N** | **6.5** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:03 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/07/22 18:33 | 1 |
| **Sulfate** | **170** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/16/22 23:50 | 1 |
| **Total Alkalinity as CaCO3** | **280** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:31 | 1 |

## Client Sample ID: G0075-8
**Lab Sample ID: 280-159234-5**
**Date Collected: 03/01/22 10:20**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.0** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 20:03 | 1 |

## Client Sample ID: G0076-8
**Lab Sample ID: 280-159234-6**
**Date Collected: 03/01/22 11:30**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.45** | | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 14:13 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.084 | ug/L | | 03/08/22 21:32 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 | ug/L | | 03/08/22 21:32 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 | ug/L | | 03/08/22 21:32 | 1 |
| 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 | ug/L | | 03/08/22 21:32 | 1 |
| 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 | ug/L | | 03/08/22 21:32 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 | ug/L | | 03/08/22 21:32 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.085 | ug/L | | 03/08/22 21:32 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.19 | ug/L | | 03/08/22 21:32 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 | ug/L | | 03/08/22 21:32 | 1 |
| 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 | ug/L | | 03/08/22 21:32 | 1 |
| HMX | 0.20 | U M | 0.21 | 0.20 | 0.087 | ug/L | | 03/08/22 21:32 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 03/08/22 21:32 | 1 |
| Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 | ug/L | | 03/08/22 21:32 | 1 |
| RDX | 0.20 | U | 0.21 | 0.20 | 0.051 | ug/L | | 03/08/22 21:32 | 1 |
| Tetryl | 0.10 | U M | 0.11 | 0.10 | 0.032 | ug/L | | 03/08/22 21:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *99* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 21:32* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **2.3** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 13:05 | 1 |
| **Nitrogen, Total Kjeldahl** | **2.5** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:01 | 1 |
| Nitrate Nitrite as N | 0.050 | U | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:05 | 1 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/08/22 16:59 | 1 |
| **Sulfate** | **310** | **D J1** | 25 | 13 | 5.2 | mg/L | | 03/17/22 19:48 | 5 |
| **Total Alkalinity as CaCO3** | **390** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:39 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.6** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 20:20 | 1 |

## Client Sample ID: G0070-8
**Lab Sample ID: 280-159234-7**
**Date Collected: 03/01/22 12:35**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.00091** | **J** | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 14:26 | 1 |

## Client Sample ID: G0070-8
**Lab Sample ID: 280-159234-7**

**Date Collected: 03/01/22 12:35**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.088 | ug/L | | 03/08/22 21:55 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.12 | 0.10 | 0.039 | ug/L | | 03/08/22 21:55 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.12 | 0.10 | 0.047 | ug/L | | 03/08/22 21:55 | 1 |
| 2,4-Dinitrotoluene | 0.084 | U | 0.10 | 0.084 | 0.029 | ug/L | | 03/08/22 21:55 | 1 |
| 2,6-Dinitrotoluene | 0.084 | U | 0.10 | 0.084 | 0.042 | ug/L | | 03/08/22 21:55 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.12 | 0.10 | 0.053 | ug/L | | 03/08/22 21:55 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.089 | ug/L | | 03/08/22 21:55 | 1 |
| 3-Nitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.20 | ug/L | | 03/08/22 21:55 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.16 | 0.13 | 0.060 | ug/L | | 03/08/22 21:55 | 1 |
| 4-Nitrotoluene | 0.42 | U | 0.43 | 0.42 | 0.10 | ug/L | | 03/09/22 01:59 | 1 |
| HMX | 0.21 | U M | 0.22 | 0.21 | 0.092 | ug/L | | 03/08/22 21:55 | 1 |
| MNX | 0.42 | U M | 2.1 | 0.42 | 0.16 | ug/L | | 03/08/22 21:55 | 1 |
| Nitrobenzene | 0.21 | U M | 0.22 | 0.21 | 0.095 | ug/L | | 03/08/22 21:55 | 1 |
| RDX | 0.21 | U | 0.22 | 0.21 | 0.054 | ug/L | | 03/08/22 21:55 | 1 |
| Tetryl | 0.10 | U M | 0.12 | 0.10 | 0.033 | ug/L | | 03/08/22 21:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *99* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 21:55* | *1* |
| *1,2-Dinitrobenzene* | *100* | | *83 - 119* | *03/07/22 15:25* | *03/09/22 01:59* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.029** | **J J1** | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 12:13 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U J1 | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:02 | 1 |
| Nitrate Nitrite as N | 0.050 | U | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:11 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/08/22 16:59 | 1 |
| **Sulfate** | **48** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/16/22 21:50 | 1 |
| **Total Alkalinity as CaCO3** | **220** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:46 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **1.4** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 20:39 | 1 |

## Client Sample ID: G0080-8
**Lab Sample ID: 280-159234-8**

**Date Collected: 03/01/22 09:30**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.0078** | | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 15:18 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.090 | ug/L | | 03/08/22 23:50 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.039 | ug/L | | 03/08/22 23:50 | 1 |
| 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.048 | ug/L | | 03/08/22 23:50 | 1 |
| 2,4-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.029 | ug/L | | 03/08/22 23:50 | 1 |
| 2,6-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.043 | ug/L | | 03/08/22 23:50 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 | ug/L | | 03/08/22 23:50 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.091 | ug/L | | 03/08/22 23:50 | 1 |
| 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 | ug/L | | 03/08/22 23:50 | 1 |

## Client Sample ID: G0080-8
**Lab Sample ID: 280-159234-8**
**Date Collected: 03/01/22 09:30**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **4-Amino-2,6-dinitrotoluene** | **0.082** | **J** | 0.16 | 0.13 | 0.061 | ug/L | | 03/08/22 23:50 | 1 |
| 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 | ug/L | | 03/08/22 23:50 | 1 |
| HMX | 0.21 | U M | 0.22 | 0.21 | 0.093 | ug/L | | 03/08/22 23:50 | 1 |
| MNX | 0.43 | U | 2.1 | 0.43 | 0.16 | ug/L | | 03/08/22 23:50 | 1 |
| Nitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.097 | ug/L | | 03/08/22 23:50 | 1 |
| RDX | 0.21 | U | 0.22 | 0.21 | 0.055 | ug/L | | 03/08/22 23:50 | 1 |
| Tetryl | 0.11 | U | 0.12 | 0.11 | 0.034 | ug/L | | 03/08/22 23:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *108* | *M* | *83 - 119* | *03/07/22 15:25* | *03/08/22 23:50* | *1* |
| *1,2-Dinitrobenzene* | *105* | | *83 - 119* | *03/07/22 15:25* | *03/09/22 04:54* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **2.0** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 13:11 | 1 |
| **Nitrogen, Total Kjeldahl** | **1.6** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:01 | 1 |
| **Nitrate Nitrite as N** | **4.9** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:07 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/08/22 16:59 | 1 |
| **Sulfate** | **98** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/17/22 00:20 | 1 |
| **Total Alkalinity as CaCO3** | **380** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 22:54 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.4** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 22:12 | 1 |

## Client Sample ID: G0087-8
**Lab Sample ID: 280-159234-9**
**Date Collected: 03/01/22 10:40**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 15:31 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.090 | ug/L | | 03/09/22 00:13 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U Q | 0.12 | 0.11 | 0.039 | ug/L | | 03/09/22 00:13 | 1 |
| 2,4,6-Trinitrotoluene | 0.11 | U Q | 0.12 | 0.11 | 0.048 | ug/L | | 03/09/22 00:13 | 1 |
| 2,4-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.029 | ug/L | | 03/09/22 00:13 | 1 |
| 2,6-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.043 | ug/L | | 03/09/22 00:13 | 1 |
| **2-Amino-4,6-dinitrotoluene** | **0.40** | **Q** | 0.12 | 0.11 | 0.054 | ug/L | | 03/09/22 00:13 | 1 |
| 2-Nitrotoluene | 0.21 | U Q | 0.22 | 0.21 | 0.091 | ug/L | | 03/09/22 00:13 | 1 |
| 3-Nitrotoluene | 0.43 | U Q | 0.43 | 0.43 | 0.21 | ug/L | | 03/09/22 00:13 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **0.85** | **Q** | 0.16 | 0.13 | 0.061 | ug/L | | 03/09/22 00:13 | 1 |
| 4-Nitrotoluene | 0.43 | U Q | 0.44 | 0.43 | 0.11 | ug/L | | 03/09/22 00:13 | 1 |
| **HMX** | **0.74** | **M Q** | 0.22 | 0.21 | 0.093 | ug/L | | 03/09/22 00:13 | 1 |
| MNX | 0.43 | U | 2.1 | 0.43 | 0.16 | ug/L | | 03/09/22 00:13 | 1 |
| Nitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.097 | ug/L | | 03/09/22 00:13 | 1 |
| **RDX** | **0.19** | **J M Q J1** | 0.22 | 0.21 | 0.055 | ug/L | | 03/09/22 00:13 | 1 |
| **RDX** | **0.29** | **M J1** | 0.22 | 0.21 | 0.055 | ug/L | | 03/09/22 05:29 | 1 |
| Tetryl | 0.11 | U M Q | 0.12 | 0.11 | 0.034 | ug/L | | 03/09/22 00:13 | 1 |

## Client Sample ID: G0087-8
**Lab Sample ID: 280-159234-9**

**Date Collected: 03/01/22 10:40**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *120* | *M Q* | *83 - 119* | *03/07/22 15:25* | *03/09/22 00:13* | *1* |
| *1,2-Dinitrobenzene* | *102* | | *83 - 119* | *03/07/22 15:25* | *03/09/22 05:29* | *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 | | 03/17/22 13:13 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:01 | 1 |
| **Nitrate Nitrite as N** | **6.8** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:09 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/08/22 16:59 | 1 |
| **Sulfate** | **130** | **M** | 5.0 | 2.5 | 1.0 | mg/L | | 03/17/22 00:35 | 1 |
| **Total Alkalinity as CaCO3** | **290** | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 23:01 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.3** | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 22:30 | 1 |

## Client Sample ID: G0086-8
**Lab Sample ID: 280-159234-10**

**Date Collected: 03/01/22 11:50**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.018** | | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 15:57 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,3,5-Trinitrobenzene** | **21** | | 0.23 | 0.21 | 0.090 | ug/L | | 03/09/22 00:36 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 | ug/L | | 03/09/22 06:04 | 1 |
| **2,4,6-Trinitrotoluene** | **5.8** | | 0.12 | 0.11 | 0.048 | ug/L | | 03/09/22 00:36 | 1 |
| 2,4-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.029 | ug/L | | 03/09/22 06:04 | 1 |
| 2,6-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.043 | ug/L | | 03/09/22 00:36 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 | ug/L | | 03/09/22 06:04 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.23 | 0.21 | 0.092 | ug/L | | 03/09/22 00:36 | 1 |
| 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 | ug/L | | 03/09/22 00:36 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **1.7** | | 0.16 | 0.13 | 0.062 | ug/L | | 03/09/22 00:36 | 1 |
| 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 | ug/L | | 03/09/22 06:04 | 1 |
| **HMX** | **0.58** | **M** | 0.23 | 0.21 | 0.094 | ug/L | | 03/09/22 00:36 | 1 |
| MNX | 0.43 | U M | 2.1 | 0.43 | 0.17 | ug/L | | 03/09/22 00:36 | 1 |
| Nitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.098 | ug/L | | 03/09/22 00:36 | 1 |
| **RDX** | **1.3** | | 0.23 | 0.21 | 0.055 | ug/L | | 03/09/22 00:36 | 1 |
| Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 | ug/L | | 03/09/22 00:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *86* | | *83 - 119* | *03/07/22 15:25* | *03/09/22 00:36* | *1* |
| *1,2-Dinitrobenzene* | *97* | *M* | *83 - 119* | *03/07/22 15:25* | *03/09/22 06:04* | *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 | | 03/17/22 13:15 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/09/22 18:01 | 1 |
| **Nitrate Nitrite as N** | **5.1** | | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 19:29 | 1 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/08/22 16:59 | 1 |

## Client Sample ID: G0086-8
**Lab Sample ID: 280-159234-10**

**Date Collected: 03/01/22 11:50**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 170 | M | 5.0 | 2.5 | 1.0 | mg/L | | 03/17/22 00:50 | 1 |
| Total Alkalinity as CaCO3 | 310 | | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 23:08 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.2 | | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 22:46 | 1 |

# Default Detection Limits

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

Job ID: 280-159234-1

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

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| Methane | 0.0050 | 0.00063 | mg/L |

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

### Prep: 3535

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | 0.084 | ug/L |
| 1,3-Dinitrobenzene | 0.11 | 0.037 | ug/L |
| 2,4,6-Trinitrotoluene | 0.11 | 0.045 | ug/L |
| 2,4-Dinitrotoluene | 0.10 | 0.027 | ug/L |
| 2,6-Dinitrotoluene | 0.10 | 0.040 | ug/L |
| 2-Amino-4,6-dinitrotoluene | 0.11 | 0.051 | ug/L |
| 2-Nitrotoluene | 0.21 | 0.086 | ug/L |
| 3-Nitrotoluene | 0.40 | 0.20 | ug/L |
| 4-Amino-2,6-dinitrotoluene | 0.15 | 0.058 | ug/L |
| 4-Nitrotoluene | 0.41 | 0.10 | ug/L |
| HMX | 0.21 | 0.088 | ug/L |
| MNX | 2.0 | 0.15 | ug/L |
| Nitrobenzene | 0.21 | 0.091 | ug/L |
| RDX | 0.21 | 0.052 | ug/L |
| Tetryl | 0.11 | 0.032 | ug/L |

## General Chemistry

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

## General Chemistry

### Prep: 351.2

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

## General Chemistry

### Prep: 9030B

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| Sulfide | 4.0 | 0.79 | mg/L |

## General Chemistry - Dissolved

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

# Surrogate Summary

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

Job ID: 280-159234-1

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

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | 12DNB1 (83-119) | | | | | | |
| 280-159234-1 | NW020-8 | 93 M | | | | | | |
| 280-159234-2 | NW021-8 | 103 M | | | | | | |
| 280-159234-3 | NW022-8 | 105 M | | | | | | |
| 280-159234-4 | G0079-8 | 100 M | | | | | | |
| 280-159234-5 | G0075-8 | 115 M | | | | | | |
| 280-159234-6 | G0076-8 | 99 M | | | | | | |
| 280-159234-7 | G0070-8 | 99 M | | | | | | |
| 280-159234-7 MS | G0070-8 | 115 | | | | | | |
| 280-159234-7 MS | G0070-8 | 108 | | | | | | |
| 280-159234-7 MSD | G0070-8 | 118 | | | | | | |
| 280-159234-7 MSD | G0070-8 | 115 | | | | | | |
| 280-159234-8 | G0080-8 | 108 M | | | | | | |
| 280-159234-9 | G0087-8 | 120 M Q | | | | | | |
| 280-159234-10 | G0086-8 | 86 | | | | | | |
| LCS 280-567869/2-A | Lab Control Sample | 100 | | | | | | |
| LCS 280-567869/3-A | Lab Control Sample | 102 | | | | | | |
| MB 280-567869/1-A | Method Blank | 104 | | | | | | |

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | 12DNB2 (83-119) | | | | | | |
| 280-159234-1 | NW020-8 | 97 M | | | | | | |
| 280-159234-2 | NW021-8 | 101 | | | | | | |
| 280-159234-5 | G0075-8 | 108 | | | | | | |
| 280-159234-7 | G0070-8 | 100 | | | | | | |
| 280-159234-7 MS | G0070-8 | 105 | | | | | | |
| 280-159234-7 MSD | G0070-8 | 103 | | | | | | |
| 280-159234-8 | G0080-8 | 105 | | | | | | |
| 280-159234-9 | G0087-8 | 102 | | | | | | |
| 280-159234-10 | G0086-8 | 97 M | | | | | | |

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

**Lab Sample ID: MB 280-567659/5**
**Matrix: Water**
**Analysis Batch: 567659**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/03/22 15:17 | 1 |

**Lab Sample ID: LCS 280-567659/3**
**Matrix: Water**
**Analysis Batch: 567659**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0667 | | mg/L | | 101 | 73 - 125 |

**Lab Sample ID: LCSD 280-567659/4**
**Matrix: Water**
**Analysis Batch: 567659**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0646 | | mg/L | | 98 | 73 - 125 | 3 | 20 |

**Lab Sample ID: MB 280-567747/5**
**Matrix: Water**
**Analysis Batch: 567747**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 | mg/L | | 03/04/22 12:42 | 1 |

**Lab Sample ID: LCS 280-567747/3**
**Matrix: Water**
**Analysis Batch: 567747**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0653 | | mg/L | | 99 | 73 - 125 |

**Lab Sample ID: LCSD 280-567747/4**
**Matrix: Water**
**Analysis Batch: 567747**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0651 | | mg/L | | 99 | 73 - 125 | 0 | 20 |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 567747**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.00091 | J | 0.0657 | 0.0624 | | mg/L | | 94 | 73 - 125 |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 567747**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.00091 | J | 0.0657 | 0.0632 | | mg/L | | 95 | 73 - 125 | 1 | 20 |

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

**Lab Sample ID: 280-159234-7 DU**
**Matrix: Water**
**Analysis Batch: 567747**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.00091 | J | | 0.000941 | J | mg/L | | | | 4 | 20 |

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

**Lab Sample ID: MB 280-567869/1-A**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.084 | ug/L | | 03/08/22 16:34 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 | ug/L | | 03/08/22 16:34 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 | ug/L | | 03/08/22 16:34 | 1 |
| 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 | ug/L | | 03/08/22 16:34 | 1 |
| 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 | ug/L | | 03/08/22 16:34 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 | ug/L | | 03/08/22 16:34 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.086 | ug/L | | 03/08/22 16:34 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 | ug/L | | 03/08/22 16:34 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 | ug/L | | 03/08/22 16:34 | 1 |
| 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 | ug/L | | 03/08/22 16:34 | 1 |
| HMX | 0.20 | U | 0.21 | 0.20 | 0.088 | ug/L | | 03/08/22 16:34 | 1 |
| MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 | ug/L | | 03/08/22 16:34 | 1 |
| Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 | ug/L | | 03/08/22 16:34 | 1 |
| RDX | 0.20 | U | 0.21 | 0.20 | 0.052 | ug/L | | 03/08/22 16:34 | 1 |
| Tetryl | 0.10 | U | 0.11 | 0.10 | 0.032 | ug/L | | 03/08/22 16:34 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *104* | | *83 - 119* | *03/07/22 15:25* | *03/08/22 16:34* | *1* |

**Lab Sample ID: LCS 280-567869/2-A**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | | | 2.00 | 2.02 | | ug/L | | 101 | 73 - 125 | | |
| 1,3-Dinitrobenzene | | | 2.00 | 2.01 | | ug/L | | 101 | 78 - 120 | | |
| 2,4,6-Trinitrotoluene | | | 2.00 | 1.98 | | ug/L | | 99 | 71 - 123 | | |
| 2,4-Dinitrotoluene | | | 2.00 | 1.89 | | ug/L | | 95 | 78 - 120 | | |
| 2,6-Dinitrotoluene | | | 2.00 | 1.92 | | ug/L | | 96 | 77 - 127 | | |
| 2-Amino-4,6-dinitrotoluene | | | 2.00 | 1.88 | | ug/L | | 94 | 79 - 120 | | |
| 2-Nitrotoluene | | | 2.00 | 1.54 | | ug/L | | 77 | 70 - 127 | | |
| 3-Nitrotoluene | | | 2.00 | 1.54 | M | ug/L | | 77 | 73 - 125 | | |
| 4-Amino-2,6-dinitrotoluene | | | 2.00 | 1.85 | | ug/L | | 93 | 76 - 125 | | |
| 4-Nitrotoluene | | | 2.00 | 1.76 | | ug/L | | 88 | 71 - 127 | | |
| HMX | | | 2.00 | 1.89 | M | ug/L | | 94 | 65 - 135 | | |
| Nitrobenzene | | | 2.00 | 1.75 | | ug/L | | 87 | 65 - 134 | | |
| RDX | | | 2.00 | 2.05 | | ug/L | | 102 | 68 - 130 | | |
| Tetryl | | | 2.00 | 1.93 | M | ug/L | | 96 | 64 - 128 | | |

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

**Lab Sample ID: LCS 280-567869/2-A**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dinitrobenzene | 100 | | 83 - 119 |

**Lab Sample ID: LCS 280-567869/3-A**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | | | 2.33 | 2.36 | | ug/L | | 101 | 57 - 132 | | |

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

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 1.97 | 2.28 | | ug/L | | 116 | 73 - 125 | | |
| 1,3-Dinitrobenzene | 0.10 | U | 1.97 | 2.22 | | ug/L | | 112 | 78 - 120 | | |
| 2,4,6-Trinitrotoluene | 0.10 | U | 1.97 | 2.18 | | ug/L | | 111 | 71 - 123 | | |
| 2,4-Dinitrotoluene | 0.084 | U | 1.97 | 2.06 | | ug/L | | 105 | 78 - 120 | | |
| 2,6-Dinitrotoluene | 0.084 | U | 1.97 | 2.12 | | ug/L | | 107 | 77 - 127 | | |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 1.97 | 2.05 | | ug/L | | 104 | 79 - 120 | | |
| 2-Nitrotoluene | 0.21 | U | 1.97 | 1.74 | | ug/L | | 88 | 70 - 127 | | |
| 3-Nitrotoluene | 0.42 | U | 1.97 | 1.60 | | ug/L | | 81 | 73 - 125 | | |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U | 1.97 | 2.04 | | ug/L | | 104 | 76 - 125 | | |
| HMX | 0.21 | U M | 1.97 | 2.07 | M | ug/L | | 105 | 65 - 135 | | |
| Nitrobenzene | 0.21 | U M | 1.97 | 2.11 | | ug/L | | 107 | 65 - 134 | | |
| RDX | 0.21 | U | 1.97 | 1.92 | M | ug/L | | 97 | 68 - 130 | | |
| Tetryl | 0.10 | U M | 1.97 | 2.37 | | ug/L | | 120 | 64 - 128 | | |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dinitrobenzene | 115 | | 83 - 119 |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | 0.42 | U M | 2.37 | 2.45 | M | ug/L | | 103 | 57 - 132 | | |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dinitrobenzene | 108 | | 83 - 119 |

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

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568016**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrotoluene | 0.42 | U | 1.97 | 1.83 | | ug/L | | 93 | 71 - 127 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *105* | | *83 - 119* |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U | 2.11 | 2.56 | | ug/L | | 121 | 73 - 125 | 11 | 30 |
| 1,3-Dinitrobenzene | 0.10 | U | 2.11 | 2.47 | | ug/L | | 117 | 78 - 120 | 11 | 30 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 2.11 | 2.44 | | ug/L | | 116 | 71 - 123 | 11 | 30 |
| 2,4-Dinitrotoluene | 0.084 | U | 2.11 | 2.30 | | ug/L | | 109 | 78 - 120 | 11 | 30 |
| 2,6-Dinitrotoluene | 0.084 | U | 2.11 | 2.43 | | ug/L | | 115 | 77 - 127 | 14 | 30 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 2.11 | 2.30 | | ug/L | | 109 | 79 - 120 | 12 | 30 |
| 2-Nitrotoluene | 0.21 | U | 2.11 | 1.99 | | ug/L | | 95 | 70 - 127 | 13 | 30 |
| 3-Nitrotoluene | 0.42 | U | 2.11 | 1.87 | | ug/L | | 89 | 73 - 125 | 16 | 30 |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U | 2.11 | 2.30 | | ug/L | | 109 | 76 - 125 | 12 | 30 |
| HMX | 0.21 | U M | 2.11 | 2.30 | M | ug/L | | 109 | 65 - 135 | 11 | 30 |
| Nitrobenzene | 0.21 | U M | 2.11 | 2.32 | | ug/L | | 110 | 65 - 134 | 9 | 30 |
| RDX | 0.21 | U | 2.11 | 2.13 | | ug/L | | 101 | 68 - 130 | 10 | 30 |
| Tetryl | 0.10 | U M | 2.11 | 2.48 | | ug/L | | 118 | 64 - 128 | 5 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *118* | | *83 - 119* |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568014**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | 0.42 | U M | 2.41 | 2.70 | M | ug/L | | 112 | 57 - 132 | 10 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *115* | | *83 - 119* |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568016**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567869**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrotoluene | 0.42 | U | 2.11 | 2.00 | | ug/L | | 95 | 71 - 127 | 9 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *103* | | *83 - 119* |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 280-568955/20**
**Matrix: Water**
**Analysis Batch: 568955**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 10:52 | 1 |

**Lab Sample ID: MB 280-568955/59**
**Matrix: Water**
**Analysis Batch: 568955**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 0.10 | 0.050 | 0.022 | mg/L | | 03/17/22 12:11 | 1 |

**Lab Sample ID: LCS 280-568955/57**
**Matrix: Water**
**Analysis Batch: 568955**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 2.50 | 2.68 | | mg/L | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-568955/58**
**Matrix: Water**
**Analysis Batch: 568955**

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

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 2.50 | 2.69 | | mg/L | | 107 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 280-159234-6 MS**
**Matrix: Water**
**Analysis Batch: 568955**

**Client Sample ID: G0076-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.3 | | 1.00 | 3.32 | | mg/L | | 105 | 90 - 110 | | |

**Lab Sample ID: 280-159234-6 MSD**
**Matrix: Water**
**Analysis Batch: 568955**

**Client Sample ID: G0076-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.3 | | 1.00 | 3.33 | | mg/L | | 106 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568955**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.029 | J1 | 1.00 | 1.16 | J1 | mg/L | | 113 | 90 - 110 | | |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568955**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.029 | J1 | 1.00 | 1.15 | J1 | mg/L | | 112 | 90 - 110 | 1 | 10 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 280-567922/2-A**
**Matrix: Water**
**Analysis Batch: 568207**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 567922**

| 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 | | 03/09/22 17:56 | 1 |

**Lab Sample ID: LCS 280-567922/1-A**
**Matrix: Water**
**Analysis Batch: 568207**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 567922**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | | | 6.00 | 5.81 | | mg/L | | 97 | 90 - 110 | | |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568207**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567922**

| 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 | 3.58 | J1 | mg/L | | 119 | 90 - 110 | | |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568207**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 567922**

| 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 | 3.59 | J1 | mg/L | | 120 | 90 - 110 | 0 | 25 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-568508/60**
**Matrix: Water**
**Analysis Batch: 568508**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.050 | U | 0.10 | 0.050 | 0.019 | mg/L | | 03/13/22 18:33 | 1 |

**Lab Sample ID: LCS 280-568508/59**
**Matrix: Water**
**Analysis Batch: 568508**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 4.96 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568508**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.050 | U | 4.00 | 4.12 | | mg/L | | 103 | 90 - 110 | | |

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

**Lab Sample ID: 280-159234-7 MSD** — **Client Sample ID: G0070-8**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 568508**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.050 | U | 4.00 | 4.09 | | mg/L | | 102 | 90 - 110 | 1 | 10 |

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

**Lab Sample ID: MB 280-567789/3-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 567799** — **Prep Batch: 567789**

| 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 | | 03/05/22 13:13 | 1 |

**Lab Sample ID: LCS 280-567789/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 567799** — **Prep Batch: 567789**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide | 22.2 | 18.4 | | mg/L | | 83 | 44 - 110 |

**Lab Sample ID: LCSD 280-567789/2-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 567799** — **Prep Batch: 567789**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 22.2 | 16.8 | | mg/L | | 76 | 44 - 110 | 9 | 20 |

**Lab Sample ID: MB 280-567934/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 567935** — **Prep Batch: 567934**

| 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 | | 03/07/22 18:33 | 1 |

**Lab Sample ID: LCS 280-567934/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 567935** — **Prep Batch: 567934**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide | 23.6 | 20.0 | | mg/L | | 85 | 44 - 110 |

**Lab Sample ID: MB 280-568018/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 568064** — **Prep Batch: 568018**

| 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 | | 03/08/22 16:59 | 1 |

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

**Lab Sample ID: LCS 280-568018/1-A**
**Matrix: Water**
**Analysis Batch: 568064**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 568018**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | | | 23.6 | 16.8 | | mg/L | | 71 | 44 - 110 | | |

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568064**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 568018**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 1.9 | U | 23.6 | 16.4 | | mg/L | | 69 | 44 - 110 | | |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568064**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**
**Prep Batch: 568018**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 1.9 | U | 23.6 | 19.2 | | mg/L | | 81 | 44 - 110 | 16 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 280-568842/13**
**Matrix: Water**
**Analysis Batch: 568842**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 2.5 | U | 5.0 | 2.5 | 1.0 | mg/L | | 03/16/22 17:04 | 1 |

**Lab Sample ID: LCS 280-568842/11**
**Matrix: Water**
**Analysis Batch: 568842**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 100 | 101 | | mg/L | | 101 | 87 - 112 | | |

**Lab Sample ID: LCSD 280-568842/12**
**Matrix: Water**
**Analysis Batch: 568842**

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

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 100 | 100 | | mg/L | | 100 | 87 - 112 | 1 | 10 |

**Lab Sample ID: MRL 280-568842/10**
**Matrix: Water**
**Analysis Batch: 568842**

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

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 5.00 | 4.85 | J | mg/L | | 97 | 50 - 150 | | |

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

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568842**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 48 | M | 50.0 | 101 | M | mg/L | | 105 | 87 - 112 |

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568842**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 48 | M | 50.0 | 97.8 | M | mg/L | | 100 | 87 - 112 | 3 | 10 |

**Lab Sample ID: 280-159234-7 DU**
**Matrix: Water**
**Analysis Batch: 568842**

**Client Sample ID: G0070-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Sulfate | 48 | M | 47.9 | M | mg/L | | 0.07 | 10 |

**Lab Sample ID: MB 280-568944/6**
**Matrix: Water**
**Analysis Batch: 568944**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 2.5 | U M | 5.0 | 2.5 | 1.0 | mg/L | | 03/17/22 15:03 | 1 |

**Lab Sample ID: LCS 280-568944/4**
**Matrix: Water**
**Analysis Batch: 568944**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 100 | 99.9 | M | mg/L | | 100 | 87 - 112 |

**Lab Sample ID: LCSD 280-568944/5**
**Matrix: Water**
**Analysis Batch: 568944**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 100 | 99.7 | M | mg/L | | 100 | 87 - 112 | 0 | 10 |

**Lab Sample ID: MRL 280-568944/3**
**Matrix: Water**
**Analysis Batch: 568944**

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

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 5.00 | 4.55 | J | mg/L | | 91 | 50 - 150 |

**Lab Sample ID: 280-159234-6 MS**
**Matrix: Water**
**Analysis Batch: 568944**

**Client Sample ID: G0076-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 310 | D J1 | 250 | 594 | D | mg/L | | 112 | 87 - 112 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: 280-159234-6 MSD**
**Matrix: Water**
**Analysis Batch: 568944**

**Client Sample ID: G0076-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 310 | D J1 | 250 | 597 | D J1 | mg/L | | 113 | 87 - 112 | 0 | 10 |

**Lab Sample ID: 280-159234-6 DU**
**Matrix: Water**
**Analysis Batch: 568944**

**Client Sample ID: G0076-8**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Sulfate | 310 | D J1 | 306 | D | mg/L | | 3 | 10 |

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

**Lab Sample ID: MB 280-568571/2-A**
**Matrix: Water**
**Analysis Batch: 568667**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 0.80 | U | 1.0 | 0.80 | 0.35 | mg/L | | 03/14/22 18:34 | 1 |

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

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

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

**Lab Sample ID: LCS 280-568571/1-A**
**Matrix: Water**
**Analysis Batch: 568667**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 25.0 | 25.7 | | mg/L | | 103 | 88 - 112 |

**Lab Sample ID: LCS 280-568667/4**
**Matrix: Water**
**Analysis Batch: 568667**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

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

**Lab Sample ID: 280-159234-7 MS**
**Matrix: Water**
**Analysis Batch: 568667**

**Client Sample ID: G0070-8**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 1.4 | | 25.0 | 25.2 | | mg/L | | 95 | 88 - 112 |

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

**Lab Sample ID: 280-159234-7 MSD**
**Matrix: Water**
**Analysis Batch: 568667**

**Client Sample ID: G0070-8**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 1.4 | | 25.0 | 25.9 | | mg/L | | 98 | 88 - 112 | 3 | 15 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 280-567719/32**
**Matrix: Water**
**Analysis Batch: 567719**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 6.4 | U | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 15:48 | 1 |

**Lab Sample ID: MB 280-567719/58**
**Matrix: Water**
**Analysis Batch: 567719**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 6.4 | U | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 20:23 | 1 |

**Lab Sample ID: MB 280-567719/6**
**Matrix: Water**
**Analysis Batch: 567719**

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

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 6.4 | U | 10 | 6.4 | 3.1 | mg/L | | 03/03/22 11:48 | 1 |

**Lab Sample ID: LCS 280-567719/57**
**Matrix: Water**
**Analysis Batch: 567719**

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

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

**Lab Sample ID: LCSD 280-567719/5**
**Matrix: Water**
**Analysis Batch: 567719**

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

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | | | 200 | 196 | | mg/L | | 98 | 89 - 109 | 0 | 10 |

## GC VOA

### Analysis Batch: 567659

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | RSK-175 | |
| 280-159234-2 | NW021-8 | Total/NA | Water | RSK-175 | |
| 280-159234-3 | NW022-8 | Total/NA | Water | RSK-175 | |
| MB 280-567659/5 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 280-567659/3 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| LCSD 280-567659/4 | Lab Control Sample Dup | Total/NA | Water | RSK-175 | |

### Analysis Batch: 567747

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-4 | G0079-8 | Total/NA | Water | RSK-175 | |
| 280-159234-5 | G0075-8 | Total/NA | Water | RSK-175 | |
| 280-159234-6 | G0076-8 | Total/NA | Water | RSK-175 | |
| 280-159234-7 | G0070-8 | Total/NA | Water | RSK-175 | |
| 280-159234-8 | G0080-8 | Total/NA | Water | RSK-175 | |
| 280-159234-9 | G0087-8 | Total/NA | Water | RSK-175 | |
| 280-159234-10 | G0086-8 | Total/NA | Water | RSK-175 | |
| MB 280-567747/5 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 280-567747/3 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| LCSD 280-567747/4 | Lab Control Sample Dup | Total/NA | Water | RSK-175 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | RSK-175 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | RSK-175 | |
| 280-159234-7 DU | G0070-8 | Total/NA | Water | RSK-175 | |

## HPLC/IC

### Prep Batch: 567869

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 3535 | |
| 280-159234-2 | NW021-8 | Total/NA | Water | 3535 | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 3535 | |
| 280-159234-4 | G0079-8 | Total/NA | Water | 3535 | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 3535 | |
| 280-159234-6 | G0076-8 | Total/NA | Water | 3535 | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 3535 | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 3535 | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 3535 | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 3535 | |
| MB 280-567869/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 280-567869/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCS 280-567869/3-A | Lab Control Sample | Total/NA | Water | 3535 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 3535 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 3535 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 3535 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 3535 | |

### Analysis Batch: 568014

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-2 | NW021-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-3 | NW022-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-4 | G0079-8 | Total/NA | Water | 8330A | 567869 |

## HPLC/IC (Continued)

### Analysis Batch: 568014 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-5 | G0075-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-6 | G0076-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-8 | G0080-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-9 | G0087-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-10 | G0086-8 | Total/NA | Water | 8330A | 567869 |
| MB 280-567869/1-A | Method Blank | Total/NA | Water | 8330A | 567869 |
| LCS 280-567869/2-A | Lab Control Sample | Total/NA | Water | 8330A | 567869 |
| LCS 280-567869/3-A | Lab Control Sample | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 8330A | 567869 |

### Analysis Batch: 568016

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-2 | NW021-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-5 | G0075-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-8 | G0080-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-9 | G0087-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-10 | G0086-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 8330A | 567869 |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 8330A | 567869 |

## General Chemistry

### Analysis Batch: 567719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | SM 2320B | |
| 280-159234-2 | NW021-8 | Total/NA | Water | SM 2320B | |
| 280-159234-3 | NW022-8 | Total/NA | Water | SM 2320B | |
| 280-159234-4 | G0079-8 | Total/NA | Water | SM 2320B | |
| 280-159234-5 | G0075-8 | Total/NA | Water | SM 2320B | |
| 280-159234-6 | G0076-8 | Total/NA | Water | SM 2320B | |
| 280-159234-7 | G0070-8 | Total/NA | Water | SM 2320B | |
| 280-159234-8 | G0080-8 | Total/NA | Water | SM 2320B | |
| 280-159234-9 | G0087-8 | Total/NA | Water | SM 2320B | |
| 280-159234-10 | G0086-8 | Total/NA | Water | SM 2320B | |
| MB 280-567719/32 | Method Blank | Total/NA | Water | SM 2320B | |
| MB 280-567719/58 | Method Blank | Total/NA | Water | SM 2320B | |
| MB 280-567719/6 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 280-567719/57 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 280-567719/5 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |

### Prep Batch: 567789

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 9030B | |
| 280-159234-2 | NW021-8 | Total/NA | Water | 9030B | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 9030B | |

## General Chemistry (Continued)

### Prep Batch: 567789 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-567789/3-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-567789/1-A | Lab Control Sample | Total/NA | Water | 9030B | |
| LCSD 280-567789/2-A | Lab Control Sample Dup | Total/NA | Water | 9030B | |

### Analysis Batch: 567799

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 9034 | 567789 |
| 280-159234-2 | NW021-8 | Total/NA | Water | 9034 | 567789 |
| 280-159234-3 | NW022-8 | Total/NA | Water | 9034 | 567789 |
| MB 280-567789/3-A | Method Blank | Total/NA | Water | 9034 | 567789 |
| LCS 280-567789/1-A | Lab Control Sample | Total/NA | Water | 9034 | 567789 |
| LCSD 280-567789/2-A | Lab Control Sample Dup | Total/NA | Water | 9034 | 567789 |

### Prep Batch: 567922

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 351.2 | |
| 280-159234-2 | NW021-8 | Total/NA | Water | 351.2 | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 351.2 | |
| 280-159234-4 | G0079-8 | Total/NA | Water | 351.2 | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 351.2 | |
| 280-159234-6 | G0076-8 | Total/NA | Water | 351.2 | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 351.2 | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 351.2 | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 351.2 | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 351.2 | |
| MB 280-567922/2-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 280-567922/1-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 351.2 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 351.2 | |

### Prep Batch: 567934

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-4 | G0079-8 | Total/NA | Water | 9030B | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 9030B | |
| MB 280-567934/2-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-567934/1-A | Lab Control Sample | Total/NA | Water | 9030B | |

### Analysis Batch: 567935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-4 | G0079-8 | Total/NA | Water | 9034 | 567934 |
| 280-159234-5 | G0075-8 | Total/NA | Water | 9034 | 567934 |
| MB 280-567934/2-A | Method Blank | Total/NA | Water | 9034 | 567934 |
| LCS 280-567934/1-A | Lab Control Sample | Total/NA | Water | 9034 | 567934 |

### Prep Batch: 568018

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-6 | G0076-8 | Total/NA | Water | 9030B | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 9030B | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 9030B | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 9030B | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 9030B | |

## General Chemistry (Continued)

### Prep Batch: 568018 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-568018/2-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-568018/1-A | Lab Control Sample | Total/NA | Water | 9030B | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 9030B | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 9030B | |

### Analysis Batch: 568064

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-6 | G0076-8 | Total/NA | Water | 9034 | 568018 |
| 280-159234-7 | G0070-8 | Total/NA | Water | 9034 | 568018 |
| 280-159234-8 | G0080-8 | Total/NA | Water | 9034 | 568018 |
| 280-159234-9 | G0087-8 | Total/NA | Water | 9034 | 568018 |
| 280-159234-10 | G0086-8 | Total/NA | Water | 9034 | 568018 |
| MB 280-568018/2-A | Method Blank | Total/NA | Water | 9034 | 568018 |
| LCS 280-568018/1-A | Lab Control Sample | Total/NA | Water | 9034 | 568018 |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 9034 | 568018 |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 9034 | 568018 |

### Analysis Batch: 568207

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-2 | NW021-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-3 | NW022-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-4 | G0079-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-5 | G0075-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-6 | G0076-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-7 | G0070-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-8 | G0080-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-9 | G0087-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-10 | G0086-8 | Total/NA | Water | 351.2 | 567922 |
| MB 280-567922/2-A | Method Blank | Total/NA | Water | 351.2 | 567922 |
| LCS 280-567922/1-A | Lab Control Sample | Total/NA | Water | 351.2 | 567922 |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 351.2 | 567922 |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 351.2 | 567922 |

### Analysis Batch: 568508

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 353.2 | |
| 280-159234-2 | NW021-8 | Total/NA | Water | 353.2 | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 353.2 | |
| 280-159234-4 | G0079-8 | Total/NA | Water | 353.2 | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 353.2 | |
| 280-159234-6 | G0076-8 | Total/NA | Water | 353.2 | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 353.2 | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 353.2 | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 353.2 | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 353.2 | |
| MB 280-568508/60 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-568508/59 | Lab Control Sample | Total/NA | Water | 353.2 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 353.2 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 353.2 | |

## General Chemistry

### Filtration Batch: 568571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Dissolved | Water | FILTRATION | |
| 280-159234-2 | NW021-8 | Dissolved | Water | FILTRATION | |
| 280-159234-3 | NW022-8 | Dissolved | Water | FILTRATION | |
| 280-159234-4 | G0079-8 | Dissolved | Water | FILTRATION | |
| 280-159234-5 | G0075-8 | Dissolved | Water | FILTRATION | |
| 280-159234-6 | G0076-8 | Dissolved | Water | FILTRATION | |
| 280-159234-7 | G0070-8 | Dissolved | Water | FILTRATION | |
| 280-159234-8 | G0080-8 | Dissolved | Water | FILTRATION | |
| 280-159234-9 | G0087-8 | Dissolved | Water | FILTRATION | |
| 280-159234-10 | G0086-8 | Dissolved | Water | FILTRATION | |
| MB 280-568571/2-A | Method Blank | Dissolved | Water | FILTRATION | |
| LCS 280-568571/1-A | Lab Control Sample | Dissolved | Water | FILTRATION | |
| 280-159234-7 MS | G0070-8 | Dissolved | Water | FILTRATION | |
| 280-159234-7 MSD | G0070-8 | Dissolved | Water | FILTRATION | |

### Analysis Batch: 568667

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-2 | NW021-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-3 | NW022-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-4 | G0079-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-5 | G0075-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-6 | G0076-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-7 | G0070-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-8 | G0080-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-9 | G0087-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-10 | G0086-8 | Dissolved | Water | 9060A | 568571 |
| MB 280-568571/2-A | Method Blank | Dissolved | Water | 9060A | 568571 |
| MB 280-568667/5 | Method Blank | Dissolved | Water | 9060A | |
| LCS 280-568571/1-A | Lab Control Sample | Dissolved | Water | 9060A | 568571 |
| LCS 280-568667/4 | Lab Control Sample | Dissolved | Water | 9060A | |
| 280-159234-7 MS | G0070-8 | Dissolved | Water | 9060A | 568571 |
| 280-159234-7 MSD | G0070-8 | Dissolved | Water | 9060A | 568571 |

### Analysis Batch: 568842

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-2 | NW021-8 | Total/NA | Water | 9056A | |
| 280-159234-4 | G0079-8 | Total/NA | Water | 9056A | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 9056A | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 9056A | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 9056A | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 9056A | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 9056A | |
| MB 280-568842/13 | Method Blank | Total/NA | Water | 9056A | |
| LCS 280-568842/11 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 280-568842/12 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| MRL 280-568842/10 | Lab Control Sample | Total/NA | Water | 9056A | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 9056A | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 9056A | |
| 280-159234-7 DU | G0070-8 | Total/NA | Water | 9056A | |

## General Chemistry

### Analysis Batch: 568944

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 9056A | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 9056A | |
| 280-159234-6 | G0076-8 | Total/NA | Water | 9056A | |
| MB 280-568944/6 | Method Blank | Total/NA | Water | 9056A | |
| LCS 280-568944/4 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 280-568944/5 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| MRL 280-568944/3 | Lab Control Sample | Total/NA | Water | 9056A | |
| 280-159234-6 MS | G0076-8 | Total/NA | Water | 9056A | |
| 280-159234-6 MSD | G0076-8 | Total/NA | Water | 9056A | |
| 280-159234-6 DU | G0076-8 | Total/NA | Water | 9056A | |

### Analysis Batch: 568955

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Total/NA | Water | 350.1 | |
| 280-159234-2 | NW021-8 | Total/NA | Water | 350.1 | |
| 280-159234-3 | NW022-8 | Total/NA | Water | 350.1 | |
| 280-159234-4 | G0079-8 | Total/NA | Water | 350.1 | |
| 280-159234-5 | G0075-8 | Total/NA | Water | 350.1 | |
| 280-159234-6 | G0076-8 | Total/NA | Water | 350.1 | |
| 280-159234-7 | G0070-8 | Total/NA | Water | 350.1 | |
| 280-159234-8 | G0080-8 | Total/NA | Water | 350.1 | |
| 280-159234-9 | G0087-8 | Total/NA | Water | 350.1 | |
| 280-159234-10 | G0086-8 | Total/NA | Water | 350.1 | |
| MB 280-568955/20 | Method Blank | Total/NA | Water | 350.1 | |
| MB 280-568955/59 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-568955/57 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-568955/58 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-159234-6 MS | G0076-8 | Total/NA | Water | 350.1 | |
| 280-159234-6 MSD | G0076-8 | Total/NA | Water | 350.1 | |
| 280-159234-7 MS | G0070-8 | Total/NA | Water | 350.1 | |
| 280-159234-7 MSD | G0070-8 | Total/NA | Water | 350.1 | |

## Client Sample ID: NW020-8

**Date Collected: 02/28/22 14:05**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-1

**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 | 20 mL | 20 mL | 567659 | 03/03/22 20:16 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 471 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 18:29 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 471 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/08/22 21:18 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:39 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 17:57 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 25 | 100 mL | 100 mL | 568508 | 03/13/22 18:55 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 567789 | 03/05/22 09:11 | PEV | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 567799 | 03/05/22 13:13 | PEV | TAL DEN |
| Total/NA | Analysis | 9056A | | 5 | 10 mL | 10 mL | 568944 | 03/17/22 19:18 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 18:52 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:02 | KEG | TAL DEN |

## Client Sample ID: NW021-8

**Date Collected: 02/28/22 15:00**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-2

**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 | 20 mL | 20 mL | 567659 | 03/03/22 20:29 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 466.6 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 18:52 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 466.6 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/08/22 21:53 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:41 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 17:57 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 18:57 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 567789 | 03/05/22 09:11 | PEV | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 567799 | 03/05/22 13:13 | PEV | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/16/22 21:35 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 19:13 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:09 | KEG | TAL DEN |

## Client Sample ID: NW022-8

**Date Collected: 02/28/22 15:55**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-3

**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 | 20 mL | 20 mL | 567659 | 03/03/22 20:43 | CAS | TAL DEN |

## Client Sample ID: NW022-8

**Date Collected: 02/28/22 15:55**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-3

**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 | | | 489.8 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 19:15 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:43 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 17:58 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 18:59 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 567789 | 03/05/22 09:11 | PEV | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 567799 | 03/05/22 13:13 | PEV | TAL DEN |
| Total/NA | Analysis | 9056A | | 5 | 10 mL | 10 mL | 568944 | 03/17/22 19:33 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 19:27 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:17 | KEG | TAL DEN |

## Client Sample ID: G0079-8

**Date Collected: 03/01/22 09:10**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-4

**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 | 20 mL | 20 mL | 567747 | 03/04/22 13:47 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 462.1 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 19:37 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:45 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:00 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:01 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 567934 | 03/07/22 18:33 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 567935 | 03/07/22 18:33 | LRB | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/16/22 23:35 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 19:45 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:24 | KEG | TAL DEN |

## Client Sample ID: G0075-8

**Date Collected: 03/01/22 10:20**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-5

**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 | 20 mL | 20 mL | 567747 | 03/04/22 14:00 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 504.4 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 20:00 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 504.4 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/08/22 23:38 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:47 | MMP | TAL DEN |

## Client Sample ID: G0075-8
**Date Collected: 03/01/22 10:20**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-5
**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 | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:00 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:03 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 567934 | 03/07/22 18:33 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 567935 | 03/07/22 18:33 | LRB | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/16/22 23:50 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 20:03 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:31 | KEG | TAL DEN |

## Client Sample ID: G0076-8
**Date Collected: 03/01/22 11:30**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | RSK-175 | | 1 | 20 mL | 20 mL | 567747 | 03/04/22 14:13 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 501.6 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 21:32 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 13:05 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:01 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:05 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 568018 | 03/08/22 13:04 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 568064 | 03/08/22 16:59 | JJM | TAL DEN |
| Total/NA | Analysis | 9056A | | 5 | 10 mL | 10 mL | 568944 | 03/17/22 19:48 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 20:20 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:39 | KEG | TAL DEN |

## Client Sample ID: G0070-8
**Date Collected: 03/01/22 12:35**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-7
**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 | 20 mL | 20 mL | 567747 | 03/04/22 14:26 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 477.8 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 21:55 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 477.8 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/09/22 01:59 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 12:13 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:02 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:11 | SVC | TAL DEN |

## Client Sample ID: G0070-8

**Date Collected: 03/01/22 12:35**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-7

**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 | 9030B | | | 50 mL | 50 mL | 568018 | 03/08/22 13:04 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 568064 | 03/08/22 16:59 | JJM | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/16/22 21:50 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 20:39 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:46 | KEG | TAL DEN |

## Client Sample ID: G0080-8

**Date Collected: 03/01/22 09:30**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-8

**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 | 20 mL | 20 mL | 567747 | 03/04/22 15:18 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 469.3 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/08/22 23:50 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 469.3 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/09/22 04:54 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 13:11 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:01 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:07 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 568018 | 03/08/22 13:04 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 568064 | 03/08/22 16:59 | JJM | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/17/22 00:20 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 22:12 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 22:54 | KEG | TAL DEN |

## Client Sample ID: G0087-8

**Date Collected: 03/01/22 10:40**
**Date Received: 03/02/22 09:10**

## Lab Sample ID: 280-159234-9

**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 | 20 mL | 20 mL | 567747 | 03/04/22 15:31 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 469.4 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/09/22 00:13 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 469.4 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/09/22 05:29 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 13:13 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:01 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:09 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 568018 | 03/08/22 13:04 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 568064 | 03/08/22 16:59 | JJM | TAL DEN |

## Client Sample ID: G0087-8
**Lab Sample ID: 280-159234-9**

**Date Collected: 03/01/22 10:40**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/17/22 00:35 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 22:30 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 23:01 | KEG | TAL DEN |

## Client Sample ID: G0086-8
**Lab Sample ID: 280-159234-10**

**Date Collected: 03/01/22 11:50**
**Matrix: Water**
**Date Received: 03/02/22 09:10**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | RSK-175 | | 1 | 20 mL | 20 mL | 567747 | 03/04/22 15:57 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 465.7 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568014 | 03/09/22 00:36 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 465.7 mL | 5 mL | 567869 | 03/07/22 15:25 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 568016 | 03/09/22 06:04 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 568955 | 03/17/22 13:15 | MMP | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 567922 | 03/07/22 16:01 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 568207 | 03/09/22 18:01 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 568508 | 03/13/22 19:29 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 568018 | 03/08/22 13:04 | LRB | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 568064 | 03/08/22 16:59 | JJM | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 568842 | 03/17/22 00:50 | CJ | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 568571 | 03/14/22 11:58 | ABW | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 568667 | 03/14/22 22:46 | ABW | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 567719 | 03/03/22 23:08 | KEG | TAL DEN |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: Brice Environmental Services, Corp
Job ID: 280-159234-1
Project/Site: Cornhusker (CHAAP)

## Laboratory: Eurofins Denver

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

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

# Method Summary

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

Job ID: 280-159234-1

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

**Protocol References:**

EPA = US Environmental Protection Agency

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

None = None

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

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

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

**Laboratory References:**

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

# Sample Summary

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

Job ID: 280-159234-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 280-159234-1 | NW020-8 | Water | 02/28/22 14:05 | 03/02/22 09:10 |
| 280-159234-2 | NW021-8 | Water | 02/28/22 15:00 | 03/02/22 09:10 |
| 280-159234-3 | NW022-8 | Water | 02/28/22 15:55 | 03/02/22 09:10 |
| 280-159234-4 | G0079-8 | Water | 03/01/22 09:10 | 03/02/22 09:10 |
| 280-159234-5 | G0075-8 | Water | 03/01/22 10:20 | 03/02/22 09:10 |
| 280-159234-6 | G0076-8 | Water | 03/01/22 11:30 | 03/02/22 09:10 |
| 280-159234-7 | G0070-8 | Water | 03/01/22 12:35 | 03/02/22 09:10 |
| 280-159234-8 | G0080-8 | Water | 03/01/22 09:30 | 03/02/22 09:10 |
| 280-159234-9 | G0087-8 | Water | 03/01/22 10:40 | 03/02/22 09:10 |
| 280-159234-10 | G0086-8 | Water | 03/01/22 11:50 | 03/02/22 09:10 |

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

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

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

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

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

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

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

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

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

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

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

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

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

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

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

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

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

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 567659

Lab Sample ID: CCV 280-567659/17 Client Sample ID:

Date Analyzed: 03/03/22 17:53 Lab File ID: 017F1701.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.21 | Peak assignment corrected | sciannac | 03/07/22 12:57 |

Lab Sample ID: CCV 280-567659/17 Client Sample ID:

Date Analyzed: 03/03/22 17:53 Lab File ID: 017F1701.D GC Column: HP-Plot Q ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 2.73 | Peak assignment corrected | sciannac | 03/07/22 12:57 |

Lab Sample ID: CCV 280-567659/31 Client Sample ID:

Date Analyzed: 03/03/22 20:56 Lab File ID: 031F3101.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.22 | Peak not integrated | sciannac | 03/07/22 13:03 |

Lab Sample ID: CCV 280-567659/31 Client Sample ID:

Date Analyzed: 03/03/22 20:56 Lab File ID: 031F3101.D GC Column: HP-Plot Q ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Ethylene | 2.59 | Split Peak | sciannac | 03/07/22 13:04 |
| Acetylene | 2.73 | Split Peak | sciannac | 03/07/22 13:04 |

# GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J  Analysis Batch Number: 567747

Lab Sample ID: CCV 280-567747/19  Client Sample ID:

Date Analyzed: 03/04/22 15:44  Lab File ID: 019F1901.D  GC Column: Rt-Alumina KC  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.21 | Peak assignment corrected | sciannac | 03/07/22 13:57 |

Lab Sample ID: CCV 280-567747/19  Client Sample ID:

Date Analyzed: 03/04/22 15:44  Lab File ID: 019F1901.D  GC Column: HP-Plot Q  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 2.73 | Peak assignment corrected | sciannac | 03/07/22 13:57 |

Lab Sample ID: CCV 280-567747/26  Client Sample ID:

Date Analyzed: 03/04/22 17:15  Lab File ID: 026F2601.D  GC Column: Rt-Alumina KC  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.22 | Wrong Peak | sciannac | 03/07/22 13:19 |

Lab Sample ID: CCV 280-567747/26  Client Sample ID:

Date Analyzed: 03/04/22 17:15  Lab File ID: 026F2601.D  GC Column: HP-Plot Q  ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Ethylene | 2.59 | Unspecified | sciannac | 03/07/22 13:58 |
| Acetylene | 2.74 | Split Peak | sciannac | 03/07/22 13:19 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3  Analysis Batch Number: 562503

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

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

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

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

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

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

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

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

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

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

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

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

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

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

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

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

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

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

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

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

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

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

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

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

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

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

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

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

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

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

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

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

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

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

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

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

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

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

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

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

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

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3  Analysis Batch Number: 568014

Lab Sample ID: CCV 280-568014/7  Client Sample ID:

Date Analyzed: 03/08/22 15:25  Lab File ID: 03080007.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/08/22 16:35 |

Lab Sample ID: CCV 280-568014/9  Client Sample ID:

Date Analyzed: 03/08/22 16:11  Lab File ID: 03080009.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.47 | Baseline | zhangji | 03/08/22 16:38 |
| DNX | 6.79 | Baseline | zhangji | 03/08/22 16:38 |
| MNX | 7.21 | Baseline | zhangji | 03/08/22 16:38 |

Lab Sample ID: MB 280-567869/1-A  Client Sample ID:

Date Analyzed: 03/08/22 16:34  Lab File ID: 03080011.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | | Invalid Compound ID | zhangji | 03/08/22 17:11 |

Lab Sample ID: LCS 280-567869/2-A  Client Sample ID:

Date Analyzed: 03/08/22 16:57  Lab File ID: 03080012.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/08/22 17:39 |
| Tetryl | 9.96 | Baseline | zhangji | 03/08/22 17:39 |
| 3-Nitrotoluene | 13.47 | Baseline | zhangji | 03/08/22 17:39 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568014

Lab Sample ID: 280-159234-1 Client Sample ID: NW020-8

Date Analyzed: 03/08/22 18:29 Lab File ID: 03080016.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| RDX | 7.57 | Baseline | zhangji | 03/08/22 19:06 |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/08/22 19:06 |
| 1,3-Dinitrobenzene | 9.23 | Baseline | zhangji | 03/08/22 19:07 |
| Tetryl | | Invalid Compound ID | zhangji | 03/08/22 19:06 |

Lab Sample ID: 280-159234-2 Client Sample ID: NW021-8

Date Analyzed: 03/08/22 18:52 Lab File ID: 03080017.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| RDX | 7.57 | Baseline | zhangji | 03/08/22 19:45 |
| 1,2-Dinitrobenzene | 8.51 | Baseline | zhangji | 03/08/22 19:45 |
| HMX | | Invalid Compound ID | zhangji | 03/08/22 19:45 |
| MNX | | Baseline | zhangji | 03/08/22 19:45 |
| Tetryl | | Invalid Compound ID | zhangji | 03/08/22 19:45 |

Lab Sample ID: 280-159234-3 Client Sample ID: NW022-8

Date Analyzed: 03/08/22 19:15 Lab File ID: 03080018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/08/22 19:45 |
| HMX | | Invalid Compound ID | zhangji | 03/08/22 19:45 |
| Nitrobenzene | | Invalid Compound ID | zhangji | 03/08/22 19:45 |
| Tetryl | | Invalid Compound ID | zhangji | 03/08/22 19:45 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568014

Lab Sample ID: 280-159234-4 Client Sample ID: G0079-8

Date Analyzed: 03/08/22 19:37 Lab File ID: 03080019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/08/22 20:28 |
| 4-Nitrotoluene | | Invalid Compound ID | zhangji | 03/08/22 20:28 |
| Tetryl | | Invalid Compound ID | zhangji | 03/08/22 20:28 |

Lab Sample ID: 280-159234-5 Client Sample ID: G0075-8

Date Analyzed: 03/08/22 20:00 Lab File ID: 03080020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/08/22 20:28 |
| RDX | 7.58 | Baseline | zhangji | 03/08/22 20:28 |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/08/22 20:28 |
| 1,3-Dinitrobenzene | 9.27 | Baseline | zhangji | 03/08/22 20:28 |
| MNX | | Invalid Compound ID | zhangji | 03/08/22 20:28 |
| Tetryl | | Invalid Compound ID | zhangji | 03/08/22 20:28 |

Lab Sample ID: CCV 280-568014/21 Client Sample ID:

Date Analyzed: 03/08/22 20:23 Lab File ID: 03080021.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/08/22 20:49 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3  Analysis Batch Number: 568014

Lab Sample ID: CCV 280-568014/23  Client Sample ID:

Date Analyzed: 03/08/22 21:09  Lab File ID: 03080023.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.47 | Baseline | zhangji | 03/09/22 12:40 |
| DNX | 6.79 | Baseline | zhangji | 03/09/22 12:40 |
| MNX | 7.20 | Baseline | zhangji | 03/09/22 12:40 |

Lab Sample ID: 280-159234-6  Client Sample ID: G0076-8

Date Analyzed: 03/08/22 21:32  Lab File ID: 03080024.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/09/22 12:41 |
| HMX | | Invalid Compound ID | zhangji | 03/09/22 12:41 |
| Tetryl | | Invalid Compound ID | zhangji | 03/09/22 12:41 |

Lab Sample ID: 280-159234-7  Client Sample ID: G0070-8

Date Analyzed: 03/08/22 21:55  Lab File ID: 03080025.D  GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/09/22 12:41 |
| HMX | | Invalid Compound ID | zhangji | 03/09/22 12:41 |
| MNX | | Invalid Compound ID | zhangji | 03/09/22 12:41 |
| Nitrobenzene | | Invalid Compound ID | zhangji | 03/09/22 12:41 |
| Tetryl | | Invalid Compound ID | zhangji | 03/09/22 12:41 |
| 4-Nitrotoluene | 12.87 | Baseline | zhangji | 03/09/22 12:41 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568014

Lab Sample ID: 280-159234-7 MS Client Sample ID: G0070-8 MS

Date Analyzed: 03/08/22 22:18 Lab File ID: 03080026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/09/22 12:41 |
| RDX | 7.57 | Baseline | zhangji | 03/09/22 12:41 |

Lab Sample ID: 280-159234-7 MSD Client Sample ID: G0070-8 MSD

Date Analyzed: 03/08/22 22:41 Lab File ID: 03080027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/09/22 12:42 |

Lab Sample ID: 280-159234-7 MS Client Sample ID: G0070-8 MS

Date Analyzed: 03/08/22 23:04 Lab File ID: 03080028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.20 | Baseline | zhangji | 03/09/22 12:47 |

Lab Sample ID: 280-159234-7 MSD Client Sample ID: G0070-8 MSD

Date Analyzed: 03/08/22 23:27 Lab File ID: 03080029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.20 | Baseline | zhangji | 03/09/22 12:49 |

Lab Sample ID: 280-159234-8 Client Sample ID: G0080-8

Date Analyzed: 03/08/22 23:50 Lab File ID: 03080030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/09/22 12:50 |
| HMX | | Invalid Compound ID | zhangji | 03/09/22 12:50 |

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# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568014

Lab Sample ID: 280-159234-9 Client Sample ID: G0087-8

Date Analyzed: 03/09/22 00:13 Lab File ID: 03080031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/09/22 12:50 |
| RDX | 7.57 | Baseline | zhangji | 03/09/22 12:50 |
| 1,2-Dinitrobenzene | 8.52 | Baseline | zhangji | 03/09/22 12:50 |
| Tetryl | | Invalid Compound ID | zhangji | 03/09/22 12:50 |

Lab Sample ID: 280-159234-10 Client Sample ID: G0086-8

Date Analyzed: 03/09/22 00:36 Lab File ID: 03080032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/09/22 12:50 |
| MNX | | Invalid Compound ID | zhangji | 03/09/22 12:51 |
| Tetryl | | Invalid Compound ID | zhangji | 03/09/22 12:51 |

Lab Sample ID: CCV 280-568014/34 Client Sample ID:

Date Analyzed: 03/09/22 01:21 Lab File ID: 03080034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.59 | Baseline | zhangji | 03/09/22 12:52 |

Lab Sample ID: CCV 280-568014/36 Client Sample ID:

Date Analyzed: 03/09/22 02:07 Lab File ID: 03080036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.47 | Baseline | zhangji | 03/09/22 12:02 |
| DNX | 6.79 | Baseline | zhangji | 03/09/22 12:02 |
| MNX | 7.21 | Baseline | zhangji | 03/09/22 12:02 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

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

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

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

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

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

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

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

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

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

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

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

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

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

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

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5  Analysis Batch Number: 568016

Lab Sample ID: CCV 280-568016/7  Client Sample ID:

Date Analyzed: 03/08/22 17:13  Lab File ID: 03080007.D  GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.82 | Baseline Smoothing | zhangji | 03/08/22 17:52 |
| PETN | 25.90 | Baseline Smoothing | zhangji | 03/08/22 17:52 |

Lab Sample ID: 280-159234-1  Client Sample ID: NW020-8

Date Analyzed: 03/08/22 21:18  Lab File ID: 03080015.D  GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.85 | Baseline Smoothing | zhangji | 03/09/22 19:21 |
| RDX | 9.04 | Baseline Smoothing | zhangji | 03/09/22 19:21 |
| 2,6-Dinitrotoluene | | Invalid Compound ID | zhangji | 03/09/22 19:21 |
| 1,2-Dinitrobenzene | 13.08 | Baseline Smoothing | zhangji | 03/09/22 19:21 |
| 2-Amino-4,6-dinitrotoluene | 18.45 | Baseline Smoothing | zhangji | 03/09/22 19:21 |

Lab Sample ID: 280-159234-2  Client Sample ID: NW021-8

Date Analyzed: 03/08/22 21:53  Lab File ID: 03080016.D  GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.82 | Baseline Smoothing | zhangji | 03/09/22 19:21 |
| RDX | 9.02 | Baseline Smoothing | zhangji | 03/09/22 19:22 |
| 2,6-Dinitrotoluene | | Invalid Compound ID | zhangji | 03/09/22 19:22 |

Lab Sample ID: 280-159234-5  Client Sample ID: G0075-8

Date Analyzed: 03/08/22 23:38  Lab File ID: 03080019.D  GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.83 | Baseline Smoothing | zhangji | 03/09/22 19:22 |
| RDX | 9.00 | Baseline Smoothing | zhangji | 03/09/22 19:22 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 568016

Lab Sample ID: CCV 280-568016/20 Client Sample ID:

Date Analyzed: 03/09/22 00:13 Lab File ID: 03080020.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.82 | Baseline Smoothing | zhangji | 03/09/22 19:23 |
| PETN | 25.93 | Baseline Smoothing | zhangji | 03/09/22 19:23 |

Lab Sample ID: 280-159234-8 Client Sample ID: G0080-8

Date Analyzed: 03/09/22 04:54 Lab File ID: 03080028.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.82 | Baseline Smoothing | zhangji | 03/09/22 19:24 |
| RDX | 9.00 | Baseline Smoothing | zhangji | 03/09/22 19:24 |

Lab Sample ID: 280-159234-9 Client Sample ID: G0087-8

Date Analyzed: 03/09/22 05:29 Lab File ID: 03080029.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.83 | Baseline Smoothing | zhangji | 03/09/22 19:24 |
| RDX | 9.02 | Baseline Smoothing | zhangji | 03/09/22 19:24 |

Lab Sample ID: 280-159234-10 Client Sample ID: G0086-8

Date Analyzed: 03/09/22 06:04 Lab File ID: 03080030.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.83 | Baseline Smoothing | zhangji | 03/09/22 19:24 |
| RDX | 9.02 | Baseline Smoothing | zhangji | 03/09/22 19:24 |
| 2,6-Dinitrotoluene | | Invalid Compound ID | zhangji | 03/09/22 19:24 |
| MNX | | Invalid Compound ID | zhangji | 03/09/22 19:24 |
| 1,2-Dinitrobenzene | 13.07 | Baseline Smoothing | zhangji | 03/09/22 19:24 |
| 1,3,5-Trinitrobenzene | 18.71 | Baseline Smoothing | zhangji | 03/09/22 19:24 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 568016

Lab Sample ID: CCV 280-568016/32 Client Sample ID:

Date Analyzed: 03/09/22 07:14 Lab File ID: 03080032.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.82 | Baseline Smoothing | zhangji | 03/09/22 19:25 |
| PETN | 25.90 | Baseline Smoothing | zhangji | 03/09/22 19:25 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 567263

Lab Sample ID: STD1 280-567263/2 IC Client Sample ID:

Date Analyzed: 02/28/22 18:17 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.73 | Baseline Smoothing | jindaratc | 02/28/22 18:45 |
| Chloride | 3.69 | Baseline Smoothing | jindaratc | 02/28/22 18:44 |
| Bromide | 5.24 | Baseline Smoothing | jindaratc | 02/28/22 18:44 |
| Sulfate | 8.29 | Baseline Smoothing | jindaratc | 02/28/22 18:45 |

Lab Sample ID: STD2 280-567263/3 IC Client Sample ID:

Date Analyzed: 02/28/22 18:32 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.73 | Unspecified | jindaratc | 02/28/22 19:03 |
| Bromide | 5.24 | Baseline Smoothing | jindaratc | 02/28/22 18:53 |
| Sulfate | 8.29 | Baseline Smoothing | jindaratc | 02/28/22 18:53 |

Lab Sample ID: STD3 280-567263/4 IC Client Sample ID:

Date Analyzed: 02/28/22 18:47 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.73 | Baseline Smoothing | jindaratc | 02/28/22 19:04 |
| Bromide | 5.23 | Baseline Smoothing | jindaratc | 02/28/22 19:04 |
| Sulfate | 8.29 | Baseline Smoothing | jindaratc | 02/28/22 19:04 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 567263

Lab Sample ID: STD4 280-567263/5 IC Client Sample ID:

Date Analyzed: 02/28/22 19:02 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.74 | Baseline Smoothing | jindaratc | 02/28/22 19:23 |
| Chloride | 3.71 | Baseline Smoothing | jindaratc | 02/28/22 19:24 |
| Bromide | 5.22 | Baseline Smoothing | jindaratc | 02/28/22 19:23 |
| Sulfate | 8.26 | Baseline Smoothing | jindaratc | 02/28/22 19:24 |

Lab Sample ID: STD5 280-567263/6 IC Client Sample ID:

Date Analyzed: 02/28/22 19:17 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.74 | Baseline Smoothing | jindaratc | 02/28/22 20:46 |
| Chloride | 3.73 | Peak not integrated | jindaratc | 02/28/22 20:45 |
| Bromide | 5.21 | Baseline Smoothing | jindaratc | 02/28/22 20:46 |
| Sulfate | 8.24 | Baseline Smoothing | jindaratc | 02/28/22 20:47 |

Lab Sample ID: STD6 280-567263/7 IC Client Sample ID:

Date Analyzed: 02/28/22 19:32 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.73 | Peak not integrated | jindaratc | 02/28/22 20:48 |
| Chloride | 3.76 | Peak not integrated | jindaratc | 02/28/22 20:49 |
| Sulfate | 8.21 | Baseline Smoothing | jindaratc | 02/28/22 20:50 |

Lab Sample ID: ICB 280-567263/8 Client Sample ID:

Date Analyzed: 02/28/22 19:47 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.32 | Baseline Smoothing | jindaratc | 03/01/22 12:59 |

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GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 567263

Lab Sample ID: ICV 280-567263/9 Client Sample ID:

Date Analyzed: 02/28/22 20:02 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloride | 3.72 | Peak not integrated | jindaratc | 02/28/22 20:50 |
| Bromide | 5.22 | Peak not integrated | jindaratc | 02/28/22 20:51 |
| Sulfate | 8.25 | Peak not integrated | jindaratc | 02/28/22 20:51 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 568944

Lab Sample ID: CCV 280-568944/1 Client Sample ID:

Date Analyzed: 03/17/22 13:48 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloride | 3.81 | Peak not integrated | jindaratc | 03/18/22 10:00 |
| Sulfate | 8.65 | Peak not integrated | jindaratc | 03/18/22 10:00 |

Lab Sample ID: CCB 280-568944/2 Client Sample ID:

Date Analyzed: 03/17/22 14:03 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.70 | Baseline Smoothing | jindaratc | 03/18/22 10:00 |

Lab Sample ID: LCS 280-568944/4 Client Sample ID:

Date Analyzed: 03/17/22 14:33 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.65 | Peak not integrated | jindaratc | 03/18/22 10:01 |

Lab Sample ID: LCSD 280-568944/5 Client Sample ID:

Date Analyzed: 03/17/22 14:48 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.65 | Peak not integrated | jindaratc | 03/18/22 10:02 |

Lab Sample ID: MB 280-568944/6 Client Sample ID:

Date Analyzed: 03/17/22 15:03 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.59 | Baseline Smoothing | jindaratc | 03/18/22 10:02 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 568944

Lab Sample ID: CCV 280-568944/17 Client Sample ID:

Date Analyzed: 03/17/22 17:48 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloride | 3.78 | Peak not integrated | jindaratc | 03/18/22 10:03 |
| Sulfate | 8.42 | Peak not integrated | jindaratc | 03/18/22 10:04 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 568842

Lab Sample ID: STD 280-568842/2 IC Client Sample ID:

Date Analyzed: 03/16/22 14:19 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.84 | Baseline Smoothing | jindaratc | 03/16/22 14:48 |
| Bromide | 5.58 | Baseline Smoothing | jindaratc | 03/16/22 14:48 |

Lab Sample ID: STD 280-568842/3 IC Client Sample ID:

Date Analyzed: 03/16/22 14:34 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.84 | Baseline Smoothing | jindaratc | 03/16/22 15:17 |
| Bromide | 5.58 | Baseline Smoothing | jindaratc | 03/16/22 15:17 |

Lab Sample ID: STD 280-568842/4 IC Client Sample ID:

Date Analyzed: 03/16/22 14:49 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.84 | Baseline Smoothing | jindaratc | 03/16/22 15:17 |
| Bromide | 5.57 | Baseline Smoothing | jindaratc | 03/16/22 15:17 |

Lab Sample ID: STD 280-568842/5 IC Client Sample ID:

Date Analyzed: 03/16/22 15:04 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.84 | Baseline Smoothing | jindaratc | 03/16/22 15:25 |
| Bromide | 5.57 | Baseline Smoothing | jindaratc | 03/16/22 15:25 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Batch Number: 568842

Lab Sample ID: STD 280-568842/6 IC  Client Sample ID:

Date Analyzed: 03/16/22 15:19  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.85 | Baseline Smoothing | jindaratc | 03/16/22 15:55 |
| Bromide | 5.57 | Baseline Smoothing | jindaratc | 03/16/22 15:55 |

Lab Sample ID: STD 280-568842/7 IC  Client Sample ID:

Date Analyzed: 03/16/22 15:34  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.85 | Baseline Smoothing | jindaratc | 03/16/22 15:55 |
| Bromide | 5.57 | Baseline Smoothing | jindaratc | 03/16/22 15:56 |

Lab Sample ID: ICV 280-568842/8  Client Sample ID:

Date Analyzed: 03/16/22 15:49  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.85 | Baseline Smoothing | jindaratc | 03/16/22 16:06 |
| Bromide | 5.59 | Baseline Smoothing | jindaratc | 03/16/22 16:06 |

Lab Sample ID: CCV 280-568842/24  Client Sample ID:

Date Analyzed: 03/16/22 19:49  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.79 | Baseline Smoothing | jindaratc | 03/17/22 12:51 |
| Bromide | 5.36 | Baseline Smoothing | jindaratc | 03/17/22 12:51 |
| Sulfate | 8.13 | Peak assignment corrected | jindaratc | 03/17/22 12:50 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Batch Number: 568842

Lab Sample ID: CCB 280-568842/25  Client Sample ID:

Date Analyzed: 03/16/22 20:05  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.22 | Peak assignment corrected | jindaratc | 03/17/22 13:07 |

Lab Sample ID: 280-159234-2  Client Sample ID: NW021-8

Date Analyzed: 03/16/22 21:35  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.15 | Peak assignment corrected | jindaratc | 03/17/22 13:08 |

Lab Sample ID: 280-159234-7  Client Sample ID: G0070-8

Date Analyzed: 03/16/22 21:50  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.17 | Peak assignment corrected | jindaratc | 03/17/22 13:08 |

Lab Sample ID: 280-159234-7 DU  Client Sample ID: G0070-8 DU

Date Analyzed: 03/16/22 22:05  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.17 | Peak assignment corrected | jindaratc | 03/17/22 13:09 |

Lab Sample ID: 280-159234-7 MS  Client Sample ID: G0070-8 MS

Date Analyzed: 03/16/22 22:20  Lab File ID: Info 2_DENPC584_Anions_20  GC Column: Metrosepp A S  ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.16 | Peak assignment corrected | jindaratc | 03/17/22 13:09 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 568842

Lab Sample ID: 280-159234-7 MSD Client Sample ID: G0070-8 MSD

Date Analyzed: 03/16/22 22:35 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.16 | Peak assignment corrected | jindaratc | 03/17/22 13:11 |

Lab Sample ID: CCV 280-568842/36 Client Sample ID:

Date Analyzed: 03/16/22 22:50 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.79 | Baseline Smoothing | jindaratc | 03/17/22 12:51 |
| Bromide | 5.36 | Baseline Smoothing | jindaratc | 03/17/22 12:51 |
| Sulfate | 8.13 | Baseline Smoothing | jindaratc | 03/17/22 12:51 |

Lab Sample ID: CCB 280-568842/37 Client Sample ID:

Date Analyzed: 03/16/22 23:05 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.22 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

Lab Sample ID: 280-159234-4 Client Sample ID: G0079-8

Date Analyzed: 03/16/22 23:35 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.17 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

Lab Sample ID: 280-159234-5 Client Sample ID: G0075-8

Date Analyzed: 03/16/22 23:50 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.15 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 568842

Lab Sample ID: 280-159234-8 Client Sample ID: G0080-8

Date Analyzed: 03/17/22 00:20 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.18 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

Lab Sample ID: 280-159234-9 Client Sample ID: G0087-8

Date Analyzed: 03/17/22 00:35 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.16 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

Lab Sample ID: 280-159234-10 Client Sample ID: G0086-8

Date Analyzed: 03/17/22 00:50 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.15 | Peak assignment corrected | jindaratc | 03/17/22 13:12 |

Lab Sample ID: CCV 280-568842/46 Client Sample ID:

Date Analyzed: 03/17/22 01:20 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 2.79 | Baseline Smoothing | jindaratc | 03/17/22 12:52 |
| Bromide | 5.36 | Baseline Smoothing | jindaratc | 03/17/22 12:52 |
| Sulfate | 8.13 | Peak assignment corrected | jindaratc | 03/17/22 12:51 |

Lab Sample ID: CCB 280-568842/47 Client Sample ID:

Date Analyzed: 03/17/22 01:35 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.22 | Peak assignment corrected | jindaratc | 03/17/22 13:13 |

9056A

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

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

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

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

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

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

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .8330PAStkPS_00067 | 07/08/22 | AccuStandard, Lot 218031154-02 | | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 100 ug/mL |
| **8330Surrogate_00127** | 05/16/22 | 11/16/21 | Acetonitrile, Lot Acetonitrile_00059 | 500 mL | 8330SurrStkSS_00203 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00204 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00207 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00211 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00212 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| .8330SurrStkSS_00203 | 05/30/26 | Restek, Lot A0172684 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00204 | 05/30/26 | Restek, Lot A0172684 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00207 | 05/30/26 | Restek, Lot A0172684 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00211 | 05/30/26 | Restek, Lot A0172684 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00212 | 05/30/26 | Restek, Lot A0172684 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| **Alk daily lcs_01027** | 03/08/22 | 03/01/22 | Di Water, Lot na | 1000 mL | Alk stk std_00022 | 4 mL | Total Alkalinity as CaCO3 | 200 mg/L |
| .Alk stk std_00022 | 10/30/22 | SPEX, Lot 2-85BT | | | (Purchased Reagent) | | Total Alkalinity as CaCO3 | 50 g/L |
| **IC CAL cl/so4_00408** | 03/02/22 | 02/23/22 | Di Water, Lot na | 100 mL | IC CL cal_00071 | 25 mL | Chloride | 250 mg/L |
| | | | | | IC SO4 Cal_00003 | 25 mL | Sulfate | 250 mg/L |
| .IC CL cal_00071 | 11/30/22 | SPEX CertiPrep, Lot 5-67CL-2x | | | (Purchased Reagent) | | Chloride | 1000 mg/L |
| .IC SO4 Cal_00003 | 11/30/22 | SPEX CertiPrep, Lot 5-118SO49-2X | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC CAL cl/so4_00411** | 03/23/22 | 03/16/22 | Di Water, Lot na | 100 mL | IC CL cal_00071 | 25 mL | Chloride | 250 mg/L |
| | | | | | IC SO4 Cal_00003 | 25 mL | Sulfate | 250 mg/L |
| .IC CL cal_00071 | 11/30/22 | SPEX CertiPrep, Lot 5-67CL-2x | | | (Purchased Reagent) | | Chloride | 1000 mg/L |
| .IC SO4 Cal_00003 | 11/30/22 | SPEX CertiPrep, Lot 5-118SO49-2X | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC Cal low_00623** | 03/02/22 | 02/23/22 | Di Water, Lot NA | 100 mL | IC BR ICV_00021 | 5 mL | Bromide | 50 mg/L |
| | | | | | IC FL cal_00019 | 5 mL | Fluoride | 50 mg/L |
| .IC BR ICV_00021 | 04/01/22 | ricca, Lot 4010N41 | | | (Purchased Reagent) | | Bromide | 1000 mg/L |
| .IC FL cal_00019 | 01/31/23 | Ricca, Lot 4108A94 | | | (Purchased Reagent) | | Fluoride | 1000 mg/L |
| **IC Cal low_00627** | 03/23/22 | 03/16/22 | Di Water, Lot NA | 100 mL | IC BR ICV_00021 | 5 mL | Bromide | 50 mg/L |
| | | | | | IC FL cal_00019 | 5 mL | Fluoride | 50 mg/L |
| .IC BR ICV_00021 | 04/01/22 | ricca, Lot 4010N41 | | | (Purchased Reagent) | | Bromide | 1000 mg/L |
| .IC FL cal_00019 | 01/31/23 | Ricca, Lot 4108A94 | | | (Purchased Reagent) | | Fluoride | 1000 mg/L |
| **IC LCS_01863** | 03/23/22 | 03/16/22 | Di Water, Lot 27 | 200 mL | IC SO4 Cal_00003 | 20 mL | Sulfate | 100 mg/L as N |
| .IC SO4 Cal_00003 | 11/30/22 | SPEX CertiPrep, Lot 5-118SO49-2X | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC SO4 ICV_00022** | 07/06/22 | ERA, Lot 060720m | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **ICMS/MSD WEEK_00748** | 03/23/22 | 03/16/22 | Di Water, Lot NA | 10 mL | IC SPK 6 ANIO_00025 | 5 mL | Sulfate | 5000.51 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

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_00025 | 10/12/22 | 10/12/21 | Di Water, Lot NA | 1000 mL | IC MS/MSD S04_00006 | 18.1408 g | Sulfate | 10001 mg/L |
| ..IC MS/MSD S04_00006 | 09/29/23 | | FISHER, Lot 147276 | | (Purchased Reagent) | | Sulfate | 0.5513 g/g |
| **NXN CAL INT_00614** | 03/20/22 | 03/13/22 | Di Water, Lot NA | 100 mL | NOXT Cal STD_00025 | 10 mL | Nitrate Nitrite as N | 100 mg/L |
| .NOXT Cal STD_00025 | 10/31/22 | | RICCA, Lot 2104e50 | | (Purchased Reagent) | | Nitrate Nitrite as N | 1000 mg/L |
| **NXN ICV INT_00590** | 03/20/22 | 03/13/22 | Di Water, Lot NA | 100 mL | NOXT ICV STD_00028 | 10 mL | Nitrate Nitrite as N | 100 mg/L |
| .NOXT ICV STD_00028 | 01/20/23 | | ERA, Lot 420121m | | (Purchased Reagent) | | Nitrate Nitrite as N | 1000 mg/L |
| **RSK175methane_00010** | 04/16/22 | | Supelco Analytical, Lot 160-401480003-1 | | (Purchased Reagent) | | Methane | 650500 ug/L |
| **RSK7gasMathes_00031** | 03/09/22 | | Matheson, Lot DL0396162 | | (Purchased Reagent) | | Acetylene | 10667 ug/L |
| | | | | | | | Ethane | 12317 ug/L |
| | | | | | | | Ethylene | 11490 ug/L |
| | | | | | | | Methane | 6570.3 ug/L |
| **RSK7gasMathes_00034** | 03/22/23 | | Matheson, Lot 9301615705 | | (Purchased Reagent) | | Methane | 6570.3 ug/L |
| **SFD CAL INT_02142** | 05/08/22 | 02/08/22 | Di Water, Lot NA | 500 mL | 50% NaOH_00022 | 2 mL | Sodium Hydroxide | 2000 mg/L |
| | | | | | SFD CAL STK_00008 | 4.16501 g | Sulfide | 1112.06 mg/L |
| .50% NaOH_00022 | 06/30/23 | | RICCA, Lot 1006F87 | | (Purchased Reagent) | | Sodium Hydroxide | 50 % |
| .SFD CAL STK_00008 | 09/30/23 | | ACROS, Lot A0406399 | | (Purchased Reagent) | | Sulfide | 0.1335 g/g |
| **SFD ICV INT_02090** | 05/08/22 | 02/08/22 | Di Water, Lot N/A | 500 mL | 50% NaOH_00022 | 2 mL | Sodium Hydroxide | 2000 mg/L |
| | | | | | SFD ICV STK_00008 | 4.41948 g | Sulfide | 1180 mg/L |
| .50% NaOH_00022 | 06/30/23 | | RICCA, Lot 1006F87 | | (Purchased Reagent) | | Sodium Hydroxide | 50 % |
| .SFD ICV STK_00008 | 04/03/24 | | Acros, Lot A0412804 | | (Purchased Reagent) | | Sulfide | 0.1335 g/g |
| **SFD ICV INT_02091** | 05/08/22 | 02/08/22 | Di Water, Lot N/A | 500 mL | 50% NaOH_00022 | 2 mL | Sodium Hydroxide | 2000 mg/L |
| | | | | | SFD ICV STK_00008 | 4.41948 g | Sulfide | 1180 mg/L |
| .50% NaOH_00022 | 06/30/23 | | RICCA, Lot 1006F87 | | (Purchased Reagent) | | Sodium Hydroxide | 50 % |
| .SFD ICV STK_00008 | 04/03/24 | | Acros, Lot A0412804 | | (Purchased Reagent) | | Sulfide | 0.1335 g/g |
| **TKN 25ppm_00829** | 03/24/22 | 02/21/22 | Di Water, Lot 1 | 100 mL | TKN 100PPM_00142 | 25 mL | Nitrogen, Total Kjeldahl | 25 mg/L |
| .TKN 100PPM_00142 | 03/24/22 | 02/21/22 | Di Water, Lot 1 | 500 mL | TKN CAL STD_00019 | 50 mL | Nitrogen, Total Kjeldahl | 100 mg/L |
| ..TKN CAL STD_00019 | 08/31/24 | | nsi lab solutions, Lot 200817 | | (Purchased Reagent) | | Nitrogen, Total Kjeldahl | 1000 mg/L |
| **TKN ICV 25_00115** | 03/24/22 | 02/21/22 | DI water, Lot 1 | 100 mL | TKN ICV 100_00104 | 25 mL | Nitrogen, Total Kjeldahl | 25 mg/L |
| .TKN ICV 100_00104 | 03/24/22 | 02/21/22 | Di Water, Lot 1 | 500 mL | TKN ICV_00013 | 50 mL | Nitrogen, Total Kjeldahl | 100 mg/L |
| ..TKN ICV_00013 | 07/02/22 | | ERA, Lot 200220m | | (Purchased Reagent) | | Nitrogen, Total Kjeldahl | 1000 mg/L |
| **TOC ICV Std_00049** | 01/31/23 | | Ricca, Lot 1201B45 | | (Purchased Reagent) | | Dissolved Organic Carbon - Quad | 1000 ppm |
| | | | | | | | DOC Result 1 | 1000 ppm |
| | | | | | | | DOC Result 2 | 1000 ppm |
| | | | | | | | DOC Result 3 | 1000 ppm |
| | | | | | | | DOC Result 4 | 1000 ppm |
| **TOC LCS Std_00053** | 12/31/23 | | Agilent, Lot 0006645841 | | (Purchased Reagent) | | Dissolved Organic Carbon - Quad | 1001 ppm |
| | | | | | | | DOC Result 1 | 1001 ppm |
| | | | | | | | DOC Result 2 | 1001 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | DOC Result 3 | 1001 ppm |
| | | | | | | | DOC Result 4 | 1001 ppm |

# Reagent

# 50% NaOH_00022

RICCA CHEMICAL COMPANY®

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

# Certificate of Analysis

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

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

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

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

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

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

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

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

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

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



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

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

# Reagent

# 8330 LCS_00111

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0106450-021 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

# Reagent

# 8330 LCS_00113

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0108907-067 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

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

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

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

# Reagent

# 8330 LCSMix2_00112

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Calibration Mix #2

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

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

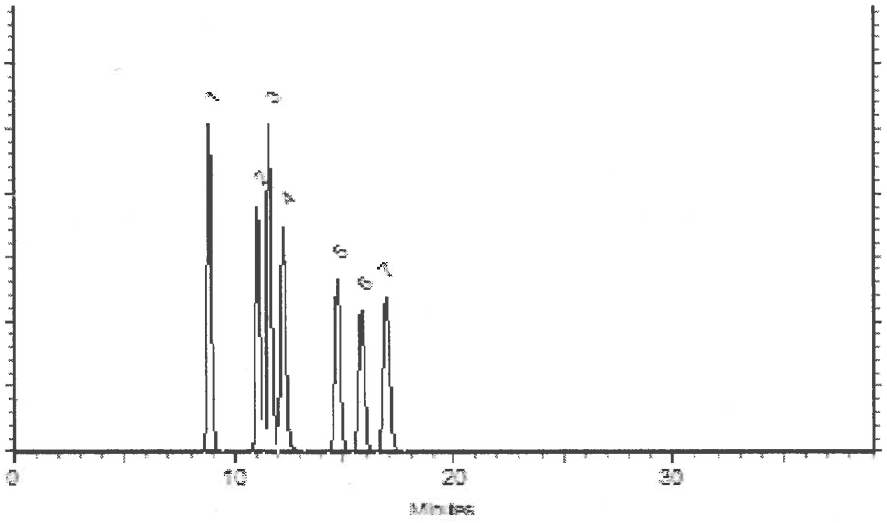
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Cory Meyer - Operations Tech I

Alexis Shelow - Operations Tech I

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

**Date Passed:** 20-Apr-2021

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

Reagent

# 8330 Stock_TS_00019

Agilent

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

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

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

**Matrix:** acetonitrile

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

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

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

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

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

# Reagent

# 8330_NG_Stk_00096

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# 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. :** 568871 **Lot No.:** A0161840

**Description :** Custom Nitroglycerin Standard

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

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

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

### CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330_NG_Stk_00098

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

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Certificate #3222.01

ACCREDITED
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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.:** A0161840

**Description :** Custom Nitroglycerin Standard

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

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

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

### CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330_NG1000_00006

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** Nitroglycerin Standard

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

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

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

**Ship:** Ambient

### CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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**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:**

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# Reagent

# 8330_OP_DMT_00012

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0104924-005 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

410-54873-B-6-B

# Reagent

# 8330_OP_DMT_00013

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0108600-011 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

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

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

860-20476-C-1-A

# Reagent

# 8330_PETN_Stk_00111

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# 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. :** 568872 **Lot No.:** A0172687

**Description :** Custom PETN Standard

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

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

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

**Ship:** Ambient

### CERTIFIED VALUES

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

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

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

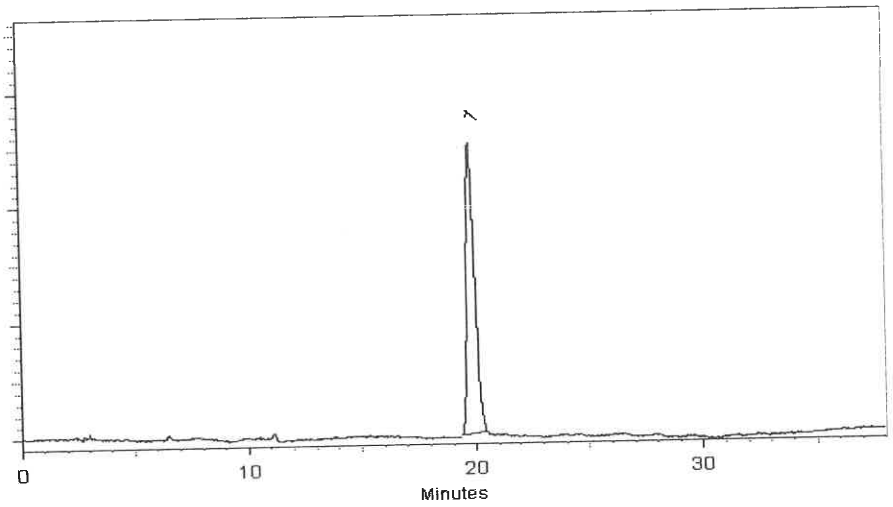
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Katelyn McGinni - Operations Tech I

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

Marlina Cowan - Operations Tech I

**Date Passed:** 27-May-2021

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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| 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)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
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**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.

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# Reagent

# 8330_PETN_Stk_00113

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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.:** A0172687

**Description :** Custom PETN Standard

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

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

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

**Ship:** Ambient

### CERTIFIED VALUES

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

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

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

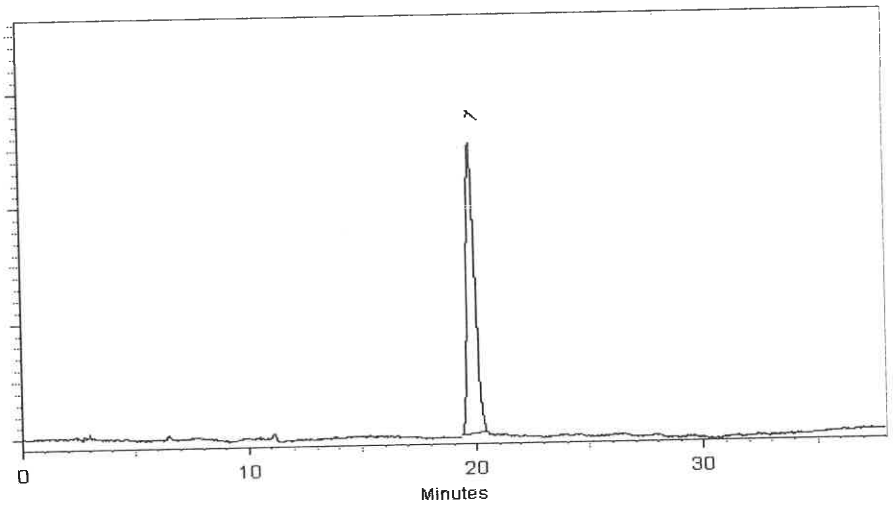
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Katelyn McGinni - Operations Tech I

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

Marlina Cowan - Operations Tech I

**Date Passed:** 27-May-2021

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330_PETN1000_00006

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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Certificate #3222.02

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

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

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

**Description :** PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

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

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

**Ship:** Ambient

**CERTIFIED VALUES**

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330LCSMix1_00126

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

**Description :** 8330 Calibration Mix #1

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

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

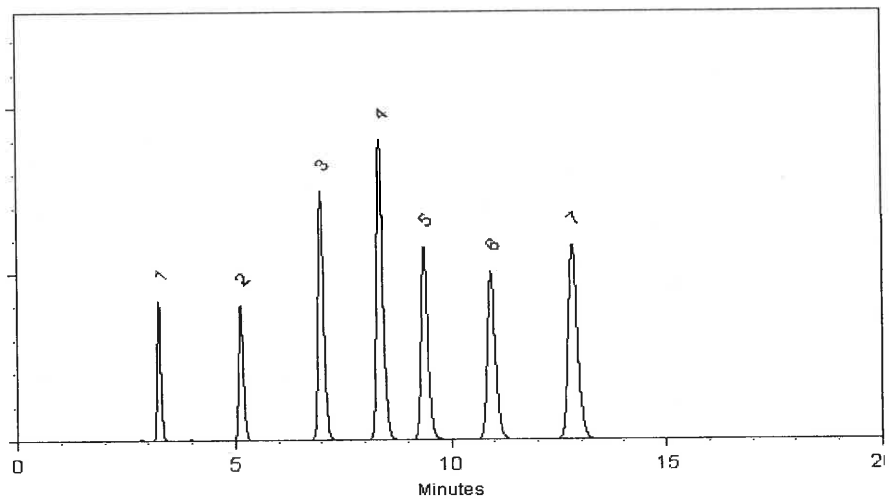
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

**Date Passed:** 23-Apr-2021

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330LCSMix1_00129

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# CERTIFIED REFERENCE MATERIAL

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

**Description :** 8330 Calibration Mix #1

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

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

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

**Ship:** Ambient

### CERTIFIED VALUES

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

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

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

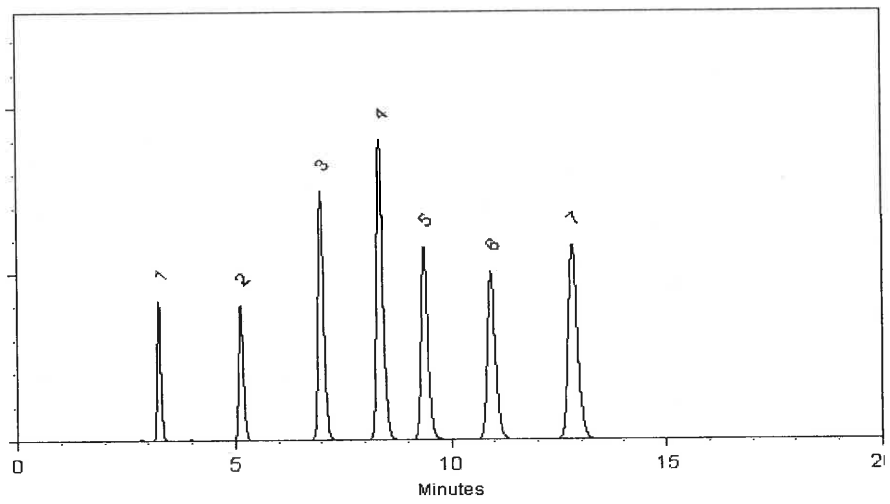
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

**Date Passed:** 23-Apr-2021

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

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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# Reagent

# 8330LCSmix2_00028

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

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

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

**Description :** 8330 Calibration Mix #2

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

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

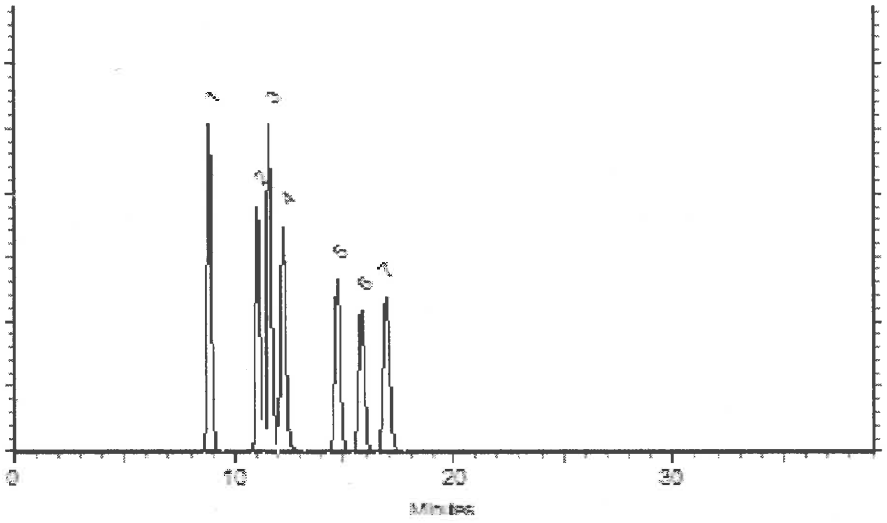
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Cory Meyer - Operations Tech I

Alexis Shelow - Operations Tech I

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

**Date Passed:** 20-Apr-2021

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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# Reagent

# 8330PAStkPS_00067

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

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



**Signal Word: Danger**

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

**Certified Reference Material**

ANAB ACCREDITED AR-1463 ANAB ACCREDITED AT-1339 ilac-MRA

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

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

*For use in routine laboratory analysis.*



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

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

# Reagent

# 8330Surrogate_00127

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0106552-072 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

280-155547-B-1-A

# Reagent

# 8330SurrStkSS_00203

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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- 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 |
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| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330SurrStkSS_00204

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

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Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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# Reagent

# 8330SurrStkSS_00207

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

ilac-MRA

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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**Purity Notes:**

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

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**Manufacturing Notes:**

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# Reagent

# 8330SurrStkSS_00211

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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

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

**Description :** 8330 Surrogate Mix

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

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

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

**Ship:** Ambient

## CERTIFIED VALUES

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

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

**General Certified Reference Material Notes**

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# Reagent

# 8330SurrStkSS_00212

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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Certificate #3222.02

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

**Description :** 8330 Surrogate Mix

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

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

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

**Ship:** Ambient

### CERTIFIED VALUES

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

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

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- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

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

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330SurrStock_00169

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

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



**Signal Word: Danger**

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

**Certified Reference Material**

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED TESTING LABORATORY AT-1339

ilac-MRA

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager



*For use in routine laboratory analysis.*

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

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

Reagent

# Alk stk std_00022

spex certiprep

ACCREDITED
Reference Materials Producer
Cert# 2495.01

# SPEXertificate®
## Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert# 2495.02

**Catalog Number:** VTACO-3 **Lot No.:** 2-85BT

**Description:** Custom Standard

**Matrix:** $H_2O$

This Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for conductance meters and conductivity cells used in water purity measurements. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared gravimetrically using high purity sodium carbonate ($Na_2CO_3$) Lot# H04155 and ASTM Type I water, using Class A laboratory ware to give precise concentration.

**Certified Value:**

| | |
|---|---|
| Analyte: | $Na_2CO_3$ |
| Alkalinity: | 50,000 µg/mL as $CaCO_3$ |
| Uncertainty: | ±500 µg/mL |
| Traceable to: | Standard made from NIST SRM # 351a |

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867. This CRM is guaranteed stable to ±1% of the certified concentration inclusive of uncertainty of measurements and other components such as homogeneity, long and short-term stability for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: OCT - - 2021

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager



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# Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

**Material Source:**
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at CRMSales@spex.com.

**Instructions for Use:**
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

**Method of Preparation:**
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

**Homogeneity:**
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

**Statistical Estimator and Confidence Limits:**
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- $u_c$ = combined standard uncertainty obtained by combining the individual element standard uncertainty components $u_i$ and $u_c = \sqrt{\Sigma u_i^2}$

**Certification Report:**
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at CRMSales@spex.com.

**Legal Notice:**
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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203 Norcross Avenue • Metuchen, NJ 08840
www.spexcertiprep.com • Email: CRMSales@spex.com
Phone: 1.800.LAB.SPEX • 1.732.549.7144 Fax: 732.603.9647

# Reagent

# IC BR ICV_00021

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

# Certificate of Analysis

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

**Lot Number:** 4010N41 **Product Number:** 1180

**Manufacture Date:** OCT 26, 2020
**Expiration Date:** APR 2022

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

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

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

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

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

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

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



Chris Collins (10/26/2020)
Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

# Reagent

# IC CL cal_00071

ACCREDITED
Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

ACCREDITED
Chemical Testing
Cert #2495.02

**Catalog Number:** AS-CL9-2X **Lot No.** 5-67CL-2X

**Description:** 1000 µg/mL Chloride

**Matrix:** $H_2O$

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

**Certified Value:** 998 µg/mL ±5 µg/mL

**Certified Value is Traceable to:** 3182*

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

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 09141H. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

**Classical Wet Assay:** 998 µg/mL

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

**Instrumental Analysis by Ion Chromatography:** 997 µg/mL

**Uncertified Properties**

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

| Element | µg/mL | Element | µg/mL |
|---|---|---|---|
| $Br^-$ | <0.01 | $NO_3^-$ | <0.06 |
| $F^-$ | <0.05 | $PO4^{-3}$ | <0.03 |
| $NO_2^-$ | <0.05 | $SO4^{-2}$ | <0.08 |

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

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager



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# Reagent

# IC FL cal_00019

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Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

# Certificate of Analysis

## Fluoride Standard, 1000 ppm $F^-$

**Lot Number:** 4108A94 **Product Number:** 3173

**Manufacture Date:** AUG 04, 2021

**Expiration Date:** JAN 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

| Name | CAS# | Grade |
|---|---|---|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Sodium Fluoride | 7681-49-4 | High Purity |

| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Fluoride (F) | 995-1005 ppm | 1005 ppm |

| Specification | Reference |
|---|---|
| Fluoride Solution, Stock (1.00 mL = 1.00 mg F) | ASTM (D 5542) |
| Fluoride Stock Solution (1.00 mL = 1.00 mg F-) | EPA (SW-846) (9056) |
| Fluoride Calibration Stock Solution (1,000 mg/L F-) | EPA (SW-846) (9214) |
| Stock Solution, 1.0 mL = 1.0 mg F | EPA (340.3) |
| Fluoride Solution, Stock (1.00 mL = 1.00 mg F) | ASTM (D 5996) |
| Fluoride Stock Solution (1.00 mL = 1.00 mg F?) | ASTM (D 4327) |
| Fluoride Stock Standard Solution (1 mg of F in 1 mL) | ACS (N/A) |

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|---|---|---|
| 3173-16 | 500 mL natural poly | 18 months |
| 3173-32 | 1 L natural poly | 18 months |

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

Karen Bodewes (08/04/2021)

Quality Control

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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# Reagent

# IC MS/MSD S04_00006

Fisher Scientific

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

# Certificate of Analysis

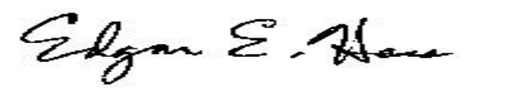
Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

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

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

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



**Lab Manager Fair Lawn**

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

Reagent

# IC SO4 Cal_00003

Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

Chemical Testing
Cert #2495.02

**Catalog Number:** AS-SO49-2X **Lot No.** 5-118SO49-2X

**Description:** 1000 µg/mL Sulfate

**Matrix:** $H_2O$

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

**Certified Value:** 999 µg/mL ±5 µg/mL

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

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

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# AN07201A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

**Classical Wet Assay:** 998 µg/mL

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

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

**Uncertified Properties**

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

| Element | µg/mL | Element | µg/mL |
|---|---|---|---|
| $Br^-$ | <0.01 | $NO_2^-$ | <0.01 |
| $Cl^-$ | <0.03 | $NO_3^-$ | <0.02 |
| $F^-$ | <0.003 | $PO4^{-3}$ | <0.08 |

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

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager



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# Reagent

# IC SO4 ICV_00022

ERA
A Waters Company

Certified Reference Material

# ▪ Certificate of Analysis ▪

| | |
|---|---|
| **Product:** | 1000 mg/L Sulfate |
| **Catalog Number:** | 062-125mL, 995-500mL |
| **Lot No.** | 060720m |
| **Starting Material:** | Potassium Sulfate ($K_2SO_4$) |
| **Matrix:** | 18 megohm deionized water |
| **Density:** | 1.0001 ± 0.0010 mg/L at 21.2 °C and 755 mm Hg |
| **Verification Method:** | Ion Chromatography |
| **Certificate Issue Date:** | July 13, 2020 |
| **Expiration Date:** | July 6, 2022 |
| **Revision Number:** | Original |

## CERTIFICATION

| Parameter | Certified Value[1] | Uncertainty[2] | NIST Traceability | |
|---|---|---|---|---|
| | mg/L | % | SRM Number[3] | Recovery % |
| Sulfate | 1000 | 0.984 | 3181 | 97.7 |



16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

# Reagent

# MNX,TNX,DNX_00057

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 10-Mar-2021

**Lot Number:** 0006594482 **Expiration Date:** 30-Apr-2022

**Description:**
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 99.7 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.1 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 116.7 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

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

**Homogeneity:**
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760



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

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


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

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006594482

**Expiration of Certification:**
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

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

# Reagent

# MNX,TNX,DNX_00062

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Number:** 0006599273

**Lot Issue Date:** 02-Apr-2021

**Expiration Date:** 30-Apr-2022

**Description:**
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.4 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.1 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 116.7 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

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

**Homogeneity:**
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760



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

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



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

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006599273

**Expiration of Certification:**
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

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

# Reagent

---

# MNX,TNX,DNX_00063

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Number:** 0006599273

**Lot Issue Date:** 02-Apr-2021

**Expiration Date:** 30-Apr-2022

**Description:**
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.4 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.1 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 116.7 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

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

**Homogeneity:**
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760



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

ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937



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

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006599273

**Expiration of Certification:**
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

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

Reagent

# NH3 ICV STD_00032

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

# CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

## 2.0 PRODUCT DESCRIPTION

| | |
|---|---|
| Product Code: | Single Analyte Ion Chromatography Solution |
| Catalog Number: | ICNNH41 |
| Lot Number: | N2-NH669544 |
| Matrix: | H2O |
| Value / Analyte(s): | 1 000 µg/mL ea:<br>Ammonium as N |
| Starting Material: | Ammonium chloride |
| Starting Material Lot#: | 1736 |
| Starting Material Purity: | 99.0000% |

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

**Certified Value:** 1002 ± 3 µg/mL

**Density:** 0.999 g/mL (measured at 20 ± 4 ºC)

### Assay Information:

**Assay Method #1** **1005 ± 3 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

**Assay Method #2** **997 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

### Characterization of CRM/RM by Two Methods

**Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:**

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

$X_a$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

$X_b$ = mean of Assay Method B with standard uncertainty $u_{char\ b}$

$w_a$ and $w_b$ = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

**CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

### Characterization of CRM/RM by One Method

**Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:**

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

**CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

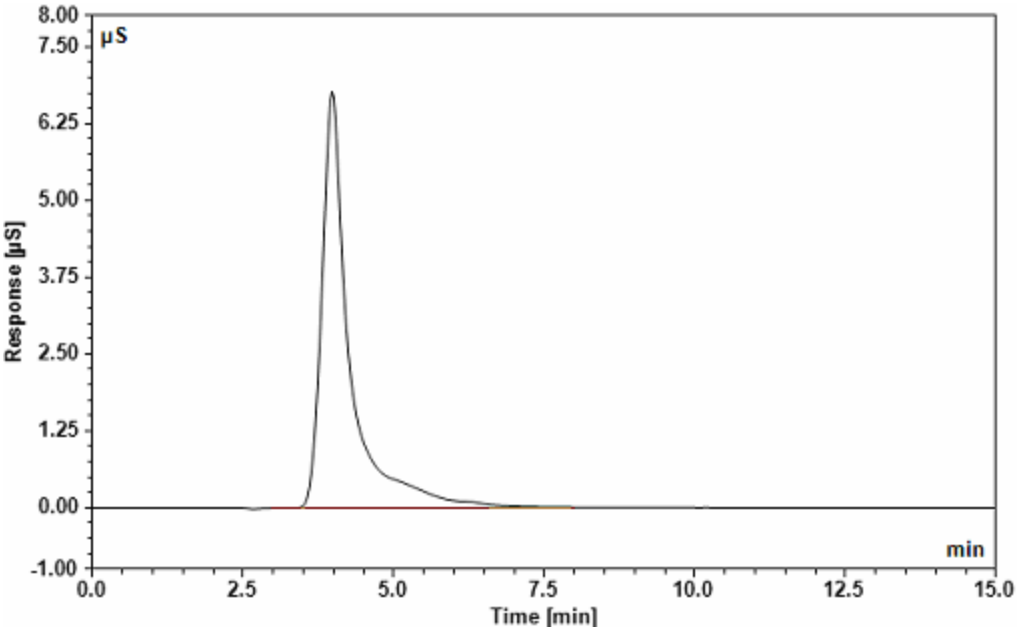
### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 CHROMATOGRAM




**Dionex ICS-2000 Ion Chromatograph**

| | | | |
|---|---|---|---|
| **Analytical Column:** | IonPac CS18 2 x 250 mm | **Eluent:** | 10 mM MSA |
| **Guard Column:** | IonPac CG18 2 x 50 mm | **Eluent Flow Rate:** | 0.25 mL/min |
| **Anion Self Regen Suppressor/ Chemical Suppression:** | N/A | **Column Temp:** | 35 °C |
| | | **Cell Temp:** | 35 °C |
| **Cation Self Regen Suppressor/ Chemical Suppression:** | CERS 500 2mm | **Scale X-Axis:** | minutes |
| | | **Scale Y-Axis:** | 8 µS/cm |
| | | **Concentration:** | 10 µg/g |
| **Suppressor Current/ Chemical Suppressant:** | 8 mA | | |

## 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

### 7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

## 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### 10.3 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

## 11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

### 11.1 Certification Issue Date

August 01, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- **August 01, 2022**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:**

James King Jr
Chemist, Technical Manager



**Certificate Approved By:**

Michael Booth
Supervisor, Quality Control



**Certifying Officer:**

Paul Gaines
CEO, Senior Technical Director



Reagent

# NOXT Cal STD_00025

RICCA CHEMICAL COMPANY®

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

# Certificate of Analysis

## Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm $NO_3$)

**Lot Number:** 2104E50 **Product Number:** 5459

**Manufacture Date:** APR 19, 2021
**Expiration Date:** OCT 2022

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

| Name | CAS# | Grade |
|---|---|---|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Potassium Nitrate | 7757-79-1 | High Purity |
| Chloroform | 67-66-3 | |

| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Nitrogen (N) | 995-1005 ppm | 1000 ppm |

| Specification | Reference |
|---|---|
| Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N) | ASTM (D 3867 A) |
| Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N) | ASTM (D 3867 B) |
| Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N | EPA (353.2) |
| Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N | EPA (353.3) |

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|---|---|---|
| 5459-16 | 500 mL natural poly | 18 months |
| 5459-4 | 120 mL natural poly | 18 months |

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

Kerry Kingsbury (04/19/2021)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

# Reagent

# PicricARestek_00102

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31499 **Lot No.:** A0175186

**Description :** Picric Acid Standard

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

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

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

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Picric Acid | 1,006.0 µg/mL | +/- 5.9753 | µg/mL | Gravimetric |
| | **CAS #** 88-89-1 (Lot 06130CU) | | +/- 55.1117 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 64.2657 | µg/mL | Stressed |

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

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

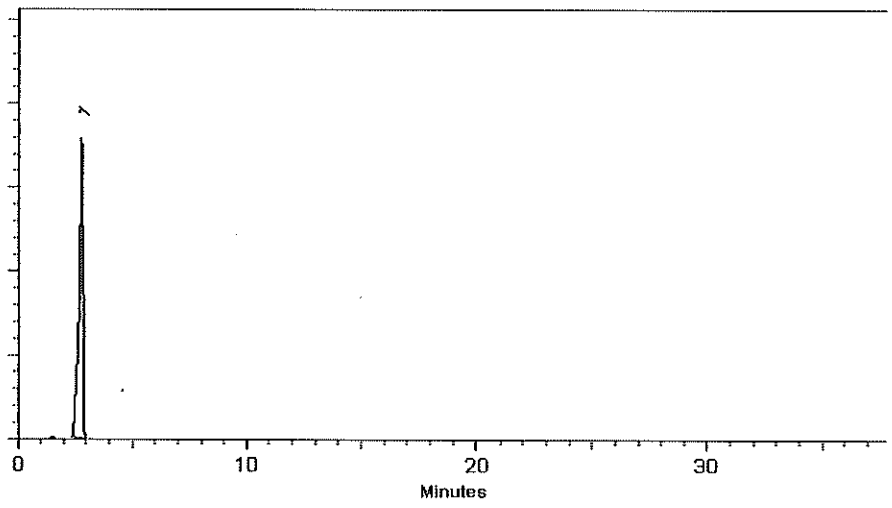
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

**Date Mixed:** 06-Aug-2021 **Balance:** B345965662

Alexis Shelow - Operations Tech I

**Date Passed:** 10-Aug-2021

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# RSK175methane_00010

Airgas
an Air Liquide company

**Airgas Specialty Gases**
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

# CERTIFICATE OF BATCH ANALYSIS

## Grade of Product: CP

| | | | |
|---|---|---|---|
| Customer: | SIGMA-ALDRICH | | |
| Part Number: | ME CPP14C514 | Reference Number: | 160-401480003-1 |
| Cylinder Analyzed: | ST0000198540 | Cylinder Volume: | 14.0 LG |
| Laboratory: | 124 - Plumsteadville - PA | Cylinder Pressure: | 240 PSIG |
| Analysis Date: | Apr 16, 2019 | Valve Outlet: | 160 |
| Lot Number: | 160-401480003-1 | | |

**Expiration Date: Apr 16, 2022**

## ANALYTICAL RESULTS

| Component | Requested Purity | Certified Concentration |
|---|---|---|
| METHANE | > 99.0 % | > 99.0 % |

**Cylinders in Batch:**

ST0000198540, ST0000198541, ST0000198542, ST0000198543

**Notes:**MANUFACTURE DATE 4-16-2019
PO# P481562
P/N 22562

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

**Approved for Release**

# Reagent

# RSK7gasMathes_00031

MATHESON

ask. . .The Gas Professionals™

# Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

**Manufacturing Location**
1700 SCEPTER ROAD
WAVERLY, TN 37185

**Product:** Multi-Component Mixture

**Grade:** CERTIFIED
**MTG Part No:** G2682238

**Cylinder Size:** 4
**Valve:** CGA 350 SS

**Contents:**
**Net:** 7.57 ft³; 0.21 m³

**Pressure:** 1400 psia @ 70°F; 9653 kPa @ 21°C

**CYLINDER NUMBER(S)**
*DL039162

| | Requested Concentration | Certified Concentration | Units - | Blend Tolerance | Certified Accuracy |
|---|---|---|---|---|---|
| Butane | 1.00 | 1.00 | % | ±10% | ±2% |
| Acetylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Isobutylene | 1.00 | 1.01 | % | ±10% | ±2% |
| Propane | 1.00 | 1.00 | % | ±10% | ±2% |
| Ethane | 1.00 | 1.01 | % | ±10% | ±2% |
| Ethylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Methane | 1.00 | 1.00 | % | ±10% | ±2% |
| Nitrogen | Balance | Balance | | | |

**TRACEABILITY**

**COMMENTS**

* Indicates the actual cylinder(s) analyzed.

Lot No: 9300606746
Fill Date: 02/23/2020
Expiration Date: 03/09/2022
Analysis Date: 03/09/2020

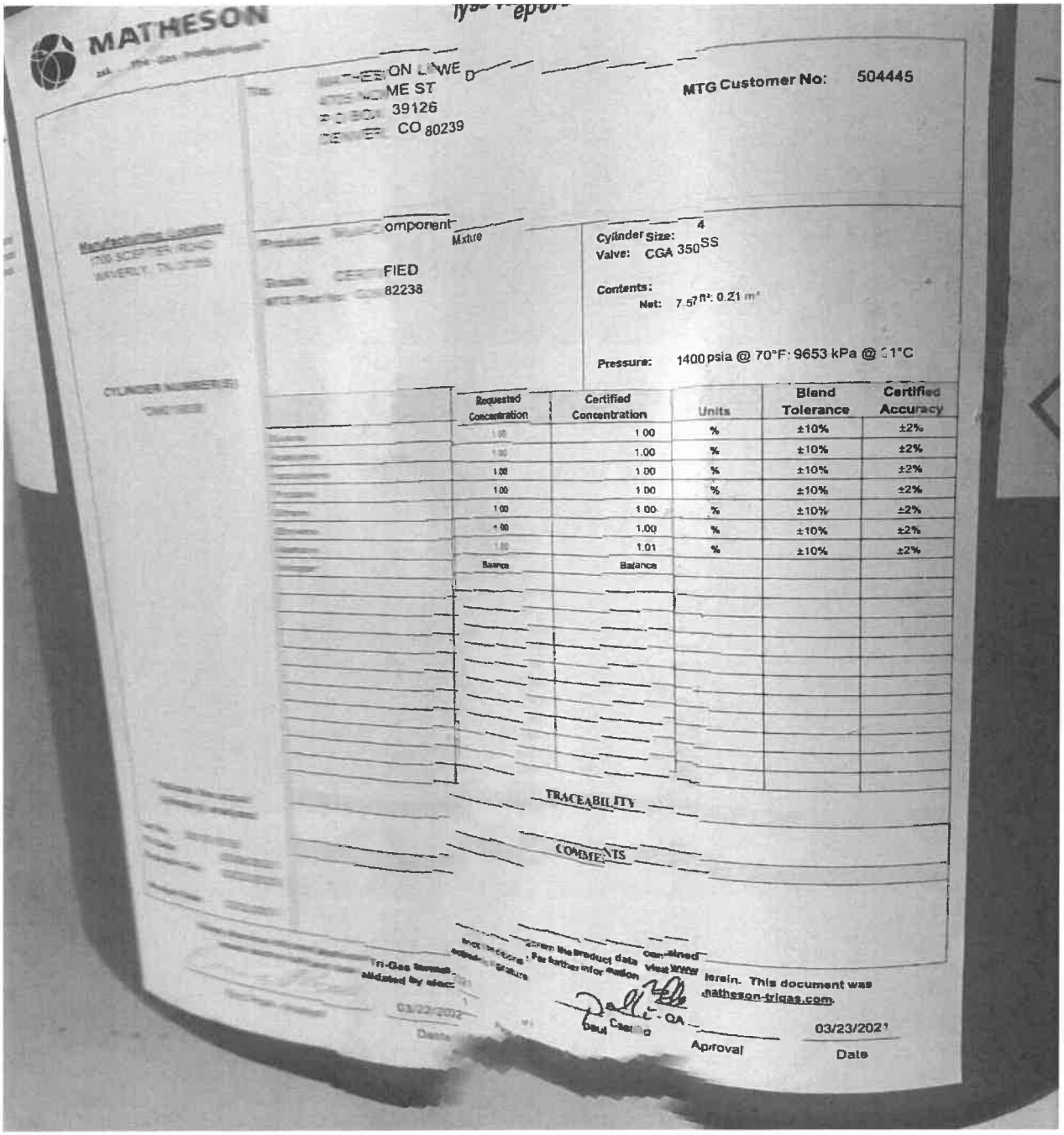
Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/09/2020 Date

Meriah Boyett - QA Approval — 03/09/2020 Date

Reagent

# RSK7gasMathes_00034



MATHESON

ON LINWE D
ME ST
39126
CO 80239

MTG Customer No: 504445

Manufacturing Location:
1700 SCEPTER ROAD
WAVERLY, TN 37185

Product: Multi-Component Mixture

Grade: CERTIFIED
MTG Part No: 82238

Cylinder Size: 4
Valve: CGA 350SS

Contents:
Net: 7.57 ft³: 0.21 m³

Pressure: 1400 psia @ 70°F: 9653 kPa @ 21°C

CYLINDER NUMBER(S)

| | Requested Concentration | Certified Concentration | Units | Blend Tolerance | Certified Accuracy |
|---|---|---|---|---|---|
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.00 | % | ±10% | ±2% |
| [illegible] | 1.00 | 1.01 | % | ±10% | ±2% |
| [illegible] | Balance | Balance | | | |

TRACEABILITY

COMMENTS

Tri-Gas formula
validated by elec

03/22/2021
Date

Paul Castillo - QA
Approval

03/23/2021
Date

...herein. This document was
...matheson-trigas.com.

MTG Part No: [illegible]

Net: [illegible]

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

**CYLINDER NUMBER(S)**

*DM019038

| | Requested Concentration | Certified Concentration | Units | Blend Tolerance | Certified Accuracy |
|---|---|---|---|---|---|
| Butane | 1.00 | 1.00 | % | ±10% | ±2% |
| Acetylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Isobutylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Propane | 1.00 | 1.00 | % | ±10% | ±2% |
| Ethane | 1.00 | 1.00 | % | ±10% | ±2% |
| Ethylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Methane | 1.00 | 1.01 | % | ±10% | ±2% |
| Nitrogen | Balance | Balance | | | |

**TRACEABILITY**

**COMMENTS**

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

**Lot No:** 9301615705
**Fill Date:** 03/08/2021
**Expiration Date:** 03/22/2023

**Analysis Date:** 03/22/2021

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/22/2021 (Date)

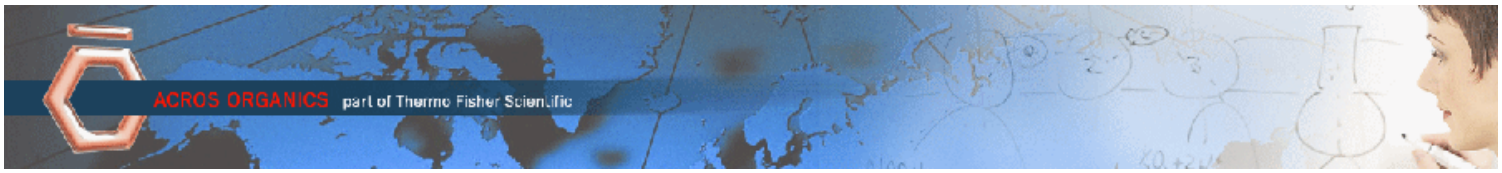
Paul Castillo - QA Approval — 03/23/2021 (Date)

Page 1 of 1

[redacted]

Reagent

# SFD CAL STK_00008




| | |
|---|---|
| **Version** | 1 |
| **Molecular weight** | 240.18 |
| **Molecular formula** | Na2 S . 9 H2 O |
| **CAS No** | 1313-84-4 |
| **Linear formula** | Na2S.9H2O |
| **Flash point (°C)** | |

# Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied

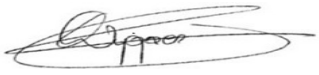
warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

| | | | |
|---|---|---|---|
| **Catalog Number** | 38706 | **Quality Test / Release Date** | 19 September 2020 |
| **Lot Number** | A0406399 | **Suggested Retest Date** | September 2023 |
| **Description** | Sodium sulfide nonahydrate,98+%,extra pure | | |
| **Country of Origin** | INDIA | | |
| **Declaration of Origin** | synthetic | | |

| | |
|---|---|
| **Origin Comment** | |

| Result Name | Specifications | Test Value |
|---|---|---|
| Appearance (Color) | Colorless to light yellow | light yellow |
| Appearance (Form) | Adhering crystals and/or chunks | Adhering crystals |
| Titration Iodimetric | 32.0 to 38.0 % (Na2S) | 32.8 % (Na2S) |
| Total nitrogen (as N) | =<0.005 % | =<0.005 % |
| Sulfite (as SO2) | =<2000 ppm | =<2000 ppm |
| Thiosulphate (S2O3) | =<5000 ppm | =<5000 ppm |



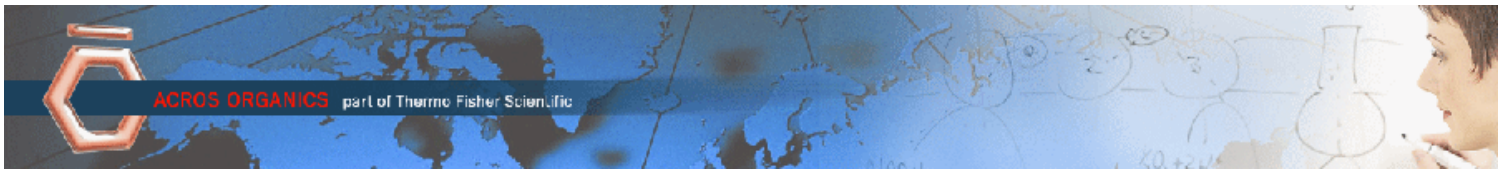



C. Wygaerts, QA Manager Issued: 27 April 2021

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

# Reagent

# SFD ICV STK_00008




| | |
|---|---|
| **Version** | 1 |
| **Molecular weight** | 240.18 |
| **Molecular formula** | Na2 S . 9 H2 O |
| **CAS No** | 1313-84-4 |
| **Linear formula** | Na2S.9H2O |
| **Flash point (°C)** | |

# Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied

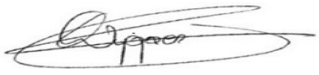
warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

| | | | |
|---|---|---|---|
| **Catalog Number** | 38706 | **Quality Test / Release Date** | 22 April 2021 |
| **Lot Number** | A0412804 | **Suggested Retest Date** | April 2024 |
| **Description** | Sodium sulfide nonahydrate,98+%,extra pure | | |
| **Country of Origin** | INDIA | | |
| **Declaration of Origin** | synthetic | | |

| | |
|---|---|
| **Origin Comment** | |

| Result Name | Specifications | Test Value |
|---|---|---|
| Appearance (Color) | Colorless to light yellow | Light yellow |
| Appearance (Form) | Adhering crystals and/or chunks | Adhering crystals |
| Titration Iodimetric | 32.0 to 38.0 % (Na2S) | 32.3 % (Na2S) |
| Total nitrogen (as N) | =<0.005 % | =<0.005 % |
| Sulfite (as SO2) | =<2000 ppm | =<1000 ppm |
| Thiosulphate (S2O3) | =<5000 ppm | =<1000 ppm |



C. Wygaerts, QA Manager Issued: 27 April 2021

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

Reagent

# TKN CAL STD_00019

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

# Certificate of Analysis

## TKN Calibration Standard - 1000 mg/L

**Catalog Number:** IS-009, IS-009-500
**Lot Number:** 200817
**Manufacture Date:** 08/17/20
**Certified Date:** 08/17/20

**Expiration:** 08/31/2024
**Matrix:** Water
**Hazards:** Irritant
(See MSDS)

| Bulk Number | Analyte | CAS # | Purity | Certified Concentration (mg/L TKN) |
|---|---|---|---|---|
| W-1477-30 | TKN from Glycine | 56-40-6 | 99.8% | 1000 ± 4.60 |

### Packaging, Storage, Instructions For Use

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

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

### Traceability Information

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

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

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

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

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

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

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

**Catalog Number: IS-009, IS-009-500**
**Lot Number: 200817**

## Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

## Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

## Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

## Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

# Reagent

# TKN ICV_00013

ERA

A Waters Company

# Certificate of Analysis

| | |
|---|---|
| **PRODUCT:** | 1000 mg/L Total Kjeldahl Nitrogen (TKN) |
| **CATALOG NUMBER:** | 043 -125 mL; 996 - 500 mL |
| **LOT NUMBER:** | 200220m |
| **ISSUE DATE:** | March 20, 2020 |
| **REVISION DATE:** | Original |
| **STARTING MATERIAL:** | Glycine ($NH_2CH_2COOH$) |
| **CERTIFIED CONCENTRATION[1]:** | 1000 mg/L |
| **UNCERTAINTY[2]:** | 6.1% |
| **MATRIX:** | 18 megohm deionized water and 1% (v/v) HCl |
| **DENSITY:** | 0.9966 ± 0.0020 g/mL at 19.4°C and 753 mm Hg |
| **TRACEABILITY[3]:** | 98.3% |
| **NIST/SRM:** | 194a Ammonium Dihydrogen Phosphate |
| **VERIFICATION METHOD:** | Ion Selective Electrode (ISE) |
| **STORAGE:** | Store at 20-25°C |

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

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

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

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

This standard **expires 02/07/2022.** The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

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

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

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

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

Reagent

# TOC ICV Std_00049

RICCA CHEMICAL COMPANY®

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

# Certificate of Analysis

## Organic Carbon Standard, 1000 ppm C

**Lot Number:** 1201B45 **Product Number:** 1847

**Manufacture Date:** JAN 24, 2022
**Expiration Date:** JAN 2023

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

| Name | CAS# | Grade |
|---|---|---|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Phosphoric Acid | 7664-38-2 | ACS |
| Potassium Acid Phthalate | 877-24-7 | ACS Acidimetric |

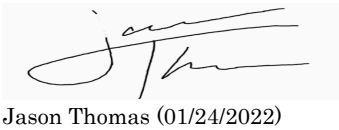
| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Carbon (C) | 995-1005 ppm | 1000 ppm |

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

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|---|---|---|
| 1847-16 | 500 mL amber glass | 12 months |
| 1847-4 | 120 mL amber glass | 12 months |

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



Jason Thomas (01/24/2022)

Operations Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

Reagent

# TOC LCS Std_00053

ISO 17034

Agilent
Trusted Answers

# Reference Material Certificate

**Product Name:** Total Organic Carbon (TOC) Standard
**Product Number:** IQC-106
**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Lot Number:** 0006645841
**Lot Issue Date:** 12-Nov-2021
**Expiration Date:** 31-Dec-2023

| Component Name | CERTIFIED VALUES Concentration | Expanded Uncertainty | CAS# | Analyte Lot |
|---|---|---|---|---|
| potassium hydrogen phthalate (KHP) (as TOC) | 1002 | ± 5 mg/L | 000877-24-7 | RM19275 |

**Matrix:** water (low TOC, < 50 ppb)

**Description:**
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / ISO 17025 accredited laboratory and compared to calibration standards independently prepared using NIST SRM(s) when available. The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

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

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

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Safety:**
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

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

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

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

# RSK_175_DOD5

## Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 003F0301.D

Lab ID: LCS 280-567659/3 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0667 | 101 | 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 Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 003F0301.D

Lab ID: LCS 280-567747/3 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0653 | 99 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 004F0401.D

Lab ID: LCSD 280-567659/4 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0646 | 98 | 3 | 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 Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 004F0401.D

Lab ID: LCSD 280-567747/4  Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0651 | 99 | 0 | 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 Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 015F1501.D

Lab ID: 280-159234-7 MS Client ID: G0070-8 MS

| COMPOUND | SPIKE ADDED (mg/L) | SAMPLE CONCENTRATION (mg/L) | MS CONCENTRATION (mg/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.00091 J | 0.0624 | 94 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 016F1601.D

Lab ID: 280-159234-7 MSD Client ID: G0070-8 MSD

| COMPOUND | SPIKE ADDED (mg/L) | MSD CONCENTRATION (mg/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0632 | 95 | 1 | 20 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Lab Sample ID: MB 280-567659/5

Matrix: Water  Date Extracted:

Lab File ID:(1) 005F0501.D  Lab File ID:(2) 005F0501.D

Date Analyzed:(1) 03/03/2022 15:17  Date Analyzed:(2) 03/03/2022 15:17

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 280-567659/3 | 03/03/2022 14:51 | 03/03/2022 14:51 |
| | LCSD 280-567659/4 | 03/03/2022 15:04 | 03/03/2022 15:04 |
| NW020-8 | 280-159234-1 | 03/03/2022 20:16 | 03/03/2022 20:16 |
| NW021-8 | 280-159234-2 | 03/03/2022 20:29 | 03/03/2022 20:29 |
| NW022-8 | 280-159234-3 | 03/03/2022 20:43 | 03/03/2022 20:43 |

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Lab Sample ID: MB 280-567747/5

Matrix: Water  Date Extracted:

Lab File ID:(1) 005F0501.D  Lab File ID:(2) 005F0501.D

Date Analyzed:(1) 03/04/2022 12:42  Date Analyzed:(2) 03/04/2022 12:42

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 280-567747/3 | 03/04/2022 12:16 | 03/04/2022 12:16 |
| | LCSD 280-567747/4 | 03/04/2022 12:29 | 03/04/2022 12:29 |
| G0079-8 | 280-159234-4 | 03/04/2022 13:47 | 03/04/2022 13:47 |
| G0075-8 | 280-159234-5 | 03/04/2022 14:00 | 03/04/2022 14:00 |
| G0076-8 | 280-159234-6 | 03/04/2022 14:13 | 03/04/2022 14:13 |
| G0070-8 | 280-159234-7 | 03/04/2022 14:26 | 03/04/2022 14:26 |
| G0070-8 DU | 280-159234-7 DU | 03/04/2022 14:39 | 03/04/2022 14:39 |
| G0070-8 MS | 280-159234-7 MS | 03/04/2022 14:52 | 03/04/2022 14:52 |
| G0070-8 MSD | 280-159234-7 MSD | 03/04/2022 15:05 | 03/04/2022 15:05 |
| G0080-8 | 280-159234-8 | 03/04/2022 15:18 | 03/04/2022 15:18 |
| G0087-8 | 280-159234-9 | 03/04/2022 15:31 | 03/04/2022 15:31 |
| G0086-8 | 280-159234-10 | 03/04/2022 15:57 | 03/04/2022 15:57 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW021-8  Lab Sample ID: 280-159234-2

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

Date Analyzed (1): 03/03/2022 20:29  Date Analyzed (2): 03/03/2022 20:29

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 | 1.63 | 1.71 | 0.12 | | 12.1 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.13 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW022-8  Lab Sample ID: 280-159234-3

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

Date Analyzed (1): 03/03/2022 20:43  Date Analyzed (2): 03/03/2022 20:43

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 | 1.63 | 1.71 | 0.20 | | 11.9 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.23 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0076-8  Lab Sample ID: 280-159234-6

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

Date Analyzed (1): 03/04/2022 14:13  Date Analyzed (2): 03/04/2022 14:13

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 | | 1.66 | 1.63 | 1.71 | 0.45 | | 12.2 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.51 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8  Lab Sample ID: 280-159234-7

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

Date Analyzed (1): 03/04/2022 14:26  Date Analyzed (2): 03/04/2022 14:26

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 | 1.63 | 1.71 | 0.00091 | | 43.0 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.0014 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS  Lab Sample ID: 280-159234-7 MS

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

Date Analyzed (1): 03/04/2022 14:52  Date Analyzed (2): 03/04/2022 14:52

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 | 1.63 | 1.71 | 0.0624 | | 5.6 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.0660 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD  Lab Sample ID: 280-159234-7 MSD

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

Date Analyzed (1): 03/04/2022 15:05  Date Analyzed (2): 03/04/2022 15:05

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 | 1.63 | 1.71 | 0.0632 | | 5.8 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.0670 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 DU  Lab Sample ID: 280-159234-7 DU

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

Date Analyzed (1): 03/04/2022 14:39  Date Analyzed (2): 03/04/2022 14:39

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 | 1.63 | 1.71 | 0.000941 | | 40.6 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.00142 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0080-8 Lab Sample ID: 280-159234-8

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

Date Analyzed (1): 03/04/2022 15:18 Date Analyzed (2): 03/04/2022 15:18

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 | 1.63 | 1.71 | 0.0078 | | 16.0 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.0092 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0086-8  Lab Sample ID: 280-159234-10

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

Date Analyzed (1): 03/04/2022 15:57  Date Analyzed (2): 03/04/2022 15:57

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 | 1.63 | 1.71 | 0.018 | | 12.4 |
| | 2 | | 1.25 | 1.22 | 1.30 | 0.021 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 280-567659/3

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

Date Analyzed (1): 03/03/2022 14:51  Date Analyzed (2): 03/03/2022 14:51

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 | 0.0667 | | 3.0 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0687 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 280-567659/4

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

Date Analyzed (1): 03/03/2022 15:04  Date Analyzed (2): 03/03/2022 15:04

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 | 1.63 | 1.71 | 0.0646 | | 3.2 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0667 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 280-567747/3

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

Date Analyzed (1): 03/04/2022 12:16  Date Analyzed (2): 03/04/2022 12:16

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| Methane | 1 | | 1.66 | 1.63 | 1.71 | 0.0653 | | 3.4 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0676 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 280-567747/4

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

Date Analyzed (1): 03/04/2022 12:29  Date Analyzed (2): 03/04/2022 12:29

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 | 1.63 | 1.71 | 0.0651 | | 3.7 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0676 | | |

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW020-8 | Lab Sample ID: 280-159234-1

Matrix: Water | Lab File ID: 028F2801.D

Analysis Method: RSK-175 | Date Collected: 02/28/2022 14:05

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\028F2801.D
Lims ID: 280-159234-Q-1
Client ID: MW020-8
Sample Type: Client
Inject. Date: 03-Mar-2022 20:16:58 ALS Bottle#: 28 Worklist Smp#: 28
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-Q-1
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:02:02

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | 7 |
| 1 | | 1.262 | | | ND | |
| 2 | | 1.669 | | | | |
| 3 Ethane | | | | | | |
| 1 | | 1.524 | | | ND | |
| 2 | | 3.022 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.809 | | | ND | |
| 2 | | 2.604 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.587 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.102 | | | ND | |
| 2 | | 2.751 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.449 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.350 | | | ND | |
| 2 | | 6.269 | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

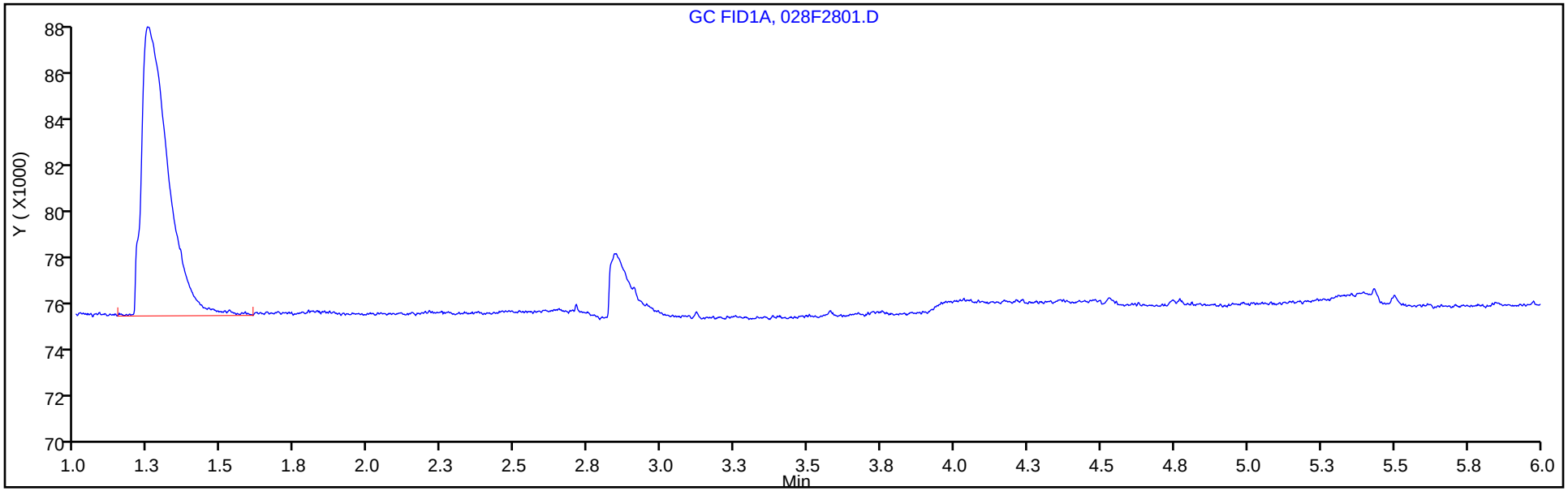
Report Date: 07-Mar-2022 13:05:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

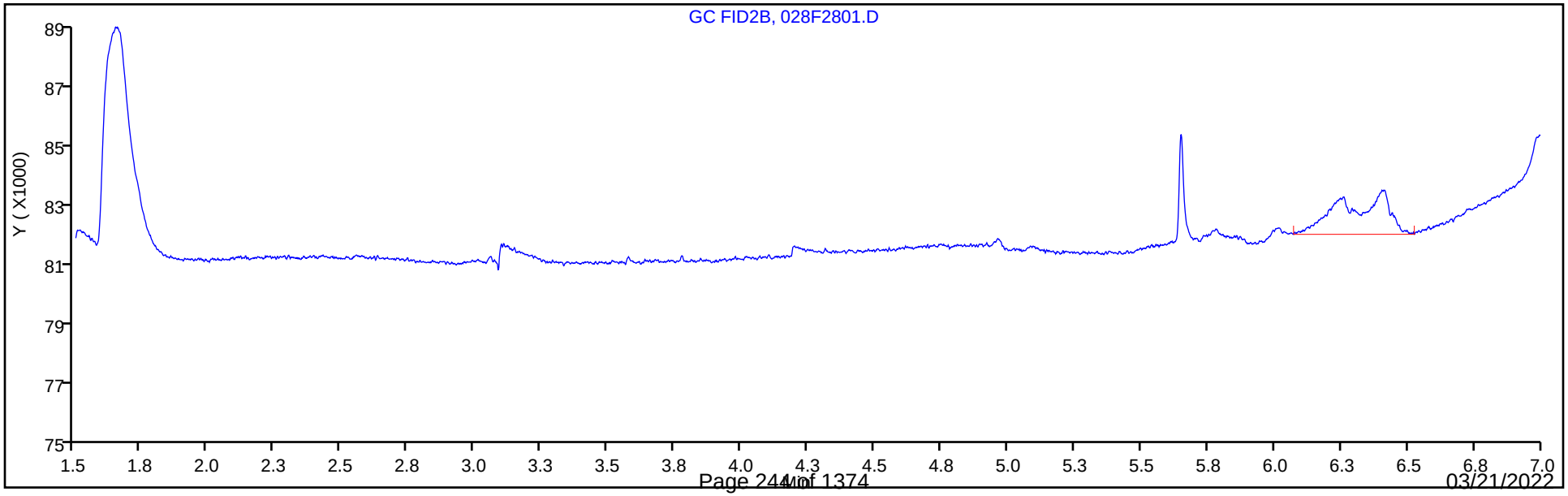
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\028F2801.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 20:16:58 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-1 | Lab Sample ID: | 280-159234-1 | Worklist Smp#: | 28 |
| Client ID: | MW020-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW021-8 | Lab Sample ID: 280-159234-2

Matrix: Water | Lab File ID: 029F2901.D

Analysis Method: RSK-175 | Date Collected: 02/28/2022 15:00

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 20:29

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.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.12 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\029F2901.D
Lims ID: 280-159234-R-2
Client ID: MW021-8
Sample Type: Client
Inject. Date: 03-Mar-2022 20:29:56 ALS Bottle#: 29 Worklist Smp#: 29
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-R-2
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:02:07

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.255 | 1.262 | -0.007 | 4789936 | 134.3 | |
| 2 | 1.657 | 1.669 | -0.012 | 4358877 | 119.0 | |
| | | | | | RPD = 12.10 | |
| 3 Ethane | | | | | | |
| 1 | | 1.524 | | | ND | |
| 2 | | 3.022 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.809 | | | ND | |
| 2 | | 2.604 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.587 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.102 | | | ND | |
| 2 | | 2.751 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.449 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.350 | | | ND | |
| 2 | | 6.269 | | | | |

# QC Flag Legend

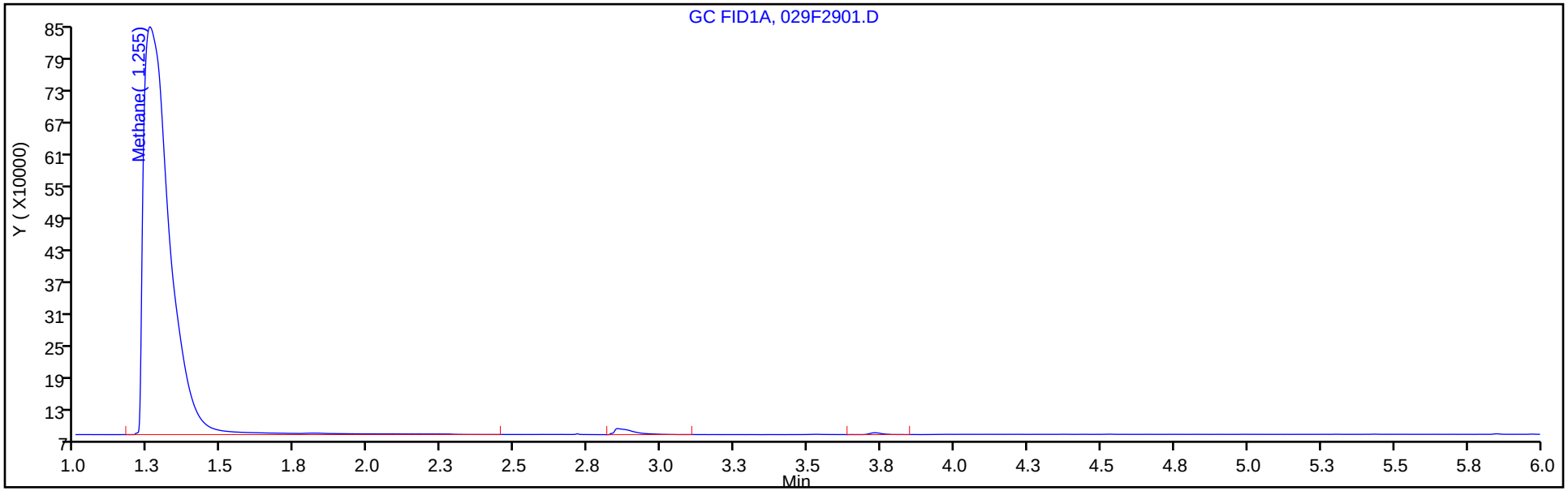
Processing Flags

Report Date: 07-Mar-2022 13:05:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

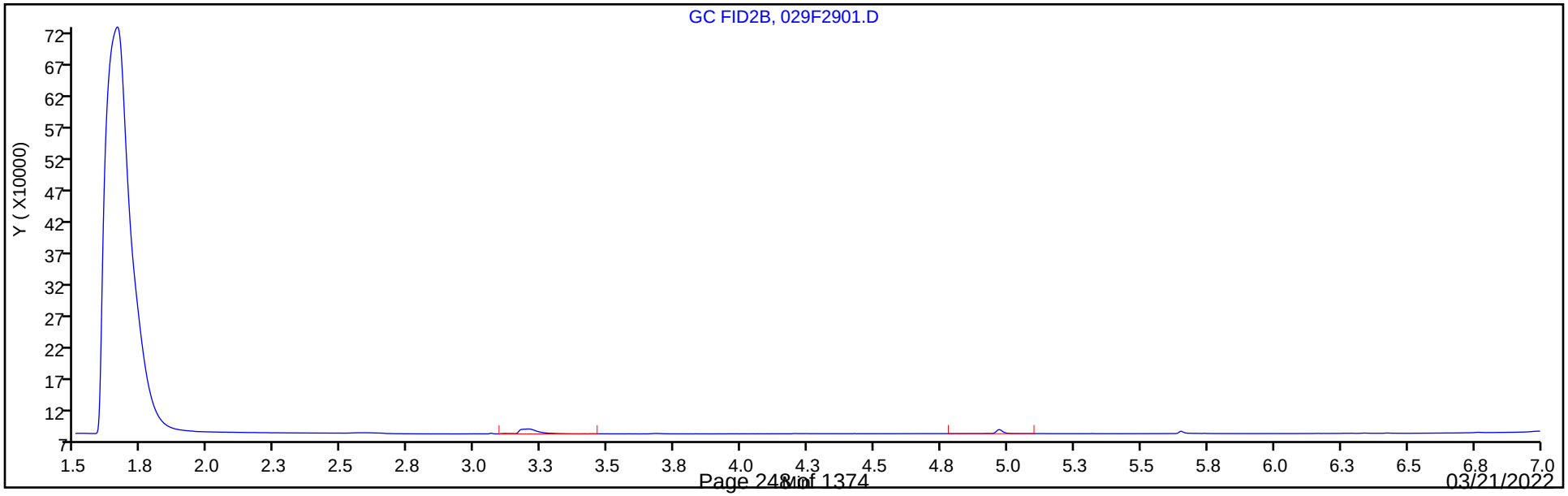
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\029F2901.D | | | | |
| Injection Date: | 03-Mar-2022 20:29:56 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-R-2 | Lab Sample ID: | 280-159234-2 | Worklist Smp#: | 29 |
| Client ID: | MW021-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW022-8 | Lab Sample ID: 280-159234-3

Matrix: Water | Lab File ID: 030F3001.D

Analysis Method: RSK-175 | Date Collected: 02/28/2022 15:55

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 20:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.20 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\030F3001.D
Lims ID: 280-159234-R-3
Client ID: MW022-8
Sample Type: Client
Inject. Date: 03-Mar-2022 20:43:08 ALS Bottle#: 30 Worklist Smp#: 30
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-R-3
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:02:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.255 | 1.262 | -0.007 | 8080888 | 227.9 | |
| 2 | 1.659 | 1.669 | -0.010 | 7365414 | 202.3 | |
| | | | | | RPD = 11.91 | |
| 3 Ethane | | | | | | |
| 1 | | 1.524 | | | ND | |
| 2 | | 3.022 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.809 | | | ND | |
| 2 | | 2.604 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.587 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.102 | | | ND | |
| 2 | | 2.751 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.449 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.350 | | | ND | |
| 2 | | 6.269 | | | | |

# QC Flag Legend

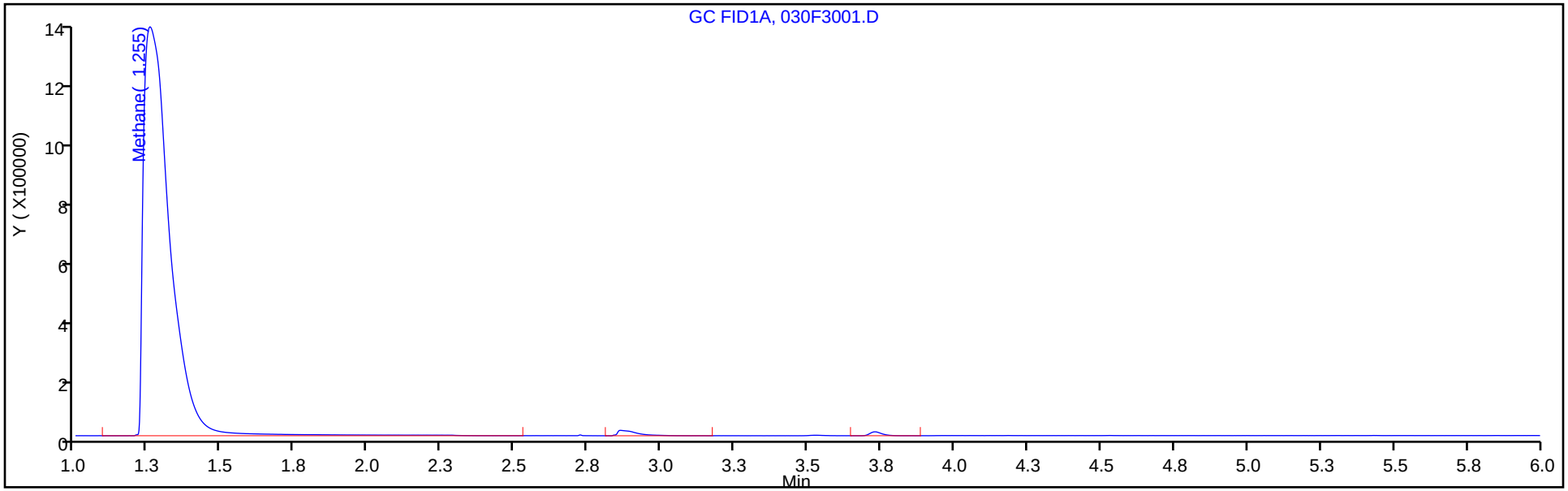
Processing Flags

Report Date: 07-Mar-2022 13:05:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

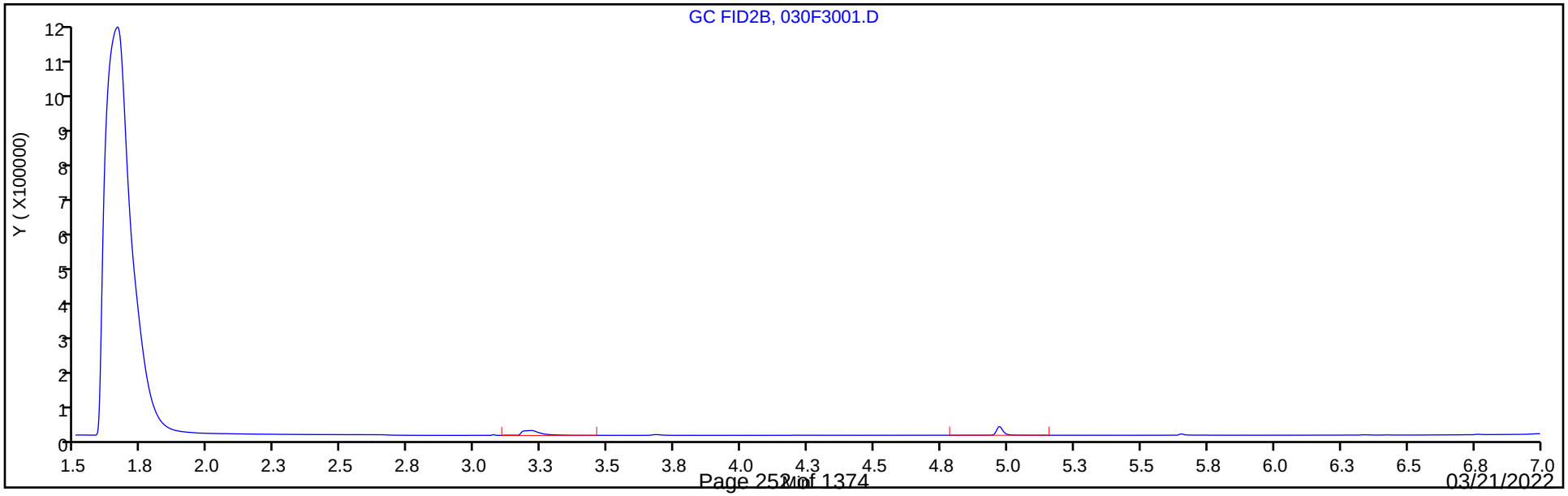
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\030F3001.D | | | | |
| Injection Date: | 03-Mar-2022 20:43:08 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-R-3 | Lab Sample ID: | 280-159234-3 | Worklist Smp#: | 30 |
| Client ID: | MW022-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0079-8 | Lab Sample ID: 280-159234-4

Matrix: Water | Lab File ID: 010F1001.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 09:10

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\010F1001.D
Lims ID: 280-159234-R-4
Client ID: G0079-8
Sample Type: Client
Inject. Date: 04-Mar-2022 13:47:39 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-R-4
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:14:17

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | 7 |
| 1 | | 1.260 | | | ND | |
| 2 | | 1.667 | | | | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

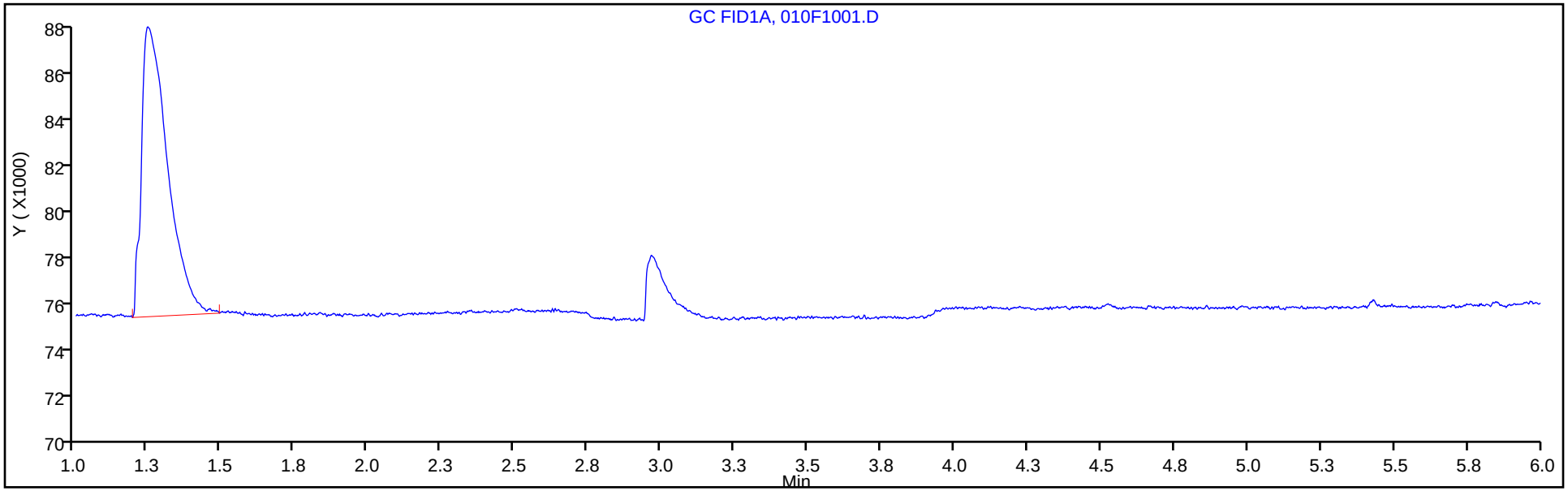
Report Date: 07-Mar-2022 14:00:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

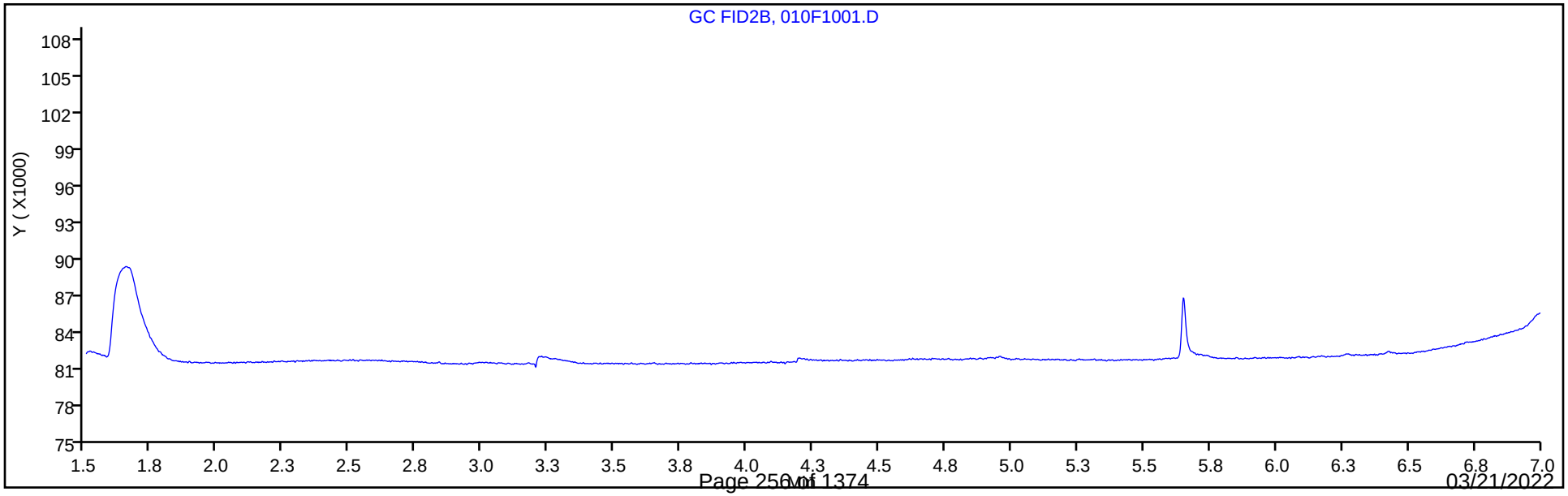
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\010F1001.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 13:47:39 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-R-4 | Lab Sample ID: | 280-159234-4 | Worklist Smp#: | 10 |
| Client ID: | G0079-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0075-8 | Lab Sample ID: 280-159234-5

Matrix: Water | Lab File ID: 011F1101.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 10:20

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 14:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\011F1101.D
Lims ID: 280-159234-Q-5
Client ID: G0075-8
Sample Type: Client
Inject. Date: 04-Mar-2022 14:00:44 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-Q-5
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:18:39

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | 7 |
| 1 | | 1.260 | | | ND | |
| 2 | | 1.667 | | | | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

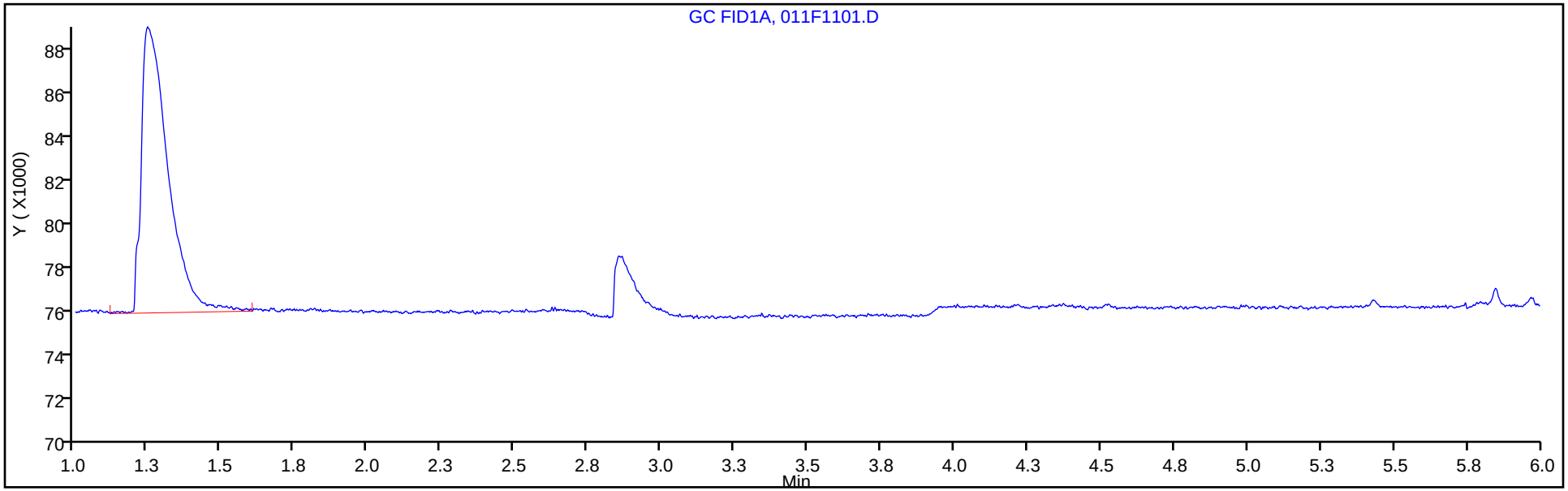
Report Date: 07-Mar-2022 14:00:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

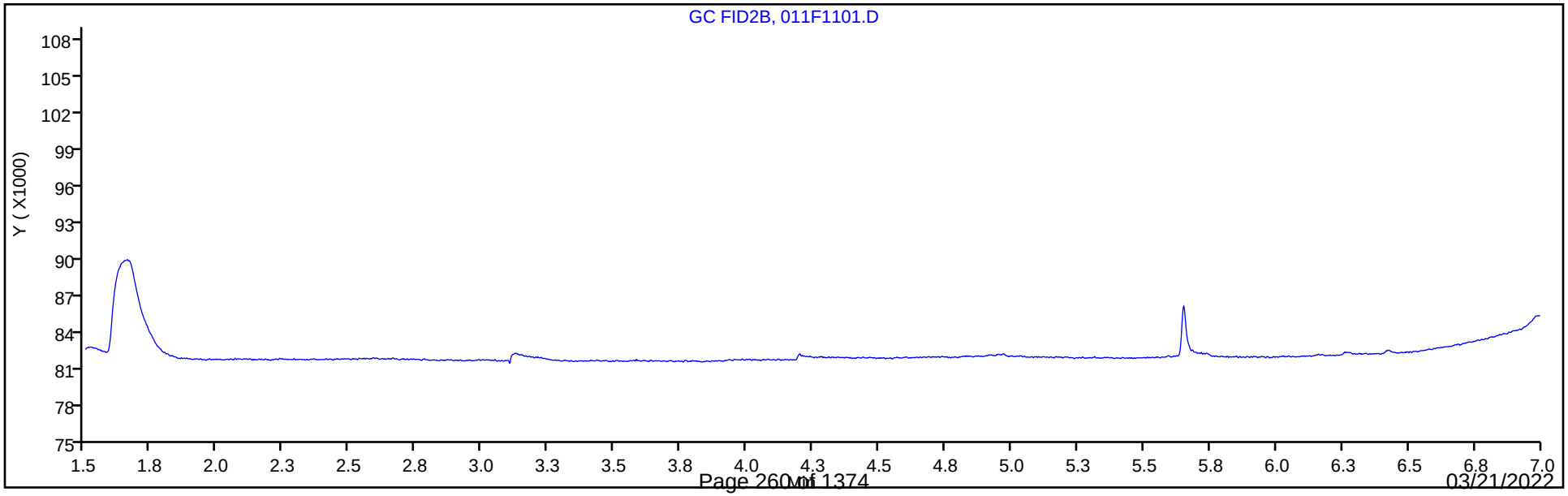
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\011F1101.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 14:00:44 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-5 | Lab Sample ID: | 280-159234-5 | Worklist Smp#: | 11 |
| Client ID: | G0075-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0076-8 | Lab Sample ID: 280-159234-6

Matrix: Water | Lab File ID: 012F1201.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 11:30

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 14:13

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.45 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\012F1201.D | | | | |
| Lims ID: | 280-159234-Q-6 | | | | |
| Client ID: | G0076-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Mar-2022 14:13:42 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-Q-6 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 07-Mar-2022 14:00:52 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1617 | | | | |

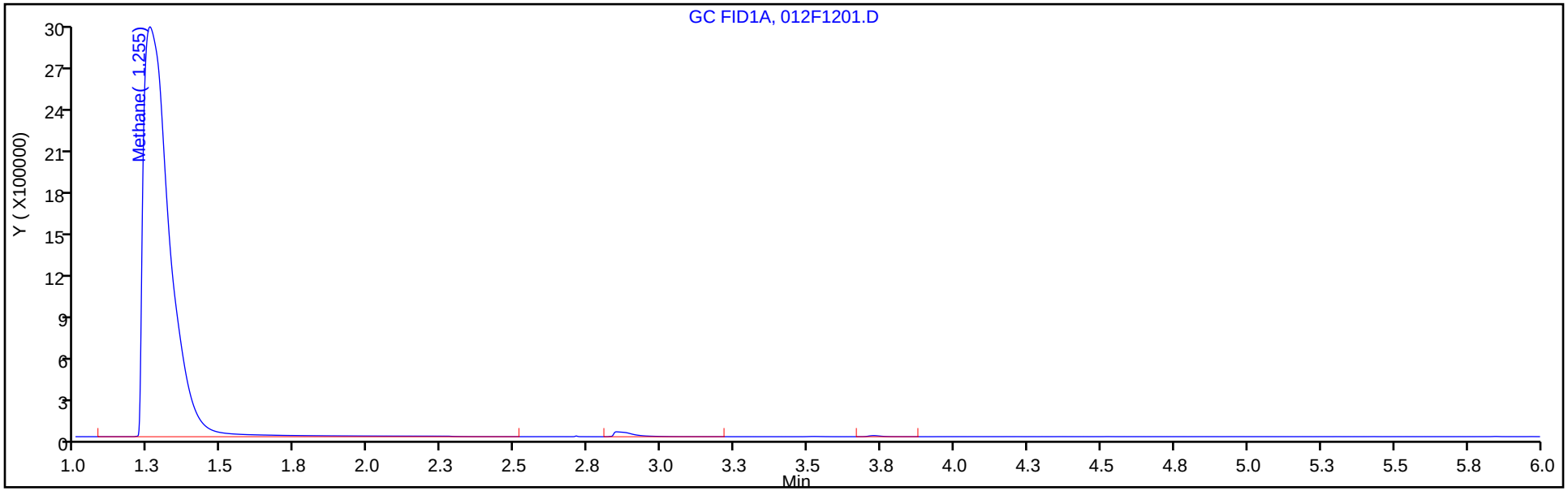
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.255 | 1.260 | -0.005 | 18015086 | 510.4 | |
| 2 | 1.657 | 1.667 | -0.010 | 16369562 | 451.7 | |
| | | | | | RPD = 12.20 | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

Report Date: 07-Mar-2022 14:00:58 Chrom Revision: 2.3 16-Feb-2022 17:52:00

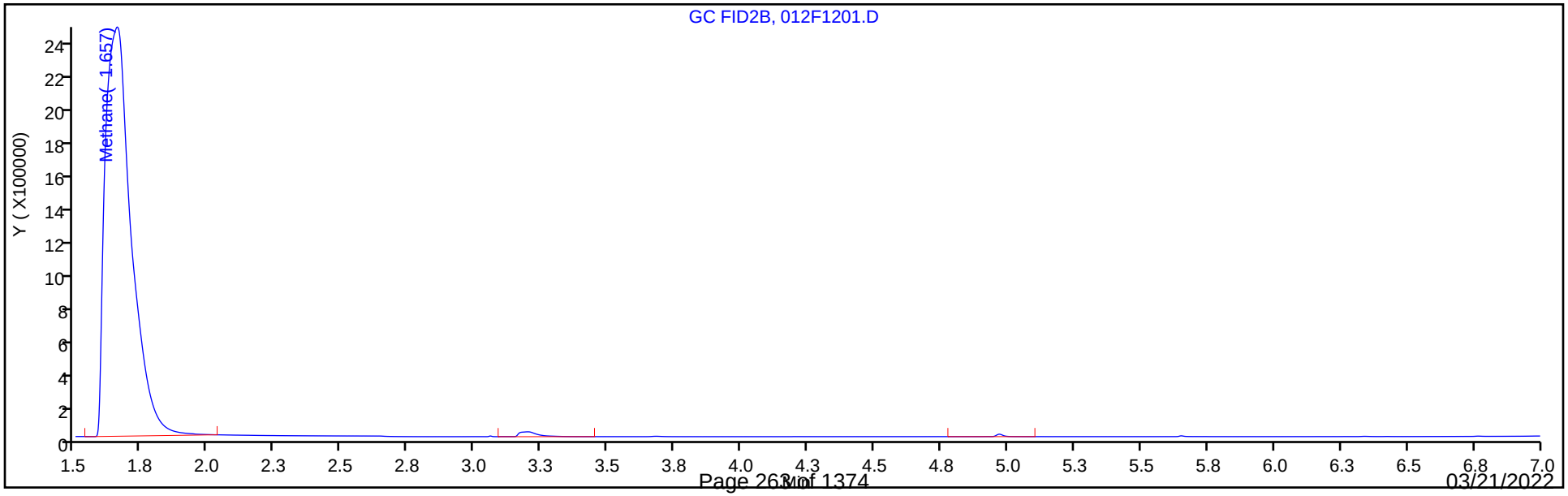
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\012F1201.D | | | | |
| Injection Date: | 04-Mar-2022 14:13:42 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-6 | Lab Sample ID: | 280-159234-6 | Worklist Smp#: | 12 |
| Client ID: | G0076-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 | Lab Sample ID: 280-159234-7

Matrix: Water | Lab File ID: 013F1301.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 12:35

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 14:26

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.00091 | J | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\013F1301.D | | | | |
| Lims ID: | 280-159234-Q-7 | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Mar-2022 14:26:46 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-Q-7 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 07-Mar-2022 14:00:52 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1617 | | | | |

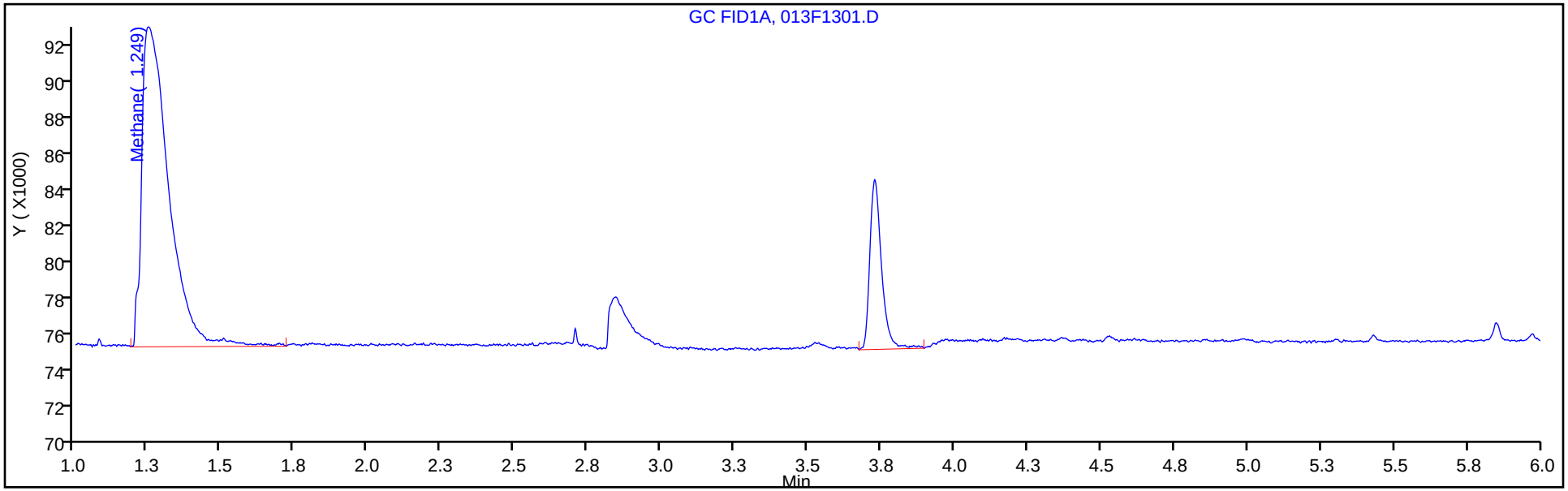
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.249 | 1.260 | -0.011 | 114685 | 1.40 | |
| 2 | 1.656 | 1.667 | -0.011 | 95343 | 0.9060 | |
| | | | | | RPD = 43.05 | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

Report Date: 07-Mar-2022 14:00:58 Chrom Revision: 2.3 16-Feb-2022 17:52:00

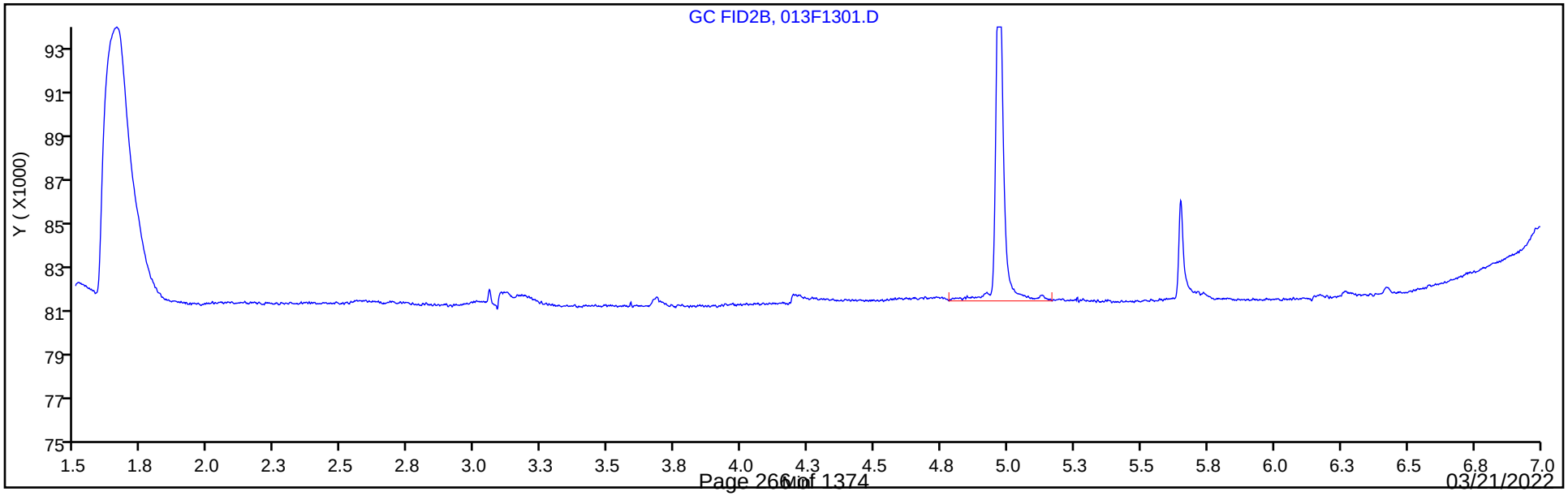
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\013F1301.D | | | | |
| Injection Date: | 04-Mar-2022 14:26:46 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-7 | Lab Sample ID: | 280-159234-7 | Worklist Smp#: | 13 |
| Client ID: | G0070-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0080-8 | Lab Sample ID: 280-159234-8

Matrix: Water | Lab File ID: 017F1701.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 09:30

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 15:18

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0078 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\017F1701.D
Lims ID: 280-159234-P-8
Client ID: G0080-8
Sample Type: Client
Inject. Date: 04-Mar-2022 15:18:28 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-P-8
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

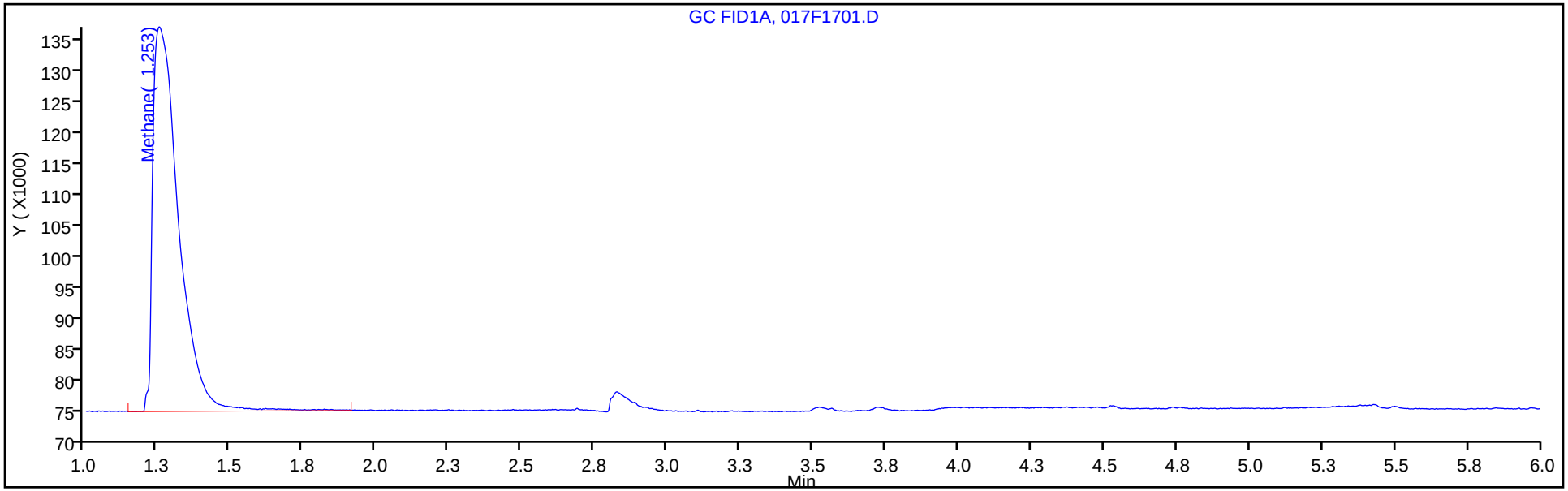
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 388306 | 9.18 | |
| 2 | 1.656 | 1.667 | -0.011 | 344949 | 7.82 | |
| | | | | | RPD = 16.03 | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

Report Date: 07-Mar-2022 14:01:01 Chrom Revision: 2.3 16-Feb-2022 17:52:00

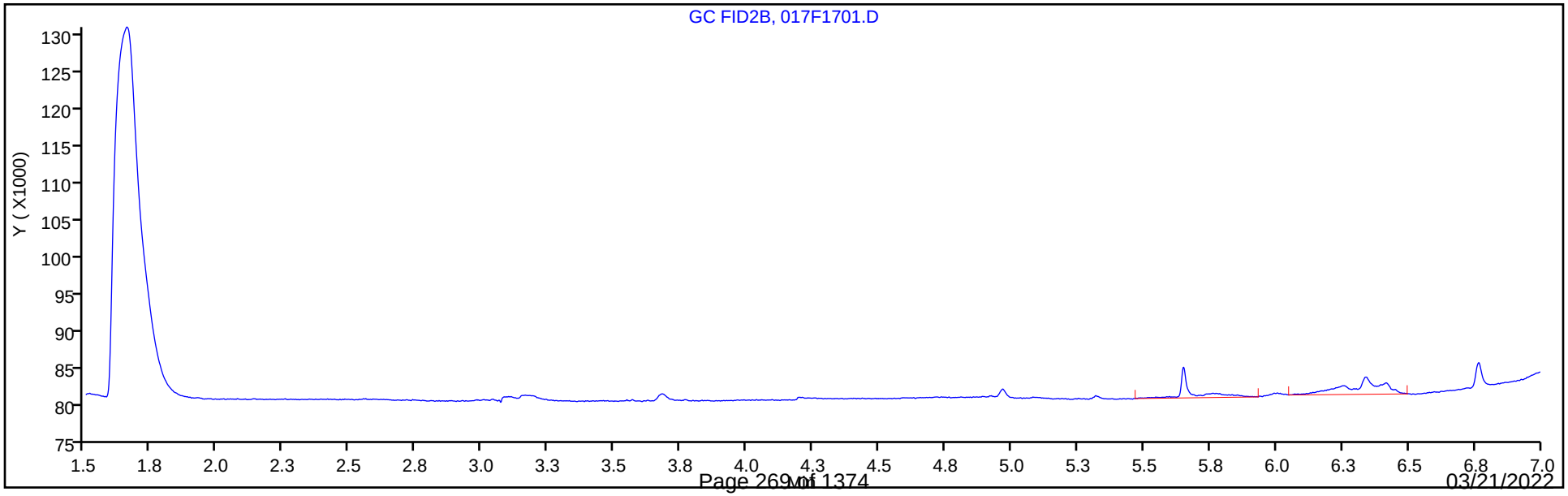
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\017F1701.D | | | | |
| Injection Date: | 04-Mar-2022 15:18:28 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-P-8 | Lab Sample ID: | 280-159234-8 | Worklist Smp#: | 17 |
| Client ID: | G0080-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0087-8 | Lab Sample ID: 280-159234-9

Matrix: Water | Lab File ID: 018F1801.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 10:40

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 15:31

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\018F1801.D | | | | |
| Lims ID: | 280-159234-R-9 | | | | |
| Client ID: | G0087-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Mar-2022 15:31:23 | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-R-9 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 07-Mar-2022 14:00:52 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1617 | | | | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | 7 |
| 1 | | 1.260 | | | ND | |
| 2 | | 1.667 | | | | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

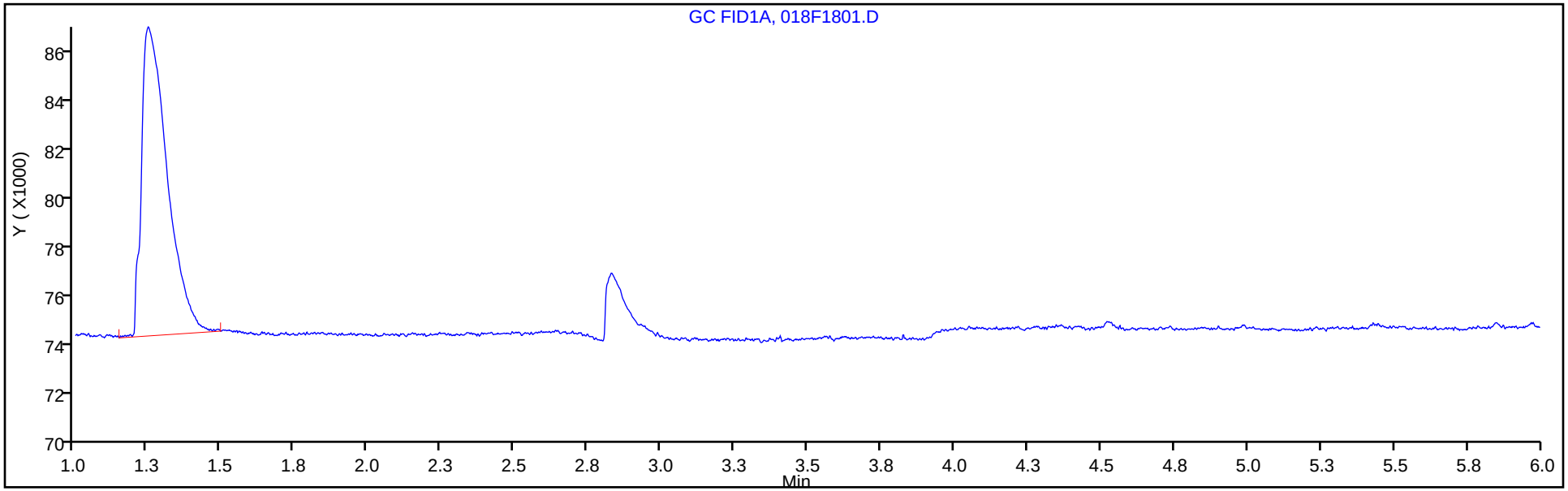
Report Date: 07-Mar-2022 14:01:01 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

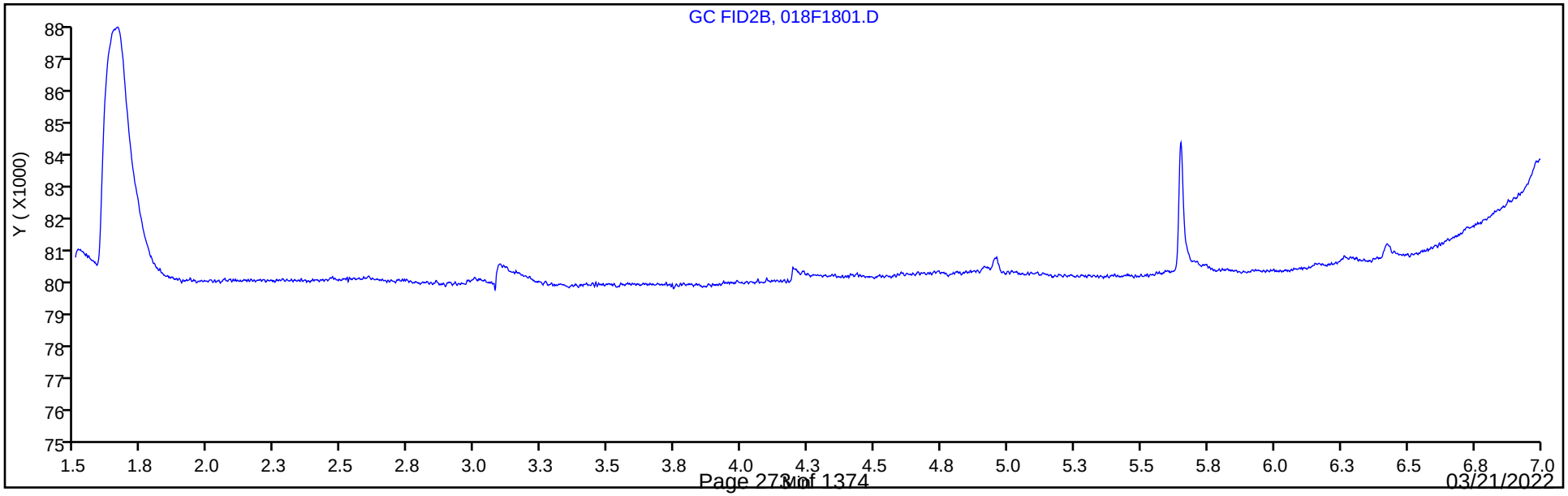
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\018F1801.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 15:31:23 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-R-9 | Lab Sample ID: | 280-159234-9 | Worklist Smp#: | 18 |
| Client ID: | G0087-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0086-8 | Lab Sample ID: 280-159234-10

Matrix: Water | Lab File ID: 020F2001.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 11:50

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 15:57

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.018 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\020F2001.D | | | | |
| Lims ID: | 280-159234-Q-10 | | | | |
| Client ID: | G0086-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Mar-2022 15:57:17 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-Q-10 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 07-Mar-2022 14:01:02 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1617 | | | | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 5.458 | | | | |
| 2 Methane | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 788605 | 20.6 | |
| 2 | 1.659 | 1.667 | -0.008 | 718285 | 18.2 | |
| | | | | | RPD = 12.41 | |
| 3 Ethane | | | | | | |
| 1 | | 1.522 | | | ND | |
| 2 | | 3.020 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.810 | | | ND | |
| 2 | | 2.602 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.590 | | | ND | |
| 2 | | 4.927 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.110 | | | ND | |
| 2 | | 2.749 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.453 | | | ND | |
| 2 | | 6.427 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.355 | | | ND | |
| 2 | | 6.269 | | | | |

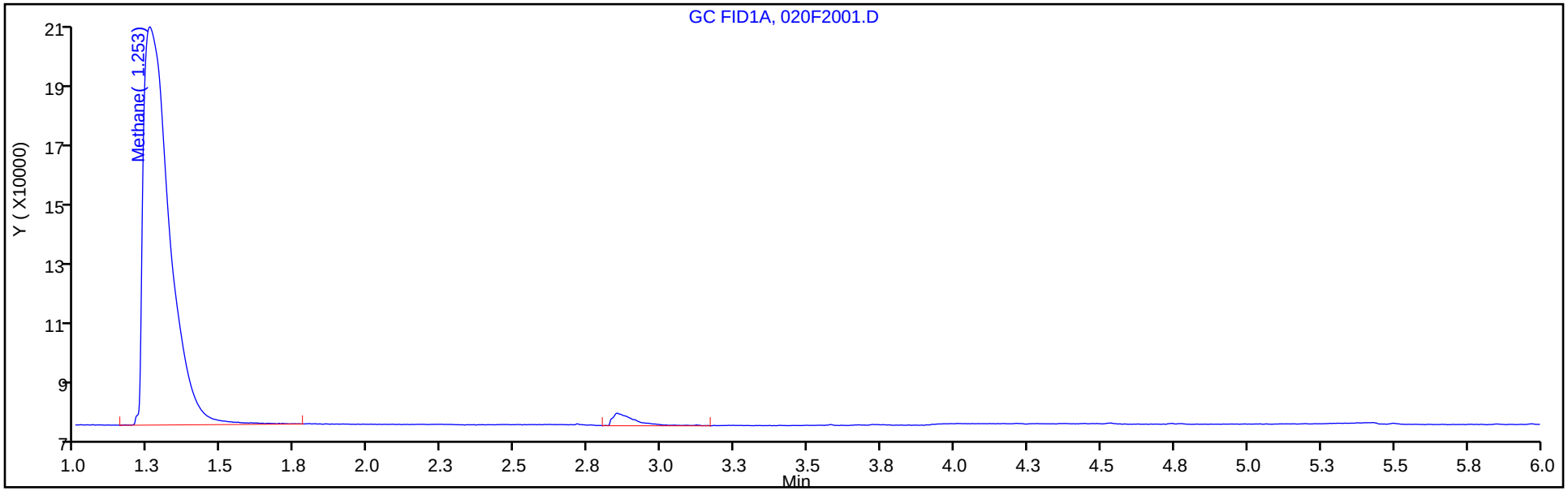
Report Date: 07-Mar-2022 14:01:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

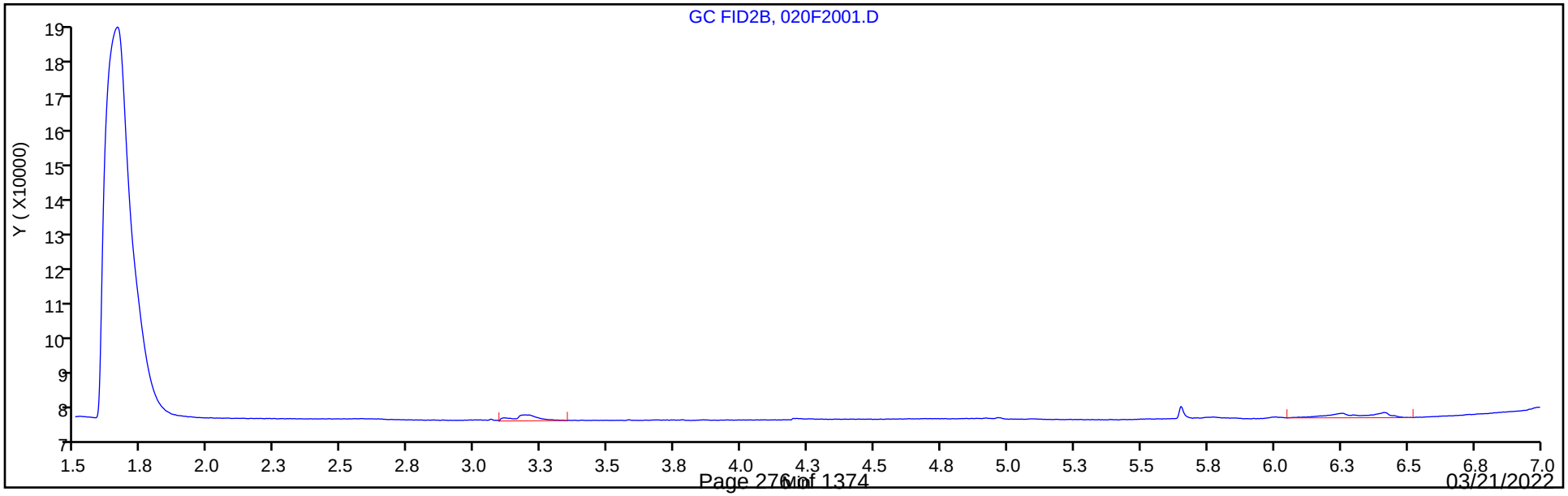
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\020F2001.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 15:57:17 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-10 | Lab Sample ID: | 280-159234-10 | Worklist Smp#: | 20 |
| Client ID: | G0086-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 1.292 | 1.293 | 1.293 | 1.295 | 1.295 | 1.294 | 1.293 | 1.292 | 1.288 | | 1.259 - 1.339 | 1.293 |
| Ethane | 1.559 | 1.562 | 1.561 | 1.561 | 1.560 | 1.561 | | | | | 1.506 - 1.606 | 1.561 |
| Ethylene | 1.859 | 1.867 | 1.870 | 1.870 | 1.873 | 1.873 | | | | | 1.794 - 1.894 | 1.869 |
| Acetylene | 4.184 | 4.213 | 4.226 | 4.230 | 4.230 | 4.228 | | | | | 4.150 - 4.310 | 4.219 |

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

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 113753<br>36593<br>34286 | 77207<br>30893 | 37613<br>37193 | 37343<br>37763 | Lin2 | 65341.4749 | 35170.8362 | | | | | | | 0.9950 | | 0.9900 |
| Ethane | 30155<br>35527 | 35278<br>30441 | 32231 | 35816 | Ave | | 33241.2722 | | | | 7.9 | | 20.0 | | | |
| Ethylene | 33189<br>37346 | 37318<br>31937 | 33977 | 37589 | Ave | | 35225.9675 | | | | 7.1 | | 20.0 | | | |
| Acetylene | 26445<br>29412 | 29909<br>25729 | 27524 | 29815 | Ave | | 28139.0195 | | | | 6.5 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 | 93424<br>8118988 | 126818<br>60484705 | 494257<br>245647963 | 2453548<br>669092603 | 4808571 | 0.821<br>263 | 1.64<br>1626 | 13.1<br>6505 | 65.7<br>19515 | 131 |
| Ethane | Ave | 46427<br>14997572 | 108631 | 793971 | 4411499 | 8751636 | 1.54<br>493 | 3.08 | 24.6 | 123 | 246 |
| Ethylene | Ave | 47667<br>14678124 | 107197 | 780792 | 4318968 | 8582166 | 1.44<br>460 | 2.87 | 23.0 | 115 | 230 |
| Acetylene | Ave | 35261<br>10977943 | 79761 | 587204 | 3180347 | 6274725 | 1.33<br>427 | 2.67 | 21.3 | 107 | 213 |

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | a |
| 1 | 1.292 | 1.299 | -0.007 | 93424 | 0.8213 | 0.7985 | a |
| 2 | 1.689 | 1.686 | 0.003 | 91227 | 0.8213 | 0.7920 | a |
| | | | | | | RPD = 0.81 | |
| 3 Ethane | | | | | | | a |
| 1 | 1.559 | 1.556 | 0.003 | 46427 | 1.54 | 1.40 | a |
| 2 | 3.032 | 3.028 | 0.004 | 46984 | 1.54 | 1.41 | a |
| | | | | | | RPD = 0.77 | |
| 4 Ethylene | | | | | | | a |
| 1 | 1.859 | 1.844 | 0.015 | 47667 | 1.44 | 1.35 | a |
| 2 | 2.612 | 2.609 | 0.003 | 41226 | 1.44 | 1.33 | a |
| | | | | | | RPD = 1.67 | |
| 5 Propane | | | | | | | a |
| 1 | 2.682 | 2.721 | -0.039 | 76526 | 2.26 | 2.13 | a |
| 2 | 4.937 | 4.929 | 0.008 | 73050 | 2.26 | 2.09 | a |
| | | | | | | RPD = 1.83 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.184 | 4.230 | -0.046 | 35261 | 1.33 | 1.25 | a |
| 2 | 2.759 | 2.746 | 0.013 | 41503 | 1.33 | 1.21 | a |
| | | | | | | RPD = 3.15 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.555 | 4.528 | 0.027 | 101912 | 2.98 | 2.80 | a |
| 2 | 6.435 | 6.426 | 0.009 | 95155 | 2.98 | 2.71 | M |
| | | | | | | RPD = 3.27 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.437 | 5.403 | 0.034 | 92868 | 2.87 | 2.57 | M |
| 2 | 6.277 | 6.274 | 0.003 | 91569 | 2.87 | 2.76 | a |
| | | | | | | RPD = 7.02 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

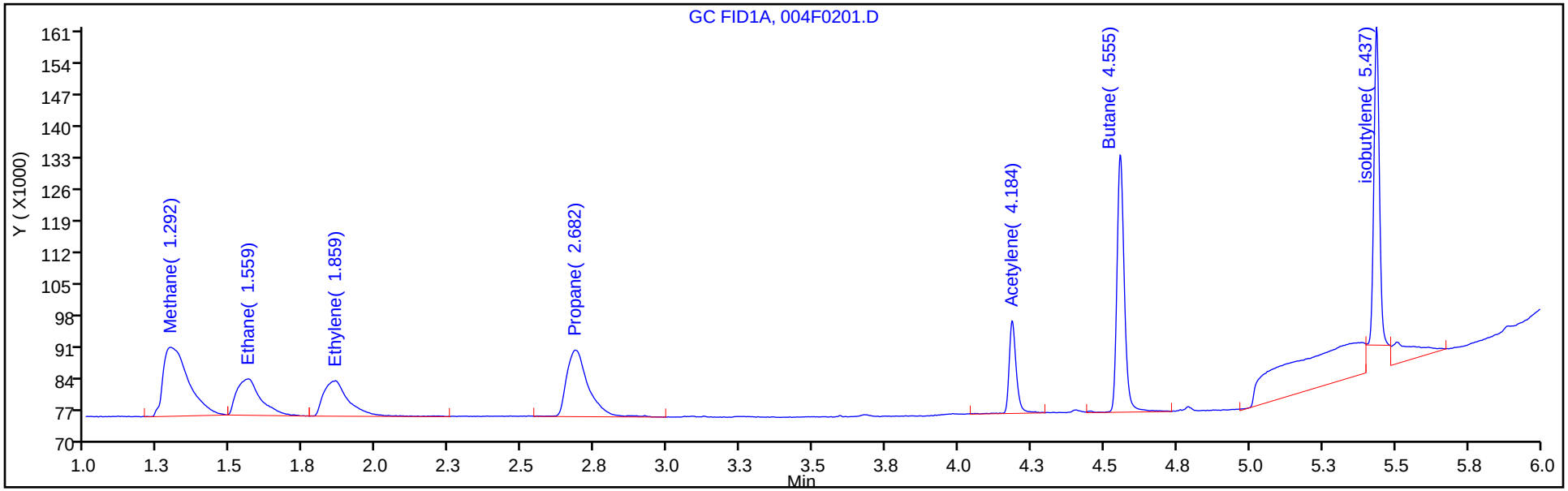
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

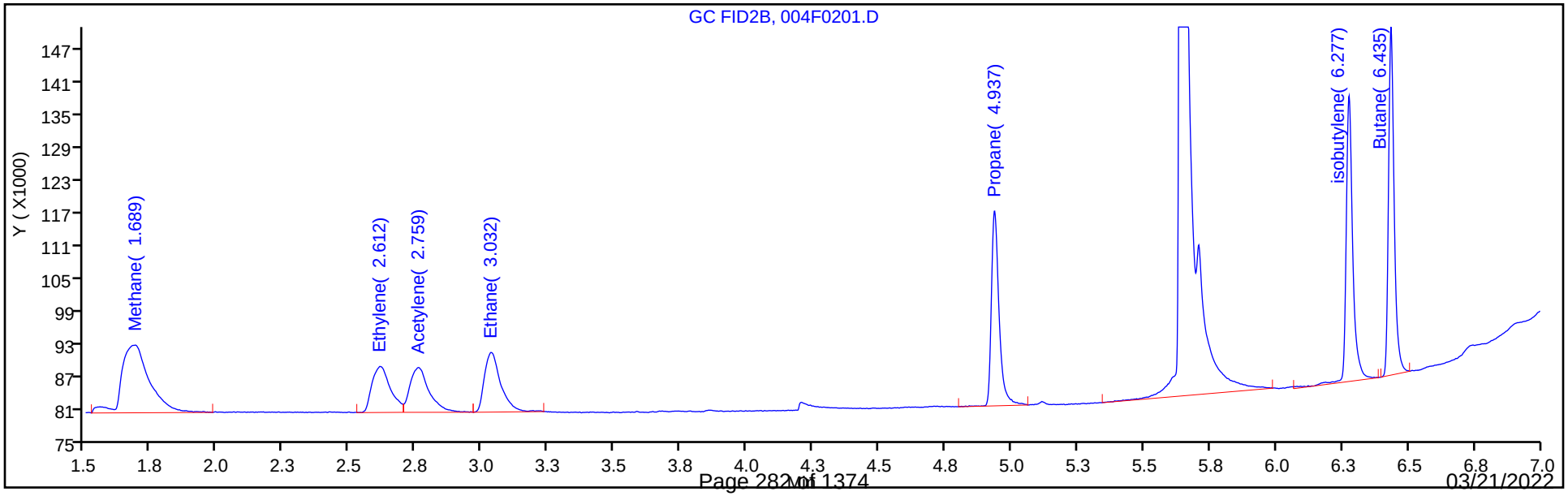
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

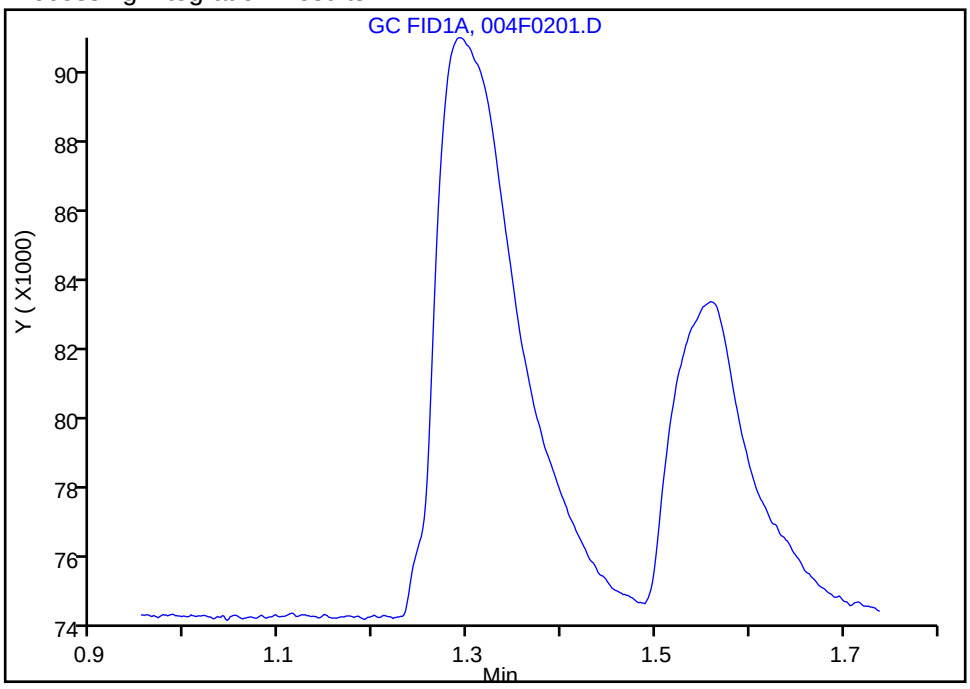
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |
| Column: | Rt-Alumina BOND/KCl ( 0.53 mm) | Detector | GC FID1A | | |

## 2 Methane, CAS: 74-82-8

Signal: 1

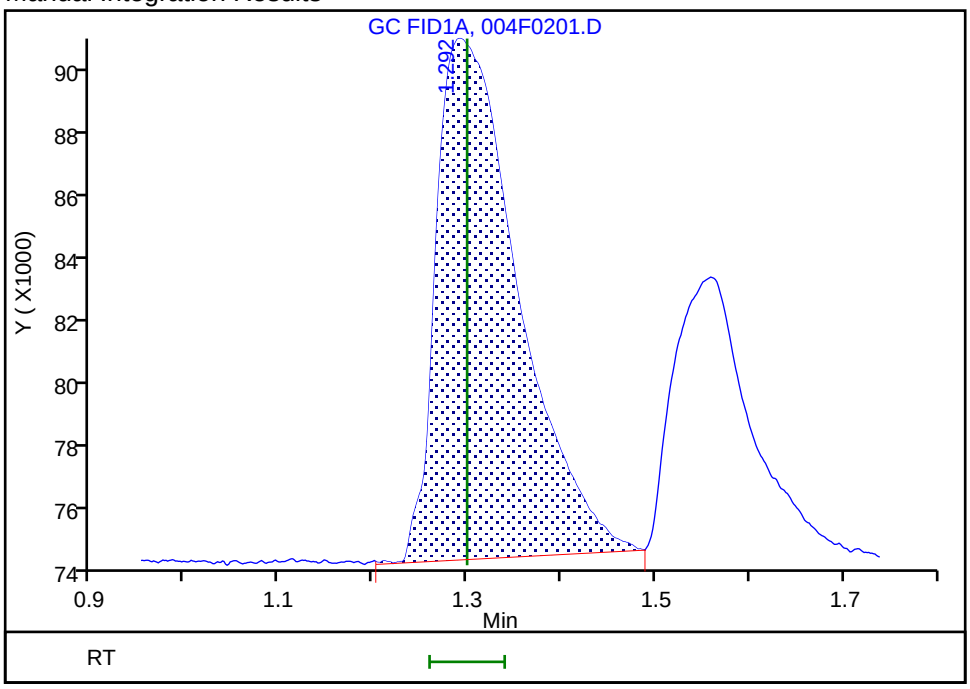
Not Detected
Expected RT: 1.30

Processing Integration Results




Manual Integration Results

RT: 1.29
Area: 93424
Amount: 0.798461
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:22
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

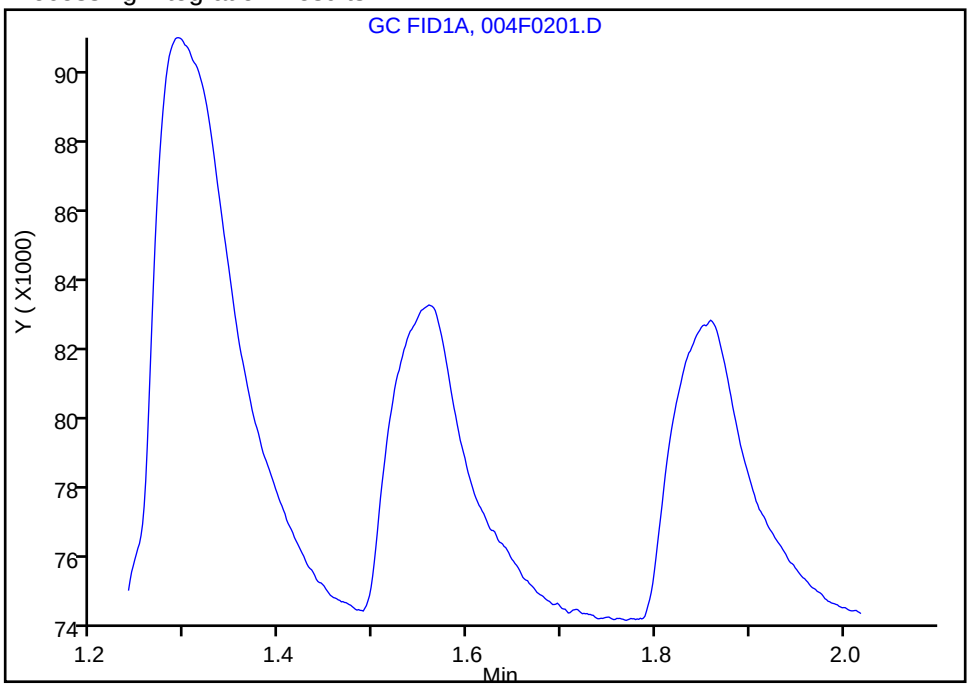
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 3 Ethane, CAS: 74-84-0

Signal: 1

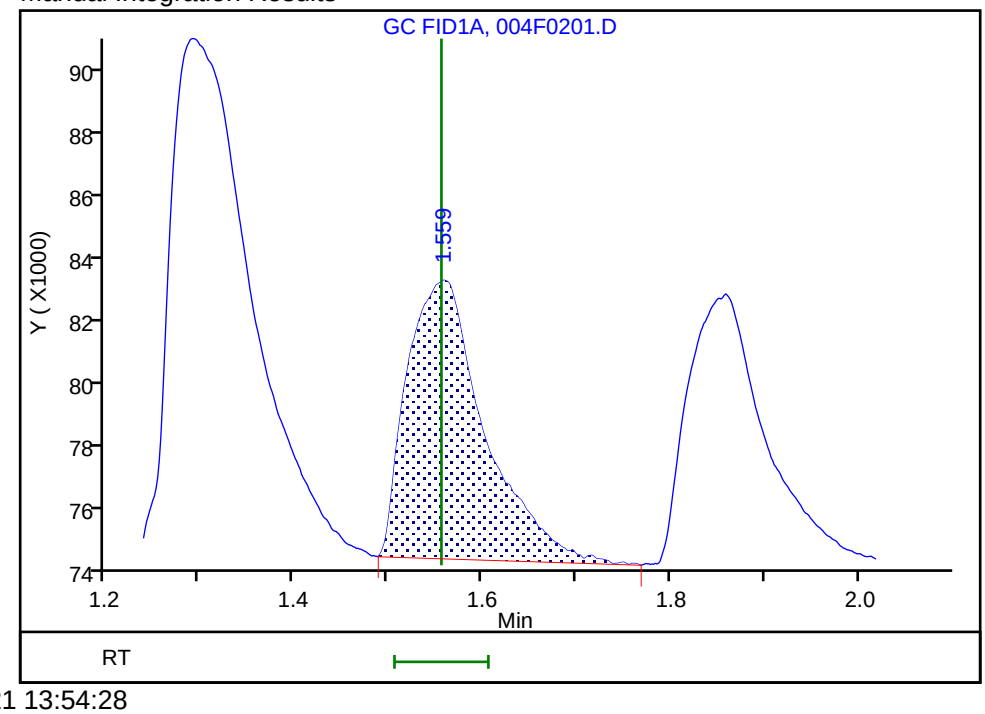
Not Detected
Expected RT: 1.56

Processing Integration Results




Manual Integration Results

RT: 1.56
Area: 46427
Amount: 1.396667
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:28
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

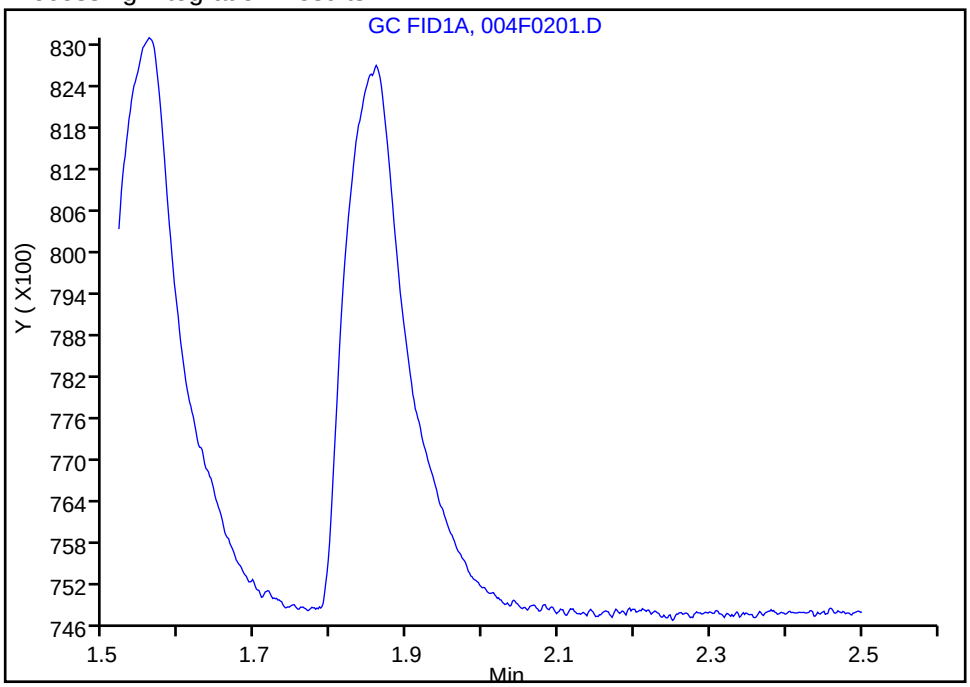
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist Smp#: | 2 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |
| Column: | Rt-Alumina BOND/KCl ( 0.53 mm) | Detector | GC FID1A | | |

## 4 Ethylene, CAS: 74-85-1

Signal: 1

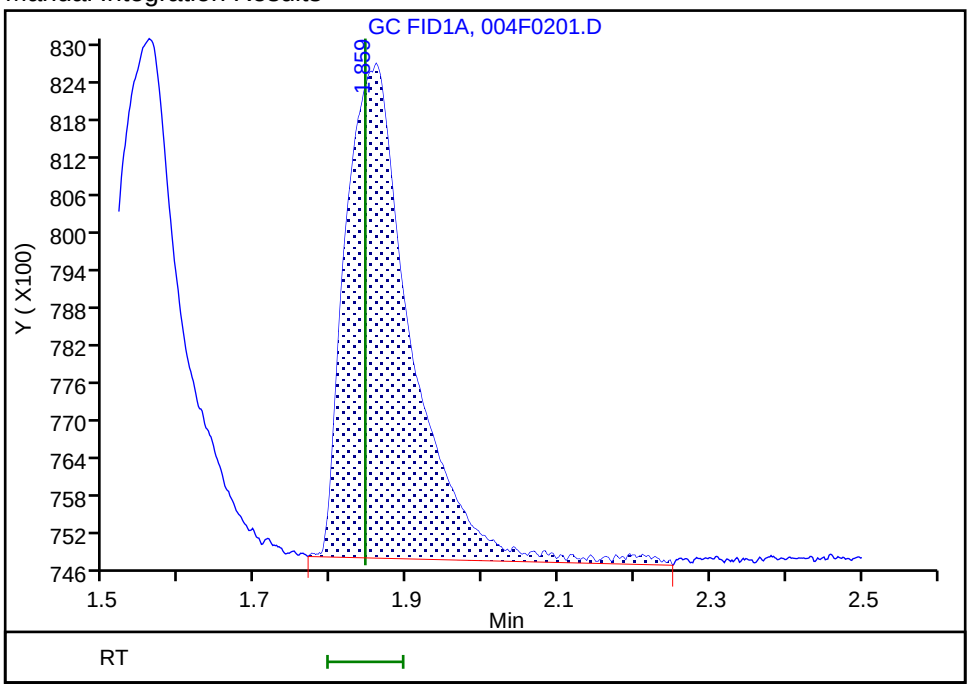
Not Detected
Expected RT: 1.84

Processing Integration Results




Manual Integration Results

RT: 1.86
Area: 47667
Amount: 1.353178
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:47
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

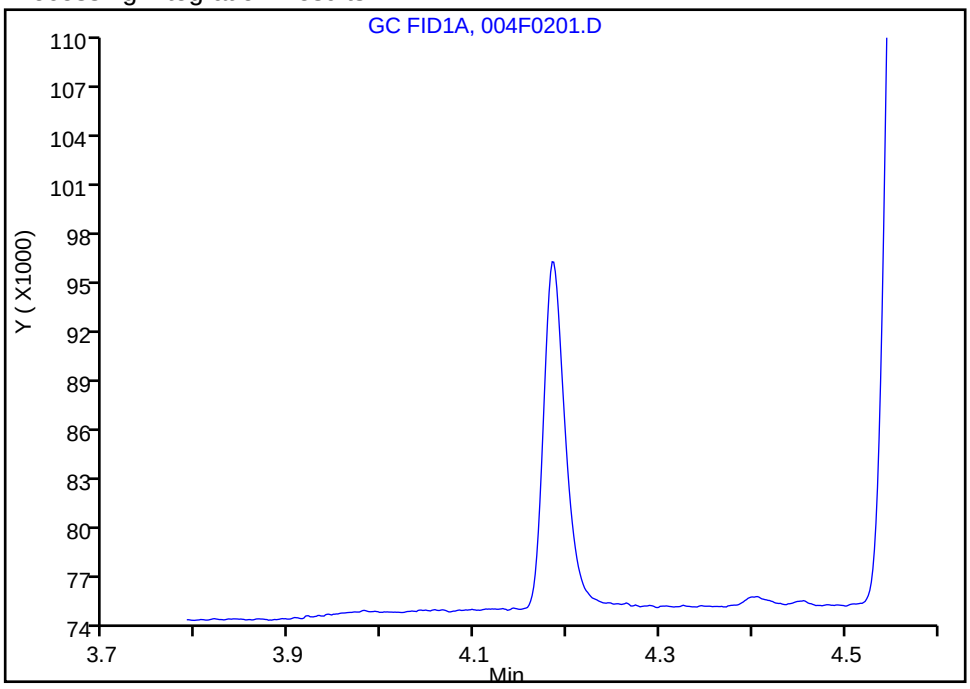
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

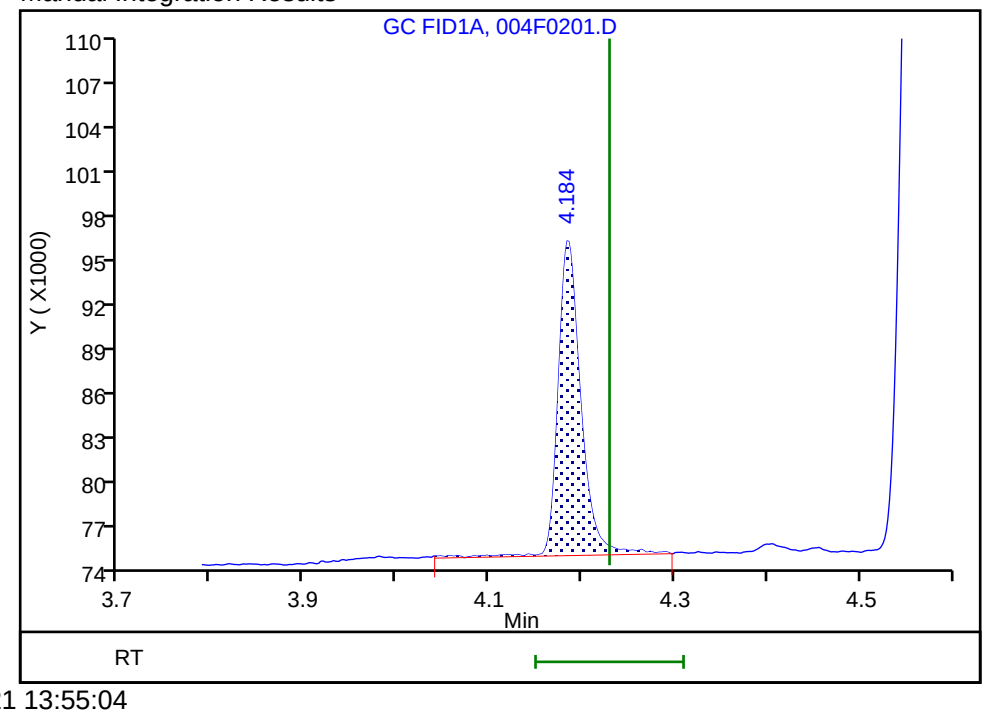
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.18
Area: 35261
Amount: 1.253100
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:55:04
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.299 | -0.006 | 126818 | 1.64 | 1.75 | |
| 2 | 1.686 | 1.686 | 0.000 | 126529 | 1.64 | 1.77 | |
| | | | | | | RPD = 1.24 | |
| 3 Ethane | | | | | | | |
| 1 | 1.562 | 1.556 | 0.006 | 108631 | 3.08 | 3.27 | |
| 2 | 3.031 | 3.028 | 0.003 | 107446 | 3.08 | 3.22 | |
| | | | | | | RPD = 1.52 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.867 | 1.844 | 0.023 | 107197 | 2.87 | 3.04 | |
| 2 | 2.613 | 2.609 | 0.004 | 95159 | 2.87 | 3.07 | |
| | | | | | | RPD = 0.93 | |
| 5 Propane | | | | | | | |
| 1 | 2.700 | 2.721 | -0.021 | 174390 | 4.52 | 4.84 | |
| 2 | 4.935 | 4.929 | 0.006 | 170185 | 4.52 | 4.86 | |
| | | | | | | RPD = 0.37 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.213 | 4.230 | -0.017 | 79761 | 2.67 | 2.83 | |
| 2 | 2.756 | 2.746 | 0.010 | 94797 | 2.67 | 2.77 | |
| | | | | | | RPD = 2.17 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.575 | 4.528 | 0.047 | 232737 | 5.95 | 6.39 | a |
| 2 | 6.435 | 6.426 | 0.009 | 221865 | 5.95 | 6.31 | M |
| | | | | | | RPD = 1.20 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.457 | 5.403 | 0.054 | 232885 | 5.75 | 6.45 | |
| 2 | 6.276 | 6.274 | 0.002 | 200266 | 5.75 | 6.03 | M |
| | | | | | | RPD = 6.65 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

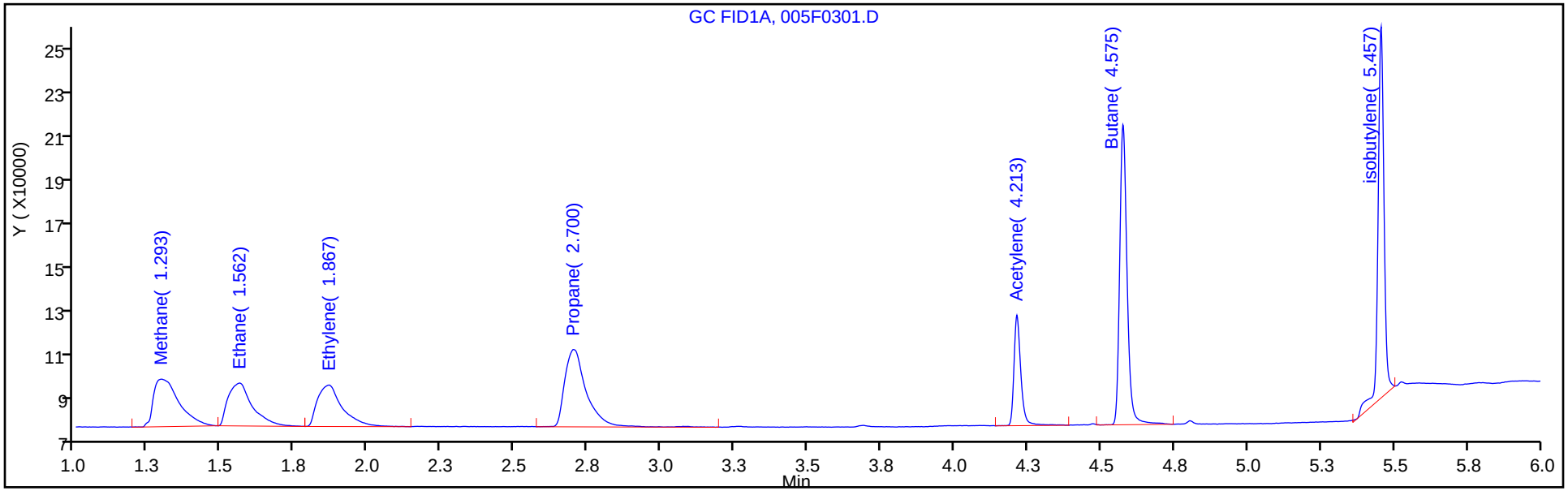
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

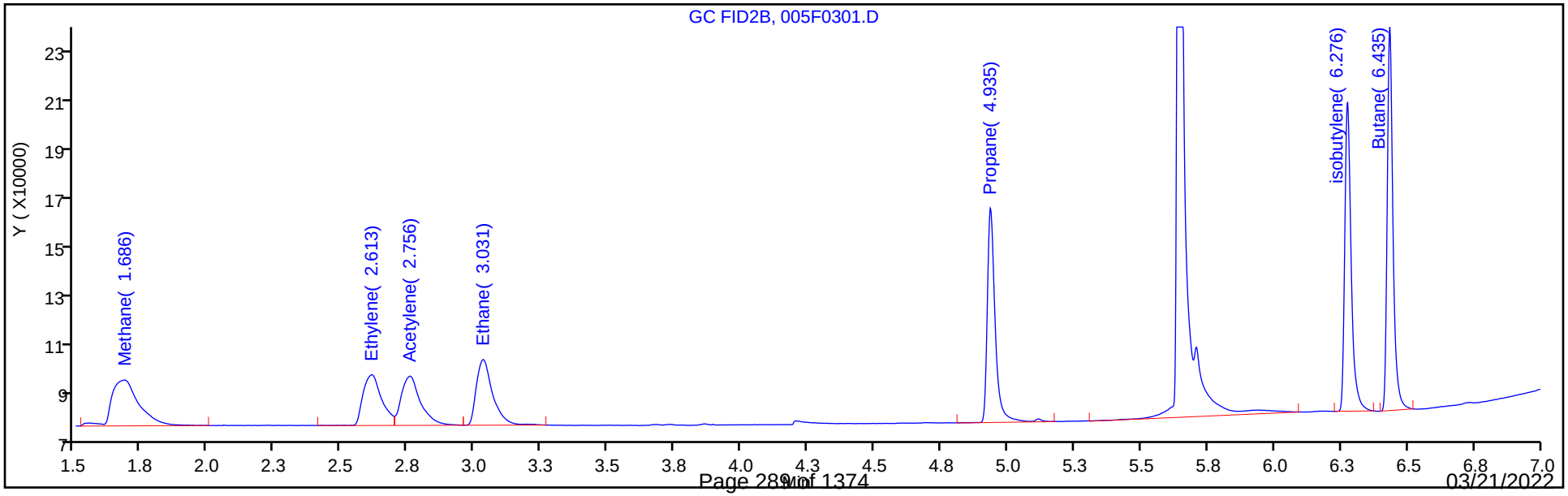
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:41:52 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.299 | -0.006 | 494257 | 13.1 | 12.2 | |
| 2 | 1.684 | 1.686 | -0.002 | 509129 | 13.1 | 12.4 | |
| | | | | | | RPD = 1.40 | |
| 3 Ethane | | | | | | | |
| 1 | 1.561 | 1.556 | 0.005 | 793971 | 24.6 | 23.9 | |
| 2 | 3.029 | 3.028 | 0.001 | 803791 | 24.6 | 24.1 | |
| | | | | | | RPD = 0.81 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.870 | 1.844 | 0.026 | 780792 | 23.0 | 22.2 | |
| 2 | 2.609 | 2.609 | 0.000 | 687818 | 23.0 | 22.2 | |
| | | | | | | RPD = 0.16 | |
| 5 Propane | | | | | | | |
| 1 | 2.711 | 2.721 | -0.010 | 1259121 | 36.1 | 35.0 | |
| 2 | 4.934 | 4.929 | 0.005 | 1221976 | 36.1 | 34.9 | |
| | | | | | | RPD = 0.18 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.226 | 4.230 | -0.004 | 587204 | 21.3 | 20.9 | a |
| 2 | 2.753 | 2.746 | 0.007 | 713476 | 21.3 | 20.9 | a |
| | | | | | | RPD = 0.03 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.586 | 4.528 | 0.058 | 1686797 | 47.6 | 46.3 | a |
| 2 | 6.433 | 6.426 | 0.007 | 1612366 | 47.6 | 45.9 | M |
| | | | | | | RPD = 0.93 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.465 | 5.403 | 0.062 | 1589725 | 46.0 | 44.0 | |
| 2 | 6.274 | 6.274 | 0.000 | 1464027 | 46.0 | 44.1 | M |
| | | | | | | RPD = 0.20 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

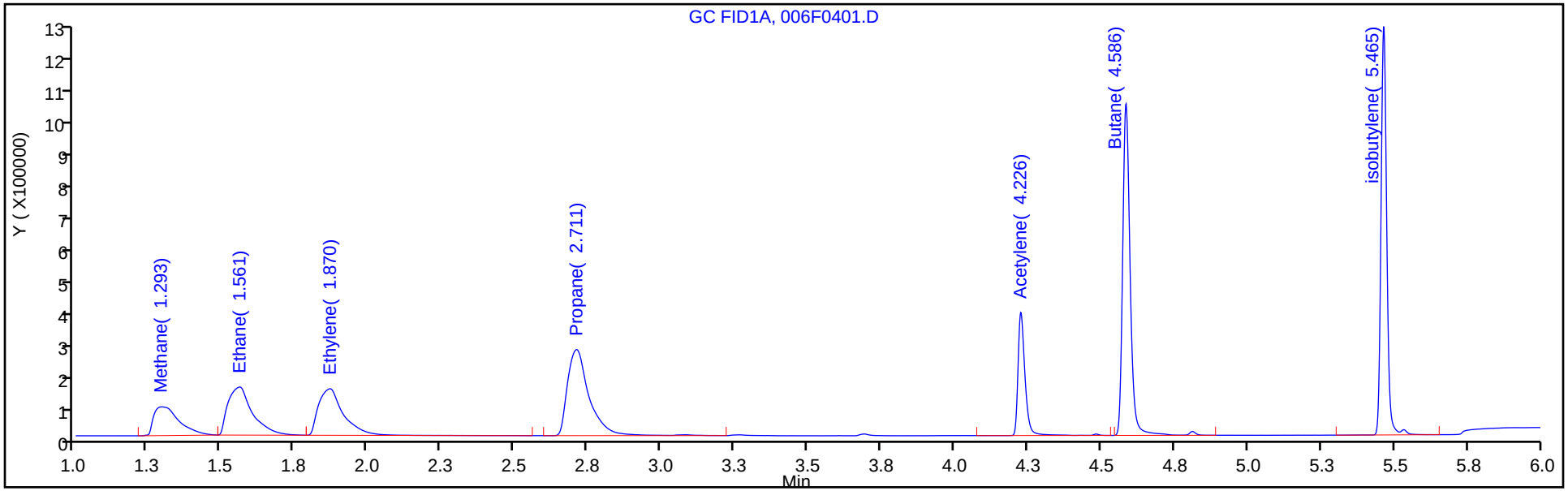
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

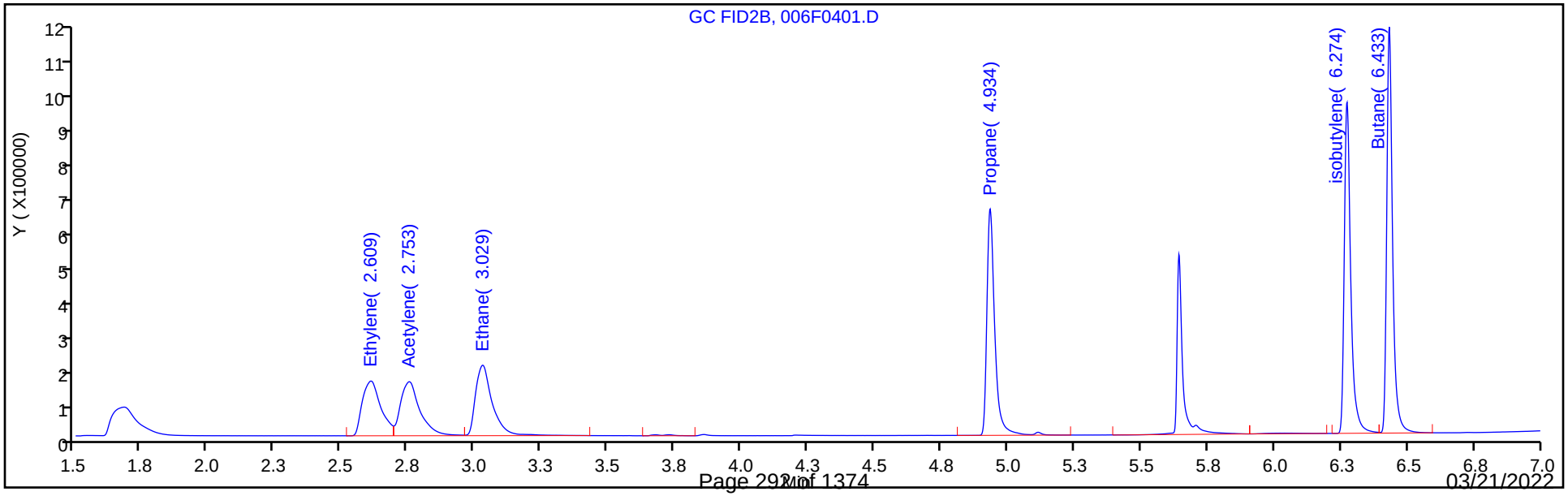
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:54:46 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

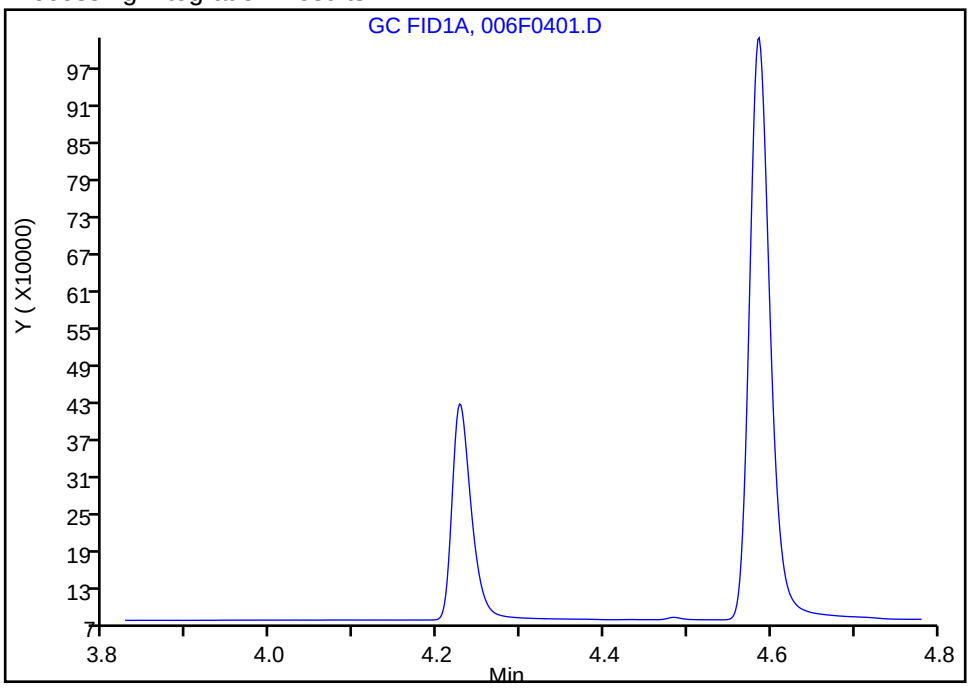
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

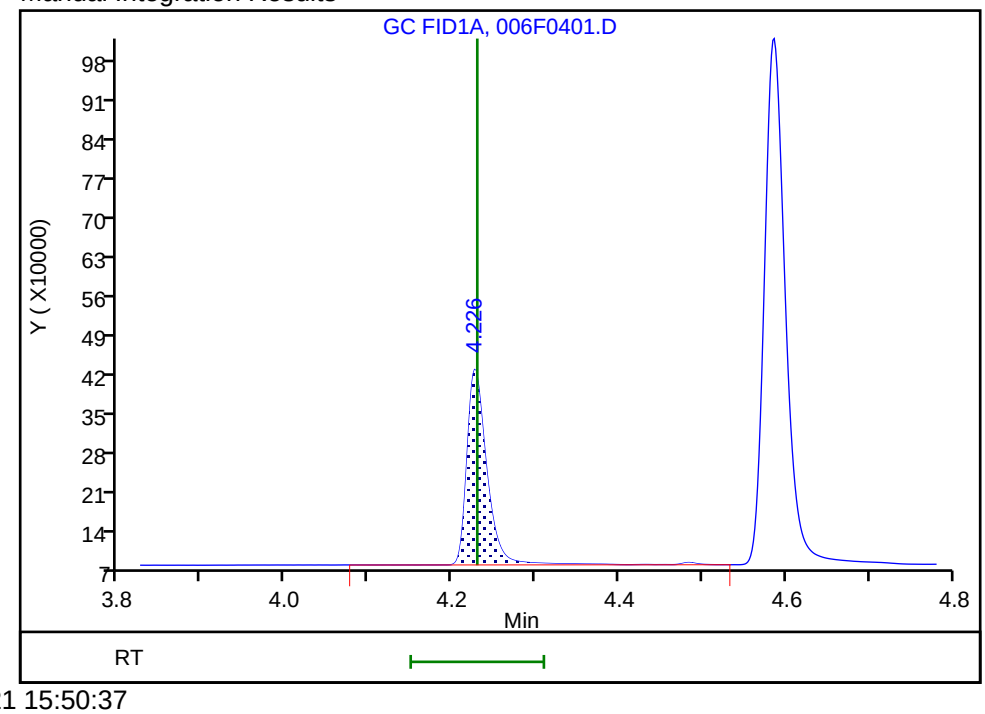
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 587204
Amount: 20.867962
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:50:37
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.295 | 1.295 | 0.000 | 2453548 | 65.7 | 67.9 | |
| 2 | 1.681 | 1.681 | 0.000 | 2553566 | 65.7 | 69.0 | |
| | | | | | | RPD = 1.60 | |
| 3 Ethane | | | | | | | Ma |
| 1 | 1.561 | 1.561 | 0.000 | 4411499 | 123.2 | 132.7 | |
| 2 | 3.026 | 3.026 | 0.000 | 4450065 | 123.2 | 133.3 | M |
| | | | | | | RPD = 0.45 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.870 | 1.870 | 0.000 | 4318968 | 114.9 | 122.6 | |
| 2 | 2.608 | 2.608 | 0.000 | 3812973 | 114.9 | 123.1 | |
| | | | | | | RPD = 0.38 | |
| 5 Propane | | | | | | | |
| 1 | 2.716 | 2.716 | 0.000 | 6962772 | 180.6 | 193.4 | |
| 2 | 4.933 | 4.933 | 0.000 | 6754582 | 180.6 | 192.9 | |
| | | | | | | RPD = 0.22 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.230 | 4.230 | 0.000 | 3180347 | 106.7 | 113.0 | a |
| 2 | 2.751 | 2.751 | 0.000 | 3899802 | 106.7 | 114.1 | a |
| | | | | | | RPD = 0.95 | |
| 7 Butane | | | | | | | |
| 1 | 4.590 | 4.590 | 0.000 | 9255328 | 238.1 | 254.1 | |
| 2 | 6.430 | 6.430 | 0.000 | 8939530 | 238.1 | 254.4 | |
| | | | | | | RPD = 0.11 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.468 | 5.468 | 0.000 | 8777969 | 229.8 | 243.0 | |
| 2 | 6.271 | 6.271 | 0.000 | 8052089 | 229.8 | 242.5 | |
| | | | | | | RPD = 0.20 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

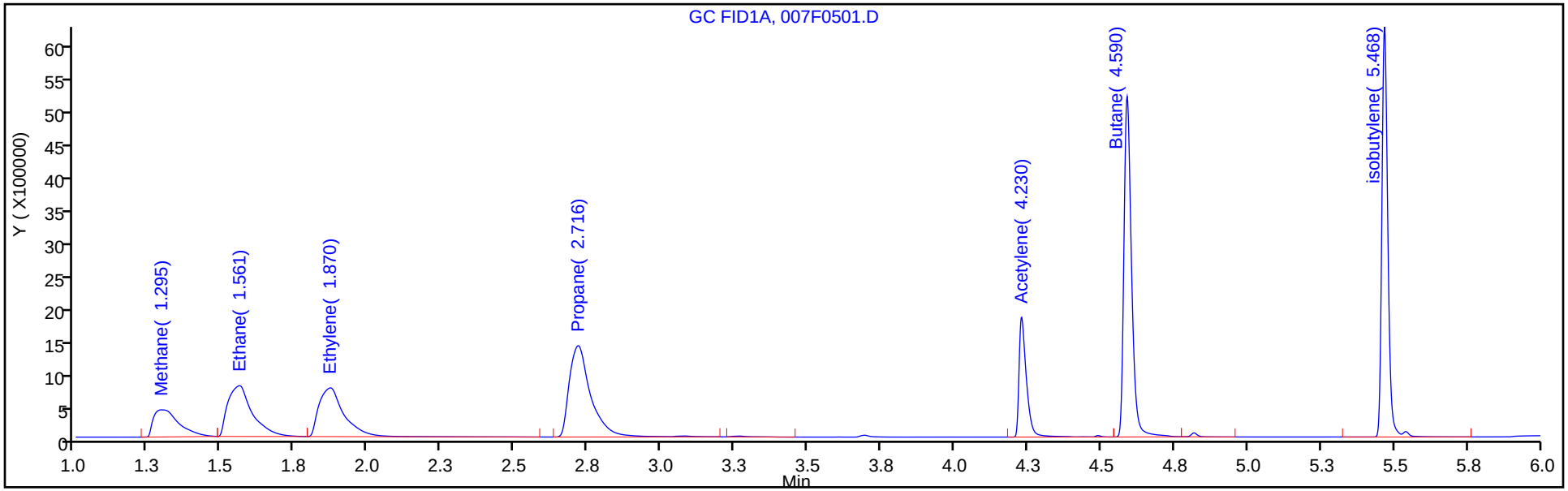
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

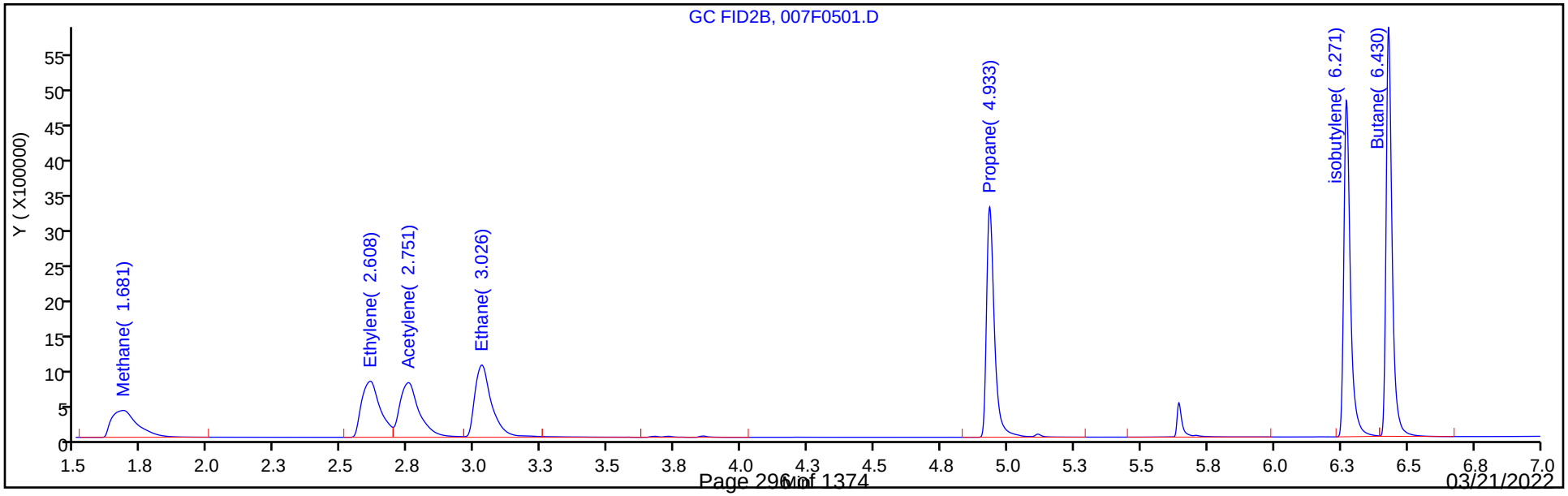
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:07:45 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

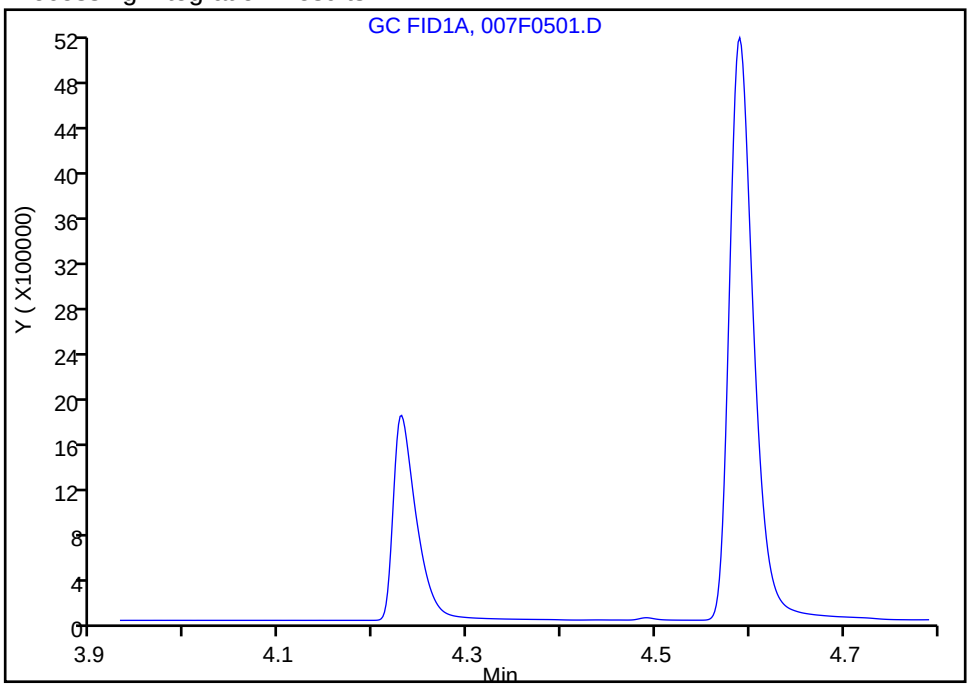
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

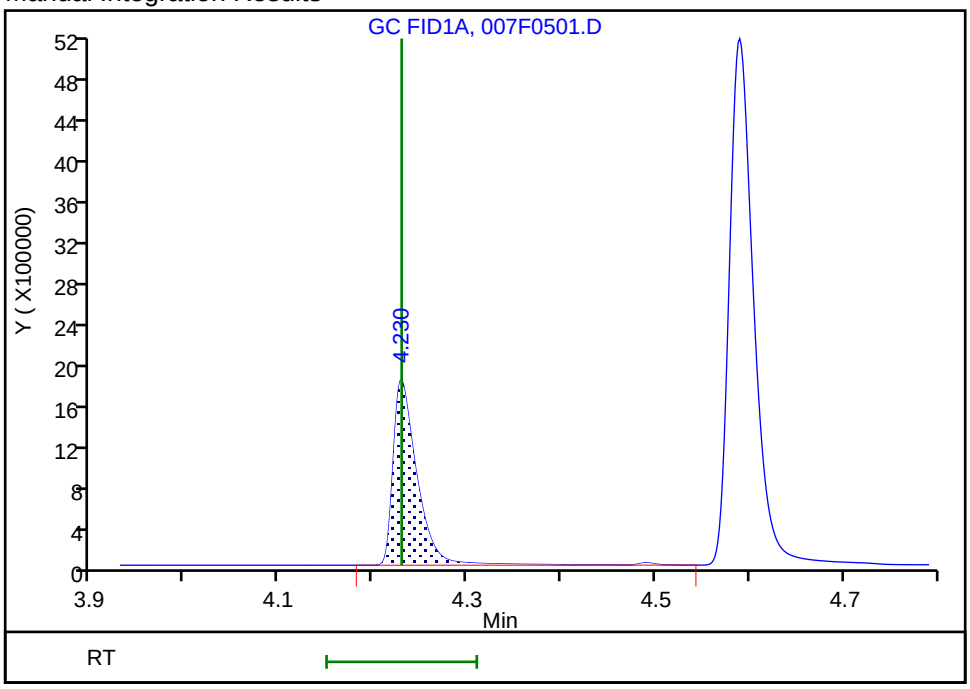
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 3180347
Amount: 113.0227
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:50:17
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | M |
| 1 | 1.295 | 1.295 | 0.000 | 4808571 | 131.4 | 134.9 | |
| 2 | 1.678 | 1.678 | 0.000 | 5065048 | 131.4 | 138.6 | M |
| | | | | | | RPD = 2.70 | |
| 3 Ethane | | | | | | | |
| 1 | 1.560 | 1.560 | 0.000 | 8751636 | 246.3 | 263.3 | |
| 2 | 3.023 | 3.023 | 0.000 | 8976911 | 246.3 | 268.9 | |
| | | | | | | RPD = 2.12 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.873 | 1.873 | 0.000 | 8582166 | 229.8 | 243.6 | |
| 2 | 2.603 | 2.603 | 0.000 | 7548044 | 229.8 | 243.6 | |
| | | | | | | RPD = 0.00 | |
| 5 Propane | | | | | | | M |
| 1 | 2.721 | 2.721 | 0.000 | 13578180 | 361.3 | 377.1 | M |
| 2 | 4.929 | 4.929 | 0.000 | 13344347 | 361.3 | 381.1 | |
| | | | | | | RPD = 1.08 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.230 | 4.230 | 0.000 | 6274725 | 213.3 | 223.0 | a |
| 2 | 2.746 | 2.746 | 0.000 | 7865310 | 213.3 | 230.1 | a |
| | | | | | | RPD = 3.15 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.591 | 4.591 | 0.000 | 18468578 | 476.1 | 507.1 | a |
| 2 | 6.426 | 6.426 | 0.000 | 17766895 | 476.1 | 505.6 | M |
| | | | | | | RPD = 0.29 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.468 | 5.468 | 0.000 | 17314841 | 459.7 | 479.3 | |
| 2 | 6.269 | 6.269 | 0.000 | 15966351 | 459.7 | 480.9 | M |
| | | | | | | RPD = 0.33 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

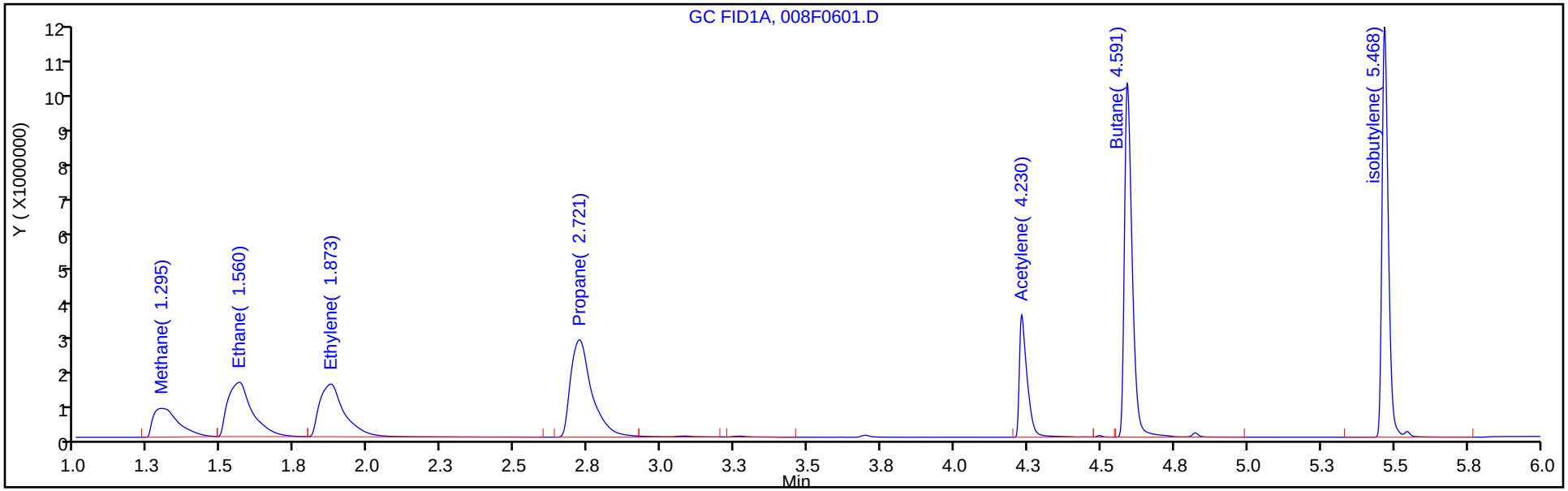
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

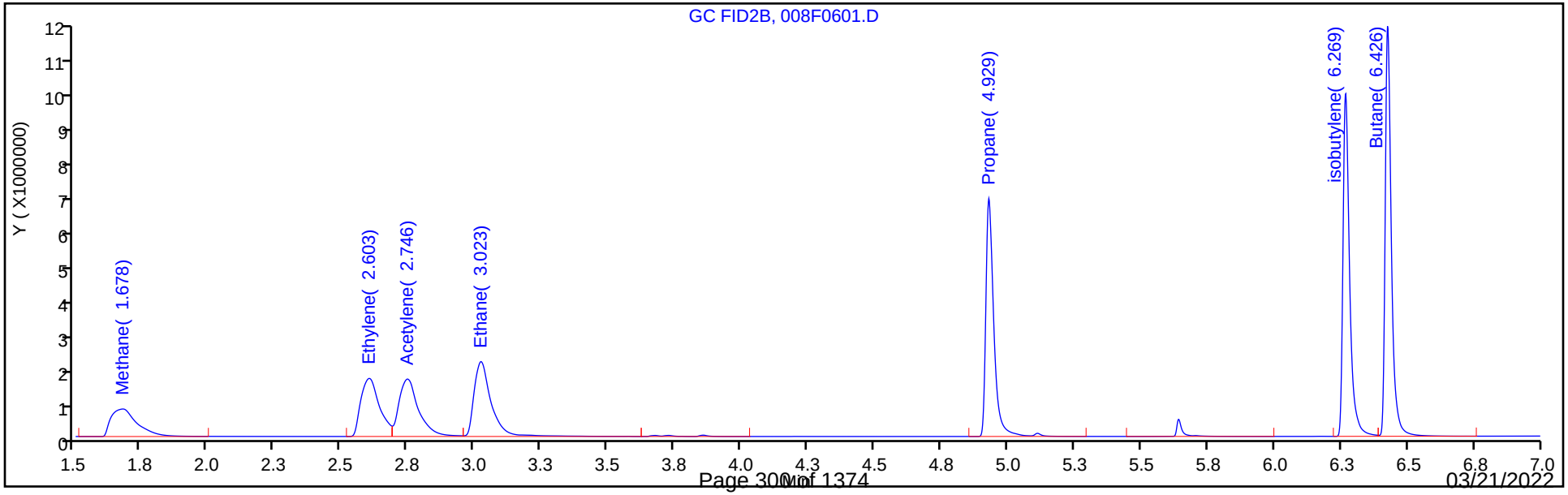
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

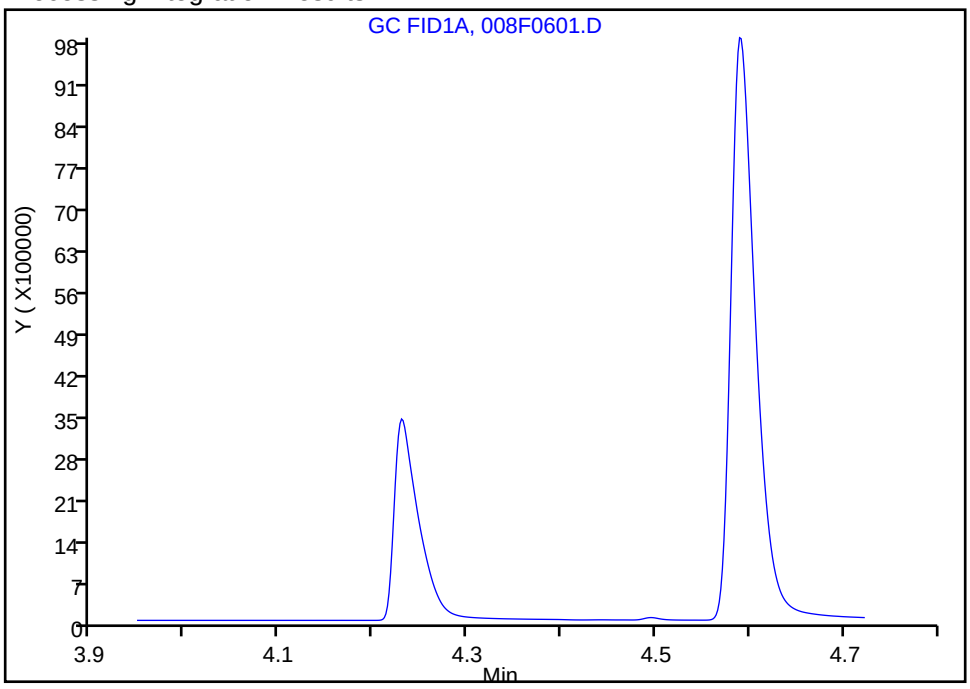
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D | | | | |
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 8 | Worklist Smp#: | 6 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |
| Column: | Rt-Alumina BOND/KCl ( 0.53 mm) | Detector | GC FID1A | | |

## 6 Acetylene, CAS: 74-86-2

Signal: 1

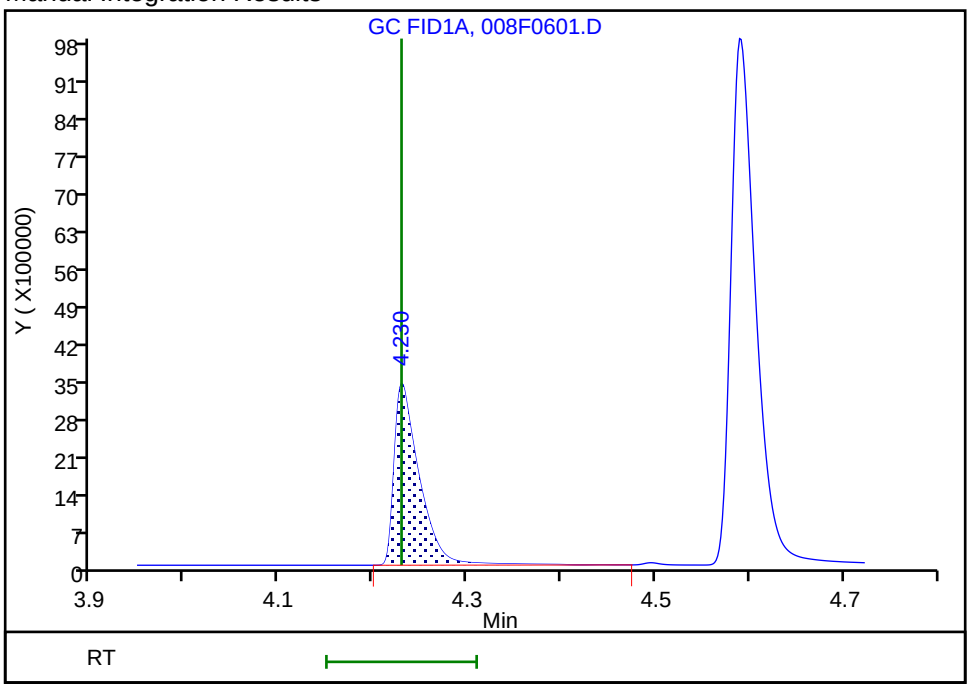
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 6274725
Amount: 222.9902
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:44:55
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.294 | 1.295 | -0.001 | 8118988 | 262.8 | 229.0 | |
| 2 | 1.678 | 1.678 | 0.000 | 8455607 | 262.8 | 232.5 | |
| | | | | | | RPD = 1.51 | |
| 3 Ethane | | | | | | | |
| 1 | 1.561 | 1.560 | 0.001 | 14997572 | 492.7 | 451.2 | |
| 2 | 3.021 | 3.023 | -0.002 | 14625440 | 492.7 | 438.1 | |
| | | | | | | RPD = 2.94 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.873 | 1.873 | 0.000 | 14678124 | 459.6 | 416.7 | |
| 2 | 2.602 | 2.603 | -0.001 | 12909086 | 459.6 | 416.7 | |
| | | | | | | RPD = 0.00 | |
| 5 Propane | | | | | | | |
| 1 | 2.723 | 2.721 | 0.002 | 23539538 | 722.6 | 653.7 | |
| 2 | 4.926 | 4.929 | -0.003 | 23034734 | 722.6 | 657.9 | |
| | | | | | | RPD = 0.65 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.228 | 4.230 | -0.002 | 10977943 | 426.7 | 390.1 | a |
| 2 | 2.746 | 2.746 | 0.000 | 13452620 | 426.7 | 393.6 | a |
| | | | | | | RPD = 0.88 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.588 | 4.591 | -0.003 | 30555104 | 952.3 | 838.9 | a |
| 2 | 6.423 | 6.426 | -0.003 | 31281741 | 952.3 | 890.2 | M |
| | | | | | | RPD = 5.93 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.466 | 5.468 | -0.002 | 30754275 | 919.4 | 851.3 | |
| 2 | 6.266 | 6.269 | -0.003 | 28385241 | 919.4 | 854.9 | M |
| | | | | | | RPD = 0.42 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

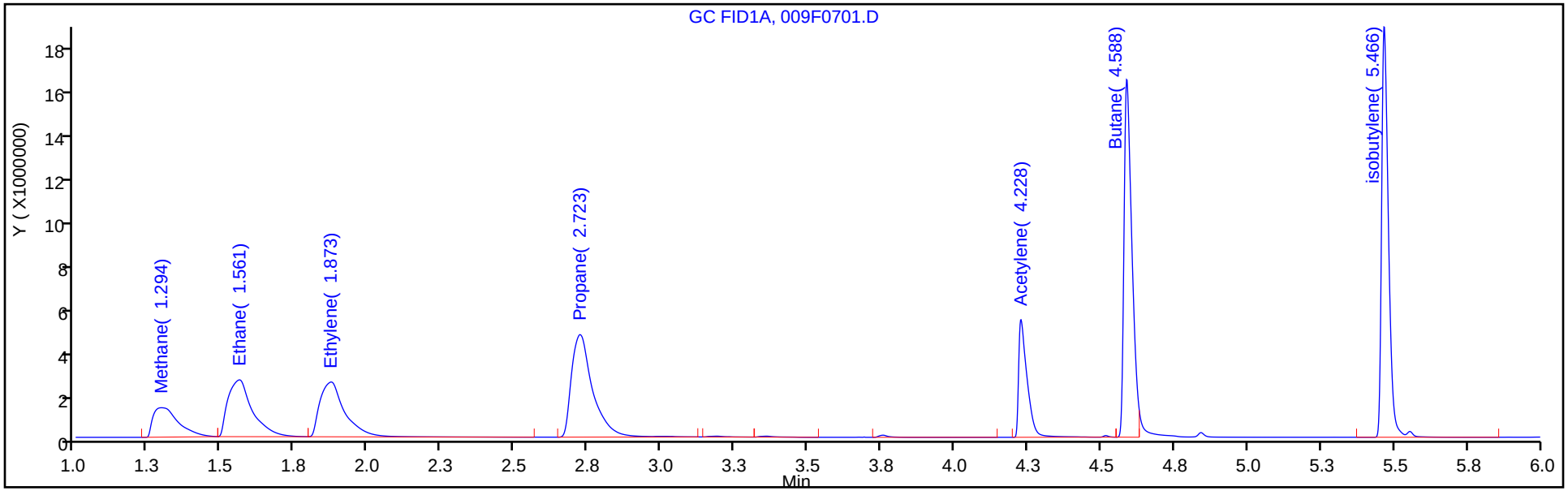
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

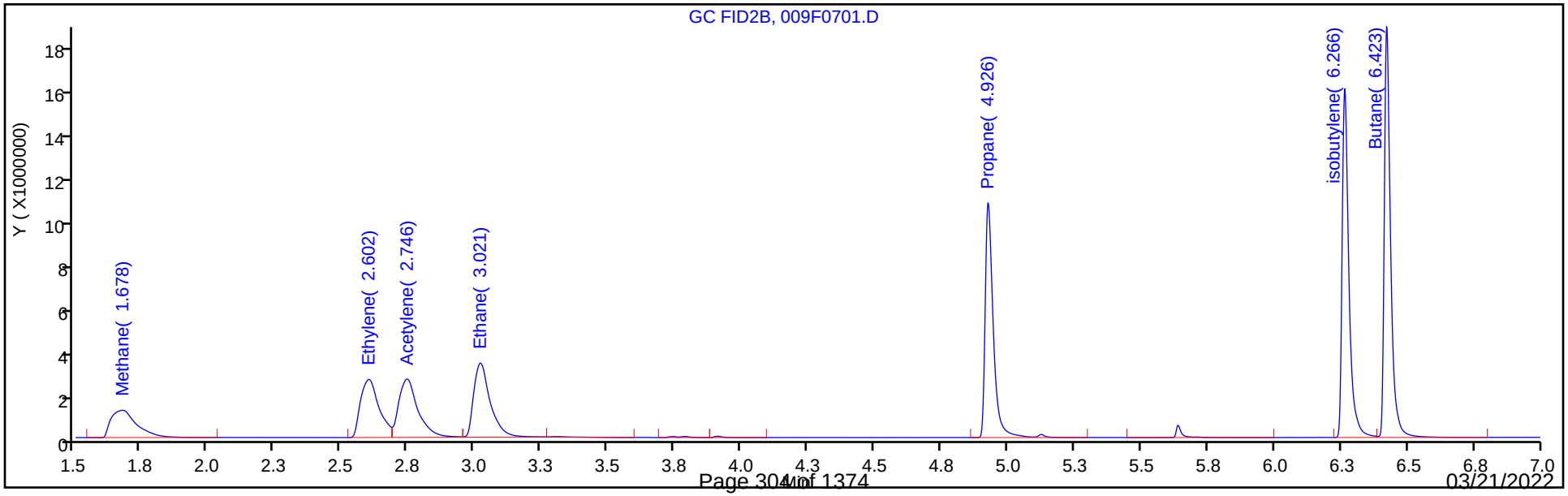
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:33:44 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

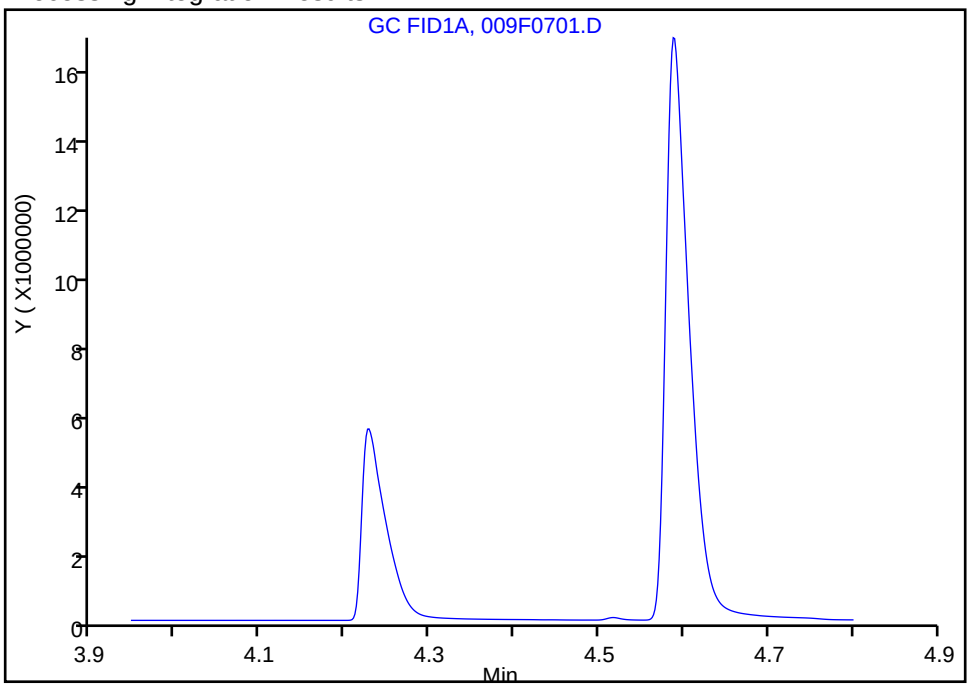
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Injection Date: 24-Sep-2021 14:33:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

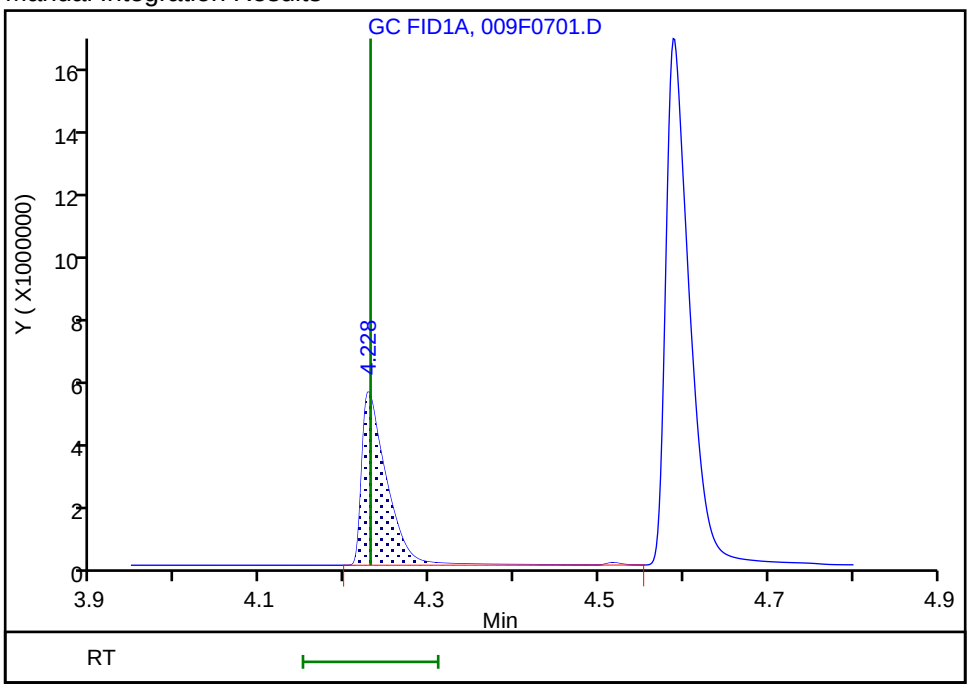
Not Detected
Expected RT: 4.23

Processing Integration Results




Manual Integration Results

RT: 4.23
Area: 10977943
Amount: 390.1324
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:46:29
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.295 | -0.002 | 60484705 | 1626.3 | 1717.9 | |
| 2 | 1.676 | 1.678 | -0.002 | 59798125 | 1626.3 | 1654.6 | |
| | | | | | | RPD = 3.75 | |

## QC Flag Legend
Processing Flags

## Reagents:
RSK175methane_00010 Amount Added: 50.00 Units: uL

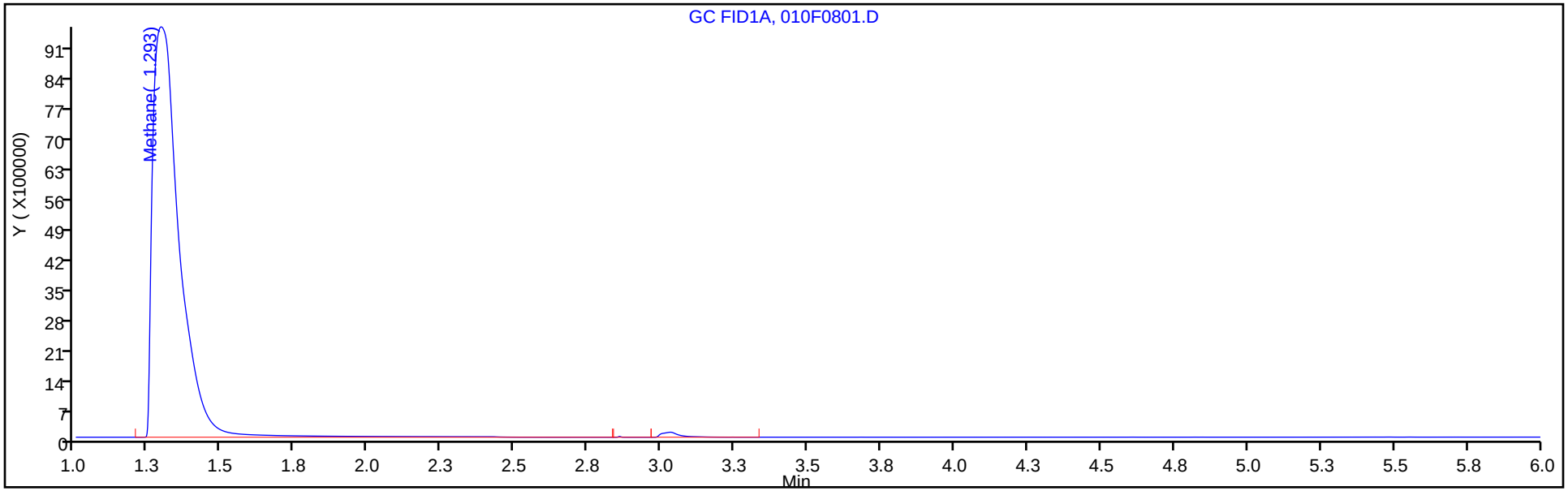
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

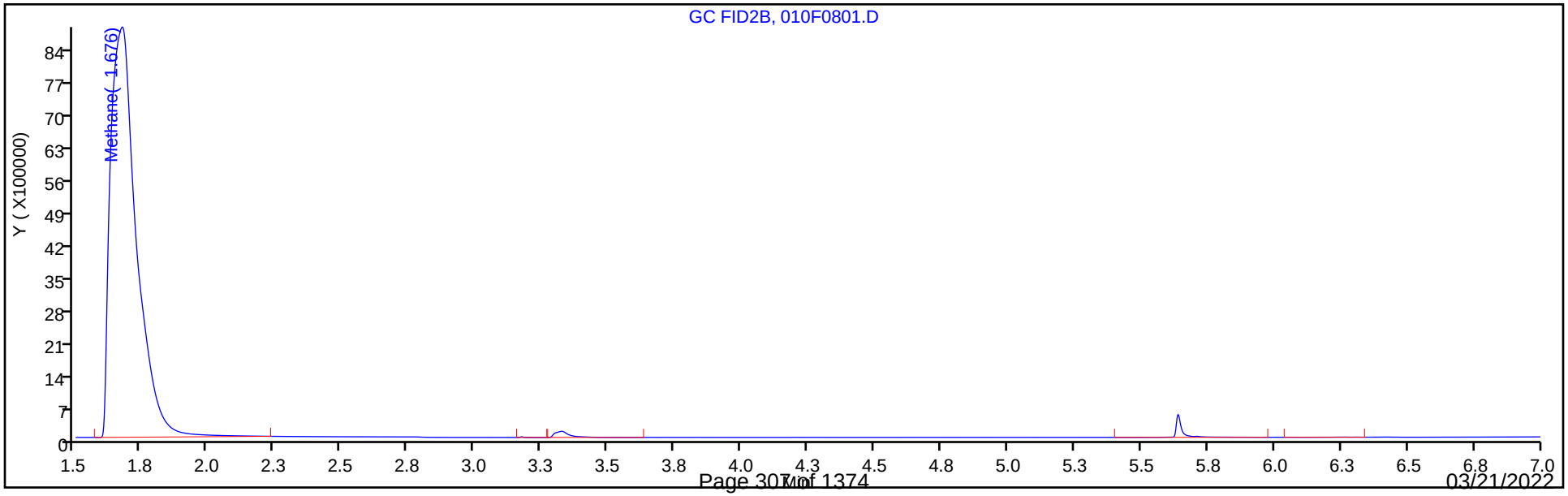
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:46:48 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Sep-2021 14:59:53 ALS Bottle#: 11 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.292 | 1.295 | -0.003 | 245647963 | 6505.0 | 6982.6 | |
| 2 | 1.673 | 1.678 | -0.005 | 247051774 | 6505.0 | 6841.2 | |
| | | | | | | RPD = 2.04 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

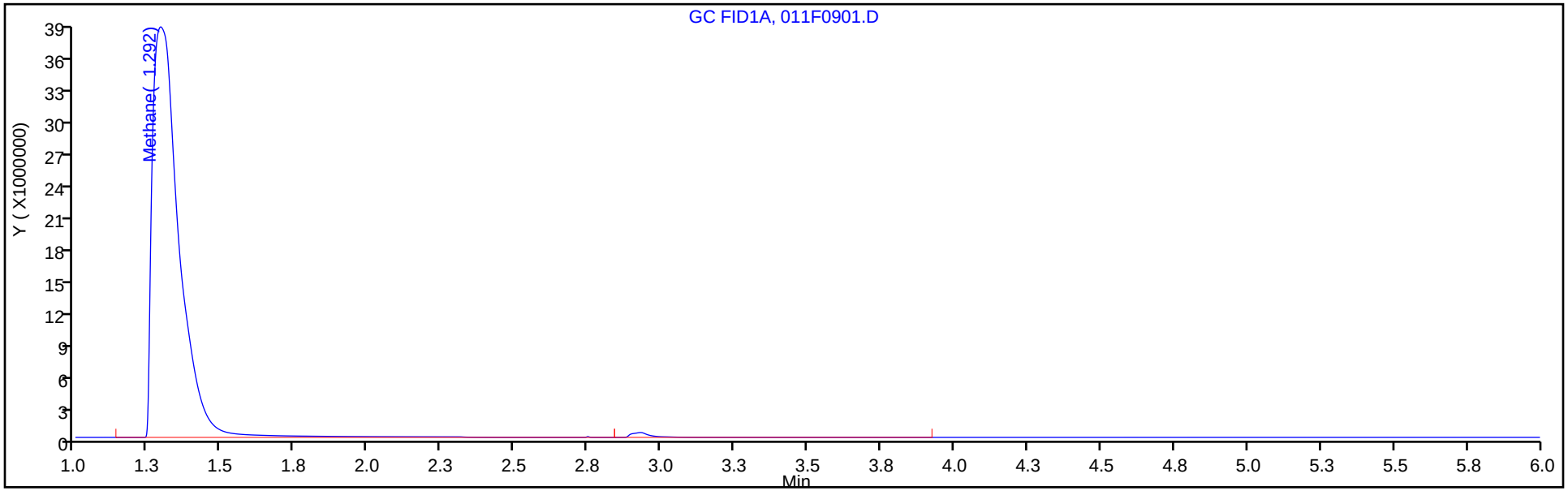
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

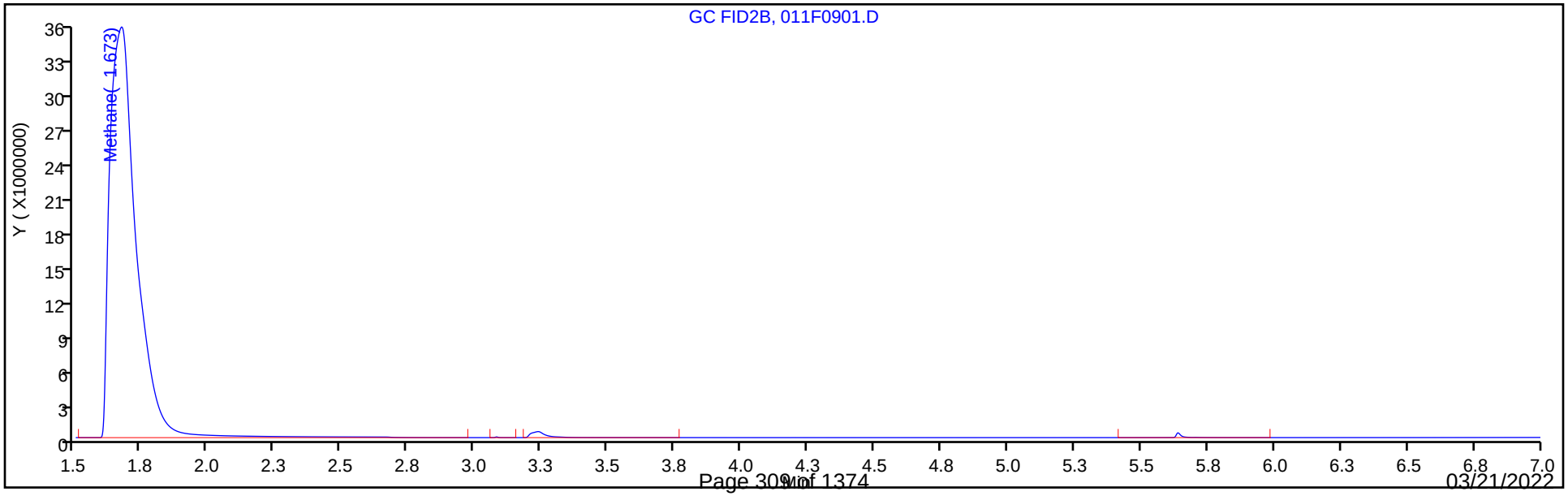
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:59:53 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 10 | | |
| Inject. Date: | 24-Sep-2021 15:12:55 | ALS Bottle#: | 12 | Worklist Smp#: | 11 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Sublist: | chrom-RSK_J*sub5 | | | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 29-Sep-2021 10:55:18 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.288 | 1.295 | -0.007 | 669092603 | 19515 | 19022 | |
| 2 | 1.669 | 1.678 | -0.009 | 675608539 | 19515 | 18712 | |
| | | | | | | RPD = 1.65 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK175methane_00010 Amount Added: 600.00 Units: uL

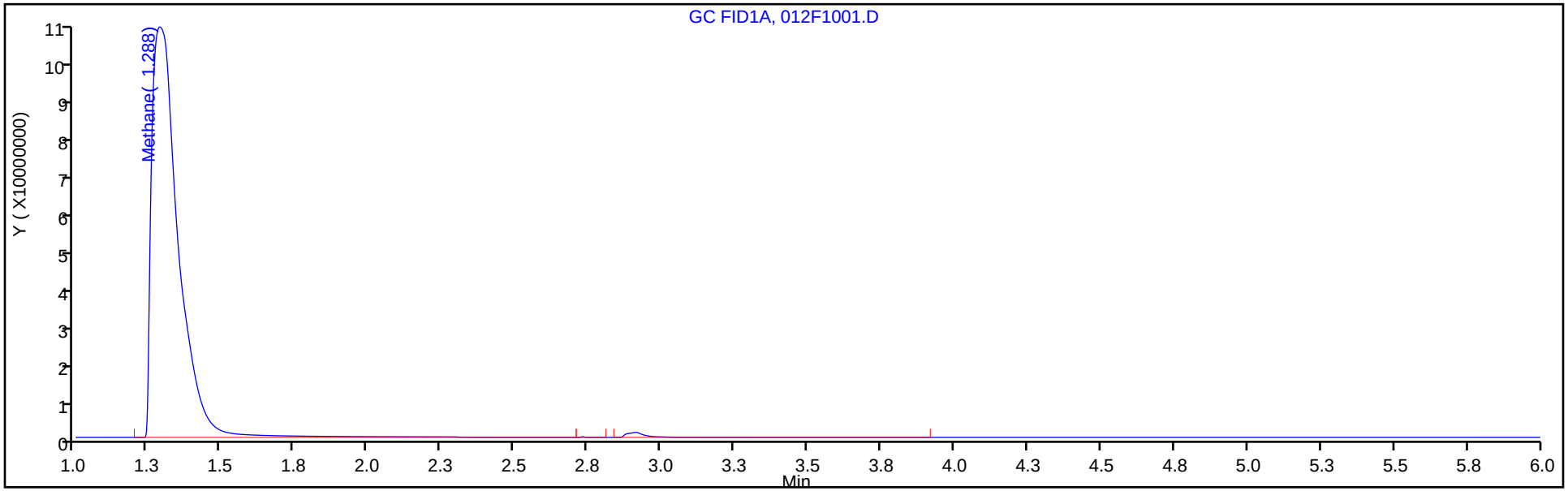
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

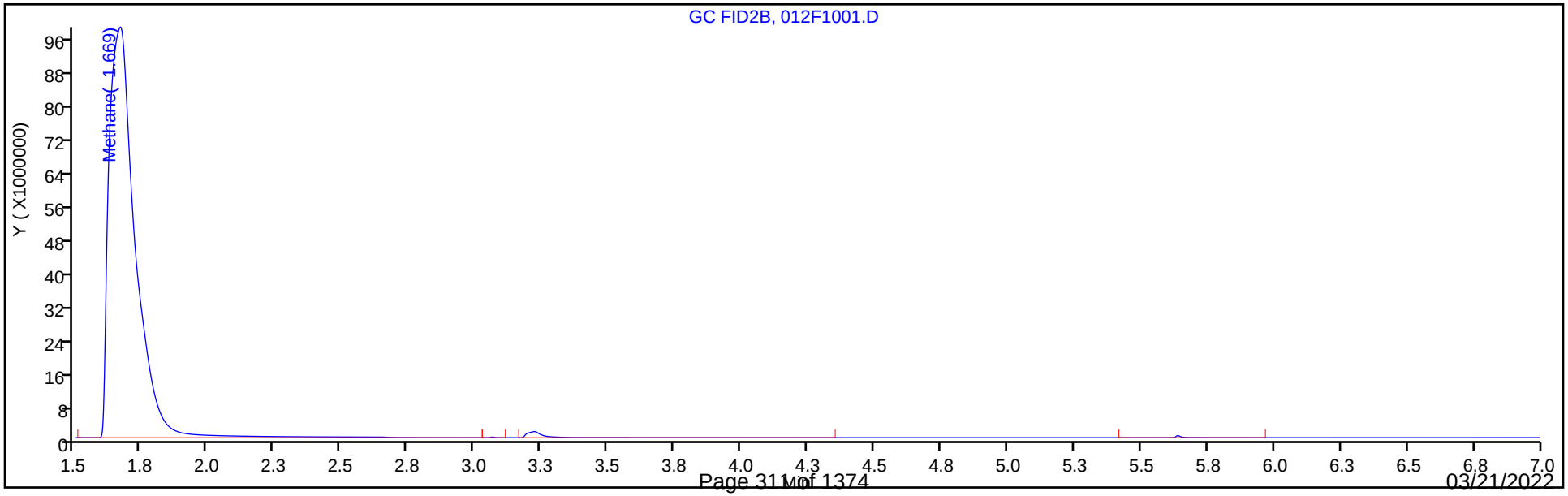
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 15:12:55 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



## Calibration / Methane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

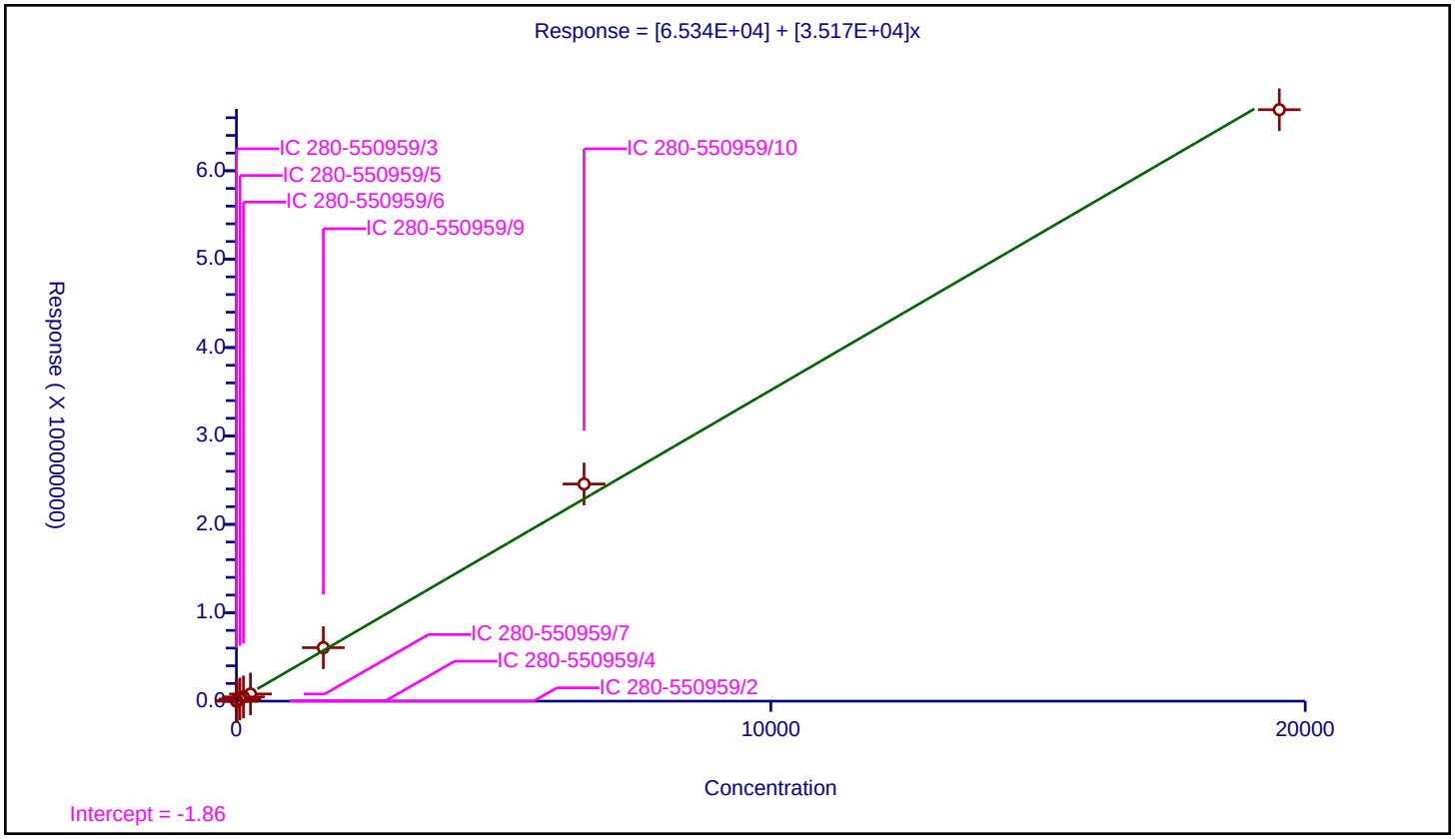
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 6.534E+04 |
| **Slope:** | 3.517E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 9210000 |
| **Relative Standard Error:** | 7.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 0.821288 | 93424.0 | | | 113753.101076 | Y |
| 2 | IC 280-550959/3 | 1.642575 | 126818.0 | | | 77206.82465 | Y |
| 3 | IC 280-550959/4 | 13.1406 | 494257.0 | | | 37612.970488 | Y |
| 4 | IC 280-550959/5 | 65.703 | 2453548.0 | | | 37343.013257 | Y |
| 5 | IC 280-550959/6 | 131.406 | 4808571.0 | | | 36593.237752 | Y |
| 6 | IC 280-550959/7 | 262.812 | 8118988.0 | | | 30892.759844 | Y |
| 7 | IC 280-550959/9 | 1626.25 | 60484705.0 | | | 37192.747118 | Y |
| 8 | IC 280-550959/10 | 6505.0 | 245647963.0 | | | 37762.945888 | Y |
| 9 | IC 280-550959/11 | 19515.0 | 669092603.0 | | | 34286.067282 | Y |



## Calibration / Ethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

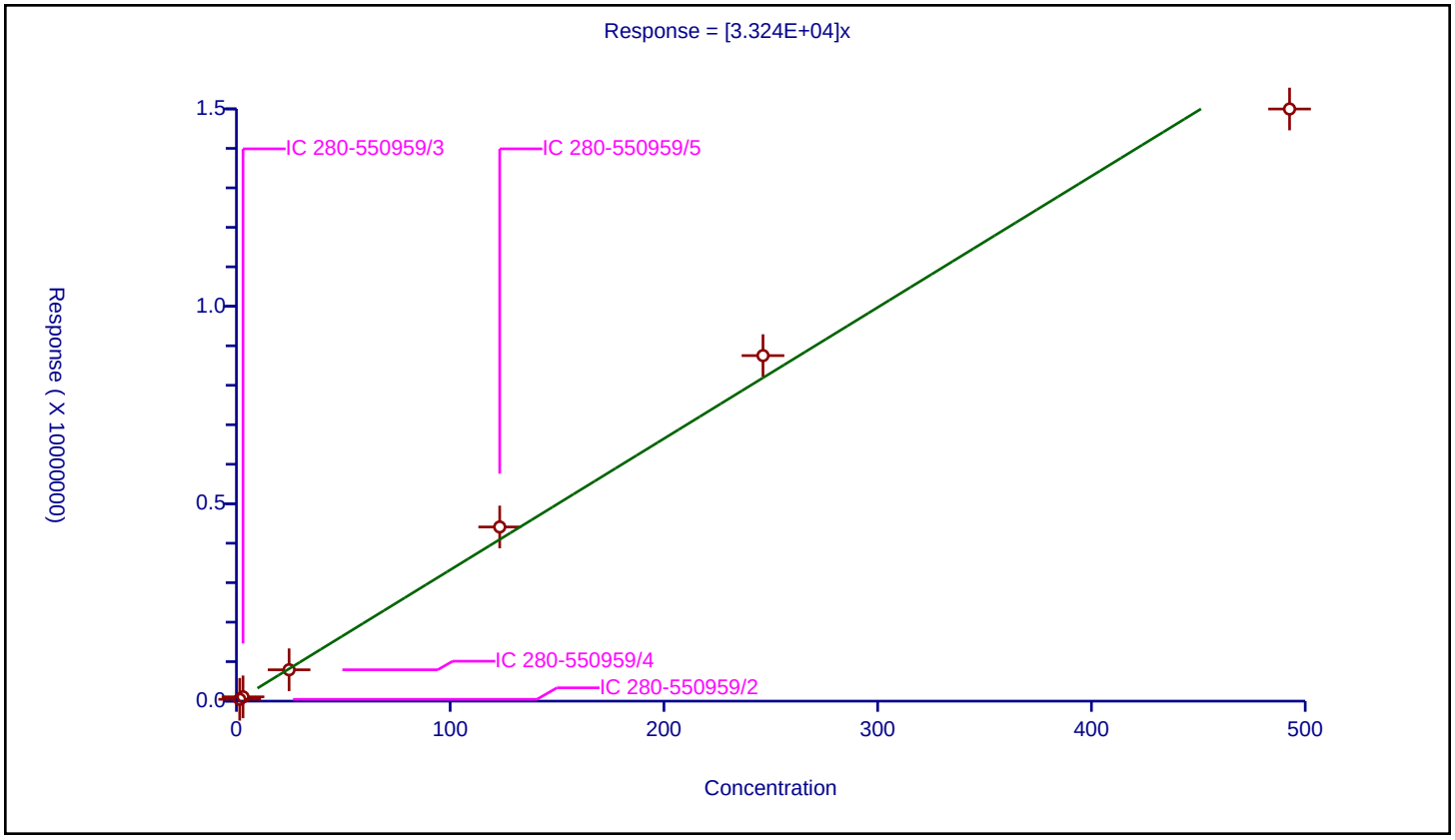
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.324E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 681000 |
| **Relative Standard Error:** | 7.9 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.539625 | 46427.0 | | | 30154.745474 | Y |
| 2 | IC 280-550959/3 | 3.07925 | 108631.0 | | | 35278.395713 | Y |
| 3 | IC 280-550959/4 | 24.634 | 793971.0 | | | 32230.69741 | Y |
| 4 | IC 280-550959/5 | 123.17 | 4411499.0 | | | 35816.343265 | Y |
| 5 | IC 280-550959/6 | 246.34 | 8751636.0 | | | 35526.654218 | Y |
| 6 | IC 280-550959/7 | 492.68 | 14997572.0 | | | 30440.797272 | Y |



## Calibration / Ethylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

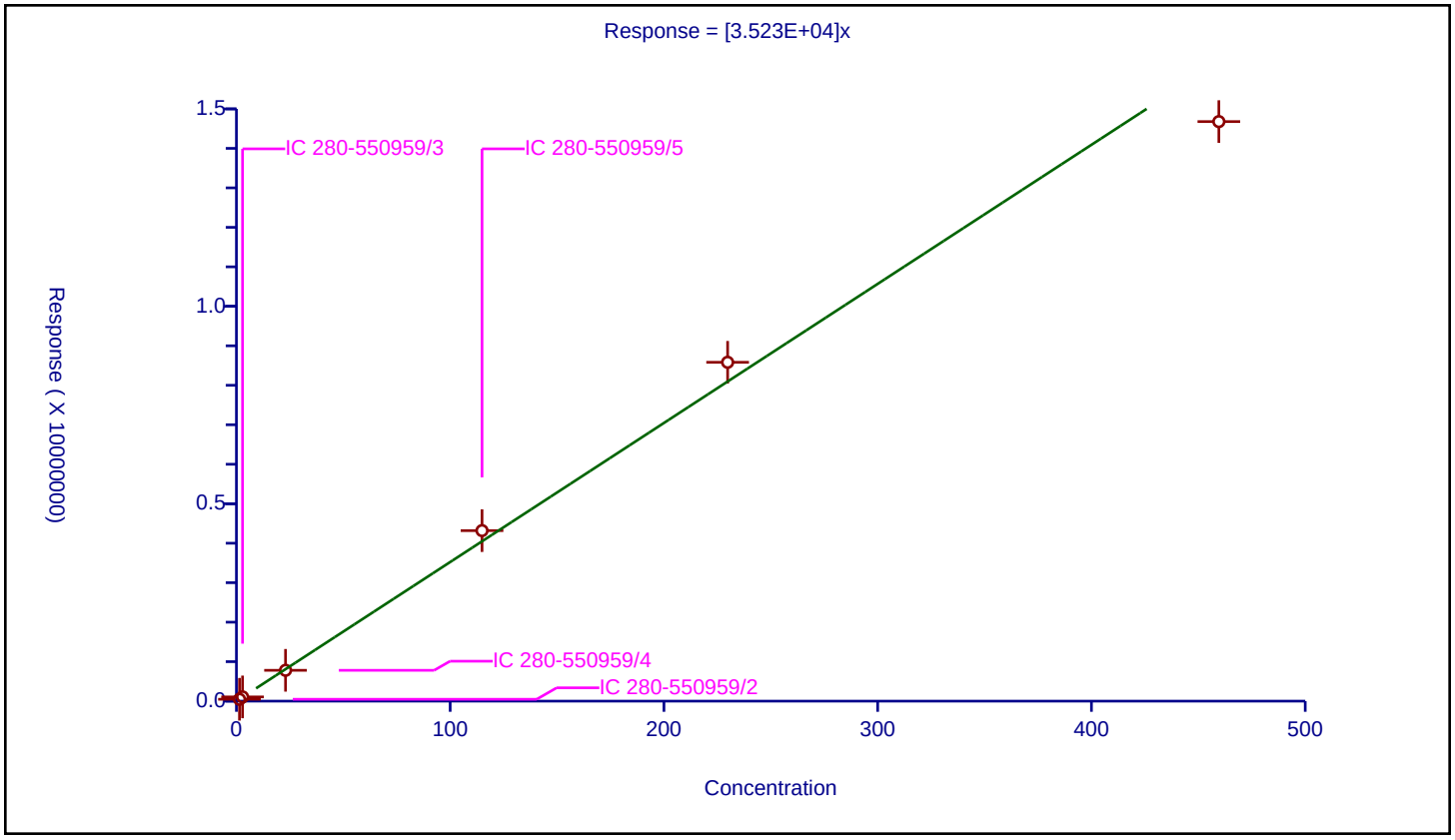
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.523E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 721000 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.43625 | 47667.0 | | | 33188.511749 | Y |
| 2 | IC 280-550959/3 | 2.8725 | 107197.0 | | | 37318.363795 | Y |
| 3 | IC 280-550959/4 | 22.98 | 780792.0 | | | 33977.023499 | Y |
| 4 | IC 280-550959/5 | 114.9 | 4318968.0 | | | 37588.929504 | Y |
| 5 | IC 280-550959/6 | 229.8 | 8582166.0 | | | 37346.240209 | Y |
| 6 | IC 280-550959/7 | 459.6 | 14678124.0 | | | 31936.736292 | Y |



## Calibration / Acetylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

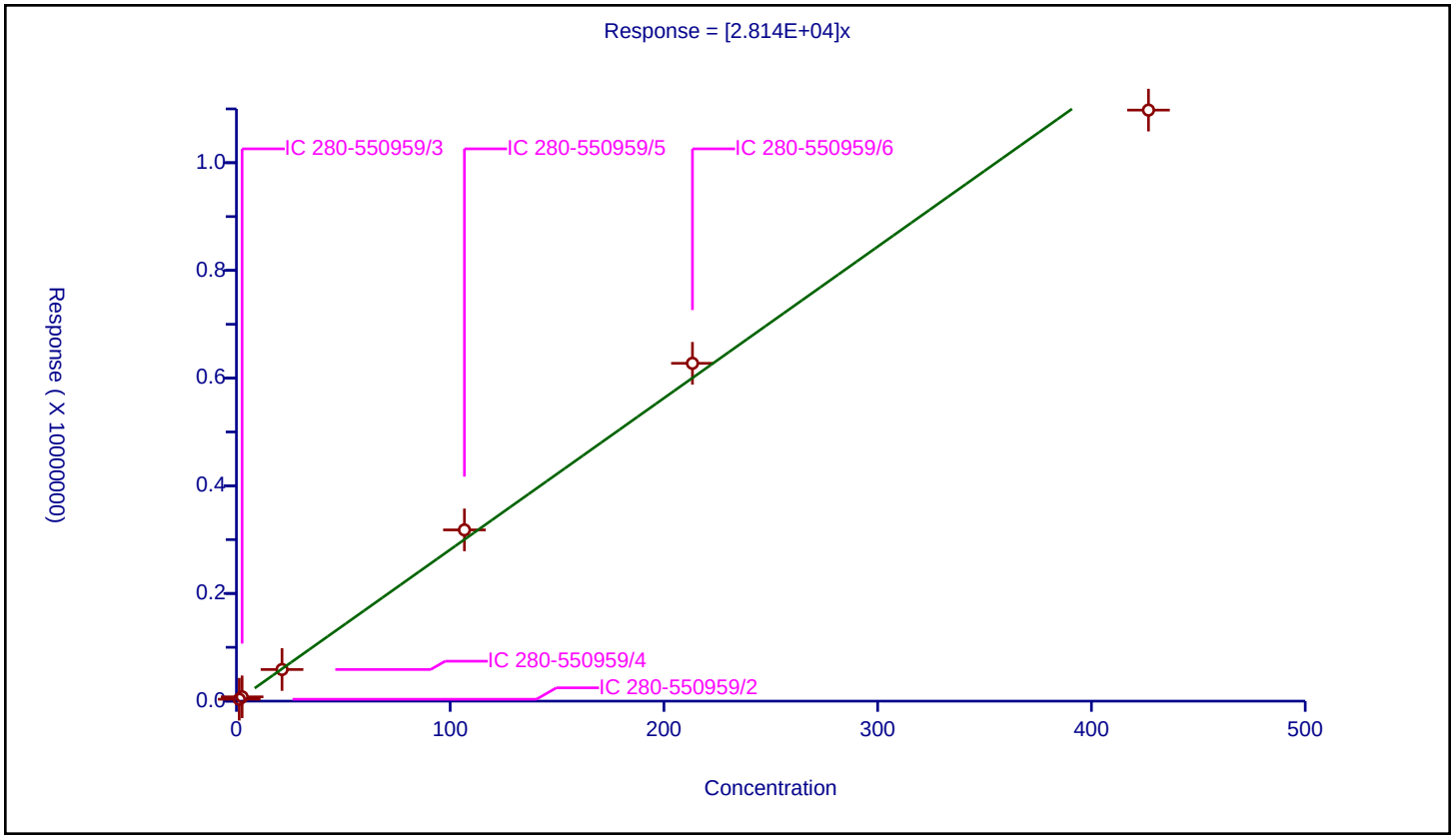
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.814E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 482000 |
| **Relative Standard Error:** | 6.5 |
| **Correlation Coefficient:** | 0.995 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.333375 | 35261.0 | | | 26444.923596 | Y |
| 2 | IC 280-550959/3 | 2.66675 | 79761.0 | | | 29909.44033 | Y |
| 3 | IC 280-550959/4 | 21.334 | 587204.0 | | | 27524.327365 | Y |
| 4 | IC 280-550959/5 | 106.67 | 3180347.0 | | | 29814.821412 | Y |
| 5 | IC 280-550959/6 | 213.34 | 6274725.0 | | | 29411.854317 | Y |
| 6 | IC 280-550959/7 | 426.68 | 10977943.0 | | | 25728.749883 | Y |



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 1.689 | 1.686 | 1.684 | 1.681 | 1.678 | 1.678 | 1.676 | 1.673 | 1.669 | | 1.646 - 1.726 | 1.679 |
| Ethylene | 2.612 | 2.613 | 2.609 | 2.608 | 2.603 | 2.602 | | | | | 2.559 - 2.659 | 2.608 |
| Acetylene | 2.759 | 2.756 | 2.753 | 2.751 | 2.746 | 2.746 | | | | | 2.666 - 2.826 | 2.752 |
| Ethane | 3.032 | 3.031 | 3.029 | 3.026 | 3.023 | 3.021 | | | | | 2.978 - 3.078 | 3.027 |

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

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 5 LVL 9 | LVL 2 LVL 6 | LVL 3 LVL 7 | LVL 4 LVL 8 | | B | M1 | M2 | | | | | | | | |
| Methane | 111078<br>38545<br>34620 | 77031<br>32174 | 38745<br>36771 | 38865<br>37979 | Lin2 | 62633.7795 | 36102.9355 | | | | | | | 0.9950 | | 0.9900 |
| Ethylene | 28704<br>32846 | 33128<br>28088 | 29931 | 33185 | Ave | | 30980.2676 | | | | 7.6 | | 20.0 | | | |
| Acetylene | 31126<br>36867 | 35548<br>31529 | 33443 | 36560 | Ave | | 34178.7944 | | | | 7.4 | | 20.0 | | | |
| Ethane | 30517<br>36441 | 34894<br>29685 | 32629 | 36129 | Ave | | 33382.5817 | | | | 8.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 550959

SDG No.:

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

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-550959/2 | 004F0201.D |
| Level 2 | IC 280-550959/3 | 005F0301.D |
| Level 3 | IC 280-550959/4 | 006F0401.D |
| Level 4 | IC 280-550959/5 | 007F0501.D |
| Level 5 | IC 280-550959/6 | 008F0601.D |
| Level 6 | IC 280-550959/7 | 009F0701.D |
| Level 7 | IC 280-550959/9 | 010F0801.D |
| Level 8 | IC 280-550959/10 | 011F0901.D |
| Level 9 | IC 280-550959/11 | 012F1001.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 | 91227<br>8455607 | 126529<br>59798125 | 509129<br>247051774 | 2553566<br>675608539 | 5065048 | 0.821<br>263 | 1.64<br>1626 | 13.1<br>6505 | 65.7<br>19515 | 131 |
| Ethylene | Ave | 41226<br>12909086 | 95159 | 687818 | 3812973 | 7548044 | 1.44<br>460 | 2.87 | 23.0 | 115 | 230 |
| Acetylene | Ave | 41503<br>13452620 | 94797 | 713476 | 3899802 | 7865310 | 1.33<br>427 | 2.67 | 21.3 | 107 | 213 |
| Ethane | Ave | 46984<br>14625440 | 107446 | 803791 | 4450065 | 8976911 | 1.54<br>493 | 3.08 | 24.6 | 123 | 246 |

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | a |
| 1 | 1.292 | 1.299 | -0.007 | 93424 | 0.8213 | 0.7985 | a |
| 2 | 1.689 | 1.686 | 0.003 | 91227 | 0.8213 | 0.7920 | a |
| | | | | | | RPD = 0.81 | |
| 3 Ethane | | | | | | | a |
| 1 | 1.559 | 1.556 | 0.003 | 46427 | 1.54 | 1.40 | a |
| 2 | 3.032 | 3.028 | 0.004 | 46984 | 1.54 | 1.41 | a |
| | | | | | | RPD = 0.77 | |
| 4 Ethylene | | | | | | | a |
| 1 | 1.859 | 1.844 | 0.015 | 47667 | 1.44 | 1.35 | a |
| 2 | 2.612 | 2.609 | 0.003 | 41226 | 1.44 | 1.33 | a |
| | | | | | | RPD = 1.67 | |
| 5 Propane | | | | | | | a |
| 1 | 2.682 | 2.721 | -0.039 | 76526 | 2.26 | 2.13 | a |
| 2 | 4.937 | 4.929 | 0.008 | 73050 | 2.26 | 2.09 | a |
| | | | | | | RPD = 1.83 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.184 | 4.230 | -0.046 | 35261 | 1.33 | 1.25 | a |
| 2 | 2.759 | 2.746 | 0.013 | 41503 | 1.33 | 1.21 | a |
| | | | | | | RPD = 3.15 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.555 | 4.528 | 0.027 | 101912 | 2.98 | 2.80 | a |
| 2 | 6.435 | 6.426 | 0.009 | 95155 | 2.98 | 2.71 | M |
| | | | | | | RPD = 3.27 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.437 | 5.403 | 0.034 | 92868 | 2.87 | 2.57 | M |
| 2 | 6.277 | 6.274 | 0.003 | 91569 | 2.87 | 2.76 | a |
| | | | | | | RPD = 7.02 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

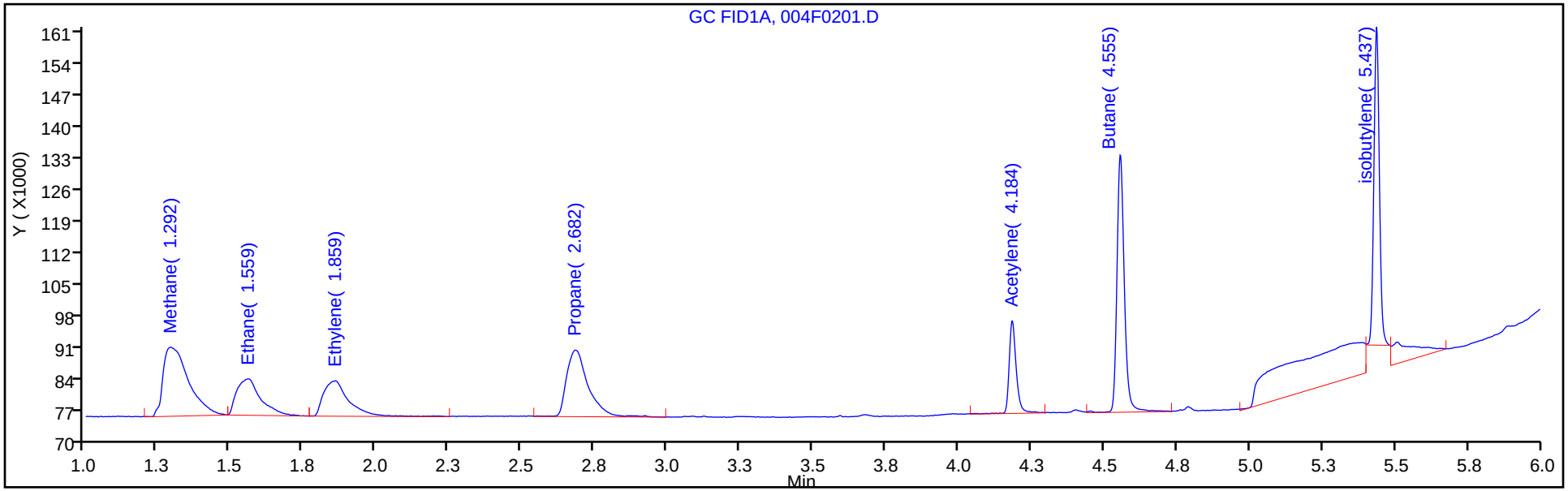
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

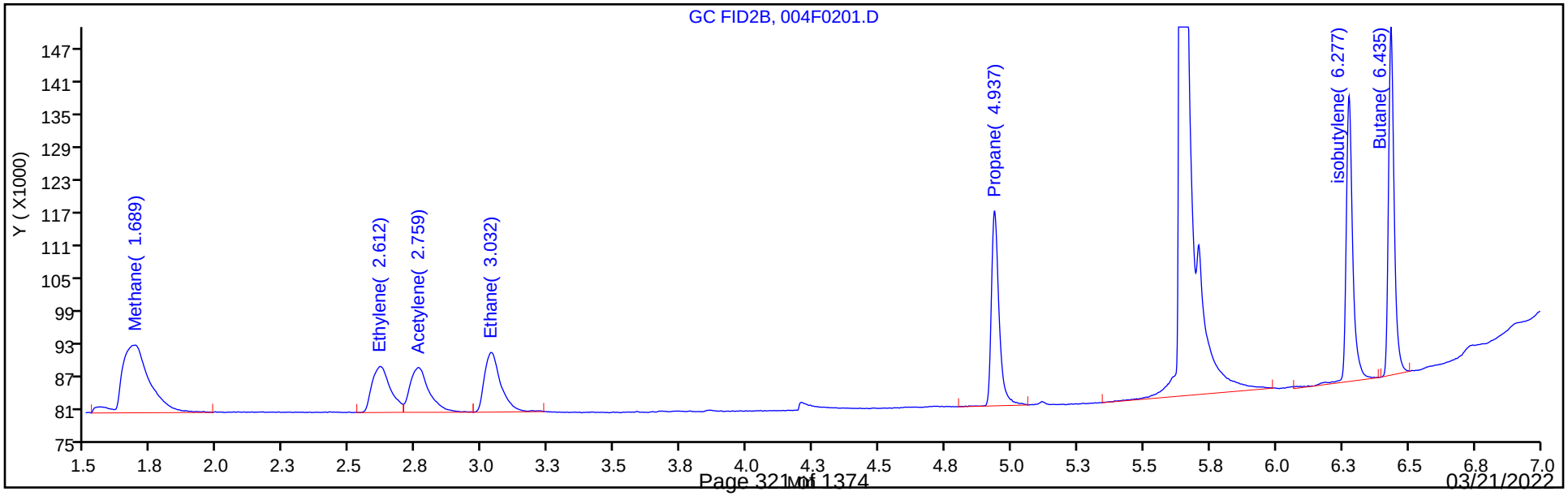
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

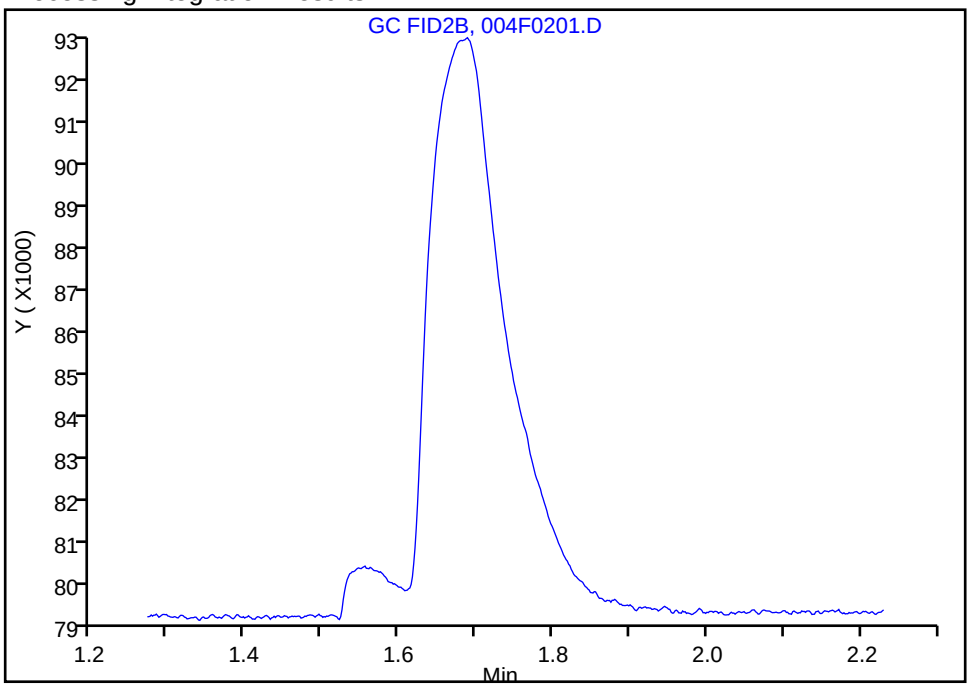
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 2 Methane, CAS: 74-82-8

Signal: 2

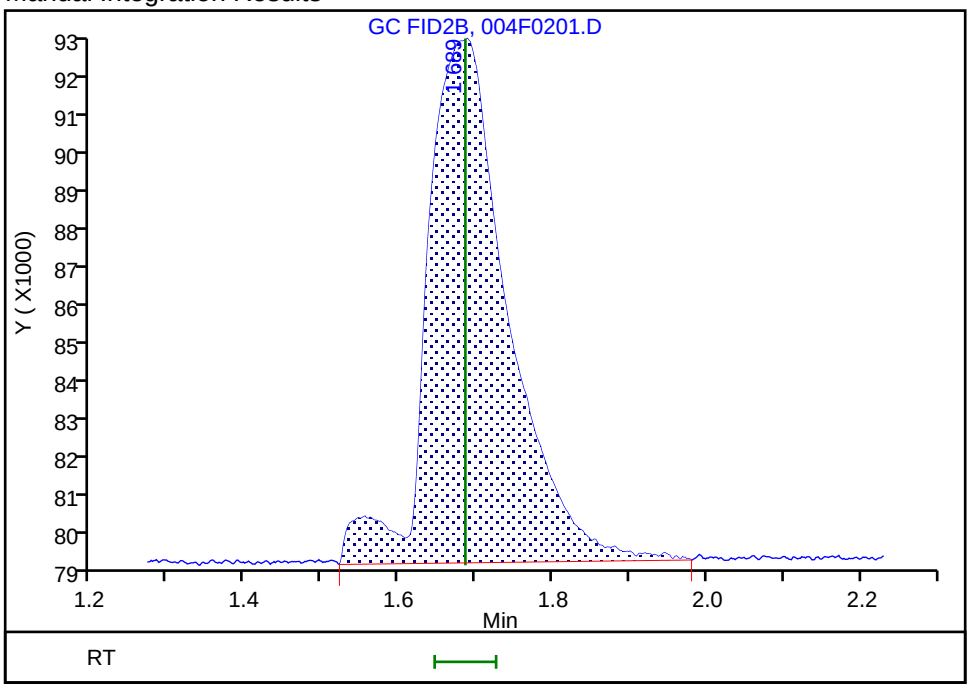
Not Detected
Expected RT: 1.69

Processing Integration Results




Manual Integration Results

RT: 1.69
Area: 91227
Amount: 0.791992
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:25
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

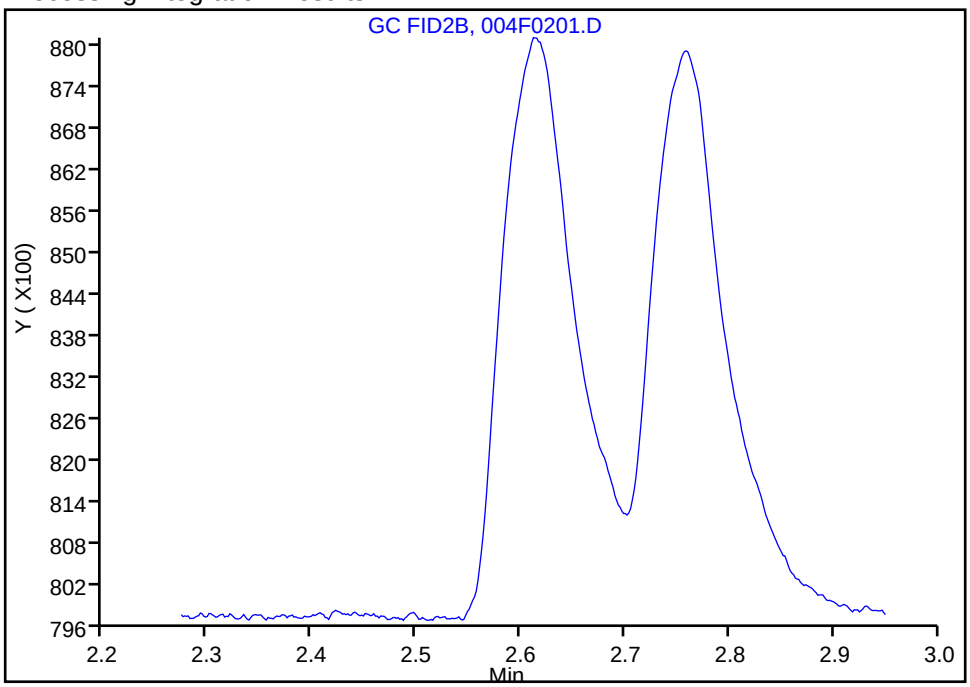
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 4 Ethylene, CAS: 74-85-1

Signal: 2

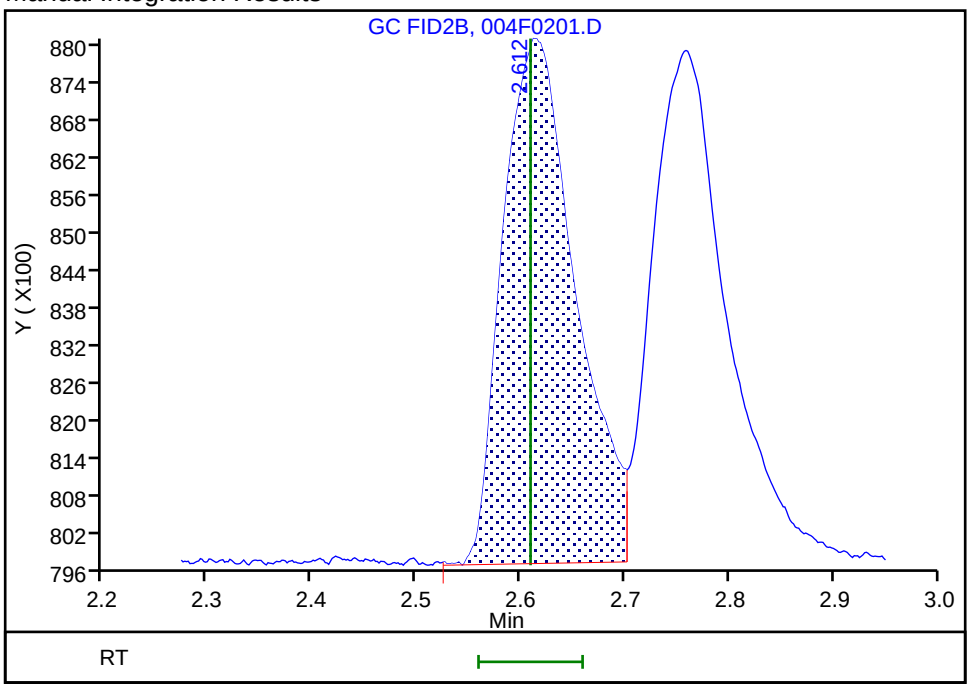
Not Detected
Expected RT: 2.61

Processing Integration Results




Manual Integration Results

RT: 2.61
Area: 41226
Amount: 1.330718
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:49
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

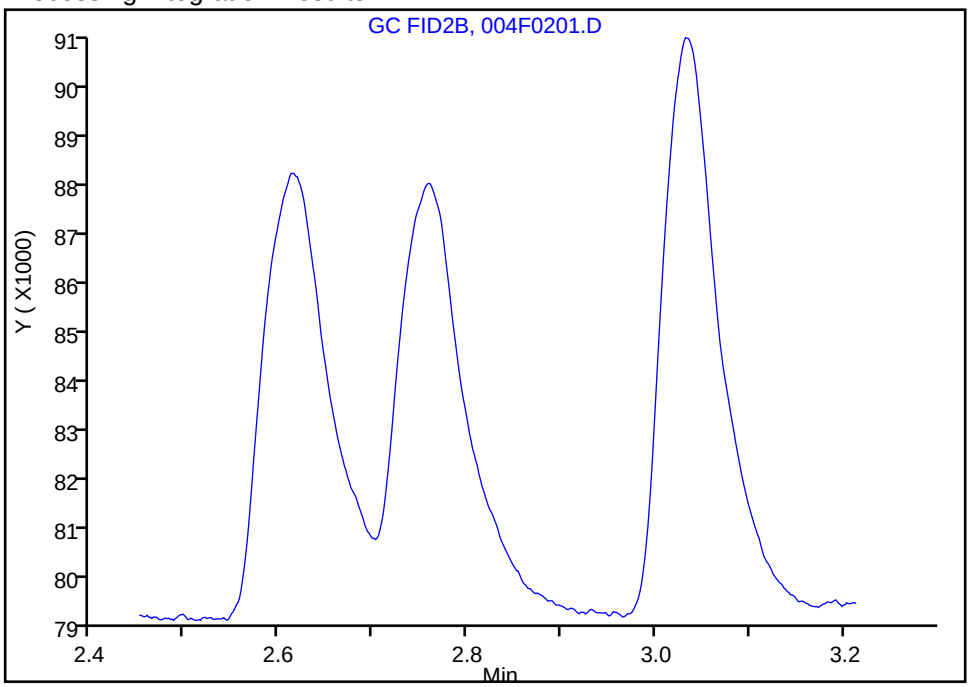
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

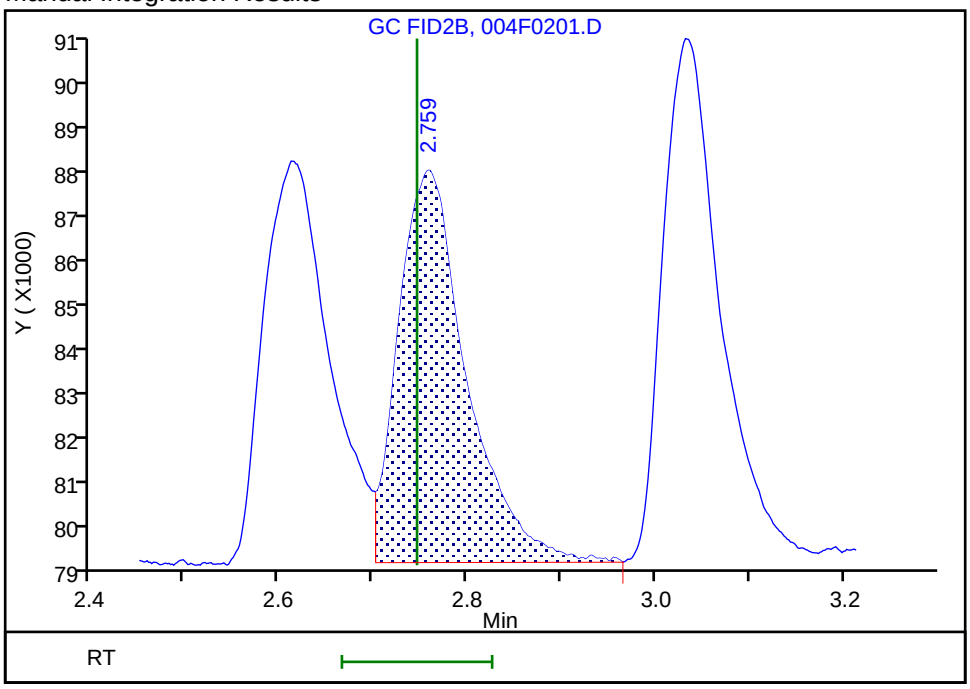
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.76
Area: 41503
Amount: 1.214291
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:55:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

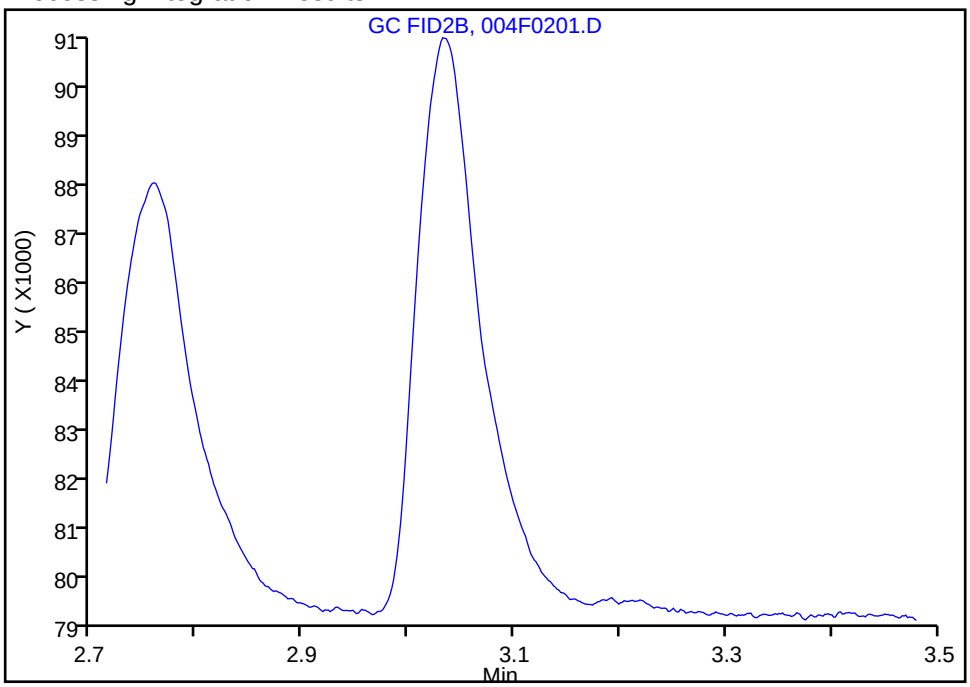
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 3 Ethane, CAS: 74-84-0

Signal: 2

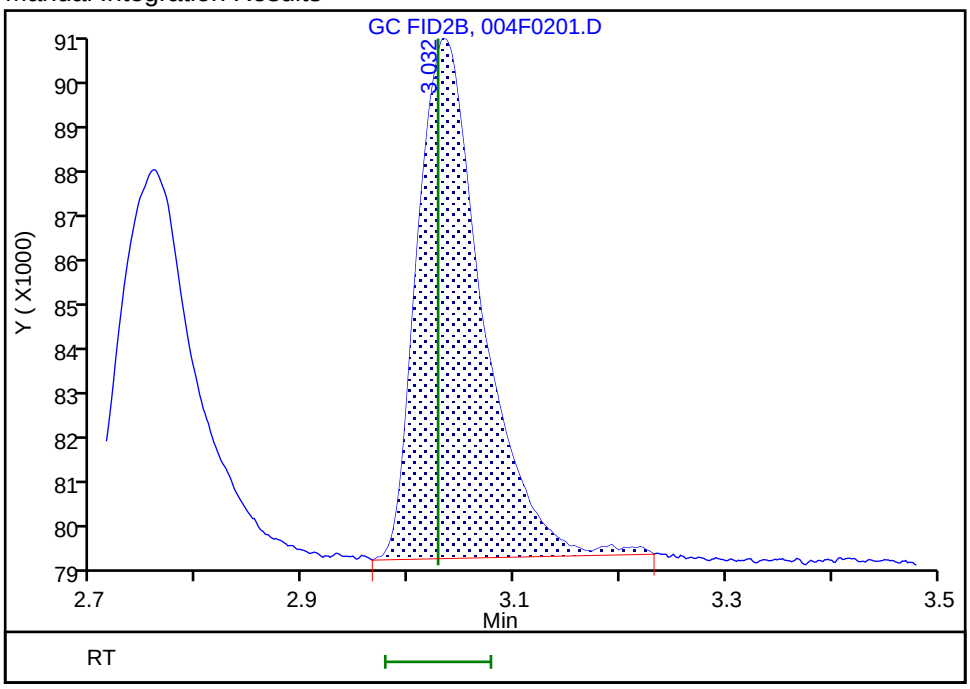
Not Detected
Expected RT: 3.03

Processing Integration Results




Manual Integration Results

RT: 3.03
Area: 46984
Amount: 1.407441
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 13:54:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.299 | -0.006 | 126818 | 1.64 | 1.75 | |
| 2 | 1.686 | 1.686 | 0.000 | 126529 | 1.64 | 1.77 | |
| | | | | | | RPD = 1.24 | |
| 3 Ethane | | | | | | | |
| 1 | 1.562 | 1.556 | 0.006 | 108631 | 3.08 | 3.27 | |
| 2 | 3.031 | 3.028 | 0.003 | 107446 | 3.08 | 3.22 | |
| | | | | | | RPD = 1.52 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.867 | 1.844 | 0.023 | 107197 | 2.87 | 3.04 | |
| 2 | 2.613 | 2.609 | 0.004 | 95159 | 2.87 | 3.07 | |
| | | | | | | RPD = 0.93 | |
| 5 Propane | | | | | | | |
| 1 | 2.700 | 2.721 | -0.021 | 174390 | 4.52 | 4.84 | |
| 2 | 4.935 | 4.929 | 0.006 | 170185 | 4.52 | 4.86 | |
| | | | | | | RPD = 0.37 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.213 | 4.230 | -0.017 | 79761 | 2.67 | 2.83 | |
| 2 | 2.756 | 2.746 | 0.010 | 94797 | 2.67 | 2.77 | |
| | | | | | | RPD = 2.17 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.575 | 4.528 | 0.047 | 232737 | 5.95 | 6.39 | a |
| 2 | 6.435 | 6.426 | 0.009 | 221865 | 5.95 | 6.31 | M |
| | | | | | | RPD = 1.20 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.457 | 5.403 | 0.054 | 232885 | 5.75 | 6.45 | |
| 2 | 6.276 | 6.274 | 0.002 | 200266 | 5.75 | 6.03 | M |
| | | | | | | RPD = 6.65 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

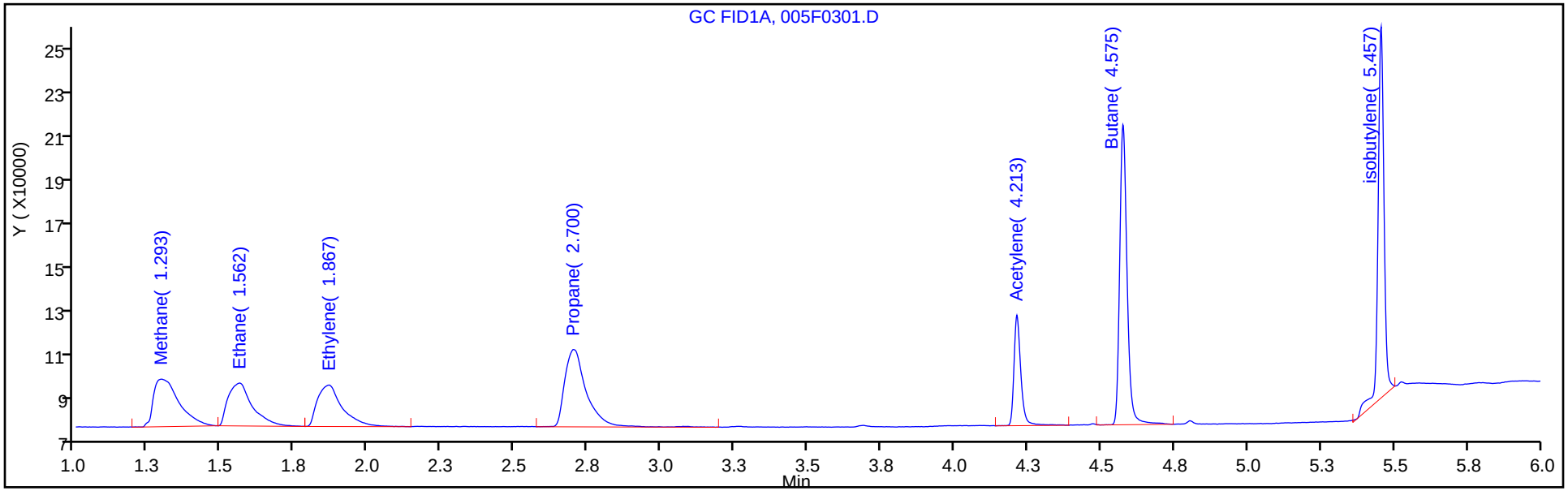
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

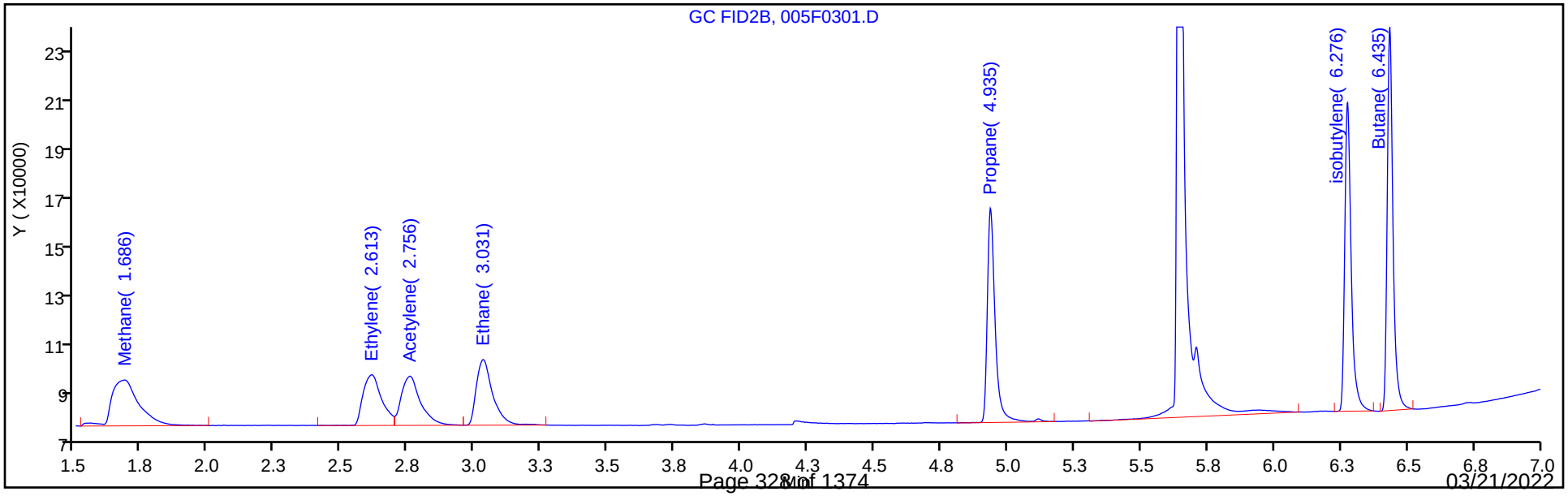
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:41:52 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.299 | -0.006 | 494257 | 13.1 | 12.2 | |
| 2 | 1.684 | 1.686 | -0.002 | 509129 | 13.1 | 12.4 | |
| | | | | | | RPD = 1.40 | |
| 3 Ethane | | | | | | | |
| 1 | 1.561 | 1.556 | 0.005 | 793971 | 24.6 | 23.9 | |
| 2 | 3.029 | 3.028 | 0.001 | 803791 | 24.6 | 24.1 | |
| | | | | | | RPD = 0.81 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.870 | 1.844 | 0.026 | 780792 | 23.0 | 22.2 | |
| 2 | 2.609 | 2.609 | 0.000 | 687818 | 23.0 | 22.2 | |
| | | | | | | RPD = 0.16 | |
| 5 Propane | | | | | | | |
| 1 | 2.711 | 2.721 | -0.010 | 1259121 | 36.1 | 35.0 | |
| 2 | 4.934 | 4.929 | 0.005 | 1221976 | 36.1 | 34.9 | |
| | | | | | | RPD = 0.18 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.226 | 4.230 | -0.004 | 587204 | 21.3 | 20.9 | a |
| 2 | 2.753 | 2.746 | 0.007 | 713476 | 21.3 | 20.9 | a |
| | | | | | | RPD = 0.03 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.586 | 4.528 | 0.058 | 1686797 | 47.6 | 46.3 | a |
| 2 | 6.433 | 6.426 | 0.007 | 1612366 | 47.6 | 45.9 | M |
| | | | | | | RPD = 0.93 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.465 | 5.403 | 0.062 | 1589725 | 46.0 | 44.0 | |
| 2 | 6.274 | 6.274 | 0.000 | 1464027 | 46.0 | 44.1 | M |
| | | | | | | RPD = 0.20 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

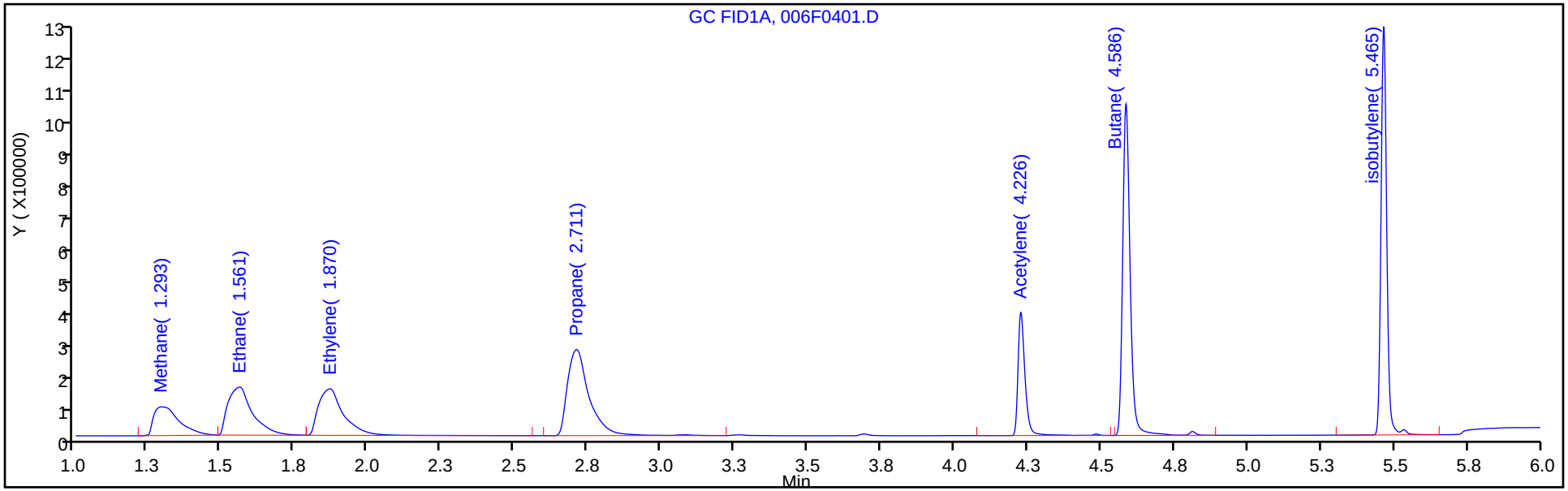
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

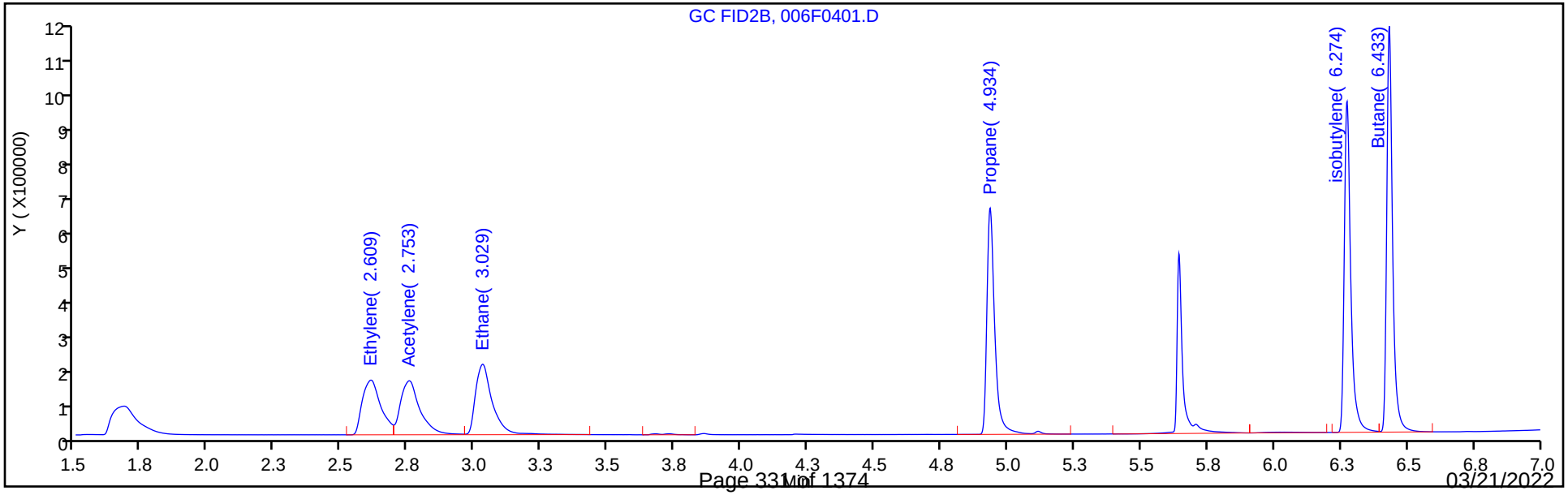
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 13:54:46 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

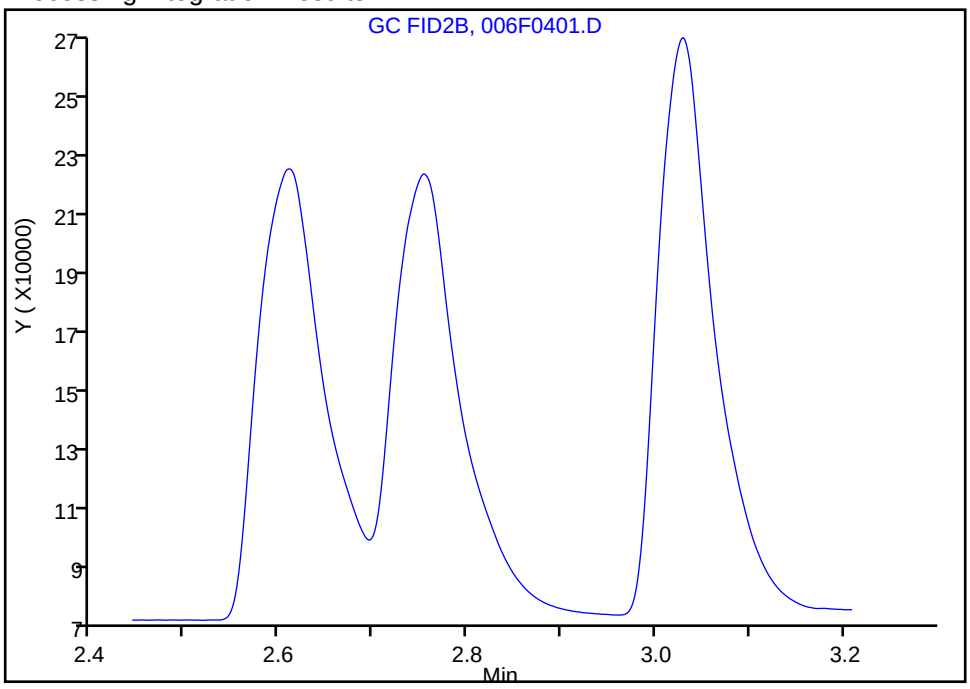
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

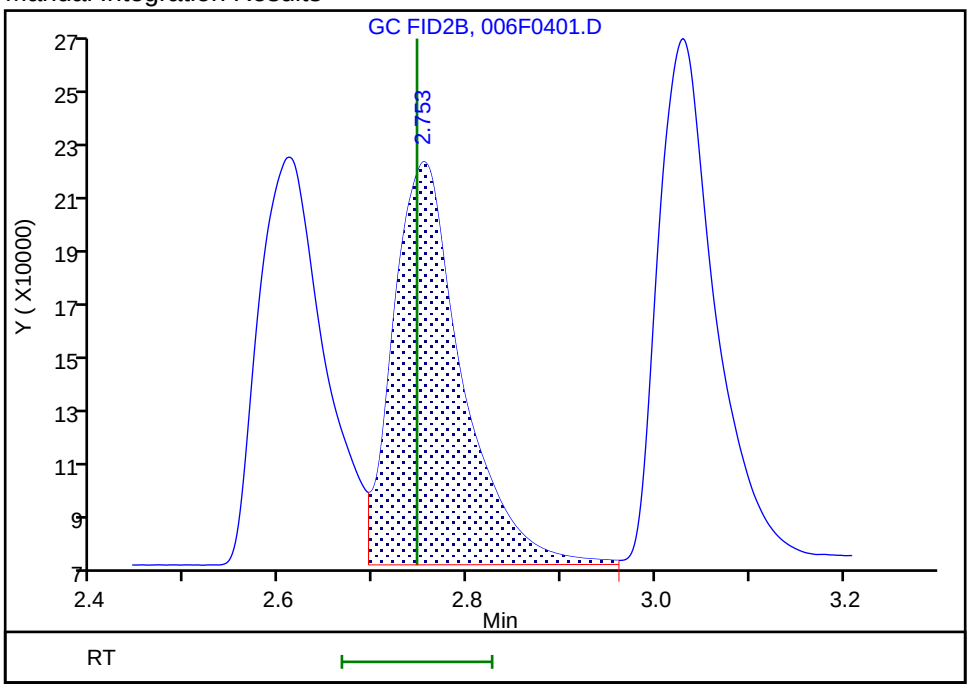
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.75
Area: 713476
Amount: 20.874815
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:50:39
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.295 | 1.295 | 0.000 | 2453548 | 65.7 | 67.9 | |
| 2 | 1.681 | 1.681 | 0.000 | 2553566 | 65.7 | 69.0 | |
| | | | | | | RPD = 1.60 | |
| 3 Ethane | | | | | | | Ma |
| 1 | 1.561 | 1.561 | 0.000 | 4411499 | 123.2 | 132.7 | |
| 2 | 3.026 | 3.026 | 0.000 | 4450065 | 123.2 | 133.3 | M |
| | | | | | | RPD = 0.45 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.870 | 1.870 | 0.000 | 4318968 | 114.9 | 122.6 | |
| 2 | 2.608 | 2.608 | 0.000 | 3812973 | 114.9 | 123.1 | |
| | | | | | | RPD = 0.38 | |
| 5 Propane | | | | | | | |
| 1 | 2.716 | 2.716 | 0.000 | 6962772 | 180.6 | 193.4 | |
| 2 | 4.933 | 4.933 | 0.000 | 6754582 | 180.6 | 192.9 | |
| | | | | | | RPD = 0.22 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.230 | 4.230 | 0.000 | 3180347 | 106.7 | 113.0 | a |
| 2 | 2.751 | 2.751 | 0.000 | 3899802 | 106.7 | 114.1 | a |
| | | | | | | RPD = 0.95 | |
| 7 Butane | | | | | | | |
| 1 | 4.590 | 4.590 | 0.000 | 9255328 | 238.1 | 254.1 | |
| 2 | 6.430 | 6.430 | 0.000 | 8939530 | 238.1 | 254.4 | |
| | | | | | | RPD = 0.11 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.468 | 5.468 | 0.000 | 8777969 | 229.8 | 243.0 | |
| 2 | 6.271 | 6.271 | 0.000 | 8052089 | 229.8 | 242.5 | |
| | | | | | | RPD = 0.20 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

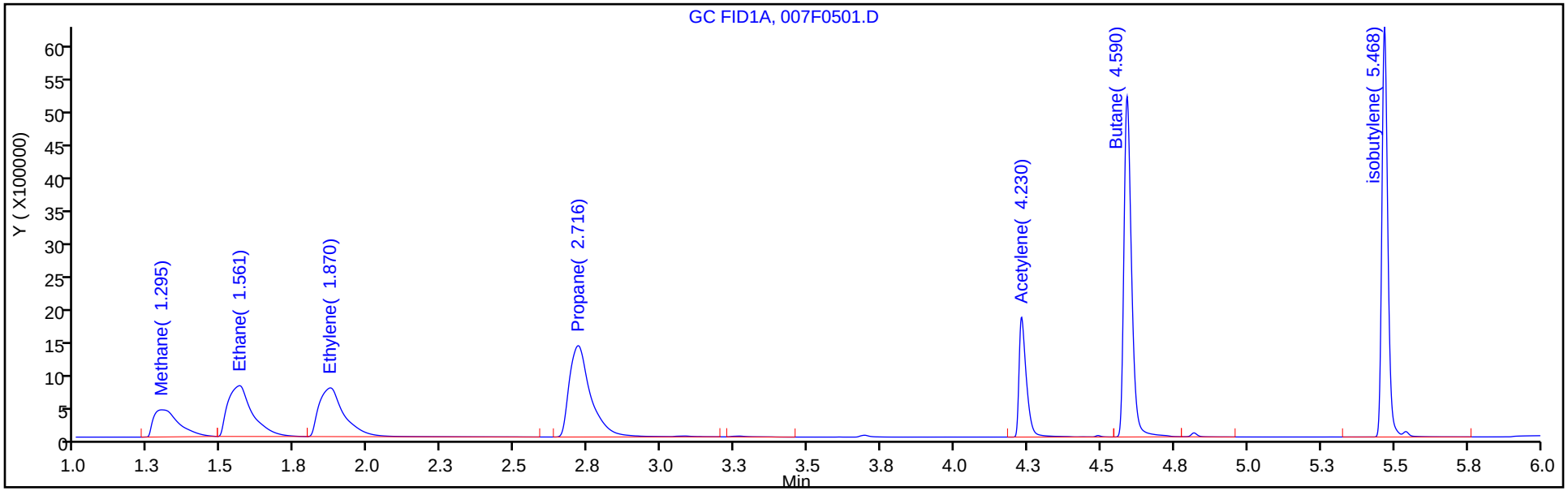
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

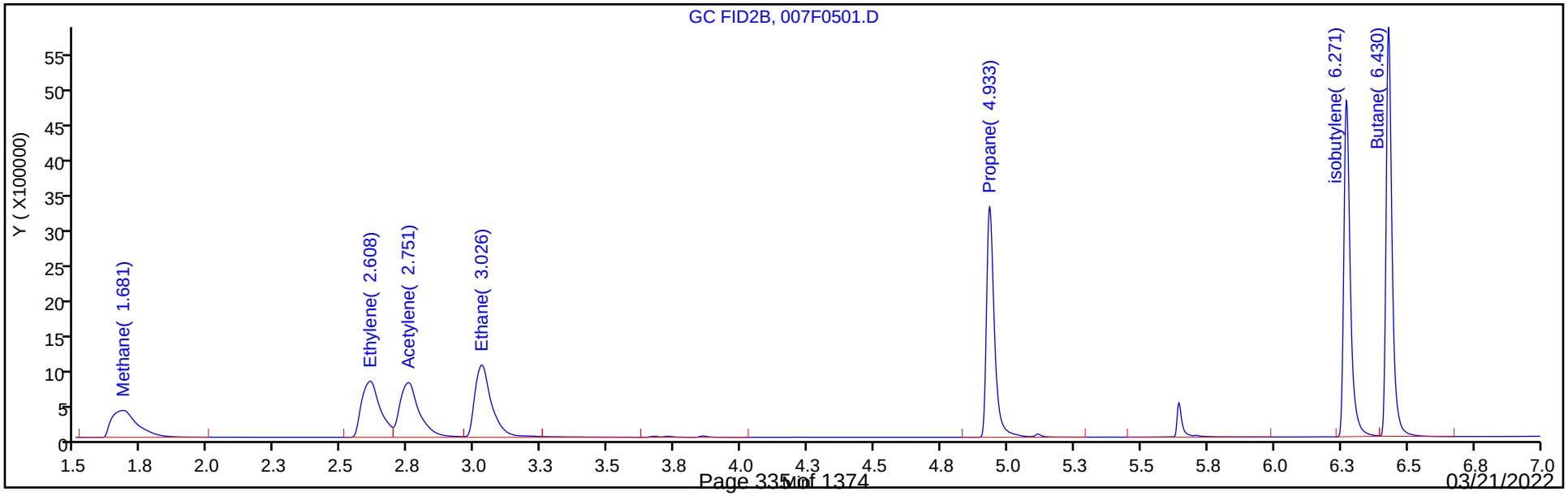
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:07:45 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

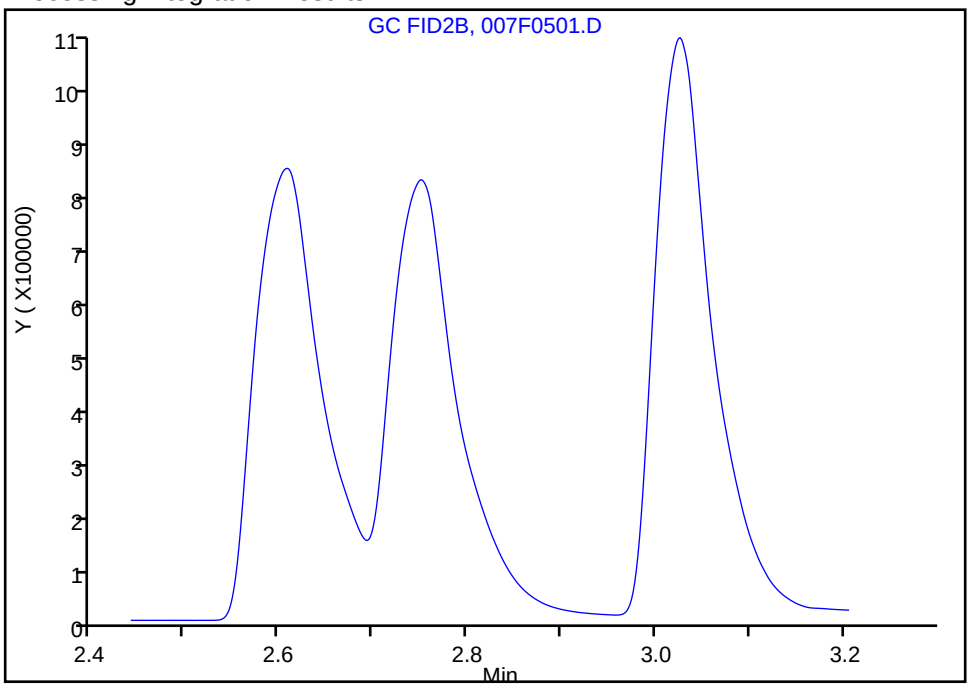
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

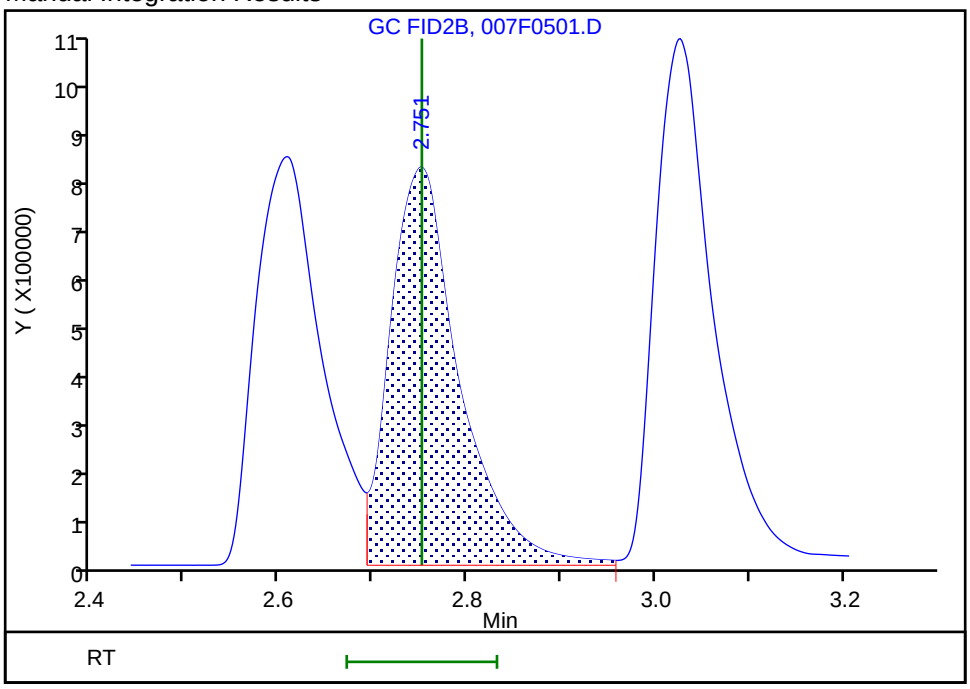
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.75
Area: 3899802
Amount: 114.1000
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:50:19
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

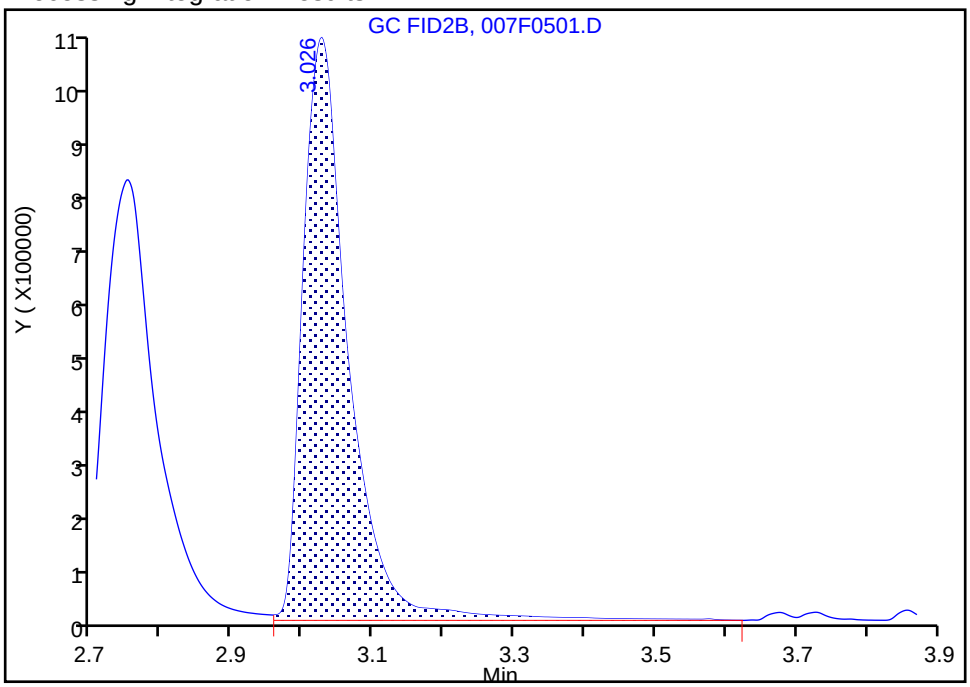
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 3 Ethane, CAS: 74-84-0

Signal: 2

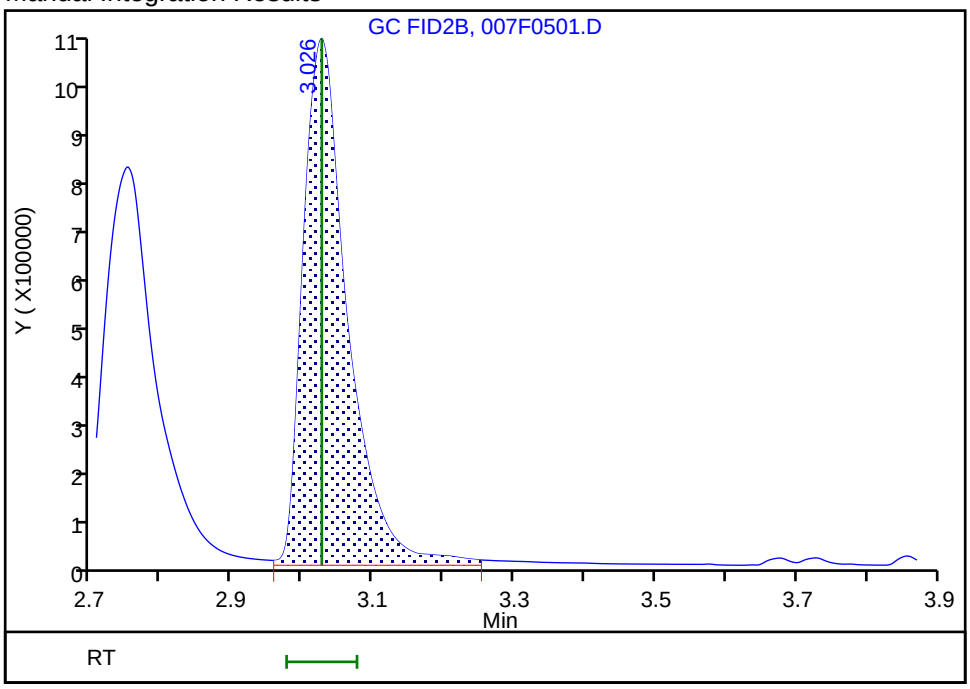
Processing Integration Results

RT: 3.03
Area: 4534073
Amount: 134.6635
Amount Units: ug/l




Manual Integration Results

RT: 3.03
Area: 4450065
Amount: 133.3050
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:50:09
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | M |
| 1 | 1.295 | 1.295 | 0.000 | 4808571 | 131.4 | 134.9 | |
| 2 | 1.678 | 1.678 | 0.000 | 5065048 | 131.4 | 138.6 | M |
| | | | | | | RPD = 2.70 | |
| 3 Ethane | | | | | | | |
| 1 | 1.560 | 1.560 | 0.000 | 8751636 | 246.3 | 263.3 | |
| 2 | 3.023 | 3.023 | 0.000 | 8976911 | 246.3 | 268.9 | |
| | | | | | | RPD = 2.12 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.873 | 1.873 | 0.000 | 8582166 | 229.8 | 243.6 | |
| 2 | 2.603 | 2.603 | 0.000 | 7548044 | 229.8 | 243.6 | |
| | | | | | | RPD = 0.00 | |
| 5 Propane | | | | | | | M |
| 1 | 2.721 | 2.721 | 0.000 | 13578180 | 361.3 | 377.1 | M |
| 2 | 4.929 | 4.929 | 0.000 | 13344347 | 361.3 | 381.1 | |
| | | | | | | RPD = 1.08 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.230 | 4.230 | 0.000 | 6274725 | 213.3 | 223.0 | a |
| 2 | 2.746 | 2.746 | 0.000 | 7865310 | 213.3 | 230.1 | a |
| | | | | | | RPD = 3.15 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.591 | 4.591 | 0.000 | 18468578 | 476.1 | 507.1 | a |
| 2 | 6.426 | 6.426 | 0.000 | 17766895 | 476.1 | 505.6 | M |
| | | | | | | RPD = 0.29 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.468 | 5.468 | 0.000 | 17314841 | 459.7 | 479.3 | |
| 2 | 6.269 | 6.269 | 0.000 | 15966351 | 459.7 | 480.9 | M |
| | | | | | | RPD = 0.33 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

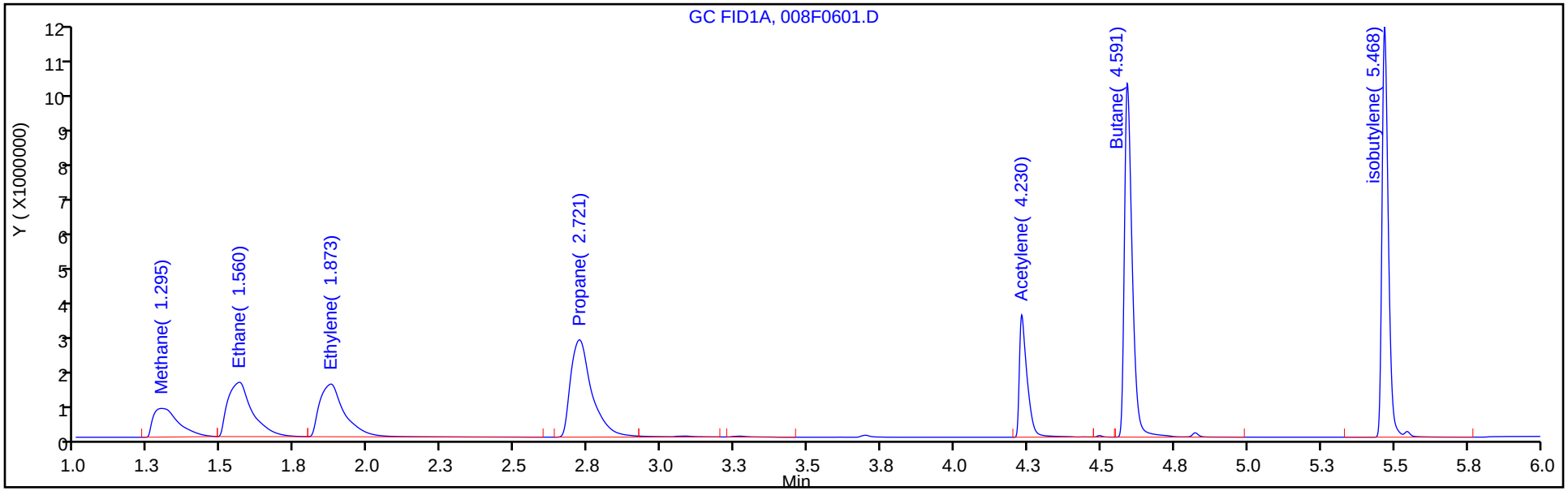
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

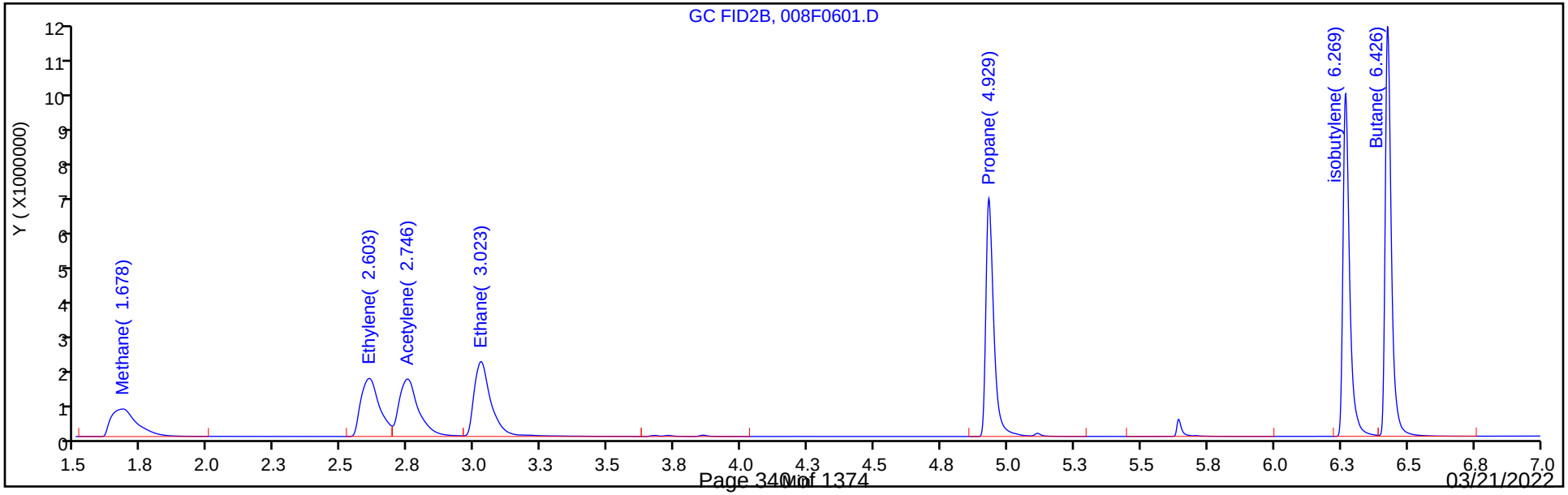
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

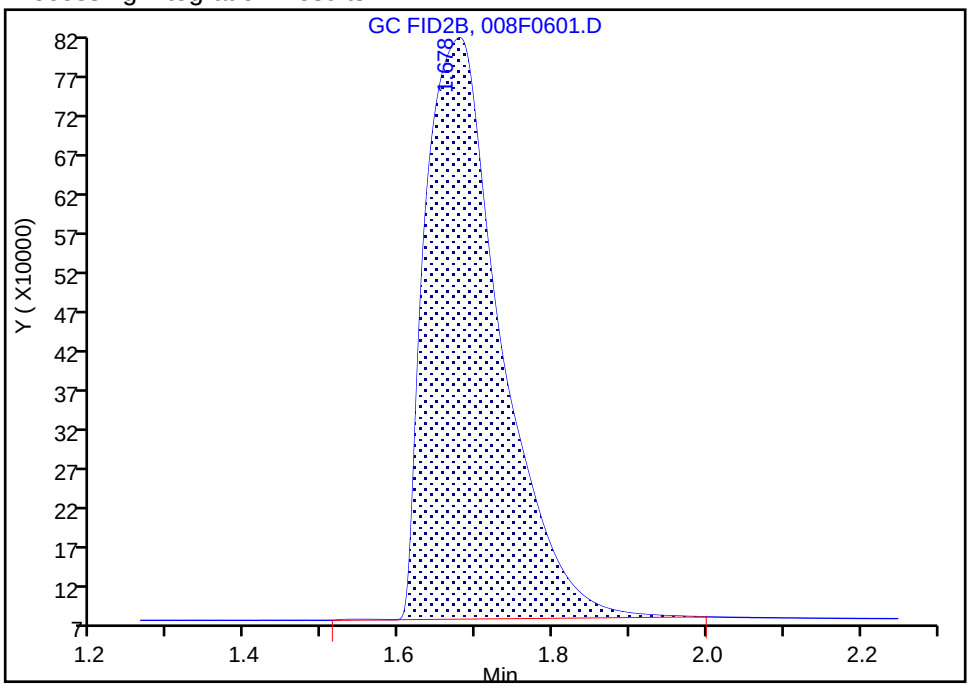
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 2 Methane, CAS: 74-82-8

Signal: 2

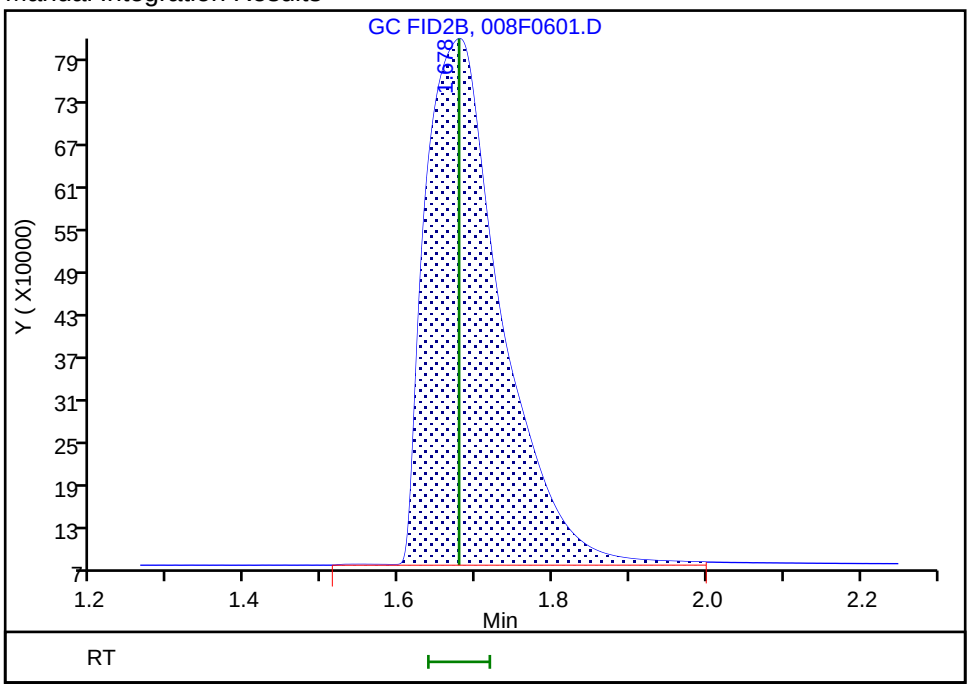
Processing Integration Results

RT: 1.68
Area: 5002633
Amount: 137.0848
Amount Units: ug/l




Manual Integration Results

RT: 1.68
Area: 5065048
Amount: 138.5598
Amount Units: ug/l




Reviewer: sciannac, 29-Sep-2021 09:21:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

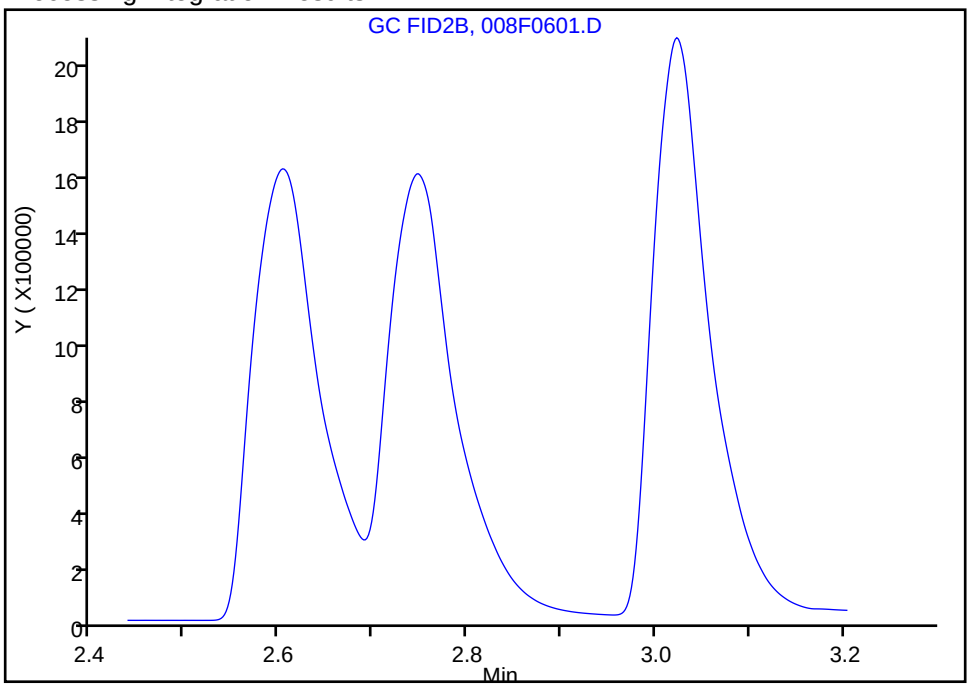
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

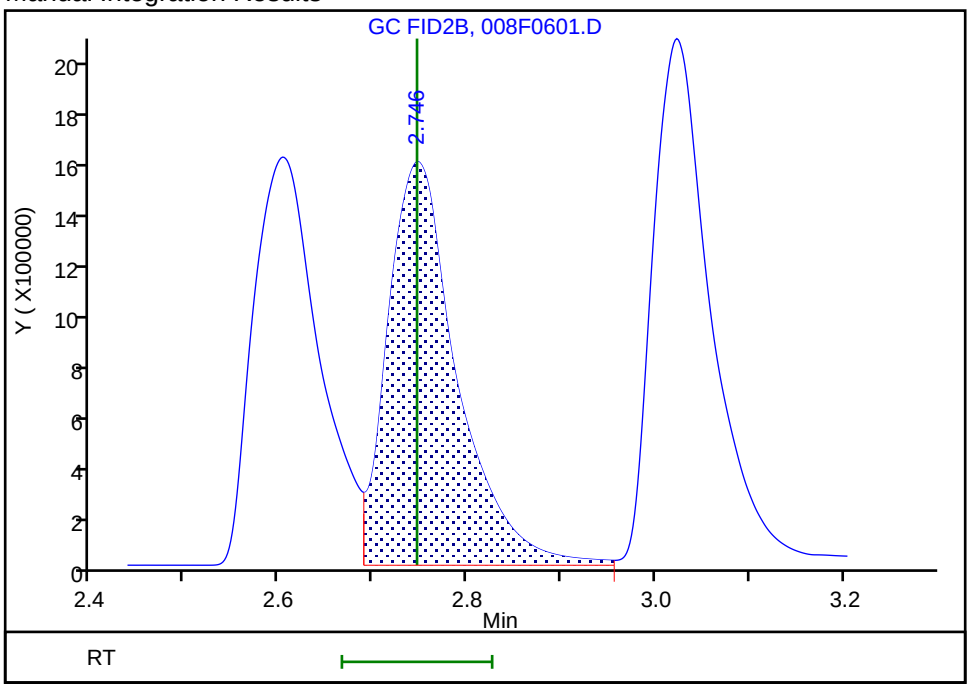
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.75
Area: 7865310
Amount: 230.1225
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:44:53
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.294 | 1.295 | -0.001 | 8118988 | 262.8 | 229.0 | |
| 2 | 1.678 | 1.678 | 0.000 | 8455607 | 262.8 | 232.5 | |
| | | | | | | RPD = 1.51 | |
| 3 Ethane | | | | | | | |
| 1 | 1.561 | 1.560 | 0.001 | 14997572 | 492.7 | 451.2 | |
| 2 | 3.021 | 3.023 | -0.002 | 14625440 | 492.7 | 438.1 | |
| | | | | | | RPD = 2.94 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.873 | 1.873 | 0.000 | 14678124 | 459.6 | 416.7 | |
| 2 | 2.602 | 2.603 | -0.001 | 12909086 | 459.6 | 416.7 | |
| | | | | | | RPD = 0.00 | |
| 5 Propane | | | | | | | |
| 1 | 2.723 | 2.721 | 0.002 | 23539538 | 722.6 | 653.7 | |
| 2 | 4.926 | 4.929 | -0.003 | 23034734 | 722.6 | 657.9 | |
| | | | | | | RPD = 0.65 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.228 | 4.230 | -0.002 | 10977943 | 426.7 | 390.1 | a |
| 2 | 2.746 | 2.746 | 0.000 | 13452620 | 426.7 | 393.6 | a |
| | | | | | | RPD = 0.88 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.588 | 4.591 | -0.003 | 30555104 | 952.3 | 838.9 | a |
| 2 | 6.423 | 6.426 | -0.003 | 31281741 | 952.3 | 890.2 | M |
| | | | | | | RPD = 5.93 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.466 | 5.468 | -0.002 | 30754275 | 919.4 | 851.3 | |
| 2 | 6.266 | 6.269 | -0.003 | 28385241 | 919.4 | 854.9 | M |
| | | | | | | RPD = 0.42 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

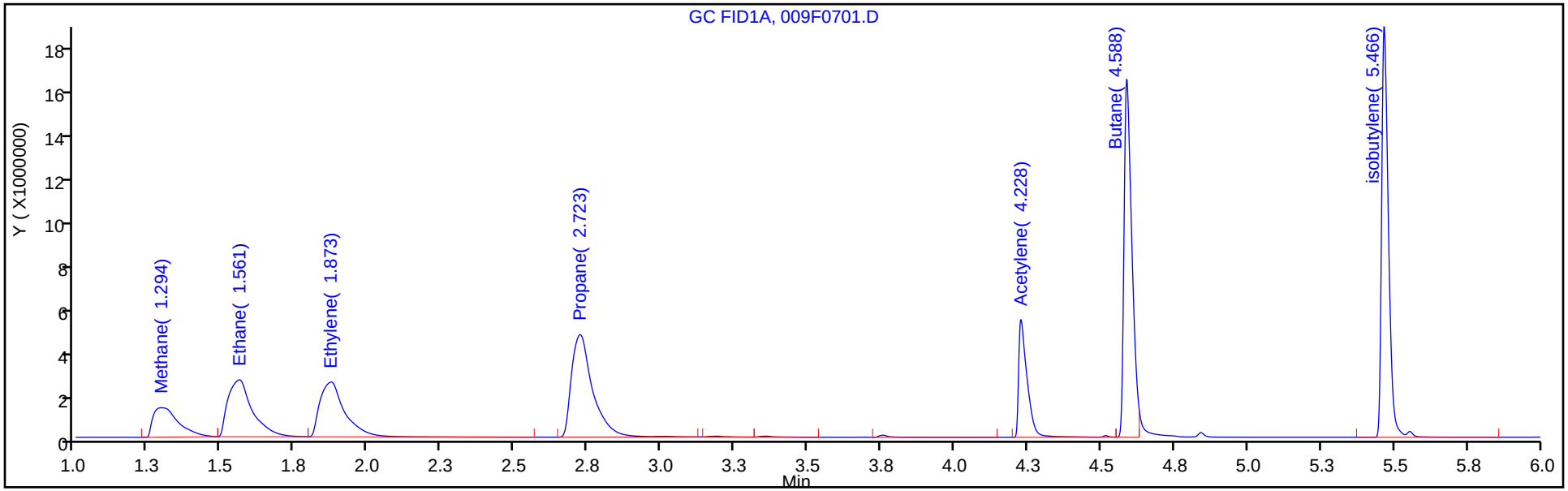
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

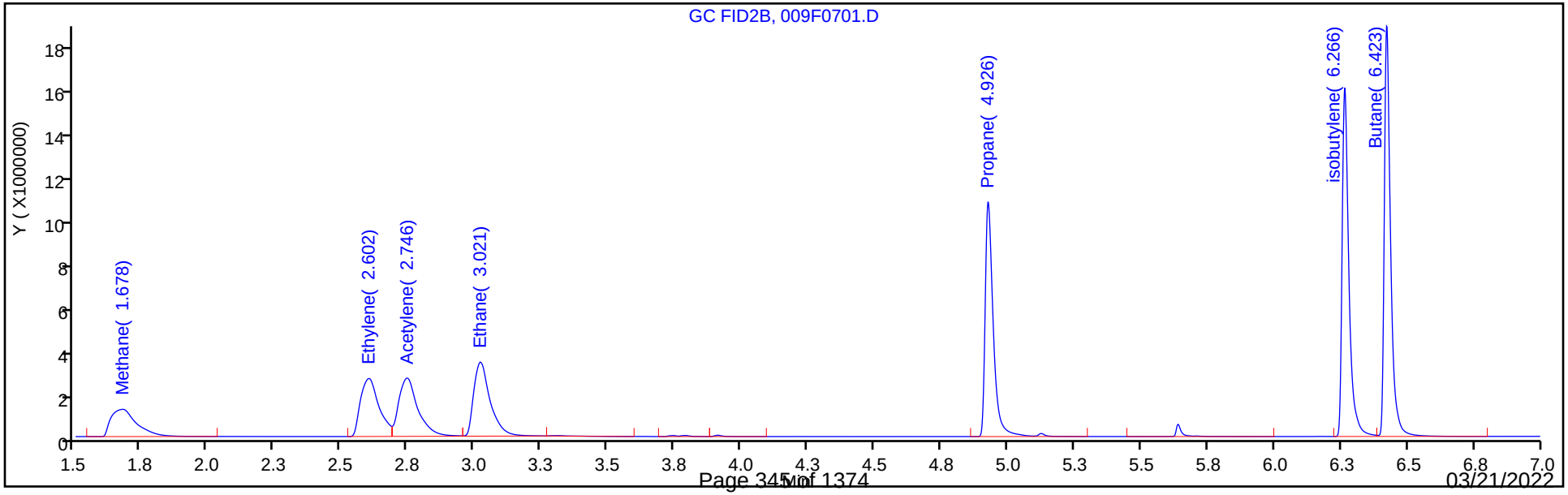
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:33:44 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

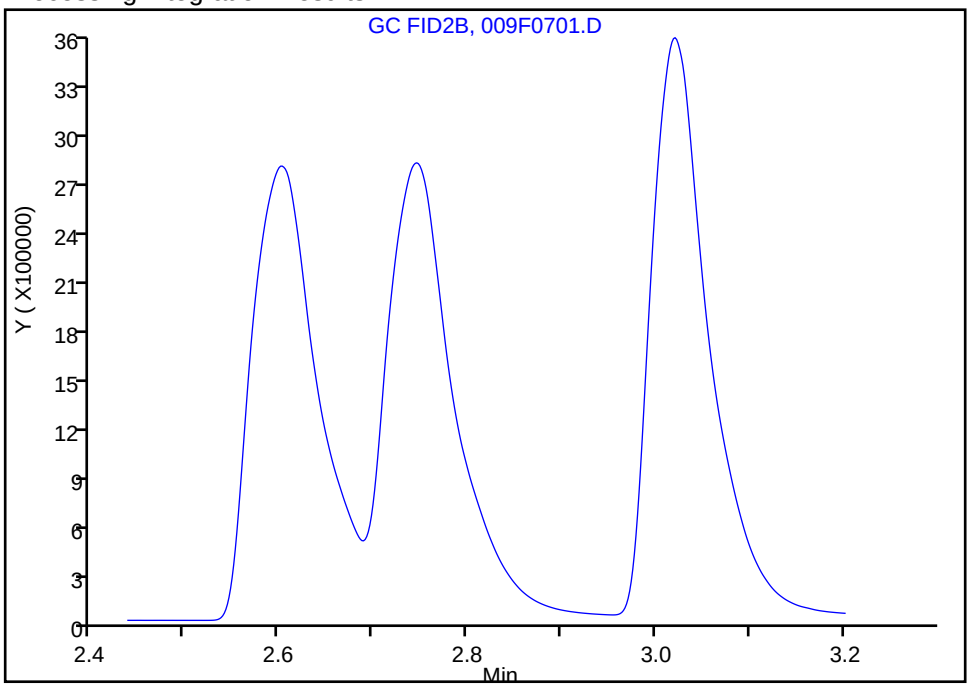
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Injection Date: 24-Sep-2021 14:33:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

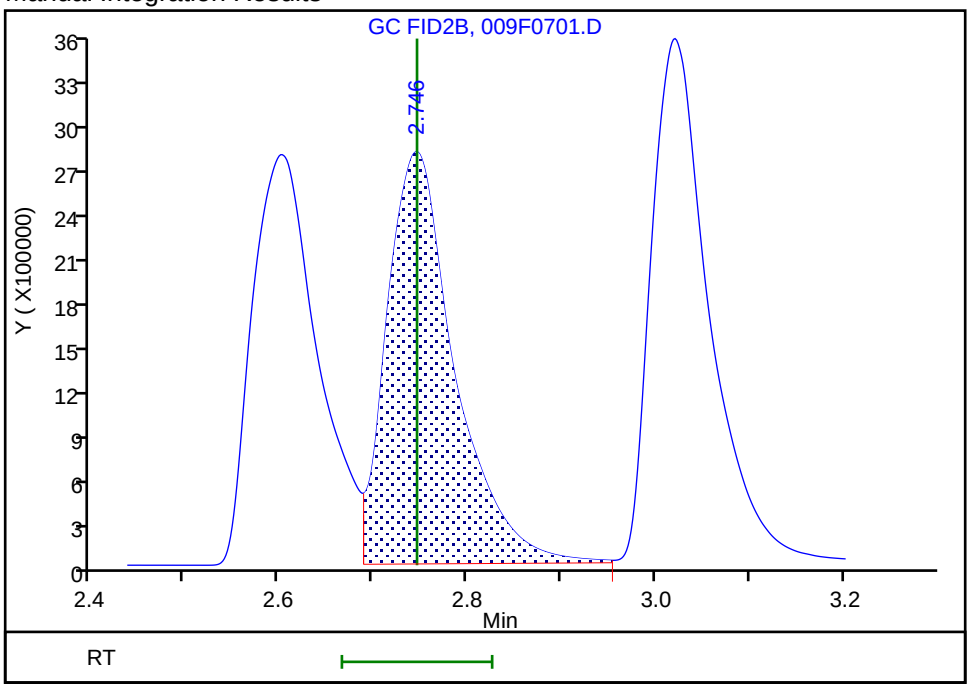
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.75
Area: 13452620
Amount: 393.5955
Amount Units: ug/l




Reviewer: sciannac, 24-Sep-2021 15:46:30
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.293 | 1.295 | -0.002 | 60484705 | 1626.3 | 1717.9 | |
| 2 | 1.676 | 1.678 | -0.002 | 59798125 | 1626.3 | 1654.6 | |
| | | | | | | RPD = 3.75 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK175methane_00010 Amount Added: 50.00 Units: uL

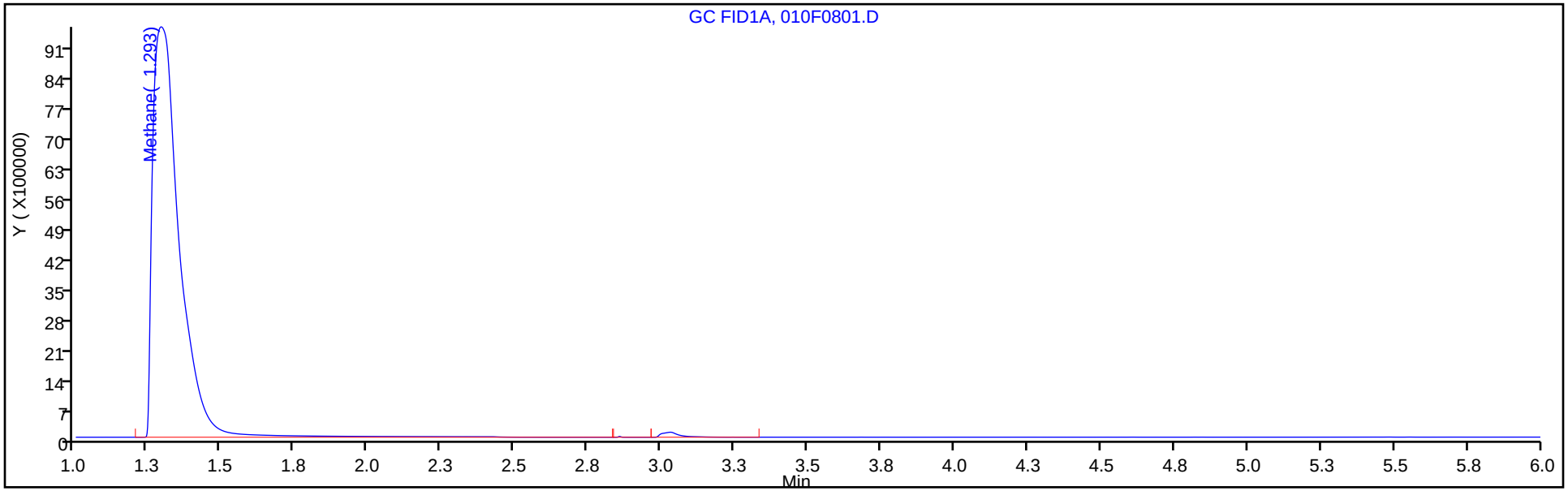
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

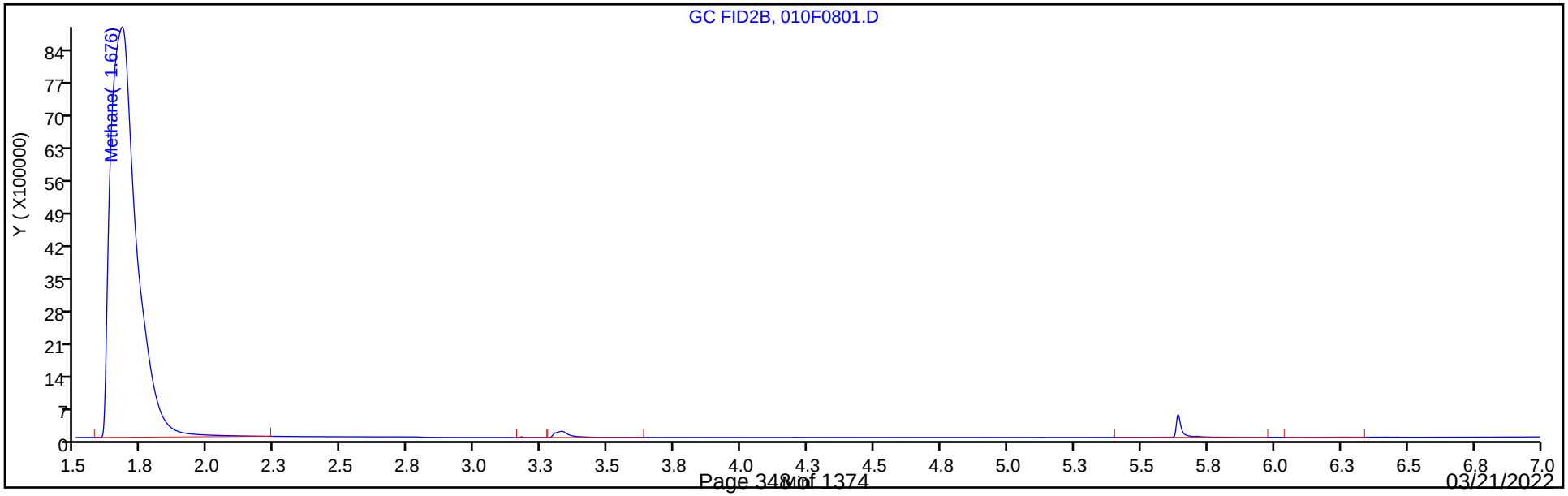
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:46:48 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D | | | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 9 | | |
| Inject. Date: | 24-Sep-2021 14:59:53 | ALS Bottle#: | 11 | Worklist Smp#: | 10 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Sublist: | chrom-RSK_J*sub5 | | | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 29-Sep-2021 10:55:17 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.292 | 1.295 | -0.003 | 245647963 | 6505.0 | 6982.6 | |
| 2 | 1.673 | 1.678 | -0.005 | 247051774 | 6505.0 | 6841.2 | |
| | | | | | | RPD = 2.04 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

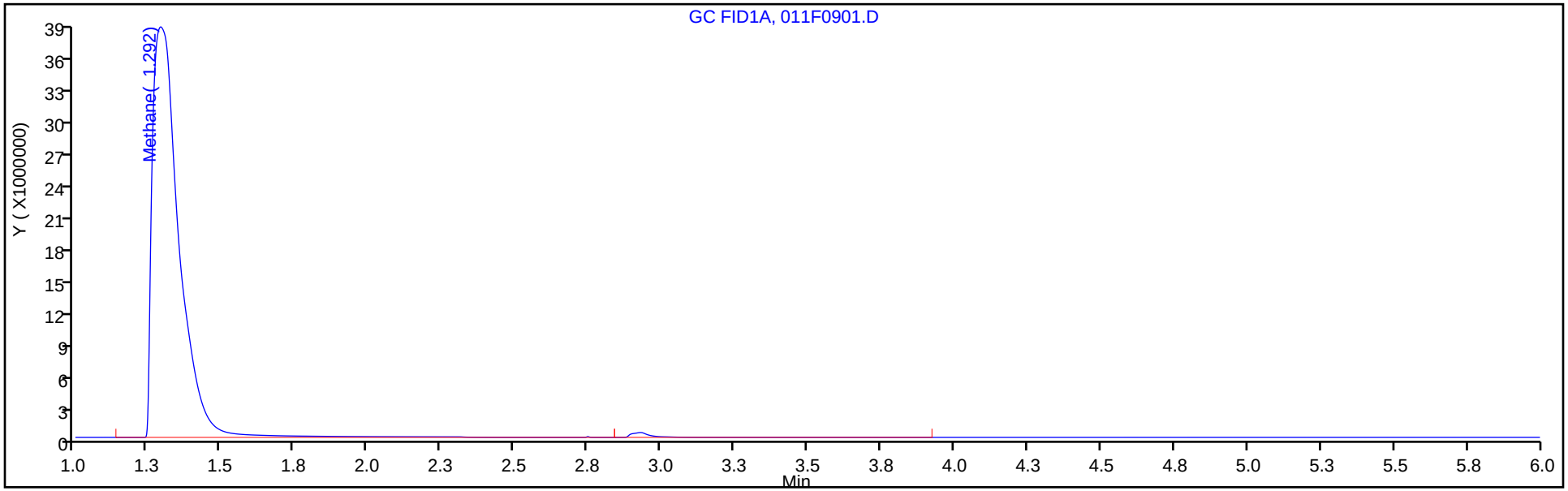
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

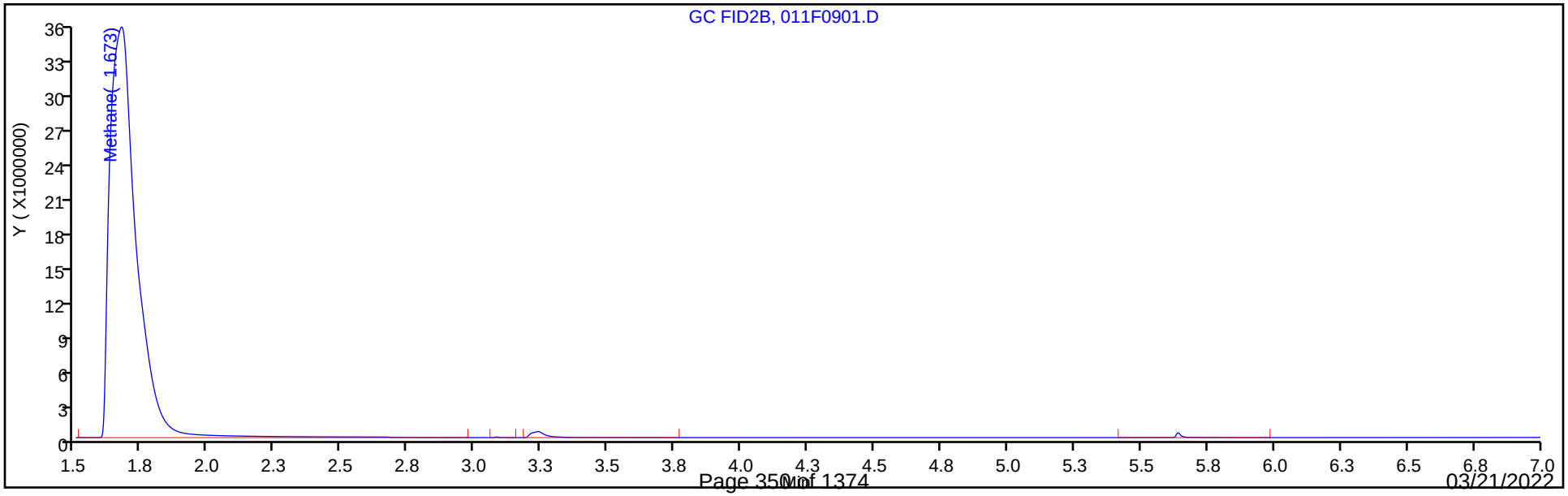
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 14:59:53 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 10 | | |
| Inject. Date: | 24-Sep-2021 15:12:55 | ALS Bottle#: | 12 | Worklist Smp#: | 11 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | ic | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Sublist: | chrom-RSK_J*sub5 | | | | |
| Method: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 29-Sep-2021 10:55:18 | Calib Date: | 24-Sep-2021 15:12:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D | | | | |
| Column 1 : | Rt-Alumina BOND/KCl ( 0.53 mm) | | Det: GC FID1A | | |
| Column 2 : | HP-PLOT/Q ( 0.53 mm) | | Det: GC FID2B | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.288 | 1.295 | -0.007 | 669092603 | 19515 | 19022 | |
| 2 | 1.669 | 1.678 | -0.009 | 675608539 | 19515 | 18712 | |
| | | | | | | RPD = 1.65 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK175methane_00010 Amount Added: 600.00 Units: uL

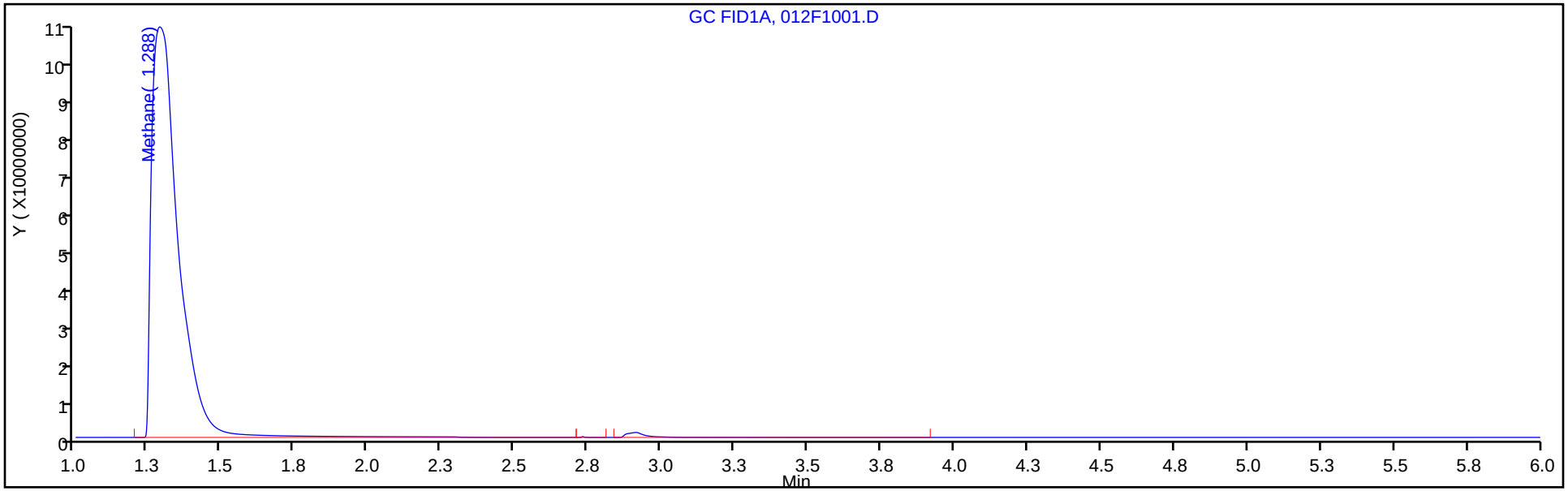
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

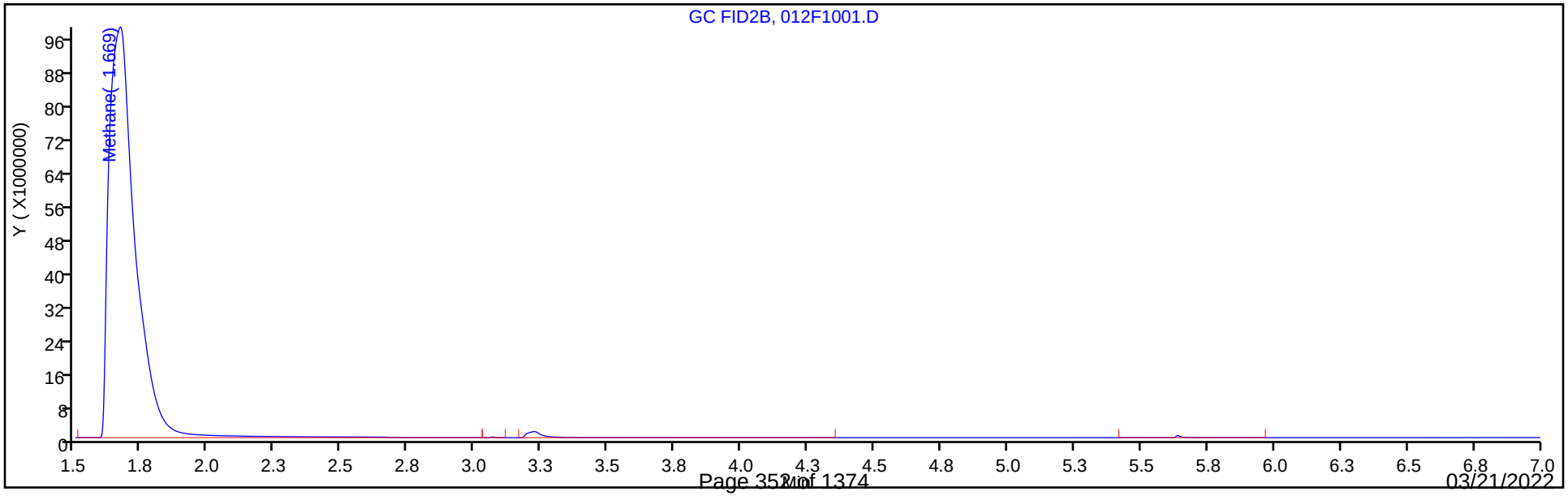
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 15:12:55 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ic | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



## Calibration / Methane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

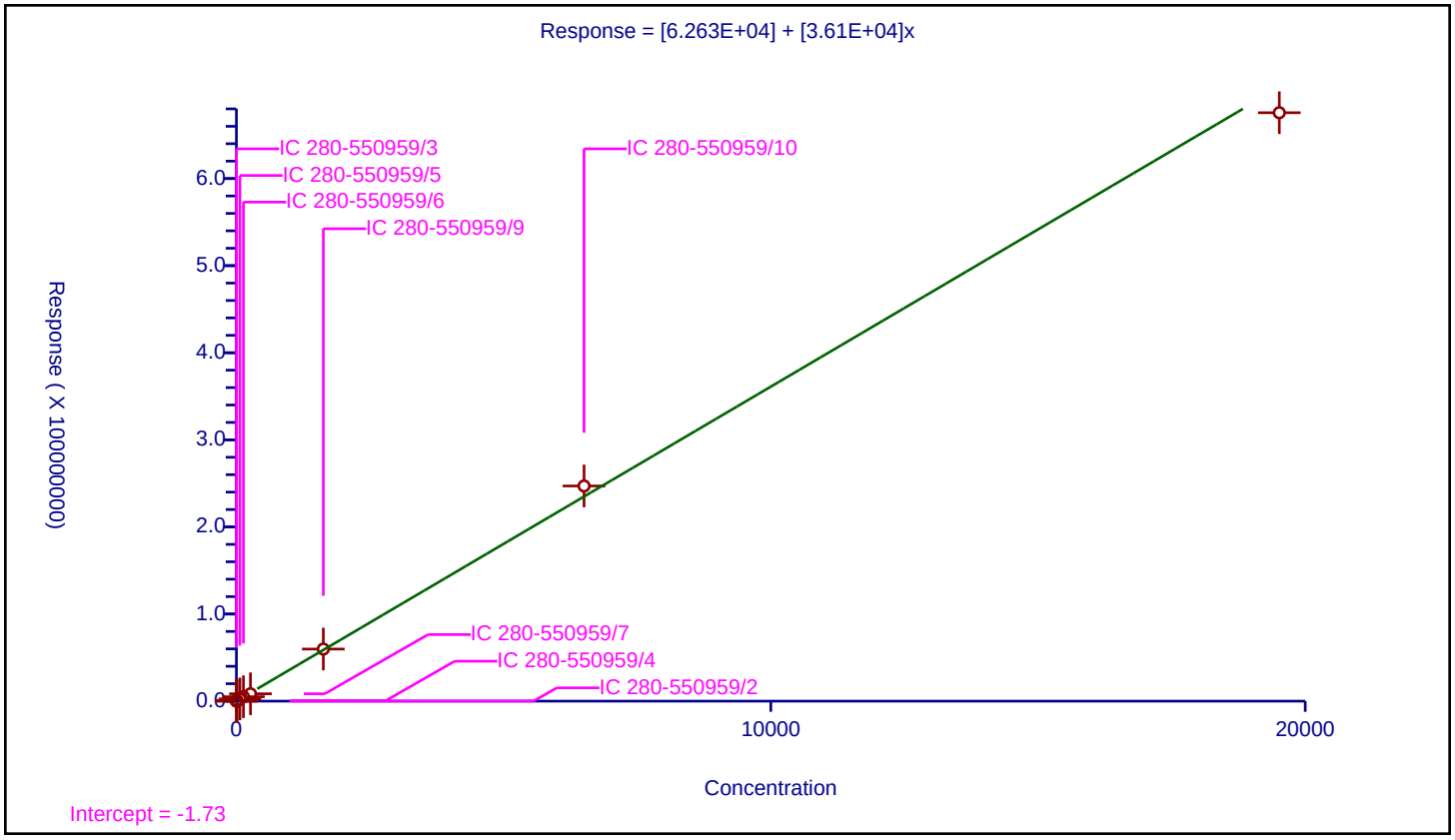
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 6.263E+04 |
| **Slope:** | 3.61E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 11900000 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 0.821288 | 91227.0 | | | 111078.032967 | Y |
| 2 | IC 280-550959/3 | 1.642575 | 126529.0 | | | 77030.88139 | Y |
| 3 | IC 280-550959/4 | 13.1406 | 509129.0 | | | 38744.730073 | Y |
| 4 | IC 280-550959/5 | 65.703 | 2553566.0 | | | 38865.287734 | Y |
| 5 | IC 280-550959/6 | 131.406 | 5065048.0 | | | 38545.028385 | Y |
| 6 | IC 280-550959/7 | 262.812 | 8455607.0 | | | 32173.595574 | Y |
| 7 | IC 280-550959/9 | 1626.25 | 59798125.0 | | | 36770.561107 | Y |
| 8 | IC 280-550959/10 | 6505.0 | 247051774.0 | | | 37978.750807 | Y |
| 9 | IC 280-550959/11 | 19515.0 | 675608539.0 | | | 34619.961004 | Y |



## Calibration / Ethylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

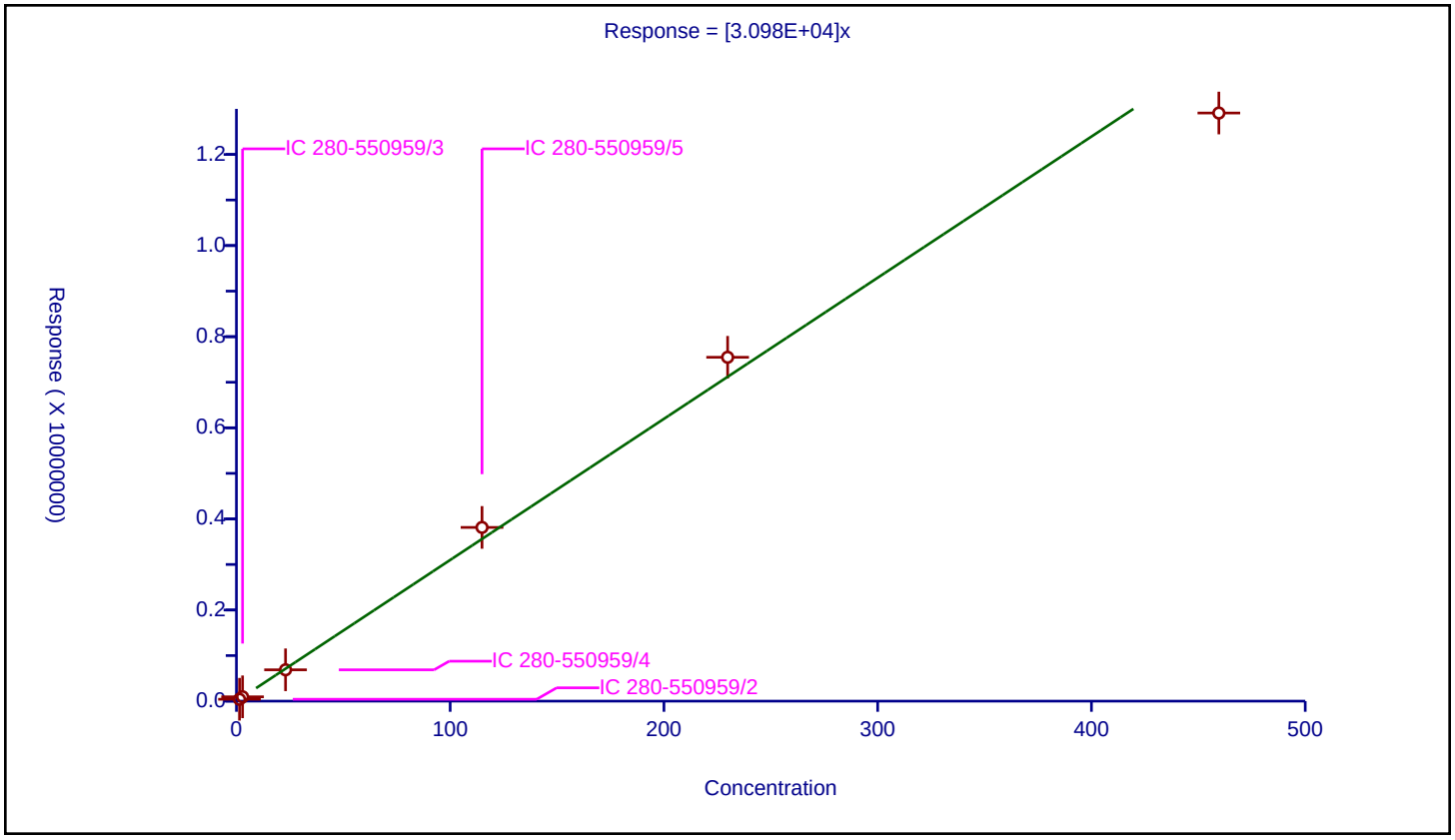
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.098E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 635000 |
| **Relative Standard Error:** | 7.6 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.43625 | 41226.0 | | | 28703.916449 | Y |
| 2 | IC 280-550959/3 | 2.8725 | 95159.0 | | | 33127.589208 | Y |
| 3 | IC 280-550959/4 | 22.98 | 687818.0 | | | 29931.157528 | Y |
| 4 | IC 280-550959/5 | 114.9 | 3812973.0 | | | 33185.143603 | Y |
| 5 | IC 280-550959/6 | 229.8 | 7548044.0 | | | 32846.144473 | Y |
| 6 | IC 280-550959/7 | 459.6 | 12909086.0 | | | 28087.654482 | Y |



## Calibration / Acetylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

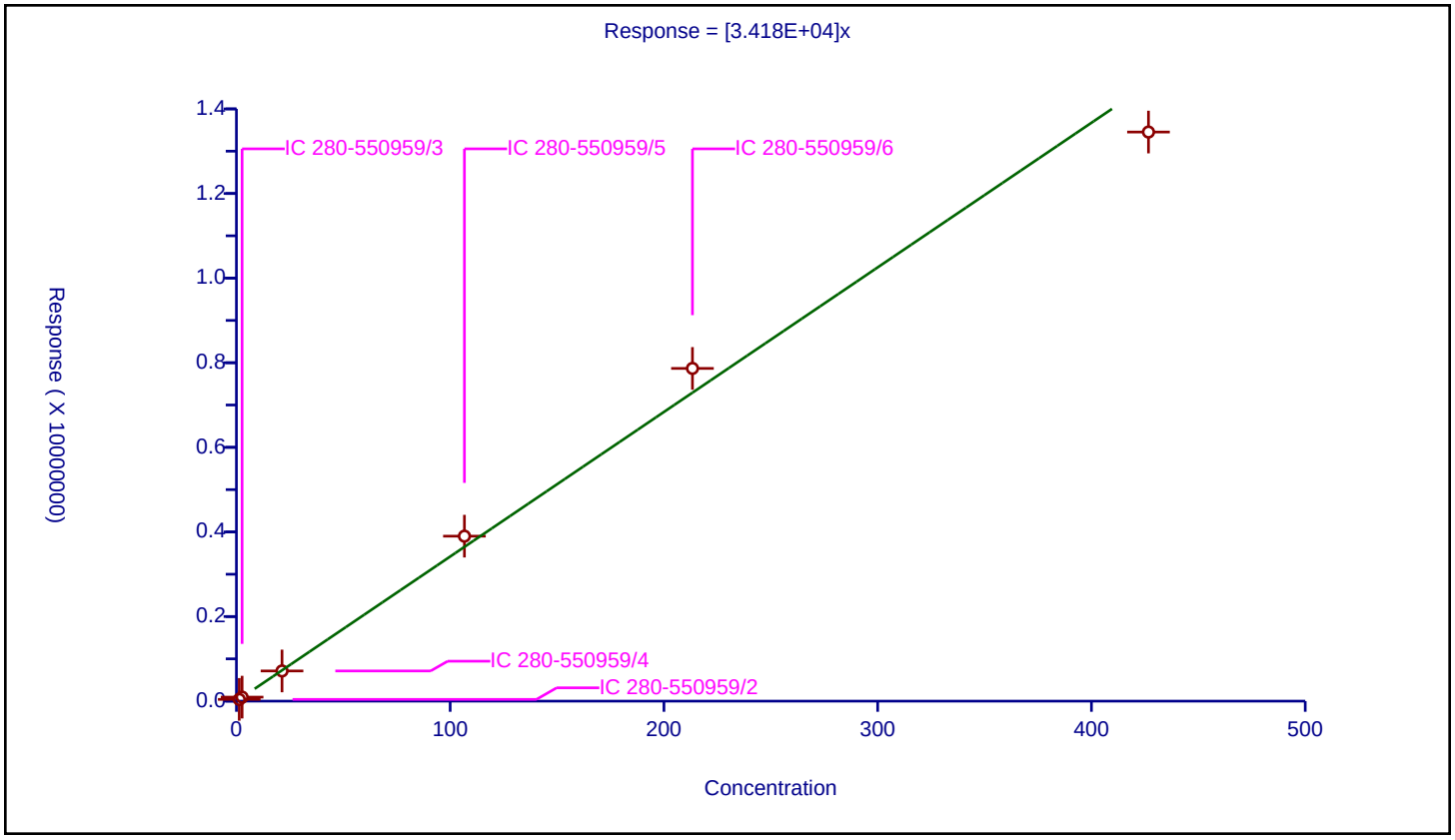
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.418E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 578000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.333375 | 41503.0 | | | 31126.277304 | Y |
| 2 | IC 280-550959/3 | 2.66675 | 94797.0 | | | 35547.764132 | Y |
| 3 | IC 280-550959/4 | 21.334 | 713476.0 | | | 33443.142402 | Y |
| 4 | IC 280-550959/5 | 106.67 | 3899802.0 | | | 36559.501266 | Y |
| 5 | IC 280-550959/6 | 213.34 | 7865310.0 | | | 36867.488516 | Y |
| 6 | IC 280-550959/7 | 426.68 | 13452620.0 | | | 31528.592856 | Y |



## Calibration / Ethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

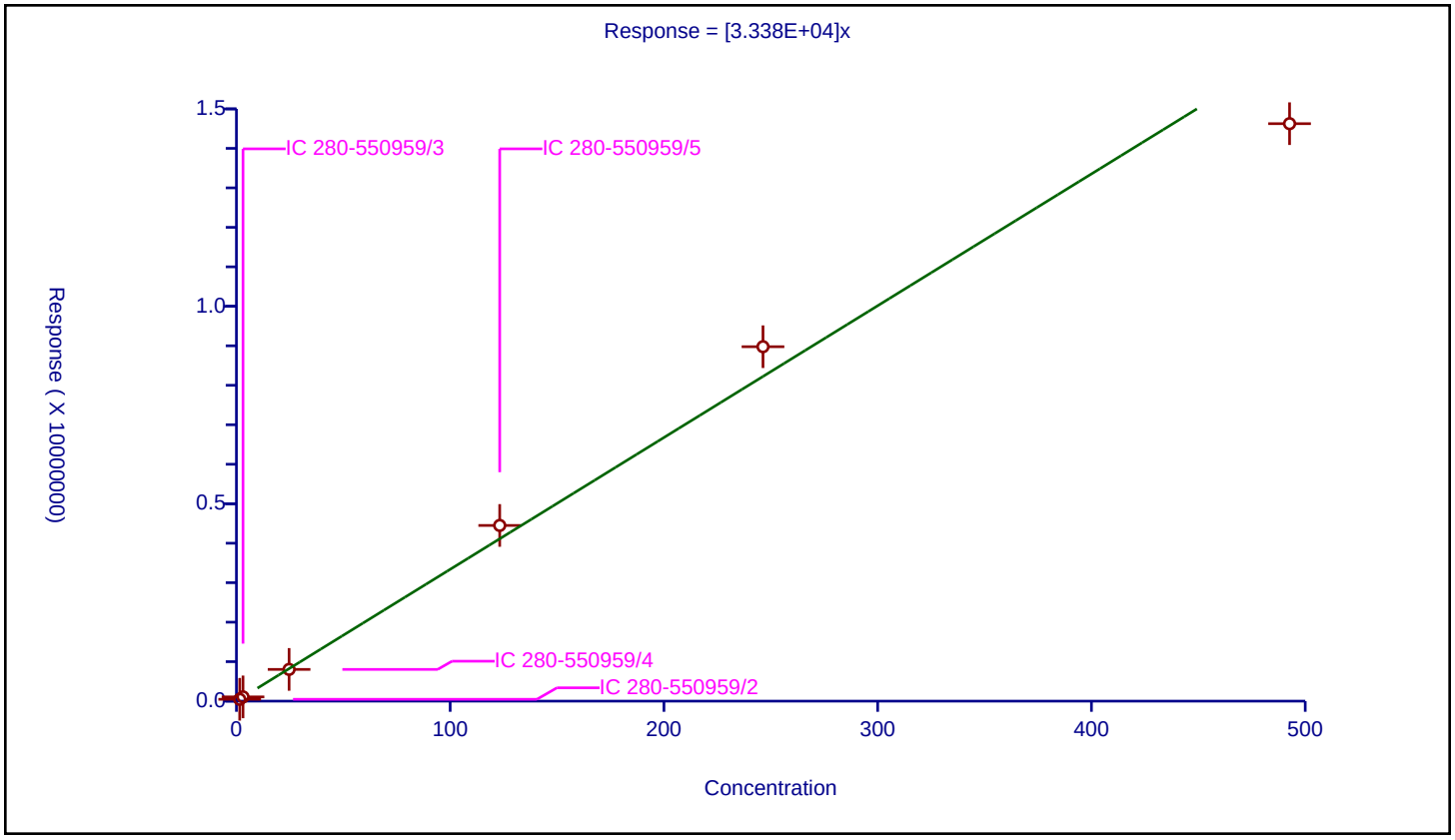
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.338E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 894000 |
| **Relative Standard Error:** | 8.6 |
| **Correlation Coefficient:** | 0.987 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-550959/2 | 1.539625 | 46984.0 | | | 30516.52188 | Y |
| 2 | IC 280-550959/3 | 3.07925 | 107446.0 | | | 34893.561744 | Y |
| 3 | IC 280-550959/4 | 24.634 | 803791.0 | | | 32629.333442 | Y |
| 4 | IC 280-550959/5 | 123.17 | 4450065.0 | | | 36129.455224 | Y |
| 5 | IC 280-550959/6 | 246.34 | 8976911.0 | | | 36441.142324 | Y |
| 6 | IC 280-550959/7 | 492.68 | 14625440.0 | | | 29685.475359 | Y |



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methane | Lin2 | | 37179 | | 67.6 | 65.7 | 2.9 | 20.0 |
| Ethane | Ave | 33241 | 36496 | | 135 | 123 | 9.8 | 20.0 |
| Ethylene | Ave | 35226 | 37757 | | 123 | 115 | 7.2 | 20.0 |
| Acetylene | Ave | 28139 | 30719 | | 116 | 107 | 9.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.29 | 1.26 | 1.34 |
| Ethane | 1.56 | 1.51 | 1.61 |
| Ethylene | 1.87 | 1.79 | 1.89 |
| Acetylene | 4.24 | 4.15 | 4.31 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.289 | 1.299 | -0.010 | 2442793 | 65.7 | 67.6 | |
| 2 | 1.676 | 1.686 | -0.010 | 2535074 | 65.7 | 68.5 | |
| | | | | | | RPD = 1.30 | |
| 3 Ethane | | | | | | | |
| 1 | 1.559 | 1.556 | 0.003 | 4495267 | 123.2 | 135.2 | |
| 2 | 3.018 | 3.028 | -0.010 | 4535642 | 123.2 | 135.9 | |
| | | | | | | RPD = 0.47 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.874 | 1.844 | 0.030 | 4338329 | 114.9 | 123.2 | |
| 2 | 2.598 | 2.609 | -0.011 | 3828020 | 114.9 | 123.6 | |
| | | | | | | RPD = 0.33 | |
| 5 Propane | | | | | | | |
| 1 | 2.726 | 2.721 | 0.005 | 7114360 | 180.6 | 197.6 | |
| 2 | 4.928 | 4.929 | -0.001 | 6799509 | 180.6 | 194.2 | |
| | | | | | | RPD = 1.71 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.243 | 4.230 | 0.013 | 3276773 | 106.7 | 116.4 | |
| 2 | 2.741 | 2.746 | -0.005 | 4007122 | 106.7 | 117.2 | |
| | | | | | | RPD = 0.68 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.599 | 4.528 | 0.071 | 9349199 | 238.1 | 256.7 | a |
| 2 | 6.426 | 6.426 | 0.000 | 8946550 | 238.1 | 254.6 | M |
| | | | | | | RPD = 0.82 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.479 | 5.403 | 0.076 | 8850386 | 229.8 | 245.0 | |
| 2 | 6.268 | 6.274 | -0.006 | 8132396 | 229.8 | 244.9 | M |
| | | | | | | RPD = 0.03 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

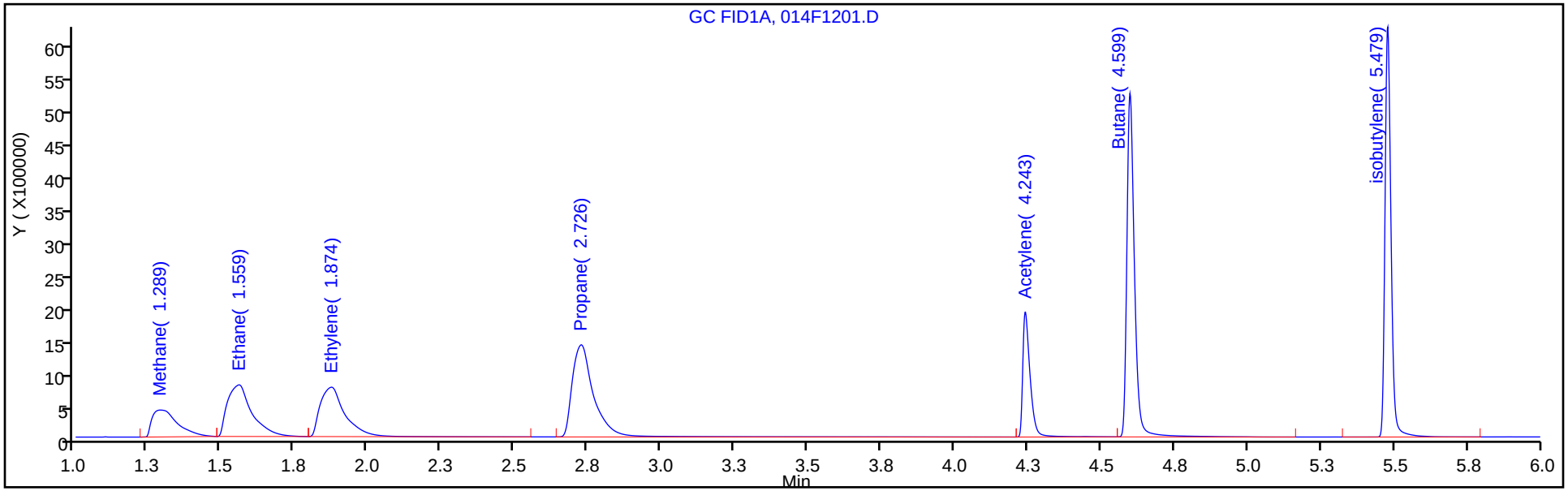
Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

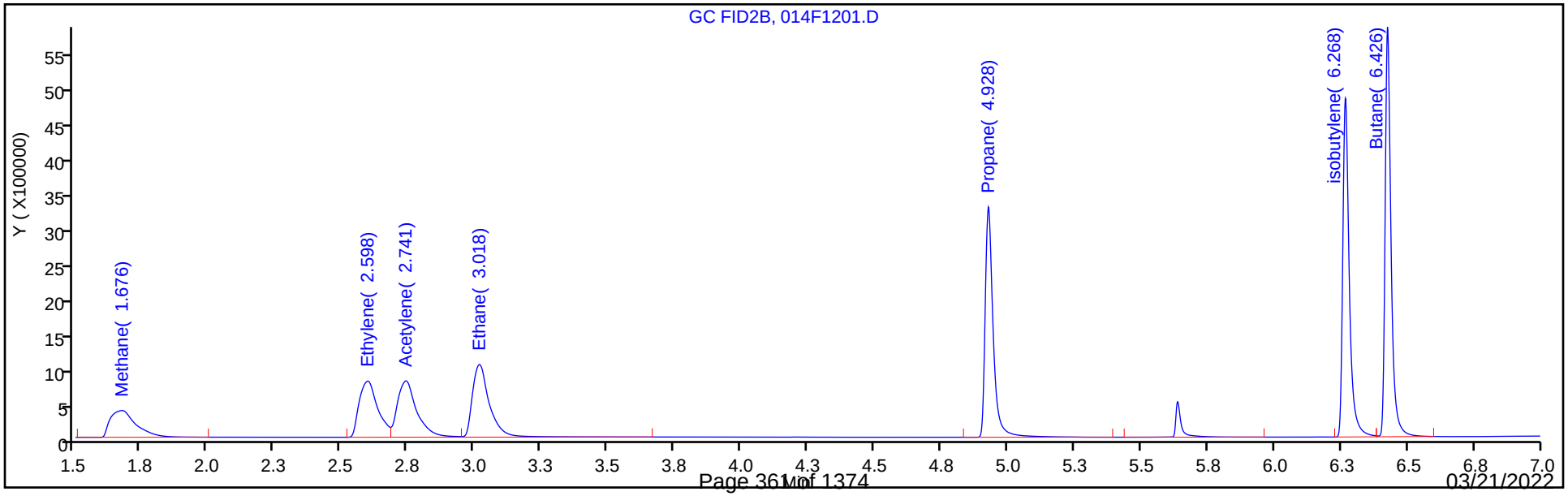
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 15:38:59 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ICV | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methane | Lin2 | | 38584 | | 68.5 | 65.7 | 4.2 | 20.0 |
| Ethylene | Ave | 30980 | 33316 | | 124 | 115 | 7.5 | 20.0 |
| Acetylene | Ave | 34179 | 37566 | | 117 | 107 | 9.9 | 20.0 |
| Ethane | Ave | 33383 | 36824 | | 136 | 123 | 10.3 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.68 | 1.65 | 1.73 |
| Ethylene | 2.60 | 2.56 | 2.66 |
| Acetylene | 2.74 | 2.67 | 2.83 |
| Ethane | 3.02 | 2.98 | 3.08 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.289 | 1.299 | -0.010 | 2442793 | 65.7 | 67.6 | |
| 2 | 1.676 | 1.686 | -0.010 | 2535074 | 65.7 | 68.5 | |
| | | | | | | RPD = 1.30 | |
| 3 Ethane | | | | | | | |
| 1 | 1.559 | 1.556 | 0.003 | 4495267 | 123.2 | 135.2 | |
| 2 | 3.018 | 3.028 | -0.010 | 4535642 | 123.2 | 135.9 | |
| | | | | | | RPD = 0.47 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.874 | 1.844 | 0.030 | 4338329 | 114.9 | 123.2 | |
| 2 | 2.598 | 2.609 | -0.011 | 3828020 | 114.9 | 123.6 | |
| | | | | | | RPD = 0.33 | |
| 5 Propane | | | | | | | |
| 1 | 2.726 | 2.721 | 0.005 | 7114360 | 180.6 | 197.6 | |
| 2 | 4.928 | 4.929 | -0.001 | 6799509 | 180.6 | 194.2 | |
| | | | | | | RPD = 1.71 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.243 | 4.230 | 0.013 | 3276773 | 106.7 | 116.4 | |
| 2 | 2.741 | 2.746 | -0.005 | 4007122 | 106.7 | 117.2 | |
| | | | | | | RPD = 0.68 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.599 | 4.528 | 0.071 | 9349199 | 238.1 | 256.7 | a |
| 2 | 6.426 | 6.426 | 0.000 | 8946550 | 238.1 | 254.6 | M |
| | | | | | | RPD = 0.82 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.479 | 5.403 | 0.076 | 8850386 | 229.8 | 245.0 | |
| 2 | 6.268 | 6.274 | -0.006 | 8132396 | 229.8 | 244.9 | M |
| | | | | | | RPD = 0.03 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

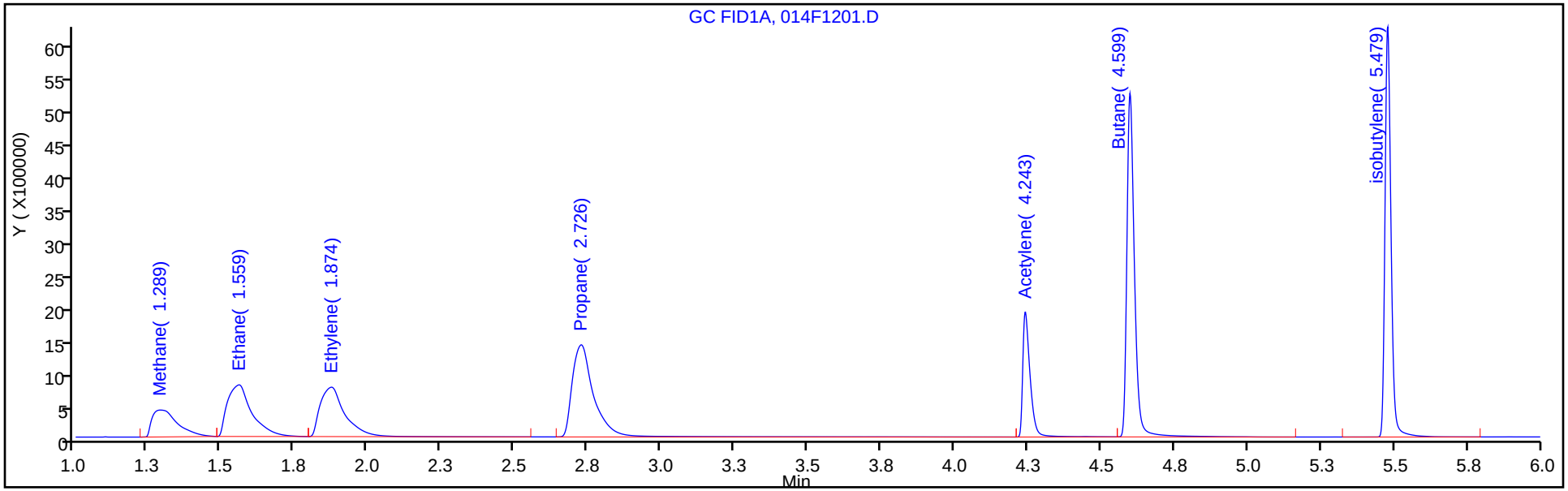
Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

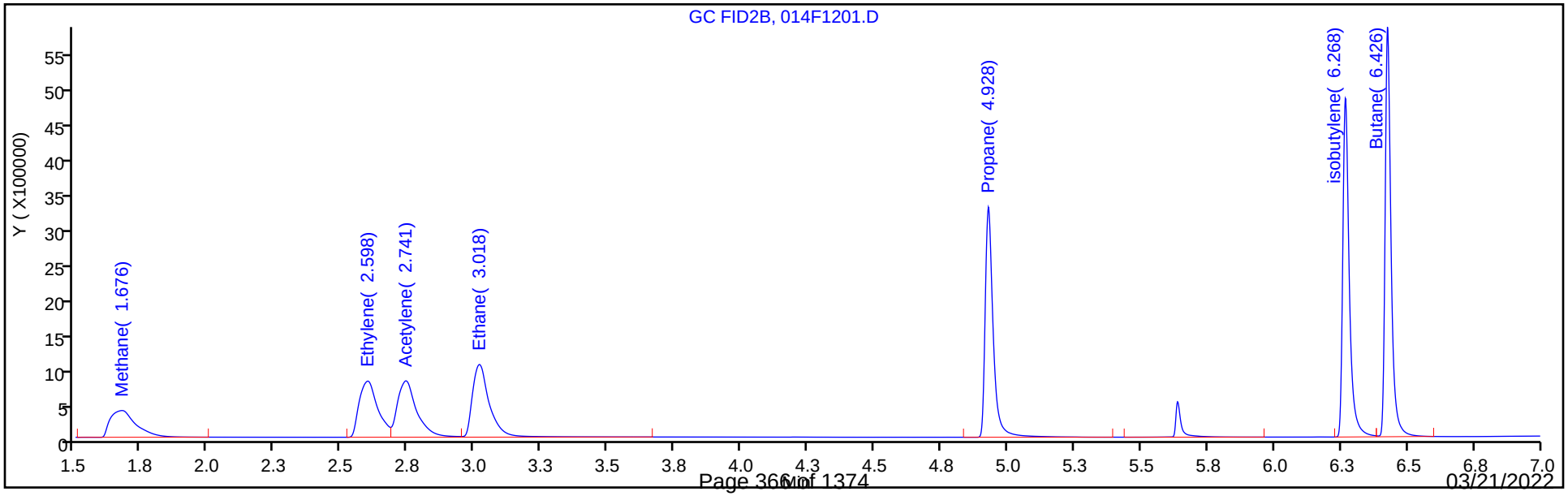
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Sep-2021 15:38:59 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ICV | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567659/2 Calibration Date: 03/03/2022 14:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.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 | | 37641 | | 68.5 | 65.7 | 4.2 | 20.0 |
| Ethane | Ave | 33241 | 34529 | | 128 | 123 | 3.9 | 20.0 |
| Ethylene | Ave | 35226 | 37200 | | 121 | 115 | 5.6 | 20.0 |
| Acetylene | Ave | 28139 | 33510 | | 127 | 107 | 19.1 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567659/2 Calibration Date: 03/03/2022 14:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.52 | 1.47 | 1.57 |
| Ethylene | 1.81 | 1.76 | 1.86 |
| Acetylene | 4.10 | 4.02 | 4.18 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 03-Mar-2022 14:38:18 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:08 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:51:26

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.262 | 1.262 | 0.000 | 2473110 | 65.7 | 68.5 | |
| 2 | 1.669 | 1.669 | 0.000 | 2467010 | 65.7 | 66.6 | |
| | | | | | | RPD = 2.76 | |
| 3 Ethane | | | | | | | |
| 1 | 1.524 | 1.524 | 0.000 | 4252993 | 123.2 | 127.9 | |
| 2 | 3.022 | 3.022 | 0.000 | 4340350 | 123.2 | 130.0 | |
| | | | | | | RPD = 1.61 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.809 | 1.809 | 0.000 | 4274242 | 114.9 | 121.3 | |
| 2 | 2.604 | 2.604 | 0.000 | 3727265 | 114.9 | 120.3 | |
| | | | | | | RPD = 0.85 | |
| 5 Propane | | | | | | | |
| 1 | 2.587 | 2.587 | 0.000 | 6688251 | 180.6 | 185.7 | |
| 2 | 4.927 | 4.927 | 0.000 | 6399530 | 180.6 | 182.8 | |
| | | | | | | RPD = 1.60 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.102 | 4.102 | 0.000 | 3574492 | 106.7 | 127.0 | |
| 2 | 2.751 | 2.751 | 0.000 | 4424440 | 106.7 | 129.4 | |
| | | | | | | RPD = 1.89 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.449 | 4.449 | 0.000 | 8997975 | 238.1 | 247.1 | a |
| 2 | 6.427 | 6.427 | 0.000 | 8632256 | 238.1 | 245.7 | M |
| | | | | | | RPD = 0.56 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.350 | 5.350 | 0.000 | 8639180 | 229.8 | 239.1 | |
| 2 | 6.269 | 6.269 | 0.000 | 7817090 | 229.8 | 235.4 | M |
| | | | | | | RPD = 1.56 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

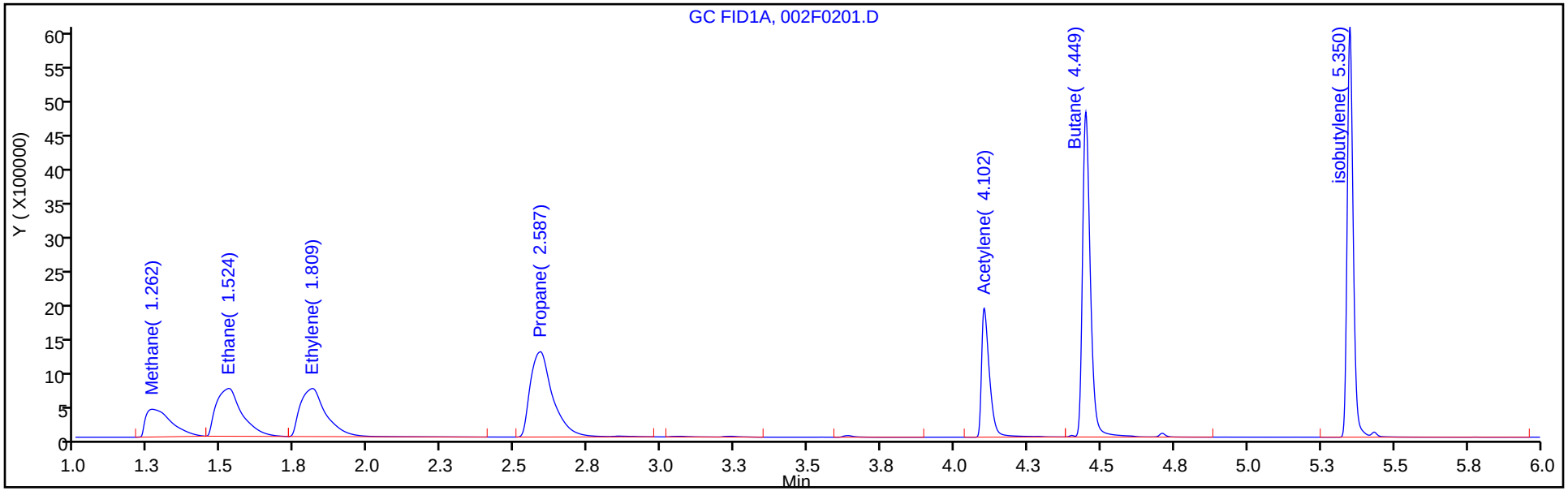
Report Date: 07-Mar-2022 13:05:09 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

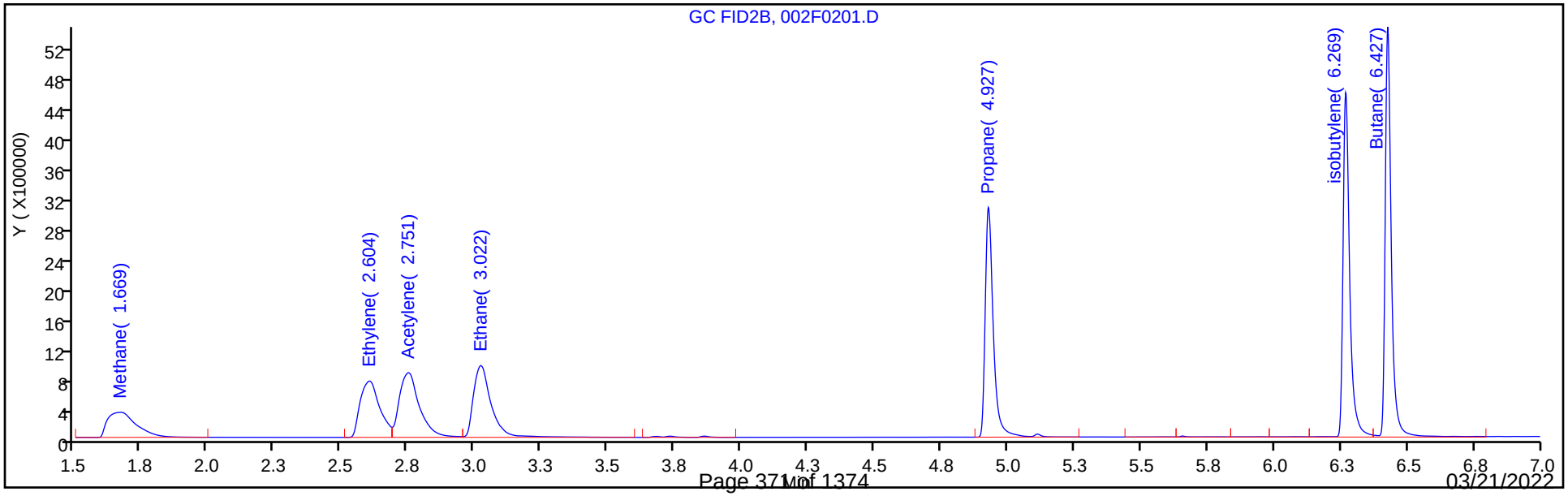
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\002F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 14:38:18 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567659/2 Calibration Date: 03/03/2022 14:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.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 | | 37548 | | 66.6 | 65.7 | 1.4 | 20.0 |
| Ethylene | Ave | 30980 | 32439 | | 120 | 115 | 4.7 | 20.0 |
| Acetylene | Ave | 34179 | 41478 | | 129 | 107 | 21.4* | 20.0 |
| Ethane | Ave | 33383 | 35239 | | 130 | 123 | 5.6 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567659/2 Calibration Date: 03/03/2022 14:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.63 | 1.71 |
| Ethylene | 2.60 | 2.55 | 2.65 |
| Acetylene | 2.75 | 2.67 | 2.83 |
| Ethane | 3.02 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 03-Mar-2022 14:38:18 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:08 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:51:26

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.262 | 1.262 | 0.000 | 2473110 | 65.7 | 68.5 | |
| 2 | 1.669 | 1.669 | 0.000 | 2467010 | 65.7 | 66.6 | |
| | | | | | | RPD = 2.76 | |
| 3 Ethane | | | | | | | |
| 1 | 1.524 | 1.524 | 0.000 | 4252993 | 123.2 | 127.9 | |
| 2 | 3.022 | 3.022 | 0.000 | 4340350 | 123.2 | 130.0 | |
| | | | | | | RPD = 1.61 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.809 | 1.809 | 0.000 | 4274242 | 114.9 | 121.3 | |
| 2 | 2.604 | 2.604 | 0.000 | 3727265 | 114.9 | 120.3 | |
| | | | | | | RPD = 0.85 | |
| 5 Propane | | | | | | | |
| 1 | 2.587 | 2.587 | 0.000 | 6688251 | 180.6 | 185.7 | |
| 2 | 4.927 | 4.927 | 0.000 | 6399530 | 180.6 | 182.8 | |
| | | | | | | RPD = 1.60 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.102 | 4.102 | 0.000 | 3574492 | 106.7 | 127.0 | |
| 2 | 2.751 | 2.751 | 0.000 | 4424440 | 106.7 | 129.4 | |
| | | | | | | RPD = 1.89 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.449 | 4.449 | 0.000 | 8997975 | 238.1 | 247.1 | a |
| 2 | 6.427 | 6.427 | 0.000 | 8632256 | 238.1 | 245.7 | M |
| | | | | | | RPD = 0.56 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.350 | 5.350 | 0.000 | 8639180 | 229.8 | 239.1 | |
| 2 | 6.269 | 6.269 | 0.000 | 7817090 | 229.8 | 235.4 | M |
| | | | | | | RPD = 1.56 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

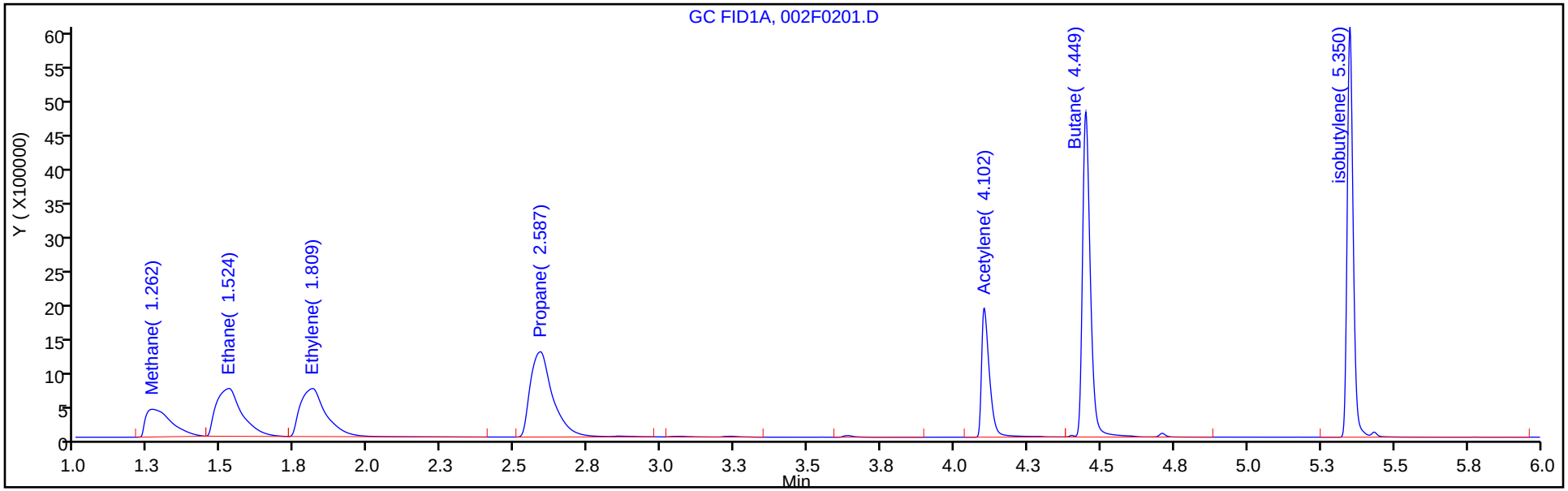
Report Date: 07-Mar-2022 13:05:09 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

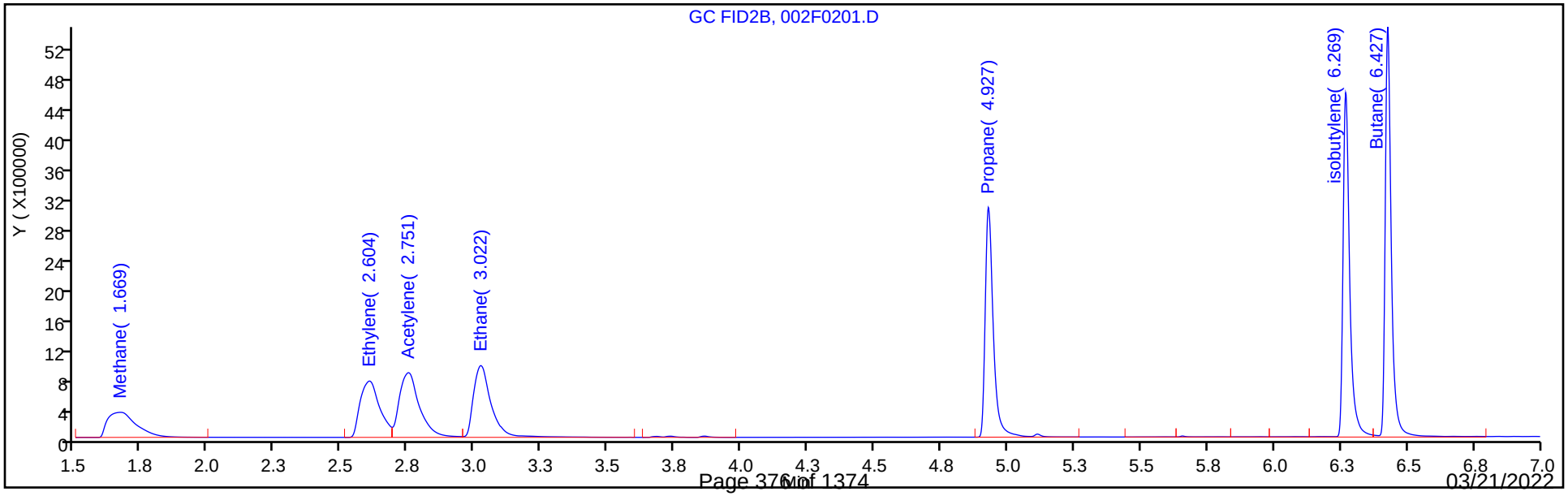
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\002F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 14:38:18 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/17 Calibration Date: 03/03/2022 17:53

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 017F1701.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 | | 37741 | | 68.6 | 65.7 | 4.5 | 20.0 |
| Ethane | Ave | 33241 | 33894 | | 126 | 123 | 2.0 | 20.0 |
| Ethylene | Ave | 35226 | 35763 | | 117 | 115 | 1.5 | 20.0 |
| Acetylene | Ave | 28139 | 26864 | | 102 | 107 | -4.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/17 Calibration Date: 03/03/2022 17:53

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 017F1701.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.25 | 1.22 | 1.30 |
| Ethane | 1.52 | 1.47 | 1.57 |
| Ethylene | 1.83 | 1.76 | 1.86 |
| Acetylene | 4.21 | 4.02 | 4.18 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Mar-2022 17:53:12 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:58:11

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.262 | -0.009 | 2479674 | 65.7 | 68.6 | |
| 2 | 1.654 | 1.669 | -0.015 | 2450557 | 65.7 | 66.1 | |
| | | | | | | RPD = 3.72 | |
| 3 Ethane | | | | | | | |
| 1 | 1.523 | 1.524 | -0.001 | 4174750 | 123.2 | 125.6 | |
| 2 | 3.006 | 3.022 | -0.016 | 4182273 | 123.2 | 125.3 | |
| | | | | | | RPD = 0.24 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.831 | 1.809 | 0.022 | 4109138 | 114.9 | 116.7 | |
| 2 | 2.588 | 2.604 | -0.016 | 3555582 | 114.9 | 114.8 | |
| | | | | | | RPD = 1.63 | |
| 5 Propane | | | | | | | |
| 1 | 2.644 | 2.587 | 0.057 | 6471025 | 180.6 | 179.7 | |
| 2 | 4.921 | 4.927 | -0.006 | 6114328 | 180.6 | 174.6 | |
| | | | | | | RPD = 2.85 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.214 | 4.102 | 0.112 | 2865611 | 106.7 | 101.8 | a |
| 2 | 2.733 | 2.751 | -0.018 | 3565529 | 106.7 | 104.3 | a |
| | | | | | | RPD = 2.41 | |
| 7 Butane | | | | | | | a |
| 1 | 4.524 | 4.449 | 0.075 | 8089680 | 238.1 | 222.1 | a |
| 2 | 6.423 | 6.427 | -0.004 | 7606345 | 238.1 | 216.5 | a |
| | | | | | | RPD = 2.57 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.424 | 5.350 | 0.074 | 7655781 | 229.8 | 211.9 | |
| 2 | 6.264 | 6.269 | -0.005 | 6839226 | 229.8 | 206.0 | |
| | | | | | | RPD = 2.84 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

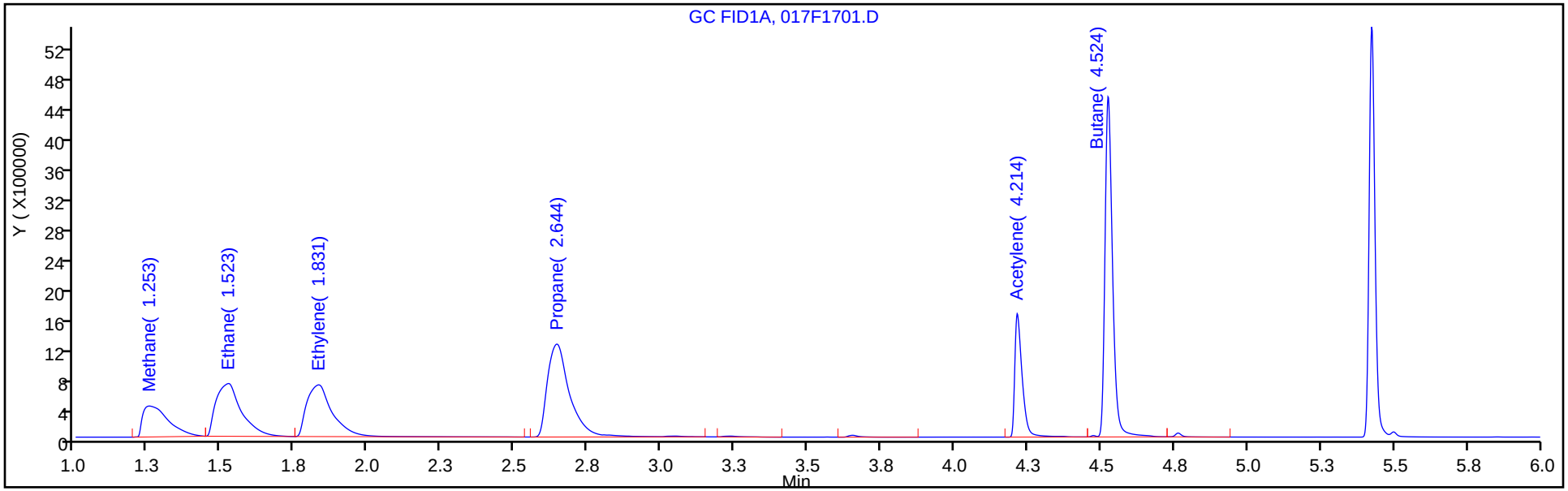
Report Date: 07-Mar-2022 13:05:15 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

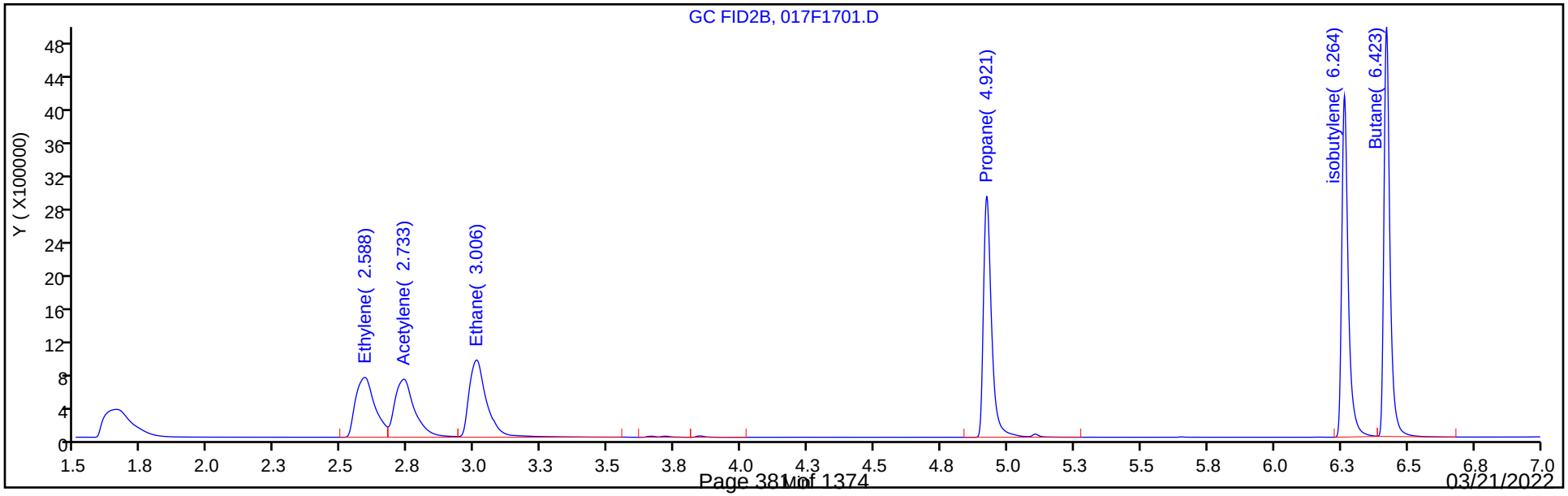
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 17:53:12 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

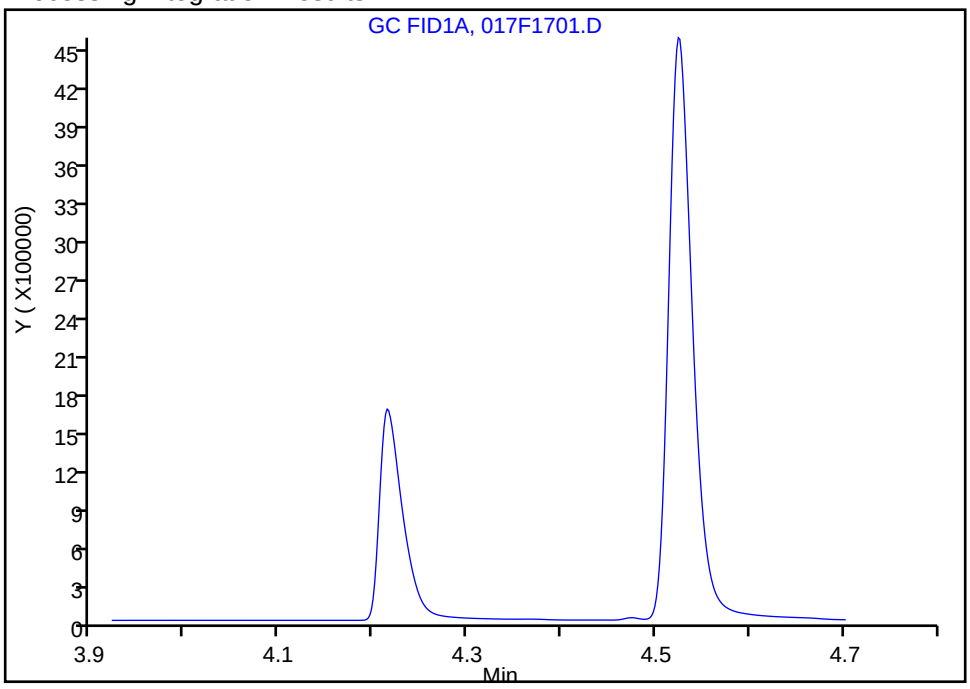
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D
Injection Date: 03-Mar-2022 17:53:12 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

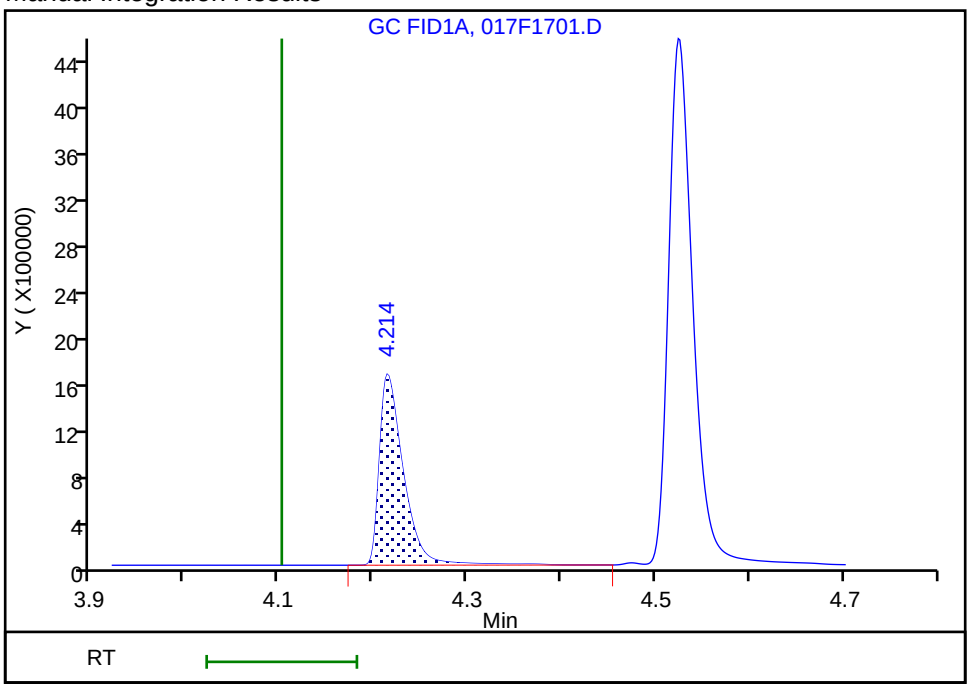
Not Detected
Expected RT: 4.10

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 2865611
Amount: 101.8376
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 12:57:56
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/17 Calibration Date: 03/03/2022 17:53

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 017F1701.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 | | 37297 | | 66.1 | 65.7 | 0.7 | 20.0 |
| Ethylene | Ave | 30980 | 30945 | | 115 | 115 | -0.1 | 20.0 |
| Acetylene | Ave | 34179 | 33426 | | 104 | 107 | -2.2 | 20.0 |
| Ethane | Ave | 33383 | 33955 | | 125 | 123 | 1.7 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/17 Calibration Date: 03/03/2022 17:53

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 017F1701.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.65 | 1.63 | 1.71 |
| Ethylene | 2.59 | 2.55 | 2.65 |
| Acetylene | 2.73 | 2.67 | 2.83 |
| Ethane | 3.01 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Mar-2022 17:53:12 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:58:11

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.262 | -0.009 | 2479674 | 65.7 | 68.6 | |
| 2 | 1.654 | 1.669 | -0.015 | 2450557 | 65.7 | 66.1 | |
| | | | | | | RPD = 3.72 | |
| 3 Ethane | | | | | | | |
| 1 | 1.523 | 1.524 | -0.001 | 4174750 | 123.2 | 125.6 | |
| 2 | 3.006 | 3.022 | -0.016 | 4182273 | 123.2 | 125.3 | |
| | | | | | | RPD = 0.24 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.831 | 1.809 | 0.022 | 4109138 | 114.9 | 116.7 | |
| 2 | 2.588 | 2.604 | -0.016 | 3555582 | 114.9 | 114.8 | |
| | | | | | | RPD = 1.63 | |
| 5 Propane | | | | | | | |
| 1 | 2.644 | 2.587 | 0.057 | 6471025 | 180.6 | 179.7 | |
| 2 | 4.921 | 4.927 | -0.006 | 6114328 | 180.6 | 174.6 | |
| | | | | | | RPD = 2.85 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.214 | 4.102 | 0.112 | 2865611 | 106.7 | 101.8 | a |
| 2 | 2.733 | 2.751 | -0.018 | 3565529 | 106.7 | 104.3 | a |
| | | | | | | RPD = 2.41 | |
| 7 Butane | | | | | | | a |
| 1 | 4.524 | 4.449 | 0.075 | 8089680 | 238.1 | 222.1 | a |
| 2 | 6.423 | 6.427 | -0.004 | 7606345 | 238.1 | 216.5 | a |
| | | | | | | RPD = 2.57 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.424 | 5.350 | 0.074 | 7655781 | 229.8 | 211.9 | |
| 2 | 6.264 | 6.269 | -0.005 | 6839226 | 229.8 | 206.0 | |
| | | | | | | RPD = 2.84 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

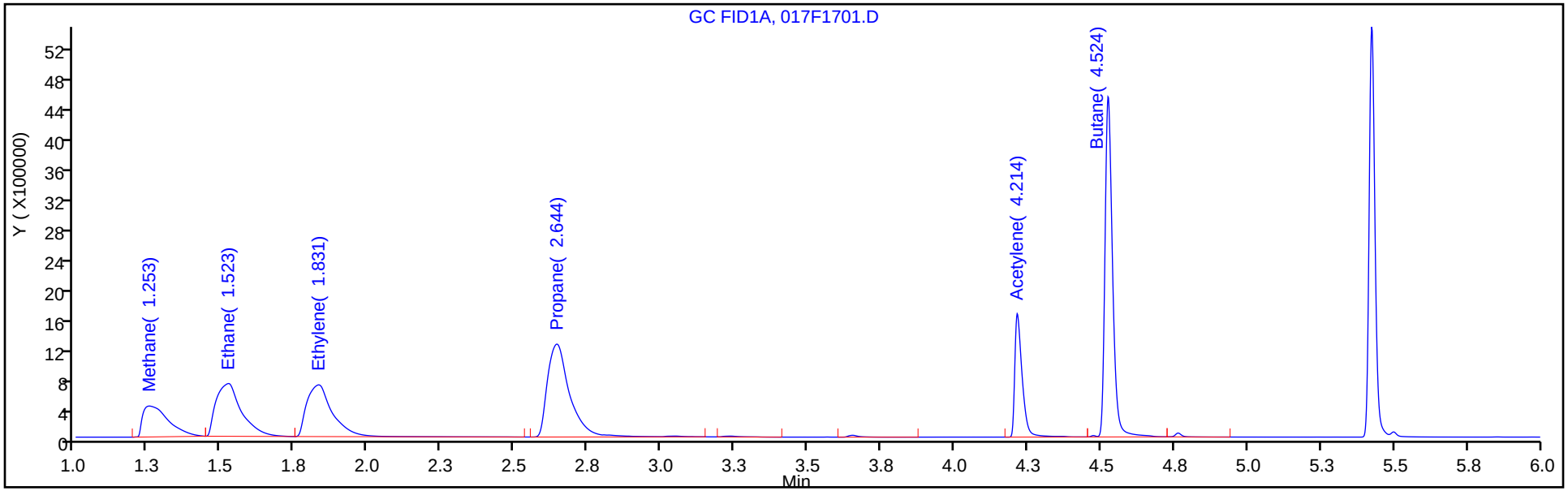
Report Date: 07-Mar-2022 13:05:16 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

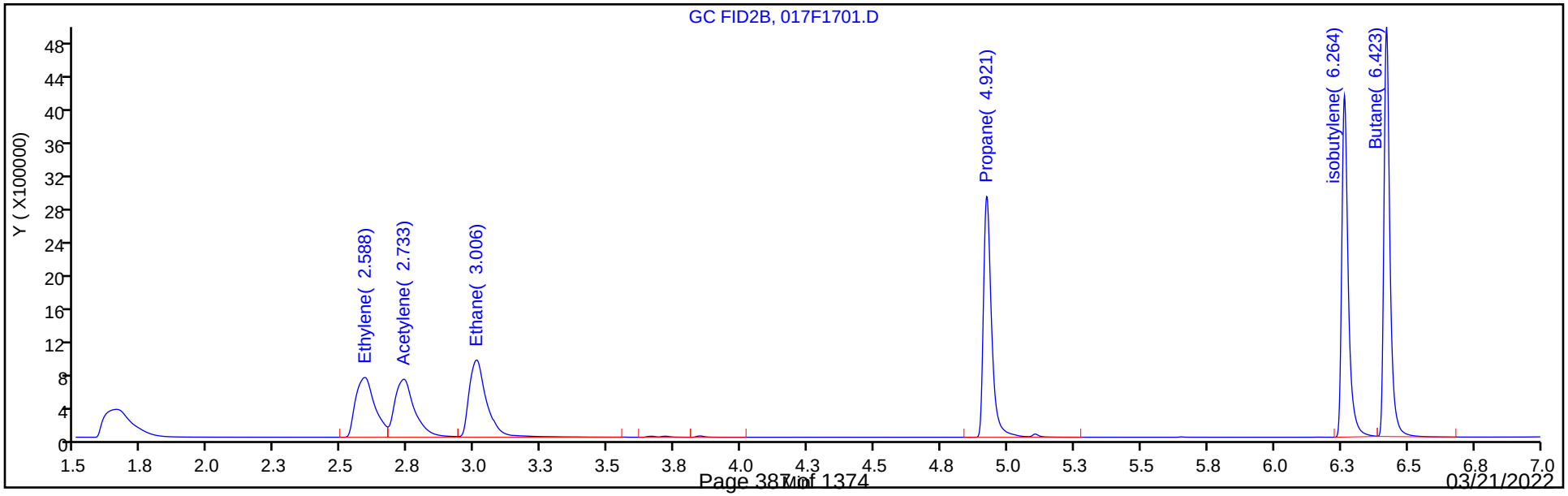
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 17:53:12 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

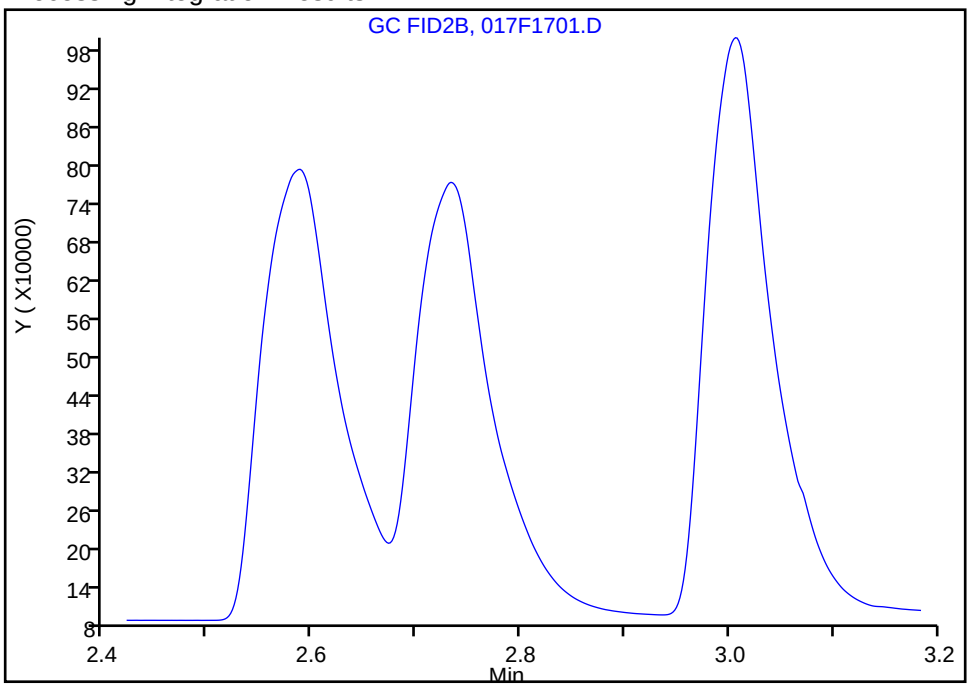
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\017F1701.D
Injection Date: 03-Mar-2022 17:53:12 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

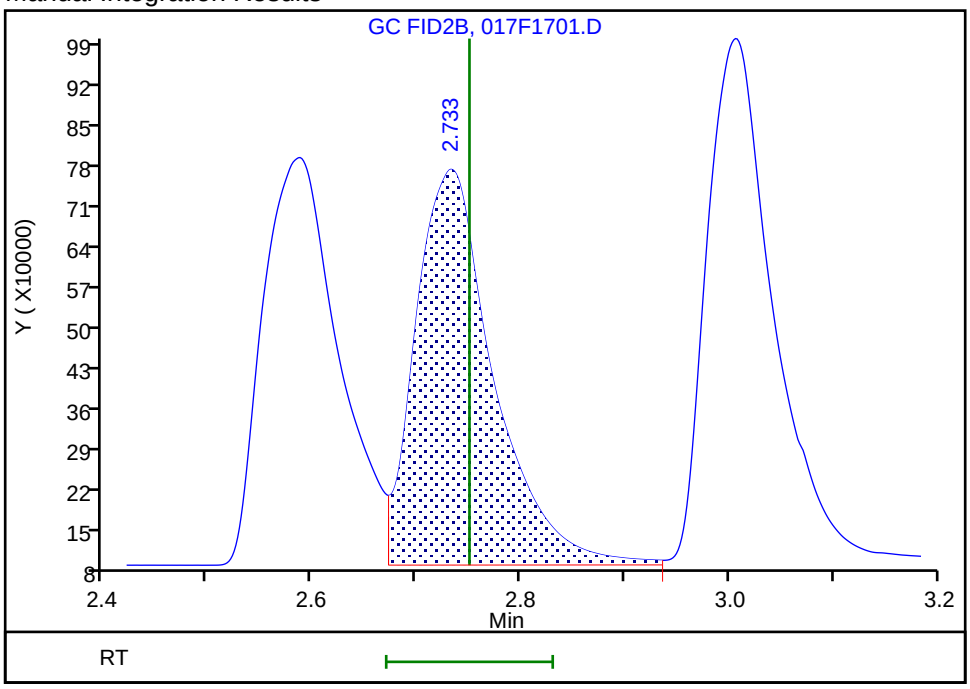
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.73
Area: 3565529
Amount: 104.3199
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 12:57:54
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/31 Calibration Date: 03/03/2022 20:56

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F3101.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 | | 37627 | | 68.4 | 65.7 | 4.2 | 20.0 |
| Ethane | Ave | 33241 | 34349 | | 127 | 123 | 3.3 | 20.0 |
| Ethylene | Ave | 35226 | 35939 | | 117 | 115 | 2.0 | 20.0 |
| Acetylene | Ave | 28139 | 26062 | | 98.8 | 107 | -7.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/31 Calibration Date: 03/03/2022 20:56

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F3101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.25 | 1.22 | 1.30 |
| Ethane | 1.52 | 1.47 | 1.57 |
| Ethylene | 1.83 | 1.76 | 1.86 |
| Acetylene | 4.22 | 4.02 | 4.18 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Mar-2022 20:56:20 ALS Bottle#: 31 Worklist Smp#: 31
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:22 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:04:57

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.252 | 1.262 | -0.010 | 2472230 | 65.7 | 68.4 | |
| 2 | 1.657 | 1.669 | -0.012 | 2441651 | 65.7 | 65.9 | |
| | | | | | | RPD = 3.78 | |
| 3 Ethane | | | | | | | |
| 1 | 1.524 | 1.524 | 0.000 | 4230737 | 123.2 | 127.3 | |
| 2 | 3.007 | 3.022 | -0.015 | 4193368 | 123.2 | 125.6 | |
| | | | | | | RPD = 1.31 | |
| 4 Ethylene | | | | | | | Ma |
| 1 | 1.834 | 1.809 | 0.025 | 4129402 | 114.9 | 117.2 | |
| 2 | 2.586 | 2.604 | -0.018 | 3570318 | 114.9 | 115.2 | M |
| | | | | | | RPD = 1.70 | |
| 5 Propane | | | | | | | |
| 1 | 2.647 | 2.587 | 0.060 | 6782587 | 180.6 | 188.3 | |
| 2 | 4.921 | 4.927 | -0.006 | 6338892 | 180.6 | 181.1 | |
| | | | | | | RPD = 3.95 | |
| 6 Acetylene | | | | | | | Ma |
| 1 | 4.217 | 4.102 | 0.115 | 2780071 | 106.7 | 98.8 | M |
| 2 | 2.734 | 2.751 | -0.017 | 3597669 | 106.7 | 105.3 | M |
| | | | | | | RPD = 6.33 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.527 | 4.449 | 0.078 | 8804406 | 238.1 | 241.7 | a |
| 2 | 6.422 | 6.427 | -0.005 | 8295684 | 238.1 | 236.1 | M |
| | | | | | | RPD = 2.37 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.427 | 5.350 | 0.077 | 8205285 | 229.8 | 227.1 | |
| 2 | 6.264 | 6.269 | -0.005 | 7353399 | 229.8 | 221.5 | M |
| | | | | | | RPD = 2.53 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

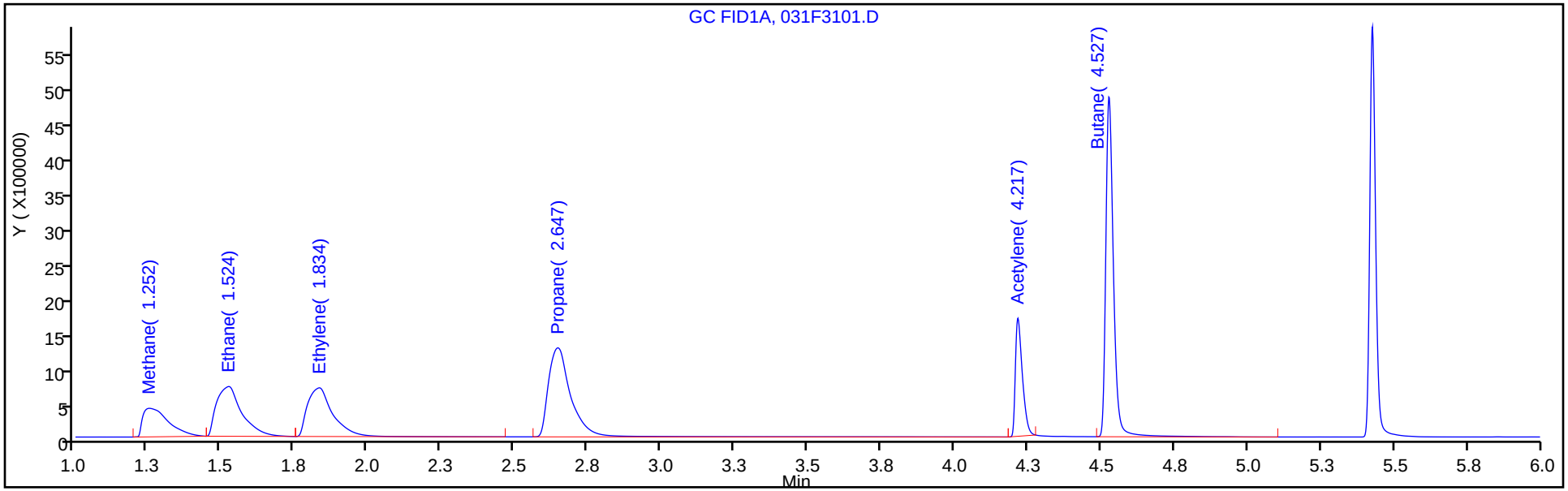
Report Date: 07-Mar-2022 13:05:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

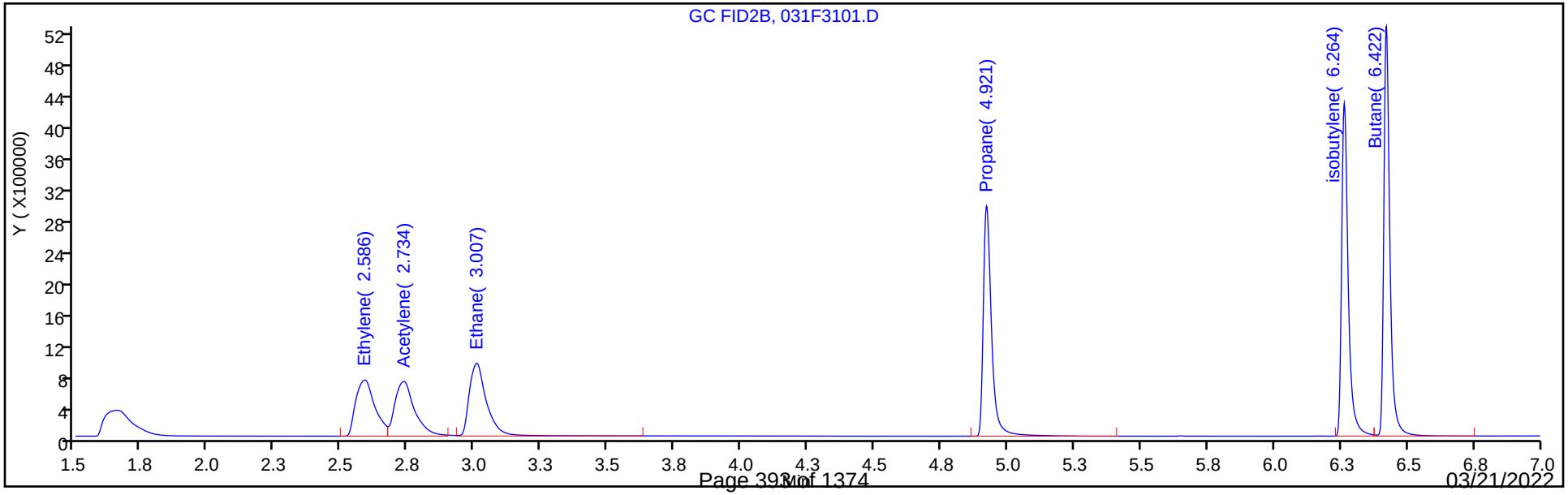
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 20:56:20 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

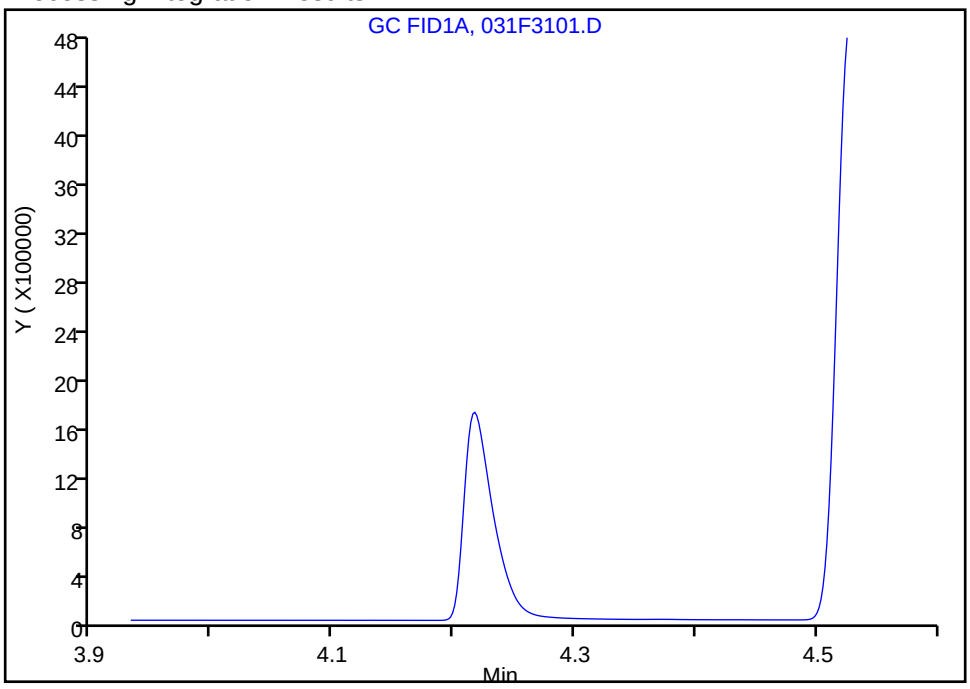
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D
Injection Date: 03-Mar-2022 20:56:20 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 31 Worklist Smp#: 31
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

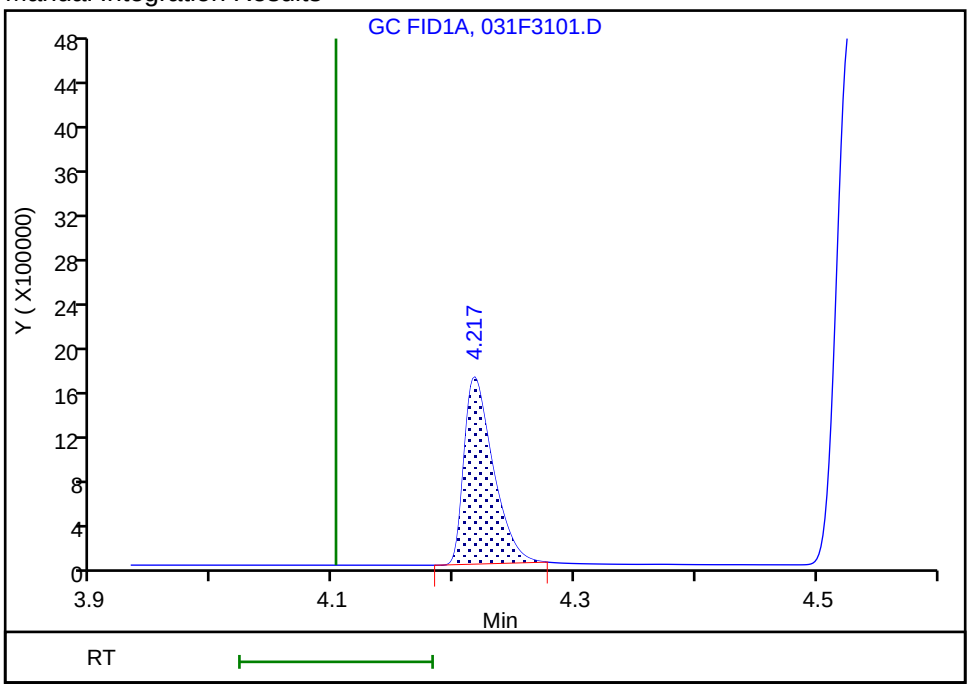
Not Detected
Expected RT: 4.10

Processing Integration Results




Manual Integration Results

RT: 4.22
Area: 2780071
Amount: 98.797721
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:03:48
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/31 Calibration Date: 03/03/2022 20:56

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F3101.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 | | 37162 | | 65.9 | 65.7 | 0.3 | 20.0 |
| Ethylene | Ave | 30980 | 31073 | | 115 | 115 | 0.3 | 20.0 |
| Acetylene | Ave | 34179 | 33727 | | 105 | 107 | -1.3 | 20.0 |
| Ethane | Ave | 33383 | 34045 | | 126 | 123 | 2.0 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567659/31 Calibration Date: 03/03/2022 20:56

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F3101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.66 | 1.63 | 1.71 |
| Ethylene | 2.59 | 2.55 | 2.65 |
| Acetylene | 2.73 | 2.67 | 2.83 |
| Ethane | 3.01 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-Mar-2022 20:56:20 ALS Bottle#: 31 Worklist Smp#: 31
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:22 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:04:57

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.252 | 1.262 | -0.010 | 2472230 | 65.7 | 68.4 | |
| 2 | 1.657 | 1.669 | -0.012 | 2441651 | 65.7 | 65.9 | |
| | | | | | | RPD = 3.78 | |
| 3 Ethane | | | | | | | |
| 1 | 1.524 | 1.524 | 0.000 | 4230737 | 123.2 | 127.3 | |
| 2 | 3.007 | 3.022 | -0.015 | 4193368 | 123.2 | 125.6 | |
| | | | | | | RPD = 1.31 | |
| 4 Ethylene | | | | | | | Ma |
| 1 | 1.834 | 1.809 | 0.025 | 4129402 | 114.9 | 117.2 | |
| 2 | 2.586 | 2.604 | -0.018 | 3570318 | 114.9 | 115.2 | M |
| | | | | | | RPD = 1.70 | |
| 5 Propane | | | | | | | |
| 1 | 2.647 | 2.587 | 0.060 | 6782587 | 180.6 | 188.3 | |
| 2 | 4.921 | 4.927 | -0.006 | 6338892 | 180.6 | 181.1 | |
| | | | | | | RPD = 3.95 | |
| 6 Acetylene | | | | | | | Ma |
| 1 | 4.217 | 4.102 | 0.115 | 2780071 | 106.7 | 98.8 | M |
| 2 | 2.734 | 2.751 | -0.017 | 3597669 | 106.7 | 105.3 | M |
| | | | | | | RPD = 6.33 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.527 | 4.449 | 0.078 | 8804406 | 238.1 | 241.7 | a |
| 2 | 6.422 | 6.427 | -0.005 | 8295684 | 238.1 | 236.1 | M |
| | | | | | | RPD = 2.37 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.427 | 5.350 | 0.077 | 8205285 | 229.8 | 227.1 | |
| 2 | 6.264 | 6.269 | -0.005 | 7353399 | 229.8 | 221.5 | M |
| | | | | | | RPD = 2.53 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

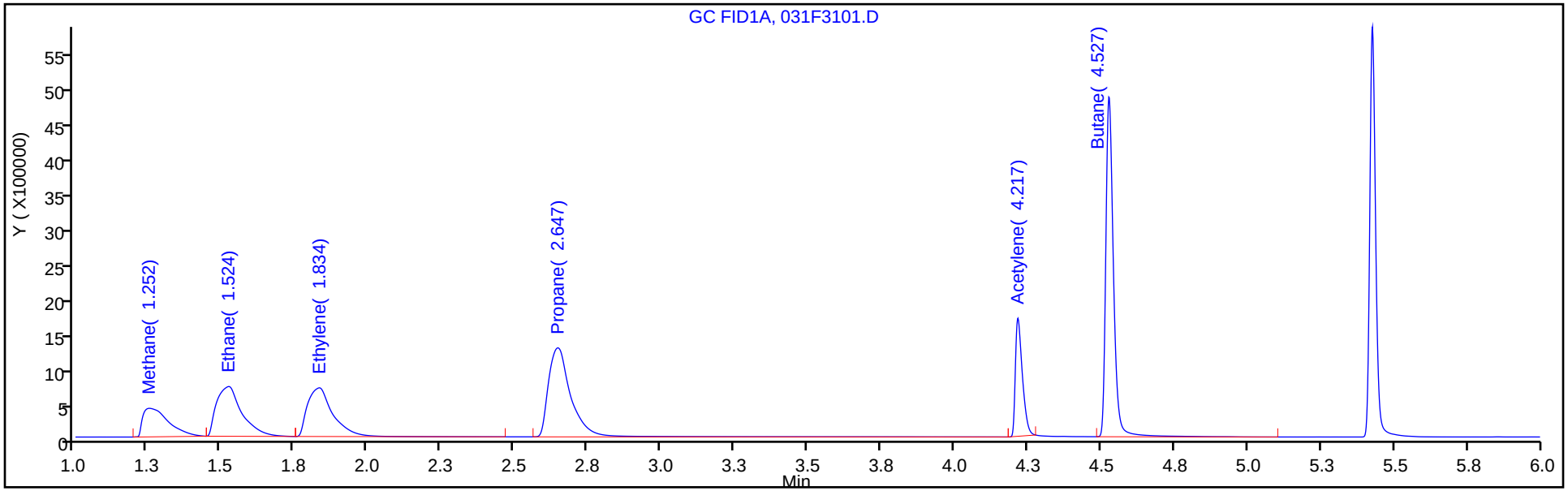
Report Date: 07-Mar-2022 13:05:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

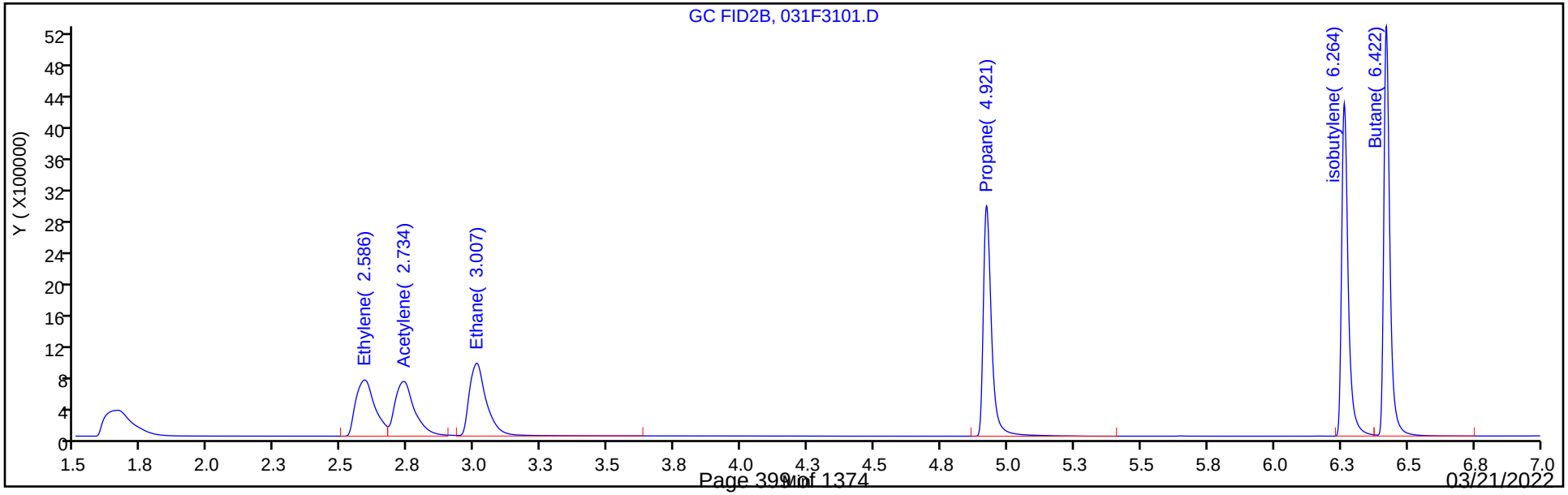
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 20:56:20 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

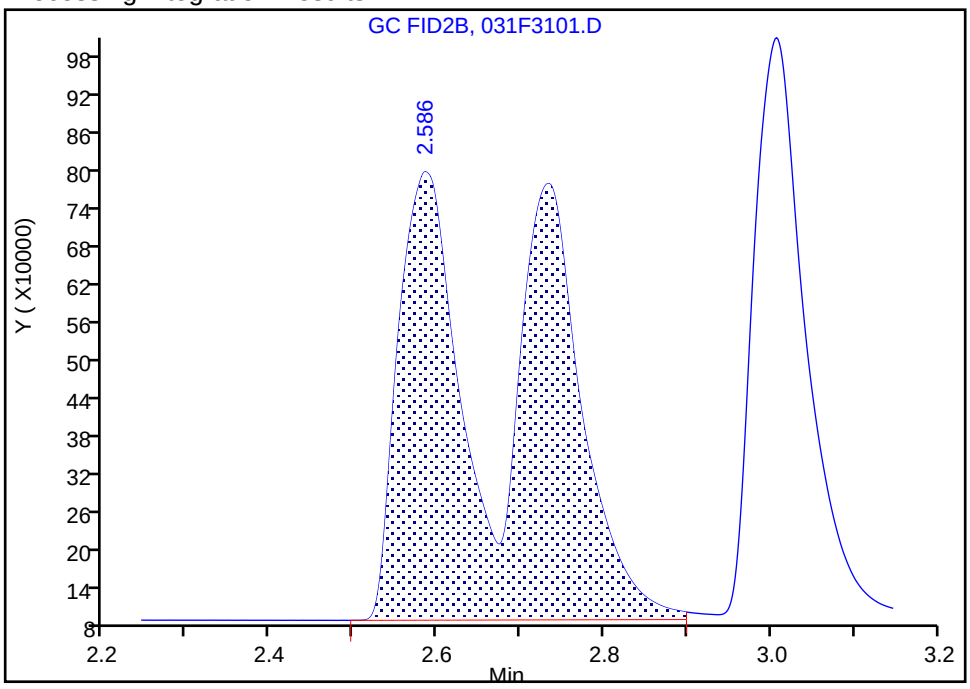
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D
Injection Date: 03-Mar-2022 20:56:20 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 31 Worklist Smp#: 31
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 4 Ethylene, CAS: 74-85-1

Signal: 2

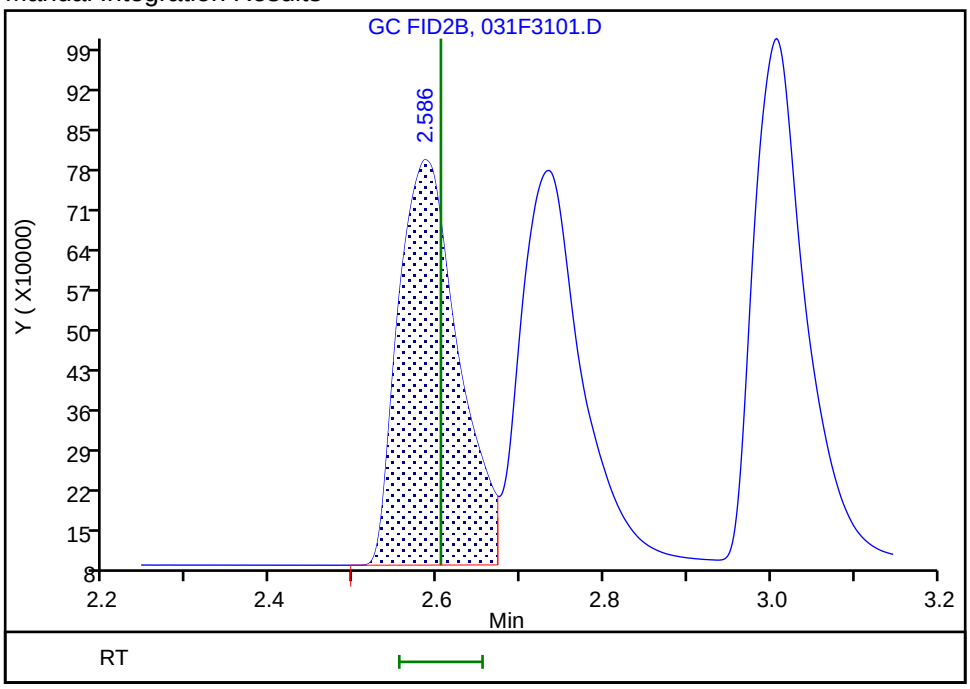
Processing Integration Results

RT: 2.59
Area: 7167983
Amount: 231.3725
Amount Units: ug/l




Manual Integration Results

RT: 2.59
Area: 3570318
Amount: 115.2449
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:04:41
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Denver

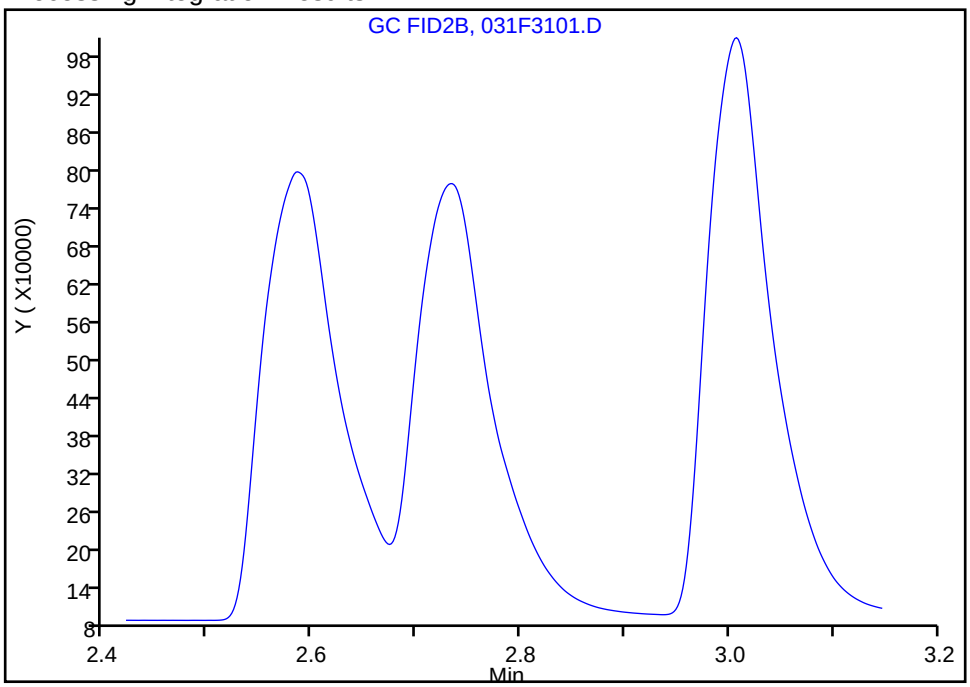
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\031F3101.D
Injection Date: 03-Mar-2022 20:56:20 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 31 Worklist Smp#: 31
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

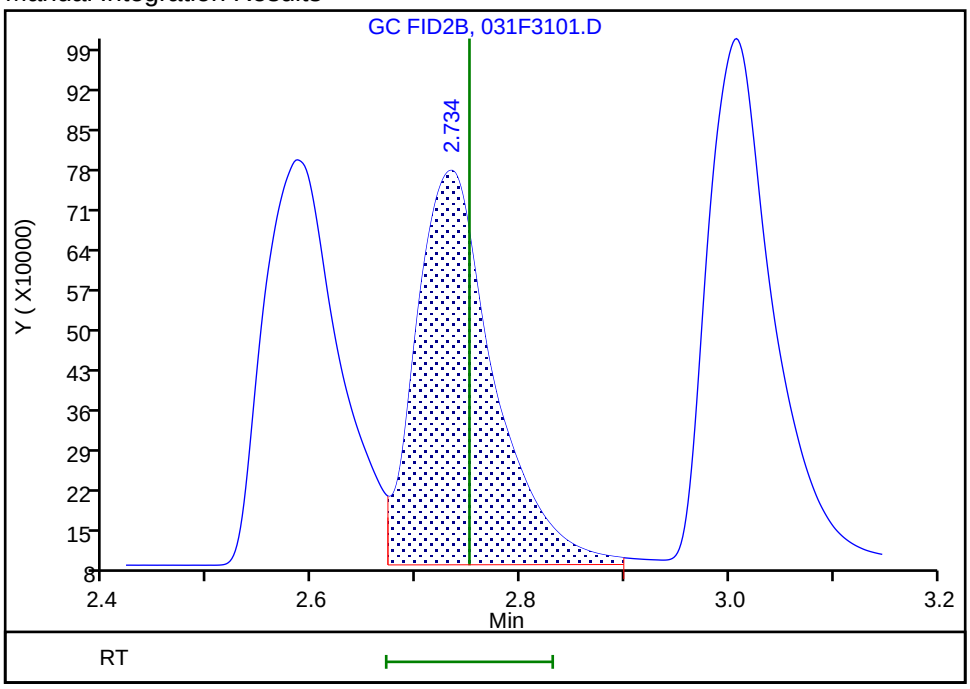
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.73
Area: 3597669
Amount: 105.2603
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:04:47
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567747/2 Calibration Date: 03/04/2022 12:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.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 | | 36379 | | 66.1 | 65.7 | 0.6 | 20.0 |
| Ethane | Ave | 33241 | 33459 | | 124 | 123 | 0.7 | 20.0 |
| Ethylene | Ave | 35226 | 36086 | | 118 | 115 | 2.4 | 20.0 |
| Acetylene | Ave | 28139 | 33186 | | 126 | 107 | 17.9 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567747/2 Calibration Date: 03/04/2022 12:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.52 | 1.47 | 1.57 |
| Ethylene | 1.81 | 1.76 | 1.86 |
| Acetylene | 4.11 | 4.03 | 4.19 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 04-Mar-2022 12:03:56 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:12:07

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.260 | 1.260 | 0.000 | 2390219 | 65.7 | 66.1 | |
| 2 | 1.667 | 1.667 | 0.000 | 2372876 | 65.7 | 64.0 | |
| | | | | | | RPD = 3.25 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.522 | 0.000 | 4121102 | 123.2 | 124.0 | |
| 2 | 3.020 | 3.020 | 0.000 | 4203647 | 123.2 | 125.9 | |
| | | | | | | RPD = 1.56 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.810 | 1.810 | 0.000 | 4146321 | 114.9 | 117.7 | |
| 2 | 2.602 | 2.602 | 0.000 | 3591754 | 114.9 | 115.9 | |
| | | | | | | RPD = 1.51 | |
| 5 Propane | | | | | | | |
| 1 | 2.590 | 2.590 | 0.000 | 6489186 | 180.6 | 180.2 | |
| 2 | 4.927 | 4.927 | 0.000 | 6179722 | 180.6 | 176.5 | |
| | | | | | | RPD = 2.07 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.110 | 4.110 | 0.000 | 3539940 | 106.7 | 125.8 | |
| 2 | 2.749 | 2.749 | 0.000 | 4350639 | 106.7 | 127.3 | |
| | | | | | | RPD = 1.18 | |
| 7 Butane | | | | | | | |
| 1 | 4.453 | 4.453 | 0.000 | 8761290 | 238.1 | 240.6 | |
| 2 | 6.427 | 6.427 | 0.000 | 8257233 | 238.1 | 235.0 | |
| | | | | | | RPD = 2.34 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.355 | 5.355 | 0.000 | 8421638 | 229.8 | 233.1 | |
| 2 | 6.269 | 6.269 | 0.000 | 7544697 | 229.8 | 227.2 | |
| | | | | | | RPD = 2.56 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

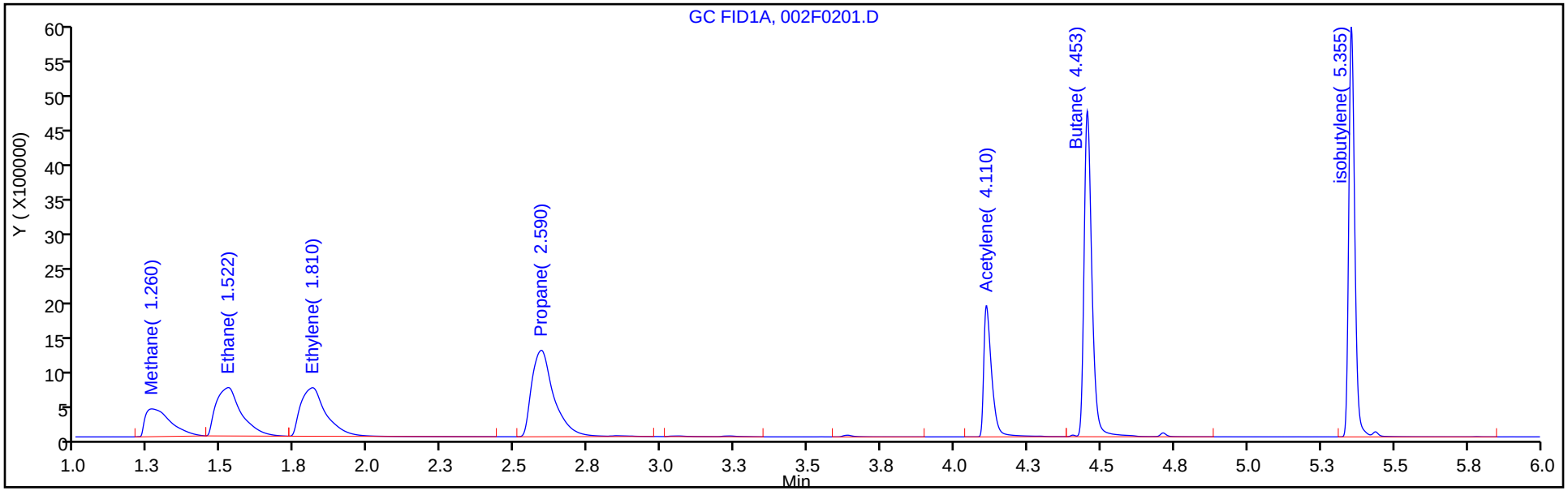
Report Date: 07-Mar-2022 14:00:53 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

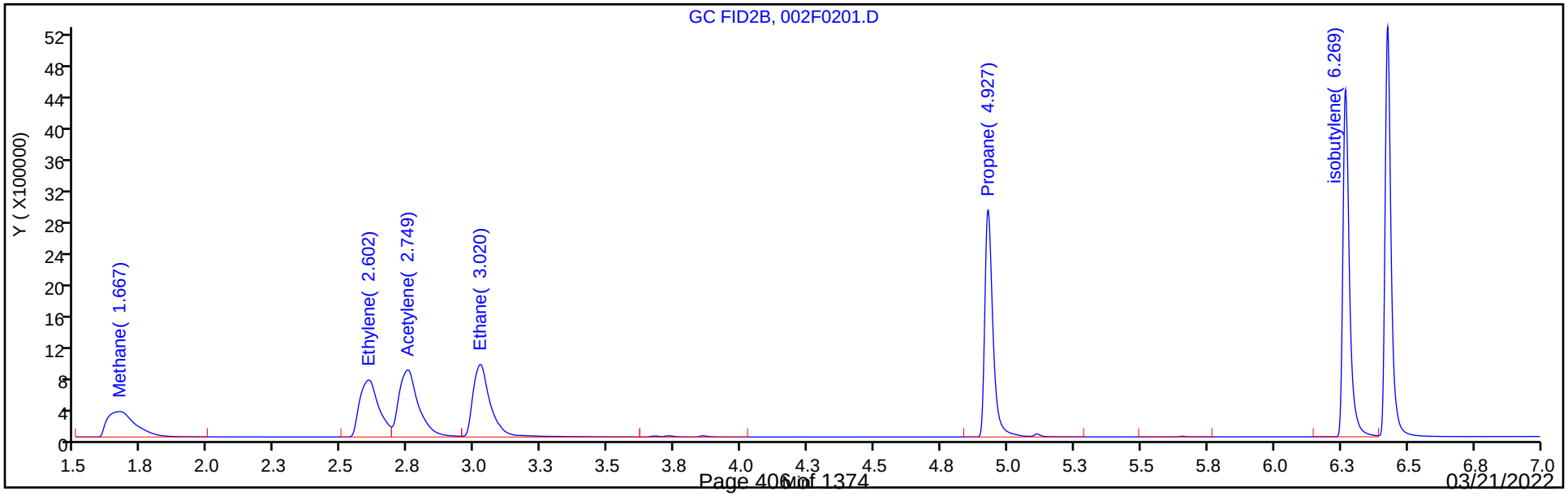
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\002F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 12:03:56 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567747/2 Calibration Date: 03/04/2022 12:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.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 | | 36115 | | 64.0 | 65.7 | -2.6 | 20.0 |
| Ethylene | Ave | 30980 | 31260 | | 116 | 115 | 0.9 | 20.0 |
| Acetylene | Ave | 34179 | 40786 | | 127 | 107 | 19.3 | 20.0 |
| Ethane | Ave | 33383 | 34129 | | 126 | 123 | 2.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCVRT 280-567747/2 Calibration Date: 03/04/2022 12:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.63 | 1.71 |
| Ethylene | 2.60 | 2.55 | 2.65 |
| Acetylene | 2.75 | 2.67 | 2.83 |
| Ethane | 3.02 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 04-Mar-2022 12:03:56 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:12:07

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.260 | 1.260 | 0.000 | 2390219 | 65.7 | 66.1 | |
| 2 | 1.667 | 1.667 | 0.000 | 2372876 | 65.7 | 64.0 | |
| | | | | | | RPD = 3.25 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.522 | 0.000 | 4121102 | 123.2 | 124.0 | |
| 2 | 3.020 | 3.020 | 0.000 | 4203647 | 123.2 | 125.9 | |
| | | | | | | RPD = 1.56 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.810 | 1.810 | 0.000 | 4146321 | 114.9 | 117.7 | |
| 2 | 2.602 | 2.602 | 0.000 | 3591754 | 114.9 | 115.9 | |
| | | | | | | RPD = 1.51 | |
| 5 Propane | | | | | | | |
| 1 | 2.590 | 2.590 | 0.000 | 6489186 | 180.6 | 180.2 | |
| 2 | 4.927 | 4.927 | 0.000 | 6179722 | 180.6 | 176.5 | |
| | | | | | | RPD = 2.07 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.110 | 4.110 | 0.000 | 3539940 | 106.7 | 125.8 | |
| 2 | 2.749 | 2.749 | 0.000 | 4350639 | 106.7 | 127.3 | |
| | | | | | | RPD = 1.18 | |
| 7 Butane | | | | | | | |
| 1 | 4.453 | 4.453 | 0.000 | 8761290 | 238.1 | 240.6 | |
| 2 | 6.427 | 6.427 | 0.000 | 8257233 | 238.1 | 235.0 | |
| | | | | | | RPD = 2.34 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.355 | 5.355 | 0.000 | 8421638 | 229.8 | 233.1 | |
| 2 | 6.269 | 6.269 | 0.000 | 7544697 | 229.8 | 227.2 | |
| | | | | | | RPD = 2.56 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

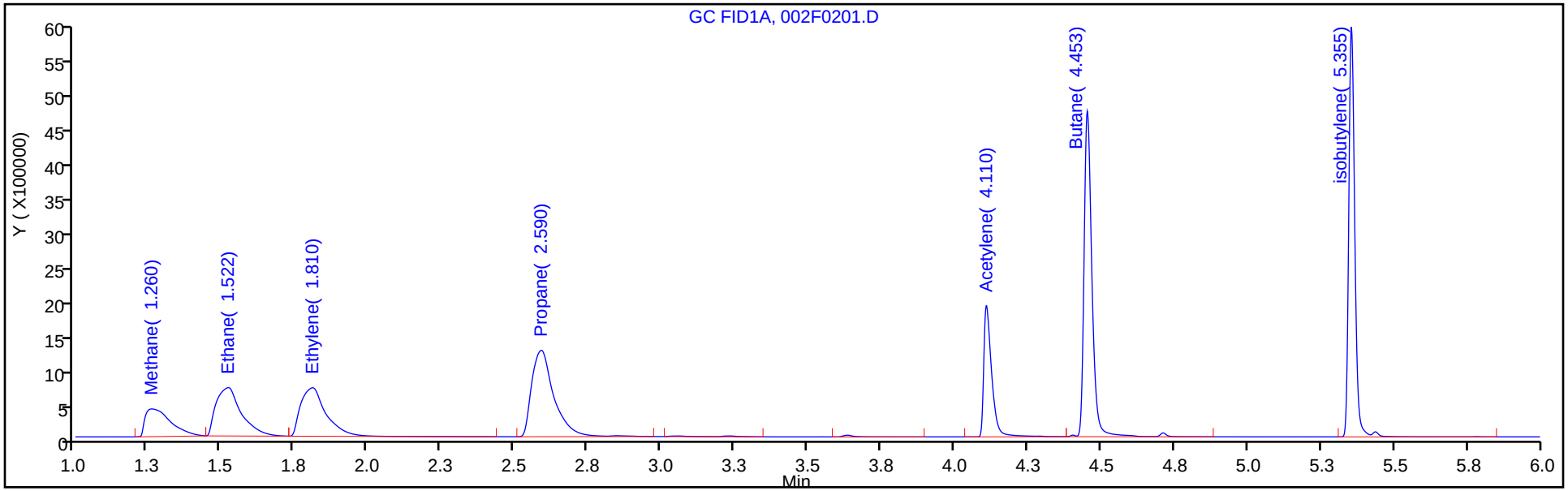
Report Date: 07-Mar-2022 14:00:53 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

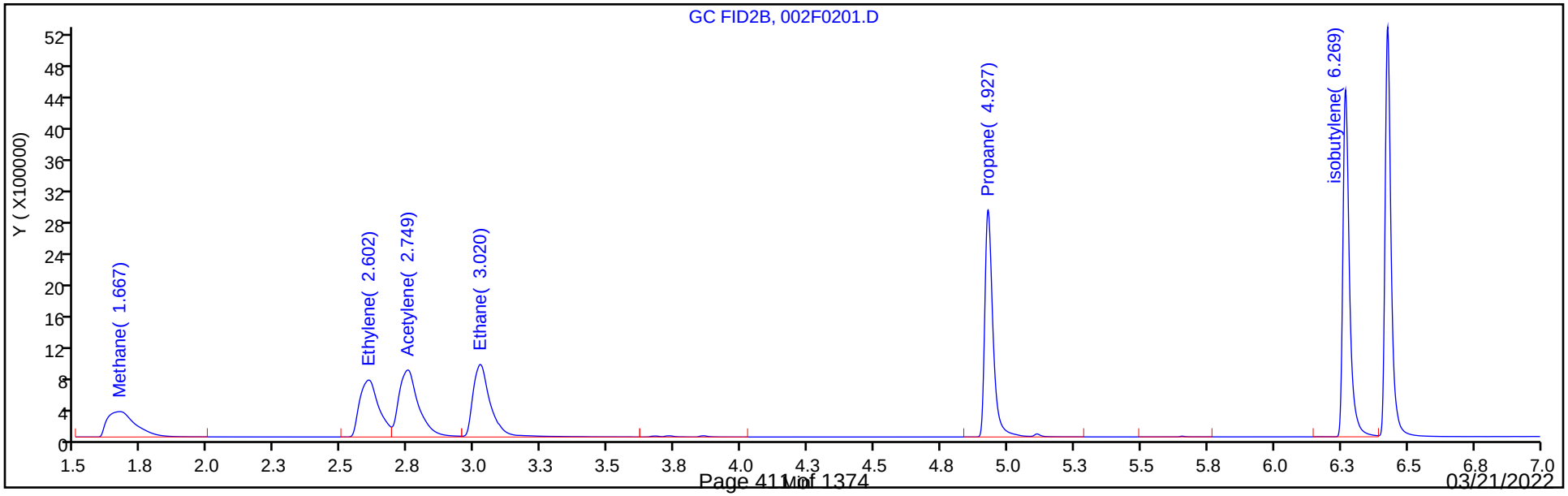
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\002F0201.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 12:03:56 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/19 Calibration Date: 03/04/2022 15:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.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 | | 37844 | | 68.8 | 65.7 | 4.8 | 20.0 |
| Ethane | Ave | 33241 | 33919 | | 126 | 123 | 2.0 | 20.0 |
| Ethylene | Ave | 35226 | 36012 | | 117 | 115 | 2.2 | 20.0 |
| Acetylene | Ave | 28139 | 27628 | | 105 | 107 | -1.8 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/19 Calibration Date: 03/04/2022 15:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.25 | 1.22 | 1.30 |
| Ethane | 1.52 | 1.47 | 1.57 |
| Ethylene | 1.83 | 1.76 | 1.86 |
| Acetylene | 4.21 | 4.03 | 4.19 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2022 15:44:19 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:01:02 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:57:28

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 2486456 | 65.7 | 68.8 | |
| 2 | 1.658 | 1.667 | -0.009 | 2438518 | 65.7 | 65.8 | |
| | | | | | | RPD = 4.50 | |
| 3 Ethane | | | | | | | |
| 1 | 1.523 | 1.522 | 0.001 | 4177819 | 123.2 | 125.7 | |
| 2 | 3.008 | 3.020 | -0.012 | 4157683 | 123.2 | 124.5 | |
| | | | | | | RPD = 0.91 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.831 | 1.810 | 0.021 | 4137771 | 114.9 | 117.5 | |
| 2 | 2.587 | 2.602 | -0.015 | 3555765 | 114.9 | 114.8 | |
| | | | | | | RPD = 2.32 | |
| 5 Propane | | | | | | | |
| 1 | 2.645 | 2.590 | 0.055 | 6468610 | 180.6 | 179.6 | |
| 2 | 4.920 | 4.927 | -0.007 | 6066651 | 180.6 | 173.3 | |
| | | | | | | RPD = 3.60 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.213 | 4.110 | 0.103 | 2947064 | 106.7 | 104.7 | a |
| 2 | 2.733 | 2.749 | -0.016 | 3643284 | 106.7 | 106.6 | a |
| | | | | | | RPD = 1.76 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.525 | 4.453 | 0.072 | 8032990 | 238.1 | 220.6 | a |
| 2 | 6.422 | 6.427 | -0.005 | 7246572 | 238.1 | 206.2 | M |
| | | | | | | RPD = 6.71 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.423 | 5.355 | 0.068 | 7690934 | 229.8 | 212.9 | |
| 2 | 6.265 | 6.269 | -0.004 | 6565128 | 229.8 | 197.7 | M |
| | | | | | | RPD = 7.39 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

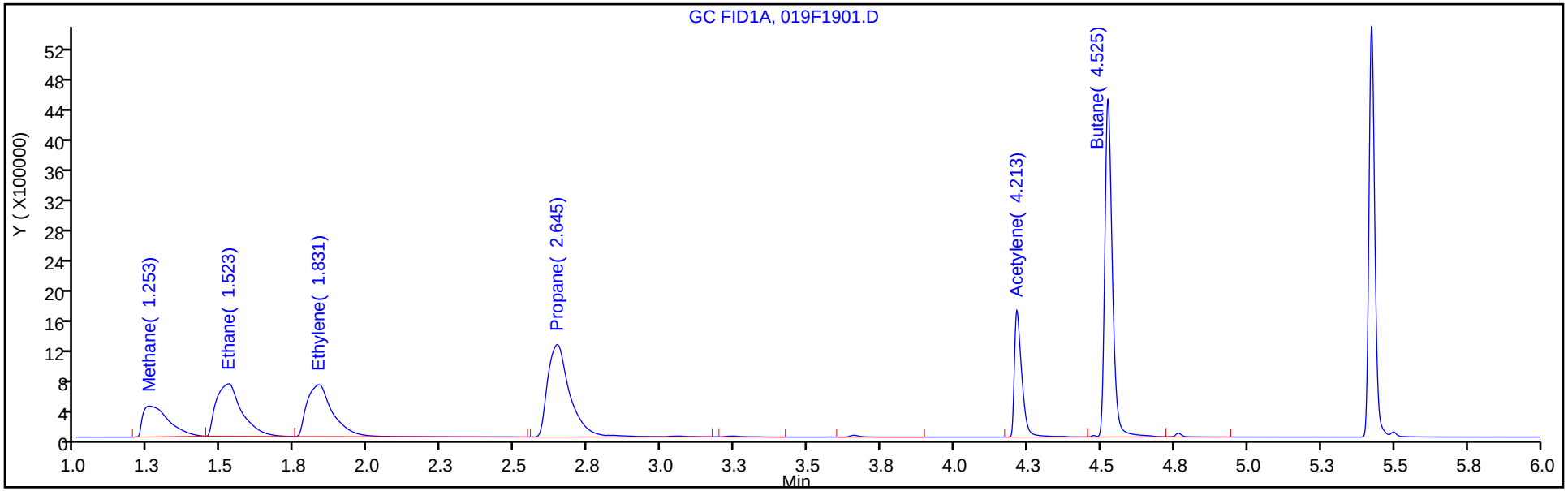
Report Date: 07-Mar-2022 14:01:02 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

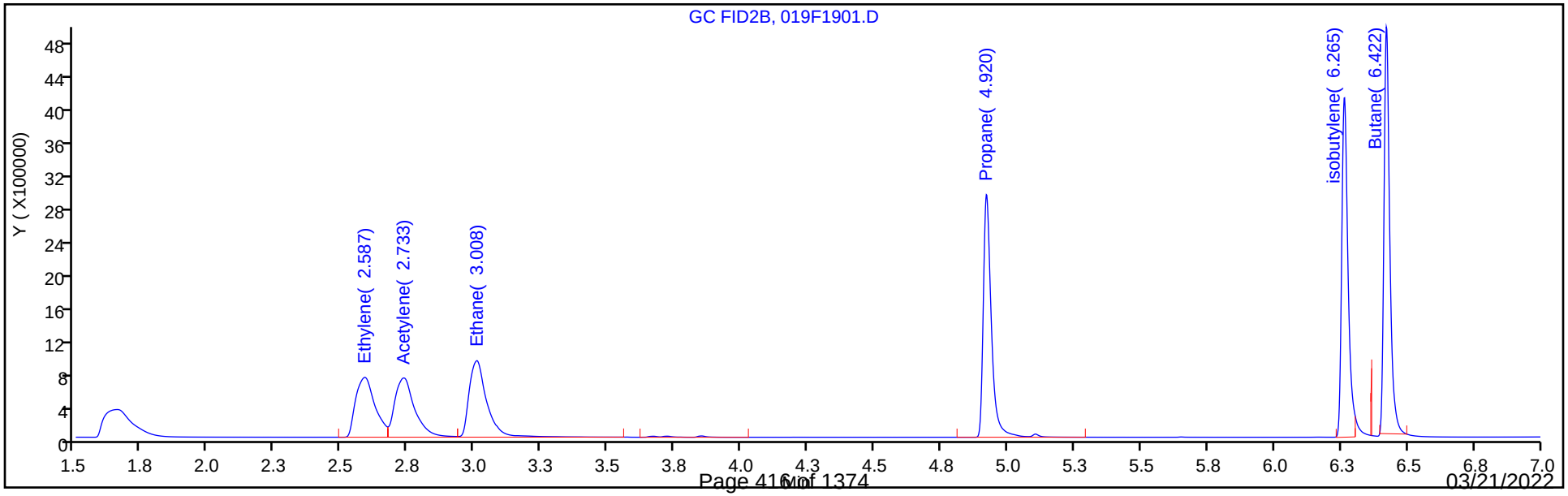
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 15:44:19 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

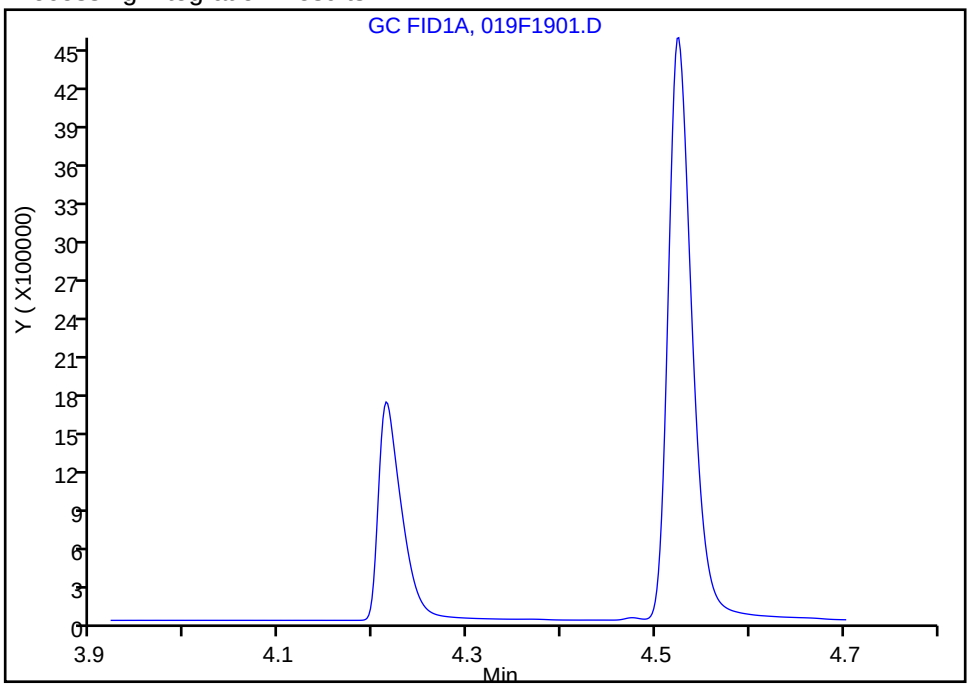
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D | | | | |
| Injection Date: | 04-Mar-2022 15:44:19 | Instrument ID: | VGC_J | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |
| Column: | Rt-Alumina BOND/KCl ( 0.53 mm) | Detector | GC FID1A | | |

## 6 Acetylene, CAS: 74-86-2

Signal: 1

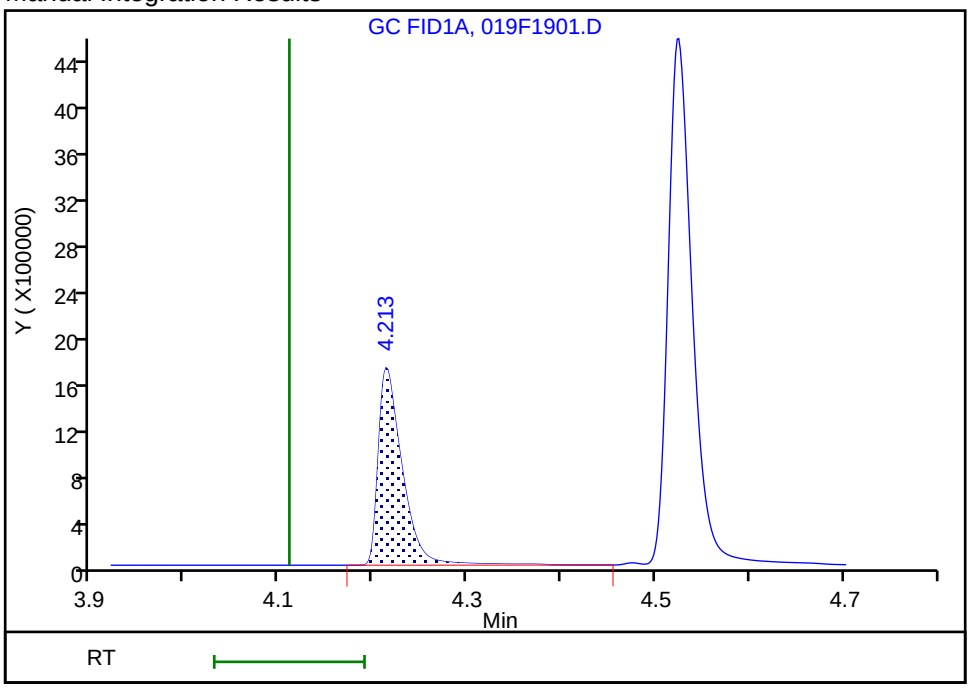
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 2947064
Amount: 104.7323
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:57:01
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/19 Calibration Date: 03/04/2022 15:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.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 | | 37114 | | 65.8 | 65.7 | 0.2 | 20.0 |
| Ethylene | Ave | 30980 | 30947 | | 115 | 115 | -0.1 | 20.0 |
| Acetylene | Ave | 34179 | 34155 | | 107 | 107 | -0.0 | 20.0 |
| Ethane | Ave | 33383 | 33756 | | 125 | 123 | 1.1 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/19 Calibration Date: 03/04/2022 15:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.66 | 1.63 | 1.71 |
| Ethylene | 2.59 | 2.55 | 2.65 |
| Acetylene | 2.73 | 2.67 | 2.83 |
| Ethane | 3.01 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2022 15:44:19 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:01:02 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:57:28

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 2486456 | 65.7 | 68.8 | |
| 2 | 1.658 | 1.667 | -0.009 | 2438518 | 65.7 | 65.8 | |
| | | | | | | RPD = 4.50 | |
| 3 Ethane | | | | | | | |
| 1 | 1.523 | 1.522 | 0.001 | 4177819 | 123.2 | 125.7 | |
| 2 | 3.008 | 3.020 | -0.012 | 4157683 | 123.2 | 124.5 | |
| | | | | | | RPD = 0.91 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.831 | 1.810 | 0.021 | 4137771 | 114.9 | 117.5 | |
| 2 | 2.587 | 2.602 | -0.015 | 3555765 | 114.9 | 114.8 | |
| | | | | | | RPD = 2.32 | |
| 5 Propane | | | | | | | |
| 1 | 2.645 | 2.590 | 0.055 | 6468610 | 180.6 | 179.6 | |
| 2 | 4.920 | 4.927 | -0.007 | 6066651 | 180.6 | 173.3 | |
| | | | | | | RPD = 3.60 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.213 | 4.110 | 0.103 | 2947064 | 106.7 | 104.7 | a |
| 2 | 2.733 | 2.749 | -0.016 | 3643284 | 106.7 | 106.6 | a |
| | | | | | | RPD = 1.76 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.525 | 4.453 | 0.072 | 8032990 | 238.1 | 220.6 | a |
| 2 | 6.422 | 6.427 | -0.005 | 7246572 | 238.1 | 206.2 | M |
| | | | | | | RPD = 6.71 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.423 | 5.355 | 0.068 | 7690934 | 229.8 | 212.9 | |
| 2 | 6.265 | 6.269 | -0.004 | 6565128 | 229.8 | 197.7 | M |
| | | | | | | RPD = 7.39 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

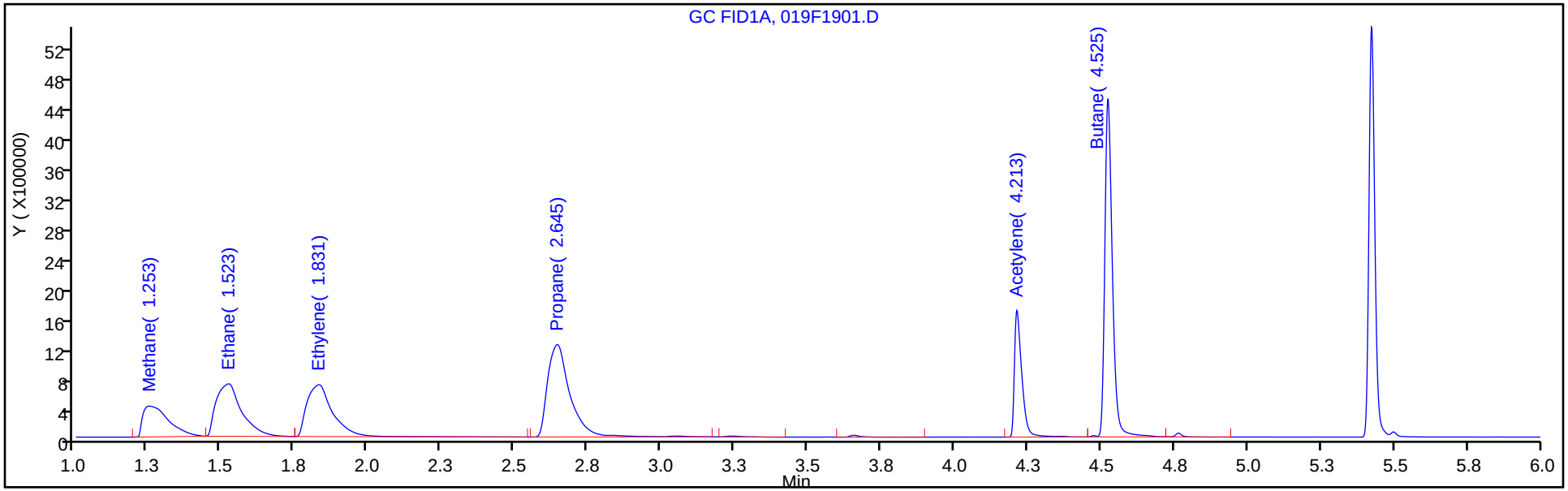
Report Date: 07-Mar-2022 14:01:02 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

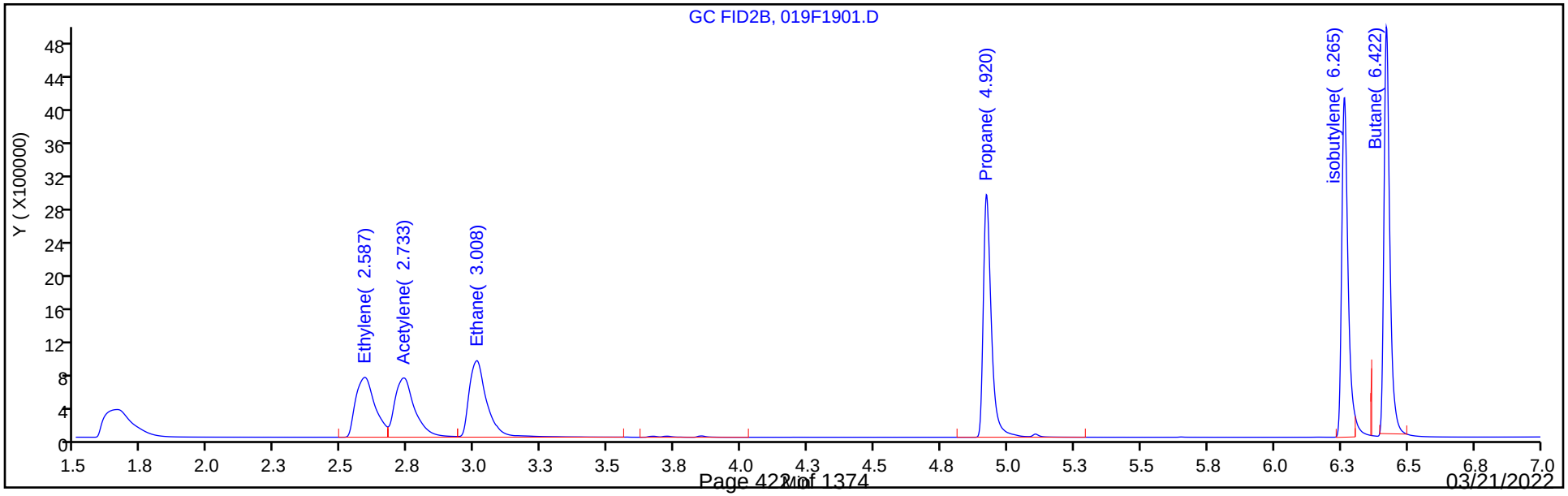
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 15:44:19 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

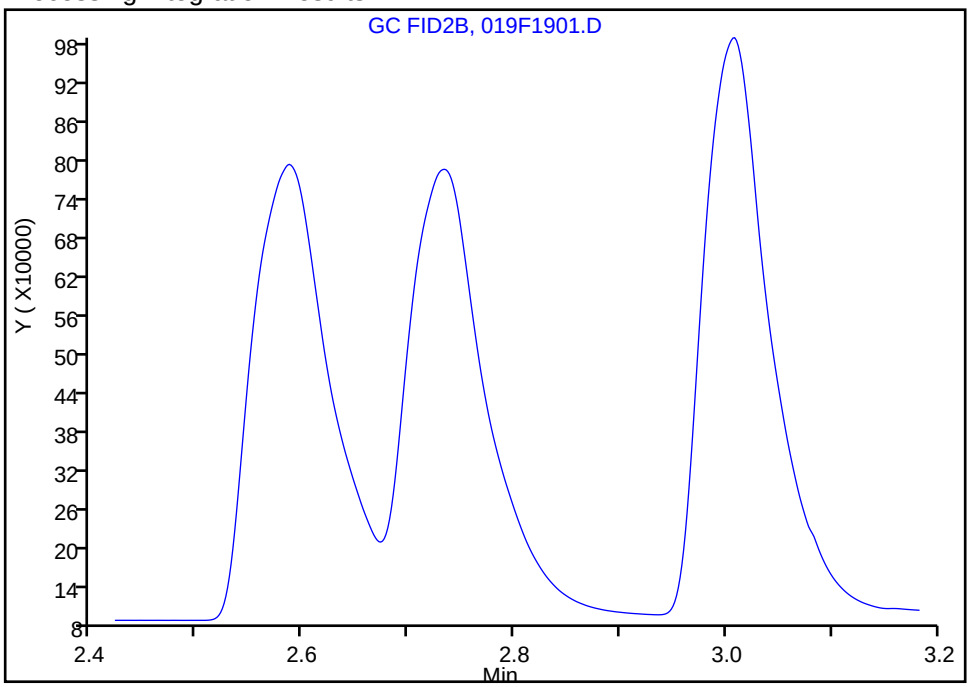
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\019F1901.D
Injection Date: 04-Mar-2022 15:44:19 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

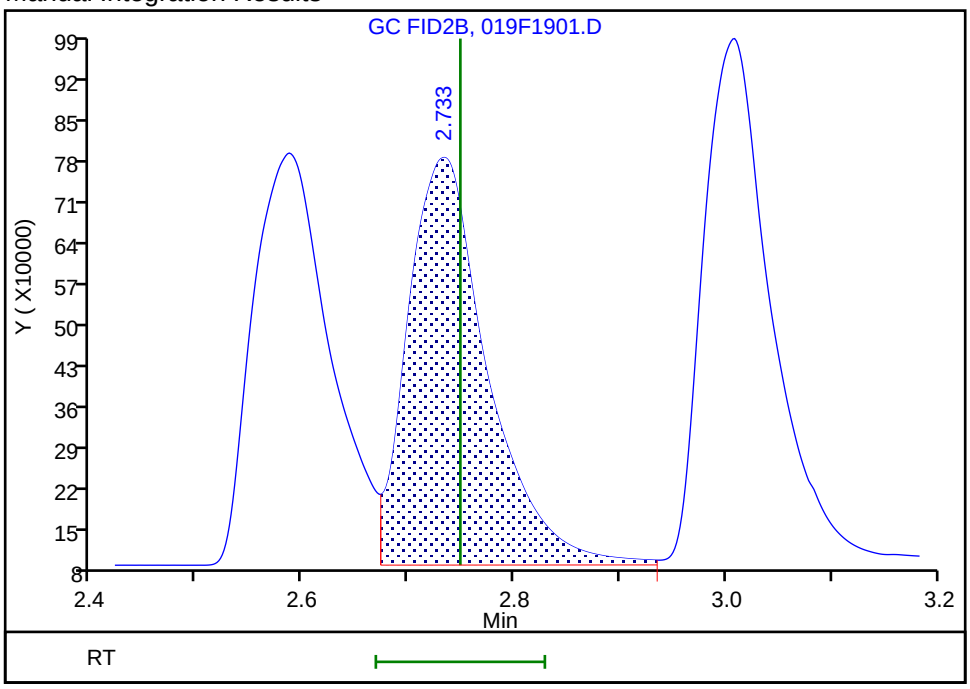
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.73
Area: 3643284
Amount: 106.5949
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:57:00
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/26 Calibration Date: 03/04/2022 17:15

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 026F2601.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 | | 37112 | | 67.5 | 65.7 | 2.7 | 20.0 |
| Ethane | Ave | 33241 | 33706 | | 125 | 123 | 1.4 | 20.0 |
| Ethylene | Ave | 35226 | 35430 | | 116 | 115 | 0.6 | 20.0 |
| Acetylene | Ave | 28139 | 26616 | | 101 | 107 | -5.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/26 Calibration Date: 03/04/2022 17:15

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 026F2601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.25 | 1.22 | 1.30 |
| Ethane | 1.53 | 1.47 | 1.57 |
| Ethylene | 1.83 | 1.76 | 1.86 |
| Acetylene | 4.22 | 4.03 | 4.19 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2022 17:15:43 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:01:06 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:20:10

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 2438350 | 65.7 | 67.5 | |
| 2 | 1.660 | 1.667 | -0.007 | 2388305 | 65.7 | 64.4 | |
| | | | | | | RPD = 4.63 | |
| 3 Ethane | | | | | | | |
| 1 | 1.525 | 1.522 | 0.003 | 4151513 | 123.2 | 124.9 | |
| 2 | 3.007 | 3.020 | -0.013 | 4093149 | 123.2 | 122.6 | |
| | | | | | | RPD = 1.84 | |
| 4 Ethylene | | | | | | | Ma |
| 1 | 1.833 | 1.810 | 0.023 | 4070928 | 114.9 | 115.6 | |
| 2 | 2.588 | 2.602 | -0.014 | 3502389 | 114.9 | 113.1 | M |
| | | | | | | RPD = 2.20 | |
| 5 Propane | | | | | | | |
| 1 | 2.646 | 2.590 | 0.056 | 6632722 | 180.6 | 184.2 | |
| 2 | 4.922 | 4.927 | -0.005 | 6157848 | 180.6 | 175.9 | |
| | | | | | | RPD = 4.61 | |
| 6 Acetylene | | | | | | | Ma |
| 1 | 4.215 | 4.110 | 0.105 | 2839156 | 106.7 | 100.9 | M |
| 2 | 2.735 | 2.749 | -0.014 | 3561389 | 106.7 | 104.2 | M |
| | | | | | | RPD = 3.22 | |
| 7 Butane | | | | | | | a |
| 1 | 4.526 | 4.453 | 0.073 | 8511823 | 238.1 | 233.7 | a |
| 2 | 6.422 | 6.427 | -0.005 | 7964446 | 238.1 | 226.7 | |
| | | | | | | RPD = 3.06 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.425 | 5.355 | 0.070 | 7975160 | 229.8 | 220.8 | |
| 2 | 6.263 | 6.269 | -0.006 | 7116930 | 229.8 | 214.3 | |
| | | | | | | RPD = 2.95 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

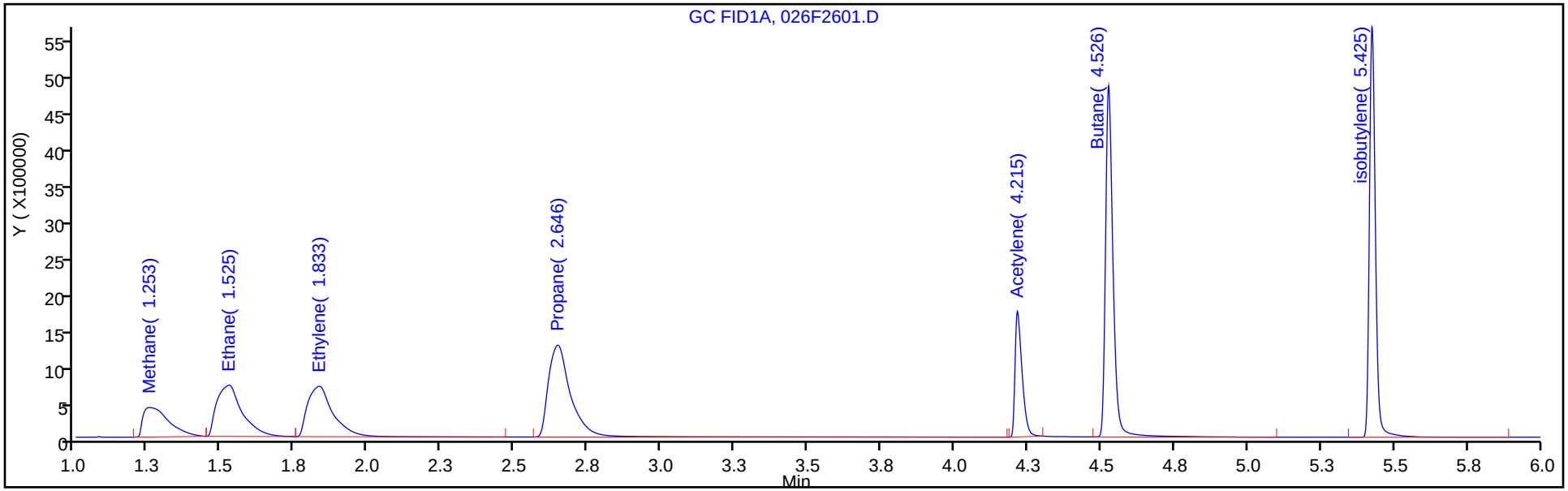
Report Date: 07-Mar-2022 14:01:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

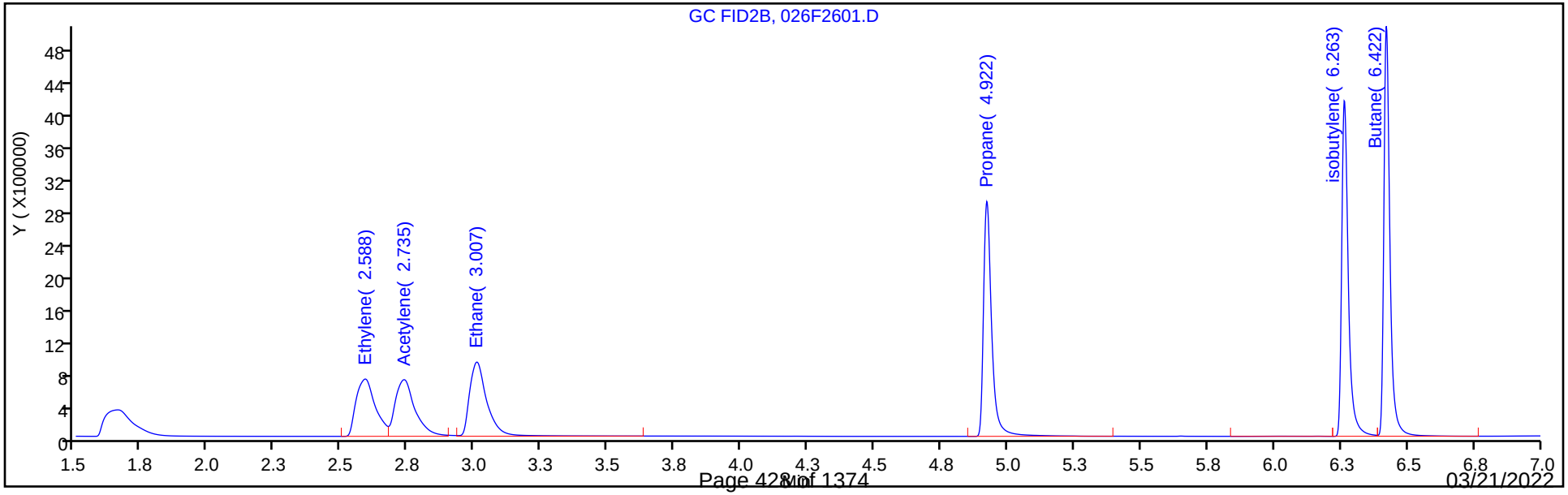
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 17:15:43 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

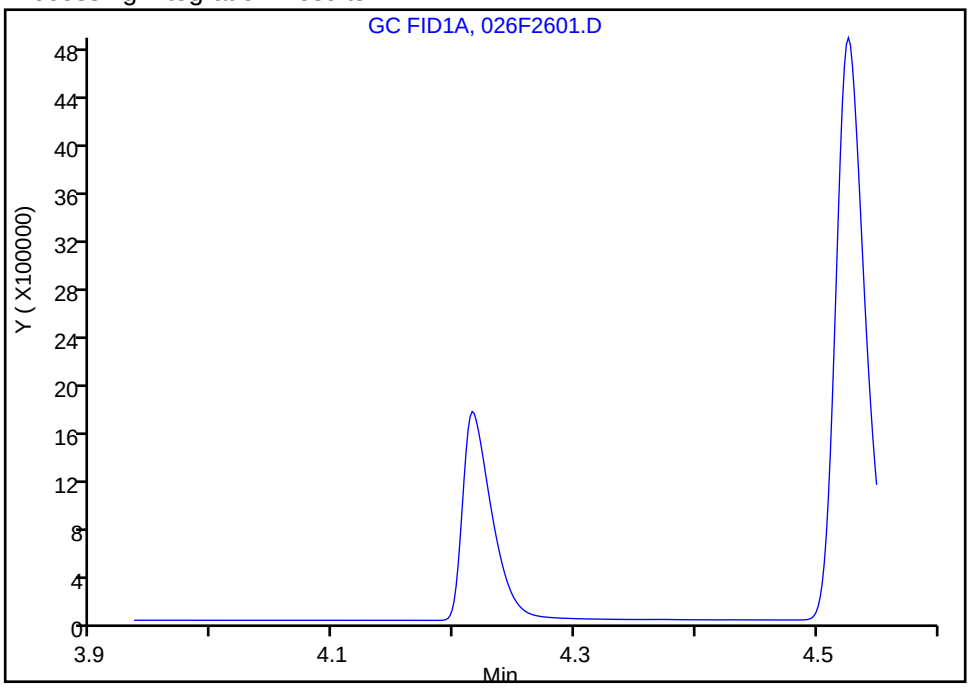
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D
Injection Date: 04-Mar-2022 17:15:43 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl ( 0.53 mm) Detector GC FID1A

## 6 Acetylene, CAS: 74-86-2

Signal: 1

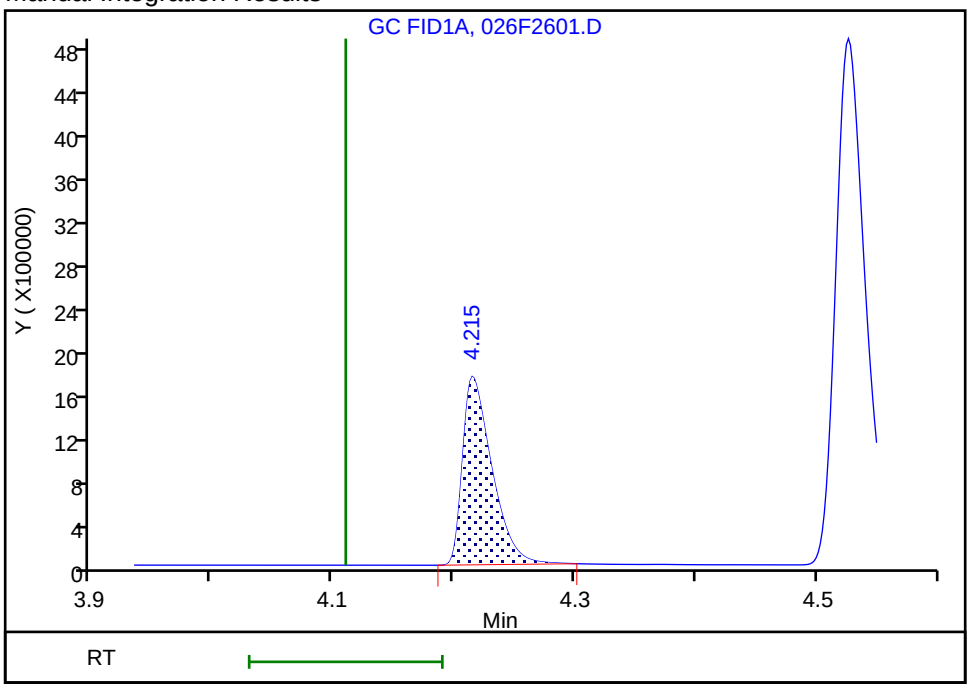
Not Detected
Expected RT: 4.11

Processing Integration Results




Manual Integration Results

RT: 4.21
Area: 2839156
Amount: 100.8975
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:19:55
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Wrong Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/26 Calibration Date: 03/04/2022 17:15

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 026F2601.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 | | 36350 | | 64.4 | 65.7 | -2.0 | 20.0 |
| Ethylene | Ave | 30980 | 30482 | | 113 | 115 | -1.6 | 20.0 |
| Acetylene | Ave | 34179 | 33387 | | 104 | 107 | -2.3 | 20.0 |
| Ethane | Ave | 33383 | 33232 | | 123 | 123 | -0.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-567747/26 Calibration Date: 03/04/2022 17:15

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 026F2601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.66 | 1.63 | 1.71 |
| Ethylene | 2.59 | 2.55 | 2.65 |
| Acetylene | 2.74 | 2.67 | 2.83 |
| Ethane | 3.01 | 2.97 | 3.07 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2022 17:15:43 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:01:06 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:20:10

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.253 | 1.260 | -0.007 | 2438350 | 65.7 | 67.5 | |
| 2 | 1.660 | 1.667 | -0.007 | 2388305 | 65.7 | 64.4 | |
| | | | | | | RPD = 4.63 | |
| 3 Ethane | | | | | | | |
| 1 | 1.525 | 1.522 | 0.003 | 4151513 | 123.2 | 124.9 | |
| 2 | 3.007 | 3.020 | -0.013 | 4093149 | 123.2 | 122.6 | |
| | | | | | | RPD = 1.84 | |
| 4 Ethylene | | | | | | | Ma |
| 1 | 1.833 | 1.810 | 0.023 | 4070928 | 114.9 | 115.6 | |
| 2 | 2.588 | 2.602 | -0.014 | 3502389 | 114.9 | 113.1 | M |
| | | | | | | RPD = 2.20 | |
| 5 Propane | | | | | | | |
| 1 | 2.646 | 2.590 | 0.056 | 6632722 | 180.6 | 184.2 | |
| 2 | 4.922 | 4.927 | -0.005 | 6157848 | 180.6 | 175.9 | |
| | | | | | | RPD = 4.61 | |
| 6 Acetylene | | | | | | | Ma |
| 1 | 4.215 | 4.110 | 0.105 | 2839156 | 106.7 | 100.9 | M |
| 2 | 2.735 | 2.749 | -0.014 | 3561389 | 106.7 | 104.2 | M |
| | | | | | | RPD = 3.22 | |
| 7 Butane | | | | | | | a |
| 1 | 4.526 | 4.453 | 0.073 | 8511823 | 238.1 | 233.7 | a |
| 2 | 6.422 | 6.427 | -0.005 | 7964446 | 238.1 | 226.7 | |
| | | | | | | RPD = 3.06 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.425 | 5.355 | 0.070 | 7975160 | 229.8 | 220.8 | |
| 2 | 6.263 | 6.269 | -0.006 | 7116930 | 229.8 | 214.3 | |
| | | | | | | RPD = 2.95 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

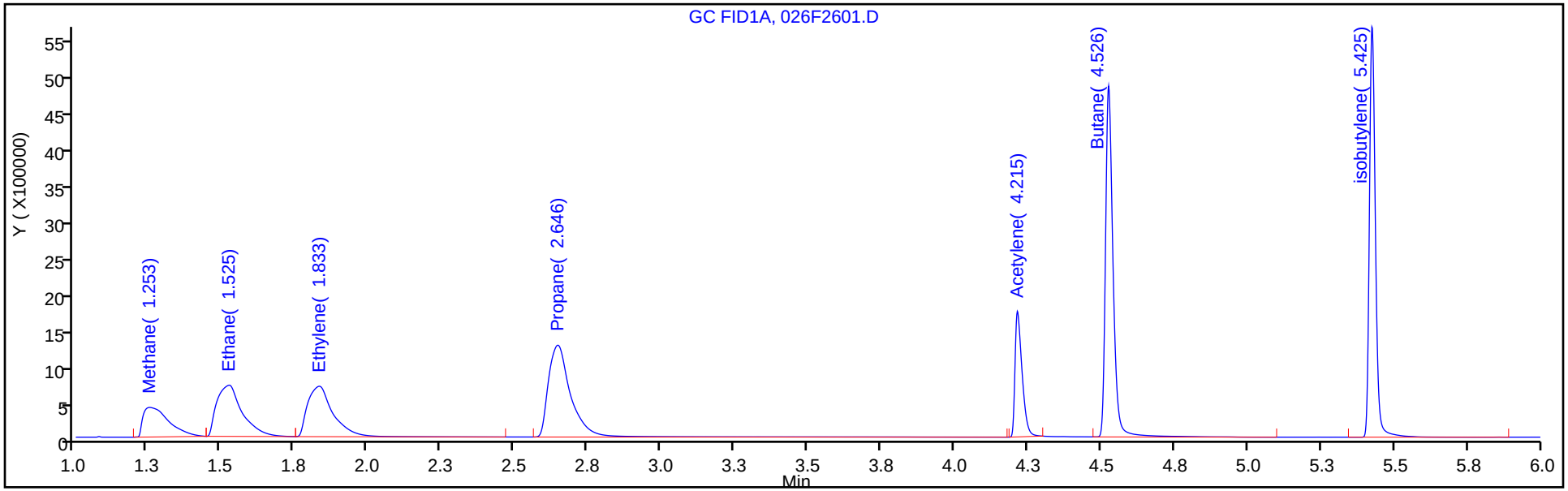
Report Date: 07-Mar-2022 14:01:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

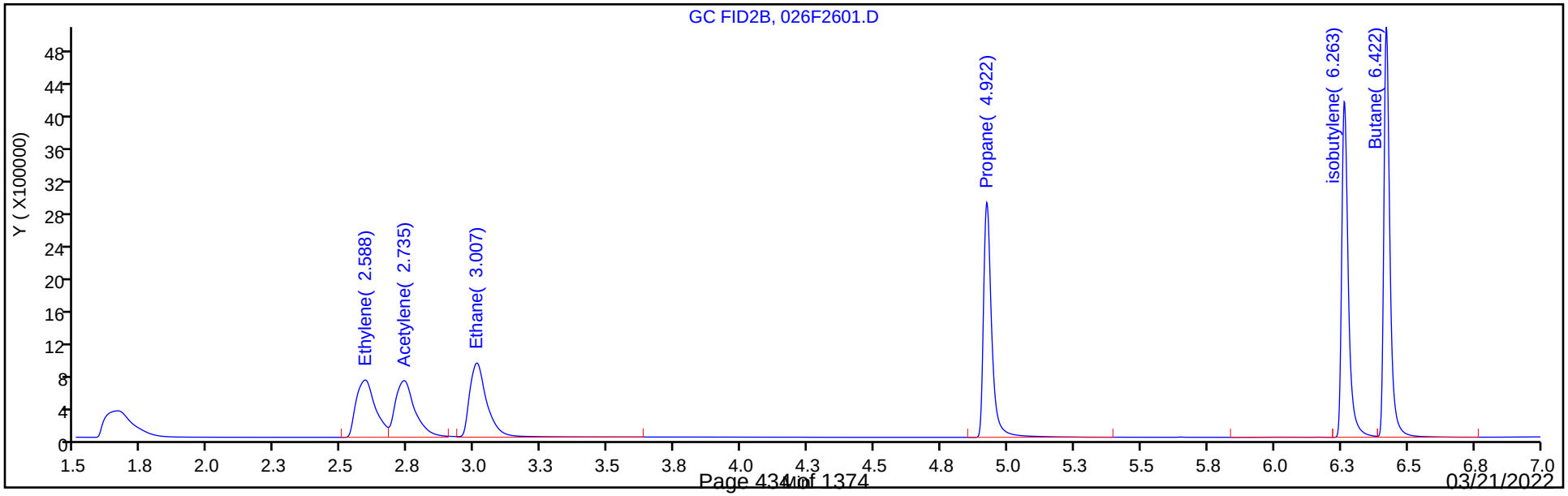
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 17:15:43 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins Denver

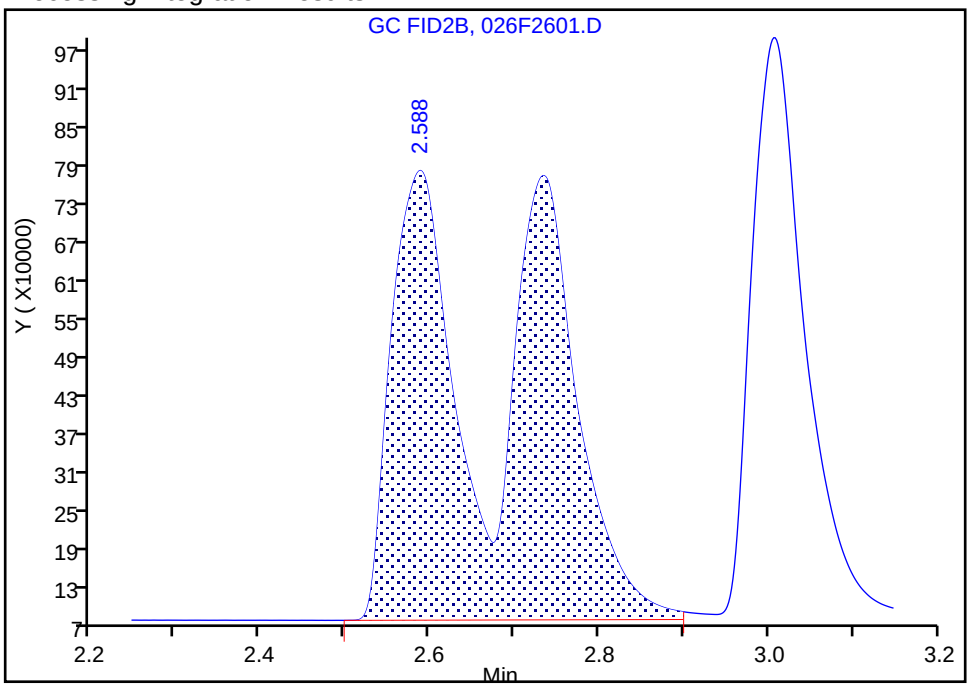
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D
Injection Date: 04-Mar-2022 17:15:43 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 4 Ethylene, CAS: 74-85-1

Signal: 2

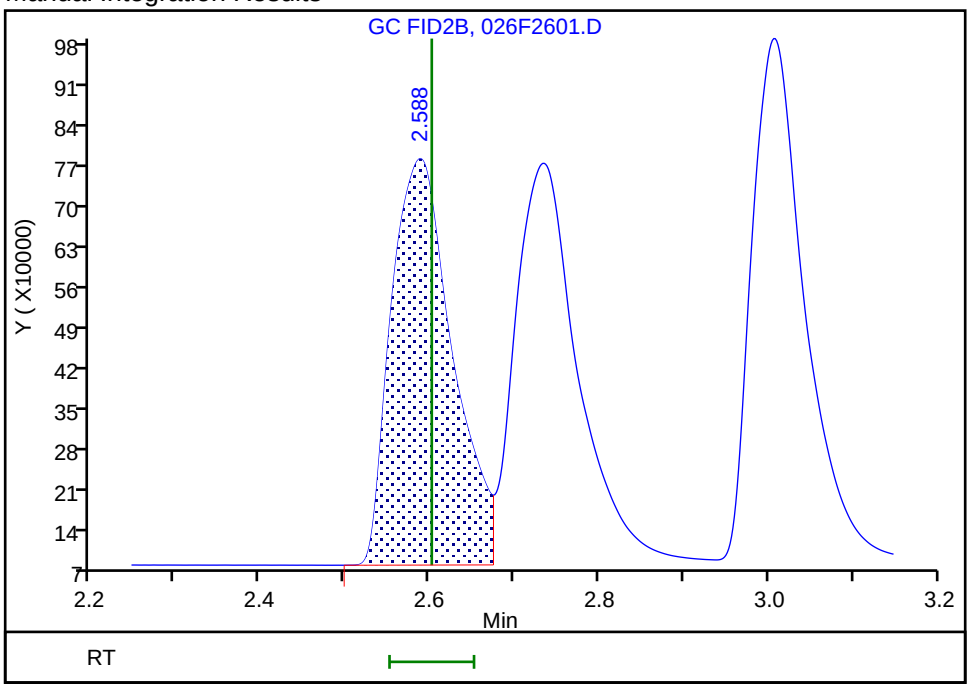
Processing Integration Results

RT: 2.59
Area: 7063805
Amount: 228.0098
Amount Units: ug/l




Manual Integration Results

RT: 2.59
Area: 3502389
Amount: 113.0523
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:58:56
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins Denver

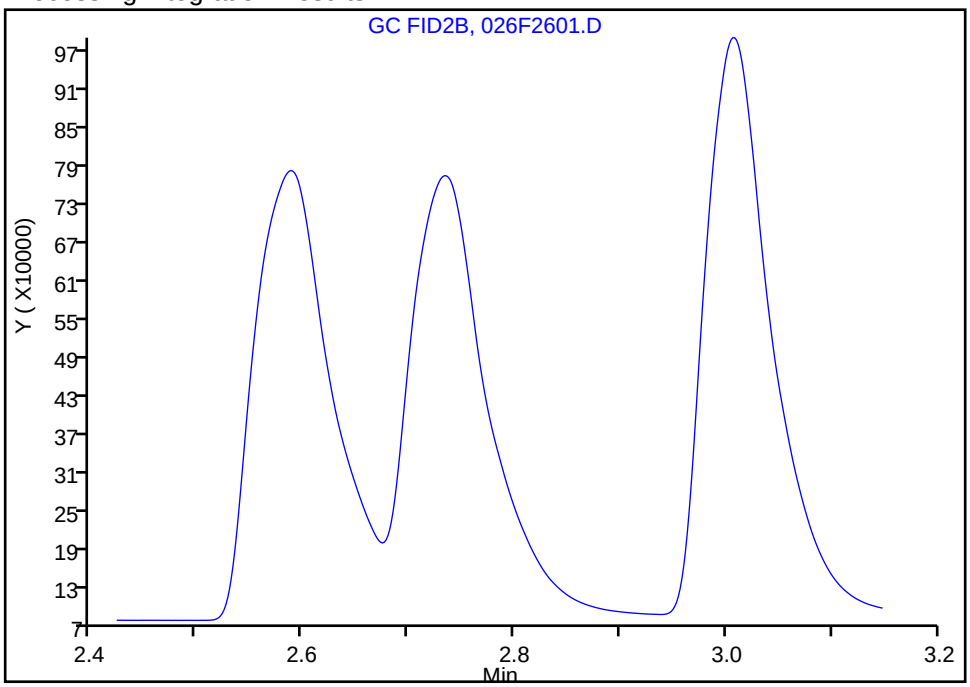
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\026F2601.D
Injection Date: 04-Mar-2022 17:15:43 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q ( 0.53 mm) Detector GC FID2B

## 6 Acetylene, CAS: 74-86-2

Signal: 2

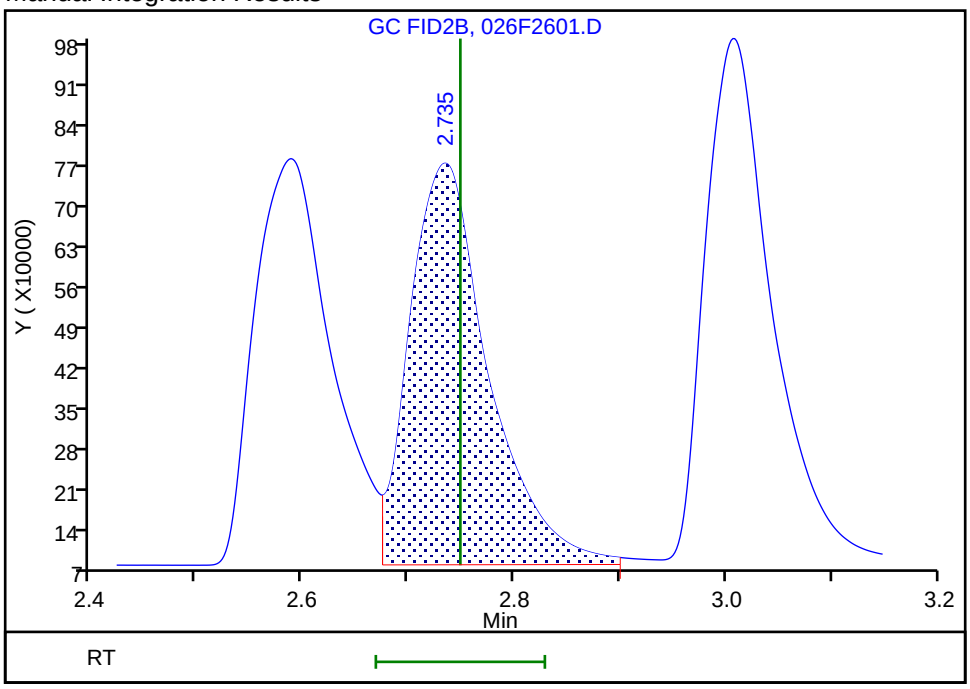
Not Detected
Expected RT: 2.75

Processing Integration Results




Manual Integration Results

RT: 2.73
Area: 3561389
Amount: 104.1988
Amount Units: ug/l




Reviewer: sciannac, 07-Mar-2022 13:19:43
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-567659/5

Matrix: Water | Lab File ID: 005F0501.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 15:17

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.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\005F0501.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 03-Mar-2022 15:17:04 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:08 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:54:14

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 5.458 | | | | | |
| 2 Methane | | | | | | | 7 |
| 1 | | 1.262 | | | | ND | |
| 2 | | 1.669 | | | | | |
| 3 Ethane | | | | | | | |
| 1 | | 1.524 | | | | ND | |
| 2 | | 3.022 | | | | | |
| 4 Ethylene | | | | | | | |
| 1 | | 1.809 | | | | ND | |
| 2 | | 2.604 | | | | | |
| 5 Propane | | | | | | | |
| 1 | | 2.587 | | | | ND | |
| 2 | | 4.927 | | | | | |
| 6 Acetylene | | | | | | | |
| 1 | | 4.102 | | | | ND | |
| 2 | | 2.751 | | | | | |
| 7 Butane | | | | | | | |
| 1 | | 4.449 | | | | ND | |
| 2 | | 6.427 | | | | | |
| 8 isobutylene | | | | | | | |
| 1 | | 5.350 | | | | ND | |
| 2 | | 6.269 | | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

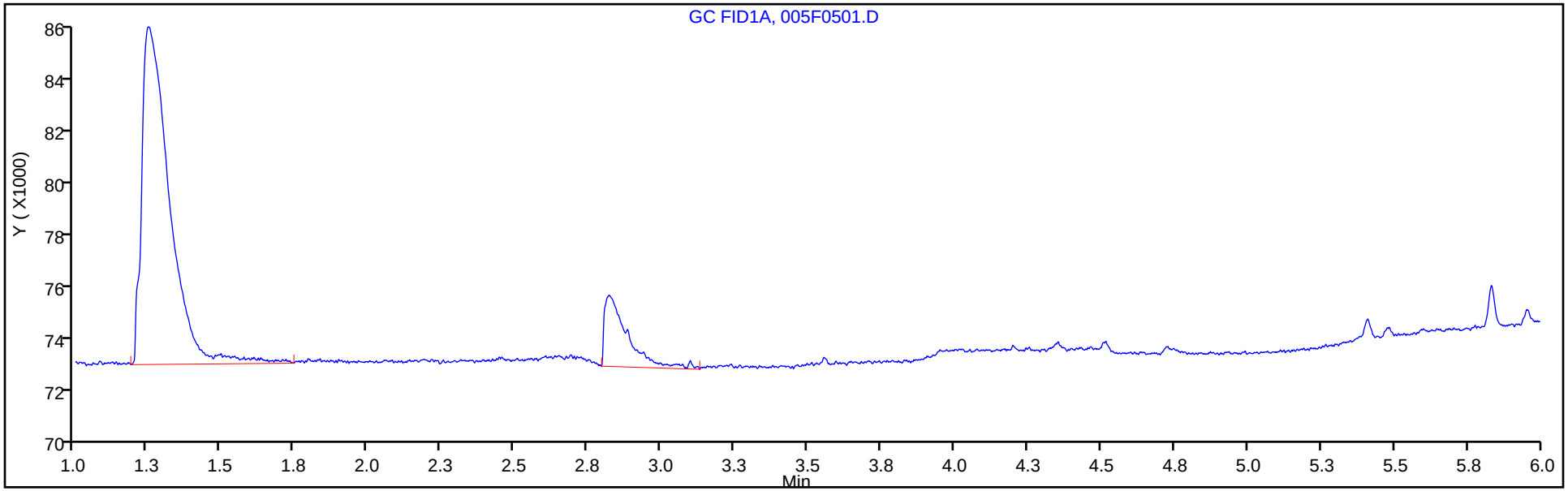
Report Date: 07-Mar-2022 13:05:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

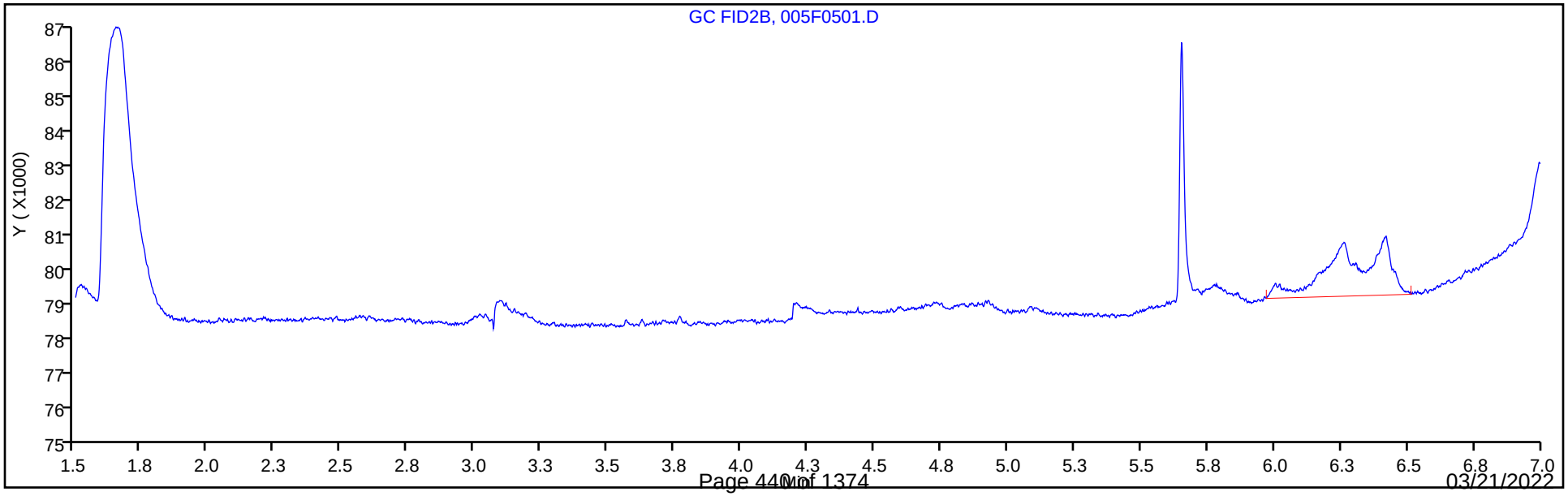
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\005F0501.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 15:17:04 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | mb | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-567747/5

Matrix: Water | Lab File ID: 005F0501.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 12:42

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0013 | U | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\005F0501.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 04-Mar-2022 12:42:45 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:13:53

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 5.458 | | | | | |
| 2 Methane | | | | | | | 7 |
| 1 | | 1.260 | | | | ND | |
| 2 | | 1.667 | | | | | |
| 3 Ethane | | | | | | | |
| 1 | | 1.522 | | | | ND | |
| 2 | | 3.020 | | | | | |
| 4 Ethylene | | | | | | | |
| 1 | | 1.810 | | | | ND | |
| 2 | | 2.602 | | | | | |
| 5 Propane | | | | | | | |
| 1 | | 2.590 | | | | ND | |
| 2 | | 4.927 | | | | | |
| 6 Acetylene | | | | | | | |
| 1 | | 4.110 | | | | ND | |
| 2 | | 2.749 | | | | | |
| 7 Butane | | | | | | | |
| 1 | | 4.453 | | | | ND | |
| 2 | | 6.427 | | | | | |
| 8 isobutylene | | | | | | | |
| 1 | | 5.355 | | | | ND | |
| 2 | | 6.269 | | | | | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

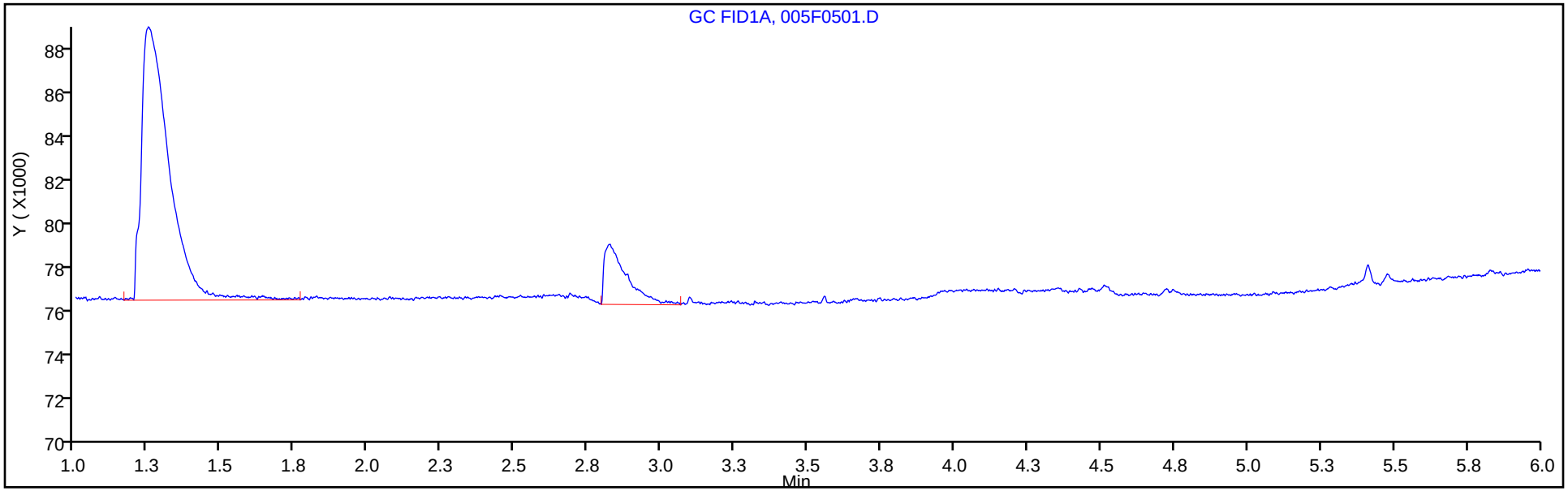
Report Date: 07-Mar-2022 14:00:55 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

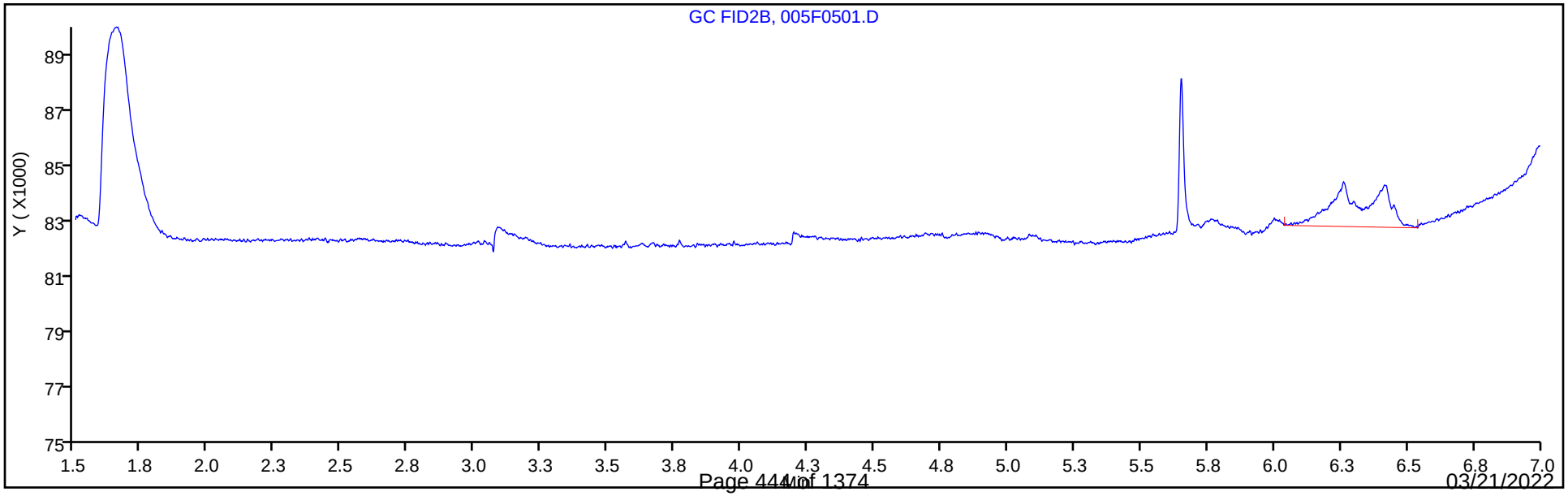
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\005F0501.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 12:42:45 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | mb | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567659/3

Matrix: Water | Lab File ID: 003F0301.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 14:51

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.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0667 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\003F0301.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 03-Mar-2022 14:51:14 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:08 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:52:18

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.259 | 1.262 | -0.003 | 2480446 | 65.7 | 68.7 | |
| 2 | 1.666 | 1.669 | -0.003 | 2469636 | 65.7 | 66.7 | |
| | | | | | | RPD = 2.95 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.524 | -0.002 | 4286335 | 123.2 | 128.9 | |
| 2 | 3.019 | 3.022 | -0.003 | 4374857 | 123.2 | 131.1 | |
| | | | | | | RPD = 1.62 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.811 | 1.809 | 0.002 | 4271671 | 114.9 | 121.3 | |
| 2 | 2.599 | 2.604 | -0.005 | 1677880 | 114.9 | 54.2 | |
| | | | | | | RPD = 76.51 | |
| 5 Propane | | | | | | | |
| 1 | 2.599 | 2.587 | 0.012 | 6767537 | 180.6 | 187.9 | |
| 2 | 4.926 | 4.927 | -0.001 | 6474110 | 180.6 | 184.9 | |
| | | | | | | RPD = 1.62 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.147 | 4.102 | 0.045 | 3323679 | 106.7 | 118.1 | |
| 2 | 2.746 | 2.751 | -0.005 | 4121279 | 106.7 | 120.6 | |
| | | | | | | RPD = 2.06 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.476 | 4.449 | 0.027 | 9090833 | 238.1 | 249.6 | a |
| 2 | 6.424 | 6.427 | -0.003 | 8653047 | 238.1 | 246.3 | M |
| | | | | | | RPD = 1.35 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.374 | 5.350 | 0.024 | 8741764 | 229.8 | 242.0 | |
| 2 | 6.268 | 6.269 | -0.001 | 7856958 | 229.8 | 236.6 | M |
| | | | | | | RPD = 2.24 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

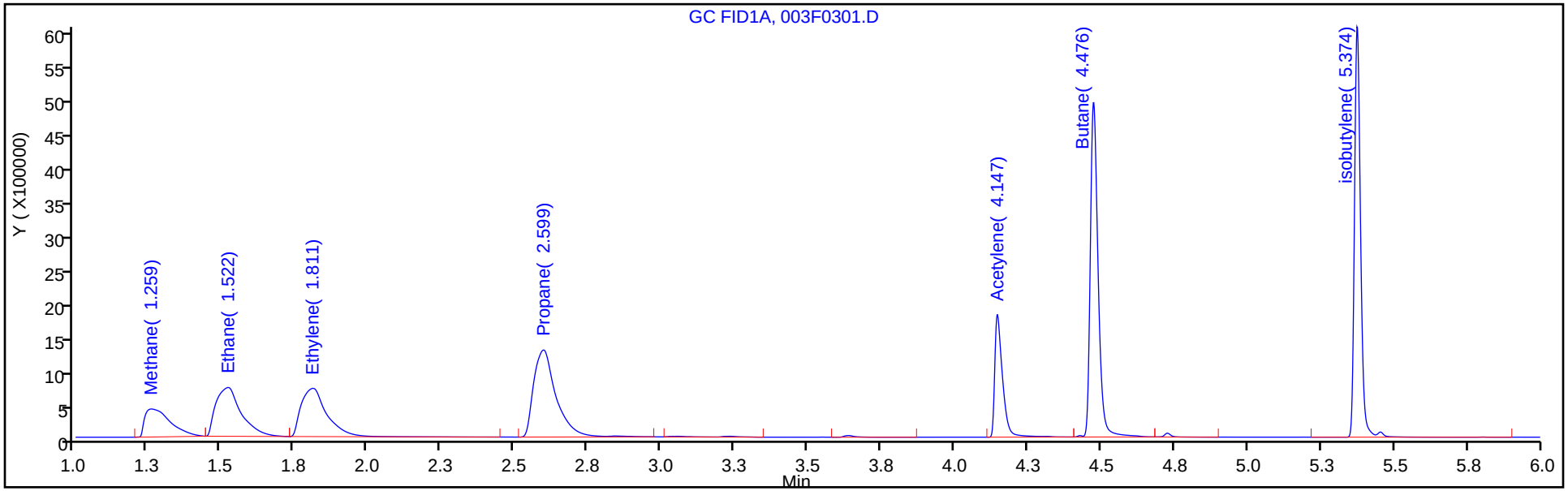
Report Date: 07-Mar-2022 13:05:09 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

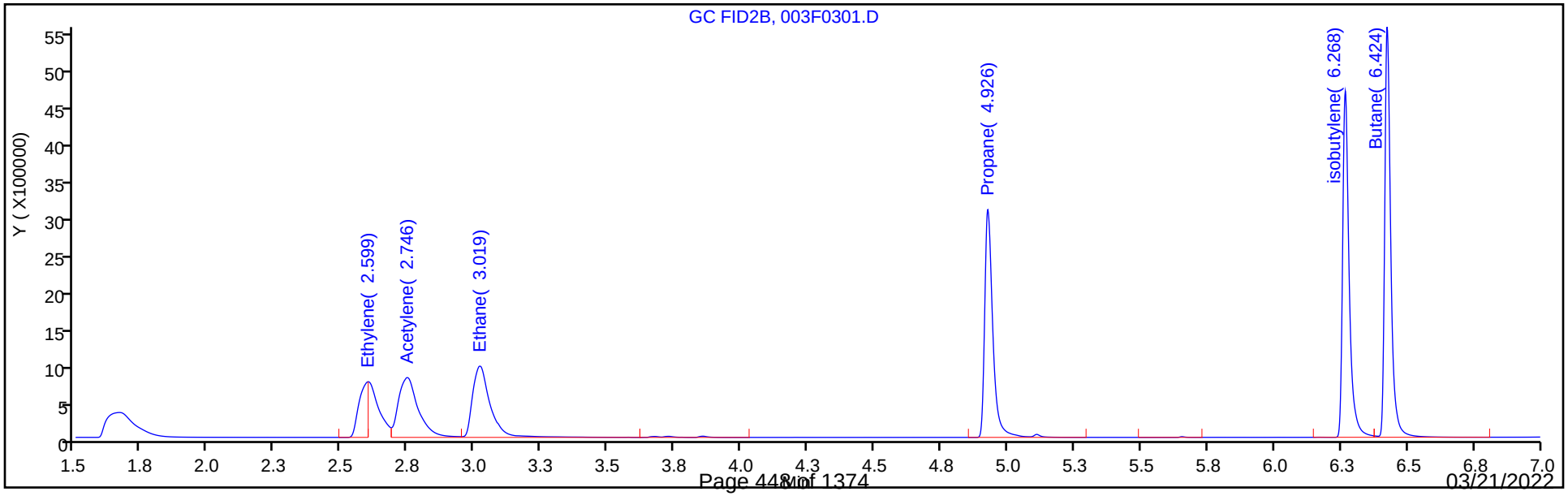
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\003F0301.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 14:51:14 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcs | | | 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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567747/3

Matrix: Water | Lab File ID: 003F0301.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0653 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\003F0301.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-Mar-2022 12:16:51 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:12:12

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.258 | 1.260 | -0.002 | 2442380 | 65.7 | 67.6 | |
| 2 | 1.663 | 1.667 | -0.004 | 2420598 | 65.7 | 65.3 | |
| | | | | | | RPD = 3.42 | |
| 3 Ethane | | | | | | | |
| 1 | 1.521 | 1.522 | -0.001 | 4225037 | 123.2 | 127.1 | |
| 2 | 3.016 | 3.020 | -0.004 | 4298488 | 123.2 | 128.8 | |
| | | | | | | RPD = 1.30 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.811 | 1.810 | 0.001 | 4226985 | 114.9 | 120.0 | |
| 2 | 2.598 | 2.602 | -0.004 | 3660344 | 114.9 | 118.2 | |
| | | | | | | RPD = 1.55 | |
| 5 Propane | | | | | | | |
| 1 | 2.598 | 2.590 | 0.008 | 6668281 | 180.6 | 185.2 | |
| 2 | 4.925 | 4.927 | -0.002 | 6348433 | 180.6 | 181.3 | |
| | | | | | | RPD = 2.10 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.148 | 4.110 | 0.038 | 3402203 | 106.7 | 120.9 | |
| 2 | 2.745 | 2.749 | -0.004 | 4193028 | 106.7 | 122.7 | |
| | | | | | | RPD = 1.46 | |
| 7 Butane | | | | | | | |
| 1 | 4.476 | 4.453 | 0.023 | 8954523 | 238.1 | 245.9 | |
| 2 | 6.425 | 6.427 | -0.002 | 8464440 | 238.1 | 240.9 | |
| | | | | | | RPD = 2.04 | |
| 8 isobutylene | | | | | | | |
| 1 | 5.376 | 5.355 | 0.021 | 8648635 | 229.8 | 239.4 | |
| 2 | 6.266 | 6.269 | -0.003 | 7747810 | 229.8 | 233.3 | |
| | | | | | | RPD = 2.56 | |

## QC Flag Legend

Processing Flags

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

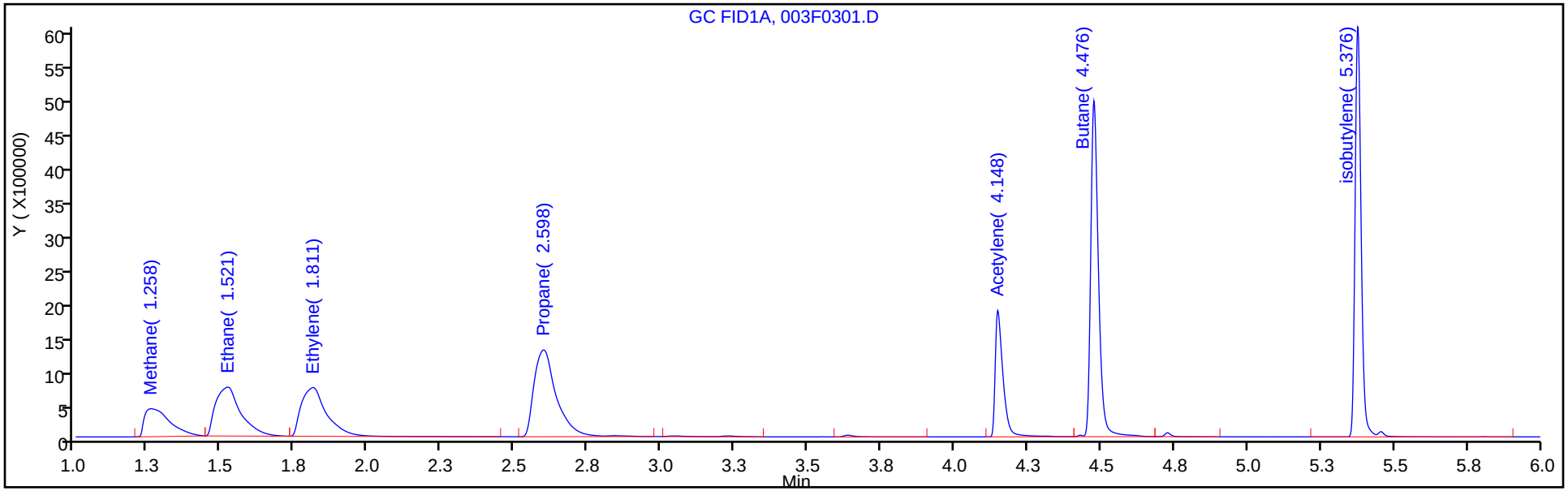
Report Date: 07-Mar-2022 14:00:53 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

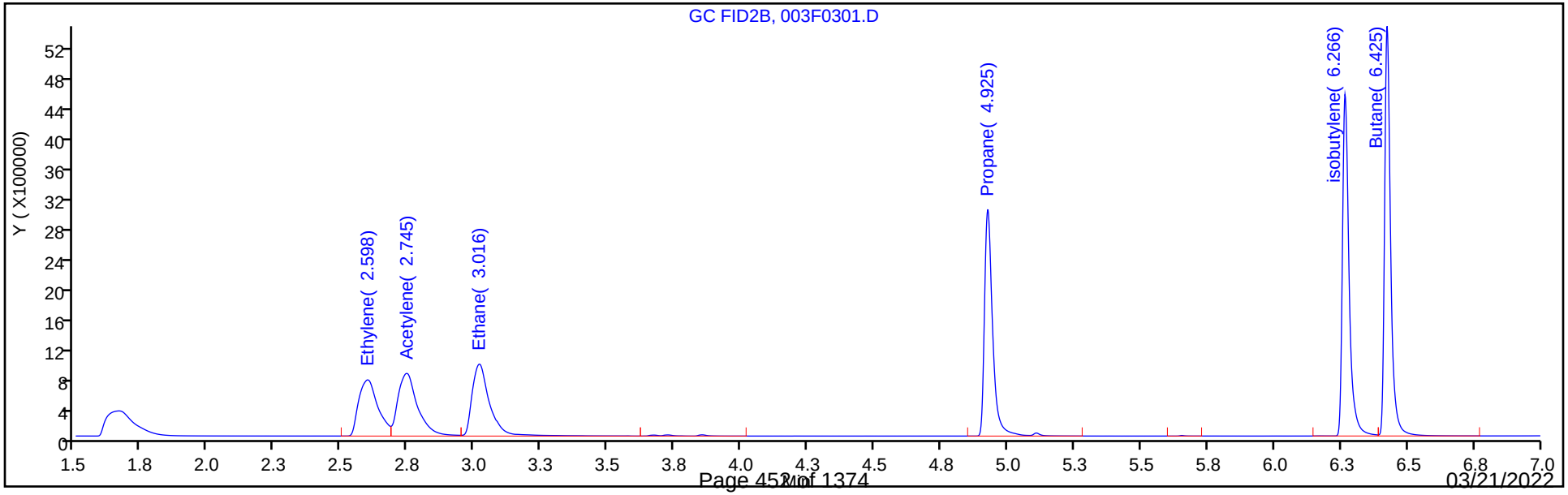
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\003F0301.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 12:16:51 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcs | | | 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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-567659/4

Matrix: Water | Lab File ID: 004F0401.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/03/2022 15:04

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.: 567659 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0646 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\004F0401.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 03-Mar-2022 15:04:10 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 13:05:08 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 12:54:01

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.258 | 1.262 | -0.004 | 2412792 | 65.7 | 66.7 | |
| 2 | 1.662 | 1.669 | -0.007 | 2395887 | 65.7 | 64.6 | |
| | | | | | | RPD = 3.22 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.524 | -0.002 | 4169871 | 123.2 | 125.4 | |
| 2 | 3.015 | 3.022 | -0.007 | 4199701 | 123.2 | 125.8 | |
| | | | | | | RPD = 0.29 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.818 | 1.809 | 0.009 | 4148930 | 114.9 | 117.8 | |
| 2 | 2.597 | 2.604 | -0.007 | 3596381 | 114.9 | 116.1 | |
| | | | | | | RPD = 1.45 | |
| 5 Propane | | | | | | | |
| 1 | 2.613 | 2.587 | 0.026 | 6653965 | 180.6 | 184.8 | |
| 2 | 4.923 | 4.927 | -0.004 | 6286237 | 180.6 | 179.5 | |
| | | | | | | RPD = 2.87 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.175 | 4.102 | 0.073 | 3194530 | 106.7 | 113.5 | |
| 2 | 2.743 | 2.751 | -0.008 | 3956968 | 106.7 | 115.8 | |
| | | | | | | RPD = 1.96 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.495 | 4.449 | 0.046 | 8949273 | 238.1 | 245.7 | a |
| 2 | 6.425 | 6.427 | -0.002 | 8421652 | 238.1 | 239.7 | M |
| | | | | | | RPD = 2.49 | |
| 8 isobutylene | | | | | | | M |
| 1 | 5.393 | 5.350 | 0.043 | 8498479 | 229.8 | 235.3 | |
| 2 | 6.268 | 6.269 | -0.001 | 7618555 | 229.8 | 229.5 | M |
| | | | | | | RPD = 2.50 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

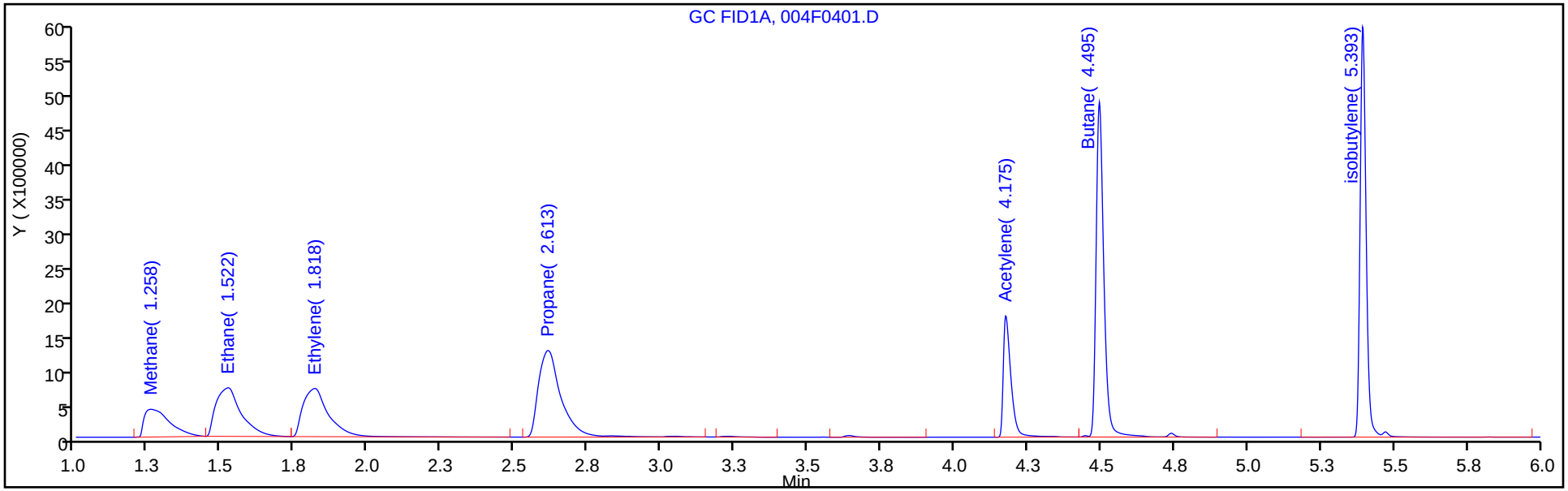
Report Date: 07-Mar-2022 13:05:10 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

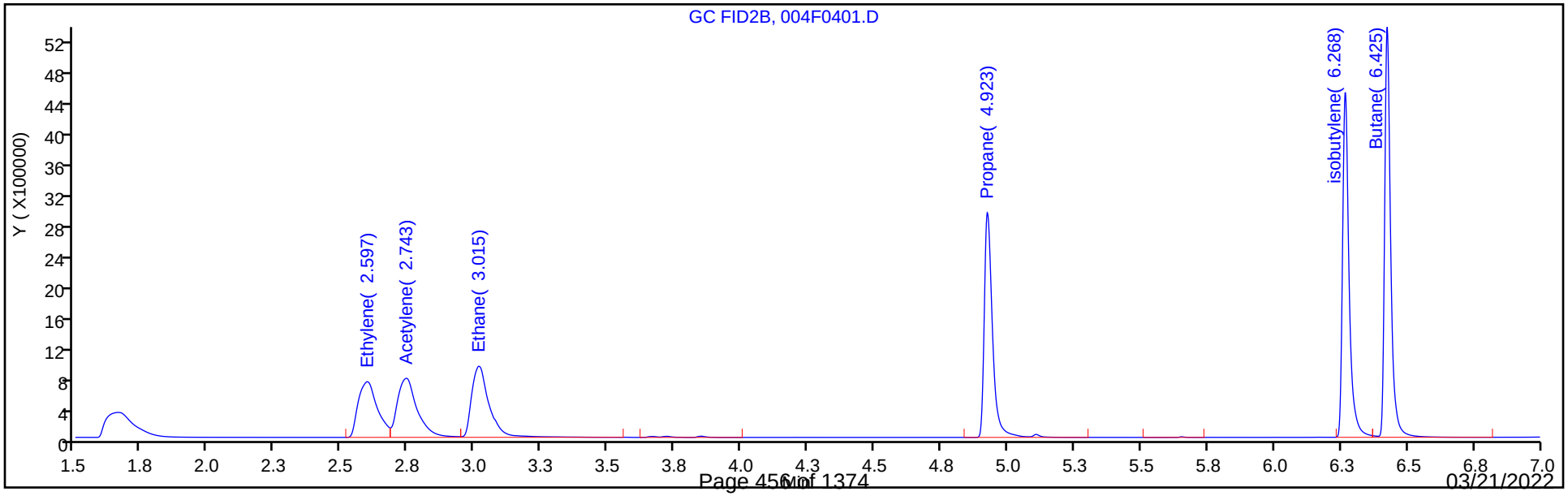
Data File: \\chromfs\Denver\ChromData\VGC_J\20220303-108981.b\004F0401.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 15:04:10 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcsd | | | 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 I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-567747/4

Matrix: Water | Lab File ID: 004F0401.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 12:29

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0651 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\004F0401.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 04-Mar-2022 12:29:48 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 13:13:48

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.257 | 1.260 | -0.003 | 2441238 | 65.7 | 67.6 | |
| 2 | 1.662 | 1.667 | -0.005 | 2413179 | 65.7 | 65.1 | |
| | | | | | | RPD = 3.69 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.522 | 0.000 | 4213649 | 123.2 | 126.8 | |
| 2 | 3.014 | 3.020 | -0.006 | 4268642 | 123.2 | 127.9 | |
| | | | | | | RPD = 0.87 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.817 | 1.810 | 0.007 | 4192507 | 114.9 | 119.0 | |
| 2 | 2.595 | 2.602 | -0.007 | 3619364 | 114.9 | 116.8 | |
| | | | | | | RPD = 1.86 | |
| 5 Propane | | | | | | | |
| 1 | 2.614 | 2.590 | 0.024 | 6640708 | 180.6 | 184.4 | |
| 2 | 4.925 | 4.927 | -0.002 | 6324305 | 180.6 | 180.6 | |
| | | | | | | RPD = 2.07 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.175 | 4.110 | 0.065 | 3197459 | 106.7 | 113.6 | |
| 2 | 2.740 | 2.749 | -0.009 | 3959784 | 106.7 | 115.9 | |
| | | | | | | RPD = 1.94 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.494 | 4.453 | 0.041 | 9038067 | 238.1 | 248.2 | a |
| 2 | 6.424 | 6.427 | -0.003 | 8454695 | 238.1 | 240.6 | M |
| | | | | | | RPD = 3.09 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.394 | 5.355 | 0.039 | 8565771 | 229.8 | 237.1 | |
| 2 | 6.267 | 6.269 | -0.002 | 7644666 | 229.8 | 230.2 | M |
| | | | | | | RPD = 2.94 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

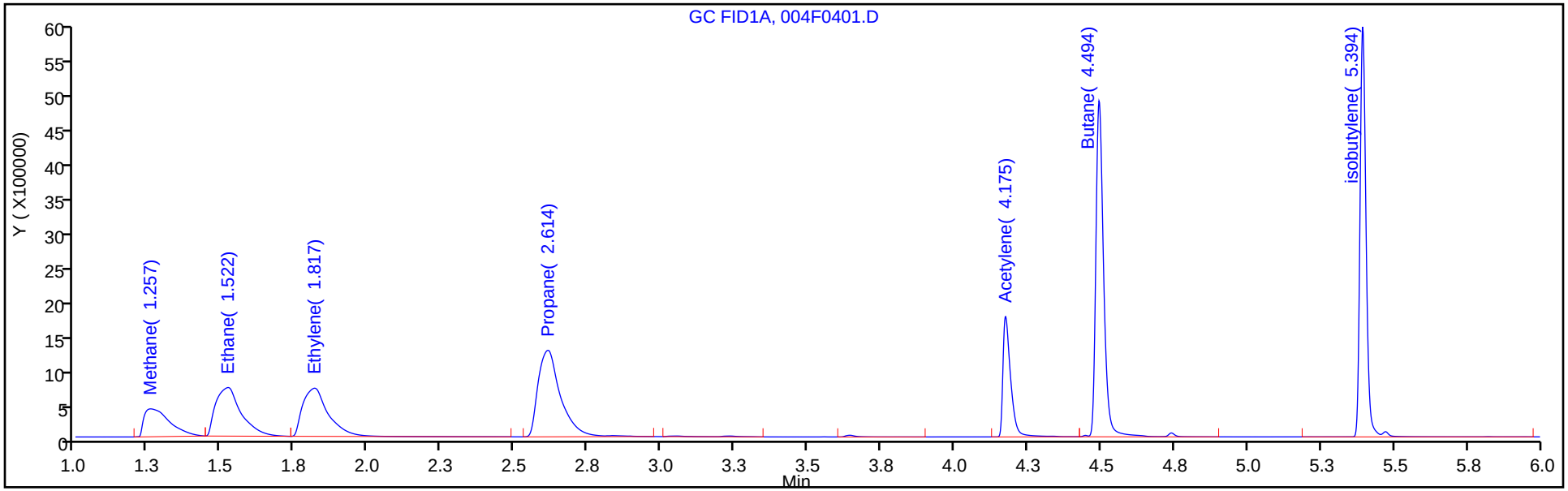
Report Date: 07-Mar-2022 14:00:54 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

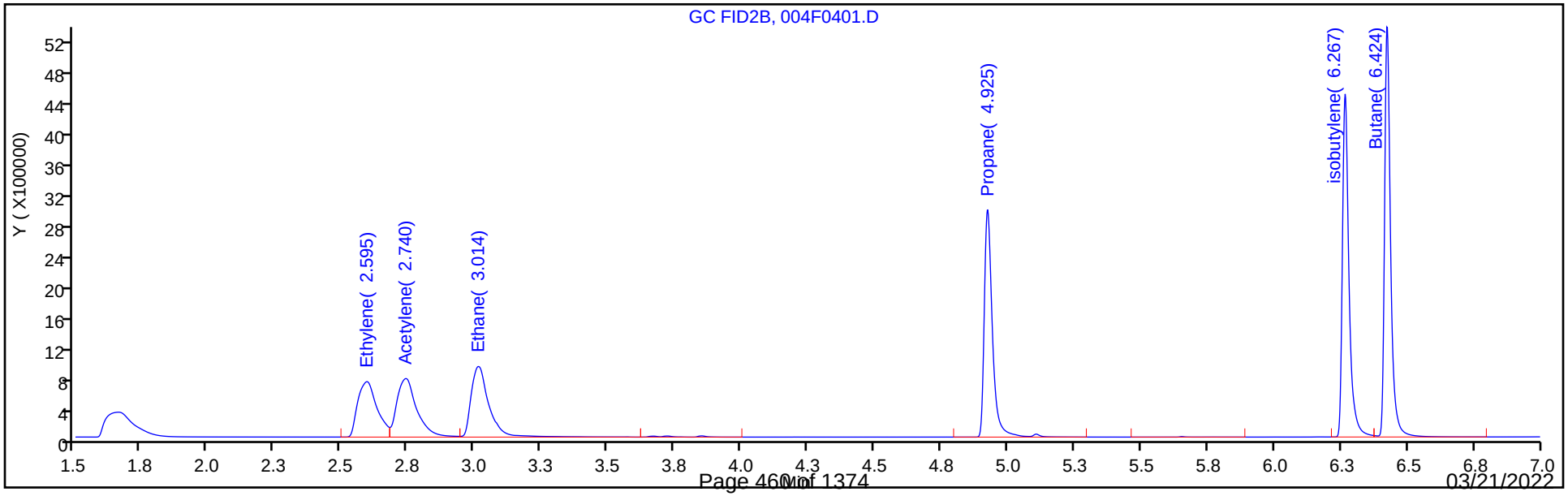
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\004F0401.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 12:29:48 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcsd | | | 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 I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS | Lab Sample ID: 280-159234-7 MS

Matrix: Water | Lab File ID: 015F1501.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 12:35

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 14:52

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0624 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\015F1501.D
Lims ID: 280-159234-I-7 MS
Client ID: G0070-8
Sample Type: MS
Inject. Date: 04-Mar-2022 14:52:37 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-I-7MS
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 14:00:33

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 5.458 | | | | | |
| 2 Methane | | | | | | | |
| 1 | 1.254 | 1.260 | -0.006 | 2386631 | 65.7 | 66.0 | |
| 2 | 1.656 | 1.667 | -0.011 | 2314928 | 65.7 | 62.4 | |
| | | | | | | RPD = 5.63 | |
| 3 Ethane | | | | | | | |
| 1 | 1.521 | 1.522 | -0.001 | 4053872 | 123.2 | 122.0 | |
| 2 | 3.006 | 3.020 | -0.014 | 3992363 | 123.2 | 119.6 | |
| | | | | | | RPD = 1.95 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.828 | 1.810 | 0.018 | 4003459 | 114.9 | 113.7 | |
| 2 | 2.586 | 2.602 | -0.016 | 3380777 | 114.9 | 109.1 | |
| | | | | | | RPD = 4.06 | |
| 5 Propane | | | | | | | |
| 1 | 2.631 | 2.590 | 0.041 | 6436032 | 180.6 | 178.7 | |
| 2 | 4.920 | 4.927 | -0.007 | 6009790 | 180.6 | 171.7 | |
| | | | | | | RPD = 4.04 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.204 | 4.110 | 0.094 | 2911817 | 106.7 | 103.5 | a |
| 2 | 2.733 | 2.749 | -0.016 | 3585219 | 106.7 | 104.9 | a |
| | | | | | | RPD = 1.36 | |
| 7 Butane | | | | | | | |
| 1 | 4.521 | 4.453 | 0.068 | 8662762 | 238.1 | 237.8 | |
| 2 | 6.421 | 6.427 | -0.006 | 7982223 | 238.1 | 227.2 | |
| | | | | | | RPD = 4.59 | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 8 isobutylene | | | | | | | |
| 1 | 5.424 | 5.355 | 0.069 | 8111613 | 229.8 | 224.5 | |
| 2 | 6.263 | 6.269 | -0.006 | 7162578 | 229.8 | 215.7 | |
| | | | | | | RPD = 4.01 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

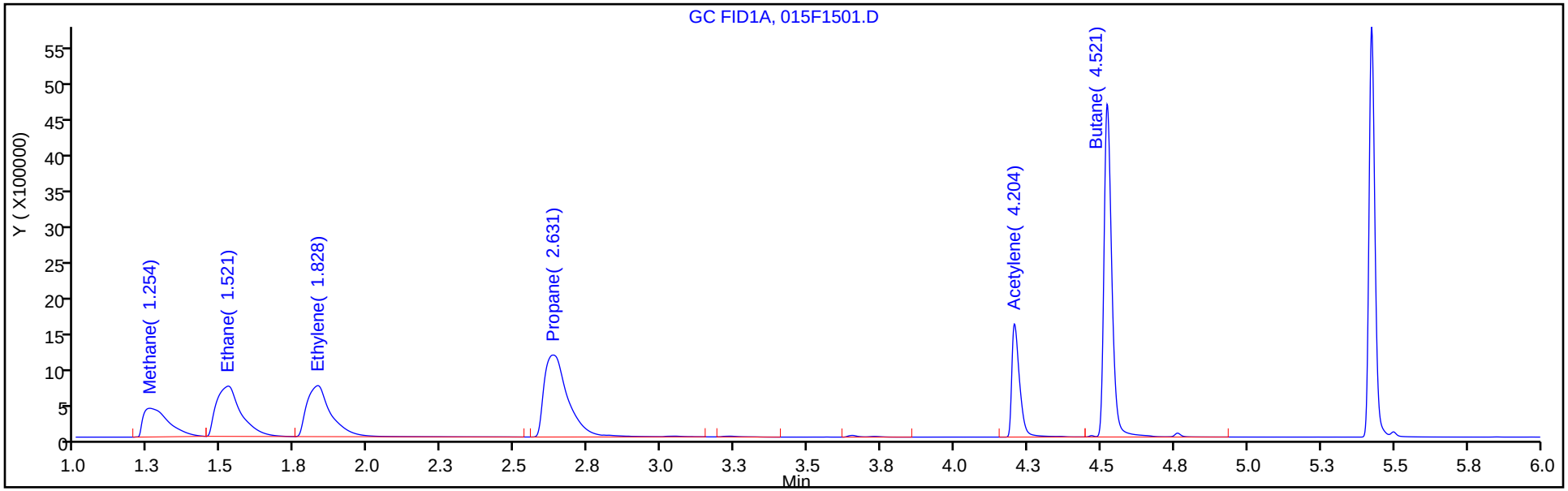
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 07-Mar-2022 14:00:59 Chrom Revision: 2.3 16-Feb-2022 17:52:00

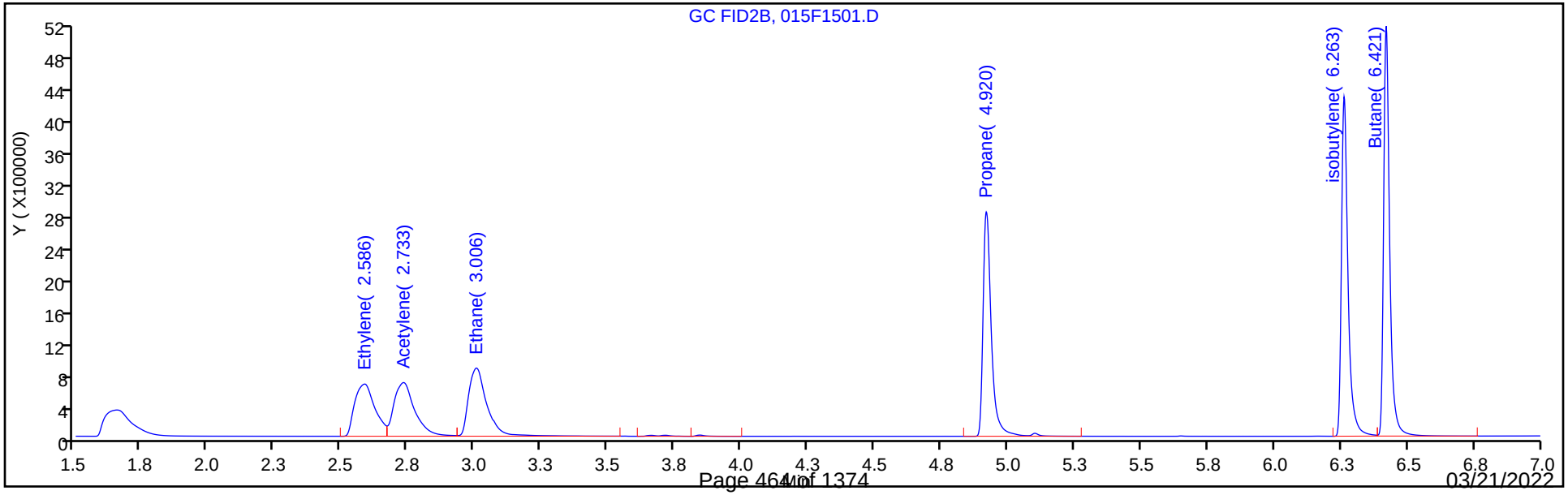
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\015F1501.D | | | | |
| Injection Date: | 04-Mar-2022 14:52:37 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-I-7 MS | | | Worklist Smp#: | 15 |
| Client ID: | G0070-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD | Lab Sample ID: 280-159234-7 MSD

Matrix: Water | Lab File ID: 016F1601.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 12:35

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 15:05

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0632 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\016F1601.D
Lims ID: 280-159234-H-7 MSD
Client ID: G0070-8
Sample Type: MSD
Inject. Date: 04-Mar-2022 15:05:32 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-H-7MS
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

First Level Reviewer: sciannac Date: 07-Mar-2022 14:00:22

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 5.458 | | | | | |
| 2 Methane | | | | | | | |
| 1 | 1.254 | 1.260 | -0.006 | 2420639 | 65.7 | 67.0 | |
| 2 | 1.656 | 1.667 | -0.011 | 2344216 | 65.7 | 63.2 | |
| | | | | | | RPD = 5.79 | |
| 3 Ethane | | | | | | | |
| 1 | 1.522 | 1.522 | 0.000 | 4119296 | 123.2 | 123.9 | |
| 2 | 3.006 | 3.020 | -0.014 | 4052287 | 123.2 | 121.4 | |
| | | | | | | RPD = 2.06 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.827 | 1.810 | 0.017 | 4062289 | 114.9 | 115.3 | |
| 2 | 2.586 | 2.602 | -0.016 | 3427005 | 114.9 | 110.6 | |
| | | | | | | RPD = 4.16 | |
| 5 Propane | | | | | | | |
| 1 | 2.632 | 2.590 | 0.042 | 6545971 | 180.6 | 181.8 | |
| 2 | 4.921 | 4.927 | -0.006 | 6108224 | 180.6 | 174.5 | |
| | | | | | | RPD = 4.11 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.205 | 4.110 | 0.095 | 2946147 | 106.7 | 104.7 | a |
| 2 | 2.734 | 2.749 | -0.015 | 3624127 | 106.7 | 106.0 | a |
| | | | | | | RPD = 1.27 | |
| 7 Butane | | | | | | | |
| 1 | 4.522 | 4.453 | 0.069 | 8828235 | 238.1 | 242.4 | |
| 2 | 6.422 | 6.427 | -0.005 | 8123489 | 238.1 | 231.2 | |
| | | | | | | RPD = 4.73 | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 8 isobutylene | | | | | | | |
| 1 | 5.425 | 5.355 | 0.070 | 8254960 | 229.8 | 228.5 | |
| 2 | 6.264 | 6.269 | -0.005 | 7286490 | 229.8 | 219.5 | |
| | | | | | | RPD = 4.04 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

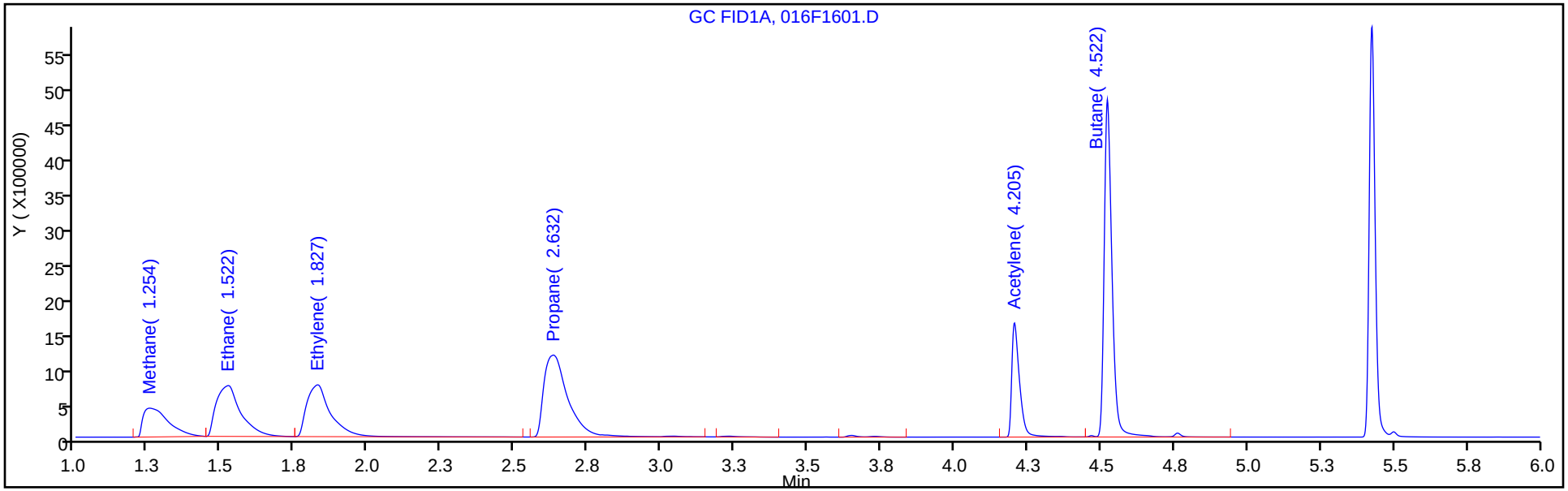
Report Date: 07-Mar-2022 14:01:00 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

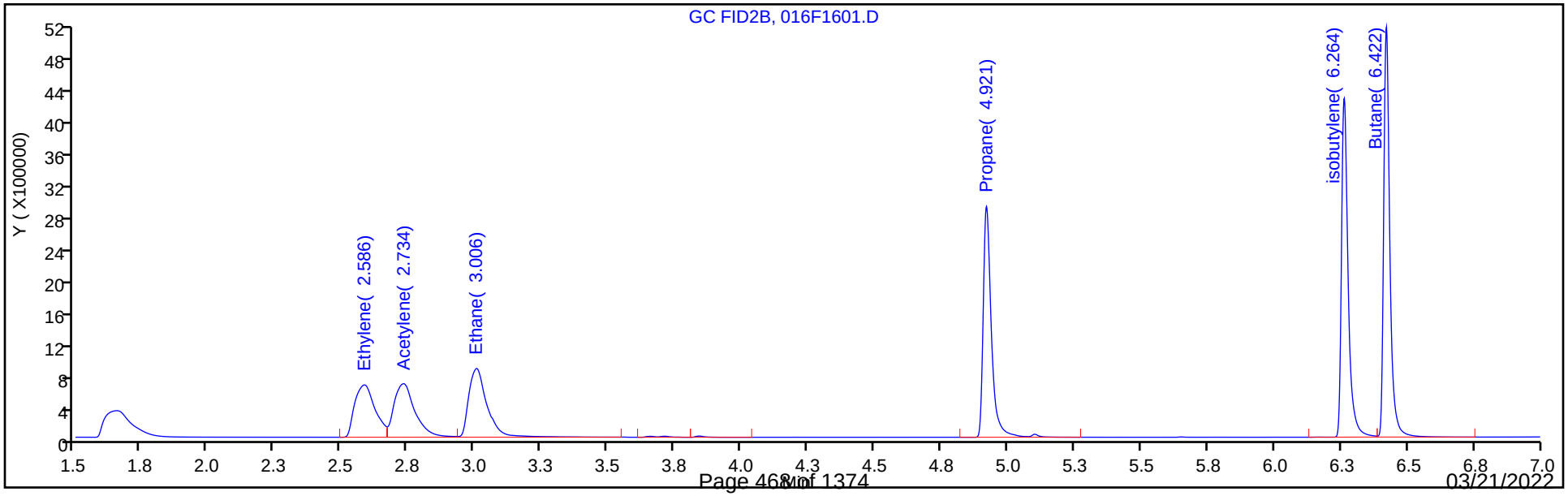
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\016F1601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 15:05:32 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-H-7 MSD | | | Worklist Smp#: | 16 |
| Client ID: | G0070-8 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 DU | Lab Sample ID: 280-159234-7 DU

Matrix: Water | Lab File ID: 014F1401.D

Analysis Method: RSK-175 | Date Collected: 03/01/2022 12:35

Sample wt/vol: 20(mL) | Date Analyzed: 03/04/2022 14:39

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.: 567747 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.000941 | J | 0.0050 | 0.0013 | 0.00063 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\014F1401.D
Lims ID: 280-159234-Q-7 DU
Client ID:
Sample Type: DU
Inject. Date: 04-Mar-2022 14:39:42 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159234-Q-7
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 07-Mar-2022 14:00:52 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl ( 0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q ( 0.53 mm) Det: GC FID2B
Process Host: CTX1617

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 1 1,1,1-Trifluoroethane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 5.458 | | | | | |
| 2 Methane | | | | | | | |
| 1 | 1.247 | 1.260 | -0.013 | 115274 | | 1.42 | |
| 2 | 1.659 | 1.667 | -0.008 | 96607 | | 0.9410 | |
| | | | | | | RPD = 40.56 | |
| 3 Ethane | | | | | | | |
| 1 | | 1.522 | | | | ND | |
| 2 | | 3.020 | | | | | |
| 4 Ethylene | | | | | | | |
| 1 | | 1.810 | | | | ND | |
| 2 | | 2.602 | | | | | |
| 5 Propane | | | | | | | |
| 1 | | 2.590 | | | | ND | |
| 2 | | 4.927 | | | | | |
| 6 Acetylene | | | | | | | |
| 1 | | 4.110 | | | | ND | |
| 2 | | 2.749 | | | | | |
| 7 Butane | | | | | | | |
| 1 | | 4.453 | | | | ND | |
| 2 | | 6.427 | | | | | |
| 8 isobutylene | | | | | | | |
| 1 | | 5.355 | | | | ND | |
| 2 | | 6.269 | | | | | |

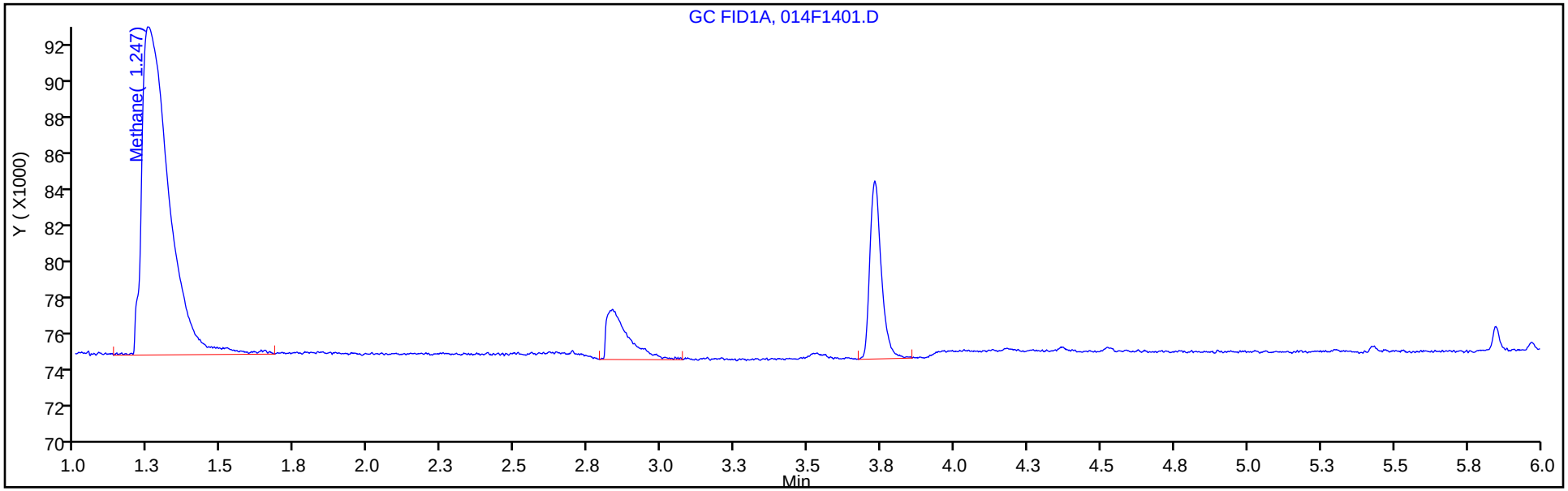
Report Date: 07-Mar-2022 14:00:59 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

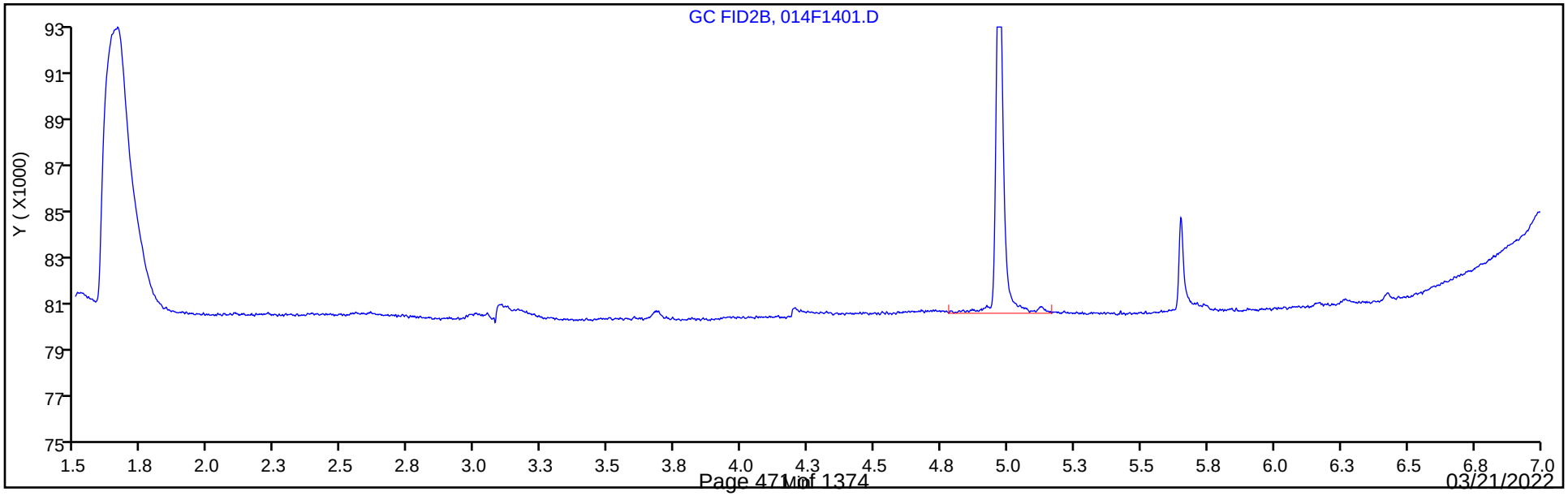
Data File: \\chromfs\Denver\ChromData\VGC_J\20220304-109007.b\014F1401.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Mar-2022 14:39:42 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-159234-Q-7 DU | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Start Date: 09/24/2021 13:16

Analysis Batch Number: 550959 End Date: 09/24/2021 15:38

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| RTC 280-550959/1 | | 09/24/2021 13:16 | 1 | | Rt-Alumina KCl 0.53(mm) |
| RTC 280-550959/1 | | 09/24/2021 13:16 | 1 | | HP-Plot Q 0.53(mm) |
| IC 280-550959/2 | | 09/24/2021 13:28 | 1 | 004F0201.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/2 | | 09/24/2021 13:28 | 1 | 004F0201.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/3 | | 09/24/2021 13:41 | 1 | 005F0301.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/3 | | 09/24/2021 13:41 | 1 | 005F0301.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/4 | | 09/24/2021 13:54 | 1 | 006F0401.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/4 | | 09/24/2021 13:54 | 1 | 006F0401.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/5 | | 09/24/2021 14:07 | 1 | 007F0501.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/5 | | 09/24/2021 14:07 | 1 | 007F0501.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/6 | | 09/24/2021 14:20 | 1 | 008F0601.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/6 | | 09/24/2021 14:20 | 1 | 008F0601.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/7 | | 09/24/2021 14:33 | 1 | 009F0701.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/7 | | 09/24/2021 14:33 | 1 | 009F0701.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/9 | | 09/24/2021 14:46 | 1 | 010F0801.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/9 | | 09/24/2021 14:46 | 1 | 010F0801.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/10 | | 09/24/2021 14:59 | 1 | 011F0901.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/10 | | 09/24/2021 14:59 | 1 | 011F0901.D | HP-Plot Q 0.53(mm) |
| IC 280-550959/11 | | 09/24/2021 15:12 | 1 | 012F1001.D | Rt-Alumina KCl 0.53(mm) |
| IC 280-550959/11 | | 09/24/2021 15:12 | 1 | 012F1001.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 09/24/2021 15:25 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 09/24/2021 15:25 | 1 | | HP-Plot Q 0.53(mm) |
| ICV 280-550959/13 | | 09/24/2021 15:38 | 1 | 014F1201.D | Rt-Alumina KCl 0.53(mm) |
| ICV 280-550959/13 | | 09/24/2021 15:38 | 1 | 014F1201.D | HP-Plot Q 0.53(mm) |

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/03/2022 14:38

Analysis Batch Number: 567659 End Date: 03/03/2022 20:56

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 280-567659/2 | | 03/03/2022 14:38 | 1 | 002F0201.D | Rt-Alumina KCl 0.53(mm) |
| CCVRT 280-567659/2 | | 03/03/2022 14:38 | 1 | 002F0201.D | HP-Plot Q 0.53(mm) |
| LCS 280-567659/3 | | 03/03/2022 14:51 | 1 | 003F0301.D | Rt-Alumina KCl 0.53(mm) |
| LCS 280-567659/3 | | 03/03/2022 14:51 | 1 | 003F0301.D | HP-Plot Q 0.53(mm) |
| LCSD 280-567659/4 | | 03/03/2022 15:04 | 1 | 004F0401.D | Rt-Alumina KCl 0.53(mm) |
| LCSD 280-567659/4 | | 03/03/2022 15:04 | 1 | 004F0401.D | HP-Plot Q 0.53(mm) |
| MB 280-567659/5 | | 03/03/2022 15:17 | 1 | 005F0501.D | Rt-Alumina KCl 0.53(mm) |
| MB 280-567659/5 | | 03/03/2022 15:17 | 1 | 005F0501.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:30 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:30 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:42 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:42 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:55 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 15:55 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:08 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:08 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:22 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:22 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:35 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:35 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:48 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 16:48 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:01 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:01 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:14 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:14 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:27 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:27 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:40 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 17:40 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-567659/17 | | 03/03/2022 17:53 | 1 | 017F1701.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-567659/17 | | 03/03/2022 17:53 | 1 | 017F1701.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:06 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:06 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:19 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:19 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:32 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:32 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:45 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:45 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:59 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 18:59 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:12 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:12 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:25 | 1 | | Rt-Alumina KCl 0.53(mm) |

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/03/2022 14:38

Analysis Batch Number: 567659 End Date: 03/03/2022 20:56

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 03/03/2022 19:25 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:37 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:37 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:50 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 19:50 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/03/2022 20:03 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/03/2022 20:03 | 1 | | HP-Plot Q 0.53(mm) |
| 280-159234-1 | NW020-8 | 03/03/2022 20:16 | 1 | 028F2801.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-1 | NW020-8 | 03/03/2022 20:16 | 1 | 028F2801.D | HP-Plot Q 0.53(mm) |
| 280-159234-2 | NW021-8 | 03/03/2022 20:29 | 1 | 029F2901.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-2 | NW021-8 | 03/03/2022 20:29 | 1 | 029F2901.D | HP-Plot Q 0.53(mm) |
| 280-159234-3 | NW022-8 | 03/03/2022 20:43 | 1 | 030F3001.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-3 | NW022-8 | 03/03/2022 20:43 | 1 | 030F3001.D | HP-Plot Q 0.53(mm) |
| CCV 280-567659/31 | | 03/03/2022 20:56 | 1 | 031F3101.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-567659/31 | | 03/03/2022 20:56 | 1 | 031F3101.D | HP-Plot Q 0.53(mm) |

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/04/2022 12:03

Analysis Batch Number: 567747 End Date: 03/04/2022 17:15

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 280-567747/2 | | 03/04/2022 12:03 | 1 | 002F0201.D | Rt-Alumina KCl 0.53(mm) |
| CCVRT 280-567747/2 | | 03/04/2022 12:03 | 1 | 002F0201.D | HP-Plot Q 0.53(mm) |
| LCS 280-567747/3 | | 03/04/2022 12:16 | 1 | 003F0301.D | Rt-Alumina KCl 0.53(mm) |
| LCS 280-567747/3 | | 03/04/2022 12:16 | 1 | 003F0301.D | HP-Plot Q 0.53(mm) |
| LCSD 280-567747/4 | | 03/04/2022 12:29 | 1 | 004F0401.D | Rt-Alumina KCl 0.53(mm) |
| LCSD 280-567747/4 | | 03/04/2022 12:29 | 1 | 004F0401.D | HP-Plot Q 0.53(mm) |
| MB 280-567747/5 | | 03/04/2022 12:42 | 1 | 005F0501.D | Rt-Alumina KCl 0.53(mm) |
| MB 280-567747/5 | | 03/04/2022 12:42 | 1 | 005F0501.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 12:55 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 12:55 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:08 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:08 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:21 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:21 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:34 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 13:34 | 1 | | HP-Plot Q 0.53(mm) |
| 280-159234-4 | G0079-8 | 03/04/2022 13:47 | 1 | 010F1001.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-4 | G0079-8 | 03/04/2022 13:47 | 1 | 010F1001.D | HP-Plot Q 0.53(mm) |
| 280-159234-5 | G0075-8 | 03/04/2022 14:00 | 1 | 011F1101.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-5 | G0075-8 | 03/04/2022 14:00 | 1 | 011F1101.D | HP-Plot Q 0.53(mm) |
| 280-159234-6 | G0076-8 | 03/04/2022 14:13 | 1 | 012F1201.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-6 | G0076-8 | 03/04/2022 14:13 | 1 | 012F1201.D | HP-Plot Q 0.53(mm) |
| 280-159234-7 | G0070-8 | 03/04/2022 14:26 | 1 | 013F1301.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-7 | G0070-8 | 03/04/2022 14:26 | 1 | 013F1301.D | HP-Plot Q 0.53(mm) |
| 280-159234-7 DU | G0070-8 DU | 03/04/2022 14:39 | 1 | 014F1401.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-7 DU | G0070-8 DU | 03/04/2022 14:39 | 1 | 014F1401.D | HP-Plot Q 0.53(mm) |
| 280-159234-7 MS | G0070-8 MS | 03/04/2022 14:52 | 1 | 015F1501.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-7 MS | G0070-8 MS | 03/04/2022 14:52 | 1 | 015F1501.D | HP-Plot Q 0.53(mm) |
| 280-159234-7 MSD | G0070-8 MSD | 03/04/2022 15:05 | 1 | 016F1601.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-7 MSD | G0070-8 MSD | 03/04/2022 15:05 | 1 | 016F1601.D | HP-Plot Q 0.53(mm) |
| 280-159234-8 | G0080-8 | 03/04/2022 15:18 | 1 | 017F1701.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-8 | G0080-8 | 03/04/2022 15:18 | 1 | 017F1701.D | HP-Plot Q 0.53(mm) |
| 280-159234-9 | G0087-8 | 03/04/2022 15:31 | 1 | 018F1801.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-9 | G0087-8 | 03/04/2022 15:31 | 1 | 018F1801.D | HP-Plot Q 0.53(mm) |
| CCV 280-567747/19 | | 03/04/2022 15:44 | 1 | 019F1901.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-567747/19 | | 03/04/2022 15:44 | 1 | 019F1901.D | HP-Plot Q 0.53(mm) |
| 280-159234-10 | G0086-8 | 03/04/2022 15:57 | 1 | 020F2001.D | Rt-Alumina KCl 0.53(mm) |
| 280-159234-10 | G0086-8 | 03/04/2022 15:57 | 1 | 020F2001.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:10 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:10 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:23 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:23 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:36 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:36 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 16:49 | 2 | | Rt-Alumina KCl 0.53(mm) |

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/04/2022 12:03

Analysis Batch Number: 567747 End Date: 03/04/2022 17:15

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 03/04/2022 16:49 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/04/2022 17:02 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/04/2022 17:02 | 2 | | HP-Plot Q 0.53(mm) |
| CCV 280-567747/26 | | 03/04/2022 17:15 | 1 | 026F2601.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-567747/26 | | 03/04/2022 17:15 | 1 | 026F2601.D | HP-Plot Q 0.53(mm) |

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567659  Batch Start Date: 03/03/22 14:38  Batch Analyst: Scianna, Charles A

Batch Method: RSK-175  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | RSK7gasMathes 00034 | | |
|---|---|---|---|---|---|---|---|---|---|
| CCVRT 280-567659/2 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCS 280-567659/3 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCSD 280-567659/4 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| MB 280-567659/5 | | RSK-175 | | 20 mL | 20 mL | 5 SU | | | |
| CCV 280-567659/17 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| 280-159234-Q-1 | MW020-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-R-2 | MW021-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-R-3 | MW022-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| CCV 280-567659/31 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567747  Batch Start Date: 03/04/22 12:03  Batch Analyst: Scianna, Charles A

Batch Method: RSK-175  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | RSK7gasMathes 00034 | | |
|---|---|---|---|---|---|---|---|---|---|
| CCVRT 280-567747/2 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCS 280-567747/3 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCSD 280-567747/4 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| MB 280-567747/5 | | RSK-175 | | 20 mL | 20 mL | 5 SU | | | |
| 280-159234-R-4 | G0079-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-Q-5 | G0075-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-Q-6 | G0076-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-Q-7 | G0070-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-Q-7 DU | G0070-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-I-7 MS | G0070-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | 200 uL | | |
| 280-159234-H-7 MSD | G0070-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | 200 uL | | |
| 280-159234-P-8 | G0080-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| 280-159234-R-9 | G0087-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| CCV 280-567747/19 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| 280-159234-Q-10 | G0086-8 | RSK-175 | T | 20 mL | 20 mL | < 2 SU | | | |
| CCV 280-567747/26 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 8330A_DOD5

## Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

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 # |
|---|---|---|---|
| NW020-8 | 280-159234-1 | 93 M | |
| NW020-8 | 280-159234-1 | | 97 M |
| NW021-8 | 280-159234-2 | 103 M | |
| NW021-8 | 280-159234-2 | | 101 |
| NW022-8 | 280-159234-3 | 105 M | |
| G0079-8 | 280-159234-4 | 100 M | |
| G0075-8 | 280-159234-5 | 115 M | |
| G0075-8 | 280-159234-5 | | 108 |
| G0076-8 | 280-159234-6 | 99 M | |
| G0070-8 | 280-159234-7 | 99 M | |
| G0070-8 | 280-159234-7 | | 100 |
| G0080-8 | 280-159234-8 | 108 M | |
| G0080-8 | 280-159234-8 | | 105 |
| G0087-8 | 280-159234-9 | 120 M Q | |
| G0087-8 | 280-159234-9 | | 102 |
| G0086-8 | 280-159234-10 | 86 | |
| G0086-8 | 280-159234-10 | | 97 M |
| | MB 280-567869/1-A | 104 | |
| | LCS 280-567869/2-A | 100 | |
| | LCS 280-567869/3-A | 102 | |
| G0070-8 MS | 280-159234-7 MS | 115 | |
| G0070-8 MS | 280-159234-7 MS | 108 | |
| G0070-8 MS | 280-159234-7 MS | | 105 |
| G0070-8 MSD | 280-159234-7 MSD | 118 | |
| G0070-8 MSD | 280-159234-7 MSD | 115 | |
| G0070-8 MSD | 280-159234-7 MSD | | 103 |

| | QC LIMITS |
|---|---|
| 12DNB = 1,2-Dinitrobenzene | 83-119 |

# Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080012.D

Lab ID: LCS 280-567869/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.02 | 101 | 73-125 | |
| 1,3-Dinitrobenzene | 2.00 | 2.01 | 101 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.00 | 1.98 | 99 | 71-123 | |
| 2,4-Dinitrotoluene | 2.00 | 1.89 | 95 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 1.92 | 96 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.88 | 94 | 79-120 | |
| 2-Nitrotoluene | 2.00 | 1.54 | 77 | 70-127 | |
| 3-Nitrotoluene | 2.00 | 1.54 | 77 | 73-125 | M |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.85 | 93 | 76-125 | |
| 4-Nitrotoluene | 2.00 | 1.76 | 88 | 71-127 | |
| HMX | 2.00 | 1.89 | 94 | 65-135 | M |
| Nitrobenzene | 2.00 | 1.75 | 87 | 65-134 | |
| RDX | 2.00 | 2.05 | 102 | 68-130 | |
| Tetryl | 2.00 | 1.93 | 96 | 64-128 | M |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080013.D

Lab ID: LCS 280-567869/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.33 | 2.36 | 101 | 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 Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080026.D

Lab ID: 280-159234-7 MS Client ID: G0070-8 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 1.97 | 0.21 U | 2.28 | 116 | 73-125 | |
| 1,3-Dinitrobenzene | 1.97 | 0.10 U | 2.22 | 112 | 78-120 | |
| 2,4,6-Trinitrotoluene | 1.97 | 0.10 U | 2.18 | 111 | 71-123 | |
| 2,4-Dinitrotoluene | 1.97 | 0.084 U | 2.06 | 105 | 78-120 | |
| 2,6-Dinitrotoluene | 1.97 | 0.084 U | 2.12 | 107 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 1.97 | 0.10 U | 2.05 | 104 | 79-120 | |
| 2-Nitrotoluene | 1.97 | 0.21 U | 1.74 | 88 | 70-127 | |
| 3-Nitrotoluene | 1.97 | 0.42 U | 1.60 | 81 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 1.97 | 0.13 U | 2.04 | 104 | 76-125 | |
| HMX | 1.97 | 0.21 U | 2.07 | 105 | 65-135 | M |
| Nitrobenzene | 1.97 | 0.21 U | 2.11 | 107 | 65-134 | |
| RDX | 1.97 | 0.21 U | 1.92 | 97 | 68-130 | M |
| Tetryl | 1.97 | 0.10 U | 2.37 | 120 | 64-128 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080028.D

Lab ID: 280-159234-7 MS Client ID: G0070-8 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| MNX | 2.37 | 0.42 U | 2.45 | 103 | 57-132 | M |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080024.D

Lab ID: 280-159234-7 MS Client ID: G0070-8 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 4-Nitrotoluene | 1.97 | 0.42 U | 1.83 | 93 | 71-127 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080027.D

Lab ID: 280-159234-7 MSD Client ID: G0070-8 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.11 | 2.56 | 121 | 11 | 30 | 73-125 | |
| 1,3-Dinitrobenzene | 2.11 | 2.47 | 117 | 11 | 30 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.11 | 2.44 | 116 | 11 | 30 | 71-123 | |
| 2,4-Dinitrotoluene | 2.11 | 2.30 | 109 | 11 | 30 | 78-120 | |
| 2,6-Dinitrotoluene | 2.11 | 2.43 | 115 | 14 | 30 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 2.11 | 2.30 | 109 | 12 | 30 | 79-120 | |
| 2-Nitrotoluene | 2.11 | 1.99 | 95 | 13 | 30 | 70-127 | |
| 3-Nitrotoluene | 2.11 | 1.87 | 89 | 16 | 30 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 2.11 | 2.30 | 109 | 12 | 30 | 76-125 | |
| HMX | 2.11 | 2.30 | 109 | 11 | 30 | 65-135 | M |
| Nitrobenzene | 2.11 | 2.32 | 110 | 9 | 30 | 65-134 | |
| RDX | 2.11 | 2.13 | 101 | 10 | 30 | 68-130 | |
| Tetryl | 2.11 | 2.48 | 118 | 5 | 30 | 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 Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080029.D

Lab ID: 280-159234-7 MSD Client ID: G0070-8 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| MNX | 2.41 | 2.70 | 112 | 10 | 30 | 57-132 | M |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03080025.D

Lab ID: 280-159234-7 MSD Client ID: G0070-8 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 4-Nitrotoluene | 2.11 | 2.00 | 95 | 9 | 30 | 71-127 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Lab Sample ID: MB 280-567869/1-A

Matrix: Water  Date Extracted: 03/07/2022 15:25

Lab File ID:(1) 03080011.D  Lab File ID:(2)

Date Analyzed:(1) 03/08/2022 16:34  Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3  Instrument ID:(2) CHHPLC_X5

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 280-567869/2-A | 03/08/2022 16:57 | |
| | LCS 280-567869/3-A | 03/08/2022 17:20 | |
| NW020-8 | 280-159234-1 | 03/08/2022 18:29 | 03/08/2022 21:18 |
| NW021-8 | 280-159234-2 | 03/08/2022 18:52 | 03/08/2022 21:53 |
| NW022-8 | 280-159234-3 | 03/08/2022 19:15 | |
| G0079-8 | 280-159234-4 | 03/08/2022 19:37 | |
| G0075-8 | 280-159234-5 | 03/08/2022 20:00 | 03/08/2022 23:38 |
| G0076-8 | 280-159234-6 | 03/08/2022 21:32 | |
| G0070-8 | 280-159234-7 | 03/08/2022 21:55 | 03/09/2022 01:59 |
| G0070-8 MS | 280-159234-7 MS | 03/08/2022 22:18 | 03/09/2022 02:34 |
| G0070-8 MSD | 280-159234-7 MSD | 03/08/2022 22:41 | 03/09/2022 03:09 |
| G0070-8 MS | 280-159234-7 MS | 03/08/2022 23:04 | |
| G0070-8 MSD | 280-159234-7 MSD | 03/08/2022 23:27 | |
| G0080-8 | 280-159234-8 | 03/08/2022 23:50 | 03/09/2022 04:54 |
| G0087-8 | 280-159234-9 | 03/09/2022 00:13 | 03/09/2022 05:29 |
| G0086-8 | 280-159234-10 | 03/09/2022 00:36 | 03/09/2022 06:04 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW020-8 Lab Sample ID: 280-159234-1

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 18:29 Date Analyzed (2): 03/08/2022 21:18

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| RDX | 1 | | 7.57 | 7.43 | 7.73 | 0.22 | | 77.9 |
| | 2 | | 9.04 | 8.91 | 9.21 | 0.49 | | |
| 2,4,6-Trinitrotoluene | 1 | | 10.87 | 10.77 | 10.97 | 1.1 | | 5.9 |
| | 2 | | 24.87 | 24.77 | 25.07 | 1.2 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.05 | 10.95 | 11.15 | 0.91 | | 20.6 |
| | 2 | | 17.44 | 17.32 | 17.62 | 1.1 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.29 | 11.20 | 11.40 | 1.0 | | 13.4 |
| | 2 | | 18.45 | 18.33 | 18.63 | 1.2 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW021-8 Lab Sample ID: 280-159234-2

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 18:52 Date Analyzed (2): 03/08/2022 21:53

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| RDX | 1 | | 7.57 | 7.43 | 7.73 | 0.17 | | 21.2 |
| | 2 | | 9.02 | 8.91 | 9.21 | 0.21 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.03 | 10.95 | 11.15 | 0.92 | | 11.9 |
| | 2 | | 17.44 | 17.32 | 17.62 | 1.0 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.28 | 11.20 | 11.40 | 1.0 | | 3.5 |
| | 2 | | 18.45 | 18.33 | 18.63 | 1.0 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0075-8 Lab Sample ID: 280-159234-5

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 20:00 Date Analyzed (2): 03/08/2022 23:38

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.59 | 6.44 | 6.74 | 0.32 | | 16.6 |
| | 2 | | 6.83 | 6.73 | 7.03 | 0.27 | | |
| RDX | 1 | | 7.58 | 7.43 | 7.73 | 0.19 | | 27.6 |
| | 2 | | 9.00 | 8.91 | 9.21 | 0.24 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.04 | 10.95 | 11.15 | 0.95 | | 10.4 |
| | 2 | | 17.48 | 17.32 | 17.62 | 1.1 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.30 | 11.20 | 11.40 | 0.88 | | 4.6 |
| | 2 | | 18.49 | 18.33 | 18.63 | 0.84 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS Lab Sample ID: 280-159234-7 MS

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 22:18 Date Analyzed (2): 03/09/2022 02:34

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.59 | 6.44 | 6.74 | 2.07 | | 14.1 |
| | 2 | | 6.82 | 6.73 | 7.03 | 1.80 | | |
| RDX | 1 | | 7.57 | 7.43 | 7.73 | 1.92 | | 5.0 |
| | 2 | | 9.01 | 8.91 | 9.21 | 2.01 | | |
| 1,3,5-Trinitrobenzene | 1 | | 8.65 | 8.50 | 8.80 | 2.28 | | 9.3 |
| | 2 | | 18.73 | 18.59 | 18.89 | 2.08 | | |
| 1,3-Dinitrobenzene | 1 | | 9.27 | 9.12 | 9.42 | 2.22 | | 8.7 |
| | 2 | | 15.44 | 15.31 | 15.61 | 2.03 | | |
| Nitrobenzene | 1 | | 9.65 | 9.50 | 9.80 | 2.11 | | 14.4 |
| | 2 | | 11.88 | 11.77 | 12.07 | 1.83 | | |
| Tetryl | 1 | | 9.96 | 9.82 | 10.12 | 2.37 | | 22.4 |
| | 2 | | 24.14 | 23.99 | 24.29 | 1.89 | | |
| 2,4,6-Trinitrotoluene | 1 | | 10.86 | 10.77 | 10.97 | 2.18 | | 4.1 |
| | 2 | | 24.92 | 24.77 | 25.07 | 2.10 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.05 | 10.95 | 11.15 | 2.04 | | 8.4 |
| | 2 | | 17.46 | 17.32 | 17.62 | 1.88 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.29 | 11.20 | 11.40 | 2.05 | | 1.8 |
| | 2 | | 18.48 | 18.33 | 18.63 | 2.09 | | |
| 2,6-Dinitrotoluene | 1 | | 11.47 | 11.37 | 11.57 | 2.12 | | 13.0 |
| | 2 | | 19.95 | 19.81 | 20.11 | 2.41 | | |
| 2,4-Dinitrotoluene | 1 | | 11.63 | 11.54 | 11.74 | 2.06 | | 15.5 |
| | 2 | | 20.48 | 20.33 | 20.63 | 1.76 | | |
| 2-Nitrotoluene | 1 | | 12.48 | 12.33 | 12.63 | 1.74 | | 1.0 |
| | 2 | | 16.53 | 16.39 | 16.69 | 1.73 | | |
| 4-Nitrotoluene | 1 | | 12.90 | 12.75 | 13.05 | 2.11 | | 14.1 |
| | 2 | | 16.84 | 16.70 | 17.00 | 1.83 | | |
| 3-Nitrotoluene | 1 | | 13.47 | 13.32 | 13.62 | 1.60 | | 7.2 |
| | 2 | | 17.80 | 17.65 | 17.95 | 1.72 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD Lab Sample ID: 280-159234-7 MSD

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 22:41 Date Analyzed (2): 03/09/2022 03:09

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.59 | 6.44 | 6.74 | 2.30 | | 16.6 |
| | 2 | | 6.82 | 6.73 | 7.03 | 1.95 | | |
| RDX | 1 | | 7.58 | 7.43 | 7.73 | 2.13 | | 1.3 |
| | 2 | | 9.02 | 8.91 | 9.21 | 2.16 | | |
| 1,3,5-Trinitrobenzene | 1 | | 8.65 | 8.50 | 8.80 | 2.56 | | 14.5 |
| | 2 | | 18.72 | 18.59 | 18.89 | 2.21 | | |
| 1,3-Dinitrobenzene | 1 | | 9.27 | 9.12 | 9.42 | 2.47 | | 12.2 |
| | 2 | | 15.44 | 15.31 | 15.61 | 2.19 | | |
| Nitrobenzene | 1 | | 9.65 | 9.50 | 9.80 | 2.32 | | 16.7 |
| | 2 | | 11.89 | 11.77 | 12.07 | 1.96 | | |
| Tetryl | 1 | | 9.97 | 9.82 | 10.12 | 2.48 | | 20.1 |
| | 2 | | 24.13 | 23.99 | 24.29 | 2.03 | | |
| 2,4,6-Trinitrotoluene | 1 | | 10.87 | 10.77 | 10.97 | 2.44 | | 7.7 |
| | 2 | | 24.91 | 24.77 | 25.07 | 2.26 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.05 | 10.95 | 11.15 | 2.30 | | 13.0 |
| | 2 | | 17.46 | 17.32 | 17.62 | 2.02 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.31 | 11.20 | 11.40 | 2.30 | | 2.4 |
| | 2 | | 18.47 | 18.33 | 18.63 | 2.25 | | |
| 2,6-Dinitrotoluene | 1 | | 11.47 | 11.37 | 11.57 | 2.43 | | 4.5 |
| | 2 | | 19.94 | 19.81 | 20.11 | 2.54 | | |
| 2,4-Dinitrotoluene | 1 | | 11.65 | 11.54 | 11.74 | 2.30 | | 18.8 |
| | 2 | | 20.46 | 20.33 | 20.63 | 1.91 | | |
| 2-Nitrotoluene | 1 | | 12.49 | 12.33 | 12.63 | 1.99 | | 6.4 |
| | 2 | | 16.52 | 16.39 | 16.69 | 1.87 | | |
| 4-Nitrotoluene | 1 | | 12.91 | 12.75 | 13.05 | 2.42 | | 19.0 |
| | 2 | | 16.84 | 16.70 | 17.00 | 2.00 | | |
| 3-Nitrotoluene | 1 | | 13.48 | 13.32 | 13.62 | 1.87 | | 0.4 |
| | 2 | | 17.80 | 17.65 | 17.95 | 1.86 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0080-8  Lab Sample ID: 280-159234-8

Instrument ID (1): CHHPLC_X3  Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/08/2022 23:50  Date Analyzed (2): 03/09/2022 04:54

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 | | 11.05 | 10.95 | 11.15 | 0.082 | | 33.2 |
| | 2 | | 17.47 | 17.32 | 17.62 | 0.12 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0087-8 Lab Sample ID: 280-159234-9

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/09/2022 00:13 Date Analyzed (2): 03/09/2022 05:29

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.59 | 6.44 | 6.74 | 0.74 | | 16.9 |
| | 2 | | 6.83 | 6.73 | 7.03 | 0.62 | | |
| RDX | 1 | | 7.57 | 7.43 | 7.73 | 0.19 | | 44.4 |
| | 2 | | 9.02 | 8.91 | 9.21 | 0.29 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.06 | 10.95 | 11.15 | 0.85 | | 1.3 |
| | 2 | | 17.47 | 17.32 | 17.62 | 0.84 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.30 | 11.20 | 11.40 | 0.40 | | 10.6 |
| | 2 | | 18.48 | 18.33 | 18.63 | 0.36 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0086-8 Lab Sample ID: 280-159234-10

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 03/09/2022 00:36 Date Analyzed (2): 03/09/2022 06:04

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.59 | 6.44 | 6.74 | 0.58 | | 47.3 |
| | 2 | | 6.83 | 6.73 | 7.03 | 0.36 | | |
| RDX | 1 | | 7.58 | 7.43 | 7.73 | 1.3 | | 37.5 |
| | 2 | | 9.02 | 8.91 | 9.21 | 0.89 | | |
| 1,3,5-Trinitrobenzene | 1 | | 8.65 | 8.50 | 8.80 | 21 | | 6.4 |
| | 2 | | 18.71 | 18.59 | 18.89 | 20 | | |
| 2,4,6-Trinitrotoluene | 1 | | 10.87 | 10.77 | 10.97 | 5.8 | | 8.8 |
| | 2 | | 24.90 | 24.77 | 25.07 | 5.3 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.05 | 10.95 | 11.15 | 1.7 | | 2.4 |
| | 2 | | 17.45 | 17.32 | 17.62 | 1.7 | | |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW020-8 | Lab Sample ID: 280-159234-1

Matrix: Water | Lab File ID: 03080016.D

Analysis Method: 8330A | Date Collected: 02/28/2022 14:05

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 471(mL) | Date Analyzed: 03/08/2022 18:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.089 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.1 | | 0.12 | 0.11 | 0.048 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.043 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.0 | | 0.12 | 0.11 | 0.054 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.091 |
| 99-08-1 | 3-Nitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.91 | | 0.16 | 0.13 | 0.061 |
| 99-99-0 | 4-Nitrotoluene | 0.42 | U | 0.44 | 0.42 | 0.11 |
| 2691-41-0 | HMX | 0.21 | U | 0.22 | 0.21 | 0.093 |
| 5755-27-1 | MNX | 0.42 | U | 2.1 | 0.42 | 0.16 |
| 98-95-3 | Nitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.097 |
| 121-82-4 | RDX | 0.22 | M J1 | 0.22 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 93 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080016.D
Lims ID: 280-159234-J-1-A
Client ID: NW020-8
Sample Type: Client
Inject. Date: 08-Mar-2022 18:29:08 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-1-A
Misc. Info.: 280-0109078-016
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 19:07:07

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.593 | | | ND | |
| 7 MNX | 1 | | 7.207 | | | ND | |
| 8 RDX | 1 | 7.567 | 7.579 | -0.012 | 2121 | 0.0205 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.520 | 8.519 | 0.001 | 23249 | 0.1864 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | 9.234 | 9.266 | -0.032 | 1359 | 0.004712 | M |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | 10.867 | 10.866 | 0.001 | 21891 | 0.1080 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.047 | 11.052 | -0.005 | 12895 | 0.0854 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.294 | 11.299 | -0.005 | 19566 | 0.0968 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

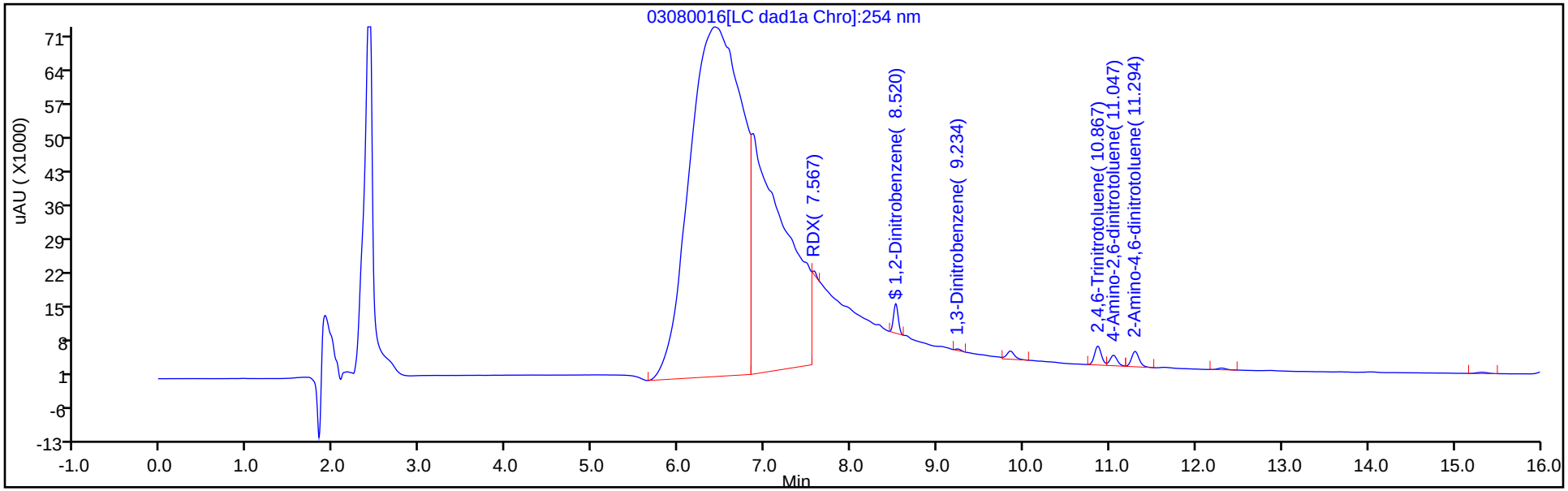
Report Date: 09-Mar-2022 13:15:35 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

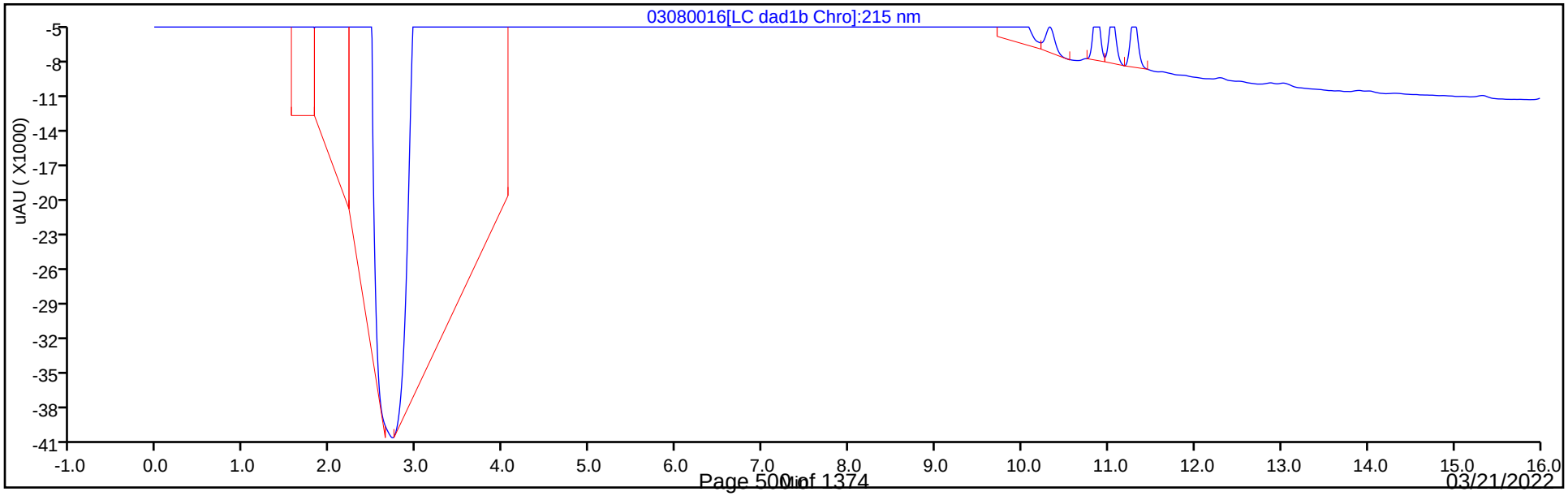
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080016.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 18:29:08 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | Worklist Smp#: | 16 |
| Client ID: | NW020-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080016.D | | | | |
| Lims ID: | 280-159234-J-1-A | | | | |
| Client ID: | NW020-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 18:29:08 | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-1-A | | | | |
| Misc. Info.: | 280-0109078-016 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 19:07:07

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1864 | 93.22 |

Manual Integration/User Assign Peak Report

Eurofins Denver

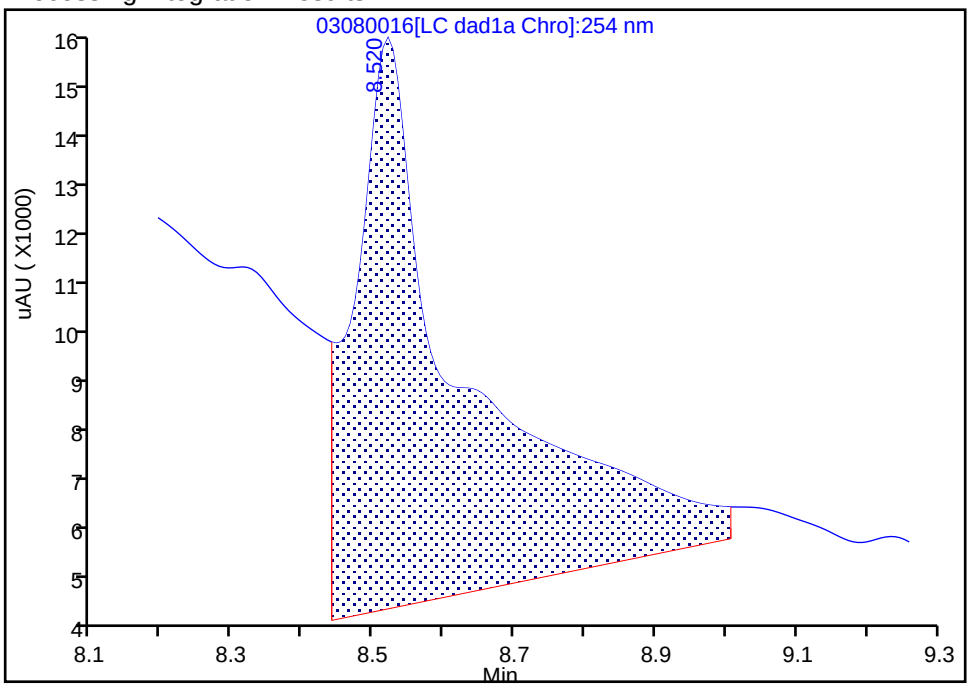
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080016.d | | | | |
| Injection Date: | 08-Mar-2022 18:29:08 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

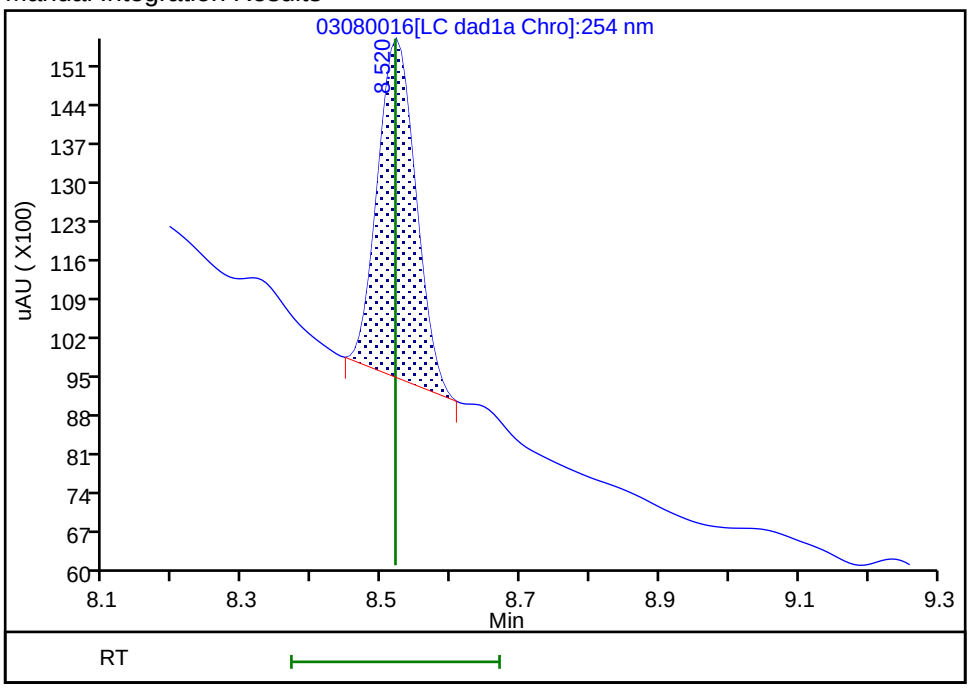
Processing Integration Results

RT: 8.52
Area: 119776
Amount: 0.960531
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 23249
Amount: 0.186443
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:06:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

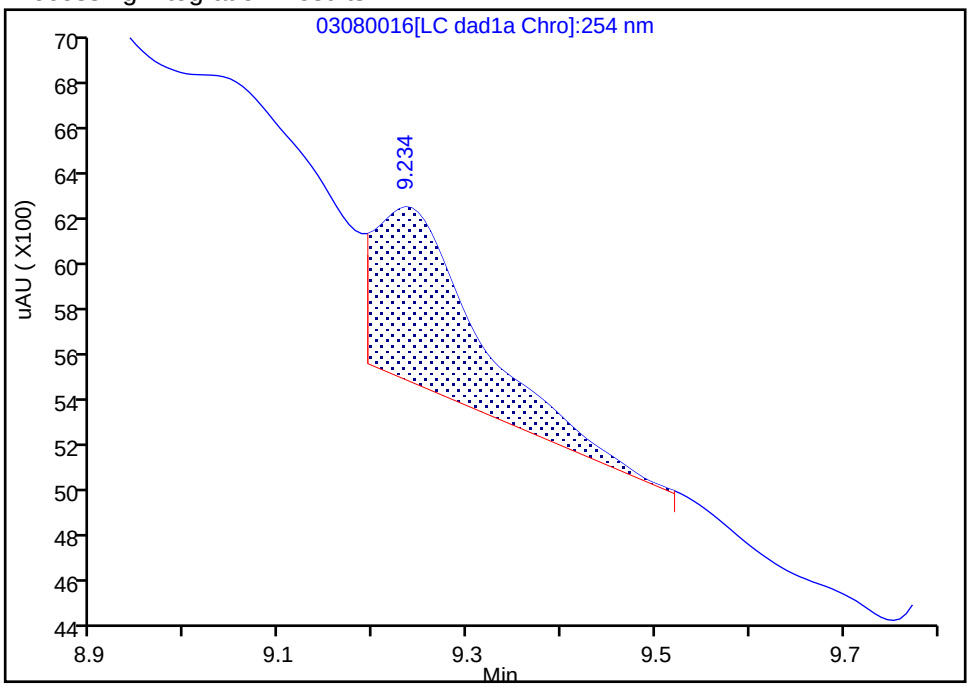
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080016.d | | | | |
| Injection Date: | 08-Mar-2022 18:29:08 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

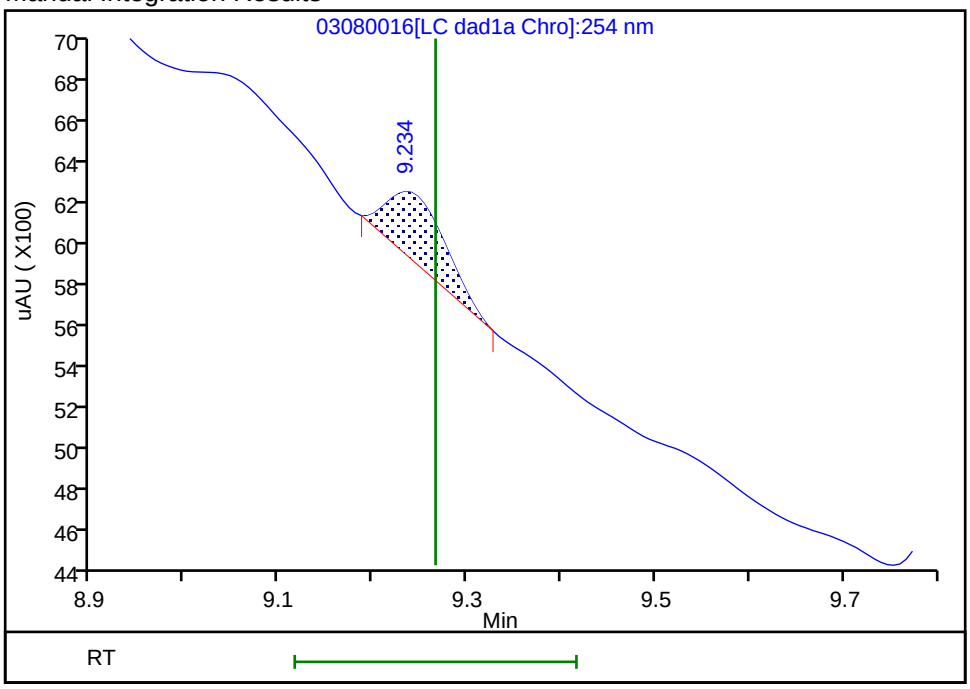
Processing Integration Results

RT: 9.23
Area: 5476
Amount: 0.018987
Amount Units: ug/mL




Manual Integration Results

RT: 9.23
Area: 1359
Amount: 0.004712
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:07:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

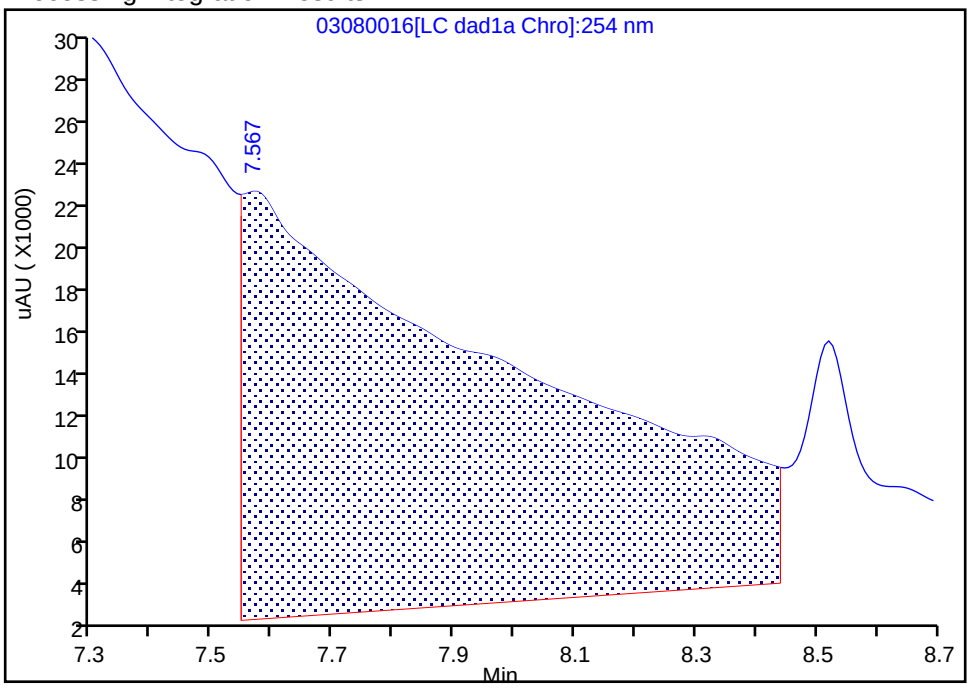
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080016.d | | | | |
| Injection Date: | 08-Mar-2022 18:29:08 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

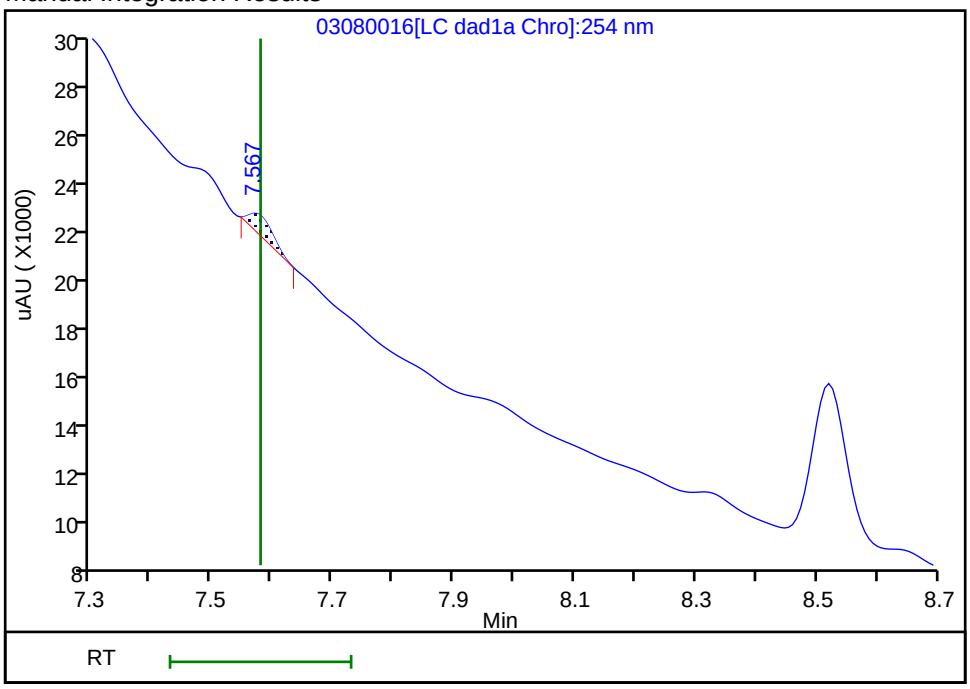
Processing Integration Results

RT: 7.57
Area: 594610
Amount: 5.738969
Amount Units: ug/mL




Manual Integration Results

RT: 7.57
Area: 2121
Amount: 0.020471
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:06:54
Audit Action: Manually Integrated Audit Reason: Baseline

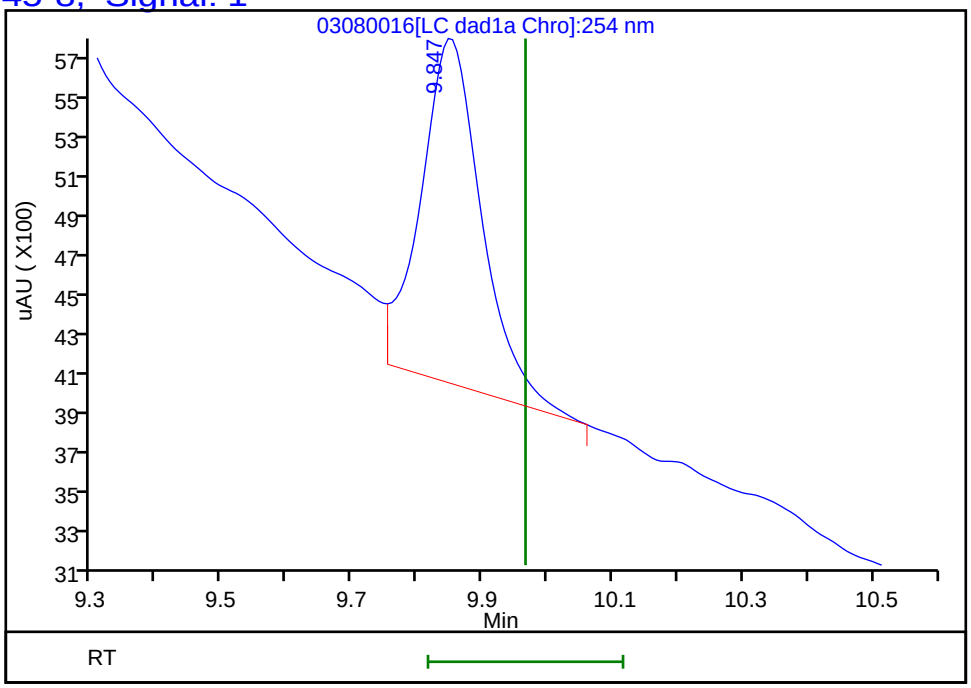
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080016.d | | | | |
| Injection Date: | 08-Mar-2022 18:29:08 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.85
Response: 11022
Amount: 0.064620




Reviewer: zhangji, 08-Mar-2022 19:07:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW020-8 | Lab Sample ID: 280-159234-1

Matrix: Water | Lab File ID: 03080015.D

Analysis Method: 8330A | Date Collected: 02/28/2022 14:05

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 471(mL) | Date Analyzed: 03/08/2022 21:18

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.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.039 |
| *121-82-4* | *RDX* | *0.49* | *M J1* | *0.22* | 0.21 | *0.055* |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 97 | *M* | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D
Lims ID: 280-159234-J-1-A
Client ID: NW020-8
Sample Type: Client
Inject. Date: 08-Mar-2022 21:18:48 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-1-A
Misc. Info.: 280-0109079-015
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:10 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:21:48

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.854 | 6.875 | -0.021 | 6873 | 0.0414 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | |
| | 8 RDX | 1 | 9.041 | 9.062 | -0.021 | 9053 | 0.0466 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.080 | 13.089 | -0.009 | 48384 | 0.1937 | M |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.440 | 17.469 | -0.029 | 28007 | 0.1050 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.454 | 18.482 | -0.028 | 39911 | 0.1107 | M |
| | 20 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | U |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | 7 |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | 24.867 | 24.922 | -0.055 | 42309 | 0.1146 | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

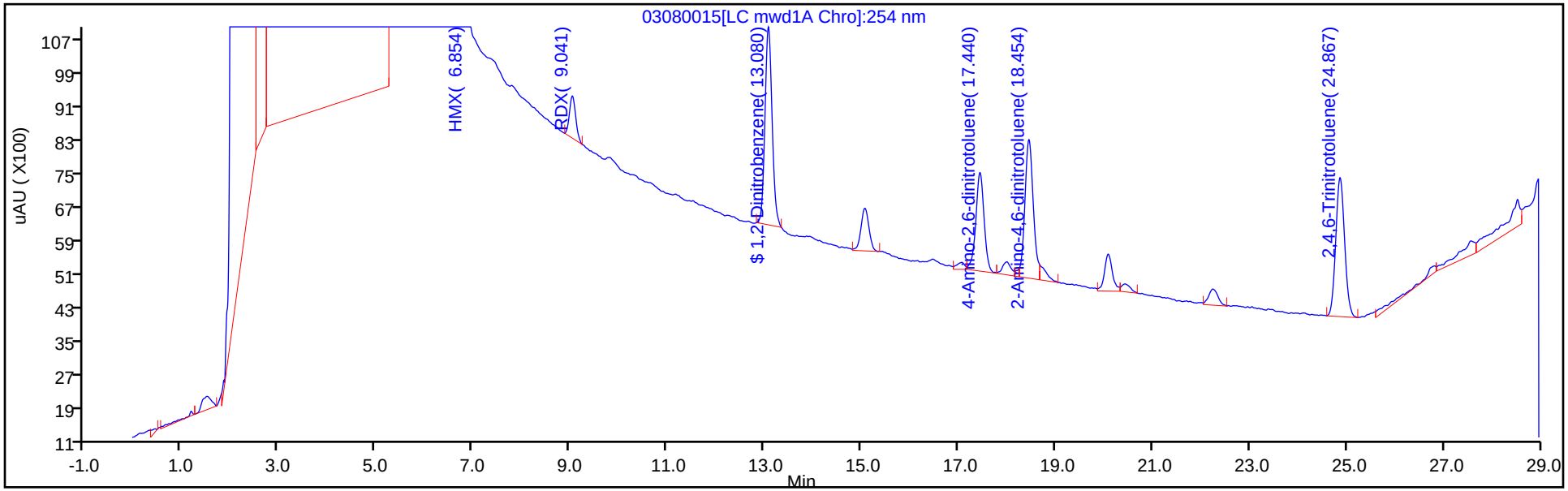
Report Date: 09-Mar-2022 19:28:10 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

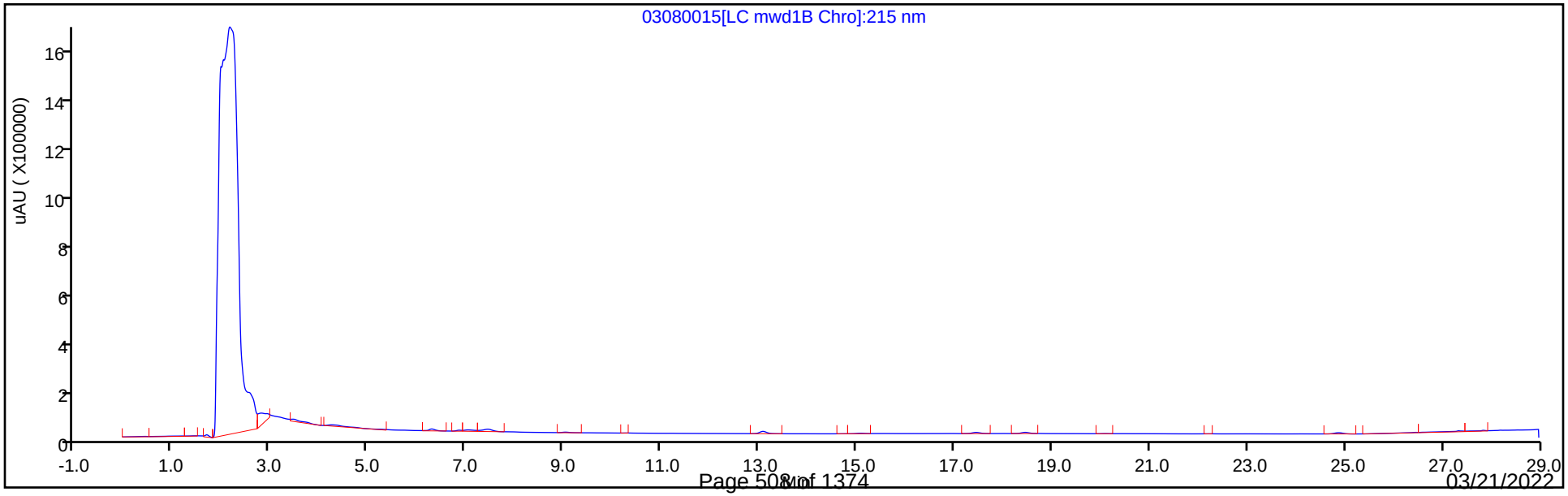
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | Worklist Smp#: | 15 |
| Client ID: | NW020-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Lims ID: | 280-159234-J-1-A | | | | |
| Client ID: | NW020-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 21:18:48 | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-1-A | | | | |
| Misc. Info.: | 280-0109079-015 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:10 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:21:48 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1937 | 96.86 |

Manual Integration/User Assign Peak Report

Eurofins Denver

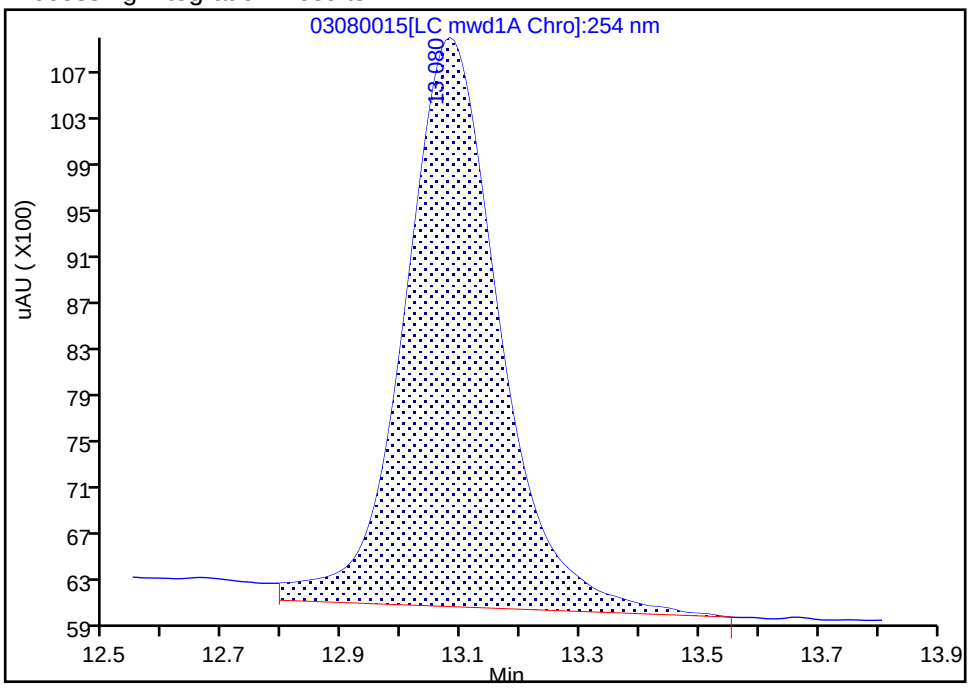
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

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

Signal: 1

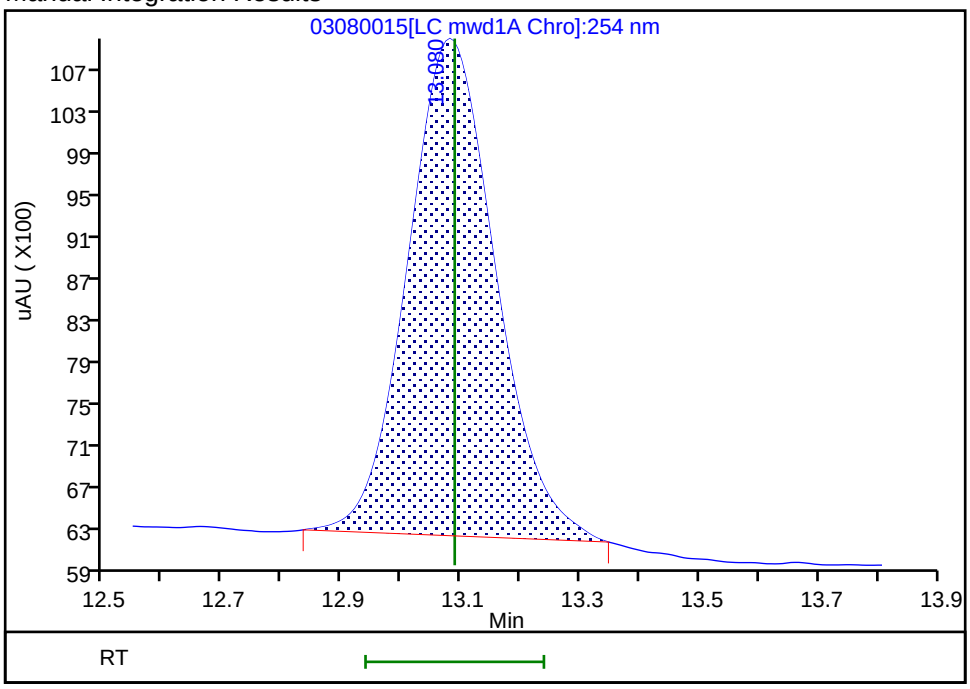
Processing Integration Results

RT: 13.08
Area: 54441
Amount: 0.217979
Amount Units: ug/ml




Manual Integration Results

RT: 13.08
Area: 48384
Amount: 0.193727
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:21:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

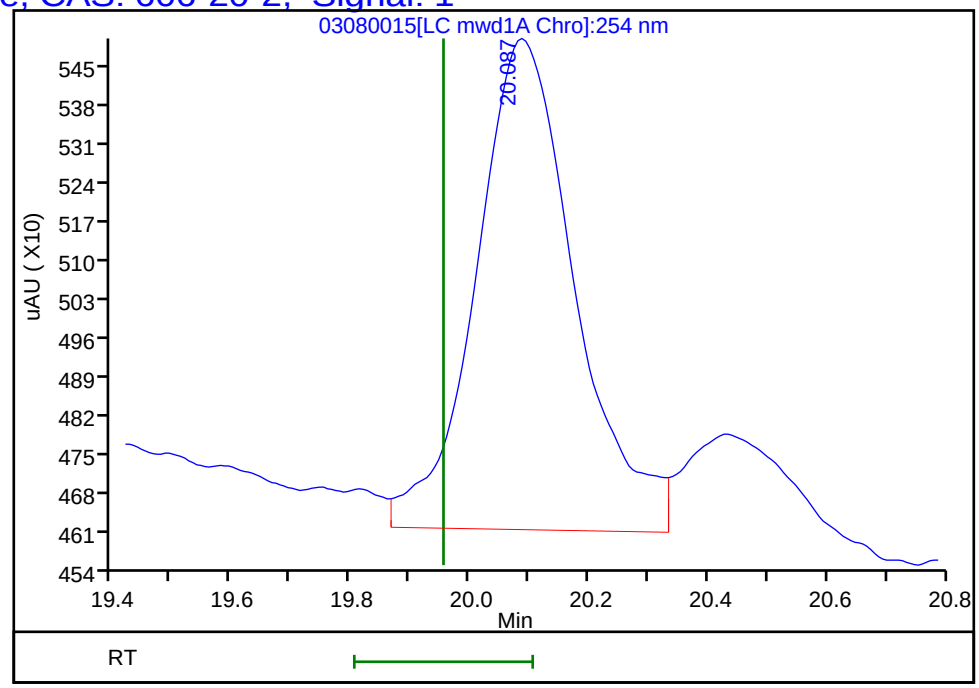
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 20.09
Response: 10188
Amount: 0.038350




Reviewer: zhangji, 09-Mar-2022 19:21:48
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

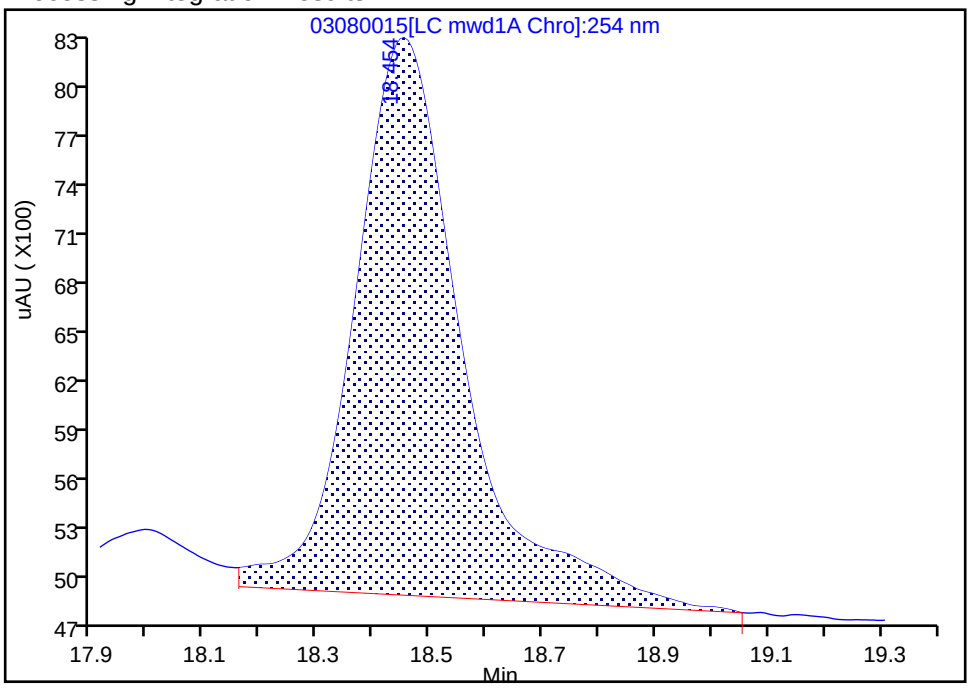
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

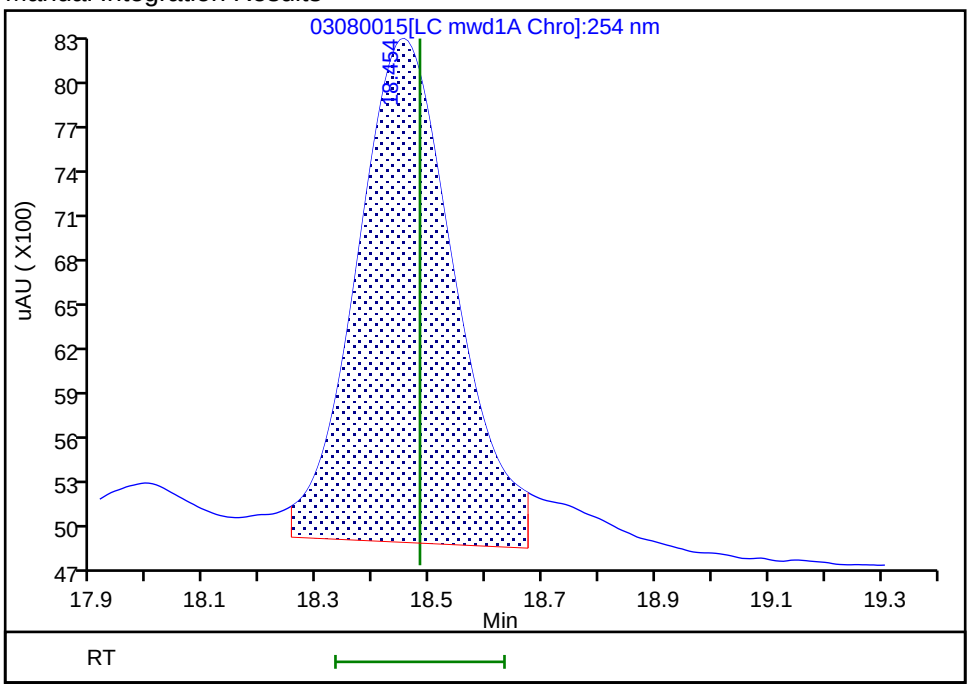
Processing Integration Results

RT: 18.45
Area: 44100
Amount: 0.122318
Amount Units: ug/ml




Manual Integration Results

RT: 18.45
Area: 39911
Amount: 0.110699
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:21:46

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

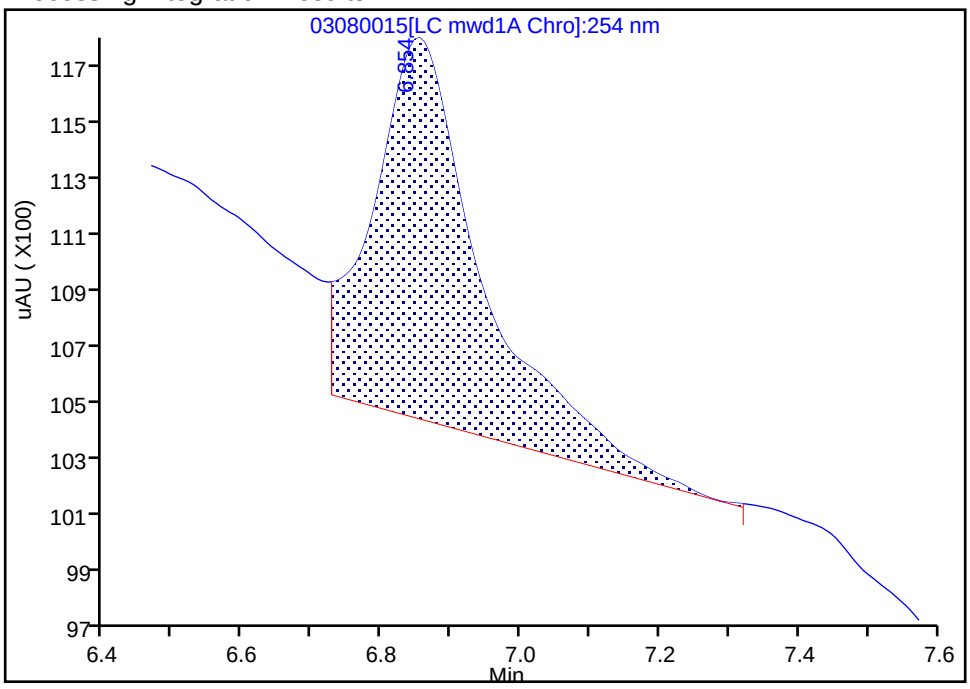
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

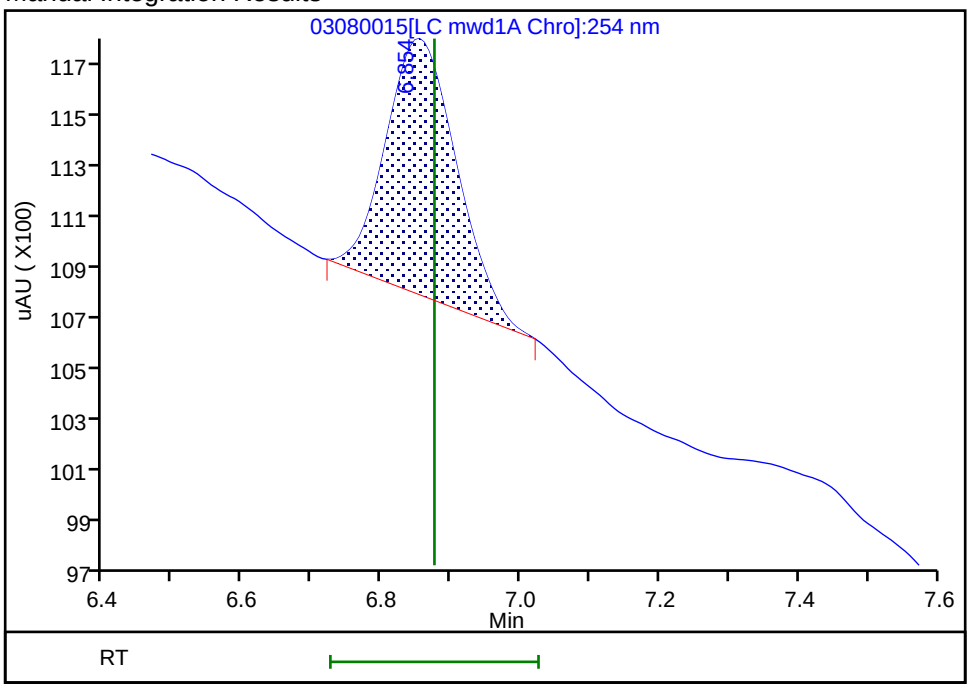
Processing Integration Results

RT: 6.85
Area: 14192
Amount: 0.085424
Amount Units: ug/ml




Manual Integration Results

RT: 6.85
Area: 6873
Amount: 0.041370
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:21:23

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

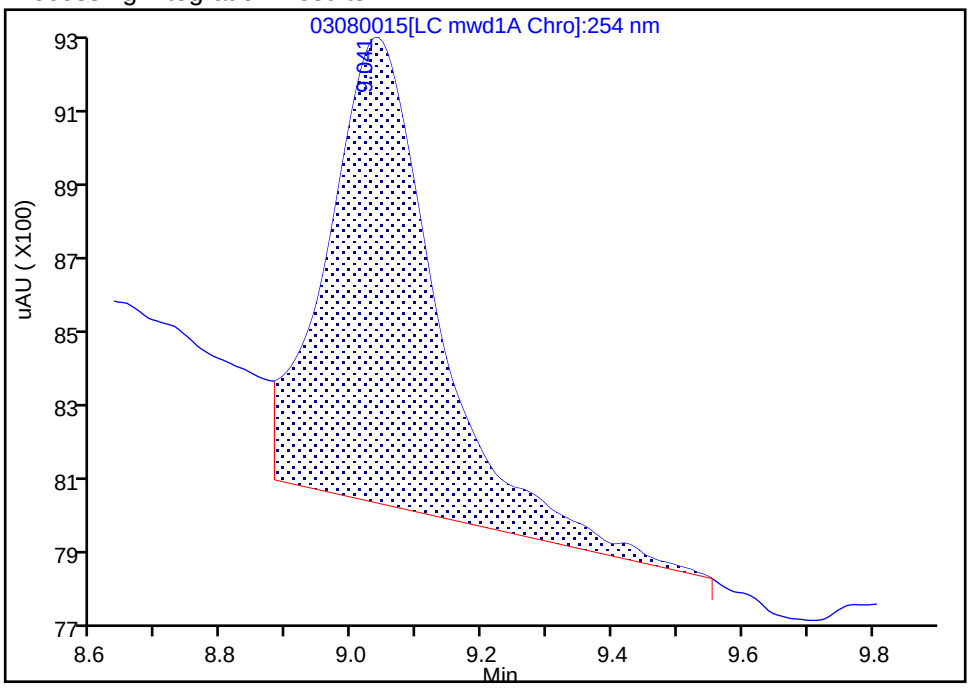
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080015.D | | | | |
| Injection Date: | 08-Mar-2022 21:18:48 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-1-A | Lab Sample ID: | 280-159234-1 | | |
| Client ID: | NW020-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

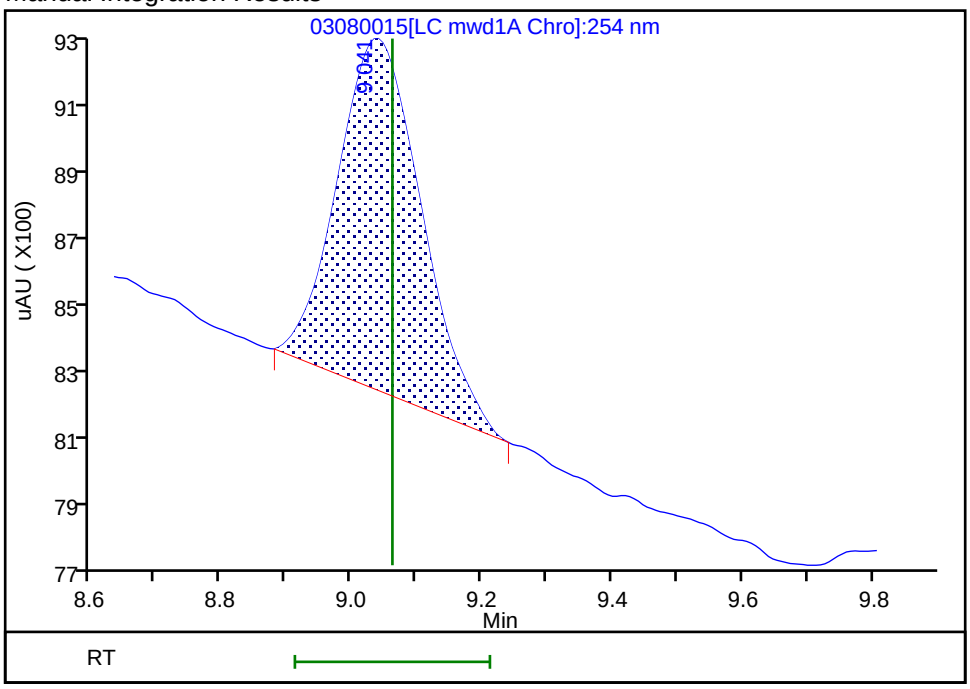
Processing Integration Results

RT: 9.04
Area: 14104
Amount: 0.072577
Amount Units: ug/ml




Manual Integration Results

RT: 9.04
Area: 9053
Amount: 0.046585
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:21:27
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW021-8 | Lab Sample ID: 280-159234-2

Matrix: Water | Lab File ID: 03080017.D

Analysis Method: 8330A | Date Collected: 02/28/2022 15:00

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 466.6(mL) | Date Analyzed: 03/08/2022 18:52

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.090 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.048 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.043 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.0 | | 0.12 | 0.11 | 0.054 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.23 | 0.21 | 0.092 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.92 | | 0.16 | 0.13 | 0.062 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 |
| 2691-41-0 | HMX | 0.21 | U M | 0.23 | 0.21 | 0.094 |
| 5755-27-1 | MNX | 0.43 | U | 2.1 | 0.43 | 0.17 |
| 98-95-3 | Nitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.098 |
| 121-82-4 | RDX | 0.17 | J M | 0.23 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 103 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080017.D
Lims ID: 280-159234-J-2-A
Client ID: NW021-8
Sample Type: Client
Inject. Date: 08-Mar-2022 18:52:04 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-2-A
Misc. Info.: 280-0109078-017
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 19:45:24

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.593 | | | ND | U |
| 7 MNX | 1 | | 7.207 | | | ND | M |
| 8 RDX | 1 | 7.572 | 7.579 | -0.007 | 1666 | 0.0161 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.506 | 8.519 | -0.013 | 25736 | 0.2064 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.032 | 11.052 | -0.020 | 13010 | 0.0862 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.279 | 11.299 | -0.020 | 19122 | 0.0946 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

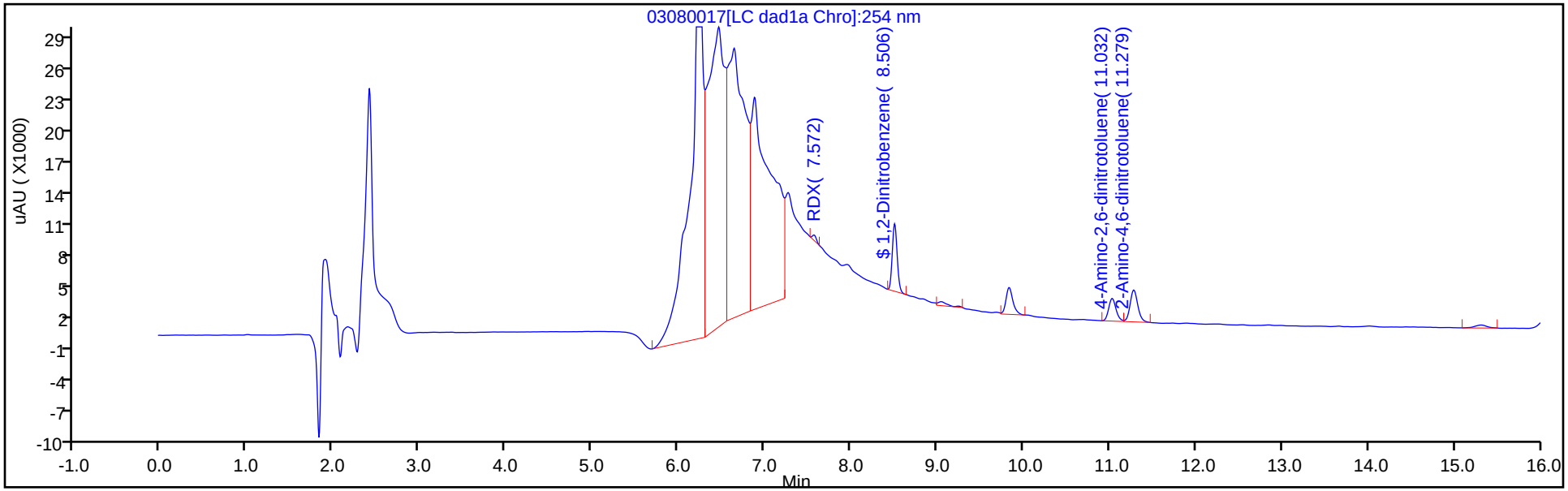
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 13:15:36 Chrom Revision: 2.3 16-Feb-2022 17:52:00

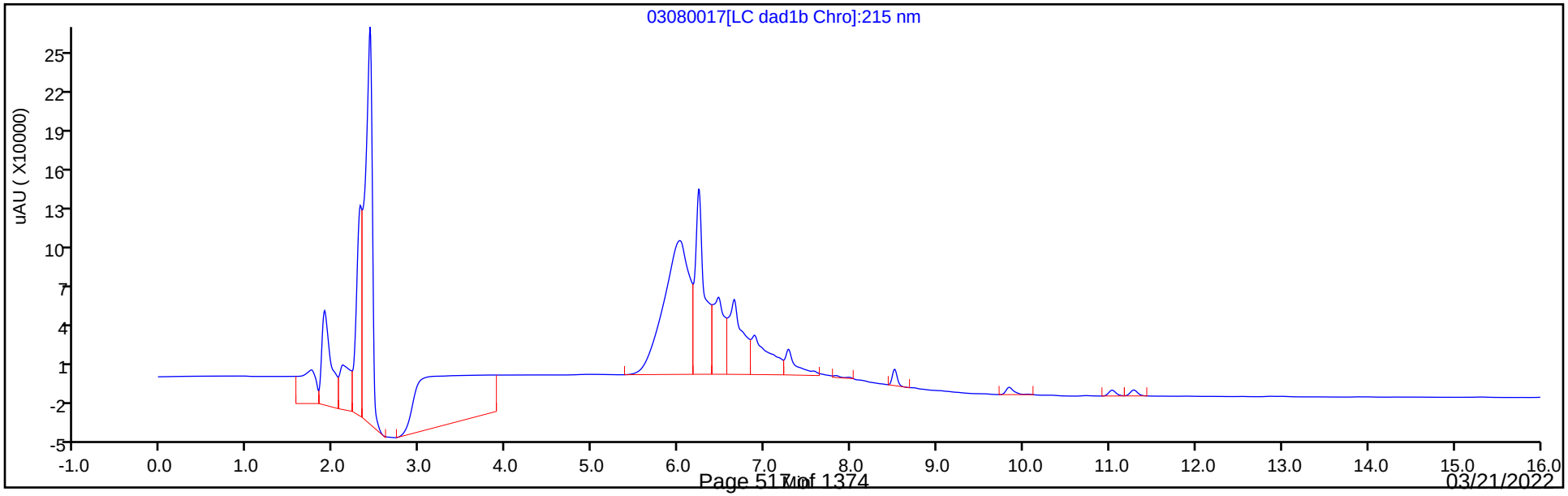
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080017.d | | | | |
| Injection Date: | 08-Mar-2022 18:52:04 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | Worklist Smp#: | 17 |
| Client ID: | NW021-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080017.D | | | | |
| Lims ID: | 280-159234-J-2-A | | | | |
| Client ID: | NW021-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 18:52:04 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-2-A | | | | |
| Misc. Info.: | 280-0109078-017 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 19:45:24

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2064 | 103.19 |

Manual Integration/User Assign Peak Report

Eurofins Denver

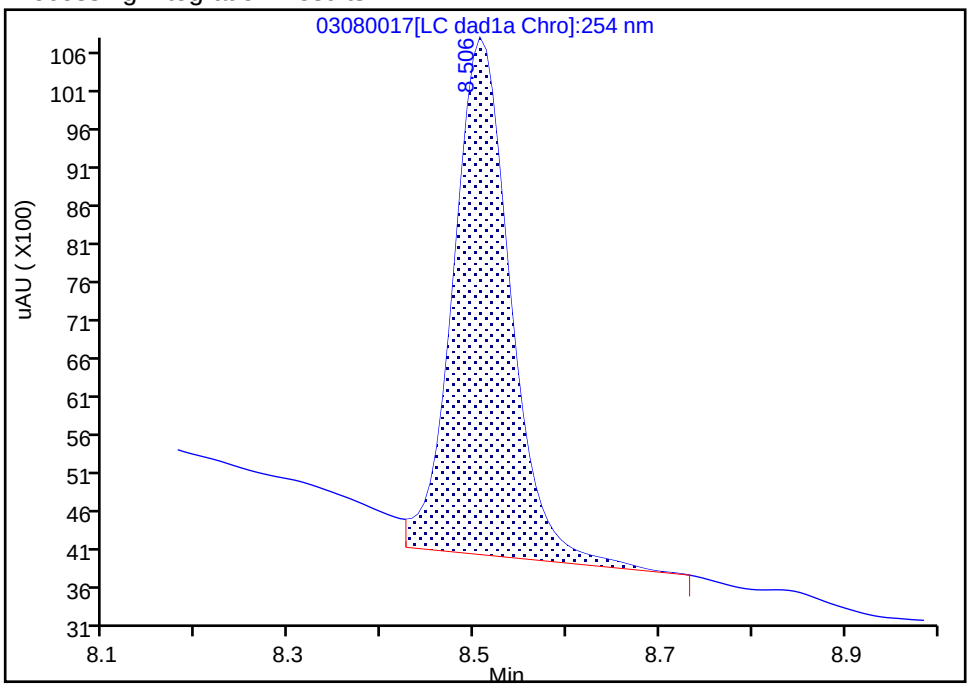
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080017.d | | | | |
| Injection Date: | 08-Mar-2022 18:52:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

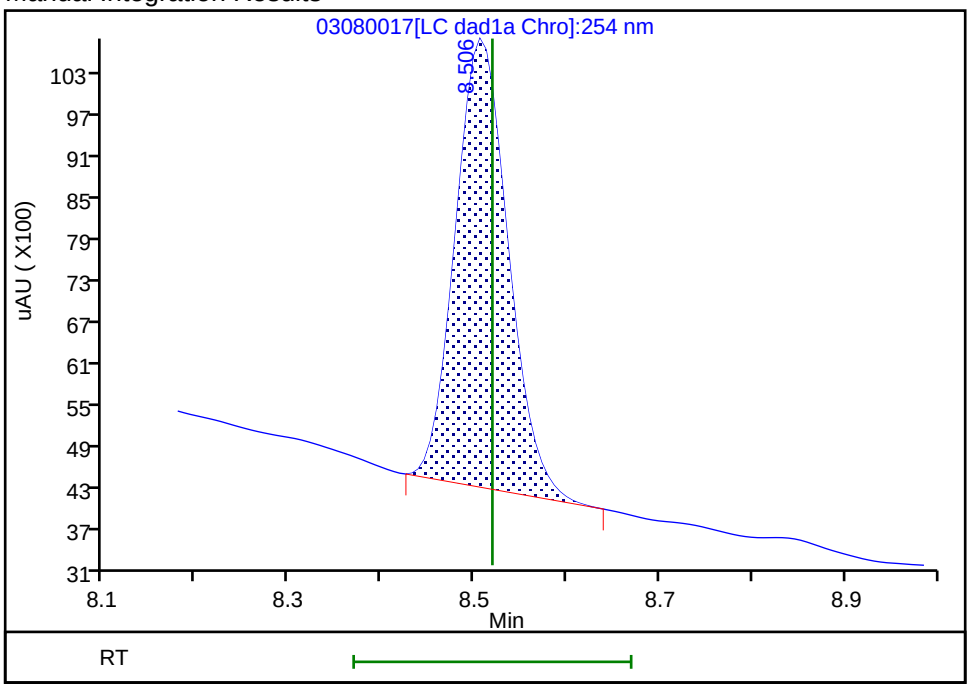
Processing Integration Results

RT: 8.51
Area: 28989
Amount: 0.232474
Amount Units: ug/mL




Manual Integration Results

RT: 8.51
Area: 25736
Amount: 0.206387
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:45:19

Audit Action: Manually Integrated Audit Reason: Baseline

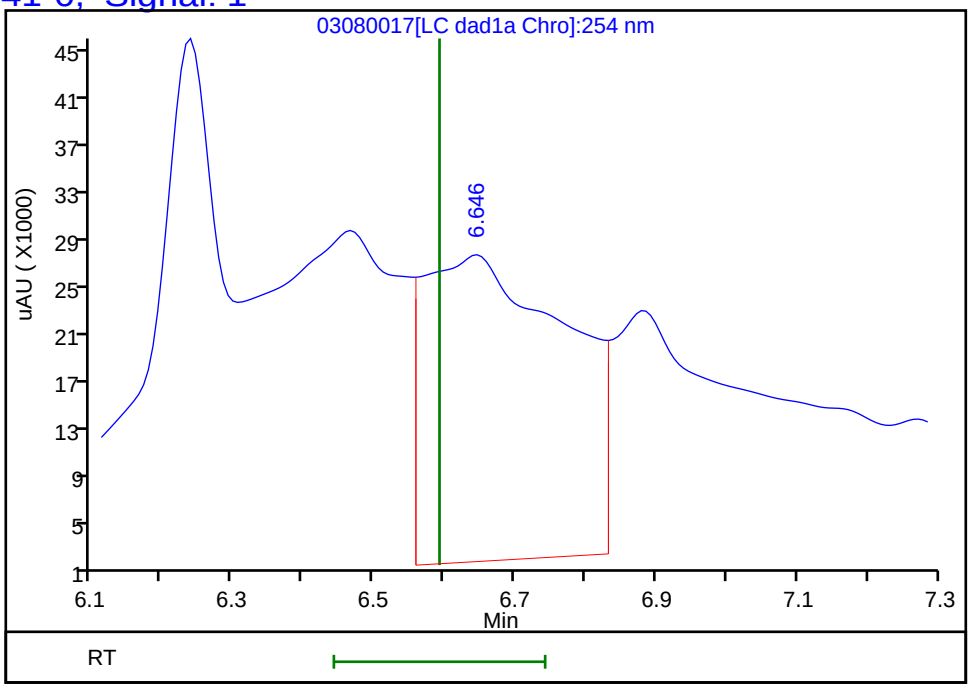
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080017.d | | | | |
| Injection Date: | 08-Mar-2022 18:52:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.65
Response: 363495
Amount: 4.336242




Reviewer: zhangji, 08-Mar-2022 19:45:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

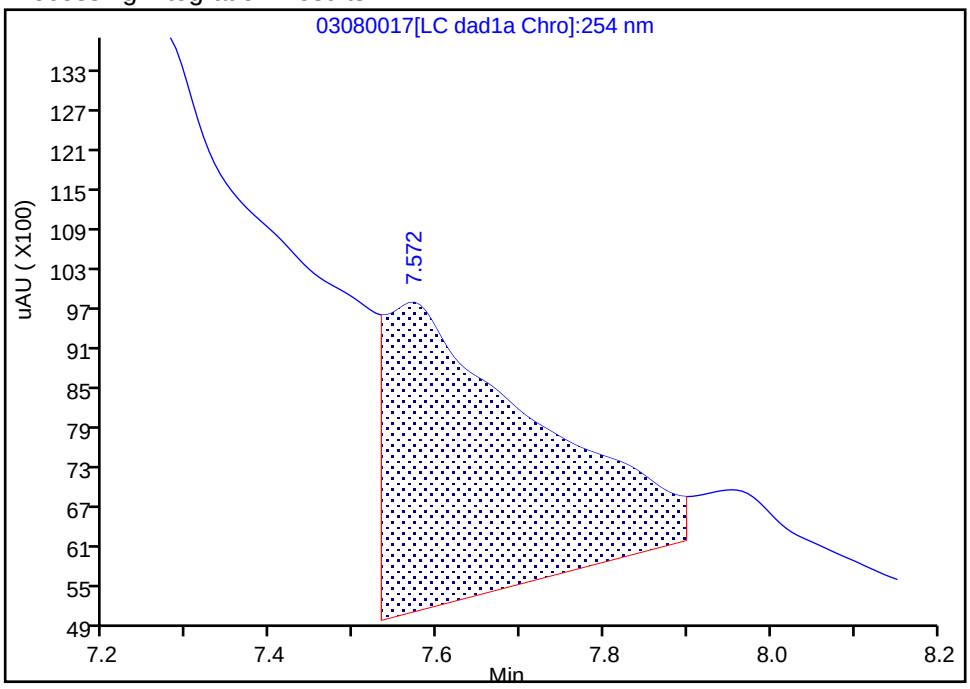
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080017.d | | | | |
| Injection Date: | 08-Mar-2022 18:52:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

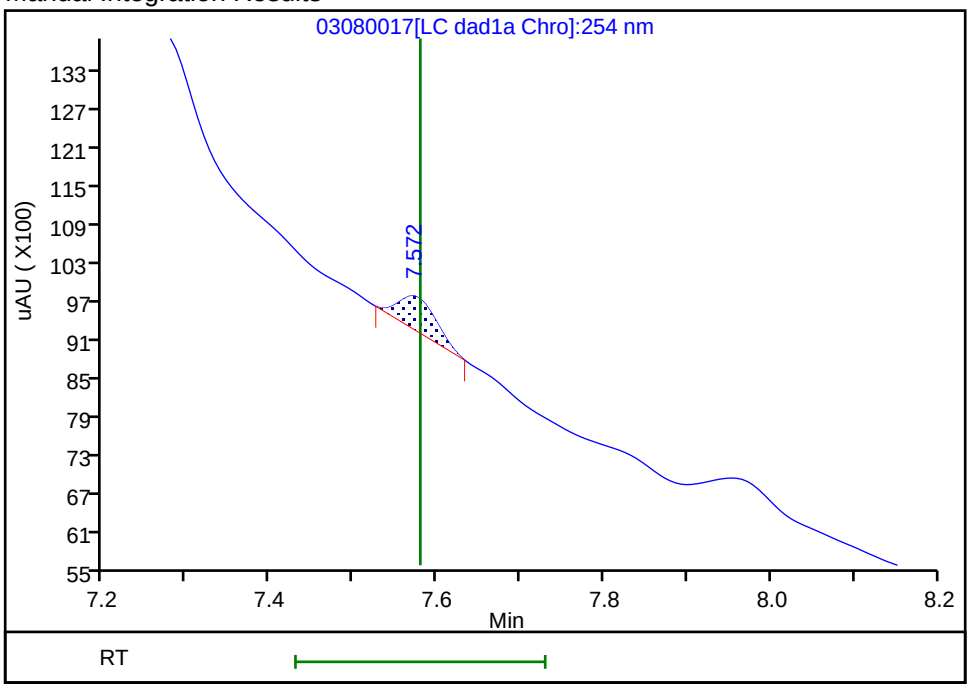
Processing Integration Results

RT: 7.57
Area: 57314
Amount: 0.553175
Amount Units: ug/mL




Manual Integration Results

RT: 7.57
Area: 1666
Amount: 0.016080
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:45:16
Audit Action: Manually Integrated Audit Reason: Baseline

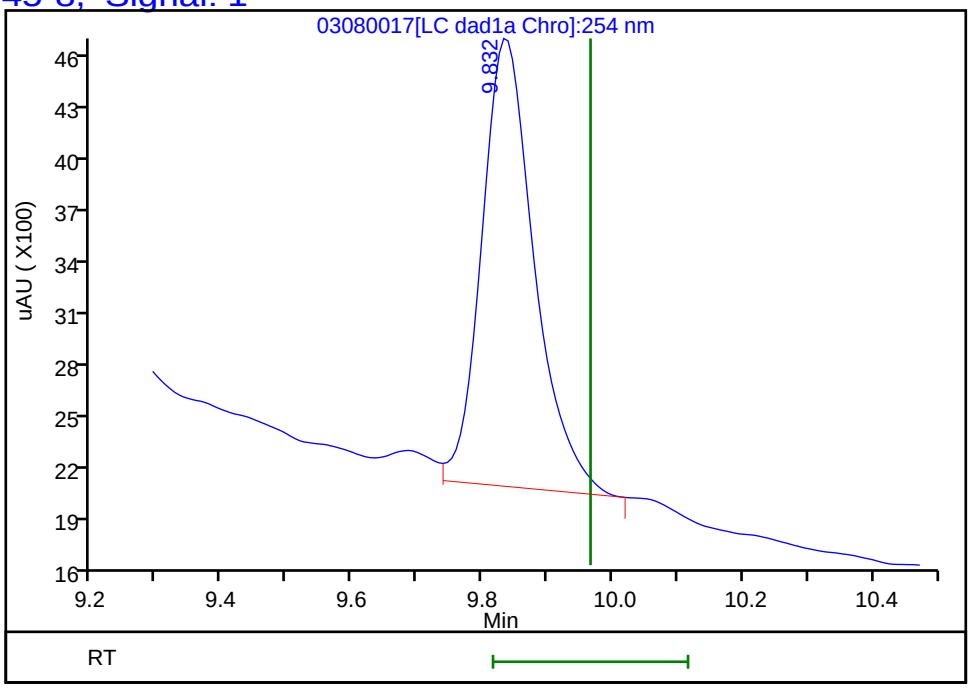
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080017.d | | | | |
| Injection Date: | 08-Mar-2022 18:52:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.83
Response: 14503
Amount: 0.085028




Reviewer: zhangji, 08-Mar-2022 19:45:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW021-8 | Lab Sample ID: 280-159234-2

Matrix: Water | Lab File ID: 03080016.D

Analysis Method: 8330A | Date Collected: 02/28/2022 15:00

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 466.6(mL) | Date Analyzed: 03/08/2022 21:53

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.: 568016 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 101 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D
Lims ID: 280-159234-J-2-A
Client ID: NW021-8
Sample Type: Client
Inject. Date: 08-Mar-2022 21:53:46 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-2-A
Misc. Info.: 280-0109079-016
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:10 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:22:16

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.822 | 6.875 | -0.053 | 5915 | 0.0356 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | |
| | 8 RDX | 1 | 9.015 | 9.062 | -0.047 | 3864 | 0.0199 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.068 | 13.089 | -0.021 | 50410 | 0.2018 | |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.435 | 17.469 | -0.034 | 25886 | 0.0971 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.448 | 18.482 | -0.034 | 35308 | 0.0979 | |
| | 20 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | U |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | | 24.922 | | | ND | |

## QC Flag Legend

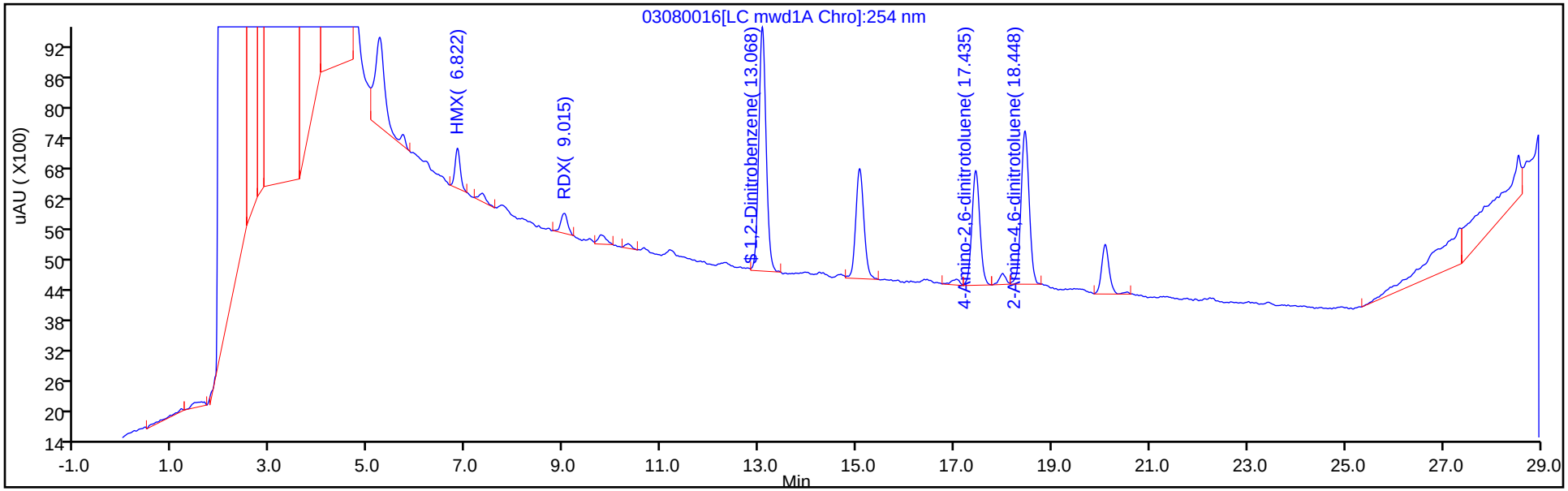
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 19:28:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

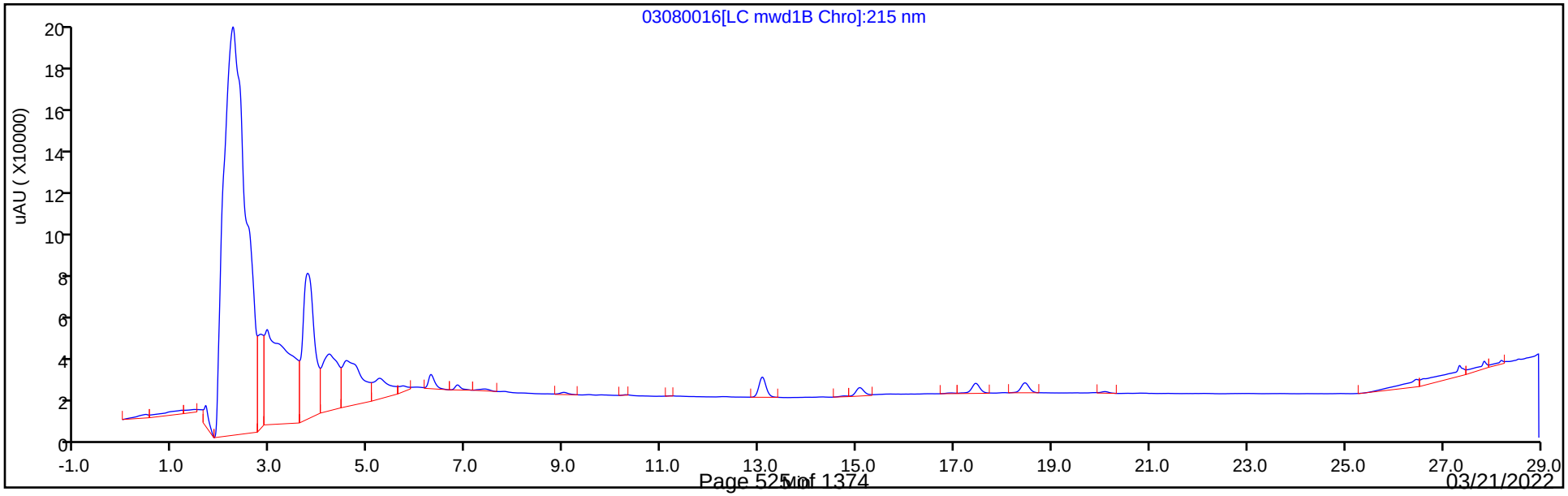
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D | | | | |
| Injection Date: | 08-Mar-2022 21:53:46 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | Worklist Smp#: | 16 |
| Client ID: | NW021-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D | | | | |
| Lims ID: | 280-159234-J-2-A | | | | |
| Client ID: | NW021-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 21:53:46 | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-2-A | | | | |
| Misc. Info.: | 280-0109079-016 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:10 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:22:16 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2018 | 100.92 |

User Disabled Compound Report

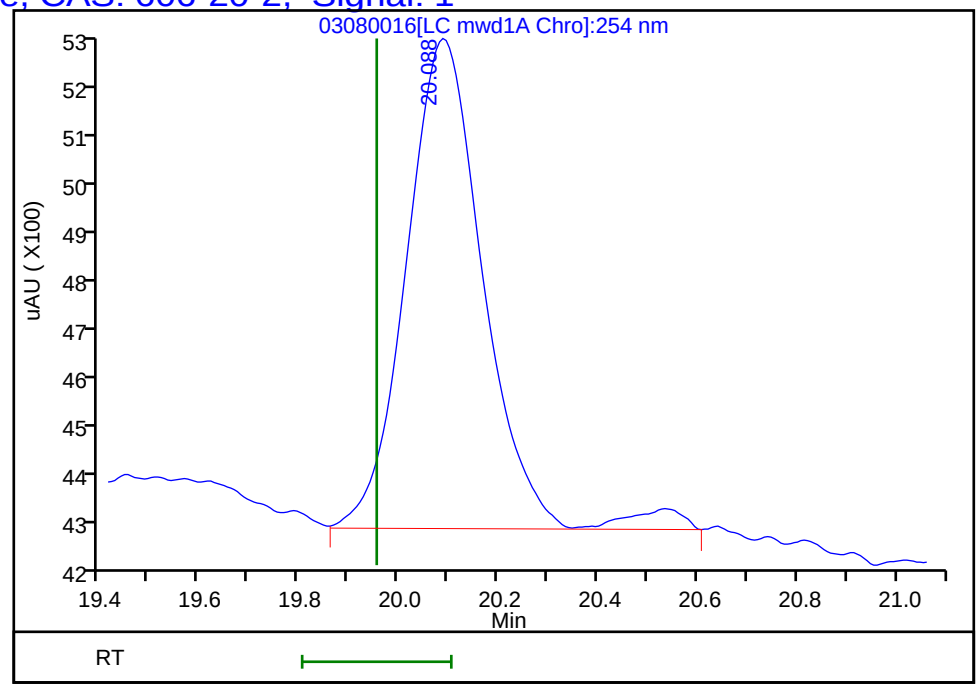
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D
Injection Date: 08-Mar-2022 21:53:46 Instrument ID: CHHPLC_X5
Lims ID: 280-159234-J-2-A Lab Sample ID: 280-159234-2
Client ID: NW021-8
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl ( 4.60 mm) Detector LC mwd1A, 254 nm

## 21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 20.09
Response: 10675
Amount: 0.040183




Reviewer: zhangji, 09-Mar-2022 19:22:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

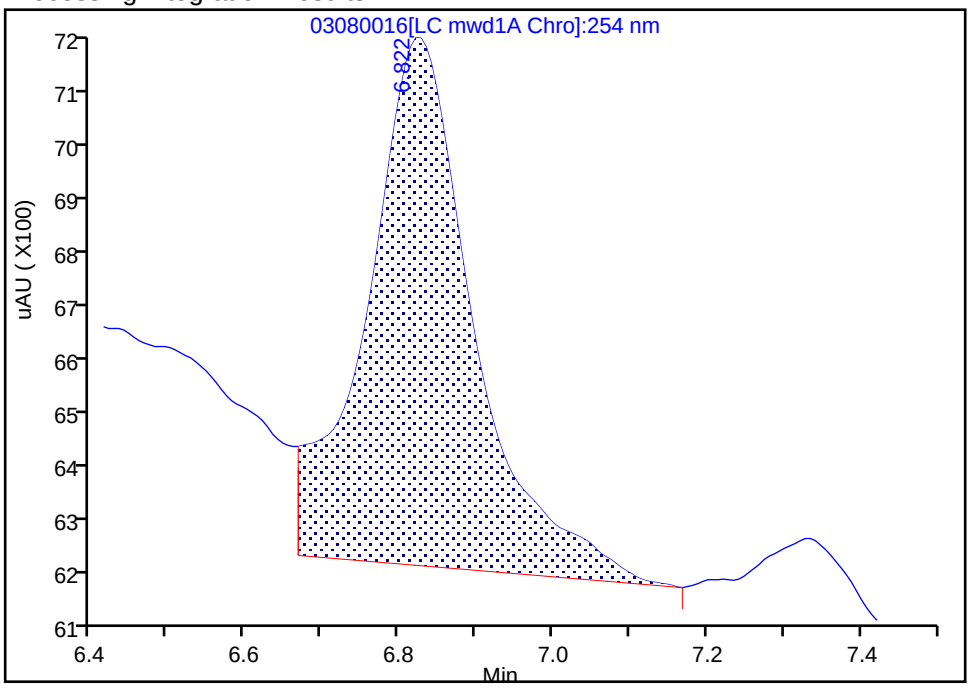
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D | | | | |
| Injection Date: | 08-Mar-2022 21:53:46 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

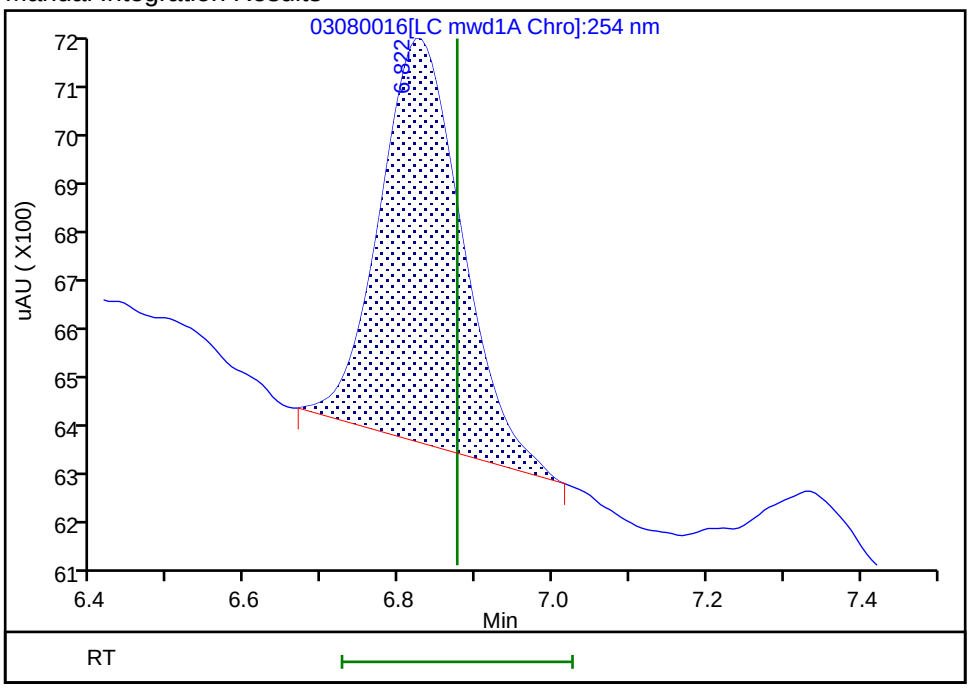
Processing Integration Results

RT: 6.82
Area: 9101
Amount: 0.054781
Amount Units: ug/ml




Manual Integration Results

RT: 6.82
Area: 5915
Amount: 0.035604
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:21:58

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

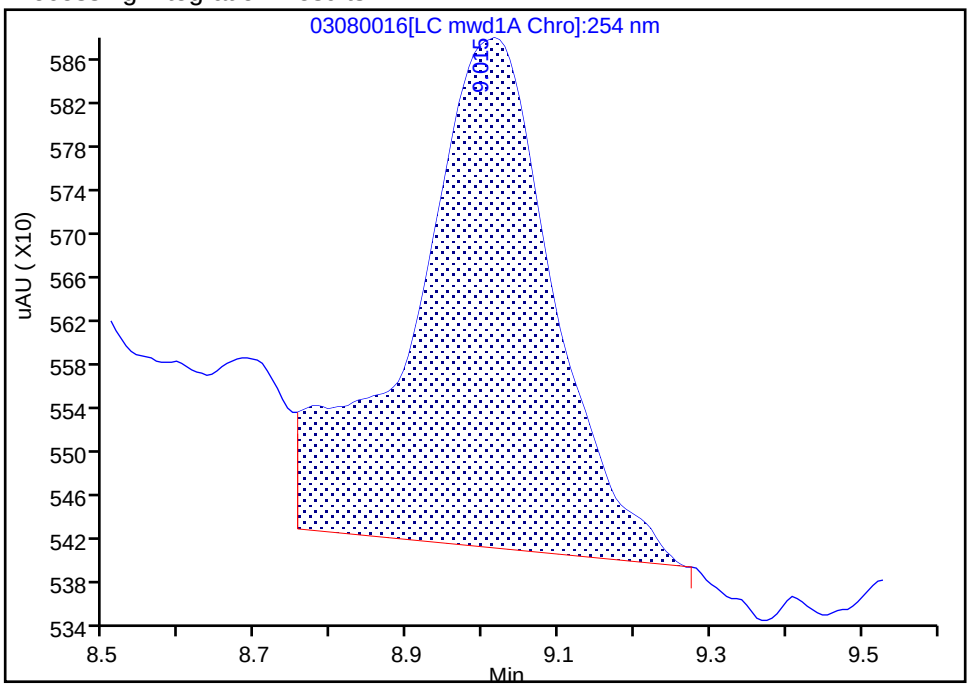
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080016.D | | | | |
| Injection Date: | 08-Mar-2022 21:53:46 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-2-A | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

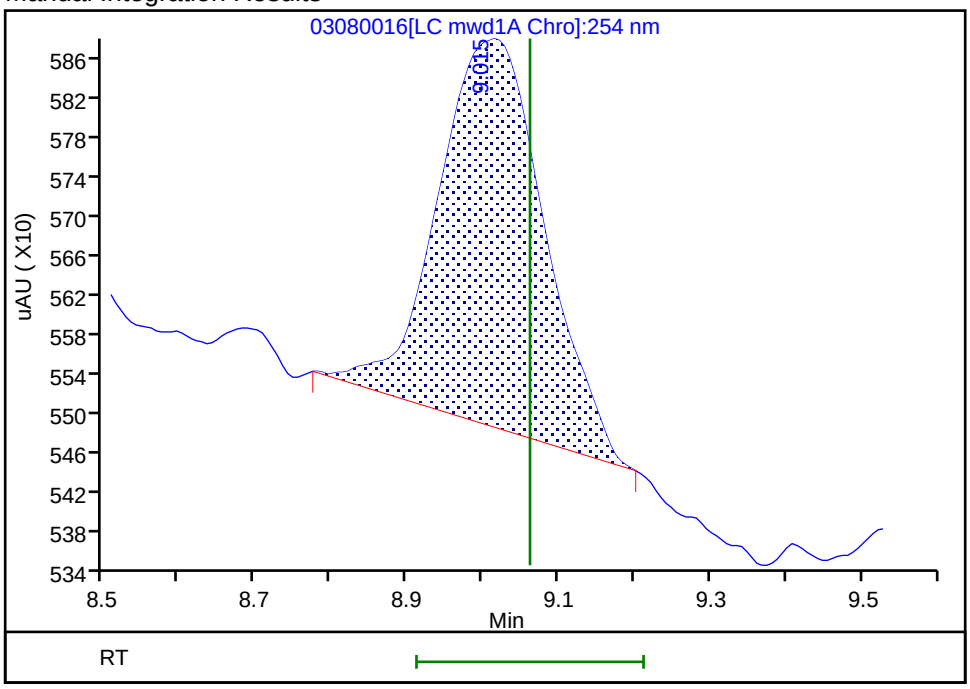
Processing Integration Results

RT: 9.02
Area: 6077
Amount: 0.031271
Amount Units: ug/ml




Manual Integration Results

RT: 9.02
Area: 3864
Amount: 0.019884
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:22:02
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: NW022-8 | Lab Sample ID: 280-159234-3

Matrix: Water | Lab File ID: 03080018.D

Analysis Method: 8330A | Date Collected: 02/28/2022 15:55

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 489.8(mL) | Date Analyzed: 03/08/2022 19:15

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.086 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.038 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.046 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.082 | U | 0.10 | 0.082 | 0.028 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.082 | U | 0.10 | 0.082 | 0.041 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.052 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.087 |
| 99-08-1 | 3-Nitrotoluene | 0.41 | U | 0.41 | 0.41 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.059 |
| 99-99-0 | 4-Nitrotoluene | 0.41 | U | 0.42 | 0.41 | 0.10 |
| 2691-41-0 | HMX | 0.20 | U M | 0.21 | 0.20 | 0.089 |
| 5755-27-1 | MNX | 0.41 | U | 2.0 | 0.41 | 0.16 |
| 98-95-3 | Nitrobenzene | 0.20 | U M | 0.21 | 0.20 | 0.093 |
| 121-82-4 | RDX | 0.20 | U | 0.21 | 0.20 | 0.053 |
| 479-45-8 | Tetryl | 0.10 | U M | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 105 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080018.D
Lims ID: 280-159234-K-3-A
Client ID: NW022-8
Sample Type: Client
Inject. Date: 08-Mar-2022 19:15:00 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-K-3-A
Misc. Info.: 280-0109078-018
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 19:45:37

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.593 | | | ND | U |
| 7 MNX | 1 | | 7.207 | | | ND | |
| 8 RDX | 1 | | 7.579 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.518 | 8.519 | -0.001 | 26192 | 0.2100 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | U |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.052 | | | ND | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

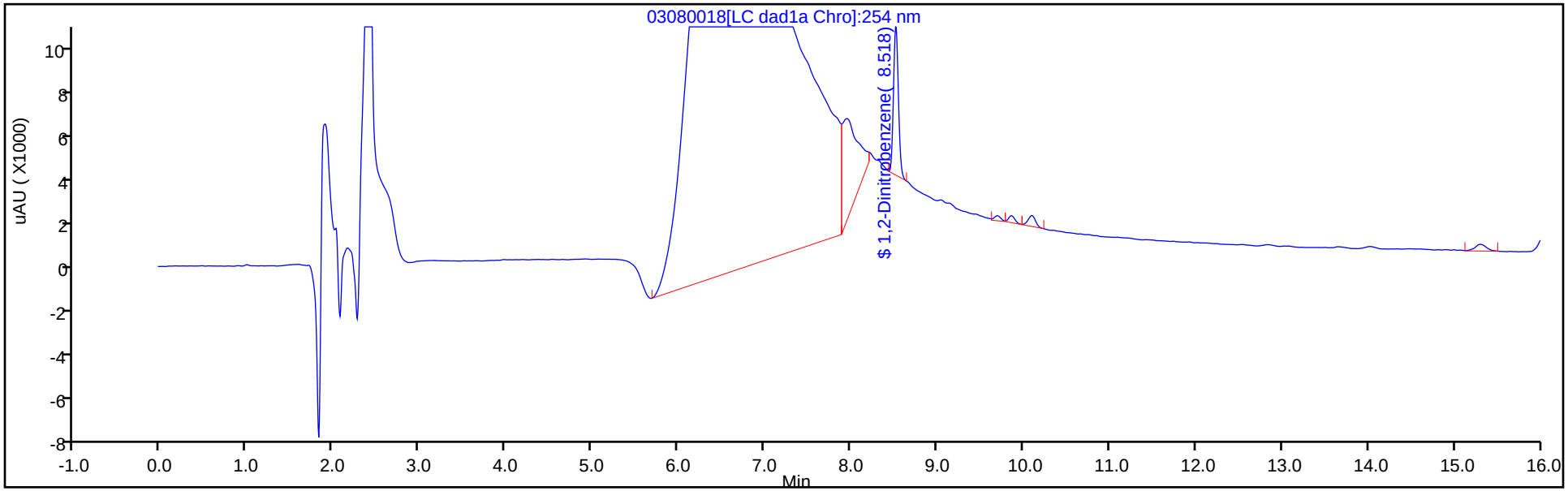
Report Date: 09-Mar-2022 13:15:36 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

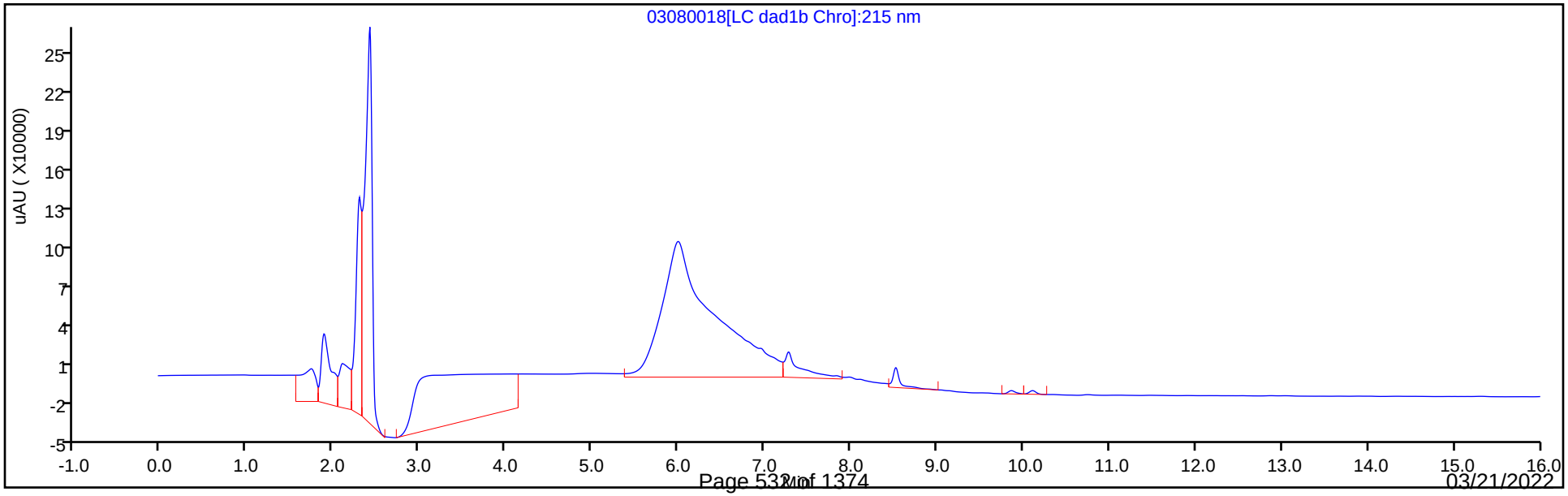
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080018.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 19:15:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-K-3-A | Lab Sample ID: | 280-159234-3 | Worklist Smp#: | 18 |
| Client ID: | NW022-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080018.D | | | | |
| Lims ID: | 280-159234-K-3-A | | | | |
| Client ID: | NW022-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 19:15:00 | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-K-3-A | | | | |
| Misc. Info.: | 280-0109078-018 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 19:45:37

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2100 | 105.02 |

Manual Integration/User Assign Peak Report

Eurofins Denver

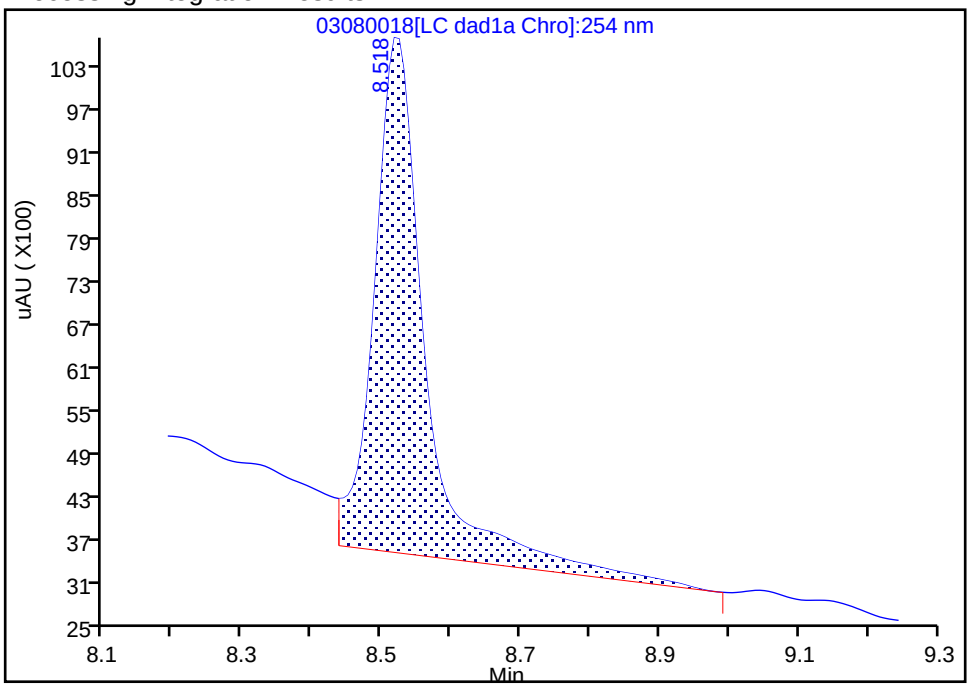
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080018.d | | | | |
| Injection Date: | 08-Mar-2022 19:15:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-3-A | Lab Sample ID: | 280-159234-3 | | |
| Client ID: | NW022-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

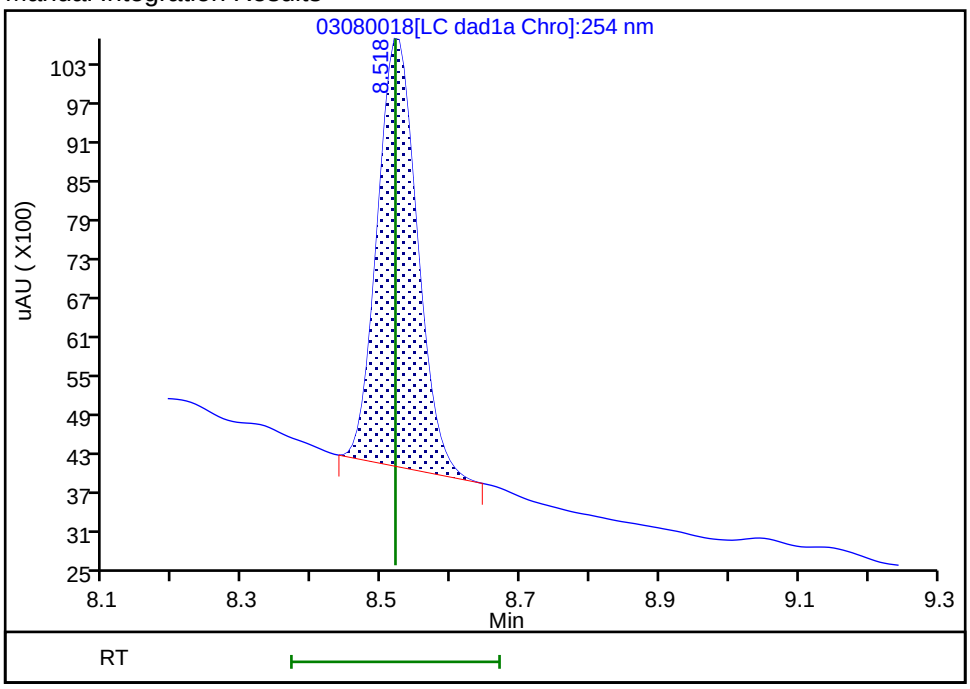
Processing Integration Results

RT: 8.52
Area: 36623
Amount: 0.293694
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 26192
Amount: 0.210044
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 19:45:35

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

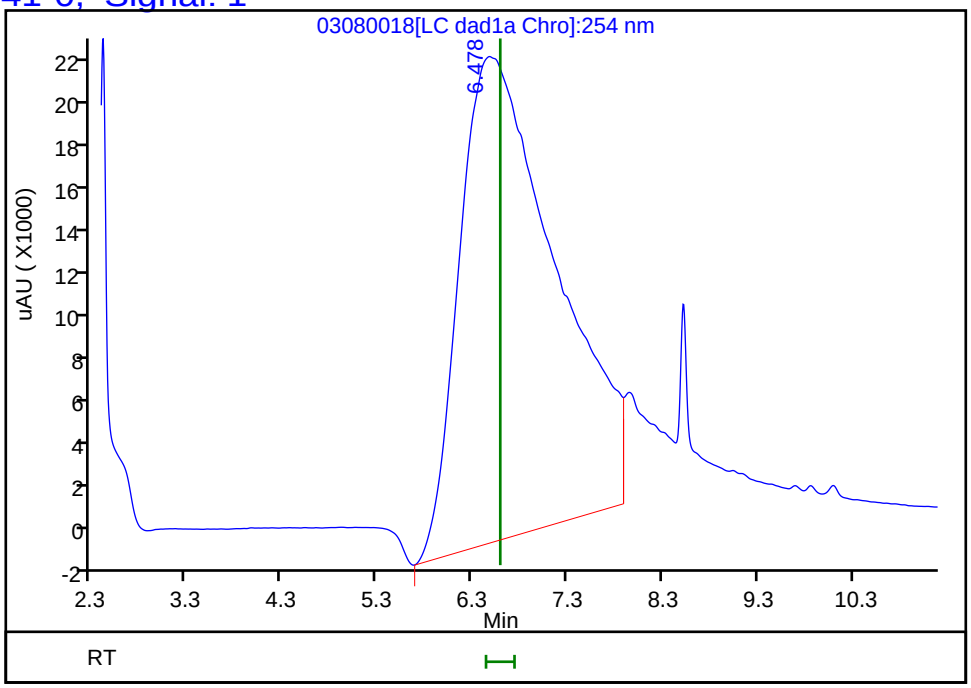
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080018.d
Injection Date: 08-Mar-2022 19:15:00 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-K-3-A Lab Sample ID: 280-159234-3
Client ID: NW022-8
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.48
Response: 1571323
Amount: 18.744787




Reviewer: zhangji, 08-Mar-2022 19:45:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

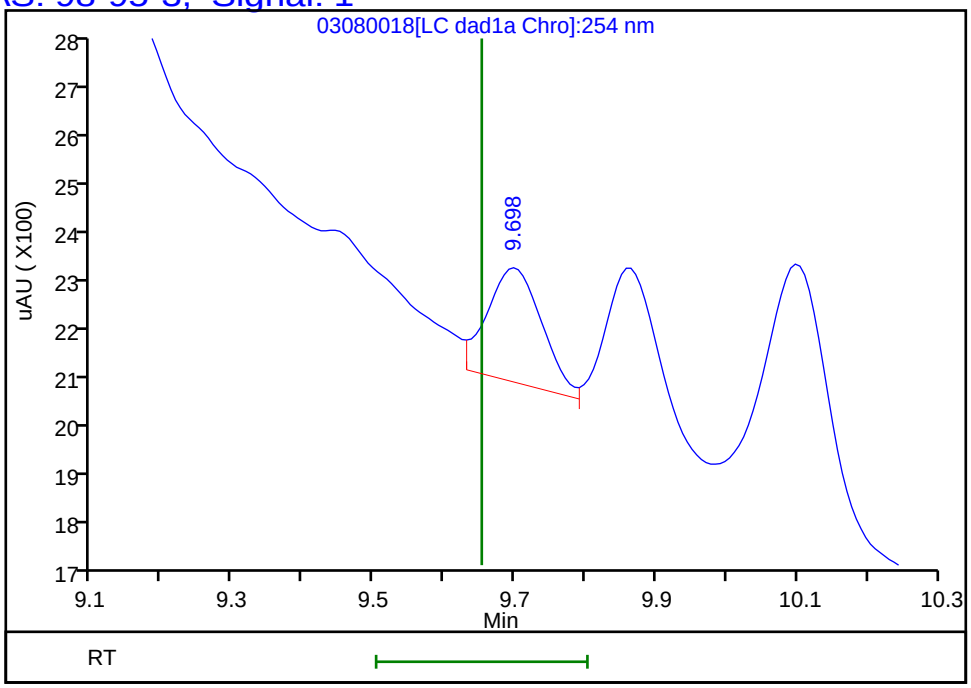
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080018.d | | | | |
| Injection Date: | 08-Mar-2022 19:15:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-3-A | Lab Sample ID: | 280-159234-3 | | |
| Client ID: | NW022-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.70
Response: 1190
Amount: 0.006199




Reviewer: zhangji, 08-Mar-2022 19:45:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

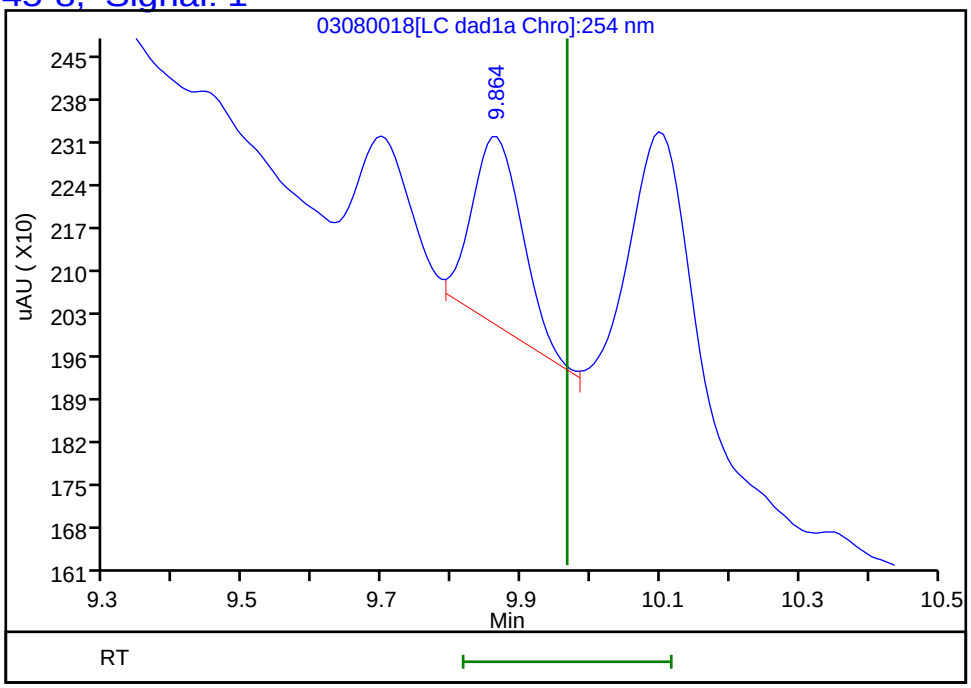
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080018.d
Injection Date: 08-Mar-2022 19:15:00 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-K-3-A Lab Sample ID: 280-159234-3
Client ID: NW022-8
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.86
Response: 1550
Amount: 0.009087




Reviewer: zhangji, 08-Mar-2022 19:45:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0079-8 | Lab Sample ID: 280-159234-4

Matrix: Water | Lab File ID: 03080019.D

Analysis Method: 8330A | Date Collected: 03/01/2022 09:10

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 462.1(mL) | Date Analyzed: 03/08/2022 19:37

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.22 | U | 0.23 | 0.22 | 0.091 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.049 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.087 | U | 0.11 | 0.087 | 0.030 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.087 | U | 0.11 | 0.087 | 0.043 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.055 |
| 88-72-2 | 2-Nitrotoluene | 0.22 | U | 0.23 | 0.22 | 0.093 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.16 | 0.13 | 0.062 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U M | 0.44 | 0.43 | 0.11 |
| 2691-41-0 | HMX | 0.22 | U | 0.23 | 0.22 | 0.095 |
| 5755-27-1 | MNX | 0.43 | U | 2.2 | 0.43 | 0.17 |
| 98-95-3 | Nitrobenzene | 0.22 | U | 0.23 | 0.22 | 0.098 |
| 121-82-4 | RDX | 0.22 | U | 0.23 | 0.22 | 0.056 |
| 479-45-8 | Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080019.D
Lims ID: 280-159234-J-4-A
Client ID: G0079-8
Sample Type: Client
Inject. Date: 08-Mar-2022 19:37:53 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-4-A
Misc. Info.: 280-0109078-019
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 20:28:24

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.593 | | | ND | |
| 7 MNX | 1 | | 7.207 | | | ND | |
| 8 RDX | 1 | | 7.579 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 24983 | 0.2003 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.052 | | | ND | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | U |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

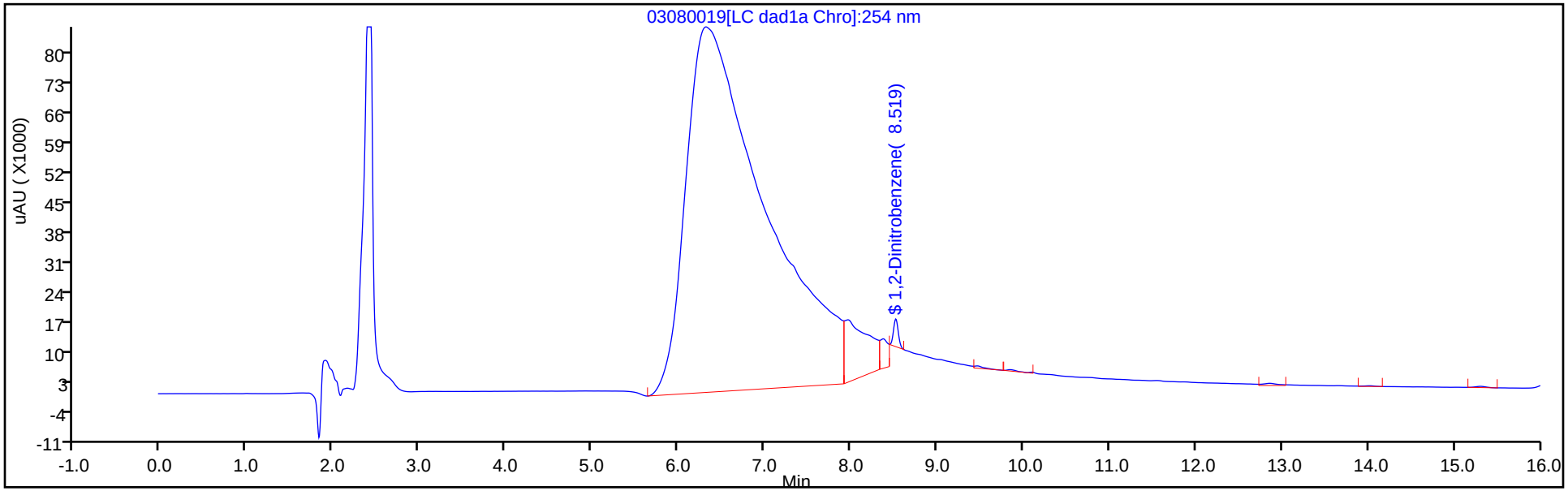
Report Date: 09-Mar-2022 13:15:37 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

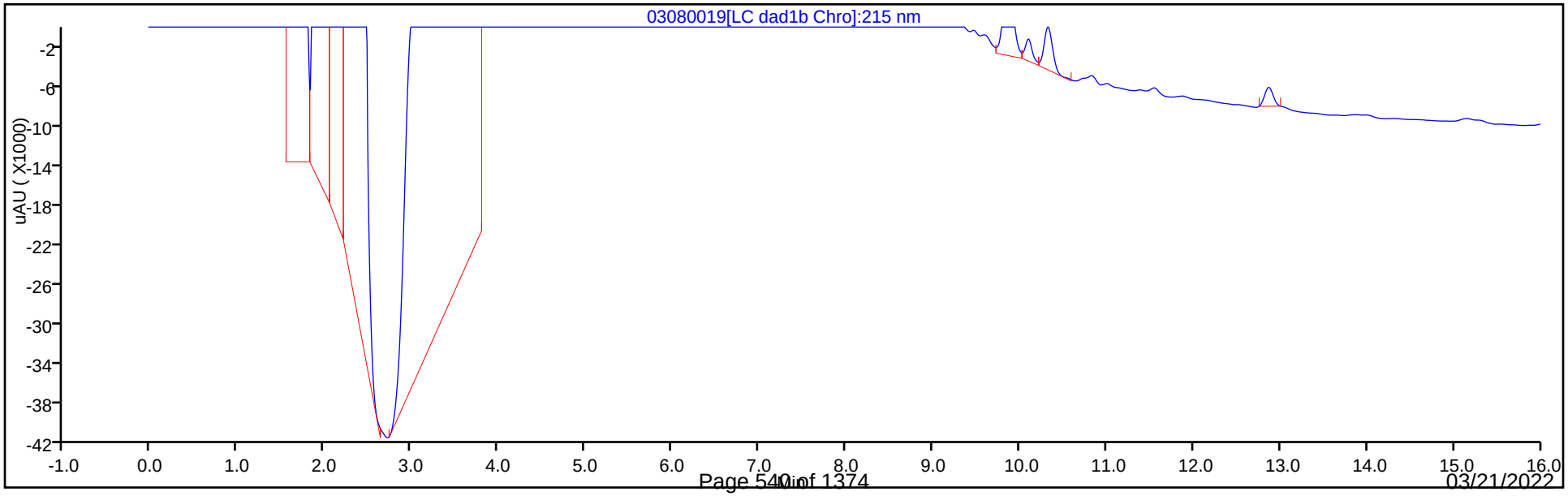
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080019.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 19:37:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-4-A | Lab Sample ID: | 280-159234-4 | Worklist Smp#: | 19 |
| Client ID: | G0079-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080019.D | | | | |
| Lims ID: | 280-159234-J-4-A | | | | |
| Client ID: | G0079-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 19:37:53 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-4-A | | | | |
| Misc. Info.: | 280-0109078-019 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 20:28:24

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2003 | 100.17 |

Manual Integration/User Assign Peak Report

Eurofins Denver

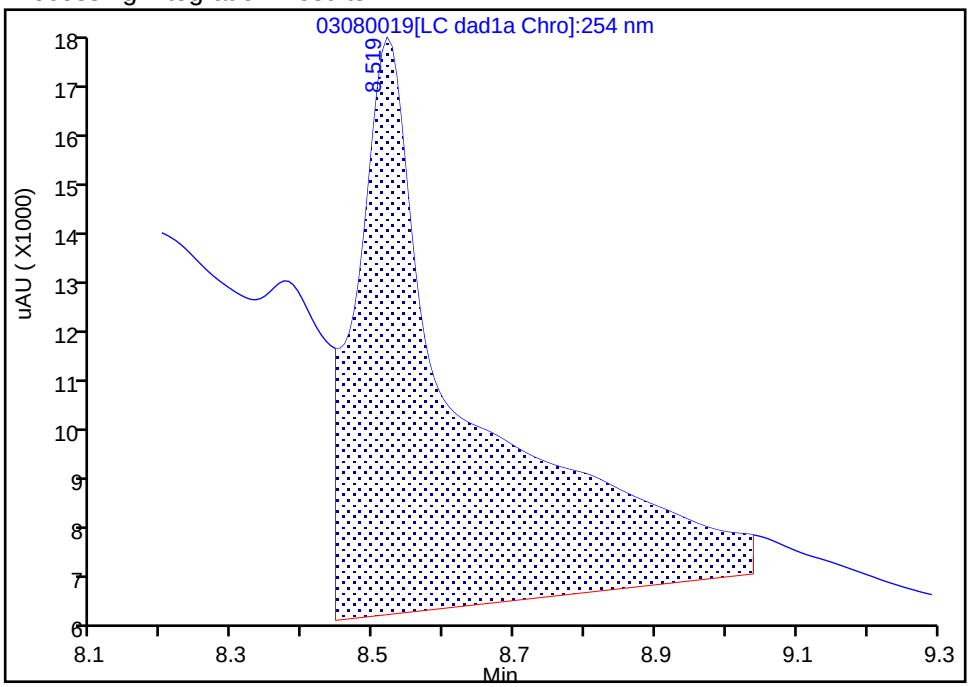
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080019.d | | | | |
| Injection Date: | 08-Mar-2022 19:37:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-4-A | Lab Sample ID: | 280-159234-4 | | |
| Client ID: | G0079-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

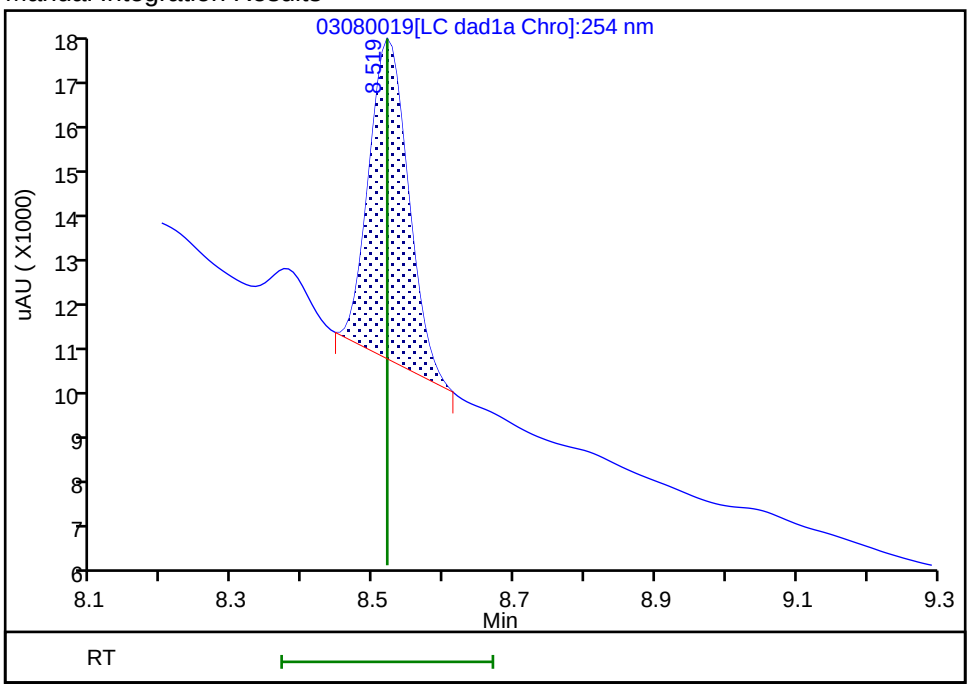
Processing Integration Results

RT: 8.52
Area: 122380
Amount: 0.981414
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 24983
Amount: 0.200349
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:28:23

Audit Action: Manually Integrated Audit Reason: Baseline

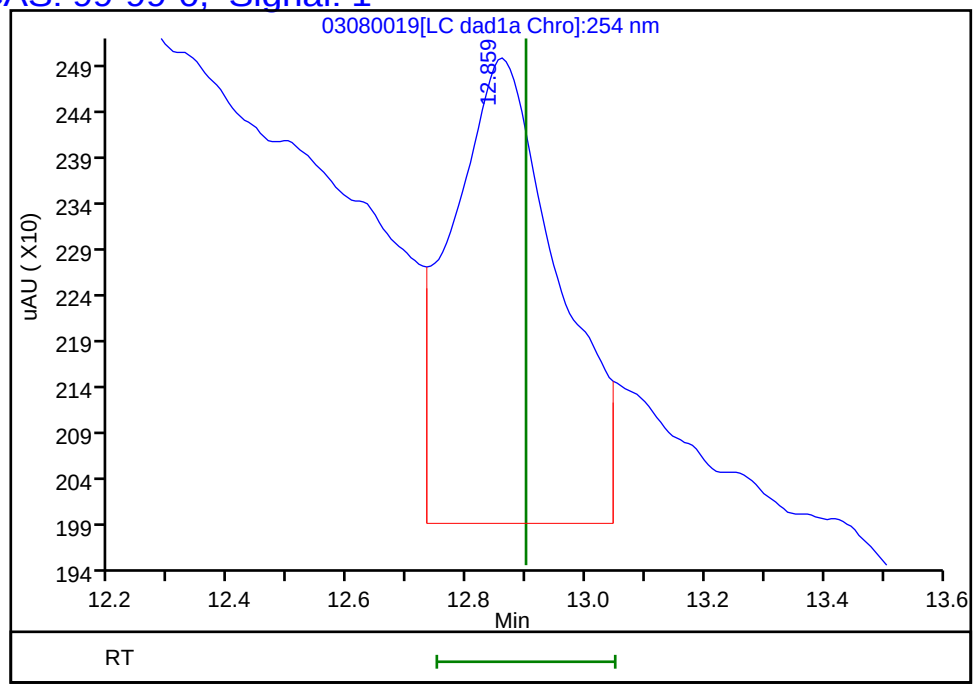
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080019.d | | | | |
| Injection Date: | 08-Mar-2022 19:37:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-4-A | Lab Sample ID: | 280-159234-4 | | |
| Client ID: | G0079-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 12.86
Response: 6196
Amount: 0.058323




Reviewer: zhangji, 08-Mar-2022 20:28:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

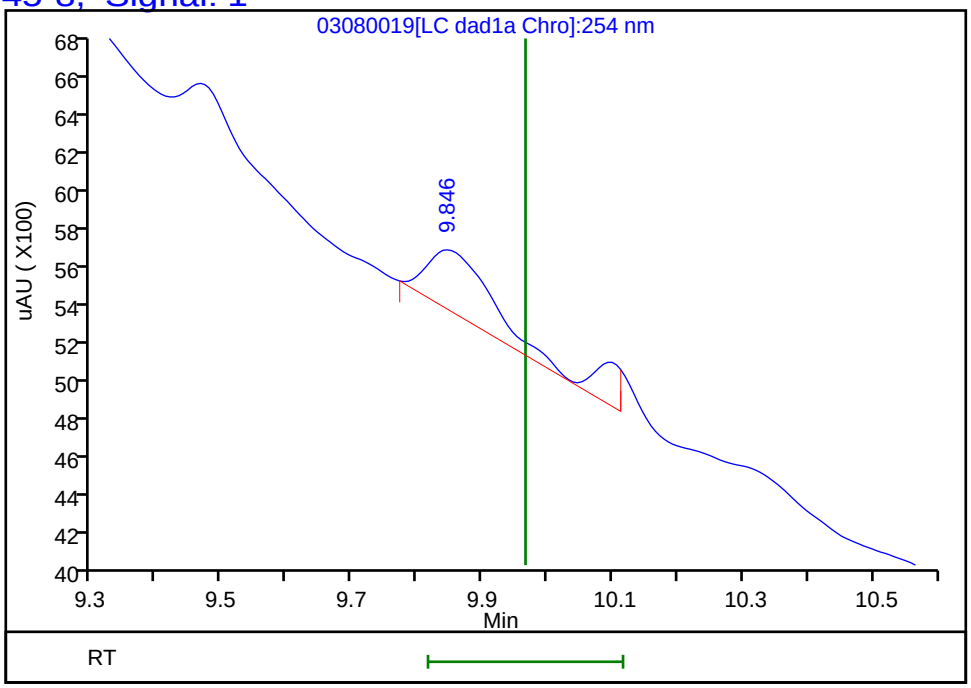
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080019.d | | | | |
| Injection Date: | 08-Mar-2022 19:37:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-4-A | Lab Sample ID: | 280-159234-4 | | |
| Client ID: | G0079-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.85
Response: 2909
Amount: 0.017055




Reviewer: zhangji, 08-Mar-2022 20:28:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0075-8 | Lab Sample ID: 280-159234-5

Matrix: Water | Lab File ID: 03080020.D

Analysis Method: 8330A | Date Collected: 03/01/2022 10:20

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 504.4(mL) | Date Analyzed: 03/08/2022 20:00

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.083 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.099 | U | 0.11 | 0.099 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.079 | U | 0.099 | 0.079 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.079 | U | 0.099 | 0.079 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.88 | | 0.11 | 0.099 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.95 | | 0.15 | 0.12 | 0.057 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.099 |
| 2691-41-0 | HMX | 0.32 | M | 0.21 | 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 | 0.21 | 0.20 | 0.090 |
| 121-82-4 | RDX | 0.19 | J M | 0.21 | 0.20 | 0.051 |
| 479-45-8 | Tetryl | 0.099 | U M | 0.11 | 0.099 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 115 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080020.D
Lims ID: 280-159234-J-5-A
Client ID: G0075-8
Sample Type: Client
Inject. Date: 08-Mar-2022 20:00:56 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-5-A
Misc. Info.: 280-0109078-020
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 20:28:57

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.590 | 6.593 | -0.003 | 2707 | 0.0323 | M |
| 7 MNX | 1 | | 7.207 | | | ND | U |
| 8 RDX | 1 | 7.577 | 7.579 | -0.002 | 1935 | 0.0187 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.517 | 8.519 | -0.002 | 28607 | 0.2294 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | 9.270 | 9.266 | 0.004 | 1097 | 0.003804 | 7M |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.044 | 11.052 | -0.008 | 14444 | 0.0957 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.297 | 11.299 | -0.002 | 17985 | 0.0890 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | 7 |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

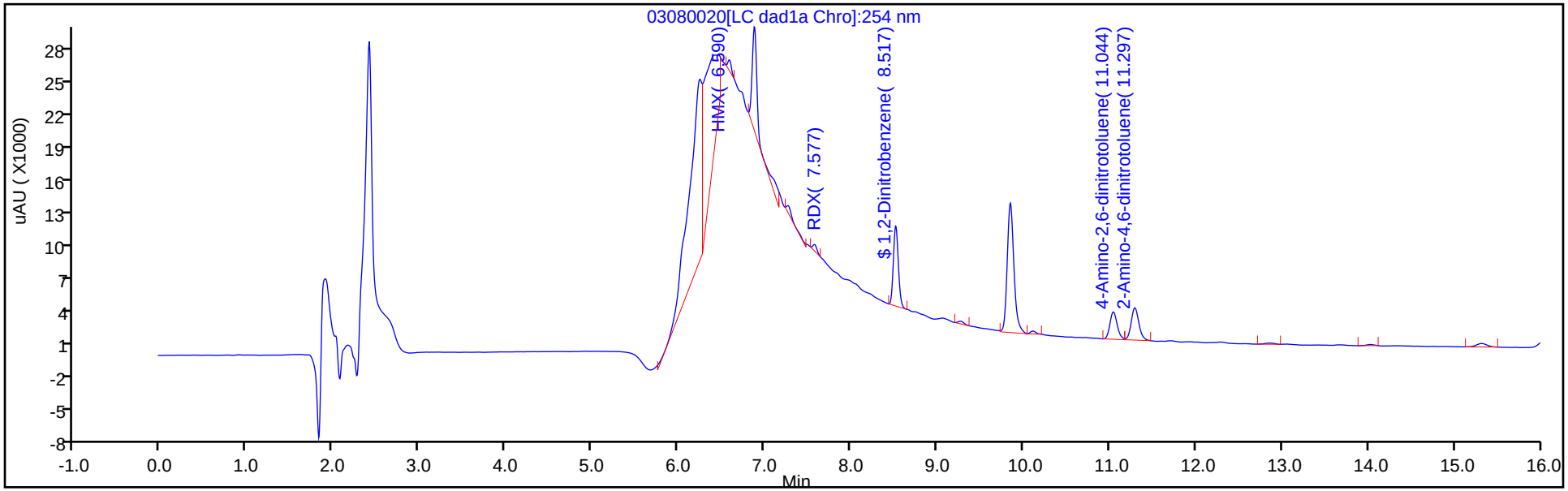
Report Date: 09-Mar-2022 13:15:37 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

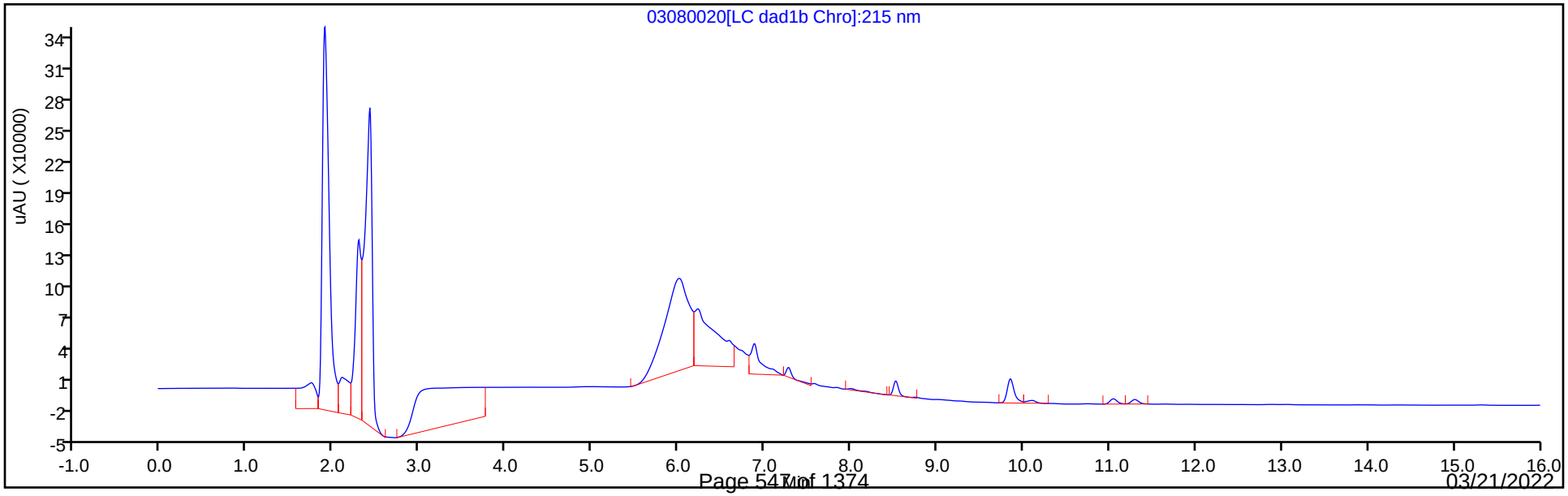
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | Worklist Smp#: | 20 |
| Client ID: | G0075-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080020.D | | | | |
| Lims ID: | 280-159234-J-5-A | | | | |
| Client ID: | G0075-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 20:00:56 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-5-A | | | | |
| Misc. Info.: | 280-0109078-020 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 20:28:57

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2294 | 114.71 |

Manual Integration/User Assign Peak Report

Eurofins Denver

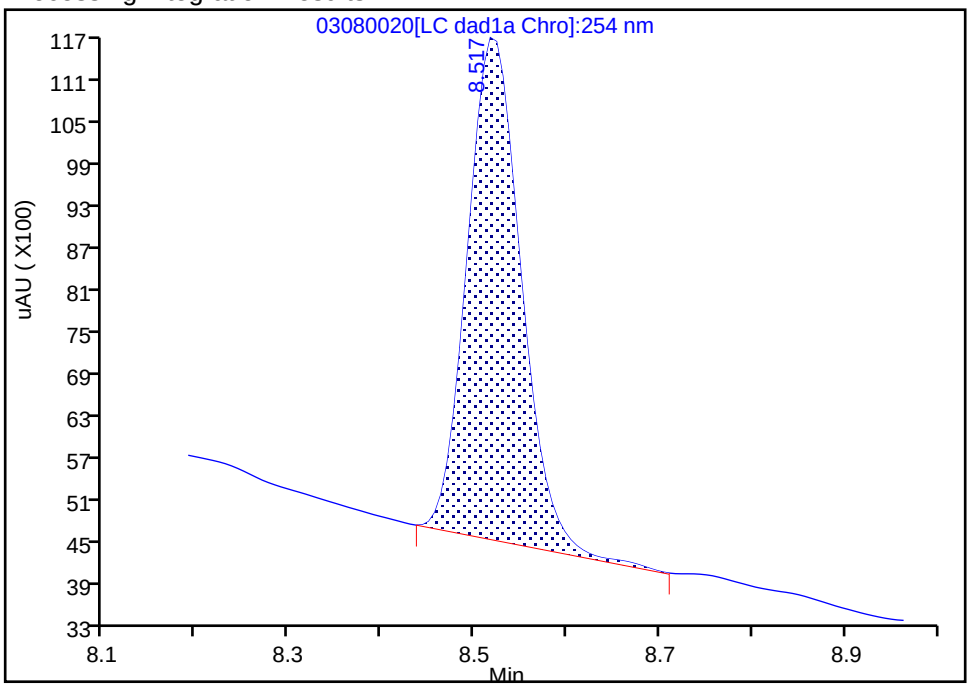
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d | | | | |
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

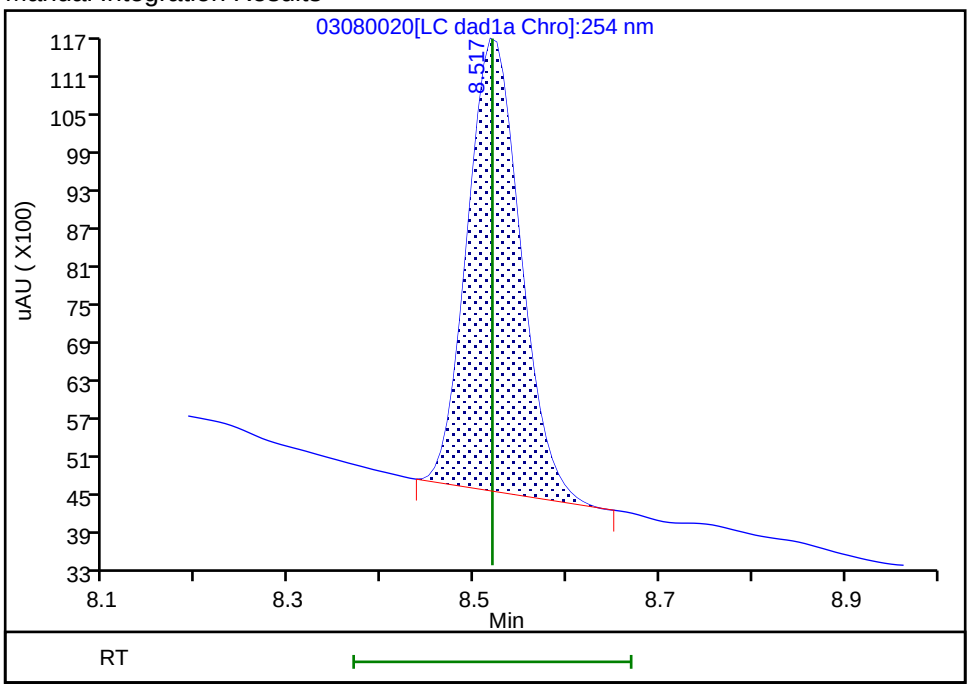
Processing Integration Results

RT: 8.52
Area: 29117
Amount: 0.233501
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 28607
Amount: 0.229411
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:28:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

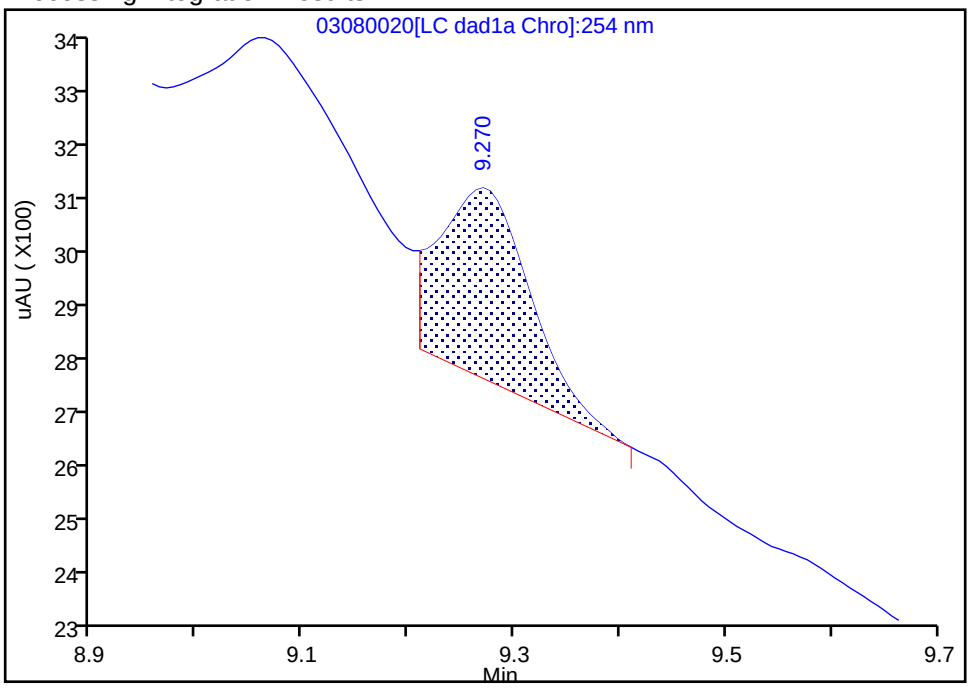
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d | | | | |
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

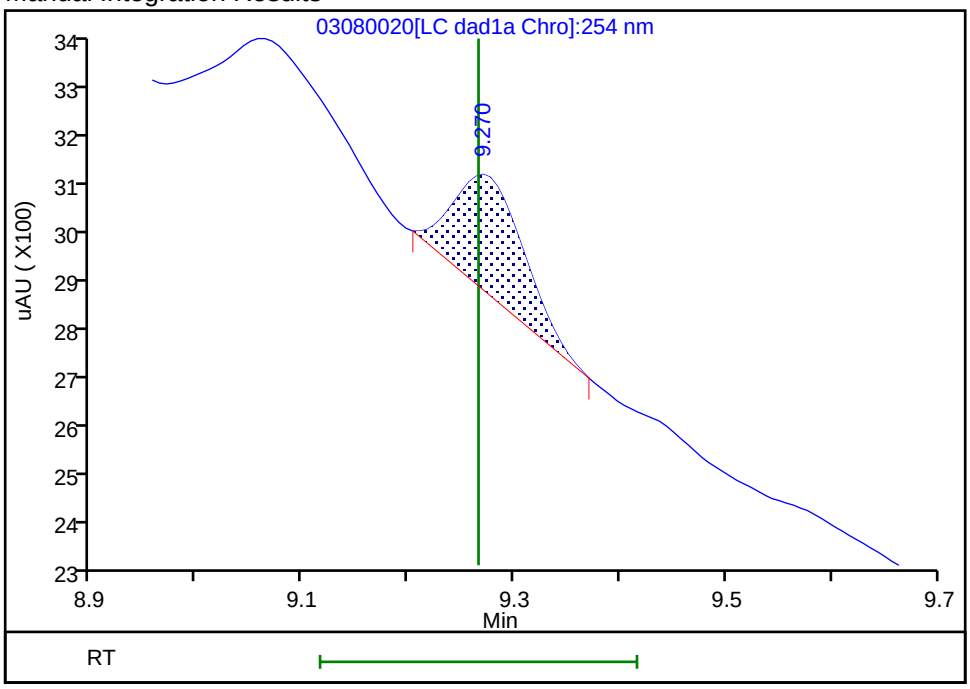
Processing Integration Results

RT: 9.27
Area: 2051
Amount: 0.007112
Amount Units: ug/mL




Manual Integration Results

RT: 9.27
Area: 1097
Amount: 0.003804
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:28:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

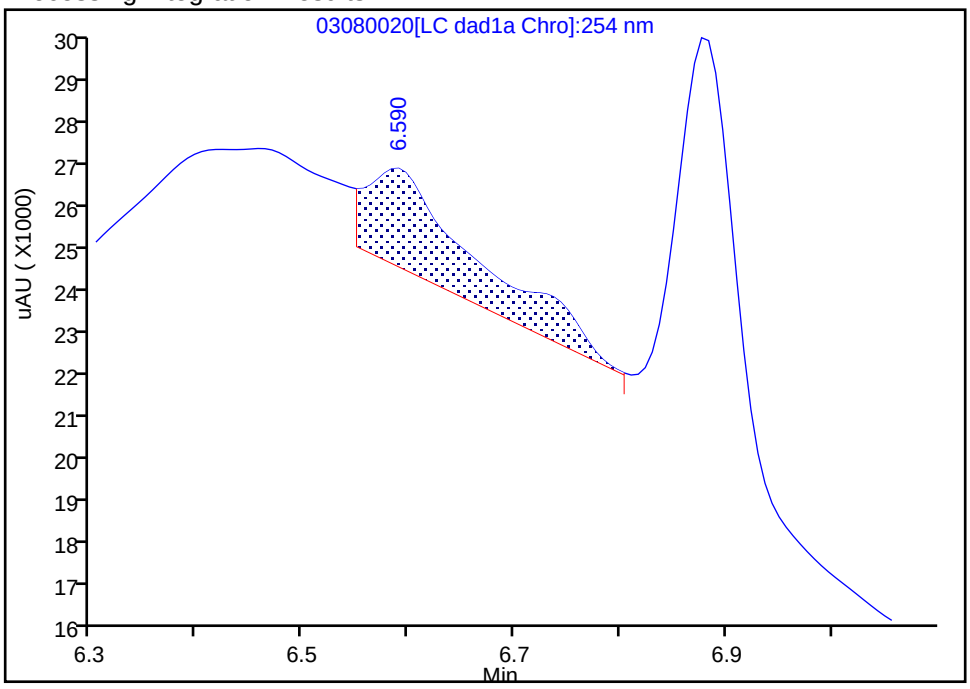
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d | | | | |
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

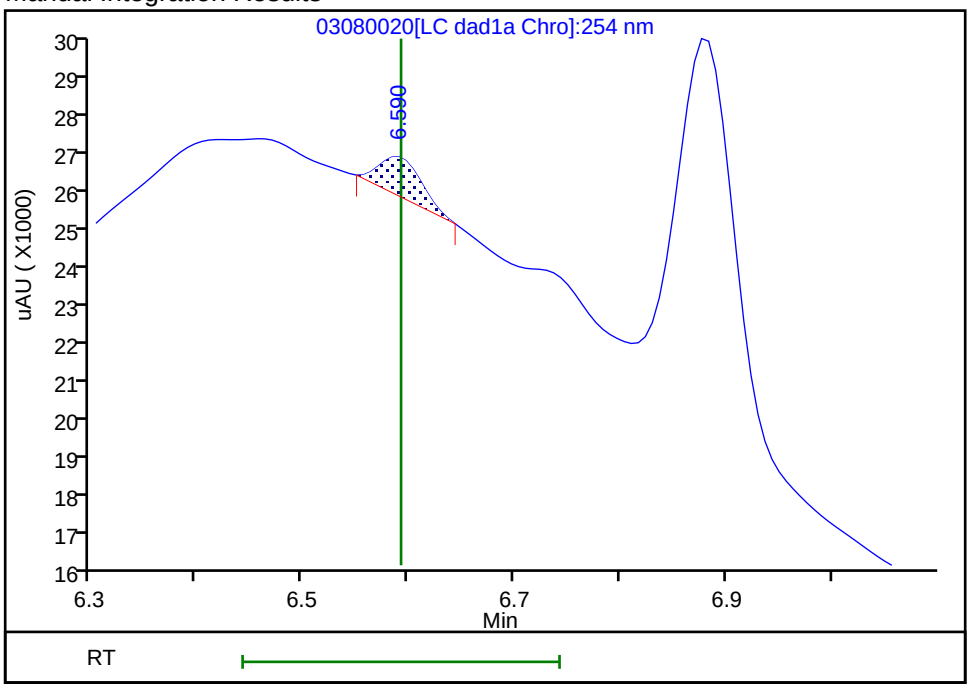
Processing Integration Results

RT: 6.59
Area: 16487
Amount: 0.196678
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 2707
Amount: 0.032293
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:28:38

Audit Action: Manually Integrated Audit Reason: Baseline

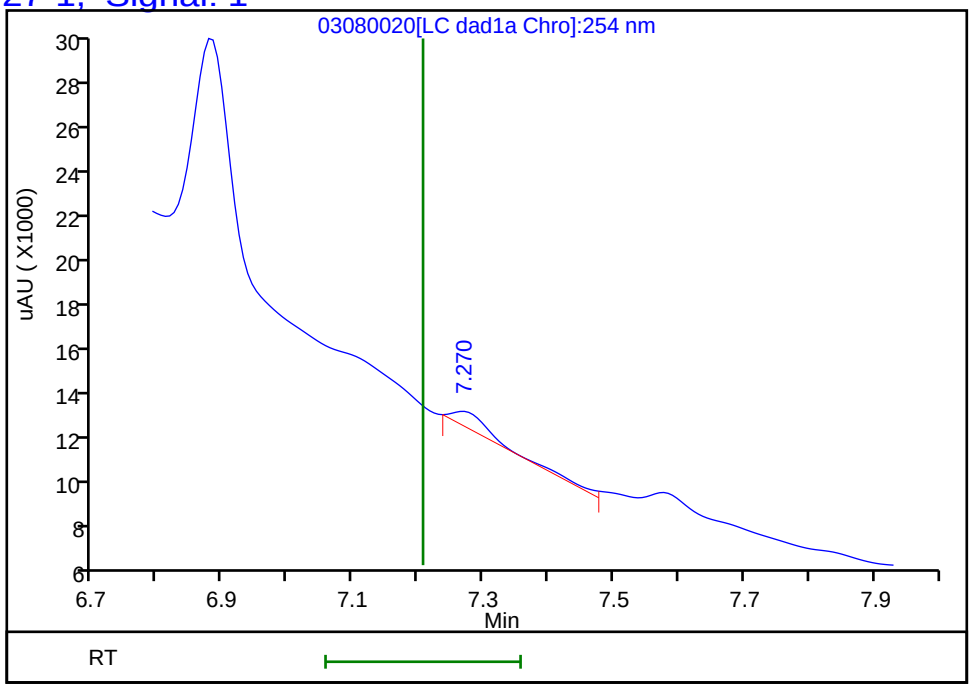
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d | | | | |
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.27
Response: 3042
Amount: 0.024144




Reviewer: zhangji, 08-Mar-2022 20:28:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

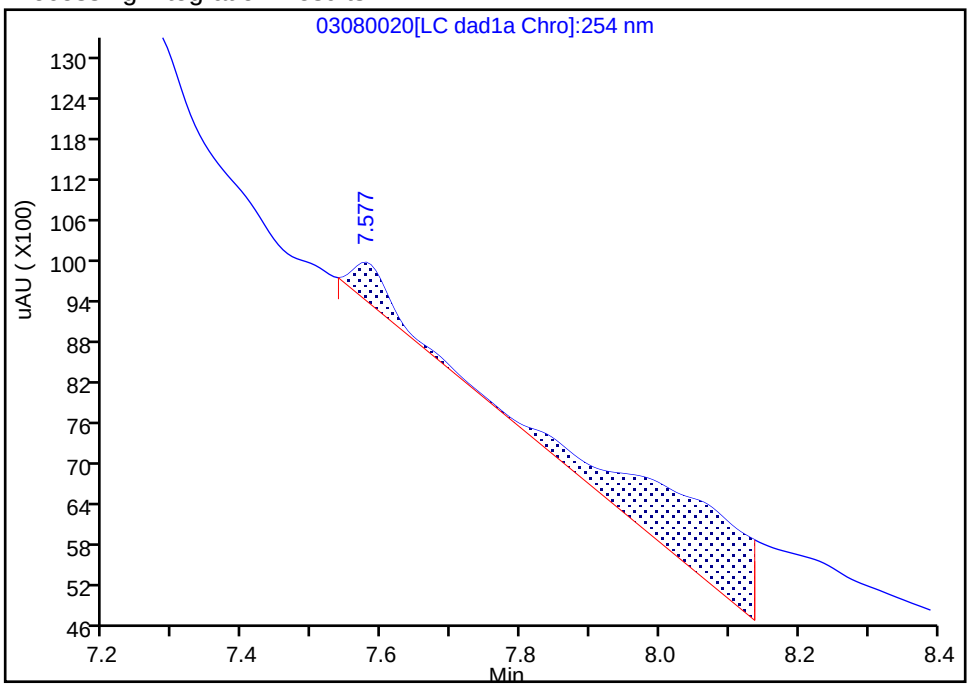
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d | | | | |
| Injection Date: | 08-Mar-2022 20:00:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

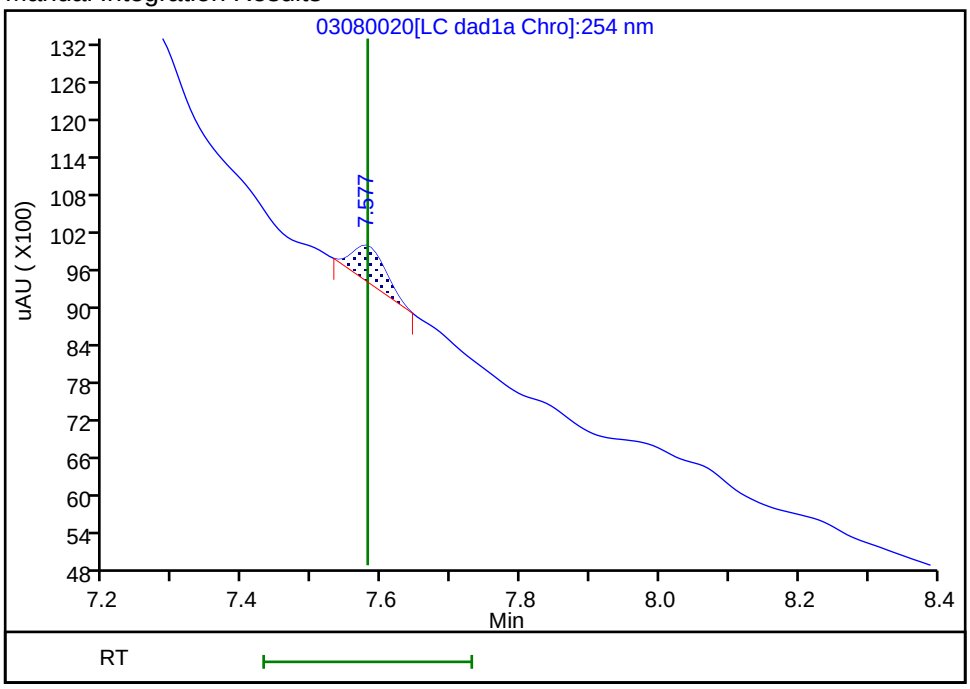
Processing Integration Results

RT: 7.58
Area: 15832
Amount: 0.152805
Amount Units: ug/mL




Manual Integration Results

RT: 7.58
Area: 1935
Amount: 0.018676
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:28:43

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

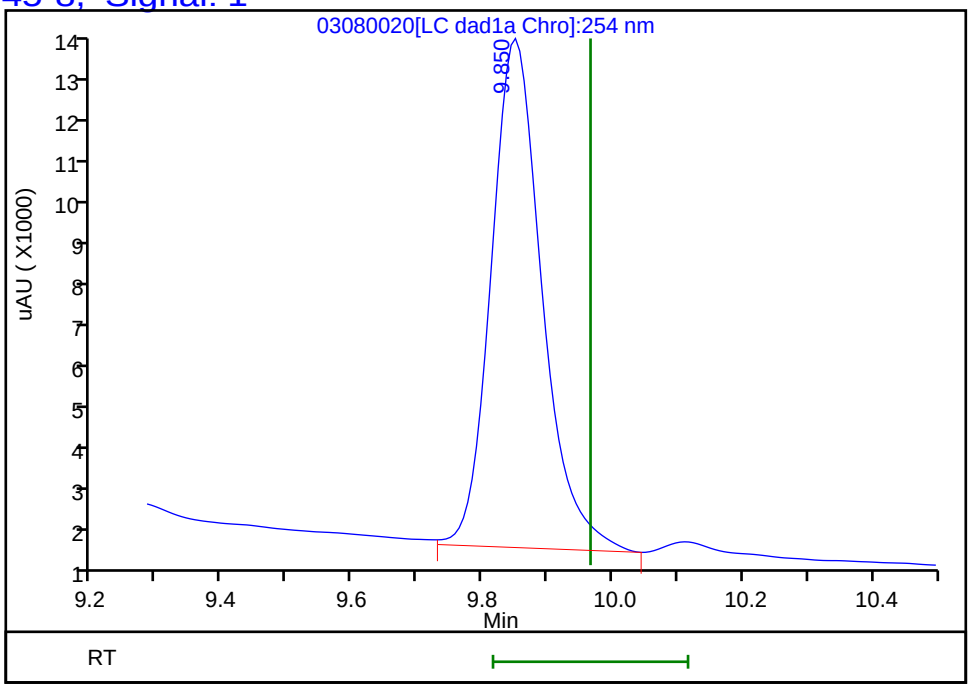
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080020.d
Injection Date: 08-Mar-2022 20:00:56 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-J-5-A Lab Sample ID: 280-159234-5
Client ID: G0075-8
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.85
Response: 62817
Amount: 0.368284




Reviewer: zhangji, 08-Mar-2022 20:28:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0075-8 | Lab Sample ID: 280-159234-5

Matrix: Water | Lab File ID: 03080019.D

Analysis Method: 8330A | Date Collected: 03/01/2022 10:20

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 504.4(mL) | Date Analyzed: 03/08/2022 23:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-65-0 | 1,3-Dinitrobenzene | 0.099 | U | 0.11 | 0.099 | 0.037 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 108 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080019.D
Lims ID: 280-159234-J-5-A
Client ID: G0075-8
Sample Type: Client
Inject. Date: 08-Mar-2022 23:38:58 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-5-A
Misc. Info.: 280-0109079-019
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:07 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:22:38

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.829 | 6.875 | -0.046 | 4542 | 0.0273 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | |
| | 8 RDX | 1 | 9.002 | 9.062 | -0.060 | 4791 | 0.0247 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.069 | 13.089 | -0.020 | 53838 | 0.2156 | |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | 7 |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.475 | 17.469 | 0.006 | 28312 | 0.1062 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.489 | 18.482 | 0.007 | 30639 | 0.0850 | |
| | 20 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | | 24.922 | | | ND | |

## QC Flag Legend

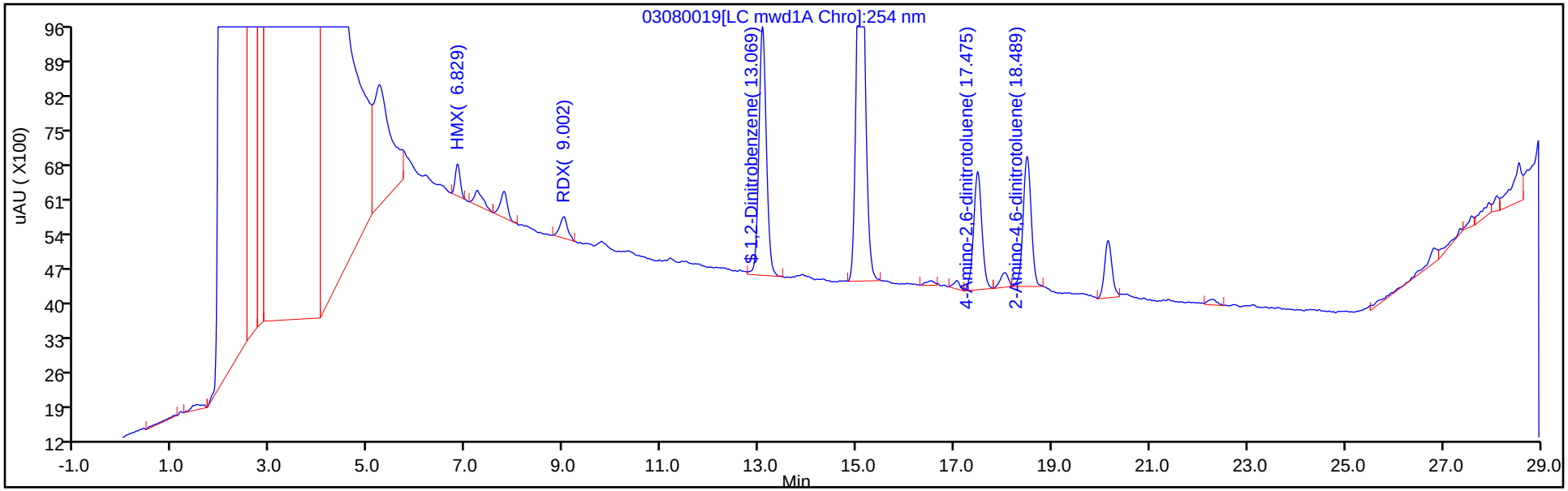
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 09-Mar-2022 19:28:09 Chrom Revision: 2.3 16-Feb-2022 17:52:00

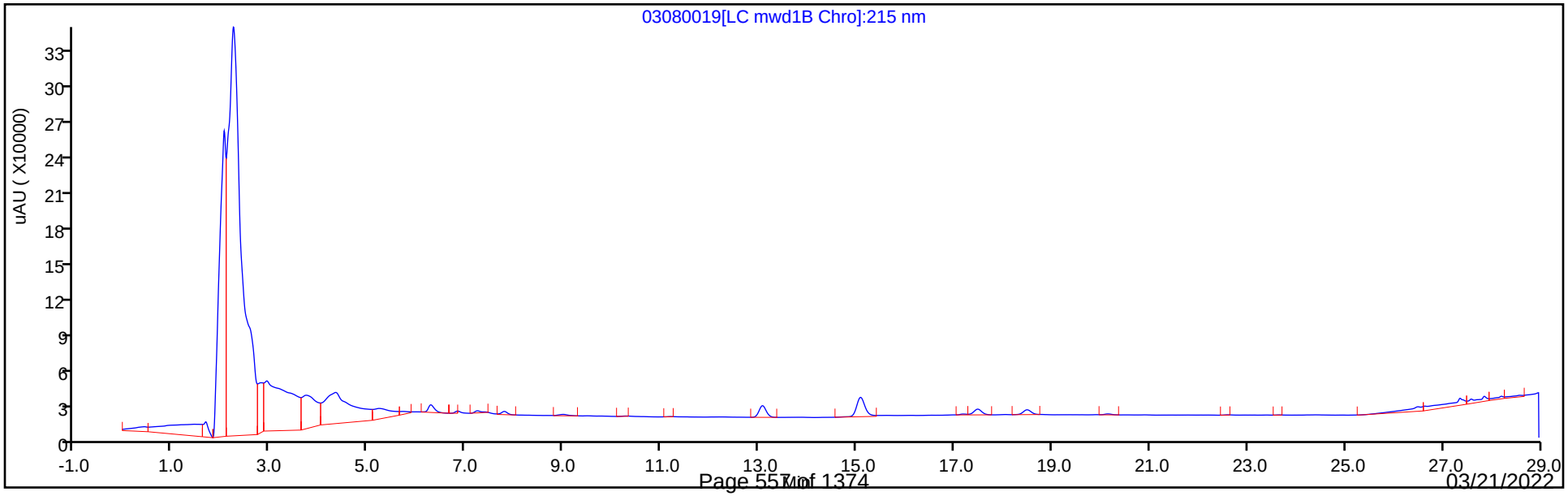
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080019.D | | | | |
| Injection Date: | 08-Mar-2022 23:38:58 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | Worklist Smp#: | 19 |
| Client ID: | G0075-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080019.D | | | | |
| Lims ID: | 280-159234-J-5-A | | | | |
| Client ID: | G0075-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 23:38:58 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-5-A | | | | |
| Misc. Info.: | 280-0109079-019 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:07 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:22:38 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2156 | 107.78 |

Manual Integration/User Assign Peak Report

Eurofins Denver

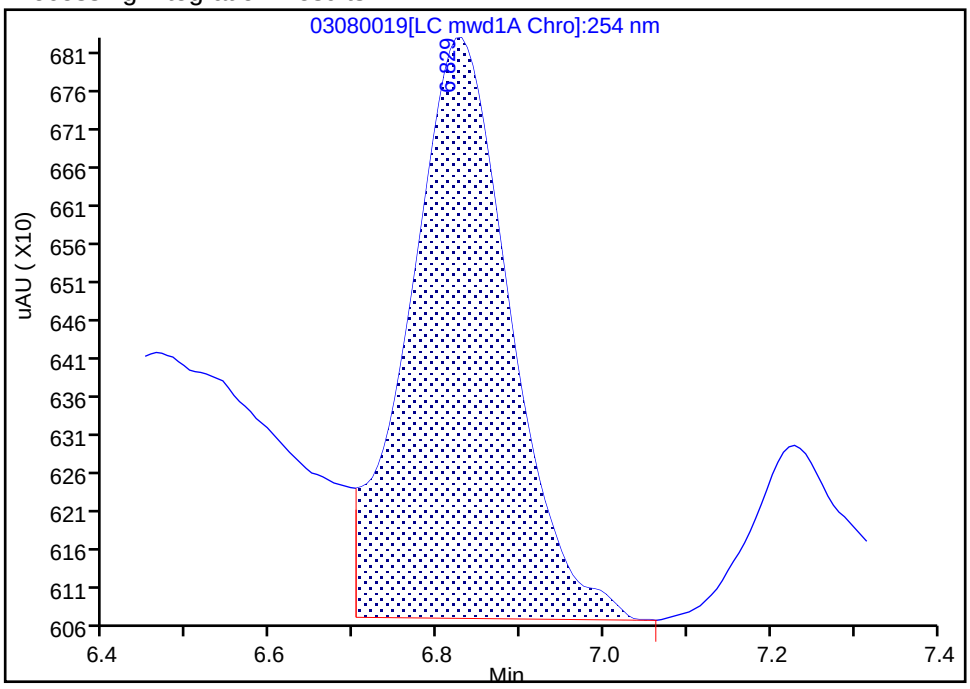
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080019.D | | | | |
| Injection Date: | 08-Mar-2022 23:38:58 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

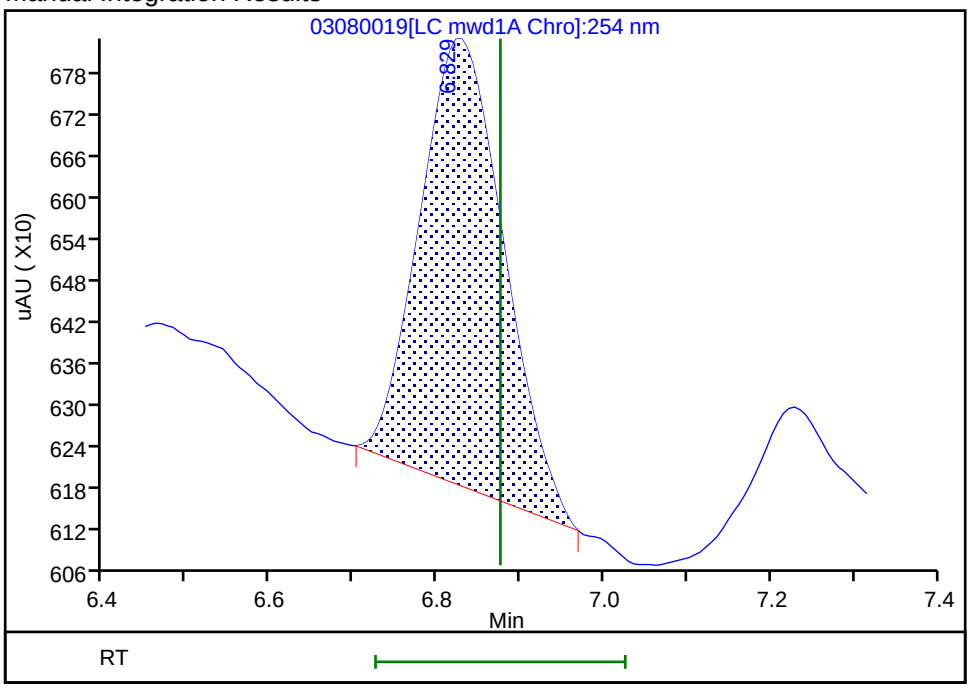
Processing Integration Results

RT: 6.83
Area: 6394
Amount: 0.038487
Amount Units: ug/ml




Manual Integration Results

RT: 6.83
Area: 4542
Amount: 0.027339
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:22:28

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

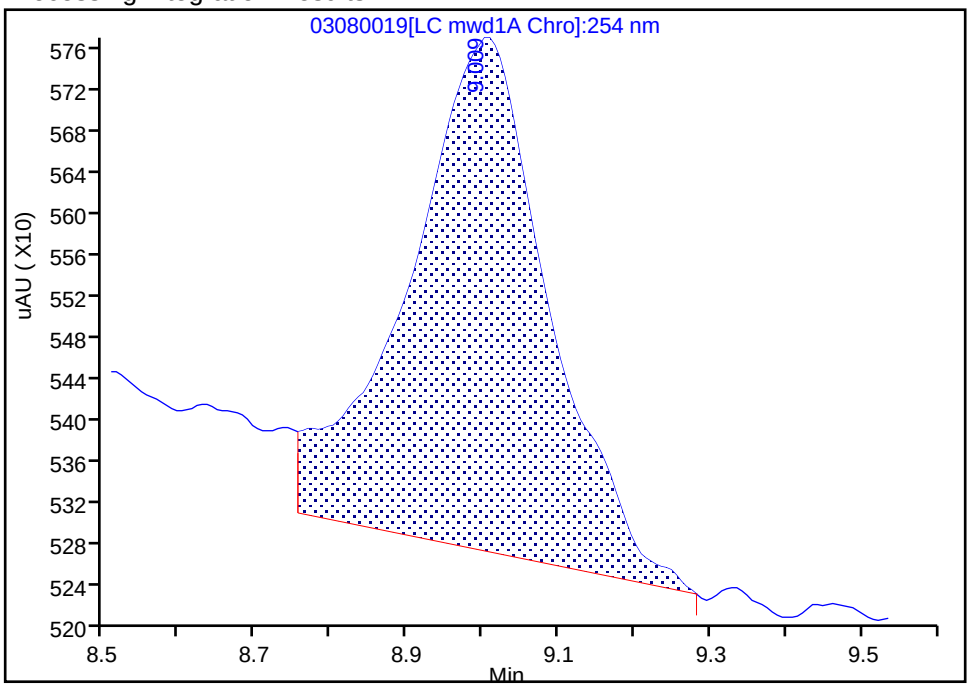
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080019.D | | | | |
| Injection Date: | 08-Mar-2022 23:38:58 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-5-A | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

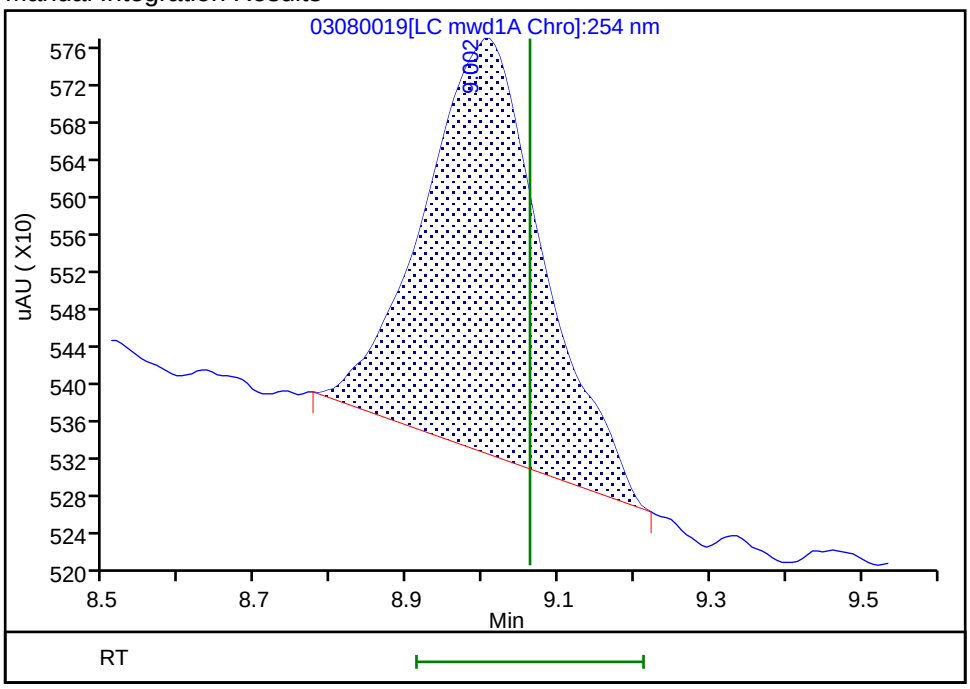
Processing Integration Results

RT: 9.01
Area: 6344
Amount: 0.032645
Amount Units: ug/ml




Manual Integration Results

RT: 9.00
Area: 4791
Amount: 0.024654
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:22:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0076-8 | Lab Sample ID: 280-159234-6

Matrix: Water | Lab File ID: 03080024.D

Analysis Method: 8330A | Date Collected: 03/01/2022 11:30

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 501.6(mL) | Date Analyzed: 03/08/2022 21:32

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 0.20 | U M | 0.21 | 0.20 | 0.087 |
| 5755-27-1 | MNX | 0.40 | U | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 0.20 | U | 0.21 | 0.20 | 0.051 |
| 479-45-8 | Tetryl | 0.10 | U M | 0.11 | 0.10 | 0.032 |

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080024.D
Lims ID: 280-159234-J-6-A
Client ID: G0076-8
Sample Type: Client
Inject. Date: 08-Mar-2022 21:32:39 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-6-A
Misc. Info.: 280-0109078-024
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:41:10

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 4 HMX | 1 | | 6.593 | | | ND | U |
| | 7 MNX | 1 | | 7.207 | | | ND | |
| | 8 RDX | 1 | | 7.579 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 8.515 | 8.519 | -0.004 | 24733 | 0.1983 | M |
| | 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| | 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| | 13 Nitrobenzene | 1 | | 9.652 | | | ND | 7 |
| | 15 Tetryl | 1 | | 9.966 | | | ND | U |
| | 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| | 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.052 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | ND | |
| | 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| | 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| | 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| | 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| | 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

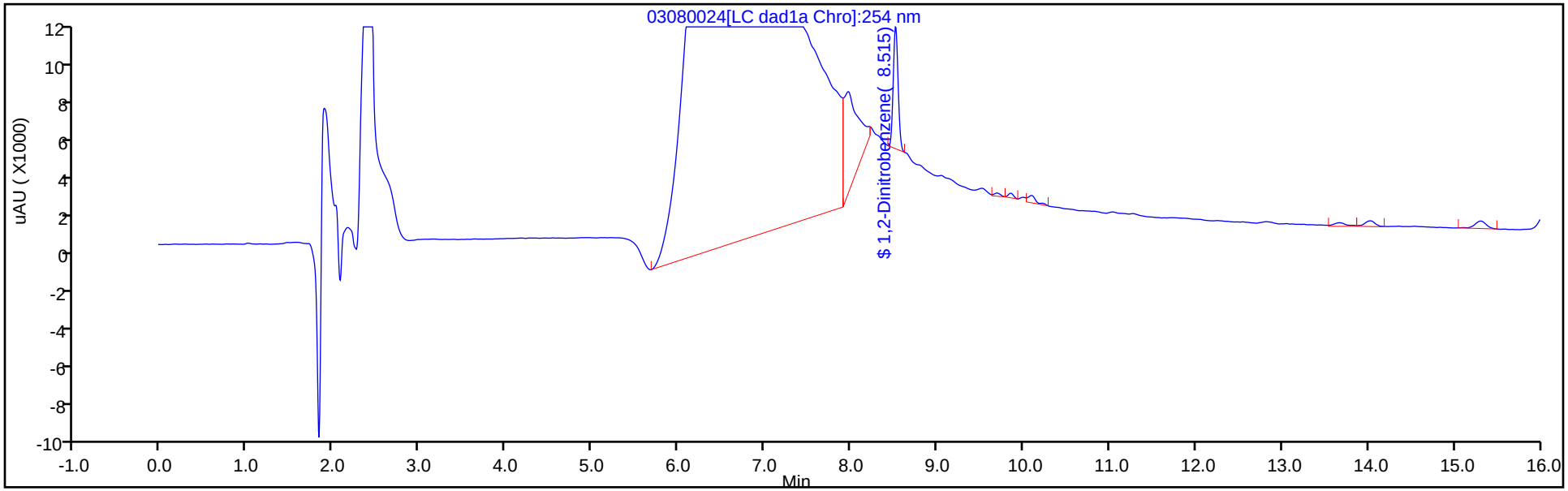
Report Date: 09-Mar-2022 13:15:40 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

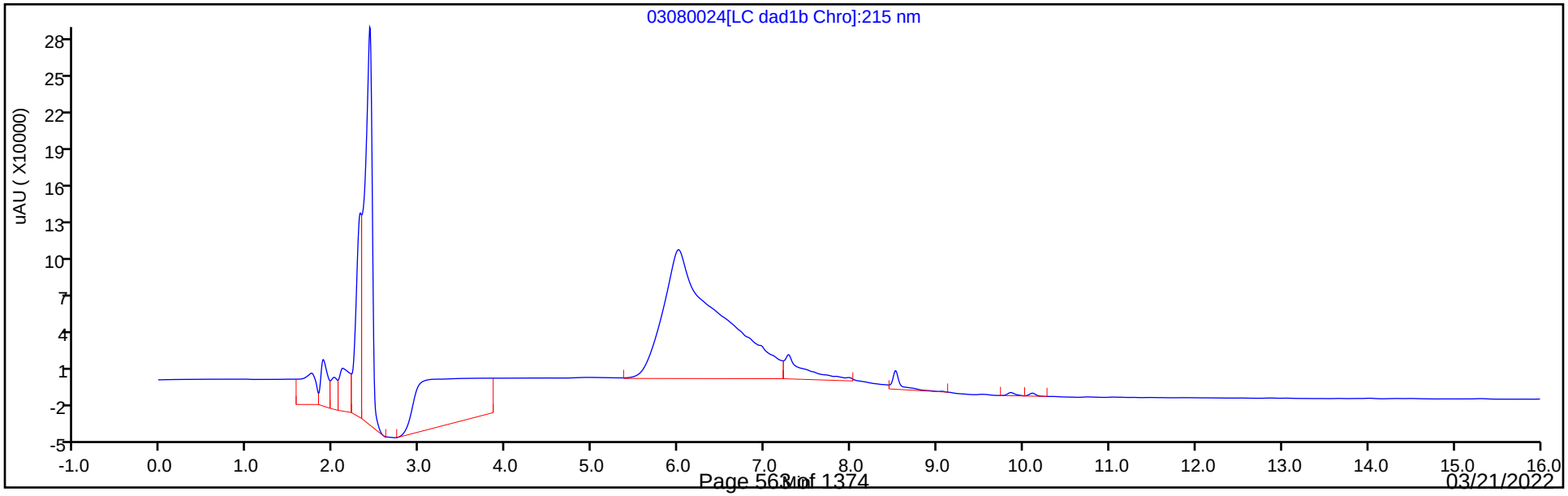
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080024.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 21:32:39 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-6-A | Lab Sample ID: | 280-159234-6 | Worklist Smp#: | 24 |
| Client ID: | G0076-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080024.D | | | | |
| Lims ID: | 280-159234-J-6-A | | | | |
| Client ID: | G0076-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 21:32:39 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-6-A | | | | |
| Misc. Info.: | 280-0109078-024 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 12:41:10 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1983 | 99.17 |

Manual Integration/User Assign Peak Report

Eurofins Denver

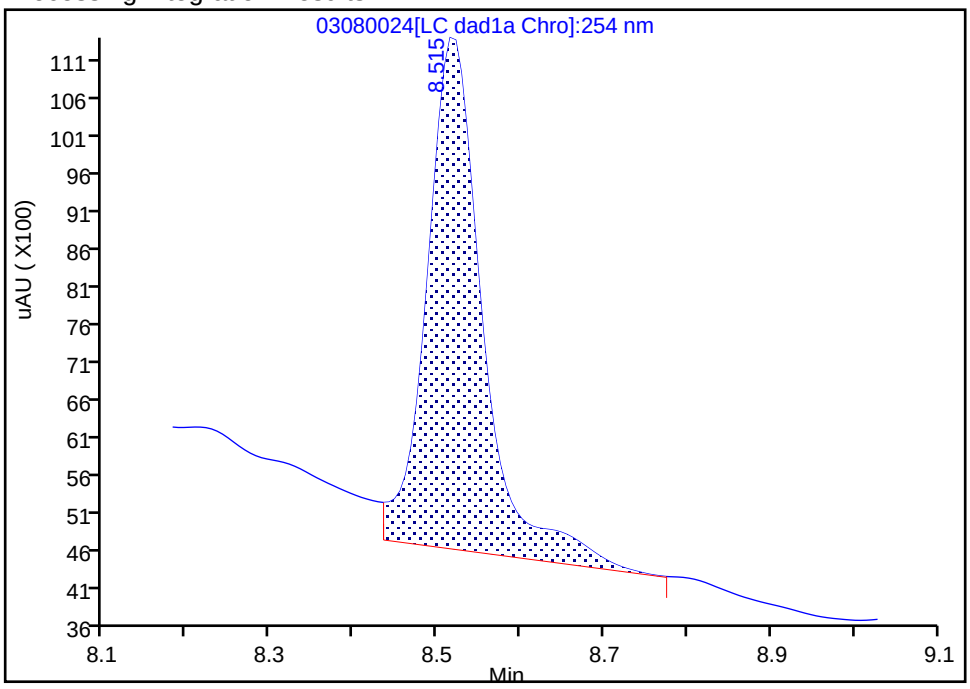
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080024.d | | | | |
| Injection Date: | 08-Mar-2022 21:32:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-6-A | Lab Sample ID: | 280-159234-6 | | |
| Client ID: | G0076-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

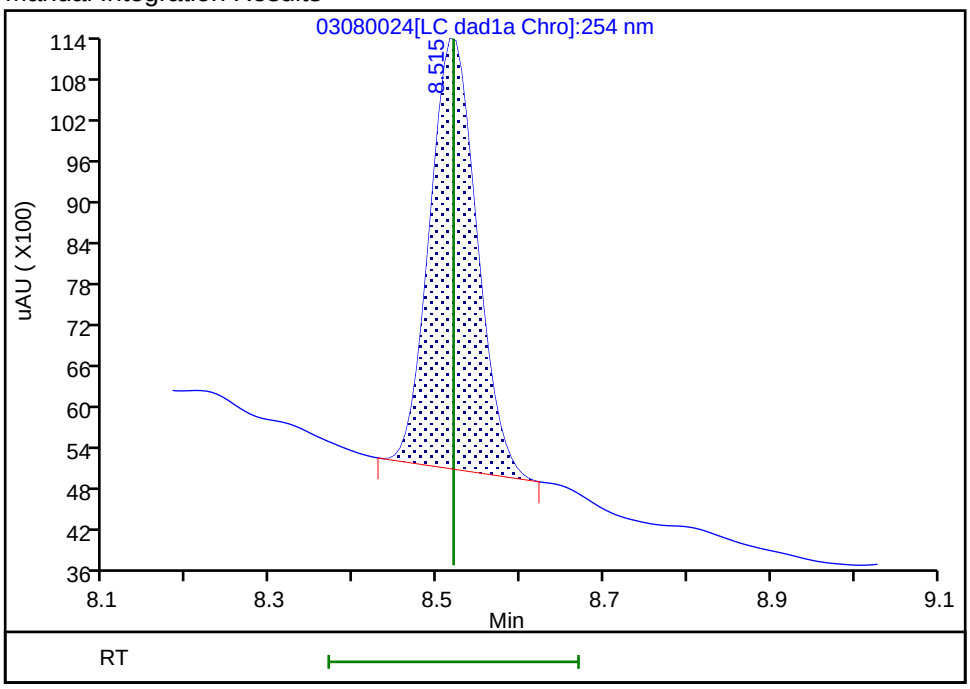
Processing Integration Results

RT: 8.52
Area: 31664
Amount: 0.253926
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 24733
Amount: 0.198344
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:41:09

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

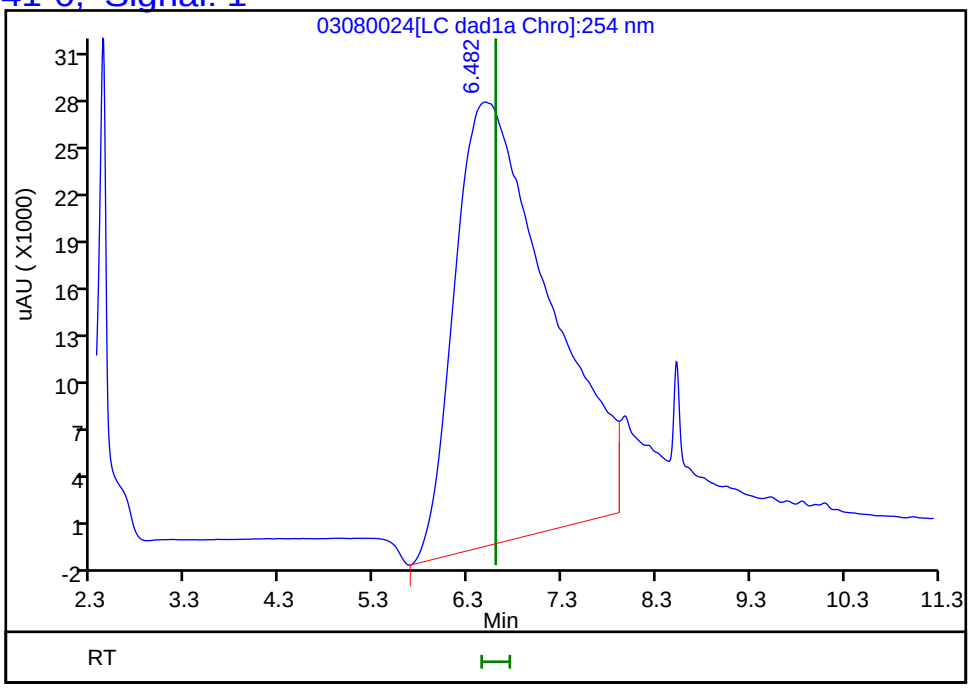
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080024.d
Injection Date: 08-Mar-2022 21:32:39 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-J-6-A Lab Sample ID: 280-159234-6
Client ID: G0076-8
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.48
Response: 1910508
Amount: 22.791027




Reviewer: zhangji, 09-Mar-2022 12:41:10
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

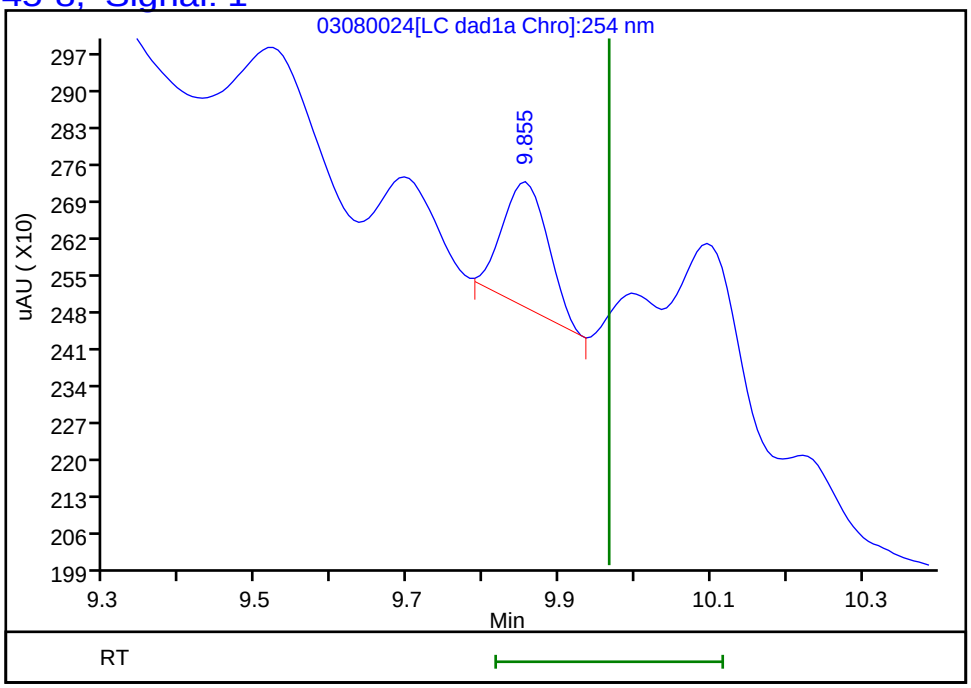
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080024.d
Injection Date: 08-Mar-2022 21:32:39 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-J-6-A Lab Sample ID: 280-159234-6
Client ID: G0076-8
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.85
Response: 990
Amount: 0.005804




Reviewer: zhangji, 09-Mar-2022 12:41:10
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 | Lab Sample ID: 280-159234-7

Matrix: Water | Lab File ID: 03080025.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 477.8(mL) | Date Analyzed: 03/08/2022 21:55

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.088 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.10 | U | 0.12 | 0.10 | 0.039 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.10 | U | 0.12 | 0.10 | 0.047 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.084 | U | 0.10 | 0.084 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.084 | U | 0.10 | 0.084 | 0.042 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.12 | 0.10 | 0.053 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.089 |
| 99-08-1 | 3-Nitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.16 | 0.13 | 0.060 |
| 2691-41-0 | HMX | 0.21 | U M | 0.22 | 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 | 0.22 | 0.21 | 0.095 |
| 121-82-4 | RDX | 0.21 | U | 0.22 | 0.21 | 0.054 |
| 479-45-8 | Tetryl | 0.10 | U M | 0.12 | 0.10 | 0.033 |

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080025.D
Lims ID: 280-159234-K-7-A
Client ID: G0070-8
Sample Type: Client
Inject. Date: 08-Mar-2022 21:55:36 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-K-7-A
Misc. Info.: 280-0109078-025
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:41:37

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 1 Triamine Trinitrobenzene | 1 | | 2.447 | | | ND | |
| | 2 2,6-diamino-4-nitrotoluene | 1 | | 6.462 | | | ND | |
| | 3 TNX | 1 | | 6.473 | | | ND | |
| | 4 HMX | 1 | | 6.593 | | | ND | U |
| | 5 2,4-diamino-6-nitrotoluene | 1 | | 6.642 | | | ND | |
| | 6 DNX | 1 | | 6.787 | | | ND | |
| | 7 MNX | 1 | | 7.207 | | | ND | U |
| | 8 RDX | 1 | | 7.579 | | | ND | |
| | 9 2,4,6-Trinitrophenol | 1 | | 7.906 | | | ND | U |
| $ | 10 1,2-Dinitrobenzene | 1 | 8.521 | 8.519 | 0.002 | 24810 | 0.1990 | M |
| | 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| | 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| | 13 Nitrobenzene | 1 | | 9.652 | | | ND | U |
| | 14 3,5-Dinitroaniline | 1 | 9.861 | 9.842 | 0.019 | 795 | 0.005199 | |
| | 15 Tetryl | 1 | | 9.966 | | | ND | U |
| | 16 Nitroglycerin | 2 | | 10.419 | | | ND | |
| | 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| | 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.052 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | ND | |
| | 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| | 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| | 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| | 23 p-Nitrotoluene | 1 | 12.868 | 12.899 | -0.031 | 1598 | 0.0150 | M |
| | 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |
| | 25 PETN | 2 | | 14.499 | | | ND | |
| | 26 Ammonium Picrate | 1 | | 0.000 | | | ND | |

## QC Flag Legend
Processing Flags

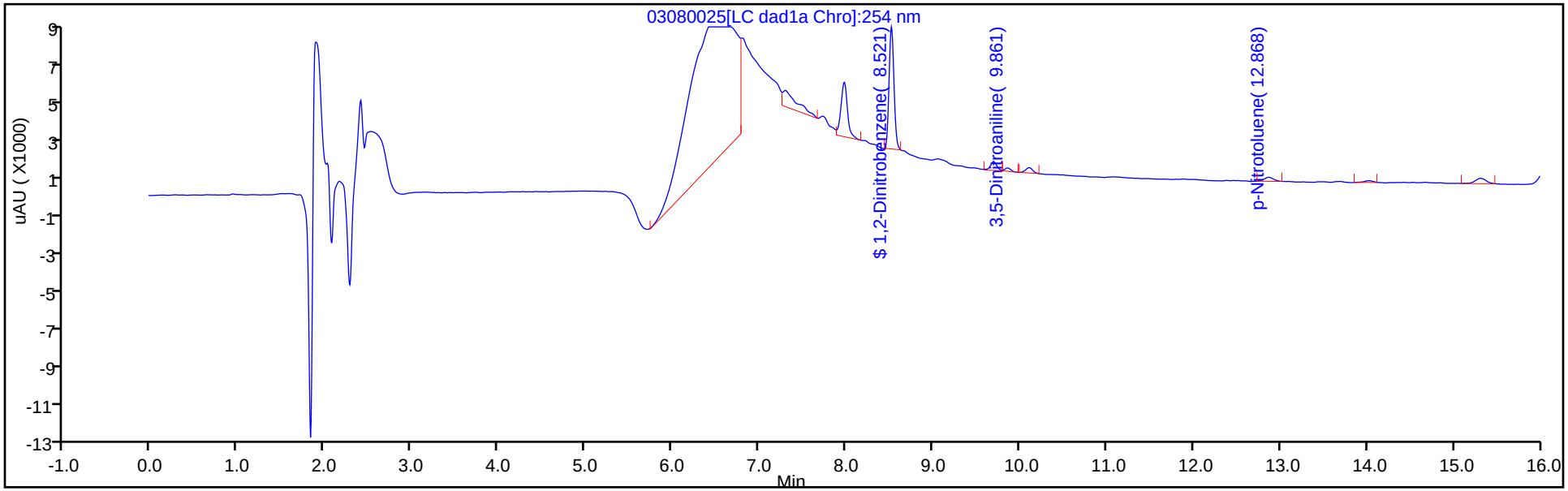
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 13:15:40 Chrom Revision: 2.3 16-Feb-2022 17:52:00

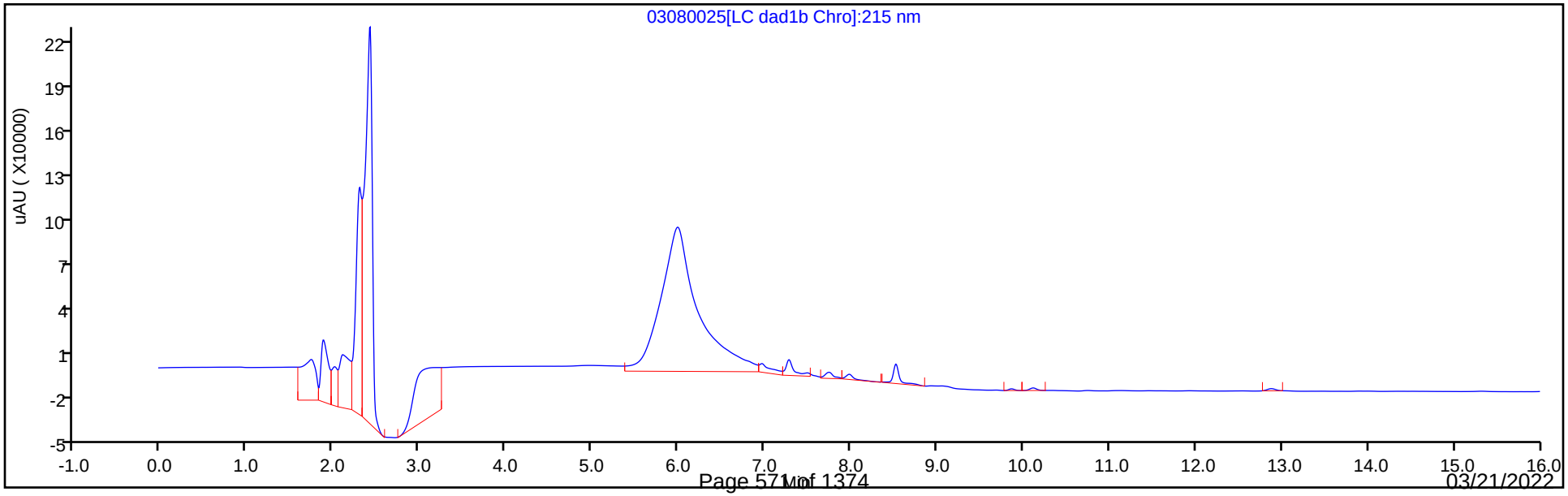
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d | | | | |
| Injection Date: | 08-Mar-2022 21:55:36 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 | Worklist Smp#: | 25 |
| Client ID: | G0070-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080025.D | | | | |
| Lims ID: | 280-159234-K-7-A | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 21:55:36 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-K-7-A | | | | |
| Misc. Info.: | 280-0109078-025 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:41:37

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1990 | 99.48 |

Manual Integration/User Assign Peak Report

Eurofins Denver

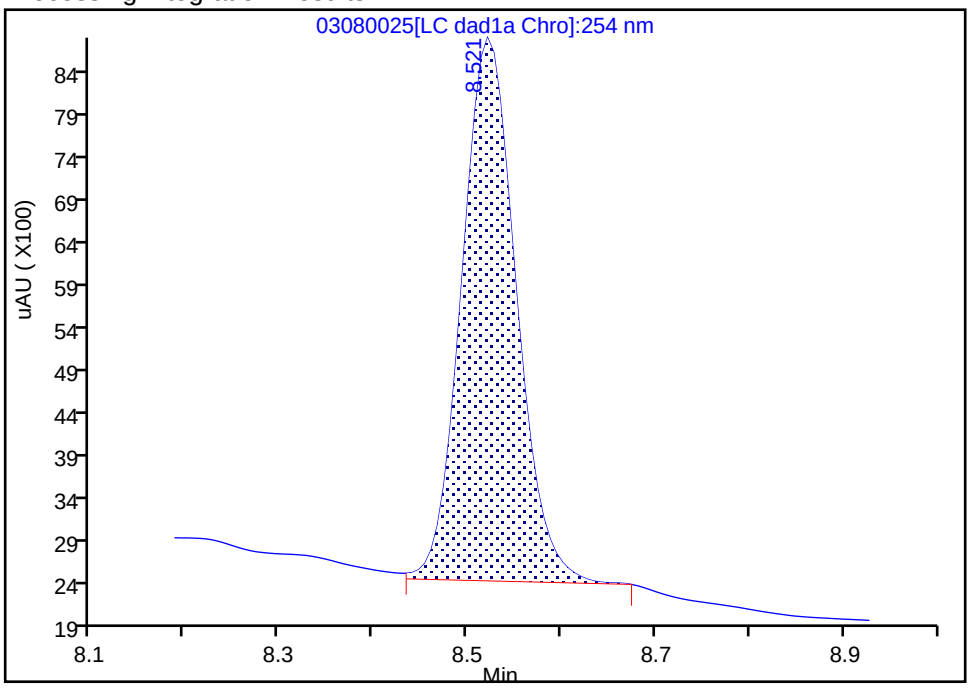
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d | | | | |
| Injection Date: | 08-Mar-2022 21:55:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

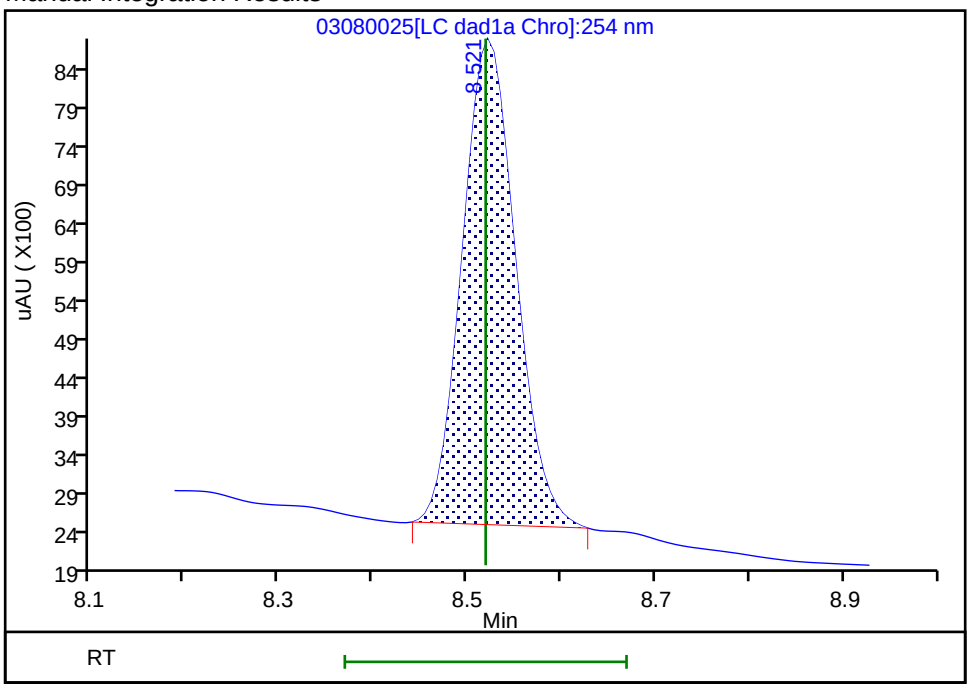
Processing Integration Results

RT: 8.52
Area: 25576
Amount: 0.205104
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 24810
Amount: 0.198961
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:41:31

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

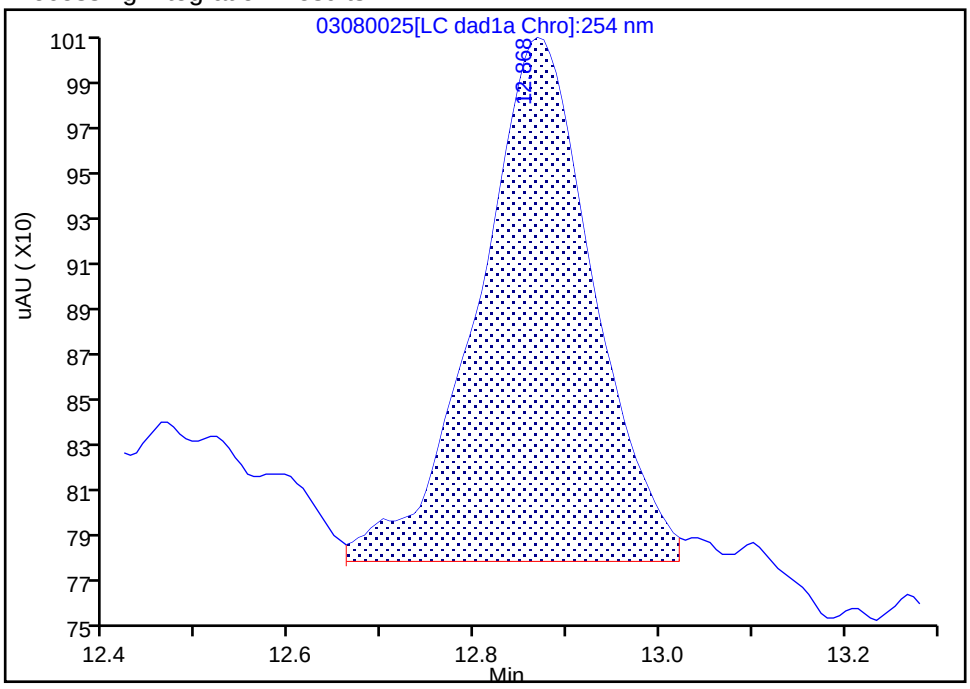
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d | | | | |
| Injection Date: | 08-Mar-2022 21:55:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

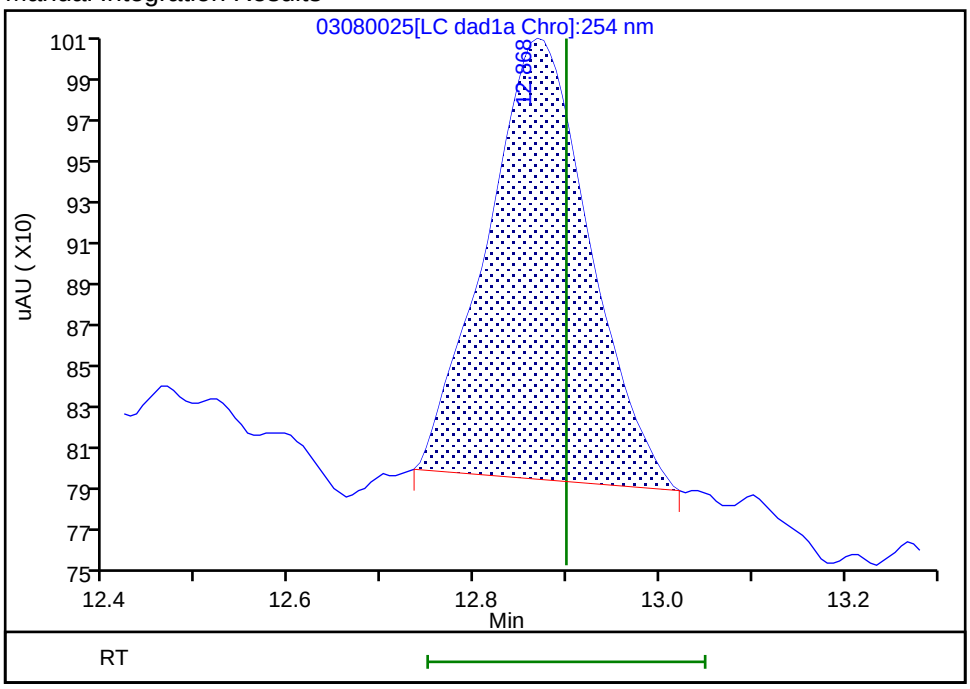
Processing Integration Results

RT: 12.87
Area: 1920
Amount: 0.018073
Amount Units: ug/mL




Manual Integration Results

RT: 12.87
Area: 1598
Amount: 0.015042
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:41:36

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

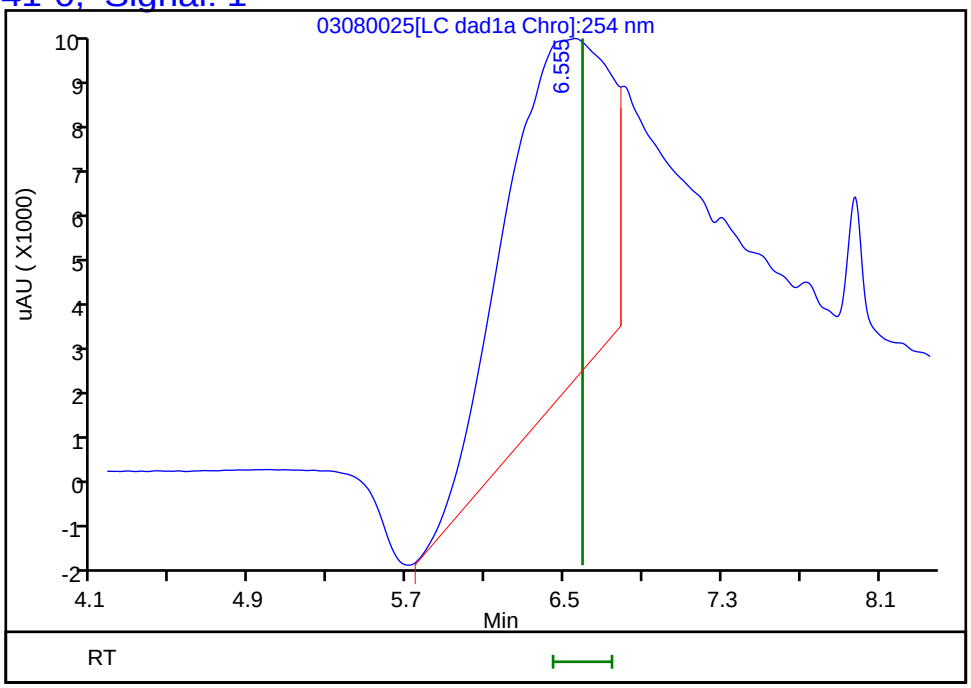
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d
Injection Date: 08-Mar-2022 21:55:36 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-K-7-A Lab Sample ID: 280-159234-7
Client ID: G0070-8
Operator ID: JZ ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.55
Response: 271707
Amount: 3.241275




Reviewer: zhangji, 09-Mar-2022 12:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

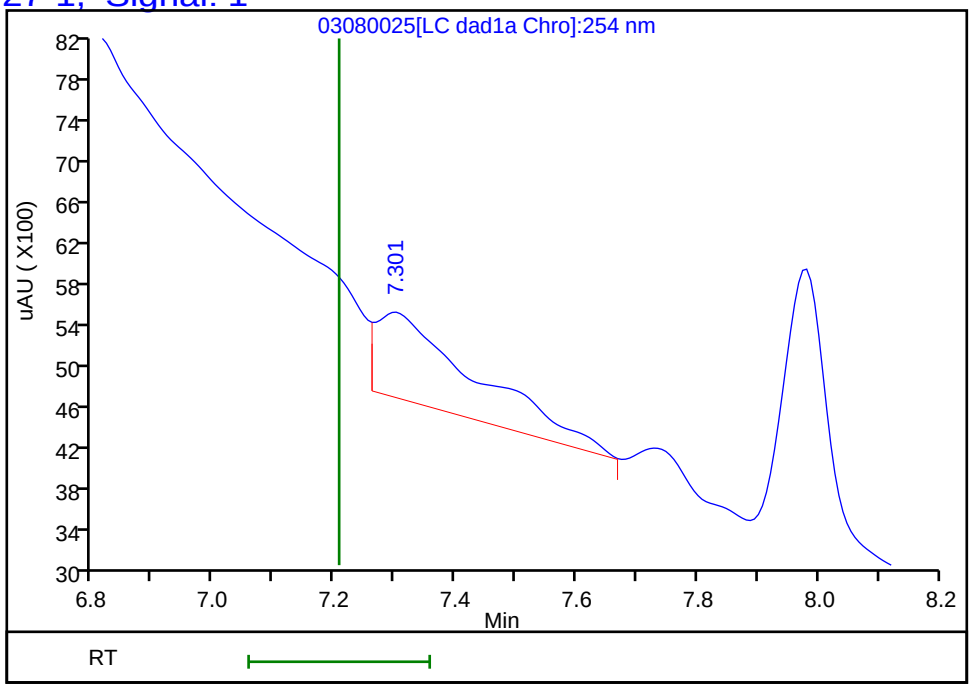
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d | | | | |
| Injection Date: | 08-Mar-2022 21:55:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.30
Response: 9959
Amount: 0.079043




Reviewer: zhangji, 09-Mar-2022 12:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

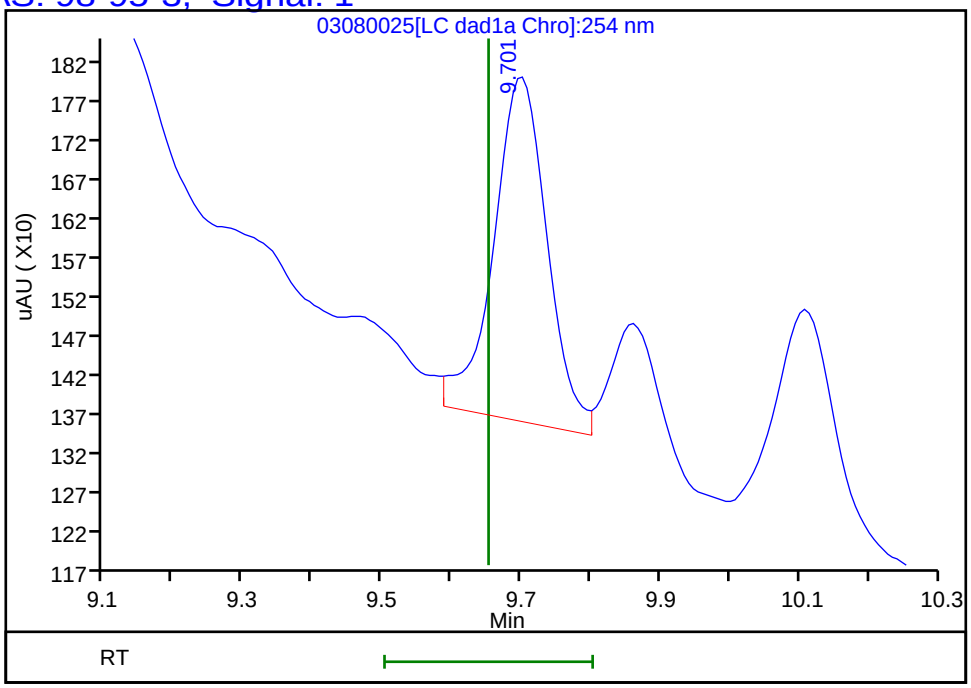
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d
Injection Date: 08-Mar-2022 21:55:36 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-K-7-A Lab Sample ID: 280-159234-7
Client ID: G0070-8
Operator ID: JZ ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.70
Response: 2352
Amount: 0.012253




Reviewer: zhangji, 09-Mar-2022 12:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

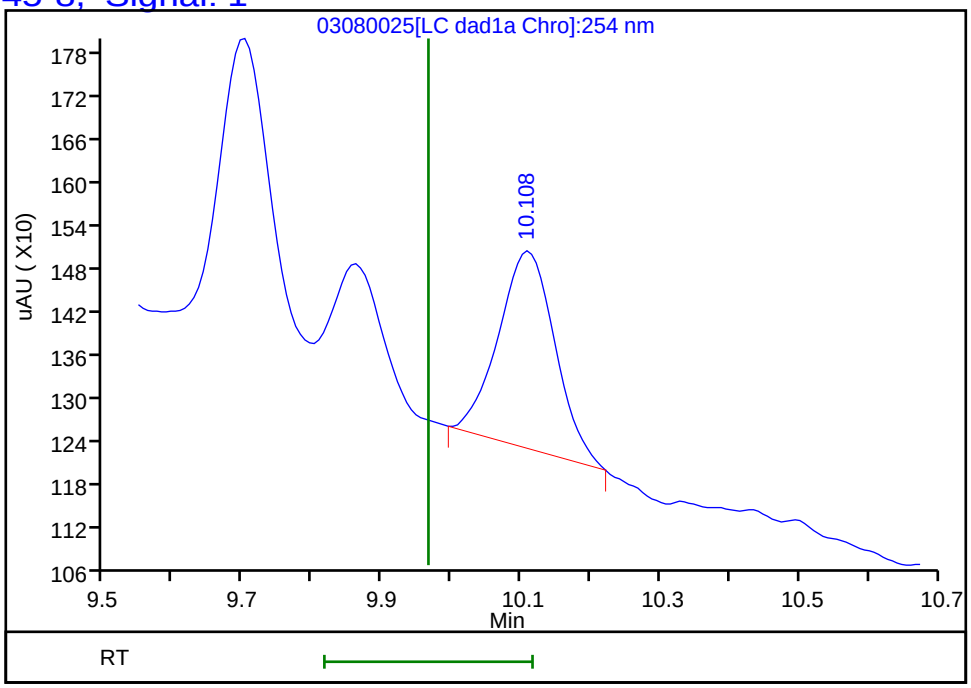
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080025.d

| | | | |
|---|---|---|---|
| Injection Date: | 08-Mar-2022 21:55:36 | Instrument ID: | CHHPLC_X3 |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 |
| Client ID: | G0070-8 | | |
| Operator ID: | JZ | ALS Bottle#: | 25 Worklist Smp#: 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm |

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

RT: 10.11
Response: 1556
Amount: 0.009123




Reviewer: zhangji, 09-Mar-2022 12:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 | Lab Sample ID: 280-159234-7

Matrix: Water | Lab File ID: 03080023.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 477.8(mL) | Date Analyzed: 03/09/2022 01:59

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.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-99-0 | 4-Nitrotoluene | 0.42 | U | 0.43 | 0.42 | 0.10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080023.D
Lims ID: 280-159234-K-7-A
Client ID: G0070-8
Sample Type: Client
Inject. Date: 09-Mar-2022 01:59:02 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-K-7-A
Misc. Info.: 280-0109079-023
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:22:50

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,6-diamino-4-nitrotoluene | 1 | | 4.142 | | | ND | |
| 2 | 2,4-diamino-6-nitrotoluene | 1 | | 4.722 | | | ND | |
| 3 | TNX | 1 | | 5.183 | | | ND | |
| 4 | DNX | 1 | | 6.030 | | | ND | |
| 5 | HMX | 1 | | 6.875 | | | ND | |
| 6 | MNX | 1 | | 7.590 | | | ND | |
| 7 | 2,4,6-Trinitrophenol | 1 | | 8.249 | | | ND | |
| 8 | RDX | 1 | | 9.062 | | | ND | |
| 9 | Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ 10 | 1,2-Dinitrobenzene | 1 | 13.076 | 13.089 | -0.013 | 49849 | 0.1996 | |
| 11 | 3,5-Dinitroaniline | 1 | | 15.089 | | | ND | |
| 12 | 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| 13 | Nitroglycerin | 2 | | 15.815 | | | ND | |
| 14 | o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| 15 | Triamine Trinitrobenzene | 1 | | 16.742 | | | ND | |
| 16 | p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| 17 | 4-Amino-2,6-dinitrotoluene | 1 | | 17.469 | | | ND | |
| 18 | m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| 19 | 2-Amino-4,6-dinitrotoluene | 1 | | 18.482 | | | ND | |
| 20 | 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| 21 | 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | |
| 22 | 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | |
| 23 | Tetryl | 1 | | 24.142 | | | ND | |
| 24 | 2,4,6-Trinitrotoluene | 1 | | 24.922 | | | ND | |
| 25 | PETN | 2 | | 25.902 | | | ND | |
| 26 | Ammonium Picrate | 1 | | 0.000 | | | ND | |

## QC Flag Legend
Processing Flags

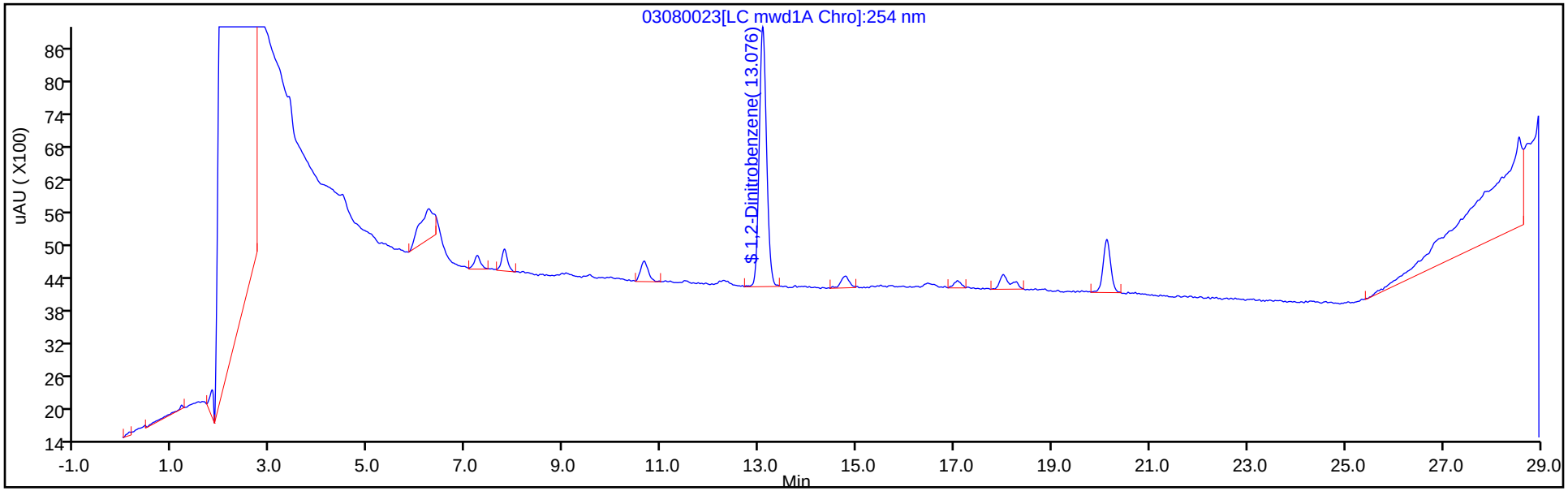
Report Date: 09-Mar-2022 19:28:02 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

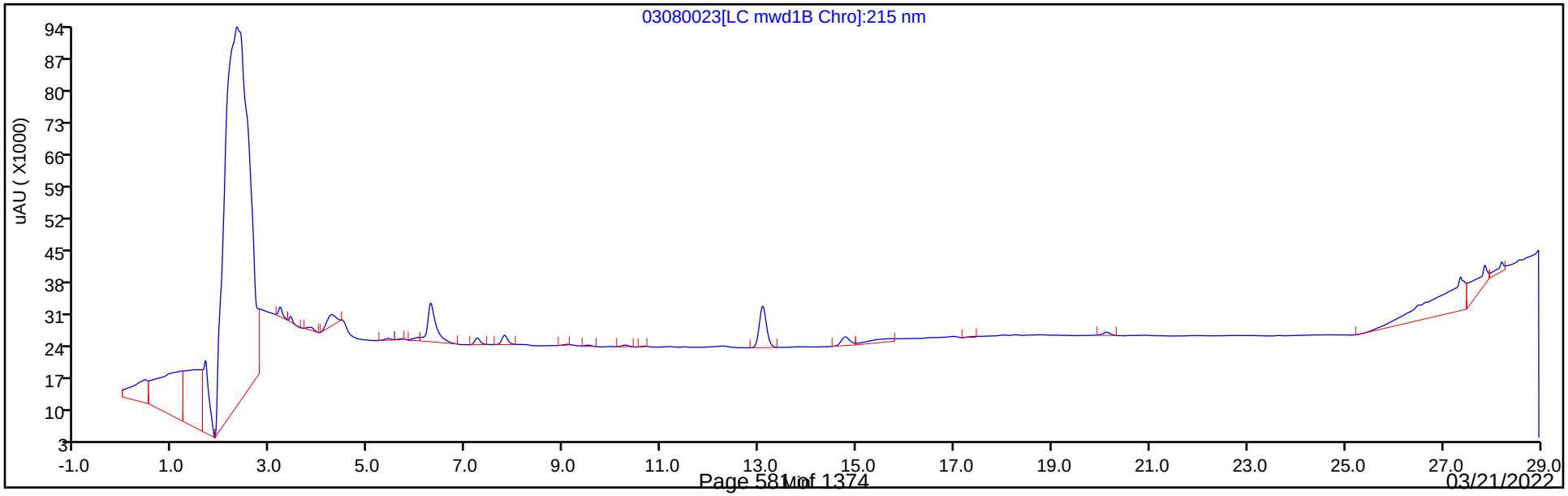
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080023.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 01:59:02 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-K-7-A | Lab Sample ID: | 280-159234-7 | Worklist Smp#: | 23 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080023.D | | | | |
| Lims ID: | 280-159234-K-7-A | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 01:59:02 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-K-7-A | | | | |
| Misc. Info.: | 280-0109079-023 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:22:50 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1996 | 99.80 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0080-8 | Lab Sample ID: 280-159234-8

Matrix: Water | Lab File ID: 03080030.D

Analysis Method: 8330A | Date Collected: 03/01/2022 09:30

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 469.3(mL) | Date Analyzed: 03/08/2022 23:50

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.090 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.039 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.048 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.085 | U | 0.11 | 0.085 | 0.043 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.22 | 0.21 | 0.091 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.082 | J | 0.16 | 0.13 | 0.061 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 |
| 2691-41-0 | HMX | 0.21 | U M | 0.22 | 0.21 | 0.093 |
| 5755-27-1 | MNX | 0.43 | U | 2.1 | 0.43 | 0.16 |
| 98-95-3 | Nitrobenzene | 0.21 | U | 0.22 | 0.21 | 0.097 |
| 121-82-4 | RDX | 0.21 | U | 0.22 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 108 | M | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080030.D
Lims ID: 280-159234-J-8-A
Client ID: G0080-8
Sample Type: Client
Inject. Date: 08-Mar-2022 23:50:08 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-8-A
Misc. Info.: 280-0109078-030
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:50:19

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.593 | | | ND | U |
| 7 MNX | 1 | | 7.207 | | | ND | |
| 8 RDX | 1 | | 7.579 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.522 | 8.519 | 0.003 | 27032 | 0.2168 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.049 | 11.052 | -0.003 | 1166 | 0.007723 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

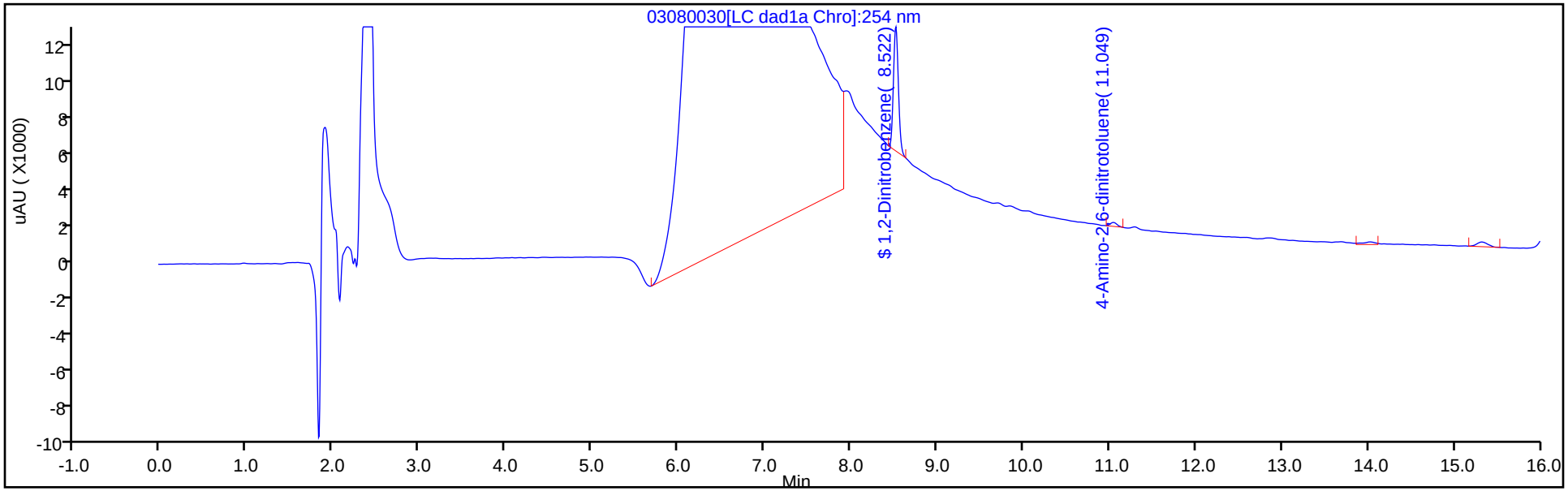
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 13:15:43 Chrom Revision: 2.3 16-Feb-2022 17:52:00

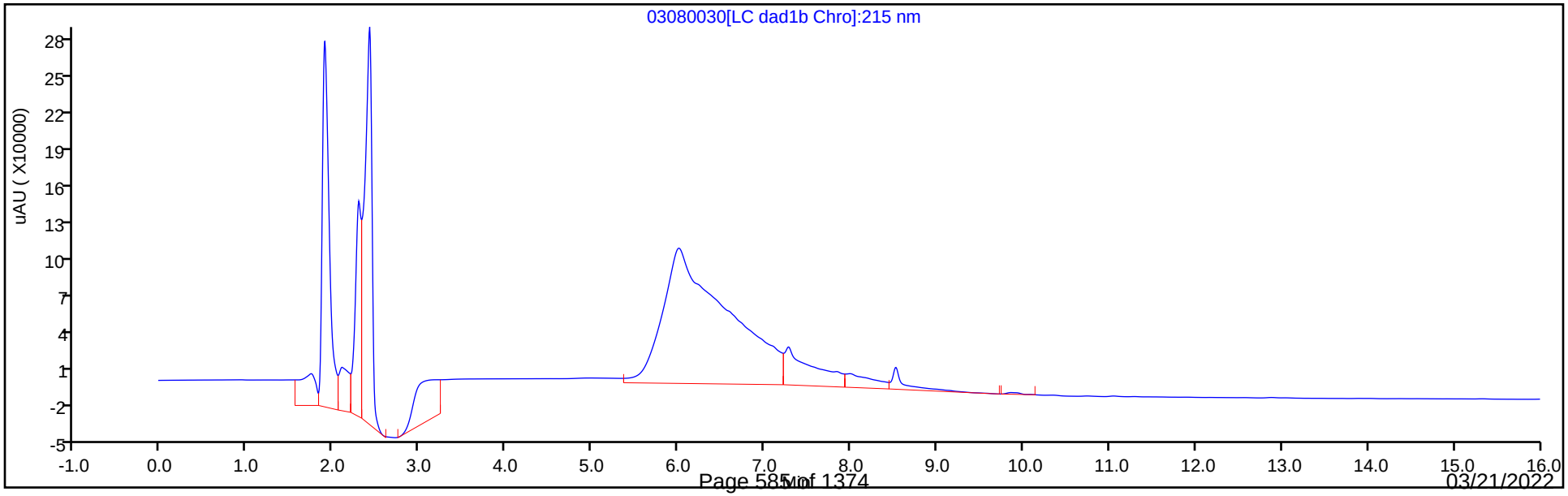
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080030.d | | | | |
| Injection Date: | 08-Mar-2022 23:50:08 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-8-A | Lab Sample ID: | 280-159234-8 | Worklist Smp#: | 30 |
| Client ID: | G0080-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080030.D | | | | |
| Lims ID: | 280-159234-J-8-A | | | | |
| Client ID: | G0080-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 08-Mar-2022 23:50:08 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-8-A | | | | |
| Misc. Info.: | 280-0109078-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:50:19

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2168 | 108.39 |

Manual Integration/User Assign Peak Report

Eurofins Denver

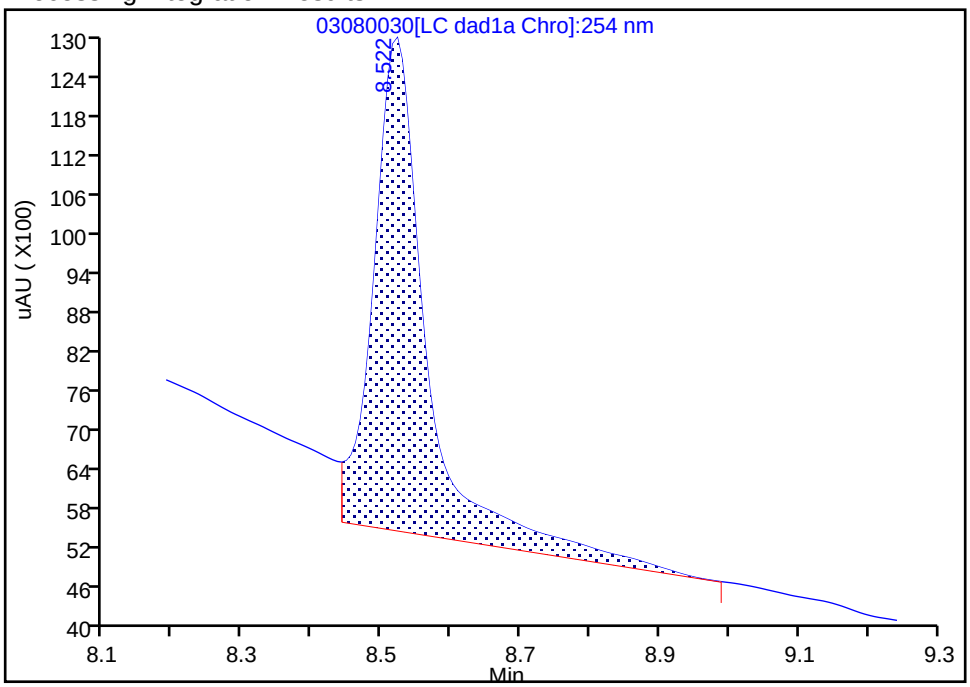
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080030.d | | | | |
| Injection Date: | 08-Mar-2022 23:50:08 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-8-A | Lab Sample ID: | 280-159234-8 | | |
| Client ID: | G0080-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

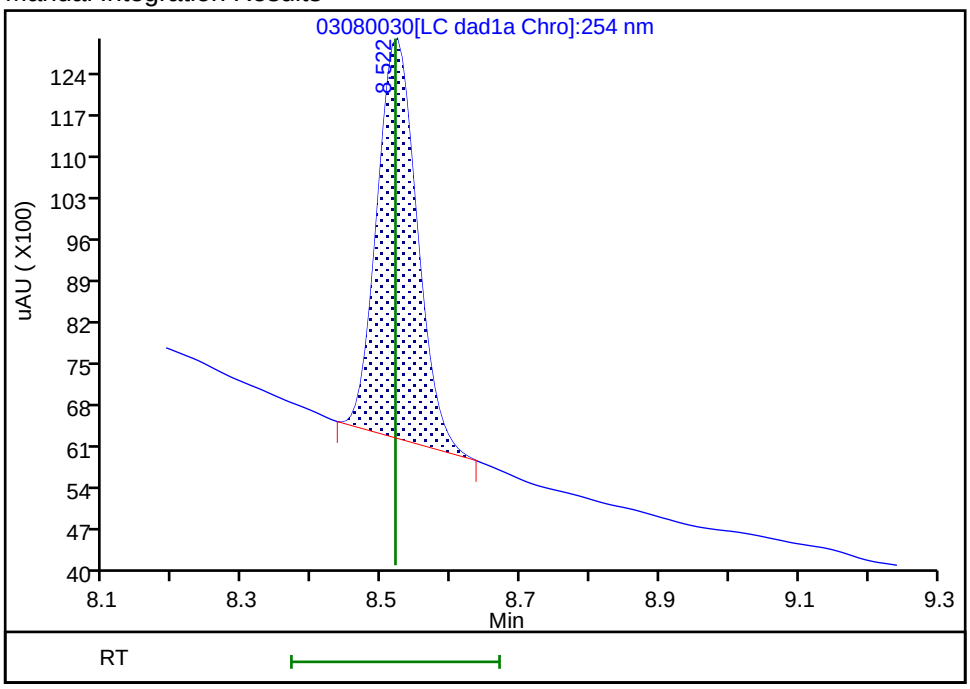
Processing Integration Results

RT: 8.52
Area: 40443
Amount: 0.324328
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 27032
Amount: 0.216780
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:50:16

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

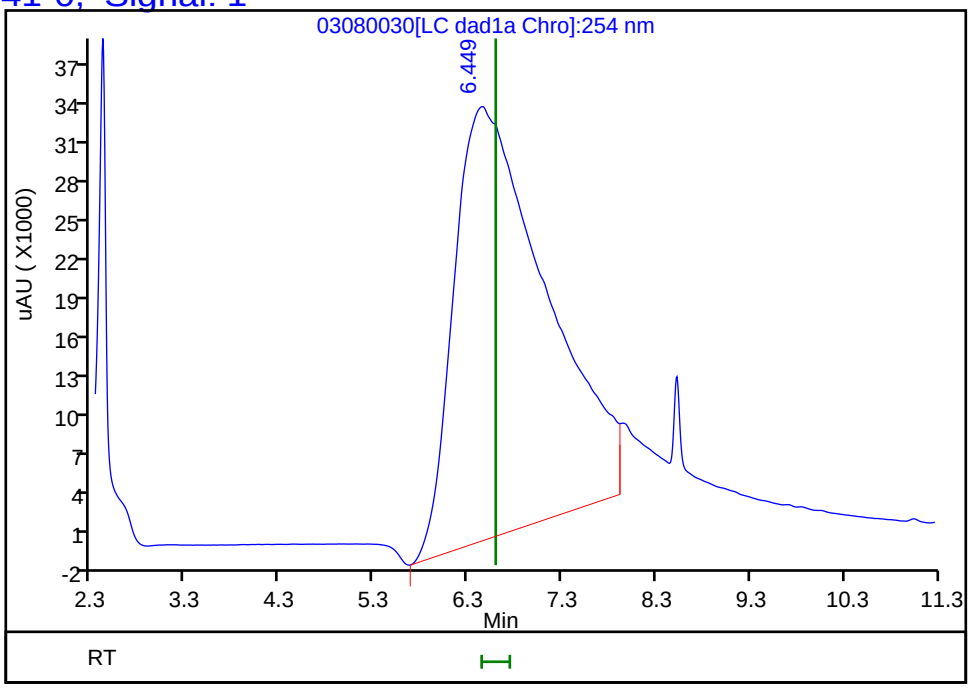
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080030.d
Injection Date: 08-Mar-2022 23:50:08 Instrument ID: CHHPLC_X3
Lims ID: 280-159234-J-8-A Lab Sample ID: 280-159234-8
Client ID: G0080-8
Operator ID: JZ ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.45
Response: 2206305
Amount: 26.319679




Reviewer: zhangji, 09-Mar-2022 12:50:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0080-8 | Lab Sample ID: 280-159234-8

Matrix: Water | Lab File ID: 03080028.D

Analysis Method: 8330A | Date Collected: 03/01/2022 09:30

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 469.3(mL) | Date Analyzed: 03/09/2022 04:54

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.: 568016 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 105 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080028.D
Lims ID: 280-159234-J-8-A
Client ID: G0080-8
Sample Type: Client
Inject. Date: 09-Mar-2022 04:54:14 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-8-A
Misc. Info.: 280-0109079-028
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:24:06

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.819 | 6.875 | -0.056 | 1922 | 0.0116 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | |
| | 8 RDX | 1 | 8.999 | 9.062 | -0.063 | 1252 | 0.006443 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.079 | 13.089 | -0.010 | 52311 | 0.2095 | |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.465 | 17.469 | -0.004 | 2823 | 0.0108 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | | 18.482 | | | ND | |
| | 20 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | | 24.922 | | | ND | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

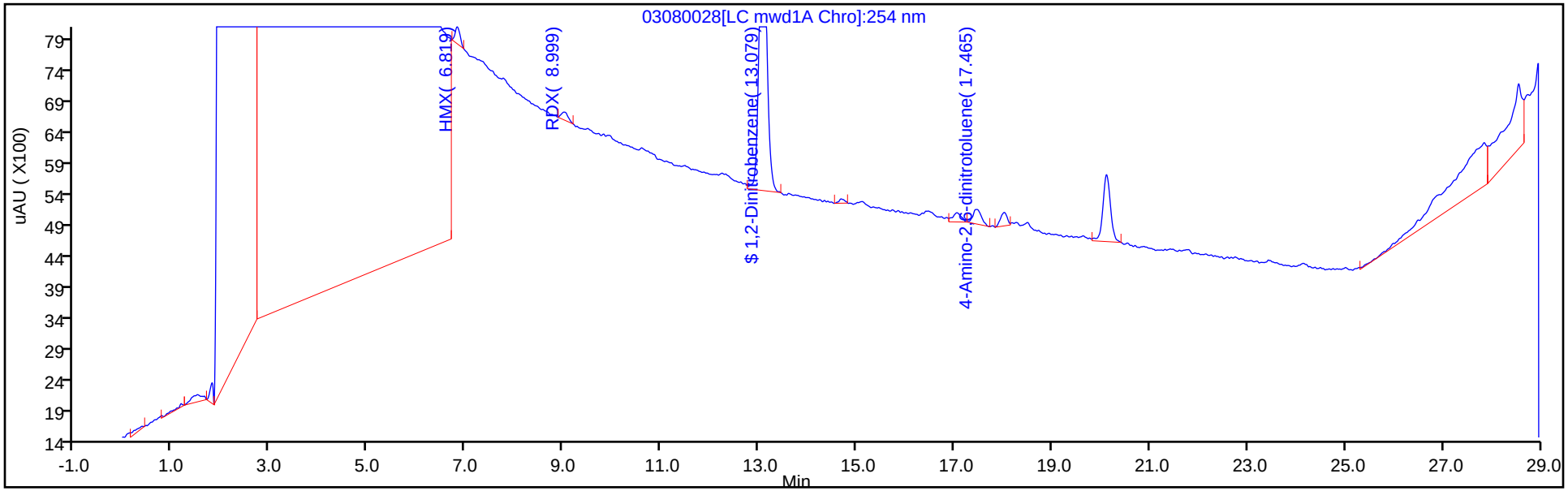
Report Date: 09-Mar-2022 19:28:04 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

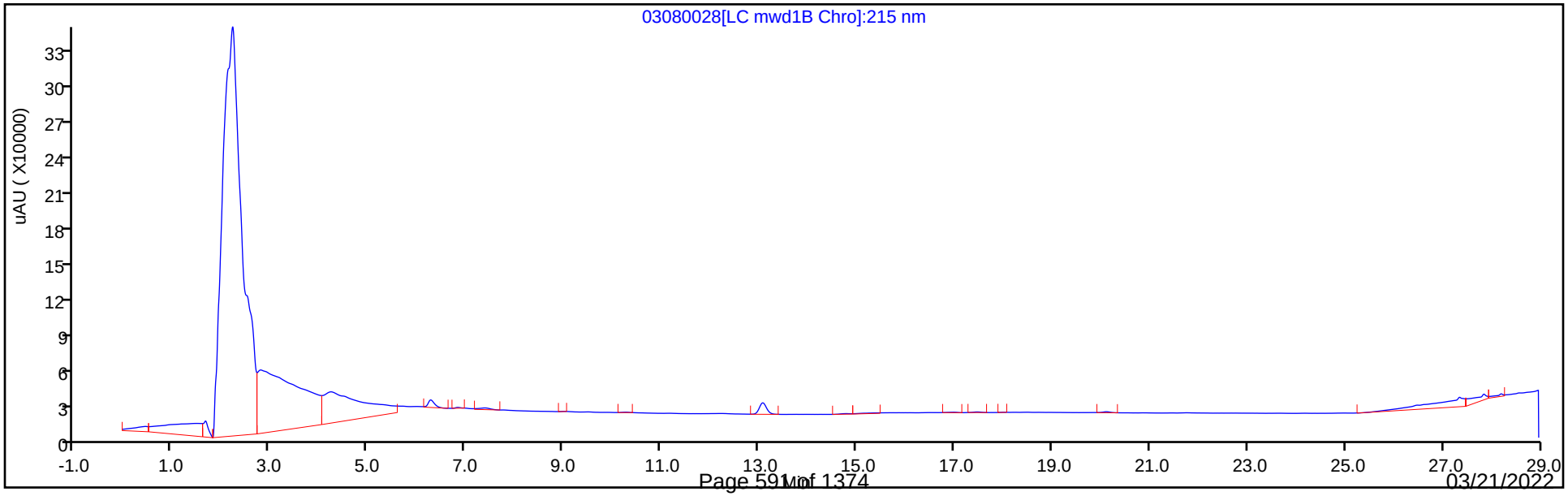
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080028.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 04:54:14 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-8-A | Lab Sample ID: | 280-159234-8 | Worklist Smp#: | 28 |
| Client ID: | G0080-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080028.D | | | | |
| Lims ID: | 280-159234-J-8-A | | | | |
| Client ID: | G0080-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 04:54:14 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-8-A | | | | |
| Misc. Info.: | 280-0109079-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:24:06 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2095 | 104.73 |

Manual Integration/User Assign Peak Report

Eurofins Denver

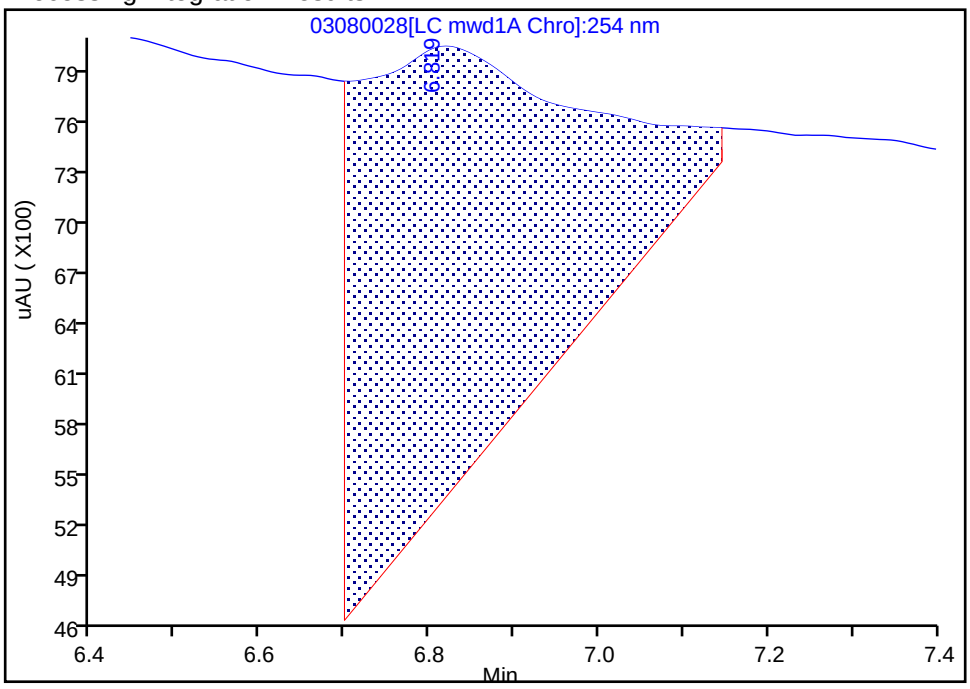
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080028.D | | | | |
| Injection Date: | 09-Mar-2022 04:54:14 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-8-A | Lab Sample ID: | 280-159234-8 | | |
| Client ID: | G0080-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

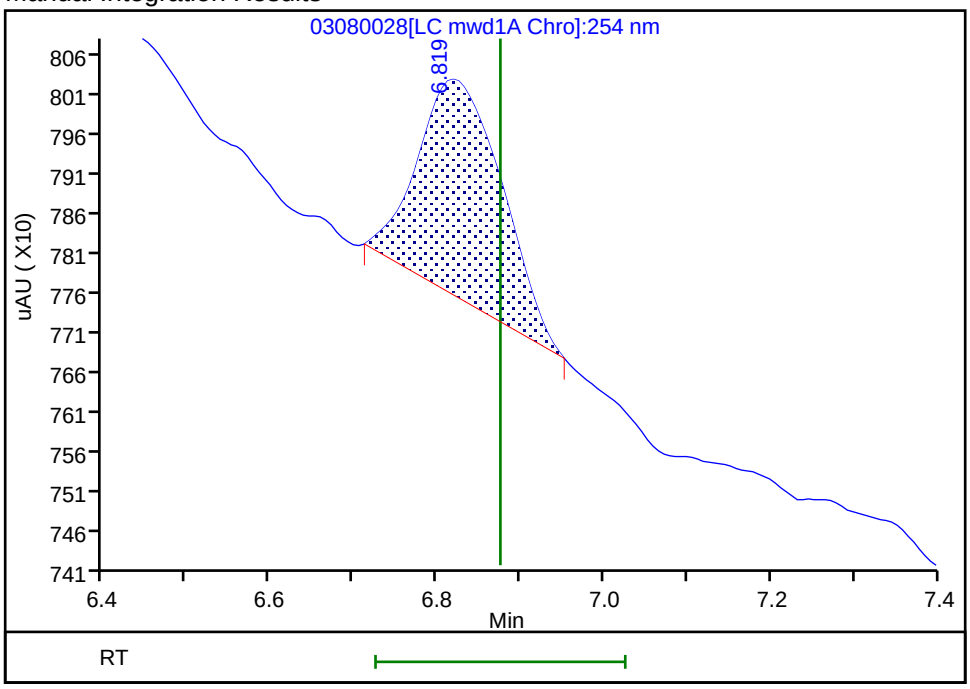
Processing Integration Results

RT: 6.82
Area: 47381
Amount: 0.285195
Amount Units: ug/ml




Manual Integration Results

RT: 6.82
Area: 1922
Amount: 0.011569
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:00
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

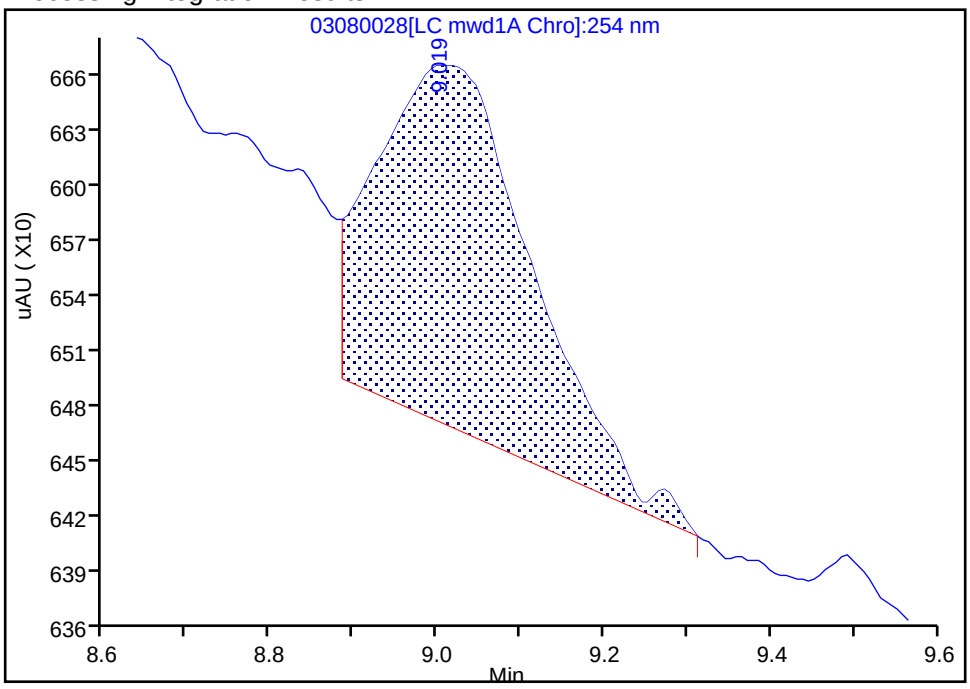
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080028.D | | | | |
| Injection Date: | 09-Mar-2022 04:54:14 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-8-A | Lab Sample ID: | 280-159234-8 | | |
| Client ID: | G0080-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

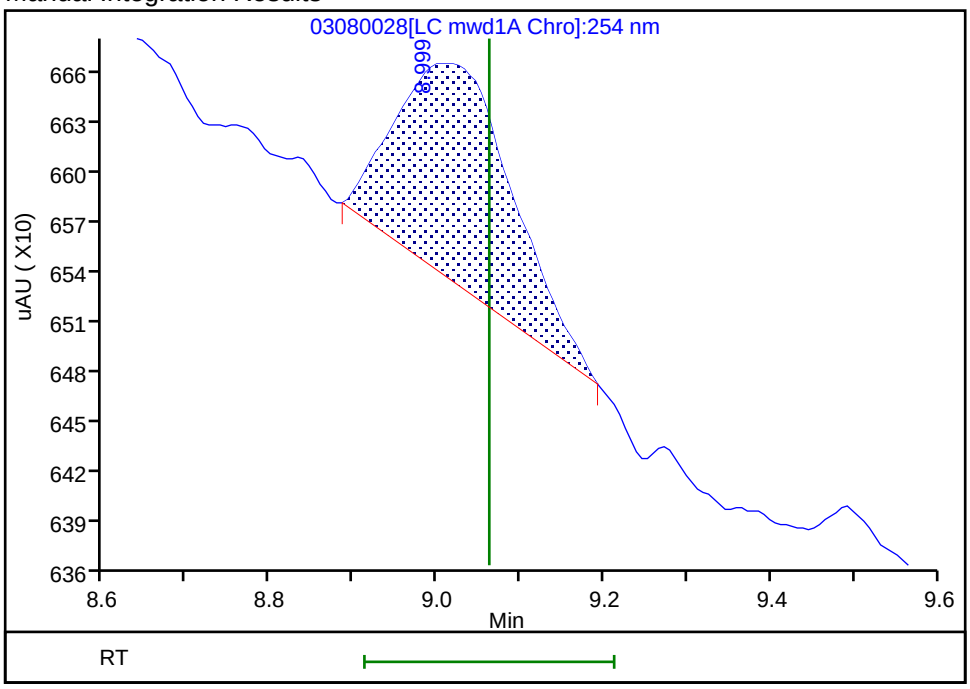
Processing Integration Results

RT: 9.02
Area: 2501
Amount: 0.012870
Amount Units: ug/ml




Manual Integration Results

RT: 9.00
Area: 1252
Amount: 0.006443
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:03
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0087-8 | Lab Sample ID: 280-159234-9

Matrix: Water | Lab File ID: 03080031.D

Analysis Method: 8330A | Date Collected: 03/01/2022 10:40

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 469.4(mL) | Date Analyzed: 03/09/2022 00:13

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.090 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U Q | 0.12 | 0.11 | 0.039 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.11 | U Q | 0.12 | 0.11 | 0.048 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.043 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.40 | Q | 0.12 | 0.11 | 0.054 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U Q | 0.22 | 0.21 | 0.091 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U Q | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.85 | Q | 0.16 | 0.13 | 0.061 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U Q | 0.44 | 0.43 | 0.11 |
| 2691-41-0 | HMX | 0.74 | M Q | 0.22 | 0.21 | 0.093 |
| 5755-27-1 | MNX | 0.43 | U | 2.1 | 0.43 | 0.16 |
| 98-95-3 | Nitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.097 |
| 121-82-4 | RDX | 0.19 | J M Q J1 | 0.22 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U M Q | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 120 | M Q | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080031.D
Lims ID: 280-159234-J-9-A
Client ID: G0087-8
Sample Type: Client
Inject. Date: 09-Mar-2022 00:13:07 ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-9-A
Misc. Info.: 280-0109078-031
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:50:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.589 | 6.593 | -0.004 | 5815 | 0.0694 | M |
| 7 MNX | 1 | | 7.207 | | | ND | |
| 8 RDX | 1 | 7.569 | 7.579 | -0.010 | 1813 | 0.0175 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.522 | 8.519 | 0.003 | 29965 | 0.2403 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | ND | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.056 | 11.052 | 0.004 | 12054 | 0.0798 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.302 | 11.299 | 0.003 | 7641 | 0.0378 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | | 12.899 | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

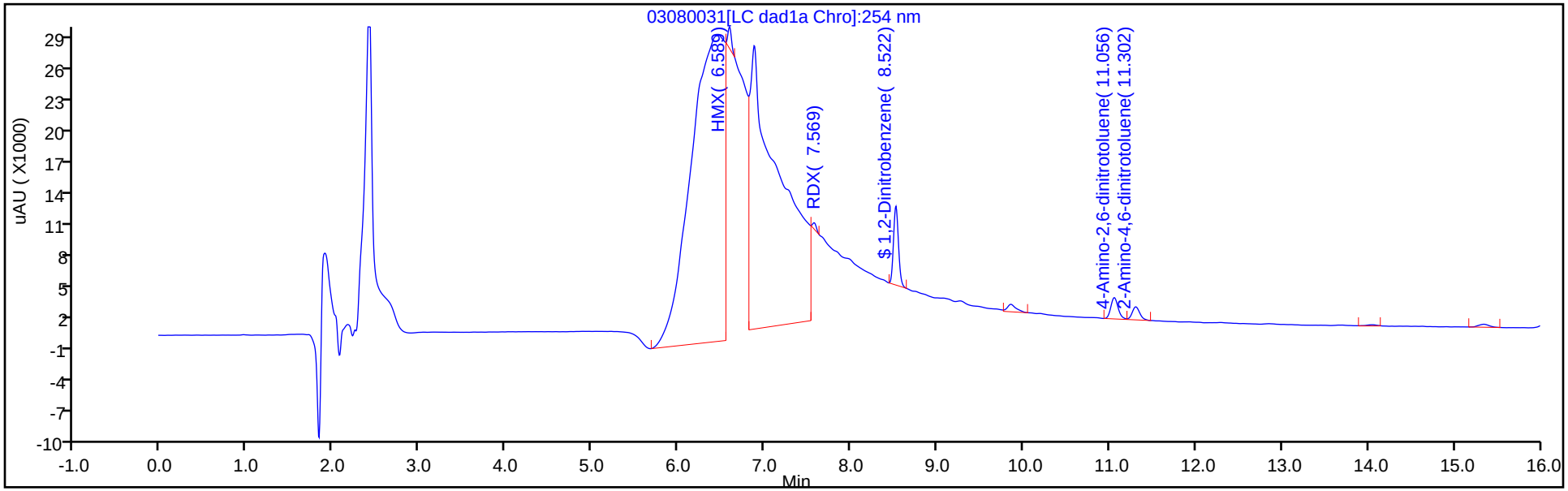
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 13:15:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

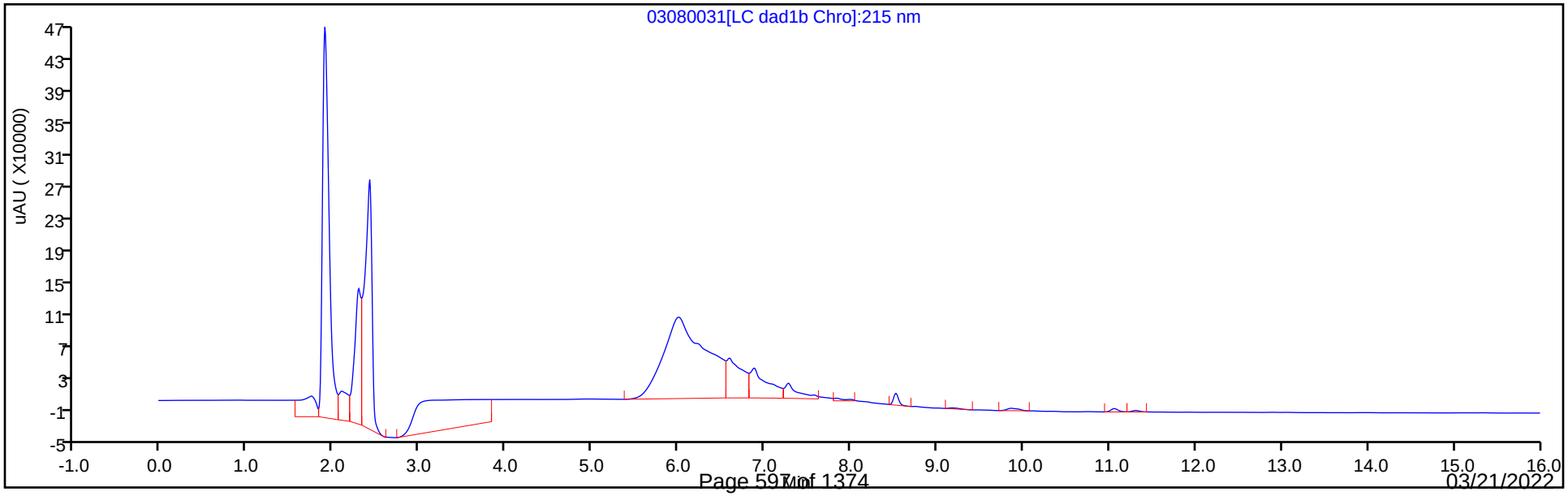
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080031.d | | | | |
| Injection Date: | 09-Mar-2022 00:13:07 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | Worklist Smp#: | 31 |
| Client ID: | G0087-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080031.D | | | | |
| Lims ID: | 280-159234-J-9-A | | | | |
| Client ID: | G0087-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 00:13:07 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-9-A | | | | |
| Misc. Info.: | 280-0109078-031 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:50:44

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2403 | 120.15 |

Manual Integration/User Assign Peak Report

Eurofins Denver

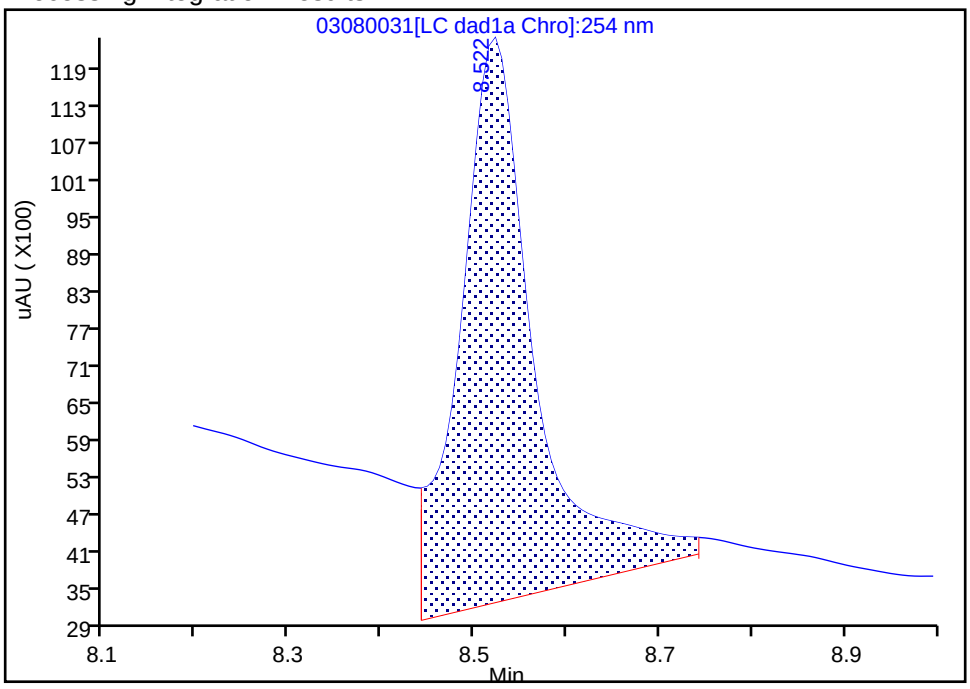
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080031.d | | | | |
| Injection Date: | 09-Mar-2022 00:13:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

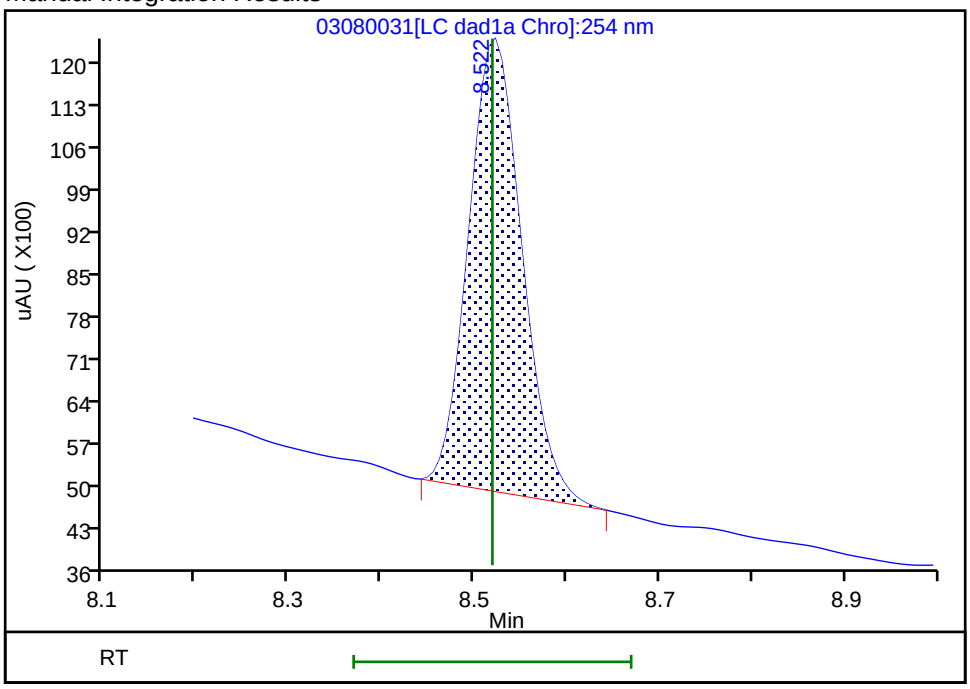
Processing Integration Results

RT: 8.52
Area: 51570
Amount: 0.413560
Amount Units: ug/mL




Manual Integration Results

RT: 8.52
Area: 29965
Amount: 0.240301
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:50:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

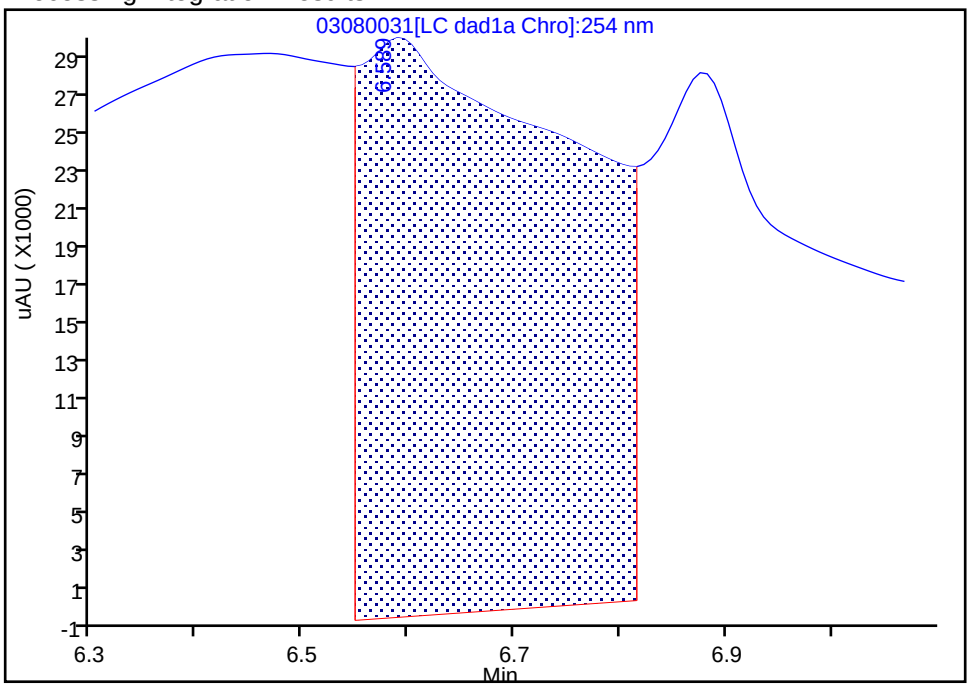
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080031.d | | | | |
| Injection Date: | 09-Mar-2022 00:13:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

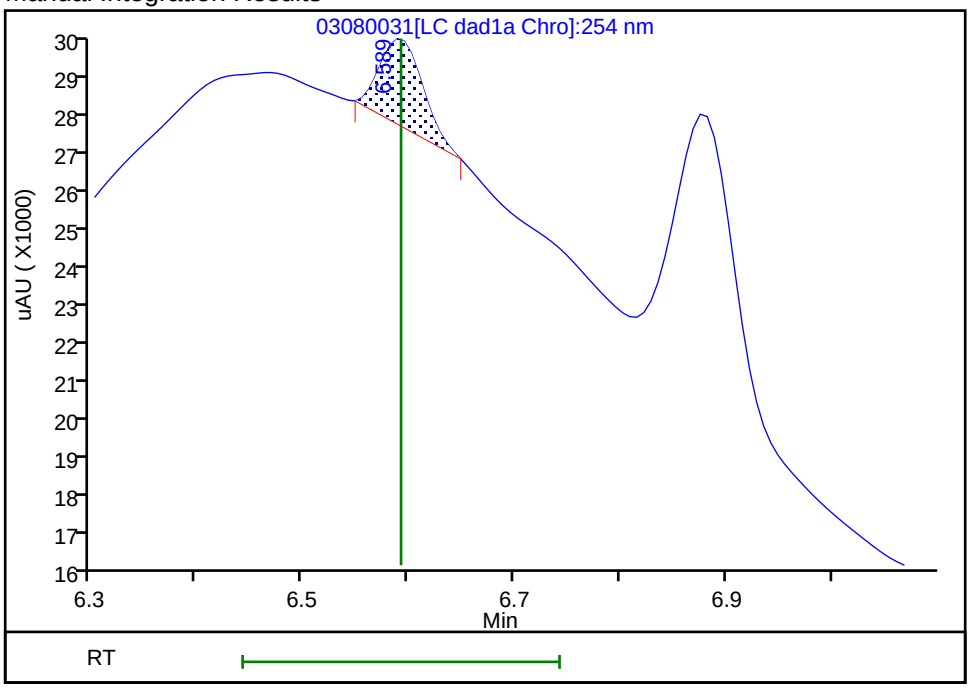
Processing Integration Results

RT: 6.59
Area: 413252
Amount: 4.929808
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 5815
Amount: 0.069369
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:50:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

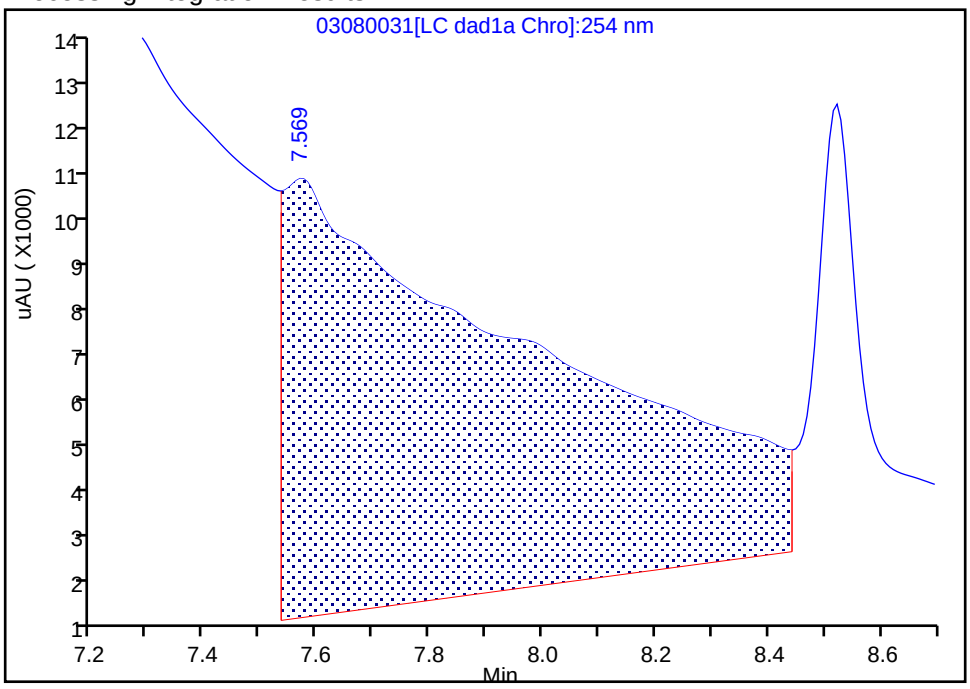
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080031.d | | | | |
| Injection Date: | 09-Mar-2022 00:13:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

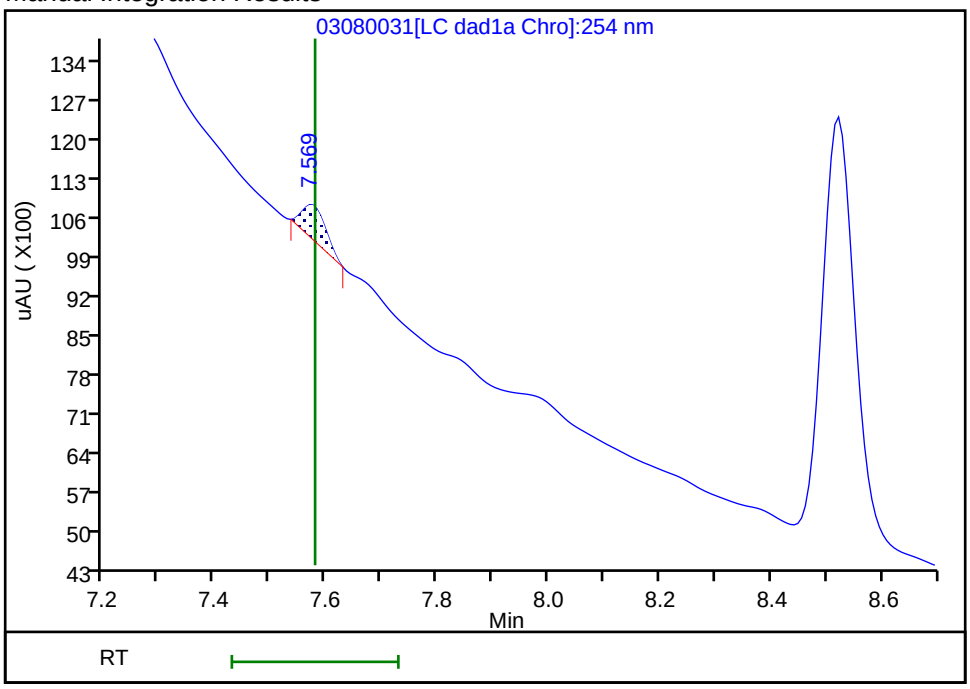
Processing Integration Results

RT: 7.57
Area: 280991
Amount: 2.712028
Amount Units: ug/mL




Manual Integration Results

RT: 7.57
Area: 1813
Amount: 0.017498
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:50:34
Audit Action: Manually Integrated Audit Reason: Baseline

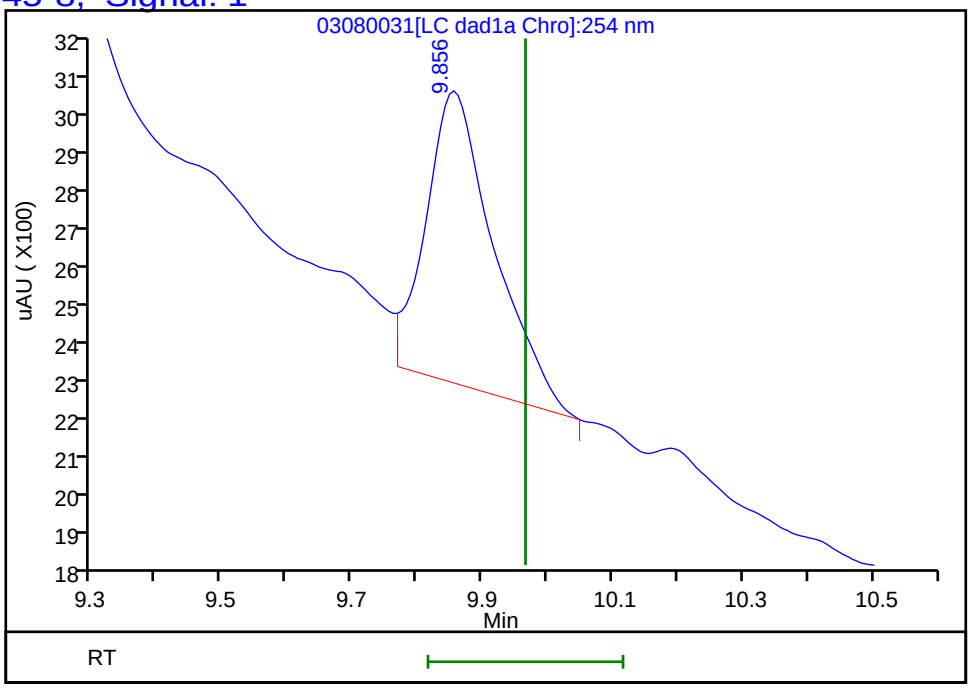
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080031.d | | | | |
| Injection Date: | 09-Mar-2022 00:13:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.86
Response: 5136
Amount: 0.030111




Reviewer: zhangji, 09-Mar-2022 12:50:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0087-8 | Lab Sample ID: 280-159234-9

Matrix: Water | Lab File ID: 03080029.D

Analysis Method: 8330A | Date Collected: 03/01/2022 10:40

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 469.4(mL) | Date Analyzed: 03/09/2022 05:29

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.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| *121-82-4* | *RDX* | *0.29* | *M J1* | *0.22* | 0.21 | *0.055* |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 102 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080029.D
Lims ID: 280-159234-J-9-A
Client ID: G0087-8
Sample Type: Client
Inject. Date: 09-Mar-2022 05:29:19 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-J-9-A
Misc. Info.: 280-0109079-029
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:24:22

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.825 | 6.875 | -0.050 | 9730 | 0.0586 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | |
| | 8 RDX | 1 | 9.018 | 9.062 | -0.044 | 5342 | 0.0275 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.071 | 13.089 | -0.018 | 50982 | 0.2041 | |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.465 | 17.469 | -0.004 | 20991 | 0.0788 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.478 | 18.482 | -0.004 | 12259 | 0.0340 | |
| | 20 1,3,5-Trinitrobenzene | 1 | | 18.735 | | | ND | |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | | 24.922 | | | ND | |

## QC Flag Legend

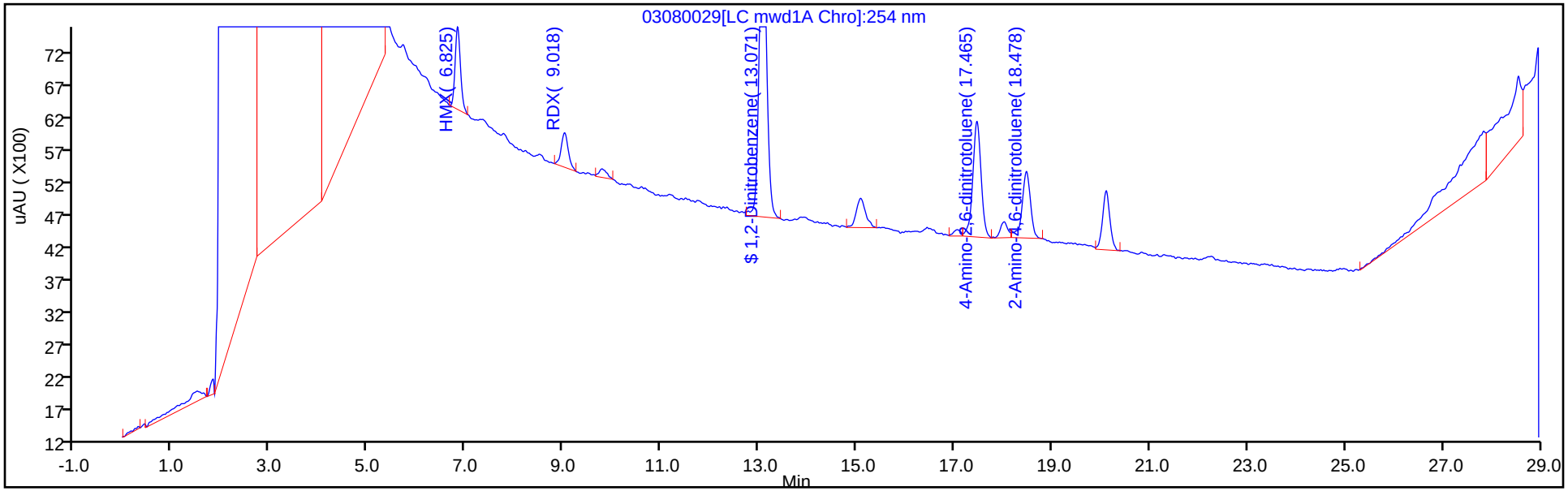
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 09-Mar-2022 19:28:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

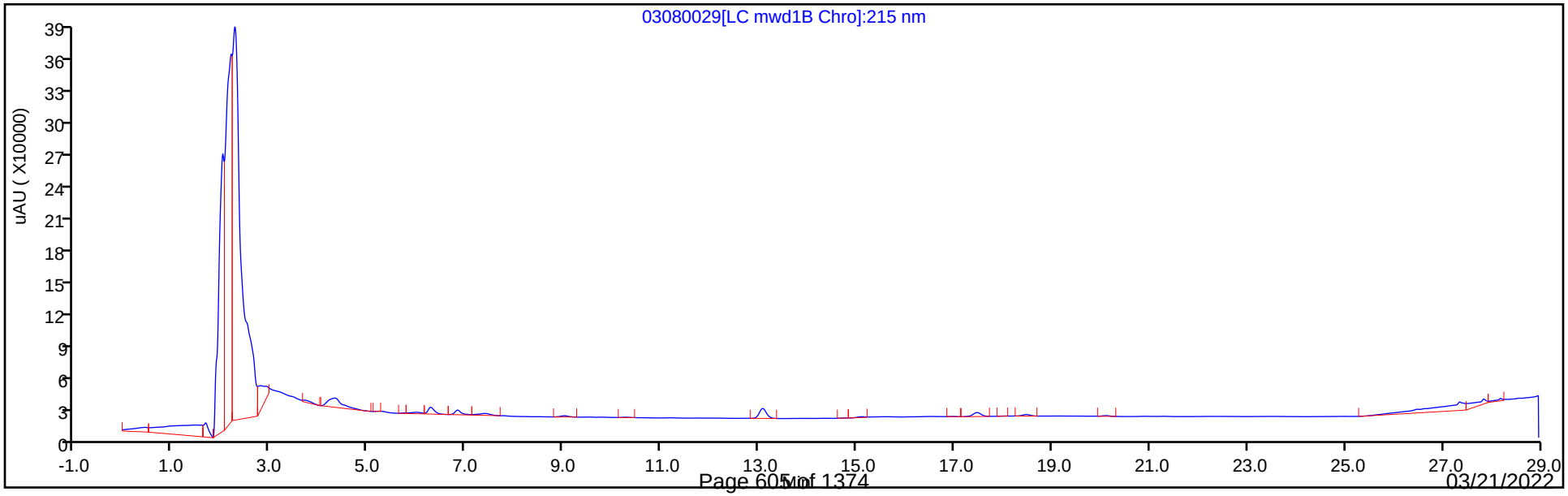
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080029.D | | | | |
| Injection Date: | 09-Mar-2022 05:29:19 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | Worklist Smp#: | 29 |
| Client ID: | G0087-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080029.D | | | | |
| Lims ID: | 280-159234-J-9-A | | | | |
| Client ID: | G0087-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 05:29:19 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-J-9-A | | | | |
| Misc. Info.: | 280-0109079-029 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:24:22 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2041 | 102.06 |

Manual Integration/User Assign Peak Report

Eurofins Denver

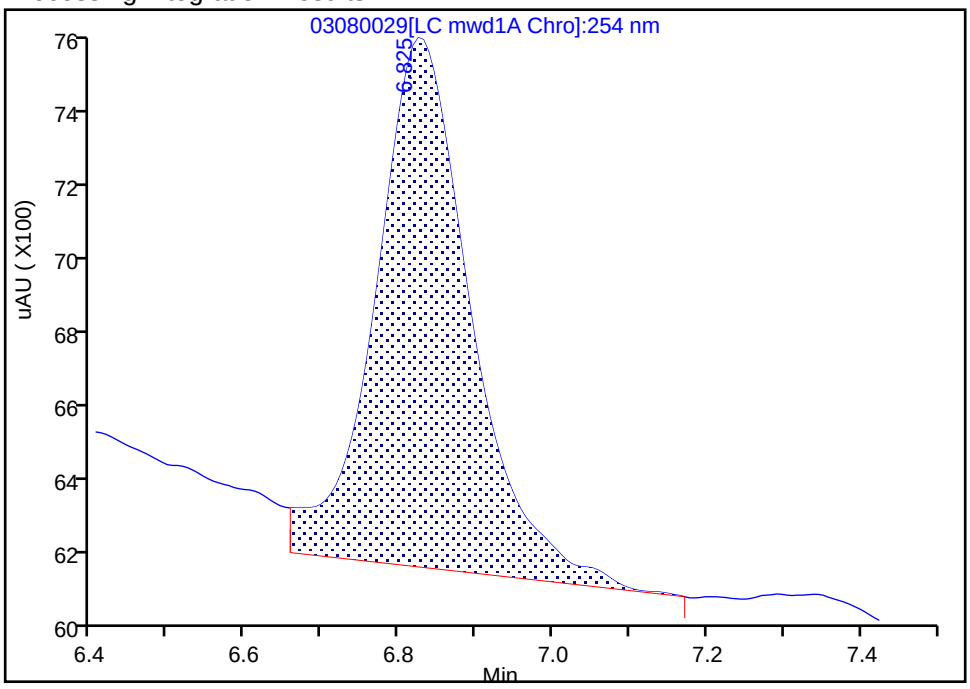
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080029.D | | | | |
| Injection Date: | 09-Mar-2022 05:29:19 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

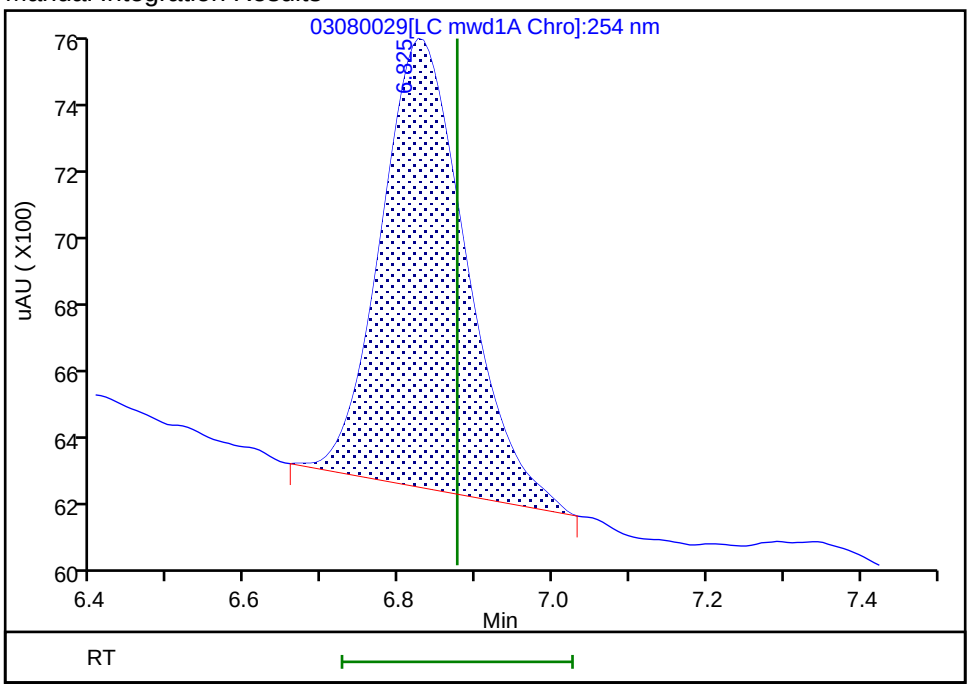
Processing Integration Results

RT: 6.82
Area: 11673
Amount: 0.070262
Amount Units: ug/ml




Manual Integration Results

RT: 6.82
Area: 9730
Amount: 0.058567
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:16

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

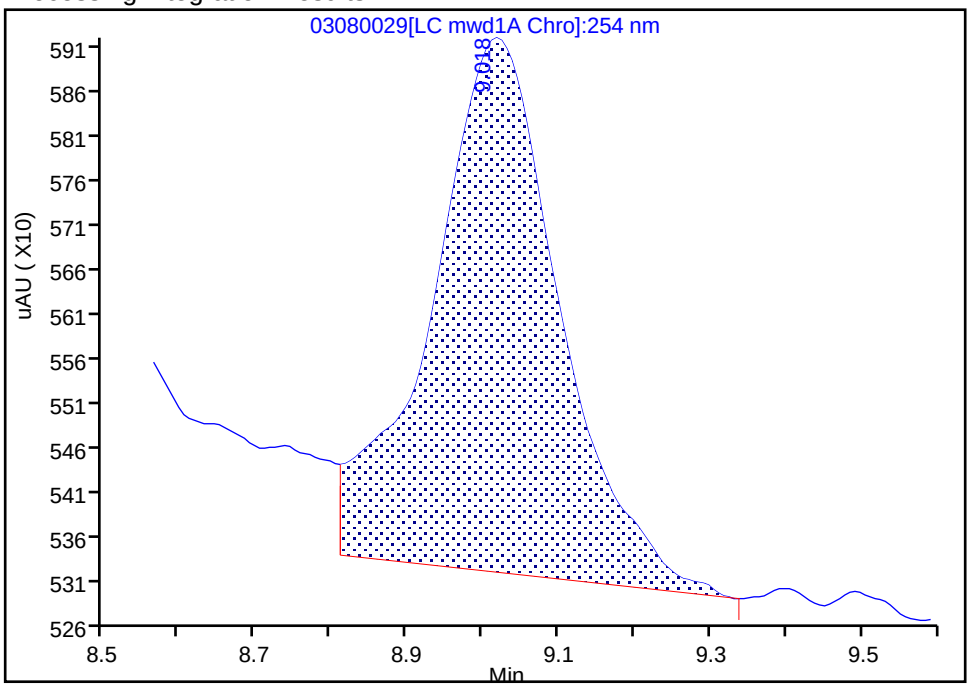
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080029.D | | | | |
| Injection Date: | 09-Mar-2022 05:29:19 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-J-9-A | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

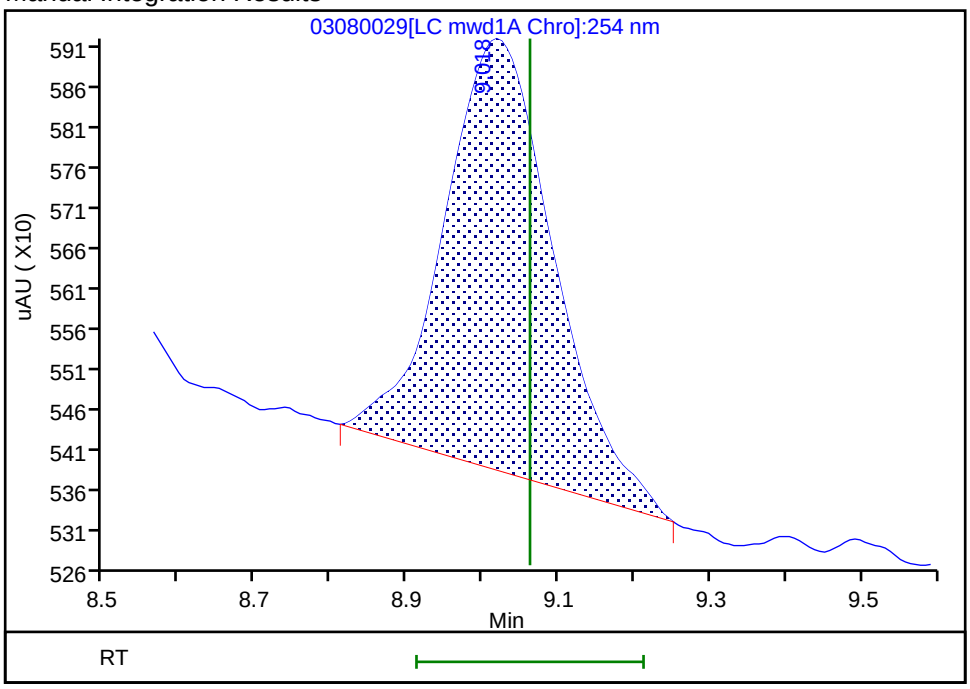
Processing Integration Results

RT: 9.02
Area: 6989
Amount: 0.035964
Amount Units: ug/ml




Manual Integration Results

RT: 9.02
Area: 5342
Amount: 0.027489
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0086-8 | Lab Sample ID: 280-159234-10

Matrix: Water | Lab File ID: 03080032.D

Analysis Method: 8330A | Date Collected: 03/01/2022 11:50

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 465.7(mL) | Date Analyzed: 03/09/2022 00:36

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 21 | | 0.23 | 0.21 | 0.090 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 5.8 | | 0.12 | 0.11 | 0.048 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.043 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.23 | 0.21 | 0.092 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.7 | | 0.16 | 0.13 | 0.062 |
| 2691-41-0 | HMX | 0.58 | M | 0.23 | 0.21 | 0.094 |
| 5755-27-1 | MNX | 0.43 | U M | 2.1 | 0.43 | 0.17 |
| 98-95-3 | Nitrobenzene | 0.21 | U | 0.23 | 0.21 | 0.098 |
| 121-82-4 | RDX | 1.3 | | 0.23 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U M | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 86 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080032.D
Lims ID: 280-159234-K-10-A
Client ID: G0086-8
Sample Type: Client
Inject. Date: 09-Mar-2022 00:36:00 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-K-10-
Misc. Info.: 280-0109078-032
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:51:19

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.585 | 6.593 | -0.008 | 4492 | 0.0536 | M |
| 7 MNX | 1 | | 7.207 | | | ND | U |
| 8 RDX | 1 | 7.578 | 7.579 | -0.001 | 12564 | 0.1213 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.525 | 8.519 | 0.006 | 21447 | 0.1720 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.645 | 8.646 | -0.001 | 430983 | 1.98 | |
| 12 1,3-Dinitrobenzene | 1 | 9.278 | 9.266 | 0.012 | 3253 | 0.0113 | |
| 13 Nitrobenzene | 1 | | 9.652 | | | ND | |
| 15 Tetryl | 1 | | 9.966 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | 10.871 | 10.866 | 0.005 | 109371 | 0.5395 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.051 | 11.052 | -0.001 | 23714 | 0.1571 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.305 | 11.299 | 0.006 | 39820 | 0.1970 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | 11.665 | 11.639 | 0.026 | 3870 | 0.0134 | |
| 22 o-Nitrotoluene | 1 | | 12.479 | | | ND | |
| 23 p-Nitrotoluene | 1 | 12.891 | 12.899 | -0.008 | 3821 | 0.0360 | |
| 24 m-Nitrotoluene | 1 | | 13.466 | | | ND | |

## QC Flag Legend

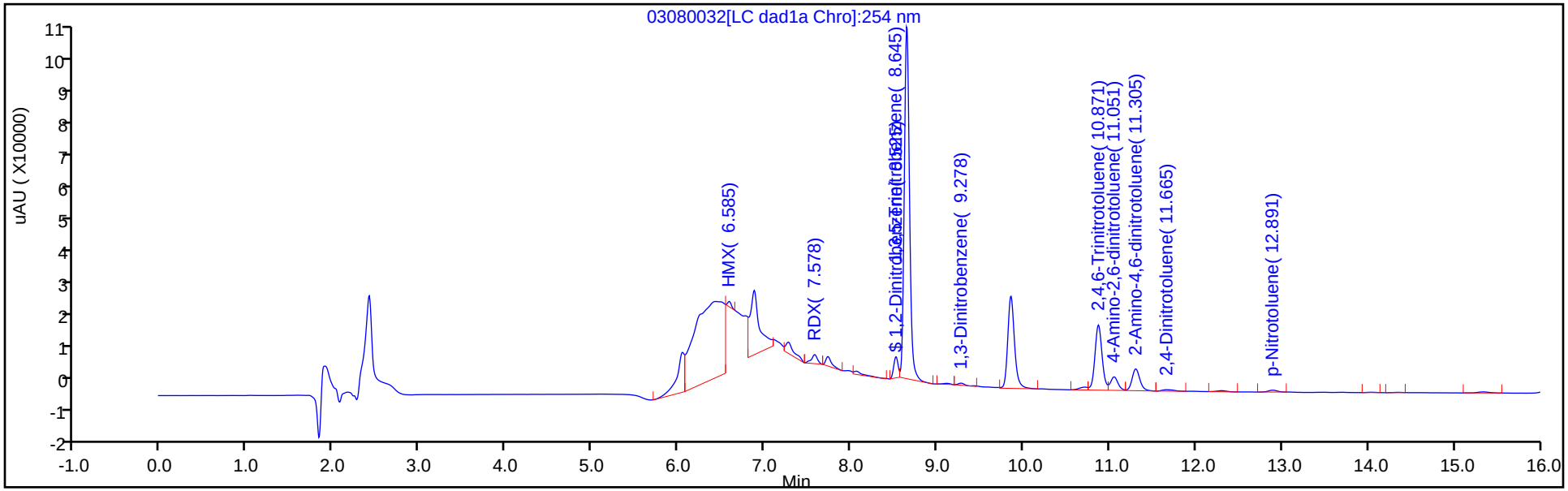
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 13:15:45 Chrom Revision: 2.3 16-Feb-2022 17:52:00

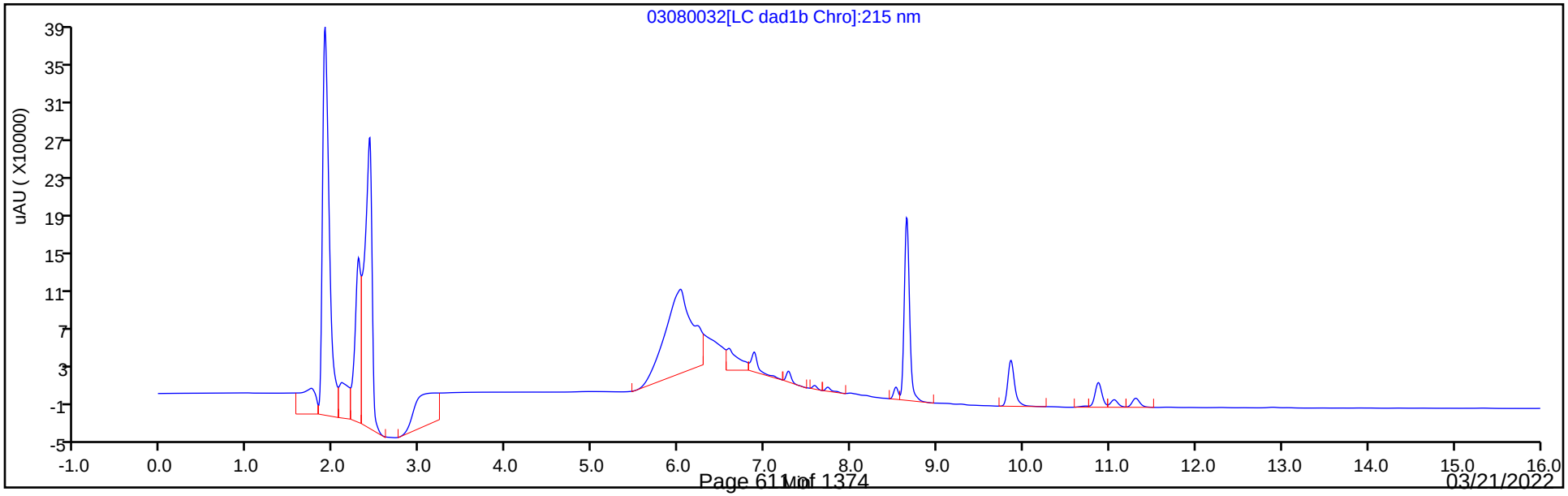
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080032.d | | | | |
| Injection Date: | 09-Mar-2022 00:36:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | Worklist Smp#: | 32 |
| Client ID: | G0086-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080032.D | | | | |
| Lims ID: | 280-159234-K-10-A | | | | |
| Client ID: | G0086-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 00:36:00 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-K-10- | | | | |
| Misc. Info.: | 280-0109078-032 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:51:19

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1720 | 86.00 |

Manual Integration/User Assign Peak Report

Eurofins Denver

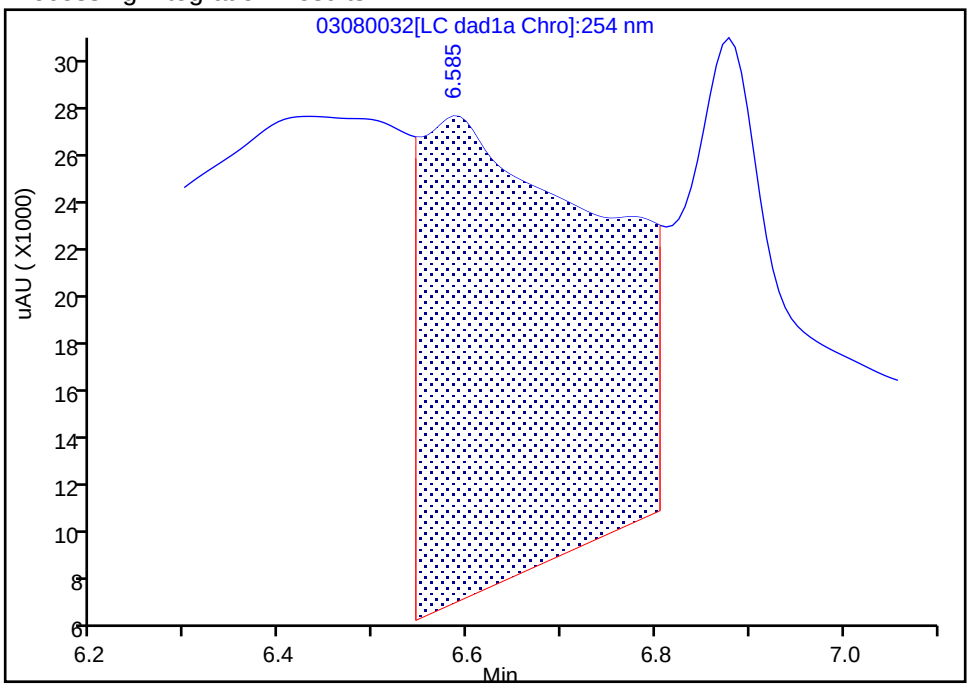
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080032.d | | | | |
| Injection Date: | 09-Mar-2022 00:36:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

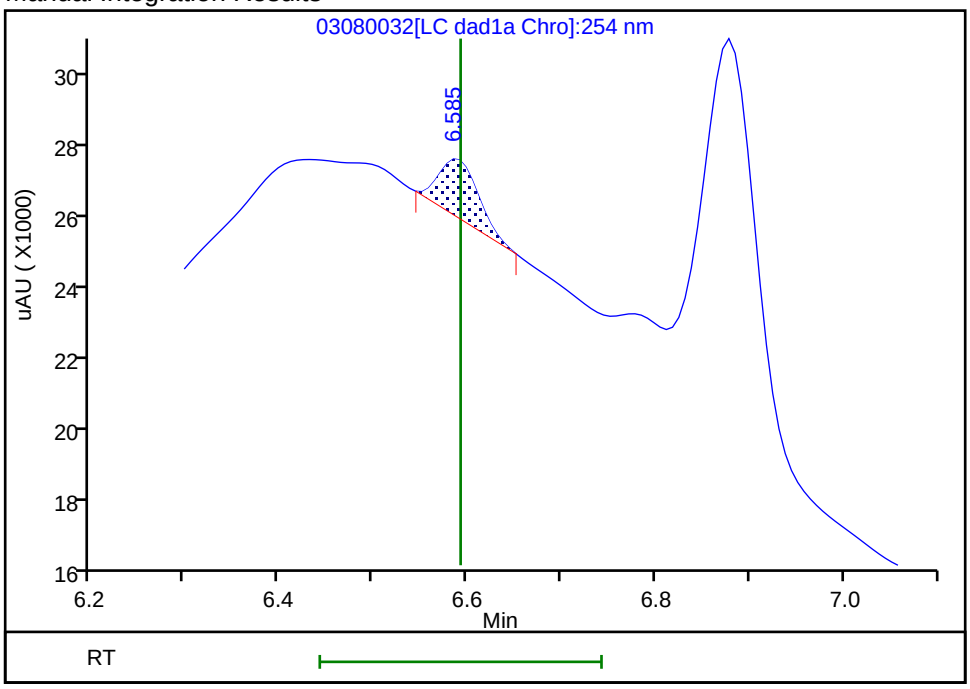
Processing Integration Results

RT: 6.58
Area: 247310
Amount: 2.950236
Amount Units: ug/mL




Manual Integration Results

RT: 6.58
Area: 4492
Amount: 0.053586
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:50:57

Audit Action: Manually Integrated Audit Reason: Baseline

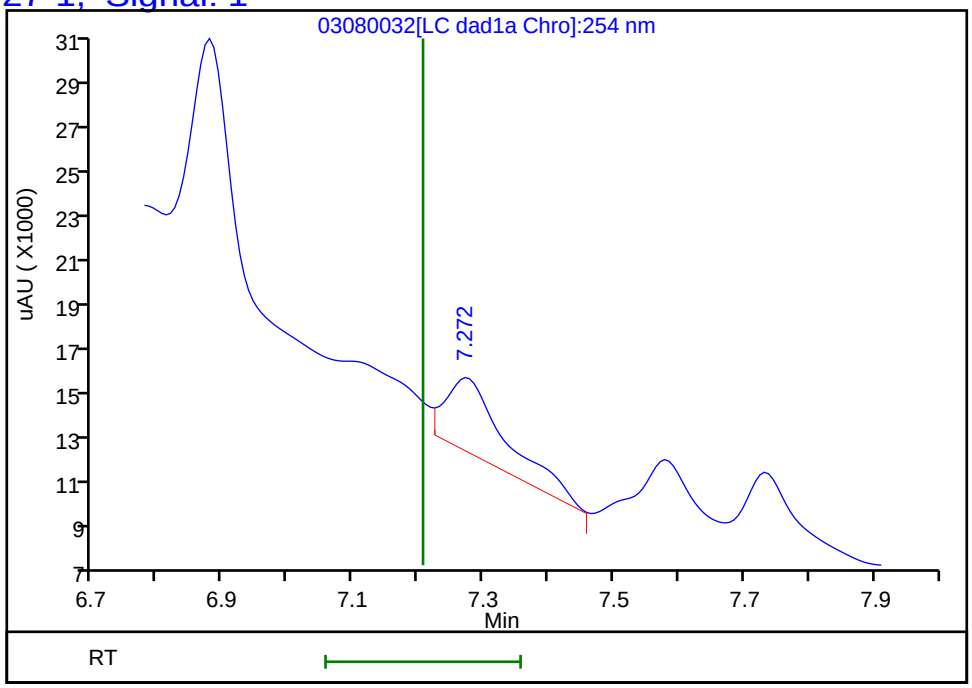
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080032.d | | | | |
| Injection Date: | 09-Mar-2022 00:36:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.27
Response: 21159
Amount: 0.167935




Reviewer: zhangji, 09-Mar-2022 12:51:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

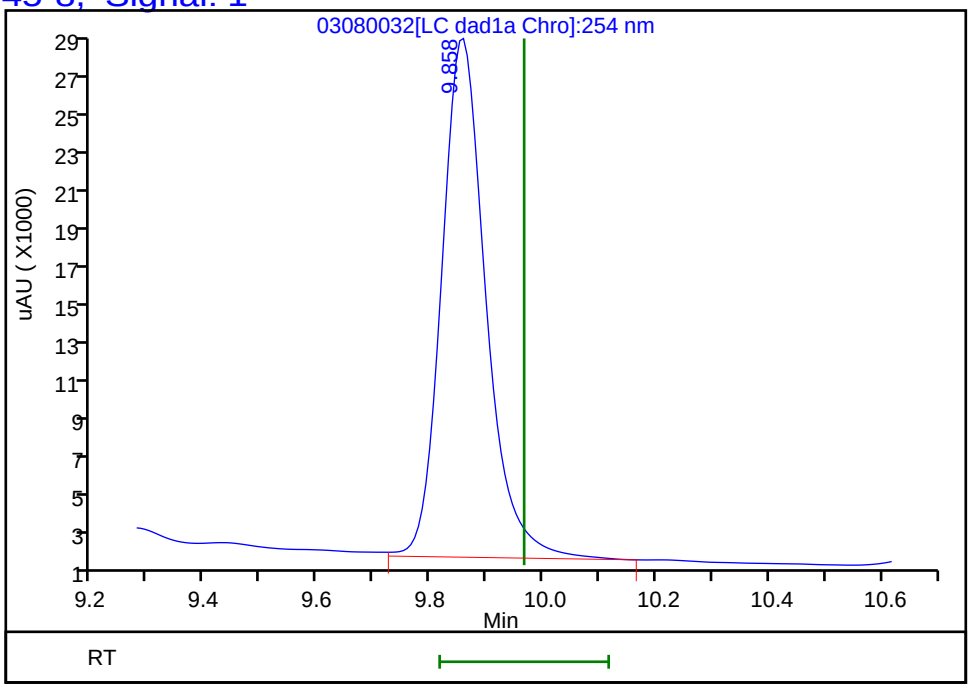
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080032.d | | | | |
| Injection Date: | 09-Mar-2022 00:36:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

RT: 9.86
Response: 145502
Amount: 0.853050




Reviewer: zhangji, 09-Mar-2022 12:51:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0086-8 | Lab Sample ID: 280-159234-10

Matrix: Water | Lab File ID: 03080030.D

Analysis Method: 8330A | Date Collected: 03/01/2022 11:50

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 465.7(mL) | Date Analyzed: 03/09/2022 06:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U | 0.12 | 0.11 | 0.040 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.086 | U | 0.11 | 0.086 | 0.029 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U | 0.44 | 0.43 | 0.11 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 97 | *M* | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D
Lims ID: 280-159234-K-10-A
Client ID: G0086-8
Sample Type: Client
Inject. Date: 09-Mar-2022 06:04:29 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-K-10-A
Misc. Info.: 280-0109079-030
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:24:58

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.833 | 6.875 | -0.042 | 5497 | 0.0331 | M |
| | 6 MNX | 1 | | 7.590 | | | ND | U |
| | 8 RDX | 1 | 9.020 | 9.062 | -0.042 | 16120 | 0.0830 | M |
| | 9 Nitrobenzene | 1 | | 11.915 | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.073 | 13.089 | -0.016 | 48640 | 0.1948 | M |
| | 12 1,3-Dinitrobenzene | 1 | | 15.455 | | | ND | |
| | 14 o-Nitrotoluene | 1 | | 16.542 | | | ND | |
| | 16 p-Nitrotoluene | 1 | | 16.849 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.446 | 17.469 | -0.023 | 42931 | 0.1609 | |
| | 18 m-Nitrotoluene | 1 | | 17.802 | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | | 18.482 | | | ND | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.713 | 18.735 | -0.022 | 770046 | 1.85 | M |
| | 21 2,6-Dinitrotoluene | 1 | | 19.955 | | | ND | U |
| | 22 2,4-Dinitrotoluene | 1 | | 20.482 | | | ND | 7 |
| | 23 Tetryl | 1 | | 24.142 | | | ND | |
| | 24 2,4,6-Trinitrotoluene | 1 | 24.900 | 24.922 | -0.022 | 182465 | 0.4942 | |

## QC Flag Legend

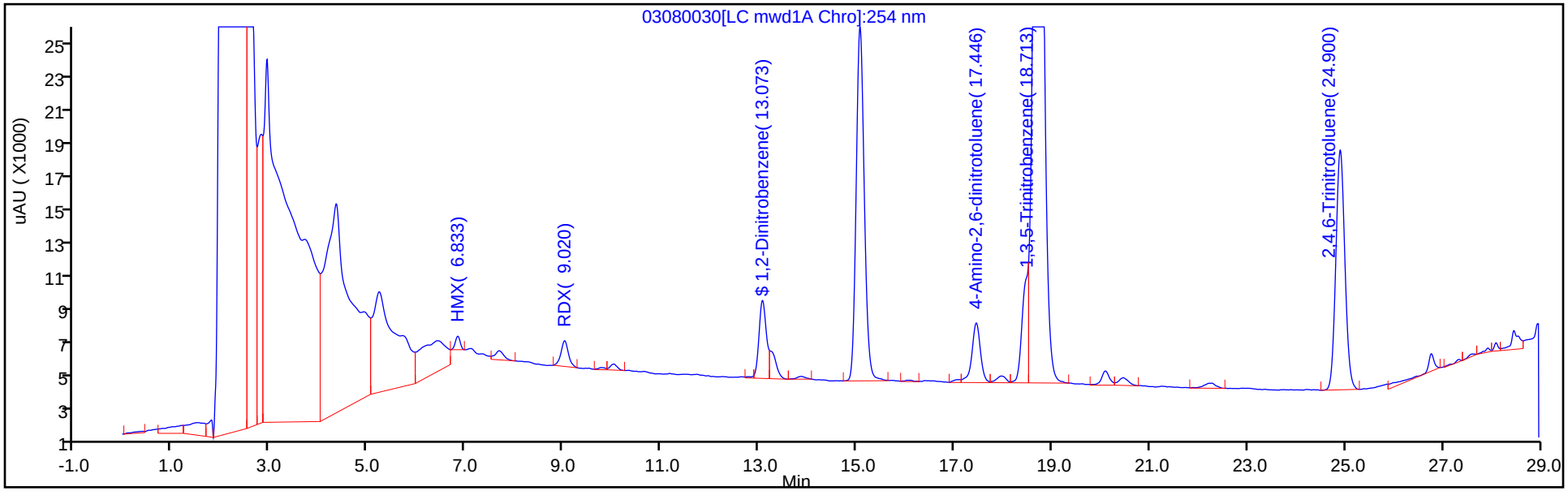
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 09-Mar-2022 19:28:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

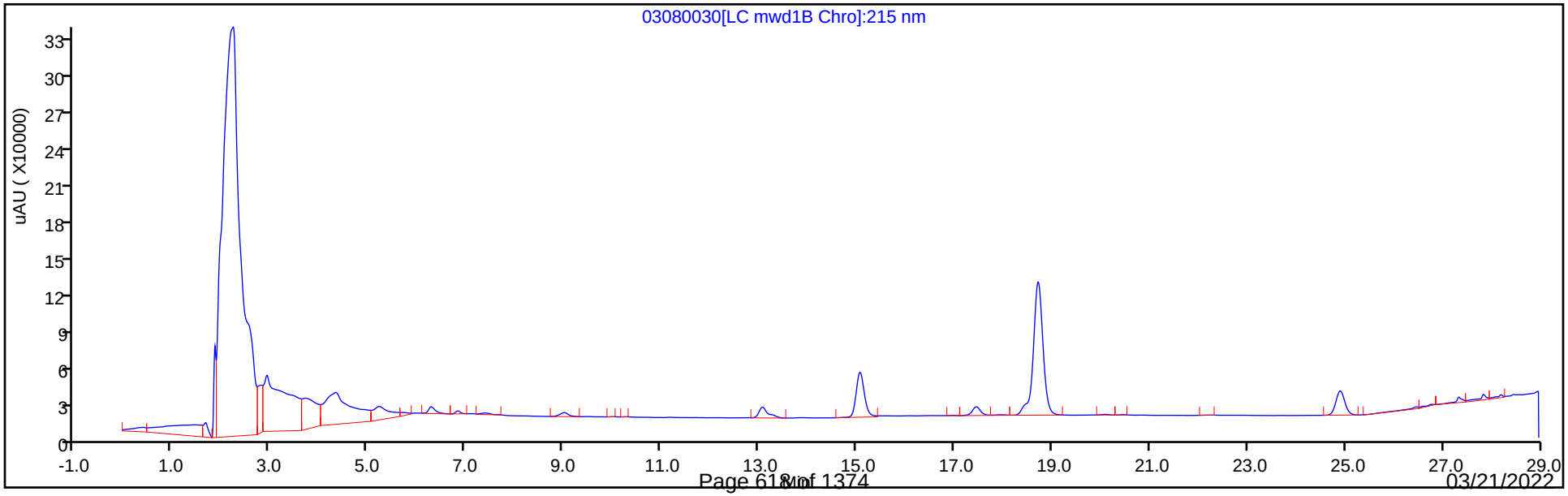
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | Worklist Smp#: | 30 |
| Client ID: | G0086-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Lims ID: | 280-159234-K-10-A | | | | |
| Client ID: | G0086-8 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2022 06:04:29 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-K-10-A | | | | |
| Misc. Info.: | 280-0109079-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:24:58 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1948 | 97.38 |

Manual Integration/User Assign Peak Report

Eurofins Denver

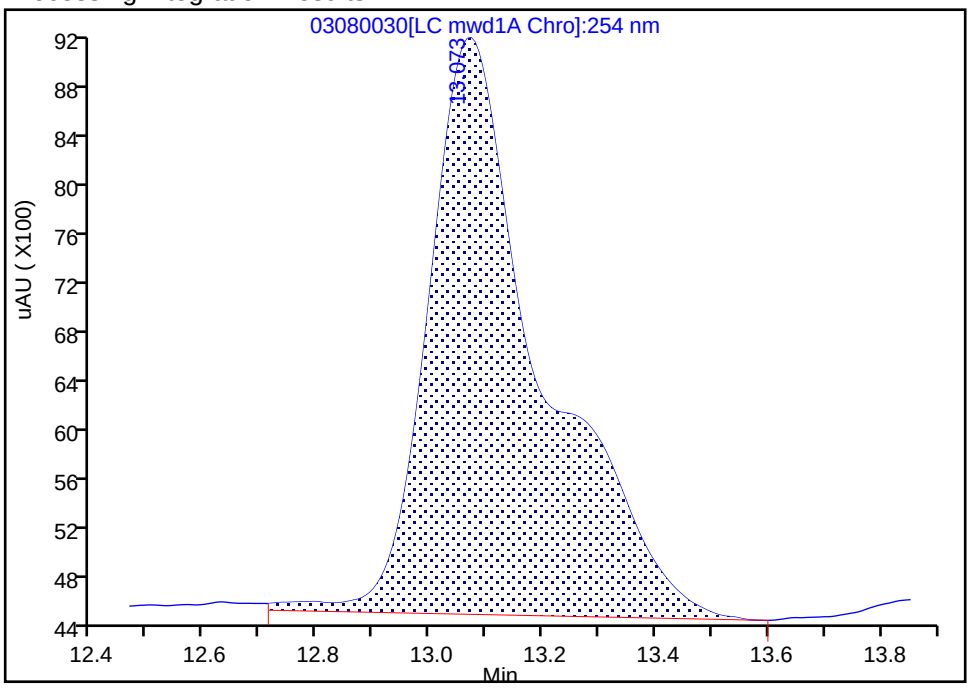
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

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

Signal: 1

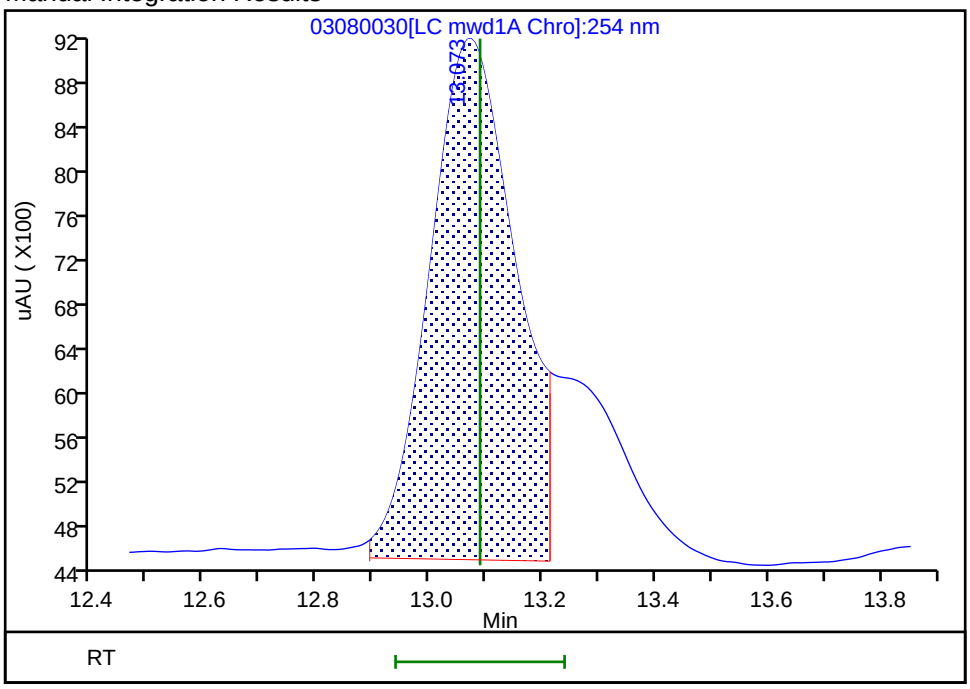
Processing Integration Results

RT: 13.07
Area: 64570
Amount: 0.258535
Amount Units: ug/ml




Manual Integration Results

RT: 13.07
Area: 48640
Amount: 0.194752
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:45

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

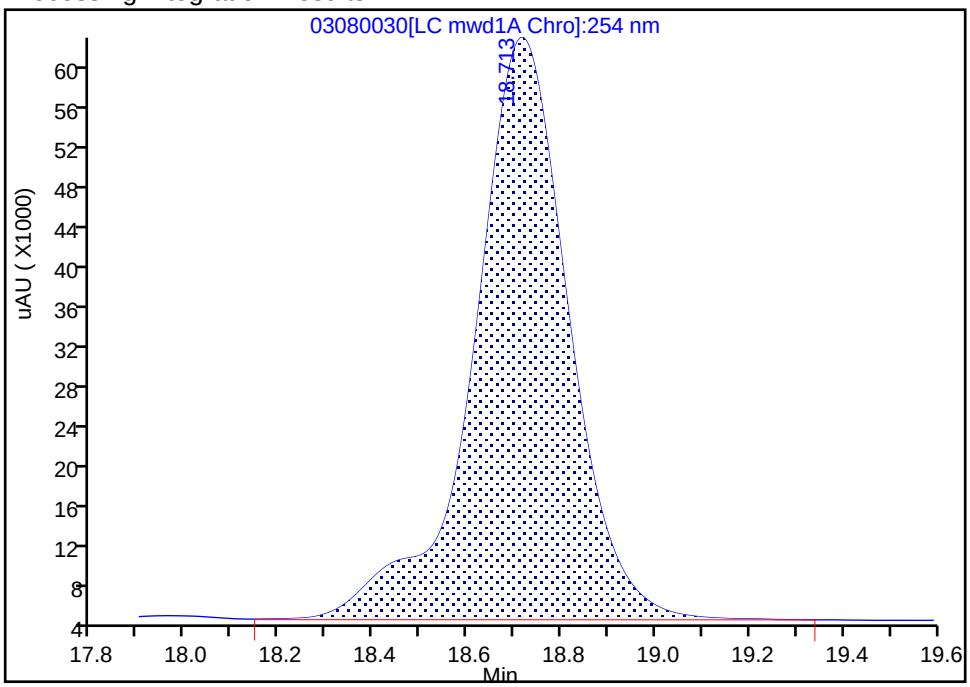
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

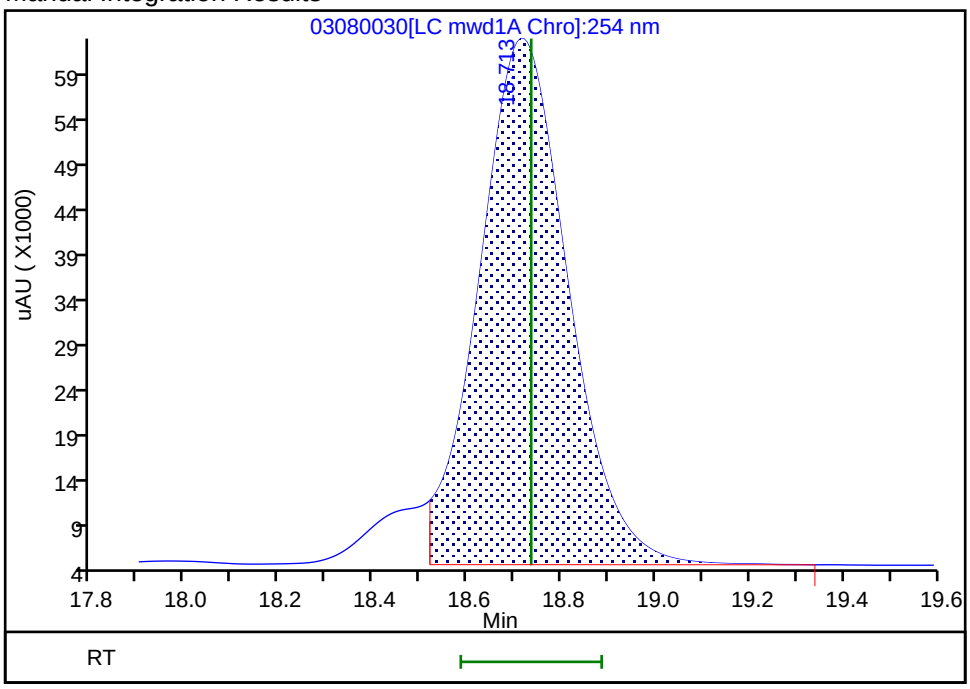
Processing Integration Results

RT: 18.71
Area: 826802
Amount: 1.990068
Amount Units: ug/ml




Manual Integration Results

RT: 18.71
Area: 770046
Amount: 1.853460
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:56

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

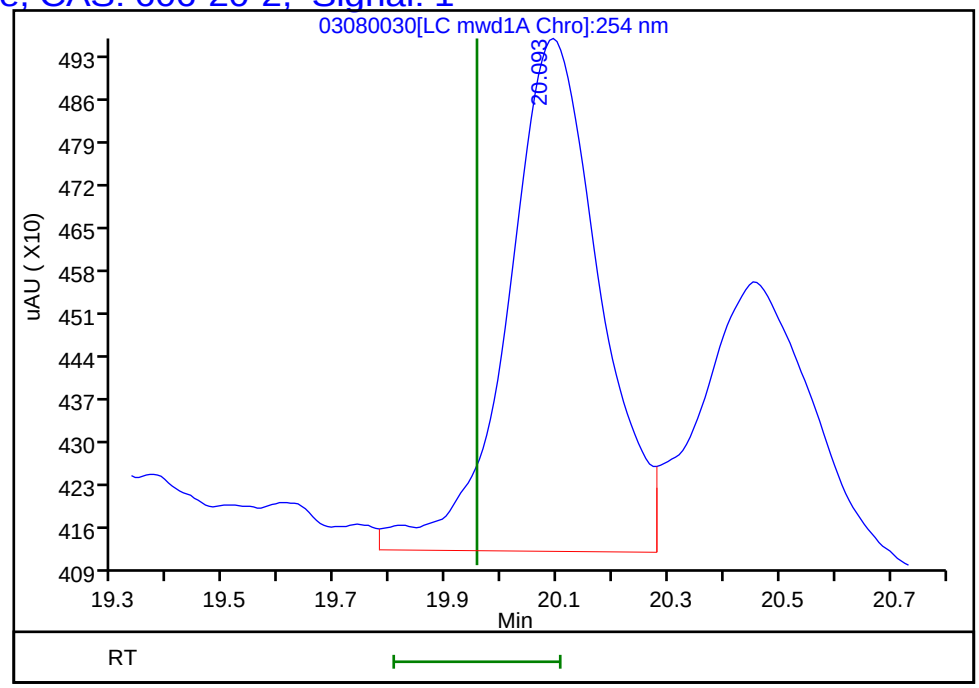
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 20.09
Response: 9589
Amount: 0.036095




Reviewer: zhangji, 09-Mar-2022 19:24:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

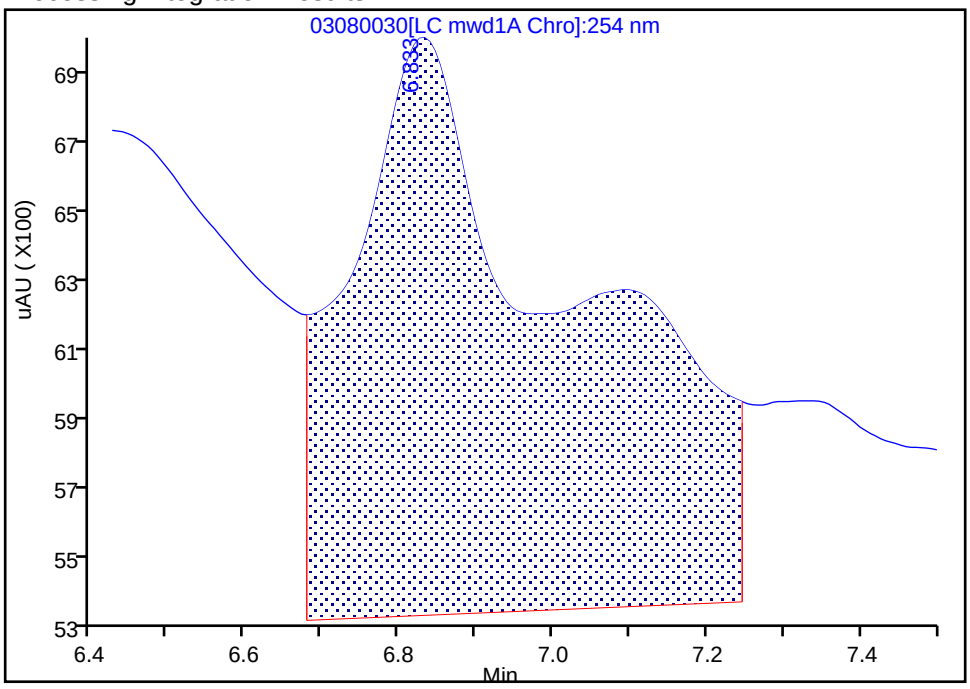
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 5 HMX, CAS: 2691-41-0

Signal: 1

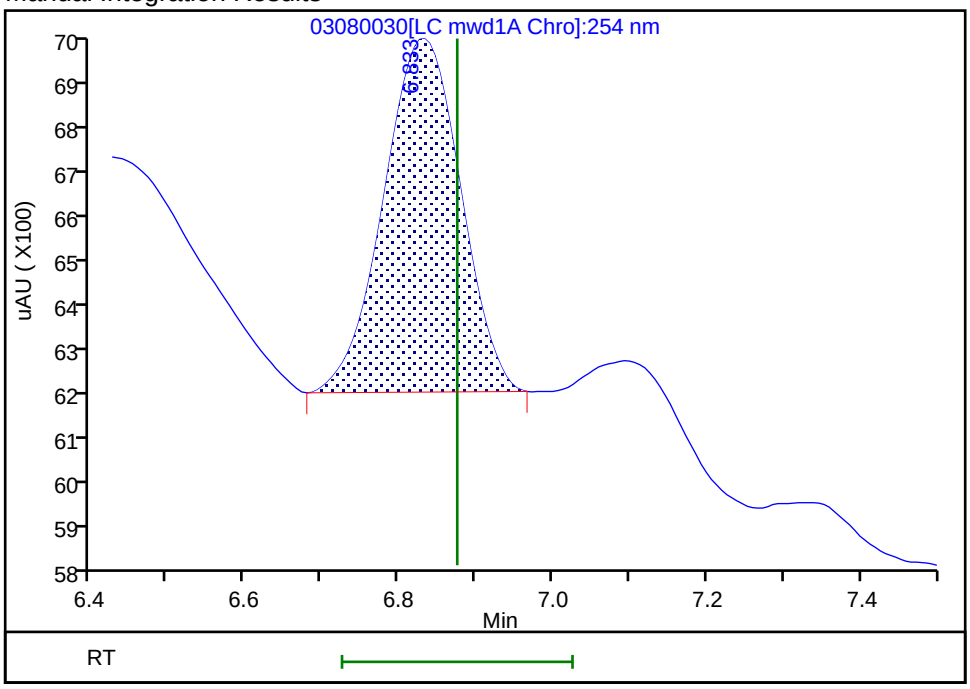
Processing Integration Results

RT: 6.83
Area: 33804
Amount: 0.203473
Amount Units: ug/ml




Manual Integration Results

RT: 6.83
Area: 5497
Amount: 0.033087
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

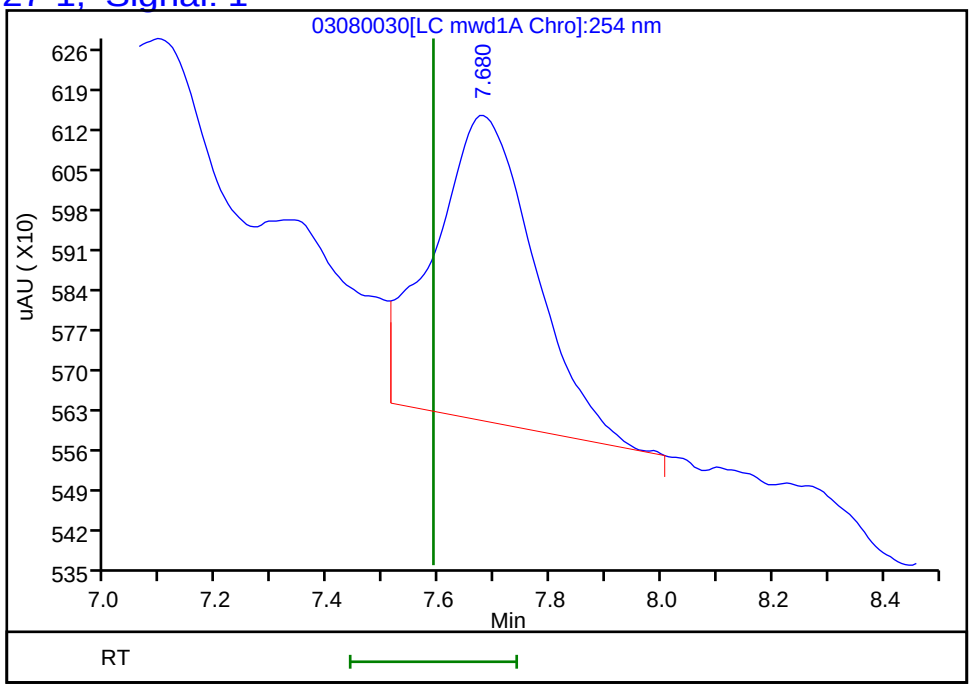
User Disabled Compound Report

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.68
Response: 6794
Amount: 0.027167




Reviewer: zhangji, 09-Mar-2022 19:24:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

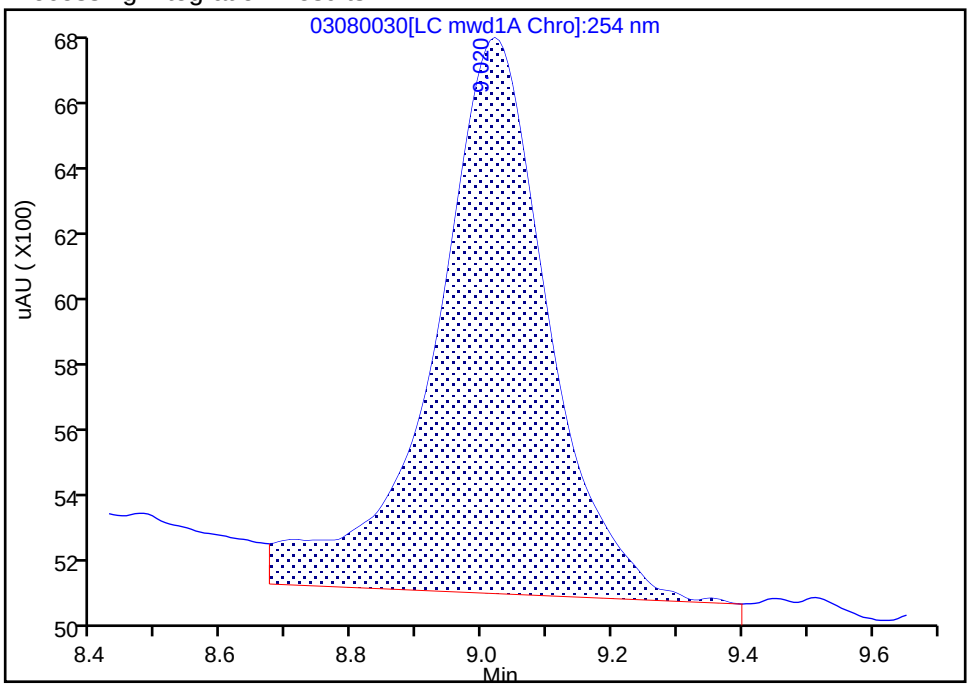
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080030.D | | | | |
| Injection Date: | 09-Mar-2022 06:04:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-159234-K-10-A | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

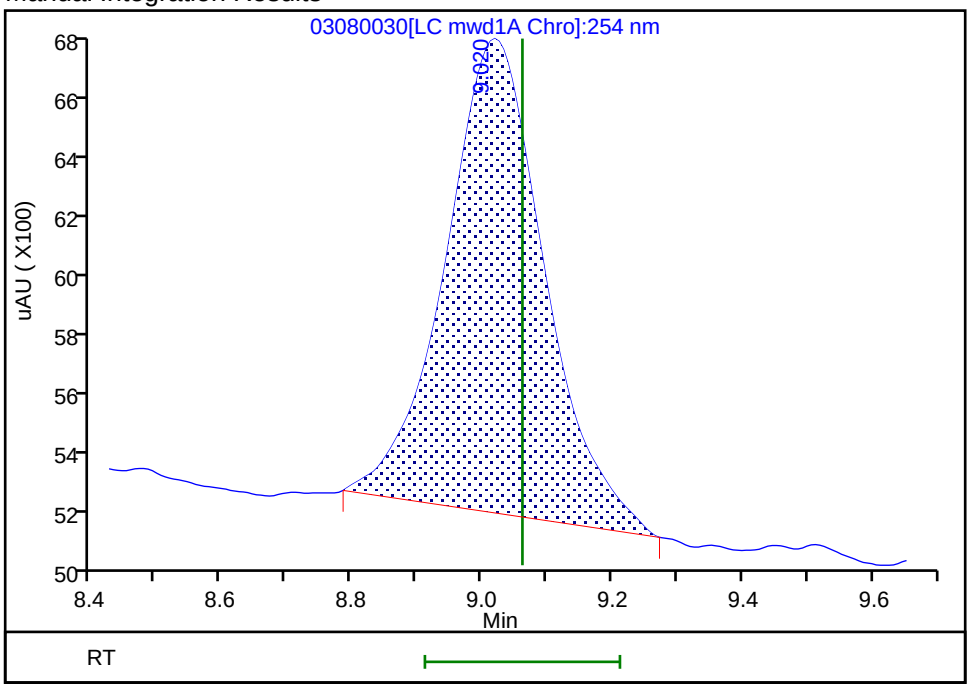
Processing Integration Results

RT: 9.02
Area: 19653
Amount: 0.101132
Amount Units: ug/ml




Manual Integration Results

RT: 9.02
Area: 16120
Amount: 0.082951
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:24:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/19 | 01040019.D |
| Level 2 | IC 280-562503/18 | 01040018.D |
| Level 3 | IC 280-562503/17 | 01040017.D |
| Level 4 | IC 280-562503/16 | 01040016.D |
| Level 5 | IC 280-562503/15 | 01040015.D |
| Level 6 | IC 280-562503/14 | 01040014.D |
| Level 7 | IC 280-562503/13 | 01040013.D |
| Level 8 | IC 280-562503/12 | 01040012.D |
| Level 9 | IC 280-562503/11 | 01040011.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HMX | 6.601 | 6.595 | 6.600 | 6.598 | 6.601 | 6.601 | 6.599 | 6.598 | 6.593 | | 6.448 - 6.748 | 6.598 |
| RDX | 7.601 | 7.608 | 7.607 | 7.605 | 7.601 | 7.607 | 7.606 | 7.604 | 7.600 | | 7.455 - 7.755 | 7.604 |
| Picric acid | 7.941 | 7.948 | 7.947 | 7.945 | 7.934 | 7.927 | 7.913 | 7.904 | 7.860 | | 7.795 - 8.095 | 7.924 |
| 1,3,5-Trinitrobenzene | 8.688 | 8.695 | 8.693 | 8.692 | 8.687 | 8.694 | 8.693 | 8.691 | 8.687 | | 8.542 - 8.842 | 8.691 |
| 1,3-Dinitrobenzene | 9.321 | 9.328 | 9.327 | 9.331 | 9.327 | 9.327 | 9.326 | 9.324 | 9.320 | | 9.181 - 9.481 | 9.326 |
| Nitrobenzene | 9.714 | 9.722 | 9.727 | 9.725 | 9.720 | 9.727 | 9.726 | 9.717 | 9.713 | | 9.575 - 9.875 | 9.721 |
| Tetryl | 10.041 | 10.055 | 10.060 | 10.058 | 10.054 | 10.061 | 10.053 | 10.051 | 10.046 | | 9.908 - 10.208 | 10.053 |
| Nitroglycerin | 10.501 | 10.515 | 10.513 | 10.518 | 10.514 | 10.514 | 10.513 | 10.504 | 10.500 | | 10.368 - 10.668 | 10.510 |
| 2,4,6-Trinitrotoluene | 10.954 | 10.968 | 10.973 | 10.971 | 10.967 | 10.967 | 10.966 | 10.964 | 10.960 | | 10.871 - 11.071 | 10.966 |
| 4-Amino-2,6-dinitrotoluene | 11.154 | 11.175 | 11.173 | 11.171 | 11.167 | 11.174 | 11.173 | 11.164 | 11.160 | | 11.071 - 11.271 | 11.168 |
| 2-Amino-4,6-dinitrotoluene | 11.408 | 11.428 | 11.427 | 11.425 | 11.420 | 11.421 | 11.419 | 11.417 | 11.413 | | 11.325 - 11.525 | 11.420 |
| 2,6-Dinitrotoluene | 11.581 | 11.595 | 11.593 | 11.598 | 11.594 | 11.594 | 11.593 | 11.591 | 11.586 | | 11.498 - 11.698 | 11.592 |
| 2,4-Dinitrotoluene | 11.748 | 11.762 | 11.767 | 11.765 | 11.760 | 11.767 | 11.766 | 11.757 | 11.753 | | 11.665 - 11.865 | 11.761 |
| 2-Nitrotoluene | 12.614 | 12.642 | 12.640 | 12.638 | 12.634 | 12.634 | 12.633 | 12.631 | 12.620 | | 12.488 - 12.788 | 12.632 |
| 4-Nitrotoluene | 13.054 | 13.075 | 13.067 | 13.071 | 13.060 | 13.067 | 13.066 | 13.057 | 13.053 | | 12.921 - 13.221 | 13.063 |
| 3-Nitrotoluene | 13.634 | 13.655 | 13.653 | 13.651 | 13.647 | 13.647 | 13.646 | 13.644 | 13.633 | | 13.501 - 13.801 | 13.646 |
| PETN | 14.708 | 14.735 | 14.733 | 14.738 | 14.727 | 14.734 | 14.733 | 14.724 | 14.713 | | 14.588 - 14.888 | 14.727 |
| 1,2-Dinitrobenzene | 8.561 | 8.575 | 8.573 | 8.572 | 8.567 | 8.574 | 8.573 | 8.571 | 8.567 | | 8.422 - 8.722 | 8.570 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/19 | 01040019.D |
| Level 2 | IC 280-562503/18 | 01040018.D |
| Level 3 | IC 280-562503/17 | 01040017.D |
| Level 4 | IC 280-562503/16 | 01040016.D |
| Level 5 | IC 280-562503/15 | 01040015.D |
| Level 6 | IC 280-562503/14 | 01040014.D |
| Level 7 | IC 280-562503/13 | 01040013.D |
| Level 8 | IC 280-562503/12 | 01040012.D |
| Level 9 | IC 280-562503/11 | 01040011.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 5 LVL 9 | LVL 2 LVL 6 | LVL 3 LVL 7 | LVL 4 LVL 8 | | B | M1 | M2 | | | | | | | | |
| HMX | 90100<br>81580<br>81292 | 86750<br>82313 | 84600<br>81626 | 84890<br>81295 | Ave | | 83827.2016 | | | | 3.6 | | 20.0 | | | |
| RDX | 115200<br>98540<br>100273 | 104200<br>97815 | 114300<br>98669 | 104470<br>99016 | Ave | | 103609.197 | | | | 6.5 | | 20.0 | | | |
| Picric acid | 71600<br>74240<br>80484 | 77700<br>76623 | 80580<br>76297 | 78550<br>77279 | Ave | | 77039.1825 | | | | 3.7 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 219261<br>209936<br>225698 | 212026<br>217802 | 213792<br>221958 | 218124<br>224262 | Ave | | 218095.534 | | | | 2.5 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 262774<br>281713<br>296660 | 291068<br>291824 | 293074<br>292328 | 291567<br>294606 | Ave | | 288401.481 | | | | 3.6 | | 20.0 | | | |
| Nitrobenzene | 205876<br>184653<br>193838 | 191484<br>188466 | 185837<br>191771 | 192102<br>193551 | Ave | | 191953.206 | | | | 3.2 | | 20.0 | | | |
| Tetryl | 177445<br>163545<br>172217 | 174551<br>166432 | 165968<br>169313 | 172036<br>173594 | Ave | | 170566.759 | | | | 2.7 | | 20.0 | | | |
| Nitroglycerin | 63480<br>60791<br>64852 | 60040<br>64322 | 61302<br>64183 | 63595<br>64770 | Ave | | 63037.2862 | | | | 2.9 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| 2,4,6-Trinitrotoluene | 211753<br>195486<br>202459 | 210508<br>199081 | 203227<br>198317 | 203267<br>200435 | Ave | | 202725.952 | | | | 2.7 | | 20.0 | | | |
| 4-Amino-2,6-dinitrotoluene | 171628<br>142434<br>147171 | 157343<br>146076 | 152967<br>145091 | 149600<br>146556 | Ave | | 150985.194 | | | | 5.9 | | 20.0 | | | |
| 2-Amino-4,6-dinitrotoluene | 227789<br>193171<br>199435 | 213247<br>197134 | 191235<br>196207 | 201992<br>199332 | Ave | | 202171.240 | | | | 5.7 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 154482<br>136163<br>144227 | 149054<br>142460 | 137610<br>141928 | 141773<br>140340 | Ave | | 143115.218 | | | | 4.0 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 303486<br>281295<br>293182 | 293327<br>286355 | 277550<br>285832 | 292380<br>290749 | Ave | | 289350.655 | | | | 2.6 | | 20.0 | | | |
| 2-Nitrotoluene | 138700<br>121120<br>126002 | 137150<br>123750 | 126280<br>123333 | 127770<br>124418 | Ave | | 127613.606 | | | | 4.8 | | 20.0 | | | |
| 4-Nitrotoluene | 108084<br>103090<br>108687 | 107335<br>105826 | 103054<br>106012 | 106936<br>107095 | Ave | | 106235.483 | | | | 1.9 | | 20.0 | | | |
| 3-Nitrotoluene | 176224<br>132507<br>139283 | 149301<br>136601 | 134525<br>135465 | 139890<br>136664 | Ave | | 142273.338 | | | | 9.6 | | 20.0 | | | |
| PETN | 87840<br>71710<br>74726 | 78525<br>73771 | 70168<br>73720 | 74208<br>74427 | Lin2 | 1383.22998 | 72545.1478 | | | | | | | 0.9990 | | 0.9900 |
| 1,2-Dinitrobenzene | 118800<br>123244<br>127495 | 125150<br>124888 | 122540<br>125351 | 127800<br>127011 | Ave | | 124697.681 | | | | 2.3 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/19 | 01040019.D |
| Level 2 | IC 280-562503/18 | 01040018.D |
| Level 3 | IC 280-562503/17 | 01040017.D |
| Level 4 | IC 280-562503/16 | 01040016.D |
| Level 5 | IC 280-562503/15 | 01040015.D |
| Level 6 | IC 280-562503/14 | 01040014.D |
| Level 7 | IC 280-562503/13 | 01040013.D |
| Level 8 | IC 280-562503/12 | 01040012.D |
| Level 9 | IC 280-562503/11 | 01040011.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| HMX | Ave | 901<br>32925 | 1735<br>57138 | 4230<br>81295 | 8489<br>203229 | 20395 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | 1152<br>39126 | 2084<br>69068 | 5715<br>99016 | 10447<br>250683 | 24635 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Picric acid | Ave | 716<br>30649 | 1554<br>53408 | 4029<br>77279 | 7855<br>201210 | 18560 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| 1,3,5-Trinitrobenzene | Ave | 2197<br>87295 | 4249<br>155681 | 10711<br>224711 | 21856<br>565374 | 52589 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 2633<br>116963 | 5833<br>205039 | 14683<br>295195 | 29215<br>743133 | 70569 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitrobenzene | Ave | 2067<br>75688 | 3845<br>134777 | 9329<br>194325 | 19287<br>486534 | 46348 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Ave | 1778<br>66706 | 3498<br>118756 | 8315<br>173941 | 17238<br>431404 | 40968 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 6348<br>257287 | 12008<br>449283 | 30651<br>647703 | 63595<br>1621311 | 151977 | 0.100<br>4.00 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2,4,6-Trinitrotoluene | Ave | 2126<br>79951 | 4227<br>139377 | 10202<br>201237 | 20408<br>508173 | 49067 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Ave | 1718<br>58489 | 3150<br>101665 | 7656<br>146703 | 14975<br>368296 | 35644 | 0.0100<br>0.400 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Ave | 2287<br>79169 | 4282<br>137894 | 9600<br>200129 | 20280<br>500581 | 48486 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Ave | 1551<br>57212 | 2993<br>99747 | 6908<br>140901 | 14234<br>362011 | 34177 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4-Dinitrotoluene | Ave | 3047 | 5890 | 13933 | 29355 | 70605 | 0.0100 | 0.0201 | 0.0502 | 0.100 | 0.251 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| | | 115000 | 200883 | 291912 | 735887 | | 0.402 | 0.703 | 1.00 | 2.51 | |
| 2-Nitrotoluene | Ave | 1387 | 2743 | 6314 | 12777 | 30280 | 0.0100 | 0.0200 | 0.0500 | 0.100 | 0.250 |
| | | 49500 | 86333 | 124418 | 315004 | | 0.400 | 0.700 | 1.00 | 2.50 | |
| 4-Nitrotoluene | Ave | 1083 | 2151 | 5163 | 10715 | 25824 | 0.0100 | 0.0200 | 0.0501 | 0.100 | 0.251 |
| | | 42415 | 74357 | 107309 | 272262 | | 0.401 | 0.701 | 1.00 | 2.51 | |
| 3-Nitrotoluene | Ave | 1764 | 2989 | 6733 | 14003 | 33160 | 0.0100 | 0.0200 | 0.0501 | 0.100 | 0.250 |
| | | 54695 | 94920 | 136801 | 348555 | | 0.400 | 0.701 | 1.00 | 2.50 | |
| PETN | Lin2 | 8784 | 15705 | 35084 | 74208 | 179275 | 0.100 | 0.200 | 0.500 | 1.00 | 2.50 |
| | | 295082 | 516042 | 744274 | 1868141 | | 4.00 | 7.00 | 10.0 | 25.0 | |
| 1,2-Dinitrobenzene | Ave | 1188 | 2503 | 6127 | 12780 | 30811 | 0.0100 | 0.0200 | 0.0500 | 0.100 | 0.250 |
| | | 49955 | 87746 | 127011 | 318738 | | 0.400 | 0.700 | 1.00 | 2.50 | |

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040011.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 04-Jan-2022 18:28:10 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Misc. Info.: 280-0107731-011
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:10 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.593 | 6.598 | -0.005 | 203229 | 2.50 | 2.42 | M |
| 8 RDX | 1 | 7.600 | 7.605 | -0.005 | 250683 | 2.50 | 2.42 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.860 | 7.945 | -0.085 | 201210 | 2.50 | 2.61 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.567 | 8.572 | -0.005 | 318738 | 2.50 | 2.56 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.687 | 8.692 | -0.005 | 565374 | 2.51 | 2.59 | |
| 12 1,3-Dinitrobenzene | 1 | 9.320 | 9.331 | -0.011 | 743133 | 2.51 | 2.58 | |
| 13 Nitrobenzene | 1 | 9.713 | 9.725 | -0.012 | 486534 | 2.51 | 2.53 | |
| 15 Tetryl | 1 | 10.046 | 10.058 | -0.012 | 431404 | 2.51 | 2.53 | |
| 16 Nitroglycerin | 2 | 10.500 | 10.518 | -0.018 | 1621311 | 25.0 | 25.7 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.960 | 10.971 | -0.011 | 508173 | 2.51 | 2.51 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.160 | 11.171 | -0.011 | 368296 | 2.50 | 2.44 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.413 | 11.425 | -0.012 | 500581 | 2.51 | 2.48 | |
| 20 2,6-Dinitrotoluene | 1 | 11.586 | 11.598 | -0.012 | 362011 | 2.51 | 2.53 | |
| 21 2,4-Dinitrotoluene | 1 | 11.753 | 11.765 | -0.012 | 735887 | 2.51 | 2.54 | |
| 22 o-Nitrotoluene | 1 | 12.620 | 12.638 | -0.018 | 315004 | 2.50 | 2.47 | |
| 23 p-Nitrotoluene | 1 | 13.053 | 13.071 | -0.018 | 272262 | 2.51 | 2.56 | |
| 24 m-Nitrotoluene | 1 | 13.633 | 13.651 | -0.018 | 348555 | 2.50 | 2.45 | |
| 25 PETN | 2 | 14.713 | 14.738 | -0.025 | 1868141 | 25.0 | 25.7 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 250.00 Units: uL

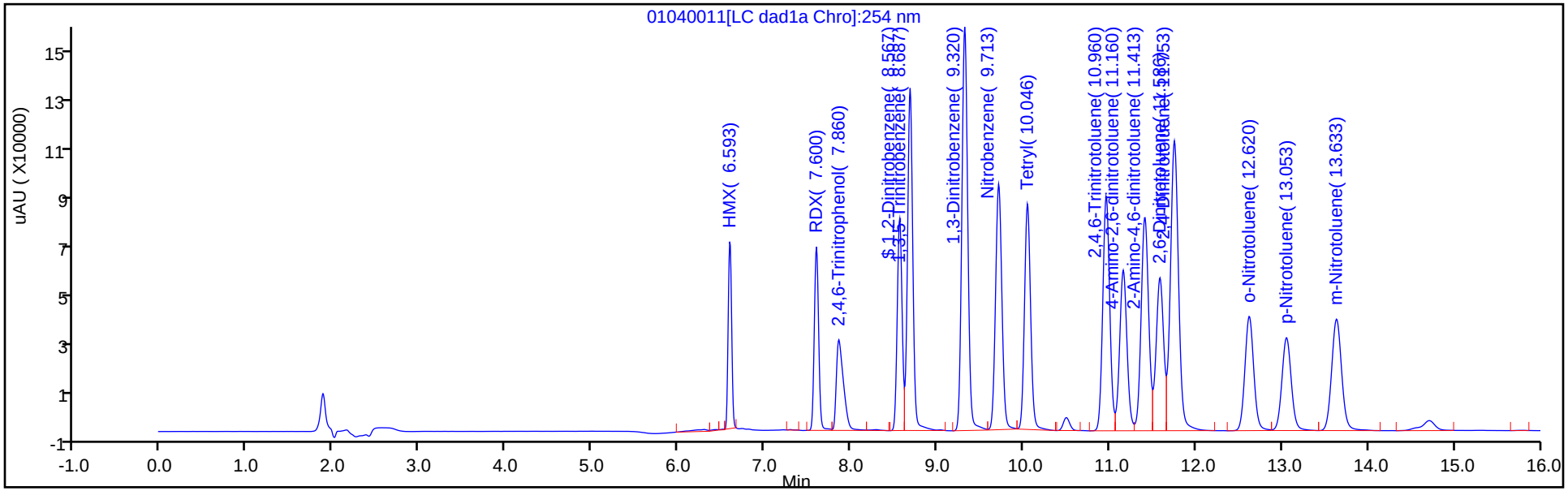
Report Date: 06-Jan-2022 20:05:10 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

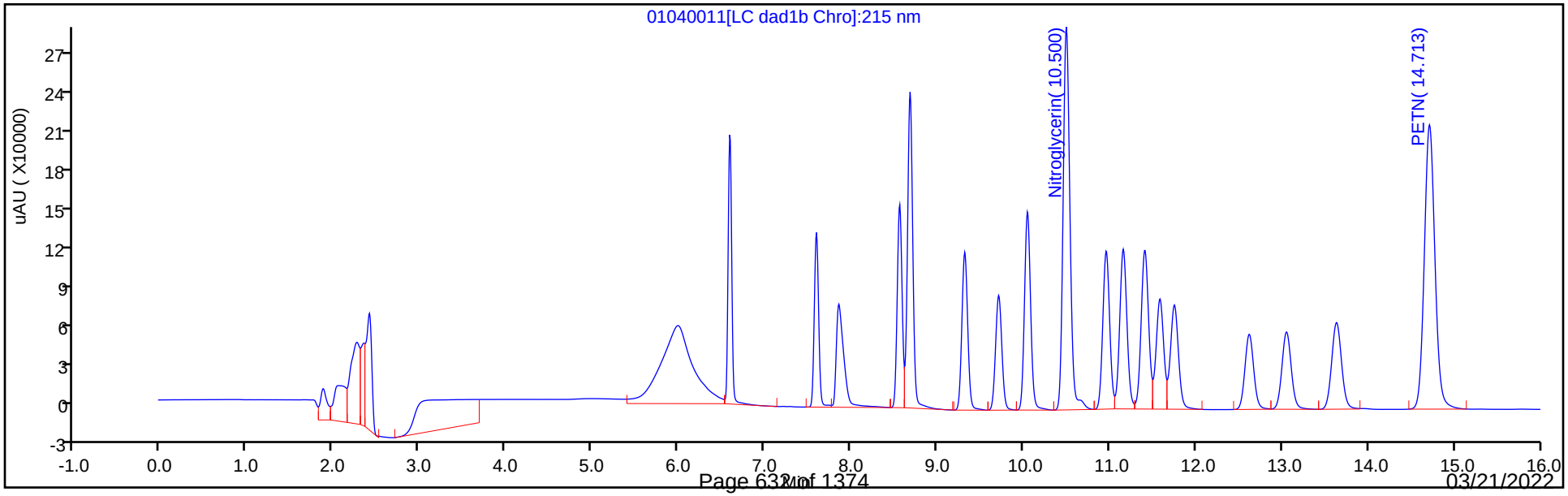
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 18:28:10 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 9 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

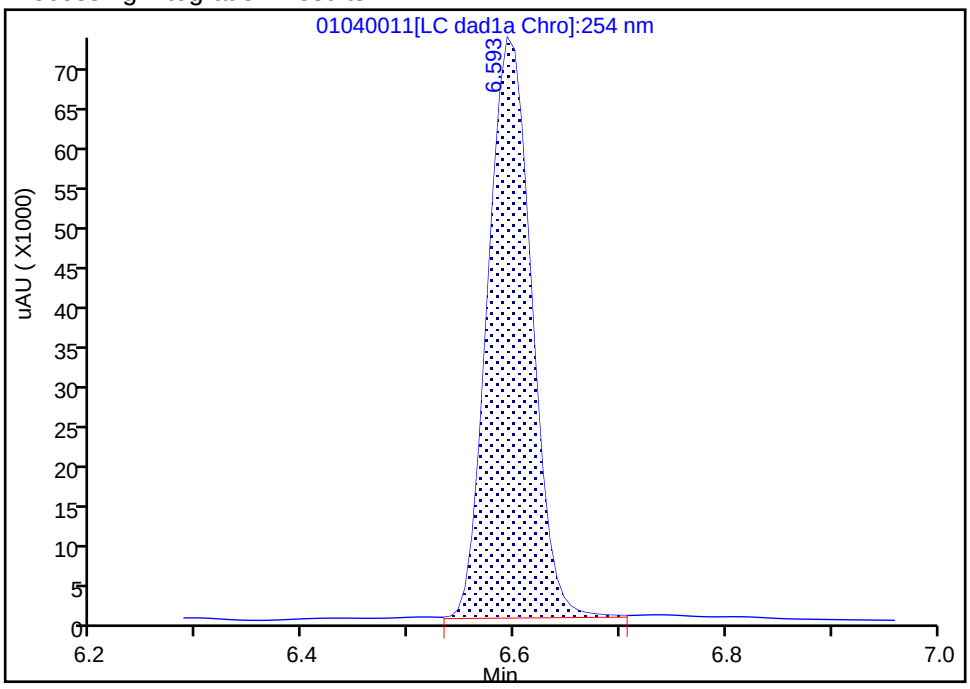
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d | | | | |
| Injection Date: | 04-Jan-2022 18:28:10 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

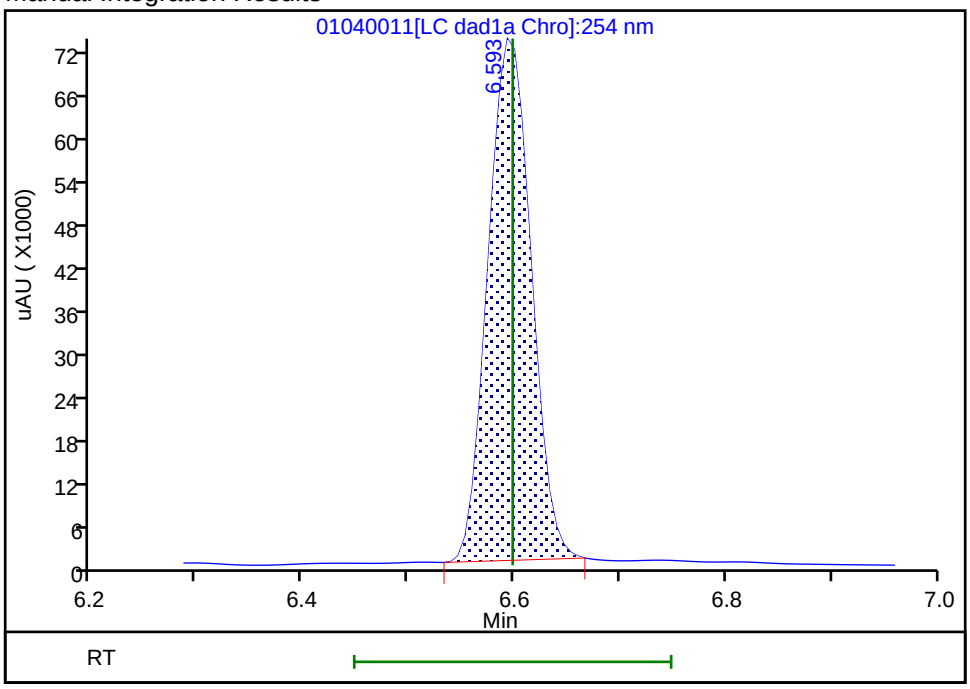
Processing Integration Results

RT: 6.59
Area: 207225
Amount: 2.498192
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 203229
Amount: 2.424380
Amount Units: ug/mL




Reviewer: zhangji, 04-Jan-2022 19:18:30
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040012.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 04-Jan-2022 18:51:00 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Misc. Info.: 280-0107731-012
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:25

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.598 | 6.598 | 0.000 | 81295 | 1.00 | 0.9698 | M |
| 8 RDX | 1 | 7.604 | 7.605 | -0.001 | 99016 | 1.00 | 0.9557 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.904 | 7.945 | -0.041 | 77279 | 1.00 | 1.00 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.571 | 8.572 | -0.001 | 127011 | 1.00 | 1.02 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.691 | 8.692 | -0.001 | 224711 | 1.00 | 1.03 | |
| 12 1,3-Dinitrobenzene | 1 | 9.324 | 9.331 | -0.007 | 295195 | 1.00 | 1.02 | |
| 13 Nitrobenzene | 1 | 9.717 | 9.725 | -0.008 | 194325 | 1.00 | 1.01 | |
| 15 Tetryl | 1 | 10.051 | 10.058 | -0.007 | 173941 | 1.00 | 1.02 | |
| 16 Nitroglycerin | 2 | 10.504 | 10.518 | -0.014 | 647703 | 10.0 | 10.3 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.964 | 10.971 | -0.007 | 201237 | 1.00 | 0.99 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.164 | 11.171 | -0.007 | 146703 | 1.00 | 0.9716 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.417 | 11.425 | -0.008 | 200129 | 1.00 | 0.9899 | |
| 20 2,6-Dinitrotoluene | 1 | 11.591 | 11.598 | -0.007 | 140901 | 1.00 | 0.9845 | |
| 21 2,4-Dinitrotoluene | 1 | 11.757 | 11.765 | -0.008 | 291912 | 1.00 | 1.01 | |
| 22 o-Nitrotoluene | 1 | 12.631 | 12.638 | -0.007 | 124418 | 1.00 | 0.9750 | |
| 23 p-Nitrotoluene | 1 | 13.057 | 13.071 | -0.014 | 107309 | 1.00 | 1.01 | |
| 24 m-Nitrotoluene | 1 | 13.644 | 13.651 | -0.007 | 136801 | 1.00 | 0.9615 | |
| 25 PETN | 2 | 14.724 | 14.738 | -0.014 | 744274 | 10.0 | 10.2 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

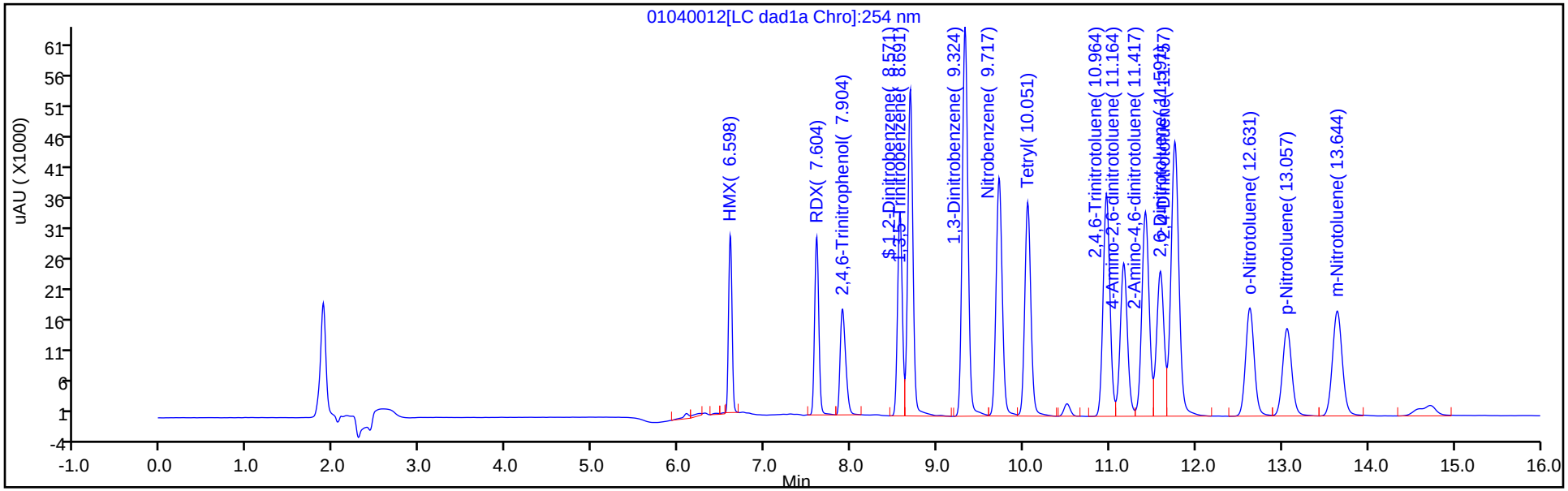
8330IntermStk_00070 Amount Added: 100.00 Units: uL

Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

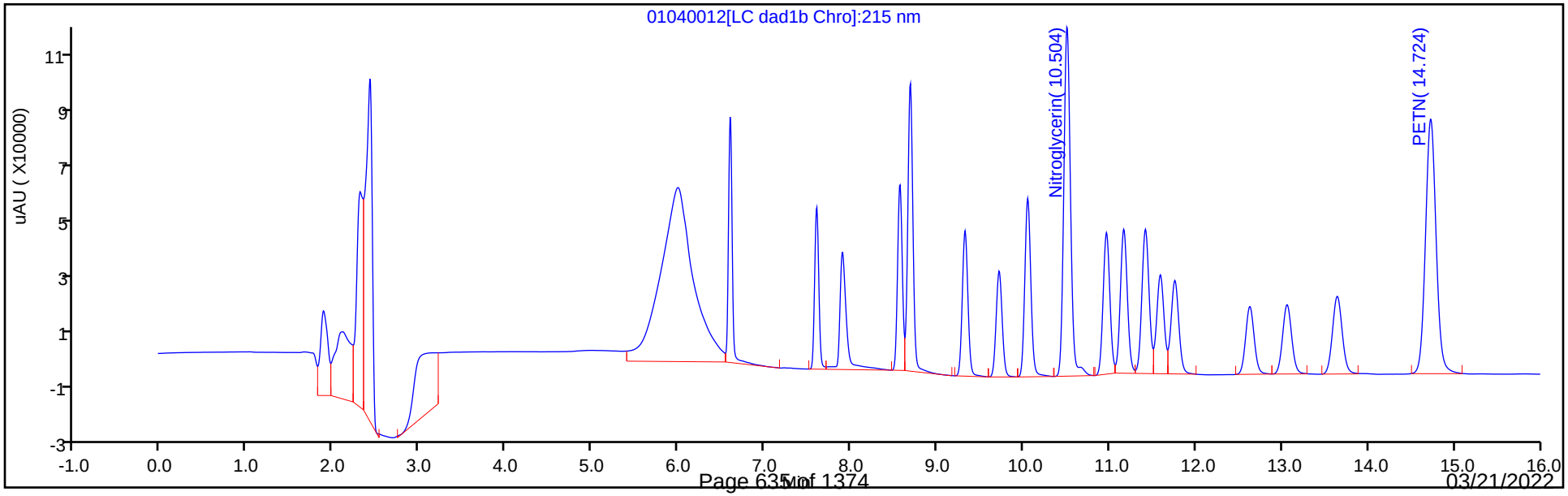
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d | | | | |
| Injection Date: | 04-Jan-2022 18:51:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 8 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

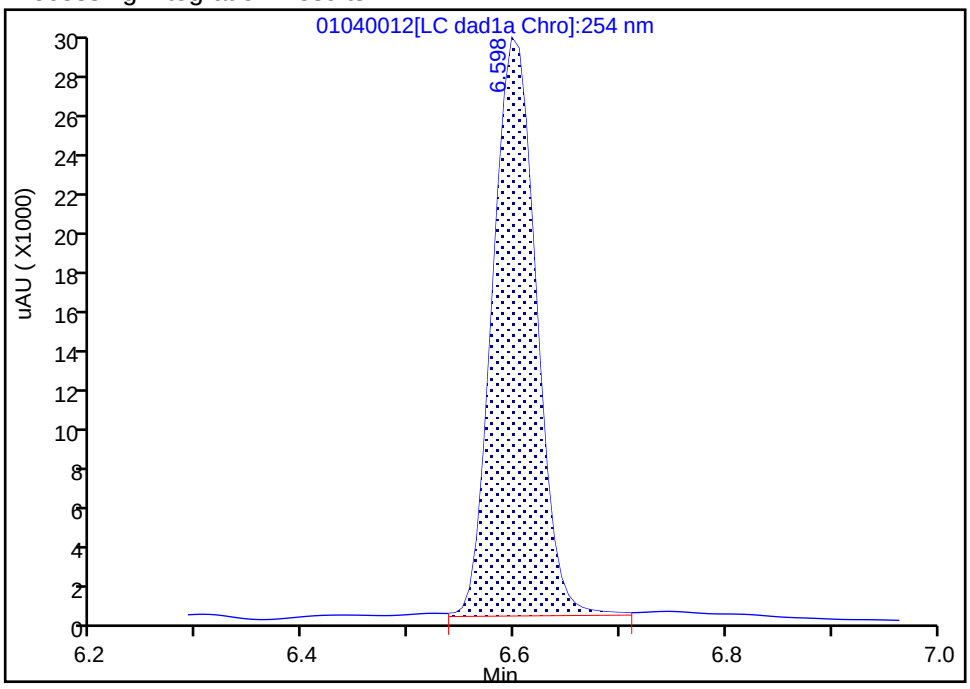
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d | | | | |
| Injection Date: | 04-Jan-2022 18:51:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

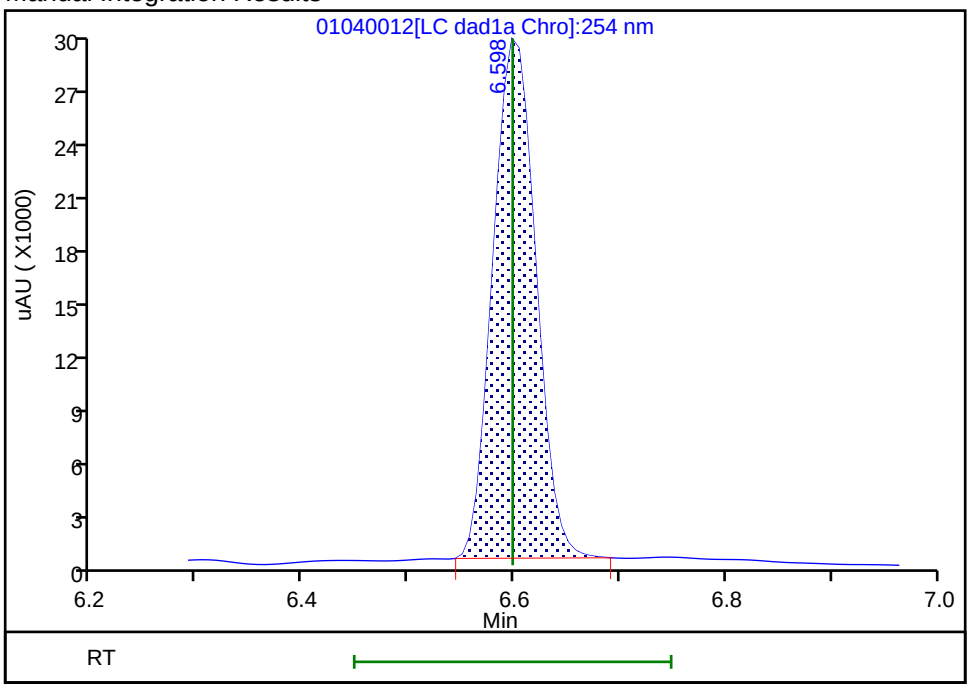
Processing Integration Results

RT: 6.60
Area: 83010
Amount: 1.010459
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 81295
Amount: 0.969793
Amount Units: ug/mL




Reviewer: zhangji, 04-Jan-2022 19:18:46
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040013.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 04-Jan-2022 19:13:53 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Misc. Info.: 280-0107731-013
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:38:01

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.599 | 6.598 | 0.001 | 57138 | 0.7000 | 0.6816 | |
| 8 RDX | 1 | 7.606 | 7.605 | 0.001 | 69068 | 0.7000 | 0.6666 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.913 | 7.945 | -0.032 | 53408 | 0.7000 | 0.6933 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.573 | 8.572 | 0.001 | 87746 | 0.7000 | 0.7037 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.693 | 8.692 | 0.001 | 155681 | 0.7014 | 0.7138 | |
| 12 1,3-Dinitrobenzene | 1 | 9.326 | 9.331 | -0.005 | 205039 | 0.7014 | 0.7109 | |
| 13 Nitrobenzene | 1 | 9.726 | 9.725 | 0.001 | 134777 | 0.7028 | 0.7021 | |
| 15 Tetryl | 1 | 10.053 | 10.058 | -0.005 | 118756 | 0.7014 | 0.6962 | |
| 16 Nitroglycerin | 2 | 10.513 | 10.518 | -0.005 | 449283 | 7.00 | 7.13 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.966 | 10.971 | -0.005 | 139377 | 0.7028 | 0.6875 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.173 | 11.171 | 0.002 | 101665 | 0.7007 | 0.6733 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.419 | 11.425 | -0.006 | 137894 | 0.7028 | 0.6821 | |
| 20 2,6-Dinitrotoluene | 1 | 11.593 | 11.598 | -0.005 | 99747 | 0.7028 | 0.6970 | |
| 21 2,4-Dinitrotoluene | 1 | 11.766 | 11.765 | 0.001 | 200883 | 0.7028 | 0.6943 | |
| 22 o-Nitrotoluene | 1 | 12.633 | 12.638 | -0.005 | 86333 | 0.7000 | 0.6765 | |
| 23 p-Nitrotoluene | 1 | 13.066 | 13.071 | -0.005 | 74357 | 0.7014 | 0.6999 | |
| 24 m-Nitrotoluene | 1 | 13.646 | 13.651 | -0.005 | 94920 | 0.7007 | 0.6672 | |
| 25 PETN | 2 | 14.733 | 14.738 | -0.005 | 516042 | 7.00 | 7.09 | |

## QC Flag Legend
Processing Flags

## Reagents:
8330IntermStk_00070 Amount Added: 70.00 Units: uL

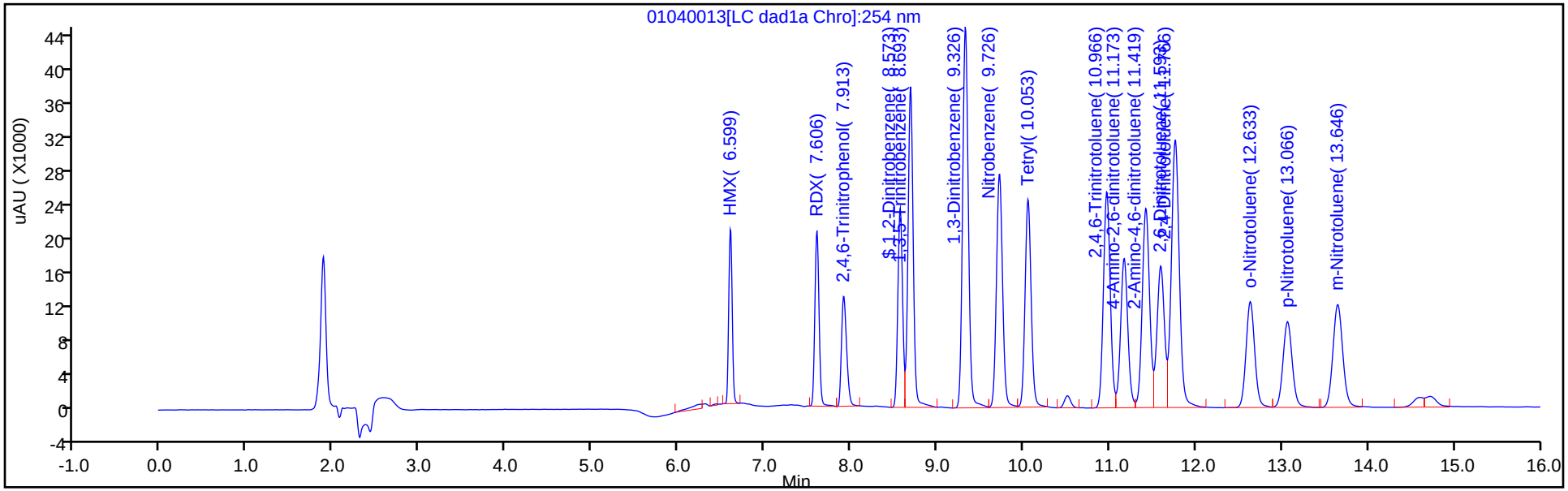
Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

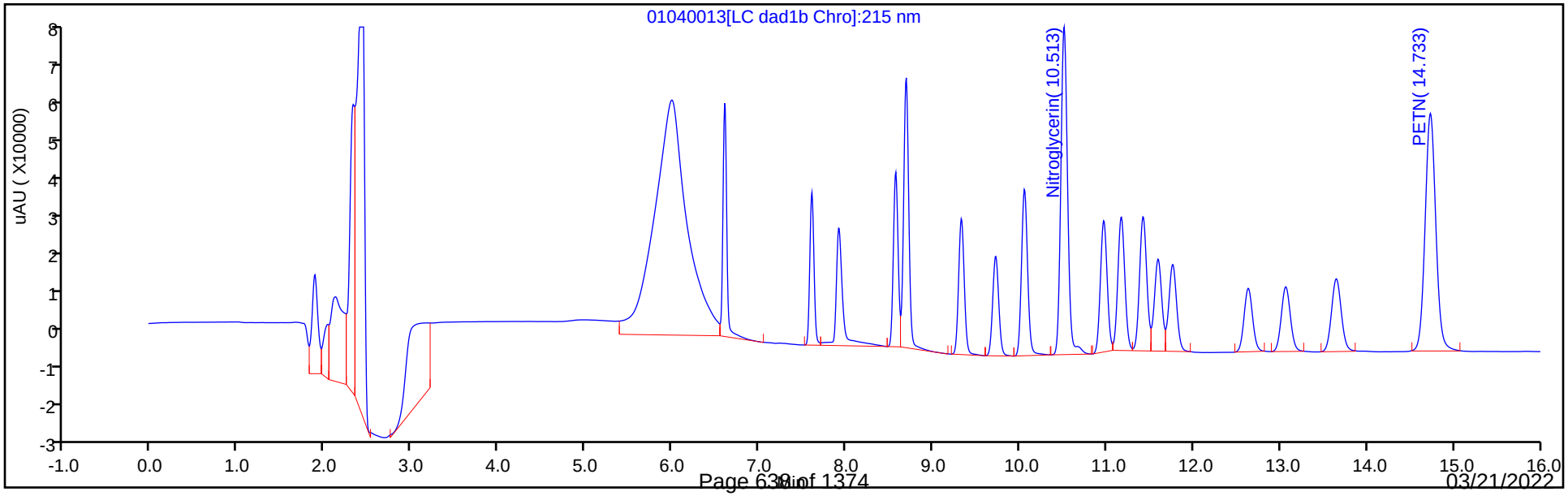
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040013.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 19:13:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 7 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040014.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-Jan-2022 19:36:46 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Misc. Info.: 280-0107731-014
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:03:49

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.601 | 6.598 | 0.003 | 32925 | 0.4000 | 0.3928 | |
| 8 RDX | 1 | 7.607 | 7.605 | 0.002 | 39126 | 0.4000 | 0.3776 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.927 | 7.945 | -0.018 | 30649 | 0.4000 | 0.3978 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.574 | 8.572 | 0.002 | 49955 | 0.4000 | 0.4006 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.694 | 8.692 | 0.002 | 87295 | 0.4008 | 0.4003 | |
| 12 1,3-Dinitrobenzene | 1 | 9.327 | 9.331 | -0.004 | 116963 | 0.4008 | 0.4056 | |
| 13 Nitrobenzene | 1 | 9.727 | 9.725 | 0.002 | 75688 | 0.4016 | 0.3943 | |
| 15 Tetryl | 1 | 10.061 | 10.058 | 0.003 | 66706 | 0.4008 | 0.3911 | |
| 16 Nitroglycerin | 2 | 10.514 | 10.518 | -0.004 | 257287 | 4.00 | 4.08 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.967 | 10.971 | -0.004 | 79951 | 0.4016 | 0.3944 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.174 | 11.171 | 0.003 | 58489 | 0.4004 | 0.3874 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.421 | 11.425 | -0.004 | 79169 | 0.4016 | 0.3916 | |
| 20 2,6-Dinitrotoluene | 1 | 11.594 | 11.598 | -0.004 | 57212 | 0.4016 | 0.3998 | |
| 21 2,4-Dinitrotoluene | 1 | 11.767 | 11.765 | 0.002 | 115000 | 0.4016 | 0.3974 | |
| 22 o-Nitrotoluene | 1 | 12.634 | 12.638 | -0.004 | 49500 | 0.4000 | 0.3879 | |
| 23 p-Nitrotoluene | 1 | 13.067 | 13.071 | -0.004 | 42415 | 0.4008 | 0.3993 | |
| 24 m-Nitrotoluene | 1 | 13.647 | 13.651 | -0.004 | 54695 | 0.4004 | 0.3844 | |
| 25 PETN | 2 | 14.734 | 14.738 | -0.004 | 295082 | 4.00 | 4.05 | |

## QC Flag Legend
Processing Flags

## Reagents:
8330IntermStk_00070 Amount Added: 40.00 Units: uL

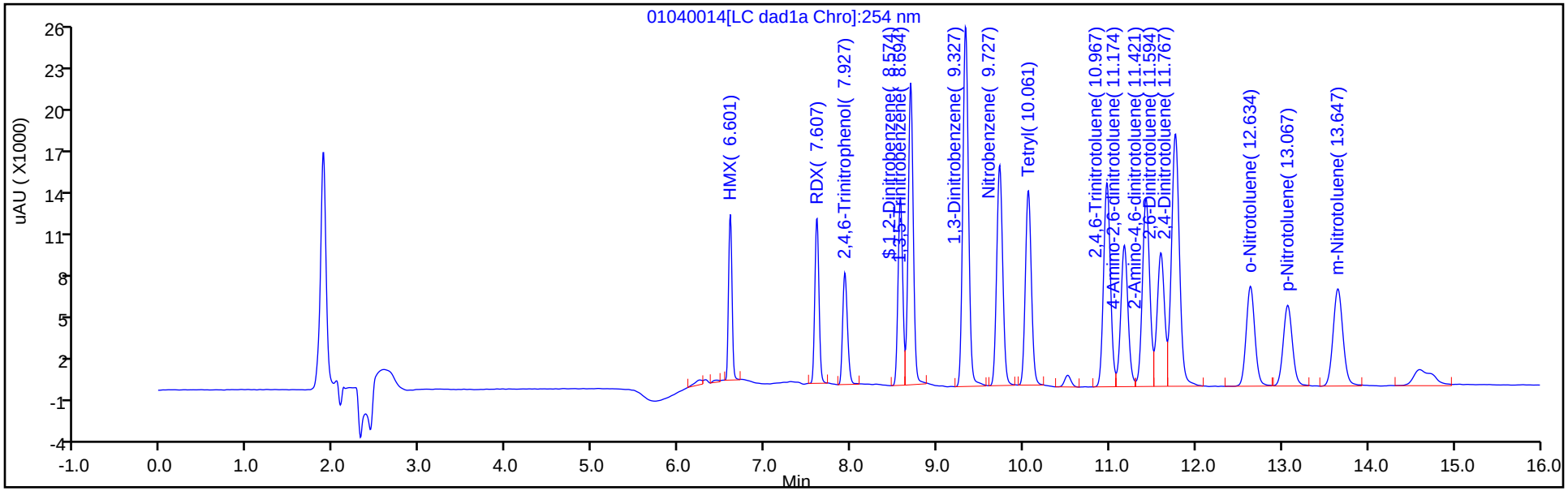
Report Date: 06-Jan-2022 20:05:12 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

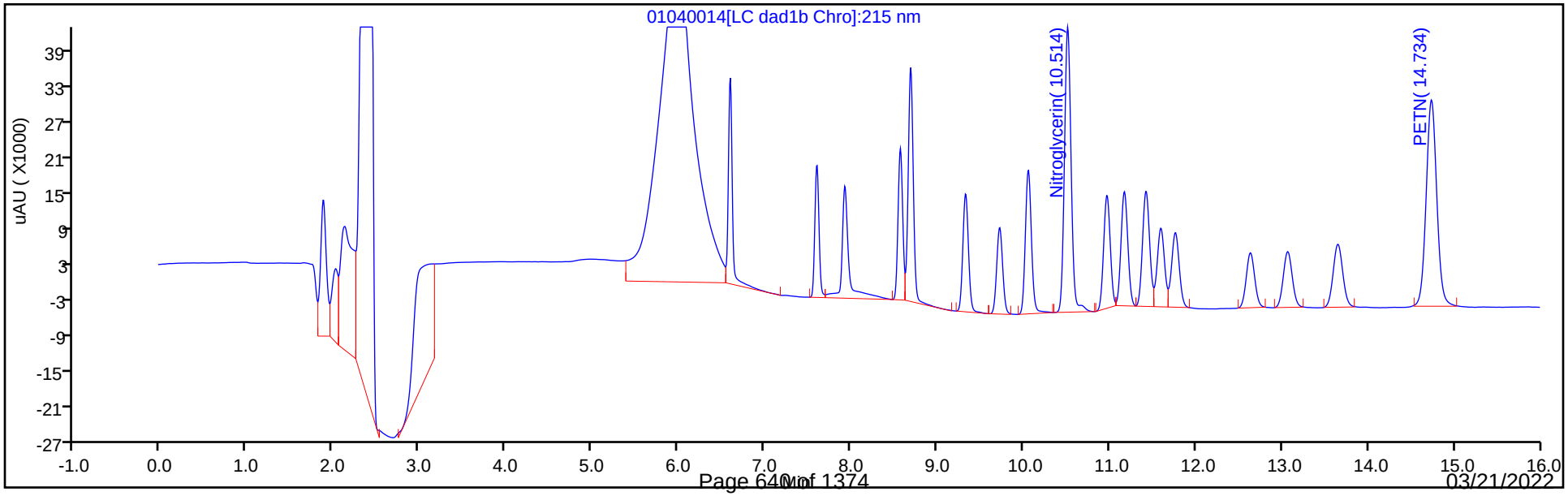
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 19:36:46 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 6 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040015.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 04-Jan-2022 19:59:42 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Misc. Info.: 280-0107731-015
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:30:59

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.601 | 6.598 | 0.003 | 20395 | 0.2500 | 0.2433 | |
| 8 RDX | 1 | 7.601 | 7.605 | -0.004 | 24635 | 0.2500 | 0.2378 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.934 | 7.945 | -0.011 | 18560 | 0.2500 | 0.2409 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.567 | 8.572 | -0.005 | 30811 | 0.2500 | 0.2471 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.687 | 8.692 | -0.005 | 52589 | 0.2505 | 0.2411 | |
| 12 1,3-Dinitrobenzene | 1 | 9.327 | 9.331 | -0.004 | 70569 | 0.2505 | 0.2447 | |
| 13 Nitrobenzene | 1 | 9.720 | 9.725 | -0.005 | 46348 | 0.2510 | 0.2415 | |
| 15 Tetryl | 1 | 10.054 | 10.058 | -0.004 | 40968 | 0.2505 | 0.2402 | |
| 16 Nitroglycerin | 2 | 10.514 | 10.518 | -0.004 | 151977 | 2.50 | 2.41 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.967 | 10.971 | -0.004 | 49067 | 0.2510 | 0.2420 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.167 | 11.171 | -0.004 | 35644 | 0.2503 | 0.2361 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.420 | 11.425 | -0.005 | 48486 | 0.2510 | 0.2398 | |
| 20 2,6-Dinitrotoluene | 1 | 11.594 | 11.598 | -0.004 | 34177 | 0.2510 | 0.2388 | |
| 21 2,4-Dinitrotoluene | 1 | 11.760 | 11.765 | -0.005 | 70605 | 0.2510 | 0.2440 | |
| 22 o-Nitrotoluene | 1 | 12.634 | 12.638 | -0.004 | 30280 | 0.2500 | 0.2373 | |
| 23 p-Nitrotoluene | 1 | 13.060 | 13.071 | -0.011 | 25824 | 0.2505 | 0.2431 | |
| 24 m-Nitrotoluene | 1 | 13.647 | 13.651 | -0.004 | 33160 | 0.2503 | 0.2331 | |
| 25 PETN | 2 | 14.727 | 14.738 | -0.011 | 179275 | 2.50 | 2.45 | |

## QC Flag Legend
Processing Flags

## Reagents:
8330IntermStk_00070 Amount Added: 25.00 Units: uL

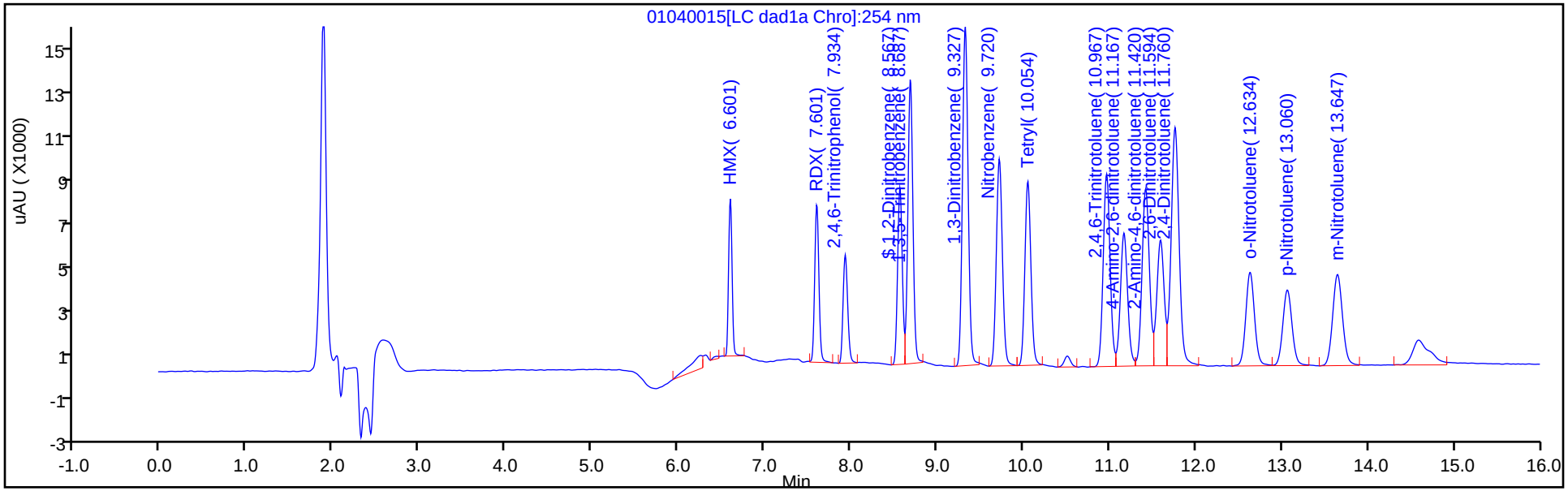
Report Date: 06-Jan-2022 20:05:12 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

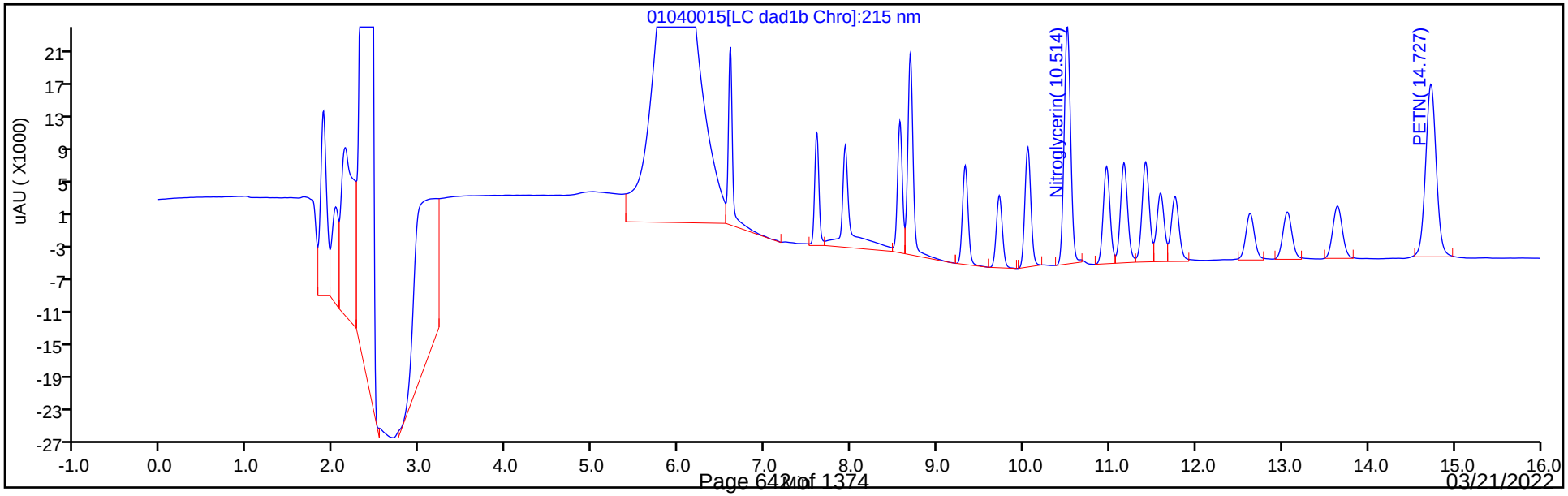
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 19:59:42 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 5 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040016.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 04-Jan-2022 20:22:36 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Misc. Info.: 280-0107731-016
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:49:54

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.598 | 6.598 | 0.000 | 8489 | 0.1000 | 0.1013 | |
| 8 RDX | 1 | 7.605 | 7.605 | 0.000 | 10447 | 0.1000 | 0.1008 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.945 | 7.945 | 0.000 | 7855 | 0.1000 | 0.1020 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.572 | 8.572 | 0.000 | 12780 | 0.1000 | 0.1025 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.692 | 8.692 | 0.000 | 21856 | 0.1002 | 0.1002 | |
| 12 1,3-Dinitrobenzene | 1 | 9.331 | 9.331 | 0.000 | 29215 | 0.1002 | 0.1013 | |
| 13 Nitrobenzene | 1 | 9.725 | 9.725 | 0.000 | 19287 | 0.1004 | 0.1005 | |
| 15 Tetryl | 1 | 10.058 | 10.058 | 0.000 | 17238 | 0.1002 | 0.1011 | |
| 16 Nitroglycerin | 2 | 10.518 | 10.518 | 0.000 | 63595 | 1.00 | 1.01 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.971 | 10.971 | 0.000 | 20408 | 0.1004 | 0.1007 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.171 | 11.171 | 0.000 | 14975 | 0.1001 | 0.0992 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.425 | 11.425 | 0.000 | 20280 | 0.1004 | 0.1003 | |
| 20 2,6-Dinitrotoluene | 1 | 11.598 | 11.598 | 0.000 | 14234 | 0.1004 | 0.0995 | |
| 21 2,4-Dinitrotoluene | 1 | 11.765 | 11.765 | 0.000 | 29355 | 0.1004 | 0.1015 | |
| 22 o-Nitrotoluene | 1 | 12.638 | 12.638 | 0.000 | 12777 | 0.1000 | 0.1001 | |
| 23 p-Nitrotoluene | 1 | 13.071 | 13.071 | 0.000 | 10715 | 0.1002 | 0.1009 | |
| 24 m-Nitrotoluene | 1 | 13.651 | 13.651 | 0.000 | 14003 | 0.1001 | 0.0984 | |
| 25 PETN | 2 | 14.738 | 14.738 | 0.000 | 74208 | 1.00 | 1.00 | |

## QC Flag Legend
Processing Flags

## Reagents:
8330IntermStk_00070 Amount Added: 10.00 Units: uL

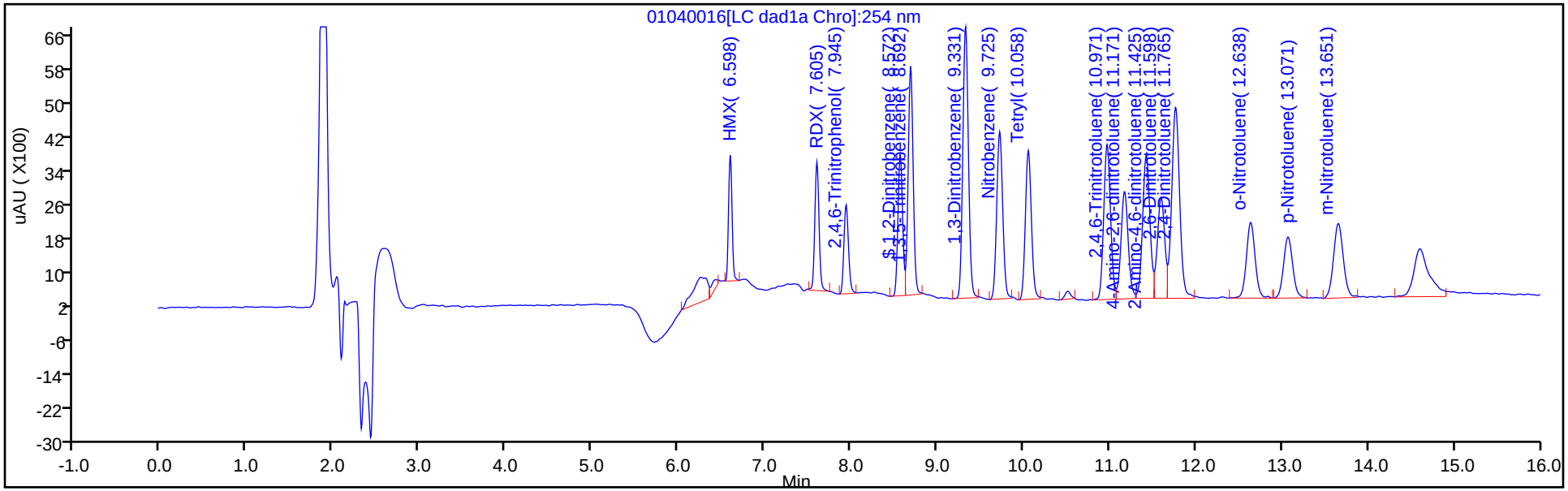
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

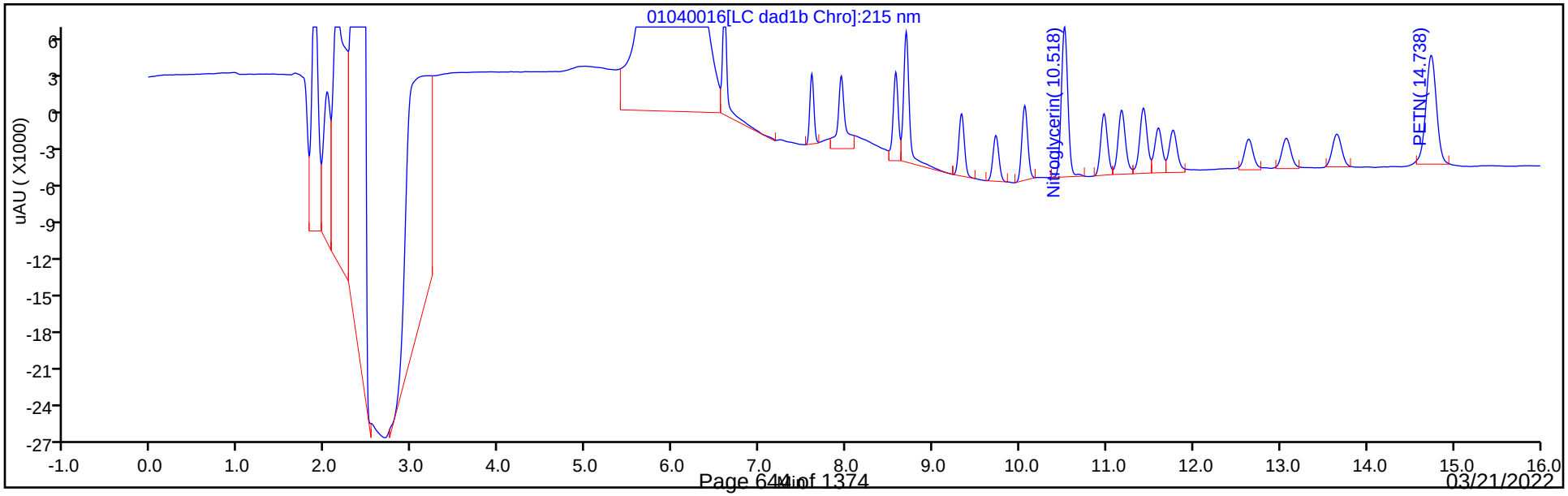
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040016.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 20:22:36 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 4 | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040017.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-Jan-2022 20:45:29 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Misc. Info.: 280-0107731-017
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 4 HMX | 1 | 6.600 | 6.598 | 0.002 | 4230 | 0.0500 | 0.0505 | |
| | 8 RDX | 1 | 7.607 | 7.605 | 0.002 | 5715 | 0.0500 | 0.0552 | |
| | 9 2,4,6-Trinitrophenol | 1 | 7.947 | 7.945 | 0.002 | 4029 | 0.0500 | 0.0523 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 8.573 | 8.572 | 0.001 | 6127 | 0.0500 | 0.0491 | |
| | 11 1,3,5-Trinitrobenzene | 1 | 8.693 | 8.692 | 0.001 | 10711 | 0.0501 | 0.0491 | |
| | 12 1,3-Dinitrobenzene | 1 | 9.327 | 9.331 | -0.004 | 14683 | 0.0501 | 0.0509 | |
| | 13 Nitrobenzene | 1 | 9.727 | 9.725 | 0.002 | 9329 | 0.0502 | 0.0486 | |
| | 15 Tetryl | 1 | 10.060 | 10.058 | 0.002 | 8315 | 0.0501 | 0.0487 | |
| | 16 Nitroglycerin | 2 | 10.513 | 10.518 | -0.005 | 30651 | 0.5000 | 0.4862 | |
| | 17 2,4,6-Trinitrotoluene | 1 | 10.973 | 10.971 | 0.002 | 10202 | 0.0502 | 0.0503 | |
| | 18 4-Amino-2,6-dinitrotoluene | 1 | 11.173 | 11.171 | 0.002 | 7656 | 0.0501 | 0.0507 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 11.427 | 11.425 | 0.002 | 9600 | 0.0502 | 0.0475 | |
| | 20 2,6-Dinitrotoluene | 1 | 11.593 | 11.598 | -0.005 | 6908 | 0.0502 | 0.0483 | |
| | 21 2,4-Dinitrotoluene | 1 | 11.767 | 11.765 | 0.002 | 13933 | 0.0502 | 0.0482 | |
| | 22 o-Nitrotoluene | 1 | 12.640 | 12.638 | 0.002 | 6314 | 0.0500 | 0.0495 | |
| | 23 p-Nitrotoluene | 1 | 13.067 | 13.071 | -0.004 | 5163 | 0.0501 | 0.0486 | |
| | 24 m-Nitrotoluene | 1 | 13.653 | 13.651 | 0.002 | 6733 | 0.0501 | 0.0473 | |
| | 25 PETN | 2 | 14.733 | 14.738 | -0.005 | 35084 | 0.5000 | 0.4645 | |

## Reagents:

8330IntermStk_00070 Amount Added: 5.00 Units: uL

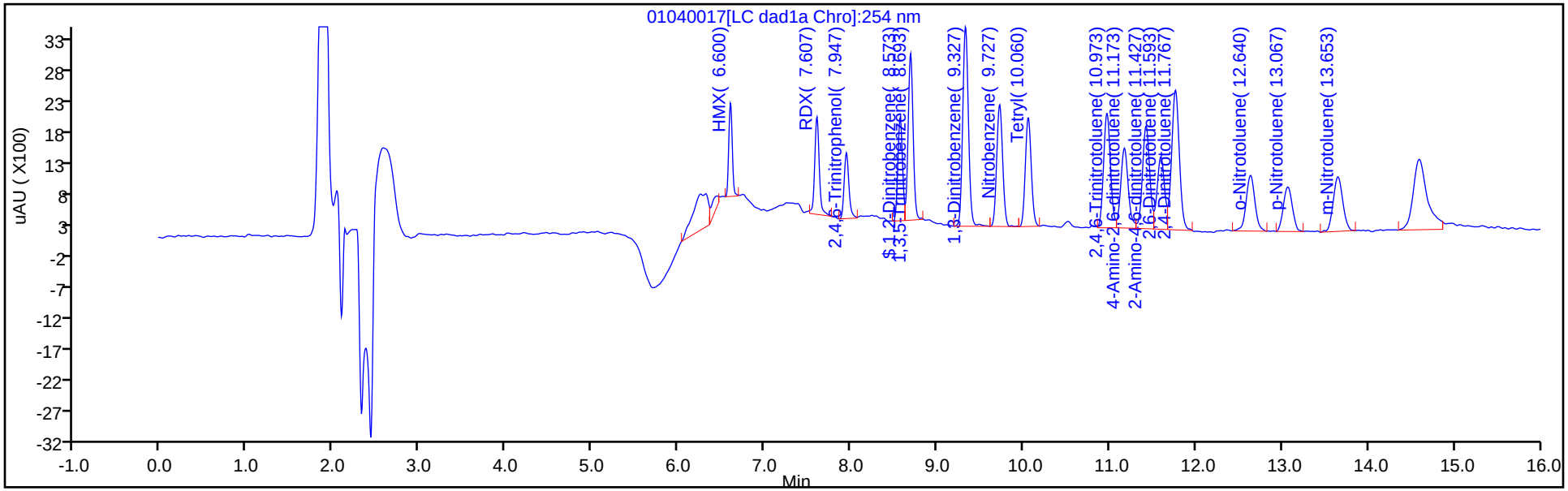
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

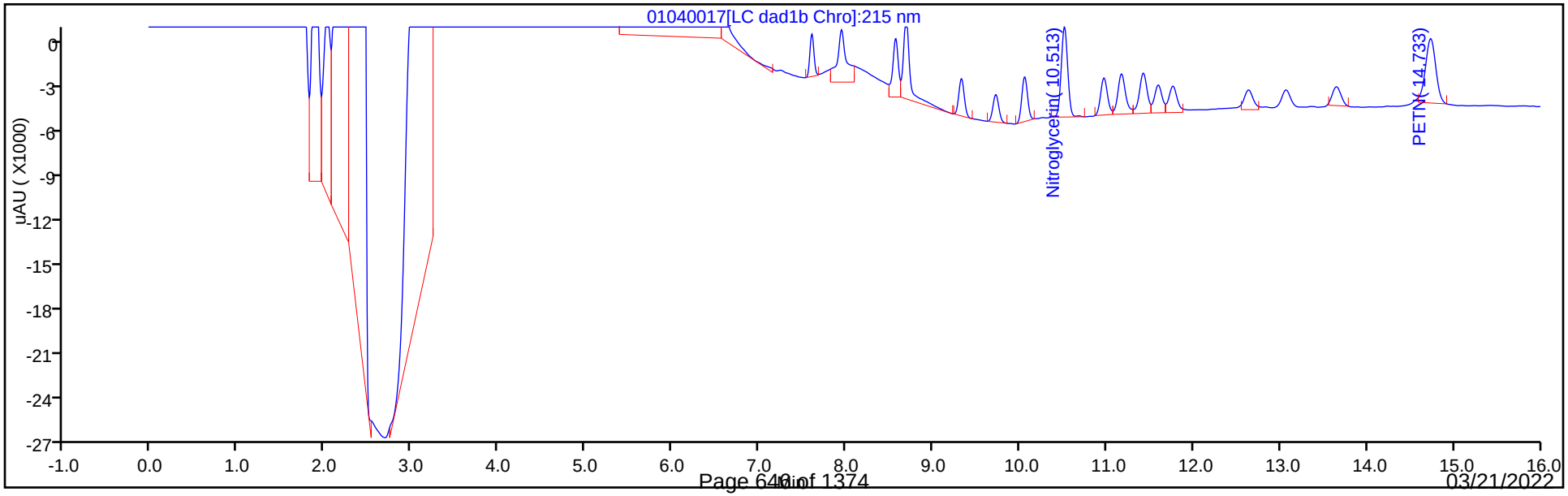
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040017.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 20:45:29 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 3 | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040018.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 04-Jan-2022 21:08:26 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Misc. Info.: 280-0107731-018
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 05-Jan-2022 12:01:28

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.595 | 6.598 | -0.003 | 1735 | 0.0200 | 0.0207 | |
| 8 RDX | 1 | 7.608 | 7.605 | 0.003 | 2084 | 0.0200 | 0.0201 | M |
| 9 2,4,6-Trinitrophenol | 1 | 7.948 | 7.945 | 0.003 | 1554 | 0.0200 | 0.0202 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.575 | 8.572 | 0.003 | 2503 | 0.0200 | 0.0201 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.695 | 8.692 | 0.003 | 4249 | 0.0200 | 0.0195 | |
| 12 1,3-Dinitrobenzene | 1 | 9.328 | 9.331 | -0.003 | 5833 | 0.0200 | 0.0202 | |
| 13 Nitrobenzene | 1 | 9.722 | 9.725 | -0.003 | 3845 | 0.0201 | 0.0200 | |
| 15 Tetryl | 1 | 10.055 | 10.058 | -0.003 | 3498 | 0.0200 | 0.0205 | |
| 16 Nitroglycerin | 2 | 10.515 | 10.518 | -0.003 | 12008 | 0.2000 | 0.1905 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.968 | 10.971 | -0.003 | 4227 | 0.0201 | 0.0209 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.175 | 11.171 | 0.004 | 3150 | 0.0200 | 0.0209 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.428 | 11.425 | 0.003 | 4282 | 0.0201 | 0.0212 | |
| 20 2,6-Dinitrotoluene | 1 | 11.595 | 11.598 | -0.003 | 2993 | 0.0201 | 0.0209 | |
| 21 2,4-Dinitrotoluene | 1 | 11.762 | 11.765 | -0.003 | 5890 | 0.0201 | 0.0204 | |
| 22 o-Nitrotoluene | 1 | 12.642 | 12.638 | 0.004 | 2743 | 0.0200 | 0.0215 | |
| 23 p-Nitrotoluene | 1 | 13.075 | 13.071 | 0.004 | 2151 | 0.0200 | 0.0202 | |
| 24 m-Nitrotoluene | 1 | 13.655 | 13.651 | 0.004 | 2989 | 0.0200 | 0.0210 | |
| 25 PETN | 2 | 14.735 | 14.738 | -0.003 | 15705 | 0.2000 | 0.1974 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 2.00 Units: uL

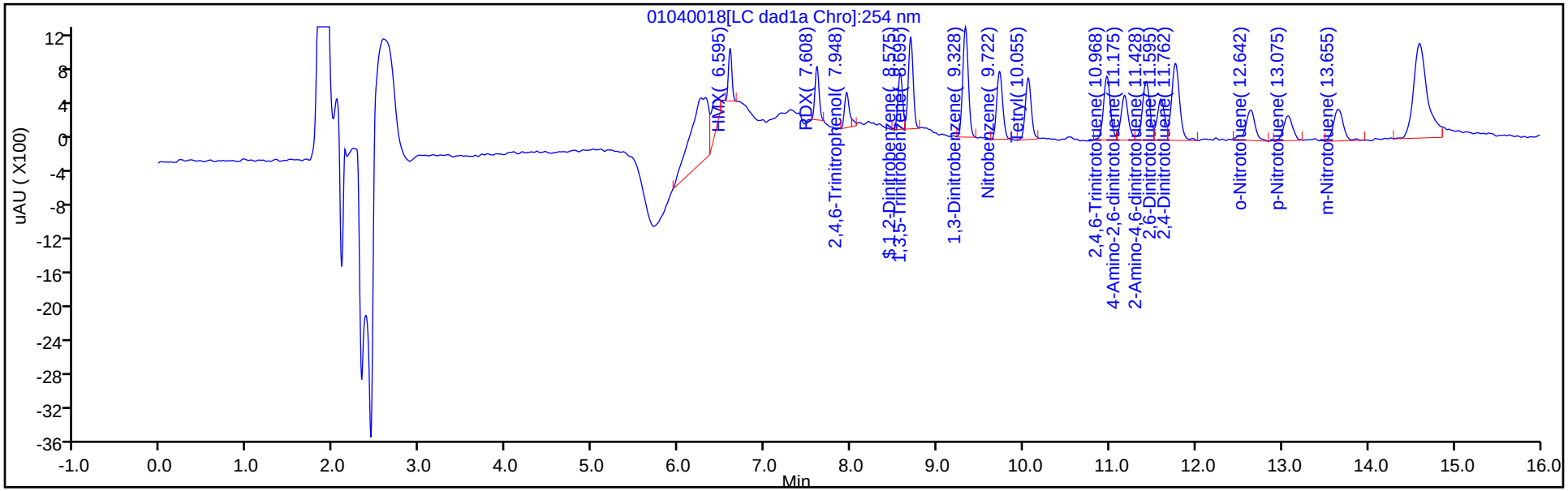
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

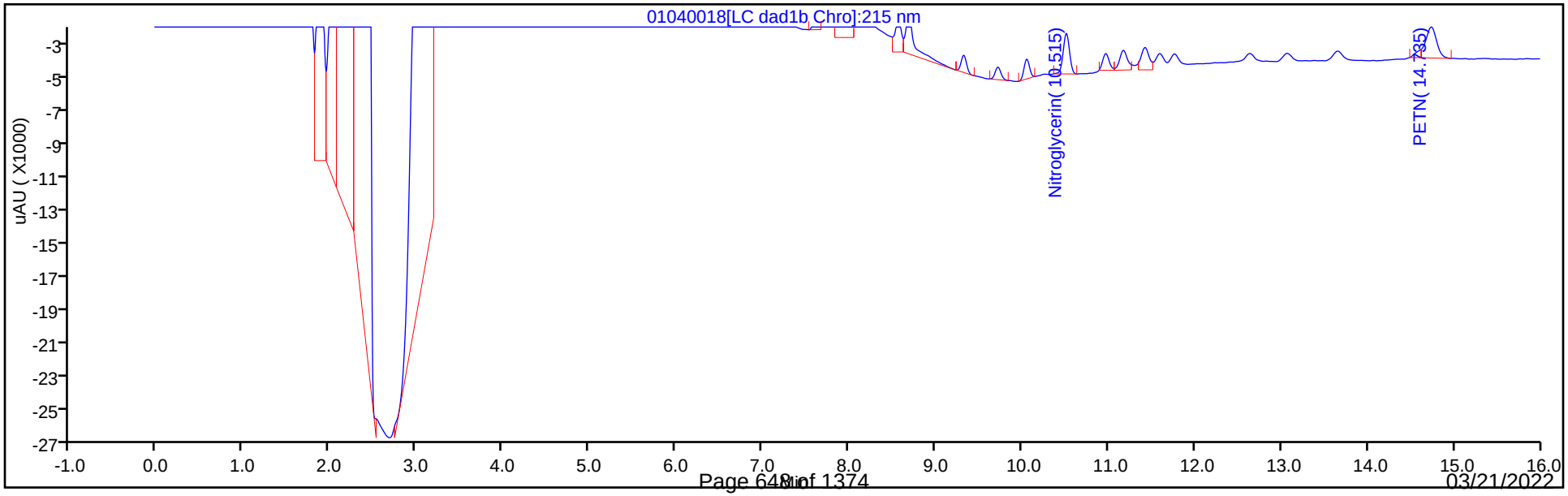
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 21:08:26 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 2 | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

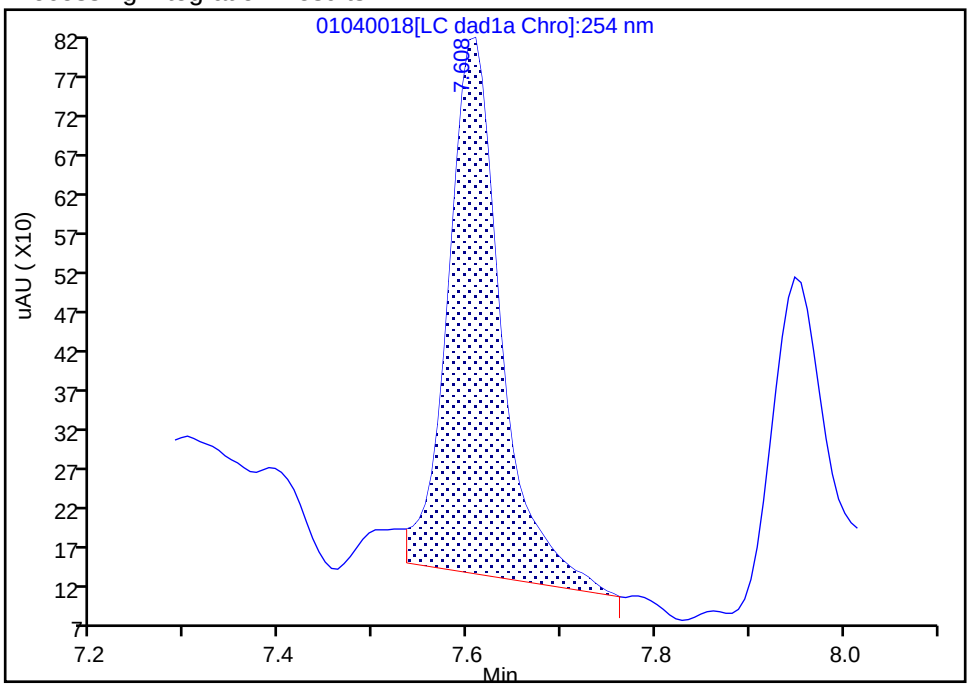
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d | | | | |
| Injection Date: | 04-Jan-2022 21:08:26 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

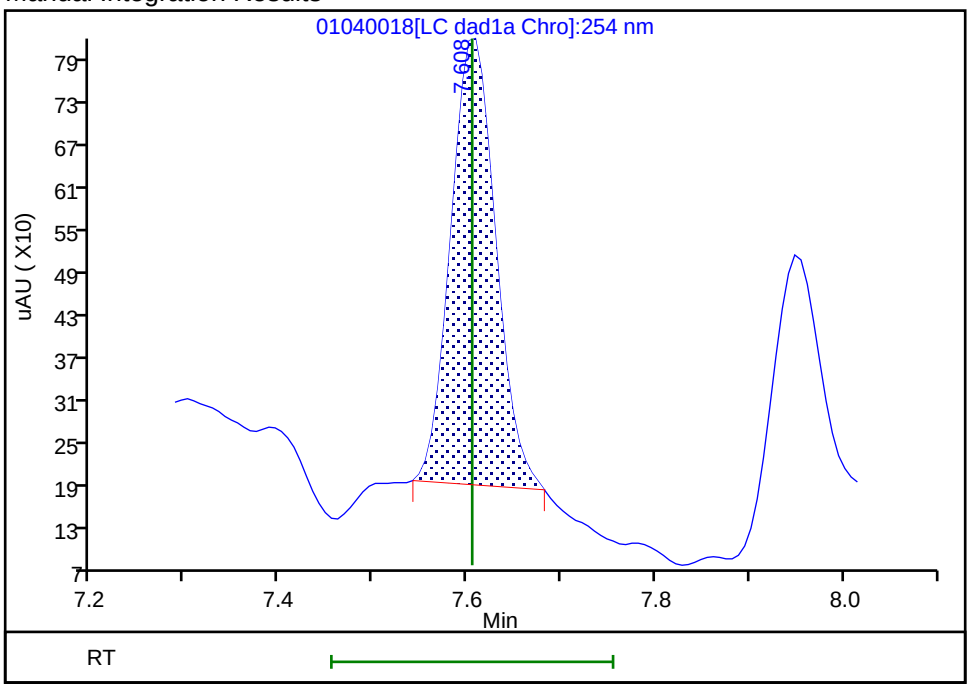
Processing Integration Results

RT: 7.61
Area: 2668
Amount: 0.024969
Amount Units: ug/mL




Manual Integration Results

RT: 7.61
Area: 2084
Amount: 0.020114
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:01:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

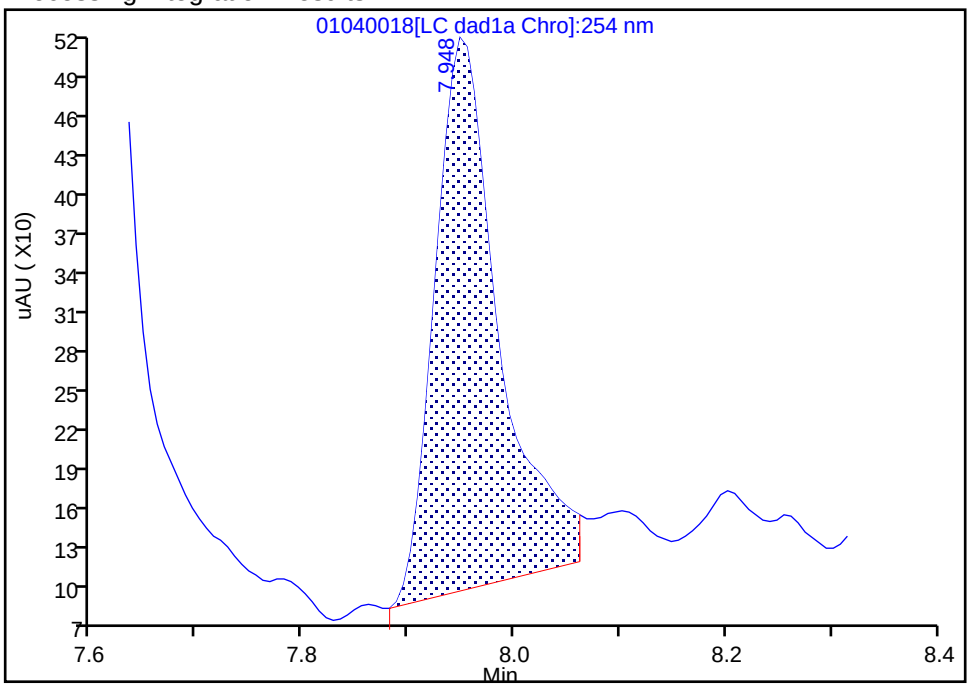
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d | | | | |
| Injection Date: | 04-Jan-2022 21:08:26 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

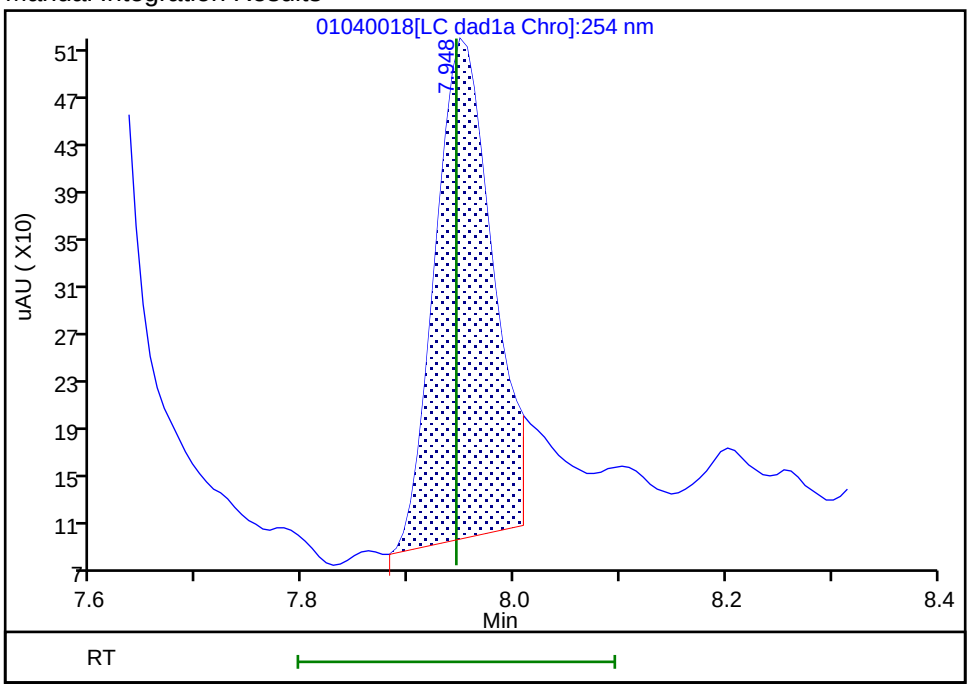
Processing Integration Results

RT: 7.95
Area: 1744
Amount: 0.022332
Amount Units: ug/mL




Manual Integration Results

RT: 7.95
Area: 1554
Amount: 0.020172
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:02:02
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

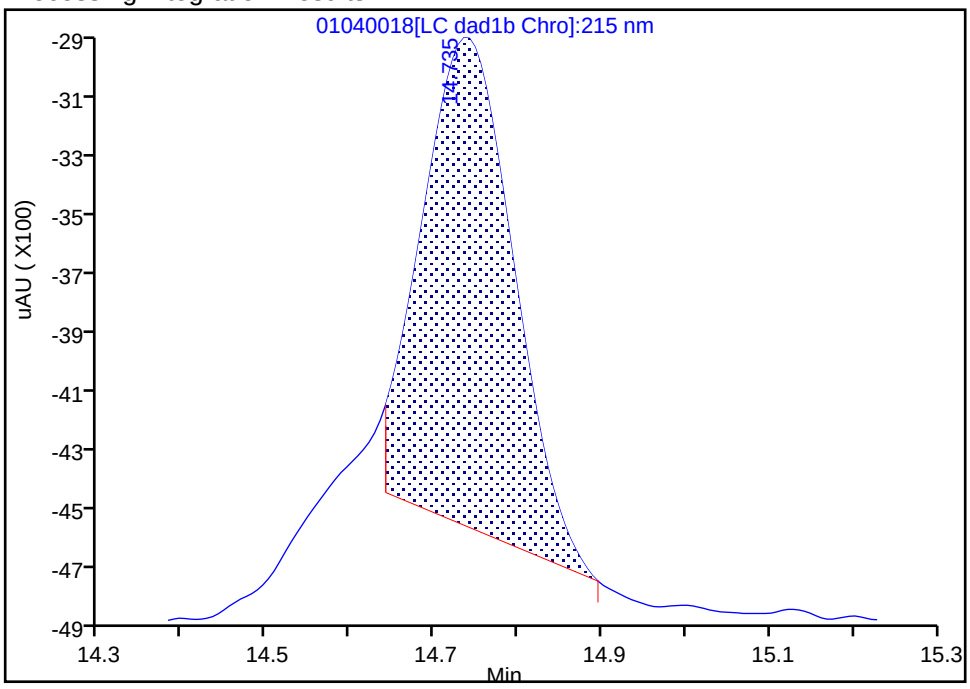
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d
Injection Date: 04-Jan-2022 21:08:26 Instrument ID: CHHPLC_X3
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

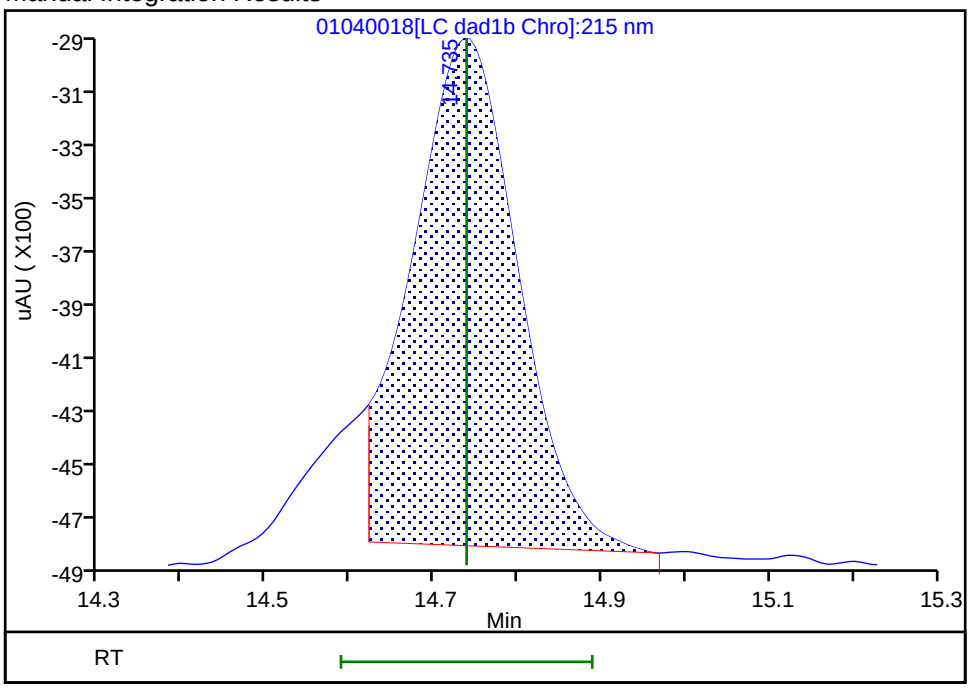
Processing Integration Results

RT: 14.73
Area: 11890
Amount: 0.166241
Amount Units: ug/mL




Manual Integration Results

RT: 14.73
Area: 15705
Amount: 0.197419
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:01:38
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-Jan-2022 21:31:24 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Misc. Info.: 280-0107731-019
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:14 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:05:03

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.601 | 6.598 | 0.003 | 901 | 0.0100 | 0.0107 | M |
| 8 RDX | 1 | 7.601 | 7.605 | -0.004 | 1152 | 0.0100 | 0.0111 | M |
| 9 2,4,6-Trinitrophenol | 1 | 7.941 | 7.945 | -0.004 | 716 | 0.0100 | 0.009294 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.561 | 8.572 | -0.011 | 1188 | 0.0100 | 0.009527 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.688 | 8.692 | -0.004 | 2197 | 0.0100 | 0.0101 | |
| 12 1,3-Dinitrobenzene | 1 | 9.321 | 9.331 | -0.010 | 2633 | 0.0100 | 0.009130 | |
| 13 Nitrobenzene | 1 | 9.714 | 9.725 | -0.011 | 2067 | 0.0100 | 0.0108 | |
| 15 Tetryl | 1 | 10.041 | 10.058 | -0.017 | 1778 | 0.0100 | 0.0104 | |
| 16 Nitroglycerin | 2 | 10.501 | 10.518 | -0.017 | 6348 | 0.1000 | 0.1007 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.954 | 10.971 | -0.017 | 2126 | 0.0100 | 0.0105 | M |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.154 | 11.171 | -0.017 | 1718 | 0.0100 | 0.0114 | M |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.408 | 11.425 | -0.017 | 2287 | 0.0100 | 0.0113 | M |
| 20 2,6-Dinitrotoluene | 1 | 11.581 | 11.598 | -0.017 | 1551 | 0.0100 | 0.0108 | M |
| 21 2,4-Dinitrotoluene | 1 | 11.748 | 11.765 | -0.017 | 3047 | 0.0100 | 0.0105 | M |
| 22 o-Nitrotoluene | 1 | 12.614 | 12.638 | -0.024 | 1387 | 0.0100 | 0.0109 | |
| 23 p-Nitrotoluene | 1 | 13.054 | 13.071 | -0.017 | 1083 | 0.0100 | 0.0102 | |
| 24 m-Nitrotoluene | 1 | 13.634 | 13.651 | -0.017 | 1764 | 0.0100 | 0.0124 | |
| 25 PETN | 2 | 14.708 | 14.738 | -0.030 | 8784 | 0.1000 | 0.1020 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 1.00 Units: uL

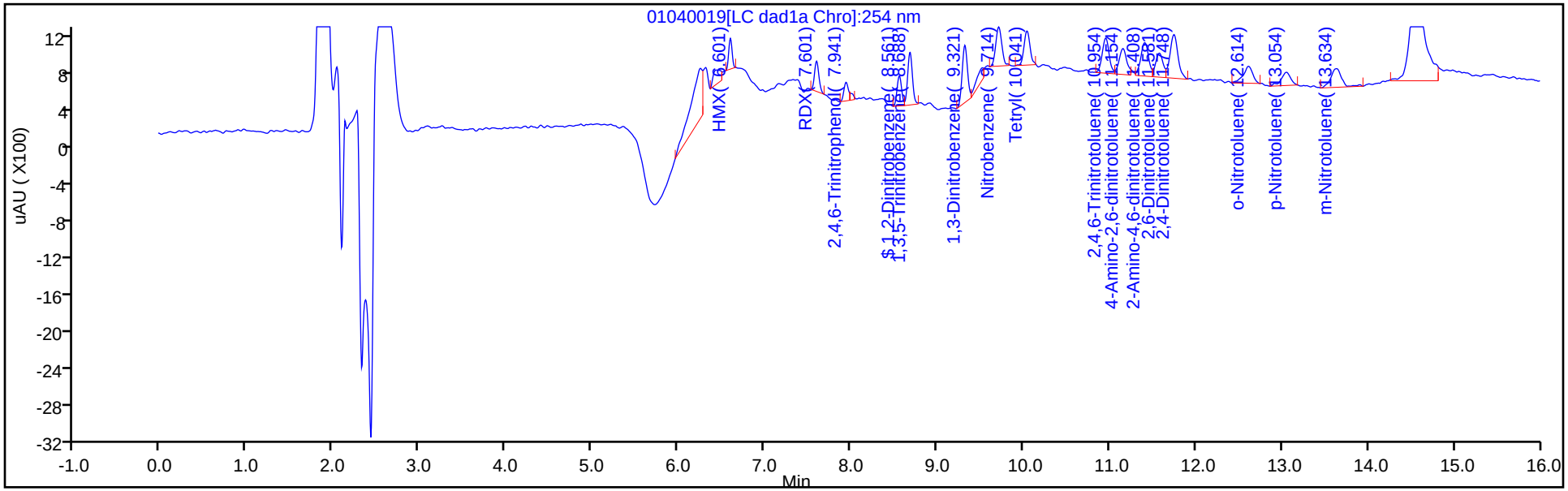
Report Date: 06-Jan-2022 20:05:14 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

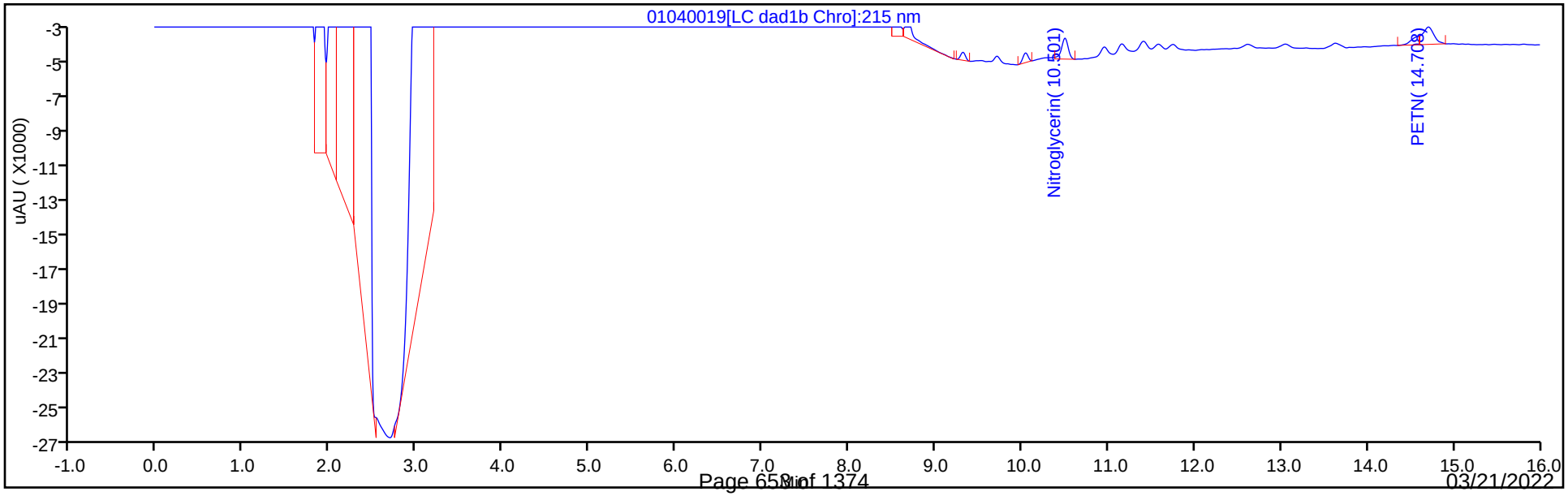
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 1 | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Eurofins TestAmerica, Denver

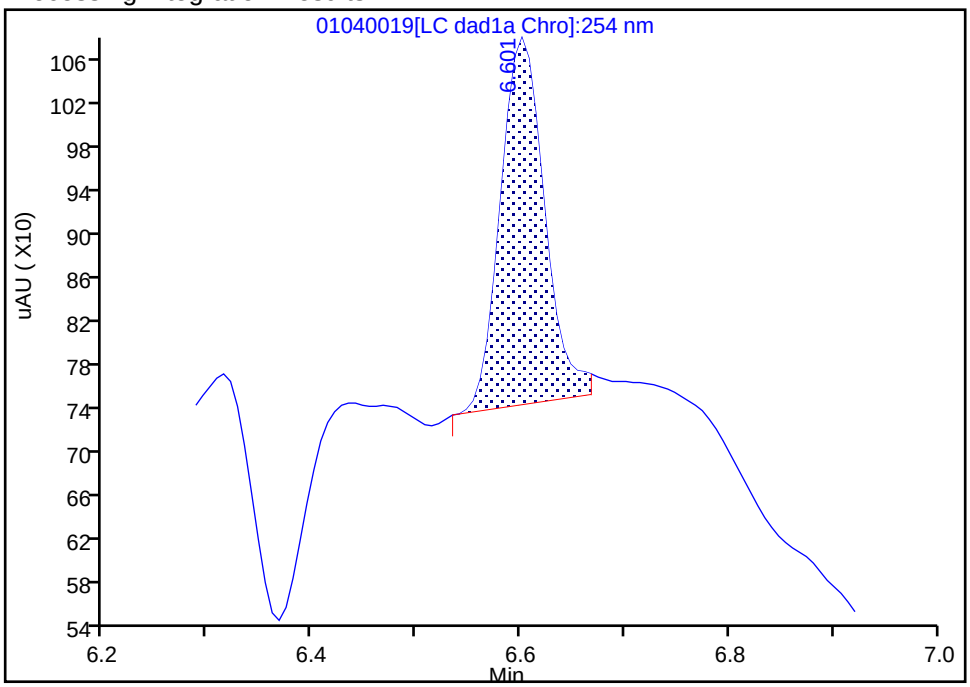
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

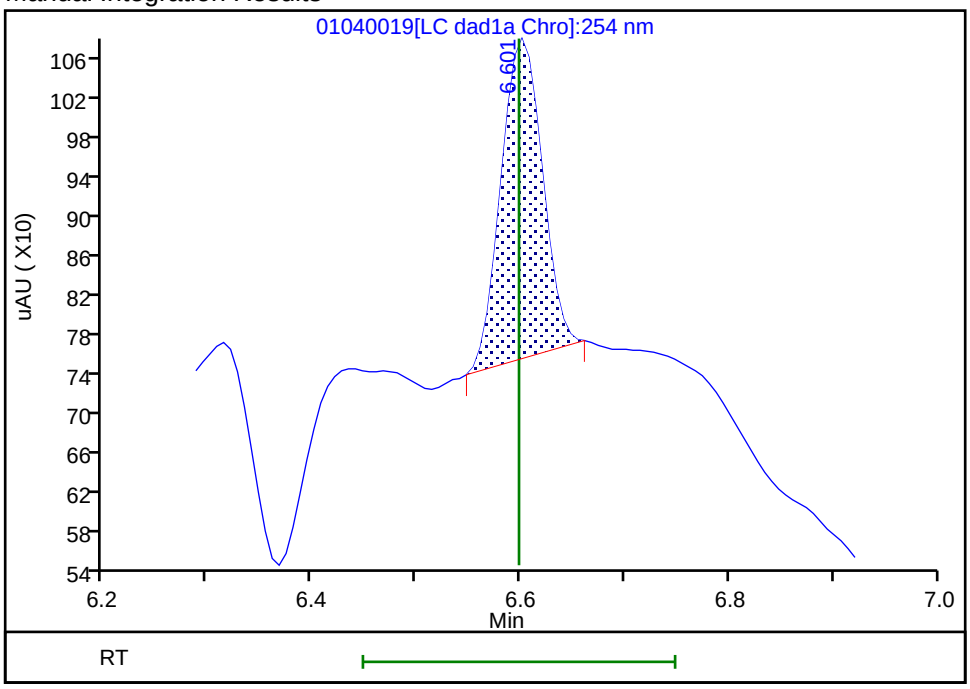
Processing Integration Results

RT: 6.60
Area: 995
Amount: 0.011724
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 901
Amount: 0.010748
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 11:59:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

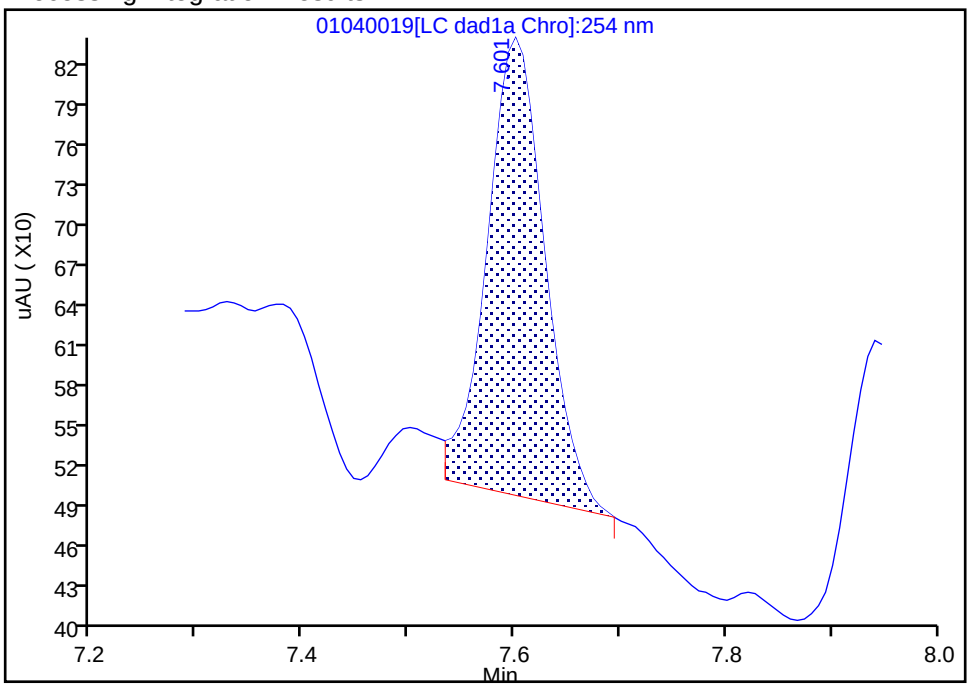
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

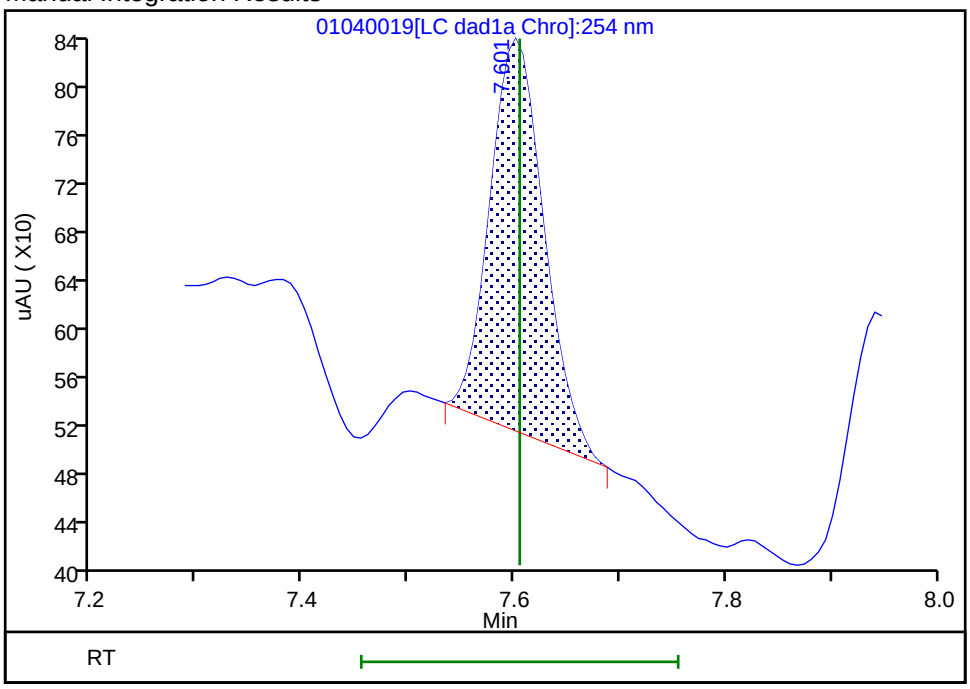
Processing Integration Results

RT: 7.60
Area: 1299
Amount: 0.011974
Amount Units: ug/mL




Manual Integration Results

RT: 7.60
Area: 1152
Amount: 0.011119
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
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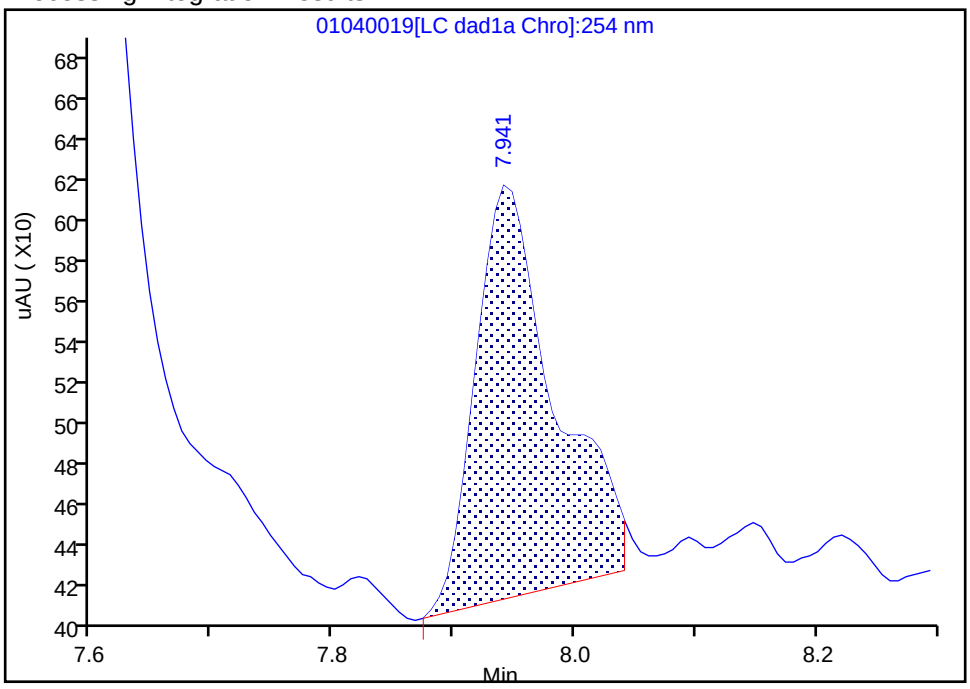
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

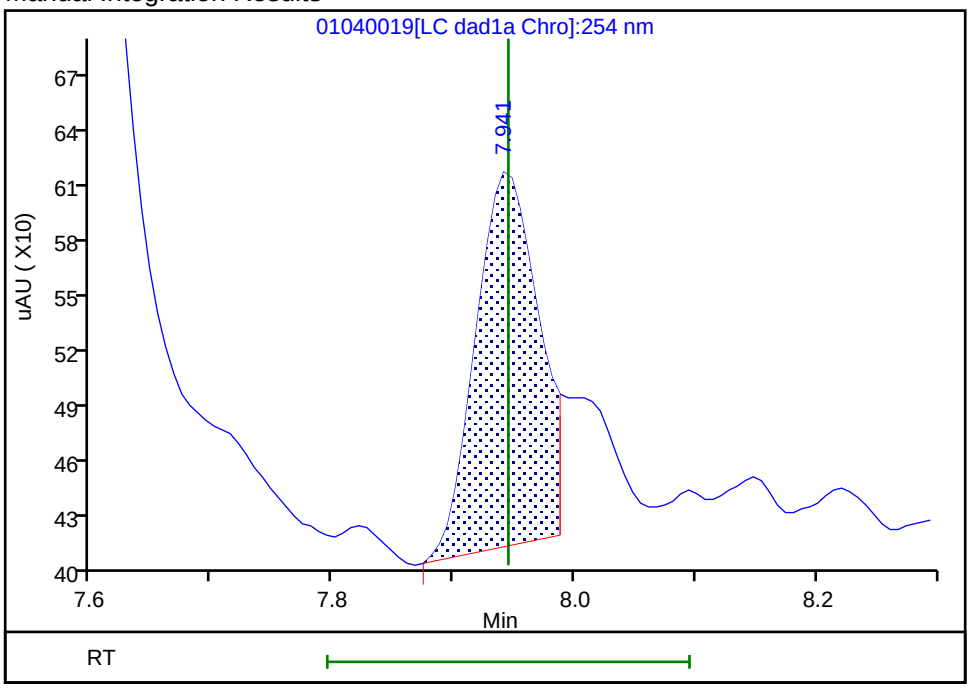
Processing Integration Results

RT: 7.94
Area: 903
Amount: 0.011263
Amount Units: ug/mL




Manual Integration Results

RT: 7.94
Area: 716
Amount: 0.009294
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:13
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
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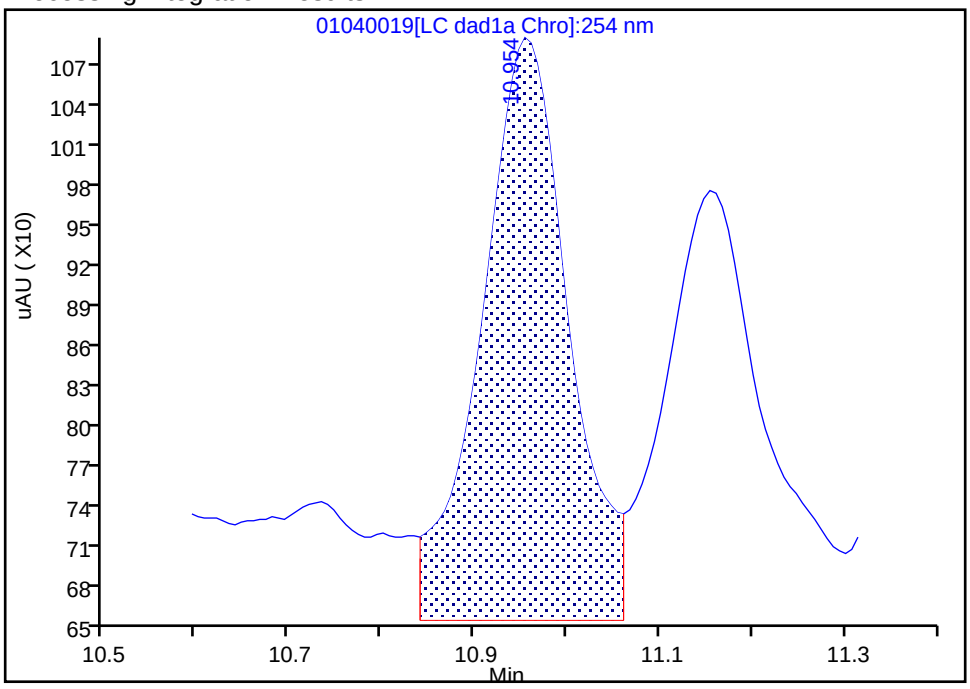
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

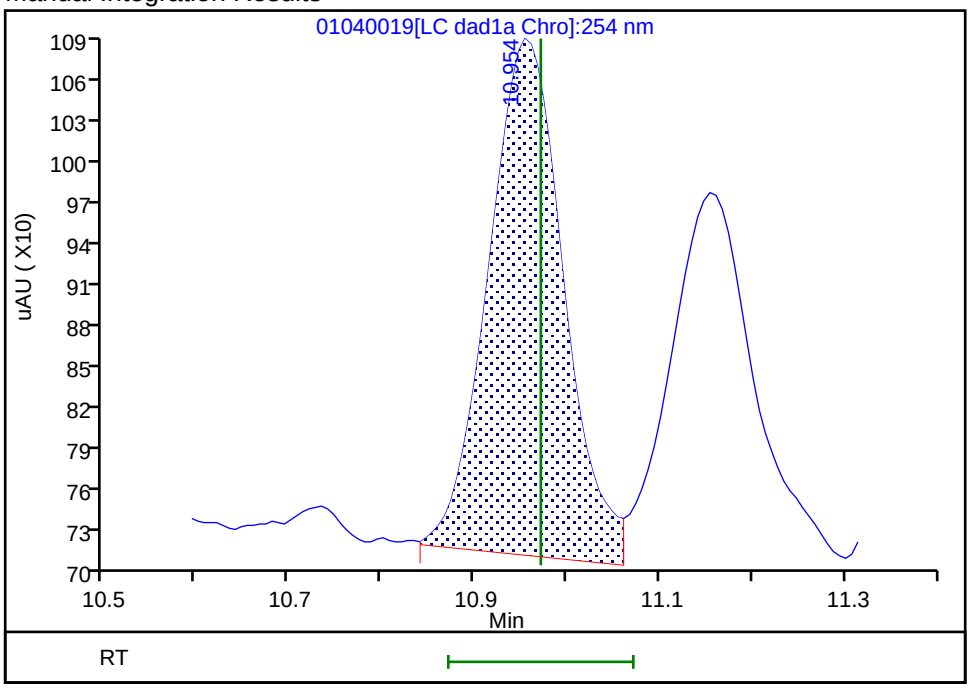
Processing Integration Results

RT: 10.95
Area: 2806
Amount: 0.013346
Amount Units: ug/mL




Manual Integration Results

RT: 10.95
Area: 2126
Amount: 0.010487
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

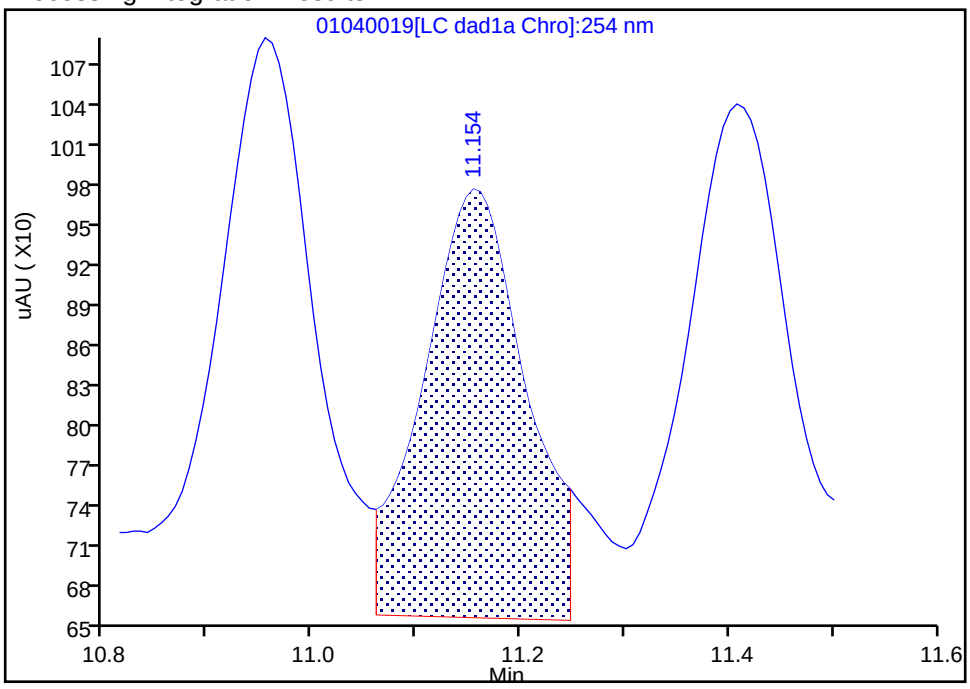
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

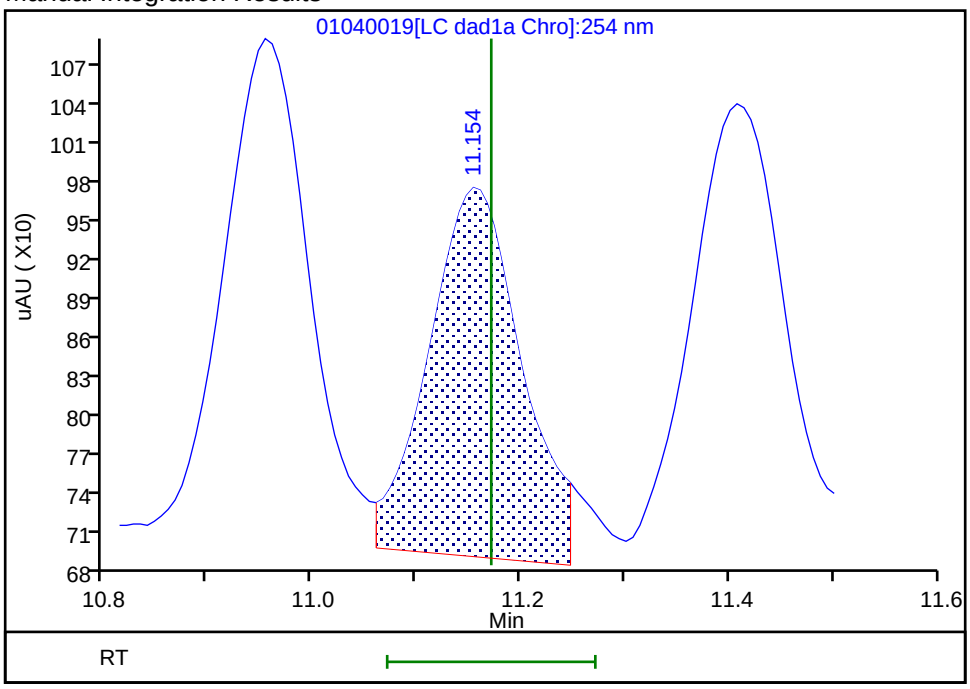
Processing Integration Results

RT: 11.15
Area: 2160
Amount: 0.013856
Amount Units: ug/mL




Manual Integration Results

RT: 11.15
Area: 1718
Amount: 0.011379
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

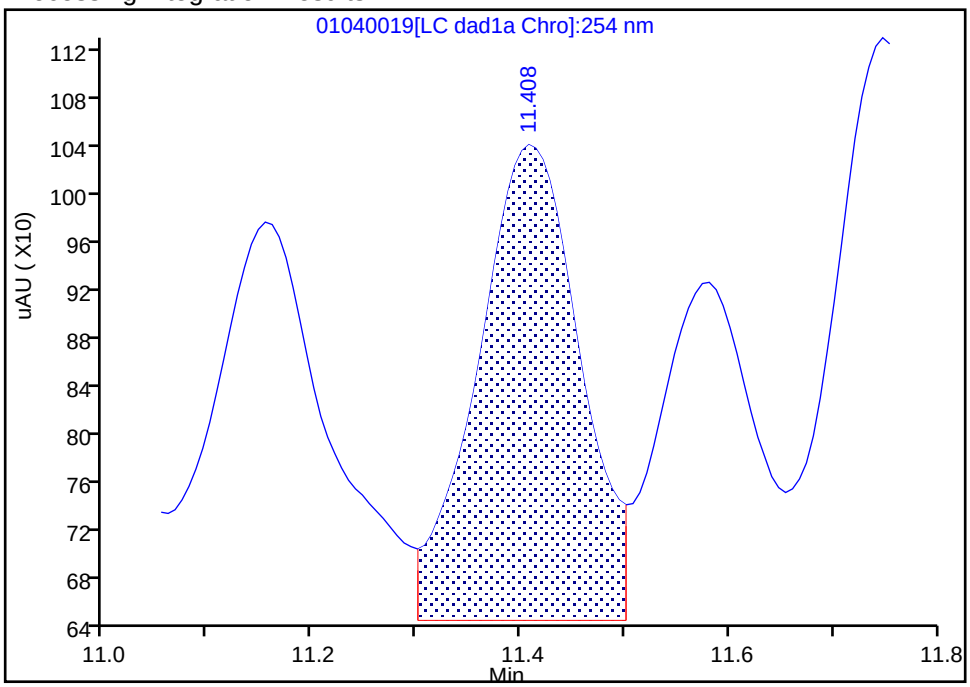
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

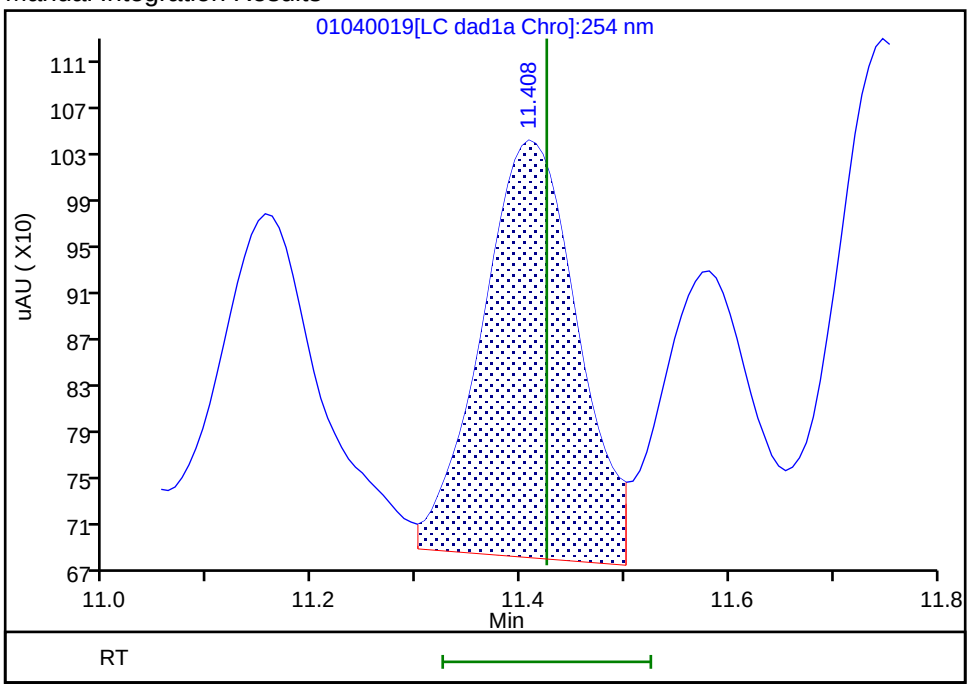
Processing Integration Results

RT: 11.41
Area: 2647
Amount: 0.012840
Amount Units: ug/mL




Manual Integration Results

RT: 11.41
Area: 2287
Amount: 0.011312
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

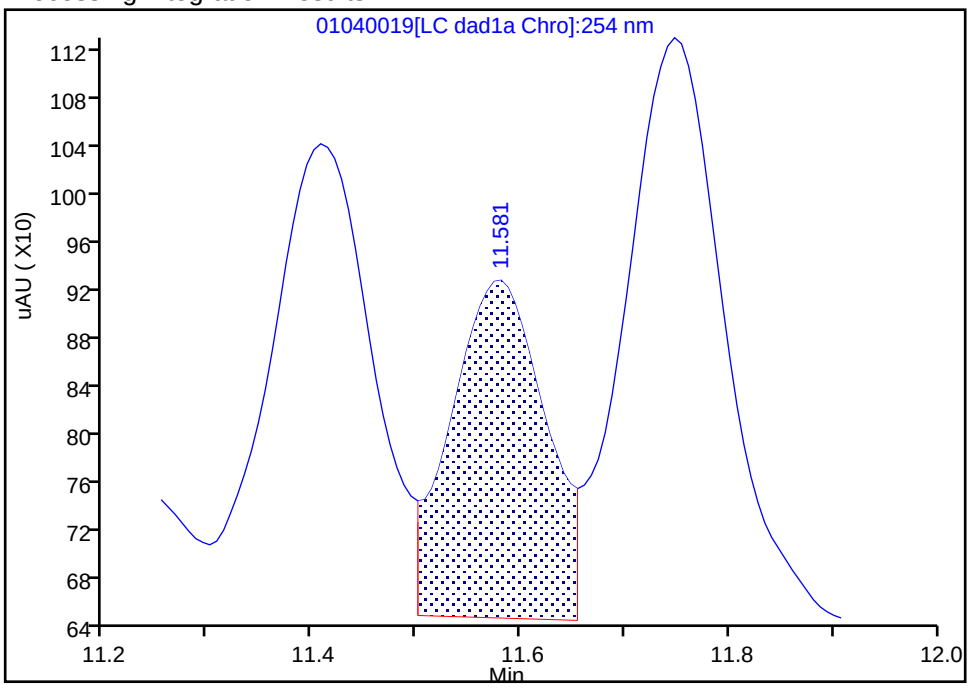
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

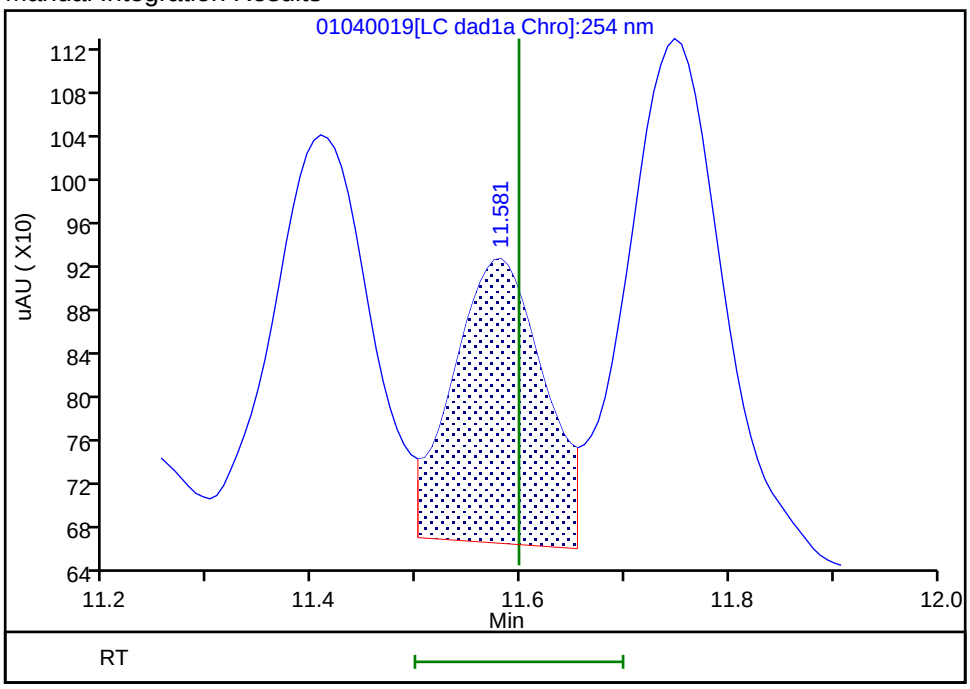
Processing Integration Results

RT: 11.58
Area: 1735
Amount: 0.011953
Amount Units: ug/mL




Manual Integration Results

RT: 11.58
Area: 1551
Amount: 0.010837
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

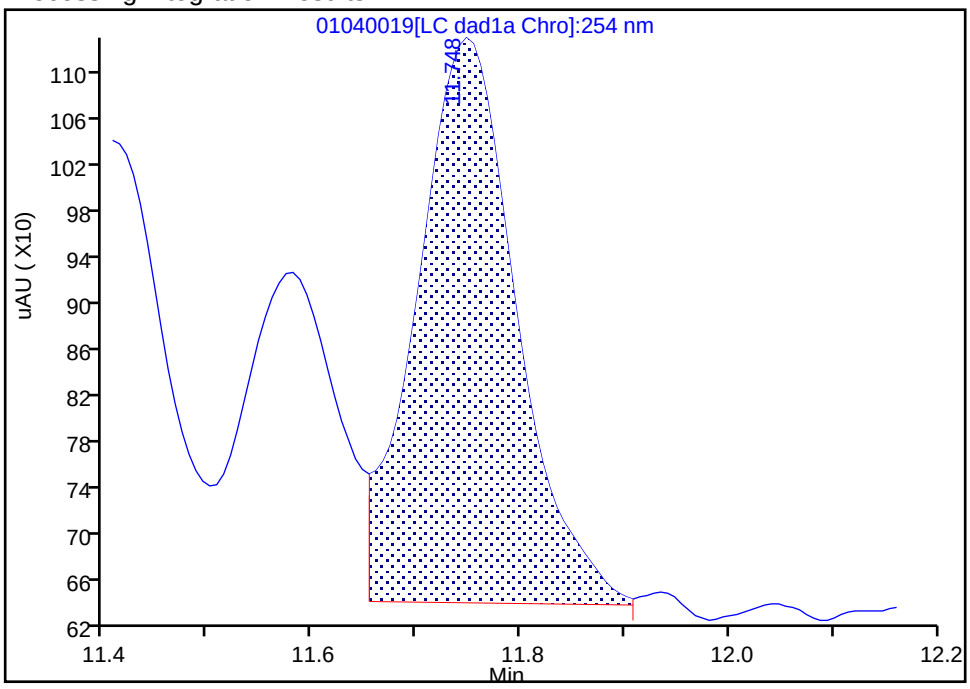
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d | | | | |
| Injection Date: | 04-Jan-2022 21:31:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

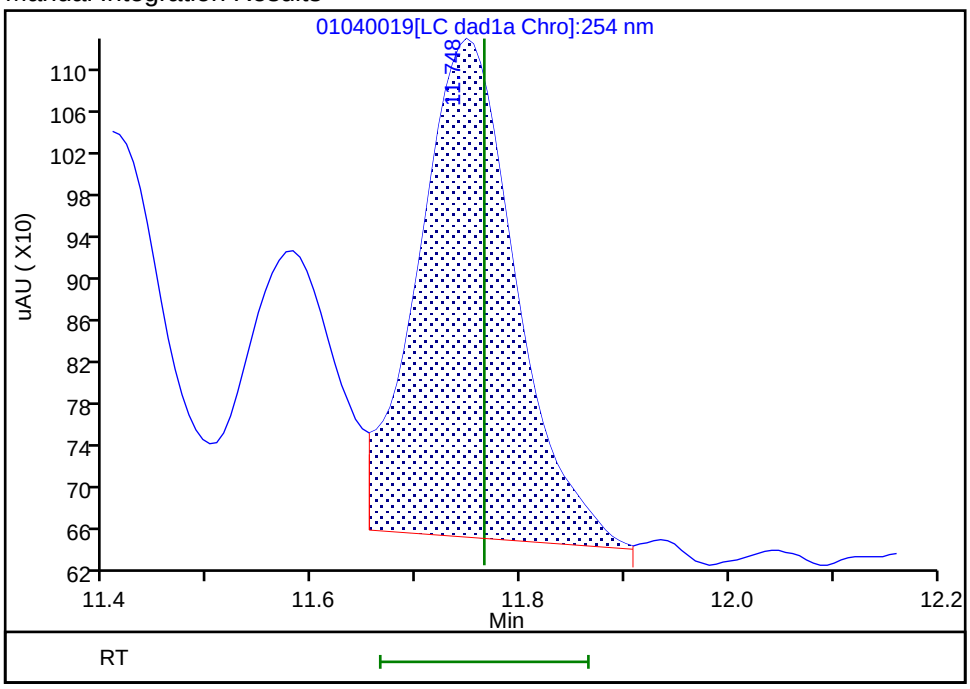
Processing Integration Results

RT: 11.75
Area: 3191
Amount: 0.010968
Amount Units: ug/mL




Manual Integration Results

RT: 11.75
Area: 3047
Amount: 0.010530
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

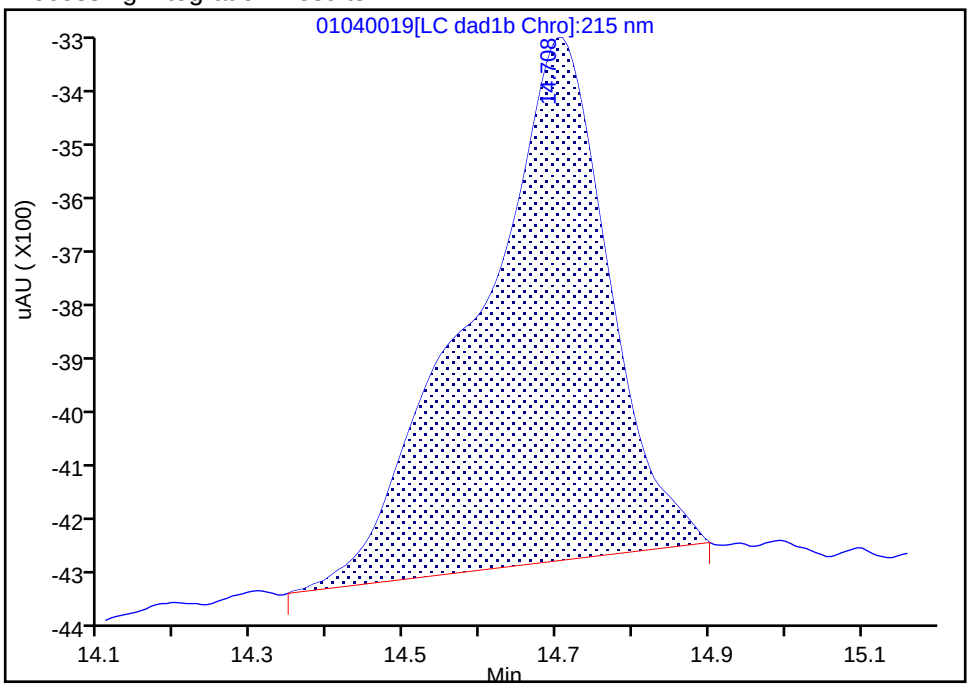
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d
Injection Date: 04-Jan-2022 21:31:24 Instrument ID: CHHPLC_X3
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

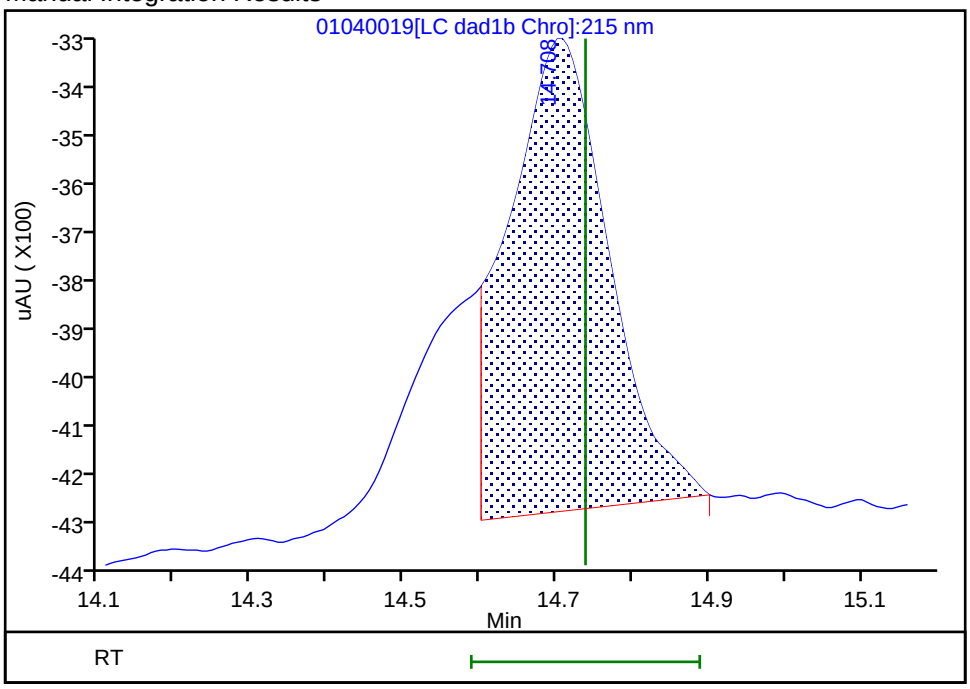
Processing Integration Results

RT: 14.71
Area: 11771
Amount: 0.142232
Amount Units: ug/mL




Manual Integration Results

RT: 14.71
Area: 8784
Amount: 0.102016
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:00:58
Audit Action: Split an Integrated Peak Audit Reason: Baseline

## Calibration / HMX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

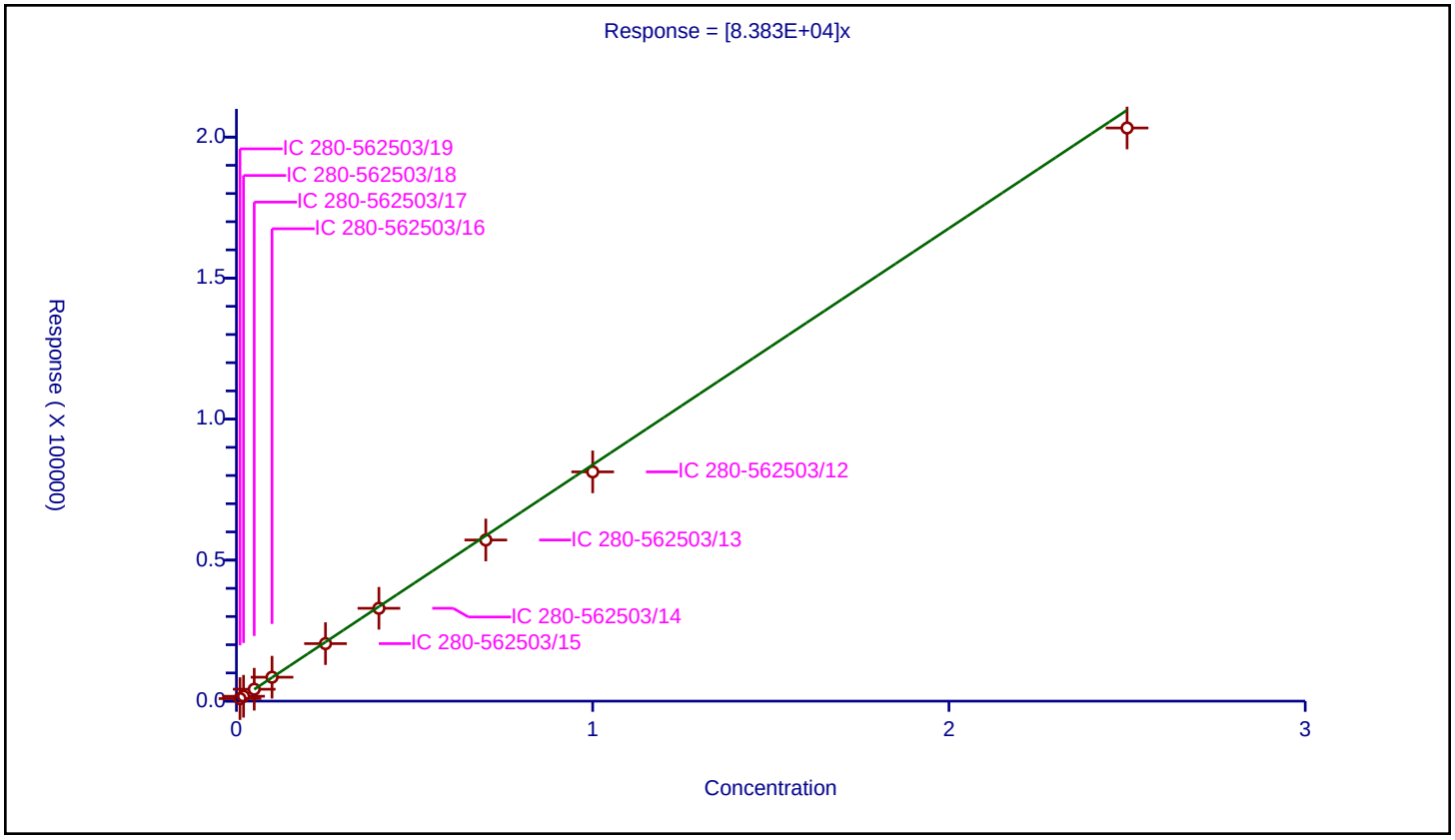
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 8.383E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2490 |
| **Relative Standard Error:** | 3.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01 | 901.0 | | | 90100.0 | Y |
| 2 | IC 280-562503/18 | 0.02 | 1735.0 | | | 86750.0 | Y |
| 3 | IC 280-562503/17 | 0.05 | 4230.0 | | | 84600.0 | Y |
| 4 | IC 280-562503/16 | 0.1 | 8489.0 | | | 84890.0 | Y |
| 5 | IC 280-562503/15 | 0.25 | 20395.0 | | | 81580.0 | Y |
| 6 | IC 280-562503/14 | 0.4 | 32925.0 | | | 82312.5 | Y |
| 7 | IC 280-562503/13 | 0.7 | 57138.0 | | | 81625.714286 | Y |
| 8 | IC 280-562503/12 | 1.0 | 81295.0 | | | 81295.0 | Y |
| 9 | IC 280-562503/11 | 2.5 | 203229.0 | | | 81291.6 | Y |



## Calibration / RDX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

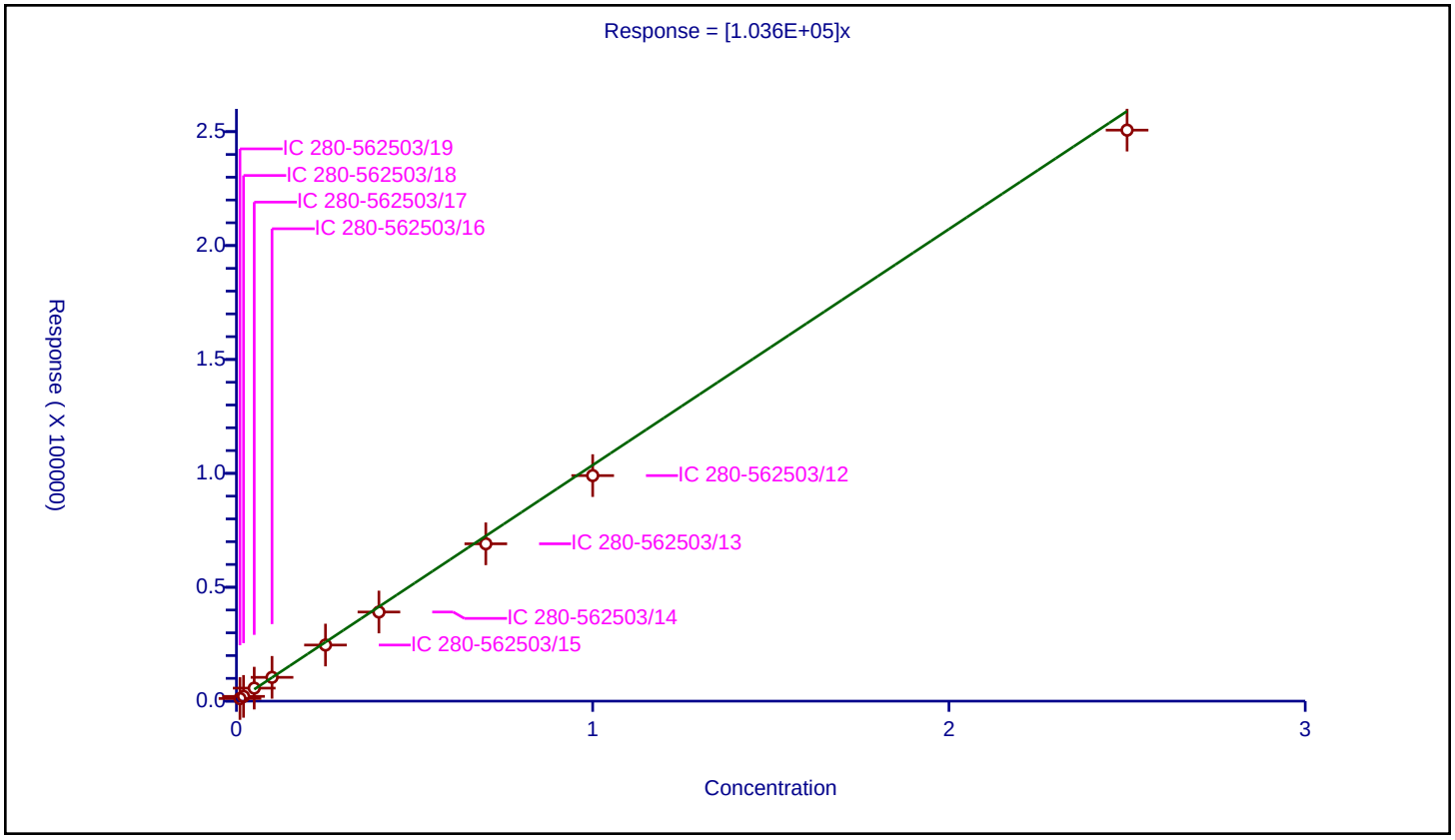
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.036E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3710 |
| **Relative Standard Error:** | 6.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01 | 1152.0 | | | 115200.0 | Y |
| 2 | IC 280-562503/18 | 0.02 | 2084.0 | | | 104200.0 | Y |
| 3 | IC 280-562503/17 | 0.05 | 5715.0 | | | 114300.0 | Y |
| 4 | IC 280-562503/16 | 0.1 | 10447.0 | | | 104470.0 | Y |
| 5 | IC 280-562503/15 | 0.25 | 24635.0 | | | 98540.0 | Y |
| 6 | IC 280-562503/14 | 0.4 | 39126.0 | | | 97815.0 | Y |
| 7 | IC 280-562503/13 | 0.7 | 69068.0 | | | 98668.571429 | Y |
| 8 | IC 280-562503/12 | 1.0 | 99016.0 | | | 99016.0 | Y |
| 9 | IC 280-562503/11 | 2.5 | 250683.0 | | | 100273.2 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

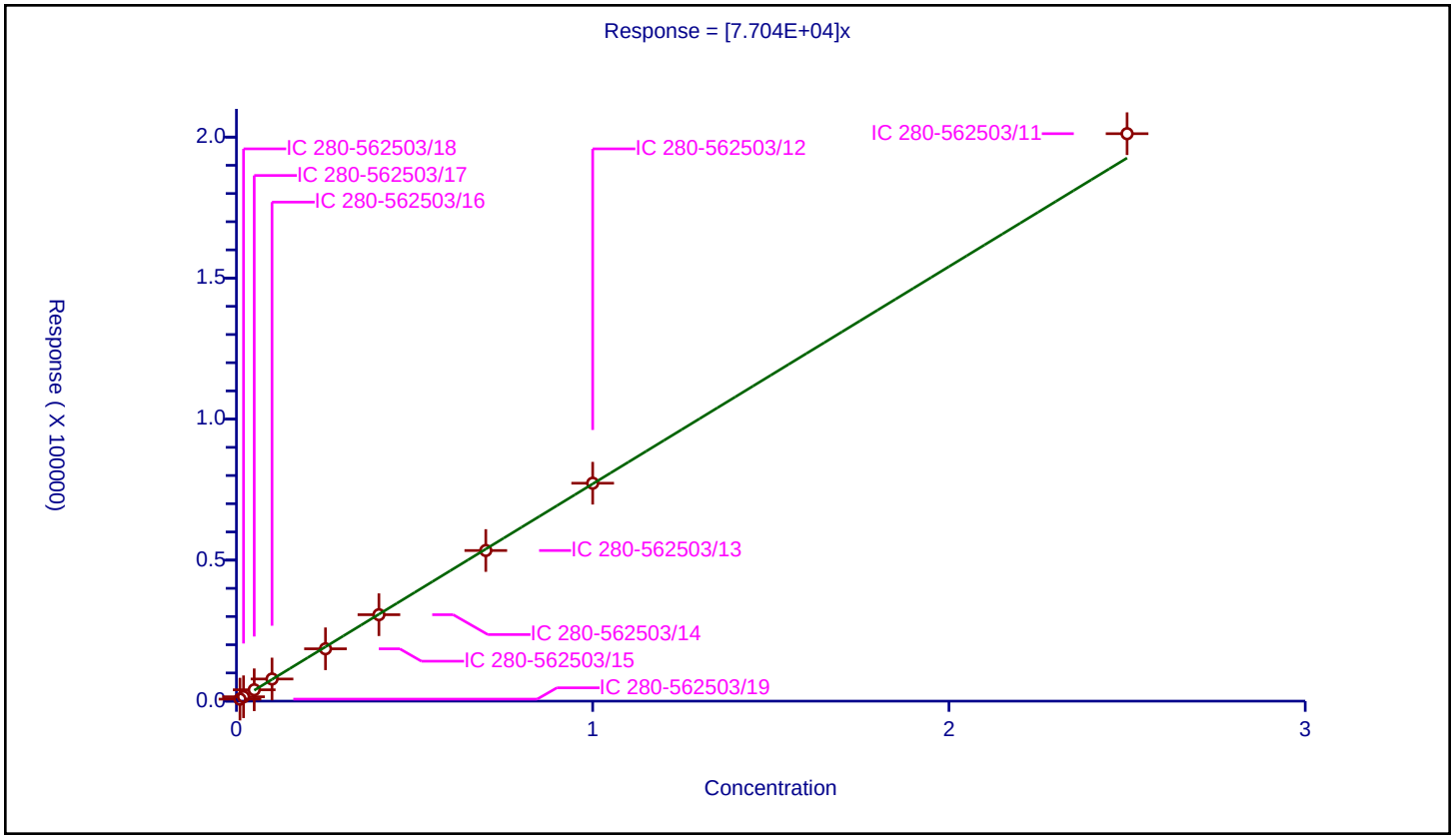
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 7.704E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3060 |
| **Relative Standard Error:** | 3.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01 | 716.0 | | | 71600.0 | Y |
| 2 | IC 280-562503/18 | 0.02 | 1554.0 | | | 77700.0 | Y |
| 3 | IC 280-562503/17 | 0.05 | 4029.0 | | | 80580.0 | Y |
| 4 | IC 280-562503/16 | 0.1 | 7855.0 | | | 78550.0 | Y |
| 5 | IC 280-562503/15 | 0.25 | 18560.0 | | | 74240.0 | Y |
| 6 | IC 280-562503/14 | 0.4 | 30649.0 | | | 76622.5 | Y |
| 7 | IC 280-562503/13 | 0.7 | 53408.0 | | | 76297.142857 | Y |
| 8 | IC 280-562503/12 | 1.0 | 77279.0 | | | 77279.0 | Y |
| 9 | IC 280-562503/11 | 2.5 | 201210.0 | | | 80484.0 | Y |



## Calibration / 1,2-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

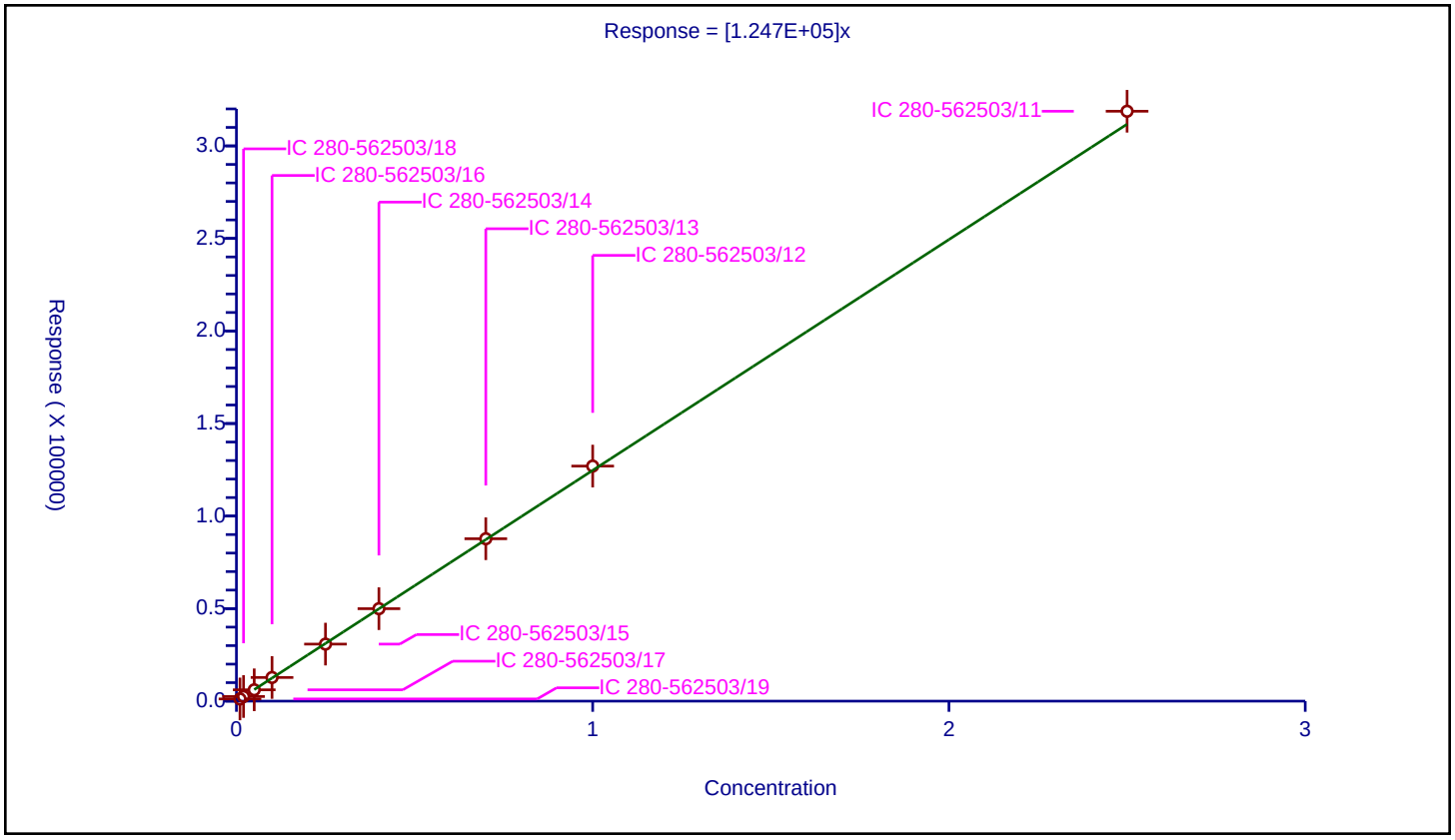
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.247E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2620 |
| **Relative Standard Error:** | 2.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01 | 1188.0 | | | 118800.0 | Y |
| 2 | IC 280-562503/18 | 0.02 | 2503.0 | | | 125150.0 | Y |
| 3 | IC 280-562503/17 | 0.05 | 6127.0 | | | 122540.0 | Y |
| 4 | IC 280-562503/16 | 0.1 | 12780.0 | | | 127800.0 | Y |
| 5 | IC 280-562503/15 | 0.25 | 30811.0 | | | 123244.0 | Y |
| 6 | IC 280-562503/14 | 0.4 | 49955.0 | | | 124887.5 | Y |
| 7 | IC 280-562503/13 | 0.7 | 87746.0 | | | 125351.428571 | Y |
| 8 | IC 280-562503/12 | 1.0 | 127011.0 | | | 127011.0 | Y |
| 9 | IC 280-562503/11 | 2.5 | 318738.0 | | | 127495.2 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

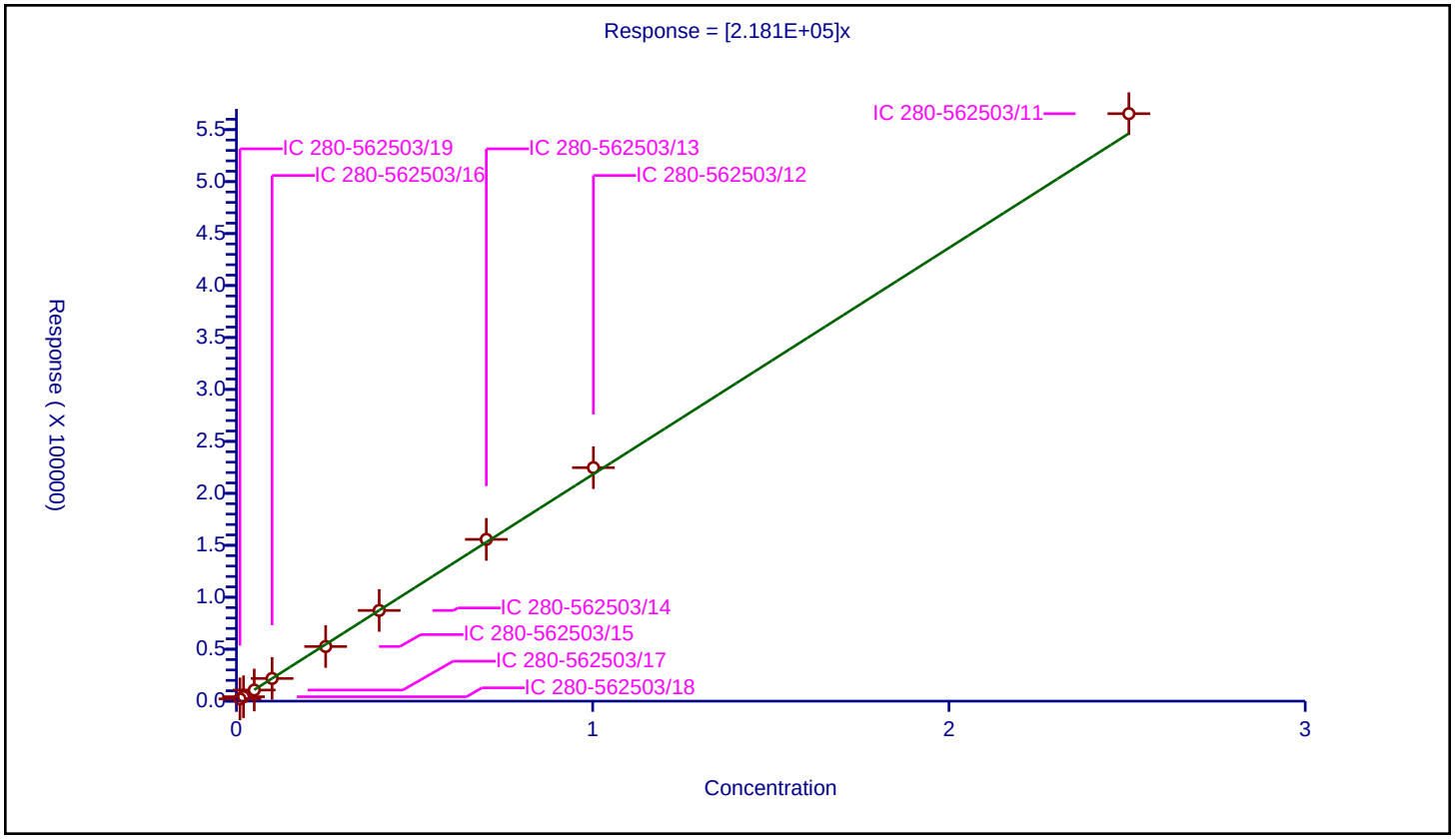
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.181E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7180 |
| **Relative Standard Error:** | 2.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01002 | 2197.0 | | | 219261.477046 | Y |
| 2 | IC 280-562503/18 | 0.02004 | 4249.0 | | | 212025.948104 | Y |
| 3 | IC 280-562503/17 | 0.0501 | 10711.0 | | | 213792.41517 | Y |
| 4 | IC 280-562503/16 | 0.1002 | 21856.0 | | | 218123.752495 | Y |
| 5 | IC 280-562503/15 | 0.2505 | 52589.0 | | | 209936.127745 | Y |
| 6 | IC 280-562503/14 | 0.4008 | 87295.0 | | | 217801.896208 | Y |
| 7 | IC 280-562503/13 | 0.7014 | 155681.0 | | | 221957.513544 | Y |
| 8 | IC 280-562503/12 | 1.002 | 224711.0 | | | 224262.47505 | Y |
| 9 | IC 280-562503/11 | 2.505 | 565374.0 | | | 225698.203593 | Y |



## Calibration / 1,3-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

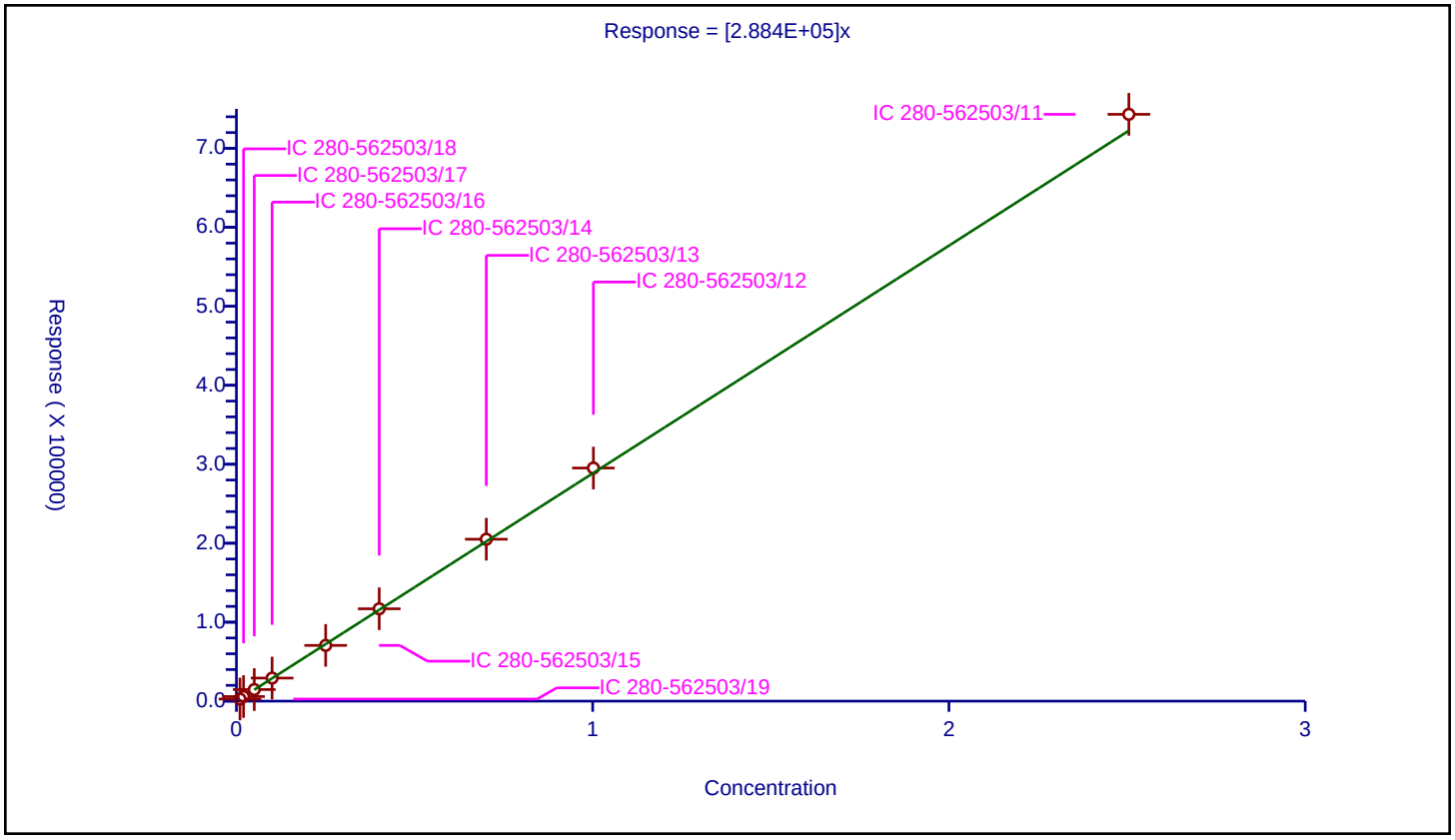
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.884E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7740 |
| **Relative Standard Error:** | 3.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01002 | 2633.0 | | | 262774.451098 | Y |
| 2 | IC 280-562503/18 | 0.02004 | 5833.0 | | | 291067.864271 | Y |
| 3 | IC 280-562503/17 | 0.0501 | 14683.0 | | | 293073.852295 | Y |
| 4 | IC 280-562503/16 | 0.1002 | 29215.0 | | | 291566.866267 | Y |
| 5 | IC 280-562503/15 | 0.2505 | 70569.0 | | | 281712.57485 | Y |
| 6 | IC 280-562503/14 | 0.4008 | 116963.0 | | | 291823.852295 | Y |
| 7 | IC 280-562503/13 | 0.7014 | 205039.0 | | | 292328.200741 | Y |
| 8 | IC 280-562503/12 | 1.002 | 295195.0 | | | 294605.788423 | Y |
| 9 | IC 280-562503/11 | 2.505 | 743133.0 | | | 296659.88024 | Y |



## Calibration / Nitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

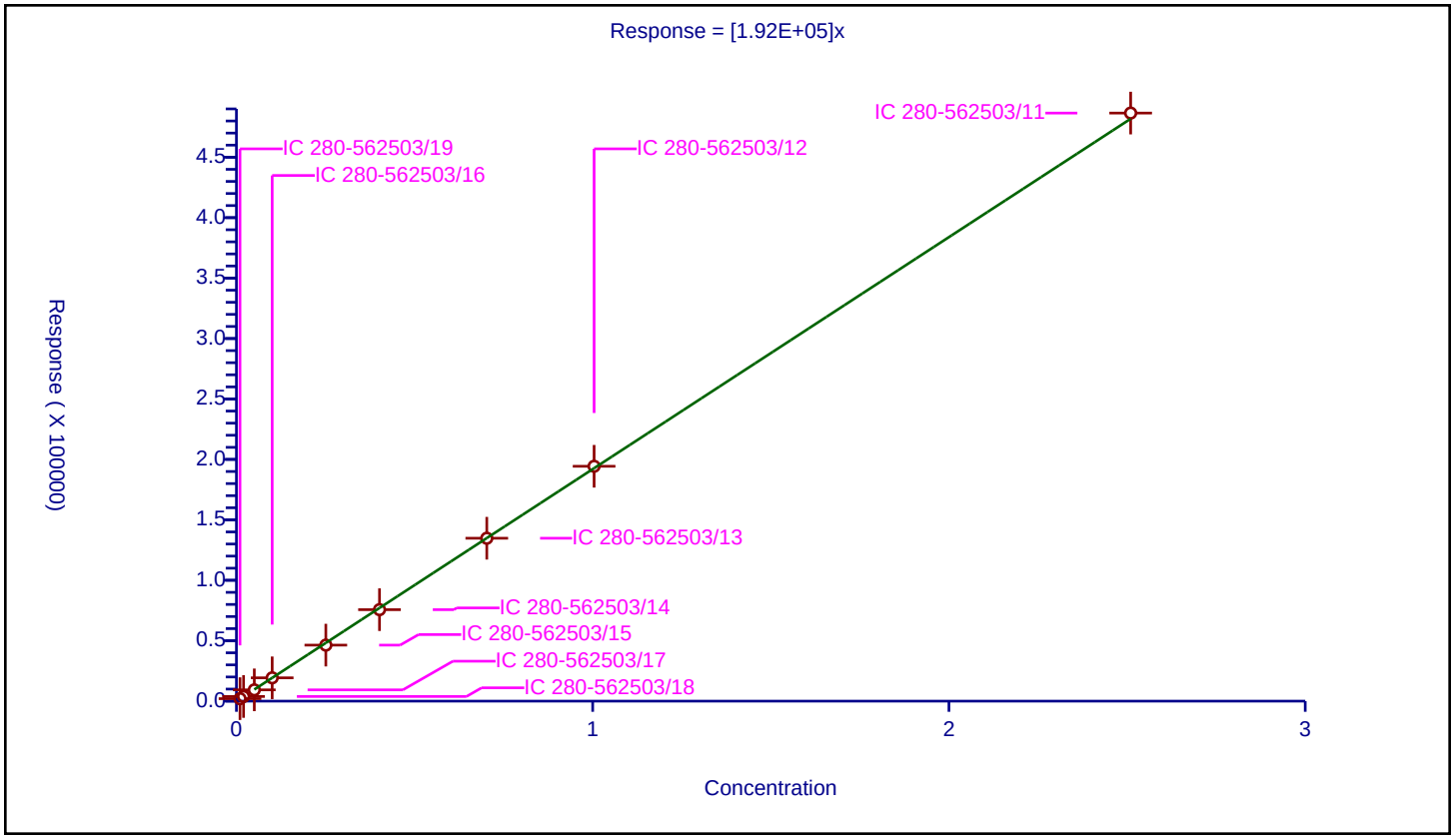
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.92E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1950 |
| **Relative Standard Error:** | 3.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01004 | 2067.0 | | | 205876.494024 | Y |
| 2 | IC 280-562503/18 | 0.02008 | 3845.0 | | | 191484.063745 | Y |
| 3 | IC 280-562503/17 | 0.0502 | 9329.0 | | | 185836.653386 | Y |
| 4 | IC 280-562503/16 | 0.1004 | 19287.0 | | | 192101.593625 | Y |
| 5 | IC 280-562503/15 | 0.251 | 46348.0 | | | 184653.386454 | Y |
| 6 | IC 280-562503/14 | 0.4016 | 75688.0 | | | 188466.135458 | Y |
| 7 | IC 280-562503/13 | 0.7028 | 134777.0 | | | 191771.485487 | Y |
| 8 | IC 280-562503/12 | 1.004 | 194325.0 | | | 193550.796813 | Y |
| 9 | IC 280-562503/11 | 2.51 | 486534.0 | | | 193838.247012 | Y |



## Calibration / Tetryl

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

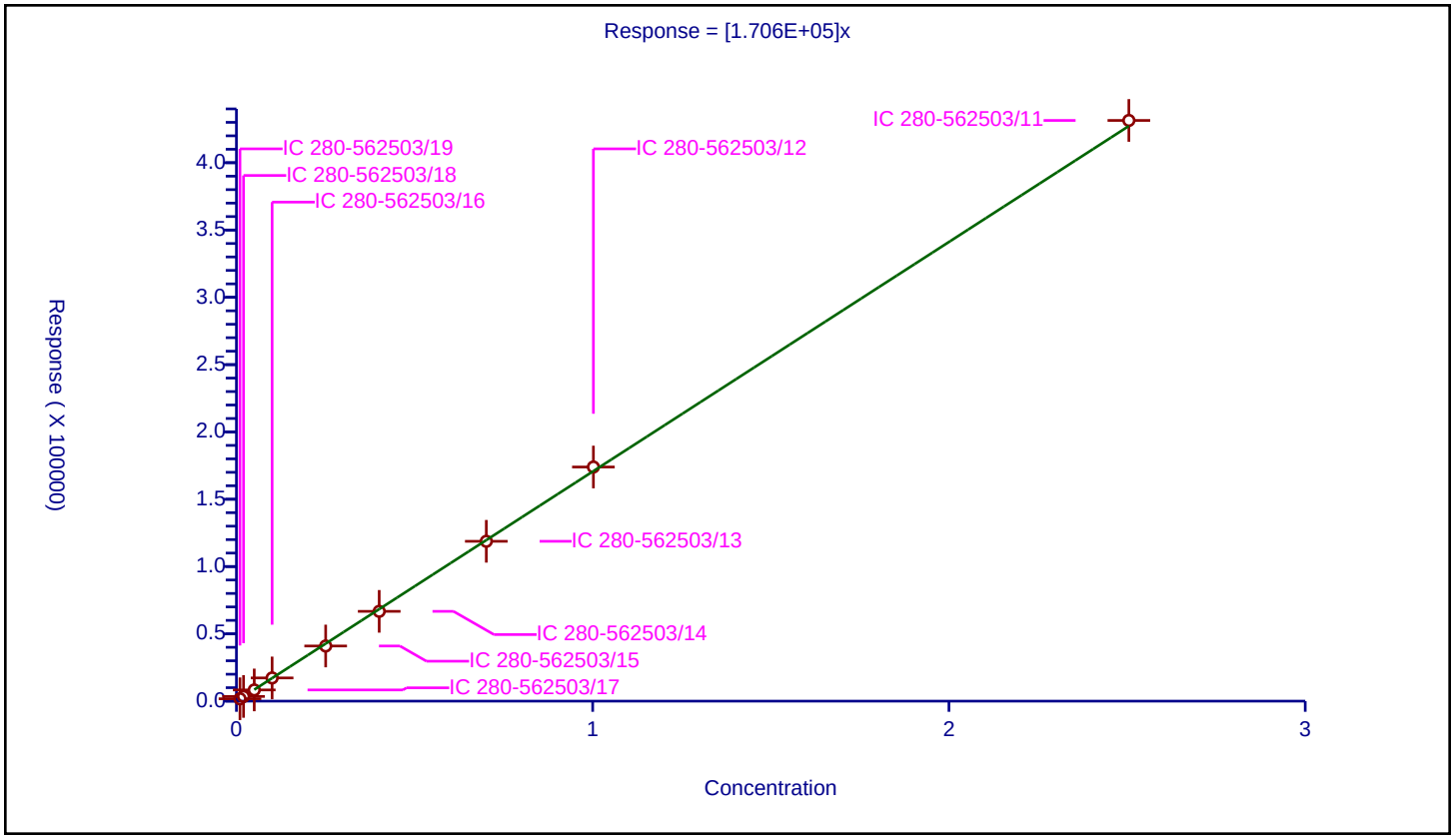
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.706E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2030 |
| **Relative Standard Error:** | 2.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01002 | 1778.0 | | | 177445.10978 | Y |
| 2 | IC 280-562503/18 | 0.02004 | 3498.0 | | | 174550.898204 | Y |
| 3 | IC 280-562503/17 | 0.0501 | 8315.0 | | | 165968.063872 | Y |
| 4 | IC 280-562503/16 | 0.1002 | 17238.0 | | | 172035.928144 | Y |
| 5 | IC 280-562503/15 | 0.2505 | 40968.0 | | | 163544.91018 | Y |
| 6 | IC 280-562503/14 | 0.4008 | 66706.0 | | | 166432.135729 | Y |
| 7 | IC 280-562503/13 | 0.7014 | 118756.0 | | | 169312.802965 | Y |
| 8 | IC 280-562503/12 | 1.002 | 173941.0 | | | 173593.812375 | Y |
| 9 | IC 280-562503/11 | 2.505 | 431404.0 | | | 172217.165669 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

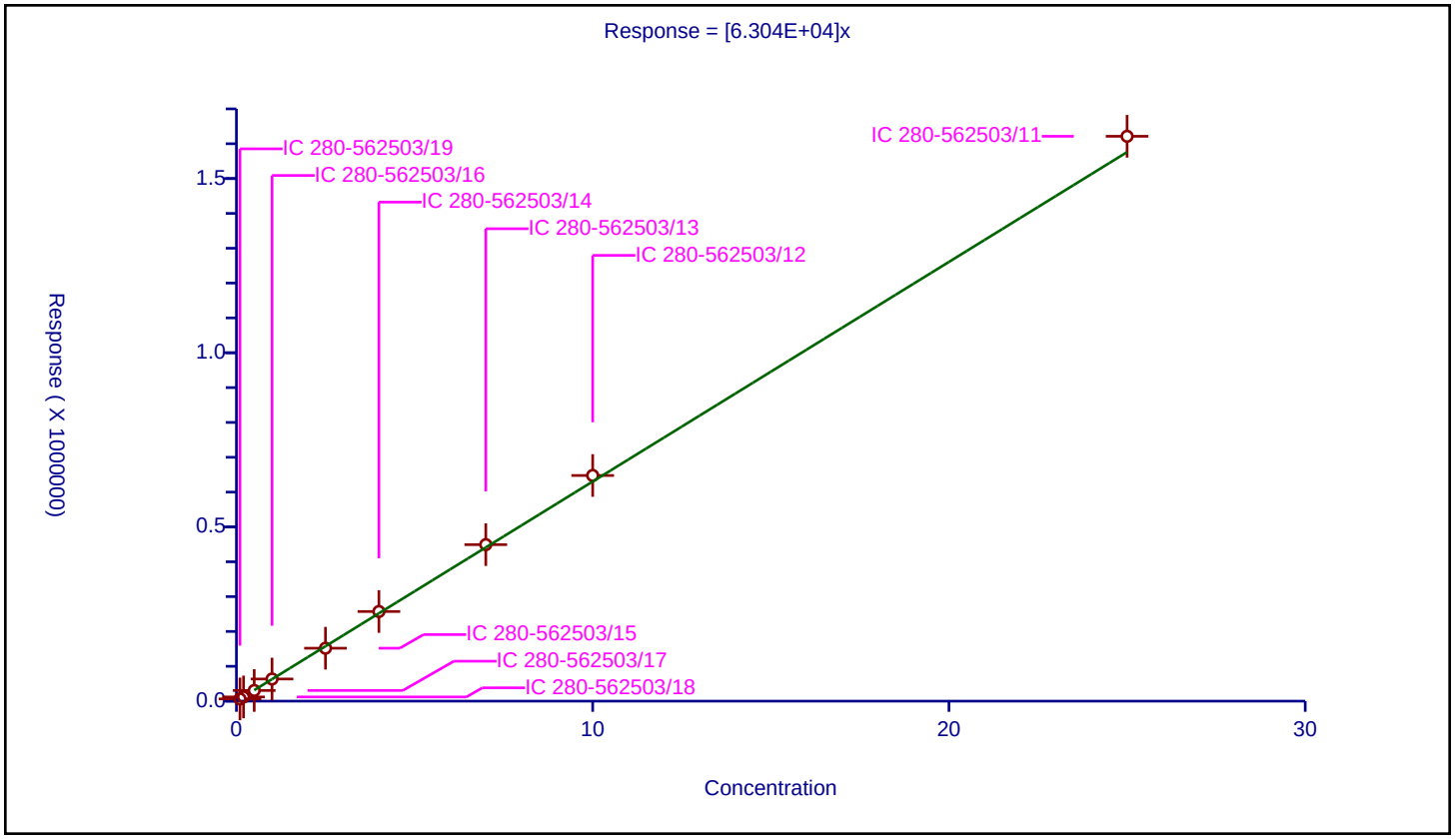
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 6.304E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 17600 |
| **Relative Standard Error:** | 2.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.1 | 6348.0 | | | 63480.0 | Y |
| 2 | IC 280-562503/18 | 0.2 | 12008.0 | | | 60040.0 | Y |
| 3 | IC 280-562503/17 | 0.5 | 30651.0 | | | 61302.0 | Y |
| 4 | IC 280-562503/16 | 1.0 | 63595.0 | | | 63595.0 | Y |
| 5 | IC 280-562503/15 | 2.5 | 151977.0 | | | 60790.8 | Y |
| 6 | IC 280-562503/14 | 4.0 | 257287.0 | | | 64321.75 | Y |
| 7 | IC 280-562503/13 | 7.0 | 449283.0 | | | 64183.285714 | Y |
| 8 | IC 280-562503/12 | 10.0 | 647703.0 | | | 64770.3 | Y |
| 9 | IC 280-562503/11 | 25.0 | 1621311.0 | | | 64852.44 | Y |



## Calibration / 2,4,6-Trinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

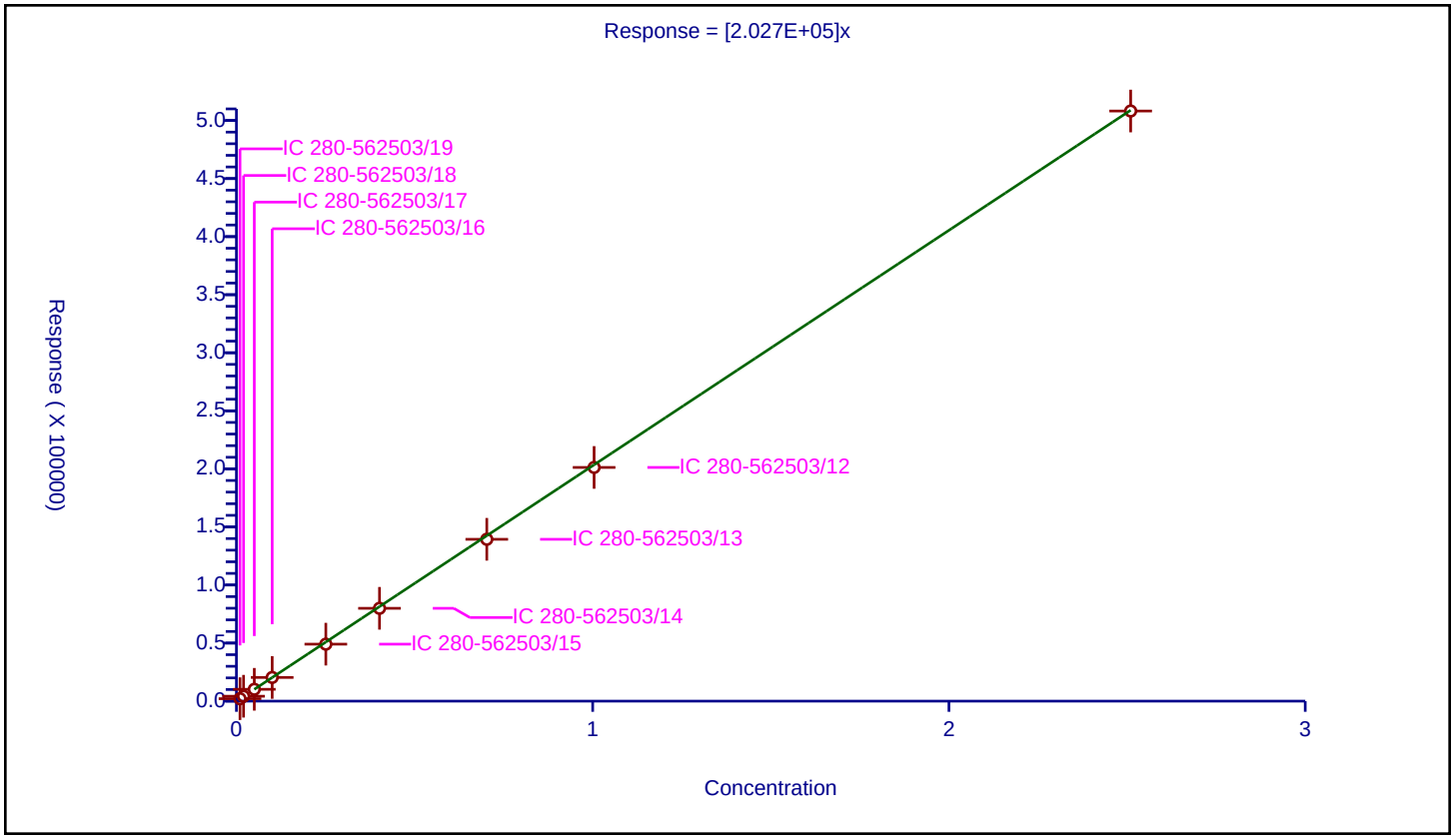
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.027E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1610 |
| **Relative Standard Error:** | 2.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01004 | 2126.0 | | | 211752.988048 | Y |
| 2 | IC 280-562503/18 | 0.02008 | 4227.0 | | | 210507.968127 | Y |
| 3 | IC 280-562503/17 | 0.0502 | 10202.0 | | | 203227.091633 | Y |
| 4 | IC 280-562503/16 | 0.1004 | 20408.0 | | | 203266.932271 | Y |
| 5 | IC 280-562503/15 | 0.251 | 49067.0 | | | 195486.055777 | Y |
| 6 | IC 280-562503/14 | 0.4016 | 79951.0 | | | 199081.175299 | Y |
| 7 | IC 280-562503/13 | 0.7028 | 139377.0 | | | 198316.733068 | Y |
| 8 | IC 280-562503/12 | 1.004 | 201237.0 | | | 200435.258964 | Y |
| 9 | IC 280-562503/11 | 2.51 | 508173.0 | | | 202459.36255 | Y |



## Calibration / 4-Amino-2,6-dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

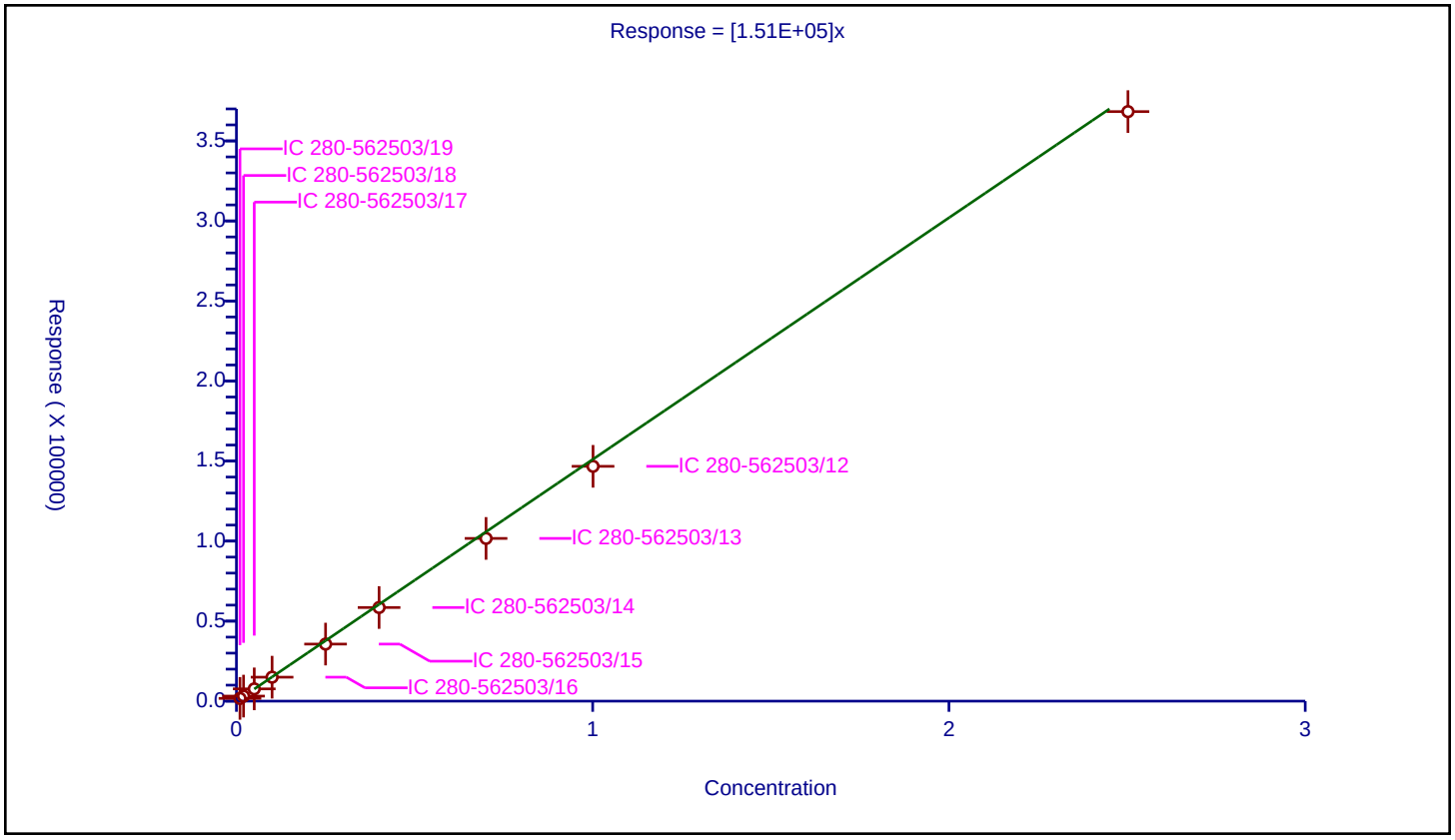
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.51E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4130 |
| **Relative Standard Error:** | 5.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01001 | 1718.0 | | | 171628.371628 | Y |
| 2 | IC 280-562503/18 | 0.02002 | 3150.0 | | | 157342.657343 | Y |
| 3 | IC 280-562503/17 | 0.05005 | 7656.0 | | | 152967.032967 | Y |
| 4 | IC 280-562503/16 | 0.1001 | 14975.0 | | | 149600.3996 | Y |
| 5 | IC 280-562503/15 | 0.25025 | 35644.0 | | | 142433.566434 | Y |
| 6 | IC 280-562503/14 | 0.4004 | 58489.0 | | | 146076.423576 | Y |
| 7 | IC 280-562503/13 | 0.7007 | 101665.0 | | | 145090.623662 | Y |
| 8 | IC 280-562503/12 | 1.001 | 146703.0 | | | 146556.443556 | Y |
| 9 | IC 280-562503/11 | 2.5025 | 368296.0 | | | 147171.228771 | Y |



## Calibration / 2-Amino-4,6-dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

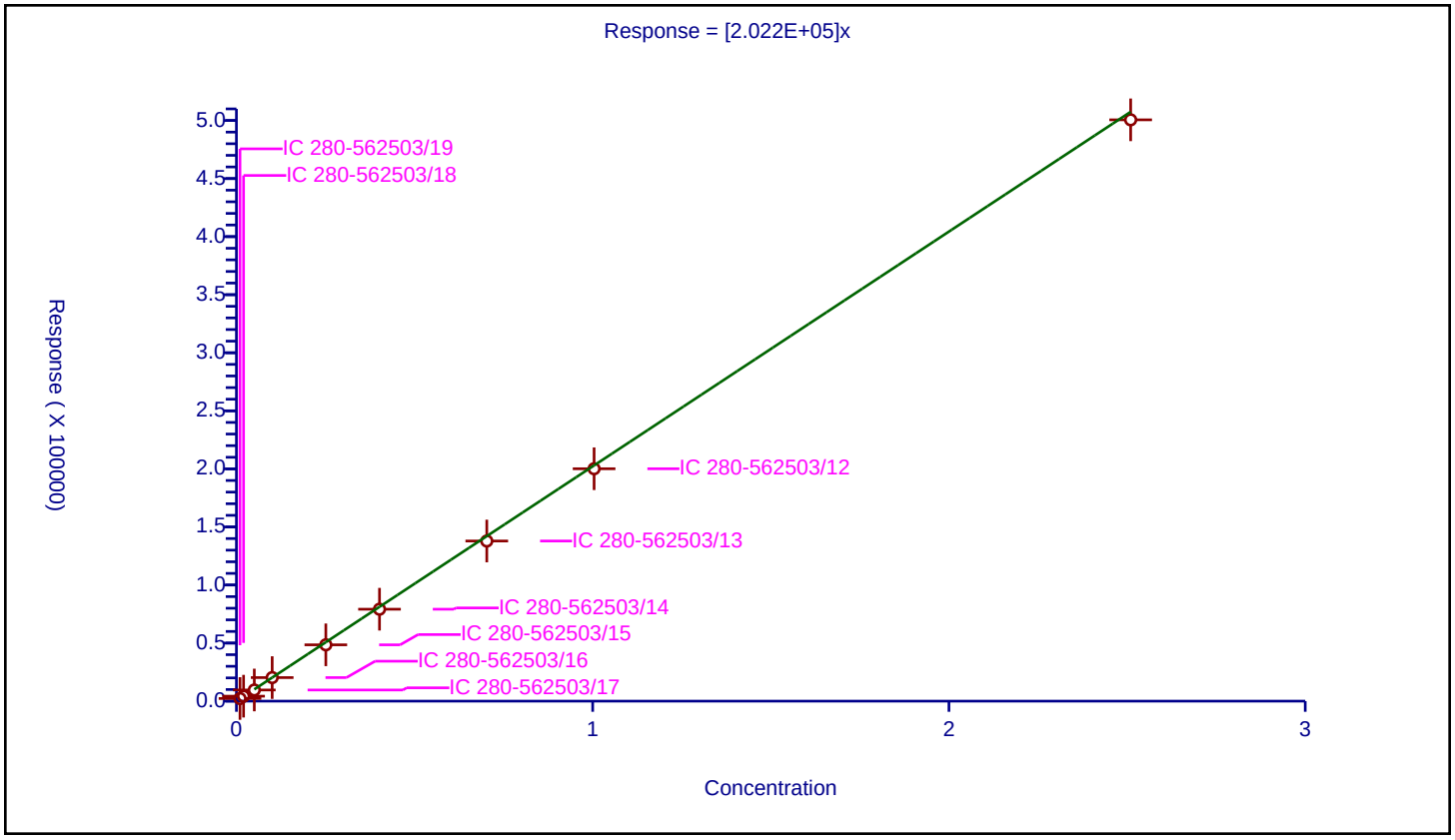
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.022E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3210 |
| **Relative Standard Error:** | 5.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01004 | 2287.0 | | | 227788.844622 | Y |
| 2 | IC 280-562503/18 | 0.02008 | 4282.0 | | | 213247.011952 | Y |
| 3 | IC 280-562503/17 | 0.0502 | 9600.0 | | | 191235.059761 | Y |
| 4 | IC 280-562503/16 | 0.1004 | 20280.0 | | | 201992.031873 | Y |
| 5 | IC 280-562503/15 | 0.251 | 48486.0 | | | 193171.314741 | Y |
| 6 | IC 280-562503/14 | 0.4016 | 79169.0 | | | 197133.964143 | Y |
| 7 | IC 280-562503/13 | 0.7028 | 137894.0 | | | 196206.602163 | Y |
| 8 | IC 280-562503/12 | 1.004 | 200129.0 | | | 199331.673307 | Y |
| 9 | IC 280-562503/11 | 2.51 | 500581.0 | | | 199434.661355 | Y |



## Calibration / 2,6-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

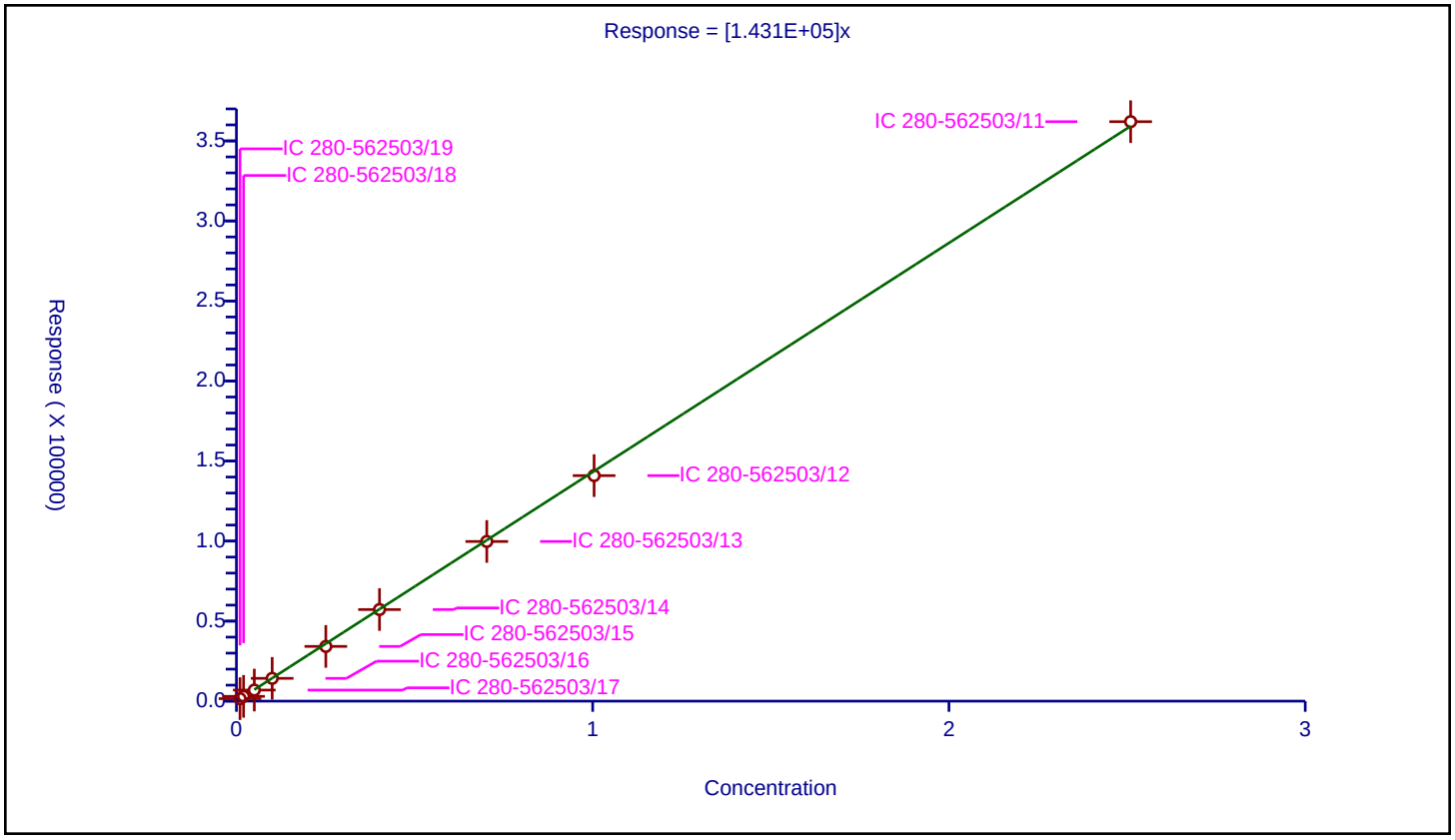
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.431E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1560 |
| **Relative Standard Error:** | 4.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01004 | 1551.0 | | | 154482.071713 | Y |
| 2 | IC 280-562503/18 | 0.02008 | 2993.0 | | | 149053.784861 | Y |
| 3 | IC 280-562503/17 | 0.0502 | 6908.0 | | | 137609.561753 | Y |
| 4 | IC 280-562503/16 | 0.1004 | 14234.0 | | | 141772.908367 | Y |
| 5 | IC 280-562503/15 | 0.251 | 34177.0 | | | 136163.346614 | Y |
| 6 | IC 280-562503/14 | 0.4016 | 57212.0 | | | 142460.159363 | Y |
| 7 | IC 280-562503/13 | 0.7028 | 99747.0 | | | 141928.002277 | Y |
| 8 | IC 280-562503/12 | 1.004 | 140901.0 | | | 140339.641434 | Y |
| 9 | IC 280-562503/11 | 2.51 | 362011.0 | | | 144227.49004 | Y |



## Calibration / 2,4-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

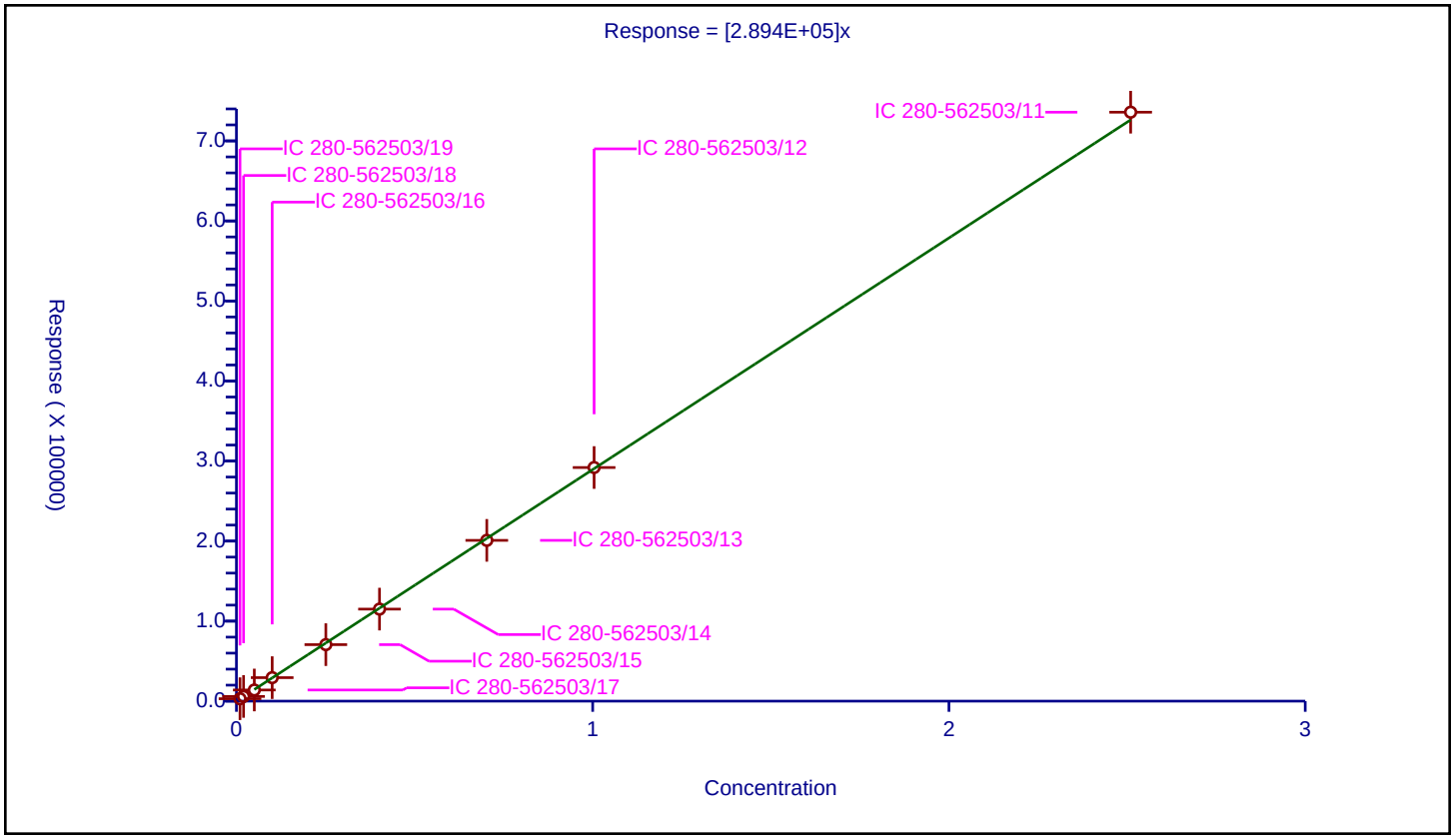
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.894E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3650 |
| **Relative Standard Error:** | 2.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01004 | 3047.0 | | | 303486.055777 | Y |
| 2 | IC 280-562503/18 | 0.02008 | 5890.0 | | | 293326.693227 | Y |
| 3 | IC 280-562503/17 | 0.0502 | 13933.0 | | | 277549.800797 | Y |
| 4 | IC 280-562503/16 | 0.1004 | 29355.0 | | | 292380.478088 | Y |
| 5 | IC 280-562503/15 | 0.251 | 70605.0 | | | 281294.820717 | Y |
| 6 | IC 280-562503/14 | 0.4016 | 115000.0 | | | 286354.581673 | Y |
| 7 | IC 280-562503/13 | 0.7028 | 200883.0 | | | 285832.384747 | Y |
| 8 | IC 280-562503/12 | 1.004 | 291912.0 | | | 290749.003984 | Y |
| 9 | IC 280-562503/11 | 2.51 | 735887.0 | | | 293182.071713 | Y |



## Calibration / o-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

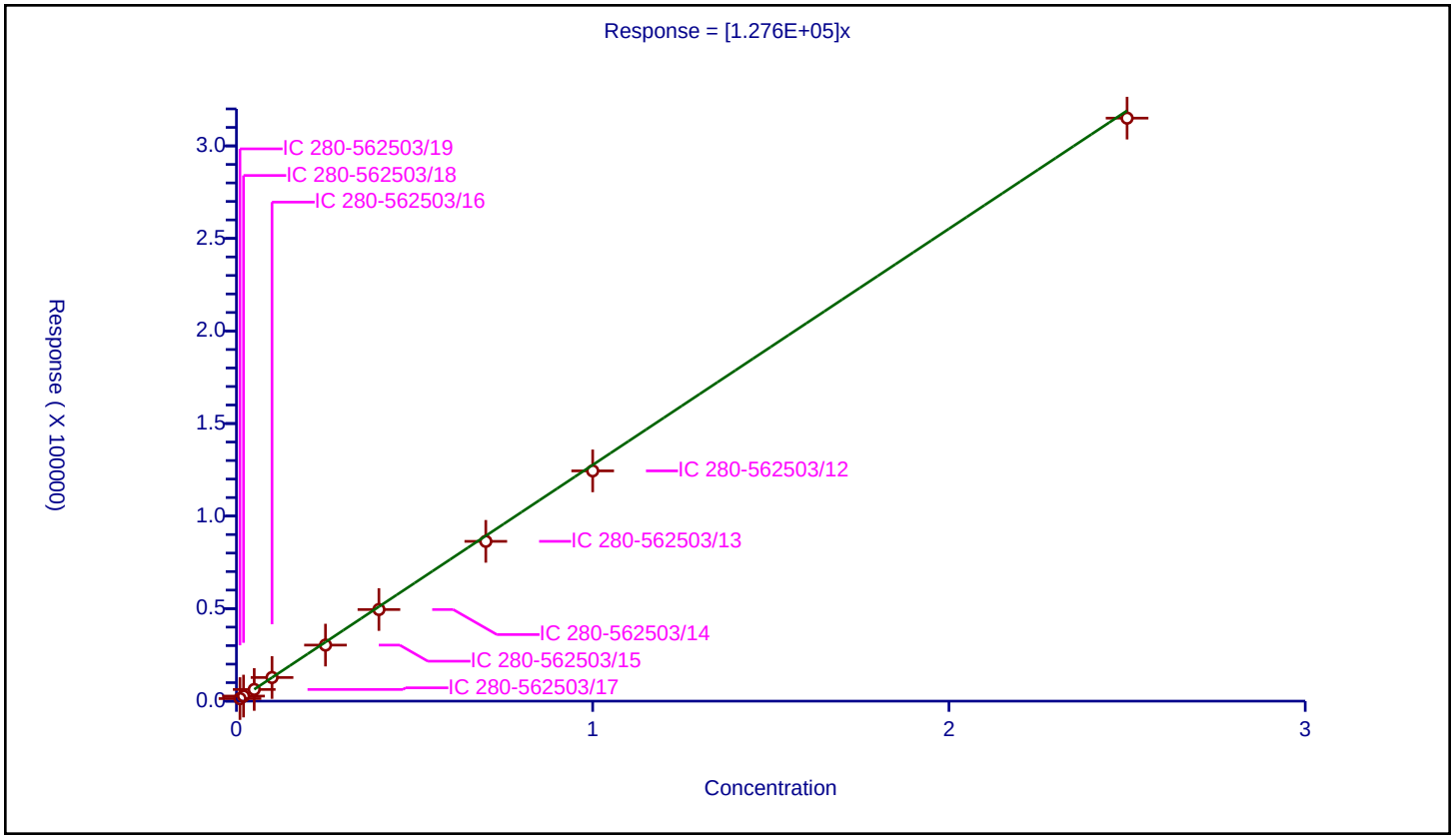
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.276E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2250 |
| **Relative Standard Error:** | 4.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01 | 1387.0 | | | 138700.0 | Y |
| 2 | IC 280-562503/18 | 0.02 | 2743.0 | | | 137150.0 | Y |
| 3 | IC 280-562503/17 | 0.05 | 6314.0 | | | 126280.0 | Y |
| 4 | IC 280-562503/16 | 0.1 | 12777.0 | | | 127770.0 | Y |
| 5 | IC 280-562503/15 | 0.25 | 30280.0 | | | 121120.0 | Y |
| 6 | IC 280-562503/14 | 0.4 | 49500.0 | | | 123750.0 | Y |
| 7 | IC 280-562503/13 | 0.7 | 86333.0 | | | 123332.857143 | Y |
| 8 | IC 280-562503/12 | 1.0 | 124418.0 | | | 124418.0 | Y |
| 9 | IC 280-562503/11 | 2.5 | 315004.0 | | | 126001.6 | Y |



## Calibration / p-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

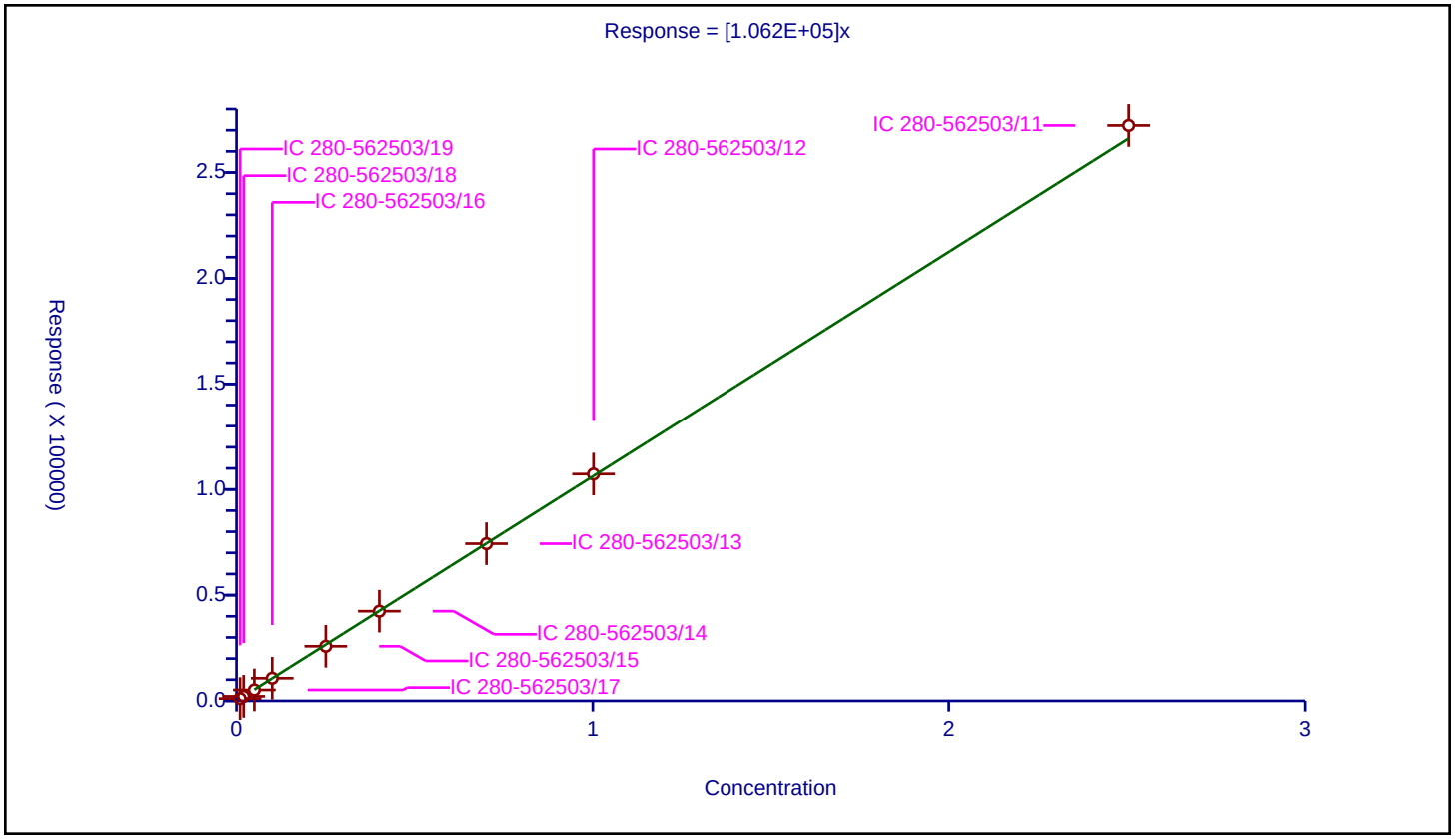
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.062E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2210 |
| **Relative Standard Error:** | 1.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01002 | 1083.0 | | | 108083.832335 | Y |
| 2 | IC 280-562503/18 | 0.02004 | 2151.0 | | | 107335.329341 | Y |
| 3 | IC 280-562503/17 | 0.0501 | 5163.0 | | | 103053.892216 | Y |
| 4 | IC 280-562503/16 | 0.1002 | 10715.0 | | | 106936.127745 | Y |
| 5 | IC 280-562503/15 | 0.2505 | 25824.0 | | | 103089.820359 | Y |
| 6 | IC 280-562503/14 | 0.4008 | 42415.0 | | | 105825.848303 | Y |
| 7 | IC 280-562503/13 | 0.7014 | 74357.0 | | | 106012.261192 | Y |
| 8 | IC 280-562503/12 | 1.002 | 107309.0 | | | 107094.810379 | Y |
| 9 | IC 280-562503/11 | 2.505 | 272262.0 | | | 108687.42515 | Y |



## Calibration / m-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

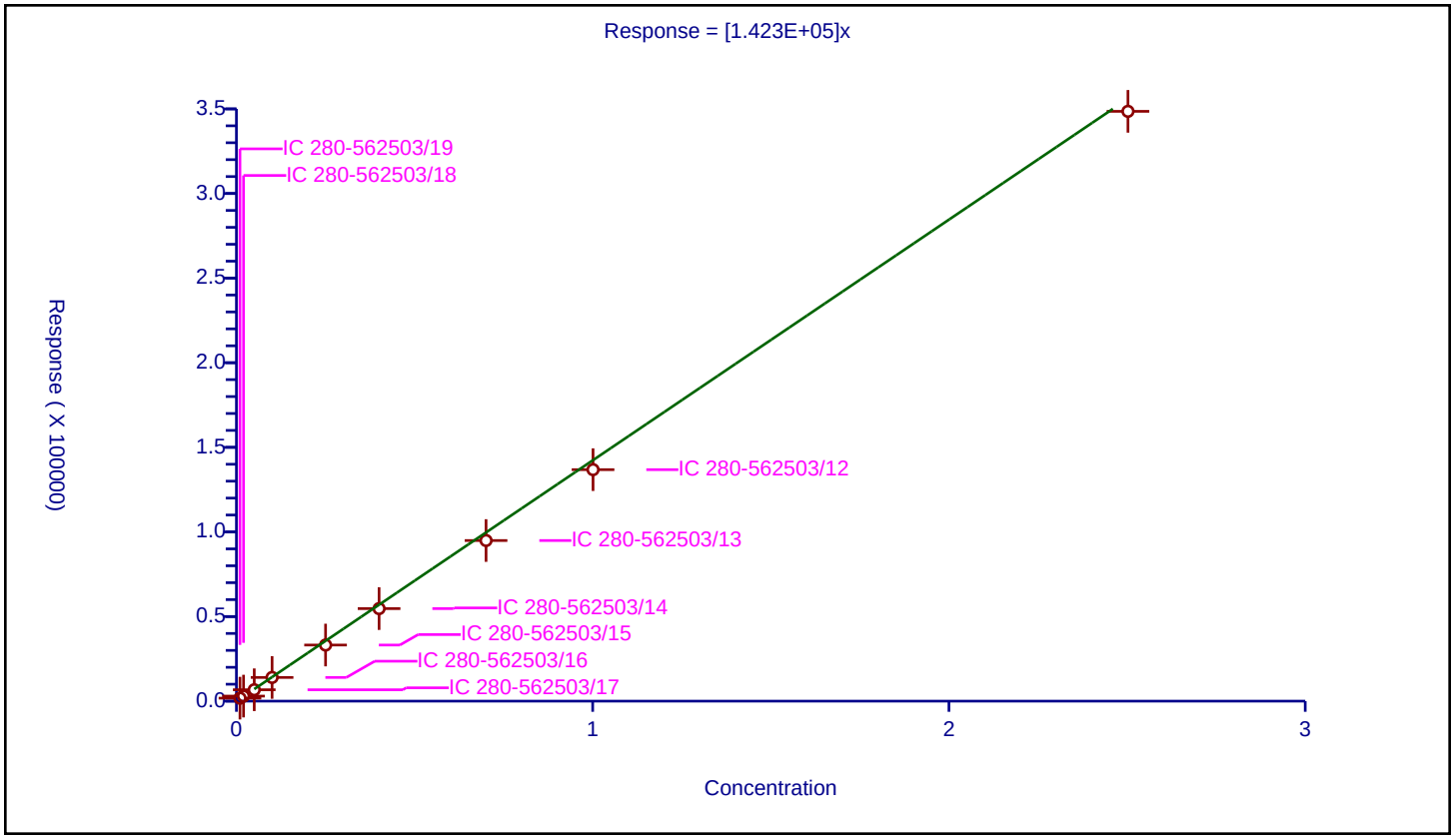
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.423E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3900 |
| **Relative Standard Error:** | 9.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.01001 | 1764.0 | | | 176223.776224 | Y |
| 2 | IC 280-562503/18 | 0.02002 | 2989.0 | | | 149300.699301 | Y |
| 3 | IC 280-562503/17 | 0.05005 | 6733.0 | | | 134525.474525 | Y |
| 4 | IC 280-562503/16 | 0.1001 | 14003.0 | | | 139890.10989 | Y |
| 5 | IC 280-562503/15 | 0.25025 | 33160.0 | | | 132507.492507 | Y |
| 6 | IC 280-562503/14 | 0.4004 | 54695.0 | | | 136600.899101 | Y |
| 7 | IC 280-562503/13 | 0.7007 | 94920.0 | | | 135464.535465 | Y |
| 8 | IC 280-562503/12 | 1.001 | 136801.0 | | | 136664.335664 | Y |
| 9 | IC 280-562503/11 | 2.5025 | 348555.0 | | | 139282.717283 | Y |



## Calibration / PETN

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

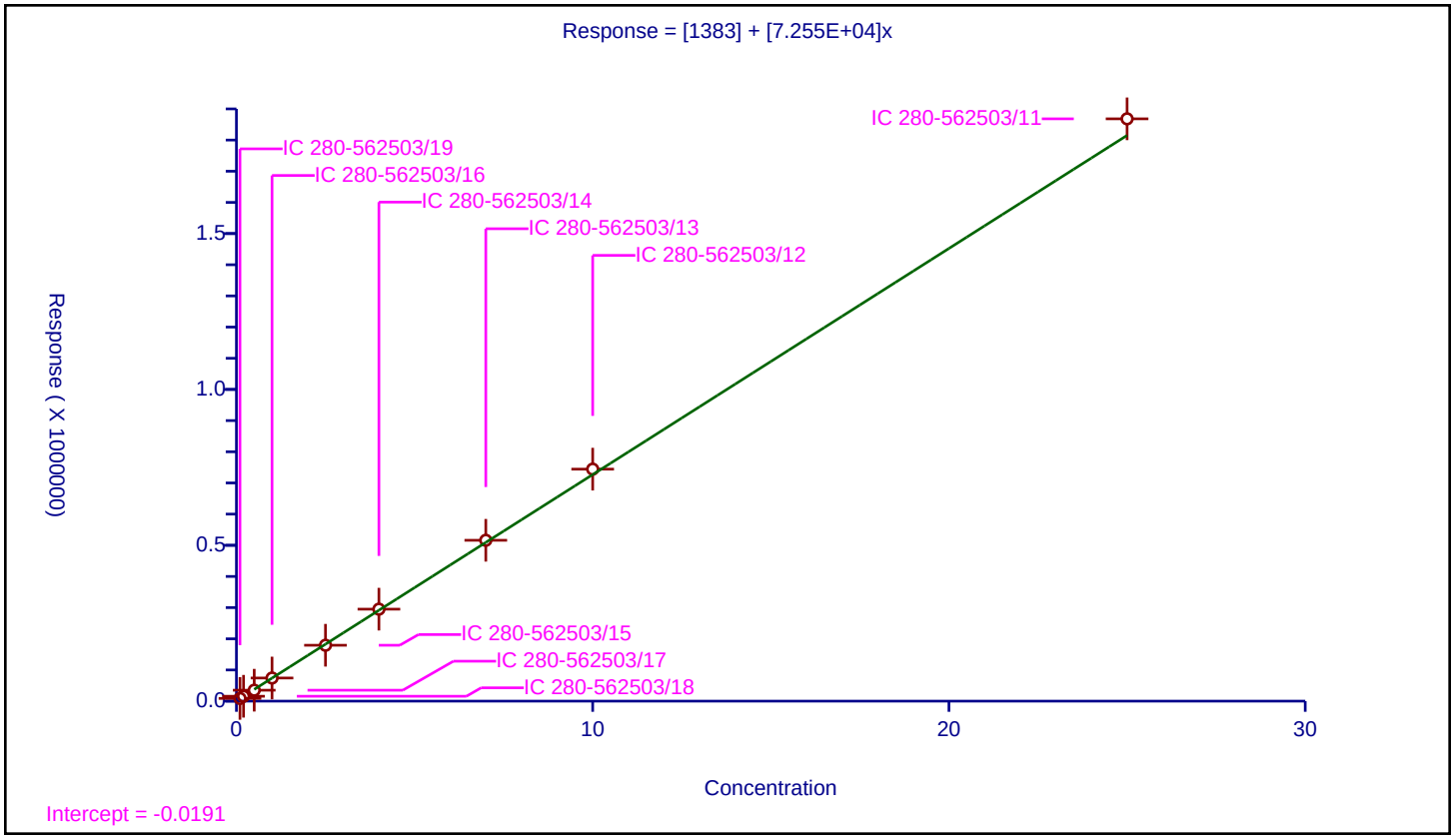
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1383 |
| **Slope:** | 7.255E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 21400 |
| **Relative Standard Error:** | 3.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/19 | 0.1 | 8784.0 | | | 87840.0 | Y |
| 2 | IC 280-562503/18 | 0.2 | 15705.0 | | | 78525.0 | Y |
| 3 | IC 280-562503/17 | 0.5 | 35084.0 | | | 70168.0 | Y |
| 4 | IC 280-562503/16 | 1.0 | 74208.0 | | | 74208.0 | Y |
| 5 | IC 280-562503/15 | 2.5 | 179275.0 | | | 71710.0 | Y |
| 6 | IC 280-562503/14 | 4.0 | 295082.0 | | | 73770.5 | Y |
| 7 | IC 280-562503/13 | 7.0 | 516042.0 | | | 73720.285714 | Y |
| 8 | IC 280-562503/12 | 10.0 | 744274.0 | | | 74427.4 | Y |
| 9 | IC 280-562503/11 | 25.0 | 1868141.0 | | | 74725.64 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/37 | 01040037.D |
| Level 2 | IC 280-562503/36 | 01040036.D |
| Level 3 | IC 280-562503/35 | 01040035.D |
| Level 4 | IC 280-562503/34 | 01040034.D |
| Level 5 | IC 280-562503/33 | 01040033.D |
| Level 6 | IC 280-562503/32 | 01040032.D |
| Level 7 | IC 280-562503/31 | 01040031.D |
| Level 8 | IC 280-562503/30 | 01040030.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 6.479 | 6.478 | 6.483 | 6.484 | 6.483 | 6.477 | 6.478 | 6.472 | | | 6.384 - 6.584 | 6.479 |
| DNX | 6.799 | 6.798 | 6.796 | 6.797 | 6.803 | 6.797 | 6.798 | 6.792 | | | 6.697 - 6.897 | 6.798 |
| MNX | 7.219 | 7.224 | 7.223 | 7.224 | 7.223 | 7.217 | 7.218 | 7.218 | | | 7.074 - 7.374 | 7.221 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/37 | 01040037.D |
| Level 2 | IC 280-562503/36 | 01040036.D |
| Level 3 | IC 280-562503/35 | 01040035.D |
| Level 4 | IC 280-562503/34 | 01040034.D |
| Level 5 | IC 280-562503/33 | 01040033.D |
| Level 6 | IC 280-562503/32 | 01040032.D |
| Level 7 | IC 280-562503/31 | 01040031.D |
| Level 8 | IC 280-562503/30 | 01040030.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 179820<br>181618 | 180440<br>185306 | 179710<br>183906 | 170821<br>188038 | Ave | | 181207.471 | | | | 2.8 | | 20.0 | | | |
| DNX | 140709<br>139048 | 139620<br>138881 | 139141<br>137206 | 129534<br>140763 | Ave | | 138112.950 | | | | 2.6 | | 20.0 | | | |
| MNX | 130334<br>127284 | 125073<br>127309 | 123719<br>126586 | 118458<br>129201 | Ave | | 125995.416 | | | | 2.9 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-562503/37 | 01040037.D |
| Level 2 | IC 280-562503/36 | 01040036.D |
| Level 3 | IC 280-562503/35 | 01040035.D |
| Level 4 | IC 280-562503/34 | 01040034.D |
| Level 5 | IC 280-562503/33 | 01040033.D |
| Level 6 | IC 280-562503/32 | 01040032.D |
| Level 7 | IC 280-562503/31 | 01040031.D |
| Level 8 | IC 280-562503/30 | 01040030.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 | 3600<br>129844 | 9031<br>184090 | 17989<br>470565 | 42748 | 72720 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 2817<br>97314 | 6988<br>137343 | 13928<br>352260 | 32416 | 55675 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 3042<br>103999 | 7298<br>147726 | 14438<br>376943 | 34560 | 59416 | 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: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040030.D | | | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 05-Jan-2022 01:43:42 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 8 | | | | |
| Misc. Info.: | 280-0107731-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:05 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:07:13 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.472 | 6.484 | -0.012 | 470565 | 2.50 | 2.60 | M |
| 6 DNX | 1 | 6.792 | 6.797 | -0.005 | 352260 | 2.50 | 2.55 | M |
| 7 MNX | 1 | 7.218 | 7.224 | -0.006 | 376943 | 2.92 | 2.99 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

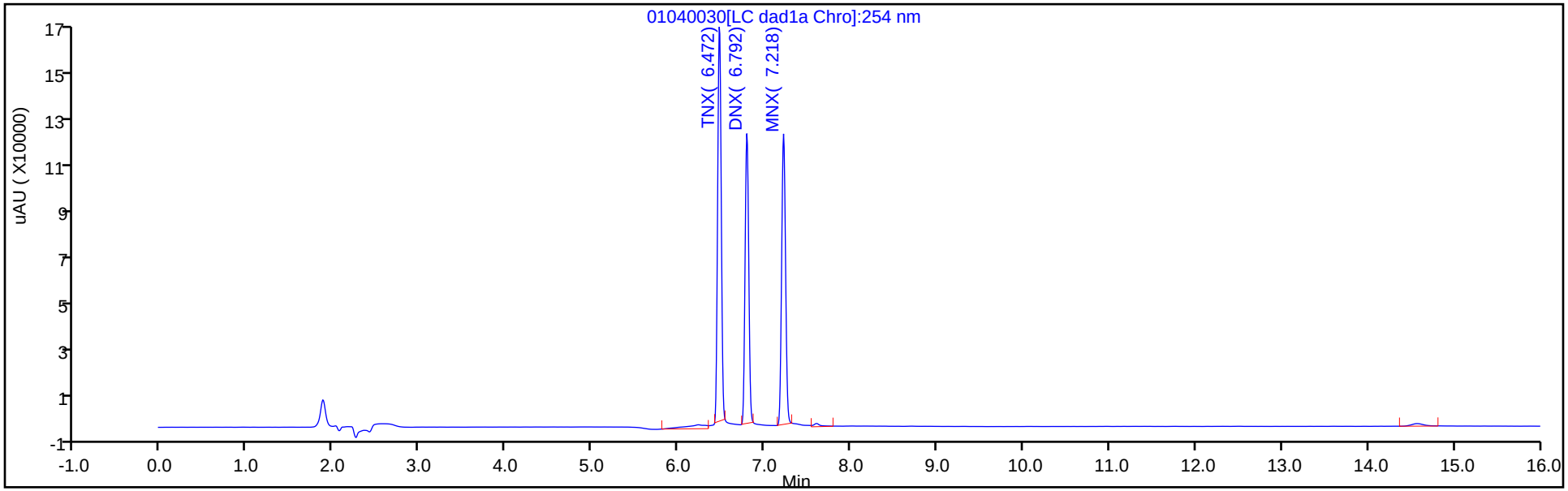
Report Date: 05-Jan-2022 12:10:05 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

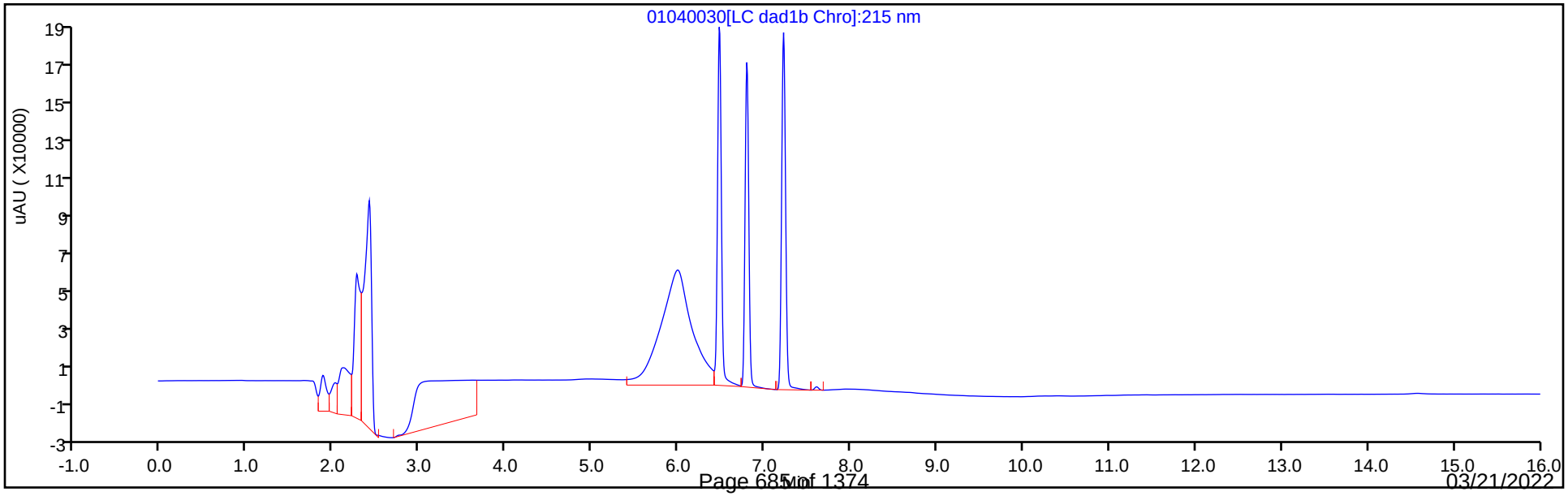
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 01:43:42 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 8 | | | Worklist Smp#: | 30 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

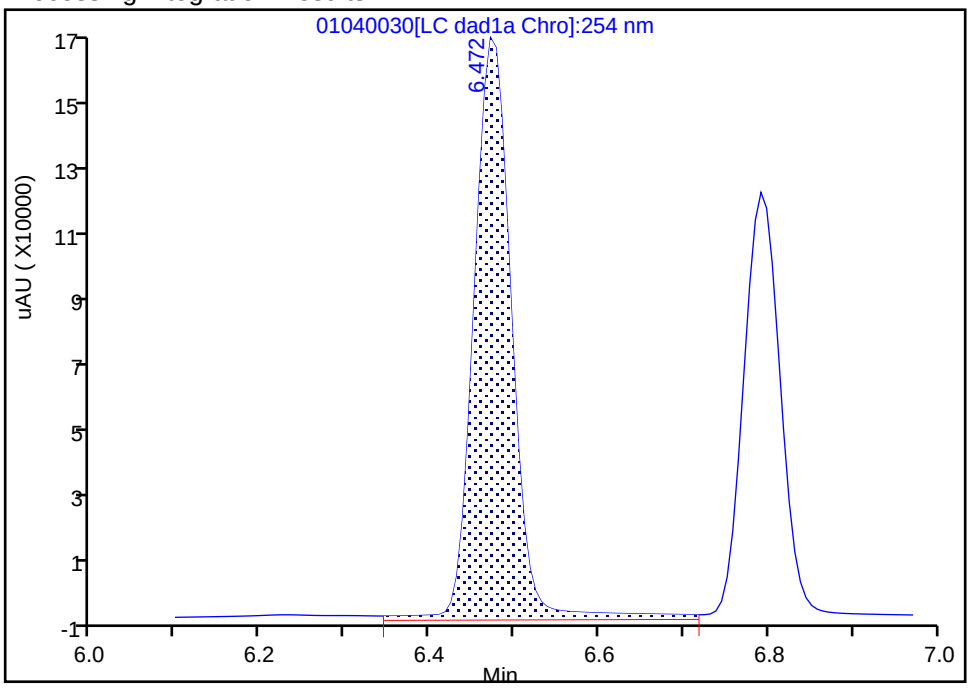
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d | | | | |
| Injection Date: | 05-Jan-2022 01:43:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

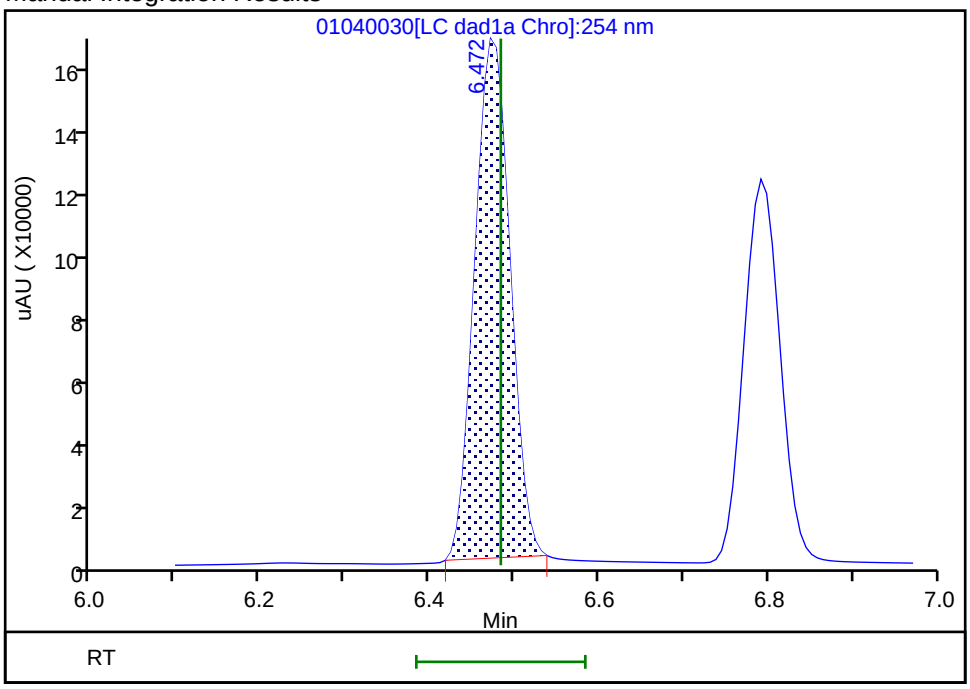
Processing Integration Results

RT: 6.47
Area: 518954
Amount: 2.391054
Amount Units: ug/mL




Manual Integration Results

RT: 6.47
Area: 470565
Amount: 2.596830
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:05:51
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

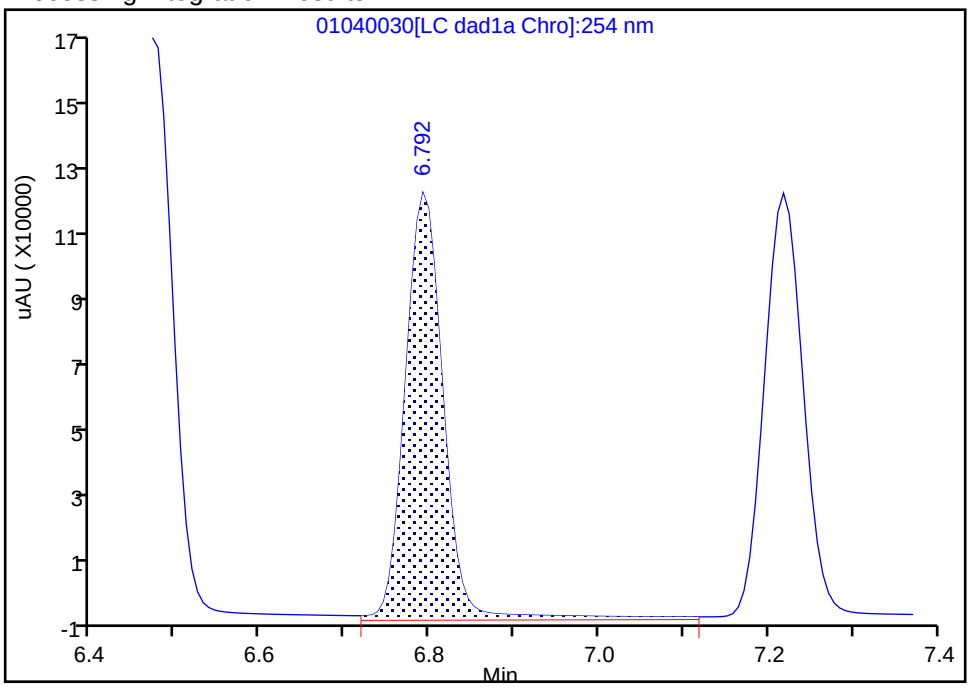
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d | | | | |
| Injection Date: | 05-Jan-2022 01:43:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

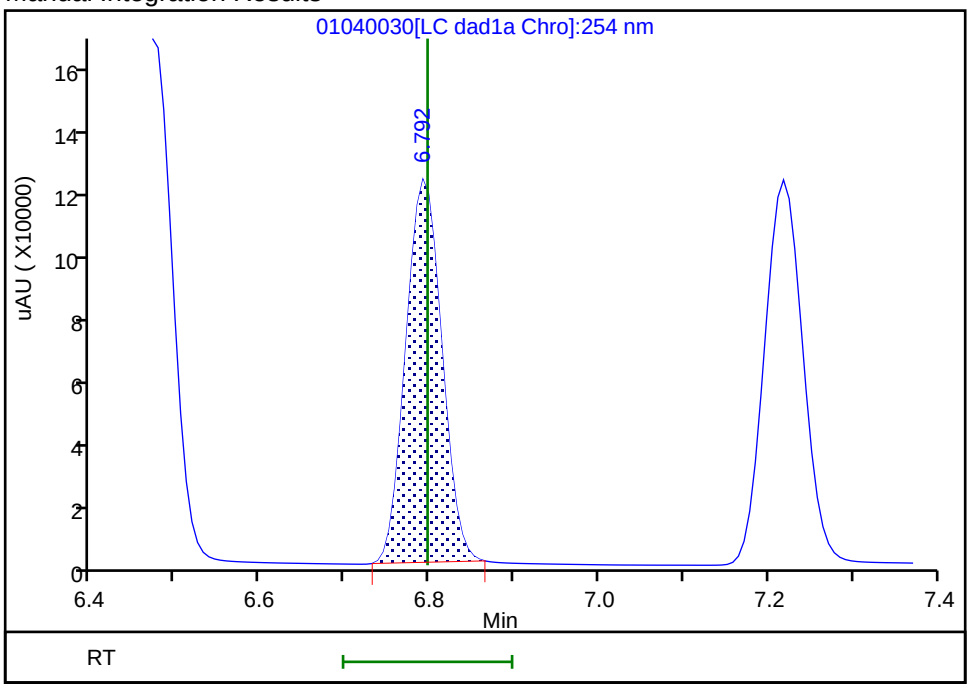
Processing Integration Results

RT: 6.79
Area: 385621
Amount: 2.575003
Amount Units: ug/mL




Manual Integration Results

RT: 6.79
Area: 352260
Amount: 2.550521
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:08
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

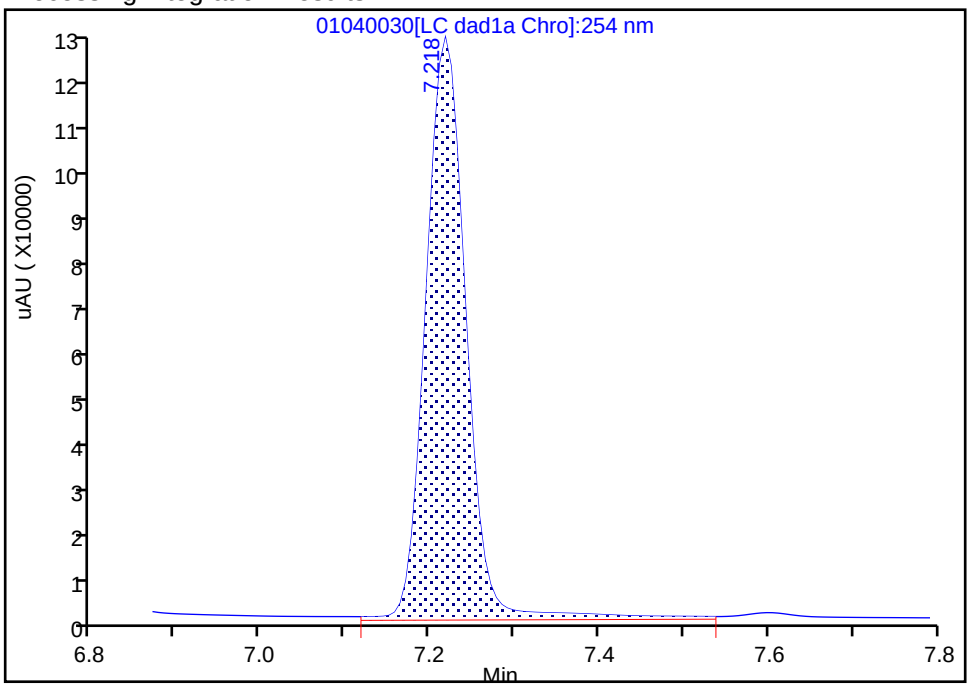
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d | | | | |
| Injection Date: | 05-Jan-2022 01:43:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

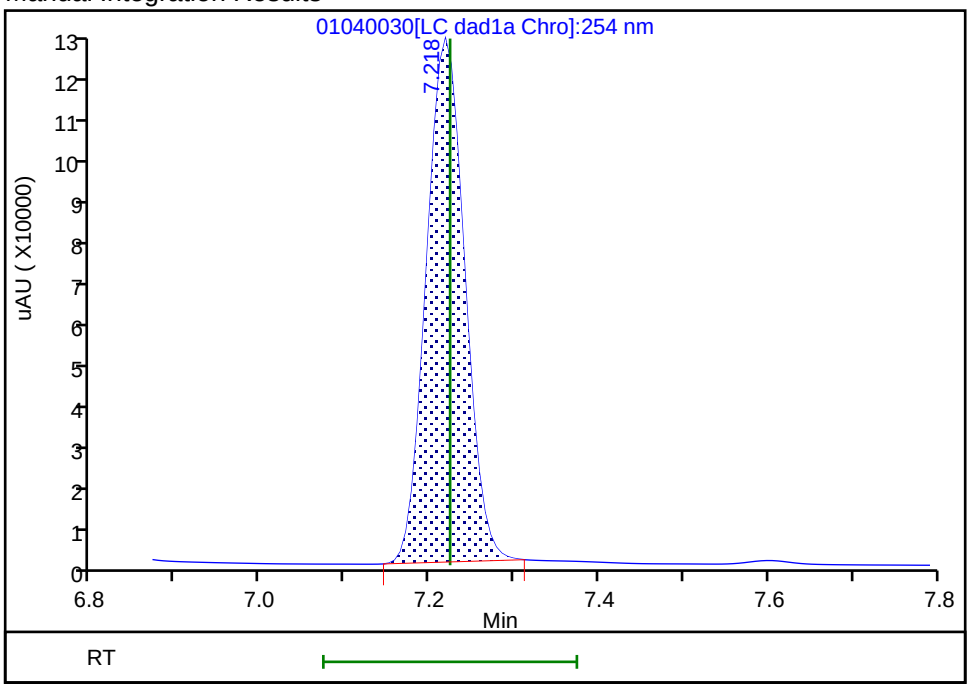
Processing Integration Results

RT: 7.22
Area: 403714
Amount: 3.070267
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 376943
Amount: 2.991720
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:12
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040031.D | | | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 05-Jan-2022 02:06:41 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 7 | | | | |
| Misc. Info.: | 280-0107731-031 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:06 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:07:30 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.478 | 6.484 | -0.006 | 184090 | 1.00 | 1.02 | M |
| 6 DNX | 1 | 6.798 | 6.797 | 0.001 | 137343 | 1.00 | 0.99 | M |
| 7 MNX | 1 | 7.218 | 7.224 | -0.006 | 147726 | 1.17 | 1.17 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 50.00 Units: uL

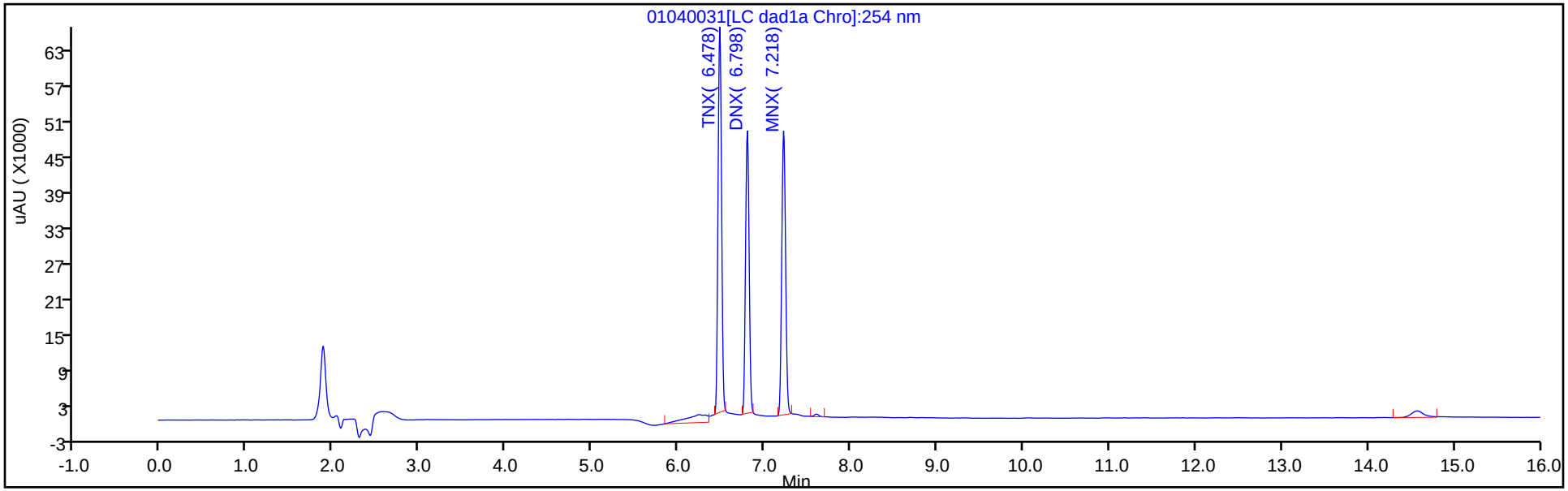
Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

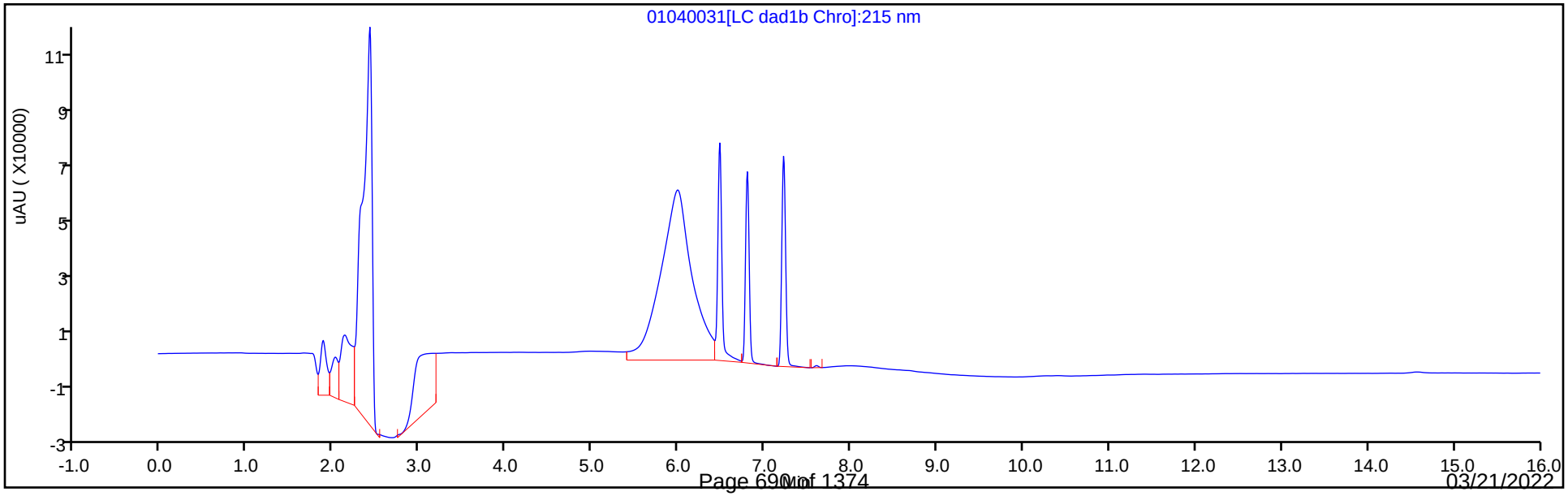
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 02:06:41 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 7 | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

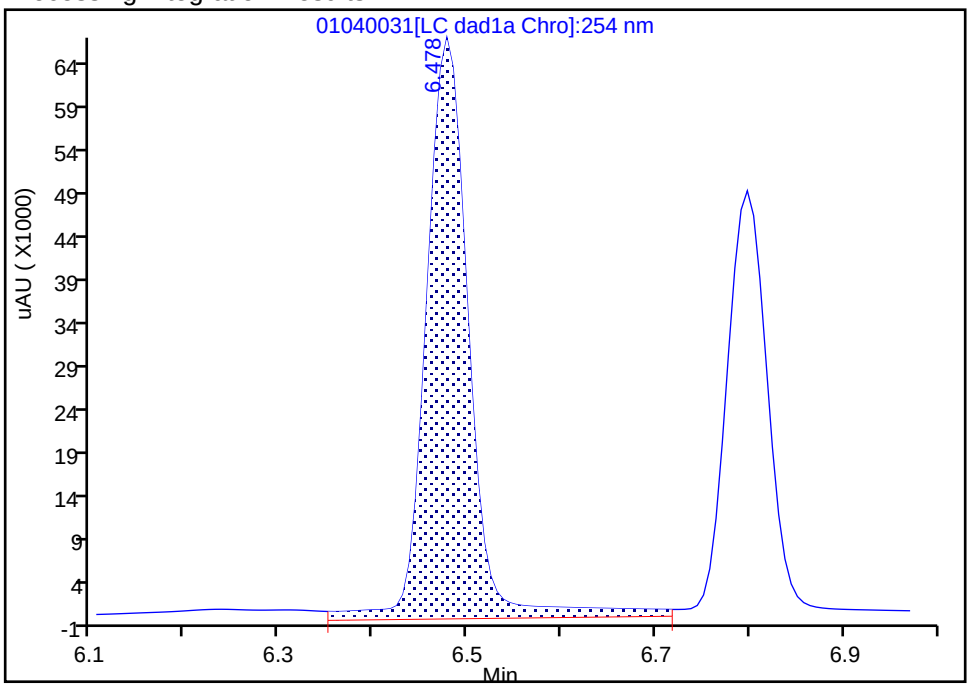
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d | | | | |
| Injection Date: | 05-Jan-2022 02:06:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

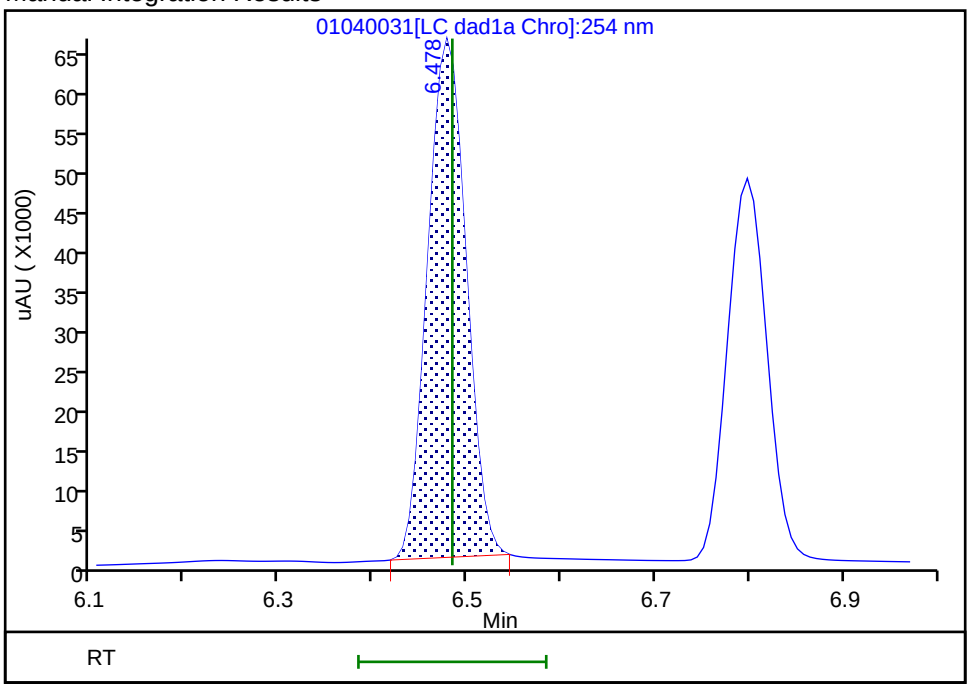
Processing Integration Results

RT: 6.48
Area: 210952
Amount: 0.982896
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 184090
Amount: 1.015907
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:22

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

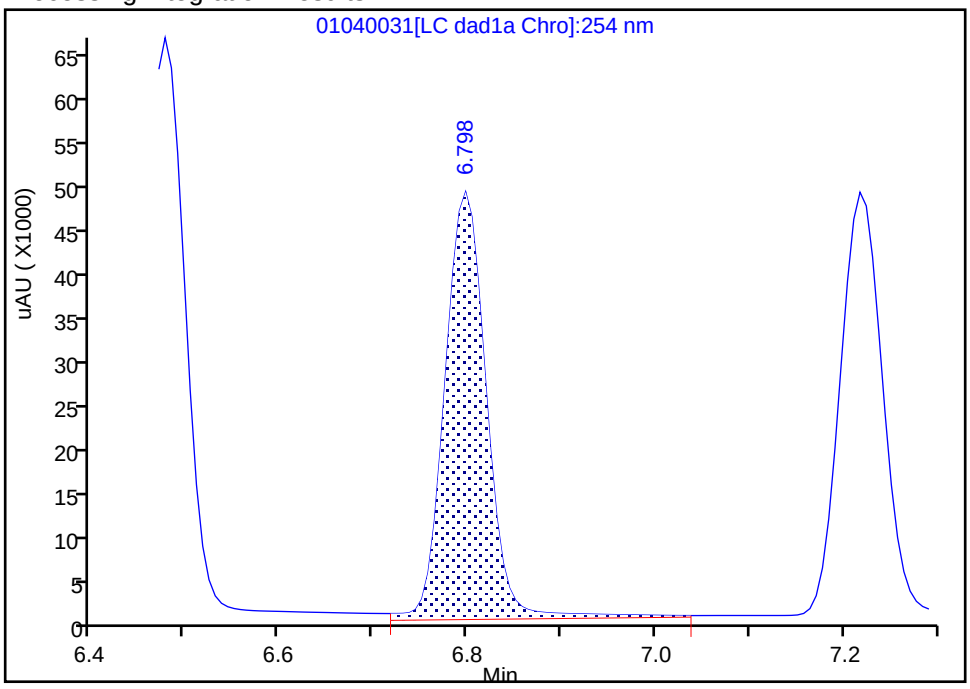
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d | | | | |
| Injection Date: | 05-Jan-2022 02:06:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

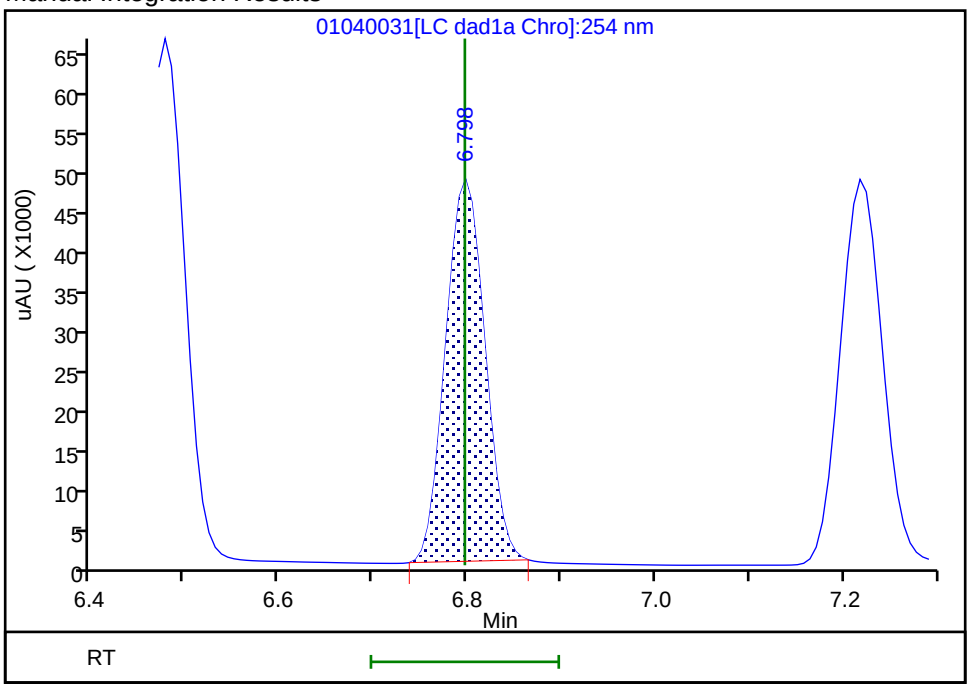
Processing Integration Results

RT: 6.80
Area: 149885
Amount: 1.012127
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 137343
Amount: 0.994425
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

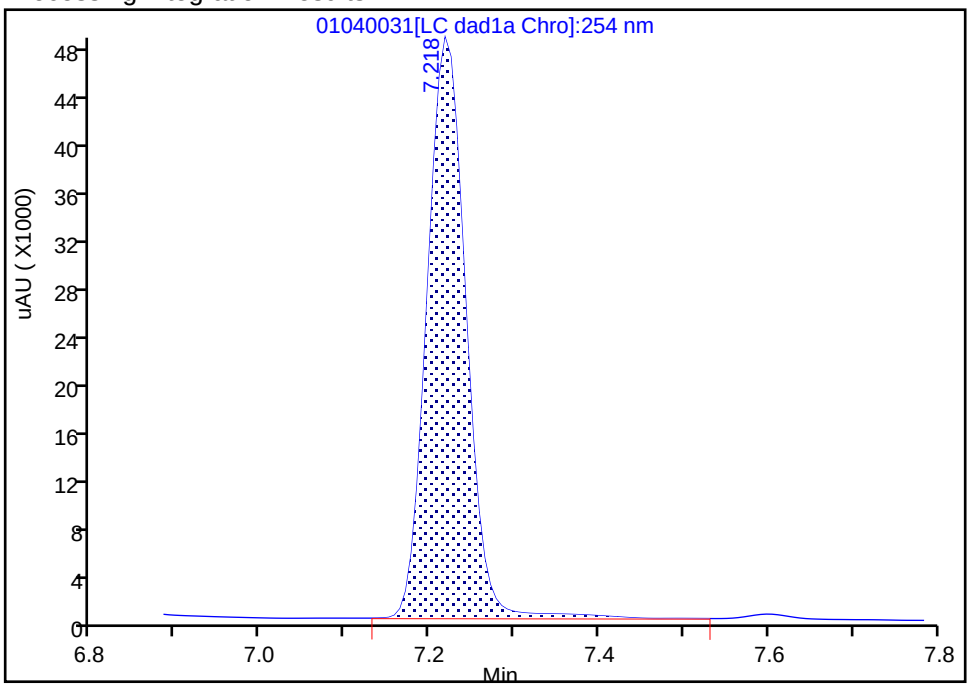
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d | | | | |
| Injection Date: | 05-Jan-2022 02:06:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

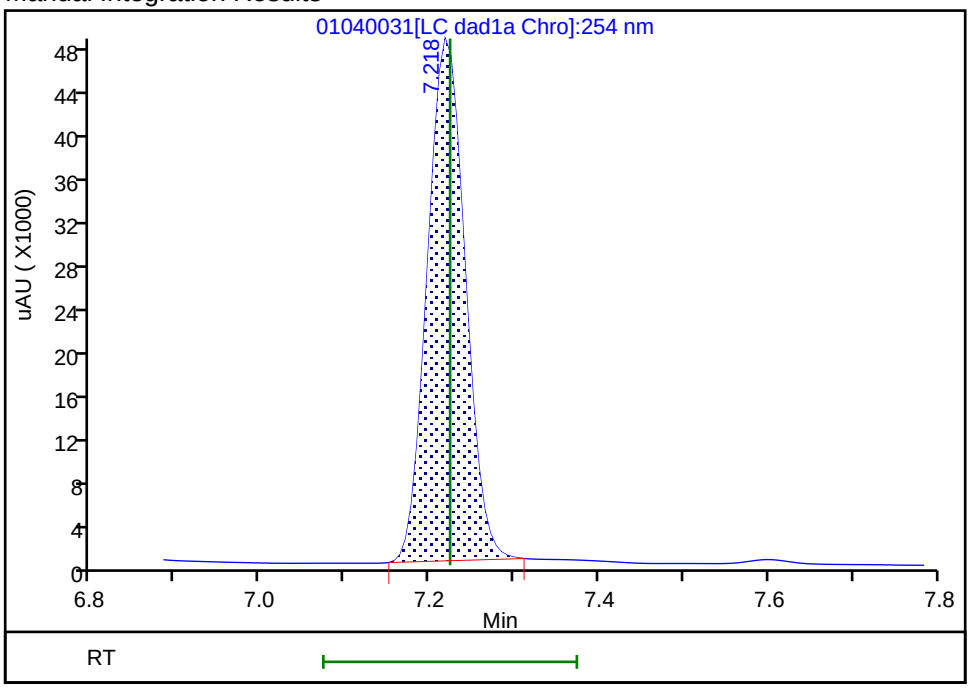
Processing Integration Results

RT: 7.22
Area: 153452
Amount: 1.177280
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 147726
Amount: 1.172471
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:29

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040032.D | | | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 05-Jan-2022 02:29:42 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 6 | | | | |
| Misc. Info.: | 280-0107731-032 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:06 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:07:46 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.477 | 6.484 | -0.007 | 129844 | 0.7007 | 0.7165 | M |
| 6 DNX | 1 | 6.797 | 6.797 | 0.000 | 97314 | 0.7007 | 0.7046 | M |
| 7 MNX | 1 | 7.217 | 7.224 | -0.007 | 103999 | 0.8169 | 0.8254 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

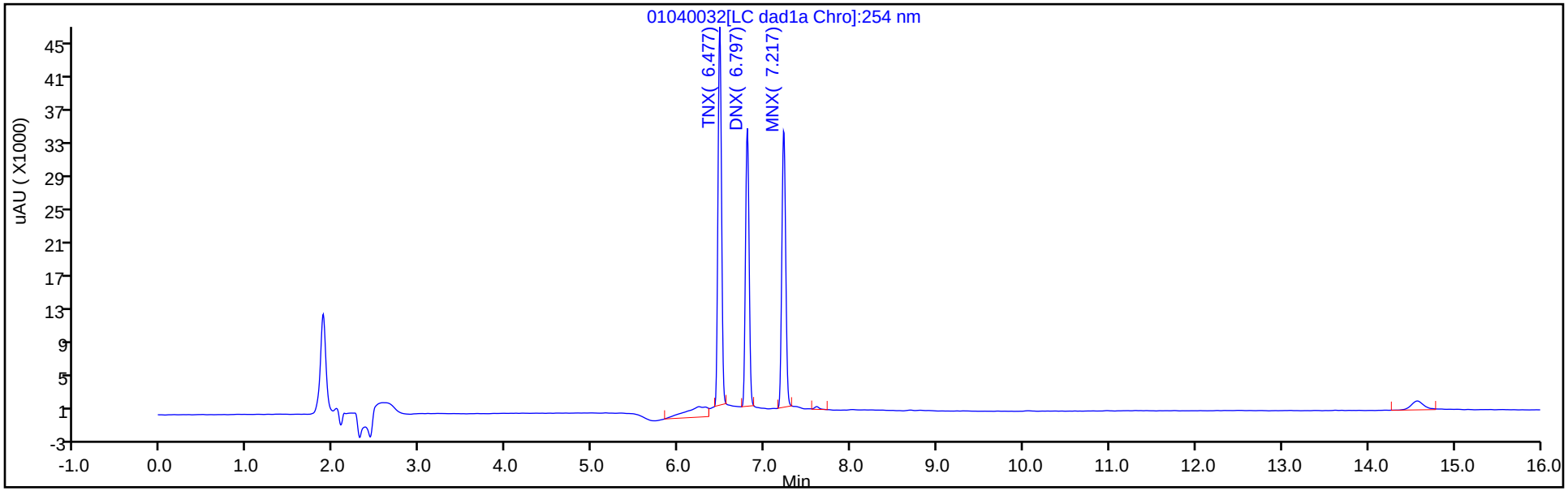
8330 DMT_00010 Amount Added: 35.00 Units: uL

Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

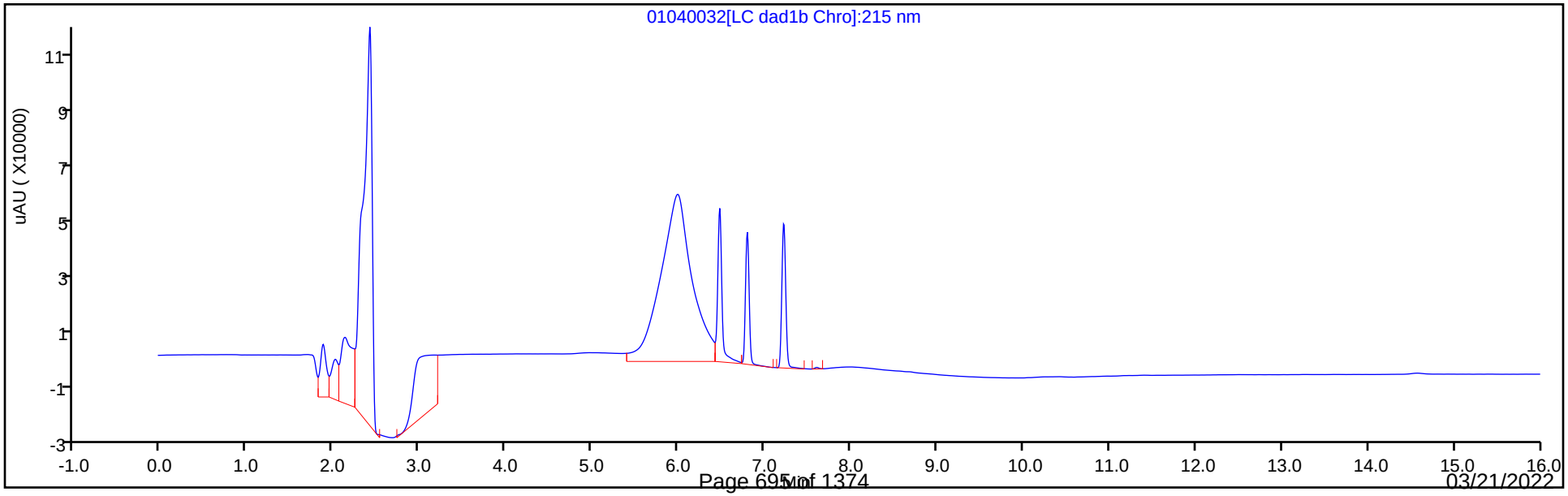
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d | | | | |
| Injection Date: | 05-Jan-2022 02:29:42 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 6 | | | Worklist Smp#: | 32 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

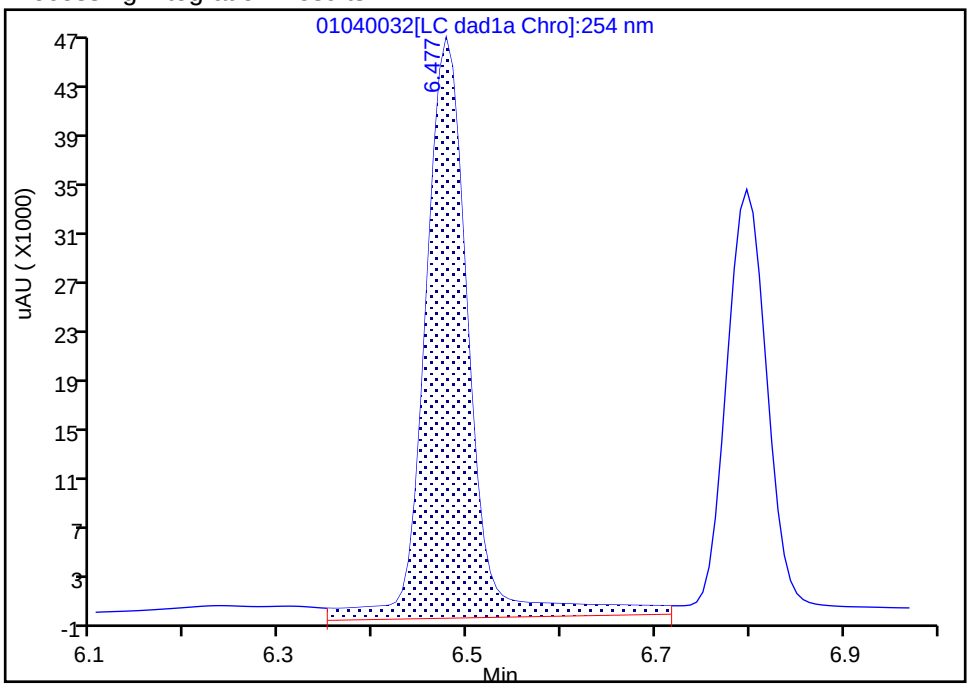
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d | | | | |
| Injection Date: | 05-Jan-2022 02:29:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

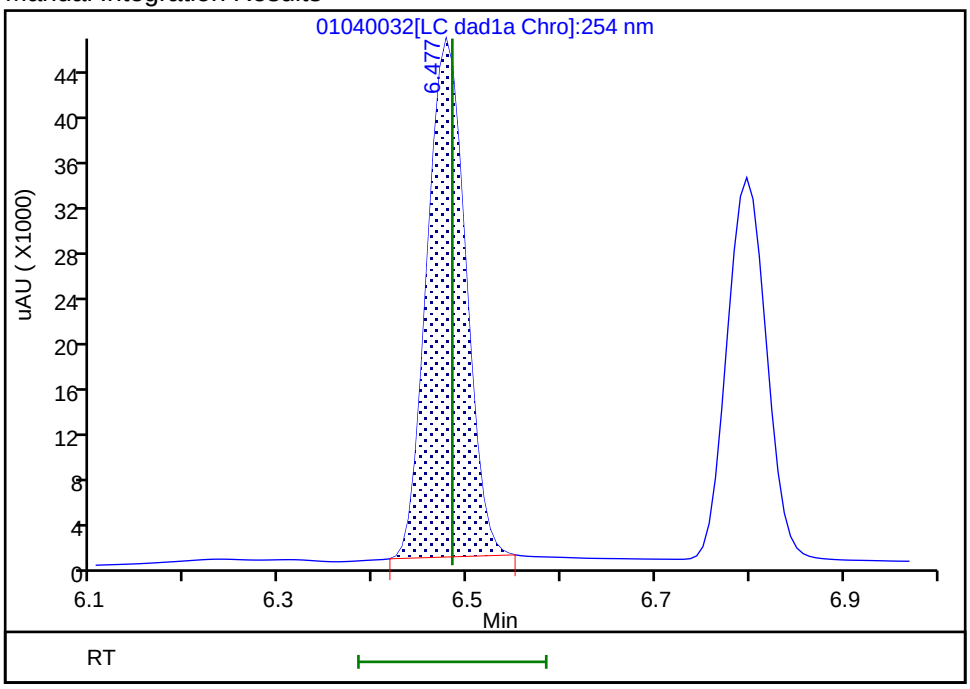
Processing Integration Results

RT: 6.48
Area: 152631
Amount: 0.722450
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 129844
Amount: 0.716549
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

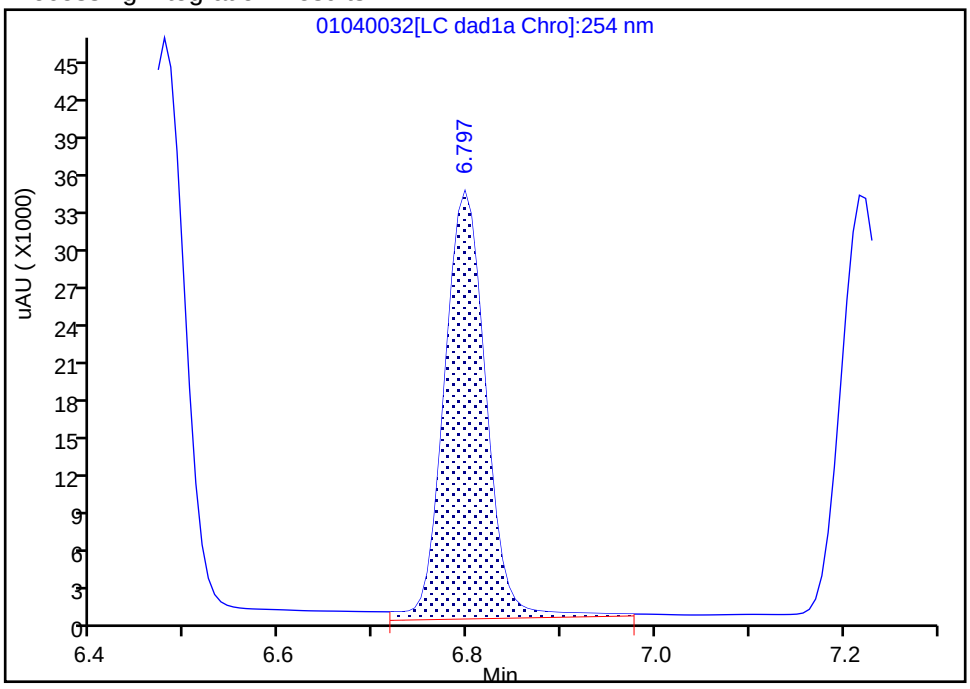
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d | | | | |
| Injection Date: | 05-Jan-2022 02:29:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

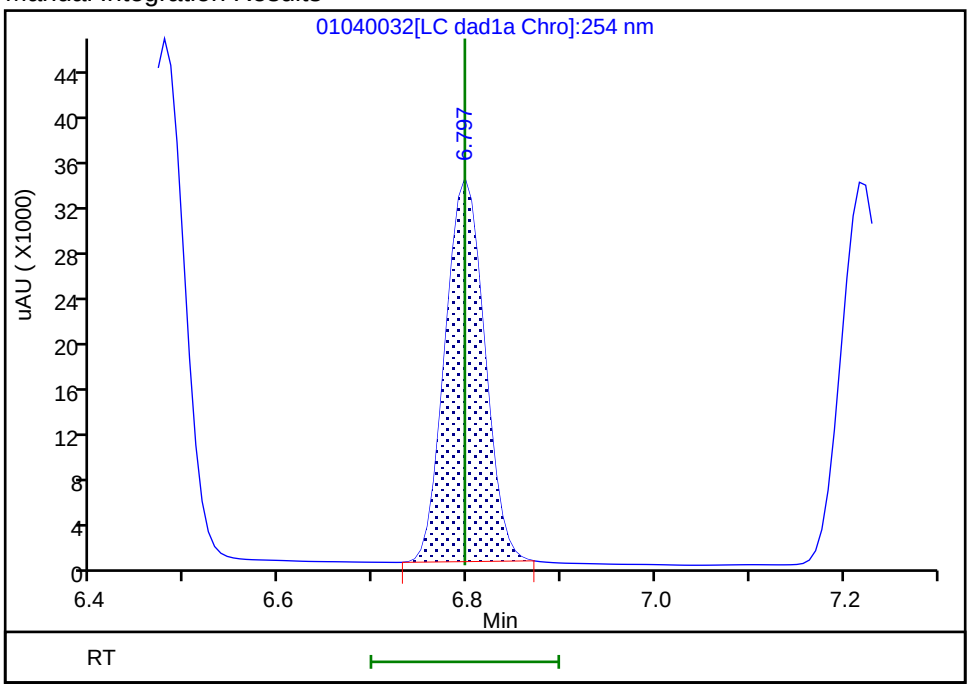
Processing Integration Results

RT: 6.80
Area: 105159
Amount: 0.717696
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 97314
Amount: 0.704597
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

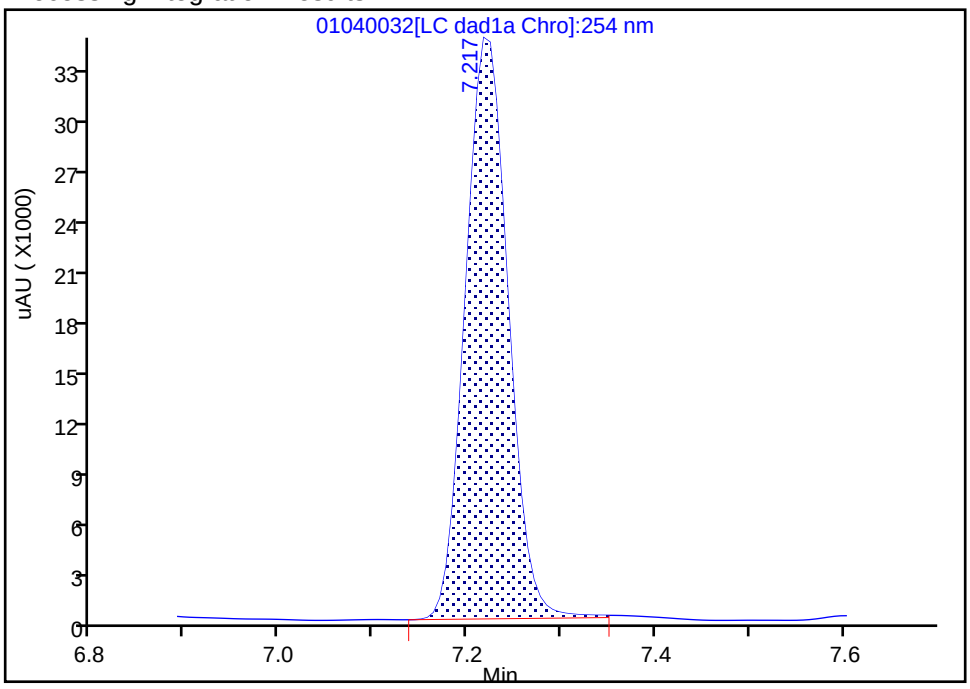
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d | | | | |
| Injection Date: | 05-Jan-2022 02:29:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

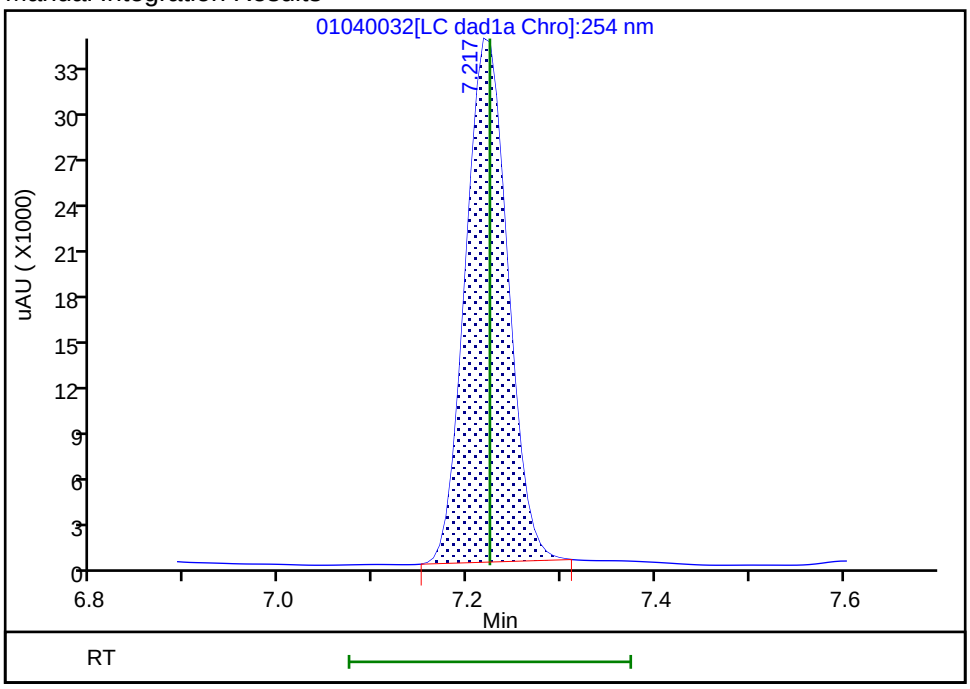
Processing Integration Results

RT: 7.22
Area: 105581
Amount: 0.816470
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 103999
Amount: 0.825419
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040033.D
Lims ID: IC DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Jan-2022 02:52:35 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 5
Misc. Info.: 280-0107731-033
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:07 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:08:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.483 | 6.484 | -0.001 | 72720 | 0.4004 | 0.4013 | M |
| 6 DNX | 1 | 6.803 | 6.797 | 0.006 | 55675 | 0.4004 | 0.4031 | M |
| 7 MNX | 1 | 7.223 | 7.224 | -0.001 | 59416 | 0.4668 | 0.4716 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

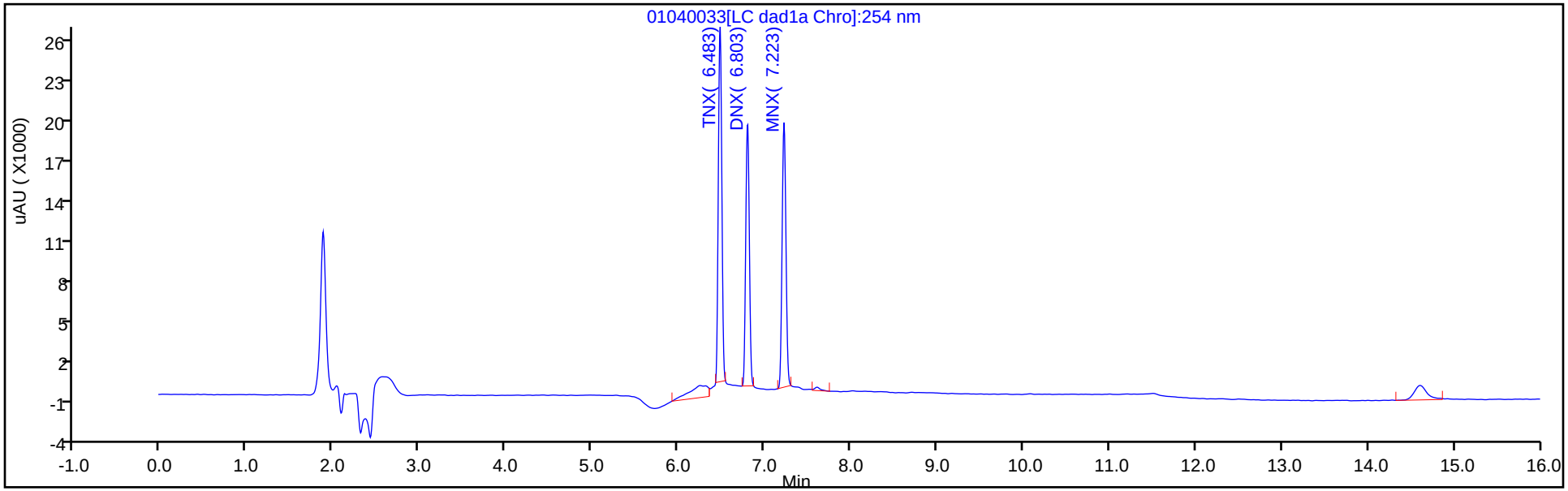
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

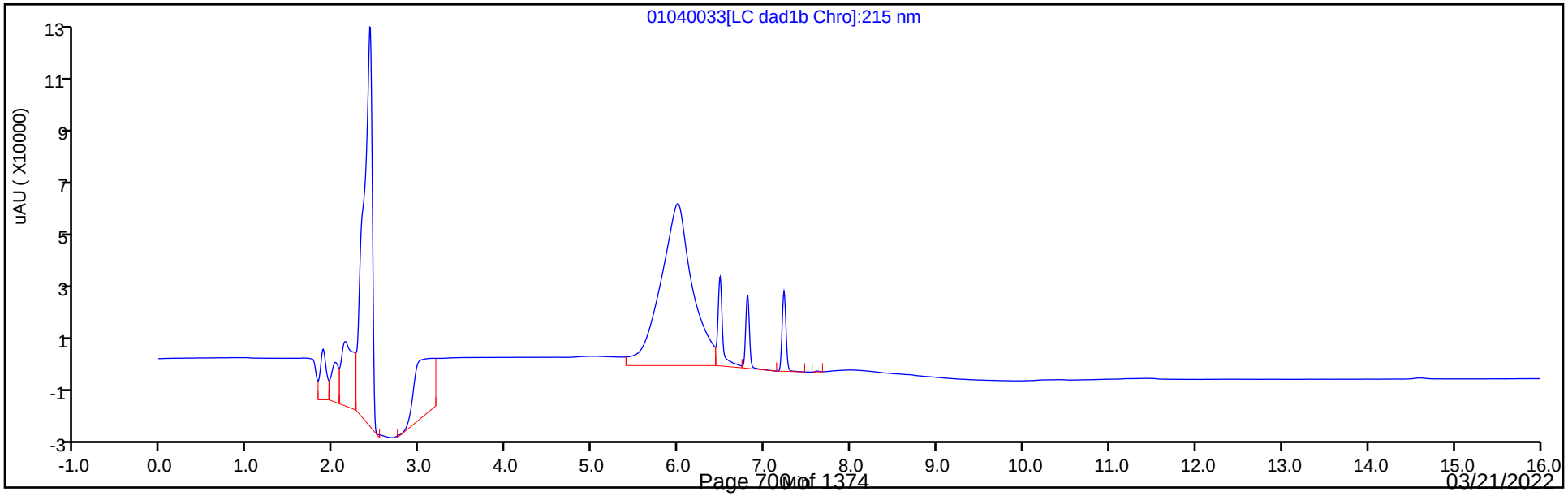
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 02:52:35 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 5 | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

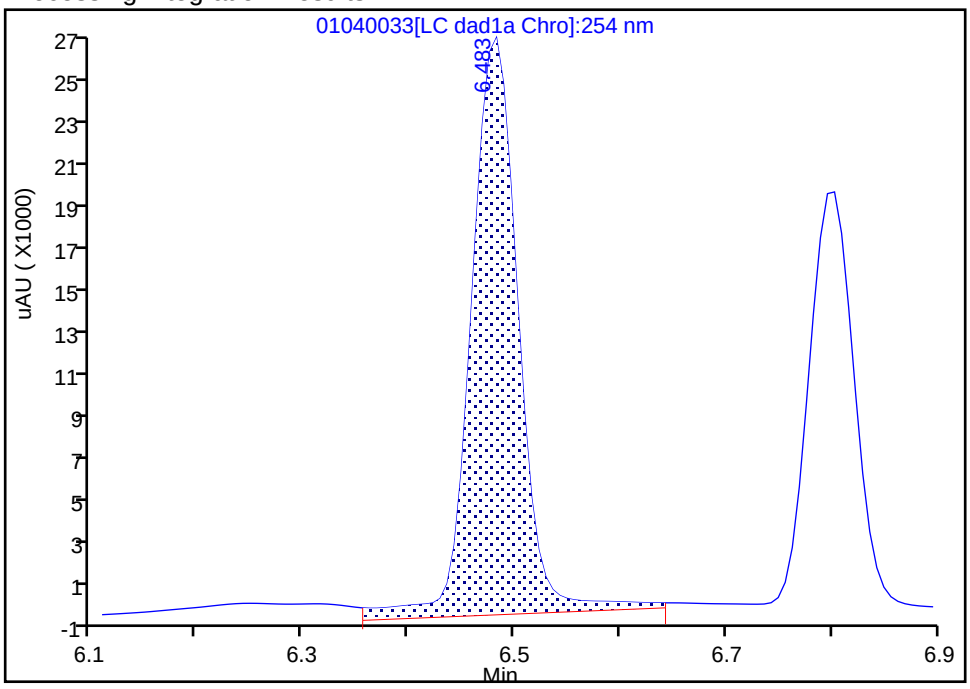
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d | | | | |
| Injection Date: | 05-Jan-2022 02:52:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

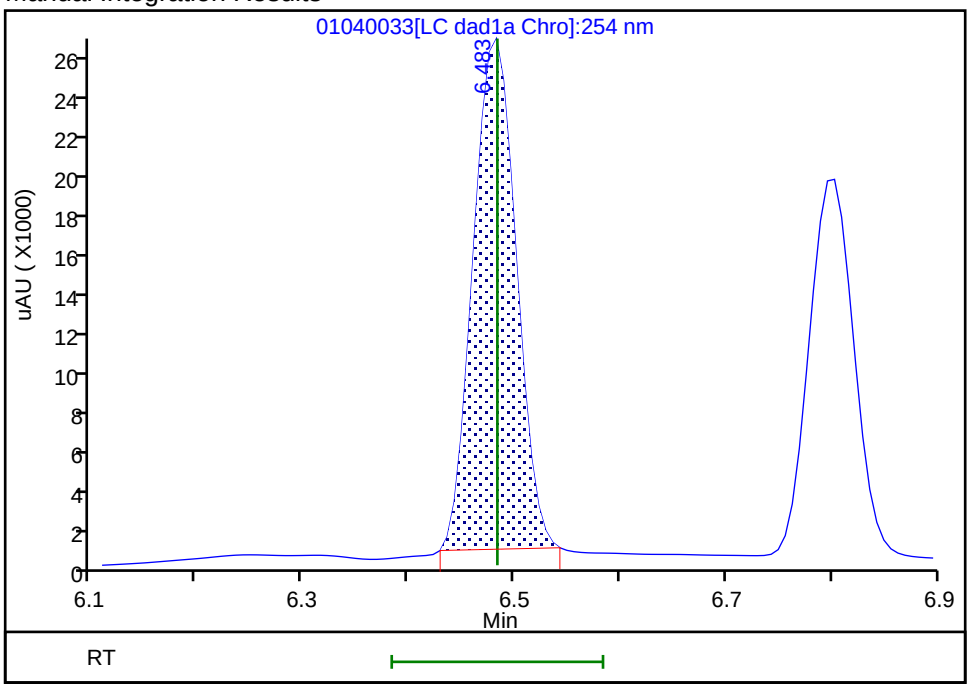
Processing Integration Results

RT: 6.48
Area: 83275
Amount: 0.401900
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 72720
Amount: 0.401308
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:54
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

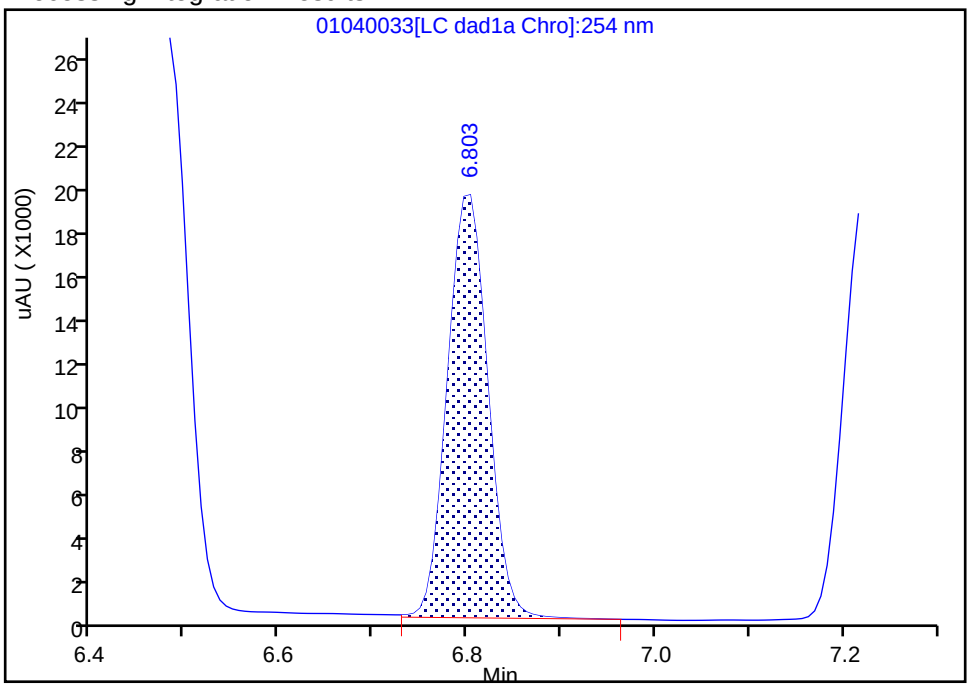
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d | | | | |
| Injection Date: | 05-Jan-2022 02:52:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

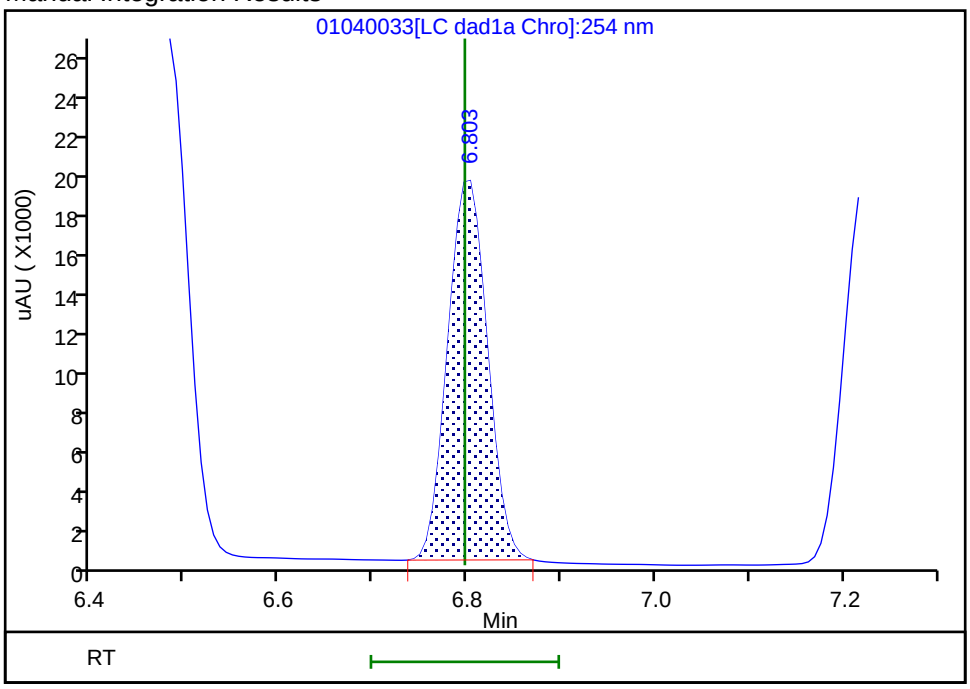
Processing Integration Results

RT: 6.80
Area: 57132
Amount: 0.393678
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 55675
Amount: 0.403112
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:07:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

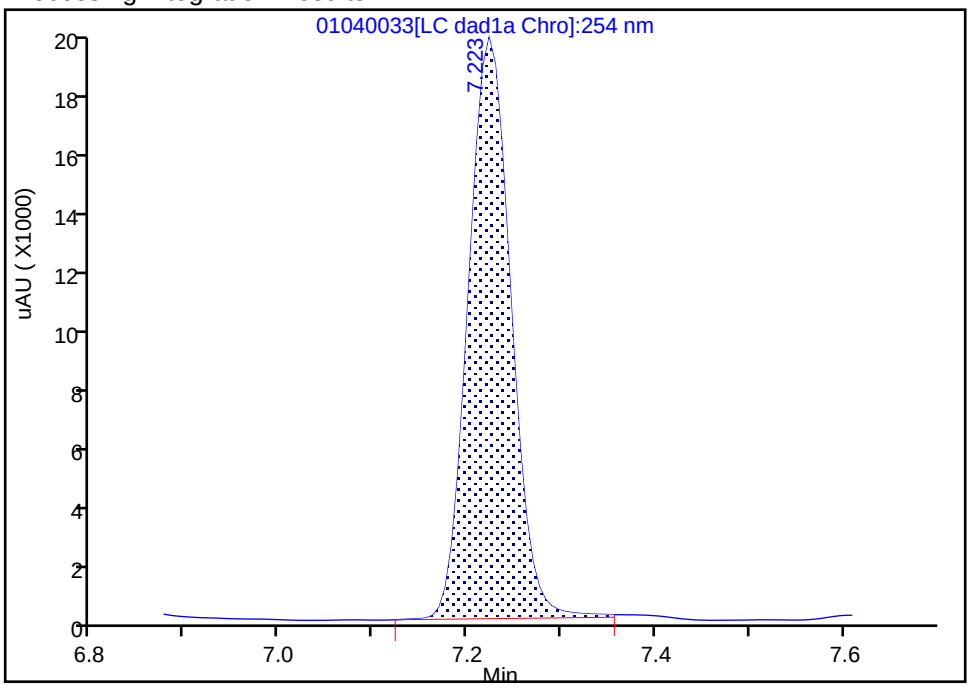
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d | | | | |
| Injection Date: | 05-Jan-2022 02:52:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

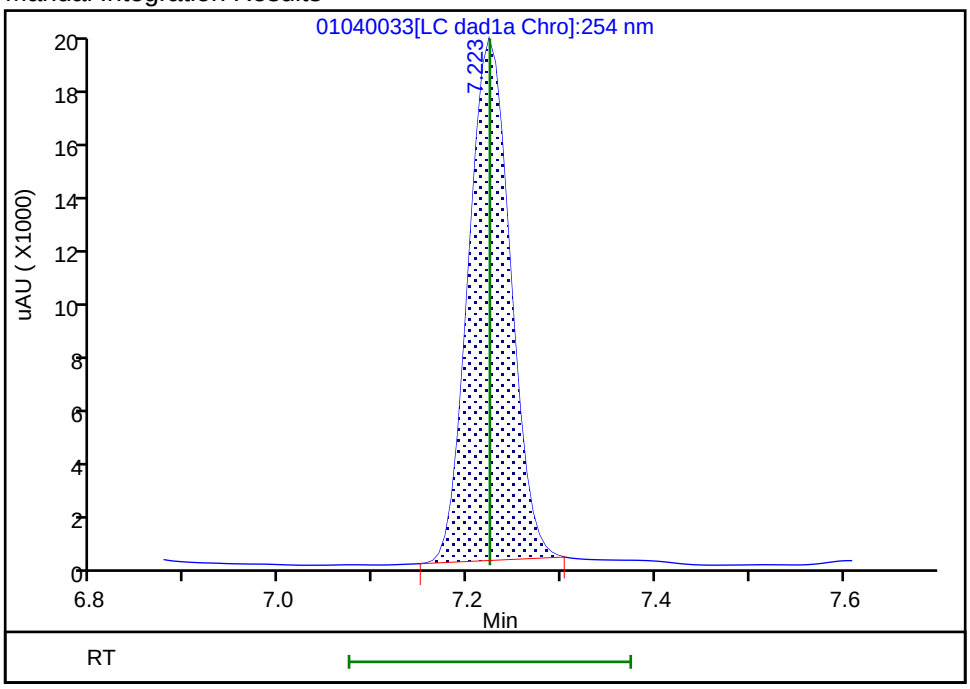
Processing Integration Results

RT: 7.22
Area: 60974
Amount: 0.470003
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 59416
Amount: 0.471573
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:17
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040034.D | | | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 05-Jan-2022 03:15:30 | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 4 | | | | |
| Misc. Info.: | 280-0107731-034 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:07 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:08:44 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.484 | 6.484 | 0.000 | 42748 | 0.2503 | 0.2359 | M |
| 6 DNX | 1 | 6.797 | 6.797 | 0.000 | 32416 | 0.2503 | 0.2347 | M |
| 7 MNX | 1 | 7.224 | 7.224 | 0.000 | 34560 | 0.2918 | 0.2743 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

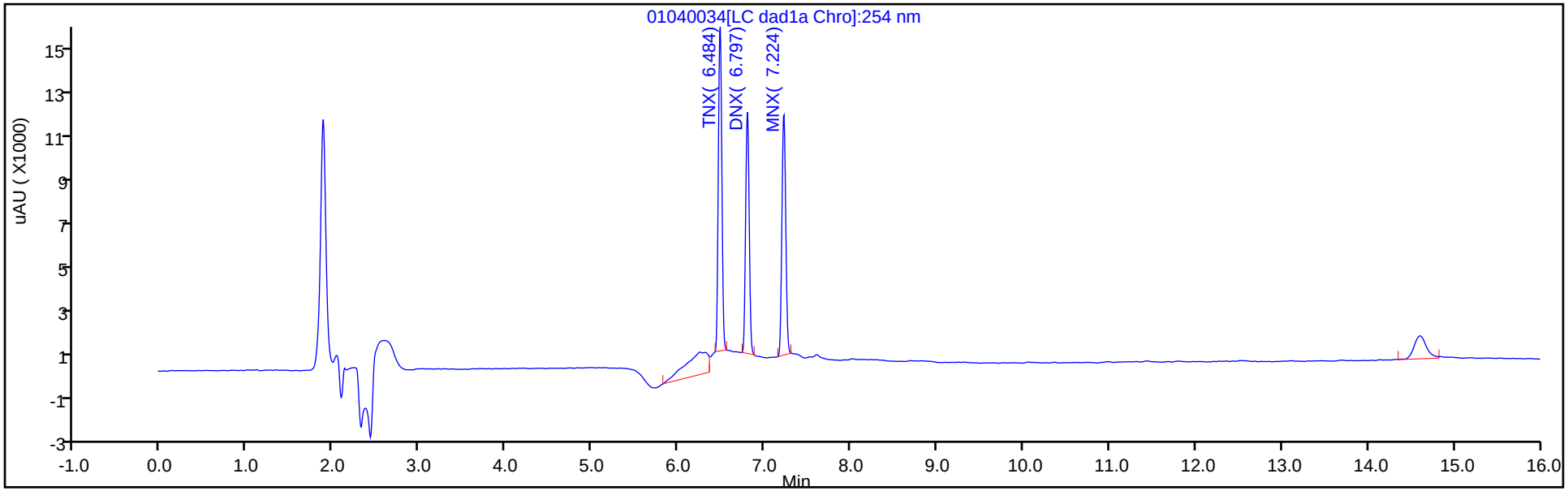
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

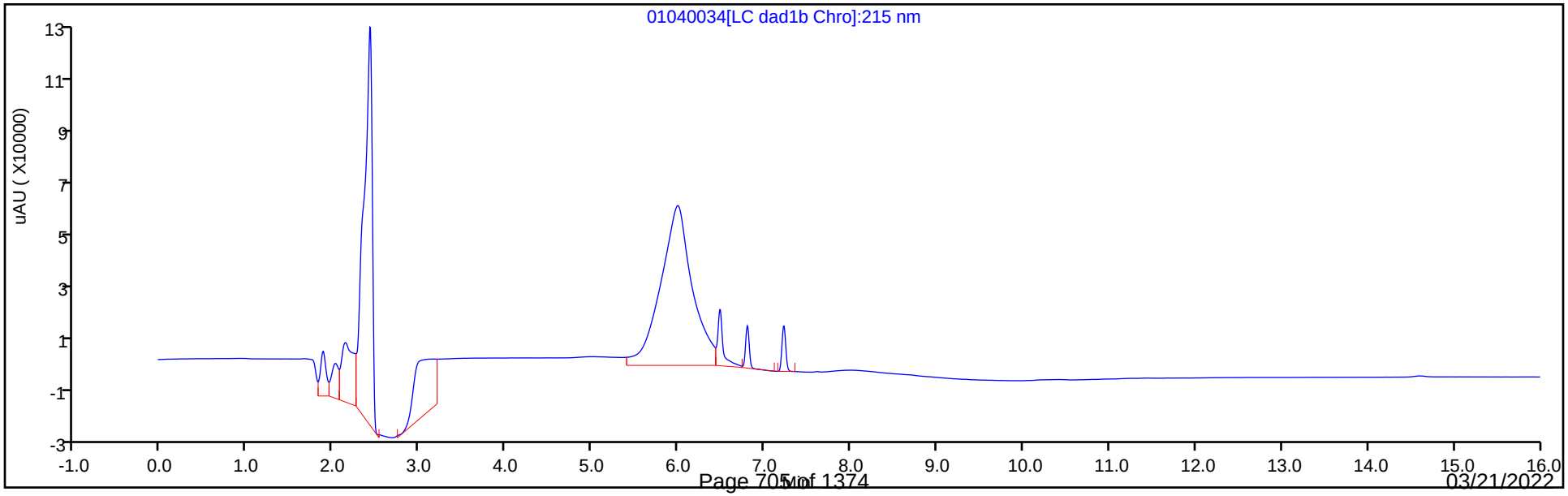
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 03:15:30 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 4 | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 34 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

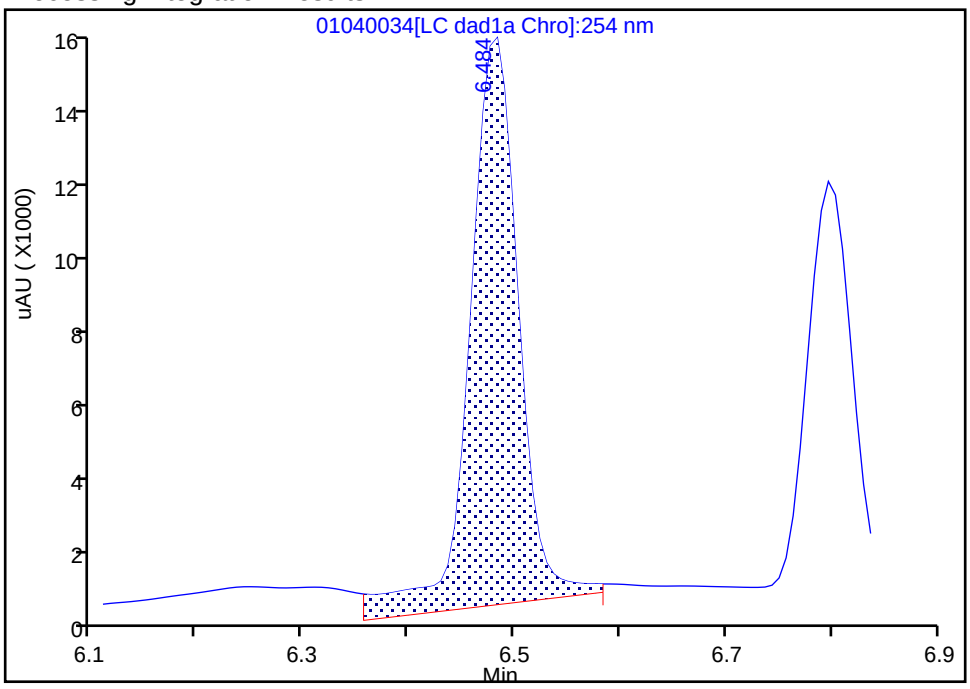
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d | | | | |
| Injection Date: | 05-Jan-2022 03:15:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

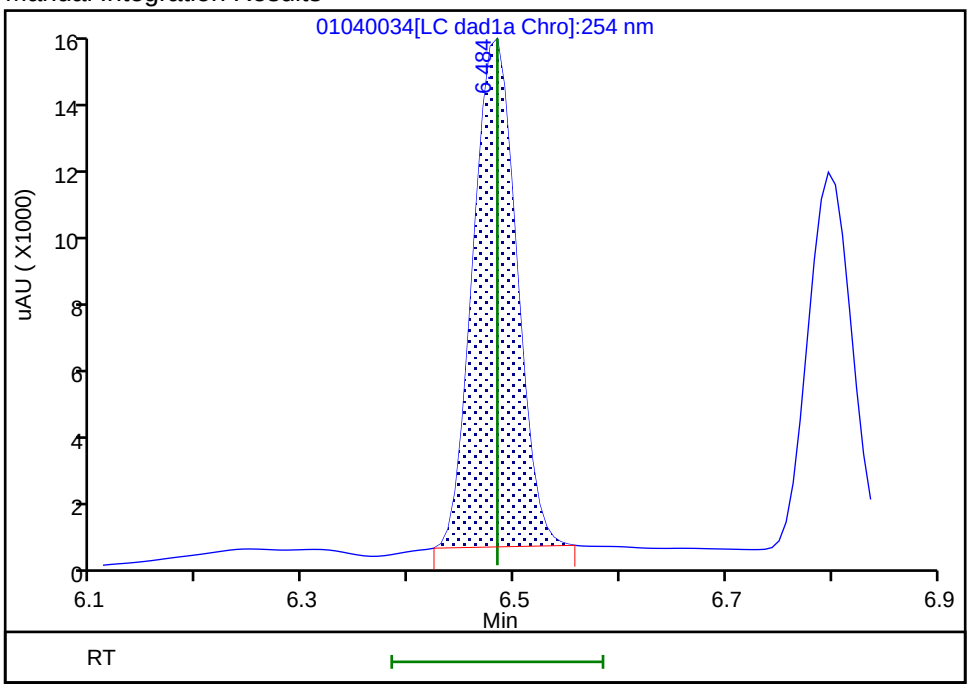
Processing Integration Results

RT: 6.48
Area: 50220
Amount: 0.246287
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 42748
Amount: 0.235906
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:35
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

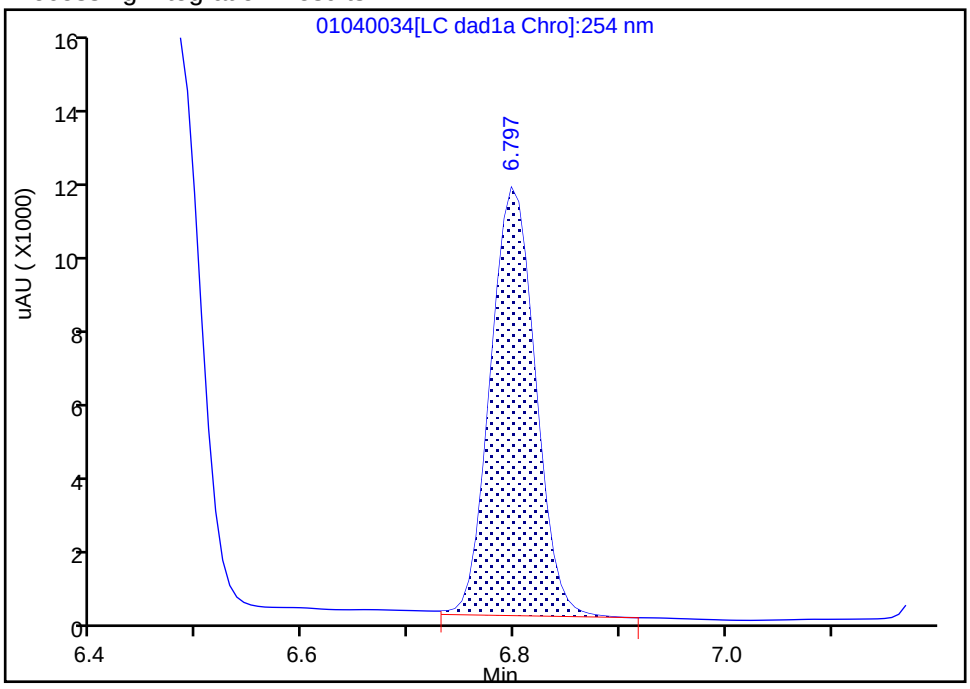
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d | | | | |
| Injection Date: | 05-Jan-2022 03:15:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

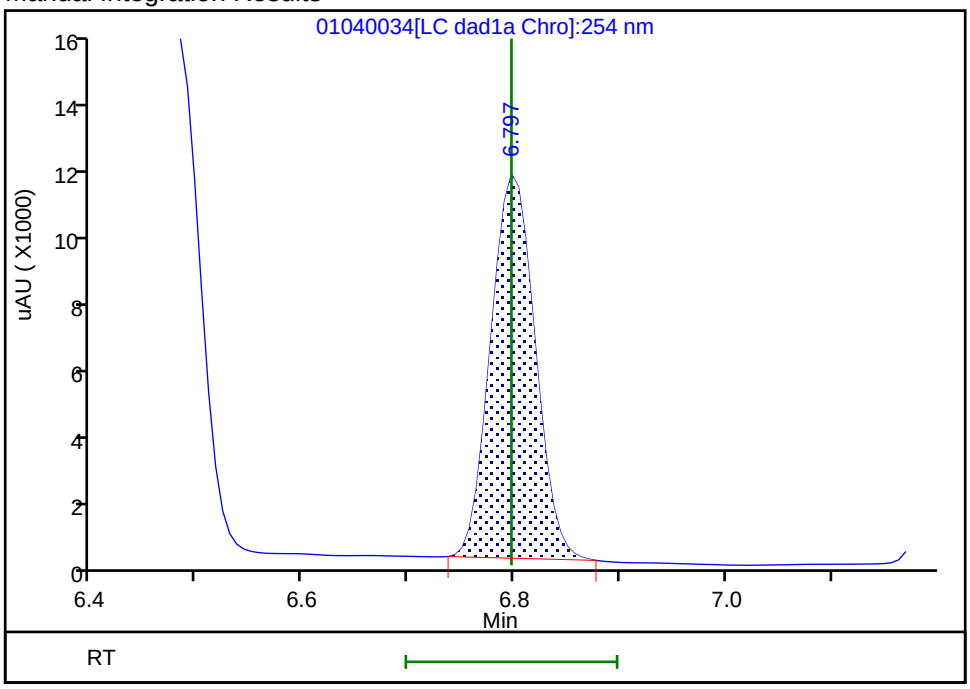
Processing Integration Results

RT: 6.80
Area: 33123
Amount: 0.228958
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 32416
Amount: 0.234706
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

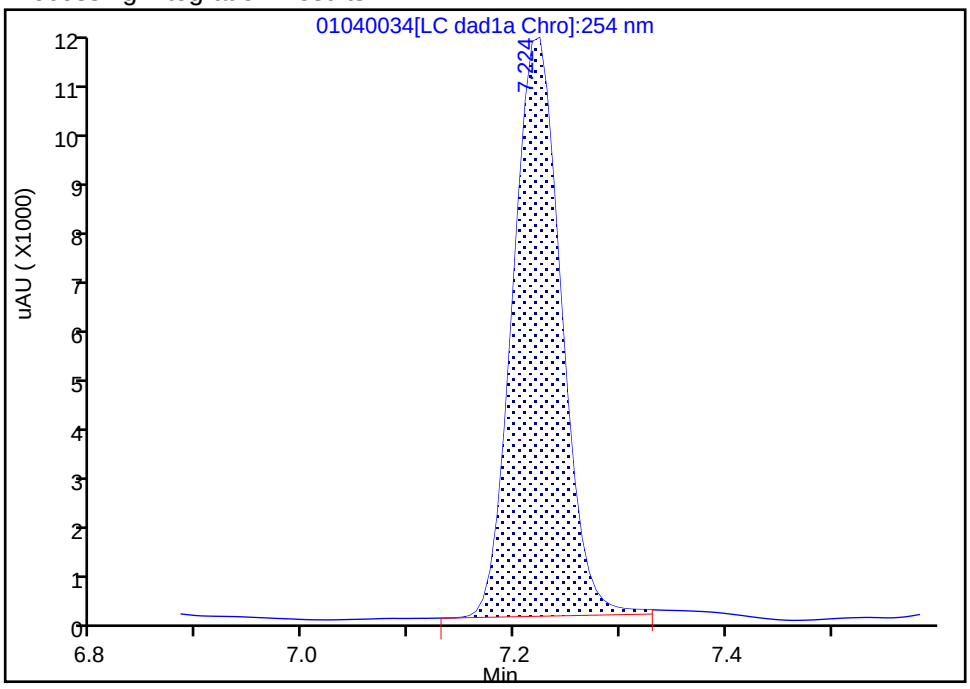
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d | | | | |
| Injection Date: | 05-Jan-2022 03:15:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

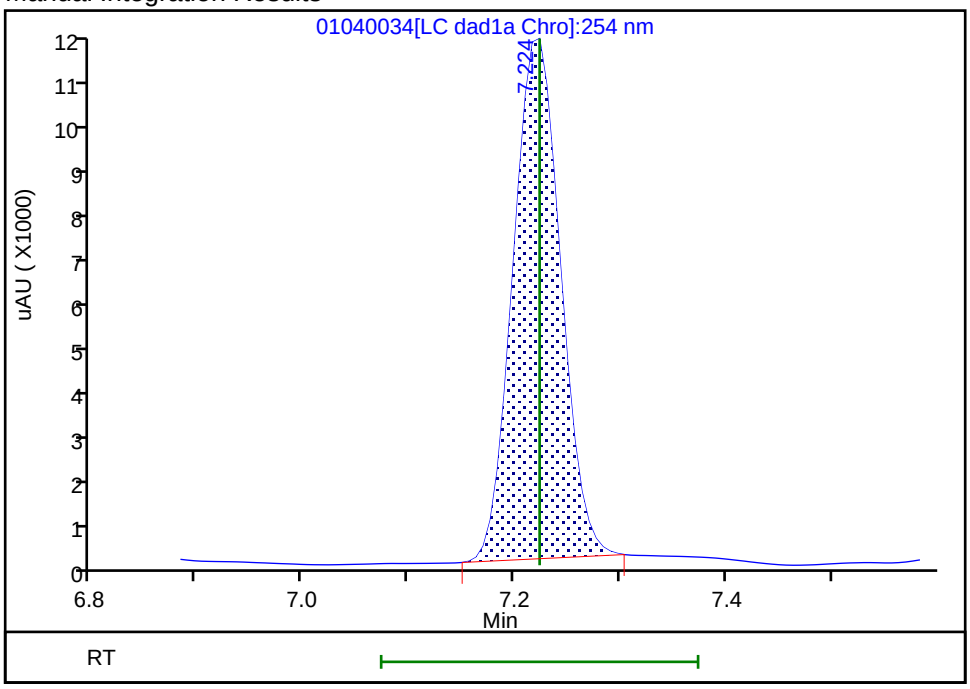
Processing Integration Results

RT: 7.22
Area: 35288
Amount: 0.273398
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 34560
Amount: 0.274296
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:43
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040035.D | | | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 05-Jan-2022 03:38:24 | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 3 | | | | |
| Misc. Info.: | 280-0107731-035 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:07 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:08:58 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.483 | 6.484 | -0.001 | 17989 | 0.1001 | 0.0993 | M |
| 6 DNX | 1 | 6.796 | 6.797 | -0.001 | 13928 | 0.1001 | 0.1008 | M |
| 7 MNX | 1 | 7.223 | 7.224 | -0.001 | 14438 | 0.1167 | 0.1146 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

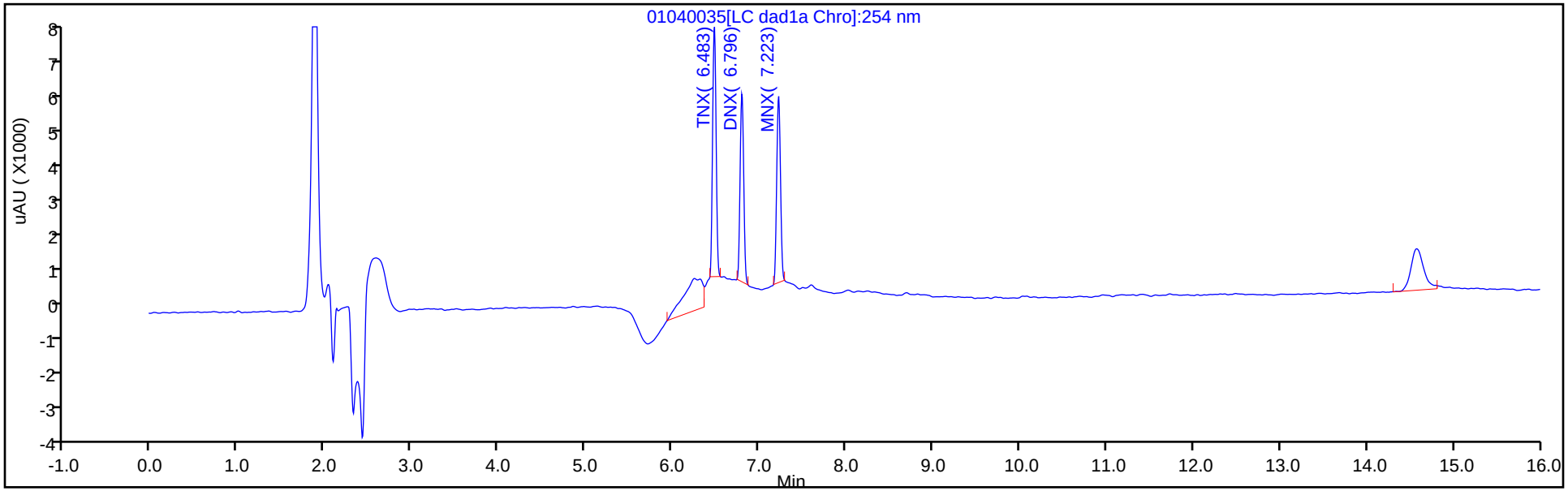
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

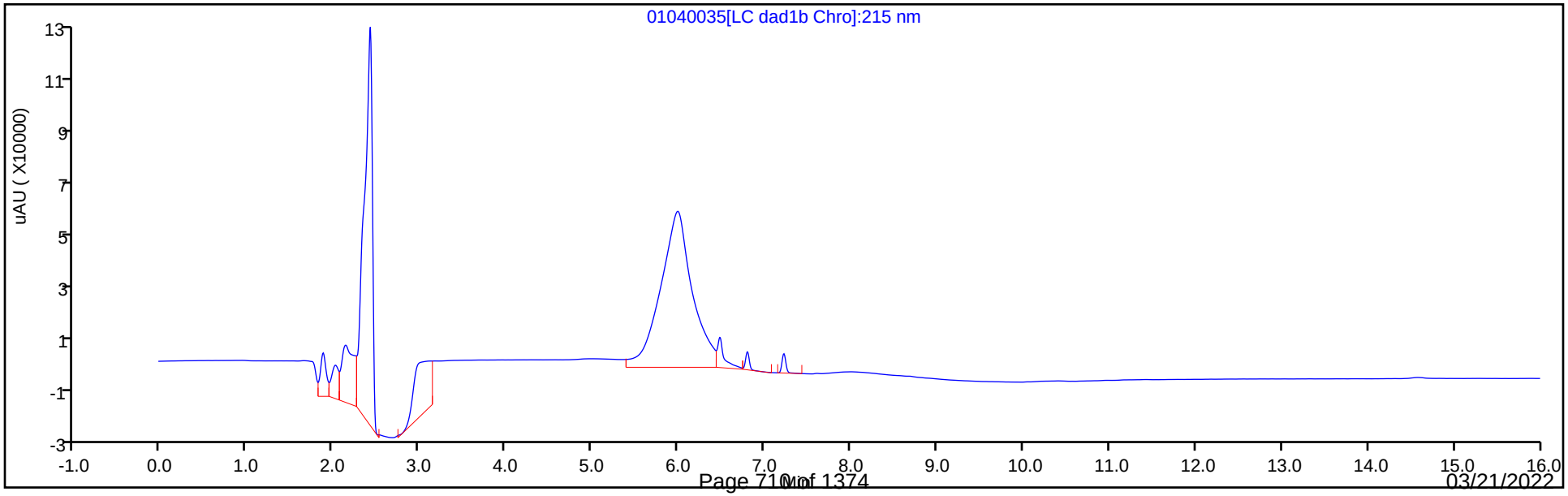
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 03:38:24 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 3 | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 35 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

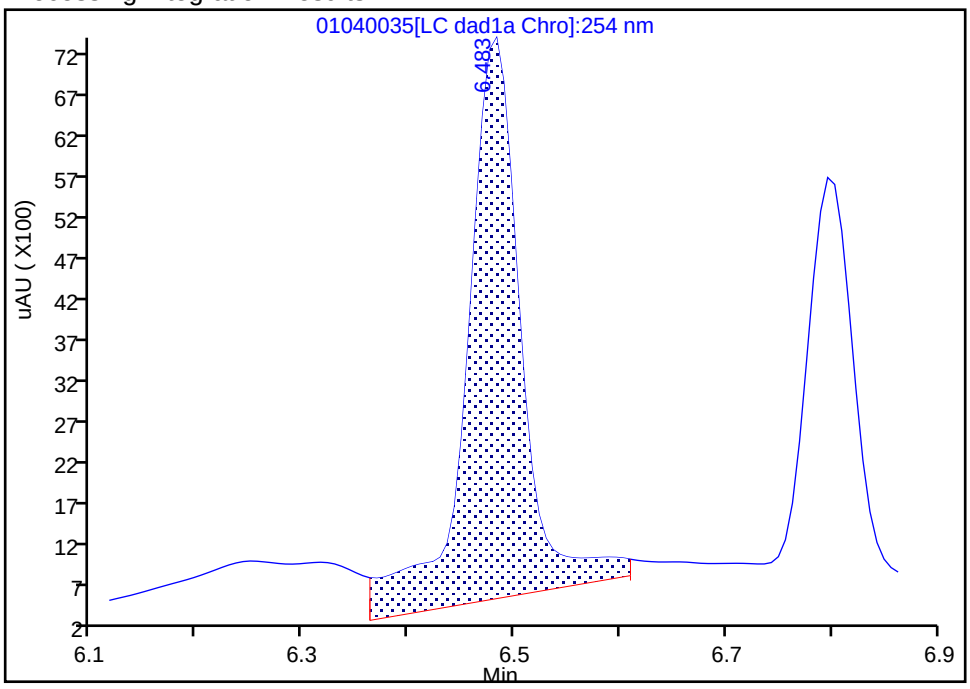
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d | | | | |
| Injection Date: | 05-Jan-2022 03:38:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

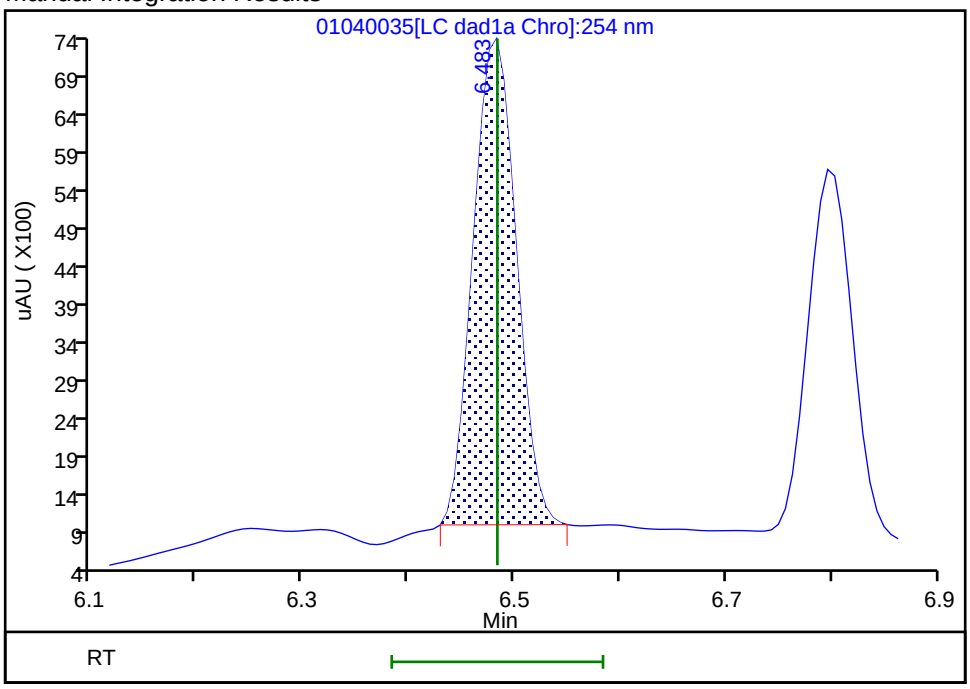
Processing Integration Results

RT: 6.48
Area: 24762
Amount: 0.123701
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 17989
Amount: 0.099273
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

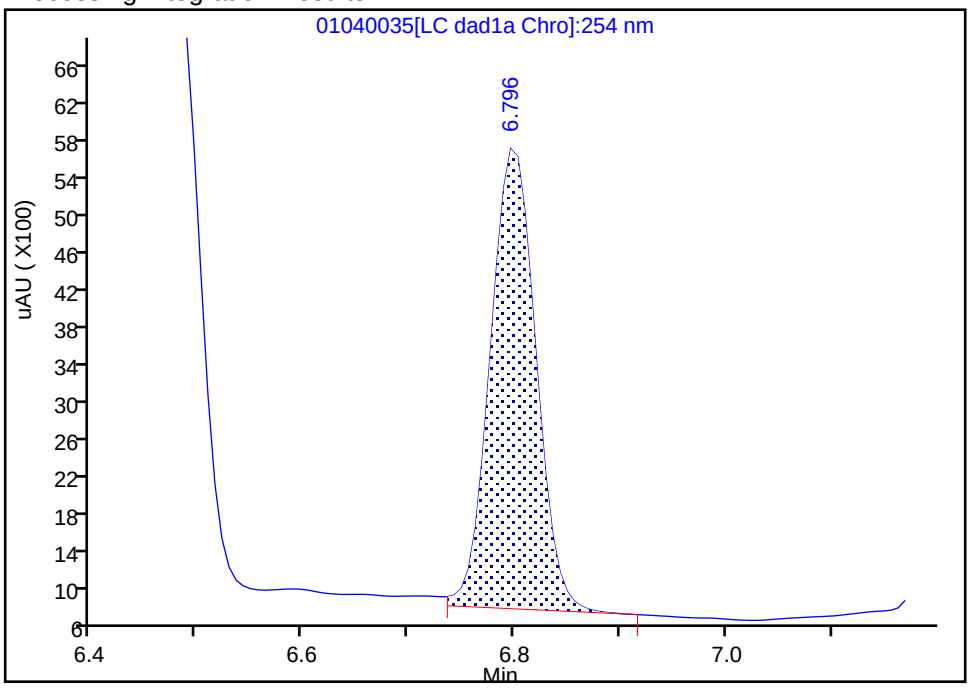
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d | | | | |
| Injection Date: | 05-Jan-2022 03:38:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

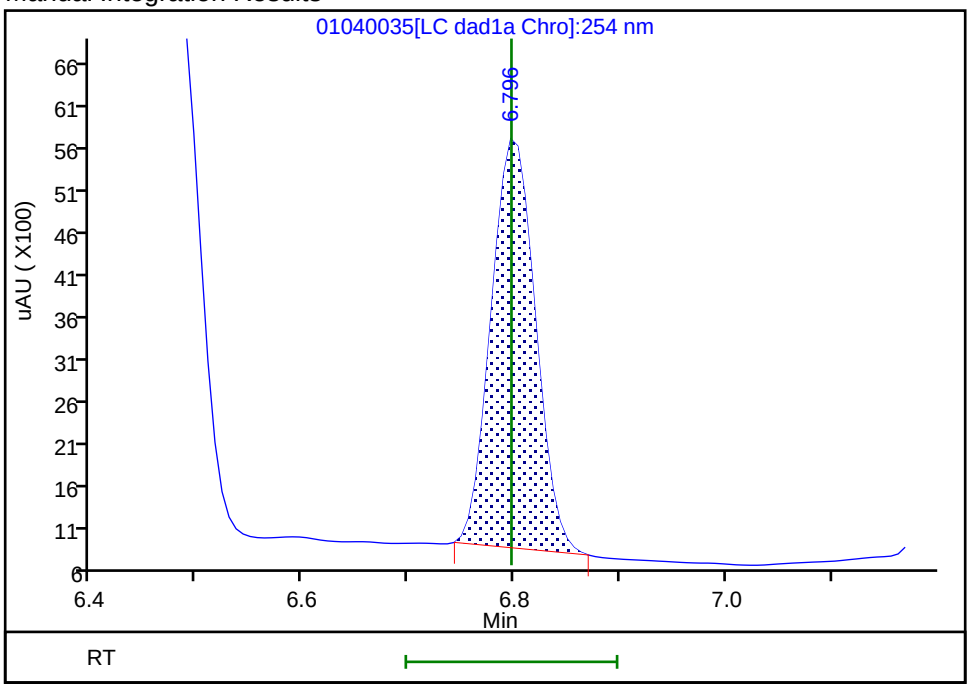
Processing Integration Results

RT: 6.80
Area: 14564
Amount: 0.100918
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 13928
Amount: 0.100845
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:53
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

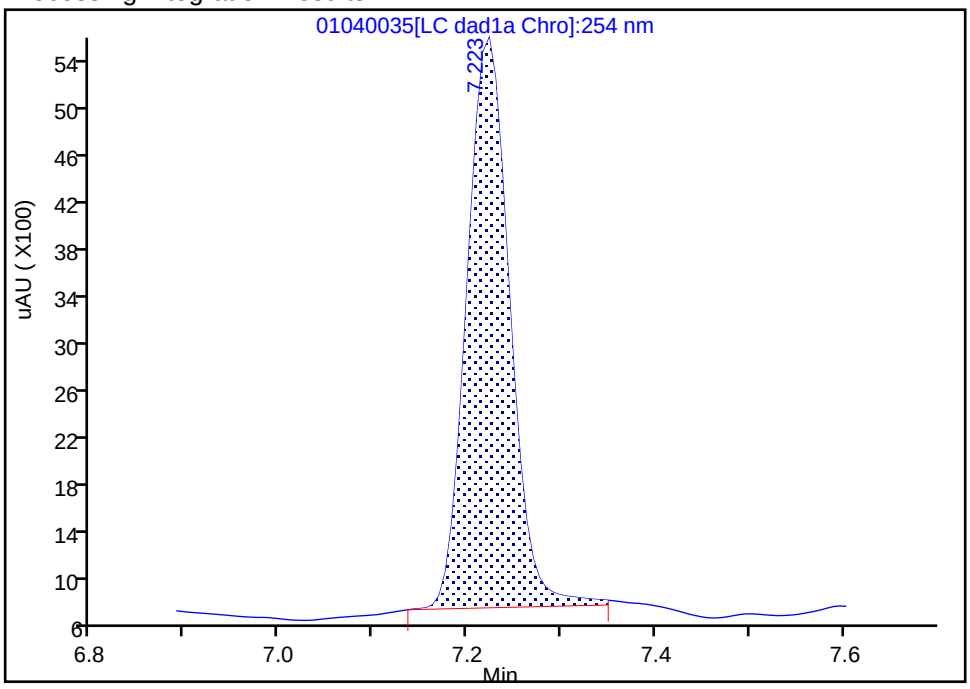
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d | | | | |
| Injection Date: | 05-Jan-2022 03:38:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

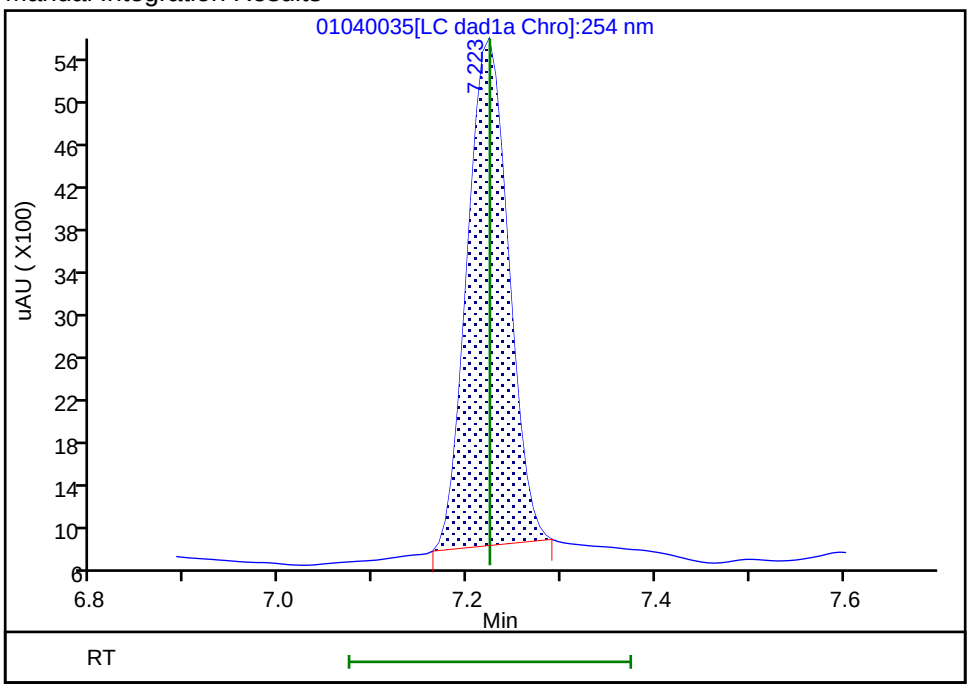
Processing Integration Results

RT: 7.22
Area: 15316
Amount: 0.118950
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 14438
Amount: 0.114591
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:08:56
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040036.D | | | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 05-Jan-2022 04:01:20 | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 2 | | | | |
| Misc. Info.: | 280-0107731-036 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:08 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:09:13 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.478 | 6.484 | -0.006 | 9031 | 0.0501 | 0.0498 | M |
| 6 DNX | 1 | 6.798 | 6.797 | 0.001 | 6988 | 0.0501 | 0.0506 | M |
| 7 MNX | 1 | 7.224 | 7.224 | 0.000 | 7298 | 0.0584 | 0.0579 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

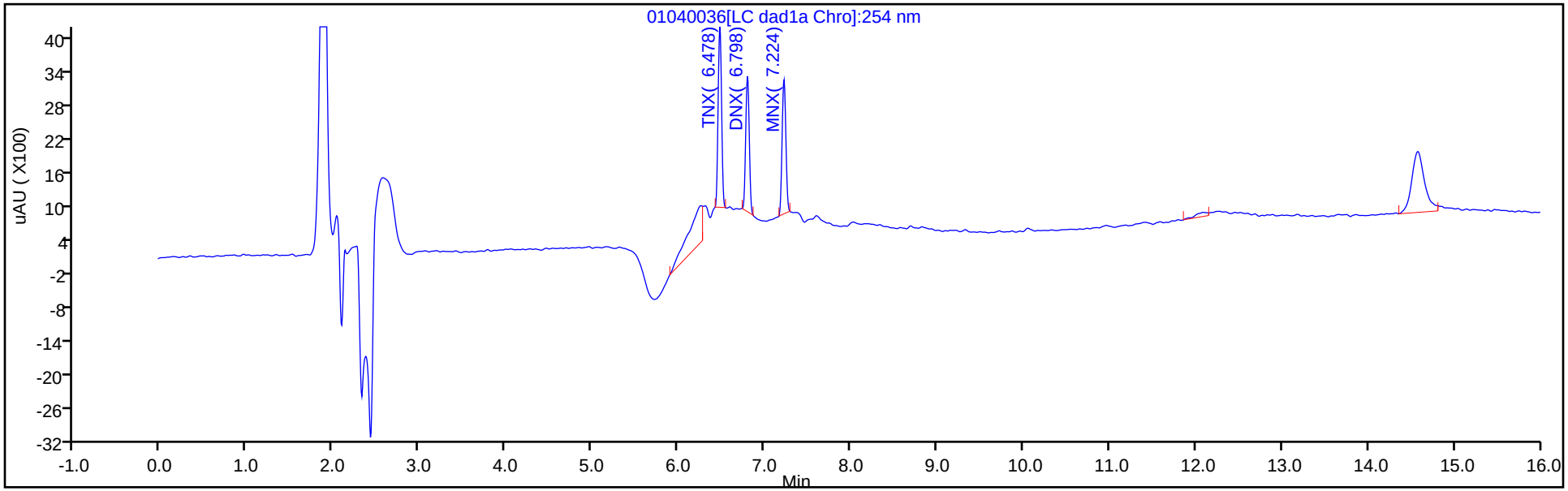
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

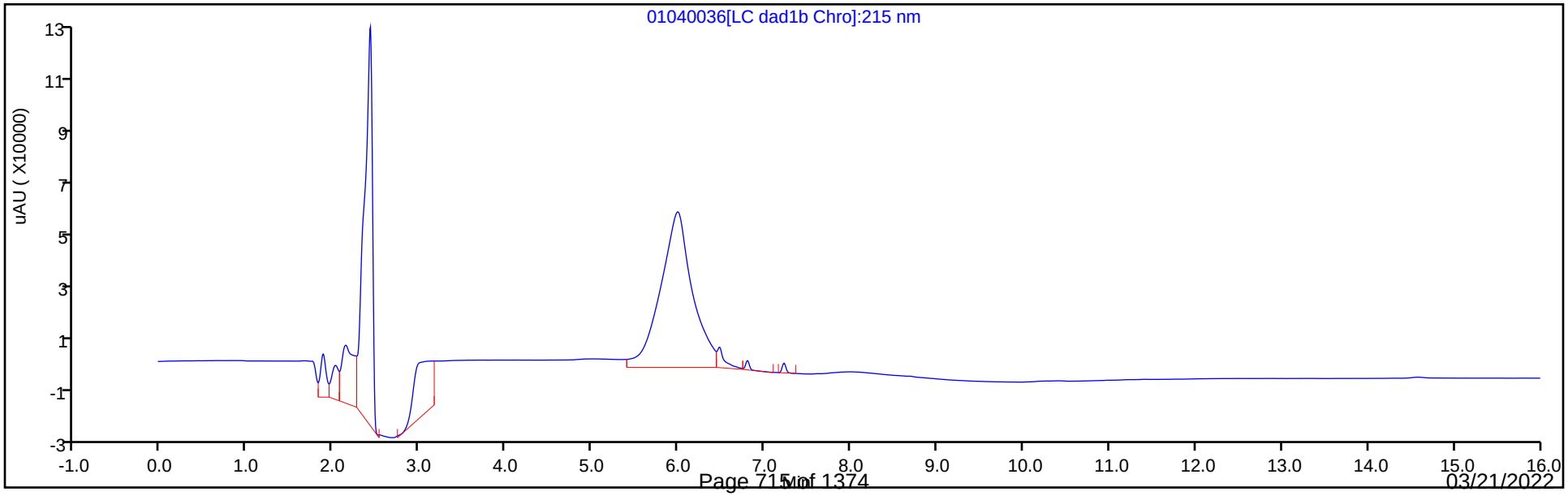
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 04:01:20 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 2 | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 36 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

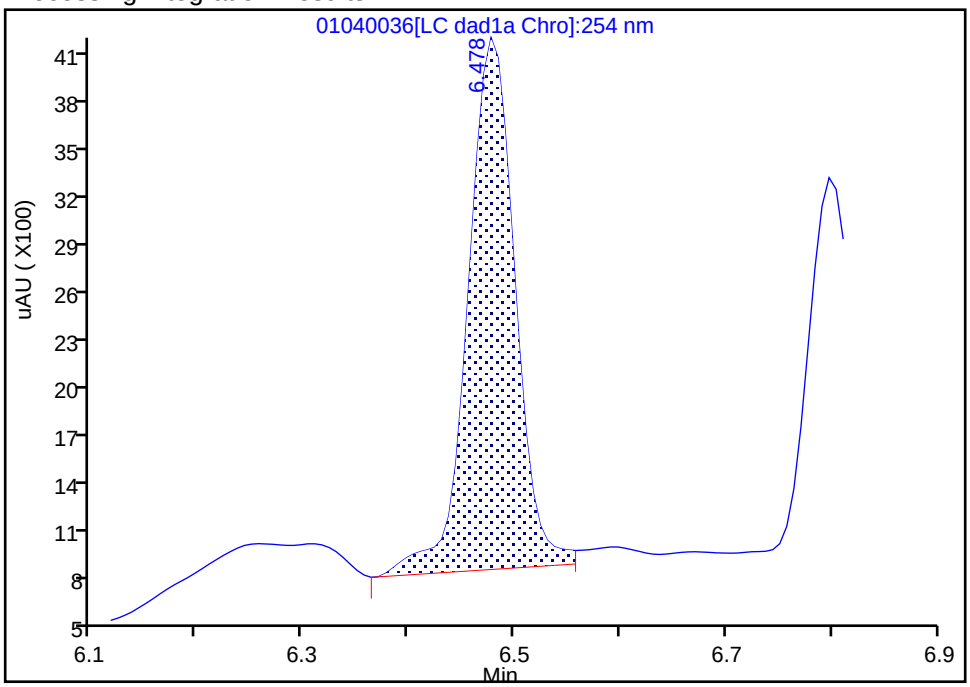
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d | | | | |
| Injection Date: | 05-Jan-2022 04:01:20 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

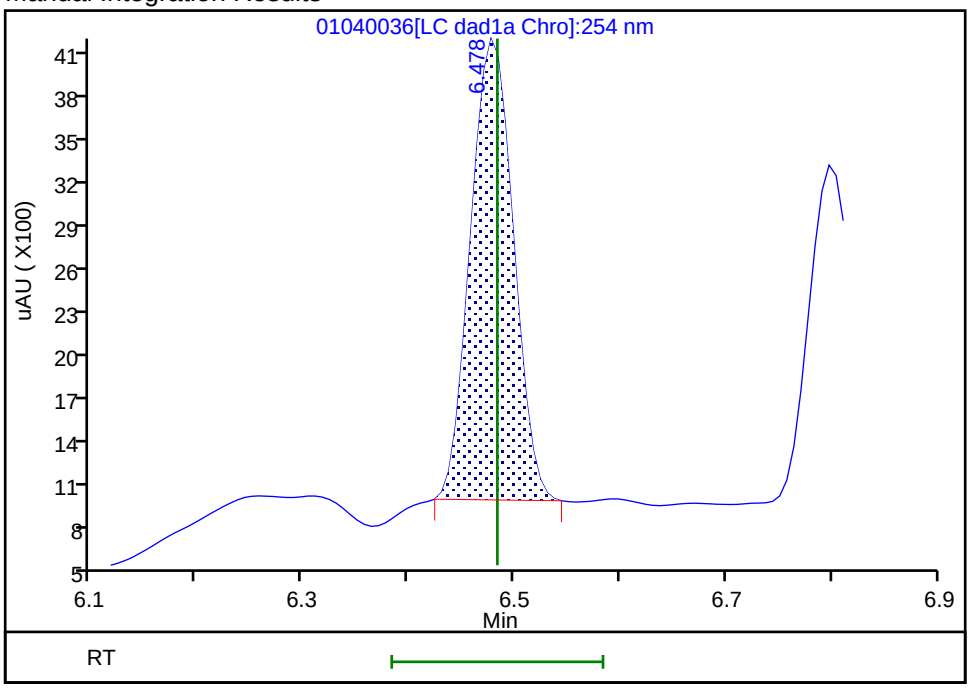
Processing Integration Results

RT: 6.48
Area: 10352
Amount: 0.053996
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 9031
Amount: 0.049838
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

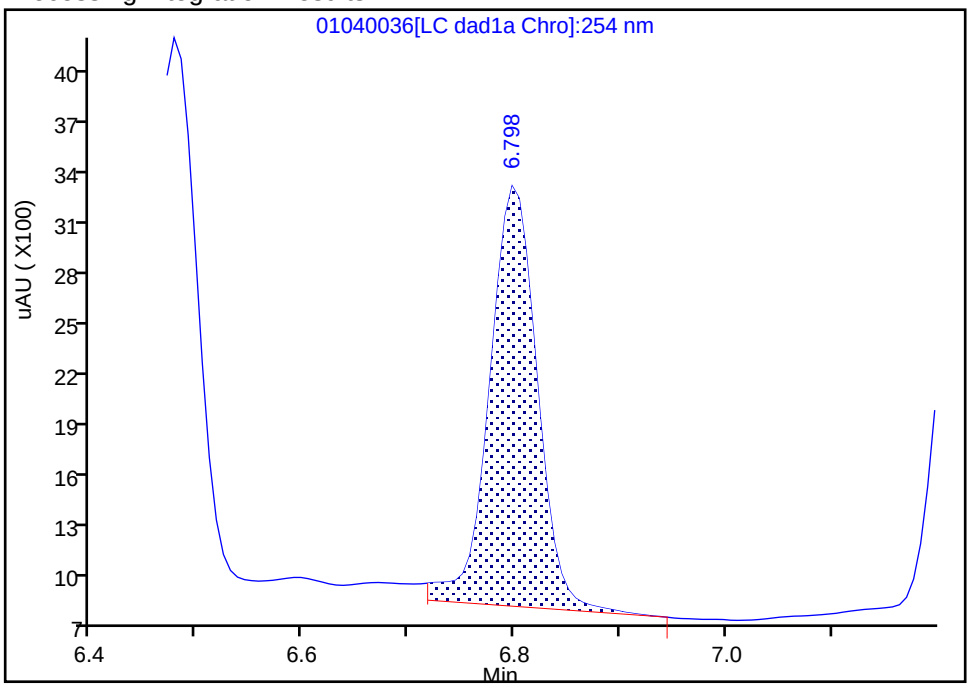
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d | | | | |
| Injection Date: | 05-Jan-2022 04:01:20 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

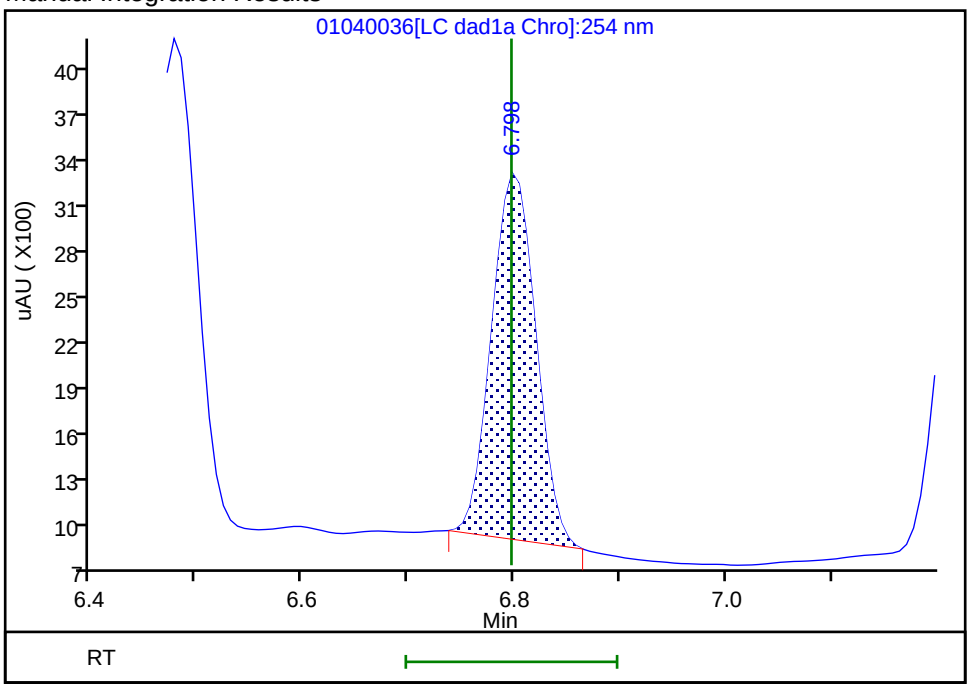
Processing Integration Results

RT: 6.80
Area: 7841
Amount: 0.054633
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 6988
Amount: 0.050596
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:07
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

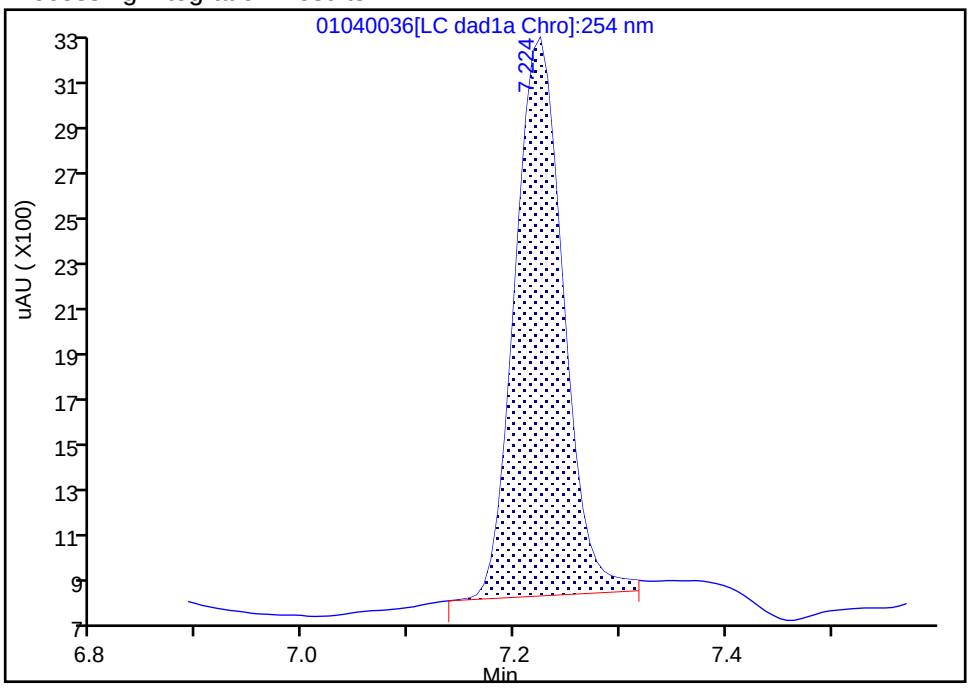
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d | | | | |
| Injection Date: | 05-Jan-2022 04:01:20 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

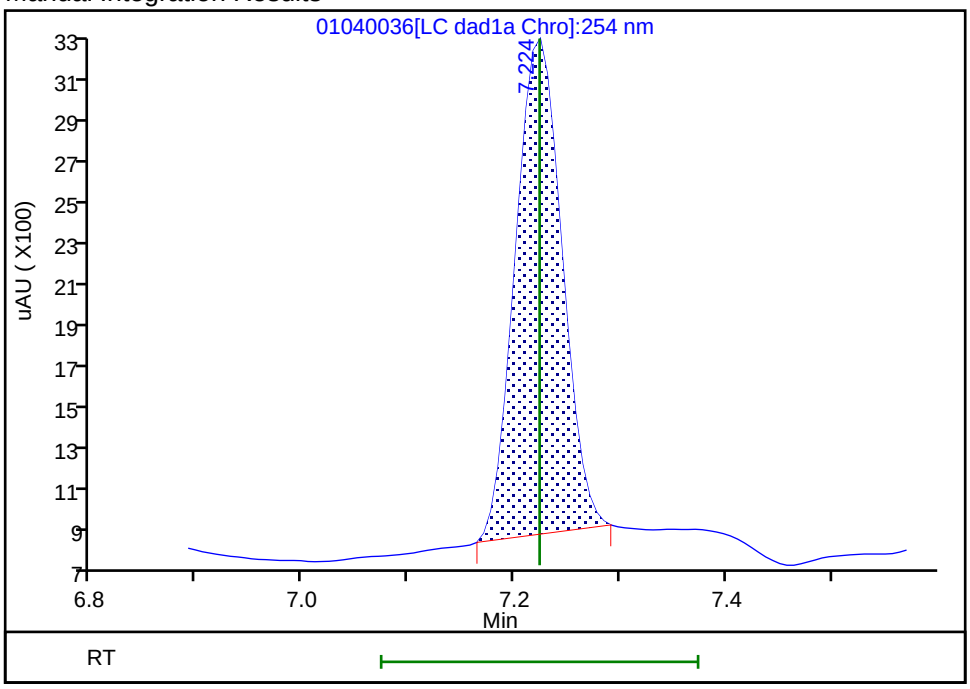
Processing Integration Results

RT: 7.22
Area: 7737
Amount: 0.060531
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 7298
Amount: 0.057923
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:11

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 05-Jan-2022 04:24:15 | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 1 | | | | |
| Misc. Info.: | 280-0107731-037 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Jan-2022 12:10:08 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1613 | | | | |
| First Level Reviewer: zhangji | | Date: | 05-Jan-2022 12:09:28 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.479 | 6.484 | -0.005 | 3600 | 0.0200 | 0.0199 | M |
| 6 DNX | 1 | 6.799 | 6.797 | 0.002 | 2817 | 0.0200 | 0.0204 | M |
| 7 MNX | 1 | 7.219 | 7.224 | -0.005 | 3042 | 0.0233 | 0.0241 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

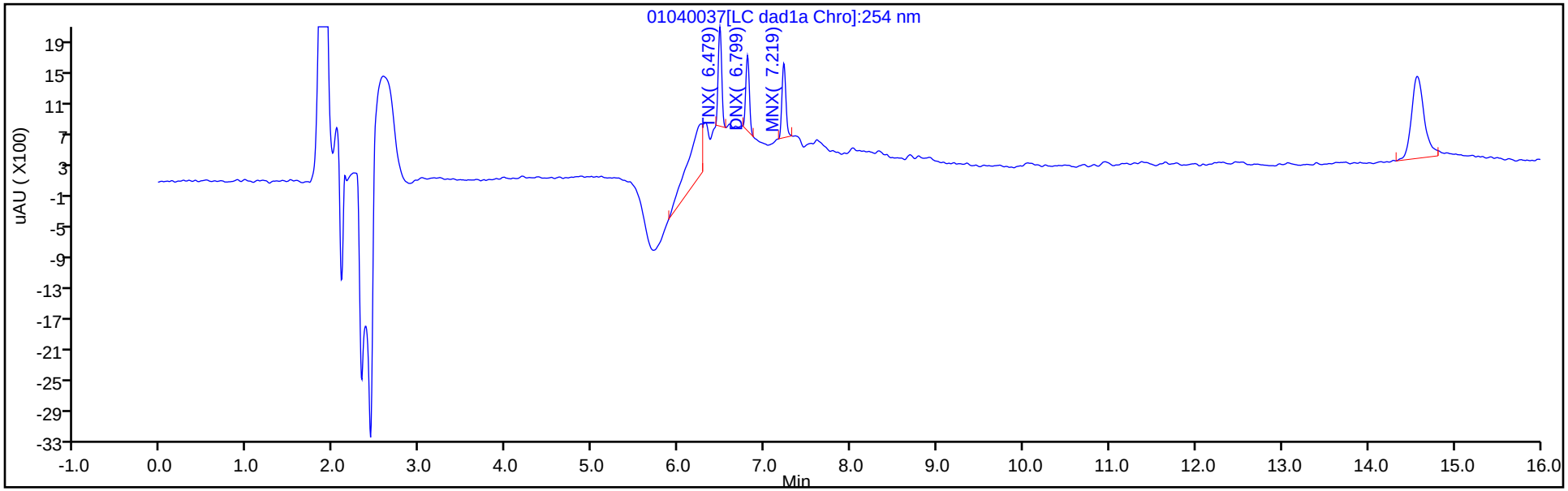
Report Date: 05-Jan-2022 12:10:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

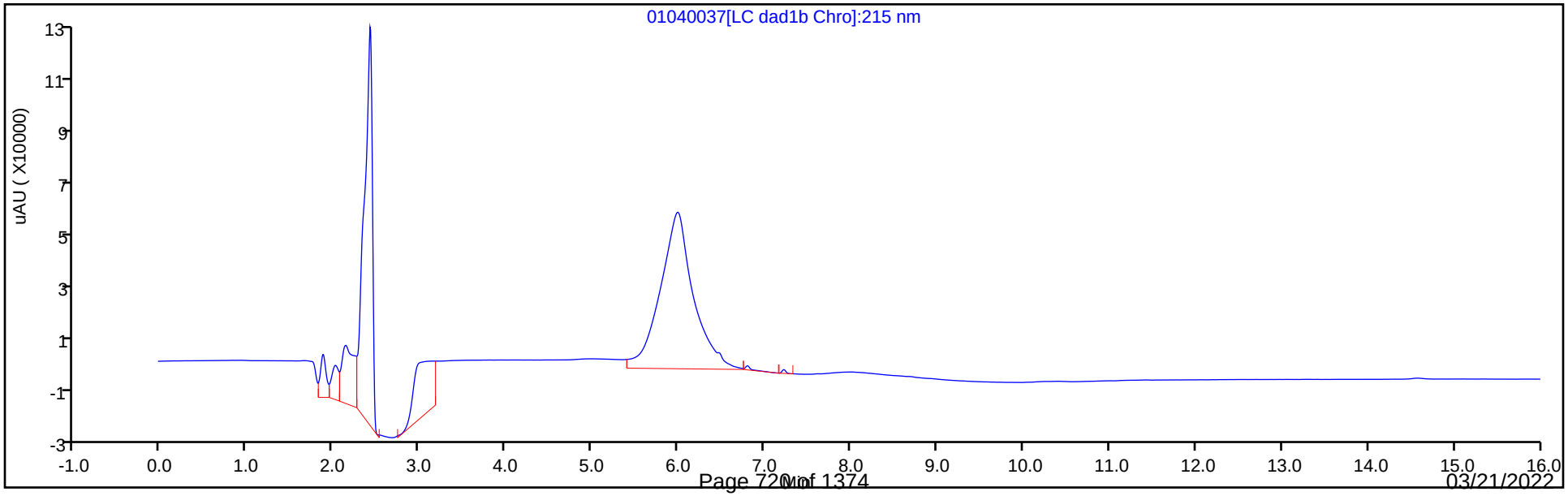
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 04:24:15 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC DMT 1 | | | Worklist Smp#: | 37 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 37 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

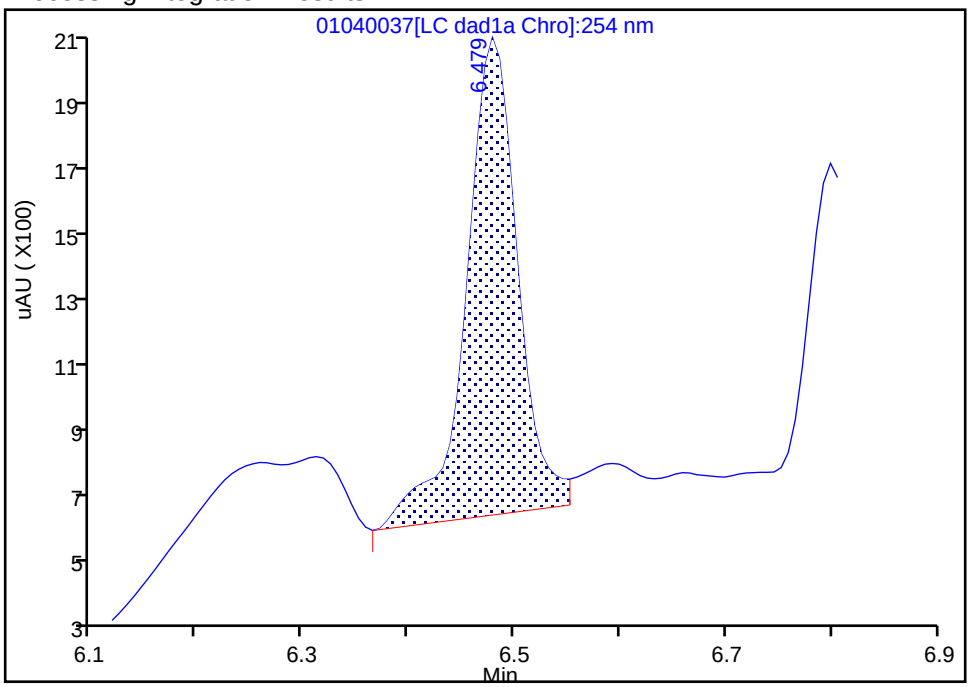
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d | | | | |
| Injection Date: | 05-Jan-2022 04:24:15 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

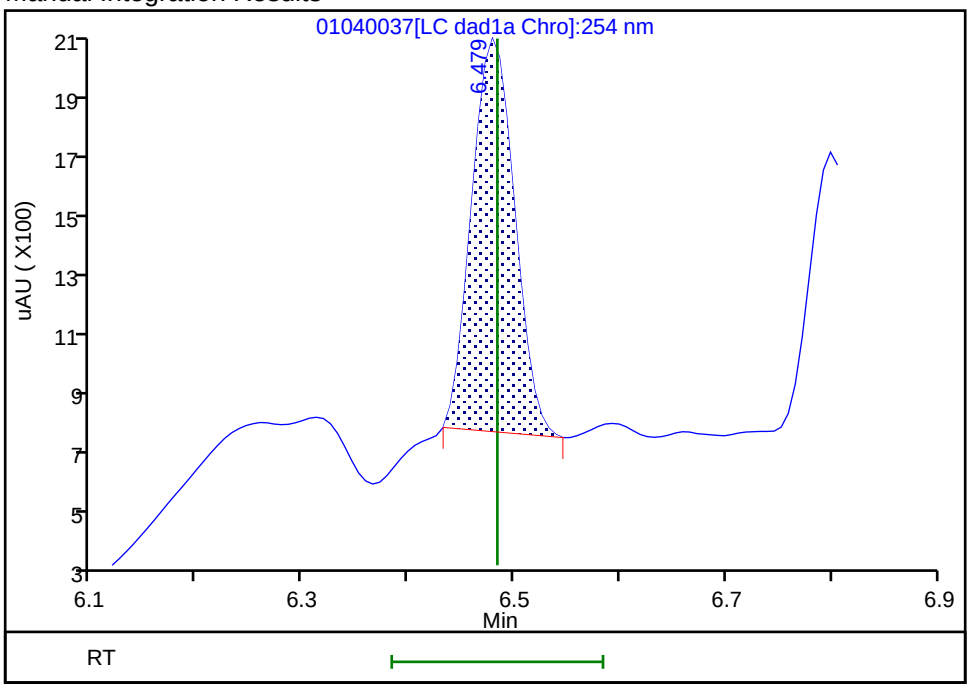
Processing Integration Results

RT: 6.48
Area: 4755
Amount: 0.025236
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 3600
Amount: 0.019867
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

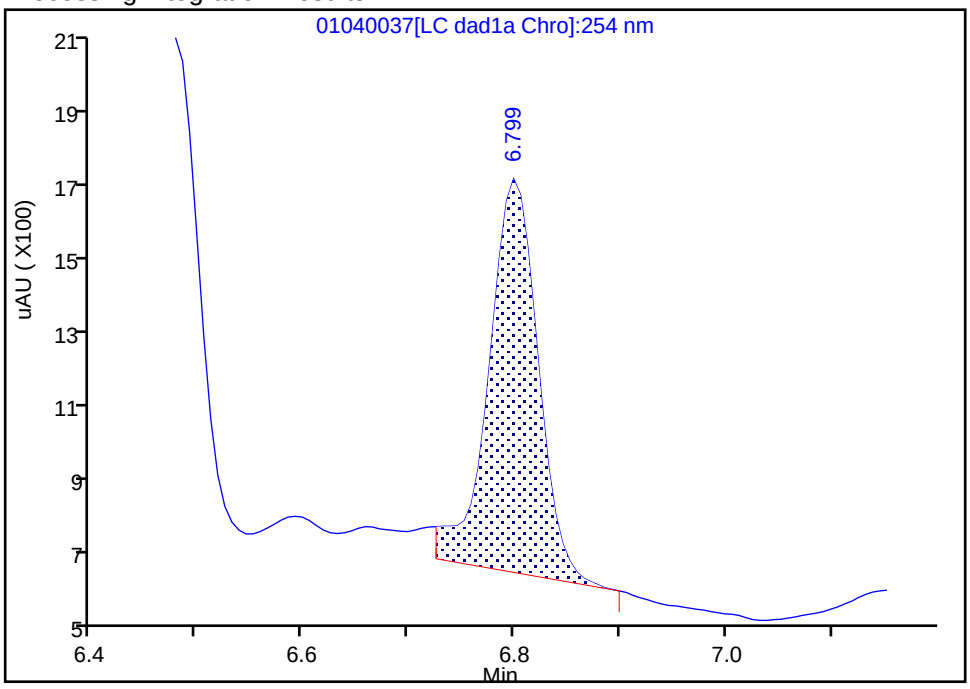
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d | | | | |
| Injection Date: | 05-Jan-2022 04:24:15 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

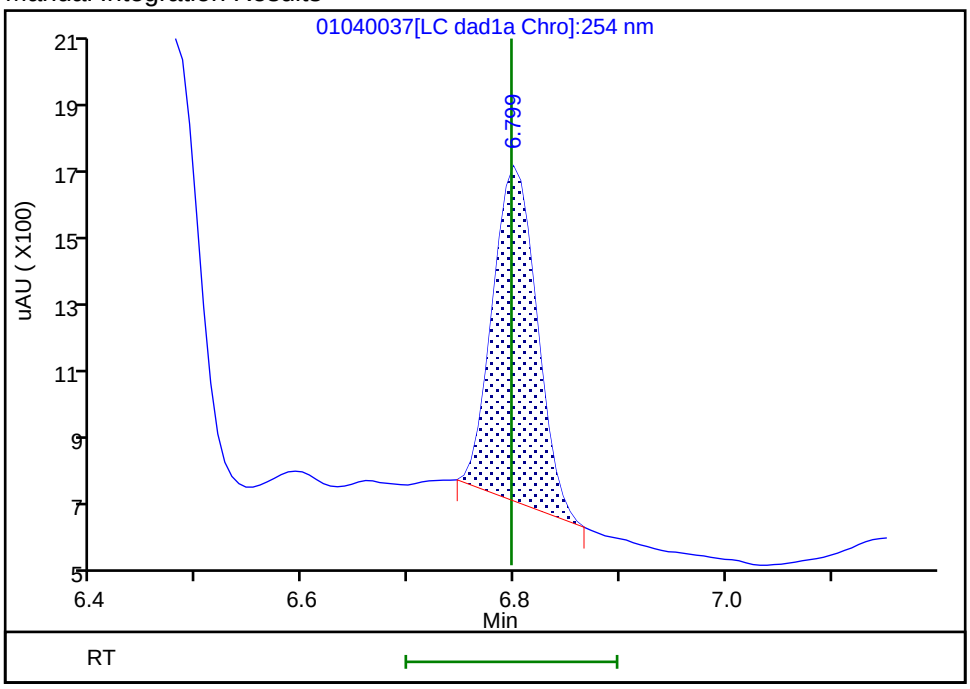
Processing Integration Results

RT: 6.80
Area: 3342
Amount: 0.023637
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 2817
Amount: 0.020396
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

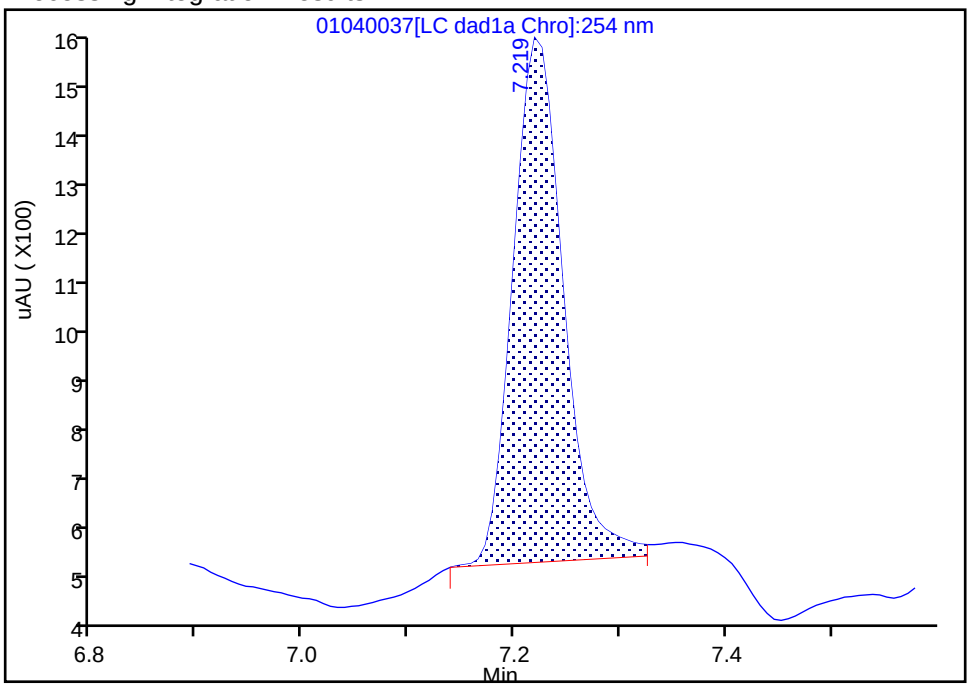
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d | | | | |
| Injection Date: | 05-Jan-2022 04:24:15 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

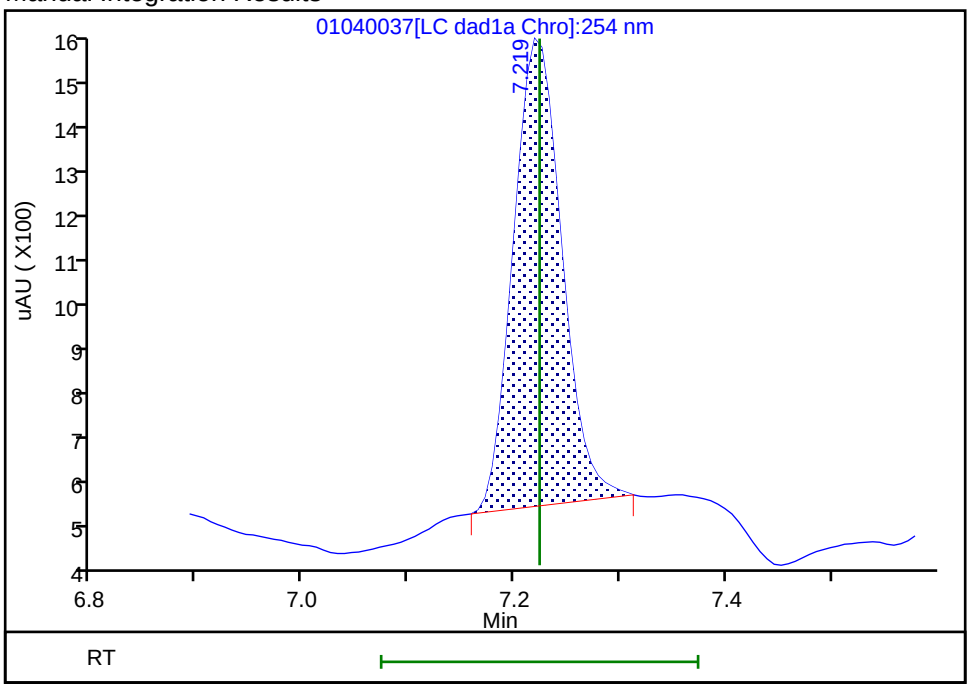
Processing Integration Results

RT: 7.22
Area: 3207
Amount: 0.025276
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 3042
Amount: 0.024144
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:26

Audit Action: Manually Integrated Audit Reason: Baseline

## Calibration / TNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

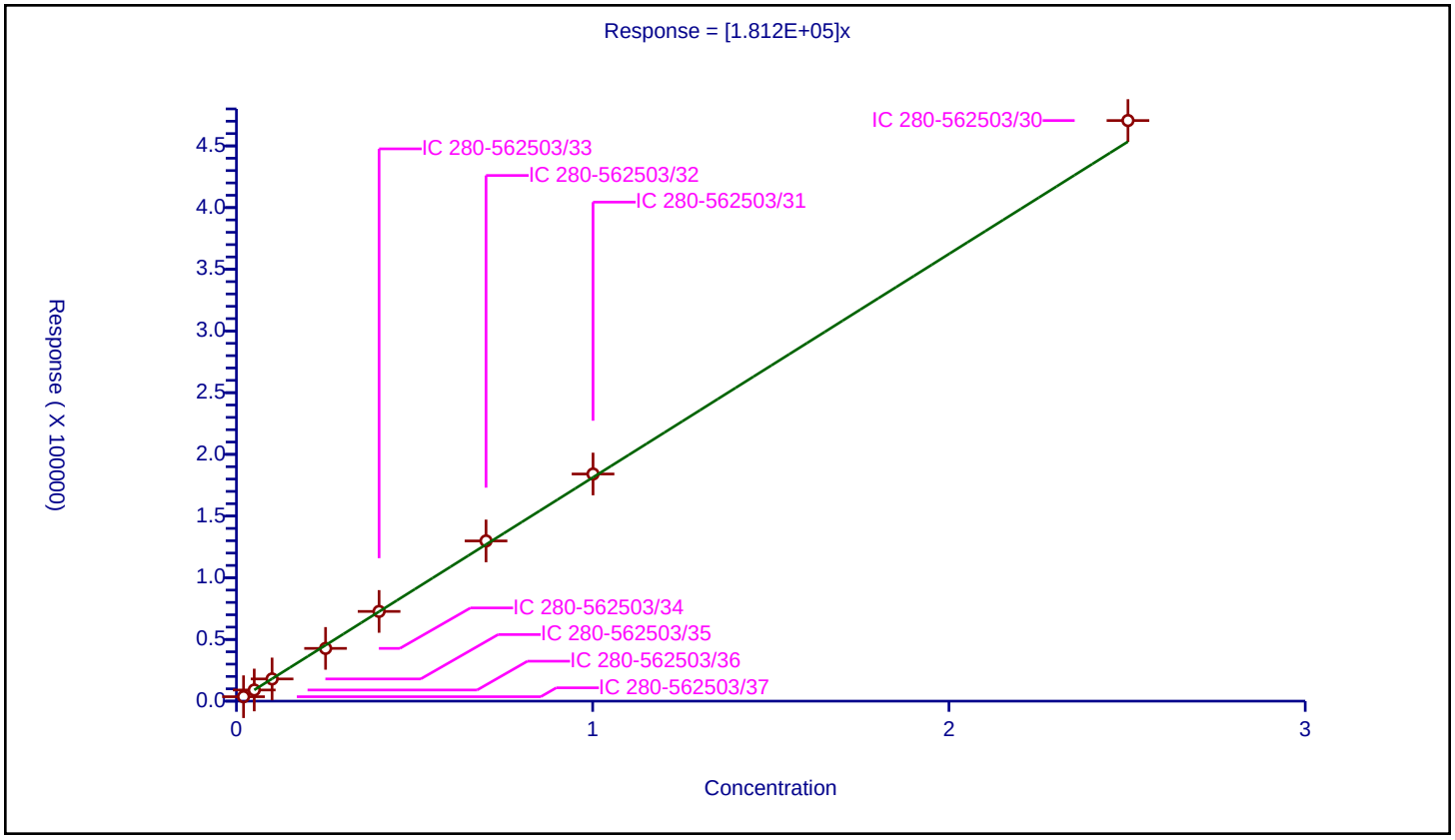
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.812E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6700 |
| **Relative Standard Error:** | 2.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/37 | 0.02002 | 3600.0 | | | 179820.17982 | Y |
| 2 | IC 280-562503/36 | 0.05005 | 9031.0 | | | 180439.56044 | Y |
| 3 | IC 280-562503/35 | 0.1001 | 17989.0 | | | 179710.28971 | Y |
| 4 | IC 280-562503/34 | 0.25025 | 42748.0 | | | 170821.178821 | Y |
| 5 | IC 280-562503/33 | 0.4004 | 72720.0 | | | 181618.381618 | Y |
| 6 | IC 280-562503/32 | 0.7007 | 129844.0 | | | 185306.122449 | Y |
| 7 | IC 280-562503/31 | 1.001 | 184090.0 | | | 183906.093906 | Y |
| 8 | IC 280-562503/30 | 2.5025 | 470565.0 | | | 188037.962038 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

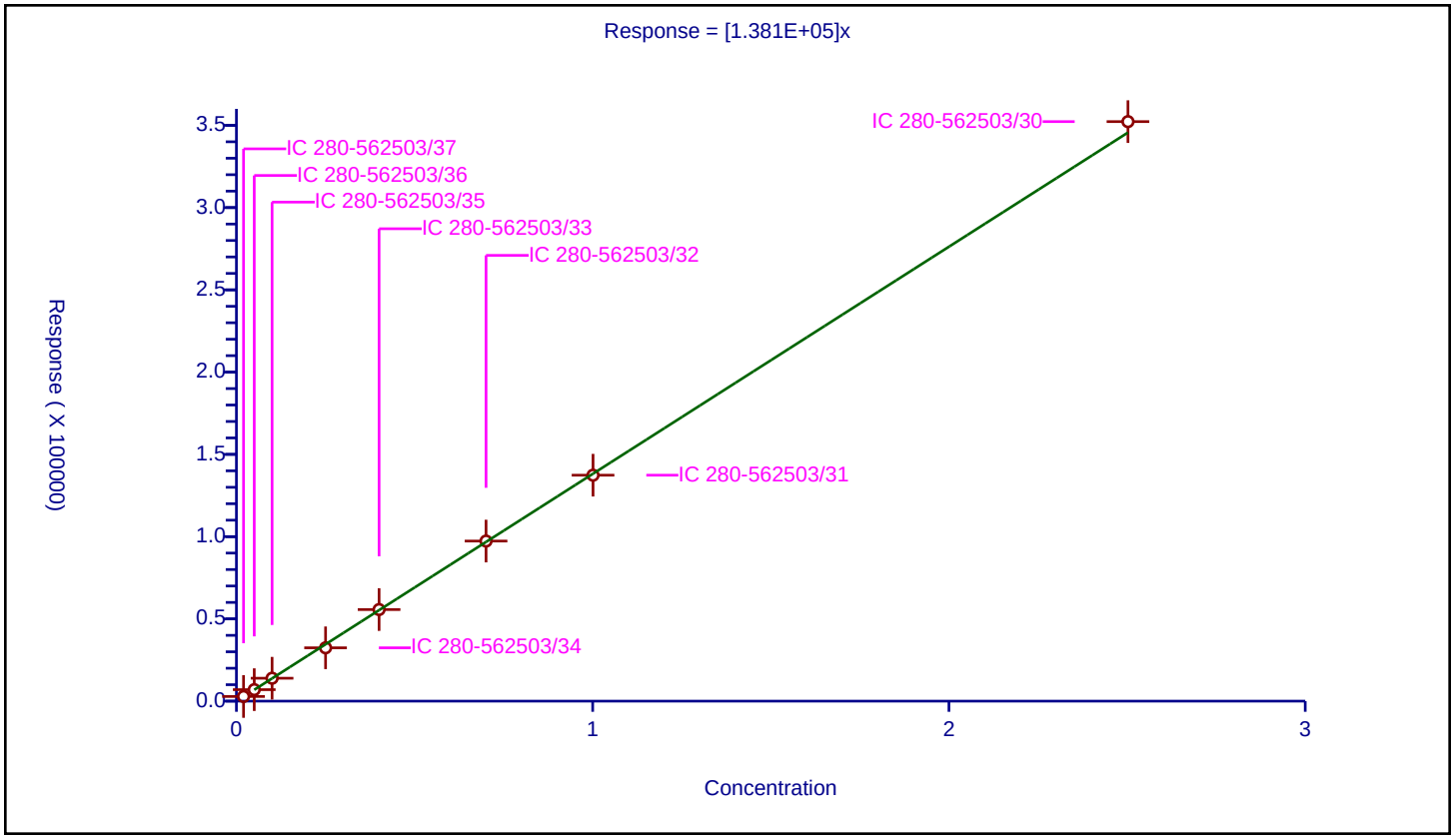
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.381E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2670 |
| **Relative Standard Error:** | 2.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/37 | 0.02002 | 2817.0 | | | 140709.290709 | Y |
| 2 | IC 280-562503/36 | 0.05005 | 6988.0 | | | 139620.37962 | Y |
| 3 | IC 280-562503/35 | 0.1001 | 13928.0 | | | 139140.859141 | Y |
| 4 | IC 280-562503/34 | 0.25025 | 32416.0 | | | 129534.465534 | Y |
| 5 | IC 280-562503/33 | 0.4004 | 55675.0 | | | 139048.451548 | Y |
| 6 | IC 280-562503/32 | 0.7007 | 97314.0 | | | 138881.118881 | Y |
| 7 | IC 280-562503/31 | 1.001 | 137343.0 | | | 137205.794206 | Y |
| 8 | IC 280-562503/30 | 2.5025 | 352260.0 | | | 140763.236763 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

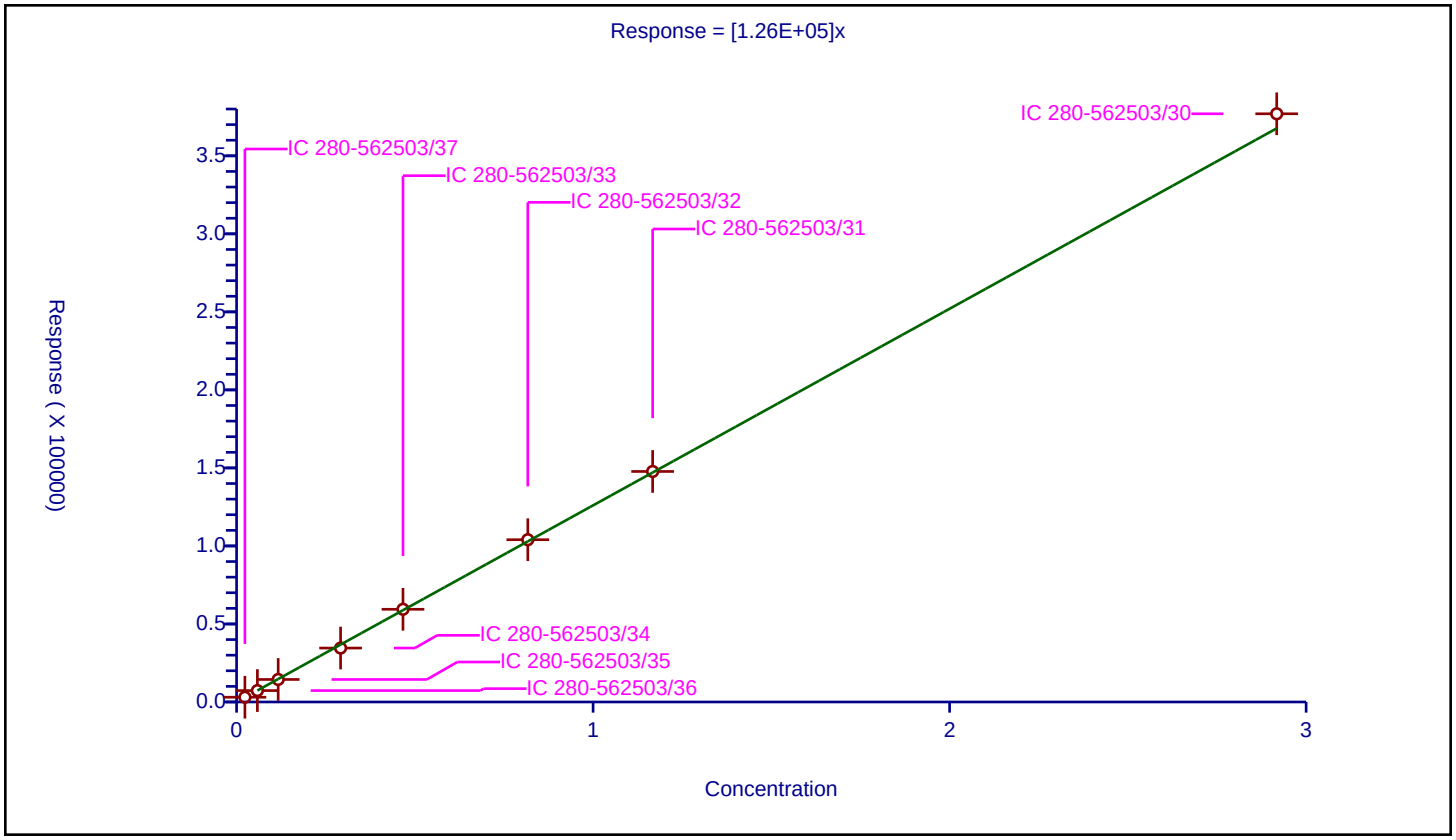
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.26E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3670 |
| **Relative Standard Error:** | 2.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-562503/37 | 0.02334 | 3042.0 | | | 130334.190231 | Y |
| 2 | IC 280-562503/36 | 0.05835 | 7298.0 | | | 125072.836332 | Y |
| 3 | IC 280-562503/35 | 0.1167 | 14438.0 | | | 123718.937446 | Y |
| 4 | IC 280-562503/34 | 0.29175 | 34560.0 | | | 118457.583548 | Y |
| 5 | IC 280-562503/33 | 0.4668 | 59416.0 | | | 127283.633248 | Y |
| 6 | IC 280-562503/32 | 0.8169 | 103999.0 | | | 127309.340189 | Y |
| 7 | IC 280-562503/31 | 1.167 | 147726.0 | | | 126586.118252 | Y |
| 8 | IC 280-562503/30 | 2.9175 | 376943.0 | | | 129200.685518 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/18 | 03020018.D |
| Level 2 | IC 280-567560/17 | 03020017.D |
| Level 3 | IC 280-567560/16 | 03020016.D |
| Level 4 | IC 280-567560/15 | 03020015.D |
| Level 5 | IC 280-567560/14 | 03020014.D |
| Level 6 | IC 280-567560/13 | 03020013.D |
| Level 7 | IC 280-567560/12 | 03020012.D |
| Level 8 | IC 280-567560/11 | 03020011.D |
| Level 9 | IC 280-567560/10 | 03020010.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HMX | 6.887 | 6.896 | 6.894 | 6.896 | 6.889 | 6.880 | 6.863 | 6.860 | 6.791 | | 6.739 - 7.039 | 6.873 |
| Picric acid | | 7.863 | 7.767 | 7.696 | 7.602 | 7.527 | 7.430 | 7.346 | 7.231 | | 7.452 - 7.752 | 7.558 |
| RDX | 9.114 | 9.129 | 9.120 | 9.129 | 9.115 | 9.100 | 9.083 | 9.066 | 8.985 | | 8.965 - 9.265 | 9.093 |
| Nitrobenzene | 12.047 | 12.069 | 12.073 | 12.069 | 12.062 | 12.060 | 12.036 | 12.020 | 11.925 | | 11.912 - 12.212 | 12.040 |
| 1,3-Dinitrobenzene | 15.627 | 15.642 | 15.647 | 15.642 | 15.635 | 15.627 | 15.616 | 15.600 | 15.525 | | 15.485 - 15.785 | 15.618 |
| Nitroglycerin | 16.054 | 16.062 | 16.073 | 16.062 | 16.055 | 16.054 | 16.050 | 16.033 | 15.971 | | 15.905 - 16.205 | 16.046 |
| 2-Nitrotoluene | 16.807 | 16.829 | 16.833 | 16.829 | 16.822 | 16.820 | 16.810 | 16.793 | 16.725 | | 16.672 - 16.972 | 16.808 |
| 4-Nitrotoluene | 17.147 | 17.129 | 17.147 | 17.136 | 17.129 | 17.127 | 17.123 | 17.100 | 17.018 | | 16.979 - 17.279 | 17.117 |
| 4-Amino-2,6-dinitrotoluene | 17.734 | 17.756 | 17.773 | 17.756 | 17.755 | 17.747 | 17.736 | 17.720 | 17.651 | | 17.605 - 17.905 | 17.736 |
| 3-Nitrotoluene | 18.094 | 18.116 | 18.120 | 18.109 | 18.102 | 18.100 | 18.090 | 18.073 | 18.005 | | 17.952 - 18.252 | 18.090 |
| 2-Amino-4,6-dinitrotoluene | 18.754 | 18.762 | 18.773 | 18.749 | 18.742 | 18.740 | 18.730 | 18.706 | 18.725 | | 18.592 - 18.892 | 18.742 |
| 1,3,5-Trinitrobenzene | 18.947 | 18.956 | 18.973 | 18.956 | 18.949 | 18.947 | 18.936 | 18.920 | 18.851 | | 18.799 - 19.099 | 18.937 |
| 2,6-Dinitrotoluene | 20.260 | 20.262 | 20.267 | 20.256 | 20.255 | 20.254 | 20.243 | 20.233 | 20.171 | | 20.105 - 20.405 | 20.245 |
| 2,4-Dinitrotoluene | 20.674 | 20.716 | 20.767 | 20.756 | 20.762 | 20.760 | 20.750 | 20.733 | 20.671 | | 20.612 - 20.912 | 20.732 |
| Tetryl | 24.514 | 24.496 | 24.500 | 24.483 | 24.489 | 24.494 | 24.483 | 24.466 | 24.425 | | 24.339 - 24.639 | 24.483 |
| 2,4,6-Trinitrotoluene | 25.274 | 25.269 | 25.274 | 25.256 | 25.262 | 25.267 | 25.257 | 25.246 | 25.198 | | 25.112 - 25.412 | 25.256 |
| PETN | 26.220 | 26.223 | 26.220 | 26.209 | 26.215 | 26.220 | 26.217 | 26.206 | 26.185 | | 26.065 - 26.365 | 26.213 |
| 1,2-Dinitrobenzene | 13.260 | 13.282 | 13.287 | 13.282 | 13.282 | 13.274 | 13.256 | 13.240 | 13.158 | | 13.132 - 13.432 | 13.258 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/18 | 03020018.D |
| Level 2 | IC 280-567560/17 | 03020017.D |
| Level 3 | IC 280-567560/16 | 03020016.D |
| Level 4 | IC 280-567560/15 | 03020015.D |
| Level 5 | IC 280-567560/14 | 03020014.D |
| Level 6 | IC 280-567560/13 | 03020013.D |
| Level 7 | IC 280-567560/12 | 03020012.D |
| Level 8 | IC 280-567560/11 | 03020011.D |
| Level 9 | IC 280-567560/10 | 03020010.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 5 LVL 9 | LVL 2 LVL 6 | LVL 3 LVL 7 | LVL 4 LVL 8 | | B | M1 | M2 | | | | | | | | |
| HMX | 204000<br>153272<br>187359 | 156350<br>157048 | 161060<br>156446 | 161090<br>158593 | Ave | | 166135.268 | | | | 10.5 | | 20.0 | | | |
| Picric acid | <br>137152<br>100000 | 115050<br>145895 | 127120<br>147056 | 140090<br>150719 | Ave | | 132885.214 | | | | 13.3 | | 20.0 | | | |
| RDX | 209700<br>185668<br>192949 | 185950<br>191778 | 200560<br>191473 | 197500<br>193402 | Ave | | 194331.017 | | | | 3.8 | | 20.0 | | | |
| Nitrobenzene | 387450<br>359546<br>376404 | 332968<br>370117 | 381454<br>369358 | 371225<br>366118 | Ave | | 368293.361 | | | | 4.2 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 594910<br>544854<br>583320 | 531088<br>563411 | 602415<br>562742 | 594182<br>568076 | Ave | | 571666.383 | | | | 4.2 | | 20.0 | | | |
| Nitroglycerin | 106640<br>123863<br>126320 | 108750<br>129921 | 119788<br>126936 | 133241<br>127202 | Ave | | 122517.801 | | | | 7.5 | | 20.0 | | | |
| 2-Nitrotoluene | 249100<br>224884<br>232108 | 230350<br>232660 | 241140<br>230763 | 238570<br>232476 | Ave | | 234672.317 | | | | 3.1 | | 20.0 | | | |
| 4-Nitrotoluene | 219860<br>201816<br>215781 | 203493<br>209224 | 211477<br>208958 | 215818<br>210922 | Ave | | 210816.657 | | | | 2.8 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| 4-Amino-2,6-dinitrotoluene | 260739<br>258018<br>268817 | 263287<br>267340 | 268232<br>265560 | 271888<br>269422 | Lin2 | -62.900141 | 267244.423 | | | | | | | 1.0000 | | 0.9900 |
| 3-Nitrotoluene | 254046<br>256344<br>271648 | 240010<br>266386 | 267473<br>265219 | 269510<br>267544 | Lin2 | -189.49318 | 266002.360 | | | | | | | 0.9990 | | 0.9900 |
| 2-Amino-4,6-dinitrotoluene | 369024<br>350637<br>335952 | 343576<br>365448 | 369761<br>366702 | 370299<br>373422 | Ave | | 360535.698 | | | | 3.8 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 393912<br>409485<br>468023 | 347804<br>424182 | 425928<br>421012 | 424291<br>424539 | Ave | | 415464.126 | | | | 7.7 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 269323<br>256928<br>267124 | 260608<br>264846 | 274044<br>264869 | 265807<br>267408 | Ave | | 265661.838 | | | | 1.8 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 1185259<br>555279<br>545162 | 839791<br>549871 | 675657<br>543624 | 639313<br>546924 | Lin2 | 6399.59049 | 541564.591 | | | | | | | 0.9990 | | 0.9900 |
| Tetryl | 471257<br>308379<br>316049 | 345958<br>315734 | 361477<br>313195 | 331218<br>316267 | Ave | | 342170.507 | | | | 15.0 | | 20.0 | | | |
| 2,4,6-Trinitrotoluene | 370518<br>363896<br>385306 | 324054<br>376581 | 369641<br>378025 | 370568<br>384024 | Ave | | 369179.221 | | | | 5.0 | | 20.0 | | | |
| PETN | 108420<br>131804<br>136767 | 109615<br>136247 | 134164<br>135887 | 134076<br>136984 | Ave | | 129329.182 | | | | 9.0 | | 20.0 | | | |
| 1,2-Dinitrobenzene | 246100<br>244792<br>252426 | 240450<br>249510 | 257280<br>250511 | 254990<br>251717 | Ave | | 249752.937 | | | | 2.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/18 | 03020018.D |
| Level 2 | IC 280-567560/17 | 03020017.D |
| Level 3 | IC 280-567560/16 | 03020016.D |
| Level 4 | IC 280-567560/15 | 03020015.D |
| Level 5 | IC 280-567560/14 | 03020014.D |
| Level 6 | IC 280-567560/13 | 03020013.D |
| Level 7 | IC 280-567560/12 | 03020012.D |
| Level 8 | IC 280-567560/11 | 03020011.D |
| Level 9 | IC 280-567560/10 | 03020010.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| HMX | Ave | 2040<br>62819 | 3127<br>109512 | 8053<br>158593 | 16109<br>468398 | 38318 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Picric acid | Ave | <br>58358 | 2301<br>102939 | 6356<br>150719 | 14009<br>250000 | 34288 | <br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | 2097<br>76711 | 3719<br>134031 | 10028<br>193402 | 19750<br>482372 | 46417 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Nitrobenzene | Ave | 3890<br>148639 | 6686<br>259585 | 19149<br>367582 | 37271<br>944774 | 90246 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 5961<br>225815 | 10643<br>394707 | 30181<br>569212 | 59537<br>1461217 | 136486 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 10664<br>519683 | 21750<br>888552 | 59894<br>1272015 | 133241<br>3158004 | 309657 | 0.100<br>4.00 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2-Nitrotoluene | Ave | 2491<br>93064 | 4607<br>161534 | 12057<br>232476 | 23857<br>580270 | 56221 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| 4-Nitrotoluene | Ave | 2203<br>83857 | 4078<br>146563 | 10595<br>211344 | 21625<br>540531 | 50555 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | 2610<br>107043 | 5271<br>186078 | 13425<br>269691 | 27216<br>672715 | 64569 | 0.0100<br>0.400 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 3-Nitrotoluene | Lin2 | 2543<br>106661 | 4805<br>185839 | 13387<br>267812 | 26978<br>679800 | 64150 | 0.0100<br>0.400 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Ave | 3705<br>146764 | 6899<br>257718 | 18562<br>374916 | 37178<br>843240 | 88010 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3,5-Trinitrobenzene | Ave | 3947<br>170012 | 6970<br>295298 | 21339<br>425388 | 42514<br>1172398 | 102576 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Ave | 2704 | 5233 | 13757 | 26687 | 64489 | 0.0100 | 0.0201 | 0.0502 | 0.100 | 0.251 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| | | 106362 | 186150 | 268478 | 670482 | | 0.402 | 0.703 | 1.00 | 2.51 | |
| 2,4-Dinitrotoluene | Lin2 | 11900<br>220828 | 16863<br>382059 | 33918<br>549112 | 64187<br>1368356 | 139375 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Ave | 4722<br>126546 | 6933<br>219675 | 18110<br>316900 | 33188<br>791703 | 77249 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4,6-Trinitrotoluene | Ave | 3720<br>151235 | 6507<br>265676 | 18556<br>385560 | 37205<br>967117 | 91338 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| PETN | Ave | 10842<br>544987 | 21923<br>951206 | 67082<br>1369840 | 134076<br>3419168 | 329509 | 0.100<br>4.00 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 1,2-Dinitrobenzene | Ave | 2461<br>99804 | 4809<br>175358 | 12864<br>251717 | 25499<br>631065 | 61198 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D
Lims ID: IC INT/ADD 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 02-Mar-2022 21:22:03 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 9
Misc. Info.: 280-0108949-010
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:12 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:05:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.071 | 4.142 | -0.071 | 1053484 | 2.50 | 2.59 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.698 | 4.669 | 0.029 | 475027 | 2.50 | 2.09 | M |
| 5 HMX | 1 | 6.791 | 6.889 | -0.098 | 468398 | 2.50 | 2.82 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.231 | 7.602 | -0.371 | 250000 | 2.50 | 1.88 | |
| 8 RDX | 1 | 8.985 | 9.115 | -0.130 | 482372 | 2.50 | 2.48 | |
| 9 Nitrobenzene | 1 | 11.925 | 12.062 | -0.137 | 944774 | 2.51 | 2.57 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.158 | 13.282 | -0.124 | 631065 | 2.50 | 2.53 | |
| 11 3,5-Dinitroaniline | 1 | 15.151 | 15.269 | -0.118 | 1039131 | 2.50 | 2.53 | |
| 12 1,3-Dinitrobenzene | 1 | 15.525 | 15.635 | -0.110 | 1461217 | 2.51 | 2.56 | |
| 13 Nitroglycerin | 2 | 15.971 | 16.055 | -0.084 | 3158004 | 25.0 | 25.8 | |
| 14 o-Nitrotoluene | 1 | 16.725 | 16.822 | -0.097 | 580270 | 2.50 | 2.47 | |
| 16 p-Nitrotoluene | 1 | 17.018 | 17.129 | -0.111 | 540531 | 2.51 | 2.56 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.651 | 17.755 | -0.104 | 672715 | 2.50 | 2.52 | |
| 18 m-Nitrotoluene | 1 | 18.005 | 18.102 | -0.097 | 679800 | 2.50 | 2.56 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.725 | 18.742 | -0.017 | 843240 | 2.51 | 2.34 | M |
| 20 1,3,5-Trinitrobenzene | 1 | 18.851 | 18.949 | -0.098 | 1172398 | 2.51 | 2.82 | M |
| 21 2,6-Dinitrotoluene | 1 | 20.171 | 20.255 | -0.084 | 670482 | 2.51 | 2.52 | |
| 22 2,4-Dinitrotoluene | 1 | 20.671 | 20.762 | -0.091 | 1368356 | 2.51 | 2.51 | |
| 23 Tetryl | 1 | 24.425 | 24.489 | -0.064 | 791703 | 2.51 | 2.31 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.198 | 25.262 | -0.064 | 967117 | 2.51 | 2.62 | |
| 25 PETN | 2 | 26.185 | 26.215 | -0.030 | 3419168 | 25.0 | 26.4 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | |
|---|---|---|
| 8330IntermStk_00070 | Amount Added: 250.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: 125.00 | Units: uL |

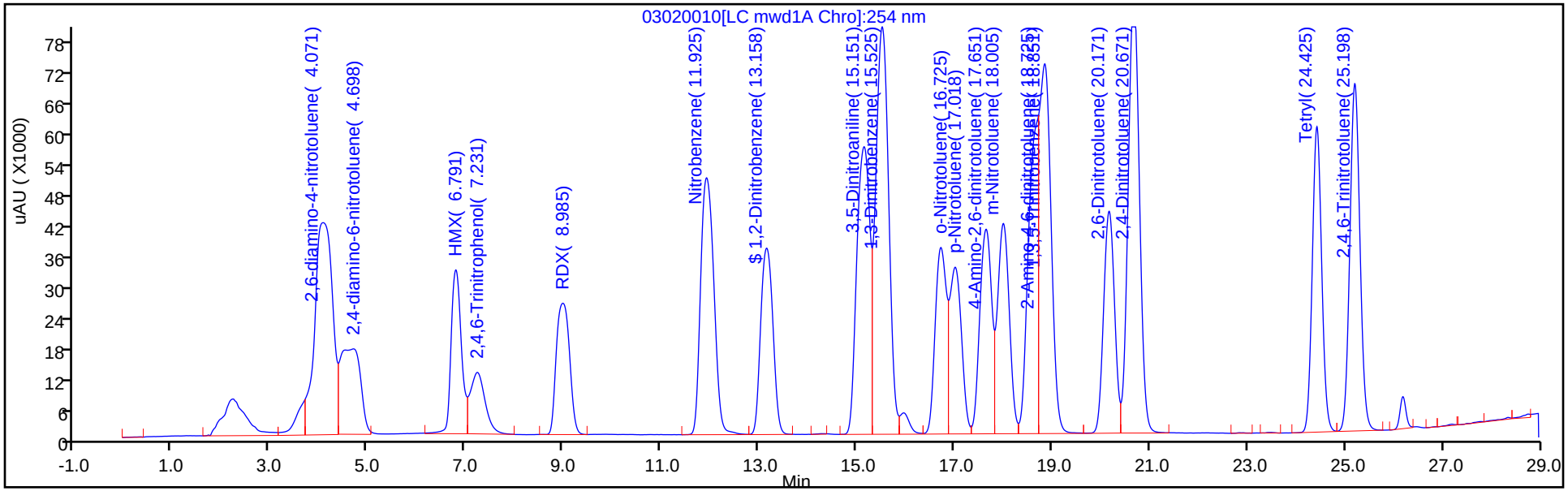
Report Date: 03-Mar-2022 12:49:12 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

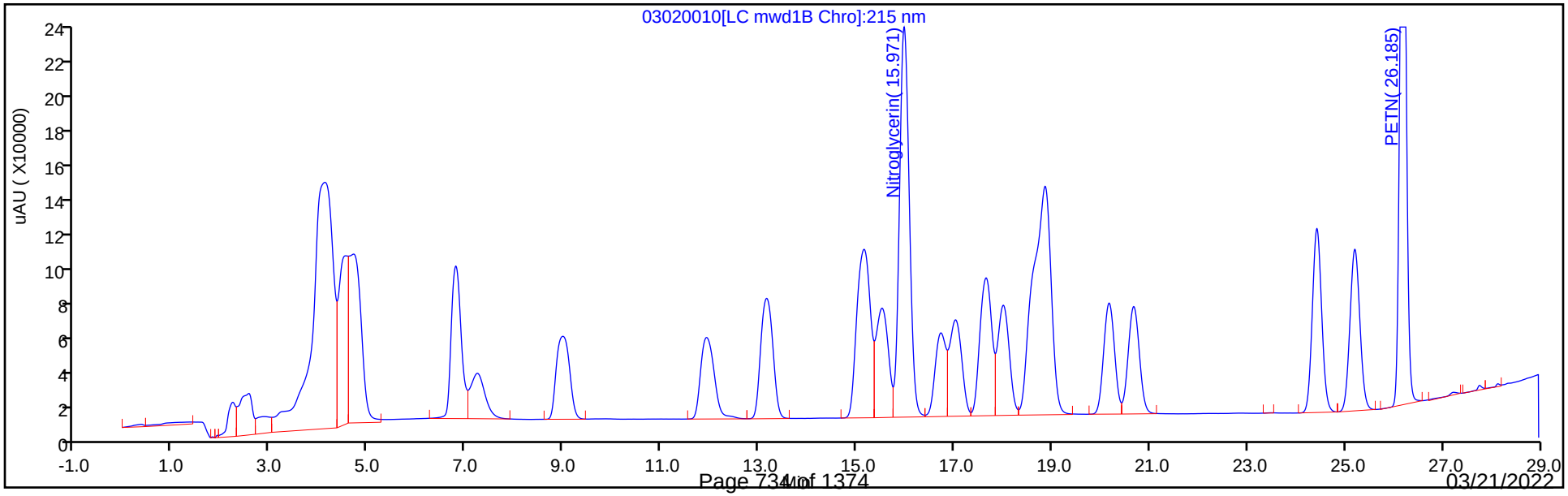
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Mar-2022 21:22:03 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 9 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

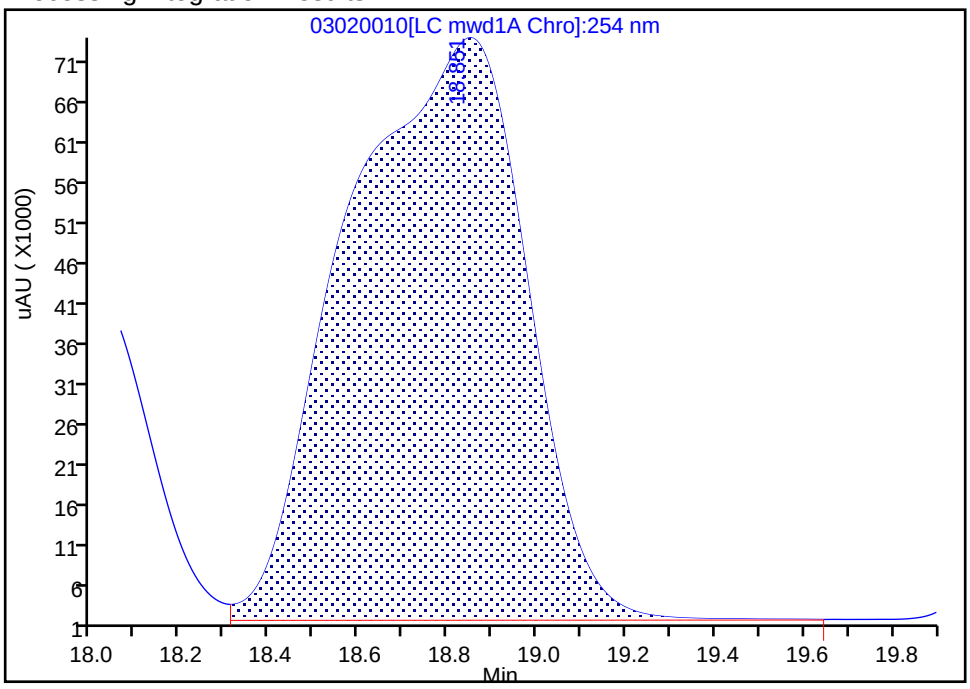
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D
Injection Date: 02-Mar-2022 21:22:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector LC mwd1A, 254 nm

## 20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

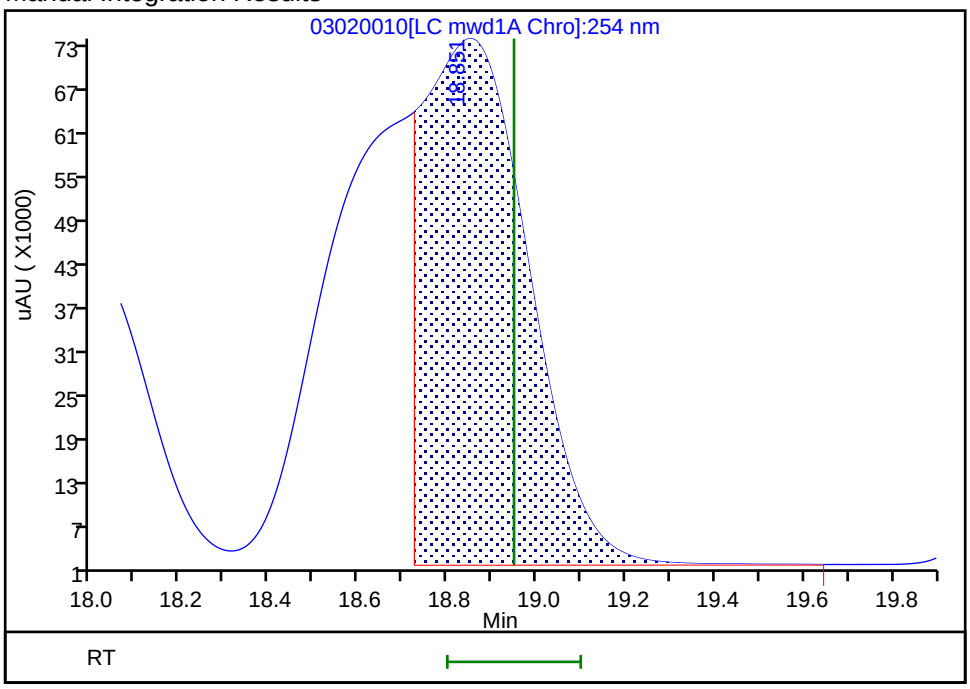
Processing Integration Results

RT: 18.85
Area: 2015640
Amount: 4.231891
Amount Units: ug/ml




Manual Integration Results

RT: 18.85
Area: 1172398
Amount: 2.821899
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:08:36
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020011.D
Lims ID: IC INT/ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 02-Mar-2022 21:57:13 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 8
Misc. Info.: 280-0108949-011
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:13 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:27

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.093 | 4.142 | -0.049 | 386260 | 1.00 | 0.9503 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.713 | 4.669 | 0.044 | 247885 | 1.00 | 1.09 | M |
| 5 HMX | 1 | 6.860 | 6.889 | -0.029 | 158593 | 1.00 | 0.9546 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.346 | 7.602 | -0.256 | 150719 | 1.00 | 1.13 | |
| 8 RDX | 1 | 9.066 | 9.115 | -0.049 | 193402 | 1.00 | 1.00 | |
| 9 Nitrobenzene | 1 | 12.020 | 12.062 | -0.042 | 367582 | 1.00 | 1.00 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.240 | 13.282 | -0.042 | 251717 | 1.00 | 1.01 | |
| 11 3,5-Dinitroaniline | 1 | 15.226 | 15.269 | -0.043 | 419224 | 1.00 | 1.02 | |
| 12 1,3-Dinitrobenzene | 1 | 15.600 | 15.635 | -0.035 | 569212 | 1.00 | 1.00 | |
| 13 Nitroglycerin | 2 | 16.033 | 16.055 | -0.022 | 1272015 | 10.0 | 10.4 | |
| 14 o-Nitrotoluene | 1 | 16.793 | 16.822 | -0.029 | 232476 | 1.00 | 0.99 | |
| 16 p-Nitrotoluene | 1 | 17.100 | 17.129 | -0.029 | 211344 | 1.00 | 1.00 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.720 | 17.755 | -0.035 | 269691 | 1.00 | 1.01 | |
| 18 m-Nitrotoluene | 1 | 18.073 | 18.102 | -0.029 | 267812 | 1.00 | 1.01 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.706 | 18.742 | -0.036 | 374916 | 1.00 | 1.04 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.920 | 18.949 | -0.029 | 425388 | 1.00 | 1.02 | |
| 21 2,6-Dinitrotoluene | 1 | 20.233 | 20.255 | -0.022 | 268478 | 1.00 | 1.01 | |
| 22 2,4-Dinitrotoluene | 1 | 20.733 | 20.762 | -0.029 | 549112 | 1.00 | 1.00 | |
| 23 Tetryl | 1 | 24.466 | 24.489 | -0.023 | 316900 | 1.00 | 0.9261 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.246 | 25.262 | -0.016 | 385560 | 1.00 | 1.04 | |
| 25 PETN | 2 | 26.206 | 26.215 | -0.009 | 1369840 | 10.0 | 10.6 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | |
|---|---|---|
| 8330IntermStk_00070 | Amount Added: 100.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: 50.00 | Units: uL |

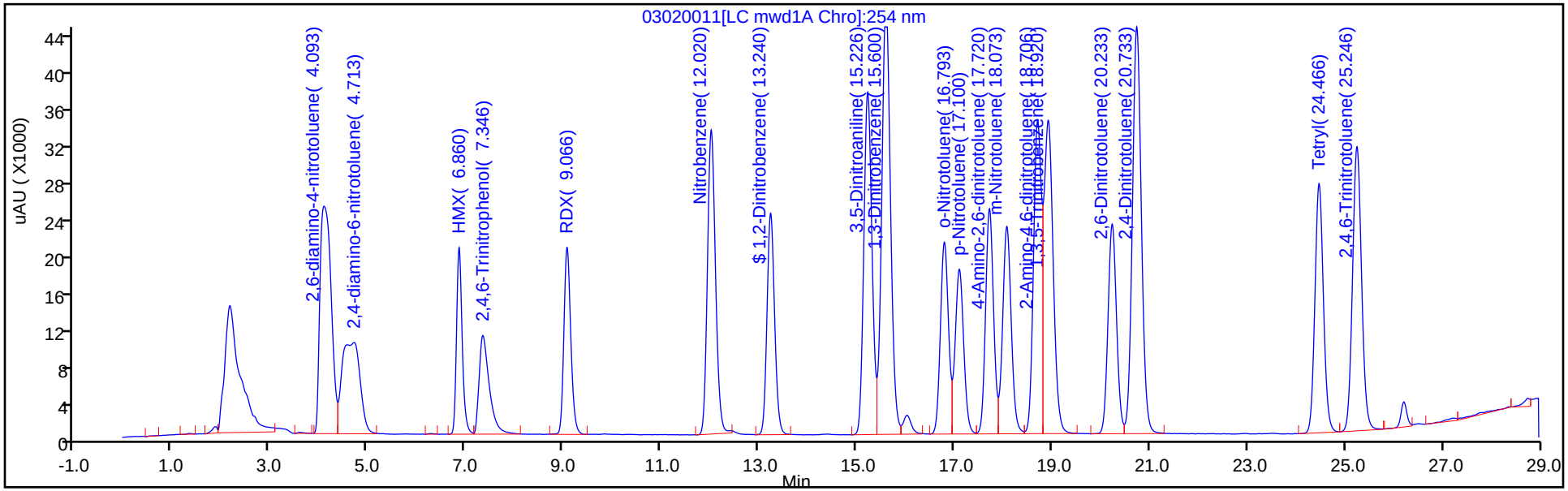
Report Date: 03-Mar-2022 12:49:13 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

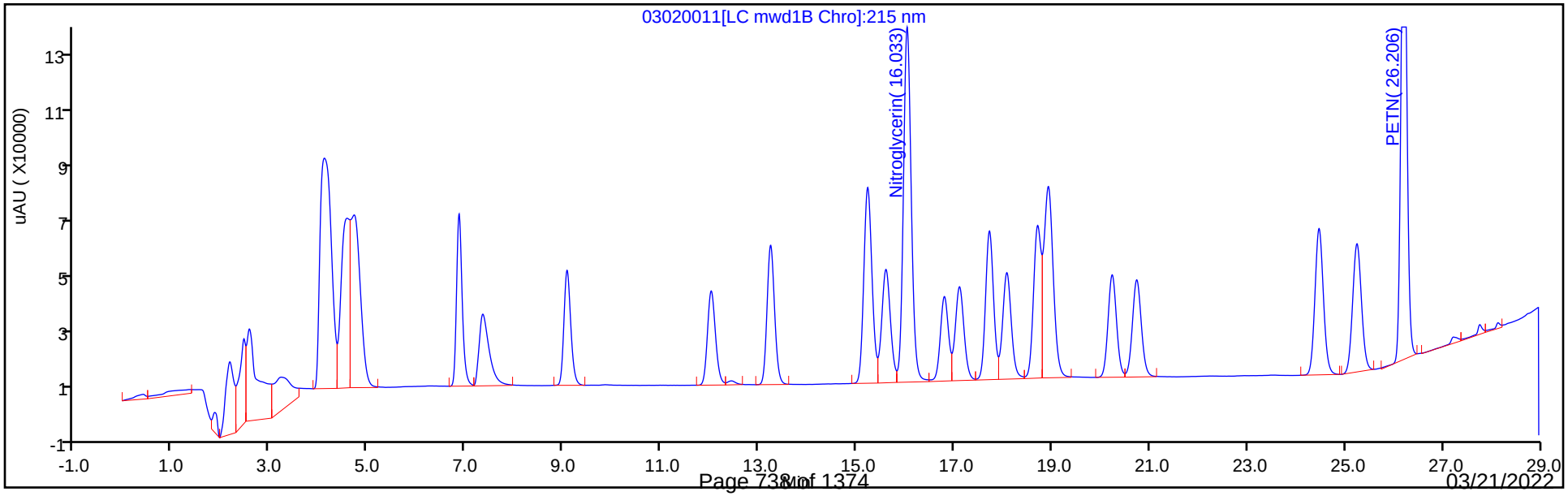
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020011.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Mar-2022 21:57:13 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 8 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D
Lims ID: IC INT/ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-Mar-2022 22:32:16 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 7
Misc. Info.: 280-0108949-012
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:45

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 4.110 | 4.142 | -0.032 | 273235 | 0.7000 | 0.6722 | M |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.710 | 4.669 | 0.041 | 172644 | 0.7000 | 0.7557 | M |
| | 5 HMX | 1 | 6.863 | 6.889 | -0.026 | 109512 | 0.7000 | 0.6592 | |
| | 7 2,4,6-Trinitrophenol | 1 | 7.430 | 7.602 | -0.172 | 102939 | 0.7000 | 0.7746 | |
| | 8 RDX | 1 | 9.083 | 9.115 | -0.032 | 134031 | 0.7000 | 0.6897 | |
| | 9 Nitrobenzene | 1 | 12.036 | 12.062 | -0.026 | 259585 | 0.7028 | 0.7048 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.256 | 13.282 | -0.026 | 175358 | 0.7000 | 0.7021 | |
| | 11 3,5-Dinitroaniline | 1 | 15.243 | 15.269 | -0.026 | 294648 | 0.7000 | 0.7162 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.616 | 15.635 | -0.019 | 394707 | 0.7014 | 0.6904 | |
| | 13 Nitroglycerin | 2 | 16.050 | 16.055 | -0.005 | 888552 | 7.00 | 7.25 | |
| | 14 o-Nitrotoluene | 1 | 16.810 | 16.822 | -0.012 | 161534 | 0.7000 | 0.6883 | |
| | 16 p-Nitrotoluene | 1 | 17.123 | 17.129 | -0.006 | 146563 | 0.7014 | 0.6952 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.736 | 17.755 | -0.019 | 186078 | 0.7007 | 0.6965 | |
| | 18 m-Nitrotoluene | 1 | 18.090 | 18.102 | -0.012 | 185839 | 0.7007 | 0.6993 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.730 | 18.742 | -0.012 | 257718 | 0.7028 | 0.7148 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.936 | 18.949 | -0.013 | 295298 | 0.7014 | 0.7108 | |
| | 21 2,6-Dinitrotoluene | 1 | 20.243 | 20.255 | -0.012 | 186150 | 0.7028 | 0.7007 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.750 | 20.762 | -0.012 | 382059 | 0.7028 | 0.6937 | |
| | 23 Tetryl | 1 | 24.483 | 24.489 | -0.006 | 219675 | 0.7014 | 0.6420 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 25.257 | 25.262 | -0.005 | 265676 | 0.7028 | 0.7196 | |
| | 25 PETN | 2 | 26.217 | 26.215 | 0.002 | 951206 | 7.00 | 7.35 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 70.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 35.00 | Units: uL |

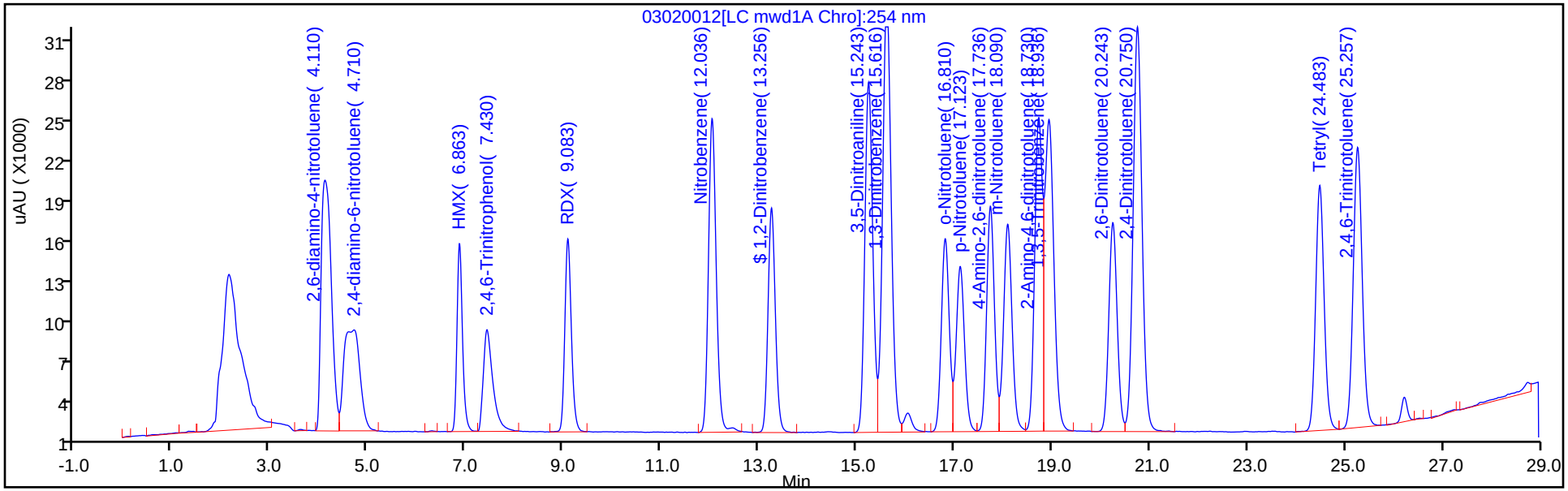
Report Date: 03-Mar-2022 12:49:14 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

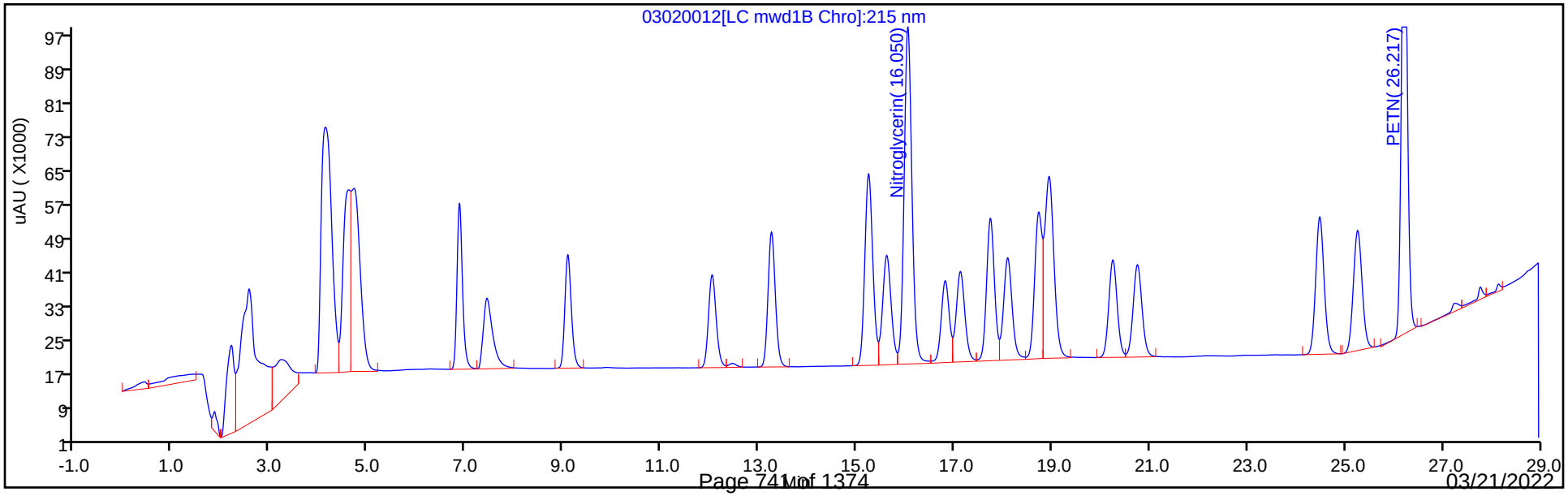
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Mar-2022 22:32:16 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 7 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020013.D
Lims ID: IC INT/ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-Mar-2022 23:07:23 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 6
Misc. Info.: 280-0108949-013
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.127 | 4.142 | -0.015 | 147662 | 0.4000 | 0.3633 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.700 | 4.669 | 0.031 | 93419 | 0.4000 | 0.4055 | |
| 5 HMX | 1 | 6.880 | 6.889 | -0.009 | 62819 | 0.4000 | 0.3781 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.527 | 7.602 | -0.075 | 58358 | 0.4000 | 0.4392 | |
| 8 RDX | 1 | 9.100 | 9.115 | -0.015 | 76711 | 0.4000 | 0.3947 | |
| 9 Nitrobenzene | 1 | 12.060 | 12.062 | -0.002 | 148639 | 0.4016 | 0.4036 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.274 | 13.282 | -0.008 | 99804 | 0.4000 | 0.3996 | |
| 11 3,5-Dinitroaniline | 1 | 15.260 | 15.269 | -0.009 | 157805 | 0.4000 | 0.3835 | |
| 12 1,3-Dinitrobenzene | 1 | 15.627 | 15.635 | -0.008 | 225815 | 0.4008 | 0.3950 | |
| 13 Nitroglycerin | 2 | 16.054 | 16.055 | -0.001 | 519683 | 4.00 | 4.24 | |
| 14 o-Nitrotoluene | 1 | 16.820 | 16.822 | -0.002 | 93064 | 0.4000 | 0.3966 | |
| 16 p-Nitrotoluene | 1 | 17.127 | 17.129 | -0.002 | 83857 | 0.4008 | 0.3978 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.747 | 17.755 | -0.008 | 107043 | 0.4004 | 0.4008 | |
| 18 m-Nitrotoluene | 1 | 18.100 | 18.102 | -0.002 | 106661 | 0.4004 | 0.4017 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.740 | 18.742 | -0.002 | 146764 | 0.4016 | 0.4071 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.947 | 18.949 | -0.002 | 170012 | 0.4008 | 0.4092 | |
| 21 2,6-Dinitrotoluene | 1 | 20.254 | 20.255 | -0.001 | 106362 | 0.4016 | 0.4004 | |
| 22 2,4-Dinitrotoluene | 1 | 20.760 | 20.762 | -0.002 | 220828 | 0.4016 | 0.3959 | |
| 23 Tetryl | 1 | 24.494 | 24.489 | 0.005 | 126546 | 0.4008 | 0.3698 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.267 | 25.262 | 0.005 | 151235 | 0.4016 | 0.4097 | |
| 25 PETN | 2 | 26.220 | 26.215 | 0.005 | 544987 | 4.00 | 4.21 | |

## Reagents:

8330IntermStk_00070 Amount Added: 40.00 Units: uL
8330_ADDs_00031 Amount Added: 20.00 Units: uL

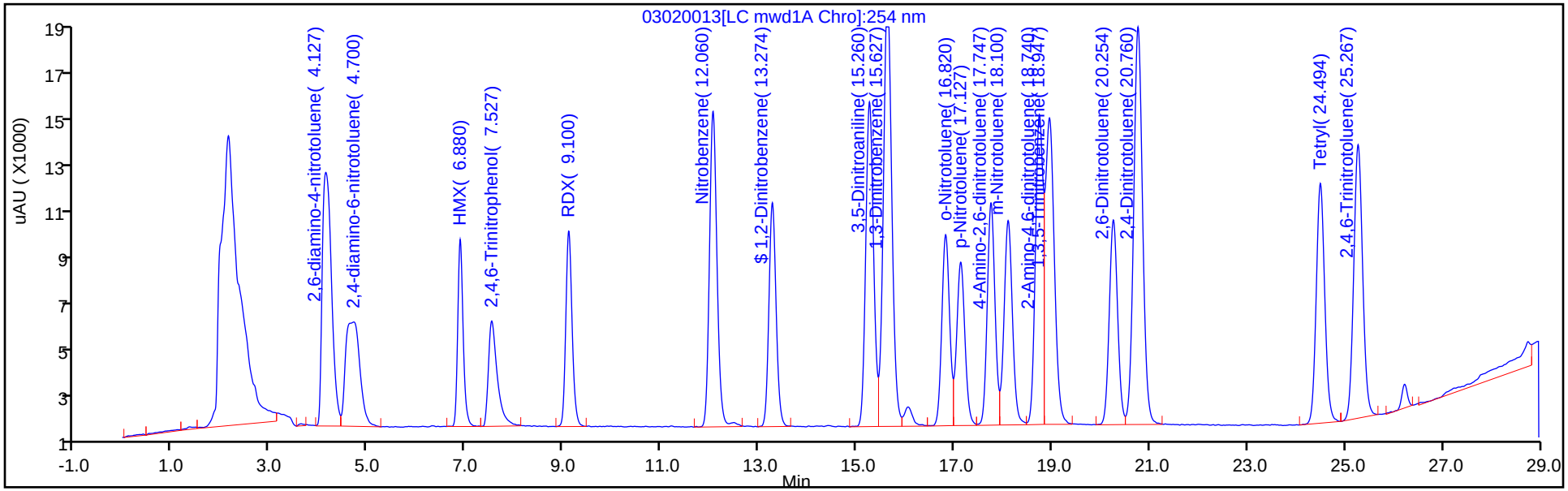
Report Date: 03-Mar-2022 12:49:14 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

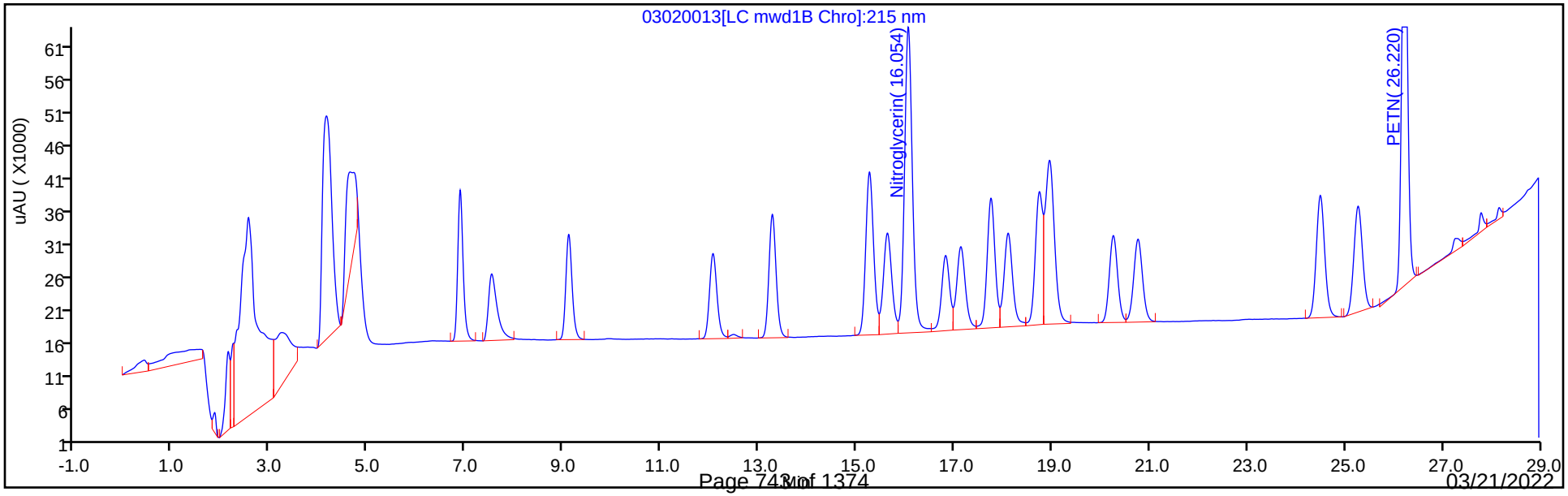
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020013.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Mar-2022 23:07:23 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 6 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020014.D
Lims ID: IC INT/ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-Mar-2022 23:42:39 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 5
Misc. Info.: 280-0108949-014
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:15 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:06:29

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 4.142 | 4.142 | 0.000 | 96596 | 0.2500 | 0.2377 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.669 | 4.669 | 0.000 | 59944 | 0.2500 | 0.2576 | |
| | 5 HMX | 1 | 6.889 | 6.889 | 0.000 | 38318 | 0.2500 | 0.2306 | |
| | 7 2,4,6-Trinitrophenol | 1 | 7.602 | 7.602 | 0.000 | 34288 | 0.2500 | 0.2580 | |
| | 8 RDX | 1 | 9.115 | 9.115 | 0.000 | 46417 | 0.2500 | 0.2389 | |
| | 9 Nitrobenzene | 1 | 12.062 | 12.062 | 0.000 | 90246 | 0.2510 | 0.2450 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.282 | 13.282 | 0.000 | 61198 | 0.2500 | 0.2450 | |
| | 11 3,5-Dinitroaniline | 1 | 15.269 | 15.269 | 0.000 | 102787 | 0.2500 | 0.2497 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.635 | 15.635 | 0.000 | 136486 | 0.2505 | 0.2388 | |
| | 13 Nitroglycerin | 2 | 16.055 | 16.055 | 0.000 | 309657 | 2.50 | 2.53 | |
| | 14 o-Nitrotoluene | 1 | 16.822 | 16.822 | 0.000 | 56221 | 0.2500 | 0.2396 | |
| | 16 p-Nitrotoluene | 1 | 17.129 | 17.129 | 0.000 | 50555 | 0.2505 | 0.2398 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.755 | 17.755 | 0.000 | 64569 | 0.2503 | 0.2418 | |
| | 18 m-Nitrotoluene | 1 | 18.102 | 18.102 | 0.000 | 64150 | 0.2503 | 0.2419 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.742 | 18.742 | 0.000 | 88010 | 0.2510 | 0.2441 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.949 | 18.949 | 0.000 | 102576 | 0.2505 | 0.2469 | |
| | 21 2,6-Dinitrotoluene | 1 | 20.255 | 20.255 | 0.000 | 64489 | 0.2510 | 0.2427 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.762 | 20.762 | 0.000 | 139375 | 0.2510 | 0.2455 | |
| | 23 Tetryl | 1 | 24.489 | 24.489 | 0.000 | 77249 | 0.2505 | 0.2258 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 25.262 | 25.262 | 0.000 | 91338 | 0.2510 | 0.2474 | |
| | 25 PETN | 2 | 26.215 | 26.215 | 0.000 | 329509 | 2.50 | 2.55 | |

## QC Flag Legend
Processing Flags

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 12.50 | Units: uL |

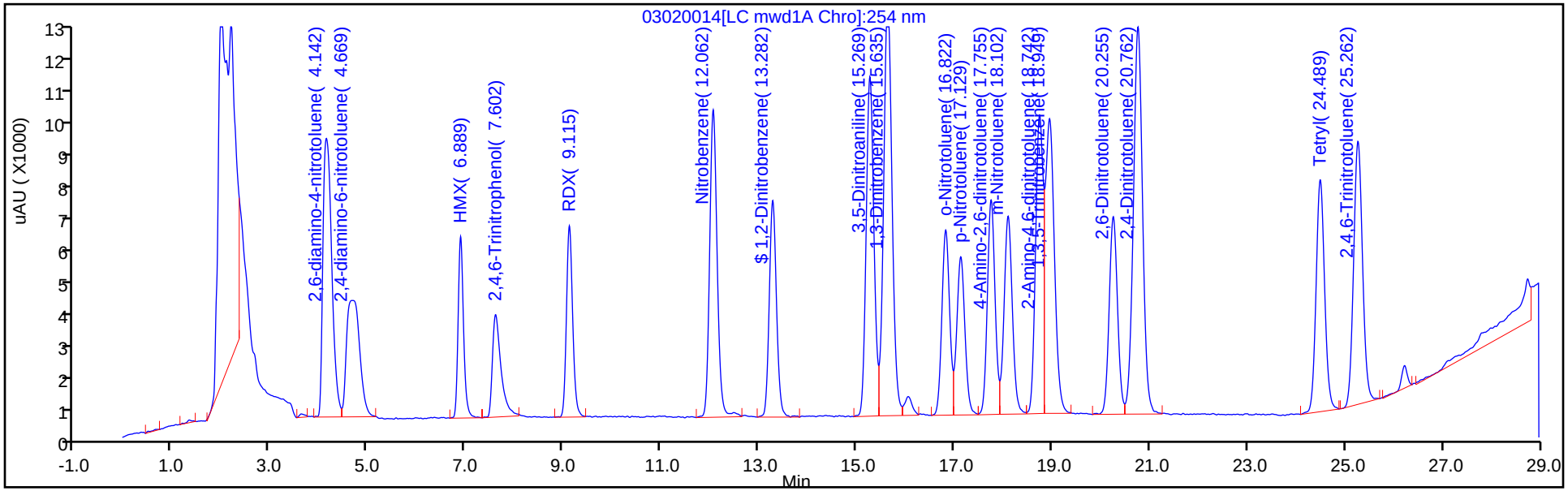
Report Date: 03-Mar-2022 12:49:15 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

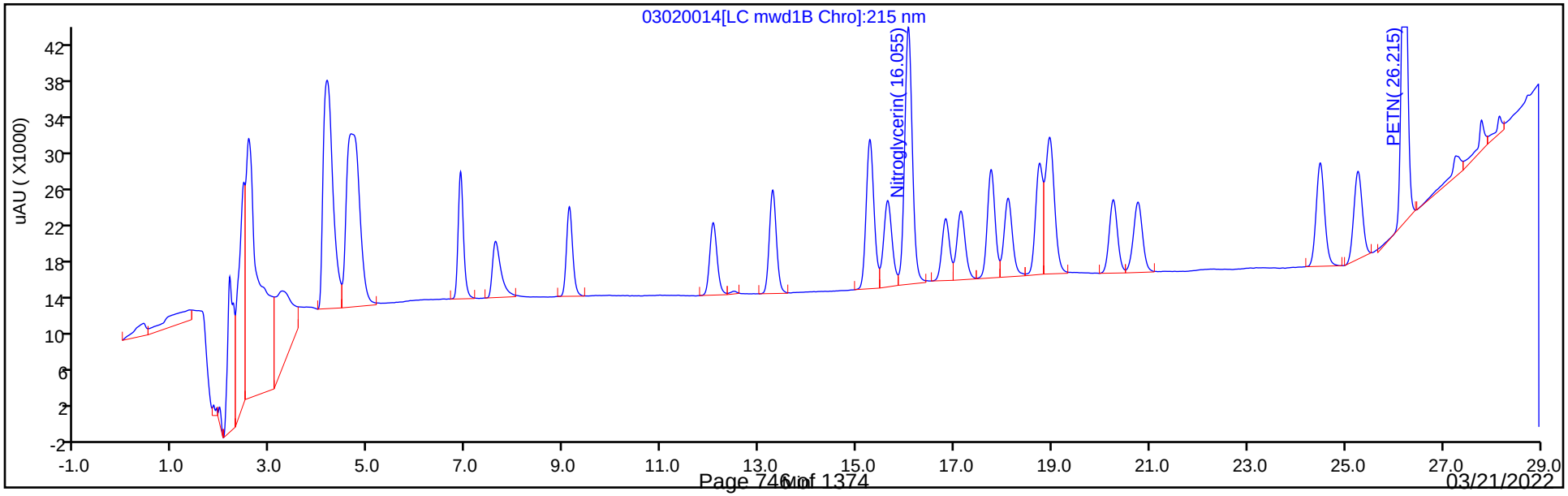
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020014.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Mar-2022 23:42:39 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 5 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D
Lims ID: IC INT/ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 00:17:55 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 4
Misc. Info.: 280-0108949-015
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:12:37

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 4.149 | 4.142 | 0.007 | 41030 | 0.1000 | 0.1009 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.669 | 4.669 | 0.000 | 24932 | 0.1000 | 0.1028 | |
| | 5 HMX | 1 | 6.896 | 6.889 | 0.007 | 16109 | 0.1000 | 0.0970 | |
| | 7 2,4,6-Trinitrophenol | 1 | 7.696 | 7.602 | 0.094 | 14009 | 0.1000 | 0.1054 | |
| | 8 RDX | 1 | 9.129 | 9.115 | 0.014 | 19750 | 0.1000 | 0.1016 | |
| | 9 Nitrobenzene | 1 | 12.069 | 12.062 | 0.007 | 37271 | 0.1004 | 0.1012 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.282 | 13.282 | 0.000 | 25499 | 0.1000 | 0.1021 | |
| | 11 3,5-Dinitroaniline | 1 | 15.276 | 15.269 | 0.007 | 42107 | 0.1000 | 0.1022 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.642 | 15.635 | 0.007 | 59537 | 0.1002 | 0.1041 | |
| | 13 Nitroglycerin | 2 | 16.062 | 16.055 | 0.007 | 133241 | 1.00 | 1.09 | |
| | 14 o-Nitrotoluene | 1 | 16.829 | 16.822 | 0.007 | 23857 | 0.1000 | 0.1017 | |
| | 16 p-Nitrotoluene | 1 | 17.136 | 17.129 | 0.007 | 21625 | 0.1002 | 0.1026 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.756 | 17.755 | 0.001 | 27216 | 0.1001 | 0.1021 | |
| | 18 m-Nitrotoluene | 1 | 18.109 | 18.102 | 0.007 | 26978 | 0.1001 | 0.1021 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.749 | 18.742 | 0.007 | 37178 | 0.1004 | 0.1031 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.956 | 18.949 | 0.007 | 42514 | 0.1002 | 0.1023 | |
| | 21 2,6-Dinitrotoluene | 1 | 20.256 | 20.255 | 0.001 | 26687 | 0.1004 | 0.1005 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.756 | 20.762 | -0.006 | 64187 | 0.1004 | 0.1067 | |
| | 23 Tetryl | 1 | 24.483 | 24.489 | -0.006 | 33188 | 0.1002 | 0.0970 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 25.256 | 25.262 | -0.006 | 37205 | 0.1004 | 0.1008 | |
| | 25 PETN | 2 | 26.209 | 26.215 | -0.006 | 134076 | 1.00 | 1.04 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 10.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 5.00 | Units: uL |

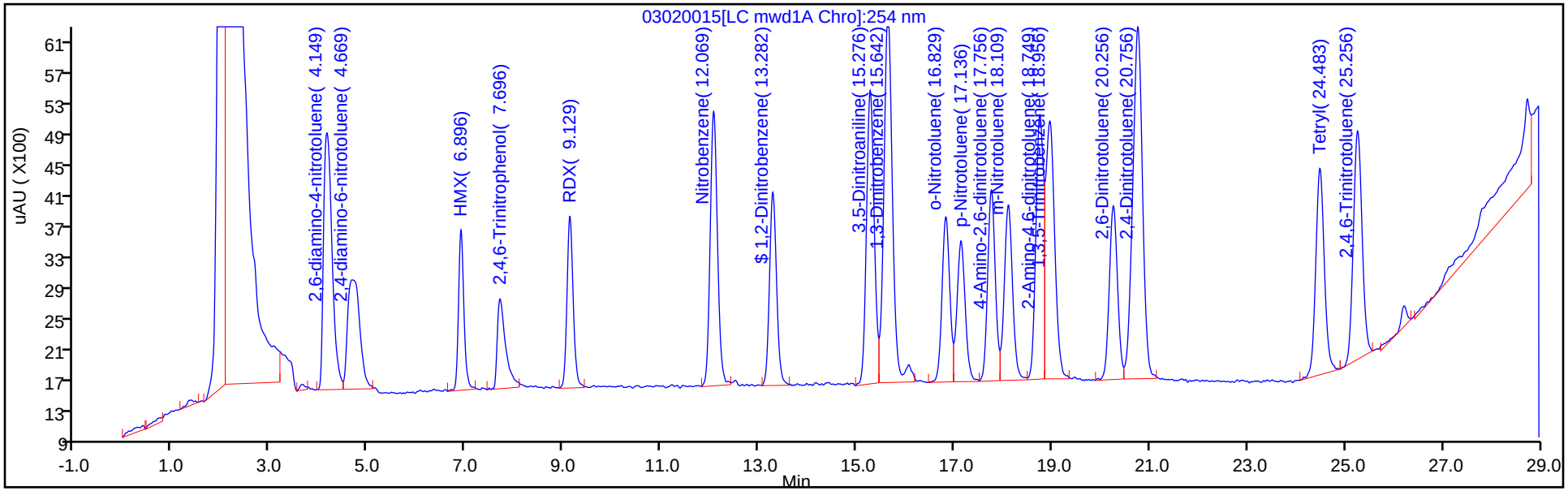
Report Date: 03-Mar-2022 12:49:16 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

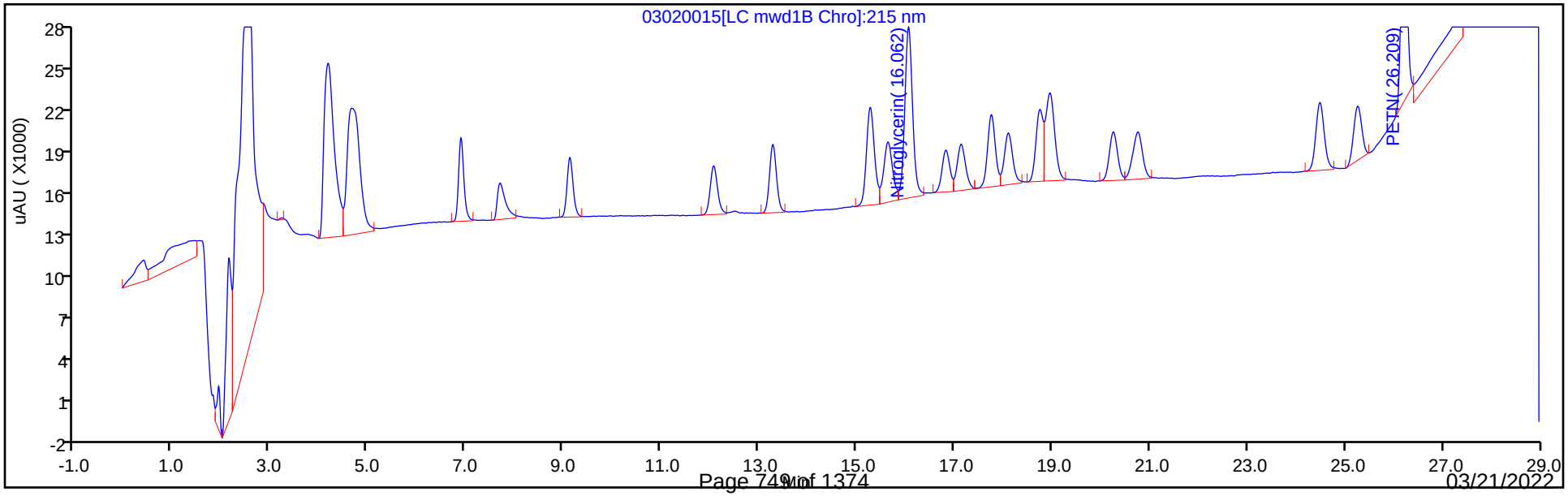
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 00:17:55 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 4 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

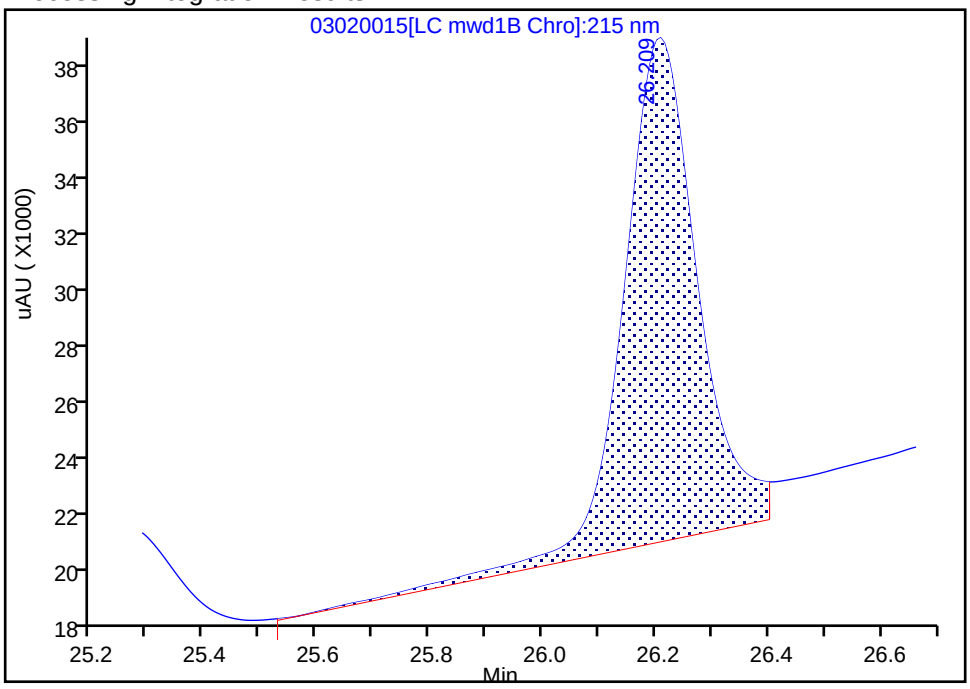
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D
Injection Date: 03-Mar-2022 00:17:55 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

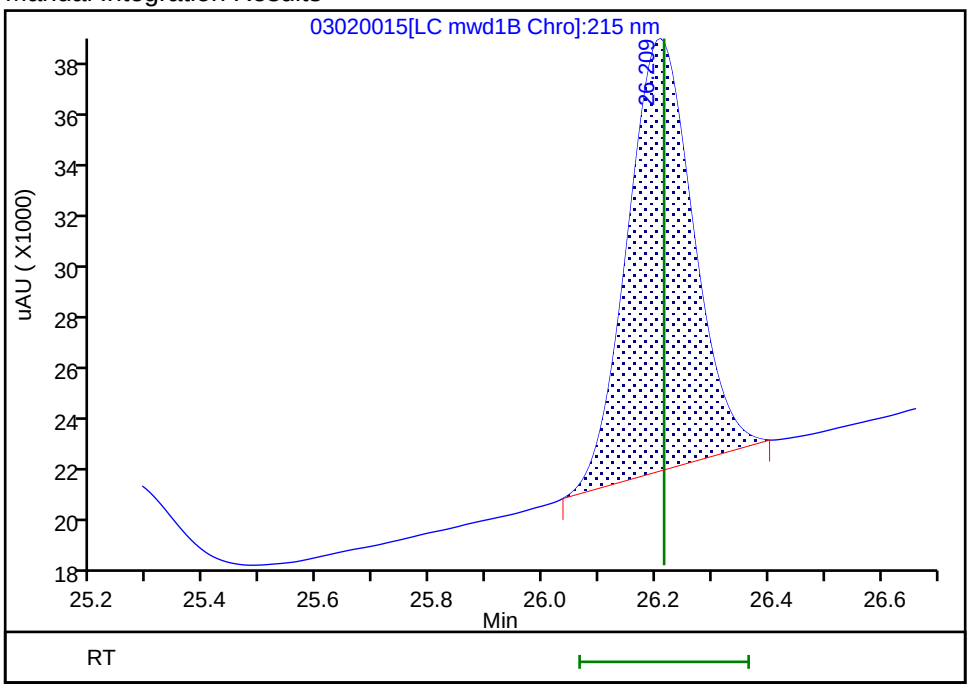
Processing Integration Results

RT: 26.21
Area: 159234
Amount: 1.166681
Amount Units: ug/ml




Manual Integration Results

RT: 26.21
Area: 134076
Amount: 1.036703
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:35
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Lims ID: IC INT/ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Mar-2022 00:53:03 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 3
Misc. Info.: 280-0108949-016
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:56

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.154 | 4.142 | 0.012 | 21526 | 0.0500 | 0.0530 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.674 | 4.669 | 0.005 | 12869 | 0.0500 | 0.0495 | |
| 5 HMX | 1 | 6.894 | 6.889 | 0.005 | 8053 | 0.0500 | 0.0485 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.767 | 7.602 | 0.165 | 6356 | 0.0500 | 0.0478 | |
| 8 RDX | 1 | 9.120 | 9.115 | 0.005 | 10028 | 0.0500 | 0.0516 | |
| 9 Nitrobenzene | 1 | 12.073 | 12.062 | 0.011 | 19149 | 0.0502 | 0.0520 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.287 | 13.282 | 0.005 | 12864 | 0.0500 | 0.0515 | |
| 11 3,5-Dinitroaniline | 1 | 15.287 | 15.269 | 0.018 | 20966 | 0.0500 | 0.0508 | |
| 12 1,3-Dinitrobenzene | 1 | 15.647 | 15.635 | 0.012 | 30181 | 0.0501 | 0.0528 | |
| 13 Nitroglycerin | 2 | 16.073 | 16.055 | 0.018 | 59894 | 0.5000 | 0.4889 | M |
| 14 o-Nitrotoluene | 1 | 16.833 | 16.822 | 0.011 | 12057 | 0.0500 | 0.0514 | |
| 16 p-Nitrotoluene | 1 | 17.147 | 17.129 | 0.018 | 10595 | 0.0501 | 0.0503 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.773 | 17.755 | 0.018 | 13425 | 0.0501 | 0.0505 | |
| 18 m-Nitrotoluene | 1 | 18.120 | 18.102 | 0.018 | 13387 | 0.0501 | 0.0510 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.773 | 18.742 | 0.031 | 18562 | 0.0502 | 0.0515 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.973 | 18.949 | 0.024 | 21339 | 0.0501 | 0.0514 | |
| 21 2,6-Dinitrotoluene | 1 | 20.267 | 20.255 | 0.012 | 13757 | 0.0502 | 0.0518 | |
| 22 2,4-Dinitrotoluene | 1 | 20.767 | 20.762 | 0.005 | 33918 | 0.0502 | 0.0508 | |
| 23 Tetryl | 1 | 24.500 | 24.489 | 0.011 | 18110 | 0.0501 | 0.0529 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.274 | 25.262 | 0.012 | 18556 | 0.0502 | 0.0503 | |
| 25 PETN | 2 | 26.220 | 26.215 | 0.005 | 67082 | 0.5000 | 0.5187 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 5.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 2.50 | Units: uL |

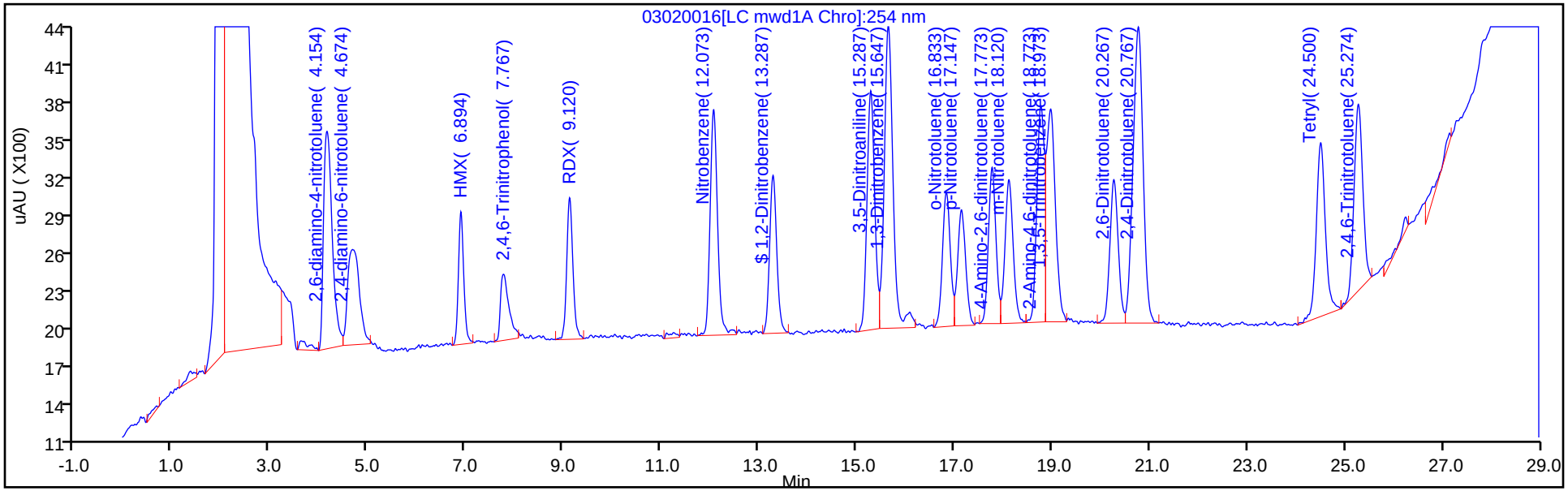
Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

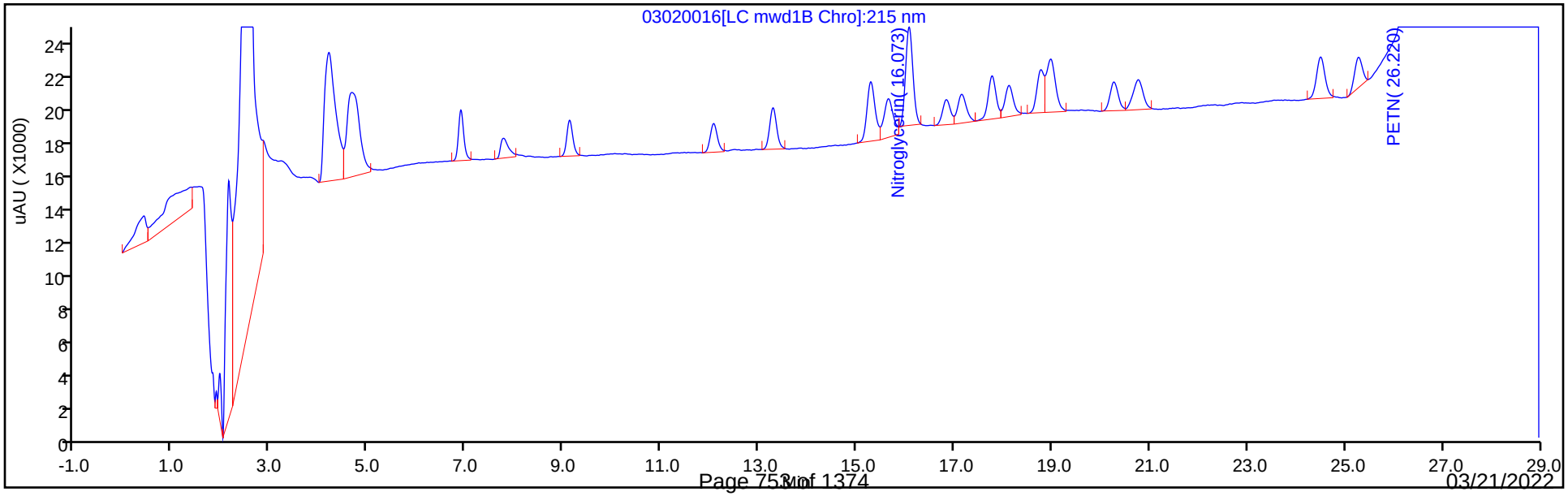
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 00:53:03 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 3 | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

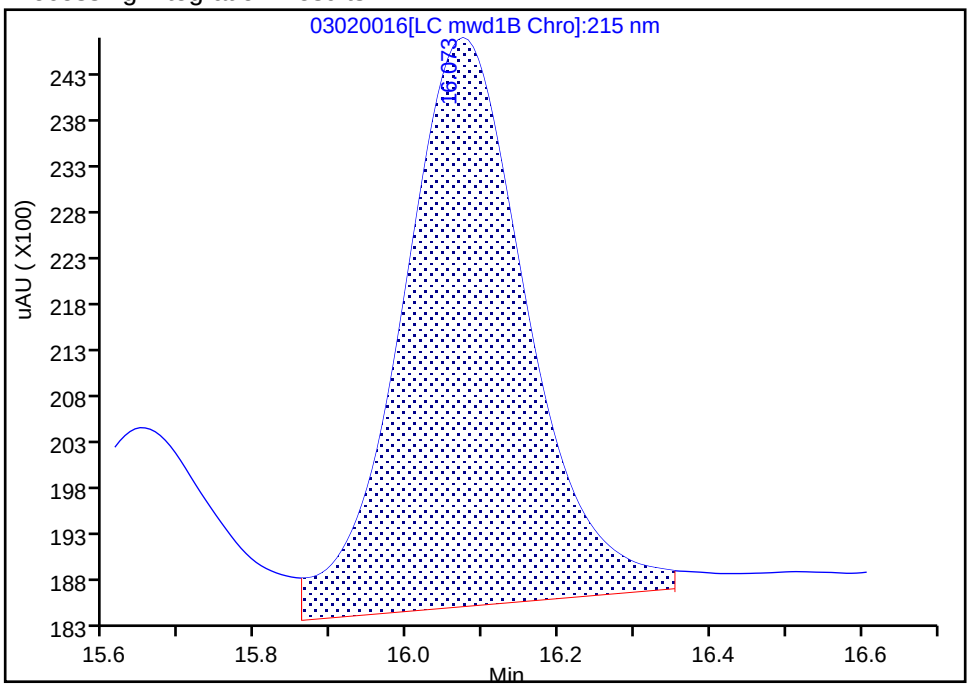
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

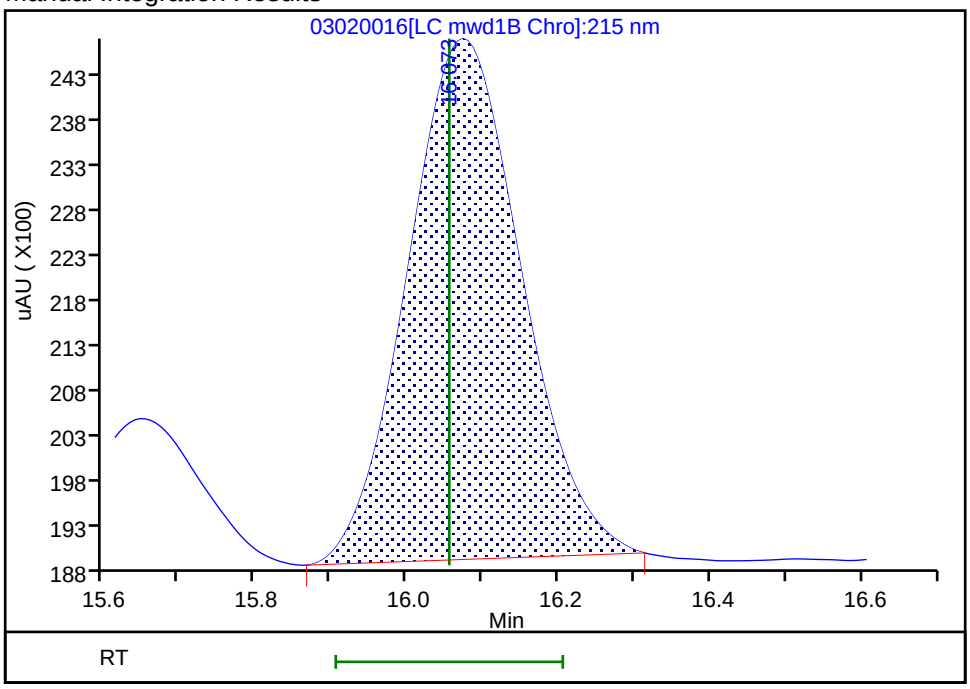
Processing Integration Results

RT: 16.07
Area: 70358
Amount: 0.563571
Amount Units: ug/ml




Manual Integration Results

RT: 16.07
Area: 59894
Amount: 0.488860
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:24
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

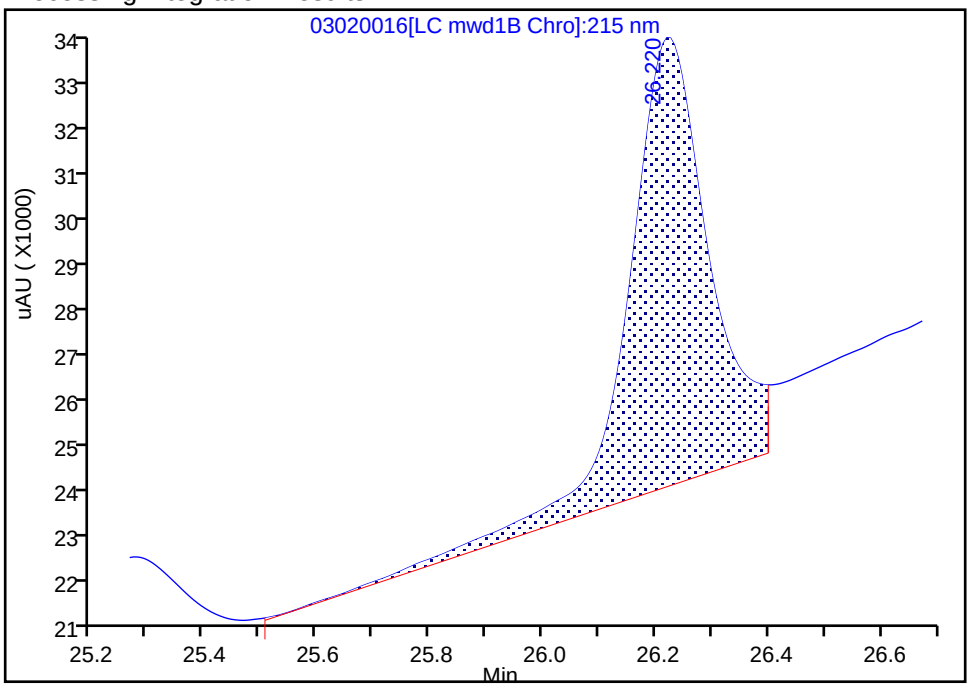
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

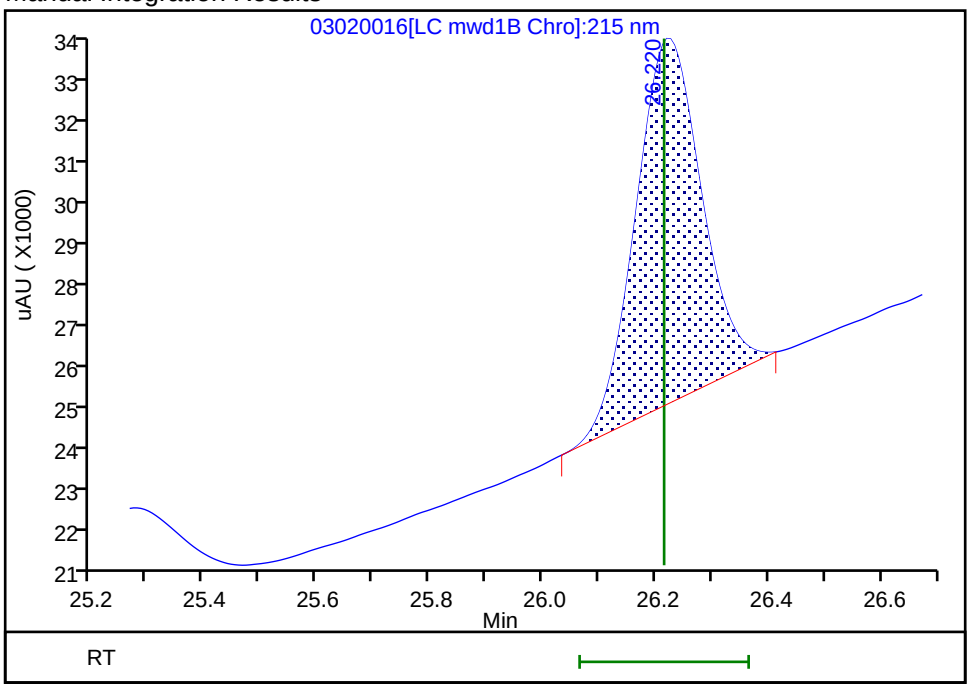
Processing Integration Results

RT: 26.22
Area: 91339
Amount: 0.654475
Amount Units: ug/ml




Manual Integration Results

RT: 26.22
Area: 67082
Amount: 0.518692
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:20
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Lims ID: IC INT/ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2022 01:28:22 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 2
Misc. Info.: 280-0108949-017
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:17 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:10:52

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 4.169 | 4.142 | 0.027 | 9145 | 0.0200 | 0.0225 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.716 | 4.669 | 0.047 | 5618 | 0.0200 | 0.0175 | |
| | 5 HMX | 1 | 6.896 | 6.889 | 0.007 | 3127 | 0.0200 | 0.0188 | |
| | 7 2,4,6-Trinitrophenol | 1 | 7.863 | 7.602 | 0.261 | 2301 | 0.0200 | 0.0173 | |
| | 8 RDX | 1 | 9.129 | 9.115 | 0.014 | 3719 | 0.0200 | 0.0191 | |
| | 9 Nitrobenzene | 1 | 12.069 | 12.062 | 0.007 | 6686 | 0.0201 | 0.0182 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.282 | 13.282 | 0.000 | 4809 | 0.0200 | 0.0193 | |
| | 11 3,5-Dinitroaniline | 1 | 15.282 | 15.269 | 0.013 | 7621 | 0.0200 | 0.0183 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.642 | 15.635 | 0.007 | 10643 | 0.0200 | 0.0186 | |
| | 13 Nitroglycerin | 2 | 16.062 | 16.055 | 0.007 | 21750 | 0.2000 | 0.1775 | M |
| | 14 o-Nitrotoluene | 1 | 16.829 | 16.822 | 0.007 | 4607 | 0.0200 | 0.0196 | |
| | 16 p-Nitrotoluene | 1 | 17.129 | 17.129 | 0.000 | 4078 | 0.0200 | 0.0193 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.756 | 17.755 | 0.001 | 5271 | 0.0200 | 0.0200 | |
| | 18 m-Nitrotoluene | 1 | 18.116 | 18.102 | 0.014 | 4805 | 0.0200 | 0.0188 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.762 | 18.742 | 0.020 | 6899 | 0.0201 | 0.0191 | M |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.956 | 18.949 | 0.007 | 6970 | 0.0200 | 0.0168 | M |
| | 21 2,6-Dinitrotoluene | 1 | 20.262 | 20.255 | 0.007 | 5233 | 0.0201 | 0.0197 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.716 | 20.762 | -0.046 | 16863 | 0.0201 | 0.0193 | |
| | 23 Tetryl | 1 | 24.496 | 24.489 | 0.007 | 6933 | 0.0200 | 0.0203 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 25.269 | 25.262 | 0.007 | 6507 | 0.0201 | 0.0176 | |
| | 25 PETN | 2 | 26.223 | 26.215 | 0.008 | 21923 | 0.2000 | 0.1695 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 2.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 1.00 | Units: uL |

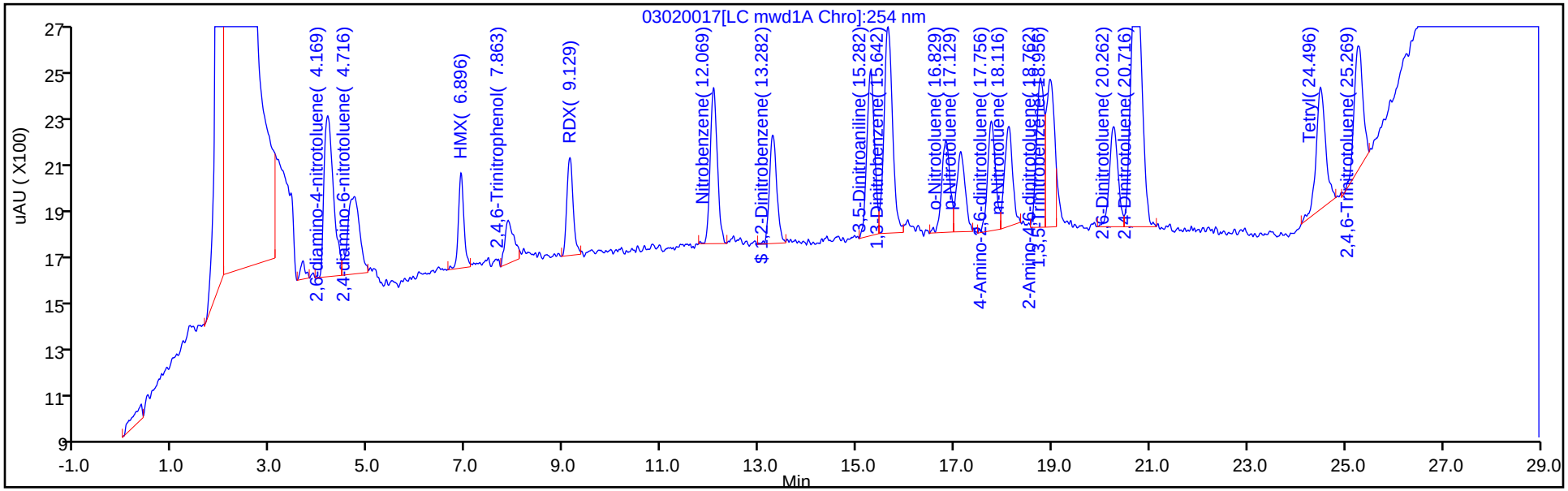
Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

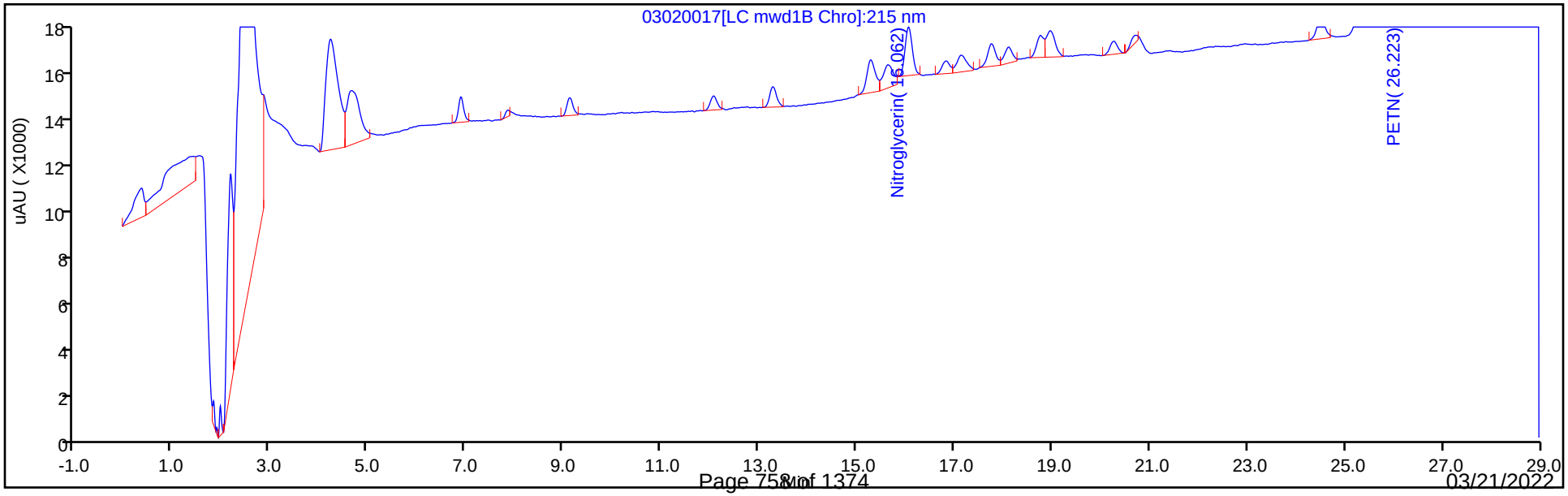
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 01:28:22 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 2 | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

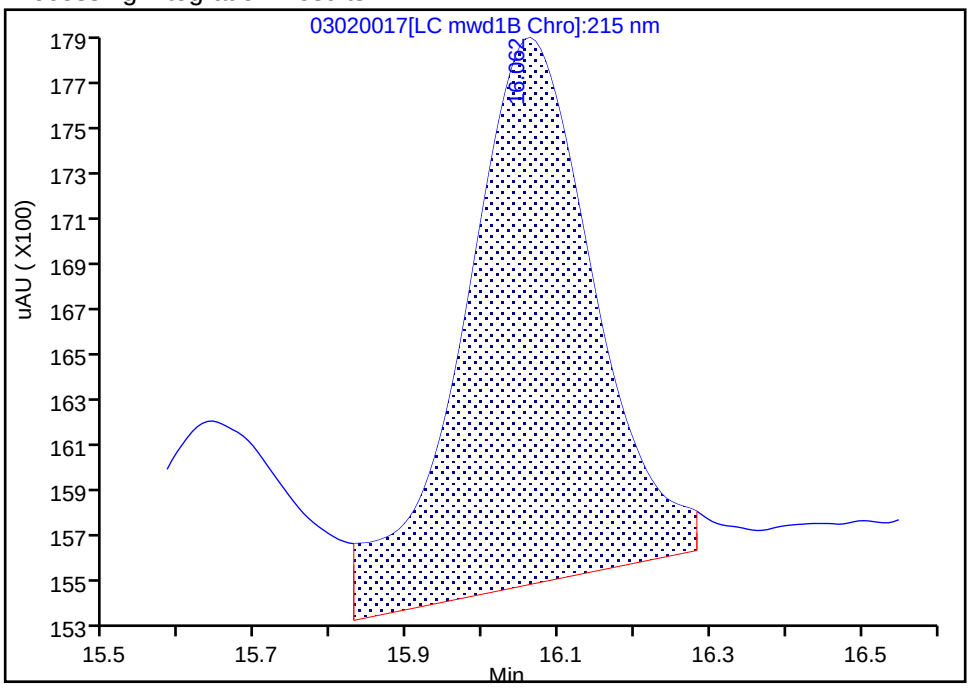
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

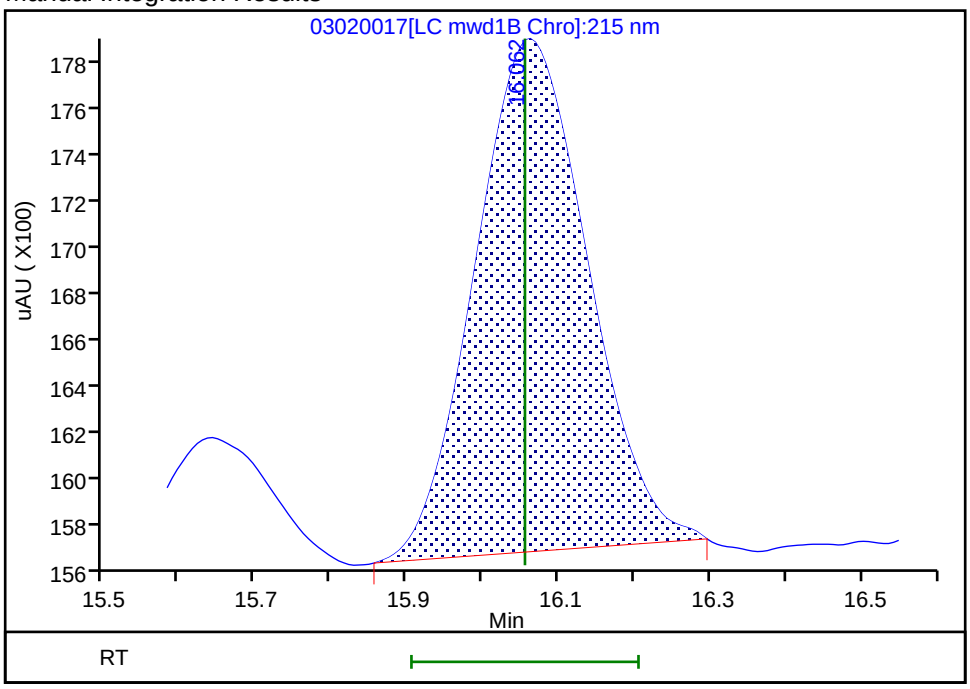
Processing Integration Results

RT: 16.06
Area: 28042
Amount: 0.218500
Amount Units: ug/ml




Manual Integration Results

RT: 16.06
Area: 21750
Amount: 0.177525
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

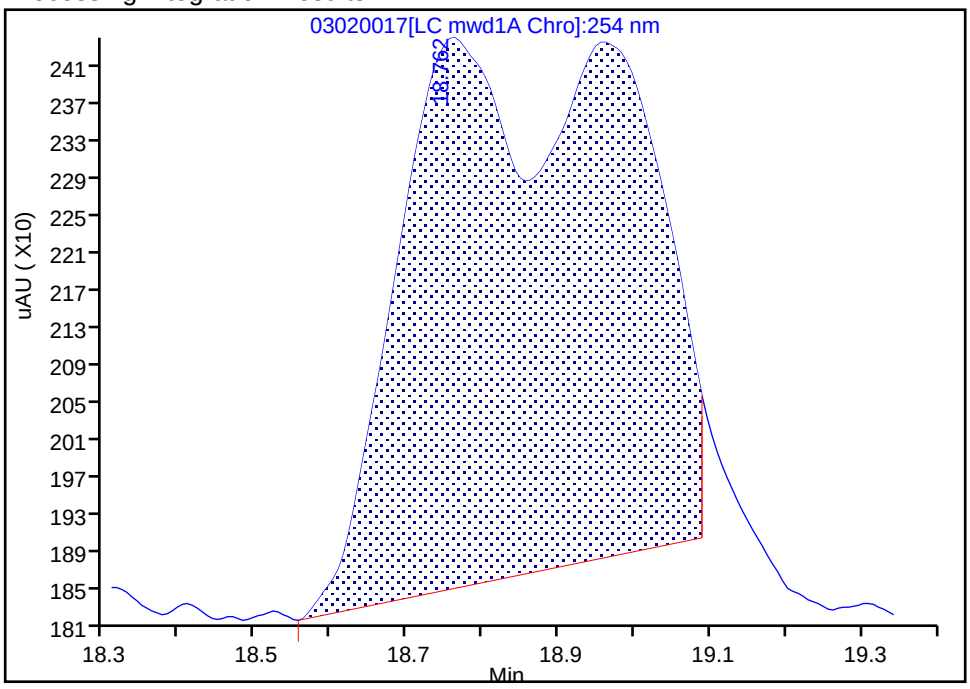
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D | | | | |
| Injection Date: | 03-Mar-2022 01:28:22 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

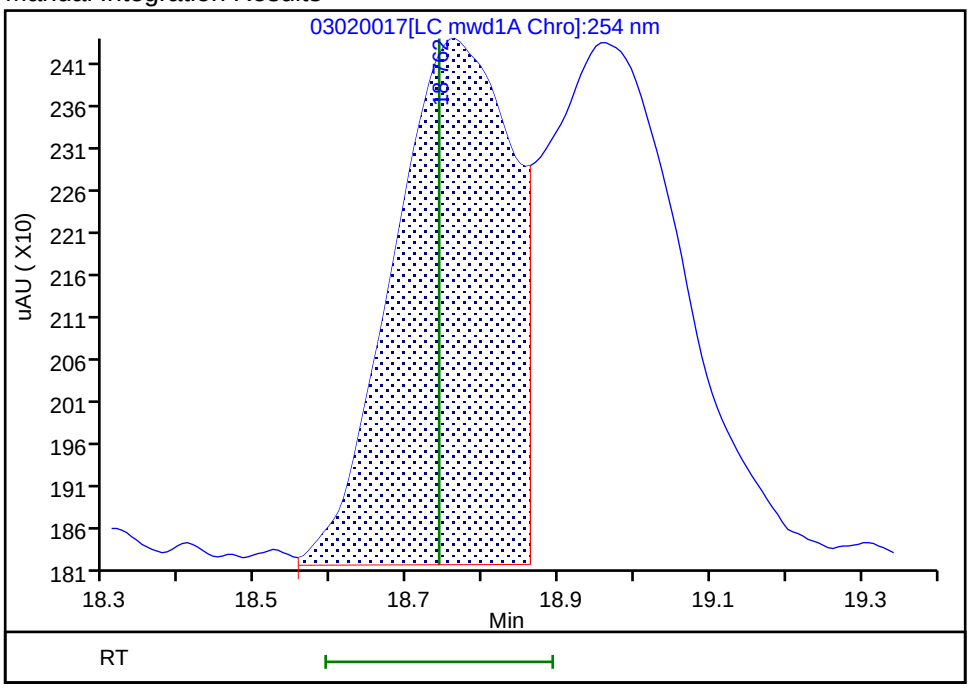
Processing Integration Results

RT: 18.76
Area: 12210
Amount: 0.025658
Amount Units: ug/ml




Manual Integration Results

RT: 18.76
Area: 6899
Amount: 0.019135
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:10:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

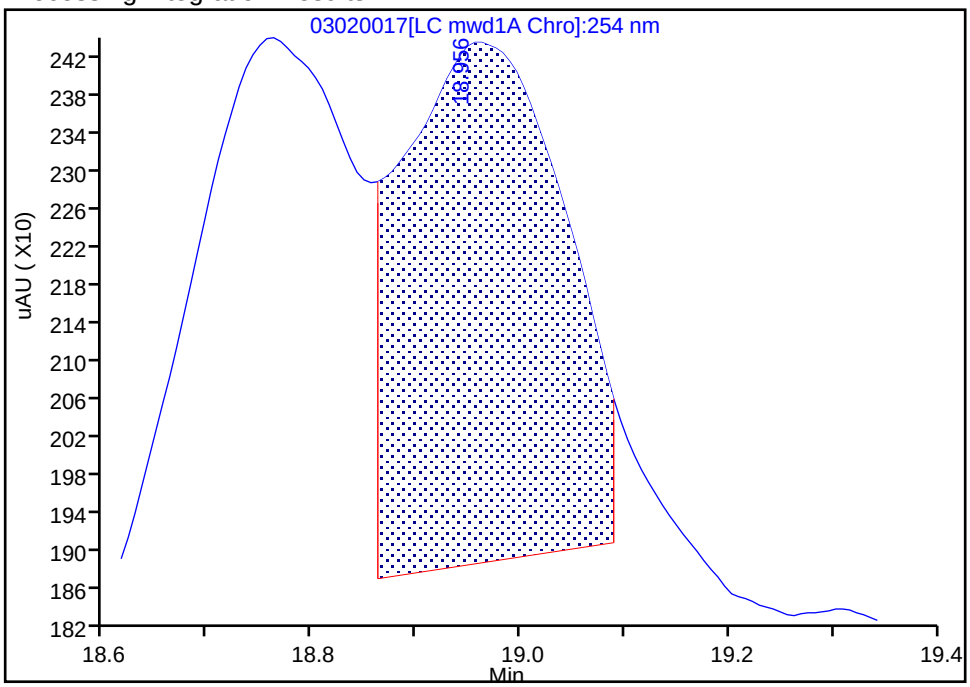
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector LC mwd1A, 254 nm

## 20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

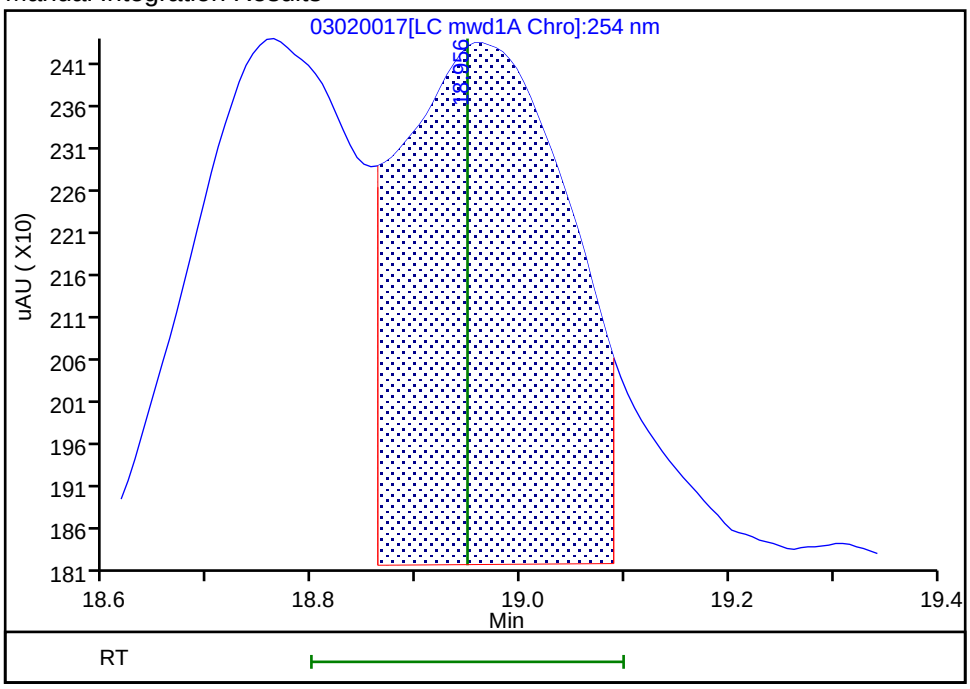
Processing Integration Results

RT: 18.96
Area: 5936
Amount: 0.014418
Amount Units: ug/ml




Manual Integration Results

RT: 18.96
Area: 6970
Amount: 0.016776
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:10:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

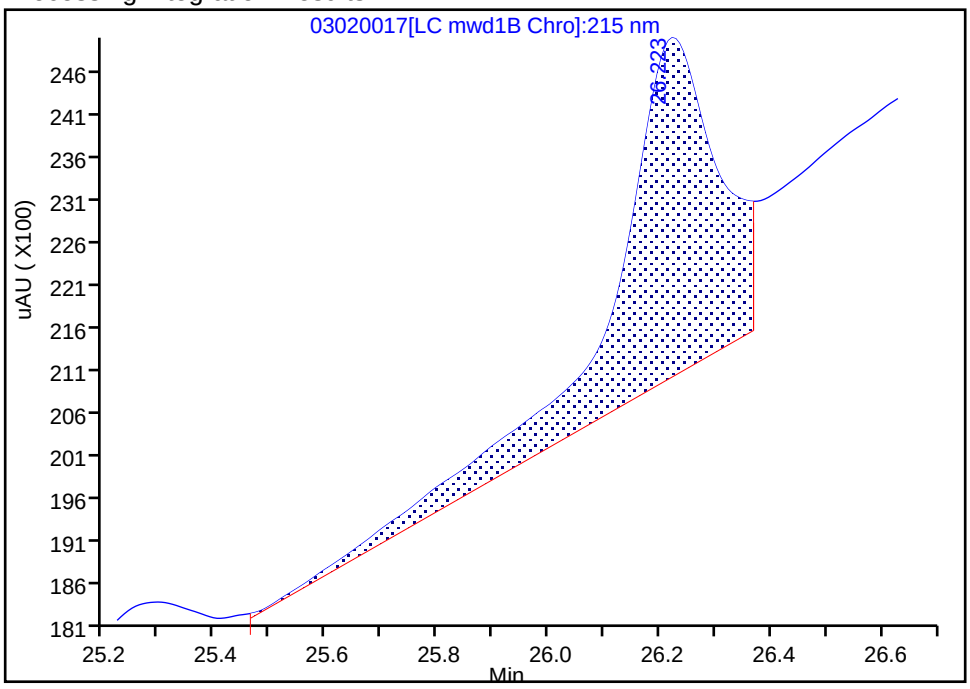
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

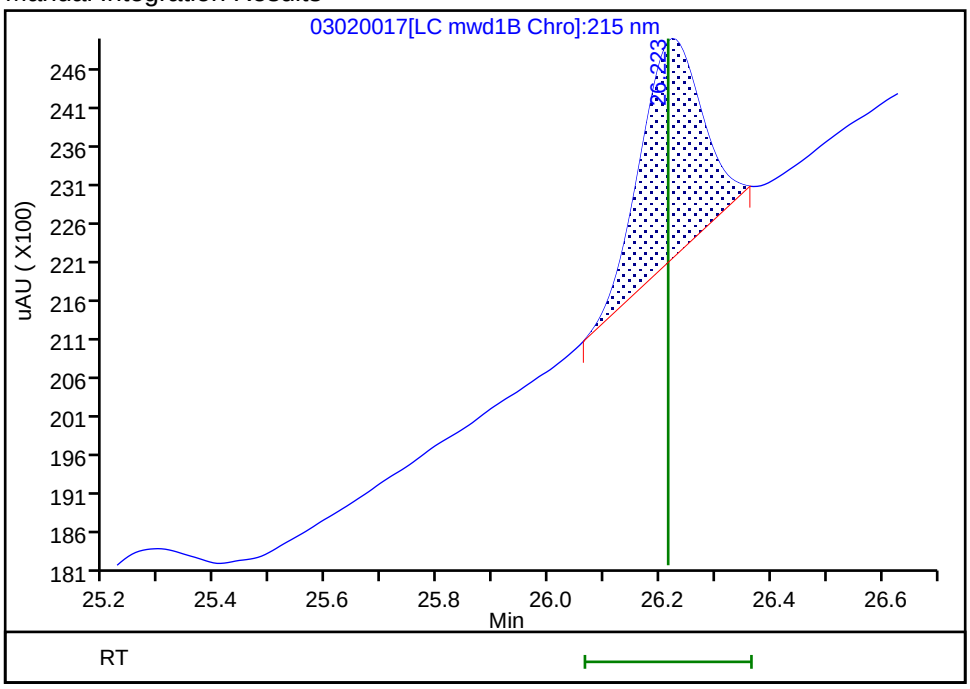
Processing Integration Results

RT: 26.22
Area: 51157
Amount: 0.330478
Amount Units: ug/ml




Manual Integration Results

RT: 26.22
Area: 21923
Amount: 0.169513
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Lims ID: IC INT/ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2022 02:03:29 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 1
Misc. Info.: 280-0108949-018
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:18 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:07:10

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.174 | 4.142 | 0.032 | 6283 | 0.0100 | 0.0155 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.714 | 4.669 | 0.045 | 4064 | 0.0100 | 0.0106 | |
| 5 HMX | 1 | 6.887 | 6.889 | -0.002 | 2040 | 0.0100 | 0.0123 | |
| 7 2,4,6-Trinitrophenol | 1 | | 7.602 | | | ND | ND | |
| 8 RDX | 1 | 9.114 | 9.115 | -0.001 | 2097 | 0.0100 | 0.0108 | |
| 9 Nitrobenzene | 1 | 12.047 | 12.062 | -0.015 | 3890 | 0.0100 | 0.0106 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.260 | 13.282 | -0.022 | 2461 | 0.0100 | 0.009854 | |
| 11 3,5-Dinitroaniline | 1 | 15.287 | 15.269 | 0.018 | 4362 | 0.0100 | 0.0104 | |
| 12 1,3-Dinitrobenzene | 1 | 15.627 | 15.635 | -0.008 | 5961 | 0.0100 | 0.0104 | |
| 13 Nitroglycerin | 2 | 16.054 | 16.055 | -0.001 | 10664 | 0.1000 | 0.0870 | M |
| 14 o-Nitrotoluene | 1 | 16.807 | 16.822 | -0.015 | 2491 | 0.0100 | 0.0106 | |
| 16 p-Nitrotoluene | 1 | 17.147 | 17.129 | 0.018 | 2203 | 0.0100 | 0.0104 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.734 | 17.755 | -0.021 | 2610 | 0.0100 | 0.0100 | |
| 18 m-Nitrotoluene | 1 | 18.094 | 18.102 | -0.008 | 2543 | 0.0100 | 0.0103 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.754 | 18.742 | 0.012 | 3705 | 0.0100 | 0.0103 | M |
| 20 1,3,5-Trinitrobenzene | 1 | 18.947 | 18.949 | -0.002 | 3947 | 0.0100 | 0.009500 | Ma |
| 21 2,6-Dinitrotoluene | 1 | 20.260 | 20.255 | 0.005 | 2704 | 0.0100 | 0.0102 | |
| 22 2,4-Dinitrotoluene | 1 | 20.674 | 20.762 | -0.088 | 11900 | 0.0100 | 0.0102 | |
| 23 Tetryl | 1 | 24.514 | 24.489 | 0.025 | 4722 | 0.0100 | 0.0138 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.274 | 25.262 | 0.012 | 3720 | 0.0100 | 0.0101 | |
| 25 PETN | 2 | 26.220 | 26.215 | 0.005 | 10842 | 0.1000 | 0.0838 | M |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 1.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 0.50 | Units: uL |

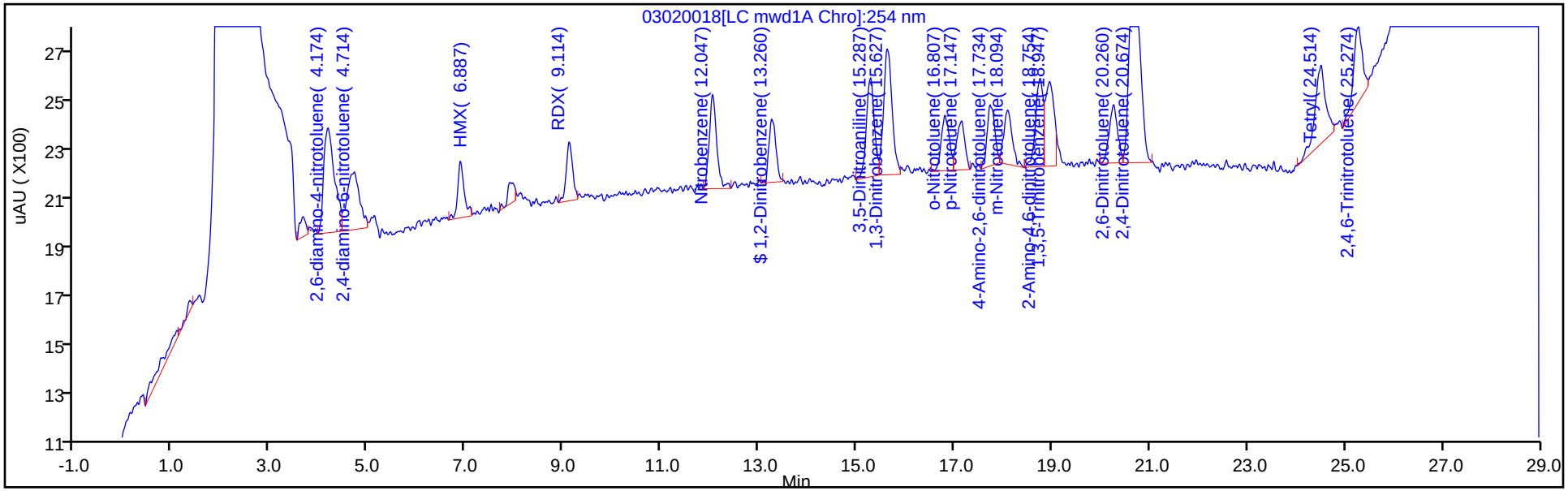
Report Date: 03-Mar-2022 12:49:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

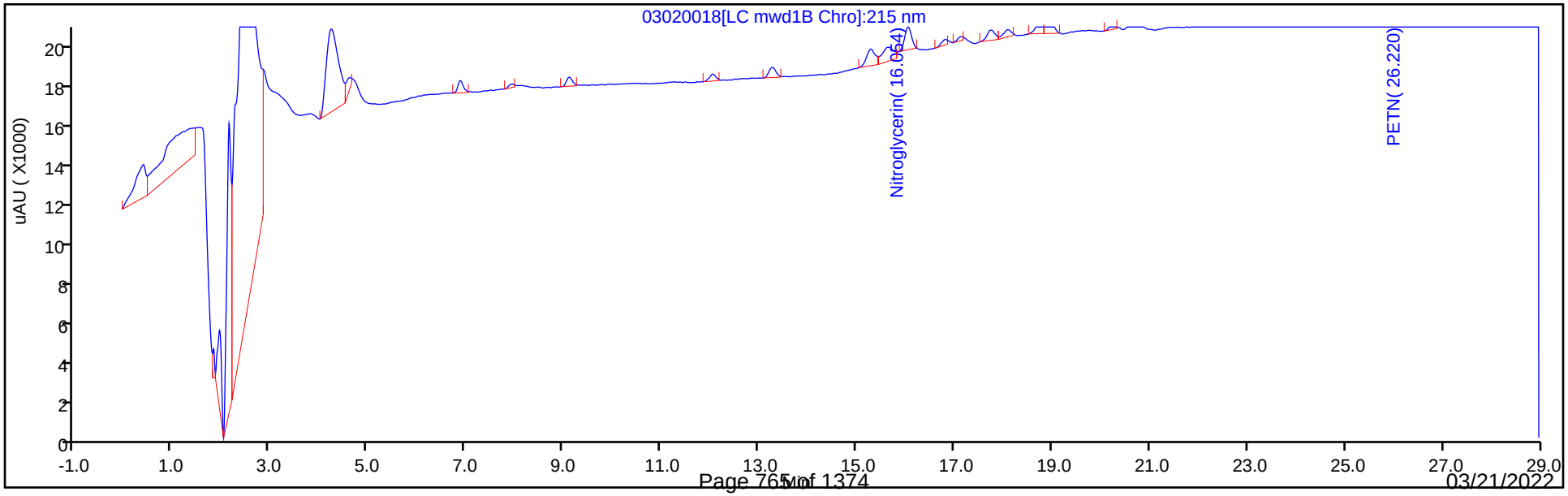
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 02:03:29 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC INT/ADD 1 | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

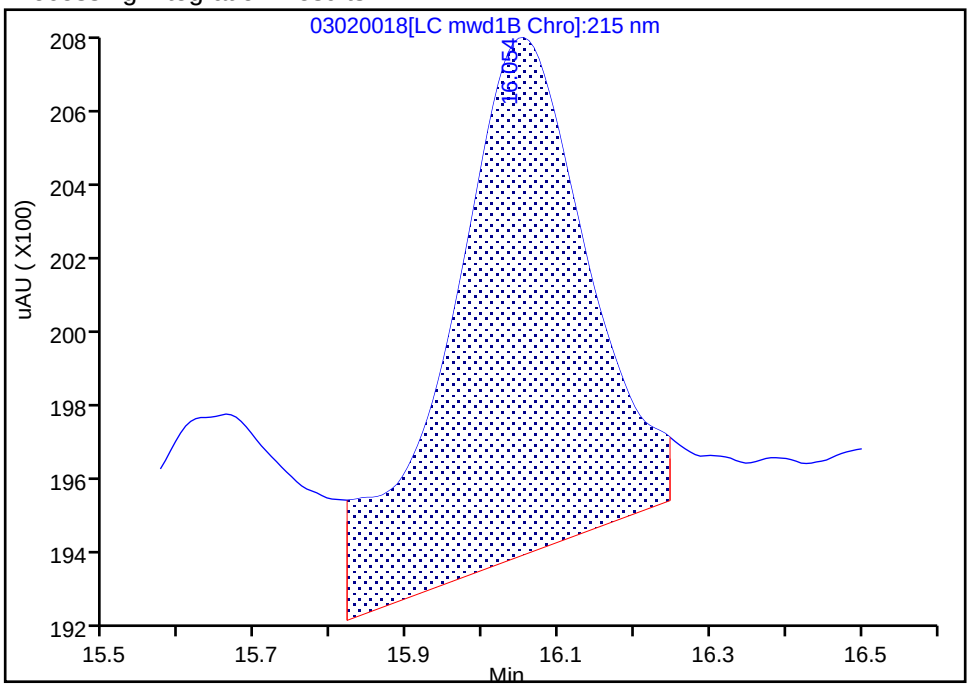
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

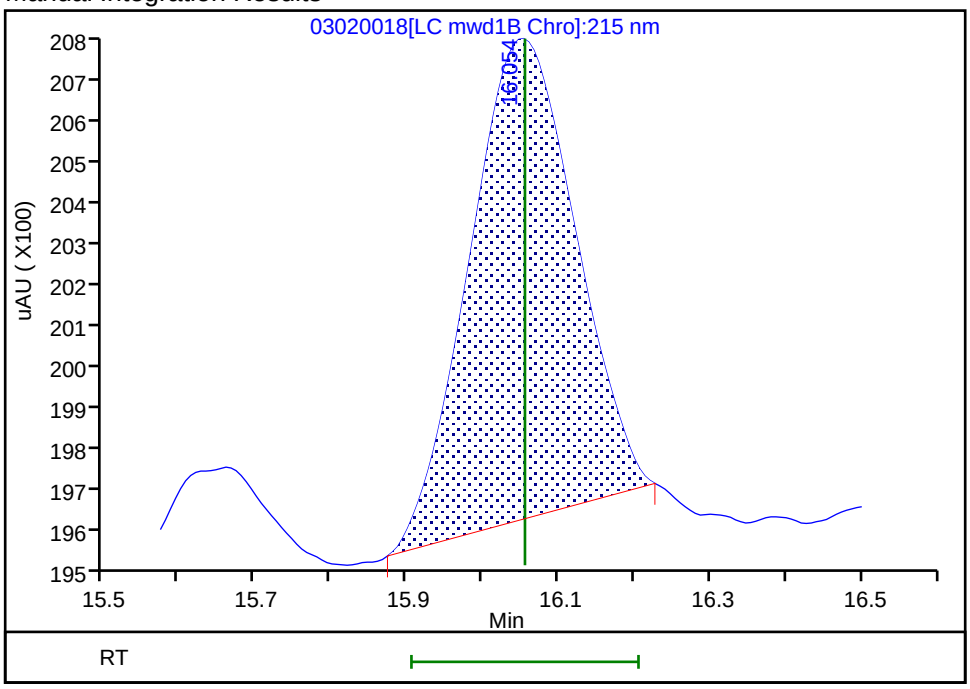
Processing Integration Results

RT: 16.05
Area: 17086
Amount: 0.126120
Amount Units: ug/ml




Manual Integration Results

RT: 16.05
Area: 10664
Amount: 0.087040
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:12:01
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

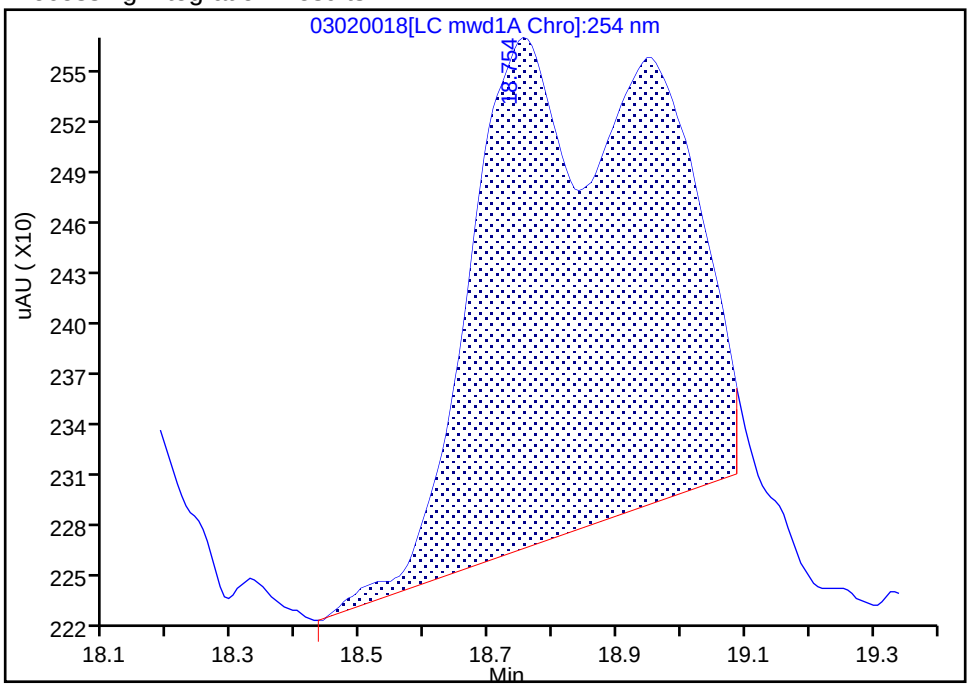
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector LC mwd1A, 254 nm

## 19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

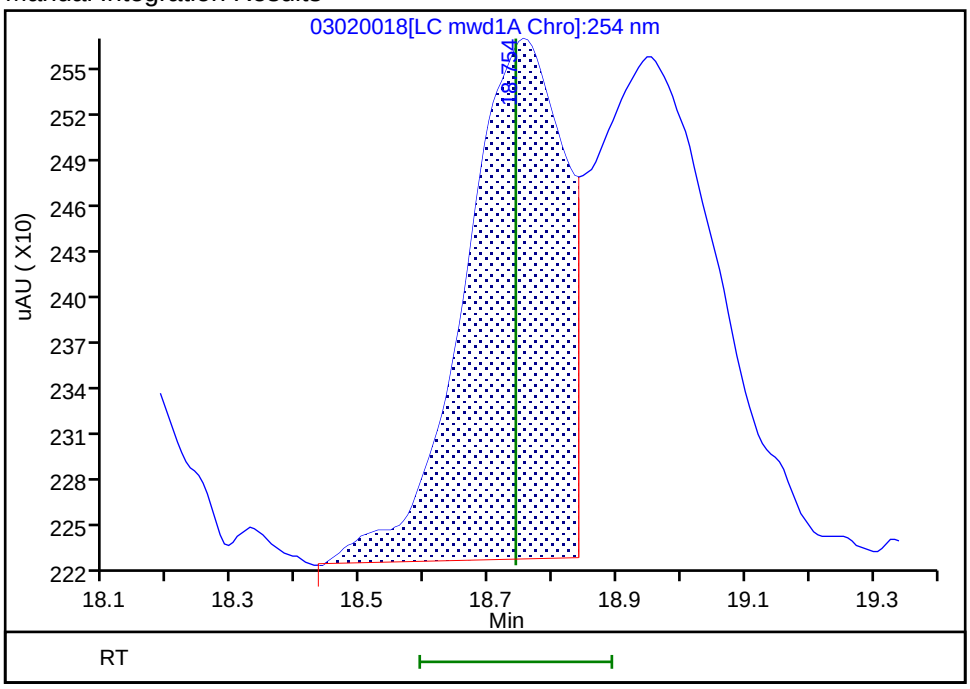
Processing Integration Results

RT: 18.75
Area: 6109
Amount: 0.012300
Amount Units: ug/ml




Manual Integration Results

RT: 18.75
Area: 3705
Amount: 0.010276
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

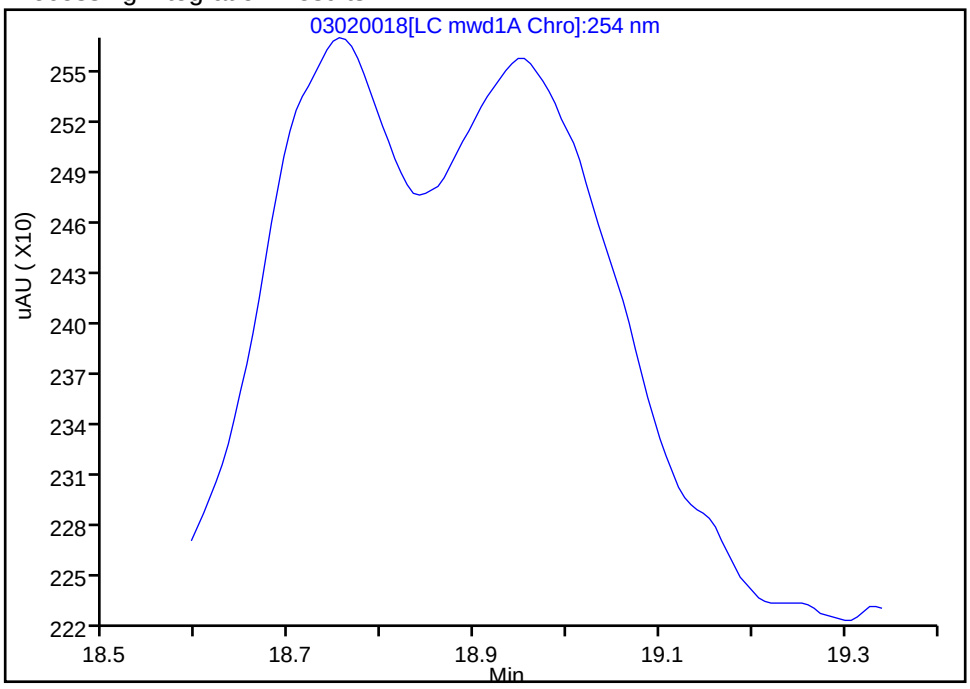
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D | | | | |
| Injection Date: | 03-Mar-2022 02:03:29 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC mwd1A, 254 nm | | |

## 20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

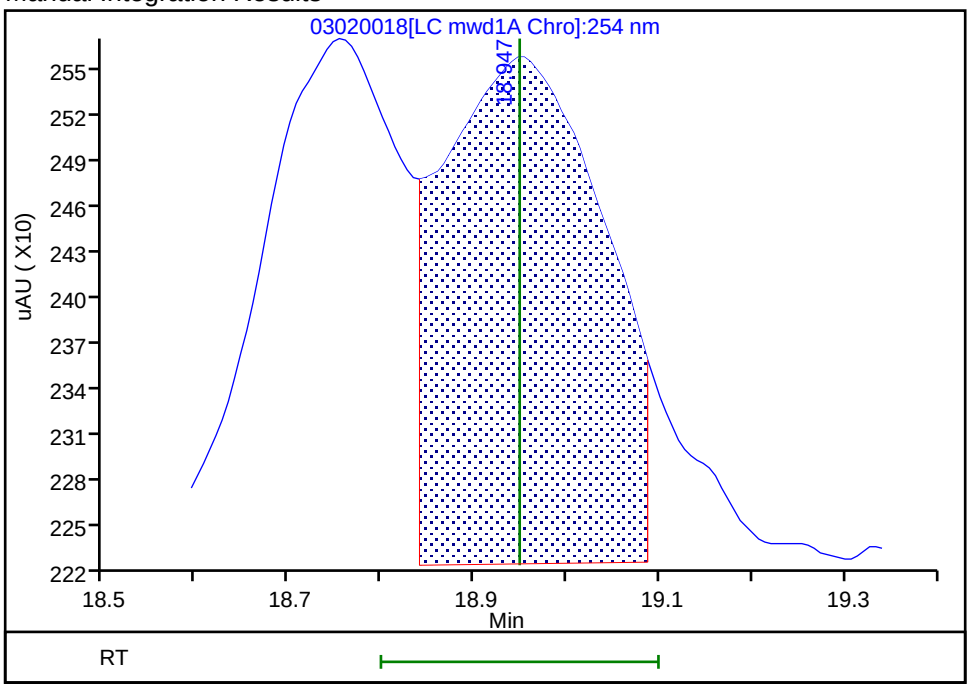
Not Detected
Expected RT: 18.95

Processing Integration Results




Manual Integration Results

RT: 18.95
Area: 3947
Amount: 0.009500
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

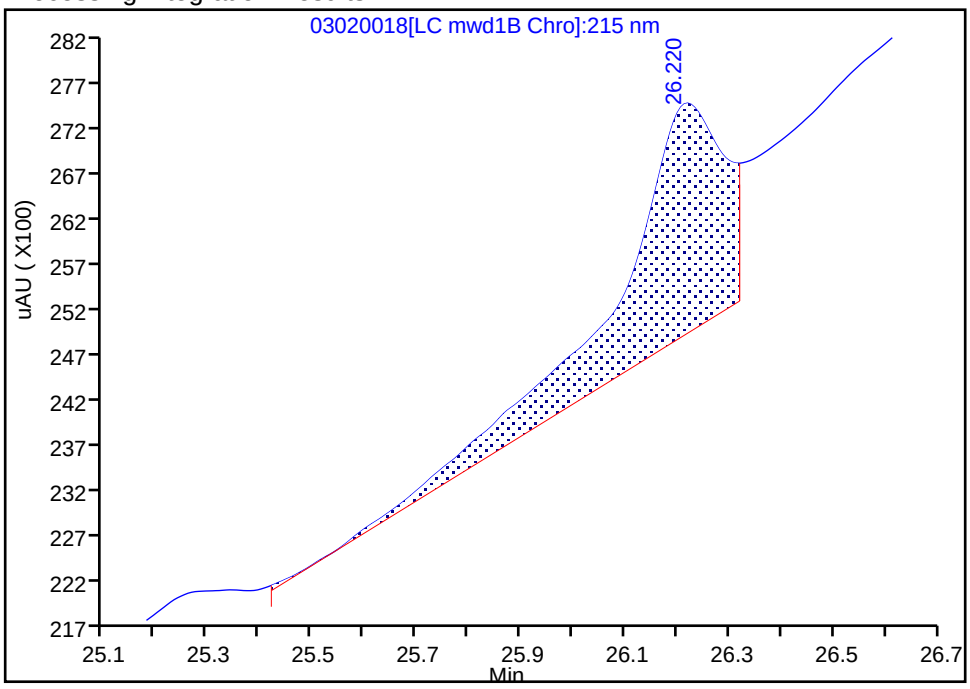
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

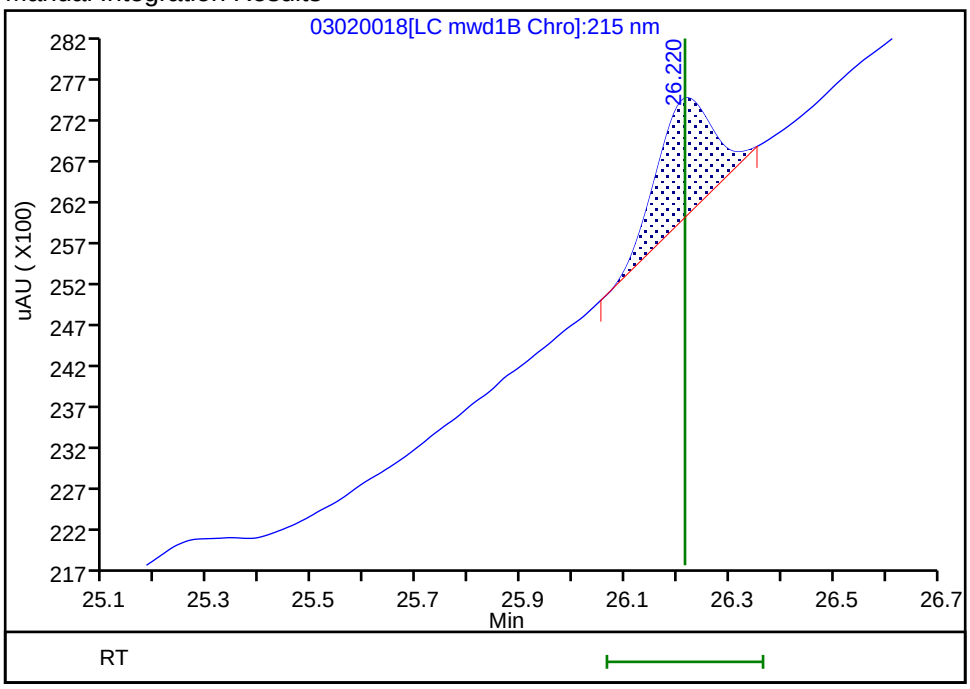
Processing Integration Results

RT: 26.22
Area: 35507
Amount: 0.096197
Amount Units: ug/ml




Manual Integration Results

RT: 26.22
Area: 10842
Amount: 0.083833
Amount Units: ug/ml




Reviewer: zhangji, 03-Mar-2022 12:11:57
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

## Calibration / HMX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

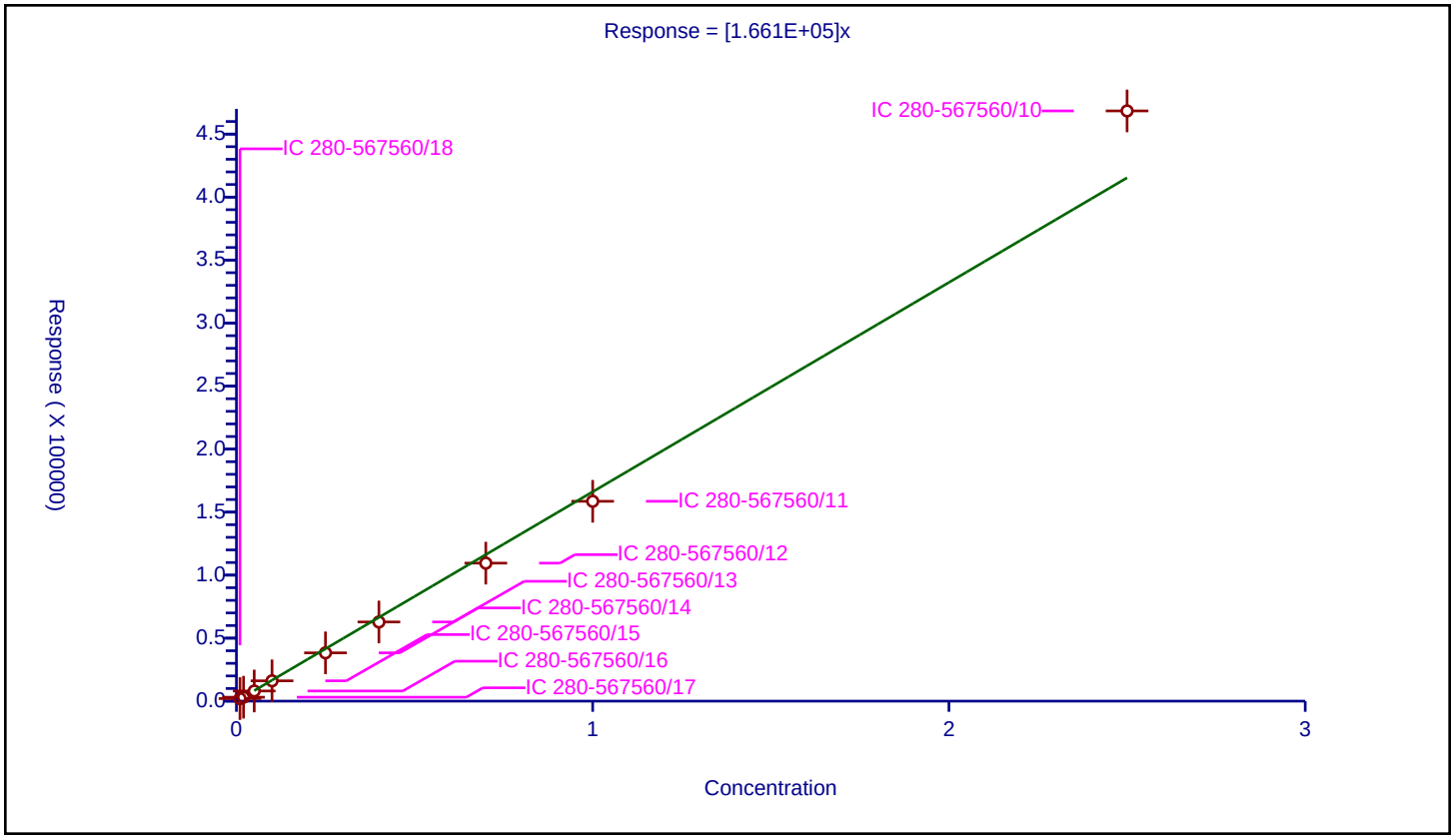
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.661E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 19200 |
| **Relative Standard Error:** | 10.5 |
| **Correlation Coefficient:** | 0.995 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01 | 2040.0 | | | 204000.0 | Y |
| 2 | IC 280-567560/17 | 0.02 | 3127.0 | | | 156350.0 | Y |
| 3 | IC 280-567560/16 | 0.05 | 8053.0 | | | 161060.0 | Y |
| 4 | IC 280-567560/15 | 0.1 | 16109.0 | | | 161090.0 | Y |
| 5 | IC 280-567560/14 | 0.25 | 38318.0 | | | 153272.0 | Y |
| 6 | IC 280-567560/13 | 0.4 | 62819.0 | | | 157047.5 | Y |
| 7 | IC 280-567560/12 | 0.7 | 109512.0 | | | 156445.714286 | Y |
| 8 | IC 280-567560/11 | 1.0 | 158593.0 | | | 158593.0 | Y |
| 9 | IC 280-567560/10 | 2.5 | 468398.0 | | | 187359.2 | Y |



## Calibration / 2,4,6-Trinitrophenol

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

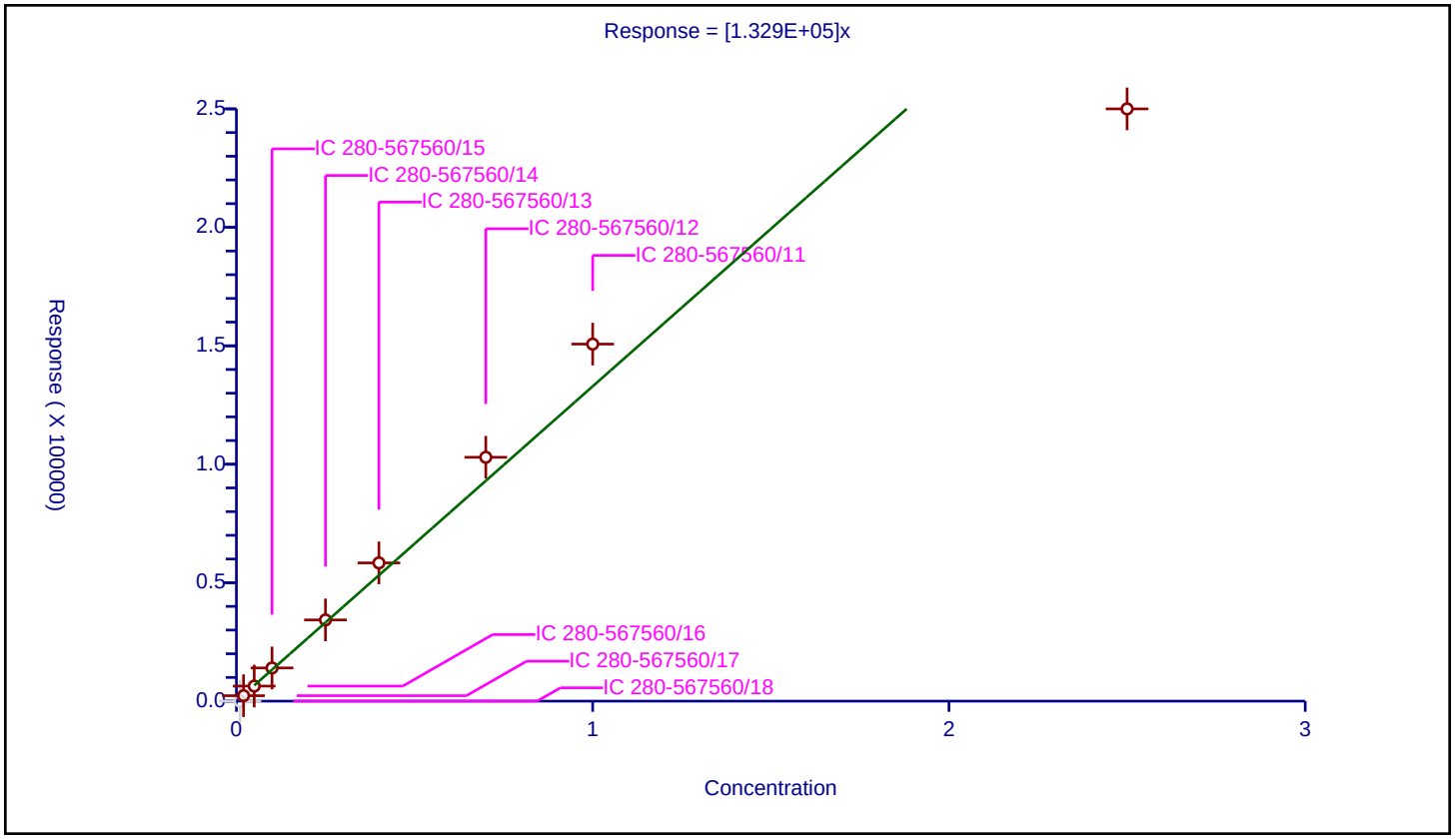
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.329E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 32100 |
| **Relative Standard Error:** | 13.3 |
| **Correlation Coefficient:** | 0.955 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01 | 0.0 | | | 0.0 | N |
| 2 | IC 280-567560/17 | 0.02 | 2301.0 | | | 115050.0 | Y |
| 3 | IC 280-567560/16 | 0.05 | 6356.0 | | | 127120.0 | Y |
| 4 | IC 280-567560/15 | 0.1 | 14009.0 | | | 140090.0 | Y |
| 5 | IC 280-567560/14 | 0.25 | 34288.0 | | | 137152.0 | Y |
| 6 | IC 280-567560/13 | 0.4 | 58358.0 | | | 145895.0 | Y |
| 7 | IC 280-567560/12 | 0.7 | 102939.0 | | | 147055.714286 | Y |
| 8 | IC 280-567560/11 | 1.0 | 150719.0 | | | 150719.0 | Y |
| 9 | IC 280-567560/10 | 2.5 | 250000.0 | | | 100000.0 | Y |



## Calibration / RDX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

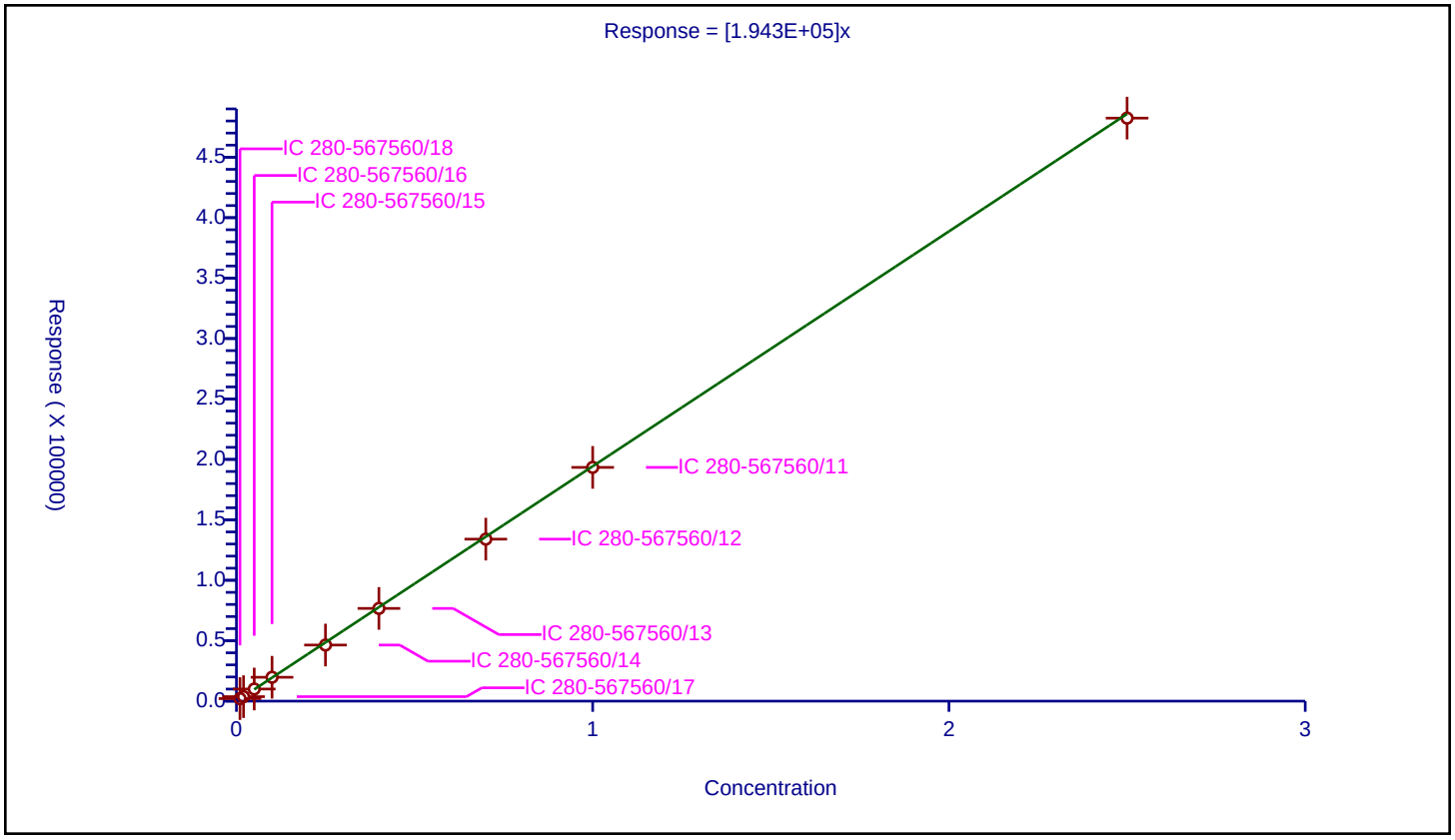
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.943E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1690 |
| **Relative Standard Error:** | 3.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01 | 2097.0 | | | 209700.0 | Y |
| 2 | IC 280-567560/17 | 0.02 | 3719.0 | | | 185950.0 | Y |
| 3 | IC 280-567560/16 | 0.05 | 10028.0 | | | 200560.0 | Y |
| 4 | IC 280-567560/15 | 0.1 | 19750.0 | | | 197500.0 | Y |
| 5 | IC 280-567560/14 | 0.25 | 46417.0 | | | 185668.0 | Y |
| 6 | IC 280-567560/13 | 0.4 | 76711.0 | | | 191777.5 | Y |
| 7 | IC 280-567560/12 | 0.7 | 134031.0 | | | 191472.857143 | Y |
| 8 | IC 280-567560/11 | 1.0 | 193402.0 | | | 193402.0 | Y |
| 9 | IC 280-567560/10 | 2.5 | 482372.0 | | | 192948.8 | Y |



## Calibration / Nitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

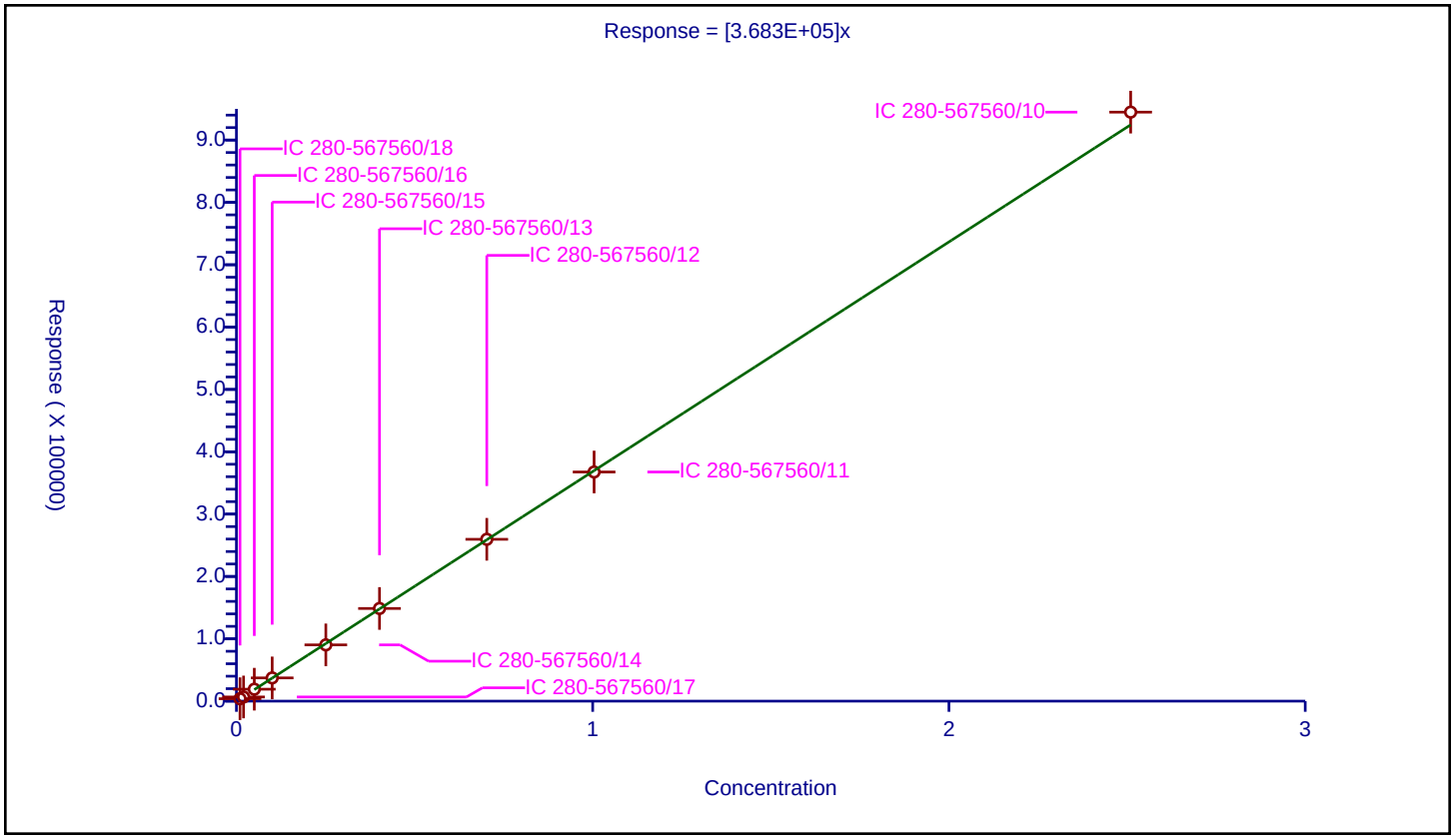
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.683E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7300 |
| **Relative Standard Error:** | 4.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01004 | 3890.0 | | | 387450.199203 | Y |
| 2 | IC 280-567560/17 | 0.02008 | 6686.0 | | | 332968.12749 | Y |
| 3 | IC 280-567560/16 | 0.0502 | 19149.0 | | | 381454.183267 | Y |
| 4 | IC 280-567560/15 | 0.1004 | 37271.0 | | | 371225.099602 | Y |
| 5 | IC 280-567560/14 | 0.251 | 90246.0 | | | 359545.816733 | Y |
| 6 | IC 280-567560/13 | 0.4016 | 148639.0 | | | 370117.031873 | Y |
| 7 | IC 280-567560/12 | 0.7028 | 259585.0 | | | 369358.281161 | Y |
| 8 | IC 280-567560/11 | 1.004 | 367582.0 | | | 366117.52988 | Y |
| 9 | IC 280-567560/10 | 2.51 | 944774.0 | | | 376403.984064 | Y |



## Calibration / 1,2-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

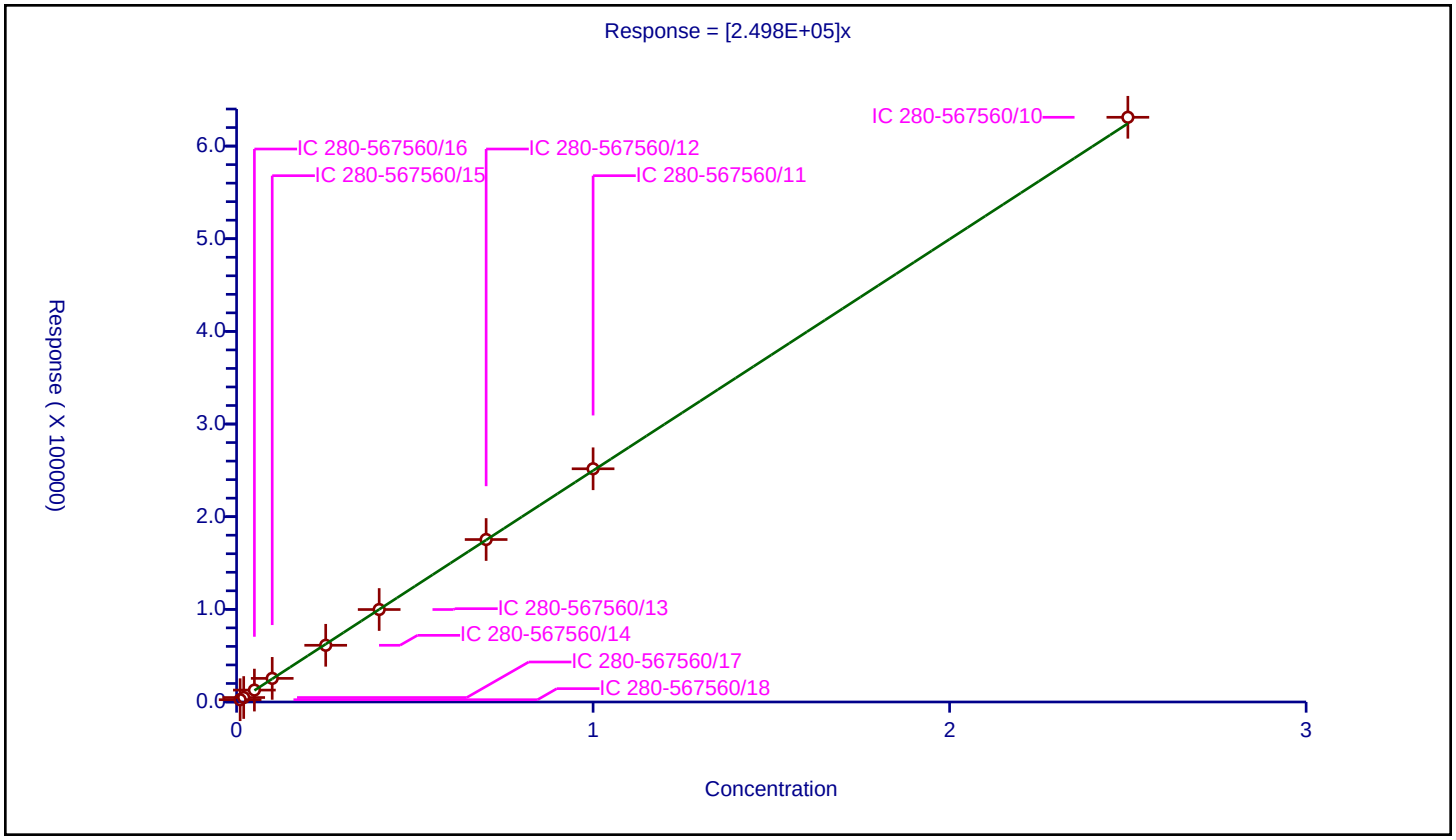
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.498E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2520 |
| **Relative Standard Error:** | 2.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01 | 2461.0 | | | 246100.0 | Y |
| 2 | IC 280-567560/17 | 0.02 | 4809.0 | | | 240450.0 | Y |
| 3 | IC 280-567560/16 | 0.05 | 12864.0 | | | 257280.0 | Y |
| 4 | IC 280-567560/15 | 0.1 | 25499.0 | | | 254990.0 | Y |
| 5 | IC 280-567560/14 | 0.25 | 61198.0 | | | 244792.0 | Y |
| 6 | IC 280-567560/13 | 0.4 | 99804.0 | | | 249510.0 | Y |
| 7 | IC 280-567560/12 | 0.7 | 175358.0 | | | 250511.428571 | Y |
| 8 | IC 280-567560/11 | 1.0 | 251717.0 | | | 251717.0 | Y |
| 9 | IC 280-567560/10 | 2.5 | 631065.0 | | | 252426.0 | Y |



## Calibration / 1,3-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

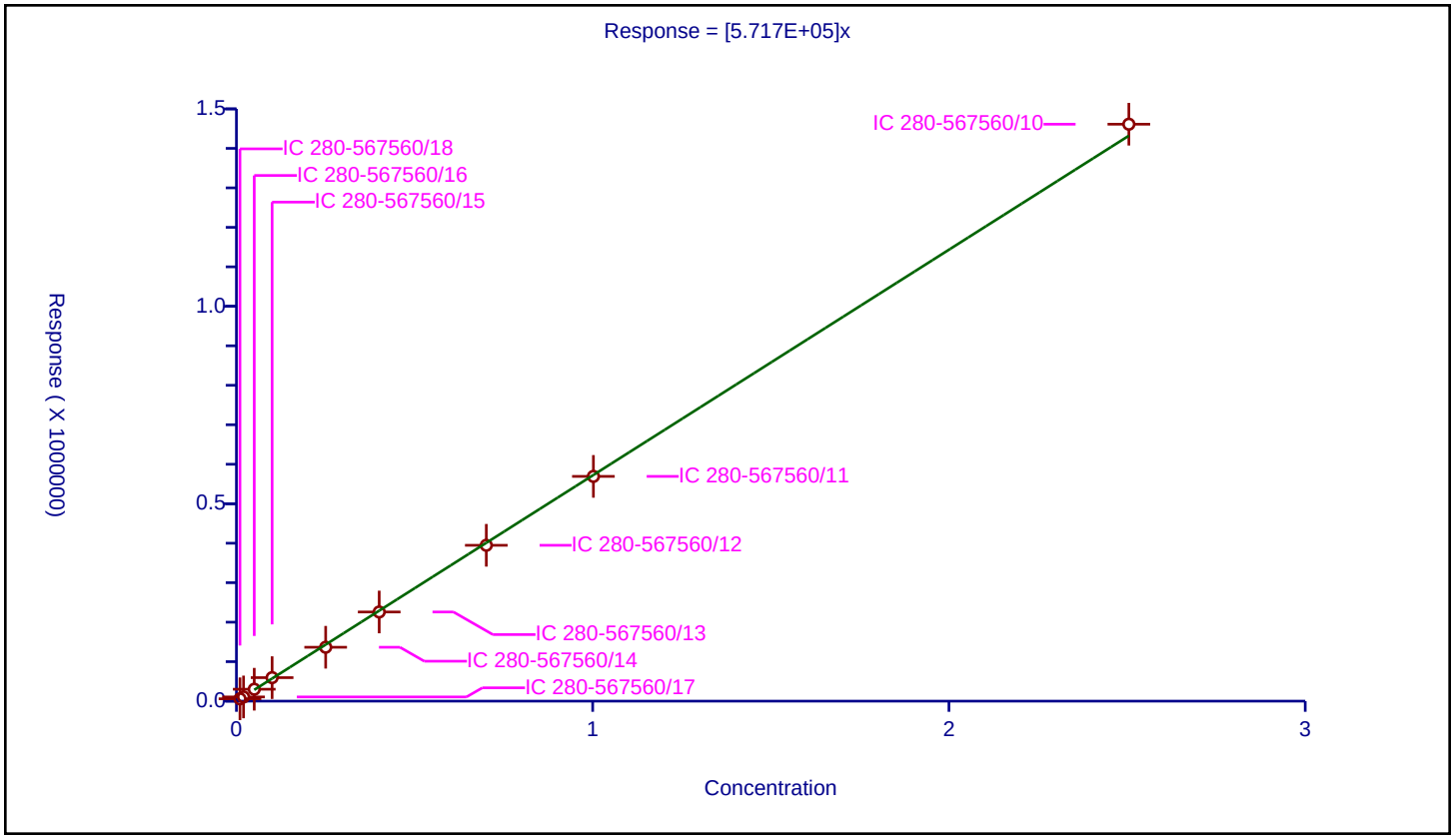
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 5.717E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 11000 |
| **Relative Standard Error:** | 4.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01002 | 5961.0 | | | 594910.179641 | Y |
| 2 | IC 280-567560/17 | 0.02004 | 10643.0 | | | 531087.824351 | Y |
| 3 | IC 280-567560/16 | 0.0501 | 30181.0 | | | 602415.169661 | Y |
| 4 | IC 280-567560/15 | 0.1002 | 59537.0 | | | 594181.636727 | Y |
| 5 | IC 280-567560/14 | 0.2505 | 136486.0 | | | 544854.291417 | Y |
| 6 | IC 280-567560/13 | 0.4008 | 225815.0 | | | 563410.678643 | Y |
| 7 | IC 280-567560/12 | 0.7014 | 394707.0 | | | 562741.659538 | Y |
| 8 | IC 280-567560/11 | 1.002 | 569212.0 | | | 568075.848303 | Y |
| 9 | IC 280-567560/10 | 2.505 | 1461217.0 | | | 583320.159681 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

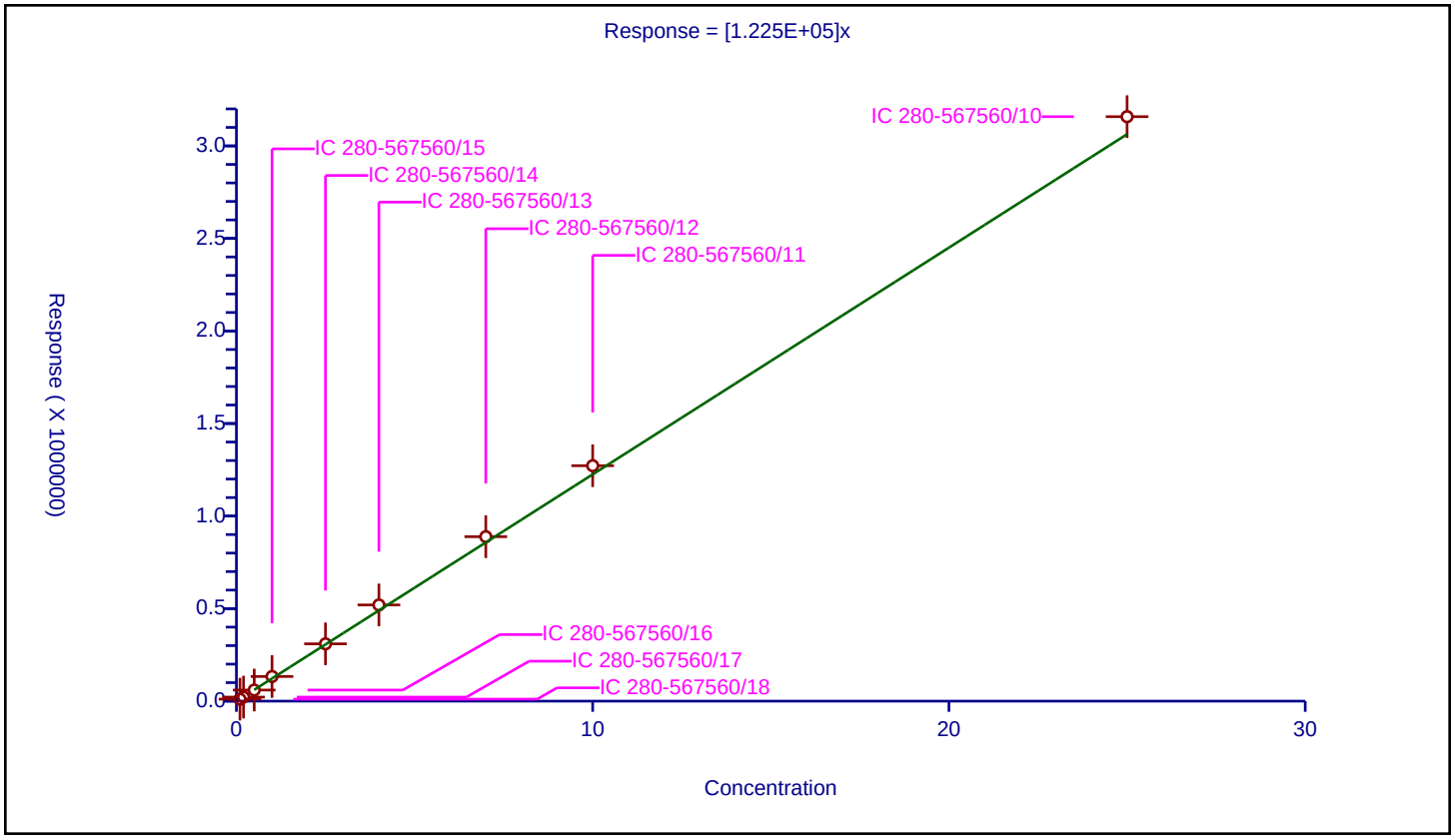
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.225E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 40600 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.1 | 10664.0 | | | 106640.0 | Y |
| 2 | IC 280-567560/17 | 0.2 | 21750.0 | | | 108750.0 | Y |
| 3 | IC 280-567560/16 | 0.5 | 59894.0 | | | 119788.0 | Y |
| 4 | IC 280-567560/15 | 1.0 | 133241.0 | | | 133241.0 | Y |
| 5 | IC 280-567560/14 | 2.5 | 309657.0 | | | 123862.8 | Y |
| 6 | IC 280-567560/13 | 4.0 | 519683.0 | | | 129920.75 | Y |
| 7 | IC 280-567560/12 | 7.0 | 888552.0 | | | 126936.0 | Y |
| 8 | IC 280-567560/11 | 10.0 | 1272015.0 | | | 127201.5 | Y |
| 9 | IC 280-567560/10 | 25.0 | 3158004.0 | | | 126320.16 | Y |



## Calibration / o-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

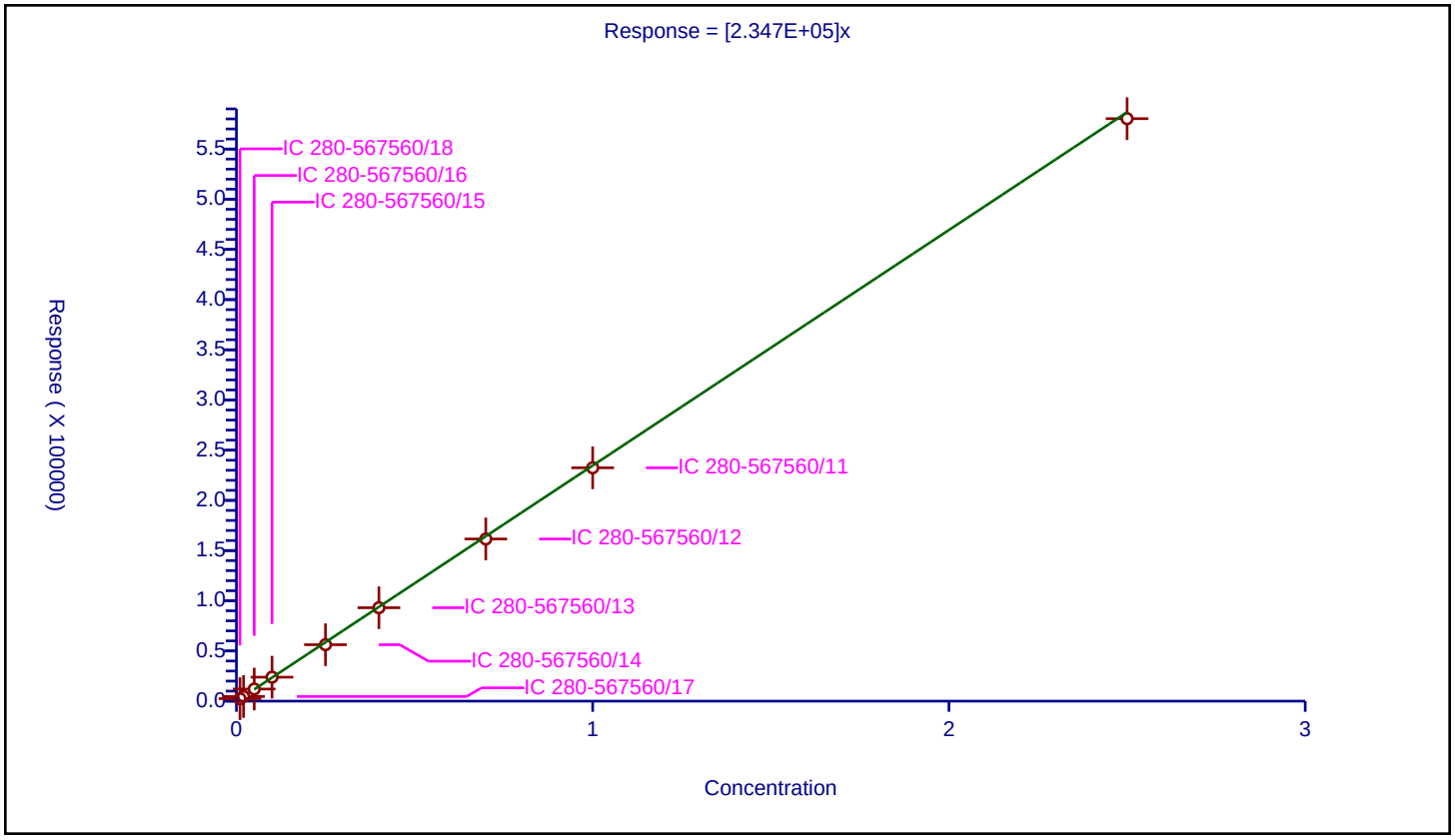
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.347E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2750 |
| **Relative Standard Error:** | 3.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01 | 2491.0 | | | 249100.0 | Y |
| 2 | IC 280-567560/17 | 0.02 | 4607.0 | | | 230350.0 | Y |
| 3 | IC 280-567560/16 | 0.05 | 12057.0 | | | 241140.0 | Y |
| 4 | IC 280-567560/15 | 0.1 | 23857.0 | | | 238570.0 | Y |
| 5 | IC 280-567560/14 | 0.25 | 56221.0 | | | 224884.0 | Y |
| 6 | IC 280-567560/13 | 0.4 | 93064.0 | | | 232660.0 | Y |
| 7 | IC 280-567560/12 | 0.7 | 161534.0 | | | 230762.857143 | Y |
| 8 | IC 280-567560/11 | 1.0 | 232476.0 | | | 232476.0 | Y |
| 9 | IC 280-567560/10 | 2.5 | 580270.0 | | | 232108.0 | Y |



## Calibration / p-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

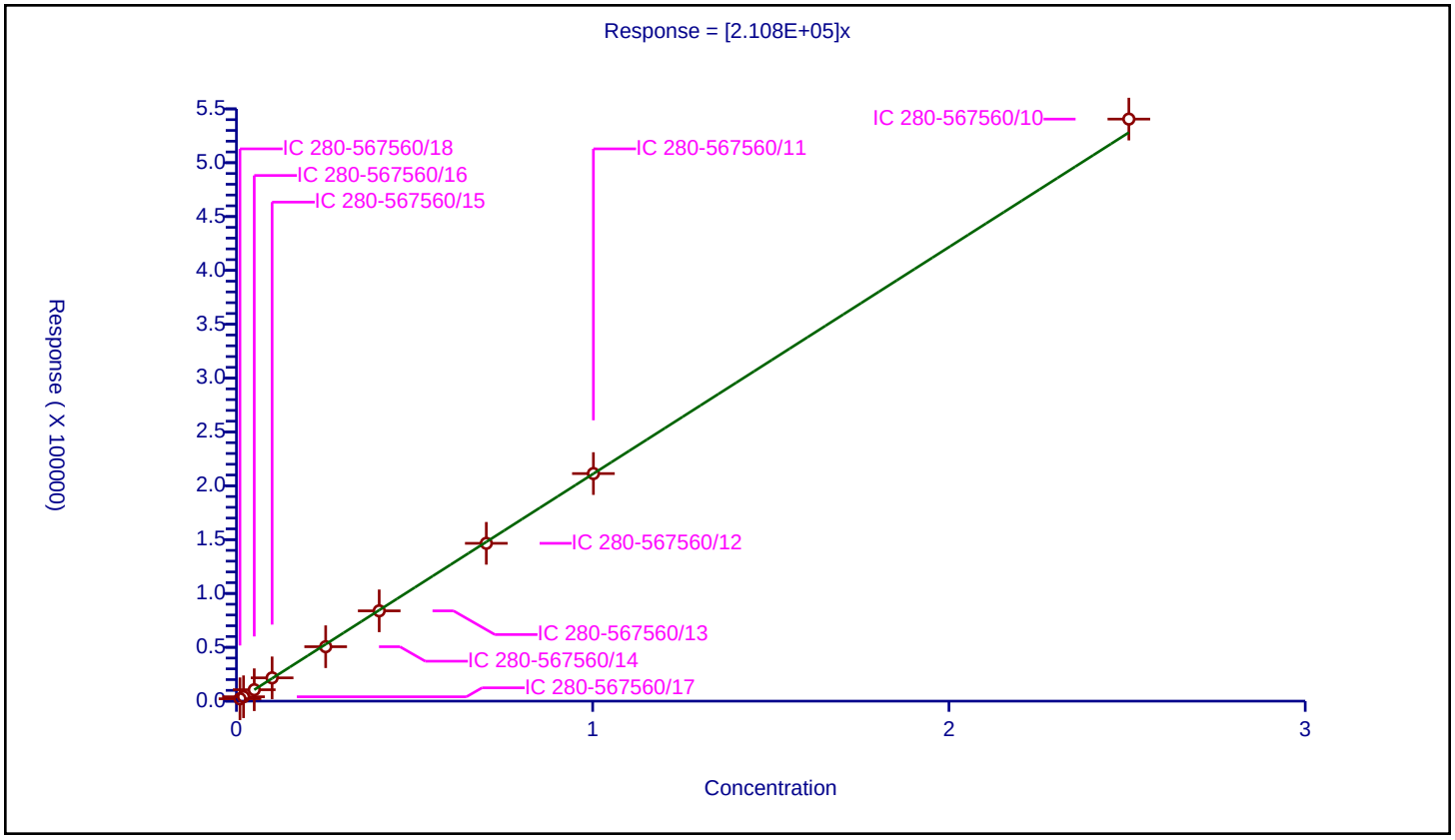
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.108E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4500 |
| **Relative Standard Error:** | 2.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01002 | 2203.0 | | | 219860.279441 | Y |
| 2 | IC 280-567560/17 | 0.02004 | 4078.0 | | | 203493.013972 | Y |
| 3 | IC 280-567560/16 | 0.0501 | 10595.0 | | | 211477.045908 | Y |
| 4 | IC 280-567560/15 | 0.1002 | 21625.0 | | | 215818.363273 | Y |
| 5 | IC 280-567560/14 | 0.2505 | 50555.0 | | | 201816.367265 | Y |
| 6 | IC 280-567560/13 | 0.4008 | 83857.0 | | | 209224.051896 | Y |
| 7 | IC 280-567560/12 | 0.7014 | 146563.0 | | | 208957.798688 | Y |
| 8 | IC 280-567560/11 | 1.002 | 211344.0 | | | 210922.155689 | Y |
| 9 | IC 280-567560/10 | 2.505 | 540531.0 | | | 215780.838323 | Y |



## Calibration / 4-Amino-2,6-dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

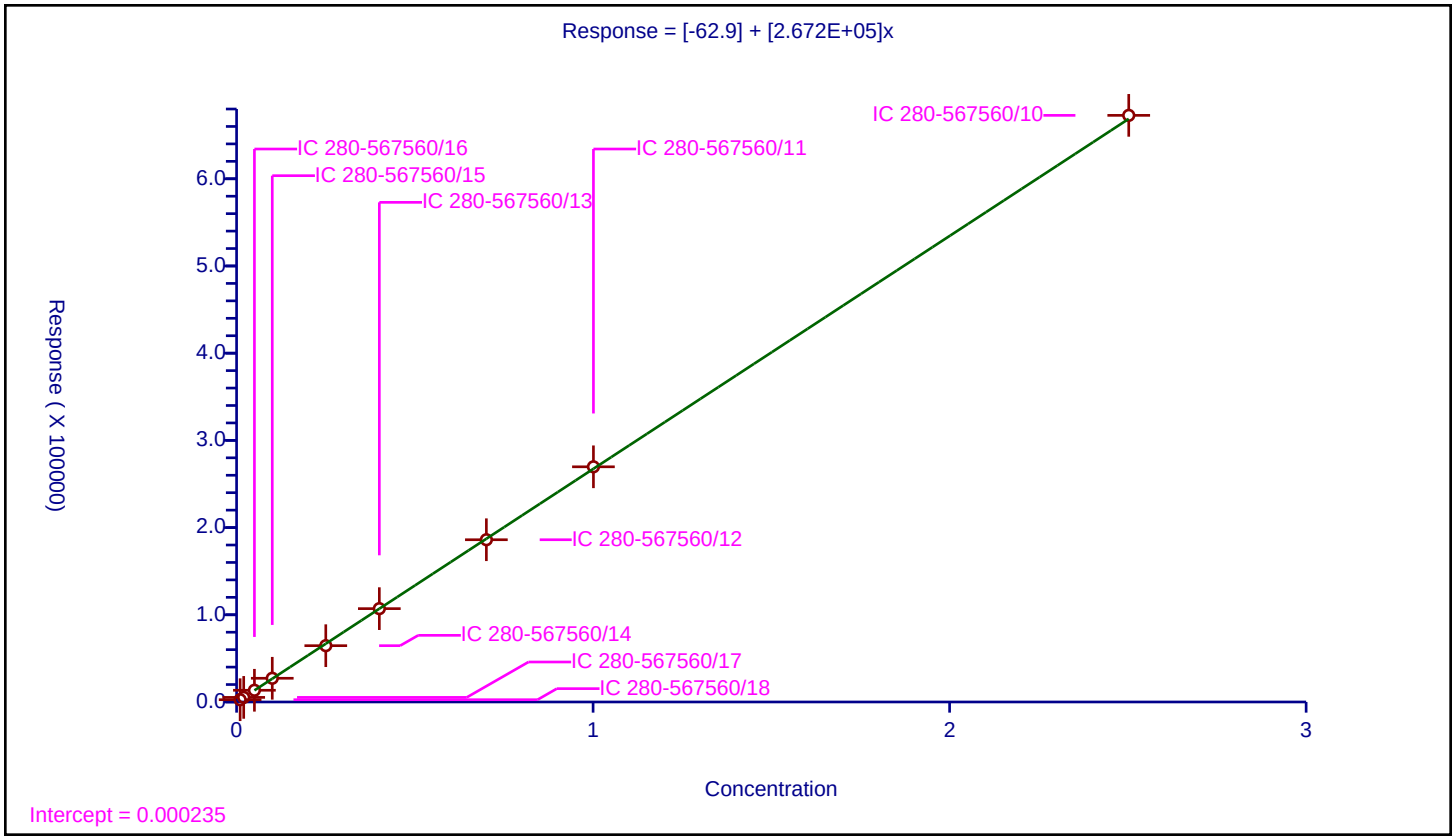
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | -62.9 |
| **Slope:** | 2.672E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1990 |
| **Relative Standard Error:** | 1.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01001 | 2610.0 | | | 260739.260739 | Y |
| 2 | IC 280-567560/17 | 0.02002 | 5271.0 | | | 263286.713287 | Y |
| 3 | IC 280-567560/16 | 0.05005 | 13425.0 | | | 268231.768232 | Y |
| 4 | IC 280-567560/15 | 0.1001 | 27216.0 | | | 271888.111888 | Y |
| 5 | IC 280-567560/14 | 0.25025 | 64569.0 | | | 258017.982018 | Y |
| 6 | IC 280-567560/13 | 0.4004 | 107043.0 | | | 267340.15984 | Y |
| 7 | IC 280-567560/12 | 0.7007 | 186078.0 | | | 265560.154132 | Y |
| 8 | IC 280-567560/11 | 1.001 | 269691.0 | | | 269421.578422 | Y |
| 9 | IC 280-567560/10 | 2.5025 | 672715.0 | | | 268817.182817 | Y |



## Calibration / m-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

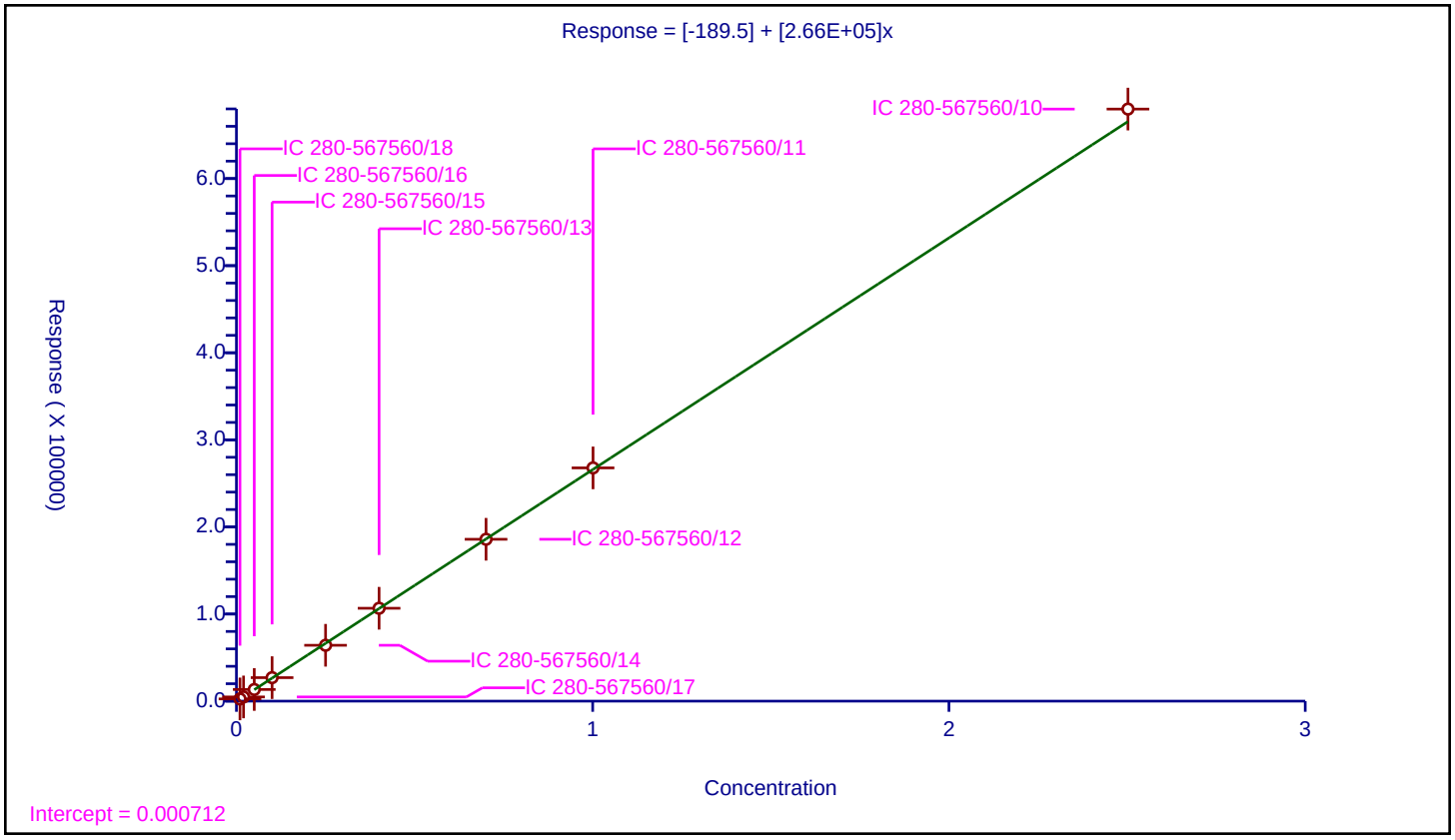
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | -189.5 |
| **Slope:** | 2.66E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5530 |
| **Relative Standard Error:** | 3.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01001 | 2543.0 | | | 254045.954046 | Y |
| 2 | IC 280-567560/17 | 0.02002 | 4805.0 | | | 240009.99001 | Y |
| 3 | IC 280-567560/16 | 0.05005 | 13387.0 | | | 267472.527473 | Y |
| 4 | IC 280-567560/15 | 0.1001 | 26978.0 | | | 269510.48951 | Y |
| 5 | IC 280-567560/14 | 0.25025 | 64150.0 | | | 256343.656344 | Y |
| 6 | IC 280-567560/13 | 0.4004 | 106661.0 | | | 266386.113886 | Y |
| 7 | IC 280-567560/12 | 0.7007 | 185839.0 | | | 265219.066648 | Y |
| 8 | IC 280-567560/11 | 1.001 | 267812.0 | | | 267544.455544 | Y |
| 9 | IC 280-567560/10 | 2.5025 | 679800.0 | | | 271648.351648 | Y |



## Calibration / 2-Amino-4,6-dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

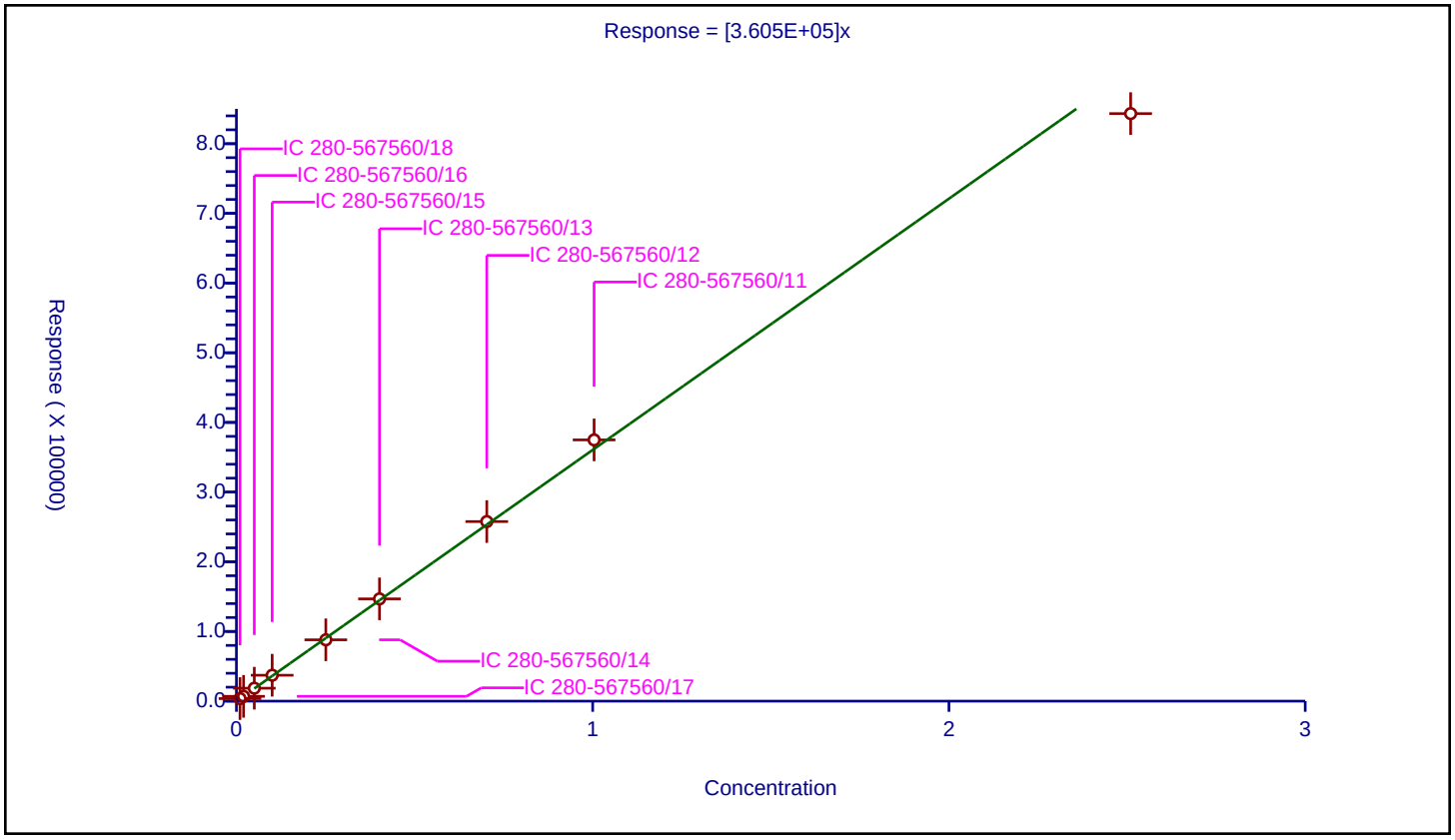
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.605E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 22400 |
| **Relative Standard Error:** | 3.8 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01004 | 3705.0 | | | 369023.904382 | Y |
| 2 | IC 280-567560/17 | 0.02008 | 6899.0 | | | 343575.697211 | Y |
| 3 | IC 280-567560/16 | 0.0502 | 18562.0 | | | 369760.956175 | Y |
| 4 | IC 280-567560/15 | 0.1004 | 37178.0 | | | 370298.804781 | Y |
| 5 | IC 280-567560/14 | 0.251 | 88010.0 | | | 350637.450199 | Y |
| 6 | IC 280-567560/13 | 0.4016 | 146764.0 | | | 365448.207171 | Y |
| 7 | IC 280-567560/12 | 0.7028 | 257718.0 | | | 366701.764371 | Y |
| 8 | IC 280-567560/11 | 1.004 | 374916.0 | | | 373422.310757 | Y |
| 9 | IC 280-567560/10 | 2.51 | 843240.0 | | | 335952.191235 | Y |



## Calibration / 1,3,5-Trinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

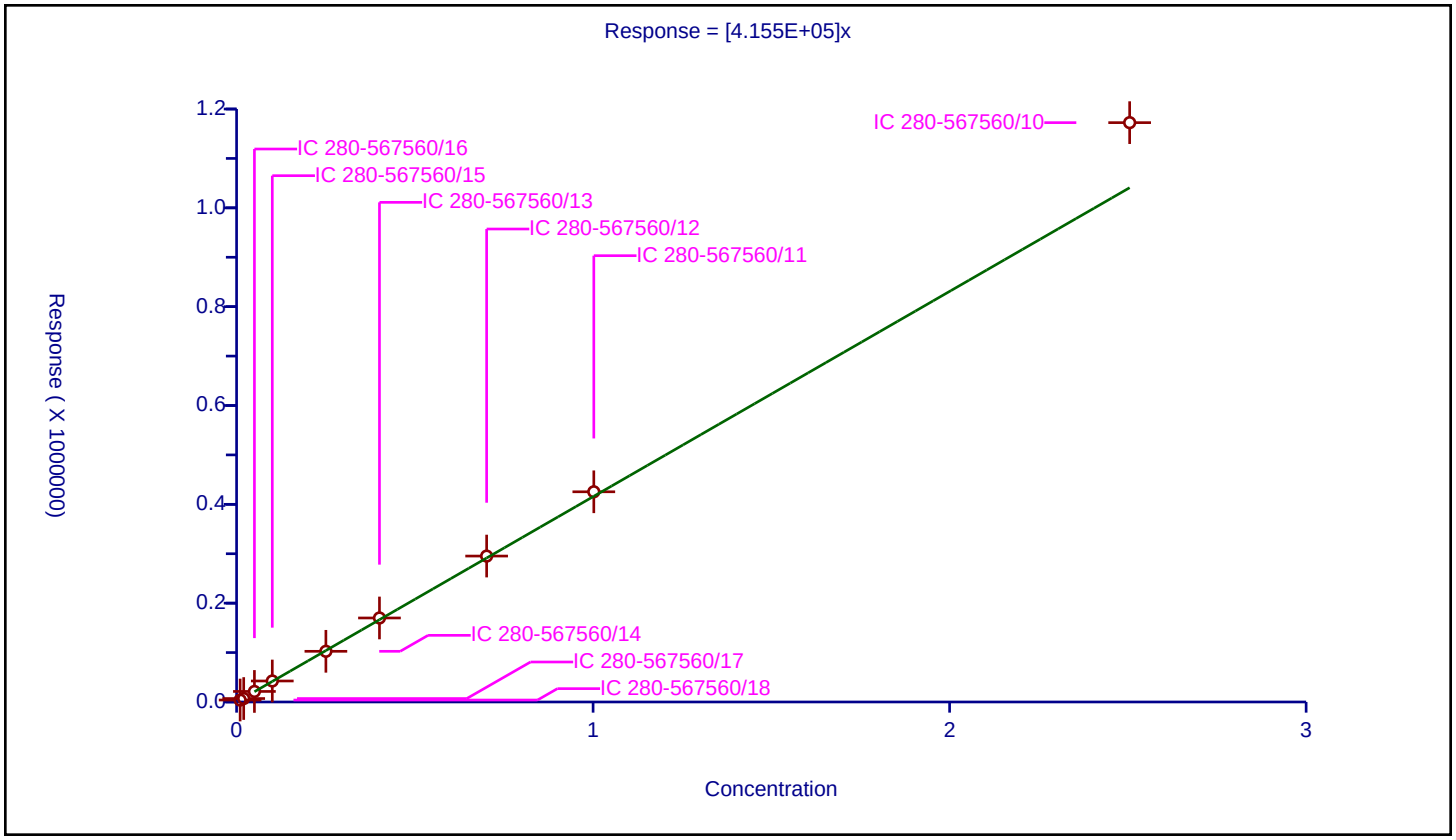
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.155E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 46700 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01002 | 3947.0 | | | 393912.175649 | Y |
| 2 | IC 280-567560/17 | 0.02004 | 6970.0 | | | 347804.391218 | Y |
| 3 | IC 280-567560/16 | 0.0501 | 21339.0 | | | 425928.143713 | Y |
| 4 | IC 280-567560/15 | 0.1002 | 42514.0 | | | 424291.417166 | Y |
| 5 | IC 280-567560/14 | 0.2505 | 102576.0 | | | 409485.02994 | Y |
| 6 | IC 280-567560/13 | 0.4008 | 170012.0 | | | 424181.636727 | Y |
| 7 | IC 280-567560/12 | 0.7014 | 295298.0 | | | 421012.261192 | Y |
| 8 | IC 280-567560/11 | 1.002 | 425388.0 | | | 424538.922156 | Y |
| 9 | IC 280-567560/10 | 2.505 | 1172398.0 | | | 468023.153693 | Y |



## Calibration / 2,6-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

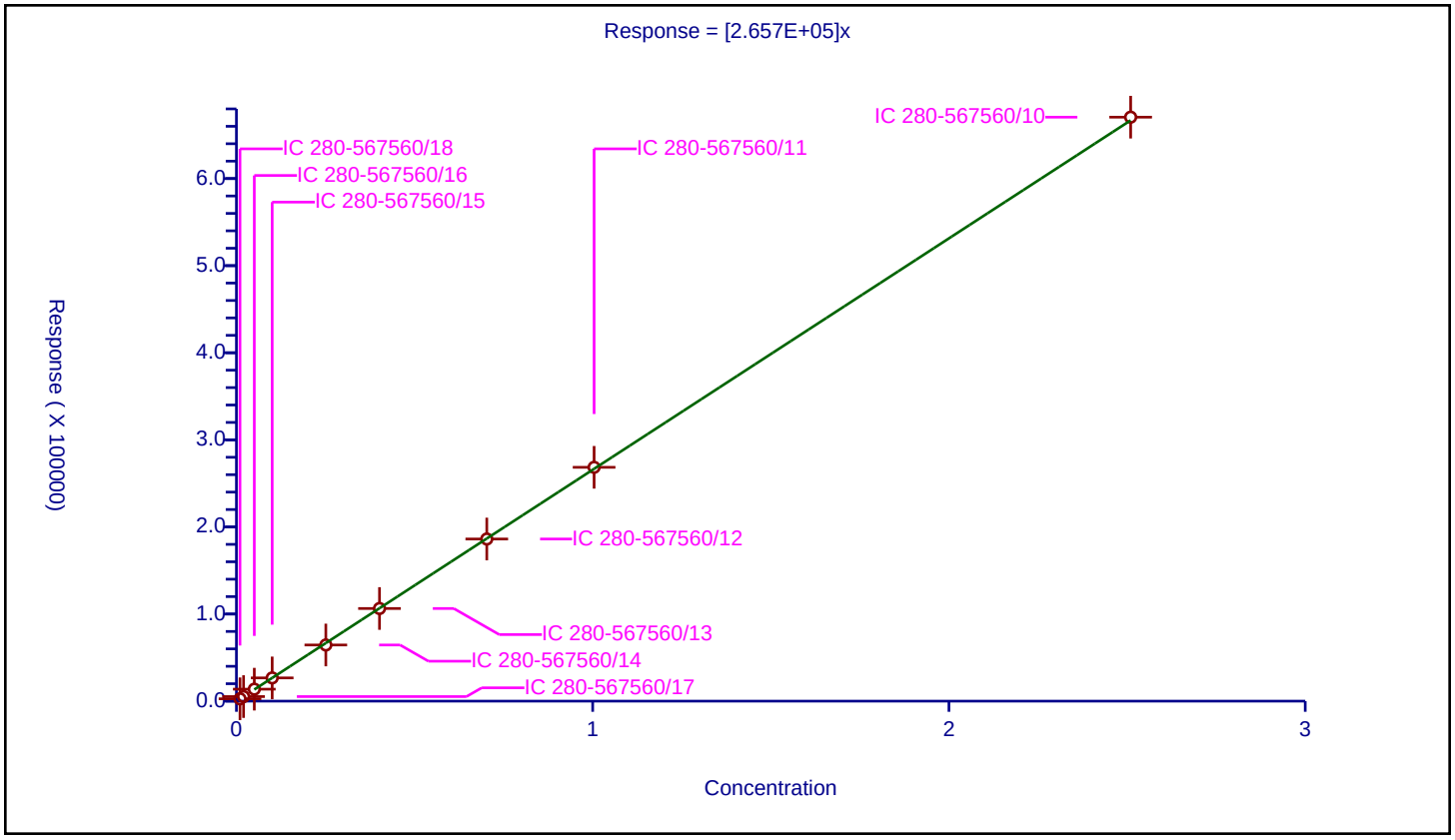
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.657E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1660 |
| **Relative Standard Error:** | 1.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01004 | 2704.0 | | | 269322.709163 | Y |
| 2 | IC 280-567560/17 | 0.02008 | 5233.0 | | | 260607.569721 | Y |
| 3 | IC 280-567560/16 | 0.0502 | 13757.0 | | | 274043.824701 | Y |
| 4 | IC 280-567560/15 | 0.1004 | 26687.0 | | | 265806.772908 | Y |
| 5 | IC 280-567560/14 | 0.251 | 64489.0 | | | 256928.286853 | Y |
| 6 | IC 280-567560/13 | 0.4016 | 106362.0 | | | 264845.61753 | Y |
| 7 | IC 280-567560/12 | 0.7028 | 186150.0 | | | 264869.095048 | Y |
| 8 | IC 280-567560/11 | 1.004 | 268478.0 | | | 267408.366534 | Y |
| 9 | IC 280-567560/10 | 2.51 | 670482.0 | | | 267124.302789 | Y |



## Calibration / 2,4-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

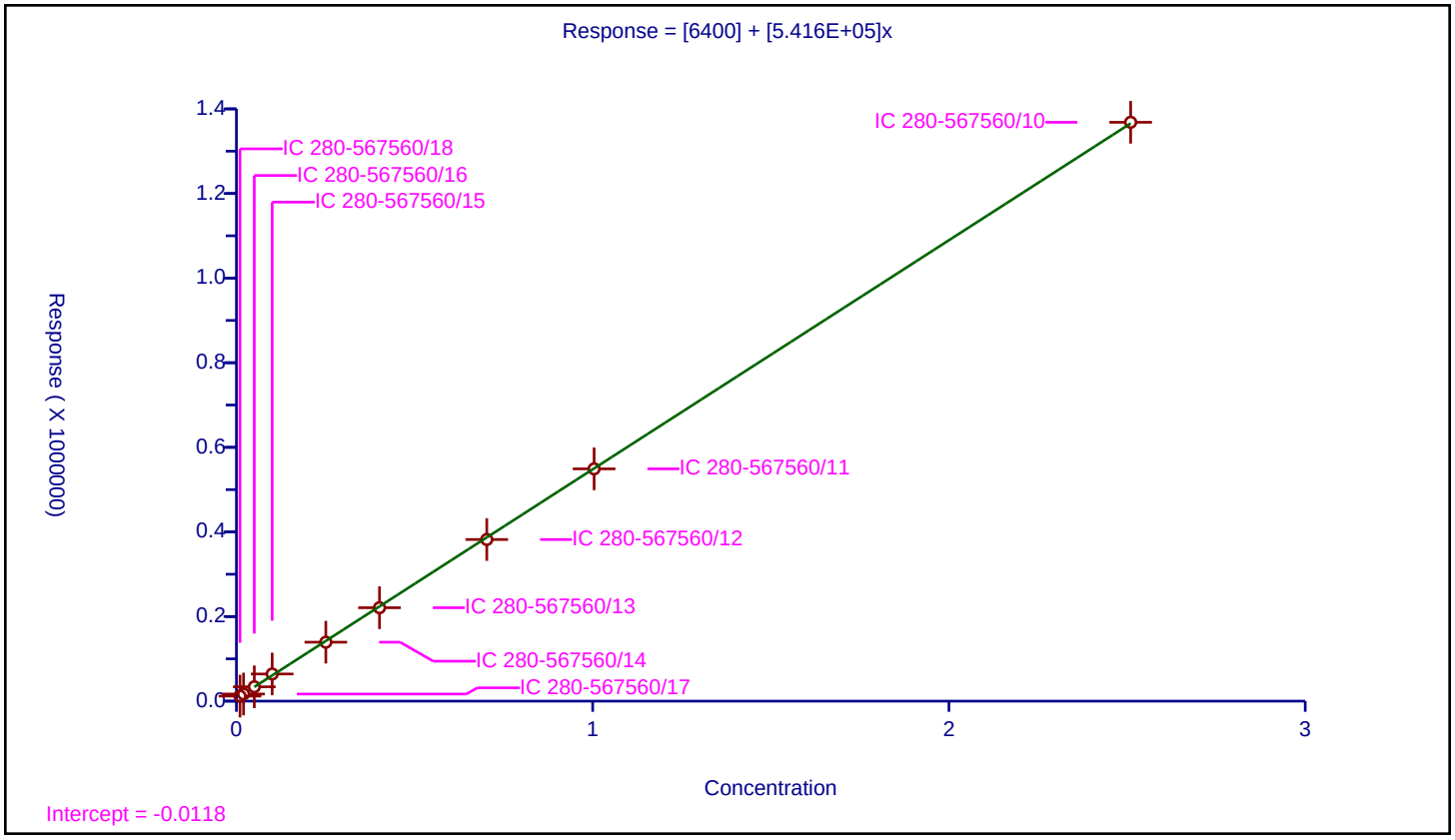
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 6400 |
| **Slope:** | 5.416E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2990 |
| **Relative Standard Error:** | 3.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01004 | 11900.0 | | | 1185258.964143 | Y |
| 2 | IC 280-567560/17 | 0.02008 | 16863.0 | | | 839790.836653 | Y |
| 3 | IC 280-567560/16 | 0.0502 | 33918.0 | | | 675657.370518 | Y |
| 4 | IC 280-567560/15 | 0.1004 | 64187.0 | | | 639312.749004 | Y |
| 5 | IC 280-567560/14 | 0.251 | 139375.0 | | | 555278.884462 | Y |
| 6 | IC 280-567560/13 | 0.4016 | 220828.0 | | | 549870.517928 | Y |
| 7 | IC 280-567560/12 | 0.7028 | 382059.0 | | | 543624.075128 | Y |
| 8 | IC 280-567560/11 | 1.004 | 549112.0 | | | 546924.302789 | Y |
| 9 | IC 280-567560/10 | 2.51 | 1368356.0 | | | 545161.752988 | Y |



## Calibration / Tetryl

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

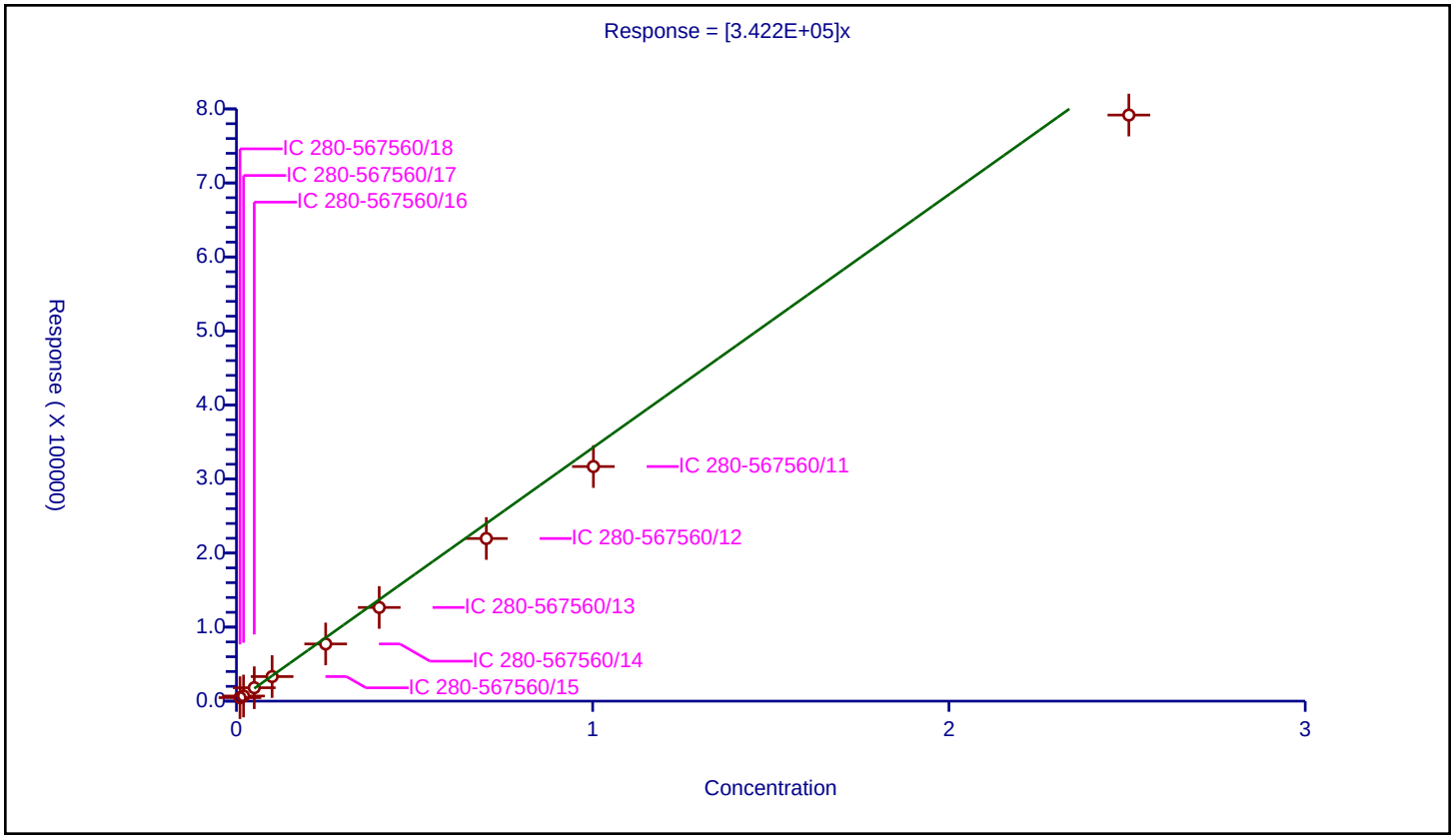
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.422E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 26400 |
| **Relative Standard Error:** | 15.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.965 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01002 | 4722.0 | | | 471257.48503 | Y |
| 2 | IC 280-567560/17 | 0.02004 | 6933.0 | | | 345958.083832 | Y |
| 3 | IC 280-567560/16 | 0.0501 | 18110.0 | | | 361477.045908 | Y |
| 4 | IC 280-567560/15 | 0.1002 | 33188.0 | | | 331217.56487 | Y |
| 5 | IC 280-567560/14 | 0.2505 | 77249.0 | | | 308379.241517 | Y |
| 6 | IC 280-567560/13 | 0.4008 | 126546.0 | | | 315733.532934 | Y |
| 7 | IC 280-567560/12 | 0.7014 | 219675.0 | | | 313195.038494 | Y |
| 8 | IC 280-567560/11 | 1.002 | 316900.0 | | | 316267.46507 | Y |
| 9 | IC 280-567560/10 | 2.505 | 791703.0 | | | 316049.101796 | Y |



## Calibration / 2,4,6-Trinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

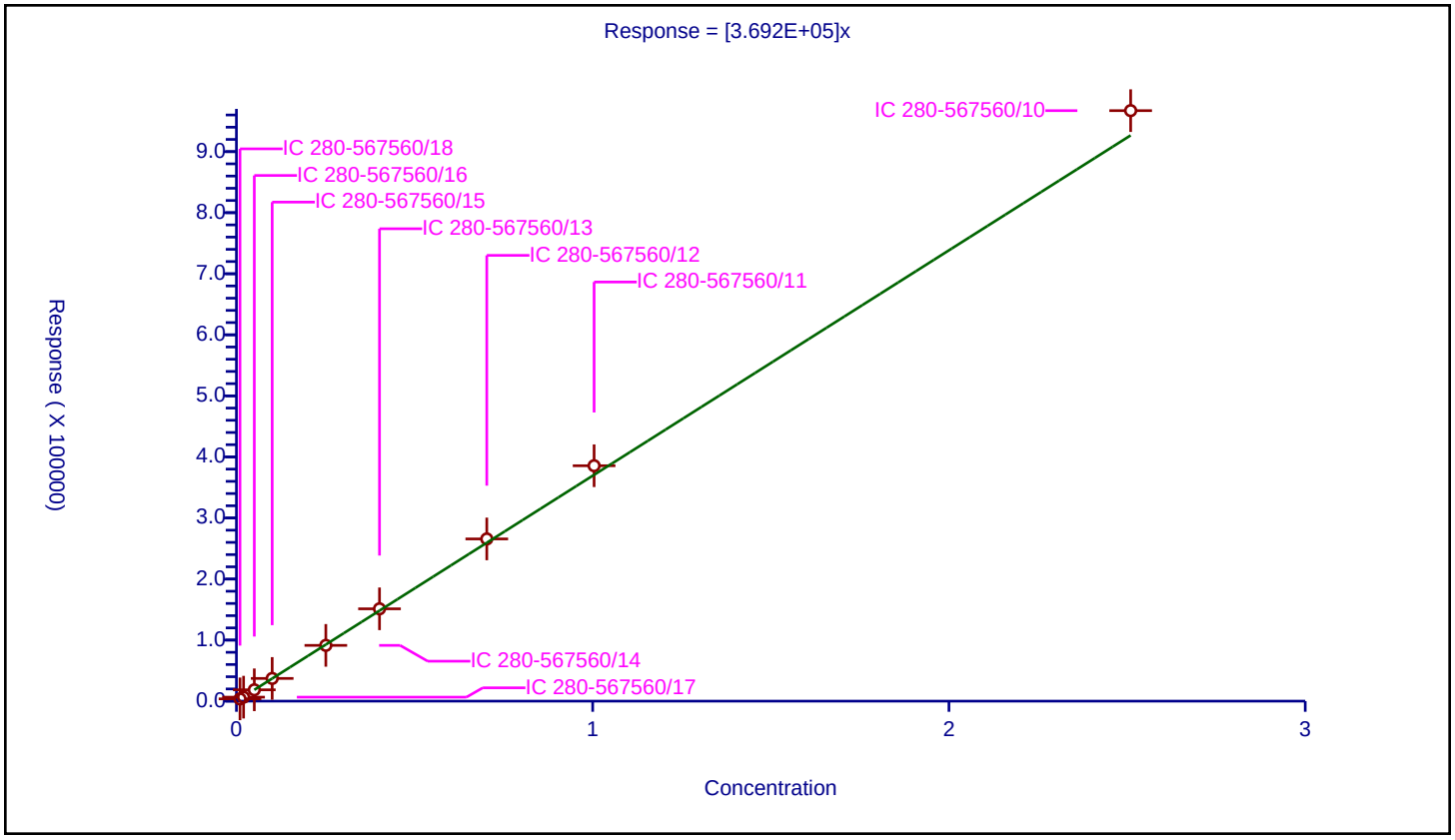
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.692E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 15500 |
| **Relative Standard Error:** | 5.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.01004 | 3720.0 | | | 370517.928287 | Y |
| 2 | IC 280-567560/17 | 0.02008 | 6507.0 | | | 324053.784861 | Y |
| 3 | IC 280-567560/16 | 0.0502 | 18556.0 | | | 369641.434263 | Y |
| 4 | IC 280-567560/15 | 0.1004 | 37205.0 | | | 370567.729084 | Y |
| 5 | IC 280-567560/14 | 0.251 | 91338.0 | | | 363896.414343 | Y |
| 6 | IC 280-567560/13 | 0.4016 | 151235.0 | | | 376581.175299 | Y |
| 7 | IC 280-567560/12 | 0.7028 | 265676.0 | | | 378025.042686 | Y |
| 8 | IC 280-567560/11 | 1.004 | 385560.0 | | | 384023.904382 | Y |
| 9 | IC 280-567560/10 | 2.51 | 967117.0 | | | 385305.577689 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

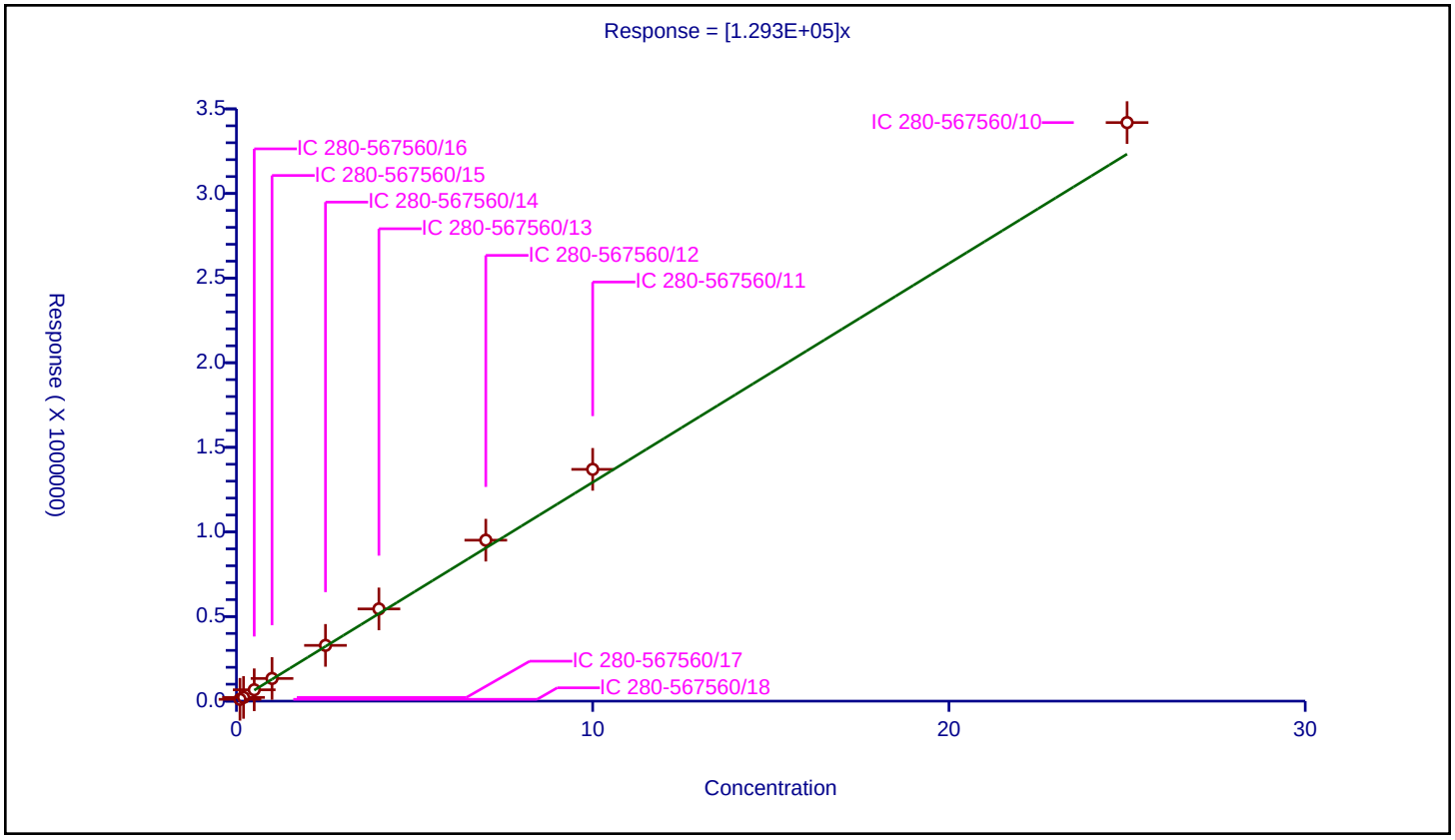
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.293E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 73600 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/18 | 0.1 | 10842.0 | | | 108420.0 | Y |
| 2 | IC 280-567560/17 | 0.2 | 21923.0 | | | 109615.0 | Y |
| 3 | IC 280-567560/16 | 0.5 | 67082.0 | | | 134164.0 | Y |
| 4 | IC 280-567560/15 | 1.0 | 134076.0 | | | 134076.0 | Y |
| 5 | IC 280-567560/14 | 2.5 | 329509.0 | | | 131803.6 | Y |
| 6 | IC 280-567560/13 | 4.0 | 544987.0 | | | 136246.75 | Y |
| 7 | IC 280-567560/12 | 7.0 | 951206.0 | | | 135886.571429 | Y |
| 8 | IC 280-567560/11 | 10.0 | 1369840.0 | | | 136984.0 | Y |
| 9 | IC 280-567560/10 | 25.0 | 3419168.0 | | | 136766.72 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/27 | 03020027.D |
| Level 2 | IC 280-567560/26 | 03020026.D |
| Level 3 | IC 280-567560/25 | 03020025.D |
| Level 4 | IC 280-567560/24 | 03020024.D |
| Level 5 | IC 280-567560/23 | 03020023.D |
| Level 6 | IC 280-567560/22 | 03020022.D |
| Level 7 | IC 280-567560/21 | 03020021.D |
| Level 8 | IC 280-567560/20 | 03020020.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 5.170 | 5.168 | 5.172 | 5.164 | 5.171 | 5.157 | 5.156 | 5.140 | | | 5.021 - 5.321 | 5.162 |
| DNX | 6.030 | 6.028 | 6.032 | 6.024 | 6.031 | 6.017 | 6.016 | 6.000 | | | 5.881 - 6.181 | 6.022 |
| MNX | 7.624 | 7.621 | 7.625 | 7.617 | 7.625 | 7.610 | 7.602 | 7.593 | | | 7.475 - 7.775 | 7.615 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver | Job No.: 280-159234-1 | Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 | Calibration End Date: 03/03/2022 07:19 | Calibration ID: 62763

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/27 | 03020027.D |
| Level 2 | IC 280-567560/26 | 03020026.D |
| Level 3 | IC 280-567560/25 | 03020025.D |
| Level 4 | IC 280-567560/24 | 03020024.D |
| Level 5 | IC 280-567560/23 | 03020023.D |
| Level 6 | IC 280-567560/22 | 03020022.D |
| Level 7 | IC 280-567560/21 | 03020021.D |
| Level 8 | IC 280-567560/20 | 03020020.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 349201<br>351611 | 355385<br>355367 | 353267<br>354987 | 350933<br>361808 | Ave | | 354069.850 | | | | 1.1 | | 20.0 | | | |
| DNX | 317133<br>267552 | 289031<br>269316 | 277622<br>267891 | 269419<br>271146 | Ave | | 278638.900 | | | | 6.2 | | 20.0 | | | |
| MNX | 257326<br>246598 | 252785<br>247481 | 254053<br>246929 | 246461<br>249015 | Ave | | 250081.020 | | | | 1.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159234-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-567560/27 | 03020027.D |
| Level 2 | IC 280-567560/26 | 03020026.D |
| Level 3 | IC 280-567560/25 | 03020025.D |
| Level 4 | IC 280-567560/24 | 03020024.D |
| Level 5 | IC 280-567560/23 | 03020023.D |
| Level 6 | IC 280-567560/22 | 03020022.D |
| Level 7 | IC 280-567560/21 | 03020021.D |
| Level 8 | IC 280-567560/20 | 03020020.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 | 6991<br>249006 | 17787<br>355342 | 35362<br>905425 | 87821 | 140785 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 6349<br>188710 | 14466<br>268159 | 27790<br>678544 | 67422 | 107128 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 6006<br>202167 | 14750<br>288166 | 29648<br>726501 | 71905 | 115112 | 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 Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D | | | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 03-Mar-2022 03:13:58 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 8 | | | | |
| Misc. Info.: | 280-0108949-020 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:18 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.140 | 5.171 | -0.031 | 905425 | 2.50 | 2.56 | |
| 4 DNX | 1 | 6.000 | 6.031 | -0.031 | 678544 | 2.50 | 2.44 | |
| 6 MNX | 1 | 7.593 | 7.625 | -0.032 | 726501 | 2.92 | 2.91 | |

## Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

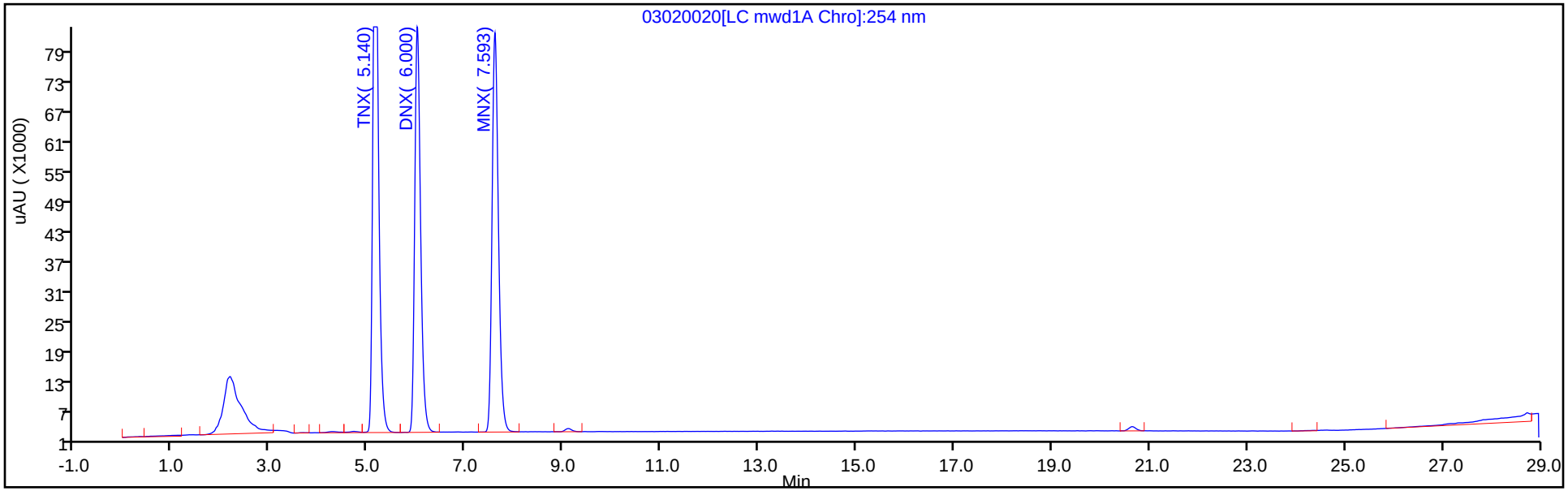
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

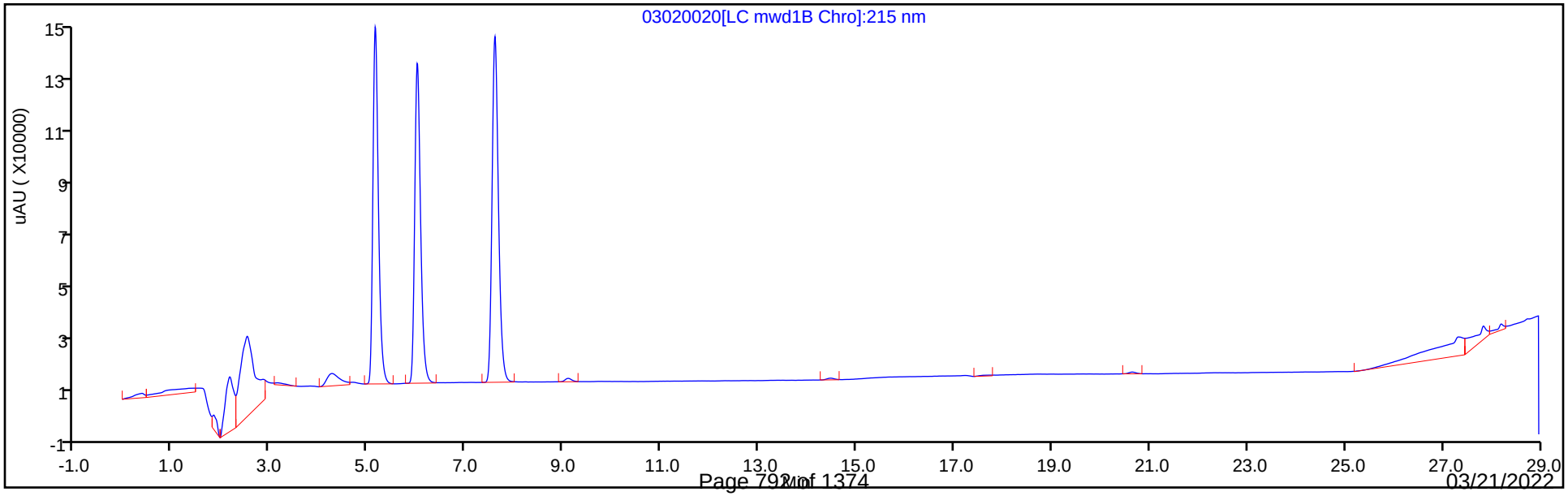
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 03:13:58 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 8 | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020021.D | | | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 03-Mar-2022 03:49:08 | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 7 | | | | |
| Misc. Info.: | 280-0108949-021 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:19 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.156 | 5.171 | -0.015 | 355342 | 1.00 | 1.00 | |
| 4 DNX | 1 | 6.016 | 6.031 | -0.015 | 268159 | 1.00 | 0.9624 | |
| 6 MNX | 1 | 7.602 | 7.625 | -0.023 | 288166 | 1.17 | 1.15 | |

## Reagents:

8330 DMT_00010 Amount Added: 50.00 Units: uL

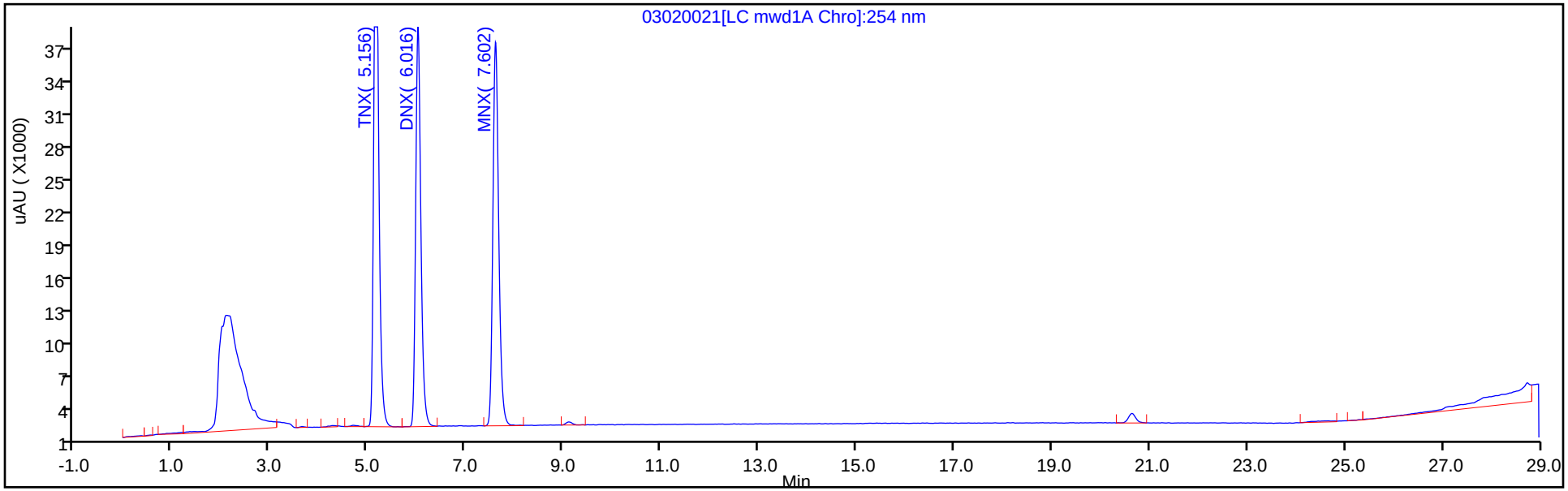
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

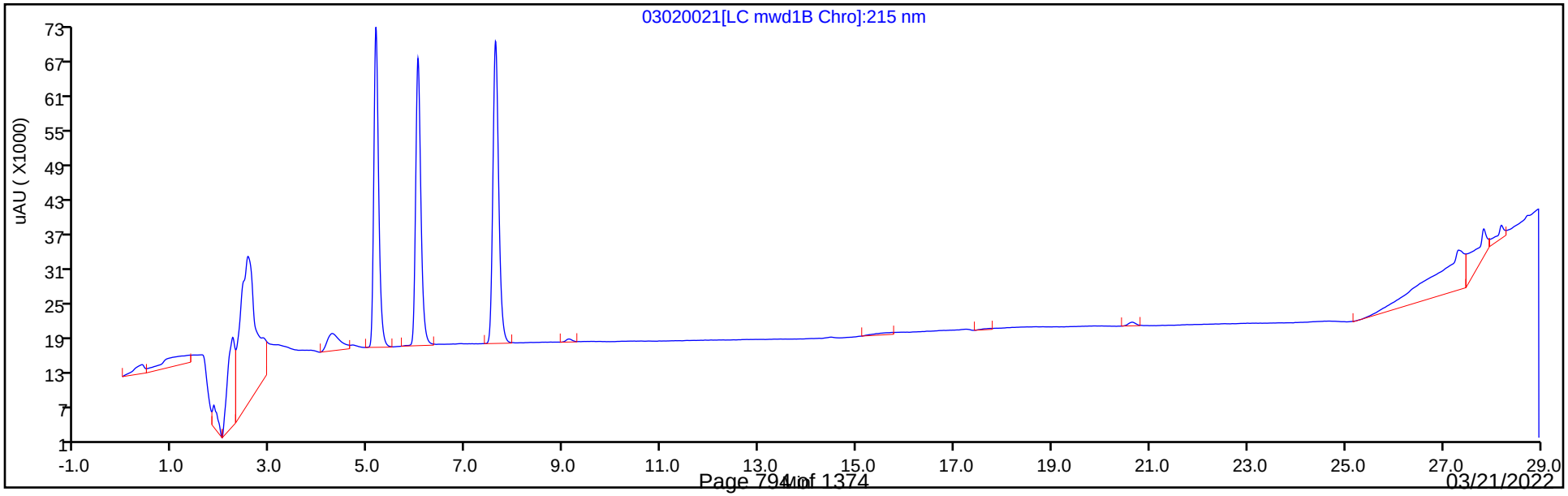
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020021.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 03:49:08 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 7 | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020022.D | | | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 03-Mar-2022 04:24:13 | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 6 | | | | |
| Misc. Info.: | 280-0108949-022 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:19 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.157 | 5.171 | -0.014 | 249006 | 0.7007 | 0.7033 | |
| 4 DNX | 1 | 6.017 | 6.031 | -0.014 | 188710 | 0.7007 | 0.6773 | |
| 6 MNX | 1 | 7.610 | 7.625 | -0.015 | 202167 | 0.8169 | 0.8084 | |

## Reagents:

8330 DMT_00010 Amount Added: 35.00 Units: uL

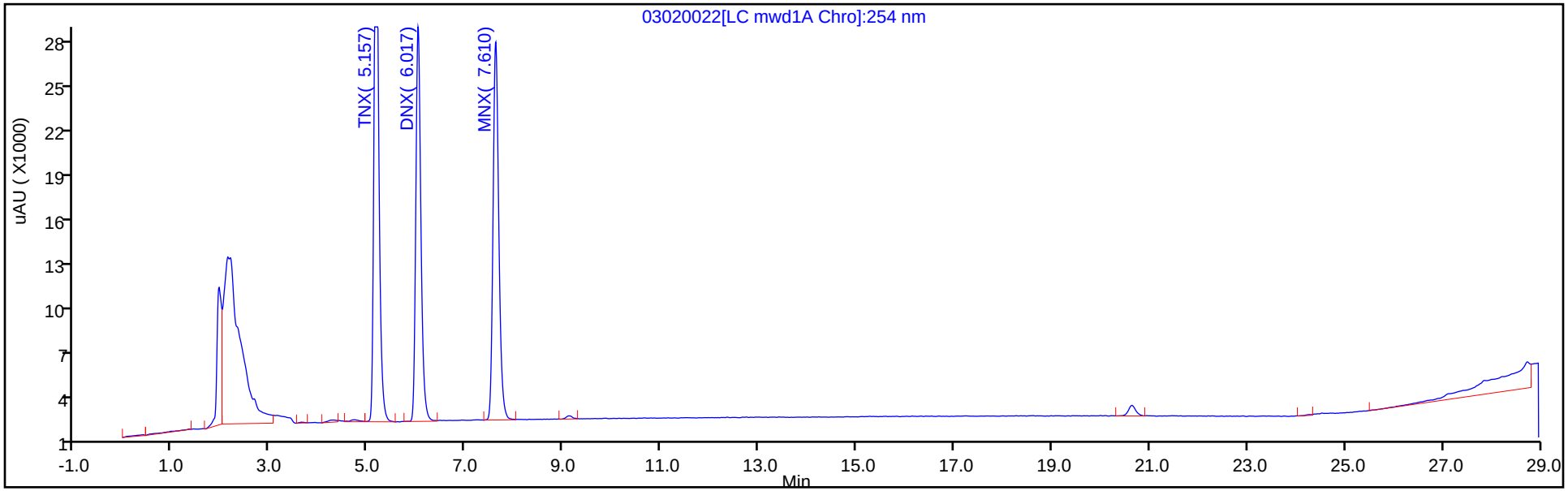
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

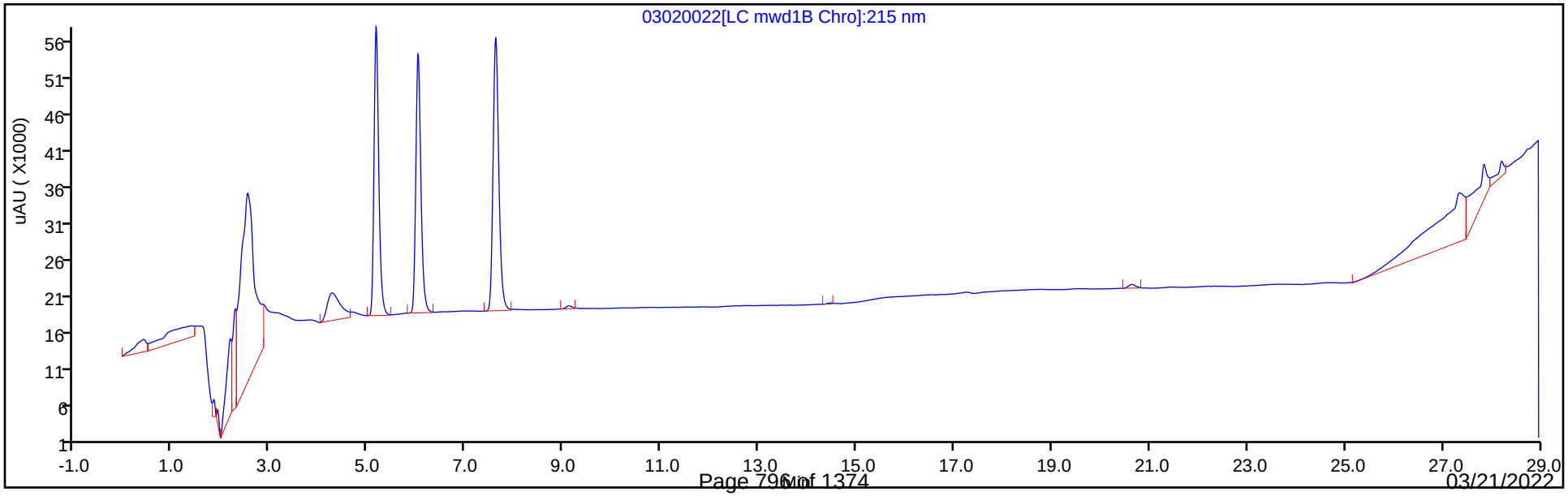
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020022.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 04:24:13 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 6 | | | Worklist Smp#: | 22 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020023.D | | | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 03-Mar-2022 04:59:22 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 5 | | | | |
| Misc. Info.: | 280-0108949-023 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:20 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.171 | 5.171 | 0.000 | 140785 | 0.4004 | 0.3976 | |
| 4 DNX | 1 | 6.031 | 6.031 | 0.000 | 107128 | 0.4004 | 0.3845 | |
| 6 MNX | 1 | 7.625 | 7.625 | 0.000 | 115112 | 0.4668 | 0.4603 | |

## Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

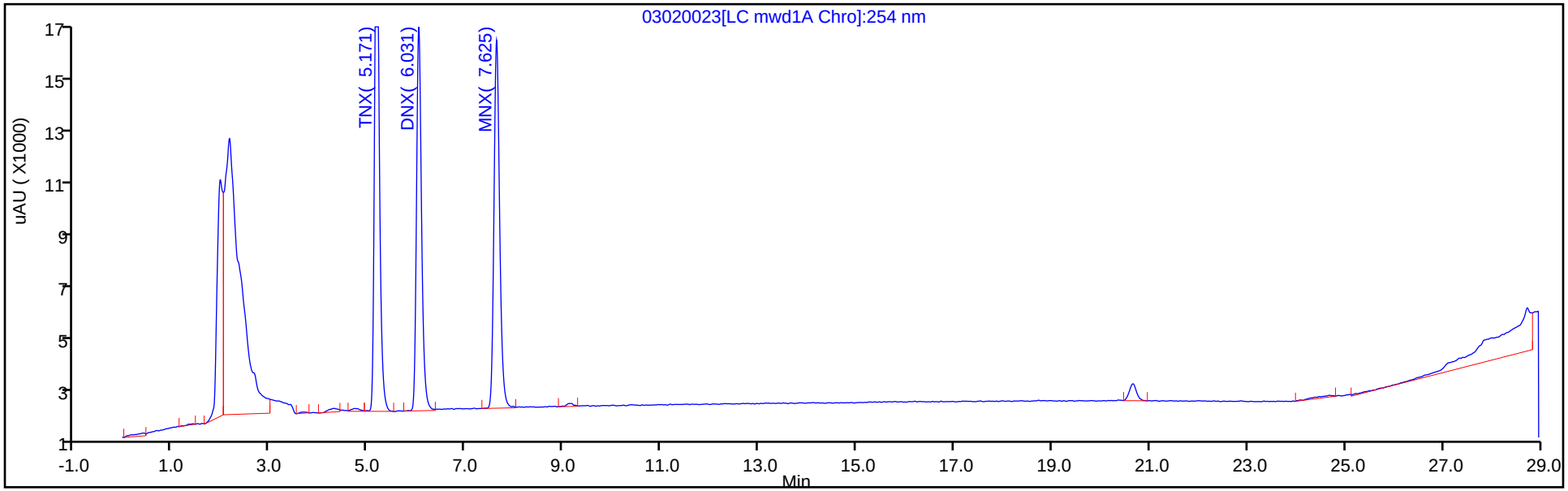
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

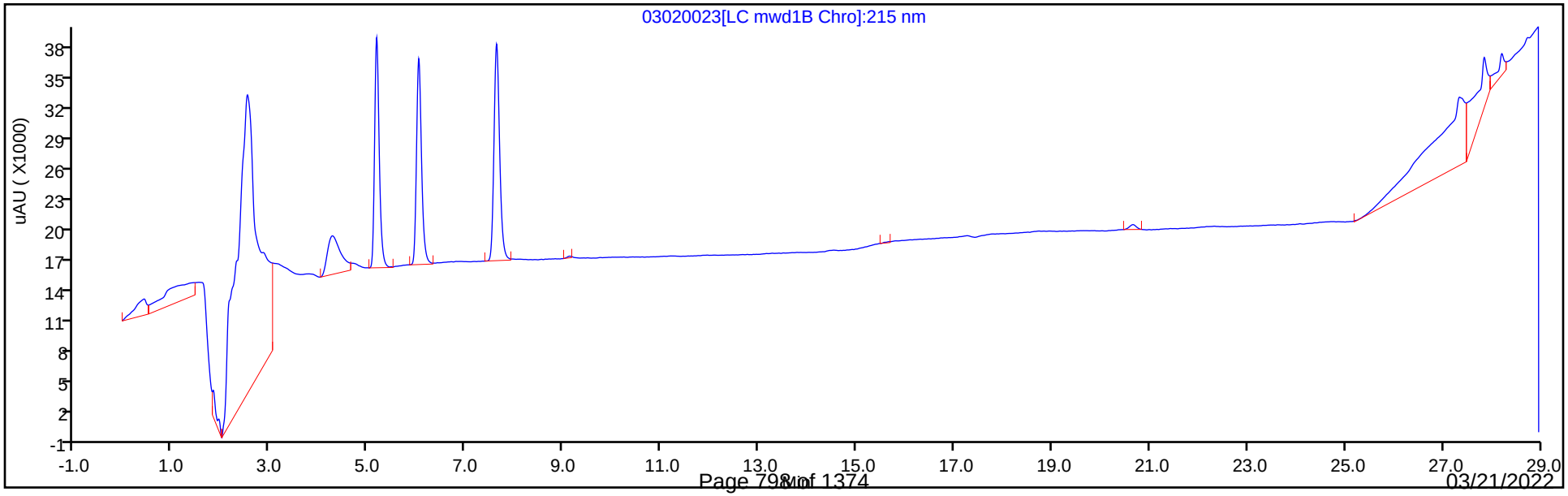
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020023.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 04:59:22 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 5 | | | Worklist Smp#: | 23 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D
Lims ID: IC DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 05:34:27 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 4
Misc. Info.: 280-0108949-024
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:20 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.164 | 5.171 | -0.007 | 87821 | 0.2503 | 0.2480 | |
| 4 DNX | 1 | 6.024 | 6.031 | -0.007 | 67422 | 0.2503 | 0.2420 | |
| 6 MNX | 1 | 7.617 | 7.625 | -0.008 | 71905 | 0.2918 | 0.2875 | |

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

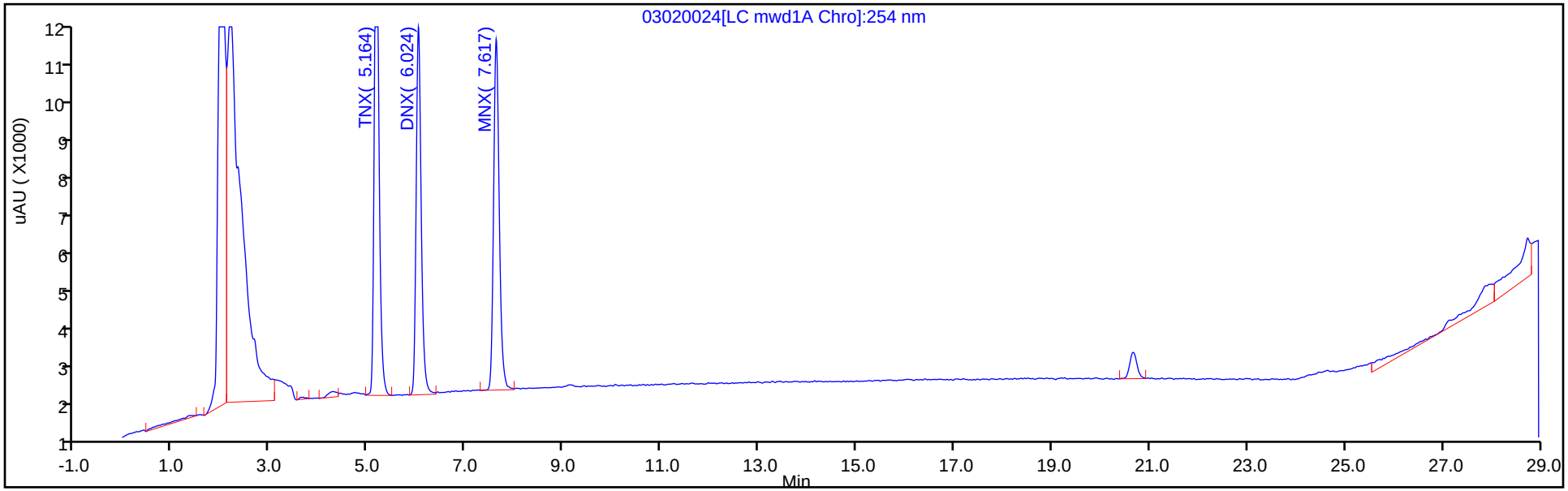
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

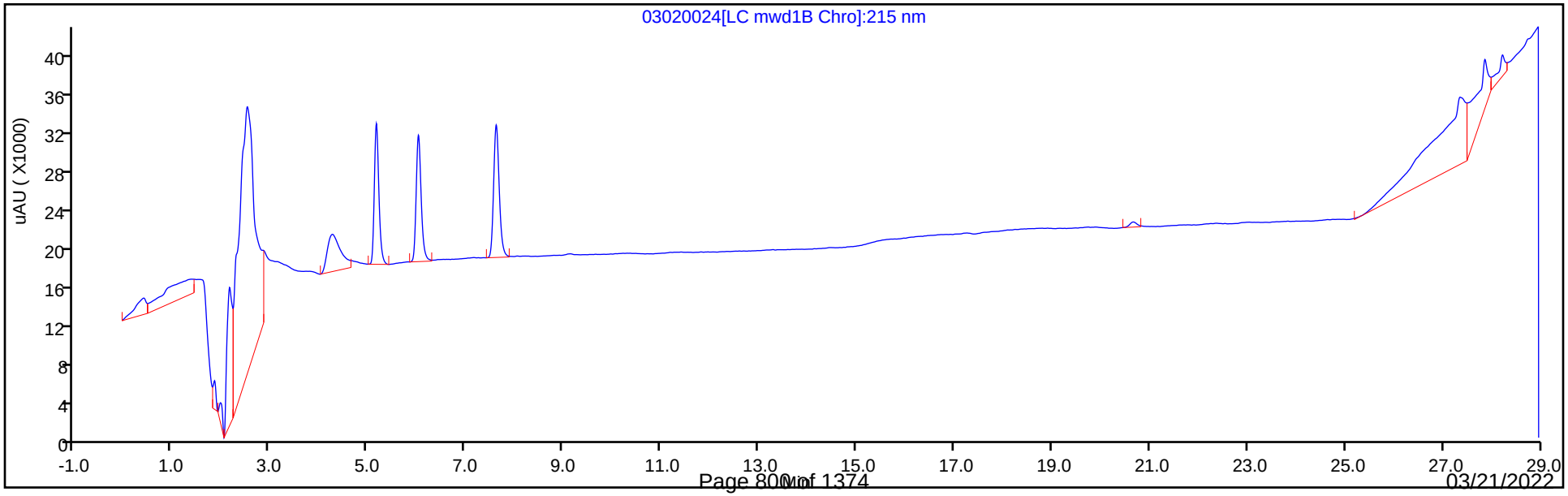
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 05:34:27 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 4 | | | Worklist Smp#: | 24 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020025.D | | | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 03-Mar-2022 06:09:35 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 3 | | | | |
| Misc. Info.: | 280-0108949-025 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:21 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.172 | 5.171 | 0.001 | 35362 | 0.1001 | 0.0999 | |
| 4 DNX | 1 | 6.032 | 6.031 | 0.001 | 27790 | 0.1001 | 0.0997 | |
| 6 MNX | 1 | 7.625 | 7.625 | 0.000 | 29648 | 0.1167 | 0.1186 | |

## Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

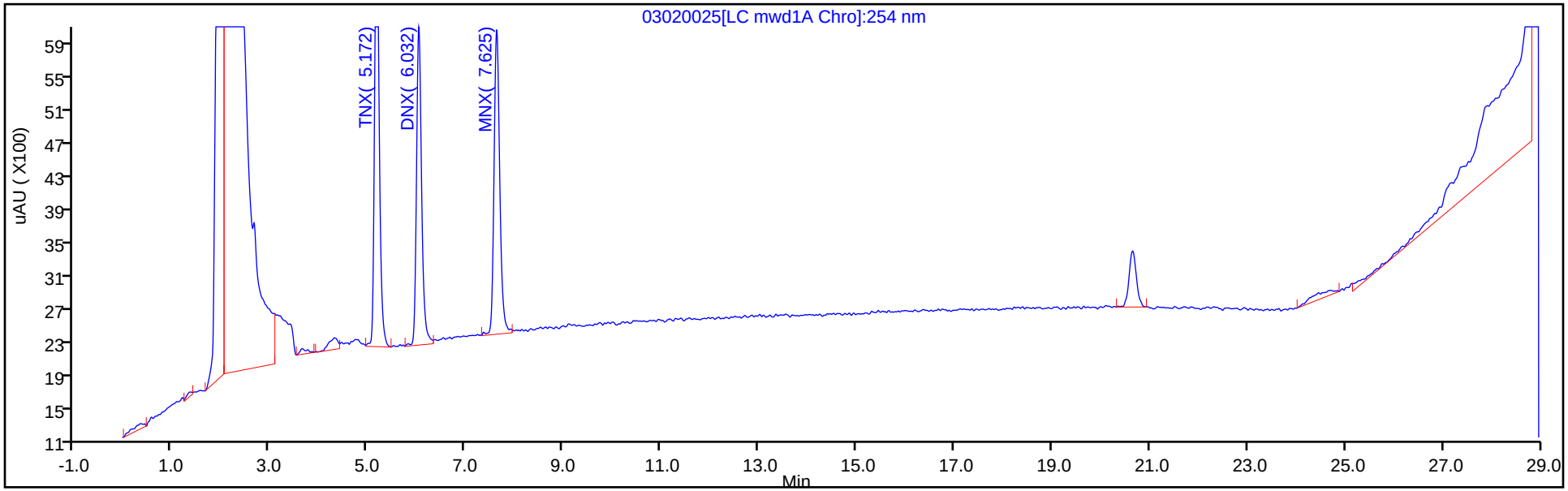
Report Date: 03-Mar-2022 12:49:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

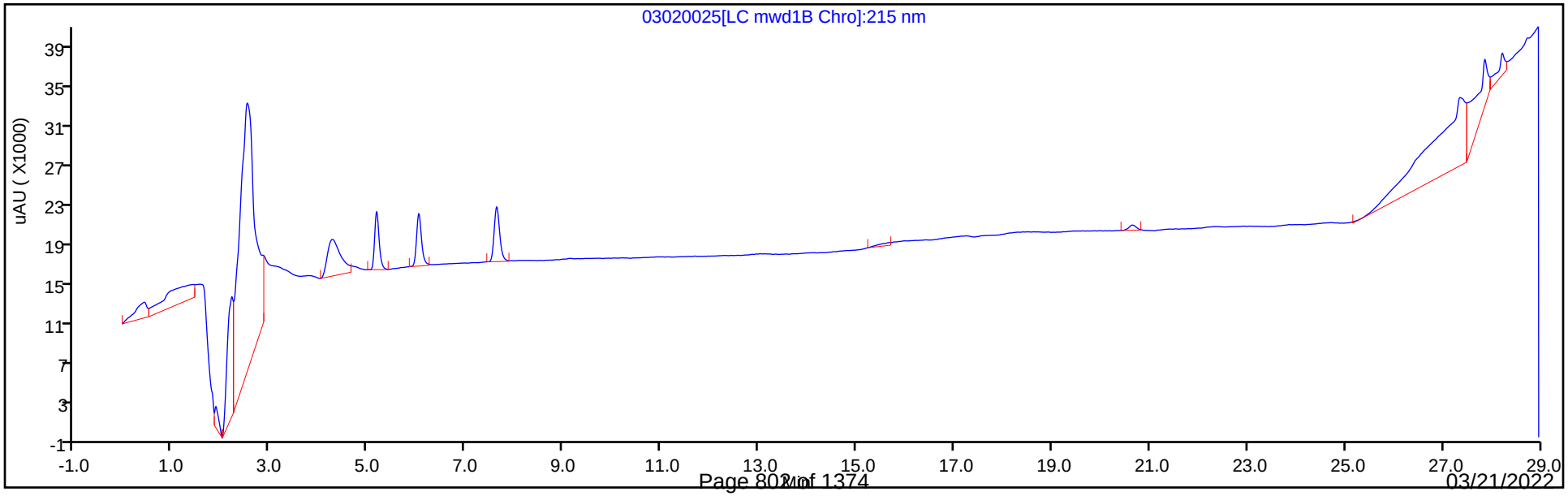
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020025.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 06:09:35 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 3 | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020026.D
Lims ID: IC DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2022 06:44:40 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 2
Misc. Info.: 280-0108949-026
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:21 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.168 | 5.171 | -0.003 | 17787 | 0.0501 | 0.0502 | |
| 4 DNX | 1 | 6.028 | 6.031 | -0.003 | 14466 | 0.0501 | 0.0519 | |
| 6 MNX | 1 | 7.621 | 7.625 | -0.004 | 14750 | 0.0584 | 0.0590 | |

## Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

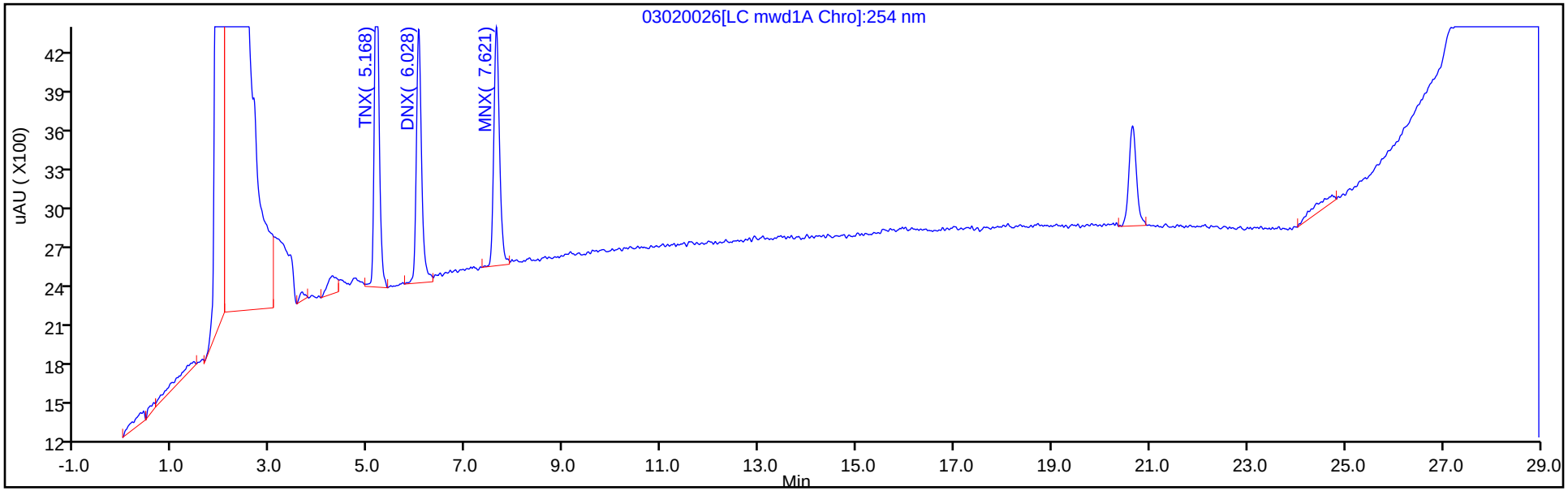
Report Date: 03-Mar-2022 12:49:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

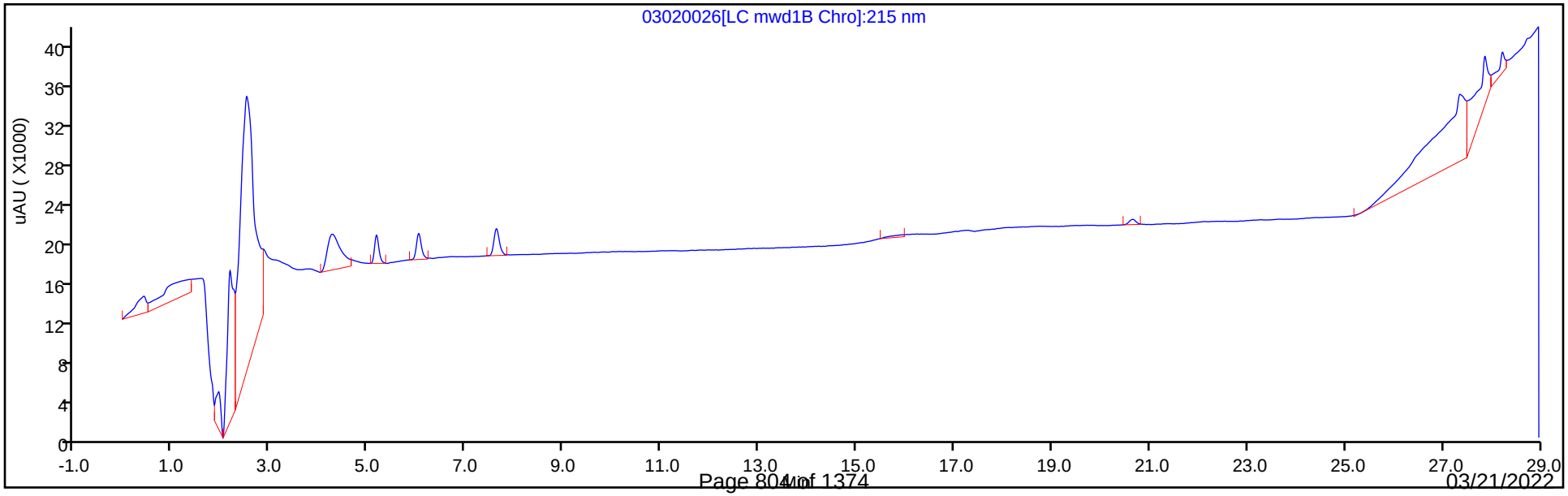
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020026.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 06:44:40 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 2 | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 03-Mar-2022 07:19:48 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 1 | | | | |
| Misc. Info.: | 280-0108949-027 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 12:49:22 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.170 | 5.171 | -0.001 | 6991 | 0.0200 | 0.0197 | |
| 4 DNX | 1 | 6.030 | 6.031 | -0.001 | 6349 | 0.0200 | 0.0228 | |
| 6 MNX | 1 | 7.624 | 7.625 | -0.001 | 6006 | 0.0233 | 0.0240 | |

## Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

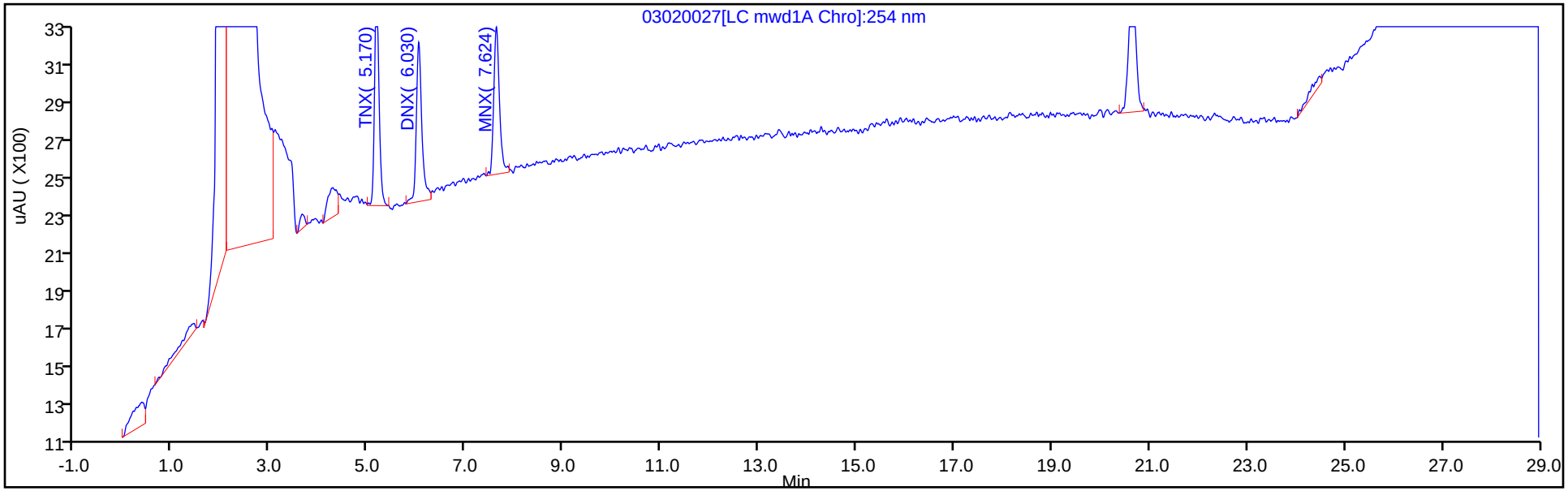
Report Date: 03-Mar-2022 12:49:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

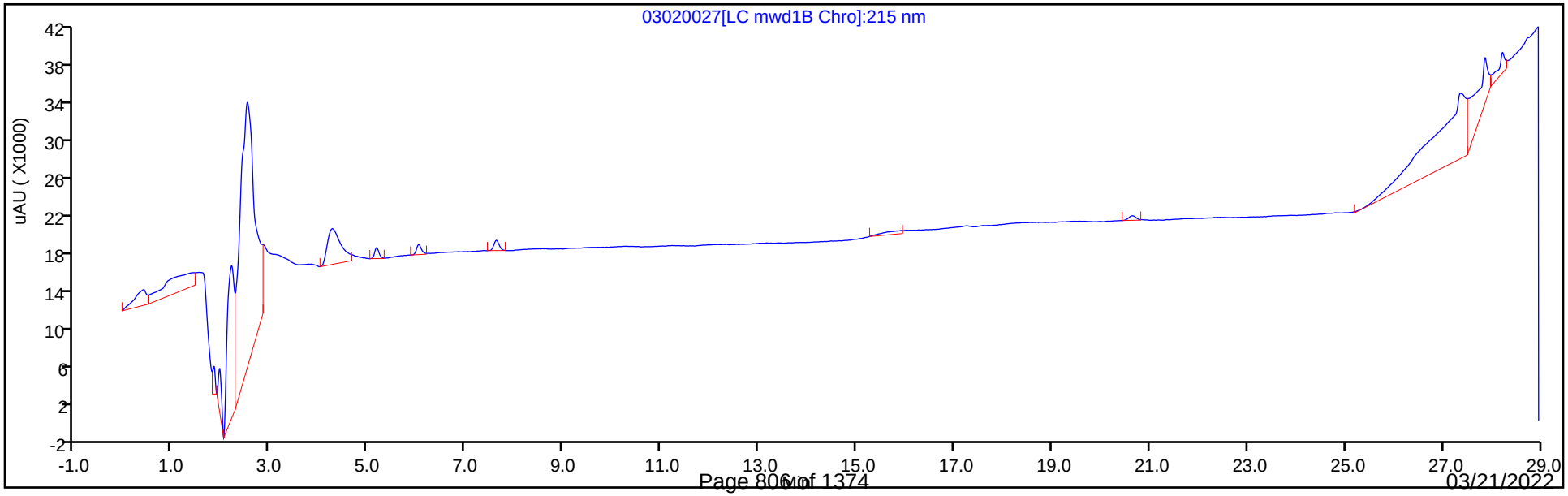
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 07:19:48 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | IC DMT 1 | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



## Calibration / TNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

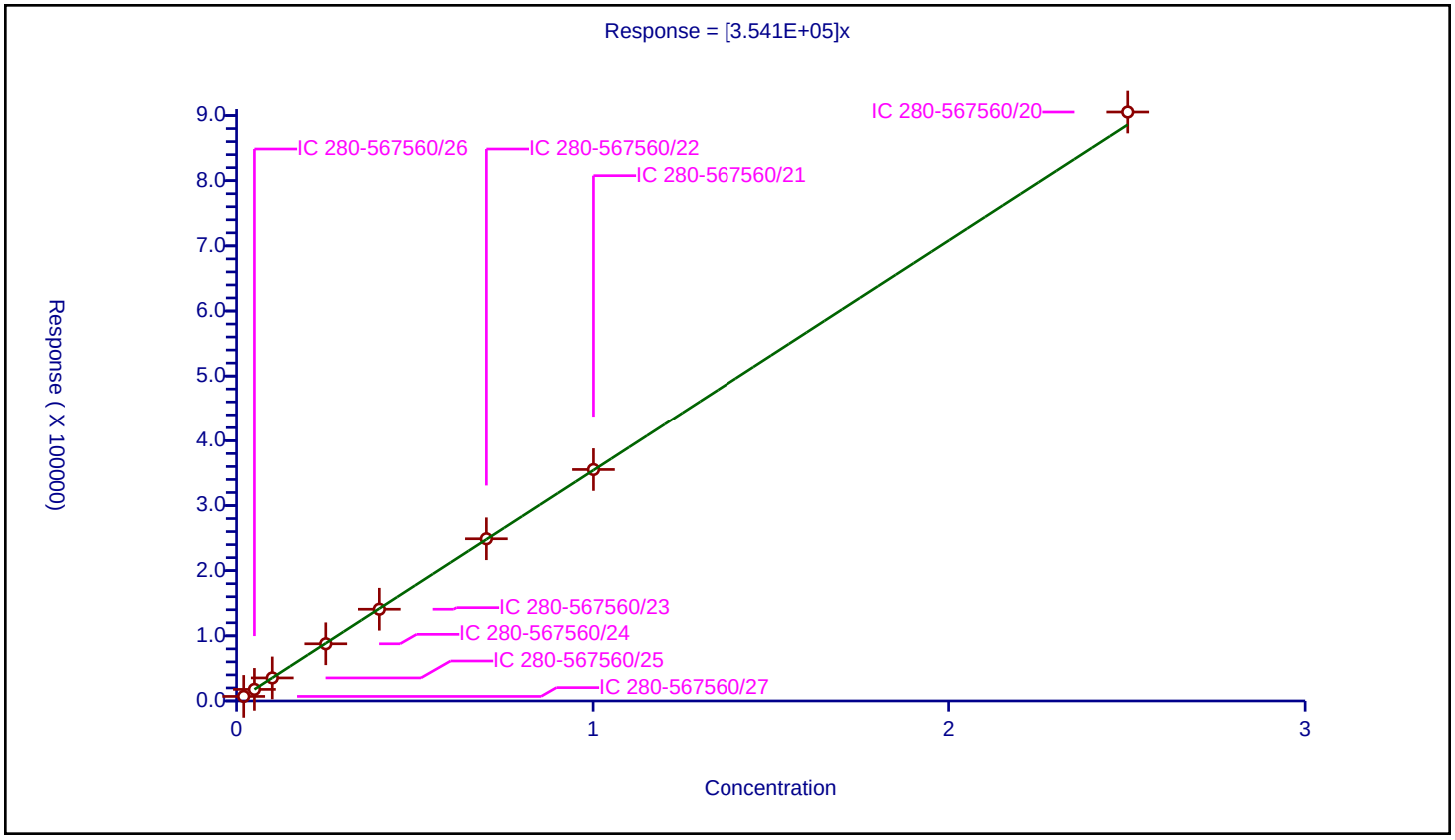
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.541E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7350 |
| **Relative Standard Error:** | 1.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/27 | 0.02002 | 6991.0 | | | 349200.799201 | Y |
| 2 | IC 280-567560/26 | 0.05005 | 17787.0 | | | 355384.615385 | Y |
| 3 | IC 280-567560/25 | 0.1001 | 35362.0 | | | 353266.733267 | Y |
| 4 | IC 280-567560/24 | 0.25025 | 87821.0 | | | 350933.066933 | Y |
| 5 | IC 280-567560/23 | 0.4004 | 140785.0 | | | 351610.889111 | Y |
| 6 | IC 280-567560/22 | 0.7007 | 249006.0 | | | 355367.489653 | Y |
| 7 | IC 280-567560/21 | 1.001 | 355342.0 | | | 354987.012987 | Y |
| 8 | IC 280-567560/20 | 2.5025 | 905425.0 | | | 361808.191808 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

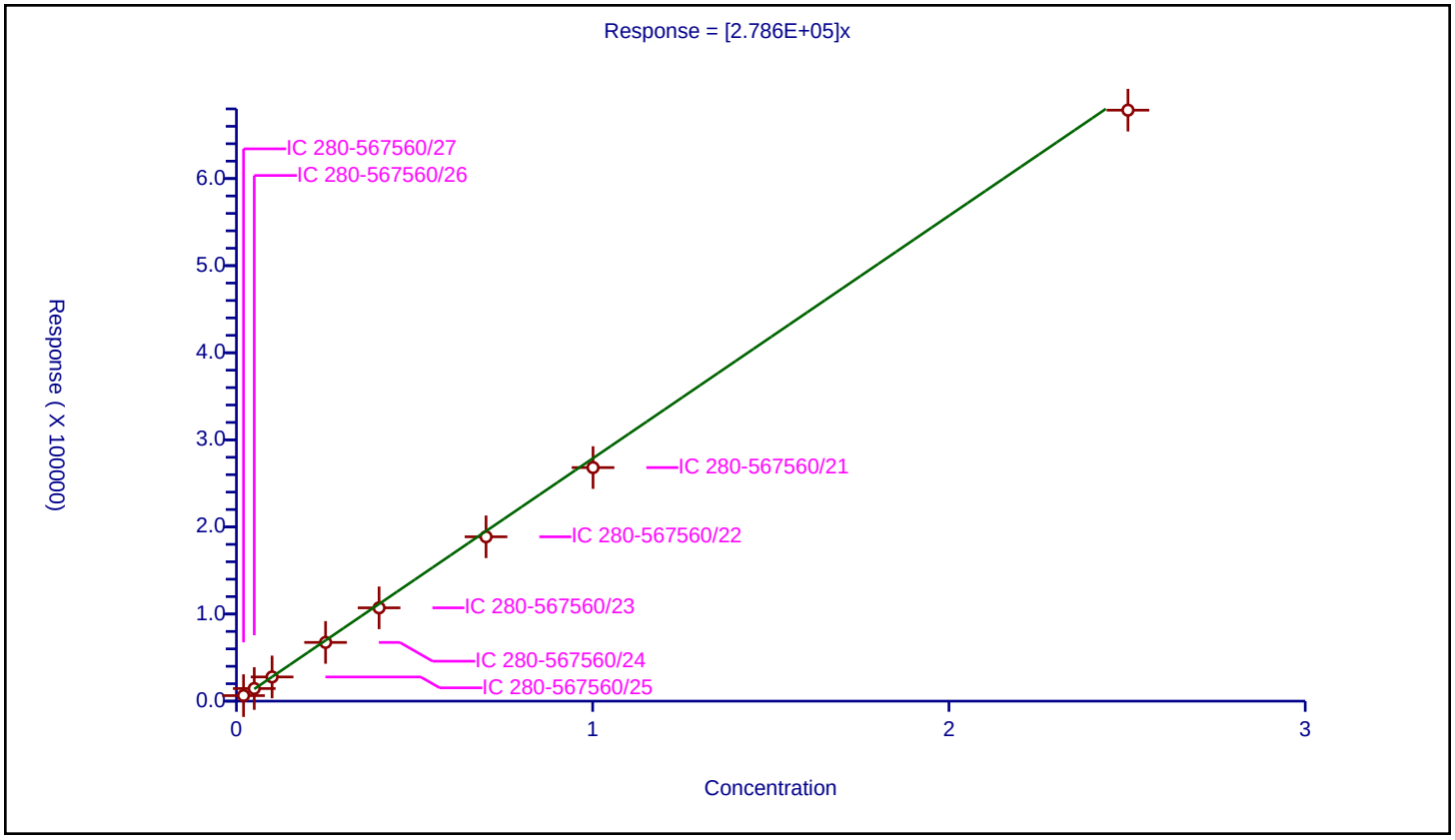
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.786E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 8750 |
| **Relative Standard Error:** | 6.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/27 | 0.02002 | 6349.0 | | | 317132.867133 | Y |
| 2 | IC 280-567560/26 | 0.05005 | 14466.0 | | | 289030.969031 | Y |
| 3 | IC 280-567560/25 | 0.1001 | 27790.0 | | | 277622.377622 | Y |
| 4 | IC 280-567560/24 | 0.25025 | 67422.0 | | | 269418.581419 | Y |
| 5 | IC 280-567560/23 | 0.4004 | 107128.0 | | | 267552.447552 | Y |
| 6 | IC 280-567560/22 | 0.7007 | 188710.0 | | | 269316.397888 | Y |
| 7 | IC 280-567560/21 | 1.001 | 268159.0 | | | 267891.108891 | Y |
| 8 | IC 280-567560/20 | 2.5025 | 678544.0 | | | 271146.453546 | Y |



| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

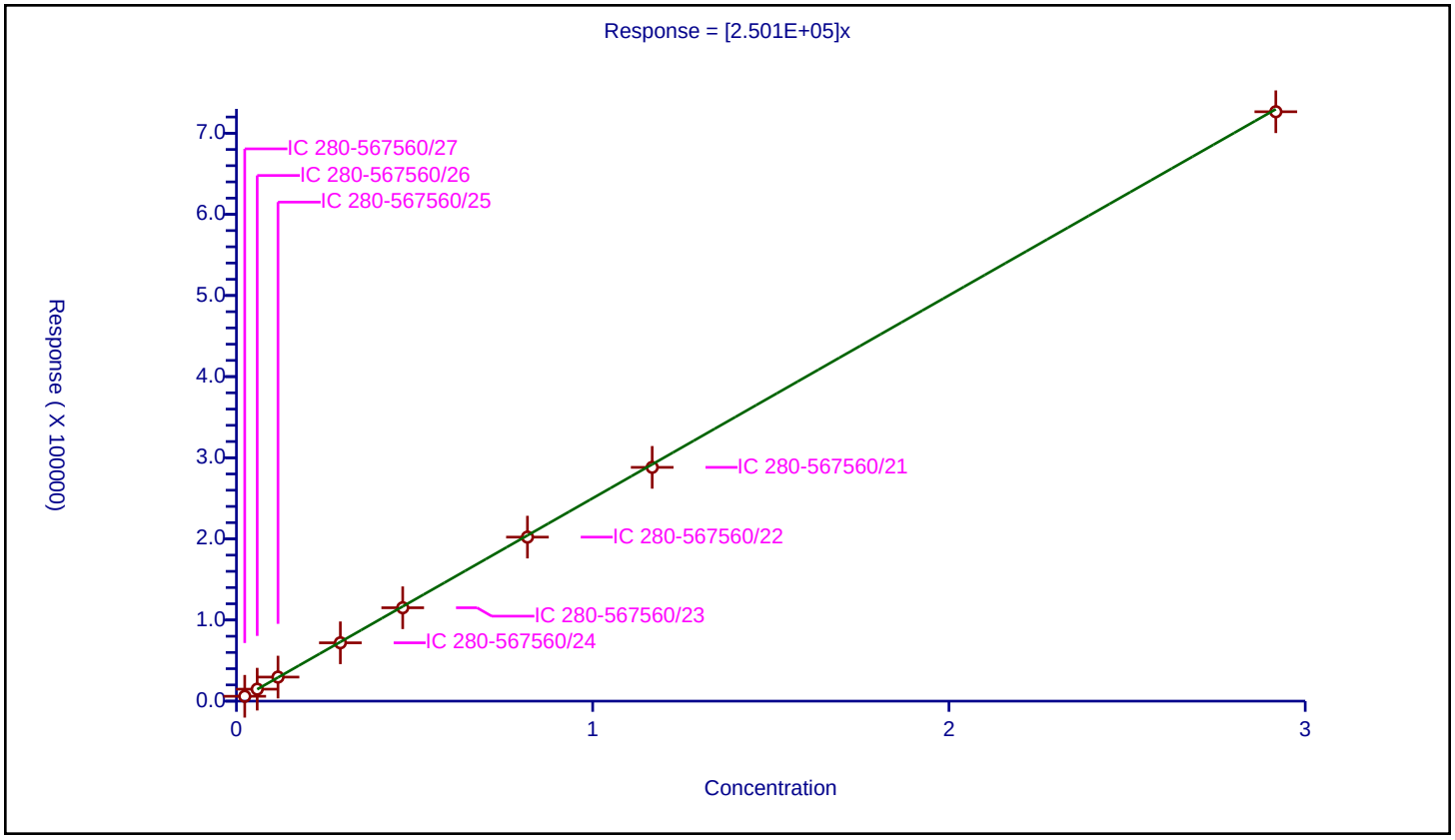
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.501E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2130 |
| **Relative Standard Error:** | 1.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-567560/27 | 0.02334 | 6006.0 | | | 257326.478149 | Y |
| 2 | IC 280-567560/26 | 0.05835 | 14750.0 | | | 252784.918595 | Y |
| 3 | IC 280-567560/25 | 0.1167 | 29648.0 | | | 254053.127678 | Y |
| 4 | IC 280-567560/24 | 0.29175 | 71905.0 | | | 246461.01114 | Y |
| 5 | IC 280-567560/23 | 0.4668 | 115112.0 | | | 246598.114824 | Y |
| 6 | IC 280-567560/22 | 0.8169 | 202167.0 | | | 247480.719794 | Y |
| 7 | IC 280-567560/21 | 1.167 | 288166.0 | | | 246928.877464 | Y |
| 8 | IC 280-567560/20 | 2.9175 | 726501.0 | | | 249014.910026 | Y |



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 83827 | 81972 | | 489 | 500 | -2.2 | 15.0 |
| RDX | Ave | 103609 | 97016 | | 468 | 500 | -6.4 | 15.0 |
| Picric acid | Ave | 77039 | 79050 | | 513 | 500 | 2.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 218096 | 225924 | | 518 | 500 | 3.6 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 288401 | 300348 | | 521 | 500 | 4.1 | 15.0 |
| Nitrobenzene | Ave | 191953 | 197872 | | 515 | 500 | 3.1 | 15.0 |
| Tetryl | Ave | 170567 | 173346 | | 508 | 500 | 1.6 | 15.0 |
| Nitroglycerin | Ave | 63037 | 66420 | | 5270 | 5000 | 5.4 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 202726 | 207174 | | 511 | 500 | 2.2 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 150985 | 149862 | | 496 | 500 | -0.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202171 | 202042 | | 500 | 500 | -0.0 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143115 | 146810 | | 513 | 500 | 2.6 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 289351 | 286440 | | 495 | 500 | -1.0 | 15.0 |
| 2-Nitrotoluene | Ave | 127614 | 127510 | | 500 | 500 | -0.0 | 15.0 |
| 4-Nitrotoluene | Ave | 106235 | 113254 | | 533 | 500 | 6.6 | 15.0 |
| 3-Nitrotoluene | Ave | 142273 | 134496 | | 473 | 500 | -5.5 | 15.0 |
| PETN | Lin2 | | 76139 | | 5230 | 5000 | 4.6 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 124698 | 132072 | | 530 | 500 | 5.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.60 | 6.45 | 6.75 |
| RDX | 7.60 | 7.46 | 7.76 |
| Picric acid | 7.92 | 7.80 | 8.10 |
| 1,3,5-Trinitrobenzene | 8.68 | 8.54 | 8.84 |
| 1,3-Dinitrobenzene | 9.32 | 9.18 | 9.48 |
| Nitrobenzene | 9.71 | 9.58 | 9.88 |
| Tetryl | 10.04 | 9.91 | 10.21 |
| Nitroglycerin | 10.50 | 10.37 | 10.67 |
| 2,4,6-Trinitrotoluene | 10.96 | 10.87 | 11.07 |
| 4-Amino-2,6-dinitrotoluene | 11.16 | 11.07 | 11.27 |
| 2-Amino-4,6-dinitrotoluene | 11.41 | 11.33 | 11.53 |
| 2,6-Dinitrotoluene | 11.58 | 11.50 | 11.70 |
| 2,4-Dinitrotoluene | 11.75 | 11.67 | 11.87 |
| 2-Nitrotoluene | 12.62 | 12.49 | 12.79 |
| 4-Nitrotoluene | 13.05 | 12.92 | 13.22 |
| 3-Nitrotoluene | 13.63 | 13.50 | 13.80 |
| PETN | 14.72 | 14.59 | 14.89 |
| 1,2-Dinitrobenzene | 8.56 | 8.42 | 8.72 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040020.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 04-Jan-2022 21:54:19 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0107731-020
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:07:47 Calib Date: 04-Jan-2022 21:31:24
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:07:47

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.602 | 6.598 | 0.004 | 40986 | 0.5000 | 0.4889 | |
| 8 RDX | 1 | 7.602 | 7.605 | -0.003 | 48508 | 0.5000 | 0.4682 | M |
| 9 2,4,6-Trinitrophenol | 1 | 7.915 | 7.945 | -0.030 | 39525 | 0.5000 | 0.5131 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.562 | 8.572 | -0.010 | 66036 | 0.5000 | 0.5296 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.682 | 8.692 | -0.010 | 112962 | 0.5000 | 0.5179 | |
| 12 1,3-Dinitrobenzene | 1 | 9.315 | 9.331 | -0.016 | 150174 | 0.5000 | 0.5207 | |
| 13 Nitrobenzene | 1 | 9.708 | 9.725 | -0.017 | 98936 | 0.5000 | 0.5154 | |
| 15 Tetryl | 1 | 10.042 | 10.058 | -0.016 | 86673 | 0.5000 | 0.5081 | |
| 16 Nitroglycerin | 2 | 10.502 | 10.518 | -0.016 | 332100 | 5.00 | 5.27 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.955 | 10.971 | -0.016 | 103587 | 0.5000 | 0.5110 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.155 | 11.171 | -0.016 | 74931 | 0.5000 | 0.4963 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.408 | 11.425 | -0.017 | 101021 | 0.5000 | 0.4997 | |
| 20 2,6-Dinitrotoluene | 1 | 11.582 | 11.598 | -0.016 | 73405 | 0.5000 | 0.5129 | |
| 21 2,4-Dinitrotoluene | 1 | 11.748 | 11.765 | -0.017 | 143220 | 0.5000 | 0.4950 | |
| 22 o-Nitrotoluene | 1 | 12.615 | 12.638 | -0.023 | 63755 | 0.5000 | 0.4996 | |
| 23 p-Nitrotoluene | 1 | 13.048 | 13.071 | -0.023 | 56627 | 0.5000 | 0.5330 | |
| 24 m-Nitrotoluene | 1 | 13.628 | 13.651 | -0.023 | 67248 | 0.5000 | 0.4727 | |
| 25 PETN | 2 | 14.715 | 14.738 | -0.023 | 380697 | 5.00 | 5.23 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330Surrogate_00127 Amount Added: 50.00 Units: uL
8330 LCS_00111 Amount Added: 50.00 Units: uL

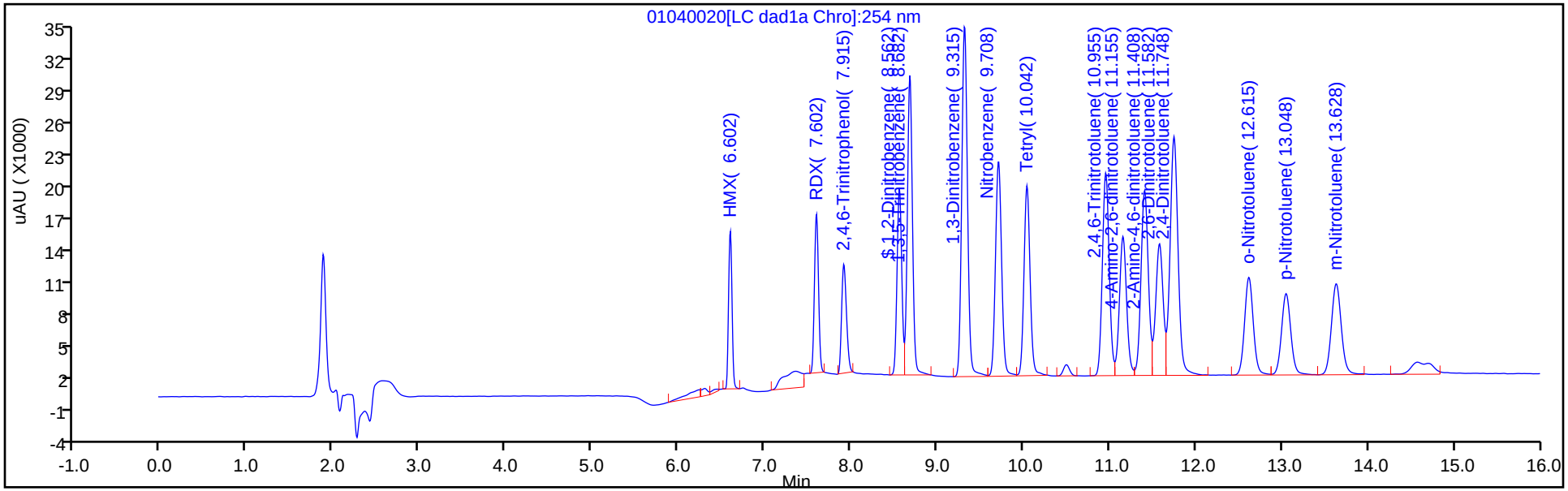
Report Date: 06-Jan-2022 20:08:00 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

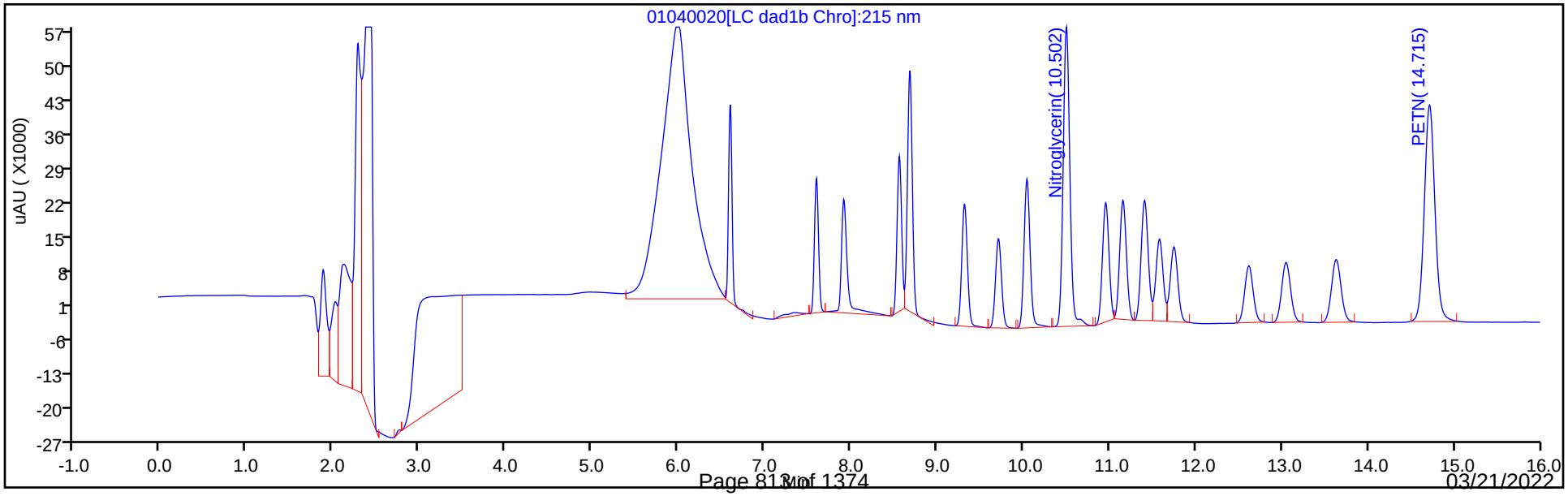
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Jan-2022 21:54:19 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | ICV INT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

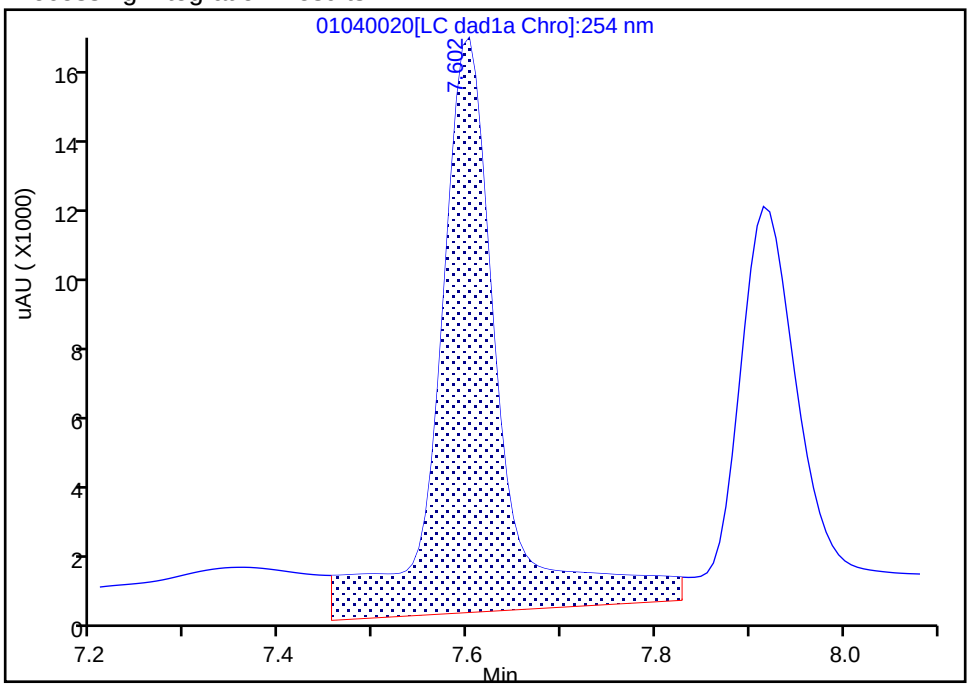
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d | | | | |
| Injection Date: | 04-Jan-2022 21:54:19 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

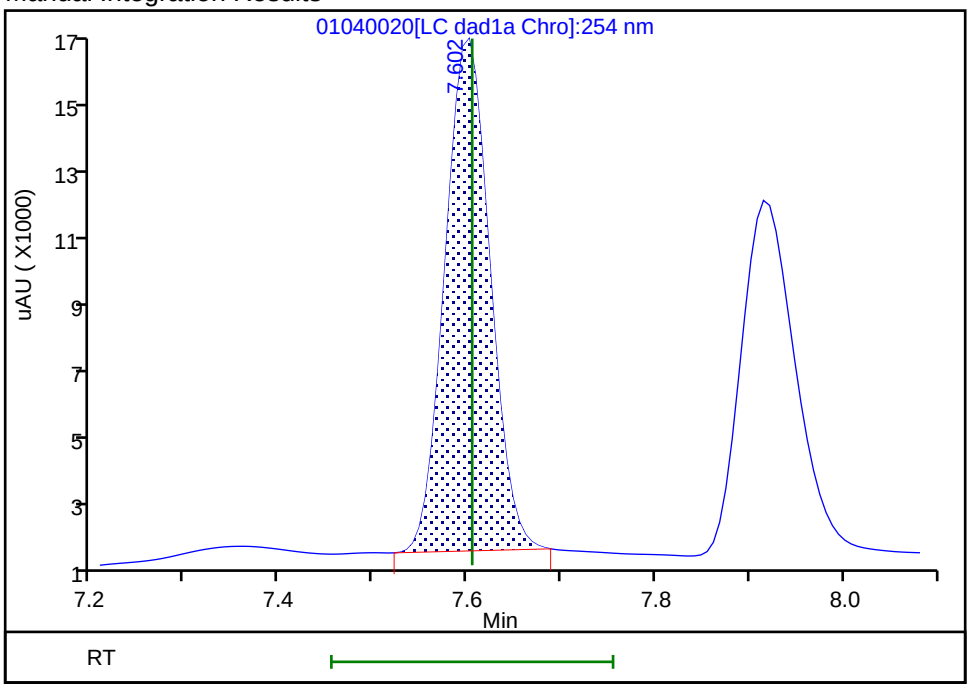
Processing Integration Results

RT: 7.60
Area: 71144
Amount: 0.655784
Amount Units: ug/mL




Manual Integration Results

RT: 7.60
Area: 48508
Amount: 0.468182
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 11:59:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

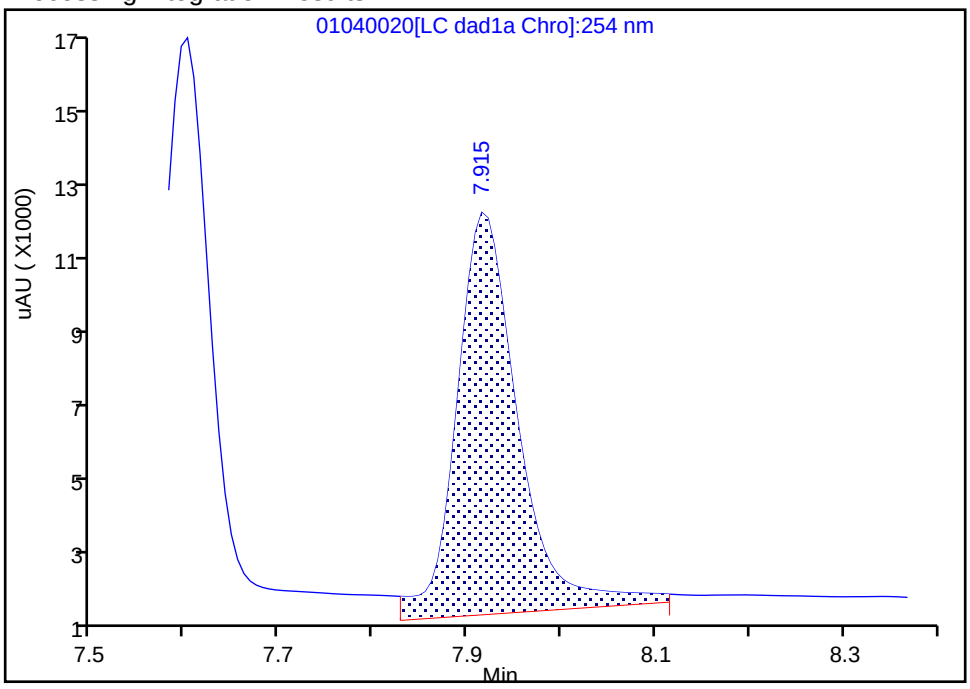
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d | | | | |
| Injection Date: | 04-Jan-2022 21:54:19 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

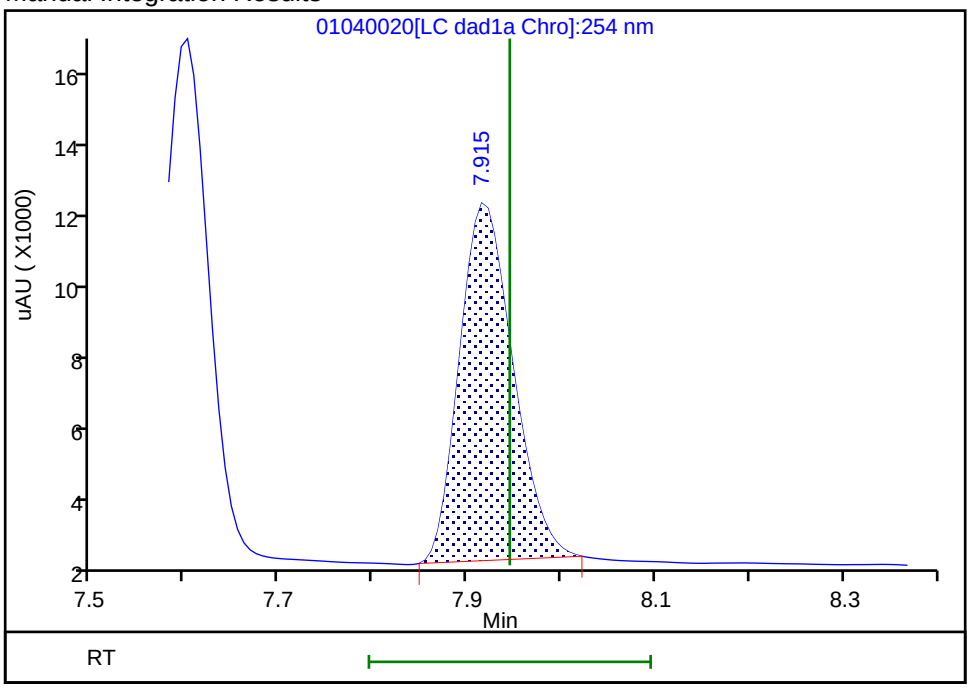
Processing Integration Results

RT: 7.92
Area: 48188
Amount: 0.601054
Amount Units: ug/mL




Manual Integration Results

RT: 7.92
Area: 39525
Amount: 0.513051
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 11:59:15
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 | Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D | Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 181207 | 178414 | | 493 | 501 | -1.5 | 15.0 |
| DNX | Ave | 138113 | 139363 | | 505 | 501 | 0.9 | 15.0 |
| MNX | Ave | 125995 | 128593 | | 596 | 584 | 2.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.48 | 6.38 | 6.58 |
| DNX | 6.80 | 6.70 | 6.90 |
| MNX | 7.22 | 7.07 | 7.37 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040038.D
Lims ID: ICV DMT
Client ID:
Sample Type: ICV
Inject. Date: 05-Jan-2022 04:47:17 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV DMT
Misc. Info.: 280-0107731-038
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:18:54 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:09:42

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.482 | 6.484 | -0.002 | 89296 | 0.5005 | 0.4928 | M |
| 6 DNX | 1 | 6.796 | 6.797 | -0.001 | 69751 | 0.5005 | 0.5050 | M |
| 7 MNX | 1 | 7.222 | 7.224 | -0.002 | 75034 | 0.5835 | 0.5955 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

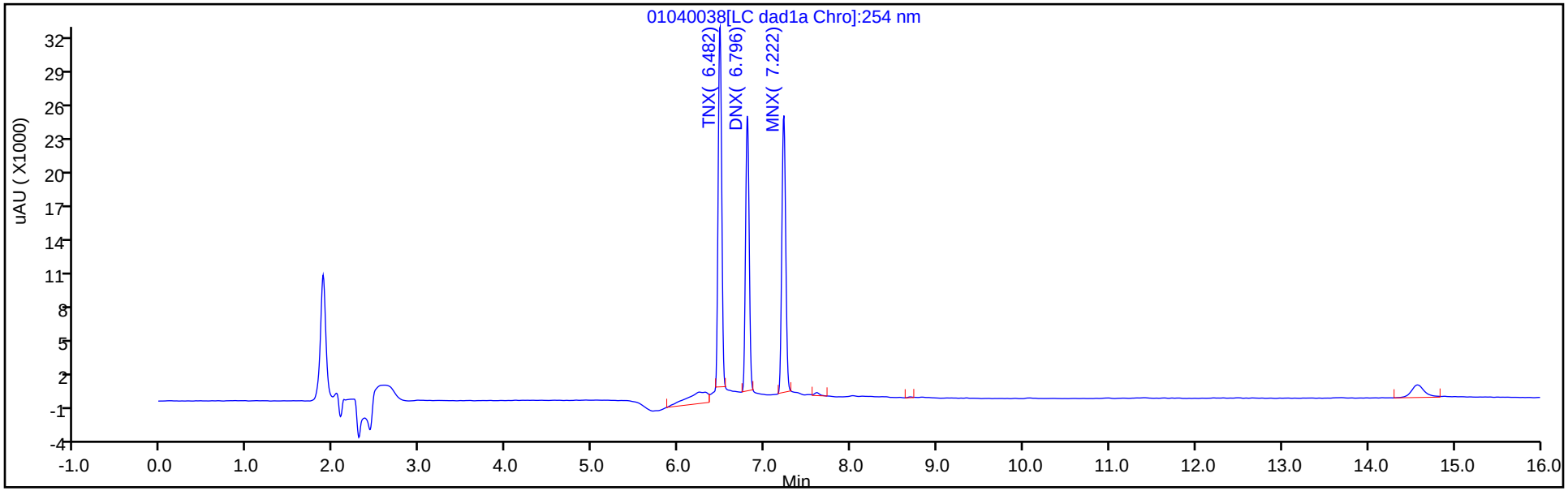
Report Date: 05-Jan-2022 12:19:19 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

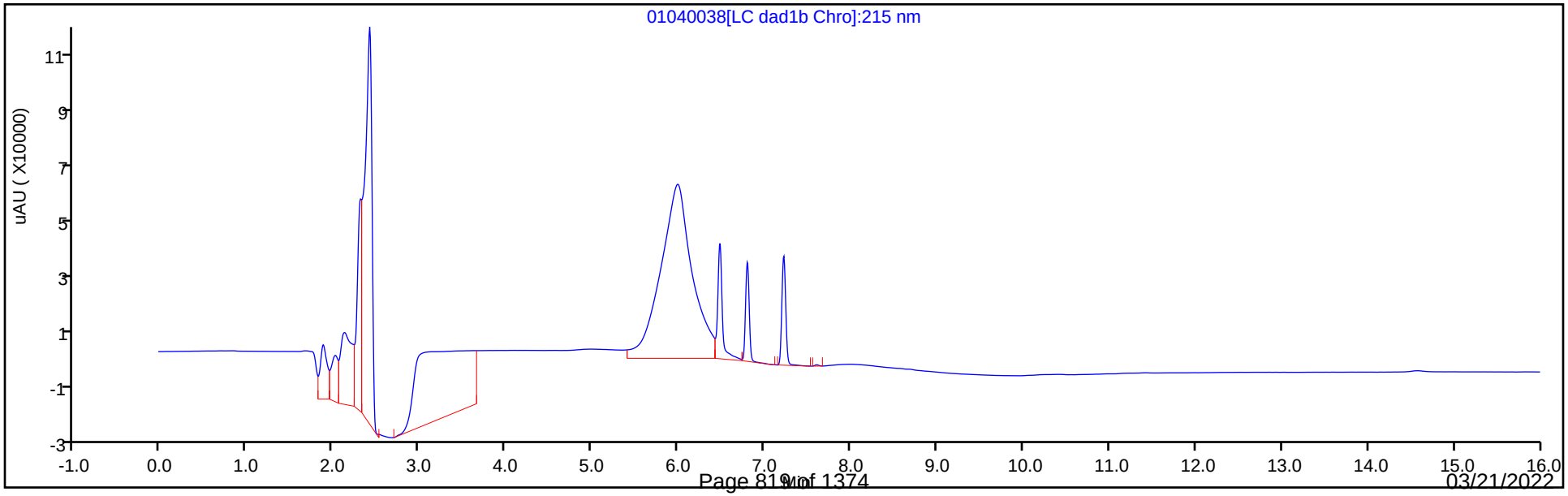
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 05-Jan-2022 04:47:17 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 38 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 38 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

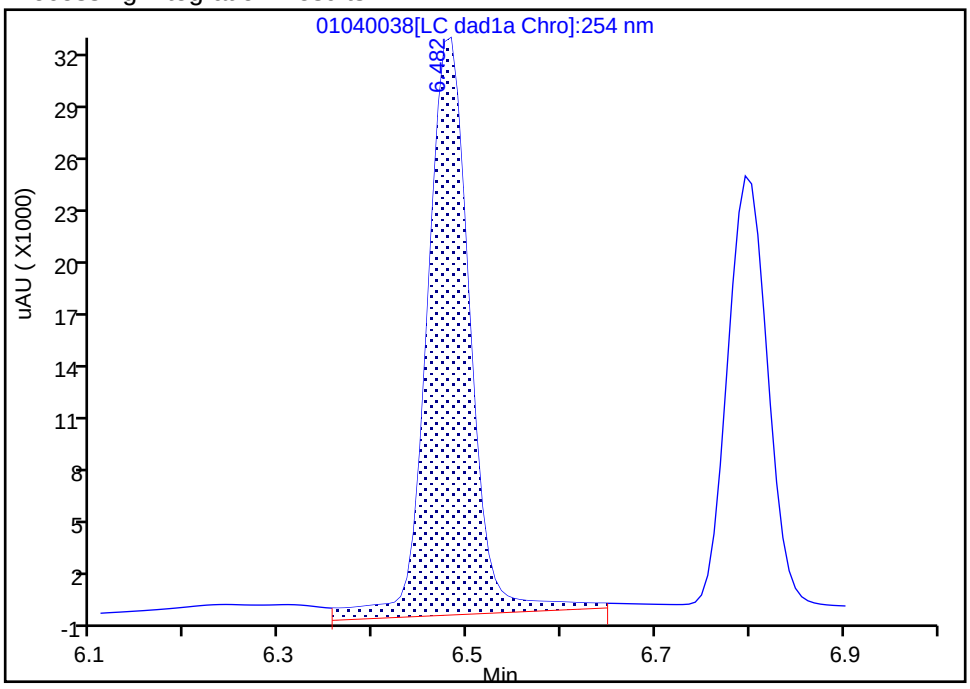
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d | | | | |
| Injection Date: | 05-Jan-2022 04:47:17 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 38 | Worklist Smp#: | 38 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

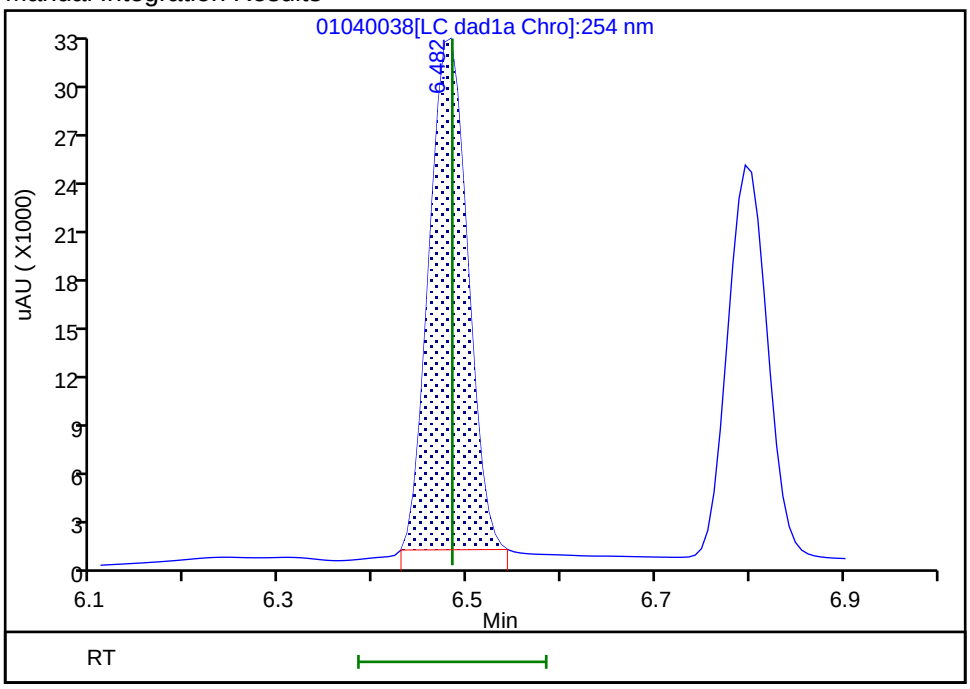
Processing Integration Results

RT: 6.48
Area: 102738
Amount: 0.566963
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 89296
Amount: 0.492783
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

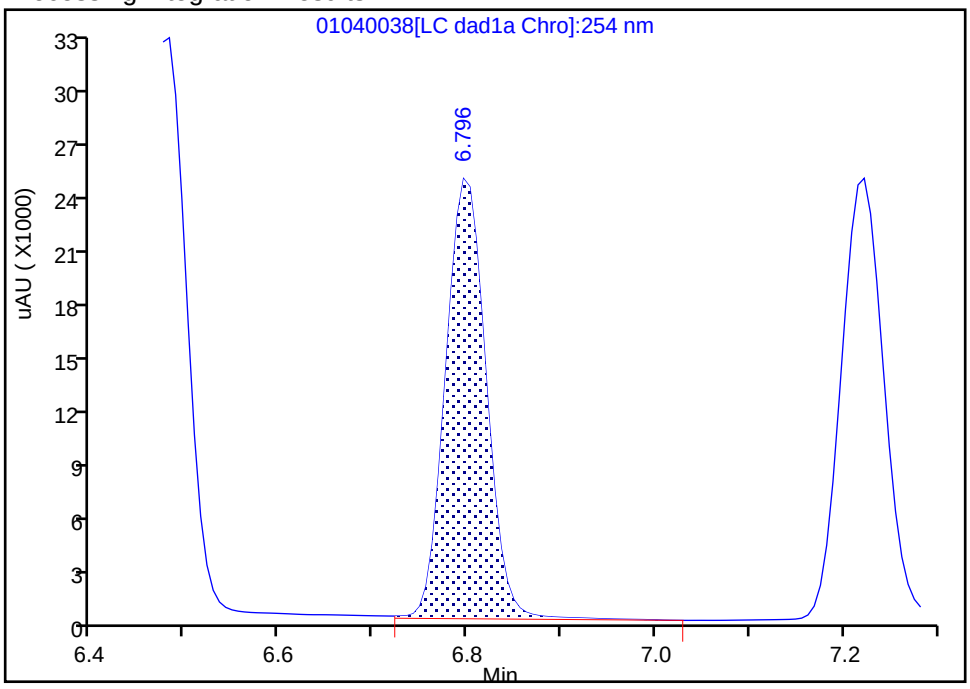
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d | | | | |
| Injection Date: | 05-Jan-2022 04:47:17 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 38 | Worklist Smp#: | 38 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

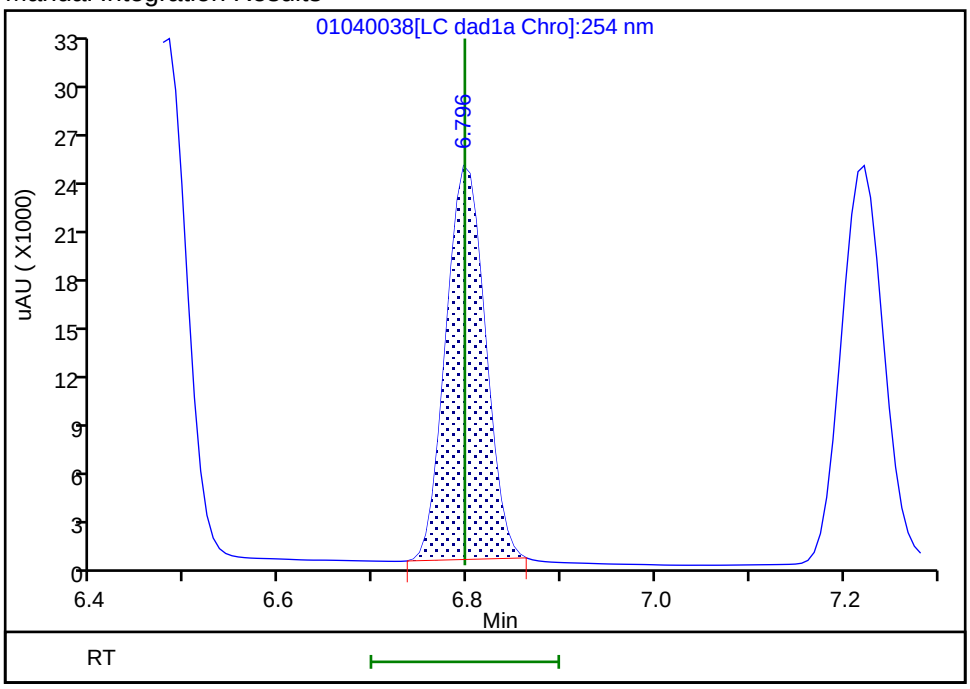
Processing Integration Results

RT: 6.80
Area: 72644
Amount: 0.525975
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 69751
Amount: 0.505029
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

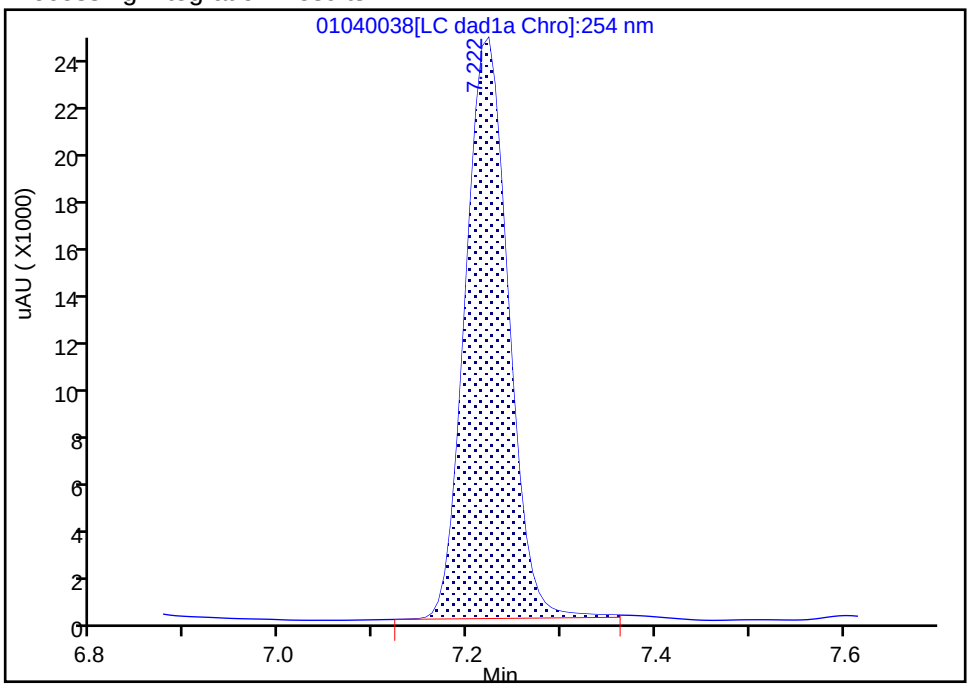
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d | | | | |
| Injection Date: | 05-Jan-2022 04:47:17 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 38 | Worklist Smp#: | 38 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

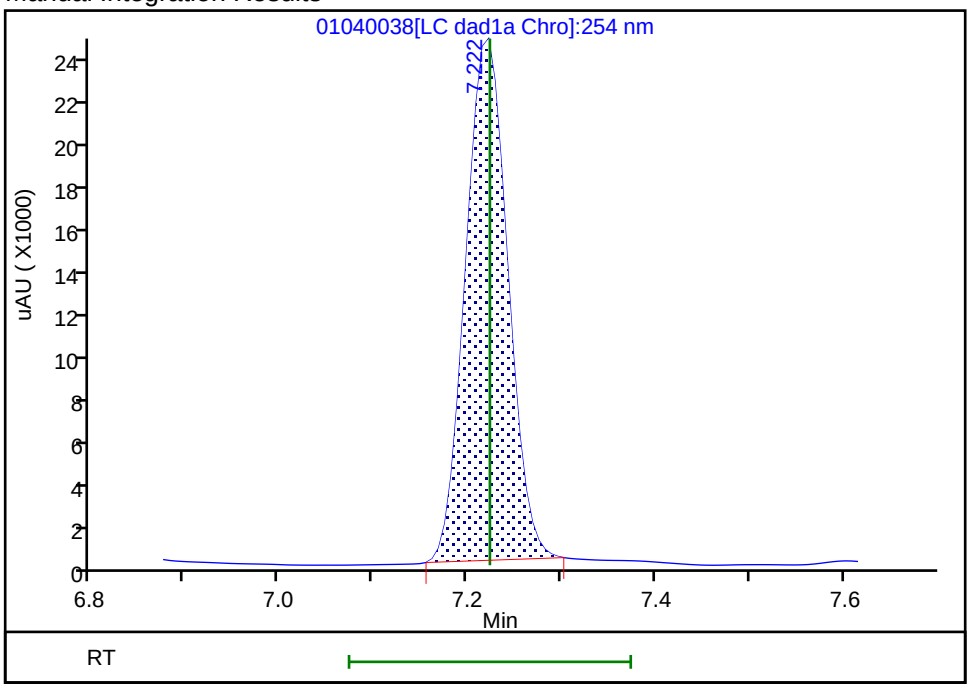
Processing Integration Results

RT: 7.22
Area: 76990
Amount: 0.611054
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 75034
Amount: 0.595530
Amount Units: ug/mL




Reviewer: zhangji, 05-Jan-2022 12:09:41

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/7 Calibration Date: 03/08/2022 15:25

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080007.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 83827 | 82432 | | 246 | 250 | -1.7 | 15.0 |
| RDX | Ave | 103609 | 105944 | | 256 | 250 | 2.3 | 15.0 |
| Picric acid | Ave | 77039 | 78488 | | 255 | 250 | 1.9 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 218096 | 226627 | | 260 | 251 | 3.9 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 288401 | 300946 | | 261 | 251 | 4.3 | 15.0 |
| Nitrobenzene | Ave | 191953 | 195733 | | 256 | 251 | 2.0 | 15.0 |
| Tetryl | Ave | 170567 | 168607 | | 248 | 251 | -1.1 | 15.0 |
| Nitroglycerin | Ave | 63037 | 65745 | | 2610 | 2500 | 4.3 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 202726 | 202578 | | 251 | 251 | -0.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 150985 | 151193 | | 251 | 250 | 0.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202171 | 200785 | | 249 | 251 | -0.7 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143115 | 143382 | | 251 | 251 | 0.2 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 289351 | 297299 | | 258 | 251 | 2.7 | 15.0 |
| 2-Nitrotoluene | Ave | 127614 | 126200 | | 247 | 250 | -1.1 | 15.0 |
| 4-Nitrotoluene | Ave | 106235 | 108862 | | 257 | 251 | 2.5 | 15.0 |
| 3-Nitrotoluene | Ave | 142273 | 139568 | | 245 | 250 | -1.9 | 15.0 |
| PETN | Lin2 | | 75906 | | 2600 | 2500 | 3.9 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 124698 | 128312 | | 257 | 250 | 2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/7 Calibration Date: 03/08/2022 15:25

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080007.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.59 | 6.44 | 6.74 |
| RDX | 7.58 | 7.43 | 7.73 |
| Picric acid | 7.91 | 7.76 | 8.06 |
| 1,3,5-Trinitrobenzene | 8.65 | 8.50 | 8.80 |
| 1,3-Dinitrobenzene | 9.27 | 9.12 | 9.42 |
| Nitrobenzene | 9.65 | 9.50 | 9.80 |
| Tetryl | 9.97 | 9.82 | 10.12 |
| Nitroglycerin | 10.42 | 10.27 | 10.57 |
| 2,4,6-Trinitrotoluene | 10.87 | 10.77 | 10.97 |
| 4-Amino-2,6-dinitrotoluene | 11.05 | 10.95 | 11.15 |
| 2-Amino-4,6-dinitrotoluene | 11.30 | 11.20 | 11.40 |
| 2,6-Dinitrotoluene | 11.47 | 11.37 | 11.57 |
| 2,4-Dinitrotoluene | 11.64 | 11.54 | 11.74 |
| 2-Nitrotoluene | 12.48 | 12.33 | 12.63 |
| 4-Nitrotoluene | 12.90 | 12.75 | 13.05 |
| 3-Nitrotoluene | 13.47 | 13.32 | 13.62 |
| PETN | 14.50 | 14.35 | 14.65 |
| 1,2-Dinitrobenzene | 8.52 | 8.37 | 8.67 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 15:25:48 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109078-007
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:31 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 16:35:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.593 | 6.593 | 0.000 | 20608 | 0.2500 | 0.2458 | M |
| 8 RDX | 1 | 7.579 | 7.579 | 0.000 | 26486 | 0.2500 | 0.2556 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.906 | 7.906 | 0.000 | 19622 | 0.2500 | 0.2547 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 32078 | 0.2500 | 0.2572 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.646 | 8.646 | 0.000 | 56770 | 0.2505 | 0.2603 | |
| 12 1,3-Dinitrobenzene | 1 | 9.266 | 9.266 | 0.000 | 75387 | 0.2505 | 0.2614 | |
| 13 Nitrobenzene | 1 | 9.652 | 9.652 | 0.000 | 49129 | 0.2510 | 0.2559 | |
| 15 Tetryl | 1 | 9.966 | 9.966 | 0.000 | 42236 | 0.2505 | 0.2476 | |
| 16 Nitroglycerin | 2 | 10.419 | 10.419 | 0.000 | 164363 | 2.50 | 2.61 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.866 | 10.866 | 0.000 | 50847 | 0.2510 | 0.2508 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.052 | 11.052 | 0.000 | 37836 | 0.2503 | 0.2506 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.299 | 11.299 | 0.000 | 50397 | 0.2510 | 0.2493 | |
| 20 2,6-Dinitrotoluene | 1 | 11.472 | 11.472 | 0.000 | 35989 | 0.2510 | 0.2515 | |
| 21 2,4-Dinitrotoluene | 1 | 11.639 | 11.639 | 0.000 | 74622 | 0.2510 | 0.2579 | |
| 22 o-Nitrotoluene | 1 | 12.479 | 12.479 | 0.000 | 31550 | 0.2500 | 0.2472 | |
| 23 p-Nitrotoluene | 1 | 12.899 | 12.899 | 0.000 | 27270 | 0.2505 | 0.2567 | |
| 24 m-Nitrotoluene | 1 | 13.466 | 13.466 | 0.000 | 34927 | 0.2503 | 0.2455 | |
| 25 PETN | 2 | 14.499 | 14.499 | 0.000 | 189764 | 2.50 | 2.60 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

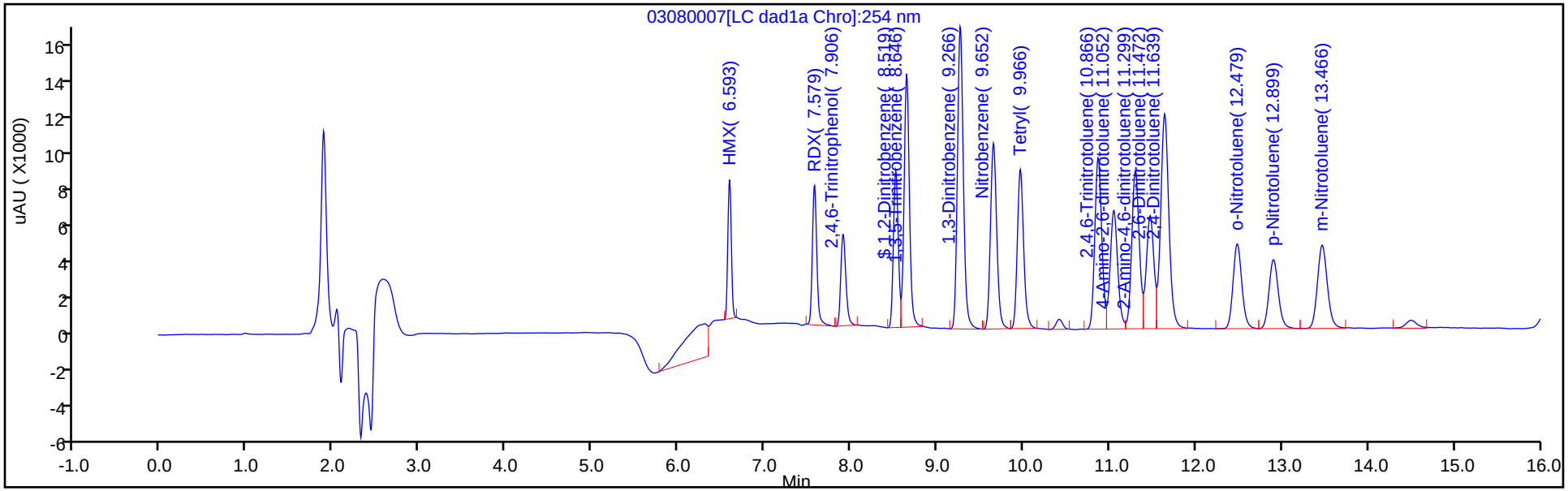
Report Date: 09-Mar-2022 13:15:31 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

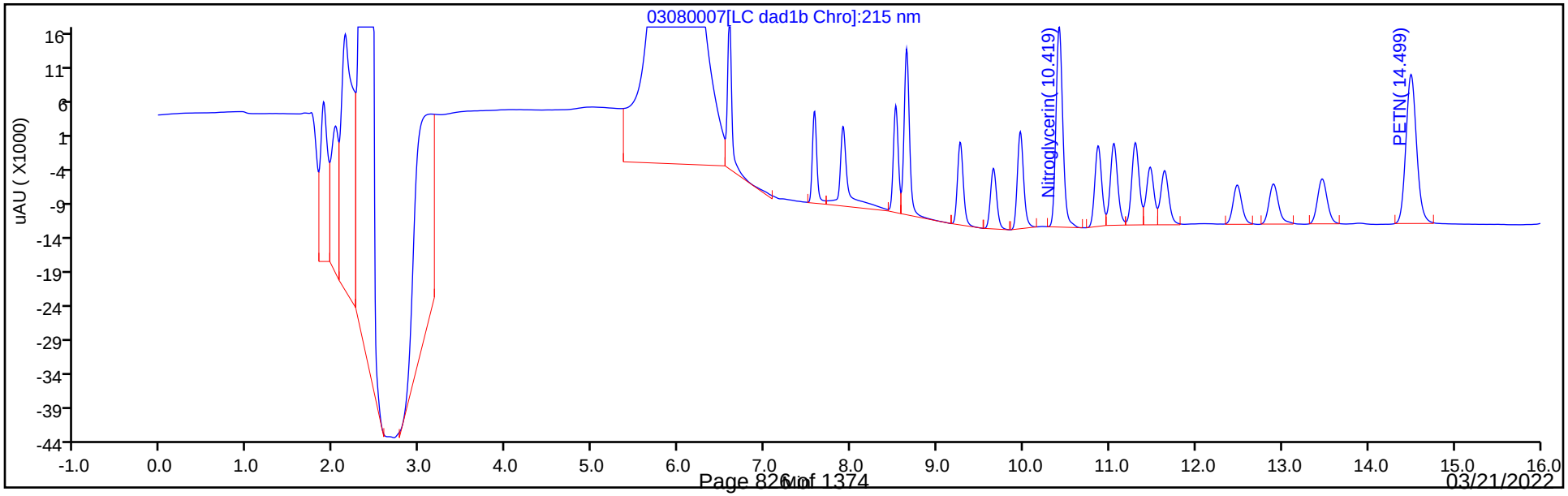
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 15:25:48 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

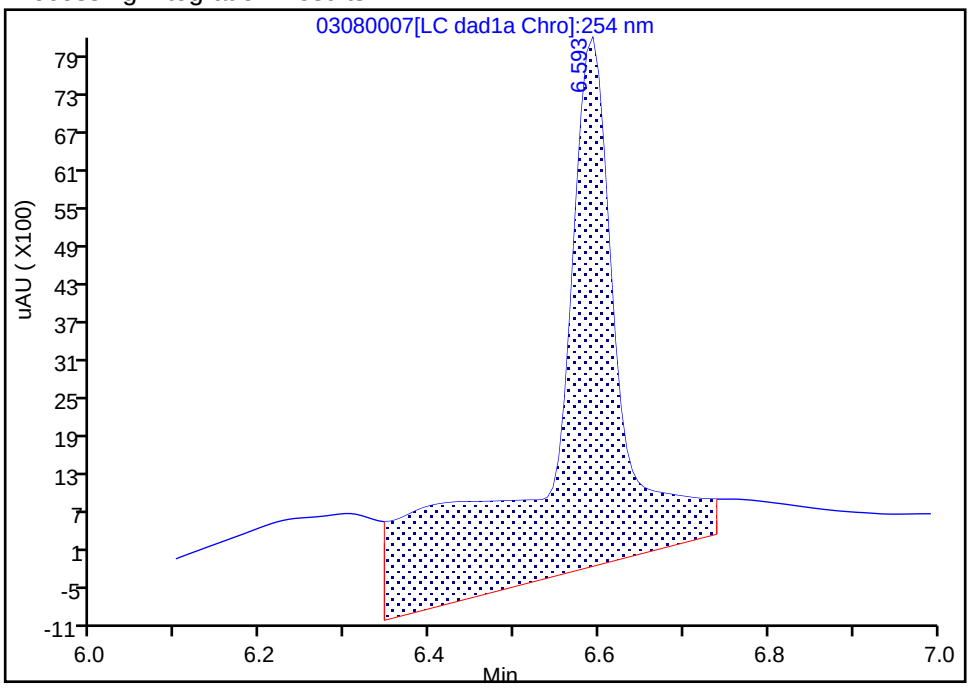
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080007.d | | | | |
| Injection Date: | 08-Mar-2022 15:25:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

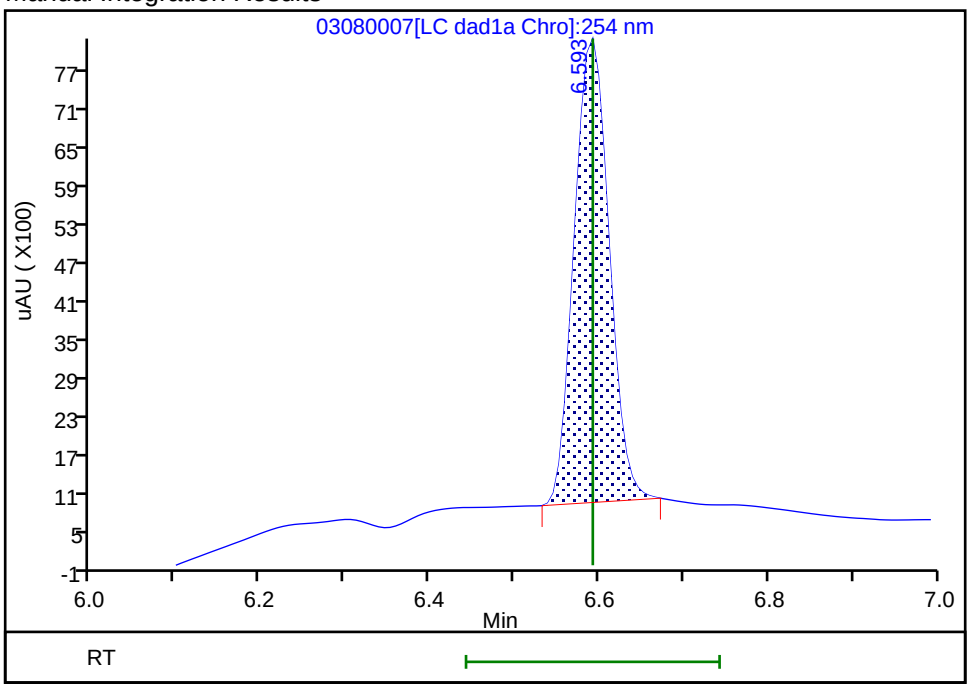
Processing Integration Results

RT: 6.59
Area: 49073
Amount: 0.585407
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 20608
Amount: 0.245839
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 16:35:31
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/9 Calibration Date: 03/08/2022 16:11

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080009.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 181207 | 188316 | | 260 | 250 | 3.9 | 15.0 |
| DNX | Ave | 138113 | 137614 | | 249 | 250 | -0.4 | 15.0 |
| MNX | Ave | 125995 | 124099 | | 287 | 292 | -1.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/9 Calibration Date: 03/08/2022 16:11

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080009.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.47 | 6.37 | 6.57 |
| DNX | 6.79 | 6.69 | 6.89 |
| MNX | 7.21 | 7.06 | 7.36 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080009.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 16:11:36 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0109078-009
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 16:38:31

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.473 | 6.473 | 0.000 | 47126 | 0.2503 | 0.2601 | M |
| 6 DNX | 1 | 6.787 | 6.787 | 0.000 | 34438 | 0.2503 | 0.2493 | M |
| 7 MNX | 1 | 7.207 | 7.207 | 0.000 | 36206 | 0.2918 | 0.2874 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

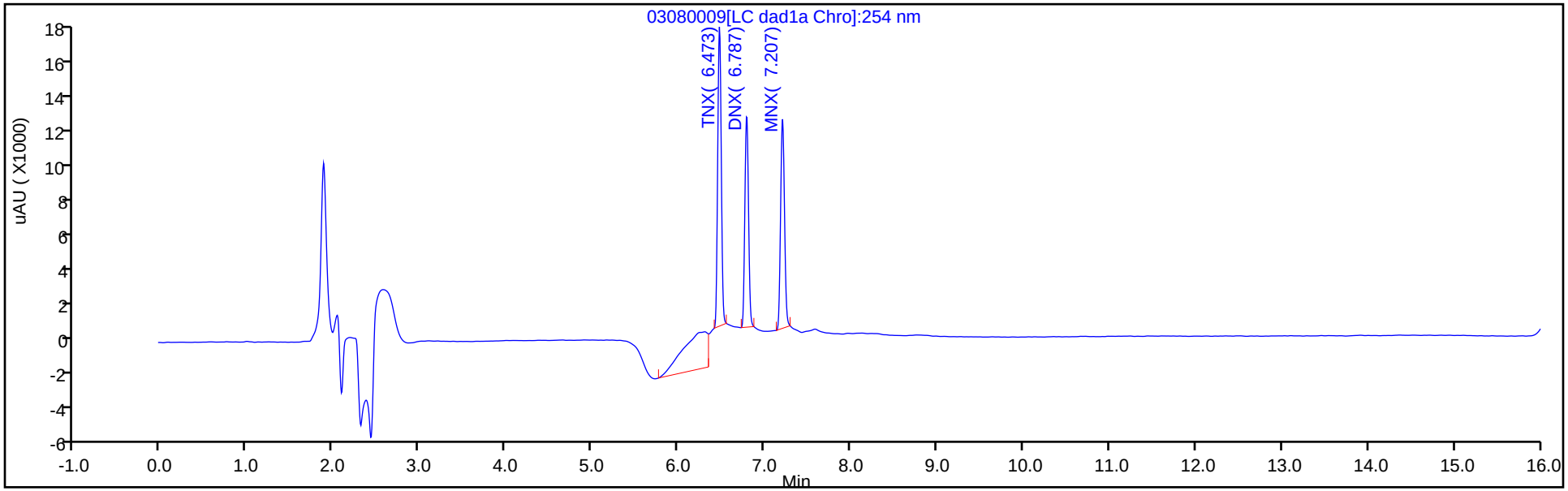
Report Date: 09-Mar-2022 13:15:33 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

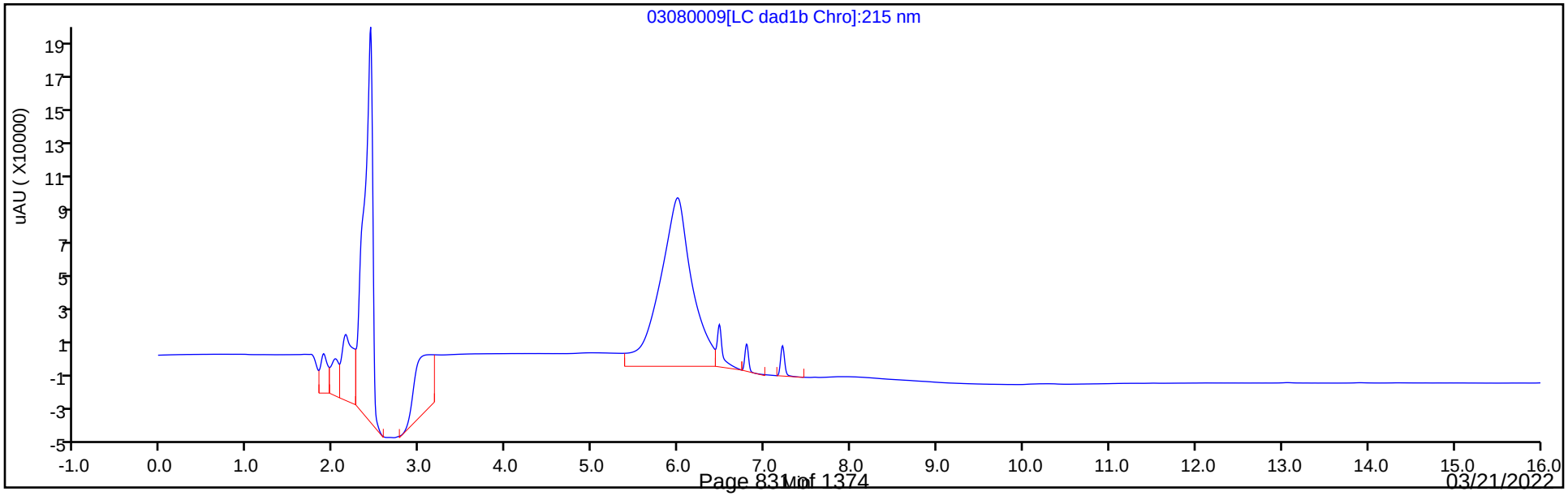
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080009.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 16:11:36 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| 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 Denver

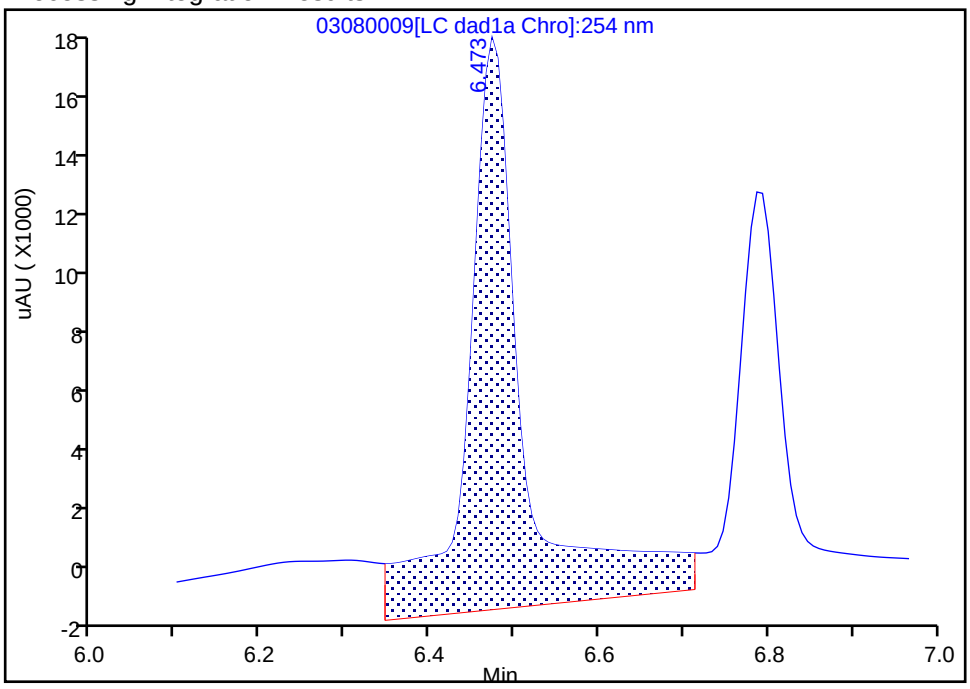
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080009.d | | | | |
| Injection Date: | 08-Mar-2022 16:11:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 TNX, CAS: 13980-04-6

Signal: 1

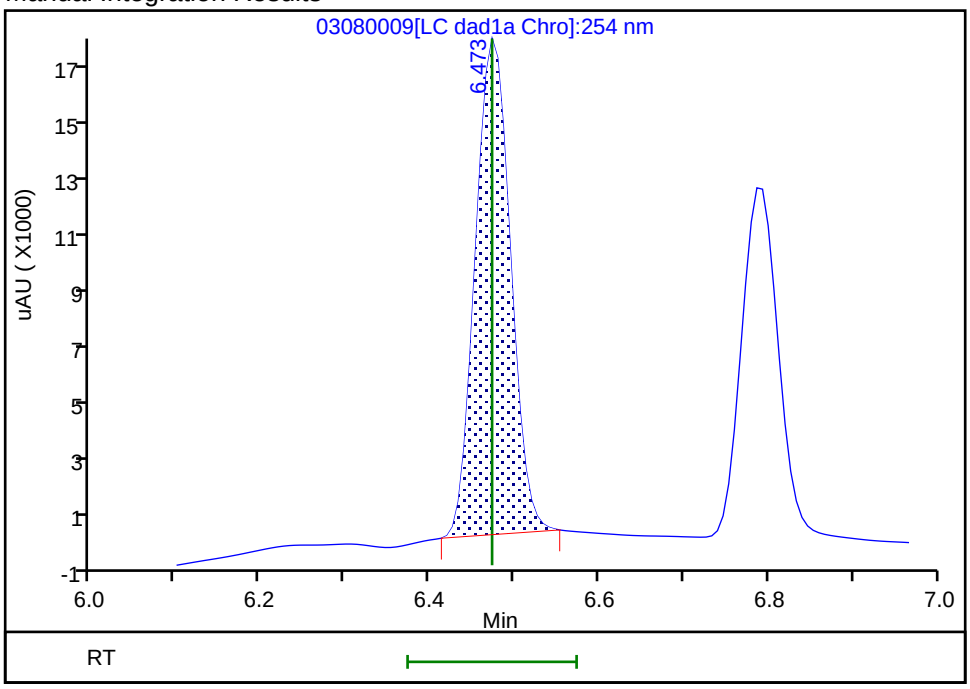
Processing Integration Results

RT: 6.47
Area: 84388
Amount: 0.465698
Amount Units: ug/mL




Manual Integration Results

RT: 6.47
Area: 47126
Amount: 0.260067
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 16:38:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

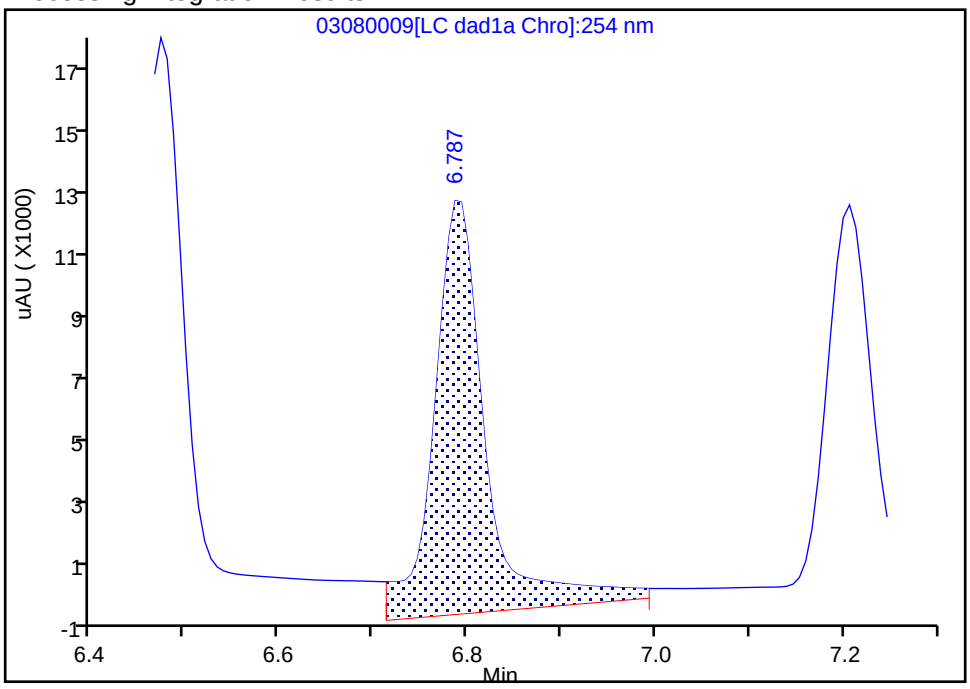
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080009.d | | | | |
| Injection Date: | 08-Mar-2022 16:11:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

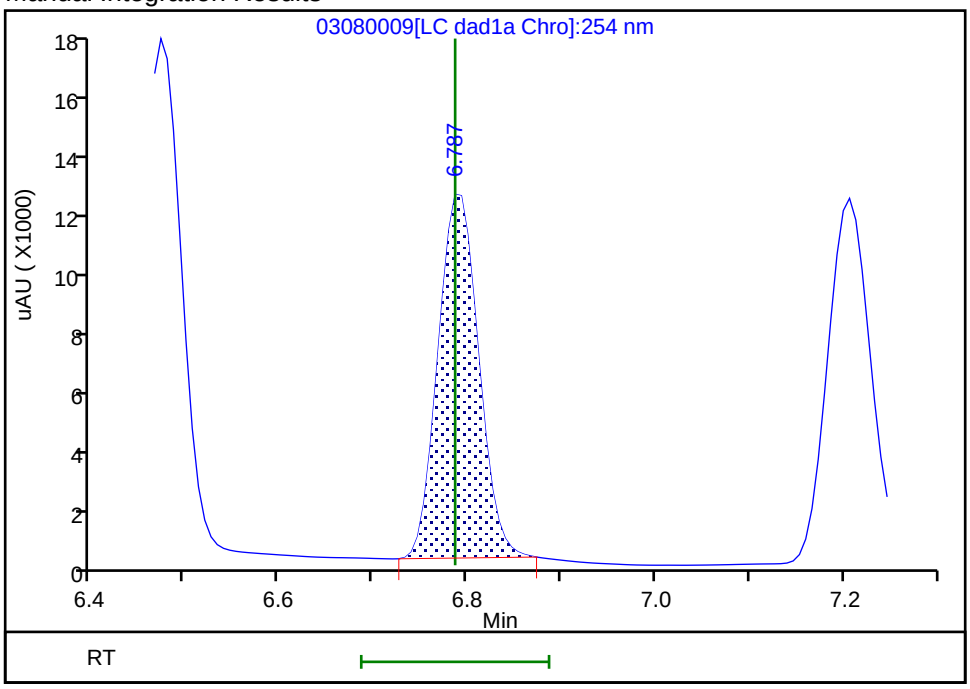
Processing Integration Results

RT: 6.79
Area: 47804
Amount: 0.346123
Amount Units: ug/mL




Manual Integration Results

RT: 6.79
Area: 34438
Amount: 0.249347
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 16:38:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

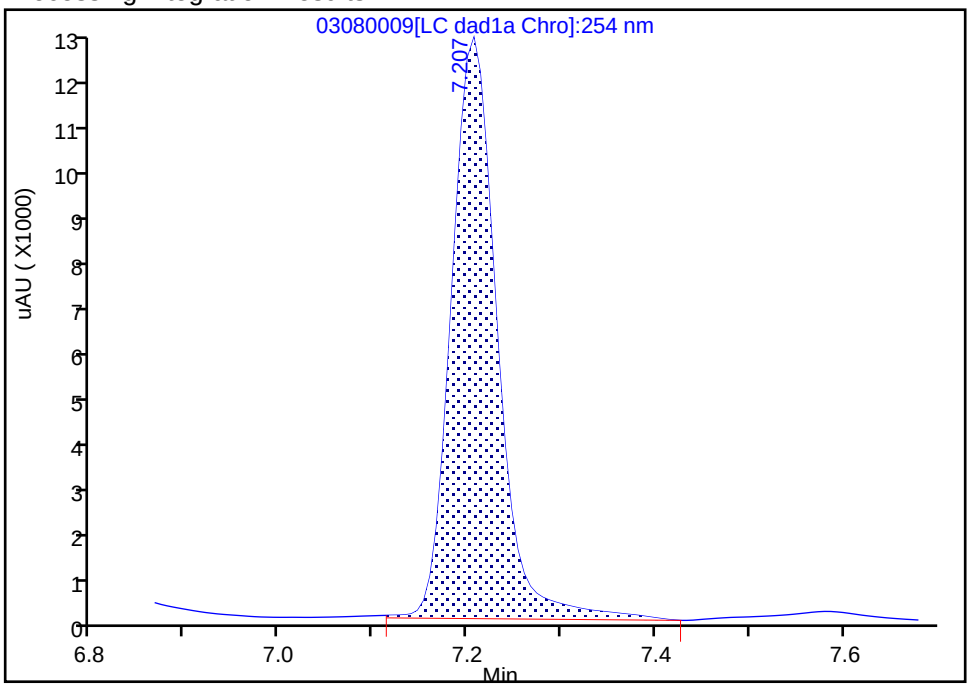
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080009.d | | | | |
| Injection Date: | 08-Mar-2022 16:11:36 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

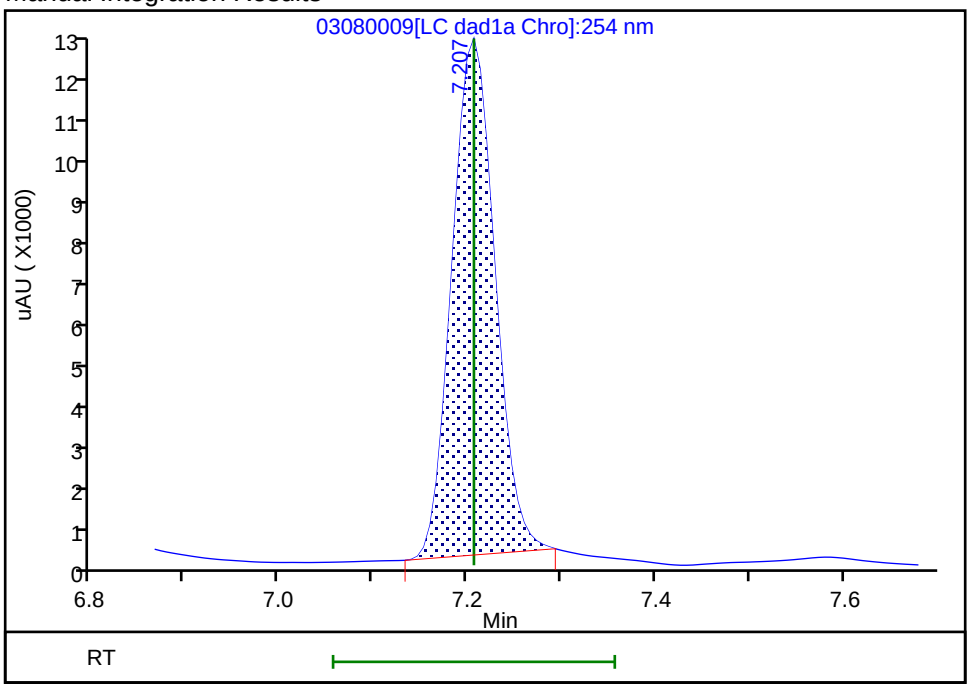
Processing Integration Results

RT: 7.21
Area: 39341
Amount: 0.312242
Amount Units: ug/mL




Manual Integration Results

RT: 7.21
Area: 36206
Amount: 0.287360
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 16:38:28
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/21 Calibration Date: 03/08/2022 20:23

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080021.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 83827 | 83500 | | 249 | 250 | -0.4 | 15.0 |
| RDX | Ave | 103609 | 107436 | | 259 | 250 | 3.7 | 15.0 |
| Picric acid | Ave | 77039 | 79328 | | 257 | 250 | 3.0 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 218096 | 228028 | | 262 | 251 | 4.6 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 288401 | 302423 | | 263 | 251 | 4.9 | 15.0 |
| Nitrobenzene | Ave | 191953 | 192733 | | 252 | 251 | 0.4 | 15.0 |
| Tetryl | Ave | 170567 | 170359 | | 250 | 251 | -0.1 | 15.0 |
| Nitroglycerin | Ave | 63037 | 66383 | | 2630 | 2500 | 5.3 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 202726 | 203900 | | 252 | 251 | 0.6 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 150985 | 152392 | | 253 | 250 | 0.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202171 | 201869 | | 251 | 251 | -0.1 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143115 | 144219 | | 253 | 251 | 0.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 289351 | 300614 | | 261 | 251 | 3.9 | 15.0 |
| 2-Nitrotoluene | Ave | 127614 | 125252 | | 245 | 250 | -1.9 | 15.0 |
| 4-Nitrotoluene | Ave | 106235 | 108970 | | 257 | 251 | 2.6 | 15.0 |
| 3-Nitrotoluene | Ave | 142273 | 137858 | | 242 | 250 | -3.1 | 15.0 |
| PETN | Lin2 | | 76049 | | 2600 | 2500 | 4.1 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 124698 | 128844 | | 258 | 250 | 3.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/21 Calibration Date: 03/08/2022 20:23

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080021.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.59 | 6.44 | 6.74 |
| RDX | 7.58 | 7.43 | 7.73 |
| Picric acid | 7.91 | 7.76 | 8.06 |
| 1,3,5-Trinitrobenzene | 8.65 | 8.50 | 8.80 |
| 1,3-Dinitrobenzene | 9.27 | 9.12 | 9.42 |
| Nitrobenzene | 9.65 | 9.50 | 9.80 |
| Tetryl | 9.96 | 9.82 | 10.12 |
| Nitroglycerin | 10.41 | 10.27 | 10.57 |
| 2,4,6-Trinitrotoluene | 10.87 | 10.77 | 10.97 |
| 4-Amino-2,6-dinitrotoluene | 11.05 | 10.95 | 11.15 |
| 2-Amino-4,6-dinitrotoluene | 11.30 | 11.20 | 11.40 |
| 2,6-Dinitrotoluene | 11.47 | 11.37 | 11.57 |
| 2,4-Dinitrotoluene | 11.64 | 11.54 | 11.74 |
| 2-Nitrotoluene | 12.49 | 12.33 | 12.63 |
| 4-Nitrotoluene | 12.91 | 12.75 | 13.05 |
| 3-Nitrotoluene | 13.47 | 13.32 | 13.62 |
| PETN | 14.51 | 14.35 | 14.65 |
| 1,2-Dinitrobenzene | 8.52 | 8.37 | 8.67 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080021.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 20:23:53 ALS Bottle#: 7 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109078-021
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:38 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 20:49:06

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.593 | 6.593 | 0.000 | 20875 | 0.2500 | 0.2490 | M |
| 8 RDX | 1 | 7.580 | 7.579 | 0.001 | 26859 | 0.2500 | 0.2592 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.913 | 7.906 | 0.007 | 19832 | 0.2500 | 0.2574 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.520 | 8.519 | 0.001 | 32211 | 0.2500 | 0.2583 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.646 | 8.646 | 0.000 | 57121 | 0.2505 | 0.2619 | |
| 12 1,3-Dinitrobenzene | 1 | 9.266 | 9.266 | 0.000 | 75757 | 0.2505 | 0.2627 | |
| 13 Nitrobenzene | 1 | 9.653 | 9.652 | 0.001 | 48376 | 0.2510 | 0.2520 | |
| 15 Tetryl | 1 | 9.960 | 9.966 | -0.006 | 42675 | 0.2505 | 0.2502 | |
| 16 Nitroglycerin | 2 | 10.413 | 10.419 | -0.006 | 165958 | 2.50 | 2.63 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.866 | 10.866 | 0.000 | 51179 | 0.2510 | 0.2525 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.053 | 11.052 | 0.001 | 38136 | 0.2503 | 0.2526 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.300 | 11.299 | 0.001 | 50669 | 0.2510 | 0.2506 | |
| 20 2,6-Dinitrotoluene | 1 | 11.473 | 11.472 | 0.001 | 36199 | 0.2510 | 0.2529 | |
| 21 2,4-Dinitrotoluene | 1 | 11.640 | 11.639 | 0.001 | 75454 | 0.2510 | 0.2608 | |
| 22 o-Nitrotoluene | 1 | 12.486 | 12.479 | 0.007 | 31313 | 0.2500 | 0.2454 | |
| 23 p-Nitrotoluene | 1 | 12.906 | 12.899 | 0.007 | 27297 | 0.2505 | 0.2569 | |
| 24 m-Nitrotoluene | 1 | 13.473 | 13.466 | 0.007 | 34499 | 0.2503 | 0.2425 | |
| 25 PETN | 2 | 14.513 | 14.499 | 0.014 | 190122 | 2.50 | 2.60 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

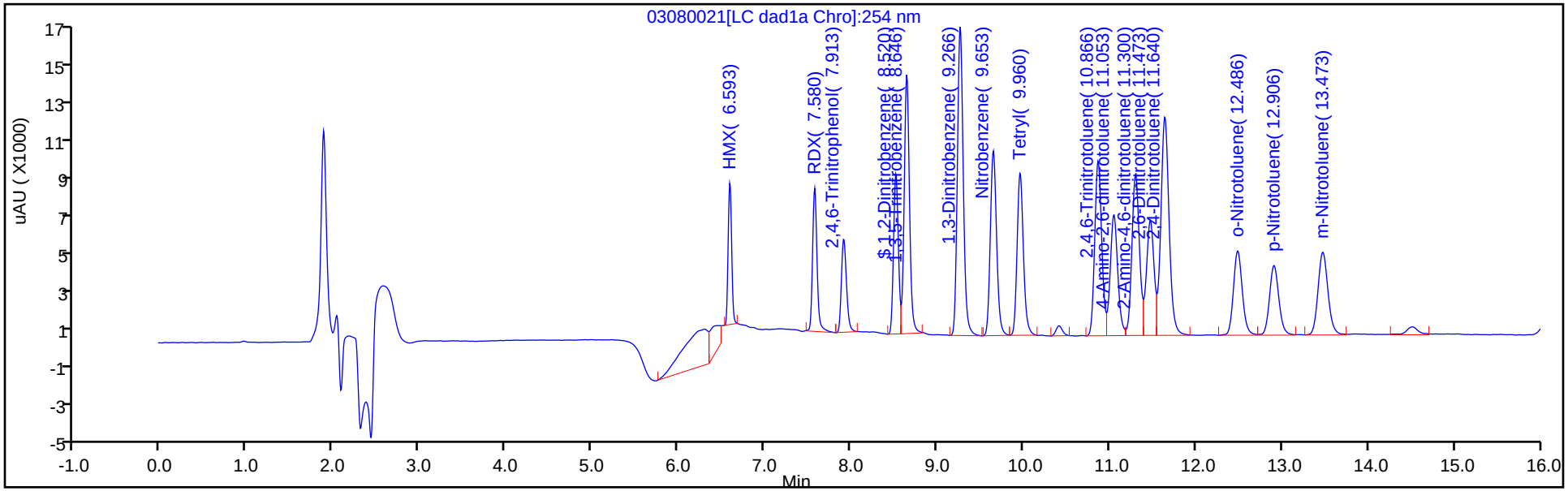
Report Date: 09-Mar-2022 13:15:38 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

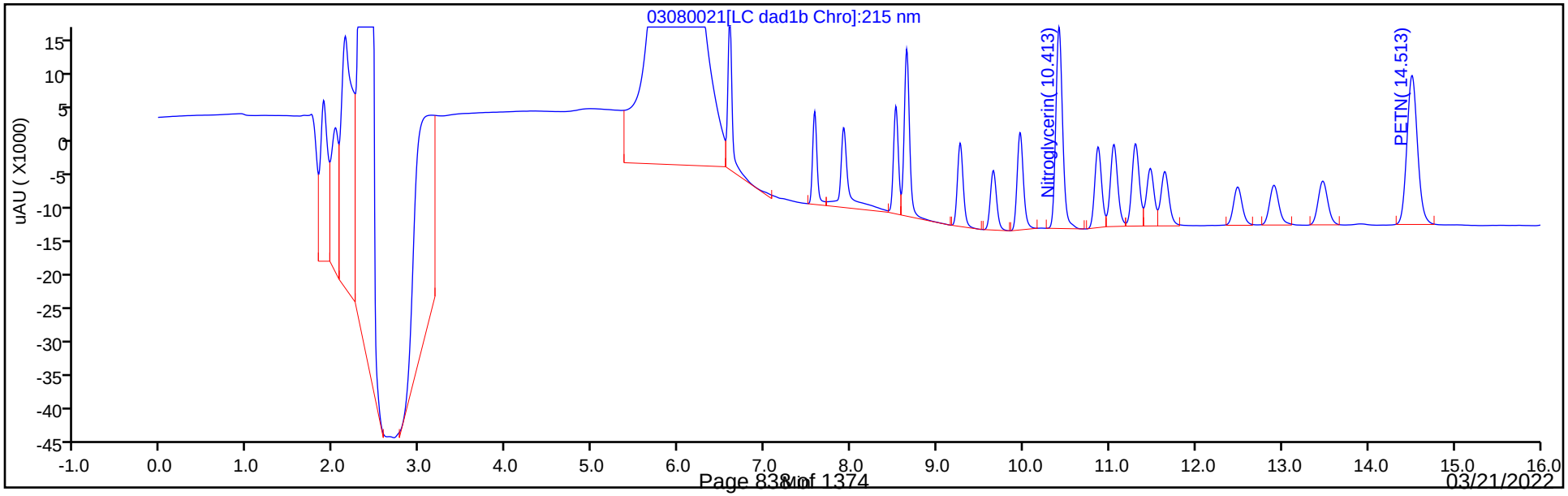
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 20:23:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

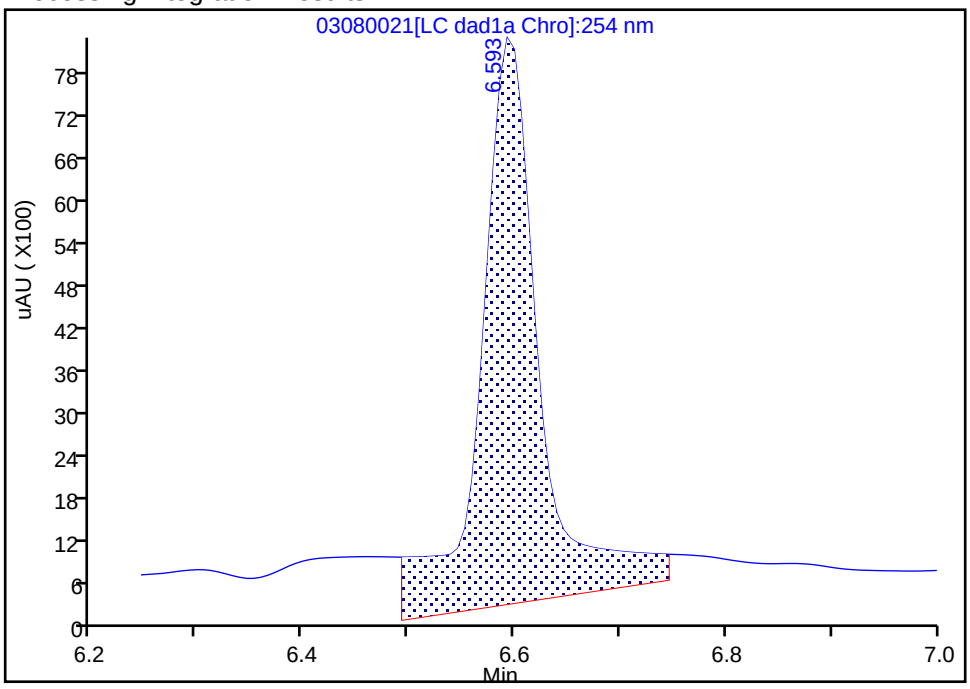
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080021.d | | | | |
| Injection Date: | 08-Mar-2022 20:23:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

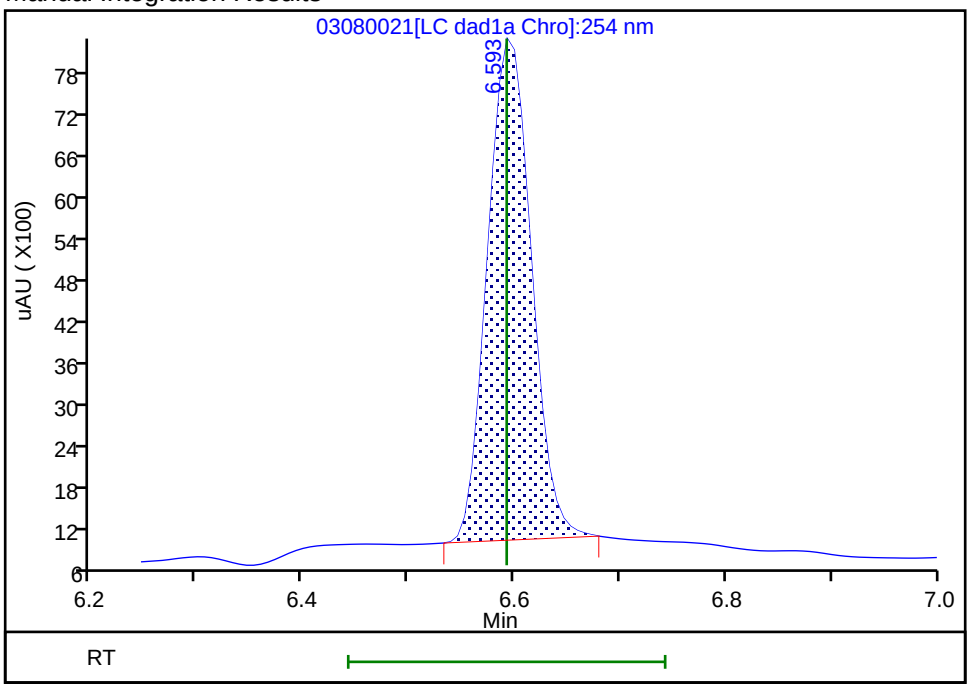
Processing Integration Results

RT: 6.59
Area: 31073
Amount: 0.370679
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 20875
Amount: 0.249024
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 20:49:04

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/23 Calibration Date: 03/08/2022 21:09

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080023.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 181207 | 185307 | | 256 | 250 | 2.3 | 15.0 |
| DNX | Ave | 138113 | 136807 | | 248 | 250 | -0.9 | 15.0 |
| MNX | Ave | 125995 | 123417 | | 286 | 292 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/23 Calibration Date: 03/08/2022 21:09

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080023.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.47 | 6.37 | 6.57 |
| DNX | 6.79 | 6.69 | 6.89 |
| MNX | 7.20 | 7.06 | 7.36 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080023.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 08-Mar-2022 21:09:45 | ALS Bottle#: | 9 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0109078-023 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 12:40:57 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.470 | 6.473 | -0.003 | 46373 | 0.2503 | 0.2559 | M |
| 6 DNX | 1 | 6.790 | 6.787 | 0.003 | 34236 | 0.2503 | 0.2479 | M |
| 7 MNX | 1 | 7.203 | 7.207 | -0.004 | 36007 | 0.2918 | 0.2858 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

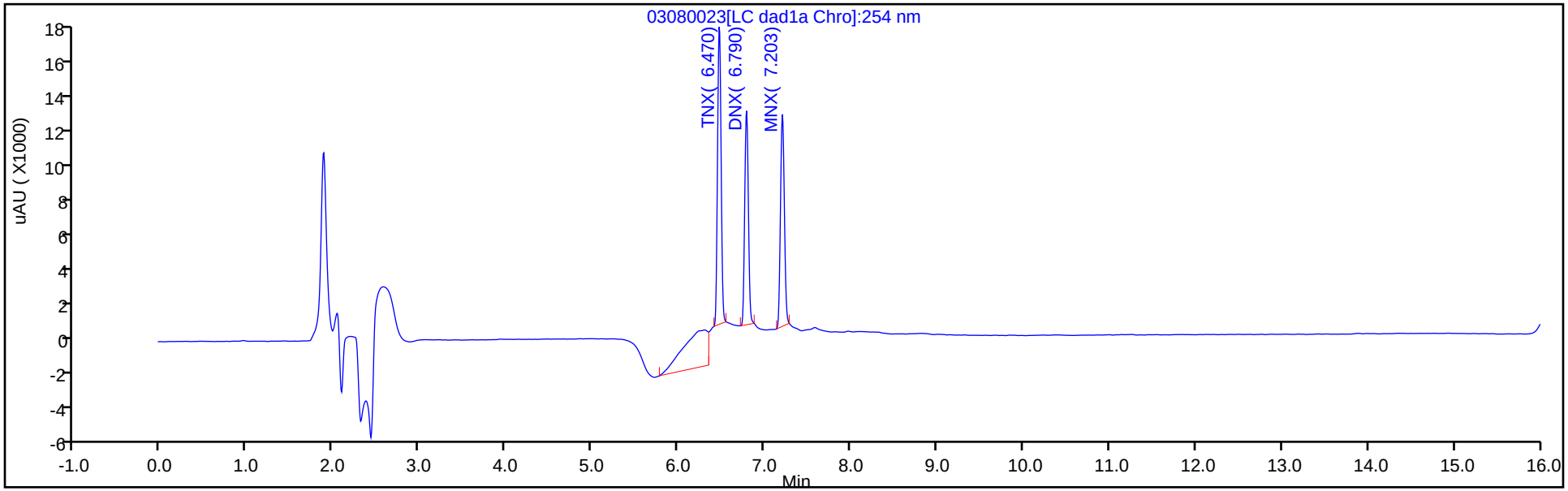
Report Date: 09-Mar-2022 13:15:39 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

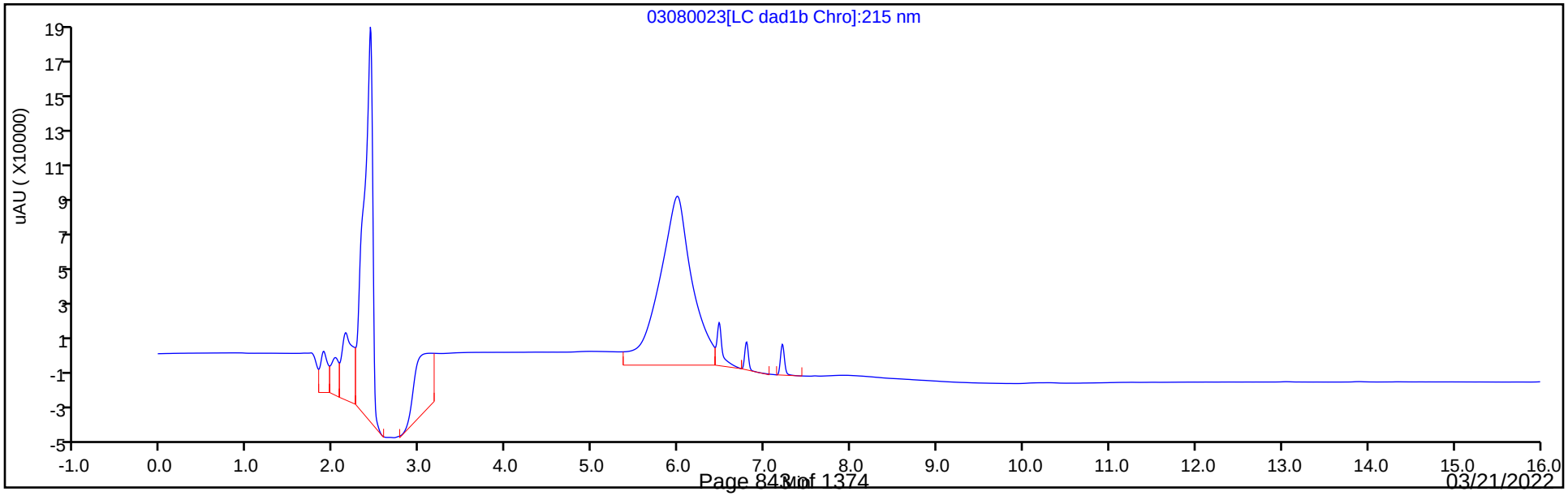
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080023.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 21:09:45 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 23 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

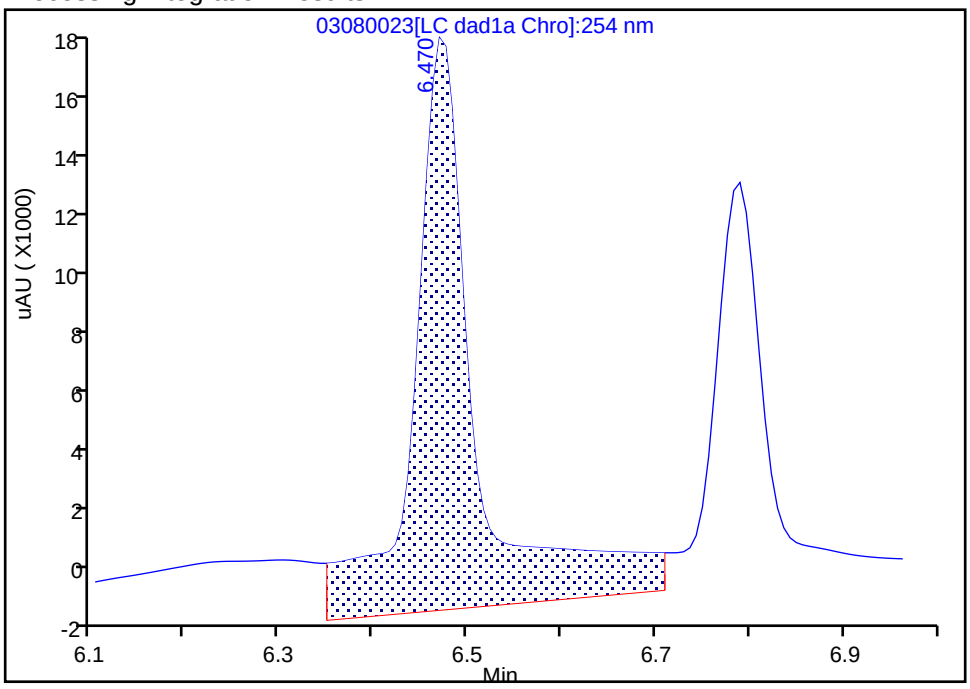
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080023.d | | | | |
| Injection Date: | 08-Mar-2022 21:09:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

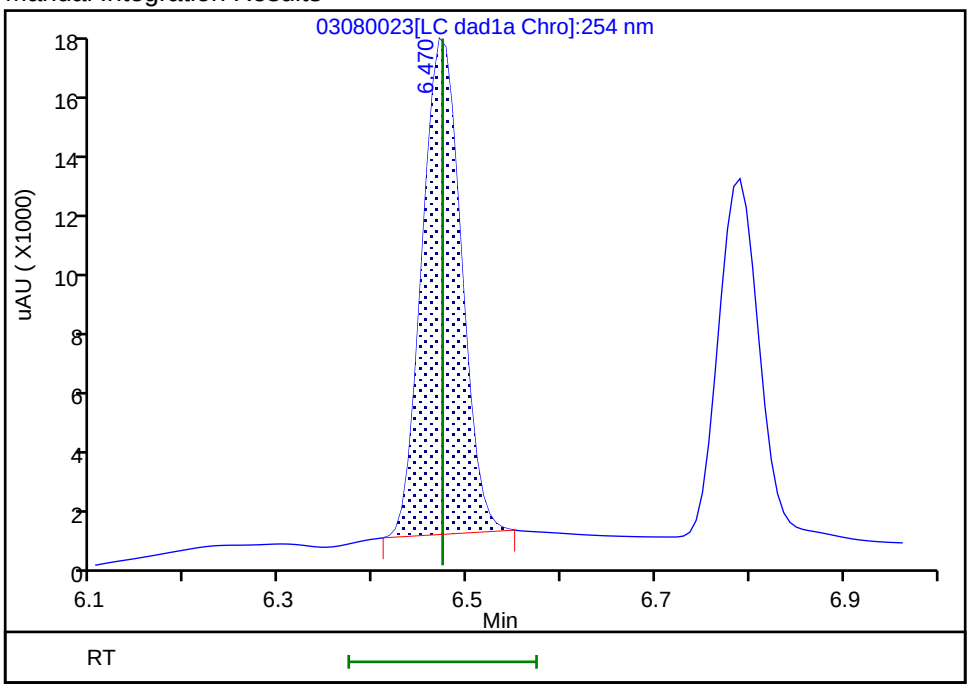
Processing Integration Results

RT: 6.47
Area: 82820
Amount: 0.457045
Amount Units: ug/mL




Manual Integration Results

RT: 6.47
Area: 46373
Amount: 0.255911
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:40:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

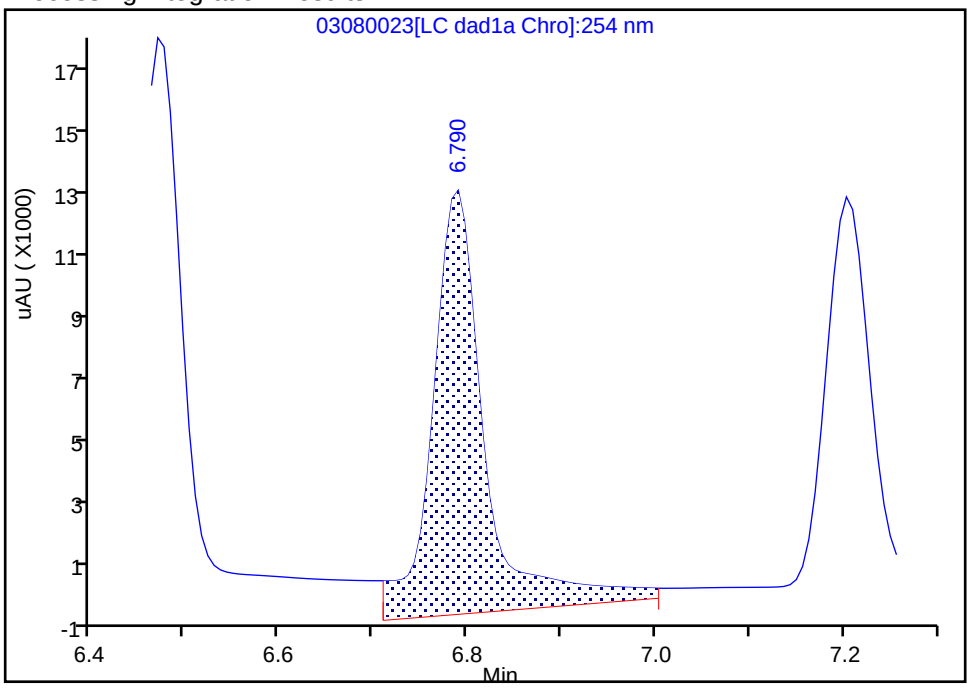
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080023.d | | | | |
| Injection Date: | 08-Mar-2022 21:09:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

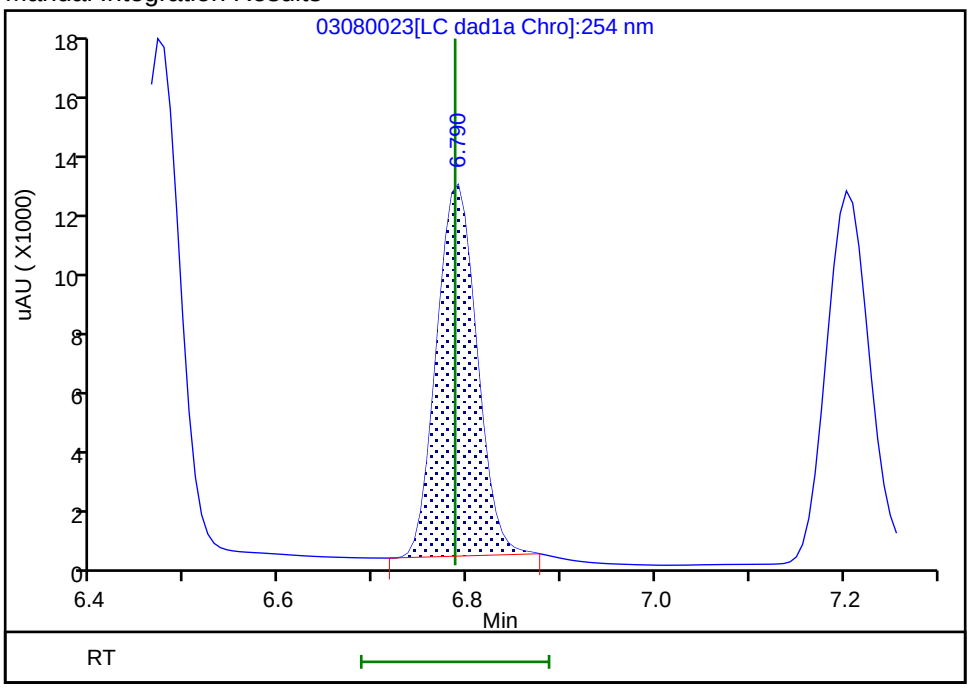
Processing Integration Results

RT: 6.79
Area: 48883
Amount: 0.353935
Amount Units: ug/mL




Manual Integration Results

RT: 6.79
Area: 34236
Amount: 0.247884
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:40:53
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

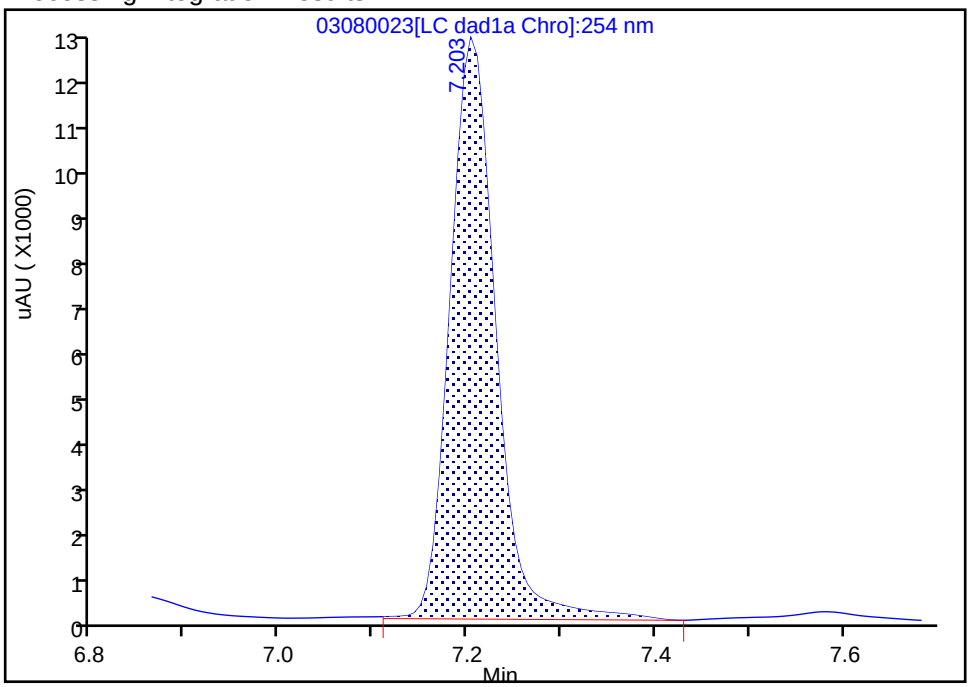
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080023.d
Injection Date: 08-Mar-2022 21:09:45 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 7 MNX, CAS: 5755-27-1

Signal: 1

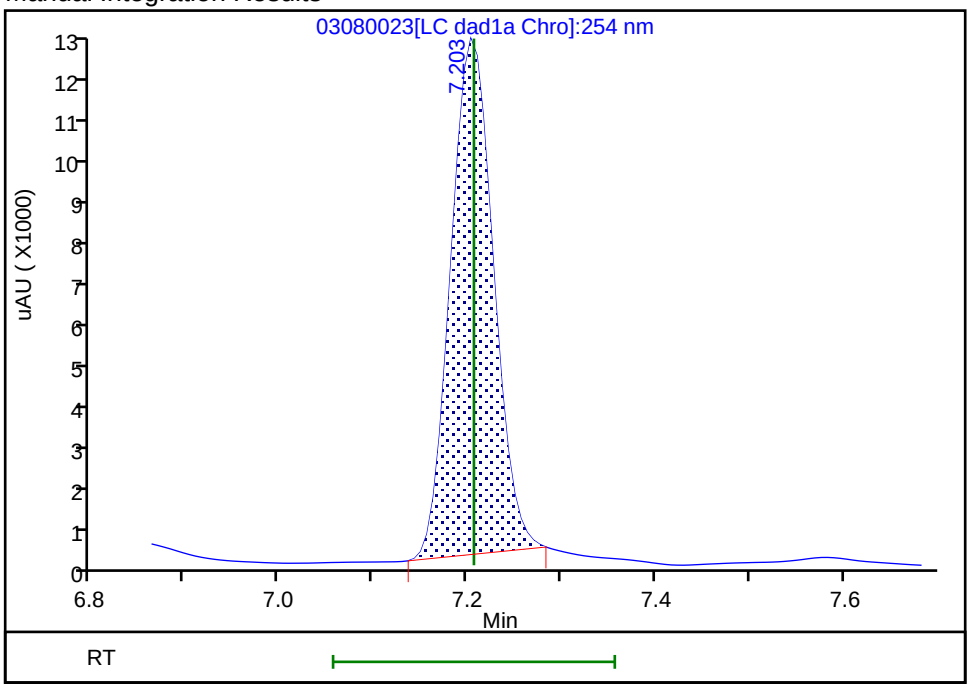
Processing Integration Results

RT: 7.20
Area: 39323
Amount: 0.312099
Amount Units: ug/mL




Manual Integration Results

RT: 7.20
Area: 36007
Amount: 0.285780
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:40:56
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/34 Calibration Date: 03/09/2022 01:21

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080034.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 83827 | 83388 | | 249 | 250 | -0.5 | 15.0 |
| RDX | Ave | 103609 | 108056 | | 261 | 250 | 4.3 | 15.0 |
| Picric acid | Ave | 77039 | 79668 | | 259 | 250 | 3.4 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 218096 | 227094 | | 261 | 251 | 4.1 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 288401 | 302814 | | 263 | 251 | 5.0 | 15.0 |
| Nitrobenzene | Ave | 191953 | 189701 | | 248 | 251 | -1.2 | 15.0 |
| Tetryl | Ave | 170567 | 170882 | | 251 | 251 | 0.2 | 15.0 |
| Nitroglycerin | Ave | 63037 | 66836 | | 2650 | 2500 | 6.0 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 202726 | 204032 | | 253 | 251 | 0.6 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 150985 | 151836 | | 252 | 250 | 0.6 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202171 | 202717 | | 252 | 251 | 0.3 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143115 | 145112 | | 255 | 251 | 1.4 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 289351 | 299143 | | 259 | 251 | 3.4 | 15.0 |
| 2-Nitrotoluene | Ave | 127614 | 122044 | | 239 | 250 | -4.4 | 15.0 |
| 4-Nitrotoluene | Ave | 106235 | 106579 | | 251 | 251 | 0.3 | 15.0 |
| 3-Nitrotoluene | Ave | 142273 | 134913 | | 237 | 250 | -5.2 | 15.0 |
| PETN | Lin2 | | 76527 | | 2620 | 2500 | 4.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 124698 | 129656 | | 260 | 250 | 4.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/34 Calibration Date: 03/09/2022 01:21

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03080034.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.59 | 6.44 | 6.74 |
| RDX | 7.58 | 7.43 | 7.73 |
| Picric acid | 7.92 | 7.76 | 8.06 |
| 1,3,5-Trinitrobenzene | 8.65 | 8.50 | 8.80 |
| 1,3-Dinitrobenzene | 9.27 | 9.12 | 9.42 |
| Nitrobenzene | 9.65 | 9.50 | 9.80 |
| Tetryl | 9.96 | 9.82 | 10.12 |
| Nitroglycerin | 10.42 | 10.27 | 10.57 |
| 2,4,6-Trinitrotoluene | 10.86 | 10.77 | 10.97 |
| 4-Amino-2,6-dinitrotoluene | 11.05 | 10.95 | 11.15 |
| 2-Amino-4,6-dinitrotoluene | 11.30 | 11.20 | 11.40 |
| 2,6-Dinitrotoluene | 11.47 | 11.37 | 11.57 |
| 2,4-Dinitrotoluene | 11.64 | 11.54 | 11.74 |
| 2-Nitrotoluene | 12.48 | 12.33 | 12.63 |
| 4-Nitrotoluene | 12.90 | 12.75 | 13.05 |
| 3-Nitrotoluene | 13.47 | 13.32 | 13.62 |
| PETN | 14.50 | 14.35 | 14.65 |
| 1,2-Dinitrobenzene | 8.52 | 8.37 | 8.67 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080034.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2022 01:21:49 ALS Bottle#: 7 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109078-034
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:45 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:52:06

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.589 | 6.593 | -0.004 | 20847 | 0.2500 | 0.2487 | M |
| 8 RDX | 1 | 7.575 | 7.579 | -0.004 | 27014 | 0.2500 | 0.2607 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.915 | 7.906 | 0.009 | 19917 | 0.2500 | 0.2585 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.522 | 8.519 | 0.003 | 32414 | 0.2500 | 0.2599 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.649 | 8.646 | 0.003 | 56887 | 0.2505 | 0.2608 | |
| 12 1,3-Dinitrobenzene | 1 | 9.268 | 9.266 | 0.002 | 75855 | 0.2505 | 0.2630 | |
| 13 Nitrobenzene | 1 | 9.648 | 9.652 | -0.004 | 47615 | 0.2510 | 0.2481 | |
| 15 Tetryl | 1 | 9.962 | 9.966 | -0.004 | 42806 | 0.2505 | 0.2510 | |
| 16 Nitroglycerin | 2 | 10.415 | 10.419 | -0.004 | 167089 | 2.50 | 2.65 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.862 | 10.866 | -0.004 | 51212 | 0.2510 | 0.2526 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.048 | 11.052 | -0.004 | 37997 | 0.2503 | 0.2517 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.295 | 11.299 | -0.004 | 50882 | 0.2510 | 0.2517 | |
| 20 2,6-Dinitrotoluene | 1 | 11.468 | 11.472 | -0.004 | 36423 | 0.2510 | 0.2545 | |
| 21 2,4-Dinitrotoluene | 1 | 11.635 | 11.639 | -0.004 | 75085 | 0.2510 | 0.2595 | |
| 22 o-Nitrotoluene | 1 | 12.482 | 12.479 | 0.003 | 30511 | 0.2500 | 0.2391 | |
| 23 p-Nitrotoluene | 1 | 12.902 | 12.899 | 0.003 | 26698 | 0.2505 | 0.2513 | |
| 24 m-Nitrotoluene | 1 | 13.468 | 13.466 | 0.002 | 33762 | 0.2503 | 0.2373 | |
| 25 PETN | 2 | 14.495 | 14.499 | -0.004 | 191317 | 2.50 | 2.62 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

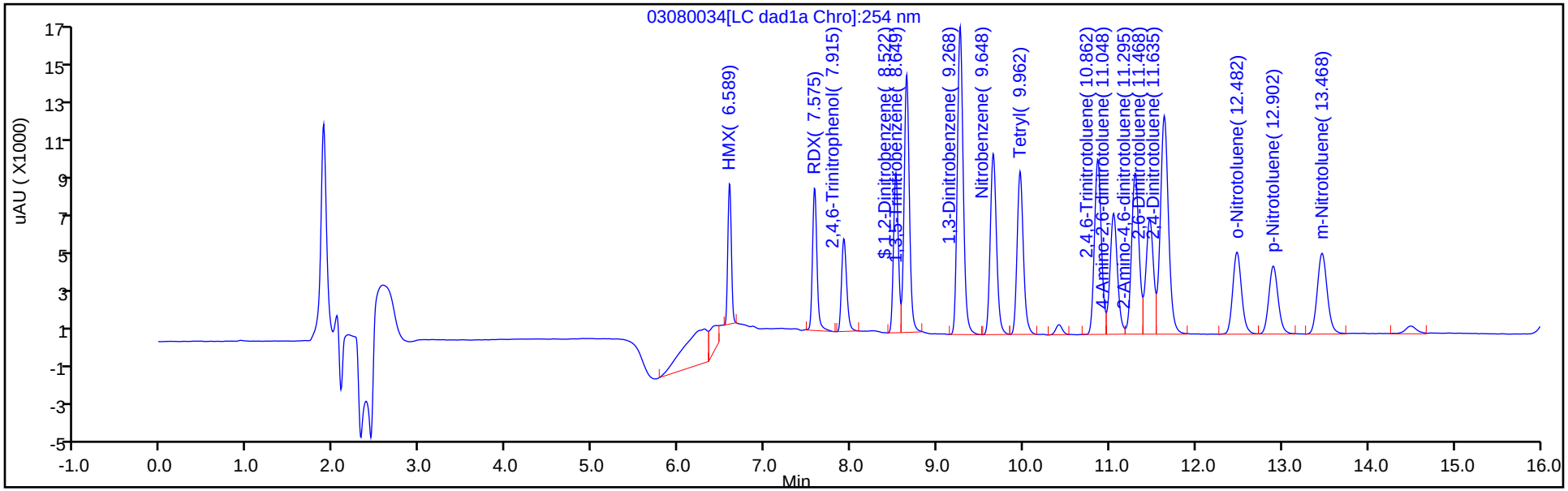
Report Date: 09-Mar-2022 13:15:46 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

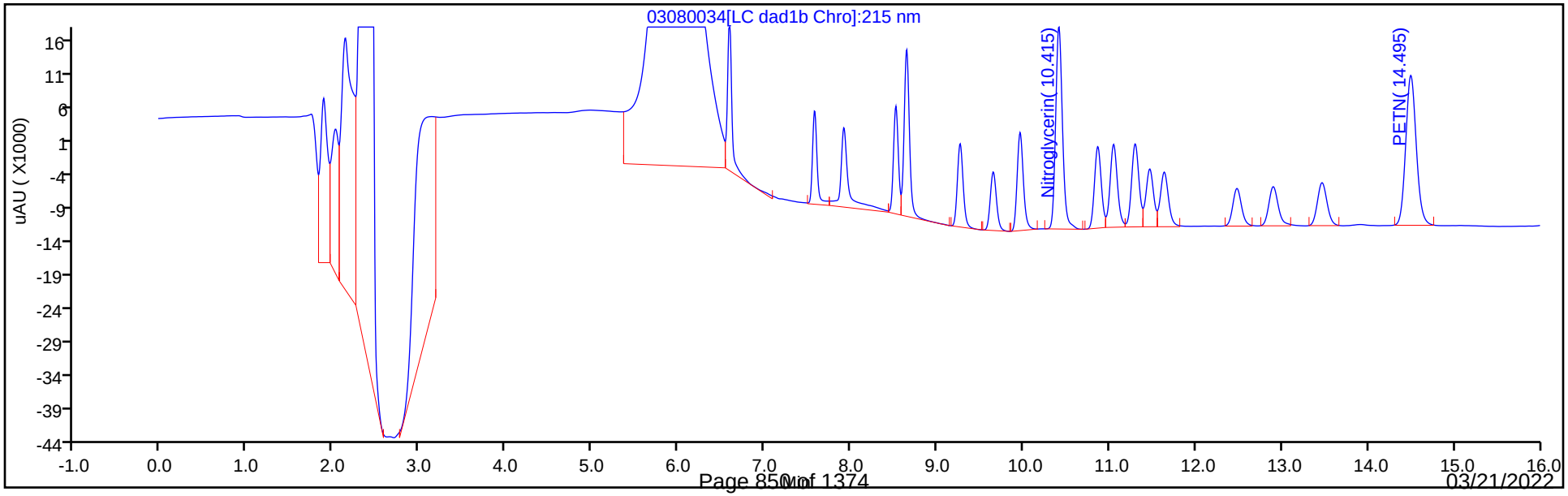
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 01:21:49 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

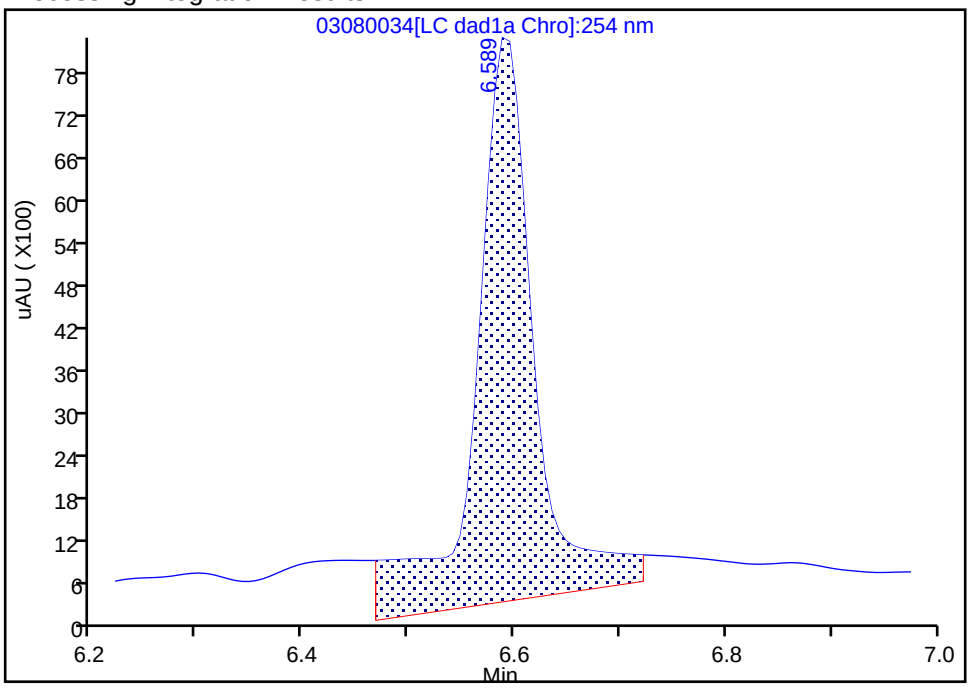
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080034.d | | | | |
| Injection Date: | 09-Mar-2022 01:21:49 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

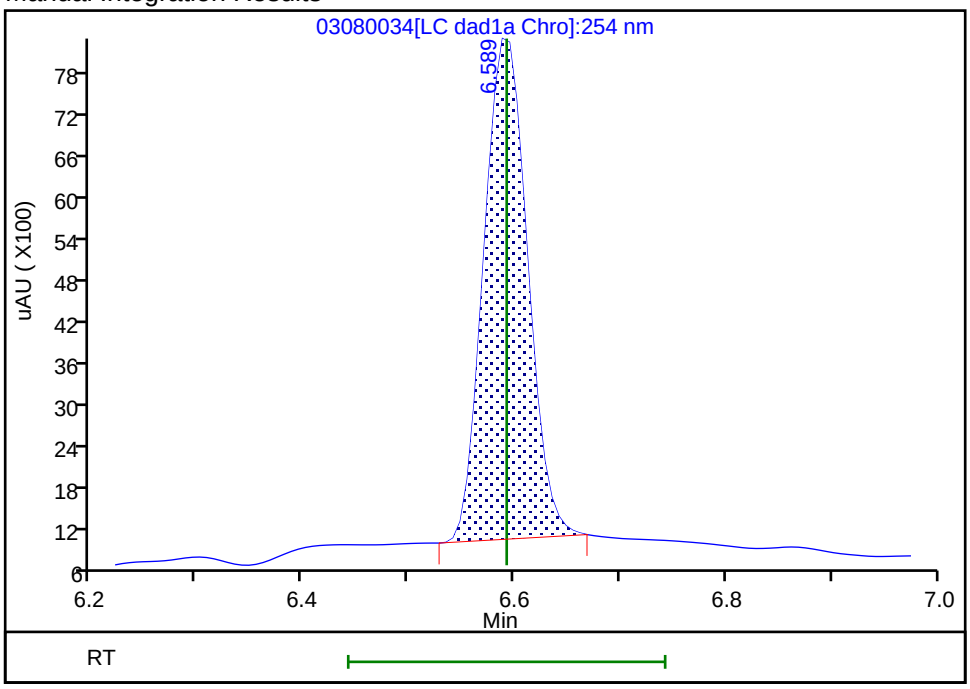
Processing Integration Results

RT: 6.59
Area: 30606
Amount: 0.365108
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 20847
Amount: 0.248690
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:52:05

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/36 Calibration Date: 03/09/2022 02:07

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080036.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 181207 | 179696 | | 248 | 250 | -0.8 | 15.0 |
| DNX | Ave | 138113 | 132531 | | 240 | 250 | -4.0 | 15.0 |
| MNX | Ave | 125995 | 126015 | | 292 | 292 | 0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568014/36 Calibration Date: 03/09/2022 02:07

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03080036.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.47 | 6.37 | 6.57 |
| DNX | 6.79 | 6.69 | 6.89 |
| MNX | 7.21 | 7.06 | 7.36 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080036.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 09-Mar-2022 02:07:45 | ALS Bottle#: | 9 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0109078-036 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:46 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 12:02:48 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.472 | 6.473 | -0.001 | 44969 | 0.2503 | 0.2482 | M |
| 6 DNX | 1 | 6.792 | 6.787 | 0.005 | 33166 | 0.2503 | 0.2401 | M |
| 7 MNX | 1 | 7.205 | 7.207 | -0.002 | 36765 | 0.2918 | 0.2918 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

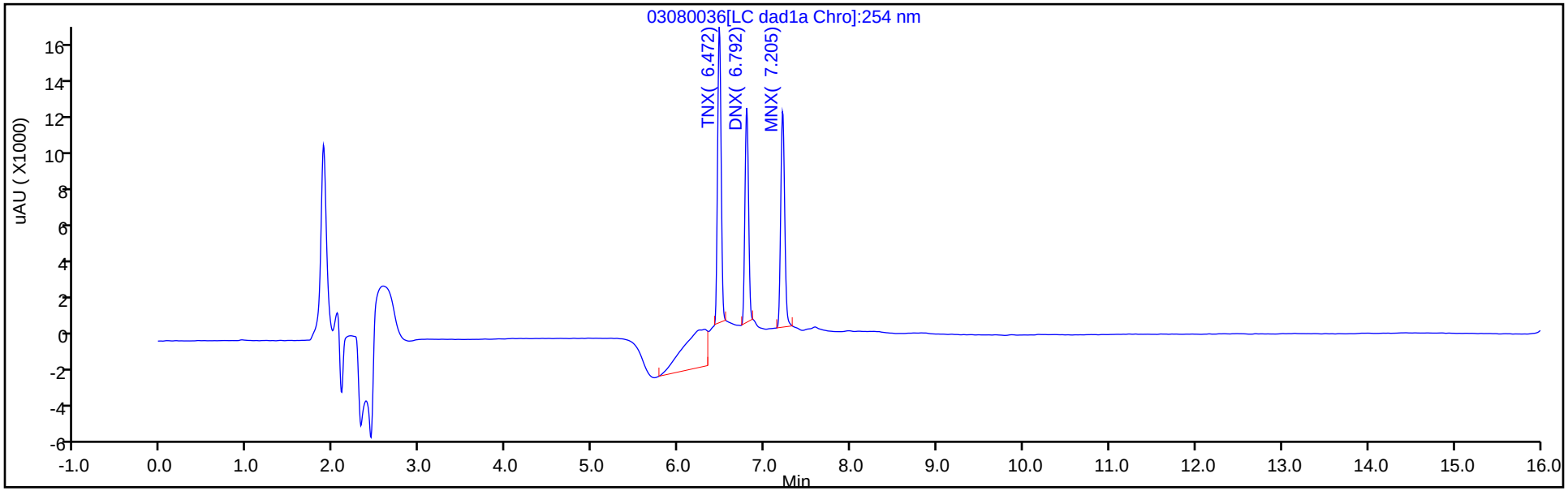
Report Date: 09-Mar-2022 13:15:47 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

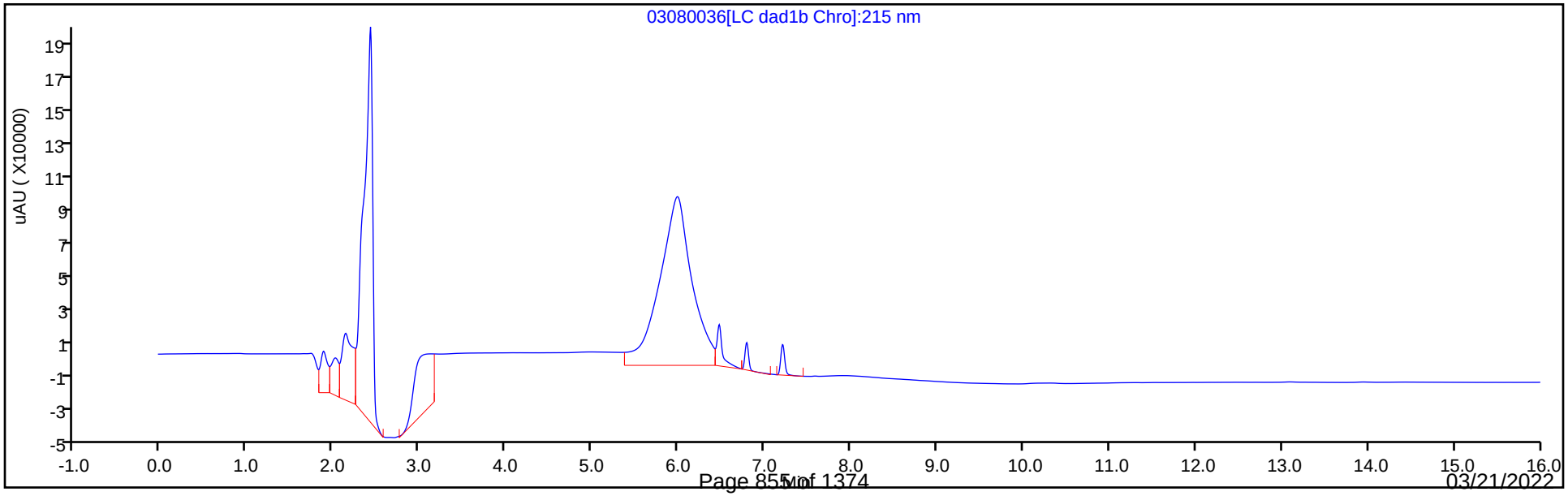
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080036.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 02:07:45 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

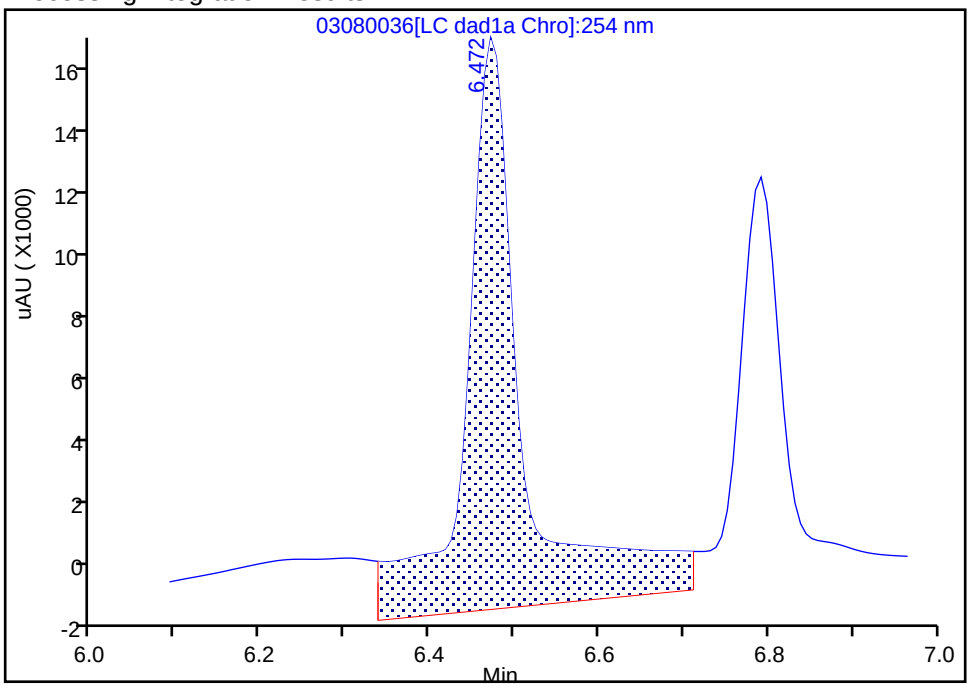
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080036.d | | | | |
| Injection Date: | 09-Mar-2022 02:07:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

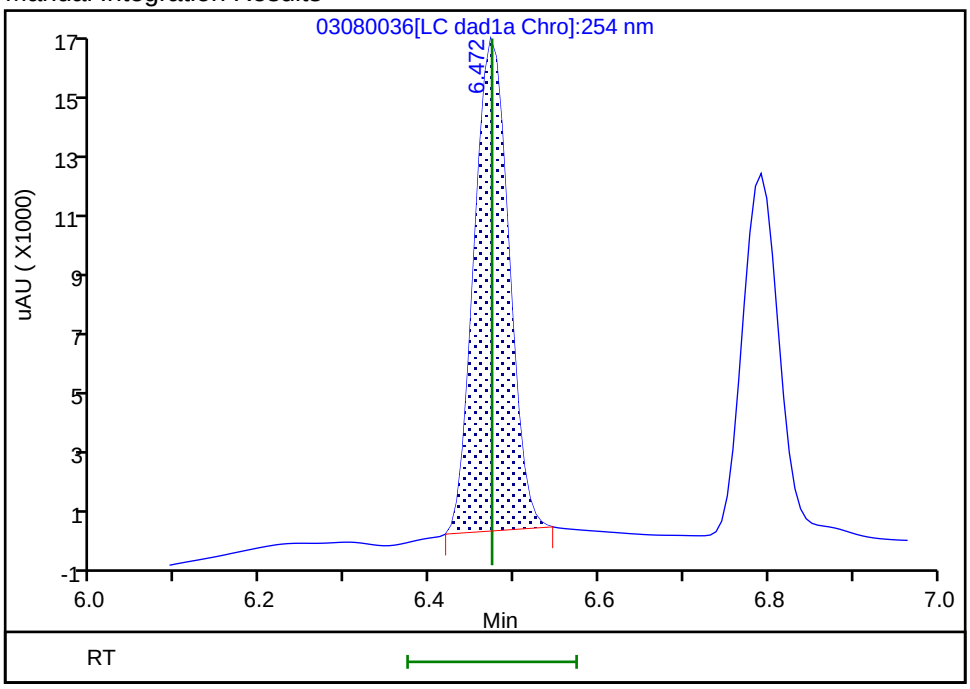
Processing Integration Results

RT: 6.47
Area: 83541
Amount: 0.461024
Amount Units: ug/mL




Manual Integration Results

RT: 6.47
Area: 44969
Amount: 0.248163
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:02:40
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

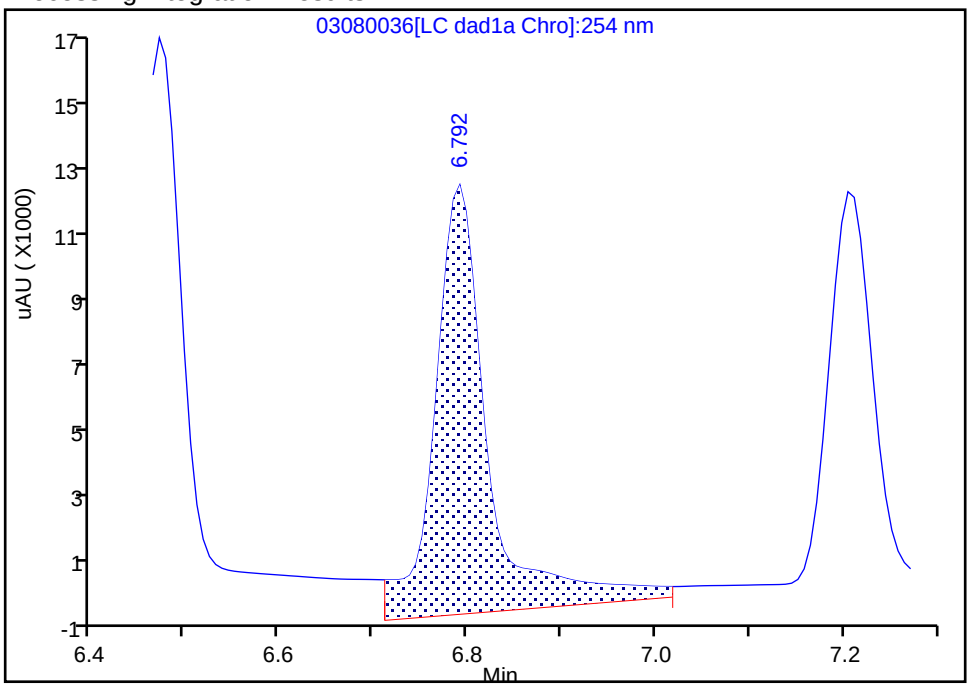
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080036.d | | | | |
| Injection Date: | 09-Mar-2022 02:07:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

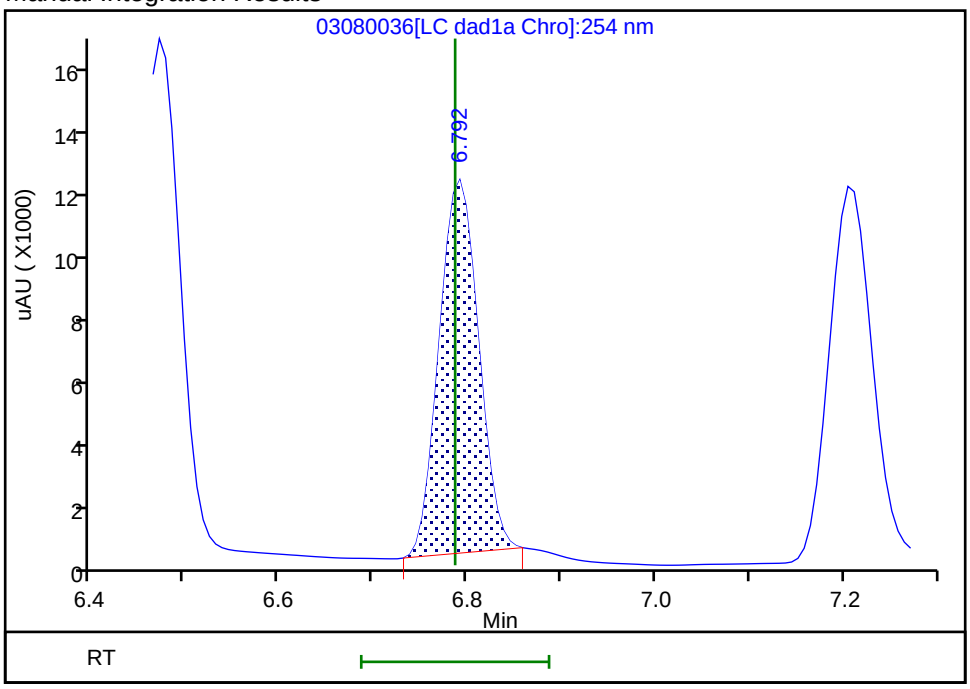
Processing Integration Results

RT: 6.79
Area: 49835
Amount: 0.360828
Amount Units: ug/mL




Manual Integration Results

RT: 6.79
Area: 33166
Amount: 0.240137
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:02:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

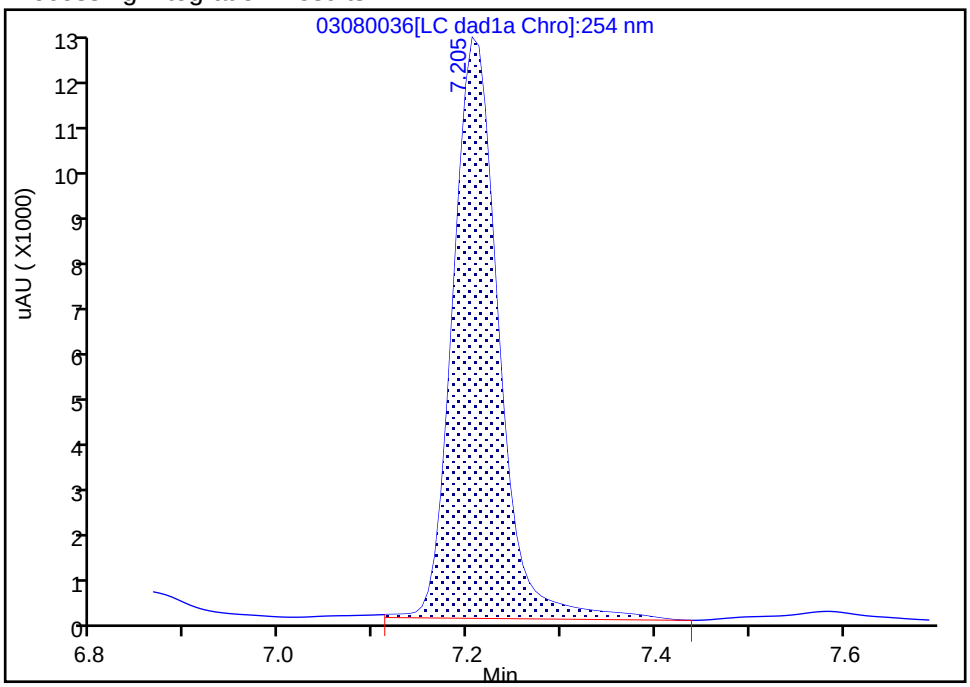
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080036.d
Injection Date: 09-Mar-2022 02:07:45 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 7 MNX, CAS: 5755-27-1

Signal: 1

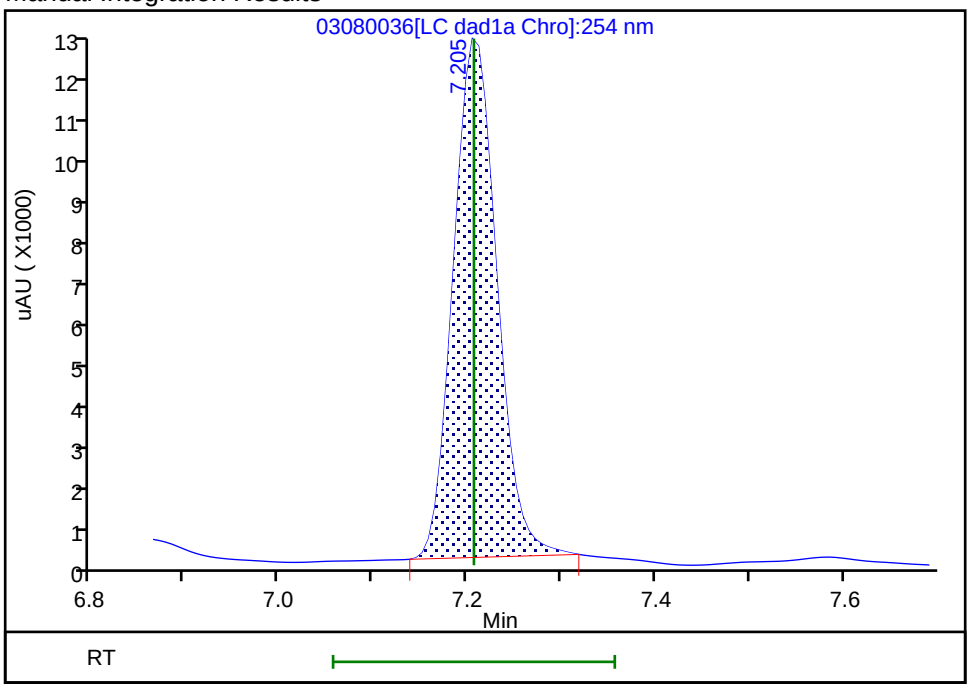
Processing Integration Results

RT: 7.21
Area: 39185
Amount: 0.311003
Amount Units: ug/mL




Manual Integration Results

RT: 7.21
Area: 36765
Amount: 0.291796
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:02:46
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 | Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D | Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 166135 | 152908 | | 460 | 500 | -8.0 | 15.0 |
| Picric acid | Ave | 132885 | 149388 | | 562 | 500 | 12.4 | 15.0 |
| RDX | Ave | 194331 | 186788 | | 481 | 500 | -3.9 | 15.0 |
| Nitrobenzene | Ave | 368293 | 368460 | | 500 | 500 | 0.0 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 571666 | 563218 | | 493 | 500 | -1.5 | 15.0 |
| Nitroglycerin | Ave | 122518 | 128779 | | 5260 | 5000 | 5.1 | 15.0 |
| 2-Nitrotoluene | Ave | 234672 | 232836 | | 496 | 500 | -0.8 | 15.0 |
| 4-Nitrotoluene | Ave | 210817 | 216650 | | 514 | 500 | 2.8 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 269688 | | 505 | 500 | 1.0 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 254816 | | 480 | 500 | -4.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 360536 | 361200 | | 501 | 500 | 0.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 415464 | 433072 | | 521 | 500 | 4.2 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 265662 | 266814 | | 502 | 500 | 0.4 | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 522322 | | 470 | 500 | -5.9 | 15.0 |
| Tetryl | Ave | 342171 | 323254 | | 472 | 500 | -5.5 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 369179 | 384614 | | 521 | 500 | 4.2 | 15.0 |
| PETN | Ave | 129329 | 137808 | | 5330 | 5000 | 6.6 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 249753 | 254466 | | 509 | 500 | 1.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.87 | 6.74 | 7.04 |
| Picric acid | 7.62 | 7.45 | 7.75 |
| RDX | 9.08 | 8.97 | 9.27 |
| Nitrobenzene | 12.01 | 11.91 | 12.21 |
| 1,3-Dinitrobenzene | 15.60 | 15.49 | 15.79 |
| Nitroglycerin | 16.04 | 15.91 | 16.21 |
| 2-Nitrotoluene | 16.78 | 16.67 | 16.97 |
| 4-Nitrotoluene | 17.08 | 16.98 | 17.28 |
| 4-Amino-2,6-dinitrotoluene | 17.72 | 17.61 | 17.91 |
| 3-Nitrotoluene | 18.06 | 17.95 | 18.25 |
| 2-Amino-4,6-dinitrotoluene | 18.72 | 18.59 | 18.89 |
| 1,3,5-Trinitrobenzene | 18.92 | 18.80 | 19.10 |
| 2,6-Dinitrotoluene | 20.22 | 20.11 | 20.41 |
| 2,4-Dinitrotoluene | 20.73 | 20.61 | 20.91 |
| Tetryl | 24.48 | 24.34 | 24.64 |
| 2,4,6-Trinitrotoluene | 25.24 | 25.11 | 25.41 |
| PETN | 26.21 | 26.07 | 26.37 |
| 1,2-Dinitrobenzene | 13.24 | 13.13 | 13.43 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 03-Mar-2022 02:38:50 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0108949-019
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:52:22 Calib Date: 03-Mar-2022 02:03:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:42:44
Second Level Reviewer: zhangji Date: 03-Mar-2022 12:52:22

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,6-diamino-4-nitrotoluene | 1 | 4.143 | 4.142 | 0.001 | 223893 | 0.5000 | 0.5509 | |
| 2 | 2,4-diamino-6-nitrotoluene | 1 | 4.749 | 4.669 | 0.080 | 110582 | 0.5000 | 0.4814 | M |
| 5 | HMX | 1 | 6.869 | 6.889 | -0.020 | 76454 | 0.5000 | 0.4602 | |
| 7 | 2,4,6-Trinitrophenol | 1 | 7.623 | 7.602 | 0.021 | 74694 | 0.5000 | 0.5621 | |
| 8 | RDX | 1 | 9.076 | 9.115 | -0.039 | 93394 | 0.5000 | 0.4806 | |
| 9 | Nitrobenzene | 1 | 12.009 | 12.062 | -0.053 | 184230 | 0.5000 | 0.5002 | |
| $ 10 | 1,2-Dinitrobenzene | 1 | 13.236 | 13.282 | -0.046 | 127233 | 0.5000 | 0.5094 | |
| 11 | 3,5-Dinitroaniline | 1 | 15.229 | 15.269 | -0.040 | 225413 | 0.5000 | 0.5479 | |
| 12 | 1,3-Dinitrobenzene | 1 | 15.596 | 15.635 | -0.039 | 281609 | 0.5000 | 0.4926 | |
| 13 | Nitroglycerin | 2 | 16.036 | 16.055 | -0.019 | 643894 | 5.00 | 5.26 | |
| 14 | o-Nitrotoluene | 1 | 16.776 | 16.822 | -0.046 | 116418 | 0.5000 | 0.4961 | |
| 16 | p-Nitrotoluene | 1 | 17.083 | 17.129 | -0.046 | 108325 | 0.5000 | 0.5138 | |
| 17 | 4-Amino-2,6-dinitrotoluene | 1 | 17.716 | 17.755 | -0.039 | 134844 | 0.5000 | 0.5048 | |
| 18 | m-Nitrotoluene | 1 | 18.056 | 18.102 | -0.046 | 127408 | 0.5000 | 0.4797 | |
| 19 | 2-Amino-4,6-dinitrotoluene | 1 | 18.716 | 18.742 | -0.026 | 180600 | 0.5000 | 0.5009 | |
| 20 | 1,3,5-Trinitrobenzene | 1 | 18.916 | 18.949 | -0.033 | 216536 | 0.5000 | 0.5212 | |
| 21 | 2,6-Dinitrotoluene | 1 | 20.223 | 20.255 | -0.032 | 133407 | 0.5000 | 0.5022 | |
| 22 | 2,4-Dinitrotoluene | 1 | 20.729 | 20.762 | -0.033 | 261161 | 0.5000 | 0.4704 | |
| 23 | Tetryl | 1 | 24.476 | 24.489 | -0.013 | 161627 | 0.5000 | 0.4724 | |
| 24 | 2,4,6-Trinitrotoluene | 1 | 25.243 | 25.262 | -0.019 | 192307 | 0.5000 | 0.5209 | |
| 25 | PETN | 2 | 26.209 | 26.215 | -0.006 | 689039 | 5.00 | 5.33 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330 LCS_00111 | Amount Added: | 50.00 | Units: uL |
| 8330Surrogate_00127 | Amount Added: | 50.00 | Units: uL |
| 3,5-DNA LCS_00040 | Amount Added: | 50.00 | Units: uL |
| 8330DiaminLCS_00047 | Amount Added: | 50.00 | Units: uL |

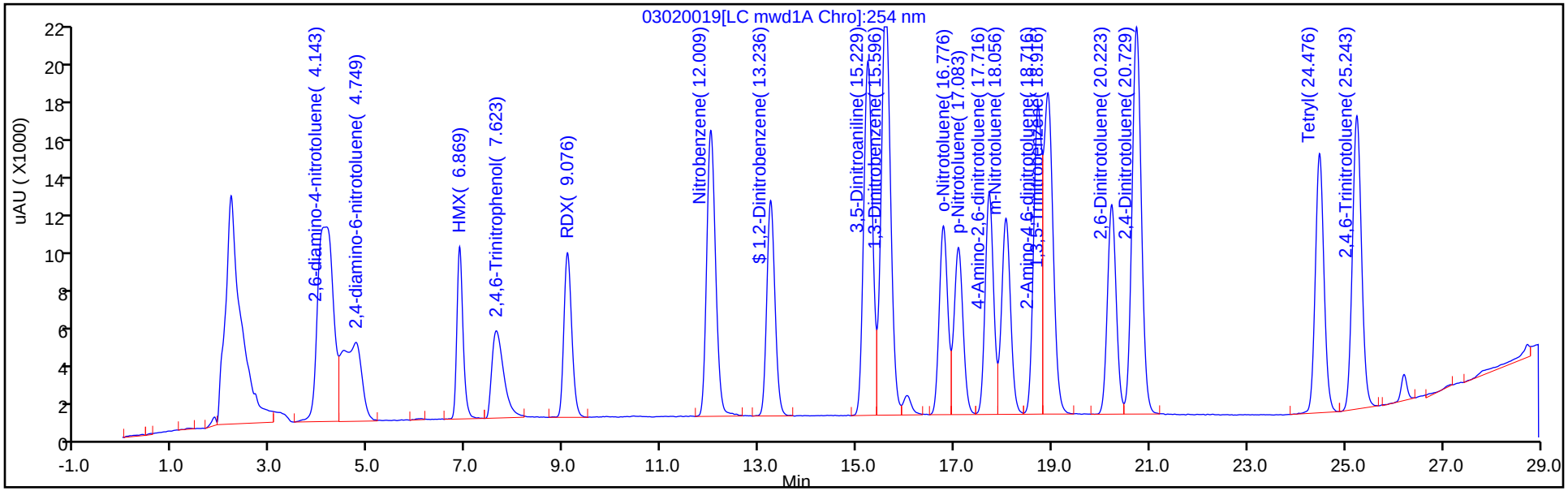
Report Date: 03-Mar-2022 12:52:29 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

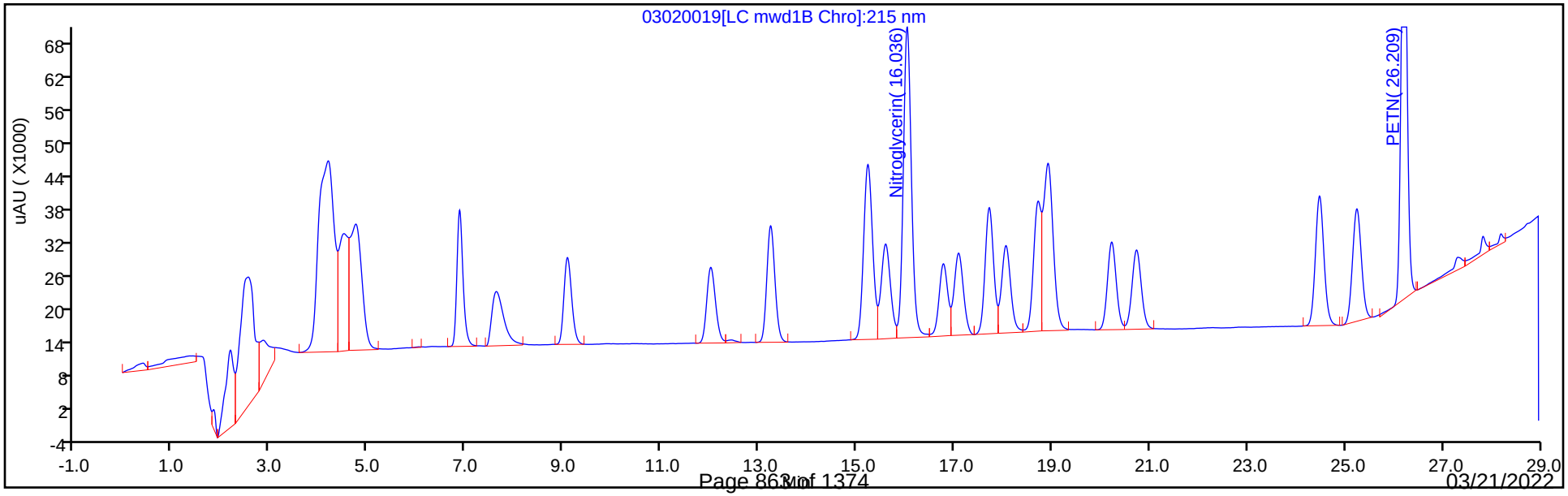
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020019.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 02:38:50 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | ICV INT | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 | Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D | Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 354070 | 354839 | | 502 | 501 | 0.2 | 15.0 |
| DNX | Ave | 278639 | 276448 | | 497 | 501 | -0.8 | 15.0 |
| MNX | Ave | 250081 | 253925 | | 592 | 584 | 1.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.16 | 5.02 | 5.32 |
| DNX | 6.02 | 5.88 | 6.18 |
| MNX | 7.61 | 7.48 | 7.78 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020028.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 03-Mar-2022 07:54:47 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0108949-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2022 13:02:36 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.157 | 5.171 | -0.014 | 177597 | 0.5005 | 0.5016 | |
| 4 DNX | 1 | 6.017 | 6.031 | -0.014 | 138362 | 0.5005 | 0.4966 | |
| 6 MNX | 1 | 7.610 | 7.625 | -0.015 | 148165 | 0.5835 | 0.5925 | |

## Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

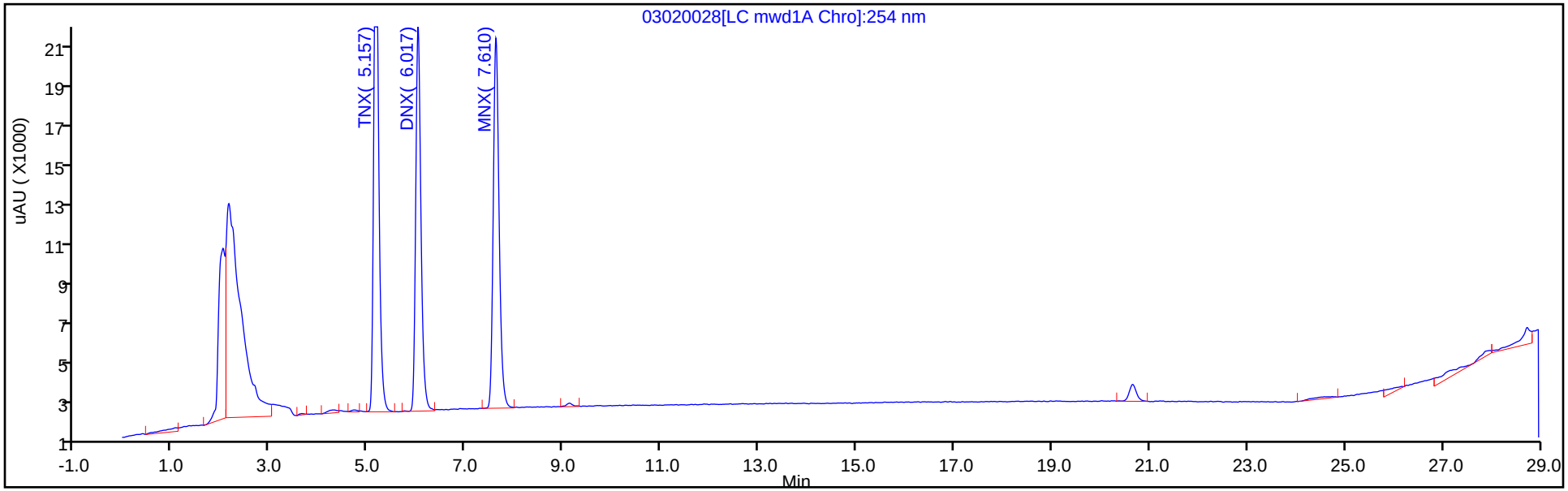
Report Date: 03-Mar-2022 13:02:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

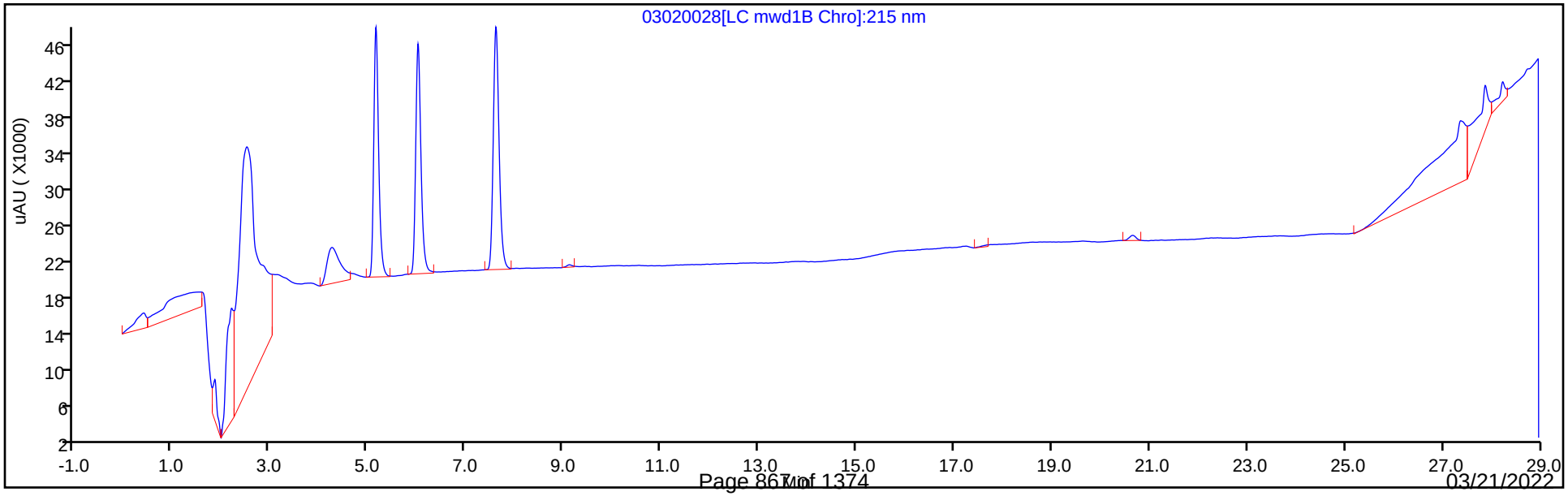
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020028.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Mar-2022 07:54:47 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/7 Calibration Date: 03/08/2022 17:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080007.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 166135 | 166544 | | 251 | 250 | 0.2 | 15.0 |
| Picric acid | Ave | 132885 | 157364 | | 296 | 250 | 18.4* | 15.0 |
| RDX | Ave | 194331 | 209604 | | 270 | 250 | 7.9 | 15.0 |
| Nitrobenzene | Ave | 368293 | 382004 | | 260 | 251 | 3.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 571666 | 607086 | | 266 | 251 | 6.2 | 15.0 |
| Nitroglycerin | Ave | 122518 | 133422 | | 2720 | 2500 | 8.9 | 15.0 |
| 2-Nitrotoluene | Ave | 234672 | 243848 | | 260 | 250 | 3.9 | 15.0 |
| 4-Nitrotoluene | Ave | 210817 | 217102 | | 258 | 251 | 3.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 280879 | | 263 | 250 | 5.2 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 277654 | | 262 | 250 | 4.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 360536 | 391259 | | 272 | 251 | 8.5 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 415464 | 433198 | | 261 | 251 | 4.3 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 265662 | 282633 | | 267 | 251 | 6.4 | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 554665 | | 245 | 251 | -2.3 | 15.0 |
| Tetryl | Ave | 342171 | 326507 | | 239 | 251 | -4.6 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 369179 | 392673 | | 267 | 251 | 6.4 | 15.0 |
| PETN | Ave | 129329 | 138607 | | 2680 | 2500 | 7.2 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 249753 | 262296 | | 263 | 250 | 5.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/7 Calibration Date: 03/08/2022 17:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080007.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.88 | 6.73 | 7.03 |
| Picric acid | 8.25 | 8.10 | 8.40 |
| RDX | 9.06 | 8.91 | 9.21 |
| Nitrobenzene | 11.92 | 11.77 | 12.07 |
| 1,3-Dinitrobenzene | 15.46 | 15.31 | 15.61 |
| Nitroglycerin | 15.82 | 15.67 | 15.97 |
| 2-Nitrotoluene | 16.54 | 16.39 | 16.69 |
| 4-Nitrotoluene | 16.85 | 16.70 | 17.00 |
| 4-Amino-2,6-dinitrotoluene | 17.47 | 17.32 | 17.62 |
| 3-Nitrotoluene | 17.80 | 17.65 | 17.95 |
| 2-Amino-4,6-dinitrotoluene | 18.48 | 18.33 | 18.63 |
| 1,3,5-Trinitrobenzene | 18.74 | 18.59 | 18.89 |
| 2,6-Dinitrotoluene | 19.96 | 19.81 | 20.11 |
| 2,4-Dinitrotoluene | 20.48 | 20.33 | 20.63 |
| Tetryl | 24.14 | 23.99 | 24.29 |
| 2,4,6-Trinitrotoluene | 24.92 | 24.77 | 25.07 |
| PETN | 25.90 | 25.75 | 26.05 |
| 1,2-Dinitrobenzene | 13.09 | 12.94 | 13.24 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 17:13:17 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0109079-007
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:11 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:51:40

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.142 | 4.142 | 0.000 | 101041 | 0.2500 | 0.2486 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.722 | 4.722 | 0.000 | 55393 | 0.2500 | 0.2375 | |
| 5 HMX | 1 | 6.875 | 6.875 | 0.000 | 41636 | 0.2500 | 0.2506 | |
| 7 2,4,6-Trinitrophenol | 1 | 8.249 | 8.249 | 0.000 | 39341 | 0.2500 | 0.2961 | |
| 8 RDX | 1 | 9.062 | 9.062 | 0.000 | 52401 | 0.2500 | 0.2696 | |
| 9 Nitrobenzene | 1 | 11.915 | 11.915 | 0.000 | 95883 | 0.2510 | 0.2603 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.089 | 13.089 | 0.000 | 65574 | 0.2500 | 0.2626 | |
| 11 3,5-Dinitroaniline | 1 | 15.089 | 15.089 | 0.000 | 107772 | 0.2500 | 0.2618 | |
| 12 1,3-Dinitrobenzene | 1 | 15.455 | 15.455 | 0.000 | 152075 | 0.2505 | 0.2660 | |
| 13 Nitroglycerin | 2 | 15.815 | 15.815 | 0.000 | 333555 | 2.50 | 2.72 | M |
| 14 o-Nitrotoluene | 1 | 16.542 | 16.542 | 0.000 | 60962 | 0.2500 | 0.2598 | |
| 16 p-Nitrotoluene | 1 | 16.849 | 16.849 | 0.000 | 54384 | 0.2505 | 0.2580 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.469 | 17.469 | 0.000 | 70290 | 0.2503 | 0.2633 | |
| 18 m-Nitrotoluene | 1 | 17.802 | 17.802 | 0.000 | 69483 | 0.2503 | 0.2619 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.482 | 18.482 | 0.000 | 98206 | 0.2510 | 0.2724 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.735 | 18.735 | 0.000 | 108516 | 0.2505 | 0.2612 | |
| 21 2,6-Dinitrotoluene | 1 | 19.955 | 19.955 | 0.000 | 70941 | 0.2510 | 0.2670 | |
| 22 2,4-Dinitrotoluene | 1 | 20.482 | 20.482 | 0.000 | 139221 | 0.2510 | 0.2453 | |
| 23 Tetryl | 1 | 24.142 | 24.142 | 0.000 | 81790 | 0.2505 | 0.2390 | |
| 24 2,4,6-Trinitrotoluene | 1 | 24.922 | 24.922 | 0.000 | 98561 | 0.2510 | 0.2670 | |
| 25 PETN | 2 | 25.902 | 25.902 | 0.000 | 346518 | 2.50 | 2.68 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 12.50 | Units: uL |

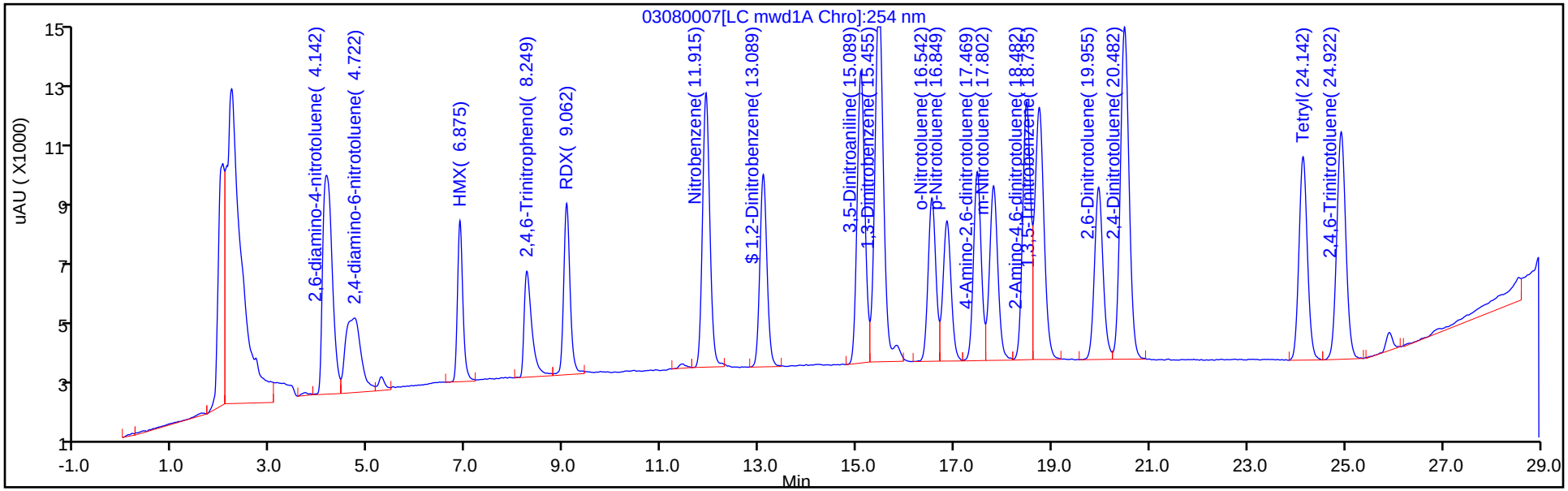
Report Date: 09-Mar-2022 19:28:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

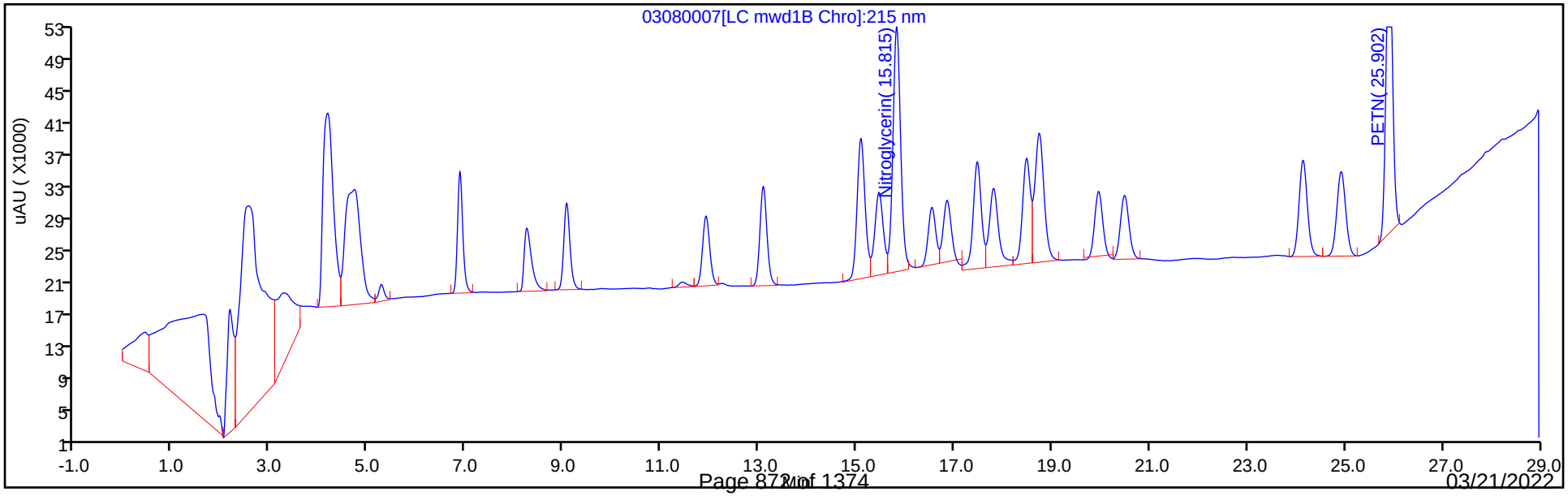
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080007.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 17:13:17 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

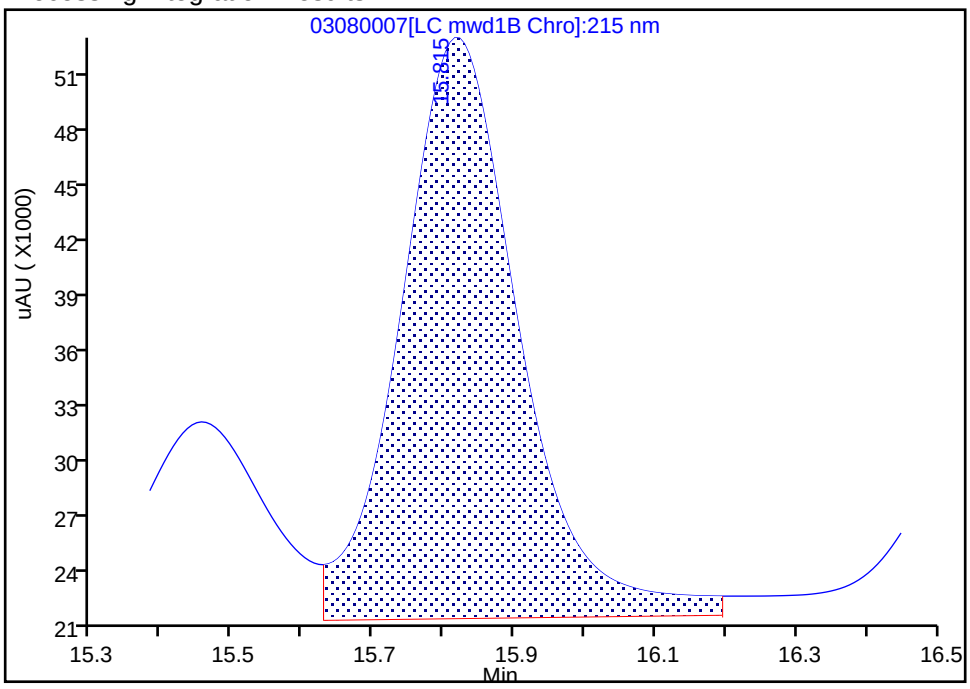
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080007.D | | | | |
| Injection Date: | 08-Mar-2022 17:13:17 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

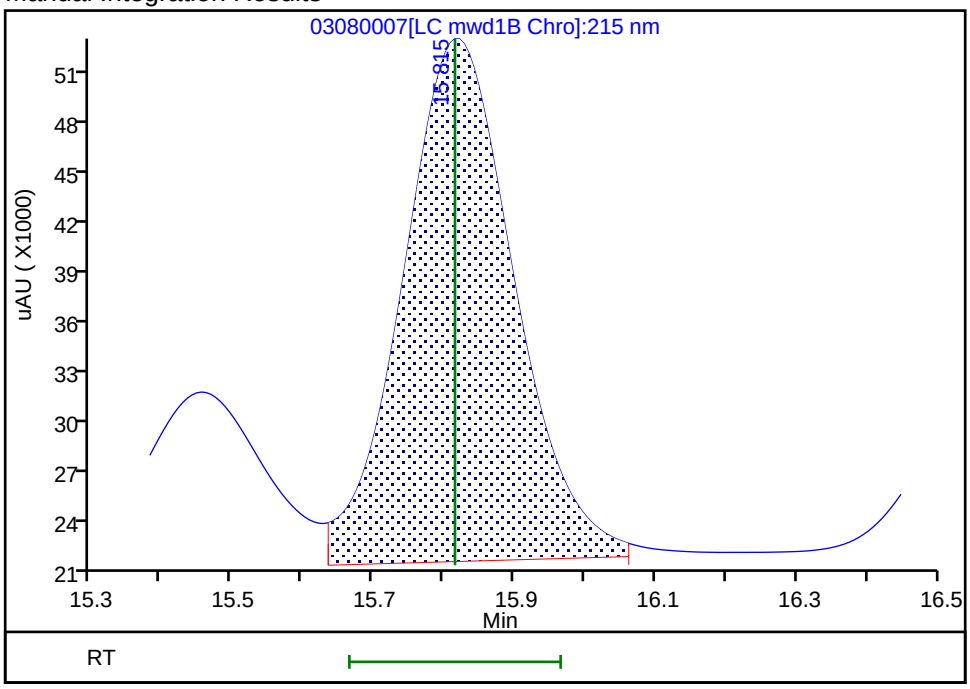
Processing Integration Results

RT: 15.82
Area: 362004
Amount: 2.954705
Amount Units: ug/ml




Manual Integration Results

RT: 15.82
Area: 333555
Amount: 2.722502
Amount Units: ug/ml




Reviewer: zhangji, 08-Mar-2022 17:52:39
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

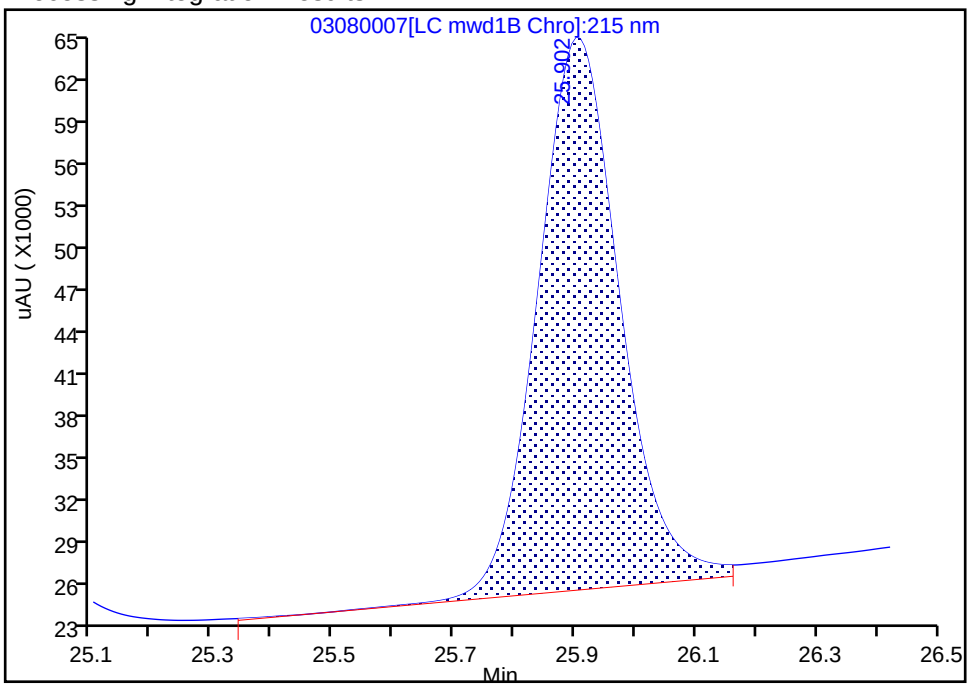
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080007.D
Injection Date: 08-Mar-2022 17:13:17 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

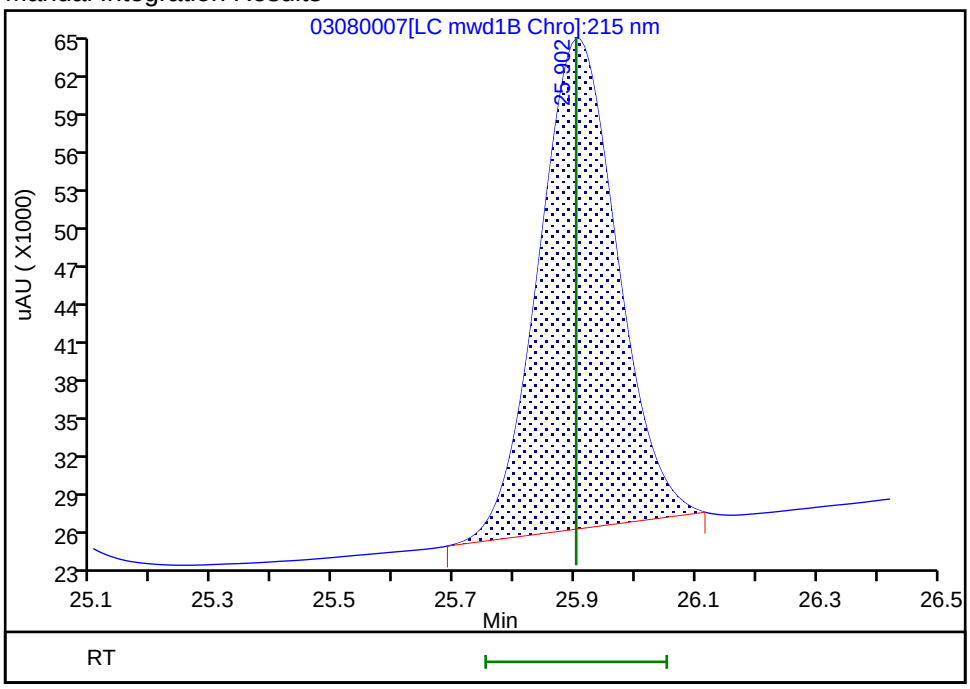
Processing Integration Results

RT: 25.90
Area: 367788
Amount: 2.843813
Amount Units: ug/ml




Manual Integration Results

RT: 25.90
Area: 346518
Amount: 2.679349
Amount Units: ug/ml




Reviewer: zhangji, 08-Mar-2022 17:52:20
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/8 Calibration Date: 03/08/2022 17:48

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080008.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 354070 | 376452 | | 266 | 250 | 6.3 | 15.0 |
| DNX | Ave | 278639 | 284947 | | 256 | 250 | 2.3 | 15.0 |
| MNX | Ave | 250081 | 258742 | | 302 | 292 | 3.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/8 Calibration Date: 03/08/2022 17:48

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080008.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.18 | 5.03 | 5.33 |
| DNX | 6.03 | 5.88 | 6.18 |
| MNX | 7.59 | 7.44 | 7.74 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080008.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 08-Mar-2022 17:48:22 | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0109079-008 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:12 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 08-Mar-2022 18:24:49 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.183 | 5.183 | 0.000 | 94207 | 0.2503 | 0.2661 | |
| 4 DNX | 1 | 6.030 | 6.030 | 0.000 | 71308 | 0.2503 | 0.2559 | |
| 6 MNX | 1 | 7.590 | 7.590 | 0.000 | 75488 | 0.2918 | 0.3019 | |

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

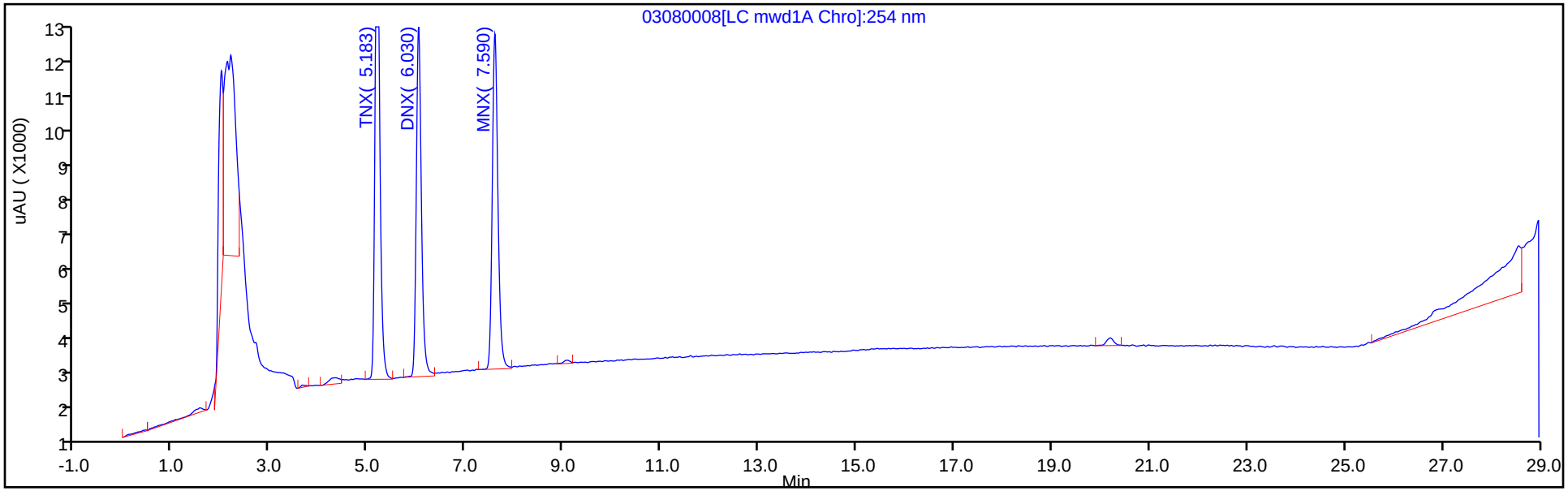
Report Date: 09-Mar-2022 19:28:12 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

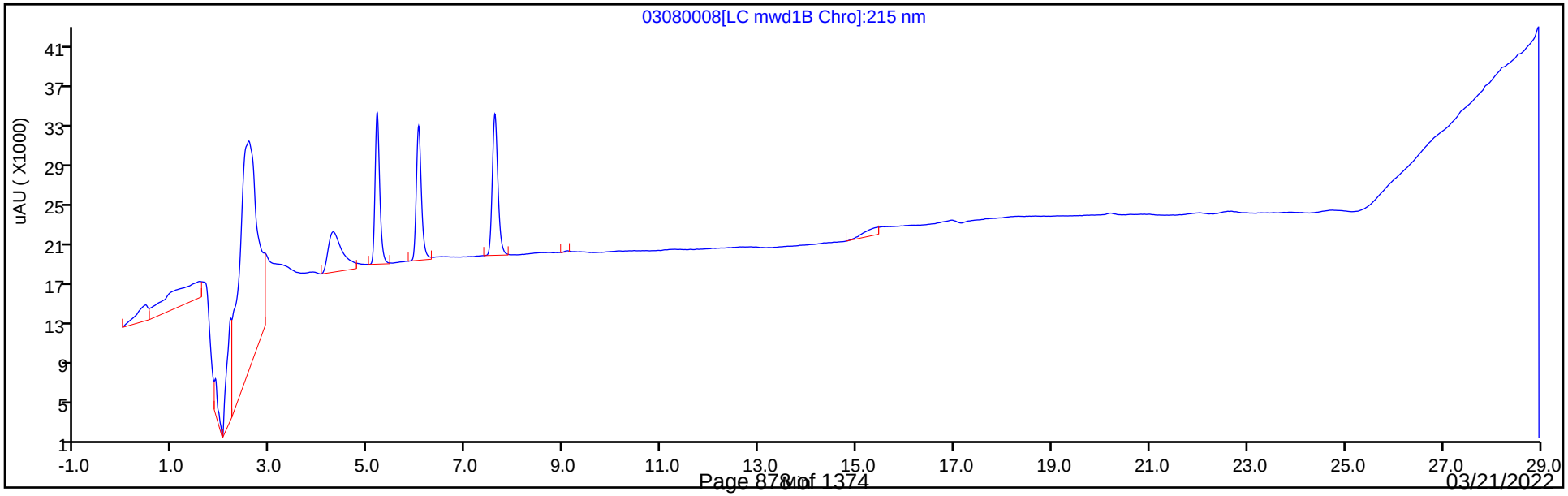
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080008.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 17:48:22 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/20 Calibration Date: 03/09/2022 00:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080020.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 166135 | 167216 | | 252 | 250 | 0.7 | 15.0 |
| Picric acid | Ave | 132885 | 158520 | | 298 | 250 | 19.3* | 15.0 |
| RDX | Ave | 194331 | 209784 | | 270 | 250 | 8.0 | 15.0 |
| Nitrobenzene | Ave | 368293 | 377438 | | 257 | 251 | 2.5 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 571666 | 608675 | | 267 | 251 | 6.5 | 15.0 |
| Nitroglycerin | Ave | 122518 | 116898 | | 2390 | 2500 | -4.6 | 15.0 |
| 2-Nitrotoluene | Ave | 234672 | 238812 | | 254 | 250 | 1.8 | 15.0 |
| 4-Nitrotoluene | Ave | 210817 | 215202 | | 256 | 251 | 2.1 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 280276 | | 263 | 250 | 5.0 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 273179 | | 258 | 250 | 3.0 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 360536 | 390068 | | 272 | 251 | 8.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 415464 | 438675 | | 264 | 251 | 5.6 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 265662 | 283231 | | 268 | 251 | 6.6 | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 558996 | | 247 | 251 | -1.5 | 15.0 |
| Tetryl | Ave | 342171 | 329701 | | 241 | 251 | -3.6 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 369179 | 395267 | | 269 | 251 | 7.1 | 15.0 |
| PETN | Ave | 129329 | 138830 | | 2680 | 2500 | 7.3 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 249753 | 262384 | | 263 | 250 | 5.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/20 Calibration Date: 03/09/2022 00:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.83 | 6.73 | 7.03 |
| Picric acid | 8.16 | 8.10 | 8.40 |
| RDX | 9.03 | 8.91 | 9.21 |
| Nitrobenzene | 11.91 | 11.77 | 12.07 |
| 1,3-Dinitrobenzene | 15.45 | 15.31 | 15.61 |
| Nitroglycerin | 15.82 | 15.67 | 15.97 |
| 2-Nitrotoluene | 16.55 | 16.39 | 16.69 |
| 4-Nitrotoluene | 16.86 | 16.70 | 17.00 |
| 4-Amino-2,6-dinitrotoluene | 17.49 | 17.32 | 17.62 |
| 3-Nitrotoluene | 17.82 | 17.65 | 17.95 |
| 2-Amino-4,6-dinitrotoluene | 18.50 | 18.33 | 18.63 |
| 1,3,5-Trinitrobenzene | 18.75 | 18.59 | 18.89 |
| 2,6-Dinitrotoluene | 19.96 | 19.81 | 20.11 |
| 2,4-Dinitrotoluene | 20.49 | 20.33 | 20.63 |
| Tetryl | 24.16 | 23.99 | 24.29 |
| 2,4,6-Trinitrotoluene | 24.93 | 24.77 | 25.07 |
| PETN | 25.93 | 25.75 | 26.05 |
| 1,2-Dinitrobenzene | 13.09 | 12.94 | 13.24 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2022 00:13:55 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0109079-020
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:23:14

| | 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 | 4.127 | 4.142 | -0.015 | 99185 | 0.2500 | 0.2440 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.694 | 4.722 | -0.028 | 50097 | 0.2500 | 0.2140 | |
| | 5 HMX | 1 | 6.834 | 6.875 | -0.041 | 41804 | 0.2500 | 0.2516 | |
| | 7 2,4,6-Trinitrophenol | 1 | 8.161 | 8.249 | -0.088 | 39630 | 0.2500 | 0.2982 | |
| | 8 RDX | 1 | 9.034 | 9.062 | -0.028 | 52446 | 0.2500 | 0.2699 | |
| | 9 Nitrobenzene | 1 | 11.907 | 11.915 | -0.008 | 94737 | 0.2510 | 0.2572 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.087 | 13.089 | -0.002 | 65596 | 0.2500 | 0.2626 | |
| | 11 3,5-Dinitroaniline | 1 | 15.094 | 15.089 | 0.005 | 108221 | 0.2500 | 0.2629 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.454 | 15.455 | -0.001 | 152473 | 0.2505 | 0.2667 | |
| | 13 Nitroglycerin | 2 | 15.821 | 15.815 | 0.006 | 292244 | 2.50 | 2.39 | M |
| | 14 o-Nitrotoluene | 1 | 16.554 | 16.542 | 0.012 | 59703 | 0.2500 | 0.2544 | |
| | 16 p-Nitrotoluene | 1 | 16.861 | 16.849 | 0.012 | 53908 | 0.2505 | 0.2557 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.487 | 17.469 | 0.018 | 70139 | 0.2503 | 0.2627 | |
| | 18 m-Nitrotoluene | 1 | 17.821 | 17.802 | 0.019 | 68363 | 0.2503 | 0.2577 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.501 | 18.482 | 0.019 | 97907 | 0.2510 | 0.2716 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.747 | 18.735 | 0.012 | 109888 | 0.2505 | 0.2645 | |
| | 21 2,6-Dinitrotoluene | 1 | 19.961 | 19.955 | 0.006 | 71091 | 0.2510 | 0.2676 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.487 | 20.482 | 0.005 | 140308 | 0.2510 | 0.2473 | |
| | 23 Tetryl | 1 | 24.161 | 24.142 | 0.019 | 82590 | 0.2505 | 0.2414 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 24.934 | 24.922 | 0.012 | 99212 | 0.2510 | 0.2687 | |
| | 25 PETN | 2 | 25.927 | 25.902 | 0.025 | 347075 | 2.50 | 2.68 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 12.50 | Units: uL |

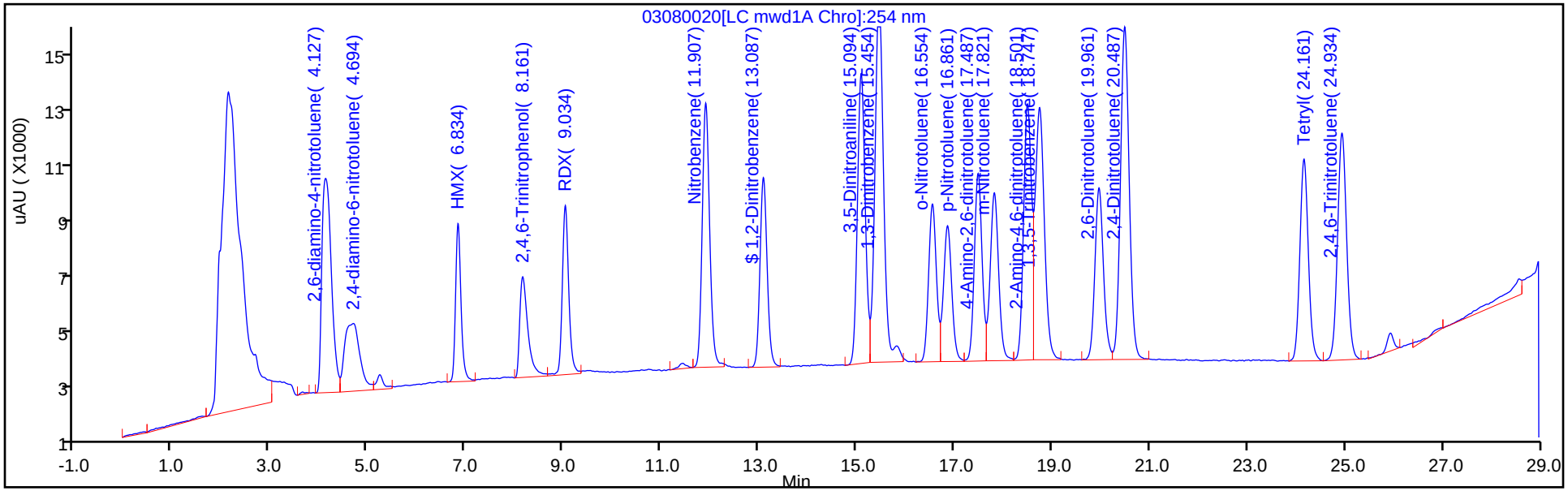
Report Date: 09-Mar-2022 19:28:09 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

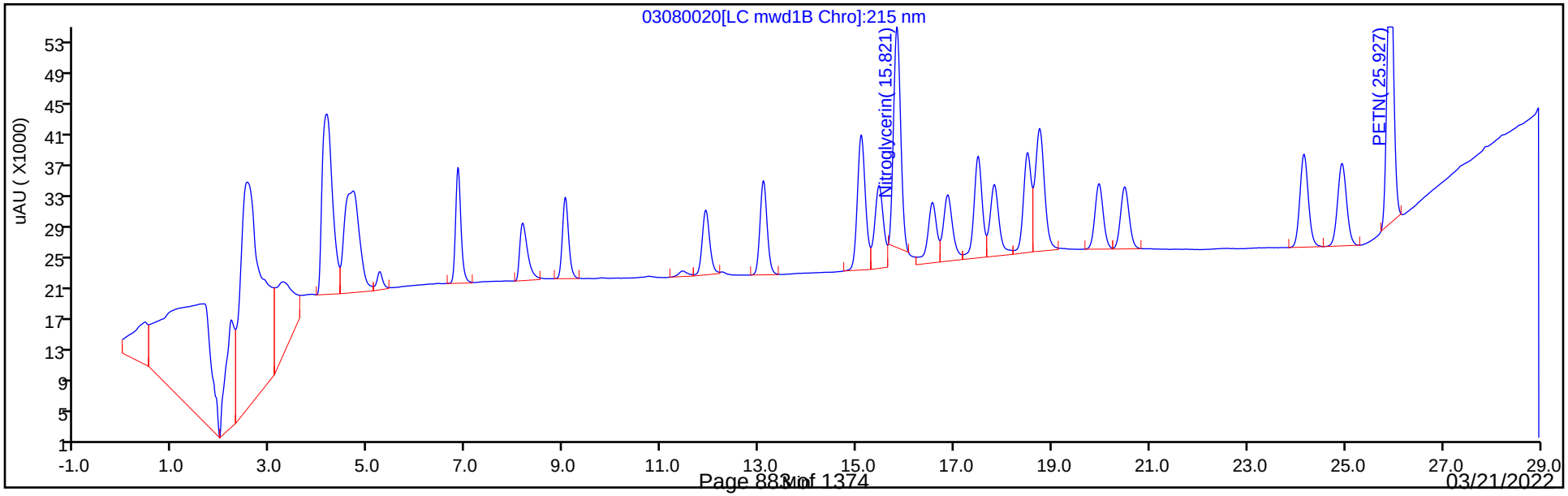
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080020.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 00:13:55 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

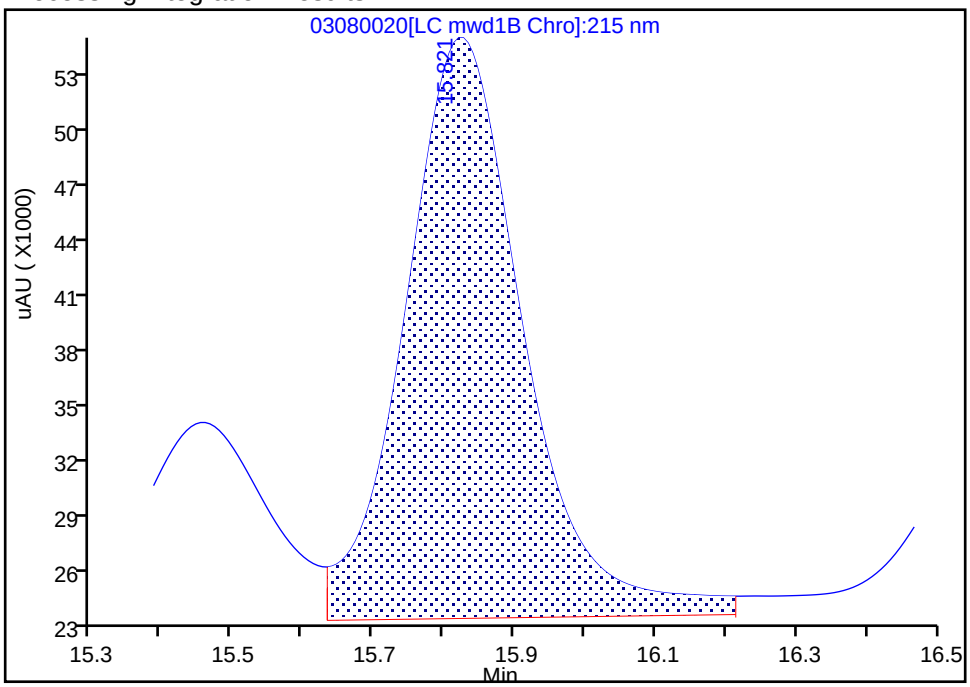
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080020.D | | | | |
| Injection Date: | 09-Mar-2022 00:13:55 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

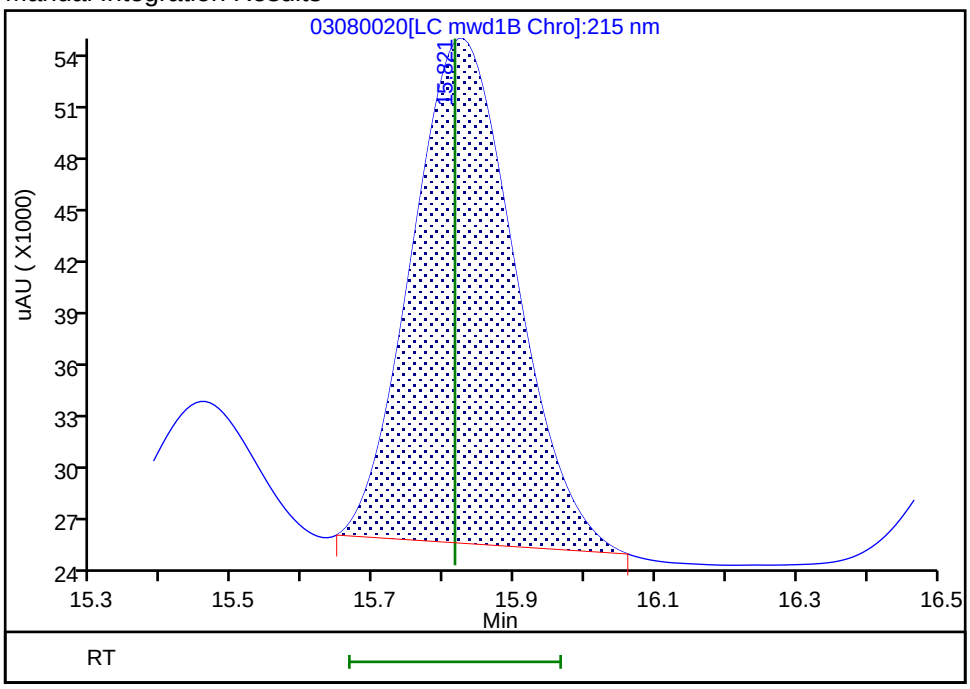
Processing Integration Results

RT: 15.82
Area: 363767
Amount: 2.969095
Amount Units: ug/ml




Manual Integration Results

RT: 15.82
Area: 292244
Amount: 2.385319
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:23:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

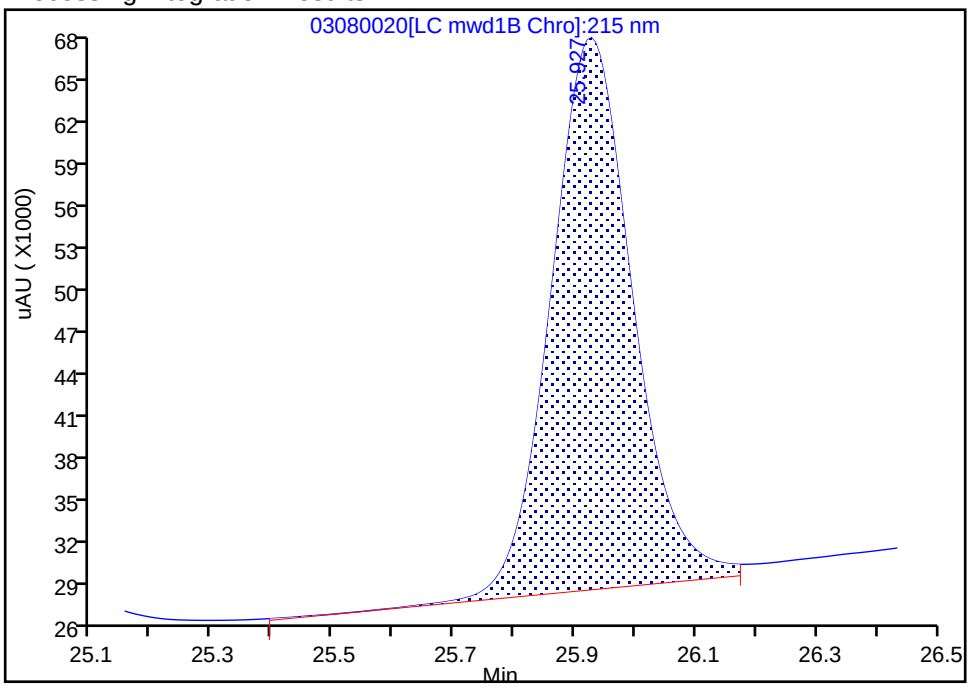
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080020.D
Injection Date: 09-Mar-2022 00:13:55 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 25 PETN, CAS: 78-11-5

Signal: 1

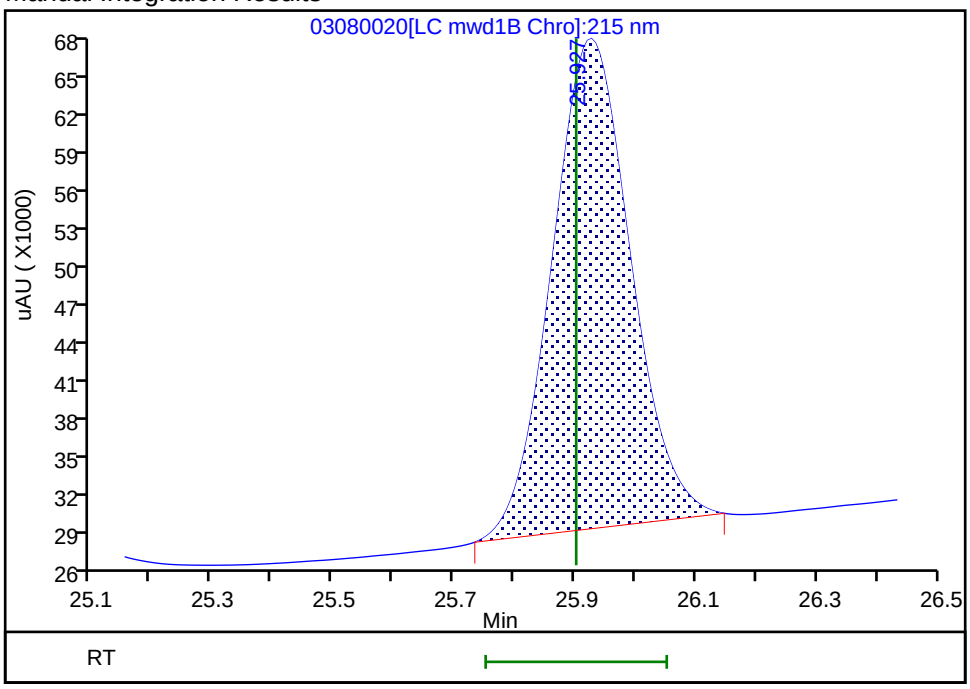
Processing Integration Results

RT: 25.93
Area: 367910
Amount: 2.844756
Amount Units: ug/ml




Manual Integration Results

RT: 25.93
Area: 347075
Amount: 2.683656
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:23:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/21 Calibration Date: 03/09/2022 00:48

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080021.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 354070 | 367884 | | 260 | 250 | 3.9 | 15.0 |
| DNX | Ave | 278639 | 283644 | | 255 | 250 | 1.8 | 15.0 |
| MNX | Ave | 250081 | 259486 | | 303 | 292 | 3.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/21 Calibration Date: 03/09/2022 00:48

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080021.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.15 | 5.03 | 5.33 |
| DNX | 6.00 | 5.88 | 6.18 |
| MNX | 7.56 | 7.44 | 7.74 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080021.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 09-Mar-2022 00:48:54 | ALS Bottle#: | 8 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0109079-021 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:10 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.154 | 5.183 | -0.029 | 92063 | 0.2503 | 0.2600 | |
| 4 DNX | 1 | 6.000 | 6.030 | -0.030 | 70982 | 0.2503 | 0.2547 | |
| 6 MNX | 1 | 7.560 | 7.590 | -0.030 | 75705 | 0.2918 | 0.3027 | |

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

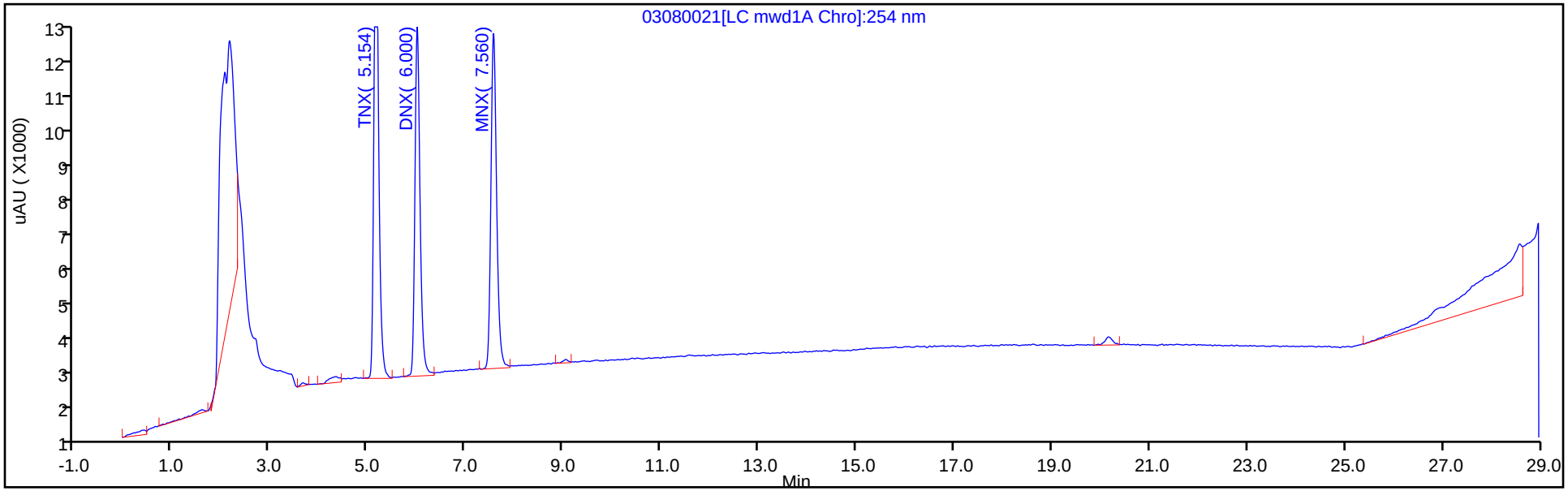
Report Date: 09-Mar-2022 19:28:10 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

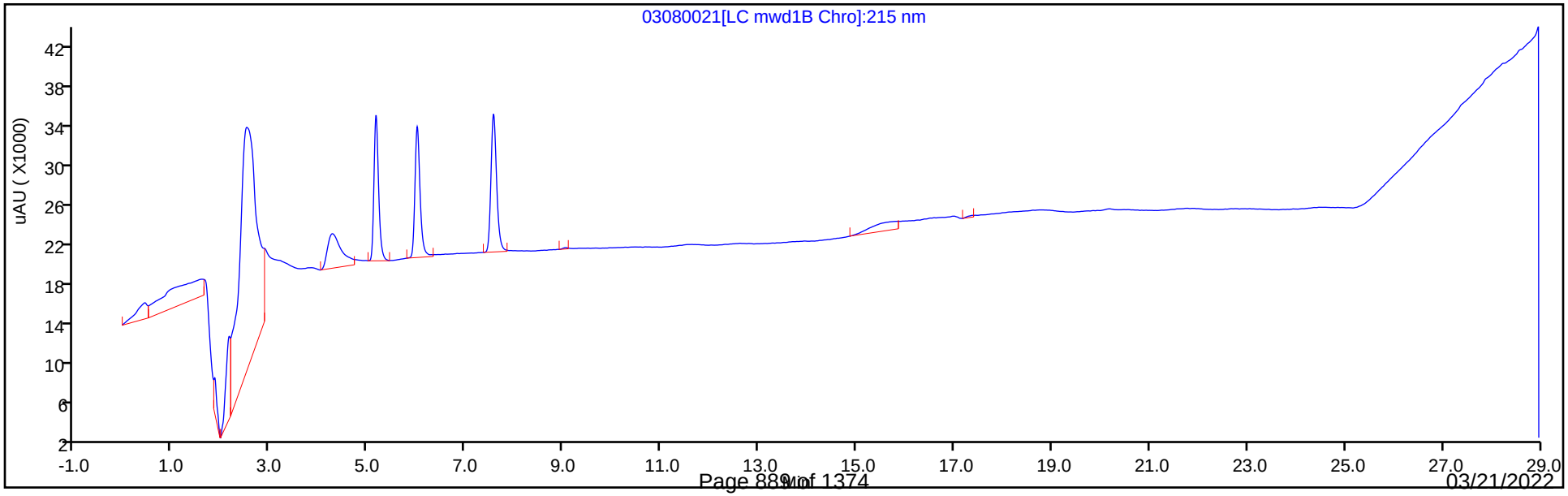
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080021.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 00:48:54 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/32 Calibration Date: 03/09/2022 07:14

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080032.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 166135 | 170868 | | 257 | 250 | 2.8 | 15.0 |
| Picric acid | Ave | 132885 | 155380 | | 292 | 250 | 16.9* | 15.0 |
| RDX | Ave | 194331 | 209020 | | 269 | 250 | 7.6 | 15.0 |
| Nitrobenzene | Ave | 368293 | 388745 | | 265 | 251 | 5.6 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 571666 | 606275 | | 266 | 251 | 6.1 | 15.0 |
| Nitroglycerin | Ave | 122518 | 119092 | | 2430 | 2500 | -2.8 | 15.0 |
| 2-Nitrotoluene | Ave | 234672 | 232084 | | 247 | 250 | -1.1 | 15.0 |
| 4-Nitrotoluene | Ave | 210817 | 213852 | | 254 | 251 | 1.4 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 281686 | | 264 | 250 | 5.5 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 269674 | | 254 | 250 | 1.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 360536 | 392179 | | 273 | 251 | 8.8 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 415464 | 444267 | | 268 | 251 | 6.9 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 265662 | 286147 | | 270 | 251 | 7.7 | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 562088 | | 249 | 251 | -0.9 | 15.0 |
| Tetryl | Ave | 342171 | 328463 | | 240 | 251 | -4.0 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 369179 | 397219 | | 270 | 251 | 7.6 | 15.0 |
| PETN | Ave | 129329 | 140503 | | 2720 | 2500 | 8.6 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 249753 | 262408 | | 263 | 250 | 5.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/32 Calibration Date: 03/09/2022 07:14

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03080032.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.82 | 6.73 | 7.03 |
| Picric acid | 8.15 | 8.10 | 8.40 |
| RDX | 9.02 | 8.91 | 9.21 |
| Nitrobenzene | 11.90 | 11.77 | 12.07 |
| 1,3-Dinitrobenzene | 15.46 | 15.31 | 15.61 |
| Nitroglycerin | 15.82 | 15.67 | 15.97 |
| 2-Nitrotoluene | 16.55 | 16.39 | 16.69 |
| 4-Nitrotoluene | 16.86 | 16.70 | 17.00 |
| 4-Amino-2,6-dinitrotoluene | 17.48 | 17.32 | 17.62 |
| 3-Nitrotoluene | 17.81 | 17.65 | 17.95 |
| 2-Amino-4,6-dinitrotoluene | 18.49 | 18.33 | 18.63 |
| 1,3,5-Trinitrobenzene | 18.74 | 18.59 | 18.89 |
| 2,6-Dinitrotoluene | 19.95 | 19.81 | 20.11 |
| 2,4-Dinitrotoluene | 20.48 | 20.33 | 20.63 |
| Tetryl | 24.14 | 23.99 | 24.29 |
| 2,4,6-Trinitrotoluene | 24.92 | 24.77 | 25.07 |
| PETN | 25.90 | 25.75 | 26.05 |
| 1,2-Dinitrobenzene | 13.08 | 12.94 | 13.24 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080032.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2022 07:14:35 ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0109079-032
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:06 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:25:23

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 4.123 | 4.142 | -0.019 | 90822 | 0.2500 | 0.2235 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.650 | 4.722 | -0.072 | 22078 | 0.2500 | 0.0902 | |
| | 5 HMX | 1 | 6.823 | 6.875 | -0.052 | 42717 | 0.2500 | 0.2571 | |
| | 7 2,4,6-Trinitrophenol | 1 | 8.150 | 8.249 | -0.099 | 38845 | 0.2500 | 0.2923 | |
| | 8 RDX | 1 | 9.023 | 9.062 | -0.039 | 52255 | 0.2500 | 0.2689 | |
| | 9 Nitrobenzene | 1 | 11.896 | 11.915 | -0.019 | 97575 | 0.2510 | 0.2649 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.076 | 13.089 | -0.013 | 65602 | 0.2500 | 0.2627 | |
| | 11 3,5-Dinitroaniline | 1 | 15.090 | 15.089 | 0.001 | 108003 | 0.2500 | 0.2624 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.456 | 15.455 | 0.001 | 151872 | 0.2505 | 0.2657 | |
| | 13 Nitroglycerin | 2 | 15.816 | 15.815 | 0.001 | 297731 | 2.50 | 2.43 | M |
| | 14 o-Nitrotoluene | 1 | 16.550 | 16.542 | 0.008 | 58021 | 0.2500 | 0.2472 | |
| | 16 p-Nitrotoluene | 1 | 16.856 | 16.849 | 0.007 | 53570 | 0.2505 | 0.2541 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.483 | 17.469 | 0.014 | 70492 | 0.2503 | 0.2640 | |
| | 18 m-Nitrotoluene | 1 | 17.810 | 17.802 | 0.008 | 67486 | 0.2503 | 0.2544 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.490 | 18.482 | 0.008 | 98437 | 0.2510 | 0.2730 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.736 | 18.735 | 0.001 | 111289 | 0.2505 | 0.2679 | |
| | 21 2,6-Dinitrotoluene | 1 | 19.950 | 19.955 | -0.005 | 71823 | 0.2510 | 0.2704 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.476 | 20.482 | -0.006 | 141084 | 0.2510 | 0.2487 | |
| | 23 Tetryl | 1 | 24.143 | 24.142 | 0.001 | 82280 | 0.2505 | 0.2405 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 24.917 | 24.922 | -0.005 | 99702 | 0.2510 | 0.2701 | |
| | 25 PETN | 2 | 25.903 | 25.902 | 0.001 | 351257 | 2.50 | 2.72 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| 8330IntermStk_00070 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00031 | Amount Added: | 12.50 | Units: uL |

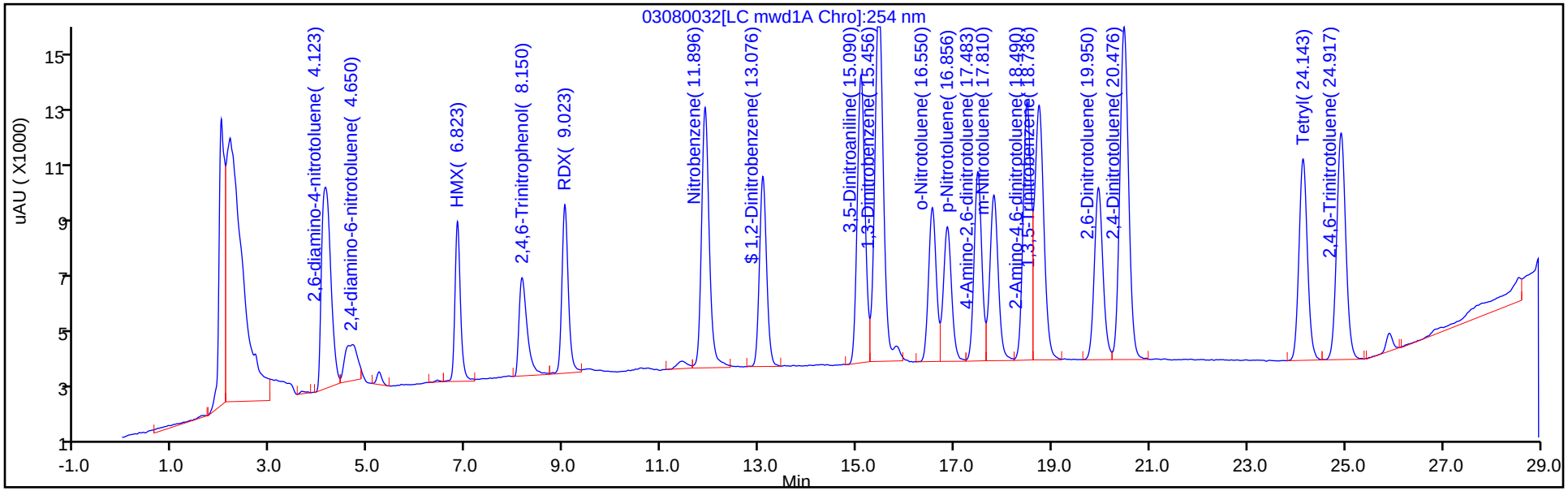
Report Date: 09-Mar-2022 19:28:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

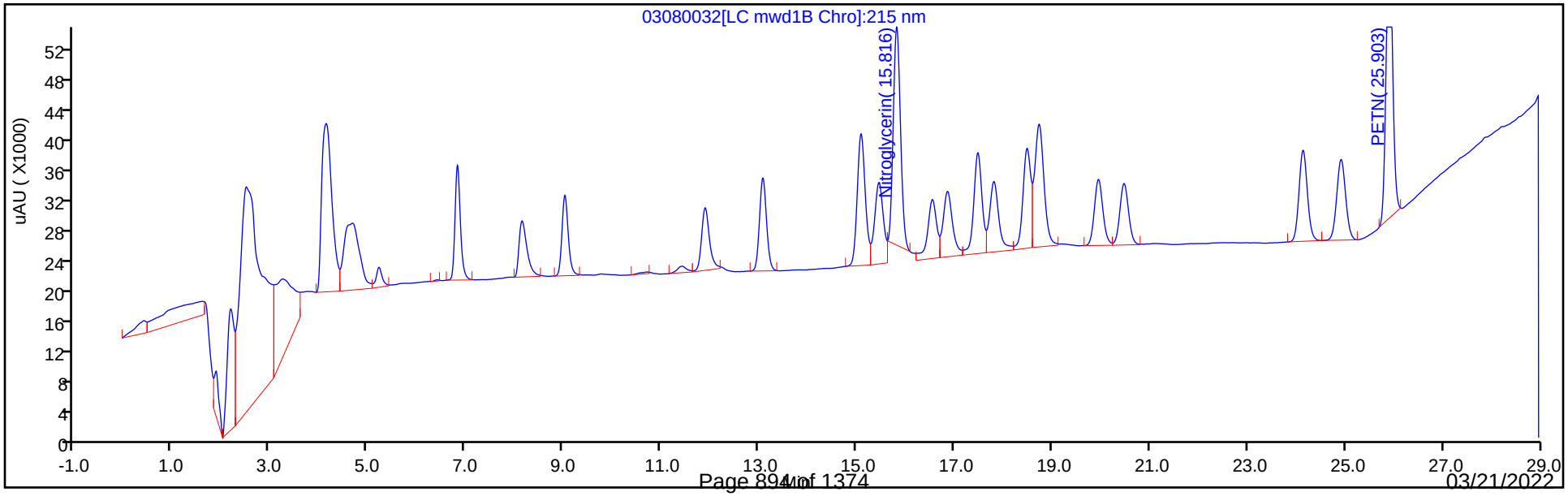
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080032.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 07:14:35 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 32 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

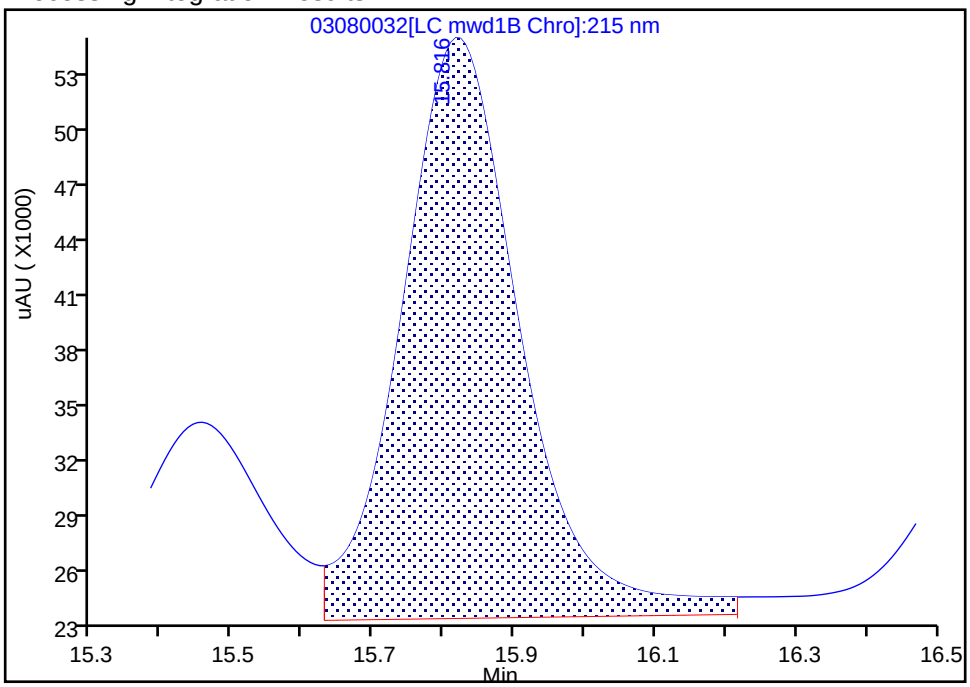
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080032.D
Injection Date: 09-Mar-2022 07:14:35 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

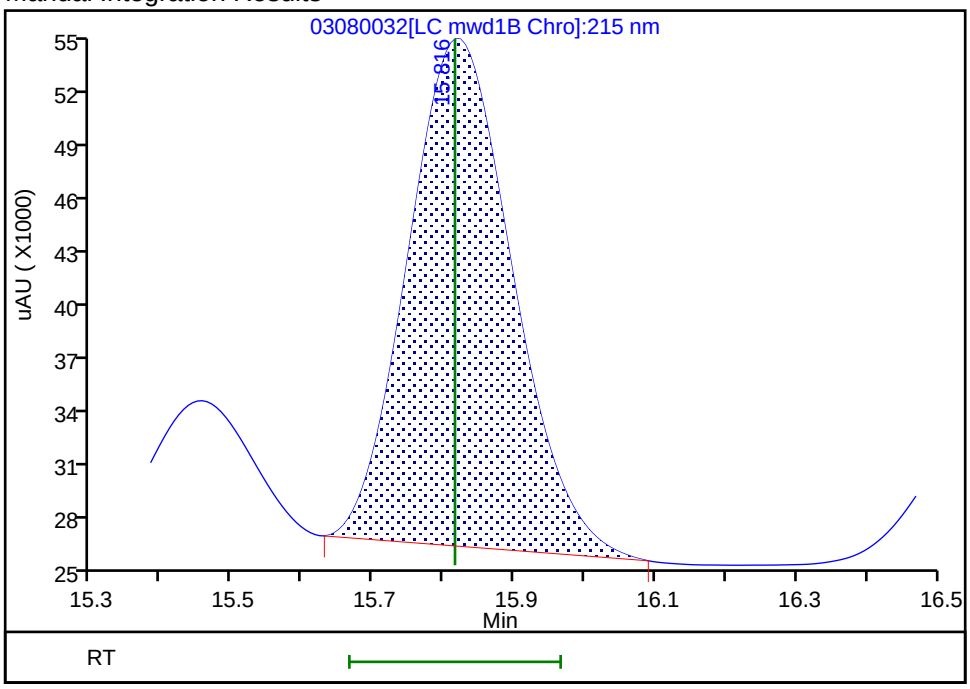
Processing Integration Results

RT: 15.82
Area: 362906
Amount: 2.962068
Amount Units: ug/ml




Manual Integration Results

RT: 15.82
Area: 297731
Amount: 2.430104
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:25:17
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

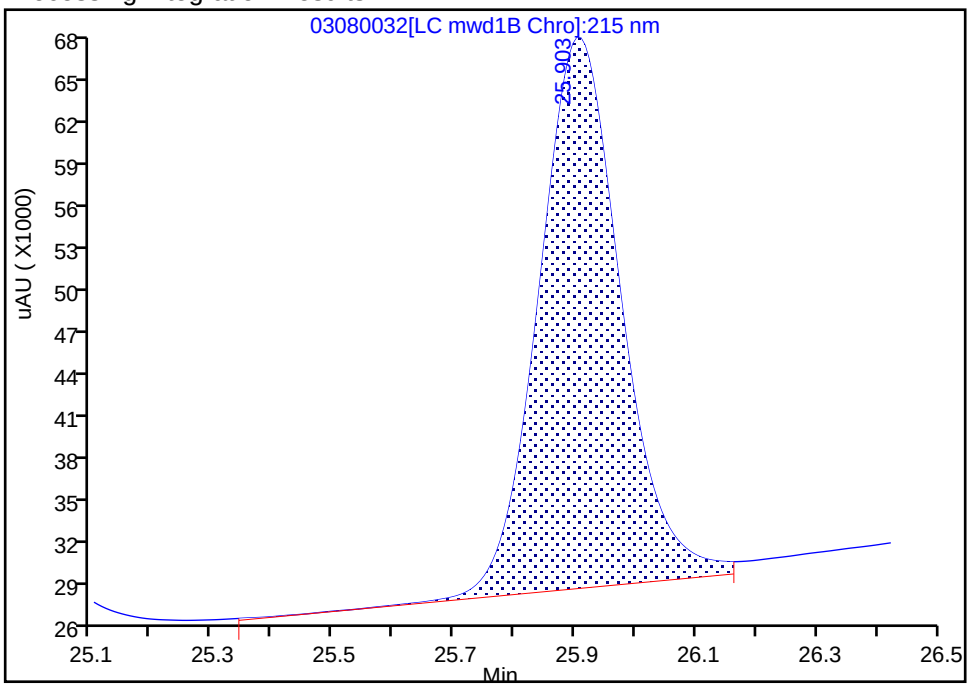
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080032.D | | | | |
| Injection Date: | 09-Mar-2022 07:14:35 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 25 PETN, CAS: 78-11-5

Signal: 1

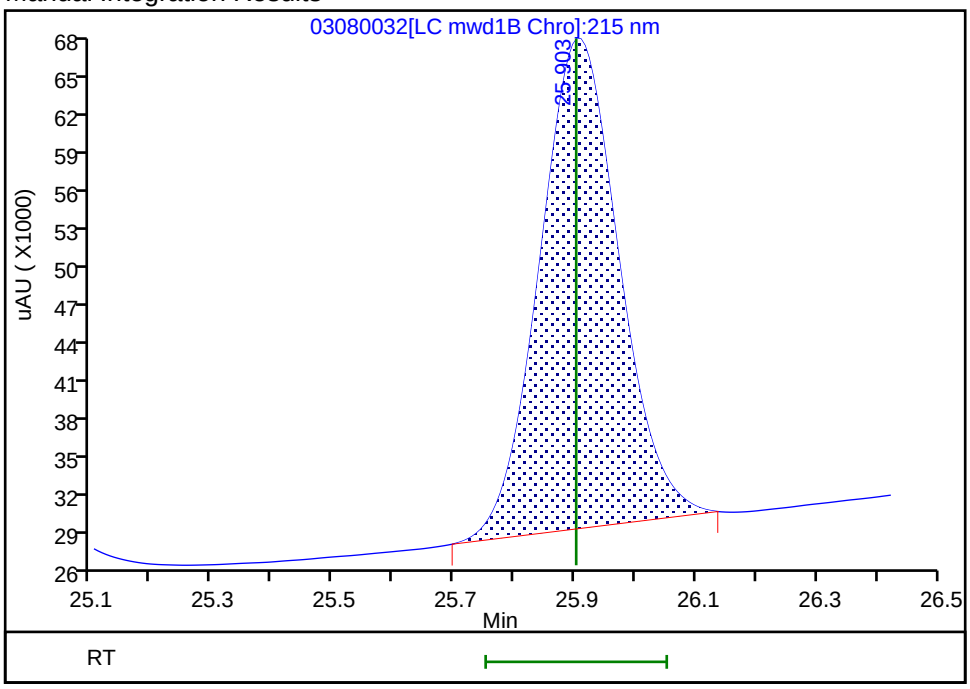
Processing Integration Results

RT: 25.90
Area: 370430
Amount: 2.864241
Amount Units: ug/ml




Manual Integration Results

RT: 25.90
Area: 351257
Amount: 2.715992
Amount Units: ug/ml




Reviewer: zhangji, 09-Mar-2022 19:25:21
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/33 Calibration Date: 03/09/2022 07:49

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080033.D Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 354070 | 362262 | | 256 | 250 | 2.3 | 15.0 |
| DNX | Ave | 278639 | 283760 | | 255 | 250 | 1.8 | 15.0 |
| MNX | Ave | 250081 | 259445 | | 303 | 292 | 3.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Lab Sample ID: CCV 280-568016/33 Calibration Date: 03/09/2022 07:49

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03080033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.15 | 5.03 | 5.33 |
| DNX | 6.00 | 5.88 | 6.18 |
| MNX | 7.57 | 7.44 | 7.74 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080033.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 09-Mar-2022 07:49:41 | ALS Bottle#: | 8 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0109079-033 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:07 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.153 | 5.183 | -0.030 | 90656 | 0.2503 | 0.2560 | |
| 4 DNX | 1 | 6.000 | 6.030 | -0.030 | 71011 | 0.2503 | 0.2548 | |
| 6 MNX | 1 | 7.566 | 7.590 | -0.024 | 75693 | 0.2918 | 0.3027 | |

## Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

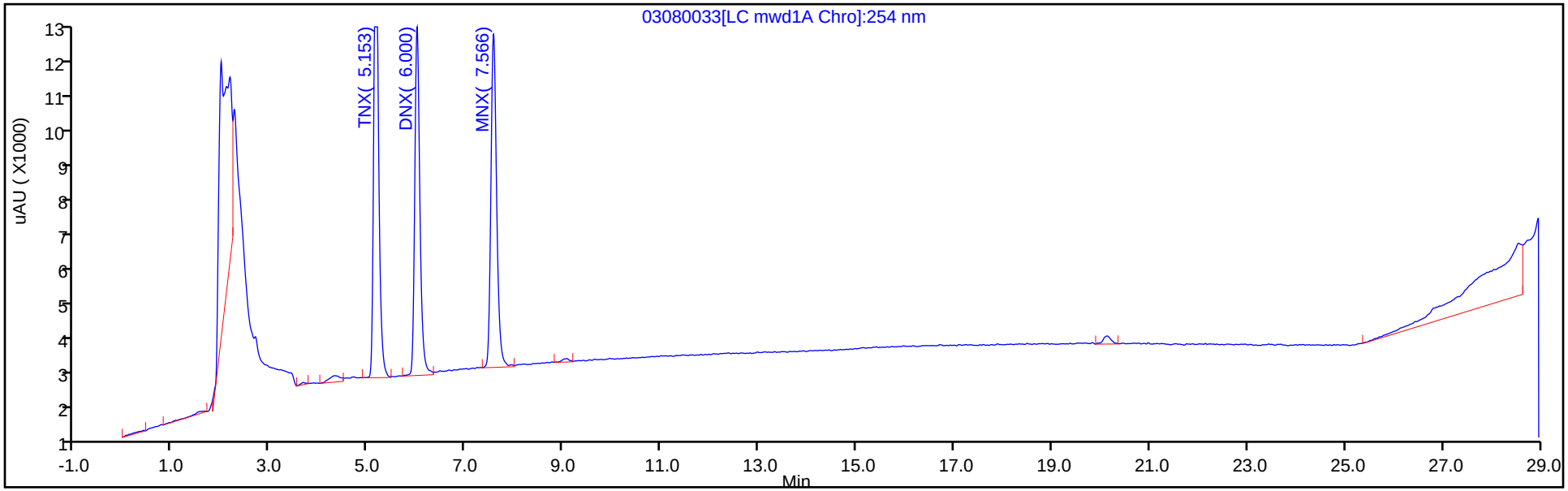
Report Date: 09-Mar-2022 19:28:07 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

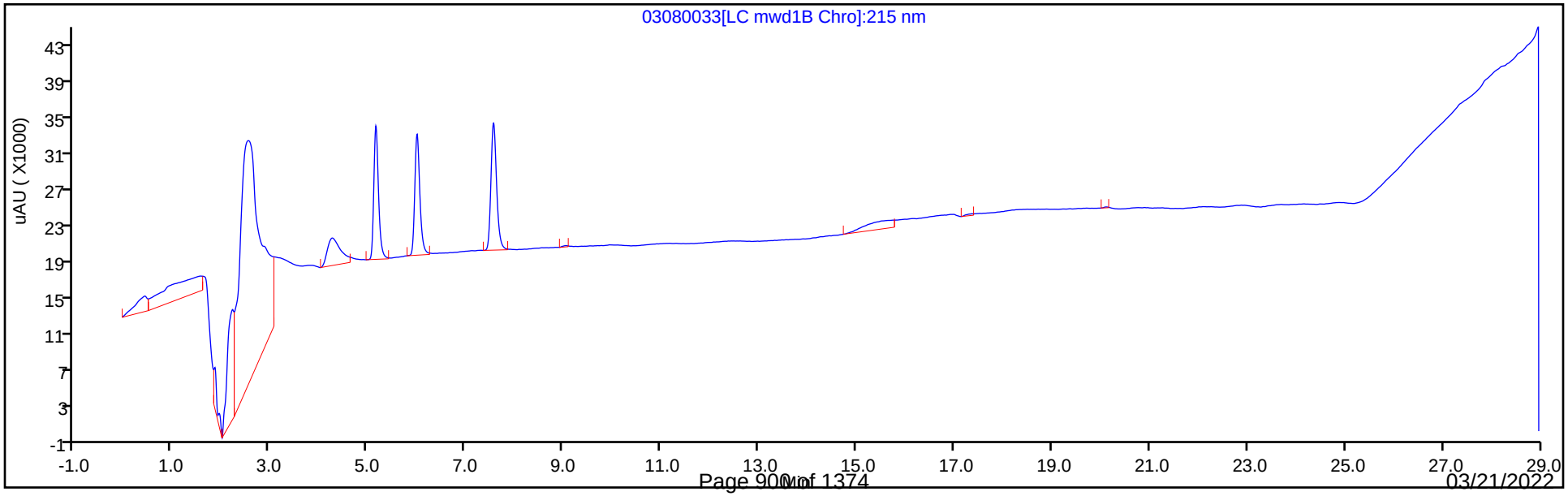
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080033.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Mar-2022 07:49:41 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-567869/1-A

Matrix: Water | Lab File ID: 03080011.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 500(mL) | Date Analyzed: 03/08/2022 16:34

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 0.20 | U | 0.21 | 0.20 | 0.088 |
| 5755-27-1 | MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 0.20 | U | 0.21 | 0.20 | 0.052 |
| 479-45-8 | Tetryl | 0.10 | U | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 104 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080011.D
Lims ID: MB 280-567869/1-A
Client ID:
Sample Type: MB
Inject. Date: 08-Mar-2022 16:34:35 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-567869/1-
Misc. Info.: 280-0109078-011
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:12:01

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 Triamine Trinitrobenzene | 1 | | 2.447 | | | | ND | |
| | 2 2,6-diamino-4-nitrotoluene | 1 | | 6.462 | | | | ND | |
| | 3 TNX | 1 | | 6.473 | | | | ND | U |
| | 4 HMX | 1 | | 6.593 | | | | ND | |
| | 5 2,4-diamino-6-nitrotoluene | 1 | | 6.642 | | | | ND | |
| | 6 DNX | 1 | | 6.787 | | | | ND | |
| | 7 MNX | 1 | | 7.207 | | | | ND | U |
| | 8 RDX | 1 | | 7.579 | | | | ND | |
| | 9 2,4,6-Trinitrophenol | 1 | | 7.906 | | | | ND | |
| $ | 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 25913 | 0.2000 | 0.2078 | |
| | 11 1,3,5-Trinitrobenzene | 1 | | 8.646 | | | | ND | |
| | 12 1,3-Dinitrobenzene | 1 | | 9.266 | | | | ND | |
| | 13 Nitrobenzene | 1 | | 9.652 | | | | ND | |
| | 14 3,5-Dinitroaniline | 1 | | 9.842 | | | | ND | |
| | 15 Tetryl | 1 | | 9.966 | | | | ND | |
| | 16 Nitroglycerin | 2 | | 10.419 | | | | ND | |
| | 17 2,4,6-Trinitrotoluene | 1 | | 10.866 | | | | ND | |
| | 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.052 | | | | ND | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.299 | | | | ND | |
| | 20 2,6-Dinitrotoluene | 1 | | 11.472 | | | | ND | |
| | 21 2,4-Dinitrotoluene | 1 | | 11.639 | | | | ND | |
| | 22 o-Nitrotoluene | 1 | | 12.479 | | | | ND | |
| | 23 p-Nitrotoluene | 1 | | 12.899 | | | | ND | |
| | 24 m-Nitrotoluene | 1 | | 13.466 | | | | ND | |
| | 25 PETN | 2 | | 14.499 | | | | ND | |
| | 26 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend
Processing Flags

Review Flags
U - Marked Undetected

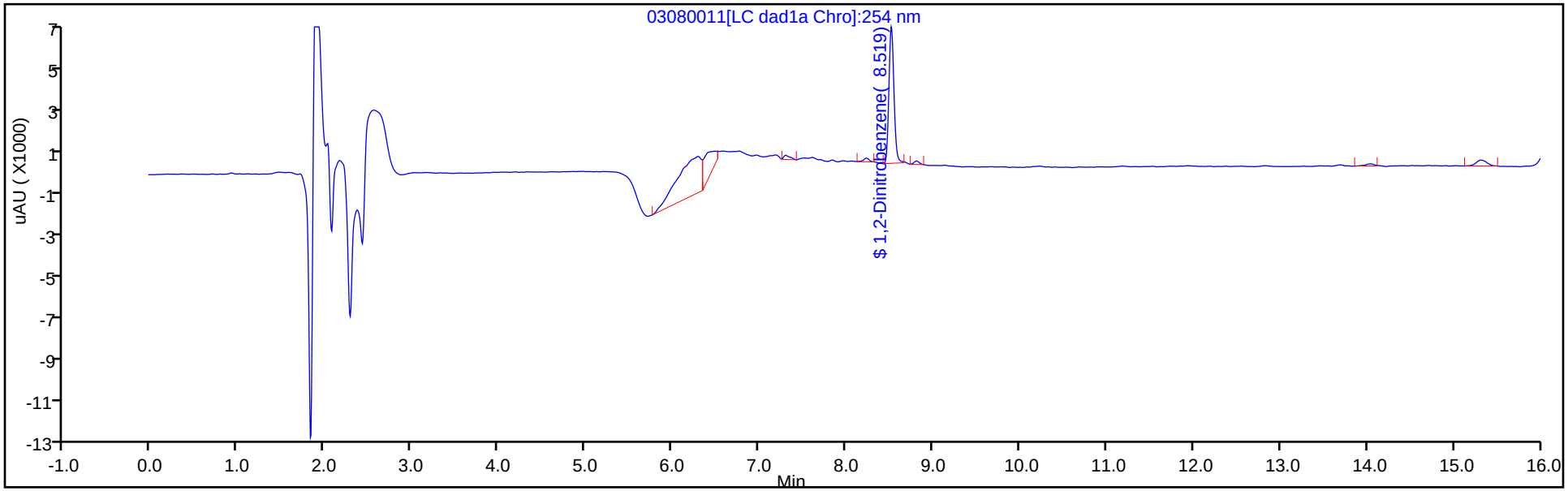
Report Date: 09-Mar-2022 13:15:33 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

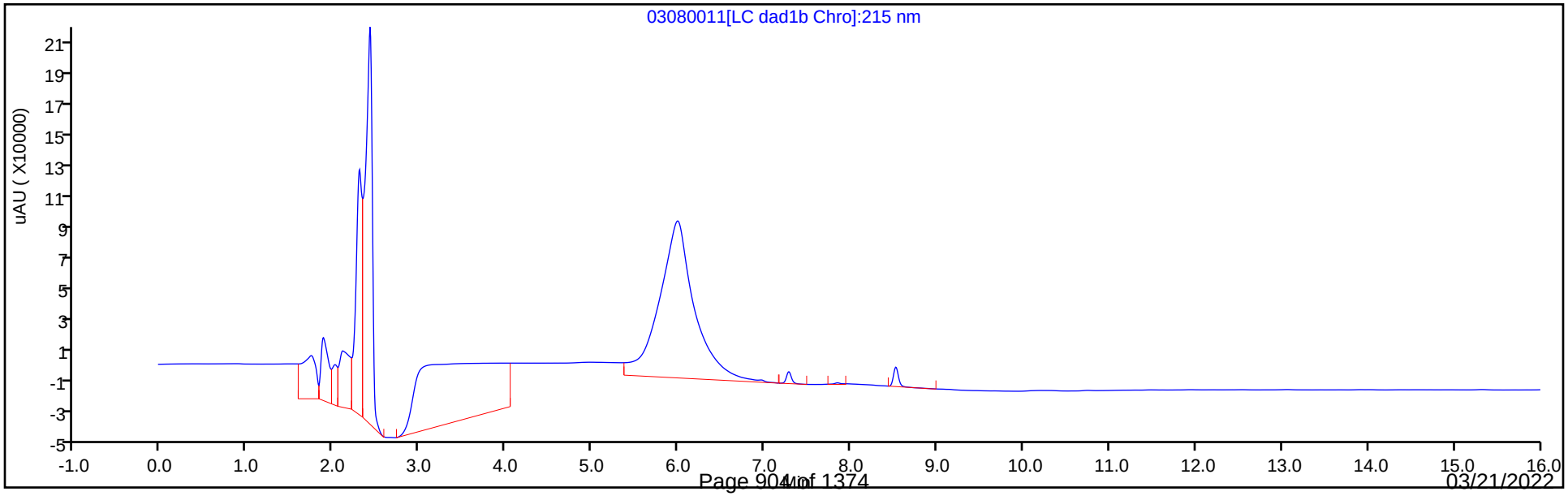
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 16:34:35 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | MB 280-567869/1-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080011.D | | | | |
| Lims ID: | MB 280-567869/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 08-Mar-2022 16:34:35 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-567869/1- | | | | |
| Misc. Info.: | 280-0109078-011 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:32 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 08-Mar-2022 17:12:01

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2078 | 103.90 |

User Disabled Compound Report

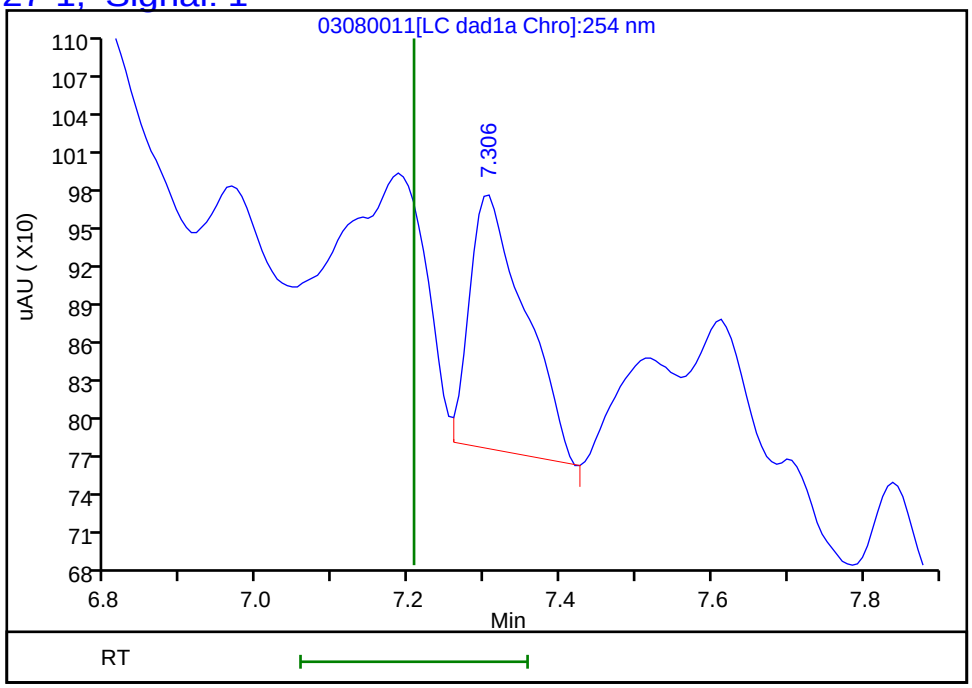
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080011.d
Injection Date: 08-Mar-2022 16:34:35 Instrument ID: CHHPLC_X3
Lims ID: MB 280-567869/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

## 7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.31
Response: 996
Amount: 0.007905




Reviewer: zhangji, 08-Mar-2022 17:12:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567869/2-A

Matrix: Water | Lab File ID: 03080012.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 500(mL) | Date Analyzed: 03/08/2022 16:57

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.02 | | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.01 | | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.98 | | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 1.89 | | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.92 | | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.88 | | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 1.54 | | 0.21 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 1.54 | M | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.85 | | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 1.76 | | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 1.89 | M | 0.21 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.75 | | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 2.05 | | 0.21 | 0.20 | 0.052 |
| 479-45-8 | Tetryl | 1.93 | M | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080012.D
Lims ID: LCS 280-567869/2-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Mar-2022 16:57:29 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567869/2
Misc. Info.: 280-0109078-012
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:39:48

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.592 | 6.593 | -0.001 | 15824 | 0.2000 | 0.1888 | M |
| 8 RDX | 1 | 7.579 | 7.579 | 0.000 | 21237 | 0.2000 | 0.2050 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.899 | 7.906 | -0.007 | 15949 | 0.2000 | 0.2070 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 24890 | 0.2000 | 0.1996 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.645 | 8.646 | -0.001 | 43952 | 0.2000 | 0.2015 | |
| 12 1,3-Dinitrobenzene | 1 | 9.265 | 9.266 | -0.001 | 58062 | 0.2000 | 0.2013 | |
| 13 Nitrobenzene | 1 | 9.652 | 9.652 | 0.000 | 33548 | 0.2000 | 0.1748 | |
| 15 Tetryl | 1 | 9.959 | 9.966 | -0.007 | 32858 | 0.2000 | 0.1926 | M |
| 16 Nitroglycerin | 2 | 10.412 | 10.419 | -0.007 | 130028 | 2.00 | 2.06 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.865 | 10.866 | -0.001 | 40060 | 0.2000 | 0.1976 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.045 | 11.052 | -0.007 | 27952 | 0.2000 | 0.1851 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.292 | 11.299 | -0.007 | 37959 | 0.2000 | 0.1878 | |
| 20 2,6-Dinitrotoluene | 1 | 11.465 | 11.472 | -0.007 | 27540 | 0.2000 | 0.1924 | |
| 21 2,4-Dinitrotoluene | 1 | 11.632 | 11.639 | -0.007 | 54765 | 0.2000 | 0.1893 | |
| 22 o-Nitrotoluene | 1 | 12.479 | 12.479 | 0.000 | 19595 | 0.2000 | 0.1535 | |
| 23 p-Nitrotoluene | 1 | 12.899 | 12.899 | 0.000 | 18704 | 0.2000 | 0.1761 | |
| 24 m-Nitrotoluene | 1 | 13.465 | 13.466 | -0.001 | 21911 | 0.2000 | 0.1540 | M |
| 25 PETN | 2 | 14.505 | 14.499 | 0.006 | 150540 | 2.00 | 2.06 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

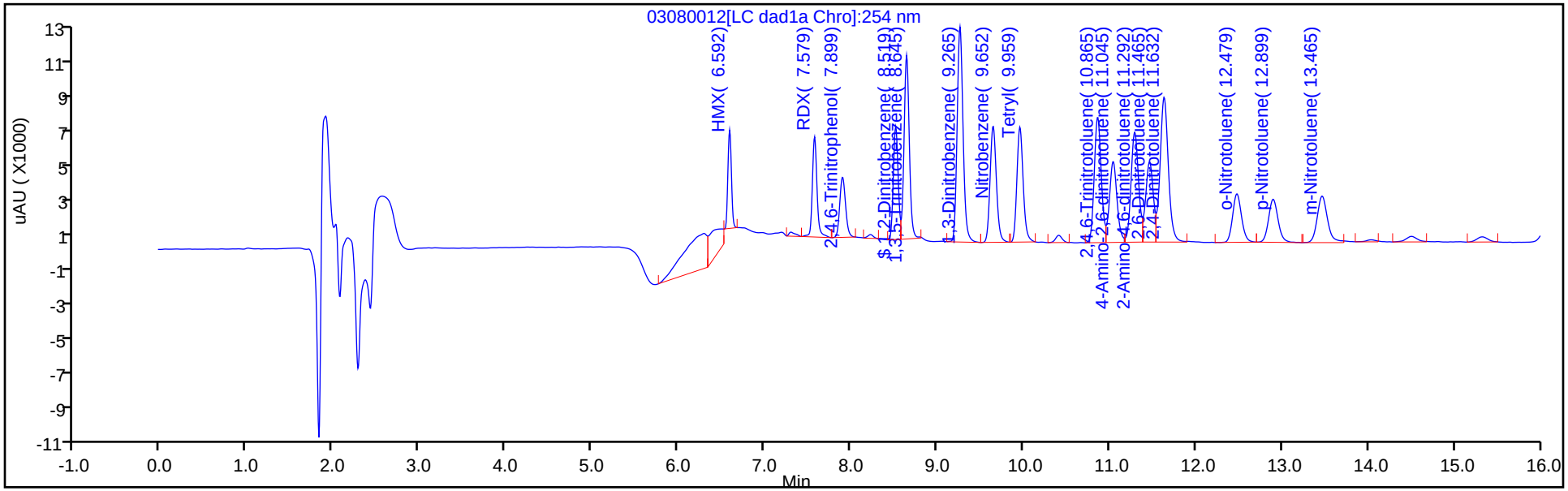
Report Date: 09-Mar-2022 13:15:33 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

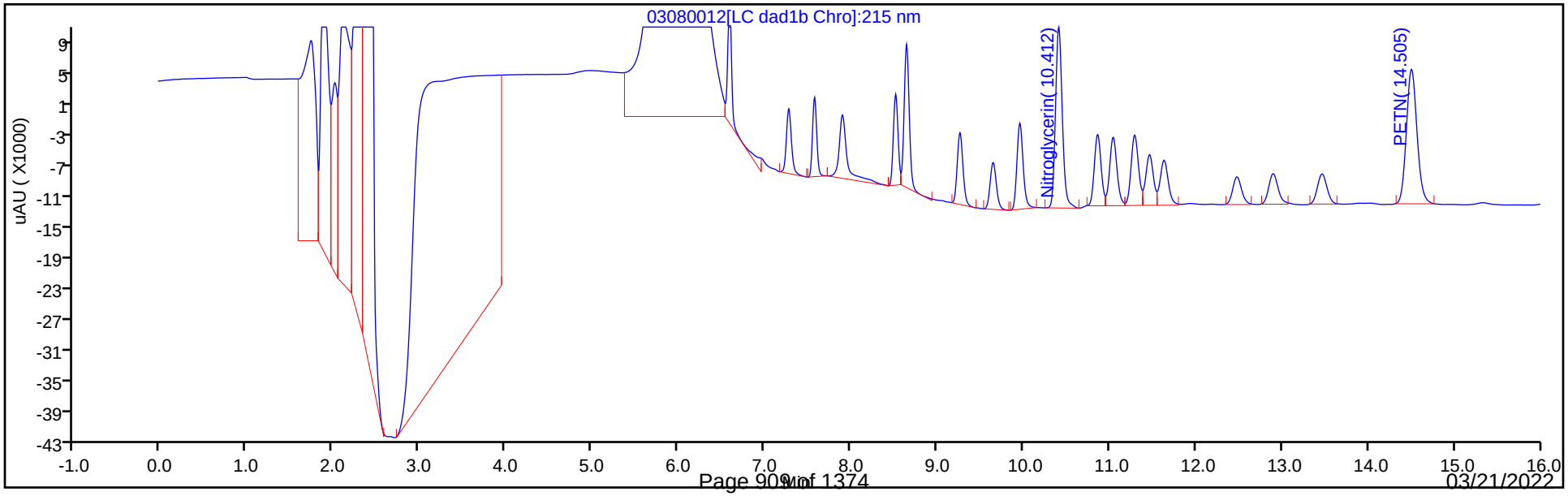
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 16:57:29 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-567869/2-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080012.D
Lims ID: LCS 280-567869/2-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Mar-2022 16:57:29 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567869/2
Misc. Info.: 280-0109078-012
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:39:48

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1996 | 99.80 |

Manual Integration/User Assign Peak Report

Eurofins Denver

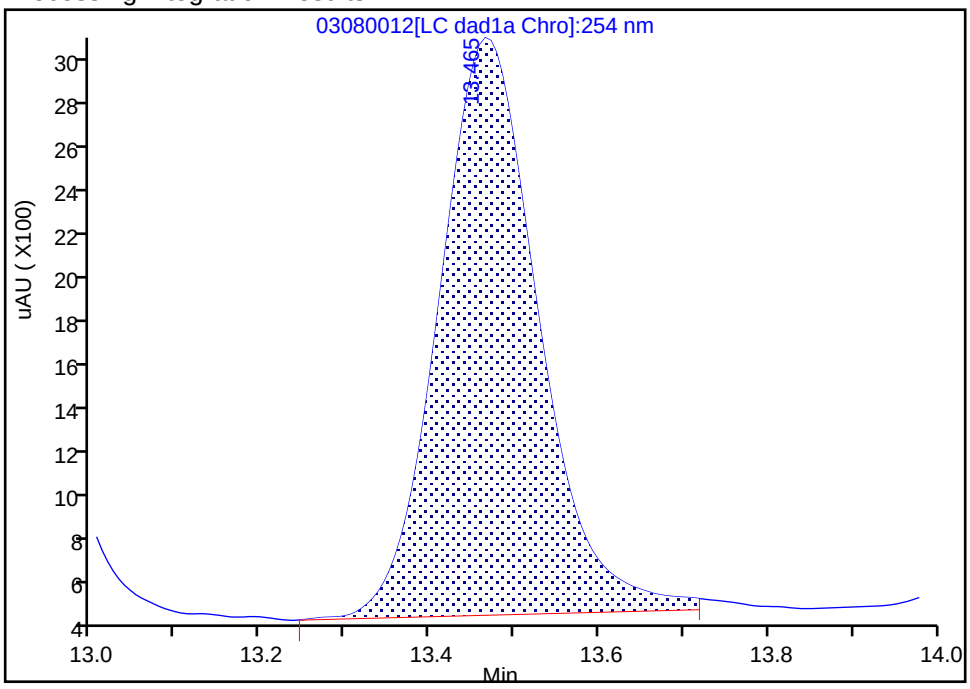
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080012.d | | | | |
| Injection Date: | 08-Mar-2022 16:57:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-567869/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

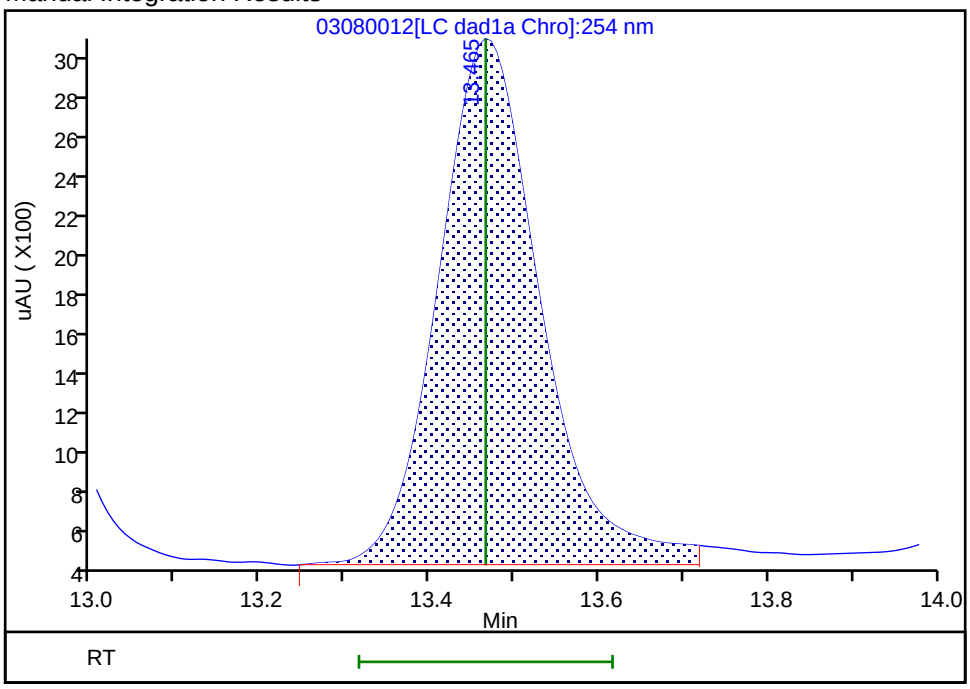
Processing Integration Results

RT: 13.47
Area: 21300
Amount: 0.149712
Amount Units: ug/mL




Manual Integration Results

RT: 13.47
Area: 21911
Amount: 0.154006
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 17:39:47
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

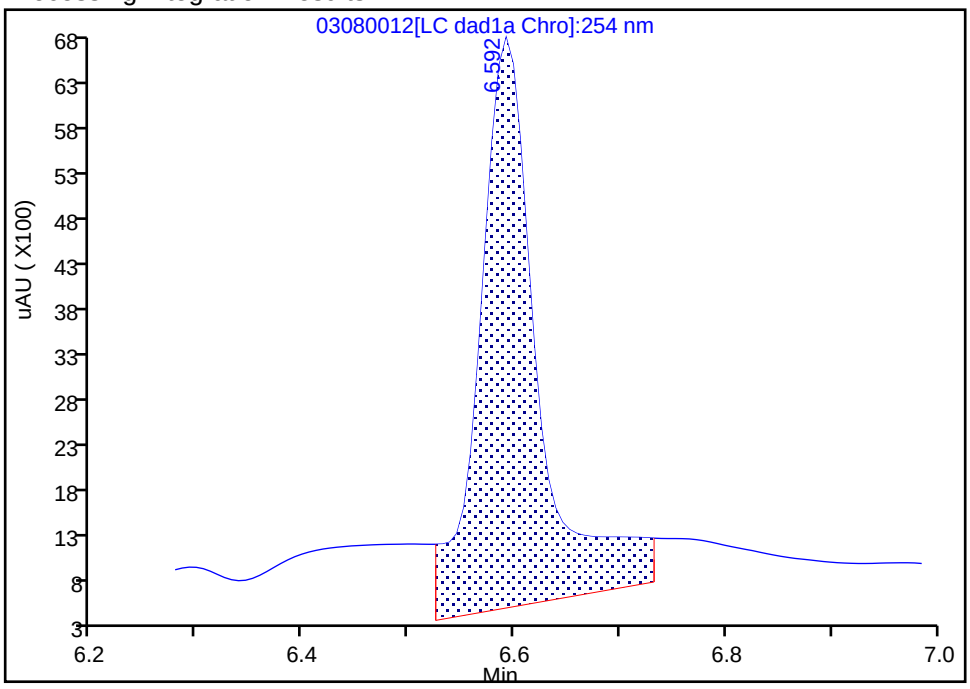
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080012.d | | | | |
| Injection Date: | 08-Mar-2022 16:57:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-567869/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

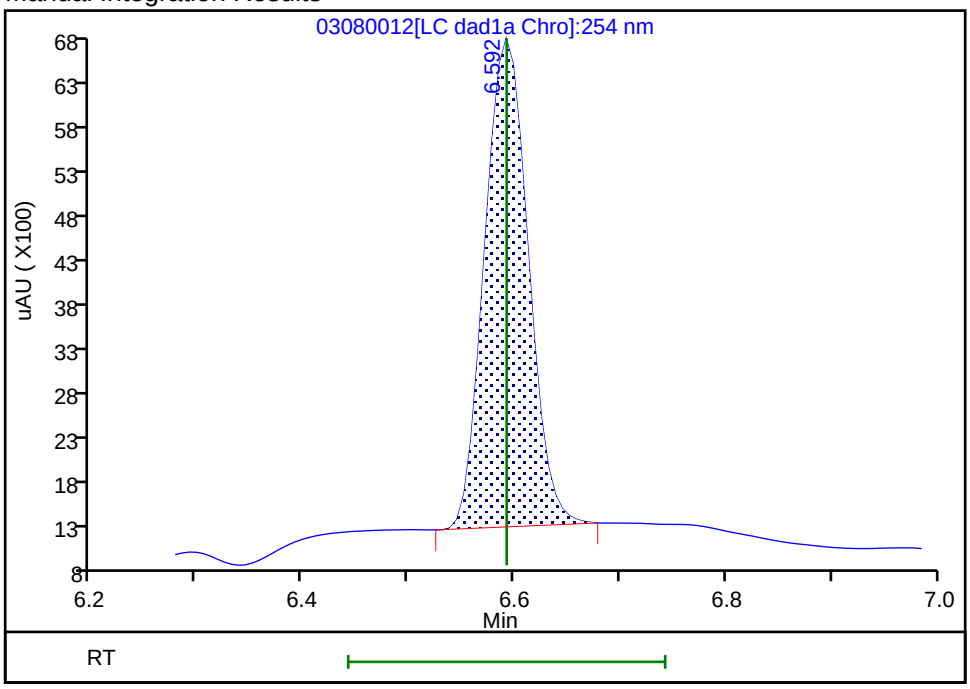
Processing Integration Results

RT: 6.59
Area: 24180
Amount: 0.288451
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 15824
Amount: 0.188769
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 17:39:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

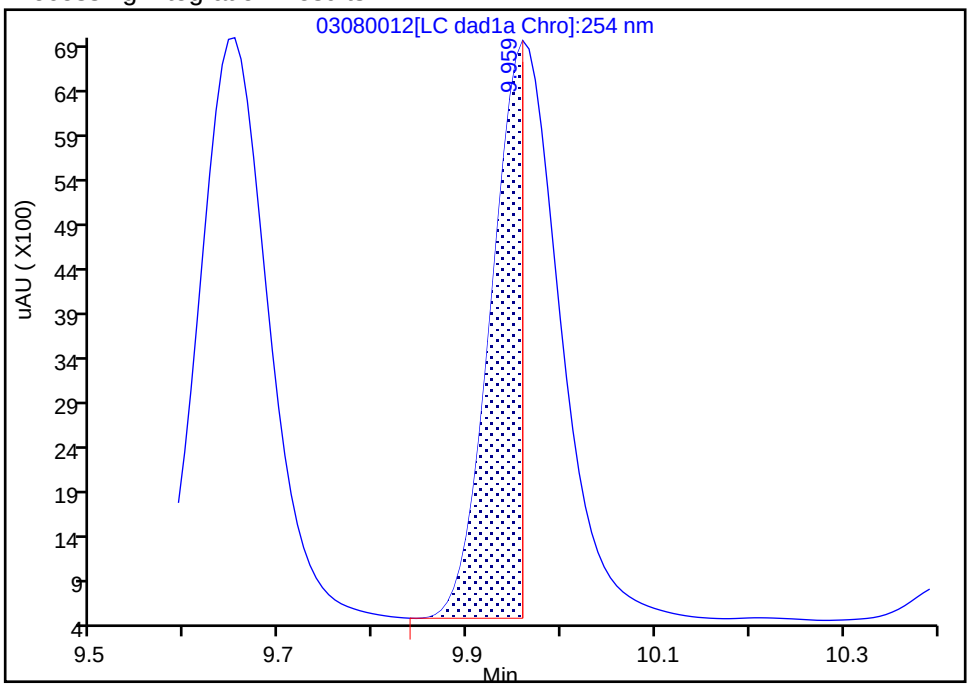
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080012.d | | | | |
| Injection Date: | 08-Mar-2022 16:57:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-567869/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 15 Tetryl, CAS: 479-45-8

Signal: 1

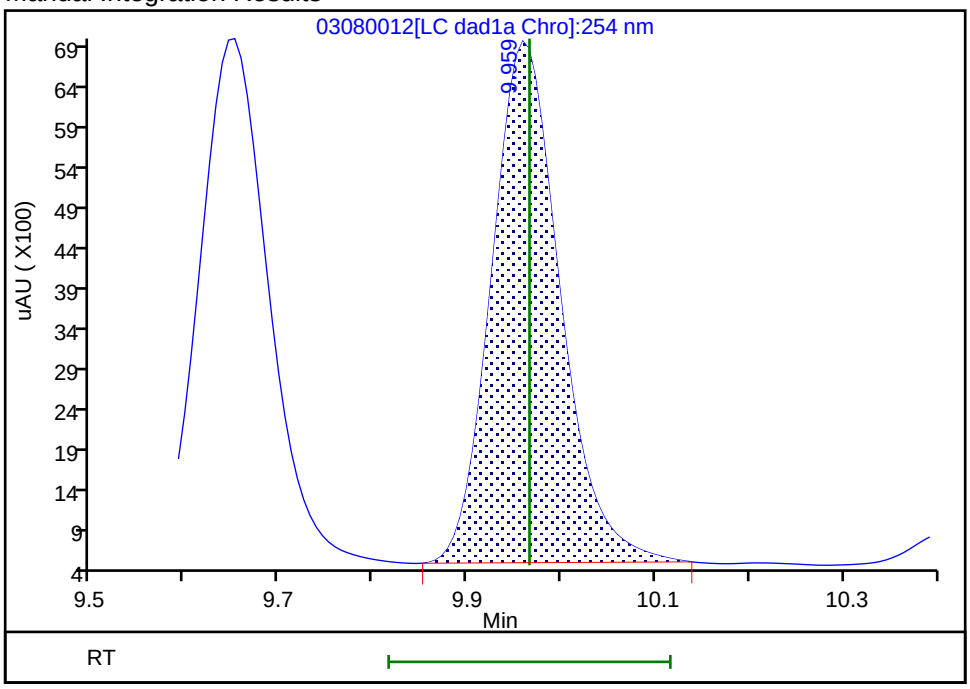
Processing Integration Results

RT: 9.96
Area: 14769
Amount: 0.086588
Amount Units: ug/mL




Manual Integration Results

RT: 9.96
Area: 32858
Amount: 0.192640
Amount Units: ug/mL




Reviewer: zhangji, 08-Mar-2022 17:39:29

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567869/3-A

Matrix: Water | Lab File ID: 03080013.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 500(mL) | Date Analyzed: 03/08/2022 17:20

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.36 | | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 102 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080013.D
Lims ID: LCS 280-567869/3-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Mar-2022 17:20:23 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567869/3
Misc. Info.: 280-0109078-013
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:47:33

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.470 | 6.473 | -0.003 | 36468 | 0.2002 | 0.2012 | M |
| 6 DNX | 1 | 6.783 | 6.787 | -0.004 | 28241 | 0.2002 | 0.2045 | M |
| 7 MNX | 1 | 7.203 | 7.207 | -0.004 | 29686 | 0.2334 | 0.2356 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.517 | 8.519 | -0.002 | 25509 | 0.2000 | 0.2046 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

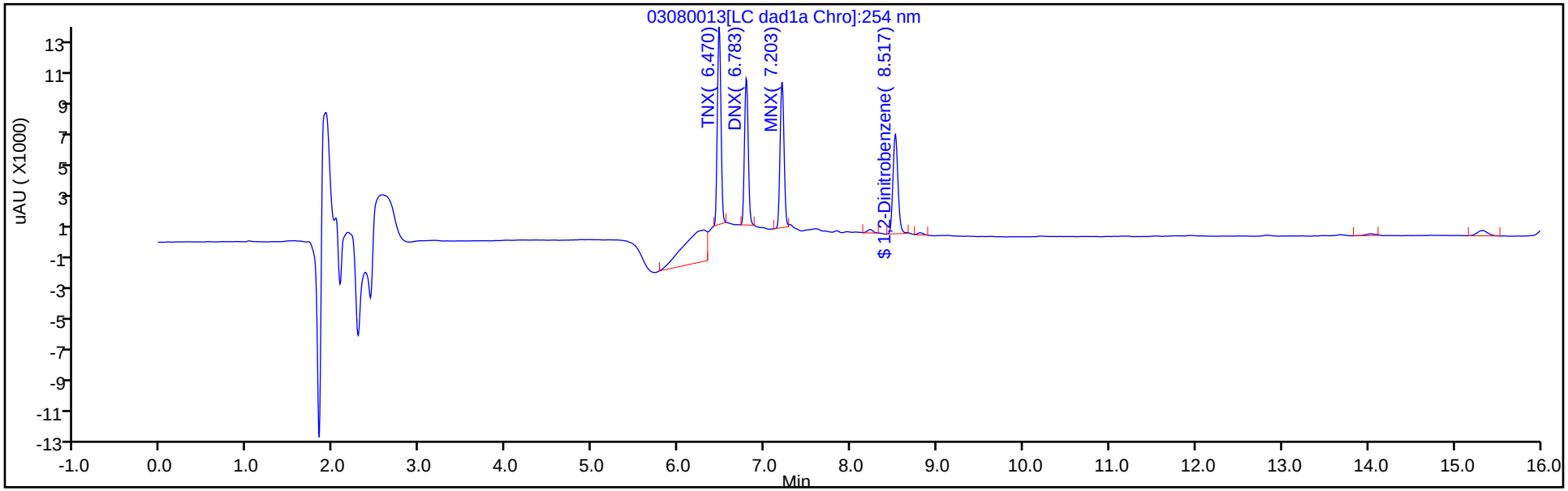
Report Date: 09-Mar-2022 13:15:34 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

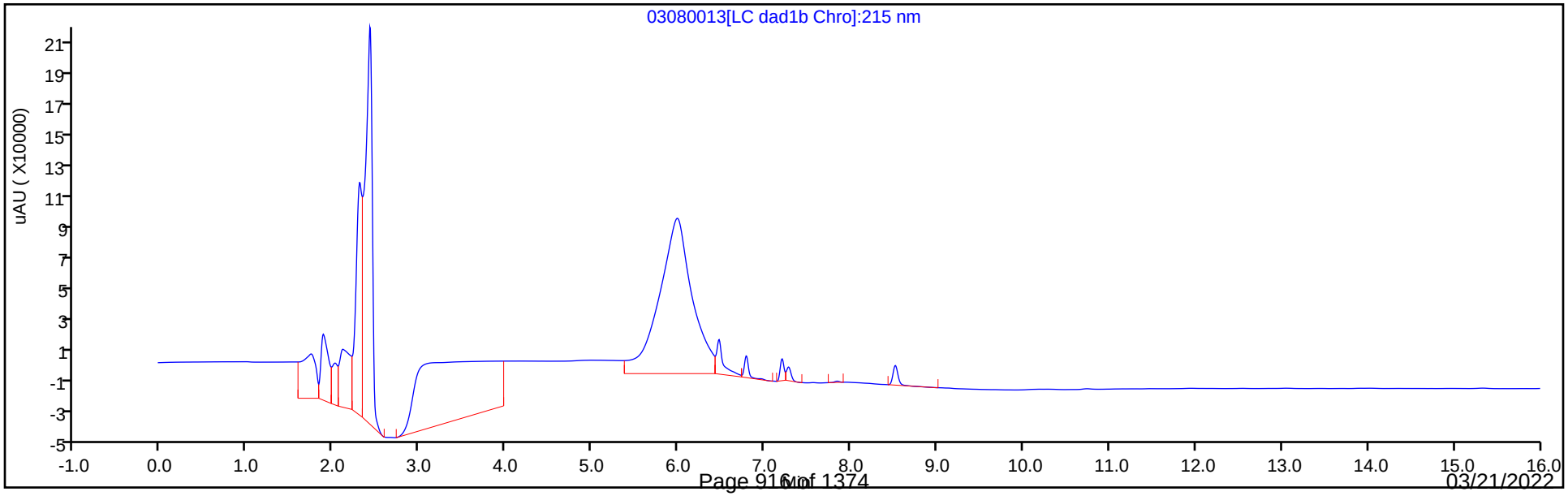
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080013.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 17:20:23 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-567869/3-A | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080013.D
Lims ID: LCS 280-567869/3-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Mar-2022 17:20:23 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567869/3
Misc. Info.: 280-0109078-013
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:32 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 08-Mar-2022 17:47:33

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2046 | 102.28 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS | Lab Sample ID: 280-159234-7 MS

Matrix: Water | Lab File ID: 03080026.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 507.3(mL) | Date Analyzed: 03/08/2022 22:18

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.28 | | 0.21 | 0.20 | 0.083 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.22 | | 0.11 | 0.099 | 0.036 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.18 | | 0.11 | 0.099 | 0.044 |
| 121-14-2 | 2,4-Dinitrotoluene | 2.06 | | 0.099 | 0.079 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.12 | | 0.099 | 0.079 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.05 | | 0.11 | 0.099 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 1.74 | | 0.21 | 0.20 | 0.084 |
| 99-08-1 | 3-Nitrotoluene | 1.60 | | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 2.04 | | 0.15 | 0.12 | 0.057 |
| 2691-41-0 | HMX | 2.07 | M | 0.21 | 0.20 | 0.086 |
| 98-95-3 | Nitrobenzene | 2.11 | | 0.21 | 0.20 | 0.090 |
| 121-82-4 | RDX | 1.92 | M | 0.21 | 0.20 | 0.051 |
| 479-45-8 | Tetryl | 2.37 | | 0.11 | 0.099 | 0.031 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 115 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080026.D
Lims ID: 280-159234-A-7-A MS
Client ID: G0070-8
Sample Type: MS
Inject. Date: 08-Mar-2022 22:18:28 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-A-7-A
Misc. Info.: 280-0109078-026
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:42:03

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.592 | 6.593 | -0.001 | 17638 | 0.2000 | 0.2104 | M |
| 8 RDX | 1 | 7.572 | 7.579 | -0.007 | 20154 | 0.2000 | 0.1945 | M |
| 9 2,4,6-Trinitrophenol | 1 | 7.899 | 7.906 | -0.007 | 17124 | 0.2000 | 0.2223 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 28745 | 0.2000 | 0.2305 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.645 | 8.646 | -0.001 | 50403 | 0.2000 | 0.2311 | |
| 12 1,3-Dinitrobenzene | 1 | 9.265 | 9.266 | -0.001 | 64829 | 0.2000 | 0.2248 | |
| 13 Nitrobenzene | 1 | 9.645 | 9.652 | -0.007 | 41170 | 0.2000 | 0.2145 | |
| 15 Tetryl | 1 | 9.959 | 9.966 | -0.007 | 40949 | 0.2000 | 0.2401 | |
| 16 Nitroglycerin | 2 | 10.412 | 10.419 | -0.007 | 148754 | 2.00 | 2.36 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.859 | 10.866 | -0.007 | 44940 | 0.2000 | 0.2217 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.045 | 11.052 | -0.007 | 31288 | 0.2000 | 0.2072 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.292 | 11.299 | -0.007 | 42043 | 0.2000 | 0.2080 | |
| 20 2,6-Dinitrotoluene | 1 | 11.465 | 11.472 | -0.007 | 30722 | 0.2000 | 0.2147 | |
| 21 2,4-Dinitrotoluene | 1 | 11.632 | 11.639 | -0.007 | 60504 | 0.2000 | 0.2091 | |
| 22 o-Nitrotoluene | 1 | 12.479 | 12.479 | 0.000 | 22578 | 0.2000 | 0.1769 | |
| 23 p-Nitrotoluene | 1 | 12.899 | 12.899 | 0.000 | 22729 | 0.2000 | 0.2139 | |
| 24 m-Nitrotoluene | 1 | 13.465 | 13.466 | -0.001 | 23072 | 0.2000 | 0.1622 | |
| 25 PETN | 2 | 14.505 | 14.499 | 0.006 | 167850 | 2.00 | 2.29 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

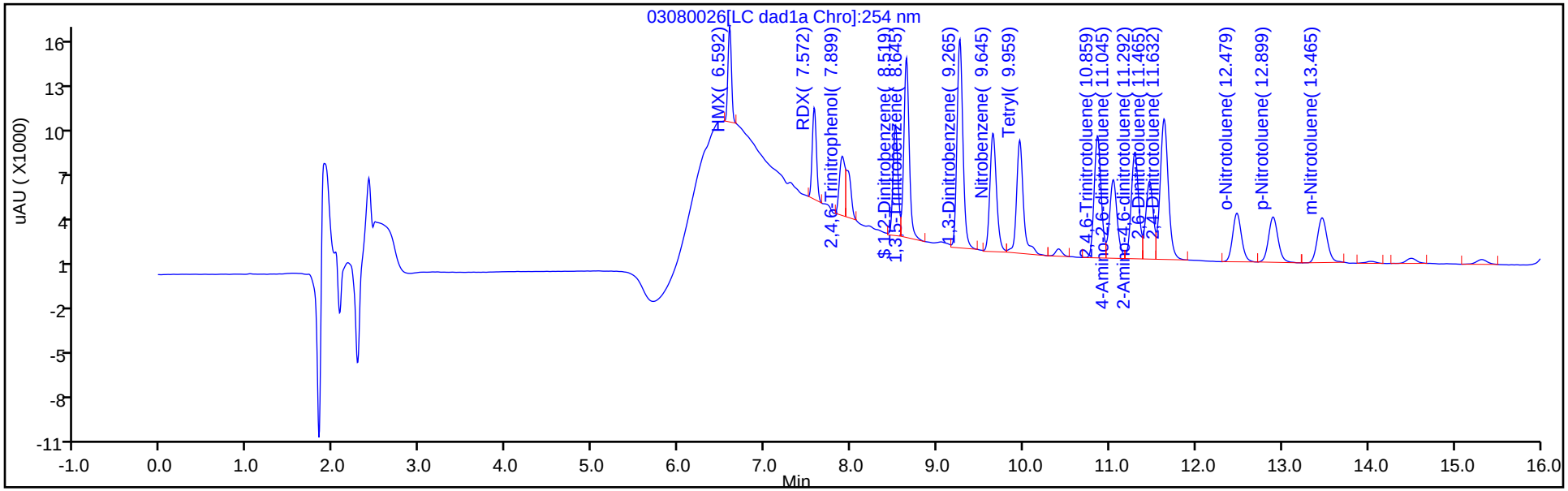
Report Date: 09-Mar-2022 13:15:41 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

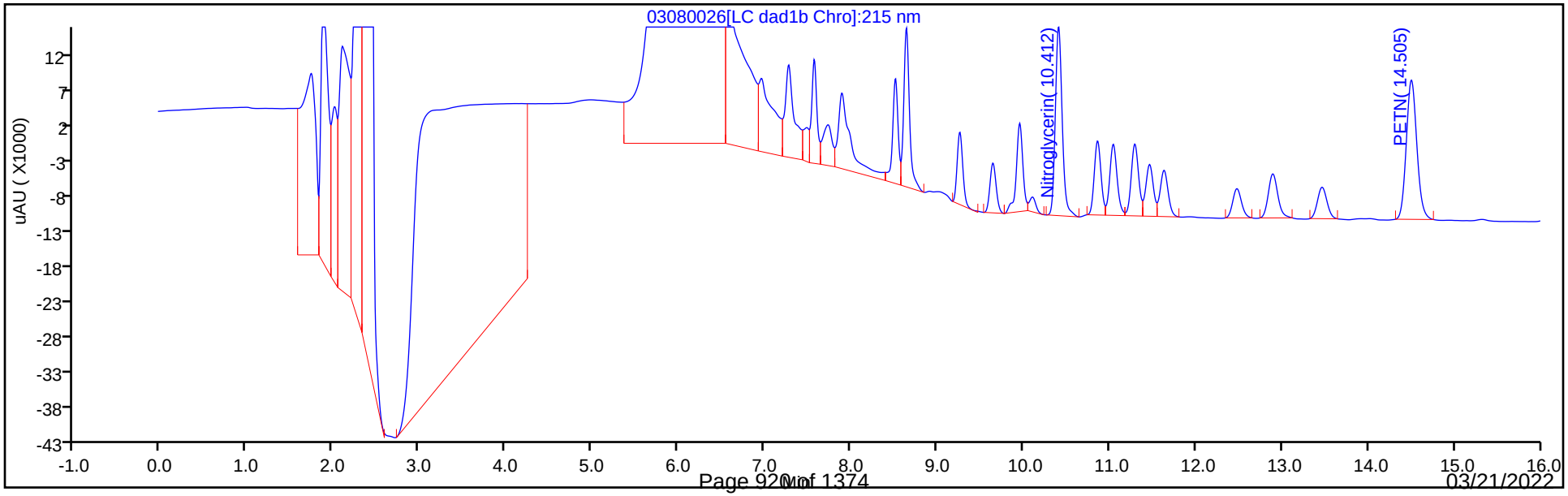
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080026.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 22:18:28 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-A-7-A MS | | | Worklist Smp#: | 26 |
| Client ID: | G0070-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080026.D | | | | |
| Lims ID: | 280-159234-A-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 08-Mar-2022 22:18:28 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-A-7-A | | | | |
| Misc. Info.: | 280-0109078-026 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:42:03

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2305 | 115.26 |

Manual Integration/User Assign Peak Report

Eurofins Denver

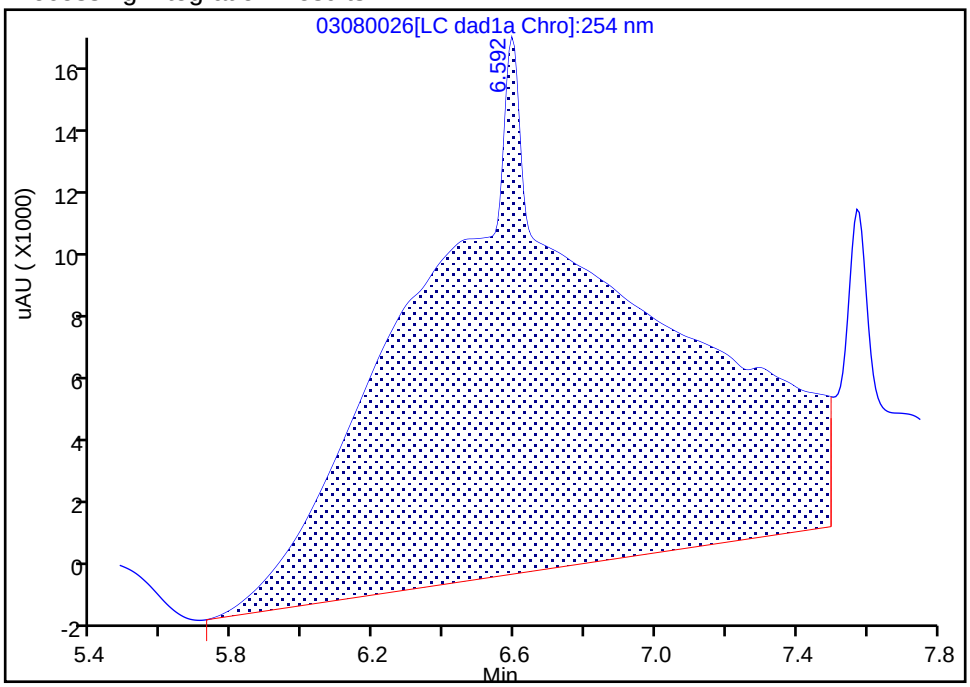
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080026.d | | | | |
| Injection Date: | 08-Mar-2022 22:18:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-A-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

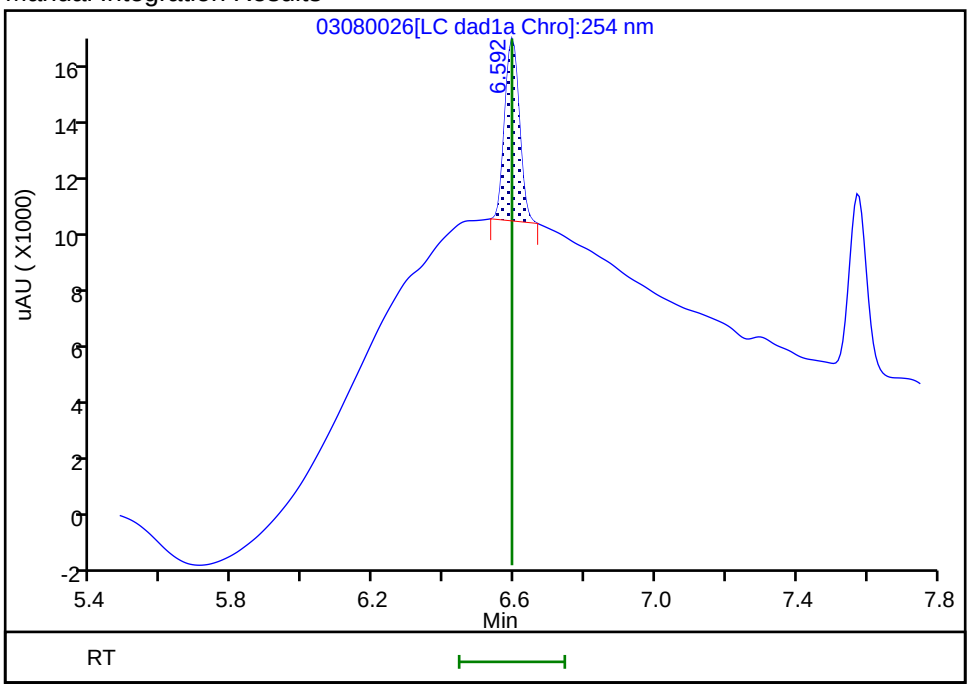
Processing Integration Results

RT: 6.59
Area: 689354
Amount: 8.223512
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 17638
Amount: 0.210409
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:41:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

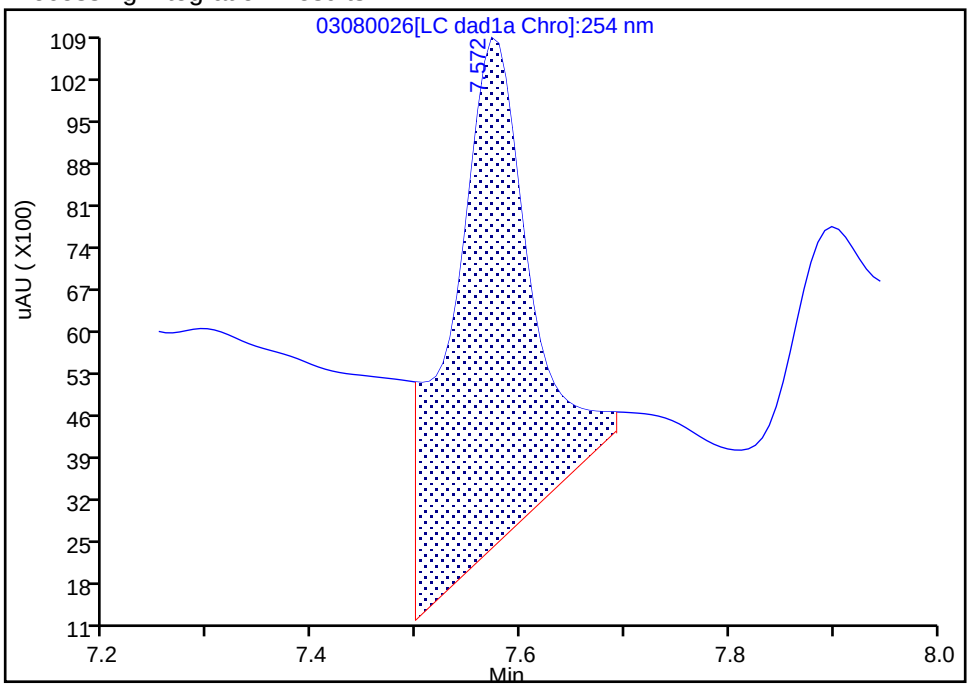
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080026.d | | | | |
| Injection Date: | 08-Mar-2022 22:18:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-A-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

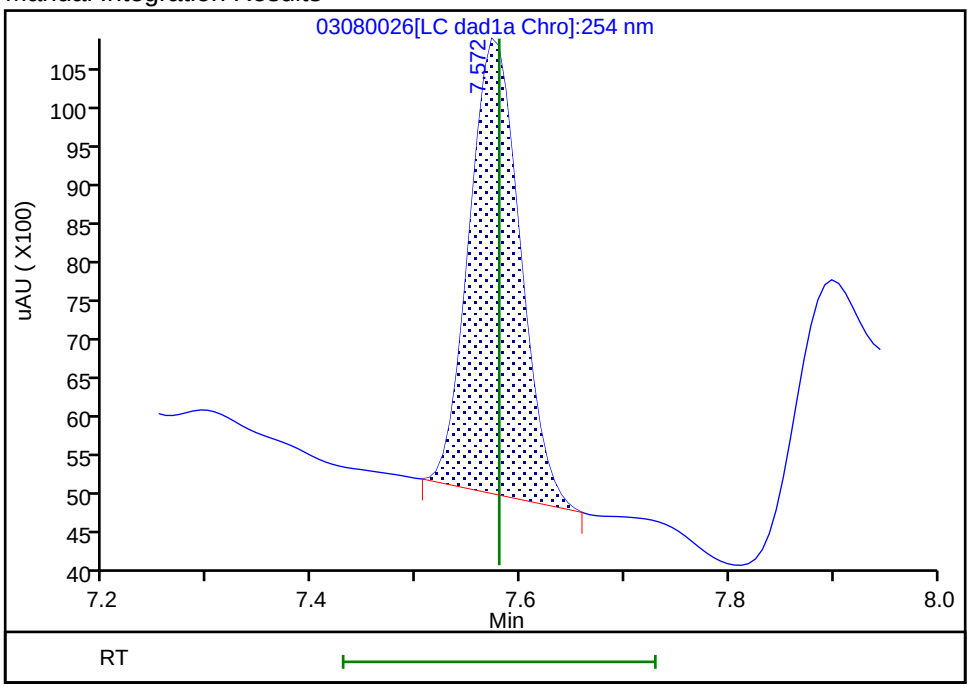
Processing Integration Results

RT: 7.57
Area: 44802
Amount: 0.432413
Amount Units: ug/mL




Manual Integration Results

RT: 7.57
Area: 20154
Amount: 0.194519
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:41:51
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS | Lab Sample ID: 280-159234-7 MS

Matrix: Water | Lab File ID: 03080028.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 492.1(mL) | Date Analyzed: 03/08/2022 23:04

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.45 | M | 2.0 | 0.41 | 0.16 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 108 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080028.D | | | | |
| Lims ID: | 280-159234-B-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 08-Mar-2022 23:04:18 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-B-7-A | | | | |
| Misc. Info.: | 280-0109078-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 12:47:05 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.472 | 6.473 | -0.001 | 37025 | 0.2002 | 0.2043 | M |
| 6 DNX | 1 | 6.785 | 6.787 | -0.002 | 29322 | 0.2002 | 0.2123 | M |
| 7 MNX | 1 | 7.198 | 7.207 | -0.009 | 30337 | 0.2334 | 0.2408 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.518 | 8.519 | -0.001 | 27026 | 0.2000 | 0.2167 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

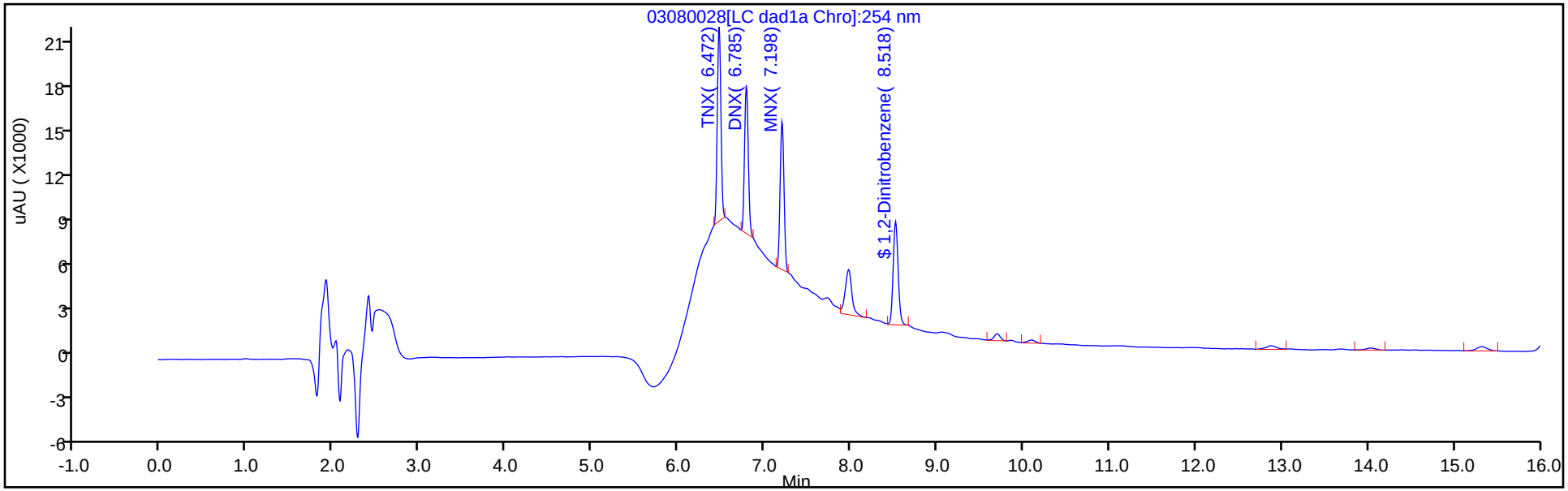
Report Date: 09-Mar-2022 13:15:42 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

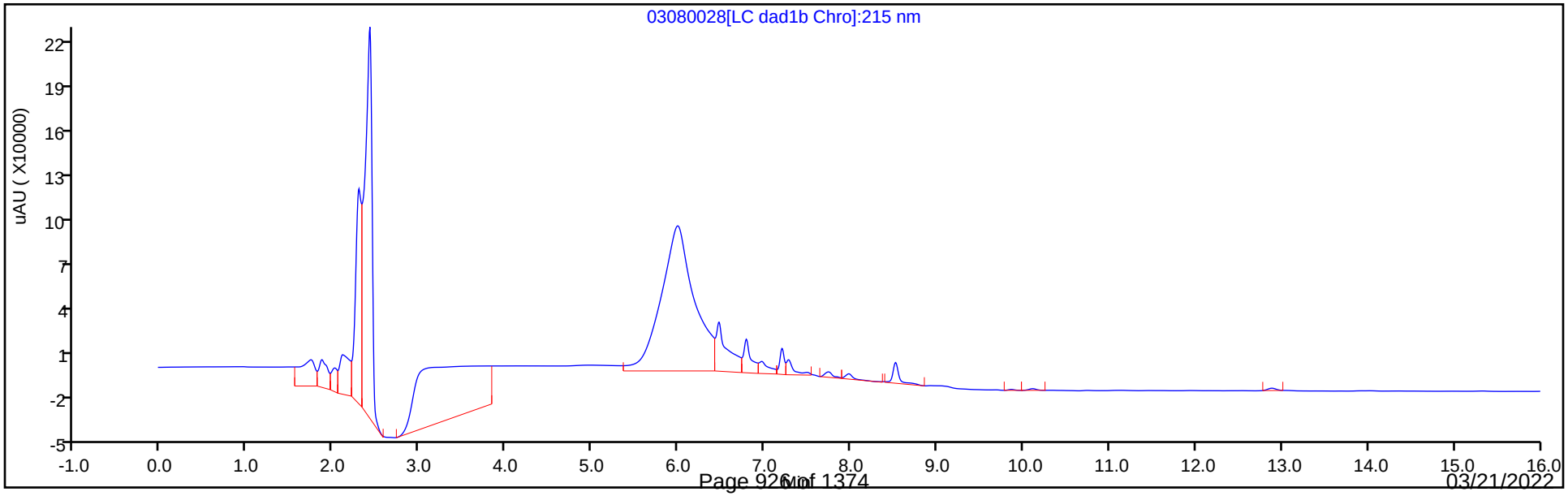
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080028.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 23:04:18 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-B-7-A MS | | | Worklist Smp#: | 28 |
| Client ID: | G0070-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080028.D | | | | |
| Lims ID: | 280-159234-B-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 08-Mar-2022 23:04:18 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-B-7-A | | | | |
| Misc. Info.: | 280-0109078-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:47:05

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2167 | 108.37 |

Manual Integration/User Assign Peak Report

Eurofins Denver

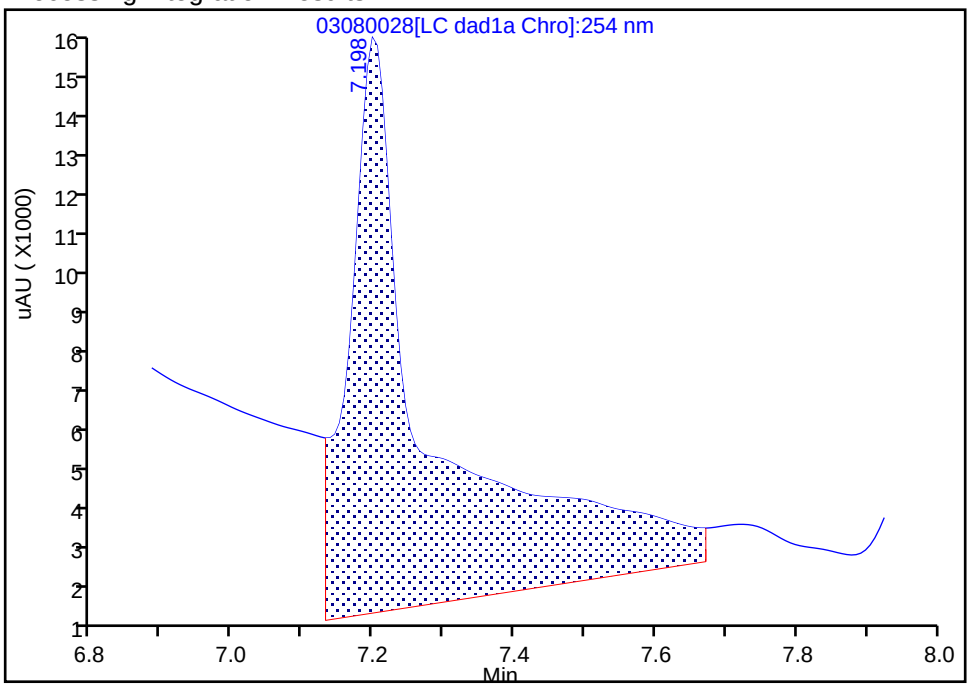
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080028.d | | | | |
| Injection Date: | 08-Mar-2022 23:04:18 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-B-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

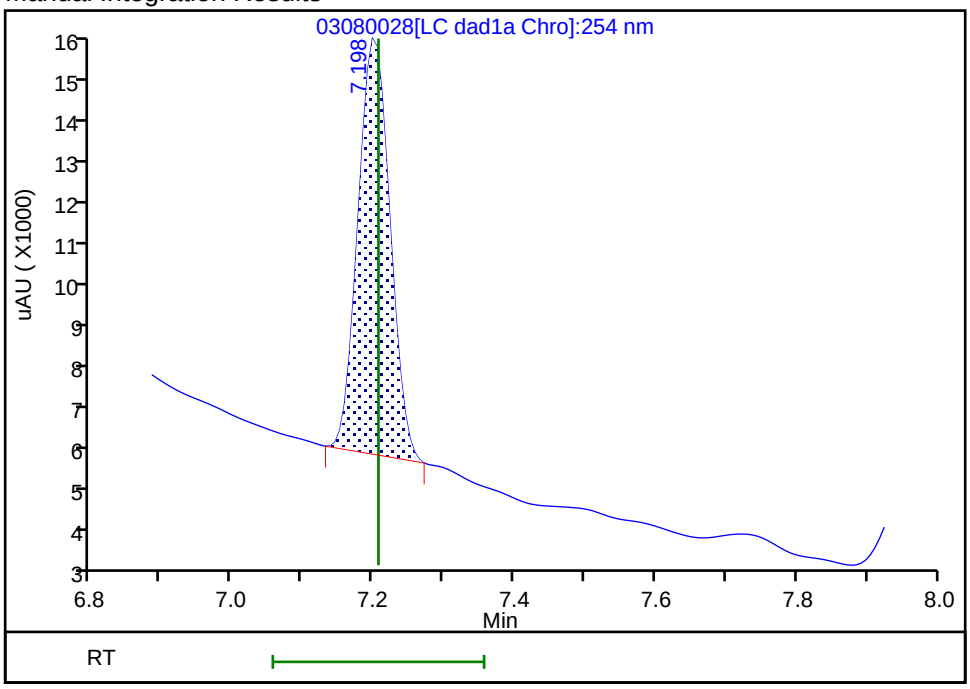
Processing Integration Results

RT: 7.20
Area: 112756
Amount: 0.894921
Amount Units: ug/mL




Manual Integration Results

RT: 7.20
Area: 30337
Amount: 0.240779
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:47:03

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MS | Lab Sample ID: 280-159234-7 MS

Matrix: Water | Lab File ID: 03080024.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 507.3(mL) | Date Analyzed: 03/09/2022 02:34

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.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-99-0 | 4-Nitrotoluene | 1.83 | | 0.40 | 0.39 | 0.099 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 105 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080024.D
Lims ID: 280-159234-A-7-A MS
Client ID: G0070-8
Sample Type: MS
Inject. Date: 09-Mar-2022 02:34:08 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-A-7-A MS
Misc. Info.: 280-0109079-024
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:23:00

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 5 HMX | 1 | 6.822 | 6.875 | -0.053 | 30338 | 0.2000 | 0.1826 | |
| 7 2,4,6-Trinitrophenol | 1 | 8.042 | 8.249 | -0.207 | 30278 | 0.2000 | 0.2279 | |
| 8 RDX | 1 | 9.008 | 9.062 | -0.054 | 39720 | 0.2000 | 0.2044 | |
| 9 Nitrobenzene | 1 | 11.882 | 11.915 | -0.033 | 68367 | 0.2000 | 0.1856 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.068 | 13.089 | -0.021 | 52213 | 0.2000 | 0.2091 | |
| 12 1,3-Dinitrobenzene | 1 | 15.442 | 15.455 | -0.013 | 117830 | 0.2000 | 0.2061 | |
| 13 Nitroglycerin | 2 | 15.808 | 15.815 | -0.007 | 236076 | 2.00 | 1.93 | M |
| 14 o-Nitrotoluene | 1 | 16.528 | 16.542 | -0.014 | 41094 | 0.2000 | 0.1751 | |
| 16 p-Nitrotoluene | 1 | 16.835 | 16.849 | -0.014 | 39149 | 0.2000 | 0.1857 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.462 | 17.469 | -0.007 | 50842 | 0.2000 | 0.1905 | |
| 18 m-Nitrotoluene | 1 | 17.795 | 17.802 | -0.007 | 46192 | 0.2000 | 0.1744 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.475 | 18.482 | -0.007 | 76319 | 0.2000 | 0.2117 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.728 | 18.735 | -0.007 | 87496 | 0.2000 | 0.2106 | |
| 21 2,6-Dinitrotoluene | 1 | 19.948 | 19.955 | -0.007 | 64945 | 0.2000 | 0.2445 | |
| 22 2,4-Dinitrotoluene | 1 | 20.475 | 20.482 | -0.007 | 103374 | 0.2000 | 0.1791 | |
| 23 Tetryl | 1 | 24.142 | 24.142 | 0.000 | 65601 | 0.2000 | 0.1917 | |
| 24 2,4,6-Trinitrotoluene | 1 | 24.922 | 24.922 | 0.000 | 78515 | 0.2000 | 0.2127 | |
| 25 PETN | 2 | 25.908 | 25.902 | 0.006 | 285529 | 2.00 | 2.21 | |

## QC Flag Legend

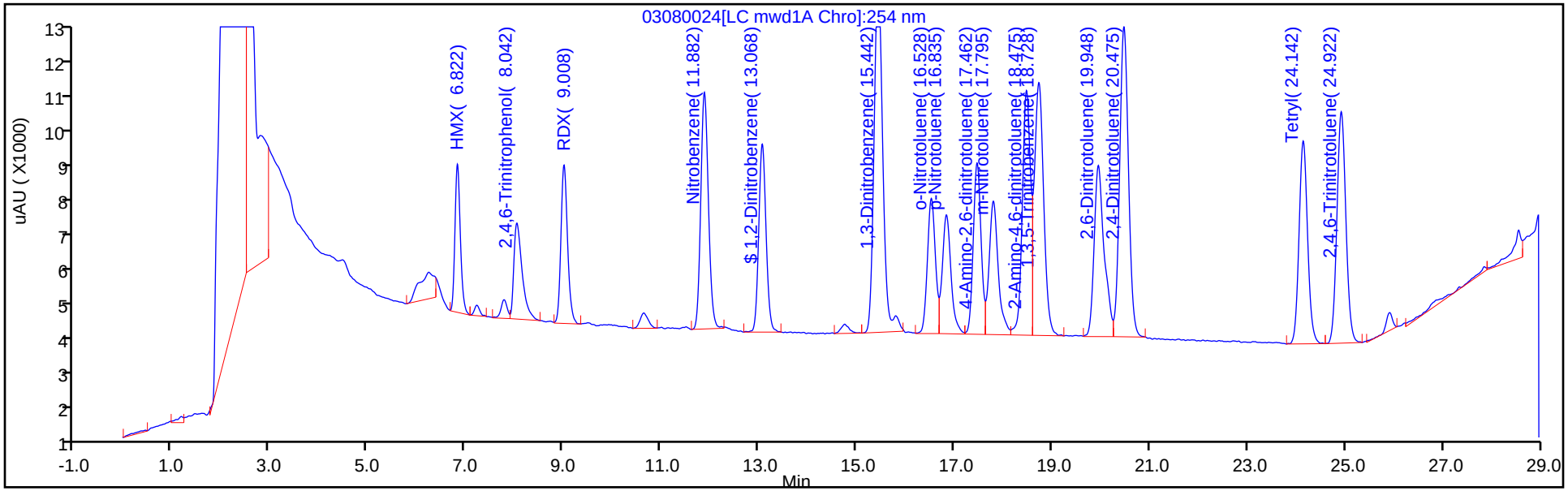
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 09-Mar-2022 19:28:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

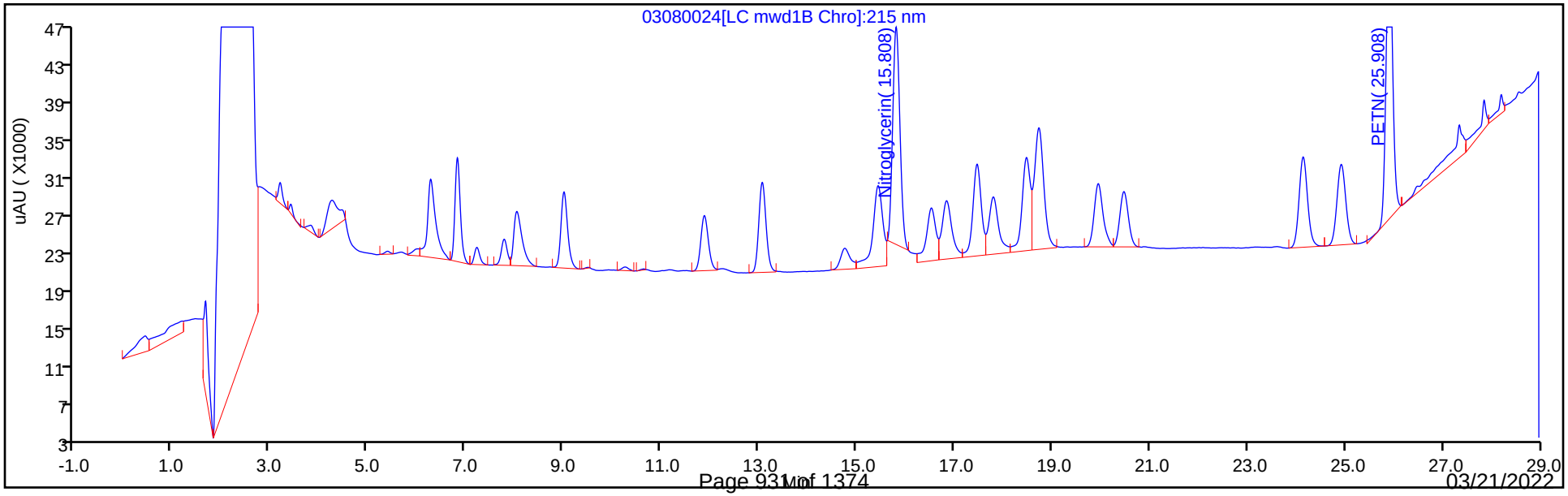
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080024.D | | | | |
| Injection Date: | 09-Mar-2022 02:34:08 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-A-7-A MS | | | Worklist Smp#: | 24 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080024.D | | | | |
| Lims ID: | 280-159234-A-7-A MS | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 09-Mar-2022 02:34:08 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-A-7-A MS | | | | |
| Misc. Info.: | 280-0109079-024 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:23:00 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2091 | 104.53 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD | Lab Sample ID: 280-159234-7 MSD

Matrix: Water | Lab File ID: 03080027.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 474.9(mL) | Date Analyzed: 03/08/2022 22:41

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.56 | | 0.22 | 0.21 | 0.089 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.47 | | 0.12 | 0.11 | 0.039 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.44 | | 0.12 | 0.11 | 0.047 |
| 121-14-2 | 2,4-Dinitrotoluene | 2.30 | | 0.11 | 0.084 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.43 | | 0.11 | 0.084 | 0.042 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.30 | | 0.12 | 0.11 | 0.053 |
| 88-72-2 | 2-Nitrotoluene | 1.99 | | 0.22 | 0.21 | 0.090 |
| 99-08-1 | 3-Nitrotoluene | 1.87 | | 0.42 | 0.42 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 2.30 | | 0.16 | 0.13 | 0.061 |
| 2691-41-0 | HMX | 2.30 | M | 0.22 | 0.21 | 0.092 |
| 98-95-3 | Nitrobenzene | 2.32 | | 0.22 | 0.21 | 0.096 |
| 121-82-4 | RDX | 2.13 | | 0.22 | 0.21 | 0.054 |
| 479-45-8 | Tetryl | 2.48 | | 0.12 | 0.11 | 0.033 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 118 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080027.D
Lims ID: 280-159234-A-7-B MSD
Client ID: G0070-8
Sample Type: MSD
Inject. Date: 08-Mar-2022 22:41:22 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-A-7-B
Misc. Info.: 280-0109078-027
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 13:15:39 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 12:42:38

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.592 | 6.593 | -0.001 | 18345 | 0.2000 | 0.2188 | M |
| 8 RDX | 1 | 7.579 | 7.579 | 0.000 | 20950 | 0.2000 | 0.2022 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.905 | 7.906 | -0.001 | 19775 | 0.2000 | 0.2567 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.519 | 8.519 | 0.000 | 29370 | 0.2000 | 0.2355 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.645 | 8.646 | -0.001 | 52939 | 0.2000 | 0.2427 | |
| 12 1,3-Dinitrobenzene | 1 | 9.265 | 9.266 | -0.001 | 67752 | 0.2000 | 0.2349 | |
| 13 Nitrobenzene | 1 | 9.652 | 9.652 | 0.000 | 42323 | 0.2000 | 0.2205 | |
| 15 Tetryl | 1 | 9.965 | 9.966 | -0.001 | 40186 | 0.2000 | 0.2356 | |
| 16 Nitroglycerin | 2 | 10.419 | 10.419 | 0.000 | 156060 | 2.00 | 2.48 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.872 | 10.866 | 0.006 | 46994 | 0.2000 | 0.2318 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.052 | 11.052 | 0.000 | 33007 | 0.2000 | 0.2186 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.305 | 11.299 | 0.006 | 44236 | 0.2000 | 0.2188 | |
| 20 2,6-Dinitrotoluene | 1 | 11.472 | 11.472 | 0.000 | 33034 | 0.2000 | 0.2308 | |
| 21 2,4-Dinitrotoluene | 1 | 11.645 | 11.639 | 0.006 | 63266 | 0.2000 | 0.2186 | |
| 22 o-Nitrotoluene | 1 | 12.485 | 12.479 | 0.006 | 24135 | 0.2000 | 0.1891 | |
| 23 p-Nitrotoluene | 1 | 12.905 | 12.899 | 0.006 | 24372 | 0.2000 | 0.2294 | |
| 24 m-Nitrotoluene | 1 | 13.479 | 13.466 | 0.013 | 25255 | 0.2000 | 0.1775 | |
| 25 PETN | 2 | 14.512 | 14.499 | 0.013 | 177453 | 2.00 | 2.43 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

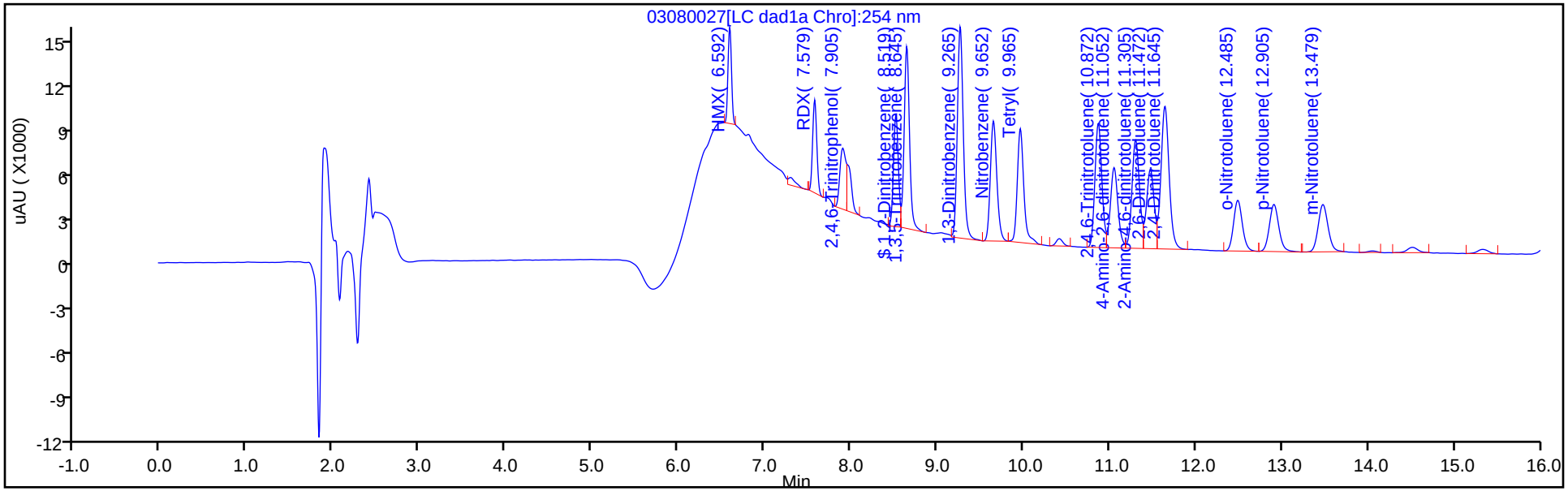
Report Date: 09-Mar-2022 13:15:42 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

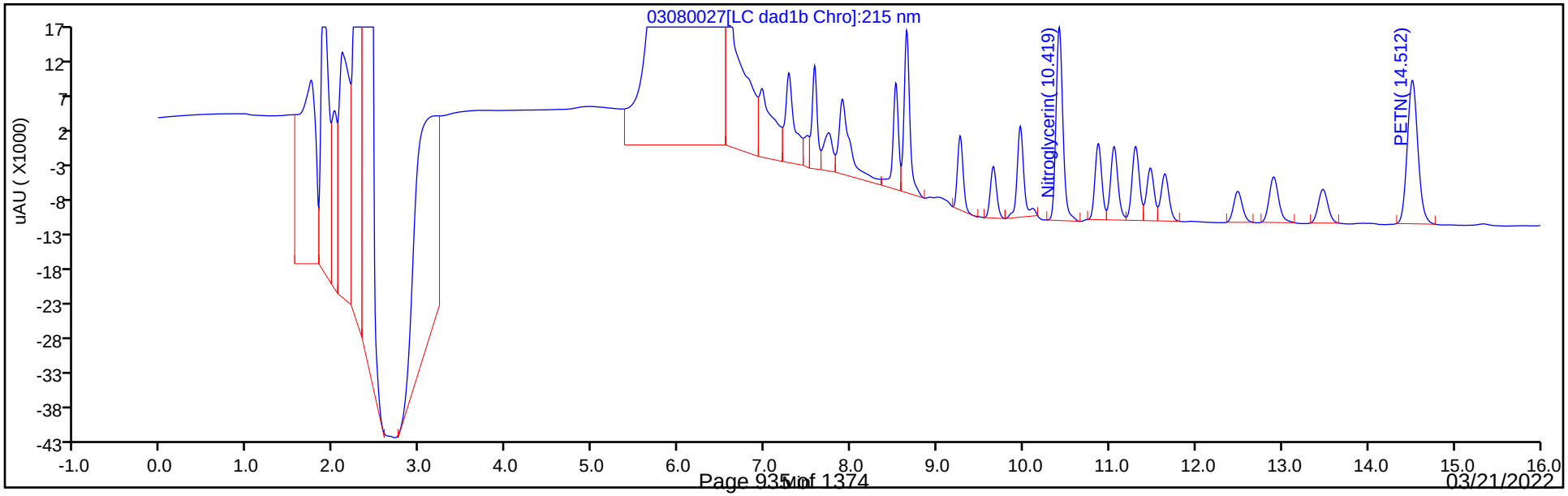
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080027.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 22:41:22 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-A-7-B MSD | | | Worklist Smp#: | 27 |
| Client ID: | G0070-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080027.D | | | | |
| Lims ID: | 280-159234-A-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 08-Mar-2022 22:41:22 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-A-7-B | | | | |
| Misc. Info.: | 280-0109078-027 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:42:38

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2355 | 117.76 |

Manual Integration/User Assign Peak Report

Eurofins Denver

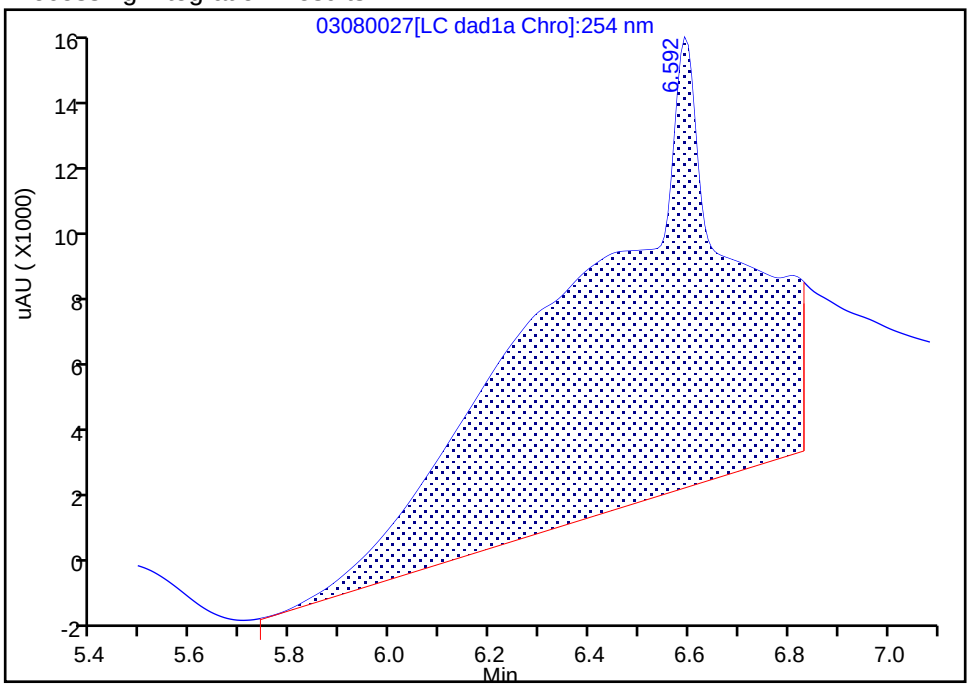
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080027.d | | | | |
| Injection Date: | 08-Mar-2022 22:41:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-A-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

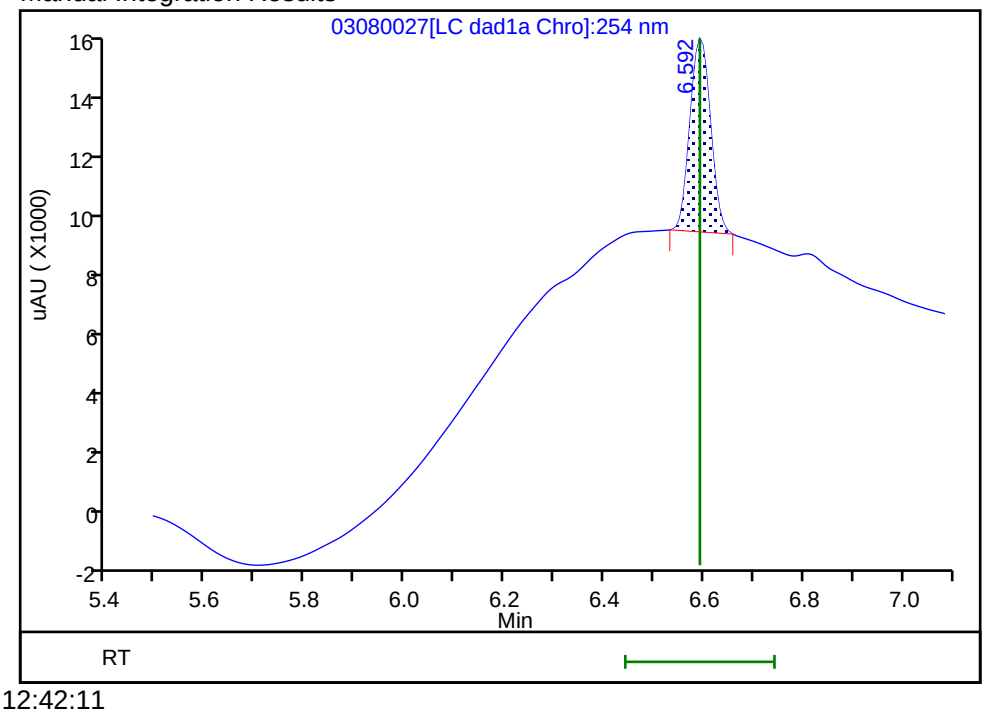
Processing Integration Results

RT: 6.59
Area: 317448
Amount: 3.786933
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 18345
Amount: 0.218843
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:42:11

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD | Lab Sample ID: 280-159234-7 MSD

Matrix: Water | Lab File ID: 03080029.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 484.3(mL) | Date Analyzed: 03/08/2022 23:27

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.: 568014 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.70 | M | 2.1 | 0.41 | 0.16 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 115 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080029.D | | | | |
| Lims ID: | 280-159234-B-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 08-Mar-2022 23:27:12 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-B-7-B | | | | |
| Misc. Info.: | 280-0109078-029 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 12:49:55 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.471 | 6.473 | -0.002 | 39556 | 0.2002 | 0.2183 | M |
| 6 DNX | 1 | 6.785 | 6.787 | -0.002 | 31041 | 0.2002 | 0.2248 | M |
| 7 MNX | 1 | 7.198 | 7.207 | -0.009 | 32995 | 0.2334 | 0.2619 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.518 | 8.519 | -0.001 | 28795 | 0.2000 | 0.2309 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

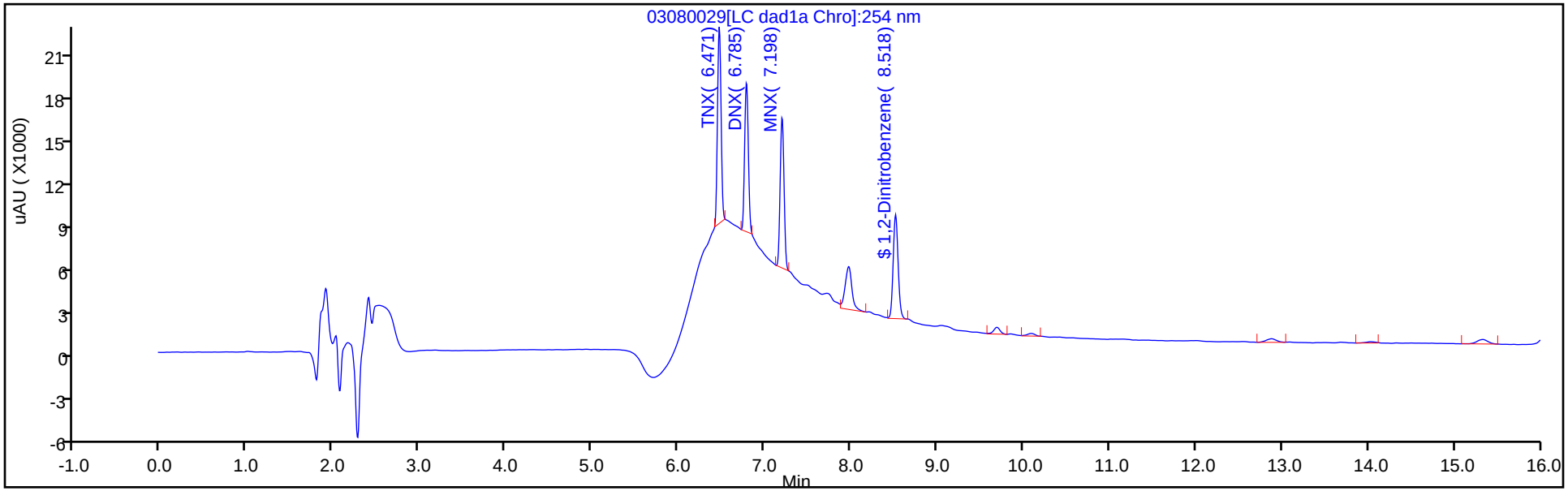
Report Date: 09-Mar-2022 13:15:43 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

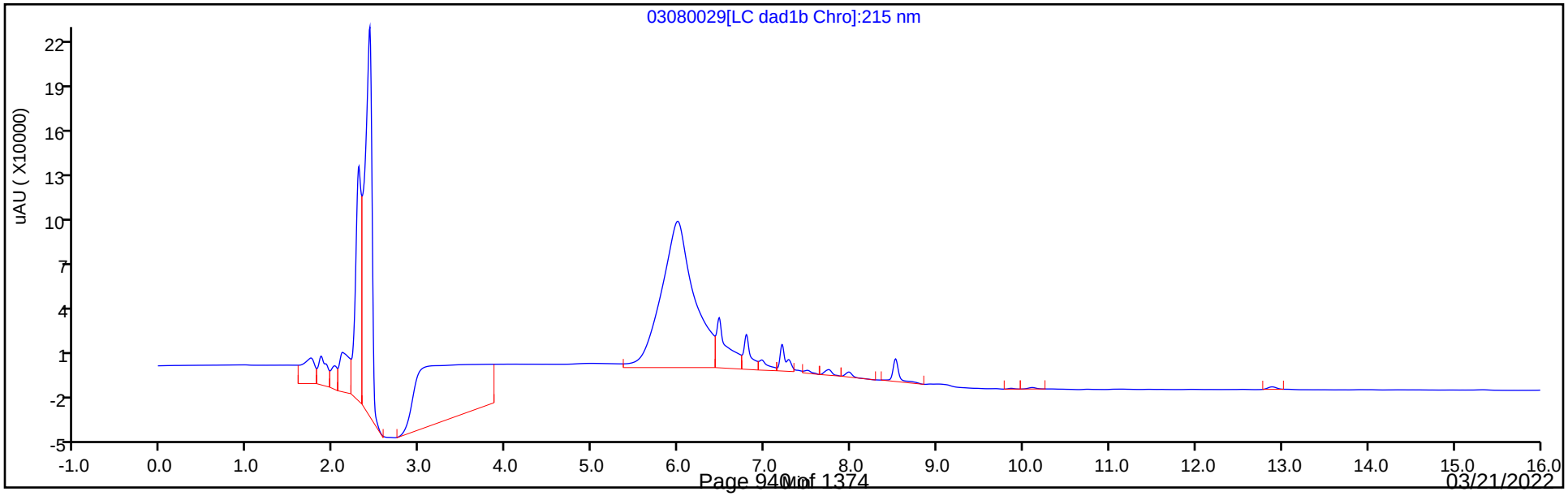
Data File: \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080029.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 08-Mar-2022 23:27:12 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-159234-B-7-B MSD | | | Worklist Smp#: | 29 |
| Client ID: | G0070-8 | | | | |
| 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 Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\03080029.D | | | | |
| Lims ID: | 280-159234-B-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 08-Mar-2022 23:27:12 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-B-7-B | | | | |
| Misc. Info.: | 280-0109078-029 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20220308-109078.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 13:15:39 | Calib Date: | 05-Jan-2022 04:24:15 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1655 | | | | |

First Level Reviewer: zhangji Date: 09-Mar-2022 12:49:55

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2309 | 115.46 |

Manual Integration/User Assign Peak Report

Eurofins Denver

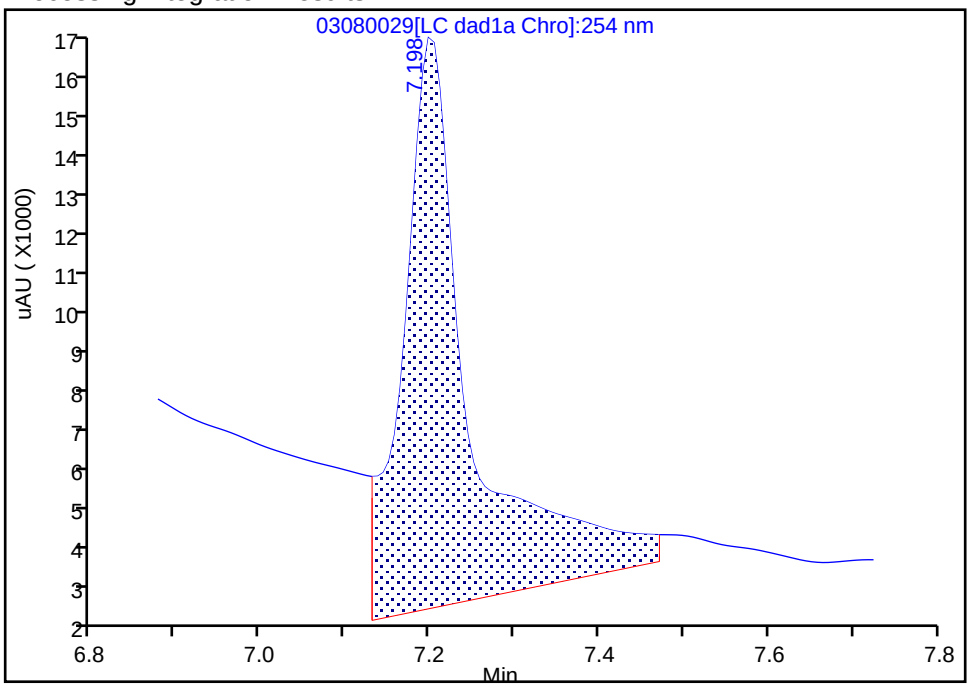
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20220308-109078.b\03080029.d | | | | |
| Injection Date: | 08-Mar-2022 23:27:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-159234-B-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

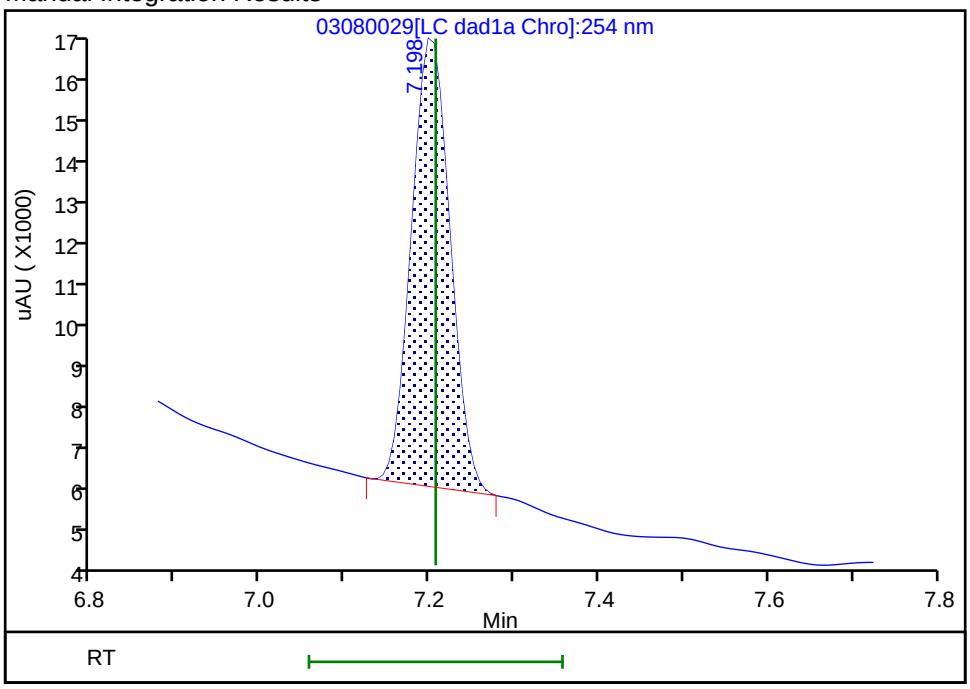
Processing Integration Results

RT: 7.20
Area: 74584
Amount: 0.591958
Amount Units: ug/mL




Manual Integration Results

RT: 7.20
Area: 32995
Amount: 0.261875
Amount Units: ug/mL




Reviewer: zhangji, 09-Mar-2022 12:49:51
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Client Sample ID: G0070-8 MSD | Lab Sample ID: 280-159234-7 MSD

Matrix: Water | Lab File ID: 03080025.D

Analysis Method: 8330A | Date Collected: 03/01/2022 12:35

Extraction Method: 3535 | Date Extracted: 03/07/2022 15:25

Sample wt/vol: 474.9(mL) | Date Analyzed: 03/09/2022 03:09

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.: 568016 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-99-0 | 4-Nitrotoluene | 2.00 | | 0.43 | 0.42 | 0.11 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 103 | | 83-119 |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080025.D
Lims ID: 280-159234-A-7-B MSD
Client ID: G0070-8
Sample Type: MSD
Inject. Date: 09-Mar-2022 03:09:13 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159234-A-7-B MSD
Misc. Info.: 280-0109079-025
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 09-Mar-2022 19:28:02 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1655

First Level Reviewer: zhangji Date: 09-Mar-2022 19:23:43

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 5 HMX | 1 | 6.823 | 6.875 | -0.052 | 30787 | 0.2000 | 0.1853 | |
| | 7 2,4,6-Trinitrophenol | 1 | 8.043 | 8.249 | -0.206 | 30523 | 0.2000 | 0.2297 | |
| | 8 RDX | 1 | 9.016 | 9.062 | -0.046 | 39798 | 0.2000 | 0.2048 | |
| | 9 Nitrobenzene | 1 | 11.889 | 11.915 | -0.026 | 68679 | 0.2000 | 0.1865 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.069 | 13.089 | -0.020 | 51691 | 0.2000 | 0.2070 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.436 | 15.455 | -0.019 | 118862 | 0.2000 | 0.2079 | |
| | 13 Nitroglycerin | 2 | 15.803 | 15.815 | -0.012 | 236719 | 2.00 | 1.93 | M |
| | 14 o-Nitrotoluene | 1 | 16.523 | 16.542 | -0.019 | 41649 | 0.2000 | 0.1775 | |
| | 16 p-Nitrotoluene | 1 | 16.836 | 16.849 | -0.013 | 39990 | 0.2000 | 0.1897 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 17.463 | 17.469 | -0.006 | 51236 | 0.2000 | 0.1920 | |
| | 18 m-Nitrotoluene | 1 | 17.796 | 17.802 | -0.006 | 46844 | 0.2000 | 0.1768 | |
| | 19 2-Amino-4,6-dinitrotoluene | 1 | 18.469 | 18.482 | -0.013 | 77041 | 0.2000 | 0.2137 | |
| | 20 1,3,5-Trinitrobenzene | 1 | 18.723 | 18.735 | -0.012 | 87223 | 0.2000 | 0.2099 | |
| | 21 2,6-Dinitrotoluene | 1 | 19.936 | 19.955 | -0.019 | 64172 | 0.2000 | 0.2416 | |
| | 22 2,4-Dinitrotoluene | 1 | 20.463 | 20.482 | -0.019 | 104491 | 0.2000 | 0.1811 | |
| | 23 Tetryl | 1 | 24.130 | 24.142 | -0.012 | 65905 | 0.2000 | 0.1926 | |
| | 24 2,4,6-Trinitrotoluene | 1 | 24.910 | 24.922 | -0.012 | 79208 | 0.2000 | 0.2146 | |
| | 25 PETN | 2 | 25.896 | 25.902 | -0.006 | 286705 | 2.00 | 2.22 | |

## QC Flag Legend

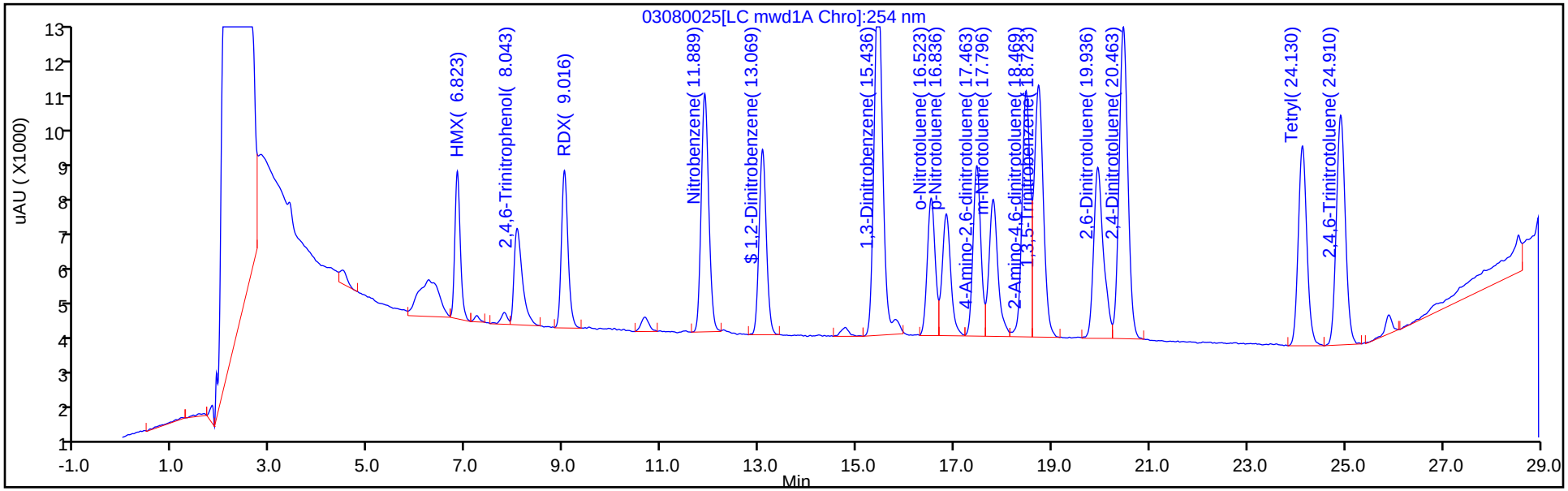
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 09-Mar-2022 19:28:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

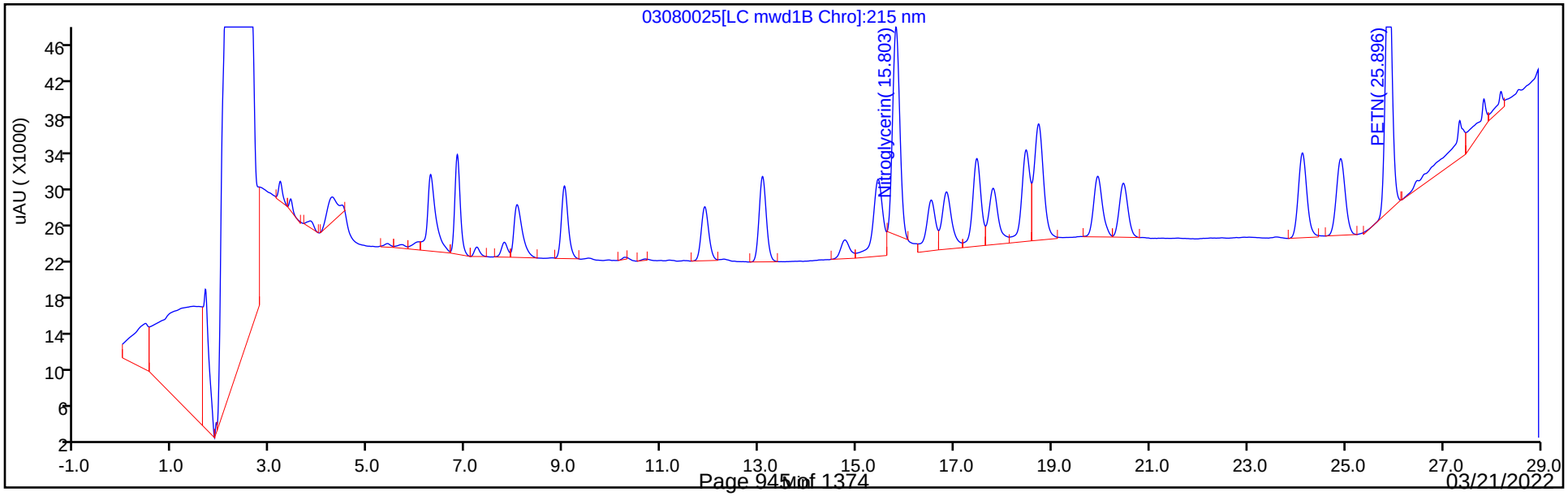
Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080025.D | | | | |
| Injection Date: | 09-Mar-2022 03:09:13 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-159234-A-7-B MSD | | | Worklist Smp#: | 25 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2




Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\03080025.D | | | | |
| Lims ID: | 280-159234-A-7-B MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 09-Mar-2022 03:09:13 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-159234-A-7-B MSD | | | | |
| Misc. Info.: | 280-0109079-025 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220308-109079.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 09-Mar-2022 19:28:02 | Calib Date: | 03-Mar-2022 07:19:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1655 | | | | |
| First Level Reviewer: zhangji | | Date: | 09-Mar-2022 19:23:43 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2070 | 103.48 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 01/04/2022 18:28

Analysis Batch Number: 562503 End Date: 01/05/2022 04:47

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-562503/11 | | 01/04/2022 18:28 | 1 | 01040011.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/12 | | 01/04/2022 18:51 | 1 | 01040012.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/13 | | 01/04/2022 19:13 | 1 | 01040013.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/14 | | 01/04/2022 19:36 | 1 | 01040014.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/15 | | 01/04/2022 19:59 | 1 | 01040015.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/16 | | 01/04/2022 20:22 | 1 | 01040016.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/17 | | 01/04/2022 20:45 | 1 | 01040017.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/18 | | 01/04/2022 21:08 | 1 | 01040018.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/19 | | 01/04/2022 21:31 | 1 | 01040019.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-562503/20 | | 01/04/2022 21:54 | 1 | 01040020.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/21 | | 01/04/2022 22:17 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/22 | | 01/04/2022 22:40 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/23 | | 01/04/2022 23:03 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/24 | | 01/04/2022 23:26 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/25 | | 01/04/2022 23:49 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/26 | | 01/05/2022 00:11 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/27 | | 01/05/2022 00:34 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/28 | | 01/05/2022 00:57 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-562503/29 | | 01/05/2022 01:20 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/30 | | 01/05/2022 01:43 | 1 | 01040030.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/31 | | 01/05/2022 02:06 | 1 | 01040031.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/32 | | 01/05/2022 02:29 | 1 | 01040032.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/33 | | 01/05/2022 02:52 | 1 | 01040033.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/34 | | 01/05/2022 03:15 | 1 | 01040034.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/35 | | 01/05/2022 03:38 | 1 | 01040035.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/36 | | 01/05/2022 04:01 | 1 | 01040036.D | UltraCarb5uODS 4.6(mm) |
| IC 280-562503/37 | | 01/05/2022 04:24 | 1 | 01040037.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-562503/38 | | 01/05/2022 04:47 | 1 | 01040038.D | UltraCarb5uODS 4.6(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/02/2022 21:22

Analysis Batch Number: 567560 End Date: 03/03/2022 07:54

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-567560/10 | | 03/02/2022 21:22 | 1 | 03020010.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/11 | | 03/02/2022 21:57 | 1 | 03020011.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/12 | | 03/02/2022 22:32 | 1 | 03020012.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/13 | | 03/02/2022 23:07 | 1 | 03020013.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/14 | | 03/02/2022 23:42 | 1 | 03020014.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/15 | | 03/03/2022 00:17 | 1 | 03020015.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/16 | | 03/03/2022 00:53 | 1 | 03020016.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/17 | | 03/03/2022 01:28 | 1 | 03020017.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/18 | | 03/03/2022 02:03 | 1 | 03020018.D | Luna-phenylhex 4.6(mm) |
| ICV 280-567560/19 | | 03/03/2022 02:38 | 1 | 03020019.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/20 | | 03/03/2022 03:13 | 1 | 03020020.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/21 | | 03/03/2022 03:49 | 1 | 03020021.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/22 | | 03/03/2022 04:24 | 1 | 03020022.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/23 | | 03/03/2022 04:59 | 1 | 03020023.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/24 | | 03/03/2022 05:34 | 1 | 03020024.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/25 | | 03/03/2022 06:09 | 1 | 03020025.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/26 | | 03/03/2022 06:44 | 1 | 03020026.D | Luna-phenylhex 4.6(mm) |
| IC 280-567560/27 | | 03/03/2022 07:19 | 1 | 03020027.D | Luna-phenylhex 4.6(mm) |
| ICV 280-567560/28 | | 03/03/2022 07:54 | 1 | 03020028.D | Luna-phenylhex 4.6(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/08/2022 15:25

Analysis Batch Number: 568014 End Date: 03/09/2022 05:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-568014/7 | | 03/08/2022 15:25 | 1 | 03080007.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/8 | | 03/08/2022 15:48 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/9 | | 03/08/2022 16:11 | 1 | 03080009.D | UltraCarb5uODS 4.6(mm) |
| MB 280-567869/1-A | | 03/08/2022 16:34 | 1 | 03080011.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-567869/2-A | | 03/08/2022 16:57 | 1 | 03080012.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-567869/3-A | | 03/08/2022 17:20 | 1 | 03080013.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/08/2022 17:43 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/08/2022 18:06 | 1 | | UltraCarb5uODS 4.6(mm) |
| 280-159234-1 | NW020-8 | 03/08/2022 18:29 | 1 | 03080016.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-2 | NW021-8 | 03/08/2022 18:52 | 1 | 03080017.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-3 | NW022-8 | 03/08/2022 19:15 | 1 | 03080018.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-4 | G0079-8 | 03/08/2022 19:37 | 1 | 03080019.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-5 | G0075-8 | 03/08/2022 20:00 | 1 | 03080020.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/21 | | 03/08/2022 20:23 | 1 | 03080021.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/22 | | 03/08/2022 20:46 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/23 | | 03/08/2022 21:09 | 1 | 03080023.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-6 | G0076-8 | 03/08/2022 21:32 | 1 | 03080024.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-7 | G0070-8 | 03/08/2022 21:55 | 1 | 03080025.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-7 MS | G0070-8 MS | 03/08/2022 22:18 | 1 | 03080026.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-7 MSD | G0070-8 MSD | 03/08/2022 22:41 | 1 | 03080027.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-7 MS | G0070-8 MS | 03/08/2022 23:04 | 1 | 03080028.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-7 MSD | G0070-8 MSD | 03/08/2022 23:27 | 1 | 03080029.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-8 | G0080-8 | 03/08/2022 23:50 | 1 | 03080030.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-9 | G0087-8 | 03/09/2022 00:13 | 1 | 03080031.D | UltraCarb5uODS 4.6(mm) |
| 280-159234-10 | G0086-8 | 03/09/2022 00:36 | 1 | 03080032.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 00:58 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/34 | | 03/09/2022 01:21 | 1 | 03080034.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/35 | | 03/09/2022 01:44 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/36 | | 03/09/2022 02:07 | 1 | 03080036.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 02:30 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 02:53 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 03:16 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 03:39 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 04:02 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 04:25 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/09/2022 04:48 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/44 | | 03/09/2022 05:11 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/45 | | 03/09/2022 05:34 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-568014/46 | | 03/09/2022 05:57 | 1 | | UltraCarb5uODS 4.6(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/08/2022 17:13

Analysis Batch Number: 568016 End Date: 03/09/2022 13:05

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-568016/7 | | 03/08/2022 17:13 | 1 | 03080007.D | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/8 | | 03/08/2022 17:48 | 1 | 03080008.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/08/2022 18:23 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/08/2022 18:58 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/08/2022 19:33 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/08/2022 20:08 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/08/2022 20:43 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-159234-1 | NW020-8 | 03/08/2022 21:18 | 1 | 03080015.D | Luna-phenylhex 4.6(mm) |
| 280-159234-2 | NW021-8 | 03/08/2022 21:53 | 1 | 03080016.D | Luna-phenylhex 4.6(mm) |
| 280-159234-5 | G0075-8 | 03/08/2022 23:38 | 1 | 03080019.D | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/20 | | 03/09/2022 00:13 | 1 | 03080020.D | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/21 | | 03/09/2022 00:48 | 1 | 03080021.D | Luna-phenylhex 4.6(mm) |
| 280-159234-7 | G0070-8 | 03/09/2022 01:59 | 1 | 03080023.D | Luna-phenylhex 4.6(mm) |
| 280-159234-7 MS | G0070-8 MS | 03/09/2022 02:34 | 1 | 03080024.D | Luna-phenylhex 4.6(mm) |
| 280-159234-7 MSD | G0070-8 MSD | 03/09/2022 03:09 | 1 | 03080025.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 03:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 04:19 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-159234-8 | G0080-8 | 03/09/2022 04:54 | 1 | 03080028.D | Luna-phenylhex 4.6(mm) |
| 280-159234-9 | G0087-8 | 03/09/2022 05:29 | 1 | 03080029.D | Luna-phenylhex 4.6(mm) |
| 280-159234-10 | G0086-8 | 03/09/2022 06:04 | 1 | 03080030.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 06:39 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/32 | | 03/09/2022 07:14 | 1 | 03080032.D | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/33 | | 03/09/2022 07:49 | 1 | 03080033.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 08:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 08:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 09:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 10:45 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 11:20 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/09/2022 11:55 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/41 | | 03/09/2022 12:30 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-568016/42 | | 03/09/2022 13:05 | 1 | | Luna-phenylhex 4.6(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567869  Batch Start Date: 03/07/22 15:25  Batch Analyst: Lee, David C

Batch Method: 3535  Batch End Date: 03/07/22 18:51

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | 8330 LCS 00113 | 8330_OP_DMT 00013 |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-567869/1 | | 3535, 8330A | | | | 500 mL | 5 mL | | |
| LCS 280-567869/2 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCS 280-567869/3 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| 280-159234-J-1 | NW020-8 | 3535, 8330A | T | 726.9 g | 255.9 g | 471 mL | 5 mL | | |
| 280-159234-J-2 | NW021-8 | 3535, 8330A | T | 722.2 g | 255.6 g | 466.6 mL | 5 mL | | |
| 280-159234-K-3 | NW022-8 | 3535, 8330A | T | 775.3 g | 285.5 g | 489.8 mL | 5 mL | | |
| 280-159234-J-4 | G0079-8 | 3535, 8330A | T | 747.5 g | 285.4 g | 462.1 mL | 5 mL | | |
| 280-159234-J-5 | G0075-8 | 3535, 8330A | T | 791.2 g | 286.8 g | 504.4 mL | 5 mL | | |
| 280-159234-J-6 | G0076-8 | 3535, 8330A | T | 789.3 g | 287.7 g | 501.6 mL | 5 mL | | |
| 280-159234-K-7 | G0070-8 | 3535, 8330A | T | 763.5 g | 285.7 g | 477.8 mL | 5 mL | | |
| 280-159234-A-7 MS | G0070-8 | 3535, 8330A | T | 792.6 g | 285.3 g | 507.3 mL | 5 mL | 0.1 mL | |
| 280-159234-A-7 MSD | G0070-8 | 3535, 8330A | T | 761.5 g | 286.6 g | 474.9 mL | 5 mL | 0.1 mL | |
| 280-159234-B-7 MS | G0070-8 | 3535, 8330A | T | 778.0 g | 285.9 g | 492.1 mL | 5 mL | | 0.1 mL |
| 280-159234-B-7 MSD | G0070-8 | 3535, 8330A | T | 770.2 g | 285.9 g | 484.3 mL | 5 mL | | 0.1 mL |
| 280-159234-J-8 | G0080-8 | 3535, 8330A | T | 725.9 g | 256.6 g | 469.3 mL | 5 mL | | |
| 280-159234-J-9 | G0087-8 | 3535, 8330A | T | 726.4 g | 257.0 g | 469.4 mL | 5 mL | | |
| 280-159234-K-10 | G0086-8 | 3535, 8330A | T | 721.1 g | 255.4 g | 465.7 mL | 5 mL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00127 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-567869/1 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-567869/2 | | 3535, 8330A | | 0.1 mL | 8330 LCS | | | | |
| LCS 280-567869/3 | | 3535, 8330A | | 0.1 mL | DMT | | | | |
| 280-159234-J-1 | NW020-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-J-2 | NW021-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-K-3 | NW022-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-J-4 | G0079-8 | 3535, 8330A | T | 0.1 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567869  Batch Start Date: 03/07/22 15:25  Batch Analyst: Lee, David C

Batch Method: 3535  Batch End Date: 03/07/22 18:51

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00127 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-J-5 | G0075-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-J-6 | G0076-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-K-7 | G0070-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-A-7 MS | G0070-8 | 3535, 8330A | T | 0.1 mL | 8330 LCS | | | | |
| 280-159234-A-7 MSD | G0070-8 | 3535, 8330A | T | 0.1 mL | 8330 LCS | | | | |
| 280-159234-B-7 MS | G0070-8 | 3535, 8330A | T | 0.1 mL | DMT | | | | |
| 280-159234-B-7 MSD | G0070-8 | 3535, 8330A | T | 0.1 mL | DMT | | | | |
| 280-159234-J-8 | G0080-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-J-9 | G0087-8 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-159234-K-10 | G0086-8 | 3535, 8330A | T | 0.1 mL | | | | | |

| Batch Notes | |
|---|---|
| First Start time | 03/07/2022 15:44 |
| First End time | 03/07/2022 18:07 |
| SPE Cartridge Type | Porapak RDX |
| SPE Cartridge Lot ID | 004838018A |
| Balance ID | 24350888 |
| Pipette/Syringe/Dispenser ID | JiJi, Soot, DOD |
| Solvent Name | Acetonitrile |
| Solvent Lot # | Acetonitrile_0055 |
| Rinse Solvent Name | 0.1%AAinACN |
| Rinse Solvent Lot | 0.1%AAinACN_00179 |
| Acid Name | Ca2Cl |
| Acid ID | Ca2Cl_Sol_00079 |
| Analyst ID - Spike Analyst | DL |
| Analyst ID - Spike Witness Analyst | Reviewer: ARC |
| Batch Comment | DV-OP-0017; Mantel: B/C |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567869  Batch Start Date: 03/07/22 15:25  Batch Analyst: Lee, David C

Batch Method: 3535  Batch End Date: 03/07/22 18:51

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job Number: 280-159234-1

SDG No.:

Project: Cornhusker (CHAAP)

| Client Sample ID | Lab Sample ID |
|---|---|
| NW020-8 | 280-159234-1 |
| NW021-8 | 280-159234-2 |
| NW022-8 | 280-159234-3 |
| G0079-8 | 280-159234-4 |
| G0075-8 | 280-159234-5 |
| G0076-8 | 280-159234-6 |
| G0070-8 | 280-159234-7 |
| G0080-8 | 280-159234-8 |
| G0087-8 | 280-159234-9 |
| G0086-8 | 280-159234-10 |

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW020-8 Lab Sample ID: 280-159234-1

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 02/28/2022 14:05

Reporting Basis: WET Date Received: 03/02/2022 09:10

| 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 | 55 | 2.5 | 1.3 | 0.48 | mg/L | | | 25 | 353.2 |
| Sulfide | 1.6 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 220 | 25 | 13 | 5.2 | mg/L | | D | 5 | 9056A |
| Total Alkalinity as CaCO3 | 320 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW020-8 Lab Sample ID: 280-159234-1

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 02/28/2022 14:05

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 7.3 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW021-8 | Lab Sample ID: 280-159234-2

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG ID.:

Matrix: Water | Date Sampled: 02/28/2022 15:00

Reporting Basis: WET | Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.4 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 2.7 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 0.62 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 180 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 350 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW021-8 Lab Sample ID: 280-159234-2

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 02/28/2022 15:00

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.1 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW022-8 Lab Sample ID: 280-159234-3

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 02/28/2022 15:55

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 1.1 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.5 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 0.34 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 0.88 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 280 | 25 | 13 | 5.2 | mg/L | | D | 5 | 9056A |
| Total Alkalinity as CaCO3 | 380 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW022-8 Lab Sample ID: 280-159234-3

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 02/28/2022 15:55

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.5 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0079-8 Lab Sample ID: 280-159234-4

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 09:10

Reporting Basis: WET Date Received: 03/02/2022 09:10

| 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 | 2.9 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 67 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 230 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0079-8 Lab Sample ID: 280-159234-4

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 09:10

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 5.1 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0075-8 Lab Sample ID: 280-159234-5

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 10:20

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.047 | 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 | 6.5 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 170 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 280 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0075-8 Lab Sample ID: 280-159234-5

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 10:20

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.0 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0076-8 Lab Sample ID: 280-159234-6

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 11:30

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.3 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 2.5 | 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 | 310 | 25 | 13 | 5.2 | mg/L | | D J1 | 5 | 9056A |
| Total Alkalinity as CaCO3 | 390 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0076-8 Lab Sample ID: 280-159234-6

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 11:30

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.6 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0070-8 Lab Sample ID: 280-159234-7

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 12:35

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.029 | 0.10 | 0.050 | 0.022 | mg/L | J | J1 | 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 | 0.050 | 0.10 | 0.050 | 0.019 | mg/L | U | | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 48 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 220 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0070-8 Lab Sample ID: 280-159234-7

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 12:35

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 1.4 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0080-8 | Lab Sample ID: 280-159234-8

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG ID.:

Matrix: Water | Date Sampled: 03/01/2022 09:30

Reporting Basis: WET | Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.0 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.6 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 4.9 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 98 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 380 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0080-8 Lab Sample ID: 280-159234-8

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 09:30

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.4 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0087-8 Lab Sample ID: 280-159234-9

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 10:40

Reporting Basis: WET Date Received: 03/02/2022 09:10

| 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 | 6.8 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 130 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 290 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0087-8 Lab Sample ID: 280-159234-9

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 10:40

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.3 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0086-8 Lab Sample ID: 280-159234-10

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 11:50

Reporting Basis: WET Date Received: 03/02/2022 09:10

| 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 | 5.1 | 0.10 | 0.050 | 0.019 | mg/L | | | 1 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 170 | 5.0 | 2.5 | 1.0 | mg/L | | M | 1 | 9056A |
| Total Alkalinity as CaCO3 | 310 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0086-8 Lab Sample ID: 280-159234-10

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG ID.:

Matrix: Water Date Sampled: 03/01/2022 11:50

Reporting Basis: WET Date Received: 03/02/2022 09:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.2 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: MMP  Batch Start Date: 03/17/2022

Reporting Units: mg/L  Analytical Batch No.: 568955

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 14 | ICVL | 10:40 | Ammonia | 0.494 | 0.501 | 99 | 90-110 | | 350.1 ICV_00509 |
| 15 | ICV | 10:42 | Ammonia | 2.54 | 2.51 | 102 | 90-110 | | 350.1 ICV_00509 |
| 16 | ICB | 10:44 | Ammonia | 0.050 | | | | U | |
| 34 | CCV | 11:20 | Ammonia | 2.64 | 2.50 | 105 | 90-110 | | 350.1 cal_00525 |
| 35 | CCB | 11:22 | Ammonia | 0.050 | | | | U | |
| 49 | CCVL | 11:51 | Ammonia | 0.532 | 0.500 | 106 | 90-110 | | 350.1 cal_00525 |
| 50 | CCV | 11:53 | Ammonia | 2.64 | 2.50 | 106 | 90-110 | | 350.1 cal_00525 |
| 51 | CCB | 11:55 | Ammonia | 0.050 | | | | U | |
| 65 | CCVL | 12:23 | Ammonia | 0.535 | 0.500 | 107 | 90-110 | | 350.1 cal_00525 |
| 66 | CCV | 12:25 | Ammonia | 2.68 | 2.50 | 107 | 90-110 | | 350.1 cal_00525 |
| 67 | CCB | 12:27 | Ammonia | 0.050 | | | | U | |
| 80 | CCVL | 12:53 | Ammonia | 0.536 | 0.500 | 107 | 90-110 | | 350.1 cal_00525 |
| 81 | CCV | 12:55 | Ammonia | 2.66 | 2.50 | 107 | 90-110 | | 350.1 cal_00525 |
| 82 | CCB | 12:57 | Ammonia | 0.050 | | | | U | |
| 92 | CCVL | 13:21 | Ammonia | 0.532 | 0.500 | 106 | 90-110 | | 350.1 cal_00525 |
| 93 | CCV | 13:23 | Ammonia | 2.62 | 2.50 | 105 | 90-110 | | 350.1 cal_00525 |
| 94 | CCB | 13:25 | Ammonia | 0.050 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: SVC  Batch Start Date: 03/09/2022

Reporting Units: mg/L  Analytical Batch No.: 568207

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 7 | ICV | 17:48 | Nitrogen, Total Kjeldahl | 5.28 | 5.00 | 106 | 90-110 | | TKN ICV 25_00115 |
| 8 | ICB | 17:48 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 33 | CCV | 17:59 | Nitrogen, Total Kjeldahl | 5.41 | 5.00 | 108 | 90-110 | | TKN 25ppm_00829 |
| 34 | CCB | 17:59 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 45 | CCV | 18:05 | Nitrogen, Total Kjeldahl | 5.39 | 5.00 | 108 | 90-110 | | TKN 25ppm_00829 |
| 46 | CCB | 18:05 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: SVC  Batch Start Date: 03/13/2022

Reporting Units: mg/L  Analytical Batch No.: 568508

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 17 | ICV | 17:07 | Nitrate Nitrite as N | 5.17 | 5.00 | 103 | 90-110 | | NXN ICV INT_00590 |
| 18 | ICVL | 17:09 | Nitrate Nitrite as N | 2.13 | 2.00 | 106 | 90-110 | | NXN ICV INT_00590 |
| 19 | ICB | 17:11 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 51 | CCV | 18:15 | Nitrate Nitrite as N | 5.00 | 5.00 | 100 | 90-110 | | NXN CAL INT_00614 |
| 53 | CCB | 18:19 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 67 | CCV | 18:47 | Nitrate Nitrite as N | 4.95 | 5.00 | 99 | 90-110 | | NXN CAL INT_00614 |
| 68 | CCVL | 18:49 | Nitrate Nitrite as N | 1.05 | 1.00 | 105 | 90-110 | | NXN CAL INT_00614 |
| 69 | CCB | 18:51 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 83 | CCV | 19:19 | Nitrate Nitrite as N | 4.93 | 5.00 | 99 | 90-110 | | NXN CAL INT_00614 |
| 84 | CCVL | 19:21 | Nitrate Nitrite as N | 1.04 | 1.00 | 104 | 90-110 | | NXN CAL INT_00614 |
| 85 | CCB | 19:23 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 99 | CCV | 19:51 | Nitrate Nitrite as N | 4.92 | 5.00 | 98 | 90-110 | | NXN CAL INT_00614 |
| 100 | CCVL | 19:53 | Nitrate Nitrite as N | 1.04 | 1.00 | 104 | 90-110 | | NXN CAL INT_00614 |
| 101 | CCB | 19:55 | Nitrate Nitrite as N | 0.050 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: RAF  Batch Start Date: 02/28/2022

Reporting Units: mg/L  Analytical Batch No.: 567263

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 8 | ICB | 19:47 | Sulfate | 2.5 | | | | U | |
| 9 | ICV | 20:02 | Sulfate | 87.3 | 80.0 | 109 | 90-110 | | IC SO4 ICV_00022 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: CJ  Batch Start Date: 03/16/2022

Reporting Units: mg/L  Analytical Batch No.: 568842

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 8 | ICV | 15:49 | Sulfate | 85.4 | 80.0 | 107 | 90-110 | | IC SO4 ICV_00022 |
| 9 | ICB | 16:04 | Sulfate | 2.5 | | | | U | |
| 24 | CCV | 19:49 | Sulfate | 98.5 | 100 | 99 | 90-110 | | IC LCS_01863 |
| 25 | CCB | 20:05 | Sulfate | 2.5 | | | | U | |
| 36 | CCV | 22:50 | Sulfate | 98.6 | 100 | 99 | 90-110 | | IC LCS_01863 |
| 37 | CCB | 23:05 | Sulfate | 2.5 | | | | U | |
| 46 | CCV | 01:20 | Sulfate | 98.8 | 100 | 99 | 90-110 | | IC LCS_01863 |
| 47 | CCB | 01:35 | Sulfate | 2.5 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: CJ  Batch Start Date: 03/17/2022

Reporting Units: mg/L  Analytical Batch No.: 568944

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 1 | CCV | 13:48 | Sulfate | 99.6 | 100 | 100 | 90-110 | | IC LCS_01863 |
| 2 | CCB | 14:03 | Sulfate | 2.5 | | | | U | |
| 17 | CCV | 17:48 | Sulfate | 99.5 | 100 | 100 | 90-110 | | IC LCS_01863 |
| 18 | CCB | 18:03 | Sulfate | 2.5 | | | | U | |
| 29 | CCV | 20:48 | Sulfate | 101 | 100 | 101 | 90-110 | | IC LCS_01863 |
| 30 | CCB | 21:03 | Sulfate | 2.5 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: ABW  Batch Start Date: 03/14/2022

Reporting Units: mg/L  Analytical Batch No.: 568667

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 2 | ICV | 17:02 | Dissolved Organic Carbon - Quad | 20.3 | 20.0 | 101 | 90-110 | | TOC ICV Std_00049 |
| 3 | ICB | 17:16 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 16 | CCV | 20:57 | Dissolved Organic Carbon - Quad | 24.4 | 25.0 | 97 | 90-110 | | TOC LCS Std_00053 |
| 17 | CCB | 21:14 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 28 | CCV | 00:32 | Dissolved Organic Carbon - Quad | 25.2 | 25.0 | 101 | 90-110 | | TOC LCS Std_00053 |
| 29 | CCB | 00:47 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 40 | CCV | 03:54 | Dissolved Organic Carbon - Quad | 25.3 | 25.0 | 101 | 90-110 | | TOC LCS Std_00053 |
| 41 | CCB | 04:08 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 44 | CCV | 04:51 | Dissolved Organic Carbon - Quad | 25.5 | 25.0 | 102 | 90-110 | | TOC LCS Std_00053 |
| 45 | CCB | 05:07 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Analyst: KEG  Batch Start Date: 03/03/2022

Reporting Units: mg/L  Analytical Batch No.: 567719

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 17 | CCV | 13:07 | Total Alkalinity as CaCO3 | 197 | 200 | 98 | 90-110 | | Alk daily lcs 01027 |
| 18 | CCB | 13:13 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 29 | CCV | 15:30 | Total Alkalinity as CaCO3 | 197 | 200 | 99 | 90-110 | | Alk daily lcs 01027 |
| 30 | CCB | 15:36 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 43 | CCV | 17:38 | Total Alkalinity as CaCO3 | 200 | 200 | 100 | 90-110 | | Alk daily lcs 01027 |
| 44 | CCB | 17:43 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 55 | CCV | 20:04 | Total Alkalinity as CaCO3 | 202 | 200 | 101 | 90-110 | | Alk daily lcs 01027 |
| 56 | CCB | 20:09 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 69 | CCV | 21:49 | Total Alkalinity as CaCO3 | 204 | 200 | 102 | 90-110 | | Alk daily lcs 01027 |
| 70 | CCB | 21:54 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 81 | CCV | 23:15 | Total Alkalinity as CaCO3 | 204 | 200 | 102 | 90-110 | | Alk daily lcs 01027 |
| 82 | CCB | 23:21 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

| Method | Lab Sample ID | Analyte | Result | Qual | Units | LOQ | Dil |
|---|---|---|---|---|---|---|---|
| Batch ID: 568955 Date: 03/17/2022 10:52 | | | | | | | |
| 350.1 | MB 280-568955/20 | Ammonia | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 568955 Date: 03/17/2022 12:11 | | | | | | | |
| 350.1 | MB 280-568955/59 | Ammonia | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 568207 Date: 03/09/2022 17:56 Prep Batch: 567922 Date: 03/07/2022 16:01 | | | | | | | |
| 351.2 | MB 280-567922/2-A | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 1.0 | 1 |
| Batch ID: 568508 Date: 03/13/2022 18:33 | | | | | | | |
| 353.2 | MB 280-568508/60 | Nitrate Nitrite as N | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 567799 Date: 03/05/2022 13:13 Prep Batch: 567789 Date: 03/05/2022 09:11 | | | | | | | |
| 9034 | MB 280-567789/3-A | Sulfide | 1.9 | U | mg/L | 4.0 | 1 |
| Batch ID: 567935 Date: 03/07/2022 18:33 Prep Batch: 567934 Date: 03/07/2022 18:33 | | | | | | | |
| 9034 | MB 280-567934/2-A | Sulfide | 1.9 | U | mg/L | 4.0 | 1 |
| Batch ID: 568064 Date: 03/08/2022 16:59 Prep Batch: 568018 Date: 03/08/2022 12:04 | | | | | | | |
| 9034 | MB 280-568018/2-A | Sulfide | 0.800 | J | mg/L | 4.0 | 1 |
| Batch ID: 568842 Date: 03/16/2022 17:04 | | | | | | | |
| 9056A | MB 280-568842/13 | Sulfate | 2.5 | U | mg/L | 5.0 | 1 |
| Batch ID: 568944 Date: 03/17/2022 15:03 | | | | | | | |
| 9056A | MB 280-568944/6 | Sulfate | 2.5 | U M | mg/L | 5.0 | 1 |
| Batch ID: 568667 Date: 03/14/2022 17:47 | | | | | | | |
| 9060A | MB 280-568667/5 | Dissolved Organic Carbon - Quad | 0.80 | U | mg/L | 1.0 | 1 |
| Batch ID: 568667 Date: 03/14/2022 18:34 | | | | | | | |
| 9060A | MB 280-568571/2-A | Dissolved Organic Carbon - Quad | 0.80 | U | mg/L | 1.0 | 1 |
| Batch ID: 567719 Date: 03/03/2022 11:48 | | | | | | | |
| SM 2320B | MB 280-567719/6 | Total Alkalinity as CaCO3 | 6.4 | U | mg/L | 10 | 1 |
| Batch ID: 567719 Date: 03/03/2022 15:48 | | | | | | | |
| SM 2320B | MB 280-567719/32 | Total Alkalinity as CaCO3 | 6.4 | U | mg/L | 10 | 1 |
| Batch ID: 567719 Date: 03/03/2022 20:23 | | | | | | | |
| SM 2320B | MB 280-567719/58 | Total Alkalinity as CaCO3 | 6.4 | U | mg/L | 10 | 1 |

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 568955 Date: 03/17/2022 12:15 | | | | | | | | | | | |
| 350.1 | 280-159234-7 | Ammonia | 0.029 | J | mg/L | | | | | | J1 |
| 350.1 | 280-159234-7 MS | Ammonia | 1.16 | | mg/L | 1.00 | 113 | 90-110 | | | J1 |
| Batch ID: 568955 Date: 03/17/2022 13:07 | | | | | | | | | | | |
| 350.1 | 280-159234-6 | Ammonia | 2.3 | | mg/L | | | | | | |
| 350.1 | 280-159234-6 MS | Ammonia | 3.32 | | mg/L | 1.00 | 105 | 90-110 | | | |
| Batch ID: 568207 Date: 03/09/2022 18:02 Prep Batch: 567922 Date: 03/07/2022 16:01 | | | | | | | | | | | |
| 351.2 | 280-159234-7 | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | | | | | | J1 |
| 351.2 | 280-159234-7 MS | Nitrogen, Total Kjeldahl | 3.58 | | mg/L | 3.00 | 119 | 90-110 | | | J1 |
| Batch ID: 568508 Date: 03/13/2022 19:13 | | | | | | | | | | | |
| 353.2 | 280-159234-7 | Nitrate Nitrite as N | 0.050 | U | mg/L | | | | | | |
| 353.2 | 280-159234-7 MS | Nitrate Nitrite as N | 4.12 | | mg/L | 4.00 | 103 | 90-110 | | | |
| Batch ID: 568064 Date: 03/08/2022 16:59 Prep Batch: 568018 Date: 03/08/2022 13:04 | | | | | | | | | | | |
| 9034 | 280-159234-7 | Sulfide | 1.9 | U | mg/L | | | | | | |
| 9034 | 280-159234-7 MS | Sulfide | 16.4 | | mg/L | 23.6 | 69 | 44-110 | | | |
| Batch ID: 568842 Date: 03/16/2022 22:20 | | | | | | | | | | | |
| 9056A | 280-159234-7 | Sulfate | 48 | | mg/L | | | | | | M |
| 9056A | 280-159234-7 MS | Sulfate | 101 | | mg/L | 50.0 | 105 | 87-112 | | | M |
| Batch ID: 568944 Date: 03/17/2022 20:18 | | | | | | | | | | | |
| 9056A | 280-159234-6 | Sulfate | 310 | | mg/L | | | | | | D J1 |
| 9056A | 280-159234-6 MS | Sulfate | 594 | | mg/L | 250 | 112 | 87-112 | | | D |
| Batch ID: 568667 Date: 03/14/2022 21:43 | | | | | | | | | | | |
| 9060A | 280-159234-7 | Dissolved Organic Carbon - Quad | 1.4 | | mg/L | | | | | | |
| 9060A | 280-159234-7 MS | Dissolved Organic Carbon - Quad | 25.2 | | mg/L | 25.0 | 95 | 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 Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 568955 Date: 03/17/2022 12:17 | | | | | | | | | | | |
| 350.1 | 280-159234-7 MSD | Ammonia | 1.15 | | mg/L | 1.00 | 112 | 90-110 | 1 | 10 | J1 |
| Batch ID: 568955 Date: 03/17/2022 13:09 | | | | | | | | | | | |
| 350.1 | 280-159234-6 MSD | Ammonia | 3.33 | | mg/L | 1.00 | 106 | 90-110 | 0 | 10 | |
| Batch ID: 568207 Date: 03/09/2022 18:03 | | | Prep Batch: 567922 | | | Date: 03/07/2022 16:01 | | | | | |
| 351.2 | 280-159234-7 MSD | Nitrogen, Total Kjeldahl | 3.59 | | mg/L | 3.00 | 120 | 90-110 | 0 | 25 | J1 |
| Batch ID: 568508 Date: 03/13/2022 19:27 | | | | | | | | | | | |
| 353.2 | 280-159234-7 MSD | Nitrate Nitrite as N | 4.09 | | mg/L | 4.00 | 102 | 90-110 | 1 | 10 | |
| Batch ID: 568064 Date: 03/08/2022 16:59 | | | Prep Batch: 568018 | | | Date: 03/08/2022 13:04 | | | | | |
| 9034 | 280-159234-7 MSD | Sulfide | 19.2 | | mg/L | 23.6 | 81 | 44-110 | 16 | 20 | |
| Batch ID: 568842 Date: 03/16/2022 22:35 | | | | | | | | | | | |
| 9056A | 280-159234-7 MSD | Sulfate | 97.8 | | mg/L | 50.0 | 100 | 87-112 | 3 | 10 | M |
| Batch ID: 568944 Date: 03/17/2022 20:33 | | | | | | | | | | | |
| 9056A | 280-159234-6 MSD | Sulfate | 597 | | mg/L | 250 | 113 | 87-112 | 0 | 10 | D J1 |
| Batch ID: 568667 Date: 03/14/2022 21:57 | | | | | | | | | | | |
| 9060A | 280-159234-7 MSD | Dissolved Organic Carbon - Quad | 25.9 | | mg/L | 25.0 | 98 | 88-112 | 3 | 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 Denver Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Client Sample ID | Lab Sample ID | Analyte | Result | Unit | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|
| Batch ID: 568842 | Date: 03/16/2022 22:05 | | | | | | | |
| 9056A | G0070-8 | 280-159234-7 | Sulfate | 48 | mg/L | | | |
| 9056A | G0070-8 | 280-159234-7 DU | Sulfate | 47.9 | mg/L | 0.07 | 10 | M |
| Batch ID: 568944 | Date: 03/17/2022 20:03 | | | | | | | |
| 9056A | G0076-8 | 280-159234-6 | Sulfate | 310 | mg/L | | | |
| 9056A | G0076-8 | 280-159234-6 DU | Sulfate | 306 | mg/L | 3 | 10 | D |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 568955 | Date: 03/17/2022 12:07 | | | | | | | | | | |
| | | | | | | LCS Source: 350.1 cal_00525 | | | | | |
| 350.1 | LCS 280-568955/57 | Ammonia | 2.68 | | mg/L | 2.50 | 107 | 90-110 | 0 | 10 | |
| Batch ID: 568207 | Date: 03/09/2022 17:56 | Prep Batch: 567922 | Date: 03/07/2022 16:01 | | | | | | | | |
| | | | | | | LCS Source: TKN 25ppm_00829 | | | | | |
| 351.2 | LCS 280-567922/1-A | Nitrogen, Total Kjeldahl | 5.81 | | mg/L | 6.00 | 97 | 90-110 | | | |
| Batch ID: 568508 | Date: 03/13/2022 18:31 | | | | | | | | | | |
| | | | | | | LCS Source: NXN CAL INT_00614 | | | | | |
| 353.2 | LCS 280-568508/59 | Nitrate Nitrite as N | 4.96 | | mg/L | 5.00 | 99 | 90-110 | | | |
| Batch ID: 567799 | Date: 03/05/2022 13:13 | Prep Batch: 567789 | Date: 03/05/2022 09:11 | | | | | | | | |
| | | | | | | LCS Source: SFD CAL INT_02142 | | | | | |
| 9034 | LCS 280-567789/1-A | Sulfide | 18.4 | | mg/L | 22.2 | 83 | 44-110 | 9 | 20 | |
| Batch ID: 567935 | Date: 03/07/2022 18:33 | Prep Batch: 567934 | Date: 03/07/2022 18:33 | | | | | | | | |
| | | | | | | LCS Source: SFD ICV INT_02090 | | | | | |
| 9034 | LCS 280-567934/1-A | Sulfide | 20.0 | | mg/L | 23.6 | 85 | 44-110 | | | |
| Batch ID: 568064 | Date: 03/08/2022 16:59 | Prep Batch: 568018 | Date: 03/08/2022 12:04 | | | | | | | | |
| | | | | | | LCS Source: SFD ICV INT_02091 | | | | | |
| 9034 | LCS 280-568018/1-A | Sulfide | 16.8 | | mg/L | 23.6 | 71 | 44-110 | | | |
| Batch ID: 568842 | Date: 03/16/2022 16:34 | | | | | | | | | | |
| | | | | | | LCS Source: IC LCS_01863 | | | | | |
| 9056A | LCS 280-568842/11 | Sulfate | 101 | | mg/L | 100 | 101 | 87-112 | 1 | 10 | |
| Batch ID: 568944 | Date: 03/17/2022 14:33 | | | | | | | | | | |
| | | | | | | LCS Source: IC LCS_01863 | | | | | |
| 9056A | LCS 280-568944/4 | Sulfate | 99.9 | | mg/L | 100 | 100 | 87-112 | 0 | 10 | M |
| Batch ID: 568667 | Date: 03/14/2022 17:33 | | | | | | | | | | |
| | | | | | | LCS Source: TOC LCS Std_00053 | | | | | |
| 9060A | LCS 280-568667/4 | Dissolved Organic Carbon - Quad | 24.8 | | mg/L | 25.0 | 99 | 88-112 | | | |
| Batch ID: 568667 | Date: 03/14/2022 18:20 | | | | | | | | | | |
| | | | | | | LCS Source: TOC LCS Std_00053 | | | | | |
| 9060A | LCS 280-568571/1-A | Dissolved Organic Carbon - Quad | 25.7 | | mg/L | 25.0 | 103 | 88-112 | | | |
| Batch ID: 567719 | Date: 03/03/2022 20:17 | | | | | | | | | | |
| | | | | | | LCS Source: Alk daily lcs_01027 | | | | | |
| SM 2320B | LCS 280-567719/57 | Total Alkalinity as CaCO3 | 206 | | mg/L | 200 | 103 | 89-109 | | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 568955 | Date: 03/17/2022 12:09 | | | | | | | | | | |
| | | | | | | LCSD Source: 350.1 cal_00525 | | | | | |
| 350.1 | LCSD 280-568955/58 | Ammonia | 2.69 | | mg/L | 2.50 | 107 | 90-110 | 0 | 10 | |
| Batch ID: 567799 | Date: 03/05/2022 13:13 | Prep Batch: 567789 | Date: 03/05/2022 09:11 | | | | | | | | |
| | | | | | | LCSD Source: SFD CAL INT_02142 | | | | | |
| 9034 | LCSD 280-567789/2-A | Sulfide | 16.8 | | mg/L | 22.2 | 76 | 44-110 | 9 | 20 | |
| Batch ID: 568842 | Date: 03/16/2022 16:49 | | | | | | | | | | |
| | | | | | | LCSD Source: IC LCS_01863 | | | | | |
| 9056A | LCSD 280-568842/12 | Sulfate | 100 | | mg/L | 100 | 100 | 87-112 | 1 | 10 | |
| Batch ID: 568944 | Date: 03/17/2022 14:48 | | | | | | | | | | |
| | | | | | | LCSD Source: IC LCS_01863 | | | | | |
| 9056A | LCSD 280-568944/5 | Sulfate | 99.7 | | mg/L | 100 | 100 | 87-112 | 0 | 10 | M |
| Batch ID: 567719 | Date: 03/03/2022 11:42 | | | | | | | | | | |
| | | | | | | LCSD Source: Alk daily lcs_01027 | | | | | |
| SM 2320B | LCSD 280-567719/5 | Total Alkalinity as CaCO3 | 196 | | mg/L | 200 | 98 | 89-109 | 0 | 10 | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 568842 | Date: 03/16/2022 16:19 | | | | | | | | | | |
| | | | | | | LCS Source: IC CAL cl/so4_00411 | | | | | |
| 9056A | MRL 280-568842/10 | Sulfate | 4.85 | J | mg/L | 5.00 | 97 | 50-150 | | | |
| Batch ID: 568944 | Date: 03/17/2022 14:18 | | | | | | | | | | |
| | | | | | | LCS Source: IC CAL cl/so4_00411 | | | | | |
| 9056A | MRL 280-568944/3 | Sulfate | 4.55 | J | mg/L | 5.00 | 91 | 50-150 | | | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 4

Method: 350.1 DL Date: 03/28/2011 13:26

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Ammonia | | 0.1 | 0.022 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 4

Method: 350.1 XMDL Date: 03/28/2011 13:26

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Ammonia | | 0.1 | 0.0225 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job Number: 280-159234-1

SDG Number:

Matrix: Water  Instrument ID: WC_GAL1

Method: 351.2  DL Date: 02/03/2019 00:00

Prep Method: 351.2

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Nitrogen, Total Kjeldahl | | 1 | 0.687 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_GAL1

Method: 351.2 XMDL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Nitrogen, Total Kjeldahl | | 1 | 0.687 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 DL Date: 12/16/2011 09:50

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Nitrate Nitrite as N | | 0.1 | 0.019 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 XMDL Date: 05/16/2011 11:21

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Nitrate Nitrite as N | | 0.1 | 0.0191 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job Number: 280-159234-1

SDG Number:

Matrix: Water  Instrument ID: NOEQUIP

Method: 9034  DL Date: 03/28/2011 13:37

Prep Method: 9030B

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job Number: 280-159234-1

SDG Number:

Matrix: Water  Instrument ID: WC_IonChrom10

Method: 9056A  DL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Sulfate | | 5 | 1.03 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056A XMDL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Sulfate | | 5 | 1.03 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom13

Method: 9056A DL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Sulfate | | 5 | 1.03 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom13

Method: 9056A XMDL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Sulfate | | 5 | 1.03 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver  Job Number: 280-159234-1

SDG Number:

Matrix: Water  Instrument ID: WC_SHI5

Method: 9060A  DL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI5

Method: 9060A XMDL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B DL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Total Alkalinity as CaCO3 | | 10 | 3.08 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159234-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B XMDL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Total Alkalinity as CaCO3 | | 10 | 3.08 |

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Prep Method: 351.2

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-567922/1-A | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| MB 280-567922/2-A | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-1 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-2 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-3 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-4 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-5 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-6 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-8 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-9 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-10 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-7 | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-7 MS | 03/07/2022 16:01 | 567922 | | 25 | 25 |
| 280-159234-7 MSD | 03/07/2022 16:01 | 567922 | | 25 | 25 |

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-567789/1-A | 03/05/2022 09:11 | 567789 | | 50 | 50 |
| LCSD 280-567789/2-A | 03/05/2022 09:11 | 567789 | | 50 | 50 |
| MB 280-567789/3-A | 03/05/2022 09:11 | 567789 | | 50 | 50 |
| 280-159234-3 | 03/05/2022 09:11 | 567789 | | 50 | 50 |
| 280-159234-2 | 03/05/2022 09:11 | 567789 | | 50 | 50 |
| 280-159234-1 | 03/05/2022 09:11 | 567789 | | 50 | 50 |

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-567934/1-A | 03/07/2022 18:33 | 567934 | | 50 | 50 |
| MB 280-567934/2-A | 03/07/2022 18:33 | 567934 | | 50 | 50 |
| 280-159234-4 | 03/07/2022 18:33 | 567934 | | 50 | 50 |
| 280-159234-5 | 03/07/2022 18:33 | 567934 | | 50 | 50 |

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-568018/1-A | 03/08/2022 12:04 | 568018 | | 50 | 50 |
| MB 280-568018/2-A | 03/08/2022 12:04 | 568018 | | 50 | 50 |
| 280-159234-7 | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-7 MS | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-7 MSD | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-6 | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-8 | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-9 | 03/08/2022 13:04 | 568018 | | 50 | 50 |
| 280-159234-10 | 03/08/2022 13:04 | 568018 | | 50 | 50 |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 03/17/2022 10:14  End Date: 03/17/2022 13:27

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | NH3 |
| ZZZZZZ | | | 10:14 | |
| ZZZZZZ | | | 10:16 | |
| ZZZZZZ | | | 10:18 | |
| IC 280-568955/4 | | | 10:20 | X |
| IC 280-568955/5 | | | 10:22 | X |
| IC 280-568955/6 | | | 10:24 | X |
| IC 280-568955/7 | | | 10:26 | X |
| IC 280-568955/8 | | | 10:28 | X |
| IC 280-568955/9 | | | 10:30 | X |
| IC 280-568955/10 | | | 10:32 | X |
| IC 280-568955/11 | | | 10:34 | X |
| ZZZZZZ | | | 10:36 | |
| ZZZZZZ | | | 10:38 | |
| ICVL 280-568955/14 | 1 | | 10:40 | X |
| ICV 280-568955/15 | 1 | | 10:42 | X |
| ICB 280-568955/16 | 1 | | 10:44 | X |
| ZZZZZZ | | | 10:46 | |
| ZZZZZZ | | | 10:48 | |
| ZZZZZZ | | | 10:50 | |
| MB 280-568955/20 | 1 | T | 10:52 | X |
| ZZZZZZ | | | 10:54 | |
| ZZZZZZ | | | 10:56 | |
| ZZZZZZ | | | 10:58 | |
| ZZZZZZ | | | 11:00 | |
| ZZZZZZ | | | 11:02 | |
| ZZZZZZ | | | 11:04 | |
| ZZZZZZ | | | 11:06 | |
| ZZZZZZ | | | 11:08 | |
| ZZZZZZ | | | 11:10 | |
| ZZZZZZ | | | 11:12 | |
| ZZZZZZ | | | 11:14 | |
| ZZZZZZ | | | 11:16 | |
| CCVL 280-568955/33 | | | 11:18 | |
| CCV 280-568955/34 | 1 | | 11:20 | X |
| CCB 280-568955/35 | 1 | | 11:22 | X |
| ZZZZZZ | | | 11:25 | |
| ZZZZZZ | | | 11:27 | |
| ZZZZZZ | | | 11:29 | |
| ZZZZZZ | | | 11:31 | |
| ZZZZZZ | | | 11:33 | |
| ZZZZZZ | | | 11:35 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 03/17/2022 10:14  End Date: 03/17/2022 13:27

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | NH3 |
| ZZZZZZ | | | 11:37 | |
| ZZZZZZ | | | 11:39 | |
| ZZZZZZ | | | 11:41 | |
| ZZZZZZ | | | 11:43 | |
| ZZZZZZ | | | 11:45 | |
| ZZZZZZ | | | 11:47 | |
| ZZZZZZ | | | 11:49 | |
| CCVL 280-568955/49 | 1 | | 11:51 | X |
| CCV 280-568955/50 | 1 | | 11:53 | X |
| CCB 280-568955/51 | 1 | | 11:55 | X |
| ZZZZZZ | | | 11:57 | |
| ZZZZZZ | | | 11:59 | |
| ZZZZZZ | | | 12:01 | |
| ZZZZZZ | | | 12:03 | |
| ZZZZZZ | | | 12:05 | |
| LCS 280-568955/57 | 1 | T | 12:07 | X |
| LCSD 280-568955/58 | 1 | T | 12:09 | X |
| MB 280-568955/59 | 1 | T | 12:11 | X |
| 280-159234-7 | 1 | T | 12:13 | X |
| 280-159234-7 MS | 1 | T | 12:15 | X |
| 280-159234-7 MSD | 1 | T | 12:17 | X |
| ZZZZZZ | | | 12:19 | |
| ZZZZZZ | | | 12:21 | |
| CCVL 280-568955/65 | 1 | | 12:23 | X |
| CCV 280-568955/66 | 1 | | 12:25 | X |
| CCB 280-568955/67 | 1 | | 12:27 | X |
| ZZZZZZ | | | 12:29 | |
| ZZZZZZ | | | 12:31 | |
| ZZZZZZ | | | 12:33 | |
| ZZZZZZ | | | 12:35 | |
| ZZZZZZ | | | 12:37 | |
| 280-159234-1 | 1 | T | 12:39 | X |
| 280-159234-2 | 1 | T | 12:41 | X |
| 280-159234-3 | 1 | T | 12:43 | X |
| 280-159234-4 | 1 | T | 12:45 | X |
| 280-159234-5 | 1 | T | 12:47 | X |
| ZZZZZZ | | | 12:49 | |
| ZZZZZZ | | | 12:51 | |
| CCVL 280-568955/80 | 1 | | 12:53 | X |
| CCV 280-568955/81 | 1 | | 12:55 | X |
| CCB 280-568955/82 | 1 | | 12:57 | X |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 03/17/2022 10:14  End Date: 03/17/2022 13:27

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 | 1 | T | 13:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 MS | 1 | T | 13:07 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 MSD | 1 | T | 13:09 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-8 | 1 | T | 13:11 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-9 | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 13:15 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-568955/92 | 1 | | 13:21 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568955/93 | 1 | | 13:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568955/94 | 1 | | 13:25 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:27 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_GAL1  Analysis Method: 351.2

Start Date: 02/22/2022 16:21  End Date: 03/09/2022 18:38

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/15-A | | | 16:21 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/16-A | | | 16:22 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/17-A | | | 16:22 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/18-A | | | 16:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/19-A | | | 16:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-566632/20-A | | | 16:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-566632/21-A | 1 | | 17:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-566632/22-A | 1 | | 17:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:51 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:51 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:52 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:52 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-566632/23-A | | | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-566632/24-A | | | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-567922/1-A | 1 | T | 17:56 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567922/2-A | 1 | T | 17:56 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:57 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-1 | 1 | T | 17:57 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-2 | 1 | T | 17:57 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-3 | 1 | T | 17:58 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-566632/23-A | 1 | | 17:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-566632/24-A | 1 | | 17:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-4 | 1 | T | 18:00 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-5 | 1 | T | 18:00 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 | 1 | T | 18:01 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-8 | 1 | T | 18:01 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-9 | 1 | T | 18:01 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 18:01 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 | 1 | T | 18:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_GAL1  Analysis Method: 351.2

Start Date: 02/22/2022 16:21  End Date: 03/09/2022 18:38

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MS | 1 | T | 18:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MSD | 1 | T | 18:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-566632/23-A | 1 | | 18:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-566632/24-A | 1 | | 18:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:06 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:06 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:08 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-566632/23-A | | | 18:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-566632/24-A | | | 18:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-566632/23-A | | | 18:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-566632/24-A | | | 18:38 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 03/13/2022 16:35  End Date: 03/13/2022 19:57

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | NNO32 |
| ZZZZZZ | | | 16:35 | |
| ZZZZZZ | | | 16:37 | |
| ZZZZZZ | | | 16:39 | |
| ZZZZZZ | | | 16:41 | |
| IC 280-568508/5 | | | 16:43 | X |
| IC 280-568508/6 | | | 16:45 | X |
| IC 280-568508/7 | | | 16:47 | X |
| IC 280-568508/8 | | | 16:49 | X |
| IC 280-568508/9 | | | 16:51 | X |
| IC 280-568508/10 | | | 16:53 | X |
| IC 280-568508/11 | | | 16:55 | X |
| IC 280-568508/12 | | | 16:57 | X |
| IC 280-568508/13 | | | 16:59 | X |
| ZZZZZZ | | | 17:01 | |
| ZZZZZZ | | | 17:03 | |
| ZZZZZZ | | | 17:05 | |
| ICV 280-568508/17 | 1 | | 17:07 | X |
| ICVL 280-568508/18 | 1 | | 17:09 | X |
| ICB 280-568508/19 | 1 | | 17:11 | X |
| ZZZZZZ | | | 17:13 | |
| ZZZZZZ | | | 17:15 | |
| ZZZZZZ | | | 17:17 | |
| ZZZZZZ | | | 17:19 | |
| ZZZZZZ | | | 17:21 | |
| ZZZZZZ | | | 17:23 | |
| ZZZZZZ | | | 17:25 | |
| ZZZZZZ | | | 17:27 | |
| ZZZZZZ | | | 17:29 | |
| ZZZZZZ | | | 17:31 | |
| ZZZZZZ | | | 17:33 | |
| ZZZZZZ | | | 17:35 | |
| ZZZZZZ | | | 17:37 | |
| RINSE 280-568508/33 | | | 17:39 | |
| ZZZZZZ | | | 17:41 | |
| CCV 280-568508/35 | | | 17:43 | |
| CCVL 280-568508/36 | | | 17:45 | |
| CCB 280-568508/37 | | | 17:47 | |
| ZZZZZZ | | | 17:49 | |
| ZZZZZZ | | | 17:51 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 2 | Analysis Method: 353.2

Start Date: 03/13/2022 16:35 | End Date: 03/13/2022 19:57

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | NNO32 |
| ZZZZZZ | | | 17:53 | |
| ZZZZZZ | | | 17:55 | |
| ZZZZZZ | | | 17:57 | |
| ZZZZZZ | | | 17:59 | |
| ZZZZZZ | | | 18:01 | |
| ZZZZZZ | | | 18:03 | |
| ZZZZZZ | | | 18:05 | |
| ZZZZZZ | | | 18:07 | |
| ZZZZZZ | | | 18:09 | |
| RINSE 280-568508/49 | | | 18:11 | |
| ZZZZZZ | | | 18:13 | |
| CCV 280-568508/51 | 1 | | 18:15 | X |
| CCVL 280-568508/52 | | | 18:17 | |
| CCB 280-568508/53 | 1 | | 18:19 | X |
| ZZZZZZ | | | 18:21 | |
| ZZZZZZ | | | 18:23 | |
| ZZZZZZ | | | 18:25 | |
| ZZZZZZ | | | 18:27 | |
| ZZZZZZ | | | 18:29 | |
| LCS 280-568508/59 | 1 | T | 18:31 | X |
| MB 280-568508/60 | 1 | T | 18:33 | X |
| ZZZZZZ | | | 18:35 | |
| ZZZZZZ | | | 18:37 | |
| ZZZZZZ | | | 18:39 | |
| ZZZZZZ | | | 18:41 | |
| RINSE 280-568508/65 | | | 18:43 | |
| ZZZZZZ | | | 18:45 | |
| CCV 280-568508/67 | 1 | | 18:47 | X |
| CCVL 280-568508/68 | 1 | | 18:49 | X |
| CCB 280-568508/69 | 1 | | 18:51 | X |
| ZZZZZZ | | | 18:53 | |
| 280-159234-1 | 25 | T | 18:55 | X |
| 280-159234-2 | 1 | T | 18:57 | X |
| 280-159234-3 | 1 | T | 18:59 | X |
| 280-159234-4 | 1 | T | 19:01 | X |
| 280-159234-5 | 1 | T | 19:03 | X |
| 280-159234-6 | 1 | T | 19:05 | X |
| 280-159234-8 | 1 | T | 19:07 | X |
| 280-159234-9 | 1 | T | 19:09 | X |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 03/13/2022 16:35  End Date: 03/13/2022 19:57

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 | 1 | T | 19:11 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MS | 1 | T | 19:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-568508/81 | | | 19:15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568508/83 | 1 | | 19:19 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-568508/84 | 1 | | 19:21 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568508/85 | 1 | | 19:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MSD | 1 | T | 19:27 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 19:29 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-568508/97 | | | 19:47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568508/99 | 1 | | 19:51 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-568508/100 | 1 | | 19:53 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568508/101 | 1 | | 19:55 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:57 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 03/05/2022 13:13  End Date: 03/05/2022 13:13

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-567789/1-A | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-567789/2-A | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567789/3-A | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-3 | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-2 | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-1 | 1 | T | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 03/07/2022 18:33  End Date: 03/07/2022 18:33

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-567934/1-A | 1 | T | 18:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567934/2-A | 1 | T | 18:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-4 | 1 | T | 18:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-5 | 1 | T | 18:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 03/08/2022 16:59  End Date: 03/08/2022 16:59

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-568018/1-A | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-568018/2-A | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MS | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MSD | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-8 | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-9 | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 16:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10  Analysis Method: 9056A

Start Date: 02/28/2022 18:17  End Date: 02/28/2022 21:02

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | | |
| STD1 280-567263/2 IC | 1 | | 18:17 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD2 280-567263/3 IC | 1 | | 18:32 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD3 280-567263/4 IC | 1 | | 18:47 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD4 280-567263/5 IC | 1 | | 19:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD5 280-567263/6 IC | 1 | | 19:17 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD6 280-567263/7 IC | 1 | | 19:32 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-567263/8 | 1 | | 19:47 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-567263/9 | 1 | | 20:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:32 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:02 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10  Analysis Method: 9056A

Start Date: 03/17/2022 13:48  End Date: 03/18/2022 03:04

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568944/1 | 1 | | 13:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568944/2 | 1 | | 14:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MRL 280-568944/3 | 1 | T | 14:18 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-568944/4 | 1 | T | 14:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-568944/5 | 1 | T | 14:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-568944/6 | 1 | T | 15:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568944/17 | 1 | | 17:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568944/18 | 1 | | 18:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-1 | 5 | T | 19:18 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-3 | 5 | T | 19:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 | 5 | T | 19:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 DU | 5 | T | 20:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 MS | 5 | T | 20:18 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 MSD | 5 | T | 20:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568944/29 | 1 | | 20:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568944/30 | 1 | | 21:03 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568944/41 | | | 23:49 | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom10  Analysis Method: 9056A

Start Date: 03/17/2022 13:48  End Date: 03/18/2022 03:04

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568944/42 | | | 00:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568944/53 | | | 02:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568944/54 | | | 03:04 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 03/16/2022 14:19  End Date: 03/17/2022 01:35

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/2 IC | 1 | | 14:19 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/3 IC | 1 | | 14:34 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/4 IC | 1 | | 14:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/5 IC | 1 | | 15:04 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/6 IC | 1 | | 15:19 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-568842/7 IC | 1 | | 15:34 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-568842/8 | 1 | | 15:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-568842/9 | 1 | | 16:04 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MRL 280-568842/10 | 1 | T | 16:19 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-568842/11 | 1 | T | 16:34 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-568842/12 | 1 | T | 16:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-568842/13 | 1 | T | 17:04 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568842/24 | 1 | | 19:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568842/25 | 1 | | 20:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-2 | 1 | T | 21:35 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 | 1 | T | 21:50 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 DU | 1 | T | 22:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MS | 1 | T | 22:20 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 MSD | 1 | T | 22:35 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568842/36 | 1 | | 22:50 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568842/37 | 1 | | 23:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-4 | 1 | T | 23:35 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-5 | 1 | T | 23:50 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-8 | 1 | T | 00:20 | X | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 03/16/2022 14:19  End Date: 03/17/2022 01:35

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-9 | 1 | T | 00:35 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 00:50 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568842/46 | 1 | | 01:20 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568842/47 | 1 | | 01:35 | X | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_SHI5  Analysis Method: 9060A

Start Date: 03/14/2022 16:01  End Date: 03/15/2022 20:52

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | DOCQ |
| ZZZZZZ | | | 16:01 | |
| ICV 280-568667/2 | 1 | | 17:02 | X |
| ICB 280-568667/3 | 1 | | 17:16 | X |
| LCS 280-568667/4 | 1 | D | 17:33 | X |
| MB 280-568667/5 | 1 | D | 17:47 | X |
| ZZZZZZ | | | 18:05 | |
| LCS 280-568571/1-A | 1 | D | 18:20 | X |
| MB 280-568571/2-A | 1 | D | 18:34 | X |
| 280-159234-1 | 1 | D | 18:52 | X |
| 280-159234-2 | 1 | D | 19:13 | X |
| 280-159234-3 | 1 | D | 19:27 | X |
| 280-159234-4 | 1 | D | 19:45 | X |
| 280-159234-5 | 1 | D | 20:03 | X |
| 280-159234-6 | 1 | D | 20:20 | X |
| 280-159234-7 | 1 | D | 20:39 | X |
| CCV 280-568667/16 | 1 | | 20:57 | X |
| CCB 280-568667/17 | 1 | | 21:14 | X |
| 280-159234-7 MS | 1 | D | 21:43 | X |
| 280-159234-7 MSD | 1 | D | 21:57 | X |
| 280-159234-8 | 1 | D | 22:12 | X |
| 280-159234-9 | 1 | D | 22:30 | X |
| 280-159234-10 | 1 | D | 22:46 | X |
| ZZZZZZ | | | 23:04 | |
| ZZZZZZ | | | 23:23 | |
| ZZZZZZ | | | 23:42 | |
| ZZZZZZ | | | 00:00 | |
| ZZZZZZ | | | 00:14 | |
| CCV 280-568667/28 | 1 | | 00:32 | X |
| CCB 280-568667/29 | 1 | | 00:47 | X |
| ZZZZZZ | | | 01:01 | |
| ZZZZZZ | | | 01:20 | |
| ZZZZZZ | | | 01:36 | |
| ZZZZZZ | | | 01:52 | |
| ZZZZZZ | | | 02:08 | |
| ZZZZZZ | | | 02:29 | |
| ZZZZZZ | | | 02:46 | |
| ZZZZZZ | | | 03:02 | |
| ZZZZZZ | | | 03:21 | |
| ZZZZZZ | | | 03:39 | |
| CCV 280-568667/40 | 1 | | 03:54 | X |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_SHI5  Analysis Method: 9060A

Start Date: 03/14/2022 16:01  End Date: 03/15/2022 20:52

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568667/41 | 1 | | 04:08 | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:22 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:37 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568667/44 | 1 | | 04:51 | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568667/45 | 1 | | 05:07 | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-568667/46 | | | 15:45 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-568667/47 | | | 15:59 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:13 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:27 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:42 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:56 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:12 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:26 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:45 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:01 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:22 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:17 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568667/60 | | | 19:33 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568667/61 | | | 19:49 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:03 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:20 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-568667/64 | | | 20:36 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-568667/65 | | | 20:52 | | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_AT4  Analysis Method: SM 2320B

Start Date: 03/03/2022 11:18  End Date: 03/04/2022 02:50

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-567719/1 | | | 11:18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:27 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-567719/5 | 1 | T | 11:42 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567719/6 | 1 | T | 11:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:01 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:08 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:27 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/17 | 1 | | 13:07 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/18 | 1 | | 13:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:27 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:55 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:22 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:01 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/29 | 1 | | 15:30 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/30 | 1 | | 15:36 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567719/32 | 1 | T | 15:48 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:01 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:07 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:21 | | | | | | | | | | | | | | | | | | | | | | | | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_AT4  Analysis Method: SM 2320B

Start Date: 03/03/2022 11:18  End Date: 03/04/2022 02:50

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/43 | 1 | | 17:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/44 | 1 | | 17:43 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:26 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/55 | 1 | | 20:04 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/56 | 1 | | 20:09 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-567719/57 | 1 | T | 20:17 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-567719/58 | 1 | T | 20:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:28 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:02 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:30 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/69 | 1 | | 21:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/70 | 1 | | 21:54 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-1 | 1 | T | 22:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-2 | 1 | T | 22:09 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-3 | 1 | T | 22:17 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-4 | 1 | T | 22:24 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-5 | 1 | T | 22:31 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-6 | 1 | T | 22:39 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-7 | 1 | T | 22:46 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-8 | 1 | T | 22:54 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-9 | 1 | T | 23:01 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-159234-10 | 1 | T | 23:08 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/81 | 1 | | 23:15 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/82 | 1 | | 23:21 | X | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Instrument ID: WC_AT4  Analysis Method: SM 2320B

Start Date: 03/03/2022 11:18  End Date: 03/04/2022 02:50

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:28 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:55 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:51 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/95 | | | 00:58 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/96 | | | 01:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-567719/106 | | | 02:44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-567719/107 | | | 02:50 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568955  Batch Start Date: 03/17/22 10:14  Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ClResPres | InitialAmount | FinalAmount | Initial pH | 350.1 cal 00525 | 350.1 ICV 00509 |
|---|---|---|---|---|---|---|---|---|---|
| ICVL 280-568955/14 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | | 0.5 mL |
| ICV 280-568955/15 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | | 2.5 mL |
| ICB 280-568955/16 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| MB 280-568955/20 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| CCV 280-568955/34 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| CCB 280-568955/35 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-568955/49 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 0.5 mL | |
| CCV 280-568955/50 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| CCB 280-568955/51 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| LCS 280-568955/57 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| LCSD 280-568955/58 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| MB 280-568955/59 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-7 | G0070-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-7 MS | G0070-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-159234-L-7 MSD | G0070-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| CCVL 280-568955/65 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 0.5 mL | |
| CCV 280-568955/66 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| CCB 280-568955/67 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-1 | NW020-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-2 | NW021-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-3 | NW022-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-4 | G0079-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-5 | G0075-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568955  Batch Start Date: 03/17/22 10:14  Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ClResPres | InitialAmount | FinalAmount | Initial pH | 350.1 cal 00525 | 350.1 ICV 00509 |
|---|---|---|---|---|---|---|---|---|---|
| CCVL 280-568955/80 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 0.5 mL | |
| CCV 280-568955/81 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| CCB 280-568955/82 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-6 | G0076-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-6 MS | G0076-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-159234-L-6 MSD | G0076-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-159234-L-8 | G0080-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-9 | G0087-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| 280-159234-L-10 | G0086-8 | 350.1 | T | no | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-568955/92 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 0.5 mL | |
| CCV 280-568955/93 | | 350.1 | | no | 100 mL | 100 mL | <2 SU | 2.5 mL | |
| CCB 280-568955/94 | | 350.1 | | no | 10 mL | 10 mL | <2 SU | | |

| Batch Notes | |
|---|---|
| Acid used for pH adjustment | Sulfuric Acid_00264 |
| Sodium Nitroprusside ID | 350.1 color_00277 |
| Hypochlorite ID | 350.1 bleach_01586 |
| Carrier Identification | 350.1 complex_00603 |
| Sodium Salicylate ID | Sodium Sal_00023 |
| Pipette/Syringe/Dispenser ID | SAH5000, 1000INTERCESSOR, BWH 200 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 566632  Batch Start Date: 02/21/22 15:30  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | TKN 25ppm 00829 | TKN ICV 25 00115 | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-566632/21 | | 351.2, 351.2 | | <2 | 25 mL | 25 mL | | 5 mL | |
| ICB 280-566632/22 | | 351.2, 351.2 | | <2 | 25 mL | 25 mL | | | |
| CCV 280-566632/23 | | 351.2, 351.2 | | <2 | 25 mL | 25 mL | 5 mL | | |
| CCB 280-566632/24 | | 351.2, 351.2 | | <2 | 25 mL | 25 mL | | | |

| Batch Notes | |
|---|---|
| Block Digestor ID | TKN Hotblock |
| Digestion Solution ID | TKN digestion_00145 |
| Oven, Bath or Block Temperature 1 | 160 Degrees C |
| Block Digestion Temperature Start Date | 02/21/2022 16:30 |
| Oven, Bath or Block Temperature 2 | 380 Degrees C |
| Bl;ock Digestion Temperature End Date | 02/21/2022 22:30 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| pH Indicator ID | hc902937 |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567922  Batch Start Date: 03/07/22 16:01  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | TKN 25ppm 00829 | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567922/1 | | 351.2, 351.2 | | | 25 mL | 25 mL | 6 mL | | |
| MB 280-567922/2 | | 351.2, 351.2 | | | 25 mL | 25 mL | | | |
| 280-159234-L-1 | NW020-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-2 | NW021-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-3 | NW022-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-4 | G0079-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-5 | G0075-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-6 | G0076-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-8 | G0080-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-9 | G0087-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-10 | G0086-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-7 | G0070-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |
| 280-159234-L-7 MS | G0070-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | 3 mL | | |
| 280-159234-L-7 MSD | G0070-8 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | 3 mL | | |

| Batch Notes | |
|---|---|
| Block Digestor ID | TKN Hotblock |
| Digestion Solution ID | TKN digestion_00146 |
| Oven, Bath or Block Temperature 1 | 160 Degrees C |
| Block Digestion Temperature Start Date | 03/07/2022 16:30 |
| Oven, Bath or Block Temperature 2 | 380 Degrees C |
| Bl;ock Digestion Temperature End Date | 03/07/2022 22:30 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| pH Indicator ID | hc902937 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568207  Batch Start Date: 02/22/22 16:21  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | FinalAmount | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-566632/21-A | | 351.2 | | 2 mL | | | | | |
| ICB 280-566632/22-A | | 351.2 | | 2 mL | | | | | |
| LCS 280-567922/1-A | | 351.2 | | 2 mL | | | | | |
| MB 280-567922/2-A | | 351.2 | | 2 mL | | | | | |
| 280-159234-L-1-A | NW020-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-2-A | NW021-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-3-A | NW022-8 | 351.2 | T | 2 mL | | | | | |
| CCV 280-566632/23-A | | 351.2 | | 2 mL | | | | | |
| CCB 280-566632/24-A | | 351.2 | | 2 mL | | | | | |
| 280-159234-L-4-A | G0079-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-5-A | G0075-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-6-A | G0076-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-8-A | G0080-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-9-A | G0087-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-10-A | G0086-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-7-A | G0070-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-7-B MS | G0070-8 | 351.2 | T | 2 mL | | | | | |
| 280-159234-L-7-C MSD | G0070-8 | 351.2 | T | 2 mL | | | | | |
| CCV 280-566632/23-A | | 351.2 | | 2 mL | | | | | |
| CCB 280-566632/24-A | | 351.2 | | 2 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568207  Batch Start Date: 02/22/22 16:21  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Batch Notes | |
|---|---|
| Hypochlorite ID | TKN hypo_00676 |
| Buffer Reagent ID | TKN buffer_00133 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| Sodium Nitroprusside ID | sodium nitro_00108 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568508  Batch Start Date: 03/13/22 16:35  Batch Analyst: Cherry, Scott V

Batch Method: 353.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | NXN CAL INT 00614 | NXN ICV INT 00590 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-568508/17 | | 353.2 | | 100 mL | 100 mL | | 5 mL | | |
| ICVL 280-568508/18 | | 353.2 | | 100 mL | 100 mL | | 2 mL | | |
| ICB 280-568508/19 | | 353.2 | | 100 mL | 100 mL | | | | |
| CCV 280-568508/51 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCB 280-568508/53 | | 353.2 | | 100 mL | 100 mL | | | | |
| LCS 280-568508/59 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| MB 280-568508/60 | | 353.2 | | 100 mL | 100 mL | | | | |
| CCV 280-568508/67 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-568508/68 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-568508/69 | | 353.2 | | 100 mL | 100 mL | | | | |
| 280-159234-L-1 | NW020-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-2 | NW021-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-3 | NW022-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-4 | G0079-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-5 | G0075-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-6 | G0076-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-8 | G0080-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-9 | G0087-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-7 | G0070-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-159234-L-7 MS | G0070-8 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |
| CCV 280-568508/83 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-568508/84 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-568508/85 | | 353.2 | | 100 mL | 100 mL | | | | |
| 280-159234-L-7 MSD | G0070-8 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568508  Batch Start Date: 03/13/22 16:35  Batch Analyst: Cherry, Scott V

Batch Method: 353.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | NXN CAL INT 00614 | NXN ICV INT 00590 | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-L-10 | G0086-8 | 353.2 | T | 100 mL | 100 mL | | | | |
| CCV 280-568508/99 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-568508/100 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-568508/101 | | 353.2 | | 100 mL | 100 mL | | | | |

| Batch Notes | |
|---|---|
| pH Indicator ID | hc155968 |
| Buffer Reagent ID | NOXT Buffer_00223 |
| Color Reagent ID | NOXT CR_00123 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| Cadmium Column Lot ID | q11513937102 |
| Copper Sulfate ID | CuSO4 NOXT_0015 |
| Hydrochloric Acid ID | 0.5N HCl_0085 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567789  Batch Start Date: 03/05/22 09:11  Batch Analyst: Ventura, Phoenix E

Batch Method: 9030B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | DistillUnitPort | Initial pH | Final pH | AcidVolAdded |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567789/1 | | 9030B, 9034 | | 50 mL | 50 mL | 4 | >9 SU | <2 SU | 5 mL |
| LCSD 280-567789/2 | | 9030B, 9034 | | 50 mL | 50 mL | 5 | >9 SU | <2 SU | 5 mL |
| MB 280-567789/3 | | 9030B, 9034 | | 50 mL | 50 mL | 6 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-3 | NW022-8 | 9030B, 9034 | T | 50 mL | 50 mL | 14 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-2 | NW021-8 | 9030B, 9034 | T | 50 mL | 50 mL | 15 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-1 | NW020-8 | 9030B, 9034 | T | 50 mL | 50 mL | 16 | >9 SU | <2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD CAL INT 02142 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567789/1 | | 9030B, 9034 | | 1 mL | | | | | |
| LCSD 280-567789/2 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-567789/3 | | 9030B, 9034 | | | | | | | |
| 280-159234-N-3 | NW022-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-2 | NW021-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-1 | NW020-8 | 9030B, 9034 | T | | | | | | |

| Batch Notes | |
|---|---|
| Formaldehyde ID | form_00121 |
| Zinc Acetate Buffer ID | znac_00121 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Sulfuric Acid Reagent ID Number | SulfuricAcid_00288 |
| pH Indicator ID | HC157843 |
| Oven, Bath or Block Temperature 1 | 80 Degrees C |
| Distillation Start Time | 03/04/2022 10:00 |
| Uncorrected Temperature 2 | 80 Degrees C |
| Oven, Bath or Block Temperature 2 | 80 Degrees C |
| Distillation End Time | 03/04/2022 11:30 |
| Batch Comment | PEV |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567789  Batch Start Date: 03/05/22 09:11  Batch Analyst: Ventura, Phoenix E

Batch Method: 9030B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567799  Batch Start Date: 03/05/22 12:00  Batch Analyst: Ventura, Phoenix E

Batch Method: 9034  Batch End Date: 03/05/22 13:18

| Lab Sample ID | Client Sample ID | Method Chain | Basis | BuretStart1 | BuretStop1 | IodineAmount | TitrantVolume1 | FinalAmount | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567789/1-A | | 9034 | | 0.00 mL | 1.70 mL | 4 mL | 1.7 mL | 50 mL | |
| LCSD 280-567789/2-A | | 9034 | | 1.70 mL | 3.60 mL | 4 mL | 1.9 mL | 50 mL | |
| MB 280-567789/3-A | | 9034 | | 3.60 mL | 5.60 mL | 2 mL | 2 mL | 50 mL | |
| 280-159234-N-3-A | NW022-8 | 9034 | T | 19.11 mL | 21.00 mL | 2 mL | 1.89 mL | 50 mL | |
| 280-159234-N-2-A | NW021-8 | 9034 | T | 21.00 mL | 22.90 mL | 2 mL | 1.9 mL | 50 mL | |
| 280-159234-N-1-A | NW020-8 | 9034 | T | 9.00 mL | 10.80 mL | 2 mL | 1.8 mL | 50 mL | |

| Batch Notes | |
|---|---|
| Normality of First Titrant | 0.025 N |
| Normality of Iodine Solution | 0.025 N |
| Zinc Acetate Buffer ID | znac_00121 |
| Iodine ID | WCIODINE_01326 |
| Hydrochloric Acid ID | HCL Sol_00198 |
| Sodium Thiosulfate ID | Na Thio_00176 |
| Starch Reagent ID | Starch Ind_00067 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Batch Comment | PEV |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567934  Batch Start Date: 03/07/22 16:33  Batch Analyst: Brock, Lucynda R

Batch Method: 9030B  Batch End Date: 03/07/22 18:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | DistillUnitPort | Initial pH | Final pH | AcidVolAdded |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567934/1 | | 9030B, 9034 | | 50 mL | 50 mL | 2 | <9 SU | >2 SU | 5 mL |
| MB 280-567934/2 | | 9030B, 9034 | | 50 mL | 50 mL | 3 | <9 SU | >2 SU | 5 mL |
| 280-159234-N-4 | G0079-8 | 9030B, 9034 | T | 50 mL | 50 mL | 15 | <9 SU | >2 SU | 5 mL |
| 280-159234-N-5 | G0075-8 | 9030B, 9034 | T | 50 mL | 50 mL | 16 | <9 SU | >2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD ICV INT 02090 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567934/1 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-567934/2 | | 9030B, 9034 | | | | | | | |
| 280-159234-N-4 | G0079-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-5 | G0075-8 | 9030B, 9034 | T | | | | | | |

| Batch Notes | |
|---|---|
| Formaldehyde ID | Form_00121 |
| Zinc Acetate Buffer ID | znac_00121 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Sulfuric Acid Reagent ID Number | SulfuricAcid_00288 |
| pH Indicator ID | HC157843 |
| Oven, Bath or Block Temperature 1 | 80 Degrees C |
| Distillation Start Time | 03/07/2022 17:00 |
| Uncorrected Temperature 2 | 80 Degrees C |
| Oven, Bath or Block Temperature 2 | 80 Degrees C |
| Distillation End Time | 03/07/2022 18:30 |
| Batch Comment | LRB |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567935  Batch Start Date: 03/07/22 18:36  Batch Analyst: Brock, Lucynda R

Batch Method: 9034  Batch End Date: 03/07/22 19:40

| Lab Sample ID | Client Sample ID | Method Chain | Basis | BuretStart1 | BuretStop1 | IodineAmount | TitrantVolume1 | FinalAmount | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-567934/1-A | | 9034 | | 0.0 mL | 2.5 mL | 5 mL | 2.5 mL | 50 mL | |
| MB 280-567934/2-A | | 9034 | | 2.5 mL | 3.5 mL | 1 mL | 1 mL | 50 mL | |
| 280-159234-N-4-A | G0079-8 | 9034 | T | 14.0 mL | 15.0 mL | 1 mL | 1 mL | 50 mL | |
| 280-159234-N-5-A | G0075-8 | 9034 | T | 15.0 mL | 16.0 mL | 1 mL | 1 mL | 50 mL | |

| Batch Notes | |
|---|---|
| Normality of First Titrant | 0.025 N |
| Normality of Iodine Solution | 0.025 N |
| Zinc Acetate Buffer ID | znac_00121 |
| Iodine ID | WCIODINE_01326 |
| Hydrochloric Acid ID | HCl Sol_00197 |
| Sodium Thiosulfate ID | Na Thio_00177 |
| Starch Reagent ID | Starch Ind_00068 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Batch Comment | LRB train MG |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568018  Batch Start Date: 03/08/22 11:04  Batch Analyst: Brock, Lucynda R

Batch Method: 9030B  Batch End Date: 03/08/22 13:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | DistillUnitPort | Initial pH | Final pH | AcidVolAdded |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-568018/1 | | 9030B, 9034 | | 50 mL | 50 mL | 1 | >9 SU | <2 SU | 5 mL |
| MB 280-568018/2 | | 9030B, 9034 | | 50 mL | 50 mL | 2 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-7 | G0070-8 | 9030B, 9034 | T | 50 mL | 50 mL | 3 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-7 MS | G0070-8 | 9030B, 9034 | T | 50 mL | 50 mL | 6 | >9 SU | <2 SU | 5 mL |
| 280-159234-E-7 MSD | G0070-8 | 9030B, 9034 | T | 50 mL | 50 mL | 7 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-6 | G0076-8 | 9030B, 9034 | T | 50 mL | 50 mL | 8 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-8 | G0080-8 | 9030B, 9034 | T | 50 mL | 50 mL | 9 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-9 | G0087-8 | 9030B, 9034 | T | 50 mL | 50 mL | 10 | >9 SU | <2 SU | 5 mL |
| 280-159234-N-10 | G0086-8 | 9030B, 9034 | T | 50 mL | 50 mL | 12 | >9 SU | <2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD ICV INT 02091 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-568018/1 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-568018/2 | | 9030B, 9034 | | | | | | | |
| 280-159234-N-7 | G0070-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-7 MS | G0070-8 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-159234-E-7 MSD | G0070-8 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-159234-N-6 | G0076-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-8 | G0080-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-9 | G0087-8 | 9030B, 9034 | T | | | | | | |
| 280-159234-N-10 | G0086-8 | 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 Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568018  Batch Start Date: 03/08/22 11:04  Batch Analyst: Brock, Lucynda R

Batch Method: 9030B  Batch End Date: 03/08/22 13:30

| Batch Notes | |
|---|---|
| Formaldehyde ID | form_00121 |
| Zinc Acetate Buffer ID | znac_00121 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Sulfuric Acid Reagent ID Number | SulfuricAcid_00288 |
| pH Indicator ID | HC157843 |
| Oven, Bath or Block Temperature 1 | 80 Degrees C |
| Distillation Start Time | 03/08/2022 12:00 |
| Uncorrected Temperature 2 | 80 Degrees C |
| Oven, Bath or Block Temperature 2 | 80 Degrees C |
| Distillation End Time | 03/08/2022 13:30 |
| Batch Comment | LRB training MG |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568064  Batch Start Date: 03/08/22 16:59  Batch Analyst: Mitchell, Jacob J

Batch Method: 9034  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | BuretStart1 | BuretStop1 | IodineAmount | TitrantVolume1 | FinalAmount | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-568018/1-A | | 9034 | | 0 mL | 2.9 mL | 5 mL | 2.9 mL | 50 mL | |
| MB 280-568018/2-A | | 9034 | | 2.9 mL | 3.8 mL | 1 mL | 0.9 mL | 50 mL | |
| 280-159234-N-7-A | G0070-8 | 9034 | T | 3.8 mL | 4.75 mL | 1 mL | 0.95 mL | 50 mL | |
| 280-159234-N-7-B MS | G0070-8 | 9034 | T | 4.75 mL | 7.7 mL | 5 mL | 2.95 mL | 50 mL | |
| 280-159234-E-7-A MSD | G0070-8 | 9034 | T | 7.7 mL | 10.3 mL | 5 mL | 2.6 mL | 50 mL | |
| 280-159234-N-6-A | G0076-8 | 9034 | T | 10.3 mL | 11.2 mL | 1 mL | 0.899999999999999 mL | 50 mL | |
| 280-159234-N-8-A | G0080-8 | 9034 | T | 11.2 mL | 12.15 mL | 1 mL | 0.950000000000001 mL | 50 mL | |
| 280-159234-N-9-A | G0087-8 | 9034 | T | 12.15 mL | 13.1 mL | 1 mL | 0.949999999999999 mL | 50 mL | |
| 280-159234-N-10-A | G0086-8 | 9034 | T | 13.1 mL | 14.0 mL | 1 mL | 0.9 mL | 50 mL | |

| Batch Notes | |
|---|---|
| Normality of First Titrant | 0.025 N |
| Normality of Iodine Solution | 0.025 N |
| Iodine ID | WCIODINE_01326 |
| Hydrochloric Acid ID | HCl Sol_00197 |
| Sodium Thiosulfate ID | Na Thio_00177 |
| Starch Reagent ID | Starch Ind_00067 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM1000 |
| Batch Comment | LRB training MG |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567263  Batch Start Date: 02/28/22 18:17  Batch Analyst: Fox, Regan A

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Cl ICV Std 00002 | IC CAL cl/so4 00408 | IC Cal low 00623 | IC ICV 5 00352 |
|---|---|---|---|---|---|---|---|---|---|
| STD1 280-567263/2 IC | | 9056A | | 10 mL | 10 mL | | 0.04 mL | 0.04 mL | |
| STD2 280-567263/3 IC | | 9056A | | 10 mL | 10 mL | | 0.1 mL | 0.1 mL | |
| STD3 280-567263/4 IC | | 9056A | | 10 mL | 10 mL | | 0.2 mL | 0.2 mL | |
| STD4 280-567263/5 IC | | 9056A | | 10 mL | 10 mL | | 2.4 mL | 0.8 mL | |
| STD5 280-567263/6 IC | | 9056A | | 10 mL | 10 mL | | 4.8 mL | 1.6 mL | |
| STD6 280-567263/7 IC | | 9056A | | 10 mL | 10 mL | | 8 mL | 2 mL | |
| ICB 280-567263/8 | | 9056A | | 10 mL | 10 mL | | | | |
| ICV 280-567263/9 | | 9056A | | 10 mL | 10 mL | 0.8 mL | | | 0.8 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | IC SO4 ICV 00022 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STD1 280-567263/2 IC | | 9056A | | | | | | | |
| STD2 280-567263/3 IC | | 9056A | | | | | | | |
| STD3 280-567263/4 IC | | 9056A | | | | | | | |
| STD4 280-567263/5 IC | | 9056A | | | | | | | |
| STD5 280-567263/6 IC | | 9056A | | | | | | | |
| STD6 280-567263/7 IC | | 9056A | | | | | | | |
| ICB 280-567263/8 | | 9056A | | | | | | | |
| ICV 280-567263/9 | | 9056A | | 0.8 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567263  Batch Start Date: 02/28/22 18:17  Batch Analyst: Fox, Regan A

Batch Method: 9056A  Batch End Date:

| Batch Notes | |
|---|---|
| Filter ID | SF020E |
| Pipette/Syringe/Dispenser ID | ARM5000, BMF1000, 200CJ, IC100 |
| Sufficient Volume for Batch QC | yes |
| Eluent 1 ID | IC10 Eluent_00002 |
| Batch Comment | Run by CJ, reviewed by RAF, RAF in training |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568842  Batch Start Date: 03/16/22 14:19  Batch Analyst: Jindarat, Chanida

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Cl ICV Std 00002 | IC CAL cl/so4 00411 | IC Cal low 00627 | IC ICV 5 00355 |
|---|---|---|---|---|---|---|---|---|---|
| STD 280-568842/2 IC | | 9056A | | 5 mL | 5 mL | | 0.02 mL | 0.02 mL | |
| STD 280-568842/3 IC | | 9056A | | 5 mL | 5 mL | | 0.05 mL | 0.05 mL | |
| STD 280-568842/4 IC | | 9056A | | 5 mL | 5 mL | | 0.1 mL | 0.1 mL | |
| STD 280-568842/5 IC | | 9056A | | 5 mL | 5 mL | | 1.2 mL | 0.4 mL | |
| STD 280-568842/6 IC | | 9056A | | 5 mL | 5 mL | | 2.4 mL | 0.8 mL | |
| STD 280-568842/7 IC | | 9056A | | 5 mL | 5 mL | | 4 mL | 1 mL | |
| ICV 280-568842/8 | | 9056A | | 5 mL | 5 mL | 0.4 mL | | | 0.4 mL |
| ICB 280-568842/9 | | 9056A | | 5 mL | 5 mL | | | | |
| MRL 280-568842/10 | | 9056A | | 5 mL | 5 mL | | 0.2 mL | 0.1 mL | |
| LCS 280-568842/11 | | 9056A | | 5 mL | 5 mL | | | | |
| LCSD 280-568842/12 | | 9056A | | 5 mL | 5 mL | | | | |
| MB 280-568842/13 | | 9056A | | 5 mL | 5 mL | | | | |
| CCV 280-568842/24 | | 9056A | | 5 mL | 5 mL | | | | |
| CCB 280-568842/25 | | 9056A | | 5 mL | 5 mL | | | | |
| 280-159234-O-2 | NW021-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-7 | G0070-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-7 DU | G0070-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-7 MS | G0070-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-7 MSD | G0070-8 | 9056A | T | 5 mL | 5 mL | | | | |
| CCV 280-568842/36 | | 9056A | | 5 mL | 5 mL | | | | |
| CCB 280-568842/37 | | 9056A | | 5 mL | 5 mL | | | | |
| 280-159234-O-4 | G0079-8 | 9056A | T | 5 mL | 5 mL | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568842  Batch Start Date: 03/16/22 14:19  Batch Analyst: Jindarat, Chanida

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Cl ICV Std 00002 | IC CAL cl/so4 00411 | IC Cal low 00627 | IC ICV 5 00355 |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-O-5 | G0075-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-8 | G0080-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-9 | G0087-8 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-159234-O-10 | G0086-8 | 9056A | T | 5 mL | 5 mL | | | | |
| CCV 280-568842/46 | | 9056A | | 5 mL | 5 mL | | | | |
| CCB 280-568842/47 | | 9056A | | 5 mL | 5 mL | | | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | IC LCS 01863 | IC SO4 ICV 00022 | ICMS/MSD WEEK 00748 | | | |
|---|---|---|---|---|---|---|---|---|---|
| STD 280-568842/2 IC | | 9056A | | | | | | | |
| STD 280-568842/3 IC | | 9056A | | | | | | | |
| STD 280-568842/4 IC | | 9056A | | | | | | | |
| STD 280-568842/5 IC | | 9056A | | | | | | | |
| STD 280-568842/6 IC | | 9056A | | | | | | | |
| STD 280-568842/7 IC | | 9056A | | | | | | | |
| ICV 280-568842/8 | | 9056A | | | 0.4 mL | | | | |
| ICB 280-568842/9 | | 9056A | | | | | | | |
| MRL 280-568842/10 | | 9056A | | | | | | | |
| LCS 280-568842/11 | | 9056A | | 5 mL | | | | | |
| LCSD 280-568842/12 | | 9056A | | 5 mL | | | | | |
| MB 280-568842/13 | | 9056A | | | | | | | |
| CCV 280-568842/24 | | 9056A | | 10 mL | | | | | |
| CCB 280-568842/25 | | 9056A | | | | | | | |
| 280-159234-O-2 | NW021-8 | 9056A | 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 Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568842  Batch Start Date: 03/16/22 14:19  Batch Analyst: Jindarat, Chanida

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | IC LCS 01863 | IC SO4 ICV 00022 | ICMS/MSD WEEK 00748 | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-O-7 | G0070-8 | 9056A | T | | | | | | |
| 280-159234-O-7 DU | G0070-8 | 9056A | T | | | | | | |
| 280-159234-O-7 MS | G0070-8 | 9056A | T | | | 0.1 mL | | | |
| 280-159234-O-7 MSD | G0070-8 | 9056A | T | | | 0.1 mL | | | |
| CCV 280-568842/36 | | 9056A | | 10 mL | | | | | |
| CCB 280-568842/37 | | 9056A | | | | | | | |
| 280-159234-O-4 | G0079-8 | 9056A | T | | | | | | |
| 280-159234-O-5 | G0075-8 | 9056A | T | | | | | | |
| 280-159234-O-8 | G0080-8 | 9056A | T | | | | | | |
| 280-159234-O-9 | G0087-8 | 9056A | T | | | | | | |
| 280-159234-O-10 | G0086-8 | 9056A | T | | | | | | |
| CCV 280-568842/46 | | 9056A | | 10 mL | | | | | |
| CCB 280-568842/47 | | 9056A | | | | | | | |

| Batch Notes | |
|---|---|
| Filter ID | SF020E |
| Pipette/Syringe/Dispenser ID | 5000CK,BMF1000,200CJ,ic100 |
| Sufficient Volume for Batch QC | Yes |
| Eluent 1 ID | IC10 Eluent_00002 |
| Batch Comment | CJ |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568944  Batch Start Date: 03/17/22 13:48  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 00411 | IC Cal low 00627 | IC LCS 01863 | ICMS/MSD WEEK 00748 |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-568944/1 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-568944/2 | | 9056A | | 10 mL | 10 mL | | | | |
| MRL 280-568944/3 | | 9056A | | 10 mL | 10 mL | 0.2 mL | 0.1 mL | | |
| LCS 280-568944/4 | | 9056A | | 5 mL | 5 mL | | | 10 mL | |
| LCSD 280-568944/5 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| MB 280-568944/6 | | 9056A | | 10 mL | 10 mL | | | | |
| CCV 280-568944/17 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-568944/18 | | 9056A | | 10 mL | 10 mL | | | | |
| 280-159234-O-1 | NW020-8 | 9056A | T | 10 mL | 10 mL | | | | |
| 280-159234-O-3 | NW022-8 | 9056A | T | 10 mL | 10 mL | | | | |
| 280-159234-O-6 | G0076-8 | 9056A | T | 10 mL | 10 mL | | | | |
| 280-159234-O-6 DU | G0076-8 | 9056A | T | 10 mL | 10 mL | | | | |
| 280-159234-O-6 MS | G0076-8 | 9056A | T | 10 mL | 10 mL | | | | 0.1 mL |
| 280-159234-O-6 MSD | G0076-8 | 9056A | T | 10 mL | 10 mL | | | | 0.1 mL |
| CCV 280-568944/29 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-568944/30 | | 9056A | | 10 mL | 10 mL | | | | |

| Batch Notes | |
|---|---|
| Filter ID | SF020E |
| Pipette/Syringe/Dispenser ID | 5000CK,BMF1000,200CJ,ic100 |
| Sufficient Volume for Batch QC | Yes |
| Eluent 1 ID | IC10 Eluent_00002 |
| Batch Comment | CJ |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568944  Batch Start Date: 03/17/22 13:48  Batch Analyst: Jindarat, Chanida

Batch Method: 9056A  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568667  Batch Start Date: 03/14/22 16:01  Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | Final pH | TOC ICV Std 00049 | TOC LCS Std 00053 |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-568667/2 | | 9060A | | 50 mL | 50 mL | <2 SU | <2 SU | 1 mL | |
| ICB 280-568667/3 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| LCS 280-568667/4 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| MB 280-568667/5 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| LCS 280-568571/1-A | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| MB 280-568571/2-A | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| 280-159234-M-1-A | NW020-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-2-A | NW021-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-3-A | NW022-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-4-A | G0079-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-5-A | G0075-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-6-A | G0076-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-7-A | G0070-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| CCV 280-568667/16 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| CCB 280-568667/17 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| 280-159234-M-7-B MS | G0070-8 | 9060A | D | 50 mL | 50 mL | >2 SU | >2 SU | | 1.25 mL |
| 280-159234-M-7-C MSD | G0070-8 | 9060A | D | 50 mL | 50 mL | >2 SU | >2 SU | | 1.25 mL |
| 280-159234-M-8-A | G0080-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-9-A | G0087-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| 280-159234-M-10-A | G0086-8 | 9060A | D | 20 mL | 20 mL | >2 SU | >2 SU | | |
| CCV 280-568667/28 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568667  Batch Start Date: 03/14/22 16:01  Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | Final pH | TOC ICV Std 00049 | TOC LCS Std 00053 |
|---|---|---|---|---|---|---|---|---|---|
| CCB 280-568667/29 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| CCV 280-568667/40 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| CCB 280-568667/41 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| CCV 280-568667/44 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| CCB 280-568667/45 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-568667/2 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| ICB 280-568667/3 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| LCS 280-568667/4 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| MB 280-568667/5 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-568571/1-A | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| MB 280-568571/2-A | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-1-A | NW020-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-2-A | NW021-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-3-A | NW022-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-4-A | G0079-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-5-A | G0075-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159234-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-M-6-A | G0076-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-7-A | G0070-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCV 280-568667/16 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCB 280-568667/17 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-7-B MS | G0070-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-7-C MSD | G0070-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-8-A | G0080-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568667  Batch Start Date: 03/14/22 16:01  Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-M-9-A | G0087-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-159234-M-10-A | G0086-8 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCV 280-568667/28 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCB 280-568667/29 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCV 280-568667/40 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCB 280-568667/41 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCV 280-568667/44 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 568667  Batch Start Date: 03/14/22 16:01  Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CCB 280-568667/45 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

| Batch Notes | |
|---|---|
| Acid ID | 0.2% H2SO4_00421, H2SO4_00210 |
| Combustion Catylyst ID | 19003D-03 |
| Pipette/Syringe/Dispenser ID | BWH 5000, 1000 MS |
| Filter ID | 17233826 |
| pH Paper ID | HC169501 |
| Batch Comment | Run and reviewed by ABW |

| Basis | Basis Description |
|---|---|
| D | Dissolved |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567719  Batch Start Date: 03/03/22 11:18  Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | CalcMsg | Alk daily lcs 01027 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCSD 280-567719/5 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-567719/6 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-567719/17 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/18 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-567719/29 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/30 | | SM 2320B | | InitialAmount is blank | | | | | |
| MB 280-567719/32 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-567719/43 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/44 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-567719/55 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/56 | | SM 2320B | | InitialAmount is blank | | | | | |
| LCS 280-567719/57 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-567719/58 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-567719/69 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/70 | | SM 2320B | | InitialAmount is blank | | | | | |
| 280-159234-O-1 | NW020-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-2 | NW021-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-3 | NW022-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-4 | G0079-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-5 | G0075-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-6 | G0076-8 | SM 2320B | T | 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 Denver  Job No.: 280-159234-1

SDG No.:

Batch Number: 567719  Batch Start Date: 03/03/22 11:18  Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | CalcMsg | Alk daily lcs 01027 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-159234-O-7 | G0070-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-8 | G0080-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-9 | G0087-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-159234-O-10 | G0086-8 | SM 2320B | T | InitialAmount is blank | | | | | |
| CCV 280-567719/81 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-567719/82 | | SM 2320B | | InitialAmount is blank | | | | | |

| Batch Notes | |
|---|---|
| Nominal Amount Used | 10 mL |
| Acid ID | 0.02 H2SO4_00293 |
| Normality of First Titrant | 0.02 N |
| Sodium Carbonate ID | Alk Stk Std_00022 |
| pH Buffer 1 ID | pH 2.0 buffer_00095 |
| pH Buffer 2 ID | pH 4.0 buffer_00202 |
| pH Buffer 3 ID | pH 7.0 buffer_00309 |
| pH Buffer 4 ID | pH 10 buffer_00159 |
| pH Buffer 5 ID | pH 12 buffer_00179 |
| pH Buffer 6 ID | pH 7.0 buffer_00310 |
| Probe ID | PCE 80 pH 1200D_8918 |
| Batch Comment | KG |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 17-Mar-22

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 106 | Sync | SYNC | 1 | 1 | 1 | | |
| 0 | Carry Over | CO | 1 | 1 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 101 | Cal 0 ppb | C | 1 | 1 | 1 | | |
| 102 | Cal 25 ppb | C | 1 | 1 | 1 | | |
| 103 | Cal 50 ppb | C | 1 | 1 | 1 | | |
| 104 | Cal 100 ppb | C | 1 | 1 | 1 | | |
| 105 | Cal 500 ppb | C | 1 | 1 | 1 | | |
| 106 | Cal 1000 ppb | C | 1 | 1 | 1 | | |
| 107 | Cal 2500 ppb | C | 1 | 1 | 1 | | |
| 108 | Cal 5000 ppb | C | 1 | 1 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 109 | ICVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 110 | ICV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | ICB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 107 | LCSD | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 201 | 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 202 | ms 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 203 | msd 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 204 | 280-159466-H-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 205 | 280-159466-G-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 206 | 590-17032-D-1 | U | 1 | 10 | 1 | | pH<2, Cl- non-detect |
| 207 | 280-159223-G-1 | U | 1 | 20 | 1 | | pH<2, Cl- non-detect |
| 208 | 280-159223-I-2 | U | 1 | 200 | 1 | | pH<2, Cl- non-detect (Composite 1-4) |
| 209 | 280-159223-J-3 | U | 1 | 100 | 1 | | pH<2, Cl- non-detect |
| 210 | 280-159470-G-1 | U | 1 | 200 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 211 | 280-159190-C-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 212 | 280-159190-C-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 213 | 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 214 | ms 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 215 | msd 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 216 | 280-159190-C-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 217 | 280-159190-C-4 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 218 | 280-159190-C-5 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 219 | 280-159190-C-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 220 | 280-159190-C-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 221 | 280-159190-C-8 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 222 | 280-159190-C-9 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 223 | 280-159190-C-10 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 224 | 280-159190-C-11 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 107 | LCSD | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 225 | 280-159234-L-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 226 | ms 280-159234-L-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 227 | msd 280-159234-L-7 U | | 1 | 1 | 1 | 1 | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 228 | 280-159190-C-12 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 229 | 280-159190-C-13 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 230 | 280-159190-C-14 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 231 | 280-159190-C-15 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 232 | 280-159234-L-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 233 | 280-159234-L-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 234 | 280-159234-L-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 235 | 280-159234-L-4 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 236 | 280-159234-L-5 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 237 | 280-159234-l-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 238 | MS 280-159234-l-6 U | | 1 | 1 | 1 | 1 | pH<2, Cl- non-detect |
| 239 | MSD 280-159234-l-6 U | | 1 | 1 | 1 | 1 | pH<2, Cl- non-detect |
| 240 | 280-159234-l-8 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 241 | 280-159234-l-9 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 242 | 280-159234-l-10 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |

Peak Table:NH3

File name: C:\FLOW_4\031722.RST
Date: 17-Mar-22
Operator: MP

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 106 | Sync | 1 | SYNC | 1 | 1 | 13430 | 1012.103943 | |
| 2 | 0 | Carry Over | 1 | CO | 1 | 1 | 124 | -17.229790 | LO |
| 3 | 0 | Blank | 1 | BLNK | 1 | 1 | 58 | -22.308357 | LO |
| 4 | 101 | Cal 0 ppb | 1 | C | 1 | 1 | 485 | 10.405656 | |
| 5 | 102 | Cal 25 ppb | 1 | C | 1 | 1 | 627 | 21.247494 | |
| 6 | 103 | Cal 50 ppb | 1 | C | 1 | 1 | 967 | 47.285343 | |
| 7 | 104 | Cal 100 ppb | 1 | C | 1 | 1 | 1567 | 93.304039 | |
| 8 | 105 | Cal 500 ppb | 1 | C | 1 | 1 | 6824 | 498.191620 | |
| 9 | 106 | Cal 1000 ppb | 1 | C | 1 | 1 | 13374 | 1007.718628 | |
| 10 | 107 | Cal 2500 ppb | 1 | C | 1 | 1 | 32119 | 2496.144531 | |
| 11 | 108 | Cal 5000 ppb | 1 | C | 1 | 1 | 62458 | 5000.671875 | HI |
| 12 | 0 | Blank | 1 | BLNK | 1 | 1 | -498 | -64.761337 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 14 | 109 | ICVL 500.0 ppb | 1 | U | 1 | 1 | 6767 | 493.834045 | |
| 15 | 110 | ICV 2500.0 ppb | 1 | U | 1 | 1 | 32715 | 2544.196777 | |
| 16 | 111 | ICB | 1 | U | 1 | 1 | -31 | -29.120417 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 18 | 107 | LCS | 1 | U | 1 | 1 | 33015 | 2568.418457 | |
| 19 | 107 | LCSD | 1 | U | 1 | 1 | 32776 | 2549.133789 | |
| 20 | 111 | MB | 1 | U | 1 | 1 | -10 | -27.525055 | LO |
| 21 | 201 | 280-159466-H-1 | 1 | U | 1 | 1 | 3403 | 234.275604 | |
| 22 | 202 | ms 280-159466-H-1 | 1 | U | 1 | 1 | 17532 | 1333.956177 | |
| 23 | 203 | msd 280-159466-H-1 | 1 | U | 1 | 1 | 17290 | 1314.942871 | |
| 24 | 204 | 280-159466-H-2 | 1 | U | 1 | 1 | 4491 | 318.080261 | |
| 25 | 205 | 280-159466-G-3 | 1 | U | 1 | 1 | 14686 | 1110.387085 | |
| 26 | 206 | 590-17032-D-1 | 1 | U | 10 | 1 | 26454 | 20415.458984 | |
| 27 | 207 | 280-159223-G-1 | 1 | U | 20 | 1 | 30301 | 46996.308594 | |
| 28 | 208 | 280-159223-I-2 | 1 | U | 200 | 1 | 16502 | 250593.062500 | |
| 29 | 209 | 280-159223-J-3 | 1 | U | 100 | 1 | 27784 | 214793.578125 | |
| 30 | 210 | 280-159470-G-1 | 1 | U | 200 | 1 | 18416 | 280725.062500 | |
| 31 | 0 | Blank | 1 | BLNK | 1 | 1 | -140 | -37.429966 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 33 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 7111 | 520.423096 | |
| 34 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 33863 | 2636.969727 | |
| 35 | 111 | CCB | 1 | U | 1 | 1 | 133 | -16.563250 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 37 | 211 | 280-159190-C-1 | 1 | U | 1 | 1 | 211 | -10.606258 | LO |
| 38 | 212 | 280-159190-C-2 | 1 | U | 1 | 1 | 267 | -6.310347 | LO |
| 39 | 213 | 280-159190-C-16 | 1 | U | 1 | 1 | 22945 | 1762.089233 | |
| 40 | 214 | ms 280-159190-C-16 | 1 | U | 1 | 1 | 36232 | 2828.747803 | |
| 41 | 215 | msd 280-159190-C-16 | 1 | U | 1 | 1 | 36248 | 2830.106201 | |
| 42 | 216 | 280-159190-C-3 | 1 | U | 1 | 1 | 57762 | 4605.285645 | |
| 43 | 217 | 280-159190-C-4 | 1 | U | 1 | 1 | 23948 | 1841.790161 | |
| 44 | 218 | 280-159190-C-5 | 1 | U | 1 | 1 | 25278 | 1947.694702 | |
| 45 | 219 | 280-159190-C-6 | 1 | U | 1 | 1 | 171 | -13.640791 | LO |
| 46 | 220 | 280-159190-C-7 | 1 | U | 1 | 1 | 2271 | 147.304962 | |
| 47 | 0 | Blank | 1 | BLNK | 1 | 1 | 26 | -24.764338 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 49 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 7259 | 531.922058 | |
| 50 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 33927 | 2642.098145 | |
| 51 | 111 | CCB | 1 | U | 1 | 1 | 73 | -21.163399 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 53 | 221 | 280-159190-C-8 | 1 | U | 1 | 1 | 333 | -1.206944 | LO |
| 54 | 222 | 280-159190-C-9 | 1 | U | 1 | 1 | 685 | 25.665569 | |
| 55 | 223 | 280-159190-C-10 | 1 | U | 1 | 1 | 196 | -11.697756 | LO |
| 56 | 224 | 280-159190-C-11 | 1 | U | 1 | 1 | 203 | -11.204345 | LO |
| 57 | 107 | LCS | 1 | U | 1 | 1 | 34427 | 2682.566162 | |
| 58 | 107 | LCSD | 1 | U | 1 | 1 | 34484 | 2687.168701 | |
| 59 | 111 | MB | 1 | U | 1 | 1 | 53 | -22.678280 | LO |
| 60 | 225 | 280-159234-L-7 | 1 | U | 1 | 1 | 730 | 29.157597 | |
| 61 | 226 | ms 280-159234-L-7 | 1 | U | 1 | 1 | 15362 | 1163.467896 | |
| 62 | 227 | msd 280-159234-L-7 | 1 | U | 1 | 1 | 15179 | 1149.081299 | |
| 63 | 0 | Blank | 1 | BLNK | 1 | 1 | -94 | -33.910316 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 65 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 7303 | 535.286865 | |
| 66 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 34336 | 2675.197998 | |
| 67 | 111 | CCB | 1 | U | 1 | 1 | 58 | -22.273819 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 69 | 228 | 280-159190-C-12 | 1 | U | 1 | 1 | 382 | 2.529077 | |
| 70 | 229 | 280-159190-C-13 | 1 | U | 1 | 1 | 45811 | 3611.830811 | |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 71 | 230 | 280-159190-C-14 | 1 | U | 1 | 1 | 18128 | 1380.910278 | |
| 72 | 231 | 280-159190-C-15 | 1 | U | 1 | 1 | 49420 | 3909.955811 | |
| 73 | 232 | 280-159234-L-1 | 1 | U | 1 | 1 | 8 | -26.149189 | LO |
| 74 | 233 | 280-159234-L-2 | 1 | U | 1 | 1 | 31367 | 2435.551025 | |
| 75 | 234 | 280-159234-L-3 | 1 | U | 1 | 1 | 14381 | 1086.500610 | |
| 76 | 235 | 280-159234-L-4 | 1 | U | 1 | 1 | 244 | -8.063900 | LO |
| 77 | 236 | 280-159234-L-5 | 1 | U | 1 | 1 | 965 | 47.180569 | |
| 78 | 0 | Blank | 1 | BLNK | 1 | 1 | 18 | -25.313227 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 80 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 7314 | 536.149170 | |
| 81 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 34205 | 2664.618896 | |
| 82 | 111 | CCB | 1 | U | 1 | 1 | 51 | -22.856031 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 84 | 237 | 280-159234-l-6 | 1 | U | 1 | 1 | 29344 | 2272.929932 | |
| 85 | 238 | MS 280-159234-l-6 | 1 | U | 1 | 1 | 42292 | 3322.833740 | |
| 86 | 239 | MSD 280-159234-l-6 | 1 | U | 1 | 1 | 42404 | 3331.985840 | |
| 87 | 240 | 280-159234-l-8 | 1 | U | 1 | 1 | 25667 | 1978.780640 | |
| 88 | 241 | 280-159234-l-9 | 1 | U | 1 | 1 | 16 | -25.481323 | LO |
| 89 | 242 | 280-159234-l-10 | 1 | U | 1 | 1 | 534 | 14.141357 | |
| 90 | 0 | Blank | 1 | BLNK | 1 | 1 | -29 | -28.921432 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |
| 92 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 7259 | 531.857178 | |
| 93 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 33701 | 2623.865723 | |
| 94 | 111 | CCB | 1 | U | 1 | 1 | 94 | -19.564497 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -26.723074 | BL |

NH3:Calibration  1: Peak 4-95

File name: C:\FLOW_4\031722.RST
Date: 17-Mar-22
Operator: MP

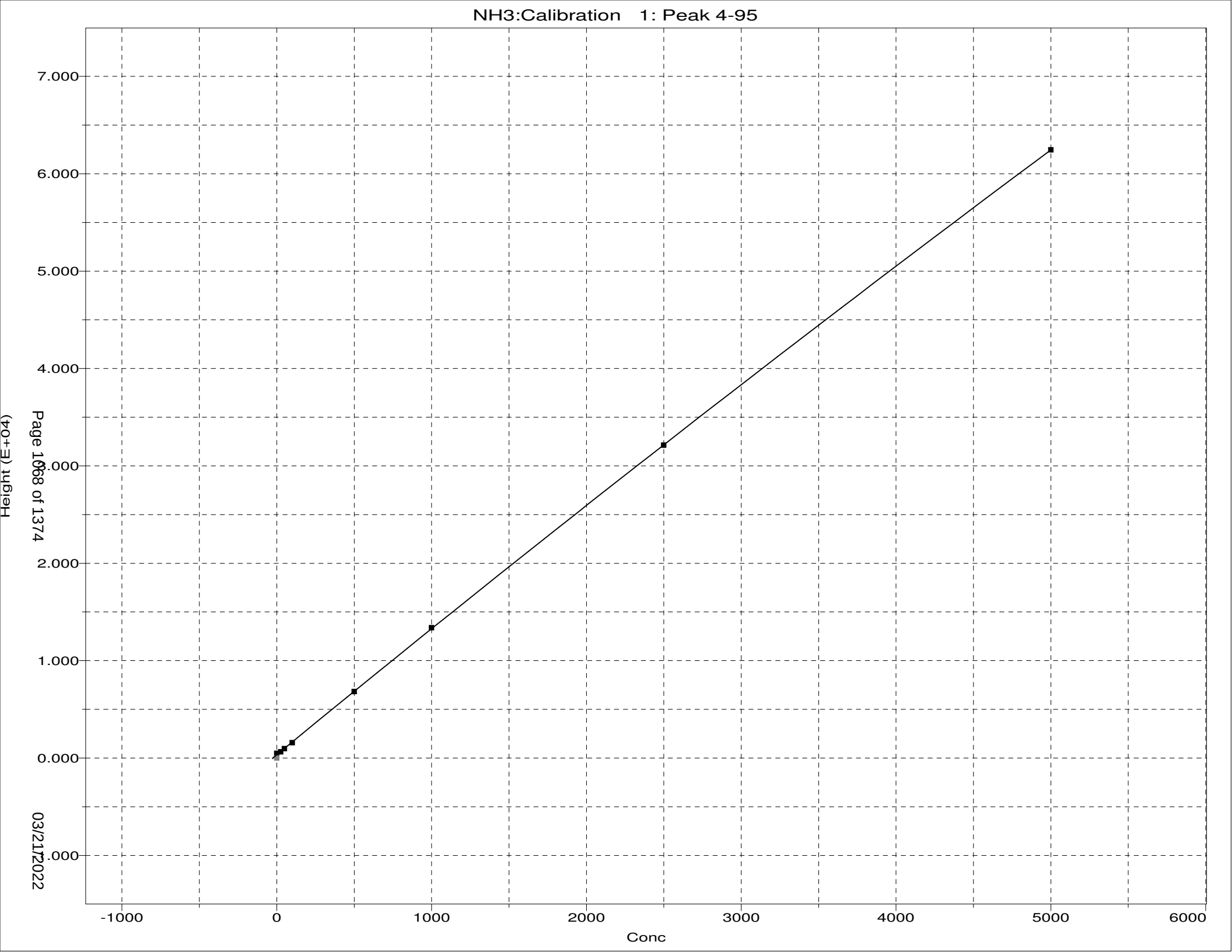
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0 ppb | 0.000000 | 485.212250 |
| * | Cal 25 ppb | 25.000000 | 626.823120 |
| * | Cal 50 ppb | 50.000000 | 966.779968 |
| * | Cal 100 ppb | 100.000000 | 1567.139404 |
| * | Cal 500 ppb | 500.000000 | 6823.559570 |
| * | Cal 1000 ppb | 1000.000000 | 13374.101562 |
| * | Cal 2500 ppb | 2500.000000 | 32118.814453 |
| * | Cal 5000 ppb | 5000.000000 | 62458.027344 |

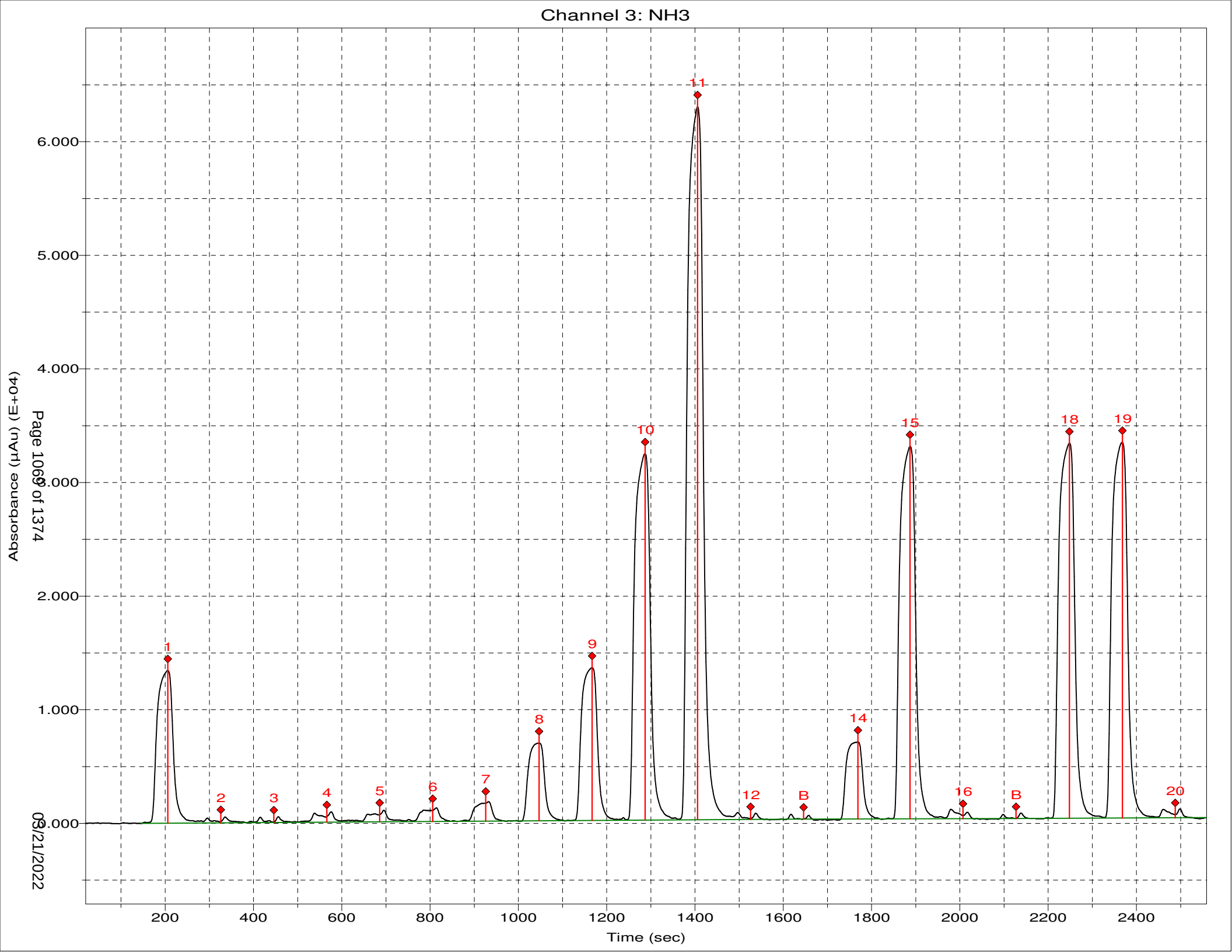
Calib Coef:
x=cyy+by+a
a: (intercept) -2.6723e+01
b: 7.6490e-02
c: 6.4089e-08

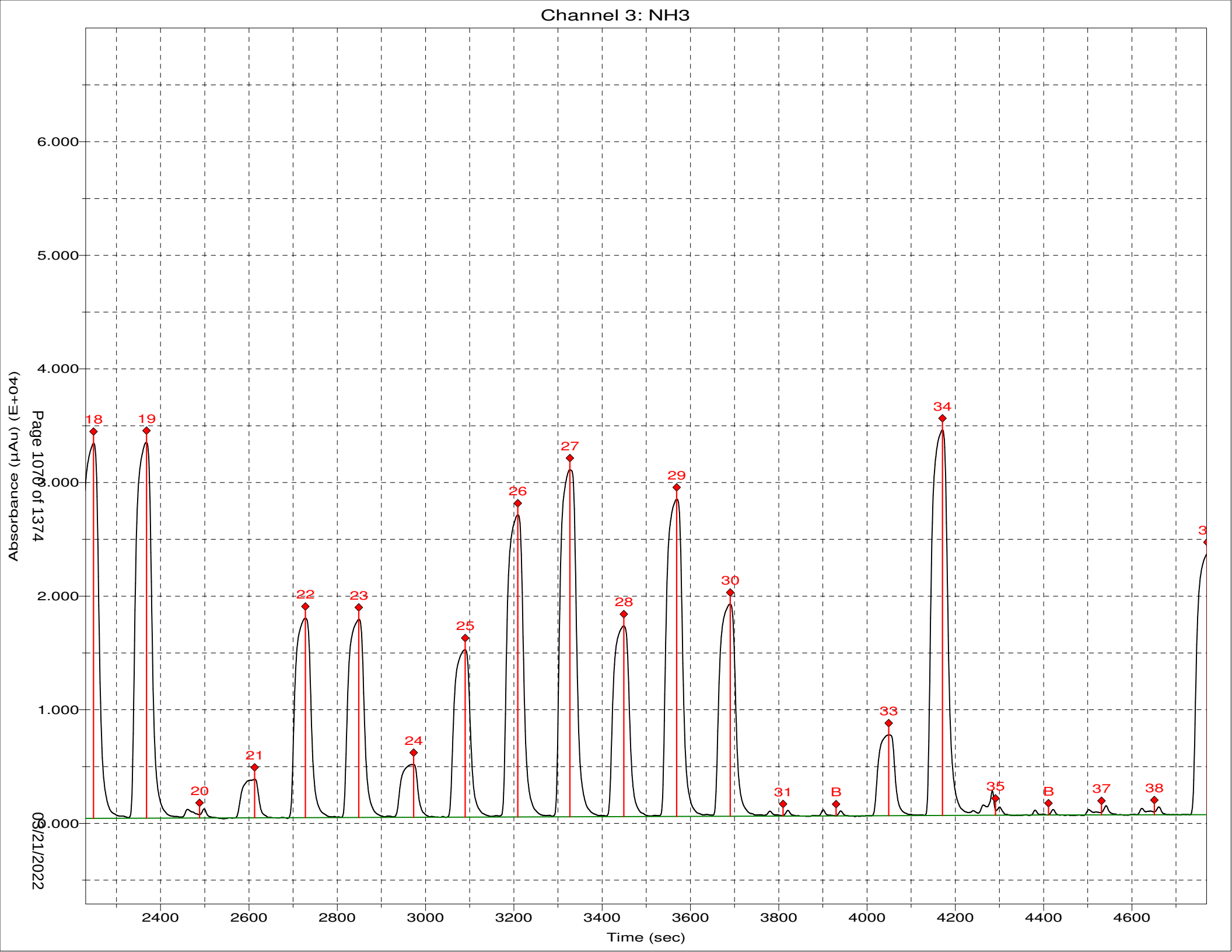
Corr Coef: 0.999994

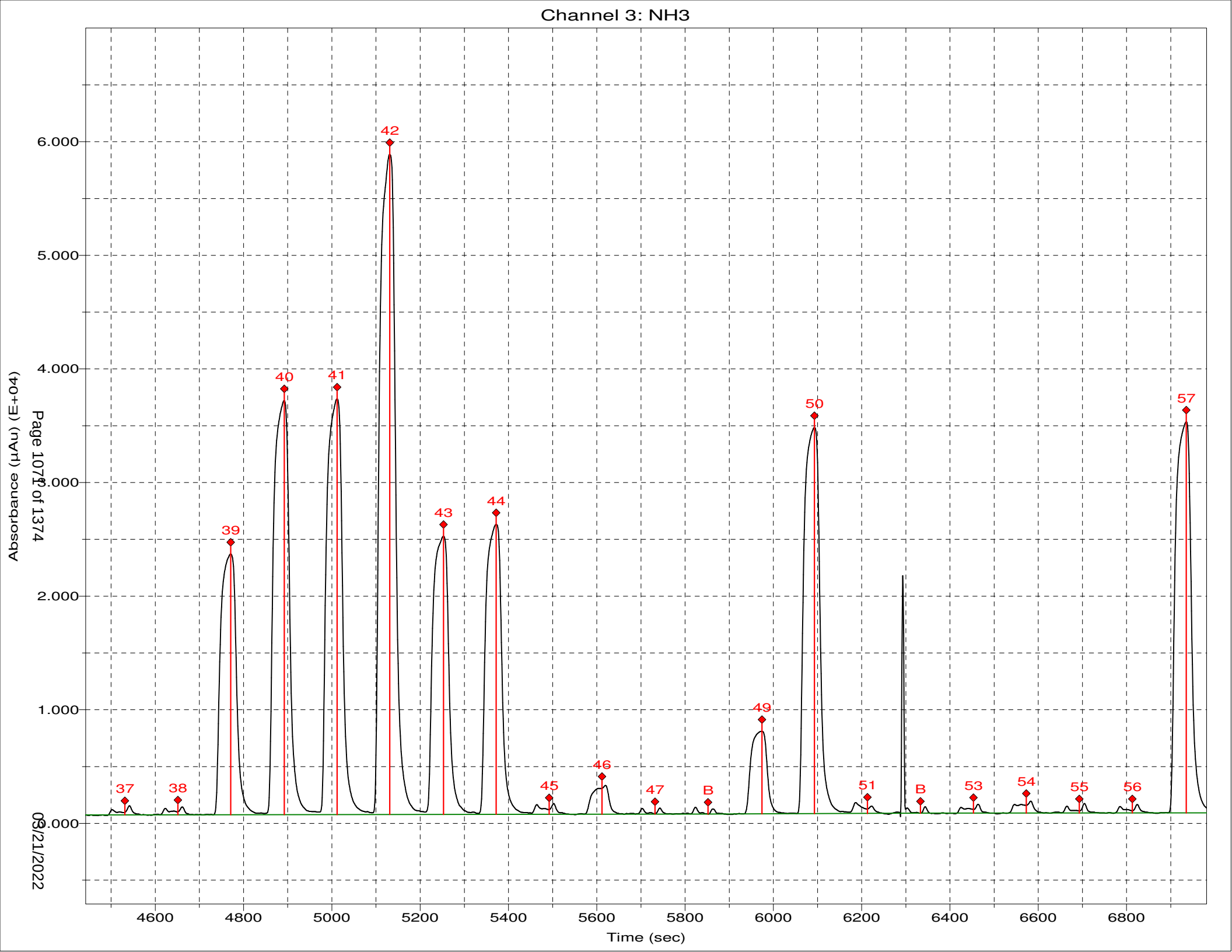
Carryover: 0.924%

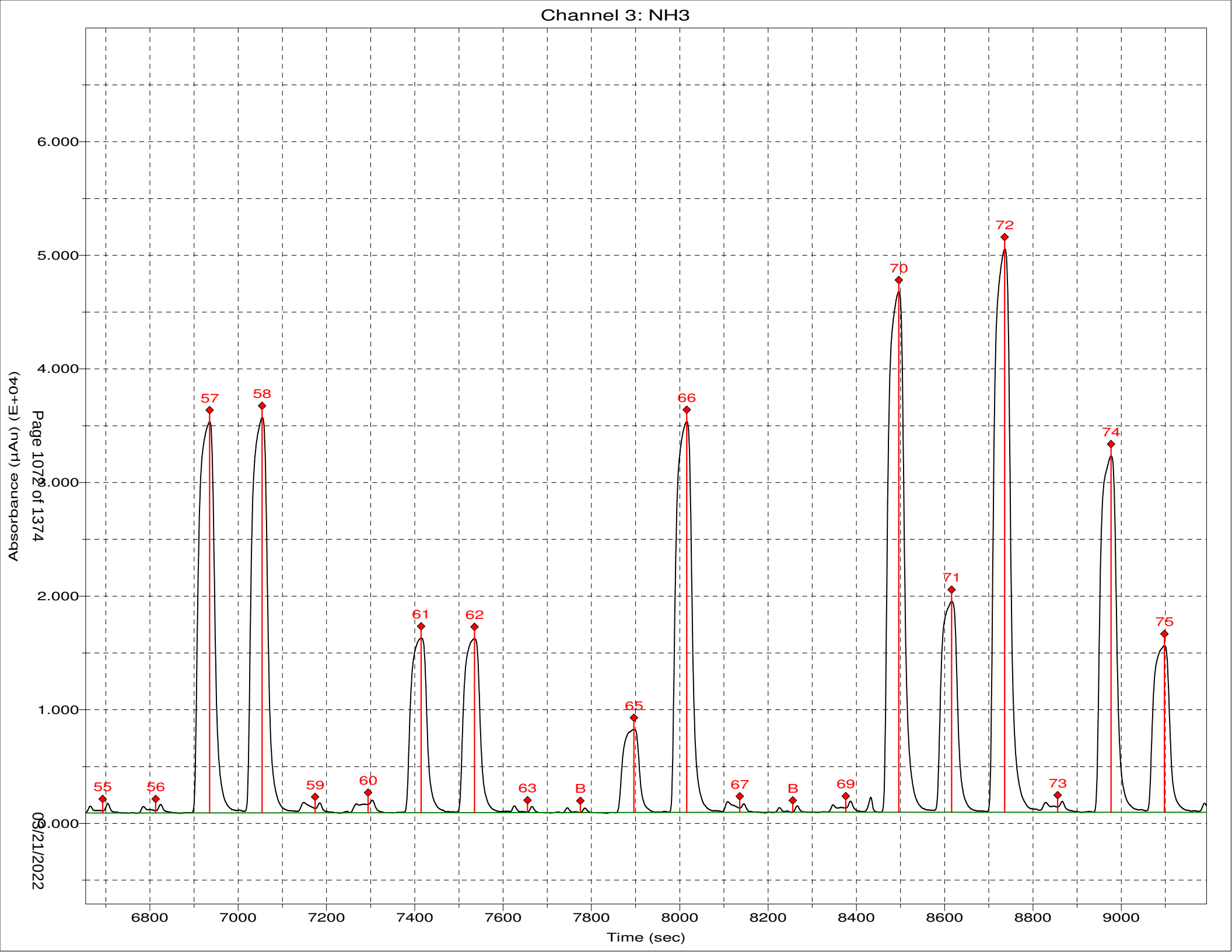
No Drift Peaks

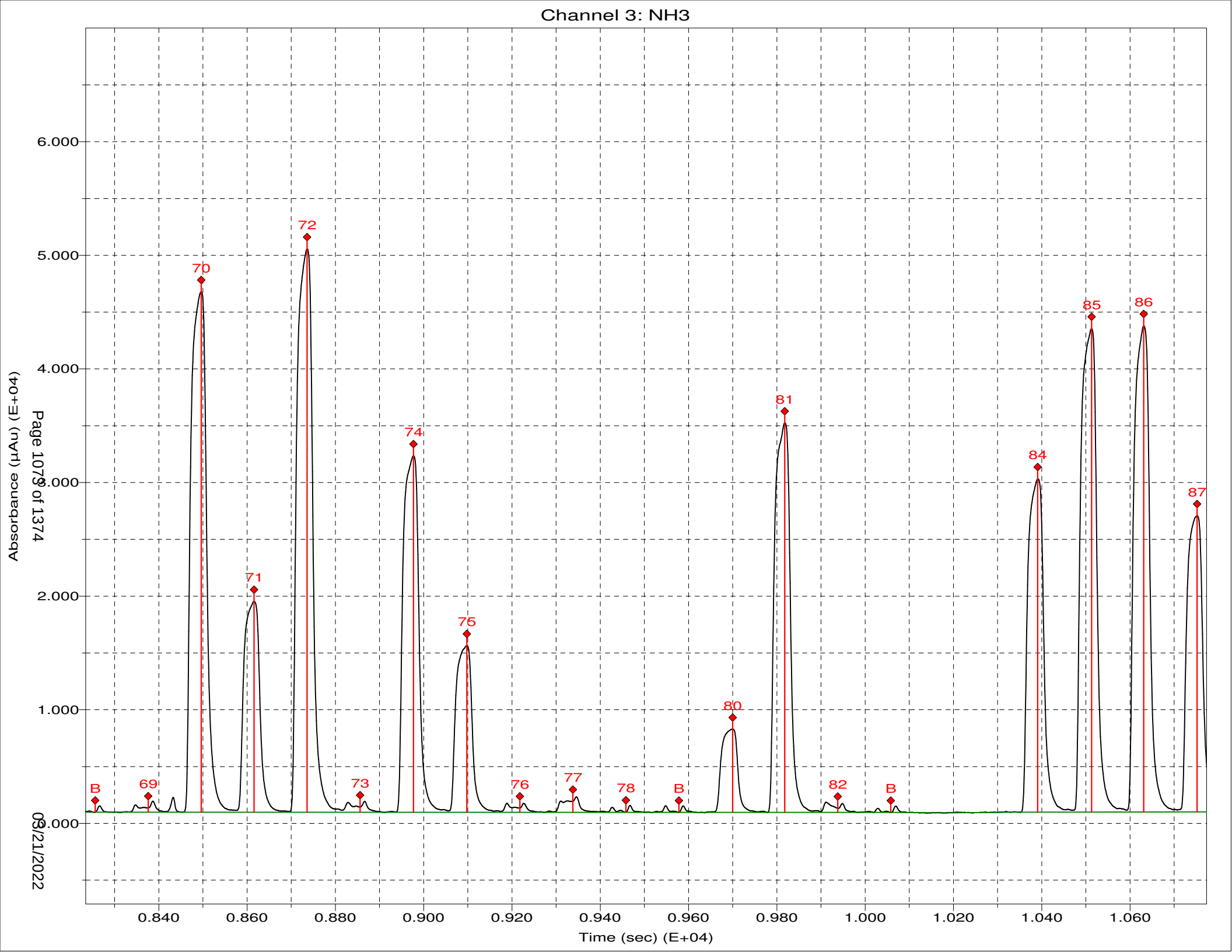

NH3:Calibration 1: Peak 4-95
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+04)
-1000
0
1000
2000
3000
4000
5000
6000
Conc
Page 1068 of 1374
03/21/2022

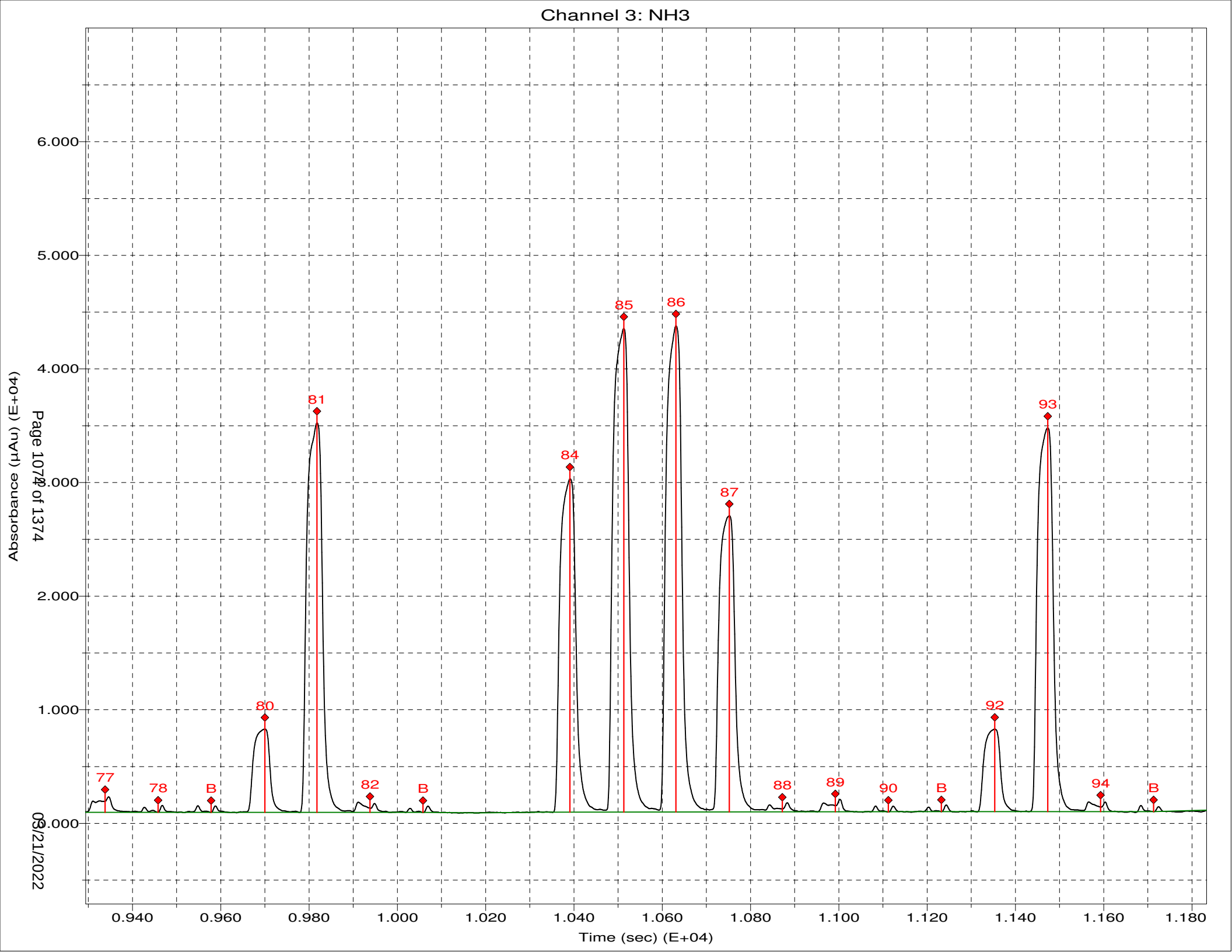

Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 1069 of 1374
03/21/2022
1
2
3
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
Time (sec)


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
18
19
20
21
22
23
24
25
26
27
28
29
30
31
B
33
34
35
B
37
38
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
Time (sec)
Page 1070 of 1374
03/21/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec)
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
57
Page 1071 of 1374
03/21/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec)
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
74
75
Page 1072 of 1374
03/21/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec) (E+04)
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
1.060
B
69
70
71
72
73
74
75
76
77
78
B
80
81
82
B
84
85
86
87


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Page 1074 of 1374
03/21/2022
77
78
B
80
81
82
B
84
85
86
87
88
89
90
B
92
93
94
B
0.940
0.960
0.980
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
Time (sec) (E+04)

# TestAmerica Calibration Spreadsheet, Work Instruction No. CA-Q-WI-13; dated 8/10/2011

| | | |
|---|---|---|
| **Method** | | 350.1 |
| **Analyte/Da** | NH3 | 3/17/2022 |

**Input Calibration Data**

| Amount | Response | ISTD Amt | ISTD Resp | Response |
|---|---|---|---|---|
| 0.000 | 485.212 | | | 485.21200 |
| 25.000 | 626.823 | | | 626.82300 |
| 50.000 | 966.780 | | | 966.77997 |
| 100.000 | 1567.139 | | | 1567.13900 |
| 500.000 | 6823.560 | | | 6823.55950 |
| 1000.000 | 13374.102 | | | 13374.10150 |
| 2500.000 | 32118.814 | | | 32118.81445 |
| 5000.000 | 62458.027 | | | 62458.02730 |
| | | | | 0.00000 |
| | | | | 0.00000 |

**Relative Errors in X**

| | Average | Linear (1/x2) | Linear (1/X) | Linear Forced | Linear | Quadratic |
|---|---|---|---|---|---|---|
| | | | | | | |
| | #DIV/0! | #DIV/0! | #DIV/0! | 93.60% | -30.01% | -11.15% |
| | #DIV/0! | #DIV/0! | #DIV/0! | 49.30% | -11.58% | -3.90% |
| | #DIV/0! | #DIV/0! | #DIV/0! | 21.00% | -8.62% | -6.28% |
| | #DIV/0! | #DIV/0! | #DIV/0! | 5.37% | 0.88% | -0.78% |
| | #DIV/0! | #DIV/0! | #DIV/0! | 3.27% | 1.91% | 0.40% |
| | #DIV/0! | #DIV/0! | #DIV/0! | -0.80% | -0.32% | -0.02% |
| | #DIV/0! | #DIV/0! | #DIV/0! | -3.55% | -2.48% | 1.44% |
| | | | | | | |
| | | | | | | |
| **RSE in X:** | #DIV/0! | #DIV/0! | #DIV/0! | 44.1% | 15.0% | 6.7% |

**Curve Fit Statistics**

| | Constant | 1ST Degree Coefficient | 2ND Degree Coefficient | X-Intercept | r² | r |
|---|---|---|---|---|---|---|
| Weighted (1/Amt^2) | | | | | | |
| Average | | #DIV/0! | | 0 | #DIV/0! | #DIV/0! |
| Linear | #DIV/0! | #DIV/0! | | #DIV/0! | #DIV/0! | #DIV/0! |
| Weighted (1/Amt) | | | | | | |
| Linear | #DIV/0! | #DIV/0! | | #DIV/0! | #DIV/0! | #DIV/0! |
| Unweighted | | | | | | |
| Forced Zero | | 1.2951E+01 | | 0 | 0.99881 | 0.99940 |
| Linear | 4.0414E+02 | 1.2727E+01 | | -31.76 | 0.99924 | 0.99962 |
| Quadratic | 3.3434E+02 | 1.3171E+01 | -1.8195E-04 | -25.38 | 0.99979 | 0.99990 |
| | c | b | a | | | |

**Sample Results**

| | Sample 1 | Sample 2 | Sample 3 | Sample 4 | Sample 5 |
|---|---|---|---|---|---|
| Instrum.Responses: | 626.823 | 6,823.560 | | | |
| IS Response: | | | | | |
| Avg RF Result: | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Linear(1/x2) Result: | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Linear(1/x) Result: | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Linear Forced: | 48.399 | 526.869 | 0.000 | 0.000 | 0.000 |
| Linear Result: | 17.498 | 504.411 | -31.756 | -31.756 | -31.756 |
| Quad Result (no IS): | 22.214 | 496.089 | -25.375 | -25.375 | -25.375 |
| Quad Result (with IS): | | | | | |

*** Sample Table from Analysis ***

568955

File name: *** Sample Table from Analysis ***
Date: 17-Mar-22

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 106 | Sync | SYNC | 1 | 1 | 1 | | |
| 0 | Carry Over | CO | 1 | 1 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 101 | Cal 0 ppb | C | 1 | 1 | 1 | | |
| 102 | Cal 25 ppb | C | 1 | 1 | 1 | | |
| 103 | Cal 50 ppb | C | 1 | 1 | 1 | | |
| 104 | Cal 100 ppb | C | 1 | 1 | 1 | | |
| 105 | Cal 500 ppb | C | 1 | 1 | 1 | | |
| 106 | Cal 1000 ppb | C | 1 | 1 | 1 | | |
| 107 | Cal 2500 ppb | C | 1 | 1 | 1 | | |
| 108 | Cal 5000 ppb | C | 1 | 1 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 109 | ICVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 110 | ICV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | ICB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 107 | LCSD | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 201 | 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 202 | ms 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 203 | msd 280-159466-H-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 204 | 280-159466-H-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 205 | 280-159466-G-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 206 | 590-17032-D-1 | U | 1 | 10 | 1 | | pH<2, Cl- non-detect |
| 207 | 280-159223-G-1 | U | 1 | 20 | 1 | | pH<2, Cl- non-detect |
| 208 | 280-159223-I-2 | U | 1 | 200 | 1 | | pH<2, Cl- non-detect |
| 209 | 280-159223-J-3 | U | 1 | 100 | 1 | | pH<2, Cl- non-detect |
| 210 | 280-159470-G-1 | U | 1 | 200 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 211 | 280-159190-C-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 212 | 280-159190-C-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 213 | 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 214 | ms 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 215 | msd 280-159190-C-16 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 216 | 280-159190-C-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 217 | 280-159190-C-4 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 218 | 280-159190-C-5 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 219 | 280-159190-C-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 220 | 280-159190-C-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 221 | 280-159190-C-8 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 222 | 280-159190-C-9 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 223 | 280-159190-C-10 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 224 | 280-159190-C-11 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |

350.1 color_00277
350.1 complex_00603
350.1 bleach_01586

SAHS000
1000 INTERCESSOR
BWH 200

MP 3-17-22

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 107 | LCS | U | 1 | 1 | 1 | | |
| 107 | LCSD | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 225 | 280-159234-L-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 226 | ms 280-159234-L-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 227 | msd 280-159234-L-7 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 228 | 280-159190-C-12 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 229 | 280-159190-C-13 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 230 | 280-159190-C-14 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 231 | 280-159190-C-15 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 232 | 280-159234-L-1 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 233 | 280-159234-L-2 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 234 | 280-159234-L-3 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 235 | 280-159234-L-4 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 236 | 280-159234-L-5 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 237 | 280-159234-l-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 238 | MS 280-159234-l-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 239 | MSD 280-159234-l-6 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 240 | 280-159234-l-8 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 241 | 280-159234-l-9 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 242 | 280-159234-l-10 | U | 1 | 1 | 1 | | pH<2, Cl- non-detect |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |

# Calibration results

TKN Version number 1.5 WC_GAL1

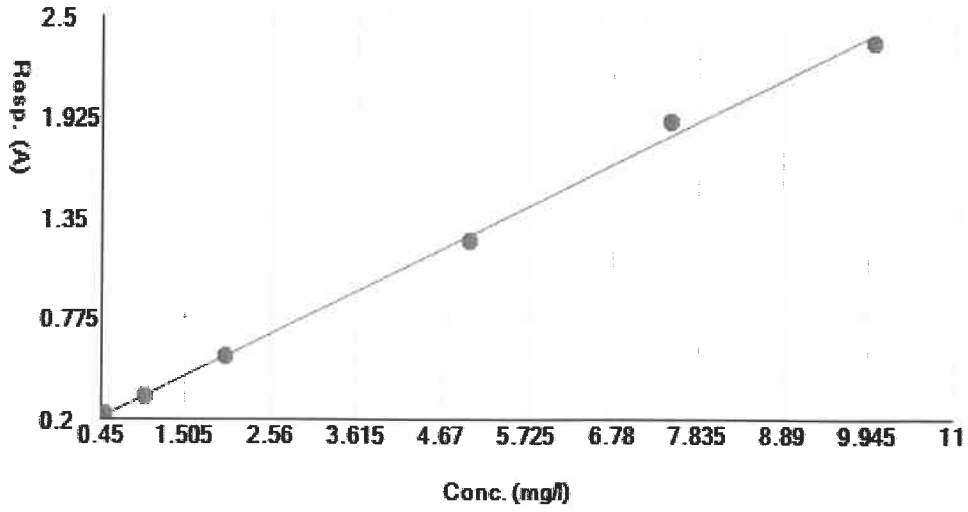
**Date** 3/9/2022 **User** Dealer

**Time** 6:47:27PM **Software version: 7.0**

**Analyzer name** WC_GAL1

| | | | |
|---|---|---|---|
| **Test** | TKN | **Coeff. of deter.** | 0.997758 |
| **Status** | Accepted | **Total factor** | 4.396 |
| **Accepted** | 2/22/2022 4:32 PM | | |
| **Checked** | 2/22/2022 4:32 PM | | |
| **User name** | Dealer | | |
| **Comment** | | | |
| **Errors** | | | |
| **Factor** | 4.396 | | |
| **Bias** | 0.107 | | |

| Cal/Ctrl | Response | Calc. conc. | Given conc. | Lot | Errors |
|---|---|---|---|---|---|
| TKN 10.0 | 0.231 | 0.54543910 | 0.50000000 | Default | |
| TKN 10.0 | 0.330 | 0.97760830 | 1.00000000 | Default | |
| TKN 10.0 | 0.554 | 1.96398400 | 2.00000000 | Default | |
| TKN 10.0 | 1.209 | 4.84515700 | 5.00000000 | Default | |
| TKN 7.5 | 1.889 | 7.83287700 | 7.50000000 | Default | |
| TKN 10.0 | 2.344 | 9.83493300 | 10.00000000 | Default | |



# Test results report

WC_GAL1

## Test name TKN

**Date** 3/9/2022 **User** Dealer

**Time** 6:46:55PM **Software version: 7.0**

**Test** TKN **Group ID** [All] **Acceptance** Not accepted

**Sample ID** [All] **Group name** [All] **Request type** All

| Test | Sample/ctrl ID | Test version | Result | Unit | Note | Dil. 1 + | Status | Errors |
|---|---|---|---|---|---|---|---|---|
| TKN | icv | 1.5 | 5.2813410 | mg/l | | 0.0 | calc | |
| TKN | icb | 1.5 | -0.0426786 | mg/l | | 0.0 | calc | |
| TKN | LCS 280-567921/1-A | 1.5 | 5.8193750 | mg/l | | 0.0 | calc | |
| TKN | MB 280-567921/2-A | 1.5 | 0.0168167 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-B-2 -A | 1.5 | -0.1853955 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-B-2 -B MS | 1.5 | 2.8914300 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-B-2 -C MSD | 1.5 | 2.8867380 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-B-3 -A | 1.5 | -0.1822735 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-B-4 -A | 1.5 | -0.1568315 | mg/l | | 0.0 | calc | |
| TKN | 280-159276-A-5 -A | 1.5 | 1.2117180 | mg/l | | 0.0 | calc | |
| TKN | 280-159238-A-1 -A | 1.5 | 0.7866580 | mg/l | | 0.0 | calc | |
| TKN | 280-159238-A-2 -A | 1.5 | 0.6356659 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-1 -A | 1.5 | 4.9063100 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-2 -A | 1.5 | 1.2810520 | mg/l | | 0.0 | calc | |
| TKN | ccv1 | 1.5 | 5.3872030 | mg/l | | 0.0 | calc | |
| TKN | ccb1 | 1.5 | -0.0401795 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-3 -A | 1.5 | 4.4082520 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-5 -A | 1.5 | 3.7091820 | mg/l | | 0.0 | calc | |
| TKN | LCS 280-567922/1-A | 1.5 | 5.8123660 | mg/l | | 0.0 | calc | |
| TKN | MB 280-567922/2-A | 1.5 | -0.0422915 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-4 -A | 1.5 | 0.3517995 | mg/l | | 0.0 | calc | |

| Test | Sample/ctrl ID | Test version | Result | Unit | Note | Dil. 1 + | Status | Errors |
|---|---|---|---|---|---|---|---|---|
| TKN | 280-159137-C-4-B MS | 1.5 | 3.3619640 | mg/l | | 0.0 | calc | |
| TKN | 280-159137-C-4-C MSD | 1.5 | 3.1719500 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-1-A | 1.5 | -0.1755505 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-2-A | 1.5 | 2.7271940 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-3-A | 1.5 | 1.5001120 | mg/l | | 0.0 | calc | |
| TKN | ccv2 | 1.5 | 5.4080130 | mg/l | | 0.0 | calc | |
| TKN | ccb2 | 1.5 | -0.0349609 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-4-A | 1.5 | 0.3030049 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-5-A | 1.5 | -0.1781853 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-6-A | 1.5 | 2.4608030 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-8-A | 1.5 | 1.5647870 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-9-A | 1.5 | -0.1814324 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-10-A | 1.5 | -0.1672794 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-7-A | 1.5 | 0.2962740 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-7-B MS | 1.5 | 3.5799680 | mg/l | | 0.0 | calc | |
| TKN | 280-159234-L-7-C MSD | 1.5 | 3.5870990 | mg/l | | 0.0 | calc | |
| TKN | 590-17015-A-3-A | 1.5 | 5.3685830 | mg/l | | 0.0 | calc | |
| TKN | ccv3 | 1.5 | 5.3912520 | mg/l | | 0.0 | calc | |
| TKN | ccb3 | 1.5 | -0.0377098 | mg/l | | 0.0 | calc | |
| TKN | 280-159235-H-3-A | 1.5 | 7.3555740 | mg/l | | 0.0 | calc | |
| TKN | 280-159235-H-4-A | 1.5 | 6.9277790 | mg/l | | 0.0 | calc | |
| TKN | 240-163242-AK-5-A | 1.5 | 2.2162320 | mg/l | | 0.0 | calc | |
| TKN | 590-17031-D-1-A | 1.5 | 5.0603960 | mg/l | | 0.0 | calc | |
| TKN | 590-17034-D-1-A | 1.5 | 9.4529630 | mg/l | | 0.0 | calc | |
| TKN | ccv4 | 1.5 | 5.3834370 | mg/l | | 0.0 | calc | |
| TKN | ccb4 | 1.5 | -0.0294369 | mg/l | | 0.0 | calc | |
| TKN | 590-17030-E-1-A | 1.5 | 41.7501400 | mg/l | | 4.0 | calc | |

| Test | Sample/ctrl ID | Test version | Result | Unit | Note | Dil. 1 + | Status | Errors |
|---|---|---|---|---|---|---|---|---|
| TKN | 590-17032-D-1-A | 1.5 | 43.6246100 | mg/l | | 4.0 | calc | |
| TKN | 590-17033-D-1-A | 1.5 | 31.5328800 | mg/l | | 4.0 | calc | |
| TKN | ccv5 | 1.5 | 5.3235230 | mg/l | | 0.0 | calc | |
| TKN | ccb5 | 1.5 | -0.0431287 | mg/l | | 0.0 | calc | |

Run Results Report

| | |
|---|---|
| Facility Name | |
| Facility Location | |
| Department | |
| Operator Name | svc |
| Operator ID | svc |
| Platform | FS III/IV/3100 |
| Software Rev Code | 240 |
| Data system ID | 54 |
| Result path | C:\FLOW_4\031322.RST |
| Sample table path | C:\FLOW_4\031322.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 13-Mar-22 |
| Time acquired | 20:04 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 13-Mar-22 | 16:35 | 109 | SYNC |
| 13-Mar-22 | 16:37 | 0 | Carryover |
| 13-Mar-22 | 16:39 | 0 | Carryover (Statistics) |
| 13-Mar-22 | 16:41 | 0 | read baseline |
| 13-Mar-22 | 16:43 | 101 | Cal 0.00 ppb |
| 13-Mar-22 | 16:45 | 102 | Cal 50.0 ppb |
| 13-Mar-22 | 16:47 | 103 | Cal 100 ppb |
| 13-Mar-22 | 16:49 | 104 | Cal 500 ppb |
| 13-Mar-22 | 16:51 | 105 | Cal 1000 ppb |
| 13-Mar-22 | 16:53 | 106 | Cal 2500 ppb |
| 13-Mar-22 | 16:55 | 107 | Cal 5000 ppb |
| 13-Mar-22 | 16:57 | 108 | Cal 7500 ppb |
| 13-Mar-22 | 16:59 | 109 | Cal 10000 ppb |
| 13-Mar-22 | 17:01 | 0 | Blank |
| 13-Mar-22 | 17:03 | 0 | Read Baseline |
| 13-Mar-22 | 17:05 | 110 | 5000 PPB NO2 |
| 13-Mar-22 | 17:07 | 111 | ICV 5000 PPB |
| 13-Mar-22 | 17:09 | 112 | ICV 2000 PPB |
| 13-Mar-22 | 17:11 | 0 | ICB |
| 13-Mar-22 | 17:13 | 0 | Read Baseline |
| 13-Mar-22 | 17:15 | 107 | LCS |
| 13-Mar-22 | 17:17 | 0 | MB |
| 13-Mar-22 | 17:19 | 113 | 280-159180-A-4 |
| 13-Mar-22 | 17:21 | 114 | ms 280-159180-A-4 |
| 13-Mar-22 | 17:23 | 115 | msd 280-159180-A-4 |
| 13-Mar-22 | 17:25 | 116 | 280-159180-A-11 |
| 13-Mar-22 | 17:27 | 117 | 580-111014-A-3 |
| 13-Mar-22 | 17:29 | 118 | 550-180483-B-1 |
| 13-Mar-22 | 17:31 | 119 | 550-180483-B-3 |
| 13-Mar-22 | 17:33 | 120 | 280-159190-C-1 |
| 13-Mar-22 | 17:35 | 121 | 280-159190-C-2 |
| 13-Mar-22 | 17:37 | 122 | 280-159190-C-3 |
| 13-Mar-22 | 17:39 | 0 | Rinse |
| 13-Mar-22 | 17:41 | 0 | Read Baseline |
| 13-Mar-22 | 17:43 | 107 | CCV 5000 ppb |
| 13-Mar-22 | 17:45 | 105 | CCVL 1000 ppb |
| 13-Mar-22 | 17:47 | 0 | CCB |
| 13-Mar-22 | 17:49 | 0 | Read Baseline |
| 13-Mar-22 | 17:51 | 123 | 280-159190-C-4 |
| 13-Mar-22 | 17:53 | 124 | 280-159190-C-5 |
| 13-Mar-22 | 17:55 | 125 | 280-159382-A-4 |
| 13-Mar-22 | 17:57 | 126 | ms 280-159382-A-4 |
| 13-Mar-22 | 17:59 | 127 | msd 280-159382-A-4 |
| 13-Mar-22 | 18:01 | 128 | 280-159190-C-6 |

Result path C:\FLOW_4\031322.RST
Sample table path C:\FLOW_4\031322.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 13-Mar-22
Time acquired 20:04

| Date | Time | Cup | Name |
|---|---|---|---|
| 13-Mar-22 | 18:03 | 129 | 280-159190-C-7 |
| 13-Mar-22 | 18:05 | 130 | 280-159190-C-8 |
| 13-Mar-22 | 18:07 | 131 | 280-159190-C-9 |
| 13-Mar-22 | 18:09 | 132 | 280-159190-C-10 |
| 13-Mar-22 | 18:11 | 0 | Rinse |
| 13-Mar-22 | 18:13 | 0 | Read Baseline |
| 13-Mar-22 | 18:15 | 107 | CCV 5000 ppb |
| 13-Mar-22 | 18:17 | 105 | CCVL 1000 ppb |
| 13-Mar-22 | 18:19 | 0 | CCB |
| 13-Mar-22 | 18:21 | 0 | Read Baseline |
| 13-Mar-22 | 18:23 | 133 | 280-159190-C-11 |
| 13-Mar-22 | 18:25 | 134 | 280-159190-C-12 |
| 13-Mar-22 | 18:27 | 135 | 280-159190-C-13 |
| 13-Mar-22 | 18:29 | 136 | 280-159190-C-14 |
| 13-Mar-22 | 18:31 | 107 | LCS |
| 13-Mar-22 | 18:33 | 0 | MB |
| 13-Mar-22 | 18:35 | 137 | 280-159190-C-16 |
| 13-Mar-22 | 18:37 | 138 | ms 280-159190-C-16 |
| 13-Mar-22 | 18:39 | 139 | msd 280-159190-C-16 |
| 13-Mar-22 | 18:41 | 140 | 280-159190-C-15 |
| 13-Mar-22 | 18:43 | 0 | Rinse |
| 13-Mar-22 | 18:45 | 0 | Read Baseline |
| 13-Mar-22 | 18:47 | 107 | CCV 5000 ppb |
| 13-Mar-22 | 18:49 | 105 | CCVL 1000 ppb |
| 13-Mar-22 | 18:51 | 0 | CCB |
| 13-Mar-22 | 18:53 | 0 | Read Baseline |
| 13-Mar-22 | 18:55 | 141 | 280-159234-L-1 |
| 13-Mar-22 | 18:57 | 142 | 280-159234-L-2 |
| 13-Mar-22 | 18:59 | 143 | 280-159234-L-3 |
| 13-Mar-22 | 19:01 | 144 | 280-159234-L-4 |
| 13-Mar-22 | 19:03 | 145 | 280-159234-L-5 |
| 13-Mar-22 | 19:05 | 146 | 280-159234-L-6 |
| 13-Mar-22 | 19:07 | 147 | 280-159234-L-8 |
| 13-Mar-22 | 19:09 | 148 | 280-159234-L-9 |
| 13-Mar-22 | 19:11 | 149 | 280-159234-L-7 |
| 13-Mar-22 | 19:13 | 150 | ms 280-159234-L-7 |
| 13-Mar-22 | 19:15 | 0 | Rinse |
| 13-Mar-22 | 19:17 | 0 | Read Baseline |
| 13-Mar-22 | 19:19 | 107 | CCV 5000 ppb |
| 13-Mar-22 | 19:21 | 105 | CCVL 1000 ppb |
| 13-Mar-22 | 19:23 | 0 | CCB |
| 13-Mar-22 | 19:25 | 0 | Read Baseline |
| 13-Mar-22 | 19:27 | 151 | msd 280-159234-L-7 |
| 13-Mar-22 | 19:29 | 152 | 280-159234-L-10 |
| 13-Mar-22 | 19:31 | 153 | 280-159452-C-1 |
| 13-Mar-22 | 19:33 | 154 | 280-159452-C-2 |
| 13-Mar-22 | 19:35 | 155 | 280-159452-C-3 |
| 13-Mar-22 | 19:37 | 156 | 280-159452-C-4 |
| 13-Mar-22 | 19:39 | 157 | 280-159452-C-5 |
| 13-Mar-22 | 19:41 | 158 | d |
| 13-Mar-22 | 19:43 | 159 | d |
| 13-Mar-22 | 19:45 | 160 | d |
| 13-Mar-22 | 19:47 | 0 | Rinse |
| 13-Mar-22 | 19:49 | 0 | Read Baseline |
| 13-Mar-22 | 19:51 | 107 | CCV 5000 ppb |
| 13-Mar-22 | 19:53 | 105 | CCVL 1000 ppb |
| 13-Mar-22 | 19:55 | 0 | CCB |

| | |
|---|---|
| Result path | C:\FLOW_4\031322.RST |
| Sample table path | C:\FLOW_4\031322.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 13-Mar-22 |
| Time acquired | 20:04 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 13-Mar-22 | 19:57 | 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\031322.RST
Sample table path C:\FLOW_4\031322.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 13-Mar-22
Time acquired 20:04

| | Nitrate as N | | | | | |
|---|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] | |
| SYNC | 2549081 | 9960.570 | | | | |
| Carryover | 2845 | -16.232 | LO | | | |
| Carryover | 186 | -26.649 | LO | | | |
| (Statistics) | | | | 1516 | -21.440 | N |
| read baseline | 0 | -27.380 | BL | | | |
| Cal 0.00 ppb | 1550 | -21.305 | LO | | | |
| Cal 50.0 ppb | 14839 | 30.763 | | | | |
| Cal 100 ppb | 28073 | 82.618 | | | | |
| Cal 500 ppb | 133670 | 496.373 | | | | |
| Cal 1000 ppb | 274719 | 1049.041 | | | | |
| Cal 2500 ppb | 658703 | 2553.584 | | | | |
| Cal 5000 ppb | 1275626 | 4970.849 | | | | |
| Cal 7500 ppb | 1912277 | 7465.410 | | | | |
| Cal 10000 ppb | 2564930 | 10022.668 | HI | | | |
| Blank | -365 | -28.812 | LO | | | |
| Read Baseline | 0 | -27.380 | BL | | | |
| 5000 PPB NO2 | 1267800 | 4940.182 | | | | |
| ICV 5000 PPB | 1327235 | 5173.065 | | | | |
| ICV 2000 PPB | 549802 | 2126.885 | | | | |
| ICB | 454 | -25.600 | LO | | | |
| Read Baseline | 0 | -27.380 | BL | | | |
| LCS | 1347786 | 5253.587 | | | | |
| MB | -6 | -27.404 | LO | | | |
| 280-159180-A-4 | 121221 | 447.593 | | | | |
| ms 280-159180-A-4 | 1157592 | 4508.361 | | | | |
| msd 280-159180-A-4 | 1153544 | 4492.499 | | | | |
| 280-159180-A-11 | 179783 | 677.056 | | | | |
| 580-111014-A-3 | 166545 | 625.186 | | | | |
| 550-180483-B-1 | 6896 | -0.361 | LO | | | |
| 550-180483-B-3 | 18319 | 44.398 | | | | |
| 280-159190-C-1 | 1799643 | 35120.395 | | | | |
| 280-159190-C-2 | 1077185 | 4193.306 | | | | |
| 280-159190-C-3 | 1384624 | 5397.929 | | | | |
| Rinse | -198 | -28.155 | LO | | | |
| Read Baseline | 0 | -27.380 | BL | | | |
| CCV 5000 ppb | 1295706 | 5049.527 | | | | |
| CCVL 1000 ppb | 274284 | 1047.334 | | | | |
| CCB | 537 | -25.275 | LO | | | |
| Read Baseline | 0 | -27.380 | BL | | | |
| 280-159190-C-4 | 533515 | 2063.067 | | | | |
| 280-159190-C-5 | 3417973 | 13365.109 | HI | | | |
| 280-159382-A-4 | 38728 | 124.368 | FL | | | |
| ms 280-159382-A-4 | 1106741 | 4309.115 | | | | |
| msd 280-159382-A-4 | 1070745 | 4168.071 | | | | |
| 280-159190-C-6 | 1392111 | 10854.533 | | | | |

Result path C:\FLOW_4\031322.RST
Sample table path C:\FLOW_4\031322.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 13-Mar-22
Time acquired 20:04

| | Nitrate as N | | | | |
|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] |
| 280-159190-C-7 | 1599622 | 31201.740 | | | |
| 280-159190-C-8 | 1888047 | 14740.938 | | | |
| 280-159190-C-9 | 920360 | 3578.824 | | | |
| 280-159190-C-10 | -198 | -28.156 | LO | | |
| Rinse | 391 | -25.849 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| CCV 5000 ppb | 1284171 | 5004.330 | | | |
| CCVL 1000 ppb | 276220 | 1054.922 | | | |
| CCB | -63 | -27.626 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| 280-159190-C-11 | 969518 | 37714.406 | | | |
| 280-159190-C-12 | 784394 | 30460.752 | | | |
| 280-159190-C-13 | 4061 | -11.466 | LO | | |
| 280-159190-C-14 | 3682 | -12.953 | LO | | |
| LCS | 1273147 | 4961.134 | | | |
| MB | -1311 | -32.516 | LO | | |
| 280-159190-C-16 | 1802 | -20.321 | LO | | |
| ms 280-159190-C-16 | 1021916 | 3976.748 | | | |
| msd 280-159190-C-16 | 1022490 | 3978.997 | | | |
| 280-159190-C-15 | 1670 | -20.838 | LO | | |
| Rinse | 90 | -27.026 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| CCV 5000 ppb | 1271212 | 4953.552 | | | |
| CCVL 1000 ppb | 275526 | 1052.200 | | | |
| CCB | -715 | -30.182 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| 280-159234-L-1 | 573463 | 55489.863 | | | |
| 280-159234-L-2 | 165834 | 622.399 | | | |
| 280-159234-L-3 | 93492 | 338.947 | | | |
| 280-159234-L-4 | 748759 | 2906.450 | | | |
| 280-159234-L-5 | 1676700 | 6542.356 | | | |
| 280-159234-L-6 | -957 | -31.128 | LO | | |
| 280-159234-L-8 | 1247986 | 4862.549 | | | |
| 280-159234-L-9 | 1730937 | 6754.873 | | | |
| 280-159234-L-7 | 1711 | -20.676 | LO | | |
| ms 280-159234-L-7 | 1059724 | 4124.890 | | | |
| Rinse | 200 | -26.597 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| CCV 5000 ppb | 1266296 | 4934.292 | | | |
| CCVL 1000 ppb | 272214 | 1039.225 | | | |
| CCB | 145 | -26.810 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| msd 280-159234-L-7 | 1050811 | 4089.965 | | | |
| 280-159234-L-10 | 1311547 | 5111.595 | | | |
| 280-159452-C-1 | 3469 | -13.787 | LO | | |
| 280-159452-C-2 | 17053 | 39.439 | | | |
| 280-159452-C-3 | 3394 | -14.081 | LO | | |
| 280-159452-C-4 | 487260 | 1881.828 | | | |
| 280-159452-C-5 | 4085 | -11.375 | LO | | |
| d | 647 | -24.843 | LO | | |
| d | 537 | -25.275 | LO | | |
| d | 447 | -25.630 | LO | | |
| Rinse | -407 | -28.973 | LO | | |
| Read Baseline | 0 | -27.380 | BL | | |
| CCV 5000 ppb | 1262630 | 4919.928 | | | |
| CCVL 1000 ppb | 272028 | 1038.497 | | | |
| CCB | 4 | -27.365 | LO | | |

Result path C:\FLOW_4\031322.RST
Sample table path C:\FLOW_4\031322.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 13-Mar-22
Time acquired 20:04

| | Nitrate as N | | | | |
|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] |
| Read Baseline | 0 | -27.380 | BL | | |

Peak Table:Nitrate as N

File name: C:\FLOW_4\031322.RST
Date: 13-Mar-22
Operator: svc

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 109 | SYNC | 1 | SYNC | 1 | 1 | 2549081 | 9960.570312 | |
| 2 | 0 | Carryover | 1 | CO | 1 | 1 | 2845 | -16.231773 | LO |
| 3 | 0 | Carryover | 2 | CO | 1 | 1 | 186 | -26.649183 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 5 | 101 | Cal 0.00 ppb | 1 | C | 1 | 1 | 1550 | -21.305428 | LO |
| 6 | 102 | Cal 50.0 ppb | 1 | C | 1 | 1 | 14839 | 30.763014 | |
| 7 | 103 | Cal 100 ppb | 1 | C | 1 | 1 | 28073 | 82.617867 | |
| 8 | 104 | Cal 500 ppb | 1 | C | 1 | 1 | 133670 | 496.372528 | |
| 9 | 105 | Cal 1000 ppb | 1 | C | 1 | 1 | 274719 | 1049.040771 | |
| 10 | 106 | Cal 2500 ppb | 1 | C | 1 | 1 | 658703 | 2553.584473 | |
| 11 | 107 | Cal 5000 ppb | 1 | C | 1 | 1 | 1275626 | 4970.849121 | |
| 12 | 108 | Cal 7500 ppb | 1 | C | 1 | 1 | 1912277 | 7465.409668 | |
| 13 | 109 | Cal 10000 ppb | 1 | C | 1 | 1 | 2564930 | 10022.667969 | HI |
| 14 | 0 | Blank | 1 | BLNK | 1 | 1 | -365 | -28.811863 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 16 | 110 | 5000 PPB NO2 | 1 | U | 1 | 1 | 1267800 | 4940.181641 | |
| 17 | 111 | ICV 5000 PPB | 1 | CCV | 1 | 1 | 1327235 | 5173.065430 | |
| 18 | 112 | ICV 2000 PPB | 1 | CCV | 1 | 1 | 549802 | 2126.885010 | |
| 19 | 0 | ICB | 1 | U | 1 | 1 | 454 | -25.599943 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 21 | 107 | LCS | 1 | U | 1 | 1 | 1347786 | 5253.586914 | |
| 22 | 0 | MB | 1 | U | 1 | 1 | -6 | -27.404320 | LO |
| 23 | 113 | 280-159180-A-4 | 1 | U | 1 | 1 | 121221 | 447.593201 | |
| 24 | 114 | ms 280-159180-A-4 | 1 | U | 1 | 1 | 1157592 | 4508.360840 | |
| 25 | 115 | msd 280-159180-A-4 | 1 | U | 1 | 1 | 1153544 | 4492.498535 | |
| 26 | 116 | 280-159180-A-11 | 1 | U | 1 | 1 | 179783 | 677.055908 | |
| 27 | 117 | 580-111014-A-3 | 1 | U | 1 | 1 | 166545 | 625.186279 | |
| 28 | 118 | 550-180483-B-1 | 1 | U | 1 | 1 | 6896 | -0.360916 | LO |
| 29 | 119 | 550-180483-B-3 | 1 | U | 1 | 1 | 18319 | 44.398064 | |
| 30 | 120 | 280-159190-C-1 | 1 | U | 5 | 1 | 1799643 | 35120.394531 | |
| 31 | 121 | 280-159190-C-2 | 1 | U | 1 | 1 | 1077185 | 4193.305664 | |
| 32 | 122 | 280-159190-C-3 | 1 | U | 1 | 1 | 1384624 | 5397.929199 | |
| 33 | 0 | Rinse | 1 | U | 1 | 1 | -198 | -28.154881 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 35 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1295706 | 5049.527344 | |
| 36 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 274284 | 1047.334106 | |
| 37 | 0 | CCB | 1 | U | 1 | 1 | 537 | -25.275076 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 39 | 123 | 280-159190-C-4 | 1 | U | 1 | 1 | 533515 | 2063.067139 | |
| 40 | 124 | 280-159190-C-5 | 1 | U | 1 | 1 | 3417973 | 13365.109375 | HI |
| 41 | 125 | 280-159382-A-4 | 1 | U | 1 | 1 | 38728 | 124.368088 | FL |
| 42 | 126 | ms 280-159382-A-4 | 1 | U | 1 | 1 | 1106741 | 4309.114746 | |
| 43 | 127 | msd 280-159382-A-4 | 1 | U | 1 | 1 | 1070745 | 4168.071289 | |
| 44 | 128 | 280-159190-C-6 | 1 | U | 2 | 1 | 1392111 | 10854.533203 | |
| 45 | 129 | 280-159190-C-7 | 1 | U | 5 | 1 | 1599622 | 31201.740234 | |
| 46 | 130 | 280-159190-C-8 | 1 | U | 2 | 1 | 1888047 | 14740.937500 | |
| 47 | 131 | 280-159190-C-9 | 1 | U | 1 | 1 | 920360 | 3578.824219 | |
| 48 | 132 | 280-159190-C-10 | 1 | U | 1 | 1 | -198 | -28.156311 | LO |
| 49 | 0 | Rinse | 1 | U | 1 | 1 | 391 | -25.849487 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 51 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1284171 | 5004.329590 | |
| 52 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 276220 | 1054.922363 | |
| 53 | 0 | CCB | 1 | U | 1 | 1 | -63 | -27.626354 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 55 | 133 | 280-159190-C-11 | 1 | U | 10 | 1 | 969518 | 37714.406250 | |
| 56 | 134 | 280-159190-C-12 | 1 | U | 10 | 1 | 784394 | 30460.751953 | |
| 57 | 135 | 280-159190-C-13 | 1 | U | 1 | 1 | 4061 | -11.466082 | LO |
| 58 | 136 | 280-159190-C-14 | 1 | U | 1 | 1 | 3682 | -12.952952 | LO |
| 59 | 107 | LCS | 1 | U | 1 | 1 | 1273147 | 4961.134277 | |
| 60 | 0 | MB | 1 | U | 1 | 1 | -1311 | -32.516438 | LO |
| 61 | 137 | 280-159190-C-16 | 1 | U | 1 | 1 | 1802 | -20.320805 | LO |
| 62 | 138 | ms 280-159190-C-16 | 1 | U | 1 | 1 | 1021916 | 3976.747559 | |
| 63 | 139 | msd 280-159190-C-16 | 1 | U | 1 | 1 | 1022490 | 3978.997070 | |
| 64 | 140 | 280-159190-C-15 | 1 | U | 1 | 1 | 1670 | -20.838308 | LO |
| 65 | 0 | Rinse | 1 | U | 1 | 1 | 90 | -27.025791 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 67 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1271212 | 4953.551758 | |
| 68 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 275526 | 1052.199951 | |
| 69 | 0 | CCB | 1 | U | 1 | 1 | -715 | -30.182215 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 71 | 141 | 280-159234-L-1 | 1 | U | 25 | 1 | 573463 | 55489.863281 | |
| 72 | 142 | 280-159234-L-2 | 1 | U | 1 | 1 | 165834 | 622.399292 | |
| 73 | 143 | 280-159234-L-3 | 1 | U | 1 | 1 | 93492 | 338.947205 | |
| 74 | 144 | 280-159234-L-4 | 1 | U | 1 | 1 | 748759 | 2906.450195 | |
| 75 | 145 | 280-159234-L-5 | 1 | U | 1 | 1 | 1676700 | 6542.355957 | |
| 76 | 146 | 280-159234-L-6 | 1 | U | 1 | 1 | -957 | -31.127937 | LO |
| 77 | 147 | 280-159234-L-8 | 1 | U | 1 | 1 | 1247986 | 4862.549316 | |
| 78 | 148 | 280-159234-L-9 | 1 | U | 1 | 1 | 1730937 | 6754.873047 | |
| 79 | 149 | 280-159234-L-7 | 1 | U | 1 | 1 | 1711 | -20.675531 | LO |
| 80 | 150 | ms 280-159234-L-7 | 1 | U | 1 | 1 | 1059724 | 4124.890137 | |
| 81 | 0 | Rinse | 1 | U | 1 | 1 | 200 | -26.596869 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 83 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1266296 | 4934.291504 | |
| 84 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 272214 | 1039.224731 | |
| 85 | 0 | CCB | 1 | U | 1 | 1 | 145 | -26.810165 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 87 | 151 | msd 280-159234-L-7 | 1 | U | 1 | 1 | 1050811 | 4089.965088 | |
| 88 | 152 | 280-159234-L-10 | 1 | U | 1 | 1 | 1311547 | 5111.595215 | |
| 89 | 153 | 280-159452-C-1 | 1 | U | 1 | 1 | 3469 | -13.787220 | LO |
| 90 | 154 | 280-159452-C-2 | 1 | U | 1 | 1 | 17053 | 39.438602 | |
| 91 | 155 | 280-159452-C-3 | 1 | U | 1 | 1 | 3394 | -14.081184 | LO |
| 92 | 156 | 280-159452-C-4 | 1 | U | 1 | 1 | 487260 | 1881.828369 | |
| 93 | 157 | 280-159452-C-5 | 1 | U | 1 | 1 | 4085 | -11.374798 | LO |
| 94 | 158 | d | 1 | U | 1 | 1 | 647 | -24.843283 | LO |
| 95 | 159 | d | 1 | U | 1 | 1 | 537 | -25.274542 | LO |
| 96 | 160 | d | 1 | U | 1 | 1 | 447 | -25.629896 | LO |
| 97 | 0 | Rinse | 1 | U | 1 | 1 | -407 | -28.972750 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |
| 99 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1262630 | 4919.927734 | |
| 100 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 272028 | 1038.496704 | |
| 101 | 0 | CCB | 1 | U | 1 | 1 | 4 | -27.364576 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -27.379919 | BL |

Nitrate as N:Calibration  1: Peak 5-102

File name: C:\FLOW_4\031322.RST
Date: 13-Mar-22
Operator: svc

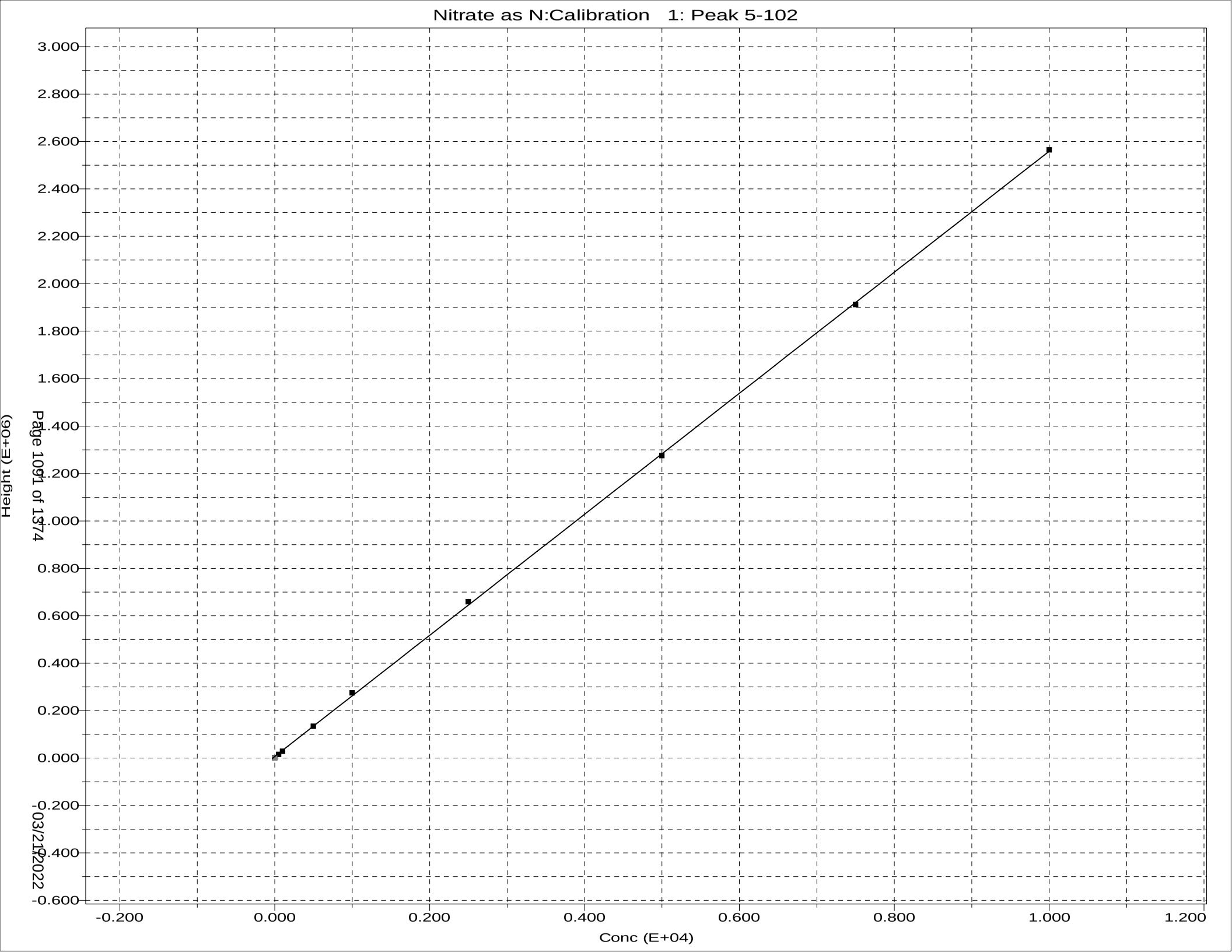
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0.00 ppb | 0.000000 | 1550.305176 |
| * | Cal 50.0 ppb | 50.000000 | 14838.987305 |
| * | Cal 100 ppb | 100.000000 | 28073.158203 |
| * | Cal 500 ppb | 500.000000 | 133669.828125 |
| * | Cal 1000 ppb | 1000.000000 | 274719.406250 |
| * | Cal 2500 ppb | 2500.000000 | 658702.562500 |
| * | Cal 5000 ppb | 5000.000000 | 1275626.250000 |
| * | Cal 7500 ppb | 7500.000000 | 1912277.250000 |
| * | Cal 10000 ppb | 10000.000000 | 2564929.500000 |

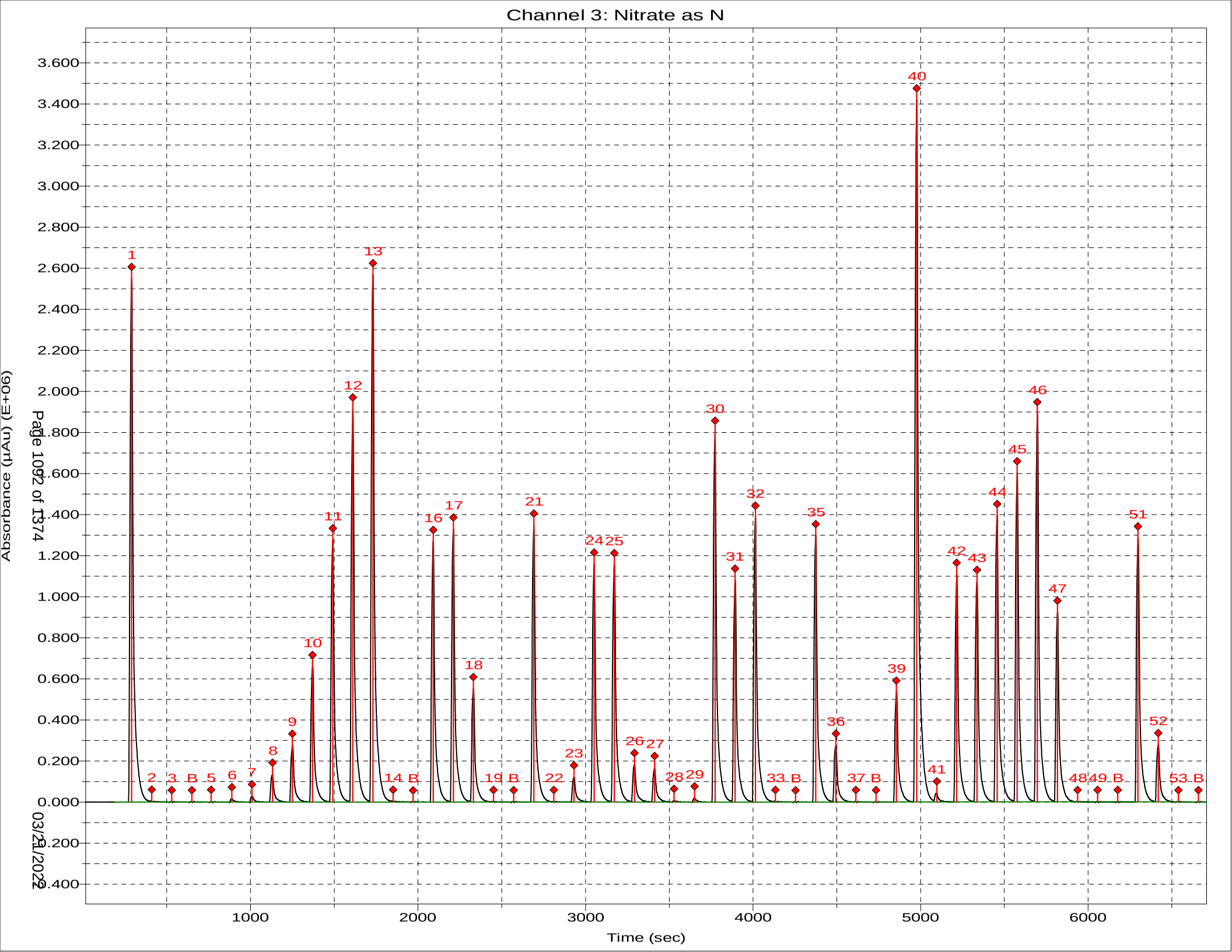
Calib Coef:
y=bx+a
a: (intercept)  6.9878e+03
b:  2.5522e+02

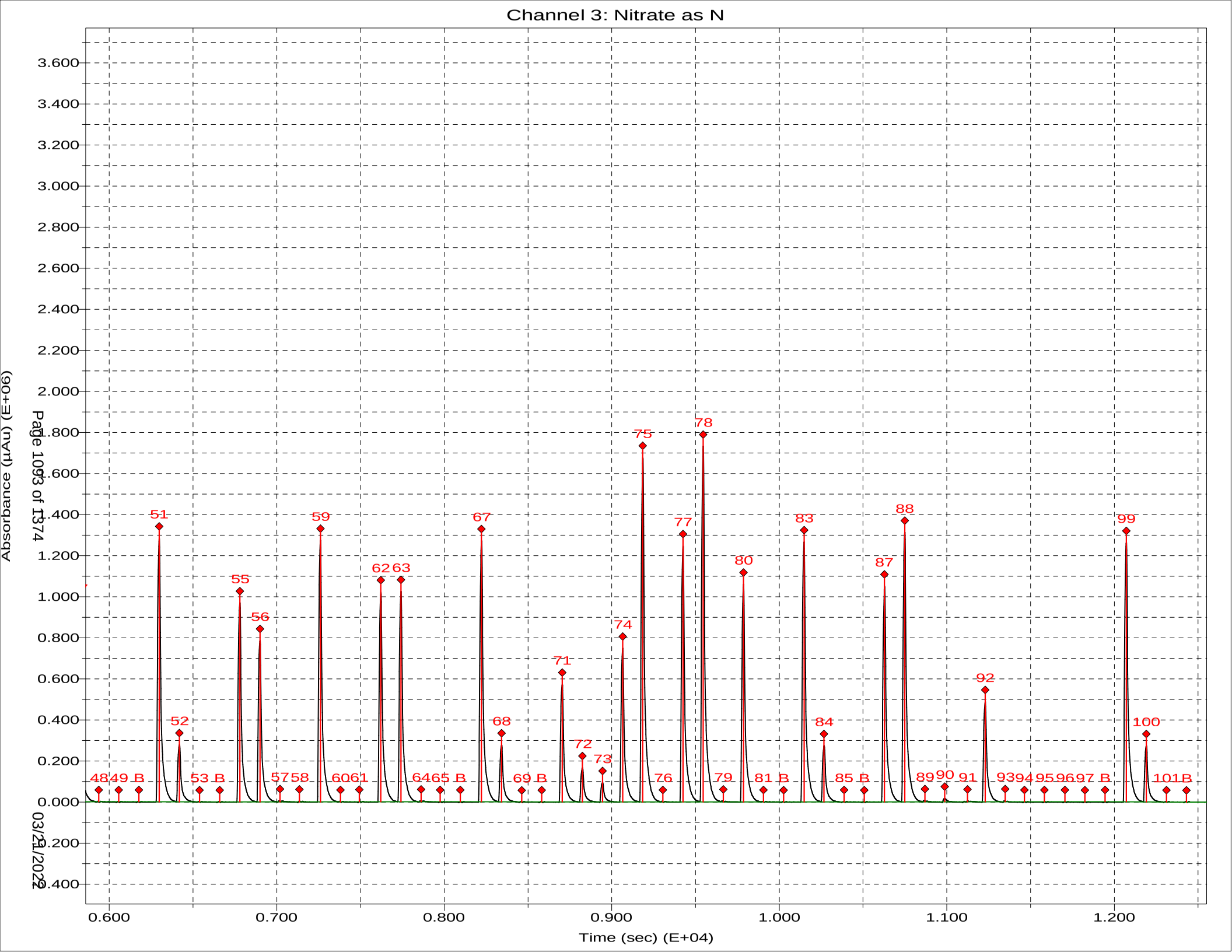
Corr Coef:  0.999959

Carryover:  0.112%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-102
Height (E+06)
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec)
Page 1092 of 1374
03/23/2022
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
-0.200
-0.400
1000
2000
3000
4000
5000
6000
1
2
3
B
5
6
7
8
9
10
11
12
13
14
B
16
17
18
19
B
21
22
23
24
25
26
27
28
29
30
31
32
33
B
35
36
37
B
39
40
41
42
43
44
45
46
47
48
49
B
51
52
53
B


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 1093 of 1374
03/21/2022
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
-0.200
-0.400
0.600
0.700
0.800
0.900
1.000
1.100
1.200
48 49 B 51 52 53 B 55 56 57 58 59 60 61 62 63 64 65 B 67 68 69 B 71 72 73 74 75 76 77 78 79 80 81 B 83 84 85 B 87 88 89 90 91 92 93 94 95 96 97 B 99 100 101 B

Sample Table - 031322.tbl

File name: C:\FLOW_4\031322.TBL
Date: 13-Mar-22

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 109 | SYNC | SYNC | 1 | 1 | 1 | | |
| 0 | Carryover | CO | 1 | 1 | 1 | | |
| 0 | Carryover | CO | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 101 | Cal 0.00 ppb | C | 1 | 1 | 1 | | |
| 102 | Cal 50.0 ppb | C | 1 | 1 | 1 | | |
| 103 | Cal 100 ppb | C | 1 | 1 | 1 | | |
| 104 | Cal 500 ppb | C | 1 | 1 | 1 | | |
| 105 | Cal 1000 ppb | C | 1 | 1 | 1 | | |
| 106 | Cal 2500 ppb | C | 1 | 1 | 1 | | |
| 107 | Cal 5000 ppb | C | 1 | 1 | 1 | | |
| 108 | Cal 7500 ppb | C | 1 | 1 | 1 | | |
| 109 | Cal 10000 ppb | C | 1 | 1 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 110 | 5000 PPB NO2 | U | 1 | 1 | 1 | | |
| 111 | ICV 5000 PPB | CCV | 1 | 1 | 1 | | |
| 112 | ICV 2000 PPB | CCV | 1 | 1 | 1 | | |
| 0 | ICB | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | pH |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 0 | MB | U | 1 | 1 | 1 | | |
| 113 | 280-159180-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 114 | ms 280-159180-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 115 | msd 280-159180-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 116 | 280-159180-A-11 | U | 1 | 1 | 1 | | ∠2 |
| 117 | 580-111014-A-3 | U | 1 | 1 | 1 | | ∠2 |
| 118 | 550-180483-B-1 | U | 1 | 1 | 1 | | ∠2 |
| 119 | 550-180483-B-3 | U | 1 | 1 | 1 | | ∠2 |
| 120 | 280-159190-C-1 | U | 1 | 5 ⊣ | 1 | | ∠2 |
| 121 | 280-159190-C-2 | U | 1 | 1 | 1 | | ∠2 |
| 122 | 280-159190-C-3 | 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 | | |
| 123 | 280-159190-C-4 | U | 1 | 1 | 1 | | ∠2 |
| 124 | 280-159190-C-5 | U | 1 | 1 | 1 | | ∠2 |
| 125 | 280-159382-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 126 | ms 280-159382-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 127 | msd 280-159382-A-4 | U | 1 | 1 | 1 | | ∠2 |
| 128 | 280-159190-C-6 | U | 1 | 2 ⊣ | 1 | | ∠2 |
| 129 | 280-159190-C-7 | U | 1 | 5 ⊣ | 1 | | ∠2 |
| 130 | 280-159190-C-8 | U | 1 | 2 ⊣ | 1 | | ∠2 |
| 131 | 280-159190-C-9 | U | 1 | 1 | 1 | | ∠2 |
| 132 | 280-159190-C-10 | U | 1 | 1 | 1 | | ∠2 |
| 0 | Rinse | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 107 | CCV 5000 ppb | CCV | 1 | 1 | 1 | | |
| 105 | CCVL 1000 ppb | CCV | 1 | 1 | 1 | | |
| 0 | CCB | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 133 | 280-159190-C-11 | U | 1 | 10 ⊣ | 1 | | ∠2 |
| 134 | 280-159190-C-12 | U | 1 | 10 ⊣ | 1 | | ∠2 |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 135 | 280-159190-C-13 | U | 1 | 1 | 1 | | <2 |
| 136 | 280-159190-C-14 | U | 1 | 1 | 1 | | <2 |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 0 | MB | U | 1 | 1 | 1 | | |
| 137 | 280-159190-C-16 | U | 1 | 1 | 1 | | <2 |
| 138 | ms 280-159190-C-16 | U | 1 | 1 | 1 | | <2 |
| 139 | msd 280-159190-C-16 | U | 1 | 1 | 1 | | <2 |
| 140 | 280-159190-C-15 | U | 1 | 1 | 1 | | <2 |
| 0 | Rinse | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 107 | CCV 5000 ppb | CCV | 1 | 1 | 1 | | |
| 105 | CCVL 1000 ppb | CCV | 1 | 1 | 1 | | |
| 0 | CCB | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 141 | 280-159234-L-1 | U | 1 | 25 ~~1~~ | 1 | | <2 |
| 142 | 280-159234-L-2 | U | 1 | 1 | 1 | | <2 |
| 143 | 280-159234-L-3 | U | 1 | 1 | 1 | | <2 |
| 144 | 280-159234-L-4 | U | 1 | 1 | 1 | | <2 |
| 145 | 280-159234-L-5 | U | 1 | 1 | 1 | | <2 |
| 146 | 280-159234-L-6 | U | 1 | 1 | 1 | | <2 |
| 147 | 280-159234-L-8 | U | 1 | 1 | 1 | | <2 |
| 148 | 280-159234-L-9 | U | 1 | 1 | 1 | | <2 |
| 149 | 280-159234-L-7 | U | 1 | 1 | 1 | | <2 |
| 150 | ms 280-159234-L-7 | U | 1 | 1 | 1 | | <2 |
| 0 | Rinse | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 107 | CCV 5000 ppb | CCV | 1 | 1 | 1 | | |
| 105 | CCVL 1000 ppb | CCV | 1 | 1 | 1 | | |
| 0 | CCB | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 151 | msd 280-159234-L-7 | U | 1 | 1 | 1 | | <2 |
| 152 | 280-159234-L-10 | U | 1 | 1 | 1 | | <2 |
| 153 | 280-159452-C-1 | U | 1 | 1 | 1 | | <2 |
| 154 | 280-159452-C-2 | U | 1 | 1 | 1 | | <2 |
| 155 | 280-159452-C-3 | U | 1 | 1 | 1 | | <2 |
| 156 | 280-159452-C-4 | U | 1 | 1 | 1 | | <2 |
| 157 | 280-159452-C-5 | U | 1 | 1 | 1 | | <2 |
| 158 | d | U | 1 | 1 | 1 | | |
| 159 | d | U | 1 | 1 | 1 | | |
| 160 | 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 | | |

# General Chemistry Raw Data Report

Job ID: 280-159234-1

**Batch: 567799** **Analyst Initials: PEV**

**Method: 9034** **Instrument: No Equipment Used for this Test**

**Lab Sample ID: LCS 280-567789/1-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 18.4 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: LCSD 280-567789/2-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 16.8 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: MB 280-567789/3-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-159234-N-3-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.88 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-159234-N-2-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.8 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-159234-N-1-A** **Analysis Date: Mar 05, 2022 13:13**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 1.6 | mg/L | 50 mL | 50 mL |

**Sulfide by Titration**

| Analyst: | PEV | SOP Information: | |
|---|---|---|---|
| Date: | 3/5/2022 | Number: | 91 |
| **Titration Solutions** | | **Calibration Information** | |
| Solution 1: | Iodine | Source/Ver-Lot#: | INT_0209 |
| TALS ID | WCIODINE_01326 | Prep Date: | 2/8/2022 |
| Normality: | 0.025 | Made By: | MMP |
| Solution 2: | sodium thiosulfate | Concentration: | 1112 |
| TALS ID | Na Thio_00176 | Expiration Date: | 5/8/2022 |
| Normality: | 0.025 | | |
| | Starch Indicator | | |
| TALS ID | Starch IND_00067 | | |

| ICV Information | |
|---|---|
| Source/Ver-Lot#: | INT_0204 |
| Prep Date: | 2/8/2022 |
| Made By: | MMP |
| Concentration: | 1084 |
| Expiration Date: | 5/8/2022 |
| | |
| | |
| | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| CAL | 5 | 0.00 | 5.40 | 20 | 5.40 | 1168.000 |
| CAL | 5 | 5.40 | 12.20 | 20 | 6.80 | 1056.000 |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 5.60 | 20 | 5.60 | 1152.000 |
| ICV | 5 | 5.60 | 12.91 | 20 | 7.31 | 1015.200 |

## *Titration Data Review Checklist*

| | | |
|---|---|---|
| **LIMS Batch Number:** 567799 | **Method (circle one):** | **QC Type (circle):** |
| **Analyst/1st Reviewer:** PEV | **2310B 2320B 2340C** | **Standard DoD QAPP Other** |
| **Date:** 3-5-2022 | **4500 S2 F 4500 SO3 B 9030B/9034** | |
| **Matrix (circle):** Water Solid | **Automated or Manual (circle one)** | **Instrument ID (circle one if applicable):** AT2 AT3 |

| Review Items | Yes | No | 2nd Rev | If No, why is data reportable? |
|---|---|---|---|---|
| **A. Sample Storage and Pretreatment** | | | | |
| 1. Is sample pH verified and documented prior to analysis? (if required) | NA | | Y | |
| 2. For samples requiring pH adjustment is the amount of acid/base used documented? | NA | | n/a | If no, list details: |
| 3. Are samples analyzed within the required hold time? | Y | | Y | NCM: |
| 4. Pre-treatment reagents used to remove interferences are documented. | NA | | n/a | |
| **B. Calibration / Instrument** | | | | |
| 5. Was the normality of the titrant verified and found acceptable? | Y | | Y | Comments: |
| 6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC. | NA | | 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). | NA | | n/a | Comments: |
| 8. Calibrations standards (ICV/CCV) are within 90-110% recovery. | NA | | n/a | |
| **C. Sample and Batch QC** | | | | |
| 9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence. | Y | | Y | |
| 10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD) | Y | | Y | □ 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. | Y | | Y | |
| 12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits. | Y | | Y | |
| 13. Samples analyses are bracketing by acceptable CCV/CCBs. | NA | | 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)<br>(Required for 2340C, 4500 S2 F, 9030B/9034) | Y | | Y | □ Non-conformance (NCM) added<br>□ Sample results >4X spike conc. |
| 15. Duplicate analyzed at required frequency and RPD within limits.<br>(Required for 2310B, 2320B, 4500 SO3 B) | NA | | n/a | □ 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%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation. | Y | | Y | □ 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:** WRD **Review Date:** 03/8/22

# TALS Raw Data Report

Job Number: 280-159190-1
LIMS Batch: 567799
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567789/1-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 18.4 mg/L | mg/L | 83 | 44 110 | | |
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |

RS# 2 Lab ID: **LCSD 280-567789/2-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 76 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 3 Lab ID: **MB 280-567789/3-A** Inj Date: 3/5/2022 1:13:00PM 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: **550-179924-L-1-A** Inj Date: 3/5/2022 1:13:00PM 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# 5 Lab ID: **550-179924-L-1-B MS** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 15.92 mg/L | mg/L | 68 | 44 110 | | |
| Sulfide as H2S | | 16.915 mg/L | mg/L | | | | |

RS# 6 Lab ID: **550-179924-L-1-C MSD** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 14.56 mg/L | mg/L | 62 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 15.47 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-159190-E-7-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | -0.08 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | -0.085 mg/L | 2.0 U mg/L | | | | |

RS# 8 Lab ID: **280-159190-E-8-A** Inj Date: 3/5/2022 1:13:00PM 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: **280-159190-E-9-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 1.6 mg/L | 1.6 J mg/L | | | | |
| Sulfide as H2S | | 1.7 mg/L | 1.7 J mg/L | | | | |

RS# 14 Lab ID: **280-159190-E-10-A** Inj Date: 3/5/2022 1:13:00PM 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

RS# 15 Lab ID: **280-159190-E-12-A** Inj Date: 3/5/2022 1:13:00PM 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: 280-159215-1
LIMS Batch: 567799
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567789/1-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 18.4 mg/L | mg/L | 83 | 44 110 | | |
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |

RS# 2 Lab ID: **LCSD 280-567789/2-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 76 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 3 Lab ID: **MB 280-567789/3-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 0.79 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 0.84 U mg/L | | | | |

RS# 4 Lab ID: **550-179924-L-1-A** Inj Date: 3/5/2022 1:13:00PM 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# 5 Lab ID: **550-179924-L-1-B MS** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 15.92 mg/L | mg/L | 68 | 44 110 | | |
| Sulfide as H2S | | 16.915 mg/L | mg/L | | | | |

RS# 6 Lab ID: **550-179924-L-1-C MSD** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 14.56 mg/L | mg/L | 62 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 15.47 mg/L | mg/L | | | | |

RS# 10 Lab ID: **280-159215-V-5-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.72 mg/L | 0.79 U mg/L | | | | |
| Sulfide as H2S | | 0.765 mg/L | 0.84 U mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-159234-1
LIMS Batch: 567799
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567789/1-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 18.4 mg/L | mg/L | 83 | 44 110 | | |
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |

RS# 2 Lab ID: **LCSD 280-567789/2-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 76 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 3 Lab ID: **MB 280-567789/3-A** Inj Date: 3/5/2022 1:13:00PM 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: **550-179924-L-1-A** Inj Date: 3/5/2022 1:13:00PM 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# 5 Lab ID: **550-179924-L-1-B MS** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 15.92 mg/L | mg/L | 68 | 44 110 | | |
| Sulfide as H2S | | 16.915 mg/L | mg/L | | | | |

RS# 6 Lab ID: **550-179924-L-1-C MSD** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 14.56 mg/L | mg/L | 62 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 15.47 mg/L | mg/L | | | | |

RS# 11 Lab ID: **280-159234-N-3-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.88 mg/L | 0.88 J mg/L | | | | |
| Sulfide as H2S | | 0.935 mg/L | 0.94 J mg/L | | | | |

RS# 12 Lab ID: **280-159234-N-2-A** Inj Date: 3/5/2022 1:13:00PM 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# 13 Lab ID: **280-159234-N-1-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 1.6 mg/L | 1.6 J mg/L | | | | |
| Sulfide as H2S | | 1.7 mg/L | 1.7 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-179924-1
LIMS Batch: 567799
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567789/1-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 18.4 mg/L | mg/L | 83 | 44 110 | | |
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |

RS# 2 Lab ID: **LCSD 280-567789/2-A** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 76 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 3 Lab ID: **MB 280-567789/3-A** Inj Date: 3/5/2022 1:13:00PM 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: **550-179924-L-1-A** Inj Date: 3/5/2022 1:13:00PM 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# 5 Lab ID: **550-179924-L-1-B MS** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 15.92 mg/L | mg/L | 68 | 44 110 | | |
| Sulfide as H2S | | 16.915 mg/L | mg/L | | | | |

RS# 6 Lab ID: **550-179924-L-1-C MSD** Inj Date: 3/5/2022 1:13:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 14.56 mg/L | mg/L | 62 | 44 110 | 9 | 20 |
| Sulfide as H2S | | 15.47 mg/L | mg/L | | | | |

# General Chemistry Raw Data Report

Job ID: 280-159234-1

**Batch: 567935** **Analyst Initials: LRB**

**Method: 9034** **Instrument: No Equipment Used for this Test**

**Lab Sample ID: LCS 280-567934/1-A** **Analysis Date: Mar 07, 2022 18:33**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 20 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: MB 280-567934/2-A** **Analysis Date: Mar 07, 2022 18:33**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-159234-N-4-A** **Analysis Date: Mar 07, 2022 18:33**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-159234-N-5-A** **Analysis Date: Mar 07, 2022 18:33**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0 | mg/L | 50 mL | 50 mL |

**Sulfide by Titration**

| Analyst: | MG | SOP Information: | |
|---|---|---|---|
| Date: | 3/7/2022 | Number: | 91 |
| **Titration Solutions** | | **Calibration Information** | |
| Solution 1: | Iodine | Source/Ver-Lot#: | INT_0209 |
| TALS ID | WCIODINE_01326 | Prep Date: | 2/8/2022 |
| Normality: | 0.025 | Made By: | MMP |
| Solution 2: | sodium thiosulfate | Concentration: | 1193 |
| TALS ID | Na Thio_00176 | Expiration Date: | 5/8/2022 |
| Normality: | 0.025 | | |
| | Starch Indicator | | |
| TALS ID | Starch IND_00067 | | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| CAL | 5 | 0.00 | 5.10 | 20 | 5.10 | 1192.000 |
| CAL | 5 | 0.00 | 5.08 | 20 | 5.08 | 1193.600 |

| ICV Information | |
|---|---|
| Source/Ver-Lot#: | INT_0204 |
| Prep Date: | 2/8/2022 |
| Made By: | MMP |
| Concentration: | 1180 |
| Expiration Date: | 5/8/2022 |
| | |
| | |
| | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 5.20 | 20 | 5.20 | 1184.000 |
| ICV | 5 | 5.20 | 10.50 | 20 | 5.30 | 1176.000 |

# TALS Raw Data Report

Job Number: 280-110951-1
LIMS Batch: 567935
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567934/1-A** Inj Date: 3/7/2022 6:33:36PM 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 | 85 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-567934/2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | mg/L | | | | |

RS# 3 Lab ID: **280-159332-E-2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | mg/L | | | | |

RS# 4 Lab ID: **280-159332-E-2-B MS** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 21.6 mg/L | mg/L | 88 | 44 110 | | |
| Sulfide as H2S | | 22.95 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159332-E-2-C MSD** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20.8 mg/L | mg/L | 85 | 44 110 | 4 | 20 |
| Sulfide as H2S | | 22.1 mg/L | mg/L | | | | |

RS# 13 Lab ID: **580-110951-P-1-A** Inj Date: 3/7/2022 6:33:47PM 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: **580-110951-P-2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 2.4 mg/L | mg/L | | | | |
| Sulfide as H2S | | 2.55 mg/L | mg/L | | | | |

RS# 15 Lab ID: **580-110951-P-3-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 1.6 mg/L | mg/L | | | | |
| Sulfide as H2S | | 1.7 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-159219-1
LIMS Batch: 567935
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567934/1-A** Inj Date: 3/7/2022 6:33:36PM 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 | 85 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-567934/2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | mg/L | | | | |

RS# 3 Lab ID: **280-159332-E-2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

RS# 4 Lab ID: **280-159332-E-2-B MS** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 21.6 mg/L | mg/L | 88 | 44 110 | | |
| Sulfide as H2S | | 22.95 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159332-E-2-C MSD** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20.8 mg/L | mg/L | 85 | 44 110 | 4 | 20 |
| Sulfide as H2S | | 22.1 mg/L | mg/L | | | | |

RS# 10 Lab ID: **280-159219-F-1-A** Inj Date: 3/7/2022 6:33:47PM 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: 280-159234-1
LIMS Batch: 567935
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567934/1-A** Inj Date: 3/7/2022 6:33:36PM 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 | 85 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-567934/2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 3 Lab ID: **280-159332-E-2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

RS# 4 Lab ID: **280-159332-E-2-B MS** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 21.6 mg/L | mg/L | 88 | 44 110 | | |
| Sulfide as H2S | | 22.95 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159332-E-2-C MSD** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20.8 mg/L | mg/L | 85 | 44 110 | 4 | 20 |
| Sulfide as H2S | | 22.1 mg/L | mg/L | | | | |

RS# 11 Lab ID: **280-159234-N-4-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 12 Lab ID: **280-159234-N-5-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-159332-1
LIMS Batch: 567935
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-567934/1-A** Inj Date: 3/7/2022 6:33:36PM 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 | 85 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-567934/2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 3 Lab ID: **280-159332-E-2-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

RS# 4 Lab ID: **280-159332-E-2-B MS** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 21.6 mg/L | mg/L | 88 | 44 110 | | |
| Sulfide as H2S | | 22.95 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159332-E-2-C MSD** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20.8 mg/L | mg/L | 85 | 44 110 | 4 | 20 |
| Sulfide as H2S | | 22.1 mg/L | mg/L | | | | |

RS# 6 Lab ID: **280-159332-E-3-A** Inj Date: 3/7/2022 6:33:47PM 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: **280-159332-E-4-A** Inj Date: 3/7/2022 6:33:47PM 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# 8 Lab ID: **280-159332-E-5-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 9 Lab ID: **280-159332-E-6-A** Inj Date: 3/7/2022 6:33:47PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

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## *Titration Data Review Checklist*

| | | |
|---|---|---|
| LIMS Batch Number: 567935 | Method (circle one): | QC Type (circle): |
| Analyst/1st Reviewer: MRB | 2310B 2320B 2340C | Standard DoD QAPP Other |
| Date: 3/8/22 | 4500 S2 F 4500 SO3 B 9030B/9034 | |
| Matrix (circle): Water Solid | Automated or Manual (circle one) | Instrument ID (circle one if applicable): AT2 AT3 |

| Review Items | Yes | No | 2nd Rev | If No, why is data reportable? |
|---|---|---|---|---|
| **A. Sample Storage and Pretreatment** | | | | |
| 1. Is sample pH verified and documented prior to analysis? (if required) | Y | | ✓ | |
| 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? | Y | | ✓ | 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? | Y | | ✓ | 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. | Y | | ✓ | |
| 10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD) | Y | | ✓ | □ 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. | Y | | ✓ | |
| 12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits. | Y | | ✓ | |
| 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) | Y | | ✓ | □ 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 | | ✓ | □ 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%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation. | Y | | / | □ 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:** SAH **Review Date:** 03/14/22

# General Chemistry Raw Data Report

Job ID: 280-159234-1

**Batch: 568064** **Analyst Initials: JJM**

**Method: 9034** **Instrument: No Equipment Used for this Test**

## Lab Sample ID: LCS 280-568018/1-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 16.8 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: MB 280-568018/2-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.8 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-7-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.4 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-7-B MS

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 16.4 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-E-7-A MSD

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 19.2 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-6-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.8 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-8-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.4 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-9-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.4 | mg/L | 50 mL | 50 mL |

## Lab Sample ID: 280-159234-N-10-A

**Analysis Date: Mar 08, 2022 16:59**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.8 | mg/L | 50 mL | 50 mL |

**Sulfide by Titration**

| Analyst: | MG | SOP Information: | |
|---|---|---|---|
| Date: | 3/8/2022 | Number: | 91 |
| **Titration Solutions** | | **Calibration Information** | |
| Solution 1: | Iodine | Source/Ver-Lot#: | INT_0209 |
| TALS ID | WCIODINE_01326 | Prep Date: | 2/8/2022 |
| Normality: | 0.025 | Made By: | MMP |
| Solution 2: | sodium thiosulfate | Concentration: | 1190 |
| TALS ID | Na Thio_00176 | Expiration Date: | 5/8/2022 |
| Normality: | 0.025 | | |
| | Starch Indicator | | |
| TALS ID | Starch IND_00067 | | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| CAL | 5 | 0.00 | 5.00 | 20 | 5.00 | 1200.000 |
| CAL | 5 | 5.00 | 10.25 | 20 | 5.25 | 1180.000 |

| ICV Information | |
|---|---|
| Source/Ver-Lot#: | INT_0204 |
| Prep Date: | 2/8/2022 |
| Made By: | MMP |
| Concentration: | 1180 |
| Expiration Date: | 5/8/2022 |
| | |
| | |
| | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 5.40 | 20 | 5.40 | 1168.000 |
| ICV | 5 | 5.40 | 10.50 | 20 | 5.10 | 1192.000 |

# TALS Raw Data Report

Job Number: 280-159234-1
LIMS Batch: 568064
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568018/1-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 71 | 44 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-568018/2-A** Inj Date: 3/8/2022 4:59:00PM 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: **280-159234-N-7-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

RS# 4 Lab ID: **280-159234-N-7-B MS** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.4 mg/L | mg/L | 69 | 44 110 | | |
| Sulfide as H2S | | 17.425 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159234-E-7-A MSD** Inj Date: 3/8/2022 4:59:00PM 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 | 81 | 44 110 | 16 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | |

RS# 6 Lab ID: **280-159234-N-6-A** Inj Date: 3/8/2022 4:59:00PM 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# 7 Lab ID: **280-159234-N-8-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

RS# 8 Lab ID: **280-159234-N-9-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

RS# 9 Lab ID: **280-159234-N-10-A** Inj Date: 3/8/2022 4:59:00PM 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: 280-159276-1
LIMS Batch: 568064
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568018/1-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 71 | 44 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-568018/2-A** Inj Date: 3/8/2022 4:59:00PM 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: **280-159234-N-7-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | mg/L | | | | |

RS# 4 Lab ID: **280-159234-N-7-B MS** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.4 mg/L | mg/L | 69 | 44 110 | | |
| Sulfide as H2S | | 17.425 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159234-E-7-A MSD** Inj Date: 3/8/2022 4:59:00PM 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 | 81 | 44 110 | 16 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | |

RS# 10 Lab ID: **280-159276-D-2-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | mg/L | | | | |

RS# 11 Lab ID: **280-159276-D-3-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | mg/L | | | | |

RS# 12 Lab ID: **280-159276-D-4-A** Inj Date: 3/8/2022 4:59:00PM 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# 13 Lab ID: **280-159276-D-5-A** Inj Date: 3/8/2022 4:59:00PM 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: 280-159332-1
LIMS Batch: 568064
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568018/1-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 71 | 44 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-568018/2-A** Inj Date: 3/8/2022 4:59:00PM 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: **280-159234-N-7-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

RS# 4 Lab ID: **280-159234-N-7-B MS** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 16.4 mg/L | mg/L | 69 | 44 110 | | |
| Sulfide as H2S | | 17.425 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-159234-E-7-A MSD** Inj Date: 3/8/2022 4:59:00PM 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 | 81 | 44 110 | 16 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | |

RS# 14 Lab ID: **280-159332-E-1-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

RS# 15 Lab ID: **280-159332-E-7-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 999999968 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 999999966 mg/L | 2.0 U mg/L | | | | |

RS# 16 Lab ID: **280-159332-E-8-A** Inj Date: 3/8/2022 4:59:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0.425 mg/L | 2.0 U mg/L | | | | |

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

## *Titration Data Review Checklist*

| | | |
|---|---|---|
| **LIMS Batch Number:** 568064 | **Method (circle one):** | **QC Type (circle):** |
| **Analyst/1st Reviewer:** SM | 2310B 2320B 2340C | Standard DoD QAPP Other |
| **Date:** 3/12/22 | 4500 S2 F 4500 SO3 B 9030B/9034 | |
| **Matrix (circle):** Water Solid | **Automated or Manual (circle one)** | **Instrument ID (circle one if applicable):** AT2 AT3 |

| Review Items | Yes | No | 2nd Rev | If No, why is data reportable? |
|---|---|---|---|---|
| **A. Sample Storage and Pretreatment** | | | | |
| 1. Is sample pH verified and documented prior to analysis? (if required) | ✓ | | | |
| 2. For samples requiring pH adjustment is the amount of acid/base used documented? | N/A | | | If no, list details: |
| 3. Are samples analyzed within the required hold time? | ✓ | | | NCM: |
| 4. Pre-treatment reagents used to remove interferences are documented. | N/A | | | |
| **B. Calibration / Instrument** | | | | |
| 5. Was the normality of the titrant verified and found acceptable? | ✓ | | | Comments: |
| 6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC. | N/A | | | Comments: |
| 7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses). | N/A | | | Comments: |
| 8. Calibrations standards (ICV/CCV) are within 90-110% recovery. | N/A | | | |
| **C. Sample and Batch QC** | | | | |
| 9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence. | ✓ | | | |
| 10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD) | ✓ | | | □ No analyte > ½ RL in associated samples<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)<br>(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.<br>(Required for 2310B, 2320B, 4500 SO3 B) | N/A | | | □ 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%? 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:** SAH **Review Date:** 03/14/22

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Feb-2022 18:17:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-002
Misc. Info.: 280-0108878-002
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:42 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 18:45:17

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.727 | 2.735 | -0.008 | 6505566 | 0.2000 | 0.1584 | Ma |
| 2 Chloride | 3.692 | 3.720 | -0.028 | 16018890 | 1.00 | 1.03 | M |
| 3 Nitrite as N | 4.273 | 4.265 | 0.008 | 7972089 | NC | NC | M |
| 4 Bromide | 5.243 | 5.218 | 0.025 | 1693347 | 0.2000 | 0.2036 | M |
| 5 Nitrate as N | 5.917 | 5.847 | 0.070 | 7831225 | NC | NC | M |
| 6 Orthophosphate as P | 7.323 | 7.303 | 0.020 | 7317519 | NC | NC | M |
| 7 Sulfate | 8.288 | 8.252 | 0.036 | 18411758 | 1.00 | 1.02 | Ma |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

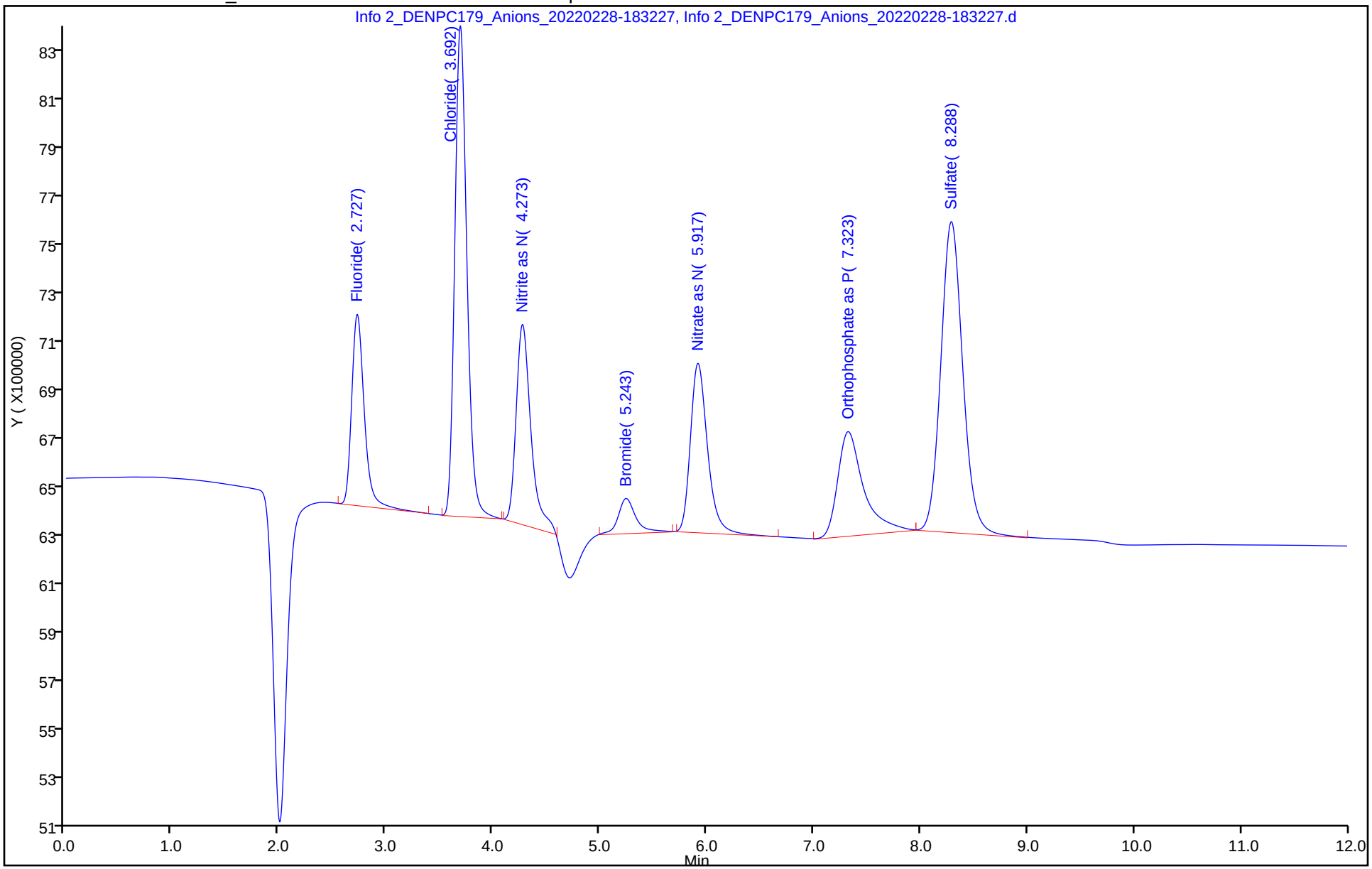
## Reagents:

IC Cal low_00623 Amount Added: 0.04 Units: mL
IC CAL cl/so4_00408 Amount Added: 0.04 Units: mL

Report Date: 01-Mar-2022 13:02:42 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183227.d | | | | |
| Injection Date: | 28-Feb-2022 18:17:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD1 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183

Injection Date: 28-Feb-2022 18:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

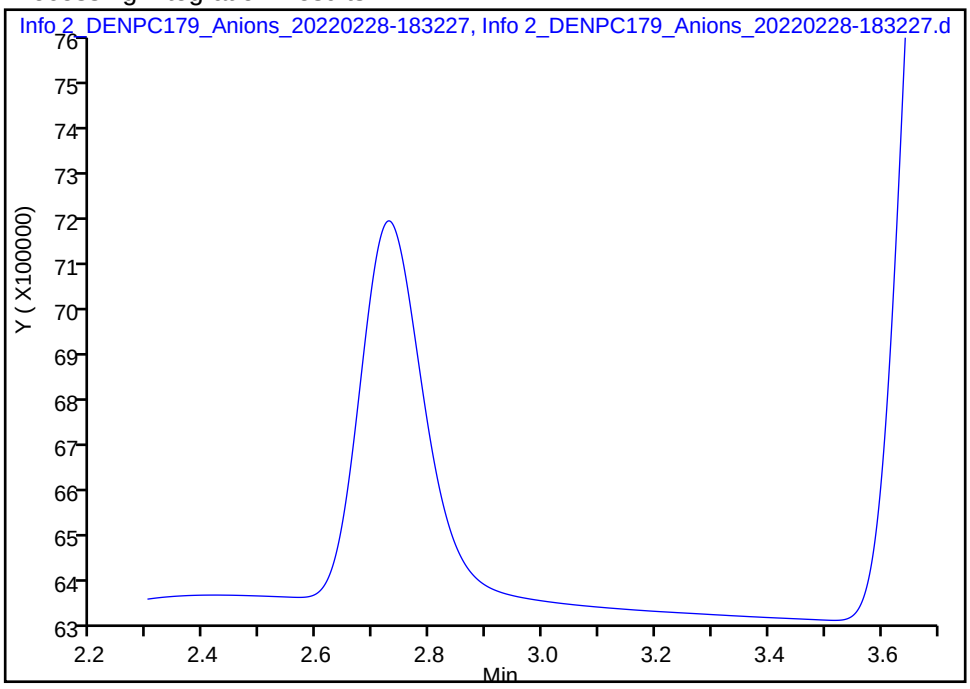
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



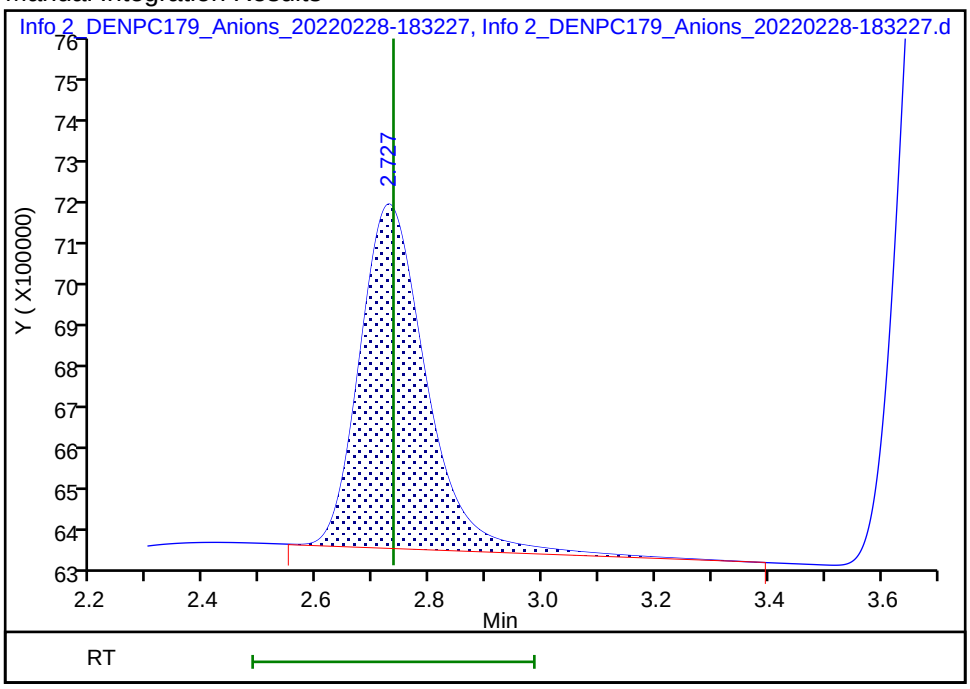

Manual Integration Results

RT: 2.73

Area: 6505566

Amount: 0.158423

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:45:08

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183

Injection Date: 28-Feb-2022 18:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

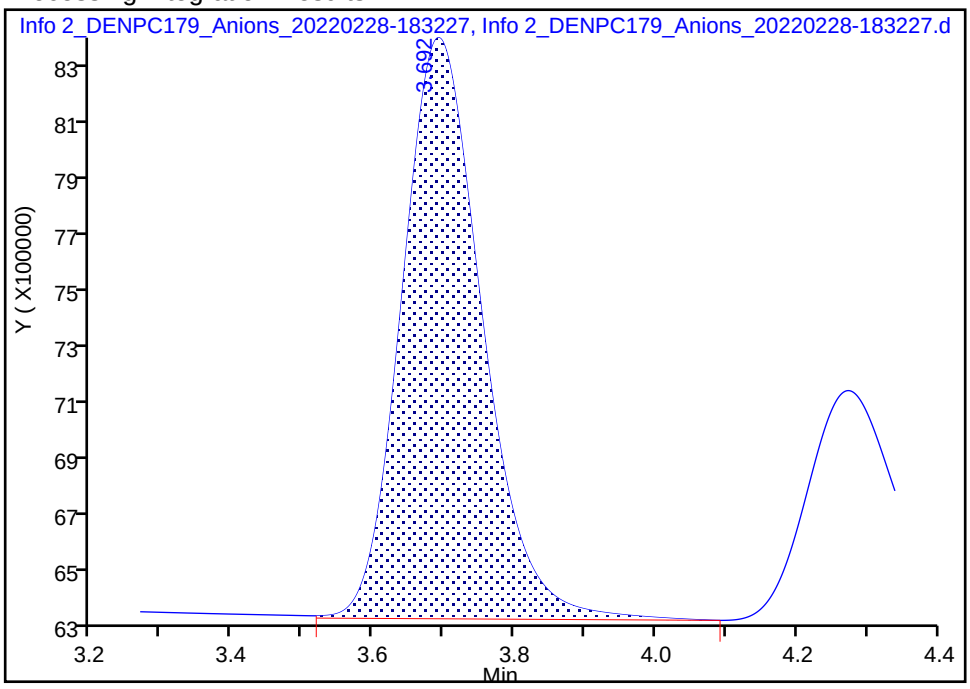
Column: Detector Info 2_091554_1

## 2 Chloride, CAS: 16887-00-6

Signal: 1

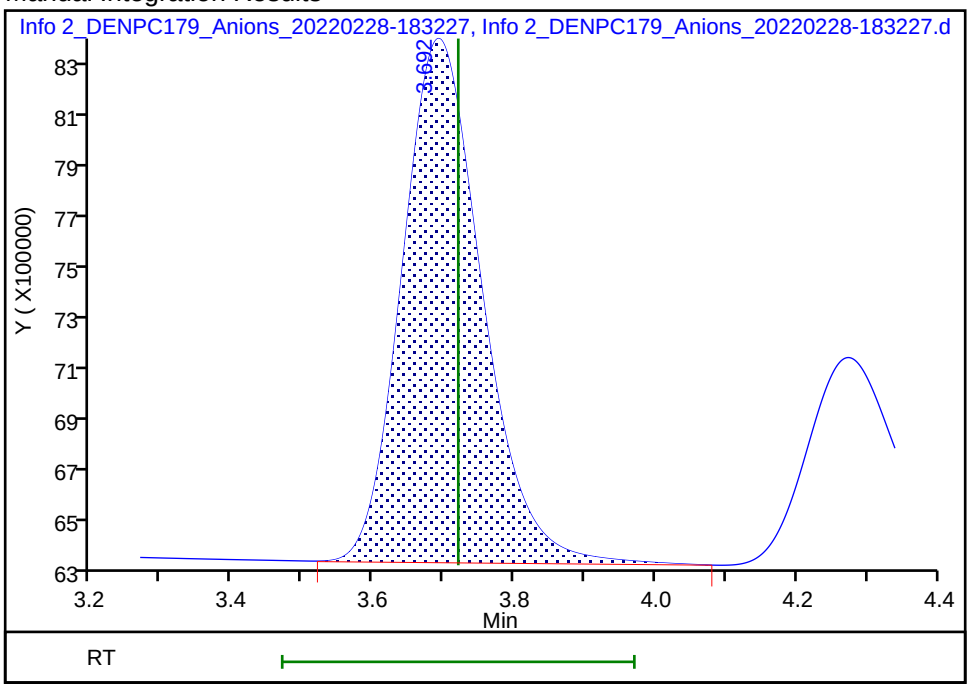
Processing Integration Results

RT: 3.69
Area: 16122507
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 3.69
Area: 16018890
Amount: 1.031747
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:44:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183

Injection Date: 28-Feb-2022 18:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

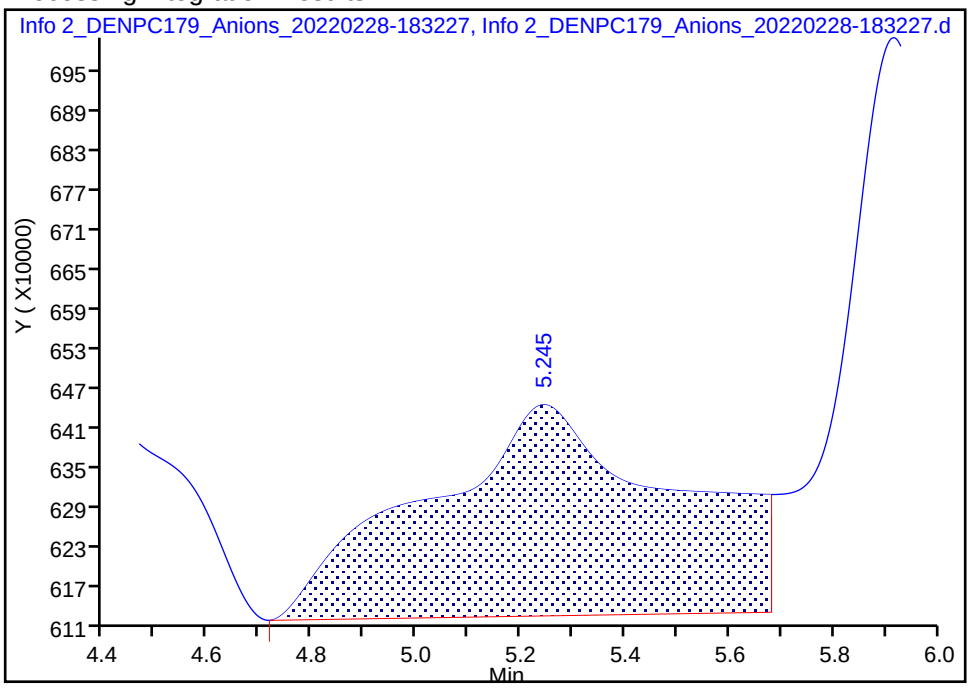
Column: Detector Info 2_091554_1

## 4 Bromide, CAS: 24959-67-9

Signal: 1

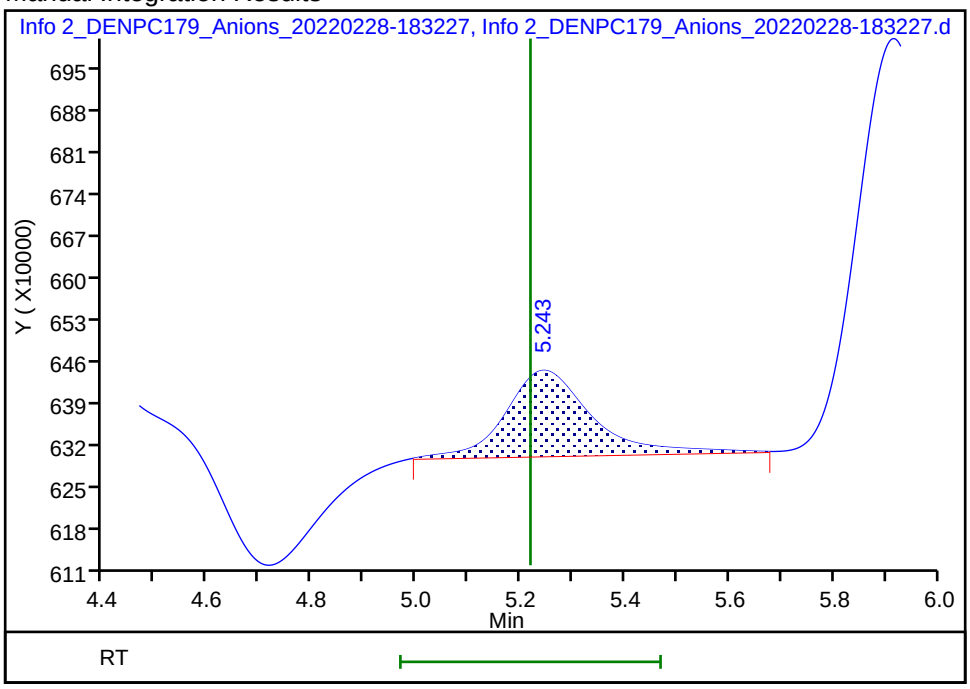
Processing Integration Results

RT: 5.25
Area: 10683929
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 5.24
Area: 1693347
Amount: 0.203618
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:44:44

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-183

Injection Date: 28-Feb-2022 18:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

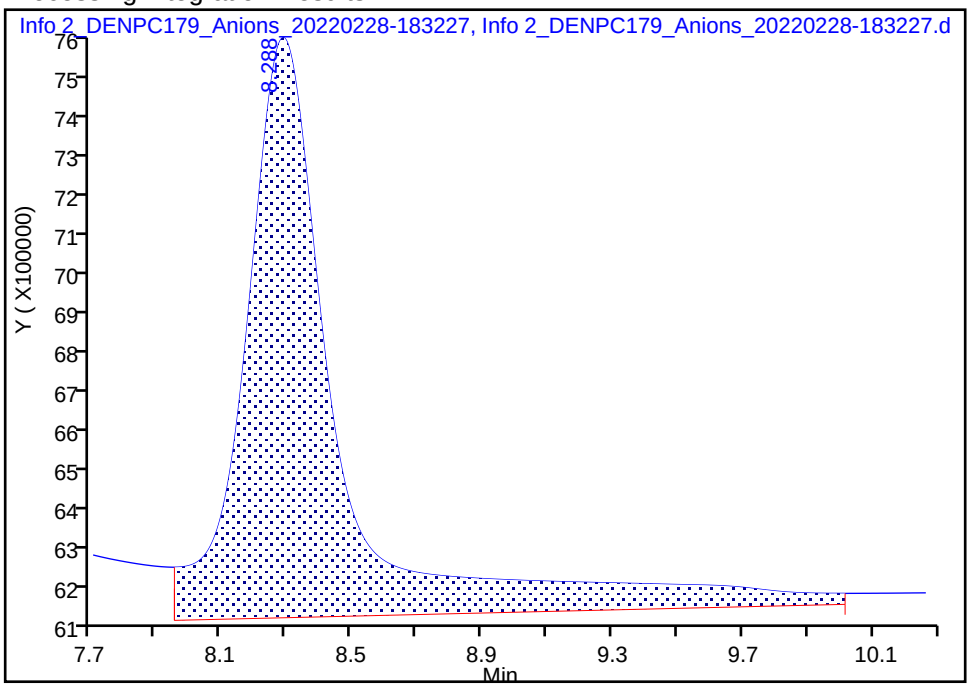
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

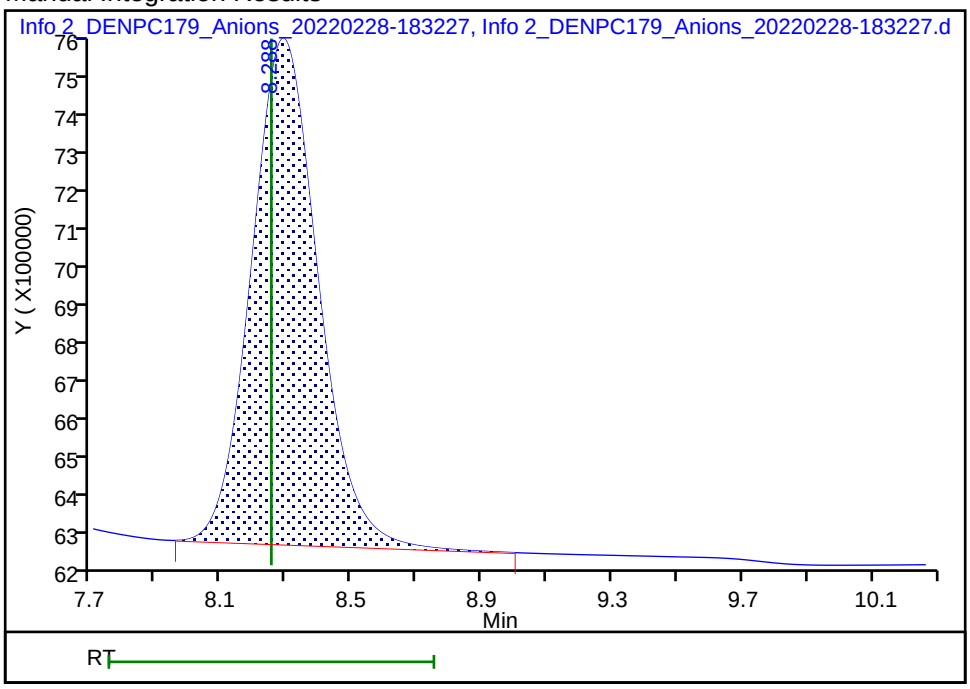
Processing Integration Results

RT: 8.29
Area: 28009608
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 8.29
Area: 18411758
Amount: 1.018472
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:45:10

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-184
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Feb-2022 18:32:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-003
Misc. Info.: 280-0108878-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:43 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 18:53:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.730 | 2.735 | -0.005 | 16918610 | 0.5000 | 0.5282 | Ma |
| 2 Chloride | 3.692 | 3.720 | -0.028 | 37223089 | 2.50 | 2.44 | |
| 3 Nitrite as N | 4.272 | 4.265 | 0.007 | 19154996 | NC | NC | M |
| 4 Bromide | 5.237 | 5.218 | 0.019 | 3733899 | 0.5000 | 0.4992 | M |
| 5 Nitrate as N | 5.898 | 5.847 | 0.051 | 19800222 | NC | NC | M |
| 6 Orthophosphate as P | 7.320 | 7.303 | 0.017 | 12430210 | NC | NC | M |
| 7 Sulfate | 8.287 | 8.252 | 0.035 | 34385025 | 2.50 | 2.44 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

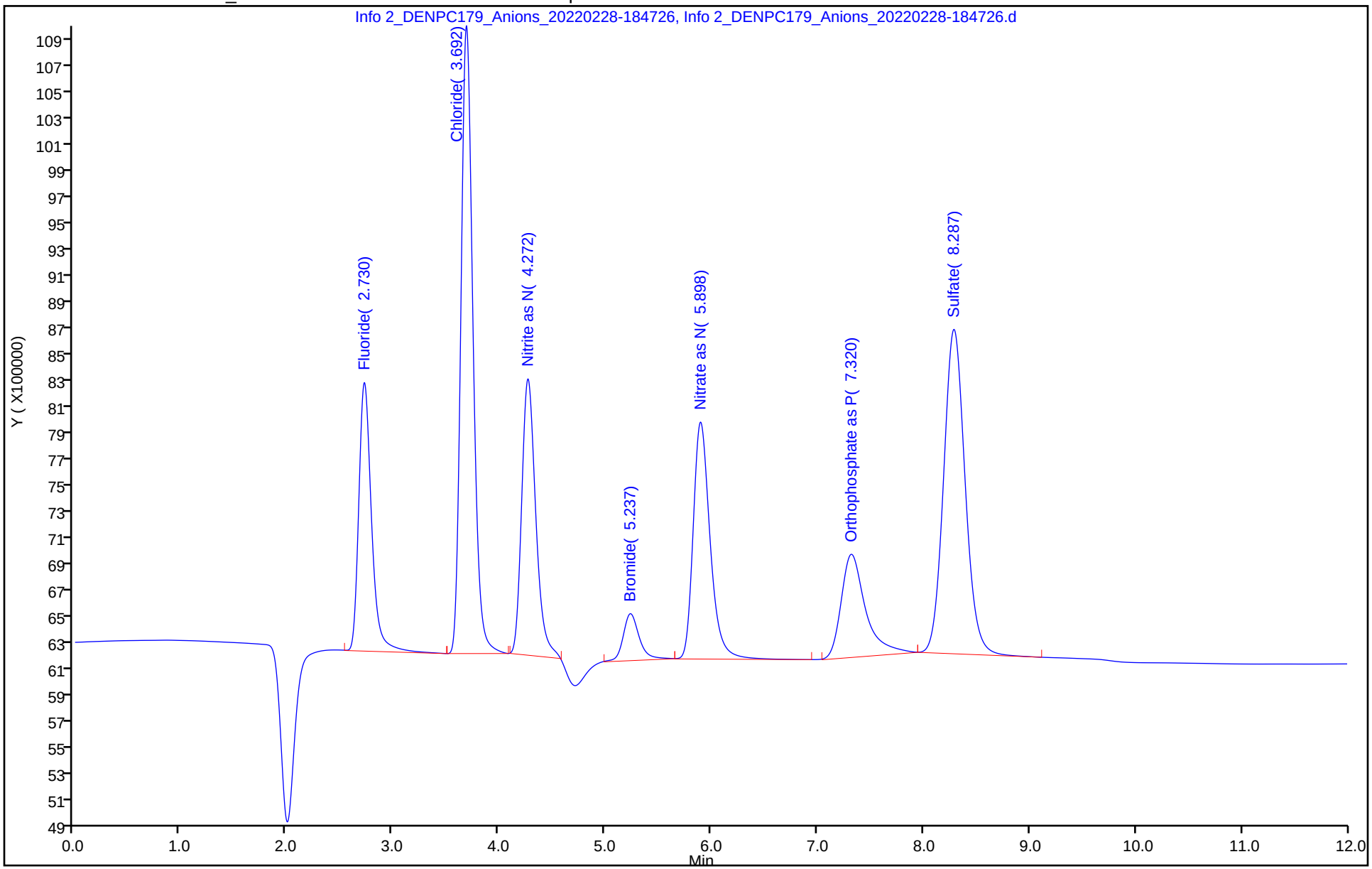
## Reagents:

IC Cal low_00623 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00408 Amount Added: 0.10 Units: mL

Report Date: 01-Mar-2022 13:02:43 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-184726.d | | | | |
| Injection Date: | 28-Feb-2022 18:32:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD2 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-184

Injection Date: 28-Feb-2022 18:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

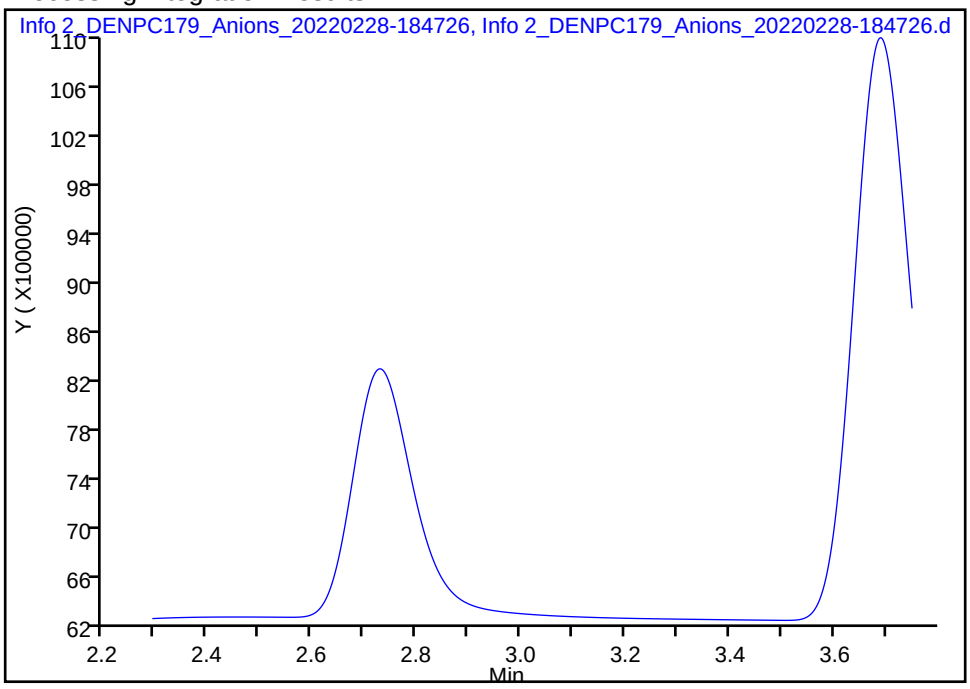
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



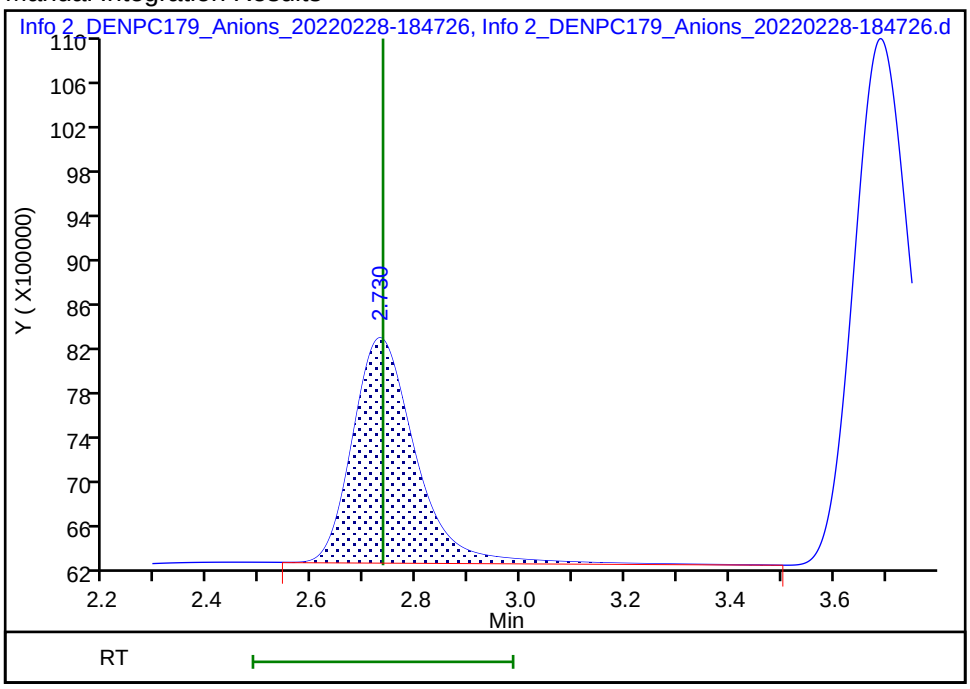

Manual Integration Results

RT: 2.73

Area: 16918610

Amount: 0.528213

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:03:56

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-184

Injection Date: 28-Feb-2022 18:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

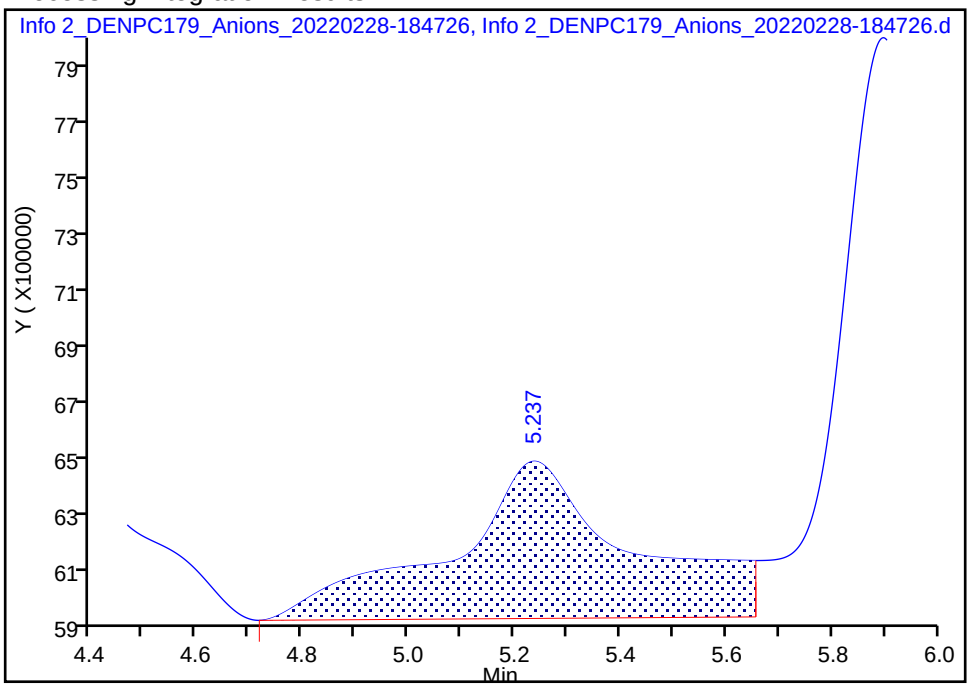
Column: Detector Info 2_091554_1

## 4 Bromide, CAS: 24959-67-9

Signal: 1

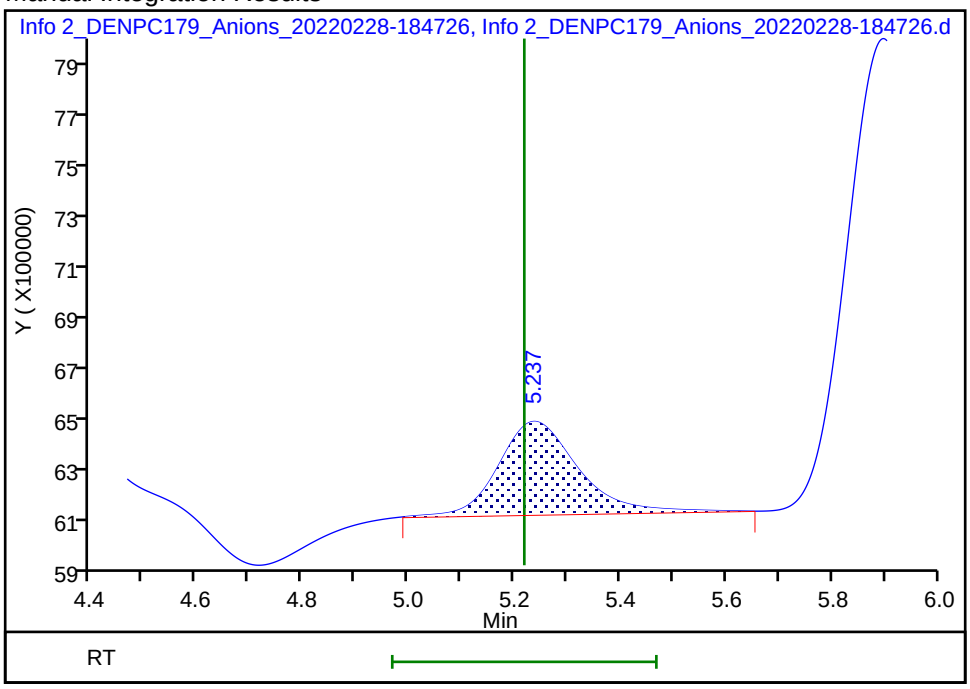
Processing Integration Results

RT: 5.24
Area: 12747662
Amount: 0.500000
Amount Units: ug/ml




Manual Integration Results

RT: 5.24
Area: 3733899
Amount: 0.499152
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:53:21

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-184

Injection Date: 28-Feb-2022 18:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

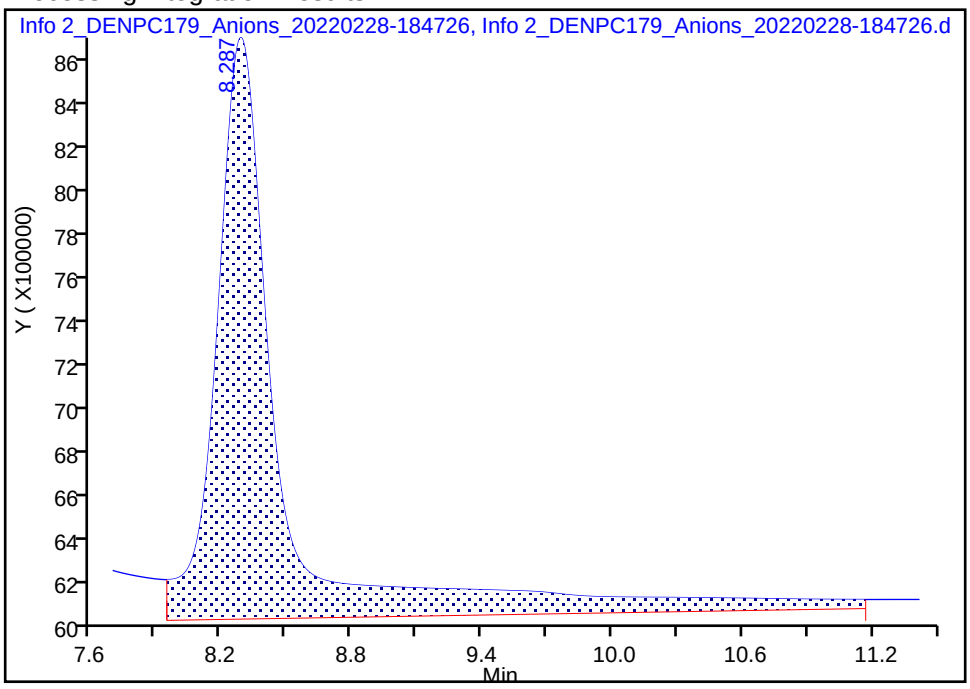
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

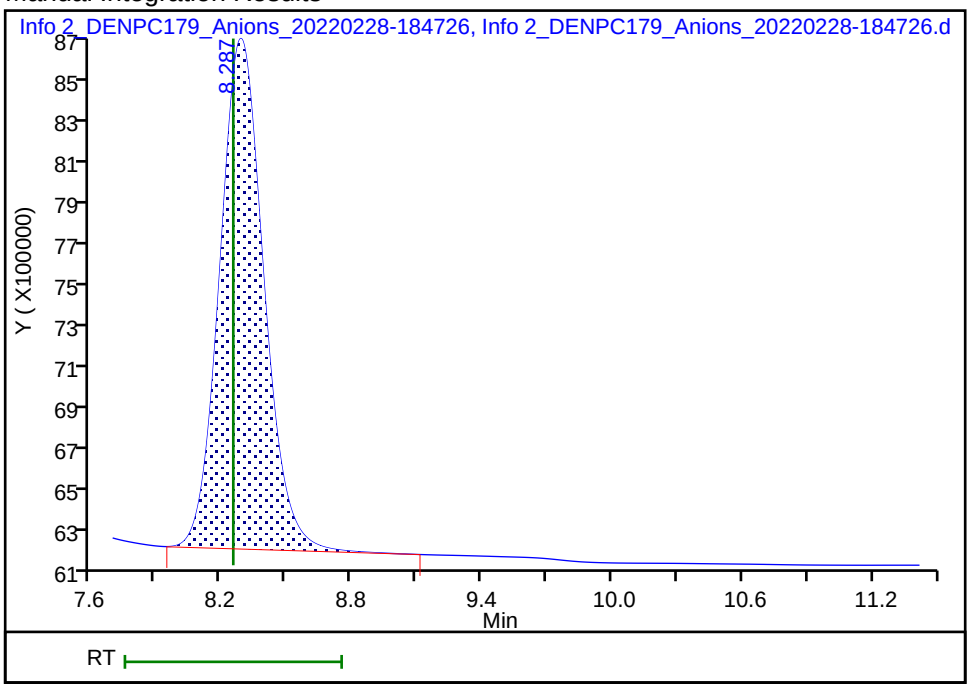
Processing Integration Results

RT: 8.29
Area: 54399677
Amount: 2.500000
Amount Units: ug/ml




Manual Integration Results

RT: 8.29
Area: 34385025
Amount: 2.440906
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 18:53:36

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-190
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 28-Feb-2022 18:47:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-004
Misc. Info.: 280-0108878-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:44 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 19:04:45

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.732 | 2.735 | -0.003 | 33654723 | 1.00 | 1.12 | Ma |
| 2 Chloride | 3.692 | 3.720 | -0.028 | 74376040 | 5.00 | 4.92 | |
| 3 Nitrite as N | 4.268 | 4.265 | 0.003 | 38197758 | NC | NC | M |
| 4 Bromide | 5.232 | 5.218 | 0.014 | 7179685 | 1.00 | 1.00 | M |
| 5 Nitrate as N | 5.883 | 5.847 | 0.036 | 39060041 | NC | NC | M |
| 6 Orthophosphate as P | 7.318 | 7.303 | 0.015 | 21518234 | NC | NC | M |
| 7 Sulfate | 8.287 | 8.252 | 0.035 | 62634606 | 5.00 | 4.96 | Ma |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

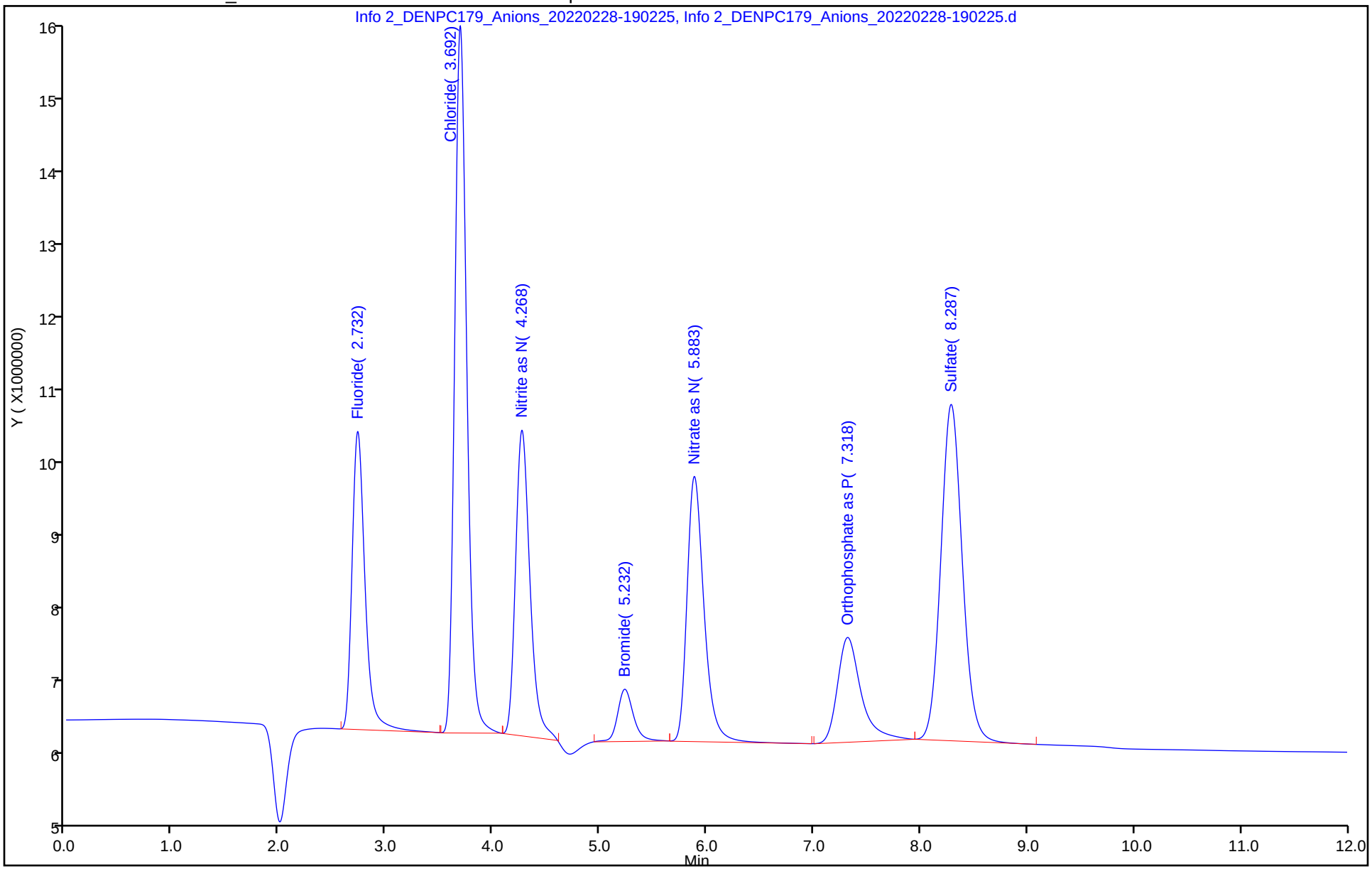
## Reagents:

IC Cal low_00623 Amount Added: 0.20 Units: mL
IC CAL cl/so4_00408 Amount Added: 0.20 Units: mL

Report Date: 01-Mar-2022 13:02:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-190225.d | | | | |
| Injection Date: | 28-Feb-2022 18:47:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD3 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-190

Injection Date: 28-Feb-2022 18:47:00 Instrument ID: WC_IonChrom10

Lims ID: STD3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

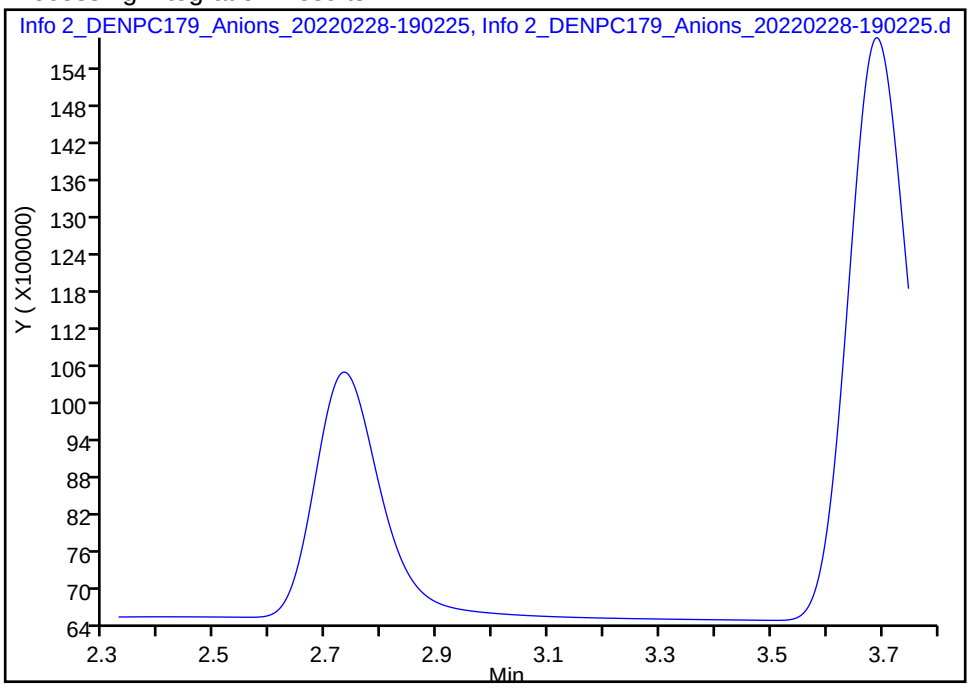
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



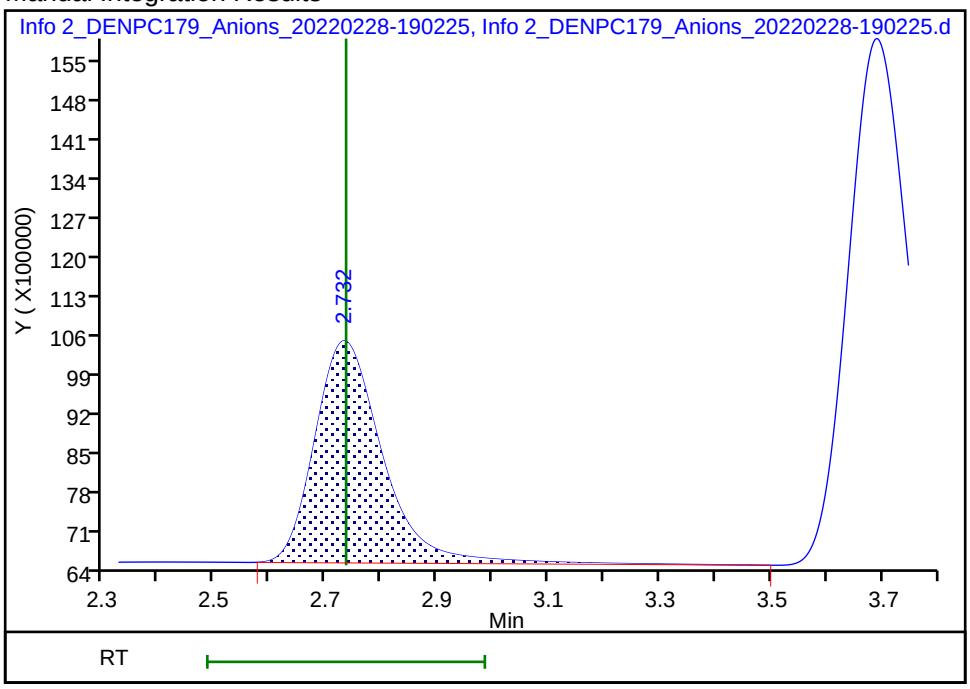

Manual Integration Results

RT: 2.73

Area: 33654723

Amount: 1.122550

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:04:39

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-190

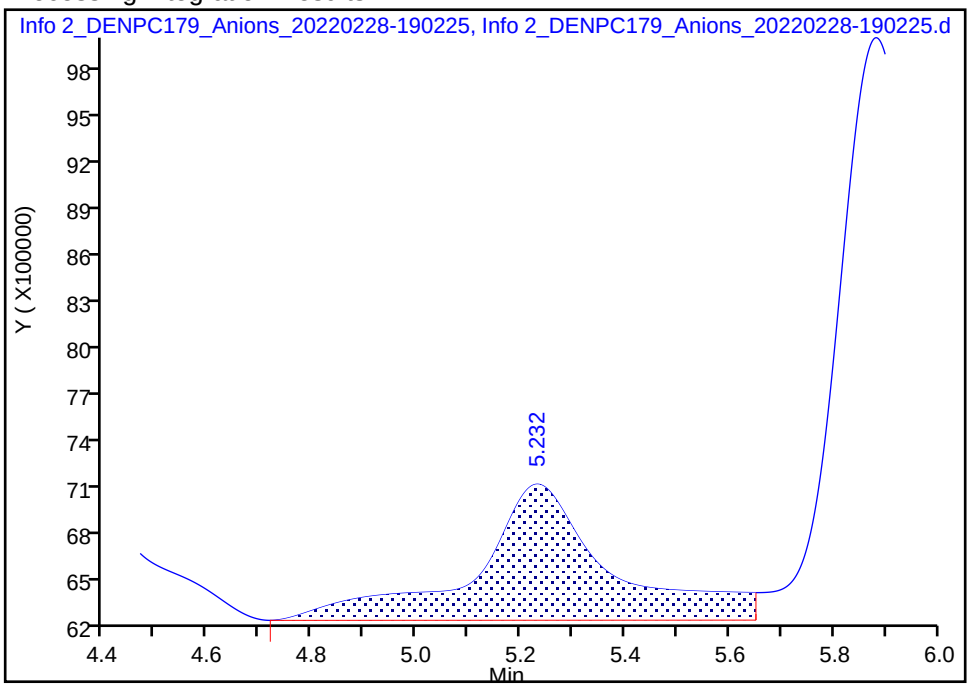
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Feb-2022 18:47:00 | Instrument ID: | WC_IonChrom10 | | |
| Lims ID: | STD3 | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | Info 2_091554_1 | | |

## 4 Bromide, CAS: 24959-67-9

Signal: 1

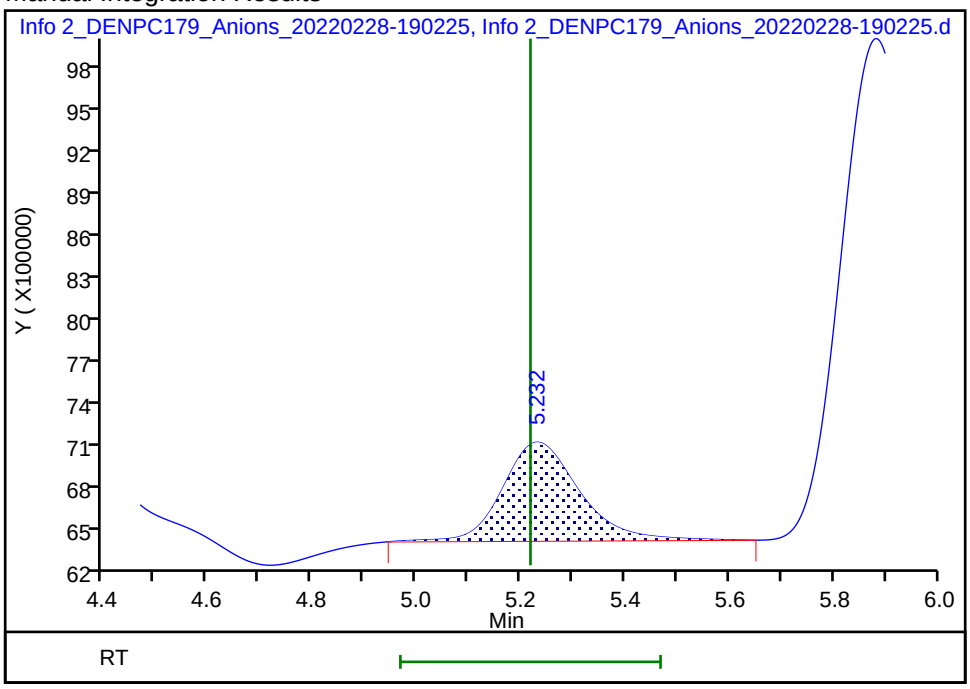
Processing Integration Results

RT: 5.23
Area: 15507004
Amount: 1.103008
Amount Units: ug/ml




Manual Integration Results

RT: 5.23
Area: 7179685
Amount: 0.998206
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:04:22

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-190

Injection Date: 28-Feb-2022 18:47:00 Instrument ID: WC_IonChrom10

Lims ID: STD3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

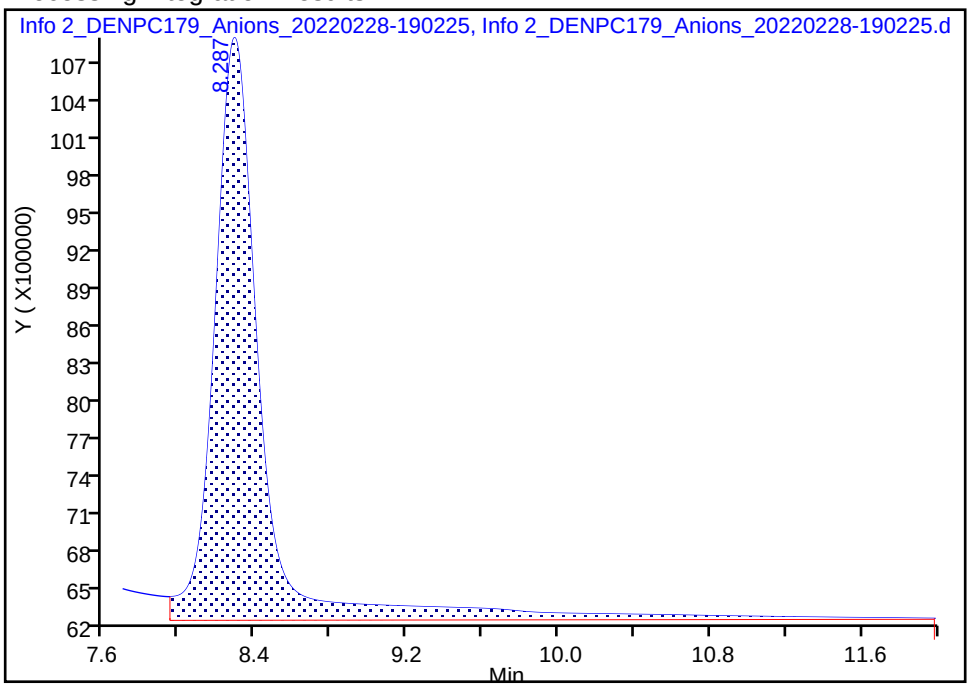
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

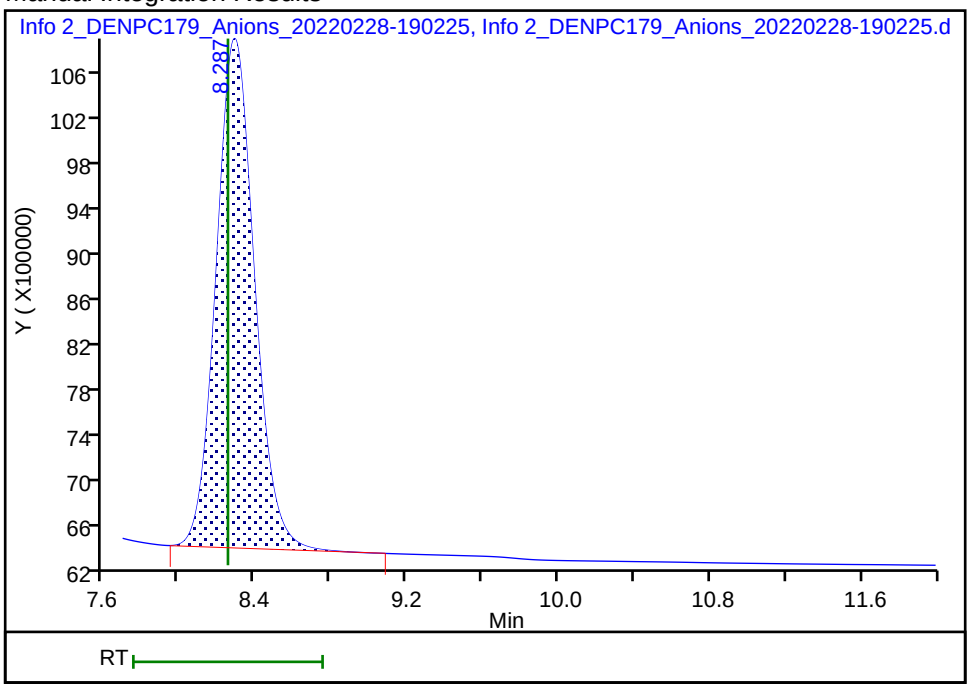
Processing Integration Results

RT: 8.29
Area: 81325973
Amount: 5.263868
Amount Units: ug/ml




Manual Integration Results

RT: 8.29
Area: 62634606
Amount: 4.956557
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:04:42

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-Feb-2022 19:02:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-005
Misc. Info.: 280-0108878-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:45 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 19:24:45

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.735 | 2.735 | 0.000 | 122617602 | 4.00 | 4.28 | Ma |
| 2 Chloride | 3.708 | 3.708 | 0.000 | 909859814 | 60.0 | 60.6 | M |
| 3 Nitrite as N | 4.262 | 4.262 | 0.000 | 145722101 | NC | NC | Ma |
| 4 Bromide | 5.215 | 5.215 | 0.000 | 27309152 | 4.00 | 3.91 | M |
| 5 Nitrate as N | 5.842 | 5.842 | 0.000 | 157181981 | NC | NC | M |
| 6 Orthophosphate as P | 7.305 | 7.305 | 0.000 | 72076664 | NC | NC | M |
| 7 Sulfate | 8.262 | 8.262 | 0.000 | 693116550 | 60.0 | 61.1 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

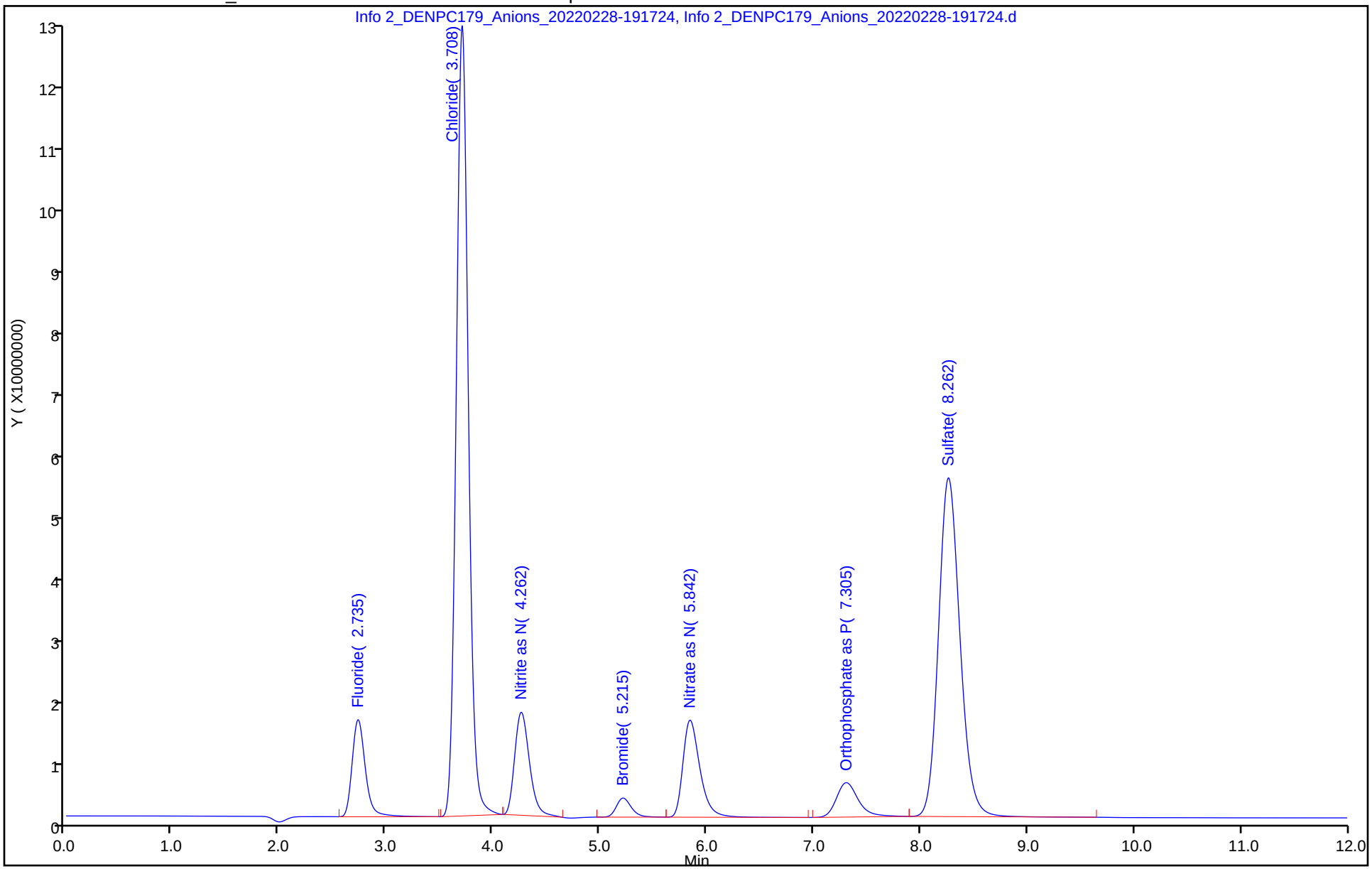
## Reagents:

IC Cal low_00623 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00408 Amount Added: 2.40 Units: mL

Report Date: 01-Mar-2022 13:02:45 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191724.d | | | | |
| Injection Date: | 28-Feb-2022 19:02:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD4 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191

Injection Date: 28-Feb-2022 19:02:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

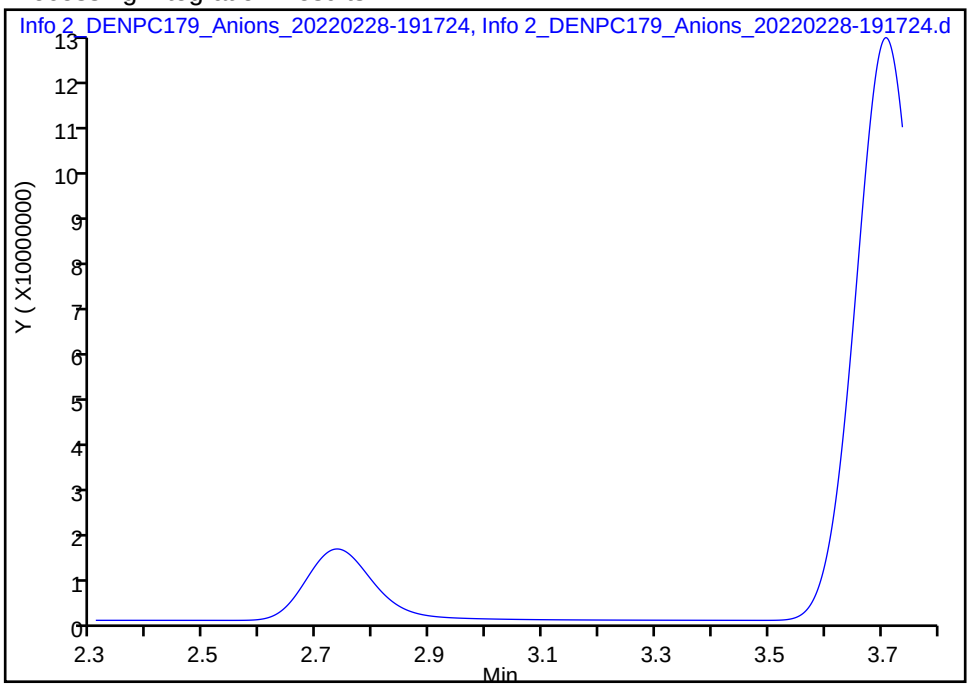
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



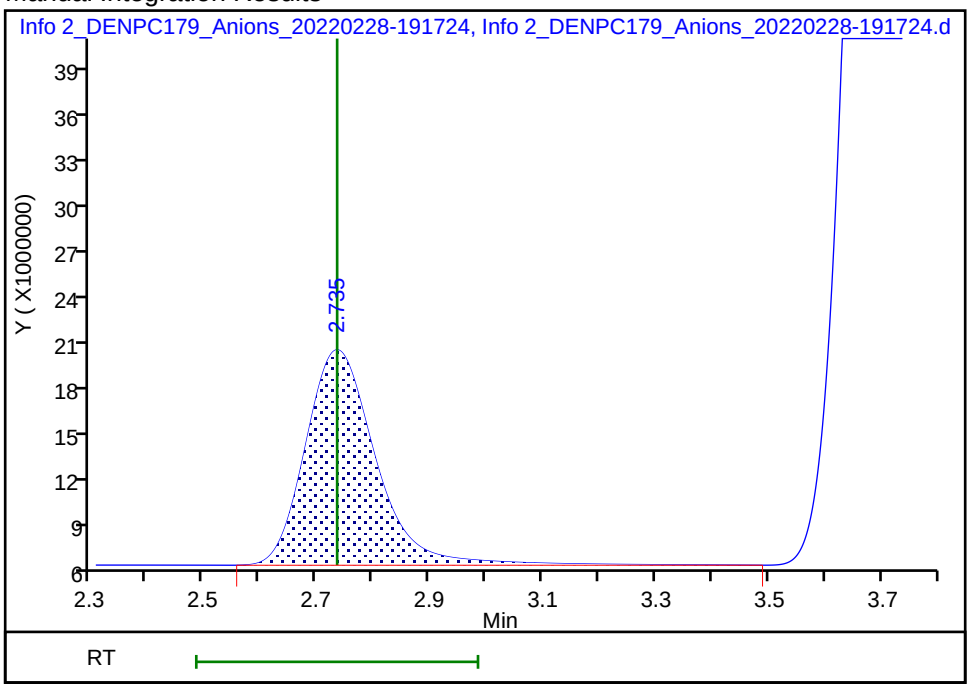

Manual Integration Results

RT: 2.74

Area: 122617602

Amount: 4.281822

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:23:29

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191

Injection Date: 28-Feb-2022 19:02:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

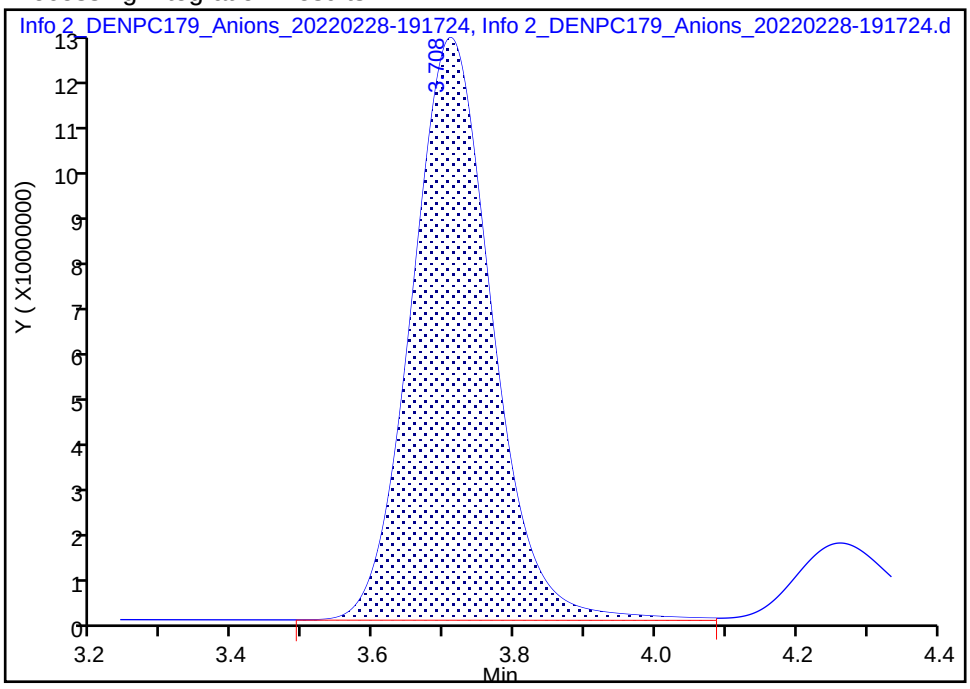
Column: Detector Info 2_091554_1

## 2 Chloride, CAS: 16887-00-6

Signal: 1

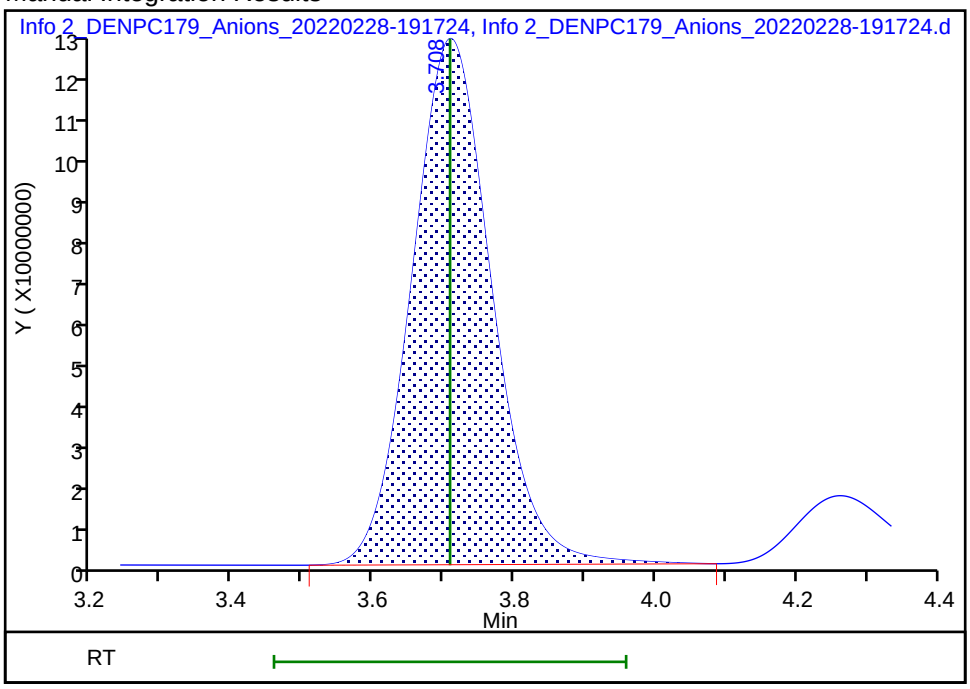
Processing Integration Results

RT: 3.71
Area: 918084872
Amount: 60.142826
Amount Units: ug/ml




Manual Integration Results

RT: 3.71
Area: 909859814
Amount: 60.588722
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:24:05

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191

Injection Date: 28-Feb-2022 19:02:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

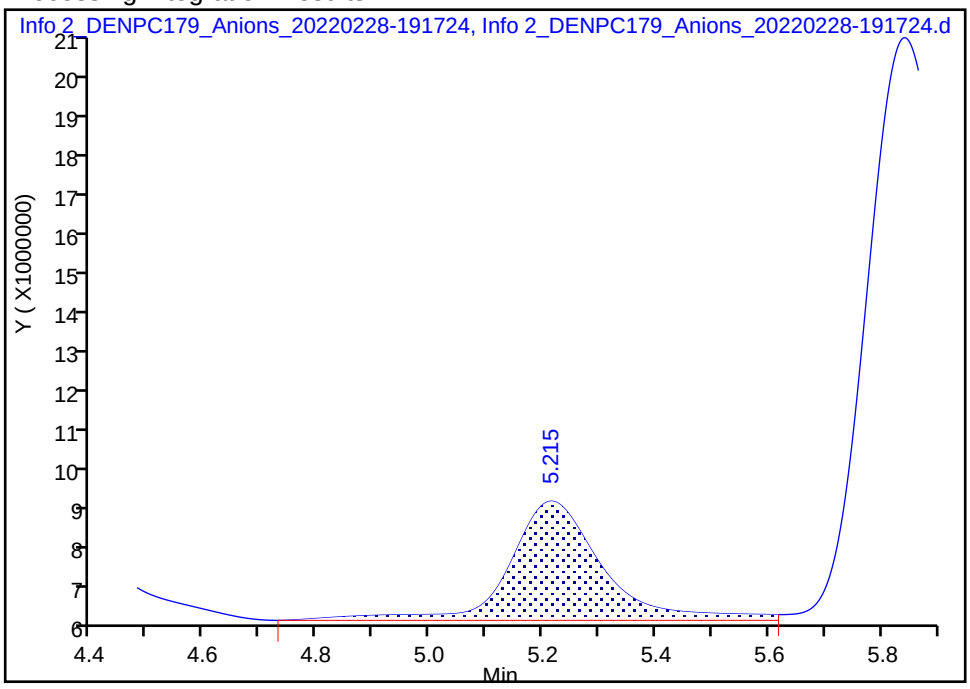
Column: Detector Info 2_091554_1

## 4 Bromide, CAS: 24959-67-9

Signal: 1

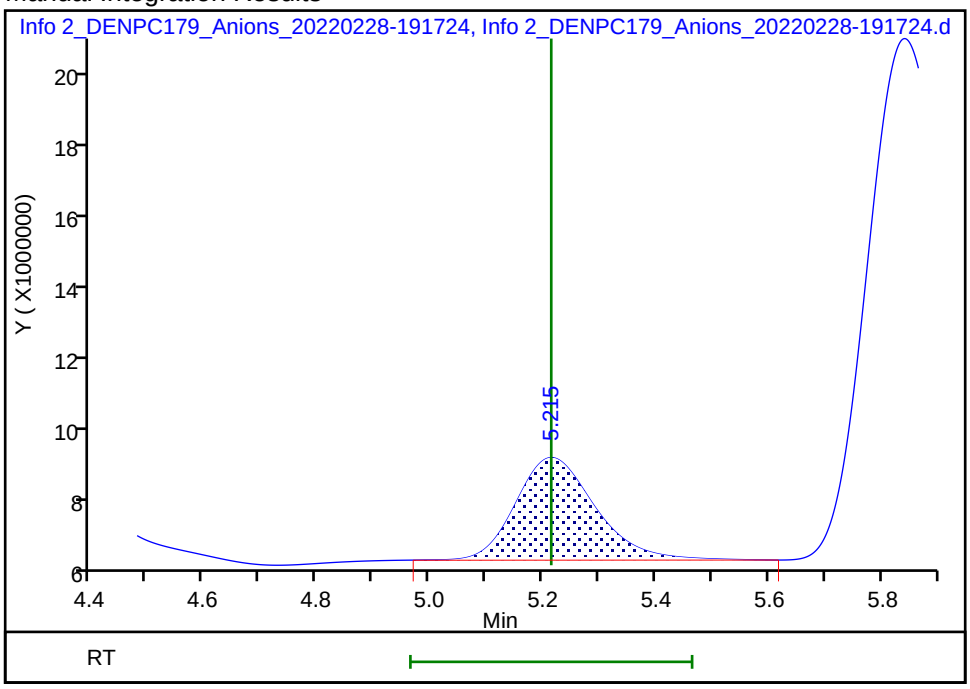
Processing Integration Results

RT: 5.22
Area: 33837802
Amount: 4.109506
Amount Units: ug/ml




Manual Integration Results

RT: 5.22
Area: 27309152
Amount: 3.913562
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:23:47

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-191

Injection Date: 28-Feb-2022 19:02:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

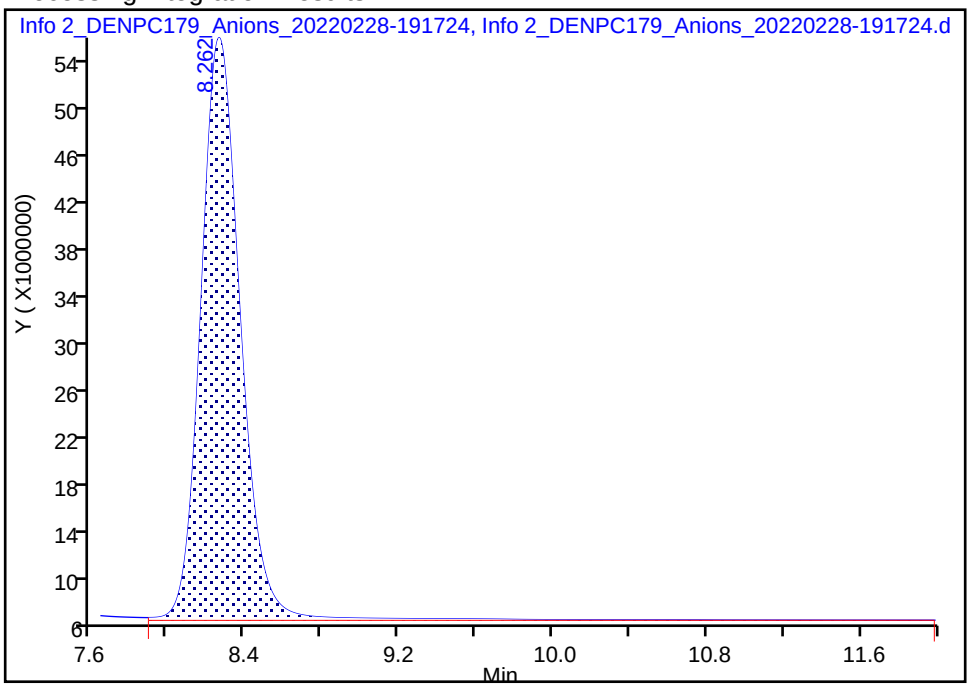
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

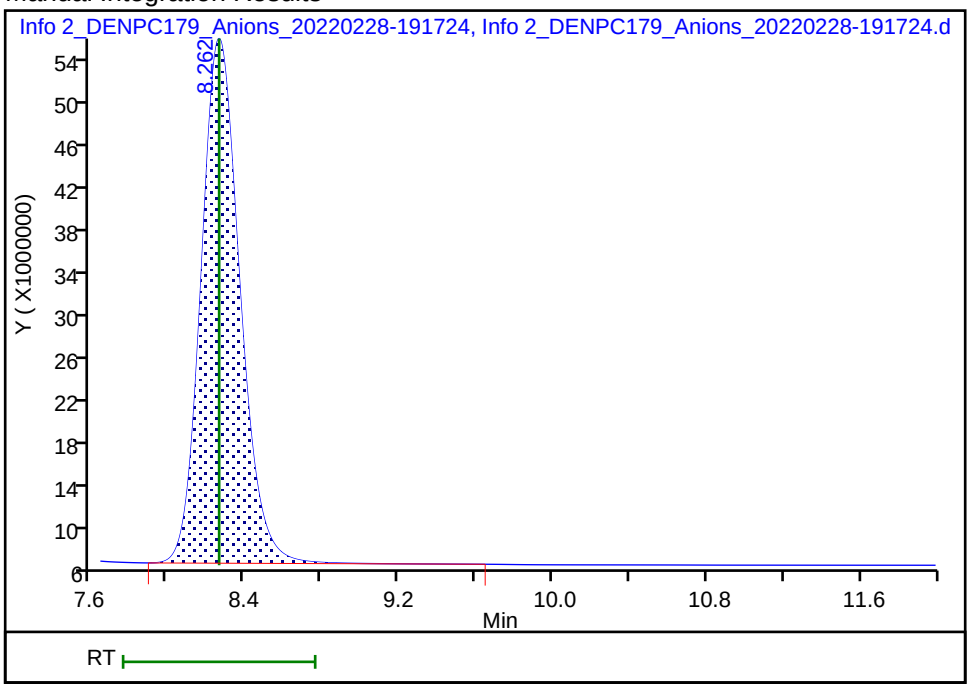
Processing Integration Results

RT: 8.26
Area: 715748874
Amount: 60.198810
Amount Units: ug/ml




Manual Integration Results

RT: 8.26
Area: 693116550
Amount: 61.101552
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 19:24:41

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Feb-2022 19:17:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-006
Misc. Info.: 280-0108878-006
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:46 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 20:47:34

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.738 | 2.738 | 0.000 | 224563839 | 8.00 | 7.90 | Ma |
| 2 Chloride | 3.732 | 3.732 | 0.000 | 1797048620 | 120.0 | 119.7 | Ma |
| 3 Nitrite as N | 4.258 | 4.258 | 0.000 | 281059134 | NC | NC | M |
| 4 Bromide | 5.205 | 5.205 | 0.000 | 55100680 | 8.00 | 7.94 | M |
| 5 Nitrate as N | 5.818 | 5.818 | 0.000 | 316022904 | NC | NC | Ma |
| 6 Orthophosphate as P | 7.293 | 7.293 | 0.000 | 137837043 | NC | NC | M |
| 7 Sulfate | 8.238 | 8.238 | 0.000 | 1356480996 | 120.0 | 120.2 | Ma |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

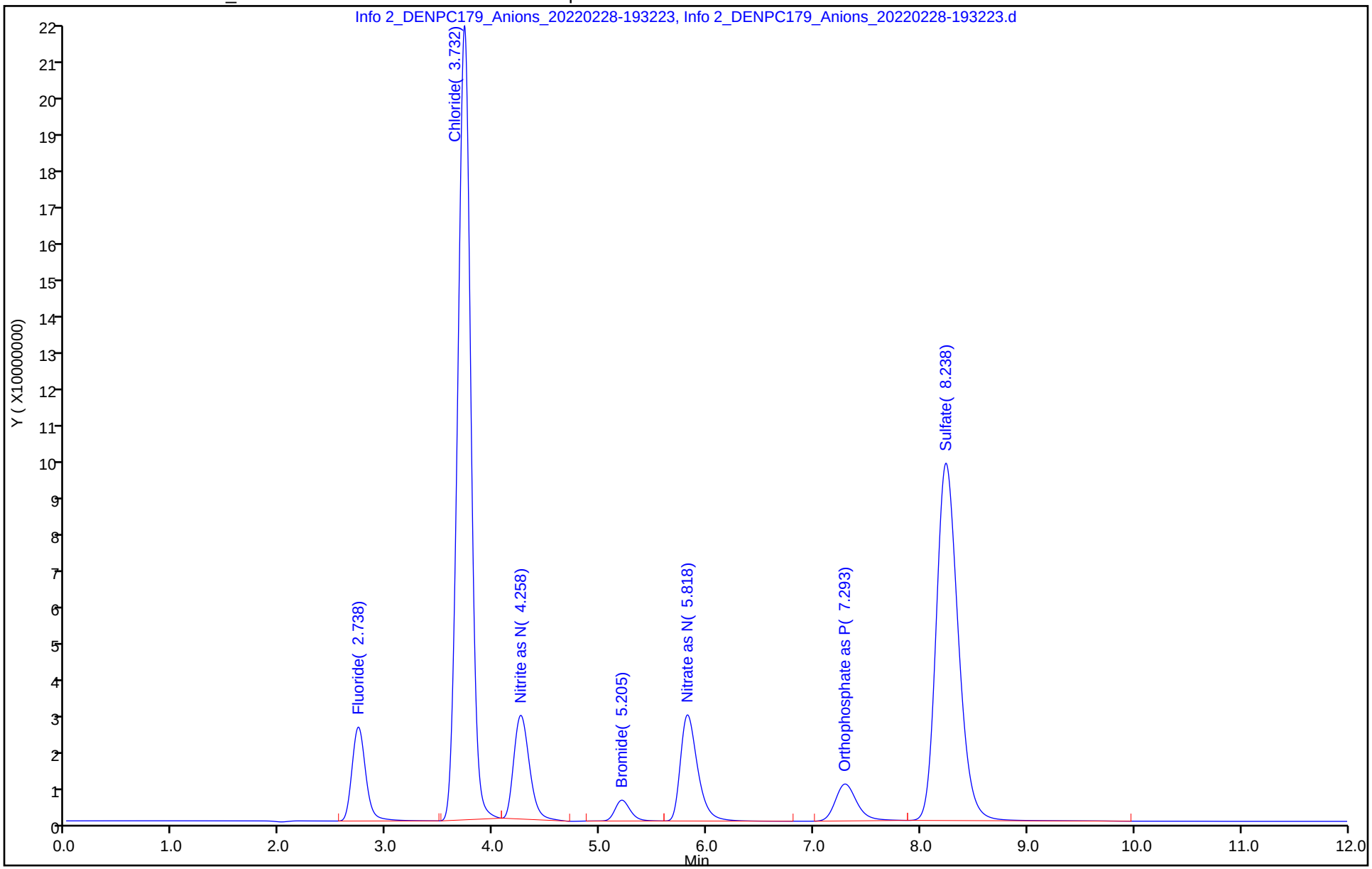
## Reagents:

IC Cal low_00623 Amount Added: 1.60 Units: mL
IC CAL cl/so4_00408 Amount Added: 4.80 Units: mL

Report Date: 01-Mar-2022 13:02:47 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193223.d | | | | |
| Injection Date: | 28-Feb-2022 19:17:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD5 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193

Injection Date: 28-Feb-2022 19:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

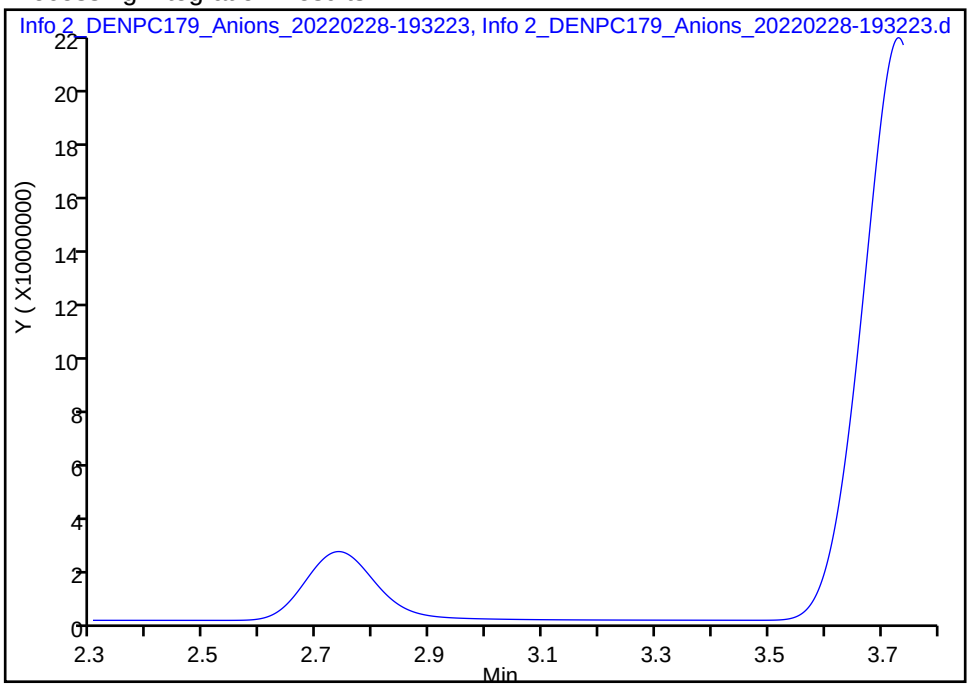
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



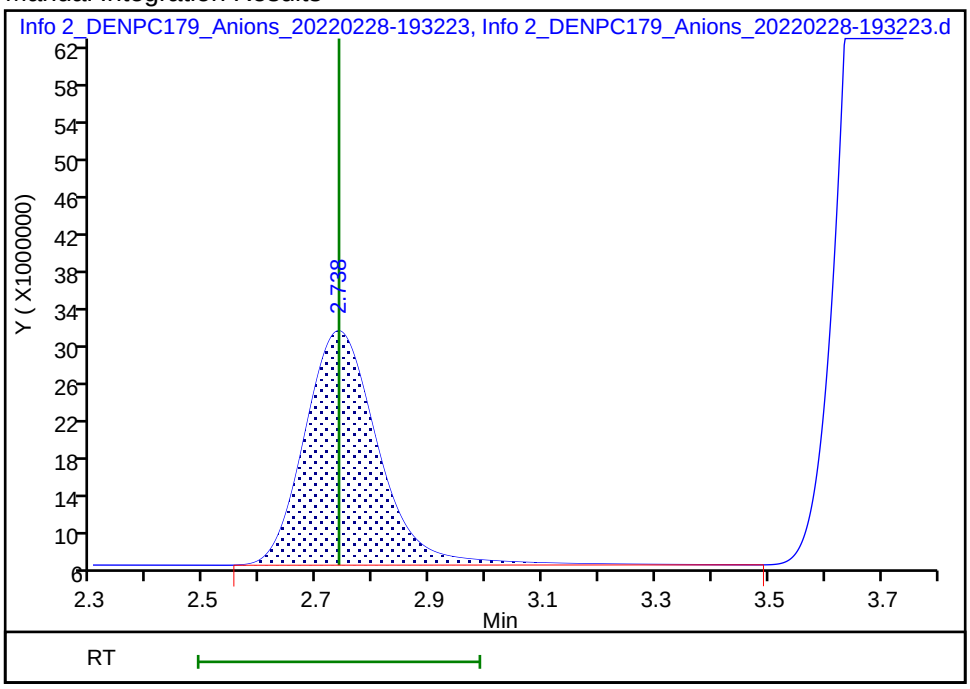

Manual Integration Results

RT: 2.74

Area: 224563839

Amount: 7.902162

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:46:40

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193

Injection Date: 28-Feb-2022 19:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

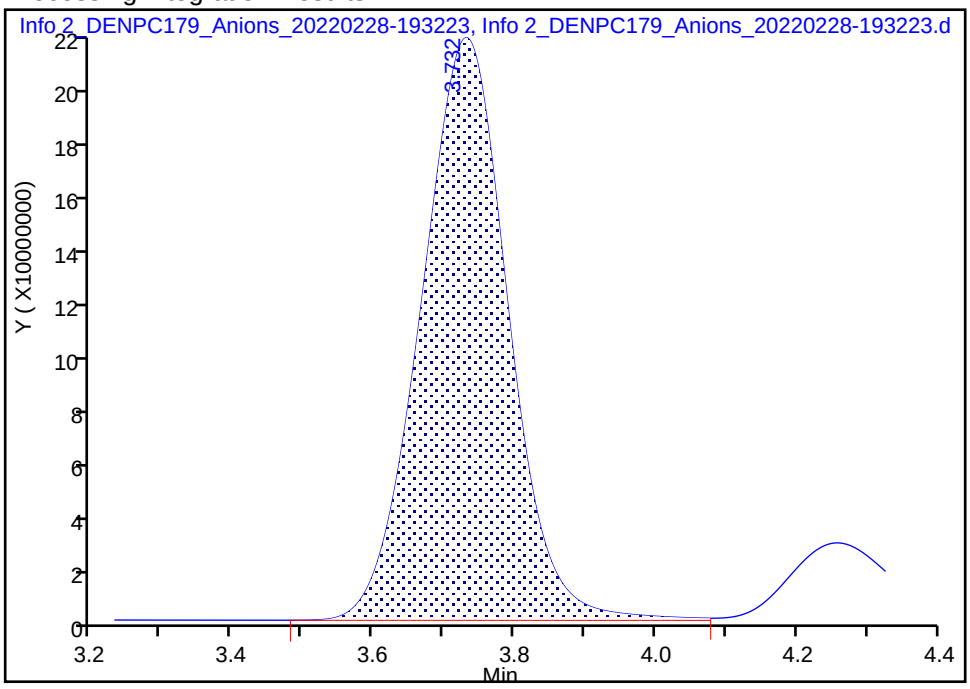
Column: Detector Info 2_091554_1

## 2 Chloride, CAS: 16887-00-6

Signal: 1

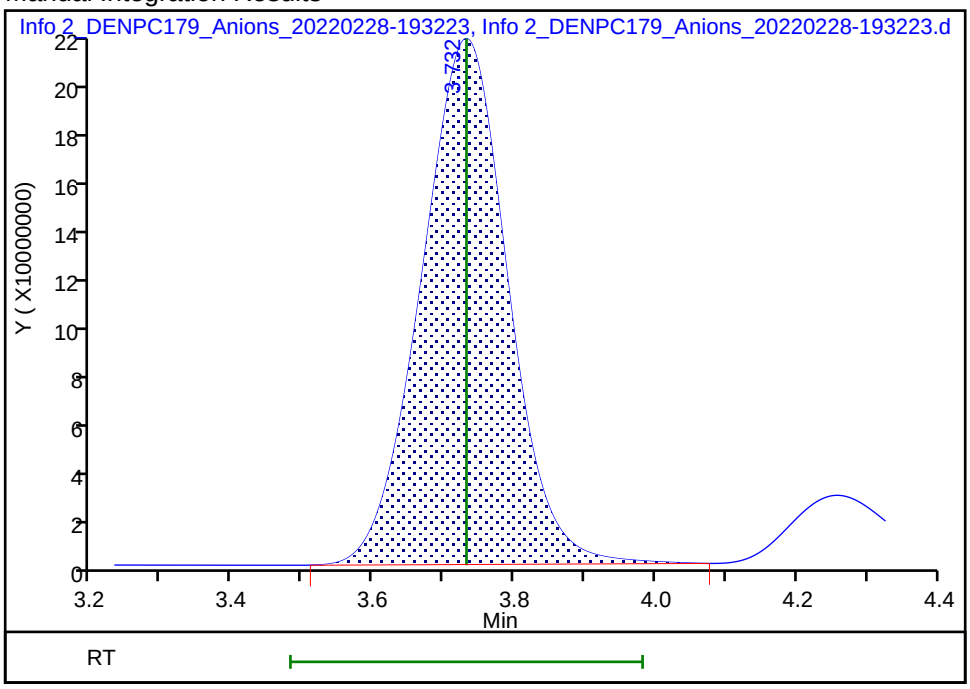
Processing Integration Results

RT: 3.73
Area: 1810834408
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 3.73
Area: 1797048620
Amount: 119.7025
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:45:26

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193

Injection Date: 28-Feb-2022 19:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

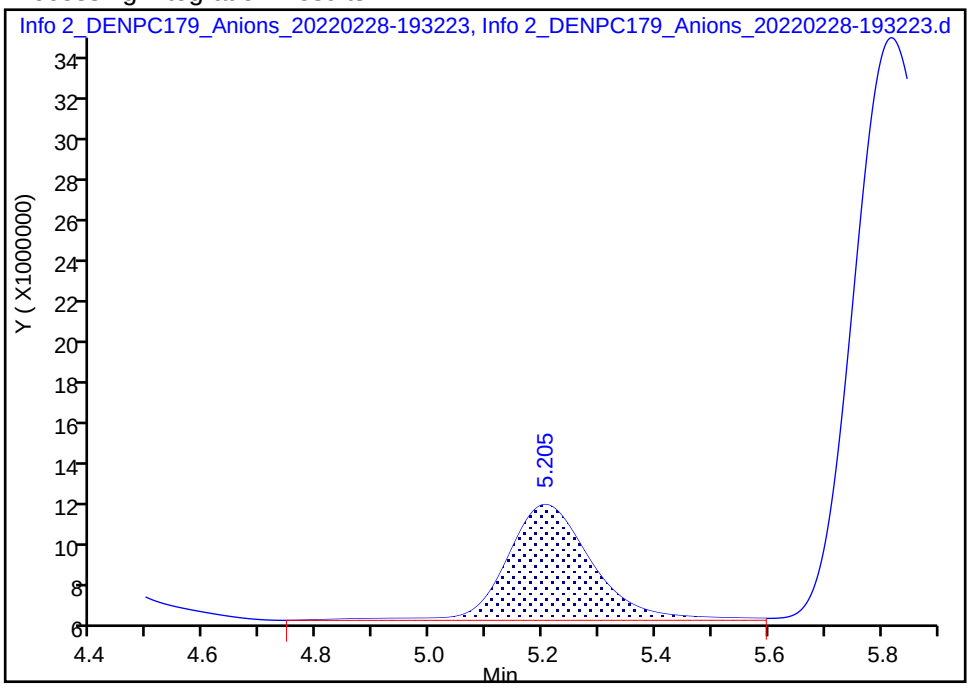
Column: Detector Info 2_091554_1

## 4 Bromide, CAS: 24959-67-9

Signal: 1

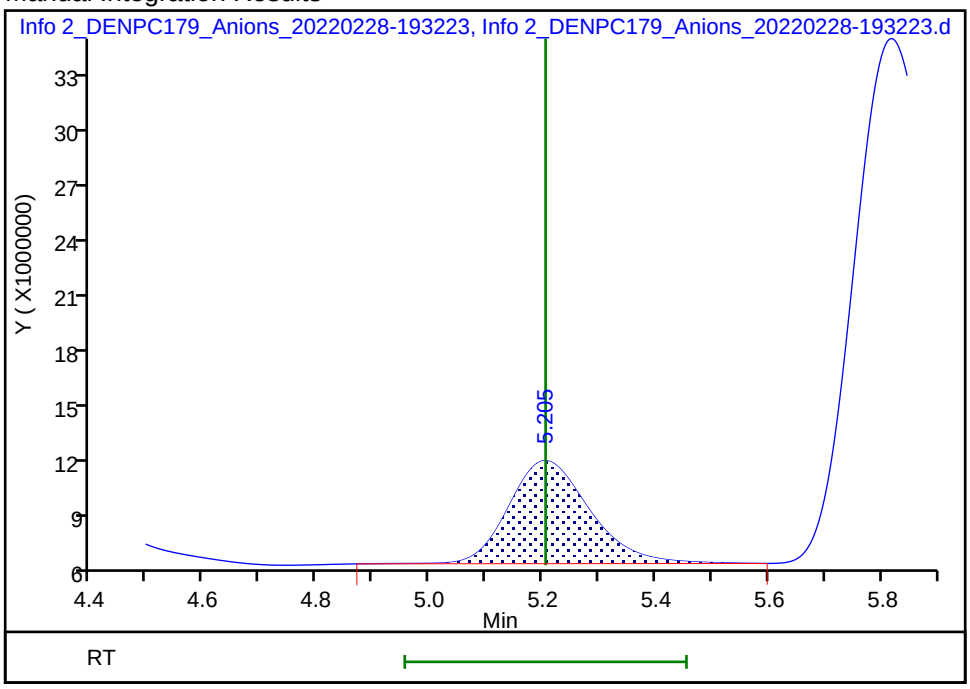
Processing Integration Results

RT: 5.21
Area: 58902439
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 5.21
Area: 55100680
Amount: 7.938617
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:46:18

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-193

Injection Date: 28-Feb-2022 19:17:00 Instrument ID: WC_IonChrom10

Lims ID: STD5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

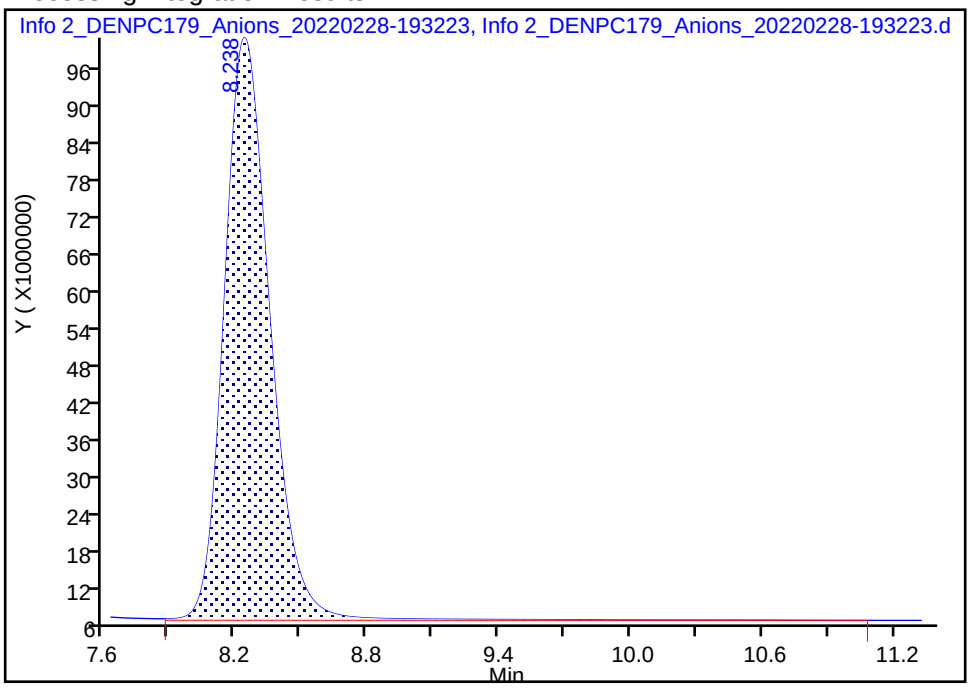
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

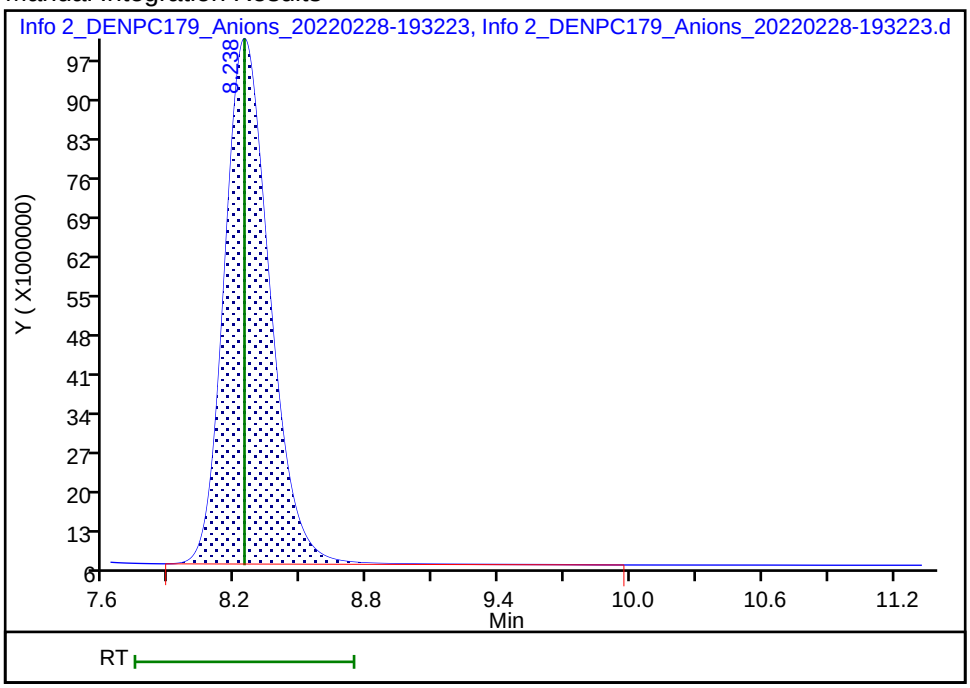
Processing Integration Results

RT: 8.24
Area: 1374718846
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 8.24
Area: 1356480996
Amount: 120.1748
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:47:28

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Feb-2022 19:32:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-007
Misc. Info.: 280-0108878-007
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:02:47 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1633

First Level Reviewer: jindaratc Date: 28-Feb-2022 20:50:10

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.733 | 2.738 | -0.005 | 275381982 | 10.0 | 9.71 | Ma |
| 2 Chloride | 3.758 | 3.732 | 0.026 | 2999351308 | 200.0 | 199.8 | Ma |
| 3 Nitrite as N | 4.258 | 4.258 | 0.000 | 343932142 | NC | NC | Ma |
| 4 Bromide | 5.198 | 5.205 | -0.007 | 70347697 | 10.0 | 10.1 | |
| 5 Nitrate as N | 5.812 | 5.818 | -0.006 | 398895709 | NC | NC | |
| 6 Orthophosphate as P | 7.285 | 7.293 | -0.008 | 171878234 | NC | NC | M |
| 7 Sulfate | 8.212 | 8.238 | -0.026 | 2239492487 | 200.0 | 198.8 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

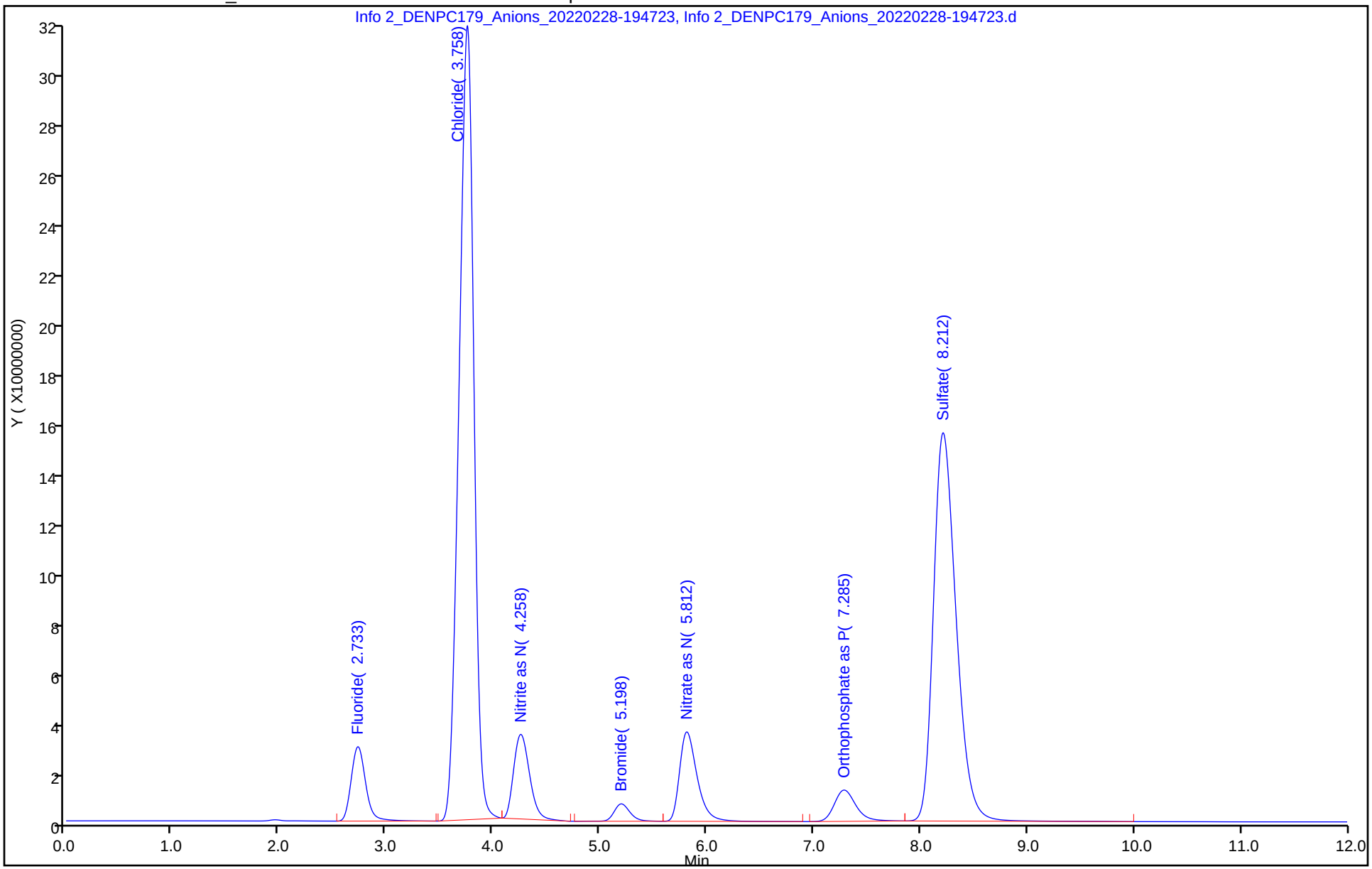
## Reagents:

IC Cal low_00623 Amount Added: 2.00 Units: mL
IC CAL cl/so4_00408 Amount Added: 8.00 Units: mL

Report Date: 01-Mar-2022 13:02:47 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194723.d | | | | |
| Injection Date: | 28-Feb-2022 19:32:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | STD6 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Injection Date: 28-Feb-2022 19:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

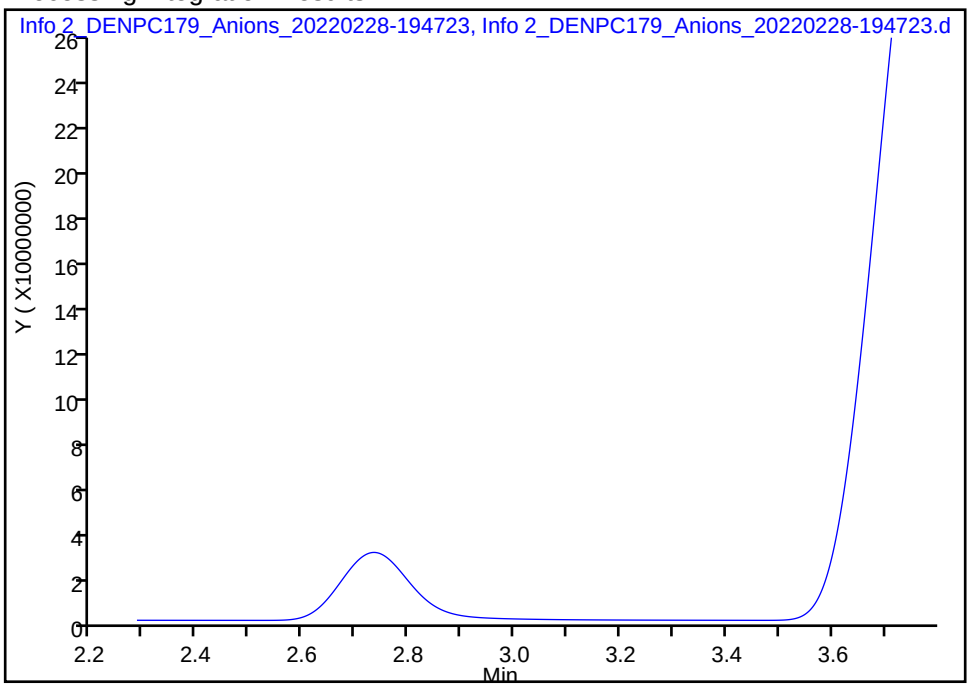
## 1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 2.74

Processing Integration Results



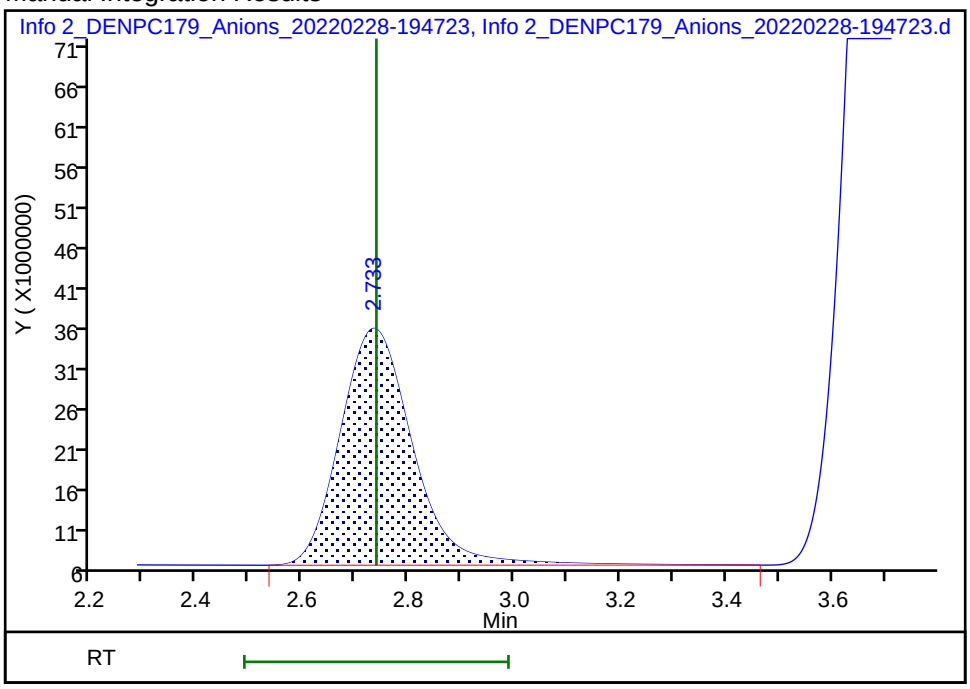

Manual Integration Results

RT: 2.73

Area: 275381982

Amount: 9.706829

Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:48:40

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Injection Date: 28-Feb-2022 19:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

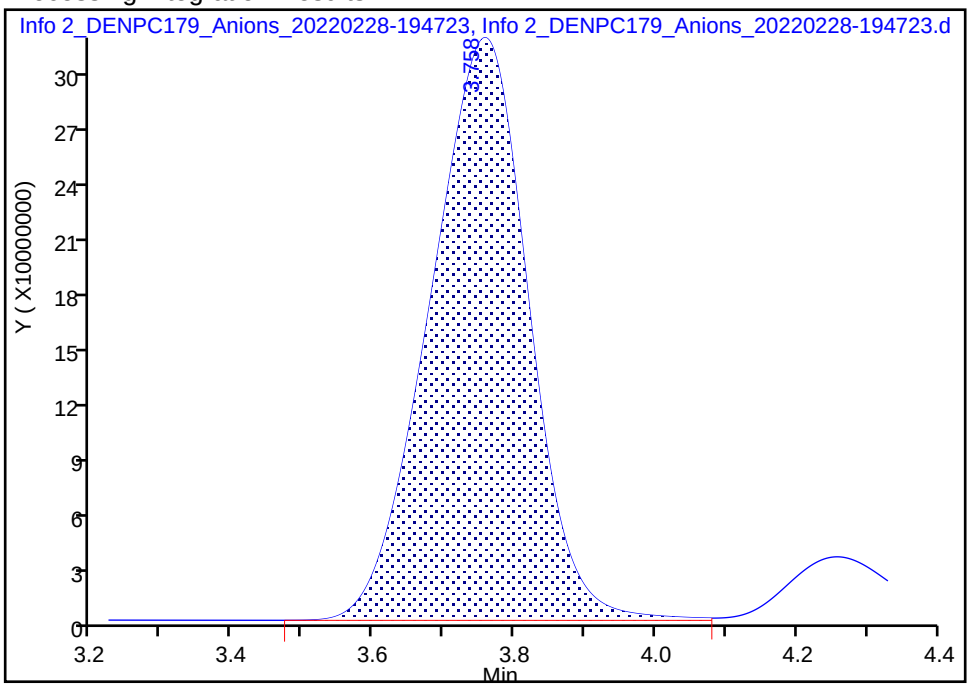
Column: Detector Info 2_091554_1

## 2 Chloride, CAS: 16887-00-6

Signal: 1

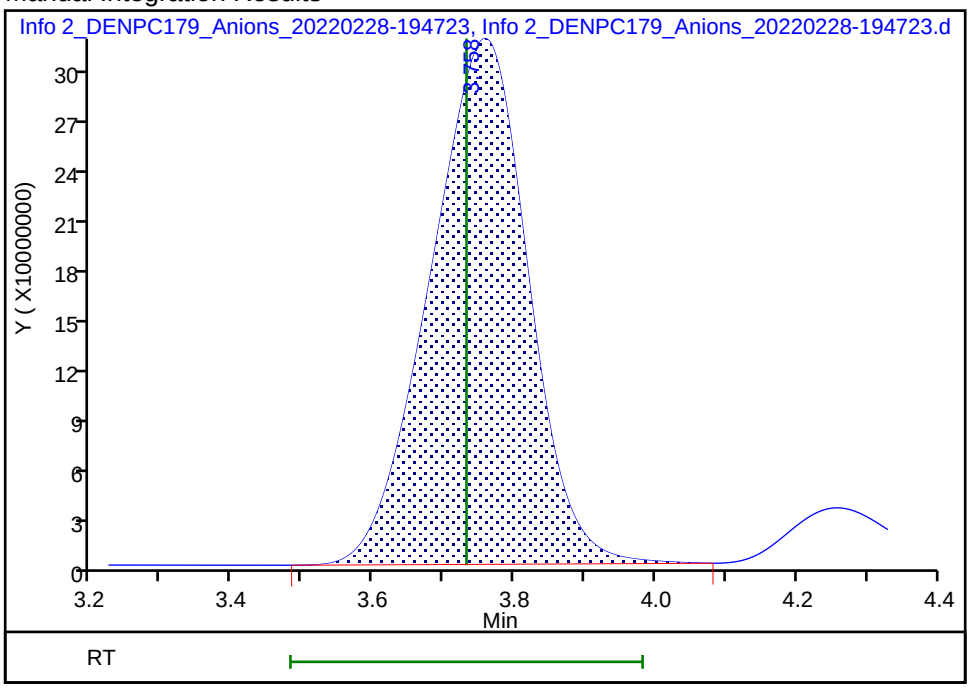
Processing Integration Results

RT: 3.76
Area: 3020807965
Amount: 200.4839
Amount Units: ug/ml




Manual Integration Results

RT: 3.76
Area: 2999351308
Amount: 199.8124
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:49:06

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Injection Date: 28-Feb-2022 19:32:00 Instrument ID: WC_IonChrom10

Lims ID: STD6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

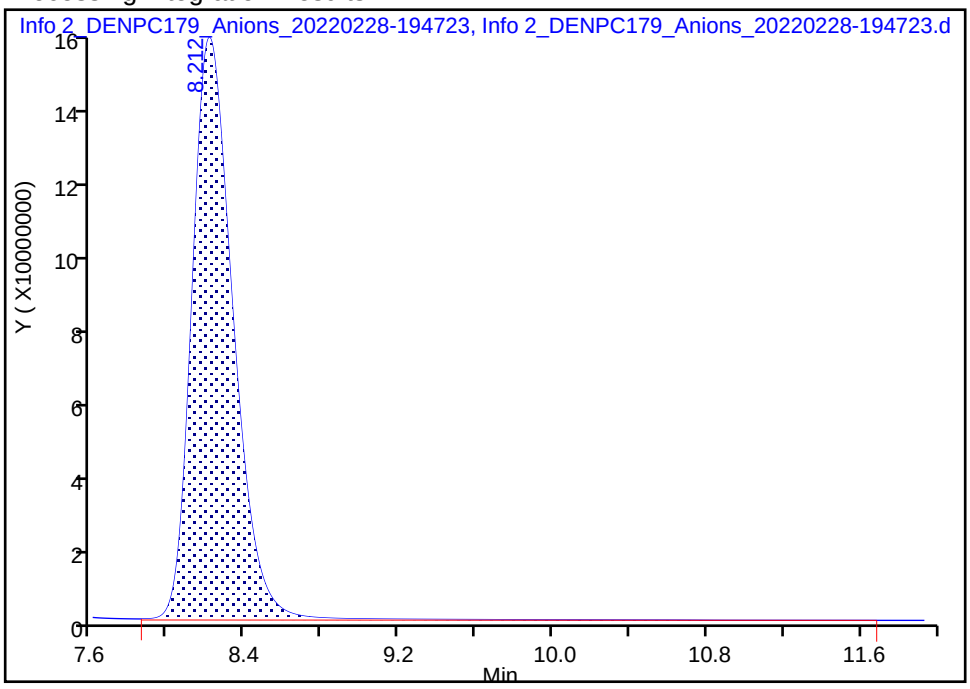
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

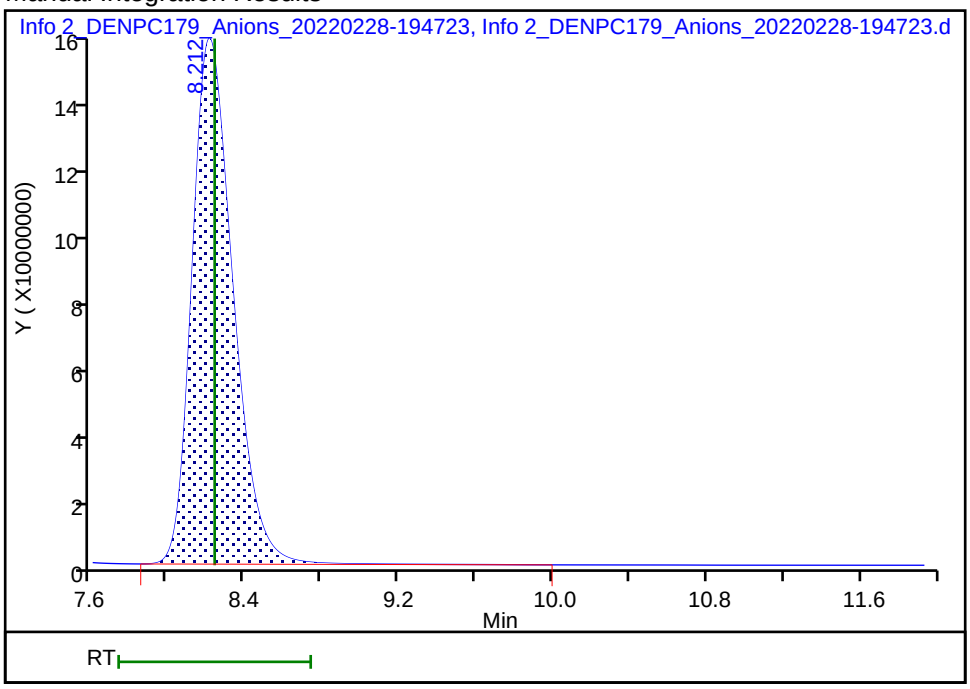
Processing Integration Results

RT: 8.21
Area: 2263458804
Amount: 199.8140
Amount Units: ug/ml




Manual Integration Results

RT: 8.21
Area: 2239492487
Amount: 198.8077
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:50:05

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom10 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 01-Mar-2022 13:45:18 |

No.Compounds:7

## Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b
Inj Date : 28-Feb-2022 18:17:00, Sublist: chrom-Anions_IC10*sub2

Detector 1: Info 2_091554_1

| | Wet - Anions 28D | | | | Wet - Anions | | | |
|---|---|---|---|---|---|---|---|---|
| Compound | b | M1 | M2 | Err | b | M1 | M2 | Err |
| 1 Fluoride | 2044491 | 2815929 | | 0.997 | | | | |
| 2 Chloride | 534254 | 1500816 | | 1.000 | | | | |
| 3 Nitrite as N | | | | | 1533793 | 3488757 | | 0.999 |
| 4 Bromide | 287441 | 6904634 | | 1.000 | | | | |
| 5 Nitrate as N | | | | | -167386 | 3965385 | | 1.000 |
| 6 Orthophosphate as P | | | | | 4068366 | 1682057 | | 1.000 |
| 7 Sulfate | 6974797 | 1122953 | | 1.000 | | | | |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Mar-2022 13:48:26
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions

## Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18322
Inj Date: 28-Feb-2022 18:17:00 Worklist: 108878 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18472
Inj Date: 28-Feb-2022 18:32:00 Worklist: 108878 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19022
Inj Date: 28-Feb-2022 18:47:00 Worklist: 108878 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19172
Inj Date: 28-Feb-2022 19:02:00 Worklist: 108878 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19322
Inj Date: 28-Feb-2022 19:17:00 Worklist: 108878 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19472
Inj Date: 28-Feb-2022 19:32:00 Worklist: 108878 Sample#: 7

Start Cal Date: 28-Feb-2022 18:17:00 End Cal Date: 28-Feb-2022 19:32:00

## 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 | | | | | |
| 39860445 | 38309992 | 38197758 | 36430525 | 35132392 | 34393214 | 1533793 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 34887572 | | |
| M7972089 | M19154996 | M38197758 | M145722101 | M281059134 | M343932142 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 5 Nitrate as N | | | | Signal: 1 | | | | | |
| 39156125 | 39600444 | 39060041 | 39295495 | 39502863 | 39889571 | -167386 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 39653857 | | |
| M7831225 | M19800222 | M39060041 | M157181981 | M316022904 | 398895709 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 6 Orthophosphate as P | | | | Signal: 1 | | | | | |
| 36587595 | 24860420 | 21518234 | 18019166 | 17229630 | 17187823 | 4068366 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 16820579 | | |
| M7317519 | M12430210 | M21518234 | M72076664 | M137837043 | M171878234 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Mar-2022 13:48:26
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions 28D

## Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18322
Inj Date: 28-Feb-2022 18:17:00 Worklist: 108878 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18472
Inj Date: 28-Feb-2022 18:32:00 Worklist: 108878 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19022
Inj Date: 28-Feb-2022 18:47:00 Worklist: 108878 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19172
Inj Date: 28-Feb-2022 19:02:00 Worklist: 108878 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19322
Inj Date: 28-Feb-2022 19:17:00 Worklist: 108878 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19472
Inj Date: 28-Feb-2022 19:32:00 Worklist: 108878 Sample#: 7

Start Cal Date: 28-Feb-2022 18:17:00 End Cal Date: 28-Feb-2022 19:32:00

## 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 | | | | | |
| 32527830 | 33837220 | 33654723 | 30654401 | 28070480 | 27538198 | 2044491 | | | 0.997 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 28159299 | | |
| M6505566 | M16918610 | M33654723 | M122617602 | M224563839 | M275381982 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 2 Chloride | | | | Signal: 1 | | | | | |
| 16018890 | 14889236 | 14875208 | 15164330 | 14975405 | 14996757 | 534254 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 15008165 | | |
| M16018890 | 37223089 | 74376040 | M909859814 | M1797048620 | M2999351308 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 4 Bromide | | | | Signal: 1 | | | | | |
| 8466735 | 7467798 | 7179685 | 6827288 | 6887585 | 7034770 | 287441 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 6904634 | | |
| M1693347 | M3733899 | M7179685 | M27309152 | M55100680 | 70347697 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 7 Sulfate | | | | Signal: 1 | | | | | |
| 18411758 | 13754010 | 12526921 | 11551943 | 11304008 | 11197462 | 6974797 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 11229531 | | |
| M18411758 | M34385025 | M62634606 | M693116550 | M1356480996 | M2239492487 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-200
Lims ID: icb
Client ID:
Sample Type: ICB
Inject. Date: 28-Feb-2022 19:47:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-008
Misc. Info.: 280-0108878-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:48:26 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1603

First Level Reviewer: jindaratc Date: 01-Mar-2022 12:59:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.738 | | | | ND | |
| 2 Chloride | | 3.732 | | | | ND | |
| 3 Nitrite as N | | 4.258 | | | | ND | |
| 4 Bromide | | 5.205 | | | | ND | U |
| 5 Nitrate as N | | 5.818 | | | | ND | U |
| 6 Orthophosphate as P | 7.342 | 7.293 | 0.049 | 4204366 | | NC | M |
| 7 Sulfate | 8.322 | 8.238 | 0.084 | 6561418 | | -0.0368 | Ma |

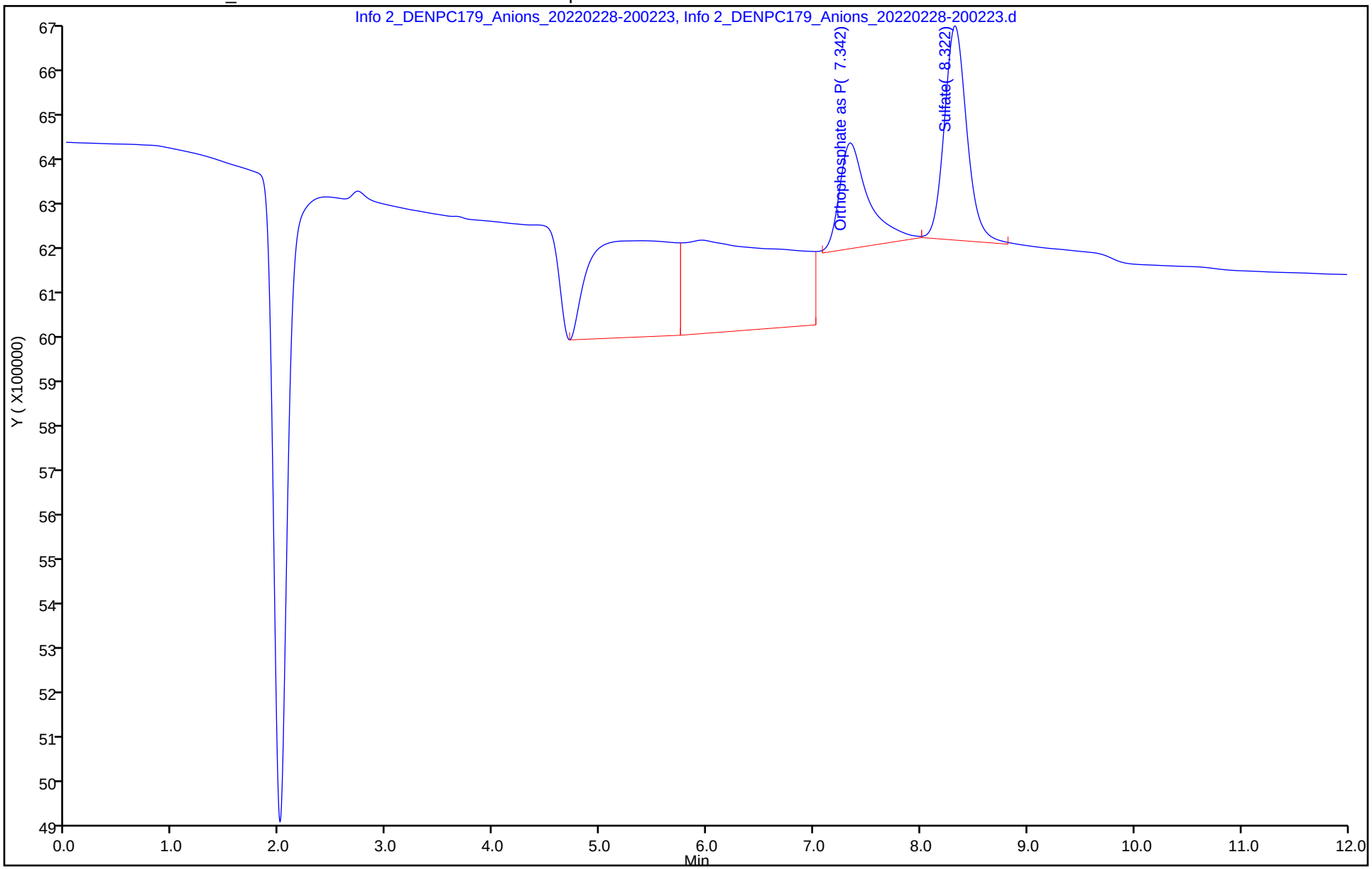
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected
a - User Assigned ID

Report Date: 01-Mar-2022 13:48:36 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-200223.d | | | | |
| Injection Date: | 28-Feb-2022 19:47:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | icb | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-200

Injection Date: 28-Feb-2022 19:47:00 Instrument ID: WC_IonChrom10

Lims ID: icb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 8

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

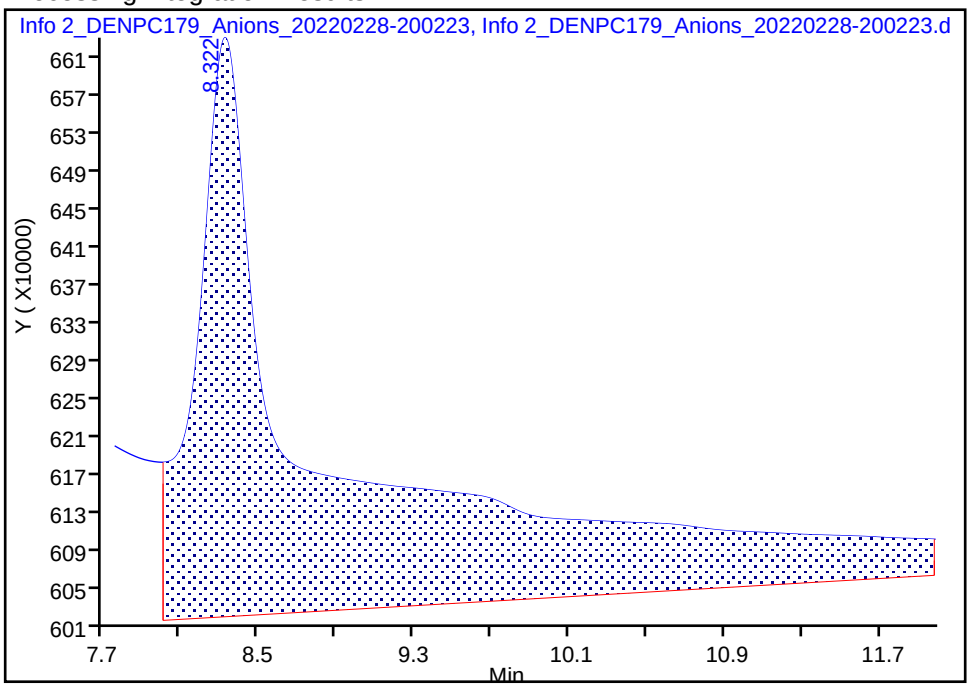
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

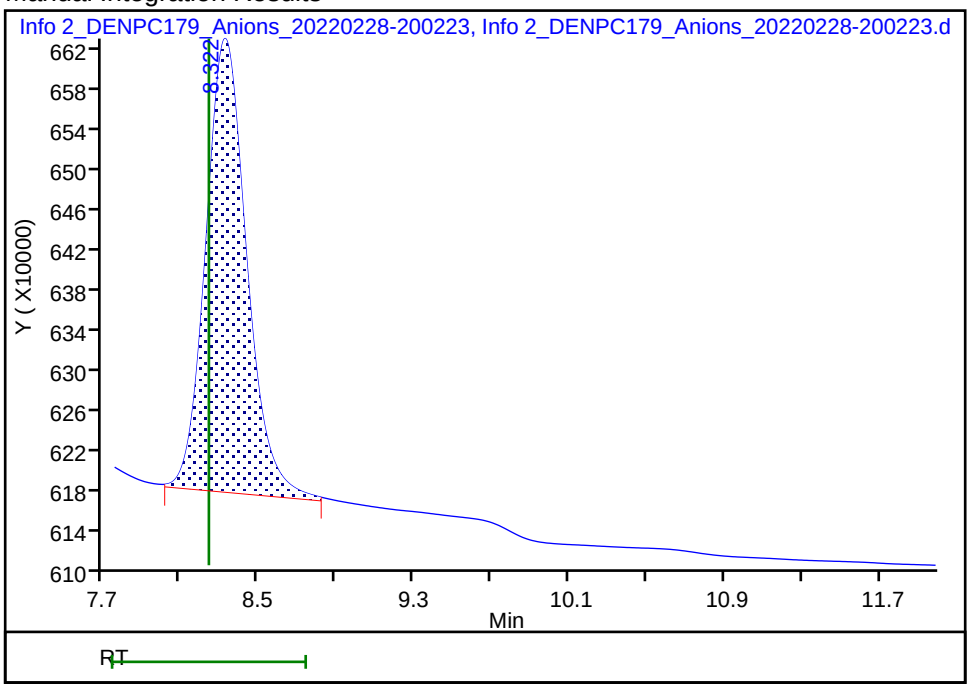
Processing Integration Results

RT: 8.32
Area: 29051870
Amount: 1.965984
Amount Units: ug/ml




Manual Integration Results

RT: 8.32
Area: 6561418
Amount: -0.036812
Amount Units: ug/ml




Reviewer: jindaratc, 01-Mar-2022 12:59:04

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-201
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 28-Feb-2022 20:02:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0108878-009
Misc. Info.: 280-0108878-009
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 01-Mar-2022 13:59:07 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1646

First Level Reviewer: jindaratc Date: 28-Feb-2022 20:43:44

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.735 | 2.735 | 0.000 | 133029810 | 4.00 | 4.65 | Ma |
| 2 Chloride | 3.720 | 3.720 | 0.000 | 1293256915 | 80.0 | 86.1 | M |
| 3 Nitrite as N | 4.265 | 4.265 | 0.000 | 145008519 | NC | NC | M |
| 4 Bromide | 5.218 | 5.218 | 0.000 | 29400583 | 4.00 | 4.22 | M |
| 5 Nitrate as N | 5.847 | 5.847 | 0.000 | 164418724 | NC | NC | Ma |
| 6 Orthophosphate as P | 7.303 | 7.303 | 0.000 | 73589148 | NC | NC | M |
| 7 Sulfate | 8.252 | 8.252 | 0.000 | 987515805 | 80.0 | 87.3 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

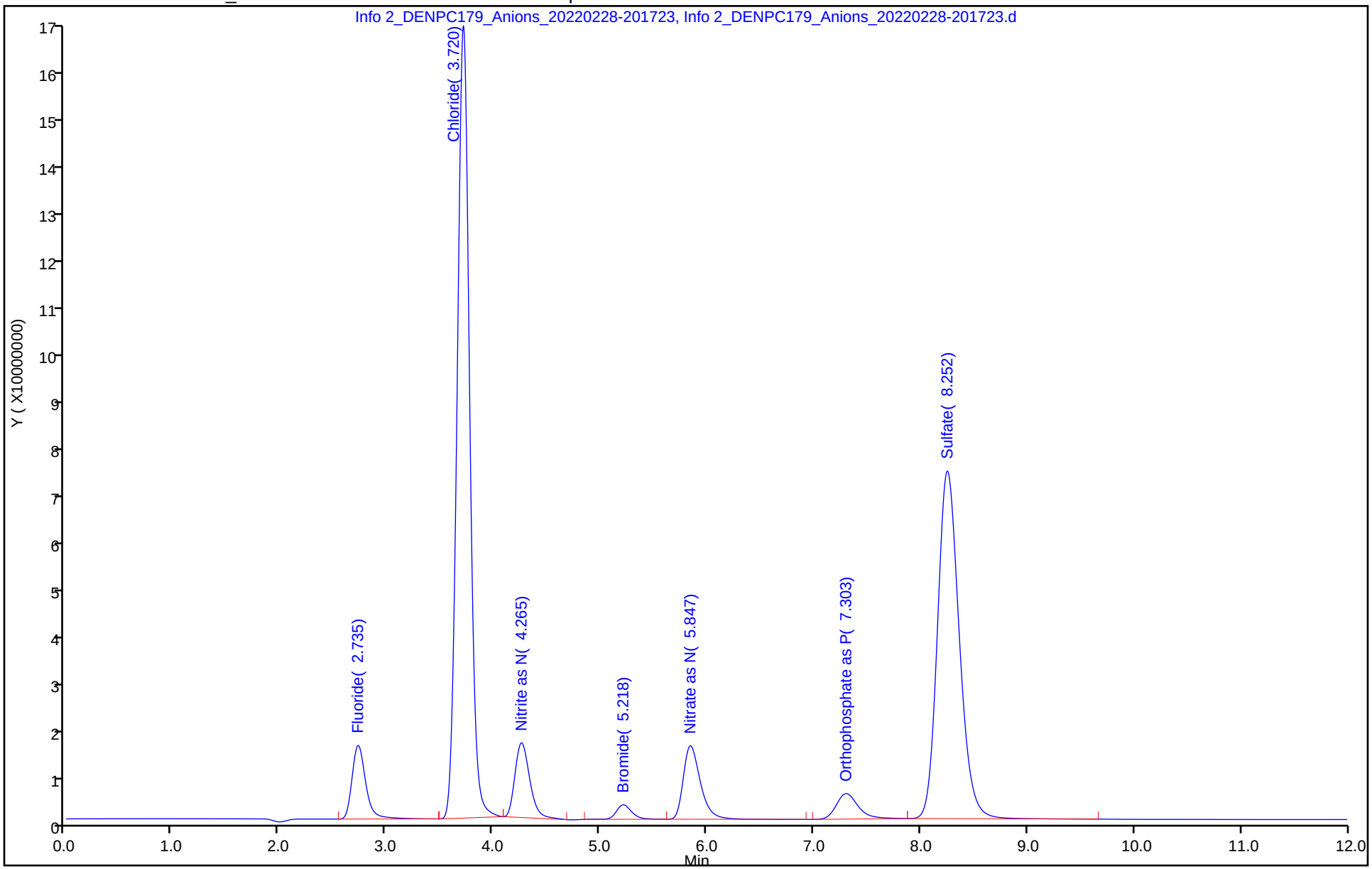
## Reagents:

| | | | |
|---|---|---|---|
| IC SO4 ICV_00022 | Amount Added: | 0.80 | Units: mL |
| Cl ICV Std_00002 | Amount Added: | 0.80 | Units: mL |
| IC ICV 5_00352 | Amount Added: | 0.80 | Units: mL |

Report Date: 01-Mar-2022 13:59:08 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-201723.d | | | | |
| Injection Date: | 28-Feb-2022 20:02:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | icv | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-201

Injection Date: 28-Feb-2022 20:02:00 Instrument ID: WC_IonChrom10

Lims ID: icv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 9

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

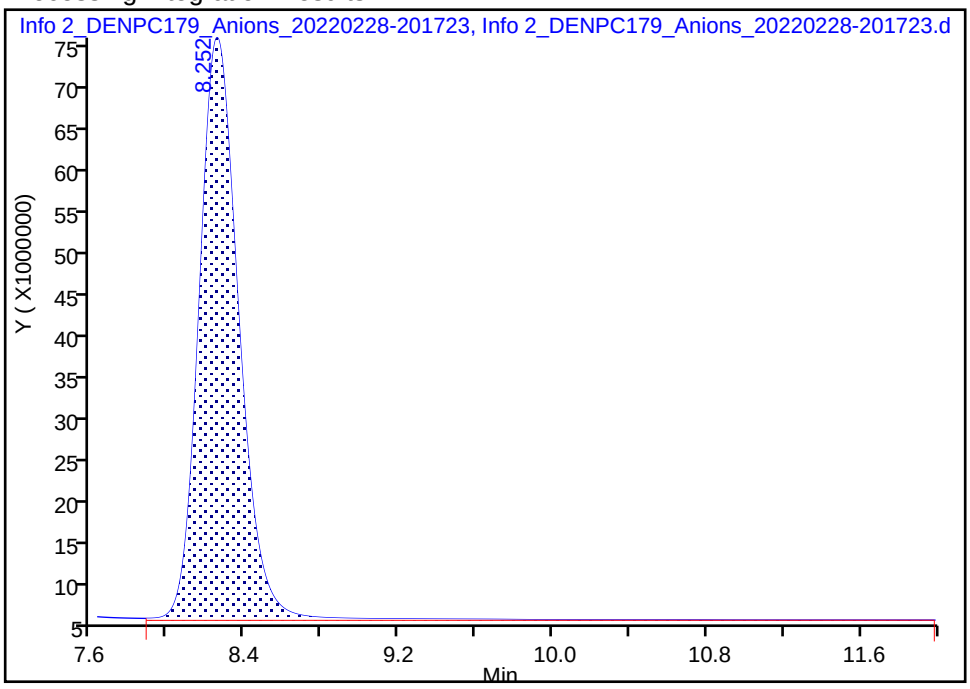
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

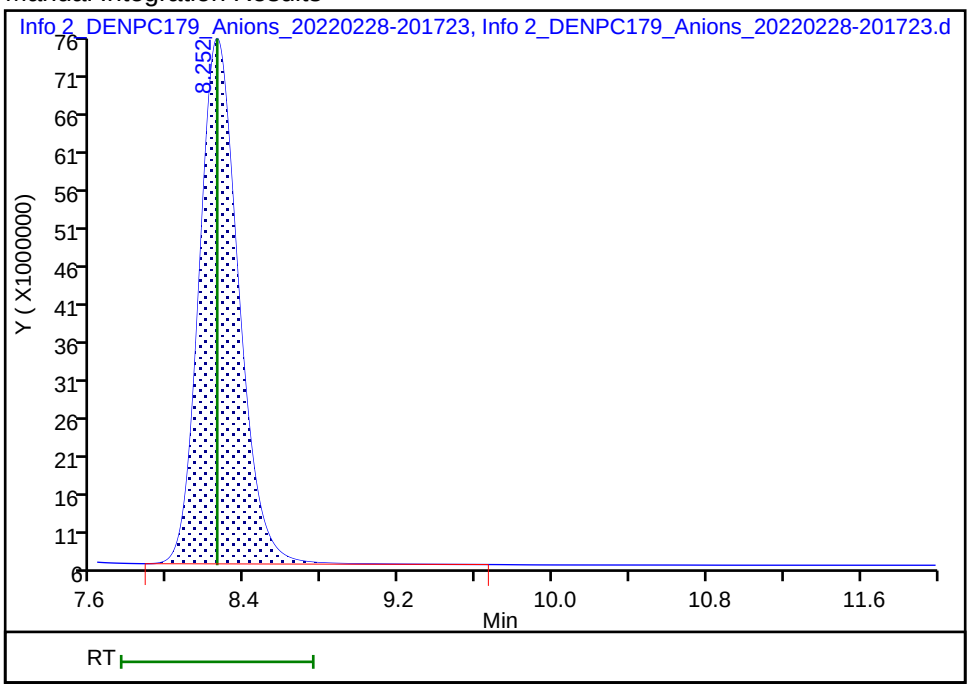
Processing Integration Results

RT: 8.25
Area: 1012523267
Amount: 89.545014
Amount Units: ug/ml




Manual Integration Results

RT: 8.25
Area: 987515805
Amount: 87.318076
Amount Units: ug/ml




Reviewer: jindaratc, 28-Feb-2022 20:51:17

Audit Action: Manually Integrated Audit Reason: Peak not integrated

# IC Instrument Information

**WL:** 109824 **Inst ID:** IC10 **Analysis Date:** 3/17/2022 **Analyst:** CJ

| Rush | Job No. | Samples | Anions | QC Req | HT Exp |
|---|---|---|---|---|---|
| ☐ | 159285 | 3 | F (Cl) NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | 159286 | 4 | F (Cl) NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | 159288 | 4 | F (Cl) NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | 159234 | 3 | F Cl NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | 159302 | 9 | 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 |
|---|---|---|---|---|
| 285 | | F Cl NO2 Br NO3 PO4 SO4 | 20,100X | Hist |
| 286 | | F Cl NO2 Br NO3 PO4 SO4 | 50,100X | Hist |
| 288 | | F Cl NO2 Br NO3 PO4 SO4 | 50X | Hist |
| 234 | | F Cl NO2 Br NO3 PO4 SO4 | 5X | dilution |
| 302 | | F Cl NO2 Br NO3 PO4 SO4 | 5X | Hist. |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom10 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 01-Mar-2022 13:45:18 |

No.Compounds:7

## Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b
Inj Date : 28-Feb-2022 18:17:00, Sublist: chrom-Anions_IC10*sub2

Detector 1: Info 2_091554_1

| | Wet - Anions 28D | | | | Wet - Anions | | | |
|---|---|---|---|---|---|---|---|---|
| Compound | b | M1 | M2 | Err | b | M1 | M2 | Err |
| 1 Fluoride | 2044491 | 2815929 | | 0.997 | | | | |
| 2 Chloride | 534254 | 1500816 | | 1.000 | | | | |
| 3 Nitrite as N | | | | | 1533793 | 3488757 | | 0.999 |
| 4 Bromide | 287441 | 6904634 | | 1.000 | | | | |
| 5 Nitrate as N | | | | | -167386 | 3965385 | | 1.000 |
| 6 Orthophosphate as P | | | | | 4068366 | 1682057 | | 1.000 |
| 7 Sulfate | 6974797 | 1122953 | | 1.000 | | | | |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Mar-2022 13:48:26
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions

## Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18322
Inj Date: 28-Feb-2022 18:17:00 Worklist: 108878 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18472
Inj Date: 28-Feb-2022 18:32:00 Worklist: 108878 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19022
Inj Date: 28-Feb-2022 18:47:00 Worklist: 108878 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19172
Inj Date: 28-Feb-2022 19:02:00 Worklist: 108878 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19322
Inj Date: 28-Feb-2022 19:17:00 Worklist: 108878 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19472
Inj Date: 28-Feb-2022 19:32:00 Worklist: 108878 Sample#: 7

Start Cal Date: 28-Feb-2022 18:17:00 End Cal Date: 28-Feb-2022 19:32:00

## 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 | | | | | |
| 39860445 | 38309992 | 38197758 | 36430525 | 35132392 | 34393214 | 1533793 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 34887572 | | |
| M7972089 | M19154996 | M38197758 | M145722101 | M281059134 | M343932142 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 5 Nitrate as N | | | | Signal: 1 | | | | | |
| 39156125 | 39600444 | 39060041 | 39295495 | 39502863 | 39889571 | -167386 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 39653857 | | |
| M7831225 | M19800222 | M39060041 | M157181981 | M316022904 | 398895709 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 6 Orthophosphate as P | | | | Signal: 1 | | | | | |
| 36587595 | 24860420 | 21518234 | 18019166 | 17229630 | 17187823 | 4068366 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 16820579 | | |
| M7317519 | M12430210 | M21518234 | M72076664 | M137837043 | M171878234 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Mar-2022 13:48:26
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions 28D

## Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18322
Inj Date: 28-Feb-2022 18:17:00 Worklist: 108878 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-18472
Inj Date: 28-Feb-2022 18:32:00 Worklist: 108878 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19022
Inj Date: 28-Feb-2022 18:47:00 Worklist: 108878 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19172
Inj Date: 28-Feb-2022 19:02:00 Worklist: 108878 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19322
Inj Date: 28-Feb-2022 19:17:00 Worklist: 108878 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-19472
Inj Date: 28-Feb-2022 19:32:00 Worklist: 108878 Sample#: 7

Start Cal Date: 28-Feb-2022 18:17:00 End Cal Date: 28-Feb-2022 19:32:00

## 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 | | | | | |
| 32527830 | 33837220 | 33654723 | 30654401 | 28070480 | 27538198 | 2044491 | | | 0.997 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 28159299 | | |
| M6505566 | M16918610 | M33654723 | M122617602 | M224563839 | M275381982 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 2 Chloride | | | | Signal: 1 | | | | | |
| 16018890 | 14889236 | 14875208 | 15164330 | 14975405 | 14996757 | 534254 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 15008165 | | |
| M16018890 | 37223089 | 74376040 | M909859814 | M1797048620 | M2999351308 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 4 Bromide | | | | Signal: 1 | | | | | |
| 8466735 | 7467798 | 7179685 | 6827288 | 6887585 | 7034770 | 287441 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 6904634 | | |
| M1693347 | M3733899 | M7179685 | M27309152 | M55100680 | 70347697 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |
| 7 Sulfate | | | | Signal: 1 | | | | | |
| 18411758 | 13754010 | 12526921 | 11551943 | 11304008 | 11197462 | 6974797 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 11229531 | | |
| M18411758 | M34385025 | M62634606 | M693116550 | M1356480996 | M2239492487 | | | | |
| 108878(2) | 108878(3) | 108878(4) | 108878(5) | 108878(6) | 108878(7) | | | | |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-140
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2022 13:48:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-001
Misc. Info.: 280-0109324-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:04 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 14:14:34

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.762 | 2.765 | -0.003 | 163448807 | 5.00 | 5.73 | Ma |
| 2 Chloride | 3.807 | 3.810 | -0.003 | 1507638245 | 100.0 | 100.4 | M |
| 3 Nitrite as N | 4.385 | 4.387 | -0.002 | 171828899 | NC | NC | M |
| 4 Bromide | 5.450 | 5.448 | 0.002 | 28904391 | 5.00 | 4.14 | |
| 5 Nitrate as N | 6.137 | 6.133 | 0.004 | 183028025 | NC | NC | |
| 6 Orthophosphate as P | 7.600 | 7.608 | -0.008 | 82133528 | NC | NC | M |
| 7 Sulfate | 8.645 | 8.653 | -0.008 | 1125996409 | 100.0 | 99.6 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

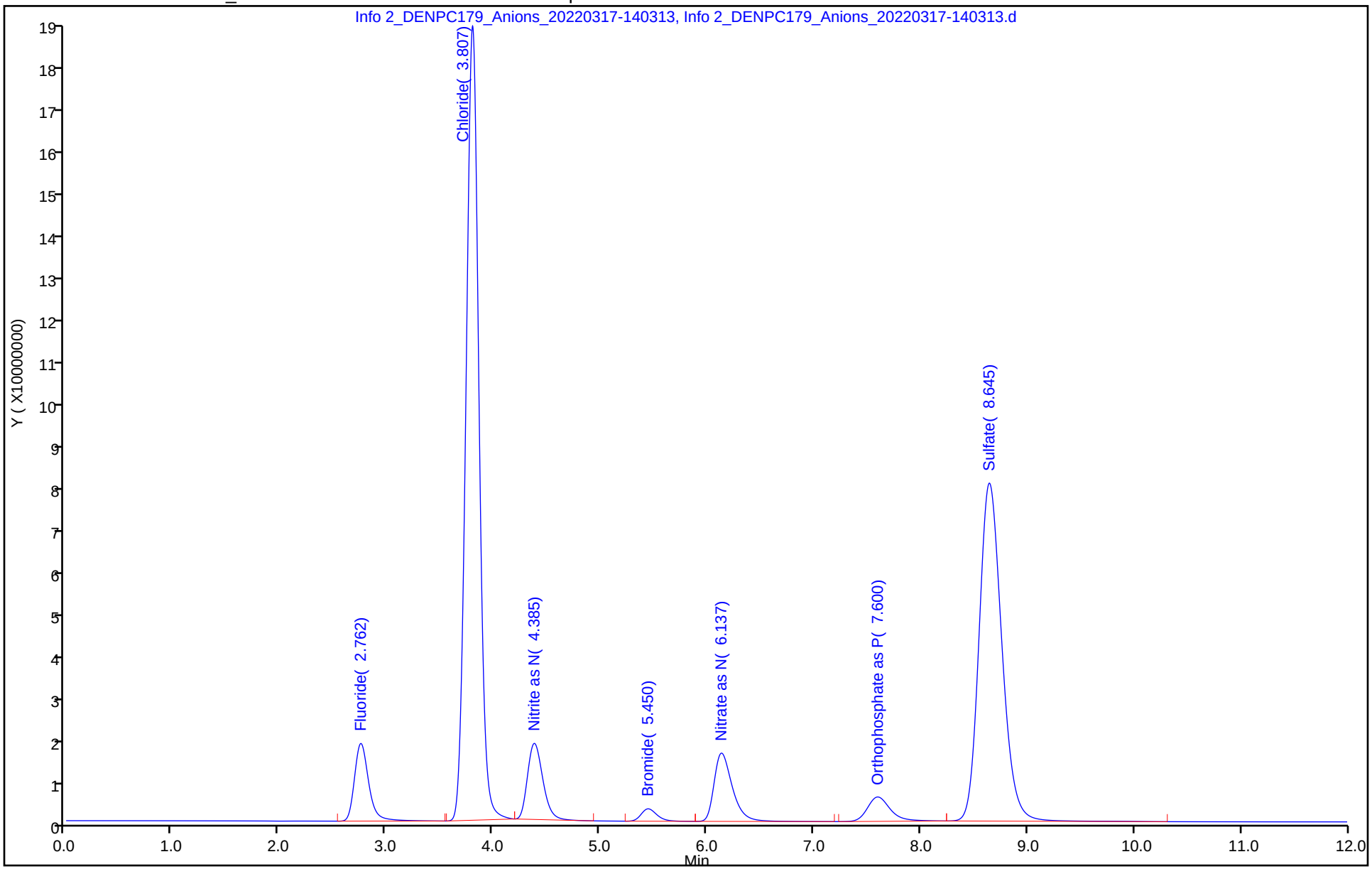
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 18-Mar-2022 10:14:04 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-140313.d | | | | |
| Injection Date: | 17-Mar-2022 13:48:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | CCV | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

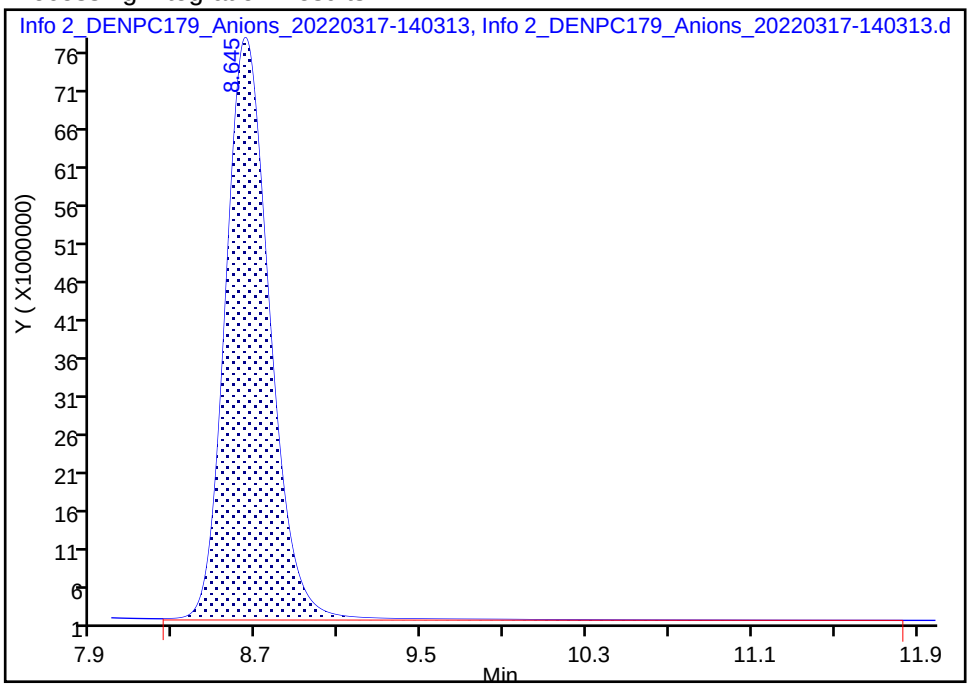
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-140
Injection Date: 17-Mar-2022 13:48:00 Instrument ID: WC_IonChrom10
Lims ID: CCV
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions 28D
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

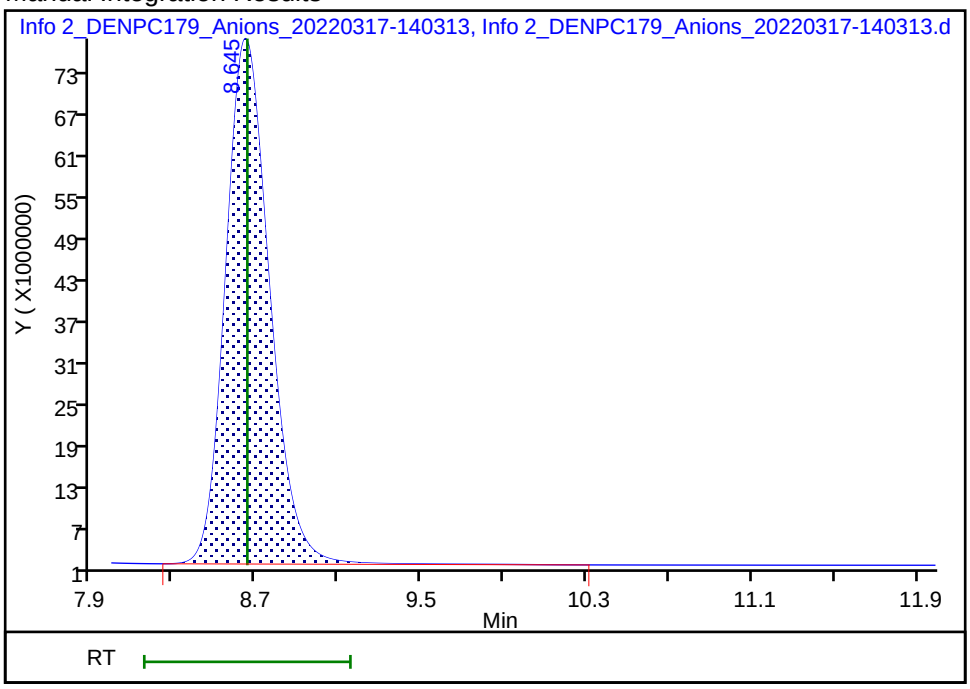
Processing Integration Results

RT: 8.65
Area: 1137940880
Amount: 100.7136
Amount Units: ug/ml




Manual Integration Results

RT: 8.65
Area: 1125996409
Amount: 99.649901
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:00:16
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-141
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 17-Mar-2022 14:03:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-002
Misc. Info.: 280-0109324-002
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:04 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:00:38

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | | ND | |
| 2 Chloride | 3.745 | 3.810 | -0.065 | 19323 | | -0.0343 | M |
| 3 Nitrite as N | | 4.387 | | | | ND | |
| 4 Bromide | | 5.448 | | | | ND | |
| 5 Nitrate as N | | 6.133 | | | | ND | |
| 6 Orthophosphate as P | 7.663 | 7.608 | 0.055 | 4674834 | | NC | M |
| 7 Sulfate | 8.698 | 8.653 | 0.045 | 489619 | | -0.5775 | M |

## QC Flag Legend

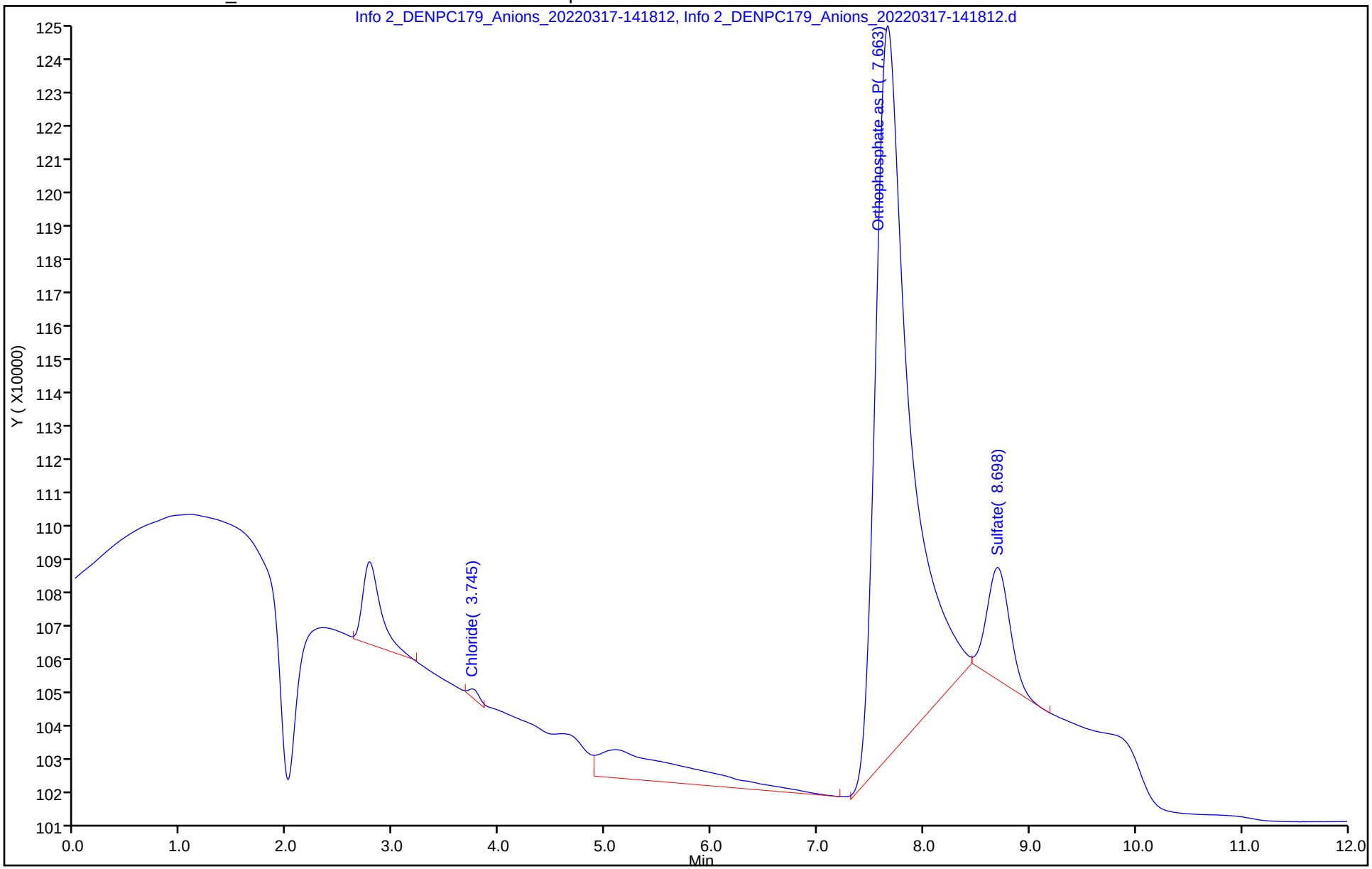
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 18-Mar-2022 10:14:05 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-141812.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 14:03:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | CCB | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-141

Injection Date: 17-Mar-2022 14:03:00 Instrument ID: WC_IonChrom10

Lims ID: CCB

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

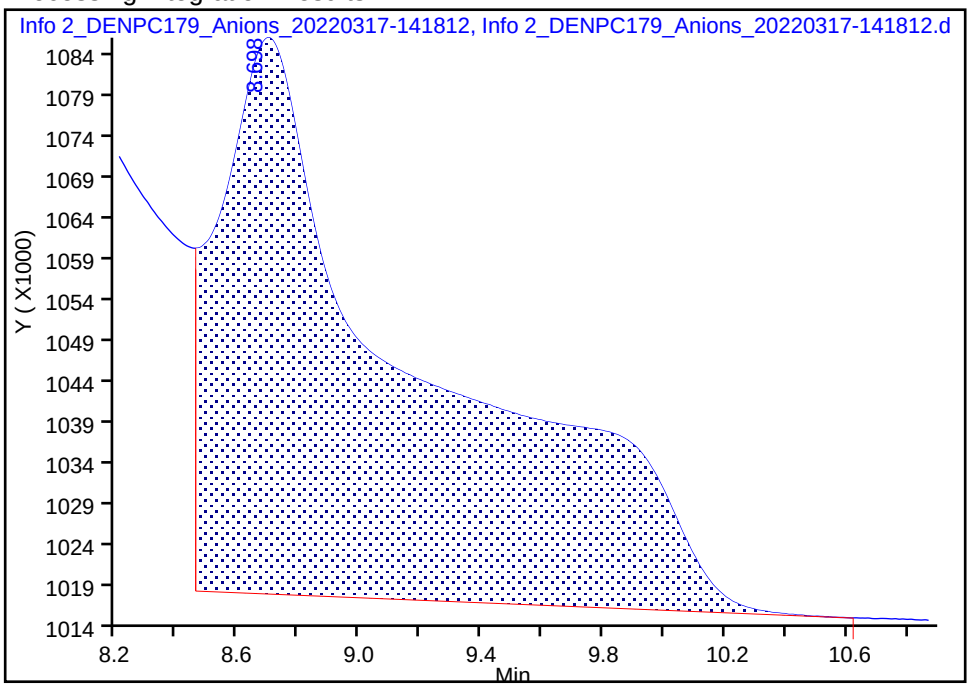
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

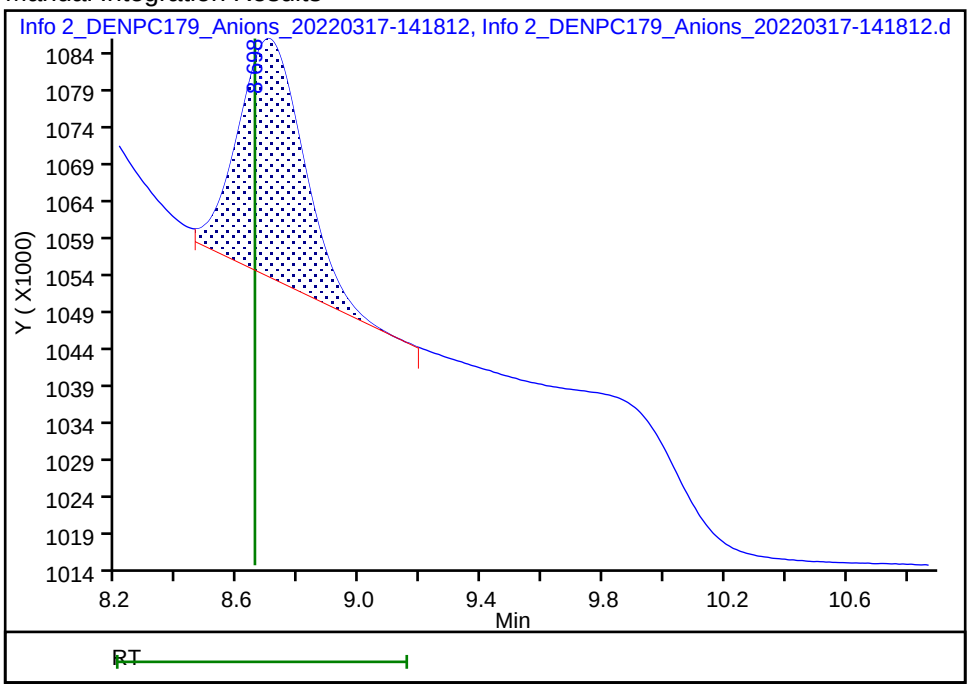
Processing Integration Results

RT: 8.70
Area: 3169792
Amount: -0.338839
Amount Units: ug/ml




Manual Integration Results

RT: 8.70
Area: 489619
Amount: -0.577511
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:00:35

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-143
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-Mar-2022 14:18:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-003
Misc. Info.: 280-0109324-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:04 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:01:04

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.768 | 2.765 | 0.003 | 24397387 | 0.5000 | 0.7938 | Ma |
| 2 Chloride | 3.780 | 3.810 | -0.030 | 73198322 | 5.00 | 4.84 | M |
| 3 Nitrite as N | 4.405 | 4.387 | 0.018 | 16412171 | NC | NC | Ma |
| 4 Bromide | 5.485 | 5.448 | 0.037 | 2531254 | 0.5000 | 0.3250 | |
| 5 Nitrate as N | 6.218 | 6.133 | 0.085 | 15221288 | NC | NC | |
| 6 Orthophosphate as P | 7.640 | 7.608 | 0.032 | 15395997 | NC | NC | |
| 7 Sulfate | 8.690 | 8.653 | 0.037 | 58100743 | 5.00 | 4.55 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

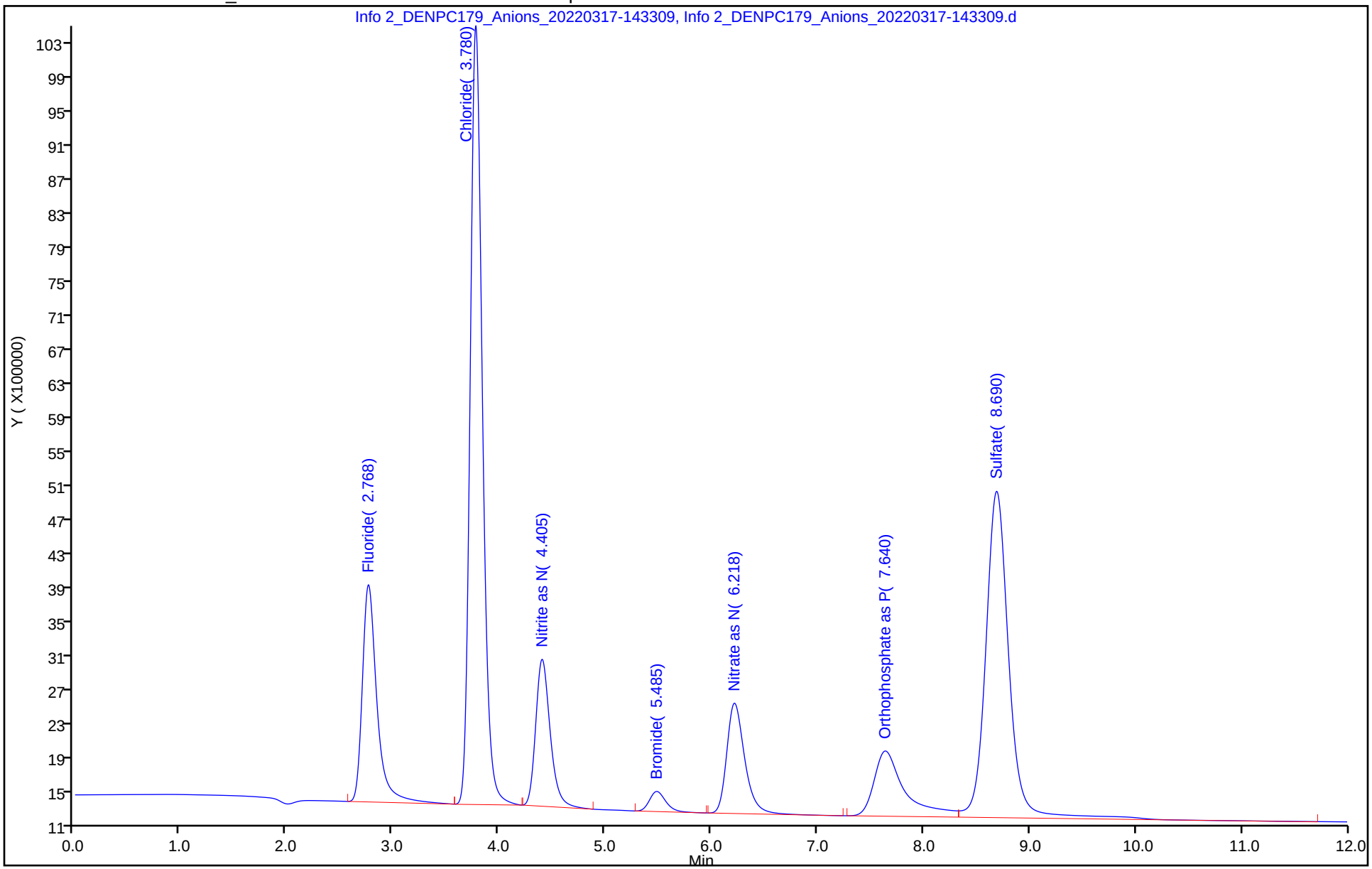
IC Cal low_00627 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00411 Amount Added: 0.20 Units: mL

Report Date: 18-Mar-2022 10:14:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-143309.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 14:18:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | MRL | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-144
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-Mar-2022 14:33:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-004
Misc. Info.: 280-0109324-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:04 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:01:54

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.763 | 2.765 | -0.002 | 167415704 | 5.00 | 5.87 | Ma |
| 2 Chloride | 3.808 | 3.810 | -0.002 | 1509839592 | 100.0 | 100.6 | M |
| 3 Nitrite as N | 4.385 | 4.387 | -0.002 | 172301061 | NC | NC | M |
| 4 Bromide | 5.447 | 5.448 | -0.001 | 28679364 | 5.00 | 4.11 | |
| 5 Nitrate as N | 6.133 | 6.133 | 0.000 | 182937134 | NC | NC | |
| 6 Orthophosphate as P | 7.603 | 7.608 | -0.005 | 82992109 | NC | NC | Ma |
| 7 Sulfate | 8.648 | 8.653 | -0.005 | 1128617402 | 100.0 | 99.9 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

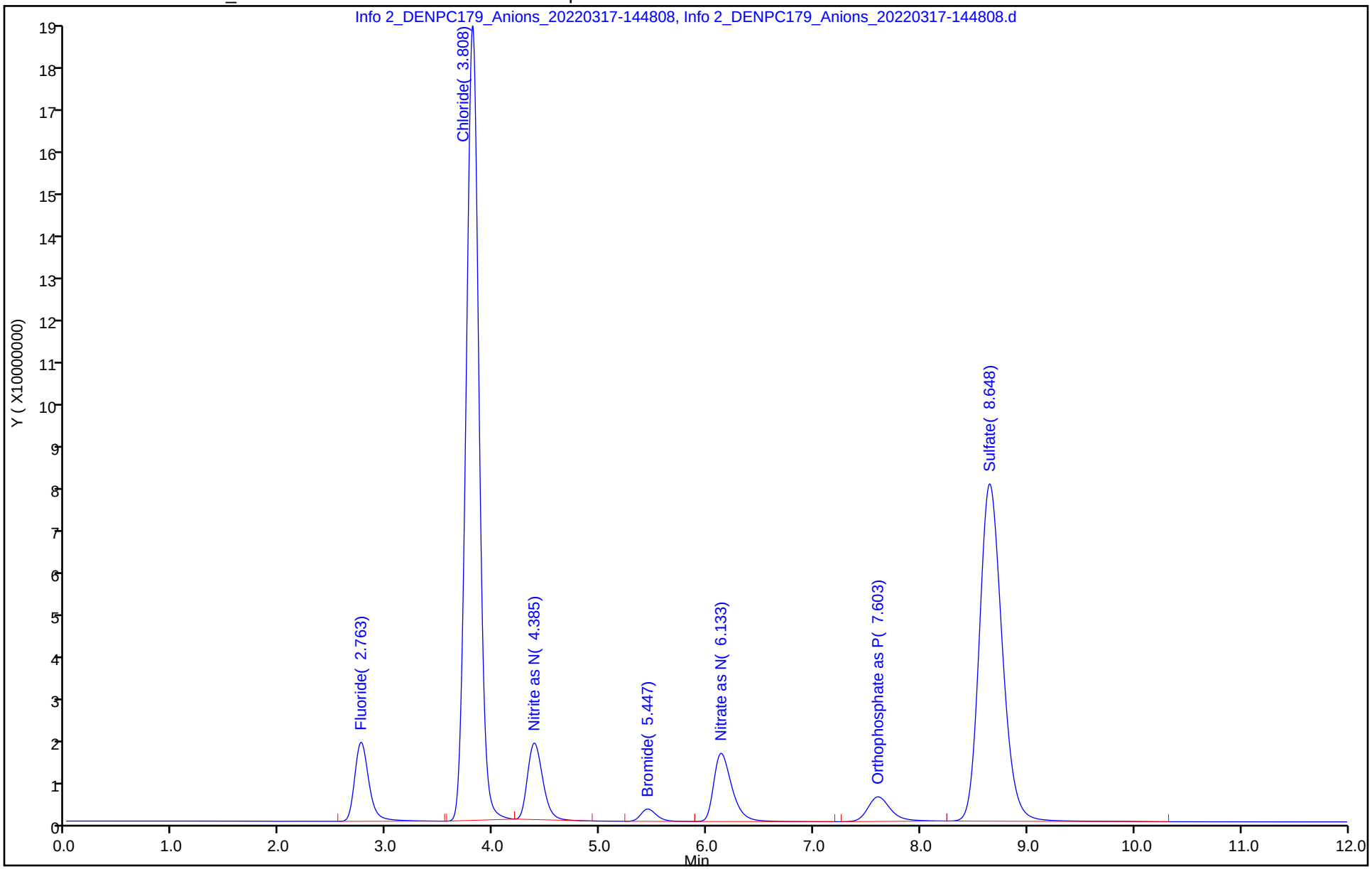
IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 18-Mar-2022 10:14:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-144808.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 14:33:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-144

Injection Date: 17-Mar-2022 14:33:00 Instrument ID: WC_IonChrom10

Lims ID: LCS

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

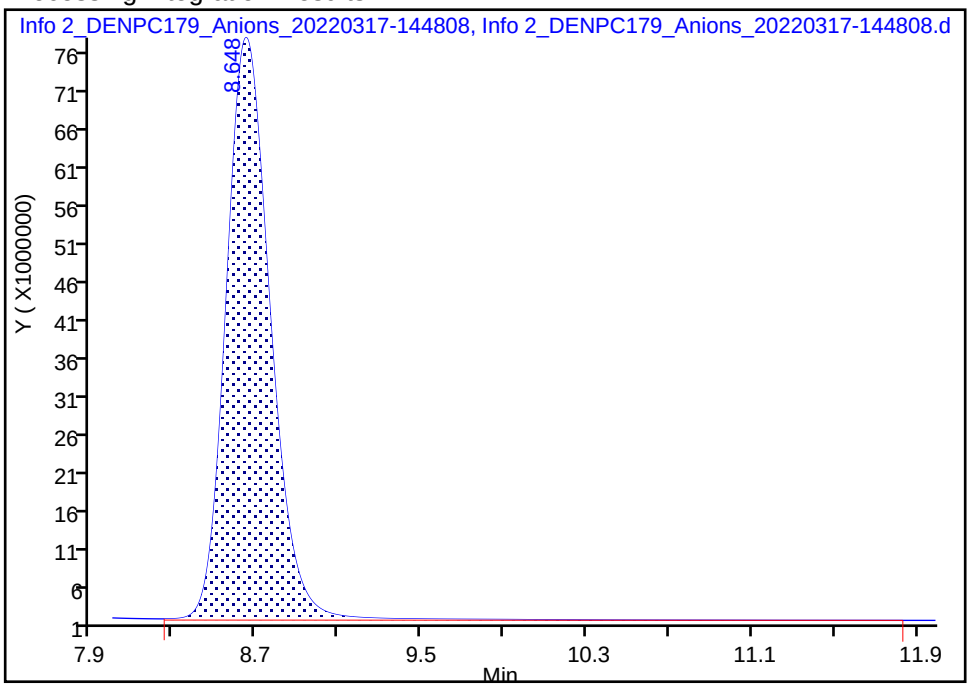
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

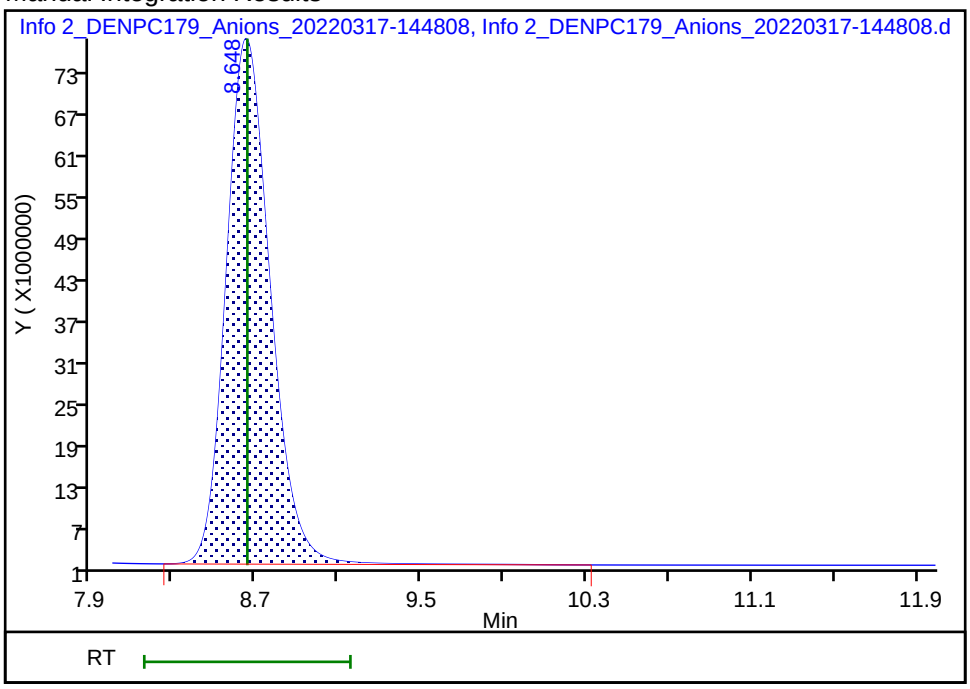
Processing Integration Results

RT: 8.65
Area: 1140250708
Amount: 100.9193
Amount Units: ug/ml




Manual Integration Results

RT: 8.65
Area: 1128617402
Amount: 99.883303
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:01:45

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-150
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-Mar-2022 14:48:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-005
Misc. Info.: 280-0109324-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:07 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:02:33

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.765 | 2.765 | 0.000 | 164052126 | 5.00 | 5.75 | Ma |
| 2 Chloride | 3.810 | 3.810 | 0.000 | 1509180161 | 100.0 | 100.5 | M |
| 3 Nitrite as N | 4.387 | 4.387 | 0.000 | 170576862 | NC | NC | M |
| 4 Bromide | 5.448 | 5.448 | 0.000 | 28156075 | 5.00 | 4.04 | |
| 5 Nitrate as N | 6.133 | 6.133 | 0.000 | 181896117 | NC | NC | |
| 6 Orthophosphate as P | 7.608 | 7.608 | 0.000 | 83101047 | NC | NC | M |
| 7 Sulfate | 8.653 | 8.653 | 0.000 | 1126698084 | 100.0 | 99.7 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

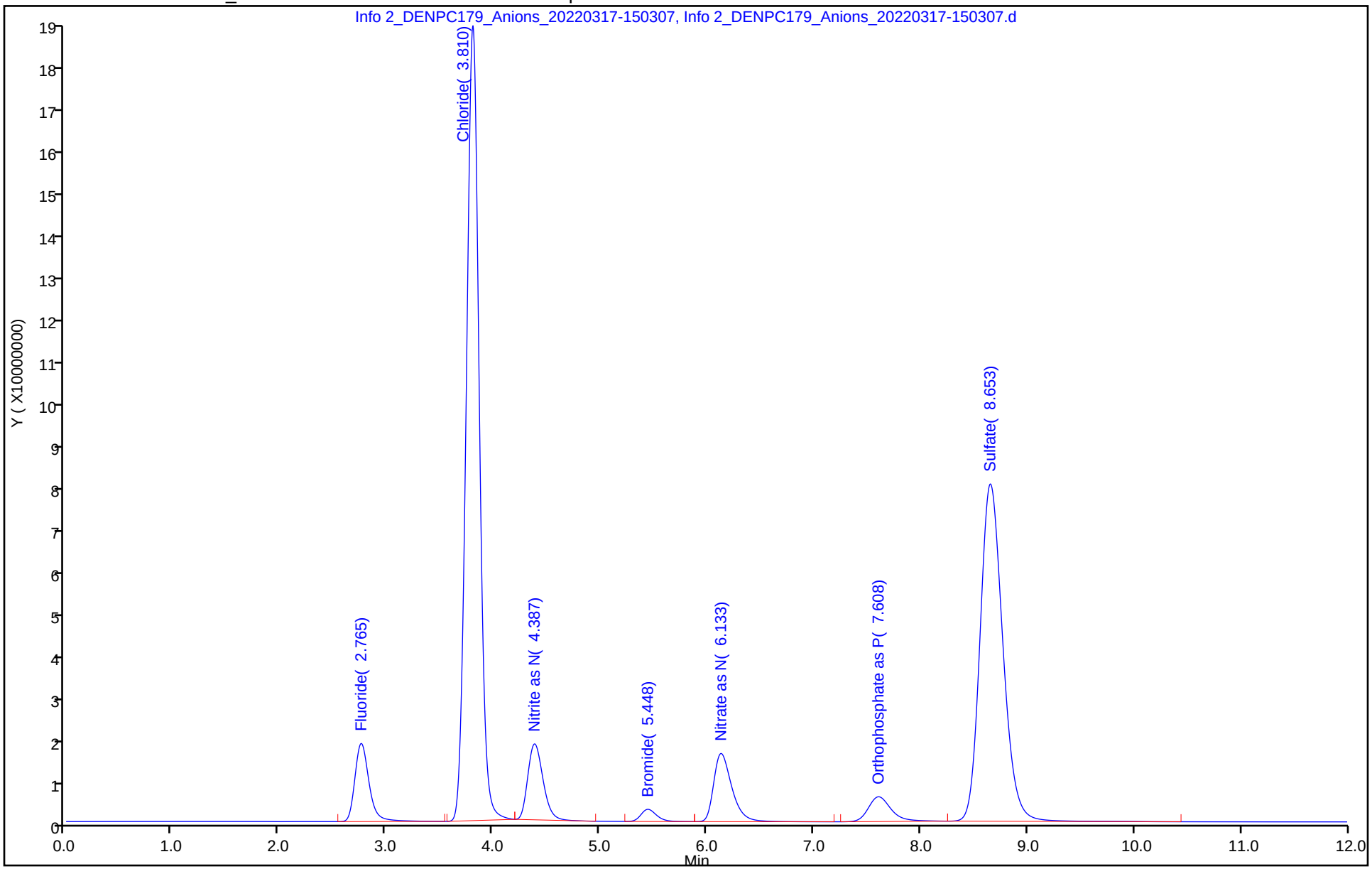
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 18-Mar-2022 10:14:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-150307.d | | | | |
| Injection Date: | 17-Mar-2022 14:48:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | LCSD | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

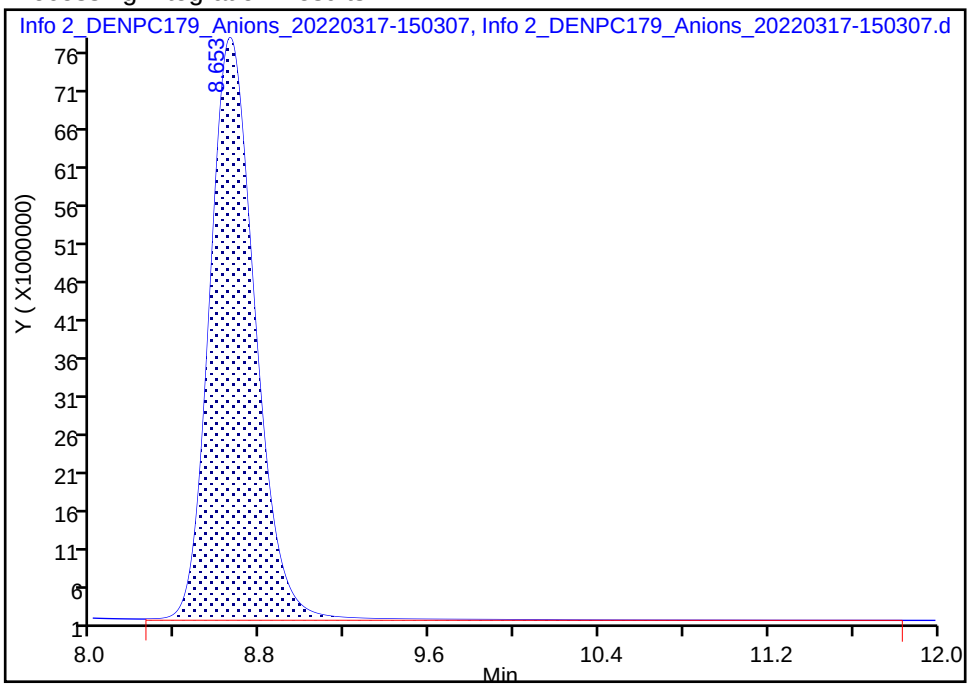
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-150
Injection Date: 17-Mar-2022 14:48:00 Instrument ID: WC_IonChrom10
Lims ID: LCSD
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions 28D
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

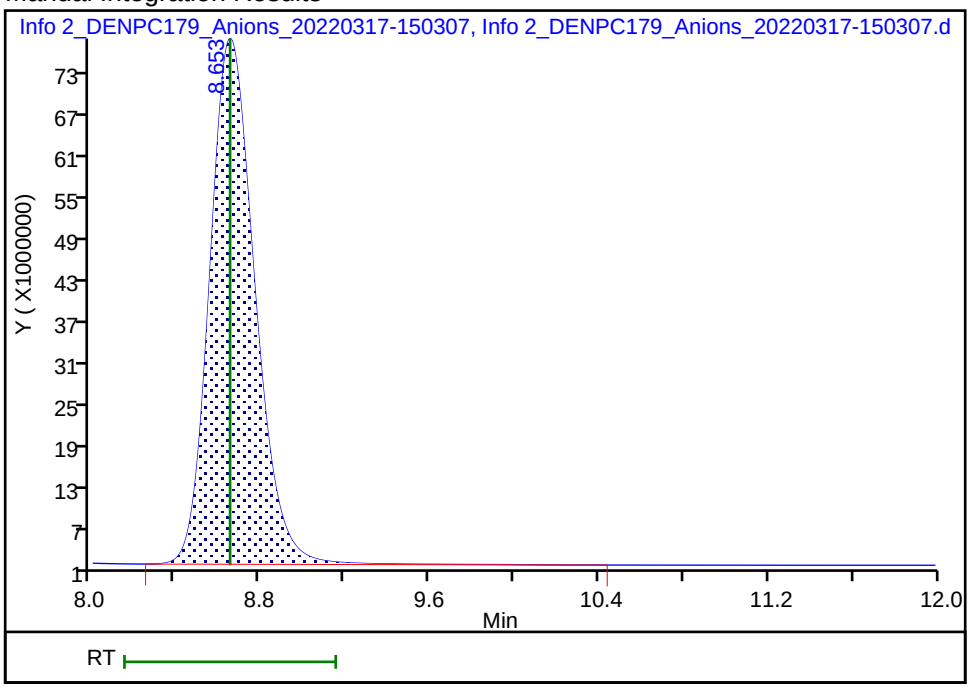
Processing Integration Results

RT: 8.65
Area: 1138224844
Amount: 100.7389
Amount Units: ug/ml




Manual Integration Results

RT: 8.65
Area: 1126698084
Amount: 99.712386
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:02:30
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-151
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-Mar-2022 15:03:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-006
Misc. Info.: 280-0109324-006
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:07 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:03:03

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.773 | 2.765 | 0.008 | 325392 | | -0.0610 | Ma |
| 2 Chloride | | 3.810 | | | | ND | |
| 3 Nitrite as N | | 4.387 | | | | ND | |
| 4 Bromide | | 5.448 | | | | ND | |
| 5 Nitrate as N | | 6.133 | | | | ND | |
| 6 Orthophosphate as P | 7.590 | 7.608 | -0.018 | 5188754 | | NC | M |
| 7 Sulfate | 8.587 | 8.653 | -0.066 | 200813 | | -0.6032 | M |

## QC Flag Legend

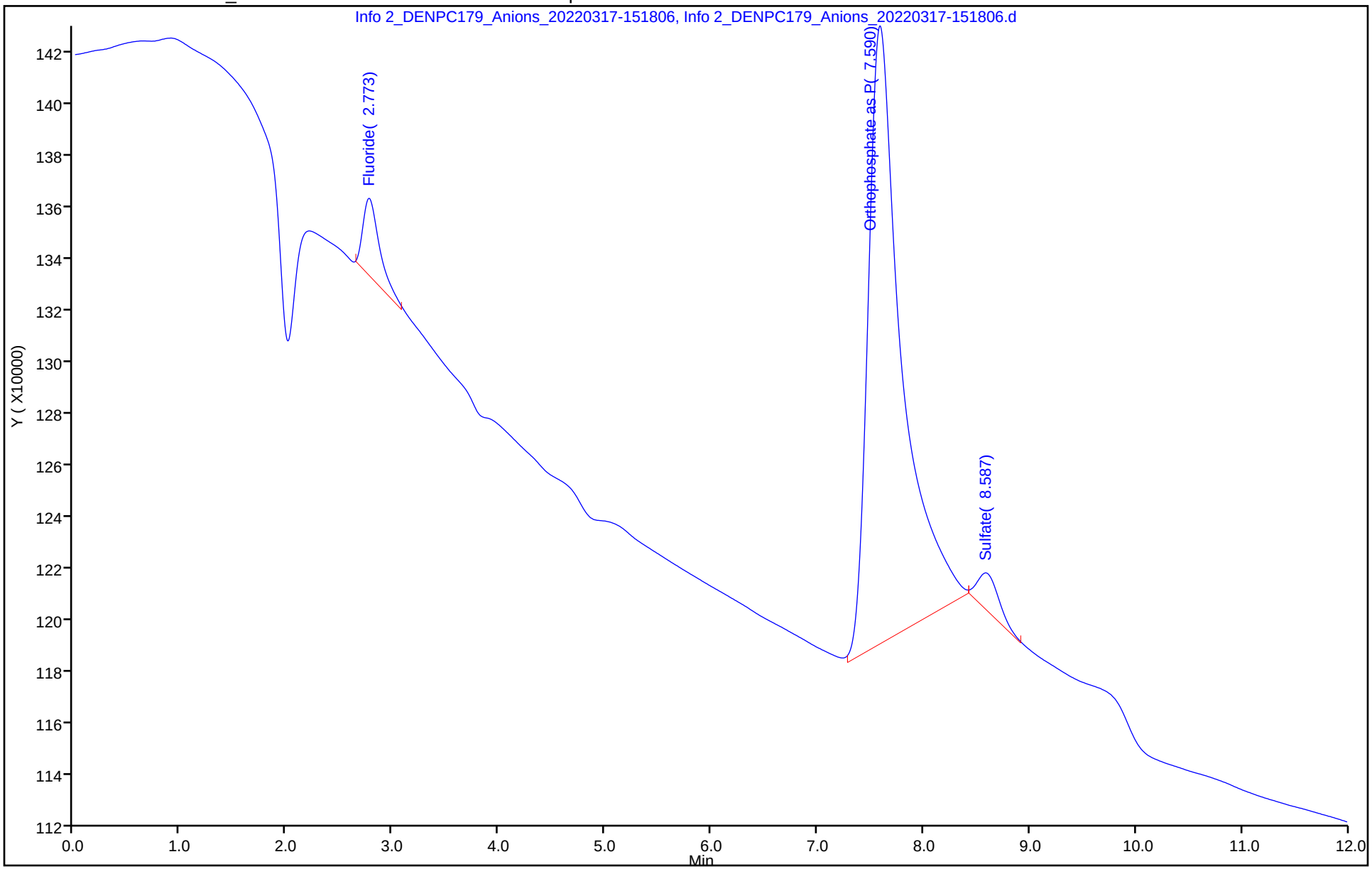
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 18-Mar-2022 10:14:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-151806.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 15:03:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | MB | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-151

Injection Date: 17-Mar-2022 15:03:00 Instrument ID: WC_IonChrom10

Lims ID: MB

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

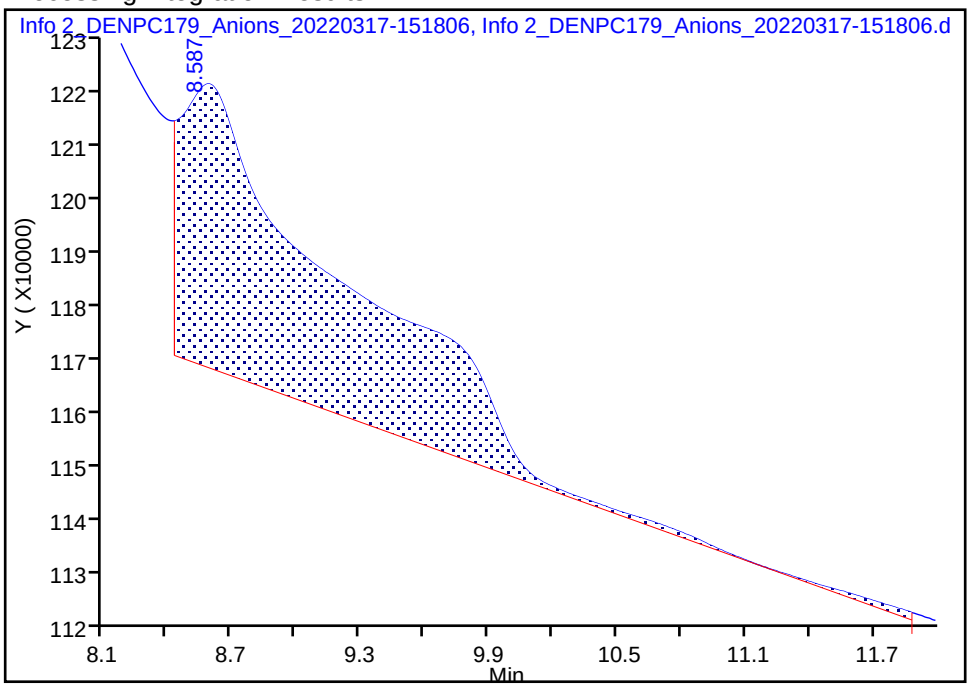
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

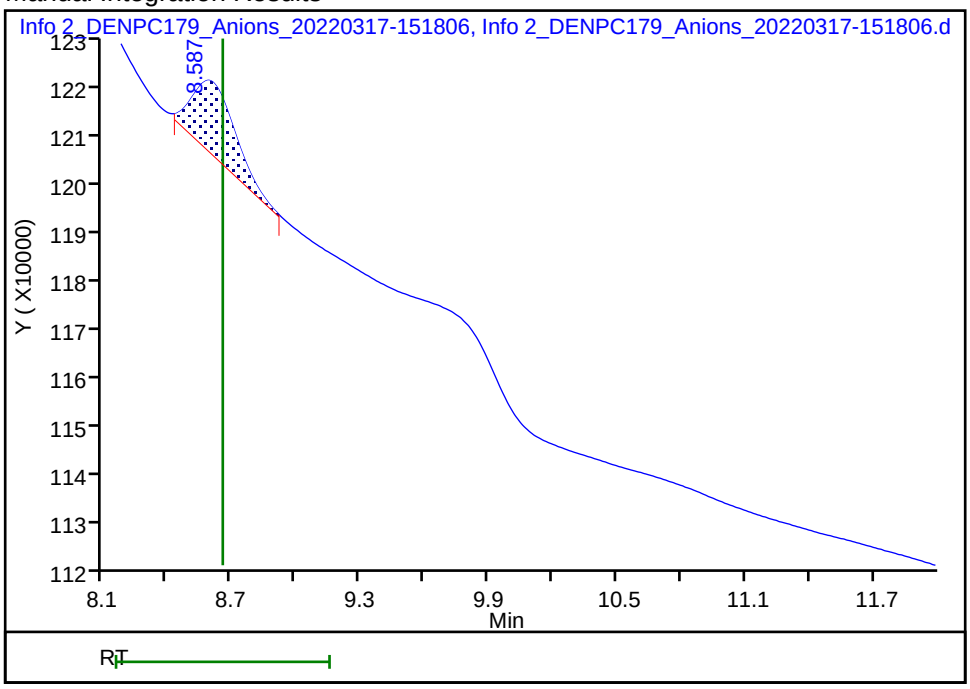
Processing Integration Results

RT: 8.59
Area: 2635145
Amount: -0.386450
Amount Units: ug/ml




Manual Integration Results

RT: 8.59
Area: 200813
Amount: -0.603229
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:02:46

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-180
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2022 17:48:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-017
Misc. Info.: 280-0109324-017
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:04:15

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.743 | 2.765 | -0.022 | 143568653 | 5.00 | 5.03 | Ma |
| 2 Chloride | 3.780 | 3.810 | -0.030 | 1509107389 | 100.0 | 100.5 | M |
| 3 Nitrite as N | 4.350 | 4.387 | -0.037 | 171894641 | NC | NC | M |
| 4 Bromide | 5.388 | 5.448 | -0.060 | 28343550 | 5.00 | 4.06 | |
| 5 Nitrate as N | 6.065 | 6.133 | -0.068 | 182049382 | NC | NC | |
| 6 Orthophosphate as P | 7.442 | 7.608 | -0.166 | 79022814 | NC | NC | M |
| 7 Sulfate | 8.417 | 8.653 | -0.236 | 1124418836 | 100.0 | 99.5 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

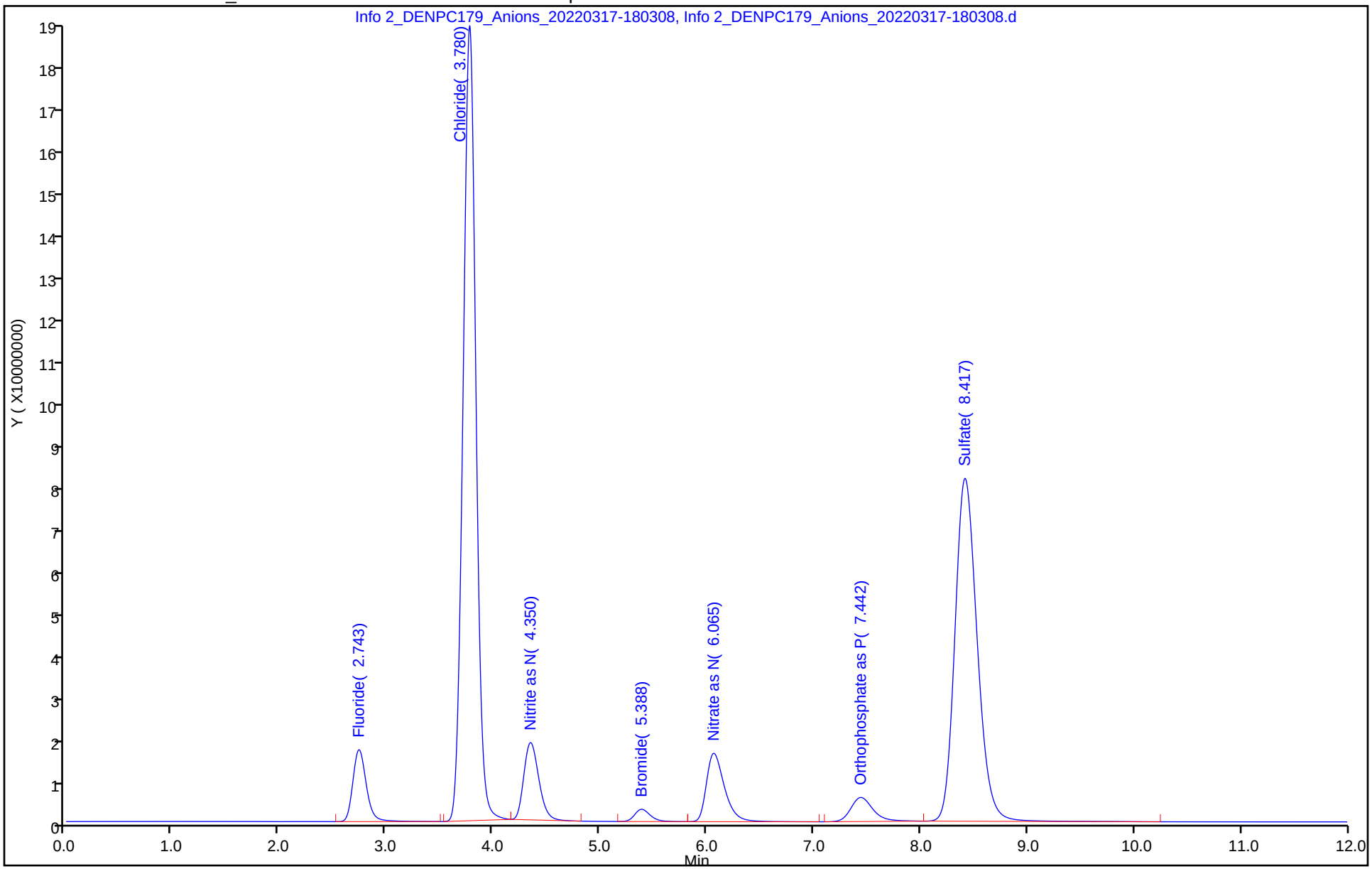
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 18-Mar-2022 10:14:12 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-180308.d | | | | |
| Injection Date: | 17-Mar-2022 17:48:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-180

Injection Date: 17-Mar-2022 17:48:00 Instrument ID: WC_IonChrom10

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 17

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

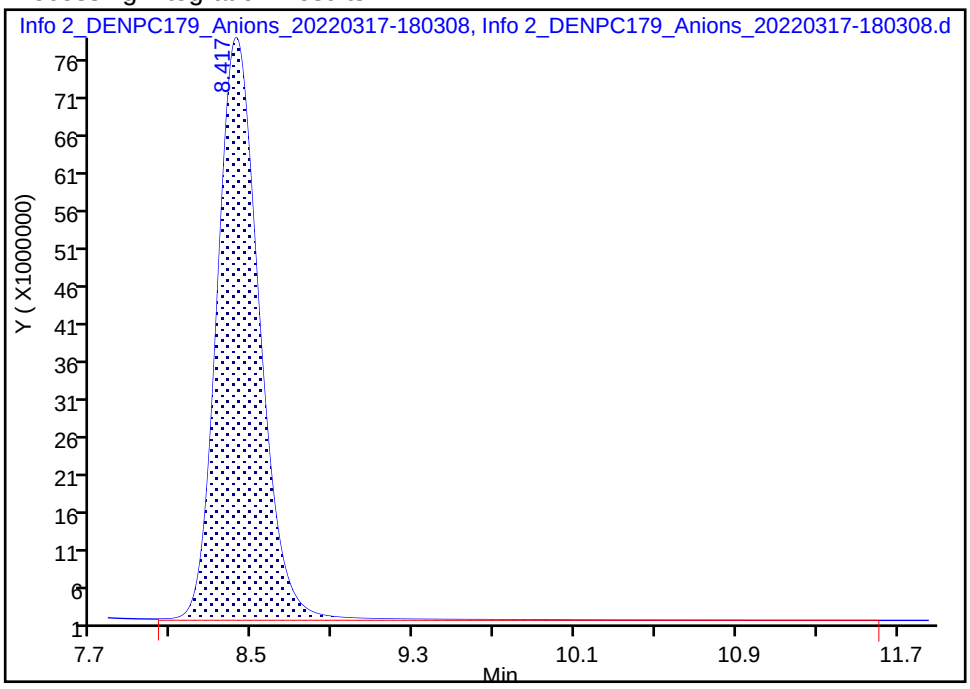
Column: Detector Info 2_091554_1

## 7 Sulfate, CAS: 14808-79-8

Signal: 1

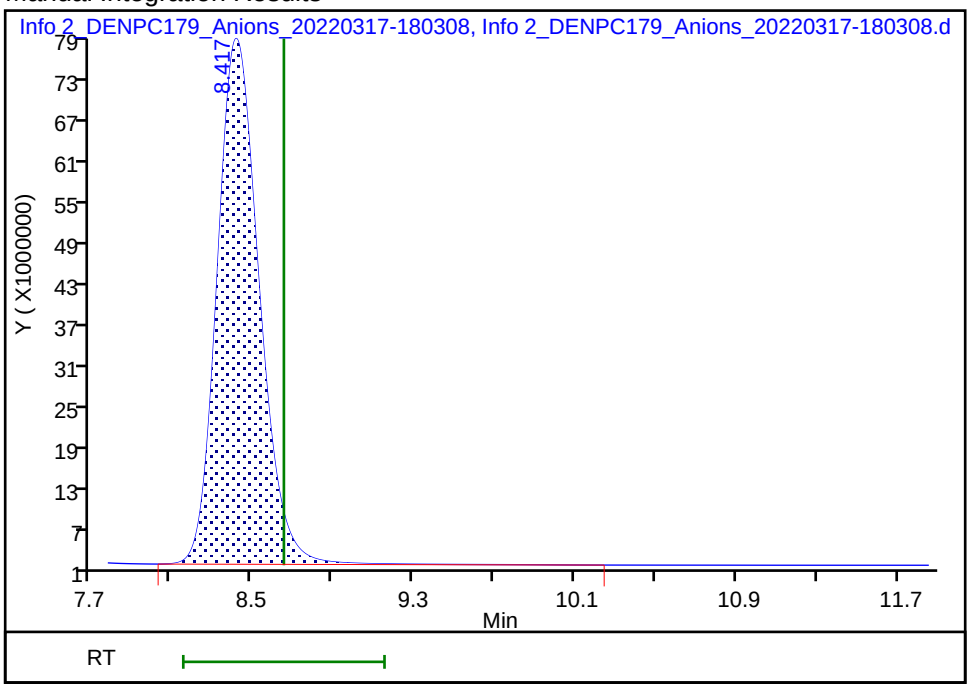
Processing Integration Results

RT: 8.42
Area: 1136215541
Amount: 100.5599
Amount Units: ug/ml




Manual Integration Results

RT: 8.42
Area: 1124418836
Amount: 99.509417
Amount Units: ug/ml




Reviewer: jindaratc, 18-Mar-2022 10:04:12

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-181
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Mar-2022 18:03:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-018
Misc. Info.: 280-0109324-018
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | | ND | |
| 2 Chloride | | 3.810 | | | | ND | |
| 3 Nitrite as N | | 4.387 | | | | ND | |
| 4 Bromide | | 5.448 | | | | ND | |
| 5 Nitrate as N | | 6.133 | | | | ND | |
| 6 Orthophosphate as P | 7.503 | 7.608 | -0.105 | 5649991 | | NC | |
| 7 Sulfate | 8.465 | 8.653 | -0.188 | 3064579 | | -0.3482 | |

## QC Flag Legend

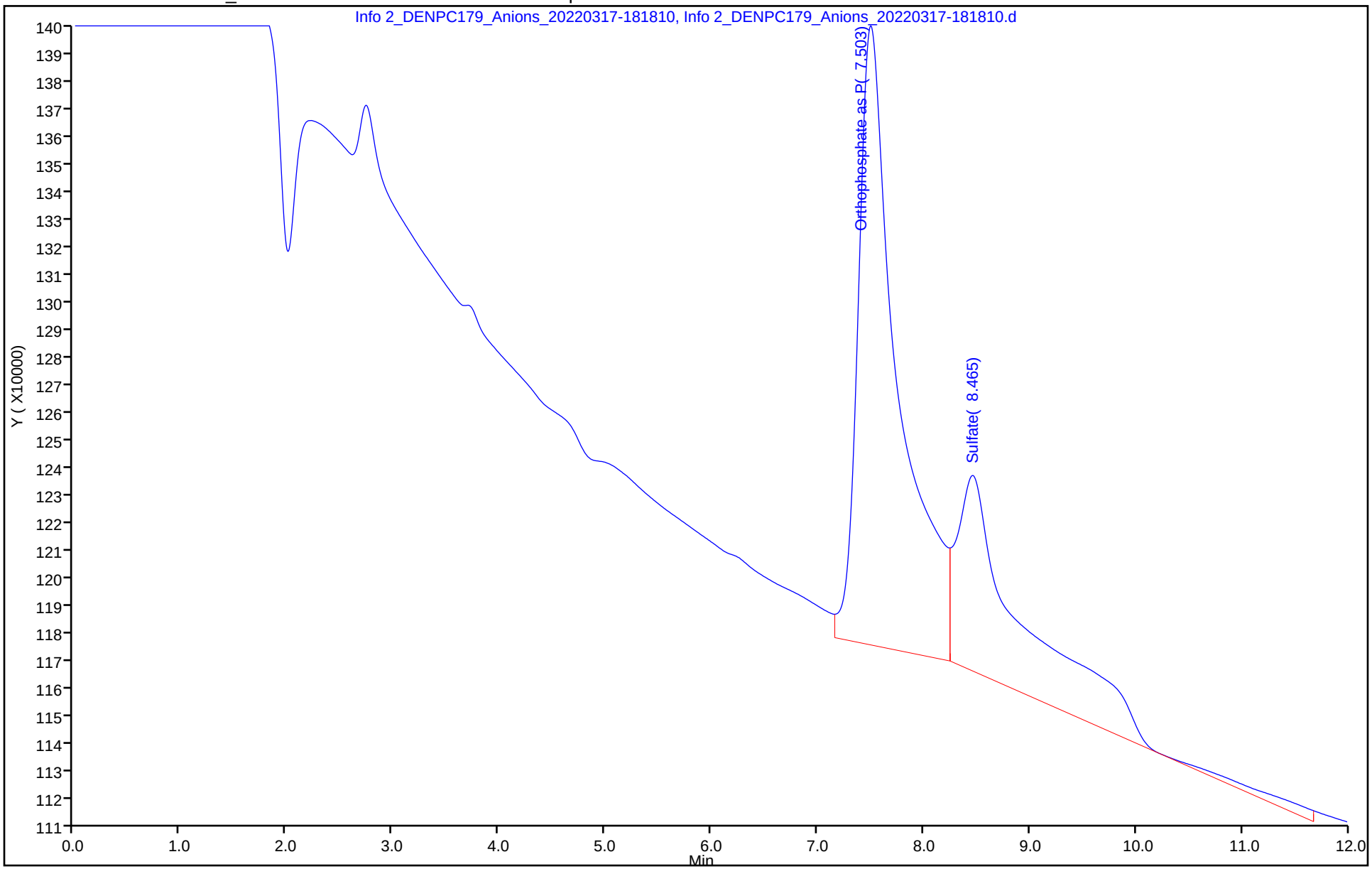
Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:12 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-181810.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 18:03:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-193
Lims ID: 280-159234-O-1
Client ID: NW020-8
Sample Type: Client
Inject. Date: 17-Mar-2022 19:18:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-023
Misc. Info.: 280-0109324-023
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | ND | |
| 2 Chloride | 3.743 | 3.810 | -0.067 | 102787518 | 6.81 | |
| 3 Nitrite as N | 4.357 | 4.387 | -0.030 | 538633 | NC | |
| 4 Bromide | 5.433 | 5.448 | -0.015 | 183544 | -0.0150 | |
| 5 Nitrate as N | 6.037 | 6.133 | -0.096 | 397494207 | NC | |
| 6 Orthophosphate as P | 7.518 | 7.608 | -0.090 | 3234120 | NC | |
| 7 Sulfate | 8.447 | 8.653 | -0.206 | 497000015 | 43.6 | |

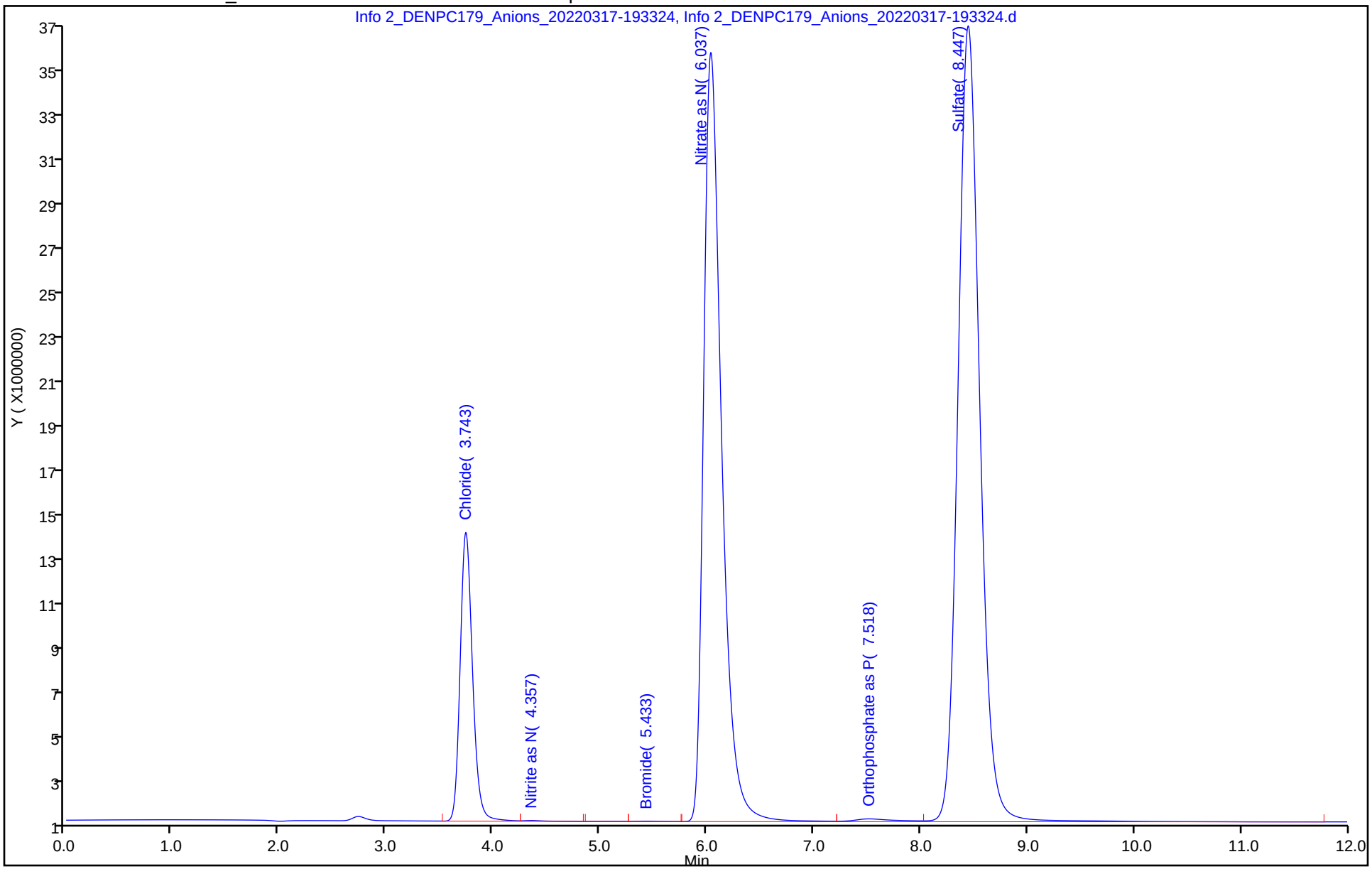
## QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:14 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-193324.d | | | | |
| Injection Date: | 17-Mar-2022 19:18:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-1 | Lab Sample ID: | 280-159234-1 | Worklist Smp#: | 23 |
| Client ID: | NW020-8 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-194
Lims ID: 280-159234-O-3
Client ID: NW022-8
Sample Type: Client
Inject. Date: 17-Mar-2022 19:33:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-024
Misc. Info.: 280-0109324-024
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | ND | |
| 2 Chloride | 3.747 | 3.810 | -0.063 | 148763388 | 9.88 | |
| 3 Nitrite as N | | 4.387 | | | ND | |
| 4 Bromide | 5.440 | 5.448 | -0.008 | 490650 | 0.0294 | |
| 5 Nitrate as N | 6.185 | 6.133 | 0.052 | 1325771 | NC | |
| 6 Orthophosphate as P | 7.550 | 7.608 | -0.058 | 1051626 | NC | |
| 7 Sulfate | 8.447 | 8.653 | -0.206 | 628413770 | 55.3 | |

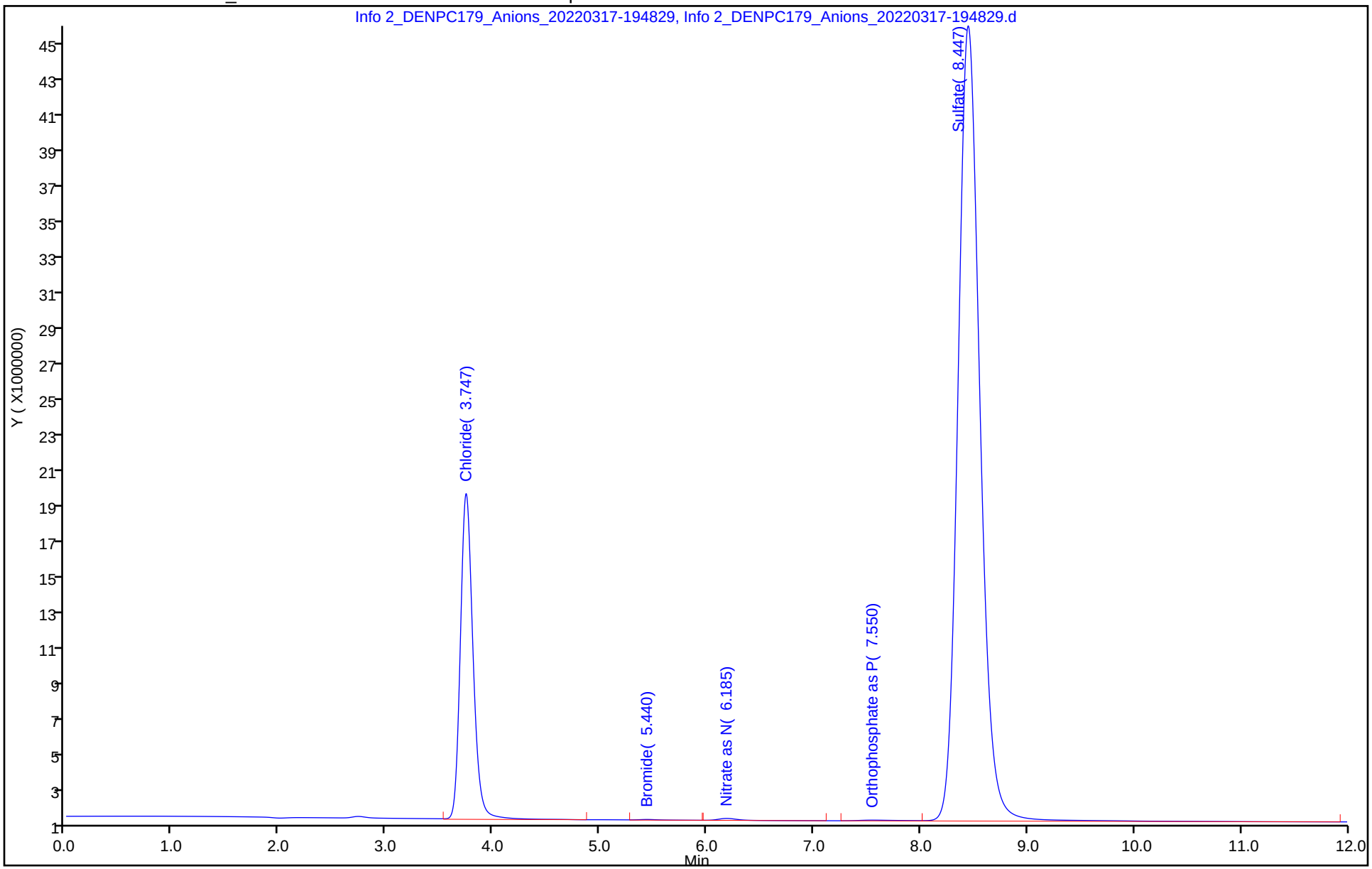
## QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:14 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-194829.d | | | | |
| Injection Date: | 17-Mar-2022 19:33:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-3 | Lab Sample ID: | 280-159234-3 | Worklist Smp#: | 24 |
| Client ID: | NW022-8 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-200
Lims ID: 280-159234-O-6
Client ID: G0076-8
Sample Type: Client
Inject. Date: 17-Mar-2022 19:48:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-025
Misc. Info.: 280-0109324-025
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | ND | |
| 2 Chloride | 3.743 | 3.810 | -0.067 | 167657897 | 11.1 | |
| 3 Nitrite as N | | 4.387 | | | ND | |
| 4 Bromide | 5.442 | 5.448 | -0.006 | 304038 | 0.002404 | |
| 5 Nitrate as N | 6.187 | 6.133 | 0.054 | 1088790 | NC | |
| 6 Orthophosphate as P | 7.548 | 7.608 | -0.060 | 808083 | NC | |
| 7 Sulfate | 8.438 | 8.653 | -0.215 | 711856658 | 62.8 | |

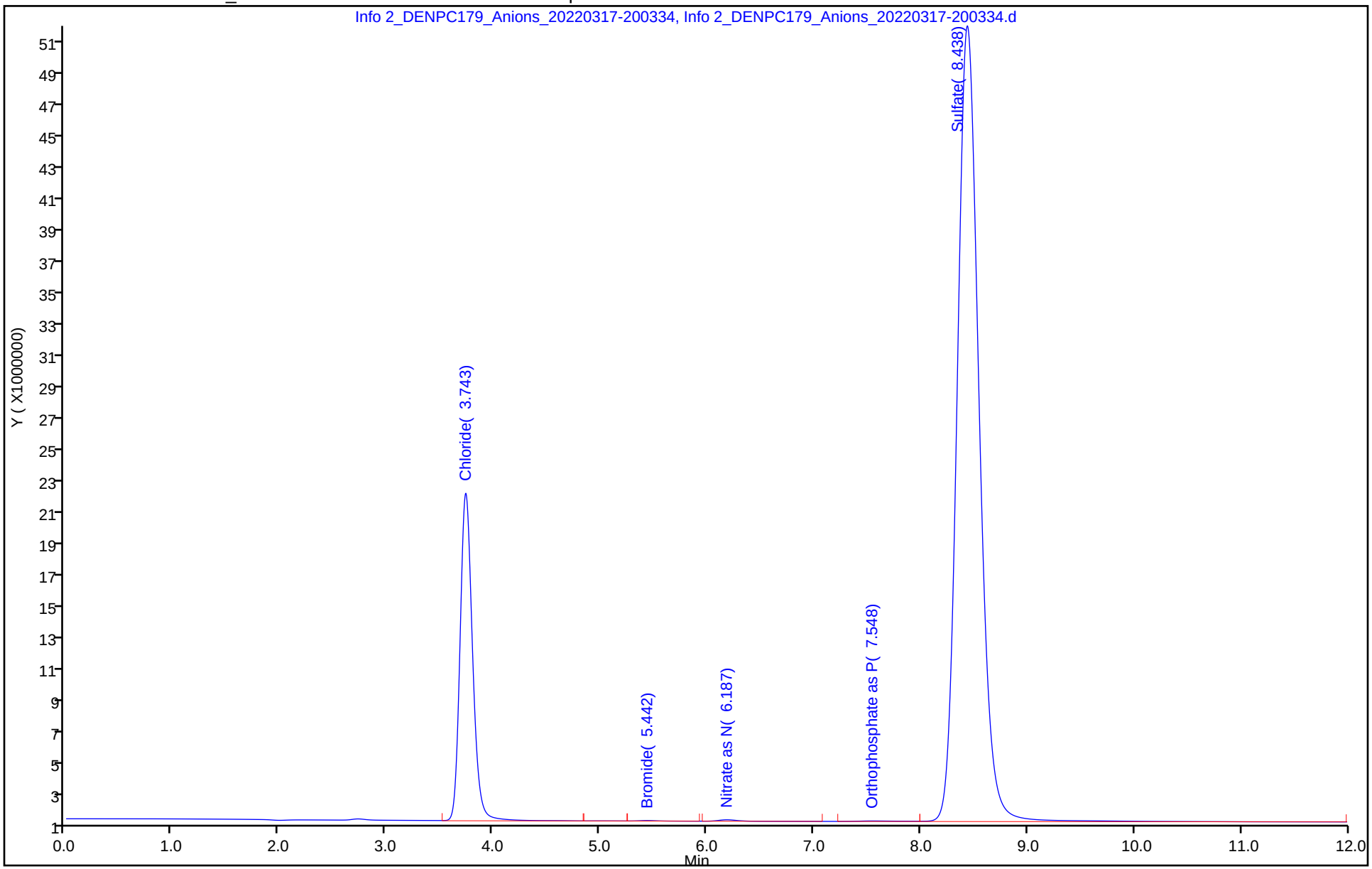
## QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:15 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-200334.d | | | | |
| Injection Date: | 17-Mar-2022 19:48:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-6 | Lab Sample ID: | 280-159234-6 | Worklist Smp#: | 25 |
| Client ID: | G0076-8 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-201
Lims ID: 280-159234-O-6 DU
Client ID:
Sample Type: DU
Inject. Date: 17-Mar-2022 20:03:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-026
Misc. Info.: 280-0109324-026
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | | ND | |
| 2 Chloride | 3.745 | 3.810 | -0.065 | 162225472 | | 10.8 | |
| 3 Nitrite as N | | 4.387 | | | | ND | |
| 4 Bromide | 5.445 | 5.448 | -0.003 | 280200 | | -0.001049 | |
| 5 Nitrate as N | | 6.133 | | | | ND | |
| 6 Orthophosphate as P | 7.555 | 7.608 | -0.053 | 533114 | | NC | |
| 7 Sulfate | 8.442 | 8.653 | -0.211 | 694303502 | | 61.2 | |

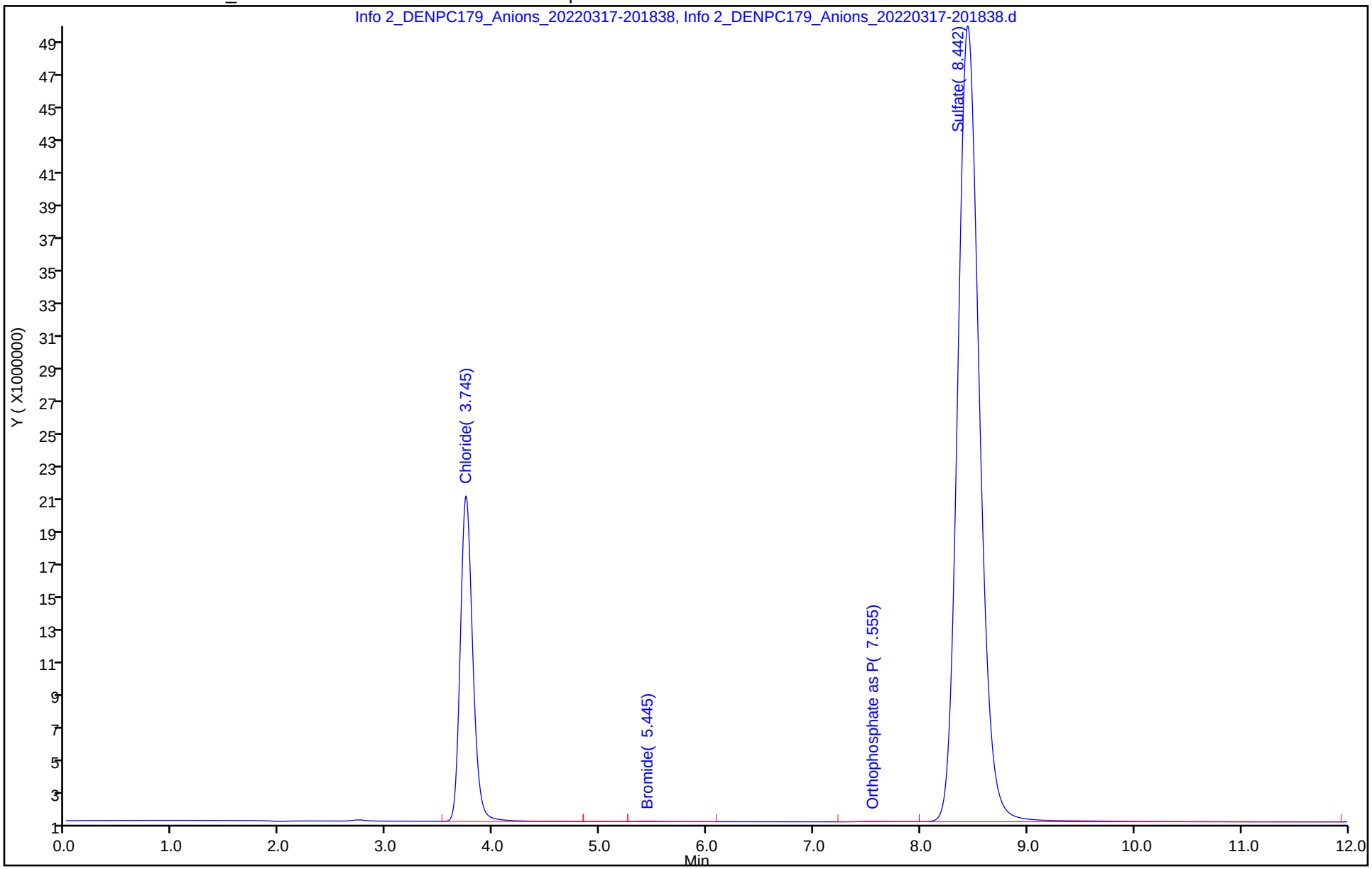
## QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:15 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-201838.d | | | | |
| Injection Date: | 17-Mar-2022 20:03:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-6 DU | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-203
Lims ID: 280-159234-O-6 MS
Client ID:
Sample Type: MS
Inject. Date: 17-Mar-2022 20:18:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-027
Misc. Info.: 280-0109324-027
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | ND | ND | |
| 2 Chloride | 3.763 | 3.810 | -0.047 | 1025993015 | 10.0 | 68.3 | |
| 3 Nitrite as N | 4.352 | 4.387 | -0.035 | 190436052 | NC | NC | |
| 4 Bromide | 5.408 | 5.448 | -0.040 | 32037119 | 1.00 | 4.60 | |
| 5 Nitrate as N | 6.073 | 6.133 | -0.060 | 206104880 | NC | NC | |
| 6 Orthophosphate as P | 7.465 | 7.608 | -0.143 | 100363733 | NC | NC | |
| 7 Sulfate | 8.428 | 8.653 | -0.225 | 1340775934 | 10.0 | 118.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

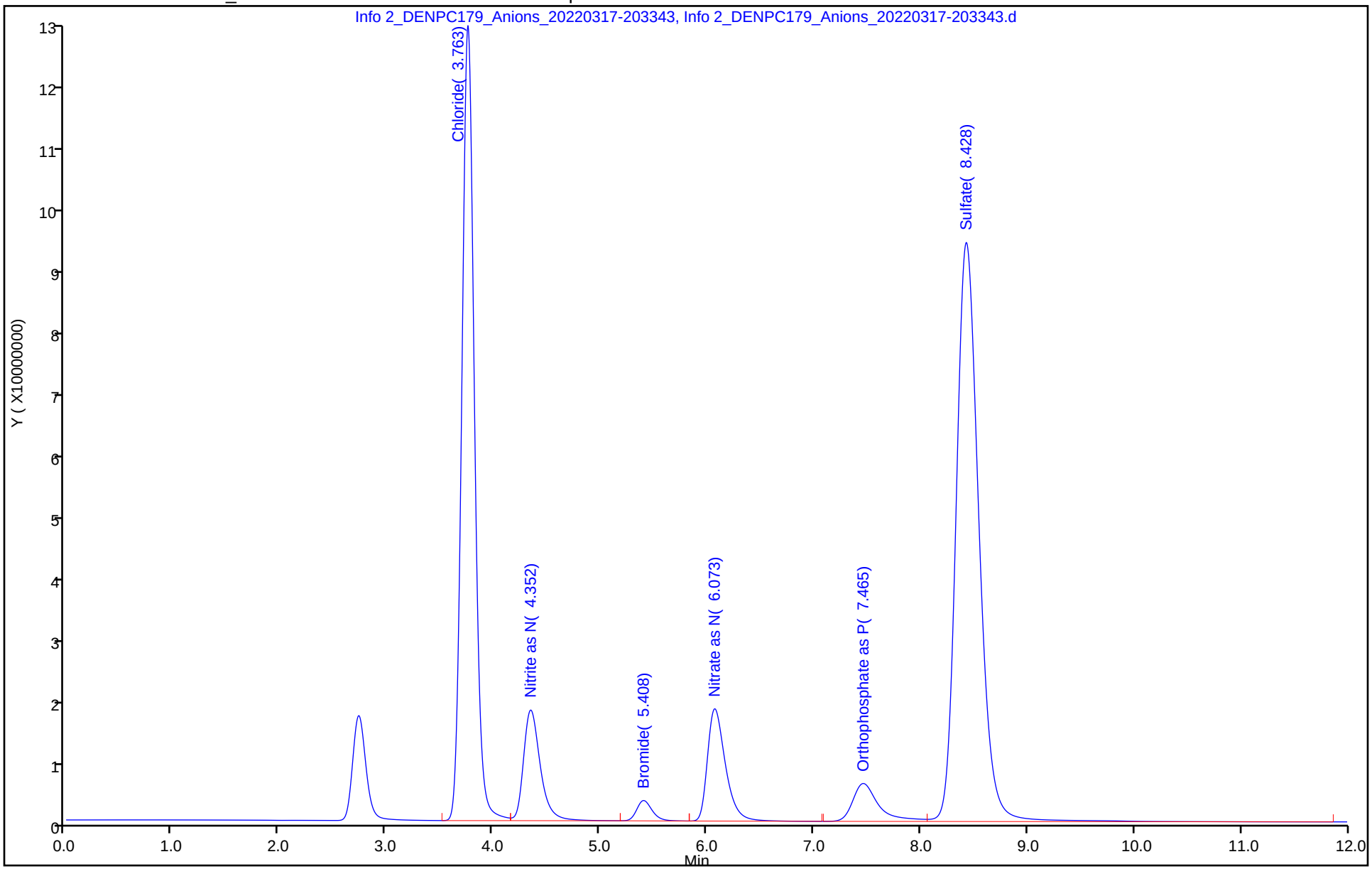
## Reagents:

ICMS/MSD WEEK_00748 Amount Added: 0.10 Units: mL

Report Date: 18-Mar-2022 10:14:15 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-203343.d | | | | |
| Injection Date: | 17-Mar-2022 20:18:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-6 MS | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-204
Lims ID: 280-159234-O-6 MSD
Client ID:
Sample Type: MSD
Inject. Date: 17-Mar-2022 20:33:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109324-028
Misc. Info.: 280-0109324-028
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:11 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | ND | ND | |
| 2 Chloride | 3.762 | 3.810 | -0.048 | 1030782487 | 10.0 | 68.6 | |
| 3 Nitrite as N | 4.350 | 4.387 | -0.037 | 190351344 | NC | NC | |
| 4 Bromide | 5.408 | 5.448 | -0.040 | 31746311 | 1.00 | 4.56 | |
| 5 Nitrate as N | 6.075 | 6.133 | -0.058 | 206432282 | NC | NC | |
| 6 Orthophosphate as P | 7.460 | 7.608 | -0.148 | 102204879 | NC | NC | |
| 7 Sulfate | 8.425 | 8.653 | -0.228 | 1346691349 | 10.0 | 119.3 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

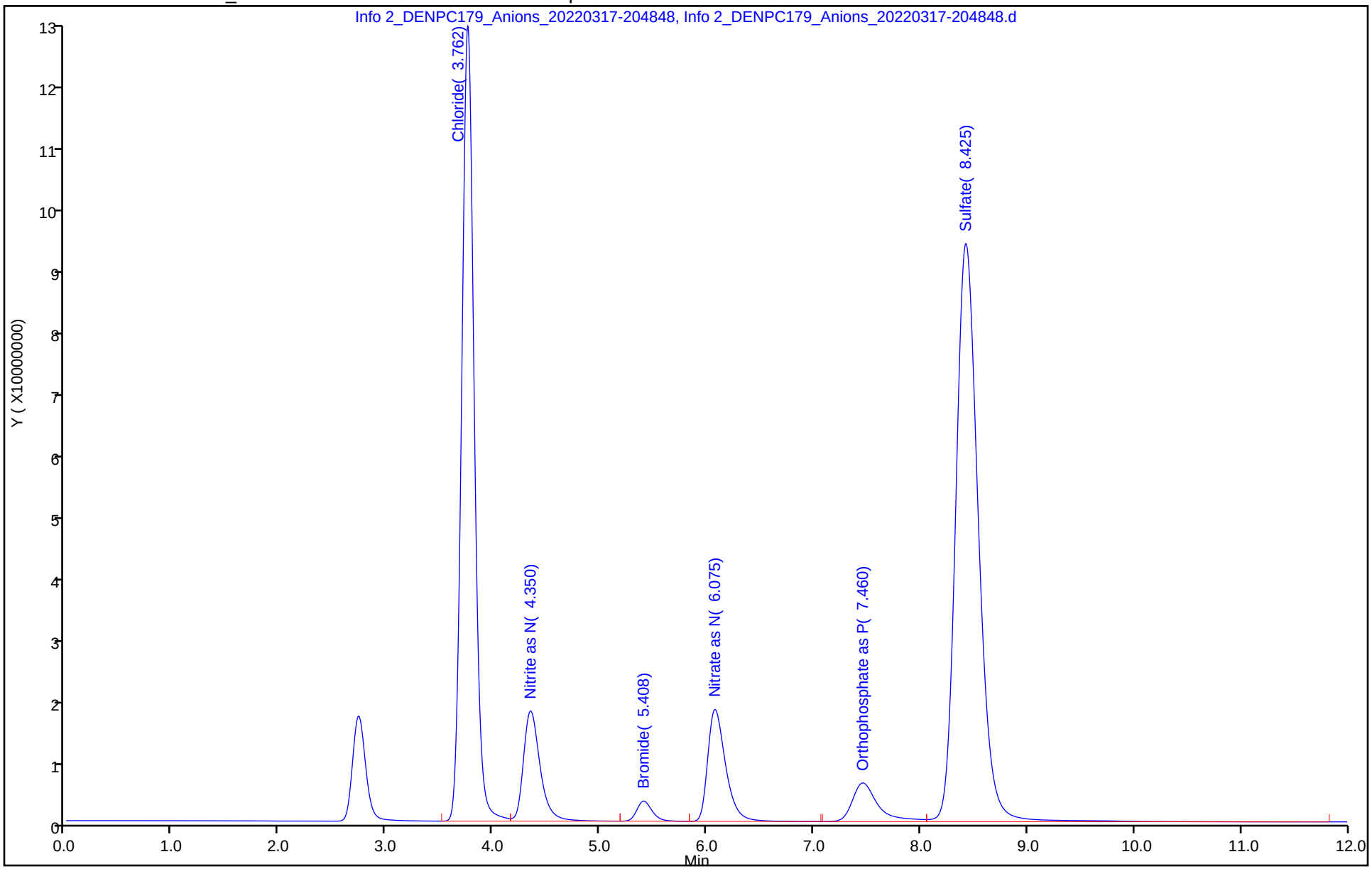
## Reagents:

ICMS/MSD WEEK_00748 Amount Added: 0.10 Units: mL

Report Date: 18-Mar-2022 10:14:16 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-204848.d | | | | |
| Injection Date: | 17-Mar-2022 20:33:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-6 MSD | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-210
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2022 20:48:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109324-029
Misc. Info.: 280-0109324-029
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:14:16 Calib Date: 28-Feb-2022 19:32:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194

Column 1 : Det: Info 2_091554_1
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:06:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.740 | 2.765 | -0.025 | 141295890 | 5.00 | 4.95 | Ma |
| 2 Chloride | 3.778 | 3.810 | -0.032 | 1523925577 | 100.0 | 101.5 | |
| 3 Nitrite as N | 4.350 | 4.387 | -0.037 | 184119015 | NC | NC | |
| 4 Bromide | 5.388 | 5.448 | -0.060 | 28554974 | 5.00 | 4.09 | |
| 5 Nitrate as N | 6.065 | 6.133 | -0.068 | 182625673 | NC | NC | |
| 6 Orthophosphate as P | 7.440 | 7.608 | -0.168 | 88722392 | NC | NC | |
| 7 Sulfate | 8.417 | 8.653 | -0.236 | 1141262165 | 100.0 | 101.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

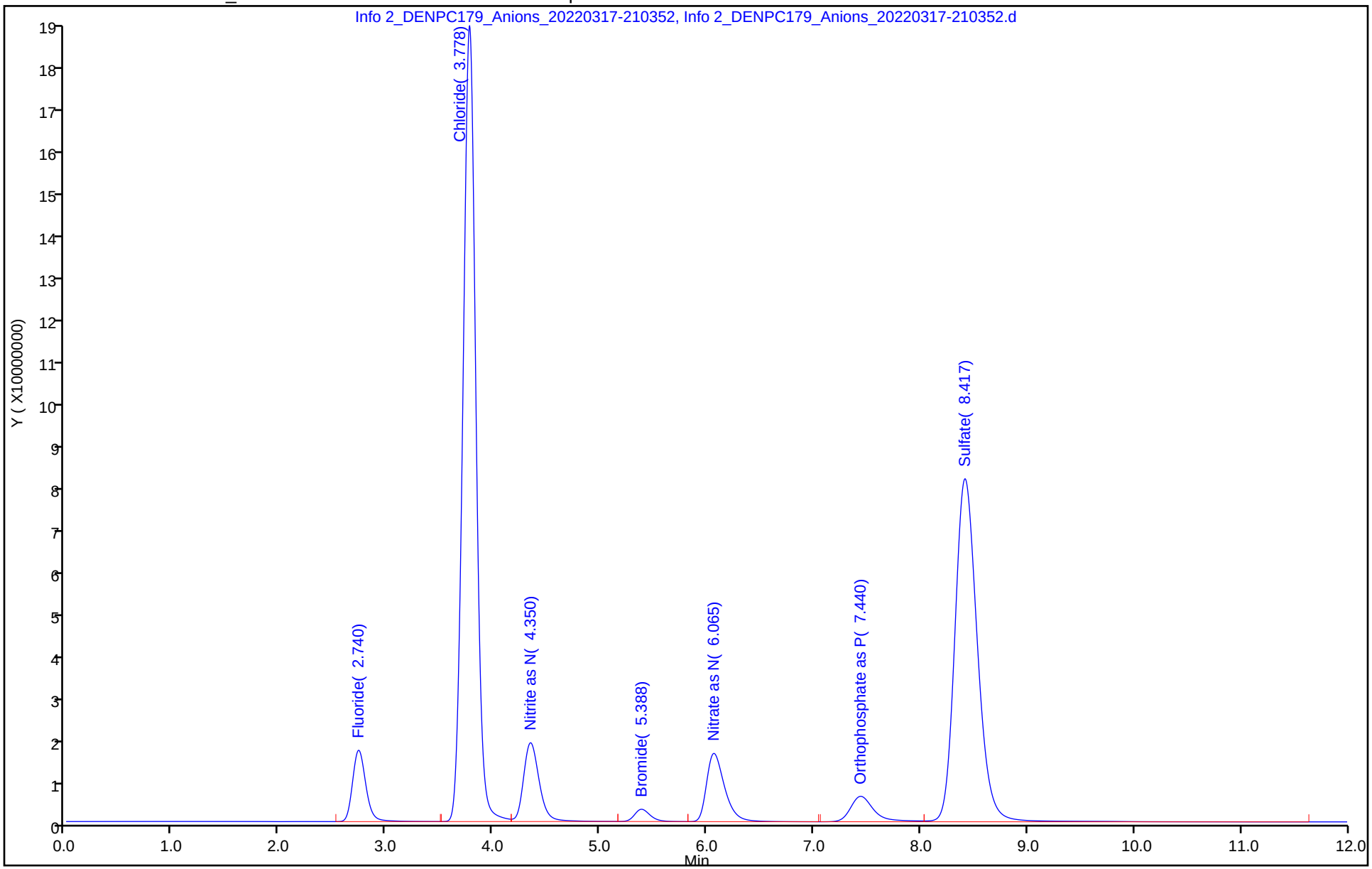
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 18-Mar-2022 10:14:16 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-210352.d | | | | |
| Injection Date: | 17-Mar-2022 20:48:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-211 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 17-Mar-2022 21:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 30 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0109324-030 | | | | |
| Misc. Info.: | 280-0109324-030 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom10 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Anions_IC10.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2022 10:14:16 | Calib Date: | 28-Feb-2022 19:32:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom10\20220228-108878.b\Info 2_DENPC179_Anions_20220228-194 | | | | |
| Column 1 : | | | Det: Info 2_091554_1 | | |
| Process Host: | CTX1628 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.765 | | | | ND | |
| 2 Chloride | | 3.810 | | | | ND | |
| 3 Nitrite as N | | 4.387 | | | | ND | |
| 4 Bromide | | 5.448 | | | | ND | |
| 5 Nitrate as N | | 6.133 | | | | ND | |
| 6 Orthophosphate as P | 7.505 | 7.608 | -0.103 | 6784063 | | NC | |
| 7 Sulfate | 8.468 | 8.653 | -0.185 | 3191945 | | -0.3369 | |

## QC Flag Legend

Processing Flags

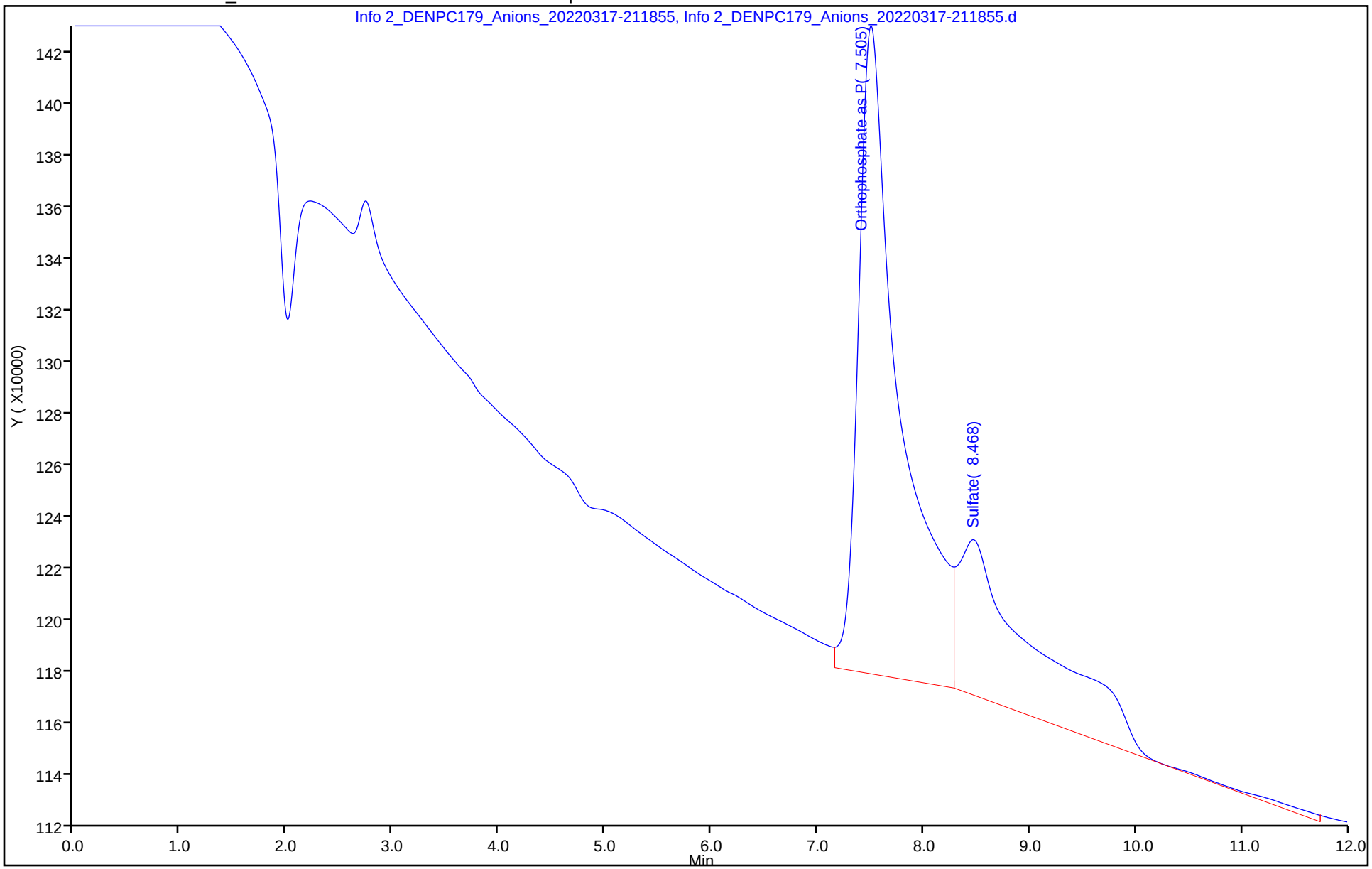
NC - Not Calibrated

Report Date: 18-Mar-2022 10:14:16 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20220317-109324.b\Info 2_DENPC179_Anions_20220317-211855.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 21:03:00 | Instrument ID: | WC_IonChrom10 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 30 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions_IC10 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-143 | | | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 16-Mar-2022 14:19:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0109293-002 | | | | |
| Misc. Info.: | 280-0109293-002 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 17-Mar-2022 12:52:38 | Calib Date: | 16-Mar-2022 15:34:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1616 | | | | |
| First Level Reviewer: jindaratc | | Date: | 16-Mar-2022 14:48:15 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.837 | 2.837 | 0.000 | 5145157 | 0.2000 | 0.2139 | M |
| 2 Chloride | 3.868 | 3.868 | 0.000 | 14550428 | 1.00 | 1.03 | |
| 3 Nitrite as N | 4.497 | 4.497 | 0.000 | 7184148 | NC | NC | M |
| 4 Bromide | 5.577 | 5.577 | 0.000 | 1154528 | 0.2000 | 0.1867 | M |
| 5 Nitrate as N | 6.307 | 6.307 | 0.000 | 7013948 | NC | NC | |
| 7 Orthophosphate as P | 7.848 | 7.848 | 0.000 | 3336826 | NC | NC | |
| 6 Sulfate | 8.888 | 8.888 | 0.000 | 23581937 | 1.00 | 1.04 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

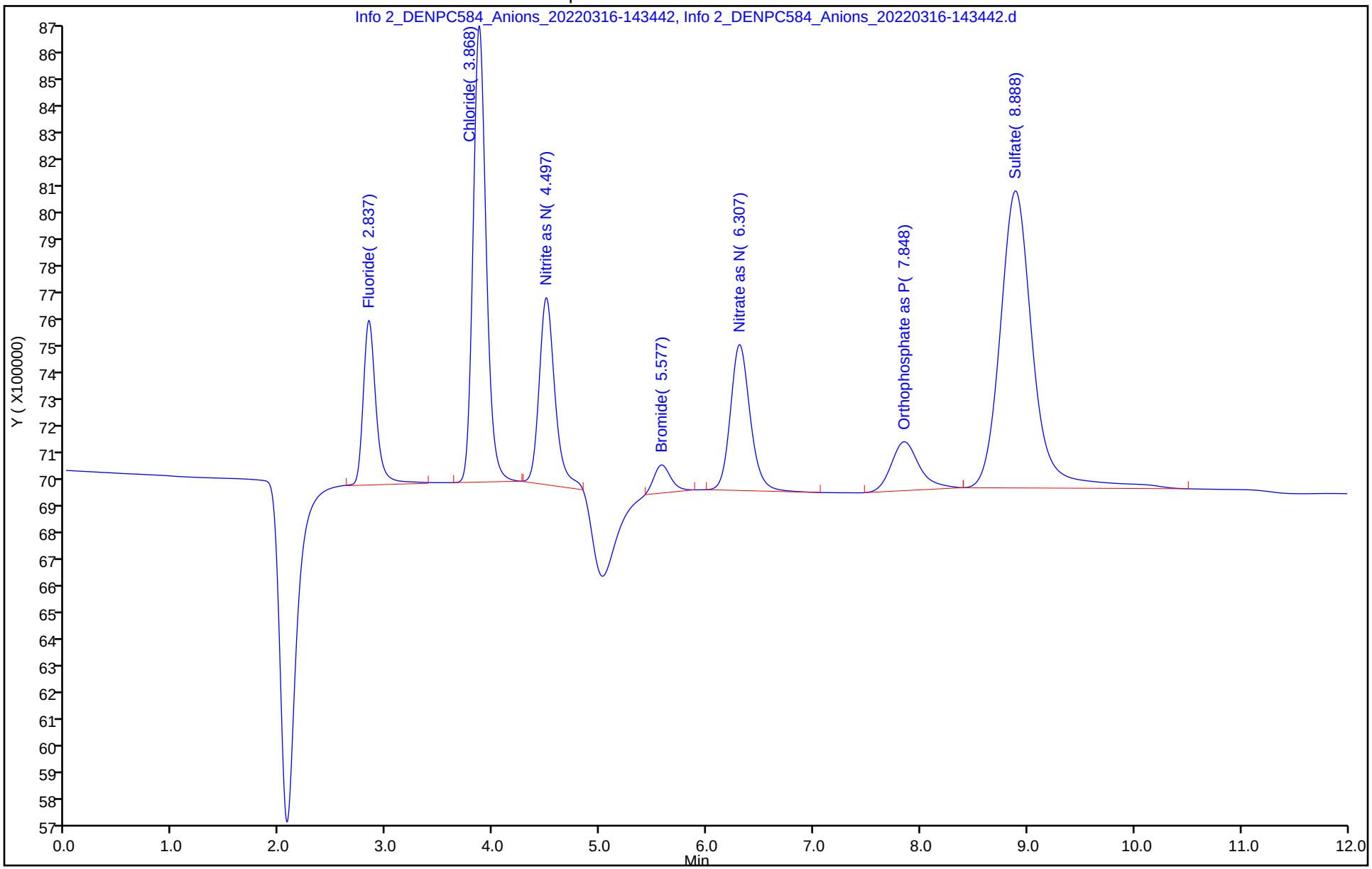
## Reagents:

| | | | |
|---|---|---|---|
| IC CAL cl/so4_00411 | Amount Added: | 0.02 | Units: mL |
| IC Cal low_00627 | Amount Added: | 0.02 | Units: mL |

Report Date: 17-Mar-2022 12:52:39 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-143442.d | | | | |
| Injection Date: | 16-Mar-2022 14:19:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L1 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

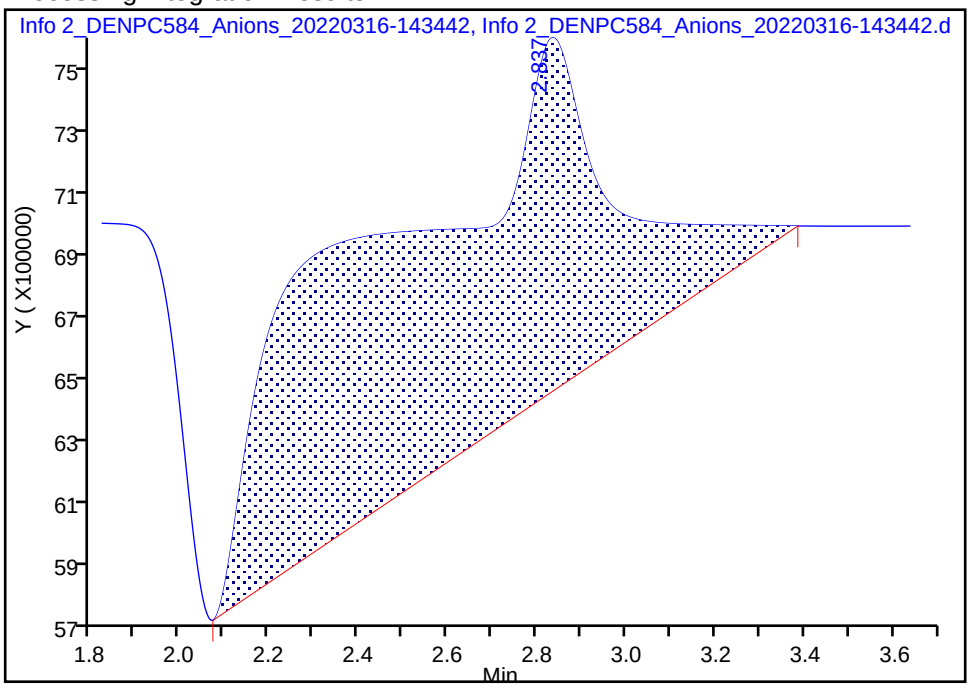
Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-143
Injection Date: 16-Mar-2022 14:19:00 Instrument ID: WC_IonChrom13
Lims ID: std L1
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions-IC13 Limit Group: Wet - Anions 28D
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

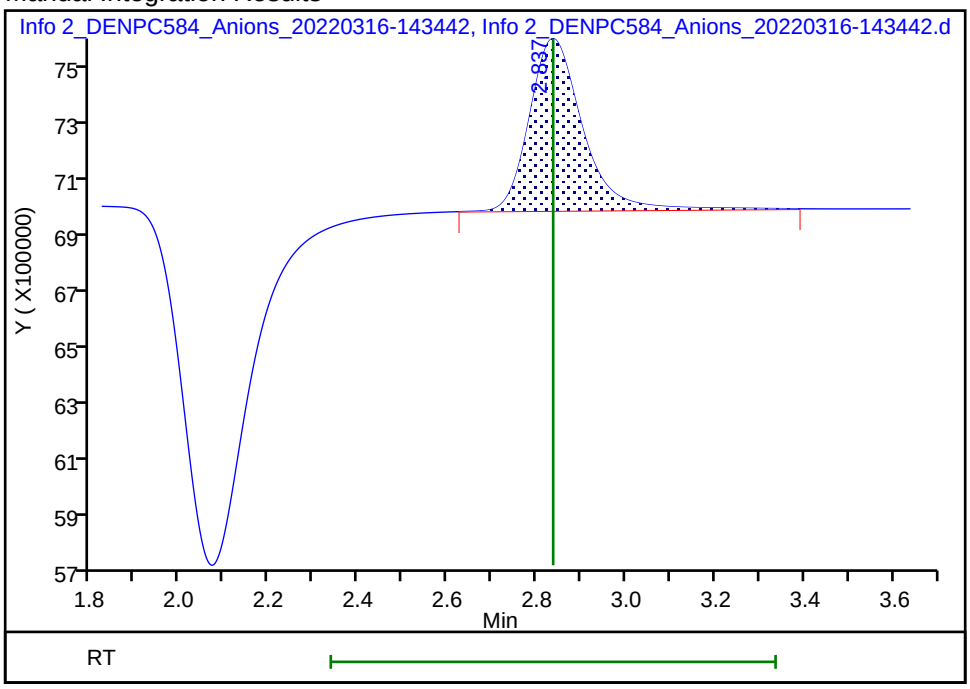
RT: 2.84
Area: 46750380
Amount: 0
Amount Units: ug/ml

Processing Integration Results




Manual Integration Results

RT: 2.84
Area: 5145157
Amount: 0.213882
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 14:48:04
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

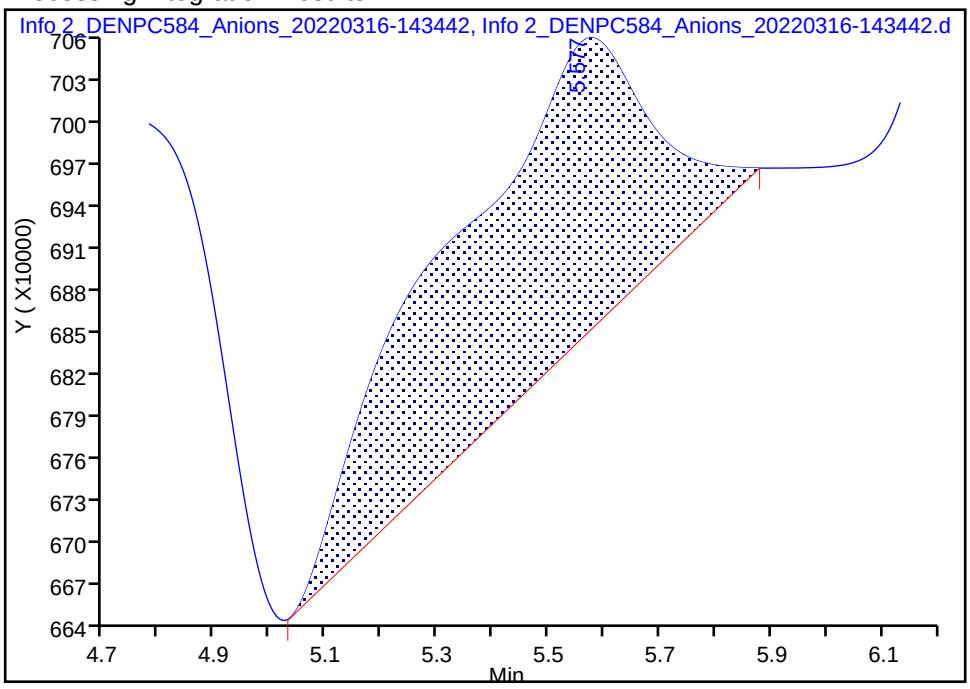
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-143 | | | | |
| Injection Date: | 16-Mar-2022 14:19:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 4 Bromide, CAS: 24959-67-9

Signal: 1

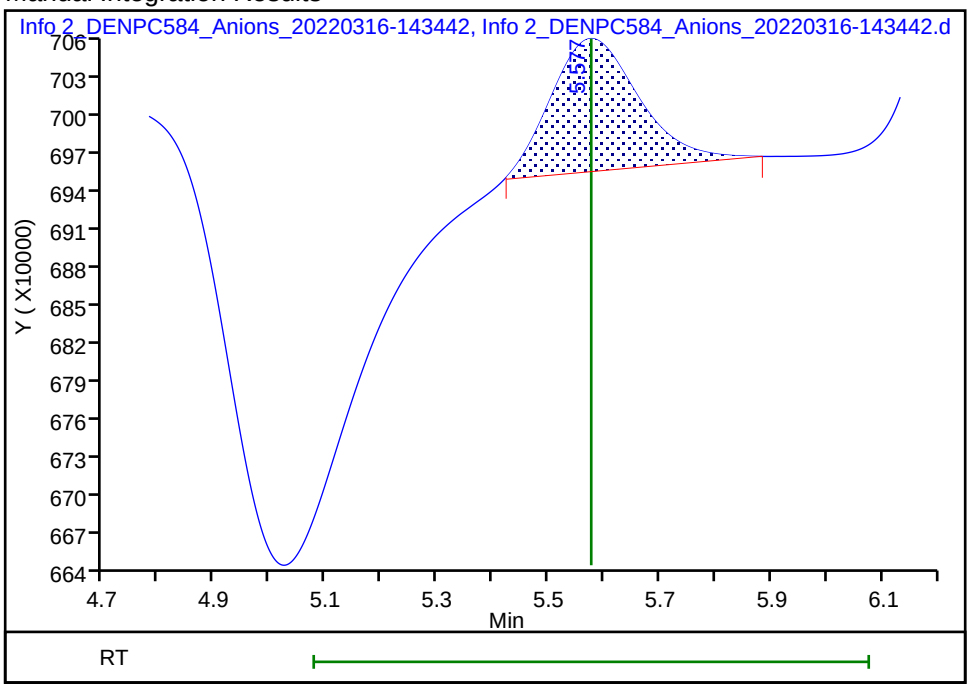
RT: 5.58
Area: 5914078
Amount: 0
Amount Units: ug/ml

Processing Integration Results




RT: 5.58
Area: 1154528
Amount: 0.186743
Amount Units: ug/ml

Manual Integration Results




Reviewer: jindaratc, 16-Mar-2022 14:48:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-144
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Mar-2022 14:34:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-003
Misc. Info.: 280-0109293-003
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 12:52:39 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 15:17:22

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.838 | 2.838 | 0.000 | 12471701 | 0.5000 | 0.4846 | M |
| 2 Chloride | 3.870 | 3.870 | 0.000 | 34595051 | 2.50 | 2.45 | |
| 3 Nitrite as N | 4.498 | 4.498 | 0.000 | 17152795 | NC | NC | M |
| 4 Bromide | 5.575 | 5.575 | 0.000 | 3101352 | 0.5000 | 0.5051 | M |
| 5 Nitrate as N | 6.297 | 6.297 | 0.000 | 17227671 | NC | NC | |
| 7 Orthophosphate as P | 7.848 | 7.848 | 0.000 | 8494219 | NC | NC | |
| 6 Sulfate | 8.878 | 8.878 | 0.000 | 38203195 | 2.50 | 2.45 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

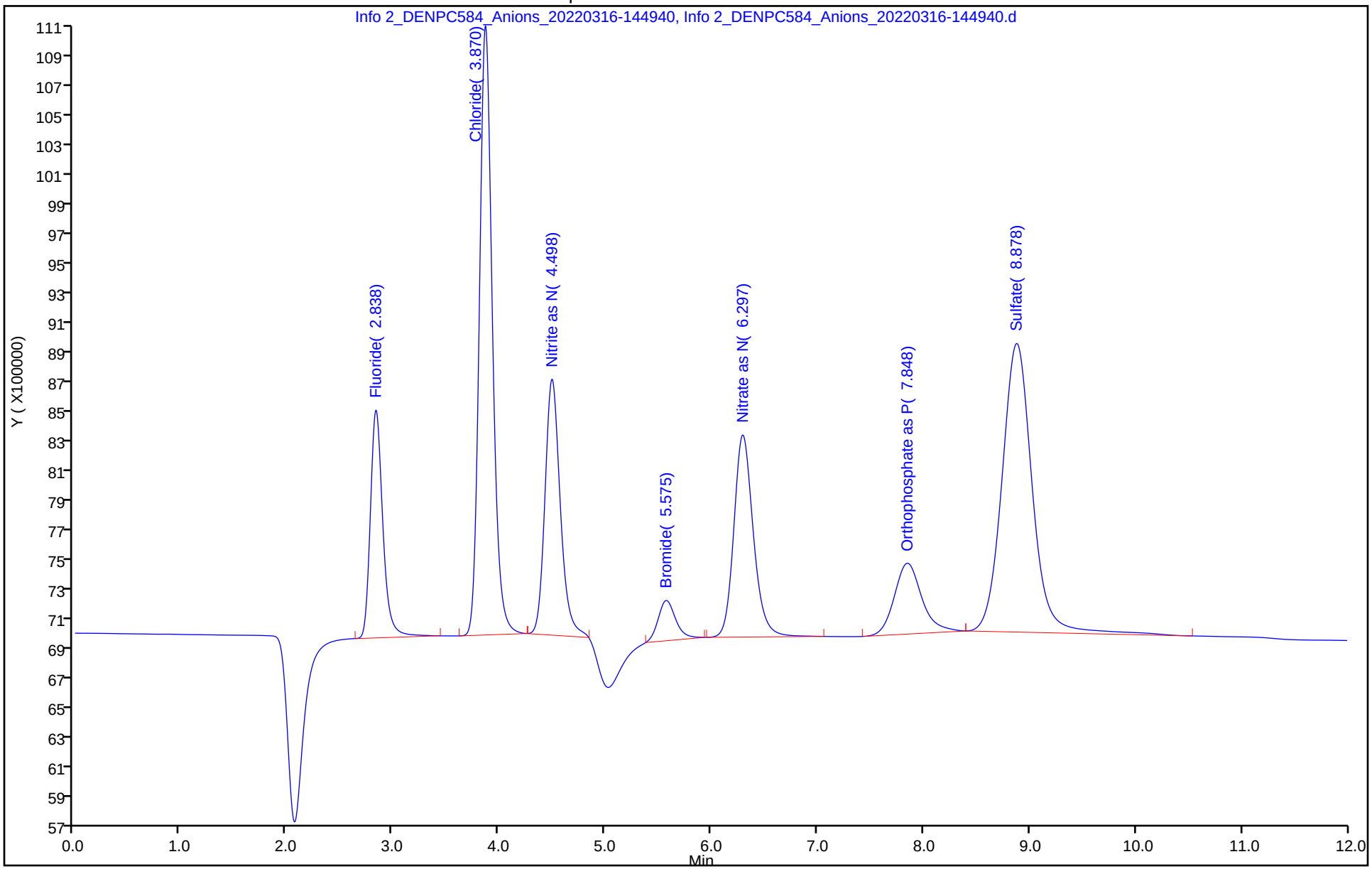
## Reagents:

IC CAL cl/so4_00411 Amount Added: 0.05 Units: mL
IC Cal low_00627 Amount Added: 0.05 Units: mL

Report Date: 17-Mar-2022 12:52:39 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-144940.d | | | | |
| Injection Date: | 16-Mar-2022 14:34:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L2 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-144

Injection Date: 16-Mar-2022 14:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

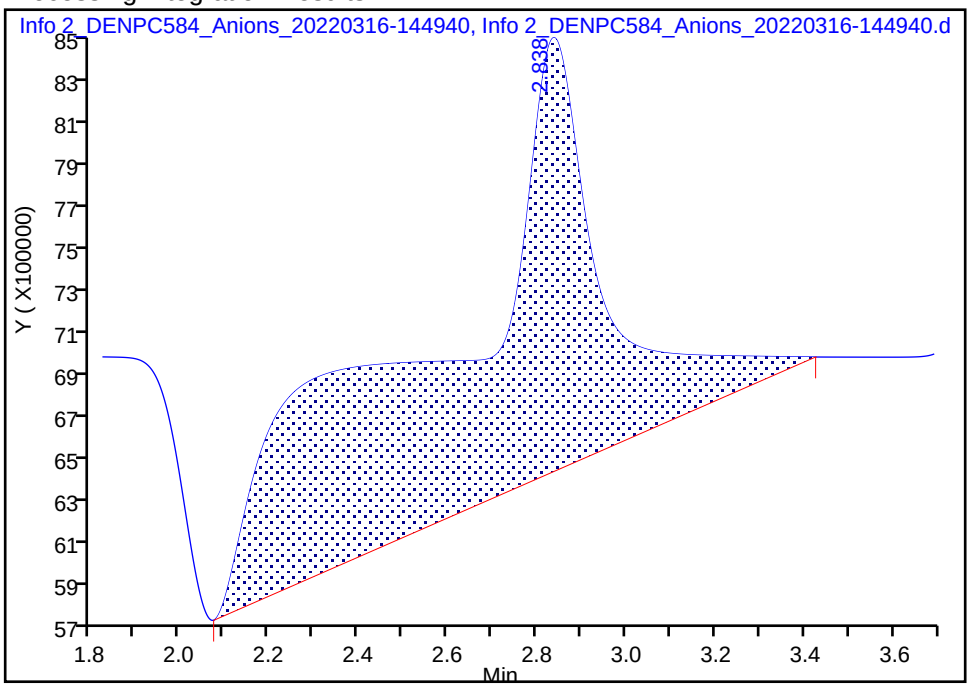
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

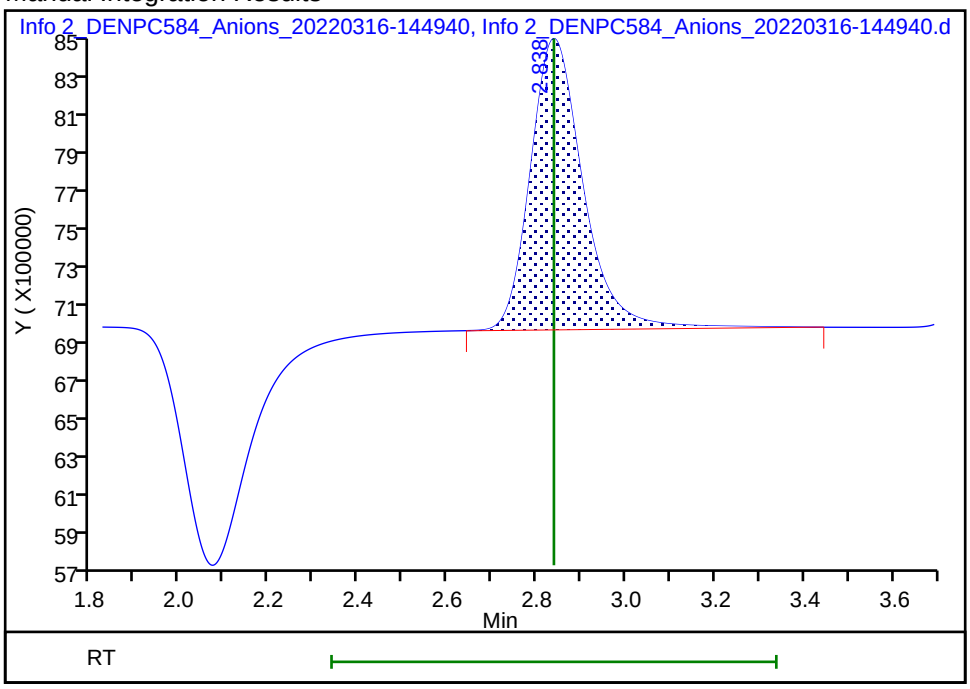
Processing Integration Results

RT: 2.84
Area: 54320360
Amount: 0.676387
Amount Units: ug/ml




Manual Integration Results

RT: 2.84
Area: 12471701
Amount: 0.484552
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:17:11

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-144

Injection Date: 16-Mar-2022 14:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

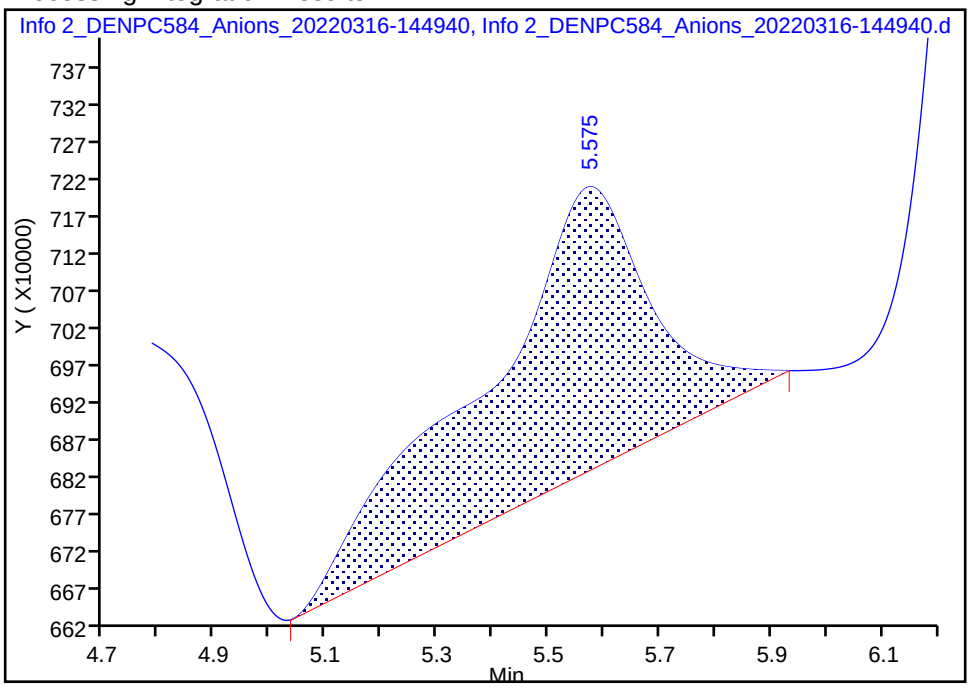
Column: Detector 0005

## 4 Bromide, CAS: 24959-67-9

Signal: 1

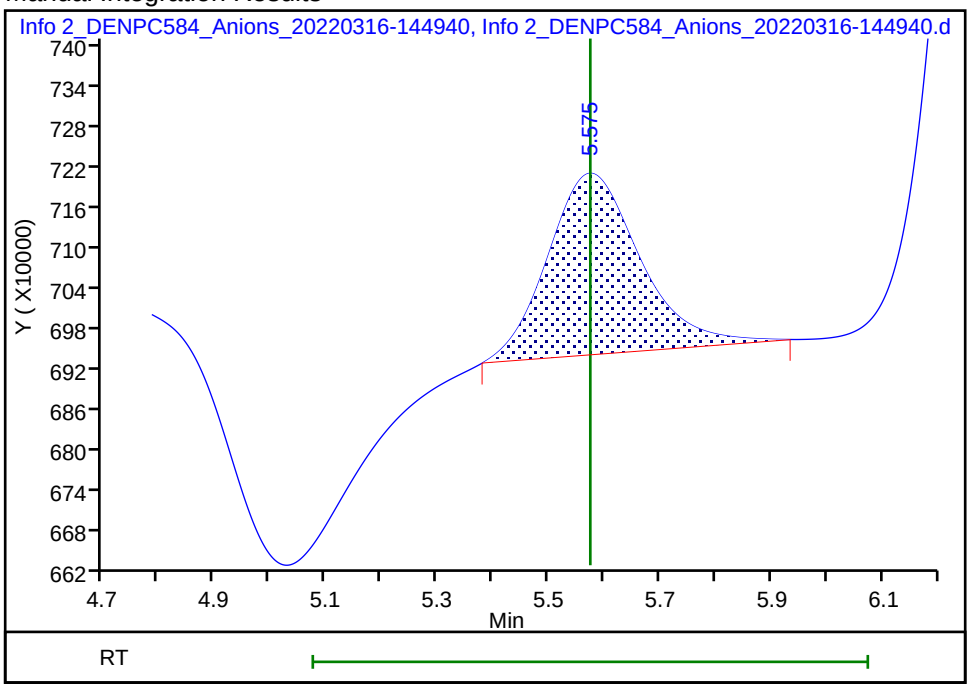
Processing Integration Results

RT: 5.58
Area: 8220845
Amount: 0.656372
Amount Units: ug/ml




Manual Integration Results

RT: 5.58
Area: 3101352
Amount: 0.505107
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:17:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-150
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Mar-2022 14:49:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-004
Misc. Info.: 280-0109293-004
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 12:52:40 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 15:17:59

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.838 | 2.838 | 0.000 | 25299978 | 1.00 | 0.9585 | M |
| 2 Chloride | 3.870 | 3.870 | 0.000 | 69879179 | 5.00 | 4.94 | |
| 3 Nitrite as N | 4.495 | 4.495 | 0.000 | 34854829 | NC | NC | M |
| 4 Bromide | 5.572 | 5.572 | 0.000 | 6459909 | 1.00 | 1.05 | M |
| 5 Nitrate as N | 6.282 | 6.282 | 0.000 | 34565739 | NC | NC | |
| 7 Orthophosphate as P | 7.848 | 7.848 | 0.000 | 17915317 | NC | NC | |
| 6 Sulfate | 8.872 | 8.872 | 0.000 | 63515904 | 5.00 | 4.91 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

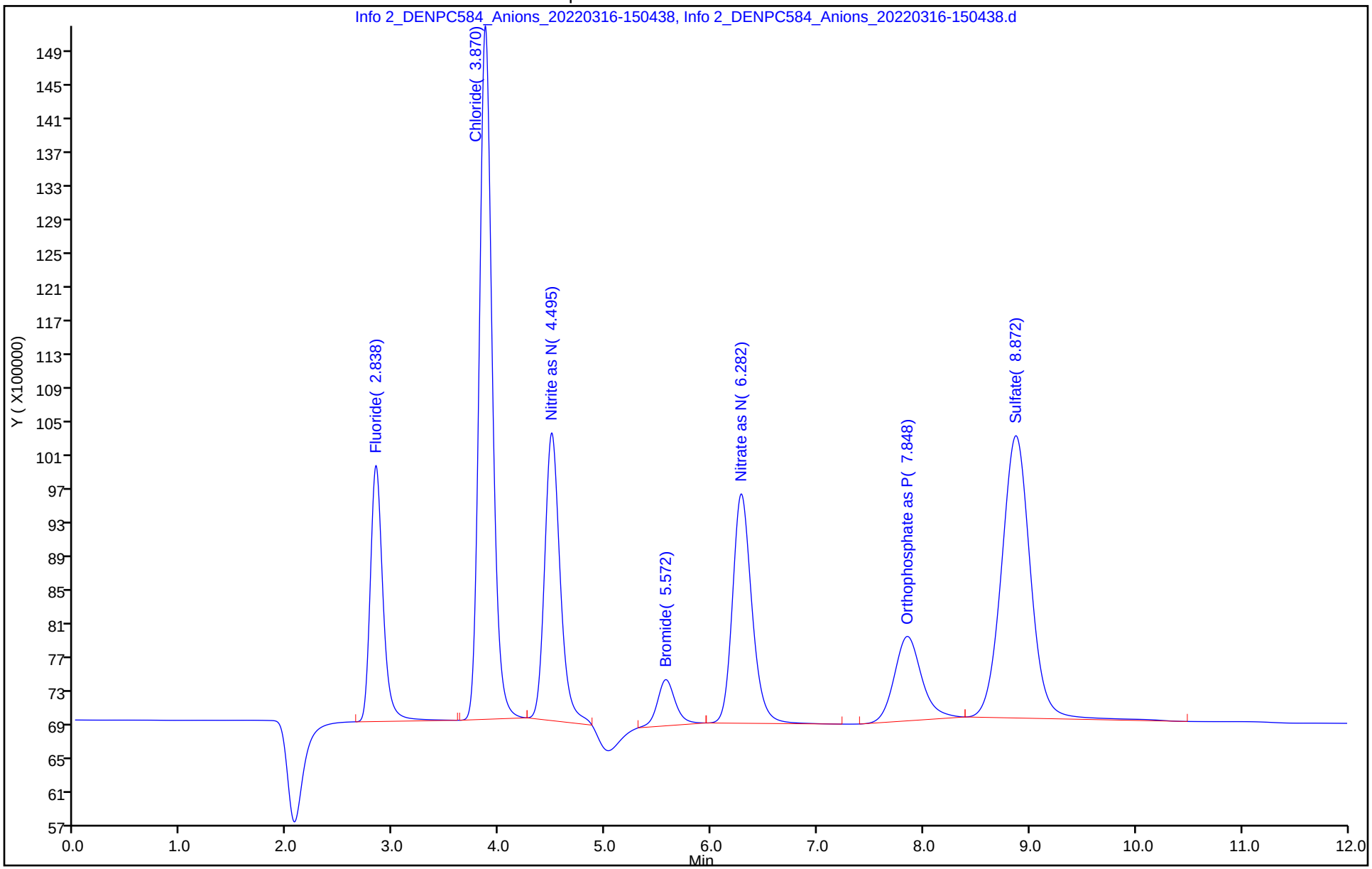
## Reagents:

IC CAL cl/so4_00411 Amount Added: 0.10 Units: mL
IC Cal low_00627 Amount Added: 0.10 Units: mL

Report Date: 17-Mar-2022 12:52:40 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-150438.d | | | | |
| Injection Date: | 16-Mar-2022 14:49:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L3 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-150

Injection Date: 16-Mar-2022 14:49:00 Instrument ID: WC_IonChrom13

Lims ID: std L3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

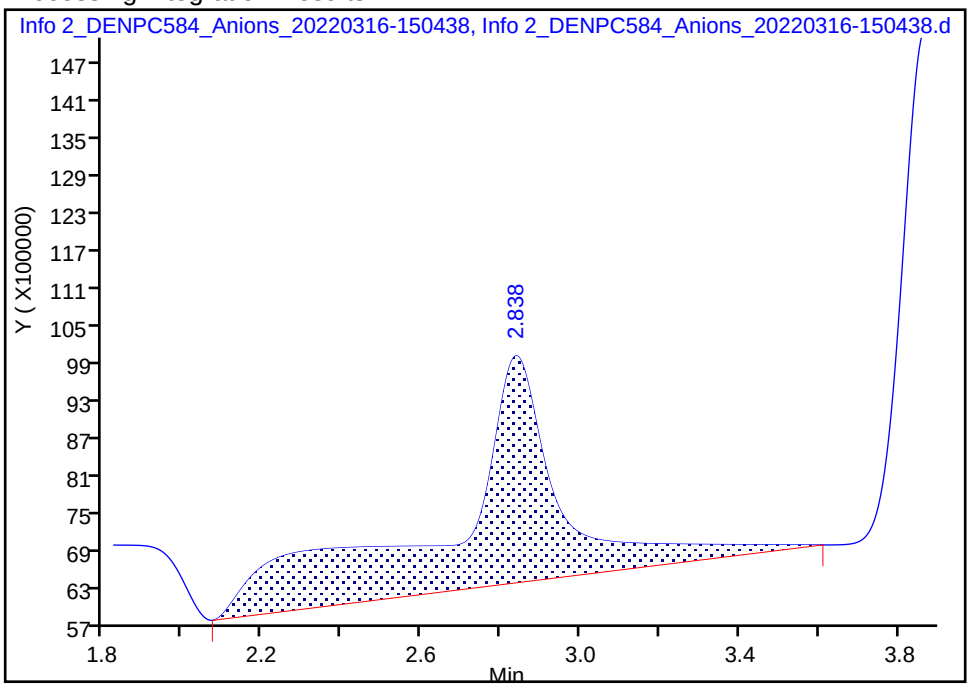
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

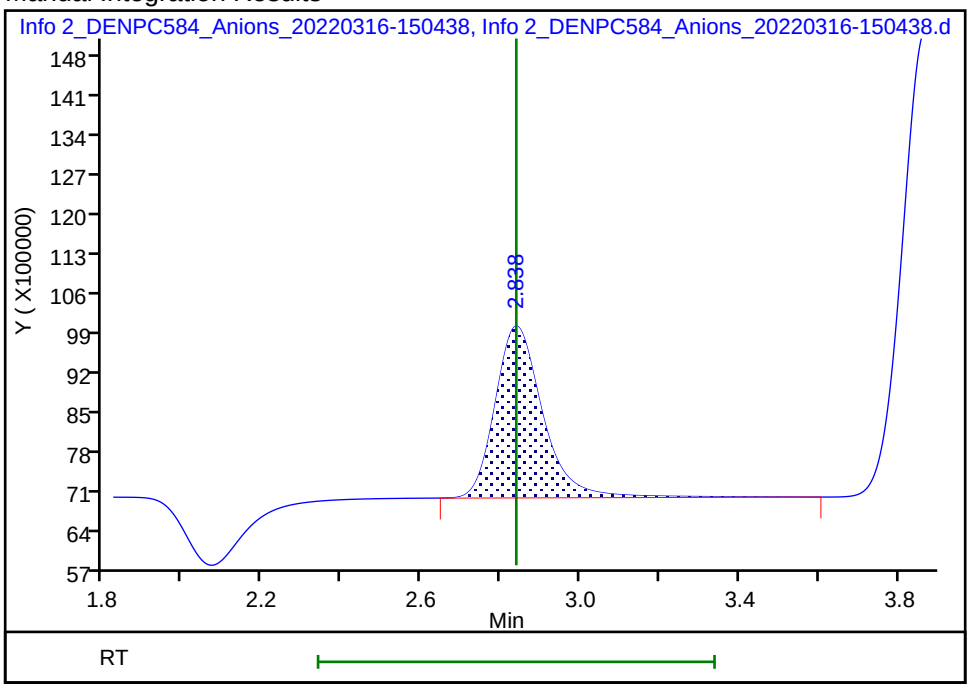
Processing Integration Results

RT: 2.84
Area: 72396522
Amount: 1.122375
Amount Units: ug/ml




Manual Integration Results

RT: 2.84
Area: 25299978
Amount: 0.958475
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:17:34

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-150

Injection Date: 16-Mar-2022 14:49:00 Instrument ID: WC_IonChrom13

Lims ID: std L3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

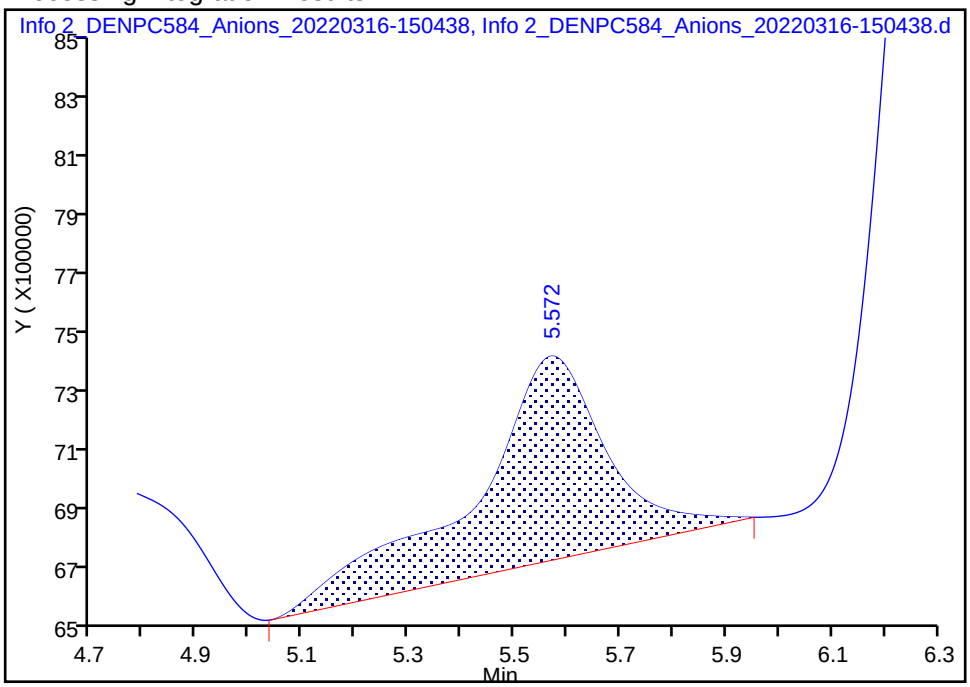
Column: Detector 0005

## 4 Bromide, CAS: 24959-67-9

Signal: 1

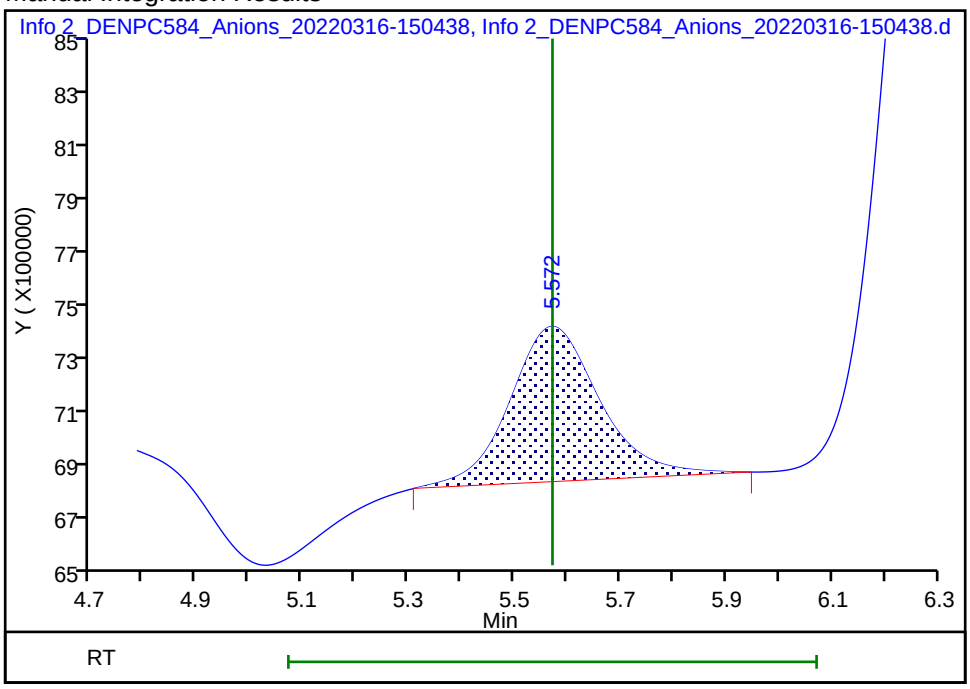
Processing Integration Results

RT: 5.57
Area: 11449018
Amount: 1.082951
Amount Units: ug/ml




Manual Integration Results

RT: 5.57
Area: 6459909
Amount: 1.054332
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:17:47

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-151
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-Mar-2022 15:04:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-005
Misc. Info.: 280-0109293-005
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 12:52:41 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 15:25:34

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.843 | 2.843 | 0.000 | 107223627 | 4.00 | 3.99 | M |
| 2 Chloride | 3.887 | 3.887 | 0.000 | 852921414 | 60.0 | 60.3 | |
| 3 Nitrite as N | 4.490 | 4.490 | 0.000 | 134479946 | NC | NC | M |
| 4 Bromide | 5.567 | 5.567 | 0.000 | 24768265 | 4.00 | 4.05 | M |
| 5 Nitrate as N | 6.250 | 6.250 | 0.000 | 140496253 | NC | NC | |
| 7 Orthophosphate as P | 7.850 | 7.850 | 0.000 | 77256390 | NC | NC | |
| 6 Sulfate | 8.855 | 8.855 | 0.000 | 636625483 | 60.0 | 60.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

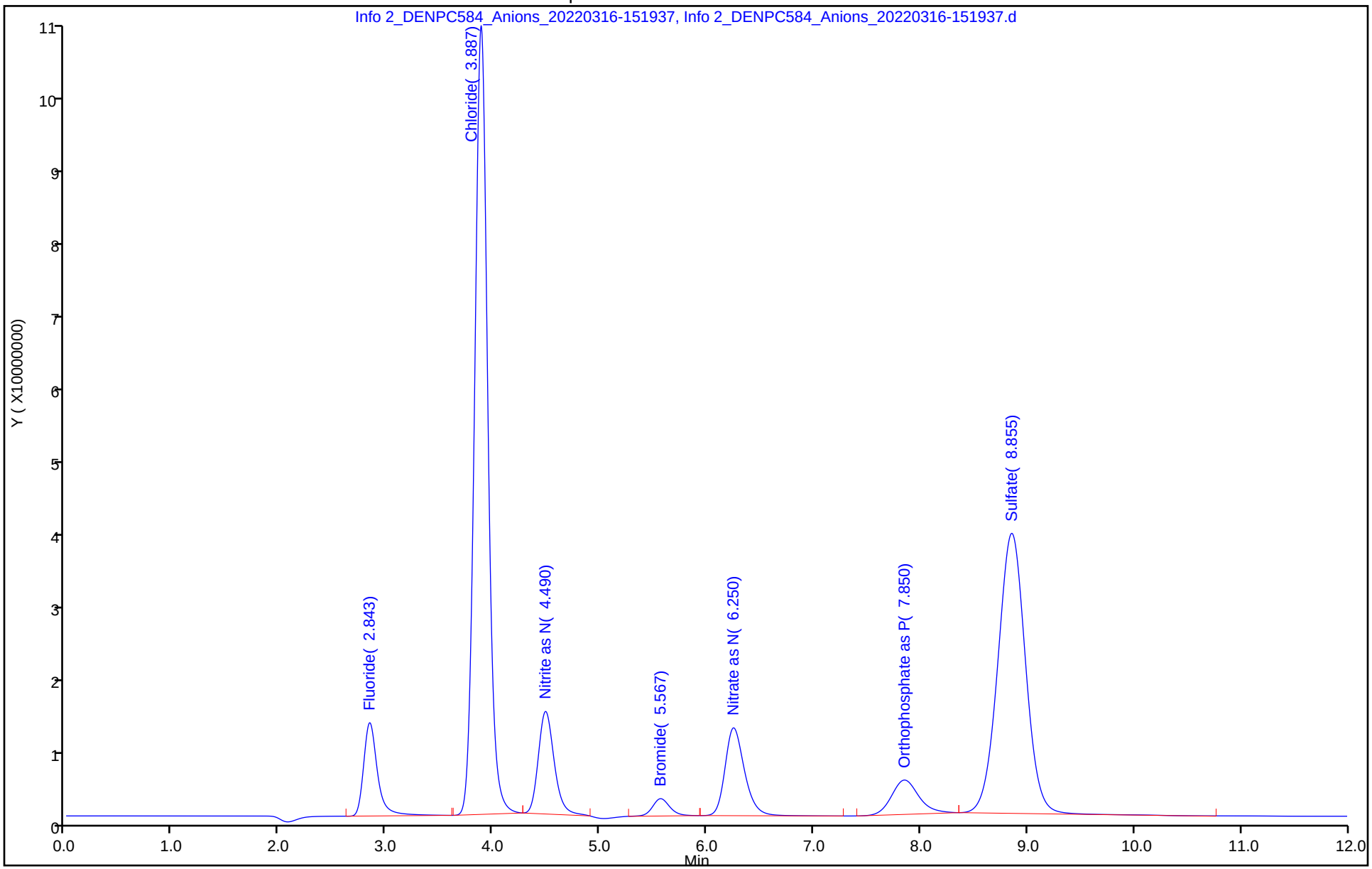
## Reagents:

IC CAL cl/so4_00411 Amount Added: 1.20 Units: mL
IC Cal low_00627 Amount Added: 0.40 Units: mL

Report Date: 17-Mar-2022 12:52:41 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-151937.d | | | | |
| Injection Date: | 16-Mar-2022 15:04:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L4 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-151

Injection Date: 16-Mar-2022 15:04:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

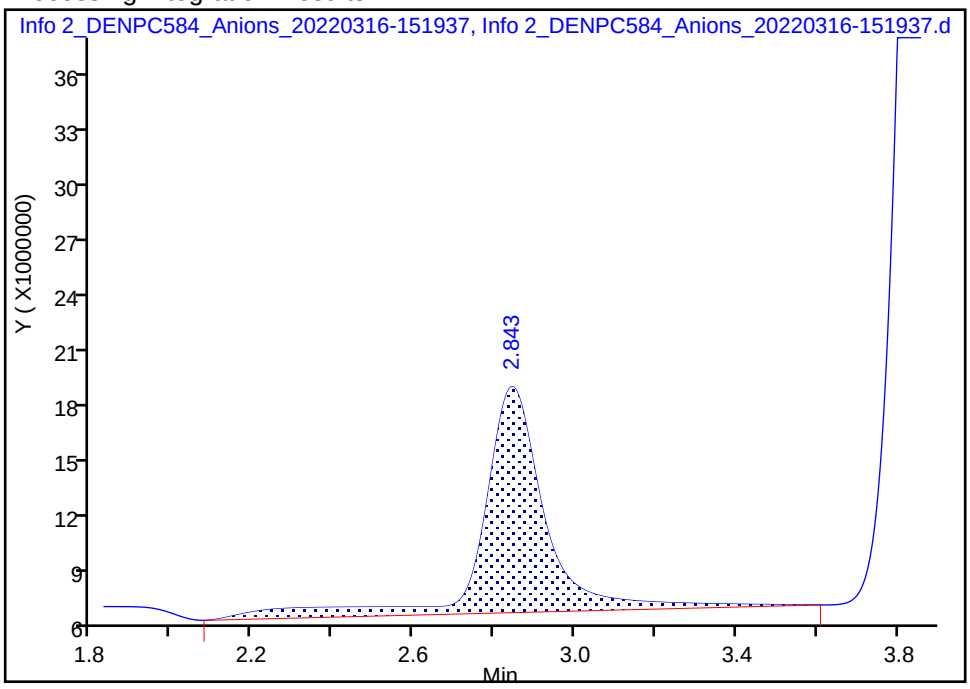
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

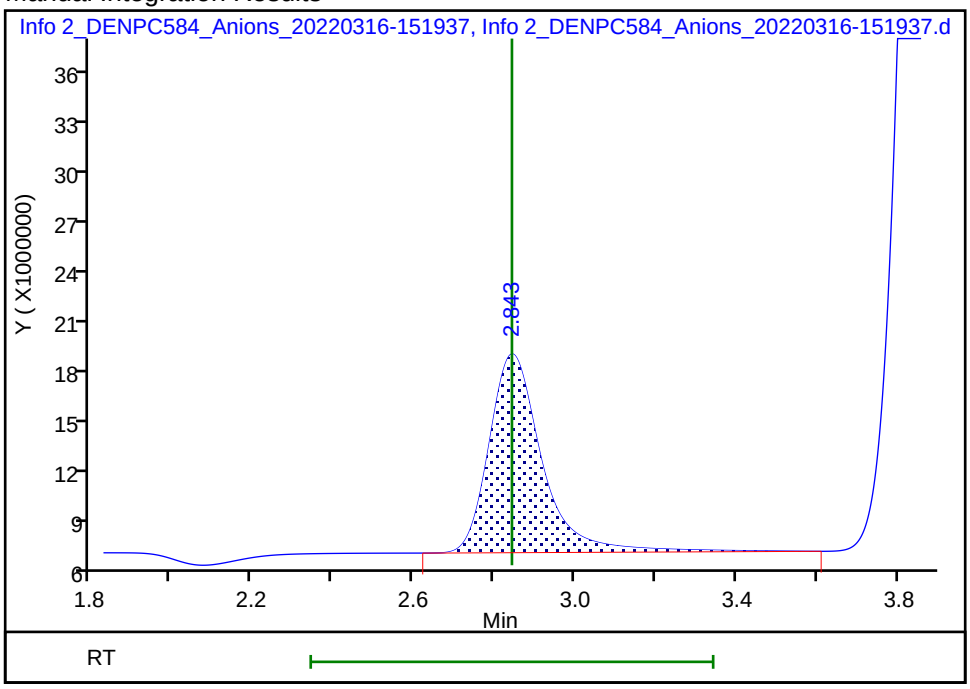
Processing Integration Results

RT: 2.84
Area: 133584109
Amount: 4.149588
Amount Units: ug/ml




Manual Integration Results

RT: 2.84
Area: 107223627
Amount: 3.985035
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:25:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-151

Injection Date: 16-Mar-2022 15:04:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

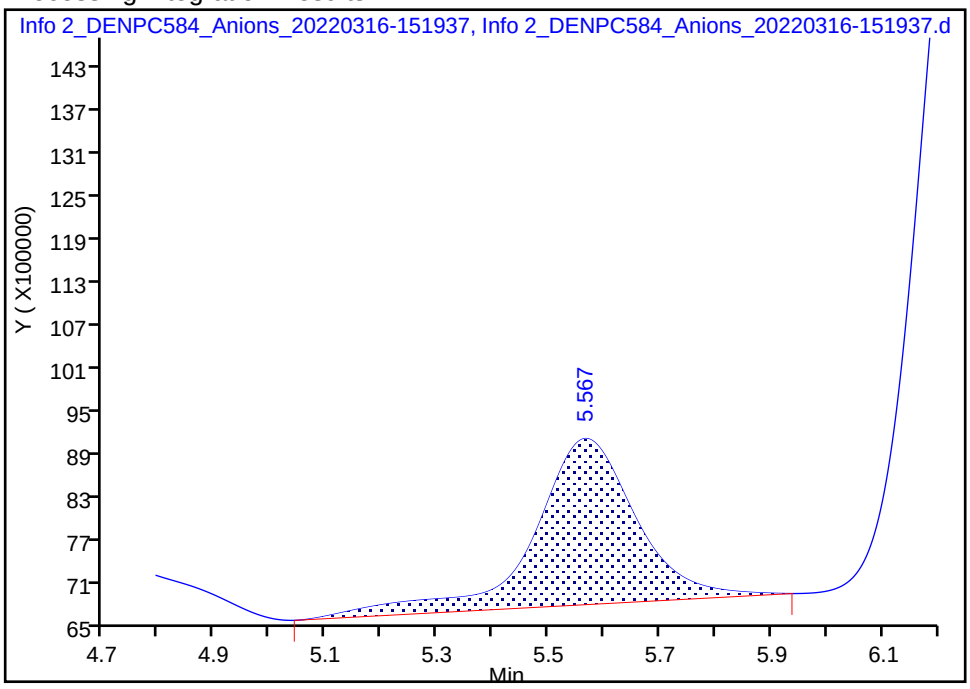
Column: Detector 0005

## 4 Bromide, CAS: 24959-67-9

Signal: 1

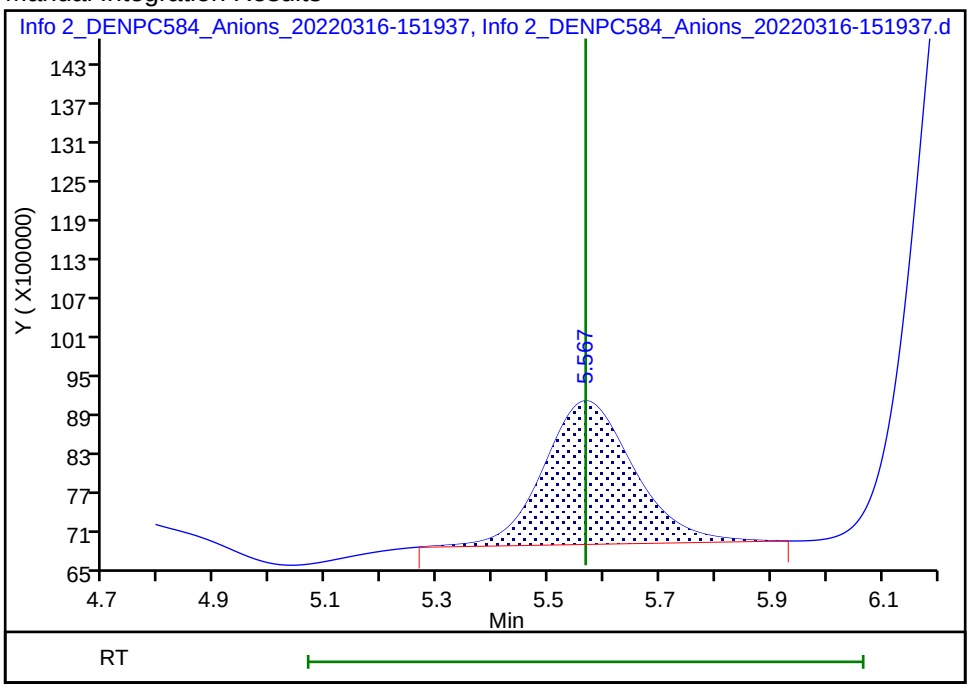
Processing Integration Results

RT: 5.57
Area: 29743417
Amount: 4.069234
Amount Units: ug/ml




Manual Integration Results

RT: 5.57
Area: 24768265
Amount: 4.048300
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:25:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-153
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Mar-2022 15:19:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-006
Misc. Info.: 280-0109293-006
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 12:52:42 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 15:55:31

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.852 | 2.852 | 0.000 | 216926359 | 8.00 | 8.04 | M |
| 2 Chloride | 3.913 | 3.913 | 0.000 | 1681395021 | 120.0 | 118.8 | |
| 3 Nitrite as N | 4.490 | 4.490 | 0.000 | 260864425 | NC | NC | M |
| 4 Bromide | 5.570 | 5.570 | 0.000 | 48716159 | 8.00 | 7.96 | M |
| 5 Nitrate as N | 6.238 | 6.238 | 0.000 | 283342648 | NC | NC | |
| 7 Orthophosphate as P | 7.842 | 7.842 | 0.000 | 147390047 | NC | NC | |
| 6 Sulfate | 8.843 | 8.843 | 0.000 | 1241988390 | 120.0 | 119.1 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

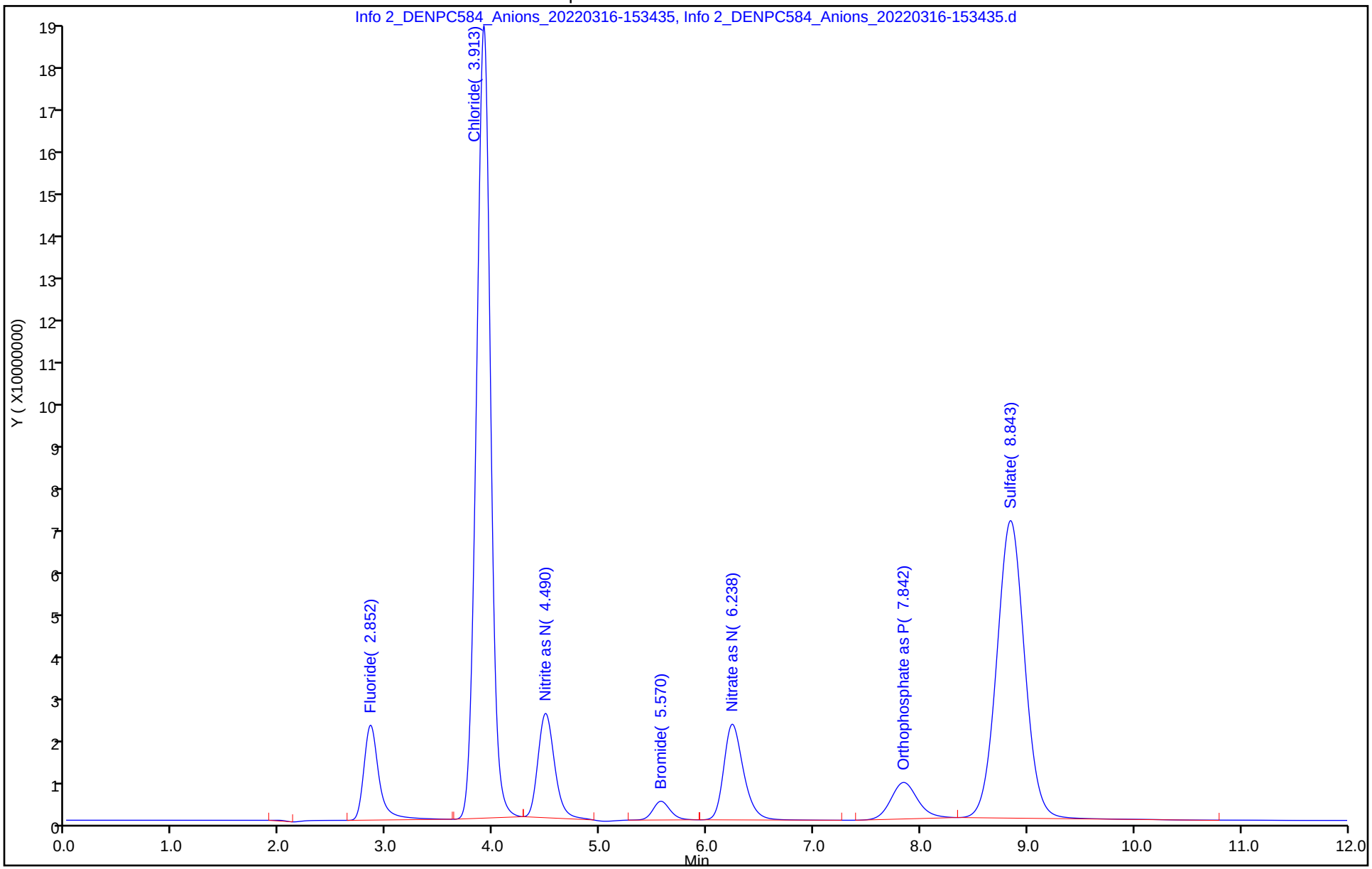
## Reagents:

IC CAL cl/so4_00411 Amount Added: 2.40 Units: mL
IC Cal low_00627 Amount Added: 0.80 Units: mL

Report Date: 17-Mar-2022 12:52:42 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-153435.d | | | | |
| Injection Date: | 16-Mar-2022 15:19:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L5 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-153

Injection Date: 16-Mar-2022 15:19:00 Instrument ID: WC_IonChrom13

Lims ID: std L5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

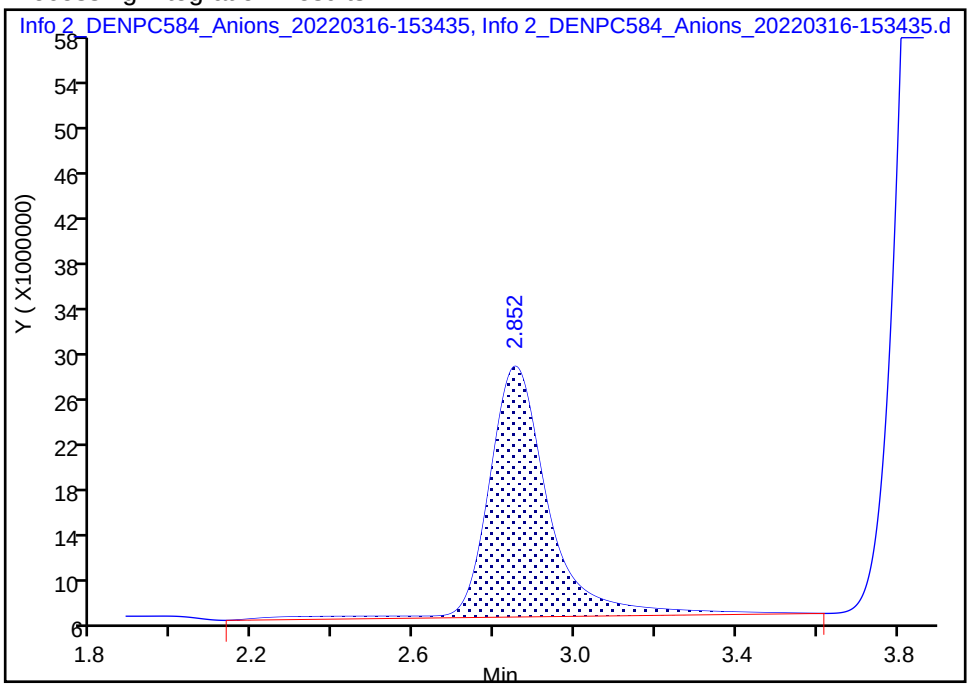
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

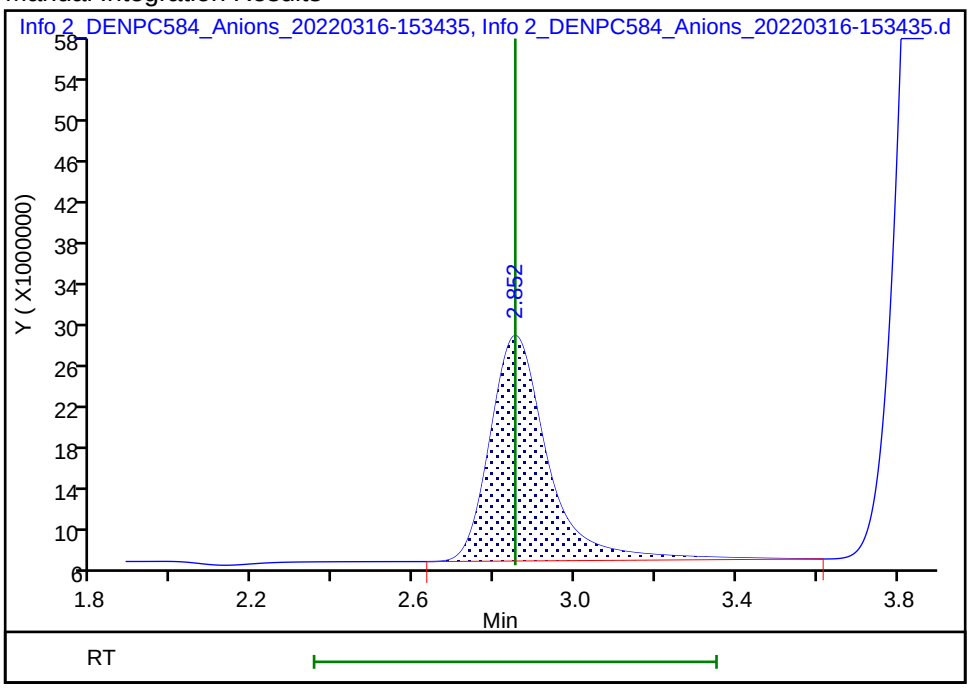
Processing Integration Results

RT: 2.85
Area: 226873547
Amount: 8.241492
Amount Units: ug/ml




Manual Integration Results

RT: 2.85
Area: 216926359
Amount: 8.037856
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:55:11

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

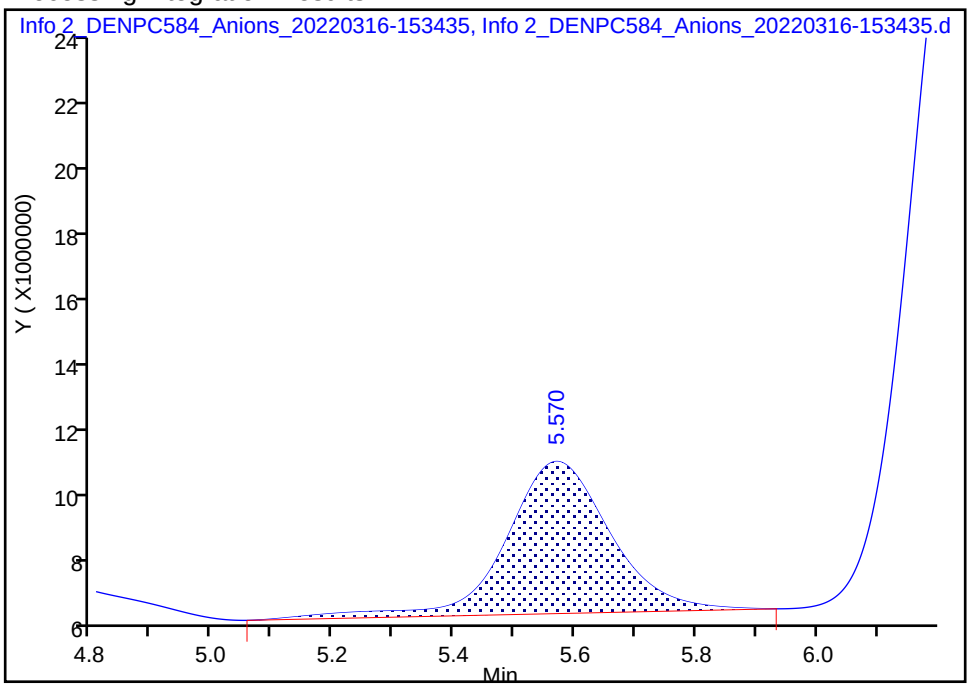
Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-153
Injection Date: 16-Mar-2022 15:19:00 Instrument ID: WC_IonChrom13
Lims ID: std L5
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions-IC13 Limit Group: Wet - Anions 28D
Column: Detector 0005

## 4 Bromide, CAS: 24959-67-9

Signal: 1

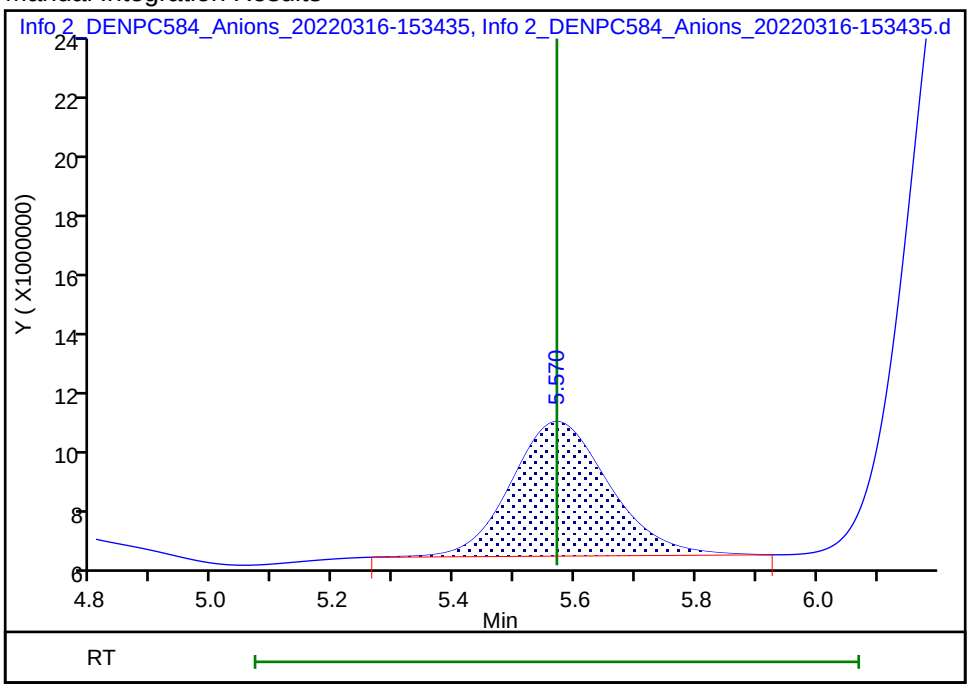
Processing Integration Results

RT: 5.57
Area: 53437781
Amount: 8.205898
Amount Units: ug/ml




Manual Integration Results

RT: 5.57
Area: 48716159
Amount: 7.964502
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:55:26
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Mar-2022 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-007
Misc. Info.: 280-0109293-007
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 12:52:43 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 15:56:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.847 | 2.847 | 0.000 | 270584920 | 10.0 | 10.0 | M |
| 2 Chloride | 3.938 | 3.938 | 0.000 | 2843421175 | 200.0 | 201.0 | |
| 3 Nitrite as N | 4.488 | 4.488 | 0.000 | 317946373 | NC | NC | M |
| 4 Bromide | 5.568 | 5.568 | 0.000 | 60802699 | 10.0 | 9.94 | M |
| 5 Nitrate as N | 6.233 | 6.233 | 0.000 | 354606176 | NC | NC | |
| 7 Orthophosphate as P | 7.833 | 7.833 | 0.000 | 178848712 | NC | NC | |
| 6 Sulfate | 8.818 | 8.818 | 0.000 | 2082694626 | 200.0 | 200.6 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

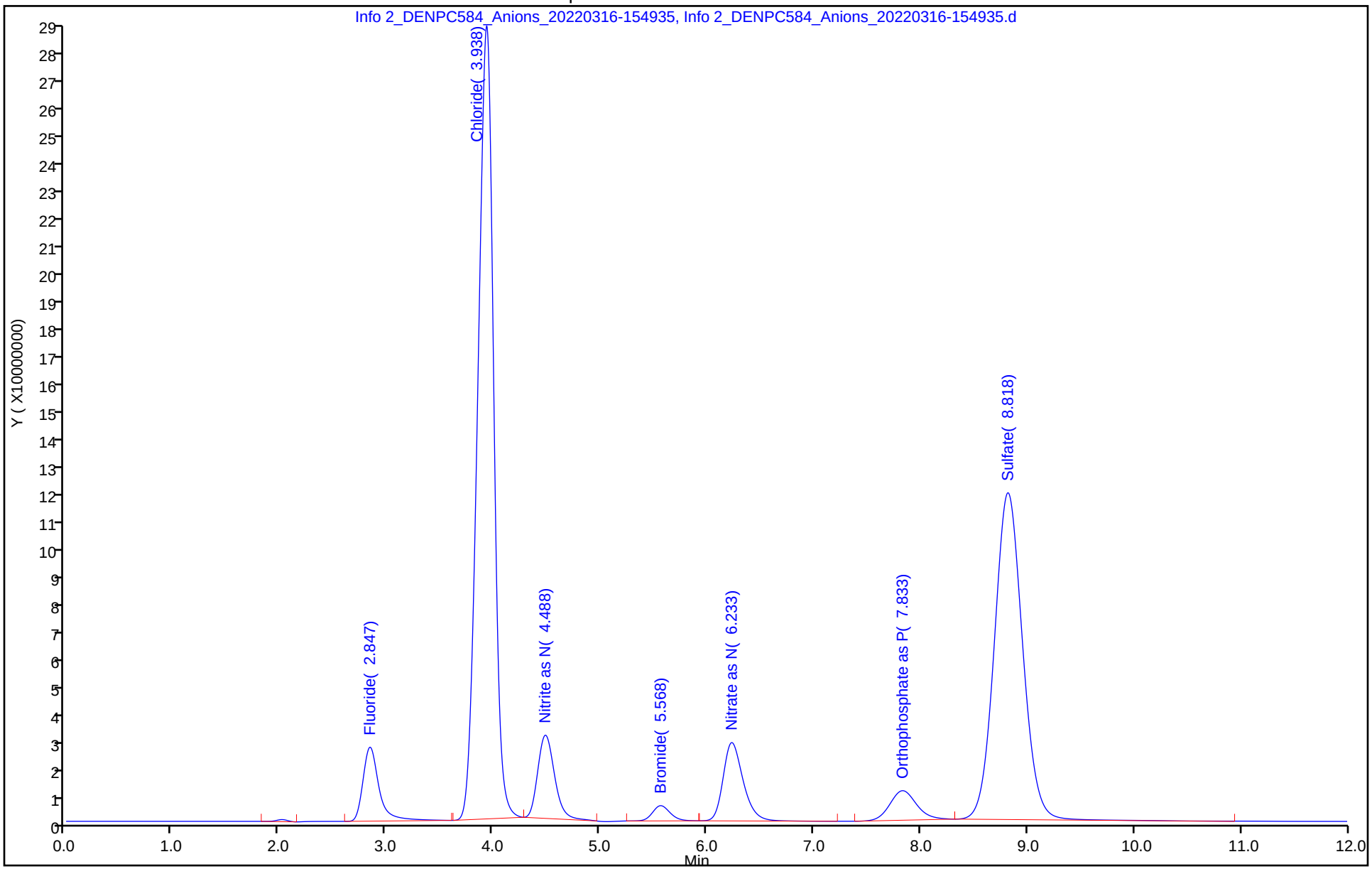
## Reagents:

IC CAL cl/so4_00411 Amount Added: 4.00 Units: mL
IC Cal low_00627 Amount Added: 1.00 Units: mL

Report Date: 17-Mar-2022 12:52:43 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154935.d | | | | |
| Injection Date: | 16-Mar-2022 15:34:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | std L6 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Injection Date: 16-Mar-2022 15:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

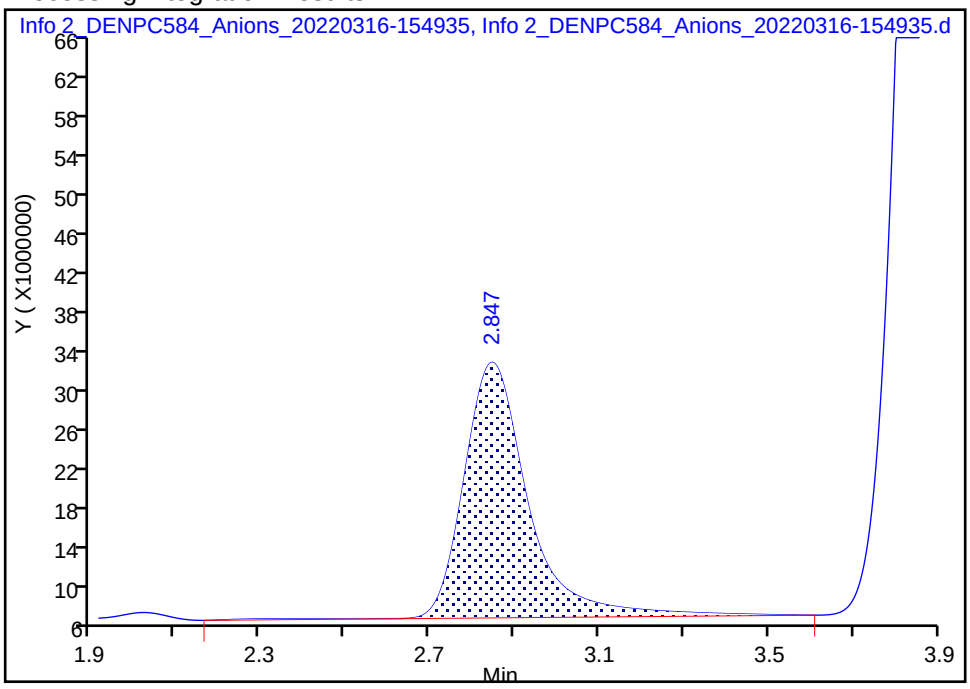
Column: Detector 0005

## 1 Fluoride, CAS: 16984-48-8

Signal: 1

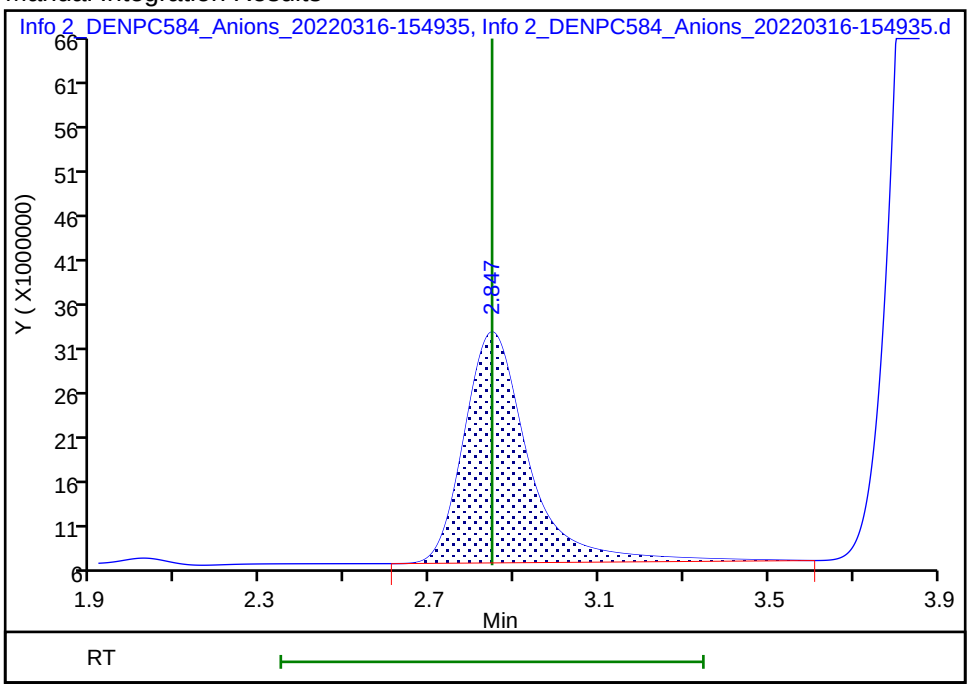
Processing Integration Results

RT: 2.85
Area: 272675380
Amount: 10.062010
Amount Units: ug/ml




Manual Integration Results

RT: 2.85
Area: 270584920
Amount: 10.020200
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:55:43

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Injection Date: 16-Mar-2022 15:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

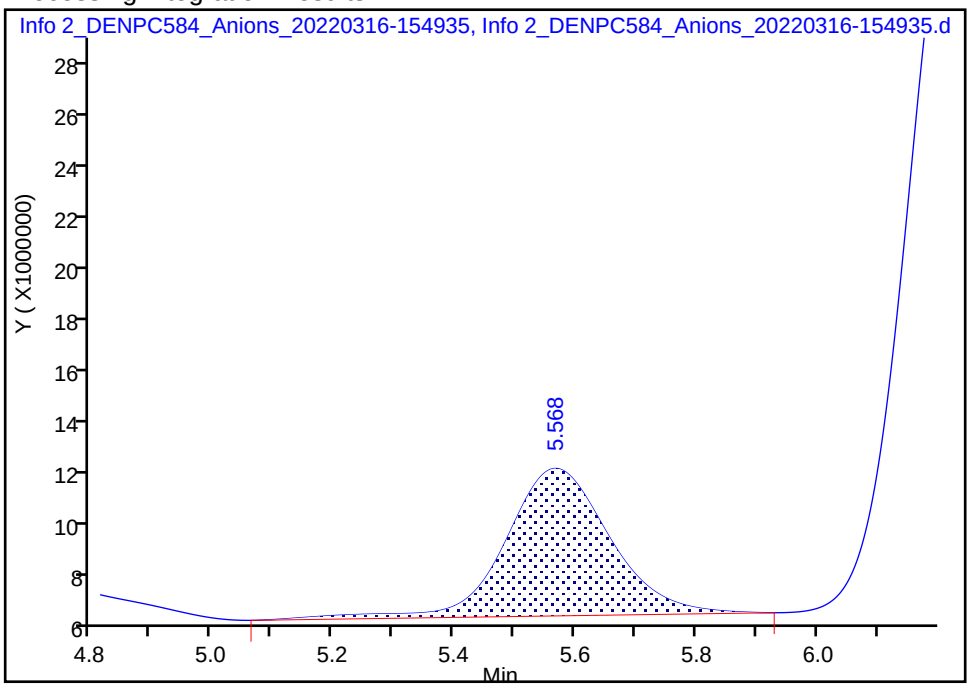
Column: Detector 0005

## 4 Bromide, CAS: 24959-67-9

Signal: 1

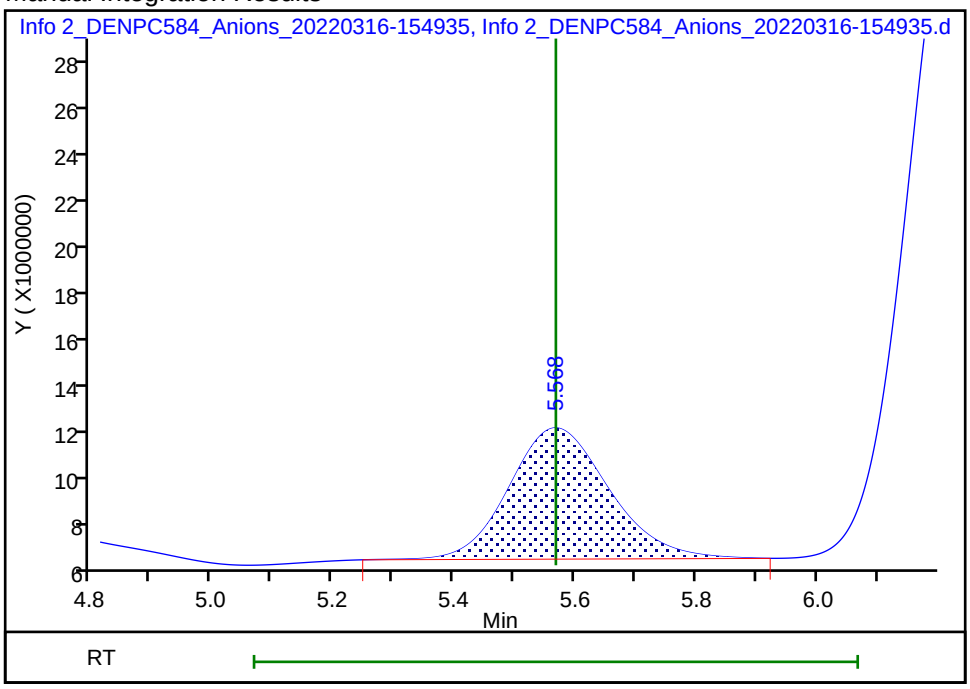
Processing Integration Results

RT: 5.57
Area: 64902861
Amount: 10.296495
Amount Units: ug/ml




Manual Integration Results

RT: 5.57
Area: 60802699
Amount: 9.941015
Amount Units: ug/ml




Reviewer: jindaratc, 16-Mar-2022 15:56:03

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

# IC Instrument Information

**WL:** 109293 **Inst ID:** IC13 **Analysis Date:** 3/16/2022 **Analyst:** CJ

| Rush | Job No. | Samples | Anions | QC Req | HT Exp |
|---|---|---|---|---|---|
| ☐ | 159523 | 7 | (F) Cl NO2 (Br) NO3 PO4 SO4 | MS/D | |
| ☐ | 159246 | 2 | F Cl NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | 159234 | 10 | F Cl NO2 Br NO3 PO4 (SO4) | (MS/D) * | |
| ☐ | 159190 | 1 | F Cl NO2 Br NO3 PO4 (SO4) | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |

## Dilutions

| Job No. | Samples | Anions | Dilution | Reason |
|---|---|---|---|---|
| 246 | | F Cl NO2 Br NO3 PO4 SO4 | 200, 500, 1000 X | dilution. |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Unlocked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 17-Mar-2022 12:55:13 |

No.Compounds:7

## Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b
Inj Date : 16-Mar-2022 14:19:00, Sublist: chrom-Anions-IC13*sub1

Detector 1: 0005

| | Wet - Anions | | | | Wet - Anions 28D | | | |
|---|---|---|---|---|---|---|---|---|
| Compound | b | M1 | M2 | Err | b | M1 | M2 | Err |
| 1 Fluoride | | | | | -644257 | 2706824 | | 1.000 |
| 2 Chloride | | | | | -54451 | 1414952 | | 1.000 |
| 3 Nitrite as N | 108375 | 3231983 | | 0.999 | | | | |
| 4 Bromide | | | | | 12581 | 6115081 | | 1.000 |
| 5 Nitrate as N | -268733 | 3539514 | | 1.000 | | | | |
| 7 Orthophosphate as P | -355201 | 183701 | | 0.999 | | | | |
| 6 Sulfate | | | | | 128966 | 103197 | | 1.000 |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Instrument: WC_IonChrom13 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Mar-2022 12:55:13
No.Compounds:7
Sublist: chrom-Anions-IC13*sub1
Limit Group: Wet - Anions 28D

## Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 1561

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-14344
Inj Date: 16-Mar-2022 14:19:00 Worklist: 109293 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-14494
Inj Date: 16-Mar-2022 14:34:00 Worklist: 109293 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15043
Inj Date: 16-Mar-2022 14:49:00 Worklist: 109293 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15193
Inj Date: 16-Mar-2022 15:04:00 Worklist: 109293 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15343
Inj Date: 16-Mar-2022 15:19:00 Worklist: 109293 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15493
Inj Date: 16-Mar-2022 15:34:00 Worklist: 109293 Sample#: 7

Start Cal Date: 16-Mar-2022 14:04:00 End Cal Date: 16-Mar-2022 15:34:00

## Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

| RF/Amt(Lvl) Response WL(Smp) | RF/Amt(Lvl) Response WL(Smp) | RF/Amt(Lvl) Response WL(Smp) | RF/Amt(Lvl) Response WL(Smp) | RF/Amt(Lvl) Response WL(Smp) | RF/Amt(Lvl) Response WL(Smp) | b | m1 | m2 | Error |
|---|---|---|---|---|---|---|---|---|---|

| 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 | | | | | |
| Error: raw_COD | | | | | | | | | |
| 25725785 | 24943402 | 25299978 | 26805907 | 27115795 | 27058492 | -644257 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 27068240 | | |
| M5145157 | M12471701 | M25299978 | M107223627 | M216926359 | M270584920 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |
| 2 Chloride | | | | Signal: 1 | | | | | |
| 14550428 | 13838020 | 13975836 | 14215357 | 14011625 | 14217106 | -54451 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 14149521 | | |
| 14550428 | 34595051 | 69879179 | 852921414 | 1681395021 | 2843421175 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |
| 4 Bromide | | | | Signal: 1 | | | | | |
| 5772640 | 6202704 | 6459909 | 6192066 | 6089520 | 6080270 | 12581 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 6115081 | | |
| M1154528 | M3101352 | M6459909 | M24768265 | M48716159 | M60802699 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |
| 6 Sulfate | | | | Signal: 1 | | | | | |
| Error: raw_COD | | | | | | | | | |
| 23581937 | 15281278 | 12703181 | 10610425 | 10349903 | 10413473 | 12896684 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 10319767 | | |
| 23581937 | 38203195 | 63515904 | 636625483 | 1241988390 | 2082694626 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Unlocked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 17-Mar-2022 12:58:05 |

No.Compounds:7
Sublist: chrom-Anions-IC13*sub1
Limit Group: Wet - Anions

## Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 1561

## Calibration File Names

| | | | |
|---|---|---|---|
| Level: 1 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-14344 | | |
| | Inj Date: 16-Mar-2022 14:19:00 | Worklist: 109293 | Sample#: 2 |
| Level: 2 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-14494 | | |
| | Inj Date: 16-Mar-2022 14:34:00 | Worklist: 109293 | Sample#: 3 |
| Level: 3 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15043 | | |
| | Inj Date: 16-Mar-2022 14:49:00 | Worklist: 109293 | Sample#: 4 |
| Level: 4 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15193 | | |
| | Inj Date: 16-Mar-2022 15:04:00 | Worklist: 109293 | Sample#: 5 |
| Level: 5 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15343 | | |
| | Inj Date: 16-Mar-2022 15:19:00 | Worklist: 109293 | Sample#: 6 |
| Level: 6 | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-15493 | | |
| | Inj Date: 16-Mar-2022 15:34:00 | Worklist: 109293 | Sample#: 7 |

Start Cal Date: 16-Mar-2022 14:04:00 End Cal Date: 16-Mar-2022 15:34:00

## 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 | | | | | |
| 35920740 | 34305590 | 34854829 | 33619987 | 32608053 | 31794637 | 1083759 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 32319830 | | |
| M7184148 | M17152795 | M34854829 | M134479946 | M260864425 | M317946373 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |
| 5 Nitrate as N | | | | Signal: 1 | | | | | |
| Error: CorrCoef | | | | | | | | | |
| 35069740 | 34455342 | 34565739 | 35124063 | 35417831 | 35460618 | -268733 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 35395141 | | |
| 7013948 | 17227671 | 34565739 | 140496253 | 283342648 | 354606176 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |
| 7 Orthophosphate as P | | | | Signal: 1 | | | | | |
| 16684130 | 16988438 | 17915317 | 19314098 | 18423756 | 17884871 | -355201 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 18370157 | | |
| 3336826 | 8494219 | 17915317 | 77256390 | 147390047 | 178848712 | | | | |
| 109293(2) | 109293(3) | 109293(4) | 109293(5) | 109293(6) | 109293(7) | | | | |

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-160
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2022 15:49:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-008
Misc. Info.: 280-0109293-008
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 16:07:14

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.847 | 2.847 | 0.000 | 107522746 | 4.00 | 4.00 | M |
| 2 Chloride | 3.903 | 3.903 | 0.000 | 1187185300 | 80.0 | 83.9 | |
| 3 Nitrite as N | 4.500 | 4.500 | 0.000 | 131917537 | NC | NC | M |
| 4 Bromide | 5.585 | 5.585 | 0.000 | 25719541 | 4.00 | 4.20 | M |
| 5 Nitrate as N | 6.270 | 6.270 | 0.000 | 145270736 | NC | NC | |
| 7 Orthophosphate as P | 7.853 | 7.853 | 0.000 | 75903685 | NC | NC | |
| 6 Sulfate | 8.857 | 8.857 | 0.000 | 894288198 | 80.0 | 85.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

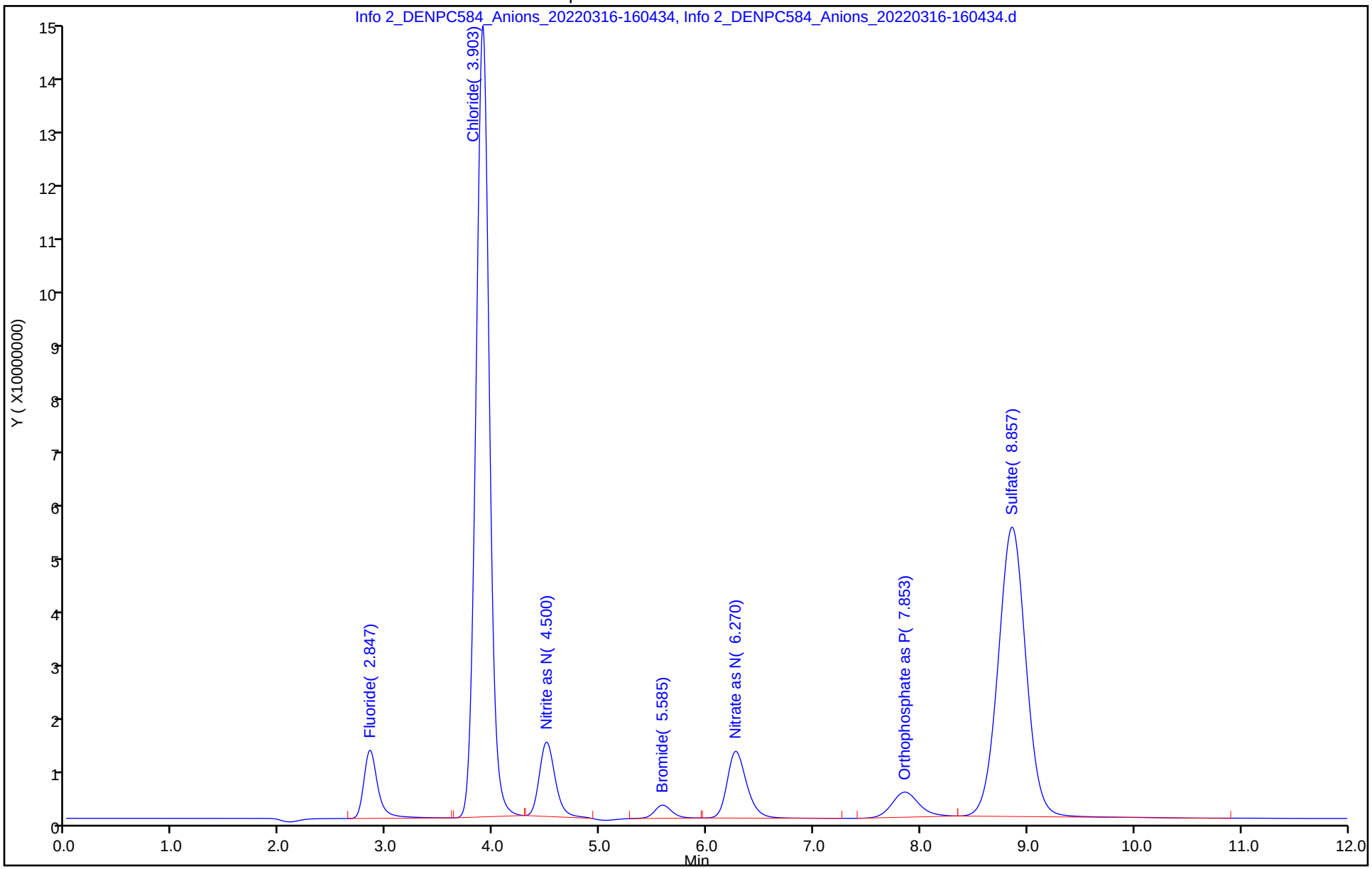
| | | | |
|---|---|---|---|
| IC SO4 ICV_00022 | Amount Added: | 0.40 | Units: mL |
| Cl ICV Std_00002 | Amount Added: | 0.40 | Units: mL |
| IC ICV 5_00355 | Amount Added: | 0.40 | Units: mL |

Report Date: 17-Mar-2022 13:14:04 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-160434.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 16-Mar-2022 15:49:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-161
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 16-Mar-2022 16:04:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-009
Misc. Info.: 280-0109293-009
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:02:21

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.847 | | | | ND | U |
| 2 Chloride | | 3.903 | | | | ND | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | | 5.585 | | | | ND | |
| 5 Nitrate as N | | 6.270 | | | | ND | U |
| 7 Orthophosphate as P | 7.912 | 7.853 | 0.059 | 1283699 | | NC | |
| 6 Sulfate | 8.953 | 8.857 | 0.096 | 14226468 | | 0.1289 | |

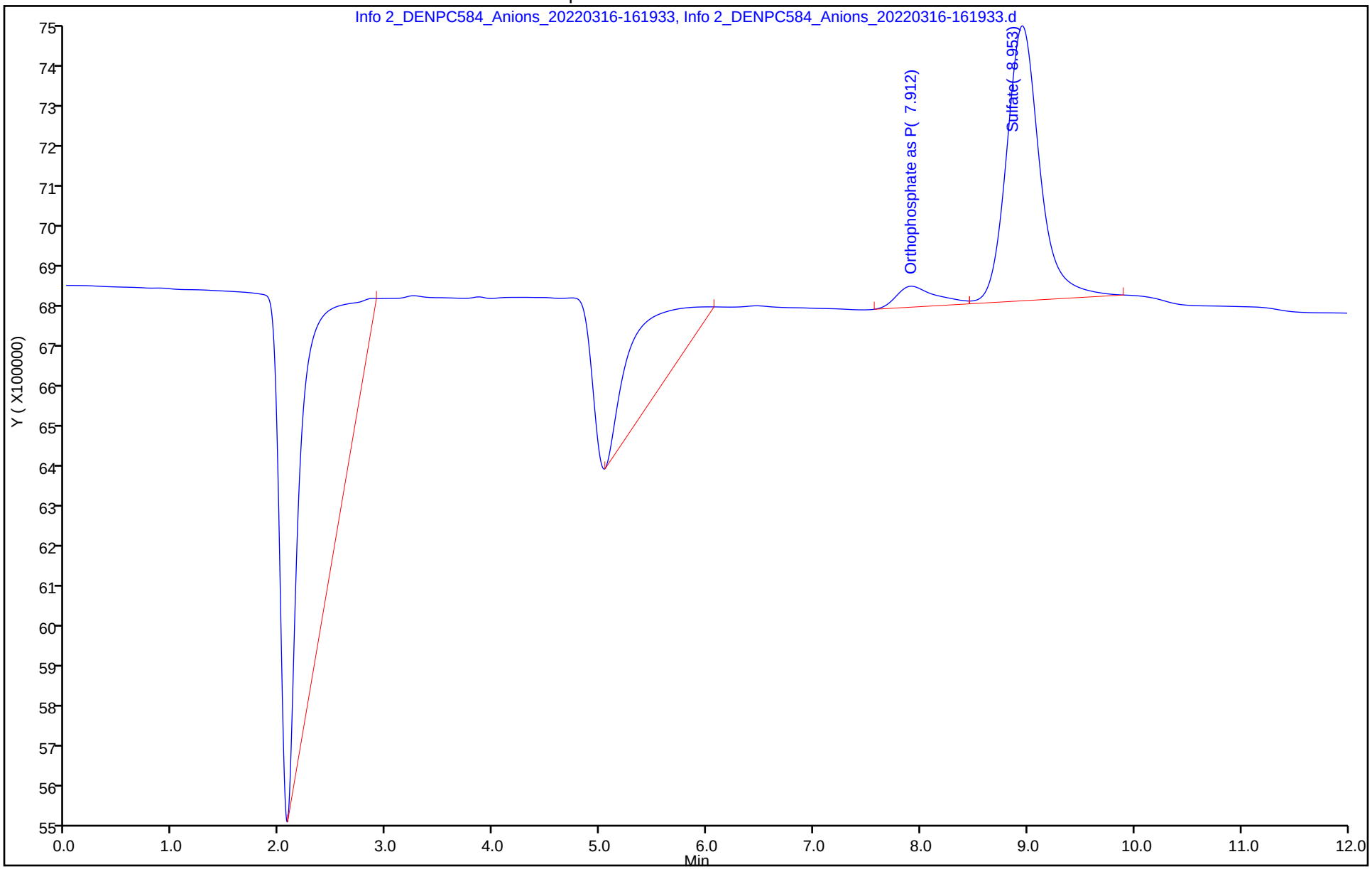
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 17-Mar-2022 13:14:04 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-161933.d | | | | |
| Injection Date: | 16-Mar-2022 16:04:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ICB | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-163
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 16-Mar-2022 16:19:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-010
Misc. Info.: 280-0109293-010
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:02:48

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.838 | 2.847 | -0.009 | 13044495 | 0.5000 | 0.5057 | M |
| 2 Chloride | 3.875 | 3.903 | -0.028 | 65974620 | 5.00 | 4.67 | |
| 3 Nitrite as N | 4.508 | 4.500 | 0.008 | 17113640 | NC | NC | M |
| 4 Bromide | 5.603 | 5.585 | 0.018 | 3346637 | 0.5000 | 0.5452 | M |
| 5 Nitrate as N | 6.328 | 6.270 | 0.058 | 17191174 | NC | NC | |
| 7 Orthophosphate as P | 7.853 | 7.853 | 0.000 | 8722804 | NC | NC | |
| 6 Sulfate | 8.892 | 8.857 | 0.035 | 62929797 | 5.00 | 4.85 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

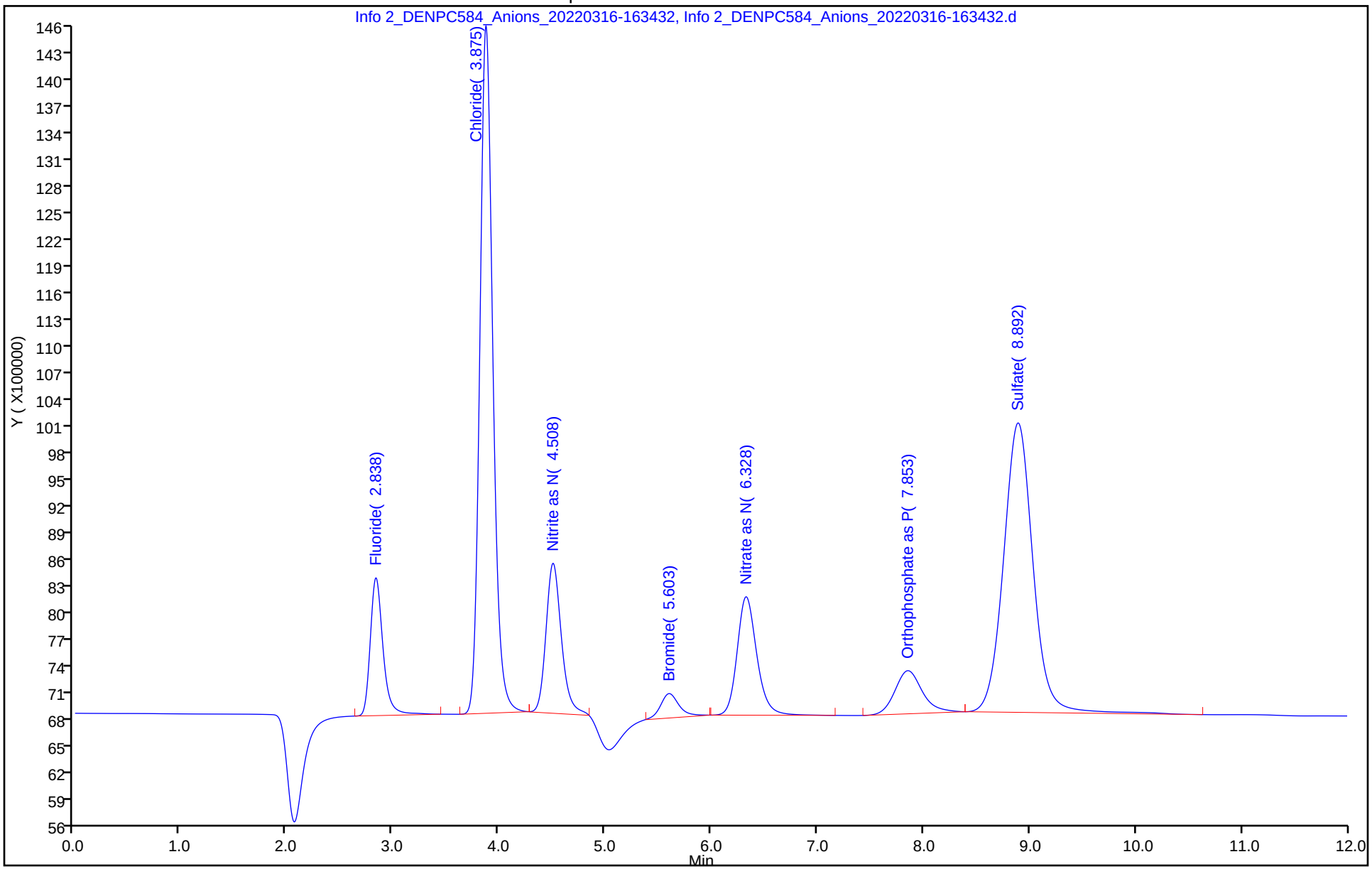
## Reagents:

IC CAL cl/so4_00411 Amount Added: 0.20 Units: mL
IC Cal low_00627 Amount Added: 0.10 Units: mL

Report Date: 17-Mar-2022 13:14:05 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-163432.d | | | | |
| Injection Date: | 16-Mar-2022 16:19:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | MRL | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-164
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-Mar-2022 16:34:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-011
Misc. Info.: 280-0109293-011
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 17:08:17

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.847 | 2.847 | 0.000 | 134217495 | 5.00 | 4.98 | M |
| 2 Chloride | 3.907 | 3.903 | 0.004 | 1421881538 | 100.0 | 100.5 | Ma |
| 3 Nitrite as N | 4.497 | 4.500 | -0.003 | 166463812 | NC | NC | M |
| 4 Bromide | 5.583 | 5.585 | -0.002 | 31372771 | 5.00 | 5.13 | M |
| 5 Nitrate as N | 6.263 | 6.270 | -0.007 | 175506684 | NC | NC | |
| 7 Orthophosphate as P | 7.852 | 7.853 | -0.001 | 94070084 | NC | NC | |
| 6 Sulfate | 8.862 | 8.857 | 0.005 | 1055273483 | 100.0 | 101.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

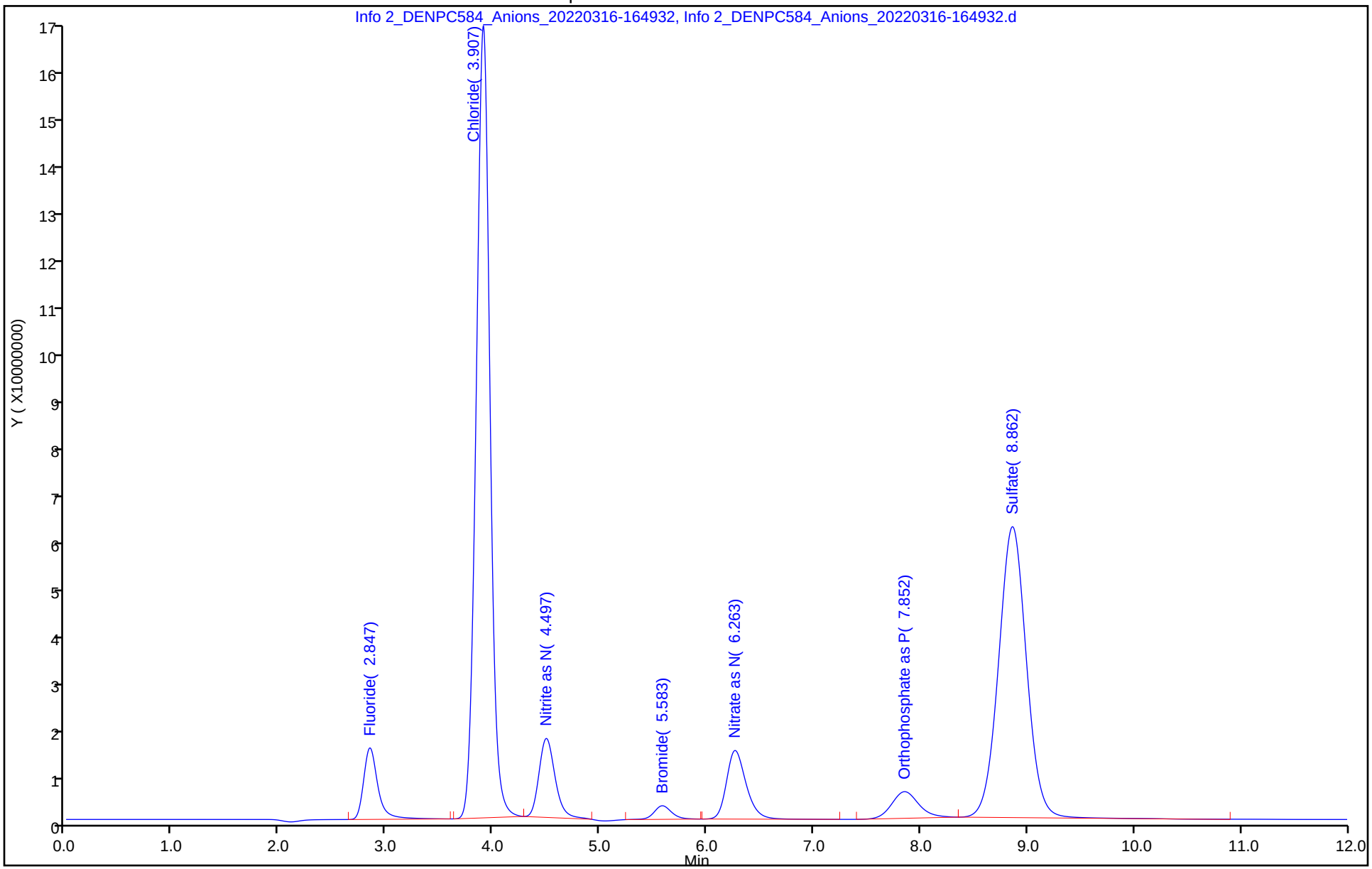
## Reagents:

IC LCS_01863 Amount Added: 5.00 Units: mL

Report Date: 17-Mar-2022 13:14:05 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-164932.d | | | | |
| Injection Date: | 16-Mar-2022 16:34:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | LCS | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-170
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 16-Mar-2022 16:49:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-012
Misc. Info.: 280-0109293-012
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 16-Mar-2022 17:08:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.845 | 2.847 | -0.002 | 128066025 | 5.00 | 4.76 | M |
| 2 Chloride | 3.905 | 3.903 | 0.002 | 1412512853 | 100.0 | 99.8 | |
| 3 Nitrite as N | 4.493 | 4.500 | -0.007 | 168552900 | NC | NC | |
| 4 Bromide | 5.572 | 5.585 | -0.013 | 30918177 | 5.00 | 5.05 | M |
| 5 Nitrate as N | 6.253 | 6.270 | -0.017 | 174310098 | NC | NC | |
| 7 Orthophosphate as P | 7.847 | 7.853 | -0.006 | 88833369 | NC | NC | |
| 6 Sulfate | 8.858 | 8.857 | 0.001 | 1046844399 | 100.0 | 100.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

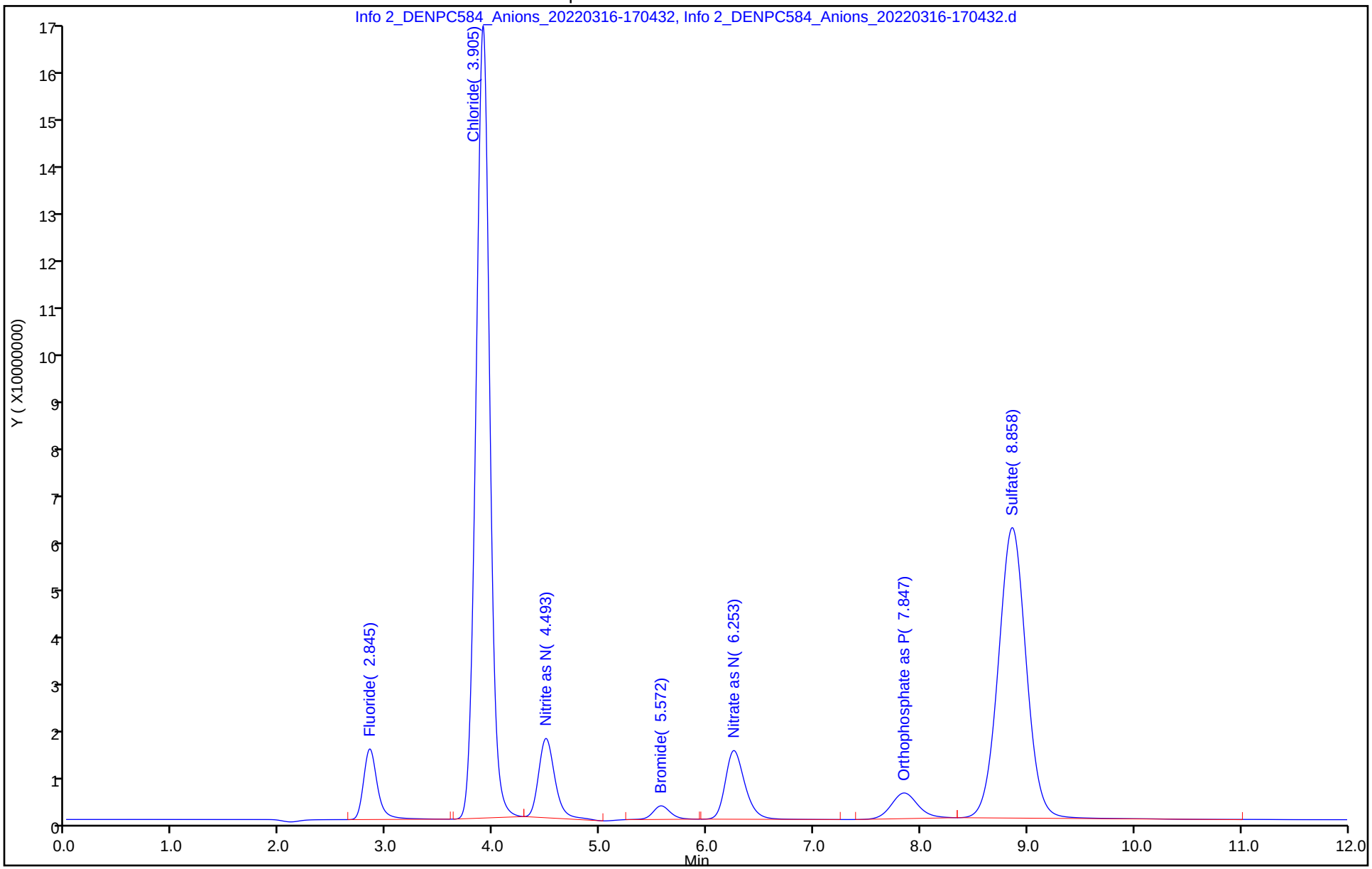
## Reagents:

IC LCS_01863 Amount Added: 5.00 Units: mL

Report Date: 17-Mar-2022 13:14:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-170432.d | | | | |
| Injection Date: | 16-Mar-2022 16:49:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | LCSD | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-171
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 16-Mar-2022 17:04:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-013
Misc. Info.: 280-0109293-013
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:03 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:03:05

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.847 | | | | ND | U |
| 2 Chloride | | 3.903 | | | | ND | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | | 5.585 | | | | ND | |
| 5 Nitrate as N | | 6.270 | | | | ND | U |
| 7 Orthophosphate as P | 7.922 | 7.853 | 0.069 | 1311086 | | NC | |
| 6 Sulfate | 8.962 | 8.857 | 0.105 | 15500981 | | 0.2524 | |

## QC Flag Legend

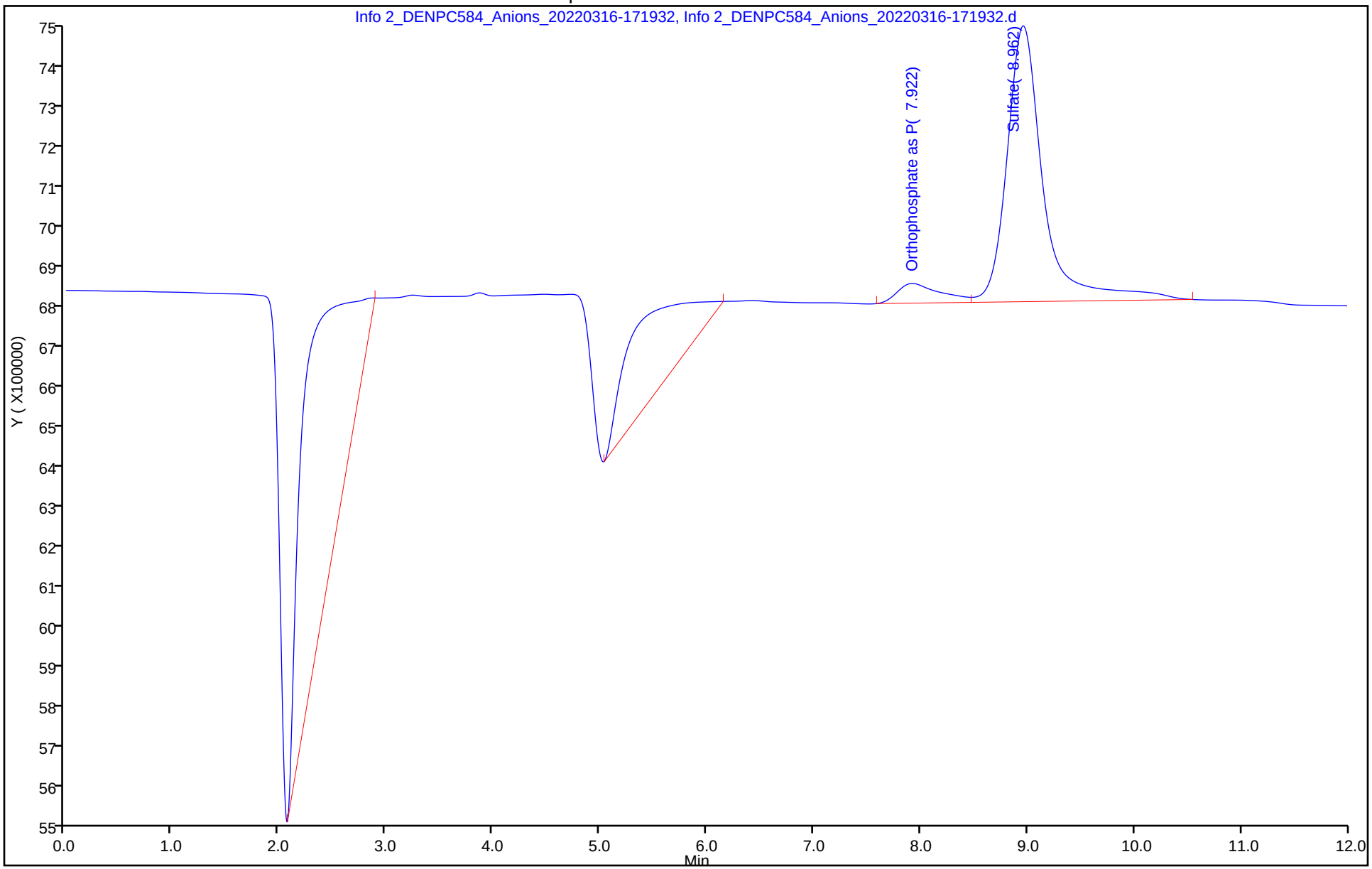
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 17-Mar-2022 13:14:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-171932.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 16-Mar-2022 17:04:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | MB | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-200
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Mar-2022 19:49:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-024
Misc. Info.: 280-0109293-024
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 12:51:18

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.793 | 2.847 | -0.054 | 123651898 | 5.00 | 4.59 | M |
| 2 Chloride | 3.795 | 3.903 | -0.108 | 1408421455 | 100.0 | 99.5 | |
| 3 Nitrite as N | 4.358 | 4.500 | -0.142 | 163121661 | NC | NC | |
| 4 Bromide | 5.363 | 5.585 | -0.222 | 29246986 | 5.00 | 4.78 | M |
| 5 Nitrate as N | 6.010 | 6.270 | -0.260 | 171762123 | NC | NC | |
| 7 Orthophosphate as P | 7.212 | 7.853 | -0.641 | 91611253 | NC | NC | a |
| 6 Sulfate | 8.128 | 8.857 | -0.729 | 1029638459 | 100.0 | 98.5 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

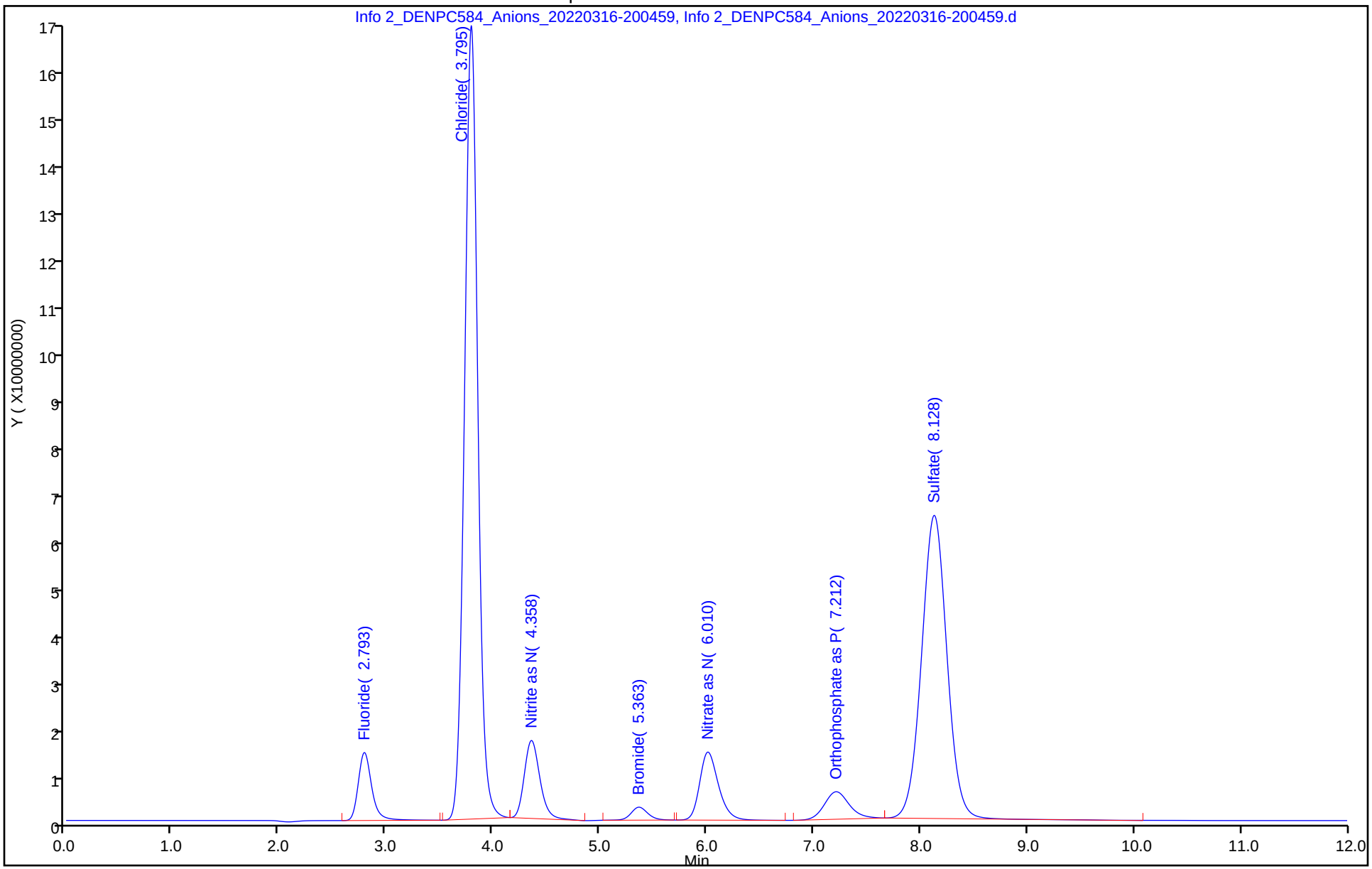
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 17-Mar-2022 13:14:13 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-200459.d | | | | |
| Injection Date: | 16-Mar-2022 19:49:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 24 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-200

Injection Date: 16-Mar-2022 19:49:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 24

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

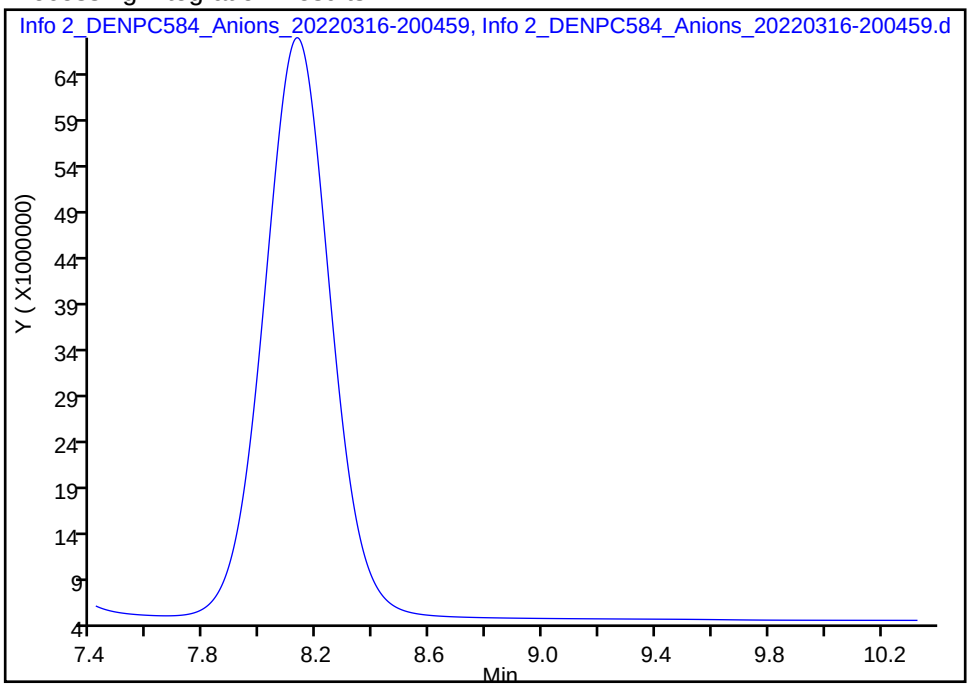
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



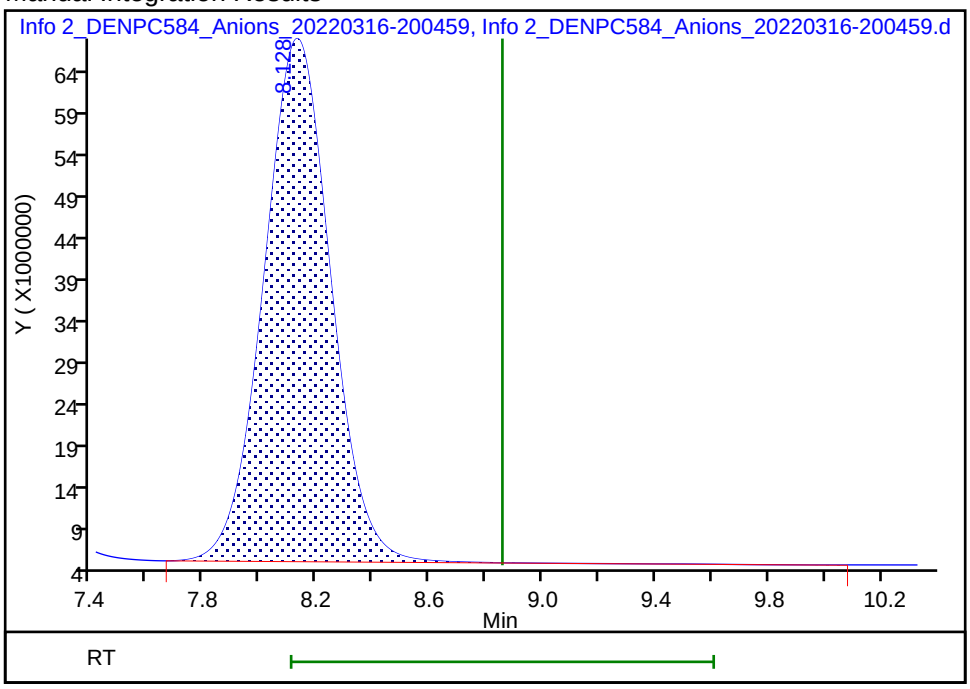

Manual Integration Results

RT: 8.13

Area: 1029638459

Amount: 98.523715

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 12:50:44

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-202
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 16-Mar-2022 20:05:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-025
Misc. Info.: 280-0109293-025
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:07:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.847 | | | | ND | U |
| 2 Chloride | | 3.903 | | | | ND | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | | 5.585 | | | | ND | |
| 5 Nitrate as N | | 6.270 | | | | ND | U |
| 7 Orthophosphate as P | | 7.853 | | | | ND | a |
| 6 Sulfate | 8.218 | 8.857 | -0.639 | 6913025 | | -0.5798 | a |

## QC Flag Legend

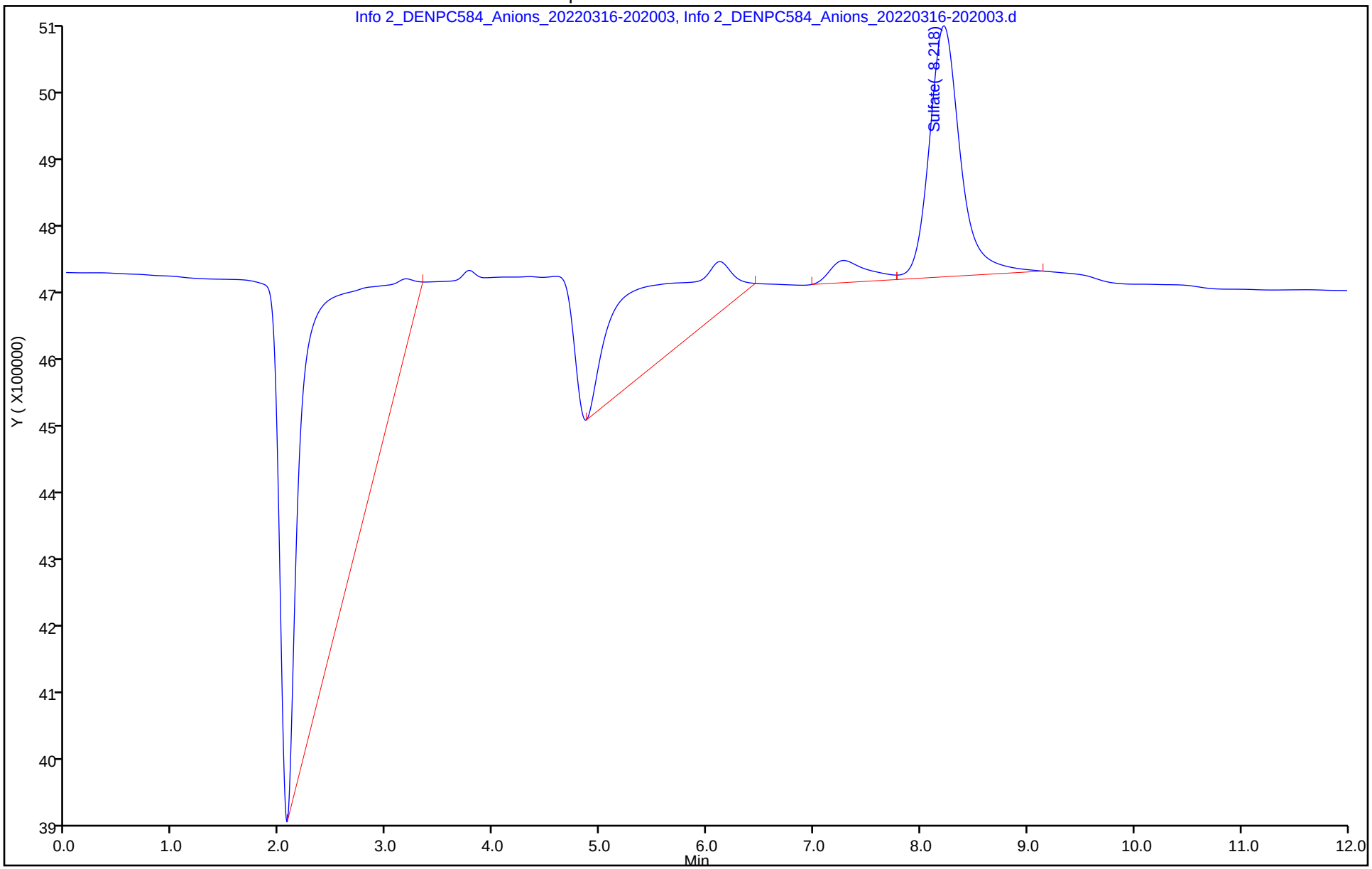
Processing Flags
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:13 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-202003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 16-Mar-2022 20:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-202

Injection Date: 16-Mar-2022 20:05:00 Instrument ID: WC_IonChrom13

Lims ID: ccb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 25

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

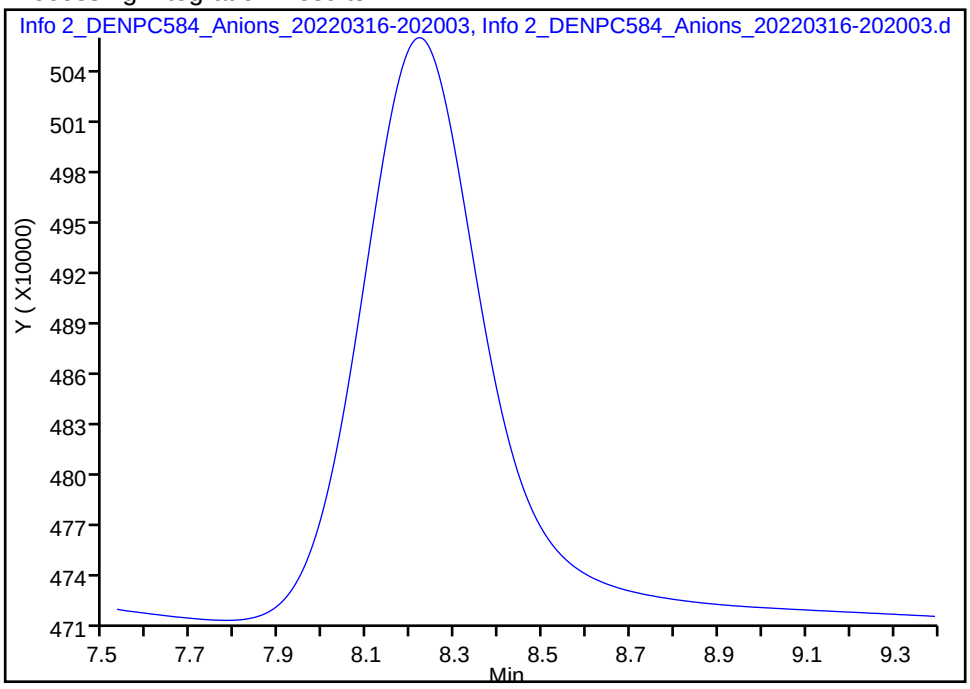
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



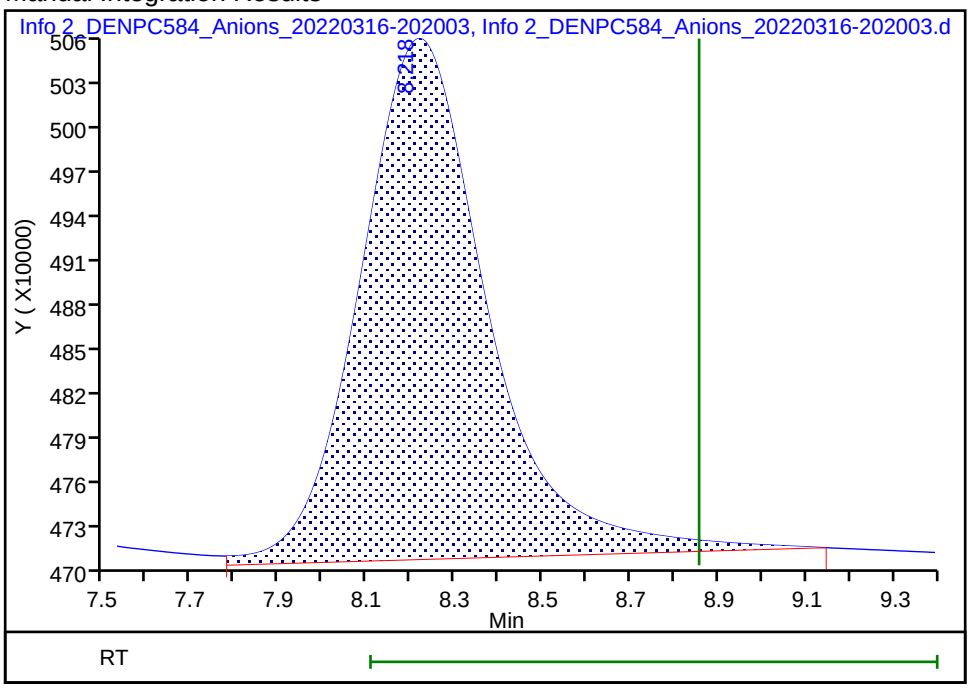

Manual Integration Results

RT: 8.22

Area: 6913025

Amount: -0.579825

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:07:39

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-215
Lims ID: 280-159234-O-2
Client ID: NW021-8
Sample Type: Client
Inject. Date: 16-Mar-2022 21:35:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-031
Misc. Info.: 280-0109293-031
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:08:41

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.783 | 2.847 | -0.064 | 6437452 | 0.2616 | |
| 2 Chloride | 3.778 | 3.903 | -0.125 | 509132487 | 36.0 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.458 | 5.585 | -0.127 | 22856578 | 3.74 | |
| 5 Nitrate as N | 6.125 | 6.270 | -0.145 | 31616019 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.152 | 8.857 | -0.705 | 1914613798 | 184.3 | a |

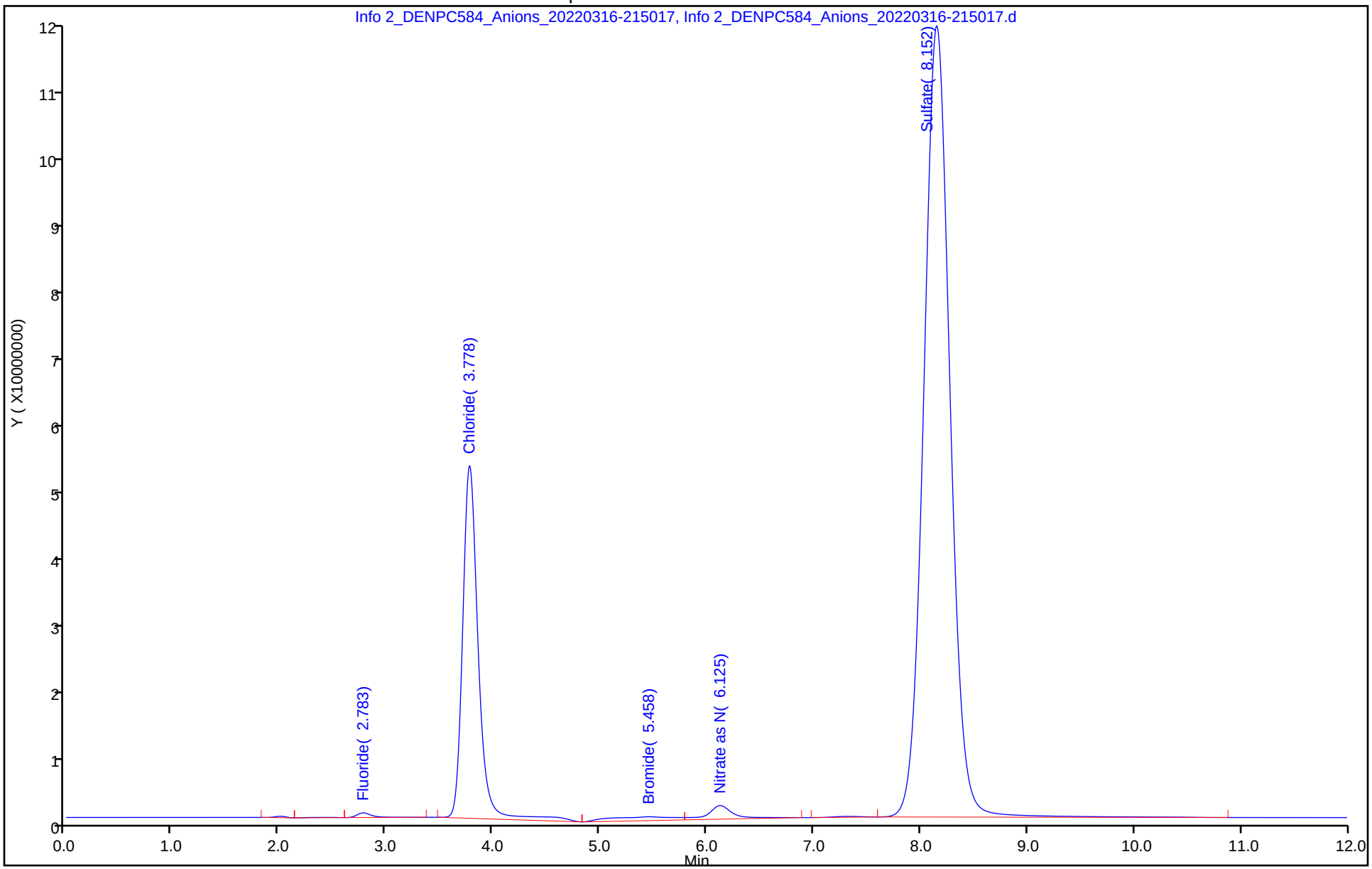
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:16 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-215017.d | | | | |
| Injection Date: | 16-Mar-2022 21:35:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-2 | Lab Sample ID: | 280-159234-2 | Worklist Smp#: | 31 |
| Client ID: | NW021-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

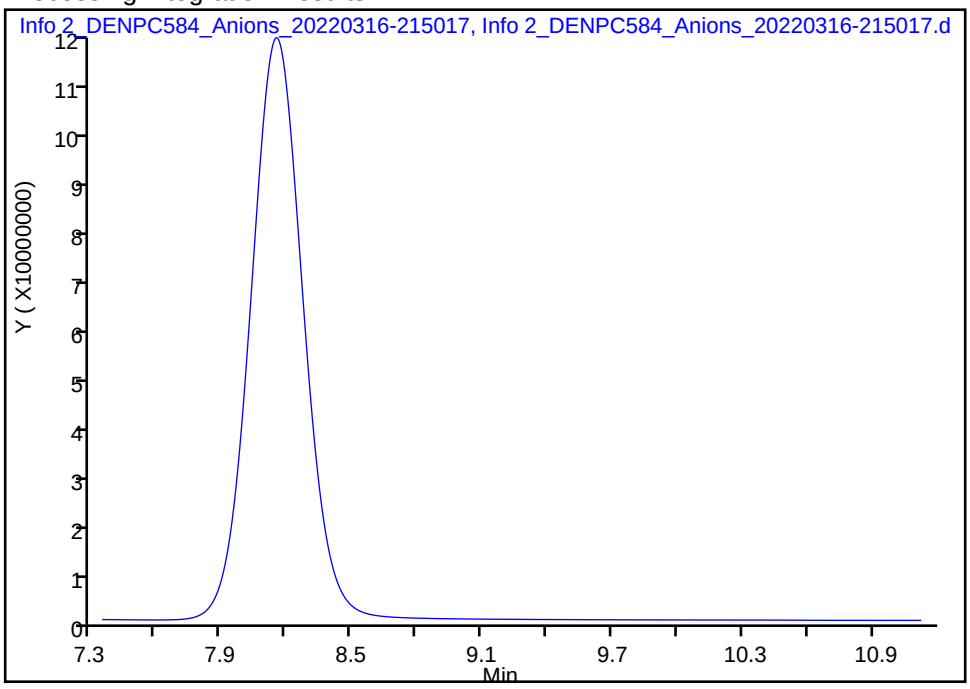
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-215 | | | | |
| Injection Date: | 16-Mar-2022 21:35:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-2 | Lab Sample ID: | 280-159234-2 | | |
| Client ID: | NW021-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 31 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

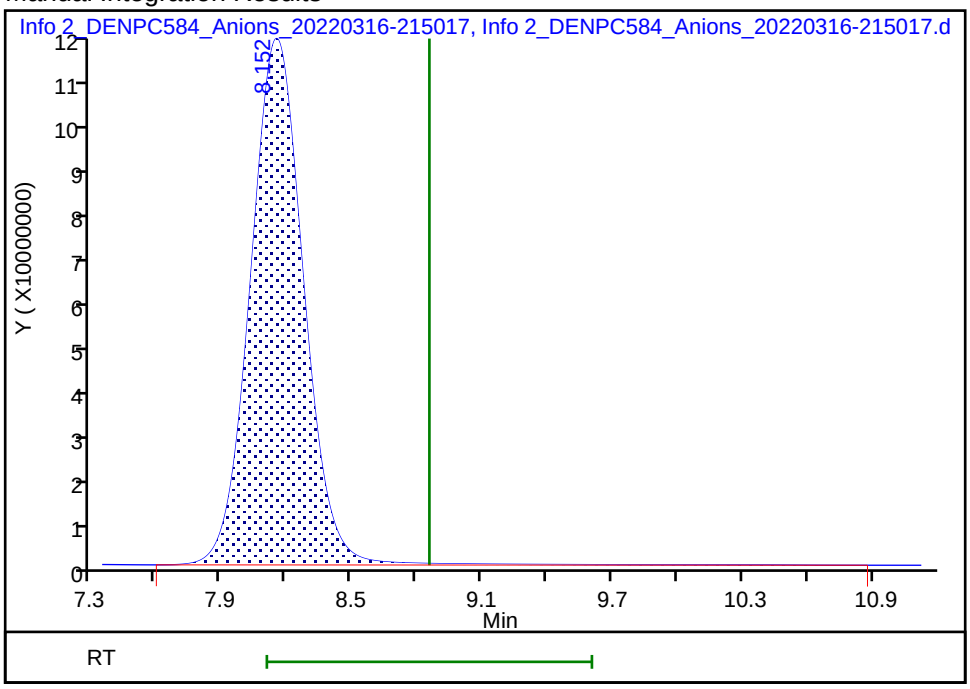
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.15
Area: 1914613798
Amount: 184.2791
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:08:38
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-220
Lims ID: 280-159234-O-7
Client ID: G0070-8
Sample Type: Client
Inject. Date: 16-Mar-2022 21:50:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-032
Misc. Info.: 280-0109293-032
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:08:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.792 | 2.847 | -0.055 | 6941282 | 0.2802 | |
| 2 Chloride | 3.778 | 3.903 | -0.125 | 183957003 | 13.0 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.445 | 5.585 | -0.140 | 9423905 | 1.54 | |
| 5 Nitrate as N | 6.162 | 6.270 | -0.108 | 321266 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.172 | 8.857 | -0.685 | 507692455 | 47.9 | a |

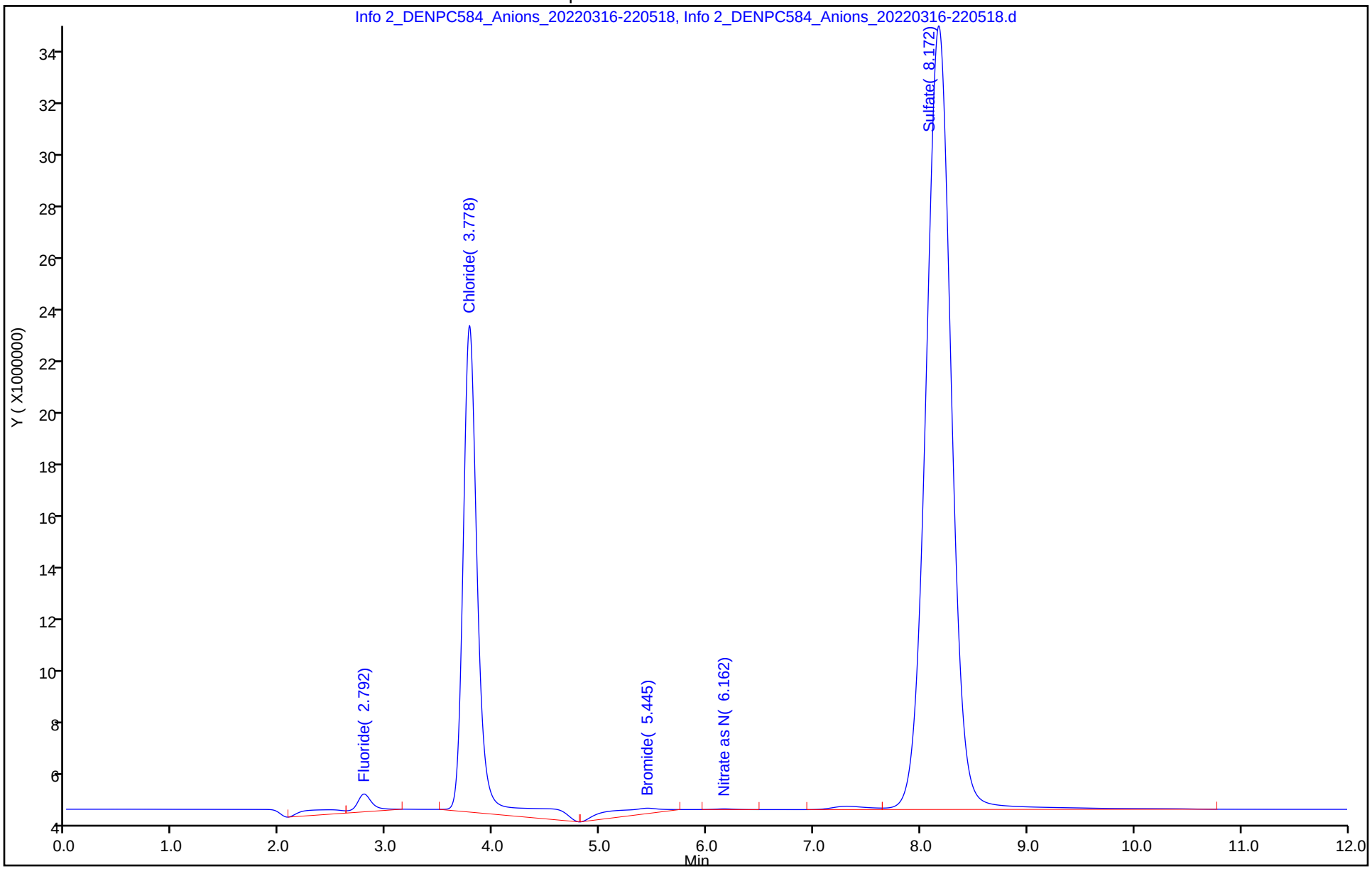
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:16 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-220518.d | | | | |
| Injection Date: | 16-Mar-2022 21:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-7 | Lab Sample ID: | 280-159234-7 | Worklist Smp#: | 32 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

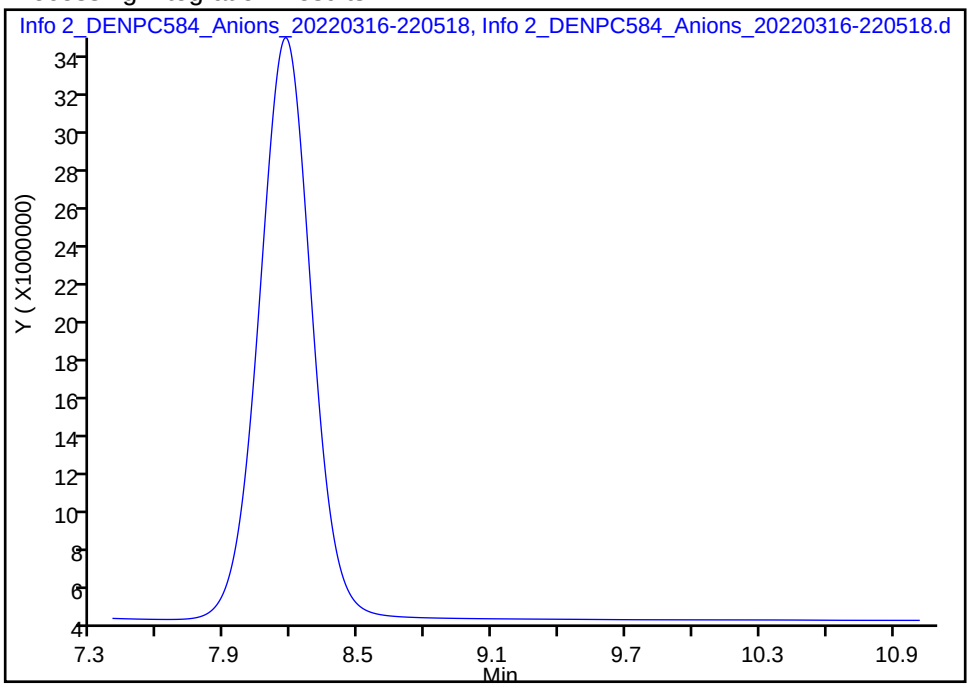
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-220 | | | | |
| Injection Date: | 16-Mar-2022 21:50:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-7 | Lab Sample ID: | 280-159234-7 | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 32 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

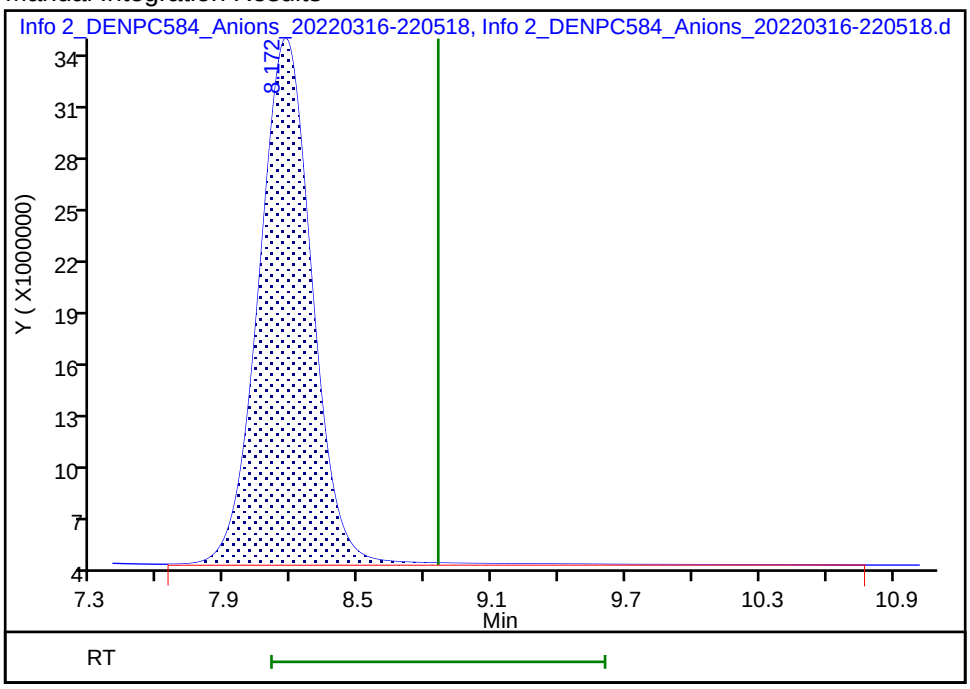
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.17
Area: 507692455
Amount: 47.946410
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:08:44
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-222
Lims ID: 280-159234-O-7 DU
Client ID:
Sample Type: DU
Inject. Date: 16-Mar-2022 22:05:00 ALS Bottle#: 0 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-033
Misc. Info.: 280-0109293-033
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:09:04

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.790 | 2.847 | -0.057 | 8932311 | | 0.3538 | |
| 2 Chloride | 3.777 | 3.903 | -0.126 | 184084536 | | 13.0 | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | 5.443 | 5.585 | -0.142 | 17269325 | | 2.82 | |
| 5 Nitrate as N | 6.158 | 6.270 | -0.112 | 3066033 | | NC | |
| 7 Orthophosphate as P | | 7.853 | | | | ND | a |
| 6 Sulfate | 8.172 | 8.857 | -0.685 | 507325236 | | 47.9 | a |

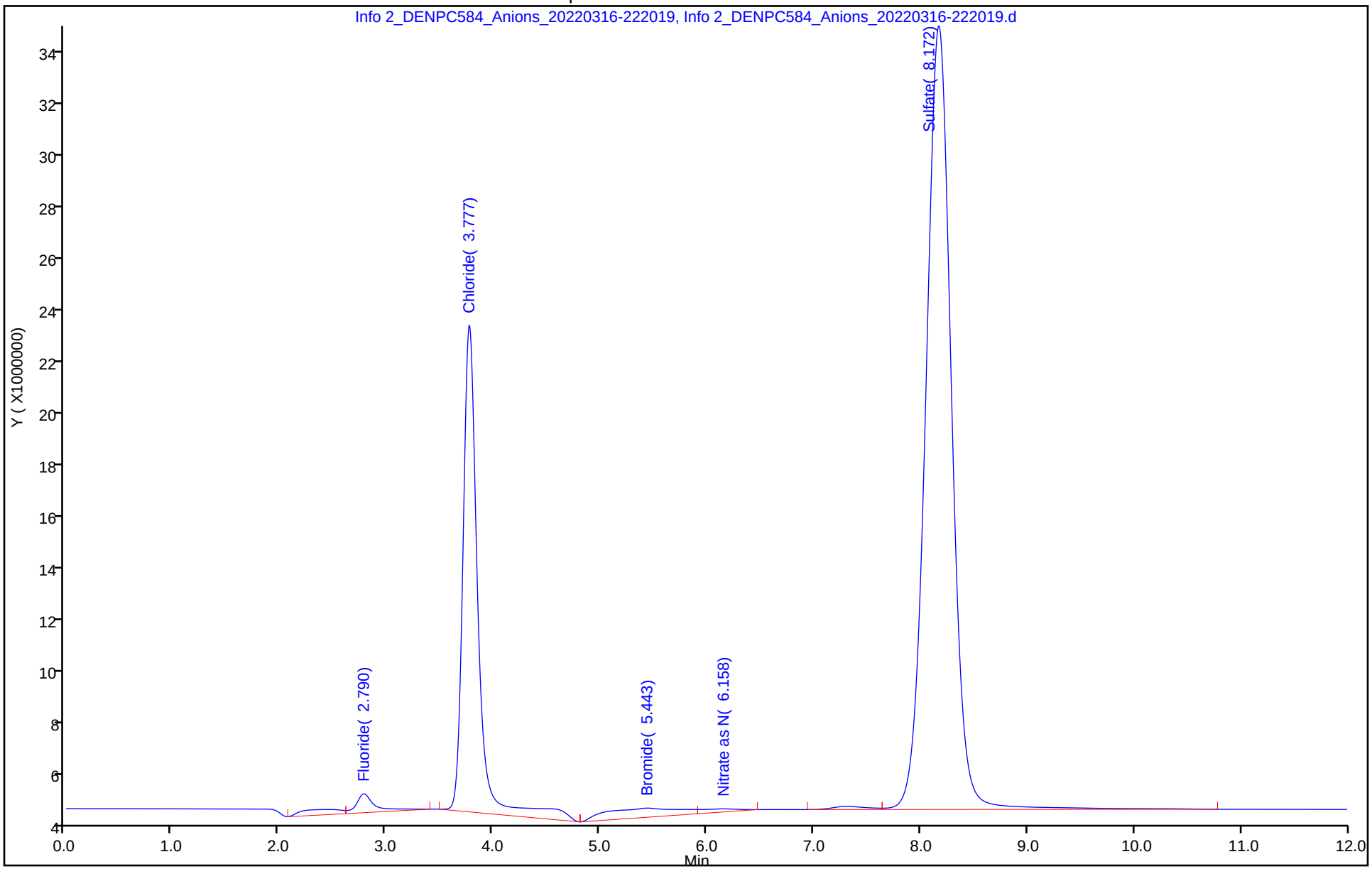
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:17 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-222019.d | | | | |
| Injection Date: | 16-Mar-2022 22:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-7 DU | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-222

Injection Date: 16-Mar-2022 22:05:00 Instrument ID: WC_IonChrom13

Lims ID: 280-159234-O-7 DU

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 33

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

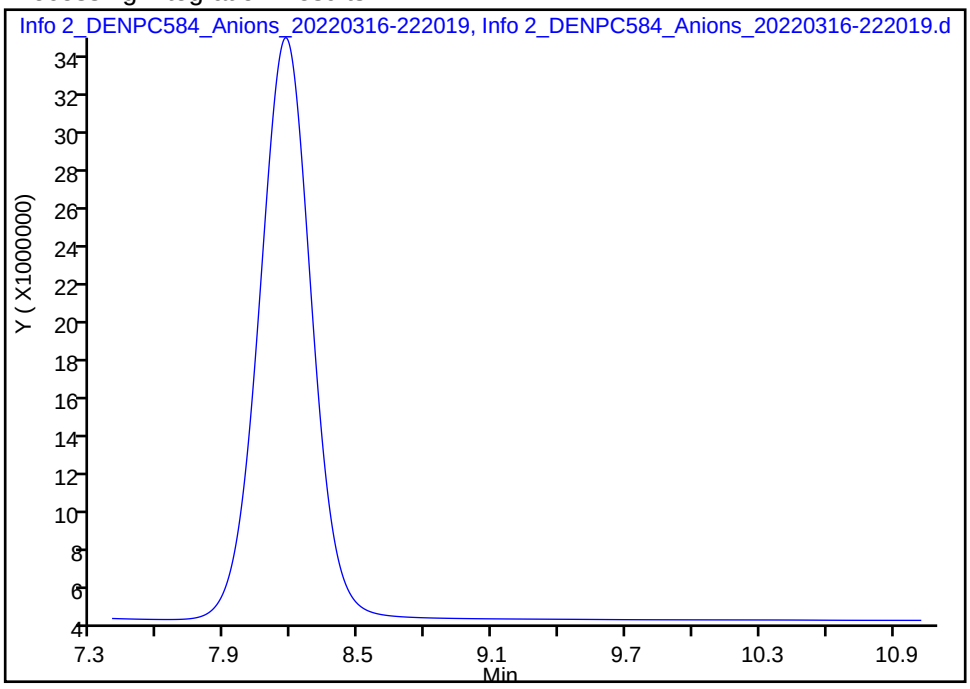
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



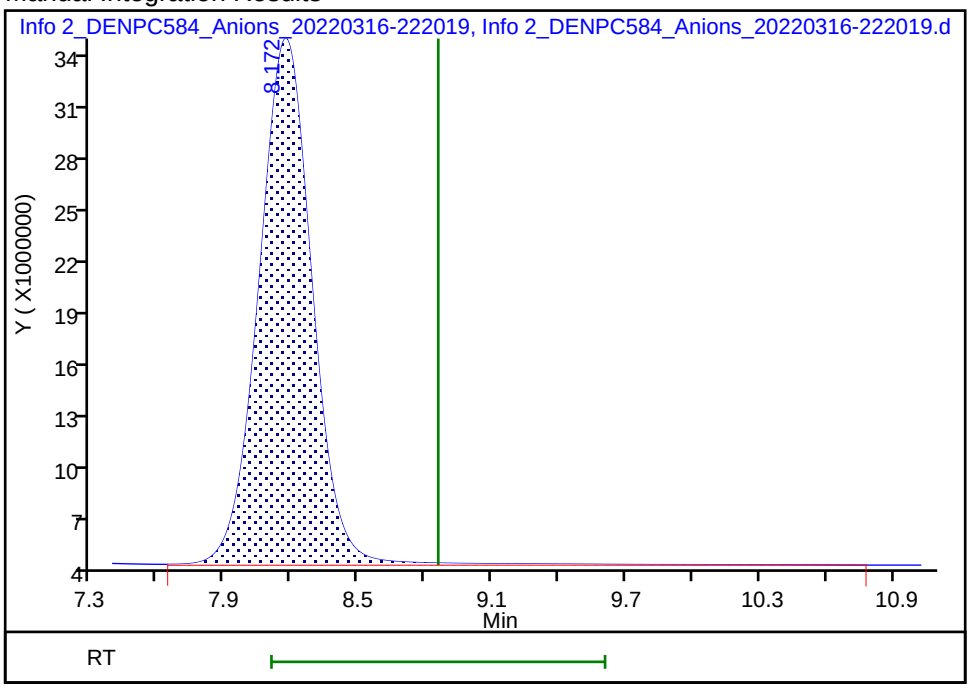

Manual Integration Results

RT: 8.17

Area: 507325236

Amount: 47.910826

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:09:01

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-223
Lims ID: 280-159234-O-7 MS
Client ID: G0070-8
Sample Type: MS
Inject. Date: 16-Mar-2022 22:20:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-034
Misc. Info.: 280-0109293-034
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:11:32

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.795 | 2.847 | -0.052 | 138289553 | 5.00 | 5.13 | |
| 2 Chloride | 3.783 | 3.903 | -0.120 | 938777525 | 50.0 | 66.4 | |
| 3 Nitrite as N | 4.368 | 4.500 | -0.132 | 165250635 | NC | NC | |
| 4 Bromide | 5.407 | 5.585 | -0.178 | 33731068 | 5.00 | 5.51 | |
| 5 Nitrate as N | 6.043 | 6.270 | -0.227 | 188694592 | NC | NC | |
| 7 Orthophosphate as P | 7.248 | 7.853 | -0.605 | 101537040 | NC | NC | a |
| 6 Sulfate | 8.157 | 8.857 | -0.700 | 1050286050 | 50.0 | 100.5 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

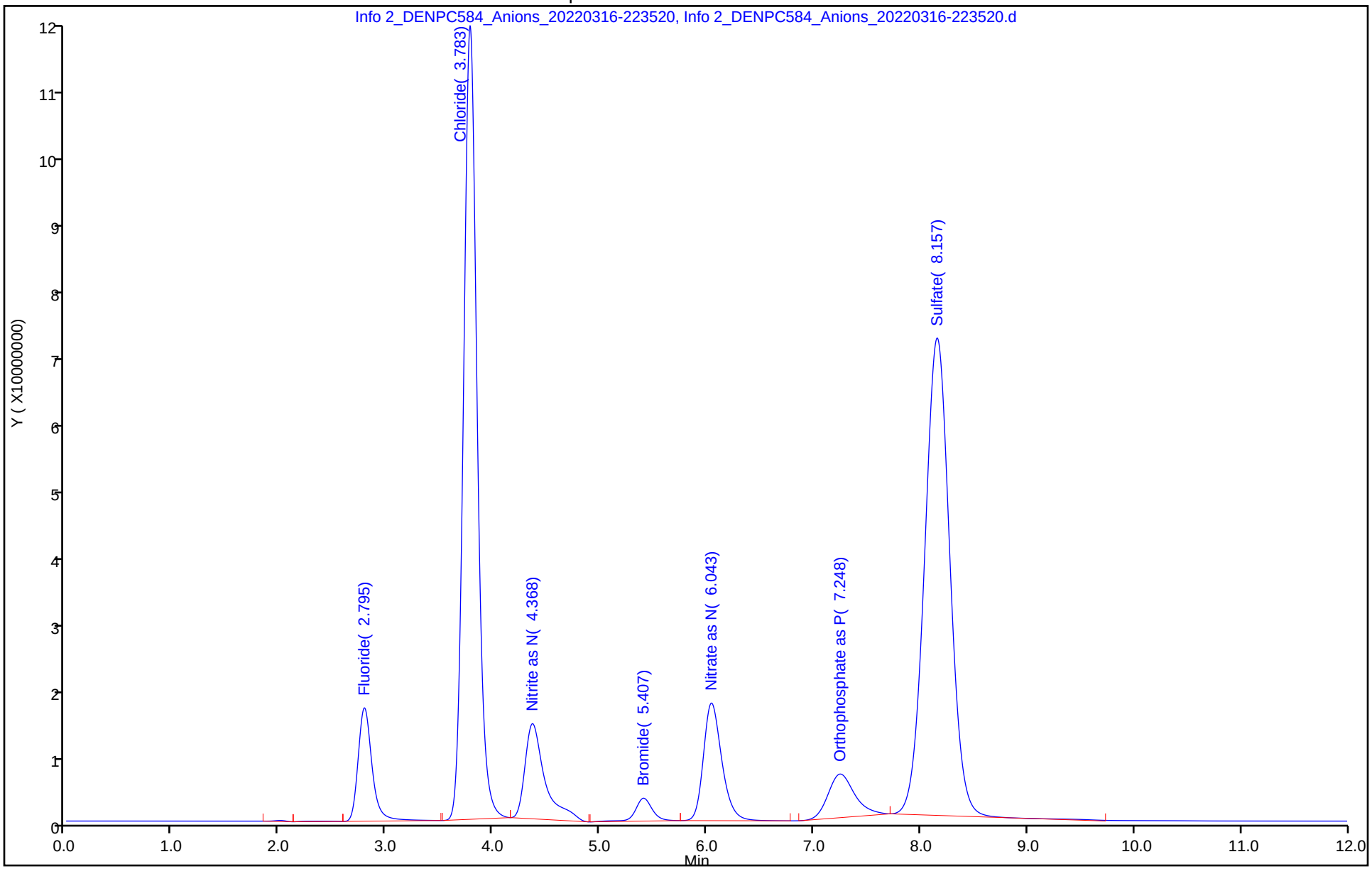
## Reagents:

ICMS/MSD WEEK_00748 Amount Added: 0.10 Units: mL

Report Date: 17-Mar-2022 13:14:17 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-223520.d | | | | |
| Injection Date: | 16-Mar-2022 22:20:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-7 MS | | | Worklist Smp#: | 34 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

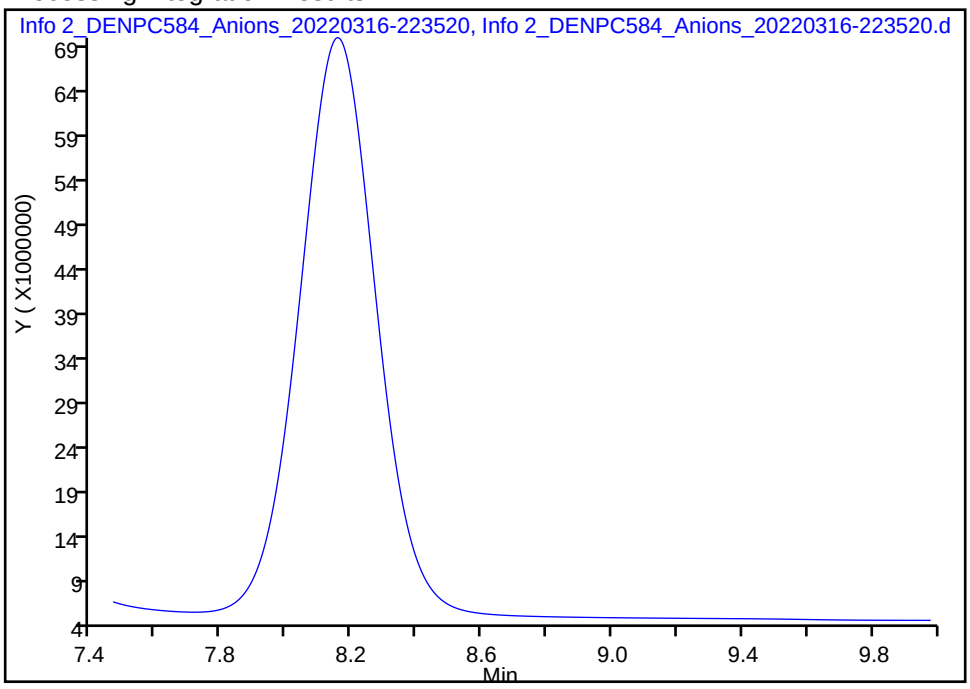
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-223 | | | | |
| Injection Date: | 16-Mar-2022 22:20:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-7 MS | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 34 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

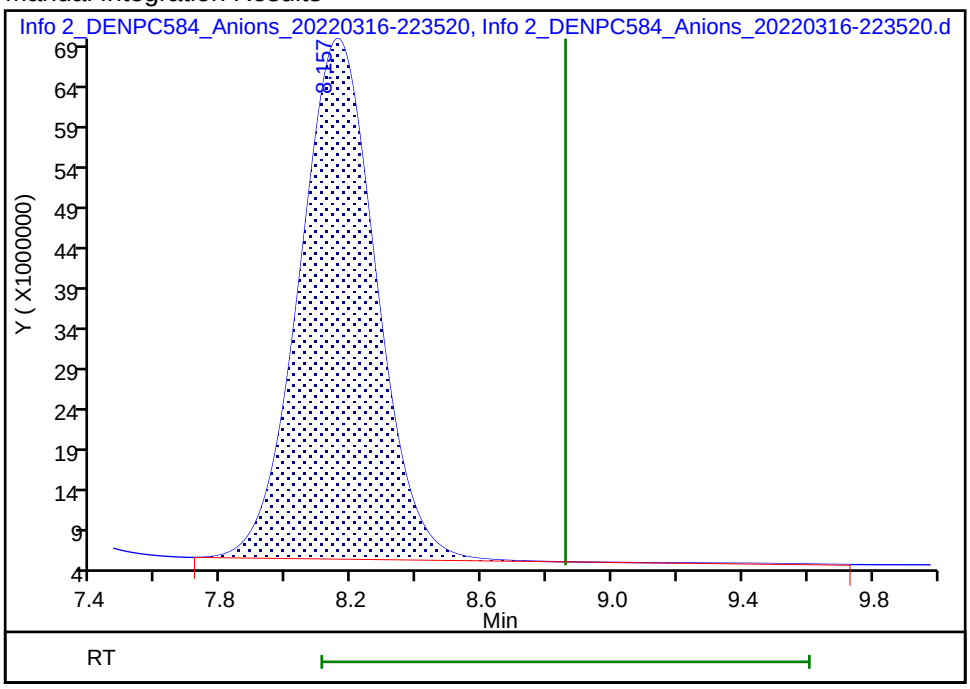
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.16
Area: 1050286050
Amount: 100.5245
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:09:07
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-225
Lims ID: 280-159234-O-7 MSD
Client ID: G0070-8
Sample Type: MSD
Inject. Date: 16-Mar-2022 22:35:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-035
Misc. Info.: 280-0109293-035
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:13 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:00

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.793 | 2.847 | -0.054 | 132203612 | 5.00 | 4.91 | |
| 2 Chloride | 3.783 | 3.903 | -0.120 | 902305656 | 50.0 | 63.8 | |
| 3 Nitrite as N | 4.368 | 4.500 | -0.132 | 157675001 | NC | NC | |
| 4 Bromide | 5.407 | 5.585 | -0.178 | 32444926 | 5.00 | 5.30 | |
| 5 Nitrate as N | 6.043 | 6.270 | -0.227 | 179508076 | NC | NC | |
| 7 Orthophosphate as P | 7.248 | 7.853 | -0.605 | 98612831 | NC | NC | a |
| 6 Sulfate | 8.157 | 8.857 | -0.700 | 1021901136 | 50.0 | 97.8 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

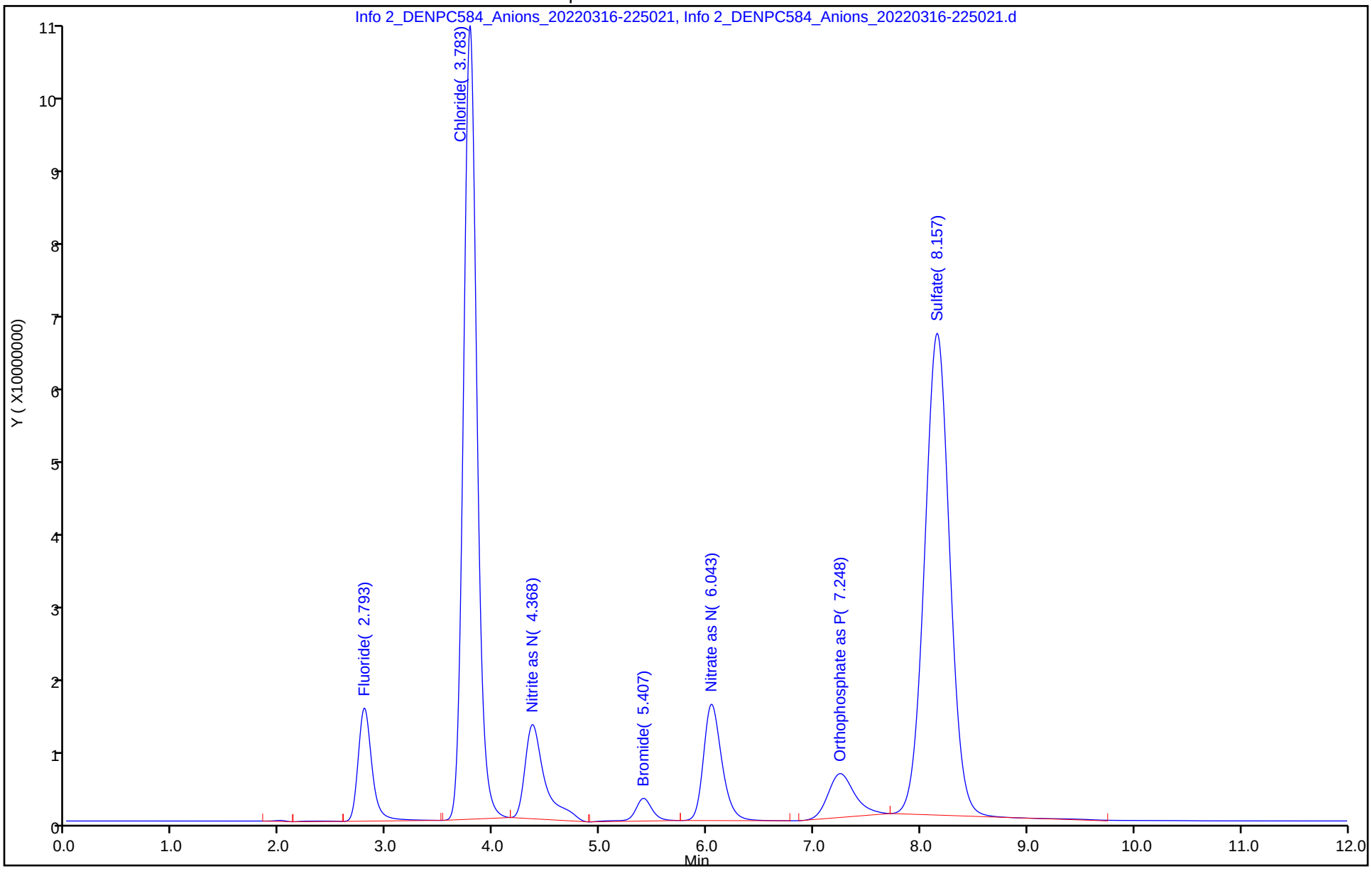
## Reagents:

ICMS/MSD WEEK_00748 Amount Added: 0.10 Units: mL

Report Date: 17-Mar-2022 13:14:17 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-225021.d | | | | |
| Injection Date: | 16-Mar-2022 22:35:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-7 MSD | | | Worklist Smp#: | 35 |
| Client ID: | G0070-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

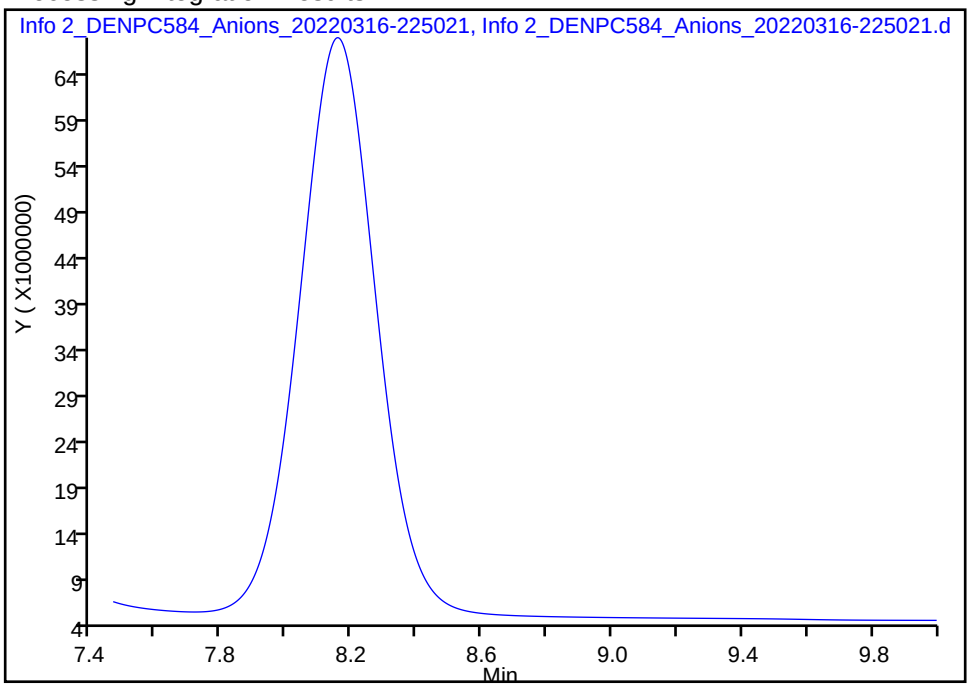
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-225 | | | | |
| Injection Date: | 16-Mar-2022 22:35:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-7 MSD | | | | |
| Client ID: | G0070-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

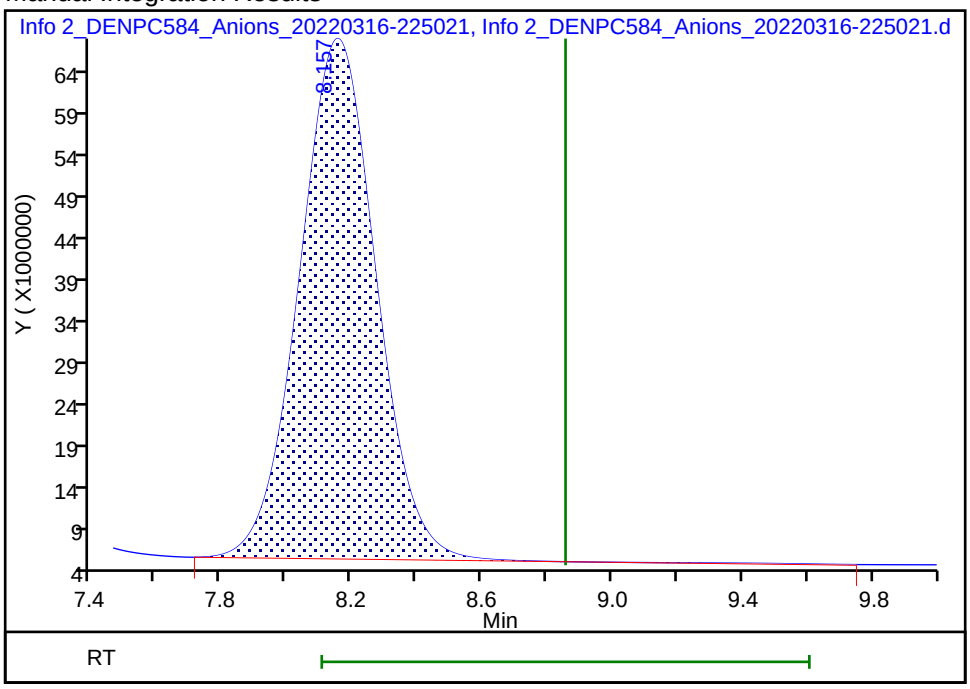
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.16
Area: 1021901136
Amount: 97.773958
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:11:54
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-230
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Mar-2022 22:50:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-036
Misc. Info.: 280-0109293-036
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 12:51:54

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.793 | 2.847 | -0.054 | 122104880 | 5.00 | 4.53 | M |
| 2 Chloride | 3.797 | 3.903 | -0.106 | 1411013799 | 100.0 | 99.7 | |
| 3 Nitrite as N | 4.362 | 4.500 | -0.138 | 162743380 | NC | NC | |
| 4 Bromide | 5.362 | 5.585 | -0.223 | 29039152 | 5.00 | 4.75 | M |
| 5 Nitrate as N | 6.013 | 6.270 | -0.257 | 171892834 | NC | NC | |
| 7 Orthophosphate as P | 7.207 | 7.853 | -0.646 | 91987464 | NC | NC | a |
| 6 Sulfate | 8.128 | 8.857 | -0.729 | 1030187483 | 100.0 | 98.6 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

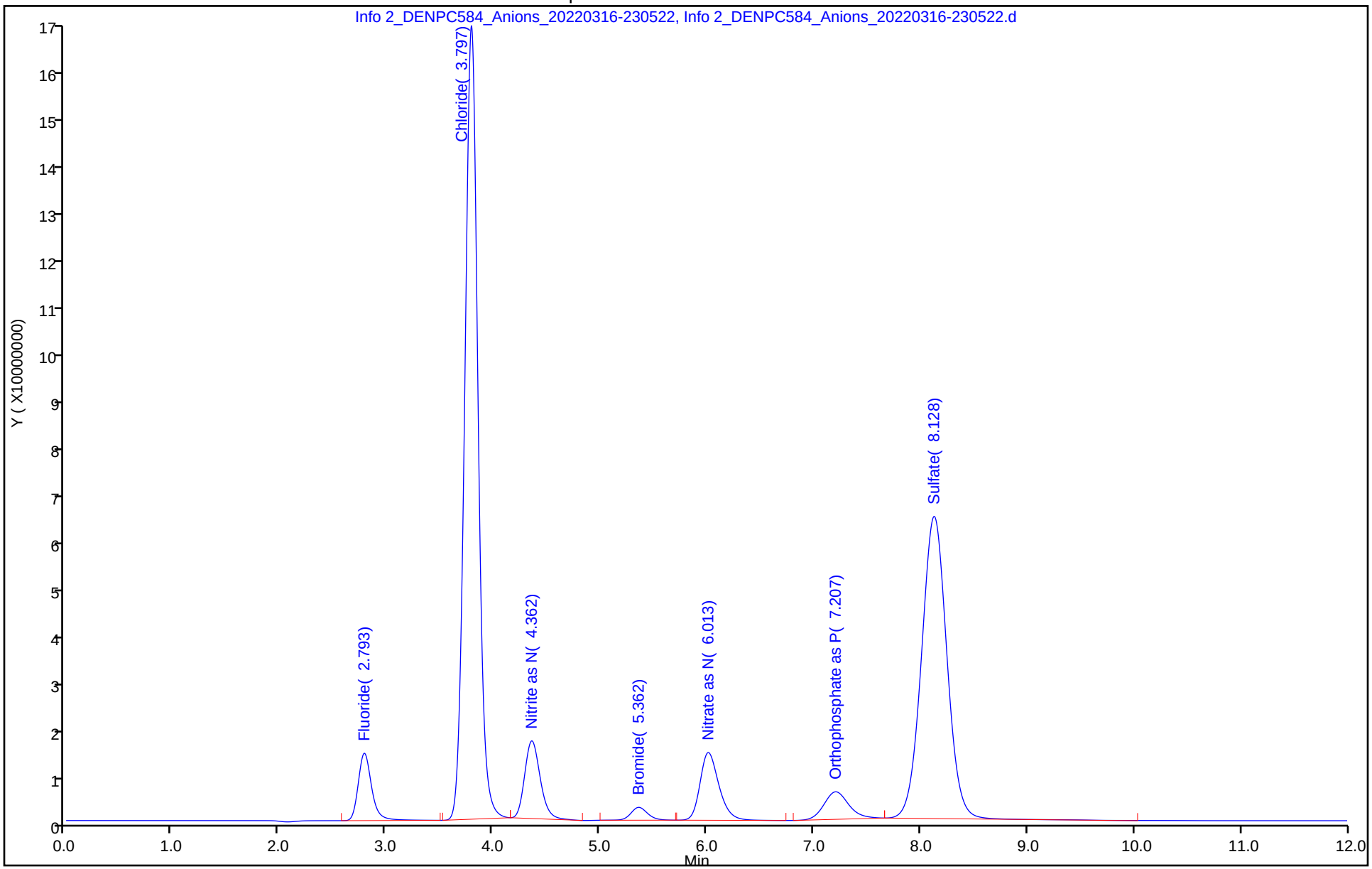
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 17-Mar-2022 13:14:18 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-230522.d | | | | |
| Injection Date: | 16-Mar-2022 22:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-230

Injection Date: 16-Mar-2022 22:50:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 36

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

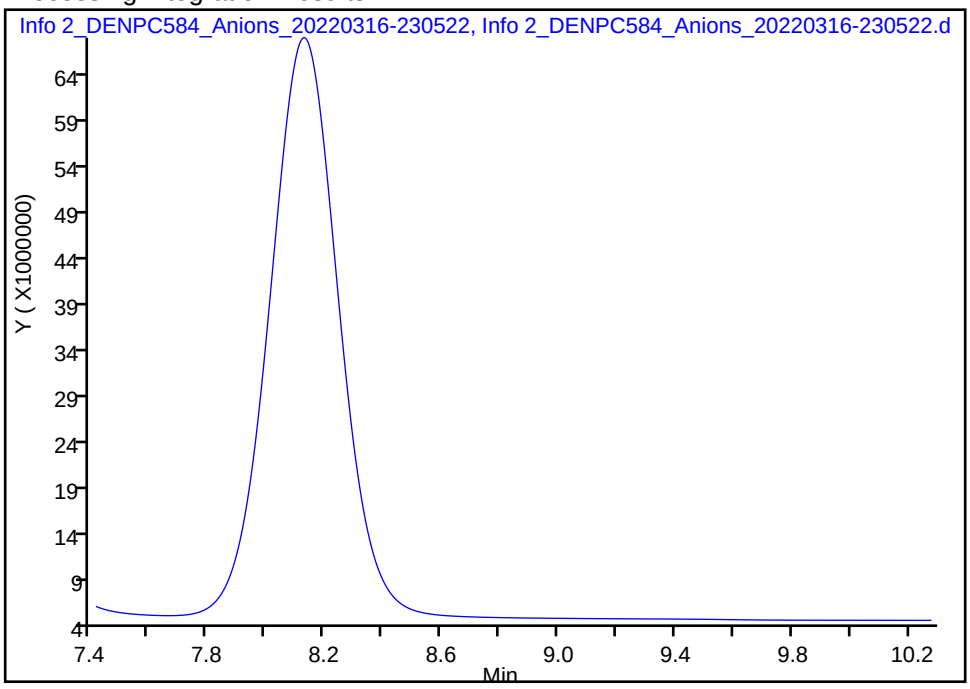
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



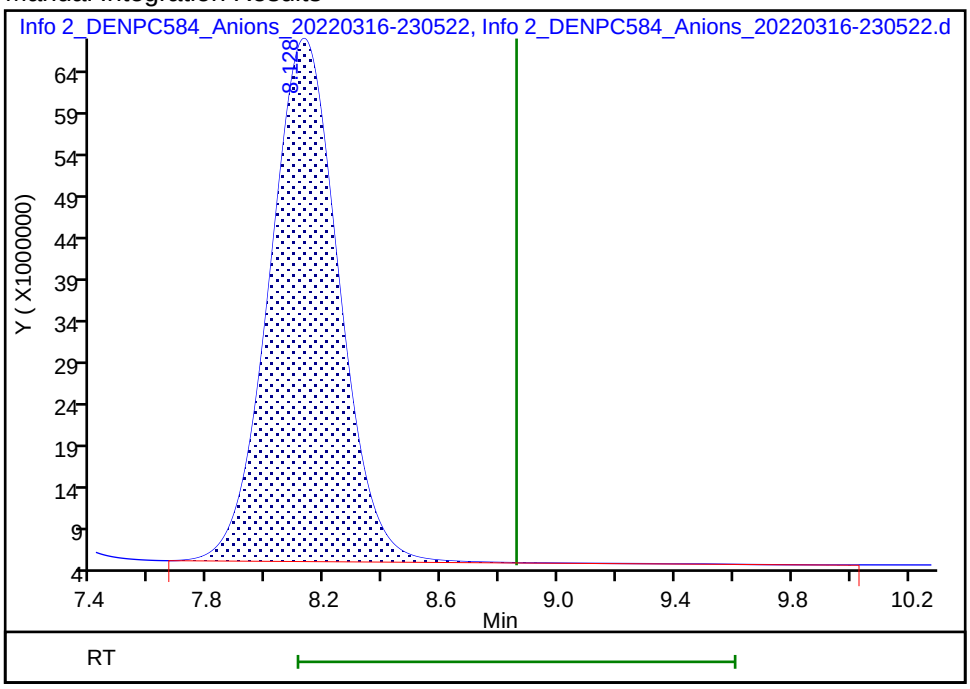

Manual Integration Results

RT: 8.13

Area: 1030187483

Amount: 98.576917

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 12:51:47

Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-232 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 16-Mar-2022 23:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 37 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0109293-037 | | | | |
| Misc. Info.: | 280-0109293-037 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 17-Mar-2022 13:14:18 | Calib Date: | 16-Mar-2022 15:34:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1616 | | | | |
| First Level Reviewer: jindaratc | | Date: | 17-Mar-2022 13:12:14 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.847 | | | | ND | U |
| 2 Chloride | | 3.903 | | | | ND | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | | 5.585 | | | | ND | U |
| 5 Nitrate as N | | 6.270 | | | | ND | |
| 7 Orthophosphate as P | | 7.853 | | | | ND | a |
| 6 Sulfate | 8.223 | 8.857 | -0.634 | 5657785 | | -0.7015 | a |

## QC Flag Legend

Processing Flags

Review Flags

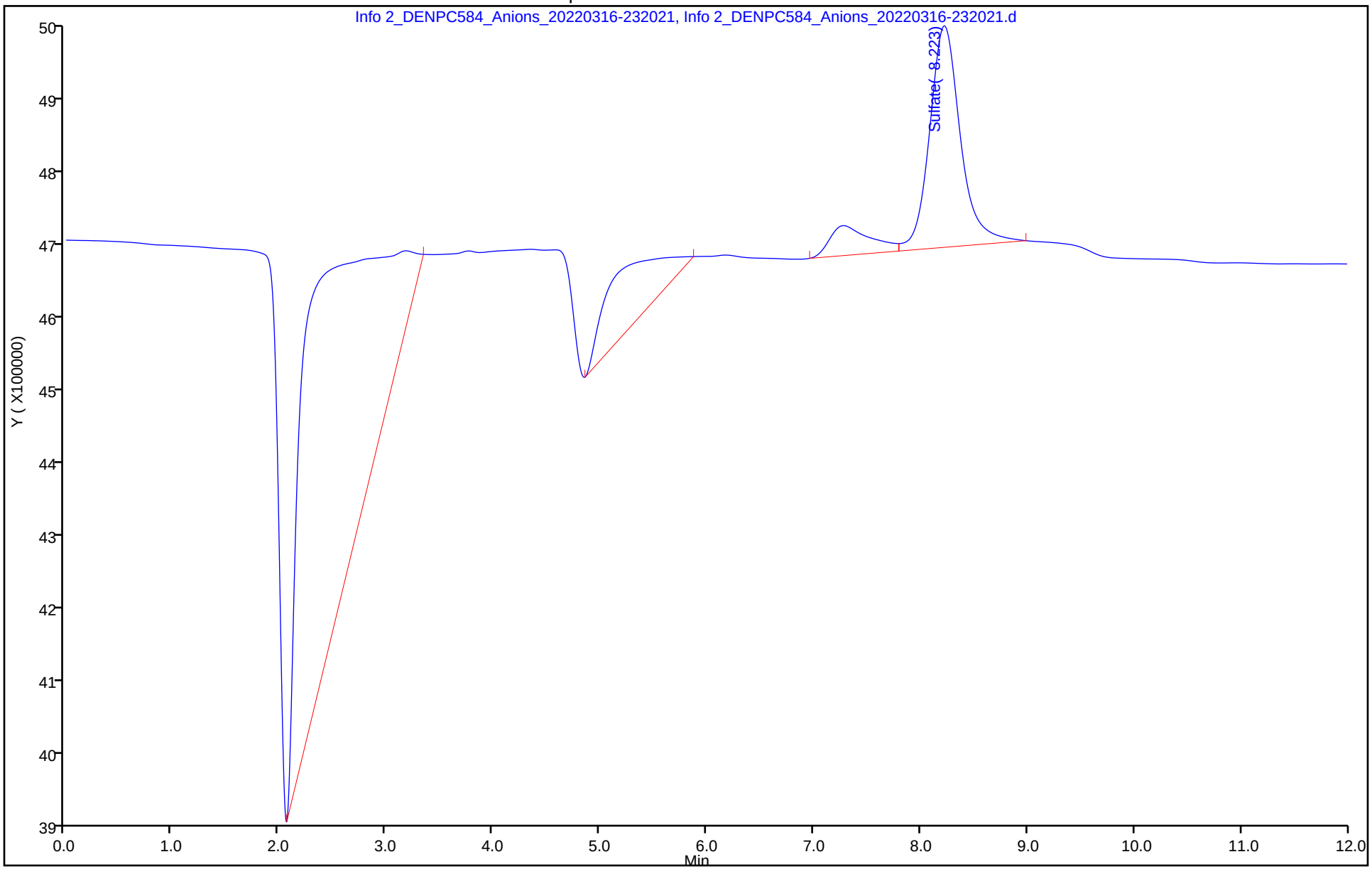
U - Marked Undetected

a - User Assigned ID

Report Date: 17-Mar-2022 13:14:19 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-232021.d | | | | |
| Injection Date: | 16-Mar-2022 23:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 37 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-232

Injection Date: 16-Mar-2022 23:05:00 Instrument ID: WC_IonChrom13

Lims ID: ccb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 37

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

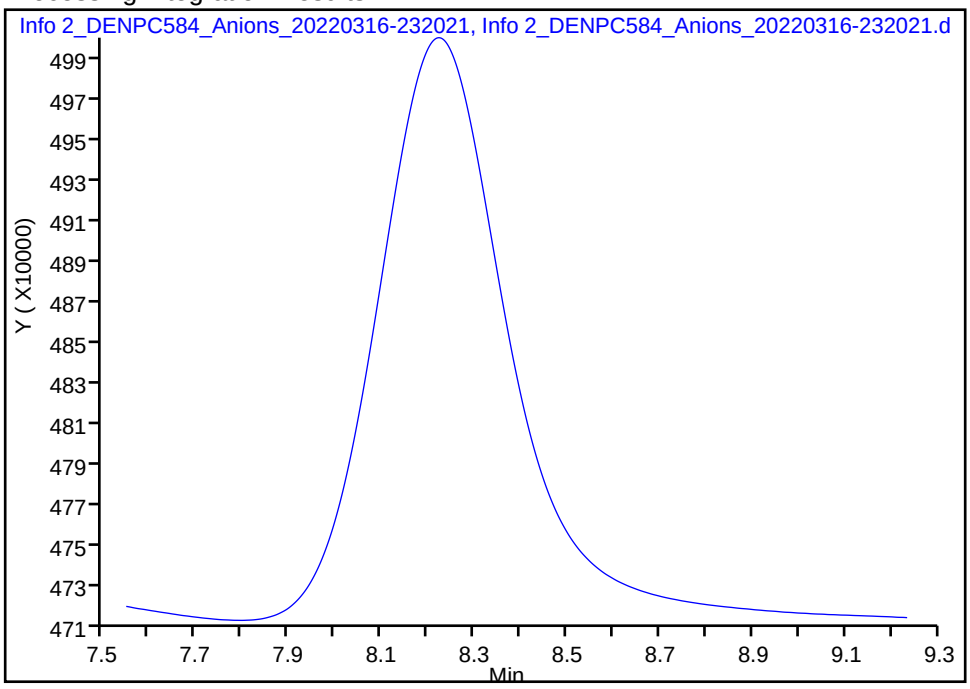
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



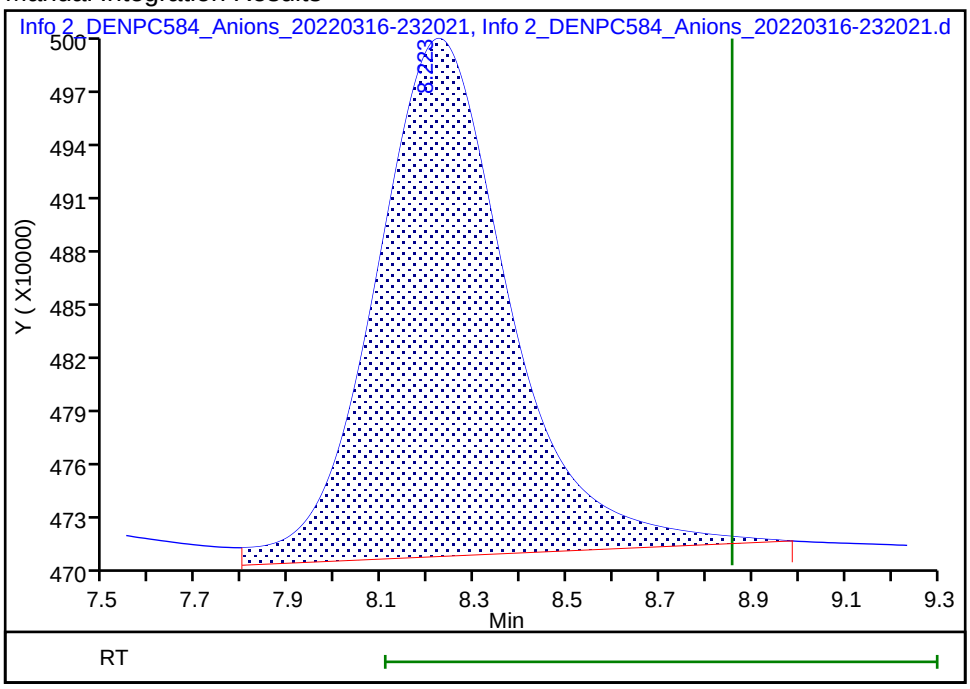

Manual Integration Results

RT: 8.22

Area: 5657785

Amount: -0.701460

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:12

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-235
Lims ID: 280-159234-O-4
Client ID: G0079-8
Sample Type: Client
Inject. Date: 16-Mar-2022 23:35:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-039
Misc. Info.: 280-0109293-039
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:25

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.785 | 2.847 | -0.062 | 10555472 | 0.4138 | |
| 2 Chloride | 3.775 | 3.903 | -0.128 | 261557915 | 18.5 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.445 | 5.585 | -0.140 | 16645554 | 2.72 | |
| 5 Nitrate as N | 6.068 | 6.270 | -0.202 | 107902917 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.168 | 8.857 | -0.689 | 700220016 | 66.6 | a |

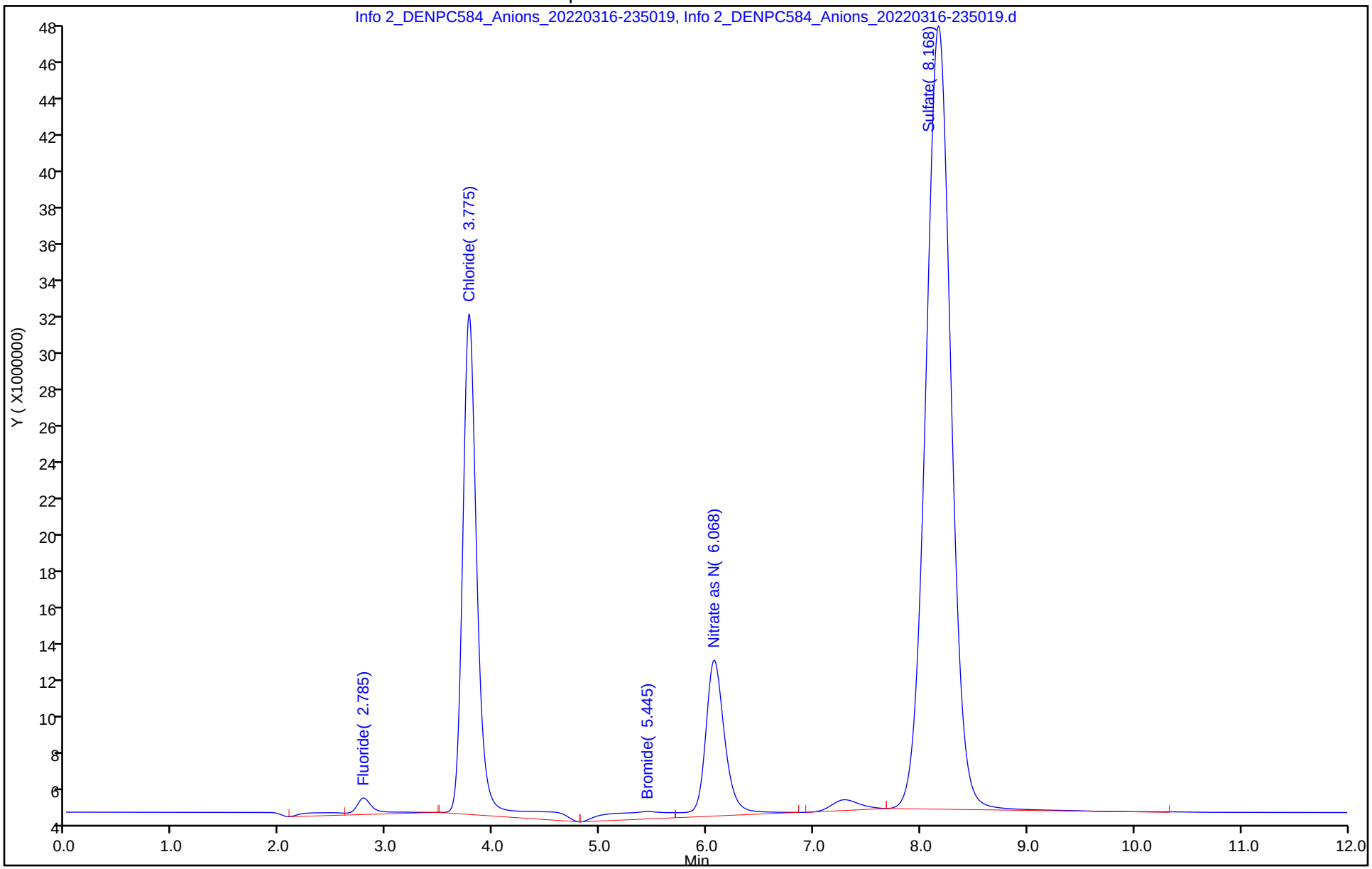
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:20 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-235019.d | | | | |
| Injection Date: | 16-Mar-2022 23:35:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-4 | Lab Sample ID: | 280-159234-4 | Worklist Smp#: | 39 |
| Client ID: | G0079-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

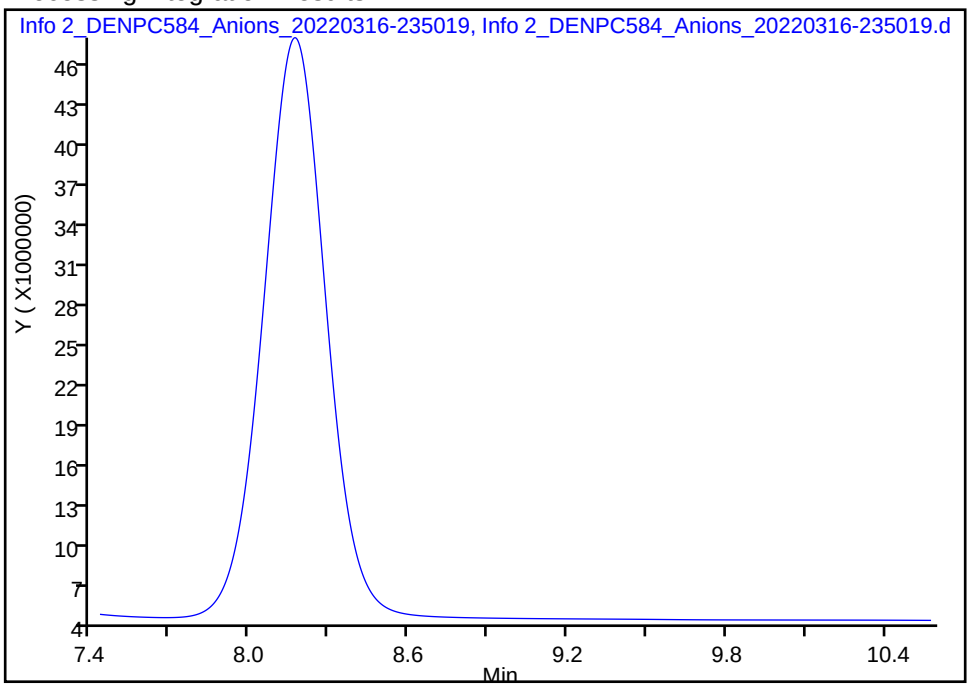
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-235 | | | | |
| Injection Date: | 16-Mar-2022 23:35:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-4 | Lab Sample ID: | 280-159234-4 | | |
| Client ID: | G0079-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

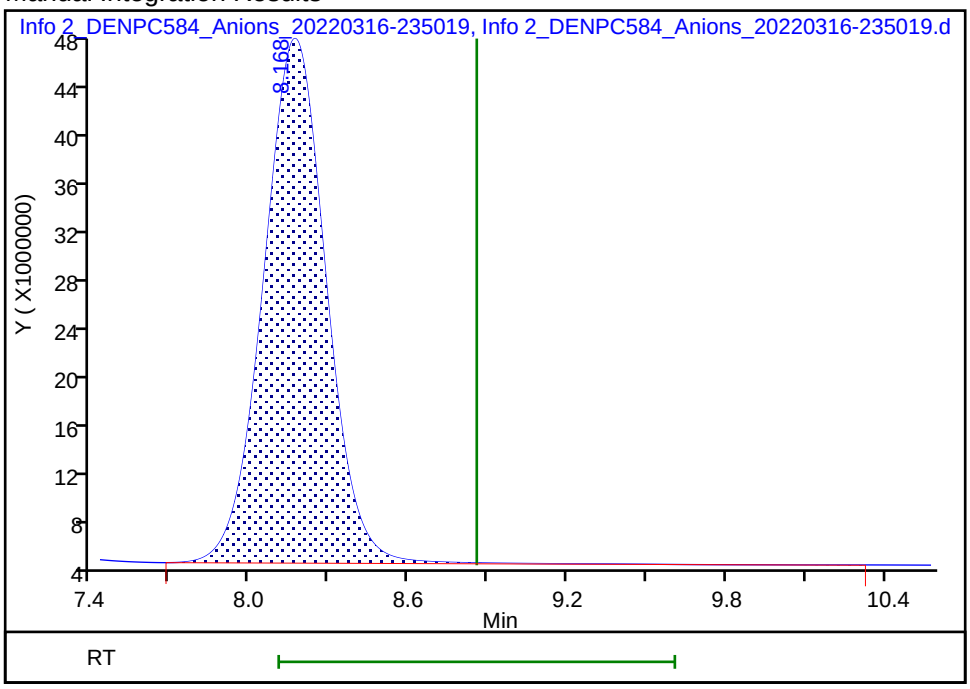
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.17
Area: 700220016
Amount: 66.602603
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:22
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-000
Lims ID: 280-159234-O-5
Client ID: G0075-8
Sample Type: Client
Inject. Date: 16-Mar-2022 23:50:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-040
Misc. Info.: 280-0109293-040
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:29

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.785 | 2.847 | -0.062 | 8051759 | 0.3213 | |
| 2 Chloride | 3.777 | 3.903 | -0.126 | 440117463 | 31.1 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.448 | 5.585 | -0.137 | 17653103 | 2.88 | |
| 5 Nitrate as N | 6.047 | 6.270 | -0.223 | 240617727 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.153 | 8.857 | -0.704 | 1743520162 | 167.7 | a |

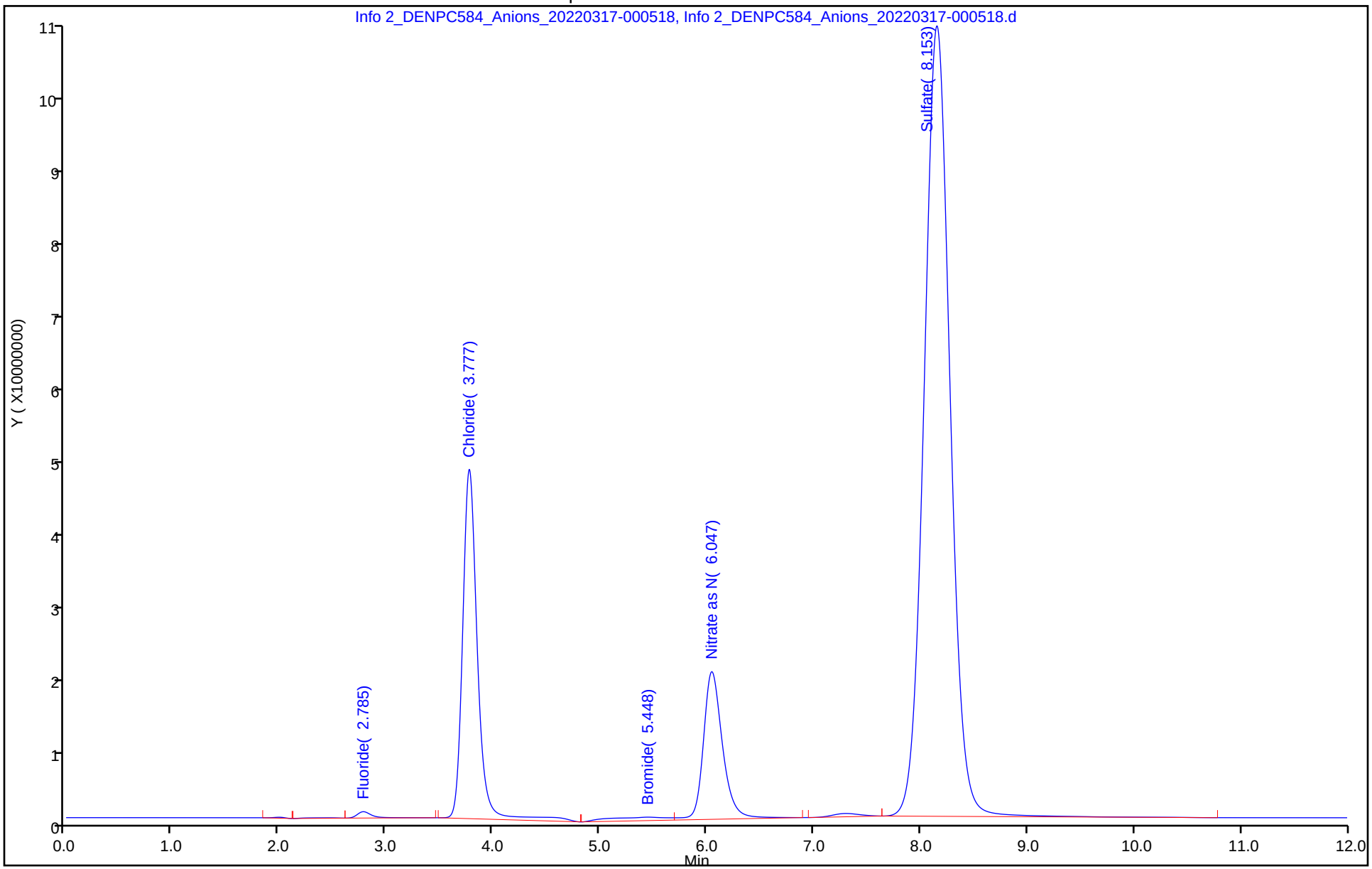
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:20 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-000518.d | | | | |
| Injection Date: | 16-Mar-2022 23:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-5 | Lab Sample ID: | 280-159234-5 | Worklist Smp#: | 40 |
| Client ID: | G0075-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

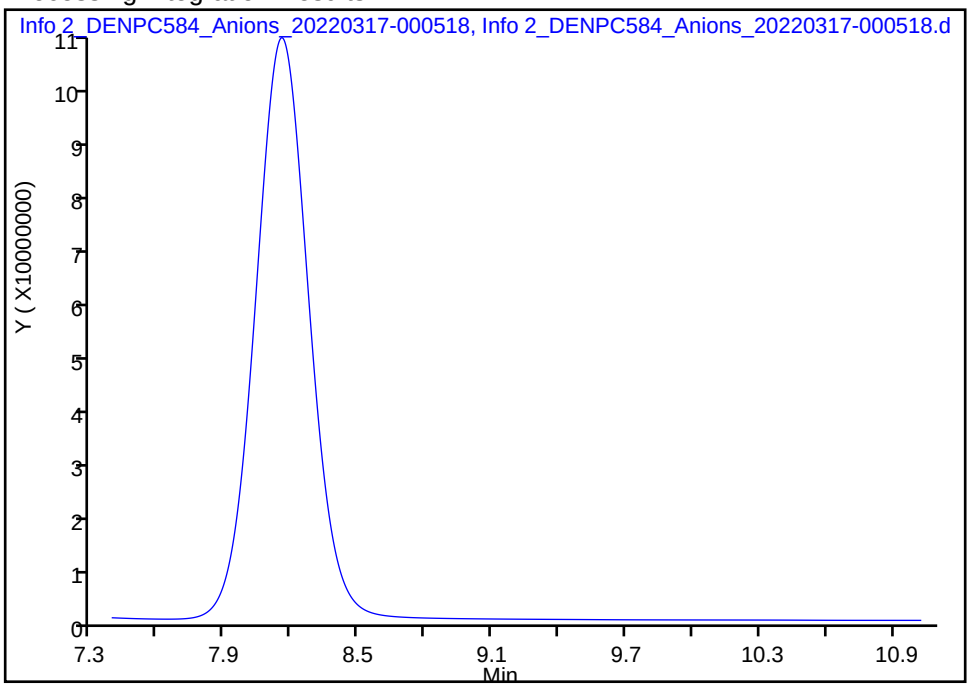
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-000 | | | | |
| Injection Date: | 16-Mar-2022 23:50:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-5 | Lab Sample ID: | 280-159234-5 | | |
| Client ID: | G0075-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 40 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

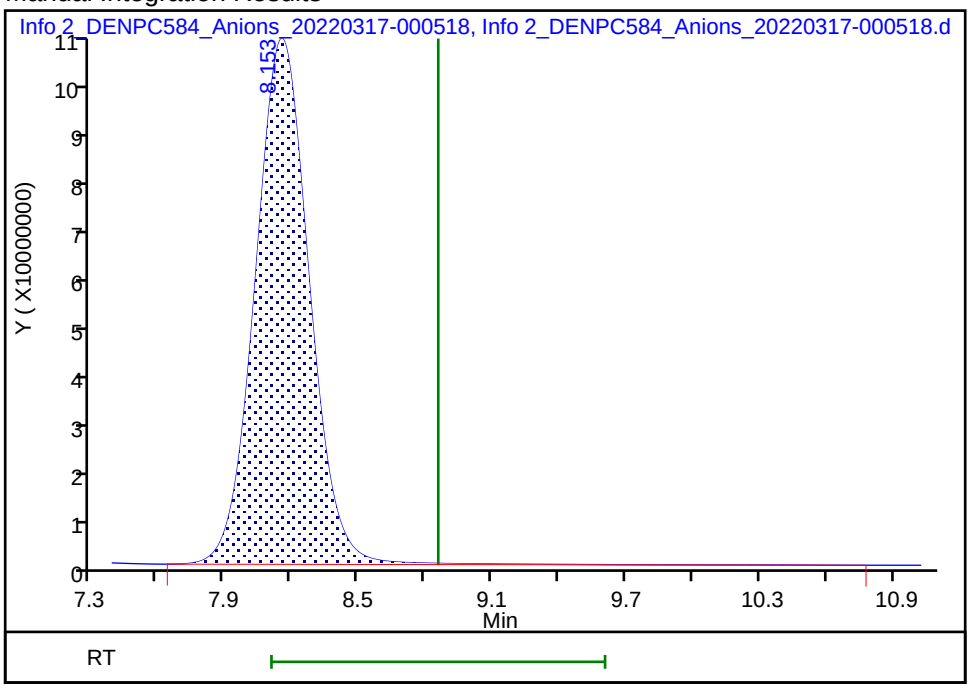
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.15
Area: 1743520162
Amount: 167.6999
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:27
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-003
Lims ID: 280-159234-O-8
Client ID: G0080-8
Sample Type: Client
Inject. Date: 17-Mar-2022 00:20:00 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-042
Misc. Info.: 280-0109293-042
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:39

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.785 | 2.847 | -0.062 | 7258579 | 0.2920 | |
| 2 Chloride | 3.782 | 3.903 | -0.121 | 469681080 | 33.2 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.465 | 5.585 | -0.120 | 22584430 | 3.69 | |
| 5 Nitrate as N | 6.068 | 6.270 | -0.202 | 180398556 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.175 | 8.857 | -0.682 | 1026438575 | 98.2 | a |

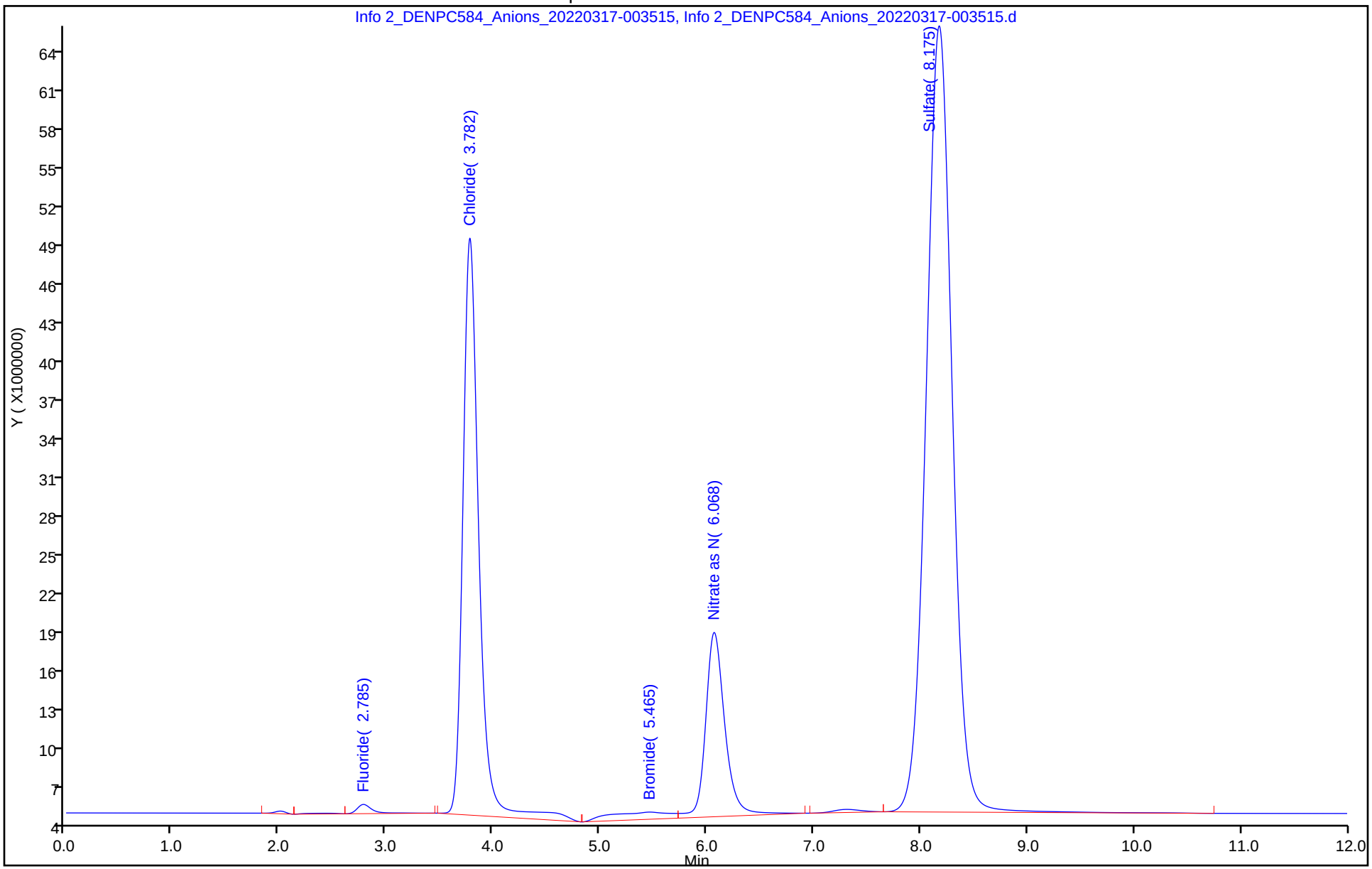
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:21 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-003515.d | | | | |
| Injection Date: | 17-Mar-2022 00:20:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-8 | Lab Sample ID: | 280-159234-8 | Worklist Smp#: | 42 |
| Client ID: | G0080-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

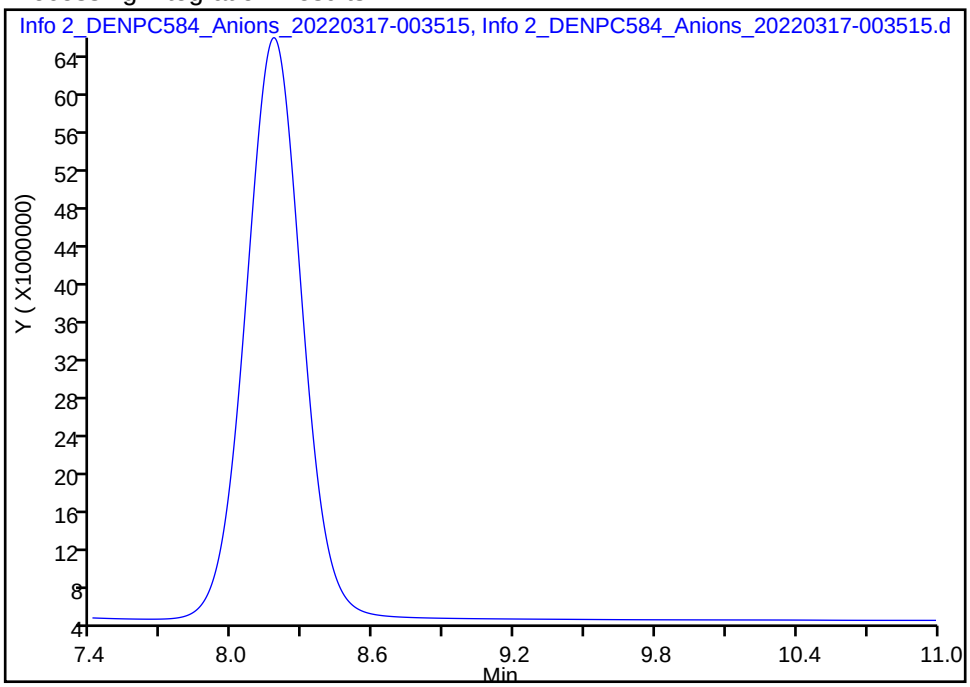
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-003 | | | | |
| Injection Date: | 17-Mar-2022 00:20:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-8 | Lab Sample ID: | 280-159234-8 | | |
| Client ID: | G0080-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 42 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

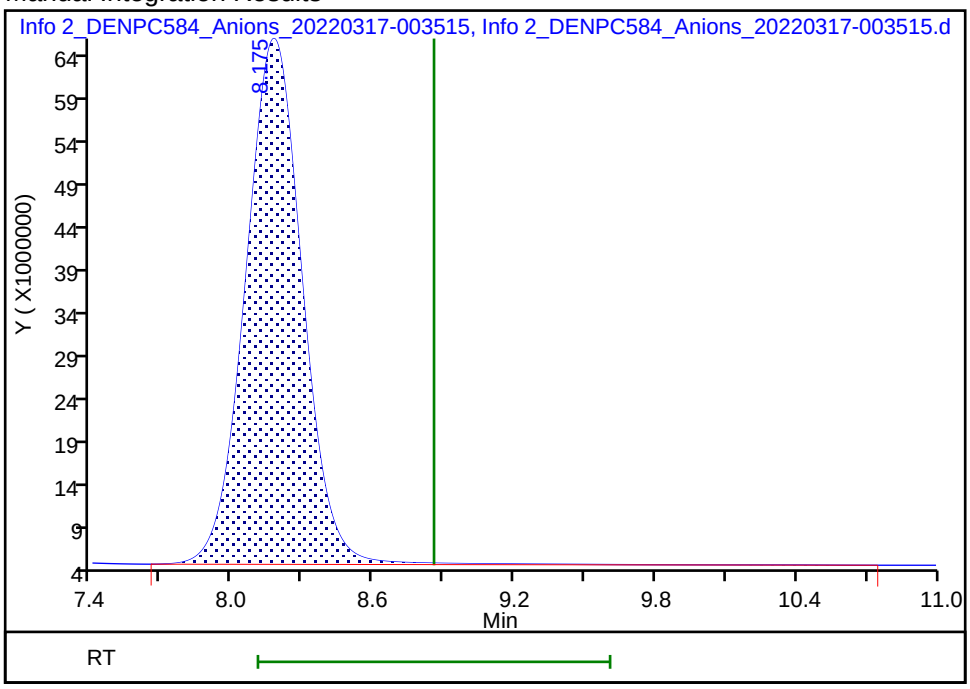
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.18
Area: 1026438575
Amount: 98.213642
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:36
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-005
Lims ID: 280-159234-O-9
Client ID: G0087-8
Sample Type: Client
Inject. Date: 17-Mar-2022 00:35:00 ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-043
Misc. Info.: 280-0109293-043
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:44

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.783 | 2.847 | -0.064 | 7365654 | 0.2959 | |
| 2 Chloride | 3.773 | 3.903 | -0.130 | 399745111 | 28.3 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.447 | 5.585 | -0.138 | 18085344 | 2.96 | |
| 5 Nitrate as N | 6.042 | 6.270 | -0.228 | 246964682 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.155 | 8.857 | -0.702 | 1385414696 | 133.0 | a |

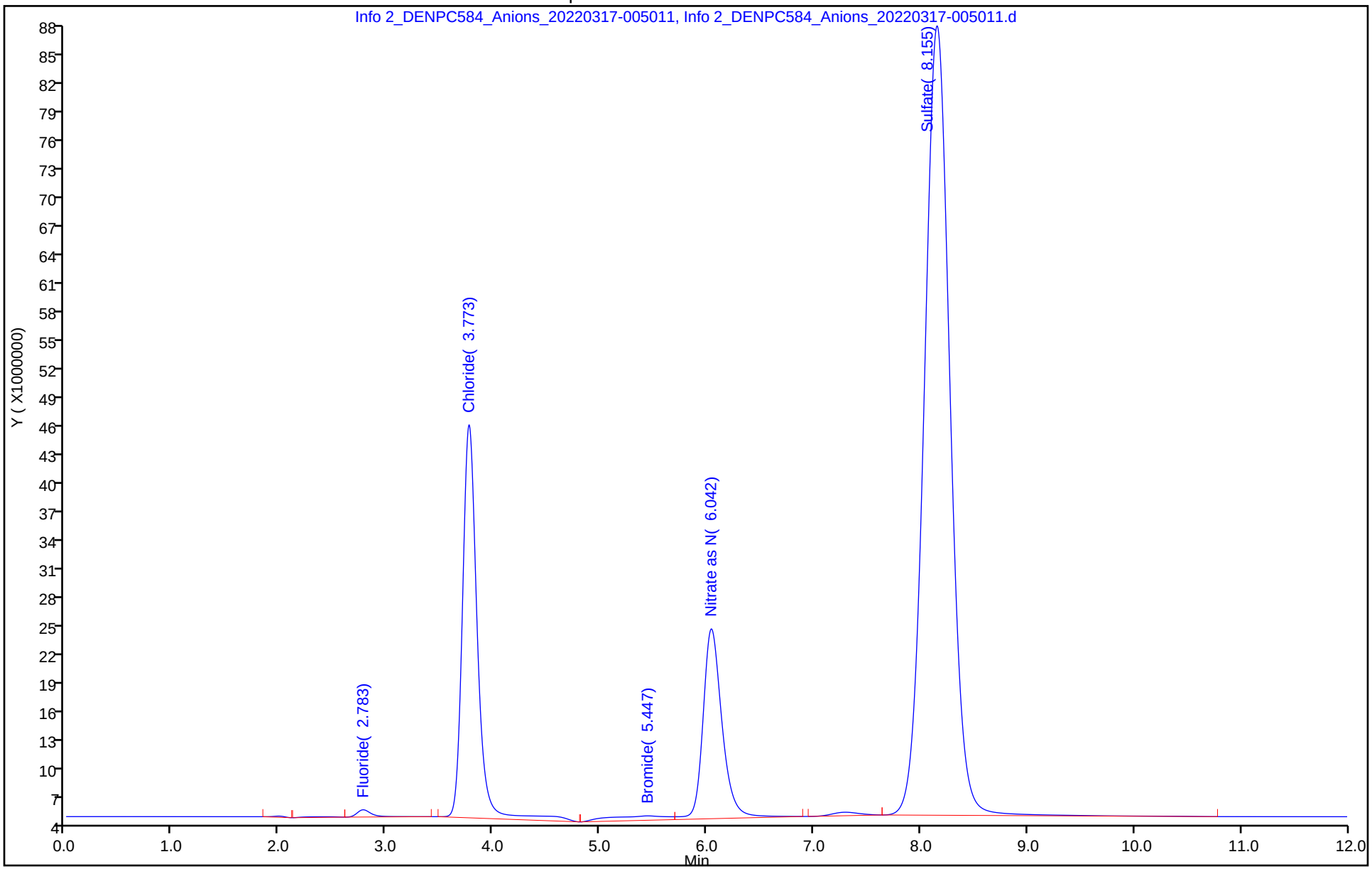
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:22 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-005011.d | | | | |
| Injection Date: | 17-Mar-2022 00:35:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-9 | Lab Sample ID: | 280-159234-9 | Worklist Smp#: | 43 |
| Client ID: | G0087-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

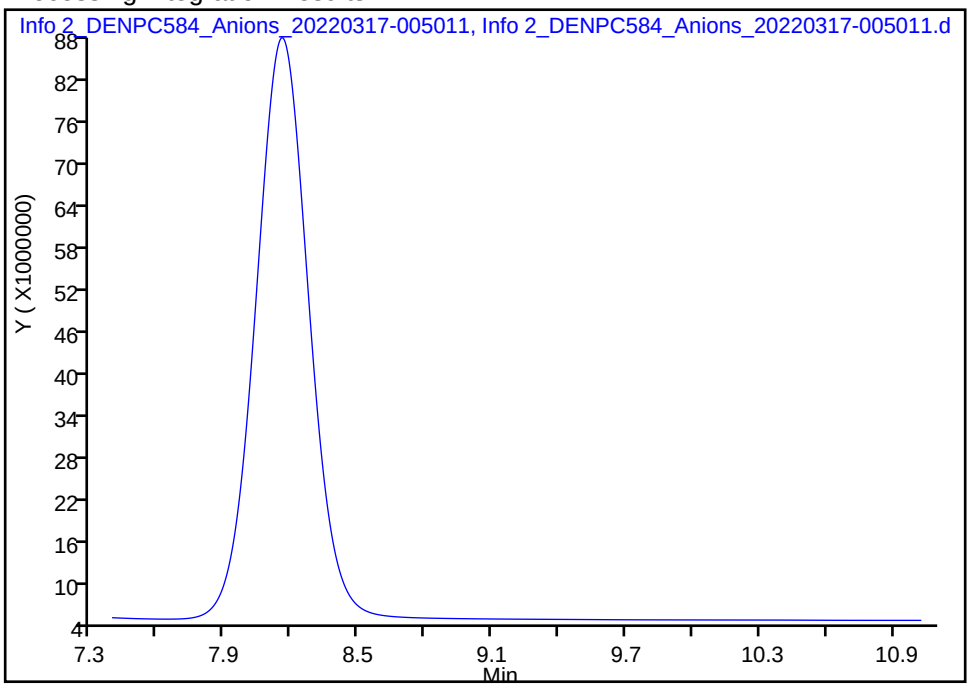
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-005 | | | | |
| Injection Date: | 17-Mar-2022 00:35:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-9 | Lab Sample ID: | 280-159234-9 | | |
| Client ID: | G0087-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

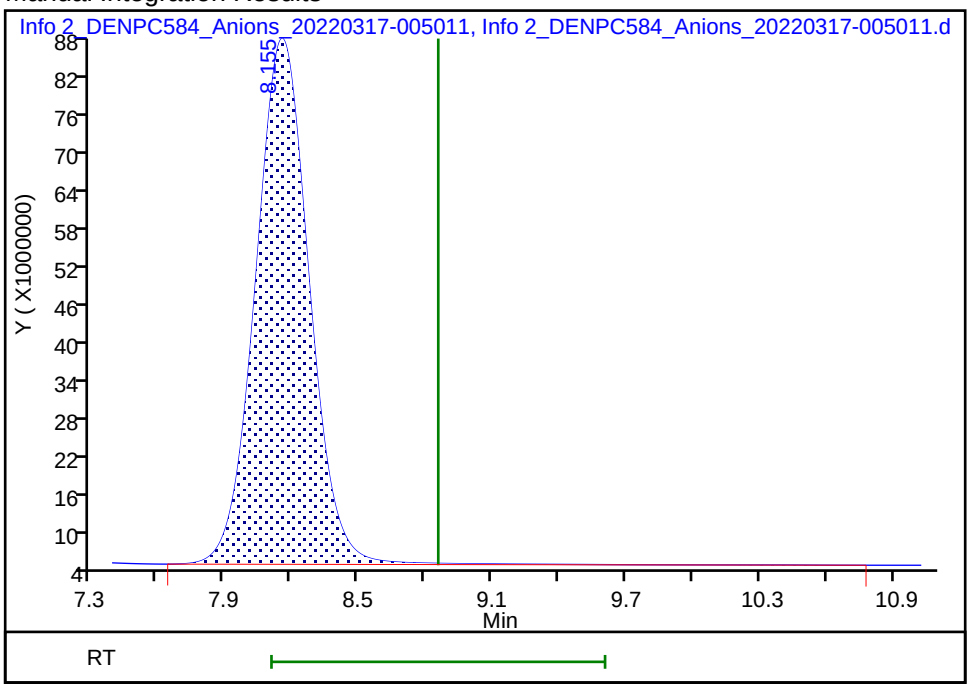
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.16
Area: 1385414696
Amount: 132.9989
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:41
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-010
Lims ID: 280-159234-O-10
Client ID: G0086-8
Sample Type: Client
Inject. Date: 17-Mar-2022 00:50:00 ALS Bottle#: 0 Worklist Smp#: 44
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-044
Misc. Info.: 280-0109293-044
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:18 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:12:49

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.783 | 2.847 | -0.064 | 7105485 | 0.2863 | |
| 2 Chloride | 3.777 | 3.903 | -0.126 | 467930705 | 33.1 | |
| 3 Nitrite as N | | 4.500 | | | ND | |
| 4 Bromide | 5.453 | 5.585 | -0.132 | 19161011 | 3.13 | |
| 5 Nitrate as N | 6.060 | 6.270 | -0.210 | 185398972 | NC | |
| 7 Orthophosphate as P | | 7.853 | | | ND | a |
| 6 Sulfate | 8.153 | 8.857 | -0.704 | 1751253221 | 168.4 | a |

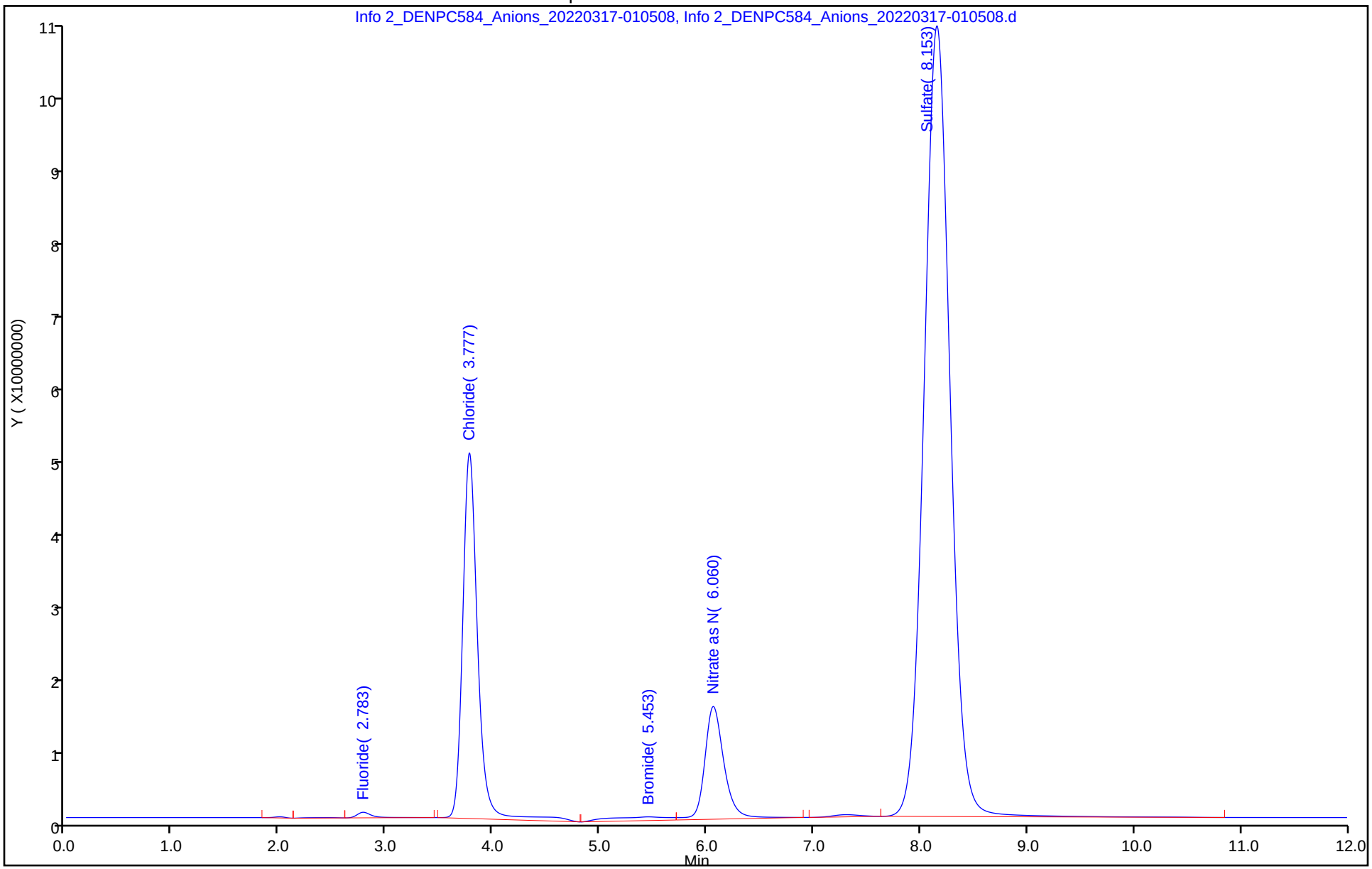
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:22 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-010508.d | | | | |
| Injection Date: | 17-Mar-2022 00:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-159234-O-10 | Lab Sample ID: | 280-159234-10 | Worklist Smp#: | 44 |
| Client ID: | G0086-8 | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

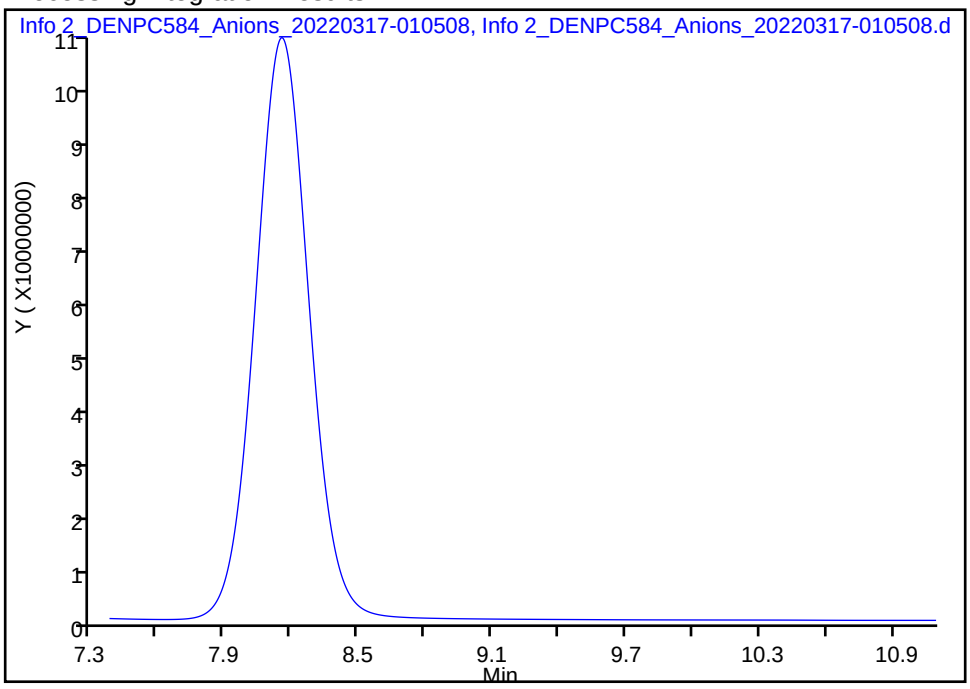
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-010 | | | | |
| Injection Date: | 17-Mar-2022 00:50:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | 280-159234-O-10 | Lab Sample ID: | 280-159234-10 | | |
| Client ID: | G0086-8 | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 44 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

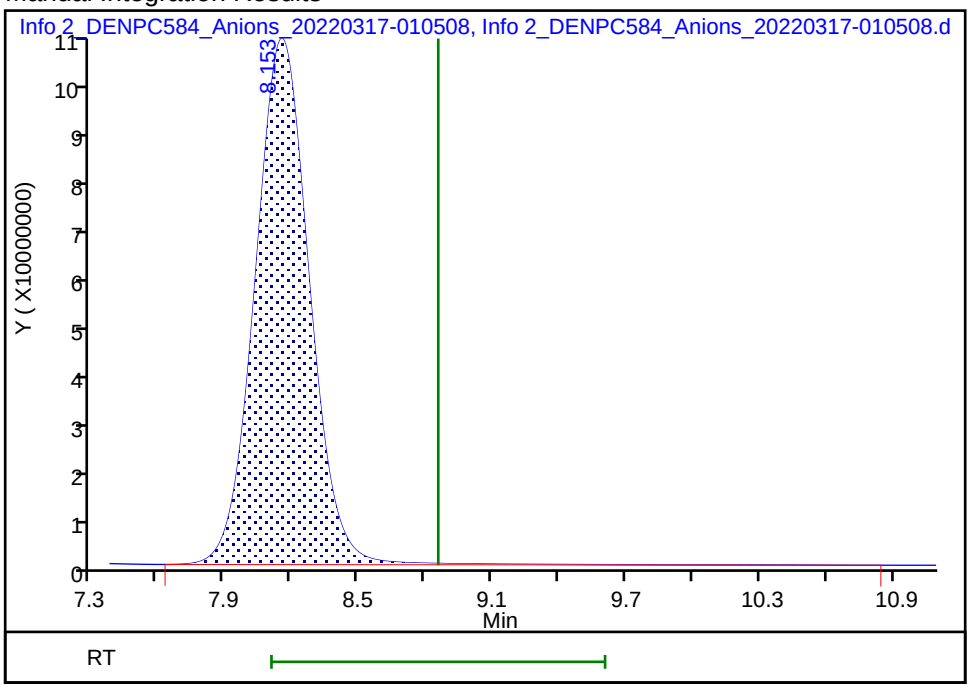
Not Detected
Expected RT: 8.86

Processing Integration Results




Manual Integration Results

RT: 8.15
Area: 1751253221
Amount: 168.4492
Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:12:47
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-013
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2022 01:20:00 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-046
Misc. Info.: 280-0109293-046
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:23 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 12:55:13

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.792 | 2.847 | -0.055 | 122646430 | 5.00 | 4.55 | M |
| 2 Chloride | 3.795 | 3.903 | -0.108 | 1414478230 | 100.0 | 100.0 | |
| 3 Nitrite as N | 4.360 | 4.500 | -0.140 | 162987039 | NC | NC | |
| 4 Bromide | 5.362 | 5.585 | -0.223 | 29069385 | 5.00 | 4.75 | M |
| 5 Nitrate as N | 6.013 | 6.270 | -0.257 | 172361313 | NC | NC | |
| 7 Orthophosphate as P | 7.205 | 7.853 | -0.648 | 90081008 | NC | NC | a |
| 6 Sulfate | 8.128 | 8.857 | -0.729 | 1032170157 | 100.0 | 98.8 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

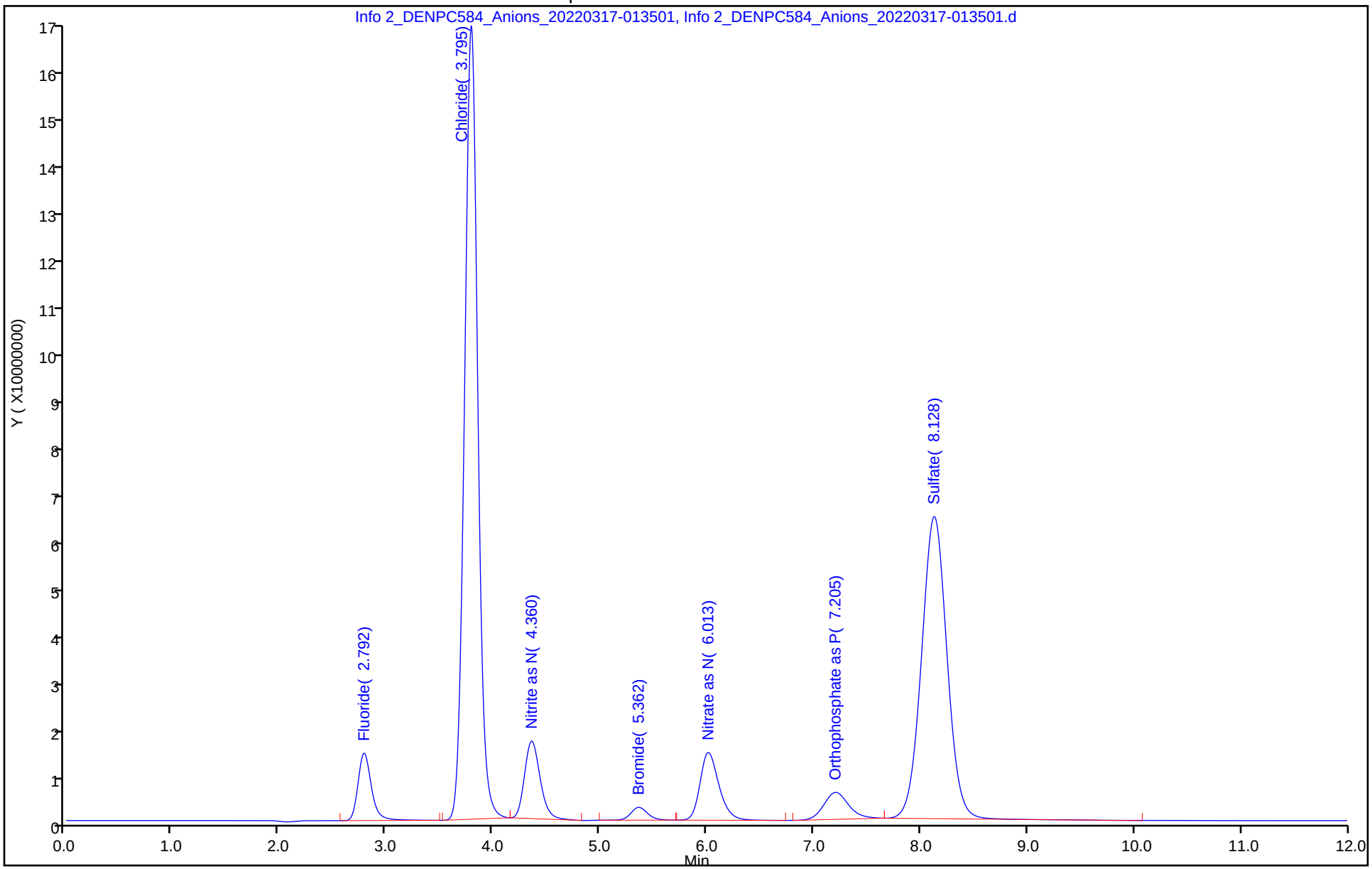
## Reagents:

IC LCS_01863 Amount Added: 10.00 Units: mL

Report Date: 17-Mar-2022 13:14:23 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-013501.d | | | | |
| Injection Date: | 17-Mar-2022 01:20:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 46 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-013

Injection Date: 17-Mar-2022 01:20:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 46

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

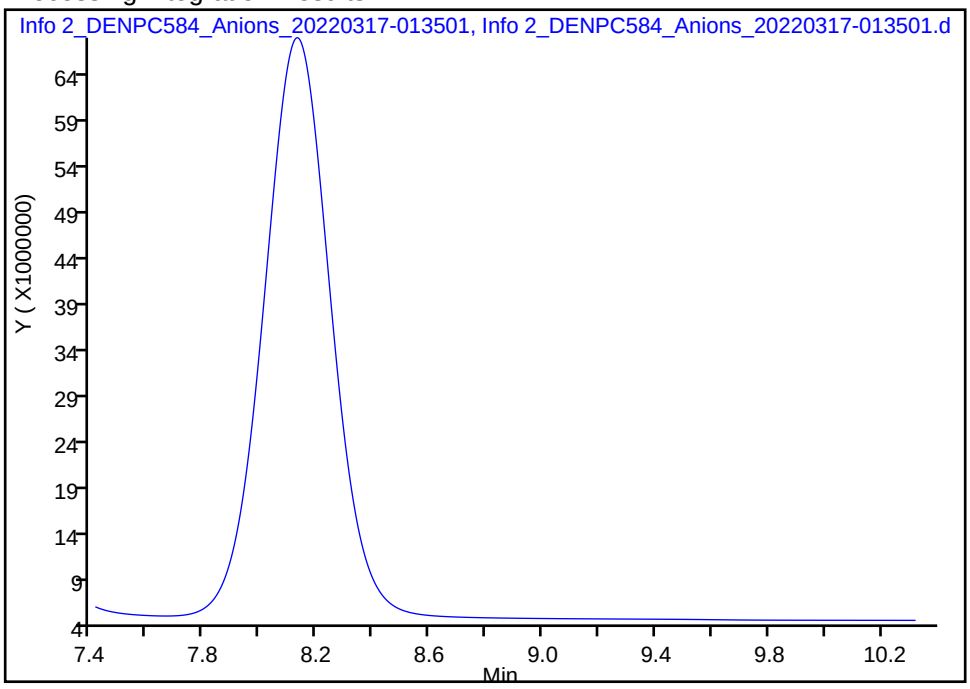
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



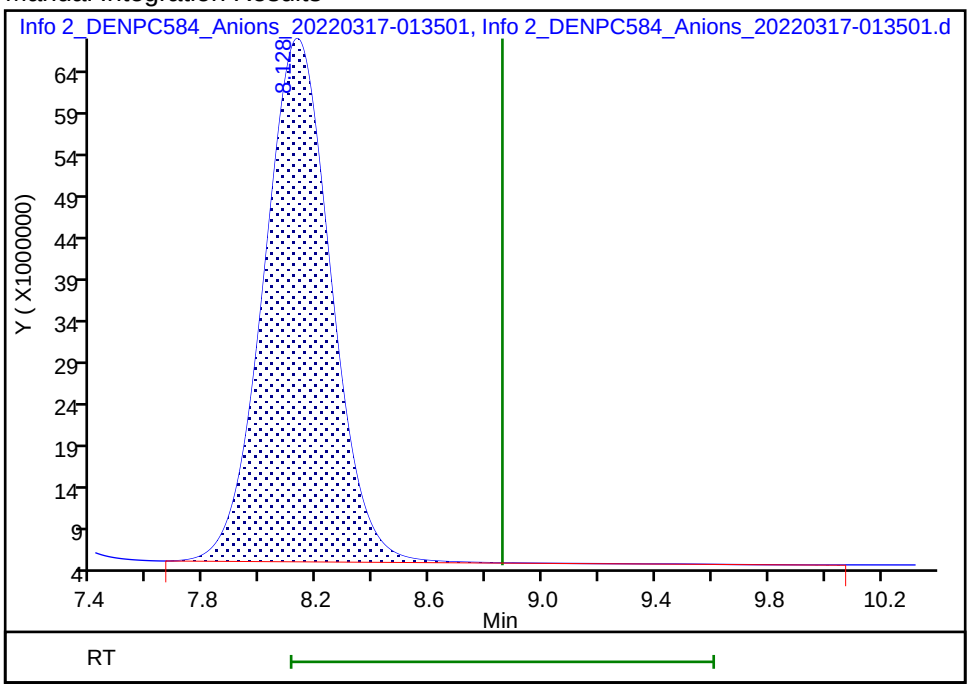

Manual Integration Results

RT: 8.13

Area: 1032170157

Amount: 98.769041

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 12:51:58

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-014
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Mar-2022 01:35:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109293-047
Misc. Info.: 280-0109293-047
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-Mar-2022 13:14:23 Calib Date: 16-Mar-2022 15:34:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220316-154

Column 1 : Det: 0005
Process Host: CTX1616

First Level Reviewer: jindaratc Date: 17-Mar-2022 13:13:07

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.847 | | | | ND | U |
| 2 Chloride | | 3.903 | | | | ND | |
| 3 Nitrite as N | | 4.500 | | | | ND | |
| 4 Bromide | | 5.585 | | | | ND | U |
| 5 Nitrate as N | | 6.270 | | | | ND | |
| 7 Orthophosphate as P | | 7.853 | | | | ND | a |
| 6 Sulfate | 8.223 | 8.857 | -0.634 | 5651322 | | -0.7021 | a |

## QC Flag Legend

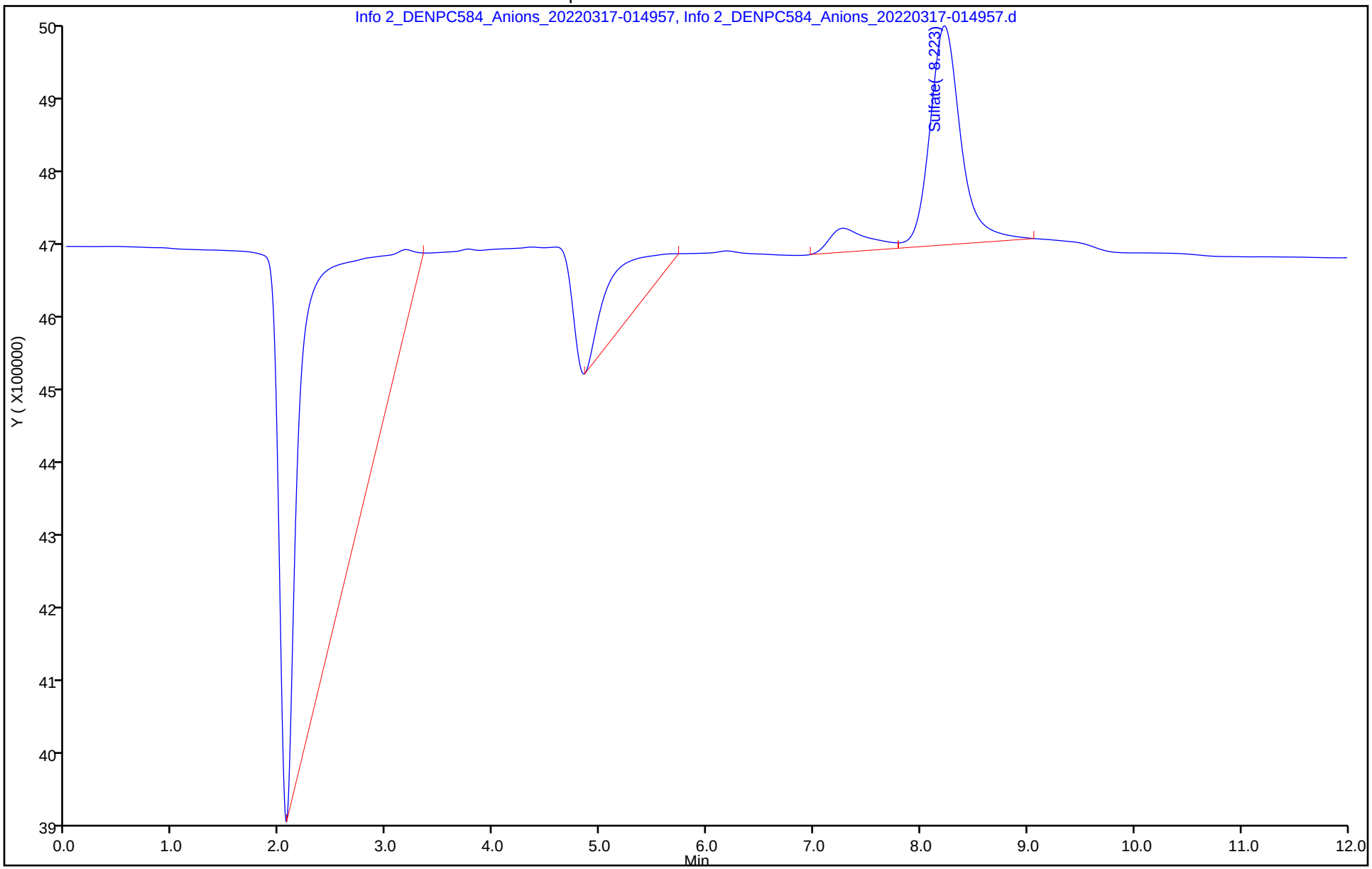
Processing Flags
Review Flags
U - Marked Undetected
a - User Assigned ID

Report Date: 17-Mar-2022 13:14:24 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-014957.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Mar-2022 01:35:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 47 |
| Client ID: | | | | | |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220316-109293.b\Info 2_DENPC584_Anions_20220317-014

Injection Date: 17-Mar-2022 01:35:00 Instrument ID: WC_IonChrom13

Lims ID: ccb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 47

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

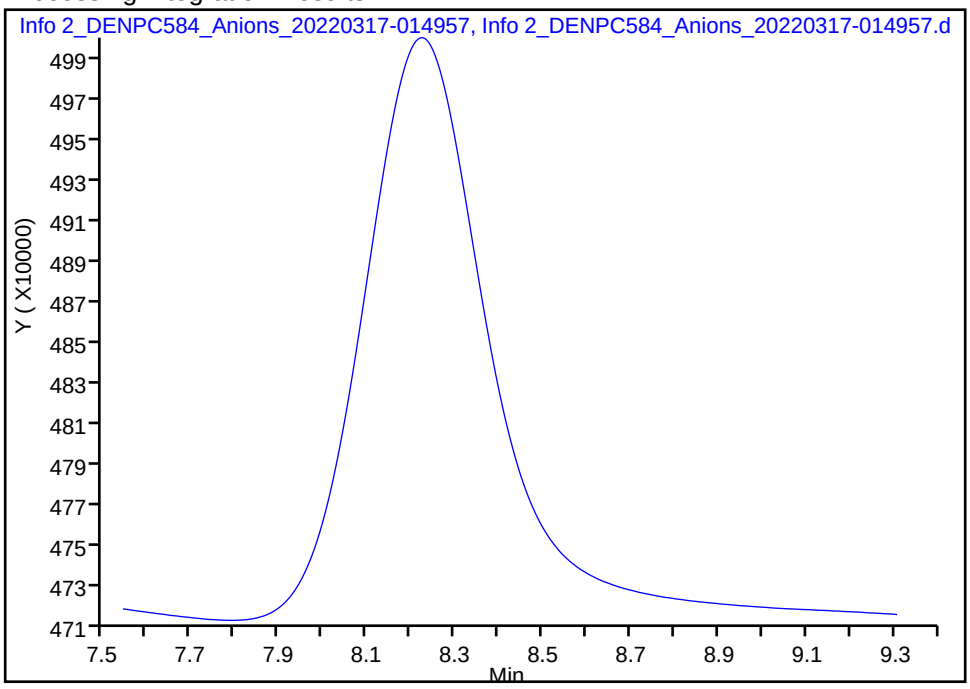
## 6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 8.86

Processing Integration Results



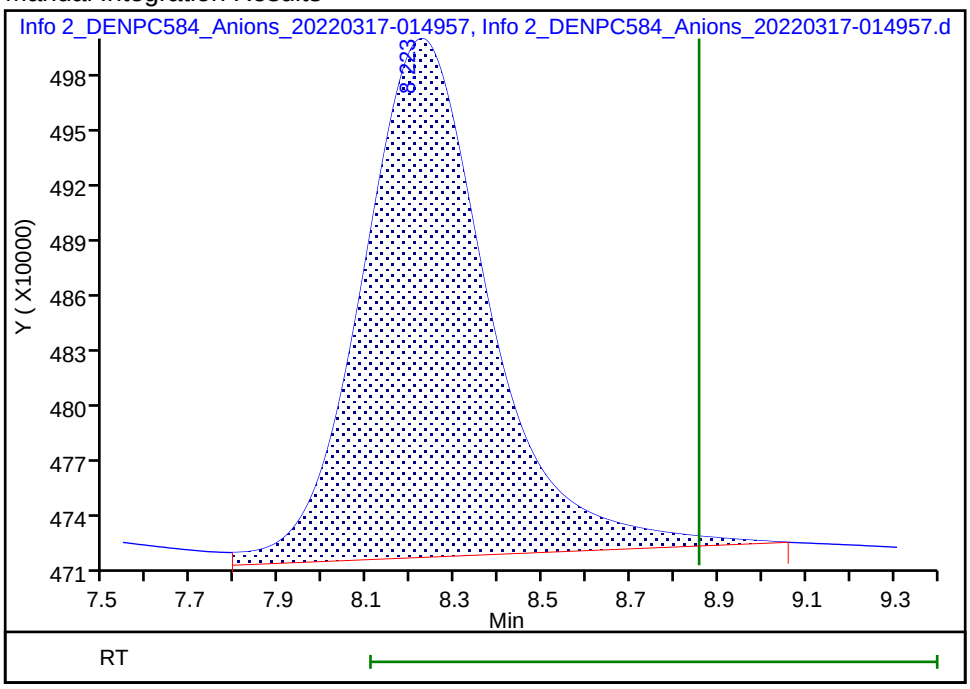

Manual Integration Results

RT: 8.22

Area: 5651322

Amount: -0.702086

Amount Units: ug/ml




Reviewer: jindaratc, 17-Mar-2022 13:13:00

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

| | Type | Analysi | Sample Name | Sample ID | Origin | Manual Dilution |
|---|---|---|---|---|---|---|
| 1 | Standard | NPOC | CAL | | NPOC11.2022_03_14_15_53_52. | 1.000 |
| 2 | Unknown | NPOC | ICV | | NPOC 2022.met | 1.000 |
| 3 | Unknown | NPOC | ICB | | NPOC 2022.met | 1.000 |
| 4 | Unknown | NPOC | LCS | | NPOC 2022.met | 1.000 |
| 5 | Unknown | NPOC | MB | | NPOC 2022.met | 1.000 |
| 6 | Unknown | NPOC | TIC | | NPOC 2022.met | 1.000 |
| 7 | Unknown | NPOC | lcs 280-568571/1-a | | NPOC 2022.met | 1.000 |
| 8 | Unknown | NPOC | mb 280-568571/2-a | | NPOC 2022.met | 1.000 |
| 9 | Unknown | NPOC | 280-159234-m-1-a | | NPOC 2022.met | 1.000 |
| 10 | Unknown | NPOC | 280-159234-m-2-a | | NPOC 2022.met | 1.000 |
| 11 | Unknown | NPOC | 280-159234-m-3-a | | NPOC 2022.met | 1.000 |
| 12 | Unknown | NPOC | 280-159234-m-4-a | | NPOC 2022.met | 1.000 |
| 13 | Unknown | NPOC | 280-159234-m-5-a | | NPOC 2022.met | 1.000 |
| 14 | Unknown | NPOC | 280-159234-m-6-a | | NPOC 2022.met | 1.000 |
| 15 | Unknown | NPOC | 280-159234-m-7-a | | NPOC 2022.met | 1.000 |
| 16 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 17 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |
| 18 | Unknown | NPOC | 280-159234-m-7-b ms | | NPOC 2022.met | 1.000 |
| 19 | Unknown | NPOC | 280-159234-m-7-c msd | | NPOC 2022.met | 1.000 |
| 20 | Unknown | NPOC | 280-159234-m-8-a | | NPOC 2022.met | 1.000 |
| 21 | Unknown | NPOC | 280-159234-m-9-a | | NPOC 2022.met | 1.000 |
| 22 | Unknown | NPOC | 280-159234-m-10-a | | NPOC 2022.met | 1.000 |
| 23 | Unknown | NPOC | 280-159332-d-1-a | | NPOC 2022.met | 1.000 |
| 24 | Unknown | NPOC | 280-159332-d-1-b ms | | NPOC 2022.met | 1.000 |
| 25 | Unknown | NPOC | 280-159332-d-1-c msd | | NPOC 2022.met | 1.000 |
| 26 | Unknown | NPOC | 280-159332-d-2-a | | NPOC 2022.met | 1.000 |
| 27 | Unknown | NPOC | 280-159332-d-3 | | NPOC 2022.met | 1.000 |
| 28 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 29 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |
| 30 | Unknown | NPOC | 280-159332-d-4-a | | NPOC 2022.met | 1.000 |
| 31 | Unknown | NPOC | 280-159332-d-5-a | | NPOC 2022.met | 1.000 |
| 32 | Unknown | NPOC | 280-159332-d-6-a | | NPOC 2022.met | 1.000 |
| 33 | Unknown | NPOC | 280-159332-d-7-a | | NPOC 2022.met | 1.000 |
| 34 | Unknown | NPOC | 280-159332-d-8-a | | NPOC 2022.met | 1.000 |
| 35 | Unknown | NPOC | 280-159332-d-9-a | | NPOC 2022.met | 1.000 |
| 36 | Unknown | NPOC | 280-159332-d-10-a | | NPOC 2022.met | 1.000 |
| 37 | Unknown | NPOC | 280-159332-d-11-a | | NPOC 2022.met | 1.000 |
| 38 | Unknown | NPOC | 280-159332-d-12-a | | NPOC 2022.met | 1.000 |
| 39 | Unknown | NPOC | 280-159332-d-13-a | | NPOC 2022.met | 1.000 |
| 40 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 41 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |
| 42 | Unknown | NPOC | 280-159332-d-13-b ms | | NPOC 2022.met | 1.000 |
| 43 | Unknown | NPOC | 280-159332-d-13-c ms | | NPOC 2022.met | 1.000 |
| 44 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 45 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |

| | Result | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|
| 1 | | Cal Curve OK | Completed | 3/14/2022 4:54:43 PM | 90, 91, 91, 92, 92, 93 |
| 2 | NPOC:20.28mg/L | | Completed | 3/14/2022 5:09:02 PM | 1 |
| 3 | NPOC:0.08539mg/L | | Completed | 3/14/2022 5:25:20 PM | 2 |
| 4 | NPOC:24.77mg/L | | Completed | 3/14/2022 5:39:46 PM | 3 |
| 5 | NPOC:0.05641mg/L | | Completed | 3/14/2022 5:58:10 PM | 4 |
| 6 | NPOC:0.04026mg/L | | Completed | 3/14/2022 6:12:16 PM | 5 |
| 7 | NPOC:25.68mg/L | | Completed | 3/14/2022 6:26:27 PM | 6 |
| 8 | NPOC:0.2042mg/L | | Completed | 3/14/2022 6:42:45 PM | 7 |
| 9 | NPOC:7.261mg/L | | Completed | 3/14/2022 7:01:06 PM | 8 |
| 10 | NPOC:3.134mg/L | | Completed | 3/14/2022 7:19:22 PM | 9 |
| 11 | NPOC:3.456mg/L | | Completed | 3/14/2022 7:33:28 PM | 10 |
| 12 | NPOC:5.057mg/L | | Completed | 3/14/2022 7:51:52 PM | 11 |
| 13 | NPOC:2.966mg/L | | Completed | 3/14/2022 8:10:36 PM | 12 |
| 14 | NPOC:3.614mg/L | | Completed | 3/14/2022 8:29:32 PM | 13 |
| 15 | NPOC:1.378mg/L | | Completed | 3/14/2022 8:47:54 PM | 14 |
| 16 | NPOC:24.36mg/L | | Completed | 3/14/2022 9:06:19 PM | 15 |
| 17 | NPOC:0.06800mg/L | | Completed | 3/14/2022 9:31:16 PM | 16 |
| 18 | NPOC:25.25mg/L | | Completed | 3/14/2022 9:49:53 PM | 17 |
| 19 | NPOC:25.90mg/L | | Completed | 3/14/2022 10:04:18 PM | 18 |
| 20 | NPOC:3.443mg/L | | Completed | 3/14/2022 10:20:32 PM | 19 |
| 21 | NPOC:3.296mg/L | | Completed | 3/14/2022 10:38:53 PM | 20 |
| 22 | NPOC:3.203mg/L | | Completed | 3/14/2022 10:57:09 PM | 21 |
| 23 | NPOC:5.887mg/L | | Completed | 3/14/2022 11:11:19 PM | 22 |
| 24 | NPOC:30.10mg/L | | Completed | 3/14/2022 11:30:07 PM | 23 |
| 25 | NPOC:29.85mg/L | | Completed | 3/14/2022 11:48:24 PM | 24 |
| 26 | NPOC:3.834mg/L | | Completed | 3/15/2022 12:06:41 AM | 25 |
| 27 | NPOC:3.576mg/L | | Completed | 3/15/2022 12:25:07 AM | 26 |
| 28 | NPOC:25.21mg/L | | Completed | 3/15/2022 12:39:27 AM | 27 |
| 29 | NPOC:0.08879mg/L | | Completed | 3/15/2022 12:53:44 AM | 28 |
| 30 | NPOC:6.115mg/L | | Completed | 3/15/2022 1:08:02 AM | 29 |
| 31 | NPOC:6.291mg/L | | Completed | 3/15/2022 1:26:25 AM | 30 |
| 32 | NPOC:3.950mg/L | | Completed | 3/15/2022 1:42:38 AM | 31 |
| 33 | NPOC:4.486mg/L | | Completed | 3/15/2022 2:01:00 AM | 32 |
| 34 | NPOC:3.078mg/L | | Completed | 3/15/2022 2:19:46 AM | 33 |
| 35 | NPOC:6.446mg/L | | Completed | 3/15/2022 2:38:23 AM | 34 |
| 36 | NPOC:22.41mg/L | | Completed | 3/15/2022 2:55:03 AM | 35 |
| 37 | NPOC:7.412mg/L | | Completed | 3/15/2022 3:09:16 AM | 36 |
| 38 | NPOC:7.230mg/L | | Completed | 3/15/2022 3:27:52 AM | 37 |
| 39 | NPOC:2.191mg/L | | Completed | 3/15/2022 3:46:16 AM | 38 |
| 40 | NPOC:25.33mg/L | | Completed | 3/15/2022 4:00:33 AM | 39 |
| 41 | NPOC:0.08737mg/L | | Completed | 3/15/2022 4:14:50 AM | 40 |
| 42 | NPOC:27.27mg/L | | Completed | 3/15/2022 4:29:08 AM | 41 |
| 43 | NPOC:26.80mg/L | | Completed | 3/15/2022 4:43:24 AM | 42 |
| 44 | NPOC:25.45mg/L | | Completed | 3/15/2022 4:57:34 AM | 43 |
| 45 | NPOC:-0.00468mg/L | | Completed | 3/15/2022 5:14:03 AM | 44 |

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC11.2022 03 14 15 53 52.cal

| | |
|---|---|
| Date of Creation | 3/14/2022 4:54:43 PM |
| User | H |
| System | TOC-LCSN |

**Cal. Curve**

| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | |
| Object ID | 0L-10900100866-10101000-134899A253D4-0000 |
| Cal. Curve: | NPOC11.2022_03_14_15_53_52.cal |
| Status | Completed |
| Comment: | |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 0.1367 | 50uL | 1.000 | ******* | | 3/14/2022 4:01:09 PM |
| 2 | 0.1047 | 50uL | 1.000 | ******* | | 3/14/2022 4:03:18 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 0.1207 |
| SD Area | 0.02263 |
| CV Area | 18.75% |
| Vial | 90 |
| No Washes | 2 |

Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 2.048 | 50uL | 50.00 | ******* | | 3/14/2022 4:11:59 PM |
| 2 | 2.033 | 50uL | 50.00 | ******* | | 3/14/2022 4:14:08 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 2.040 |
| SD Area | 0.01061 |
| CV Area | 0.52% |
| Vial | 91 |
| No Washes | 2 |

Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 10.55 | 50uL | 10.00 | ******* | | 3/14/2022 4:21:44 PM |
| 2 | 10.42 | 50uL | 10.00 | ******* | | 3/14/2022 4:23:58 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 10.48 |
| SD Area | 0.09192 |
| CV Area | 0.88% |
| Vial | 91 |
| No Washes | 2 |

Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 20.82 | 50uL | 5.000 | ******* | | 3/14/2022 4:32:41 PM |
| 2 | 20.74 | 50uL | 5.000 | ******* | | 3/14/2022 4:34:50 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 20.78 |
| SD Area | 0.05657 |
| CV Area | 0.27% |
| Vial | 92 |
| No Washes | 2 |

Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 52.01 | 50uL | 2.000 | ******* | | 3/14/2022 4:42:26 PM |
| 2 | 51.51 | 50uL | 2.000 | ******* | | 3/14/2022 4:44:35 PM |

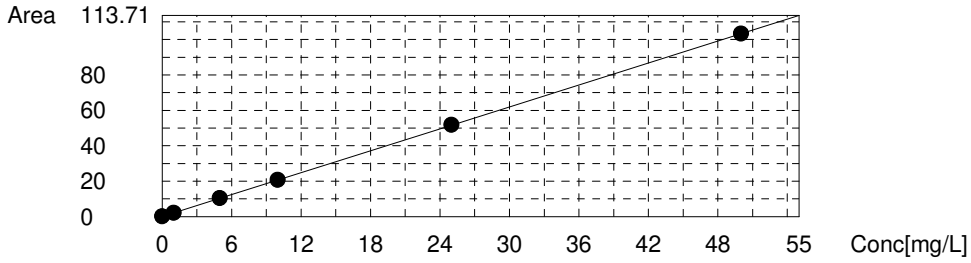
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 51.76 |
| SD Area | 0.3536 |
| CV Area | 0.68% |
| Vial | 92 |
| No Washes | 2 |

Conc: 50.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 103.2 | 50uL | 1.000 | ******* | | 3/14/2022 4:52:38 PM |
| 2 | 103.5 | 50uL | 1.000 | ******* | | 3/14/2022 4:54:43 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 103.3 |
| SD Area | 0.2121 |
| CV Area | 0.21% |
| Vial | 93 |
| No Washes | 2 |

| | |
|---|---|
| Slope: | 2.066 |
| Intercept | 0.09519 |
| r^2 | 1.0000 |
| r | 1.0000 |
| RSE(%) | N/A |
| Zero Shift | No |



**Instr.Information**

| | |
|---|---|
| Instrument Options | TOC/ASI/ |
| Catalyst | Regular Sensitivity |

**Cal. Curve**

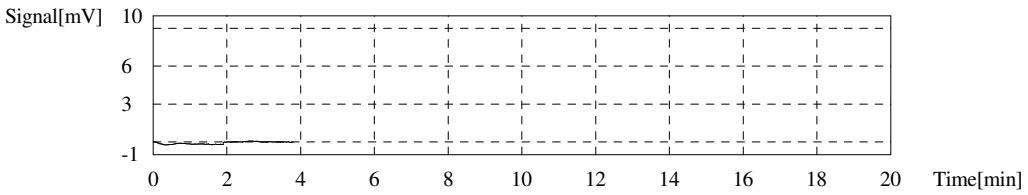
| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | |
| Cal. Curve: | NPOC11.2022_03_14_15_53_52.cal |
| Status | Completed |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 0.1367 | 50uL | 1.000 | ******* | | 3/14/2022 4:01:09 PM |
| 2 | 0.1047 | 50uL | 1.000 | ******* | | 3/14/2022 4:03:18 PM |

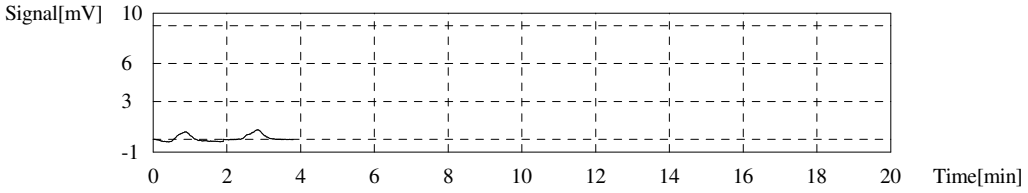
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 0.1207 |




Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 2.048 | 50uL | 50.00 | ******* | | 3/14/2022 4:11:59 PM |
| 2 | 2.033 | 50uL | 50.00 | ******* | | 3/14/2022 4:14:08 PM |

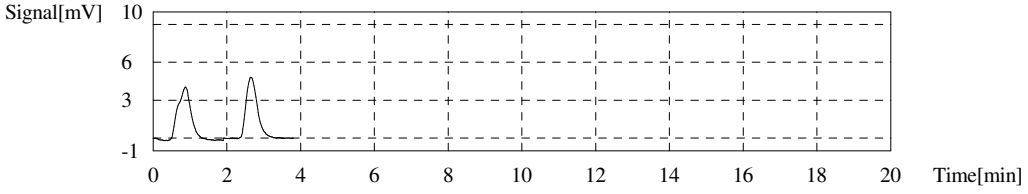
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 2.040 |




Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 10.55 | 50uL | 10.00 | ******* | | 3/14/2022 4:21:44 PM |
| 2 | 10.42 | 50uL | 10.00 | ******* | | 3/14/2022 4:23:58 PM |

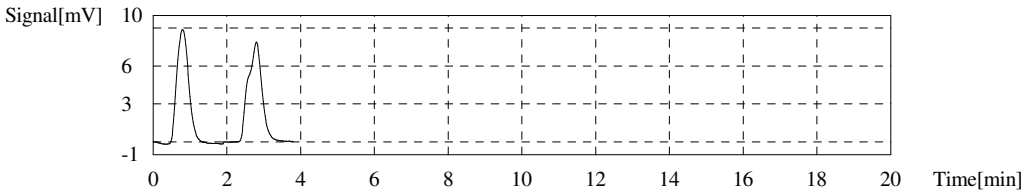
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 10.48 |




Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 20.82 | 50uL | 5.000 | ******* | | 3/14/2022 4:32:41 PM |
| 2 | 20.74 | 50uL | 5.000 | ******* | | 3/14/2022 4:34:50 PM |

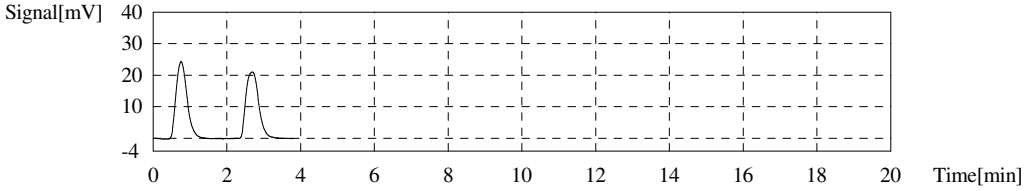
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 20.78




Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 52.01 | 50uL | 2.000 | ******* | | 3/14/2022 4:42:26 PM |
| 2 | 51.51 | 50uL | 2.000 | ******* | | 3/14/2022 4:44:35 PM |

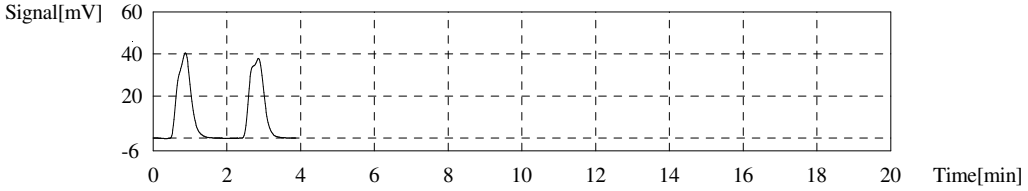
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 51.76



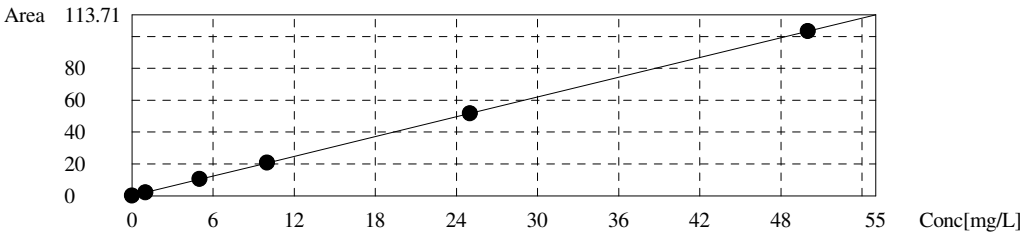

Conc: 50.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 103.2 | 50uL | 1.000 | ******* | | 3/14/2022 4:52:38 PM |
| 2 | 103.5 | 50uL | 1.000 | ******* | | 3/14/2022 4:54:43 PM |

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 103.3




Slope: 2.066
Intercept 0.09519
r^2 1.0000
r 1.0000
RSE(%) N/A
Zero Shift No




**Sample**

Sample Name: ICV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

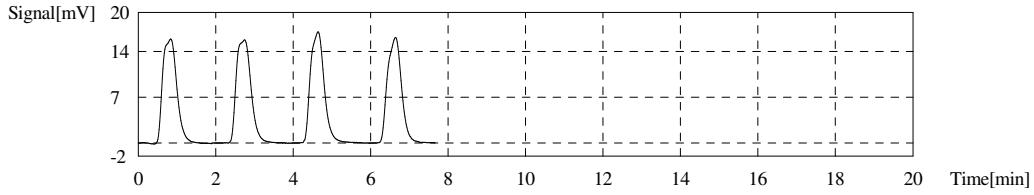
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:20.28mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 41.52 | 20.06mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:02:39 PM |
| 2 | 42.29 | 20.43mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:04:48 PM |
| 3 | 42.70 | 20.63mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:06:57 PM |
| 4 | 41.41 | 20.00mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:09:02 PM |

Mean Area 41.98
Mean Conc. 20.28mg/L




**Sample**

Sample Name: ICB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

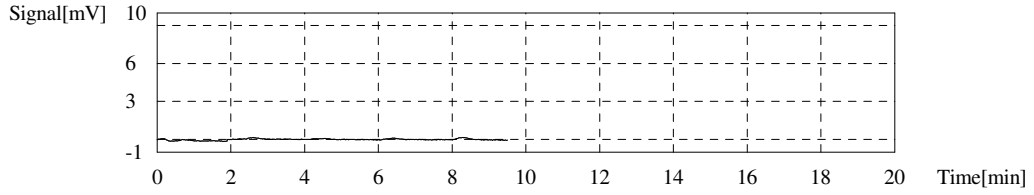
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08539mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2397 | 0.06996mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:16:56 PM |
| 2 | 0.1806 | 0.04135mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:19:05 PM |
| 3 | 0.000 | -0.04609mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:21:10 PM |
| 4 | 0.2943 | 0.09639mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:23:15 PM |
| 5 | 0.3717 | 0.1339mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:25:20 PM |

Mean Area 0.2716
Mean Conc. 0.08539mg/L




**Sample**

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

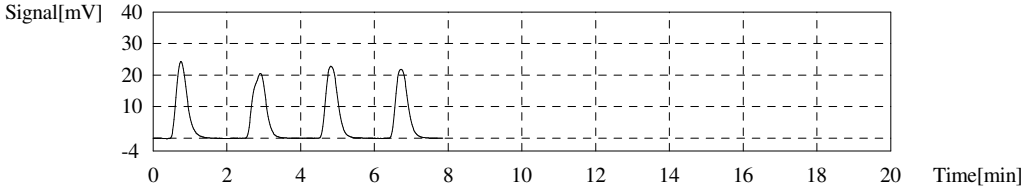
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.77mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 51.69 | 24.98mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:33:21 PM |
| 2 | 51.62 | 24.94mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:35:36 PM |
| 3 | 51.82 | 25.04mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:37:41 PM |
| 4 | 49.93 | 24.13mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:39:46 PM |

Mean Area 51.27
Mean Conc. 24.77mg/L




**Sample**

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

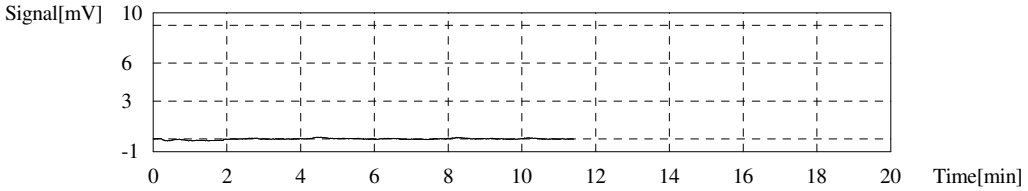
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.05641mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.1486 | 0.02586mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:47:40 PM |
| 2 | 0.000 | -0.04609mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:49:50 PM |
| 3 | 0.2599 | 0.07974mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:51:55 PM |
| 4 | 0.000 | -0.04609mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:54:00 PM |
| 5 | 0.1967 | 0.04914mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:56:05 PM |
| 6 | 0.2416 | 0.07088mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 5:58:10 PM |

Mean Area 0.2117
Mean Conc. 0.05641mg/L



**Sample**

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

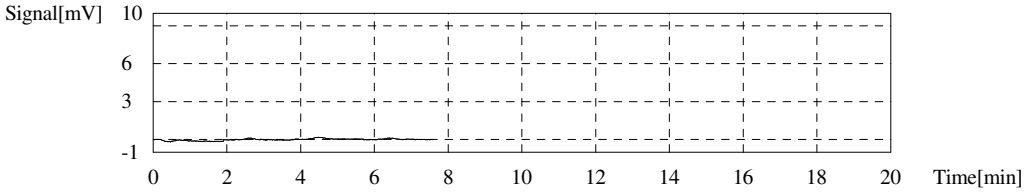
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.04026mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.1756 | 0.03893mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:05:57 PM |
| 2 | 0.1853 | 0.04362mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:08:06 PM |
| 3 | 0.2672 | 0.08327mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:10:11 PM |
| 4 | 0.08530 | -0.00479mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:12:16 PM |

Mean Area 0.1784
Mean Conc. 0.04026mg/L




**Sample**

Sample Name: lcs 280-568571/1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

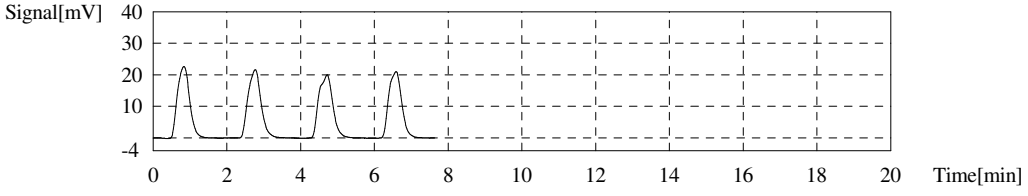
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.68mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 53.44 | 25.83mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:20:10 PM |
| 2 | 53.53 | 25.87mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:22:17 PM |
| 3 | 53.31 | 25.76mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:24:22 PM |
| 4 | 52.26 | 25.25mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:26:27 PM |

Mean Area 53.14
Mean Conc. 25.68mg/L



**Sample**

Sample Name: mb 280-568571/2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

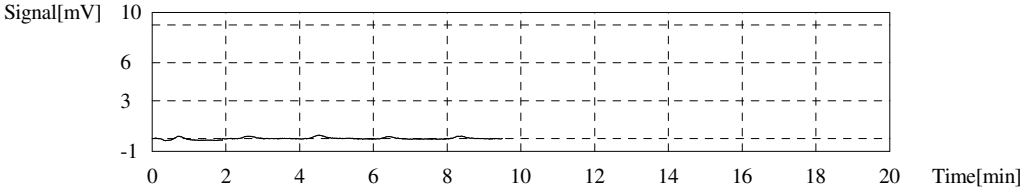
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2042mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6273 | 0.2576mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:34:21 PM |
| 2 | 0.4307 | 0.1624mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:36:30 PM |
| 3 | 0.5371 | 0.2139mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:38:35 PM |
| 4 | 0.2991 | 0.09872mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:40:40 PM |
| 5 | 0.4726 | 0.1827mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:42:45 PM |

Mean Area 0.5169
Mean Conc. 0.2042mg/L




**Sample**

Sample Name: 280-159234-m-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

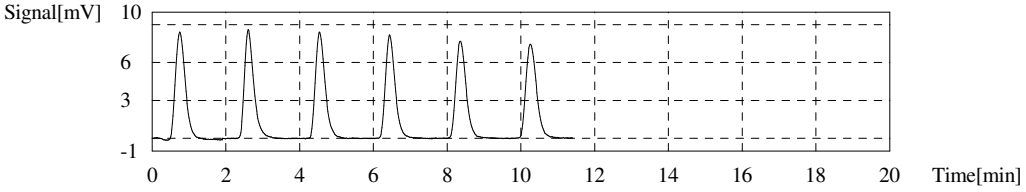
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.261mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 16.25 | 7.821mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:50:37 PM |
| 2 | 15.38 | 7.400mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:52:46 PM |
| 3 | 15.54 | 7.477mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:54:51 PM |
| 4 | 14.88 | 7.158mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:56:56 PM |
| 5 | 14.97 | 7.201mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 6:59:01 PM |
| 6 | 15.14 | 7.284mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:01:06 PM |

Mean Area 15.09
Mean Conc. 7.261mg/L



**Sample**

Sample Name: 280-159234-m-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

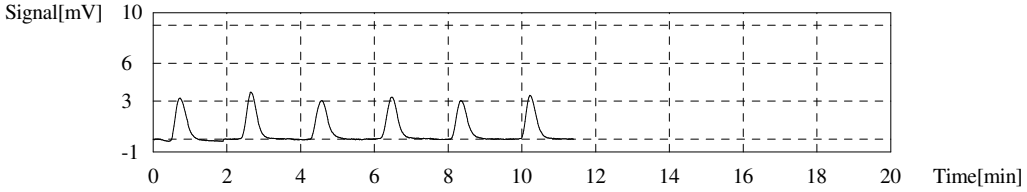
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.134mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.204 | 3.442mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:08:53 PM |
| 2 | 7.039 | 3.362mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:11:02 PM |
| 3 | 6.676 | 3.186mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:13:07 PM |
| 4 | 6.674 | 3.185mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:15:12 PM |
| 5 | 6.353 | 3.030mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:17:17 PM |
| 6 | 6.572 | 3.136mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:19:22 PM |

Mean Area 6.569
Mean Conc. 3.134mg/L




**Sample**

Sample Name: 280-159234-m-3-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

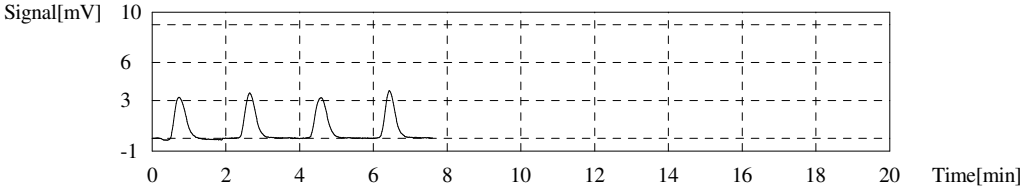
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.456mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.441 | 3.556mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:27:09 PM |
| 2 | 7.148 | 3.414mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:29:18 PM |
| 3 | 7.174 | 3.427mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:31:23 PM |
| 4 | 7.171 | 3.426mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:33:28 PM |

Mean Area 7.234
Mean Conc. 3.456mg/L




**Sample**

Sample Name: 280-159234-m-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

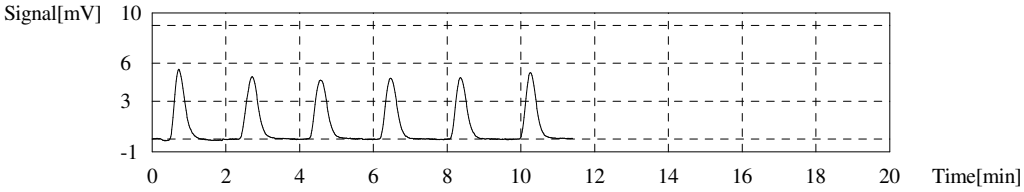
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.057mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.34 | 5.444mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:41:22 PM |
| 2 | 11.14 | 5.347mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:43:31 PM |
| 3 | 10.68 | 5.124mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:45:37 PM |
| 4 | 10.53 | 5.052mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:47:42 PM |
| 5 | 10.29 | 4.936mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:49:47 PM |
| 6 | 10.66 | 5.115mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:51:52 PM |

Mean Area 10.54
Mean Conc. 5.057mg/L




**Sample**

Sample Name: 280-159234-m-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

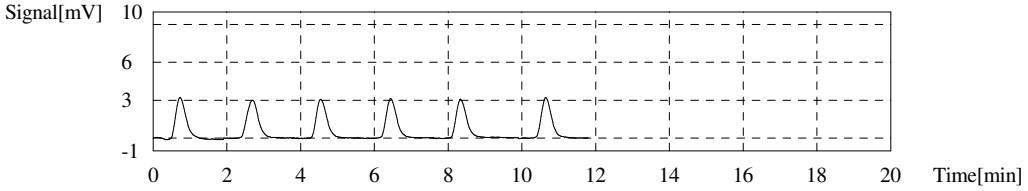
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.966mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.678 | 3.187mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 7:59:39 PM |
| 2 | 6.608 | 3.153mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:01:48 PM |
| 3 | 6.035 | 2.876mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:03:53 PM |
| 4 | 6.184 | 2.948mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:05:58 PM |
| 5 | 6.401 | 3.053mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:08:27 PM |
| 6 | 6.267 | 2.988mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:10:36 PM |

Mean Area 6.222
Mean Conc. 2.966mg/L




**Sample**

Sample Name: 280-159234-m-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

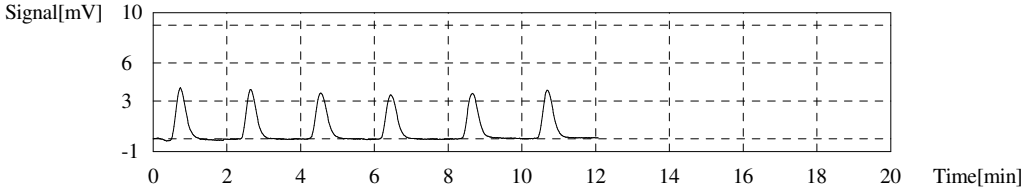
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.614mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.217 | 3.932mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:18:23 PM |
| 2 | 7.431 | 3.552mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:20:32 PM |
| 3 | 7.790 | 3.725mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:22:37 PM |
| 4 | 7.470 | 3.570mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:25:00 PM |
| 5 | 7.663 | 3.664mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:27:14 PM |
| 6 | 7.678 | 3.671mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:29:32 PM |

Mean Area 7.561
Mean Conc. 3.614mg/L




**Sample**

Sample Name: 280-159234-m-7-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

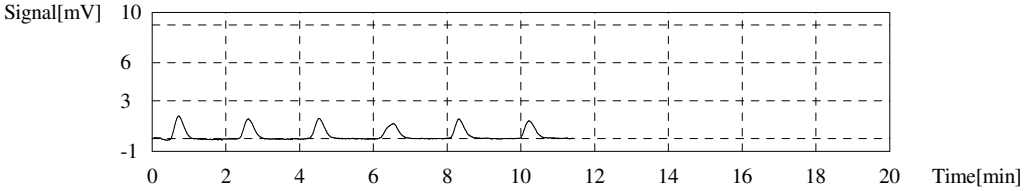
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.378mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 3.400 | 1.600mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:37:19 PM |
| 2 | 3.054 | 1.432mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:39:29 PM |
| 3 | 3.016 | 1.414mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:41:34 PM |
| 4 | 2.875 | 1.346mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:43:39 PM |
| 5 | 2.824 | 1.321mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:45:44 PM |
| 6 | 2.697 | 1.260mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:47:54 PM |

Mean Area 2.942
Mean Conc. 1.378mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

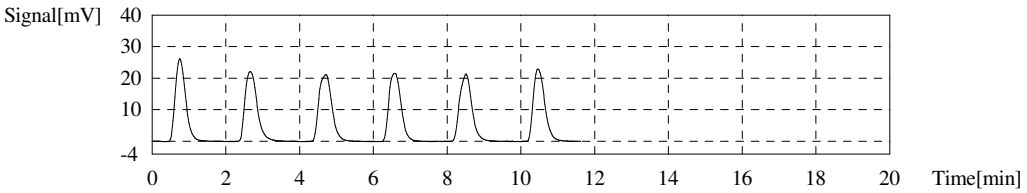
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.36mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 52.26 | 25.25mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:55:41 PM |
| 2 | 51.38 | 24.83mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:57:51 PM |
| 3 | 52.71 | 25.47mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 8:59:56 PM |
| 4 | 50.01 | 24.17mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:02:01 PM |
| 5 | 49.99 | 24.16mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:04:14 PM |
| 6 | 50.26 | 24.29mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:06:19 PM |

Mean Area 50.41
Mean Conc. 24.36mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

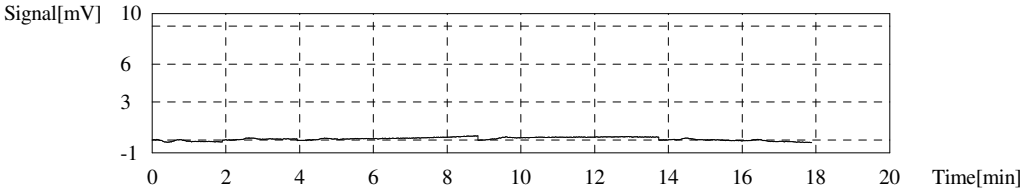
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.06800mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2930 | 0.09577mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:14:06 PM |
| 2 | 0.3385 | 0.1178mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:16:23 PM |
| 3 | 0.000 | -0.04609mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:21:32 PM |
| 4 | 2.478 | 1.154mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:26:41 PM |
| 5 | 0.2133 | 0.05718mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:28:50 PM |
| 6 | 0.09780 | 0.00126mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:31:16 PM |

Mean Area 0.2357
Mean Conc. 0.06800mg/L




**Sample**

Sample Name: 280-159234-m-7-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

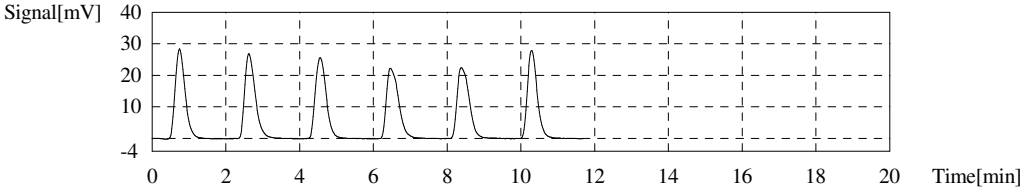
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.25mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 53.99 | 26.09mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:39:03 PM |
| 2 | 54.18 | 26.18mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:41:12 PM |
| 3 | 53.42 | 25.82mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:43:20 PM |
| 4 | 51.69 | 24.98mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:45:25 PM |
| 5 | 51.61 | 24.94mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:47:30 PM |
| 6 | 52.26 | 25.25mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:49:53 PM |

Mean Area 52.25
Mean Conc. 25.25mg/L




**Sample**

Sample Name: 280-159234-m-7-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

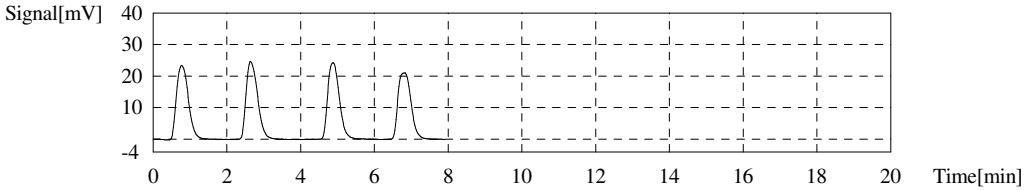
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.90mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 53.75 | 25.98mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 9:57:40 PM |
| 2 | 54.57 | 26.37mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:00:04 PM |
| 3 | 53.72 | 25.96mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:02:13 PM |
| 4 | 52.35 | 25.30mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:04:18 PM |

Mean Area 53.60
Mean Conc. 25.90mg/L




**Sample**

Sample Name: 280-159234-m-8-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

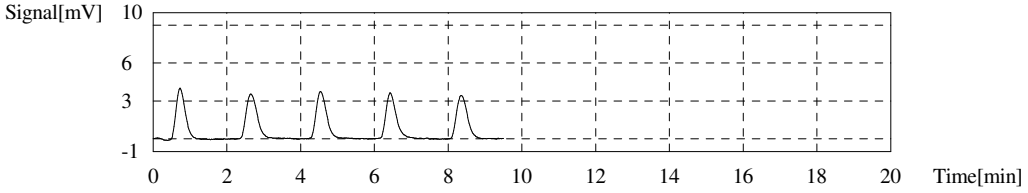
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.443mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.247 | 3.462mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:12:12 PM |
| 2 | 7.528 | 3.598mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:14:17 PM |
| 3 | 7.248 | 3.463mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:16:22 PM |
| 4 | 7.117 | 3.399mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:18:27 PM |
| 5 | 7.219 | 3.449mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:20:32 PM |

Mean Area 7.208
Mean Conc. 3.443mg/L



**Sample**

Sample Name: 280-159234-m-9-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

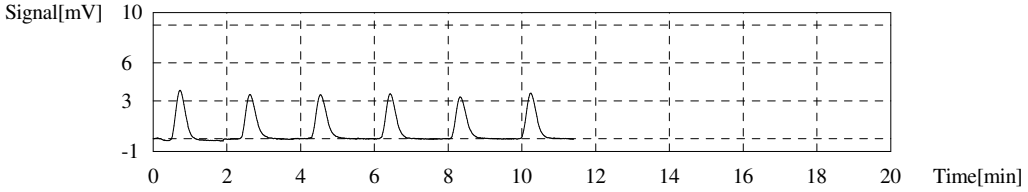
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.296mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.401 | 3.537mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:28:24 PM |
| 2 | 7.020 | 3.353mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:30:33 PM |
| 3 | 6.966 | 3.326mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:32:38 PM |
| 4 | 6.785 | 3.239mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:34:43 PM |
| 5 | 6.456 | 3.079mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:36:48 PM |
| 6 | 6.840 | 3.265mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:38:53 PM |

Mean Area 6.903
Mean Conc. 3.296mg/L




**Sample**

Sample Name: 280-159234-m-10-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

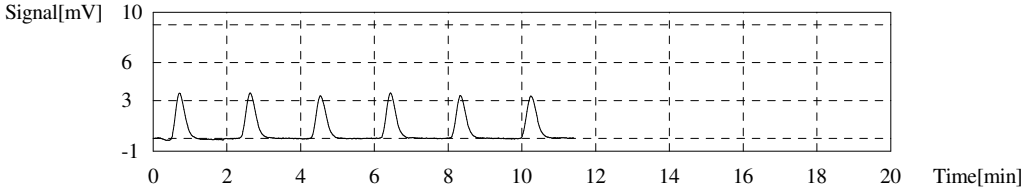
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.203mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.835 | 3.263mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:46:40 PM |
| 2 | 6.816 | 3.254mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:48:49 PM |
| 3 | 6.402 | 3.053mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:50:54 PM |
| 4 | 6.592 | 3.145mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:52:59 PM |
| 5 | 6.186 | 2.949mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:55:04 PM |
| 6 | 6.605 | 3.152mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 10:57:09 PM |

Mean Area 6.712
Mean Conc. 3.203mg/L



**Sample**

Sample Name: 280-159332-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

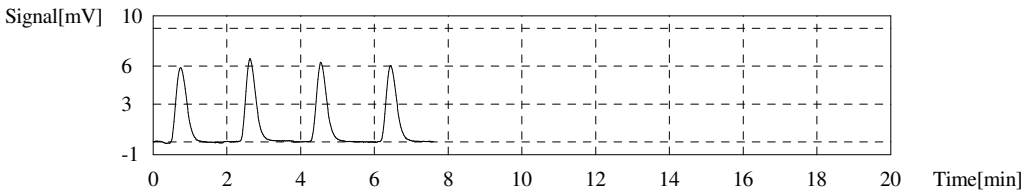
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.887mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.35 | 5.933mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:04:57 PM |
| 2 | 12.33 | 5.923mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:07:05 PM |
| 3 | 12.18 | 5.851mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:09:14 PM |
| 4 | 12.16 | 5.841mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:11:19 PM |

Mean Area 12.25
Mean Conc. 5.887mg/L




**Sample**

Sample Name: 280-159332-d-1-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

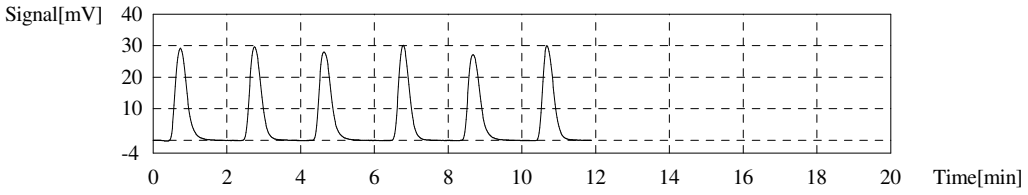
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:30.10mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 65.20 | 31.52mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:19:19 PM |
| 2 | 64.28 | 31.07mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:21:24 PM |
| 3 | 63.53 | 30.71mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:23:43 PM |
| 4 | 61.64 | 29.80mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:25:48 PM |
| 5 | 61.92 | 29.93mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:28:00 PM |
| 6 | 61.97 | 29.96mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:30:07 PM |

Mean Area 62.27
Mean Conc. 30.10mg/L




**Sample**

Sample Name: 280-159332-d-1-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

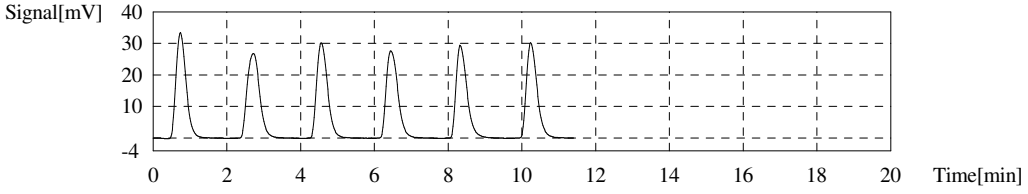
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:29.85mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 64.84 | 31.35mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:37:55 PM |
| 2 | 64.14 | 31.01mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:40:00 PM |
| 3 | 62.77 | 30.34mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:42:05 PM |
| 4 | 61.63 | 29.79mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:44:10 PM |
| 5 | 60.91 | 29.44mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:46:15 PM |
| 6 | 61.73 | 29.84mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:48:24 PM |

Mean Area 61.76
Mean Conc. 29.85mg/L




**Sample**

Sample Name: 280-159332-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

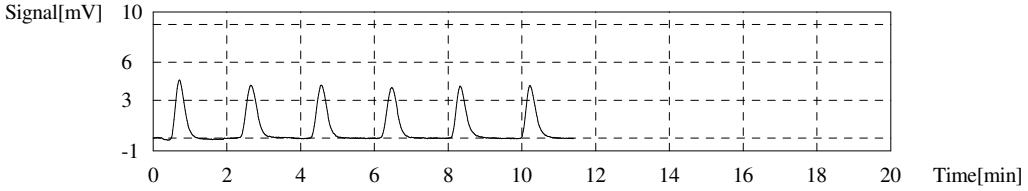
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.834mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.480 | 4.059mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:56:12 PM |
| 2 | 8.691 | 4.162mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/14/2022 11:58:21 PM |
| 3 | 8.258 | 3.952mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:00:26 AM |
| 4 | 8.004 | 3.829mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:02:31 AM |
| 5 | 7.874 | 3.766mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:04:36 AM |
| 6 | 7.921 | 3.789mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:06:41 AM |

Mean Area 8.014
Mean Conc. 3.834mg/L




**Sample**

Sample Name: 280-159332-d-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

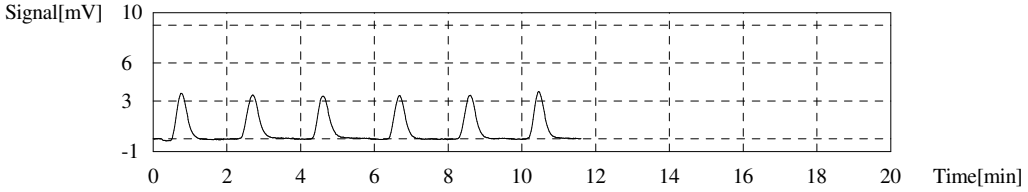
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.576mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.633 | 3.649mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:14:29 AM |
| 2 | 7.902 | 3.780mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:16:36 AM |
| 3 | 7.482 | 3.576mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:18:51 AM |
| 4 | 7.079 | 3.381mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:20:57 AM |
| 5 | 7.301 | 3.489mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:23:02 AM |
| 6 | 7.508 | 3.589mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:25:07 AM |

Mean Area 7.481
Mean Conc. 3.576mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

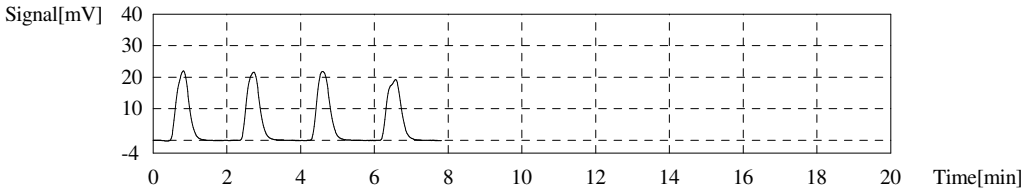
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.21mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 52.38 | 25.31mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:32:55 AM |
| 2 | 52.27 | 25.26mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:35:04 AM |
| 3 | 52.54 | 25.39mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:37:09 AM |
| 4 | 51.51 | 24.89mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:39:27 AM |

Mean Area 52.17
Mean Conc. 25.21mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

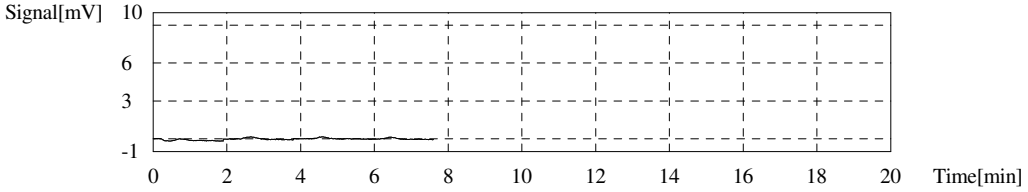
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08879mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2583 | 0.07897mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:47:21 AM |
| 2 | 0.3375 | 0.1173mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:49:30 AM |
| 3 | 0.2324 | 0.06643mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:51:39 AM |
| 4 | 0.2862 | 0.09247mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 12:53:44 AM |

Mean Area 0.2786
Mean Conc. 0.08879mg/L




**Sample**

Sample Name: 280-159332-d-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

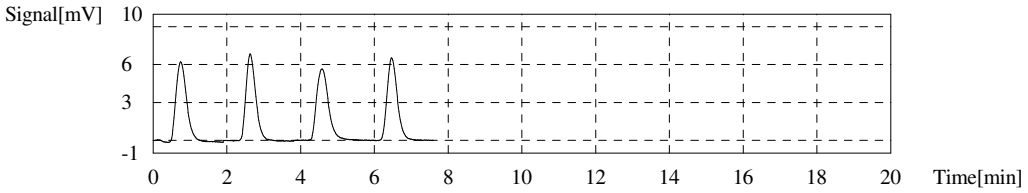
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.115mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.90 | 6.199mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:01:38 AM |
| 2 | 12.71 | 6.107mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:03:48 AM |
| 3 | 12.56 | 6.035mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:05:57 AM |
| 4 | 12.73 | 6.117mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:08:02 AM |

Mean Area 12.73
Mean Conc. 6.115mg/L




**Sample**

Sample Name: 280-159332-d-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

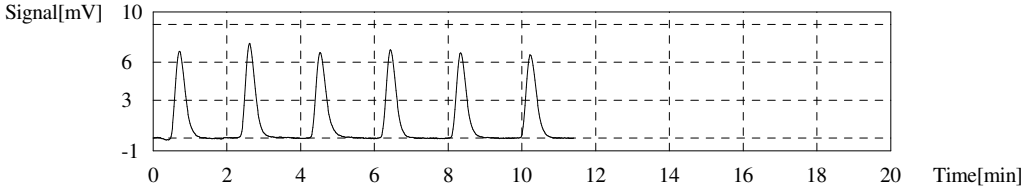
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.291mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 13.69 | 6.582mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:15:55 AM |
| 2 | 13.81 | 6.640mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:18:06 AM |
| 3 | 13.36 | 6.422mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:20:11 AM |
| 4 | 13.11 | 6.301mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:22:16 AM |
| 5 | 12.91 | 6.204mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:24:21 AM |
| 6 | 12.98 | 6.238mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:26:25 AM |

Mean Area 13.09
Mean Conc. 6.291mg/L




**Sample**

Sample Name: 280-159332-d-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

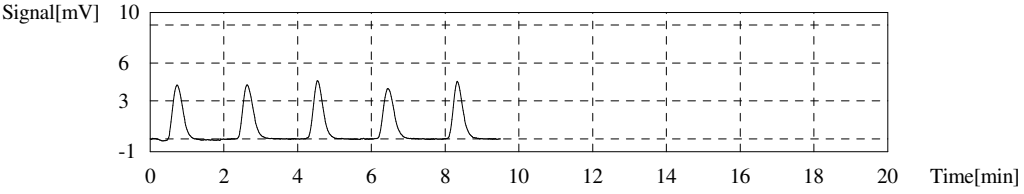
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.950mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.659 | 4.146mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:34:14 AM |
| 2 | 8.359 | 4.001mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:36:22 AM |
| 3 | 8.402 | 4.022mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:38:28 AM |
| 4 | 8.055 | 3.854mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:40:33 AM |
| 5 | 8.203 | 3.925mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:42:38 AM |

Mean Area 8.255
Mean Conc. 3.950mg/L




**Sample**

Sample Name: 280-159332-d-7-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

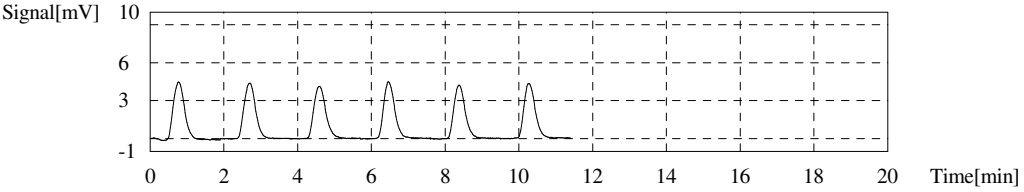
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.486mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 9.927 | 4.760mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:50:32 AM |
| 2 | 9.495 | 4.551mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:52:40 AM |
| 3 | 9.288 | 4.451mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:54:45 AM |
| 4 | 9.332 | 4.472mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:56:50 AM |
| 5 | 9.033 | 4.327mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 1:58:55 AM |
| 6 | 9.333 | 4.472mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:01:00 AM |

Mean Area 9.362
Mean Conc. 4.486mg/L




**Sample**

Sample Name: 280-159332-d-8-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

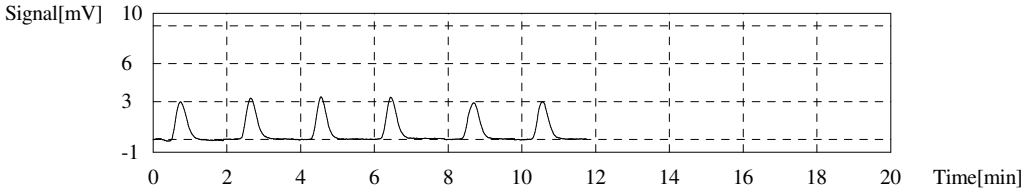
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.078mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.590 | 3.144mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:08:48 AM |
| 2 | 6.511 | 3.106mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:10:57 AM |
| 3 | 6.333 | 3.020mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:13:02 AM |
| 4 | 6.824 | 3.258mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:15:25 AM |
| 5 | 6.145 | 2.929mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:17:34 AM |
| 6 | 6.376 | 3.041mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:19:46 AM |

Mean Area 6.453
Mean Conc. 3.078mg/L




**Sample**

Sample Name: 280-159332-d-9-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

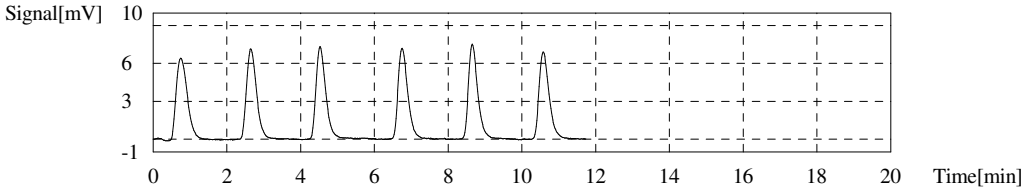
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.446mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 14.01 | 6.737mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:27:34 AM |
| 2 | 13.63 | 6.553mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:29:39 AM |
| 3 | 13.90 | 6.683mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:32:04 AM |
| 4 | 13.37 | 6.427mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:34:13 AM |
| 5 | 13.26 | 6.374mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:36:18 AM |
| 6 | 13.38 | 6.432mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:38:23 AM |

Mean Area 13.41
Mean Conc. 6.446mg/L



**Sample**

Sample Name: 280-159332-d-10-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

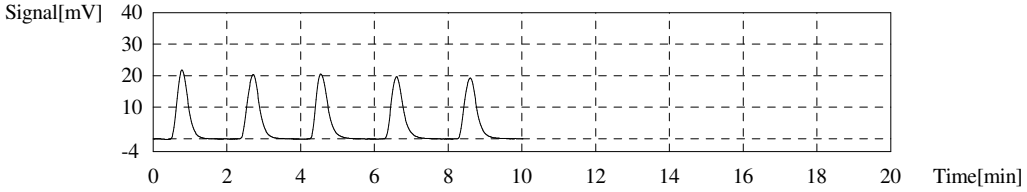
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:22.41mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 46.40 | 22.42mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:46:11 AM |
| 2 | 46.61 | 22.52mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:48:16 AM |
| 3 | 46.94 | 22.68mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:50:28 AM |
| 4 | 44.82 | 21.65mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:52:38 AM |
| 5 | 45.57 | 22.02mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 2:55:03 AM |

Mean Area 46.38
Mean Conc. 22.41mg/L




**Sample**

Sample Name: 280-159332-d-11-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

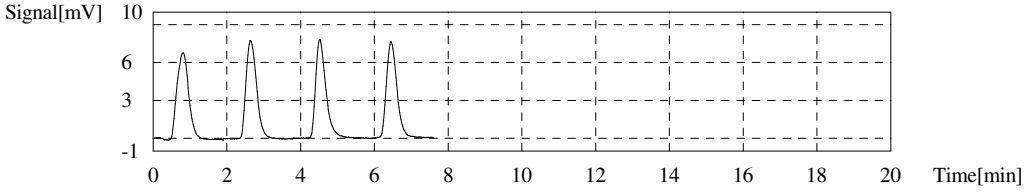
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.412mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 15.53 | 7.472mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:02:56 AM |
| 2 | 15.66 | 7.535mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:05:05 AM |
| 3 | 15.23 | 7.327mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:07:11 AM |
| 4 | 15.20 | 7.313mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:09:16 AM |

Mean Area 15.41
Mean Conc. 7.412mg/L



**Sample**

Sample Name: 280-159332-d-12-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

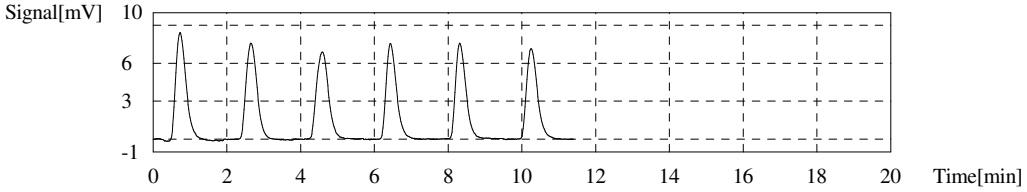
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.230mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 17.33 | 8.344mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:17:10 AM |
| 2 | 15.97 | 7.686mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:19:19 AM |
| 3 | 15.55 | 7.482mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:21:29 AM |
| 4 | 14.93 | 7.182mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:23:34 AM |
| 5 | 14.67 | 7.056mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:25:43 AM |
| 6 | 14.97 | 7.201mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:27:52 AM |

Mean Area 15.03
Mean Conc. 7.230mg/L




**Sample**

Sample Name: 280-159332-d-13-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

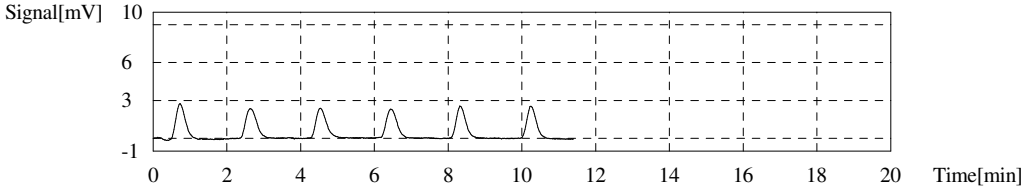
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.191mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.260 | 2.500mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:35:40 AM |
| 2 | 4.899 | 2.326mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:37:49 AM |
| 3 | 4.769 | 2.263mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:39:58 AM |
| 4 | 4.552 | 2.158mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:42:06 AM |
| 5 | 4.665 | 2.212mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:44:11 AM |
| 6 | 4.498 | 2.132mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:46:16 AM |

Mean Area 4.621
Mean Conc. 2.191mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

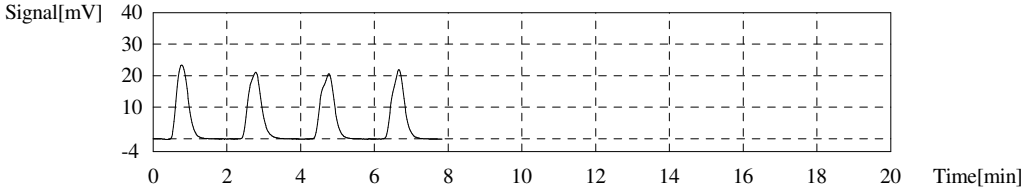
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.33mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 52.73 | 25.48mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:54:07 AM |
| 2 | 52.75 | 25.49mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:56:14 AM |
| 3 | 52.72 | 25.48mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:58:20 AM |
| 4 | 51.49 | 24.88mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:00:33 AM |

Mean Area 52.42
Mean Conc. 25.33mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

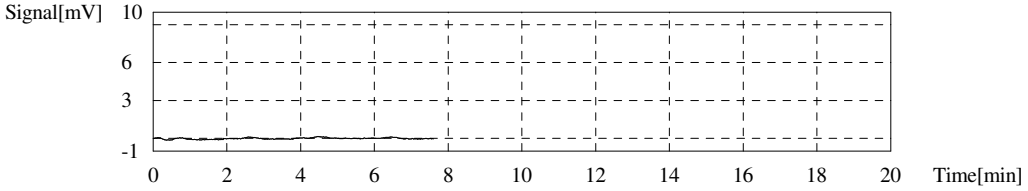
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08737mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2861 | 0.09242mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:08:27 AM |
| 2 | 0.2443 | 0.07219mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:10:37 AM |
| 3 | 0.3275 | 0.1125mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:12:45 AM |
| 4 | 0.2447 | 0.07238mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:14:50 AM |

Mean Area 0.2757
Mean Conc. 0.08737mg/L




**Sample**

Sample Name: 280-159332-d-13-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

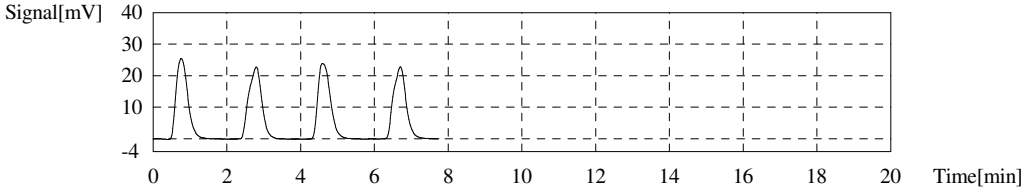
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:27.27mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 57.24 | 27.67mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:22:45 AM |
| 2 | 56.62 | 27.37mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:24:52 AM |
| 3 | 56.93 | 27.52mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:27:03 AM |
| 4 | 54.88 | 26.52mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:29:08 AM |

Mean Area 56.42
Mean Conc. 27.27mg/L




**Sample**

Sample Name: 280-159332-d-13-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

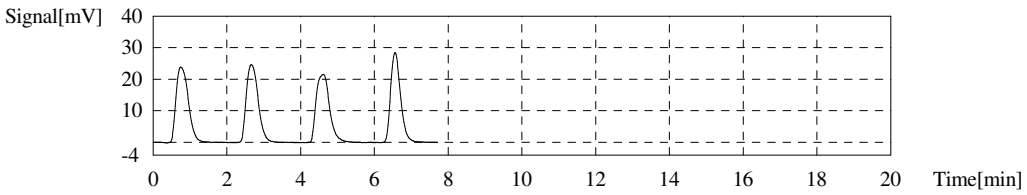
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.80mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 56.45 | 27.28mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:37:02 AM |
| 2 | 55.99 | 27.06mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:39:07 AM |
| 3 | 55.21 | 26.68mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:41:19 AM |
| 4 | 54.13 | 26.16mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:43:24 AM |

Mean Area 55.45
Mean Conc. 26.80mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

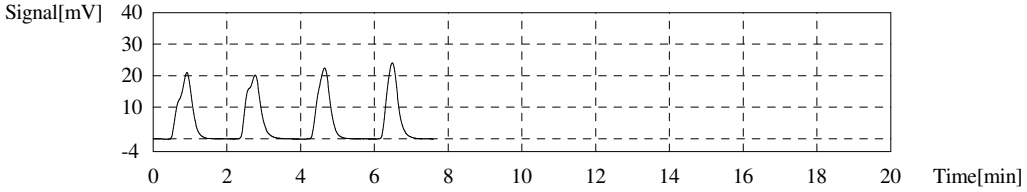
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.45mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 52.99 | 25.61mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:51:19 AM |
| 2 | 53.38 | 25.80mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:53:24 AM |
| 3 | 52.80 | 25.52mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:55:29 AM |
| 4 | 51.46 | 24.87mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:57:34 AM |

Mean Area 52.66
Mean Conc. 25.45mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:-0.00468mg/L |

1. Det

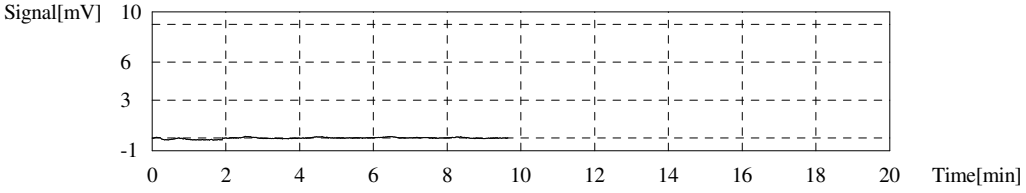
Anal.: NPOC

# TOC-Control L Report

H
2022_03_14_001.tlx

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2554 | 0.07756mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:05:28 AM |
| 2 | 0.1980 | 0.04977mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:07:38 AM |
| 3 | 0.000 | -0.04609mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:09:43 AM |
| 4 | 0.1026 | 0.00359mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:11:48 AM |
| 5 | 0.04150 | -0.02599mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:14:03 AM |

Mean Area 0.08553
Mean Conc. -0.00468mg/L



| | Type | Analysis | Sample Name | Sample ID | Origin | Manual Dilution |
|---|---|---|---|---|---|---|
| 1 | Unknown | NPOC | ICV | | NPOC 2022.met | 1.000 |
| 2 | Unknown | NPOC | ICB | | NPOC 2022.met | 1.000 |
| 3 | Unknown | NPOC | LCS | | NPOC 2022.met | 1.000 |
| 4 | Unknown | NPOC | MB | | NPOC 2022.met | 1.000 |
| 5 | Unknown | NPOC | TIC | | NPOC 2022.met | 1.000 |
| 6 | Unknown | NPOC | lcs 280-568705/1-a | | NPOC 2022.met | 1.000 |
| 7 | Unknown | NPOC | mb 280-568705/2-a | | NPOC 2022.met | 1.000 |
| 8 | Unknown | NPOC | 280-159454-d-1-a | | NPOC 2022.met | 1.000 |
| 9 | Unknown | NPOC | 280-159454-d-1-b ms | | NPOC 2022.met | 1.000 |
| 10 | Unknown | NPOC | 280-159454-d-1-c msd | | NPOC 2022.met | 1.000 |
| 11 | Unknown | NPOC | 280-159454-d-2-a | | NPOC 2022.met | 1.000 |
| 12 | Unknown | NPOC | 280-159384-d-1-a | | NPOC 2022.met | 1.000 |
| 13 | Unknown | NPOC | 280-159384-d-2-a | | NPOC 2022.met | 1.000 |
| 14 | Unknown | NPOC | 280-159384-d-4-a | | NPOC 2022.met | 1.000 |
| 15 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 16 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |
| 17 | Unknown | NPOC | 280-159384-d-5-a | | NPOC 2022.met | 1.000 |
| 18 | Unknown | NPOC | 280-159384-d-6-a | | NPOC 2022.met | 1.000 |
| 19 | Unknown | NPOC | CCV | | NPOC 2022.met | 1.000 |
| 20 | Unknown | NPOC | CCB | | NPOC 2022.met | 1.000 |

| | Result | Notes | Status | Date / Time |
|---|---|---|---|---|
| 1 | NPOC:19.70mg/L | | Completed | 3/15/2022 3:51:24 PM |
| 2 | NPOC:0.08188mg/L | | Completed | 3/15/2022 4:05:36 PM |
| 3 | NPOC:24.61mg/L | | Completed | 3/15/2022 4:19:57 PM |
| 4 | NPOC:-0.03752mg/L | | Completed | 3/15/2022 4:34:15 PM |
| 5 | NPOC:0.1381mg/L | | Completed | 3/15/2022 4:48:29 PM |
| 6 | NPOC:24.89mg/L | | Completed | 3/15/2022 5:02:41 PM |
| 7 | NPOC:0.2674mg/L | | Completed | 3/15/2022 5:19:00 PM |
| 8 | NPOC:9.489mg/L | | Completed | 3/15/2022 5:33:09 PM |
| 9 | NPOC:33.42mg/L | | Completed | 3/15/2022 5:51:38 PM |
| 10 | NPOC:33.59mg/L | | Completed | 3/15/2022 6:10:09 PM |
| 11 | NPOC:9.110mg/L | | Completed | 3/15/2022 6:28:25 PM |
| 12 | NPOC:3.707mg/L | | Completed | 3/15/2022 6:46:41 PM |
| 13 | NPOC:5.557mg/L | | Completed | 3/15/2022 7:05:06 PM |
| 14 | NPOC:42.66mg/L | | Completed | 3/15/2022 7:23:34 PM |
| 15 | NPOC:24.70mg/L | | Completed | 3/15/2022 7:39:42 PM |
| 16 | NPOC:0.1077mg/L | | Completed | 3/15/2022 7:55:59 PM |
| 17 | NPOC:17.85mg/L | | Completed | 3/15/2022 8:10:11 PM |
| 18 | NPOC:7.941mg/L | | Completed | 3/15/2022 8:26:25 PM |
| 19 | NPOC:24.50mg/L | | Completed | 3/15/2022 8:42:45 PM |
| 20 | NPOC:0.3797mg/L | | Completed | 3/15/2022 9:01:07 PM |

| | Vial |
|---|---|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |
| 8 | 8 |
| 9 | 9 |
| 10 | 10 |
| 11 | 11 |
| 12 | 12 |
| 13 | 13 |
| 14 | 14 |
| 15 | 15 |
| 16 | 16 |
| 17 | 17 |
| 18 | 18 |
| 19 | 19 |
| 20 | 20 |

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC11.2022 03 14 15 53 52.cal

| | |
|---|---|
| Date of Creation | 3/14/2022 4:54:43 PM |
| User | H |
| System | TOC-LCSN |

**Cal. Curve**

| | |
|---|---|
| Sample Name: | CAL |
| Sample ID: | |
| Object ID | 0L-10900100866-10101000-134899A253D4-0000 |
| Cal. Curve: | NPOC11.2022_03_14_15_53_52.cal |
| Status | Completed |
| Comment: | |

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 0.1367 | 50uL | 1.000 | ******* | | 3/14/2022 4:01:09 PM |
| 2 | 0.1047 | 50uL | 1.000 | ******* | | 3/14/2022 4:03:18 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 0.1207 |
| SD Area | 0.02263 |
| CV Area | 18.75% |
| Vial | 90 |
| No Washes | 2 |

Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 2.048 | 50uL | 50.00 | ******* | | 3/14/2022 4:11:59 PM |
| 2 | 2.033 | 50uL | 50.00 | ******* | | 3/14/2022 4:14:08 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 2.040 |
| SD Area | 0.01061 |
| CV Area | 0.52% |
| Vial | 91 |
| No Washes | 2 |

Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 10.55 | 50uL | 10.00 | ******* | | 3/14/2022 4:21:44 PM |
| 2 | 10.42 | 50uL | 10.00 | ******* | | 3/14/2022 4:23:58 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 10.48 |
| SD Area | 0.09192 |
| CV Area | 0.88% |
| Vial | 91 |
| No Washes | 2 |

Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 20.82 | 50uL | 5.000 | ******* | | 3/14/2022 4:32:41 PM |
| 2 | 20.74 | 50uL | 5.000 | ******* | | 3/14/2022 4:34:50 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 20.78 |
| SD Area | 0.05657 |
| CV Area | 0.27% |
| Vial | 92 |
| No Washes | 2 |

Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 52.01 | 50uL | 2.000 | ******* | | 3/14/2022 4:42:26 PM |
| 2 | 51.51 | 50uL | 2.000 | ******* | | 3/14/2022 4:44:35 PM |

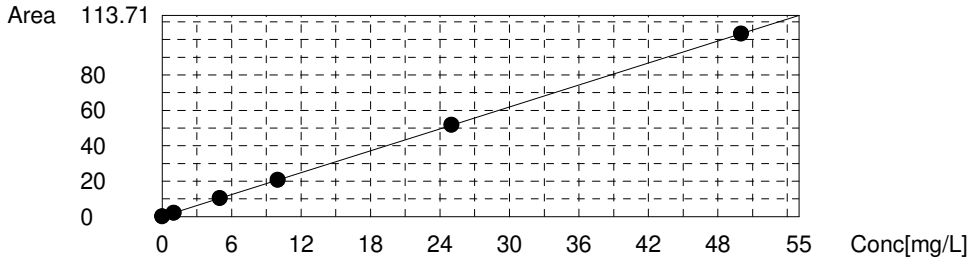
| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 51.76 |
| SD Area | 0.3536 |
| CV Area | 0.68% |
| Vial | 92 |
| No Washes | 2 |

Conc: 50.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 103.2 | 50uL | 1.000 | ******* | | 3/14/2022 4:52:38 PM |
| 2 | 103.5 | 50uL | 1.000 | ******* | | 3/14/2022 4:54:43 PM |

| | |
|---|---|
| Acid Add. | 1.500% |
| Sparge Gas Flow | 80mL/min |
| Sp. Time | 90.00sec |
| Mean Area | 103.3 |
| SD Area | 0.2121 |
| CV Area | 0.21% |
| Vial | 93 |
| No Washes | 2 |

| | |
|---|---|
| Slope: | 2.066 |
| Intercept | 0.09519 |
| r^2 | 1.0000 |
| r | 1.0000 |
| RSE(%) | N/A |
| Zero Shift | No |



# TOC-Control L Report

H
2022_03_15_001.tlx

**Instr.Information**

Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

**Sample**

Sample Name: ICV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

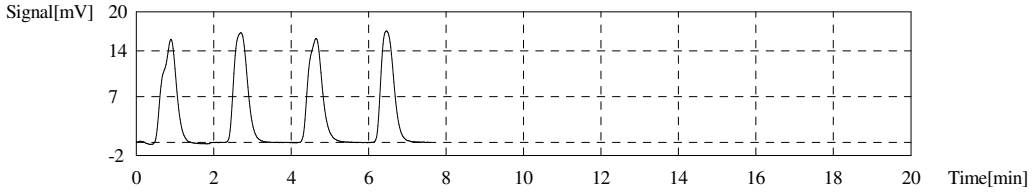
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:19.70mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 41.08 | 19.84mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:45:05 PM |
| 2 | 41.43 | 20.01mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:47:14 PM |
| 3 | 40.84 | 19.73mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:49:19 PM |
| 4 | 39.82 | 19.23mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:51:24 PM |

Mean Area 40.79
Mean Conc. 19.70mg/L




**Sample**

Sample Name: ICB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

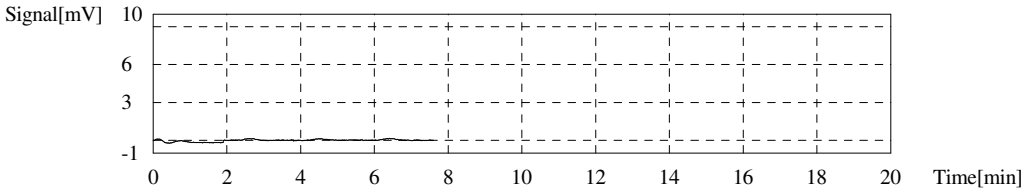
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08188mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3305 | 0.1139mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 3:59:17 PM |
| 2 | 0.2591 | 0.07935mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:01:26 PM |
| 3 | 0.1759 | 0.03907mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:03:31 PM |
| 4 | 0.2918 | 0.09518mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:05:36 PM |

Mean Area 0.2643
Mean Conc. 0.08188mg/L




**Sample**

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

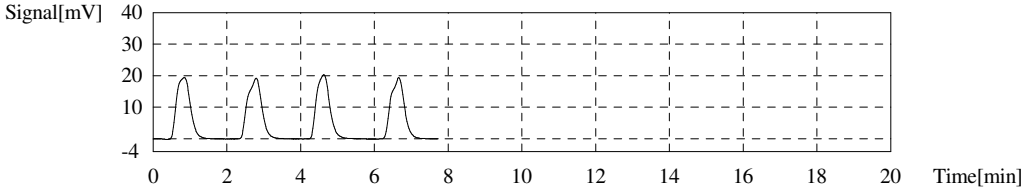
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.61mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 51.28 | 24.78mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:13:29 PM |
| 2 | 51.42 | 24.85mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:15:34 PM |
| 3 | 50.95 | 24.62mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:17:49 PM |
| 4 | 50.08 | 24.20mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:19:57 PM |

Mean Area 50.93
Mean Conc. 24.61mg/L




**Sample**

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

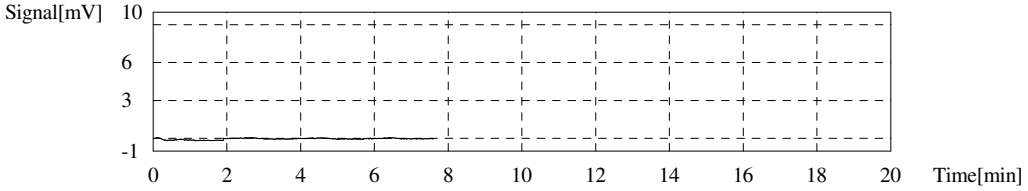
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:-0.03752mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.07080 | -0.01181mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:27:51 PM |
| 2 | 0.000 | -0.04609mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:30:01 PM |
| 3 | 0.000 | -0.04609mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:32:06 PM |
| 4 | 0.000 | -0.04609mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:34:15 PM |

Mean Area 0.01770
Mean Conc. -0.03752mg/L




**Sample**

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

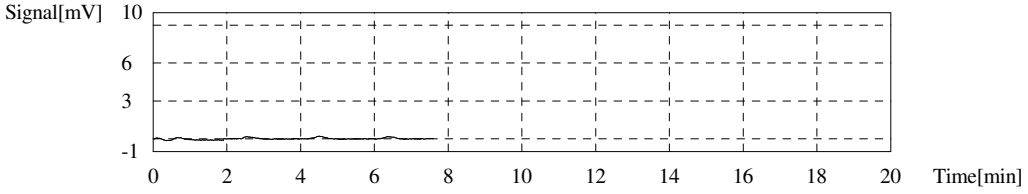
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1381mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.4362 | 0.1651mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:42:09 PM |
| 2 | 0.2692 | 0.08424mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:44:19 PM |
| 3 | 0.4188 | 0.1567mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:46:24 PM |
| 4 | 0.3976 | 0.1464mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:48:29 PM |

Mean Area 0.3805
Mean Conc. 0.1381mg/L




**Sample**

Sample Name: lcs 280-568705/1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

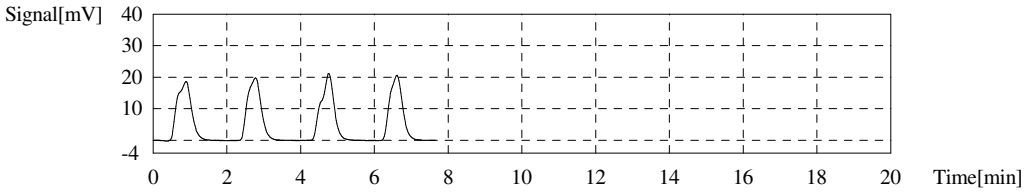
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.89mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 51.71 | 24.99mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:56:23 PM |
| 2 | 51.98 | 25.12mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 4:58:31 PM |
| 3 | 51.76 | 25.01mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:00:36 PM |
| 4 | 50.59 | 24.45mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:02:41 PM |

Mean Area 51.51
Mean Conc. 24.89mg/L




**Sample**

Sample Name: mb 280-568705/2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

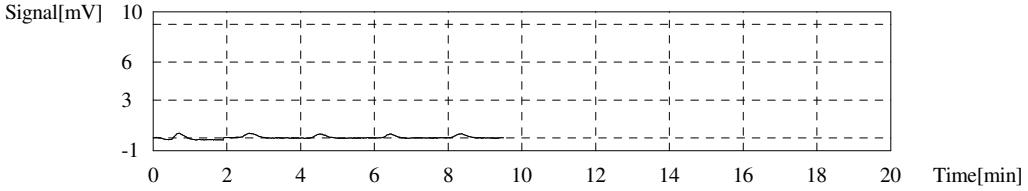
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2674mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.9155 | 0.3971mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:10:35 PM |
| 2 | 0.7335 | 0.3090mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:12:45 PM |
| 3 | 0.6867 | 0.2864mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:14:50 PM |
| 4 | 0.5394 | 0.2151mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:16:55 PM |
| 5 | 0.6308 | 0.2593mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:19:00 PM |

Mean Area 0.6476
Mean Conc. 0.2674mg/L




**Sample**

Sample Name: 280-159454-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

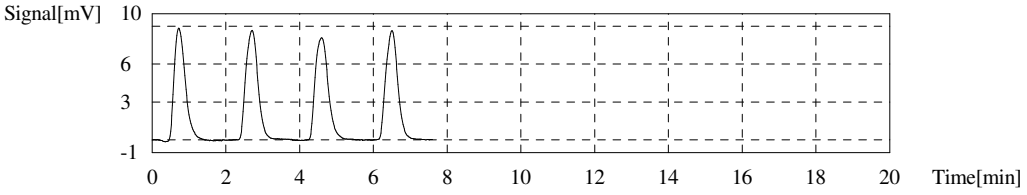
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.489mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 19.36 | 9.327mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:26:53 PM |
| 2 | 19.87 | 9.574mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:28:58 PM |
| 3 | 19.97 | 9.622mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:31:03 PM |
| 4 | 19.58 | 9.433mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:33:09 PM |

Mean Area 19.70
Mean Conc. 9.489mg/L




**Sample**

Sample Name: 280-159454-d-1-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

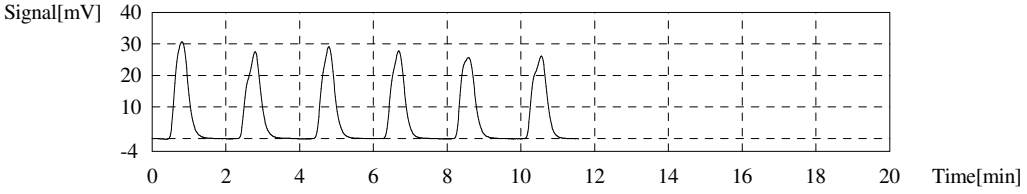
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:33.42mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 75.69 | 36.60mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:41:02 PM |
| 2 | 71.66 | 34.65mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:43:16 PM |
| 3 | 70.30 | 33.99mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:45:21 PM |
| 4 | 68.41 | 33.07mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:47:27 PM |
| 5 | 68.27 | 33.01mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:49:33 PM |
| 6 | 69.50 | 33.60mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:51:38 PM |

Mean Area 69.12
Mean Conc. 33.42mg/L




**Sample**

Sample Name: 280-159454-d-1-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

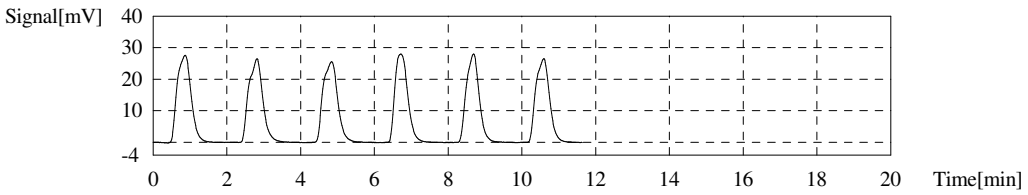
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:33.59mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 74.22 | 35.89mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 5:59:27 PM |
| 2 | 70.84 | 34.25mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:01:40 PM |
| 3 | 71.50 | 34.57mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:03:50 PM |
| 4 | 68.88 | 33.30mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:05:55 PM |
| 5 | 68.60 | 33.17mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:08:00 PM |
| 6 | 69.60 | 33.65mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:10:09 PM |

Mean Area 69.48
Mean Conc. 33.59mg/L




**Sample**

Sample Name: 280-159454-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

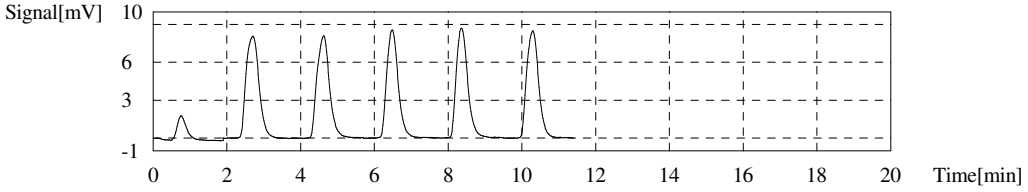
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.110mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 3.433 | 1.616mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:17:56 PM |
| 2 | 19.82 | 9.549mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:20:05 PM |
| 3 | 19.12 | 9.211mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:22:10 PM |
| 4 | 18.49 | 8.906mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:24:15 PM |
| 5 | 18.69 | 9.002mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:26:20 PM |
| 6 | 19.35 | 9.322mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:28:25 PM |

Mean Area 18.91
Mean Conc. 9.110mg/L




**Sample**

Sample Name: 280-159384-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

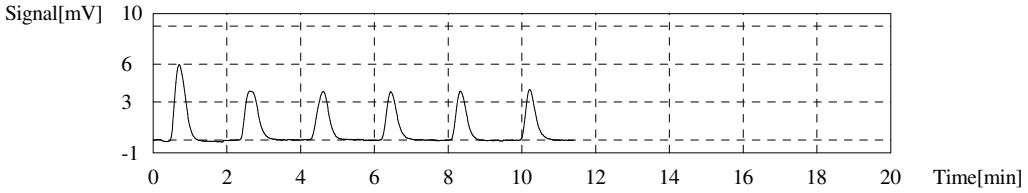
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.707mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.30 | 5.909mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:36:12 PM |
| 2 | 9.692 | 4.646mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:38:21 PM |
| 3 | 8.261 | 3.953mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:40:26 PM |
| 4 | 7.599 | 3.633mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:42:31 PM |
| 5 | 7.581 | 3.624mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:44:36 PM |
| 6 | 7.567 | 3.617mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:46:41 PM |

Mean Area 7.752
Mean Conc. 3.707mg/L




**Sample**

Sample Name: 280-159384-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

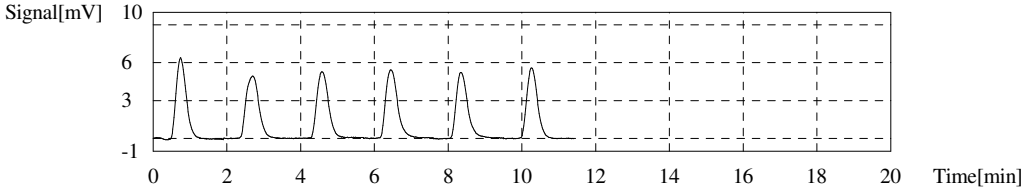
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.557mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.63 | 6.069mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:54:29 PM |
| 2 | 12.04 | 5.783mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:56:38 PM |
| 3 | 11.52 | 5.531mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 6:58:43 PM |
| 4 | 12.21 | 5.865mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:00:52 PM |
| 5 | 11.37 | 5.459mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:02:57 PM |
| 6 | 11.36 | 5.454mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:05:06 PM |

Mean Area 11.57
Mean Conc. 5.557mg/L




**Sample**

Sample Name: 280-159384-d-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

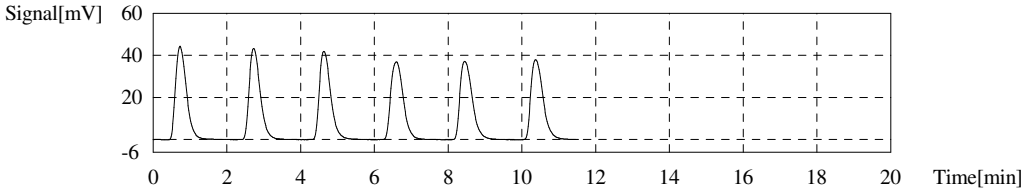
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:42.66mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 92.56 | 44.77mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:13:00 PM |
| 2 | 90.75 | 43.89mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:15:09 PM |
| 3 | 89.80 | 43.43mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:17:15 PM |
| 4 | 87.80 | 42.46mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:19:23 PM |
| 5 | 86.87 | 42.01mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:21:29 PM |
| 6 | 88.37 | 42.74mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:23:34 PM |

Mean Area 88.21
Mean Conc. 42.66mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

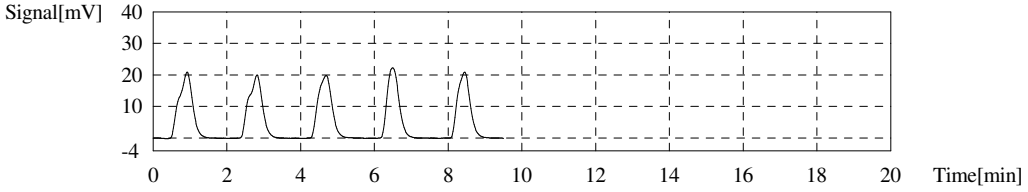
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.70mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 54.23 | 26.21mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:31:22 PM |
| 2 | 51.82 | 25.04mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:33:27 PM |
| 3 | 52.10 | 25.18mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:35:32 PM |
| 4 | 50.46 | 24.38mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:37:37 PM |
| 5 | 50.05 | 24.18mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:39:42 PM |

Mean Area 51.11
Mean Conc. 24.70mg/L



**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

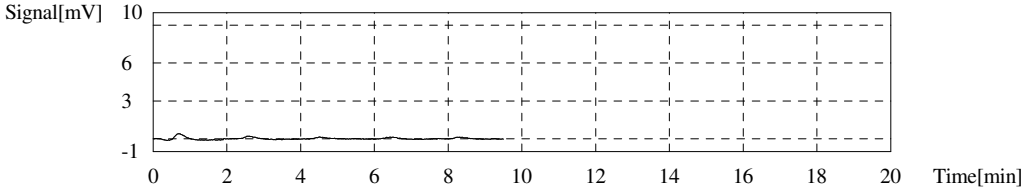
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1077mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.075 | 0.4744mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:47:35 PM |
| 2 | 0.3829 | 0.1393mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:49:44 PM |
| 3 | 0.2299 | 0.06522mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:51:49 PM |
| 4 | 0.3384 | 0.1177mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:53:54 PM |
| 5 | 0.3194 | 0.1085mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 7:55:59 PM |

Mean Area 0.3176
Mean Conc. 0.1077mg/L




**Sample**

Sample Name: 280-159384-d-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

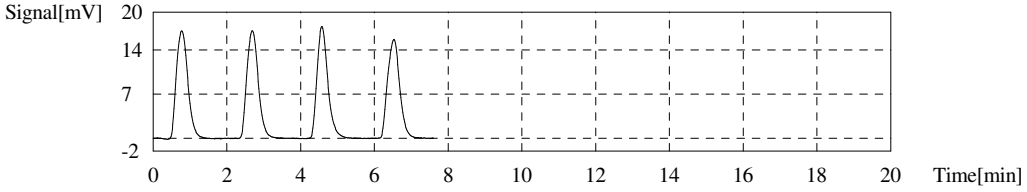
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:17.85mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 37.72 | 18.22mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:03:52 PM |
| 2 | 37.19 | 17.96mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:06:01 PM |
| 3 | 36.77 | 17.76mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:08:06 PM |
| 4 | 36.18 | 17.47mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:10:11 PM |

Mean Area 36.97
Mean Conc. 17.85mg/L



**Sample**

Sample Name: 280-159384-d-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

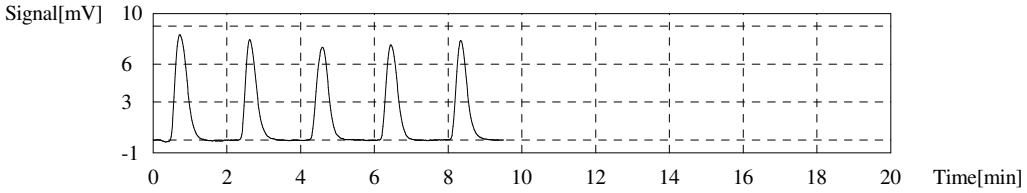
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.941mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 19.50 | 9.394mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:18:05 PM |
| 2 | 16.58 | 7.981mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:20:10 PM |
| 3 | 16.63 | 8.005mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:22:15 PM |
| 4 | 16.39 | 7.889mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:24:20 PM |
| 5 | 16.39 | 7.889mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:26:25 PM |

Mean Area 16.50
Mean Conc. 7.941mg/L




**Sample**

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

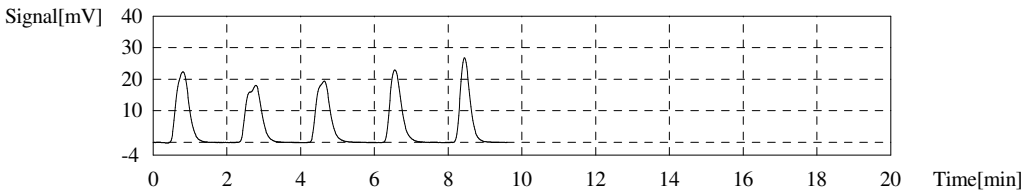
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.50mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 54.57 | 26.37mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:34:18 PM |
| 2 | 51.98 | 25.12mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:36:24 PM |
| 3 | 50.95 | 24.62mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:38:35 PM |
| 4 | 50.00 | 24.16mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:40:40 PM |
| 5 | 49.87 | 24.10mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:42:45 PM |

Mean Area 50.70
Mean Conc. 24.50mg/L




**Sample**

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

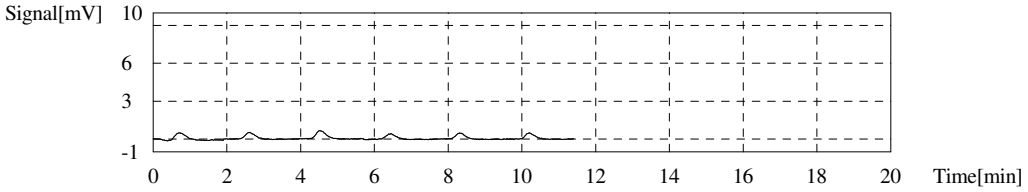
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3797mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.316 | 0.5910mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:50:38 PM |
| 2 | 0.9730 | 0.4250mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:52:47 PM |
| 3 | 1.185 | 0.5276mg/L | 50uL | 1.000 | E | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:54:52 PM |
| 4 | 0.8787 | 0.3793mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:56:57 PM |
| 5 | 0.7713 | 0.3273mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 8:59:02 PM |
| 6 | 0.8949 | 0.3872mg/L | 50uL | 1.000 | | NPOC11.2022_03_14_15_53_52.cal | 3/15/2022 9:01:07 PM |

Mean Area 0.8795
Mean Conc. 0.3797mg/L



# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/21/2022

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

## Sample Filtration

| | Input Sample Lab ID (Analytical Method) | SDG (Job #) | Matrix | Initial Amount | Final Amount | Due Date | Analytical TAT | Dlv Rank | Comments | Output Sample Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LCS~280-568571/1 N/A | N/A | | | | N/A | N/A | N/A | | LCS 280-568571/1-A |
| 2 | MB~280-568571/2 N/A | N/A | | | | N/A | N/A | N/A | | MB 280-568571/2-A |
| 3 | 280-159234-M-1 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-1-A |
| 4 | 280-159234-M-2 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-2-A |
| 5 | 280-159234-M-3 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-3-A |
| 6 | 280-159234-M-4 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-4-A |
| 7 | 280-159234-M-5 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-5-A |
| 8 | 280-159234-M-6 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-6-A |
| 9 | 280-159234-M-7 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-7-A |
| 10 | 280-159234-M-7~MS (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-7-B MS |
| 11 | 280-159234-M-7~MSD (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-7-C MSD |
| 12 | 280-159234-M-8 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-8-A |
| 13 | 280-159234-M-9 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-9-A |
| 14 | 280-159234-M-10 (9060A_Diss) | N/A (280-159234-1) | Water | | | 3/20/22 | 18_Days | 4 | | 280-159234-M-10-A |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571 Analyst: Wondimu, Akewak B Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/21/2022

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 15 | 280-159332-D-1 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 16 | 280-159332-D-1~MS (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 17 | 280-159332-D-1~MSD (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 18 | 280-159332-D-2 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 19 | 280-159332-D-3 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 20 | 280-159332-D-4 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 21 | 280-159332-D-5 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 22 | 280-159332-D-6 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 23 | 280-159332-D-7 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 24 | 280-159332-D-8 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 25 | 280-159332-D-9 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 26 | 280-159332-D-10 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 27 | 280-159332-D-11 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 28 | 280-159332-D-12 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 29 | 280-159332-D-13 (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 30 | 280-159332-D-13~MS (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |
| 31 | 280-159332-D-13~MSD (9060A_Diss) | N/A (280-159332-1) | Water | | | 3/21/22 | 18_Days | 4 |  |

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# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/21/2022

Page 1350 of 1374

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/21/2022

## Batch Notes

| | |
|---|---|
| Pipette/Syringe/Dispenser ID | 9086953 |
| Filter ID | 17233826 |
| Nitric Acid ID | N/A |
| Batch Comment | DOC Filtration |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/21/2022

## Comments

| | | |
|---|---|---|
| 280-159234-M-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-2 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-3 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-4 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-5 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-6 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-7 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-7~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-7~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-8 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-9 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159234-M-10 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-2 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571 Analyst: Wondimu, Akewak B Batch Open: 3/14/2022 11:57:00AM

Batch End:

| | | |
|---|---|---|
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-3 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-4 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-5 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-6 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-7 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-8 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-9 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-10 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-11 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-12 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-13 | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-13~M | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159332-D-13~M | | |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/21/2022

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

## Reagent Additions Worksheet

| Lab ID | Reagent Code | Amount Added | Final Amount | By | Witness |
|---|---|---|---|---|---|
| | | | | | |

### Other Reagents:

| Reagent | Amount/Units | Lot#: |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

9060A

Shi 5 pH Filtration.

| | Type | Analysi | Sample Name | Sa | O | M | Result | Notes | S | D | Vial |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | Unknown | NPOC | ICV | | N | 1 | ✓ | | D | | 1 |
| 2* | Unknown | NPOC | ICB | | N | 1 | ✓ | | D | | 2 |
| 3* | Unknown | NPOC | LCS | | N | 1 | ✓ | | D | | 3 |
| 4* | Unknown | NPOC | MB | | N | 1 | ✓ | | D | | 4 |
| 5* | Unknown | NPOC | TIC | | N | 1 | ✓ | | D | | 5 |
| 6* | Unknown | NPOC | lcs 280-568571/1-a | | N | 1 | ✓ | | D | | 6 |
| 7* | Unknown | NPOC | mb 280-568571/2-a | | N | 1 | ✓ | | D | | 7 |
| 8* | Unknown | NPOC | 280-159234-m-1-a | | N | 1 | >2 | | D | | 8 |
| 9* | Unknown | NPOC | 280-159234-m-2-a | | N | 1 | >2 | | D | | 9 |
| 10* | Unknown | NPOC | 280-159234-m-3-a | | N | 1 | >2 | | D | | 10 |
| 11* | Unknown | NPOC | 280-159234-m-4-a | | N | 1 | >2 | | D | | 11 |
| 12* | Unknown | NPOC | 280-159234-m-5-a | | N | 1 | >2 | | D | | 12 |
| 13* | Unknown | NPOC | 280-159234-m-6-a | | N | 1 | >2 | | D | | 13 |
| 14* | Unknown | NPOC | 280-159234-m-7-a | | N | 1 | >2 | | D | | 14 |
| 15* | Unknown | NPOC | CCV | | N | 1 | ✓ | | D | | 15 |
| 16* | Unknown | NPOC | CCB | | N | 1 | ✓ | | D | | 16 |
| 17* | Unknown | NPOC | 280-159234-m-7-b ms | | N | 1 | >2 | | D | | 17 |
| 18* | Unknown | NPOC | 280-159234-m-7-c msd | | N | 1 | >2 | | D | | 18 |
| 19* | Unknown | NPOC | 280-159234-m-8-a | | N | 1 | >2 | Filtration DOC | D | | 19 |
| 20* | Unknown | NPOC | 280-159234-m-9-a | | N | 1 | >2 | | D | | 20 |
| 21* | Unknown | NPOC | 280-159234-m-10-a | | N | 1 | >2 | | D | | 21 |
| 22* | Unknown | NPOC | 280-159332-d-1-a | | N | 1 | >2 | | D | | 22 |
| 23* | Unknown | NPOC | 280-159332-d-1-b ms | | N | 1 | >2 | | D | | 23 |
| 24* | Unknown | NPOC | 280-159332-d-1-c msd | | N | 1 | >2 | | D | | 24 |
| 25* | Unknown | NPOC | 280-159332-d-2-a | | N | 1 | >2 | | D | | 25 |
| 26* | Unknown | NPOC | 280-159332-d-3 | | N | 1 | >2 | | D | | 26 |
| 27* | Unknown | NPOC | CCV | | N | 1 | ✓ | | D | | 27 |
| 28* | Unknown | NPOC | CCB | | N | 1 | ✓ | | D | | 28 |
| 29* | Unknown | NPOC | 280-159332-d-4-a | | N | 1 | >2 | | D | | 29 |
| 30* | Unknown | NPOC | 280-159332-d-5-a | | N | 1 | >2 | | D | | 30 |
| 31* | Unknown | NPOC | 280-159332-d-6-a | | N | 1 | >2 | | D | | 31 |
| 32* | Unknown | NPOC | 280-159332-d-7-a | | N | 1 | >2 | | D | | 32 |
| 33* | Unknown | NPOC | 280-159332-d-8-a | | N | 1 | >2 | | D | | 33 |
| 34* | Unknown | NPOC | 280-159332-d-9-a | | N | 1 | >2 | | D | | 34 |
| 35* | Unknown | NPOC | 280-159332-d-10-a | | N | 1 | >2 | | D | | 35 |
| 36* | Unknown | NPOC | 280-159332-d-11-a | | N | 1 | >2 | | D | | 36 |
| 37* | Unknown | NPOC | 280-159332-d-12-a | | N | 1 | >2 | | D | | 37 |
| 38* | Unknown | NPOC | 280-159332-d-13-a | | N | 1 | >2 | | D | | 38 |
| 39* | Unknown | NPOC | CCV | | N | 1 | ✓ | | D | | 39 |
| 40* | Unknown | NPOC | CCB | | N | 1 | ✓ | | D | | 40 |
| 41* | Unknown | NPOC | 280-159332-d-13-b ms | | N | 1 | >2 | | D | | 41 |
| 42* | Unknown | NPOC | 280-159332-d-13-c msd | | N | 1 | >2 | | D | | 42 |
| 43* | Unknown | NPOC | CCV | | N | 1 | ✓ | | D | | 43 |
| 44* | Unknown | NPOC | CCB | | N | 1 | ✓ | | D | | 44 |

BWH 5000, MS 1000

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568705

Analyst: Wondimu, Akewak B

Batch Open: 3/15/2022 1:56:00PM

Batch End:

03/21/2022

## Sample Filtration

| | Input Sample Lab ID (Analytical Method) | SDG (Job #) | Matrix | Initial Amount | Final Amount | Due Date | Analytical TAT | Dlv Rank | Comments | Output Sample Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LCS~280-568705/1 N/A | N/A | | | | N/A | N/A | N/A | |  |
| 2 | MB~280-568705/2 N/A | N/A | | | | N/A | N/A | N/A | |  |
| 3 | 280-159454-D-1 (9060A_Diss) | N/A (280-159454-1) | Water | | | 3/25/22 | 18_Days | 4 | |  |
| 4 | 280-159454-D-1~MS (9060A_Diss) | N/A (280-159454-1) | Water | | | 3/25/22 | 18_Days | 4 | |  |
| 5 | 280-159454-D-1~MSD (9060A_Diss) | N/A (280-159454-1) | Water | | | 3/25/22 | 18_Days | 4 | |  |
| 6 | 280-159454-D-2 (9060A_Diss) | N/A (280-159454-1) | Water | | | 3/25/22 | 18_Days | 4 | |  |
| 7 | 280-159384-D-1 (9060A_Diss) | N/A (280-159384-1) | Water | | | 3/22/22 | 18_Days | 4 | |  |
| 8 | 280-159384-D-2 (9060A_Diss) | N/A (280-159384-1) | Water | | | 3/22/22 | 18_Days | 4 | |  |
| 9 | 280-159384-D-4 (9060A_Diss) | N/A (280-159384-1) | Water | | | 3/22/22 | 18_Days | 4 | |  |
| 10 | 280-159384-D-5 (9060A_Diss) | N/A (280-159384-1) | Water | | | 3/22/22 | 18_Days | 4 | |  |
| 11 | 280-159384-D-6 (9060A_Diss) | N/A (280-159384-1) | Water | | | 3/22/22 | 18_Days | 4 | |  |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)



Batch Number: 280-568705 Analyst: Wondimu, Akewak B Batch Open: 3/15/2022 1:56:00PM

Batch End:

## Batch Notes

| | |
|---|---|
| Pipette/Syringe/Dispenser ID | 9086953 |
| Filter ID | 17233826 |
| Nitric Acid ID | N/A |
| Batch Comment | DOC Filtration |

## Comments

| | | |
|---|---|---|
| 280-159454-D-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159454-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159454-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159454-D-2 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159384-D-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159384-D-2 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159384-D-4 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159384-D-5 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-159384-D-6 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/21/2022

Batch Number: 280-568705

Analyst: Wondimu, Akewak B

Batch Open: 3/15/2022 1:56:00PM

Batch End:

## Reagent Additions Worksheet

| Lab ID | Reagent Code | Amount Added | Final Amount | By | Witness |
|---|---|---|---|---|---|
| | | | | | |

### Other Reagents:

| Reagent | Amount/Units | Lot#: |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Shi 5 Filtration

9060A

| | Type | A | Sample Name | Sa | O | M | Result | Notes | S | D | Vi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | Unknown | N | ICV | | N | 1 | ✓ | | D | | 1 |
| 2* | Unknown | N | ICB | | N | 1 | ✓ | | D | | 2 |
| 3* | Unknown | N | LCS | | N | 1 | ✓ | | D | | 3 |
| 4* | Unknown | N | MB | | N | 1 | ✓ | | D | | 4 |
| 5* | Unknown | N | TIC | | N | 1 | ✓ | | D | | 5 |
| 6* | Unknown | N | lcs 280-568705/1-a | | N | 1 | ✓ | | D | | 6 |
| 7* | Unknown | N | mb 280-568705/2-a | | N | 1 | ✓ | | D | | 7 |
| 8* | Unknown | N | 280-159454-d-1-a | | N | 1 | >2 | | D | | 8 |
| 9* | Unknown | N | 280-159454-d-1-b ms | | N | 1 | >2 | | D | | 9 |
| 10* | Unknown | N | 280-159454-d-1-c msd | | N | 1 | >2 | | D | | 1 |
| 11* | Unknown | N | 280-159454-d-2-a | | N | 1 | >2 | | D | | 1 |
| 12* | Unknown | N | 280-159384-d-1-a | | N | 1 | >2 | | D | | 1 |
| 13* | Unknown | N | 280-159384-d-2-a | | N | 1 | >2 | | D | | 1 |
| 14* | Unknown | N | 280-159384-d-4-a | | N | 1 | >2 | | D | | 1 |
| 15* | Unknown | N | CCV | | N | 1 | ✓ | | D | | 1 |
| 16* | Unknown | N | CCB | | N | 1 | ✓ | | D | | 1 |
| 17* | Unknown | N | 280-159384-d-5-a | | N | 1 | >2 | | D | | 1 |
| 18* | Unknown | N | 280-159384-d-6-a | | N | 1 | >2 | | D | | 1 |
| 19* | Unknown | N | CCV | | N | 1 | ✓ | | D | | 1 |
| 20* | Unknown | N | CCB | | N | 1 | ✓ | | D | | 2 |

BWH 5000

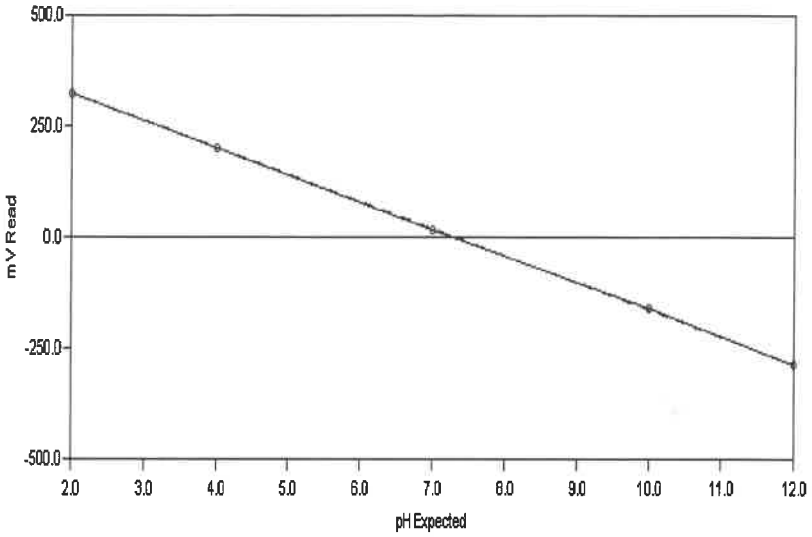
MANTECH

**MANTECH INC.**

Report Date: 3/4/2022 : 8:52 AM

# Calibration Report

## Calibration Record # 470




**Calibration Settings**

| | | | |
|---|---|---|---|
| Calibration ID | PH | Date | 3/3/2022 |
| Channel | 1 | Time | 9:42 AM |
| Probe Type | pH | Temperature | 295.92 K · 22.77 C |
| Probe ID | PH ELECTRODE | Analysis Type | Single Line Fit |

**Calibration Results**

| | | | |
|---|---|---|---|
| Slope | -60.775 | CorrCoeff | 1.0000 |
| Intercept | 18.236 | Equation: | Y = ( -60.775 ) X + ( 18.236 ) |

**Calibration Validity** **True** Operator

| | Result | Minimum | Maximum |
|---|---|---|---|
| **Slope** | -60.775 | -65.00 | -53.00 |
| **Intercept** | 18.236 | -100.00 | 100.00 |
| **Correlation Coefficient** | 1.0000 | 0.99 | 1.00 |

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

| Calibration Data | Standard | Reading |
|---|---|---|
| | 2.00 | 322.26 |
| | 4.00 | 200.19 |
| | 7.00 | 17.45 |
| | 10.00 | -161.37 |
| | 12.00 | -287.35 |

# Test America
## Water Analysis Report

AT4 Analyst:_____

03/21/2022

**Run Number** 1386 **Order Number** 20220303-2

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | palk-ppm | talk-ppm | bcarb-ppm | carb-ppm | hydr-ppm | (mL) @ 8.3 | (mL) @ 4.5 | (mL) @ 4.2 | Conc (N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RINSE | 3/3/2022 | 11:18 AM | 22.61 | -1.00 | 5.34 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 |
| INITIAL CHECK | 3/3/2022 | 11:25 AM | 22.07 | -1.00 | 10.67 | 104.04 | 192.38 | .00 | 176.68 | 15.70 | 1.04 | 1.92 | -1.00 | .02 |
| BUFFER 7 | 3/3/2022 | 11:27 AM | 21.61 | -1.00 | 7.01 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 |
| LCS | 3/3/2022 | 11:35 AM | 21.67 | -1.00 | 10.68 | 105.21 | 196.24 | .00 | 182.06 | 14.19 | 1.05 | 1.96 | -1.00 | .02 |
| LCSD | 3/3/2022 | 11:42 AM | 21.73 | -1.00 | 10.68 | 105.64 | 195.58 | .00 | 179.88 | 15.70 | 1.06 | 1.96 | -1.00 | .02 |
| MB | 3/3/2022 | 11:48 AM | 21.79 | -1.00 | 7.99 | .00 | 1.29 | 1.29 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159254-c-1 | 3/3/2022 | 11:54 AM | 21.57 | -1.00 | 7.90 | .00 | 173.34 | 173.34 | .00 | .00 | .00 | 1.73 | -1.00 | .02 |
| DU 280-159254-c-1 | 3/3/2022 | 12:01 PM | 21.47 | -1.00 | 7.99 | .00 | 170.86 | 170.86 | .00 | .00 | .00 | 1.71 | -1.00 | .02 |
| 280-159254-c-2 | 3/3/2022 | 12:08 PM | 21.40 | -1.00 | 7.91 | .00 | 172.59 | 172.59 | .00 | .00 | .00 | 1.73 | -1.00 | .02 |
| 280-159254-c-3 | 3/3/2022 | 12:14 PM | 21.63 | -1.00 | 7.92 | .00 | 163.20 | 163.20 | .00 | .00 | .00 | 1.63 | -1.00 | .02 |
| 280-159254-c-4 | 3/3/2022 | 12:21 PM | 21.93 | -1.00 | 7.93 | .00 | 157.92 | 157.92 | .00 | .00 | .00 | 1.58 | -1.00 | .02 |
| 280-159254-c-5 | 3/3/2022 | 12:27 PM | 21.66 | -1.00 | 8.20 | .00 | 160.39 | 160.39 | .00 | .00 | .00 | 1.60 | -1.00 | .02 |
| 280-159254-c-6 | 3/3/2022 | 12:34 PM | 21.31 | -1.00 | 8.15 | .00 | 159.63 | 159.63 | .00 | .00 | .00 | 1.60 | -1.00 | .02 |
| 280-159254-c-7 | 3/3/2022 | 12:41 PM | 21.15 | -1.00 | 7.91 | .00 | 169.21 | 169.21 | .00 | .00 | .00 | 1.69 | -1.00 | .02 |
| 280-159231-a-4 | 3/3/2022 | 12:46 PM | 21.15 | -1.00 | 7.26 | .00 | 74.72 | 74.72 | .00 | .00 | .00 | .75 | -1.00 | .02 |
| 280-159217-e-1 | 3/3/2022 | 1:00 PM | 21.15 | -1.00 | 8.28 | .00 | 1,156.38 | 1,156.38 | .00 | .00 | .00 | 11.56 | -1.00 | .02 |
| CCV | 3/3/2022 | 1:07 PM | 21.02 | -1.00 | 10.65 | 104.27 | 196.88 | .00 | 185.22 | 11.67 | 1.04 | 1.97 | -1.00 | .02 |
| CCB | 3/3/2022 | 1:13 PM | 21.37 | -1.00 | 7.90 | .00 | 1.30 | 1.30 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159217-f-2 | 3/3/2022 | 1:27 PM | 21.41 | -1.00 | 8.41 | 18.13 | 1,274.99 | 1,238.74 | 36.25 | .00 | .18 | 12.75 | -1.00 | .02 |
| 280-159217-f-3 | 3/3/2022 | 1:42 PM | 21.54 | -1.00 | 8.39 | 15.18 | 1,208.82 | 1,178.46 | 30.36 | .00 | .15 | 12.09 | -1.00 | .02 |
| 280-159217-f-4 | 3/3/2022 | 1:55 PM | 21.70 | -1.00 | 8.67 | 39.05 | 956.23 | 878.14 | 78.09 | .00 | .39 | 9.56 | -1.00 | .02 |
| 280-159217-e-5 | 3/3/2022 | 2:09 PM | 21.95 | -1.00 | 8.54 | 32.79 | 1,289.34 | 1,223.76 | 65.58 | .00 | .33 | 12.89 | -1.00 | .02 |
| 280-159217-f-6 | 3/3/2022 | 2:22 PM | 22.13 | -1.00 | 8.50 | 21.22 | 957.76 | 915.32 | 42.44 | .00 | .21 | 9.58 | -1.00 | .02 |
| 280-159217-f-7 | 3/3/2022 | 2:35 PM | 21.69 | -1.00 | 8.74 | 51.92 | 1,099.97 | 996.14 | 103.84 | .00 | .52 | 11.00 | -1.00 | .02 |
| 280-159217-e-8 | 3/3/2022 | 2:47 PM | 21.51 | -1.00 | 8.44 | 15.63 | 863.54 | 832.28 | 31.25 | .00 | .16 | 8.64 | -1.00 | .02 |
| 280-159217-e-9 | 3/3/2022 | 3:01 PM | 21.50 | -1.00 | 8.30 | 2.83 | 1,175.22 | 1,169.55 | 5.67 | .00 | .03 | 11.75 | -1.00 | .02 |
| 280-159217-f-10 | 3/3/2022 | 3:17 PM | 21.50 | -1.00 | 8.25 | .00 | 1,445.97 | 1,445.97 | .00 | .00 | .00 | 14.46 | -1.00 | .02 |





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GENERAL RESULTS REPORT.SRW

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**Run Number** 1386 **Order Number** 20220303-2

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | palk-ppm | talk-ppm | bcarb-ppm | carb-ppm | hydr-ppm | (mL) @ 8.3 | (mL) @ 4.5 | (mL) @ 4.2 | Conc (N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 280-159219-a-1 | 3/3/2022 | 3:24 PM | 21.56 | -1.00 | 6.54 | .00 | 205.37 | 205.37 | .00 | .00 | .00 | 2.05 | -1.00 | .02 |
| CCV | 3/3/2022 | 3:30 PM | 21.11 | -1.00 | 10.62 | 102.70 | 197.09 | .00 | 188.79 | 8.30 | 1.03 | 1.97 | -1.00 | .02 |
| CCB | 3/3/2022 | 3:36 PM | 21.47 | -1.00 | 7.73 | .00 | 1.13 | 1.13 | .00 | .00 | .00 | .03 | .04 | .02 |
| LCS | 3/3/2022 | 3:43 PM | 21.21 | -1.00 | 10.58 | 101.93 | 198.60 | .00 | 193.34 | 5.26 | 1.02 | 1.99 | -1.00 | .02 |
| MB | 3/3/2022 | 3:48 PM | 21.69 | -1.00 | 7.80 | .00 | .94 | .94 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159246-d-2 | 3/3/2022 | 3:59 PM | 21.87 | -1.00 | 7.45 | .00 | 689.55 | 689.55 | .00 | .00 | .00 | 6.90 | -1.00 | .02 |
| DU 280-159246-d-2 | 3/3/2022 | 4:09 PM | 22.37 | -1.00 | 7.42 | .00 | 688.22 | 688.22 | .00 | .00 | .00 | 6.88 | -1.00 | .02 |
| 280-159246-d-3 | 3/3/2022 | 4:25 PM | 22.20 | -1.00 | 7.44 | .00 | 1,373.65 | 1,373.65 | .00 | .00 | .00 | 13.74 | -1.00 | .02 |
| 280-159246-d-4 | 3/3/2022 | 4:36 PM | 21.93 | -1.00 | 7.54 | .00 | 640.83 | 640.83 | .00 | .00 | .00 | 6.41 | -1.00 | .02 |
| 280-159246-c-5 | 3/3/2022 | 4:49 PM | 21.80 | -1.00 | 7.15 | .00 | 1,006.47 | 1,006.47 | .00 | .00 | .00 | 10.06 | -1.00 | .02 |
| 280-159246-d-6 | 3/3/2022 | 5:01 PM | 21.80 | -1.00 | 6.98 | .00 | 877.94 | 877.94 | .00 | .00 | .00 | 8.78 | -1.00 | .02 |
| 280-159246-d-7 | 3/3/2022 | 5:07 PM | 21.66 | -1.00 | 7.45 | .00 | 2.33 | 2.33 | .00 | .00 | .00 | .04 | .05 | .02 |
| 280-159246-c-8 | 3/3/2022 | 5:14 PM | 21.56 | -1.00 | 7.77 | .00 | 209.15 | 209.15 | .00 | .00 | .00 | 2.09 | -1.00 | .02 |
| 280-159246-c-9 | 3/3/2022 | 5:21 PM | 21.57 | -1.00 | 7.84 | .00 | 213.53 | 213.53 | .00 | .00 | .00 | 2.14 | -1.00 | .02 |
| 280-159246-c-10 | 3/3/2022 | 5:31 PM | 21.60 | -1.00 | 7.07 | .00 | 661.43 | 661.43 | .00 | .00 | .00 | 6.61 | -1.00 | .02 |
| CCV | 3/3/2022 | 5:38 PM | 21.40 | -1.00 | 10.54 | 108.12 | 200.30 | .00 | 184.36 | 15.94 | 1.08 | 2.00 | -1.00 | .02 |
| CCB | 3/3/2022 | 5:43 PM | 21.74 | -1.00 | 7.39 | .00 | 1.84 | 1.84 | .00 | .00 | .00 | .03 | .05 | .02 |
| 280-159246-c-11 | 3/3/2022 | 5:54 PM | 21.96 | -1.00 | 7.08 | .00 | 698.62 | 698.62 | .00 | .00 | .00 | 6.99 | -1.00 | .02 |
| 280-159246-d-12 | 3/3/2022 | 6:04 PM | 22.23 | -1.00 | 7.90 | .00 | 674.39 | 674.39 | .00 | .00 | .00 | 6.74 | -1.00 | .02 |
| 280-159246-d-13 | 3/3/2022 | 6:16 PM | 21.98 | -1.00 | 7.12 | .00 | 871.49 | 871.49 | .00 | .00 | .00 | 8.71 | -1.00 | .02 |
| 280-159246-d-14 | 3/3/2022 | 6:26 PM | 21.71 | -1.00 | 7.55 | .00 | 589.17 | 589.17 | .00 | .00 | .00 | 5.89 | -1.00 | .02 |
| 280-159246-c-15 | 3/3/2022 | 6:33 PM | 21.51 | -1.00 | 7.54 | .00 | 188.58 | 188.58 | .00 | .00 | .00 | 1.89 | -1.00 | .02 |
| 280-159246-c-16 | 3/3/2022 | 6:43 PM | 21.41 | -1.00 | 7.61 | .00 | 683.93 | 683.93 | .00 | .00 | .00 | 6.84 | -1.00 | .02 |
| 280-159246-c-17 | 3/3/2022 | 6:58 PM | 21.44 | -1.00 | 7.47 | .00 | 1,133.54 | 1,133.54 | .00 | .00 | .00 | 11.34 | -1.00 | .02 |
| 280-159223-d-1 | 3/3/2022 | 7:14 PM | 21.50 | -1.00 | 7.42 | .00 | 1,424.14 | 1,424.14 | .00 | .00 | .00 | 14.24 | -1.00 | .02 |
| 280-159223-d-2 | 3/3/2022 | 7:33 PM | 21.53 | -1.00 | 7.76 | .00 | 1,640.37 | 1,640.37 | .00 | .00 | .00 | 16.40 | -1.00 | .02 |
| 280-159223-d-3 | 3/3/2022 | 7:56 PM | 21.69 | -1.00 | 7.76 | .00 | 2,287.44 | 2,287.44 | .00 | .00 | .00 | 22.87 | -1.00 | .02 |
| CCV | 3/3/2022 | 8:04 PM | 21.63 | -1.00 | 10.47 | 98.49 | 201.83 | 4.85 | 196.99 | .00 | .98 | 2.02 | -1.00 | .02 |
| CCB | 3/3/2022 | 8:09 PM | 21.92 | -1.00 | 7.41 | .00 | 1.37 | 1.37 | .00 | .00 | .00 | .03 | .05 | .02 |
| LCS | 3/3/2022 | 8:17 PM | 22.08 | -1.00 | 10.48 | 98.93 | 205.86 | 8.00 | 197.86 | .00 | .99 | 2.06 | -1.00 | .02 |





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**Run Number** 1386 **Order Number** 20220303-2

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | palk-ppm | talk-ppm | bcarb-ppm | carb-ppm | hydr-ppm | (mL) @ 8.3 | (mL) @ 4.5 | (mL) @ 4.2 | Conc (N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MB | 3/3/2022 | 8:23 PM | 22.28 | -1.00 | 7.60 | .00 | 1.09 | 1.09 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159221-d-1 | 3/3/2022 | 8:28 PM | 21.99 | -1.00 | 5.88 | .00 | .60 | .60 | .00 | .00 | .00 | .02 | .04 | .02 |
| DU 280-159221-d-1 | 3/3/2022 | 8:33 PM | 21.77 | -1.00 | 5.87 | .00 | .54 | .54 | .00 | .00 | .00 | .02 | .04 | .02 |
| 280-159221-d-2 | 3/3/2022 | 8:39 PM | 21.66 | -1.00 | 5.86 | .00 | .50 | .50 | .00 | .00 | .00 | .02 | .04 | .02 |
| 280-159221-b-3 | 3/3/2022 | 8:46 PM | 21.60 | -1.00 | 7.81 | .00 | 281.58 | 281.58 | .00 | .00 | .00 | 2.82 | -1.00 | .02 |
| 280-159221-d-4 | 3/3/2022 | 8:54 PM | 21.56 | -1.00 | 7.80 | .00 | 405.76 | 405.76 | .00 | .00 | .00 | 4.06 | -1.00 | .02 |
| 280-159221-d-5 | 3/3/2022 | 9:02 PM | 21.56 | -1.00 | 7.86 | .00 | 411.10 | 411.10 | .00 | .00 | .00 | 4.11 | -1.00 | .02 |
| 280-159221-d-6 | 3/3/2022 | 9:09 PM | 21.70 | -1.00 | 7.99 | .00 | 220.67 | 220.67 | .00 | .00 | .00 | 2.21 | -1.00 | .02 |
| 280-159253-b-1 | 3/3/2022 | 9:19 PM | 21.73 | -1.00 | 8.64 | 27.17 | 714.25 | 659.92 | 54.33 | .00 | .27 | 7.14 | -1.00 | .02 |
| 280-159253-b-2 | 3/3/2022 | 9:30 PM | 21.99 | -1.00 | 8.61 | 26.67 | 766.21 | 712.86 | 53.34 | .00 | .27 | 7.66 | -1.00 | .02 |
| 280-159253-b-3 | 3/3/2022 | 9:42 PM | 22.26 | -1.00 | 8.79 | 49.85 | 934.55 | 834.84 | 99.71 | .00 | .50 | 9.35 | -1.00 | .02 |
| CCV | 3/3/2022 | 9:49 PM | 22.74 | -1.00 | 10.44 | 95.62 | 203.62 | 12.38 | 191.24 | .00 | .96 | 2.04 | -1.00 | .02 |
| CCB | 3/3/2022 | 9:54 PM | 22.52 | -1.00 | 7.58 | .00 | 1.10 | 1.10 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159234-o-1 | 3/3/2022 | 10:02 PM | 22.26 | -1.00 | 7.56 | .00 | 321.58 | 321.58 | .00 | .00 | .00 | 3.22 | -1.00 | .02 |
| 280-159234-o-2 | 3/3/2022 | 10:09 PM | 22.14 | -1.00 | 7.59 | .00 | 348.53 | 348.53 | .00 | .00 | .00 | 3.49 | -1.00 | .02 |
| 280-159234-o-3 | 3/3/2022 | 10:17 PM | 22.10 | -1.00 | 7.73 | .00 | 379.71 | 379.71 | .00 | .00 | .00 | 3.80 | -1.00 | .02 |
| 280-159234-o-4 | 3/3/2022 | 10:24 PM | 22.07 | -1.00 | 7.32 | .00 | 234.79 | 234.79 | .00 | .00 | .00 | 2.35 | -1.00 | .02 |
| 280-159234-o-5 | 3/3/2022 | 10:31 PM | 22.07 | -1.00 | 7.53 | .00 | 277.16 | 277.16 | .00 | .00 | .00 | 2.77 | -1.00 | .02 |
| 280-159234-o-6 | 3/3/2022 | 10:39 PM | 22.11 | -1.00 | 7.70 | .00 | 385.63 | 385.63 | .00 | .00 | .00 | 3.86 | -1.00 | .02 |
| 280-159234-o-7 | 3/3/2022 | 10:46 PM | 22.17 | -1.00 | 7.81 | .00 | 223.80 | 223.80 | .00 | .00 | .00 | 2.24 | -1.00 | .02 |
| 280-159234-o-8 | 3/3/2022 | 10:54 PM | 22.25 | -1.00 | 7.48 | .00 | 384.39 | 384.39 | .00 | .00 | .00 | 3.84 | -1.00 | .02 |
| 280-159234-o-9 | 3/3/2022 | 11:01 PM | 22.43 | -1.00 | 7.68 | .00 | 292.69 | 292.69 | .00 | .00 | .00 | 2.93 | -1.00 | .02 |
| 280-159234-o-10 | 3/3/2022 | 11:08 PM | 22.63 | -1.00 | 7.73 | .00 | 311.56 | 311.56 | .00 | .00 | .00 | 3.12 | -1.00 | .02 |
| CCV | 3/3/2022 | 11:15 PM | 22.66 | -1.00 | 10.41 | 94.14 | 203.74 | 15.46 | 188.28 | .00 | .94 | 2.04 | -1.00 | .02 |
| CCB | 3/3/2022 | 11:21 PM | 22.63 | -1.00 | 7.70 | .00 | 1.14 | 1.14 | .00 | .00 | .00 | .03 | .05 | .02 |
| LCS | 3/3/2022 | 11:28 PM | 22.32 | -1.00 | 10.42 | 93.42 | 200.83 | 13.99 | 186.84 | .00 | .93 | 2.01 | -1.00 | .02 |
| MB | 3/3/2022 | 11:33 PM | 22.37 | -1.00 | 7.80 | .00 | 1.10 | 1.10 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159232-d-1 | 3/3/2022 | 11:41 PM | 22.34 | -1.00 | 8.12 | .00 | 311.56 | 311.56 | .00 | .00 | .00 | 3.12 | -1.00 | .02 |
| DU 280-159232-d-1 | 3/3/2022 | 11:48 PM | 22.40 | -1.00 | 8.17 | .00 | 312.87 | 312.87 | .00 | .00 | .00 | 3.13 | -1.00 | .02 |
| 280-159232-d-2 | 3/3/2022 | 11:55 PM | 22.43 | -1.00 | 8.08 | .00 | 118.17 | 118.17 | .00 | .00 | .00 | 1.18 | -1.00 | .02 |







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**Run Number** 1386 **Order Number** 20220303-2

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | palk-ppm | talk-ppm | bcarb-ppm | carb-ppm | hydr-ppm | (mL) @ 8.3 | (mL) @ 4.5 | (mL) @ 4.2 | Conc (N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 280-159232-d-4 | 3/4/2022 | 12:04 AM | 22.46 | -1.00 | 7.57 | .00 | 601.81 | 601.81 | .00 | .00 | .00 | 6.02 | -1.00 | .02 |
| 280-159232-b-5 | 3/4/2022 | 12:15 AM | 22.55 | -1.00 | 7.78 | .00 | 702.14 | 702.14 | .00 | .00 | .00 | 7.02 | -1.00 | .02 |
| 280-159232-d-6 | 3/4/2022 | 12:24 AM | 22.58 | -1.00 | 7.90 | .00 | 521.78 | 521.78 | .00 | .00 | .00 | 5.22 | -1.00 | .02 |
| 280-159225-a-1 | 3/4/2022 | 12:31 AM | 22.74 | -1.00 | 8.08 | .00 | 142.91 | 142.91 | .00 | .00 | .00 | 1.43 | -1.00 | .02 |
| 280-159225-a-2 | 3/4/2022 | 12:38 AM | 23.03 | -1.00 | 7.57 | .00 | 245.23 | 245.23 | .00 | .00 | .00 | 2.45 | -1.00 | .02 |
| 280-159225-a-6 | 3/4/2022 | 12:44 AM | 22.86 | -1.00 | 8.03 | .00 | 157.17 | 157.17 | .00 | .00 | .00 | 1.57 | -1.00 | .02 |
| 280-159225-a-7 | 3/4/2022 | 12:51 AM | 22.70 | -1.00 | 8.01 | .00 | 141.13 | 141.13 | .00 | .00 | .00 | 1.41 | -1.00 | .02 |
| CCV | 3/4/2022 | 12:58 AM | 22.54 | -1.00 | 10.40 | 92.09 | 200.99 | 16.81 | 184.18 | .00 | .92 | 2.01 | -1.00 | .02 |
| CCB | 3/4/2022 | 1:03 AM | 22.66 | -1.00 | 7.67 | .00 | 1.17 | 1.17 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-159226-a-1 | 3/4/2022 | 1:10 AM | 22.64 | -1.00 | 7.75 | .00 | 204.37 | 204.37 | .00 | .00 | .00 | 2.04 | -1.00 | .02 |
| 280-159226-a-2 | 3/4/2022 | 1:17 AM | 22.64 | -1.00 | 7.80 | .00 | 196.63 | 196.63 | .00 | .00 | .00 | 1.97 | -1.00 | .02 |
| 280-159226-a-3 | 3/4/2022 | 1:24 AM | 22.74 | -1.00 | 7.75 | .00 | 177.36 | 177.36 | .00 | .00 | .00 | 1.77 | -1.00 | .02 |
| 280-159226-a-4 | 3/4/2022 | 1:31 AM | 22.77 | -1.00 | 7.66 | .00 | 159.54 | 159.54 | .00 | .00 | .00 | 1.60 | -1.00 | .02 |
| 280-159226-a-5 | 3/4/2022 | 1:37 AM | 22.75 | -1.00 | 7.67 | .00 | 129.64 | 129.64 | .00 | .00 | .00 | 1.30 | -1.00 | .02 |
| 280-159226-a-6 | 3/4/2022 | 1:43 AM | 22.72 | -1.00 | 7.79 | .00 | 191.83 | 191.83 | .00 | .00 | .00 | 1.92 | -1.00 | .02 |
| 280-159226-a-7 | 3/4/2022 | 1:50 AM | 22.75 | -1.00 | 7.75 | .00 | 172.36 | 172.36 | .00 | .00 | .00 | 1.72 | -1.00 | .02 |
| 280-159235-e-3 | 3/4/2022 | 2:12 AM | 23.04 | -1.00 | 7.92 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-159235-e-4 | 3/4/2022 | 2:36 AM | 23.04 | -1.00 | 7.93 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| CCV | 3/4/2022 | 2:44 AM | 22.93 | -1.00 | 10.30 | 93.49 | 209.97 | 23.00 | 186.98 | .00 | .93 | 2.10 | -1.00 | .02 |
| CCB | 3/4/2022 | 2:50 AM | 22.90 | -1.00 | 7.22 | .00 | 1.60 | 1.60 | .00 | .00 | .00 | .03 | .05 | .02 |











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# Shipping and Receiving Documents

**AECOM**
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

# CHAIN OF CUSTODY RECORD



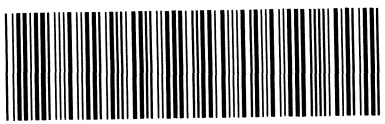
| | |
|---|---|
| Project Name: CHAAP 2019 | AECOM Project Number: 60565355 |
| Project Location: Grand Island, Nebraska | AECOM Project Manager: Dean Converse |
| Sampler(s): BE KD | |

Bill to: Brice Engineering

Remarks: standard TAT

| Sample Date | Sample Time | Type Comp. | Type Grab | Sample Identification | Matrix | Containers No. | Containers Type | Explosives+MNX (8330A) | TKN (351.2), $NH_3$ (350.1), $NO_2/NO_3$ (353.2) | $SO_4$ (9056A), Alkalinity (2320B) | Sulfide (9034) | DOC (9060A)* | Methane (RSK 175) | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-28-22 | 1405 | | X | NW020-S | AQ | 9 | ABCDEF | X | X | X | X | X | X | | 6°C |
| 2-28-22 | 1500 | | X | NW021-S | AQ | 9 | ABCDEF | X | X | X | X | X | X | | |
| 2-28-22 | 1555 | | X | NW022-S | AQ | 9 | ABCDEF | X | X | X | X | X | X | | |

Page 1368 of 1374




| Signatures | Date | Time | Shipping Details | Special Instructions |
|---|---|---|---|---|
| Relinquished by: | 3-1-22 | 1600 | Method of Shipment: Federal Express | * Filter groundwater sample before analyzing for DOC |
| Received by: | 03/02/2022 | 0910 | Airbill Number: 923524188604 | (A) (2) 500mL Ambers (Explosives)<br>(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2/NO_3$)<br>(C) (1) 250mL HDPE ($SO_4$, Alkalinity)<br>(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)<br>(E) (1) 250mL Amber (DOC)*<br>(F) (3) 40 mL VOA w/ HCl (Methane) |
| Relinquished by: | | | **Lab Address:** TestAmerica Lab, Inc.<br>Attn: Patrick McEntee<br>4955 Yarrow St.<br>Arvada, CO 80002<br>(303) 736-0107 | TAL/Brice Project #: 28017805 |
| Received for Laboratory by: | | | | |

03/21/2022

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**2020613**

**AECOM**
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# CHAIN OF CUSTODY RECORD



| | |
|---|---|
| Project Name: CHAAP 2019 | AECOM Project Number: 60565355 |
| Project Location: Grand Island, Nebraska | AECOM Project Manager: Dean Converse |
| Sampler(s): KD 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-1-22 | 0910 | | X | GW079-S | AQ | 9 | ABCDEF | X | X | X | X | X | X | | 6°C |
| 3-1-22 | 1020 | | X | GW075-S | | 9 | | X | X | X | X | X | X | | |
| 3-1-22 | 1130 | | X | GW076-S | | 9 | | X | X | X | X | X | X | | |

| Signatures | Date | Time | Shipping Details | Special Instructions |
|---|---|---|---|---|
| Relinquished by: | 3-1-22 | 1600 | Method of Shipment: Federal Express | * Filter groundwater sample before analyzing for DOC |
| Received by: | 03/02/2022 | 0840 | Airbill Number: 923524188589 | (A) (2) 500mL Ambers (Explosives)<br>(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2/NO_3$)<br>(C) (1) 250mL HDPE ($SO_4$, Alkalinity)<br>(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)<br>(E) (1) 250mL Amber (DOC)*<br>(F) (3) 40 mL VOA w/ HCl (Methane) |
| Relinquished by: | | | **Lab Address:** TestAmerica Lab, Inc.<br>Attn: Patrick McEntee<br>4955 Yarrow St.<br>Arvada, CO 80002<br>(303) 736-0107 | |
| Received for Laboratory by: | | | | TAL/Brice Project #: 28017805 |

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2020615

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# CHAIN OF CUSTODY RECORD



| | |
|---|---|
| Project Name: CHAAP 2019 | AECOM Project Number: 60565355 |
| Project Location: Grand Island, Nebraska | AECOM Project Manager: Dean Converse |
| Sampler(s): KD 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-1-22 | 1235 | | X | GW070-8 | AQ | 9 | ABCDEF | X | X | X | X | X | X | | 6°C |
| 3-1-22 | 1235 | | X | GW070-8-MS/MSD | AQ | 18 | ABCDEF | X | X | X | X | X | X | | ↓ |

| Signatures | Date | Time | Shipping Details | Special Instructions |
|---|---|---|---|---|
| Relinquished by: | | | Method of Shipment: Federal Express | * Filter groundwater sample before analyzing for DOC |
| Received by: | 03/02/2022 | 0900 | Airbill Number: 9235 2418 8578 | (A) (2) 500mL Ambers (Explosives)<br>(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2/NO_3$)<br>(C) (1) 250mL HDPE ($SO_4$, Alkalinity)<br>(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)<br>(E) (1) 250mL Amber (DOC)*<br>(F) (3) 40 mL VOA w/ HCl (Methane) |
| Relinquished by: | | | **Lab Address:** TestAmerica Lab, Inc.<br>Attn: Patrick McEntee<br>4955 Yarrow St.<br>Arvada, CO 80002<br>(303) 736-0107 | |
| Received for Laboratory by: | | | | TAL/Brice Project #: 28017805 |

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2020616

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# CHAIN OF CUSTODY RECORD



| | |
|---|---|
| Project Name: CHAAP 2019 | AECOM Project Number: 60565355 |
| Project Location: Grand Island, Nebraska | AECOM Project Manager: Dean Converse |
| Sampler(s): BE AP | |

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-1-22 | 0930 | | X | GW0080-8 | AQ | 9 | ABCDEF | X | X | X | X | X | X | | 6°C |
| 3-1-22 | 1040 | | X | GW0087-8 | | 9 | ABCDEF | X | X | X | X | X | X | | |
| 3-1-22 | 1150 | | X | GW0086-8 | | 9 | ABCDEF | X | X | X | X | X | X | | |

| Signatures | Date | Time | Shipping Details | Special Instructions |
|---|---|---|---|---|
| Relinquished by: | 3-1-22 | 1600 | Method of Shipment: Federal Express | * Filter groundwater sample before analyzing for DOC |
| Received by: | 03/02/2022 | 0810 | Airbill Number: 923524188590 | (A) (2) 500mL Ambers (Explosives)<br>(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2/NO_3$)<br>(C) (1) 250mL HDPE ($SO_4$, Alkalinity)<br>(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)<br>(E) (1) 250mL Amber (DOC)*<br>(F) (3) 40 mL VOA w/ HCl (Methane) |
| Relinquished by: | | | **Lab Address:** TestAmerica Lab, Inc.<br>Attn: Patrick McEntee<br>4955 Yarrow St.<br>Arvada, CO 80002<br>(303) 736-0107 | |
| Received for Laboratory by: | | | | TAL/Brice Project #: 28017805 |

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GARY CARSON
BRICE ENGINEERING (WATER TREATMEN
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

56DC6/1545/0582

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-102230

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GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

SHIP DATE: 23SEP20
ACTWGT: 10.00 LB MAN
CAD: 0562065/CAFE3406

56DC6/1545/0582

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-102230

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Part # 159470-434 RIT2 EXP 06/21

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GARY CARSON
BRICE ENGINEERING (WATER TREATME
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

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TO

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4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-102230

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ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

1572531

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-102230

RMA:

FedEx Express

FedEx
TRK# 0221 9235 2418 8590

WED - 02 MAR 10:30A
PRIORITY OVERNIGHT

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#3676756 03/01 56DJ3/90B8/FE4A

EXP 12/22

# Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-159234-1

**Login Number: 159234**
**List Number: 1**
**Creator: McEntee, Patrick J**

**List Source: Eurofins Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |