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# ANALYTICAL REPORT

Job Number: 280-154948-1

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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11/23/2021 11:50 AM

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The Lab Certification ID# is 4025.

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

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## Qualifiers

### GC VOA

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

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| B | Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank. |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| M | Manual integrated compound. |
| Q | One or more quality control criteria failed. |
| U | Undetected at the Limit of Detection. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| J | Estimated: The analyte was positively identified; the quantitation is an estimation |
| 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) |
| TNTC | Too Numerous To Count |

# CASE NARRATIVE

## Client: Brice Environmental Services, Corp

## Project: Cornhusker (CHAAP)

## Report Number: 280-154948-1

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 sample was received on 10/30/2021 10:10 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

**DISSOLVED GASES (GC)**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 11/09/2021.

Sample EW7-PM21A-7-25 (280-154948-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

**NITROAROMATICS AND NITRAMINES (HPLC)**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 11/02/2021 and analyzed on 11/04/2021 and 11/05/2021.

Surrogate recovery for the following sample in preparation batch 280-555838 and analytical batch 280-556054 was outside the lower control limits: EW7-PM21A-7-25 (280-154948-1). 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 method blank(MB) associated with preparation batch 280-555838 and analytical batch 280-556218 contained analyte 4-Amino-2,6-dinitrotoluene greater than one-half the reporting limit (RL). The analyte was ND in the MB in the primary instrument. The analyte is reported from both instrument. The associated sample is impacted: EW7-PM21A-7-25 (280-154948-1).

The %RPD between the primary and confirmation column exceeded 40% for 4-Amino-2,6-dinitrotoluene for the following samples: EW7-PM21A-7-25 (280-154948-1) in preparation batch 280-555838 and analytical batch 280-556218 .The results from both columns has been reported and qualified in accordance with the laboratory's QAS.

In preparation batch 280-555838, the following sample required filtration to reduce matrix interferences: EW7-PM21A-7-25 (280-154948-1).

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

**ALKALINITY**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 11/11/2021.

Total Alkalinity as $CaCO_3$ was detected in method blank MB 280-557229/5 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.

**AMMONIA**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 11/17/2021.

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

**TOTAL KJELDAHL NITROGEN**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 11/09/2021 and analyzed on 11/10/2021.

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

**NITRATE-NITRITE AS NITROGEN**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 11/15/2021.

Sample EW7-PM21A-7-25 (280-154948-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

**SULFIDE**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 11/02/2021.

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

**ANIONS (28 DAYS)**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for anions (28 days) in accordance with 9056A (28 Days). The samples were analyzed on 11/19/2021.

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

**DISSOLVED ORGANIC CARBON**
Sample EW7-PM21A-7-25 (280-154948-1) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 11/04/2021.

The following samples had a pH >2 measured at the bench; it was reduced to <2 using concentrated sulfuric acid after filtration prior to analysis. EW7-PM21A-7-25 (280-154948-1), (280-154948-D-1-B MS) and (280-154948-D-1-C MSD)

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: 280-154948-1

## Client Sample ID: EW7-PM21A-7-25 — Lab Sample ID: 280-154948-1

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 17 | D | 0.010 | 0.0026 | 0.0013 | mg/L | 2 | | RSK-175 | Total/NA |
| 1,3,5-Trinitrobenzene | 10 | Q | 0.21 | 0.20 | 0.083 | ug/L | 1 | | 8330A | Total/NA |
| 2,4,6-Trinitrotoluene | 10 | Q | 0.11 | 0.098 | 0.044 | ug/L | 1 | | 8330A | Total/NA |
| 2-Amino-4,6-dinitrotoluene | 3.5 | Q | 0.11 | 0.098 | 0.050 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 3.7 | Q J1 | 0.15 | 0.12 | 0.057 | ug/L | 1 | | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 7.9 | B J1 | 0.15 | 0.12 | 0.057 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 1.5 | Q | 0.21 | 0.20 | 0.051 | ug/L | 1 | | 8330A | Total/NA |
| Ammonia | 1.2 | | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 24 | | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |
| Sulfate | 110 | | 5.0 | 2.5 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 370 | | 10 | 6.4 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 5.0 | | 1.0 | 0.80 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 280-154948-1

## Client Sample ID: EW7-PM21A-7-25

**Lab Sample ID: 280-154948-1**

**Date Collected: 10/29/21 15:55**
**Date Received: 10/30/21 10:10**

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **17** | **D** | 0.010 | 0.0026 | 0.0013 | mg/L | | 11/09/21 18:52 | 2 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,3,5-Trinitrobenzene** | **10** | **Q** | 0.21 | 0.20 | 0.083 | ug/L | | 11/04/21 04:53 | 1 |
| 1,3-Dinitrobenzene | 0.098 | U M Q | 0.11 | 0.098 | 0.036 | ug/L | | 11/04/21 04:53 | 1 |
| **2,4,6-Trinitrotoluene** | **10** | **Q** | 0.11 | 0.098 | 0.044 | ug/L | | 11/04/21 04:53 | 1 |
| 2,4-Dinitrotoluene | 0.079 | U Q | 0.098 | 0.079 | 0.027 | ug/L | | 11/04/21 04:53 | 1 |
| 2,6-Dinitrotoluene | 0.079 | U Q | 0.098 | 0.079 | 0.039 | ug/L | | 11/04/21 04:53 | 1 |
| **2-Amino-4,6-dinitrotoluene** | **3.5** | **Q** | 0.11 | 0.098 | 0.050 | ug/L | | 11/04/21 04:53 | 1 |
| 2-Nitrotoluene | 0.20 | U Q | 0.21 | 0.20 | 0.084 | ug/L | | 11/04/21 04:53 | 1 |
| 3-Nitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.19 | ug/L | | 11/04/21 04:53 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **3.7** | **Q J1** | 0.15 | 0.12 | 0.057 | ug/L | | 11/04/21 04:53 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **7.9** | **B J1** | 0.15 | 0.12 | 0.057 | ug/L | | 11/05/21 04:12 | 1 |
| 4-Nitrotoluene | 0.39 | U | 0.40 | 0.39 | 0.098 | ug/L | | 11/05/21 04:12 | 1 |
| HMX | 0.20 | U M Q | 0.21 | 0.20 | 0.086 | ug/L | | 11/04/21 04:53 | 1 |
| MNX | 0.39 | U M | 2.0 | 0.39 | 0.15 | ug/L | | 11/04/21 04:53 | 1 |
| Nitrobenzene | 0.20 | U Q | 0.21 | 0.20 | 0.089 | ug/L | | 11/04/21 04:53 | 1 |
| **RDX** | **1.5** | **Q** | 0.21 | 0.20 | 0.051 | ug/L | | 11/04/21 04:53 | 1 |
| Tetryl | 0.098 | U M Q | 0.11 | 0.098 | 0.031 | ug/L | | 11/04/21 04:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *81* | *Q* | *83 - 119* | *11/02/21 15:00* | *11/04/21 04:53* | *1* |
| *1,2-Dinitrobenzene* | *88* | *M* | *83 - 119* | *11/02/21 15:00* | *11/05/21 04:12* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **1.2** | | 0.10 | 0.050 | 0.022 | mg/L | | 11/17/21 11:56 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 11/10/21 18:44 | 1 |
| **Nitrate Nitrite as N** | **24** | | 0.50 | 0.25 | 0.095 | mg/L | | 11/15/21 19:26 | 5 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 11/02/21 11:50 | 1 |
| **Sulfate** | **110** | | 5.0 | 2.5 | 1.0 | mg/L | | 11/19/21 22:20 | 1 |
| **Total Alkalinity as CaCO3** | **370** | | 10 | 6.4 | 3.1 | mg/L | | 11/11/21 20:09 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **5.0** | | 1.0 | 0.80 | 0.35 | mg/L | | 11/04/21 01:00 | 1 |

# Default Detection Limits

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

Job ID: 280-154948-1

## 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: 280-154948-1

## 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) | | | | | | | |
| 280-154948-1 | EW7-PM21A-7-25 | 81 Q | | | | | | | |
| LCS 280-555838/2-A | Lab Control Sample | 92 | | | | | | | |
| LCS 280-555838/3-A | Lab Control Sample | 96 M | | | | | | | |
| MB 280-555838/1-A | Method Blank | 92 M | | | | | | | |

**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) | | | | | | | |
| 280-154948-1 | EW7-PM21A-7-25 | 88 M | | | | | | | |

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

**Lab Sample ID: MB 280-556811/4**
**Matrix: Water**
**Analysis Batch: 556811**

**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 | | 11/09/21 18:13 | 1 |

**Lab Sample ID: LCS 280-556811/2**
**Matrix: Water**
**Analysis Batch: 556811**

**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 | 0.0659 | | mg/L | | 100 | 73 - 125 |

**Lab Sample ID: LCSD 280-556811/3**
**Matrix: Water**
**Analysis Batch: 556811**

**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 | 0.0665 | | mg/L | | 101 | 73 - 125 | 1 | 20 |

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

**Lab Sample ID: MB 280-555838/1-A**
**Matrix: Water**
**Analysis Batch: 556054**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 555838**

| 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 | | 11/03/21 18:34 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 | ug/L | | 11/03/21 18:34 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 | ug/L | | 11/03/21 18:34 | 1 |
| 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 | ug/L | | 11/03/21 18:34 | 1 |
| 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 | ug/L | | 11/03/21 18:34 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 | ug/L | | 11/03/21 18:34 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.086 | ug/L | | 11/03/21 18:34 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 | ug/L | | 11/03/21 18:34 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 | ug/L | | 11/03/21 18:34 | 1 |
| 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 | ug/L | | 11/03/21 18:34 | 1 |
| HMX | 0.20 | U | 0.21 | 0.20 | 0.088 | ug/L | | 11/03/21 18:34 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 11/03/21 18:34 | 1 |
| Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 | ug/L | | 11/03/21 18:34 | 1 |
| RDX | 0.20 | U | 0.21 | 0.20 | 0.052 | ug/L | | 11/03/21 18:34 | 1 |
| Tetryl | 0.10 | U | 0.11 | 0.10 | 0.032 | ug/L | | 11/03/21 18:34 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *92* | *M* | *83 - 119* | *11/02/21 15:00* | *11/03/21 18:34* | *1* |

**Lab Sample ID: LCS 280-555838/2-A**
**Matrix: Water**
**Analysis Batch: 556054**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 555838**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.13 | | ug/L | | 107 | 73 - 125 |
| 1,3-Dinitrobenzene | 2.00 | 2.05 | | ug/L | | 102 | 78 - 120 |

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

**Lab Sample ID: LCS 280-555838/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 556054** — **Prep Batch: 555838**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,4,6-Trinitrotoluene | 2.00 | 2.06 | | ug/L | | 103 | 71 - 123 |
| 2,4-Dinitrotoluene | 2.00 | 1.99 | | ug/L | | 99 | 78 - 120 |
| 2,6-Dinitrotoluene | 2.00 | 1.97 | | ug/L | | 98 | 77 - 127 |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.89 | | ug/L | | 95 | 79 - 120 |
| 2-Nitrotoluene | 2.00 | 1.55 | | ug/L | | 77 | 70 - 127 |
| 3-Nitrotoluene | 2.00 | 1.56 | M | ug/L | | 78 | 73 - 125 |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.84 | | ug/L | | 92 | 76 - 125 |
| 4-Nitrotoluene | 2.00 | 1.61 | | ug/L | | 80 | 71 - 127 |
| HMX | 2.00 | 2.02 | M | ug/L | | 101 | 65 - 135 |
| Nitrobenzene | 2.00 | 1.77 | | ug/L | | 88 | 65 - 134 |
| RDX | 2.00 | 1.96 | | ug/L | | 98 | 68 - 130 |
| Tetryl | 2.00 | 1.97 | | ug/L | | 99 | 64 - 128 |

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

**Lab Sample ID: LCS 280-555838/3-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 556054** — **Prep Batch: 555838**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| MNX | 2.33 | 2.43 | M | ug/L | | 104 | 57 - 132 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *96* | *M* | *83 - 119* |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 280-557866/20** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

| 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 | | 11/17/21 10:42 | 1 |

**Lab Sample ID: MB 280-557866/55** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

| 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 | | 11/17/21 11:52 | 1 |

**Lab Sample ID: LCS 280-557866/18** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

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

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

**Lab Sample ID: LCS 280-557866/53** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia | 2.50 | 2.51 | | mg/L | | 101 | 90 - 110 |

**Lab Sample ID: LCSD 280-557866/19** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

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

**Lab Sample ID: LCSD 280-557866/54** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557866**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.50 | 2.49 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 280-556800/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557015** — **Prep Batch: 556800**

| 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 | | 11/10/21 18:38 | 1 |

**Lab Sample ID: LCS 280-556800/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557015** — **Prep Batch: 556800**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | 6.00 | 6.24 | | mg/L | | 104 | 90 - 110 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-557699/60** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557699**

| 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 | | 11/15/21 18:30 | 1 |

**Lab Sample ID: LCS 280-557699/59** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 557699**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 5.00 | 5.14 | | mg/L | | 103 | 90 - 110 |

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

**Lab Sample ID: MB 280-555848/3-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 555849** — **Prep Batch: 555848**

| 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 | | 11/02/21 11:50 | 1 |

**Lab Sample ID: LCS 280-555848/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 555849** — **Prep Batch: 555848**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide | 21.2 | 17.6 | | mg/L | | 83 | 44 - 110 |

**Lab Sample ID: LCSD 280-555848/2-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 555849** — **Prep Batch: 555848**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 21.2 | 16.8 | | mg/L | | 79 | 44 - 110 | 5 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 280-558087/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 558087**

| 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 | | 11/19/21 11:05 | 1 |

**Lab Sample ID: LCS 280-558087/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 558087**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 100 | 97.4 | M | mg/L | | 97 | 87 - 112 |

**Lab Sample ID: LCSD 280-558087/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 558087**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 100 | 98.0 | M | mg/L | | 98 | 87 - 112 | 1 | 10 |

**Lab Sample ID: MRL 280-558087/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 558087**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 5.00 | 2.54 | J | mg/L | | 51 | 50 - 150 |

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

**Lab Sample ID: MB 280-556007/2-A**
**Matrix: Water**
**Analysis Batch: 556162**

**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 | | 11/04/21 00:45 | 1 |

**Lab Sample ID: LCS 280-556007/1-A**
**Matrix: Water**
**Analysis Batch: 556162**

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

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

**Lab Sample ID: 280-154948-1 MS**
**Matrix: Water**
**Analysis Batch: 556162**

**Client Sample ID: EW7-PM21A-7-25**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 5.0 | | 25.0 | 30.1 | | mg/L | | 100 | 88 - 112 |

**Lab Sample ID: 280-154948-1 MSD**
**Matrix: Water**
**Analysis Batch: 556162**

**Client Sample ID: EW7-PM21A-7-25**
**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 | 5.0 | | 25.0 | 30.2 | | mg/L | | 101 | 88 - 112 | 0 | 15 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 280-557229/5**
**Matrix: Water**
**Analysis Batch: 557229**

**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 | 4.22 | J | 10 | 6.4 | 3.1 | mg/L | | 11/11/21 17:44 | 1 |

**Lab Sample ID: LCS 280-557229/4**
**Matrix: Water**
**Analysis Batch: 557229**

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

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

# QC Association Summary

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

Job ID: 280-154948-1

## GC VOA

### Analysis Batch: 556811

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | RSK-175 | |
| MB 280-556811/4 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 280-556811/2 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| LCSD 280-556811/3 | Lab Control Sample Dup | Total/NA | Water | RSK-175 | |

## HPLC/IC

### Prep Batch: 555838

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 3535 | |
| MB 280-555838/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 280-555838/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCS 280-555838/3-A | Lab Control Sample | Total/NA | Water | 3535 | |

### Analysis Batch: 556054

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 8330A | 555838 |
| MB 280-555838/1-A | Method Blank | Total/NA | Water | 8330A | 555838 |
| LCS 280-555838/2-A | Lab Control Sample | Total/NA | Water | 8330A | 555838 |
| LCS 280-555838/3-A | Lab Control Sample | Total/NA | Water | 8330A | 555838 |

### Analysis Batch: 556218

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 8330A | 555838 |

## General Chemistry

### Prep Batch: 555848

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 9030B | |
| MB 280-555848/3-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-555848/1-A | Lab Control Sample | Total/NA | Water | 9030B | |
| LCSD 280-555848/2-A | Lab Control Sample Dup | Total/NA | Water | 9030B | |

### Analysis Batch: 555849

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 9034 | 555848 |
| MB 280-555848/3-A | Method Blank | Total/NA | Water | 9034 | 555848 |
| LCS 280-555848/1-A | Lab Control Sample | Total/NA | Water | 9034 | 555848 |
| LCSD 280-555848/2-A | Lab Control Sample Dup | Total/NA | Water | 9034 | 555848 |

### Filtration Batch: 556007

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Dissolved | Water | FILTRATION | |
| MB 280-556007/2-A | Method Blank | Dissolved | Water | FILTRATION | |
| LCS 280-556007/1-A | Lab Control Sample | Dissolved | Water | FILTRATION | |
| 280-154948-1 MS | EW7-PM21A-7-25 | Dissolved | Water | FILTRATION | |
| 280-154948-1 MSD | EW7-PM21A-7-25 | Dissolved | Water | FILTRATION | |

### Analysis Batch: 556162

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Dissolved | Water | 9060A | 556007 |

## General Chemistry (Continued)

### Analysis Batch: 556162 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-556007/2-A | Method Blank | Dissolved | Water | 9060A | 556007 |
| LCS 280-556007/1-A | Lab Control Sample | Dissolved | Water | 9060A | 556007 |
| 280-154948-1 MS | EW7-PM21A-7-25 | Dissolved | Water | 9060A | 556007 |
| 280-154948-1 MSD | EW7-PM21A-7-25 | Dissolved | Water | 9060A | 556007 |

### Prep Batch: 556800

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 351.2 | |
| MB 280-556800/2-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 280-556800/1-A | Lab Control Sample | Total/NA | Water | 351.2 | |

### Analysis Batch: 557015

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 351.2 | 556800 |
| MB 280-556800/2-A | Method Blank | Total/NA | Water | 351.2 | 556800 |
| LCS 280-556800/1-A | Lab Control Sample | Total/NA | Water | 351.2 | 556800 |

### Analysis Batch: 557229

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | SM 2320B | |
| MB 280-557229/5 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 280-557229/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |

### Analysis Batch: 557699

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 353.2 | |
| MB 280-557699/60 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-557699/59 | Lab Control Sample | Total/NA | Water | 353.2 | |

### Analysis Batch: 557866

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 350.1 | |
| MB 280-557866/20 | Method Blank | Total/NA | Water | 350.1 | |
| MB 280-557866/55 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-557866/18 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 280-557866/53 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-557866/19 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| LCSD 280-557866/54 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |

### Analysis Batch: 558087

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Total/NA | Water | 9056A | |
| MB 280-558087/6 | Method Blank | Total/NA | Water | 9056A | |
| LCS 280-558087/4 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 280-558087/5 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| MRL 280-558087/3 | Lab Control Sample | Total/NA | Water | 9056A | |

# Lab Chronicle

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

Job ID: 280-154948-1

## Client Sample ID: EW7-PM21A-7-25

**Date Collected: 10/29/21 15:55**
**Date Received: 10/30/21 10:10**

## Lab Sample ID: 280-154948-1

**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 | | 2 | 20 mL | 20 mL | 556811 | 11/09/21 18:52 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 509.5 mL | 5 mL | 555838 | 11/02/21 15:00 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 556054 | 11/04/21 04:53 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 509.5 mL | 5 mL | 555838 | 11/02/21 15:00 | DCL | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 556218 | 11/05/21 04:12 | JZ | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 557866 | 11/17/21 11:56 | RKD | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 556800 | 11/09/21 15:57 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 557015 | 11/10/21 18:44 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 557699 | 11/15/21 19:26 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 555848 | 11/02/21 11:47 | JJM | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 555849 | 11/02/21 11:50 | JJM | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 10 mL | 10 mL | 558087 | 11/19/21 22:20 | SPG | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 1.0 mL | 1.0 mL | 556007 | 11/03/21 10:54 | RAF | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 556162 | 11/04/21 01:00 | RAF | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 557229 | 11/11/21 20:09 | ECC | TAL DEN |

**Laboratory References:**

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

# Accreditation/Certification Summary

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

Job ID: 280-154948-1

## Laboratory: Eurofins TestAmerica, Denver

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| A2LA | Dept. of Defense ELAP | 2907.01 | 11-30-21 |

# Method Summary

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

Job ID: 280-154948-1

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

**Protocol References:**

EPA = US Environmental Protection Agency

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

None = None

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

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

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

**Laboratory References:**

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

# Sample Summary

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

Job ID: 280-154948-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 280-154948-1 | EW7-PM21A-7-25 | Water | 10/29/21 15:55 | 10/30/21 10:10 |

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

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 |

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

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 |

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

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 |

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 556811

Lab Sample ID: CCVRT 280-556811/1 Client Sample ID:

Date Analyzed: 11/09/21 17:35 Lab File ID: 001F0101.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.03 | Peak assignment corrected | sciannac | 11/10/21 09:18 |

Lab Sample ID: CCVRT 280-556811/1 Client Sample ID:

Date Analyzed: 11/09/21 17:35 Lab File ID: 001F0101.D GC Column: HP-Plot Q ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 2.76 | Peak assignment corrected | sciannac | 11/10/21 09:18 |

Lab Sample ID: CCV 280-556811/28 Client Sample ID:

Date Analyzed: 11/09/21 23:25 Lab File ID: 028F2801.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 4.24 | Wrong Peak | sciannac | 11/12/21 10:25 |

Lab Sample ID: CCV 280-556811/28 Client Sample ID:

Date Analyzed: 11/09/21 23:25 Lab File ID: 028F2801.D GC Column: HP-Plot Q ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetylene | 2.74 | Wrong Peak | sciannac | 11/12/21 10:24 |

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 527768

Lab Sample ID: IC 280-527768/29 Client Sample ID:

Date Analyzed: 03/02/21 23:49 Lab File ID: 03020029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:18 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:18 |
| MNX | 7.24 | Baseline | zhangji | 03/03/21 13:18 |

Lab Sample ID: IC 280-527768/30 Client Sample ID:

Date Analyzed: 03/03/21 00:12 Lab File ID: 03020030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:19 |
| DNX | 6.84 | Baseline | zhangji | 03/03/21 13:19 |
| MNX | 7.24 | Baseline | zhangji | 03/03/21 13:19 |

Lab Sample ID: IC 280-527768/31 Client Sample ID:

Date Analyzed: 03/03/21 00:35 Lab File ID: 03020031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:19 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:19 |
| MNX | 7.24 | Baseline | zhangji | 03/03/21 13:19 |

Lab Sample ID: IC 280-527768/32 Client Sample ID:

Date Analyzed: 03/03/21 00:58 Lab File ID: 03020032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:19 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:19 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 527768

Lab Sample ID: IC 280-527768/33 Client Sample ID:

Date Analyzed: 03/03/21 01:21 Lab File ID: 03020033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:20 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:20 |

Lab Sample ID: IC 280-527768/34 Client Sample ID:

Date Analyzed: 03/03/21 01:44 Lab File ID: 03020034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:20 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:20 |

Lab Sample ID: IC 280-527768/35 Client Sample ID:

Date Analyzed: 03/03/21 02:07 Lab File ID: 03020035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:20 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:20 |

Lab Sample ID: IC 280-527768/36 Client Sample ID:

Date Analyzed: 03/03/21 02:30 Lab File ID: 03020036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:20 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:20 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 527768

Lab Sample ID: ICV 280-527768/37 Client Sample ID:

Date Analyzed: 03/03/21 02:53 Lab File ID: 03020037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.52 | Baseline | zhangji | 03/03/21 13:21 |
| DNX | 6.83 | Baseline | zhangji | 03/03/21 13:21 |
| MNX | 7.24 | Baseline | zhangji | 03/03/21 13:21 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 534622

Lab Sample ID: IC 280-534622/11 Client Sample ID:

Date Analyzed: 05/01/21 18:01 Lab File ID: 011-0501.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:15 |

Lab Sample ID: IC 280-534622/12 Client Sample ID:

Date Analyzed: 05/01/21 18:23 Lab File ID: 012-0601.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:15 |

Lab Sample ID: IC 280-534622/13 Client Sample ID:

Date Analyzed: 05/01/21 18:46 Lab File ID: 013-0701.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |

Lab Sample ID: IC 280-534622/14 Client Sample ID:

Date Analyzed: 05/01/21 19:09 Lab File ID: 014-0801.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |

Lab Sample ID: IC 280-534622/15 Client Sample ID:

Date Analyzed: 05/01/21 19:32 Lab File ID: 015-0901.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 534622

Lab Sample ID: IC 280-534622/16 Client Sample ID:

Date Analyzed: 05/01/21 19:55 Lab File ID: 016-1001.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |

Lab Sample ID: IC 280-534622/17 Client Sample ID:

Date Analyzed: 05/01/21 20:18 Lab File ID: 017-1101.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |

Lab Sample ID: IC 280-534622/18 Client Sample ID:

Date Analyzed: 05/01/21 20:41 Lab File ID: 018-1201.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:16 |
| RDX | 7.61 | Baseline | zhangji | 05/04/21 13:18 |
| Tetryl | 9.98 | Baseline | zhangji | 05/04/21 13:23 |
| PETN | 14.68 | Baseline | zhangji | 05/04/21 13:18 |

Lab Sample ID: IC 280-534622/19 Client Sample ID:

Date Analyzed: 05/01/21 21:04 Lab File ID: 019-1301.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:17 |
| Tetryl | 9.98 | Baseline | zhangji | 05/04/21 13:23 |
| Nitroglycerin | 10.44 | Baseline | zhangji | 05/04/21 13:18 |
| PETN | 14.68 | Baseline | zhangji | 05/04/21 13:17 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 534622

Lab Sample ID: ICV 280-534622/20 Client Sample ID:

Date Analyzed: 05/01/21 21:27 Lab File ID: 020-1401.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.63 | Baseline | zhangji | 05/04/21 13:24 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 556054

Lab Sample ID: CCV 280-556054/17 Client Sample ID:

Date Analyzed: 11/03/21 18:11 Lab File ID: 11030017.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.49 | Baseline | zhangji | 11/03/21 18:35 |
| DNX | 6.80 | Baseline | zhangji | 11/03/21 18:35 |

Lab Sample ID: MB 280-555838/1-A Client Sample ID:

Date Analyzed: 11/03/21 18:34 Lab File ID: 11030018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.58 | Baseline | zhangji | 11/03/21 19:45 |

Lab Sample ID: LCS 280-555838/2-A Client Sample ID:

Date Analyzed: 11/03/21 18:57 Lab File ID: 11030019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.60 | Baseline | zhangji | 11/03/21 19:32 |
| 3-Nitrotoluene | 13.67 | Baseline | zhangji | 11/03/21 19:32 |

Lab Sample ID: LCS 280-555838/3-A Client Sample ID:

Date Analyzed: 11/03/21 19:20 Lab File ID: 11030020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.22 | Baseline | zhangji | 11/03/21 19:44 |
| 1,2-Dinitrobenzene | 8.58 | Baseline | zhangji | 11/03/21 19:45 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 556054

Lab Sample ID: CCV 280-556054/29 Client Sample ID:

Date Analyzed: 11/03/21 22:46 Lab File ID: 11030029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.48 | Baseline | zhangji | 11/04/21 12:23 |
| DNX | 6.80 | Baseline | zhangji | 11/04/21 12:24 |

Lab Sample ID: CCV 280-556054/40 Client Sample ID:

Date Analyzed: 11/04/21 02:58 Lab File ID: 11030040.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.60 | Baseline | zhangji | 11/04/21 12:31 |

Lab Sample ID: CCV 280-556054/41 Client Sample ID:

Date Analyzed: 11/04/21 03:21 Lab File ID: 11030041.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.48 | Baseline | zhangji | 11/04/21 12:32 |
| DNX | 6.80 | Baseline | zhangji | 11/04/21 12:32 |

Lab Sample ID: 280-154948-1 Client Sample ID: EW7-PM21A-7-25

Date Analyzed: 11/04/21 04:53 Lab File ID: 11030045.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3-Dinitrobenzene | | Invalid Compound ID | zhangji | 11/04/21 12:34 |
| HMX | | Invalid Compound ID | zhangji | 11/04/21 12:34 |
| MNX | | Invalid Compound ID | zhangji | 11/04/21 12:34 |
| Tetryl | | Invalid Compound ID | zhangji | 11/04/21 12:34 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 556054

Lab Sample ID: CCV 280-556054/47 Client Sample ID:

Date Analyzed: 11/04/21 05:39 Lab File ID: 11030047.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.48 | Baseline | zhangji | 11/04/21 12:51 |
| DNX | 6.80 | Baseline | zhangji | 11/04/21 12:51 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 534620

Lab Sample ID: IC 280-534620/10 Client Sample ID:

Date Analyzed: 05/01/21 18:54 Lab File ID: 010-0501.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.16 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/11 Client Sample ID:

Date Analyzed: 05/01/21 19:29 Lab File ID: 011-0601.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.14 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/12 Client Sample ID:

Date Analyzed: 05/01/21 20:04 Lab File ID: 012-0701.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.18 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/13 Client Sample ID:

Date Analyzed: 05/01/21 20:39 Lab File ID: 013-0801.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.15 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/14 Client Sample ID:

Date Analyzed: 05/01/21 21:15 Lab File ID: 014-0901.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.19 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 534620

Lab Sample ID: IC 280-534620/15 Client Sample ID:

Date Analyzed: 05/01/21 21:50 Lab File ID: 015-1001.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.17 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/16 Client Sample ID:

Date Analyzed: 05/01/21 22:25 Lab File ID: 016-1101.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.15 | Baseline Smoothing | zhangji | 05/04/21 13:40 |

Lab Sample ID: IC 280-534620/17 Client Sample ID:

Date Analyzed: 05/01/21 23:00 Lab File ID: 017-1201.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.18 | Baseline Smoothing | zhangji | 05/04/21 13:41 |

Lab Sample ID: IC 280-534620/18 Client Sample ID:

Date Analyzed: 05/01/21 23:35 Lab File ID: 018-1301.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.15 | Baseline Smoothing | zhangji | 05/04/21 13:41 |

Lab Sample ID: ICV 280-534620/19 Client Sample ID:

Date Analyzed: 05/02/21 00:10 Lab File ID: 019-1401.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 26.19 | Baseline Smoothing | zhangji | 05/04/21 13:43 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 556218

Lab Sample ID: CCV 280-556218/20 Client Sample ID:

Date Analyzed: 11/04/21 22:22 Lab File ID: 11040020.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| PETN | 25.97 | Baseline Smoothing | zhangji | 11/05/21 15:59 |

Lab Sample ID: 280-154948-1 Client Sample ID: EW7-PM21A-7-25

Date Analyzed: 11/05/21 04:12 Lab File ID: 11040030.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.32 | Baseline Smoothing | zhangji | 11/05/21 16:03 |
| 2-Nitrotoluene | | Invalid Compound ID | zhangji | 11/05/21 16:03 |
| Nitrobenzene | 11.80 | Baseline Smoothing | zhangji | 11/05/21 16:03 |
| 1,2-Dinitrobenzene | 12.94 | Baseline Smoothing | zhangji | 11/05/21 16:03 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 555743

Lab Sample ID: STD 280-555743/2 IC Client Sample ID:

Date Analyzed: 11/01/21 17:25 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.14 | Baseline Smoothing | jindaratc | 11/01/21 18:37 |
| Bromide | 6.37 | Baseline Smoothing | gonzalezsp | 11/03/21 09:10 |
| Sulfate | 9.94 | Baseline Smoothing | gonzalezsp | 11/03/21 09:10 |

Lab Sample ID: STD 280-555743/3 IC Client Sample ID:

Date Analyzed: 11/01/21 17:40 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.14 | Baseline Smoothing | jindaratc | 11/01/21 18:36 |
| Bromide | 6.36 | Baseline Smoothing | gonzalezsp | 11/03/21 09:10 |
| Sulfate | 9.94 | Baseline Smoothing | gonzalezsp | 11/03/21 09:11 |

Lab Sample ID: STD 280-555743/4 IC Client Sample ID:

Date Analyzed: 11/01/21 17:55 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.15 | Baseline Smoothing | jindaratc | 11/01/21 18:15 |
| Sulfate | 9.95 | Baseline Smoothing | jindaratc | 11/01/21 18:16 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 555743

Lab Sample ID: STD 280-555743/5 IC Client Sample ID:

Date Analyzed: 11/01/21 18:10 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.16 | Baseline Smoothing | jindaratc | 11/01/21 18:36 |
| Sulfate | 9.93 | Baseline Smoothing | gonzalezsp | 11/02/21 12:32 |

Lab Sample ID: STD 280-555743/6 IC Client Sample ID:

Date Analyzed: 11/01/21 18:25 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.18 | Baseline Smoothing | gonzalezsp | 11/02/21 12:32 |
| Sulfate | 9.92 | Baseline Smoothing | gonzalezsp | 11/02/21 12:32 |

Lab Sample ID: STD 280-555743/7 IC Client Sample ID:

Date Analyzed: 11/01/21 18:40 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 9.90 | Baseline Smoothing | gonzalezsp | 11/02/21 12:33 |

Lab Sample ID: ICV 280-555743/8 Client Sample ID:

Date Analyzed: 11/01/21 18:54 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Fluoride | 3.15 | Baseline Smoothing | gonzalezsp | 11/02/21 12:33 |
| Sulfate | 9.93 | Baseline Smoothing | gonzalezsp | 11/03/21 09:15 |

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 555743

Lab Sample ID: ICB 280-555743/9 Client Sample ID:

Date Analyzed: 11/01/21 19:09 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 10.00 | Baseline Smoothing | gonzalezsp | 11/03/21 09:15 |

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 558087

Lab Sample ID: CCB 280-558087/2 Client Sample ID:

Date Analyzed: 11/19/21 10:05 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 9.83 | Baseline Smoothing | gonzalezsp | 11/19/21 16:46 |

Lab Sample ID: LCS 280-558087/4 Client Sample ID:

Date Analyzed: 11/19/21 10:35 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 9.76 | Baseline Smoothing | gonzalezsp | 11/19/21 16:47 |

Lab Sample ID: LCSD 280-558087/5 Client Sample ID:

Date Analyzed: 11/19/21 10:50 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 9.76 | Baseline Smoothing | gonzalezsp | 11/19/21 16:47 |

Lab Sample ID: CCB 280-558087/18 Client Sample ID:

Date Analyzed: 11/19/21 14:05 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 9.83 | Baseline Smoothing | gonzalezsp | 11/19/21 16:49 |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **350.1 cal_00508** | 11/21/21 | 11/14/21 | Di Water, Lot na | 100 mL | NH3 CAL STD_00033 | 10 mL | Ammonia | 100 mg/L |
| .NH3 CAL STD_00033 | 02/28/22 | | Ricca, Lot 4008G09 | | (Purchased Reagent) | | Ammonia | 1000 mg/L |
| **350.1 ICV_00493** | 11/21/21 | 11/14/21 | 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_00008** | 05/31/21 | 01/08/21 | Acetonitrile, Lot 257727 | 5 mL | MNX,TNX,DNX_00051 | 1 mL | DNX | 20.02 ug/mL |
| | | | | | | | MNX | 23.34 ug/mL |
| | | | | | | | TNX | 20.02 ug/mL |
| .MNX,TNX,DNX_00051 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330 DMT_00009** | 12/02/21 | 06/02/21 | Acetonitrile, Lot ACN_237 | 5 mL | MNX,TNX,DNX_00059 | 1 mL | MNX | 23.34 ug/mL |
| .MNX,TNX,DNX_00059 | 04/30/22 | | Agilent, Lot 0006599273 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| **8330 LCS_00108** | 09/02/21 | 03/31/21 | Acetonitrile, Lot Acetonitrile_00050 | 100 mL | 8330LCSMix1_00121 | 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_00023 | 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_00121 | 08/31/25 | | 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_00023 | 11/30/25 | | Restek, Lot A0165983 | | (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_00110** | 09/10/22 | 09/10/21 | Acetonitrile, Lot Acetonitrile_00056 | 100 mL | 8330_NG_Stk_00105 | 1 mL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_NG_Stk_00106 | 1 mL | Nitroglycerin | 100 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | 8330_PETN_Stk_00106 | 1 mL | PETN | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00108 | 1 mL | PETN | 100 ug/mL |
| | | | | | 8330LCSMix1_00124 | 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_00024 | 1 mL | 2,6-Dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10 ug/mL |
| | | | | | | | Tetryl | 10 ug/mL |
| | | | | | PicricARestek_00098 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |
| .8330_NG_Stk_00105 | 09/10/22 | | Restek, Lot A0172805 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_NG_Stk_00106 | 09/10/22 | | Restek, Lot A0172805 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00106 | 09/10/22 | | Restek, Lot A0168448 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330_PETN_Stk_00108 | 09/10/22 | | Restek, Lot A0168448 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330LCSMix1_00124 | 09/10/22 | | 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_00024 | 09/10/22 | | Restek, Lot A0165983 | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| .PicricARestek_00098 | 09/10/22 | | Restek, Lot A0164473 | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 1000 ug/mL |
| **8330_OP_DMT_00009** | 05/31/21 | 08/14/20 | Acetonitrile, Lot Acetonitrile_00045 | 25 mL | MNX,TNX,DNX_00048 | 1 mL | MNX | 11.67 ug/mL |
| | | | | | MNX,TNX,DNX_00049 | 0.5 mL | MNX | 11.67 ug/mL |
| | | | | | MNX,TNX,DNX_00050 | 1 mL | MNX | 11.67 ug/mL |
| .MNX,TNX,DNX_00048 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| .MNX,TNX,DNX_00049 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| .MNX,TNX,DNX_00050 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| **8330_OP_DMT_00010** | 05/31/21 | 03/03/21 | Acetonitrile, Lot Acetonitrile_00051 | 20 mL | MNX,TNX,DNX_00052 | 1 mL | MNX | 11.67 ug/mL |
| | | | | | MNX,TNX,DNX_00053 | 1 mL | MNX | 11.67 ug/mL |
| .MNX,TNX,DNX_00052 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .MNX,TNX,DNX_00053 | 05/31/21 | | Agilent, Lot 0006535619 | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| **8330_OP_DMT_00011** | 04/30/22 | 06/01/21 | Acetonitrile, Lot Acetonitrile_00054 | 10 mL | MNX,TNX,DNX_00054 | 1 mL | DNX | 10.01 ug/mL |
| | | | | | | | MNX | 11.67 ug/mL |
| | | | | | | | TNX | 10.01 ug/mL |
| .MNX,TNX,DNX_00054 | 04/30/22 | | Agilent, Lot 0006594482 | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330IntermStk_00067** | 05/22/21 | 11/18/20 | Acetonitrile, Lot 130057 | 10 mL | 8330_NG_Stk_00094 | 200 uL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00087 | 200 uL | PETN | 100 ug/mL |
| | | | | | 8330ICALStock_00030 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10.02 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10.04 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | | | Tetryl | 10.02 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330PAStkPS_00064 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |
| .8330_NG_Stk_00094 | 06/30/23 | | Restek, Lot A0161480 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00087 | 11/30/22 | | Restek, Lot A0154763 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330ICALStock_00030 | 03/03/22 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330 Stock_TS_00015 | 1 mL | 1,3,5-Trinitrobenzene | 100.2 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 100.2 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Nitrotoluene | 100 ug/mL |
| | | | | | | | 3-Nitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Nitrotoluene | 100.2 ug/mL |
| | | | | | | | HMX | 100 ug/mL |
| | | | | | | | Nitrobenzene | 100.4 ug/mL |
| | | | | | | | RDX | 100 ug/mL |
| | | | | | | | Tetryl | 100.2 ug/mL |
| | | | | | 8330SurrStock_00164 | 1 mL | 1,2-Dinitrobenzene | 100 ug/mL |
| ..8330 Stock_TS_00015 | 03/31/22 | | Ultra Scientific, Lot CT-0801 | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1002 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1002 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1004 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,4-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1002 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1004 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| | | | | | | | Tetryl | 1002 ug/mL |
| ..8330SurrStock_00164 | 07/01/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330PAStkPS_00064 | 05/22/21 | AccuStandard, Lot 214121302-02 | | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 100 ug/mL |
| **8330IntermStk_00069** | 03/31/22 | 10/22/21 | Acetonitrile, Lot ACN_237 | 10 mL | 8330ICALStock_00031 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10.02 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10.04 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | | | Tetryl | 10.02 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330ICALStock_00031 | 03/31/22 | 04/30/21 | Acetonitrile, Lot ACN_237 | 10 mL | 8330 Stock_TS_00018 | 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_00168 | 1 mL | 1,2-Dinitrobenzene | 100 ug/mL |
| ..8330 Stock_TS_00018 | 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 |

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 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_00168 | 04/30/22 | AccuStandard, Lot 219051500 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| **8330Surrogate_00124** | 09/29/21 | 03/29/21 | Acetonitrile, Lot Acetonitrile_00050 | 400 mL | 8330SurrStkSS_00185 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00188 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00192 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00193 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330SurrStkSS_00185 | 05/31/25 | Restek, Lot A0160559 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00188 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00192 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00193 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| **8330Surrogate_00126** | 03/09/22 | 09/09/21 | Acetonitrile, Lot Acetonitrile_00056 | 500 mL | 8330SurrStkSS_00187 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00195 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00197 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00200 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00202 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| .8330SurrStkSS_00187 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00195 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00197 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00200 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00202 | 09/30/25 | Restek, Lot A0164261 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| **Alk daily lcs_01005** | 11/16/21 | 11/09/21 | 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_00391** | 11/03/21 | 10/27/21 | Di Water, Lot na | 100 mL | IC CL cal_00064 | 25 mL | Chloride | 250 mg/L |
| | | | | | IC sulfatecal_00062 | 25 mL | Sulfate | 250 mg/L |
| .IC CL cal_00064 | 02/28/22 | SPEX CertiPrep, Lot 5-67CL-2Y | | | (Purchased Reagent) | | Chloride | 1000 mg/L |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .IC sulfatecal_00062 | 12/30/21 | SPEX CertiPrep, Lot 5-48SO4-2x | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC CAL cl/so4_00394** | 11/23/21 | 11/16/21 | Di Water, Lot na | 100 mL | IC sulfatecal_00062 | 25 mL | Sulfate | 250 mg/L |
| .IC sulfatecal_00062 | 12/30/21 | SPEX CertiPrep, Lot 5-48SO4-2x | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC Cal low_00605** | 11/03/21 | 10/27/21 | Di Water, Lot NA | 100 mL | IC BR ICV_00021 | 5 mL | Bromide | 50 mg/L |
| | | | | | IC FL cal_00016 | 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_00016 | 01/31/22 | Ricca, Lot 2007C85 | | | (Purchased Reagent) | | Fluoride | 1000 mg/L |
| **IC LCS_01845** | 11/23/21 | 11/16/21 | Di Water, Lot 27 | 200 mL | IC sulfatecal_00063 | 20 mL | Sulfate | 100 mg/L as N |
| .IC sulfatecal_00063 | 02/28/22 | SPEX CertiPrep, Lot 5-48SO4-2x | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC SO4 ICV_00022** | 07/06/22 | ERA, Lot 060720m | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **NXN CAL INT_00601** | 11/22/21 | 11/15/21 | 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_00577** | 11/22/21 | 11/15/21 | Di Water, Lot NA | 100 mL | NOXT ICV STD_00024 | 10 mL | Nitrate Nitrite as N | 100 mg/L |
| .NOXT ICV STD_00024 | 02/10/22 | ERA, Lot 190220m | | | (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 ICV INT_02018** | 01/10/22 | 10/10/21 | Di Water, Lot N/A | 500 mL | 50% NaOH_00022 | 2 mL | Sodium Hydroxide | 2000 mg/L |
| | | | | | SFD ICV STK_00008 | 3.9701 g | Sulfide | 1060.02 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_00825** | 11/11/21 | 10/11/21 | Di Water, Lot 1 | 100 mL | TKN 100PPM_00138 | 25 mL | Nitrogen, Total Kjeldahl | 25 mg/L |
| .TKN 100PPM_00138 | 11/11/21 | 10/11/21 | 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_00111** | 11/11/21 | 10/11/21 | DI water, Lot 1 | 100 mL | TKN ICV 100_00100 | 25 mL | Nitrogen, Total Kjeldahl | 25 mg/L |
| .TKN ICV 100_00100 | 11/11/21 | 10/11/21 | 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_00047** | 01/31/22 | Ricca, Lot 1102654 | | | (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_00052** | 06/30/23 | Agilent, Lot 0006606278 | | | (Purchased Reagent) | | Dissolved Organic Carbon - Quad | 1001 ppm |
| | | | | | | | DOC Result 1 | 1001 ppm |
| | | | | | | | DOC Result 2 | 1001 ppm |
| | | | | | | | DOC Result 3 | 1001 ppm |
| | | | | | | | DOC Result 4 | 1001 ppm |

# Reagent

# 50% NaOH_00022

RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
http://www.riccachemical.com
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customerservice@riccachemical.com

# Certificate of Analysis

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

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

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

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

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

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

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

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

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

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

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

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

# Reagent

# 8330 LCS_00108

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X5\20210401-100246.b\04010006.D

Lims ID: Phenyl-Hexyl:H20-014671 Inj. Date: 01-Apr-2021 16:25:43

Worklist ID: 280-0100246-006 Instrument: CHHPLC_X5

Method: 8330_X5_Luna

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 0B_Sonc_ | Limits 2 3535 |
|---|---|---|---|---|---|
| 6 HMX | 0.5000 | 0.4313 | 86.3 | 65-135 | |
| 5 2,4,6-Trinitrophenol | 0.5000 | 0.4984 | 99.7 | 73-124 | 80-120 |
| 8 RDX | 0.5000 | 0.4421 | 88.4 | 68-130 | |
| 9 Nitrobenzene | 0.5000 | 0.4453 | 89.1 | 65-134 | |
| 12 1,3-Dinitrobenzene | 0.5000 | 0.4523 | 90.5 | 78-120 | |
| 13 Nitroglycerin | 5.00 | 4.36 | 87.2 | 74-127 | |
| 14 o-Nitrotoluene | 0.5000 | 0.4357 | 87.1 | 70-127 | |
| 15 p-Nitrotoluene | 0.5000 | 0.4531 | 90.6 | 71-127 | |
| 16 4AMD | 0.5000 | 0.4354 | 87.1 | 76-125 | |
| 17 m-Nitrotoluene | 0.5000 | 0.4468 | 89.4 | 73-125 | |
| 18 2-Amino-4,6-dinitrotolu | 0.5000 | 0.4371 | 87.4 | 79-120 | |
| 19 1,3,5-Trinitrobenzene | 0.5000 | 0.4516 | 90.3 | 73-125 | |
| 20 2,6-Dinitrotoluene | 0.5000 | 0.4547 | 90.9 | 77-127 | |
| 21 2,4-Dinitrotoluene | 0.5000 | 0.4375 | 87.5 | 78-120 | |
| 22 Tetryl | 0.5000 | 0.4501 | 90.0 | 64-128 | |
| 23 2,4,6-Trinitrotoluene | 0.5000 | 0.4624 | 92.5 | 71-123 | |
| 24 PETN | 5.00 | 4.48 | 89.6 | 73-127 | |

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

280-146741-A-1-A 280-146741-A-2-A

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

280-146623-B-5-A 160-41555-D-1-A 160-41555-D-3-A

160-41555-C-5-A

# Reagent

# 8330 LCS_00110

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210911-104610.b\09110006.D

Lims ID: 8330 LCS 110 Inj. Date: 11-Sep-2021 13:02:26

Worklist ID: 280-0104610-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 0B_Sonc_ |
|---|---|---|---|---|
| 3 HMX | 0.5000 | 0.4719 | 94.4 | 80-120 |
| 7 RDX | 0.5000 | 0.4840 | 96.8 | 80-124 |
| 8 2,4,6-Trinitrophenol | 0.5000 | 0.5056 | 101.1 | 38-154 |
| 10 1,3,5-Trinitrobenzene | 0.5000 | 0.5057 | 101.1 | 80-120 |
| 11 1,3-Dinitrobenzene | 0.5000 | 0.5048 | 101.0 | 80-120 |
| 12 Nitrobenzene | 0.5000 | 0.5000 | 100.0 | 76-122 |
| 14 Tetryl | 0.5000 | 0.4937 | 98.7 | 80-120 |
| 15 Nitroglycerin | 5.00 | 5.08 | 101.6 | 75-120 |
| 16 2,4,6-Trinitrotoluene | 0.5000 | 0.5028 | 100.6 | 80-120 |
| 17 4AMD | 0.5000 | 0.4802 | 96.0 | 80-120 |
| 18 2-Amino-4,6-dinitrotolu | 0.5000 | 0.4763 | 95.3 | 78-120 |
| 19 2,6-Dinitrotoluene | 0.5000 | 0.5084 | 101.7 | 80-120 |
| 20 2,4-Dinitrotoluene | 0.5000 | 0.4893 | 97.9 | 80-120 |
| 21 o-Nitrotoluene | 0.5000 | 0.4885 | 97.7 | 80-124 |
| 22 p-Nitrotoluene | 0.5000 | 0.4844 | 96.9 | 80-120 |
| 23 m-Nitrotoluene | 0.5000 | 0.4840 | 96.8 | 80-122 |
| 24 PETN | 5.00 | 4.97 | 99.5 | 80-120 |

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

410-53698-B-2-C 410-53698-B-4-C 410-53698-B-6-K

410-53723-B-2-C 410-53723-B-4-C

# Reagent

# 8330 Stock_TS_00015

# Certificate of Analysis
# ISO Guide 34

Agilent

## Stock Standard

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

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

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

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

**Matrix:** acetonitrile

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

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

ANAB ACCREDITED ISO Guide 34 REFERENCE MATERIAL PRODUCER

ISO Guide 34 Cert No. AR-1936

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

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO17025 Cert No. AT-1937

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

# Reagent

# 8330 Stock_TS_00018

# Certificate of Analysis
# ISO Guide 34

Agilent

## Stock Standard

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

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

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

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

**Matrix:** acetonitrile

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

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

ANAB ACCREDITED ISO Guide 34 REFERENCE MATERIAL PRODUCER

ISO Guide 34 Cert No. AR-1936

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

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO17025 Cert No. AT-1937

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

# Reagent

# 8330_NG_Stk_00094

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 568871 **Lot No.:** A0161450

**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

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Nitroglycerin | 5,020.0 µg/mL | +/- 46.6833 | µg/mL | Gravimetric |
| | **CAS #** 55-63-0 (Lot 200507JLM) | | +/- 277.3466 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 322.6949 | µg/mL | Stressed |

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

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

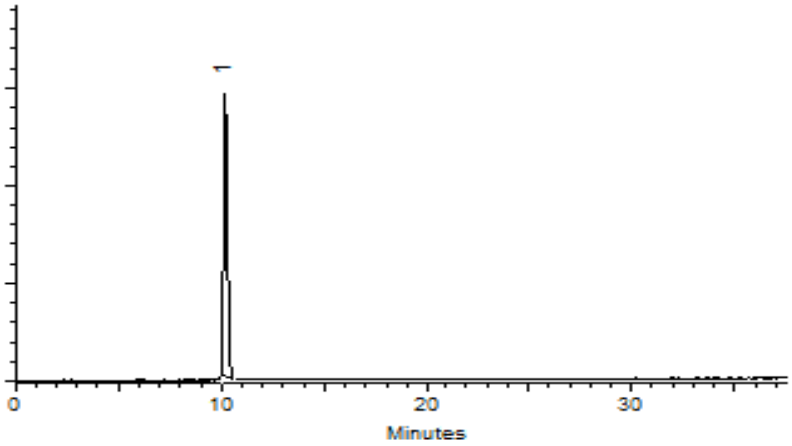
**Flow Rate:**
1.0 ml/min.

**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.

**Matt Fragassi - Mix Technician**

**Date Mixed:** 03-Jun-2020 **Balance:** 1128342314

**Jennifer Pollino - Operations Tech-ARM QC**

**Date Passed:** 04-Jun-2020

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<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_00105

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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

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

**Catalog No. :** 568871 **Lot No.:** A0172805

**Description :** Custom Nitroglycerin Standard

Custom Nitroglycerin 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 | Nitroglycerin | 5,000.0 µg/mL | +/- 46.4973 | µg/mL | Gravimetric |
| | **CAS #** 55-63-0 (Lot 200507JLM) | | +/- 276.2417 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 321.4093 | µg/mL | Stressed |

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

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

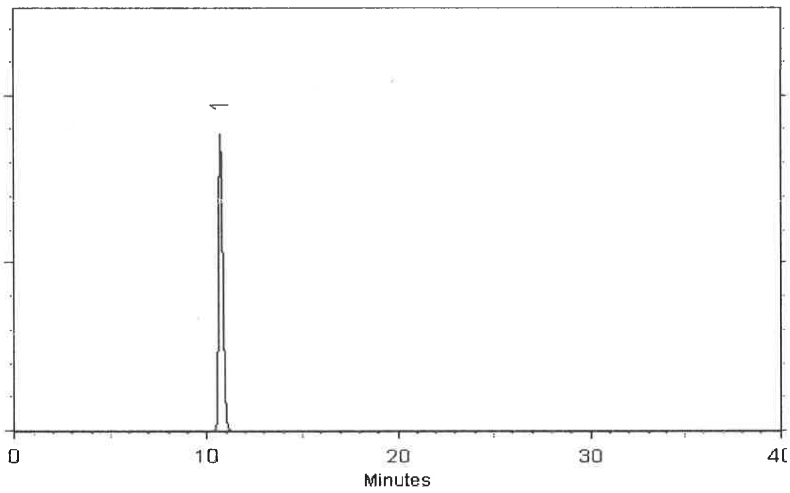
**Flow Rate:**
1.0 ml/min.

**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.

Cathleen Soltis
**Cathleen Soltis - Mix Technician**

**Date Mixed:** 26-May-2021 **Balance:** 1128360905

Jennifer L Pollino
**Jennifer Pollino - Operations Tech-ARM QC**

**Date Passed:** 01-Jun-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_NG_Stk_00106

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 568871 **Lot No.:** A0172805

**Description :** Custom Nitroglycerin Standard

Custom Nitroglycerin 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 | Nitroglycerin<br>**CAS #** 55-63-0 (Lot 200507JLM)<br>**Purity** 99% | 5,000.0 µg/mL | +/- 46.4973 µg/mL | | Gravimetric |
| | | | +/- 276.2417 µg/mL | | Unstressed |
| | | | +/- 321.4093 µg/mL | | Stressed |

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

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

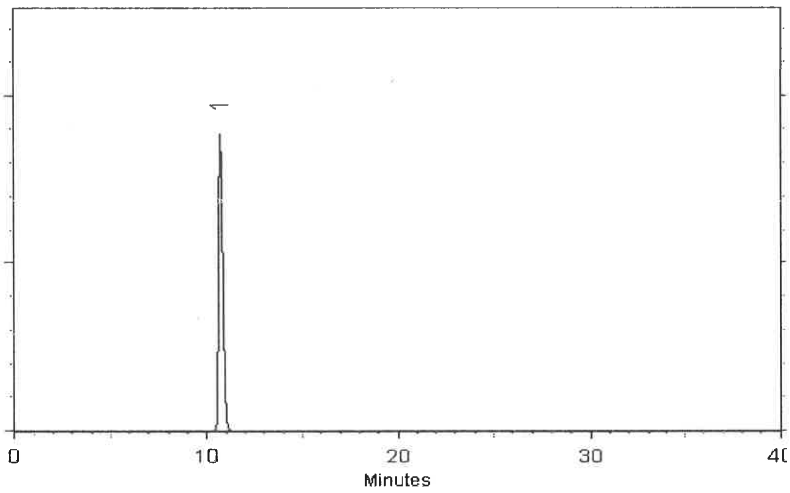
**Flow Rate:**
1.0 ml/min.

**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.

Cathleen Soltis
**Cathleen Soltis - Mix Technician**

**Date Mixed:** 26-May-2021 **Balance:** 1128360905

Jennifer L Pollino
**Jennifer Pollino - Operations Tech-ARM QC**

**Date Passed:** 01-Jun-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.

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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.

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

# Reagent

# 8330_OP_DMT_00009

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200818-94226.b\08180006.D

Lims ID: C18column:B16162 Inj. Date: 18-Aug-2020 16:53:53

Worklist ID: 280-0094226-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 | Limits 2 3535 | Limits 3 3535 |
|---|---|---|---|---|---|---|
| 2 TNX | 0.2503 | 0.2275 | 90.9 | 50-150 | | |
| 5 DNX | 0.2503 | 0.2475 | 98.9 | 66-119 | 50-150 | |
| 6 MNX | 0.2918 | 0.2601 | 89.2 | 57-132 | 68-123 | |

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

280-139502-A-1-A 280-139502-A-2-A 280-139502-A-3-A
280-139502-A-4-A 280-139485-A-1-A 280-139485-A-2-A
280-139485-A-3-A 280-139485-A-4-A 280-139485-A-5-A
280-139362-A-1-A 280-139362-A-2-A 280-139362-A-3-A
280-139434-A-12-A 280-139434-A-14-A 280-139434-A-16-A
280-139434-A-18-A 280-139434-A-20-A 280-139434-A-22-A
280-139434-A-28-A 280-139434-A-35-A 280-139434-A-41-A
280-139466-A-6-A 280-139466-A-13-A 280-139472-A-4-A
280-139472-A-15-A 280-139435-A-1-A 280-139467-A-9-A
280-139469-A-6-A 280-139469-A-17-A 280-139470-A-4-A
280-139470-A-14-A

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

600-209588-G-1-A 280-139486-A-1-A 280-139486-A-2-A
280-139514-A-1-A 280-139514-A-2-A 280-139514-A-3-A
280-139514-A-4-A

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

280-139522-A-1-A 280-139524-A-1-A

# Reagent

# 8330_OP_DMT_00011

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210602-102004.b\06020006.D

Lims ID: C18column:B16162 Inj. Date: 02-Jun-2021 16:51:12

Worklist ID: 280-0102004-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 |
|---|---|---|---|---|
| 2 TNX | 0.5005 | 0.5222 | 104.3 | 50-150 |
| 5 DNX | 0.5005 | 0.5023 | 100.4 | 66-119 |
| 6 MNX | 0.5835 | 0.5910 | 101.3 | 57-132 |

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

| | | |
|---|---|---|
| 280-149049-A-5-A | 280-149049-A-11-A | 280-149049-A-12-A |
| 280-149013-A-16-A | 280-149013-A-17-A | 280-149013-A-18-A |
| 280-149013-B-19-A | 280-149013-B-21-A | 280-149013-A-22-A |
| 280-149013-A-23-A | 280-149013-B-24-A | 280-149013-B-25-A |
| 280-149013-B-26-A | 280-149013-B-27-A | 280-149013-A-28-A |
| 280-149013-A-29-A | 280-149013-A-30-A | 280-149013-B-31-A |
| 280-149013-B-32-A | 280-149013-B-33-A | 280-149013-A-34-A |
| 280-149013-B-35-A | 280-149013-B-36-A | |

# Reagent

# 8330_PETN_Stk_00087

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** Custom PETN Standard

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

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

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

## C E R T I F I E D V A L U E S

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

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

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

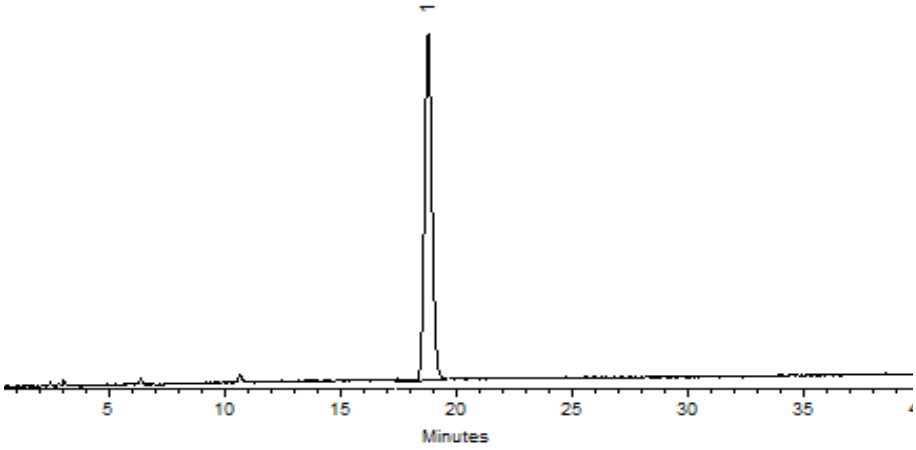
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 08-Nov-2019

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

Reagent

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# 8330_PETN_Stk_00106

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 568872 **Lot No.:** A0168448

**Description :** Custom PETN Standard

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

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

**Expiration Date :** January 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) | 5,008.0 µg/mL | +/- 46.5717 µg/mL<br>+/- 276.6836 µg/mL<br>+/- 321.9236 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |

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

Rec 2/9/21 3 vials
AL

# Reagent

# 8330_PETN_Stk_00108

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

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

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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.:** A0168448

**Description :** Custom PETN Standard

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

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

**Expiration Date :** January 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) | 5,008.0 µg/mL | +/- 46.5717 µg/mL<br>+/- 276.6836 µg/mL<br>+/- 321.9236 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |

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

Rec 2/9/21 3 vials
AL

# Reagent

# 8330LCSMix1_00121

4 vials Rec. 10/6/20
8330 Cali mix 1

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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Certificate #3222.02

# Certificate of Analysis

**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.:** A0163590

**Description :** 8330 Calibration Mix #1

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

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

**Expiration Date :** August 31, 2025 **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** 98% | (Lot 191003JLM) | 1,002.5 µg/mL | +/- 5.9548 µg/mL<br>+/- 54.9222 µg/mL<br>+/- 64.0446 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080228JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 99% | (Lot A6TDK) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBN4329V) | 1,007.0 µg/mL | +/- 5.9813 µg/mL<br>+/- 55.1665 µg/mL<br>+/- 64.3295 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBJ3622) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 5737200) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690V) | 1,009.0 µg/mL | +/- 5.9932 µg/mL<br>+/- 55.2761 µg/mL<br>+/- 64.4573 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |

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

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

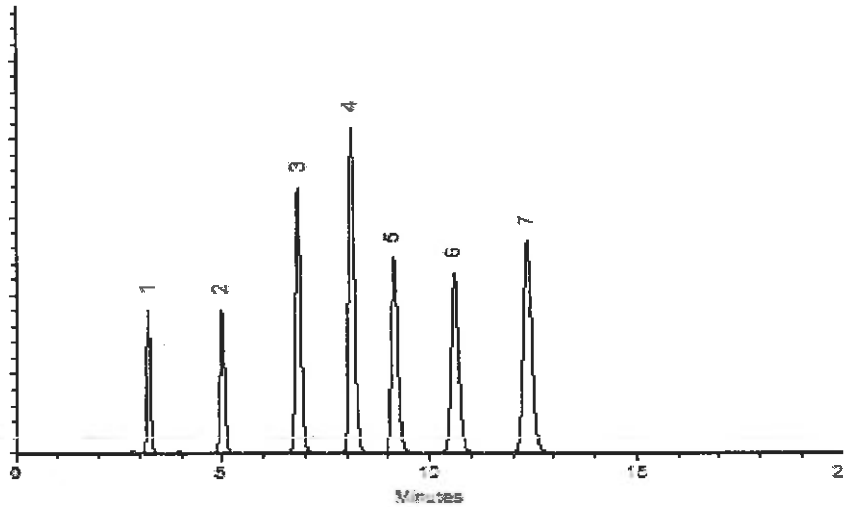
**Flow Rate:**
1.0 ml/min.

**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.

Dalton Stover - Operations Technician I

**Date Mixed:** 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 19-Aug-2020

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

# Reagent

# 8330LCSMix1_00124

4 vials Rec. 10/6/20
8330 Cali mix 1

# RESTEK® CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0163590

**Description :** 8330 Calibration Mix #1

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

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

**Expiration Date :** August 31, 2025 **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** 98% | (Lot 191003JLM) | 1,002.5 µg/mL | +/- 5.9548 µg/mL<br>+/- 54.9222 µg/mL<br>+/- 64.0446 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080228JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 99% | (Lot A6TDK) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBN4329V) | 1,007.0 µg/mL | +/- 5.9813 µg/mL<br>+/- 55.1665 µg/mL<br>+/- 64.3295 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBJ3622) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 5737200) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690V) | 1,009.0 µg/mL | +/- 5.9932 µg/mL<br>+/- 55.2761 µg/mL<br>+/- 64.4573 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |

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

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

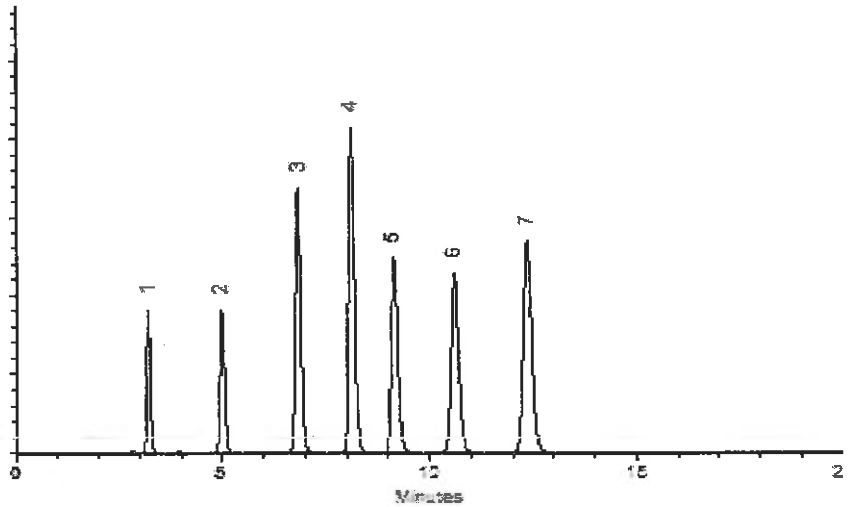
**Flow Rate:**
1.0 ml/min.

**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.

Dalton Stover - Operations Technician I

**Date Mixed:** 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 19-Aug-2020

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

# Reagent

# 8330LCSmix2_00023

Rec 1/22/21 AK 2 vials

RESTEK®

# CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0165983

**Description :** 8330 Calibration Mix #2

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

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

**Expiration Date :** November 30, 2025 **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) | 1,000.6 µg/mL | +/- 5.9433<br>+/- 54.8159<br>+/- 63.9207 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.8 µg/mL | +/- 5.9444<br>+/- 54.8268<br>+/- 63.9335 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 99% | (Lot 29550-55) | 1,001.0 µg/mL | +/- 5.9456<br>+/- 54.8378<br>+/- 63.9463 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot BCBB8606) | 1,001.0 µg/mL | +/- 5.9456<br>+/- 54.8378<br>+/- 63.9463 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot BCBZ7826) | 1,000.6 µg/mL | +/- 5.9433<br>+/- 54.8159<br>+/- 63.9207 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,001.2 µg/mL | +/- 5.9468<br>+/- 54.8487<br>+/- 63.9590 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 99% | (Lot 07329LG) | 1,000.4 µg/mL | +/- 5.9421<br>+/- 54.8049<br>+/- 63.9079 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |

## 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

# 8330LCSmix2_00024

Rec 1/22/21 AK 2 vials

RESTEK®

# CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0165983

**Description :** 8330 Calibration Mix #2

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

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

**Expiration Date :** November 30, 2025 **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) | 1,000.6 µg/mL | +/- 5.9433 µg/mL<br>+/- 54.8159 µg/mL<br>+/- 63.9207 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.8 µg/mL | +/- 5.9444 µg/mL<br>+/- 54.8268 µg/mL<br>+/- 63.9335 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 99% | (Lot 29550-55) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot BCBB8606) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot BCBZ7826) | 1,000.6 µg/mL | +/- 5.9433 µg/mL<br>+/- 54.8159 µg/mL<br>+/- 63.9207 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,001.2 µg/mL | +/- 5.9468 µg/mL<br>+/- 54.8487 µg/mL<br>+/- 63.9590 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 99% | (Lot 07329LG) | 1,000.4 µg/mL | +/- 5.9421 µg/mL<br>+/- 54.8049 µg/mL<br>+/- 63.9079 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

## 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

# 8330PAStkPS_00064

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-ADD-3
**Description:** Picric acid
**Lot:** 218031154-01
**Solvent:** Acetonitrile (50%)
Methanol (50%)
**Hazards:** *Refer to SDS for complete safety information*

**Signal Word: Danger**

**Date Certified:** Apr 22, 2019
**Expiration:** May 22, 2021
**Sample Size:** 1 mL
**Components:** 1
**Storage Condition:** Ambient (>5 °C)

**Certified Reference Material**

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

*Page 1 of 1*

*For use in routine laboratory analysis.*

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

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

# Reagent

# 8330Surrogate_00124

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210330-100173.b\03300006.D

Lims ID: C18column:B16162 Inj. Date: 30-Mar-2021 16:29:09

Worklist ID: 280-0100173-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 | Limits 2 3535 | Limits 3 3535 | Limits 4 3535 |
|---|---|---|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.5000 | 0.4768 | 95.4 | 63-127 | 83-119 | | |

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

860-270-C-1-A

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

280-146579-B-1-A

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

280-146648-A-7-A 280-146741-A-1-A 280-146741-A-2-A

280-146741-A-3-A 280-146741-G-8-A

Samples for Limit Group: 4, Lims Prep Method: 3535

280-146625-B-1-A 280-146625-B-2-A 280-146623-A-1-A

280-146623-B-2-A 280-146623-A-3-A 280-146623-A-4-A

280-146623-B-5-A 280-146623-A-6-A 280-146623-B-7-A

# Reagent

# 8330Surrogate_00126

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210909-104566.b\09090006.D

Lims ID: Surr126 Inj. Date: 09-Sep-2021 17:47:23

Worklist ID: 280-0104566-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 0B_Sonc_ | Limits 2 3535 |
|---|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.5000 | 0.5068 | 101.4 | 63-127 | 83-119 |

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

280-152693-A-1-A 280-152693-A-2-A 280-152693-A-3-A
280-152693-B-4-A 400-207943-E-1-A

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

280-152643-B-1-A 280-152643-B-2-A 280-152643-B-3-A
280-152643-B-4-A 280-152643-A-5-A 280-152538-B-1-A
280-152538-B-6-A

# Reagent

# 8330SurrStkSS_00185

110 Benner Circle
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Tel: (800)356-1688
Fax: (814)353-1309

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31453 **Lot No.:** A0160559

**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, 2025 **Storage:** 10°C or colder

## CERTIFIED VALUES

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

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

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

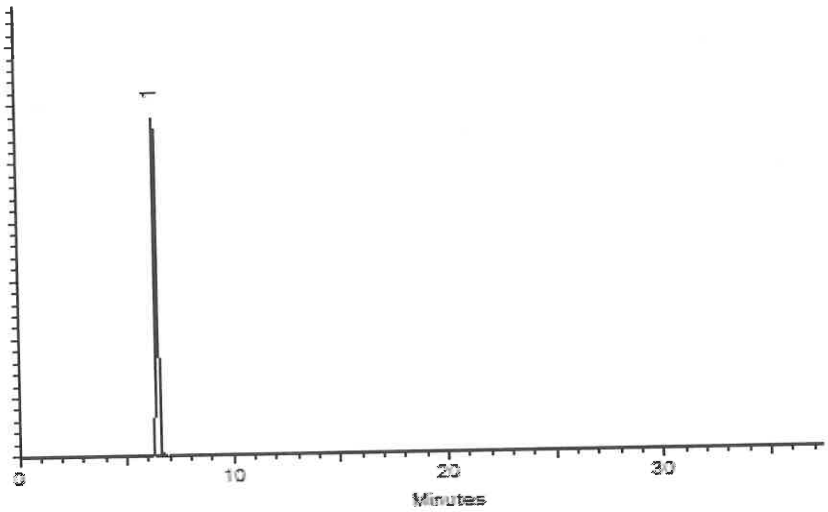
**Flow Rate:**
1.0 ml/min.

**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.

Tom Suckar - Mix Technician

**Date Mixed:** 05-May-2020 **Balance:** B442140311

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 08-May-2020

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

# Reagent

# 8330SurrStkSS_00187

Rec 1/22/21 AC 2 vials

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# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | 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:**

- 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_00188

Rec 1/22/21 AC 2 vials

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# CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | 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.

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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

# 8330SurrStkSS_00192

Rec 1/22/21 AC 2 vials

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# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | µg/mL | Stressed |

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

## General Certified Reference Material Notes

**Expiration Notes:**

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- Purity values are rounded to the nearest whole number.

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| 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:**

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**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_00193

Rec 1/22/21 AC 2 vials

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# CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | 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:**

- 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_00195

Rec 1/22/21 AC 2 vials

RESTEK®

# CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | 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:**

- 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_00197

Rec 1/22/21 AC 2 vials

RESTEK

# CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | 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.

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  $k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.
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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 |
|---|---|---|
| 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_00200

Rec 1/22/21 AC 2 vials

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# CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

# Certificate of Analysis

**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.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | µg/mL | Stressed |

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

## General Certified Reference Material Notes

**Expiration Notes:**

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

**Purity Notes:**

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|---|---|---|
| 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_00202

Rec 1/22/21 AC 2 vials

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# CERTIFIED REFERENCE MATERIAL

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# Certificate of Analysis

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**Catalog No. :** 31453 **Lot No.:** A0164261

**Description :** 8330 Surrogate Mix

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

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

**Expiration Date :** September 30, 2025 **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<br>**CAS #** 528-29-0<br>**Purity** 99% (Lot MKCH6067) | 1,007.0 µg/mL | +/- 5.9813 | µg/mL | Gravimetric |
| | | | +/- 56.4747 | µg/mL | Unstressed |
| | | | +/- 57.7956 | µg/mL | Stressed |

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

## General Certified Reference Material Notes

**Expiration Notes:**

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- 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.

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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

# 8330SurrStock_00164

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-SS
**Description:** 1,2-Dinitrobenzene
**Lot:** 216071012
**Solvent:** Methanol
**Hazards:** **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

**Danger 2**

**Date Certified:** Jul 1, 2016
**Expiration:** Jul 1, 2026
**Sample Size:** 1 mL
**Components:** 1
**Storage Condition:** Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

| Component | CAS # | Purity % (GC/FID) | Prepared Concentration[1] (µg/mL) | Certified Analyte Concentration[2] (µg/mL) |
|---|---|---|---|---|
| 1,2-Dinitrobenzene | 528-29-0 | 100.0 | 100.1 | 1001 |

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

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

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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

See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager



*For use in routine laboratory analysis.*

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

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

# Reagent

# 8330SurrStock_00168

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

*Page 1 of 1*

*For use in routine laboratory analysis.*

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

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

# Reagent

# Alk daily lcs_01005

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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Rev. 0

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# Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/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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# 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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**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.

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# 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_00064

Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

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: FEB - - 2021 Certifying Officer: Katherine Cullinan, QC Manager

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Rev. 0

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# Report of Certification

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- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

## Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001, ISO 17025, and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

## Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

## Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

## Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

## Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c$=combined standard uncertainty obtained by combining the individual element standard uncertainty components $u_i$, and $u_c = \sqrt{\Sigma u_i^2}$

## Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

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# Reagent

# IC FL cal_00016

RICCA CHEMICAL COMPANY®

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

# Certificate of Analysis

## Fluoride Standard, 1000 ppm F⁻

**Lot Number:** 2007C85 **Product Number:** 3173

**Manufacture Date:** JUL 17, 2020
**Expiration Date:** JAN 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.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

| Name | CAS# | Grade |
|---|---|---|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Sodium Fluoride | 7681-49-4 | High Purity |

| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Fluoride (F) | 995-1005 ppm | 1000 ppm |

| Specification | Reference |
|---|---|
| Fluoride Solution, Stock (1.00 mL = 1.00 mg F) | ASTM (D 5542) |
| Fluoride Stock Solution (1.00 mL = 1.00 mg F-) | EPA (SW-846) (9056) |
| Fluoride Calibration Stock Solution (1,000 mg/L F-) | EPA (SW-846) (9214) |
| Stock Solution, 1.0 mL = 1.0 mg F | EPA (340.3) |
| Fluoride Solution, Stock (1.00 mL = 1.00 mg F) | ASTM (D 5996) |
| Fluoride Stock Solution (1.00 mL = 1.00 mg F?) | ASTM (D 4327) |
| Fluoride Stock Standard Solution (1 mg of F in 1 mL) | ACS (N/A) |

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|---|---|---|
| 3173-16 | 500 mL natural poly | 18 months |
| 3173-32 | 1 L natural poly | 18 months |
| 3173-4 | 120 mL natural poly | 18 months |

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

# 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

# IC sulfatecal_00062

Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

Chemical Testing
Cert #2495.02

**Catalog Number:** AS-SO49-2X **Lot No.** 5-48SO4-2X

**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:** 1000 µg/mL ±5 µg/mL

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

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

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

Refer to side 2 for details of measurement uncertainties.

**Classical Wet Assay:** 997 µg/mL

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

**Instrumental Analysis by Ion Chromatography:** 1002 µg/mL

**Uncertified Properties**

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

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

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

Date of Certification: DEC -- 2020 Certifying Officer: Katherine Cullinan, QC Manager

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# Reagent

# IC sulfatecal_00063

Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

Chemical Testing
Cert #2495.02

**Catalog Number:** AS-SO49-2X **Lot No.** 5-48SO4-2X

**Description:** 1000 µg/mL Sulfate

**Matrix:** $H_2O$

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**Certified Value:** 1000 µg/mL ±5 µg/mL

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**Instrumental Analysis by Ion Chromatography:** 1002 µg/mL

**Uncertified Properties**

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

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

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

Date of Certification: FEB - - 2021 Certifying Officer: Katherine Cullinan, QC Manager

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Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

## Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

## Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

## Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c$=combined standard uncertainty obtained by combining the individual element standard uncertainty components $u_i$, and $u_c = \sqrt{\Sigma u_i^2}$

## Certification Report:

All certified values reported were derived from the Certification Report, SPEX CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at crmsales@spexcsp.com.

## Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep.
Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 800-876-5878 • Fax: 732-603-9647

# Reagent

# MNX,TNX,DNX_00048

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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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

# Reagent

---

# MNX,TNX,DNX_00049

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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ISO 17025 Cert No. AT-1937



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# Reagent

# MNX,TNX,DNX_00050

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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# Reagent

# MNX,TNX,DNX_00051

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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

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# Reagent

# MNX,TNX,DNX_00052

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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# Reagent

# MNX,TNX,DNX_00053

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984

**Lot Issue Date:** 27-Apr-2020

**Lot Number:** 0006535619

**Expiration Date:** 31-May-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.0 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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# Reagent

# MNX,TNX,DNX_00054

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


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# 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
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ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

# Reagent

# MNX,TNX,DNX_00059

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


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

# Reagent

# NH3 CAL STD_00033

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

# Certificate of Analysis

## Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm $NH_3$)

**Lot Number:** 4008G09 **Product Number:** 5455

**Manufacture Date:** AUG 17, 2020
**Expiration Date:** FEB 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 |
| Ammonium Chloride | 12125-02-9 | High Purity |

| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Nitrogen (N) | 995-1005 ppm | 1000 ppm |

| Specification | Reference |
|---|---|
| Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen) | ASTM (D 3590 A) |
| Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen) | ASTM (D 3590 B) |
| Stock Ammonium Chloride Solution | APHA (4500-CN- L) |
| Stock Ammonium Solution | APHA (4500-NH3 C) |
| Stock Ammonium chloride Solution | APHA (4500-NH3 D) |
| Stock Ammonium Solution | APHA (4500-NH3 F) |
| Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (351.2) |
| Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (350.2) |
| Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (350.3) |
| Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (351.4) |
| Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (350.1) |
| Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N | EPA (351.3) |

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|---|---|---|
| 5455-16 | 500 mL natural poly | 18 months |
| 5455-4 | 120 mL natural poly | 18 months |

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

Chris Collins (08/17/2020)

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

# 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

### Characterization of CRM/RM by One Method

**Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:**

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

**CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

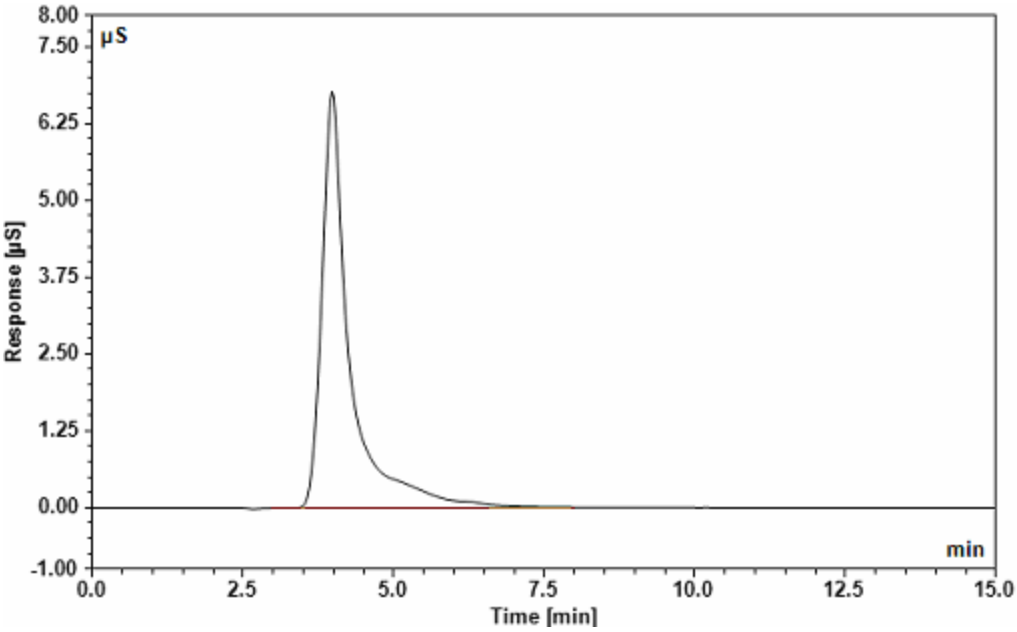
### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 CHROMATOGRAM




**Dionex ICS-2000 Ion Chromatograph**

| | | | |
|---|---|---|---|
| **Analytical Column:** | IonPac CS18 2 x 250 mm | **Eluent:** | 10 mM MSA |
| **Guard Column:** | IonPac CG18 2 x 50 mm | **Eluent Flow Rate:** | 0.25 mL/min |
| **Anion Self Regen Suppressor/ Chemical Suppression:** | N/A | **Column Temp:** | 35 °C |
| | | **Cell Temp:** | 35 °C |
| **Cation Self Regen Suppressor/ Chemical Suppression:** | CERS 500 2mm | **Scale X-Axis:** | minutes |
| | | **Scale Y-Axis:** | 8 µS/cm |
| | | **Concentration:** | 10 µg/g |
| **Suppressor Current/ Chemical Suppressant:** | 8 mA | | |

## 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

### 7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

## 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### 10.3 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

## 11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

### 11.1 Certification Issue Date

August 01, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- **August 01, 2022**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:**

James King Jr
Chemist, Technical Manager

**Certificate Approved By:**

Michael Booth
Supervisor, Quality Control

**Certifying Officer:**

Paul Gaines
CEO, Senior Technical Director

# Reagent

# NOXT 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

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

# NOXT ICV STD_00024

ERA

A Waters Company

# Certificate of Analysis

| | |
|---|---|
| **PRODUCT:** | 1000 mg/L Nitrate as N ($NO_3$-N) |
| **CATALOG NUMBER:** | 052 -125 mL; 991 - 500 mL |
| **LOT NUMBER:** | 190220m |
| **ISSUE DATE:** | February 19, 2020 |
| **REVISION DATE:** | Original |
| **STARTING MATERIAL:** | Potassium Nitrate ($KNO_3$) |
| **CERTIFIED CONCENTRATION[1]:** | 1000 mg/L |
| **UNCERTAINTY[2]:** | 0.6% |
| **MATRIX:** | 18 megohm deionized water |
| **DENSITY:** | 0.9988 ± 0.0020 g/mL at 19.4°C and 753 mm Hg |
| **TRACEABILITY[3]:** | 101% |
| **NIST/SRM:** | 3185 Nitrate |
| **VERIFICATION METHOD:** | Ion Chromatography |
| **STORAGE:** | Store at 20-25°C |

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

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

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

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

This standard **expires 2/10/2022**. 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

# PicricARestek_00098

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

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.:** A0164473

**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 :** September 30, 2025 **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<br>**CAS #** 88-89-1<br>**Purity** 97% (Lot 06130CU) | 1,006.9 µg/mL | +/- 5.9804 | µg/mL | Gravimetric |
| | | | +/- 55.1588 | µg/mL | Unstressed |
| | | | +/- 64.3206 | µg/mL | Stressed |

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

Rec 2/10/21 2 vials

AL

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

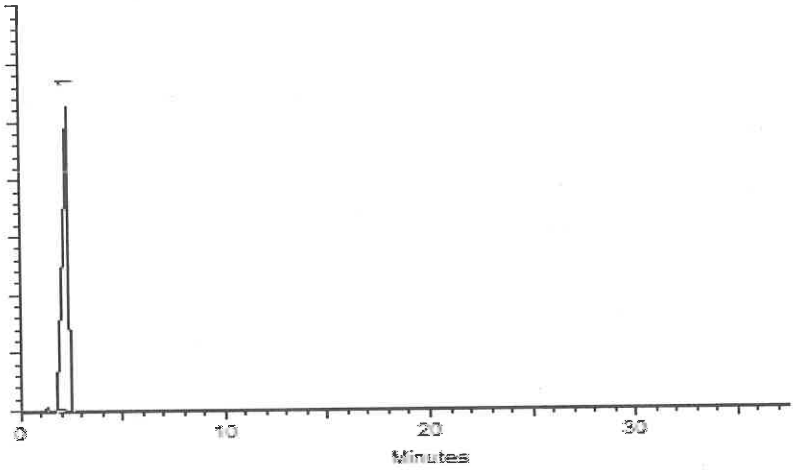
**Flow Rate:**
1.0 ml/min.

**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.

Kylie Struble - Operations Technician I

**Date Mixed:** 16-Sep-2020 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 24-Sep-2020

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

# Reagent

# RSK175methane_00010

Airgas
an Air Liquide company

**Airgas Specialty Gases**
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

# CERTIFICATE OF BATCH ANALYSIS

## Grade of Product: CP

| | | | |
|---|---|---|---|
| Customer: | SIGMA-ALDRICH | | |
| Part Number: | ME CPP14C514 | Reference Number: | 160-401480003-1 |
| Cylinder Analyzed: | ST0000198540 | Cylinder Volume: | 14.0 LG |
| Laboratory: | 124 - Plumsteadville - PA | Cylinder Pressure: | 240 PSIG |
| Analysis Date: | Apr 16, 2019 | Valve Outlet: | 160 |
| Lot Number: | 160-401480003-1 | | |

**Expiration Date: Apr 16, 2022**

## ANALYTICAL RESULTS

| Component | Requested Purity | Certified Concentration |
|---|---|---|
| METHANE | > 99.0 % | > 99.0 % |

**Cylinders in Batch:**

ST0000198540, ST0000198541, ST0000198542, ST0000198543

**Notes:**MANUFACTURE DATE 4-16-2019
PO# P481562
P/N 22562

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

**Approved for Release**

Reagent

# RSK7gasMathes_00031

MATHESON

ask. . .The Gas Professionals™

# Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

**Manufacturing Location**
1700 SCEPTER ROAD
WAVERLY, TN 37185

Product: Multi-Component Mixture

Grade: CERTIFIED

MTG Part No: G2682238

Cylinder Size: 4
Valve: CGA 350 SS

Contents:
Net: 7.57 ft³; 0.21 m³

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)
*DI.039162

| | Requested Concentration | Certified Concentration | Units - | Blend Tolerance | Certified Accuracy |
|---|---|---|---|---|---|
| Butane | 1.00 | 1.00 | % | ±10% | ±2% |
| Acetylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Isobutylene | 1.00 | 1.01 | % | ±10% | ±2% |
| Propane | 1.00 | 1.00 | % | ±10% | ±2% |
| Ethane | 1.00 | 1.01 | % | ±10% | ±2% |
| Ethylene | 1.00 | 1.00 | % | ±10% | ±2% |
| Methane | 1.00 | 1.00 | % | ±10% | ±2% |
| Nitrogen | Balance | Balance | | | |

TRACEABILITY

COMMENTS

* Indicates the actual cylinder(s) analyzed.

Lot No: 9300606746
Fill Date: 02/23/2020
Expiration Date: 03/09/2022

Analysis Date: 03/09/2020

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — Date: 03/09/2020

Merich Boyett - QA Approval — Date: 03/09/2020

Reagent

# RSK7gasMathes_00034

MATHESON

MTG Customer No: 504445

ME ST
39126
CO 80239

omponent Mixture

Cylinder Size: 4
Valve: CGA 350 SS

FIED
82238

Contents:
Net: 7.57 ft³: 0.21 m³

Pressure: 1400 psia @ 70°F: 9653 kPa @ 21°C

| Requested Concentration | Certified Concentration | Units | Blend Tolerance | Certified Accuracy |
|---|---|---|---|---|
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.00 | % | ±10% | ±2% |
| 1.00 | 1.01 | % | ±10% | ±2% |
| Balance | Balance | | | |

TRACEABILITY

COMMENTS

Tri-Gas Transit
validated by elec

03/22/2002
Date

Aproval

03/23/2021
Date

MTG Part No: [illegible]

Net: [illegible]

Pressure: 1400 psia @ 70°F; 9653 kPa @ [illegible]°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

# 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 |

CERTIFIED BY

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.

nsi lab solutions
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_00047

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:** 1102654 **Product Number:** 1847

**Manufacture Date:** FEB 02, 2021
**Expiration Date:** JAN 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 |
| Phosphoric Acid | 7664-38-2 | ACS |
| Potassium Acid Phthalate | 877-24-7 | ACS Acidimetric |

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

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

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

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

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

Israel Alamudun (02/02/2021)
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

# TOC LCS Std_00052

Agilent

# Certificate of Analysis

**Product Name:** Total Organic Carbon (TOC) Standard

**Product Number:** IQC-106

**Lot Issue Date:** 07-May-2021

**Lot Number:** 0006606278

**Expiration Date:** 30-Jun-2023

**Description:**
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.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| potassium hydrogen phthalate (KHP) (as TOC) | 000877-24-7 | RM17581 | 1001 ± 5 mg/L |

**Matrix:** water (low TOC, < 50 ppb)

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

**Traceability:**
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

**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 TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026
Page: 1 of 1

www.agilent.com/quality/
CSD-QA-040.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert
No. AT-1937

# RSK_175_DOD5

## Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 002F0201.D

Lab ID: LCS 280-556811/2 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Methane | 0.0657 | 0.0659 | 100 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 003F0301.D

Lab ID: LCSD 280-556811/3 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Methane | 0.0657 | 0.0665 | 101 | 1 | 20 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: MB 280-556811/4

Matrix: Water  Date Extracted:

Lab File ID:(1) 004F0401.D  Lab File ID:(2) 004F0401.D

Date Analyzed:(1) 11/09/2021 18:13  Date Analyzed:(2) 11/09/2021 18:13

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 280-556811/2 | 11/09/2021 17:48 | 11/09/2021 17:48 |
| | LCSD 280-556811/3 | 11/09/2021 18:00 | 11/09/2021 18:00 |
| EW7-PM21A-7-25 | 280-154948-1 | 11/09/2021 18:52 | 11/09/2021 18:52 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Client Sample ID: EW7-PM21A-7-25 Lab Sample ID: 280-154948-1

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

Date Analyzed (1): 11/09/2021 18:52 Date Analyzed (2): 11/09/2021 18:52

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 | | 1.67 | 1.65 | 1.73 | 17 | | 3.8 |
| | 2 | | 1.29 | 1.26 | 1.34 | 18 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-556811/2

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

Date Analyzed (1): 11/09/2021 17:48 Date Analyzed (2): 11/09/2021 17:48

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| Methane | 1 | | 1.69 | 1.65 | 1.73 | 0.0659 | | 2.1 |
| | 2 | | 1.30 | 1.26 | 1.34 | 0.0645 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-556811/3

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

Date Analyzed (1): 11/09/2021 18:00 Date Analyzed (2): 11/09/2021 18:00

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| Methane | 1 | | 1.68 | 1.65 | 1.73 | 0.0665 | | 1.9 |
| | 2 | | 1.30 | 1.26 | 1.34 | 0.0653 | | |

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Client Sample ID: EW7-PM21A-7-25  Lab Sample ID: 280-154948-1

Matrix: Water  Lab File ID: 007F0701.D

Analysis Method: RSK-175  Date Collected: 10/29/2021 15:55

Sample wt/vol: 20(mL)  Date Analyzed: 11/09/2021 18:52

Soil Aliquot Vol:  Dilution Factor: 2

Soil Extract Vol.:  GC Column: HP-Plot Q  ID: 0.53(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 556811  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 17 | D | 0.010 | 0.0026 | 0.0013 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\007F0701.D
Lims ID: 280-154948-I-1
Client ID: EW7-PM21A-7-25
Sample Type: Client
Inject. Date: 09-Nov-2021 18:52:57 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 2.0000
Sample Info: 280-154948-I-1
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 13:09:40 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: CTX1658

First Level Reviewer: ornelasg Date: 15-Nov-2021 13:31:28

| 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 | 1.289 | 1.302 | -0.013 | 310766105 | 8834.0 | |
| 2 | 1.671 | 1.690 | -0.019 | 307014793 | 8502.1 | |
| | | | | | RPD = 3.83 | |
| 3 Ethane | | | | | | |
| 1 | | 1.550 | | | ND | |
| 2 | | 3.030 | | | | |
| 4 Ethylene | | | | | | |
| 1 | | 1.828 | | | ND | |
| 2 | | 2.612 | | | | |
| 5 Propane | | | | | | |
| 1 | | 2.608 | | | ND | |
| 2 | | 4.930 | | | | |
| 6 Acetylene | | | | | | |
| 1 | | 4.032 | | | ND | |
| 2 | | 2.755 | | | | |
| 7 Butane | | | | | | |
| 1 | | 4.423 | | | ND | |
| 2 | | 6.428 | | | | |
| 8 isobutylene | | | | | | |
| 1 | | 5.282 | | | ND | |
| 2 | | 6.270 | | | | |

# QC Flag Legend

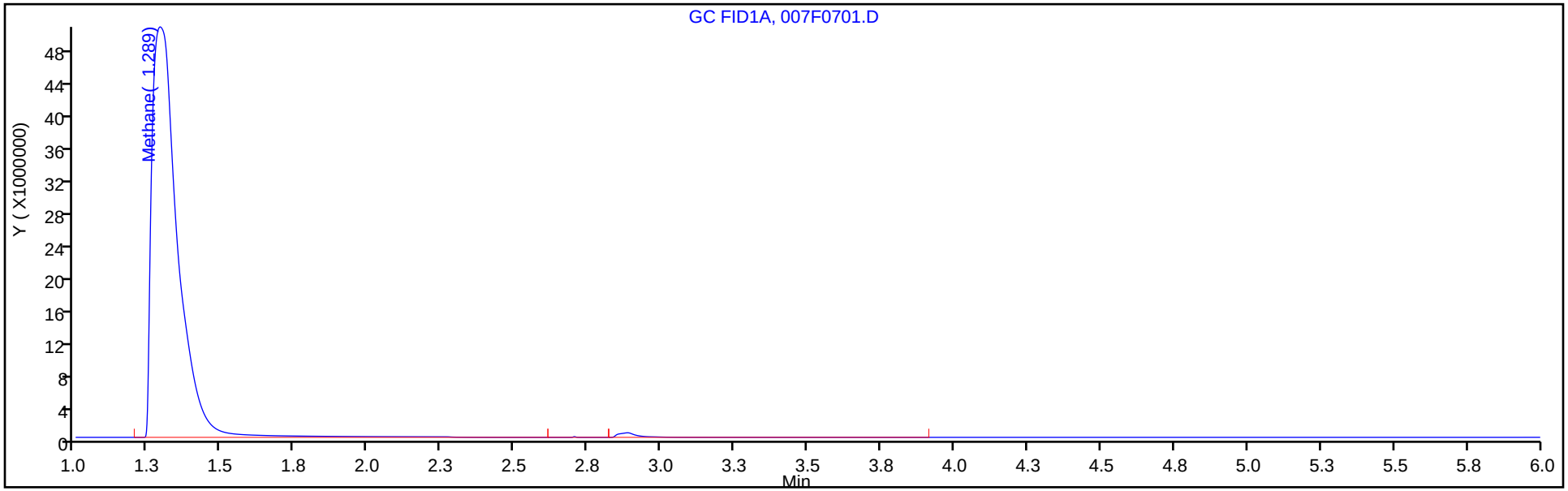
Processing Flags

Report Date: 15-Nov-2021 13:31:29 Chrom Revision: 2.3 22-Sep-2021 15:38:46

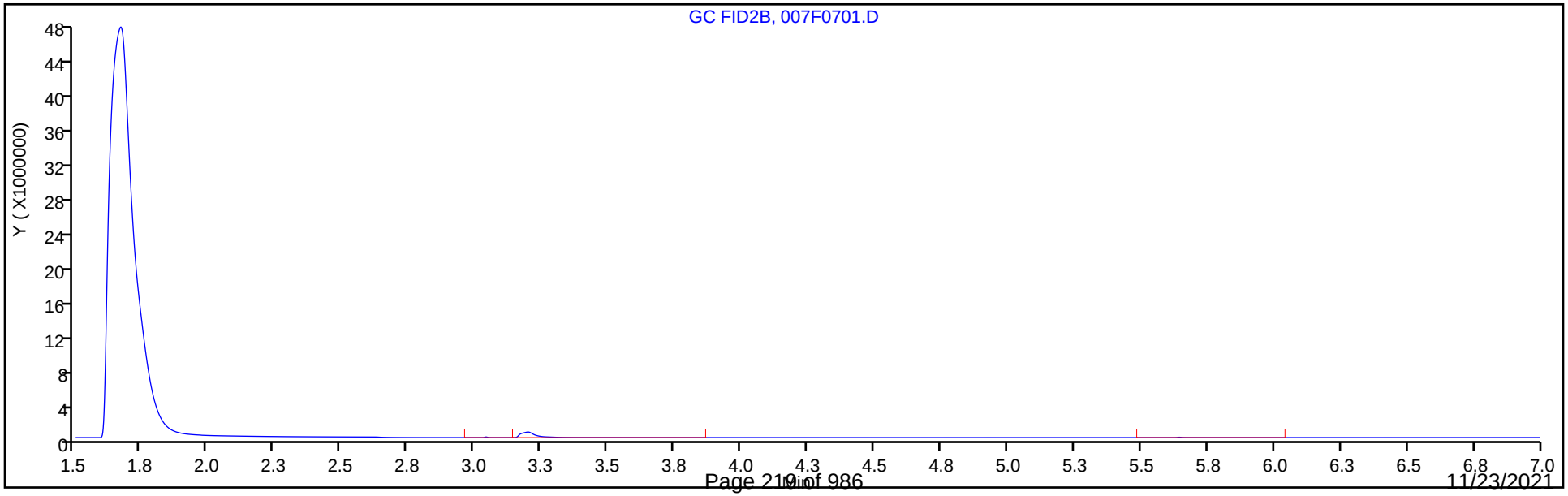
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\007F0701.D | | | | |
| Injection Date: | 09-Nov-2021 18:52:57 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-154948-I-1 | Lab Sample ID: | 280-154948-1 | Worklist Smp#: | 7 |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 2.0000 | ALS Bottle#: | 7 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 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 TestAmerica, Denver Job No.: 280-154948-1 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 TestAmerica, Denver Job No.: 280-154948-1 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:

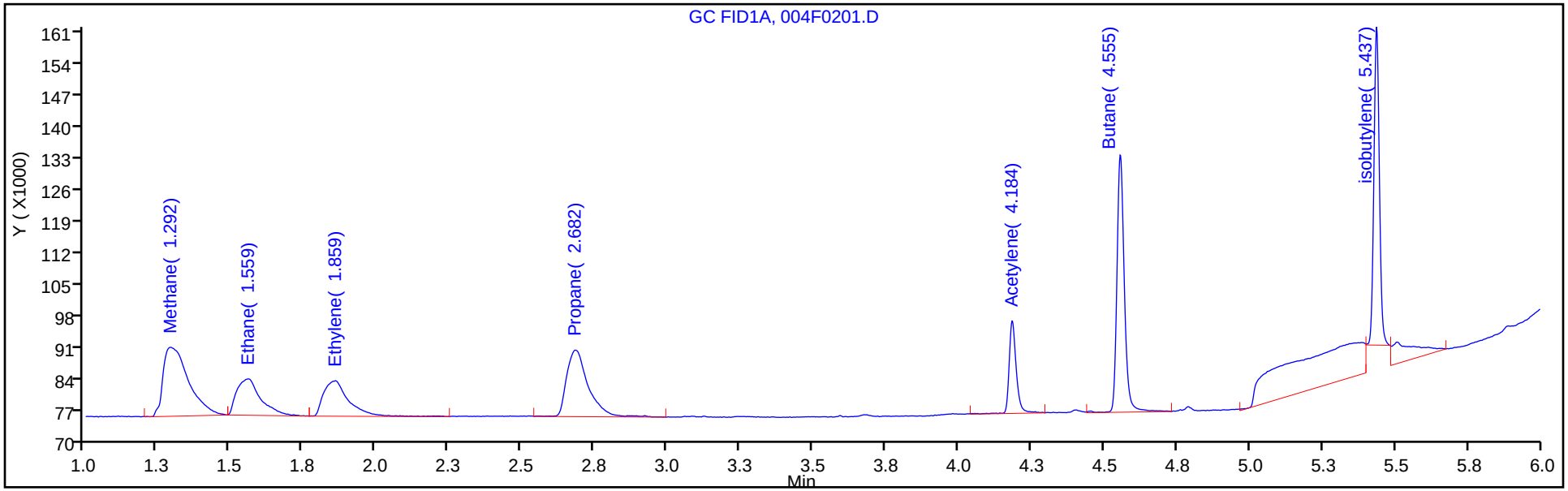
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

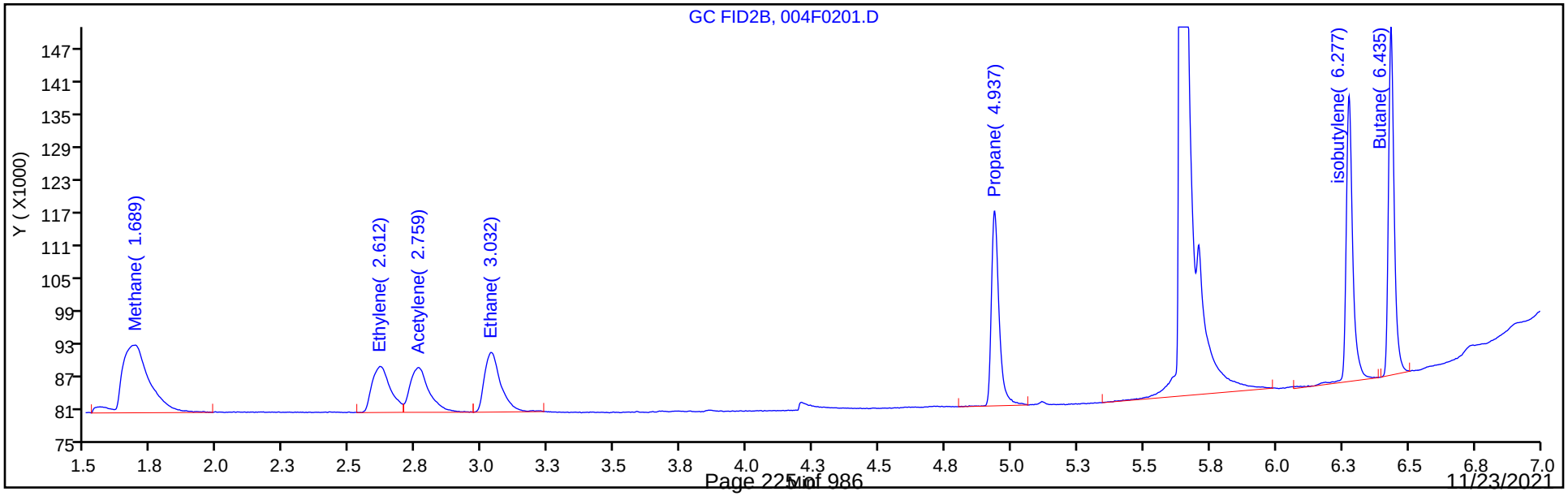
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

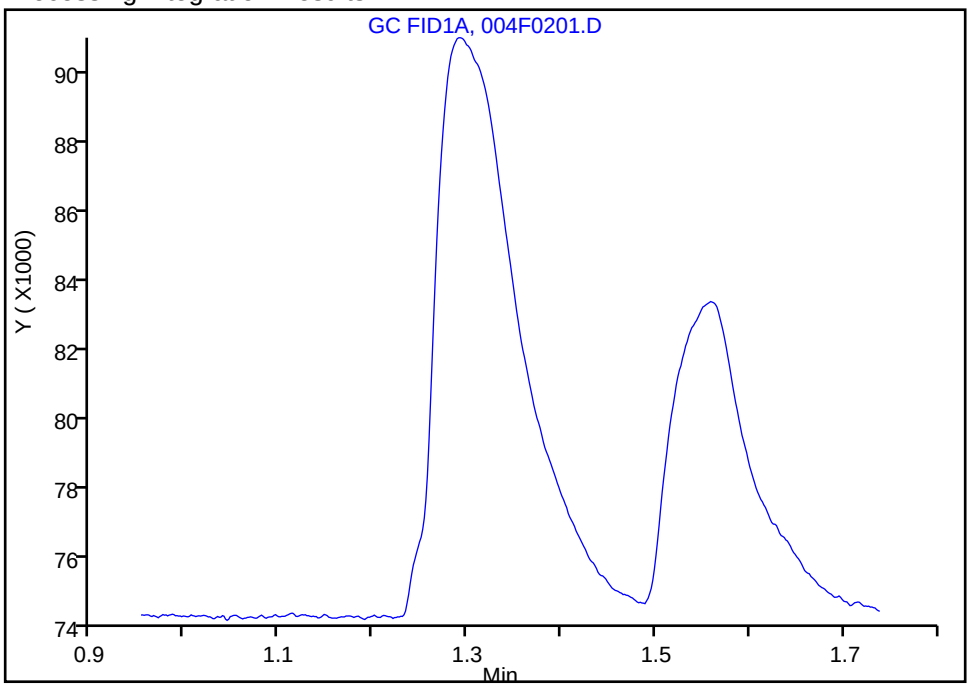
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

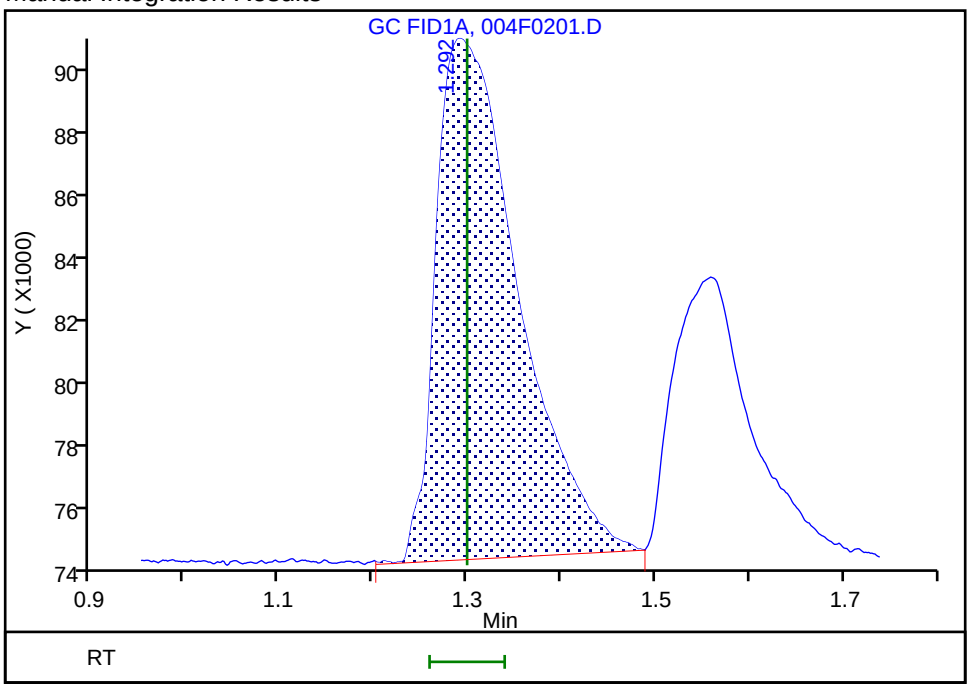
Not Detected
Expected RT: 1.30

Processing Integration Results




RT: 1.29
Area: 93424
Amount: 0.798461
Amount Units: ug/l

Manual Integration Results




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

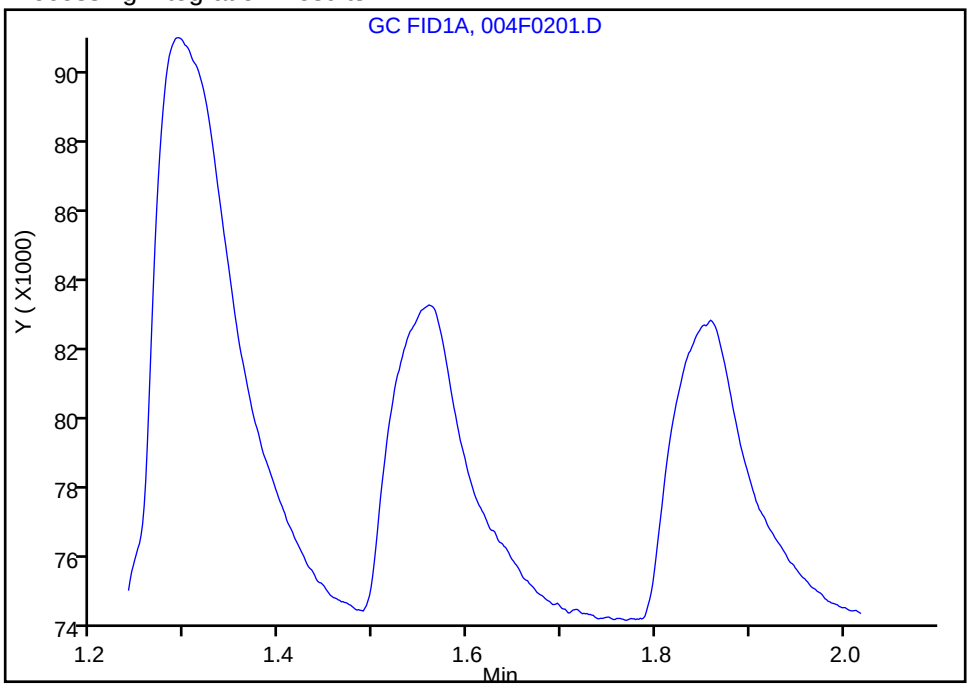
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

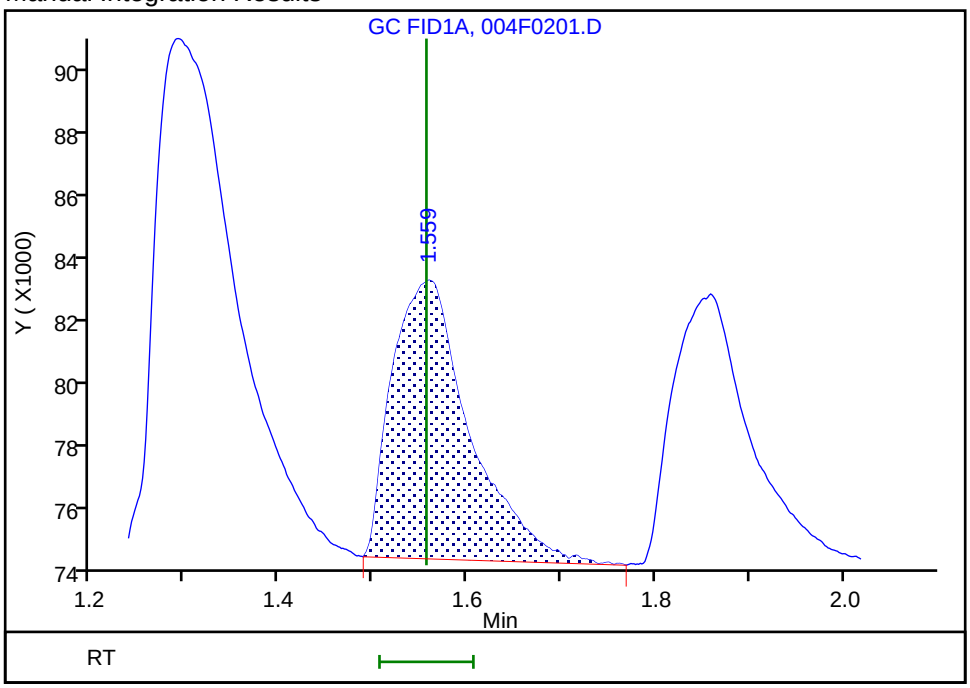
Not Detected
Expected RT: 1.56

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

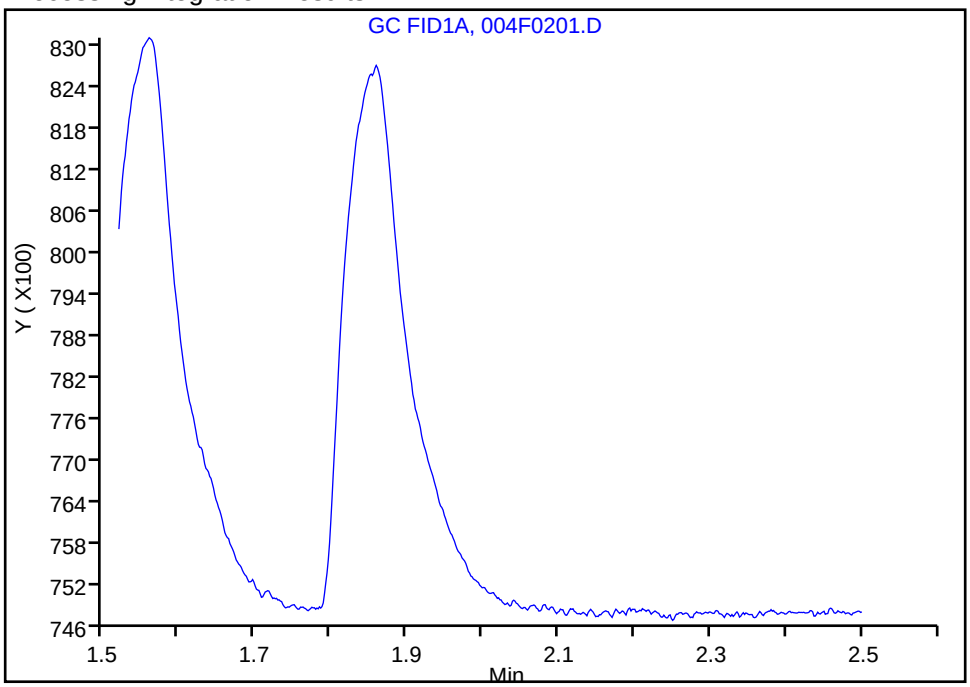
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

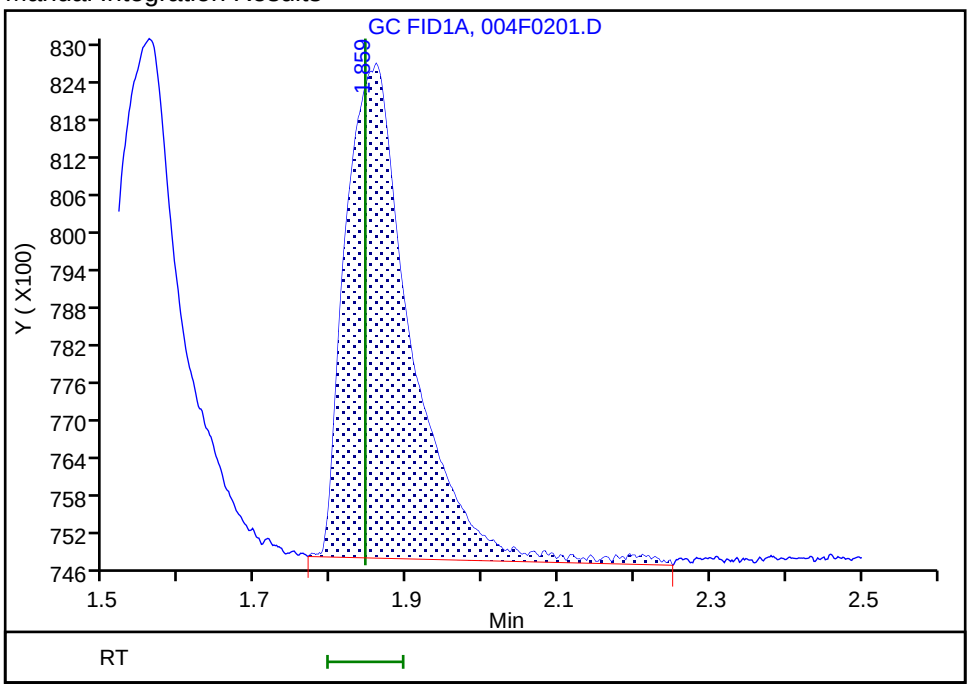
Not Detected
Expected RT: 1.84

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

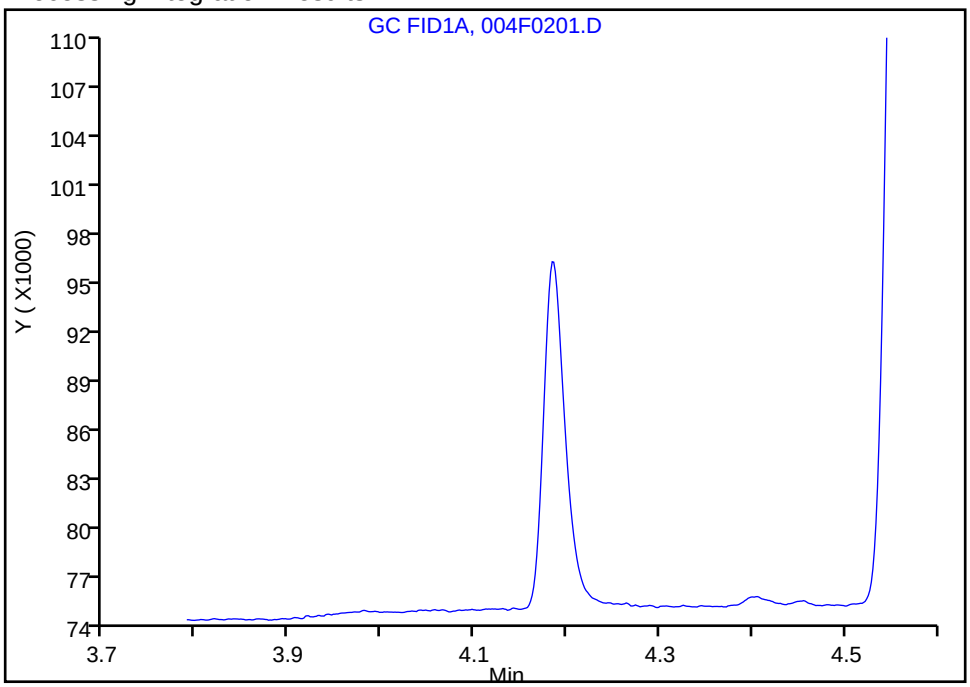
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

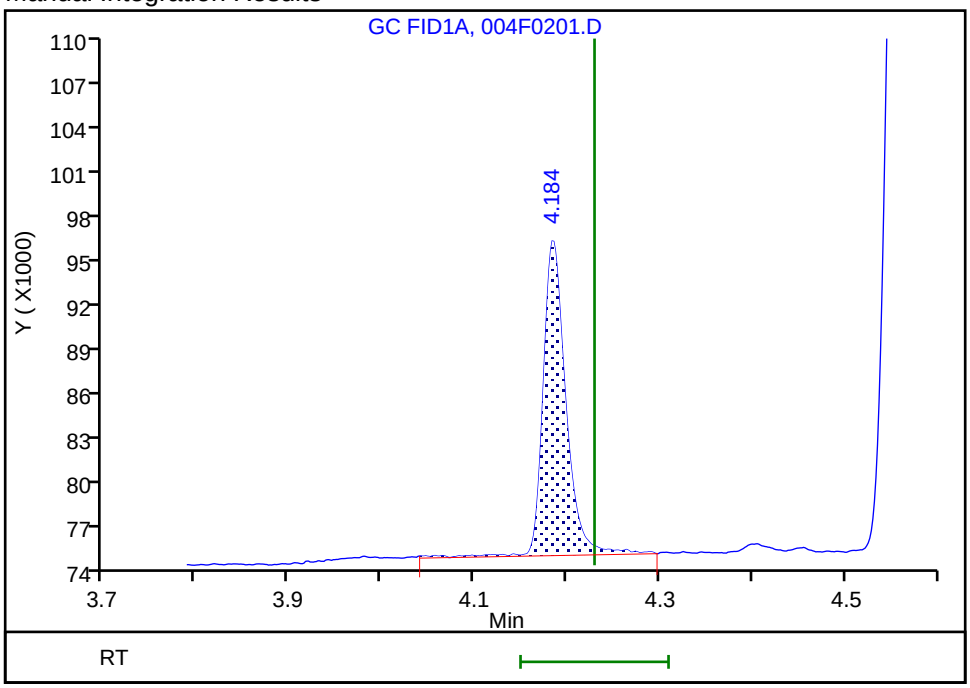
Not Detected
Expected RT: 4.23

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:

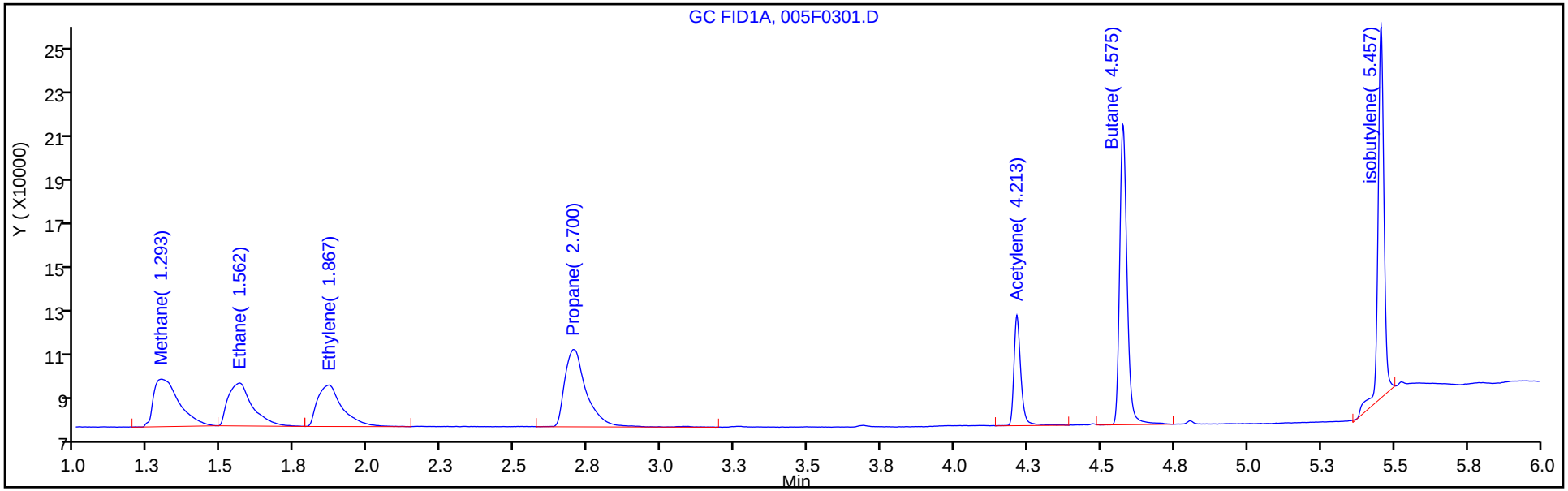
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

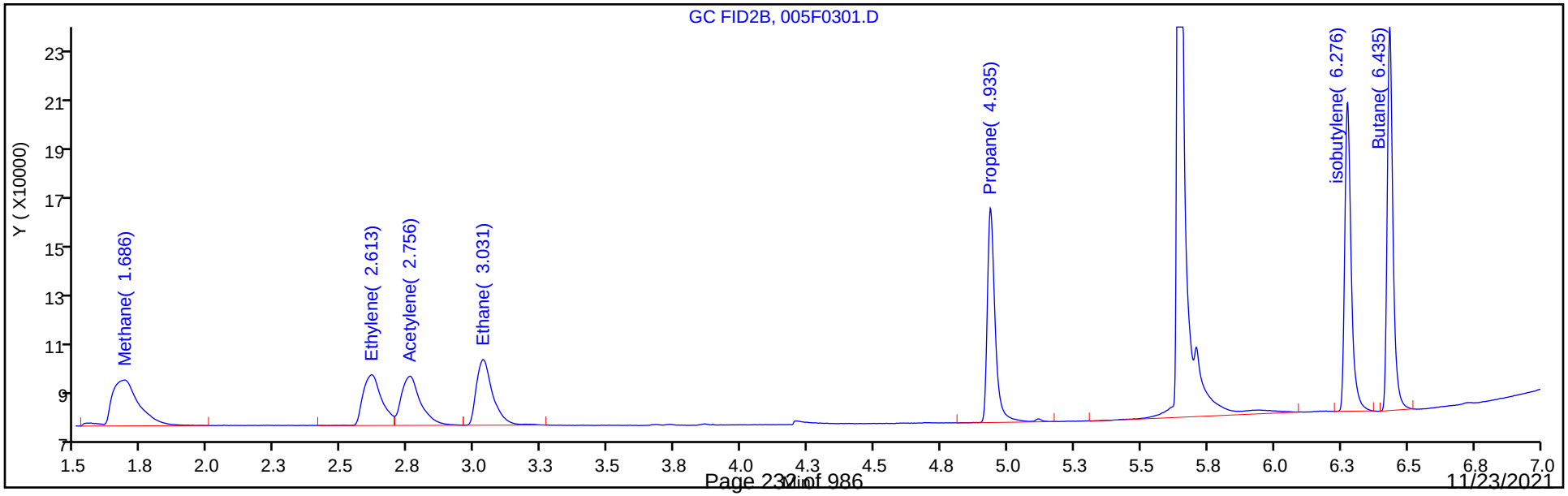
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

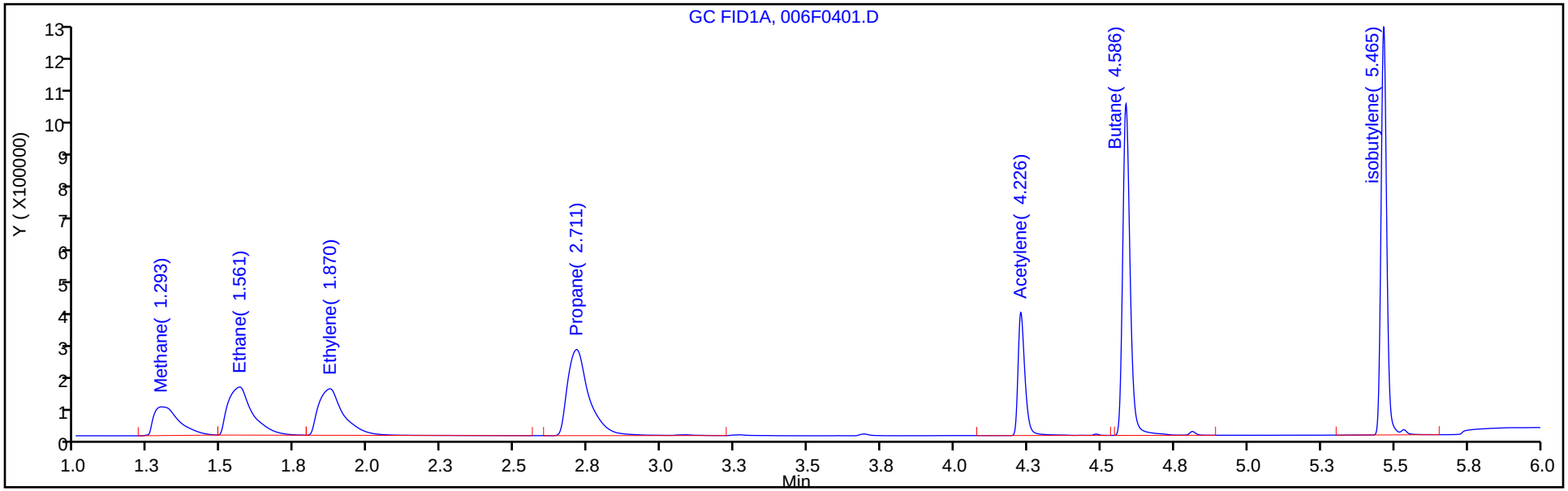
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

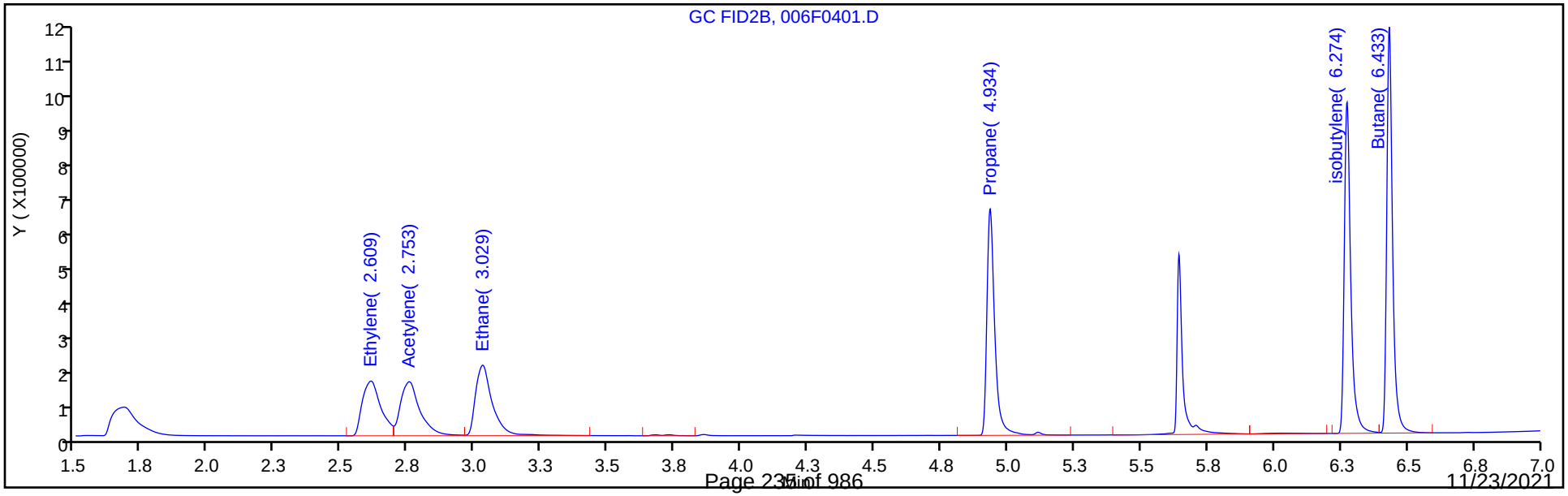
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

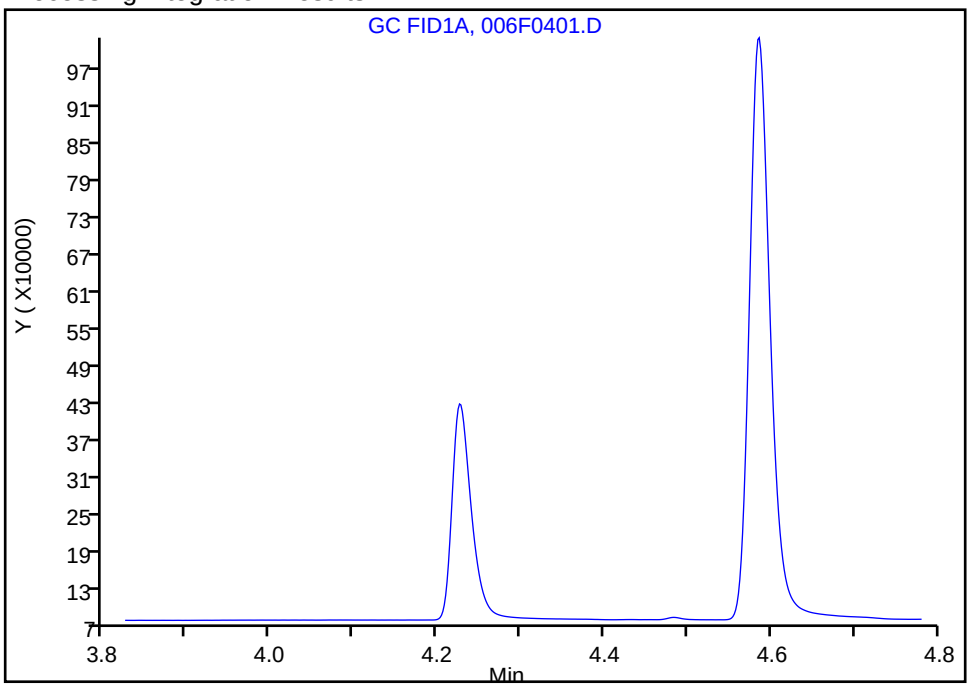
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D | | | | |
| Injection Date: | 24-Sep-2021 13:54:46 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 6 | Worklist 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

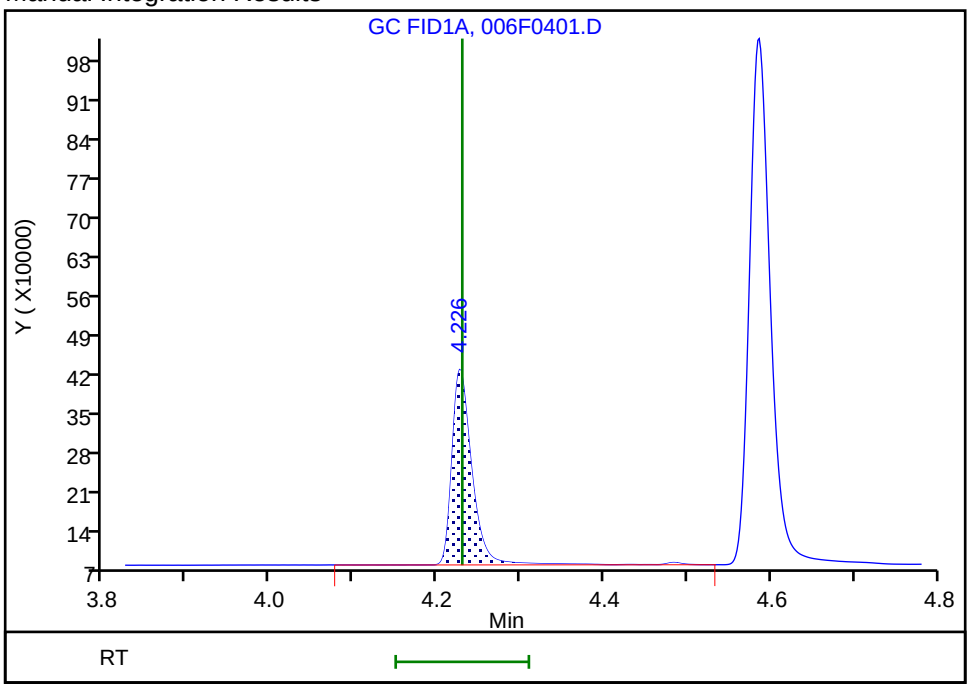
Not Detected
Expected RT: 4.23

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:

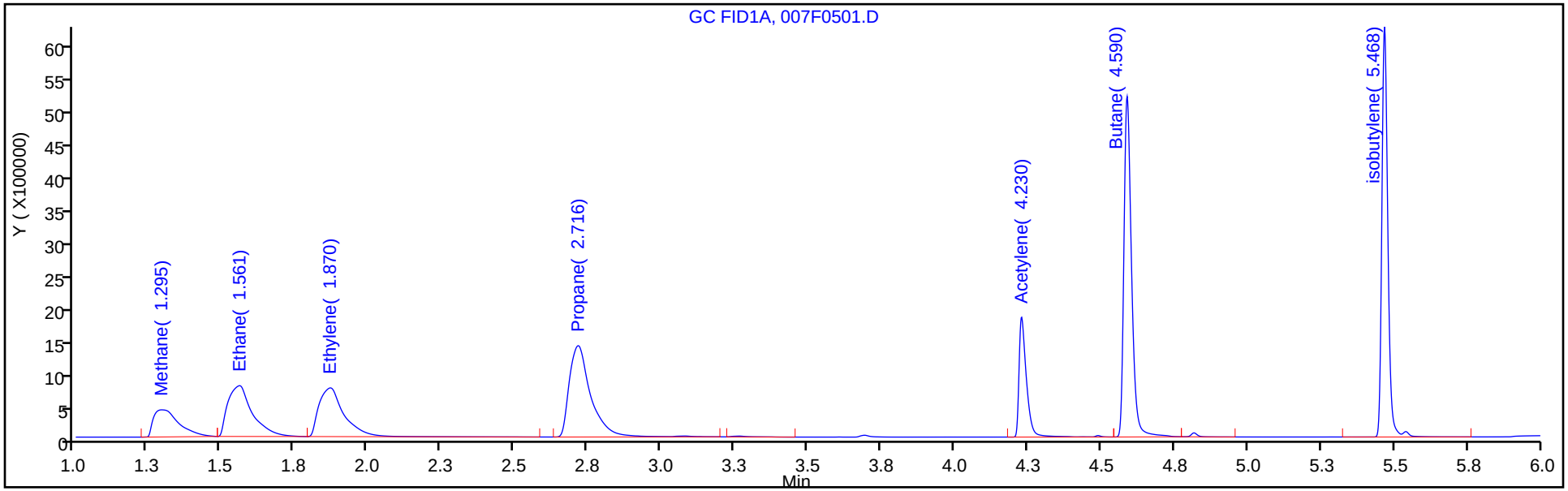
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

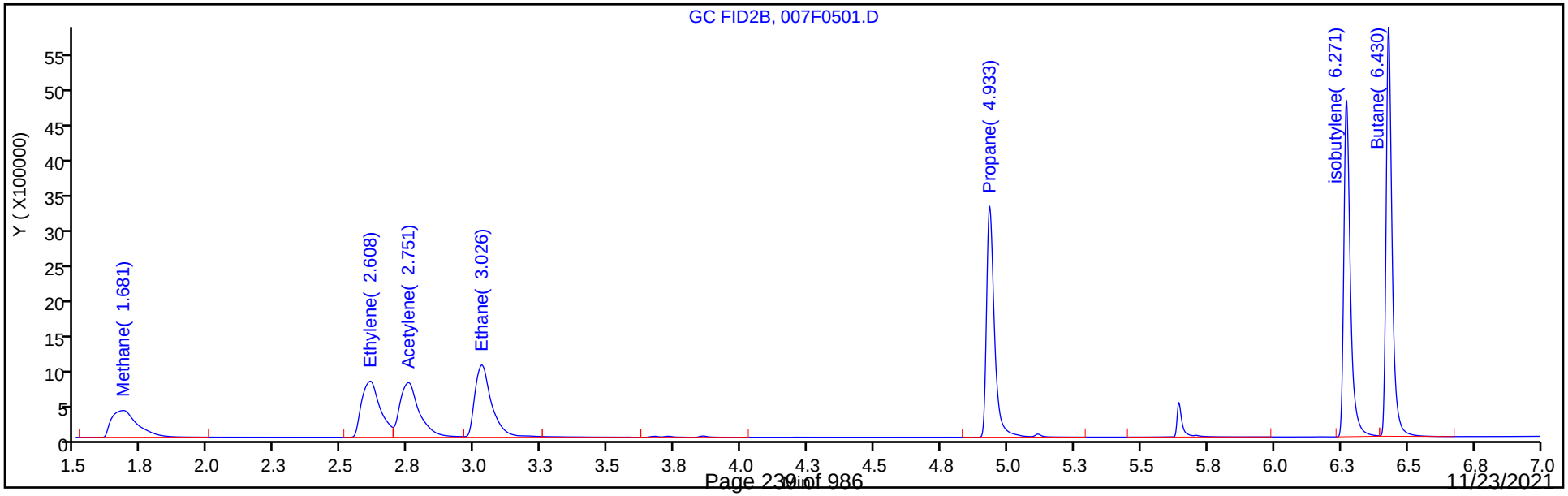
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

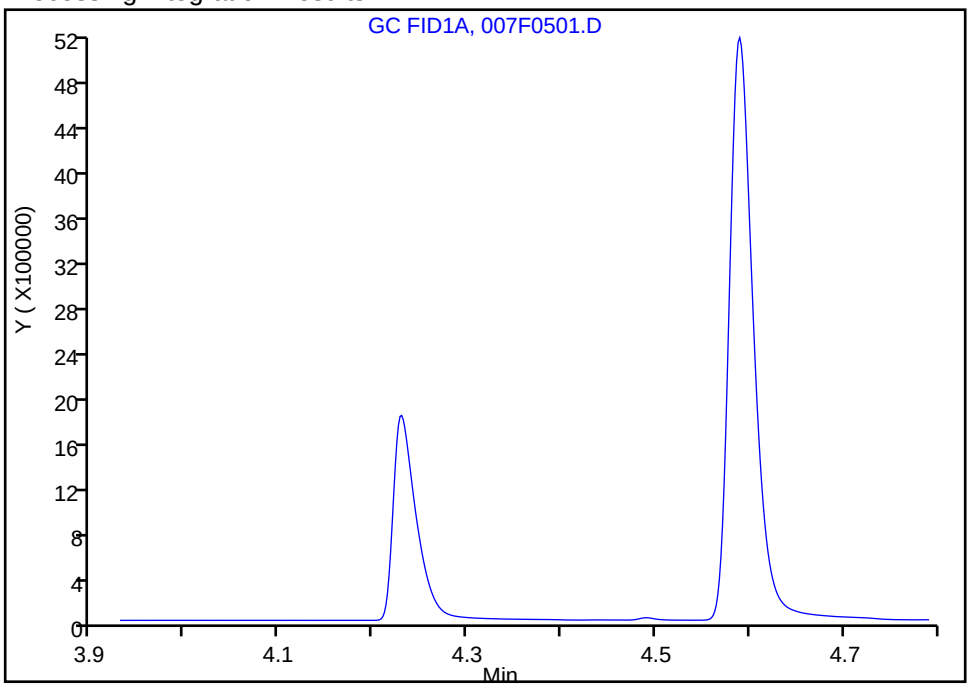
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D | | | | |
| Injection Date: | 24-Sep-2021 14:07:45 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 7 | Worklist 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

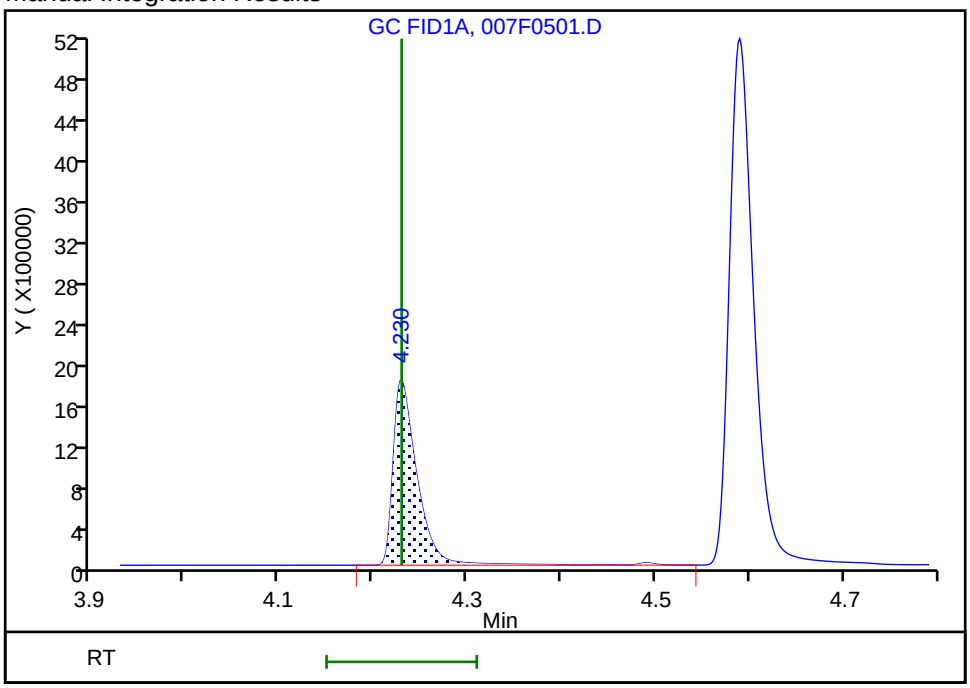
Not Detected
Expected RT: 4.23

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:

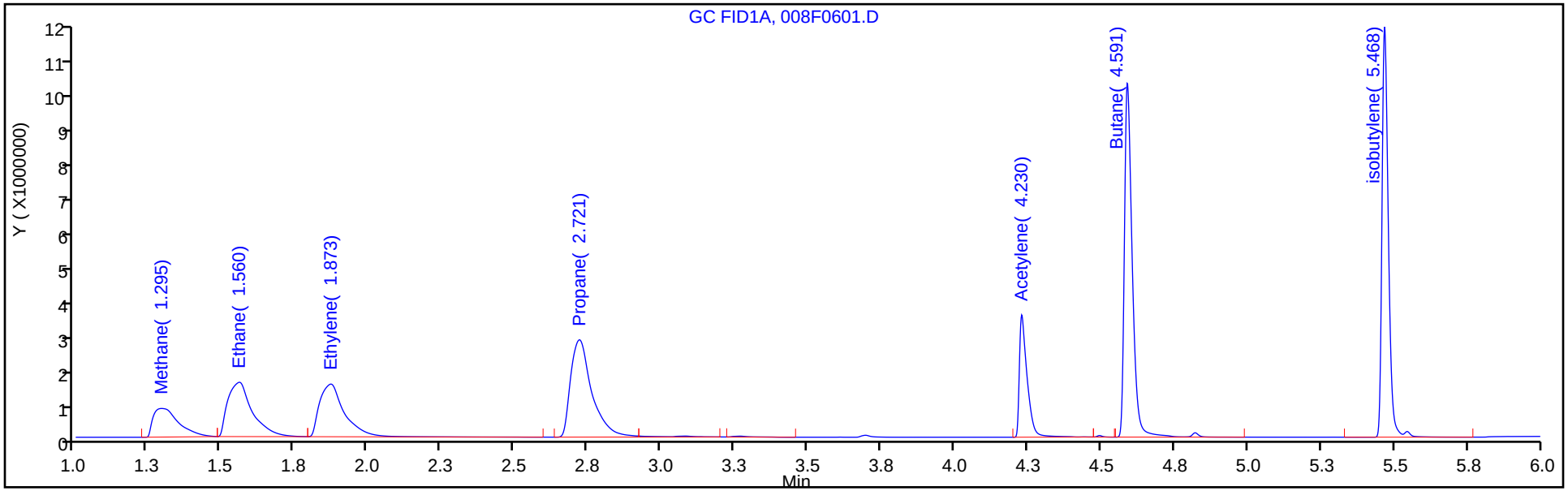
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

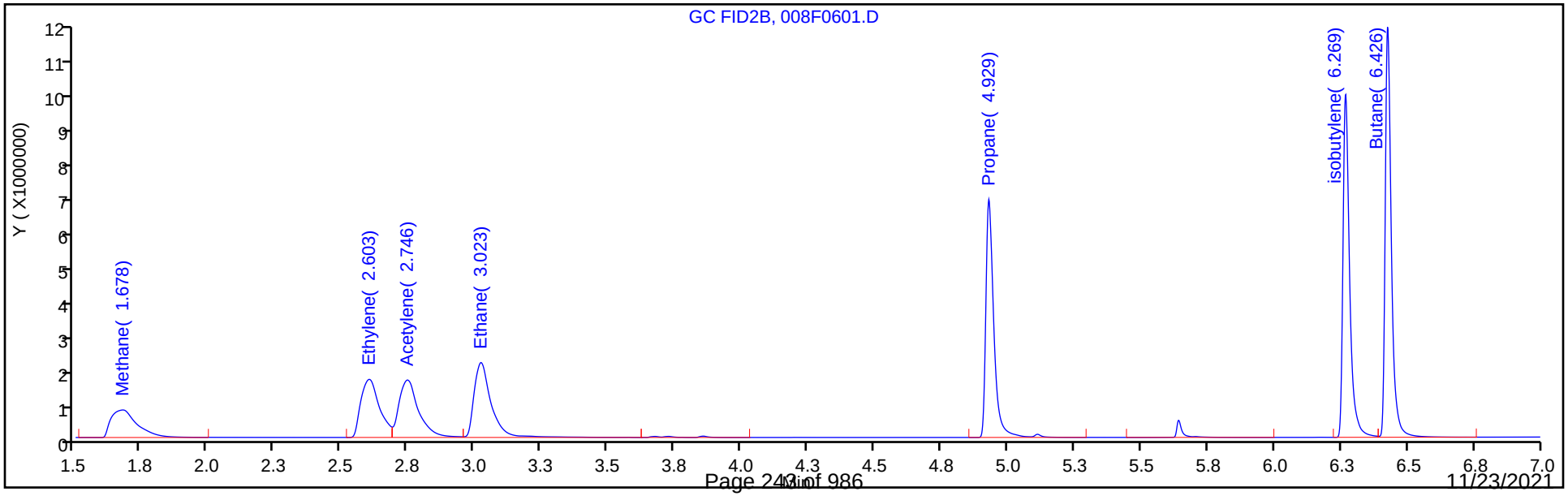
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

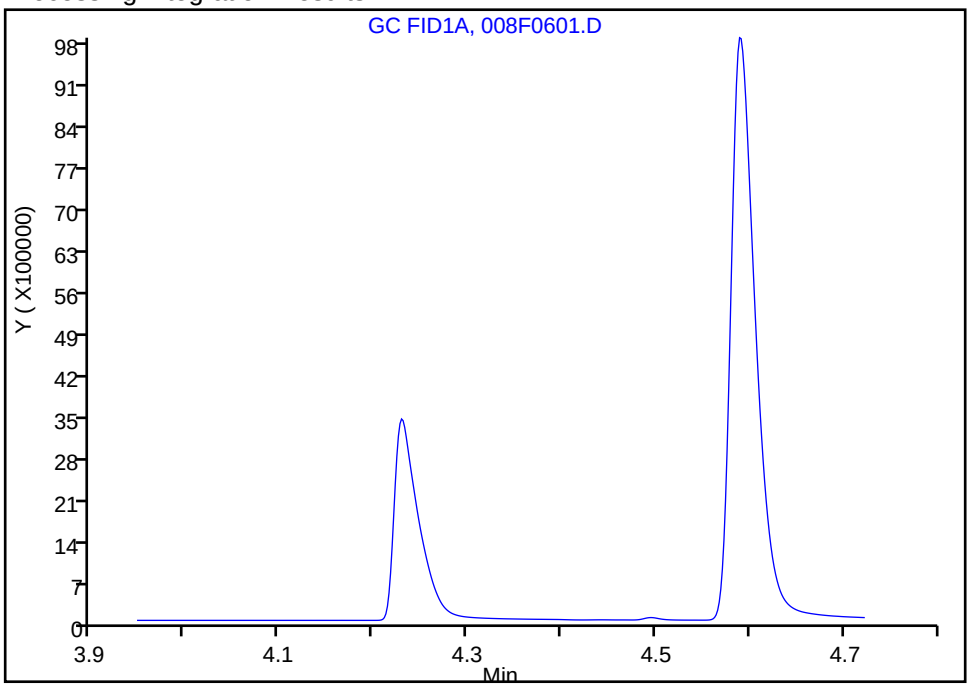
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D | | | | |
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 8 | Worklist 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

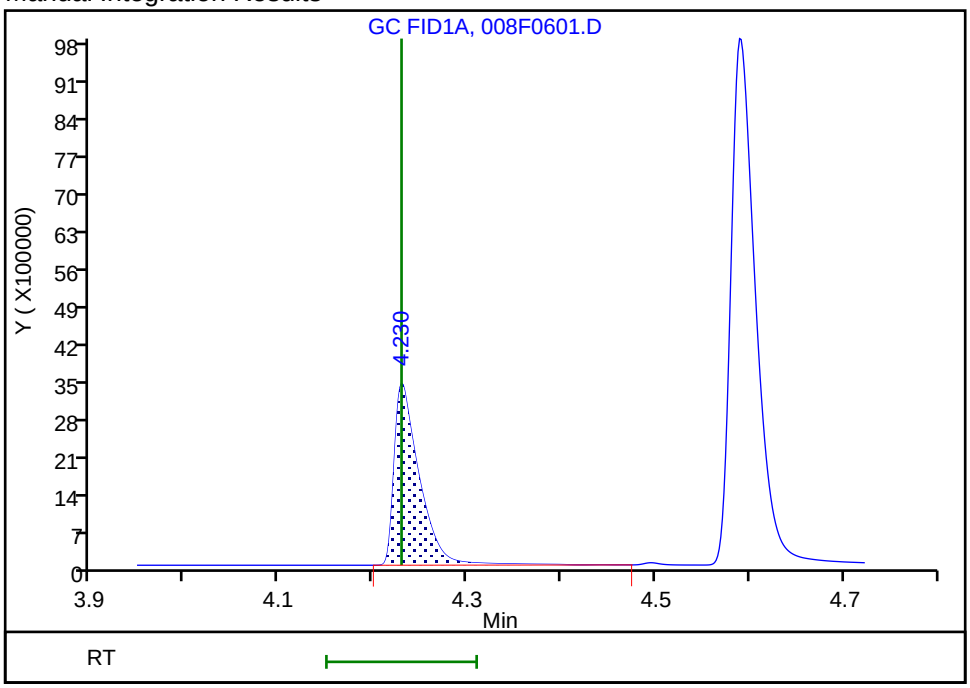
Not Detected
Expected RT: 4.23

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:

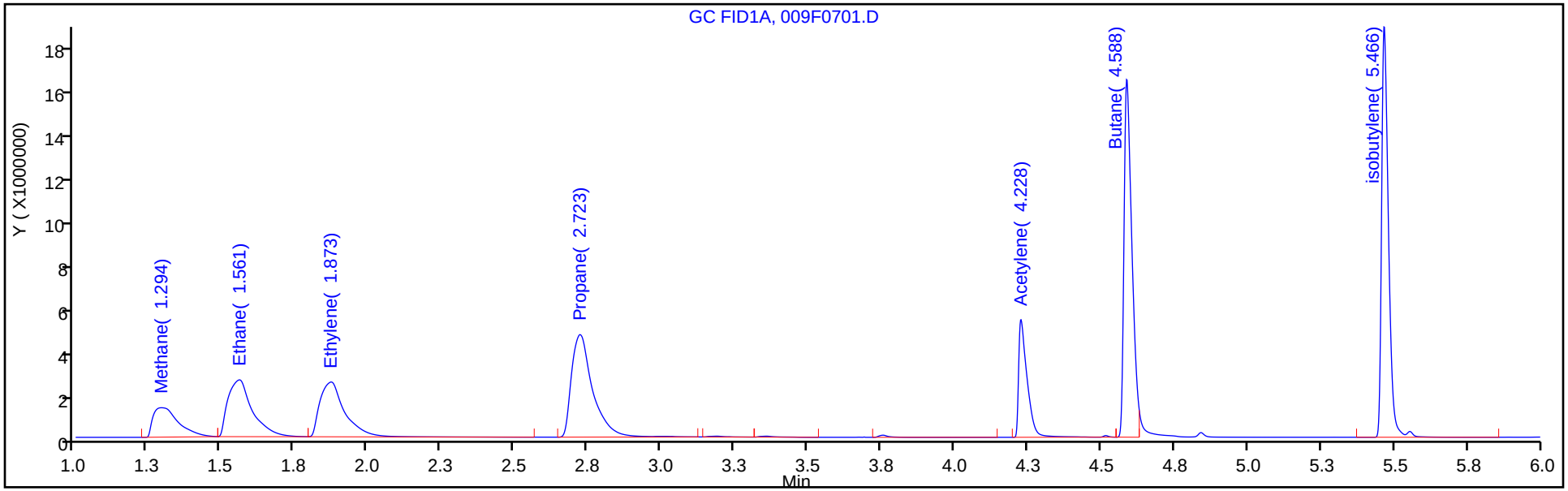
RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

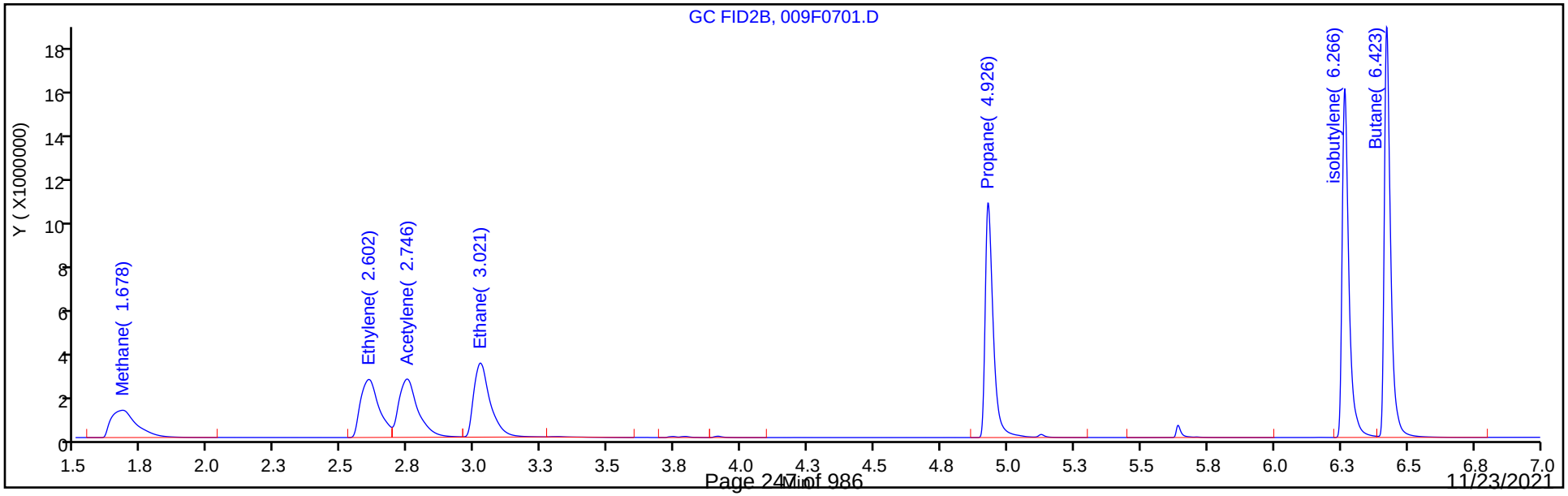
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

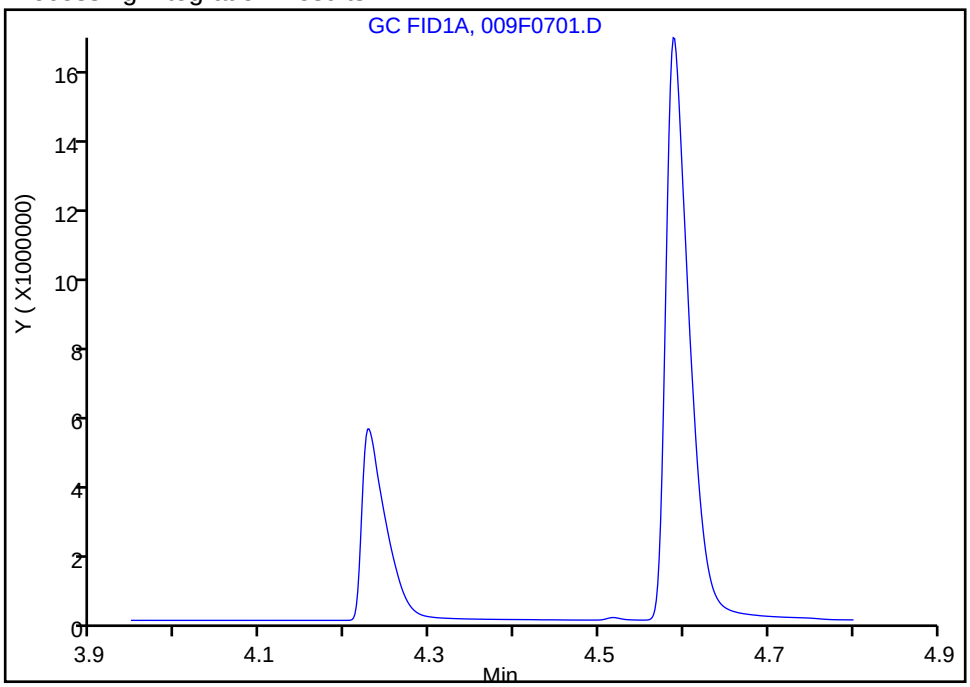
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D | | | | |
| Injection Date: | 24-Sep-2021 14:33:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 9 | Worklist 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

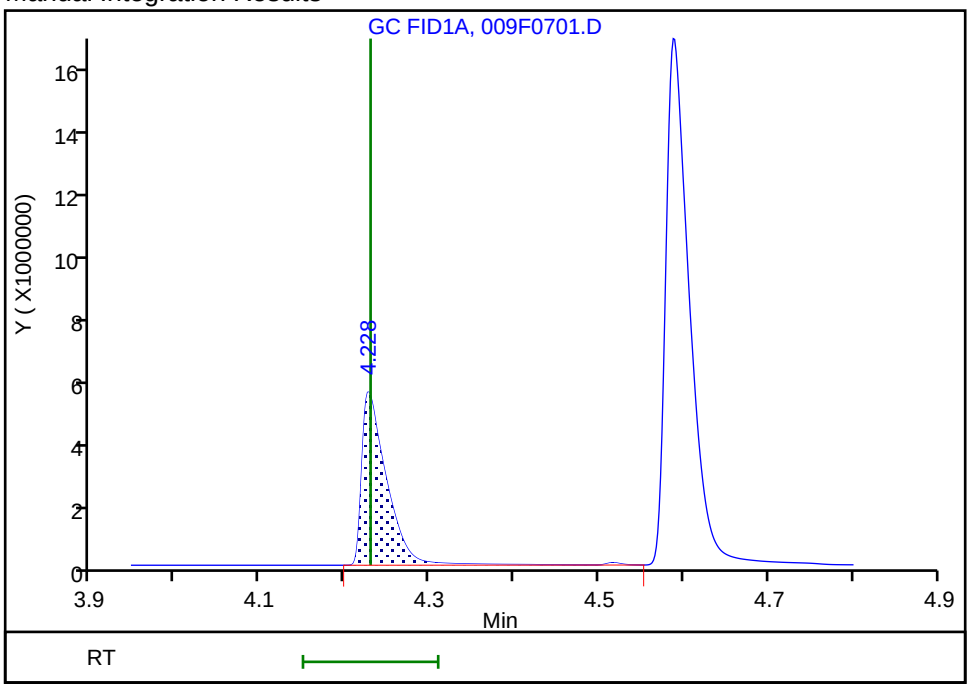
Not Detected
Expected RT: 4.23

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:

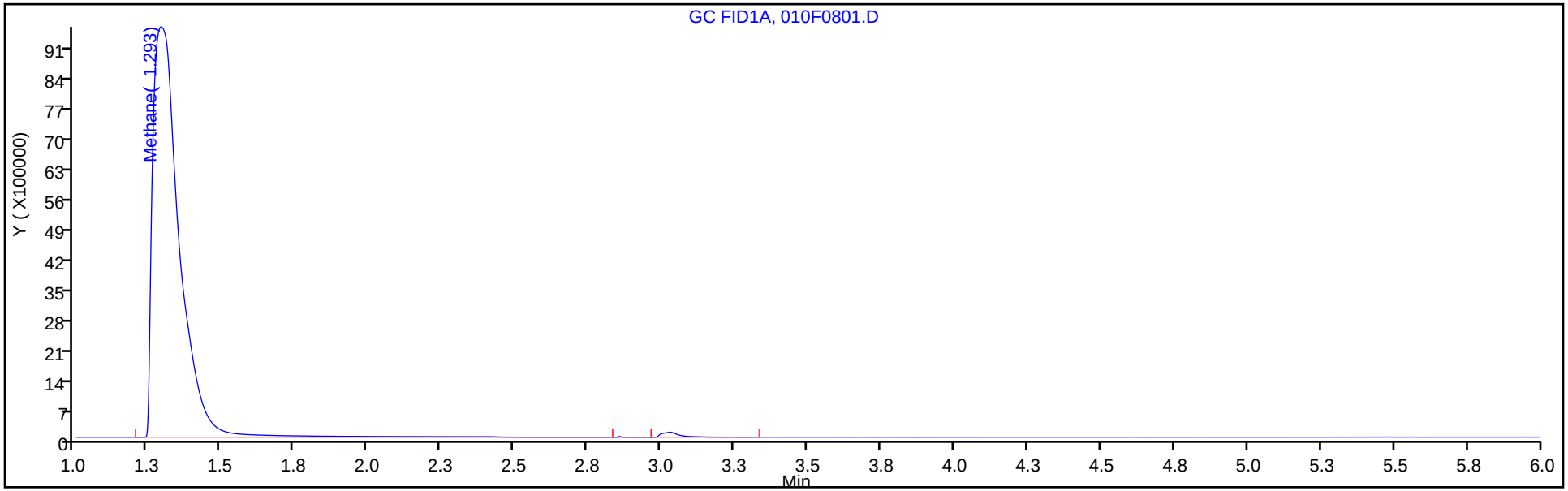
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

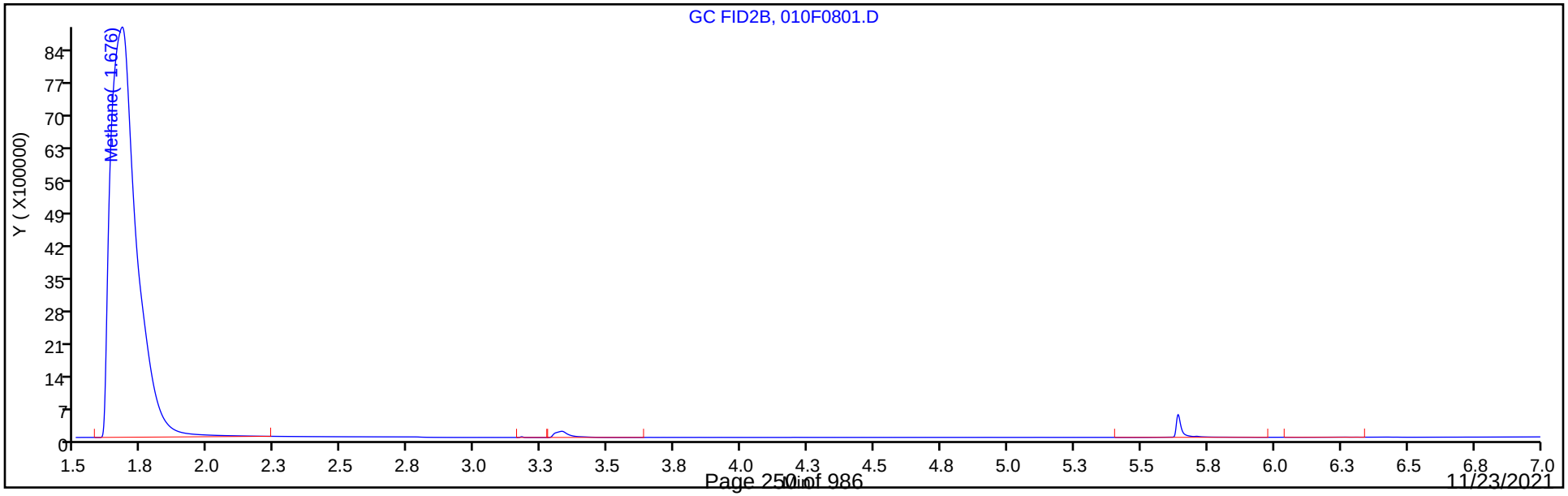
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

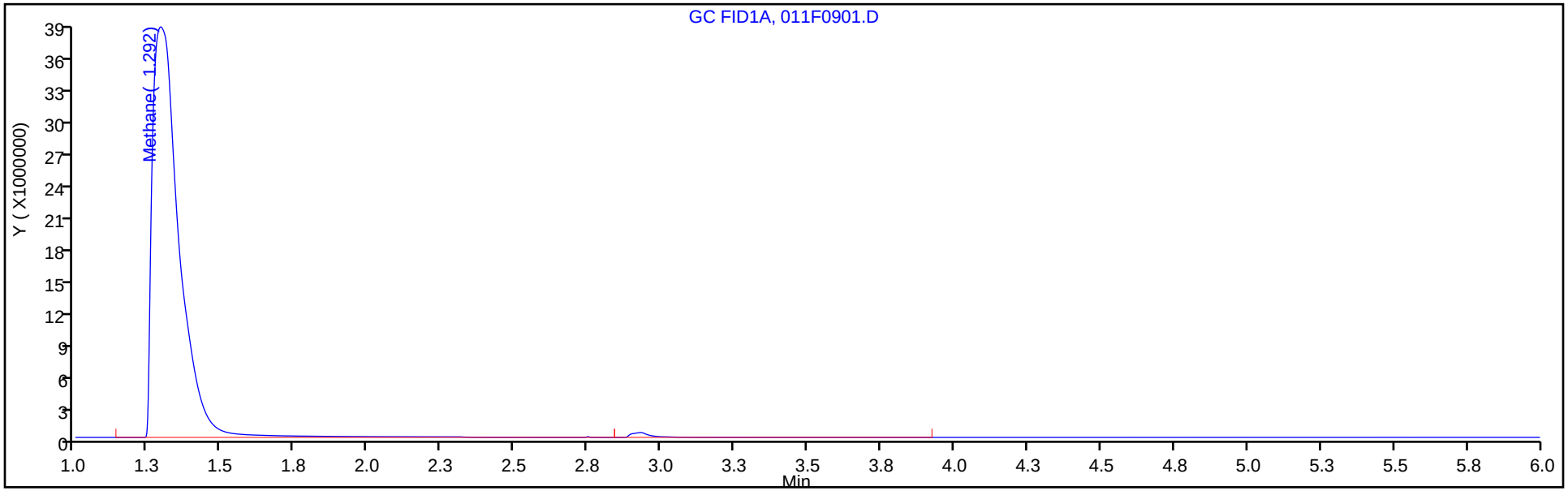
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

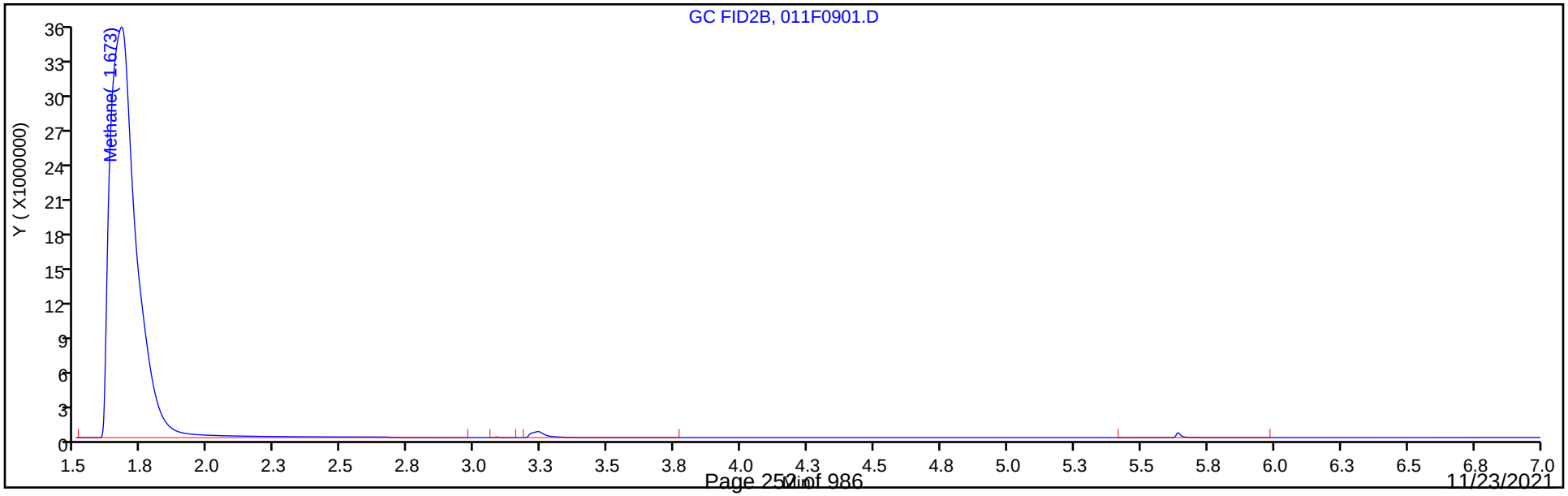
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

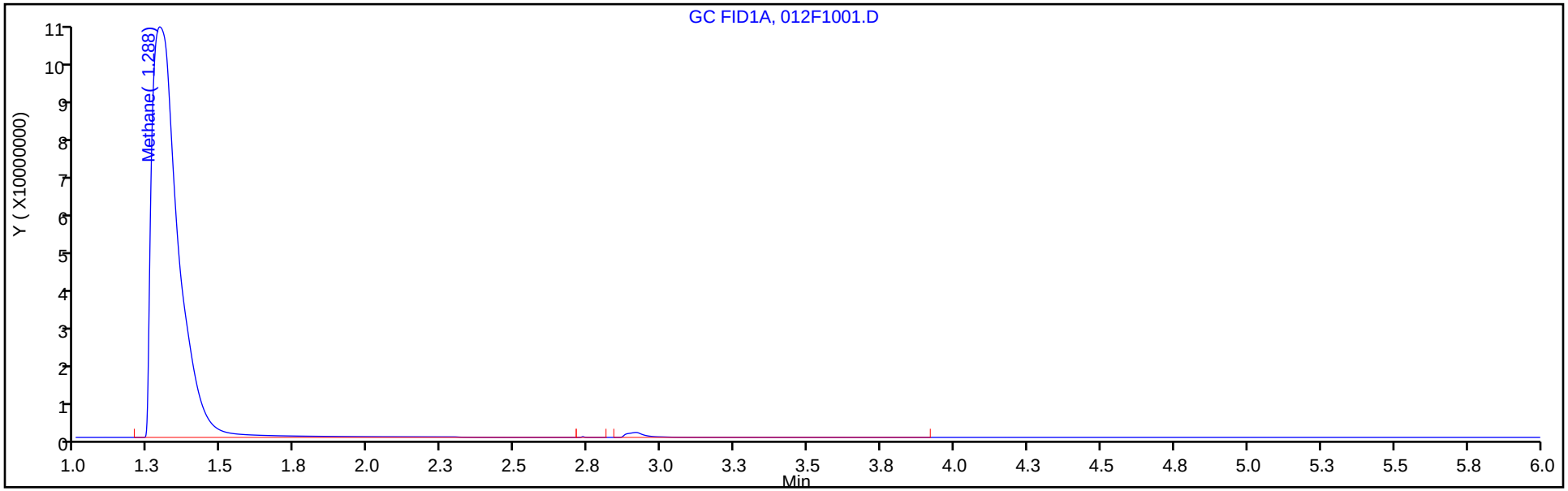
RSK175methane_00010 Amount Added: 600.00 Units: uL

Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

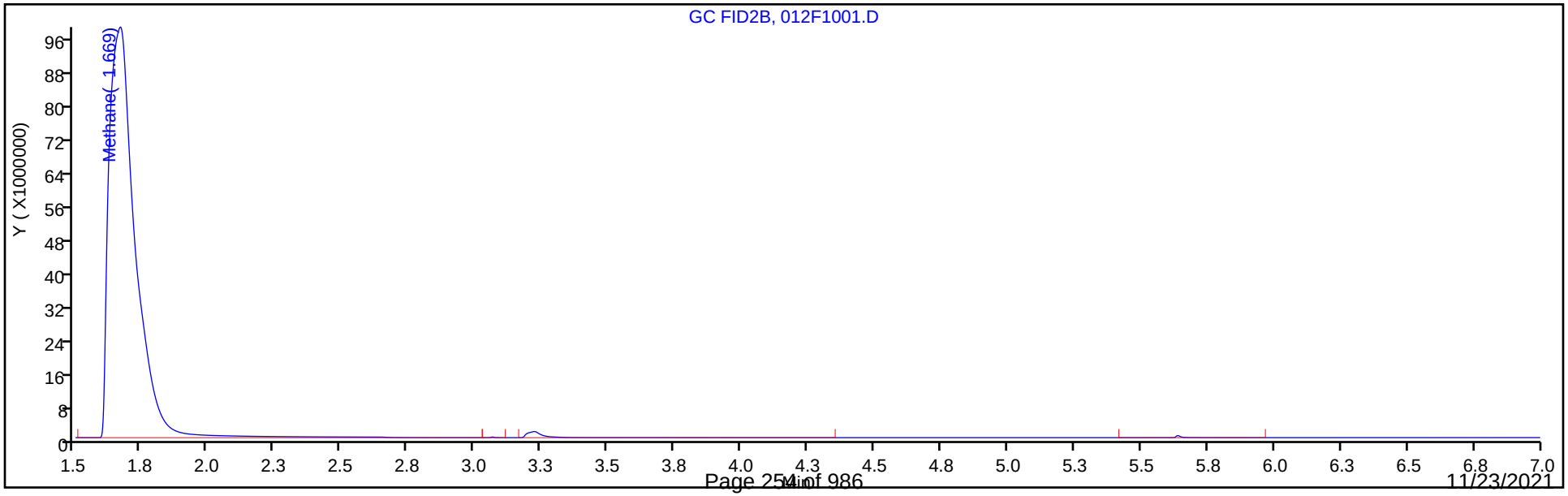
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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 |

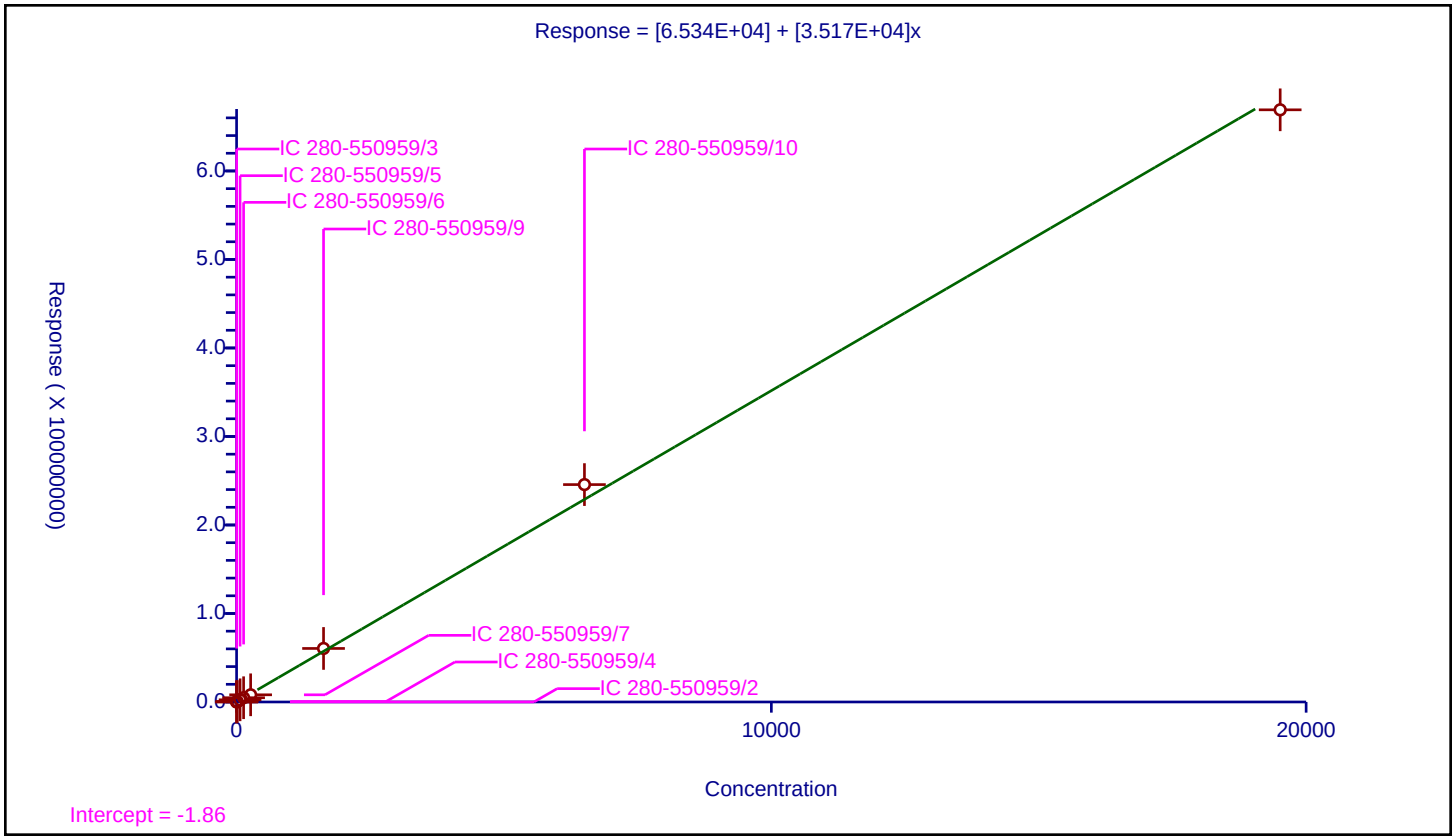
**Curve Coefficients**

| | |
|---|---|
| **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 |

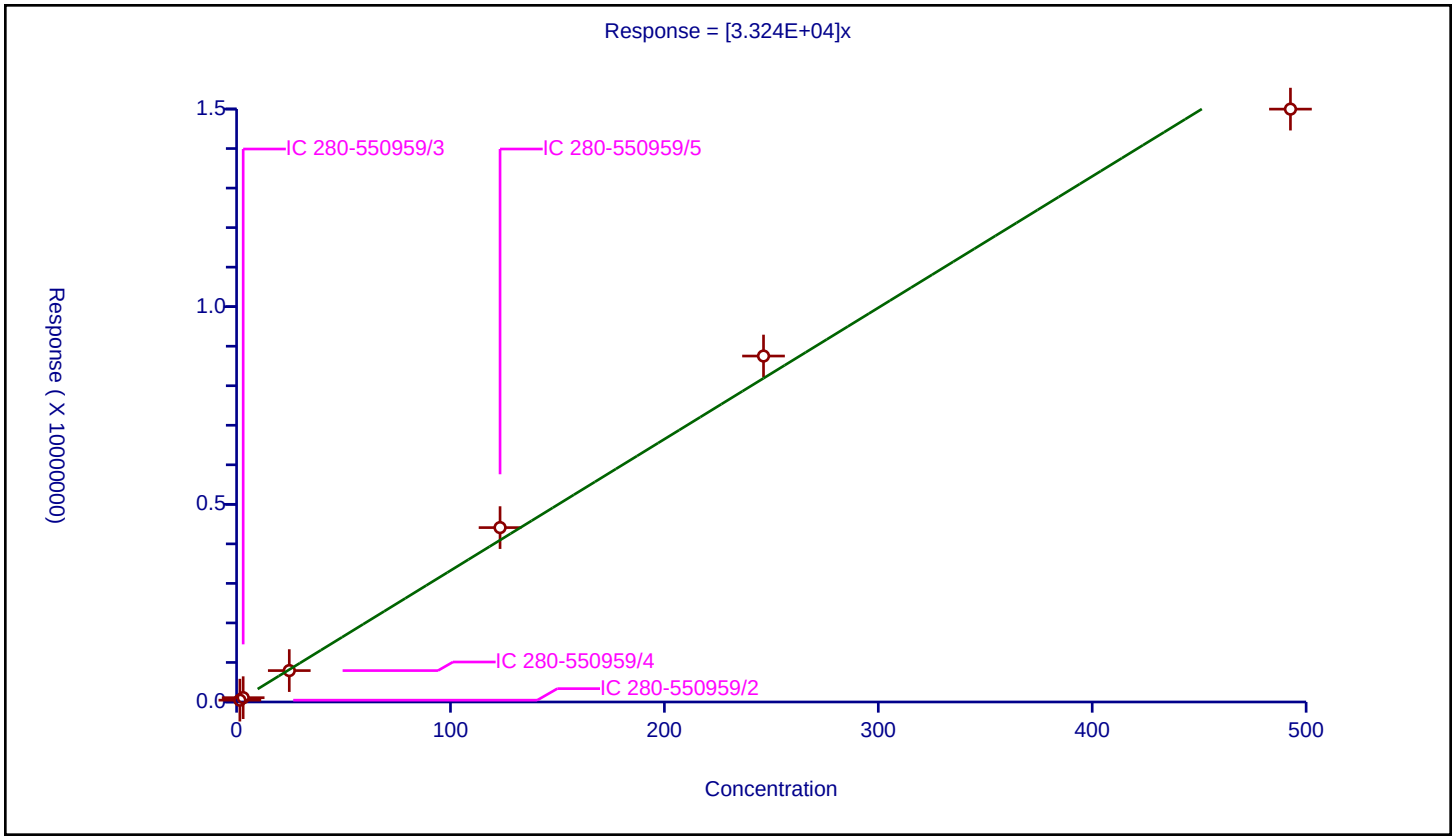
**Curve Coefficients**

| | |
|---|---|
| **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 |

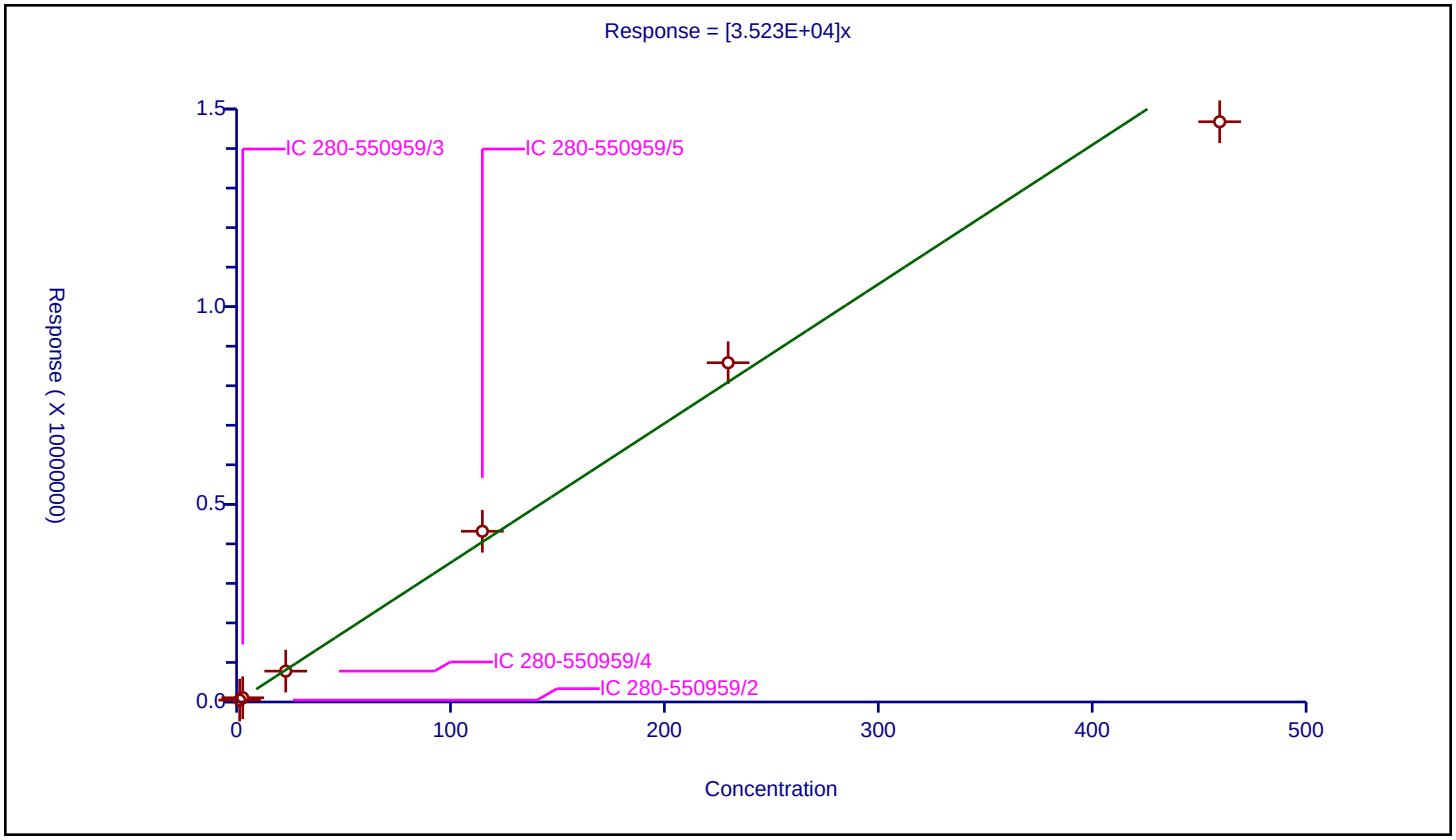
**Curve Coefficients**

| | |
|---|---|
| **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 |

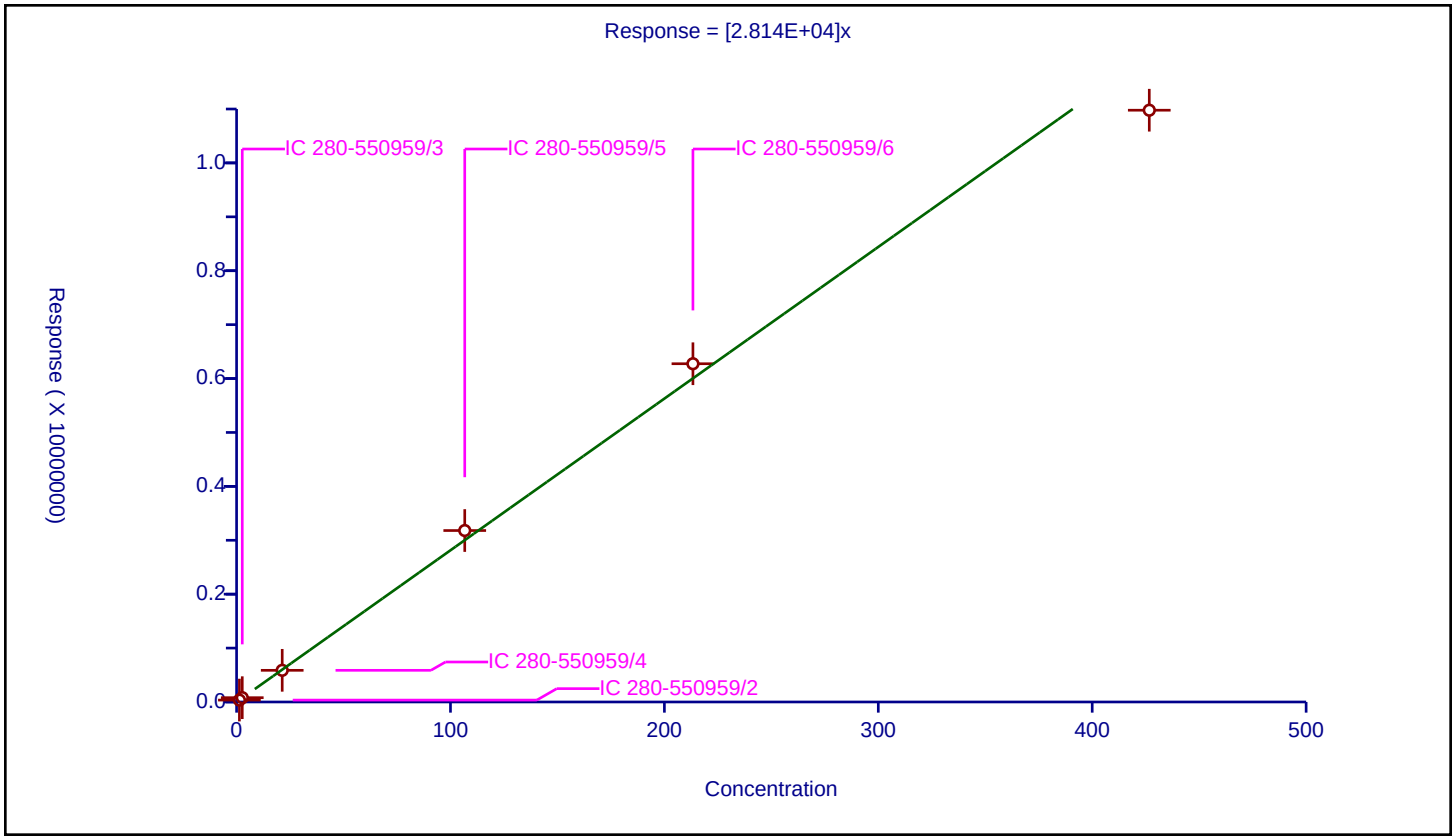
**Curve Coefficients**

| | |
|---|---|
| **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 TestAmerica, Denver Job No.: 280-154948-1 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 TestAmerica, Denver Job No.: 280-154948-1 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<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 | 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 TestAmerica, Denver Job No.: 280-154948-1 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:

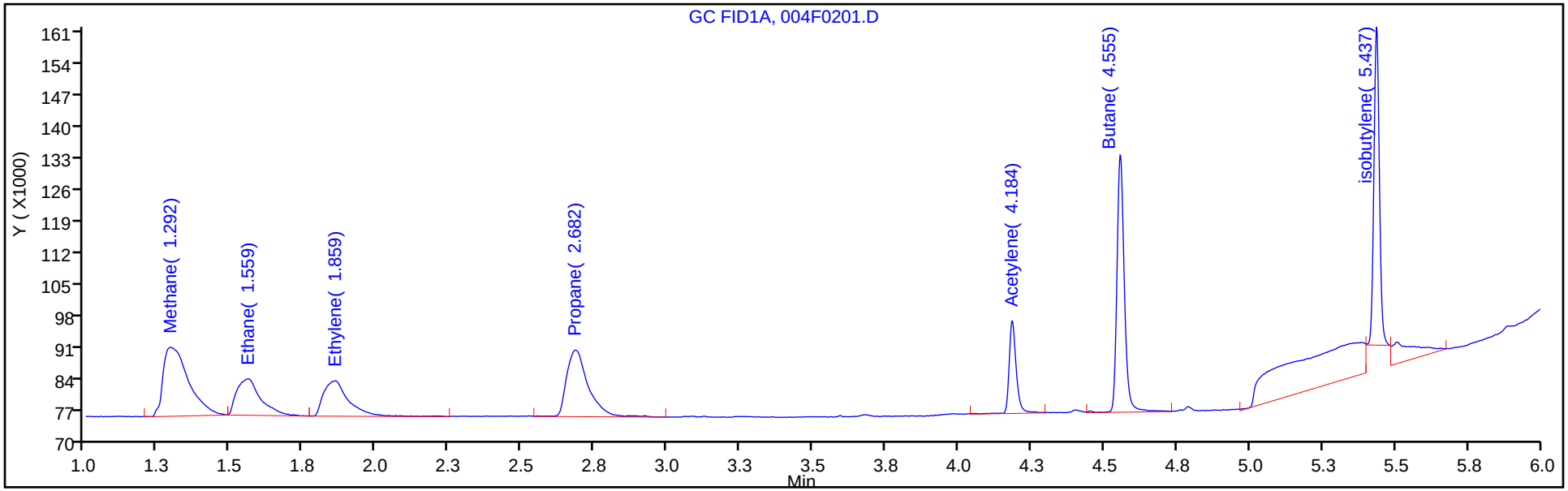
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

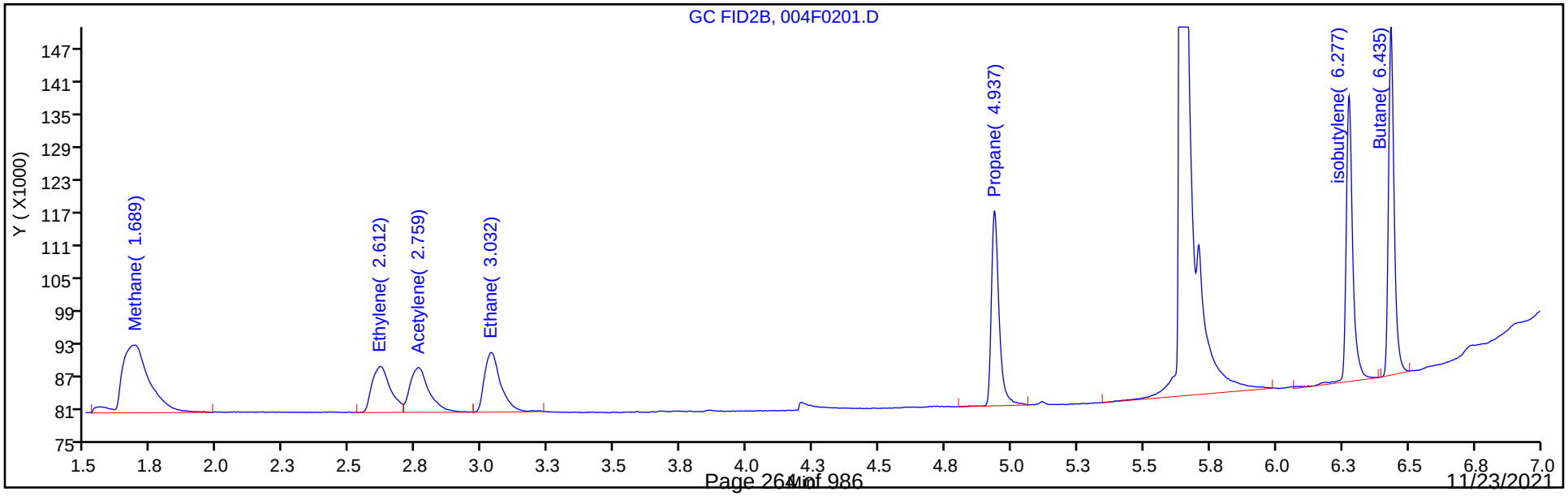
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

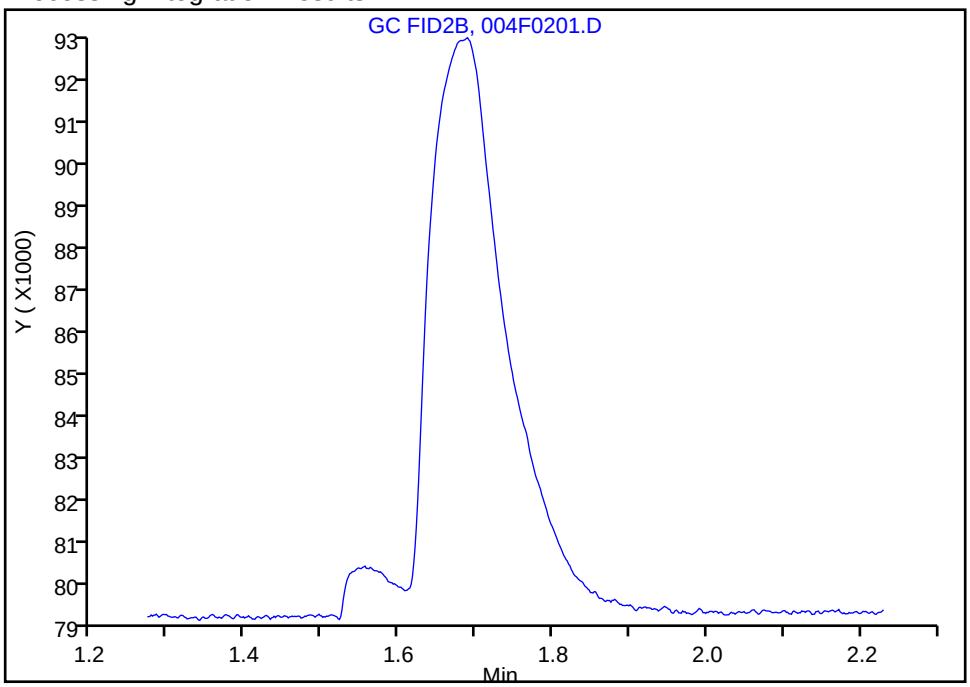
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

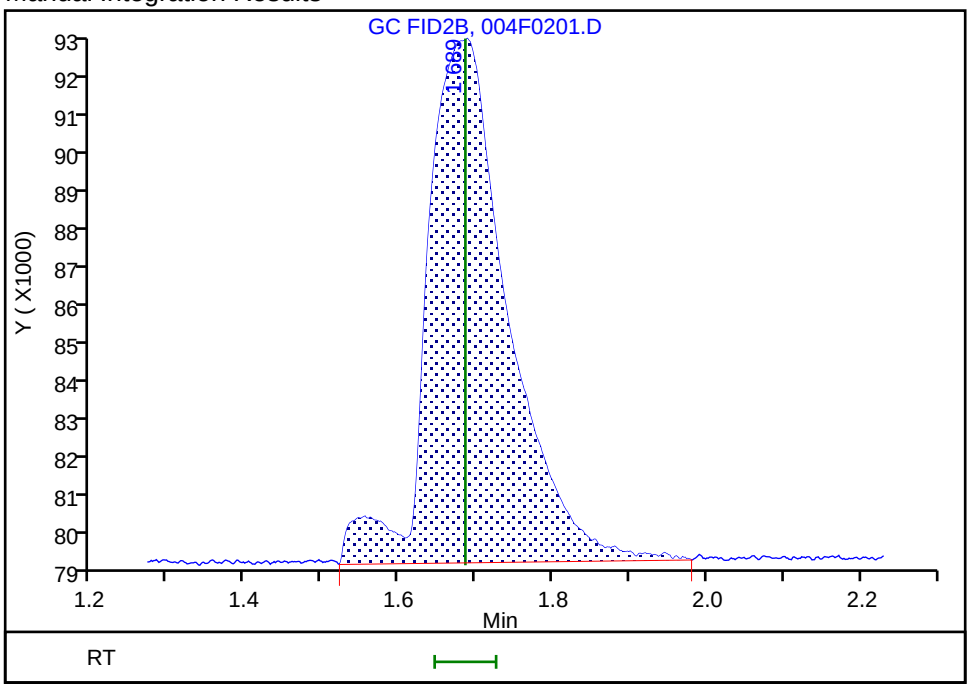
Not Detected
Expected RT: 1.69

Processing Integration Results




RT: 1.69
Area: 91227
Amount: 0.791992
Amount Units: ug/l

Manual Integration Results




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

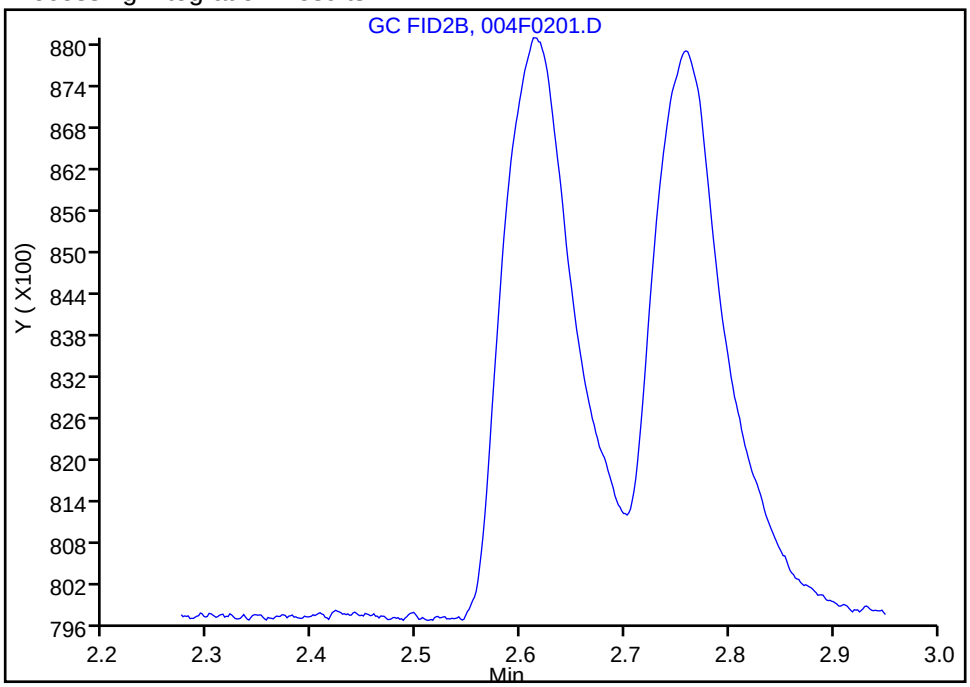
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

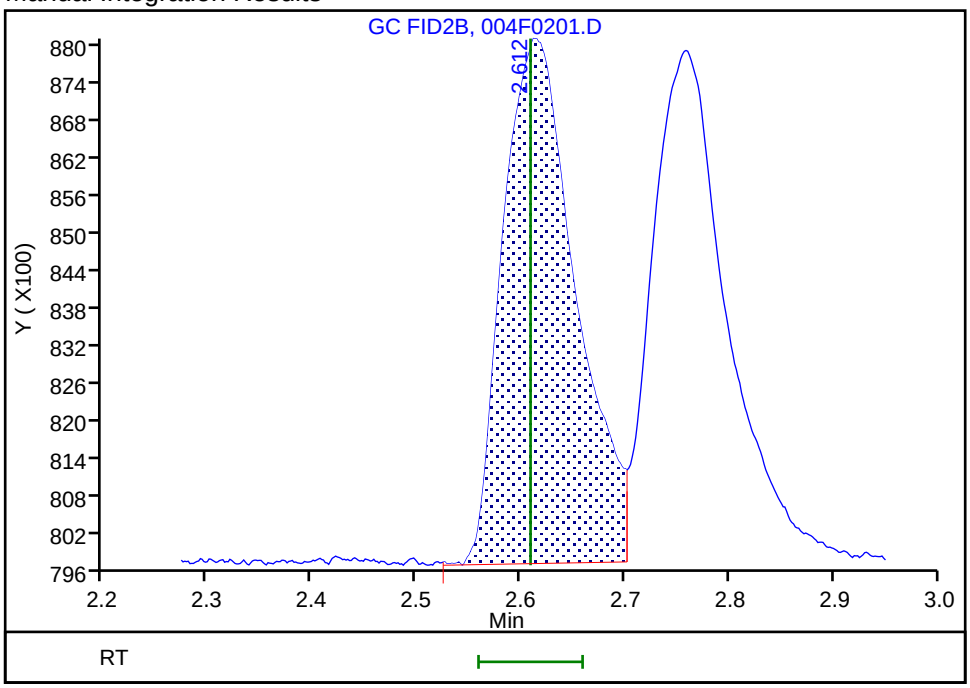
Not Detected
Expected RT: 2.61

Processing Integration Results




RT: 2.61
Area: 41226
Amount: 1.330718
Amount Units: ug/l

Manual Integration Results




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

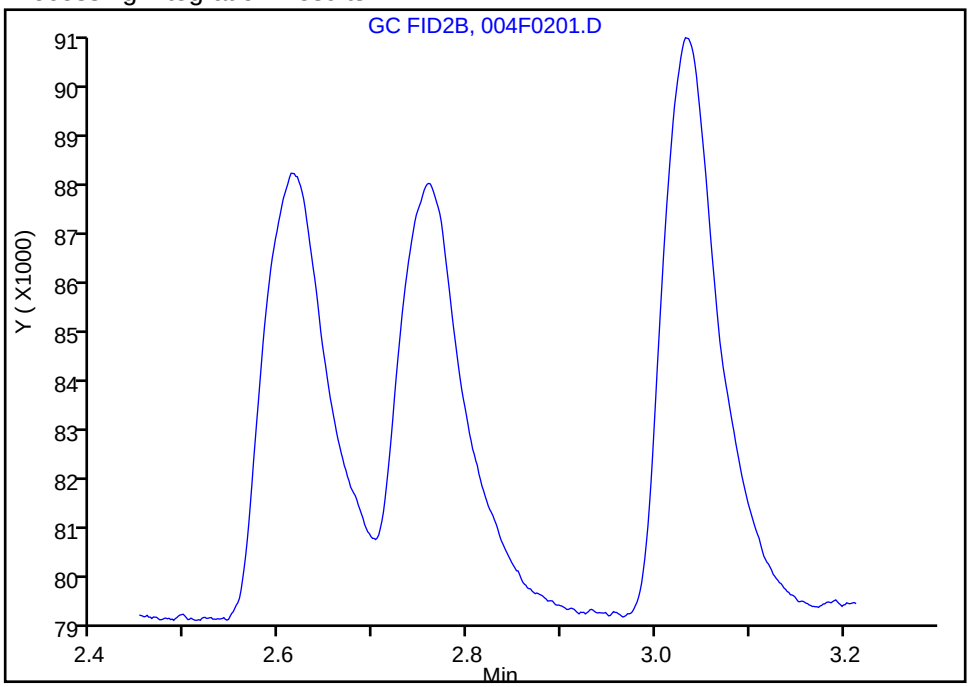
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

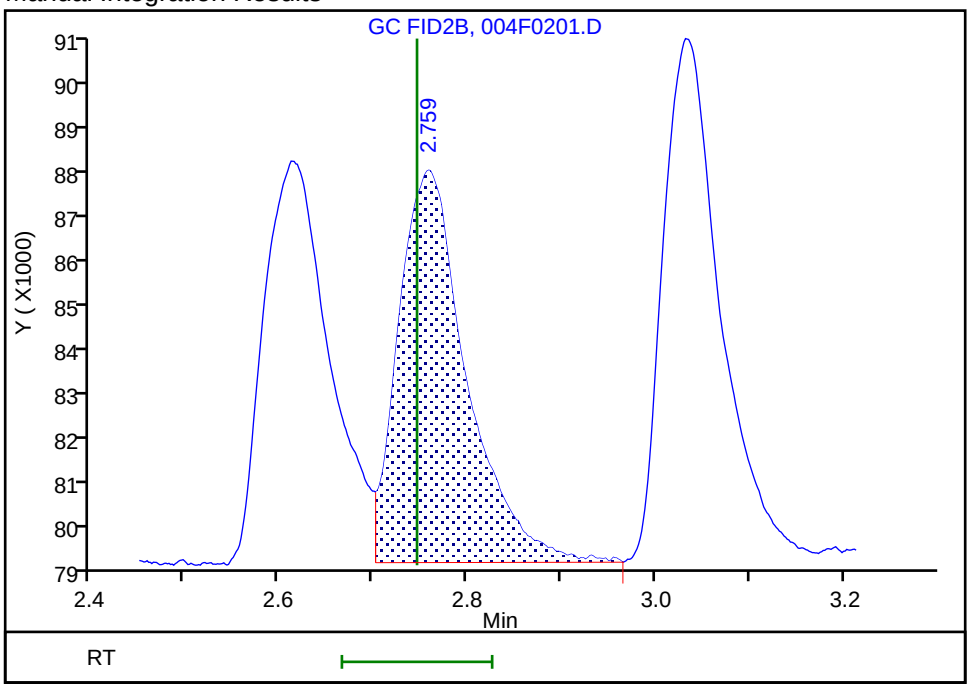
Not Detected
Expected RT: 2.75

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

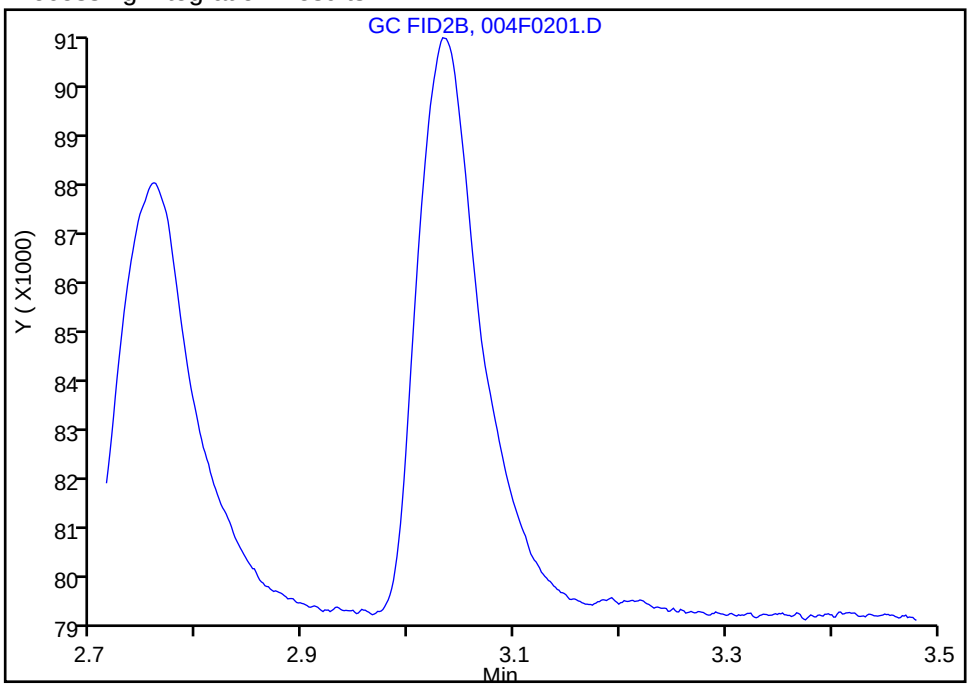
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D | | | | |
| Injection Date: | 24-Sep-2021 13:28:57 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 4 | Worklist 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

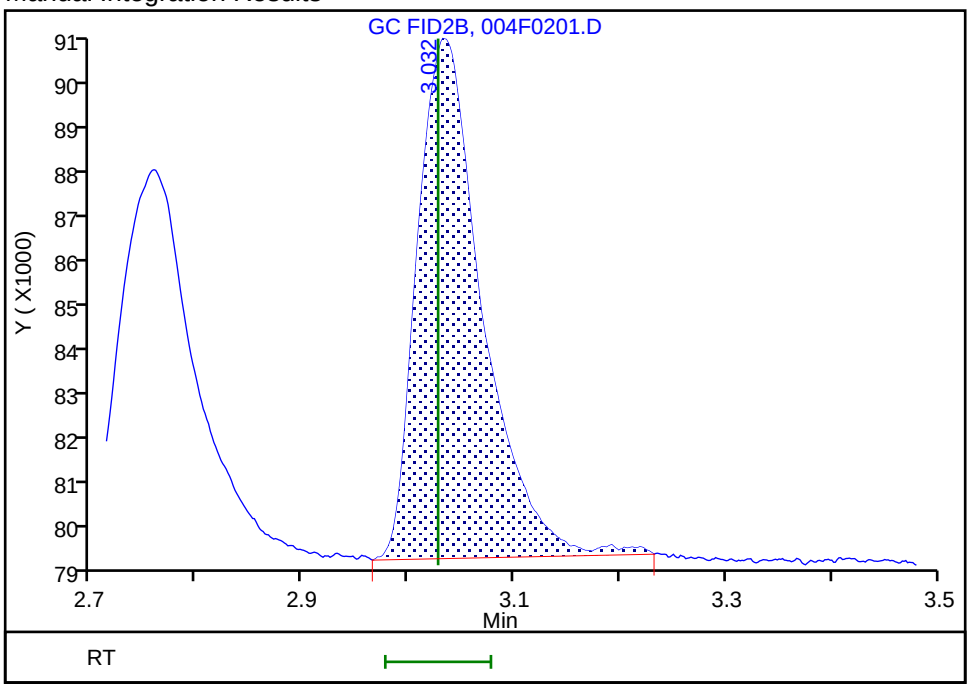
Not Detected
Expected RT: 3.03

Processing Integration Results




RT: 3.03
Area: 46984
Amount: 1.407441
Amount Units: ug/l

Manual Integration Results




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:

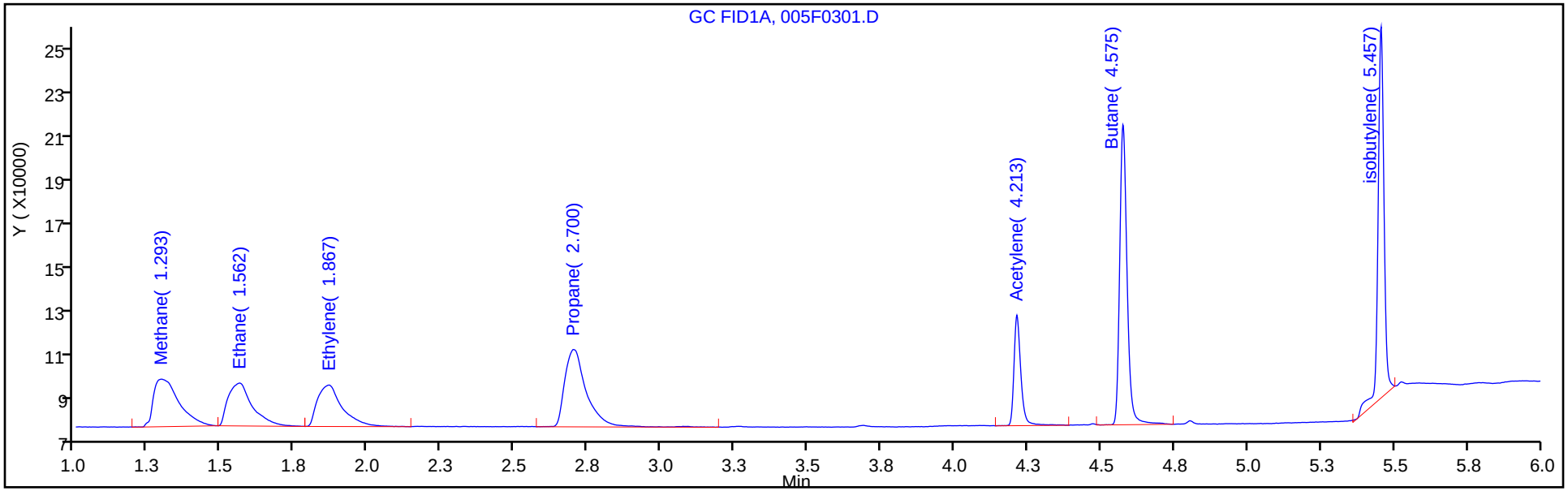
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

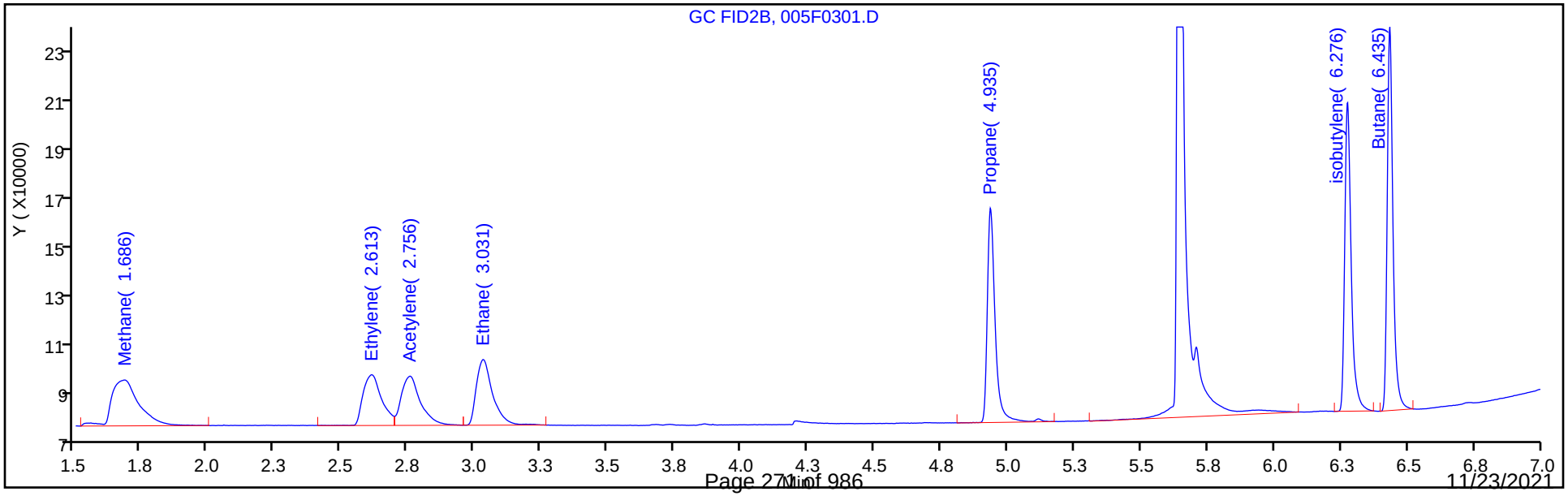
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

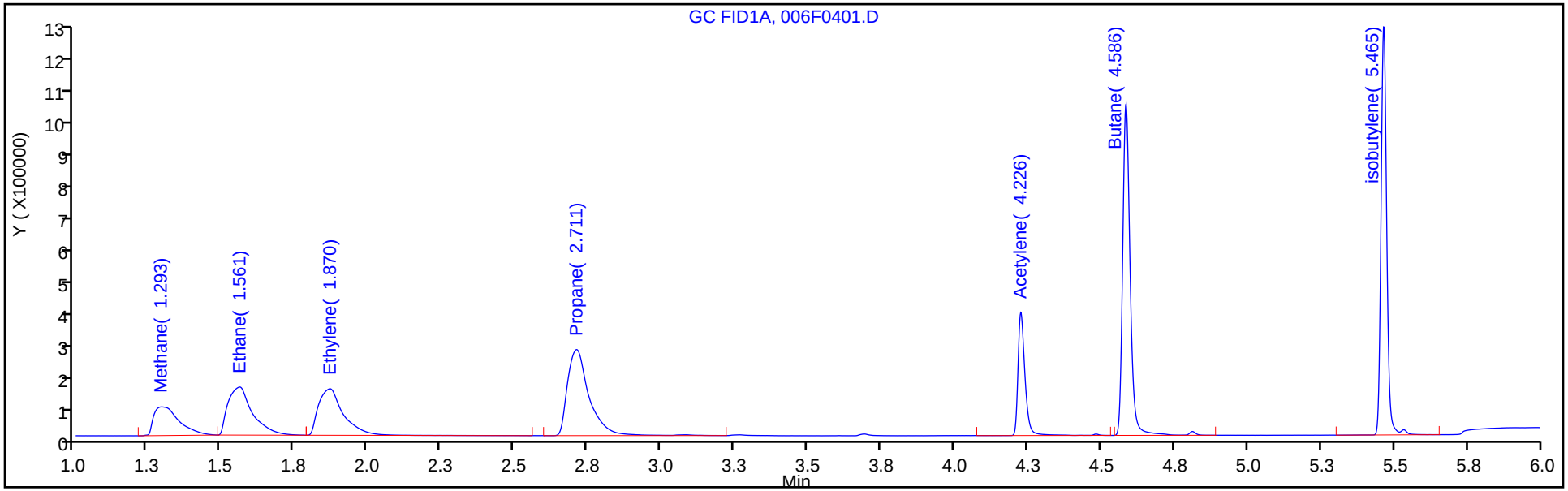
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

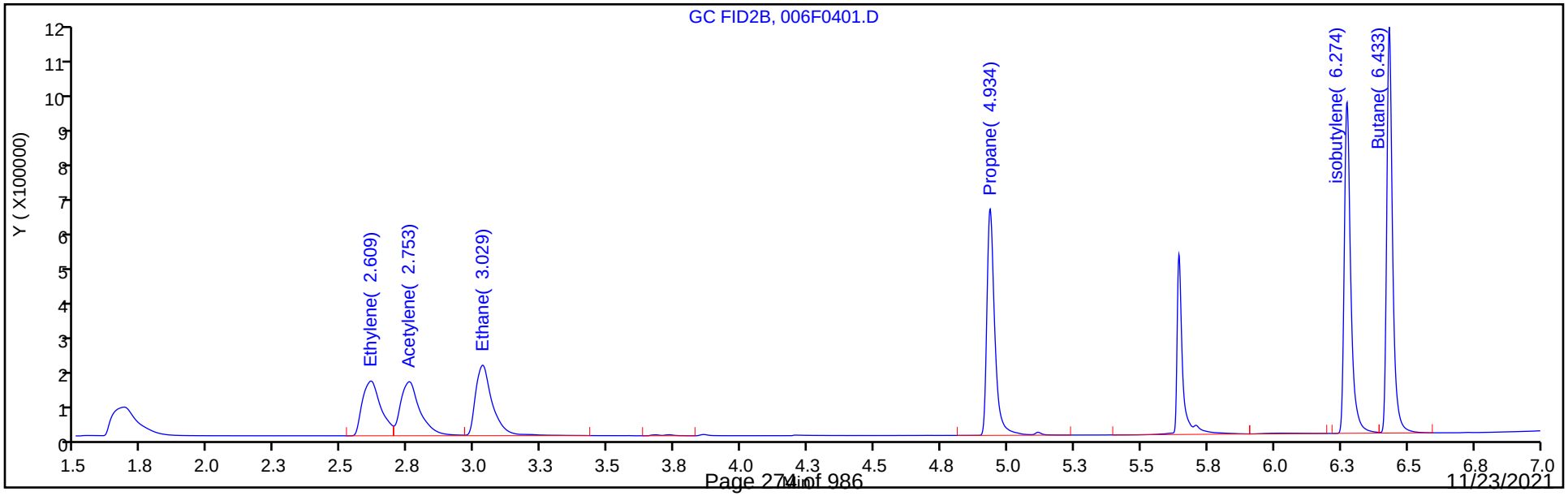
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

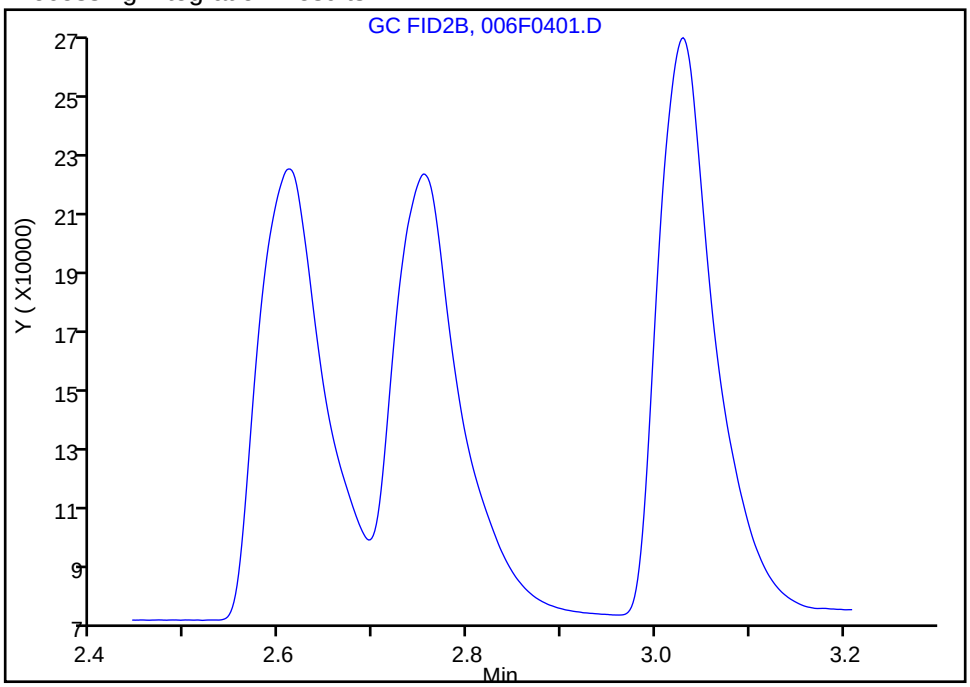
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D | | | | |
| Injection Date: | 24-Sep-2021 13:54:46 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 6 | Worklist 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

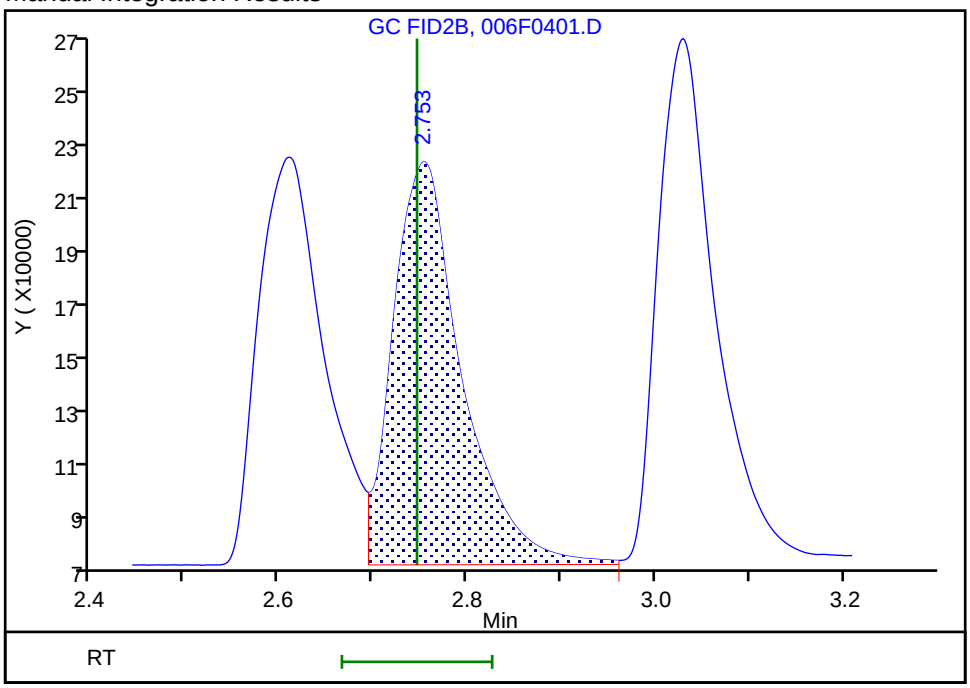
Not Detected
Expected RT: 2.75

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:

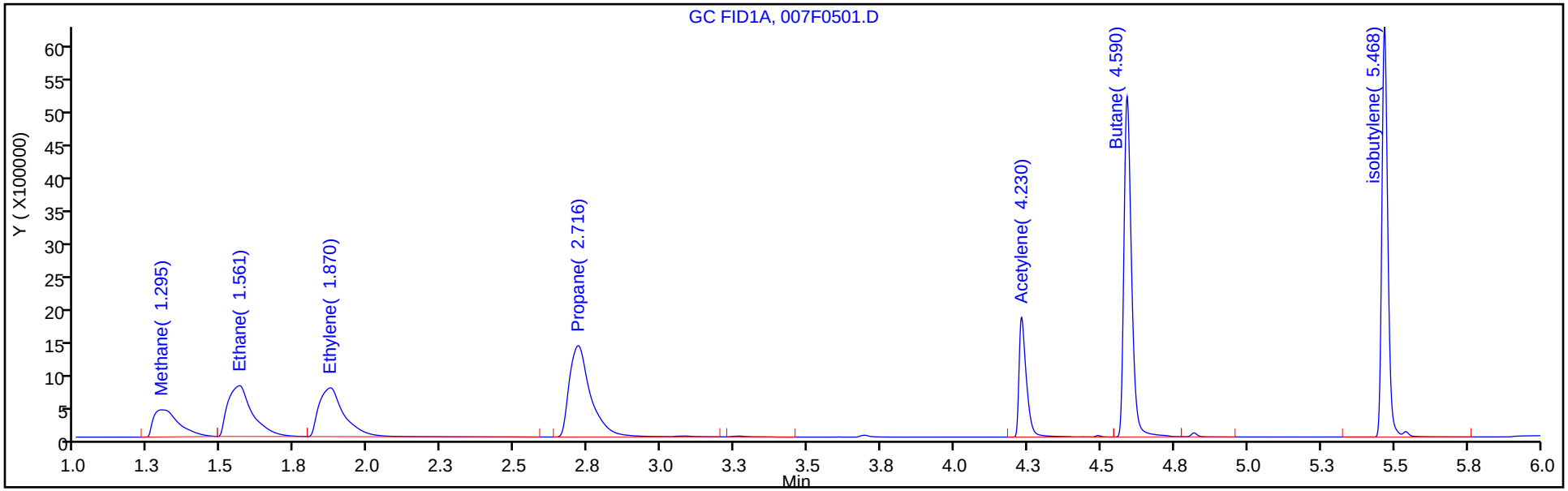
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

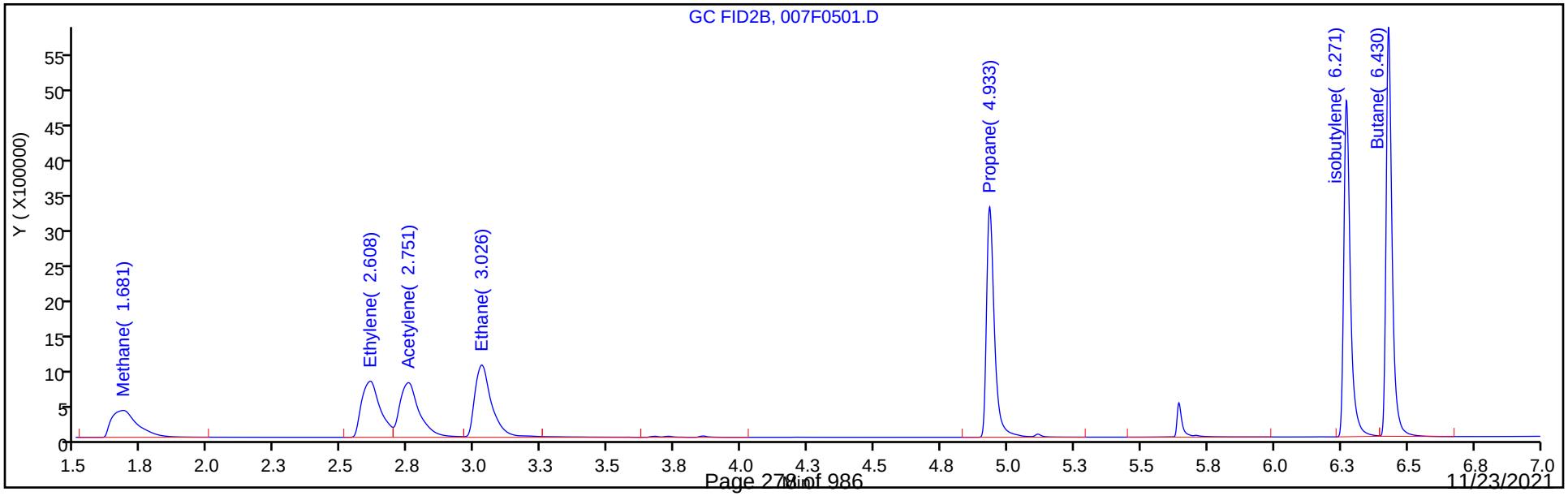
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

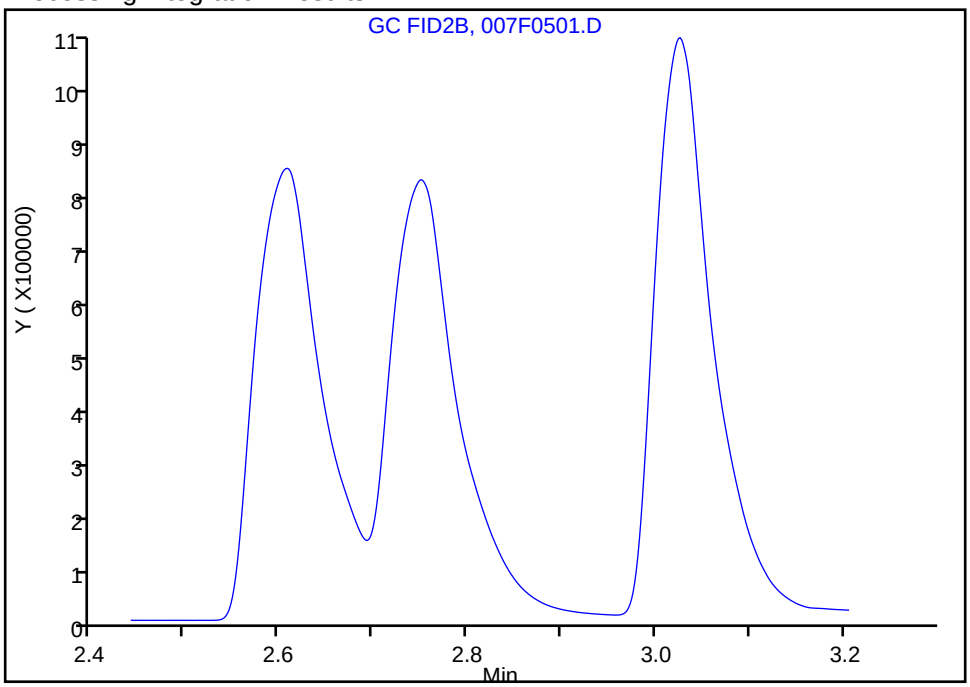
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D | | | | |
| Injection Date: | 24-Sep-2021 14:07:45 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 7 | Worklist 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

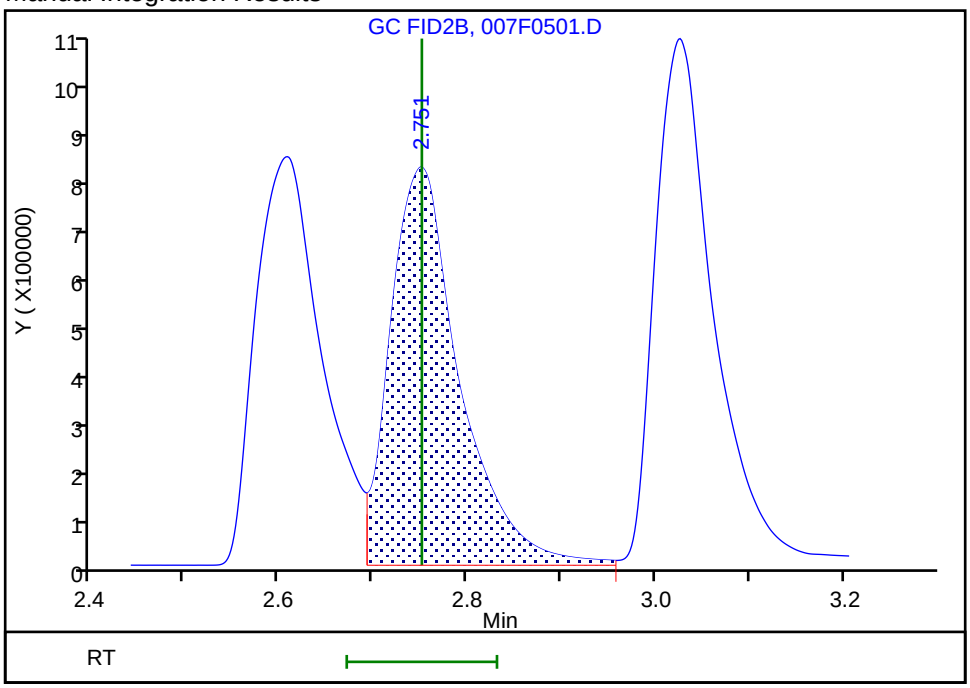
Not Detected
Expected RT: 2.75

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

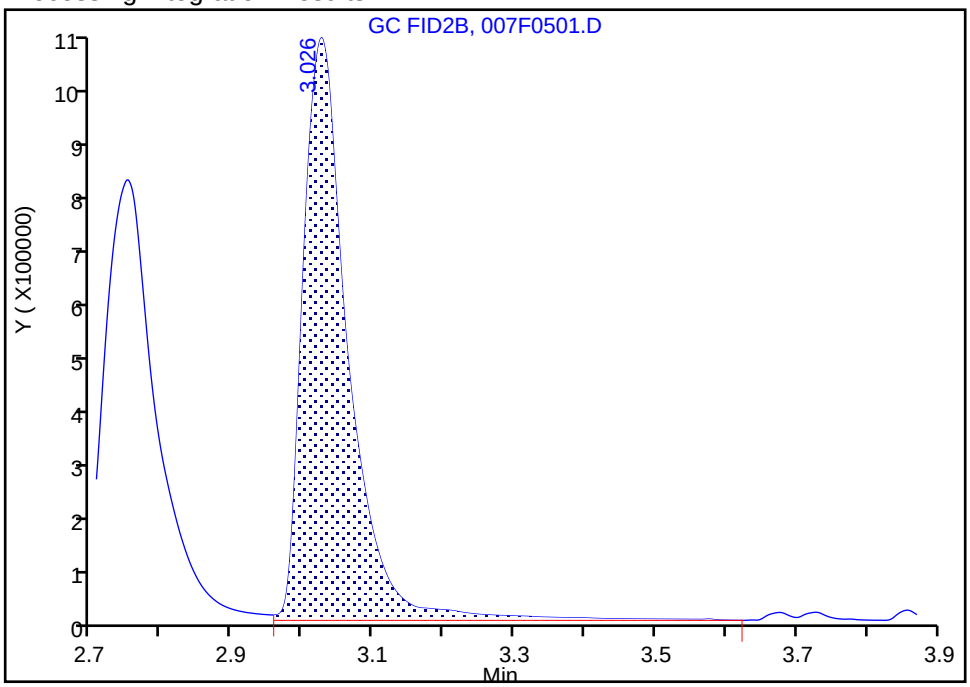
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D | | | | |
| Injection Date: | 24-Sep-2021 14:07:45 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 7 | Worklist 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

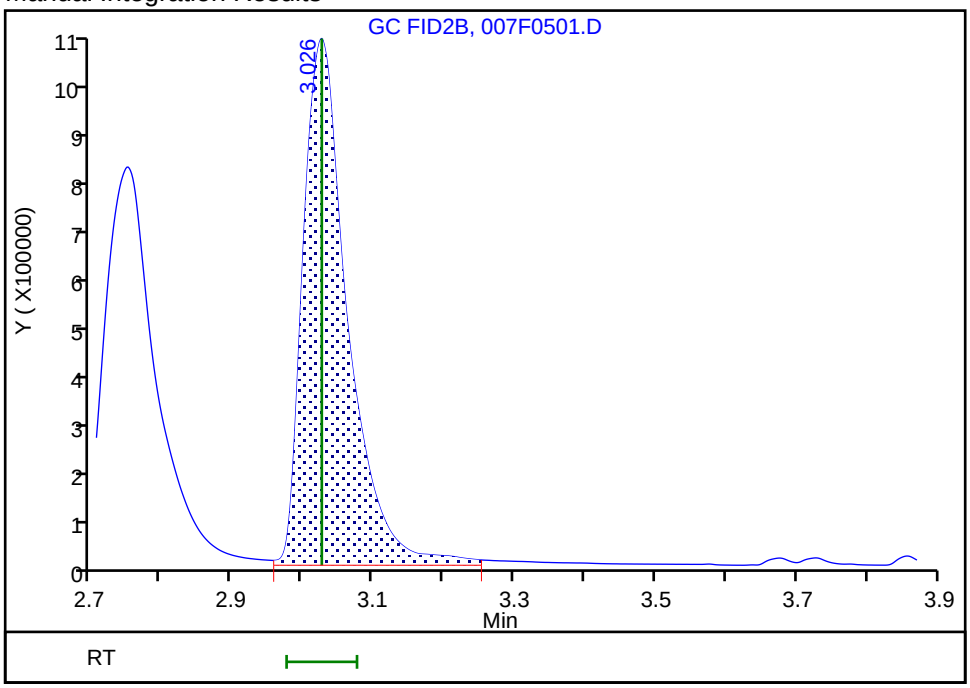
Processing Integration Results

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:

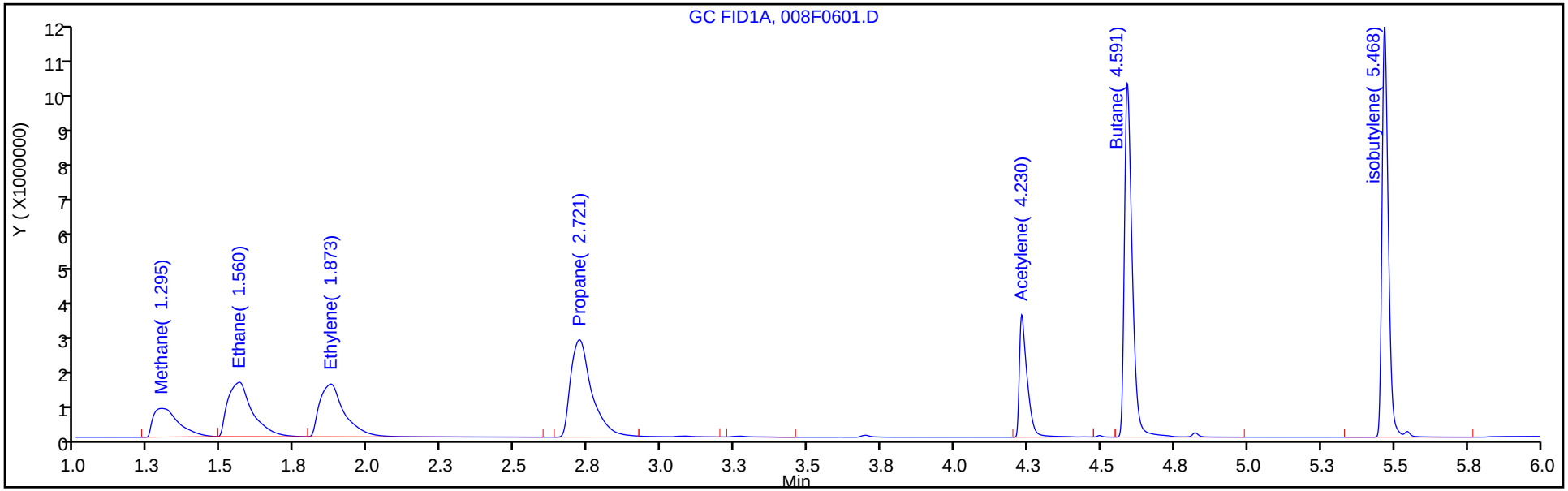
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

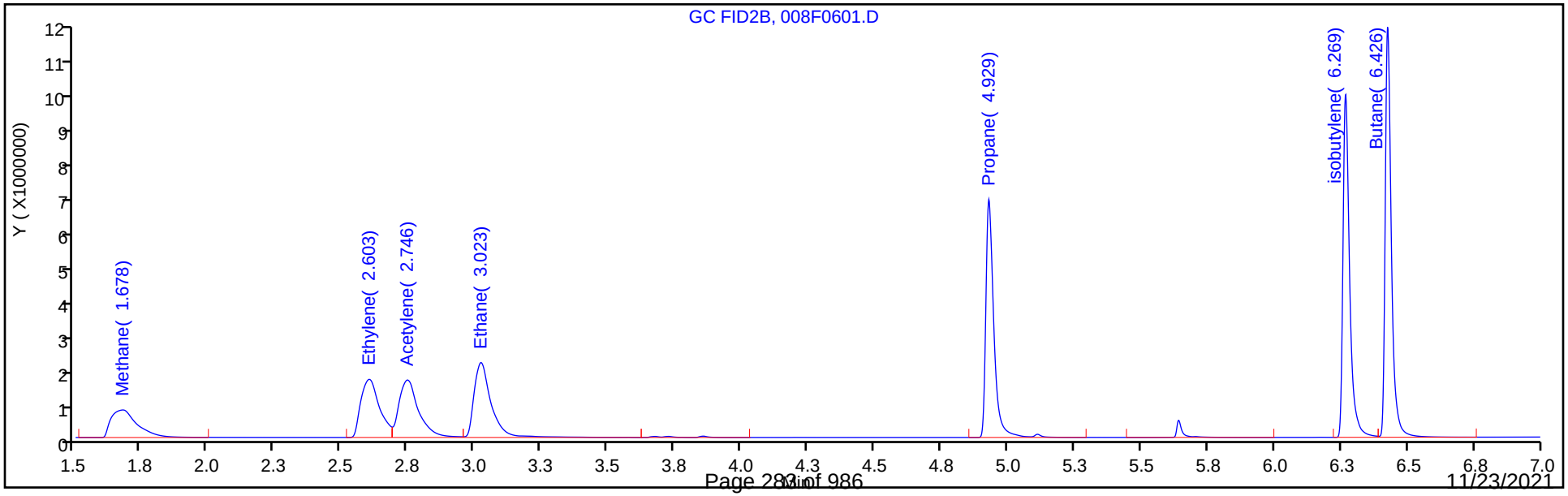
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

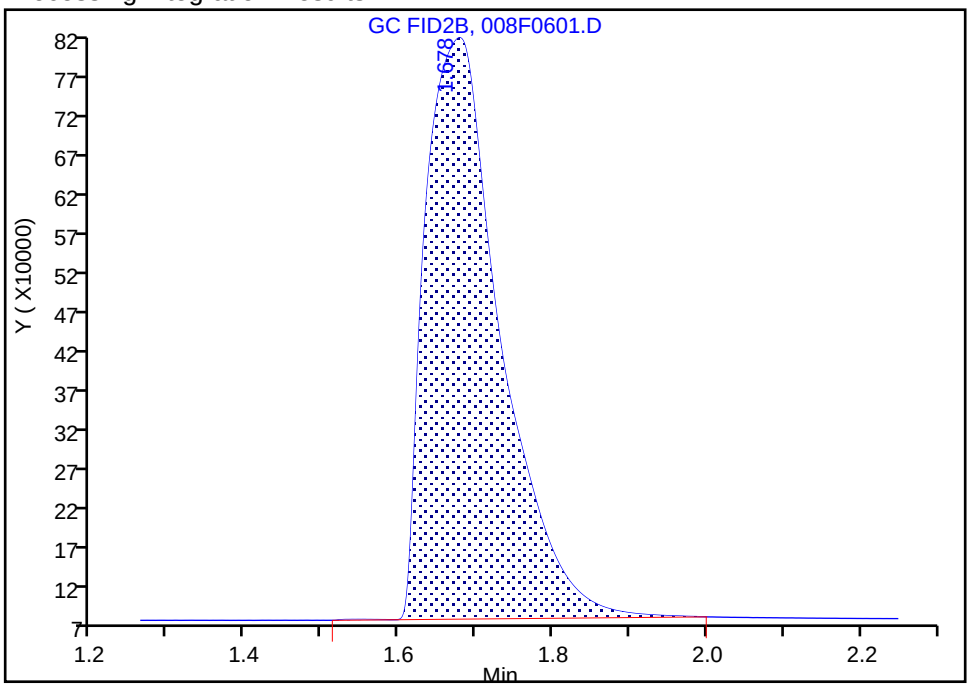
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D | | | | |
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 8 | Worklist 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

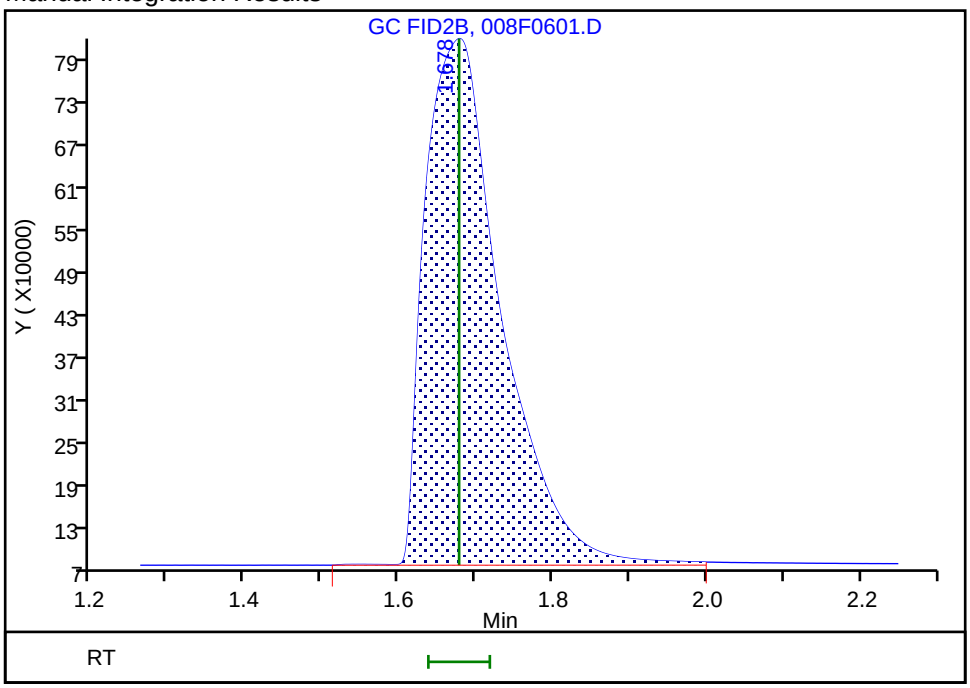
Processing Integration Results

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

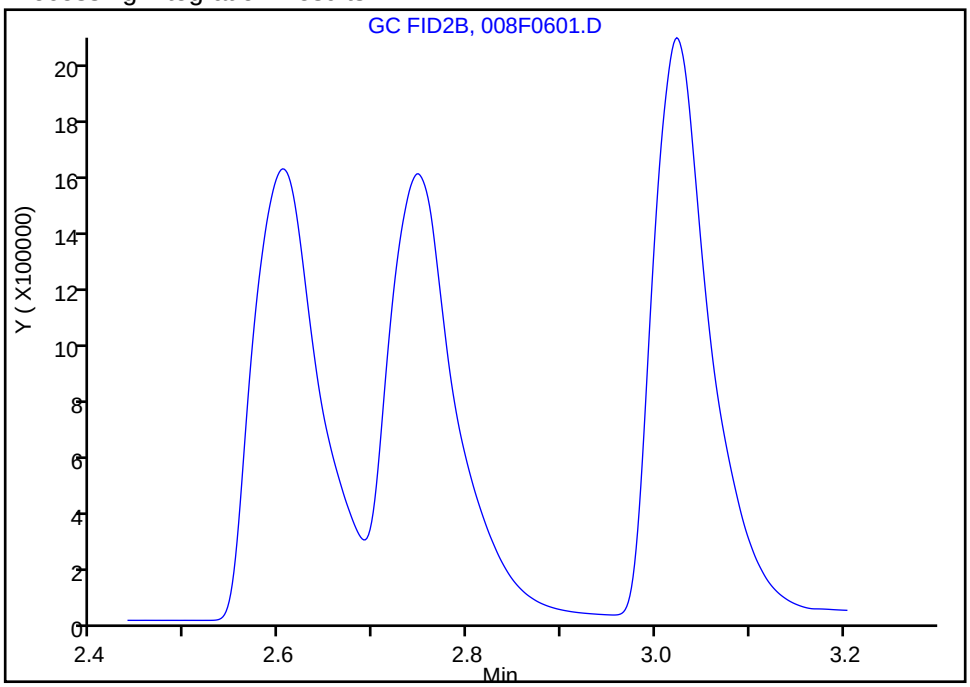
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D | | | | |
| Injection Date: | 24-Sep-2021 14:20:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 8 | Worklist 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

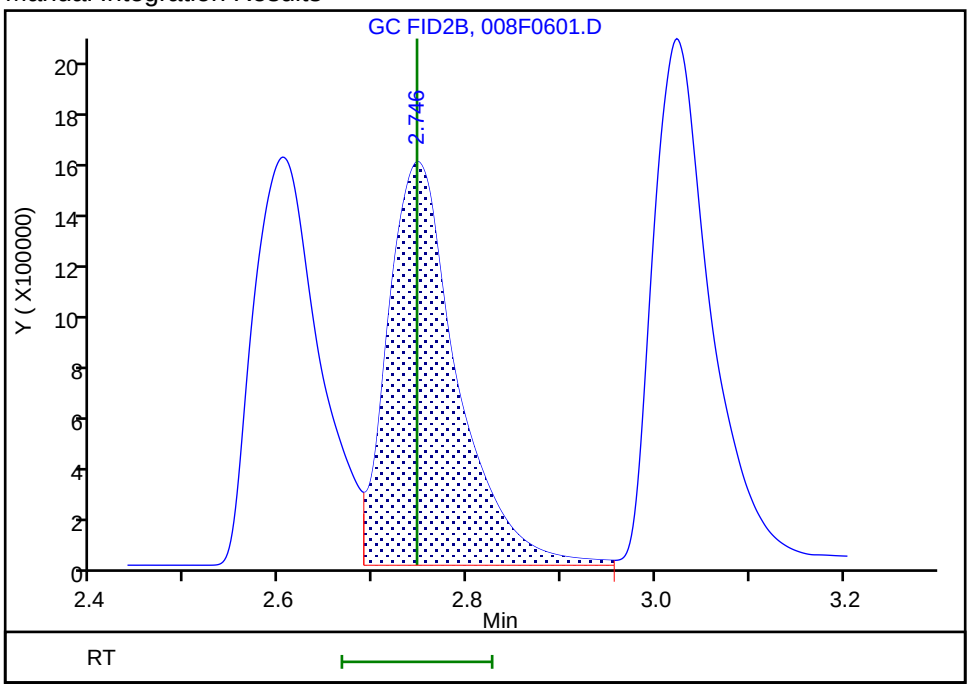
Not Detected
Expected RT: 2.75

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:

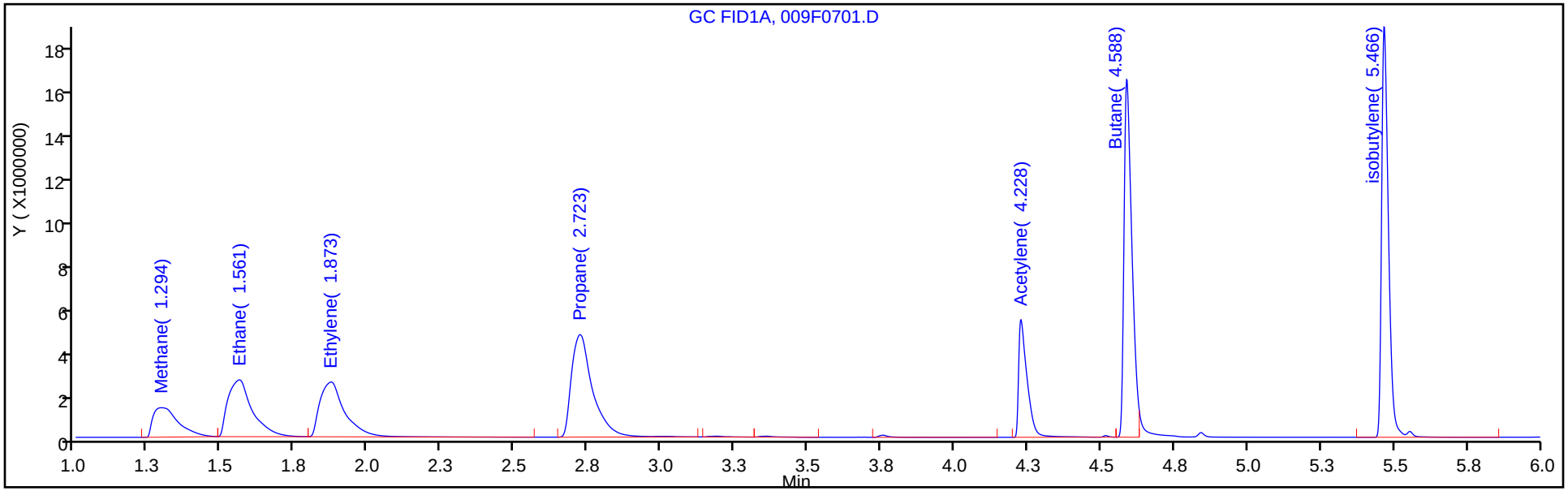
RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

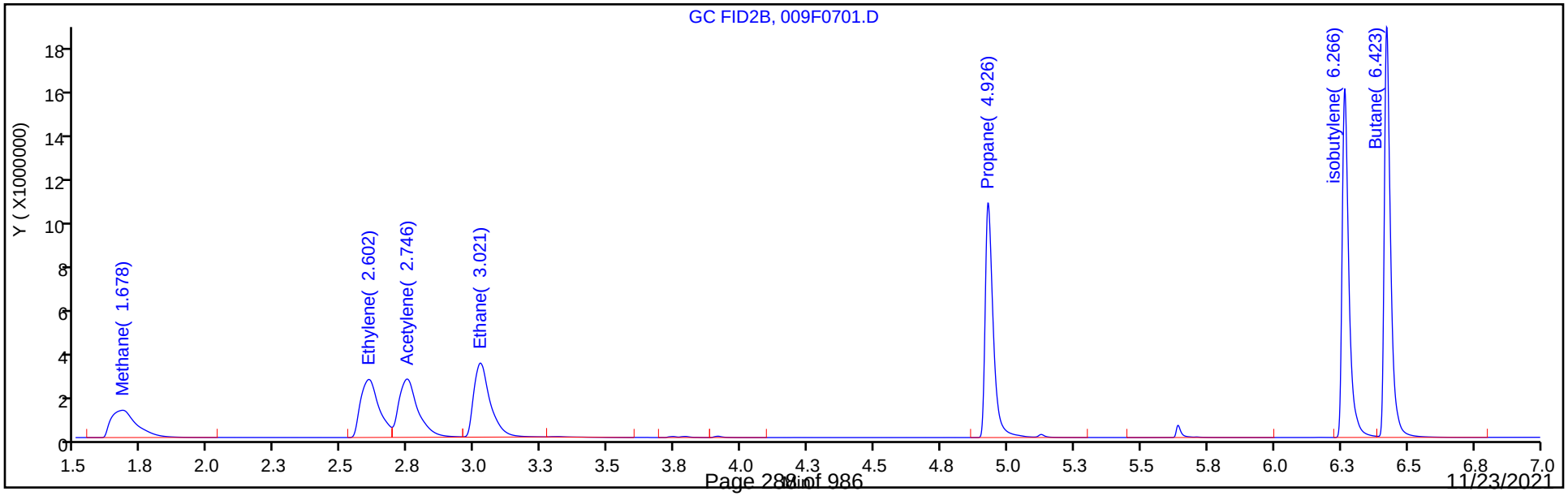
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

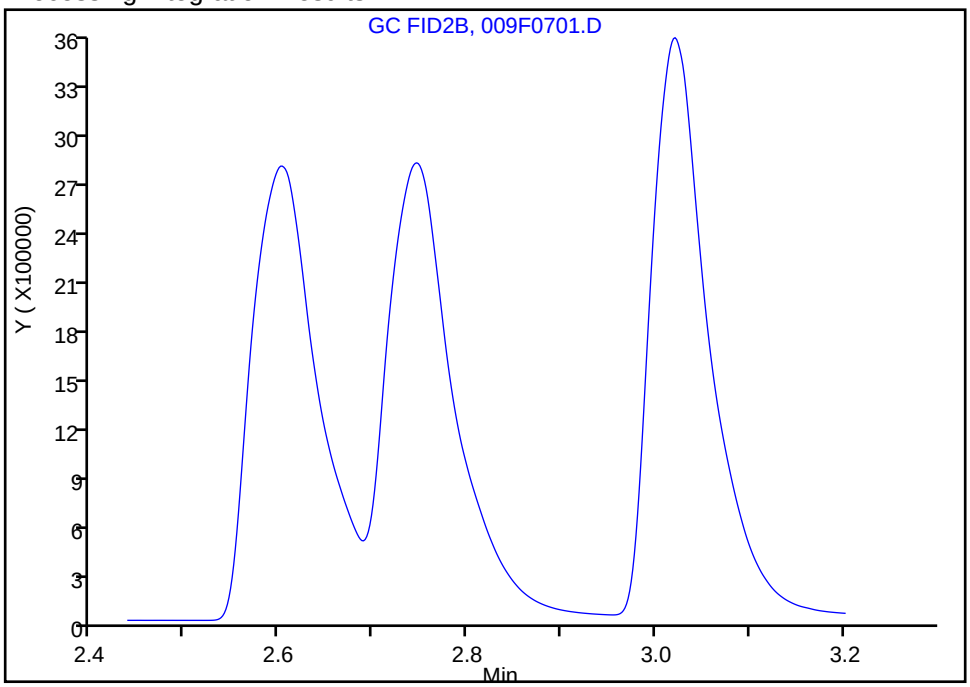
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D | | | | |
| Injection Date: | 24-Sep-2021 14:33:44 | Instrument ID: | VGC_J | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 9 | Worklist 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

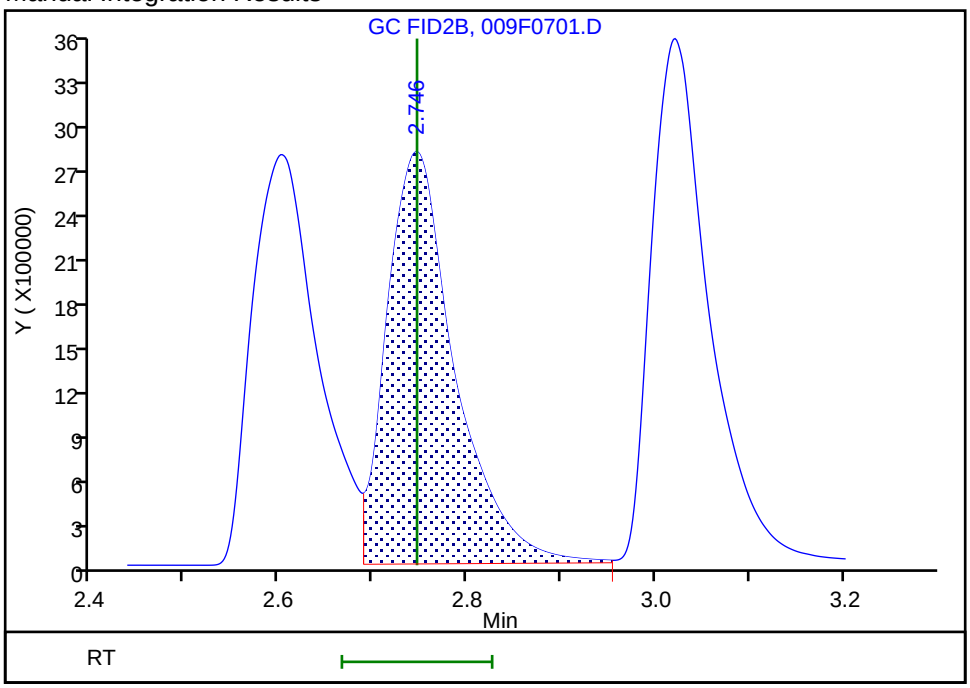
Not Detected
Expected RT: 2.75

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:

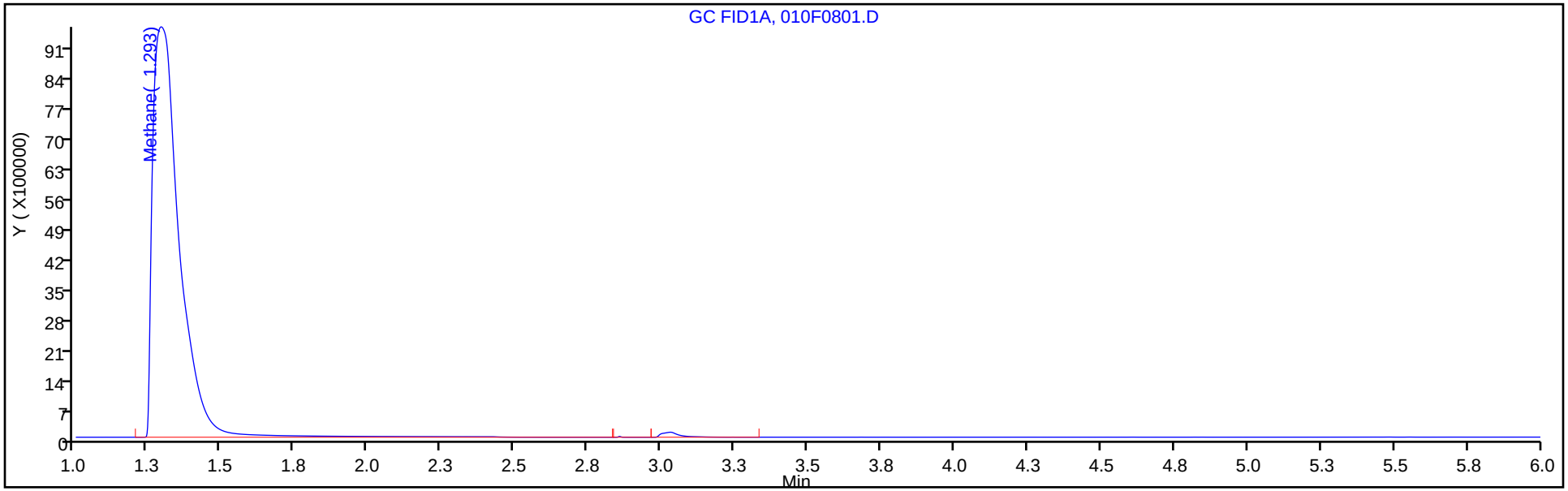
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

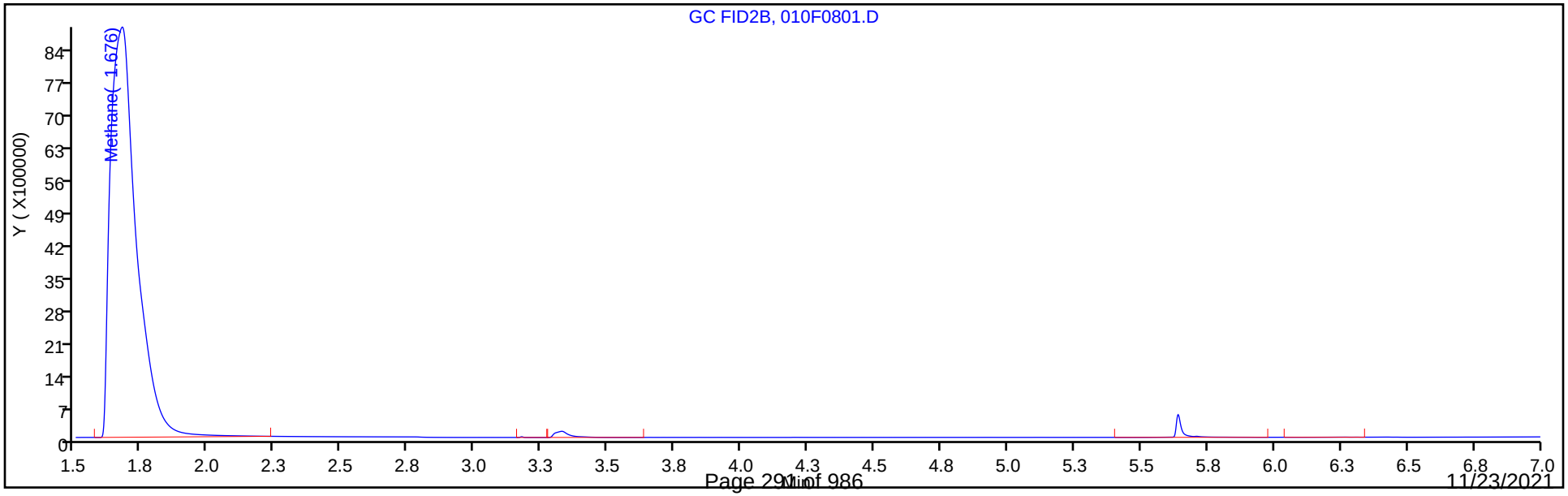
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

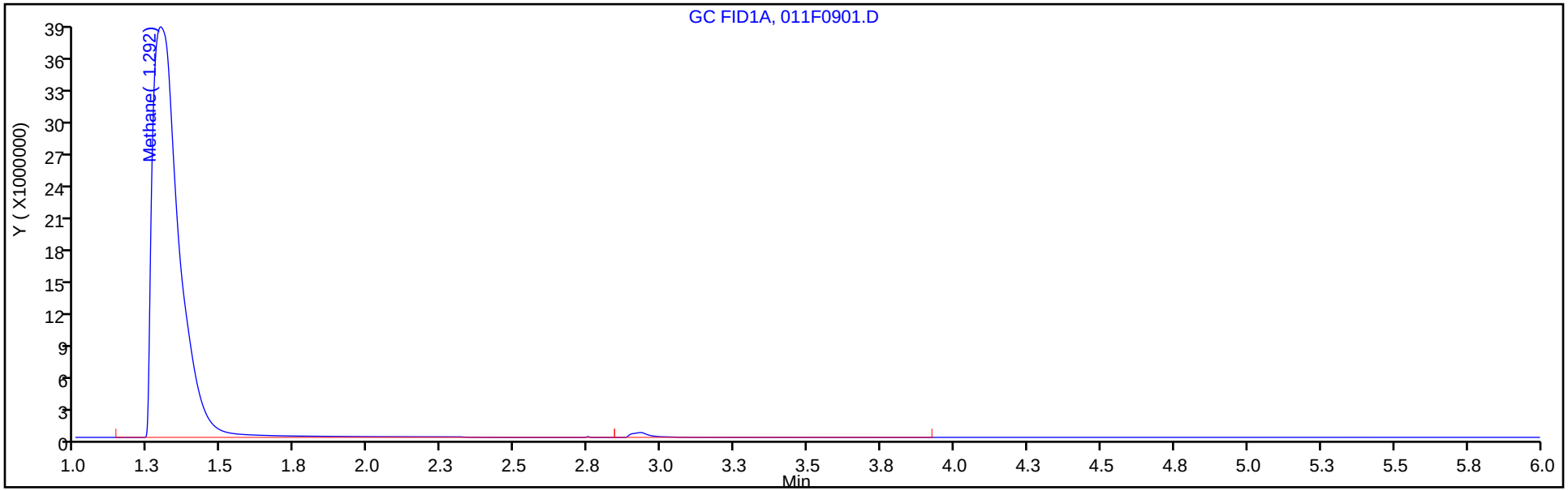
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

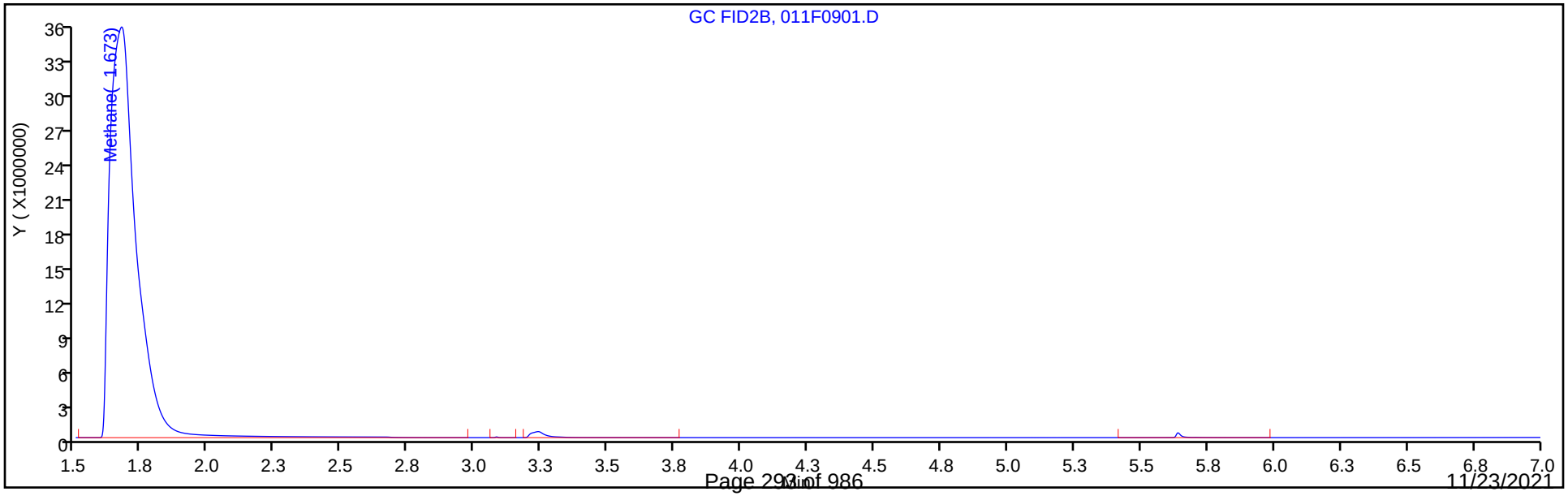
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

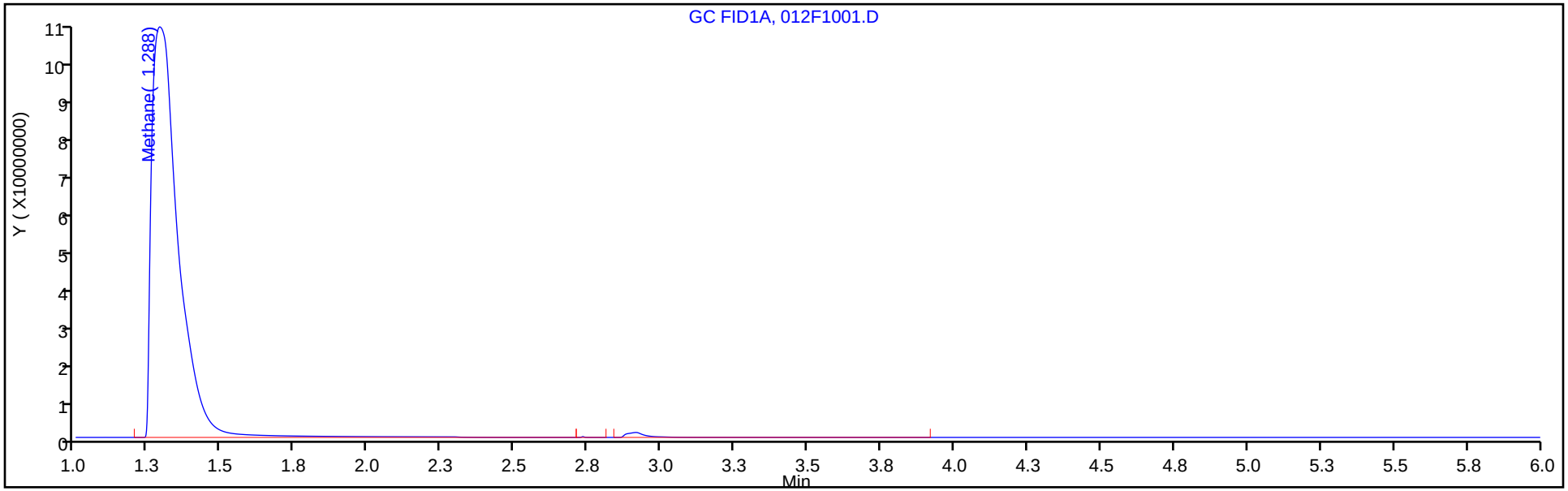
RSK175methane_00010 Amount Added: 600.00 Units: uL

Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

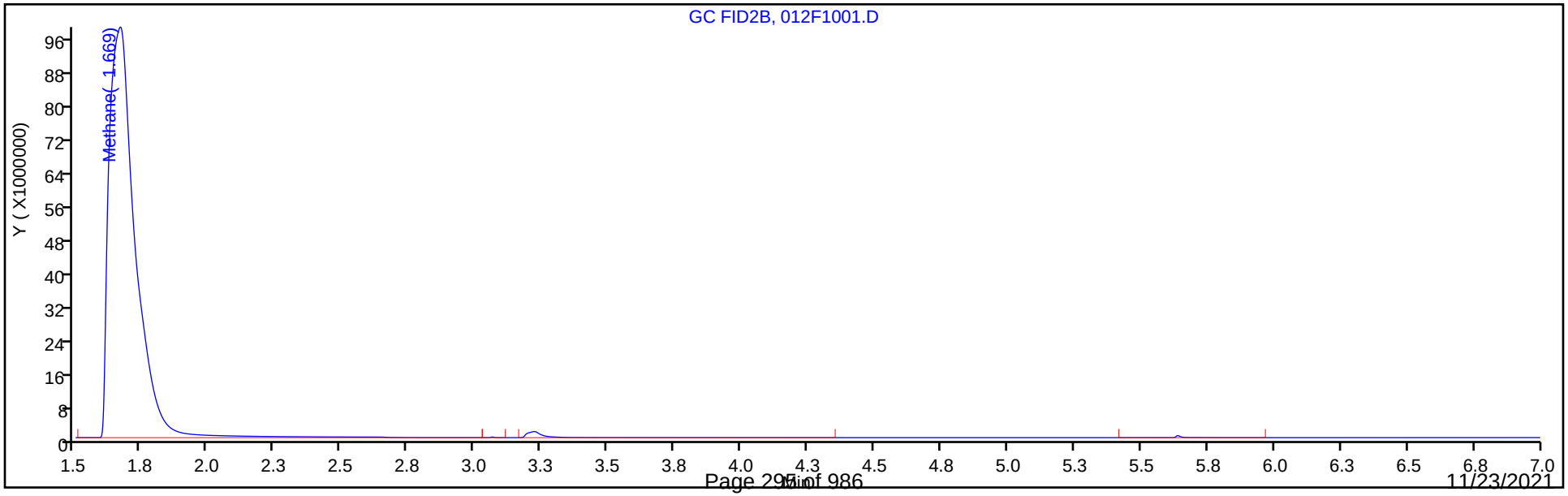
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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 |

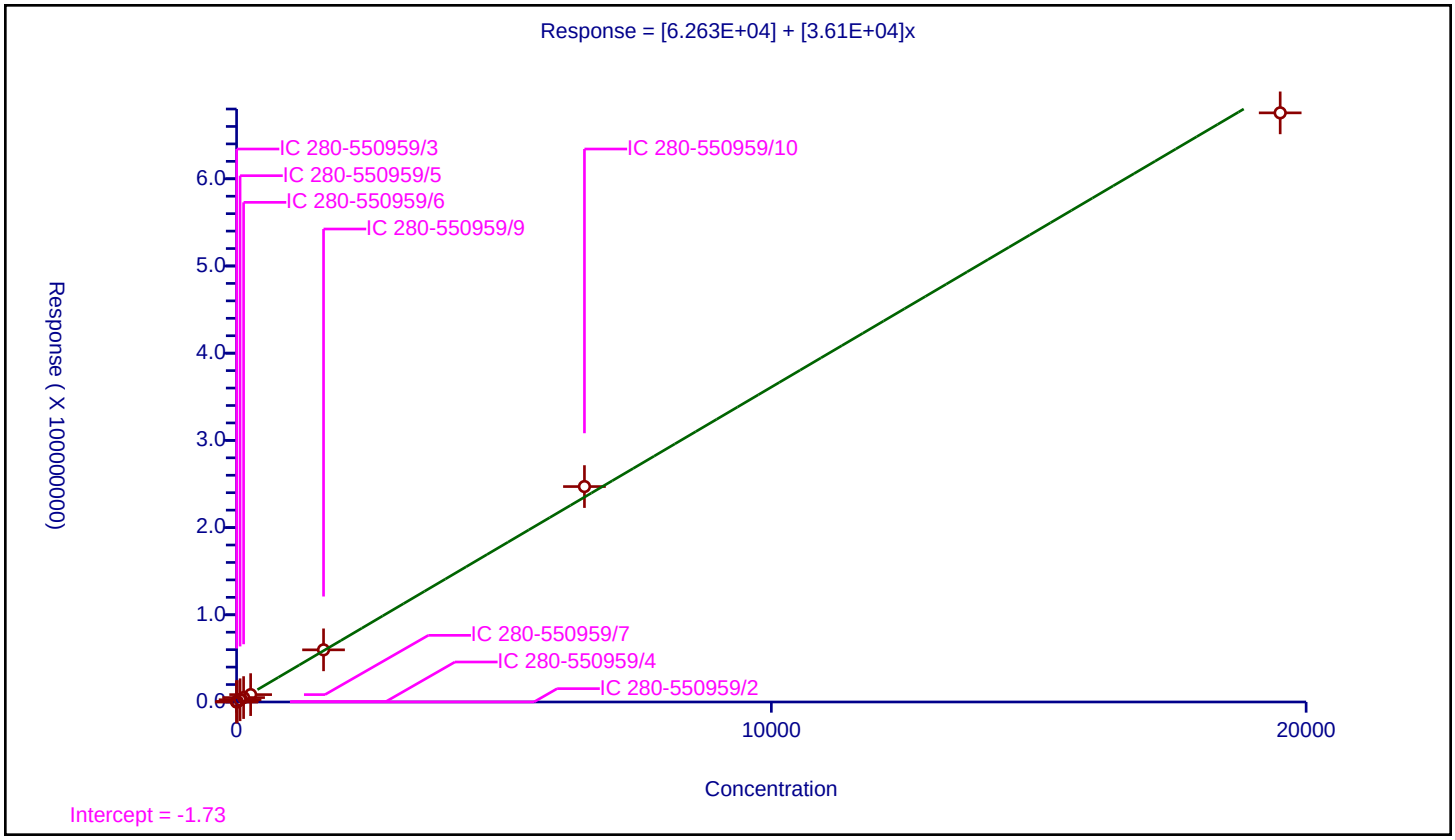
**Curve Coefficients**

| | |
|---|---|
| **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 |

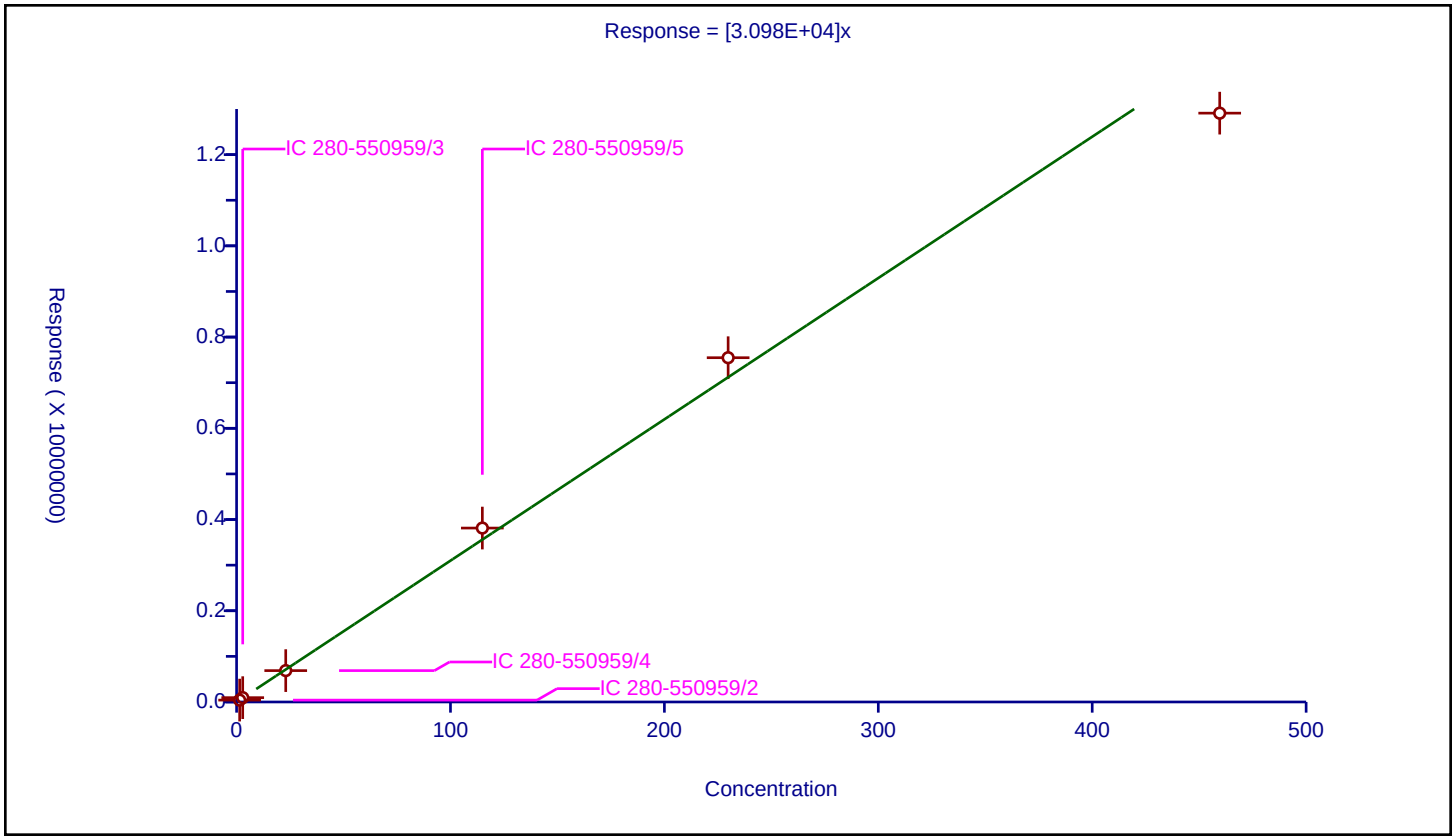
**Curve Coefficients**

| | |
|---|---|
| **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 |

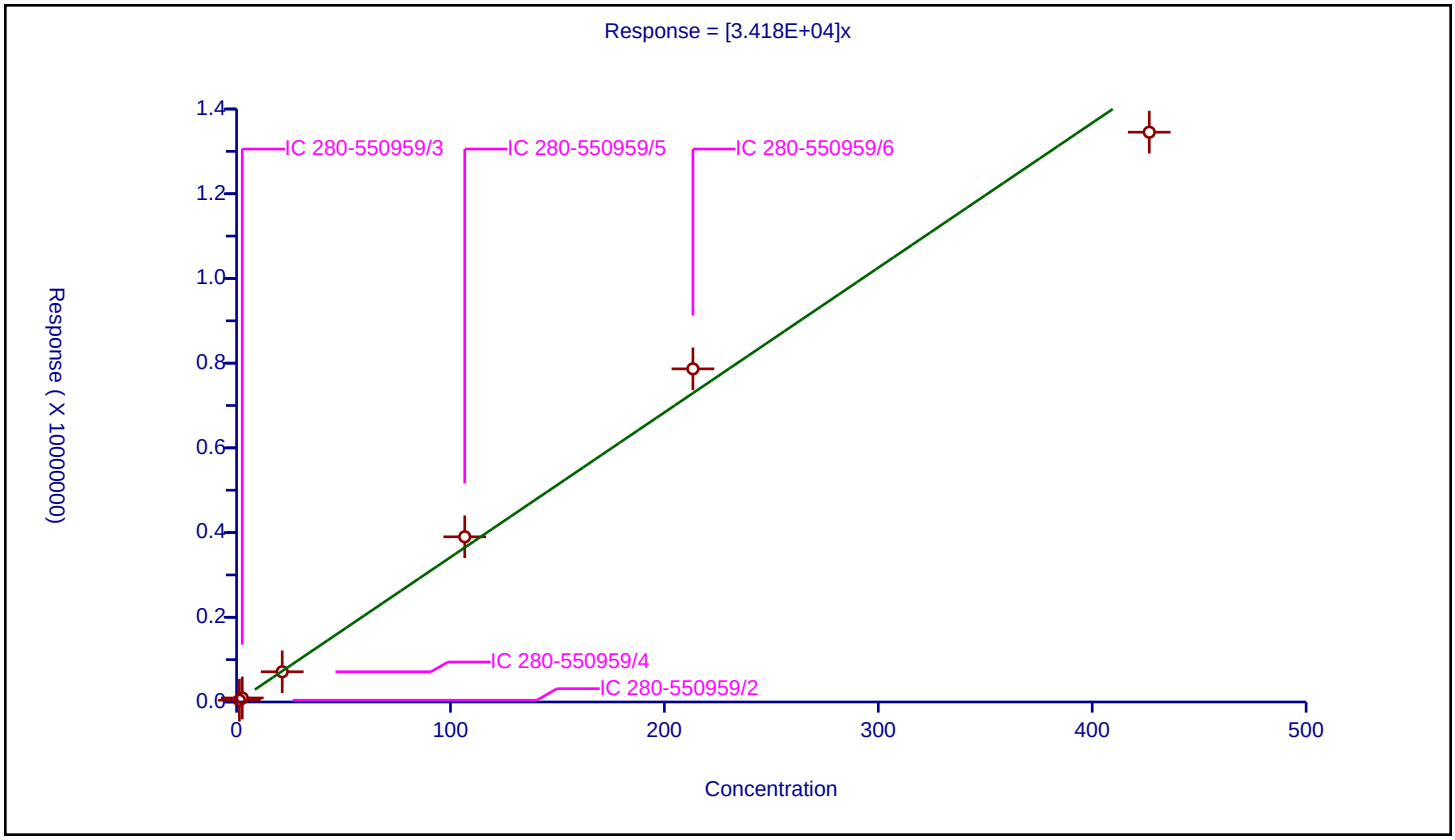
**Curve Coefficients**

| | |
|---|---|
| **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 |

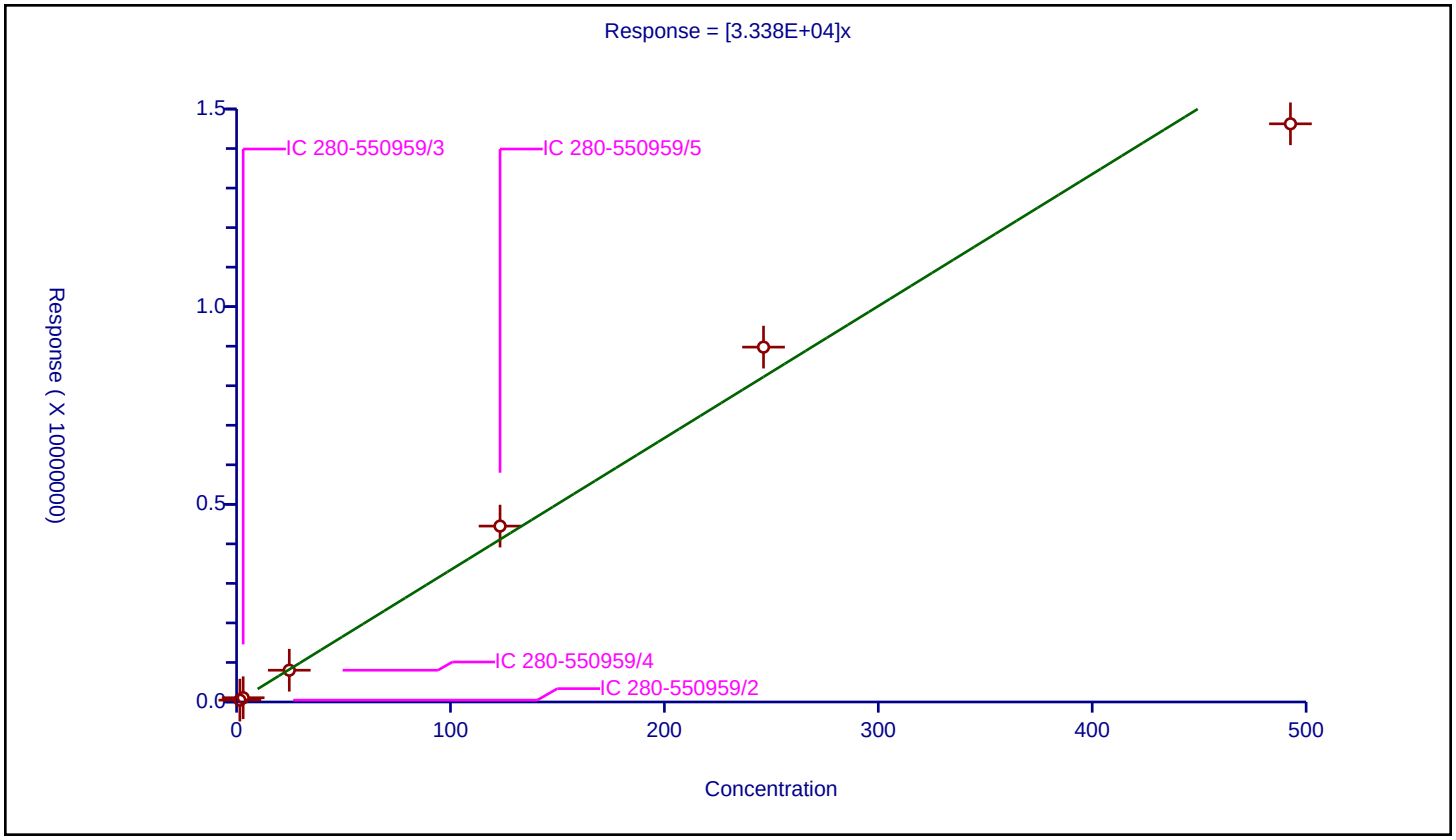
**Curve Coefficients**

| | |
|---|---|
| **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 TestAmerica, Denver Job No.: 280-154948-1

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 TestAmerica, Denver Job No.: 280-154948-1

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:

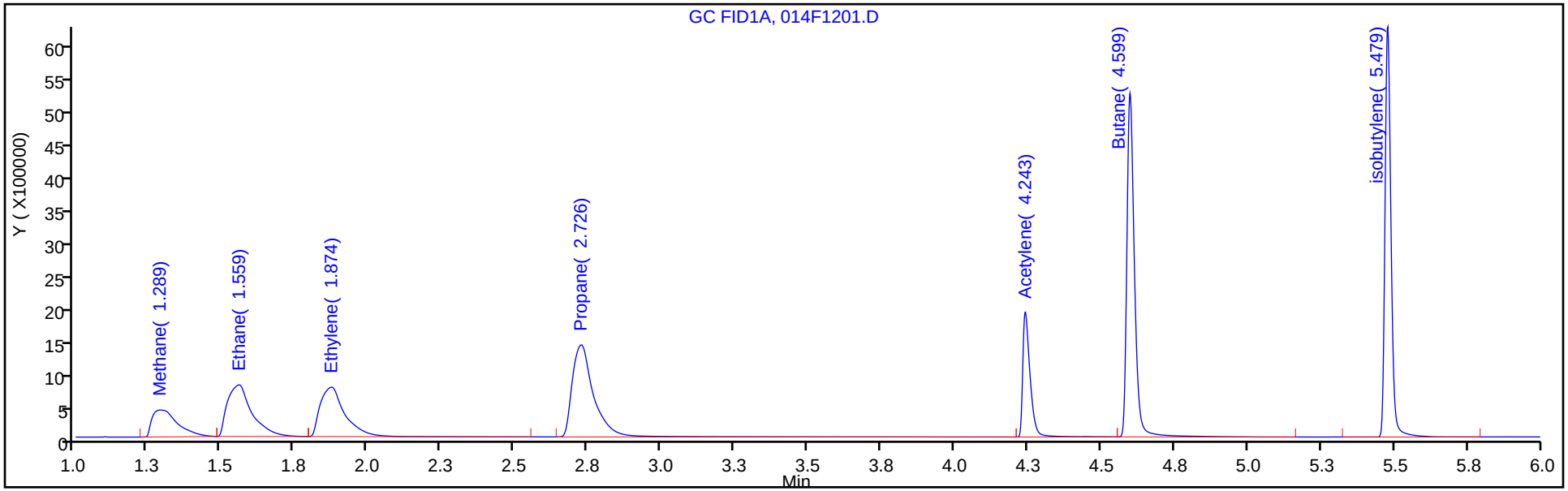
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

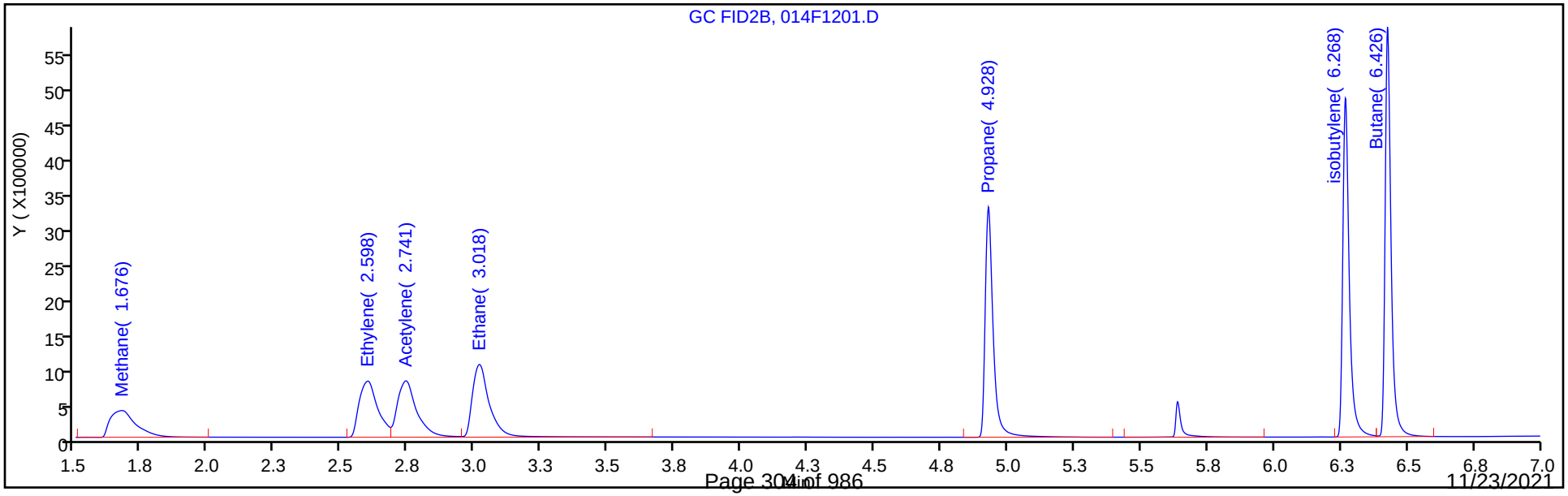
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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 TestAmerica, Denver Job No.: 280-154948-1

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 TestAmerica, Denver Job No.: 280-154948-1

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:

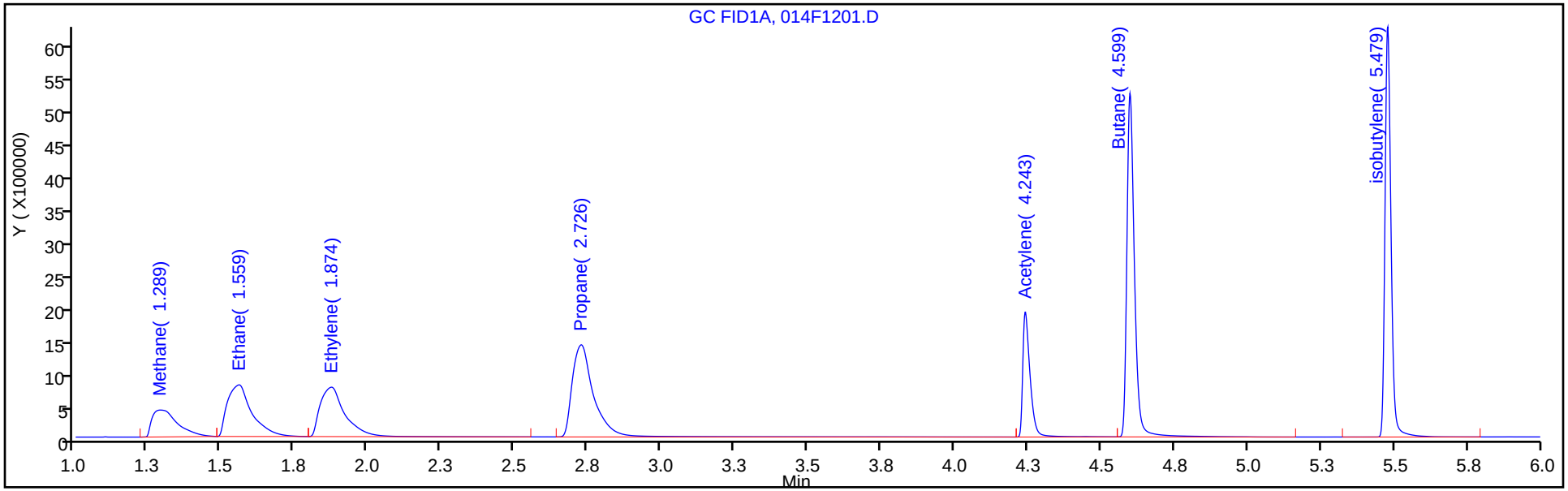
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

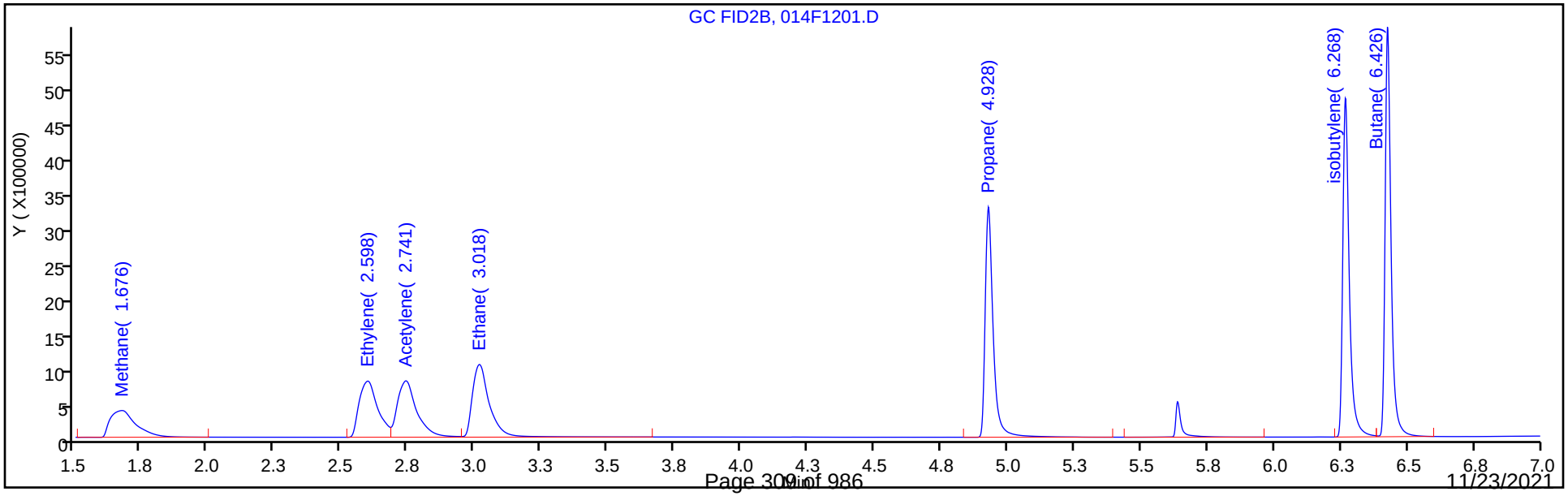
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCVRT 280-556811/1  Calibration Date: 11/09/2021 17:35

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: 001F0101.D  Conc. Units: ug/L  Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methane | Lin2 | | 36039 | | 65.5 | 65.7 | -0.4 | 20.0 |
| Ethane | Ave | 33241 | 34150 | | 127 | 123 | 2.7 | 20.0 |
| Ethylene | Ave | 35226 | 36209 | | 118 | 115 | 2.8 | 20.0 |
| Acetylene | Ave | 28139 | 29206 | | 111 | 107 | 3.8 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCVRT 280-556811/1 Calibration Date: 11/09/2021 17:35

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: 001F0101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.30 | 1.26 | 1.34 |
| Ethane | 1.55 | 1.50 | 1.60 |
| Ethylene | 1.83 | 1.78 | 1.88 |
| Acetylene | 4.03 | 3.95 | 4.11 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 09-Nov-2021 17:35:06 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: rtc
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:57:13 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: CTX1658

First Level Reviewer: sciannac Date: 10-Nov-2021 09:19:10

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.302 | 1.302 | 0.000 | 2367893 | 65.7 | 65.5 | |
| 2 | 1.690 | 1.690 | 0.000 | 2489769 | 65.7 | 67.2 | |
| | | | | | | RPD = 2.65 | |
| 3 Ethane | | | | | | | |
| 1 | 1.550 | 1.550 | 0.000 | 4206303 | 123.2 | 126.5 | |
| 2 | 3.030 | 3.030 | 0.000 | 4328589 | 123.2 | 129.7 | |
| | | | | | | RPD = 2.44 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.828 | 1.828 | 0.000 | 4160465 | 114.9 | 118.1 | |
| 2 | 2.612 | 2.612 | 0.000 | 3673687 | 114.9 | 118.6 | |
| | | | | | | RPD = 0.40 | |
| 5 Propane | | | | | | | a |
| 1 | 2.608 | 2.608 | 0.000 | 6634907 | 180.6 | 184.2 | a |
| 2 | 4.930 | 4.930 | 0.000 | 6402005 | 180.6 | 182.9 | a |
| | | | | | | RPD = 0.76 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.032 | 4.032 | 0.000 | 3115418 | 106.7 | 110.7 | a |
| 2 | 2.755 | 2.755 | 0.000 | 3899838 | 106.7 | 114.1 | a |
| | | | | | | RPD = 3.01 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.423 | 4.423 | 0.000 | 8524120 | 238.1 | 234.0 | a |
| 2 | 6.428 | 6.428 | 0.000 | 8255667 | 238.1 | 234.9 | M |
| | | | | | | RPD = 0.39 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.282 | 5.282 | 0.000 | 8170450 | 229.8 | 226.2 | |
| 2 | 6.270 | 6.270 | 0.000 | 7463944 | 229.8 | 224.8 | M |
| | | | | | | RPD = 0.61 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

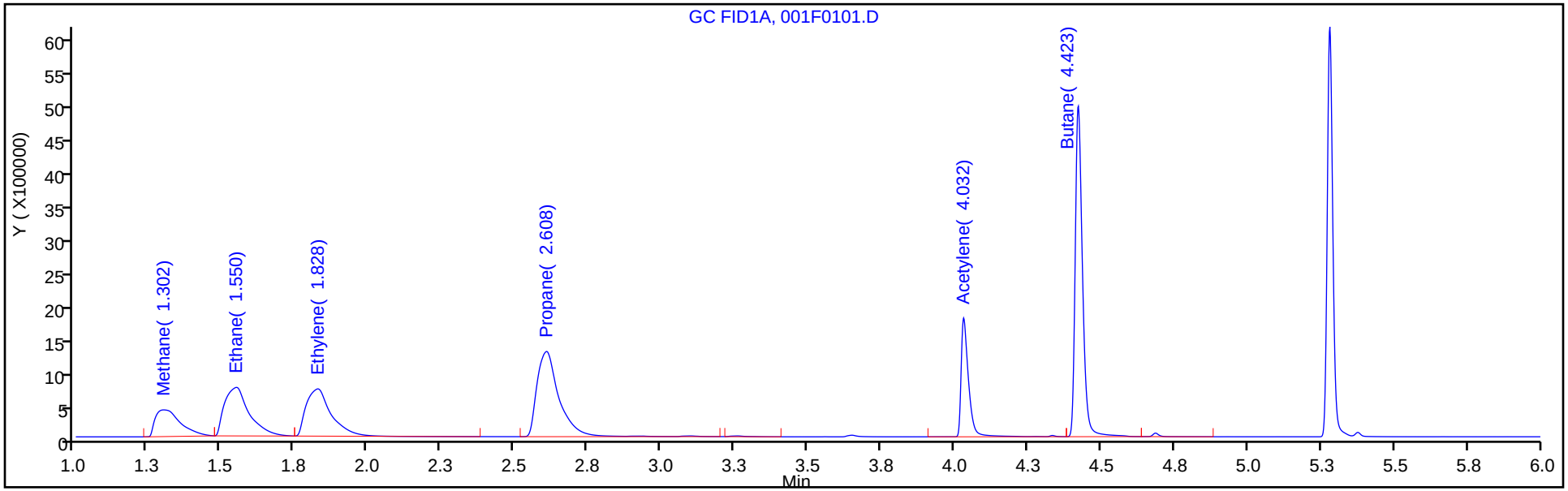
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:57:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

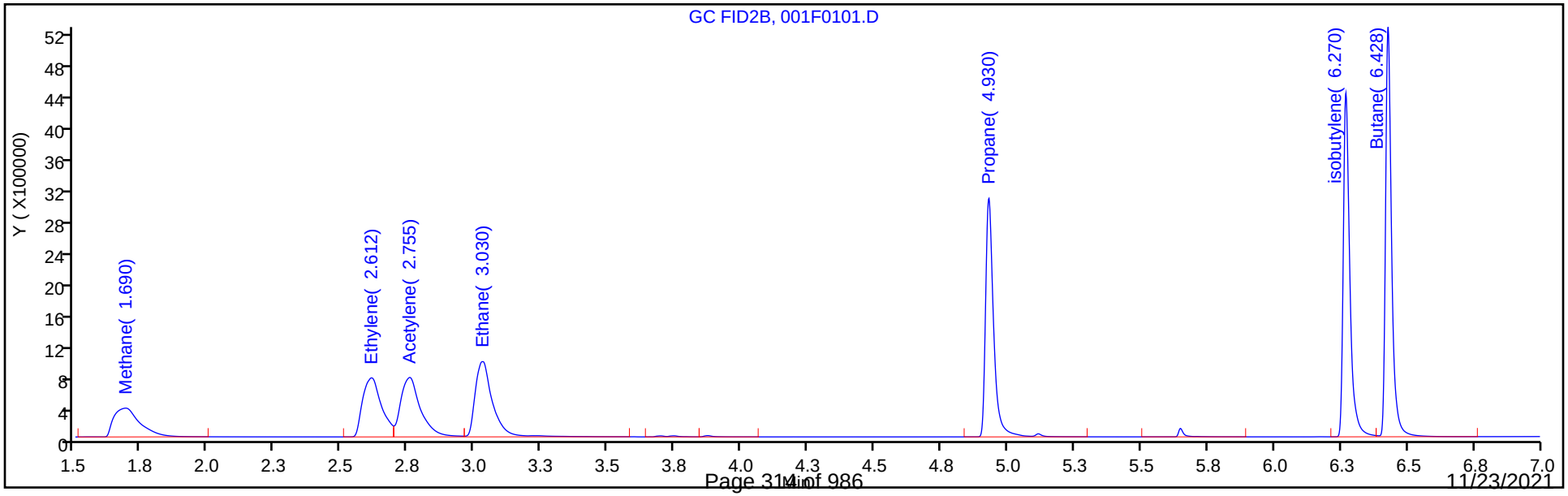
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D | | | | |
| Injection Date: | 09-Nov-2021 17:35:06 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

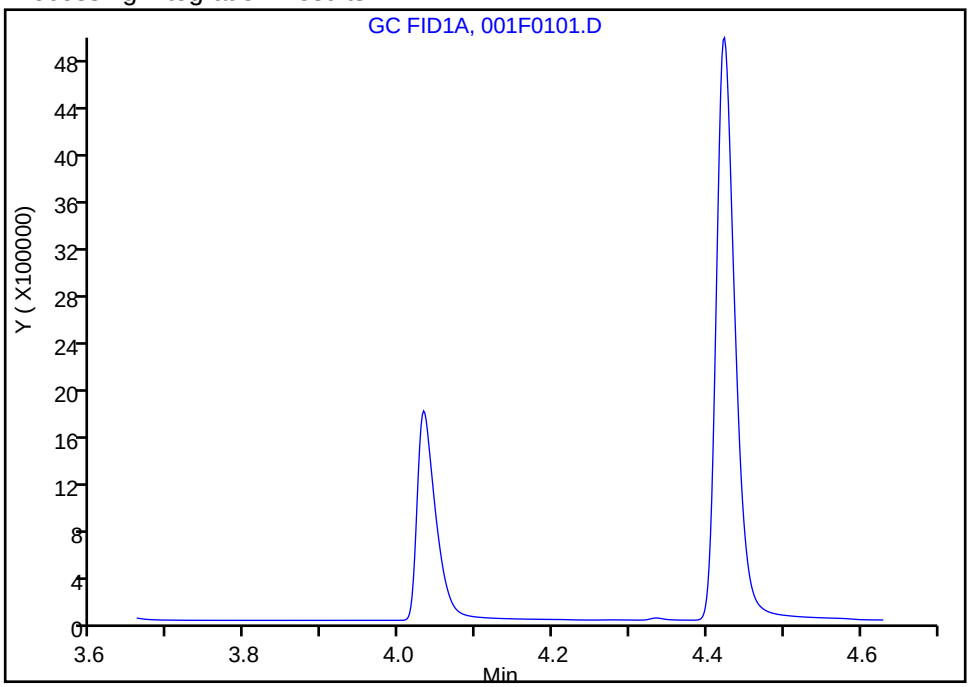
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D | | | | |
| Injection Date: | 09-Nov-2021 17:35:06 | Instrument ID: | VGC_J | | |
| Lims ID: | ccvrt | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| 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

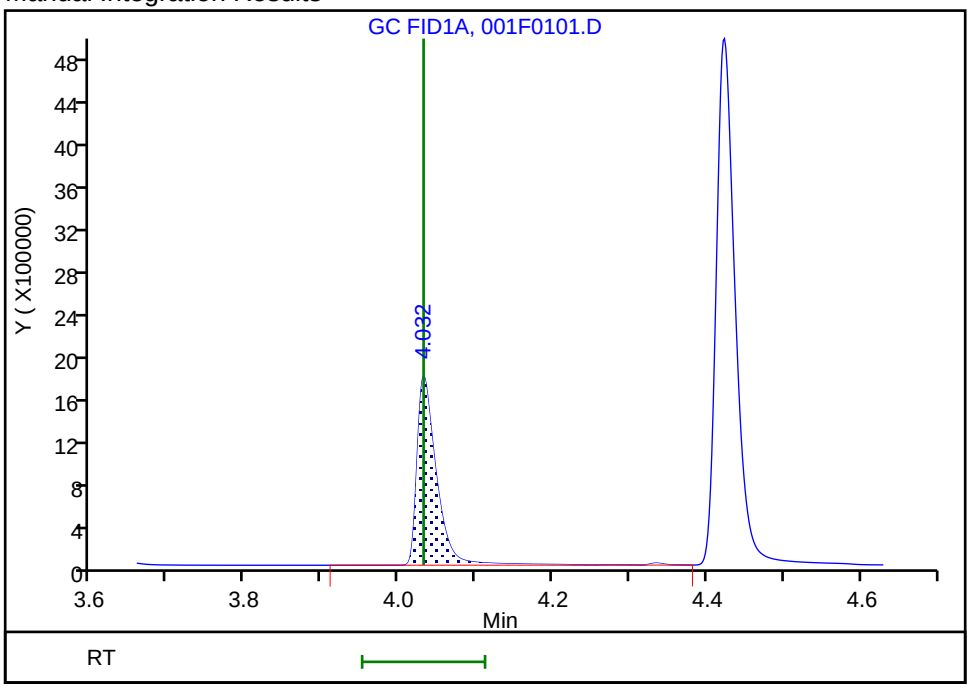
Not Detected
Expected RT: 4.03

Processing Integration Results




Manual Integration Results

RT: 4.03
Area: 3115418
Amount: 110.7152
Amount Units: ug/l




Reviewer: sciannac, 10-Nov-2021 09:18:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCVRT 280-556811/1 Calibration Date: 11/09/2021 17:35

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: 001F0101.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methane | Lin2 | | 37894 | | 67.2 | 65.7 | 2.3 | 20.0 |
| Ethylene | Ave | 30980 | 31973 | | 119 | 115 | 3.2 | 20.0 |
| Acetylene | Ave | 34179 | 36560 | | 114 | 107 | 7.0 | 20.0 |
| Ethane | Ave | 33383 | 35143 | | 130 | 123 | 5.3 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCVRT 280-556811/1 Calibration Date: 11/09/2021 17:35

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: 001F0101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.69 | 1.65 | 1.73 |
| Ethylene | 2.61 | 2.56 | 2.66 |
| Acetylene | 2.76 | 2.68 | 2.84 |
| Ethane | 3.03 | 2.98 | 3.08 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 09-Nov-2021 17:35:06 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: rtc
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:57:13 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: CTX1658

First Level Reviewer: sciannac Date: 10-Nov-2021 09:19:10

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.302 | 1.302 | 0.000 | 2367893 | 65.7 | 65.5 | |
| 2 | 1.690 | 1.690 | 0.000 | 2489769 | 65.7 | 67.2 | |
| | | | | | | RPD = 2.65 | |
| 3 Ethane | | | | | | | |
| 1 | 1.550 | 1.550 | 0.000 | 4206303 | 123.2 | 126.5 | |
| 2 | 3.030 | 3.030 | 0.000 | 4328589 | 123.2 | 129.7 | |
| | | | | | | RPD = 2.44 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.828 | 1.828 | 0.000 | 4160465 | 114.9 | 118.1 | |
| 2 | 2.612 | 2.612 | 0.000 | 3673687 | 114.9 | 118.6 | |
| | | | | | | RPD = 0.40 | |
| 5 Propane | | | | | | | a |
| 1 | 2.608 | 2.608 | 0.000 | 6634907 | 180.6 | 184.2 | a |
| 2 | 4.930 | 4.930 | 0.000 | 6402005 | 180.6 | 182.9 | a |
| | | | | | | RPD = 0.76 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.032 | 4.032 | 0.000 | 3115418 | 106.7 | 110.7 | a |
| 2 | 2.755 | 2.755 | 0.000 | 3899838 | 106.7 | 114.1 | a |
| | | | | | | RPD = 3.01 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.423 | 4.423 | 0.000 | 8524120 | 238.1 | 234.0 | a |
| 2 | 6.428 | 6.428 | 0.000 | 8255667 | 238.1 | 234.9 | M |
| | | | | | | RPD = 0.39 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.282 | 5.282 | 0.000 | 8170450 | 229.8 | 226.2 | |
| 2 | 6.270 | 6.270 | 0.000 | 7463944 | 229.8 | 224.8 | M |
| | | | | | | RPD = 0.61 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

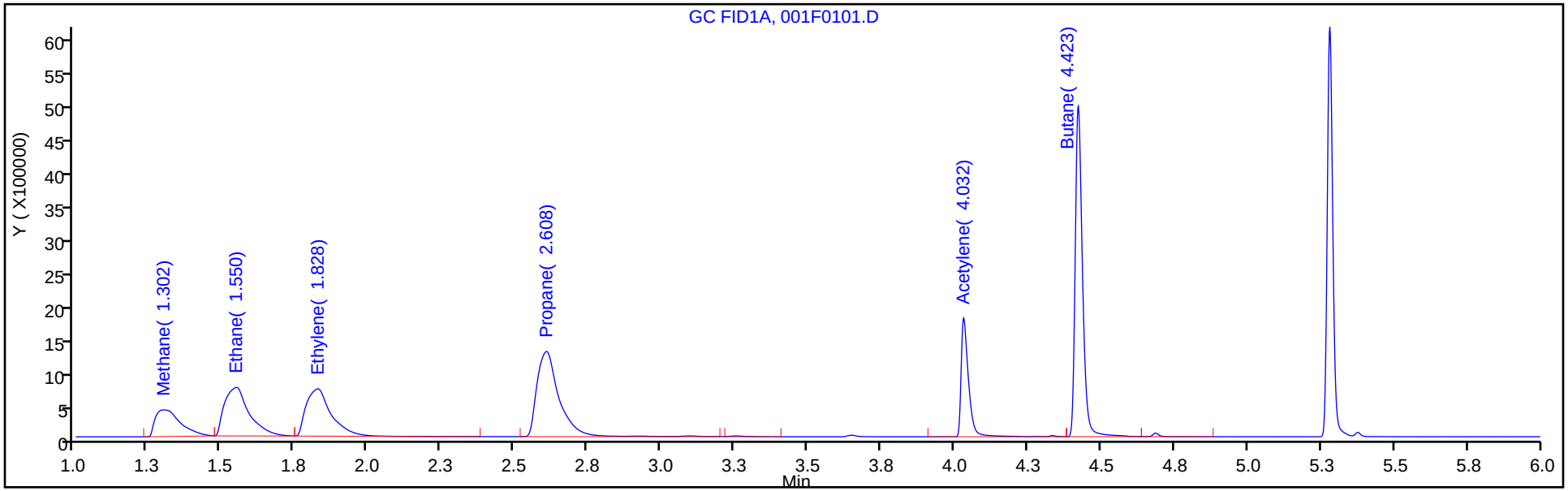
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:57:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

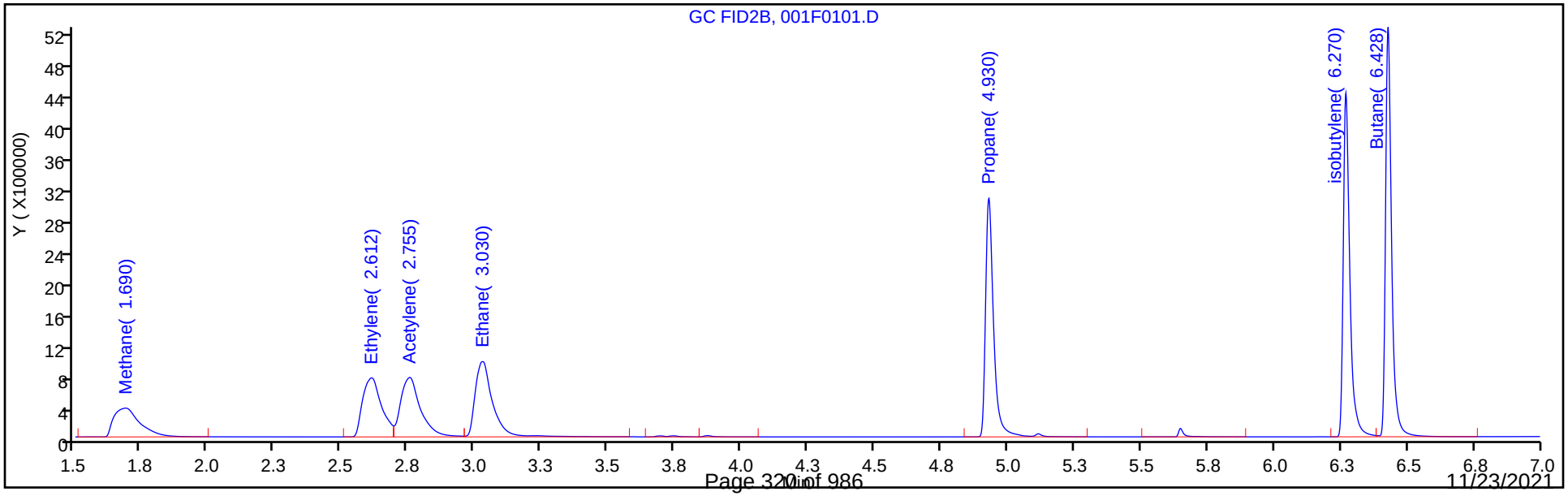
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D | | | | |
| Injection Date: | 09-Nov-2021 17:35:06 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccvrt | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

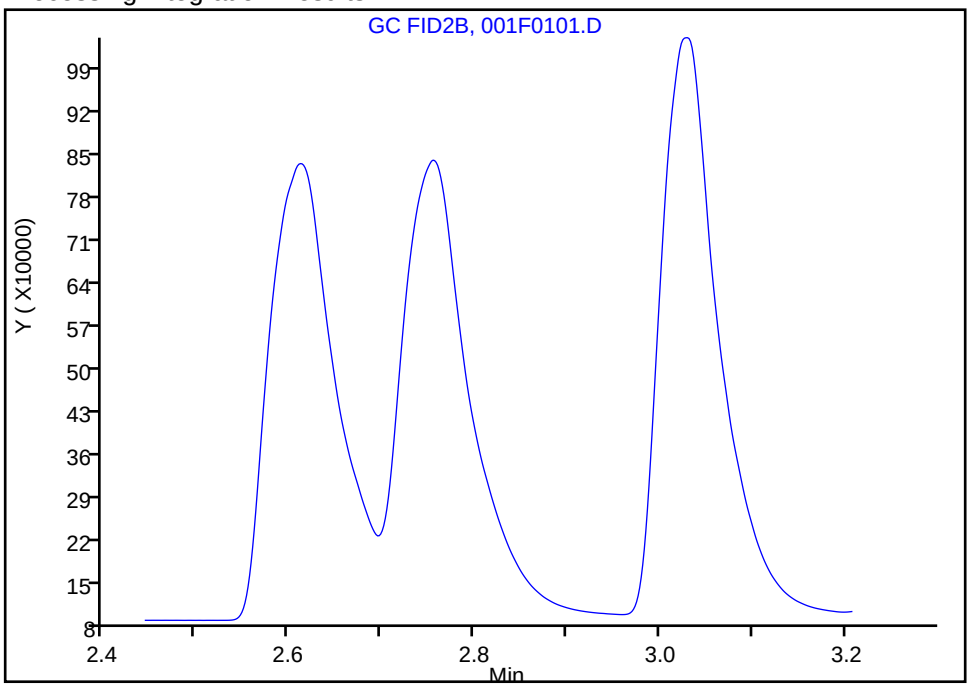
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\001F0101.D | | | | |
| Injection Date: | 09-Nov-2021 17:35:06 | Instrument ID: | VGC_J | | |
| Lims ID: | ccvrt | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| 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

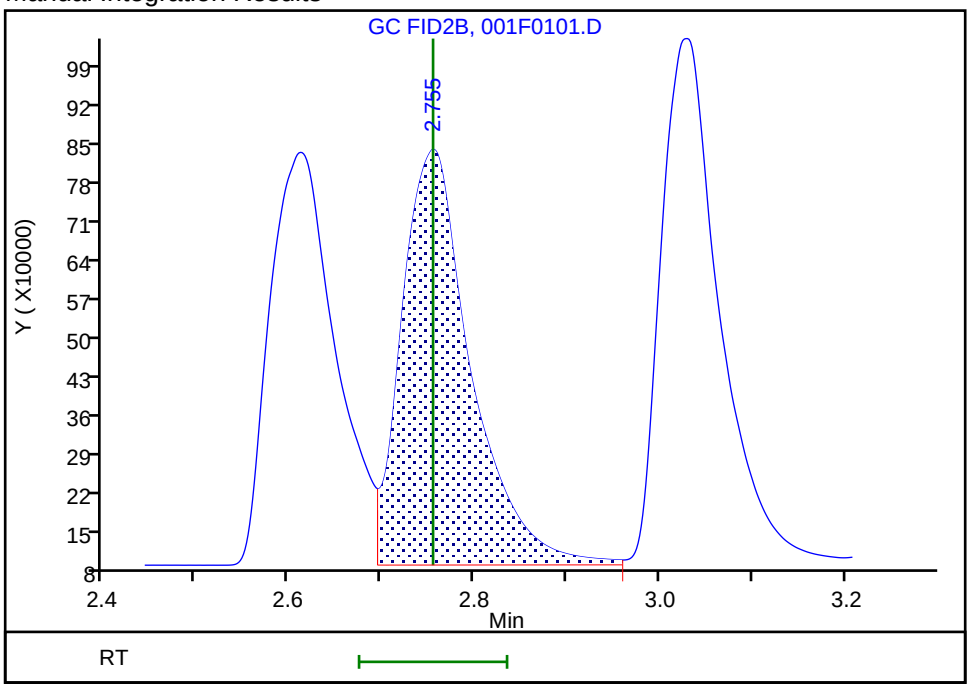
Not Detected
Expected RT: 2.76

Processing Integration Results




RT: 2.76
Area: 3899838
Amount: 114.1011
Amount Units: ug/l

Manual Integration Results




Reviewer: sciannac, 10-Nov-2021 09:18:36
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/14  Calibration Date: 11/09/2021 20:24

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: 014F1401.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 | | 37187 | | 67.6 | 65.7 | 2.9 | 20.0 |
| Ethane | Ave | 33241 | 35402 | | 131 | 123 | 6.5 | 20.0 |
| Ethylene | Ave | 35226 | 37261 | | 122 | 115 | 5.8 | 20.0 |
| Acetylene | Ave | 28139 | 29132 | | 110 | 107 | 3.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/14 Calibration Date: 11/09/2021 20:24

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: 014F1401.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.29 | 1.26 | 1.34 |
| Ethane | 1.55 | 1.50 | 1.60 |
| Ethylene | 1.86 | 1.78 | 1.88 |
| Acetylene | 4.24 | 3.95 | 4.11 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\014F1401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Nov-2021 20:24:17 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 13:09:40 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: CTX1658

First Level Reviewer: ornelasg Date: 15-Nov-2021 13:09:40

| 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 | 1.286 | 1.302 | -0.016 | 2443296 | 65.7 | 67.6 | |
| 2 | 1.670 | 1.690 | -0.020 | 2525279 | 65.7 | 68.2 | |
| | | | | | | RPD = 0.88 | |
| 3 Ethane | | | | | | | |
| 1 | 1.550 | 1.550 | 0.000 | 4360453 | 123.2 | 131.2 | |
| 2 | 3.012 | 3.030 | -0.018 | 4457352 | 123.2 | 133.5 | |
| | | | | | | RPD = 1.77 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.861 | 1.828 | 0.033 | 4281335 | 114.9 | 121.5 | |
| 2 | 2.593 | 2.612 | -0.019 | 3748331 | 114.9 | 121.0 | |
| | | | | | | RPD = 0.45 | |
| 5 Propane | | | | | | | |
| 1 | 2.693 | 2.608 | 0.085 | 6836920 | 180.6 | 189.9 | |
| 2 | 4.922 | 4.930 | -0.008 | 6581443 | 180.6 | 188.0 | |
| | | | | | | RPD = 0.99 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.243 | 4.032 | 0.211 | 3107560 | 106.7 | 110.4 | |
| 2 | 2.737 | 2.755 | -0.018 | 3937912 | 106.7 | 115.2 | |
| | | | | | | RPD = 4.24 | |
| 7 Butane | | | | | | | |
| 1 | 4.563 | 4.423 | 0.140 | 8926091 | 238.1 | 245.1 | |
| 2 | 6.422 | 6.428 | -0.006 | 8603988 | 238.1 | 244.9 | |
| | | | | | | RPD = 0.09 | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.451 | 5.282 | 0.169 | 8656838 | 229.8 | 239.6 | M |
| 2 | 6.265 | 6.270 | -0.005 | 7736052 | 229.8 | 233.0 | |
| | | | | | | RPD = 2.81 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

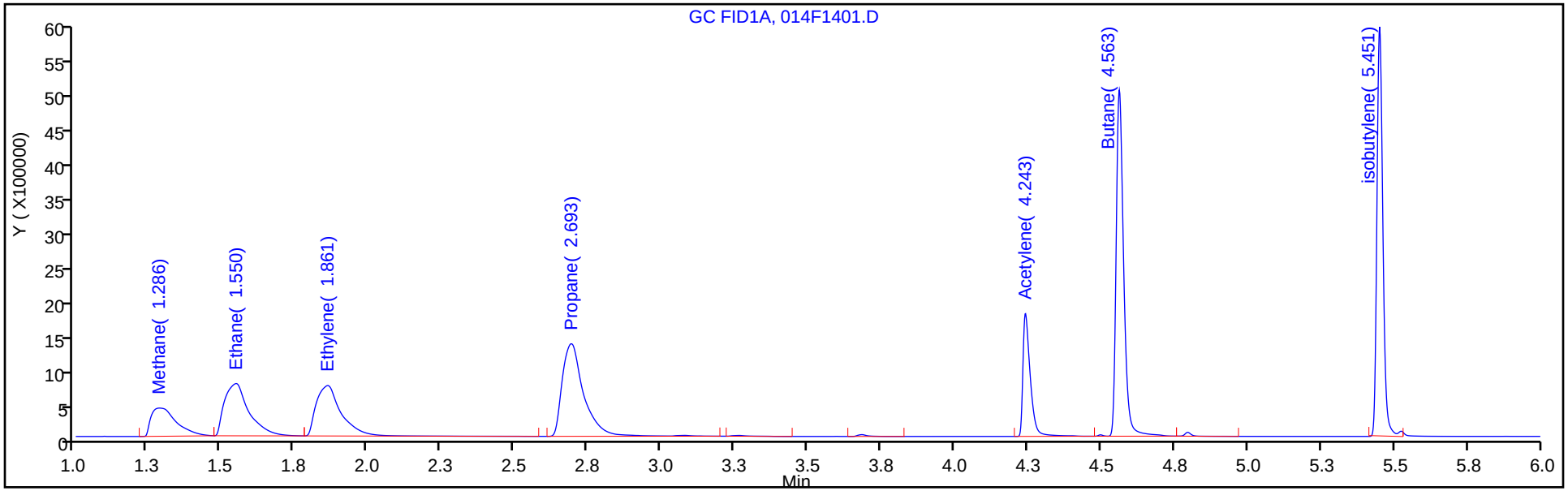
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 13:09:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

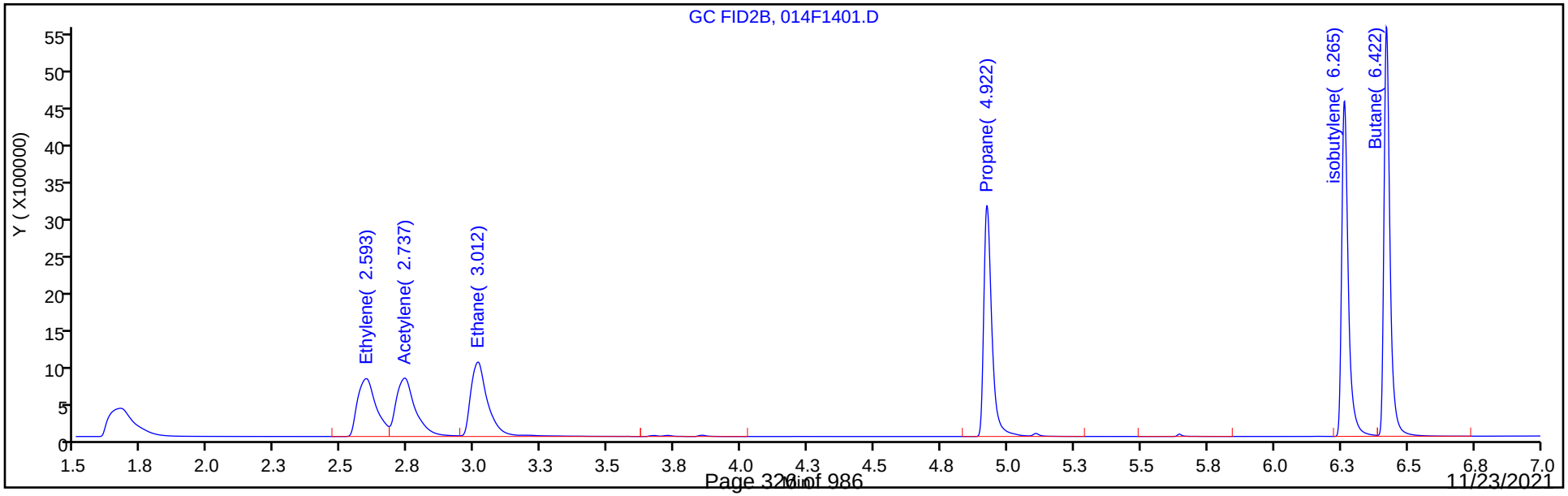
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\014F1401.D | | | | |
| Injection Date: | 09-Nov-2021 20:24:17 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | 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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/14 Calibration Date: 11/09/2021 20:24

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: 014F1401.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 | | 38435 | | 68.2 | 65.7 | 3.8 | 20.0 |
| Ethylene | Ave | 30980 | 32623 | | 121 | 115 | 5.3 | 20.0 |
| Acetylene | Ave | 34179 | 36917 | | 115 | 107 | 8.0 | 20.0 |
| Ethane | Ave | 33383 | 36189 | | 134 | 123 | 8.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/14  Calibration Date: 11/09/2021 20:24

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: 014F1401.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.65 | 1.73 |
| Ethylene | 2.59 | 2.56 | 2.66 |
| Acetylene | 2.74 | 2.68 | 2.84 |
| Ethane | 3.01 | 2.98 | 3.08 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\014F1401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Nov-2021 20:24:17 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 13:09:40 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: CTX1658

First Level Reviewer: ornelasg Date: 15-Nov-2021 13:09:40

| 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 | 1.286 | 1.302 | -0.016 | 2443296 | 65.7 | 67.6 | |
| 2 | 1.670 | 1.690 | -0.020 | 2525279 | 65.7 | 68.2 | |
| | | | | | | RPD = 0.88 | |
| 3 Ethane | | | | | | | |
| 1 | 1.550 | 1.550 | 0.000 | 4360453 | 123.2 | 131.2 | |
| 2 | 3.012 | 3.030 | -0.018 | 4457352 | 123.2 | 133.5 | |
| | | | | | | RPD = 1.77 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.861 | 1.828 | 0.033 | 4281335 | 114.9 | 121.5 | |
| 2 | 2.593 | 2.612 | -0.019 | 3748331 | 114.9 | 121.0 | |
| | | | | | | RPD = 0.45 | |
| 5 Propane | | | | | | | |
| 1 | 2.693 | 2.608 | 0.085 | 6836920 | 180.6 | 189.9 | |
| 2 | 4.922 | 4.930 | -0.008 | 6581443 | 180.6 | 188.0 | |
| | | | | | | RPD = 0.99 | |
| 6 Acetylene | | | | | | | |
| 1 | 4.243 | 4.032 | 0.211 | 3107560 | 106.7 | 110.4 | |
| 2 | 2.737 | 2.755 | -0.018 | 3937912 | 106.7 | 115.2 | |
| | | | | | | RPD = 4.24 | |
| 7 Butane | | | | | | | |
| 1 | 4.563 | 4.423 | 0.140 | 8926091 | 238.1 | 245.1 | |
| 2 | 6.422 | 6.428 | -0.006 | 8603988 | 238.1 | 244.9 | |
| | | | | | | RPD = 0.09 | |

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.451 | 5.282 | 0.169 | 8656838 | 229.8 | 239.6 | M |
| 2 | 6.265 | 6.270 | -0.005 | 7736052 | 229.8 | 233.0 | |
| | | | | | | RPD = 2.81 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

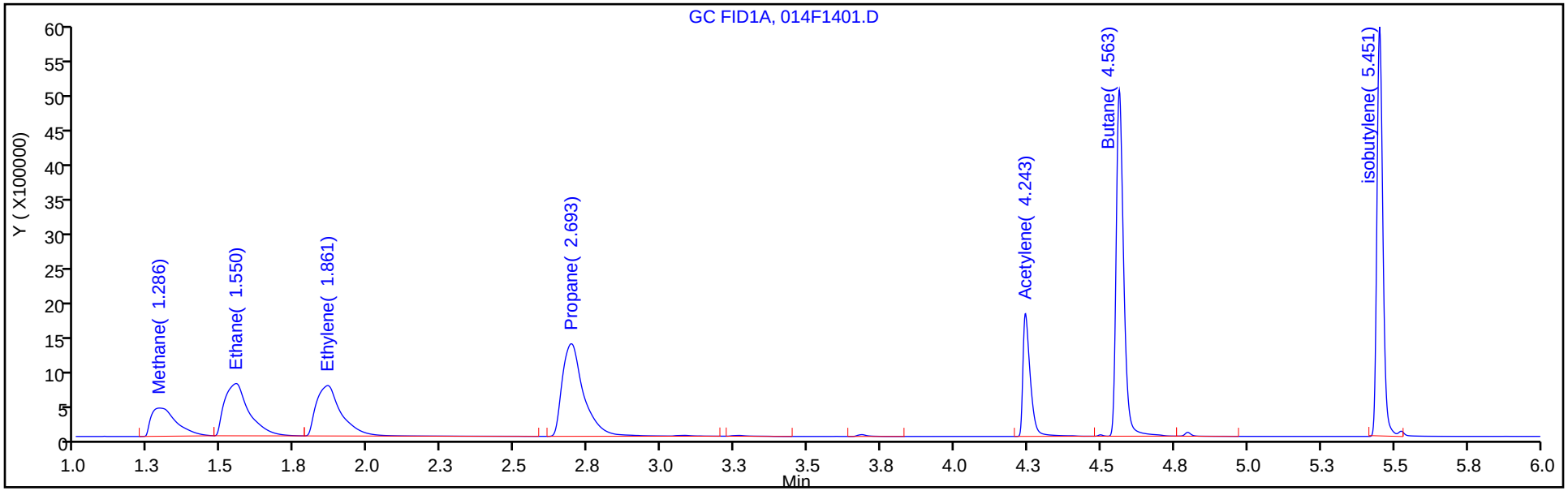
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 13:09:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

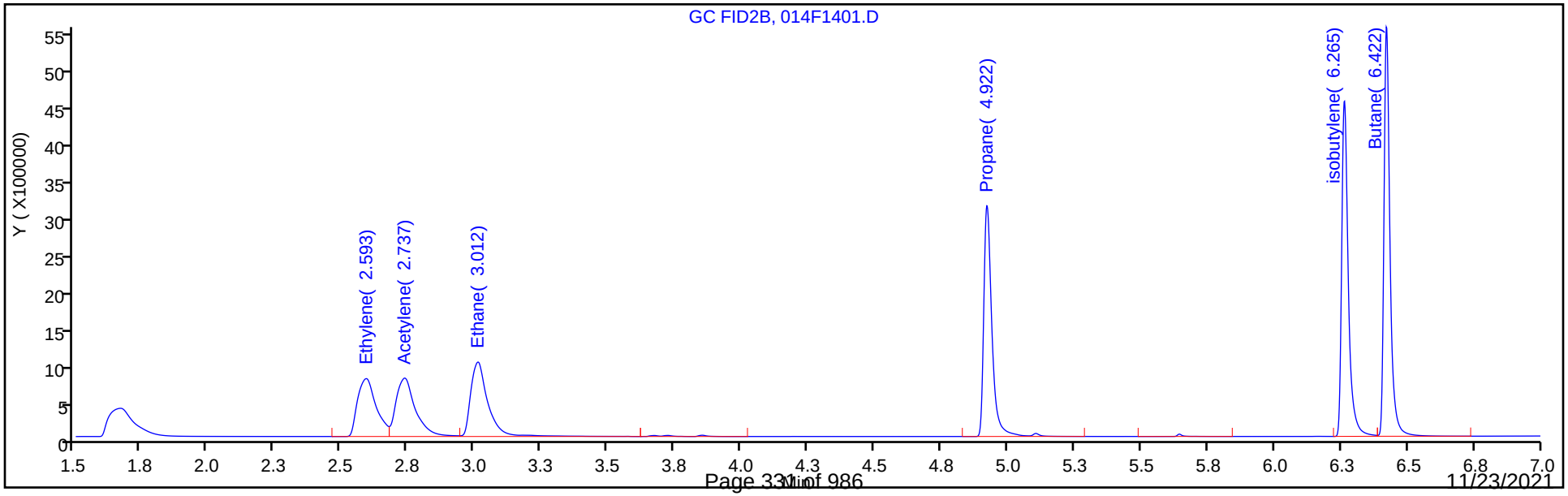
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\014F1401.D | | | | |
| Injection Date: | 09-Nov-2021 20:24:17 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | 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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/28 Calibration Date: 11/09/2021 23:25

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: 028F2801.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 | | 37122 | | 67.5 | 65.7 | 2.7 | 20.0 |
| Ethane | Ave | 33241 | 35391 | | 131 | 123 | 6.5 | 20.0 |
| Ethylene | Ave | 35226 | 37163 | | 121 | 115 | 5.5 | 20.0 |
| Acetylene | Ave | 28139 | 29961 | | 114 | 107 | 6.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/28 Calibration Date: 11/09/2021 23:25

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: 028F2801.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.29 | 1.26 | 1.34 |
| Ethane | 1.55 | 1.50 | 1.60 |
| Ethylene | 1.86 | 1.78 | 1.88 |
| Acetylene | 4.24 | 3.95 | 4.11 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Nov-2021 23:25:30 ALS Bottle#: 28 Worklist Smp#: 28
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\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:59:05 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: CTX1658

First Level Reviewer: sciannac Date: 12-Nov-2021 10:25:57

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.288 | 1.302 | -0.014 | 2439054 | 65.7 | 67.5 | |
| 2 | 1.671 | 1.690 | -0.019 | 2523384 | 65.7 | 68.2 | |
| | | | | | | RPD = 0.99 | |
| 3 Ethane | | | | | | | |
| 1 | 1.551 | 1.550 | 0.001 | 4359097 | 123.2 | 131.1 | |
| 2 | 3.011 | 3.030 | -0.019 | 4364152 | 123.2 | 130.7 | |
| | | | | | | RPD = 0.31 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.864 | 1.828 | 0.036 | 4270048 | 114.9 | 121.2 | |
| 2 | 2.593 | 2.612 | -0.019 | 3742208 | 114.9 | 120.8 | |
| | | | | | | RPD = 0.35 | |
| 5 Propane | | | | | | | a |
| 1 | 2.696 | 2.608 | 0.088 | 6915331 | 180.6 | 192.0 | a |
| 2 | 4.923 | 4.930 | -0.007 | 6558425 | 180.6 | 187.3 | a |
| | | | | | | RPD = 2.48 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.244 | 4.032 | 0.212 | 3195950 | 106.7 | 113.6 | a |
| 2 | 2.736 | 2.755 | -0.019 | 3972279 | 106.7 | 116.2 | a |
| | | | | | | RPD = 2.30 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.566 | 4.423 | 0.143 | 9005046 | 238.1 | 247.2 | a |
| 2 | 6.423 | 6.428 | -0.005 | 9100557 | 238.1 | 259.0 | M |
| | | | | | | RPD = 4.64 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.454 | 5.282 | 0.172 | 8492325 | 229.8 | 235.1 | a |
| 2 | 6.265 | 6.270 | -0.005 | 8005212 | 229.8 | 241.1 | M |
| | | | | | | RPD = 2.53 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

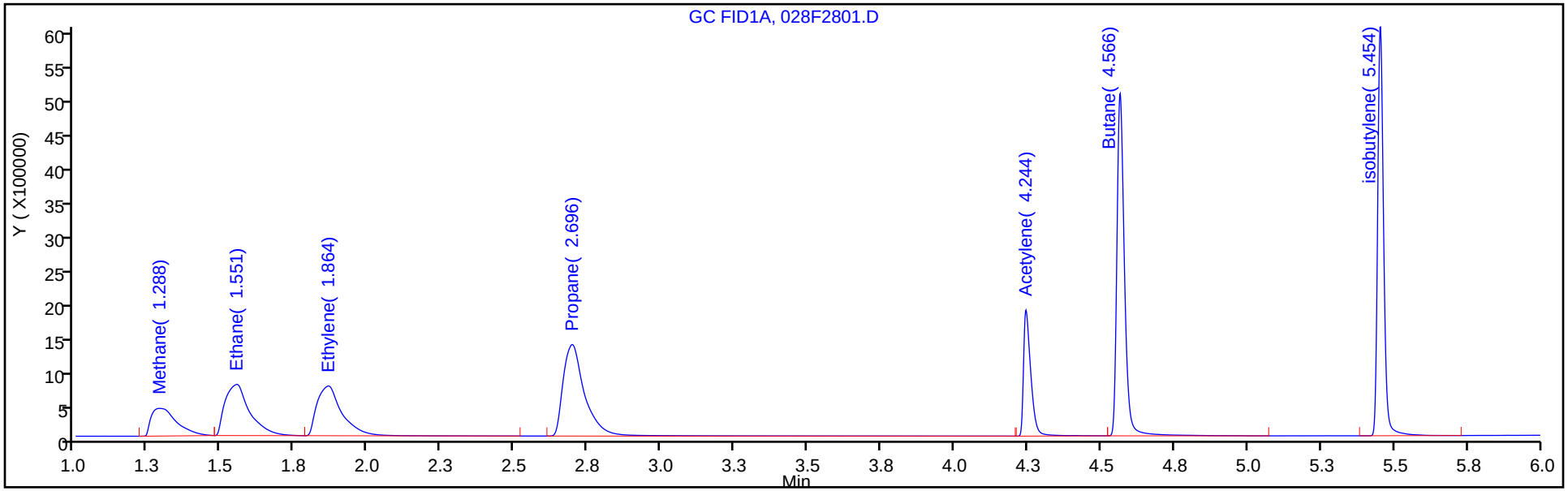
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:59:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

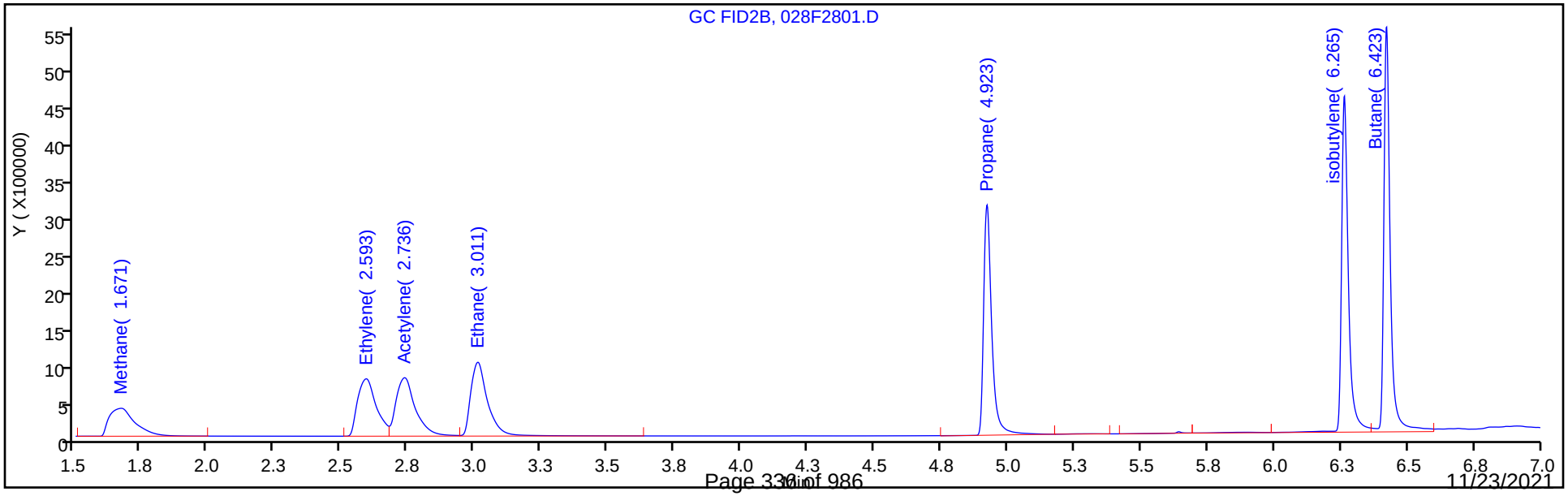
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D | | | | |
| Injection Date: | 09-Nov-2021 23:25:30 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

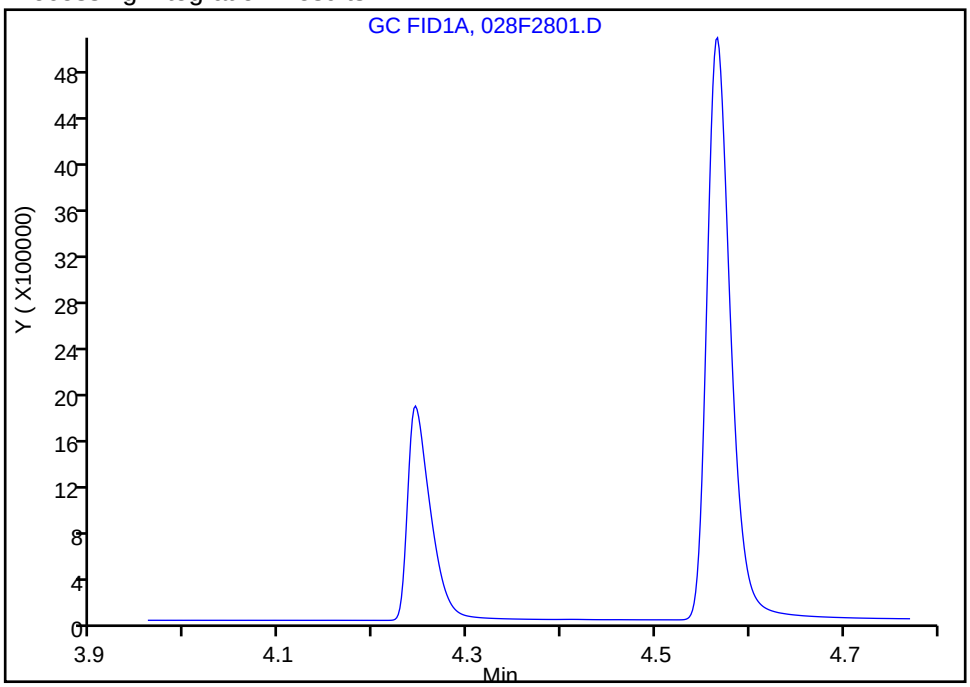
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D | | | | |
| Injection Date: | 09-Nov-2021 23:25:30 | Instrument ID: | VGC_J | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| 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

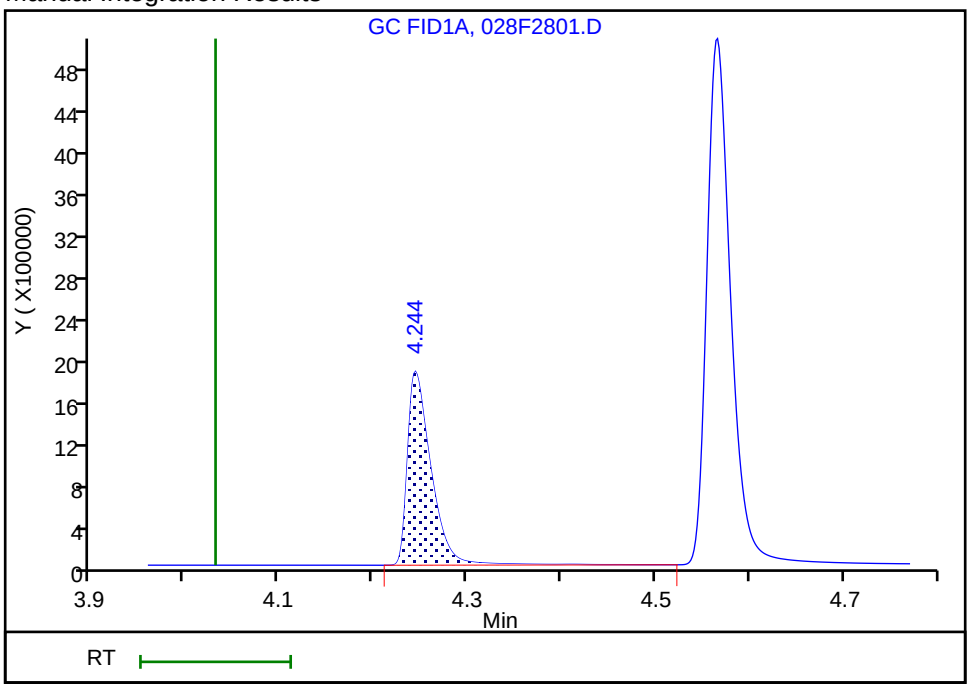
Not Detected
Expected RT: 4.03

Processing Integration Results




Manual Integration Results

RT: 4.24
Area: 3195950
Amount: 113.5772
Amount Units: ug/l




Reviewer: sciannac, 12-Nov-2021 10:25:02
Audit Action: Assigned Compound ID Audit Reason: Wrong Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/28 Calibration Date: 11/09/2021 23:25

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: 028F2801.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 | | 38406 | | 68.2 | 65.7 | 3.7 | 20.0 |
| Ethylene | Ave | 30980 | 32569 | | 121 | 115 | 5.1 | 20.0 |
| Acetylene | Ave | 34179 | 37239 | | 116 | 107 | 9.0 | 20.0 |
| Ethane | Ave | 33383 | 35432 | | 131 | 123 | 6.1 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556811/28  Calibration Date: 11/09/2021 23:25

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: 028F2801.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.65 | 1.73 |
| Ethylene | 2.59 | 2.56 | 2.66 |
| Acetylene | 2.74 | 2.68 | 2.84 |
| Ethane | 3.01 | 2.98 | 3.08 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Nov-2021 23:25:30 ALS Bottle#: 28 Worklist Smp#: 28
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\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:59:05 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: CTX1658

First Level Reviewer: sciannac Date: 12-Nov-2021 10:25:57

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.288 | 1.302 | -0.014 | 2439054 | 65.7 | 67.5 | |
| 2 | 1.671 | 1.690 | -0.019 | 2523384 | 65.7 | 68.2 | |
| | | | | | | RPD = 0.99 | |
| 3 Ethane | | | | | | | |
| 1 | 1.551 | 1.550 | 0.001 | 4359097 | 123.2 | 131.1 | |
| 2 | 3.011 | 3.030 | -0.019 | 4364152 | 123.2 | 130.7 | |
| | | | | | | RPD = 0.31 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.864 | 1.828 | 0.036 | 4270048 | 114.9 | 121.2 | |
| 2 | 2.593 | 2.612 | -0.019 | 3742208 | 114.9 | 120.8 | |
| | | | | | | RPD = 0.35 | |
| 5 Propane | | | | | | | a |
| 1 | 2.696 | 2.608 | 0.088 | 6915331 | 180.6 | 192.0 | a |
| 2 | 4.923 | 4.930 | -0.007 | 6558425 | 180.6 | 187.3 | a |
| | | | | | | RPD = 2.48 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.244 | 4.032 | 0.212 | 3195950 | 106.7 | 113.6 | a |
| 2 | 2.736 | 2.755 | -0.019 | 3972279 | 106.7 | 116.2 | a |
| | | | | | | RPD = 2.30 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.566 | 4.423 | 0.143 | 9005046 | 238.1 | 247.2 | a |
| 2 | 6.423 | 6.428 | -0.005 | 9100557 | 238.1 | 259.0 | M |
| | | | | | | RPD = 4.64 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.454 | 5.282 | 0.172 | 8492325 | 229.8 | 235.1 | a |
| 2 | 6.265 | 6.270 | -0.005 | 8005212 | 229.8 | 241.1 | M |
| | | | | | | RPD = 2.53 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

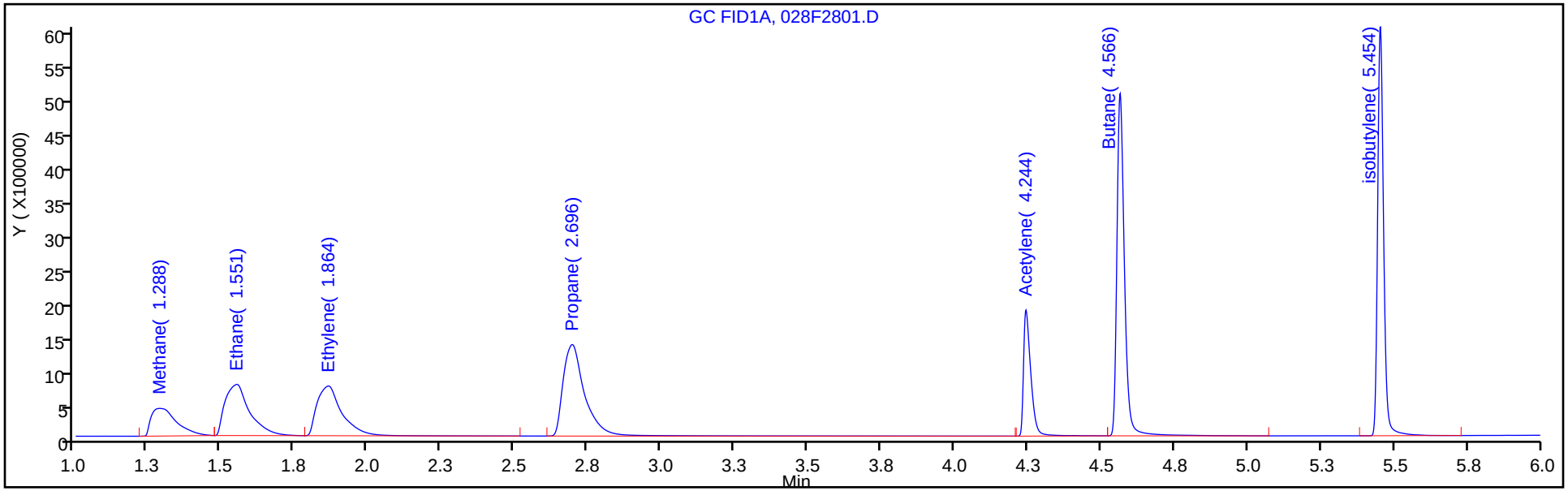
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:59:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

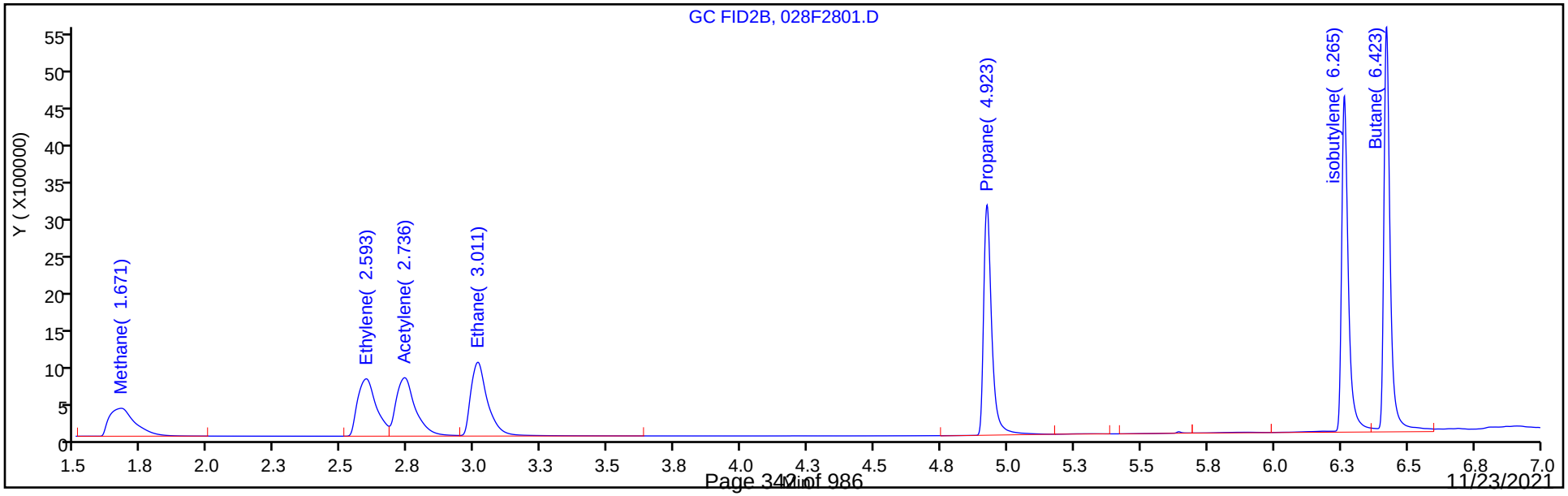
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D | | | | |
| Injection Date: | 09-Nov-2021 23:25:30 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

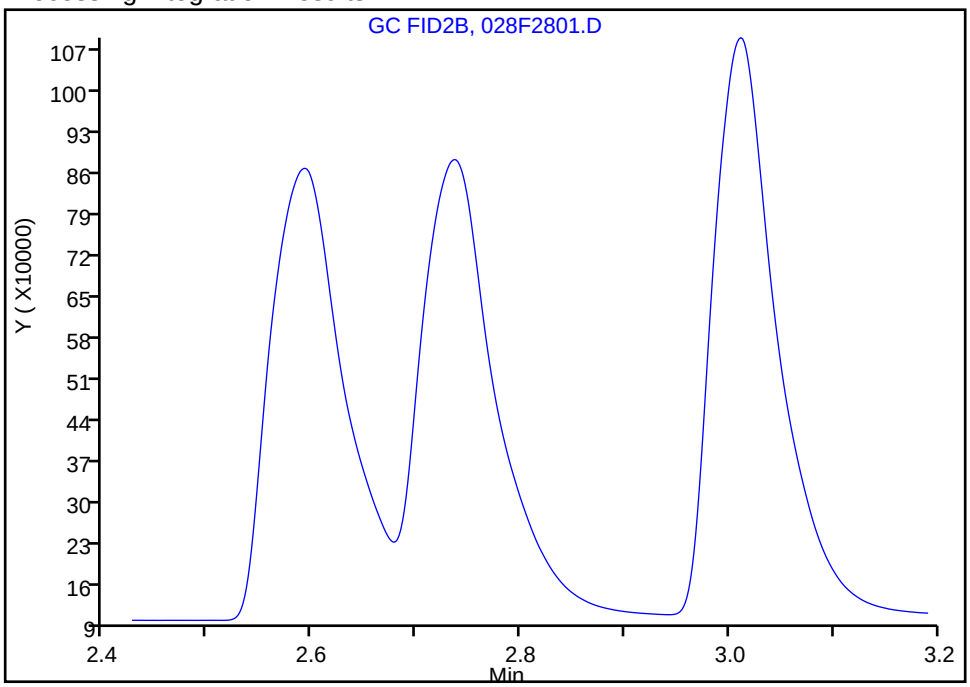
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\028F2801.D | | | | |
| Injection Date: | 09-Nov-2021 23:25:30 | Instrument ID: | VGC_J | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| 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

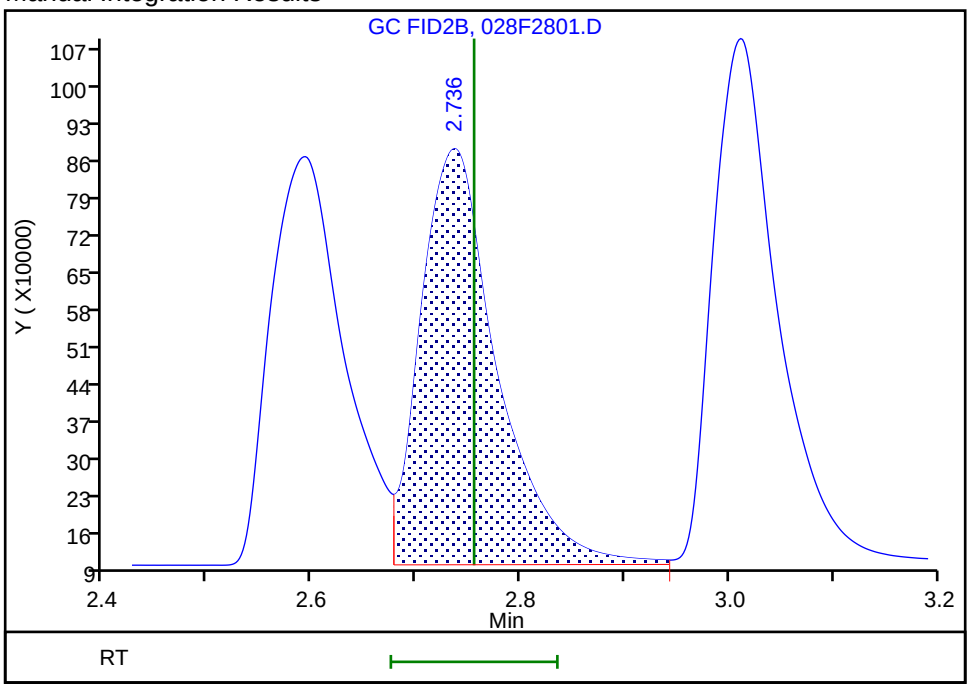
Not Detected
Expected RT: 2.76

Processing Integration Results




Manual Integration Results

RT: 2.74
Area: 3972279
Amount: 116.2206
Amount Units: ug/l




Reviewer: sciannac, 12-Nov-2021 10:24:40
Audit Action: Assigned Compound ID Audit Reason: Wrong Peak

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-556811/4
Matrix: Water
Lab File ID: 004F0401.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 20(mL)
Date Analyzed: 11/09/2021 18:13
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.: 556811
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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\004F0401.D | | | | |
| Lims ID: | mb | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 09-Nov-2021 18:13:56 | ALS Bottle#: | 4 | Worklist Smp#: | 4 |
| 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\20211109-106343.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 15-Nov-2021 12:57:13 | 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: | CTX1658 | | | | |

First Level Reviewer: sciannac Date: 12-Nov-2021 09:18:16

| 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 | | 1.302 | | | | ND | |
| 2 | | 1.690 | | | | | |
| 3 Ethane | | | | | | | |
| 1 | | 1.550 | | | | ND | |
| 2 | | 3.030 | | | | | |
| 4 Ethylene | | | | | | | |
| 1 | | 1.828 | | | | ND | |
| 2 | | 2.612 | | | | | |
| 5 Propane | | | | | | | |
| 1 | | 2.608 | | | | ND | |
| 2 | | 4.930 | | | | | |
| 6 Acetylene | | | | | | | |
| 1 | | 4.032 | | | | ND | |
| 2 | | 2.755 | | | | | |
| 7 Butane | | | | | | | |
| 1 | | 4.423 | | | | ND | |
| 2 | | 6.428 | | | | | |
| 8 isobutylene | | | | | | | |
| 1 | | 5.282 | | | | ND | |
| 2 | | 6.270 | | | | | |

# QC Flag Legend

Processing Flags

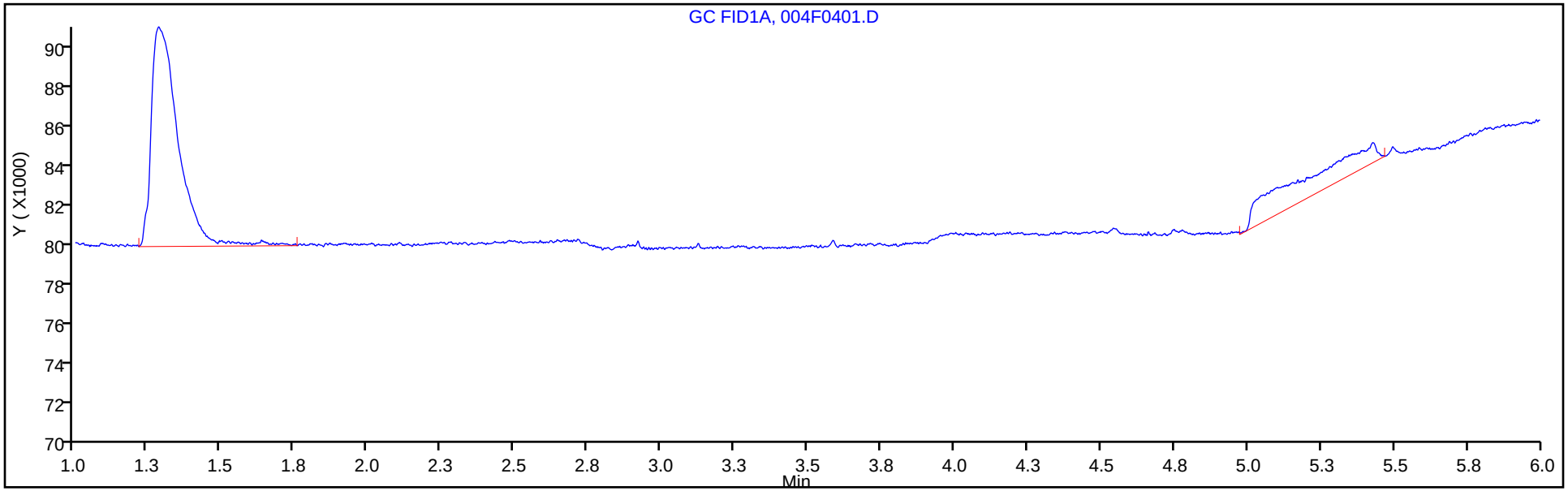
7 - Failed Limit of Detection

Report Date: 15-Nov-2021 12:57:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

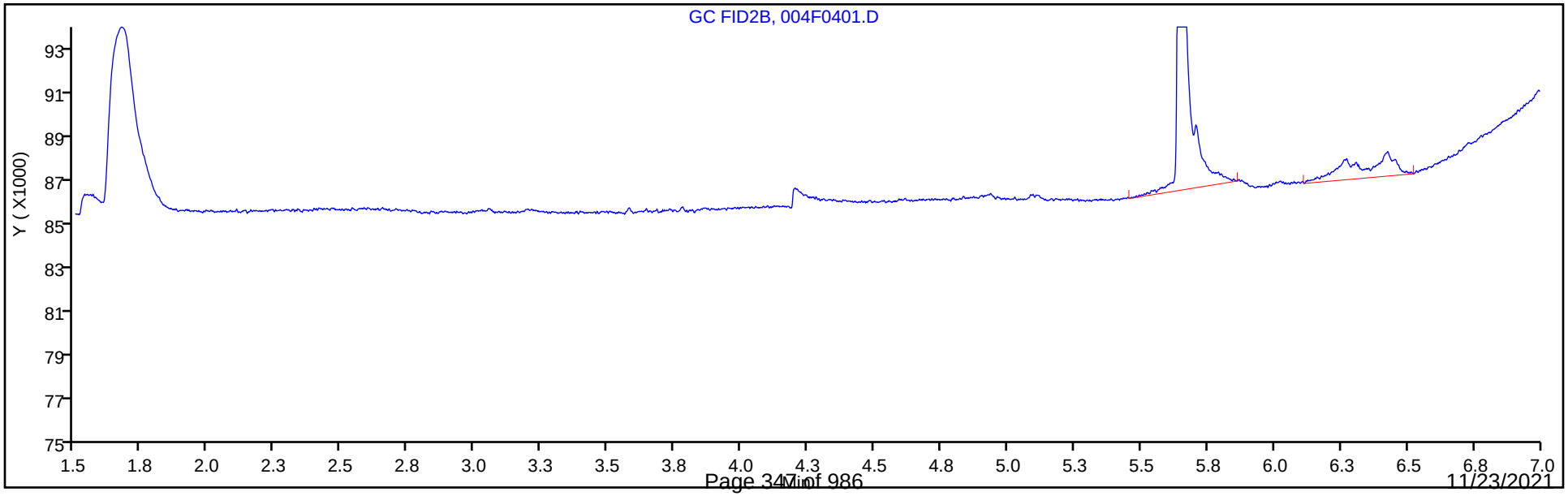
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\004F0401.D | | | | |
| Injection Date: | 09-Nov-2021 18:13:56 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | mb | | | 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 TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-556811/2
Matrix: Water
Lab File ID: 002F0201.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 20(mL)
Date Analyzed: 11/09/2021 17:48
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.: 556811
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0659 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\002F0201.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 09-Nov-2021 17:48:02 ALS Bottle#: 2 Worklist Smp#: 2
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\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:57:13 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: CTX1658

First Level Reviewer: sciannac Date: 10-Nov-2021 08:28:20

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.299 | 1.302 | -0.003 | 2334253 | 65.7 | 64.5 | |
| 2 | 1.687 | 1.690 | -0.003 | 2441711 | 65.7 | 65.9 | |
| | | | | | | RPD = 2.13 | |
| 3 Ethane | | | | | | | |
| 1 | 1.551 | 1.550 | 0.001 | 4188659 | 123.2 | 126.0 | |
| 2 | 3.032 | 3.030 | 0.002 | 4326877 | 123.2 | 129.6 | |
| | | | | | | RPD = 2.82 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.834 | 1.828 | 0.006 | 4139064 | 114.9 | 117.5 | |
| 2 | 2.616 | 2.612 | 0.004 | 3666408 | 114.9 | 118.3 | |
| | | | | | | RPD = 0.72 | |
| 5 Propane | | | | | | | a |
| 1 | 2.621 | 2.608 | 0.013 | 6670960 | 180.6 | 185.2 | a |
| 2 | 4.932 | 4.930 | 0.002 | 6420309 | 180.6 | 183.4 | a |
| | | | | | | RPD = 1.01 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.111 | 4.032 | 0.079 | 3108348 | 106.7 | 110.5 | a |
| 2 | 2.759 | 2.755 | 0.004 | 3896519 | 106.7 | 114.0 | a |
| | | | | | | RPD = 3.15 | |
| 7 Butane | | | | | | | Ma |
| 1 | 4.474 | 4.423 | 0.051 | 8856120 | 238.1 | 243.2 | a |
| 2 | 6.429 | 6.428 | 0.001 | 8536861 | 238.1 | 243.0 | M |
| | | | | | | RPD = 0.09 | |
| 8 isobutylene | | | | | | | Ma |
| 1 | 5.362 | 5.282 | 0.080 | 8467430 | 229.8 | 234.4 | a |
| 2 | 6.271 | 6.270 | 0.001 | 7718160 | 229.8 | 232.5 | M |
| | | | | | | RPD = 0.83 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

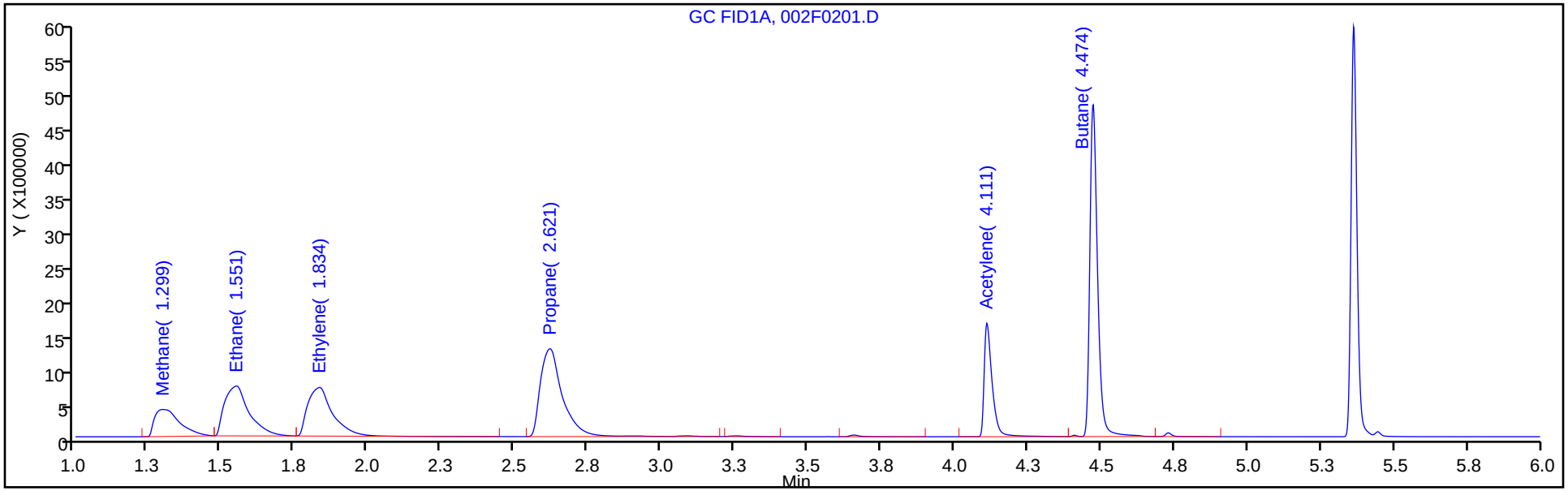
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:57:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

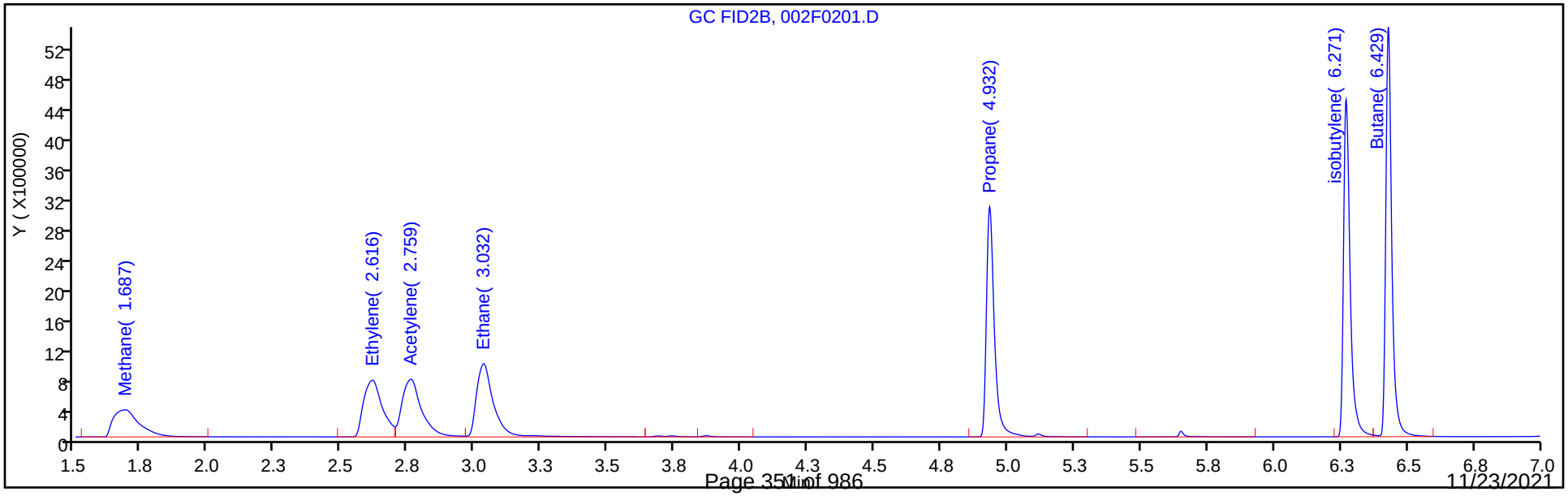
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\002F0201.D | | | | |
| Injection Date: | 09-Nov-2021 17:48:02 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcs | | | 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 I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-556811/3
Matrix: Water
Lab File ID: 003F0301.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 20(mL)
Date Analyzed: 11/09/2021 18:00
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.: 556811
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0665 | | 0.0050 | 0.0013 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\003F0301.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 09-Nov-2021 18:00:59 ALS Bottle#: 3 Worklist Smp#: 3
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\20211109-106343.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-Nov-2021 12:57:13 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: CTX1658

First Level Reviewer: sciannac Date: 12-Nov-2021 09:18:09

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Methane | | | | | | | |
| 1 | 1.296 | 1.302 | -0.006 | 2361311 | 65.7 | 65.3 | |
| 2 | 1.682 | 1.690 | -0.008 | 2464511 | 65.7 | 66.5 | |
| | | | | | | RPD = 1.89 | |
| 3 Ethane | | | | | | | |
| 1 | 1.550 | 1.550 | 0.000 | 4246015 | 123.2 | 127.7 | |
| 2 | 3.028 | 3.030 | -0.002 | 4359024 | 123.2 | 130.6 | |
| | | | | | | RPD = 2.20 | |
| 4 Ethylene | | | | | | | |
| 1 | 1.840 | 1.828 | 0.012 | 4177601 | 114.9 | 118.6 | |
| 2 | 2.608 | 2.612 | -0.004 | 3684639 | 114.9 | 118.9 | |
| | | | | | | RPD = 0.29 | |
| 5 Propane | | | | | | | a |
| 1 | 2.641 | 2.608 | 0.033 | 6763739 | 180.6 | 187.8 | a |
| 2 | 4.930 | 4.930 | 0.000 | 6511914 | 180.6 | 186.0 | a |
| | | | | | | RPD = 0.98 | |
| 6 Acetylene | | | | | | | a |
| 1 | 4.171 | 4.032 | 0.139 | 3096120 | 106.7 | 110.0 | a |
| 2 | 2.753 | 2.755 | -0.002 | 3900587 | 106.7 | 114.1 | a |
| | | | | | | RPD = 3.65 | |
| 7 Butane | | | | | | | a |
| 1 | 4.511 | 4.423 | 0.088 | 9114747 | 238.1 | 250.3 | a |
| 2 | 6.428 | 6.428 | 0.000 | 8653308 | 238.1 | 246.3 | a |
| | | | | | | RPD = 1.61 | |
| 8 isobutylene | | | | | | | a |
| 1 | 5.398 | 5.282 | 0.116 | 8564739 | 229.8 | 237.1 | a |
| 2 | 6.270 | 6.270 | 0.000 | 7817510 | 229.8 | 235.4 | a |
| | | | | | | RPD = 0.69 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

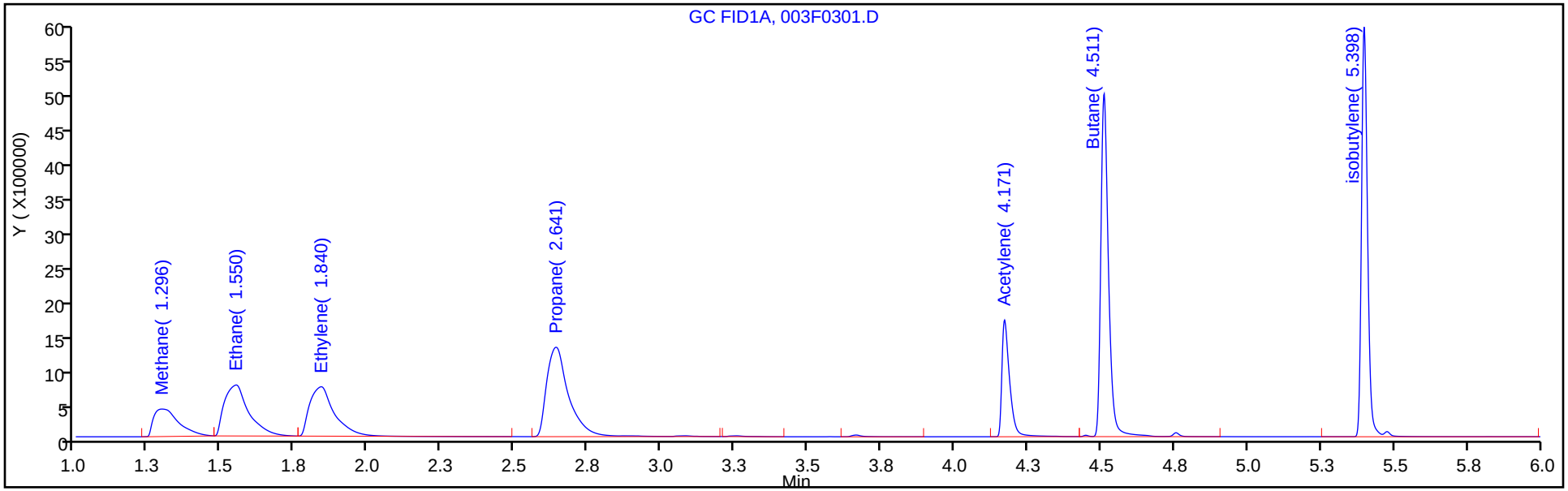
RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Report Date: 15-Nov-2021 12:57:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

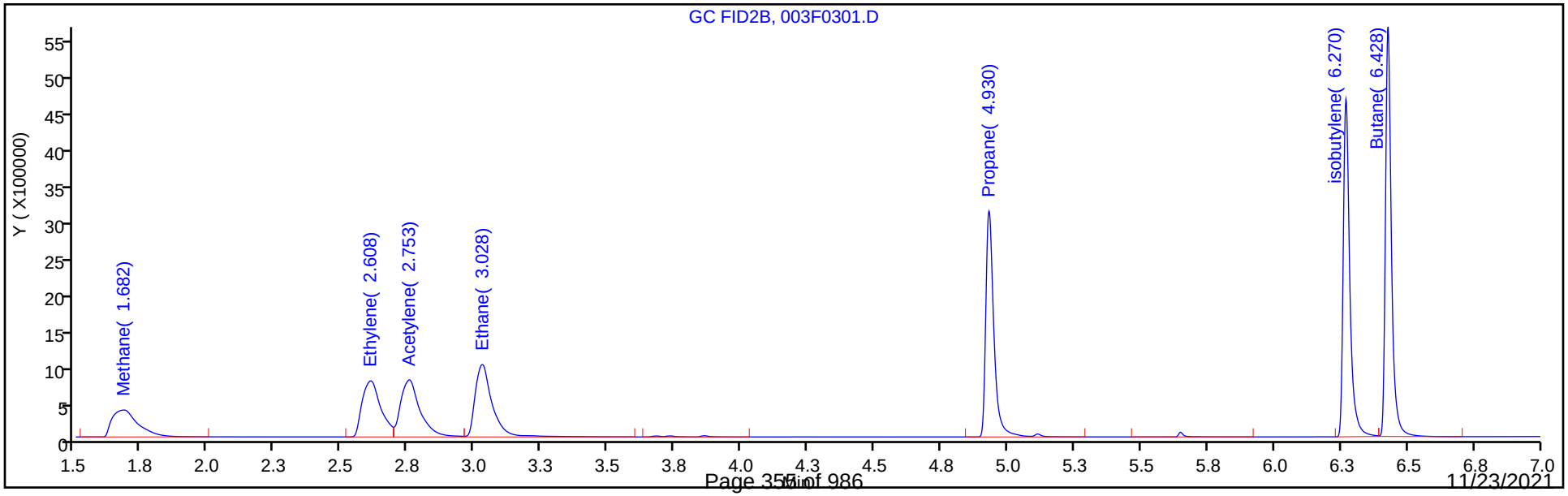
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\VGC_J\20211109-106343.b\003F0301.D | | | | |
| Injection Date: | 09-Nov-2021 18:00:59 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcsd | | | 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



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

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) |

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: VGC_J Start Date: 11/09/2021 17:35

Analysis Batch Number: 556811 End Date: 11/09/2021 23:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 280-556811/1 | | 11/09/2021 17:35 | 1 | 001F0101.D | Rt-Alumina KCl 0.53(mm) |
| CCVRT 280-556811/1 | | 11/09/2021 17:35 | 1 | 001F0101.D | HP-Plot Q 0.53(mm) |
| LCS 280-556811/2 | | 11/09/2021 17:48 | 1 | 002F0201.D | Rt-Alumina KCl 0.53(mm) |
| LCS 280-556811/2 | | 11/09/2021 17:48 | 1 | 002F0201.D | HP-Plot Q 0.53(mm) |
| LCSD 280-556811/3 | | 11/09/2021 18:00 | 1 | 003F0301.D | Rt-Alumina KCl 0.53(mm) |
| LCSD 280-556811/3 | | 11/09/2021 18:00 | 1 | 003F0301.D | HP-Plot Q 0.53(mm) |
| MB 280-556811/4 | | 11/09/2021 18:13 | 1 | 004F0401.D | Rt-Alumina KCl 0.53(mm) |
| MB 280-556811/4 | | 11/09/2021 18:13 | 1 | 004F0401.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 18:26 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 18:26 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 18:39 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 18:39 | 1 | | HP-Plot Q 0.53(mm) |
| 280-154948-1 | EW7-PM21A-7-25 | 11/09/2021 18:52 | 2 | 007F0701.D | Rt-Alumina KCl 0.53(mm) |
| 280-154948-1 | EW7-PM21A-7-25 | 11/09/2021 18:52 | 2 | 007F0701.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:05 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:05 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:18 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:18 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:32 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:32 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:45 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:45 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:58 | 2 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 19:58 | 2 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:11 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:11 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-556811/14 | | 11/09/2021 20:24 | 1 | 014F1401.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-556811/14 | | 11/09/2021 20:24 | 1 | 014F1401.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:37 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:37 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:50 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 20:50 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:03 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:03 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:16 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:16 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:28 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:28 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:41 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:41 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:54 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 21:54 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:07 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:07 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:20 | 1 | | Rt-Alumina KCl 0.53(mm) |

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: VGC_J Start Date: 11/09/2021 17:35

Analysis Batch Number: 556811 End Date: 11/09/2021 23:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/09/2021 22:20 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:33 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:33 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:46 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:46 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:59 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 22:59 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 11/09/2021 23:12 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 11/09/2021 23:12 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-556811/28 | | 11/09/2021 23:25 | 1 | 028F2801.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-556811/28 | | 11/09/2021 23:25 | 1 | 028F2801.D | HP-Plot Q 0.53(mm) |

RSK-175

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556811  Batch Start Date: 11/09/21 17:35  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 280-556811/1 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCS 280-556811/2 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| LCSD 280-556811/3 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| MB 280-556811/4 | | RSK-175 | | 20 mL | 20 mL | 5 SU | | | |
| 280-154948-I-1 | EW7-PM21A-7-25 | RSK-175 | T | 20 mL | 20 mL | <2 SU | | | |
| CCV 280-556811/14 | | RSK-175 | | 20 mL | 20 mL | 5 SU | 200 uL | | |
| CCV 280-556811/28 | | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Matrix: Water  Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm)  GC Column (2): Luna-phenyl 4.6 (mm)

| Client Sample ID | Lab Sample ID | 12DNB1 # | 12DNB2 # |
|---|---|---|---|
| EW7-PM21A-7-25 | 280-154948-1 | 81 Q | |
| EW7-PM21A-7-25 | 280-154948-1 | | 88 M |
| | MB 280-555838/1-A | 92 M | |
| | LCS 280-555838/2-A | 92 | |
| | LCS 280-555838/3-A | 96 M | |

| | QC LIMITS |
|---|---|
| 12DNB = 1,2-Dinitrobenzene | 83-119 |

# Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 11030019.D

Lab ID: LCS 280-555838/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.13 | 107 | 73-125 | |
| 1,3-Dinitrobenzene | 2.00 | 2.05 | 102 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.00 | 2.06 | 103 | 71-123 | |
| 2,4-Dinitrotoluene | 2.00 | 1.99 | 99 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 1.97 | 98 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.89 | 95 | 79-120 | |
| 2-Nitrotoluene | 2.00 | 1.55 | 77 | 70-127 | |
| 3-Nitrotoluene | 2.00 | 1.56 | 78 | 73-125 | M |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.84 | 92 | 76-125 | |
| 4-Nitrotoluene | 2.00 | 1.61 | 80 | 71-127 | |
| HMX | 2.00 | 2.02 | 101 | 65-135 | M |
| Nitrobenzene | 2.00 | 1.77 | 88 | 65-134 | |
| RDX | 2.00 | 1.96 | 98 | 68-130 | |
| Tetryl | 2.00 | 1.97 | 99 | 64-128 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 11030020.D

Lab ID: LCS 280-555838/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.33 | 2.43 | 104 | 57-132 | M |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: MB 280-555838/1-A

Matrix: Water  Date Extracted: 11/02/2021 15:00

Lab File ID:(1) 11030018.D  Lab File ID:(2)

Date Analyzed:(1) 11/03/2021 18:34  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 280-555838/2-A | 11/03/2021 18:57 | |
| | LCS 280-555838/3-A | 11/03/2021 19:20 | |
| EW7-PM21A-7-25 | 280-154948-1 | 11/04/2021 04:53 | 11/05/2021 04:12 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Client Sample ID: EW7-PM21A-7-25 Lab Sample ID: 280-154948-1

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 11/04/2021 04:53 Date Analyzed (2): 11/05/2021 04:12

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 | | 7.61 | 7.46 | 7.76 | 1.5 | | 31.5 |
| | 2 | | 8.78 | 8.67 | 8.97 | 1.1 | | |
| 1,3,5-Trinitrobenzene | 1 | | 8.69 | 8.54 | 8.84 | 10 | | 7.1 |
| | 2 | | 18.75 | 18.63 | 18.93 | 11 | | |
| 2,4,6-Trinitrotoluene | 1 | | 10.97 | 10.87 | 11.07 | 10 | | 7.9 |
| | 2 | | 25.05 | 24.94 | 25.24 | 11 | | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.17 | 11.07 | 11.27 | 3.7 | | 71.8 |
| | 2 | | 17.30 | 17.21 | 17.51 | 7.9 | | |
| 2-Amino-4,6-dinitrotoluene | 1 | | 11.43 | 11.33 | 11.53 | 3.5 | | 28.1 |
| | 2 | | 18.23 | 18.11 | 18.41 | 4.7 | | |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID: EW7-PM21A-7-25
Lab Sample ID: 280-154948-1
Matrix: Water
Lab File ID: 11030045.D
Analysis Method: 8330A
Date Collected: 10/29/2021 15:55
Extraction Method: 3535
Date Extracted: 11/02/2021 15:00
Sample wt/vol: 509.5(mL)
Date Analyzed: 11/04/2021 04:53
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 556054
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 10 | Q | 0.21 | 0.20 | 0.083 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.098 | U M Q | 0.11 | 0.098 | 0.036 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 10 | Q | 0.11 | 0.098 | 0.044 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.079 | U Q | 0.098 | 0.079 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.079 | U Q | 0.098 | 0.079 | 0.039 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 3.5 | Q | 0.11 | 0.098 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U Q | 0.21 | 0.20 | 0.084 |
| 99-08-1 | 3-Nitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 3.7 | Q J1 | 0.15 | 0.12 | 0.057 |
| 2691-41-0 | HMX | 0.20 | U M Q | 0.21 | 0.20 | 0.086 |
| 5755-27-1 | MNX | 0.39 | U M | 2.0 | 0.39 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U Q | 0.21 | 0.20 | 0.089 |
| 121-82-4 | RDX | 1.5 | Q | 0.21 | 0.20 | 0.051 |
| 479-45-8 | Tetryl | 0.098 | U M Q | 0.11 | 0.098 | 0.031 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 81 | Q | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030045.D | | | | |
| Lims ID: | 280-154948-A-1-A | | | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 04:53:13 | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-154948-A-1-A | | | | |
| Misc. Info.: | 280-0106163-045 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:41 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |
| First Level Reviewer: zhangji | | Date: | 04-Nov-2021 12:35:04 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | | 6.605 | | | ND | MU |
| 7 MNX | 1 | | 7.229 | | | ND | U |
| 8 RDX | 1 | 7.612 | 7.605 | 0.007 | 16760 | 0.1577 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.572 | 8.572 | 0.000 | 20717 | 0.1616 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.685 | 8.692 | -0.007 | 231821 | 1.05 | |
| 12 1,3-Dinitrobenzene | 1 | | 9.325 | | | ND | U |
| 13 Nitrobenzene | 1 | | 9.725 | | | ND | |
| 15 Tetryl | 1 | | 10.058 | | | ND | U |
| 17 2,4,6-Trinitrotoluene | 1 | 10.972 | 10.971 | 0.001 | 214278 | 1.04 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.172 | 11.171 | 0.001 | 58017 | 0.3798 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.425 | 11.425 | 0.000 | 74320 | 0.3592 | |
| 20 2,6-Dinitrotoluene | 1 | | 11.598 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.765 | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.645 | | | ND | |
| 23 p-Nitrotoluene | 1 | 13.099 | 13.078 | 0.021 | 5404 | 0.0483 | |
| 24 m-Nitrotoluene | 1 | | 13.658 | | | ND | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

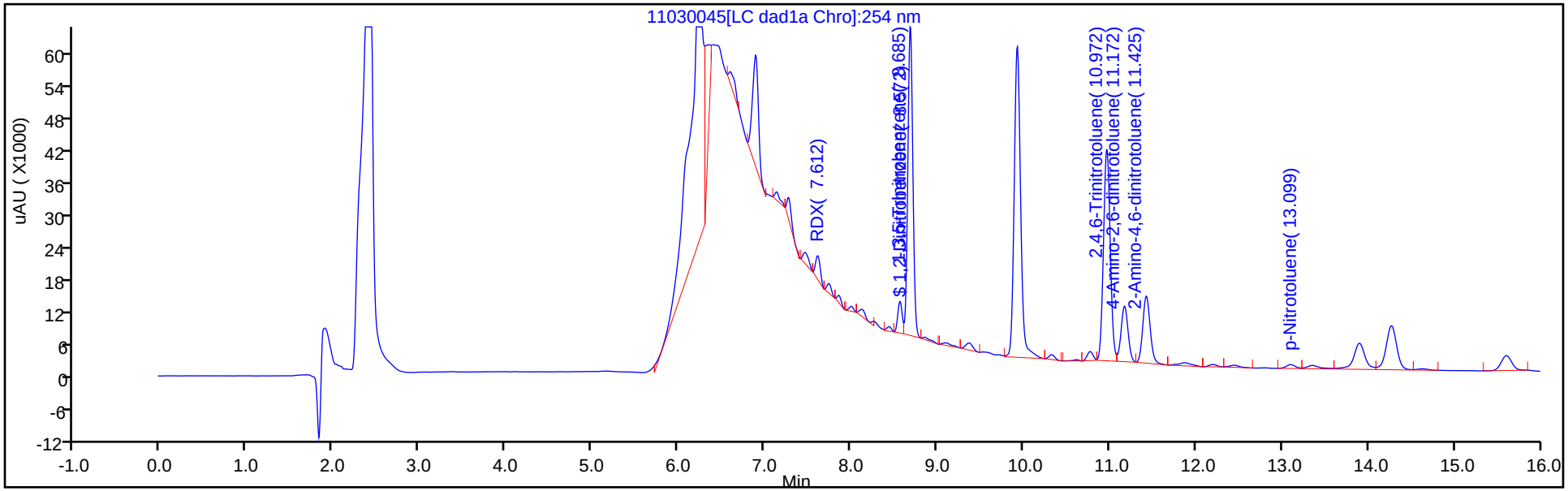
U - Marked Undetected

Report Date: 04-Nov-2021 12:51:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

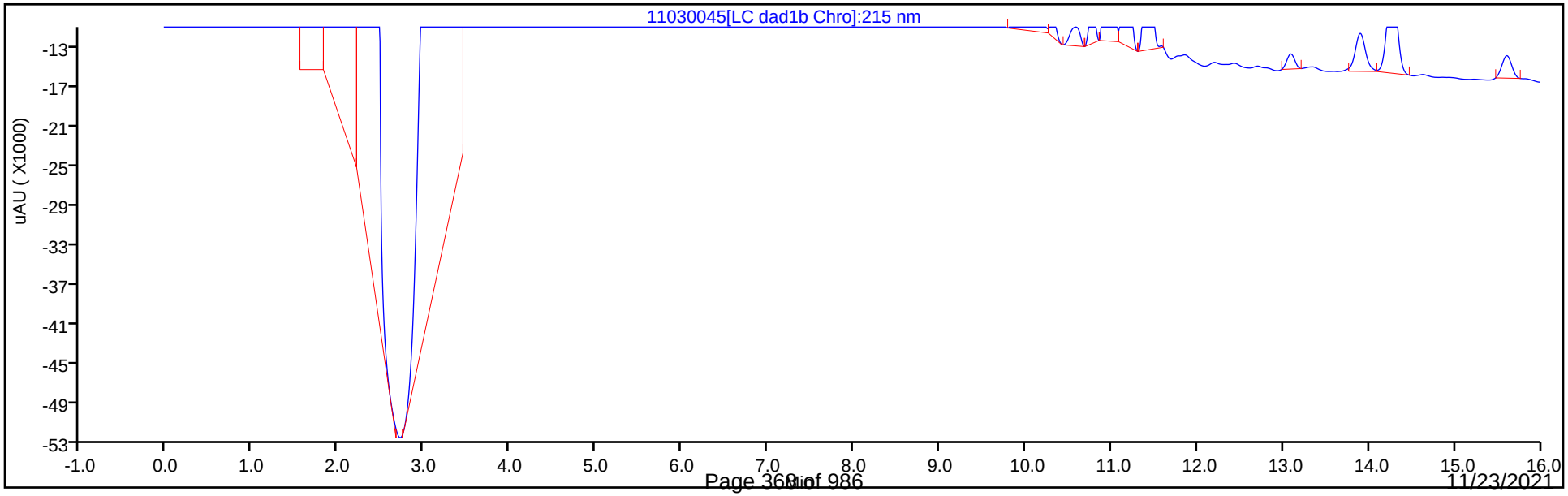
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030045.d | | | | |
| Injection Date: | 04-Nov-2021 04:53:13 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | Worklist Smp#: | 45 |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 45 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030045.D | | | | |
| Lims ID: | 280-154948-A-1-A | | | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 04-Nov-2021 04:53:13 | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-154948-A-1-A | | | | |
| Misc. Info.: | 280-0106163-045 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:41 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 04-Nov-2021 12:35:04

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1616 | 80.79 |

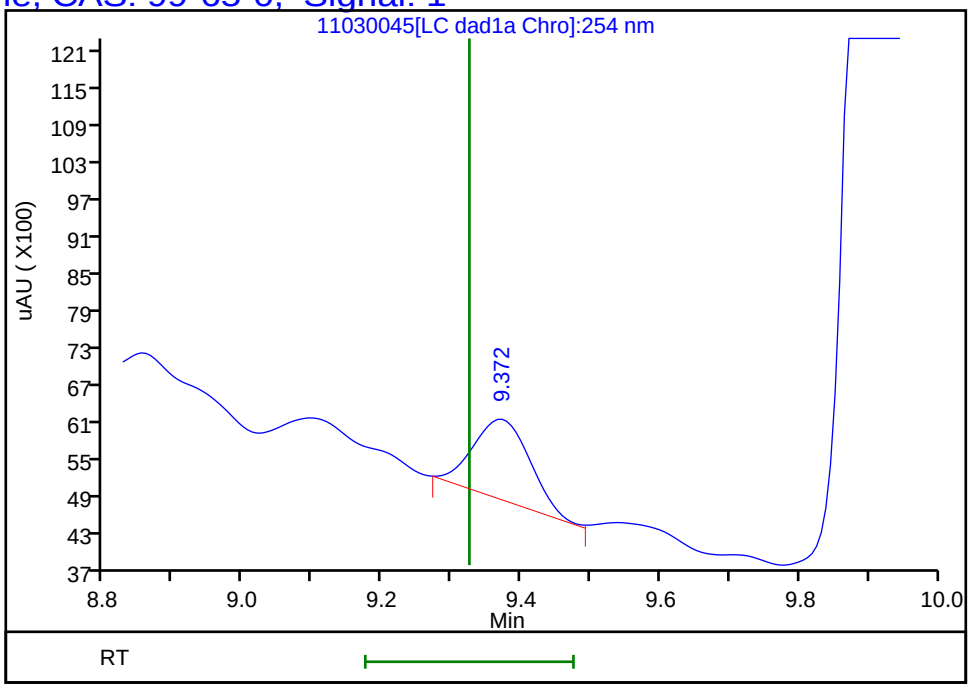
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030045.d | | | | |
| Injection Date: | 04-Nov-2021 04:53:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.37
Response: 7394
Amount: 0.024952




Reviewer: zhangji, 04-Nov-2021 12:35:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

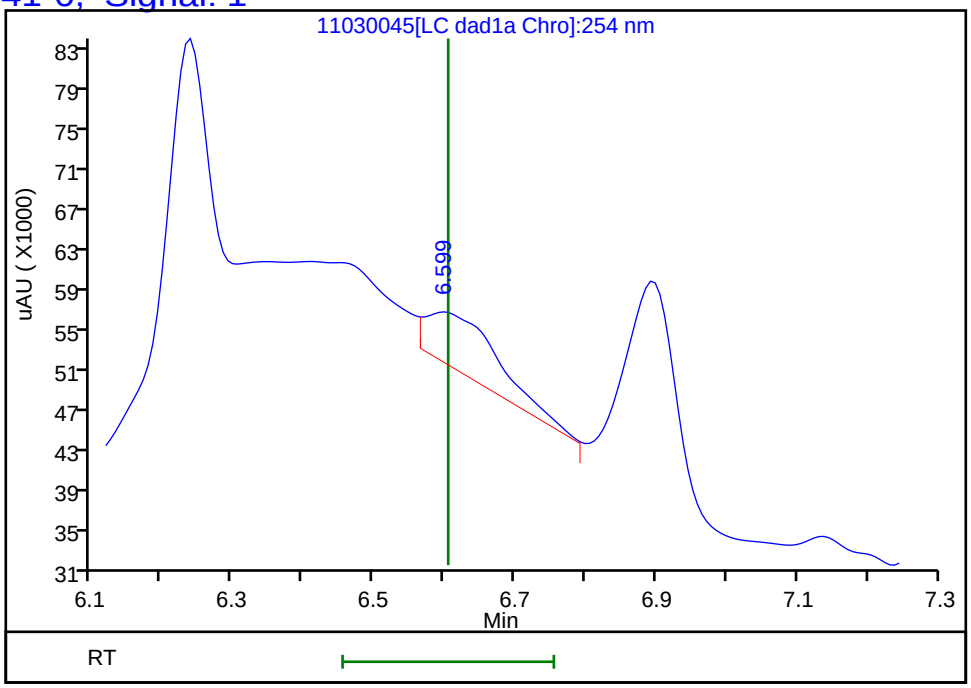
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030045.d | | | | |
| Injection Date: | 04-Nov-2021 04:53:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.60
Response: 40789
Amount: 0.483159




Reviewer: zhangji, 04-Nov-2021 12:35:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

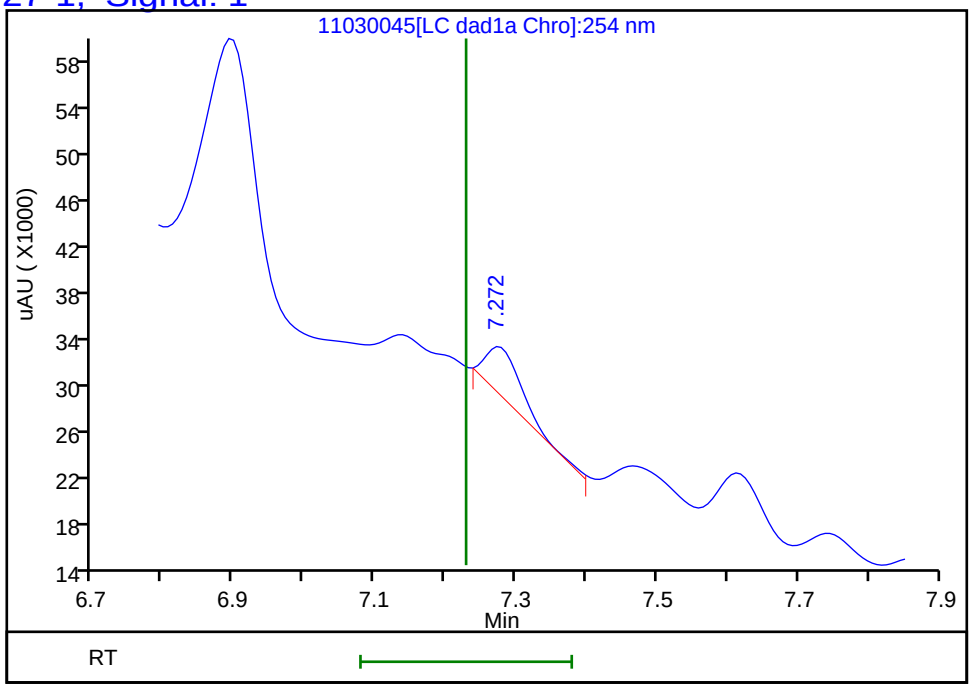
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030045.d | | | | |
| Injection Date: | 04-Nov-2021 04:53:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.27
Response: 14277
Amount: 0.109536




Reviewer: zhangji, 04-Nov-2021 12:35:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

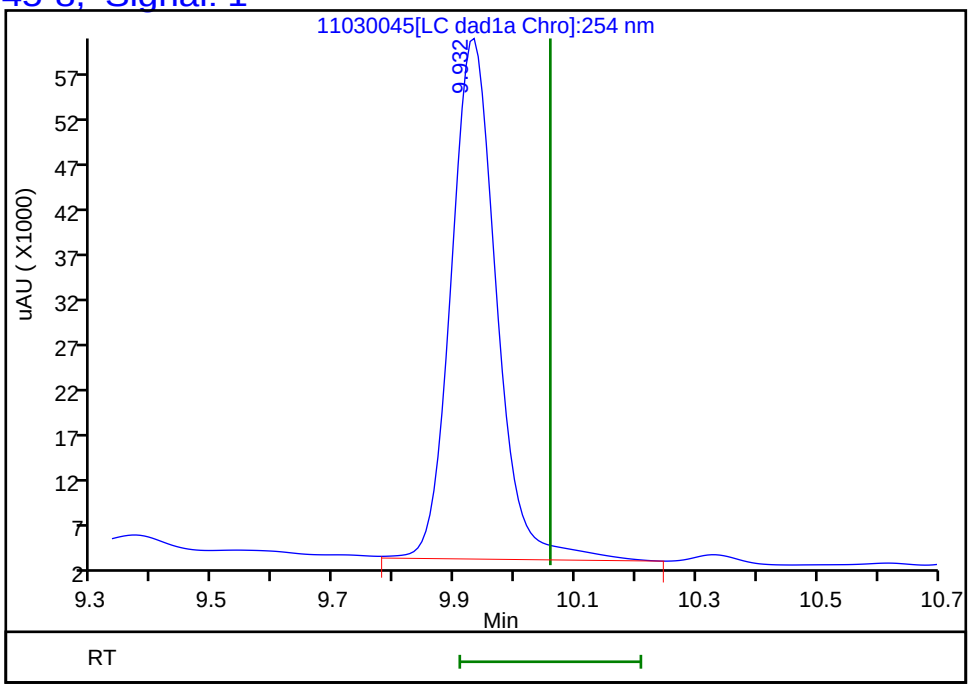
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030045.d | | | | |
| Injection Date: | 04-Nov-2021 04:53:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 45 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 9.93
Response: 300433
Amount: 1.742449




Reviewer: zhangji, 04-Nov-2021 12:35:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID: EW7-PM21A-7-25
Lab Sample ID: 280-154948-1
Matrix: Water
Lab File ID: 11040030.D
Analysis Method: 8330A
Date Collected: 10/29/2021 15:55
Extraction Method: 3535
Date Extracted: 11/02/2021 15:00
Sample wt/vol: 509.5(mL)
Date Analyzed: 11/05/2021 04:12
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.: 556218
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| *19406-51-0* | *4-Amino-2,6-dinitrotoluene* | *7.9* | *B J1* | *0.15* | 0.12 | *0.057* |
| 99-99-0 | 4-Nitrotoluene | 0.39 | U | 0.40 | 0.39 | 0.098 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 88 | *M* | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Lims ID: | 280-154948-A-1-A | | | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 05-Nov-2021 04:12:32 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-154948-A-1-A | | | | |
| Misc. Info.: | 280-0106204-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 05-Nov-2021 16:05:31 | Calib Date: | 02-May-2021 04:51:05 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | |

| | | |
|---|---|---|
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | Det: LC mwd1A, 254 nm |
| Process Host: | CTX1601 | |

First Level Reviewer: zhangji Date: 05-Nov-2021 16:04:07

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 5 HMX | 1 | 6.636 | 6.650 | -0.014 | 21089 | 0.1266 | |
| 6 MNX | 1 | 7.316 | 7.384 | -0.068 | 33075 | 0.1249 | M |
| 8 RDX | 1 | 8.782 | 8.816 | -0.034 | 23457 | 0.1148 | |
| 9 Nitrobenzene | 1 | 11.795 | 11.876 | -0.081 | 5646 | 0.0151 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 12.935 | 12.969 | -0.034 | 46511 | 0.1751 | M |
| 12 1,3-Dinitrobenzene | 1 | | 15.389 | | | ND | |
| 14 o-Nitrotoluene | 1 | | 16.616 | | | ND | U |
| 16 p-Nitrotoluene | 1 | | 16.903 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.302 | 17.363 | -0.061 | 239025 | 0.8056 | |
| 18 m-Nitrotoluene | 1 | | 17.869 | | | ND | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.229 | 18.256 | -0.027 | 187070 | 0.4766 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.749 | 18.783 | -0.034 | 465576 | 1.13 | |
| 21 2,6-Dinitrotoluene | 1 | 20.022 | 20.029 | -0.007 | 2972 | 0.007986 | |
| 22 2,4-Dinitrotoluene | 1 | 20.449 | 20.496 | -0.047 | 3702 | 0.006544 | |
| 23 Tetryl | 1 | | 24.096 | | | ND | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.049 | 25.090 | -0.041 | 419724 | 1.13 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

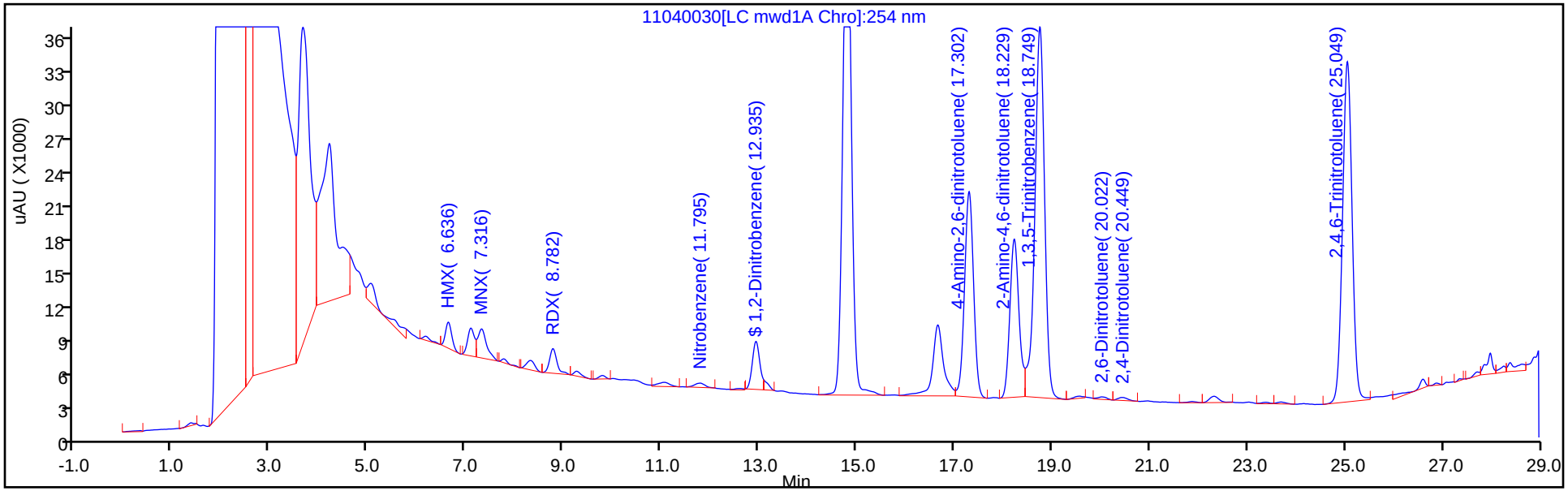
U - Marked Undetected

Report Date: 05-Nov-2021 16:05:35 Chrom Revision: 2.3 22-Sep-2021 15:38:46

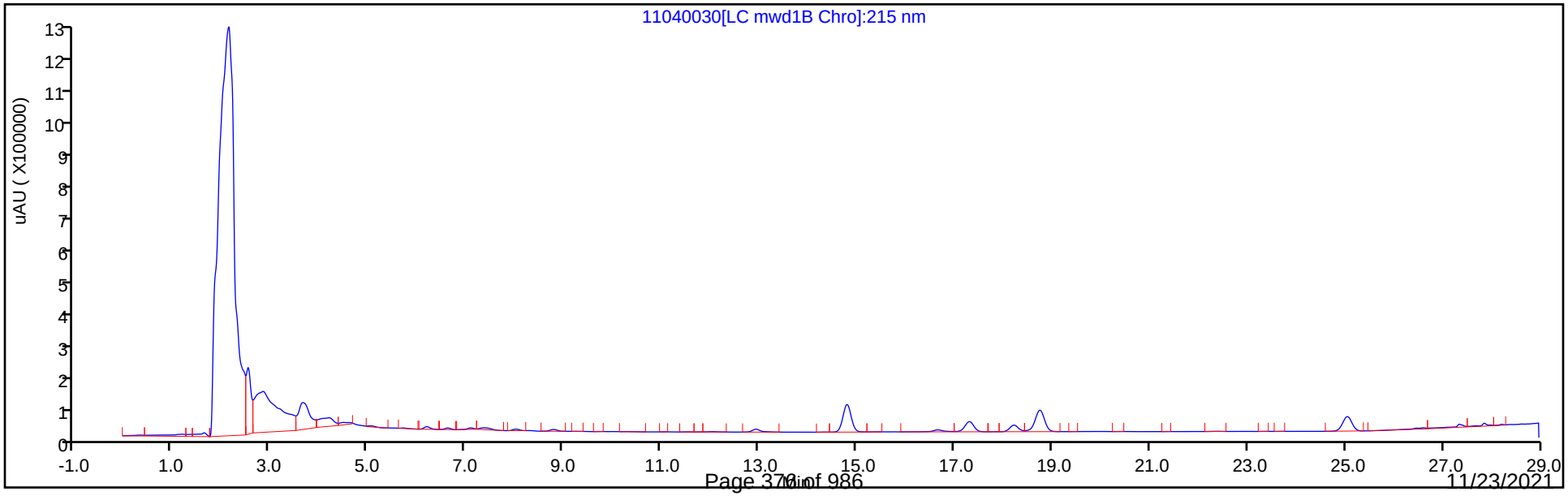
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Injection Date: | 05-Nov-2021 04:12:32 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | Worklist Smp#: | 30 |
| Client ID: | EW7-PM21A-7-25 | | | | |
| 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 TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Lims ID: | 280-154948-A-1-A | | | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 05-Nov-2021 04:12:32 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-154948-A-1-A | | | | |
| Misc. Info.: | 280-0106204-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Nov-2021 16:05:31 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1601 | | | | |

First Level Reviewer: zhangji Date: 05-Nov-2021 16:04:07

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1751 | 87.54 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

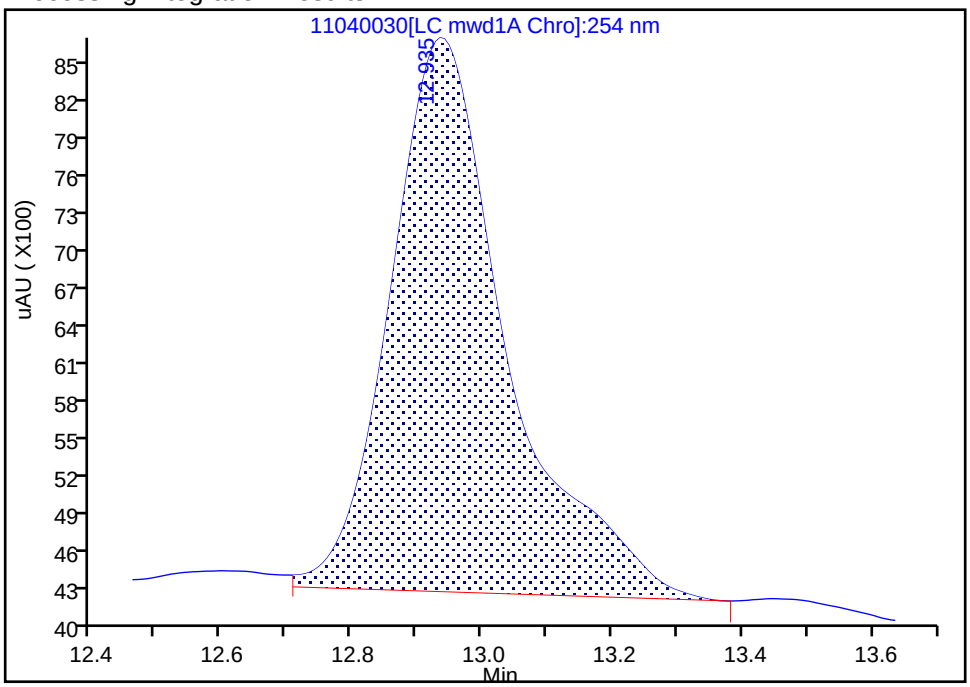
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Injection Date: | 05-Nov-2021 04:12:32 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| 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

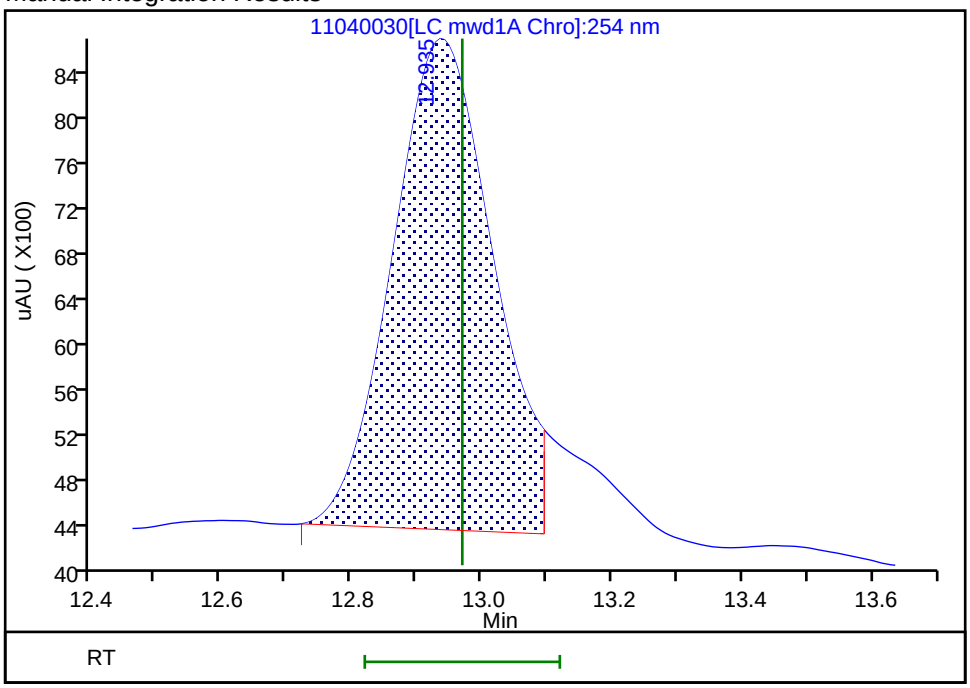
Processing Integration Results

RT: 12.94
Area: 54990
Amount: 0.206995
Amount Units: ug/ml




Manual Integration Results

RT: 12.94
Area: 46511
Amount: 0.175078
Amount Units: ug/ml




Reviewer: zhangji, 05-Nov-2021 16:03:53

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

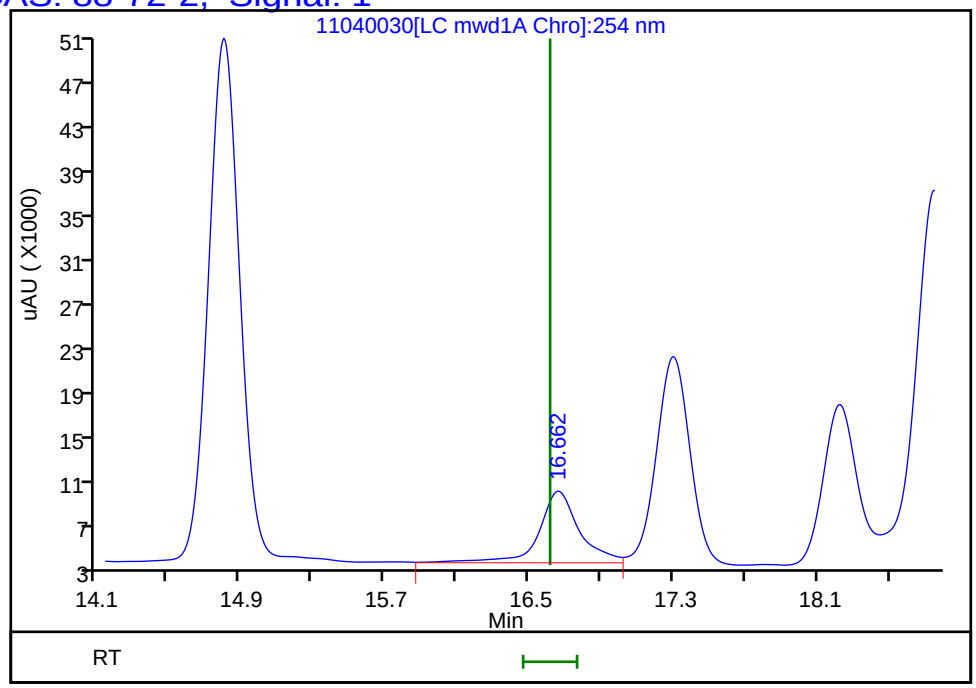
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Injection Date: | 05-Nov-2021 04:12:32 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| 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 | | |

## 14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.66
Response: 100347
Amount: 0.403054




Reviewer: zhangji, 05-Nov-2021 16:04:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

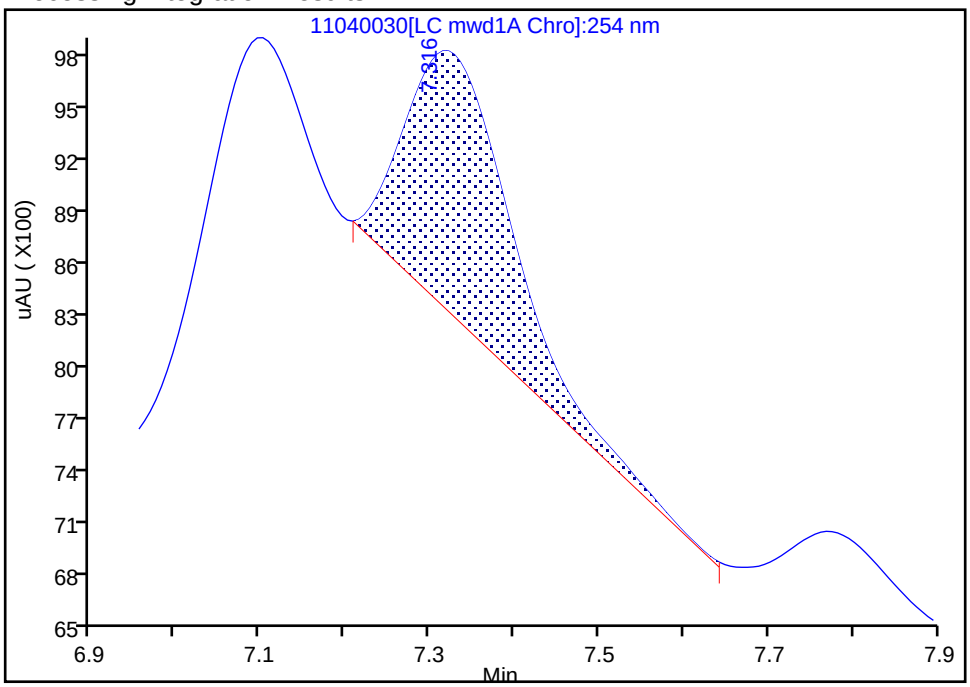
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Injection Date: | 05-Nov-2021 04:12:32 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| 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

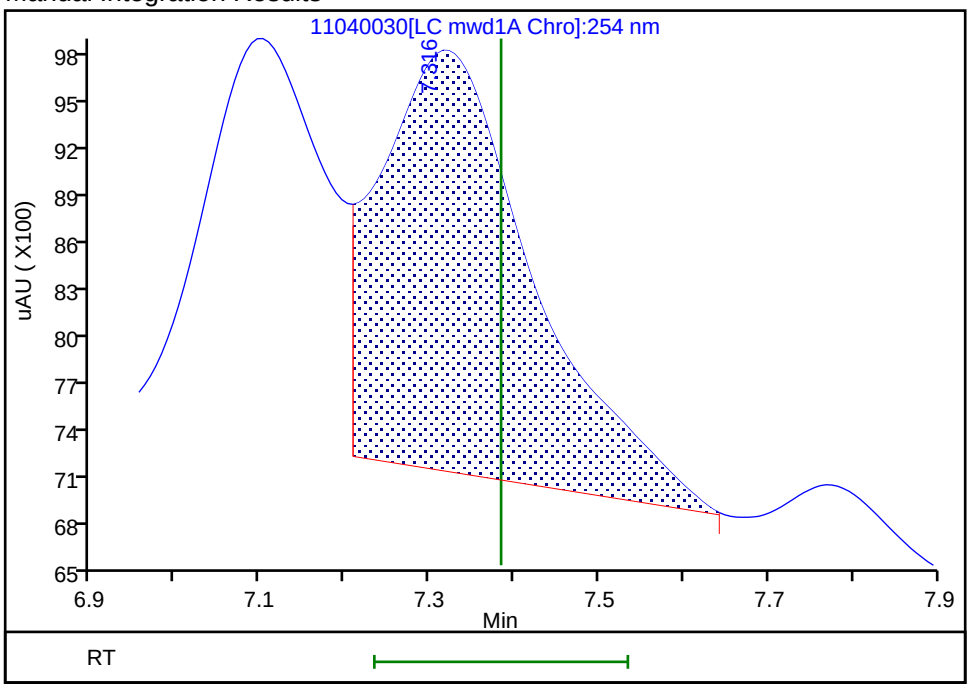
Processing Integration Results

RT: 7.32
Area: 12925
Amount: 0.048803
Amount Units: ug/ml




Manual Integration Results

RT: 7.32
Area: 33075
Amount: 0.124886
Amount Units: ug/ml




Reviewer: zhangji, 05-Nov-2021 16:03:33

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

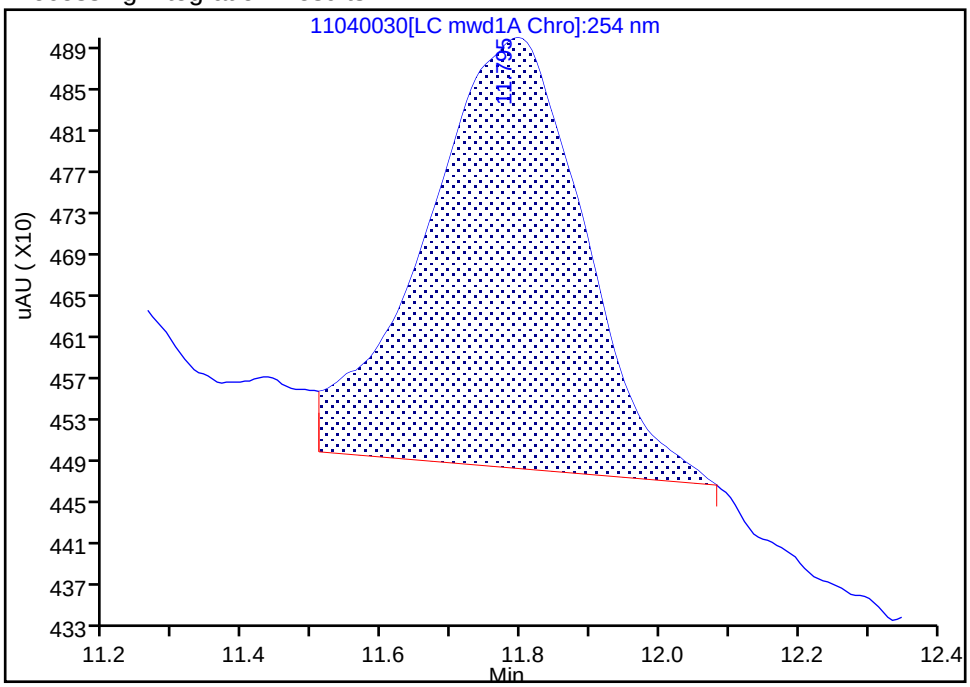
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040030.D | | | | |
| Injection Date: | 05-Nov-2021 04:12:32 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | 280-154948-A-1-A | Lab Sample ID: | 280-154948-1 | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| 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 | | |

## 9 Nitrobenzene, CAS: 98-95-3

Signal: 1

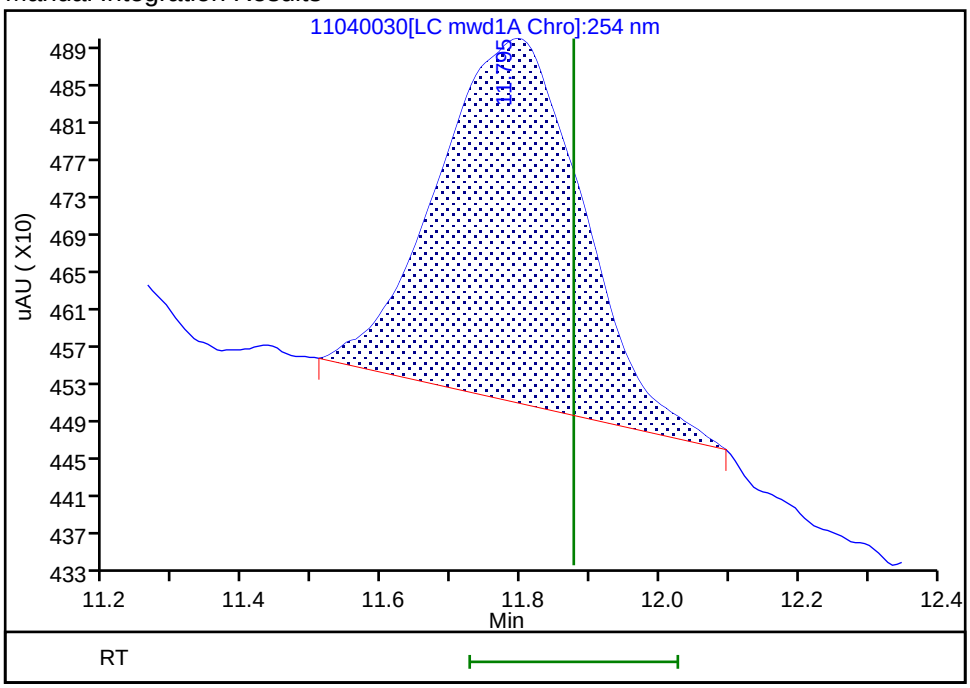
Processing Integration Results

RT: 11.80
Area: 6559
Amount: 0.017507
Amount Units: ug/ml




Manual Integration Results

RT: 11.80
Area: 5646
Amount: 0.015070
Amount Units: ug/ml




Reviewer: zhangji, 05-Nov-2021 16:03:42

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 527768

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2021 23:49 Calibration End Date: 03/03/2021 02:30 Calibration ID: 51473

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-527768/36 | 03020036.D |
| Level 2 | IC 280-527768/35 | 03020035.D |
| Level 3 | IC 280-527768/34 | 03020034.D |
| Level 4 | IC 280-527768/33 | 03020033.D |
| Level 5 | IC 280-527768/32 | 03020032.D |
| Level 6 | IC 280-527768/31 | 03020031.D |
| Level 7 | IC 280-527768/30 | 03020030.D |
| Level 8 | IC 280-527768/29 | 03020029.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 6.521 | 6.522 | 6.522 | 6.518 | 6.521 | 6.519 | 6.523 | 6.520 | | | 6.418 - 6.618 | 6.521 |
| DNX | 6.827 | 6.829 | 6.828 | 6.832 | 6.828 | 6.833 | 6.836 | 6.833 | | | 6.732 - 6.932 | 6.831 |
| MNX | 7.234 | 7.235 | 7.235 | 7.232 | 7.234 | 7.239 | 7.236 | 7.240 | | | 7.082 - 7.382 | 7.236 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 527768

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2021 23:49 Calibration End Date: 03/03/2021 02:30 Calibration ID: 51473

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-527768/36 | 03020036.D |
| Level 2 | IC 280-527768/35 | 03020035.D |
| Level 3 | IC 280-527768/34 | 03020034.D |
| Level 4 | IC 280-527768/33 | 03020033.D |
| Level 5 | IC 280-527768/32 | 03020032.D |
| Level 6 | IC 280-527768/31 | 03020031.D |
| Level 7 | IC 280-527768/30 | 03020030.D |
| Level 8 | IC 280-527768/29 | 03020029.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 | 183017<br>187800 | 186374<br>188250 | 185594<br>187339 | 176735<br>191339 | Ave | | 185806.003 | | | | 2.3 | | 20.0 | | | |
| DNX | 149051<br>143511 | 142278<br>143240 | 139351<br>141711 | 133874<br>143939 | Ave | | 142119.338 | | | | 3.0 | | 20.0 | | | |
| MNX | 132048<br>132243 | 129991<br>131443 | 130891<br>130291 | 124682<br>131132 | Ave | | 130340.337 | | | | 1.9 | | 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 TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 527768

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2021 23:49 Calibration End Date: 03/03/2021 02:30 Calibration ID: 51473

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-527768/36 | 03020036.D |
| Level 2 | IC 280-527768/35 | 03020035.D |
| Level 3 | IC 280-527768/34 | 03020034.D |
| Level 4 | IC 280-527768/33 | 03020033.D |
| Level 5 | IC 280-527768/32 | 03020032.D |
| Level 6 | IC 280-527768/31 | 03020031.D |
| Level 7 | IC 280-527768/30 | 03020030.D |
| Level 8 | IC 280-527768/29 | 03020029.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 | 3664<br>131907 | 9328<br>187526 | 18578<br>478826 | 44228 | 75195 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 2984<br>100368 | 7121<br>141853 | 13949<br>360207 | 33502 | 57462 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 3082<br>107376 | 7585<br>152050 | 15275<br>382579 | 36376 | 61731 | 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\20210302-99486.b\03020029.D | | | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 02-Mar-2021 23:49:27 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 8 | | | | |
| Misc. Info.: | 280-0099486-029 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:24 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:18:59

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.520 | 6.518 | 0.002 | 478826 | 2.50 | 2.58 | M |
| 5 DNX | 1 | 6.833 | 6.832 | 0.001 | 360207 | 2.50 | 2.53 | M |
| 6 MNX | 1 | 7.240 | 7.232 | 0.008 | 382579 | 2.92 | 2.94 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

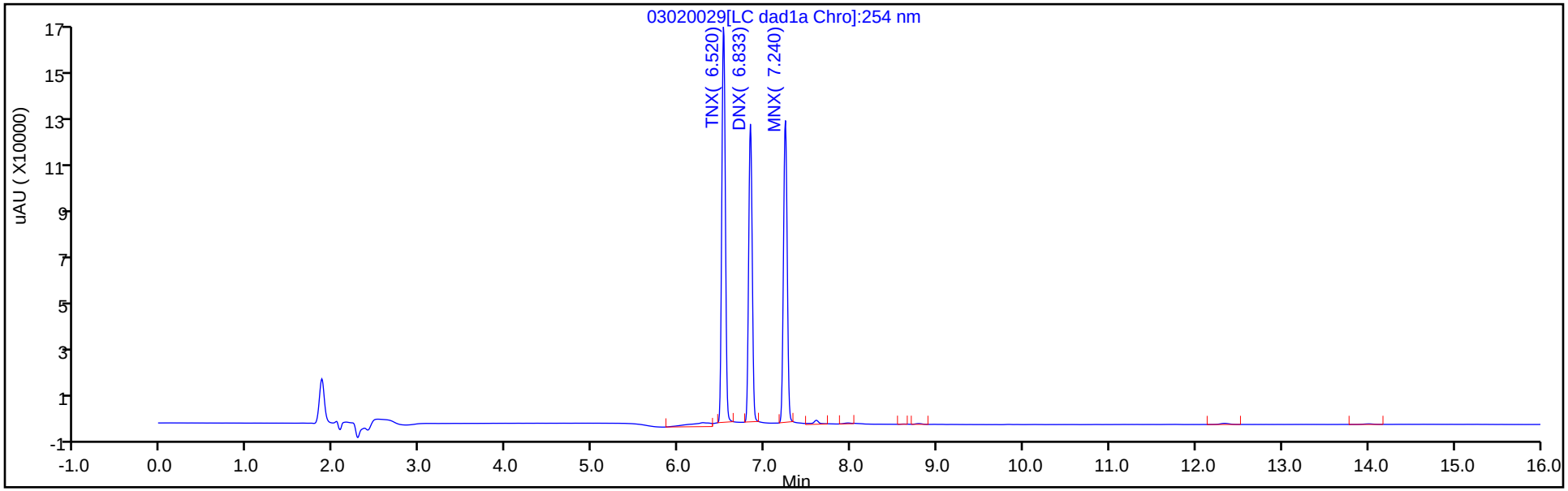
8330 DMT_00008 Amount Added: 125.00 Units: uL

Report Date: 03-Mar-2021 13:32:24 Chrom Revision: 2.3 05-Feb-2021 00:13:28

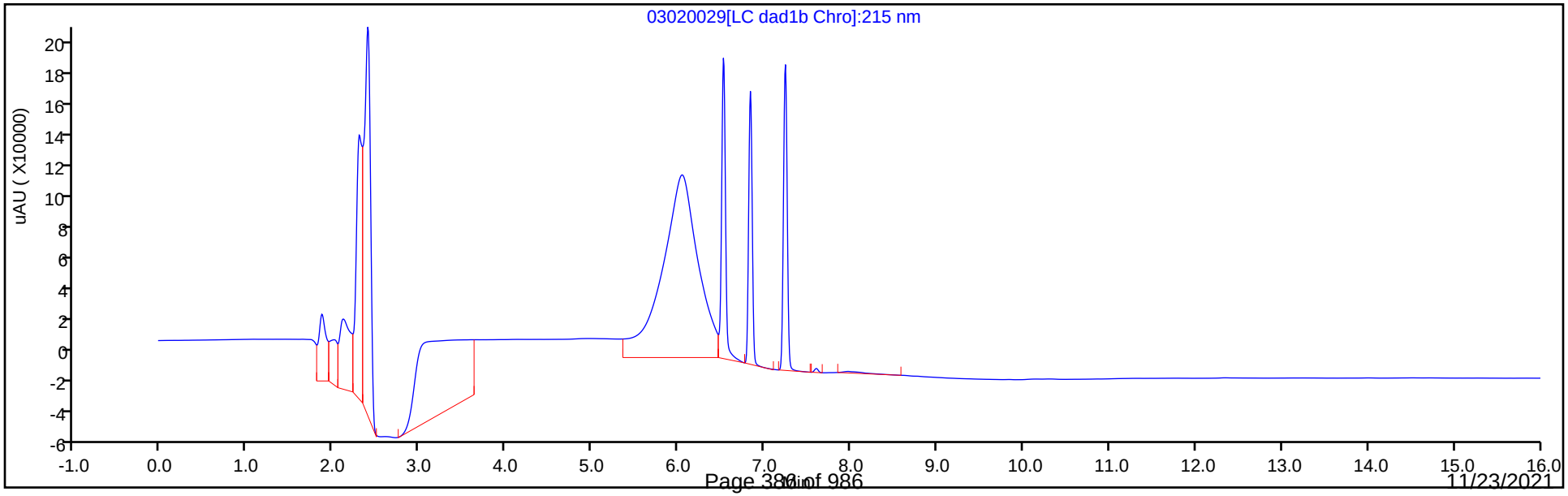
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020029.d | | | | |
| Injection Date: | 02-Mar-2021 23:49:27 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 8 | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

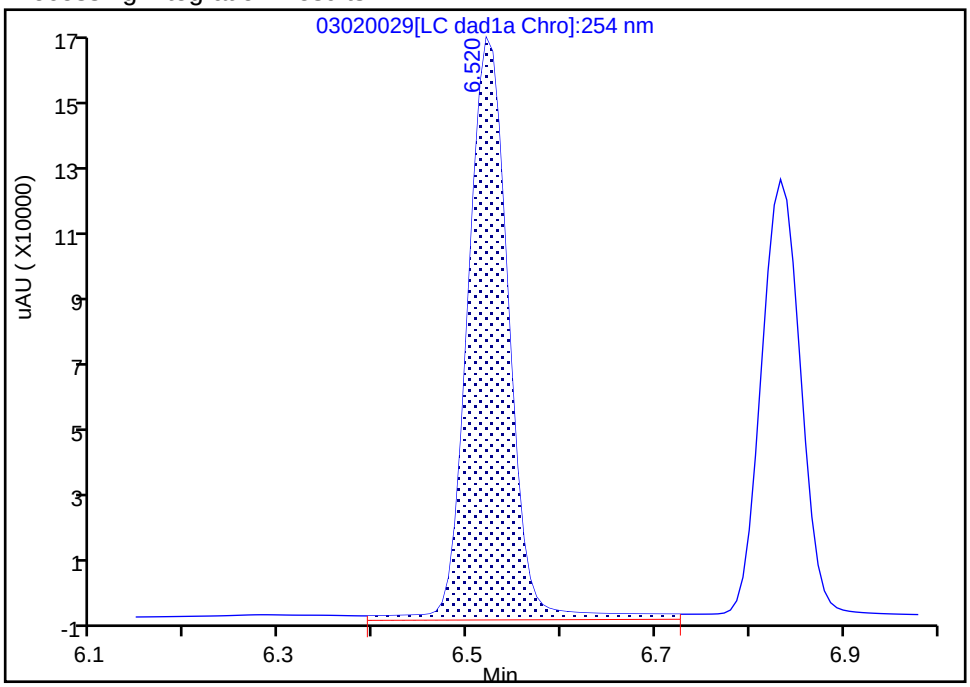
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020029.d | | | | |
| Injection Date: | 02-Mar-2021 23:49:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

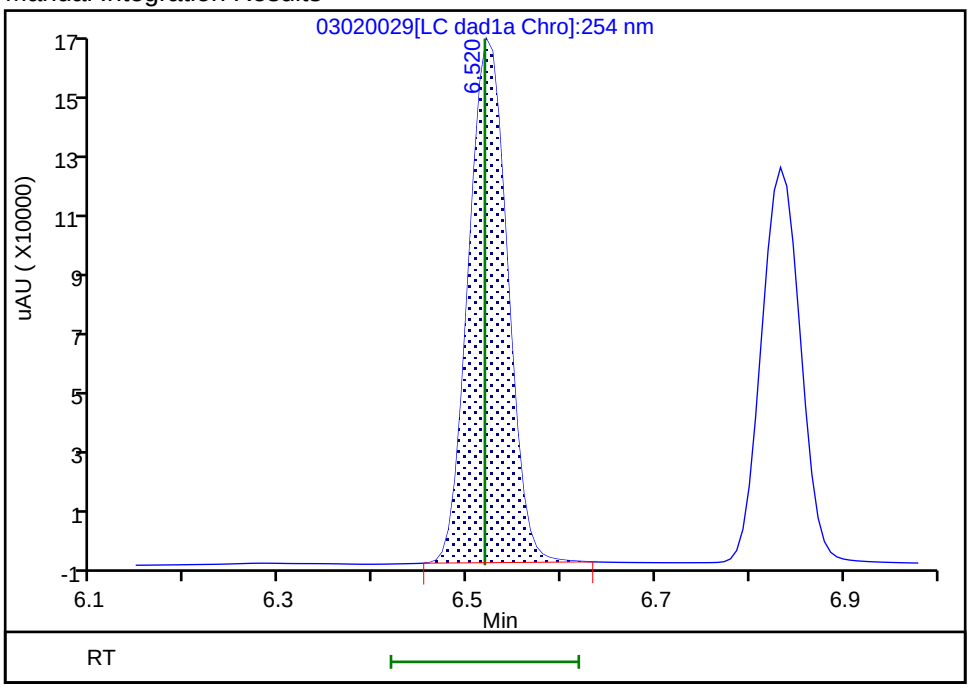
Processing Integration Results

RT: 6.52
Area: 511017
Amount: 2.370738
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 478826
Amount: 2.577021
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:18:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

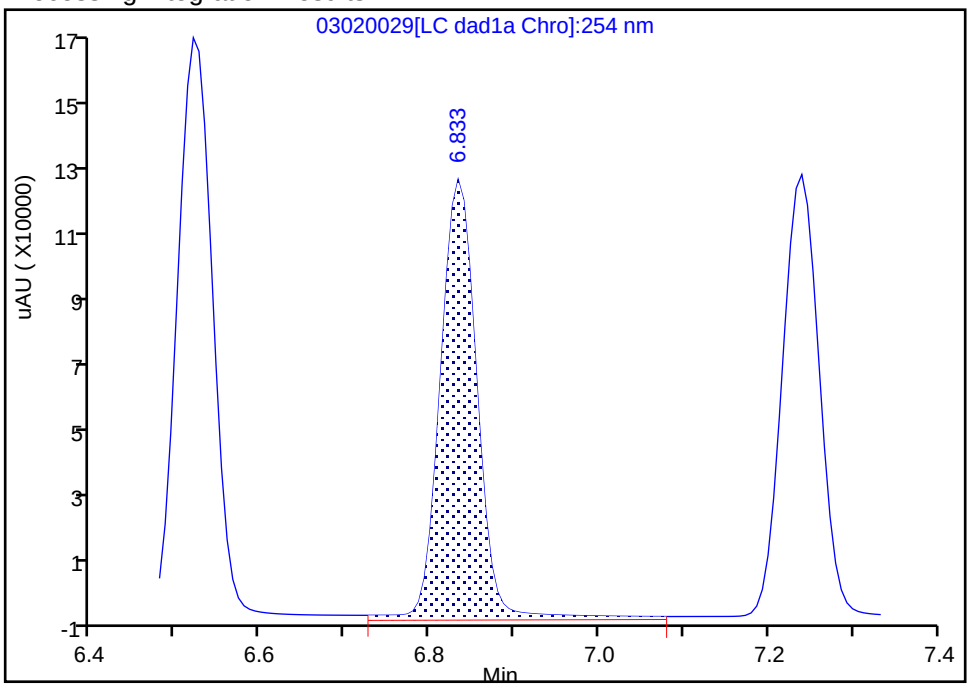
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020029.d | | | | |
| Injection Date: | 02-Mar-2021 23:49:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

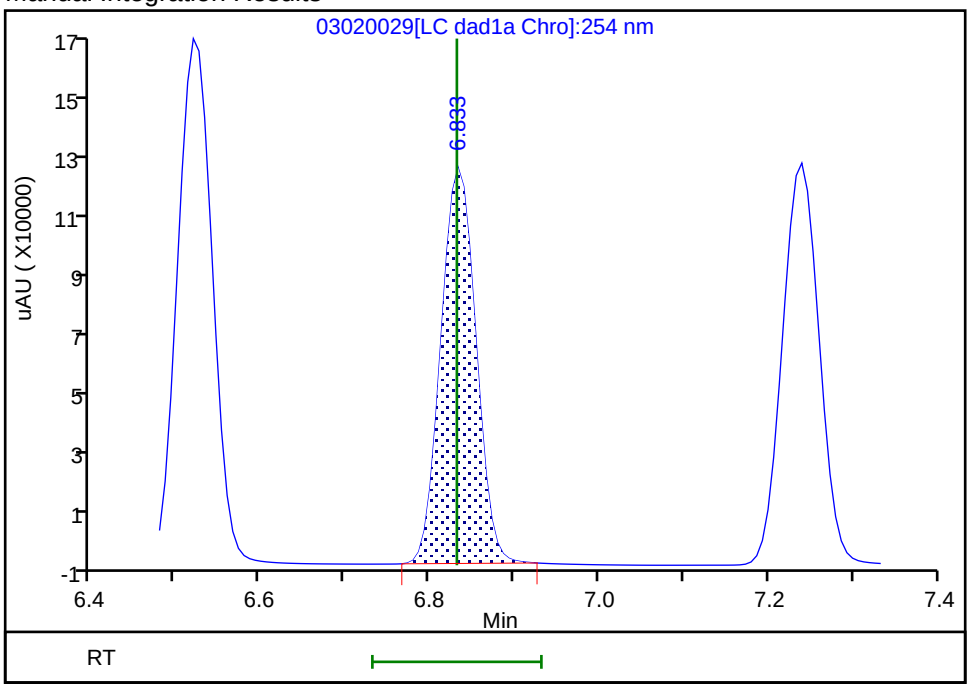
Processing Integration Results

RT: 6.83
Area: 389383
Amount: 2.402937
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 360207
Amount: 2.534539
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:18:53
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

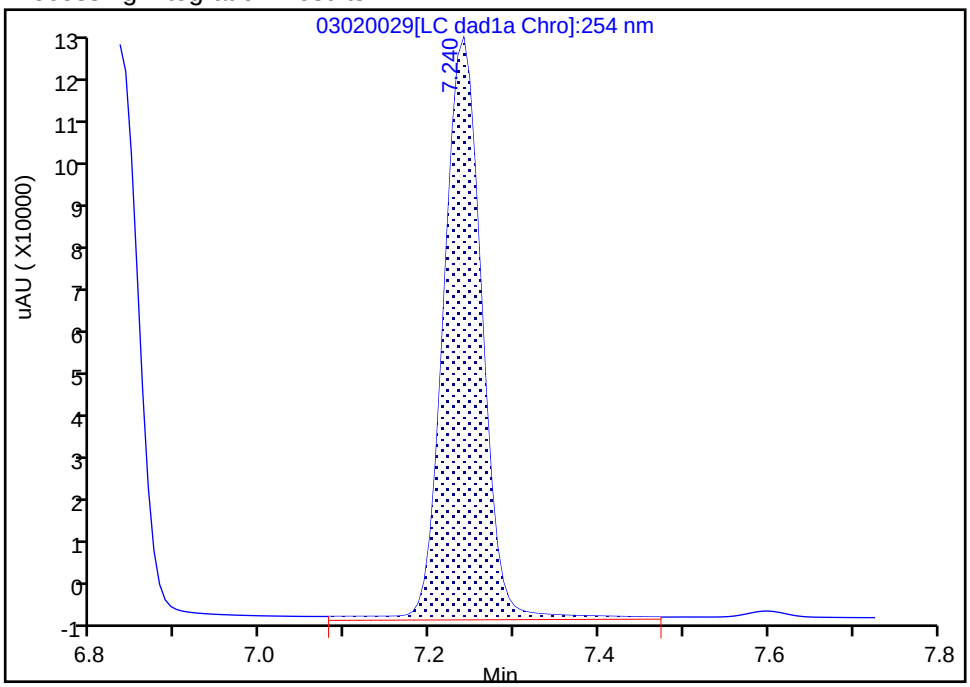
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020029.d | | | | |
| Injection Date: | 02-Mar-2021 23:49:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 29 | 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 | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

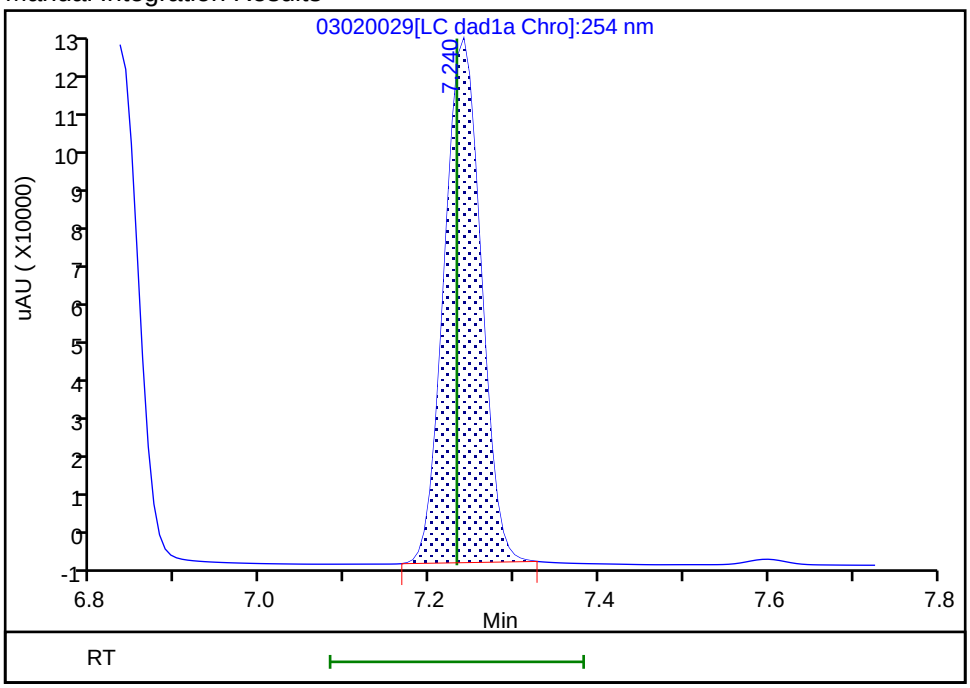
Processing Integration Results

RT: 7.24
Area: 404536
Amount: 3.036153
Amount Units: ug/mL




Manual Integration Results

RT: 7.24
Area: 382579
Amount: 2.935231
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:18:57
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020030.D | | | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 03-Mar-2021 00:12:24 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 7 | | | | |
| Misc. Info.: | 280-0099486-030 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:25 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:19:14

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.523 | 6.518 | 0.005 | 187526 | 1.00 | 1.01 | M |
| 5 DNX | 1 | 6.836 | 6.832 | 0.004 | 141853 | 1.00 | 1.00 | M |
| 6 MNX | 1 | 7.236 | 7.232 | 0.004 | 152050 | 1.17 | 1.17 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

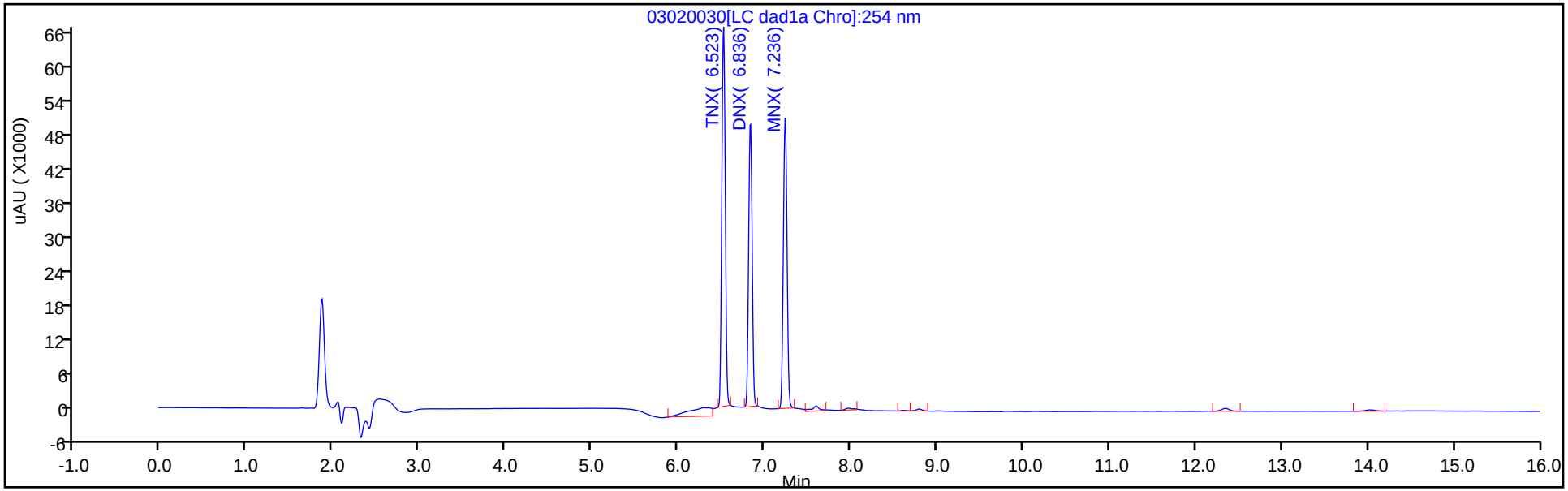
8330 DMT_00008 Amount Added: 50.00 Units: uL

Report Date: 03-Mar-2021 13:32:25 Chrom Revision: 2.3 05-Feb-2021 00:13:28

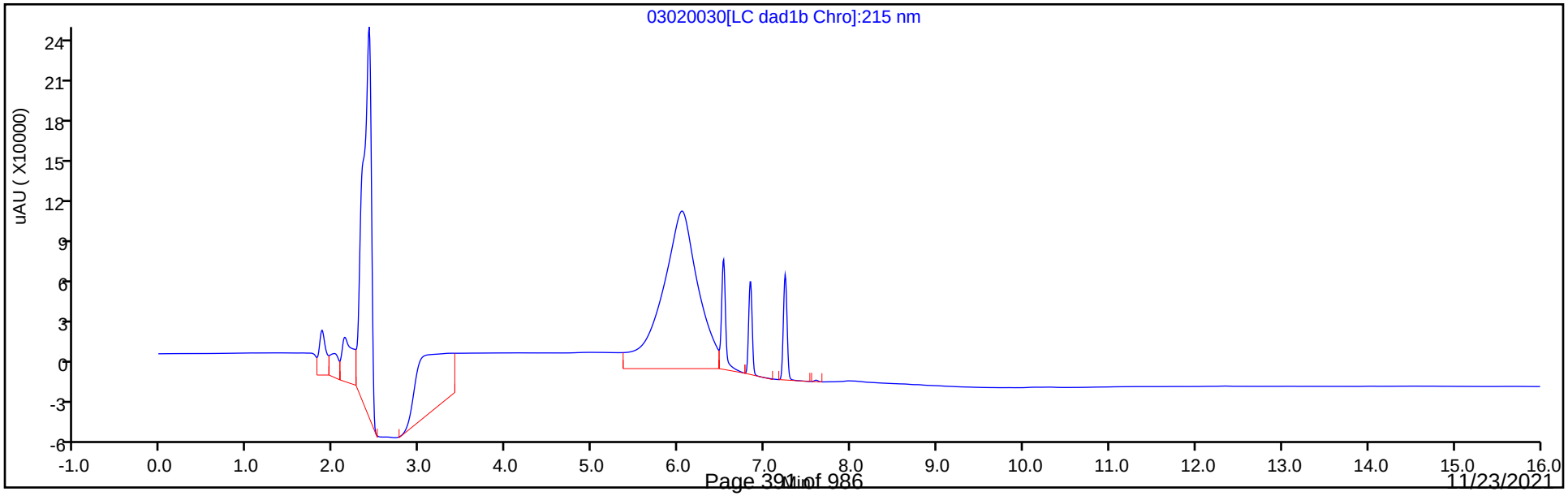
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020030.d | | | | |
| Injection Date: | 03-Mar-2021 00:12:24 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 7 | | | 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

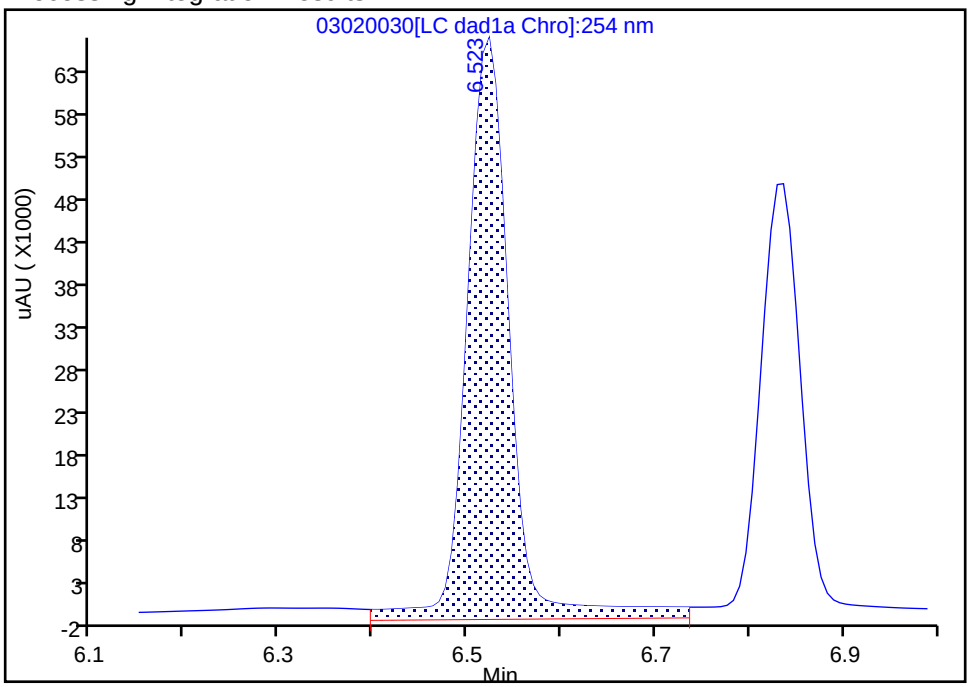
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020030.d | | | | |
| Injection Date: | 03-Mar-2021 00:12:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

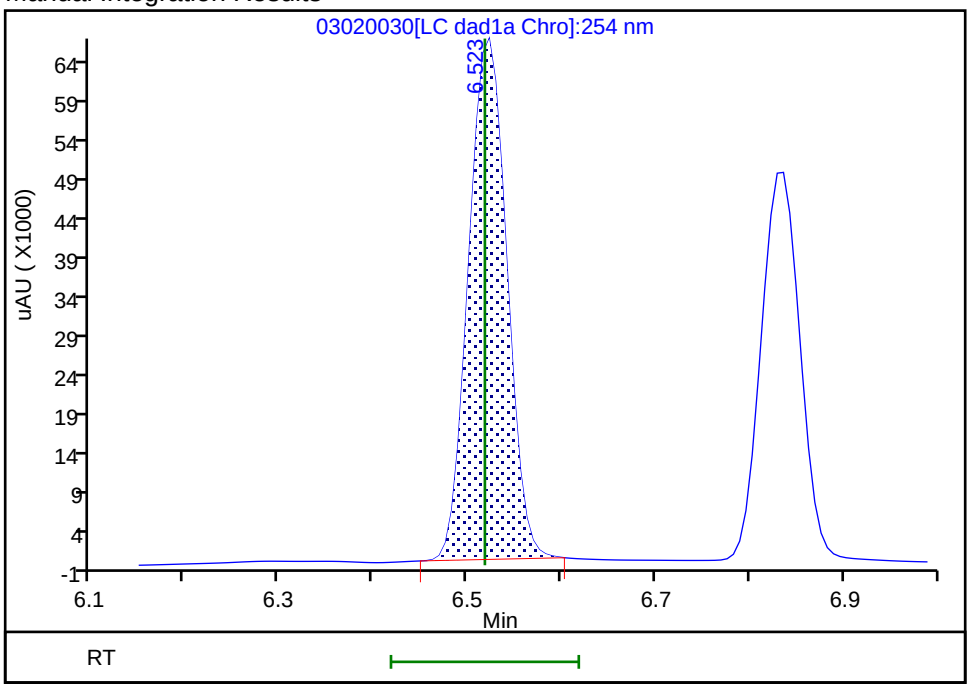
Processing Integration Results

RT: 6.52
Area: 217440
Amount: 0.997461
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 187526
Amount: 1.009257
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:13

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

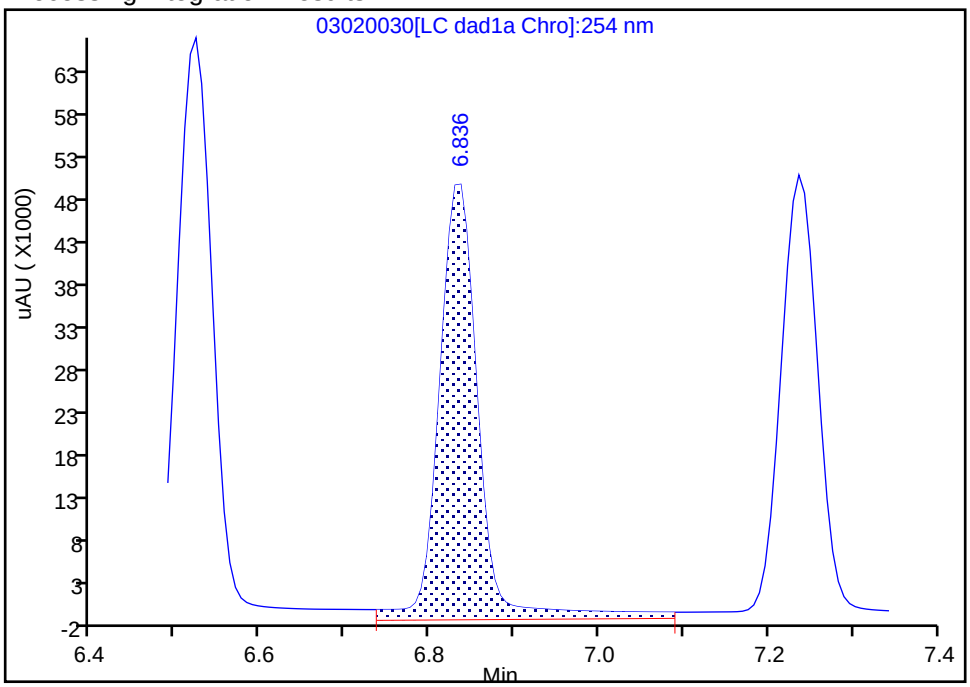
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020030.d | | | | |
| Injection Date: | 03-Mar-2021 00:12:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

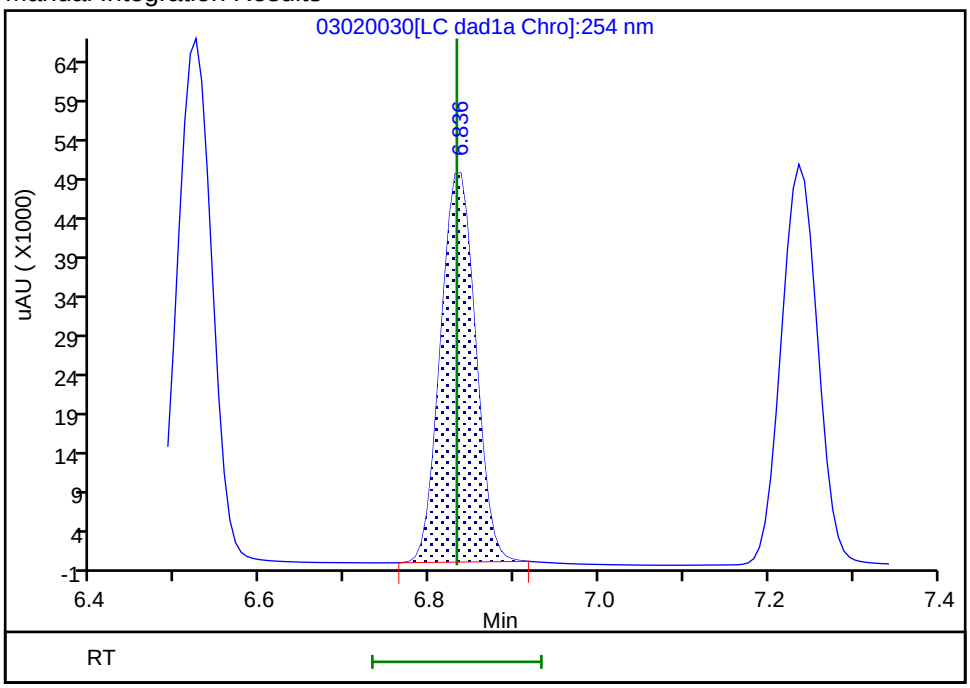
Processing Integration Results

RT: 6.84
Area: 165195
Amount: 1.028693
Amount Units: ug/mL




Manual Integration Results

RT: 6.84
Area: 141853
Amount: 0.998126
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:09

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

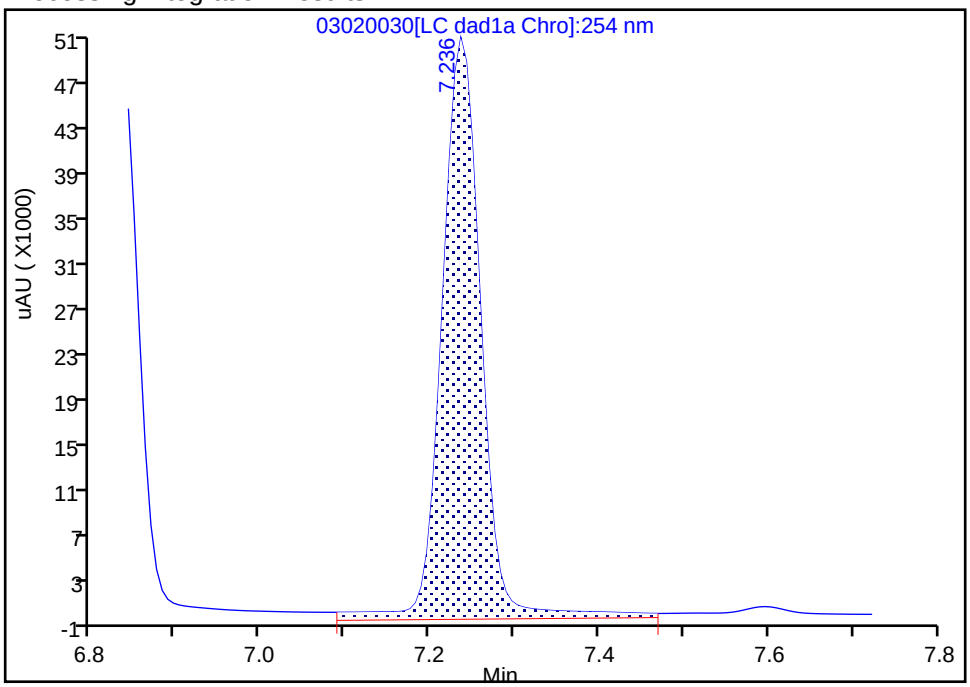
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020030.d | | | | |
| Injection Date: | 03-Mar-2021 00:12:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 30 | 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 MNX, CAS: 5755-27-1

Signal: 1

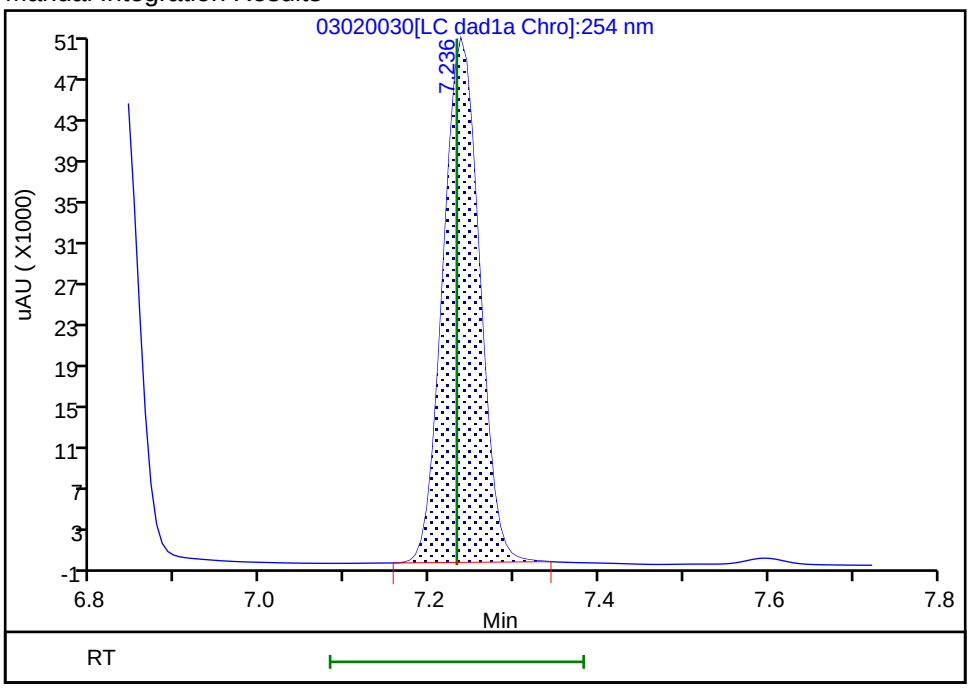
Processing Integration Results

RT: 7.24
Area: 166888
Amount: 1.261447
Amount Units: ug/mL




Manual Integration Results

RT: 7.24
Area: 152050
Amount: 1.166561
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:05
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020031.D | | | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 03-Mar-2021 00:35:25 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 6 | | | | |
| Misc. Info.: | 280-0099486-031 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:26 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |
| First Level Reviewer: zhangji | | Date: | 03-Mar-2021 13:19:33 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.519 | 6.518 | 0.001 | 131907 | 0.7007 | 0.7099 | M |
| 5 DNX | 1 | 6.833 | 6.832 | 0.001 | 100368 | 0.7007 | 0.7062 | M |
| 6 MNX | 1 | 7.239 | 7.232 | 0.007 | 107376 | 0.8169 | 0.8238 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

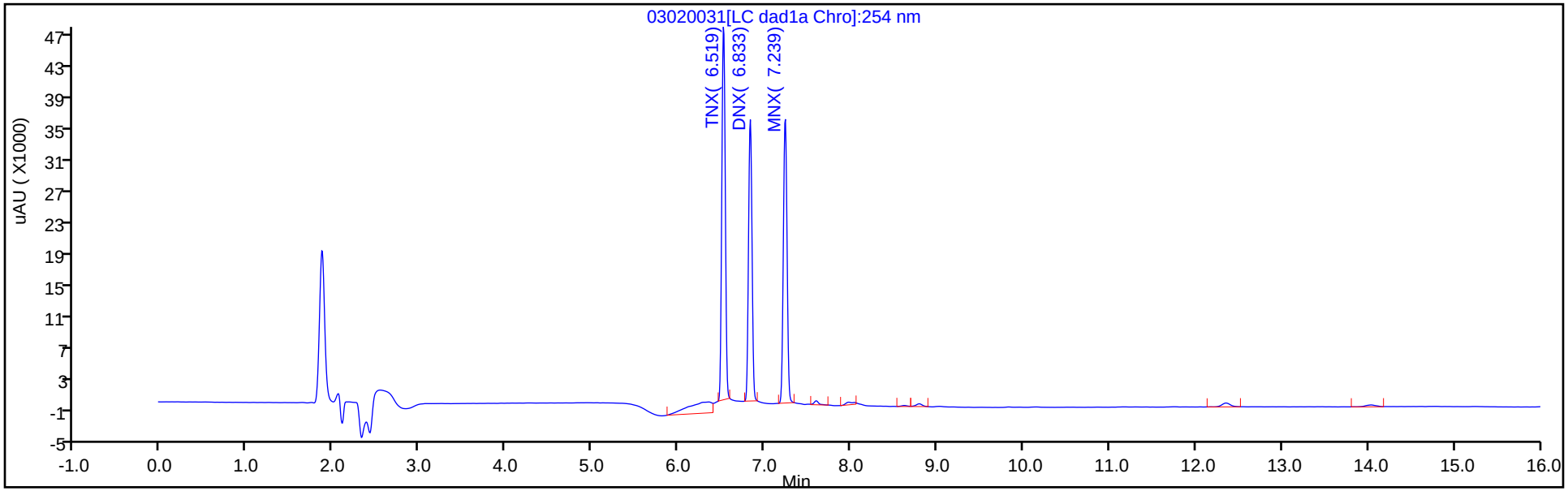
8330 DMT_00008 Amount Added: 35.00 Units: uL

Report Date: 03-Mar-2021 13:32:26 Chrom Revision: 2.3 05-Feb-2021 00:13:28

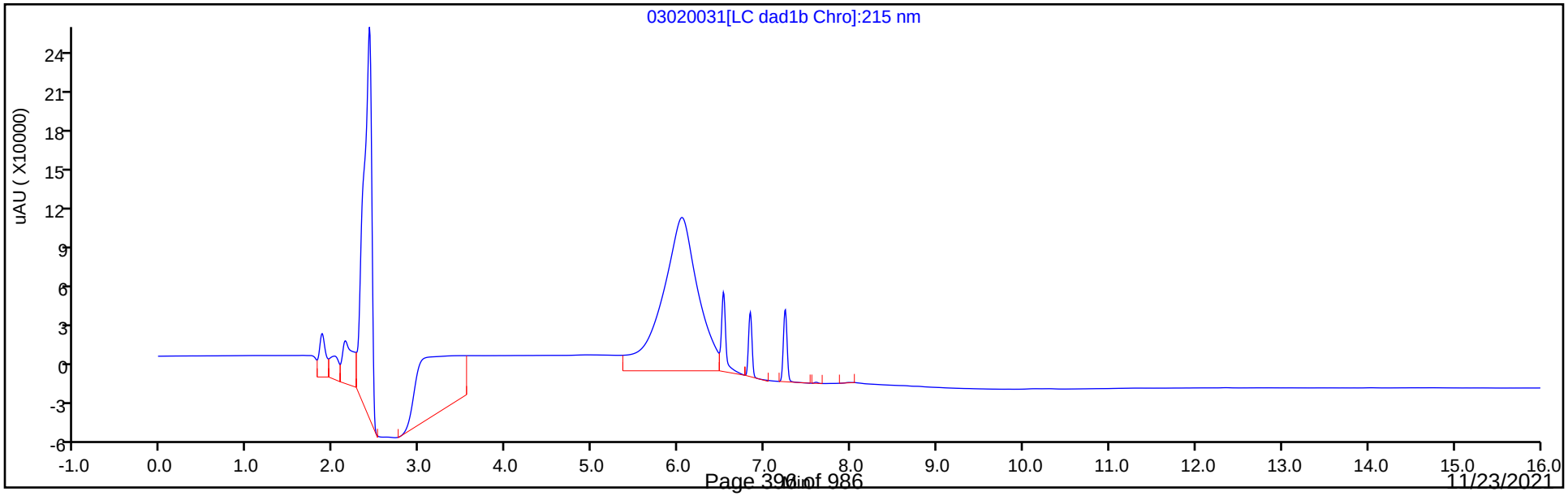
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020031.d | | | | |
| Injection Date: | 03-Mar-2021 00:35:25 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 6 | | | 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

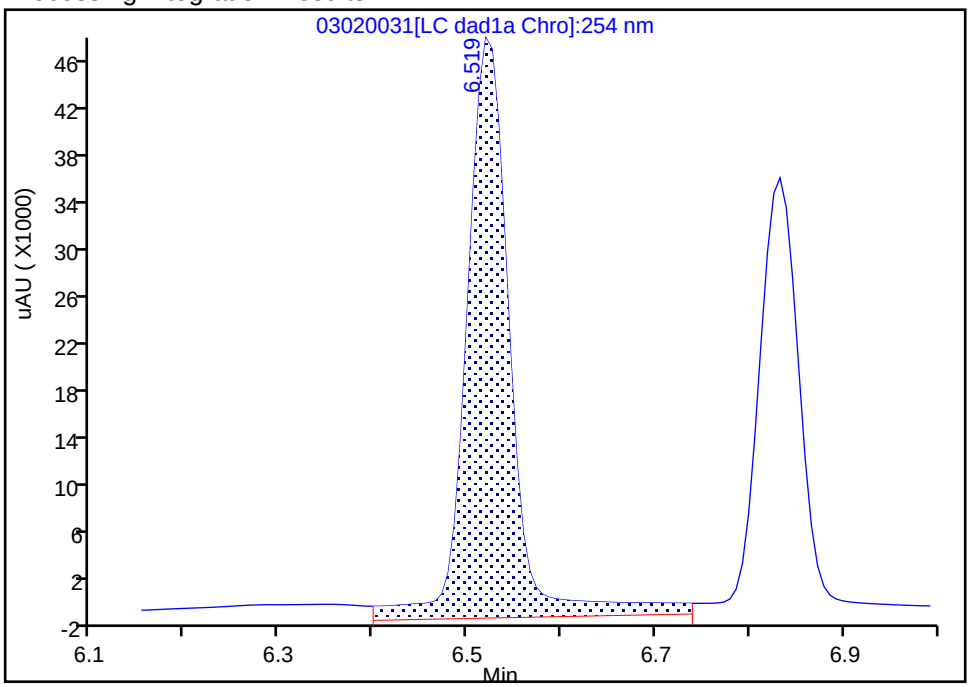
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020031.d | | | | |
| Injection Date: | 03-Mar-2021 00:35:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

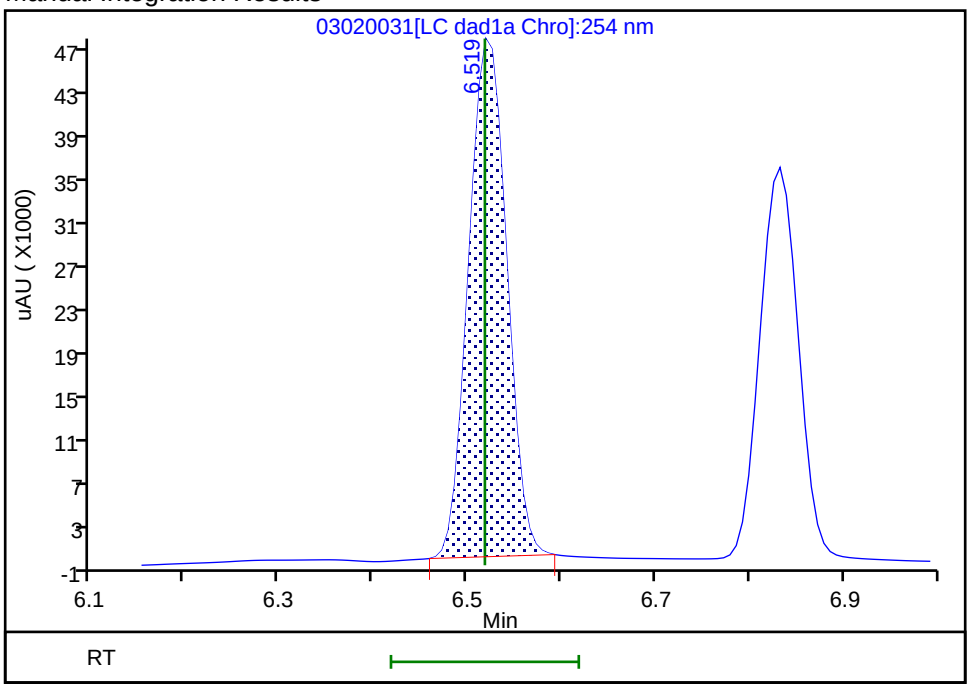
Processing Integration Results

RT: 6.52
Area: 157523
Amount: 0.765441
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 131907
Amount: 0.709918
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

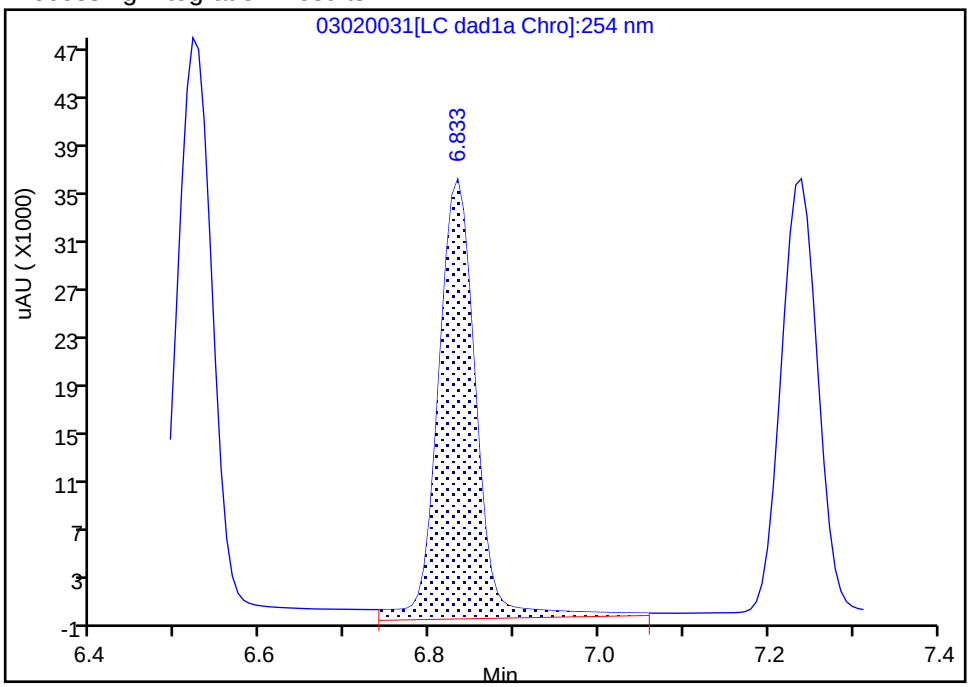
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020031.d | | | | |
| Injection Date: | 03-Mar-2021 00:35:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

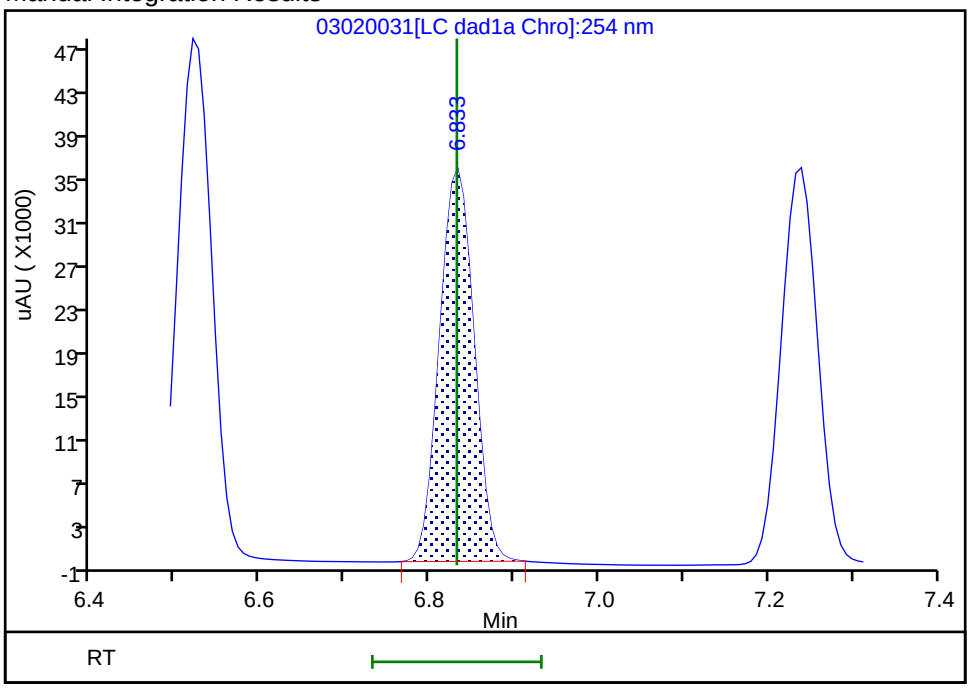
Processing Integration Results

RT: 6.83
Area: 112441
Amount: 0.713130
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 100368
Amount: 0.706223
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:27

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

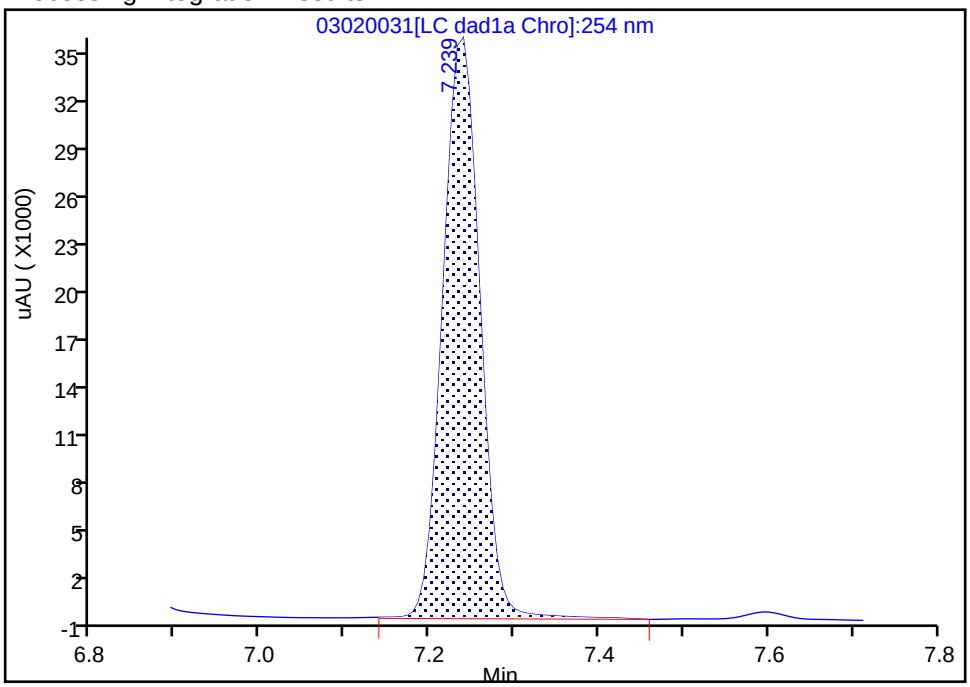
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020031.d | | | | |
| Injection Date: | 03-Mar-2021 00:35:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

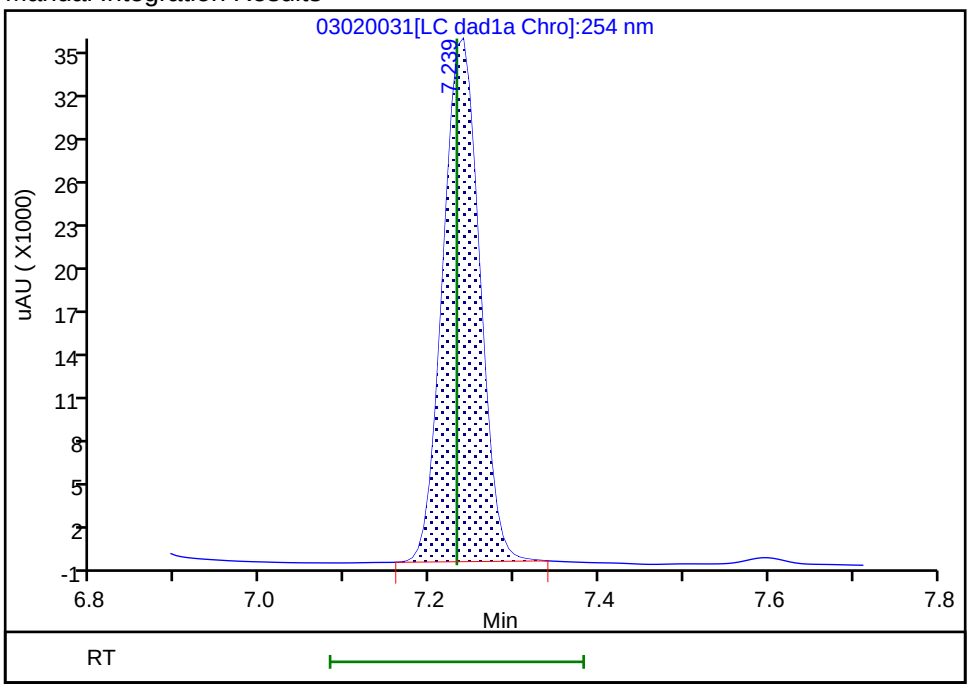
Processing Integration Results

RT: 7.24
Area: 109789
Amount: 0.839946
Amount Units: ug/mL




Manual Integration Results

RT: 7.24
Area: 107376
Amount: 0.823813
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:32
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020032.D | | | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 03-Mar-2021 00:58:19 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 5 | | | | |
| Misc. Info.: | 280-0099486-032 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:27 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:19:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.521 | 6.518 | 0.003 | 75195 | 0.4004 | 0.4047 | M |
| 5 DNX | 1 | 6.828 | 6.832 | -0.004 | 57462 | 0.4004 | 0.4043 | M |
| 6 MNX | 1 | 7.234 | 7.232 | 0.002 | 61731 | 0.4668 | 0.4736 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

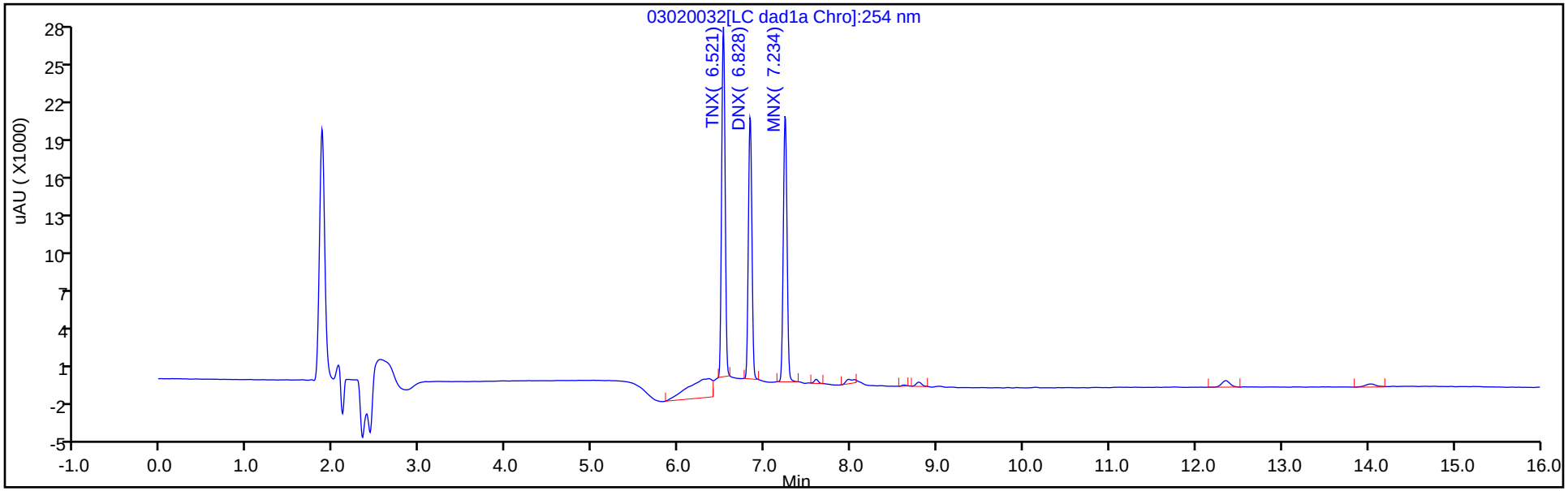
8330 DMT_00008 Amount Added: 20.00 Units: uL

Report Date: 03-Mar-2021 13:32:27 Chrom Revision: 2.3 05-Feb-2021 00:13:28

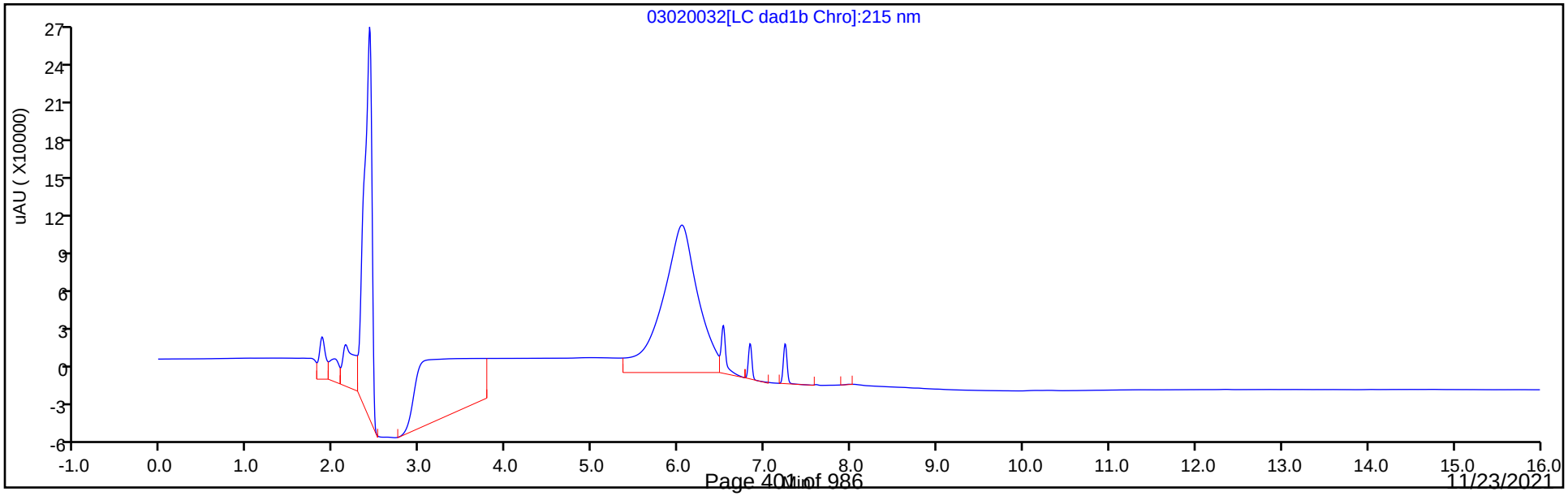
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020032.d | | | | |
| Injection Date: | 03-Mar-2021 00:58:19 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 5 | | | 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

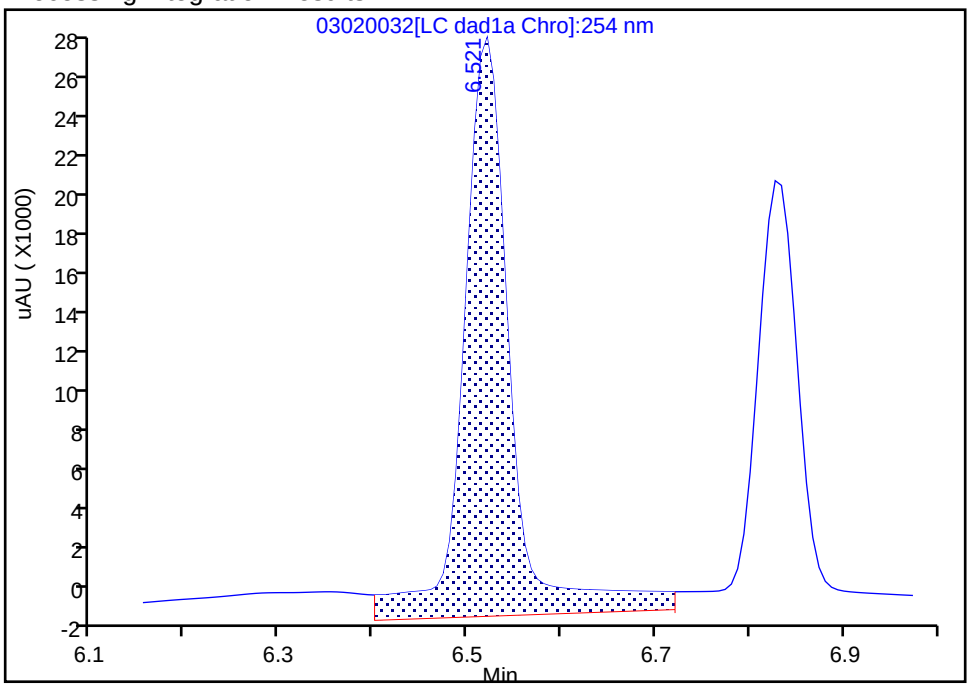
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020032.d | | | | |
| Injection Date: | 03-Mar-2021 00:58:19 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

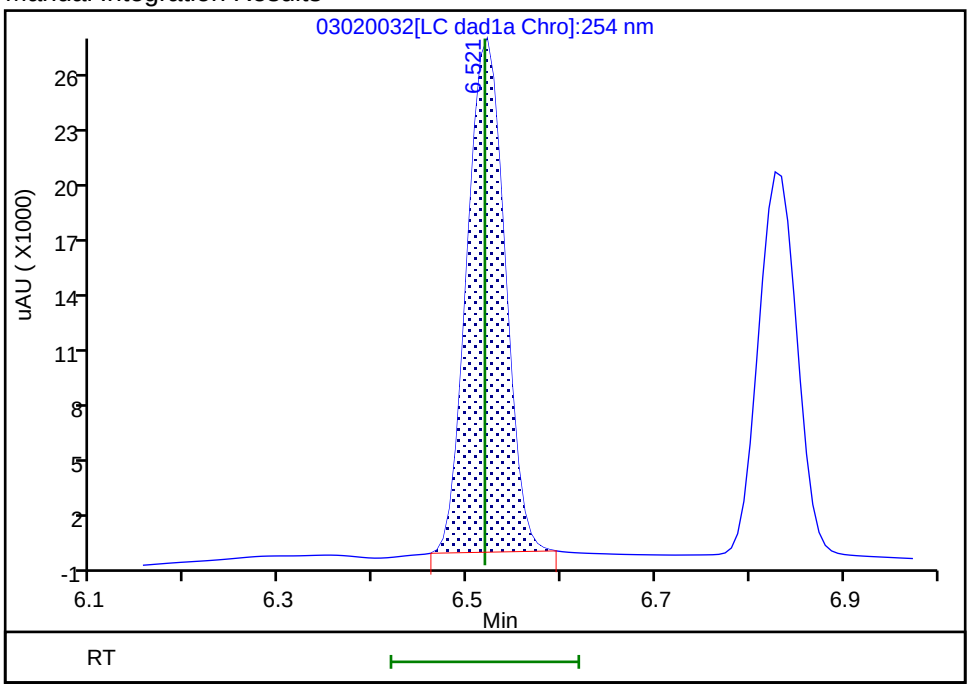
Processing Integration Results

RT: 6.52
Area: 98522
Amount: 0.473037
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 75195
Amount: 0.404696
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

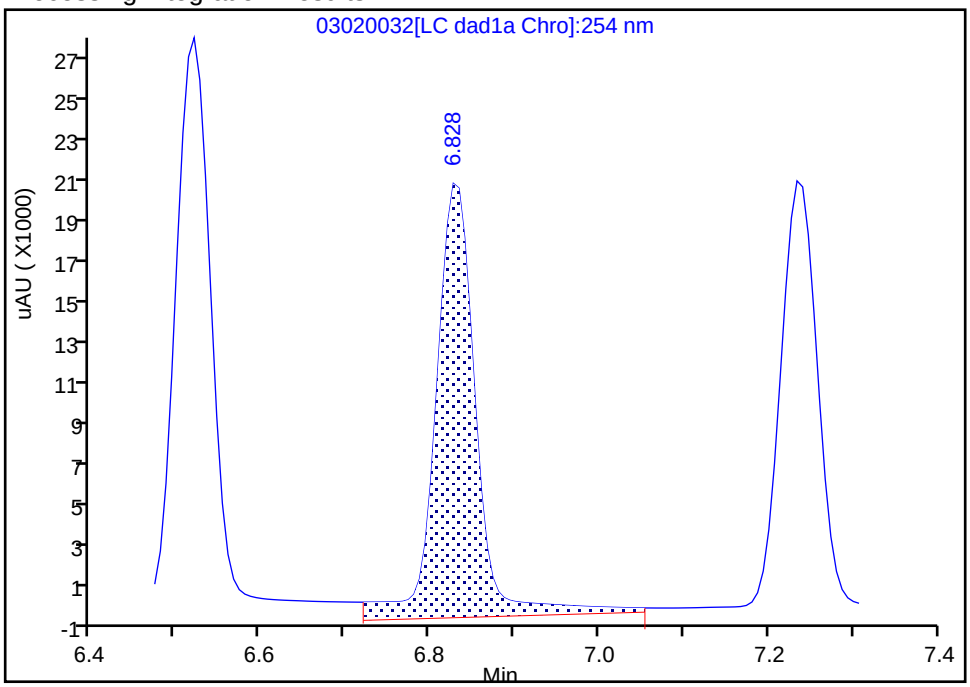
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020032.d | | | | |
| Injection Date: | 03-Mar-2021 00:58:19 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

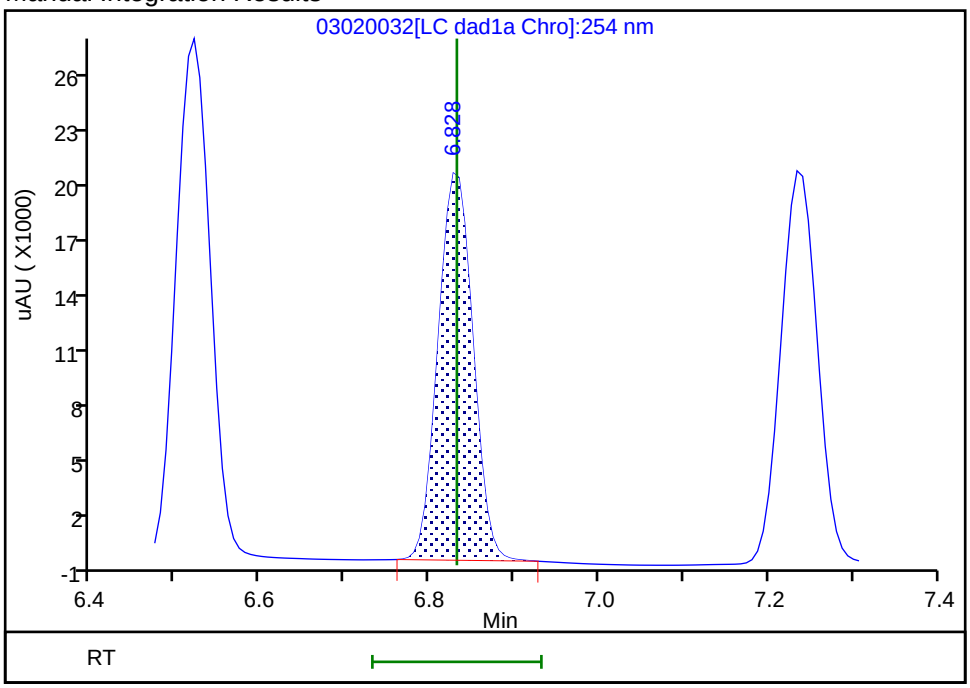
Processing Integration Results

RT: 6.83
Area: 69186
Amount: 0.444873
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 57462
Amount: 0.404322
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:19:42
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020033.D | | | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 03-Mar-2021 01:21:15 | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 4 | | | | |
| Misc. Info.: | 280-0099486-033 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:28 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:20:09

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.518 | 6.518 | 0.000 | 44228 | 0.2503 | 0.2380 | M |
| 5 DNX | 1 | 6.832 | 6.832 | 0.000 | 33502 | 0.2503 | 0.2357 | M |
| 6 MNX | 1 | 7.232 | 7.232 | 0.000 | 36376 | 0.2918 | 0.2791 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

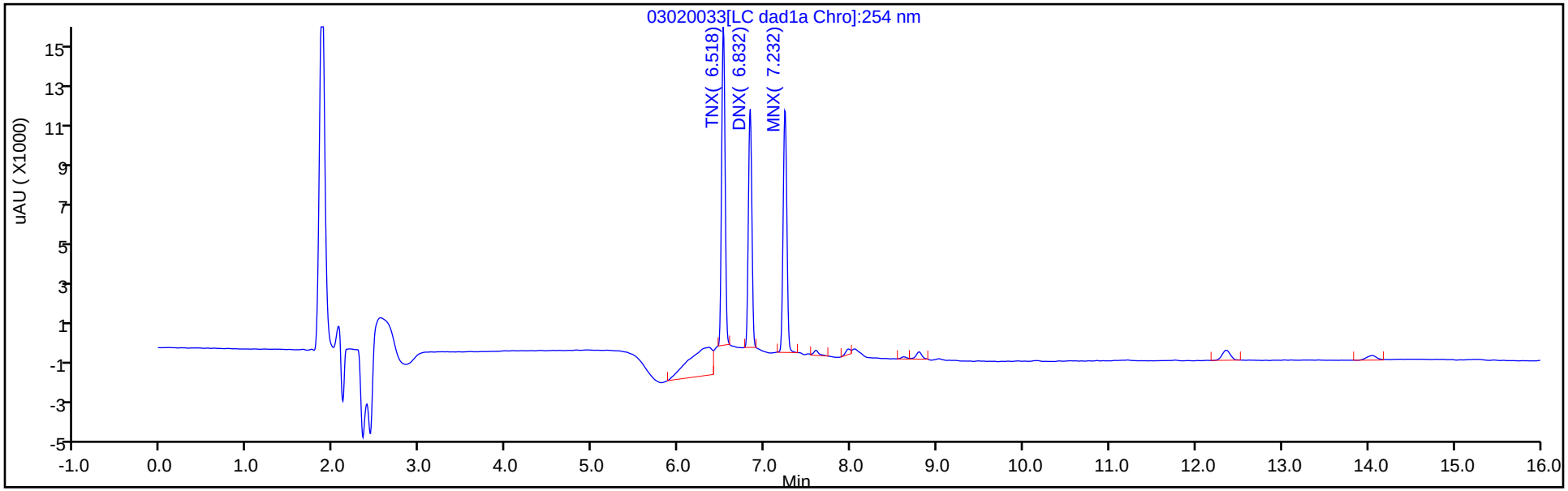
8330 DMT_00008 Amount Added: 12.50 Units: uL

Report Date: 03-Mar-2021 13:32:28 Chrom Revision: 2.3 05-Feb-2021 00:13:28

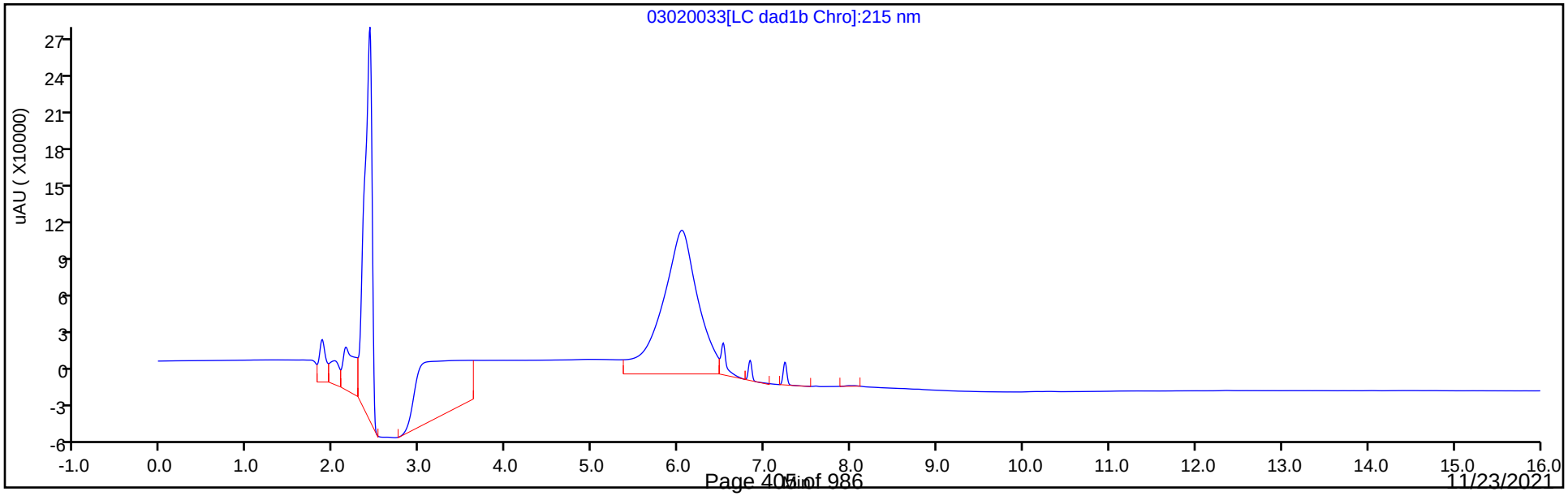
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020033.d | | | | |
| Injection Date: | 03-Mar-2021 01:21:15 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 4 | | | 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

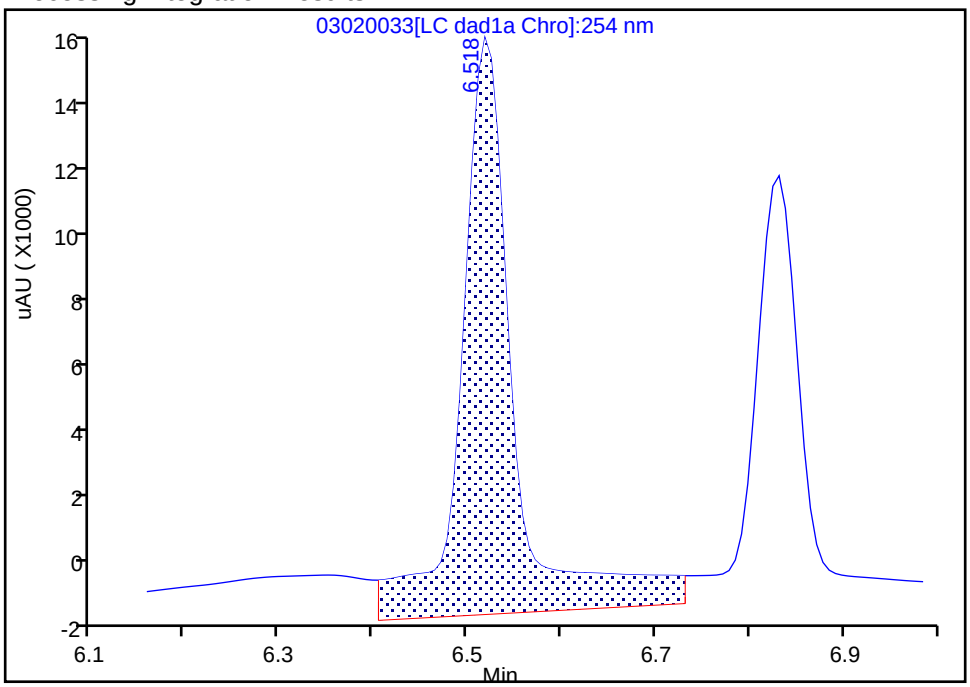
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020033.d | | | | |
| Injection Date: | 03-Mar-2021 01:21:15 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

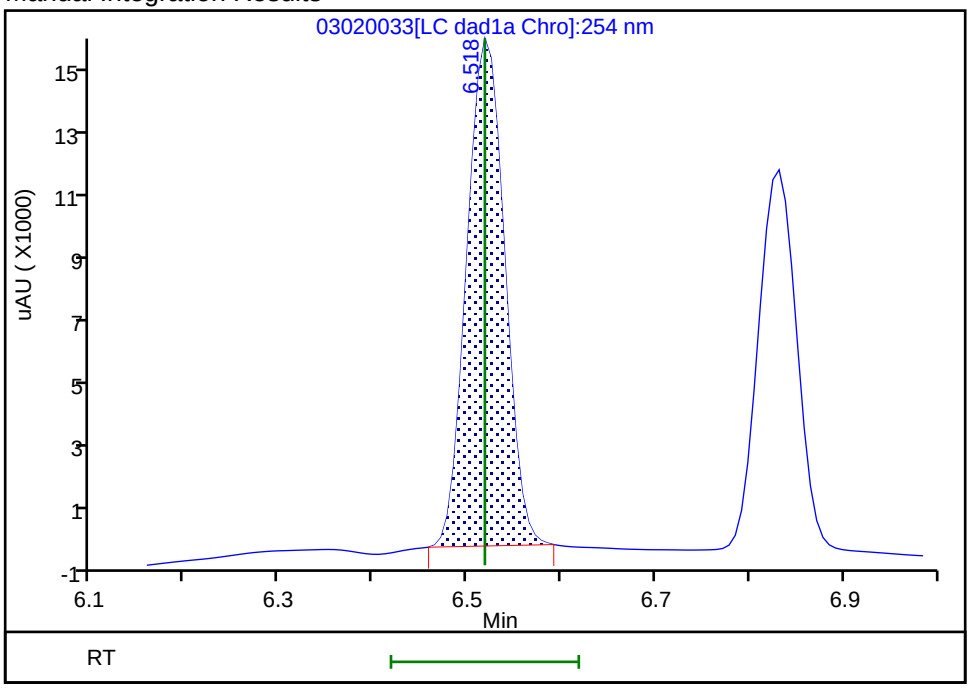
Processing Integration Results

RT: 6.52
Area: 66731
Amount: 0.312730
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 44228
Amount: 0.238033
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:00
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

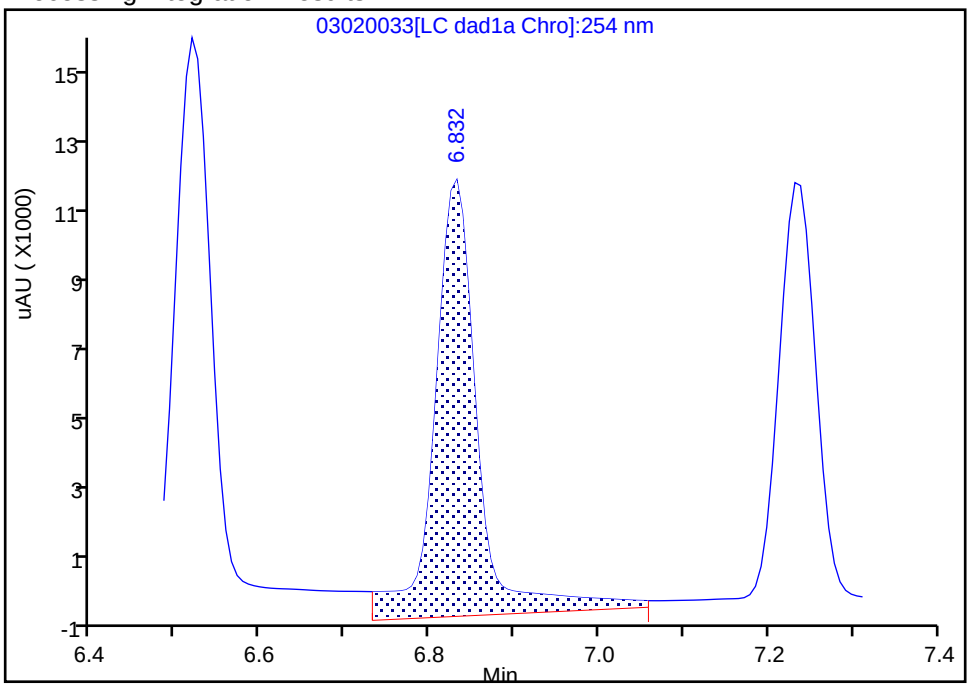
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020033.d | | | | |
| Injection Date: | 03-Mar-2021 01:21:15 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

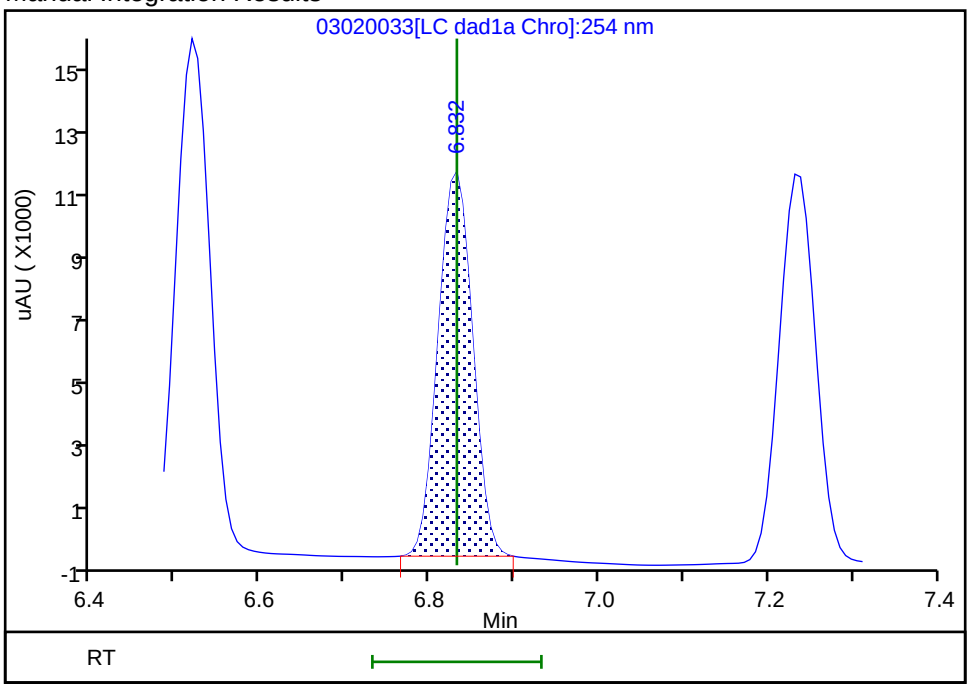
Processing Integration Results

RT: 6.83
Area: 44700
Amount: 0.294353
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 33502
Amount: 0.235731
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:06

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020034.D | | | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 03-Mar-2021 01:44:28 | ALS Bottle#: | 34 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 3 | | | | |
| Misc. Info.: | 280-0099486-034 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:29 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:20:27

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.522 | 6.518 | 0.004 | 18578 | 0.1001 | 0.1000 | M |
| 5 DNX | 1 | 6.828 | 6.832 | -0.004 | 13949 | 0.1001 | 0.0981 | M |
| 6 MNX | 1 | 7.235 | 7.232 | 0.003 | 15275 | 0.1167 | 0.1172 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

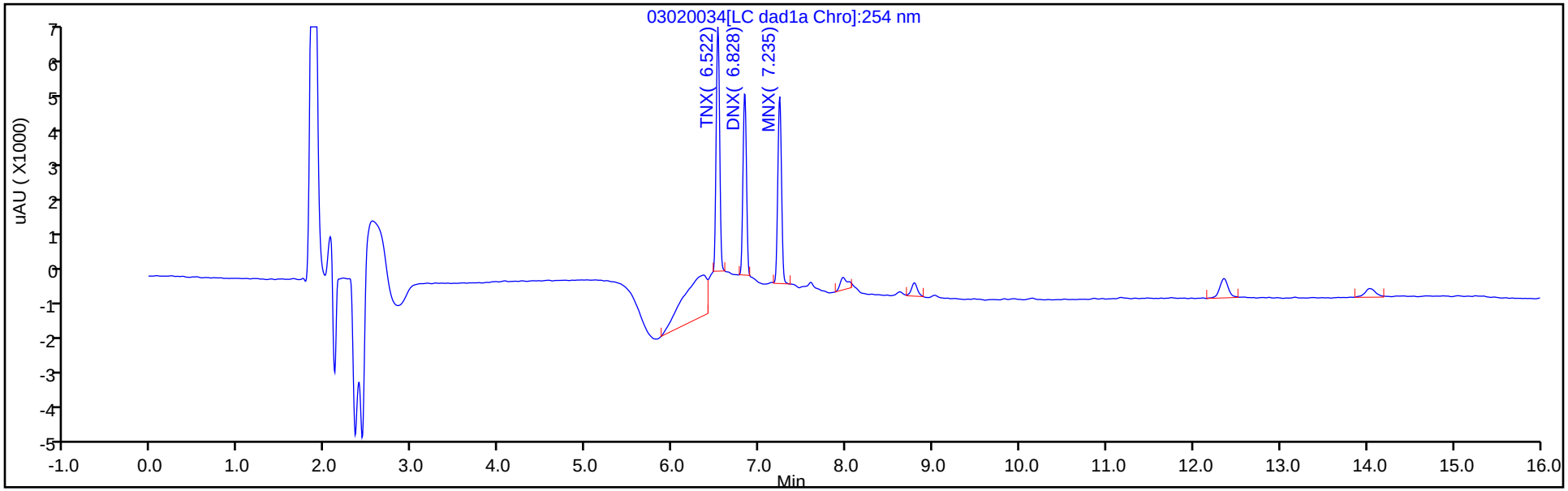
8330 DMT_00008 Amount Added: 5.00 Units: uL

Report Date: 03-Mar-2021 13:32:29 Chrom Revision: 2.3 05-Feb-2021 00:13:28

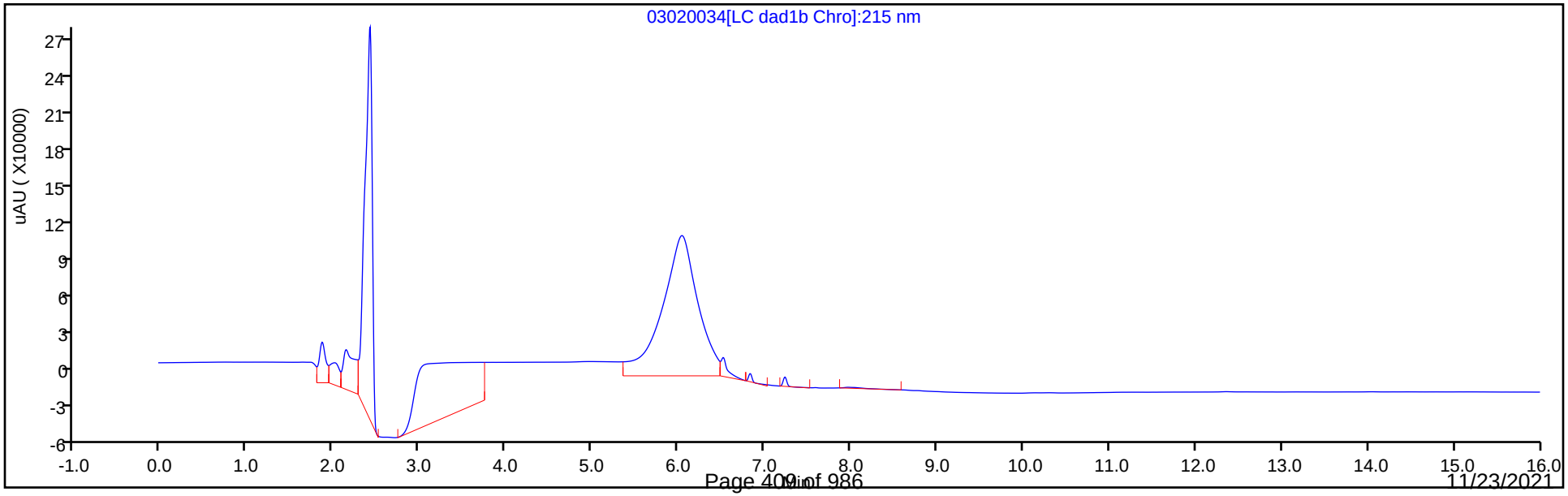
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020034.d | | | | |
| Injection Date: | 03-Mar-2021 01:44:28 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 3 | | | 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

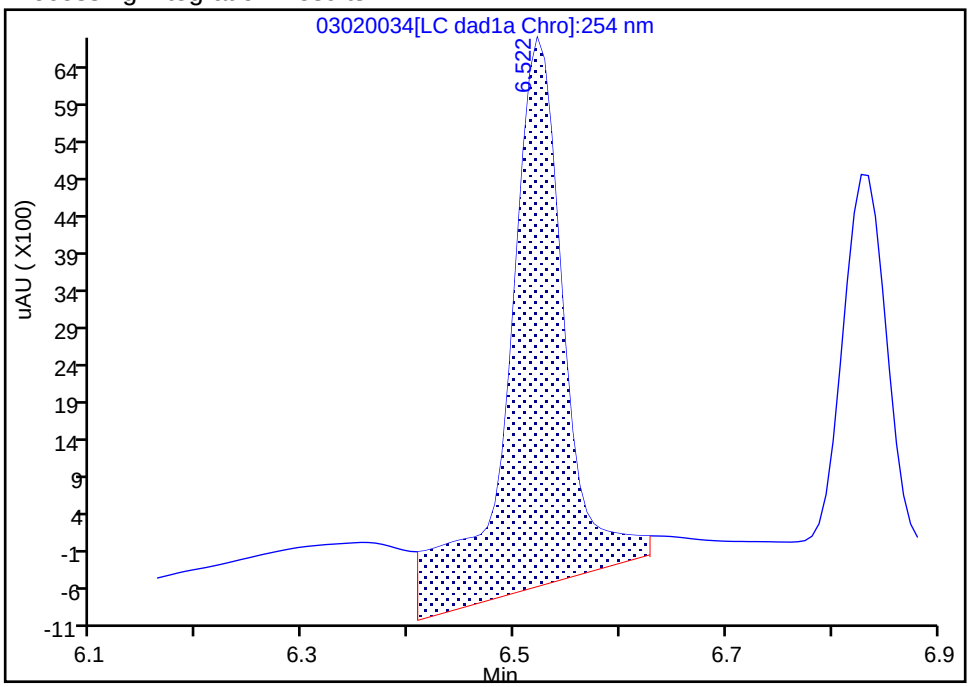
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020034.d | | | | |
| Injection Date: | 03-Mar-2021 01:44:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 34 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

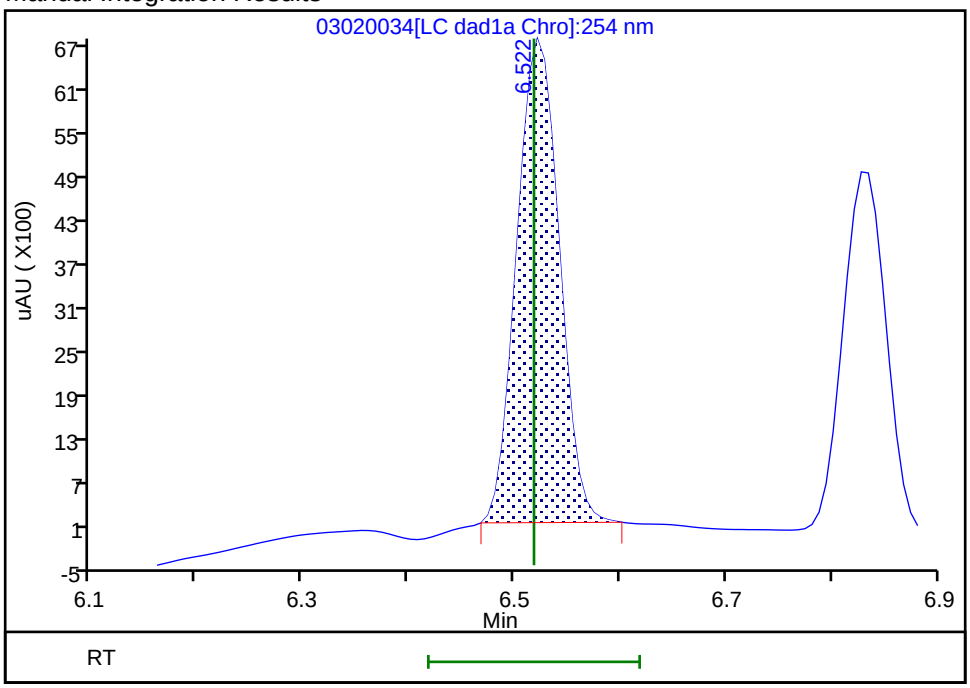
Processing Integration Results

RT: 6.52
Area: 27541
Amount: 0.106458
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 18578
Amount: 0.099986
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:18
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

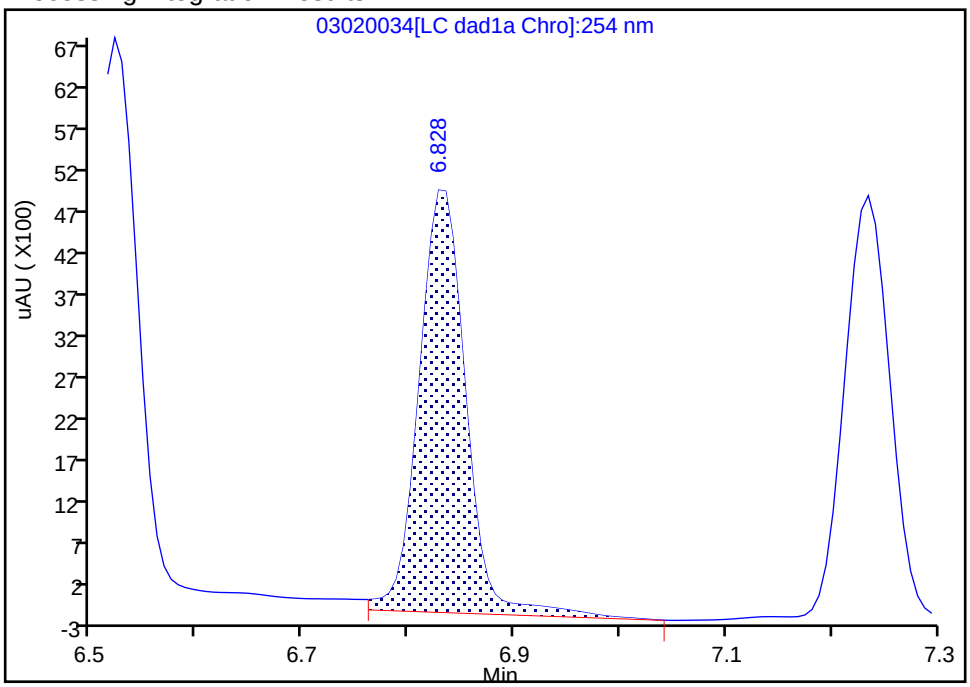
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020034.d | | | | |
| Injection Date: | 03-Mar-2021 01:44:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 34 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

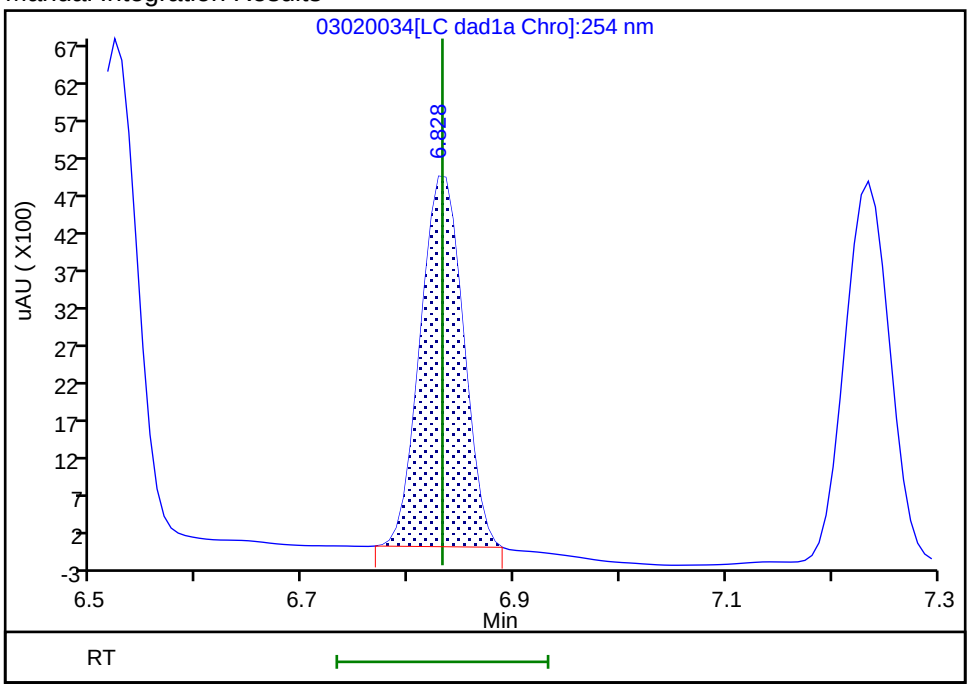
Processing Integration Results

RT: 6.83
Area: 15711
Amount: 0.107414
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 13949
Amount: 0.098150
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:22

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020035.D | | | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 03-Mar-2021 02:07:25 | ALS Bottle#: | 35 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 2 | | | | |
| Misc. Info.: | 280-0099486-035 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:30 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:20:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.522 | 6.518 | 0.004 | 9328 | 0.0501 | 0.0502 | M |
| 5 DNX | 1 | 6.829 | 6.832 | -0.003 | 7121 | 0.0501 | 0.0501 | M |
| 6 MNX | 1 | 7.235 | 7.232 | 0.003 | 7585 | 0.0584 | 0.0582 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

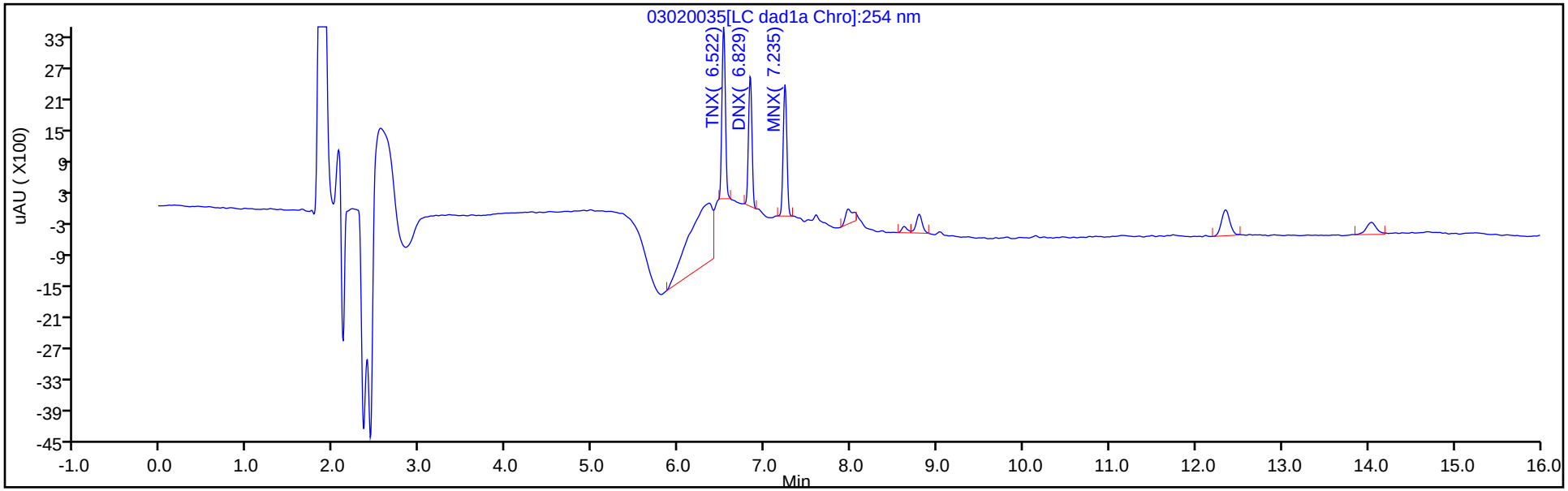
8330 DMT_00008 Amount Added: 2.50 Units: uL

Report Date: 03-Mar-2021 13:32:30 Chrom Revision: 2.3 05-Feb-2021 00:13:28

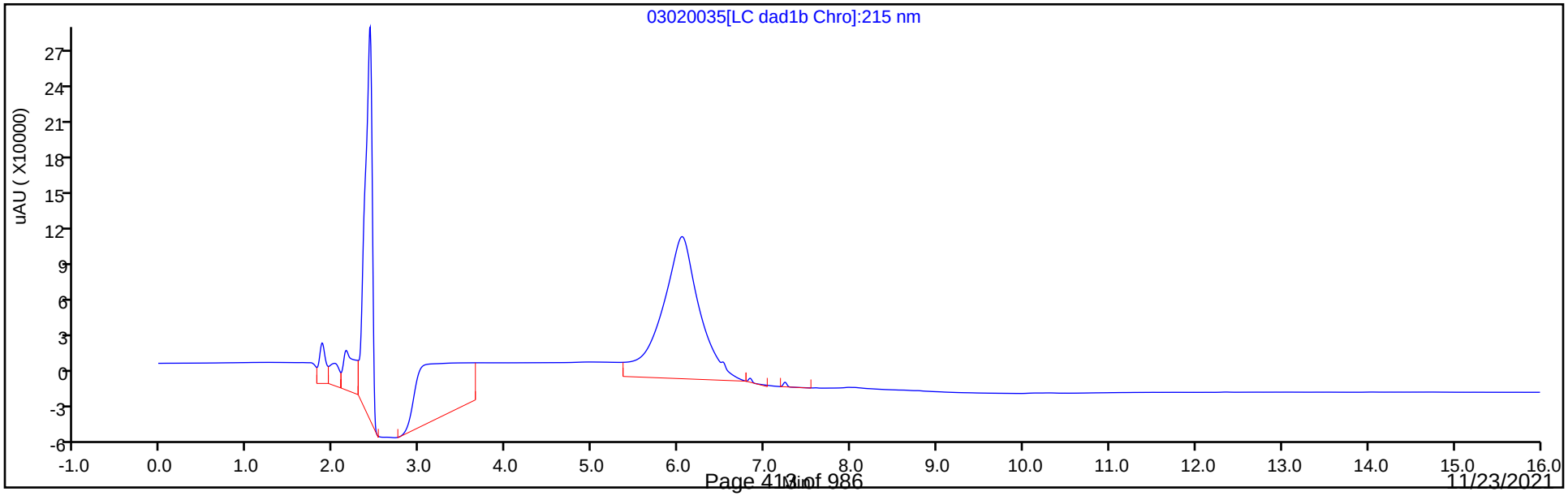
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020035.d | | | | |
| Injection Date: | 03-Mar-2021 02:07:25 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 2 | | | 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

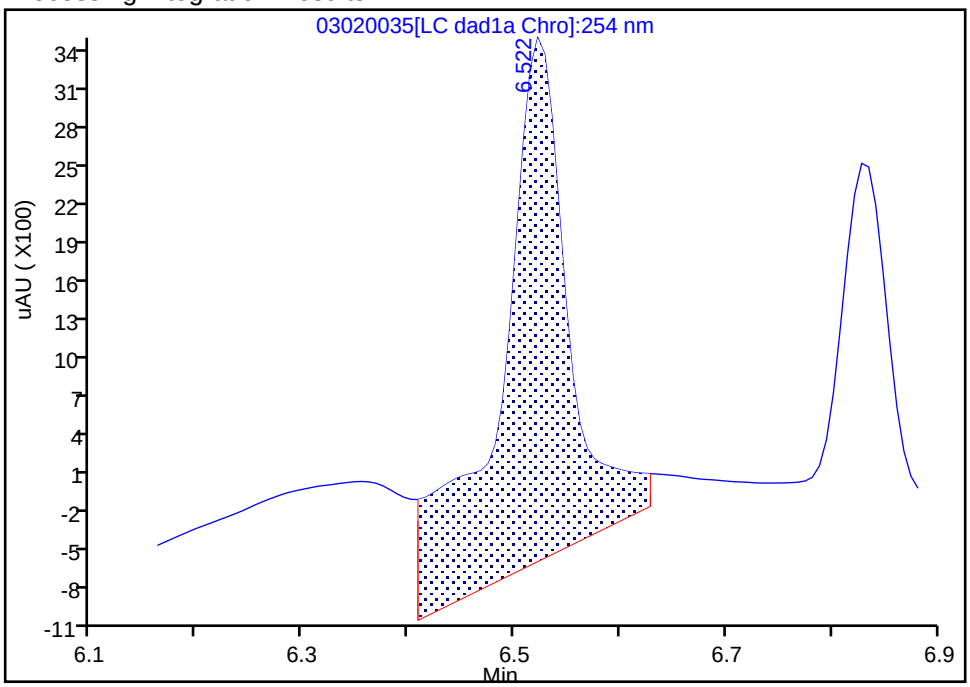
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020035.d | | | | |
| Injection Date: | 03-Mar-2021 02:07:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 35 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

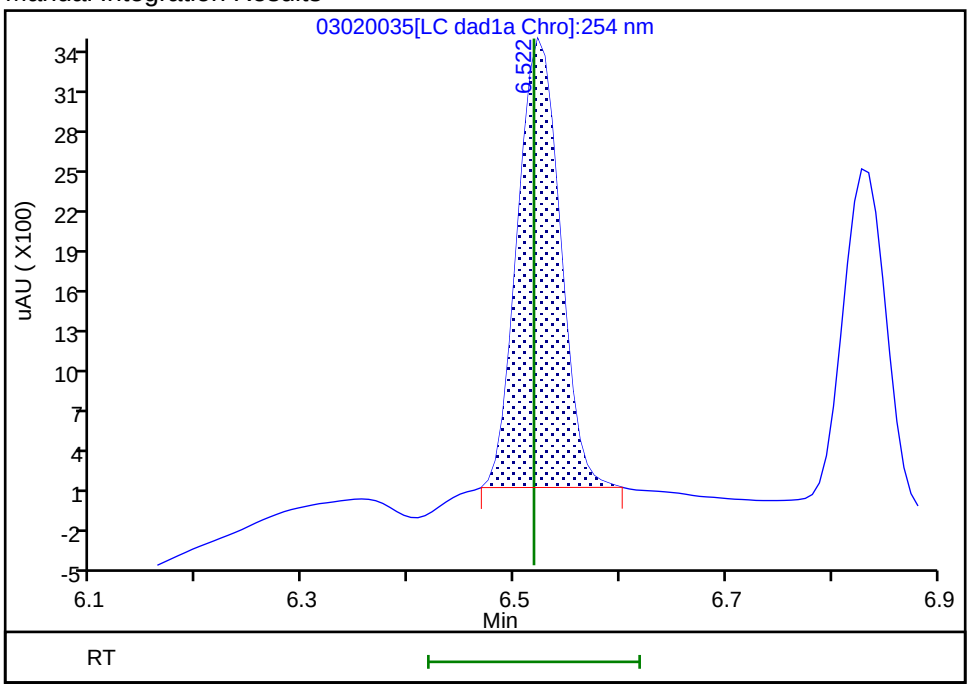
Processing Integration Results

RT: 6.52
Area: 18356
Amount: 0.060447
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 9328
Amount: 0.050203
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:37

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

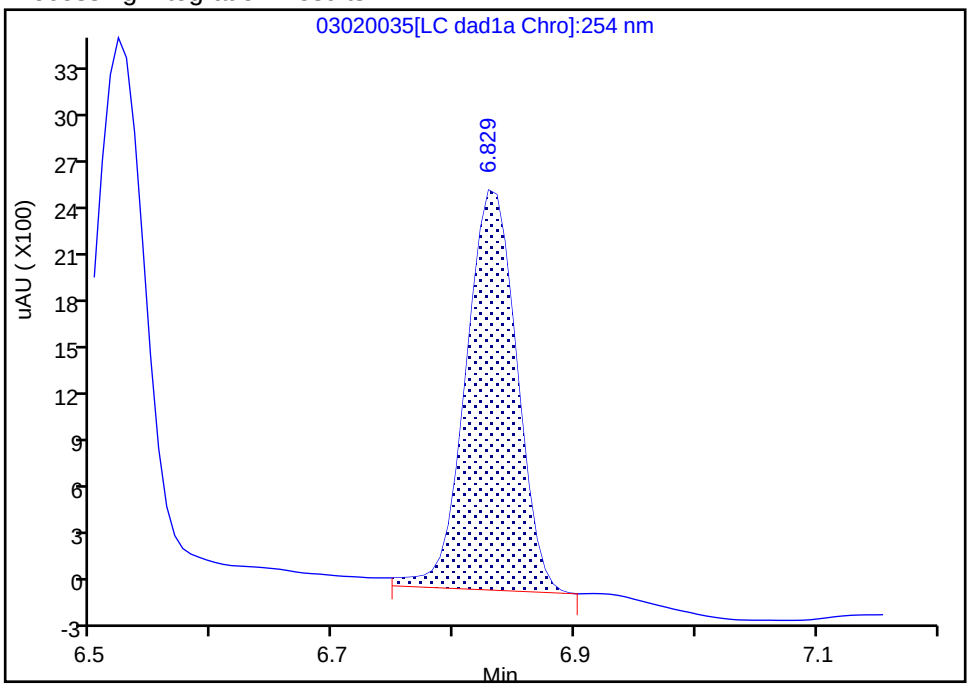
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020035.d | | | | |
| Injection Date: | 03-Mar-2021 02:07:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 35 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

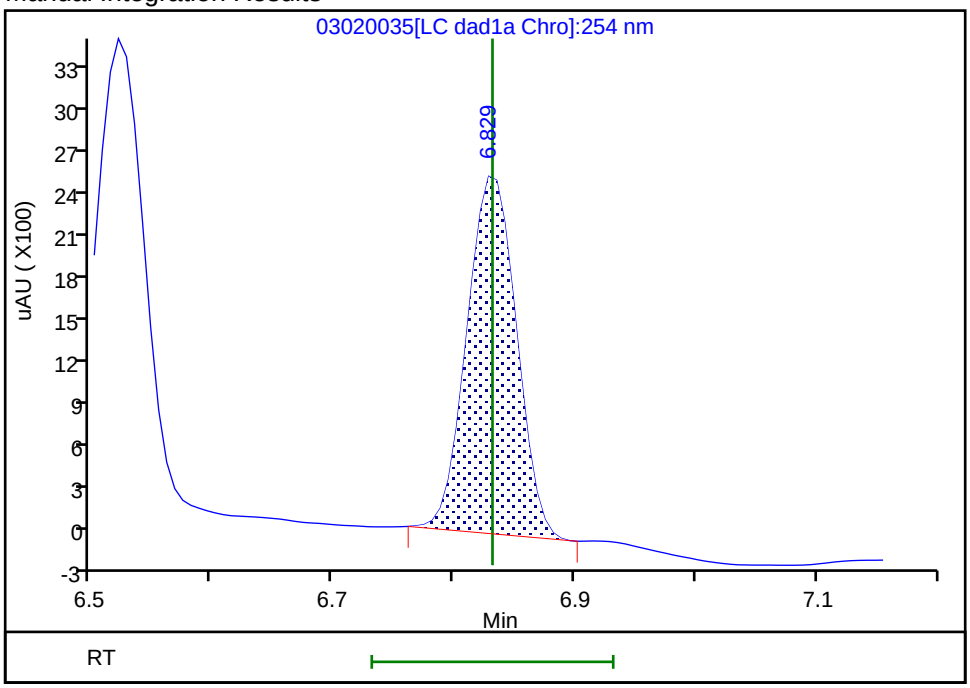
Processing Integration Results

RT: 6.83
Area: 7405
Amount: 0.051400
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 7121
Amount: 0.050106
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:41
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 03-Mar-2021 02:30:22 | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 1 | | | | |
| Misc. Info.: | 280-0099486-036 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:32:31 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:21:03

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.521 | 6.518 | 0.003 | 3664 | 0.0200 | 0.0197 | M |
| 5 DNX | 1 | 6.827 | 6.832 | -0.005 | 2984 | 0.0200 | 0.0210 | M |
| 6 MNX | 1 | 7.234 | 7.232 | 0.002 | 3082 | 0.0233 | 0.0236 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

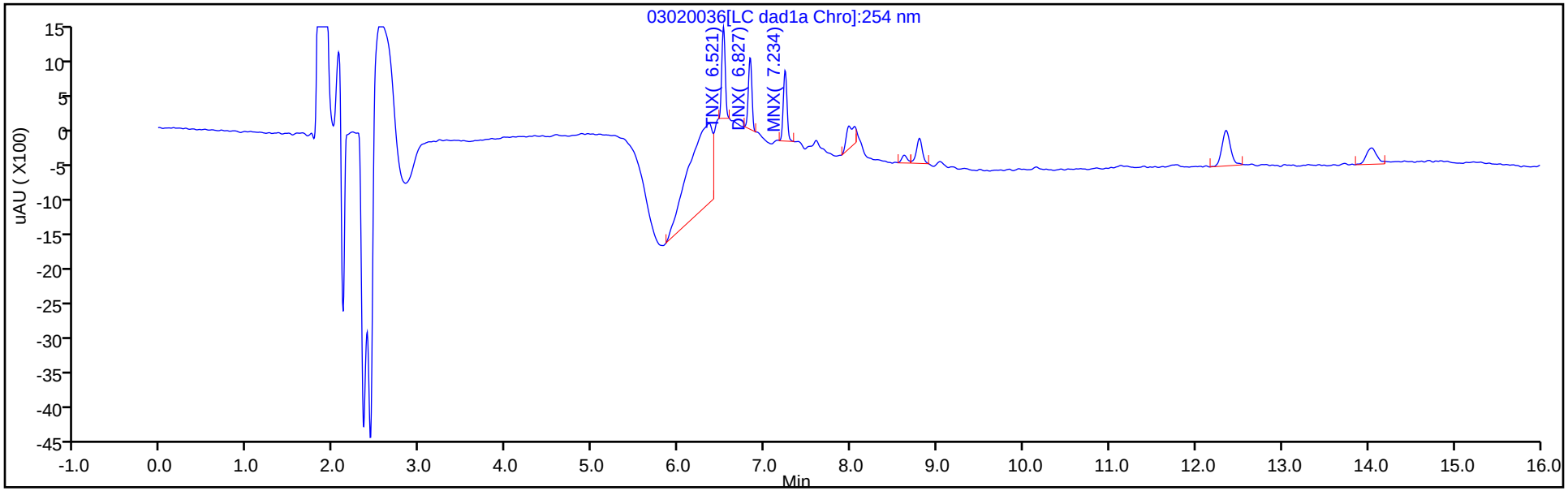
8330 DMT_00008 Amount Added: 1.00 Units: uL

Report Date: 03-Mar-2021 13:32:31 Chrom Revision: 2.3 05-Feb-2021 00:13:28

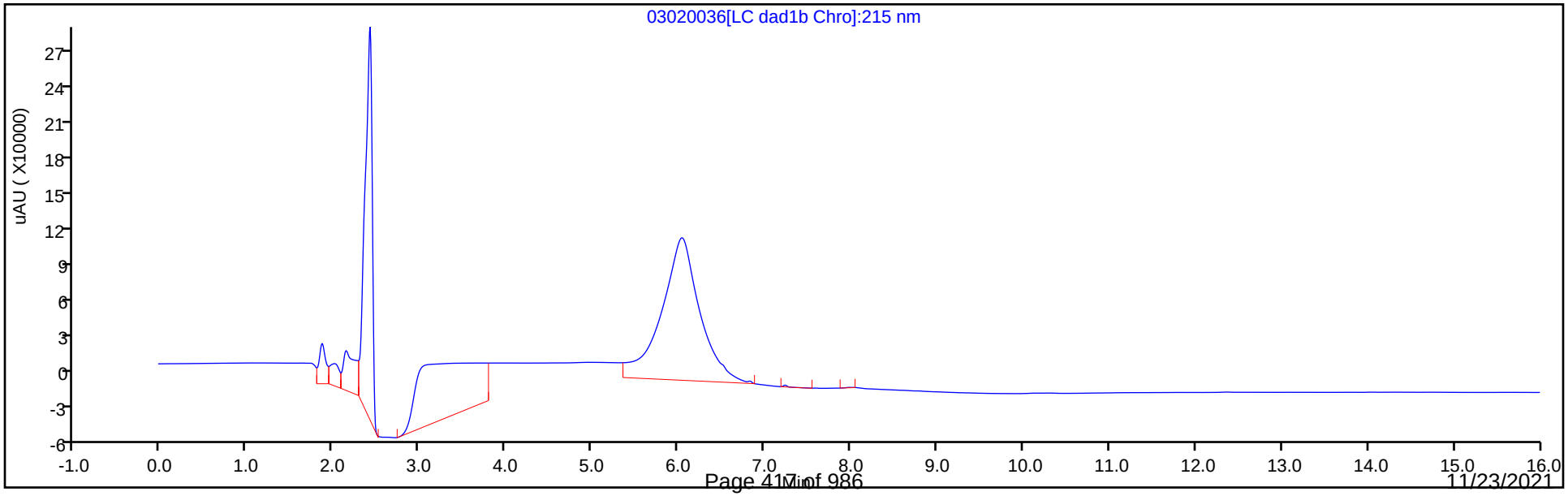
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020036.d | | | | |
| Injection Date: | 03-Mar-2021 02:30:22 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | IC DMT 1 | | | 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

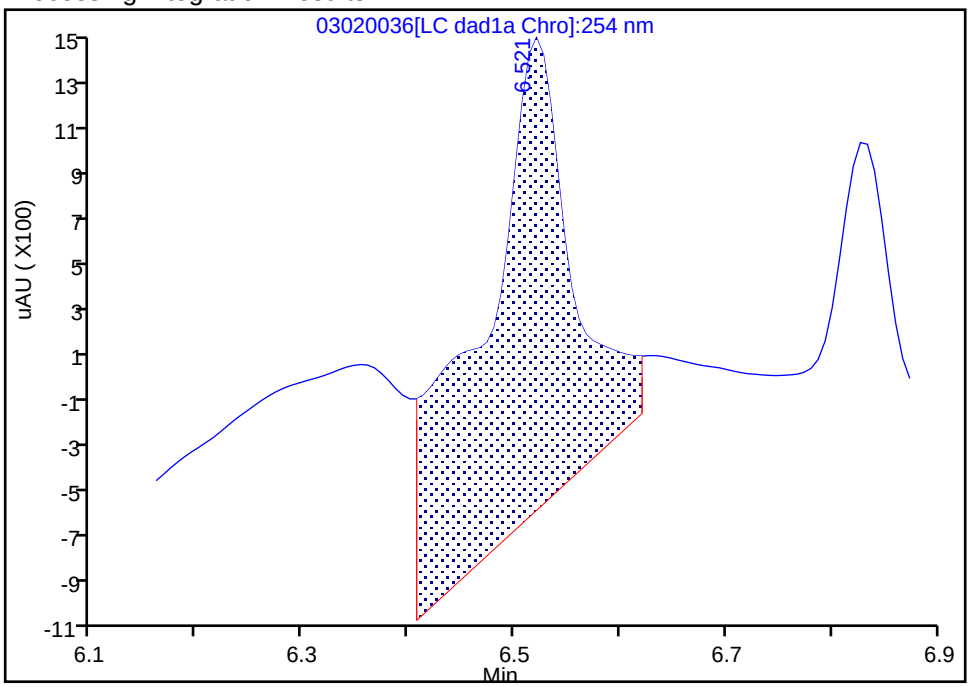
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020036.d | | | | |
| Injection Date: | 03-Mar-2021 02:30:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 36 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

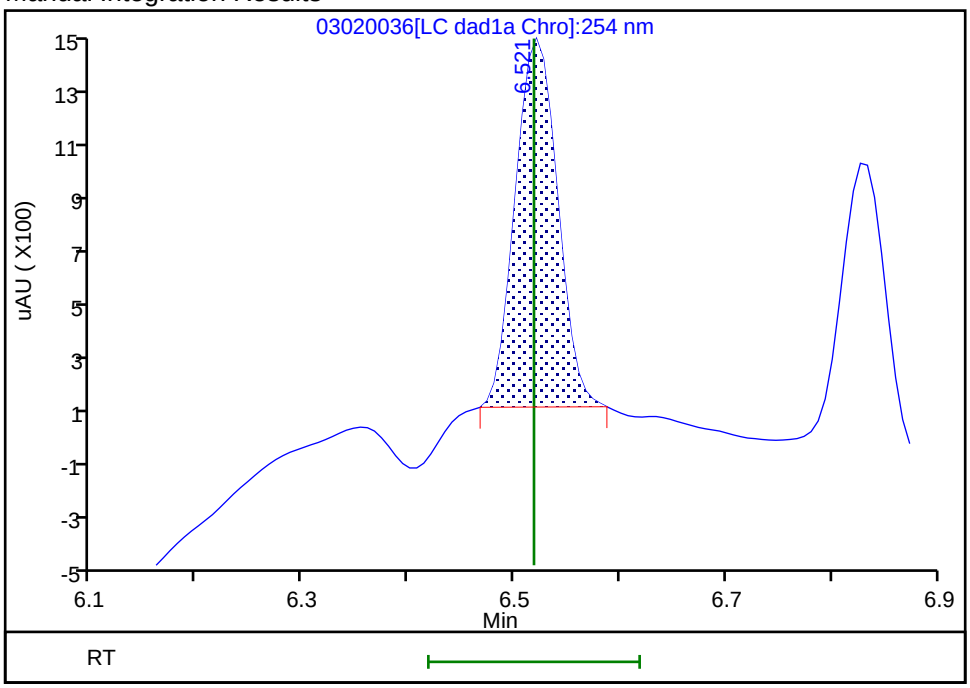
Processing Integration Results

RT: 6.52
Area: 12511
Amount: 0.051903
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 3664
Amount: 0.019719
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

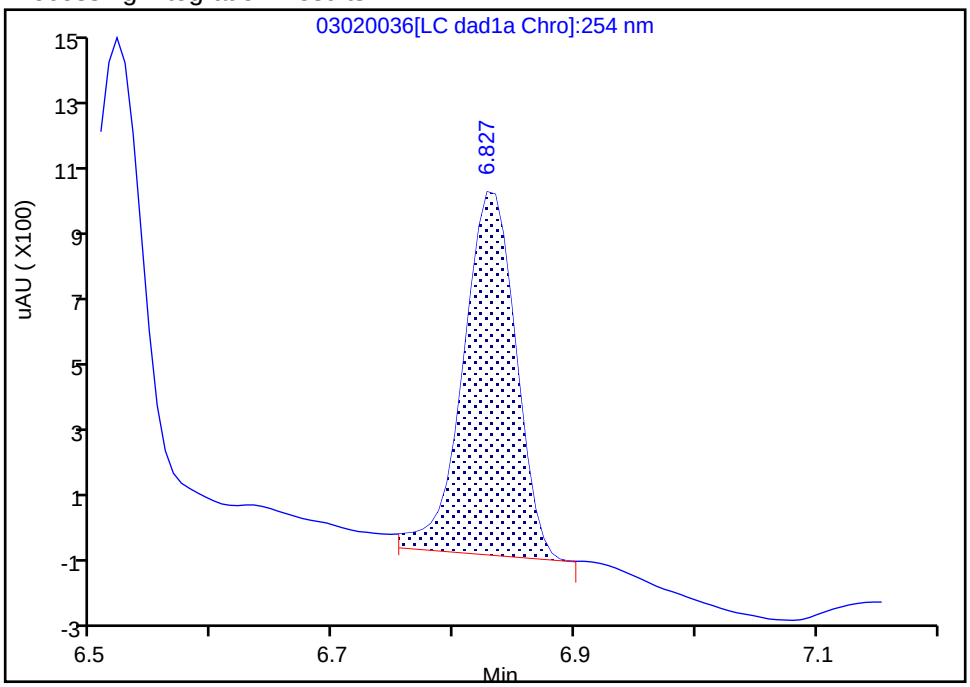
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020036.d | | | | |
| Injection Date: | 03-Mar-2021 02:30:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 36 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

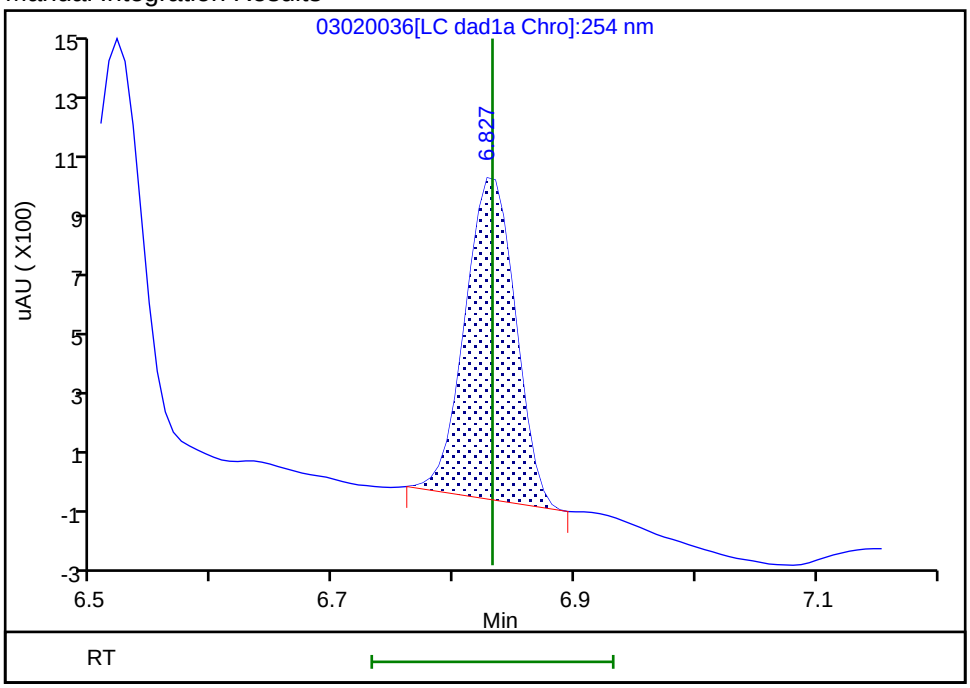
Processing Integration Results

RT: 6.83
Area: 3182
Amount: 0.022197
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 2984
Amount: 0.020996
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:20:57
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 |

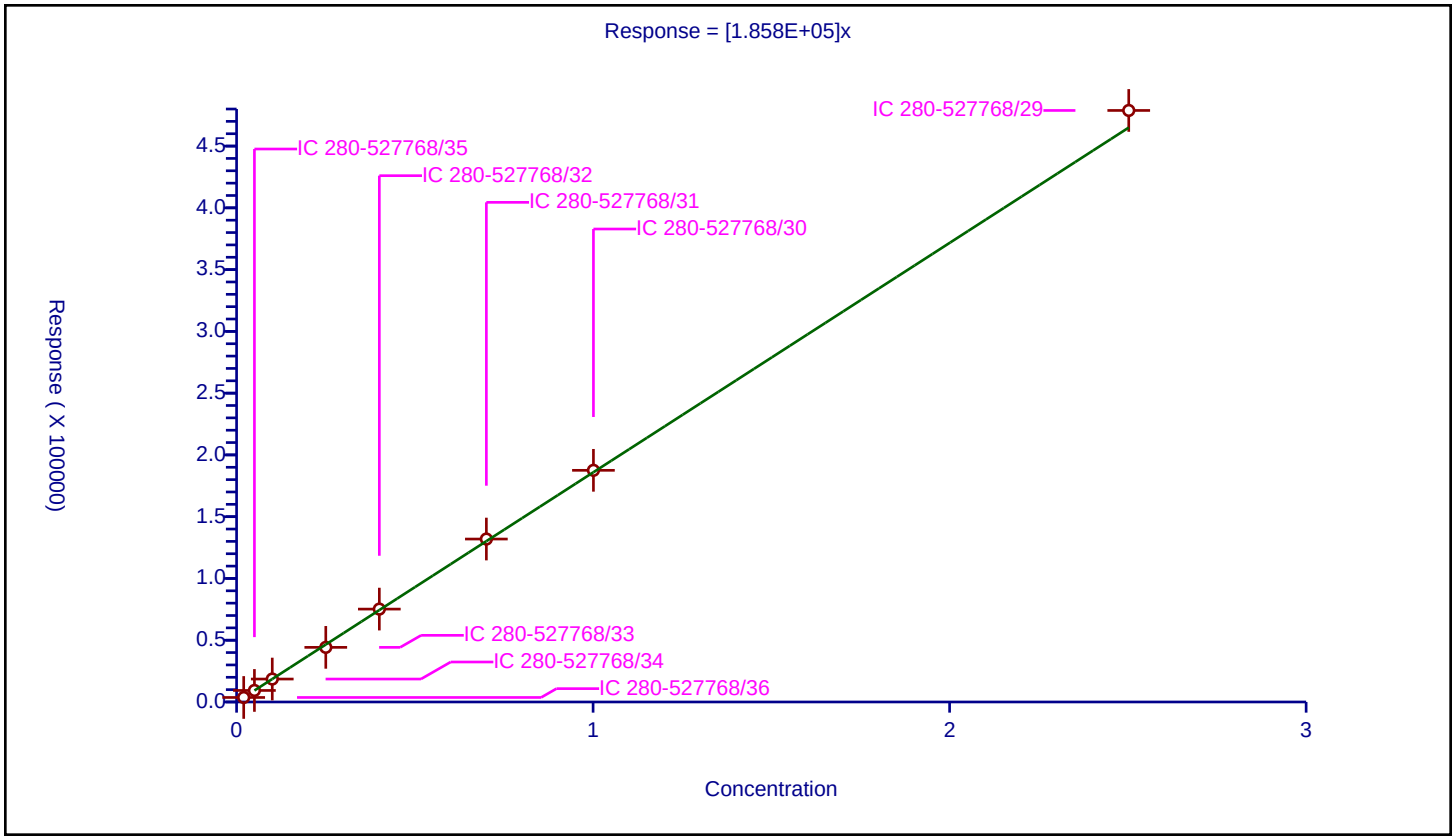
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.858E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5380 |
| **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 280-527768/36 | 0.02002 | 3664.0 | | | 183016.983017 | Y |
| 2 | IC 280-527768/35 | 0.05005 | 9328.0 | | | 186373.626374 | Y |
| 3 | IC 280-527768/34 | 0.1001 | 18578.0 | | | 185594.405594 | Y |
| 4 | IC 280-527768/33 | 0.25025 | 44228.0 | | | 176735.264735 | Y |
| 5 | IC 280-527768/32 | 0.4004 | 75195.0 | | | 187799.7003 | Y |
| 6 | IC 280-527768/31 | 0.7007 | 131907.0 | | | 188250.321107 | Y |
| 7 | IC 280-527768/30 | 1.001 | 187526.0 | | | 187338.661339 | Y |
| 8 | IC 280-527768/29 | 2.5025 | 478826.0 | | | 191339.060939 | Y |



## Calibration / DNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

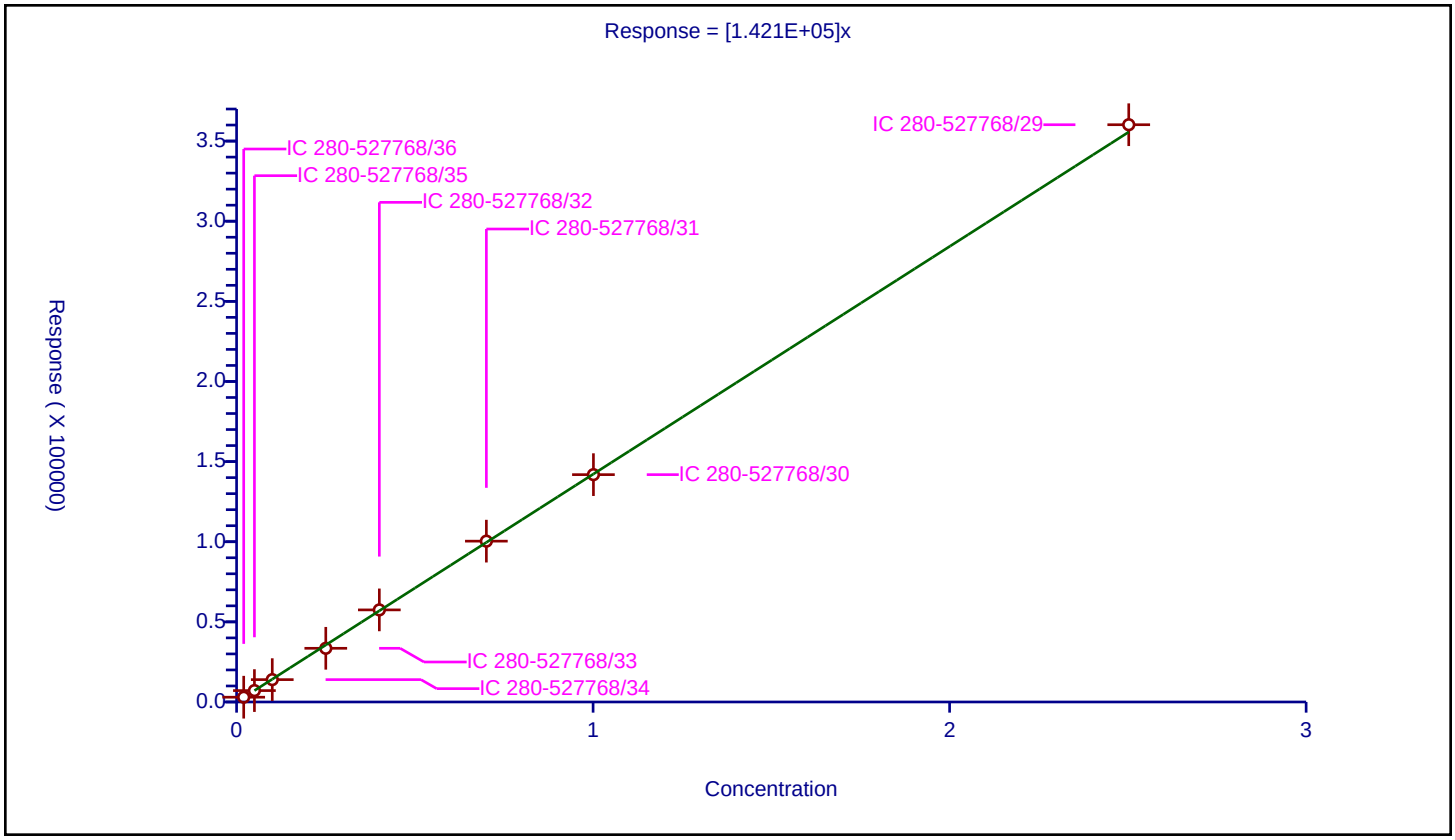
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.421E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1930 |
| **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 280-527768/36 | 0.02002 | 2984.0 | | | 149050.949051 | Y |
| 2 | IC 280-527768/35 | 0.05005 | 7121.0 | | | 142277.722278 | Y |
| 3 | IC 280-527768/34 | 0.1001 | 13949.0 | | | 139350.649351 | Y |
| 4 | IC 280-527768/33 | 0.25025 | 33502.0 | | | 133874.125874 | Y |
| 5 | IC 280-527768/32 | 0.4004 | 57462.0 | | | 143511.488511 | Y |
| 6 | IC 280-527768/31 | 0.7007 | 100368.0 | | | 143239.617525 | Y |
| 7 | IC 280-527768/30 | 1.001 | 141853.0 | | | 141711.288711 | Y |
| 8 | IC 280-527768/29 | 2.5025 | 360207.0 | | | 143938.861139 | Y |



## Calibration / MNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

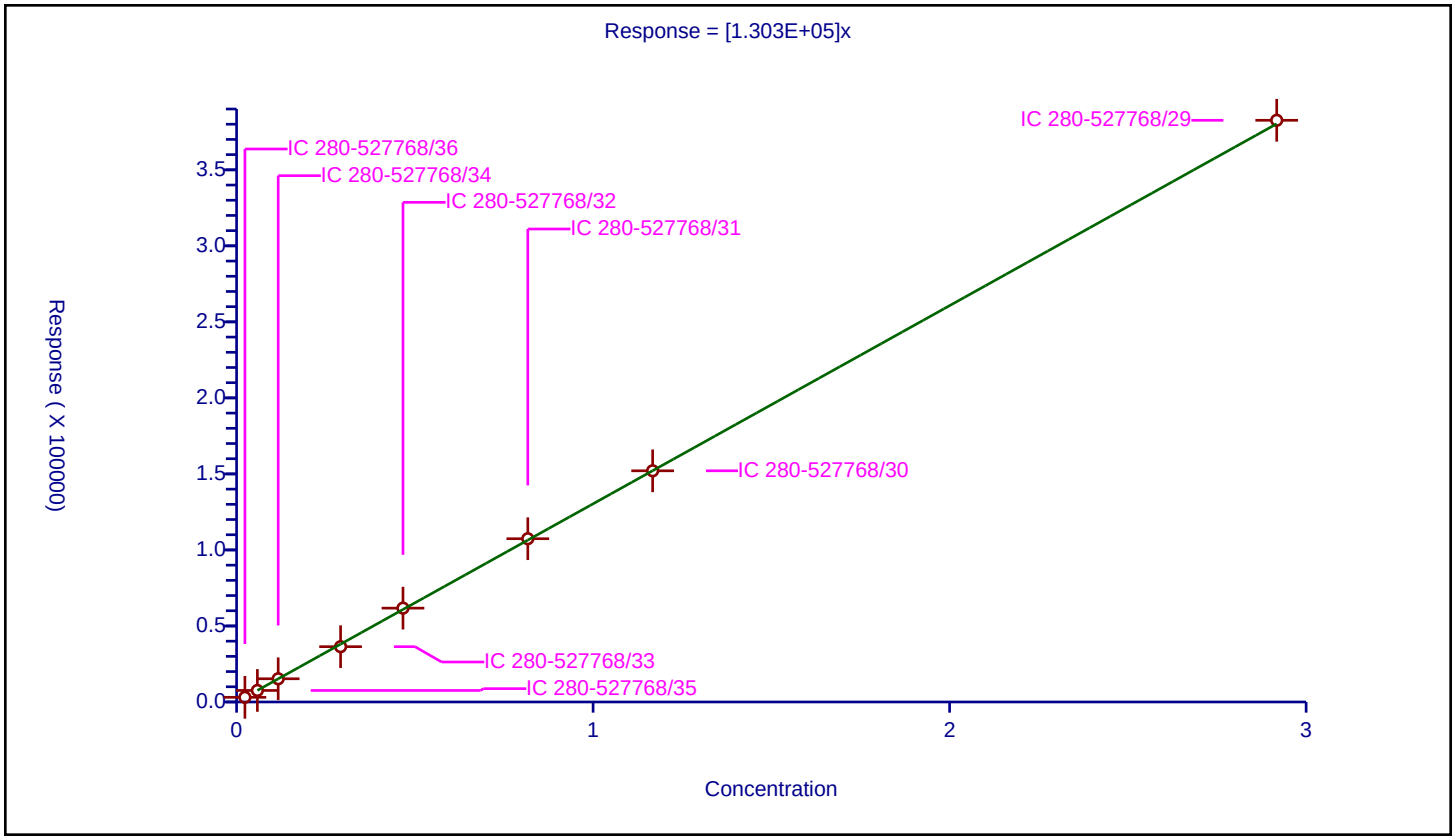
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.303E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1180 |
| **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 280-527768/36 | 0.02334 | 3082.0 | | | 132047.98629 | Y |
| 2 | IC 280-527768/35 | 0.05835 | 7585.0 | | | 129991.43102 | Y |
| 3 | IC 280-527768/34 | 0.1167 | 15275.0 | | | 130891.17395 | Y |
| 4 | IC 280-527768/33 | 0.29175 | 36376.0 | | | 124682.090831 | Y |
| 5 | IC 280-527768/32 | 0.4668 | 61731.0 | | | 132242.930591 | Y |
| 6 | IC 280-527768/31 | 0.8169 | 107376.0 | | | 131443.261109 | Y |
| 7 | IC 280-527768/30 | 1.167 | 152050.0 | | | 130291.34533 | Y |
| 8 | IC 280-527768/29 | 2.9175 | 382579.0 | | | 131132.476435 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534622

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:01 Calibration End Date: 05/01/2021 21:04 Calibration ID: 53145

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534622/19 | 019-1301.D |
| Level 2 | IC 280-534622/18 | 018-1201.D |
| Level 3 | IC 280-534622/17 | 017-1101.D |
| Level 4 | IC 280-534622/16 | 016-1001.D |
| Level 5 | IC 280-534622/15 | 015-0901.D |
| Level 6 | IC 280-534622/14 | 014-0801.D |
| Level 7 | IC 280-534622/13 | 013-0701.D |
| Level 8 | IC 280-534622/12 | 012-0601.D |
| Level 9 | IC 280-534622/11 | 011-0501.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 | 6.629 | 6.626 | 6.628 | 6.631 | 6.631 | 6.627 | 6.631 | 6.626 | 6.626 | | 6.481 - 6.781 | 6.628 |
| RDX | +++++ | 7.606 | 7.602 | 7.598 | 7.597 | 7.601 | 7.604 | 7.593 | 7.592 | | 7.448 - 7.748 | 7.599 |
| Picric acid | +++++ | 7.966 | 7.968 | 7.958 | 7.951 | 7.947 | 7.937 | 7.920 | 7.879 | | 7.808 - 8.108 | 7.941 |
| 1,3,5-Trinitrobenzene | 8.649 | 8.653 | 8.655 | 8.651 | 8.651 | 8.654 | 8.651 | 8.646 | 8.646 | | 8.501 - 8.801 | 8.651 |
| 1,3-Dinitrobenzene | 9.275 | 9.280 | 9.282 | 9.278 | 9.271 | 9.281 | 9.277 | 9.273 | 9.265 | | 9.128 - 9.428 | 9.276 |
| Nitrobenzene | 9.662 | 9.666 | 9.662 | 9.664 | 9.657 | 9.667 | 9.664 | 9.659 | 9.652 | | 9.514 - 9.814 | 9.661 |
| Tetryl | 9.975 | 9.980 | 9.982 | 9.978 | 9.977 | 9.981 | 9.977 | 9.973 | 9.972 | | 9.828 - 10.128 | 9.977 |
| Nitroglycerin | 10.435 | 10.440 | 10.442 | 10.438 | 10.437 | 10.441 | 10.437 | 10.433 | 10.425 | | 10.288 - 10.588 | 10.436 |
| 2,4,6-Trinitrotoluene | 10.902 | 10.906 | 10.908 | 10.904 | 10.904 | 10.907 | 10.904 | 10.899 | 10.899 | | 10.804 - 11.004 | 10.904 |
| 4-Amino-2,6-dinitrotoluene | 11.109 | 11.106 | 11.115 | 11.111 | 11.104 | 11.114 | 11.104 | 11.099 | 11.099 | | 11.011 - 11.211 | 11.107 |
| 2-Amino-4,6-dinitrotoluene | 11.369 | 11.366 | 11.375 | 11.371 | 11.364 | 11.374 | 11.364 | 11.359 | 11.352 | | 11.271 - 11.471 | 11.366 |
| 2,6-Dinitrotoluene | 11.529 | 11.533 | 11.535 | 11.531 | 11.531 | 11.541 | 11.531 | 11.526 | 11.519 | | 11.431 - 11.631 | 11.531 |
| 2,4-Dinitrotoluene | 11.702 | 11.706 | 11.708 | 11.704 | 11.704 | 11.714 | 11.704 | 11.699 | 11.692 | | 11.604 - 11.804 | 11.704 |
| 2-Nitrotoluene | 12.575 | 12.573 | 12.575 | 12.578 | 12.571 | 12.581 | 12.571 | 12.566 | 12.565 | | 12.428 - 12.728 | 12.573 |
| 4-Nitrotoluene | 13.015 | 13.006 | 13.015 | 13.011 | 13.011 | 13.021 | 13.011 | 13.006 | 12.999 | | 12.861 - 13.161 | 13.011 |
| 3-Nitrotoluene | 13.602 | 13.600 | 13.602 | 13.604 | 13.597 | 13.607 | 13.597 | 13.593 | 13.592 | | 13.454 - 13.754 | 13.599 |
| PETN | 14.682 | 14.680 | 14.688 | 14.684 | 14.684 | 14.694 | 14.684 | 14.679 | 14.679 | | 14.534 - 14.834 | 14.684 |
| 1,2-Dinitrobenzene | 8.522 | 8.526 | 8.522 | 8.525 | 8.517 | 8.527 | 8.524 | 8.520 | 8.512 | | 8.375 - 8.675 | 8.522 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534622

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:01 Calibration End Date: 05/01/2021 21:04 Calibration ID: 53145

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534622/19 | 019-1301.D |
| Level 2 | IC 280-534622/18 | 018-1201.D |
| Level 3 | IC 280-534622/17 | 017-1101.D |
| Level 4 | IC 280-534622/16 | 016-1001.D |
| Level 5 | IC 280-534622/15 | 015-0901.D |
| Level 6 | IC 280-534622/14 | 014-0801.D |
| Level 7 | IC 280-534622/13 | 013-0701.D |
| Level 8 | IC 280-534622/12 | 012-0601.D |
| Level 9 | IC 280-534622/11 | 011-0501.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 | | | | | | | | |
| HMX | 90600<br>81044<br>83266 | 84000<br>83153 | 84840<br>83381 | 85610<br>83899 | Ave | | 84421.436<br>5 | | | | 3.1 | | 20.0 | | | |
| RDX | +++++<br>100772<br>100392 | 110350<br>101975 | 121080<br>101457 | 112450<br>101616 | Ave | | 106261.46<br>8 | | | | 7.1 | | 20.0 | | | |
| Picric acid | +++++<br>78100<br>78816 | 92000<br>79550 | 91500<br>79403 | 83170<br>79230 | Ave | | 82721.107<br>1 | | | | 7.0 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 247605<br>211904<br>216811 | 201497<br>217647 | 226766<br>220329 | 220699<br>219598 | Ave | | 220317.35<br>4 | | | | 5.6 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 304591<br>284922<br>294659 | 300349<br>293466 | 297944<br>294726 | 300389<br>295917 | Ave | | 296329.29<br>9 | | | | 1.9 | | 20.0 | | | |
| Nitrobenzene | 198705<br>187737<br>194447 | 197809<br>193367 | 197052<br>194434 | 199980<br>194044 | Ave | | 195285.94<br>8 | | | | 1.9 | | 20.0 | | | |
| Tetryl | 170858<br>167980<br>172330 | 166218<br>172575 | 177046<br>172692 | 178842<br>173240 | Ave | | 172419.99<br>8 | | | | 2.3 | | 20.0 | | | |
| Nitroglycerin | 107780<br>65334<br>64661 | 80810<br>65580 | 73966<br>62107 | 71053<br>65275 | Lin2 | 4204.1302<br>6 | 64107.750<br>8 | | | | | | | 0.9980 | | 0.9900 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534622

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:01 Calibration End Date: 05/01/2021 21:04 Calibration ID: 53145

| 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 | 211952<br>197876<br>204255 | 206972<br>203262 | 209442<br>203674 | 212012<br>204895 | Ave | | 206037.868 | | | | 2.2 | | 20.0 | | | |
| 4-Amino-2,6-dinitrotoluene | 159441<br>143209<br>145339 | 176424<br>145884 | 157203<br>145937 | 154895<br>146581 | Ave | | 152767.994 | | | | 7.0 | | 20.0 | | | |
| 2-Amino-4,6-dinitrotoluene | 211753<br>195992<br>200761 | 220767<br>202107 | 214920<br>201639 | 211185<br>203212 | Ave | | 206926.219 | | | | 3.9 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 139841<br>139335<br>142809 | 146763<br>140697 | 146614<br>143092 | 144990<br>143569 | Ave | | 143078.761 | | | | 1.9 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 293227<br>274622<br>284165 | 296066<br>283989 | 291773<br>282943 | 292450<br>283876 | Ave | | 287012.272 | | | | 2.4 | | 20.0 | | | |
| 2-Nitrotoluene | 134600<br>121368<br>124876 | 136850<br>124703 | 132320<br>124706 | 131380<br>124724 | Ave | | 128391.846 | | | | 4.2 | | 20.0 | | | |
| 4-Nitrotoluene | 117465<br>104032<br>107464 | 131387<br>107423 | 114251<br>107231 | 110609<br>107352 | Ave | | 111912.732 | | | | 7.5 | | 20.0 | | | |
| 3-Nitrotoluene | 157343<br>133626<br>137530 | 155894<br>136853 | 143596<br>136770 | 141648<br>136955 | Ave | | 142246.281 | | | | 6.1 | | 20.0 | | | |
| PETN | 79010<br>71928<br>73997 | 74720<br>74156 | 74586<br>74227 | 75747<br>74637 | Ave | | 74778.5667 | | | | 2.5 | | 20.0 | | | |
| 1,2-Dinitrobenzene | 119500<br>126156<br>131759 | 119950<br>130943 | 130080<br>131307 | 132180<br>132080 | Ave | | 128217.205 | | | | 4.0 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534622

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:01 Calibration End Date: 05/01/2021 21:04 Calibration ID: 53145

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534622/19 | 019-1301.D |
| Level 2 | IC 280-534622/18 | 018-1201.D |
| Level 3 | IC 280-534622/17 | 017-1101.D |
| Level 4 | IC 280-534622/16 | 016-1001.D |
| Level 5 | IC 280-534622/15 | 015-0901.D |
| Level 6 | IC 280-534622/14 | 014-0801.D |
| Level 7 | IC 280-534622/13 | 013-0701.D |
| Level 8 | IC 280-534622/12 | 012-0601.D |
| Level 9 | IC 280-534622/11 | 011-0501.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 | 906<br>33261 | 1680<br>58367 | 4242<br>83899 | 8561<br>208165 | 20261 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | +++++<br>40790 | 2207<br>71020 | 6054<br>101616 | 11245<br>250979 | 25193 | +++++<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Picric acid | Ave | +++++<br>31820 | 1840<br>55582 | 4575<br>79230 | 8317<br>197040 | 19525 | +++++<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 | 2481<br>87233 | 4038<br>154539 | 11361<br>220037 | 22114<br>543111 | 53082 | 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 | 3052<br>117621 | 6019<br>206721 | 14927<br>296509 | 30099<br>738121 | 71373 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitrobenzene | Ave | 1995<br>77656 | 3972<br>136648 | 9892<br>194820 | 20078<br>488061 | 47122 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Ave | 1712<br>69168 | 3331<br>121126 | 8870<br>173586 | 17920<br>431686 | 42079 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Lin2 | 10778<br>262320 | 16162<br>434747 | 36983<br>652752 | 71053<br>1616536 | 163334 | 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 | 2128<br>81630 | 4156<br>143142 | 10514<br>205715 | 21286<br>512679 | 49667 | 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 | 1596<br>58412 | 3532<br>102258 | 7868<br>146728 | 15505<br>363710 | 35838 | 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 | 2126<br>81166 | 4433<br>141712 | 10789<br>204025 | 21203<br>503909 | 49194 | 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 | 1404<br>56504 | 2947<br>100565 | 7360<br>144143 | 14557<br>358451 | 34973 | 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 | 2944 | 5945 | 14647 | 29362 | 68930 | 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 TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534622

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:01 Calibration End Date: 05/01/2021 21:04 Calibration ID: 53145

| 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 |
| | | 114050 | 198852 | 285012 | 713254 | | 0.402 | 0.703 | 1.00 | 2.51 | |
| 2-Nitrotoluene | Ave | 1346<br>49881 | 2737<br>87294 | 6616<br>124724 | 13138<br>312191 | 30342 | 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 | 1177<br>43055 | 2633<br>75212 | 5724<br>107567 | 11083<br>269197 | 26060 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 3-Nitrotoluene | Ave | 1575<br>54796 | 3121<br>95835 | 7187<br>137092 | 14179<br>344169 | 33440 | 0.0100<br>0.400 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| PETN | Ave | 7901<br>296622 | 14944<br>519589 | 37293<br>746366 | 75747<br>1849935 | 179819 | 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 | 1195<br>52377 | 2399<br>91915 | 6504<br>132080 | 13218<br>329398 | 31539 | 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 TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\011-0501.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 01-May-2021 18:01:04 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:06 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:15:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.626 | 6.631 | -0.005 | 208165 | 2.50 | 2.47 | M |
| 7 RDX | 1 | 7.592 | 7.598 | -0.006 | 250979 | 2.50 | 2.36 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.879 | 7.958 | -0.079 | 197040 | 2.50 | 2.38 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.512 | 8.525 | -0.013 | 329398 | 2.50 | 2.57 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.646 | 8.651 | -0.005 | 543111 | 2.51 | 2.47 | |
| 11 1,3-Dinitrobenzene | 1 | 9.265 | 9.278 | -0.013 | 738121 | 2.51 | 2.49 | |
| 12 Nitrobenzene | 1 | 9.652 | 9.664 | -0.012 | 488061 | 2.51 | 2.50 | |
| 14 Tetryl | 1 | 9.972 | 9.978 | -0.006 | 431686 | 2.51 | 2.50 | |
| 15 Nitroglycerin | 2 | 10.425 | 10.438 | -0.013 | 1616536 | 25.0 | 25.2 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.899 | 10.904 | -0.005 | 512679 | 2.51 | 2.49 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.099 | 11.111 | -0.012 | 363710 | 2.50 | 2.38 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.352 | 11.371 | -0.019 | 503909 | 2.51 | 2.44 | |
| 19 2,6-Dinitrotoluene | 1 | 11.519 | 11.531 | -0.012 | 358451 | 2.51 | 2.51 | |
| 20 2,4-Dinitrotoluene | 1 | 11.692 | 11.704 | -0.012 | 713254 | 2.51 | 2.49 | |
| 21 o-Nitrotoluene | 1 | 12.565 | 12.578 | -0.013 | 312191 | 2.50 | 2.43 | |
| 22 p-Nitrotoluene | 1 | 12.999 | 13.011 | -0.012 | 269197 | 2.51 | 2.41 | |
| 23 m-Nitrotoluene | 1 | 13.592 | 13.604 | -0.012 | 344169 | 2.50 | 2.42 | |
| 24 PETN | 2 | 14.679 | 14.684 | -0.005 | 1849935 | 25.0 | 24.7 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

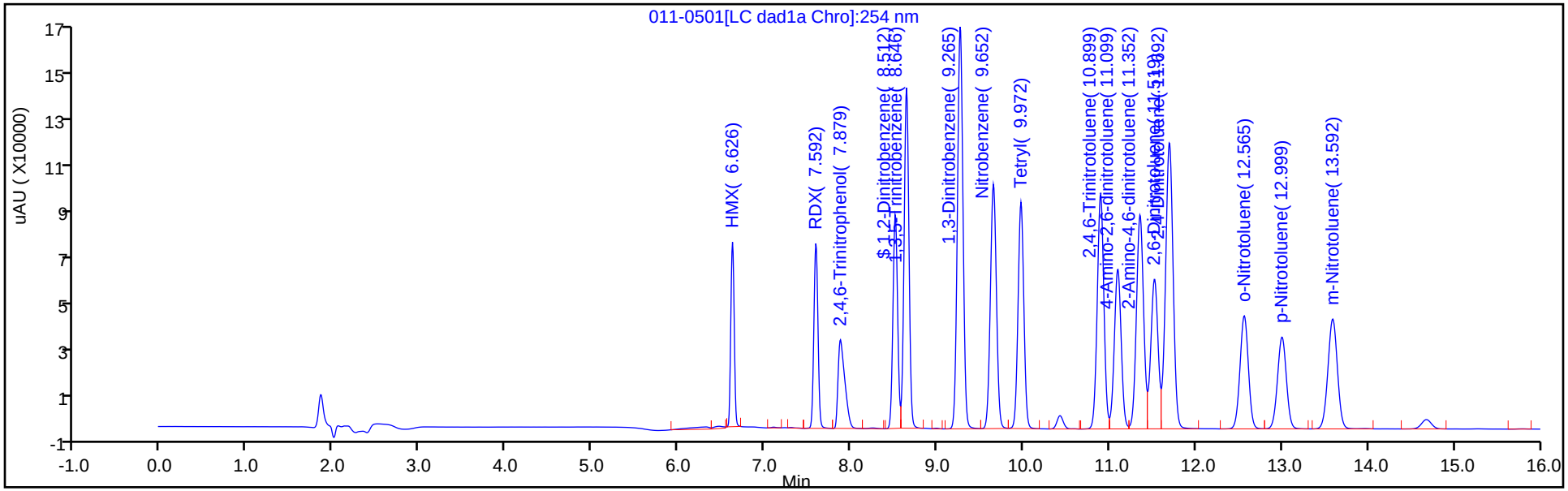
8330IntermStk_00067 Amount Added: 250.00 Units: uL

Report Date: 04-May-2021 13:25:06 Chrom Revision: 2.3 08-Apr-2021 17:17:48

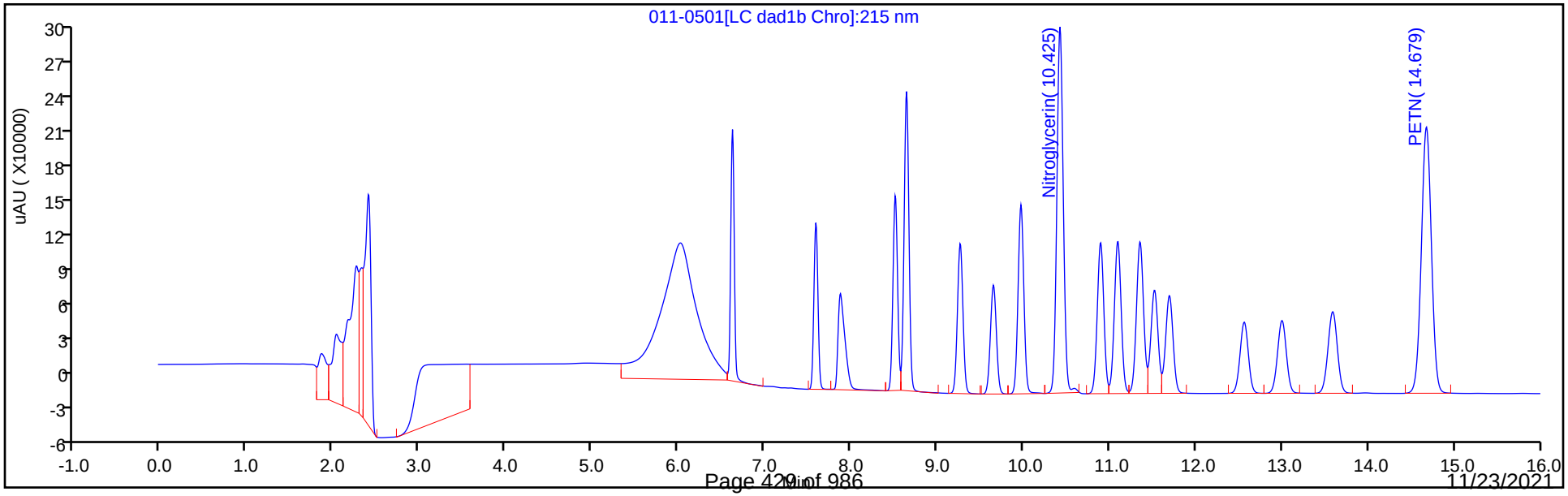
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\011-0501.d | | | | |
| Injection Date: | 01-May-2021 18:01:04 | 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

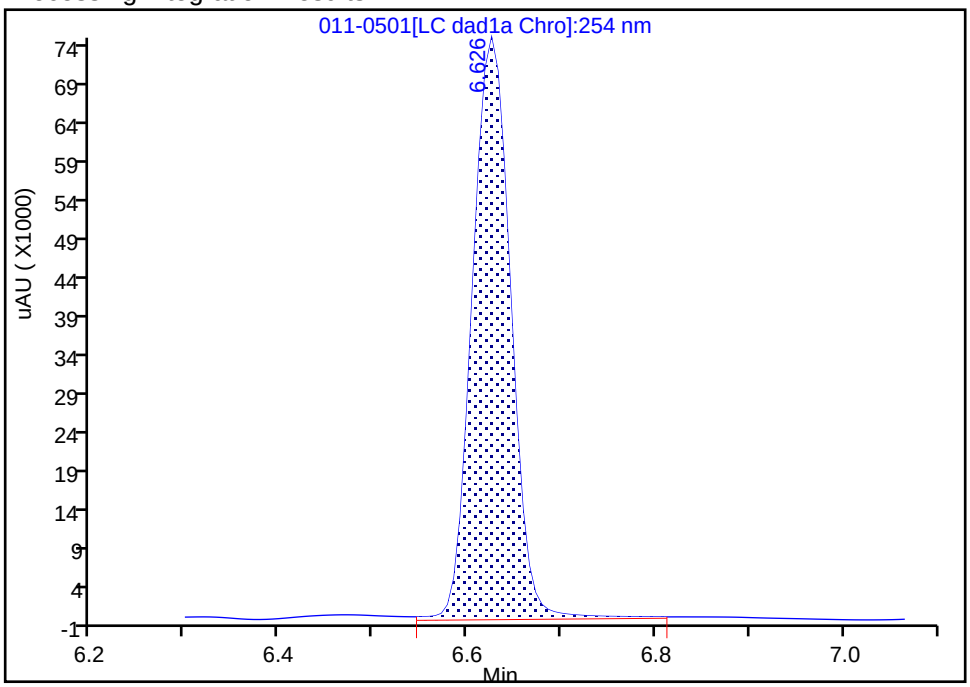
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\011-0501.d | | | | |
| Injection Date: | 01-May-2021 18:01:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 11 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

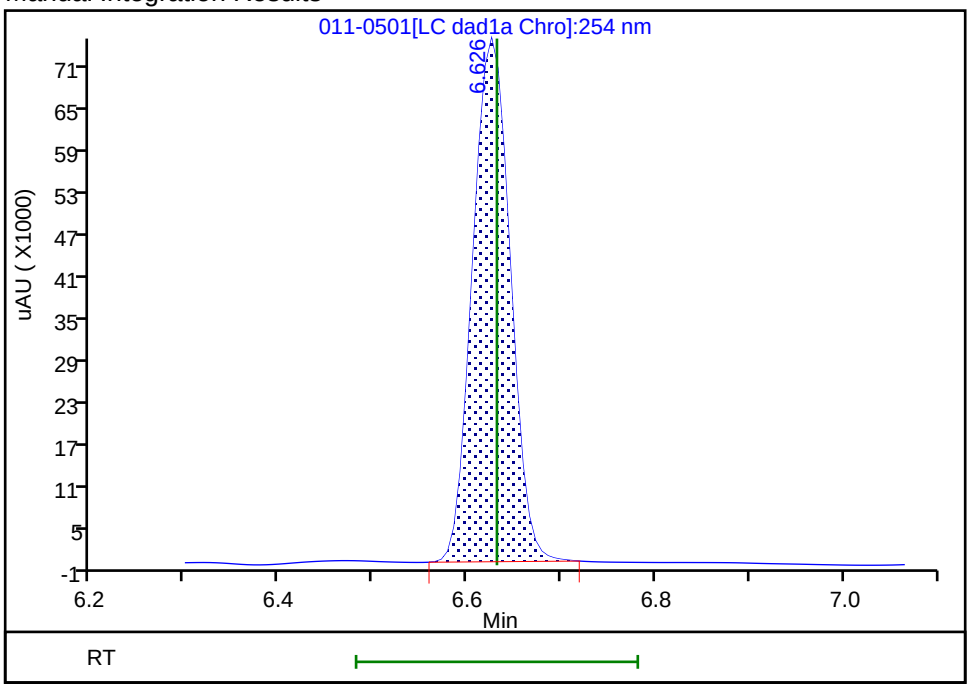
Processing Integration Results

RT: 6.63
Area: 214677
Amount: 2.481723
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 208165
Amount: 2.465784
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:15:42

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\012-0601.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 01-May-2021 18:23:59 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:07 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:04

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.626 | 6.631 | -0.005 | 83899 | 1.00 | 0.99 | M |
| 7 RDX | 1 | 7.593 | 7.598 | -0.005 | 101616 | 1.00 | 0.9563 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.920 | 7.958 | -0.038 | 79230 | 1.00 | 0.9578 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.520 | 8.525 | -0.005 | 132080 | 1.00 | 1.03 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.646 | 8.651 | -0.005 | 220037 | 1.00 | 1.00 | |
| 11 1,3-Dinitrobenzene | 1 | 9.273 | 9.278 | -0.005 | 296509 | 1.00 | 1.00 | |
| 12 Nitrobenzene | 1 | 9.659 | 9.664 | -0.005 | 194820 | 1.00 | 1.00 | |
| 14 Tetryl | 1 | 9.973 | 9.978 | -0.005 | 173586 | 1.00 | 1.01 | |
| 15 Nitroglycerin | 2 | 10.433 | 10.438 | -0.005 | 652752 | 10.0 | 10.1 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.899 | 10.904 | -0.005 | 205715 | 1.00 | 1.00 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.099 | 11.111 | -0.012 | 146728 | 1.00 | 0.9605 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.359 | 11.371 | -0.012 | 204025 | 1.00 | 0.9860 | |
| 19 2,6-Dinitrotoluene | 1 | 11.526 | 11.531 | -0.005 | 144143 | 1.00 | 1.01 | |
| 20 2,4-Dinitrotoluene | 1 | 11.699 | 11.704 | -0.005 | 285012 | 1.00 | 0.99 | |
| 21 o-Nitrotoluene | 1 | 12.566 | 12.578 | -0.012 | 124724 | 1.00 | 0.9714 | |
| 22 p-Nitrotoluene | 1 | 13.006 | 13.011 | -0.005 | 107567 | 1.00 | 0.9612 | |
| 23 m-Nitrotoluene | 1 | 13.593 | 13.604 | -0.011 | 137092 | 1.00 | 0.9638 | |
| 24 PETN | 2 | 14.679 | 14.684 | -0.005 | 746366 | 10.0 | 9.98 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

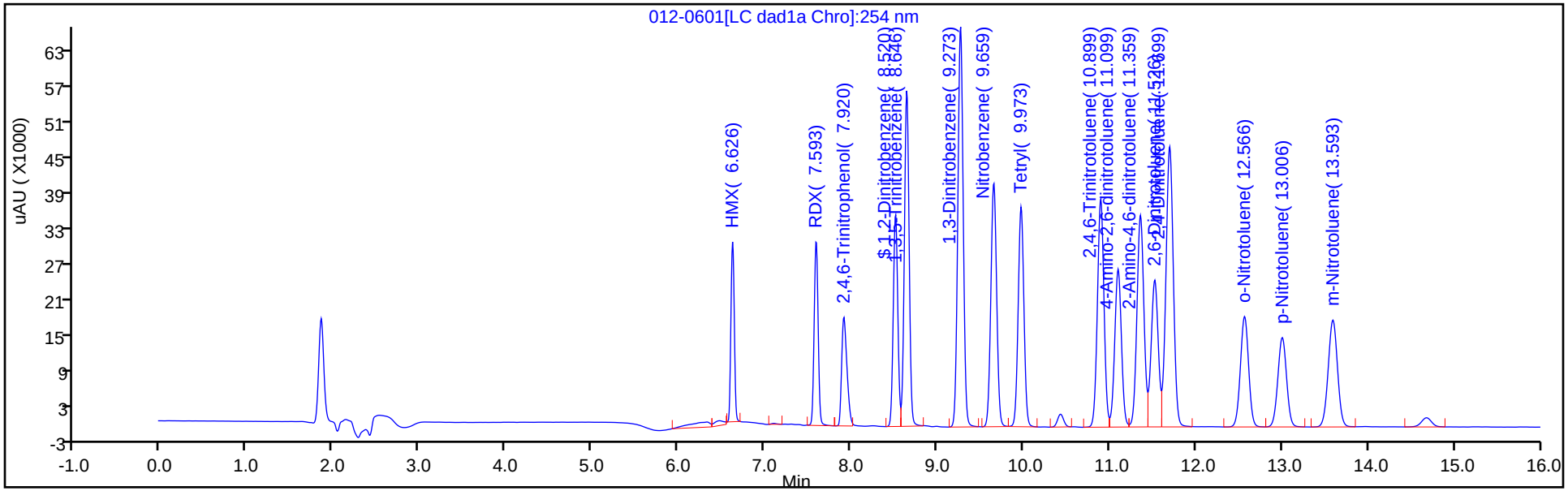
8330IntermStk_00067 Amount Added: 100.00 Units: uL

Report Date: 04-May-2021 13:25:07 Chrom Revision: 2.3 08-Apr-2021 17:17:48

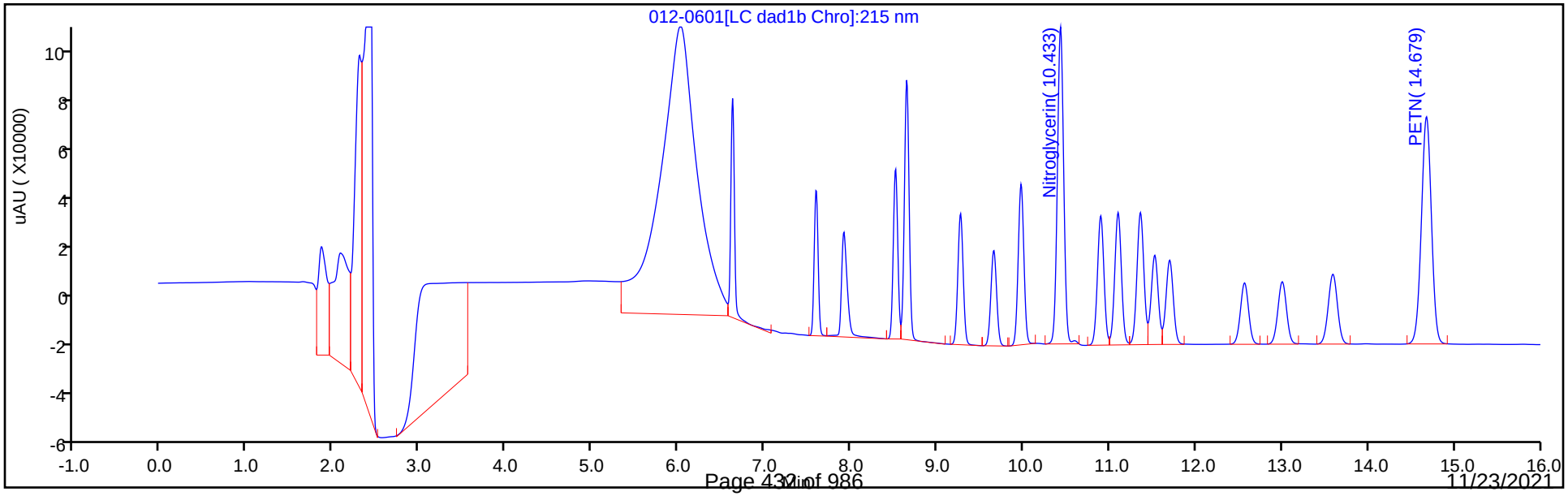
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\012-0601.d | | | | |
| Injection Date: | 01-May-2021 18:23:59 | 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

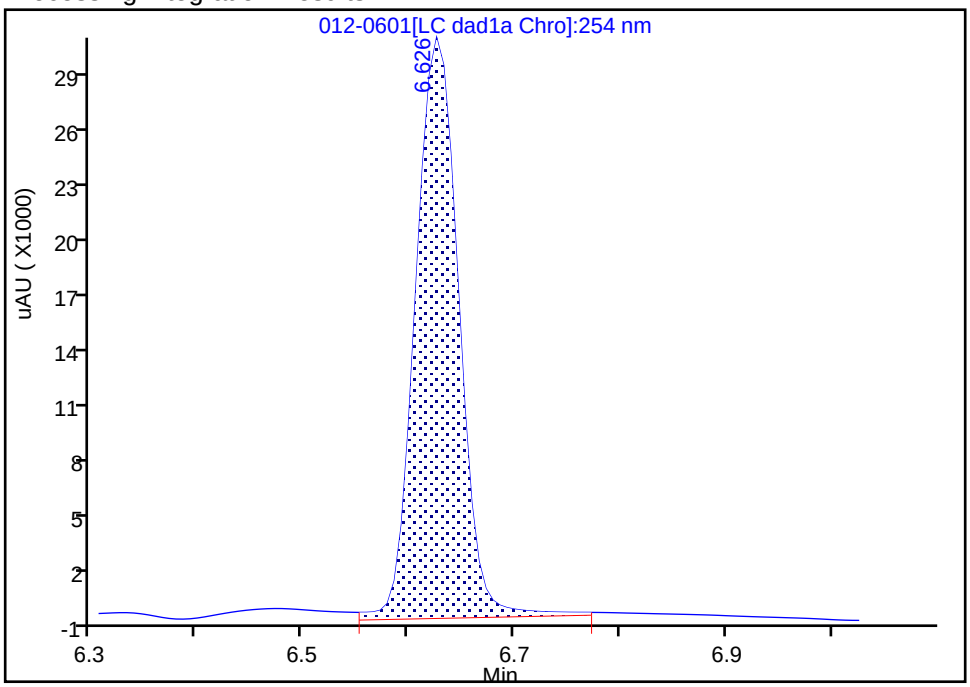
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\012-0601.d | | | | |
| Injection Date: | 01-May-2021 18:23:59 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

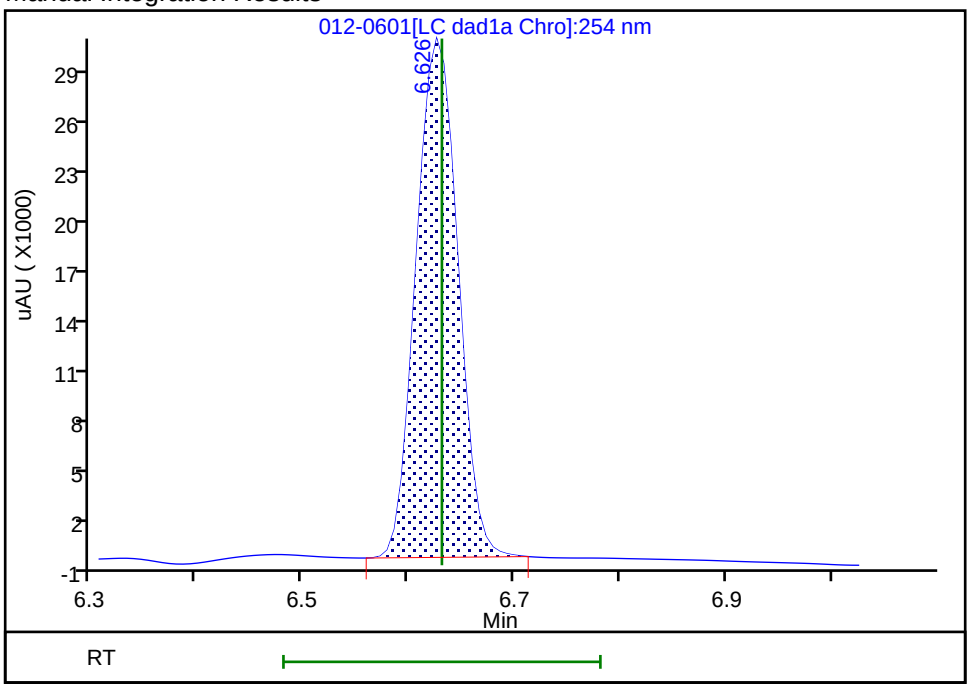
Processing Integration Results

RT: 6.63
Area: 88052
Amount: 1.025258
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 83899
Amount: 0.993812
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:15:59
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\013-0701.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 01-May-2021 18:46:55 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:07 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:11

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.631 | 6.631 | 0.000 | 58367 | 0.7000 | 0.6914 | M |
| 7 RDX | 1 | 7.604 | 7.598 | 0.006 | 71020 | 0.7000 | 0.6684 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.937 | 7.958 | -0.021 | 55582 | 0.7000 | 0.6719 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.524 | 8.525 | -0.001 | 91915 | 0.7000 | 0.7169 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.651 | 8.651 | 0.000 | 154539 | 0.7014 | 0.7014 | |
| 11 1,3-Dinitrobenzene | 1 | 9.277 | 9.278 | -0.001 | 206721 | 0.7014 | 0.6976 | |
| 12 Nitrobenzene | 1 | 9.664 | 9.664 | 0.000 | 136648 | 0.7028 | 0.6997 | |
| 14 Tetryl | 1 | 9.977 | 9.978 | -0.001 | 121126 | 0.7014 | 0.7025 | |
| 15 Nitroglycerin | 2 | 10.437 | 10.438 | -0.001 | 434747 | 7.00 | 6.72 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.904 | 10.904 | 0.000 | 143142 | 0.7028 | 0.6947 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.104 | 11.111 | -0.007 | 102258 | 0.7007 | 0.6694 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.364 | 11.371 | -0.007 | 141712 | 0.7028 | 0.6848 | |
| 19 2,6-Dinitrotoluene | 1 | 11.531 | 11.531 | 0.000 | 100565 | 0.7028 | 0.7029 | |
| 20 2,4-Dinitrotoluene | 1 | 11.704 | 11.704 | 0.000 | 198852 | 0.7028 | 0.6928 | |
| 21 o-Nitrotoluene | 1 | 12.571 | 12.578 | -0.007 | 87294 | 0.7000 | 0.6799 | |
| 22 p-Nitrotoluene | 1 | 13.011 | 13.011 | 0.000 | 75212 | 0.7014 | 0.6721 | |
| 23 m-Nitrotoluene | 1 | 13.597 | 13.604 | -0.007 | 95835 | 0.7007 | 0.6737 | |
| 24 PETN | 2 | 14.684 | 14.684 | 0.000 | 519589 | 7.00 | 6.95 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

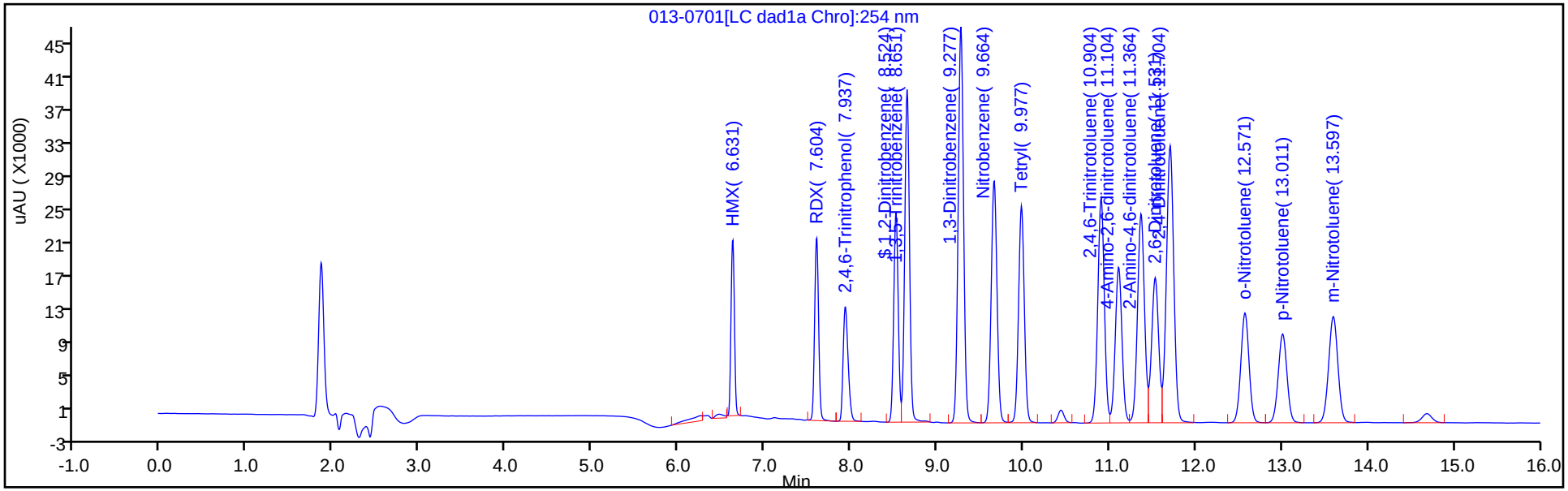
8330IntermStk_00067 Amount Added: 70.00 Units: uL

Report Date: 04-May-2021 13:25:07 Chrom Revision: 2.3 08-Apr-2021 17:17:48

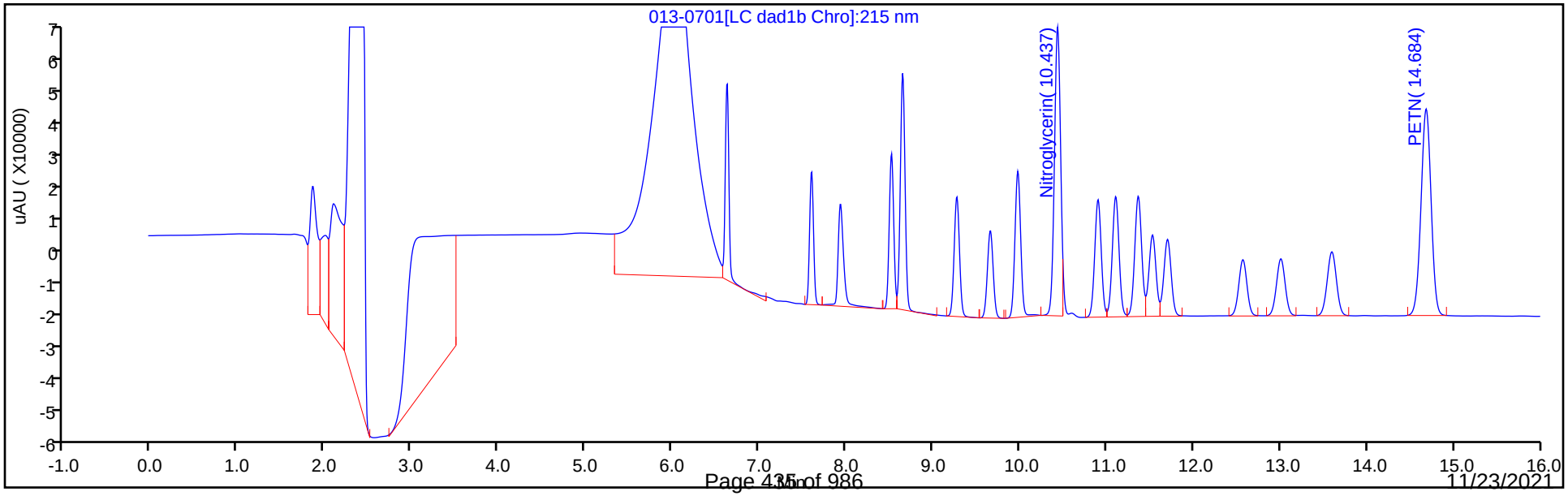
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\013-0701.d | | | | |
| Injection Date: | 01-May-2021 18:46:55 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

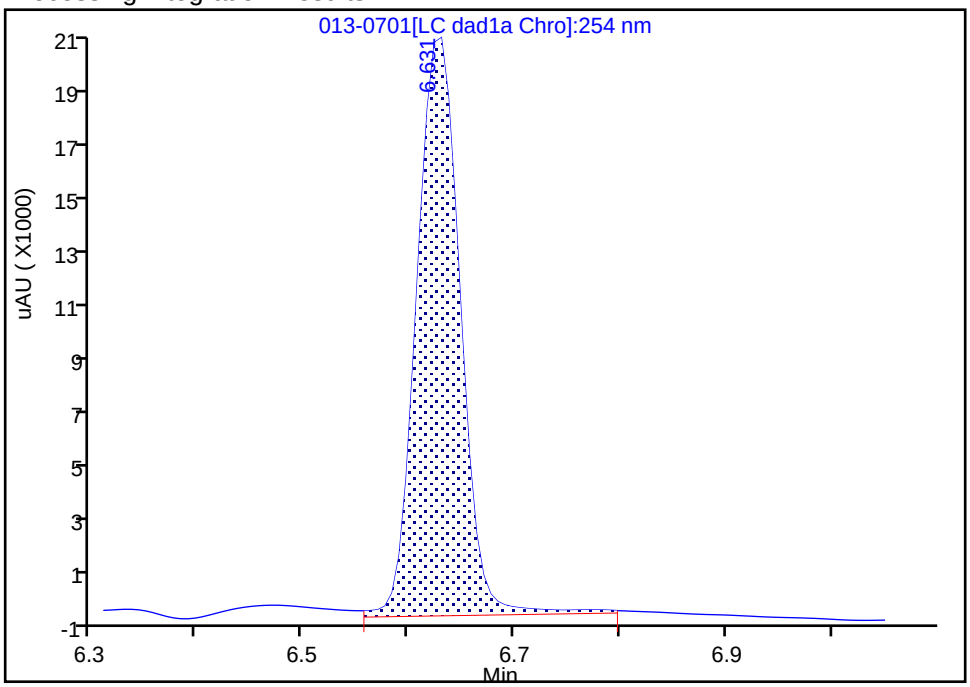
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\013-0701.d | | | | |
| Injection Date: | 01-May-2021 18:46:55 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

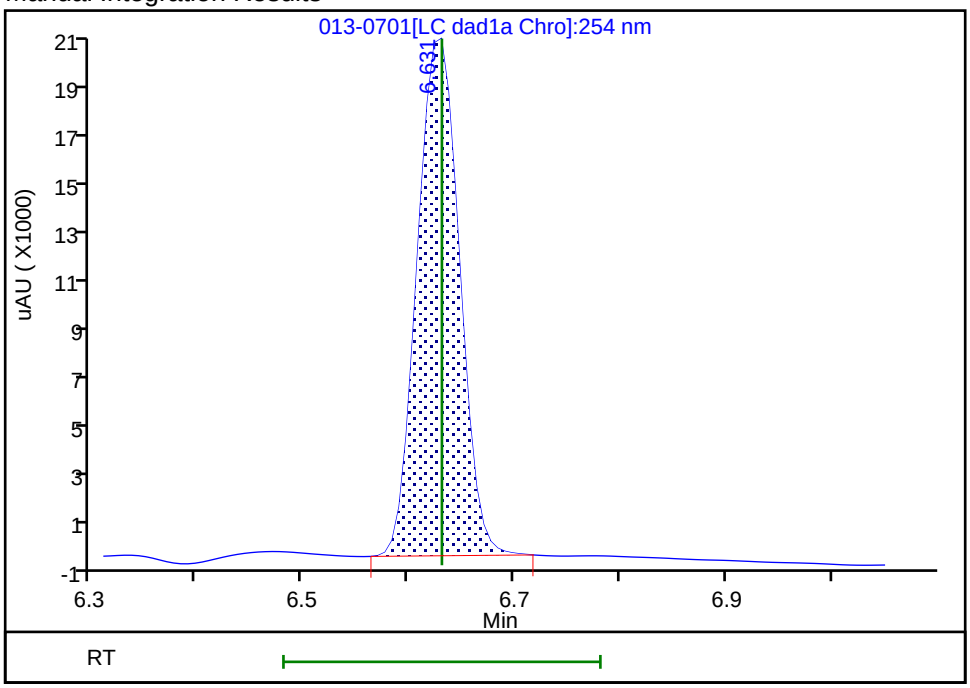
Processing Integration Results

RT: 6.63
Area: 61109
Amount: 0.713851
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 58367
Amount: 0.691377
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:10

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\014-0801.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-May-2021 19:09:54 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:08 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:20

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.627 | 6.631 | -0.004 | 33261 | 0.4000 | 0.3940 | M |
| 7 RDX | 1 | 7.601 | 7.598 | 0.003 | 40790 | 0.4000 | 0.3839 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.947 | 7.958 | -0.011 | 31820 | 0.4000 | 0.3847 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.527 | 8.525 | 0.002 | 52377 | 0.4000 | 0.4085 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.654 | 8.651 | 0.003 | 87233 | 0.4008 | 0.3959 | |
| 11 1,3-Dinitrobenzene | 1 | 9.281 | 9.278 | 0.003 | 117621 | 0.4008 | 0.3969 | |
| 12 Nitrobenzene | 1 | 9.667 | 9.664 | 0.003 | 77656 | 0.4016 | 0.3977 | |
| 14 Tetryl | 1 | 9.981 | 9.978 | 0.003 | 69168 | 0.4008 | 0.4012 | |
| 15 Nitroglycerin | 2 | 10.441 | 10.438 | 0.003 | 262320 | 4.00 | 4.03 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.907 | 10.904 | 0.003 | 81630 | 0.4016 | 0.3962 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.114 | 11.111 | 0.003 | 58412 | 0.4004 | 0.3824 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.374 | 11.371 | 0.003 | 81166 | 0.4016 | 0.3922 | |
| 19 2,6-Dinitrotoluene | 1 | 11.541 | 11.531 | 0.010 | 56504 | 0.4016 | 0.3949 | |
| 20 2,4-Dinitrotoluene | 1 | 11.714 | 11.704 | 0.010 | 114050 | 0.4016 | 0.3974 | |
| 21 o-Nitrotoluene | 1 | 12.581 | 12.578 | 0.003 | 49881 | 0.4000 | 0.3885 | |
| 22 p-Nitrotoluene | 1 | 13.021 | 13.011 | 0.010 | 43055 | 0.4008 | 0.3847 | |
| 23 m-Nitrotoluene | 1 | 13.607 | 13.604 | 0.003 | 54796 | 0.4004 | 0.3852 | |
| 24 PETN | 2 | 14.694 | 14.684 | 0.010 | 296622 | 4.00 | 3.97 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

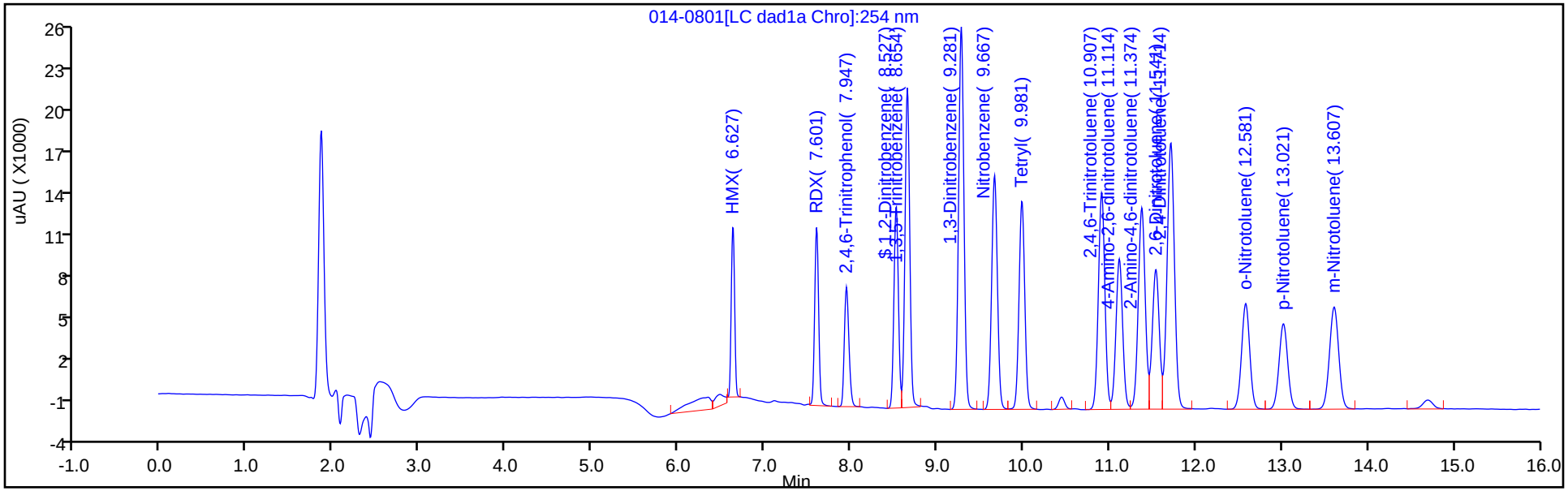
8330IntermStk_00067 Amount Added: 40.00 Units: uL

Report Date: 04-May-2021 13:25:08 Chrom Revision: 2.3 08-Apr-2021 17:17:48

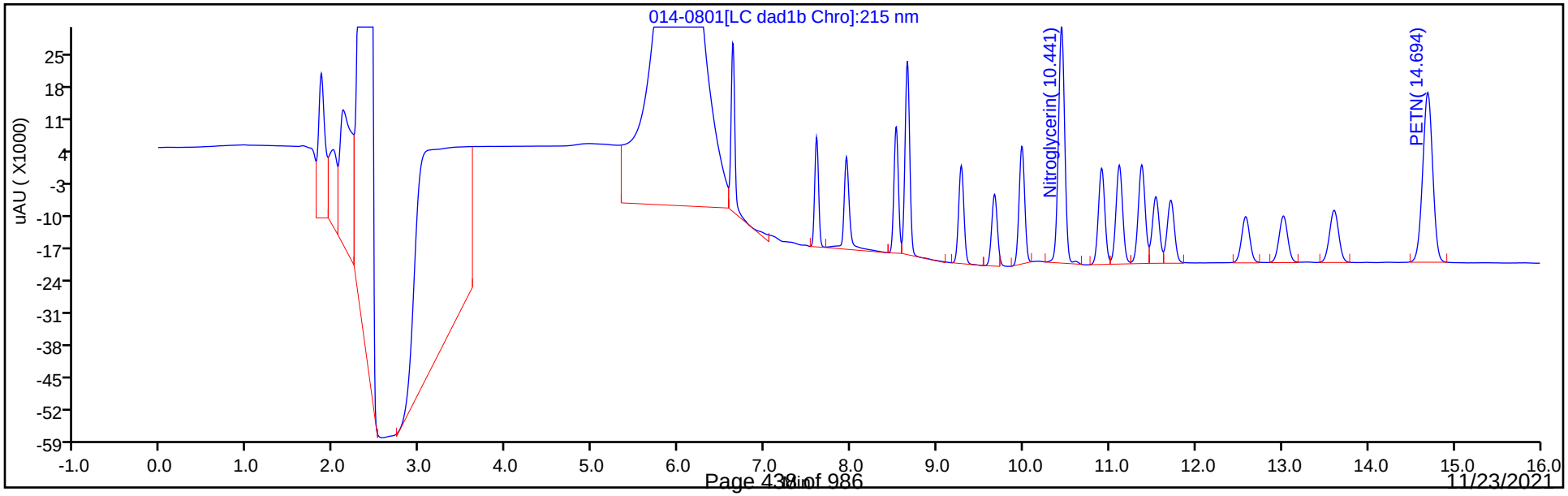
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\014-0801.d | | | | |
| Injection Date: | 01-May-2021 19:09:54 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

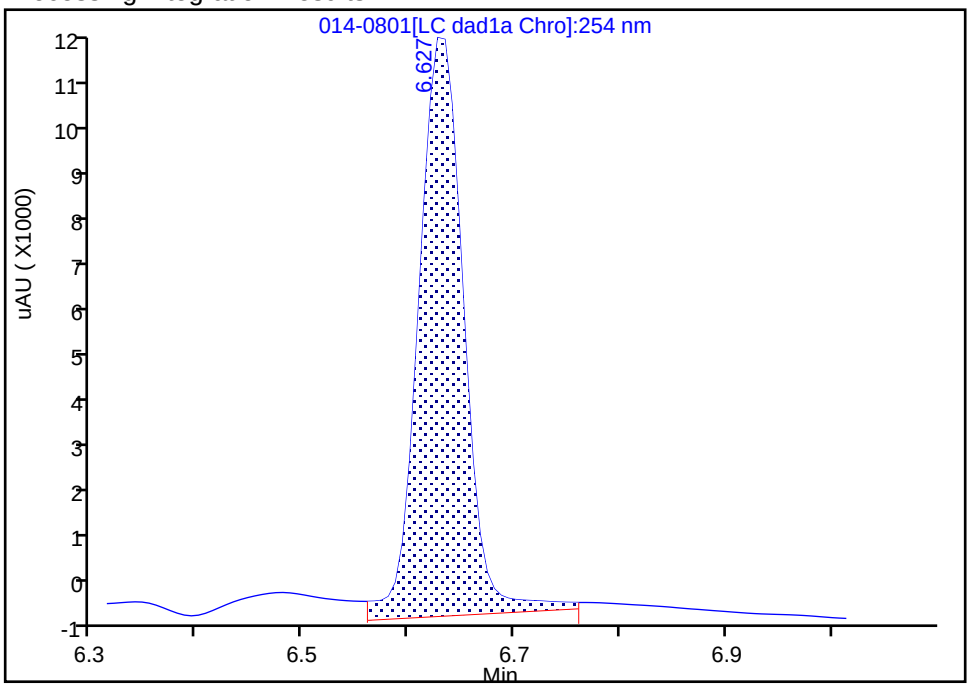
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\014-0801.d | | | | |
| Injection Date: | 01-May-2021 19:09:54 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

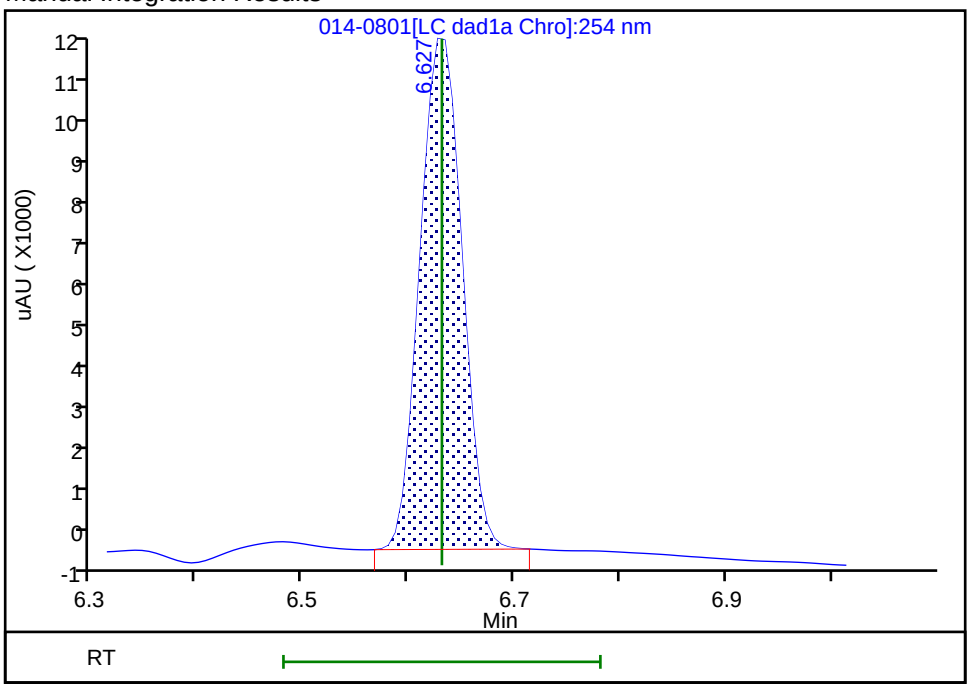
Processing Integration Results

RT: 6.63
Area: 36722
Amount: 0.425419
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 33261
Amount: 0.393988
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:17
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\015-0901.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 01-May-2021 19:32:52 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:08 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:29

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.631 | 6.631 | 0.000 | 20261 | 0.2500 | 0.2400 | M |
| 7 RDX | 1 | 7.597 | 7.598 | -0.001 | 25193 | 0.2500 | 0.2371 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.951 | 7.958 | -0.007 | 19525 | 0.2500 | 0.2360 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.517 | 8.525 | -0.008 | 31539 | 0.2500 | 0.2460 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.651 | 8.651 | 0.000 | 53082 | 0.2505 | 0.2409 | |
| 11 1,3-Dinitrobenzene | 1 | 9.271 | 9.278 | -0.007 | 71373 | 0.2505 | 0.2409 | |
| 12 Nitrobenzene | 1 | 9.657 | 9.664 | -0.007 | 47122 | 0.2510 | 0.2413 | |
| 14 Tetryl | 1 | 9.977 | 9.978 | -0.001 | 42079 | 0.2505 | 0.2440 | |
| 15 Nitroglycerin | 2 | 10.437 | 10.438 | -0.001 | 163334 | 2.50 | 2.48 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.904 | 10.904 | 0.000 | 49667 | 0.2510 | 0.2411 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.104 | 11.111 | -0.007 | 35838 | 0.2503 | 0.2346 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.364 | 11.371 | -0.007 | 49194 | 0.2510 | 0.2377 | |
| 19 2,6-Dinitrotoluene | 1 | 11.531 | 11.531 | 0.000 | 34973 | 0.2510 | 0.2444 | |
| 20 2,4-Dinitrotoluene | 1 | 11.704 | 11.704 | 0.000 | 68930 | 0.2510 | 0.2402 | |
| 21 o-Nitrotoluene | 1 | 12.571 | 12.578 | -0.007 | 30342 | 0.2500 | 0.2363 | |
| 22 p-Nitrotoluene | 1 | 13.011 | 13.011 | 0.000 | 26060 | 0.2505 | 0.2329 | |
| 23 m-Nitrotoluene | 1 | 13.597 | 13.604 | -0.007 | 33440 | 0.2503 | 0.2351 | |
| 24 PETN | 2 | 14.684 | 14.684 | 0.000 | 179819 | 2.50 | 2.40 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

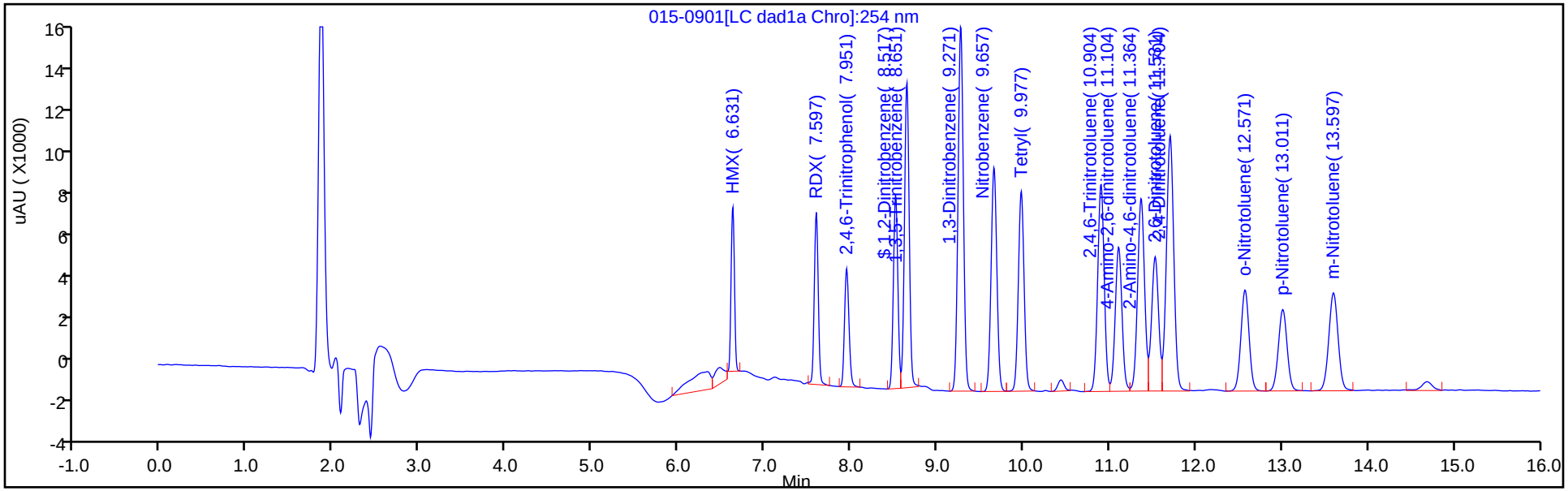
8330IntermStk_00067 Amount Added: 25.00 Units: uL

Report Date: 04-May-2021 13:25:08 Chrom Revision: 2.3 08-Apr-2021 17:17:48

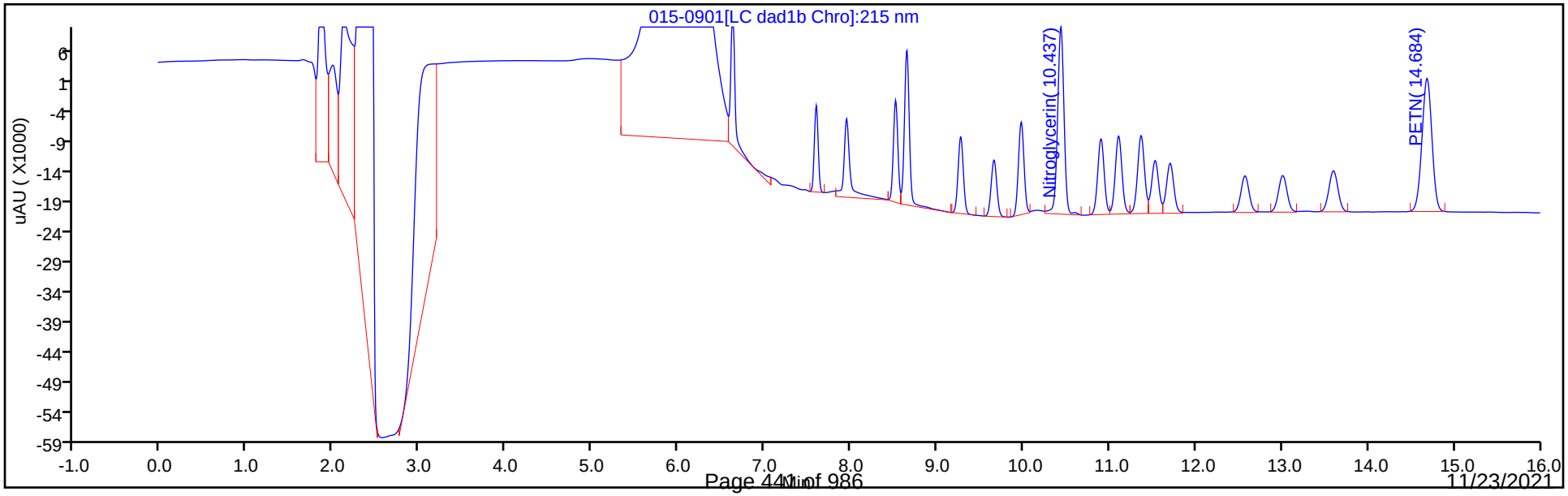
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\015-0901.d | | | | |
| Injection Date: | 01-May-2021 19:32:52 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

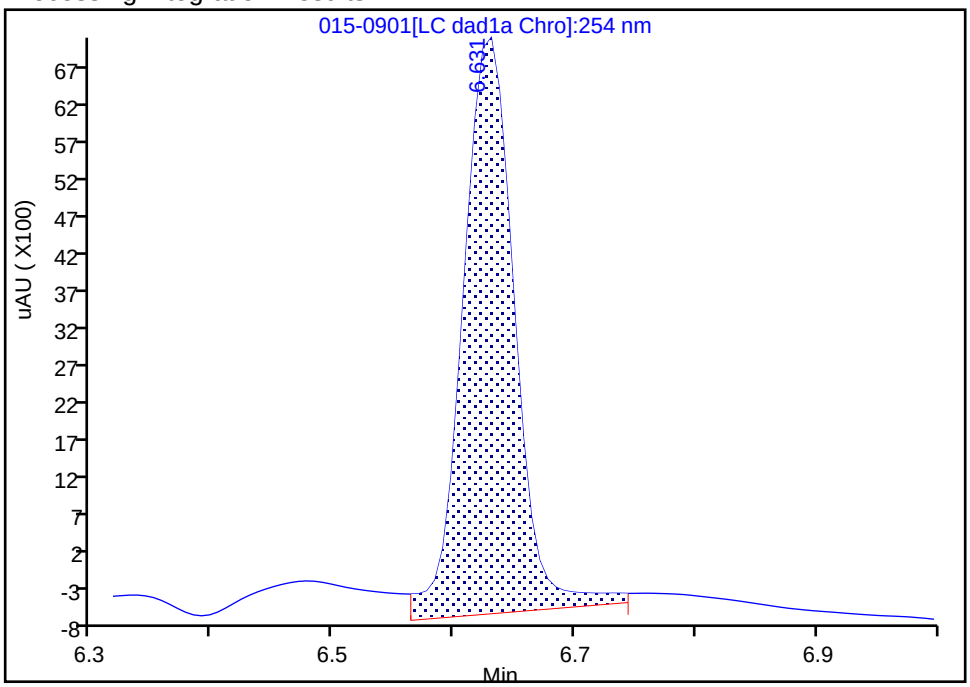
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\015-0901.d | | | | |
| Injection Date: | 01-May-2021 19:32:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

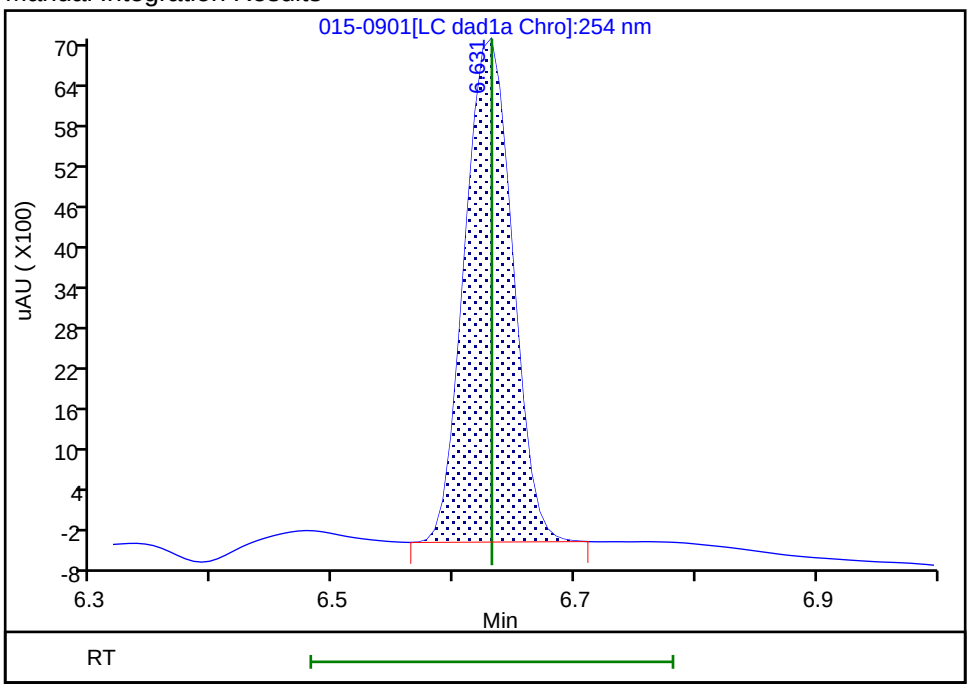
Processing Integration Results

RT: 6.63
Area: 22828
Amount: 0.260662
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 20261
Amount: 0.239998
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:27

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\016-1001.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-May-2021 19:55:49 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:09 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:38

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.631 | 6.631 | 0.000 | 8561 | 0.1000 | 0.1014 | M |
| 7 RDX | 1 | 7.598 | 7.598 | 0.000 | 11245 | 0.1000 | 0.1058 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.958 | 7.958 | 0.000 | 8317 | 0.1000 | 0.1005 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.525 | 8.525 | 0.000 | 13218 | 0.1000 | 0.1031 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.651 | 8.651 | 0.000 | 22114 | 0.1002 | 0.1004 | |
| 11 1,3-Dinitrobenzene | 1 | 9.278 | 9.278 | 0.000 | 30099 | 0.1002 | 0.1016 | |
| 12 Nitrobenzene | 1 | 9.664 | 9.664 | 0.000 | 20078 | 0.1004 | 0.1028 | |
| 14 Tetryl | 1 | 9.978 | 9.978 | 0.000 | 17920 | 0.1002 | 0.1039 | |
| 15 Nitroglycerin | 2 | 10.438 | 10.438 | 0.000 | 71053 | 1.00 | 1.04 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.904 | 10.904 | 0.000 | 21286 | 0.1004 | 0.1033 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.111 | 11.111 | 0.000 | 15505 | 0.1001 | 0.1015 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.371 | 11.371 | 0.000 | 21203 | 0.1004 | 0.1025 | |
| 19 2,6-Dinitrotoluene | 1 | 11.531 | 11.531 | 0.000 | 14557 | 0.1004 | 0.1017 | |
| 20 2,4-Dinitrotoluene | 1 | 11.704 | 11.704 | 0.000 | 29362 | 0.1004 | 0.1023 | |
| 21 o-Nitrotoluene | 1 | 12.578 | 12.578 | 0.000 | 13138 | 0.1000 | 0.1023 | |
| 22 p-Nitrotoluene | 1 | 13.011 | 13.011 | 0.000 | 11083 | 0.1002 | 0.0990 | |
| 23 m-Nitrotoluene | 1 | 13.604 | 13.604 | 0.000 | 14179 | 0.1001 | 0.0997 | |
| 24 PETN | 2 | 14.684 | 14.684 | 0.000 | 75747 | 1.00 | 1.01 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

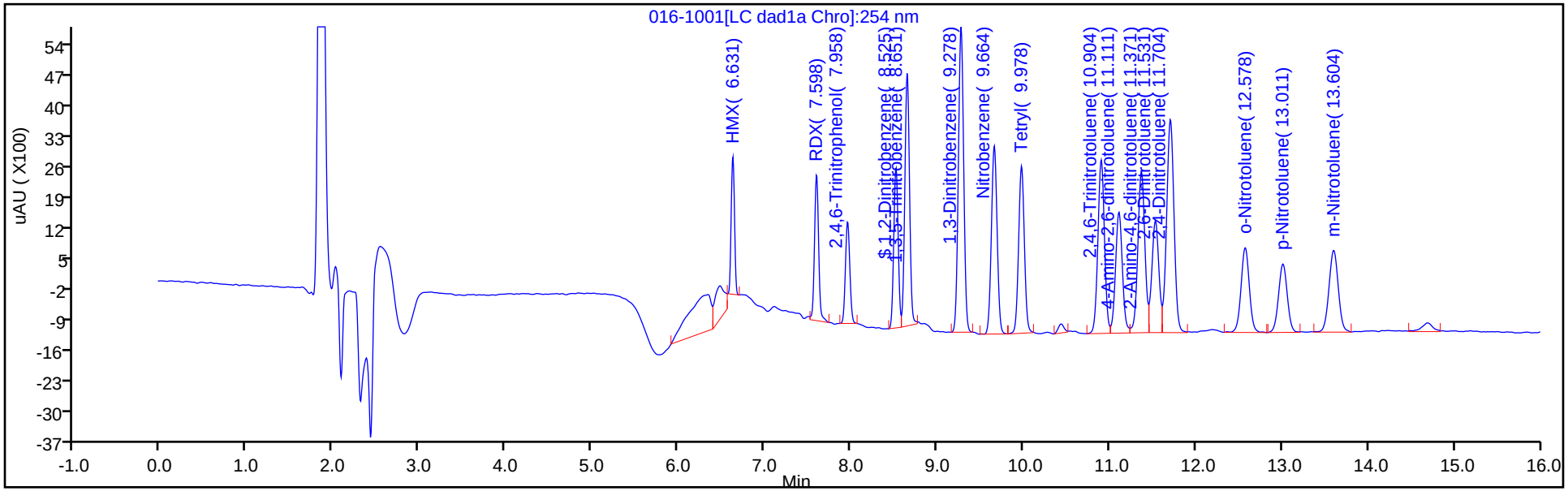
8330IntermStk_00067 Amount Added: 10.00 Units: uL

Report Date: 04-May-2021 13:25:09 Chrom Revision: 2.3 08-Apr-2021 17:17:48

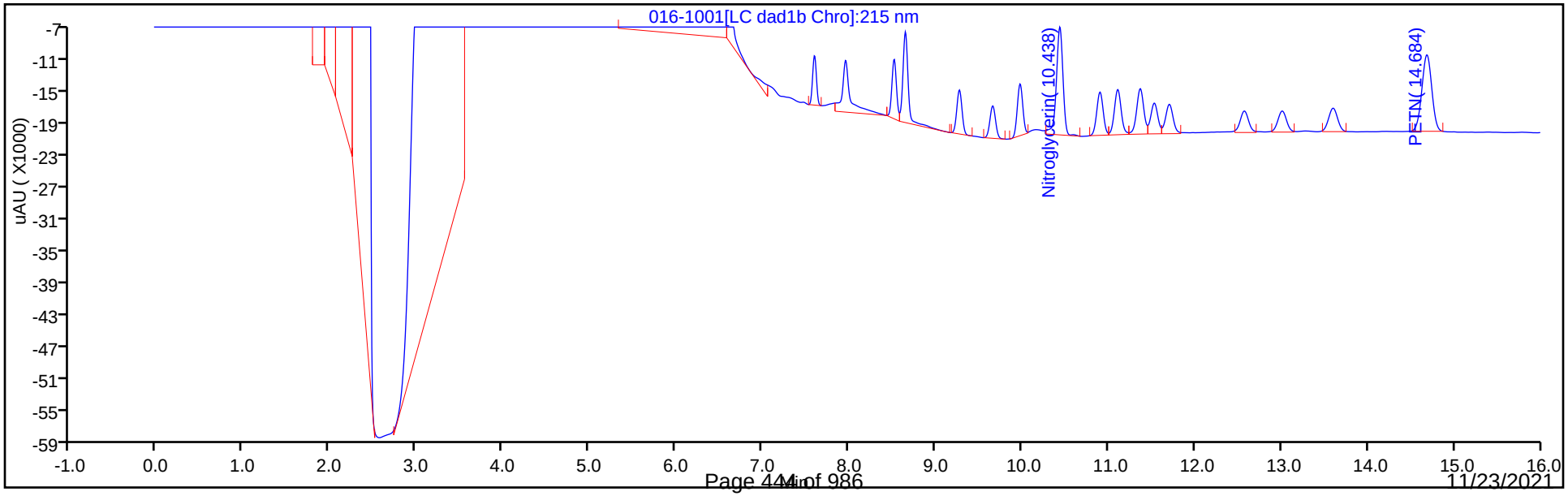
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\016-1001.d | | | | |
| Injection Date: | 01-May-2021 19:55:49 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

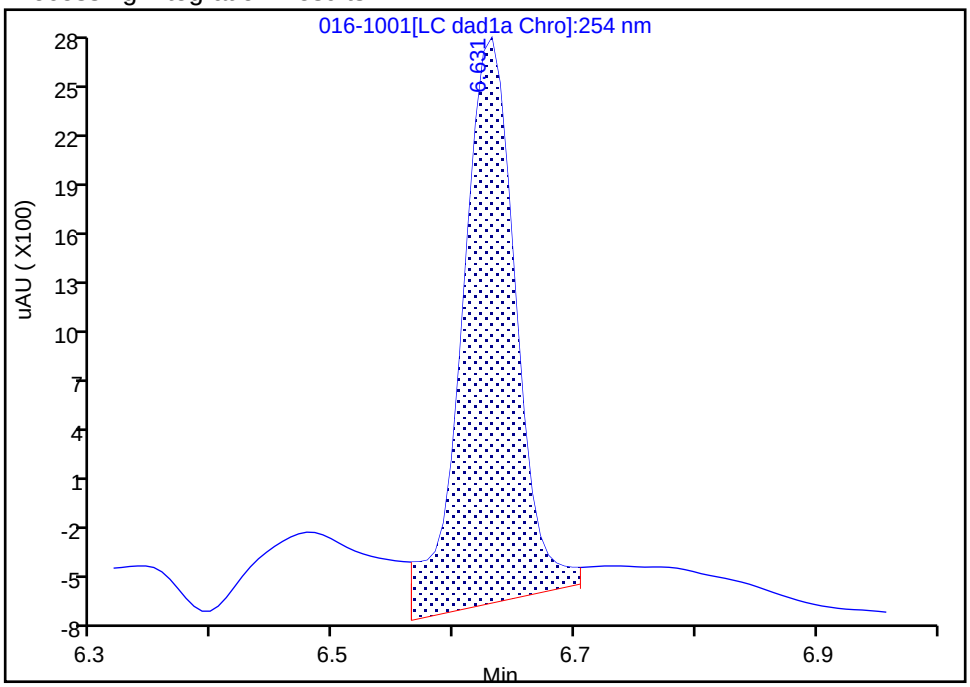
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\016-1001.d | | | | |
| Injection Date: | 01-May-2021 19:55:49 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 16 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

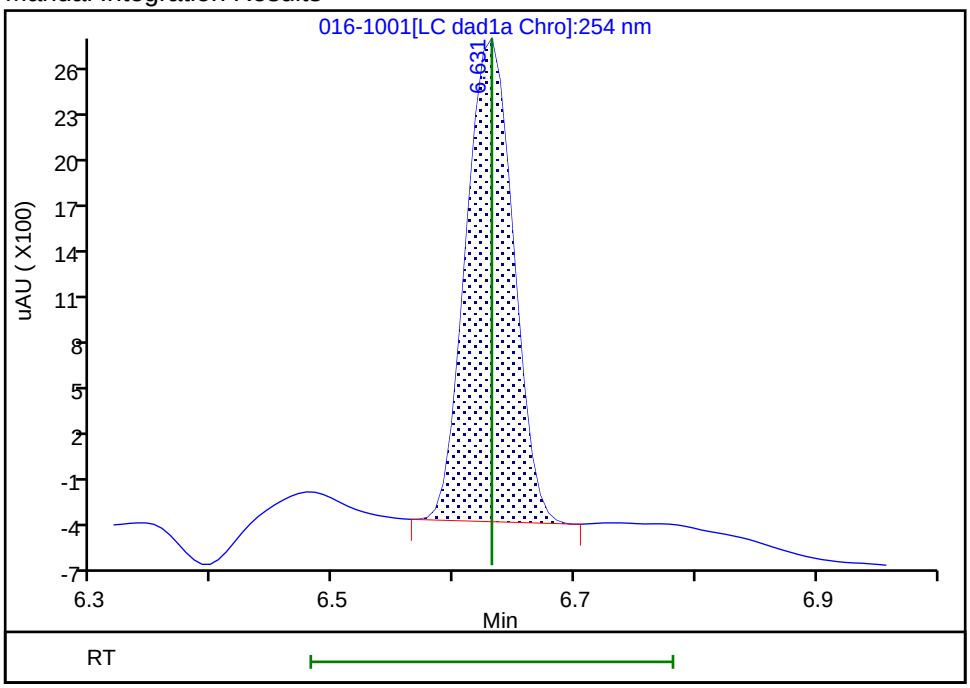
Processing Integration Results

RT: 6.63
Area: 10439
Amount: 0.111561
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 8561
Amount: 0.101408
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:35

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\017-1101.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 01-May-2021 20:18:45 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:10 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:16:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.628 | 6.631 | -0.003 | 4242 | 0.0500 | 0.0502 | M |
| 7 RDX | 1 | 7.602 | 7.598 | 0.004 | 6054 | 0.0500 | 0.0570 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.968 | 7.958 | 0.010 | 4575 | 0.0500 | 0.0553 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.522 | 8.525 | -0.003 | 6504 | 0.0500 | 0.0507 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.655 | 8.651 | 0.004 | 11361 | 0.0501 | 0.0516 | |
| 11 1,3-Dinitrobenzene | 1 | 9.282 | 9.278 | 0.004 | 14927 | 0.0501 | 0.0504 | |
| 12 Nitrobenzene | 1 | 9.662 | 9.664 | -0.002 | 9892 | 0.0502 | 0.0507 | |
| 14 Tetryl | 1 | 9.982 | 9.978 | 0.004 | 8870 | 0.0501 | 0.0514 | |
| 15 Nitroglycerin | 2 | 10.442 | 10.438 | 0.004 | 36983 | 0.5000 | 0.5113 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.908 | 10.904 | 0.004 | 10514 | 0.0502 | 0.0510 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.115 | 11.111 | 0.004 | 7868 | 0.0501 | 0.0515 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.375 | 11.371 | 0.004 | 10789 | 0.0502 | 0.0521 | |
| 19 2,6-Dinitrotoluene | 1 | 11.535 | 11.531 | 0.004 | 7360 | 0.0502 | 0.0514 | |
| 20 2,4-Dinitrotoluene | 1 | 11.708 | 11.704 | 0.004 | 14647 | 0.0502 | 0.0510 | |
| 21 o-Nitrotoluene | 1 | 12.575 | 12.578 | -0.003 | 6616 | 0.0500 | 0.0515 | |
| 22 p-Nitrotoluene | 1 | 13.015 | 13.011 | 0.004 | 5724 | 0.0501 | 0.0511 | |
| 23 m-Nitrotoluene | 1 | 13.602 | 13.604 | -0.002 | 7187 | 0.0501 | 0.0505 | |
| 24 PETN | 2 | 14.688 | 14.684 | 0.004 | 37293 | 0.5000 | 0.4987 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

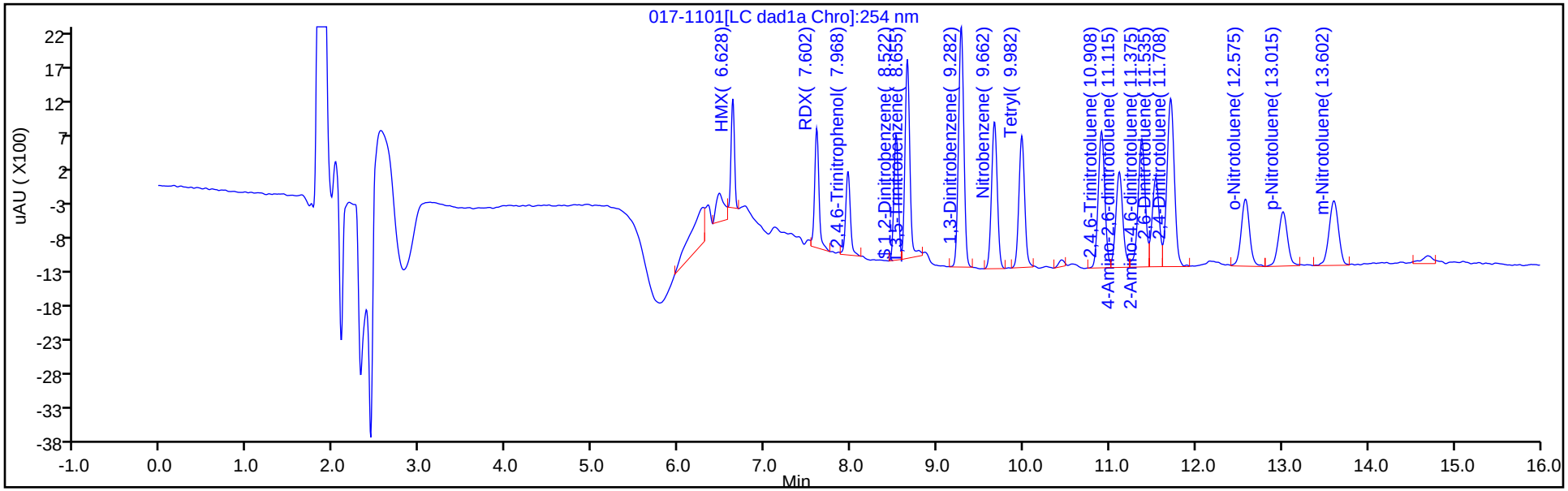
8330IntermStk_00067 Amount Added: 5.00 Units: uL

Report Date: 04-May-2021 13:25:10 Chrom Revision: 2.3 08-Apr-2021 17:17:48

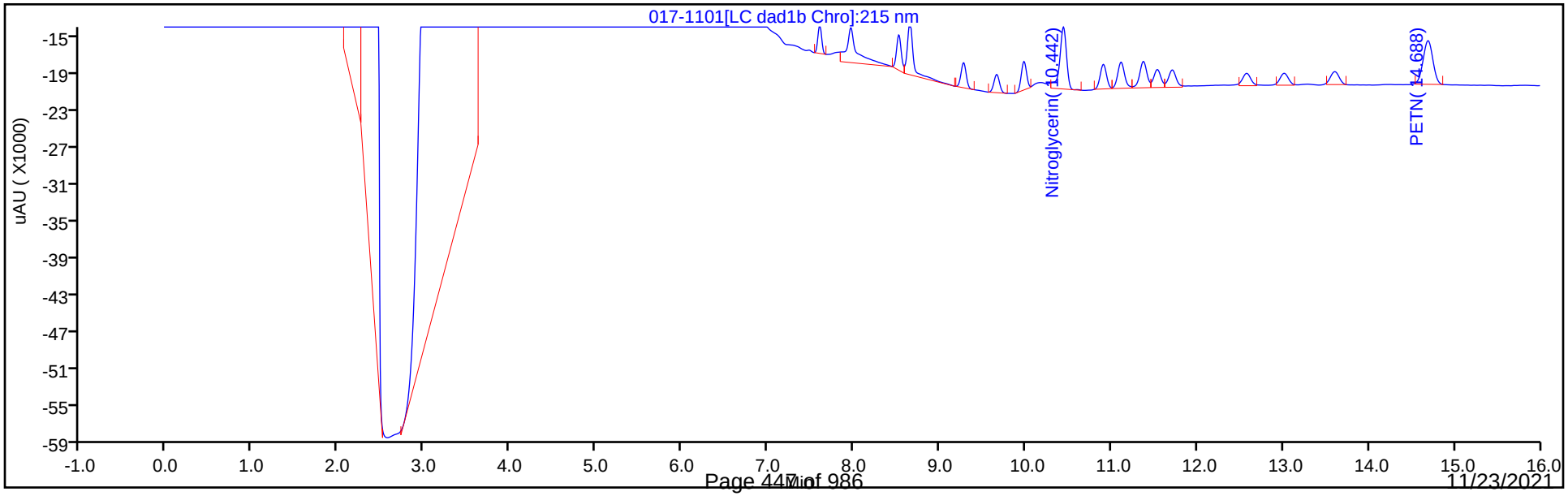
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\017-1101.d | | | | |
| Injection Date: | 01-May-2021 20:18:45 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

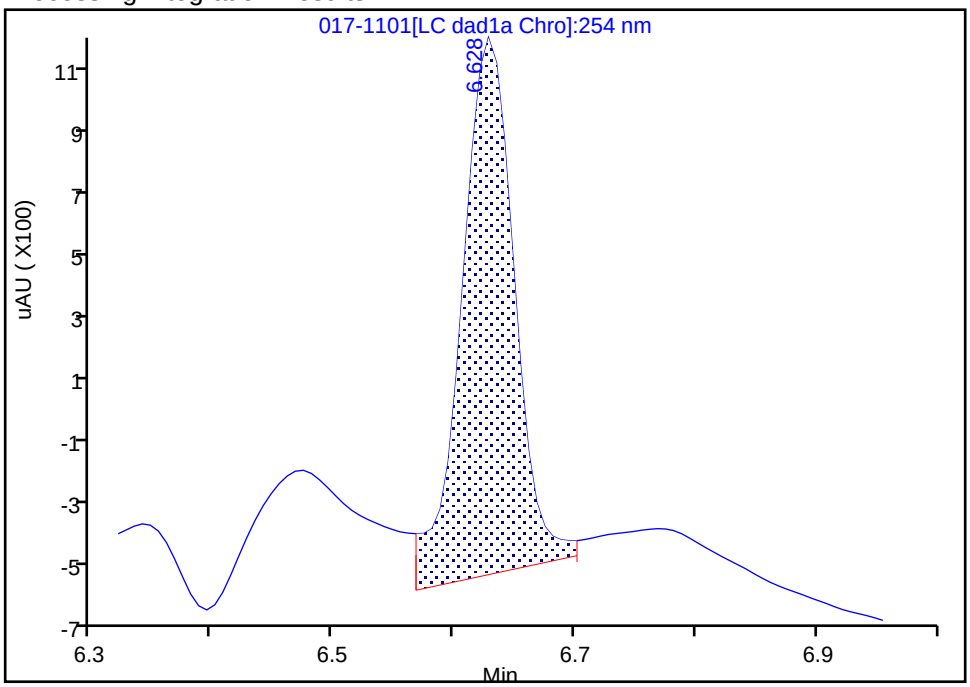
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\017-1101.d | | | | |
| Injection Date: | 01-May-2021 20:18:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 17 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

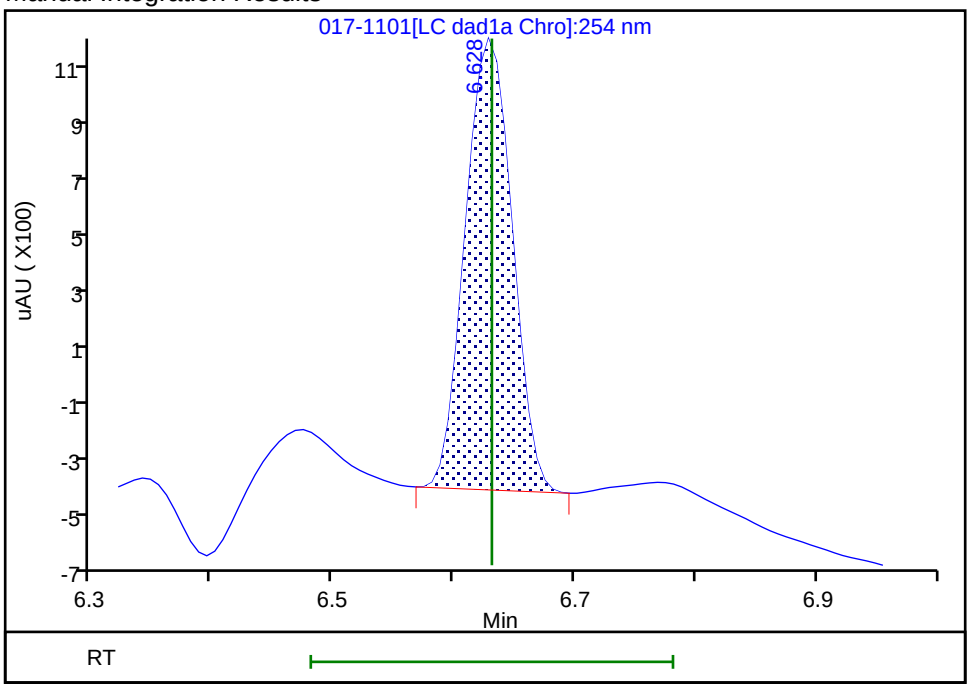
Processing Integration Results

RT: 6.63
Area: 5138
Amount: 0.048188
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 4242
Amount: 0.050248
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:49
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\018-1201.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-May-2021 20:41:41 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:10 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:17:07

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.626 | 6.631 | -0.005 | 1680 | 0.0200 | 0.0199 | M |
| 7 RDX | 1 | 7.606 | 7.598 | 0.008 | 2207 | 0.0200 | 0.0208 | M |
| 8 2,4,6-Trinitrophenol | 1 | 7.966 | 7.958 | 0.008 | 1840 | 0.0200 | 0.0222 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.526 | 8.525 | 0.001 | 2399 | 0.0200 | 0.0187 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.653 | 8.651 | 0.002 | 4038 | 0.0200 | 0.0183 | |
| 11 1,3-Dinitrobenzene | 1 | 9.280 | 9.278 | 0.002 | 6019 | 0.0200 | 0.0203 | |
| 12 Nitrobenzene | 1 | 9.666 | 9.664 | 0.002 | 3972 | 0.0201 | 0.0203 | |
| 14 Tetryl | 1 | 9.980 | 9.978 | 0.002 | 3331 | 0.0200 | 0.0193 | M |
| 15 Nitroglycerin | 2 | 10.440 | 10.438 | 0.002 | 16162 | 0.2000 | 0.1865 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.906 | 10.904 | 0.002 | 4156 | 0.0201 | 0.0202 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.106 | 11.111 | -0.005 | 3532 | 0.0200 | 0.0231 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.366 | 11.371 | -0.005 | 4433 | 0.0201 | 0.0214 | |
| 19 2,6-Dinitrotoluene | 1 | 11.533 | 11.531 | 0.002 | 2947 | 0.0201 | 0.0206 | |
| 20 2,4-Dinitrotoluene | 1 | 11.706 | 11.704 | 0.002 | 5945 | 0.0201 | 0.0207 | |
| 21 o-Nitrotoluene | 1 | 12.573 | 12.578 | -0.005 | 2737 | 0.0200 | 0.0213 | |
| 22 p-Nitrotoluene | 1 | 13.006 | 13.011 | -0.005 | 2633 | 0.0200 | 0.0235 | |
| 23 m-Nitrotoluene | 1 | 13.600 | 13.604 | -0.004 | 3121 | 0.0200 | 0.0219 | |
| 24 PETN | 2 | 14.680 | 14.684 | -0.004 | 14944 | 0.2000 | 0.1998 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

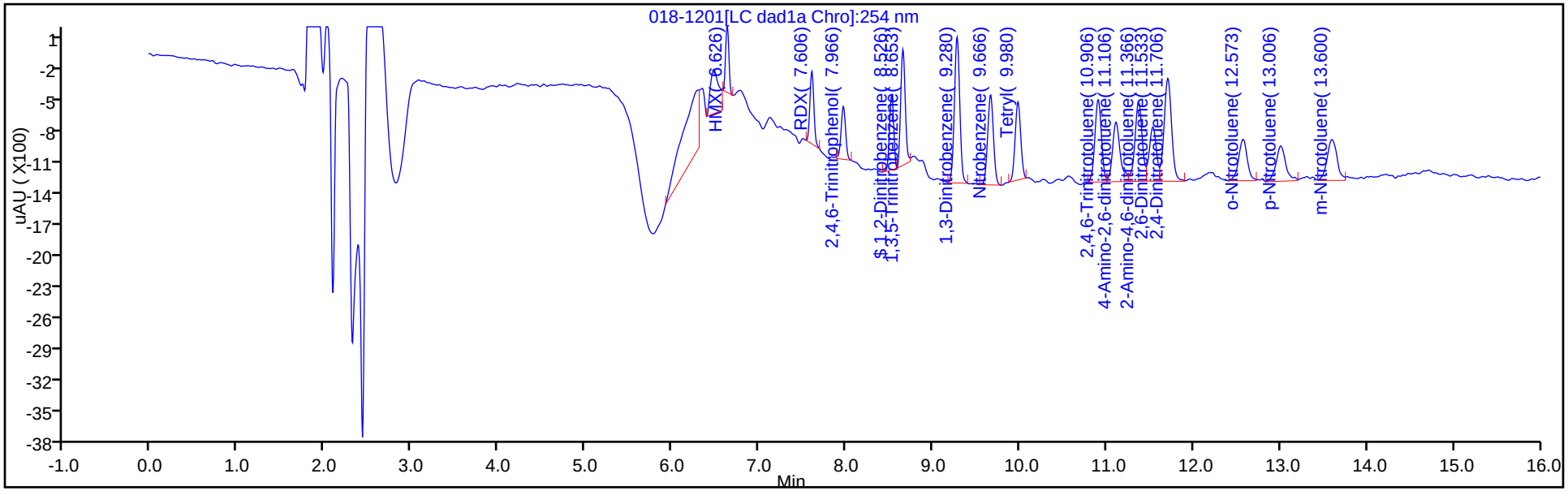
8330IntermStk_00067 Amount Added: 2.00 Units: uL

Report Date: 04-May-2021 13:25:11 Chrom Revision: 2.3 08-Apr-2021 17:17:48

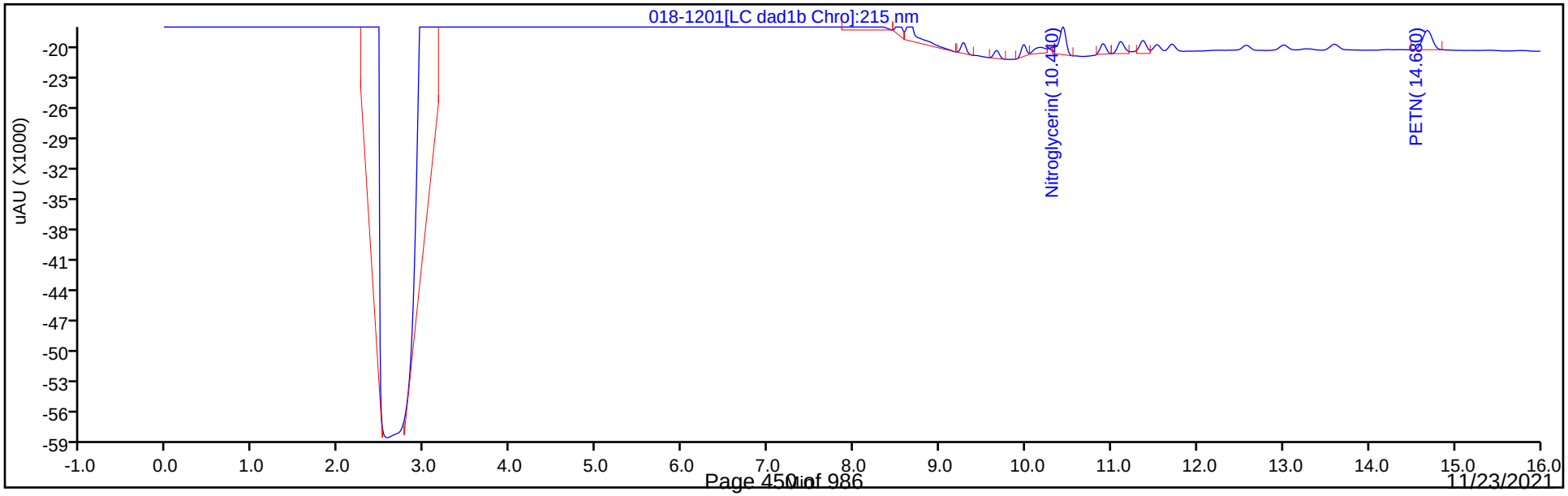
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\018-1201.d | | | | |
| Injection Date: | 01-May-2021 20:41:41 | 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

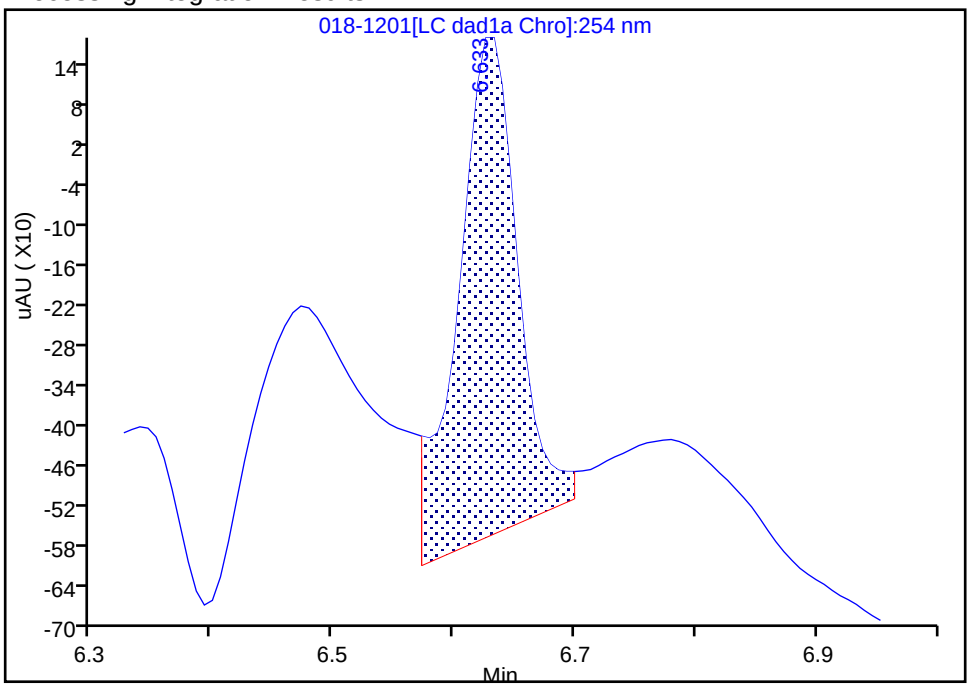
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\018-1201.d | | | | |
| Injection Date: | 01-May-2021 20:41:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

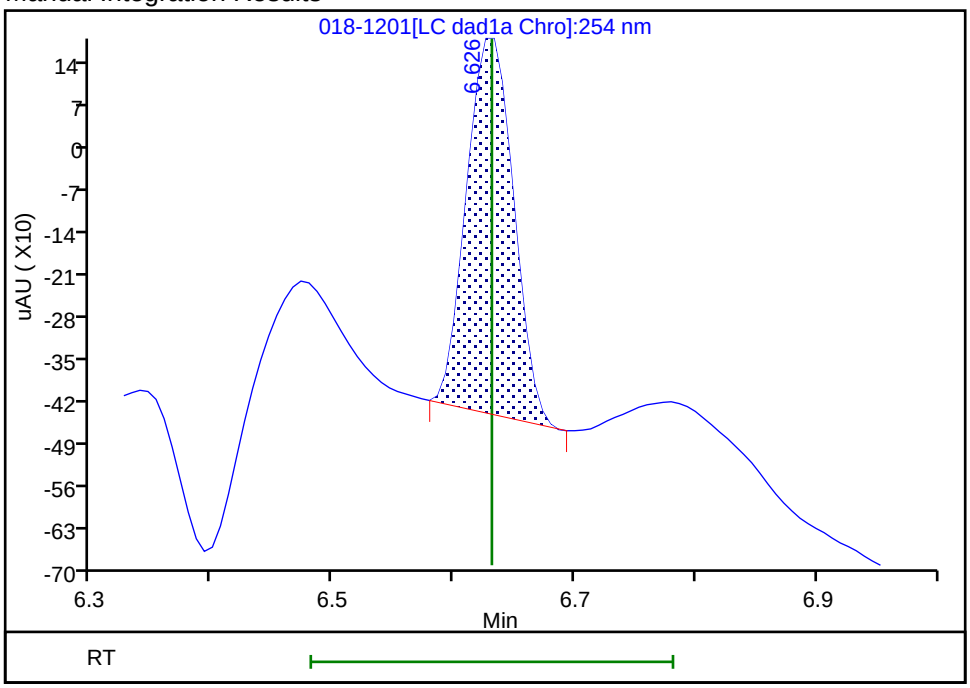
Processing Integration Results

RT: 6.63
Area: 2563
Amount: 0.017888
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 1680
Amount: 0.019900
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:16:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

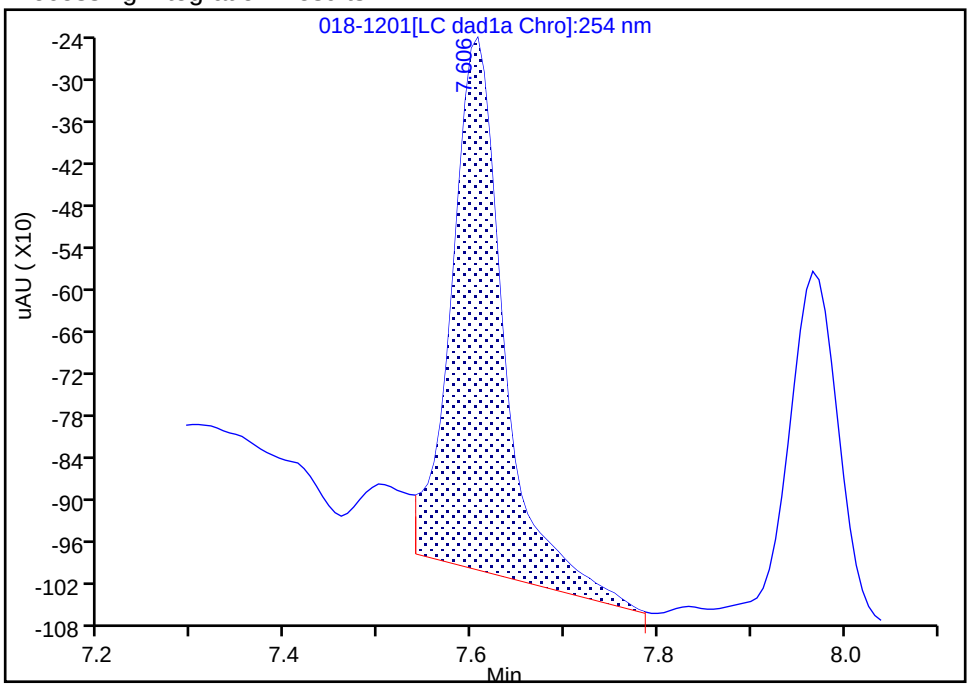
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\018-1201.d | | | | |
| Injection Date: | 01-May-2021 20:41:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | 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 | | |

## 7 RDX, CAS: 121-82-4

Signal: 1

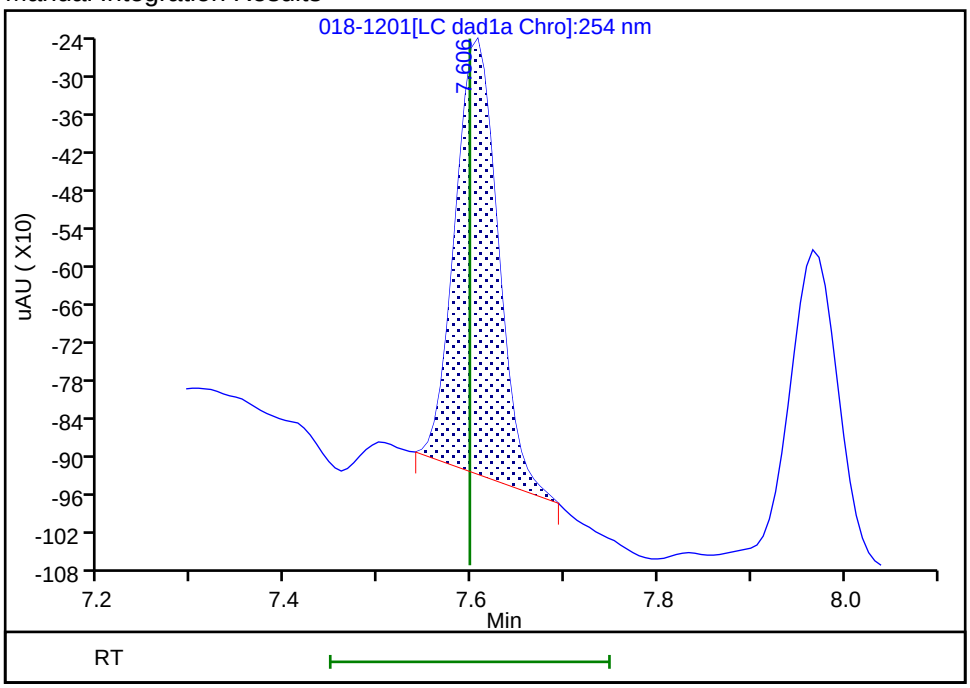
Processing Integration Results

RT: 7.61
Area: 2982
Amount: 0.020729
Amount Units: ug/mL




Manual Integration Results

RT: 7.61
Area: 2207
Amount: 0.020770
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:18:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

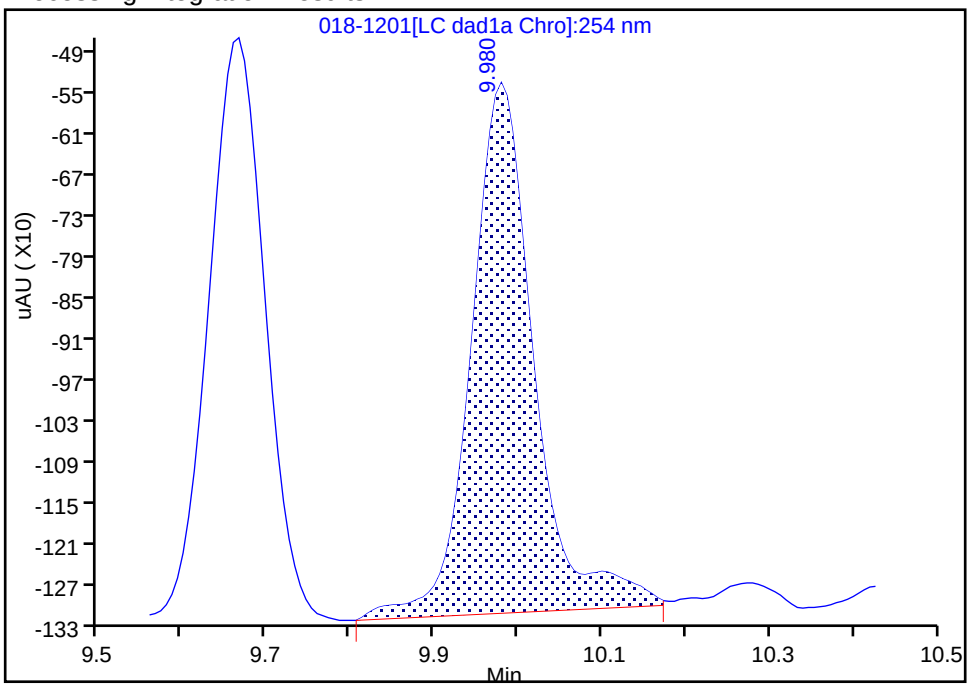
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\018-1201.d | | | | |
| Injection Date: | 01-May-2021 20:41:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | 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 | | |

## 14 Tetryl, CAS: 479-45-8

Signal: 1

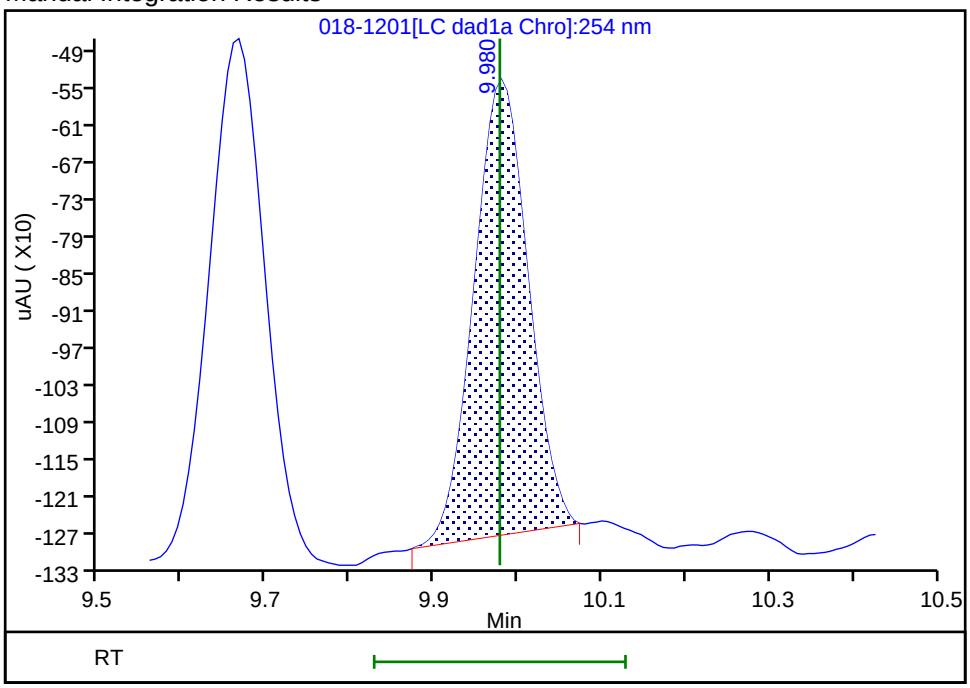
Processing Integration Results

RT: 9.98
Area: 4075
Amount: 0.022280
Amount Units: ug/mL




Manual Integration Results

RT: 9.98
Area: 3331
Amount: 0.019319
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:23:27
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

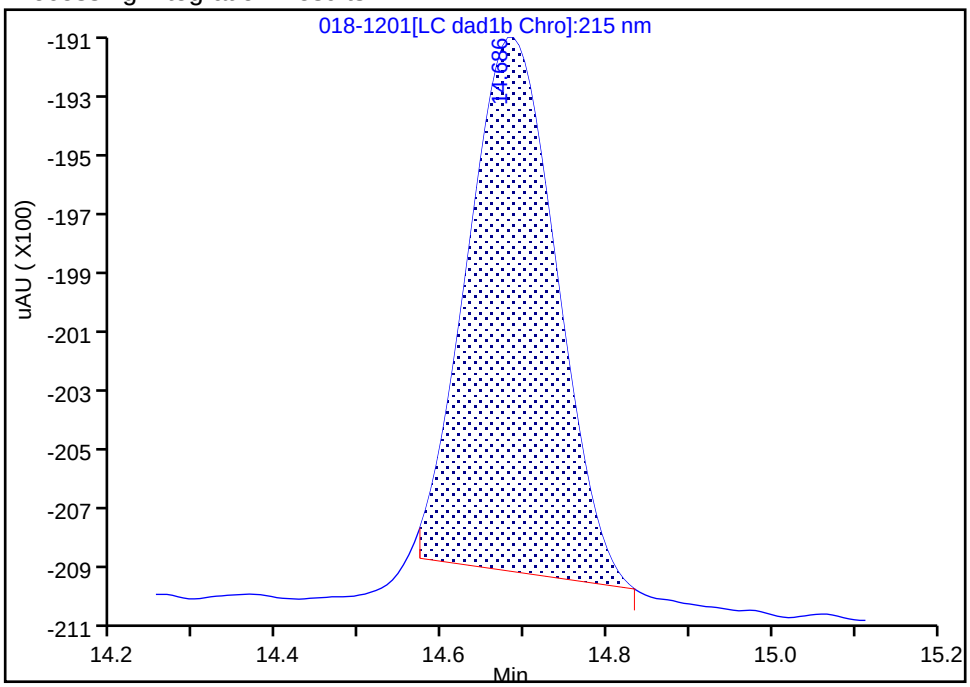
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\018-1201.d | | | | |
| Injection Date: | 01-May-2021 20:41:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 18 | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

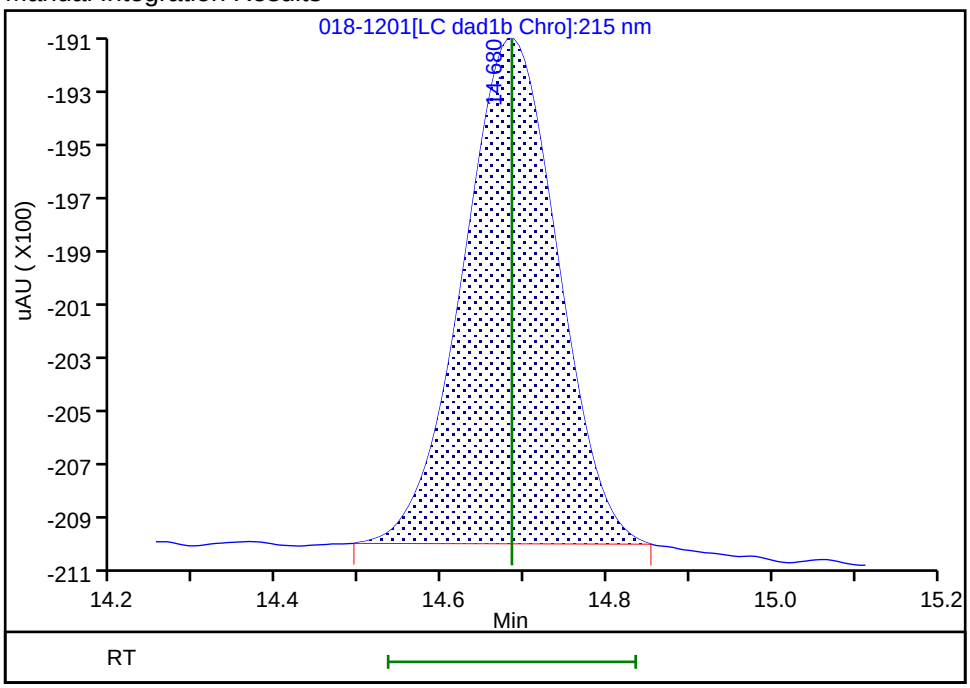
Processing Integration Results

RT: 14.69
Area: 13412
Amount: 0.181421
Amount Units: ug/mL




Manual Integration Results

RT: 14.68
Area: 14944
Amount: 0.199843
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:18:31

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-May-2021 21:04:39 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:25:11 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:18:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.629 | 6.631 | -0.002 | 906 | 0.0100 | 0.0107 | M |
| 7 RDX | 1 | 7.602 | 7.598 | 0.004 | 1876 | 0.0100 | 0.0177 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.962 | 7.958 | 0.004 | 1003 | 0.0100 | 0.0121 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.522 | 8.525 | -0.003 | 1195 | 0.0100 | 0.009320 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.649 | 8.651 | -0.002 | 2481 | 0.0100 | 0.0113 | |
| 11 1,3-Dinitrobenzene | 1 | 9.275 | 9.278 | -0.003 | 3052 | 0.0100 | 0.0103 | |
| 12 Nitrobenzene | 1 | 9.662 | 9.664 | -0.002 | 1995 | 0.0100 | 0.0102 | |
| 14 Tetryl | 1 | 9.975 | 9.978 | -0.003 | 1712 | 0.0100 | 0.0099 | M |
| 15 Nitroglycerin | 2 | 10.435 | 10.438 | -0.003 | 10778 | 0.1000 | 0.1025 | M |
| 16 2,4,6-Trinitrotoluene | 1 | 10.902 | 10.904 | -0.002 | 2128 | 0.0100 | 0.0103 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.109 | 11.111 | -0.002 | 1596 | 0.0100 | 0.0104 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.369 | 11.371 | -0.002 | 2126 | 0.0100 | 0.0103 | |
| 19 2,6-Dinitrotoluene | 1 | 11.529 | 11.531 | -0.002 | 1404 | 0.0100 | 0.009813 | |
| 20 2,4-Dinitrotoluene | 1 | 11.702 | 11.704 | -0.002 | 2944 | 0.0100 | 0.0103 | |
| 21 o-Nitrotoluene | 1 | 12.575 | 12.578 | -0.003 | 1346 | 0.0100 | 0.0105 | |
| 22 p-Nitrotoluene | 1 | 13.015 | 13.011 | 0.004 | 1177 | 0.0100 | 0.0105 | |
| 23 m-Nitrotoluene | 1 | 13.602 | 13.604 | -0.002 | 1575 | 0.0100 | 0.0111 | |
| 24 PETN | 2 | 14.682 | 14.684 | -0.002 | 7901 | 0.1000 | 0.1057 | Ma |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

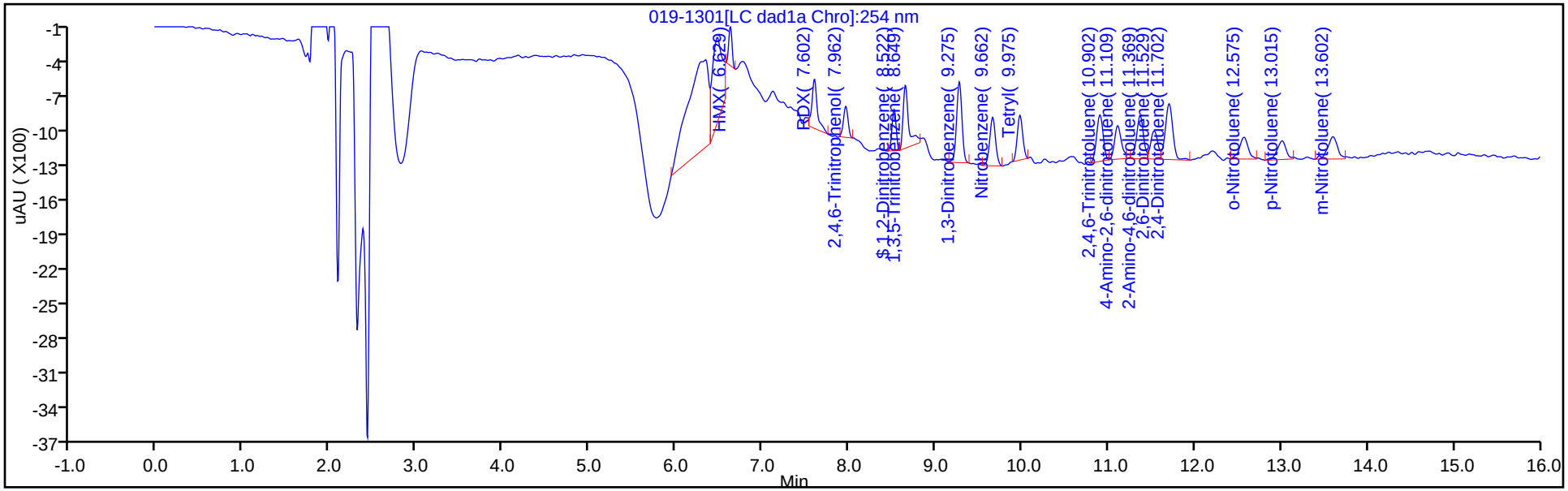
8330IntermStk_00067 Amount Added: 1.00 Units: uL

Report Date: 04-May-2021 13:25:11 Chrom Revision: 2.3 08-Apr-2021 17:17:48

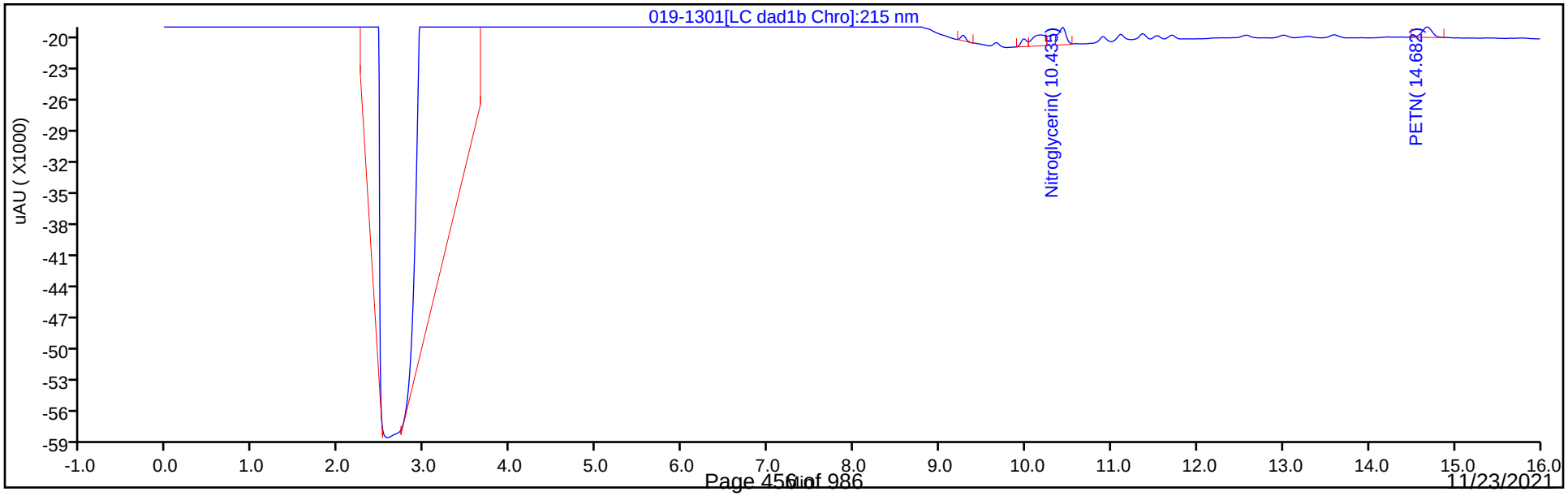
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\019-1301.d | | | | |
| Injection Date: | 01-May-2021 21:04:39 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | IC INT 1 | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

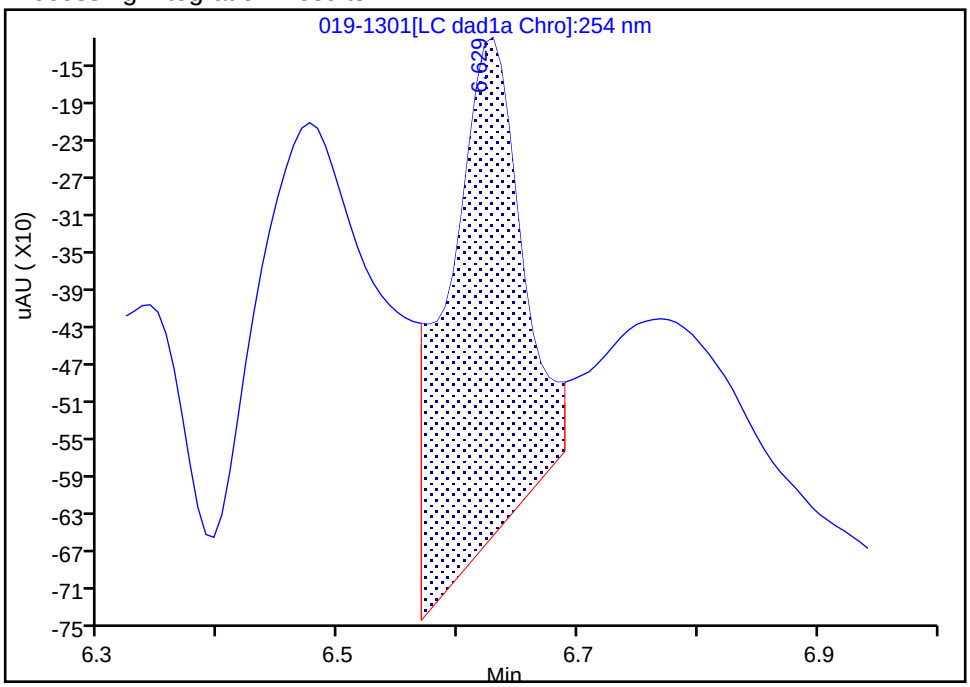
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\019-1301.d | | | | |
| Injection Date: | 01-May-2021 21:04:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

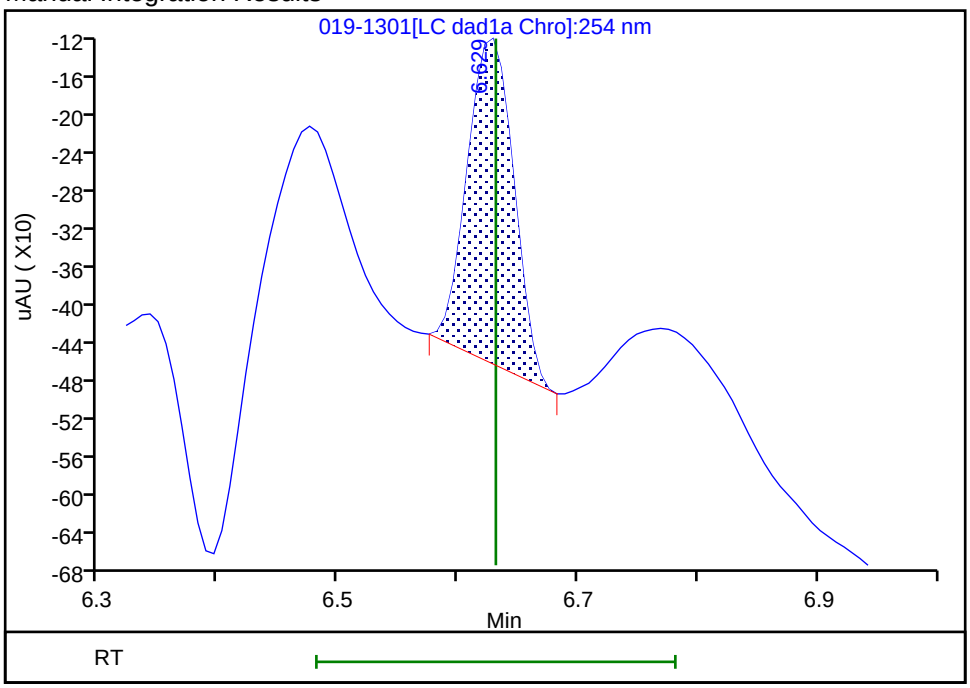
Processing Integration Results

RT: 6.63
Area: 2314
Amount: 0.023125
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 906
Amount: 0.010732
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:17:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

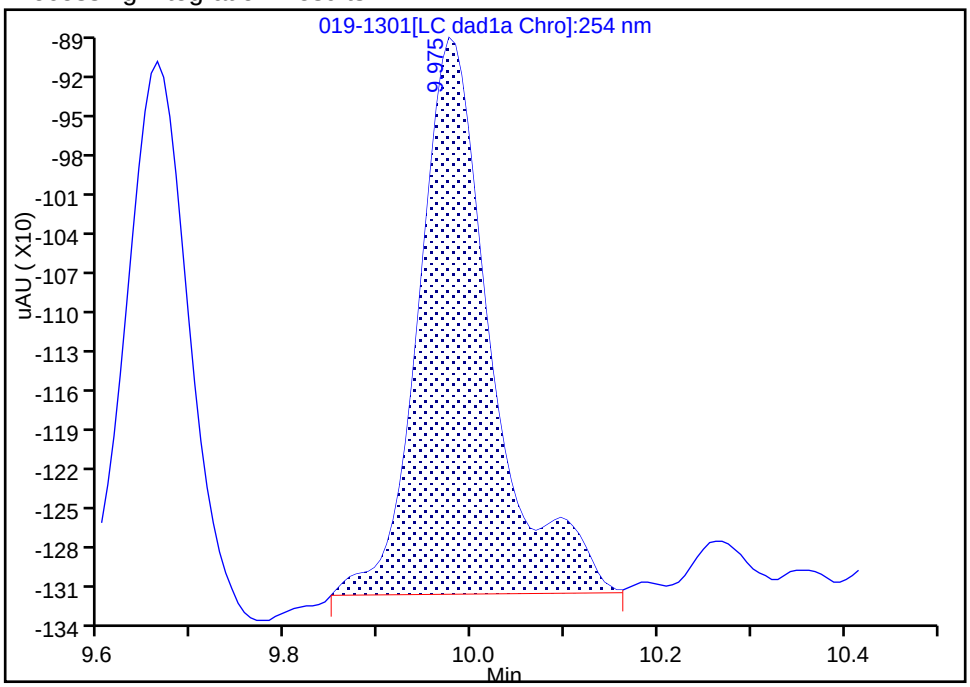
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\019-1301.d | | | | |
| Injection Date: | 01-May-2021 21:04:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | 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 | | |

## 14 Tetryl, CAS: 479-45-8

Signal: 1

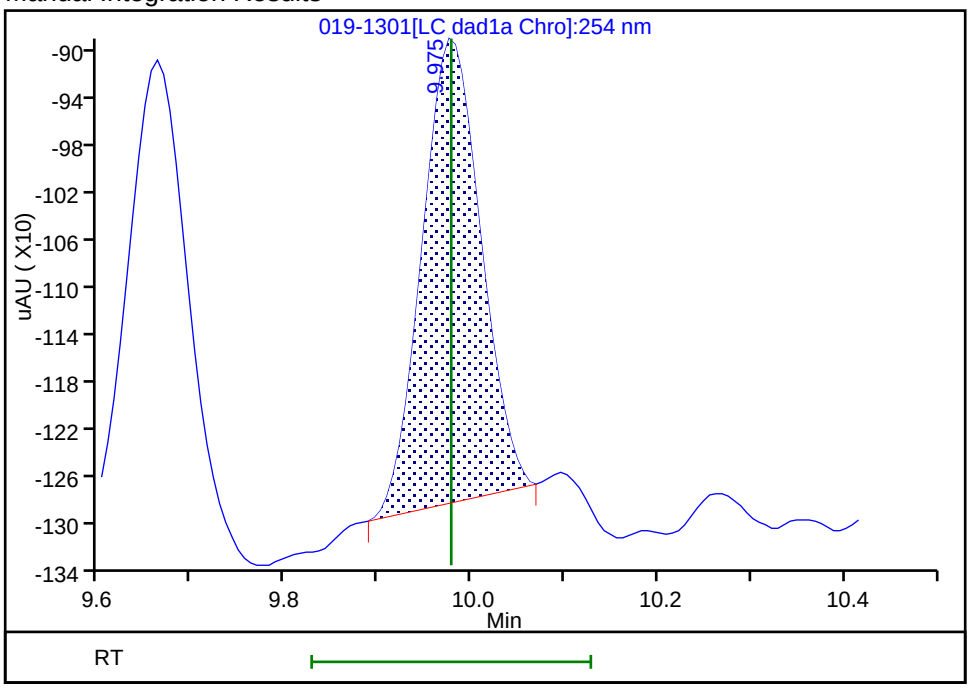
Processing Integration Results

RT: 9.98
Area: 2285
Amount: 0.012782
Amount Units: ug/mL




Manual Integration Results

RT: 9.98
Area: 1712
Amount: 0.009929
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:23:41

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

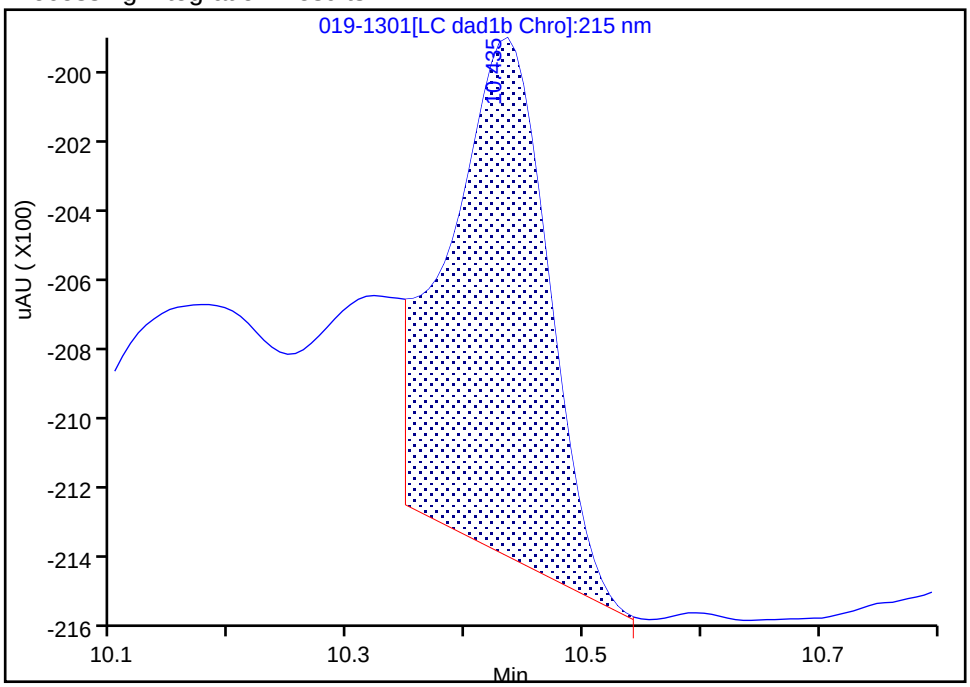
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\019-1301.d | | | | |
| Injection Date: | 01-May-2021 21:04:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | 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 | | |

## 15 Nitroglycerin, CAS: 55-63-0

Signal: 1

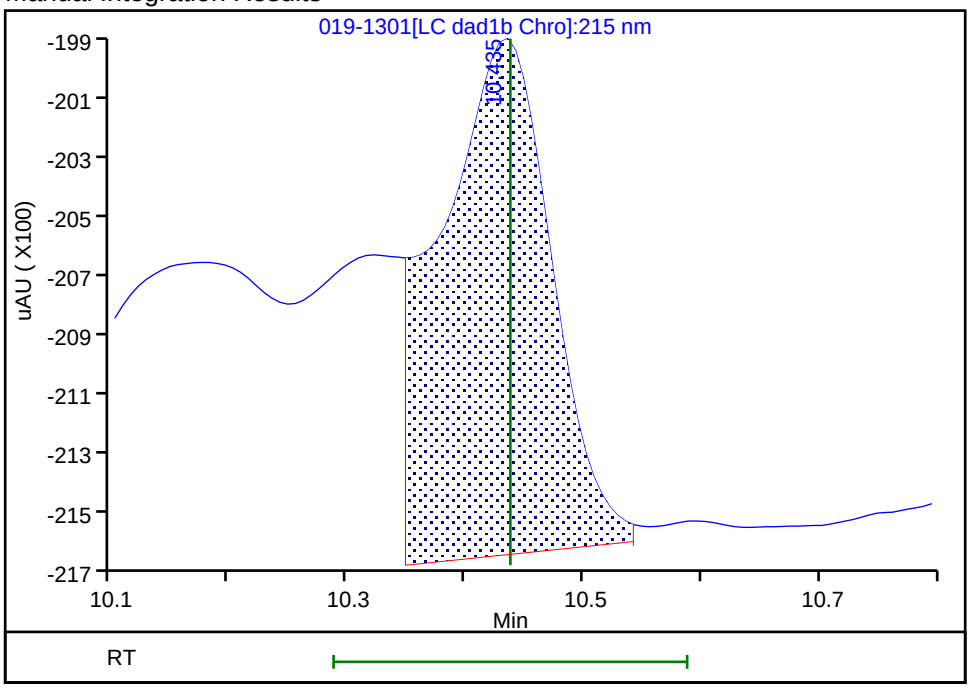
Processing Integration Results

RT: 10.44
Area: 8028
Amount: 0.114856
Amount Units: ug/mL




Manual Integration Results

RT: 10.44
Area: 10778
Amount: 0.102544
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:18:01

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

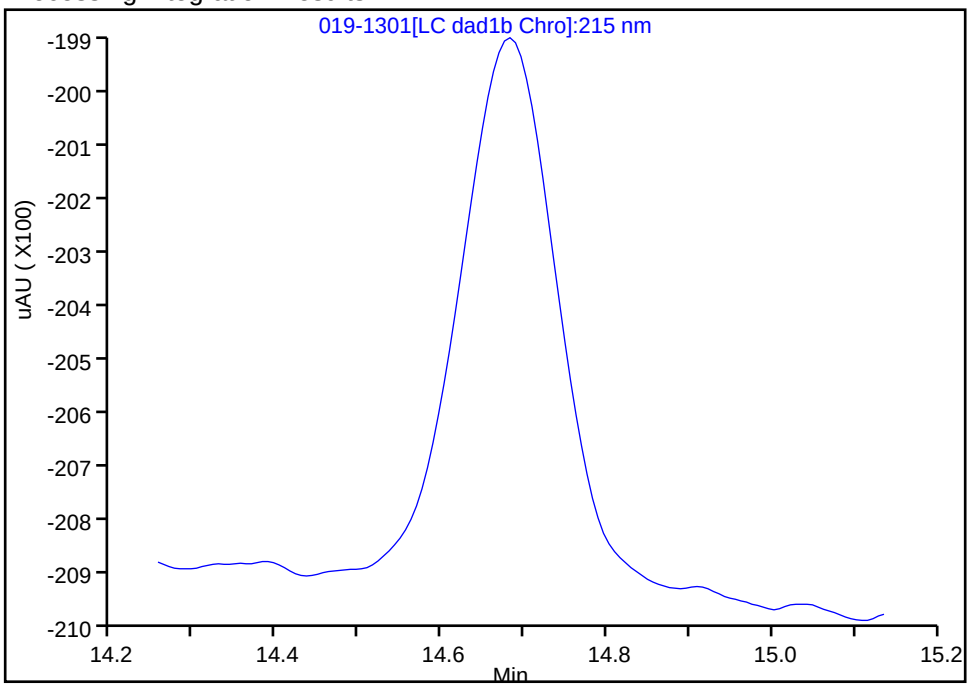
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\019-1301.d | | | | |
| Injection Date: | 01-May-2021 21:04:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC INT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

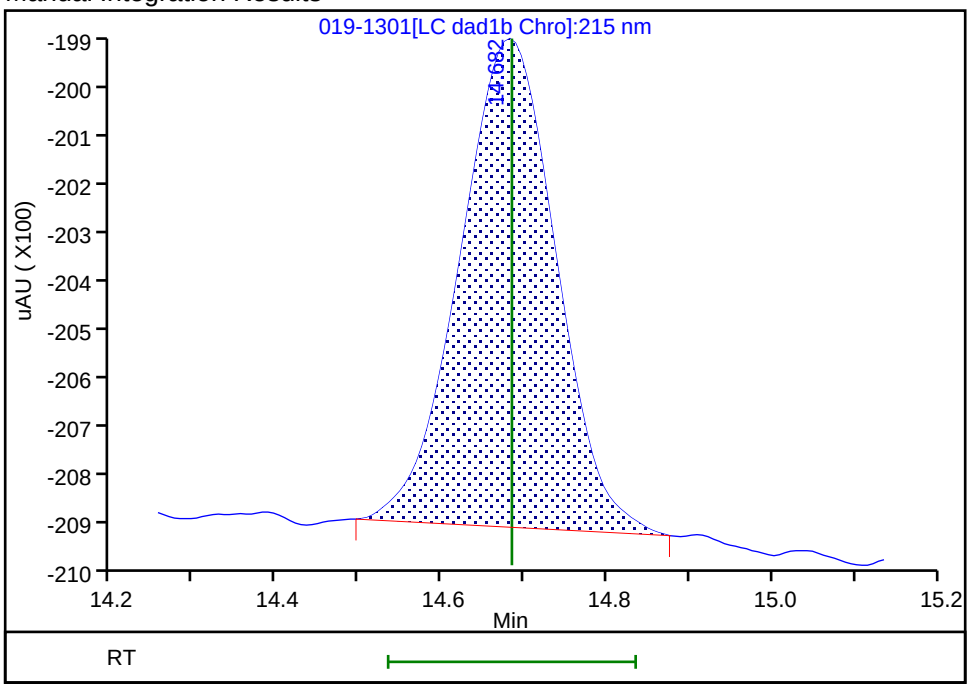
Not Detected
Expected RT: 14.68

Processing Integration Results




Manual Integration Results

RT: 14.68
Area: 7901
Amount: 0.105659
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:17:51
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Calibration / HMX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

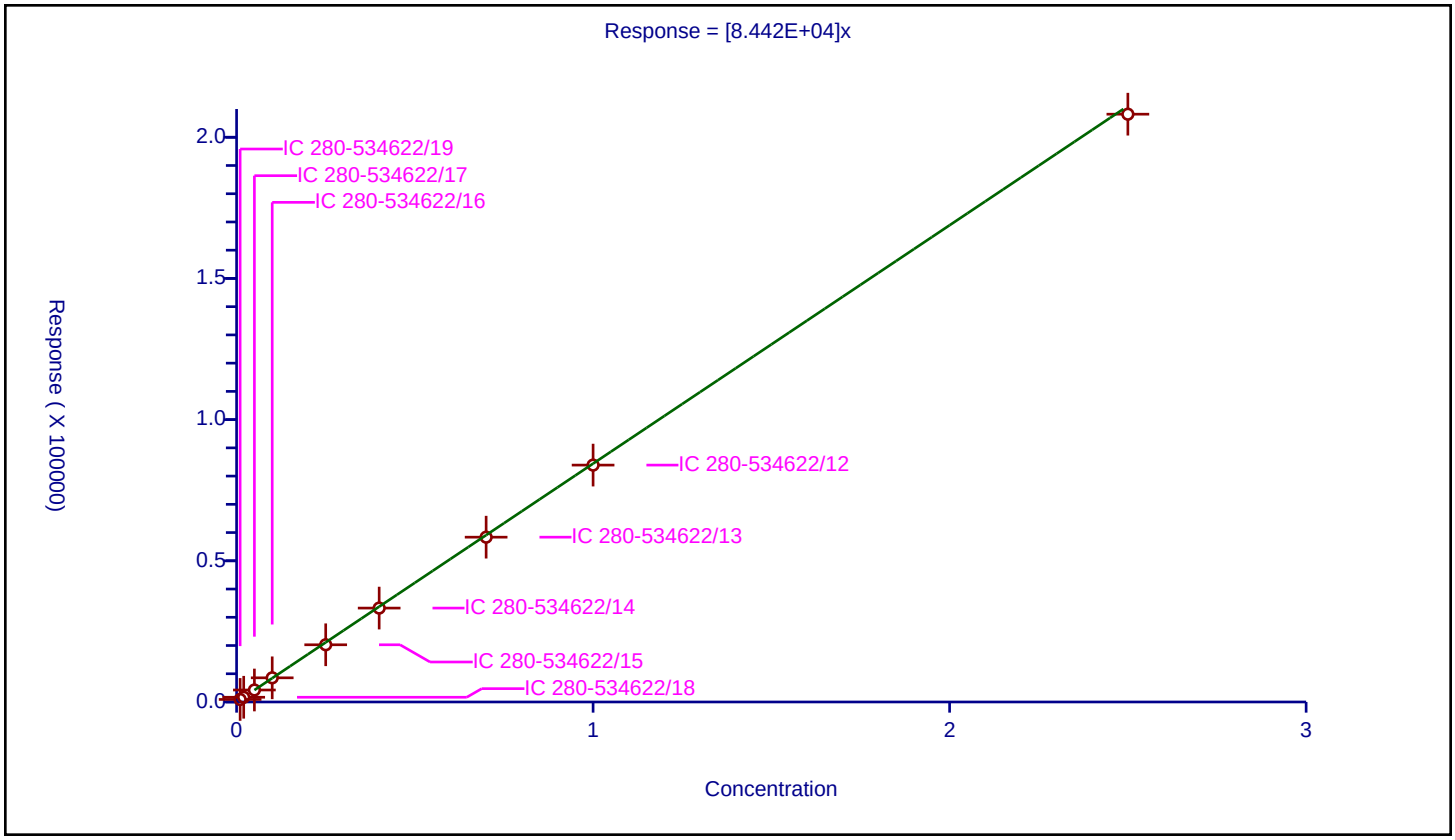
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 8.442E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1130 |
| **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 280-534622/19 | 0.01 | 906.0 | | | 90600.0 | Y |
| 2 | IC 280-534622/18 | 0.02 | 1680.0 | | | 84000.0 | Y |
| 3 | IC 280-534622/17 | 0.05 | 4242.0 | | | 84840.0 | Y |
| 4 | IC 280-534622/16 | 0.1 | 8561.0 | | | 85610.0 | Y |
| 5 | IC 280-534622/15 | 0.25 | 20261.0 | | | 81044.0 | Y |
| 6 | IC 280-534622/14 | 0.4 | 33261.0 | | | 83152.5 | Y |
| 7 | IC 280-534622/13 | 0.7 | 58367.0 | | | 83381.428571 | Y |
| 8 | IC 280-534622/12 | 1.0 | 83899.0 | | | 83899.0 | Y |
| 9 | IC 280-534622/11 | 2.5 | 208165.0 | | | 83266.0 | Y |



## Calibration / RDX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

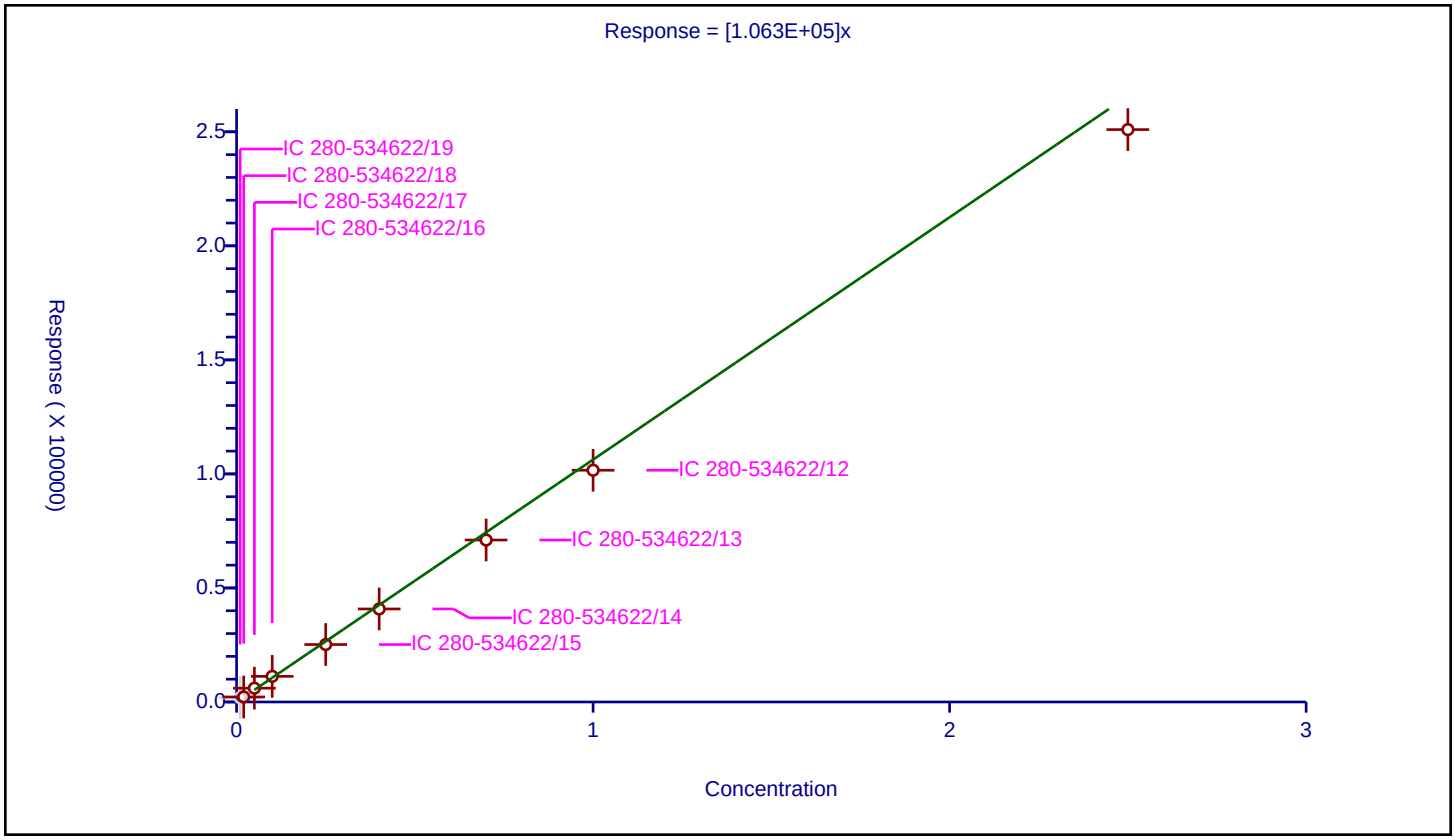
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.063E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6020 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01 | 1876.0 | | | 187600.0 | N |
| 2 | IC 280-534622/18 | 0.02 | 2207.0 | | | 110350.0 | Y |
| 3 | IC 280-534622/17 | 0.05 | 6054.0 | | | 121080.0 | Y |
| 4 | IC 280-534622/16 | 0.1 | 11245.0 | | | 112450.0 | Y |
| 5 | IC 280-534622/15 | 0.25 | 25193.0 | | | 100772.0 | Y |
| 6 | IC 280-534622/14 | 0.4 | 40790.0 | | | 101975.0 | Y |
| 7 | IC 280-534622/13 | 0.7 | 71020.0 | | | 101457.142857 | Y |
| 8 | IC 280-534622/12 | 1.0 | 101616.0 | | | 101616.0 | Y |
| 9 | IC 280-534622/11 | 2.5 | 250979.0 | | | 100391.6 | 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 |

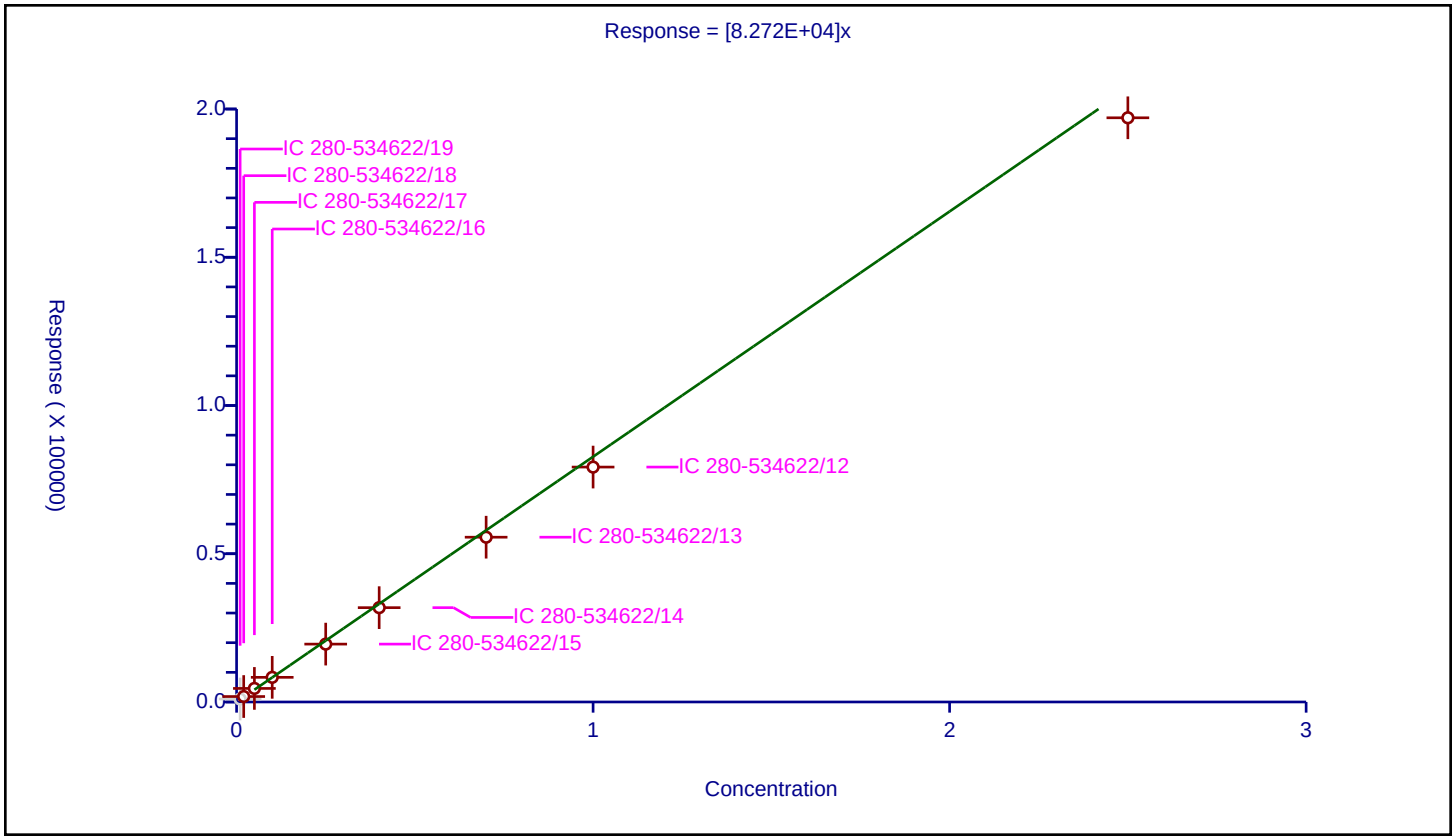
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 8.272E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4070 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01 | 1003.0 | | | 100300.0 | N |
| 2 | IC 280-534622/18 | 0.02 | 1840.0 | | | 92000.0 | Y |
| 3 | IC 280-534622/17 | 0.05 | 4575.0 | | | 91500.0 | Y |
| 4 | IC 280-534622/16 | 0.1 | 8317.0 | | | 83170.0 | Y |
| 5 | IC 280-534622/15 | 0.25 | 19525.0 | | | 78100.0 | Y |
| 6 | IC 280-534622/14 | 0.4 | 31820.0 | | | 79550.0 | Y |
| 7 | IC 280-534622/13 | 0.7 | 55582.0 | | | 79402.857143 | Y |
| 8 | IC 280-534622/12 | 1.0 | 79230.0 | | | 79230.0 | Y |
| 9 | IC 280-534622/11 | 2.5 | 197040.0 | | | 78816.0 | Y |



## Calibration / 1,2-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

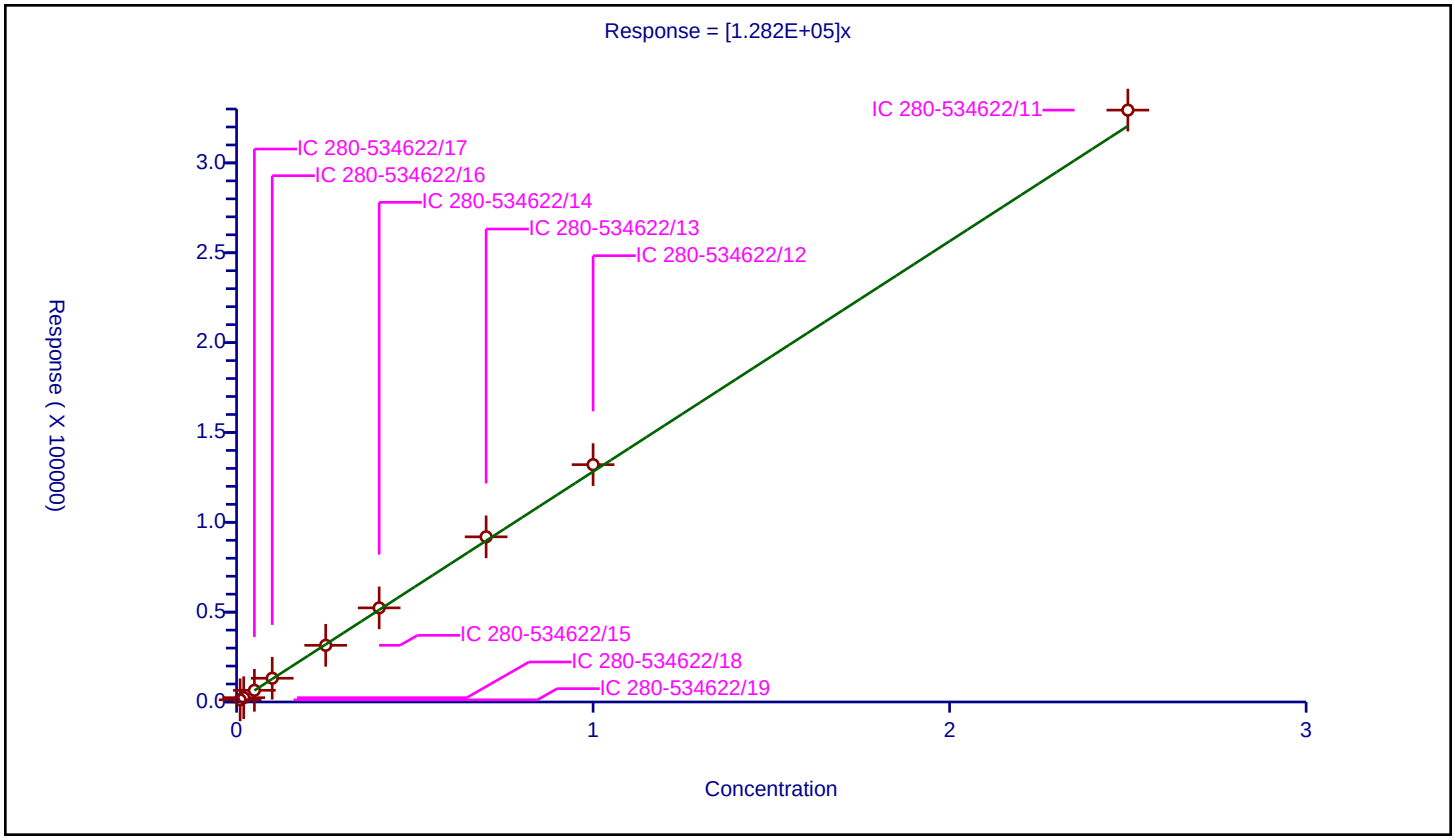
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.282E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3530 |
| **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 280-534622/19 | 0.01 | 1195.0 | | | 119500.0 | Y |
| 2 | IC 280-534622/18 | 0.02 | 2399.0 | | | 119950.0 | Y |
| 3 | IC 280-534622/17 | 0.05 | 6504.0 | | | 130080.0 | Y |
| 4 | IC 280-534622/16 | 0.1 | 13218.0 | | | 132180.0 | Y |
| 5 | IC 280-534622/15 | 0.25 | 31539.0 | | | 126156.0 | Y |
| 6 | IC 280-534622/14 | 0.4 | 52377.0 | | | 130942.5 | Y |
| 7 | IC 280-534622/13 | 0.7 | 91915.0 | | | 131307.142857 | Y |
| 8 | IC 280-534622/12 | 1.0 | 132080.0 | | | 132080.0 | Y |
| 9 | IC 280-534622/11 | 2.5 | 329398.0 | | | 131759.2 | Y |



## Calibration / 1,3,5-Trinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

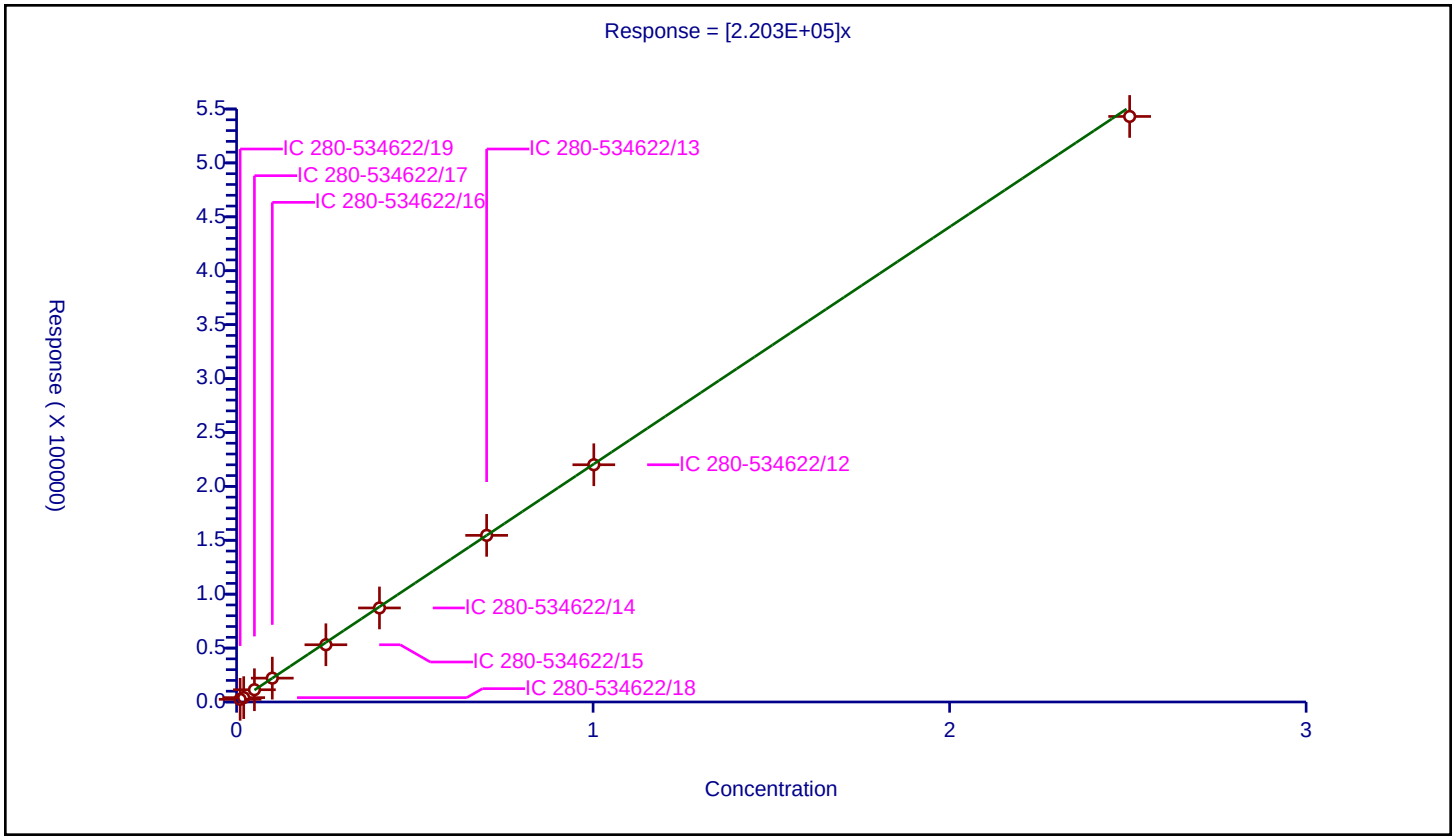
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.203E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3230 |
| **Relative Standard Error:** | 5.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01002 | 2481.0 | | | 247604.790419 | Y |
| 2 | IC 280-534622/18 | 0.02004 | 4038.0 | | | 201497.005988 | Y |
| 3 | IC 280-534622/17 | 0.0501 | 11361.0 | | | 226766.467066 | Y |
| 4 | IC 280-534622/16 | 0.1002 | 22114.0 | | | 220698.602794 | Y |
| 5 | IC 280-534622/15 | 0.2505 | 53082.0 | | | 211904.191617 | Y |
| 6 | IC 280-534622/14 | 0.4008 | 87233.0 | | | 217647.205589 | Y |
| 7 | IC 280-534622/13 | 0.7014 | 154539.0 | | | 220329.341317 | Y |
| 8 | IC 280-534622/12 | 1.002 | 220037.0 | | | 219597.804391 | Y |
| 9 | IC 280-534622/11 | 2.505 | 543111.0 | | | 216810.778443 | Y |



## Calibration / 1,3-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

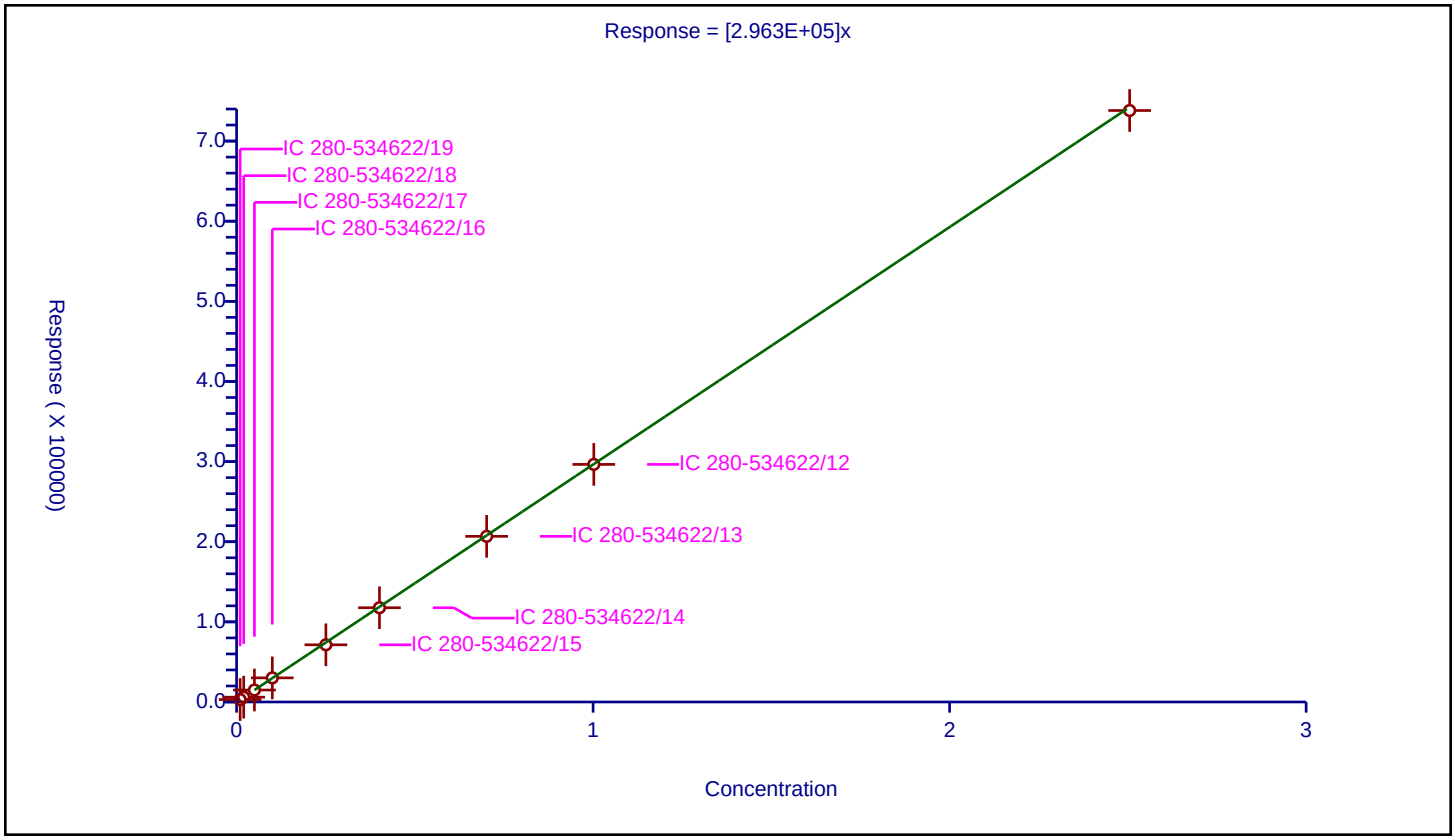
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.963E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1890 |
| **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 280-534622/19 | 0.01002 | 3052.0 | | | 304590.818363 | Y |
| 2 | IC 280-534622/18 | 0.02004 | 6019.0 | | | 300349.301397 | Y |
| 3 | IC 280-534622/17 | 0.0501 | 14927.0 | | | 297944.111776 | Y |
| 4 | IC 280-534622/16 | 0.1002 | 30099.0 | | | 300389.221557 | Y |
| 5 | IC 280-534622/15 | 0.2505 | 71373.0 | | | 284922.155689 | Y |
| 6 | IC 280-534622/14 | 0.4008 | 117621.0 | | | 293465.568862 | Y |
| 7 | IC 280-534622/13 | 0.7014 | 206721.0 | | | 294726.261762 | Y |
| 8 | IC 280-534622/12 | 1.002 | 296509.0 | | | 295917.165669 | Y |
| 9 | IC 280-534622/11 | 2.505 | 738121.0 | | | 294659.081836 | Y |



## Calibration / Nitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

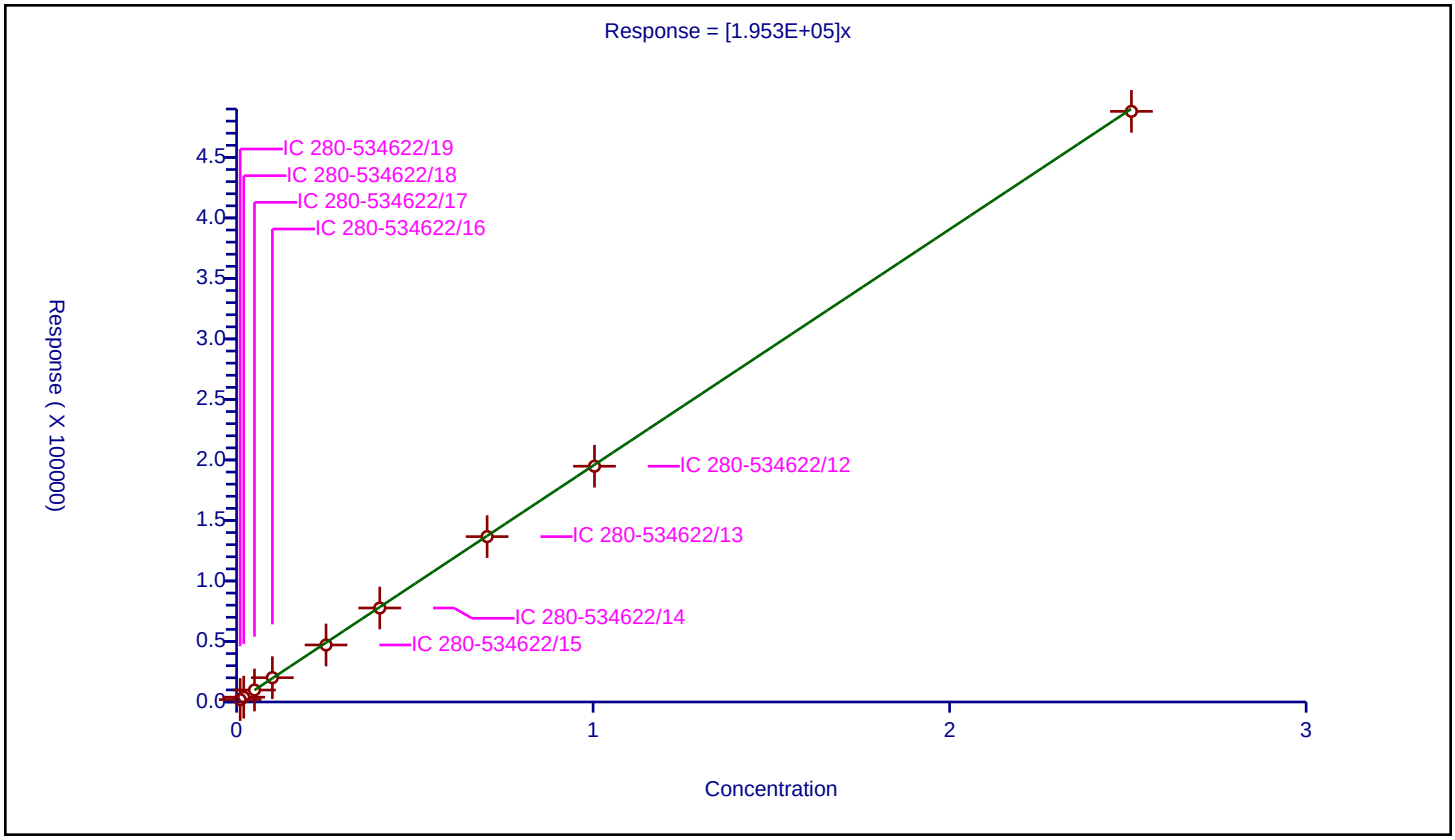
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.953E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1160 |
| **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 280-534622/19 | 0.01004 | 1995.0 | | | 198705.179283 | Y |
| 2 | IC 280-534622/18 | 0.02008 | 3972.0 | | | 197808.76494 | Y |
| 3 | IC 280-534622/17 | 0.0502 | 9892.0 | | | 197051.792829 | Y |
| 4 | IC 280-534622/16 | 0.1004 | 20078.0 | | | 199980.079681 | Y |
| 5 | IC 280-534622/15 | 0.251 | 47122.0 | | | 187737.051793 | Y |
| 6 | IC 280-534622/14 | 0.4016 | 77656.0 | | | 193366.533865 | Y |
| 7 | IC 280-534622/13 | 0.7028 | 136648.0 | | | 194433.693796 | Y |
| 8 | IC 280-534622/12 | 1.004 | 194820.0 | | | 194043.824701 | Y |
| 9 | IC 280-534622/11 | 2.51 | 488061.0 | | | 194446.613546 | Y |



## Calibration / Tetryl

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

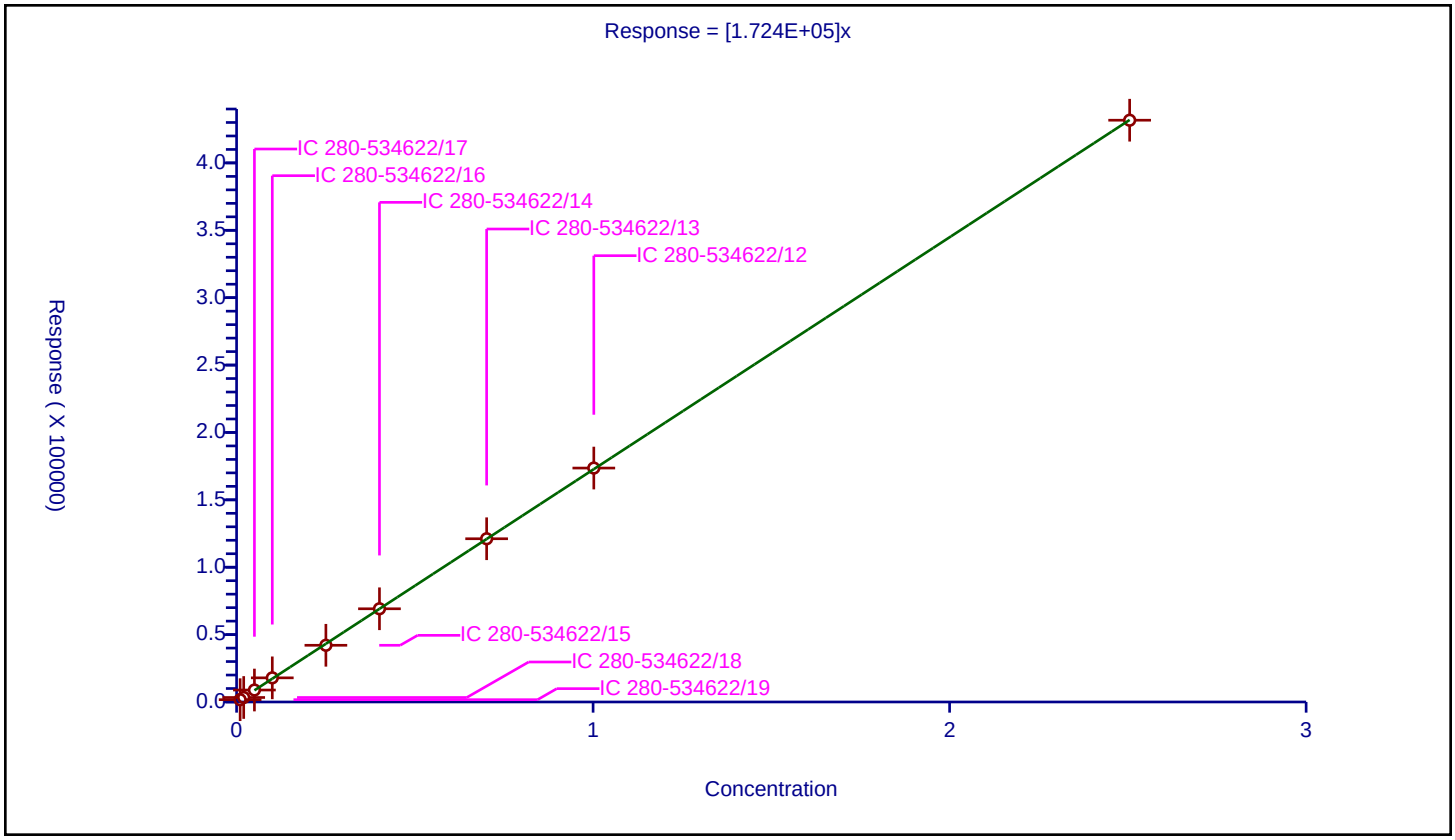
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.724E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 557 |
| **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 280-534622/19 | 0.01002 | 1712.0 | | | 170858.283433 | Y |
| 2 | IC 280-534622/18 | 0.02004 | 3331.0 | | | 166217.56487 | Y |
| 3 | IC 280-534622/17 | 0.0501 | 8870.0 | | | 177045.908184 | Y |
| 4 | IC 280-534622/16 | 0.1002 | 17920.0 | | | 178842.315369 | Y |
| 5 | IC 280-534622/15 | 0.2505 | 42079.0 | | | 167980.03992 | Y |
| 6 | IC 280-534622/14 | 0.4008 | 69168.0 | | | 172574.850299 | Y |
| 7 | IC 280-534622/13 | 0.7014 | 121126.0 | | | 172691.759338 | Y |
| 8 | IC 280-534622/12 | 1.002 | 173586.0 | | | 173239.520958 | Y |
| 9 | IC 280-534622/11 | 2.505 | 431686.0 | | | 172329.740519 | Y |



## Calibration / Nitroglycerin

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

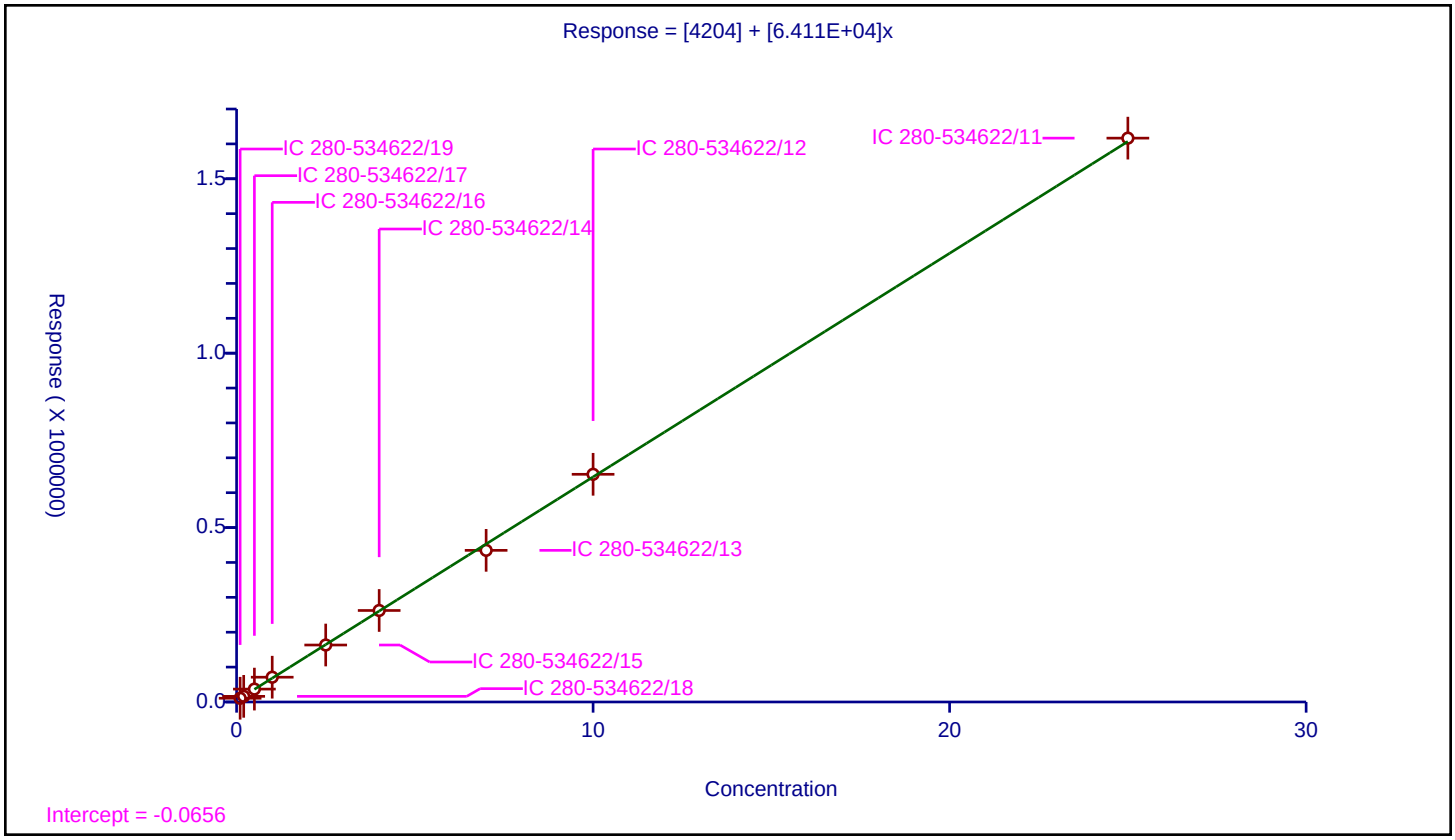
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 4204 |
| **Slope:** | 6.411E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 8390 |
| **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 280-534622/19 | 0.1 | 10778.0 | | | 107780.0 | Y |
| 2 | IC 280-534622/18 | 0.2 | 16162.0 | | | 80810.0 | Y |
| 3 | IC 280-534622/17 | 0.5 | 36983.0 | | | 73966.0 | Y |
| 4 | IC 280-534622/16 | 1.0 | 71053.0 | | | 71053.0 | Y |
| 5 | IC 280-534622/15 | 2.5 | 163334.0 | | | 65333.6 | Y |
| 6 | IC 280-534622/14 | 4.0 | 262320.0 | | | 65580.0 | Y |
| 7 | IC 280-534622/13 | 7.0 | 434747.0 | | | 62106.714286 | Y |
| 8 | IC 280-534622/12 | 10.0 | 652752.0 | | | 65275.2 | Y |
| 9 | IC 280-534622/11 | 25.0 | 1616536.0 | | | 64661.44 | 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 |

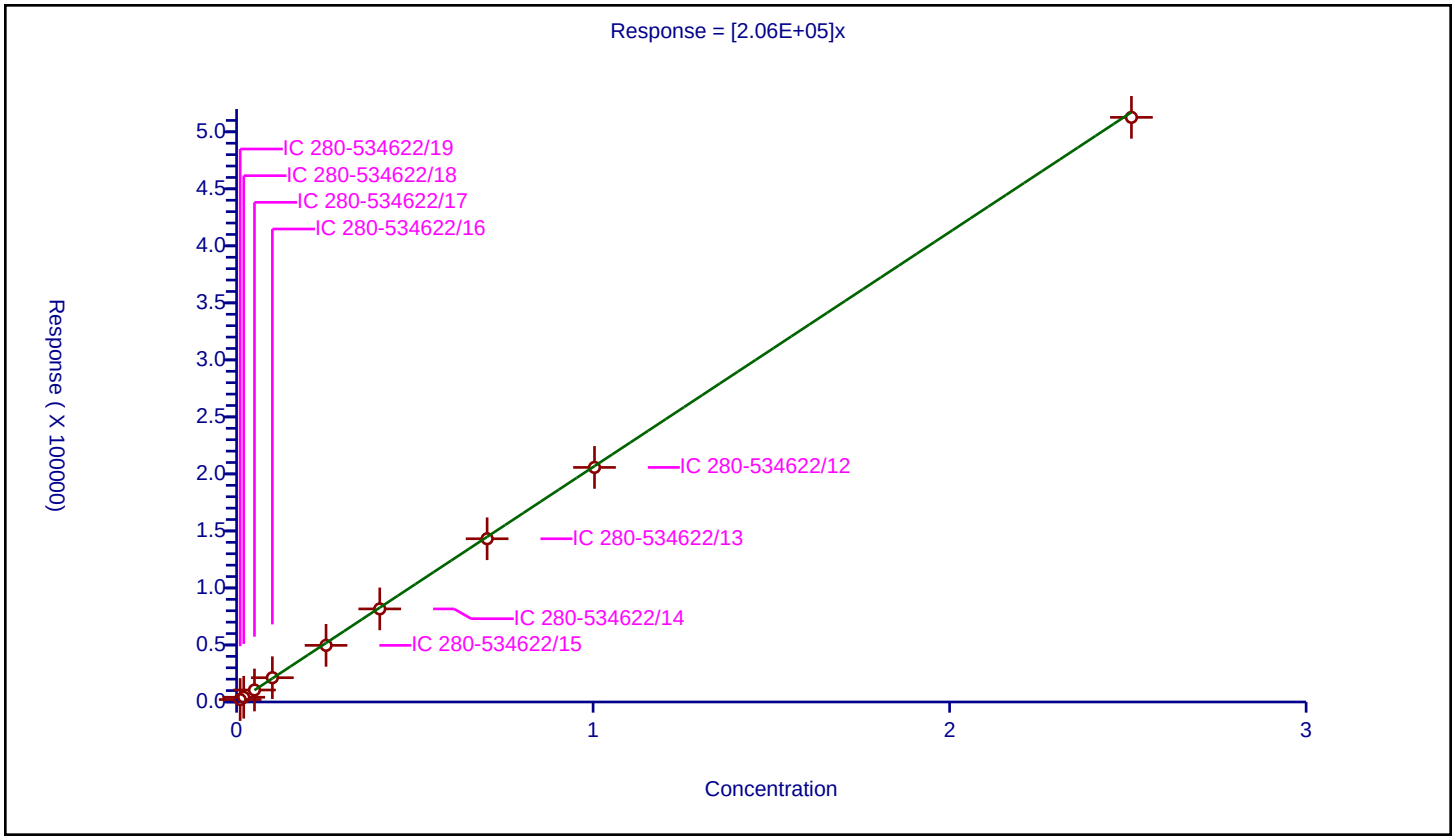
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.06E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1930 |
| **Relative Standard Error:** | 2.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01004 | 2128.0 | | | 211952.191235 | Y |
| 2 | IC 280-534622/18 | 0.02008 | 4156.0 | | | 206972.111554 | Y |
| 3 | IC 280-534622/17 | 0.0502 | 10514.0 | | | 209442.231076 | Y |
| 4 | IC 280-534622/16 | 0.1004 | 21286.0 | | | 212011.952191 | Y |
| 5 | IC 280-534622/15 | 0.251 | 49667.0 | | | 197876.494024 | Y |
| 6 | IC 280-534622/14 | 0.4016 | 81630.0 | | | 203261.952191 | Y |
| 7 | IC 280-534622/13 | 0.7028 | 143142.0 | | | 203673.875925 | Y |
| 8 | IC 280-534622/12 | 1.004 | 205715.0 | | | 204895.418327 | Y |
| 9 | IC 280-534622/11 | 2.51 | 512679.0 | | | 204254.581673 | 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 |

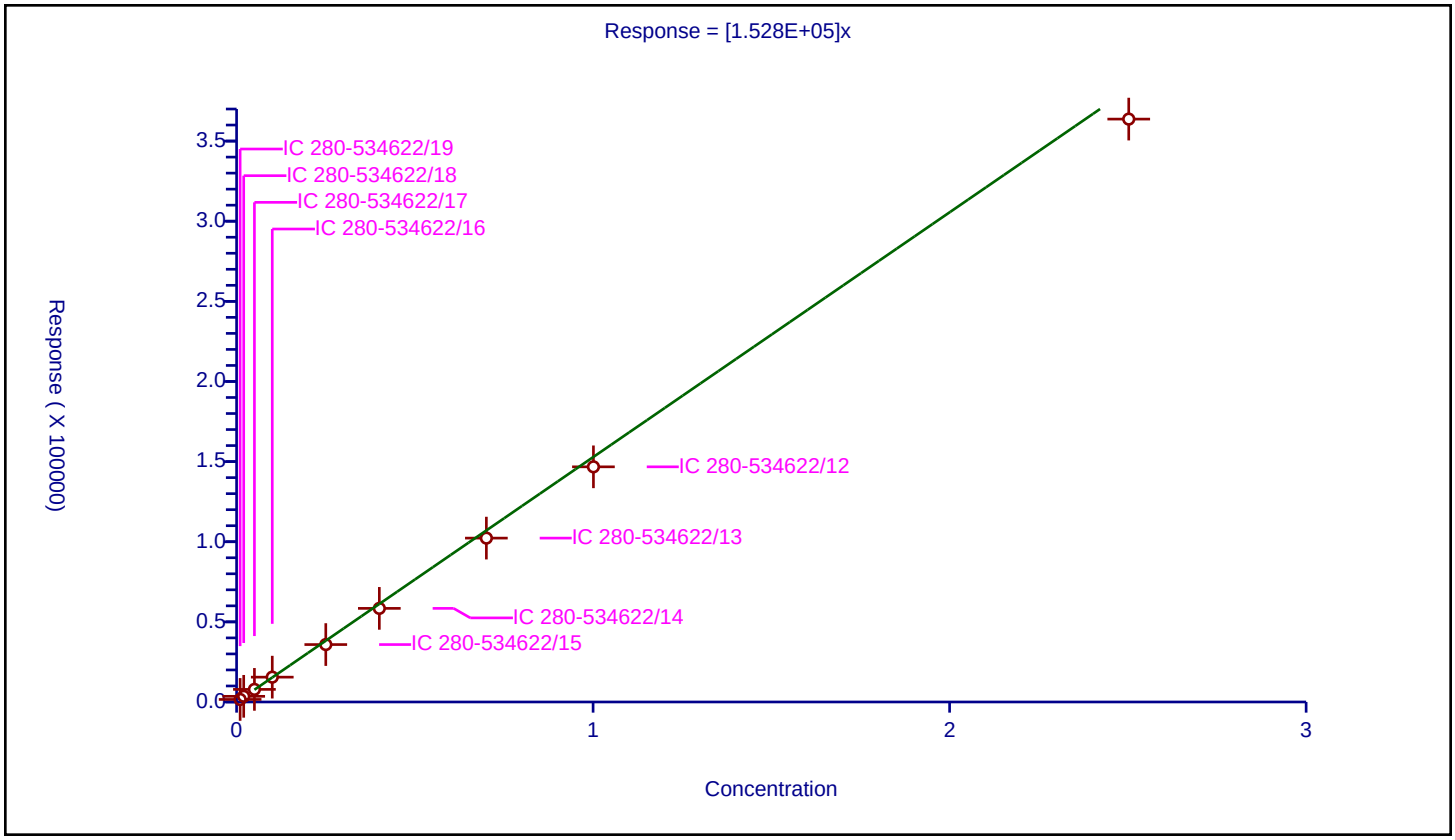
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.528E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7250 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01001 | 1596.0 | | | 159440.559441 | Y |
| 2 | IC 280-534622/18 | 0.02002 | 3532.0 | | | 176423.576424 | Y |
| 3 | IC 280-534622/17 | 0.05005 | 7868.0 | | | 157202.797203 | Y |
| 4 | IC 280-534622/16 | 0.1001 | 15505.0 | | | 154895.104895 | Y |
| 5 | IC 280-534622/15 | 0.25025 | 35838.0 | | | 143208.791209 | Y |
| 6 | IC 280-534622/14 | 0.4004 | 58412.0 | | | 145884.115884 | Y |
| 7 | IC 280-534622/13 | 0.7007 | 102258.0 | | | 145936.920223 | Y |
| 8 | IC 280-534622/12 | 1.001 | 146728.0 | | | 146581.418581 | Y |
| 9 | IC 280-534622/11 | 2.5025 | 363710.0 | | | 145338.661339 | 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 |

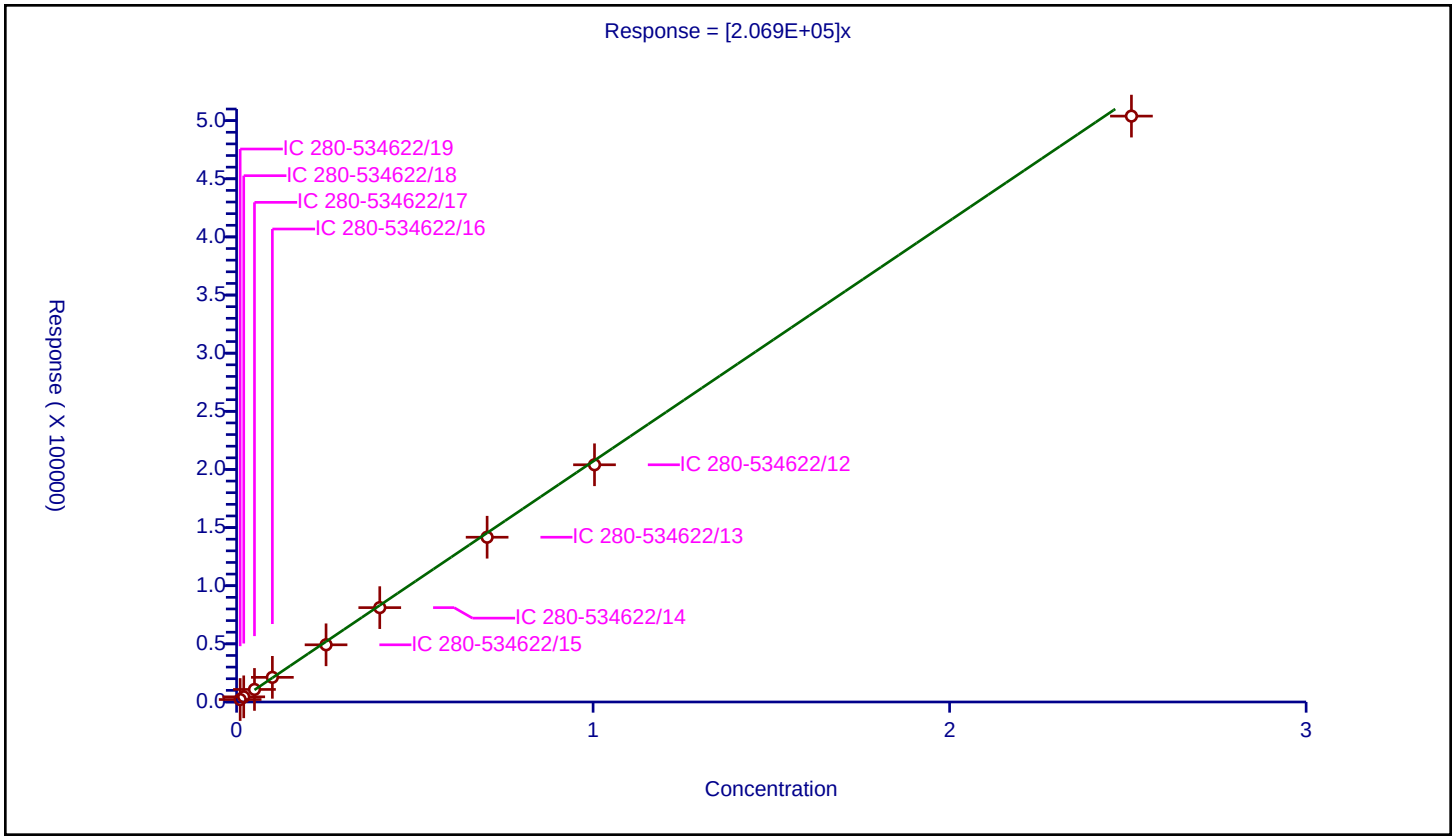
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.069E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5900 |
| **Relative Standard Error:** | 3.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01004 | 2126.0 | | | 211752.988048 | Y |
| 2 | IC 280-534622/18 | 0.02008 | 4433.0 | | | 220766.932271 | Y |
| 3 | IC 280-534622/17 | 0.0502 | 10789.0 | | | 214920.318725 | Y |
| 4 | IC 280-534622/16 | 0.1004 | 21203.0 | | | 211185.258964 | Y |
| 5 | IC 280-534622/15 | 0.251 | 49194.0 | | | 195992.031873 | Y |
| 6 | IC 280-534622/14 | 0.4016 | 81166.0 | | | 202106.573705 | Y |
| 7 | IC 280-534622/13 | 0.7028 | 141712.0 | | | 201639.157655 | Y |
| 8 | IC 280-534622/12 | 1.004 | 204025.0 | | | 203212.151394 | Y |
| 9 | IC 280-534622/11 | 2.51 | 503909.0 | | | 200760.557769 | Y |



## Calibration / 2,6-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

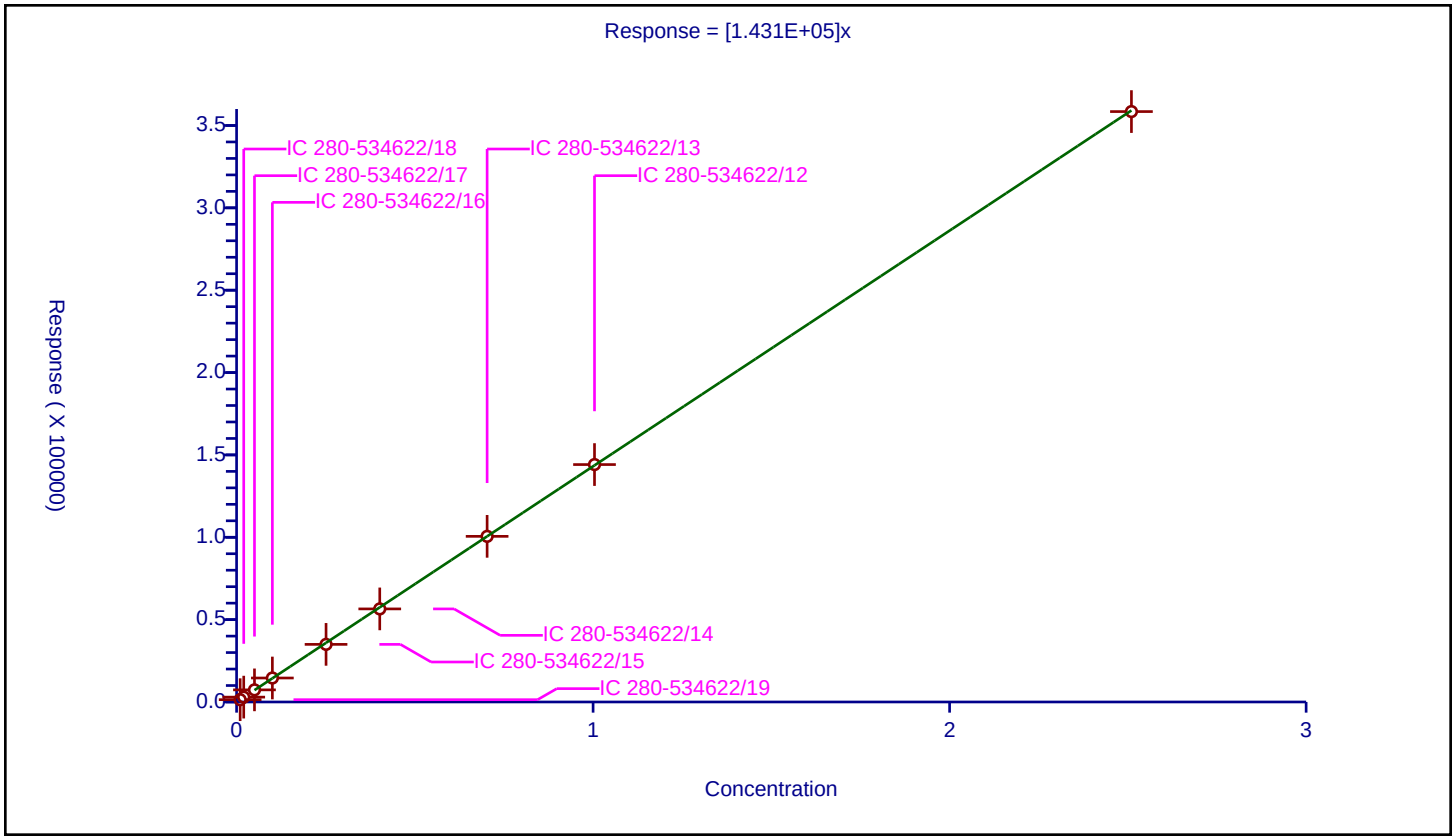
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.431E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 567 |
| **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 280-534622/19 | 0.01004 | 1404.0 | | | 139840.63745 | Y |
| 2 | IC 280-534622/18 | 0.02008 | 2947.0 | | | 146762.948207 | Y |
| 3 | IC 280-534622/17 | 0.0502 | 7360.0 | | | 146613.545817 | Y |
| 4 | IC 280-534622/16 | 0.1004 | 14557.0 | | | 144990.039841 | Y |
| 5 | IC 280-534622/15 | 0.251 | 34973.0 | | | 139334.661355 | Y |
| 6 | IC 280-534622/14 | 0.4016 | 56504.0 | | | 140697.211155 | Y |
| 7 | IC 280-534622/13 | 0.7028 | 100565.0 | | | 143091.918042 | Y |
| 8 | IC 280-534622/12 | 1.004 | 144143.0 | | | 143568.7251 | Y |
| 9 | IC 280-534622/11 | 2.51 | 358451.0 | | | 142809.163347 | Y |



## Calibration / 2,4-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

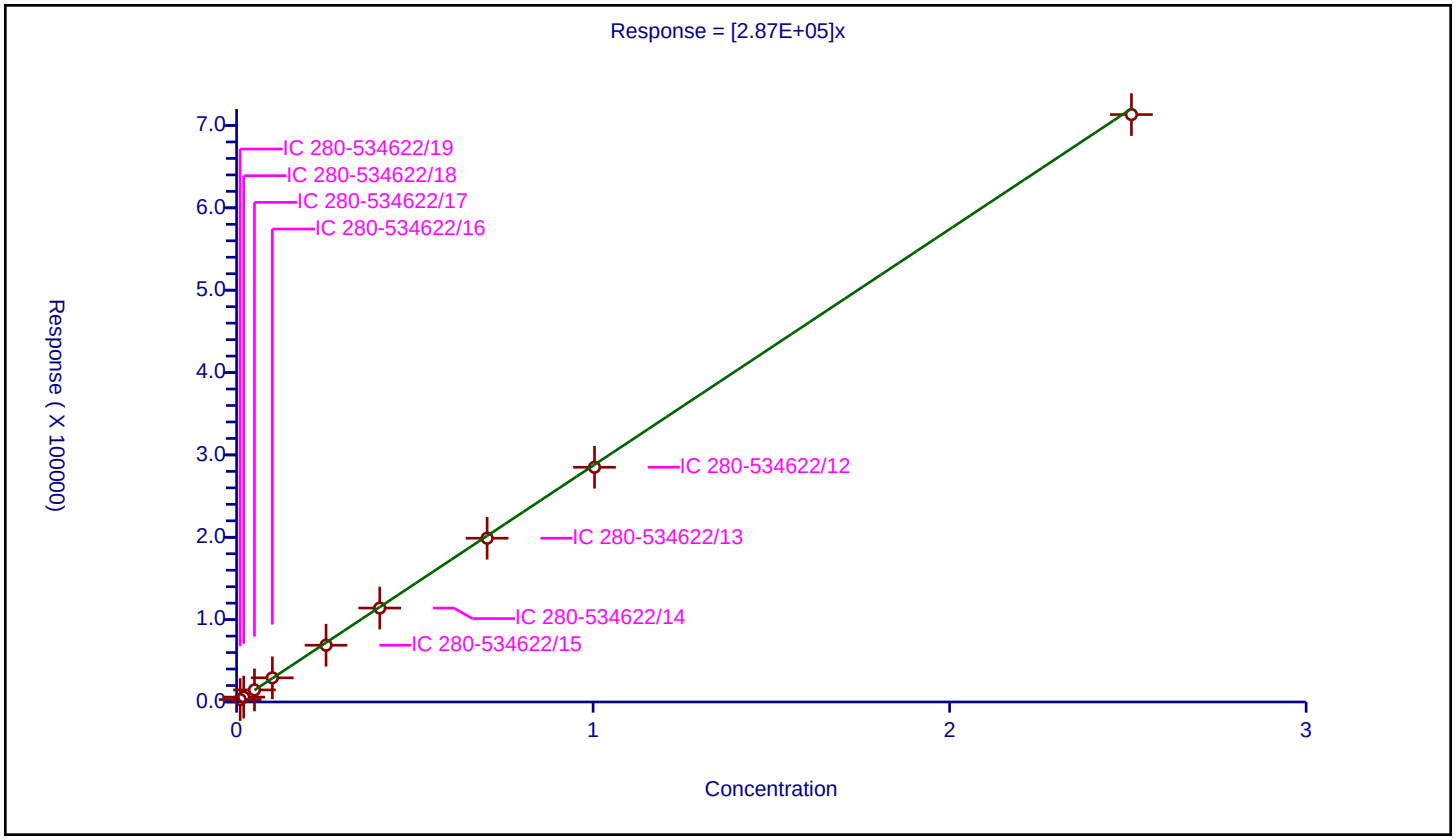
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.87E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3180 |
| **Relative Standard Error:** | 2.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01004 | 2944.0 | | | 293227.091633 | Y |
| 2 | IC 280-534622/18 | 0.02008 | 5945.0 | | | 296065.737052 | Y |
| 3 | IC 280-534622/17 | 0.0502 | 14647.0 | | | 291772.908367 | Y |
| 4 | IC 280-534622/16 | 0.1004 | 29362.0 | | | 292450.199203 | Y |
| 5 | IC 280-534622/15 | 0.251 | 68930.0 | | | 274621.513944 | Y |
| 6 | IC 280-534622/14 | 0.4016 | 114050.0 | | | 283989.043825 | Y |
| 7 | IC 280-534622/13 | 0.7028 | 198852.0 | | | 282942.515652 | Y |
| 8 | IC 280-534622/12 | 1.004 | 285012.0 | | | 283876.494024 | Y |
| 9 | IC 280-534622/11 | 2.51 | 713254.0 | | | 284164.940239 | Y |



## Calibration / o-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

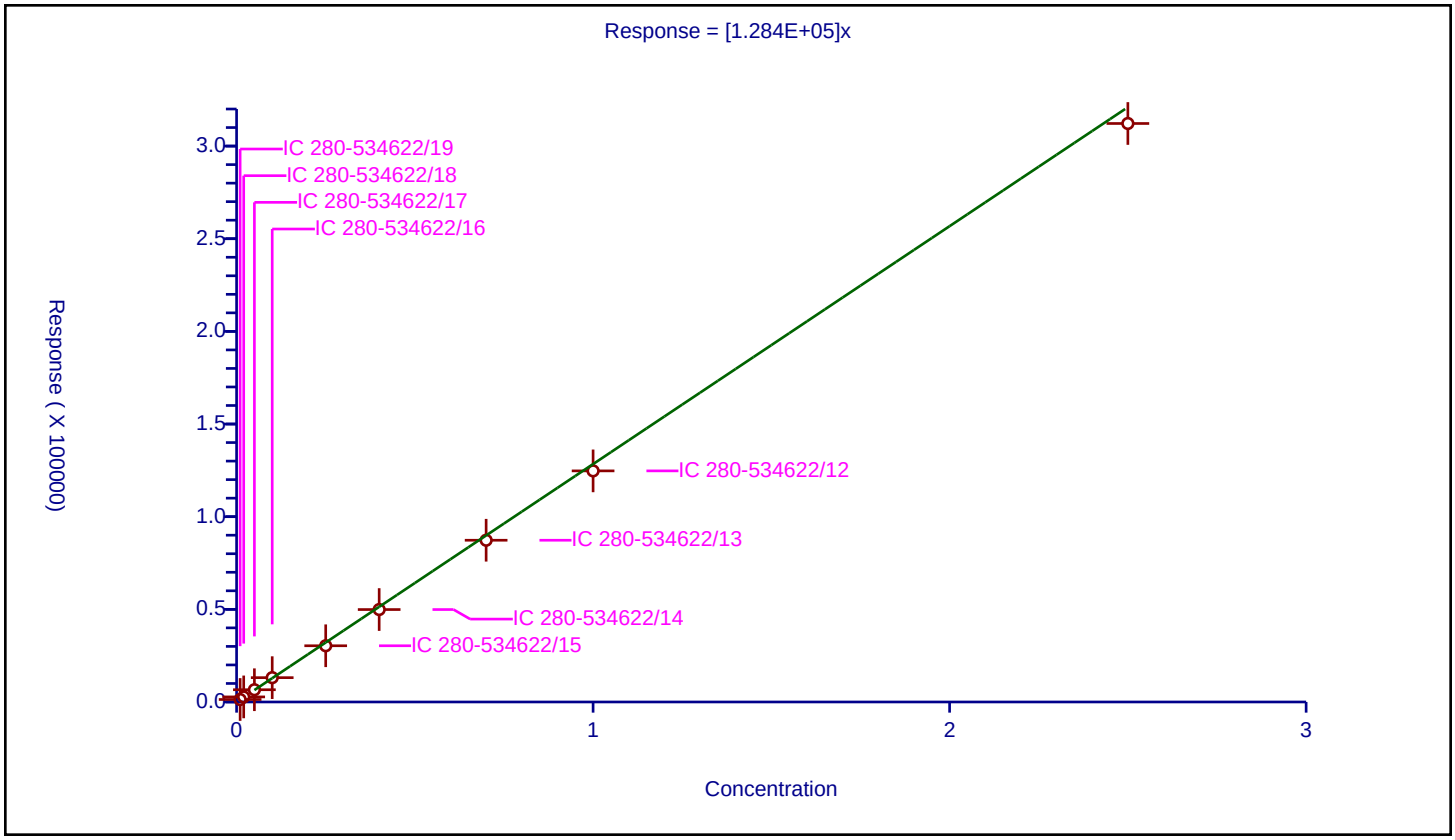
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.284E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3580 |
| **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 280-534622/19 | 0.01 | 1346.0 | | | 134600.0 | Y |
| 2 | IC 280-534622/18 | 0.02 | 2737.0 | | | 136850.0 | Y |
| 3 | IC 280-534622/17 | 0.05 | 6616.0 | | | 132320.0 | Y |
| 4 | IC 280-534622/16 | 0.1 | 13138.0 | | | 131380.0 | Y |
| 5 | IC 280-534622/15 | 0.25 | 30342.0 | | | 121368.0 | Y |
| 6 | IC 280-534622/14 | 0.4 | 49881.0 | | | 124702.5 | Y |
| 7 | IC 280-534622/13 | 0.7 | 87294.0 | | | 124705.714286 | Y |
| 8 | IC 280-534622/12 | 1.0 | 124724.0 | | | 124724.0 | Y |
| 9 | IC 280-534622/11 | 2.5 | 312191.0 | | | 124876.4 | Y |



## Calibration / p-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

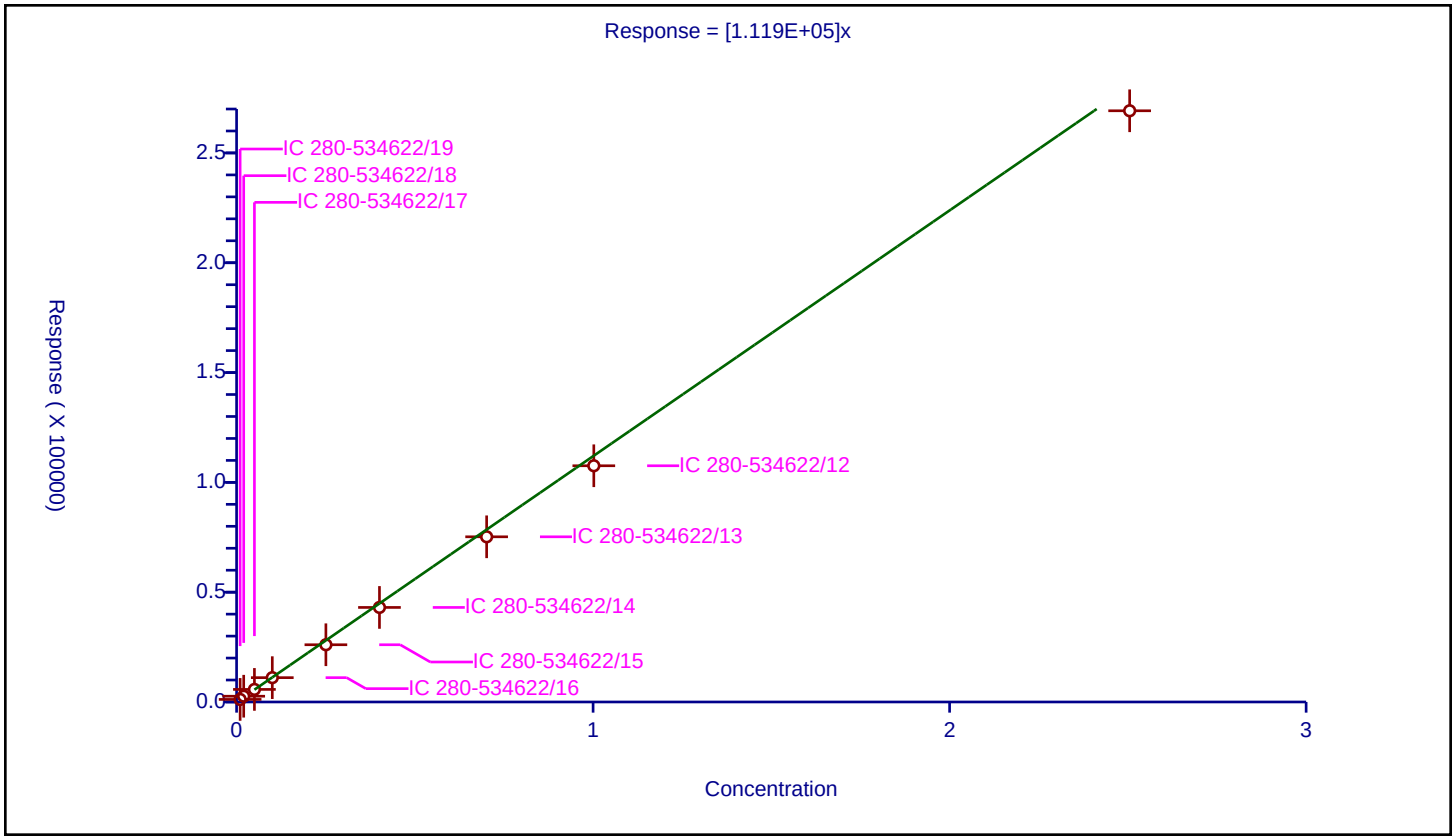
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.119E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4520 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01002 | 1177.0 | | | 117465.06986 | Y |
| 2 | IC 280-534622/18 | 0.02004 | 2633.0 | | | 131387.225549 | Y |
| 3 | IC 280-534622/17 | 0.0501 | 5724.0 | | | 114251.497006 | Y |
| 4 | IC 280-534622/16 | 0.1002 | 11083.0 | | | 110608.782435 | Y |
| 5 | IC 280-534622/15 | 0.2505 | 26060.0 | | | 104031.936128 | Y |
| 6 | IC 280-534622/14 | 0.4008 | 43055.0 | | | 107422.654691 | Y |
| 7 | IC 280-534622/13 | 0.7014 | 75212.0 | | | 107231.251782 | Y |
| 8 | IC 280-534622/12 | 1.002 | 107567.0 | | | 107352.295409 | Y |
| 9 | IC 280-534622/11 | 2.505 | 269197.0 | | | 107463.872255 | Y |



## Calibration / m-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

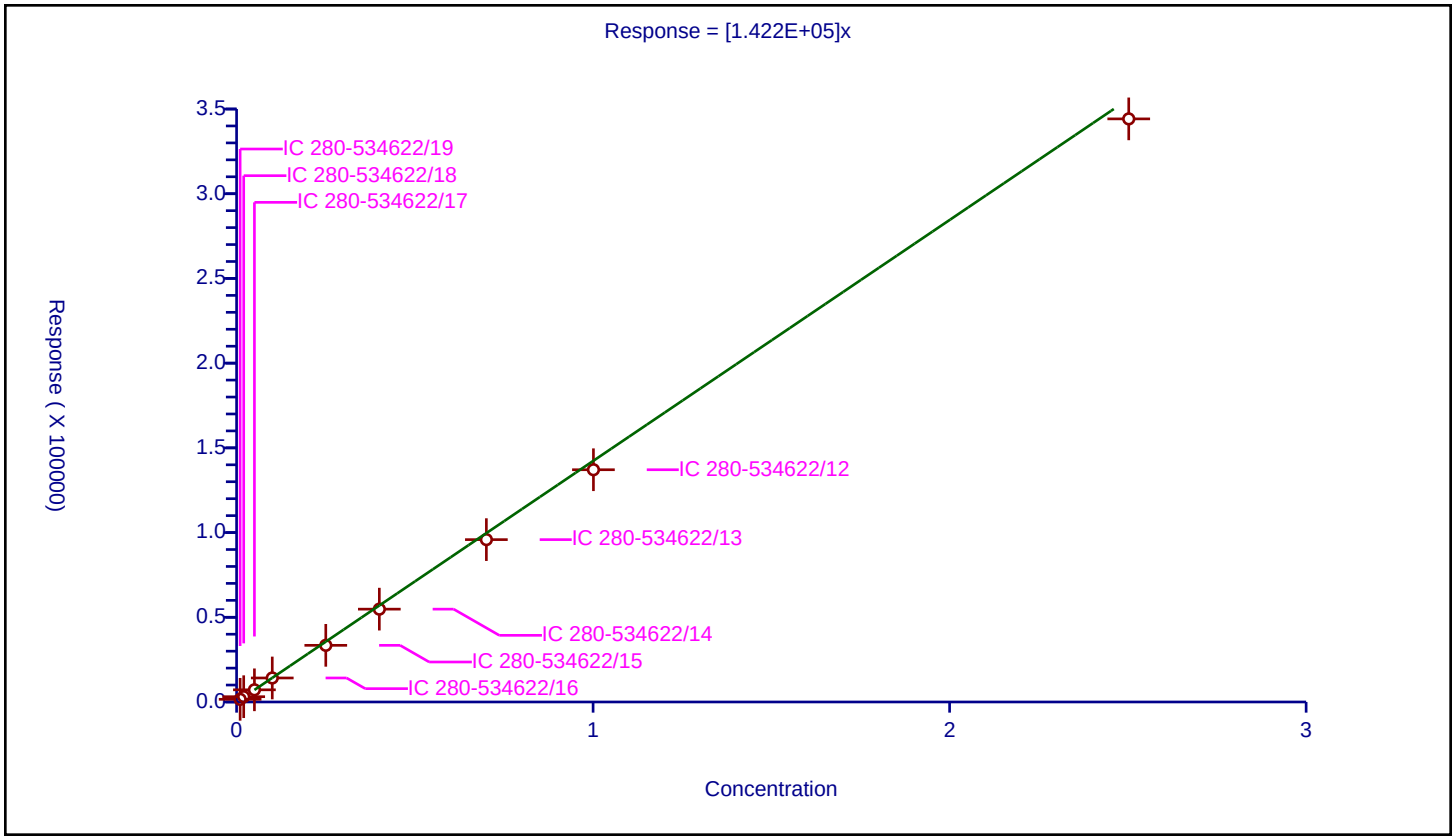
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.422E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4890 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534622/19 | 0.01001 | 1575.0 | | | 157342.657343 | Y |
| 2 | IC 280-534622/18 | 0.02002 | 3121.0 | | | 155894.105894 | Y |
| 3 | IC 280-534622/17 | 0.05005 | 7187.0 | | | 143596.403596 | Y |
| 4 | IC 280-534622/16 | 0.1001 | 14179.0 | | | 141648.351648 | Y |
| 5 | IC 280-534622/15 | 0.25025 | 33440.0 | | | 133626.373626 | Y |
| 6 | IC 280-534622/14 | 0.4004 | 54796.0 | | | 136853.146853 | Y |
| 7 | IC 280-534622/13 | 0.7007 | 95835.0 | | | 136770.372485 | Y |
| 8 | IC 280-534622/12 | 1.001 | 137092.0 | | | 136955.044955 | Y |
| 9 | IC 280-534622/11 | 2.5025 | 344169.0 | | | 137530.06993 | Y |



## Calibration / PETN

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

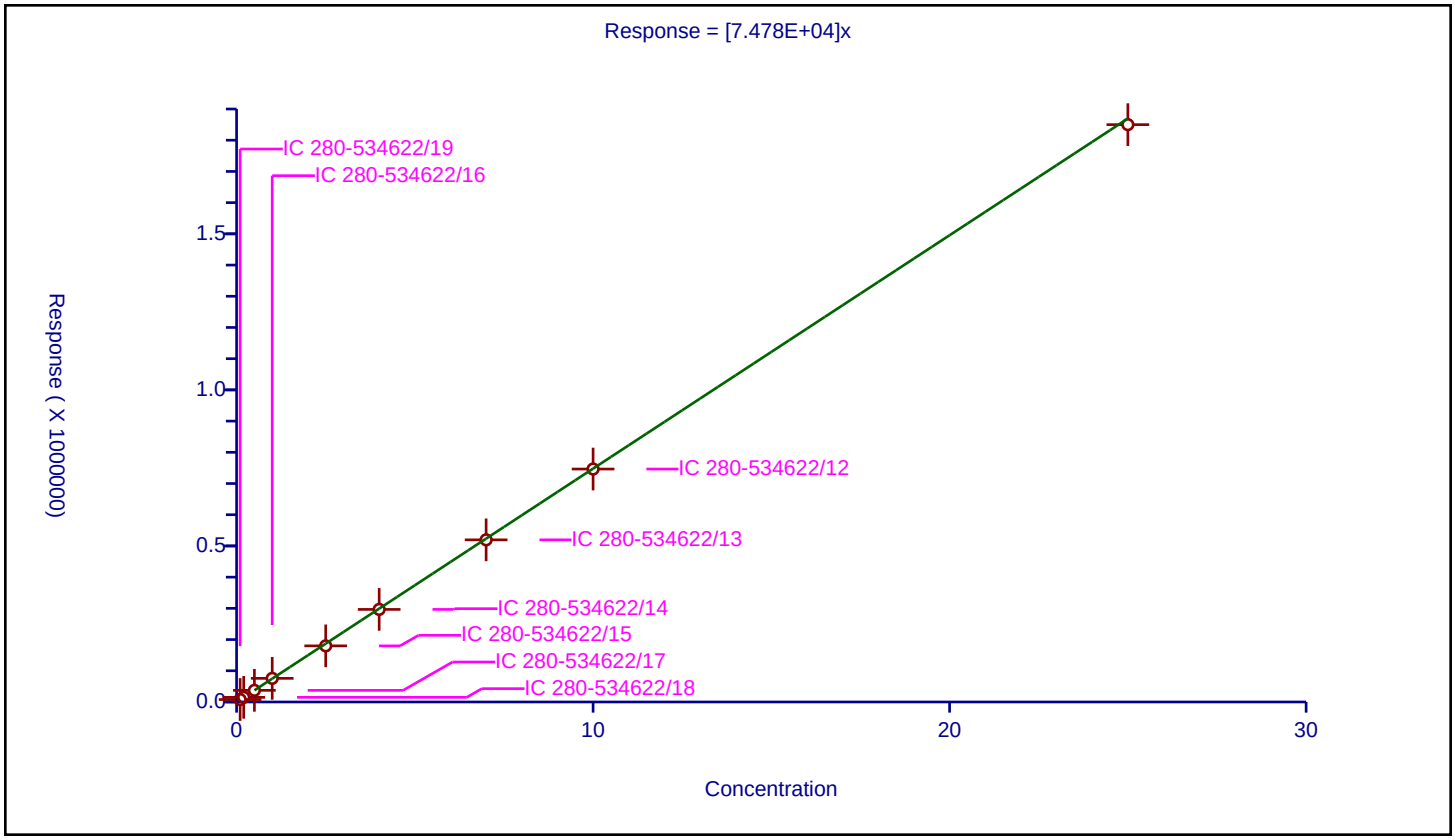
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 7.478E+04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7550 |
| **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 280-534622/19 | 0.1 | 7901.0 | | | 79010.0 | Y |
| 2 | IC 280-534622/18 | 0.2 | 14944.0 | | | 74720.0 | Y |
| 3 | IC 280-534622/17 | 0.5 | 37293.0 | | | 74586.0 | Y |
| 4 | IC 280-534622/16 | 1.0 | 75747.0 | | | 75747.0 | Y |
| 5 | IC 280-534622/15 | 2.5 | 179819.0 | | | 71927.6 | Y |
| 6 | IC 280-534622/14 | 4.0 | 296622.0 | | | 74155.5 | Y |
| 7 | IC 280-534622/13 | 7.0 | 519589.0 | | | 74227.0 | Y |
| 8 | IC 280-534622/12 | 10.0 | 746366.0 | | | 74636.6 | Y |
| 9 | IC 280-534622/11 | 25.0 | 1849935.0 | | | 73997.4 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:54 Calibration End Date: 05/01/2021 23:35 Calibration ID: 53146

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/18 | 018-1301.D |
| Level 2 | IC 280-534620/17 | 017-1201.D |
| Level 3 | IC 280-534620/16 | 016-1101.D |
| Level 4 | IC 280-534620/15 | 015-1001.D |
| Level 5 | IC 280-534620/14 | 014-0901.D |
| Level 6 | IC 280-534620/13 | 013-0801.D |
| Level 7 | IC 280-534620/12 | 012-0701.D |
| Level 8 | IC 280-534620/11 | 011-0601.D |
| Level 9 | IC 280-534620/10 | 010-0501.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 | 6.724 | 6.720 | 6.734 | 6.718 | 6.713 | 6.705 | 6.698 | 6.691 | 6.635 | | 6.563 - 6.863 | 6.704 |
| Picric acid | 8.004 | 7.980 | 7.987 | 7.958 | 7.933 | 7.911 | 7.878 | 7.845 | 7.801 | | 7.783 - 8.083 | 7.922 |
| RDX | +++++ | 8.926 | 8.934 | 8.912 | 8.906 | 8.898 | 8.891 | 8.878 | 8.801 | | 8.756 - 9.056 | 8.893 |
| Nitrobenzene | +++++ | 11.973 | 11.994 | 11.971 | 11.973 | 11.951 | 11.951 | 11.924 | 11.854 | | 11.823 - 12.123 | 11.949 |
| 1,3-Dinitrobenzene | 15.524 | 15.533 | 15.547 | 15.518 | 15.519 | 15.491 | 15.504 | 15.471 | 15.421 | | 15.369 - 15.669 | 15.503 |
| Nitroglycerin | +++++ | 15.940 | 15.961 | 15.931 | 15.939 | 15.905 | 15.924 | 15.891 | 15.861 | | 15.789 - 16.089 | 15.919 |
| 2-Nitrotoluene | 16.751 | 16.740 | 16.781 | 16.751 | 16.759 | 16.725 | 16.744 | 16.704 | 16.668 | | 16.609 - 16.909 | 16.736 |
| 4-Nitrotoluene | 17.031 | 17.060 | 17.074 | 17.038 | 17.046 | 17.011 | 17.031 | 16.991 | 16.928 | | 16.896 - 17.196 | 17.023 |
| 4-Amino-2,6-dinitrotoluene | 17.511 | 17.520 | 17.541 | 17.511 | 17.526 | 17.485 | 17.504 | 17.458 | 17.421 | | 17.376 - 17.676 | 17.497 |
| 3-Nitrotoluene | 17.978 | 18.033 | 18.047 | 18.011 | 18.026 | 17.985 | 18.011 | 17.964 | 17.928 | | 17.876 - 18.176 | 17.998 |
| 2-Amino-4,6-dinitrotoluene | 18.418 | 18.426 | 18.441 | 18.418 | 18.426 | 18.385 | 18.411 | 18.364 | 18.321 | | 18.276 - 18.576 | 18.401 |
| 1,3,5-Trinitrobenzene | 18.904 | 18.946 | 18.954 | 18.931 | 18.939 | 18.905 | 18.924 | 18.884 | 18.861 | | 18.789 - 19.089 | 18.916 |
| 2,6-Dinitrotoluene | 20.191 | 20.200 | 20.201 | 20.185 | 20.199 | 20.158 | 20.184 | 20.138 | 20.114 | | 20.049 - 20.349 | 20.174 |
| 2,4-Dinitrotoluene | 20.644 | 20.666 | 20.674 | 20.652 | 20.666 | 20.625 | 20.651 | 20.605 | 20.581 | | 20.516 - 20.816 | 20.640 |
| Tetryl | 24.271 | 24.306 | 24.287 | 24.298 | 24.313 | 24.258 | 24.304 | 24.245 | 24.248 | | 24.163 - 24.463 | 24.281 |
| 2,4,6-Trinitrotoluene | 25.258 | 25.280 | 25.254 | 25.265 | 25.280 | 25.231 | 25.271 | 25.218 | 25.221 | | 25.130 - 25.430 | 25.253 |
| PETN | 26.151 | 26.180 | 26.154 | 26.172 | 26.186 | 26.145 | 26.184 | 26.138 | 26.155 | | 26.036 - 26.336 | 26.163 |
| 1,2-Dinitrobenzene | +++++ | 13.093 | 13.114 | 13.091 | 13.093 | 13.065 | 13.071 | 13.044 | 12.988 | | 12.943 - 13.243 | 13.070 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:54 Calibration End Date: 05/01/2021 23:35 Calibration ID: 53146

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/18 | 018-1301.D |
| Level 2 | IC 280-534620/17 | 017-1201.D |
| Level 3 | IC 280-534620/16 | 016-1101.D |
| Level 4 | IC 280-534620/15 | 015-1001.D |
| Level 5 | IC 280-534620/14 | 014-0901.D |
| Level 6 | IC 280-534620/13 | 013-0801.D |
| Level 7 | IC 280-534620/12 | 012-0701.D |
| Level 8 | IC 280-534620/11 | 011-0601.D |
| Level 9 | IC 280-534620/10 | 010-0501.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 | | | | | | | | |
| HMX | 254300<br>158320<br>162626 | 214300<br>160223 | 175820<br>158743 | 168500<br>161798 | Lin2 | 980.653662 | 158773.733 | | | | | | | 0.9990 | | 0.9900 |
| Picric acid | 178900<br>152888<br>141385 | 163500<br>155475 | 171560<br>152839 | 163400<br>155884 | Ave | | 159536.708 | | | | 7.0 | | 20.0 | | | |
| RDX | +++++<br>194424<br>195542 | 226650<br>195463 | 221320<br>195131 | 206610<br>199019 | Ave | | 204269.866 | | | | 6.3 | | 20.0 | | | |
| Nitrobenzene | +++++<br>361594<br>374427 | 392829<br>363362 | 384582<br>365280 | 379333<br>375807 | Ave | | 374651.498 | | | | 2.9 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 707086<br>560267<br>567860 | 619311<br>564242 | 581677<br>563124 | 586467<br>575968 | Lin2 | 1373.03976 | 562951.690 | | | | | | | 1.0000 | | 0.9900 |
| Nitroglycerin | +++++<br>124192<br>125256 | 141495<br>124522 | 130832<br>124706 | 130447<br>127389 | Ave | | 128604.807 | | | | 4.5 | | 20.0 | | | |
| 2-Nitrotoluene | 302200<br>232764<br>241861 | 257550<br>236045 | 247460<br>236947 | 245280<br>240595 | Ave | | 248966.927 | | | | 8.5 | | 20.0 | | | |
| 4-Nitrotoluene | 260279<br>204571<br>203894 | 240669<br>205292 | 214770<br>204907 | 211786<br>208512 | Ave | | 217186.809 | | | | 9.1 | | 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
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:54 Calibration End Date: 05/01/2021 23:35 Calibration ID: 53146

| 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 | 395005<br>273762<br>275790 | 313487<br>274451 | 295744<br>274119 | 287902<br>280086 | Ave | | 296705.057 | | | | 13.2 | | 20.0 | | | |
| 3-Nitrotoluene | 351349<br>259473<br>262003 | 296104<br>260060 | 278581<br>260578 | 271848<br>265537 | Ave | | 278392.538 | | | | 10.7 | | 20.0 | | | |
| 2-Amino-4,6-dinitrotoluene | 512749<br>386737<br>391743 | 453884<br>388349 | 420538<br>388045 | 407410<br>395660 | Lin2 | 1254.00604 | 389849.211 | | | | | | | 1.0000 | | 0.9900 |
| 1,3,5-Trinitrobenzene | 710180<br>416543<br>413420 | 525948<br>413743 | 469182<br>414112 | 445050<br>423023 | Lin2 | 2883.27310 | 409600.291 | | | | | | | 0.9990 | | 0.9900 |
| 2,6-Dinitrotoluene | 354084<br>263195<br>266888 | 300100<br>265070 | 280498<br>266340 | 276106<br>272867 | Lin2 | 857.028820 | 264837.016 | | | | | | | 1.0000 | | 0.9900 |
| 2,4-Dinitrotoluene | 659263<br>534514<br>542026 | 609014<br>537398 | 565657<br>537324 | 556155<br>550069 | Ave | | 565713.342 | | | | 7.4 | | 20.0 | | | |
| Tetryl | 523453<br>323337<br>324746 | 378393<br>322206 | 350758<br>323640 | 340798<br>328709 | Lin2 | 1889.68945 | 317664.730 | | | | | | | 0.9970 | | 0.9900 |
| 2,4,6-Trinitrotoluene | 544721<br>373793<br>382269 | 425697<br>377761 | 386454<br>378660 | 385857<br>387552 | Lin2 | 1580.45681 | 371636.737 | | | | | | | 0.9980 | | 0.9900 |
| PETN | 156590<br>132124<br>133721 | 137180<br>132892 | 138340<br>134943 | 136676<br>137199 | Ave | | 137740.388 | | | | 5.4 | | 20.0 | | | |
| 1,2-Dinitrobenzene | +++++<br>252324<br>253320 | 314000<br>253120 | 276720<br>251686 | 266780<br>257324 | Ave | | 265659.214 | | | | 8.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:54 Calibration End Date: 05/01/2021 23:35 Calibration ID: 53146

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/18 | 018-1301.D |
| Level 2 | IC 280-534620/17 | 017-1201.D |
| Level 3 | IC 280-534620/16 | 016-1101.D |
| Level 4 | IC 280-534620/15 | 015-1001.D |
| Level 5 | IC 280-534620/14 | 014-0901.D |
| Level 6 | IC 280-534620/13 | 013-0801.D |
| Level 7 | IC 280-534620/12 | 012-0701.D |
| Level 8 | IC 280-534620/11 | 011-0601.D |
| Level 9 | IC 280-534620/10 | 010-0501.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 | Lin2 | 2543<br>64089 | 4286<br>111120 | 8791<br>161798 | 16850<br>406565 | 39580 | 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 | 1789<br>62190 | 3270<br>106987 | 8578<br>155884 | 16340<br>353462 | 38222 | 0.0100<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | +++++<br>78185 | 4533<br>136592 | 11066<br>199019 | 20661<br>488855 | 48606 | +++++<br>0.400 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Nitrobenzene | Ave | +++++<br>145926 | 7888<br>256719 | 19306<br>377310 | 38085<br>939811 | 90760 | +++++<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Lin2 | 7085<br>226148 | 12411<br>394975 | 29142<br>577120 | 58764<br>1422490 | 140347 | 0.0100<br>0.401 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | +++++<br>498088 | 28299<br>872941 | 65416<br>1273886 | 130447<br>3131400 | 310480 | +++++<br>4.00 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2-Nitrotoluene | Ave | 3022<br>94418 | 5151<br>165863 | 12373<br>240595 | 24528<br>604653 | 58191 | 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 | 2608<br>82281 | 4823<br>143722 | 10760<br>208929 | 21221<br>510755 | 51245 | 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 | Ave | 3954<br>109890 | 6276<br>192075 | 14802<br>280366 | 28819<br>690165 | 68509 | 0.0100<br>0.400 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 3-Nitrotoluene | Ave | 3517<br>104128 | 5928<br>182587 | 13943<br>265803 | 27212<br>655662 | 64933 | 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 | Lin2 | 5148<br>155961 | 9114<br>272718 | 21111<br>397243 | 40904<br>983275 | 97071 | 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 | Lin2 | 7116<br>165828 | 10540<br>290458 | 23506<br>423869 | 44594<br>1035616 | 104344 | 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 | Lin2 | 3555 | 6026 | 14081 | 27721 | 66062 | 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 TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2021 18:54 Calibration End Date: 05/01/2021 23:35 Calibration ID: 53146

| 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 |
| | | 106452 | 187184 | 273958 | 669889 | | 0.402 | 0.703 | 1.00 | 2.51 | |
| 2,4-Dinitrotoluene | Ave | 6619<br>215819 | 12229<br>377631 | 28396<br>552269 | 55838<br>1360486 | 134163 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Lin2 | 5245<br>129140 | 7583<br>227001 | 17573<br>329366 | 34148<br>813489 | 80996 | 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 | Lin2 | 5469<br>151709 | 8548<br>266122 | 19400<br>389102 | 38740<br>959496 | 93822 | 0.0100<br>0.402 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| PETN | Ave | 15659<br>531566 | 27436<br>944599 | 69170<br>1371986 | 136676<br>3343027 | 330309 | 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 | +++++<br>101248 | 6280<br>176180 | 13836<br>257324 | 26678<br>633300 | 63081 | +++++<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 TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\010-0501.D
Lims ID: IC INT/ADD 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 01-May-2021 18:54:50 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 9
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:11 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:40:10

| 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 | 4.061 | 4.126 | -0.065 | 1092989 | 2.50 | 2.67 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.635 | 4.653 | -0.018 | 538473 | 2.50 | 2.25 | |
| 6 HMX | 1 | 6.635 | 6.713 | -0.078 | 406565 | 2.50 | 2.55 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.801 | 7.933 | -0.132 | 353462 | 2.50 | 2.22 | |
| 8 RDX | 1 | 8.801 | 8.906 | -0.105 | 488855 | 2.50 | 2.39 | |
| 9 Nitrobenzene | 1 | 11.854 | 11.973 | -0.119 | 939811 | 2.51 | 2.51 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.988 | 13.093 | -0.105 | 633300 | 2.50 | 2.38 | |
| 11 3,5-Dinitroaniline | 1 | 14.868 | 14.979 | -0.111 | 1143420 | 2.50 | 2.54 | |
| 12 1,3-Dinitrobenzene | 1 | 15.421 | 15.519 | -0.098 | 1422490 | 2.51 | 2.52 | |
| 13 Nitroglycerin | 2 | 15.861 | 15.939 | -0.078 | 3131400 | 25.0 | 24.3 | |
| 14 o-Nitrotoluene | 1 | 16.668 | 16.759 | -0.091 | 604653 | 2.50 | 2.43 | |
| 15 p-Nitrotoluene | 1 | 16.928 | 17.046 | -0.118 | 510755 | 2.51 | 2.35 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.421 | 17.526 | -0.105 | 690165 | 2.50 | 2.33 | |
| 17 m-Nitrotoluene | 1 | 17.928 | 18.026 | -0.098 | 655662 | 2.50 | 2.36 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.321 | 18.426 | -0.105 | 983275 | 2.51 | 2.52 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.861 | 18.939 | -0.078 | 1035616 | 2.51 | 2.52 | |
| 20 2,6-Dinitrotoluene | 1 | 20.114 | 20.199 | -0.085 | 669889 | 2.51 | 2.53 | |
| 21 2,4-Dinitrotoluene | 1 | 20.581 | 20.666 | -0.085 | 1360486 | 2.51 | 2.40 | |
| 22 Tetryl | 1 | 24.248 | 24.313 | -0.065 | 813489 | 2.51 | 2.55 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.221 | 25.280 | -0.059 | 959496 | 2.51 | 2.58 | |
| 24 PETN | 2 | 26.155 | 26.186 | -0.031 | 3343027 | 25.0 | 24.3 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

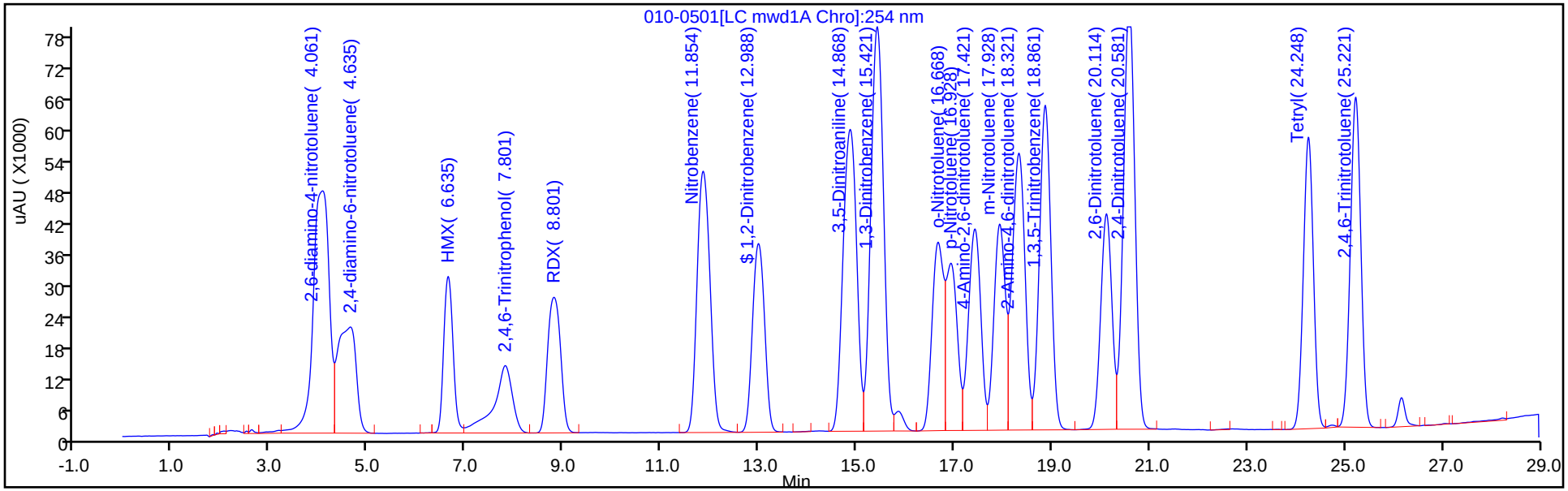
| | | |
|---|---|---|
| 8330IntermStk_00067 | Amount Added: 250.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: 125.00 | Units: uL |

Report Date: 04-May-2021 13:43:11 Chrom Revision: 2.3 08-Apr-2021 17:17:48

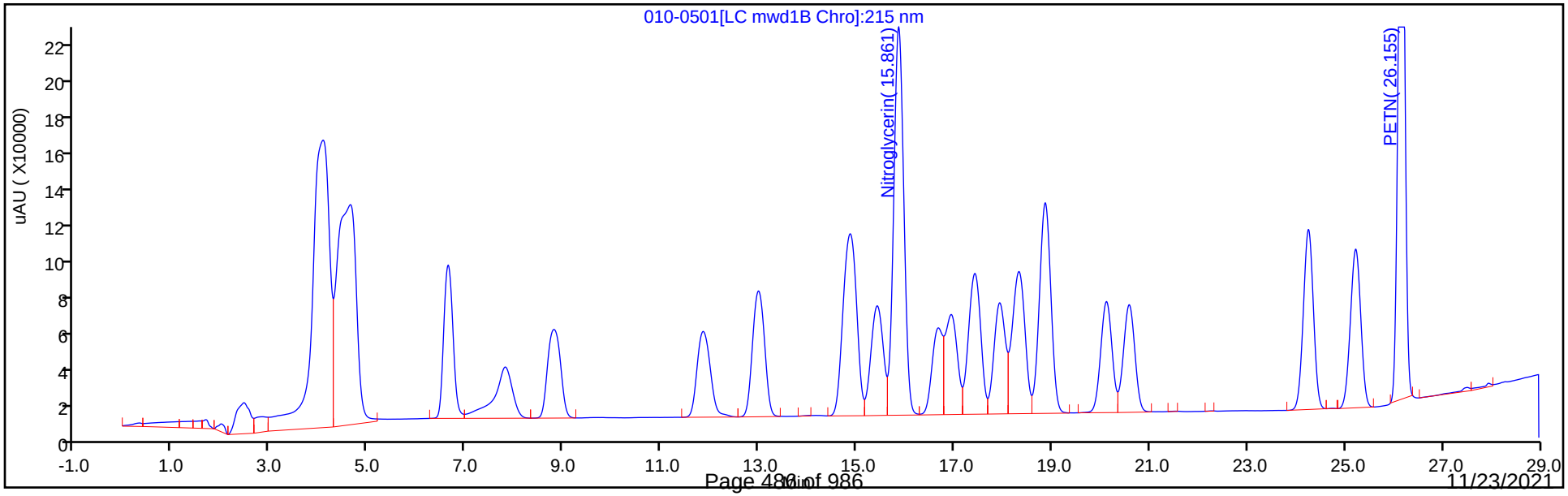
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\010-0501.D | | | | |
| Injection Date: | 01-May-2021 18:54:50 | 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 TestAmerica, Denver

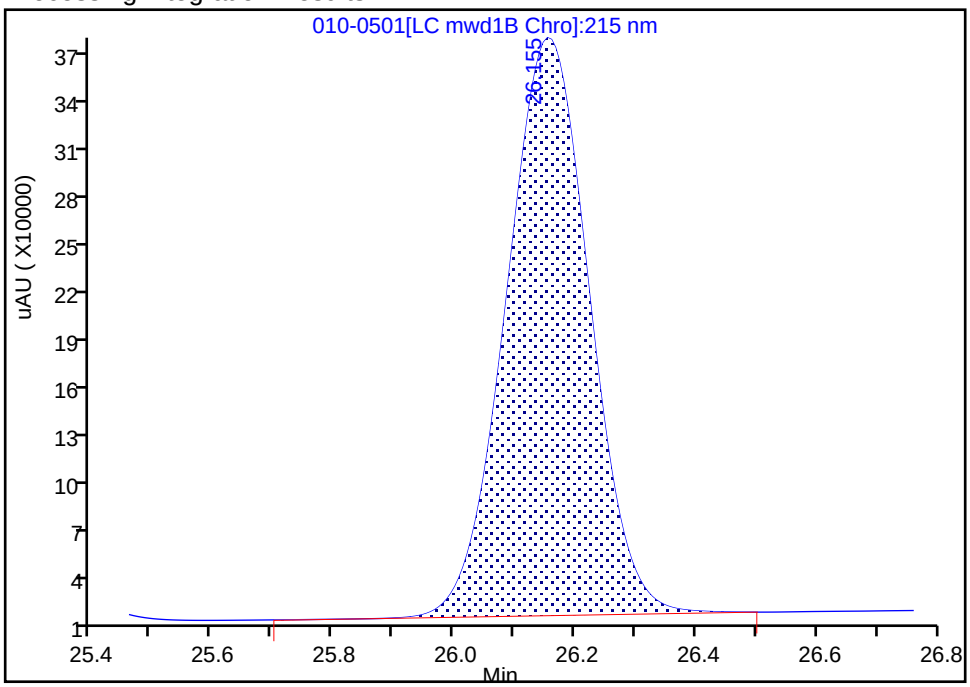
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\010-0501.D | | | | |
| Injection Date: | 01-May-2021 18:54:50 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

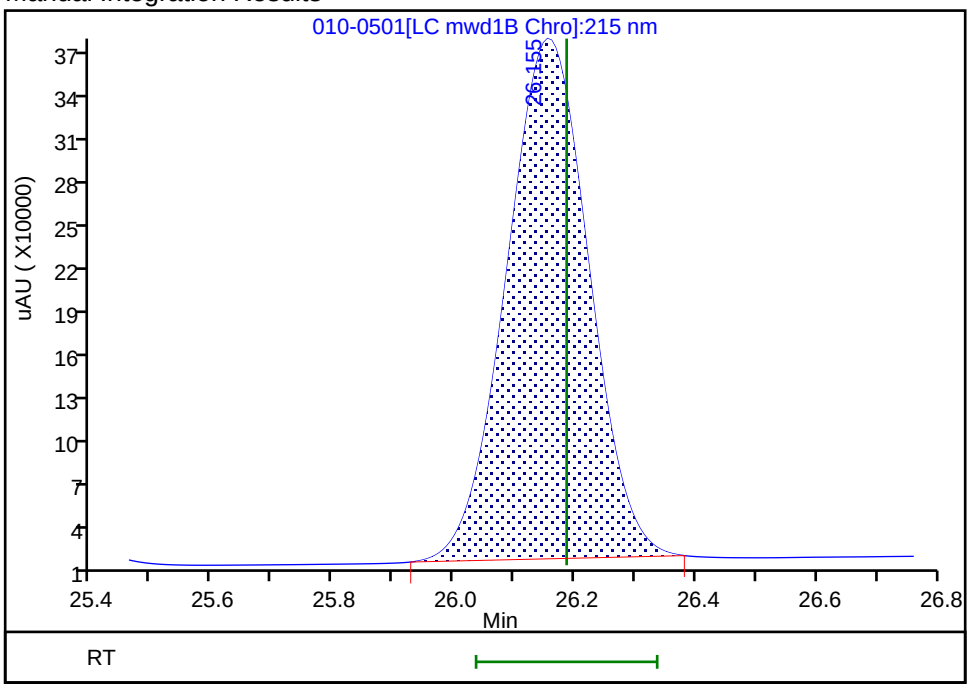
Processing Integration Results

RT: 26.15
Area: 3390696
Amount: 25.717777
Amount Units: ug/ml




Manual Integration Results

RT: 26.15
Area: 3343027
Amount: 24.270492
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:09

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\011-0601.D
Lims ID: IC INT/ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 01-May-2021 19:29:53 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 8
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:11 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:40:18

| 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 | 4.085 | 4.126 | -0.041 | 410324 | 1.00 | 1.00 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.598 | 4.653 | -0.055 | 250474 | 1.00 | 1.04 | |
| 6 HMX | 1 | 6.691 | 6.713 | -0.022 | 161798 | 1.00 | 1.01 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.845 | 7.933 | -0.088 | 155884 | 1.00 | 0.9771 | |
| 8 RDX | 1 | 8.878 | 8.906 | -0.028 | 199019 | 1.00 | 0.9743 | |
| 9 Nitrobenzene | 1 | 11.924 | 11.973 | -0.049 | 377310 | 1.00 | 1.01 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.044 | 13.093 | -0.049 | 257324 | 1.00 | 0.9686 | |
| 11 3,5-Dinitroaniline | 1 | 14.918 | 14.979 | -0.061 | 457283 | 1.00 | 1.01 | |
| 12 1,3-Dinitrobenzene | 1 | 15.471 | 15.519 | -0.048 | 577120 | 1.00 | 1.02 | |
| 13 Nitroglycerin | 2 | 15.891 | 15.939 | -0.048 | 1273886 | 10.0 | 9.91 | |
| 14 o-Nitrotoluene | 1 | 16.704 | 16.759 | -0.055 | 240595 | 1.00 | 0.9664 | |
| 15 p-Nitrotoluene | 1 | 16.991 | 17.046 | -0.055 | 208929 | 1.00 | 0.9620 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.458 | 17.526 | -0.068 | 280366 | 1.00 | 0.9449 | |
| 17 m-Nitrotoluene | 1 | 17.964 | 18.026 | -0.062 | 265803 | 1.00 | 0.9548 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.364 | 18.426 | -0.062 | 397243 | 1.00 | 1.02 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.884 | 18.939 | -0.055 | 423869 | 1.00 | 1.03 | |
| 20 2,6-Dinitrotoluene | 1 | 20.138 | 20.199 | -0.061 | 273958 | 1.00 | 1.03 | |
| 21 2,4-Dinitrotoluene | 1 | 20.605 | 20.666 | -0.062 | 552269 | 1.00 | 0.9762 | |
| 22 Tetryl | 1 | 24.245 | 24.313 | -0.068 | 329366 | 1.00 | 1.03 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.218 | 25.280 | -0.062 | 389102 | 1.00 | 1.04 | |
| 24 PETN | 2 | 26.138 | 26.186 | -0.048 | 1371986 | 10.0 | 9.96 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

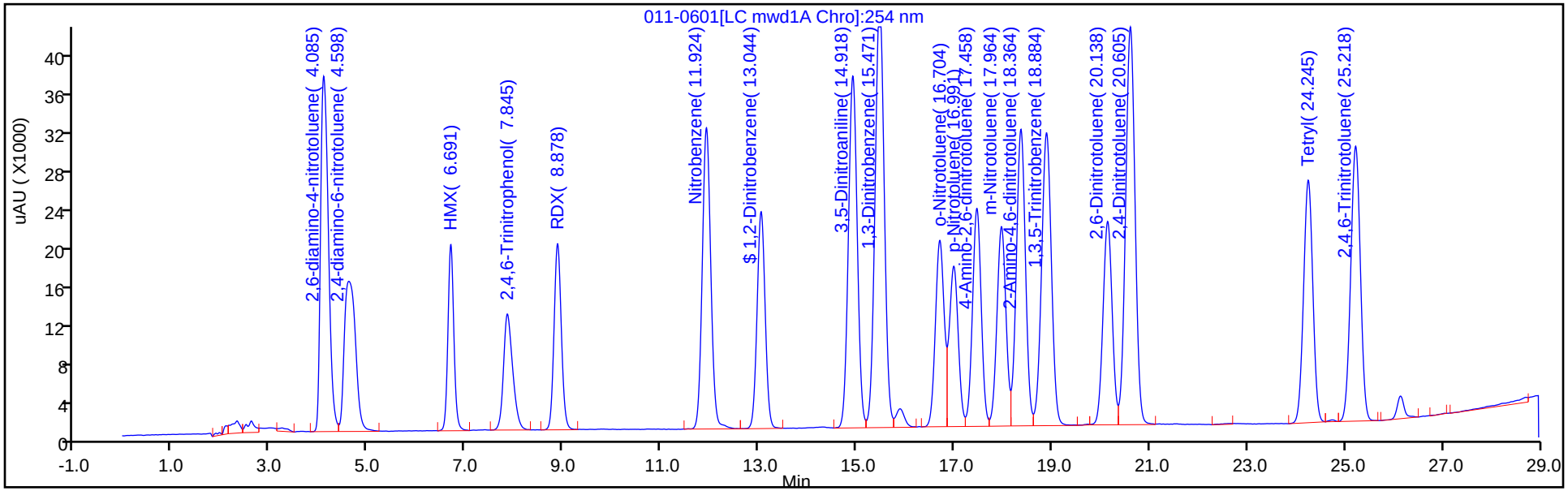
| | | |
|---|---|---|
| 8330IntermStk_00067 | Amount Added: 100.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: 50.00 | Units: uL |

Report Date: 04-May-2021 13:43:12 Chrom Revision: 2.3 08-Apr-2021 17:17:48

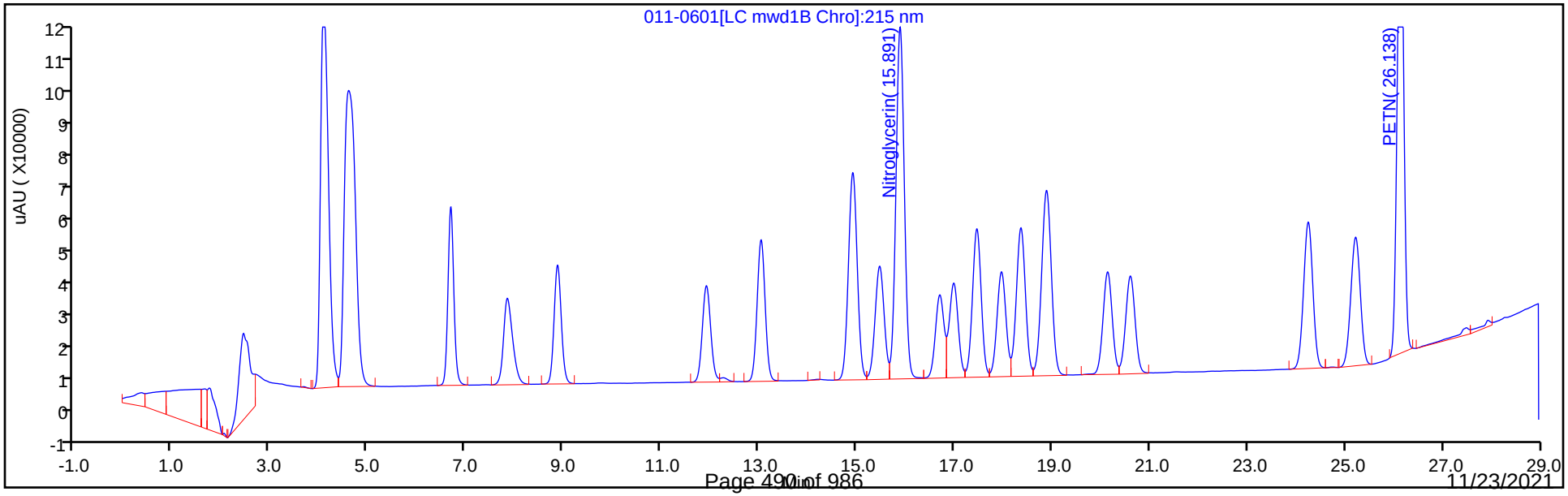
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\011-0601.D | | | | |
| Injection Date: | 01-May-2021 19:29:53 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

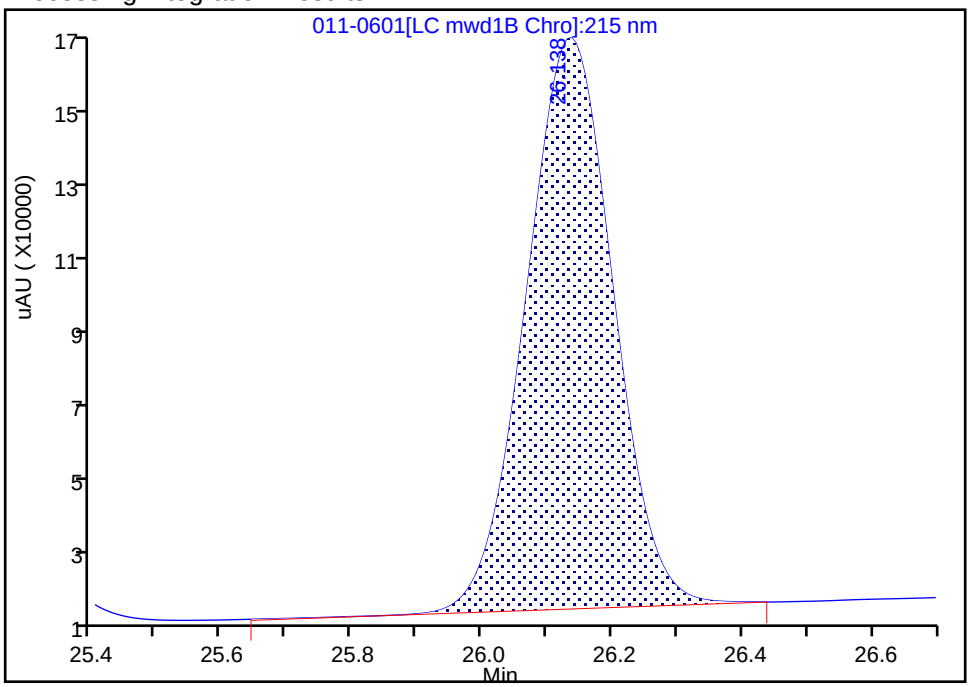
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\011-0601.D | | | | |
| Injection Date: | 01-May-2021 19:29:53 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

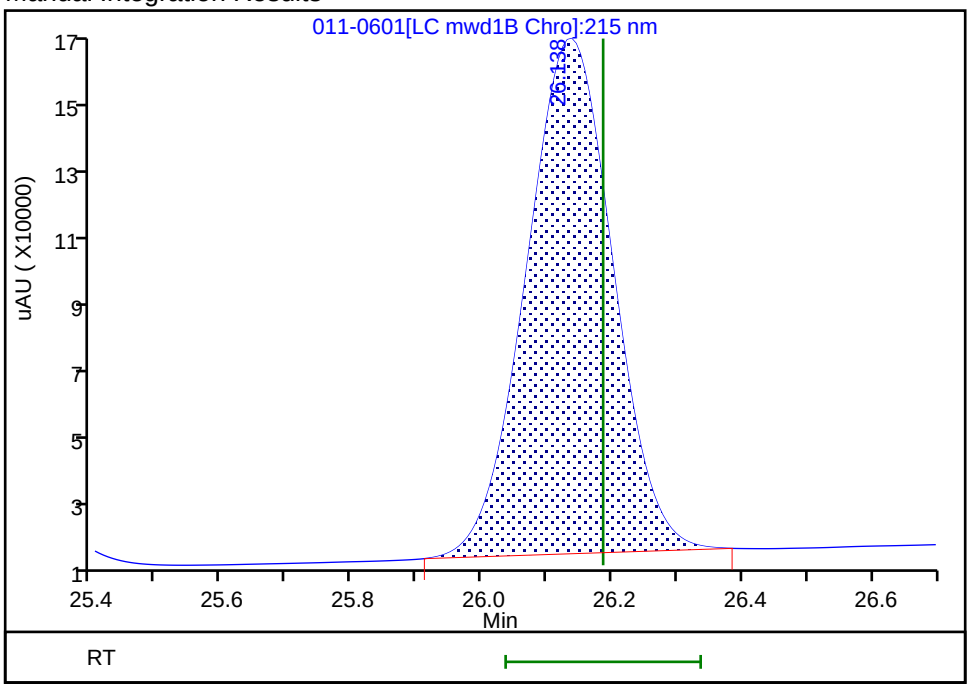
Processing Integration Results

RT: 26.14
Area: 1384511
Amount: 10.424343
Amount Units: ug/ml




Manual Integration Results

RT: 26.14
Area: 1371986
Amount: 9.960666
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:17

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\012-0701.D | | | | |
| Lims ID: | IC INT/ADD 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 01-May-2021 20:04:53 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC INT/ADD 7 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:12 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

First Level Reviewer: zhangji Date: 04-May-2021 13:40:25

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.104 | 4.126 | -0.022 | 286797 | 0.7000 | 0.6941 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.618 | 4.653 | -0.035 | 172168 | 0.7000 | 0.7152 | |
| 6 HMX | 1 | 6.698 | 6.713 | -0.015 | 111120 | 0.7000 | 0.6937 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.878 | 7.933 | -0.055 | 106987 | 0.7000 | 0.6706 | |
| 8 RDX | 1 | 8.891 | 8.906 | -0.015 | 136592 | 0.7000 | 0.6687 | |
| 9 Nitrobenzene | 1 | 11.951 | 11.973 | -0.022 | 256719 | 0.7028 | 0.6852 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.071 | 13.093 | -0.022 | 176180 | 0.7000 | 0.6632 | |
| 11 3,5-Dinitroaniline | 1 | 14.957 | 14.979 | -0.022 | 318505 | 0.7000 | 0.7055 | |
| 12 1,3-Dinitrobenzene | 1 | 15.504 | 15.519 | -0.015 | 394975 | 0.7014 | 0.6992 | |
| 13 Nitroglycerin | 2 | 15.924 | 15.939 | -0.015 | 872941 | 7.00 | 6.79 | |
| 14 o-Nitrotoluene | 1 | 16.744 | 16.759 | -0.015 | 165863 | 0.7000 | 0.6662 | |
| 15 p-Nitrotoluene | 1 | 17.031 | 17.046 | -0.015 | 143722 | 0.7014 | 0.6617 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.504 | 17.526 | -0.022 | 192075 | 0.7007 | 0.6474 | |
| 17 m-Nitrotoluene | 1 | 18.011 | 18.026 | -0.015 | 182587 | 0.7007 | 0.6559 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.411 | 18.426 | -0.015 | 272718 | 0.7028 | 0.6963 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.924 | 18.939 | -0.015 | 290458 | 0.7014 | 0.7021 | |
| 20 2,6-Dinitrotoluene | 1 | 20.184 | 20.199 | -0.015 | 187184 | 0.7028 | 0.7036 | |
| 21 2,4-Dinitrotoluene | 1 | 20.651 | 20.666 | -0.015 | 377631 | 0.7028 | 0.6675 | |
| 22 Tetryl | 1 | 24.304 | 24.313 | -0.009 | 227001 | 0.7014 | 0.7086 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.271 | 25.280 | -0.009 | 266122 | 0.7028 | 0.7118 | |
| 24 PETN | 2 | 26.184 | 26.186 | -0.002 | 944599 | 7.00 | 6.86 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

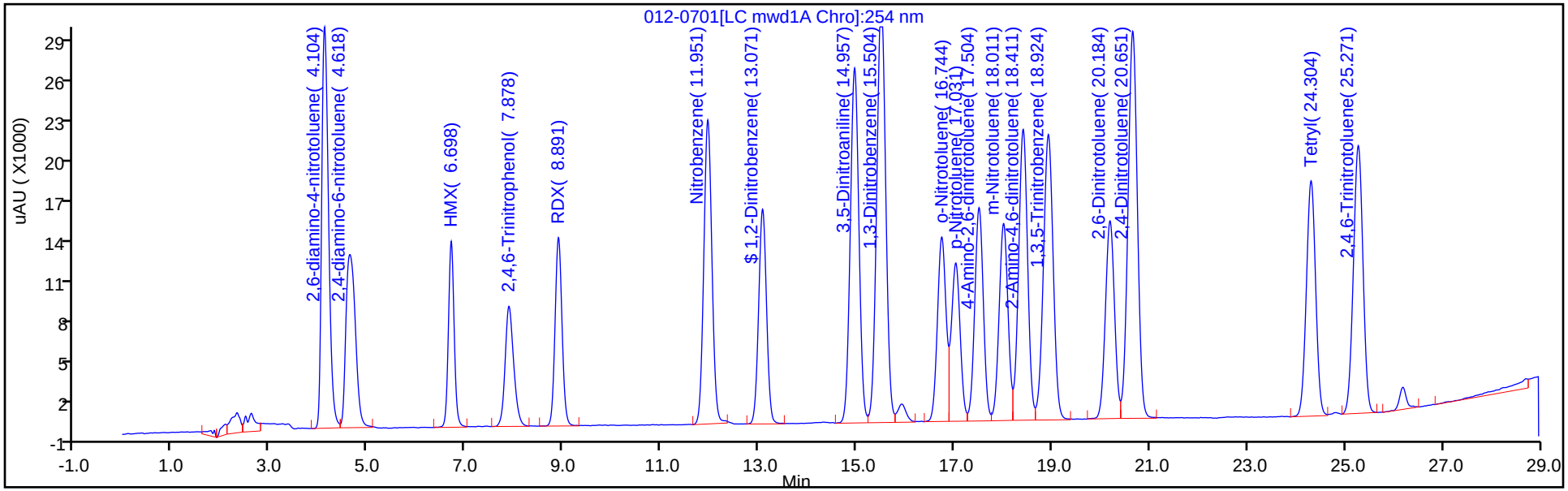
| | | |
|---|---|---|
| 8330IntermStk_00067 | Amount Added: 70.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: 35.00 | Units: uL |

Report Date: 04-May-2021 13:43:12 Chrom Revision: 2.3 08-Apr-2021 17:17:48

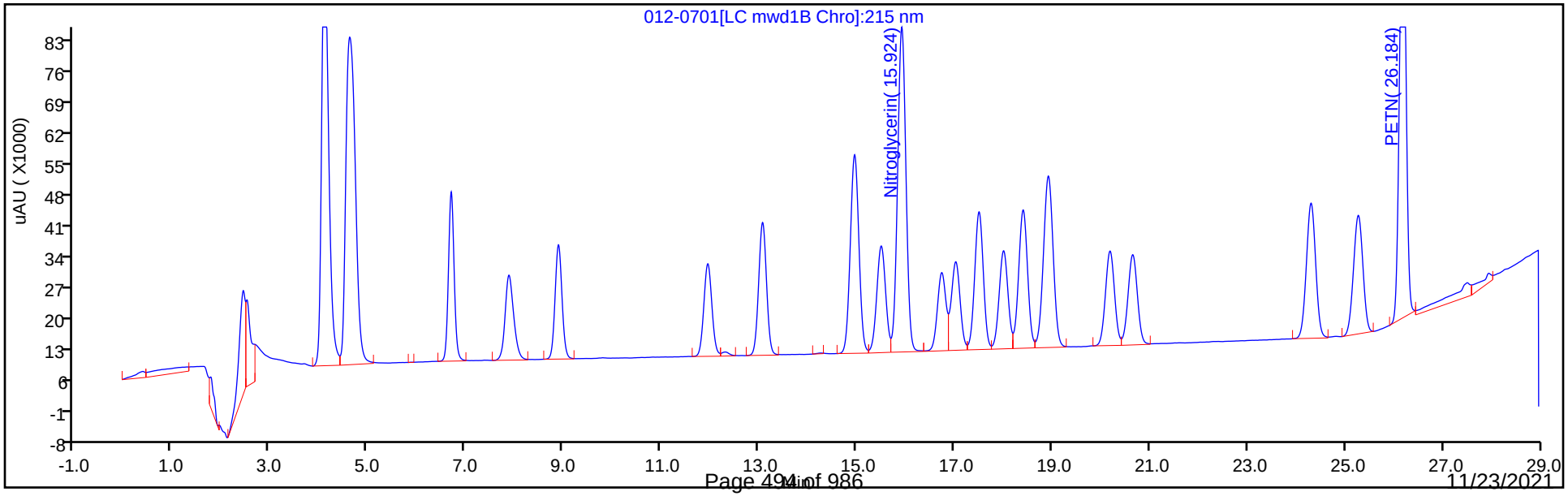
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\012-0701.D | | | | |
| Injection Date: | 01-May-2021 20:04:53 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

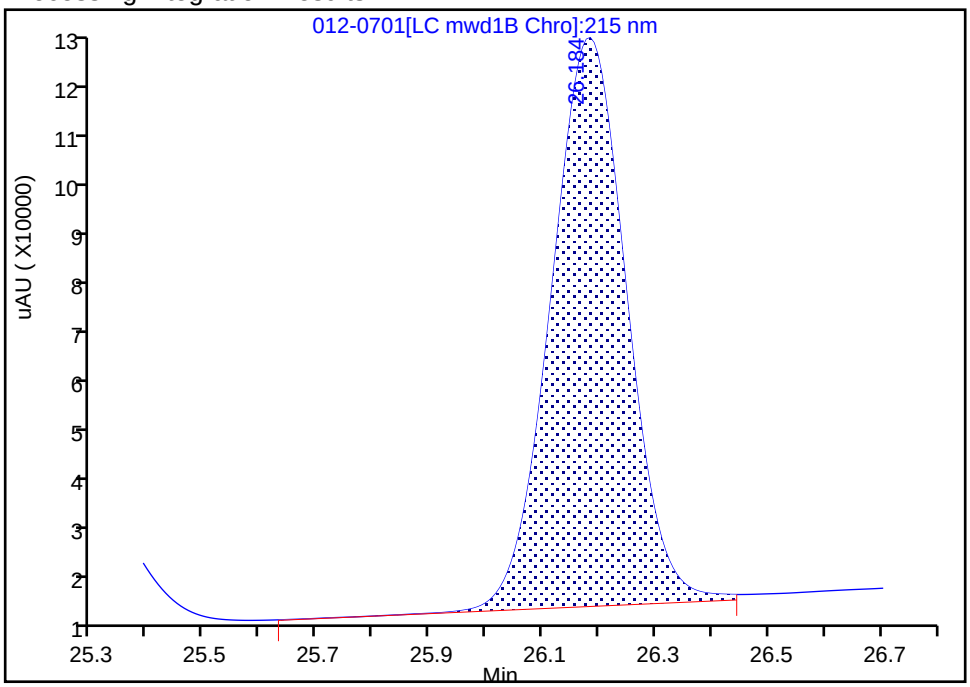
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\012-0701.D | | | | |
| Injection Date: | 01-May-2021 20:04:53 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

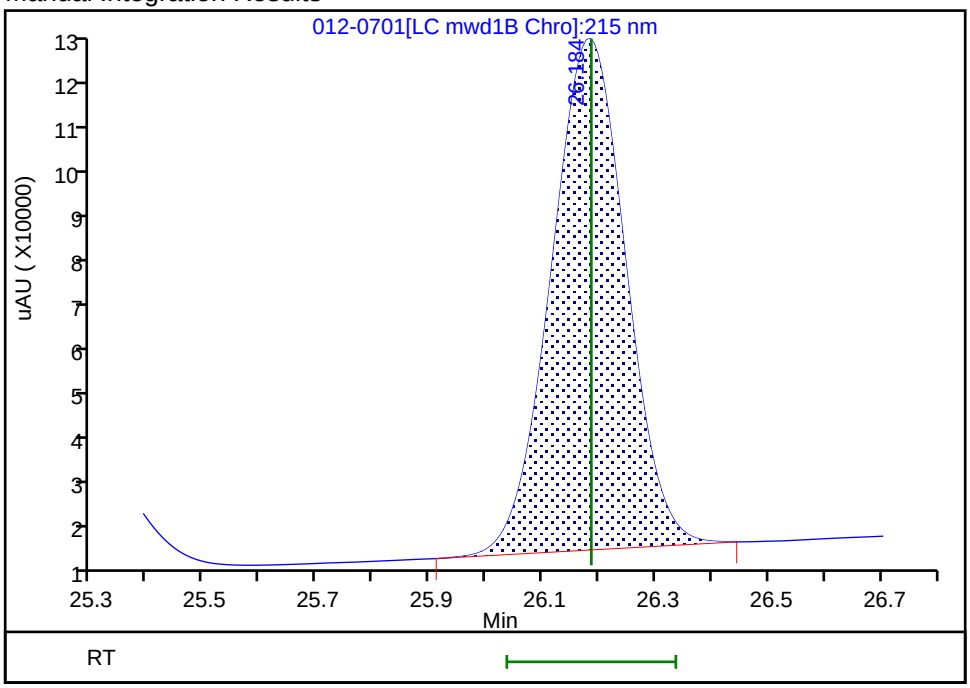
Processing Integration Results

RT: 26.18
Area: 962158
Amount: 7.202862
Amount Units: ug/ml




Manual Integration Results

RT: 26.18
Area: 944599
Amount: 6.857822
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:24

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\013-0801.D
Lims ID: IC INT/ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-May-2021 20:39:55 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 6
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:13 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:40:33

| 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 | 4.111 | 4.126 | -0.015 | 166673 | 0.4000 | 0.3994 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.631 | 4.653 | -0.022 | 98867 | 0.4000 | 0.4084 | |
| 6 HMX | 1 | 6.705 | 6.713 | -0.008 | 64089 | 0.4000 | 0.3975 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.911 | 7.933 | -0.022 | 62190 | 0.4000 | 0.3898 | |
| 8 RDX | 1 | 8.898 | 8.906 | -0.008 | 78185 | 0.4000 | 0.3828 | |
| 9 Nitrobenzene | 1 | 11.951 | 11.973 | -0.022 | 145926 | 0.4016 | 0.3895 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.065 | 13.093 | -0.028 | 101248 | 0.4000 | 0.3811 | |
| 11 3,5-Dinitroaniline | 1 | 14.951 | 14.979 | -0.028 | 183549 | 0.4000 | 0.4057 | |
| 12 1,3-Dinitrobenzene | 1 | 15.491 | 15.519 | -0.028 | 226148 | 0.4008 | 0.3993 | |
| 13 Nitroglycerin | 2 | 15.905 | 15.939 | -0.034 | 498088 | 4.00 | 3.87 | |
| 14 o-Nitrotoluene | 1 | 16.725 | 16.759 | -0.034 | 94418 | 0.4000 | 0.3792 | |
| 15 p-Nitrotoluene | 1 | 17.011 | 17.046 | -0.035 | 82281 | 0.4008 | 0.3788 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.485 | 17.526 | -0.041 | 109890 | 0.4004 | 0.3704 | |
| 17 m-Nitrotoluene | 1 | 17.985 | 18.026 | -0.041 | 104128 | 0.4004 | 0.3740 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.385 | 18.426 | -0.041 | 155961 | 0.4016 | 0.3968 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.905 | 18.939 | -0.034 | 165828 | 0.4008 | 0.3978 | |
| 20 2,6-Dinitrotoluene | 1 | 20.158 | 20.199 | -0.041 | 106452 | 0.4016 | 0.3987 | |
| 21 2,4-Dinitrotoluene | 1 | 20.625 | 20.666 | -0.041 | 215819 | 0.4016 | 0.3815 | |
| 22 Tetryl | 1 | 24.258 | 24.313 | -0.055 | 129140 | 0.4008 | 0.4006 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.231 | 25.280 | -0.049 | 151709 | 0.4016 | 0.4040 | |
| 24 PETN | 2 | 26.145 | 26.186 | -0.041 | 531566 | 4.00 | 3.86 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

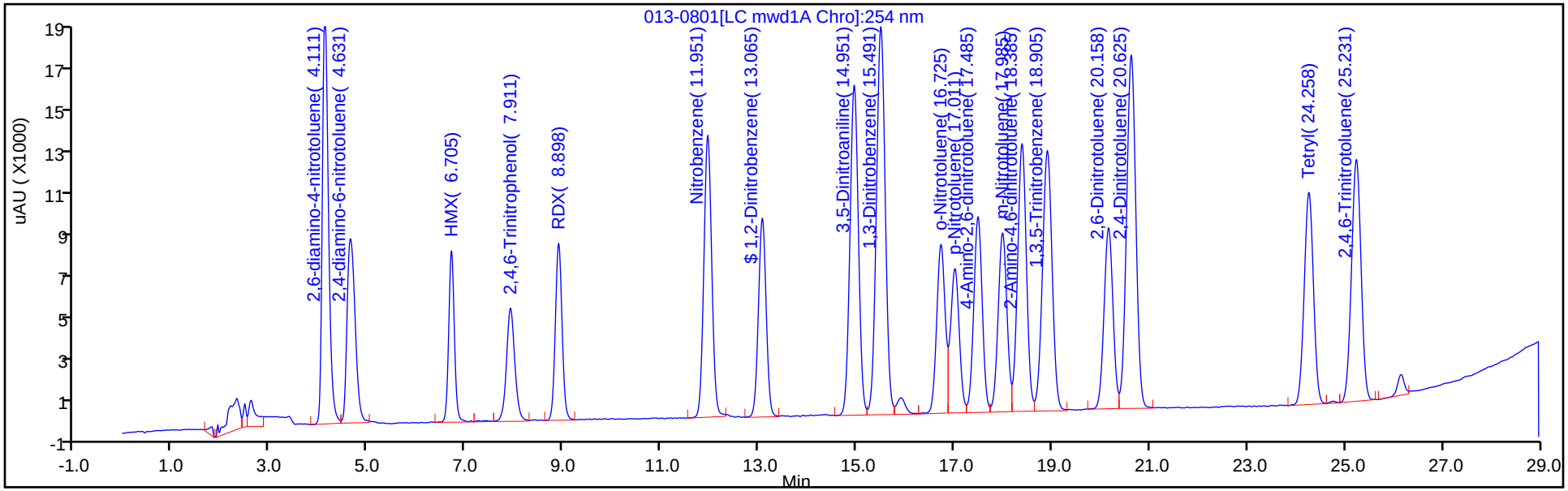
| | | |
|---|---|---|
| 8330IntermStk_00067 | Amount Added: 40.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: 20.00 | Units: uL |

Report Date: 04-May-2021 13:43:13 Chrom Revision: 2.3 08-Apr-2021 17:17:48

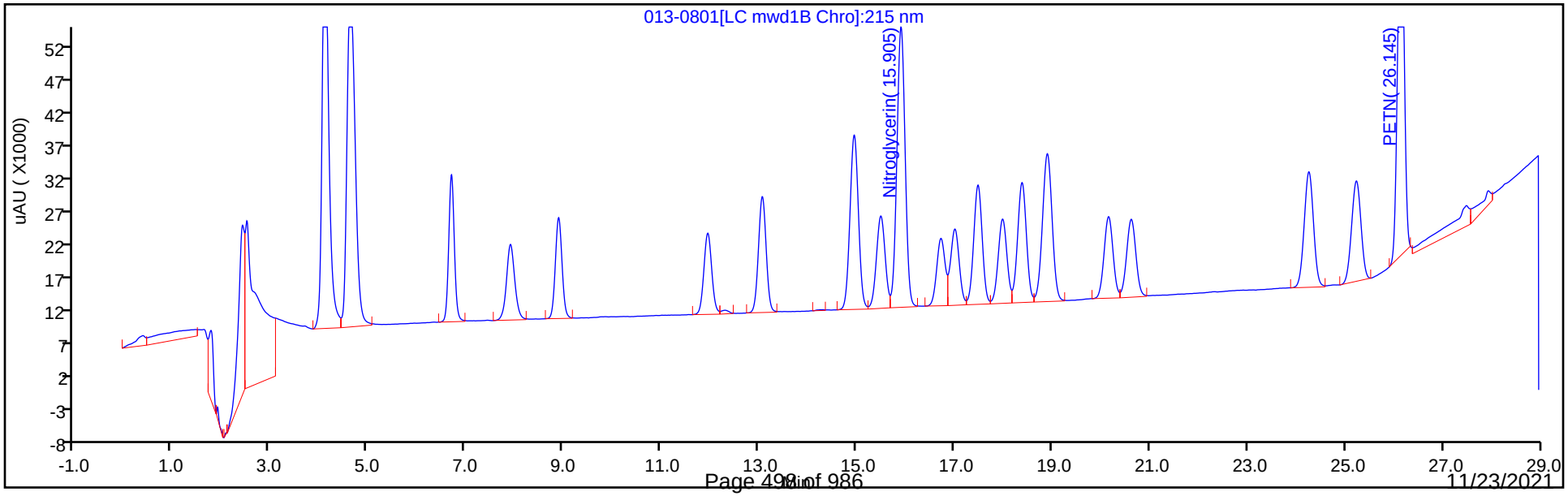
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\013-0801.D | | | | |
| Injection Date: | 01-May-2021 20:39:55 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

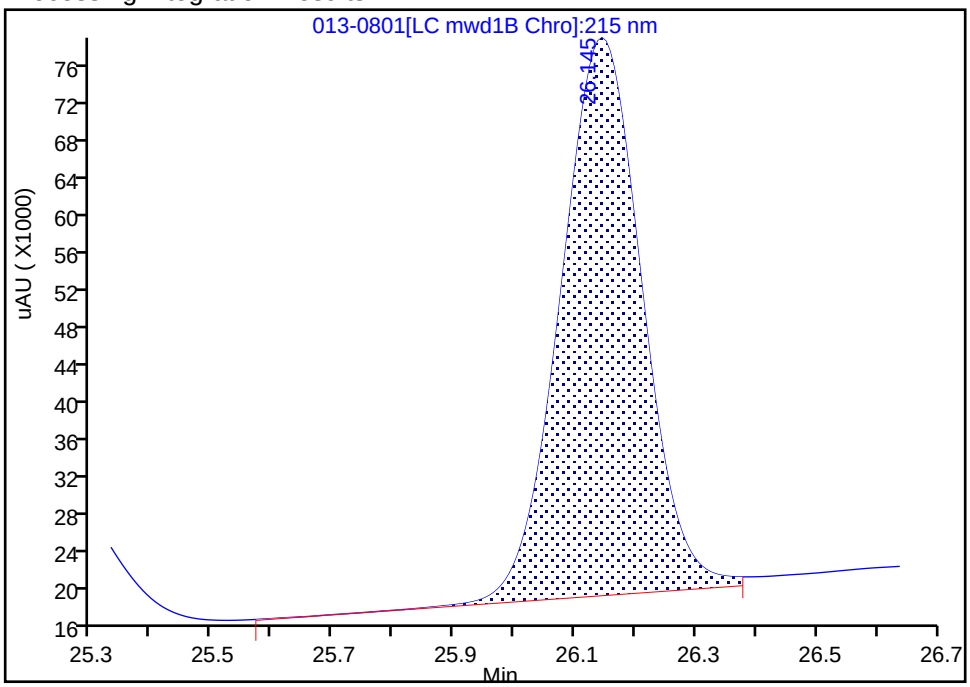
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\013-0801.D | | | | |
| Injection Date: | 01-May-2021 20:39:55 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

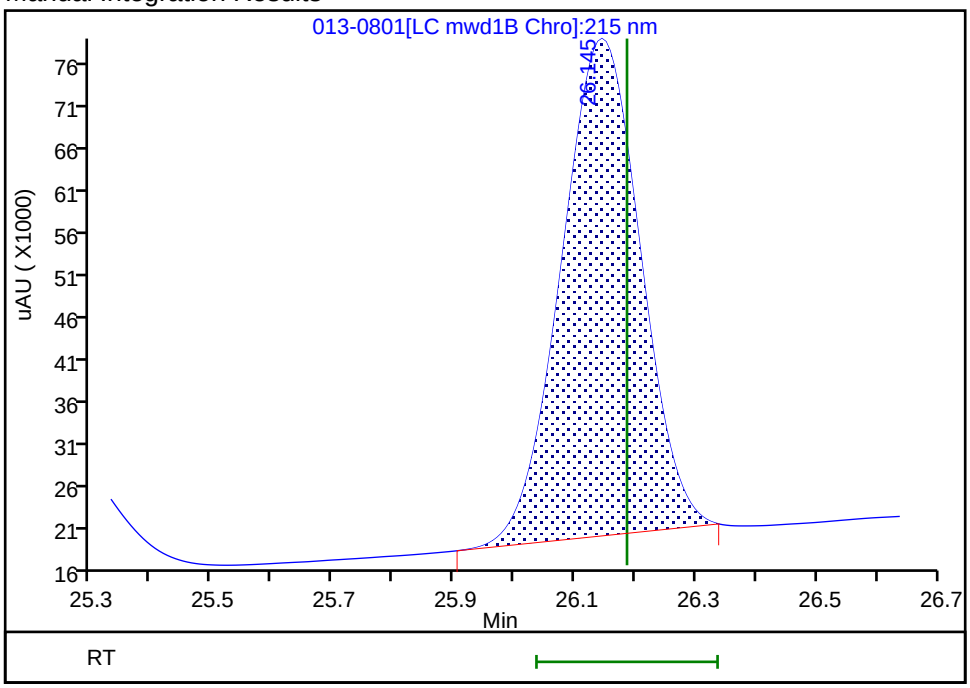
Processing Integration Results

RT: 26.14
Area: 555116
Amount: 4.095081
Amount Units: ug/ml




Manual Integration Results

RT: 26.14
Area: 531566
Amount: 3.859188
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:32

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\014-0901.D
Lims ID: IC INT/ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 01-May-2021 21:15:02 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 5
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:13 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:35:48

| 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 | 4.126 | 4.126 | 0.000 | 101396 | 0.2500 | 0.2392 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.653 | 4.653 | 0.000 | 59623 | 0.2500 | 0.2442 | |
| 6 HMX | 1 | 6.713 | 6.713 | 0.000 | 39580 | 0.2500 | 0.2431 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.933 | 7.933 | 0.000 | 38222 | 0.2500 | 0.2396 | |
| 8 RDX | 1 | 8.906 | 8.906 | 0.000 | 48606 | 0.2500 | 0.2379 | |
| 9 Nitrobenzene | 1 | 11.973 | 11.973 | 0.000 | 90760 | 0.2510 | 0.2423 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.093 | 13.093 | 0.000 | 63081 | 0.2500 | 0.2375 | |
| 11 3,5-Dinitroaniline | 1 | 14.979 | 14.979 | 0.000 | 110385 | 0.2500 | 0.2431 | |
| 12 1,3-Dinitrobenzene | 1 | 15.519 | 15.519 | 0.000 | 140347 | 0.2505 | 0.2469 | |
| 13 Nitroglycerin | 2 | 15.939 | 15.939 | 0.000 | 310480 | 2.50 | 2.41 | |
| 14 o-Nitrotoluene | 1 | 16.759 | 16.759 | 0.000 | 58191 | 0.2500 | 0.2337 | |
| 15 p-Nitrotoluene | 1 | 17.046 | 17.046 | 0.000 | 51245 | 0.2505 | 0.2359 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.526 | 17.526 | 0.000 | 68509 | 0.2503 | 0.2309 | |
| 17 m-Nitrotoluene | 1 | 18.026 | 18.026 | 0.000 | 64933 | 0.2503 | 0.2332 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.426 | 18.426 | 0.000 | 97071 | 0.2510 | 0.2458 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.939 | 18.939 | 0.000 | 104344 | 0.2505 | 0.2477 | |
| 20 2,6-Dinitrotoluene | 1 | 20.199 | 20.199 | 0.000 | 66062 | 0.2510 | 0.2462 | |
| 21 2,4-Dinitrotoluene | 1 | 20.666 | 20.666 | 0.000 | 134163 | 0.2510 | 0.2372 | |
| 22 Tetryl | 1 | 24.313 | 24.313 | 0.000 | 80996 | 0.2505 | 0.2490 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.280 | 25.280 | 0.000 | 93822 | 0.2510 | 0.2482 | |
| 24 PETN | 2 | 26.186 | 26.186 | 0.000 | 330309 | 2.50 | 2.40 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

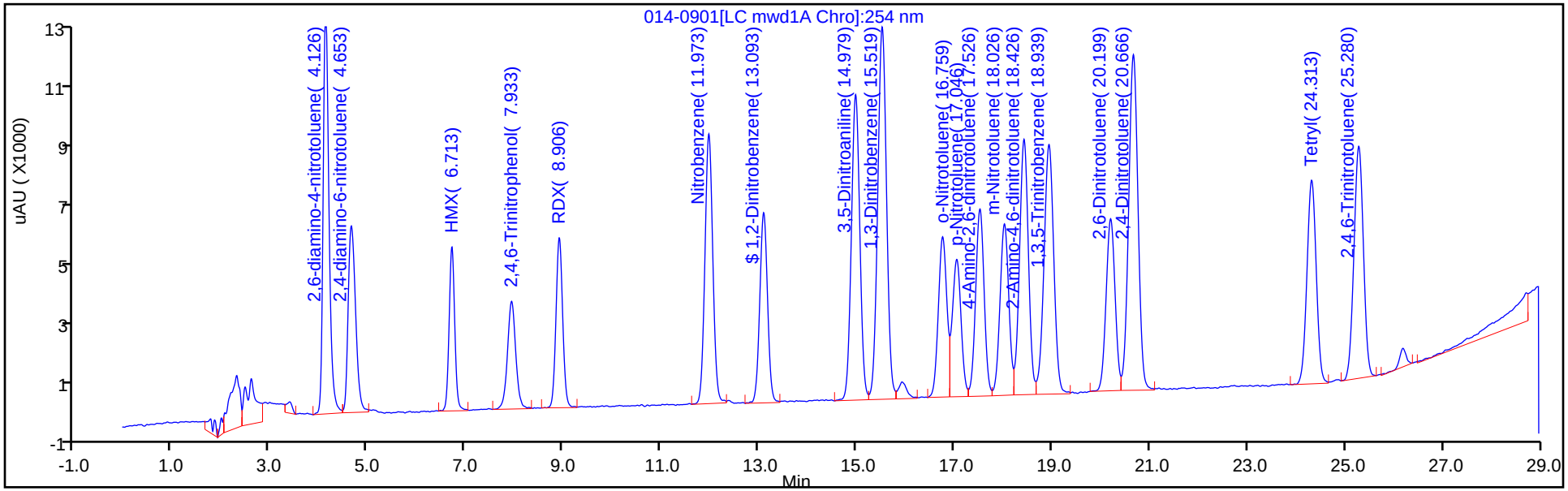
| | | | |
|---|---|---|---|
| 8330IntermStk_00067 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 12.50 | Units: uL |

Report Date: 04-May-2021 13:43:13 Chrom Revision: 2.3 08-Apr-2021 17:17:48

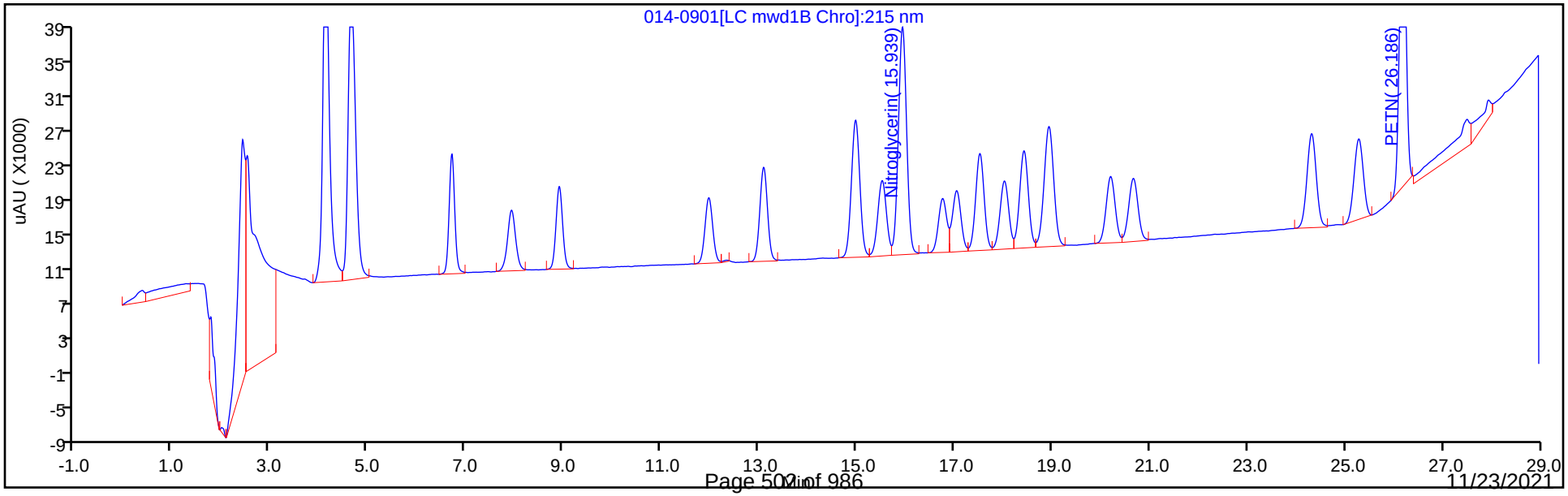
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\014-0901.D | | | | |
| Injection Date: | 01-May-2021 21:15:02 | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

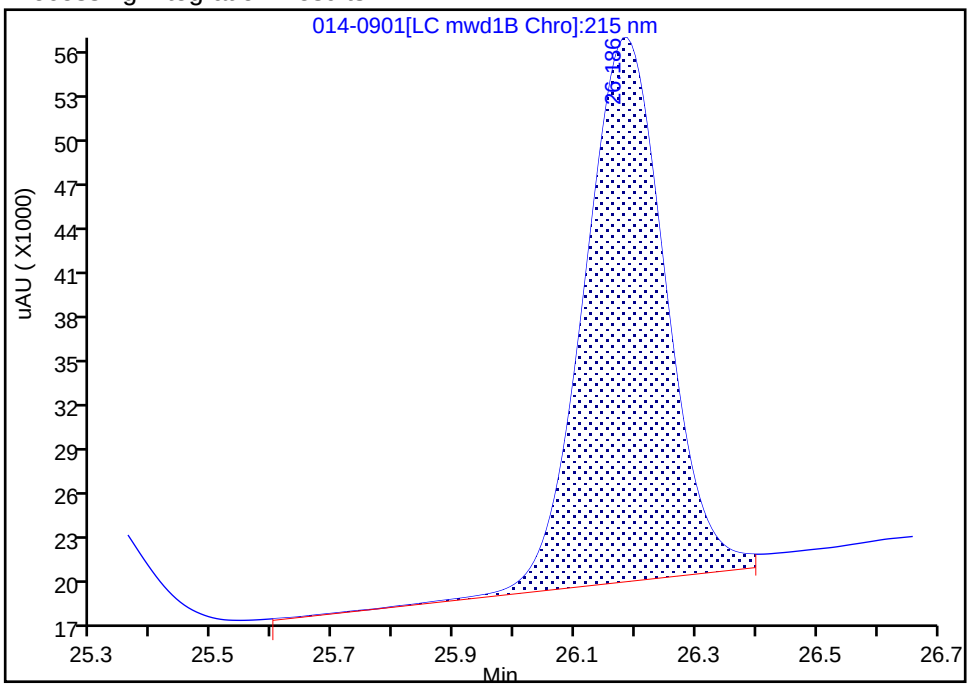
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\014-0901.D | | | | |
| Injection Date: | 01-May-2021 21:15:02 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

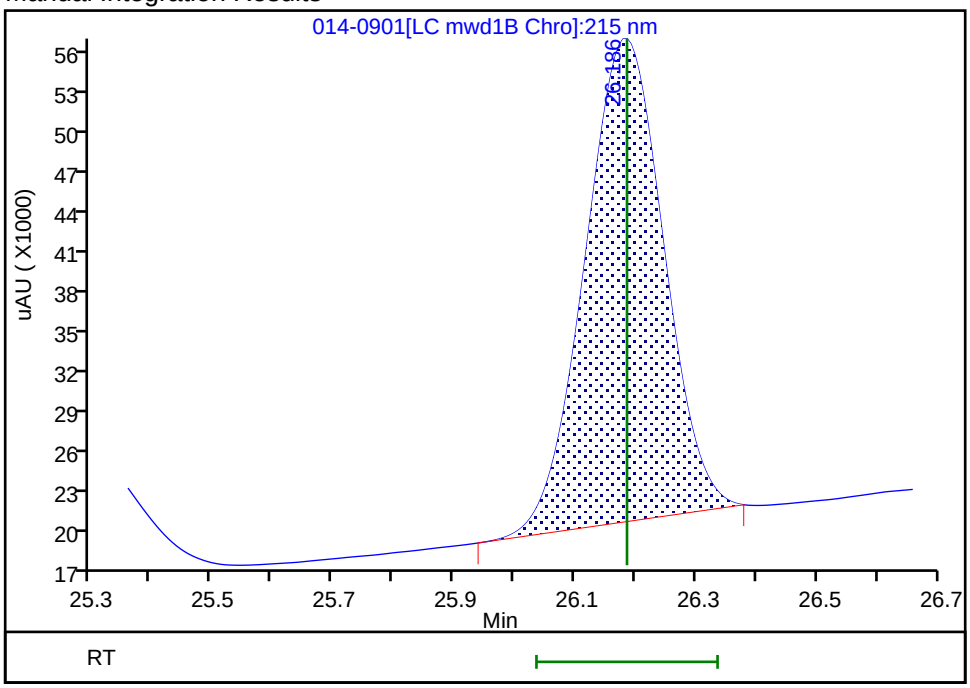
Processing Integration Results

RT: 26.19
Area: 348444
Amount: 2.522976
Amount Units: ug/ml




Manual Integration Results

RT: 26.19
Area: 330309
Amount: 2.398055
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:41

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\015-1001.D
Lims ID: IC INT/ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-May-2021 21:50:04 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 4
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:14 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:40:52

| 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 | 4.132 | 4.126 | 0.006 | 44112 | 0.1000 | 0.0987 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.658 | 4.653 | 0.005 | 25556 | 0.1000 | 0.1016 | |
| 6 HMX | 1 | 6.718 | 6.713 | 0.005 | 16850 | 0.1000 | 0.0999 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.958 | 7.933 | 0.025 | 16340 | 0.1000 | 0.1024 | |
| 8 RDX | 1 | 8.912 | 8.906 | 0.006 | 20661 | 0.1000 | 0.1011 | |
| 9 Nitrobenzene | 1 | 11.971 | 11.973 | -0.002 | 38085 | 0.1004 | 0.1017 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.091 | 13.093 | -0.002 | 26678 | 0.1000 | 0.1004 | |
| 11 3,5-Dinitroaniline | 1 | 14.971 | 14.979 | -0.008 | 46817 | 0.1000 | 0.1019 | |
| 12 1,3-Dinitrobenzene | 1 | 15.518 | 15.519 | -0.001 | 58764 | 0.1002 | 0.1019 | |
| 13 Nitroglycerin | 2 | 15.931 | 15.939 | -0.008 | 130447 | 1.00 | 1.01 | |
| 14 o-Nitrotoluene | 1 | 16.751 | 16.759 | -0.008 | 24528 | 0.1000 | 0.0985 | |
| 15 p-Nitrotoluene | 1 | 17.038 | 17.046 | -0.008 | 21221 | 0.1002 | 0.0977 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.511 | 17.526 | -0.015 | 28819 | 0.1001 | 0.0971 | |
| 17 m-Nitrotoluene | 1 | 18.011 | 18.026 | -0.015 | 27212 | 0.1001 | 0.0977 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.418 | 18.426 | -0.008 | 40904 | 0.1004 | 0.1017 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.931 | 18.939 | -0.008 | 44594 | 0.1002 | 0.1018 | |
| 20 2,6-Dinitrotoluene | 1 | 20.185 | 20.199 | -0.014 | 27721 | 0.1004 | 0.1014 | |
| 21 2,4-Dinitrotoluene | 1 | 20.652 | 20.666 | -0.015 | 55838 | 0.1004 | 0.0987 | |
| 22 Tetryl | 1 | 24.298 | 24.313 | -0.015 | 34148 | 0.1002 | 0.1015 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.265 | 25.280 | -0.015 | 38740 | 0.1004 | 0.1000 | |
| 24 PETN | 2 | 26.172 | 26.186 | -0.014 | 136676 | 1.00 | 0.99 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

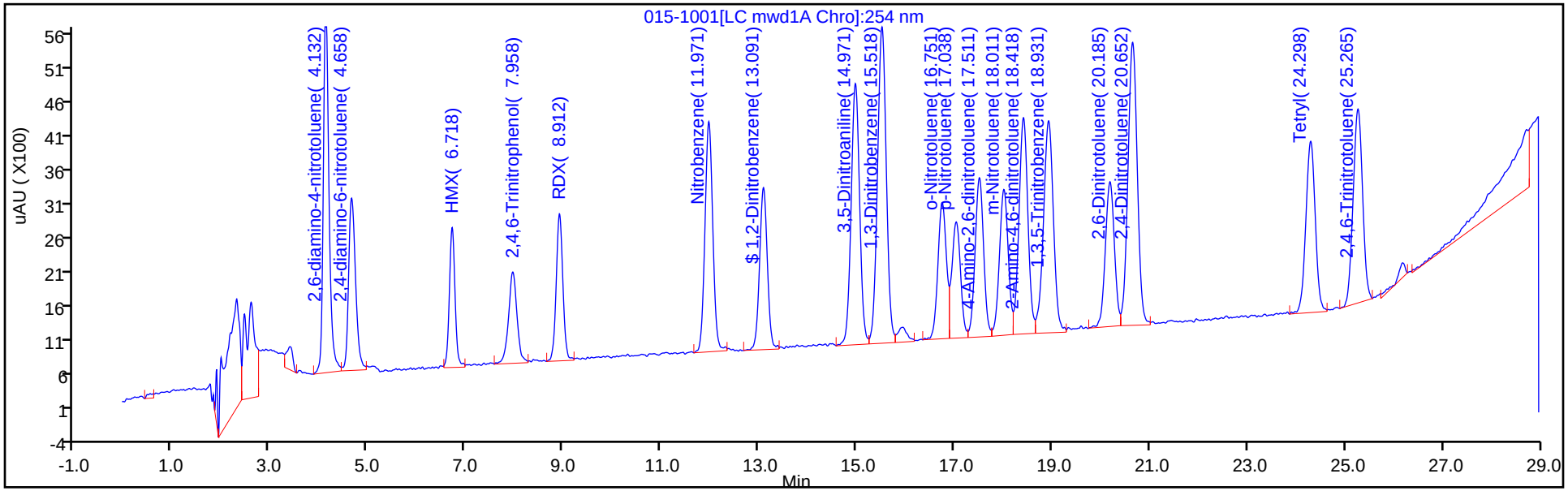
| | | |
|---|---|---|
| 8330IntermStk_00067 | Amount Added: 10.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: 5.00 | Units: uL |

Report Date: 04-May-2021 13:43:14 Chrom Revision: 2.3 08-Apr-2021 17:17:48

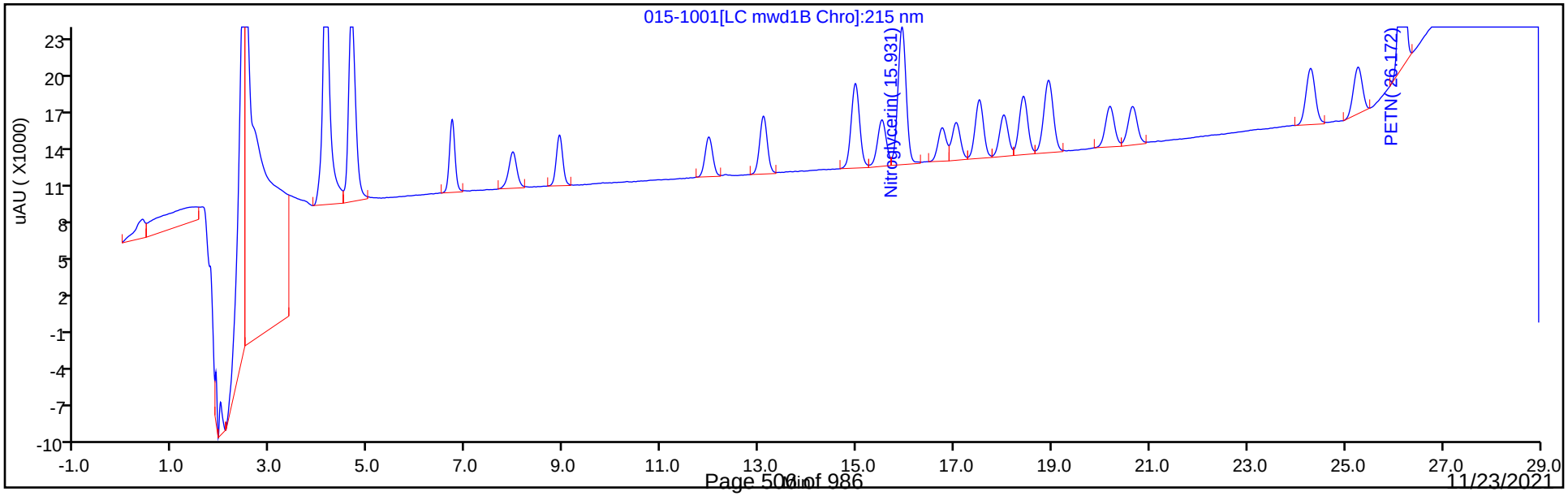
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\015-1001.D | | | | |
| Injection Date: | 01-May-2021 21:50:04 | 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 TestAmerica, Denver

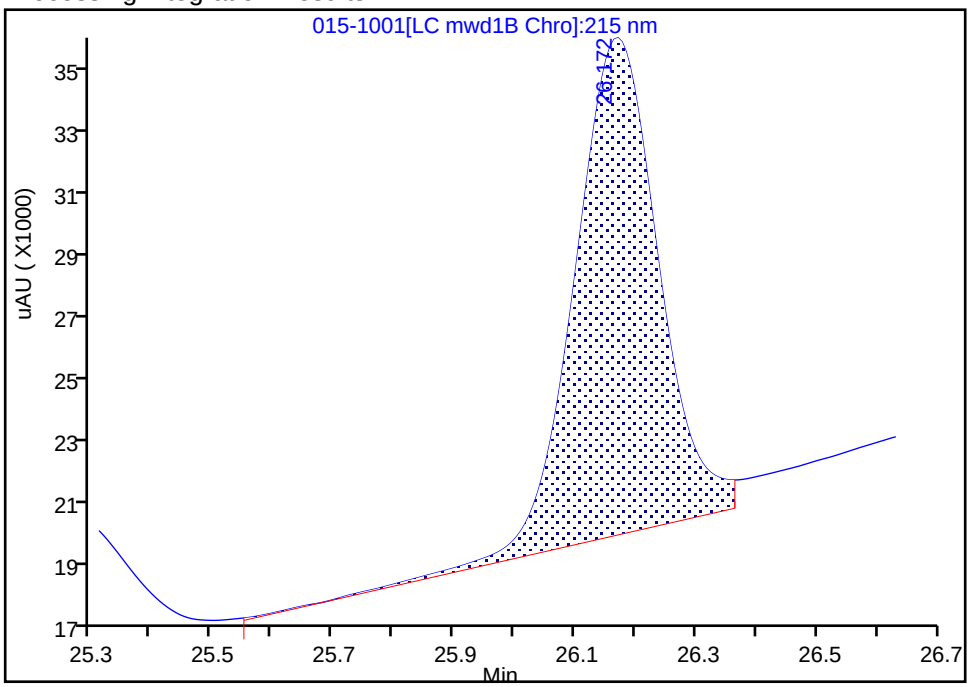
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\015-1001.D | | | | |
| Injection Date: | 01-May-2021 21:50:04 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

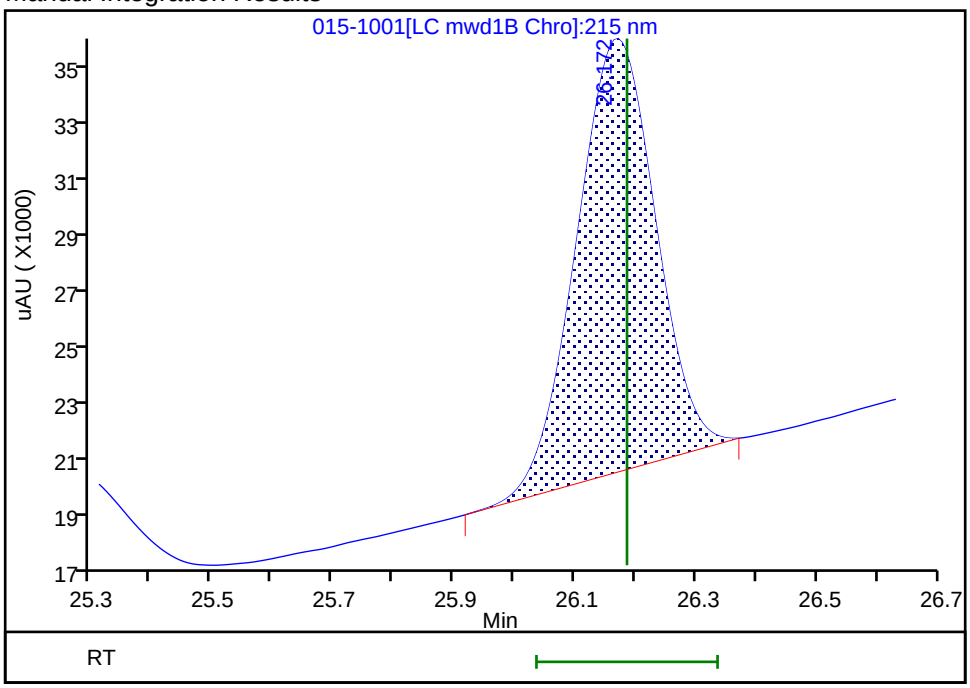
Processing Integration Results

RT: 26.17
Area: 151513
Amount: 1.005886
Amount Units: ug/ml




Manual Integration Results

RT: 26.17
Area: 136676
Amount: 0.992273
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:50

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\016-1101.D
Lims ID: IC INT/ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 01-May-2021 22:25:05 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 3
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:14 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:41:01

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.134 | 4.126 | 0.008 | 24575 | 0.0500 | 0.0507 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.667 | 4.653 | 0.014 | 13602 | 0.0500 | 0.0516 | |
| 6 HMX | 1 | 6.734 | 6.713 | 0.021 | 8791 | 0.0500 | 0.0492 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.987 | 7.933 | 0.054 | 8578 | 0.0500 | 0.0538 | |
| 8 RDX | 1 | 8.934 | 8.906 | 0.028 | 11066 | 0.0500 | 0.0542 | |
| 9 Nitrobenzene | 1 | 11.994 | 11.973 | 0.021 | 19306 | 0.0502 | 0.0515 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.114 | 13.093 | 0.021 | 13836 | 0.0500 | 0.0521 | |
| 11 3,5-Dinitroaniline | 1 | 15.007 | 14.979 | 0.028 | 23131 | 0.0500 | 0.0493 | |
| 12 1,3-Dinitrobenzene | 1 | 15.547 | 15.519 | 0.028 | 29142 | 0.0501 | 0.0493 | |
| 13 Nitroglycerin | 2 | 15.961 | 15.939 | 0.022 | 65416 | 0.5000 | 0.5087 | |
| 14 o-Nitrotoluene | 1 | 16.781 | 16.759 | 0.022 | 12373 | 0.0500 | 0.0497 | |
| 15 p-Nitrotoluene | 1 | 17.074 | 17.046 | 0.028 | 10760 | 0.0501 | 0.0495 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.541 | 17.526 | 0.015 | 14802 | 0.0501 | 0.0499 | |
| 17 m-Nitrotoluene | 1 | 18.047 | 18.026 | 0.021 | 13943 | 0.0501 | 0.0501 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.441 | 18.426 | 0.015 | 21111 | 0.0502 | 0.0509 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.954 | 18.939 | 0.015 | 23506 | 0.0501 | 0.0503 | |
| 20 2,6-Dinitrotoluene | 1 | 20.201 | 20.199 | 0.002 | 14081 | 0.0502 | 0.0499 | |
| 21 2,4-Dinitrotoluene | 1 | 20.674 | 20.666 | 0.008 | 28396 | 0.0502 | 0.0502 | |
| 22 Tetryl | 1 | 24.287 | 24.313 | -0.026 | 17573 | 0.0501 | 0.0494 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.254 | 25.280 | -0.026 | 19400 | 0.0502 | 0.0479 | |
| 24 PETN | 2 | 26.154 | 26.186 | -0.032 | 69170 | 0.5000 | 0.5022 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

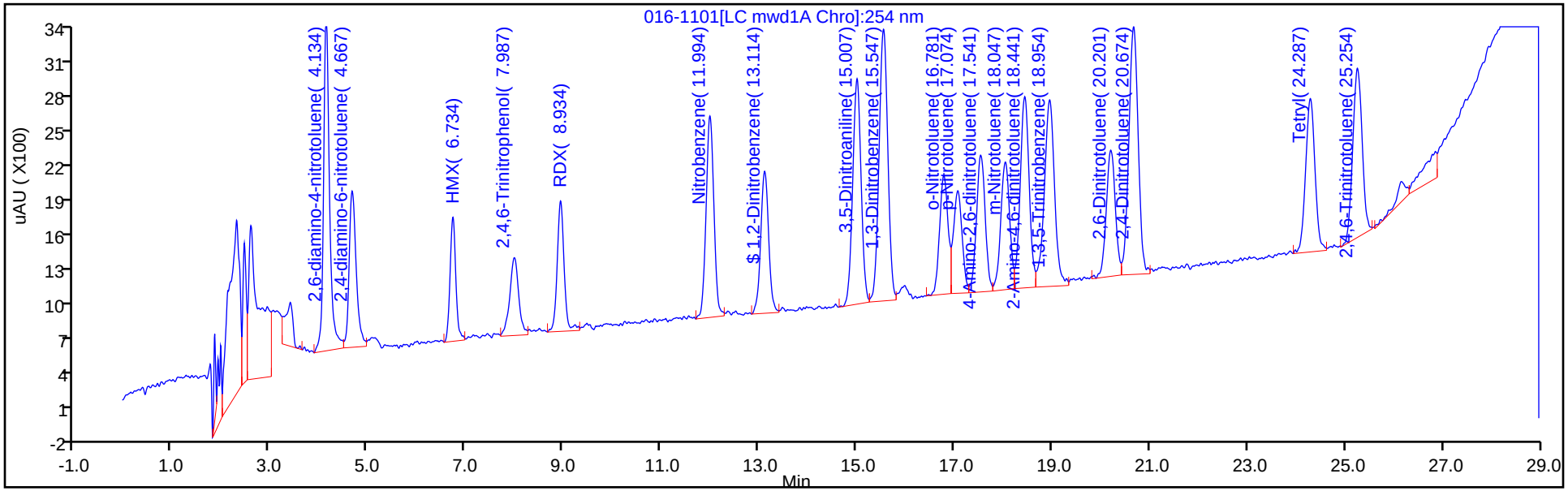
| | | | |
|---|---|---|---|
| 8330IntermStk_00067 | Amount Added: | 5.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 2.50 | Units: uL |

Report Date: 04-May-2021 13:43:14 Chrom Revision: 2.3 08-Apr-2021 17:17:48

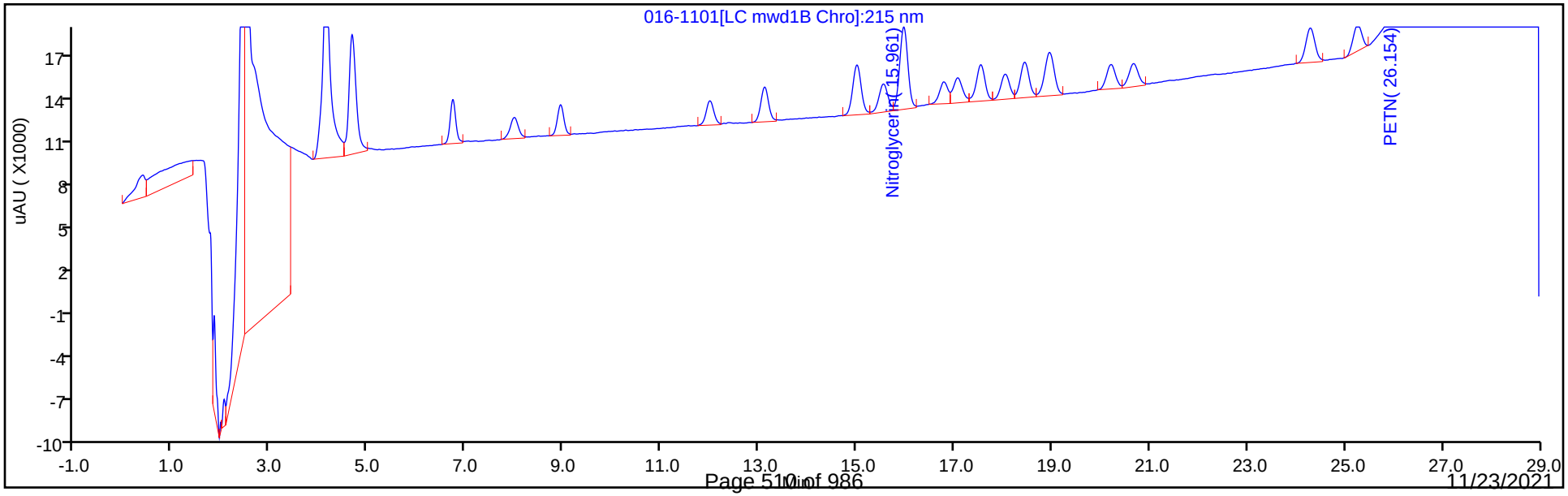
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\016-1101.D | | | | |
| Injection Date: | 01-May-2021 22:25:05 | 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 TestAmerica, Denver

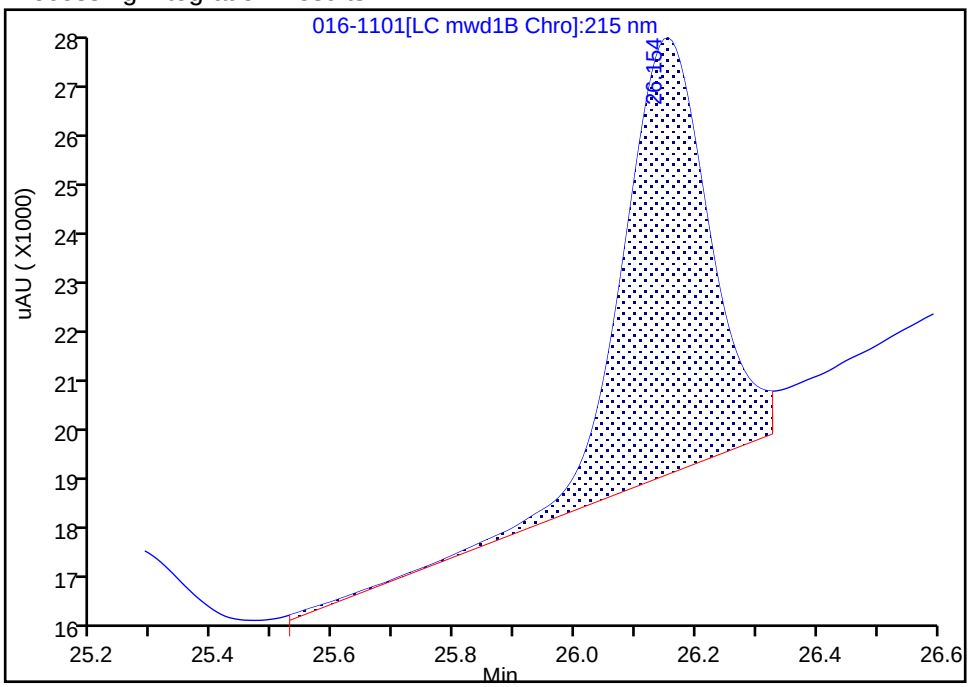
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\016-1101.D | | | | |
| Injection Date: | 01-May-2021 22:25:05 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

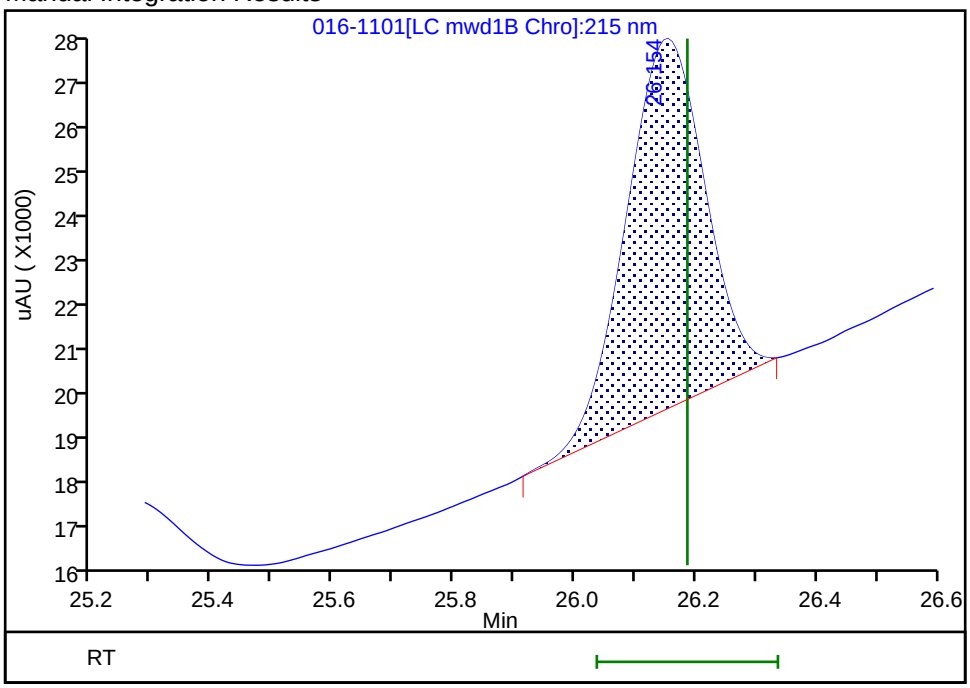
Processing Integration Results

RT: 26.15
Area: 81816
Amount: 0.467715
Amount Units: ug/ml




Manual Integration Results

RT: 26.15
Area: 69170
Amount: 0.502177
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:40:59

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\017-1201.D | | | | |
| Lims ID: | IC INT/ADD 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 01-May-2021 23:00:06 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC INT/ADD 2 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:15 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |

First Level Reviewer: zhangji Date: 04-May-2021 13:41:10

| 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 | 4.133 | 4.126 | 0.007 | 11811 | 0.0200 | 0.0194 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.673 | 4.653 | 0.020 | 6051 | 0.0200 | 0.0200 | |
| 6 HMX | 1 | 6.720 | 6.713 | 0.007 | 4286 | 0.0200 | 0.0208 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.980 | 7.933 | 0.047 | 3270 | 0.0200 | 0.0205 | |
| 8 RDX | 1 | 8.926 | 8.906 | 0.020 | 4533 | 0.0200 | 0.0222 | |
| 9 Nitrobenzene | 1 | 11.973 | 11.973 | 0.000 | 7888 | 0.0201 | 0.0211 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.093 | 13.093 | 0.000 | 6280 | 0.0200 | 0.0236 | |
| 11 3,5-Dinitroaniline | 1 | 14.980 | 14.979 | 0.001 | 9417 | 0.0200 | 0.0188 | |
| 12 1,3-Dinitrobenzene | 1 | 15.533 | 15.519 | 0.014 | 12411 | 0.0200 | 0.0196 | |
| 13 Nitroglycerin | 2 | 15.940 | 15.939 | 0.001 | 28299 | 0.2000 | 0.2200 | |
| 14 o-Nitrotoluene | 1 | 16.740 | 16.759 | -0.019 | 5151 | 0.0200 | 0.0207 | |
| 15 p-Nitrotoluene | 1 | 17.060 | 17.046 | 0.014 | 4823 | 0.0200 | 0.0222 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.520 | 17.526 | -0.006 | 6276 | 0.0200 | 0.0212 | |
| 17 m-Nitrotoluene | 1 | 18.033 | 18.026 | 0.007 | 5928 | 0.0200 | 0.0213 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.426 | 18.426 | 0.000 | 9114 | 0.0201 | 0.0202 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.946 | 18.939 | 0.007 | 10540 | 0.0200 | 0.0187 | |
| 20 2,6-Dinitrotoluene | 1 | 20.200 | 20.199 | 0.001 | 6026 | 0.0201 | 0.0195 | |
| 21 2,4-Dinitrotoluene | 1 | 20.666 | 20.666 | 0.000 | 12229 | 0.0201 | 0.0216 | |
| 22 Tetryl | 1 | 24.306 | 24.313 | -0.007 | 7583 | 0.0200 | 0.0179 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.280 | 25.280 | 0.000 | 8548 | 0.0201 | 0.0187 | |
| 24 PETN | 2 | 26.180 | 26.186 | -0.006 | 27436 | 0.2000 | 0.1992 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

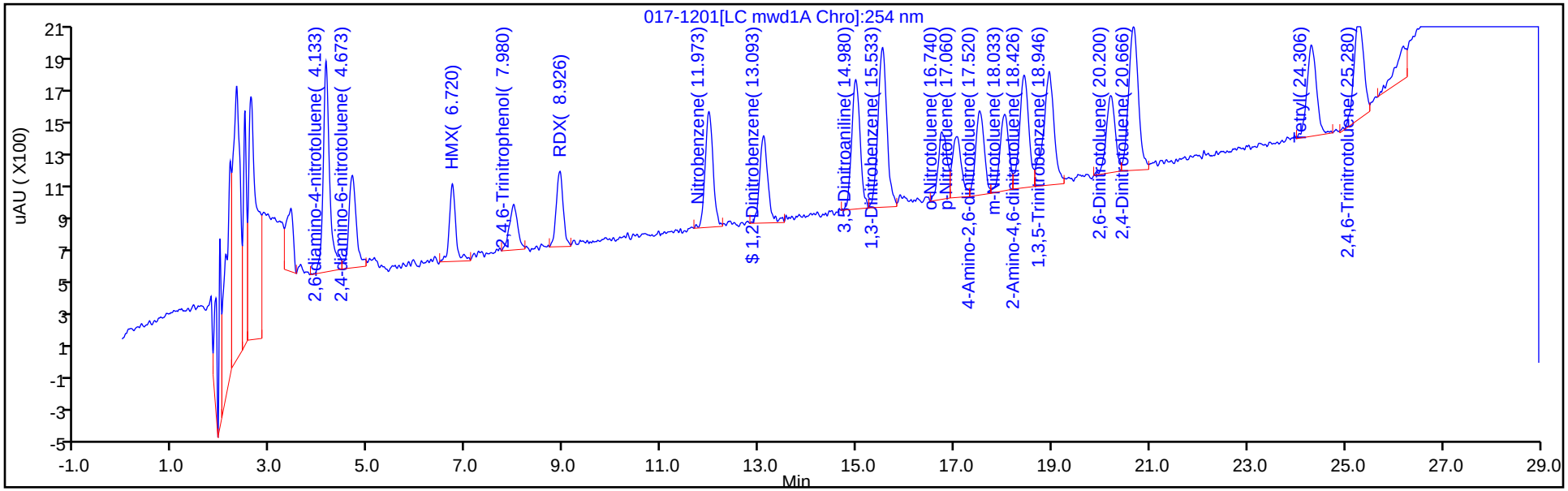
| | | | |
|---|---|---|---|
| 8330IntermStk_00067 | Amount Added: | 2.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 1.00 | Units: uL |

Report Date: 04-May-2021 13:43:15 Chrom Revision: 2.3 08-Apr-2021 17:17:48

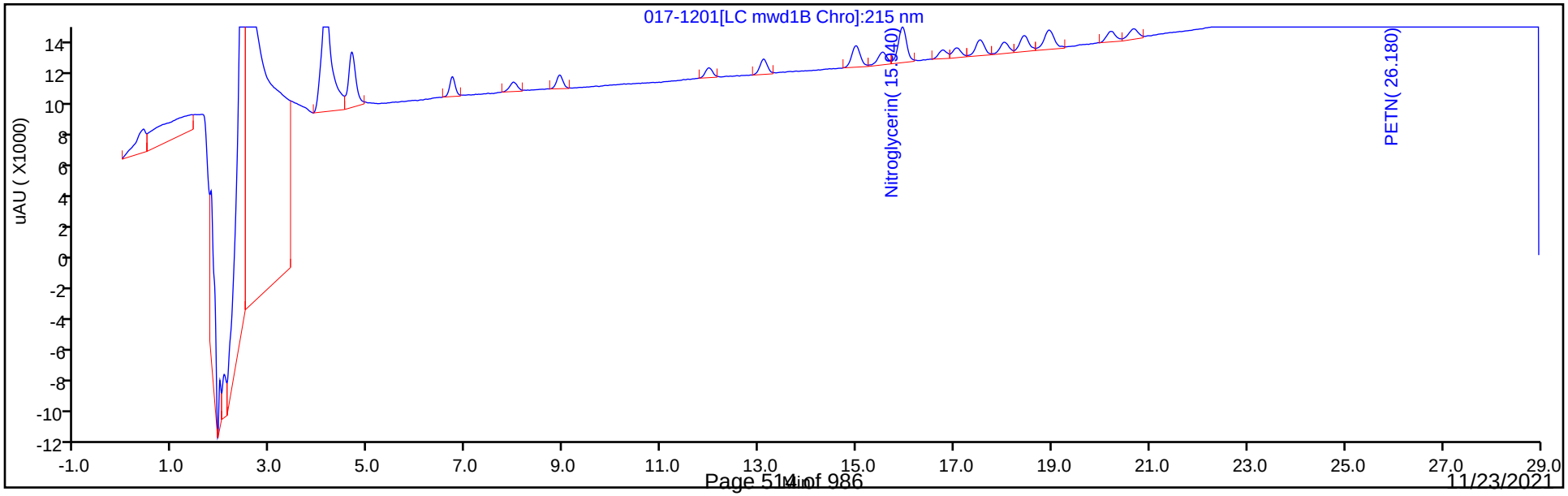
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\017-1201.D | | | | |
| Injection Date: | 01-May-2021 23:00:06 | 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 TestAmerica, Denver

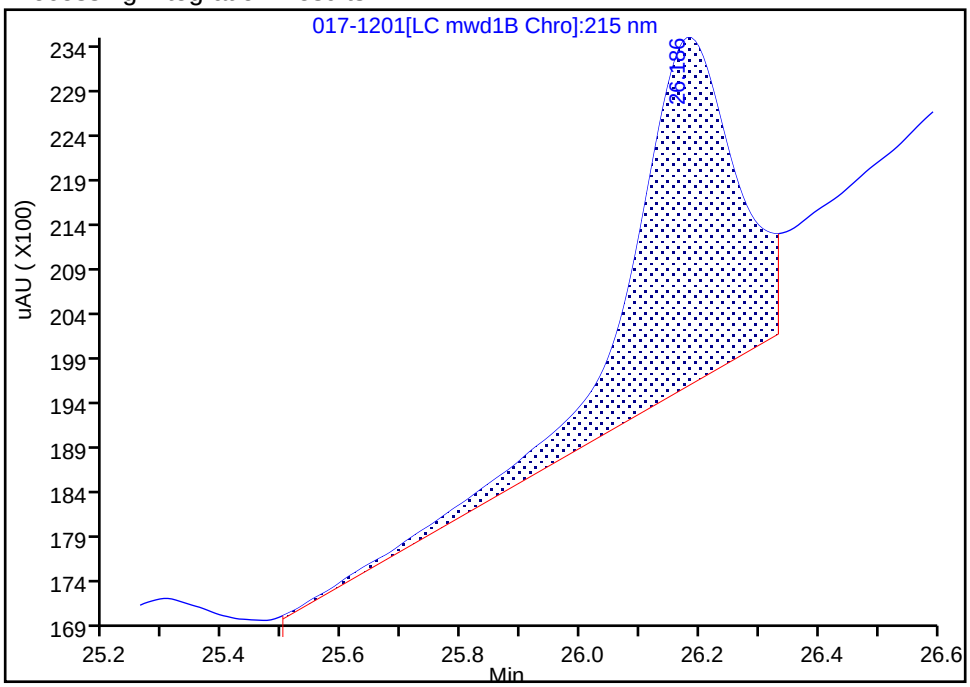
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\017-1201.D | | | | |
| Injection Date: | 01-May-2021 23:00:06 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

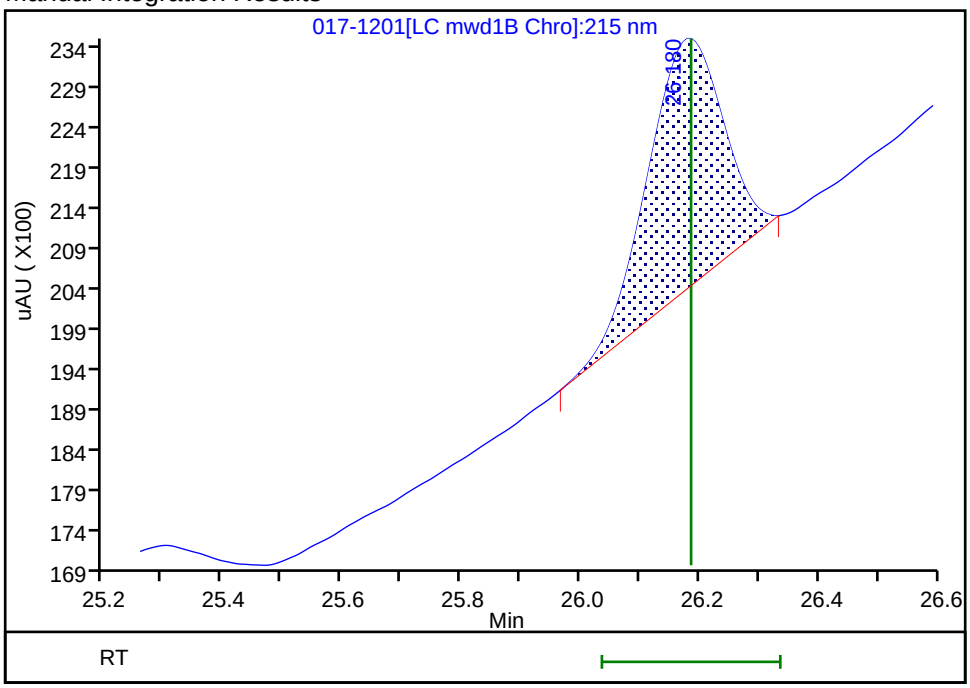
Processing Integration Results

RT: 26.19
Area: 47400
Amount: 0.217570
Amount Units: ug/ml




Manual Integration Results

RT: 26.18
Area: 27436
Amount: 0.199186
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:41:08

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\018-1301.D
Lims ID: IC INT/ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-May-2021 23:35:08 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 1
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:43:15 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:42:55

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.144 | 4.126 | 0.018 | 8029 | 0.0100 | 0.0101 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.684 | 4.653 | 0.031 | 3655 | 0.0100 | 0.0099 | |
| 6 HMX | 1 | 6.724 | 6.713 | 0.011 | 2543 | 0.0100 | 0.009840 | |
| 5 2,4,6-Trinitrophenol | 1 | 8.004 | 7.933 | 0.071 | 1789 | 0.0100 | 0.0112 | |
| 8 RDX | 1 | 8.918 | 8.906 | 0.012 | 2988 | 0.0100 | 0.0146 | |
| 9 Nitrobenzene | 1 | 11.978 | 11.973 | 0.005 | 4507 | 0.0100 | 0.0120 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.104 | 13.093 | 0.011 | 4082 | 0.0100 | 0.0154 | |
| 11 3,5-Dinitroaniline | 1 | 14.978 | 14.979 | -0.001 | 5594 | 0.0100 | 0.0103 | |
| 12 1,3-Dinitrobenzene | 1 | 15.524 | 15.519 | 0.005 | 7085 | 0.0100 | 0.0101 | |
| 13 Nitroglycerin | 2 | 15.924 | 15.939 | -0.015 | 16401 | 0.1000 | 0.1275 | |
| 14 o-Nitrotoluene | 1 | 16.751 | 16.759 | -0.008 | 3022 | 0.0100 | 0.0121 | |
| 15 p-Nitrotoluene | 1 | 17.031 | 17.046 | -0.015 | 2608 | 0.0100 | 0.0120 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.511 | 17.526 | -0.015 | 3954 | 0.0100 | 0.0133 | |
| 17 m-Nitrotoluene | 1 | 17.978 | 18.026 | -0.048 | 3517 | 0.0100 | 0.0126 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.418 | 18.426 | -0.008 | 5148 | 0.0100 | 0.0100 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.904 | 18.939 | -0.035 | 7116 | 0.0100 | 0.0103 | |
| 20 2,6-Dinitrotoluene | 1 | 20.191 | 20.199 | -0.008 | 3555 | 0.0100 | 0.0102 | |
| 21 2,4-Dinitrotoluene | 1 | 20.644 | 20.666 | -0.022 | 6619 | 0.0100 | 0.0117 | |
| 22 Tetryl | 1 | 24.271 | 24.313 | -0.042 | 5245 | 0.0100 | 0.0106 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.258 | 25.280 | -0.022 | 5469 | 0.0100 | 0.0105 | |
| 24 PETN | 2 | 26.151 | 26.186 | -0.035 | 15659 | 0.1000 | 0.1137 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

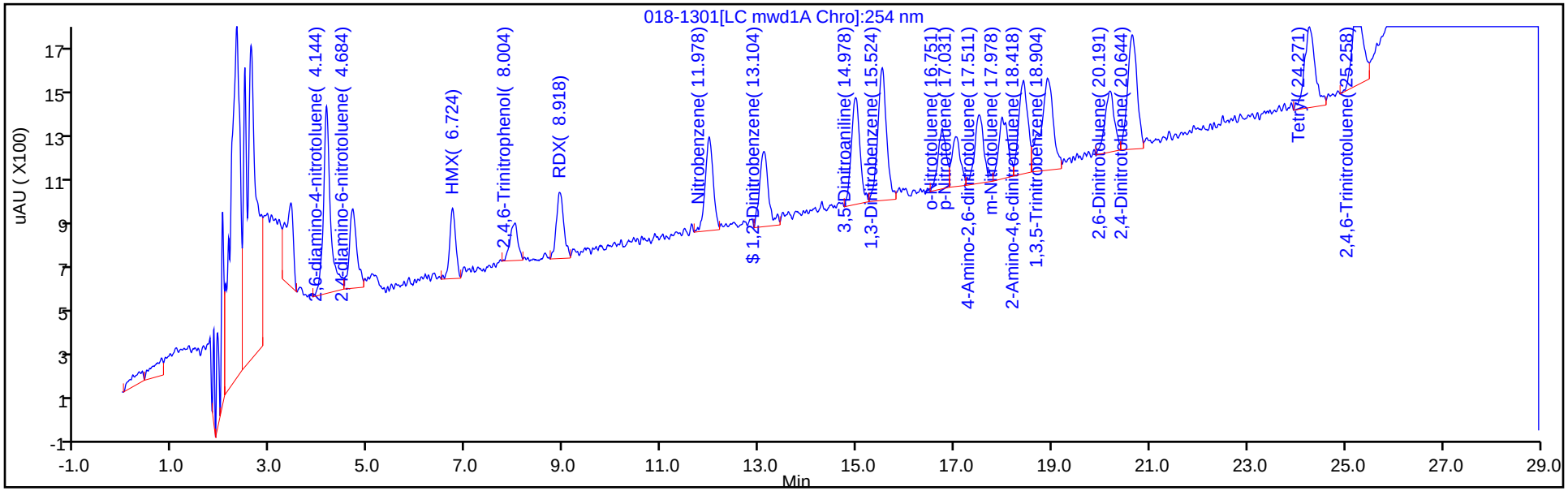
| | | | |
|---|---|---|---|
| 8330IntermStk_00067 | Amount Added: | 1.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 0.50 | Units: uL |

Report Date: 04-May-2021 13:43:16 Chrom Revision: 2.3 08-Apr-2021 17:17:48

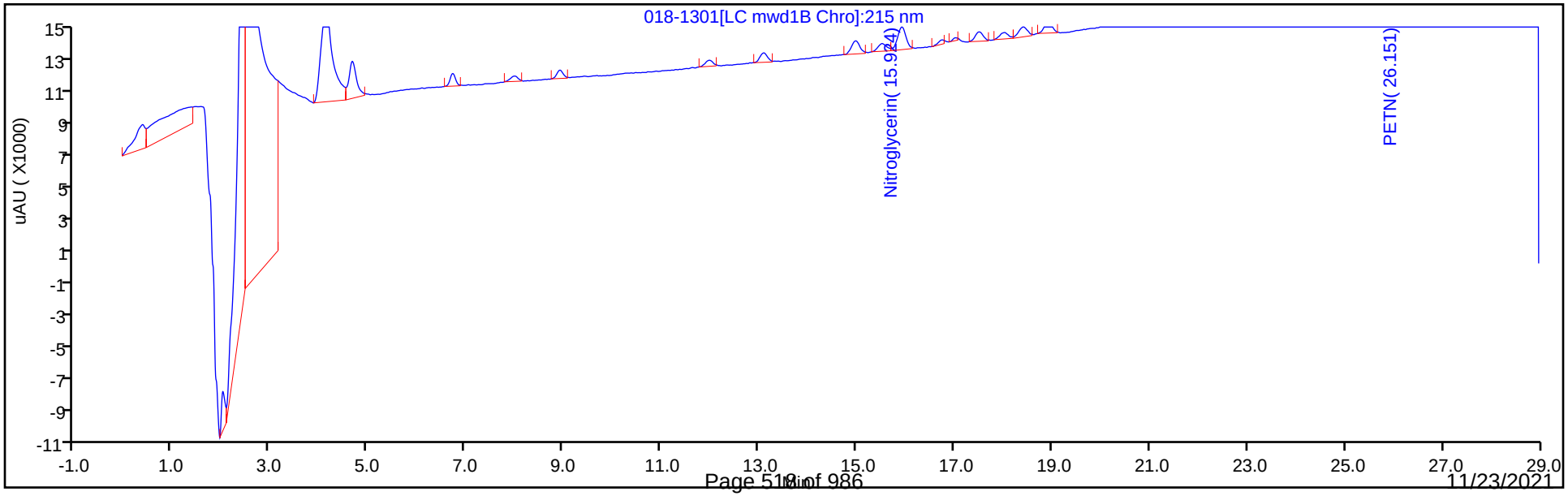
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\018-1301.D | | | | |
| Injection Date: | 01-May-2021 23:35:08 | 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 TestAmerica, Denver

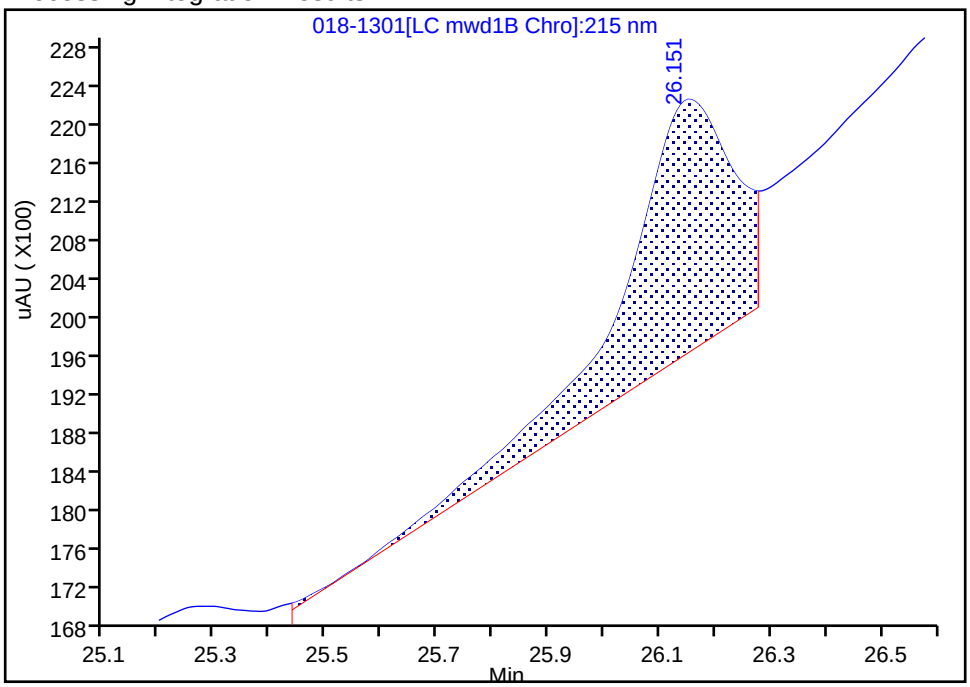
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\018-1301.D | | | | |
| Injection Date: | 01-May-2021 23:35:08 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | IC INT/ADD 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

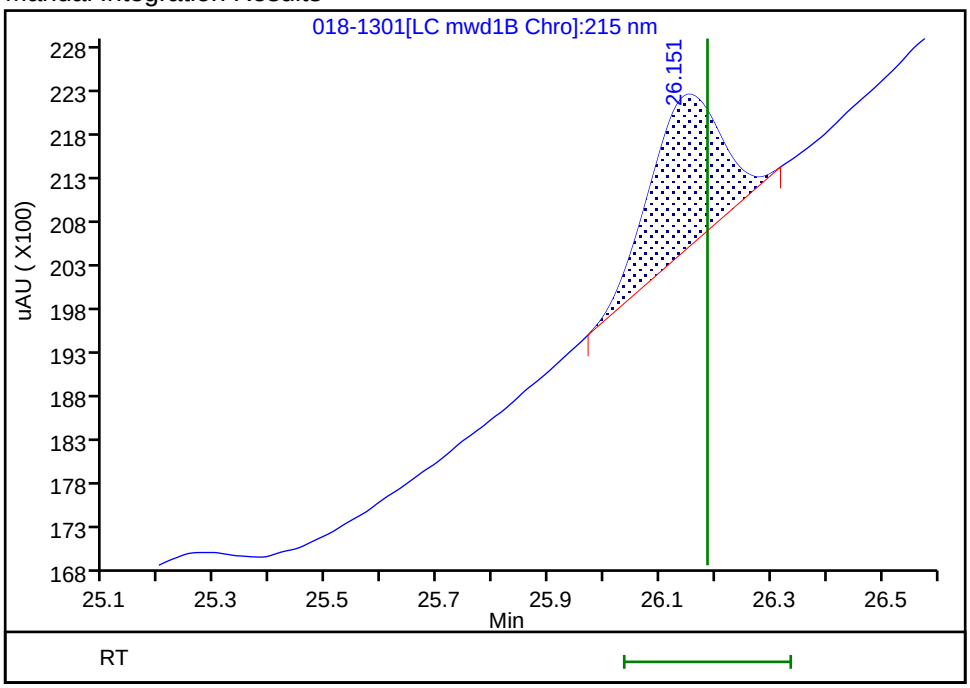
Processing Integration Results

RT: 26.15
Area: 35908
Amount: 0.224090
Amount Units: ug/ml




Manual Integration Results

RT: 26.15
Area: 15659
Amount: 0.113685
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:41:16

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

## Calibration / HMX

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

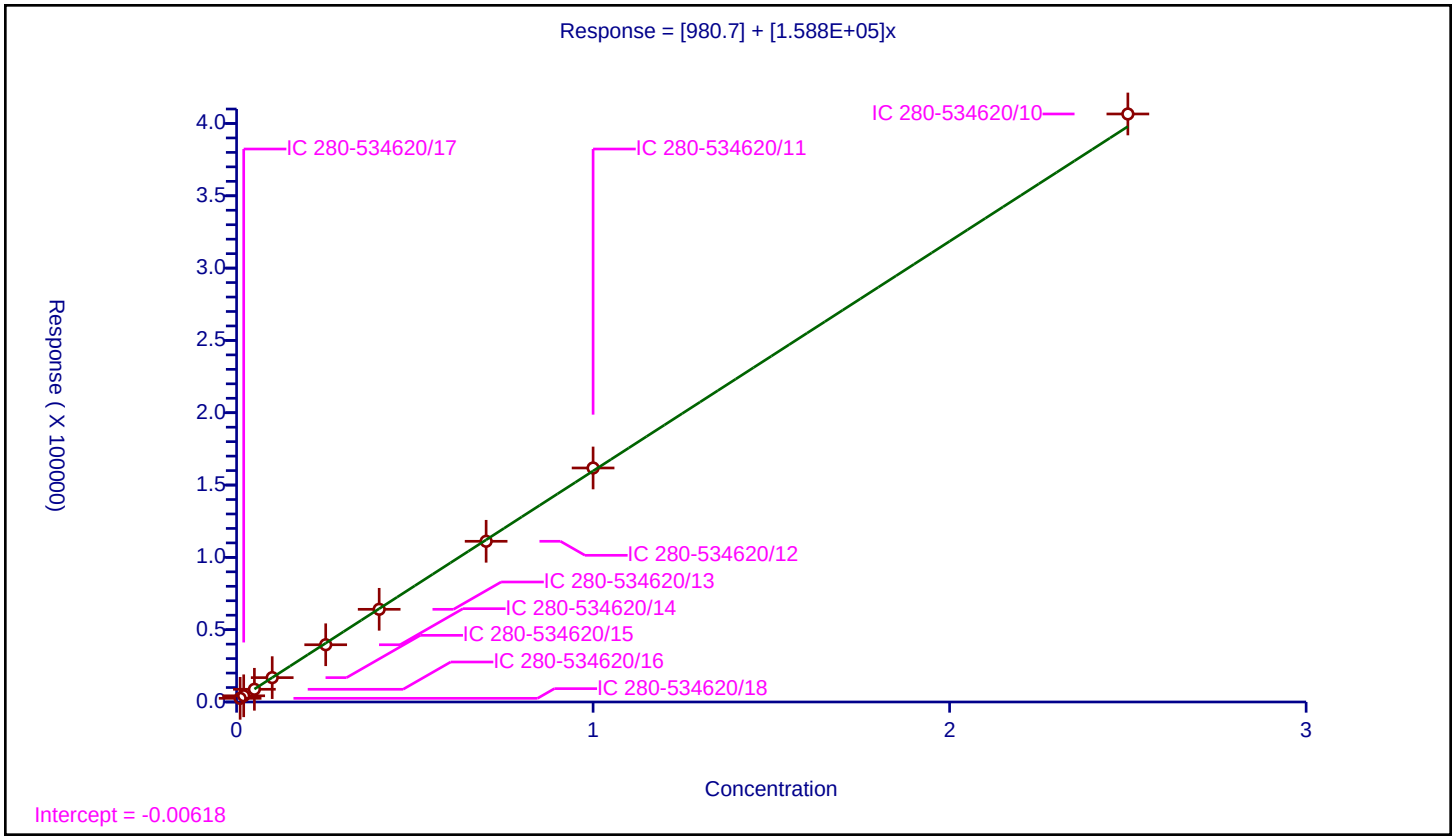
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 980.7 |
| **Slope:** | 1.588E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3410 |
| **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 280-534620/18 | 0.01 | 2543.0 | | | 254300.0 | Y |
| 2 | IC 280-534620/17 | 0.02 | 4286.0 | | | 214300.0 | Y |
| 3 | IC 280-534620/16 | 0.05 | 8791.0 | | | 175820.0 | Y |
| 4 | IC 280-534620/15 | 0.1 | 16850.0 | | | 168500.0 | Y |
| 5 | IC 280-534620/14 | 0.25 | 39580.0 | | | 158320.0 | Y |
| 6 | IC 280-534620/13 | 0.4 | 64089.0 | | | 160222.5 | Y |
| 7 | IC 280-534620/12 | 0.7 | 111120.0 | | | 158742.857143 | Y |
| 8 | IC 280-534620/11 | 1.0 | 161798.0 | | | 161798.0 | Y |
| 9 | IC 280-534620/10 | 2.5 | 406565.0 | | | 162626.0 | 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 |

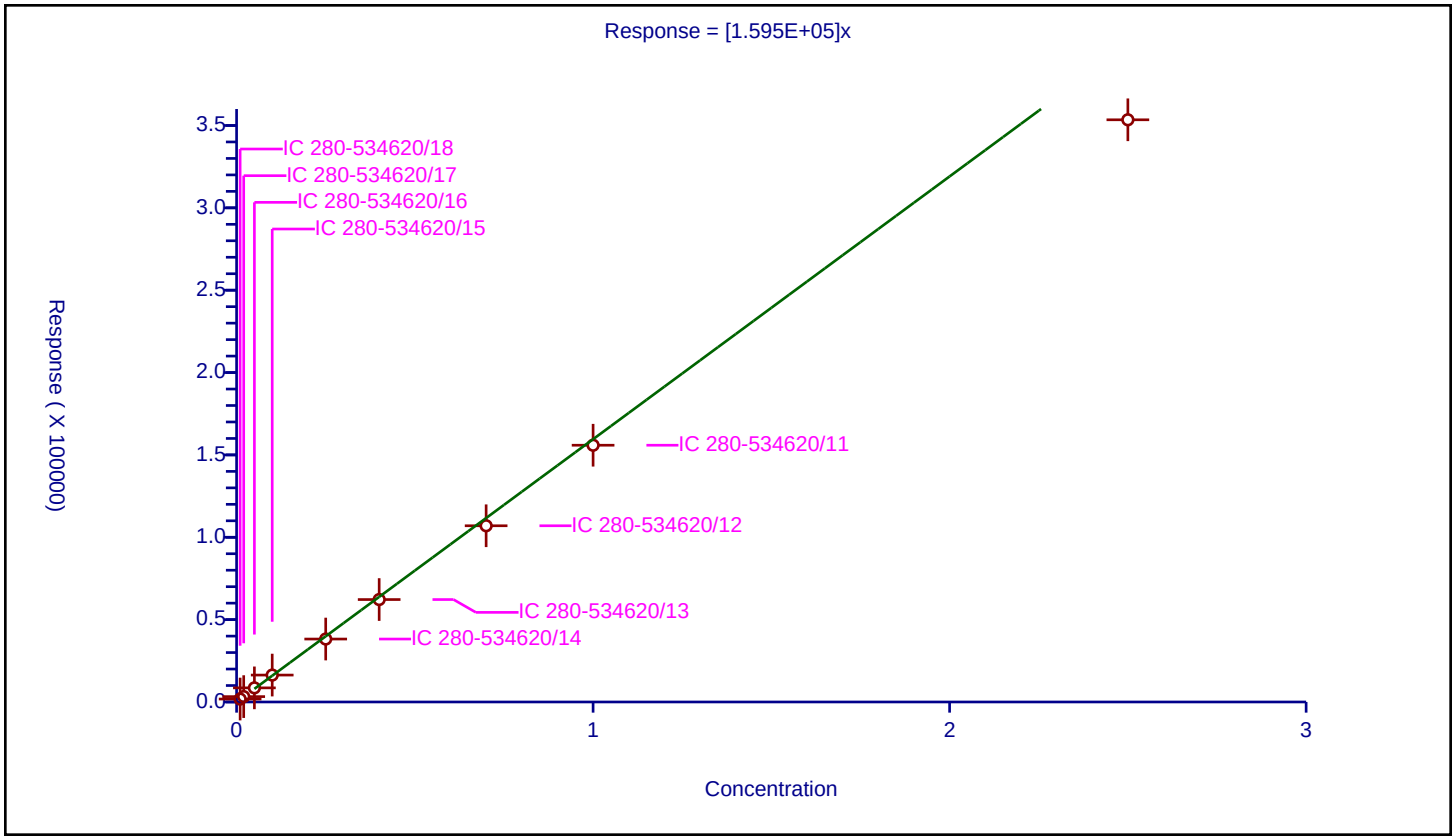
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.595E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 16200 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01 | 1789.0 | | | 178900.0 | Y |
| 2 | IC 280-534620/17 | 0.02 | 3270.0 | | | 163500.0 | Y |
| 3 | IC 280-534620/16 | 0.05 | 8578.0 | | | 171560.0 | Y |
| 4 | IC 280-534620/15 | 0.1 | 16340.0 | | | 163400.0 | Y |
| 5 | IC 280-534620/14 | 0.25 | 38222.0 | | | 152888.0 | Y |
| 6 | IC 280-534620/13 | 0.4 | 62190.0 | | | 155475.0 | Y |
| 7 | IC 280-534620/12 | 0.7 | 106987.0 | | | 152838.571429 | Y |
| 8 | IC 280-534620/11 | 1.0 | 155884.0 | | | 155884.0 | Y |
| 9 | IC 280-534620/10 | 2.5 | 353462.0 | | | 141384.8 | Y |



## Calibration / RDX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

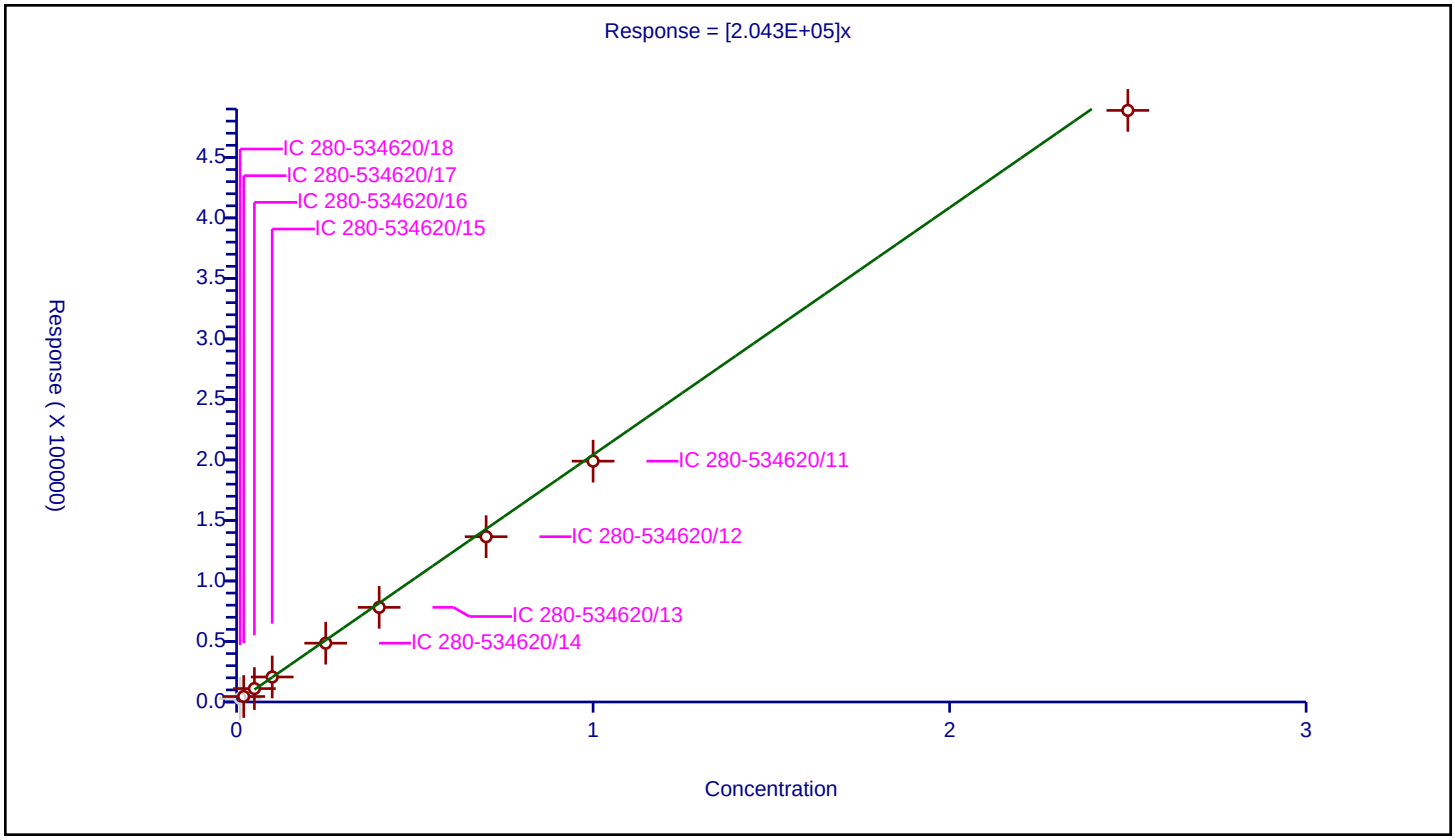
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.043E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 8980 |
| **Relative Standard Error:** | 6.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01 | 2988.0 | | | 298800.0 | N |
| 2 | IC 280-534620/17 | 0.02 | 4533.0 | | | 226650.0 | Y |
| 3 | IC 280-534620/16 | 0.05 | 11066.0 | | | 221320.0 | Y |
| 4 | IC 280-534620/15 | 0.1 | 20661.0 | | | 206610.0 | Y |
| 5 | IC 280-534620/14 | 0.25 | 48606.0 | | | 194424.0 | Y |
| 6 | IC 280-534620/13 | 0.4 | 78185.0 | | | 195462.5 | Y |
| 7 | IC 280-534620/12 | 0.7 | 136592.0 | | | 195131.428571 | Y |
| 8 | IC 280-534620/11 | 1.0 | 199019.0 | | | 199019.0 | Y |
| 9 | IC 280-534620/10 | 2.5 | 488855.0 | | | 195542.0 | Y |



## Calibration / Nitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

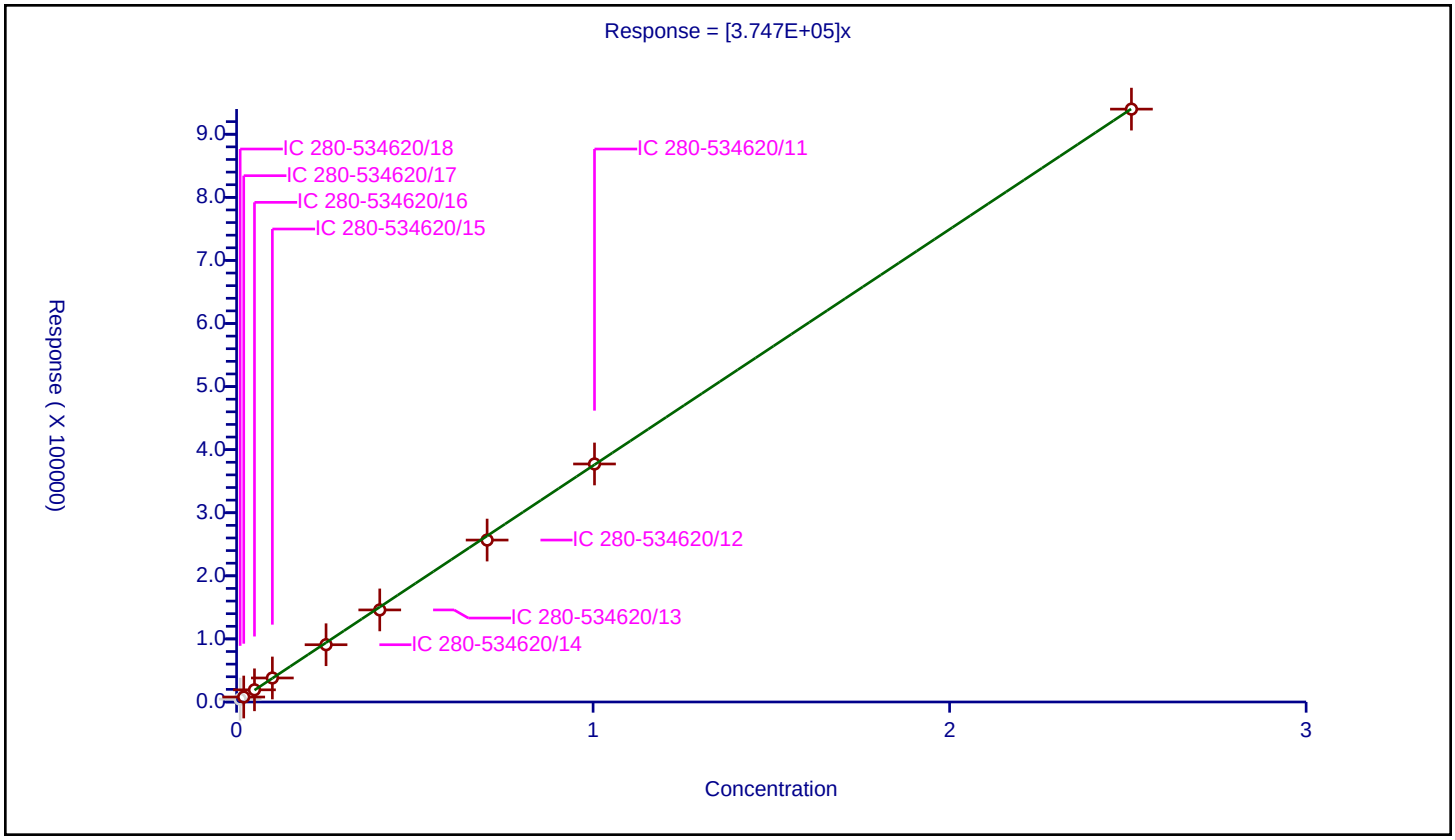
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.747E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3320 |
| **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 280-534620/18 | 0.01004 | 4507.0 | | | 448904.38247 | N |
| 2 | IC 280-534620/17 | 0.02008 | 7888.0 | | | 392828.685259 | Y |
| 3 | IC 280-534620/16 | 0.0502 | 19306.0 | | | 384581.673307 | Y |
| 4 | IC 280-534620/15 | 0.1004 | 38085.0 | | | 379332.669323 | Y |
| 5 | IC 280-534620/14 | 0.251 | 90760.0 | | | 361593.625498 | Y |
| 6 | IC 280-534620/13 | 0.4016 | 145926.0 | | | 363361.553785 | Y |
| 7 | IC 280-534620/12 | 0.7028 | 256719.0 | | | 365280.307342 | Y |
| 8 | IC 280-534620/11 | 1.004 | 377310.0 | | | 375806.772908 | Y |
| 9 | IC 280-534620/10 | 2.51 | 939811.0 | | | 374426.693227 | Y |



## Calibration / 1,2-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

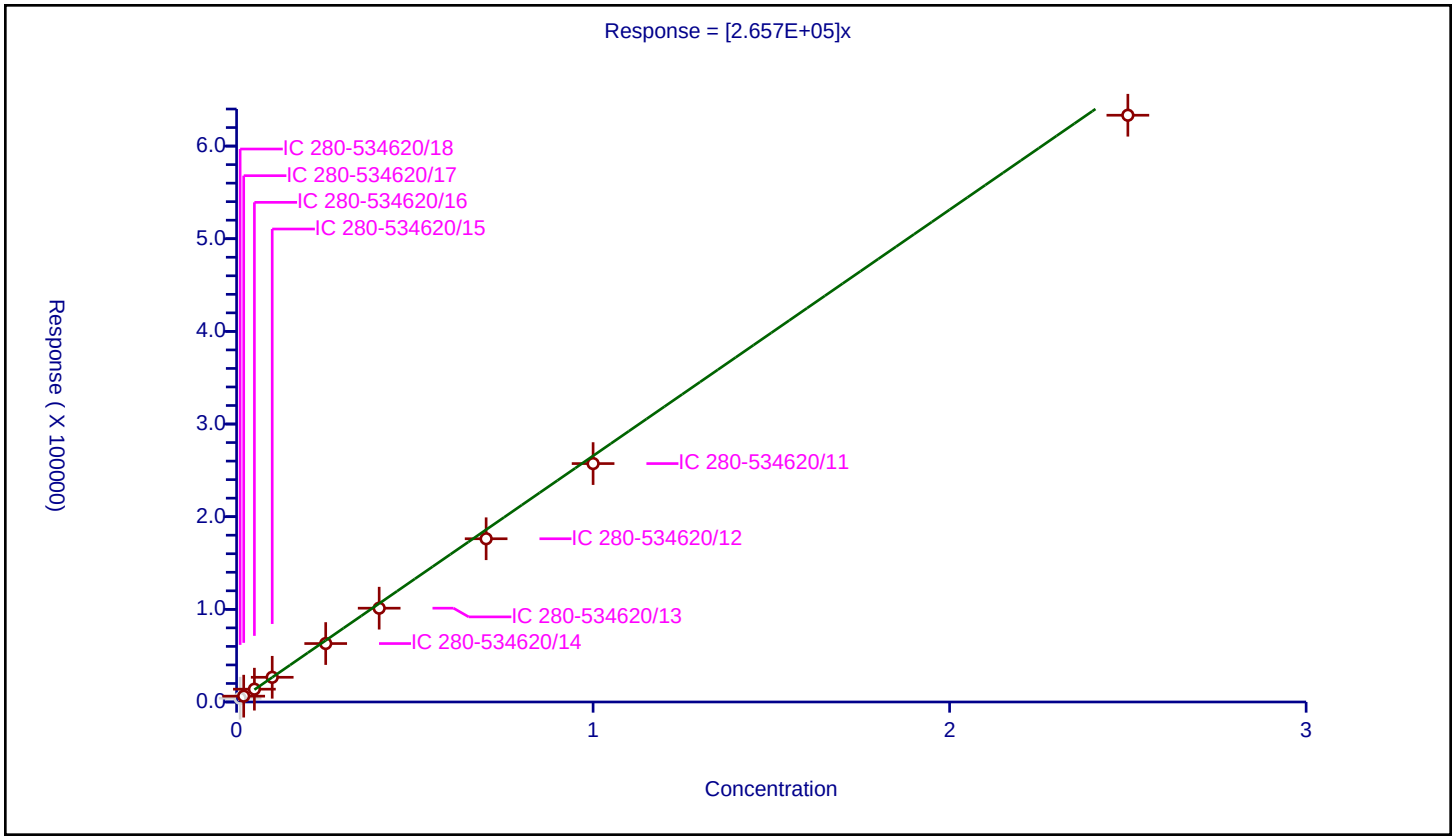
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.657E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 12800 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01 | 4082.0 | | | 408200.0 | N |
| 2 | IC 280-534620/17 | 0.02 | 6280.0 | | | 314000.0 | Y |
| 3 | IC 280-534620/16 | 0.05 | 13836.0 | | | 276720.0 | Y |
| 4 | IC 280-534620/15 | 0.1 | 26678.0 | | | 266780.0 | Y |
| 5 | IC 280-534620/14 | 0.25 | 63081.0 | | | 252324.0 | Y |
| 6 | IC 280-534620/13 | 0.4 | 101248.0 | | | 253120.0 | Y |
| 7 | IC 280-534620/12 | 0.7 | 176180.0 | | | 251685.714286 | Y |
| 8 | IC 280-534620/11 | 1.0 | 257324.0 | | | 257324.0 | Y |
| 9 | IC 280-534620/10 | 2.5 | 633300.0 | | | 253320.0 | Y |



## Calibration / 1,3-Dinitrobenzene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

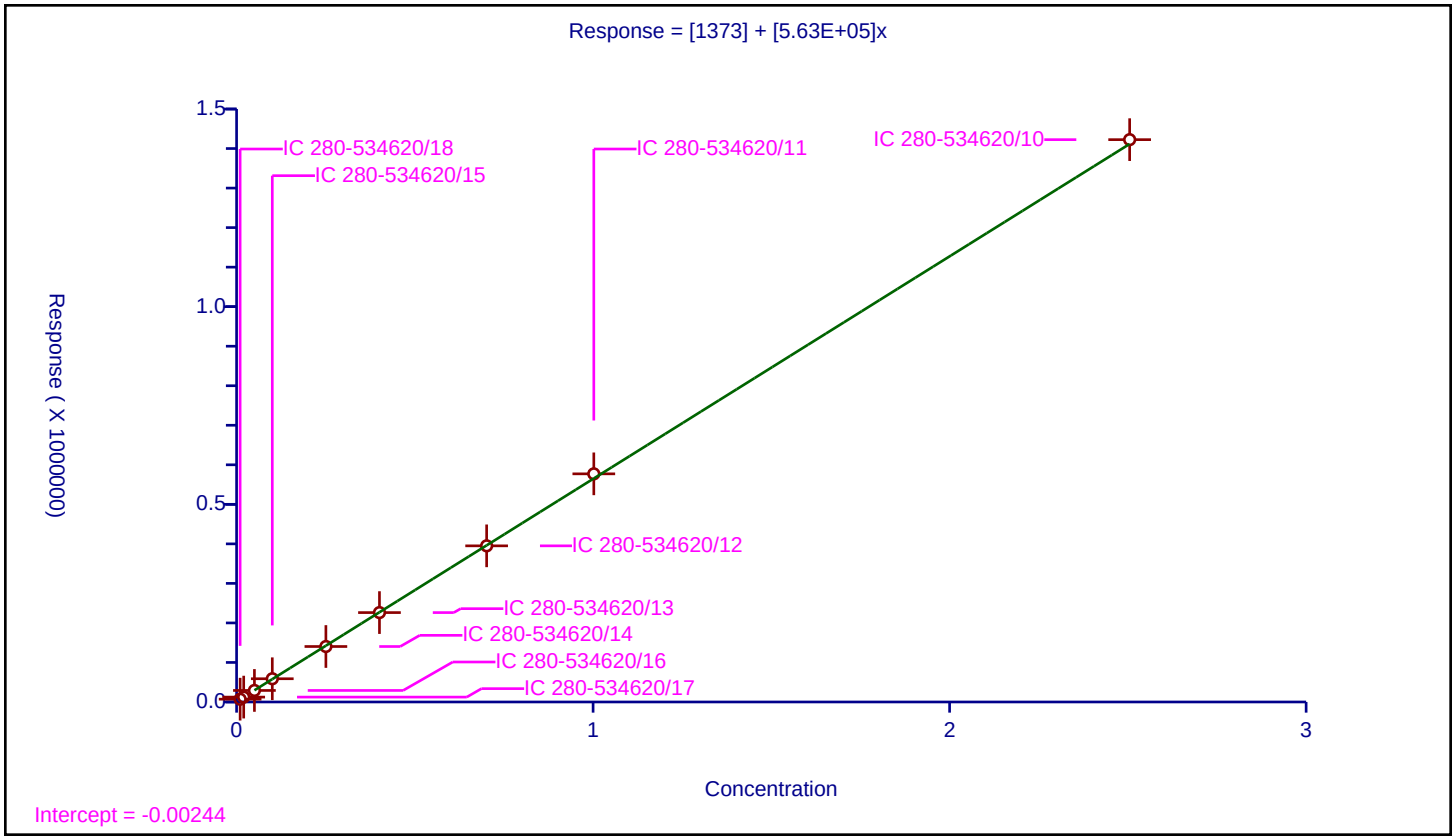
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1373 |
| **Slope:** | 5.63E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6130 |
| **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 280-534620/18 | 0.01002 | 7085.0 | | | 707085.828343 | Y |
| 2 | IC 280-534620/17 | 0.02004 | 12411.0 | | | 619311.377246 | Y |
| 3 | IC 280-534620/16 | 0.0501 | 29142.0 | | | 581676.646707 | Y |
| 4 | IC 280-534620/15 | 0.1002 | 58764.0 | | | 586467.065868 | Y |
| 5 | IC 280-534620/14 | 0.2505 | 140347.0 | | | 560267.46507 | Y |
| 6 | IC 280-534620/13 | 0.4008 | 226148.0 | | | 564241.516966 | Y |
| 7 | IC 280-534620/12 | 0.7014 | 394975.0 | | | 563123.752495 | Y |
| 8 | IC 280-534620/11 | 1.002 | 577120.0 | | | 575968.063872 | Y |
| 9 | IC 280-534620/10 | 2.505 | 1422490.0 | | | 567860.279441 | Y |



## Calibration / Nitroglycerin

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

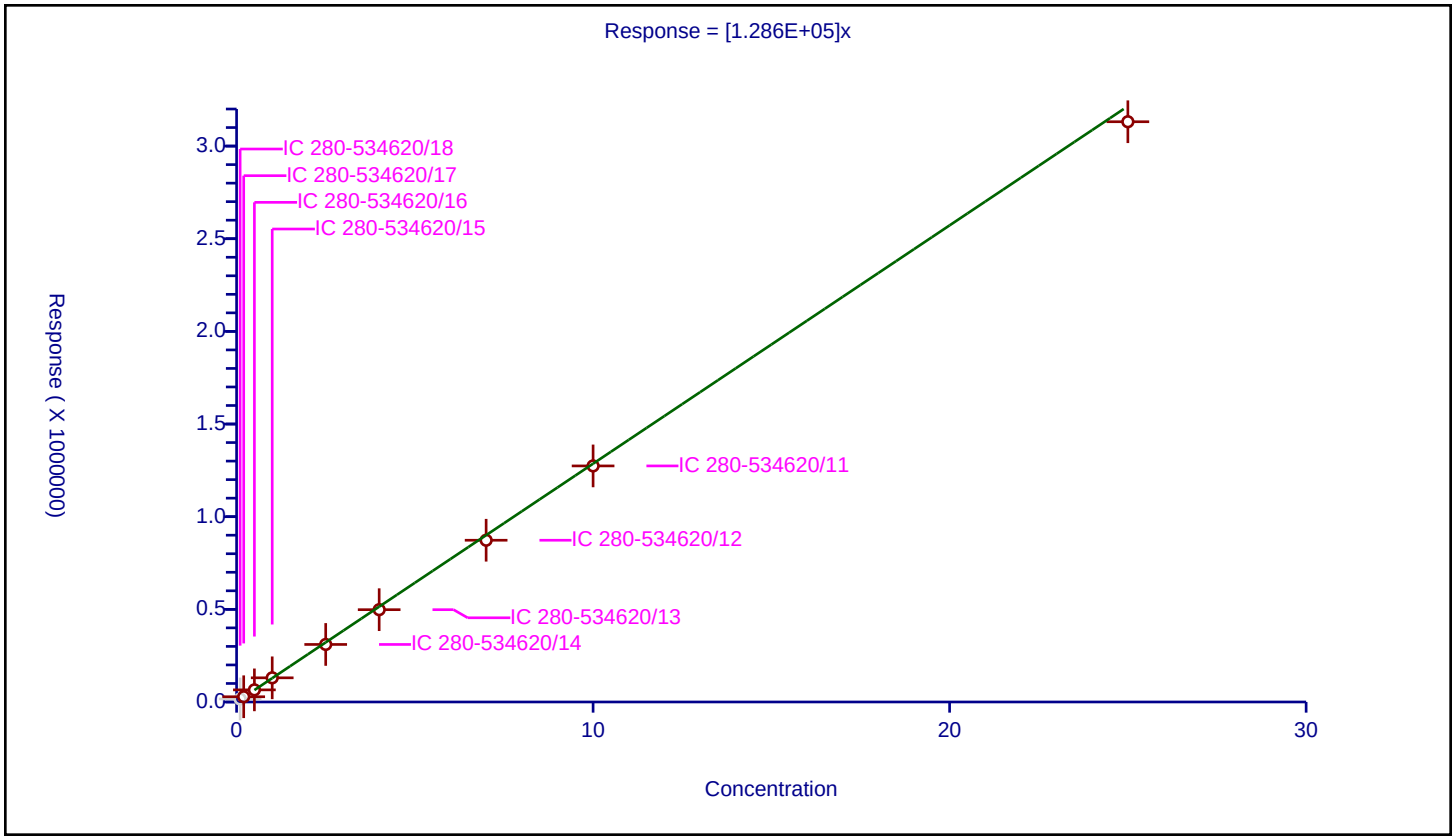
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.286E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 34400 |
| **Relative Standard Error:** | 4.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.1 | 16401.0 | | | 164010.0 | N |
| 2 | IC 280-534620/17 | 0.2 | 28299.0 | | | 141495.0 | Y |
| 3 | IC 280-534620/16 | 0.5 | 65416.0 | | | 130832.0 | Y |
| 4 | IC 280-534620/15 | 1.0 | 130447.0 | | | 130447.0 | Y |
| 5 | IC 280-534620/14 | 2.5 | 310480.0 | | | 124192.0 | Y |
| 6 | IC 280-534620/13 | 4.0 | 498088.0 | | | 124522.0 | Y |
| 7 | IC 280-534620/12 | 7.0 | 872941.0 | | | 124705.857143 | Y |
| 8 | IC 280-534620/11 | 10.0 | 1273886.0 | | | 127388.6 | Y |
| 9 | IC 280-534620/10 | 25.0 | 3131400.0 | | | 125256.0 | Y |



## Calibration / o-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

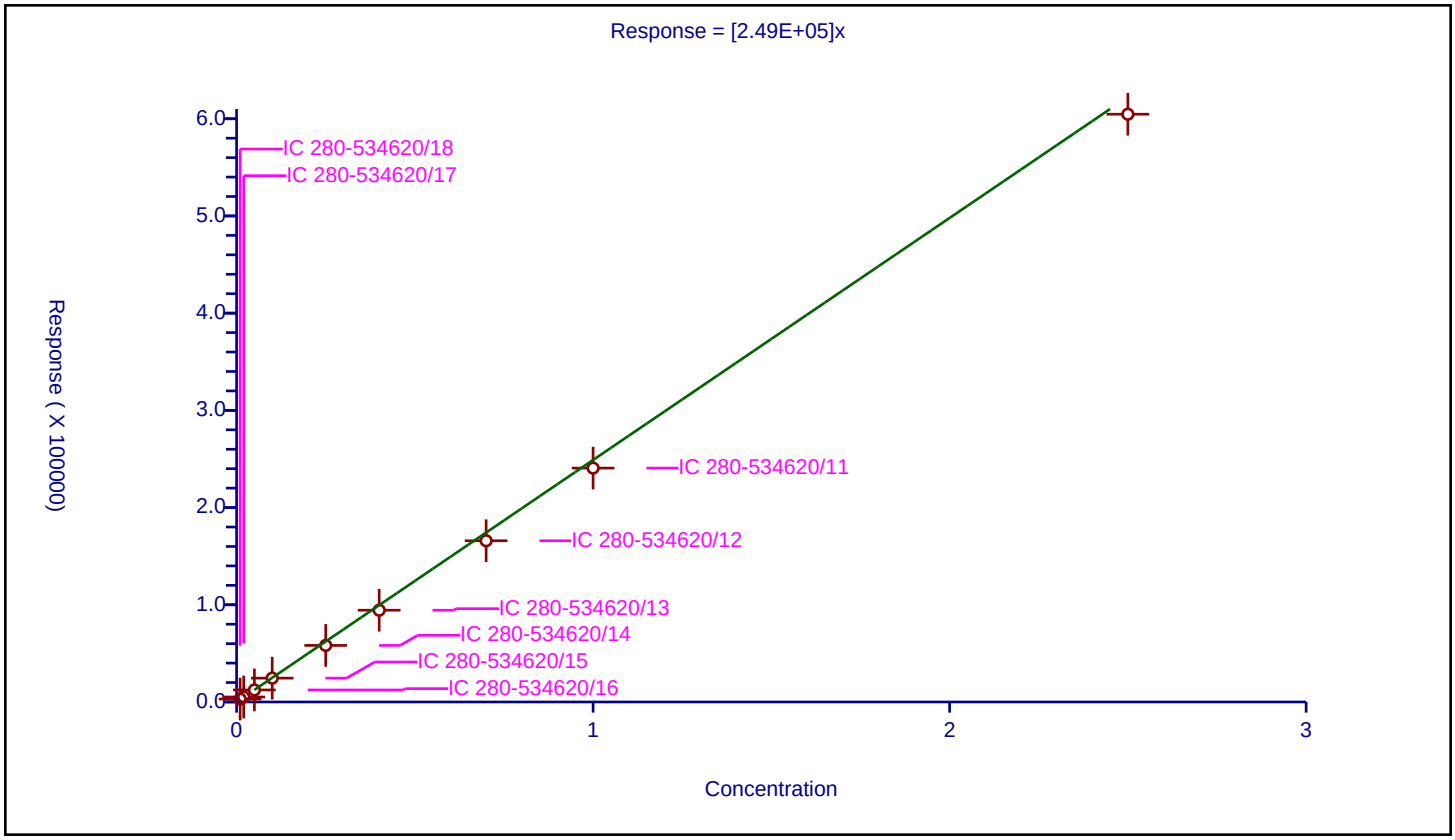
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.49E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 7910 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01 | 3022.0 | | | 302200.0 | Y |
| 2 | IC 280-534620/17 | 0.02 | 5151.0 | | | 257550.0 | Y |
| 3 | IC 280-534620/16 | 0.05 | 12373.0 | | | 247460.0 | Y |
| 4 | IC 280-534620/15 | 0.1 | 24528.0 | | | 245280.0 | Y |
| 5 | IC 280-534620/14 | 0.25 | 58191.0 | | | 232764.0 | Y |
| 6 | IC 280-534620/13 | 0.4 | 94418.0 | | | 236045.0 | Y |
| 7 | IC 280-534620/12 | 0.7 | 165863.0 | | | 236947.142857 | Y |
| 8 | IC 280-534620/11 | 1.0 | 240595.0 | | | 240595.0 | Y |
| 9 | IC 280-534620/10 | 2.5 | 604653.0 | | | 241861.2 | Y |



## Calibration / p-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

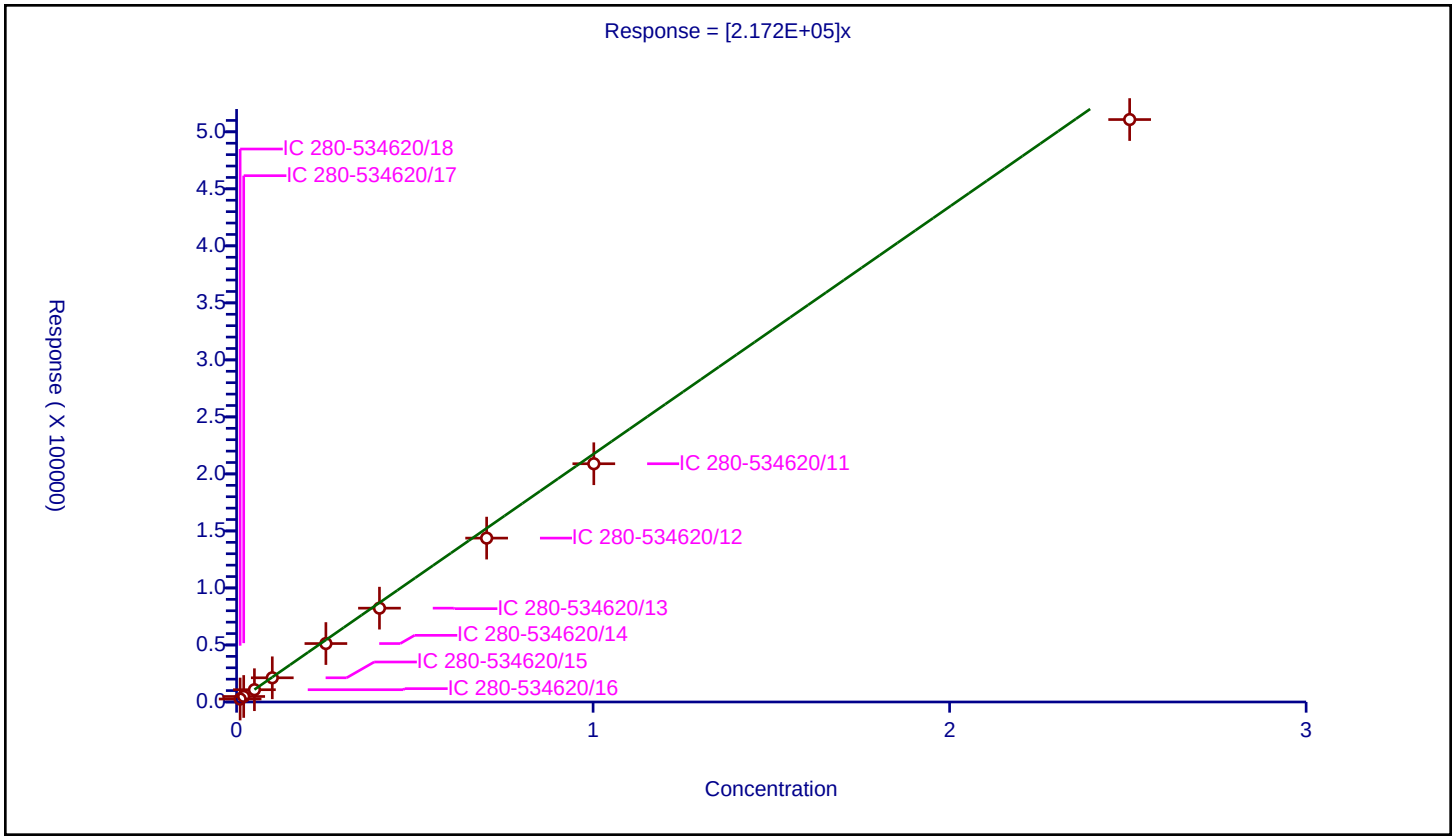
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.172E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 12700 |
| **Relative Standard Error:** | 9.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01002 | 2608.0 | | | 260279.441118 | Y |
| 2 | IC 280-534620/17 | 0.02004 | 4823.0 | | | 240668.662675 | Y |
| 3 | IC 280-534620/16 | 0.0501 | 10760.0 | | | 214770.459082 | Y |
| 4 | IC 280-534620/15 | 0.1002 | 21221.0 | | | 211786.427146 | Y |
| 5 | IC 280-534620/14 | 0.2505 | 51245.0 | | | 204570.858283 | Y |
| 6 | IC 280-534620/13 | 0.4008 | 82281.0 | | | 205291.916168 | Y |
| 7 | IC 280-534620/12 | 0.7014 | 143722.0 | | | 204907.328201 | Y |
| 8 | IC 280-534620/11 | 1.002 | 208929.0 | | | 208511.976048 | Y |
| 9 | IC 280-534620/10 | 2.505 | 510755.0 | | | 203894.211577 | 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 |

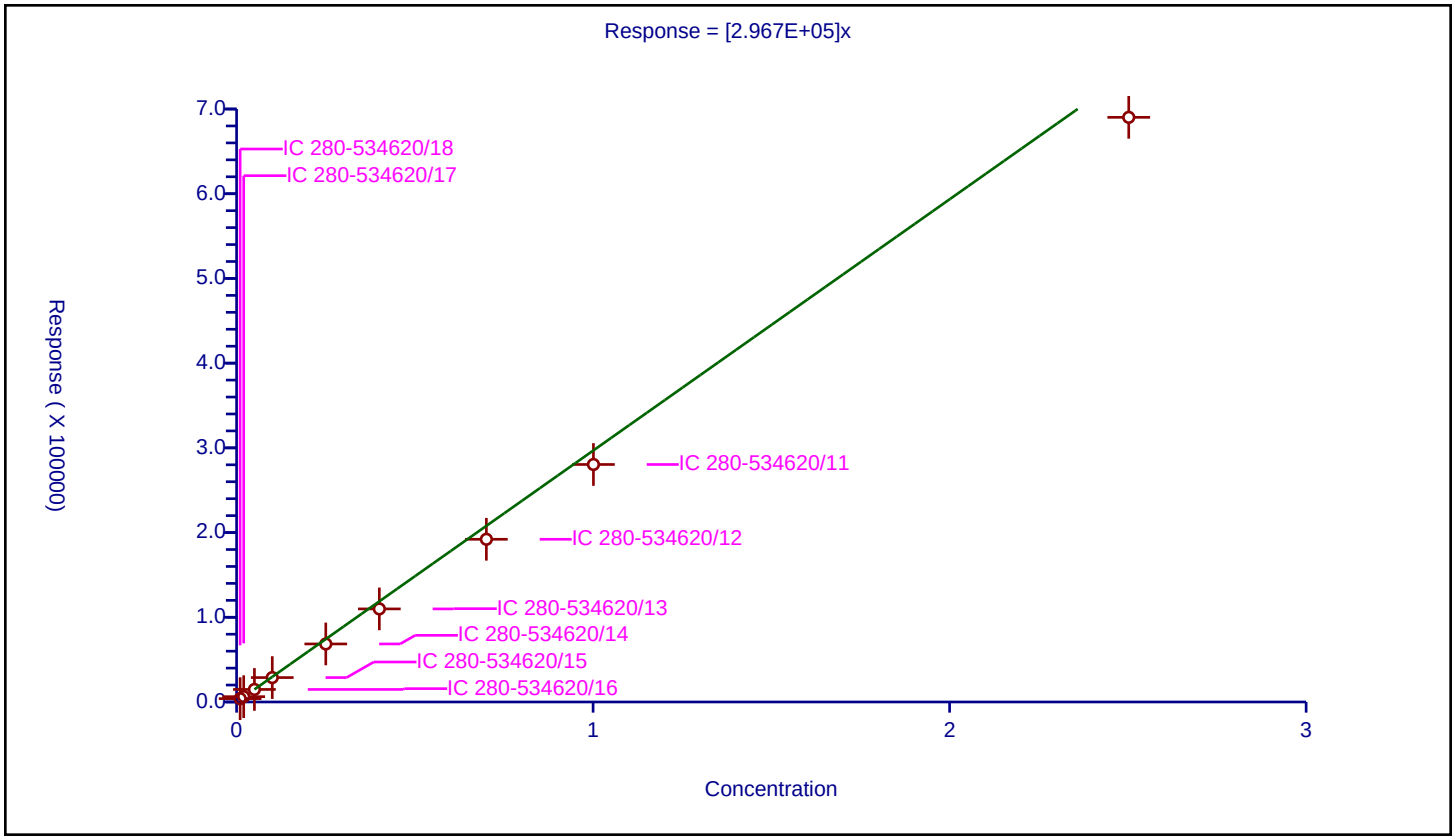
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.967E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 20600 |
| **Relative Standard Error:** | 13.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.974 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01001 | 3954.0 | | | 395004.995005 | Y |
| 2 | IC 280-534620/17 | 0.02002 | 6276.0 | | | 313486.513487 | Y |
| 3 | IC 280-534620/16 | 0.05005 | 14802.0 | | | 295744.255744 | Y |
| 4 | IC 280-534620/15 | 0.1001 | 28819.0 | | | 287902.097902 | Y |
| 5 | IC 280-534620/14 | 0.25025 | 68509.0 | | | 273762.237762 | Y |
| 6 | IC 280-534620/13 | 0.4004 | 109890.0 | | | 274450.549451 | Y |
| 7 | IC 280-534620/12 | 0.7007 | 192075.0 | | | 274118.738404 | Y |
| 8 | IC 280-534620/11 | 1.001 | 280366.0 | | | 280085.914086 | Y |
| 9 | IC 280-534620/10 | 2.5025 | 690165.0 | | | 275790.20979 | Y |



## Calibration / m-Nitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

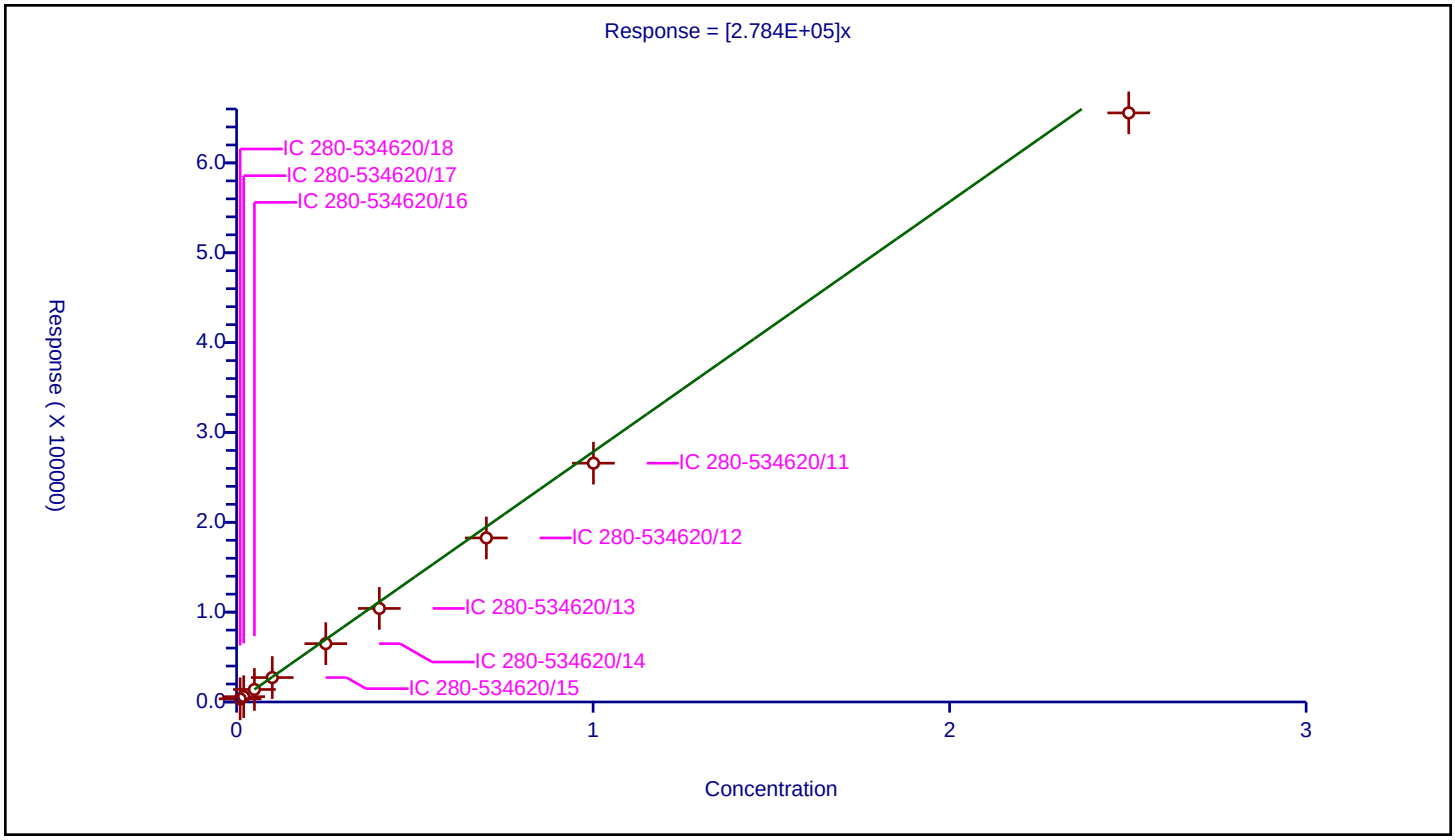
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.784E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 16100 |
| **Relative Standard Error:** | 10.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01001 | 3517.0 | | | 351348.651349 | Y |
| 2 | IC 280-534620/17 | 0.02002 | 5928.0 | | | 296103.896104 | Y |
| 3 | IC 280-534620/16 | 0.05005 | 13943.0 | | | 278581.418581 | Y |
| 4 | IC 280-534620/15 | 0.1001 | 27212.0 | | | 271848.151848 | Y |
| 5 | IC 280-534620/14 | 0.25025 | 64933.0 | | | 259472.527473 | Y |
| 6 | IC 280-534620/13 | 0.4004 | 104128.0 | | | 260059.94006 | Y |
| 7 | IC 280-534620/12 | 0.7007 | 182587.0 | | | 260577.993435 | Y |
| 8 | IC 280-534620/11 | 1.001 | 265803.0 | | | 265537.462537 | Y |
| 9 | IC 280-534620/10 | 2.5025 | 655662.0 | | | 262002.797203 | Y |



## Calibration / 2-Amino-4,6-dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

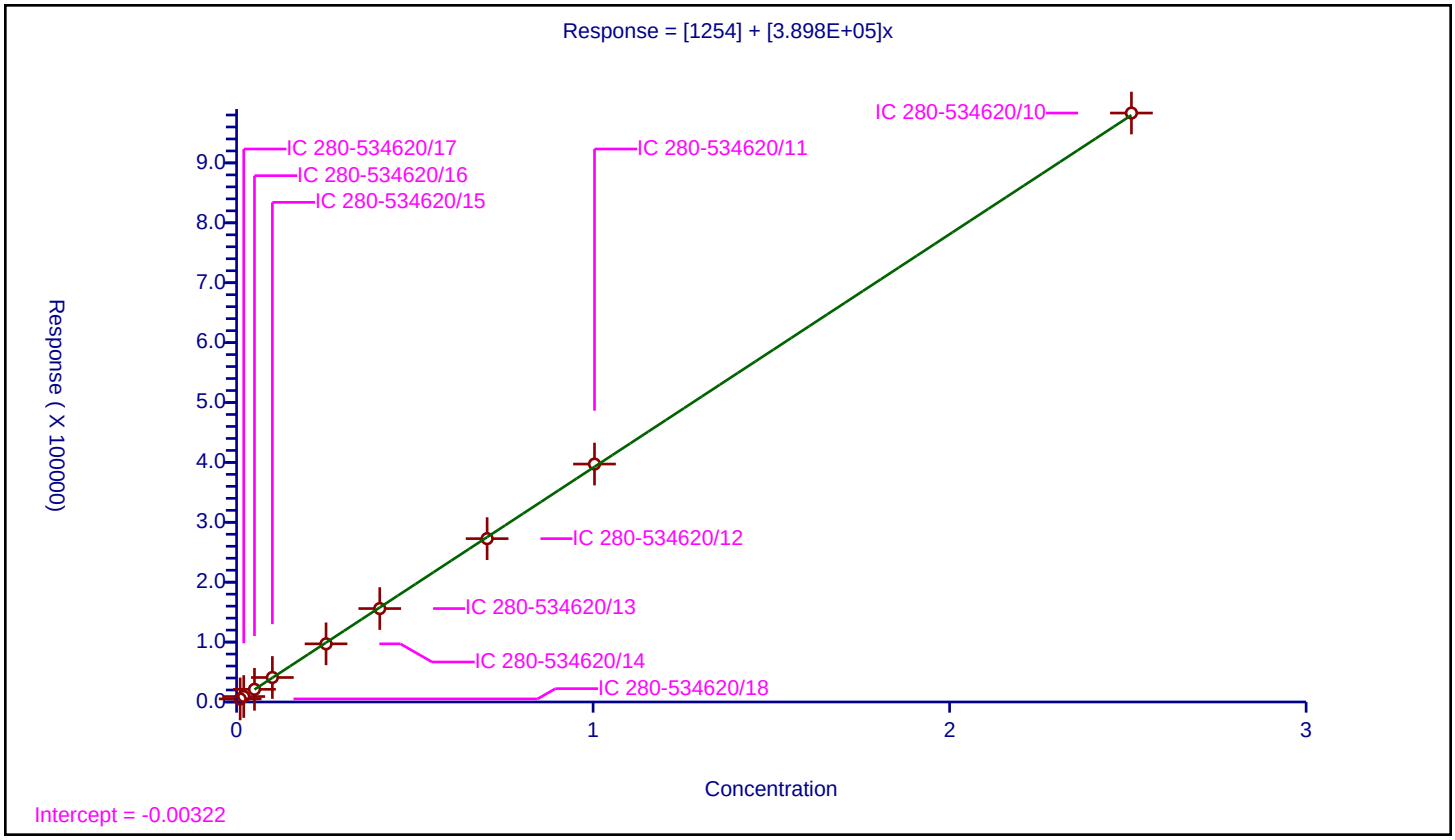
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1254 |
| **Slope:** | 3.898E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2610 |
| **Relative Standard Error:** | 1.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01004 | 5148.0 | | | 512749.003984 | Y |
| 2 | IC 280-534620/17 | 0.02008 | 9114.0 | | | 453884.462151 | Y |
| 3 | IC 280-534620/16 | 0.0502 | 21111.0 | | | 420537.848606 | Y |
| 4 | IC 280-534620/15 | 0.1004 | 40904.0 | | | 407410.358566 | Y |
| 5 | IC 280-534620/14 | 0.251 | 97071.0 | | | 386737.051793 | Y |
| 6 | IC 280-534620/13 | 0.4016 | 155961.0 | | | 388349.103586 | Y |
| 7 | IC 280-534620/12 | 0.7028 | 272718.0 | | | 388044.963005 | Y |
| 8 | IC 280-534620/11 | 1.004 | 397243.0 | | | 395660.358566 | Y |
| 9 | IC 280-534620/10 | 2.51 | 983275.0 | | | 391743.027888 | Y |



## Calibration / 1,3,5-Trinitrobenzene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

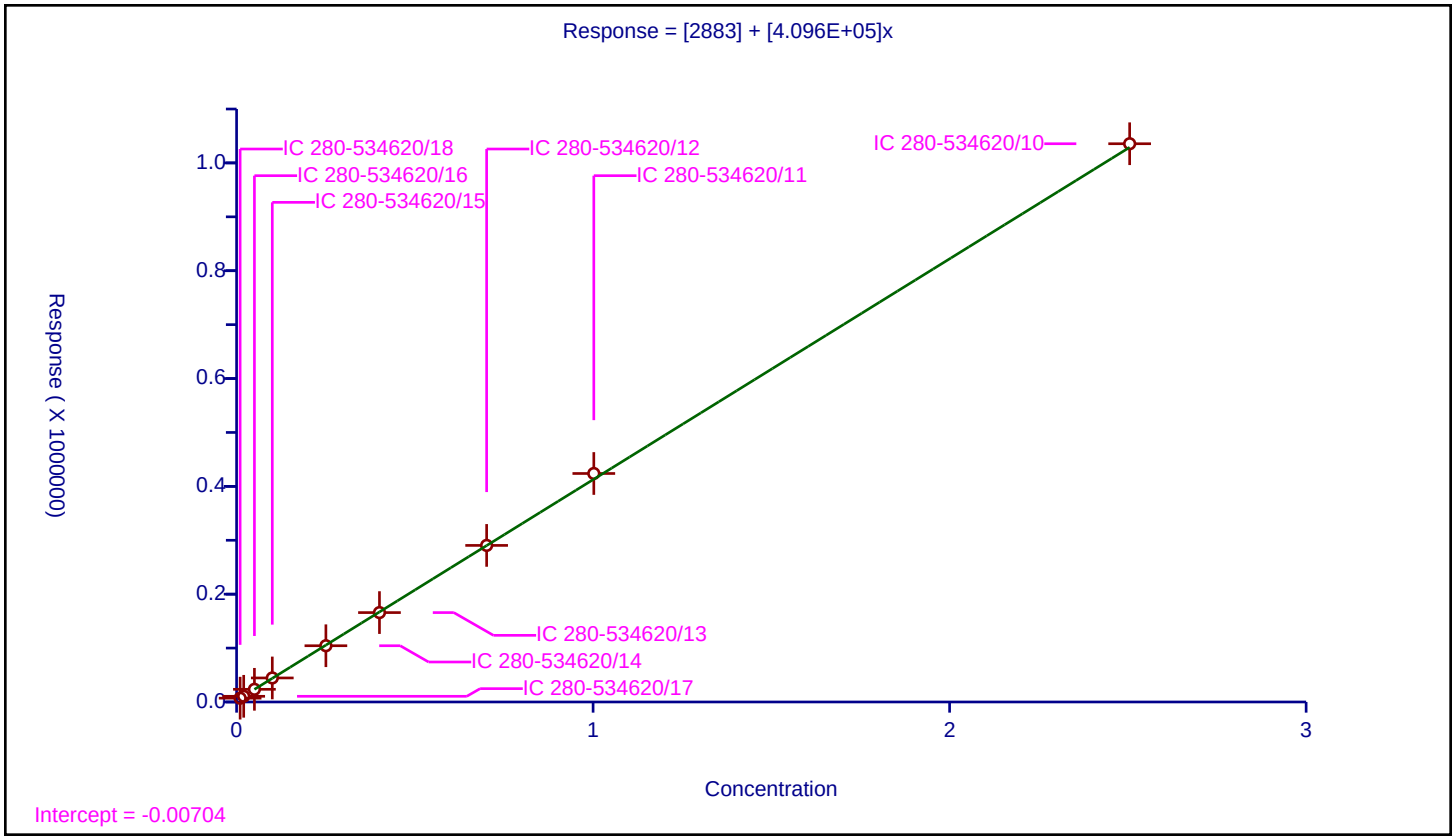
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 2883 |
| **Slope:** | 4.096E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4780 |
| **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 280-534620/18 | 0.01002 | 7116.0 | | | 710179.640719 | Y |
| 2 | IC 280-534620/17 | 0.02004 | 10540.0 | | | 525948.103792 | Y |
| 3 | IC 280-534620/16 | 0.0501 | 23506.0 | | | 469181.636727 | Y |
| 4 | IC 280-534620/15 | 0.1002 | 44594.0 | | | 445049.9002 | Y |
| 5 | IC 280-534620/14 | 0.2505 | 104344.0 | | | 416542.914172 | Y |
| 6 | IC 280-534620/13 | 0.4008 | 165828.0 | | | 413742.51497 | Y |
| 7 | IC 280-534620/12 | 0.7014 | 290458.0 | | | 414111.776447 | Y |
| 8 | IC 280-534620/11 | 1.002 | 423869.0 | | | 423022.954092 | Y |
| 9 | IC 280-534620/10 | 2.505 | 1035616.0 | | | 413419.560878 | Y |



## Calibration / 2,6-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

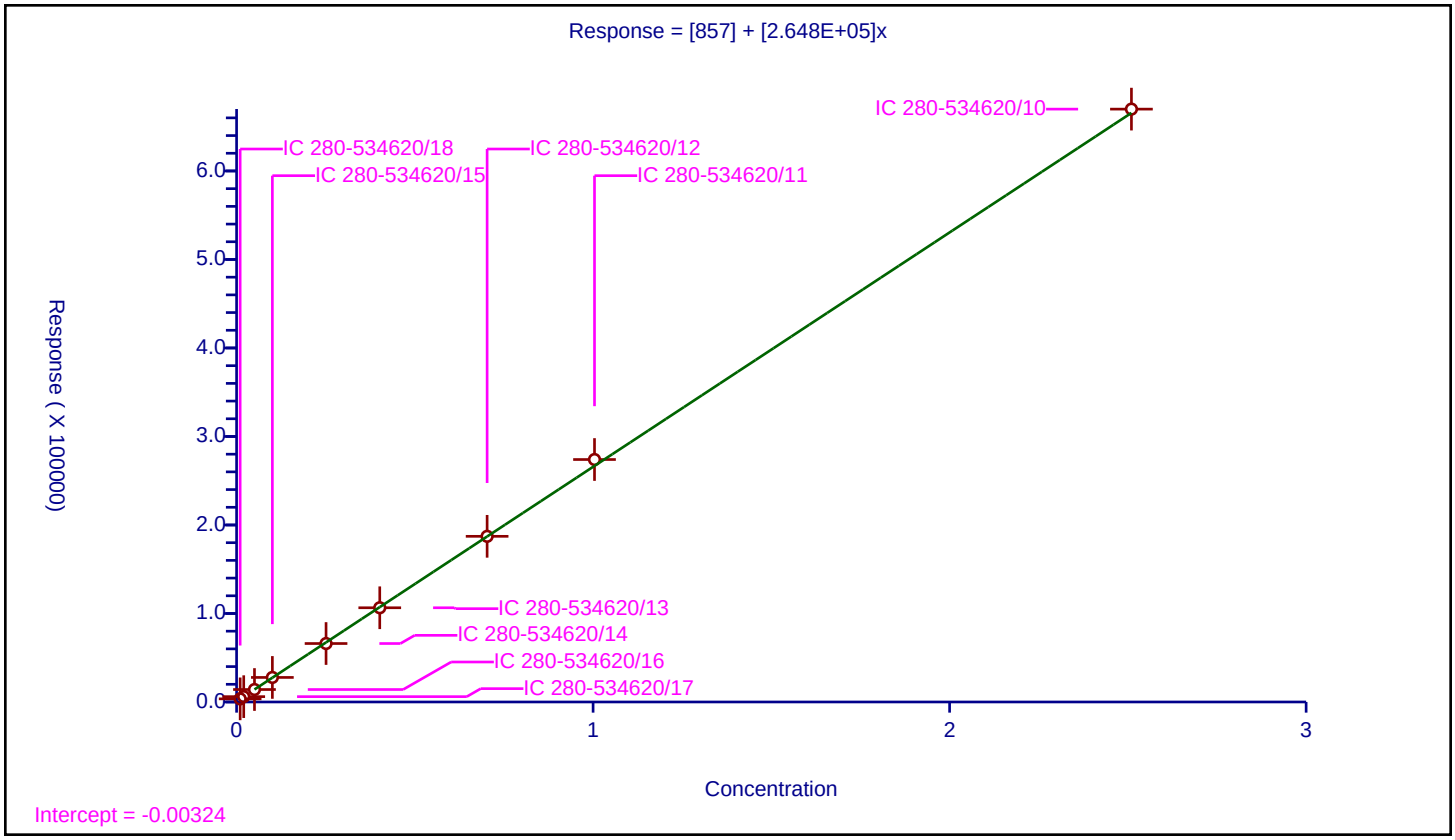
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 857 |
| **Slope:** | 2.648E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3220 |
| **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 280-534620/18 | 0.01004 | 3555.0 | | | 354083.665339 | Y |
| 2 | IC 280-534620/17 | 0.02008 | 6026.0 | | | 300099.601594 | Y |
| 3 | IC 280-534620/16 | 0.0502 | 14081.0 | | | 280498.007968 | Y |
| 4 | IC 280-534620/15 | 0.1004 | 27721.0 | | | 276105.577689 | Y |
| 5 | IC 280-534620/14 | 0.251 | 66062.0 | | | 263195.219124 | Y |
| 6 | IC 280-534620/13 | 0.4016 | 106452.0 | | | 265069.721116 | Y |
| 7 | IC 280-534620/12 | 0.7028 | 187184.0 | | | 266340.352874 | Y |
| 8 | IC 280-534620/11 | 1.004 | 273958.0 | | | 272866.533865 | Y |
| 9 | IC 280-534620/10 | 2.51 | 669889.0 | | | 266888.047809 | Y |



## Calibration / 2,4-Dinitrotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

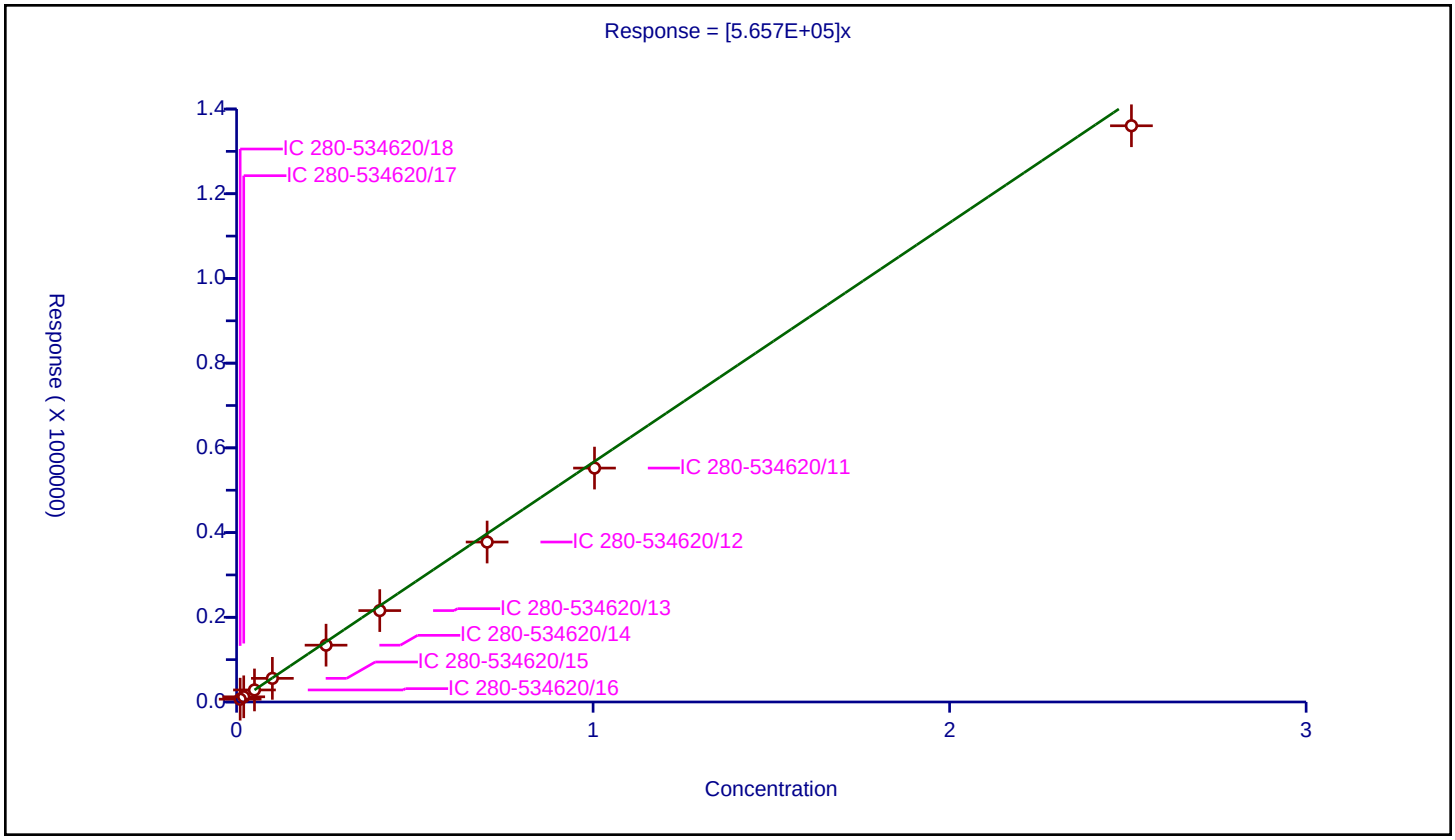
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 5.657E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 23400 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01004 | 6619.0 | | | 659262.948207 | Y |
| 2 | IC 280-534620/17 | 0.02008 | 12229.0 | | | 609013.944223 | Y |
| 3 | IC 280-534620/16 | 0.0502 | 28396.0 | | | 565657.370518 | Y |
| 4 | IC 280-534620/15 | 0.1004 | 55838.0 | | | 556155.378486 | Y |
| 5 | IC 280-534620/14 | 0.251 | 134163.0 | | | 534513.944223 | Y |
| 6 | IC 280-534620/13 | 0.4016 | 215819.0 | | | 537397.908367 | Y |
| 7 | IC 280-534620/12 | 0.7028 | 377631.0 | | | 537323.562891 | Y |
| 8 | IC 280-534620/11 | 1.004 | 552269.0 | | | 550068.7251 | Y |
| 9 | IC 280-534620/10 | 2.51 | 1360486.0 | | | 542026.294821 | Y |



## Calibration / Tetryl

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

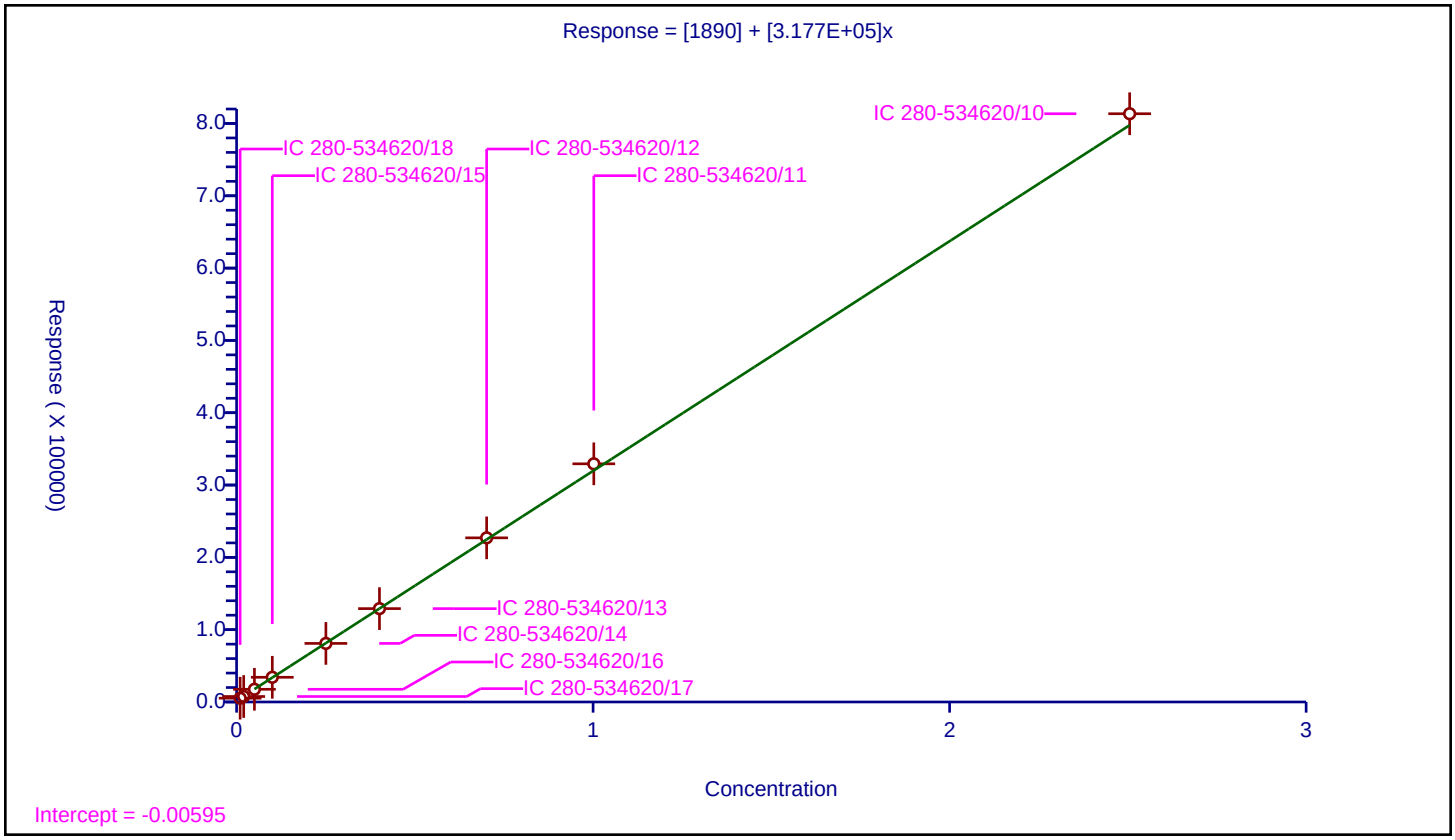
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1890 |
| **Slope:** | 3.177E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 6990 |
| **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 280-534620/18 | 0.01002 | 5245.0 | | | 523453.093812 | Y |
| 2 | IC 280-534620/17 | 0.02004 | 7583.0 | | | 378393.213573 | Y |
| 3 | IC 280-534620/16 | 0.0501 | 17573.0 | | | 350758.483034 | Y |
| 4 | IC 280-534620/15 | 0.1002 | 34148.0 | | | 340798.403194 | Y |
| 5 | IC 280-534620/14 | 0.2505 | 80996.0 | | | 323337.325349 | Y |
| 6 | IC 280-534620/13 | 0.4008 | 129140.0 | | | 322205.588822 | Y |
| 7 | IC 280-534620/12 | 0.7014 | 227001.0 | | | 323639.863131 | Y |
| 8 | IC 280-534620/11 | 1.002 | 329366.0 | | | 328708.582834 | Y |
| 9 | IC 280-534620/10 | 2.505 | 813489.0 | | | 324746.107784 | Y |



## Calibration / 2,4,6-Trinitrotoluene

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc_Sq |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

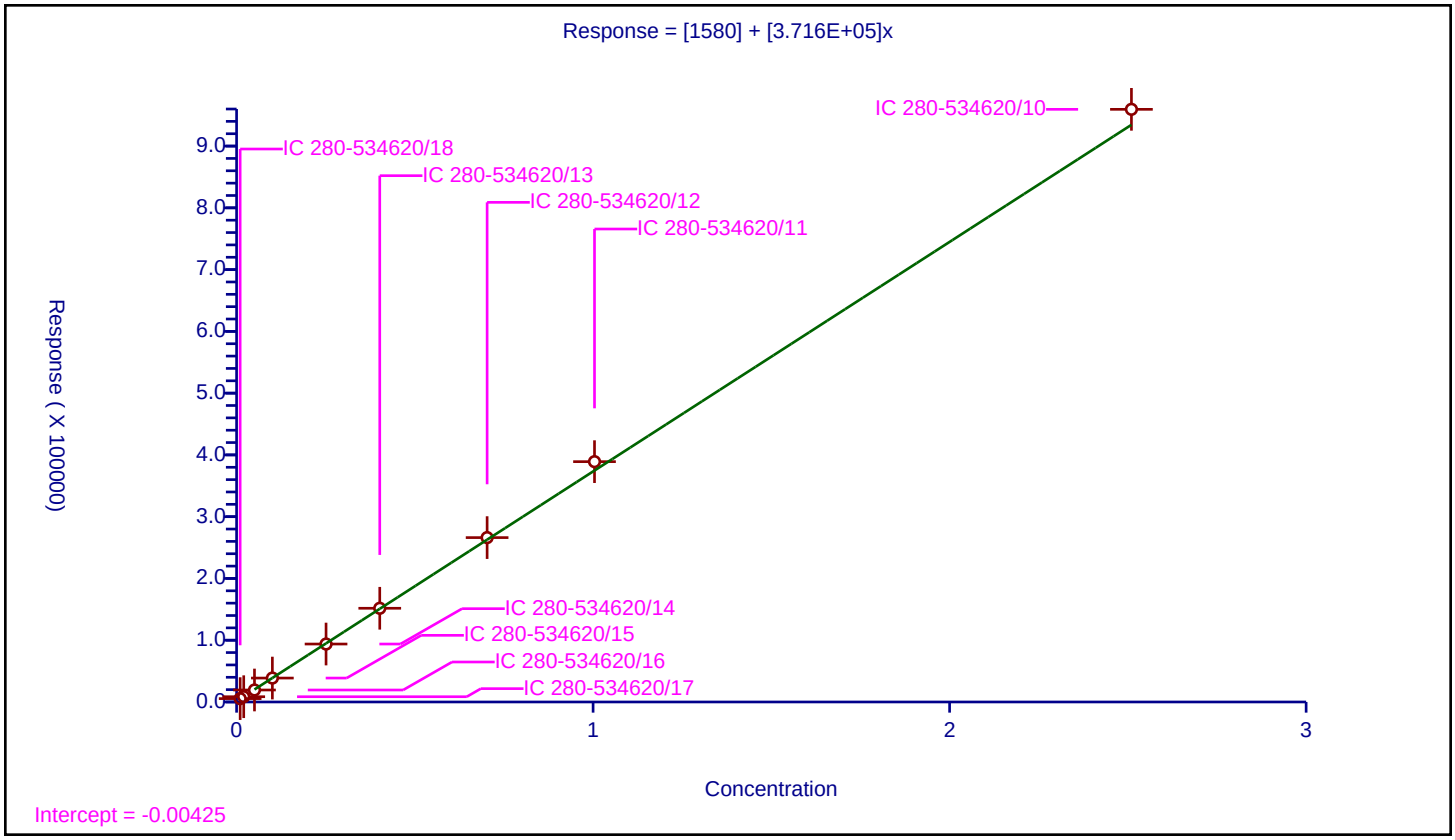
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1580 |
| **Slope:** | 3.716E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 11000 |
| **Relative Standard Error:** | 3.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.01004 | 5469.0 | | | 544721.115538 | Y |
| 2 | IC 280-534620/17 | 0.02008 | 8548.0 | | | 425697.211155 | Y |
| 3 | IC 280-534620/16 | 0.0502 | 19400.0 | | | 386454.183267 | Y |
| 4 | IC 280-534620/15 | 0.1004 | 38740.0 | | | 385856.573705 | Y |
| 5 | IC 280-534620/14 | 0.251 | 93822.0 | | | 373792.828685 | Y |
| 6 | IC 280-534620/13 | 0.4016 | 151709.0 | | | 377761.454183 | Y |
| 7 | IC 280-534620/12 | 0.7028 | 266122.0 | | | 378659.647126 | Y |
| 8 | IC 280-534620/11 | 1.004 | 389102.0 | | | 387551.792829 | Y |
| 9 | IC 280-534620/10 | 2.51 | 959496.0 | | | 382269.322709 | Y |



## Calibration / PETN

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

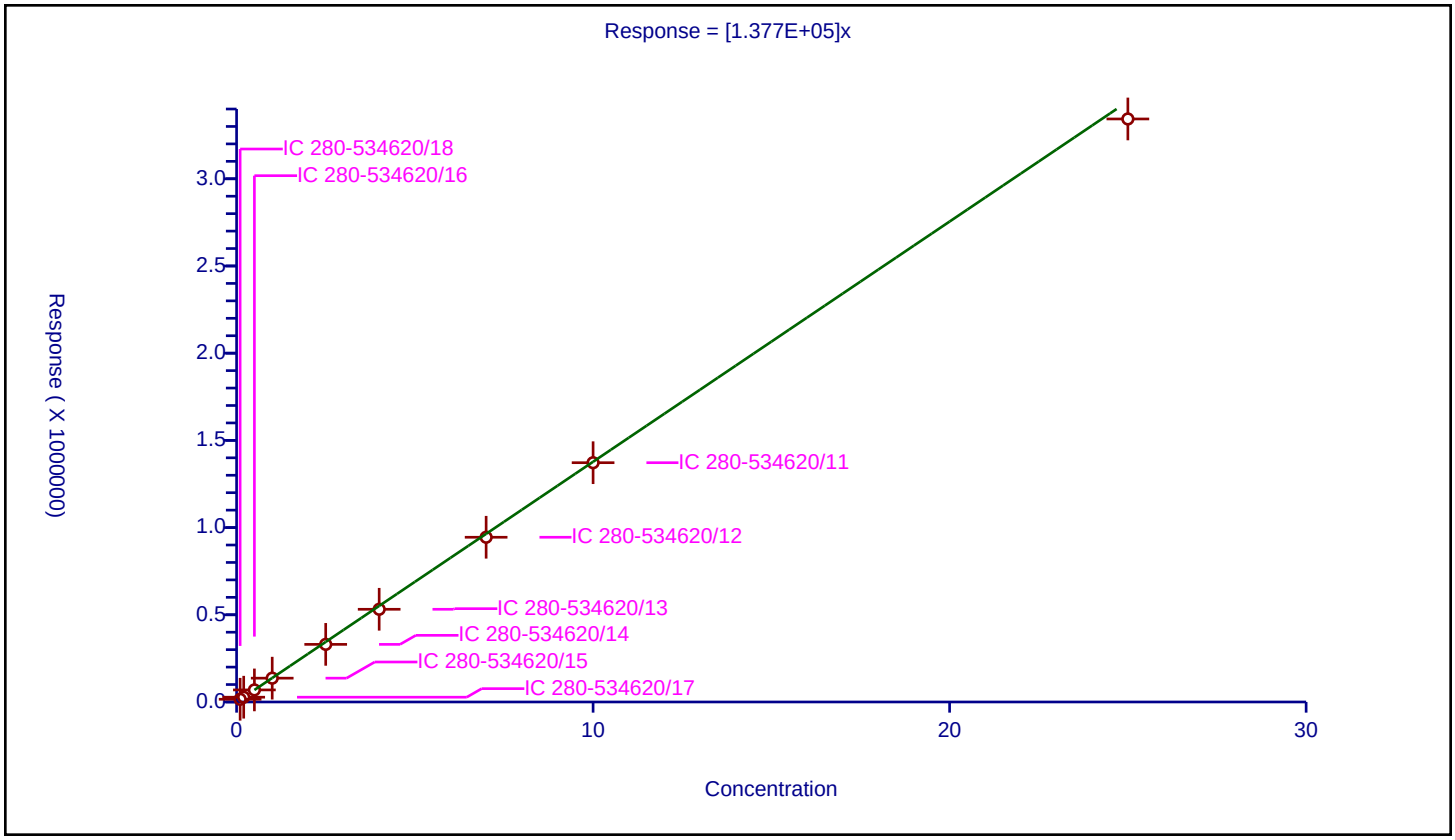
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.377E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 37200 |
| **Relative Standard Error:** | 5.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/18 | 0.1 | 15659.0 | | | 156590.0 | Y |
| 2 | IC 280-534620/17 | 0.2 | 27436.0 | | | 137180.0 | Y |
| 3 | IC 280-534620/16 | 0.5 | 69170.0 | | | 138340.0 | Y |
| 4 | IC 280-534620/15 | 1.0 | 136676.0 | | | 136676.0 | Y |
| 5 | IC 280-534620/14 | 2.5 | 330309.0 | | | 132123.6 | Y |
| 6 | IC 280-534620/13 | 4.0 | 531566.0 | | | 132891.5 | Y |
| 7 | IC 280-534620/12 | 7.0 | 944599.0 | | | 134942.714286 | Y |
| 8 | IC 280-534620/11 | 10.0 | 1371986.0 | | | 137198.6 | Y |
| 9 | IC 280-534620/10 | 25.0 | 3343027.0 | | | 133721.08 | Y |



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2021 00:45 Calibration End Date: 05/02/2021 04:51 Calibration ID: 53147

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/27 | 027-2201.D |
| Level 2 | IC 280-534620/26 | 026-2101.D |
| Level 3 | IC 280-534620/25 | 025-2001.D |
| Level 4 | IC 280-534620/24 | 024-1901.D |
| Level 5 | IC 280-534620/23 | 023-1801.D |
| Level 6 | IC 280-534620/22 | 022-1701.D |
| Level 7 | IC 280-534620/21 | 021-1601.D |
| Level 8 | IC 280-534620/20 | 020-1501.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 5.064 | 5.071 | 5.067 | 5.077 | 5.075 | 5.069 | 5.070 | 5.050 | | | 4.925 - 5.225 | 5.068 |
| DNX | 5.897 | 5.898 | 5.894 | 5.904 | 5.902 | 5.896 | 5.904 | 5.876 | | | 5.752 - 6.052 | 5.896 |
| MNX | 7.444 | 7.444 | 7.447 | 7.451 | 7.455 | 7.449 | 7.450 | 7.430 | | | 7.305 - 7.605 | 7.446 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2021 00:45 Calibration End Date: 05/02/2021 04:51 Calibration ID: 53147

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/27 | 027-2201.D |
| Level 2 | IC 280-534620/26 | 026-2101.D |
| Level 3 | IC 280-534620/25 | 025-2001.D |
| Level 4 | IC 280-534620/24 | 024-1901.D |
| Level 5 | IC 280-534620/23 | 023-1801.D |
| Level 6 | IC 280-534620/22 | 022-1701.D |
| Level 7 | IC 280-534620/21 | 021-1601.D |
| Level 8 | IC 280-534620/20 | 020-1501.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 | 410889<br>372502 | 384156<br>369461 | 382597<br>368210 | 348975<br>372358 | Ave | | 376143.531 | | | | 4.7 | | 20.0 | | | |
| DNX | 297353<br>284253 | 292168<br>282676 | 288032<br>280817 | 268675<br>284356 | Ave | | 284791.268 | | | | 3.0 | | 20.0 | | | |
| MNX | 288260<br>261292 | 277069<br>259317 | 266692<br>258167 | 246968<br>260974 | Ave | | 264842.562 | | | | 4.8 | | 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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1 Analy Batch No.: 534620

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2021 00:45 Calibration End Date: 05/02/2021 04:51 Calibration ID: 53147

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-534620/27 | 027-2201.D |
| Level 2 | IC 280-534620/26 | 026-2101.D |
| Level 3 | IC 280-534620/25 | 025-2001.D |
| Level 4 | IC 280-534620/24 | 024-1901.D |
| Level 5 | IC 280-534620/23 | 023-1801.D |
| Level 6 | IC 280-534620/22 | 022-1701.D |
| Level 7 | IC 280-534620/21 | 021-1601.D |
| Level 8 | IC 280-534620/20 | 020-1501.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 | 8226<br>258881 | 19227<br>368578 | 38298<br>931826 | 87331 | 149150 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 5953<br>198071 | 14623<br>281098 | 28832<br>711601 | 67236 | 113815 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 6728<br>211836 | 16167<br>301281 | 31123<br>761392 | 72053 | 121971 | 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_X5\20210501-101093.b\020-1501.D | | | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 02-May-2021 00:45:25 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 8 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:16 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.050 | 5.075 | -0.025 | 931826 | 2.50 | 2.48 | |
| 4 DNX | 1 | 5.876 | 5.902 | -0.026 | 711601 | 2.50 | 2.50 | |
| 7 MNX | 1 | 7.430 | 7.455 | -0.025 | 761392 | 2.92 | 2.87 | |

## Reagents:

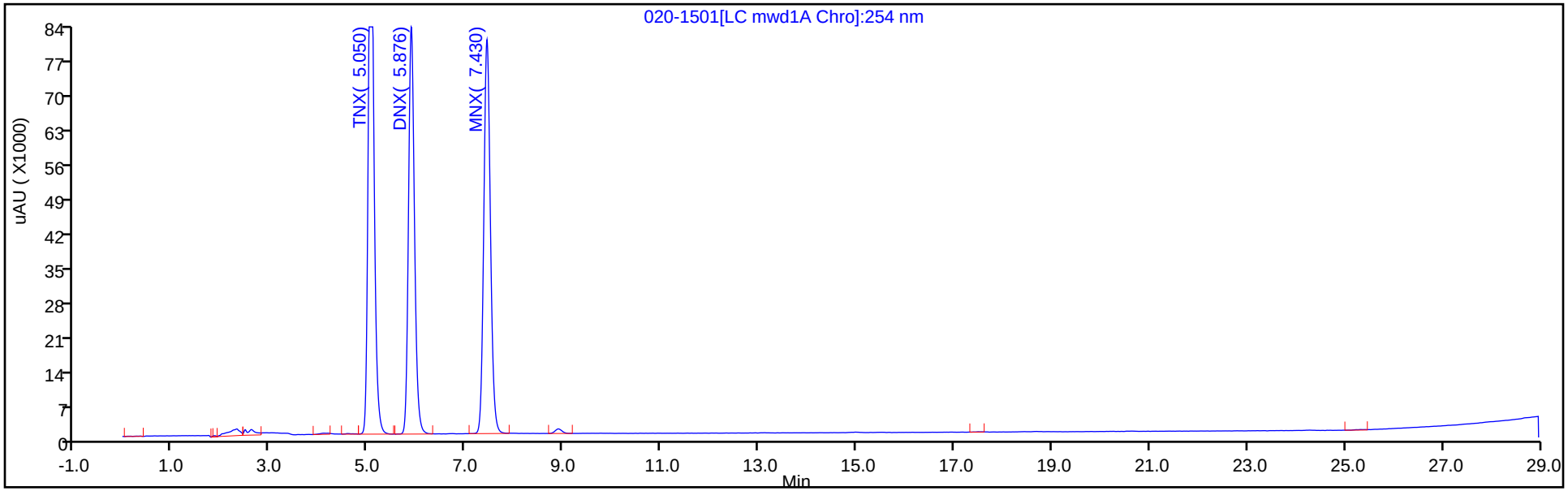
8330 DMT_00008 Amount Added: 125.00 Units: uL

Report Date: 04-May-2021 13:43:16 Chrom Revision: 2.3 08-Apr-2021 17:17:48

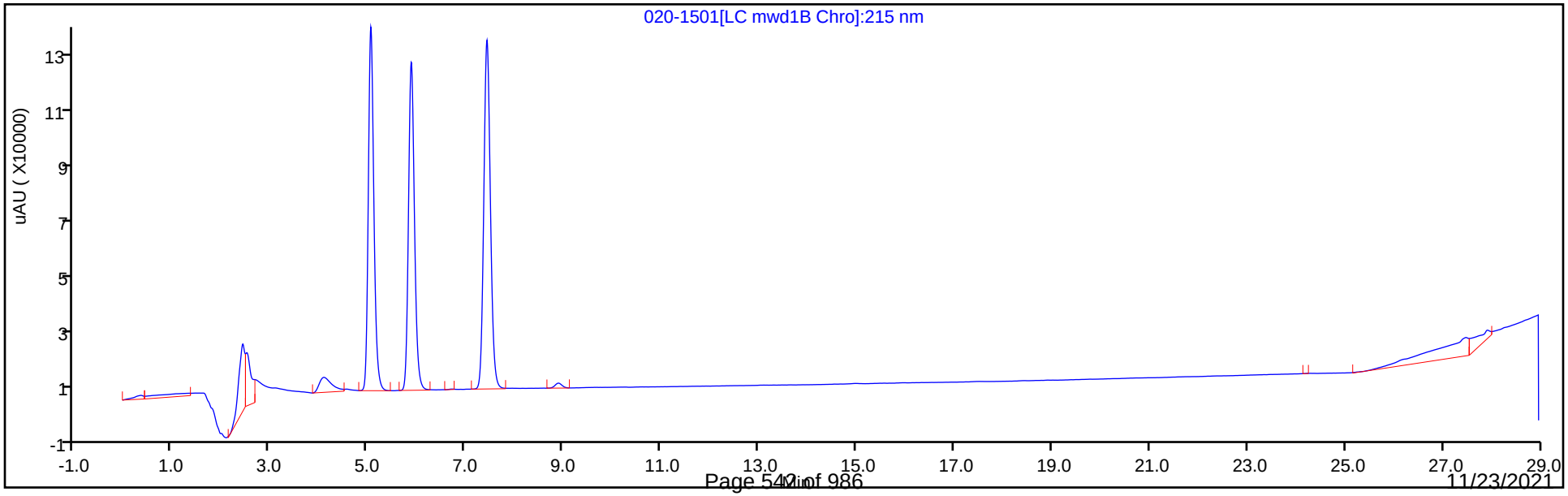
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\020-1501.D | | | | |
| Injection Date: | 02-May-2021 00:45:25 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\021-1601.D | | | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 02-May-2021 01:20:33 | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 7 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:17 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.070 | 5.075 | -0.005 | 368578 | 1.00 | 0.9799 | |
| 4 DNX | 1 | 5.904 | 5.902 | 0.002 | 281098 | 1.00 | 0.9870 | |
| 7 MNX | 1 | 7.450 | 7.455 | -0.005 | 301281 | 1.17 | 1.14 | |

## Reagents:

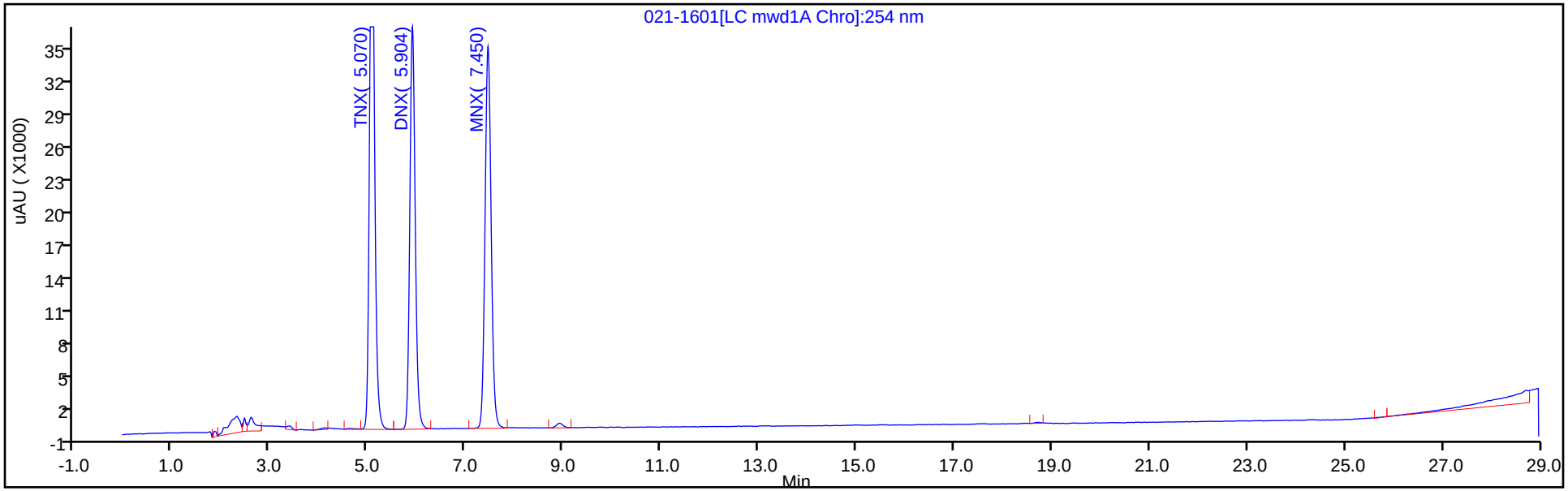
8330 DMT_00008 Amount Added: 50.00 Units: uL

Report Date: 04-May-2021 13:43:17 Chrom Revision: 2.3 08-Apr-2021 17:17:48

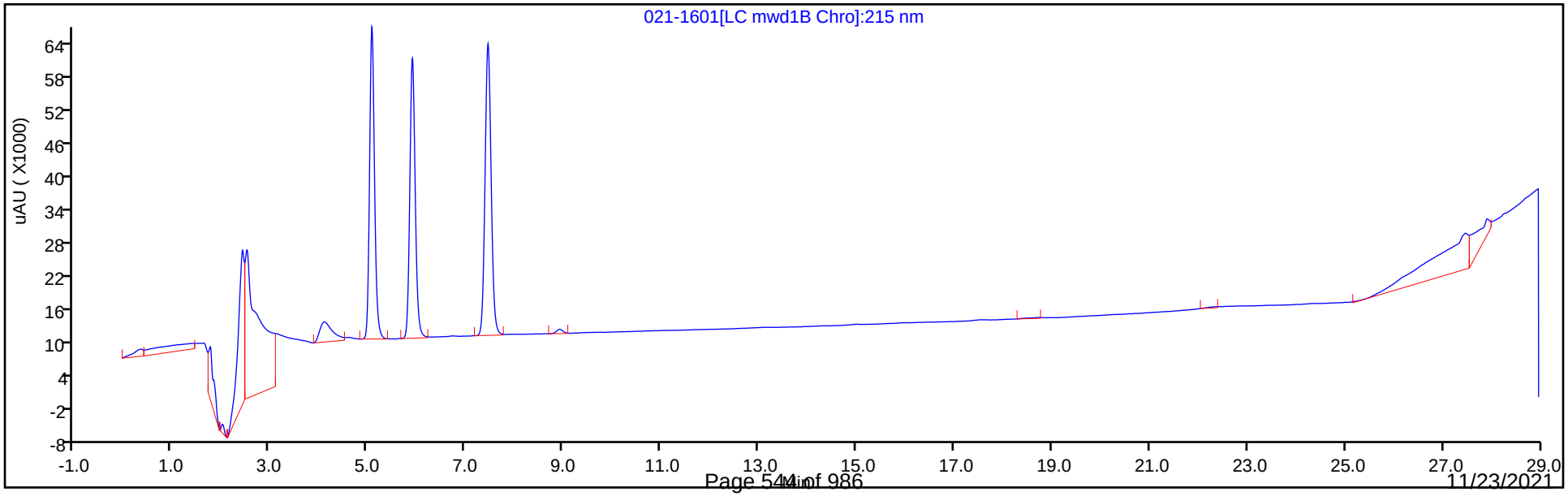
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\021-1601.D | | | | |
| Injection Date: | 02-May-2021 01:20:33 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\022-1701.D | | | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 02-May-2021 01:55:44 | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 6 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:17 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.069 | 5.075 | -0.006 | 258881 | 0.7007 | 0.6883 | |
| 4 DNX | 1 | 5.896 | 5.902 | -0.006 | 198071 | 0.7007 | 0.6955 | |
| 7 MNX | 1 | 7.449 | 7.455 | -0.006 | 211836 | 0.8169 | 0.7999 | |

## Reagents:

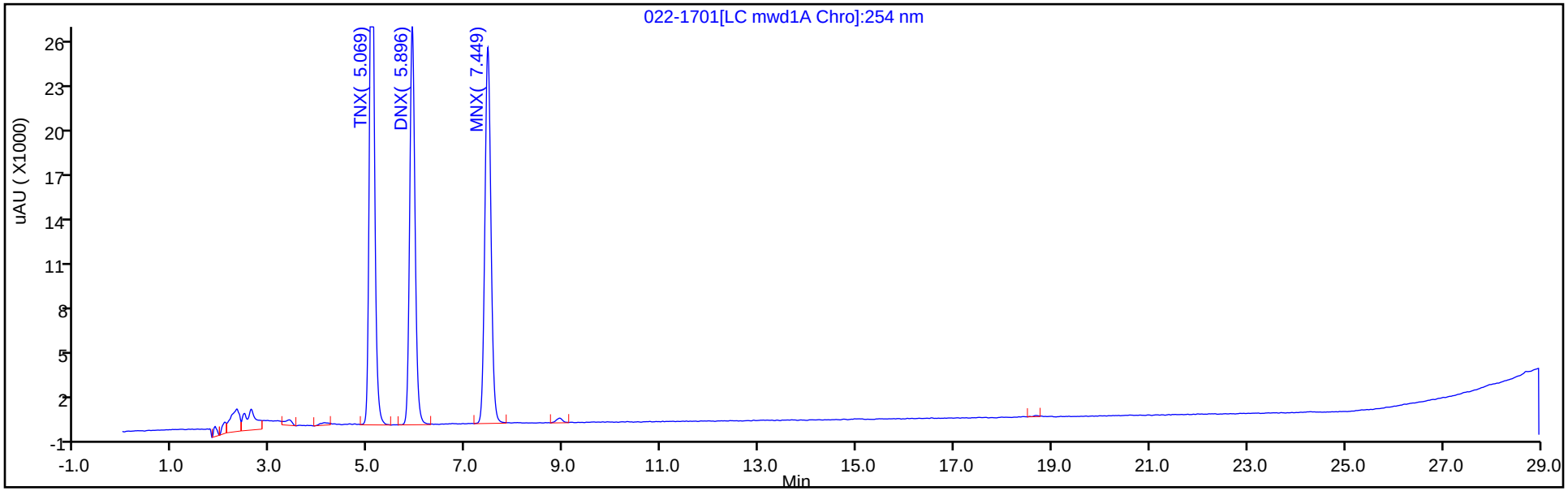
8330 DMT_00008 Amount Added: 35.00 Units: uL

Report Date: 04-May-2021 13:43:17 Chrom Revision: 2.3 08-Apr-2021 17:17:48

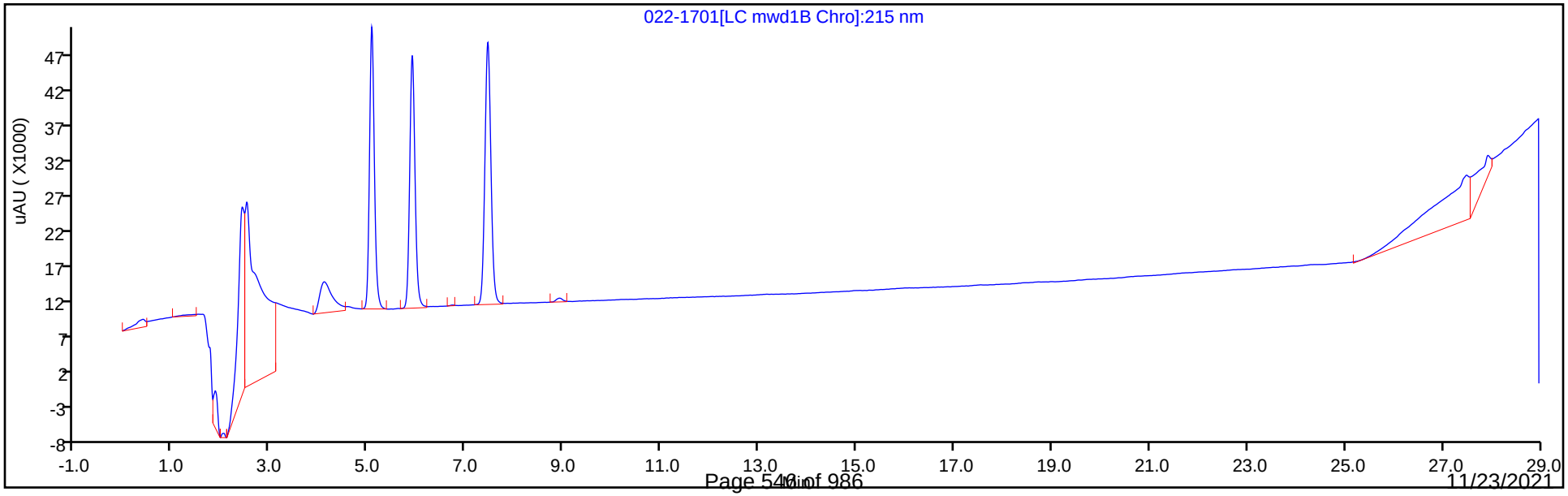
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\022-1701.D | | | | |
| Injection Date: | 02-May-2021 01:55:44 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\023-1801.D | | | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 02-May-2021 02:30:46 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 5 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:18 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.075 | 5.075 | 0.000 | 149150 | 0.4004 | 0.3965 | |
| 4 DNX | 1 | 5.902 | 5.902 | 0.000 | 113815 | 0.4004 | 0.3996 | |
| 7 MNX | 1 | 7.455 | 7.455 | 0.000 | 121971 | 0.4668 | 0.4605 | |

## Reagents:

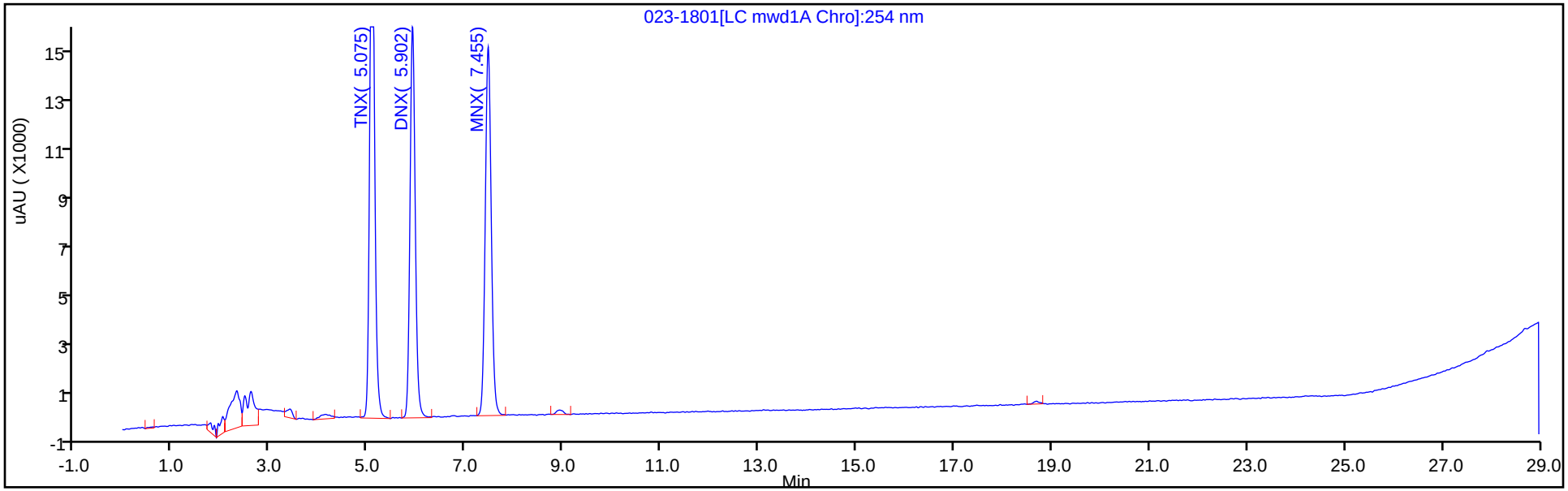
8330 DMT_00008 Amount Added: 20.00 Units: uL

Report Date: 04-May-2021 13:43:18 Chrom Revision: 2.3 08-Apr-2021 17:17:48

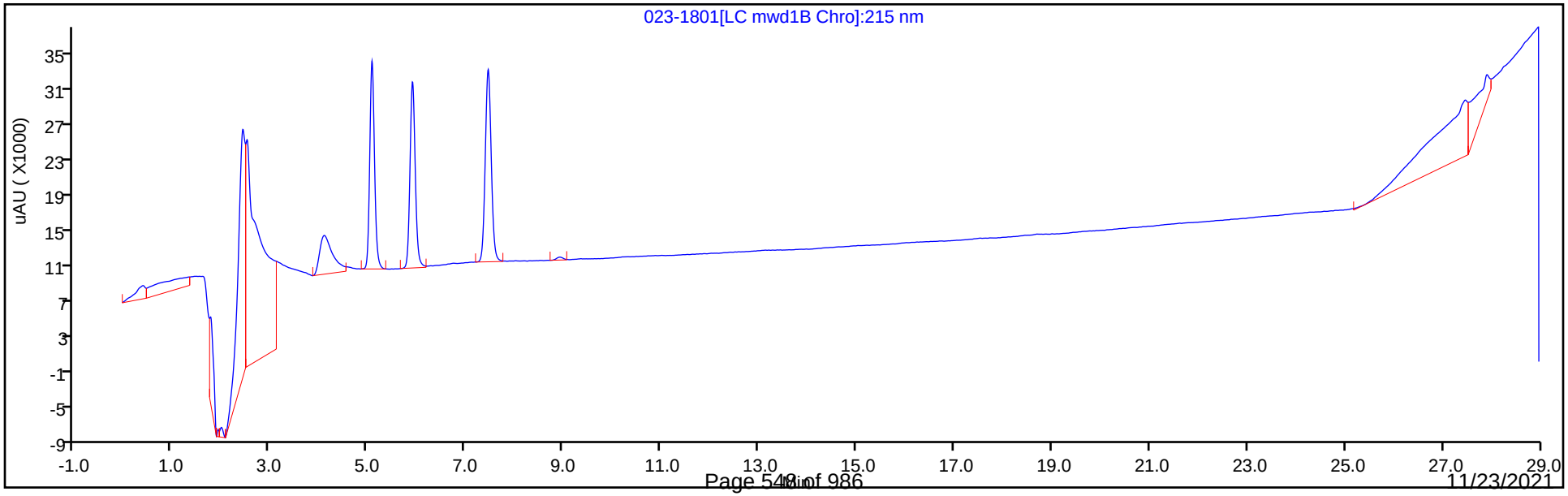
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\023-1801.D | | | | |
| Injection Date: | 02-May-2021 02:30:46 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\024-1901.D | | | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 02-May-2021 03:05:50 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 4 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:18 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.077 | 5.075 | 0.002 | 87331 | 0.2503 | 0.2322 | |
| 4 DNX | 1 | 5.904 | 5.902 | 0.002 | 67236 | 0.2503 | 0.2361 | |
| 7 MNX | 1 | 7.451 | 7.455 | -0.004 | 72053 | 0.2918 | 0.2721 | |

## Reagents:

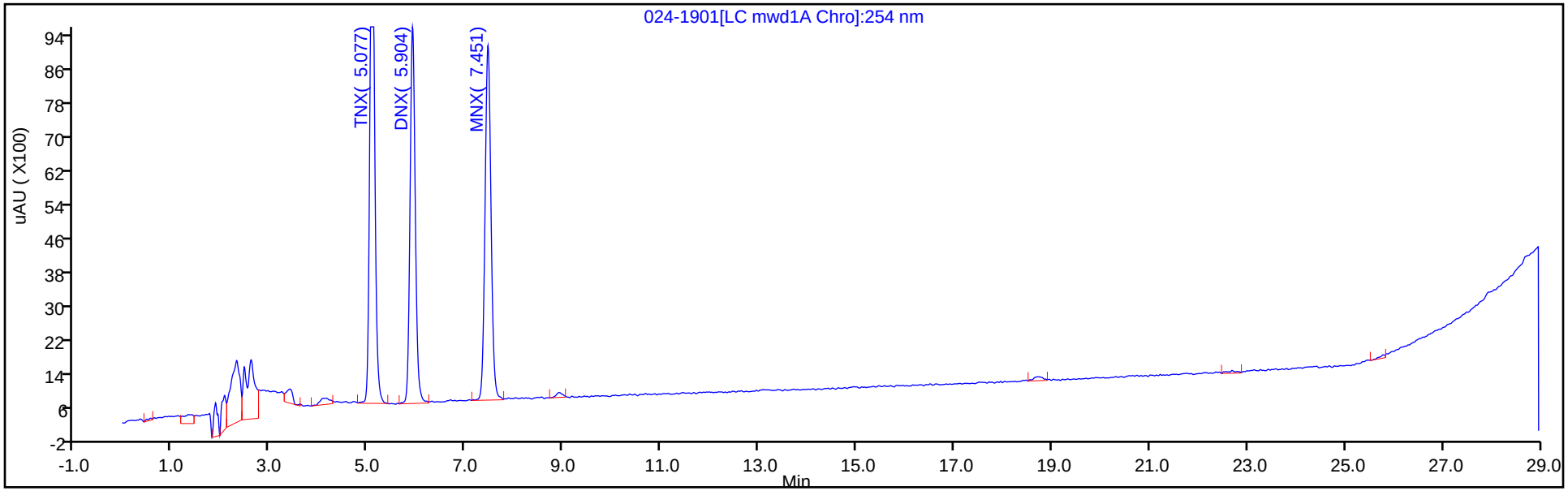
8330 DMT_00008 Amount Added: 12.50 Units: uL

Report Date: 04-May-2021 13:43:18 Chrom Revision: 2.3 08-Apr-2021 17:17:48

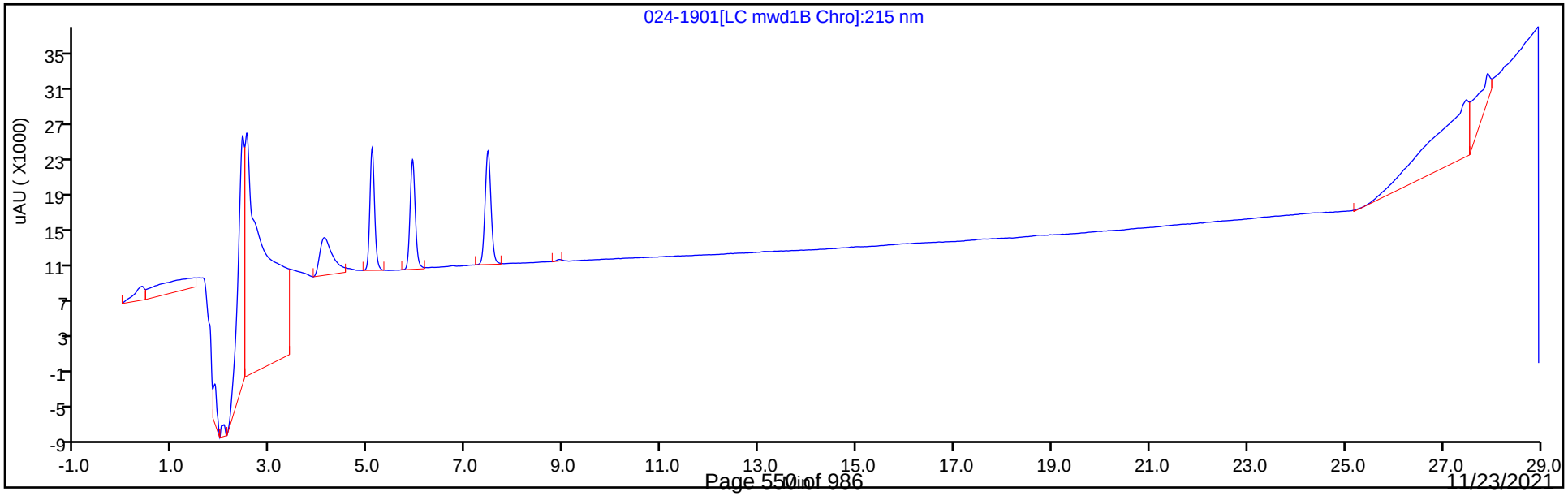
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\024-1901.D | | | | |
| Injection Date: | 02-May-2021 03:05:50 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\025-2001.D | | | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 02-May-2021 03:41:00 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 3 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:19 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.067 | 5.075 | -0.008 | 38298 | 0.1001 | 0.1018 | |
| 4 DNX | 1 | 5.894 | 5.902 | -0.008 | 28832 | 0.1001 | 0.1012 | |
| 7 MNX | 1 | 7.447 | 7.455 | -0.008 | 31123 | 0.1167 | 0.1175 | |

## Reagents:

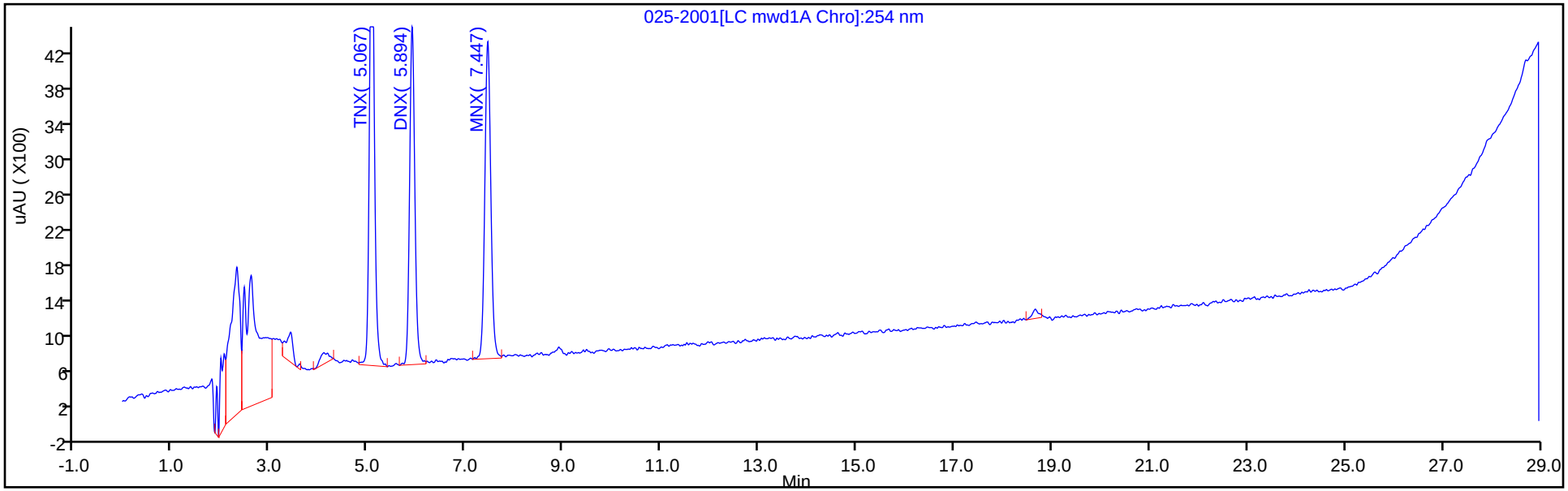
8330 DMT_00008 Amount Added: 5.00 Units: uL

Report Date: 04-May-2021 13:43:19 Chrom Revision: 2.3 08-Apr-2021 17:17:48

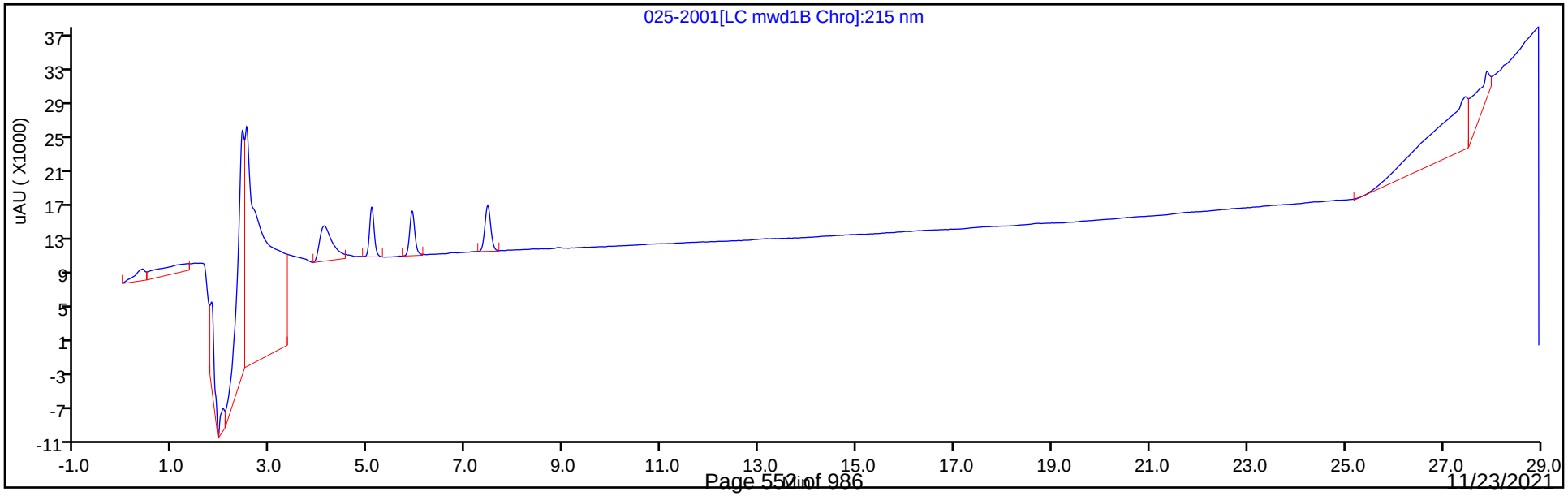
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\025-2001.D | | | | |
| Injection Date: | 02-May-2021 03:41:00 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\026-2101.D | | | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 02-May-2021 04:16:02 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 2 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:19 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.071 | 5.075 | -0.004 | 19227 | 0.0501 | 0.0511 | |
| 4 DNX | 1 | 5.898 | 5.902 | -0.004 | 14623 | 0.0501 | 0.0513 | |
| 7 MNX | 1 | 7.444 | 7.455 | -0.011 | 16167 | 0.0584 | 0.0610 | |

## Reagents:

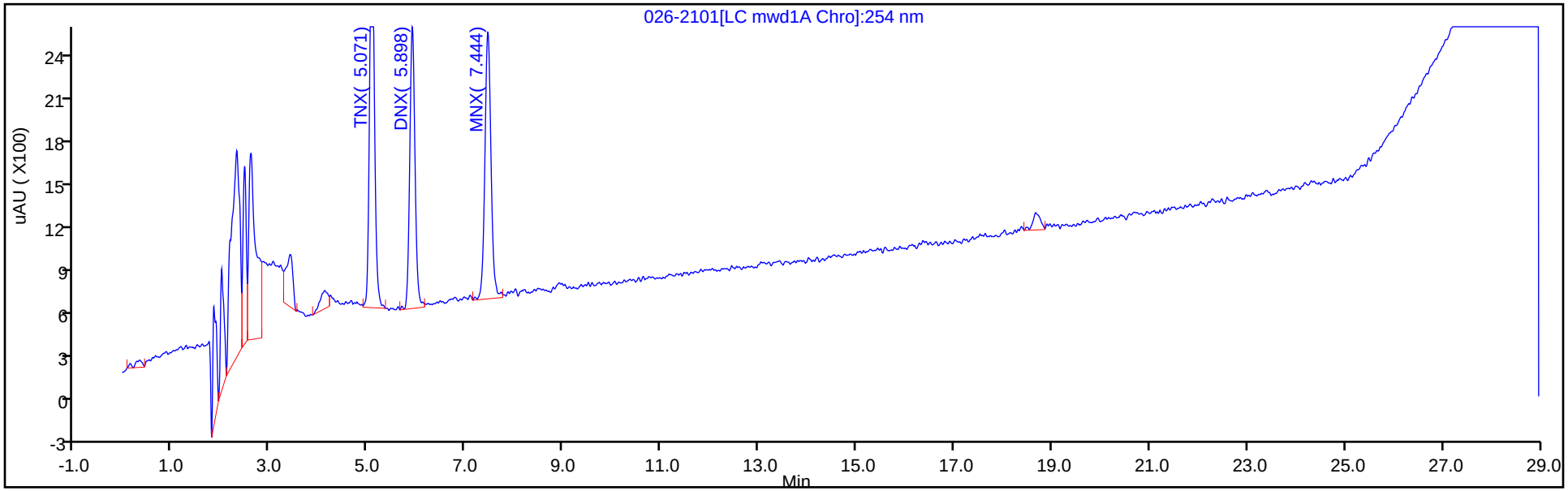
8330 DMT_00008 Amount Added: 2.50 Units: uL

Report Date: 04-May-2021 13:43:19 Chrom Revision: 2.3 08-Apr-2021 17:17:48

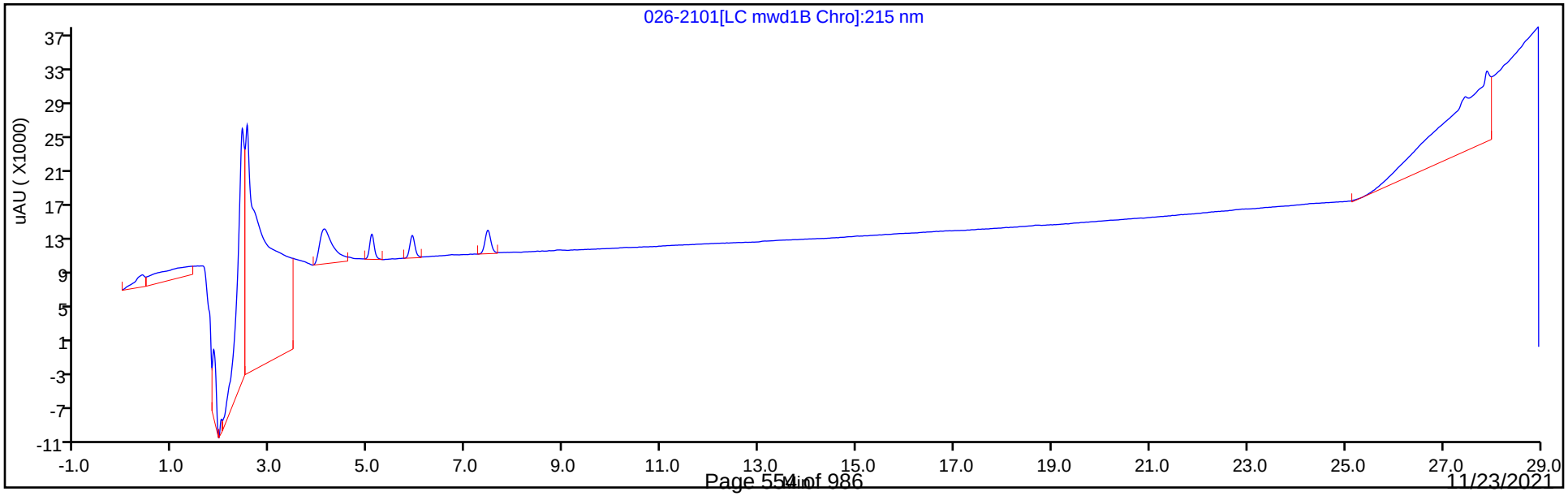
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\026-2101.D | | | | |
| Injection Date: | 02-May-2021 04:16:02 | 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 TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 02-May-2021 04:51:05 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 1 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:43:20 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.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 | 5.064 | 5.075 | -0.011 | 8226 | 0.0200 | 0.0219 | |
| 4 DNX | 1 | 5.897 | 5.902 | -0.005 | 5953 | 0.0200 | 0.0209 | |
| 7 MNX | 1 | 7.444 | 7.455 | -0.011 | 6728 | 0.0233 | 0.0254 | |

## Reagents:

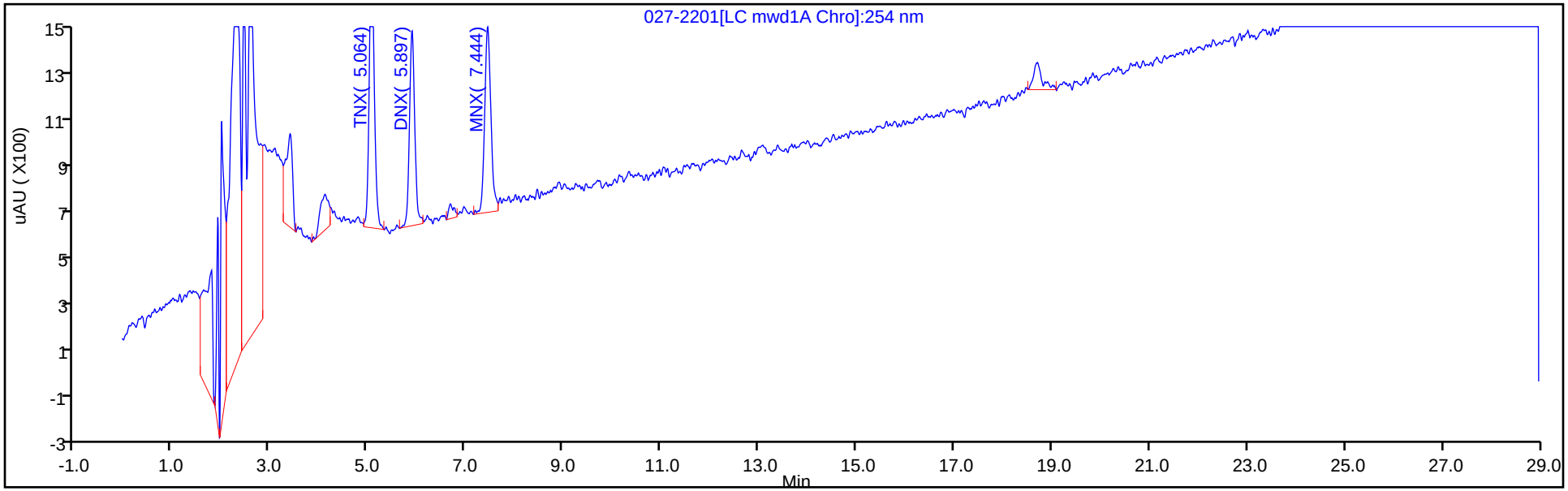
8330 DMT_00008 Amount Added: 1.00 Units: uL

Report Date: 04-May-2021 13:43:20 Chrom Revision: 2.3 08-Apr-2021 17:17:48

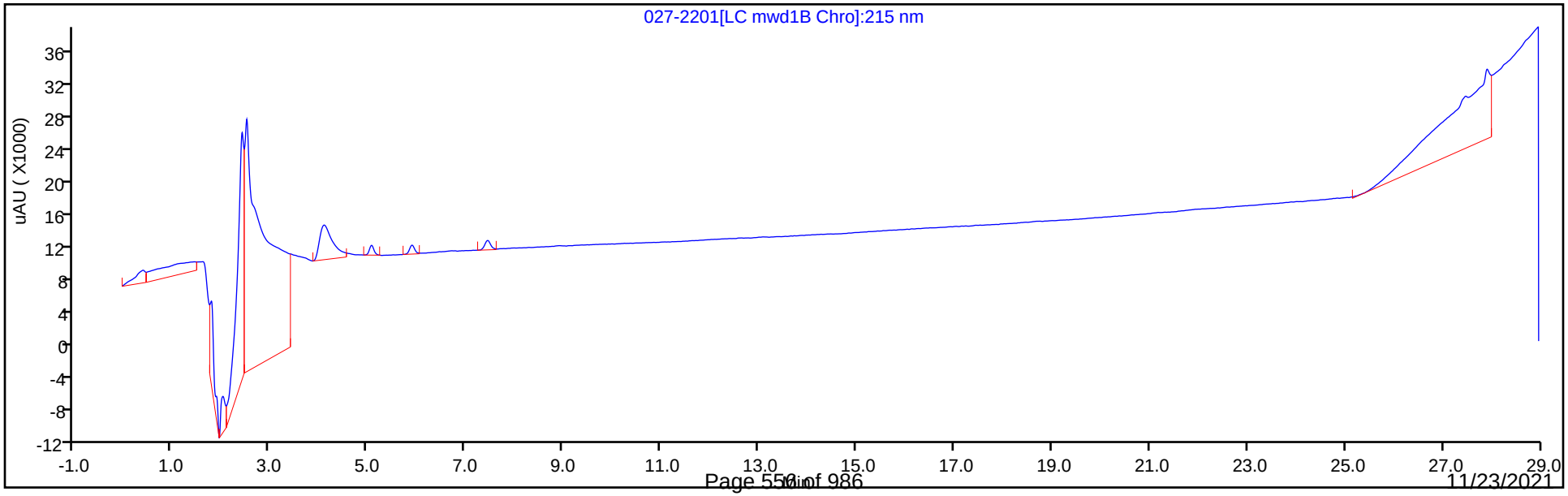
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Injection Date: | 02-May-2021 04:51:05 | 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 |

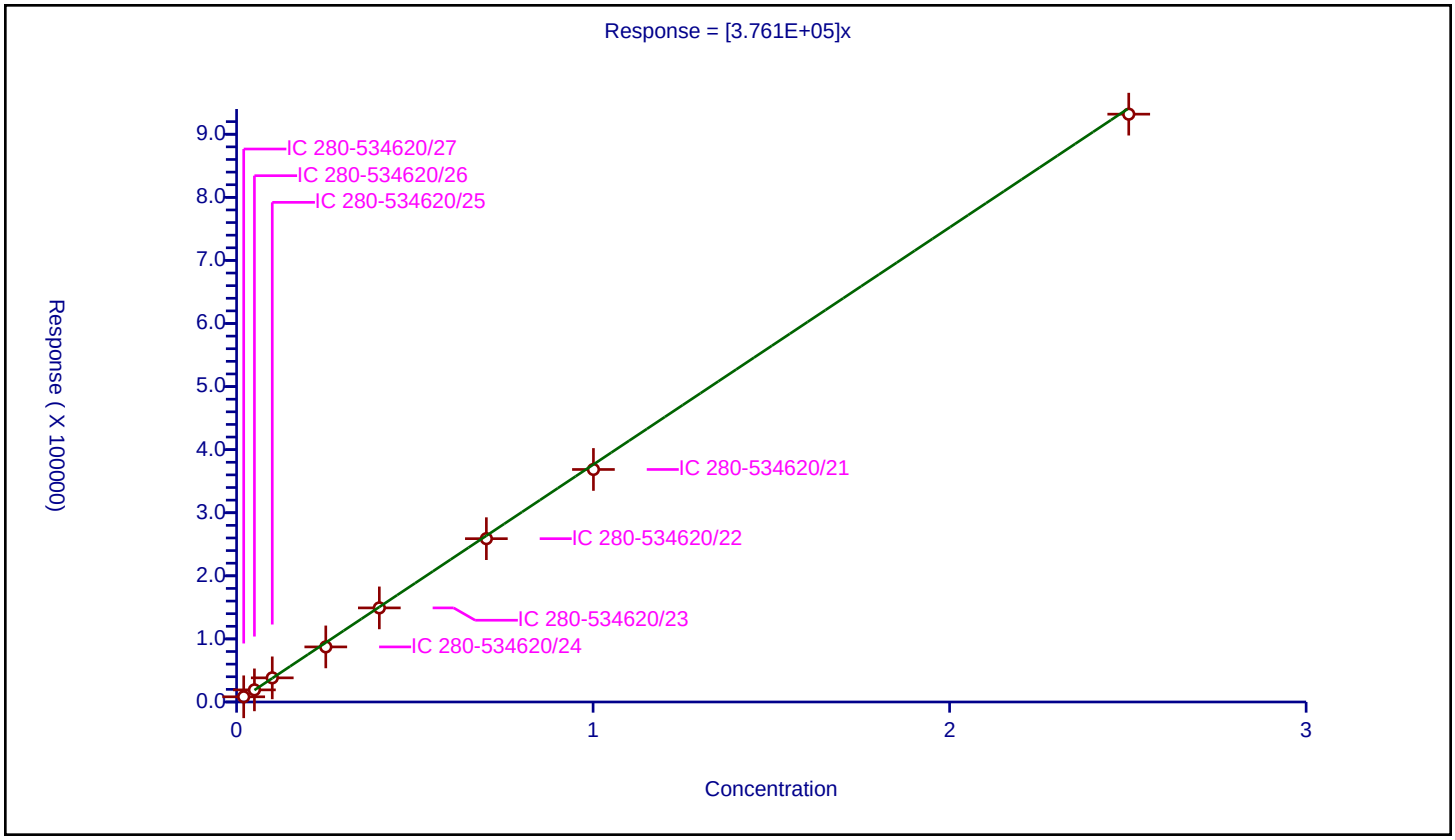
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.761E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5660 |
| **Relative Standard Error:** | 4.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Response | IS Amount | IS Response | RF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 280-534620/27 | 0.02002 | 8226.0 | | | 410889.110889 | Y |
| 2 | IC 280-534620/26 | 0.05005 | 19227.0 | | | 384155.844156 | Y |
| 3 | IC 280-534620/25 | 0.1001 | 38298.0 | | | 382597.402597 | Y |
| 4 | IC 280-534620/24 | 0.25025 | 87331.0 | | | 348975.024975 | Y |
| 5 | IC 280-534620/23 | 0.4004 | 149150.0 | | | 372502.497502 | Y |
| 6 | IC 280-534620/22 | 0.7007 | 258881.0 | | | 369460.539461 | Y |
| 7 | IC 280-534620/21 | 1.001 | 368578.0 | | | 368209.79021 | Y |
| 8 | IC 280-534620/20 | 2.5025 | 931826.0 | | | 372358.041958 | Y |



## Calibration / DNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

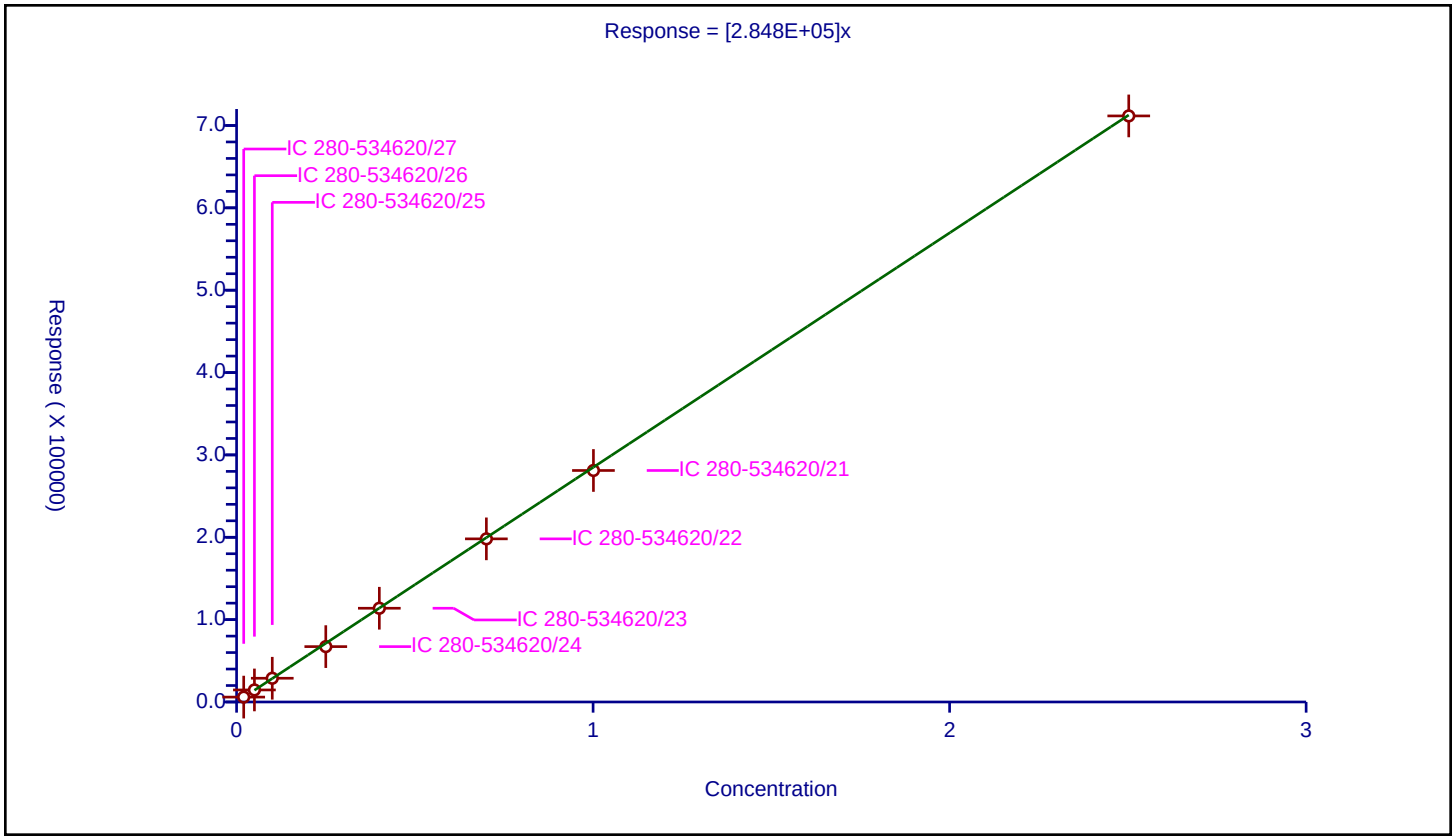
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.848E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2260 |
| **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 280-534620/27 | 0.02002 | 5953.0 | | | 297352.647353 | Y |
| 2 | IC 280-534620/26 | 0.05005 | 14623.0 | | | 292167.832168 | Y |
| 3 | IC 280-534620/25 | 0.1001 | 28832.0 | | | 288031.968032 | Y |
| 4 | IC 280-534620/24 | 0.25025 | 67236.0 | | | 268675.324675 | Y |
| 5 | IC 280-534620/23 | 0.4004 | 113815.0 | | | 284253.246753 | Y |
| 6 | IC 280-534620/22 | 0.7007 | 198071.0 | | | 282675.895533 | Y |
| 7 | IC 280-534620/21 | 1.001 | 281098.0 | | | 280817.182817 | Y |
| 8 | IC 280-534620/20 | 2.5025 | 711601.0 | | | 284356.043956 | Y |



## Calibration / MNX

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ESTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

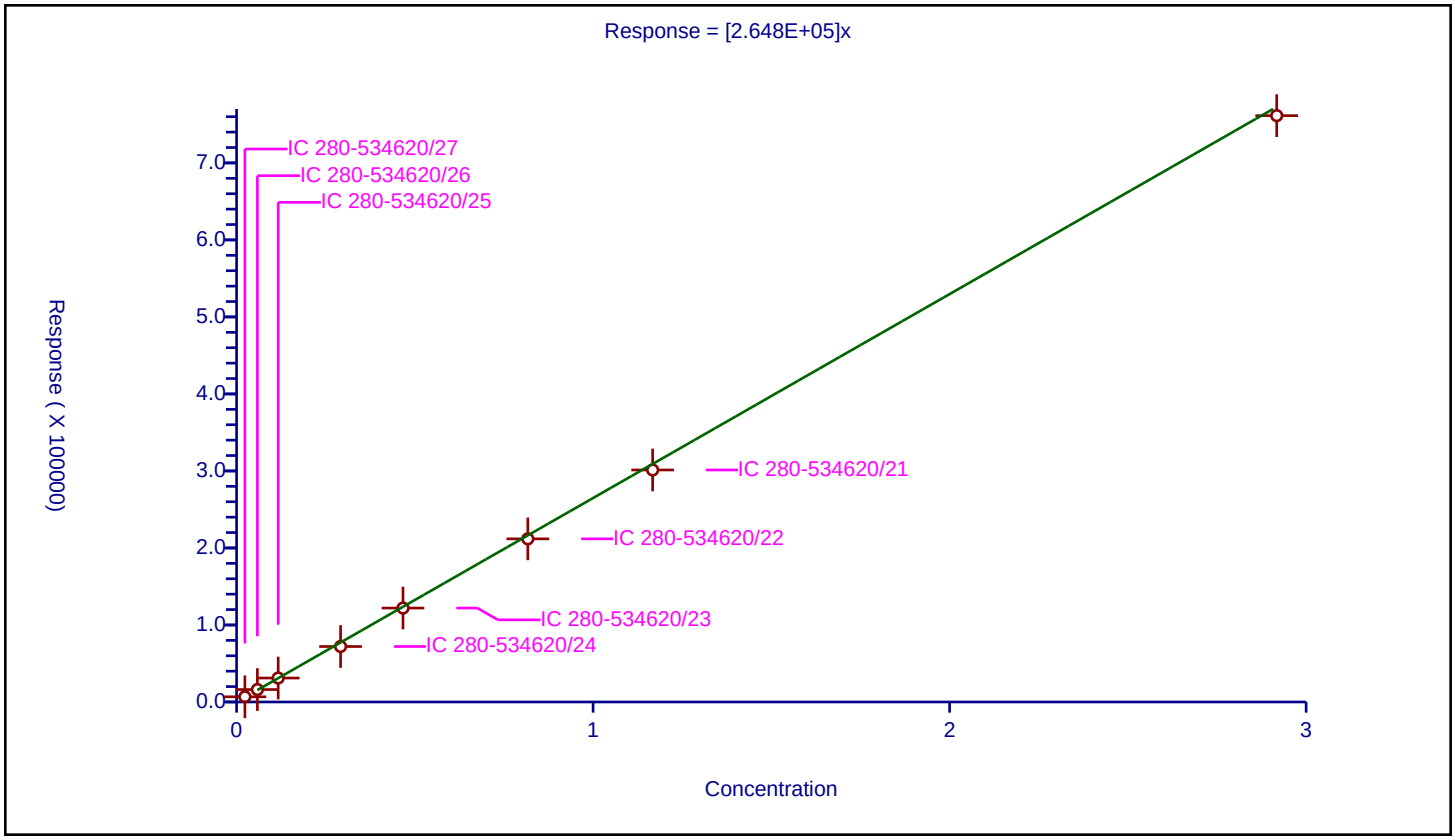
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.648E+05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 5850 |
| **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 280-534620/27 | 0.02334 | 6728.0 | | | 288260.497001 | Y |
| 2 | IC 280-534620/26 | 0.05835 | 16167.0 | | | 277069.40874 | Y |
| 3 | IC 280-534620/25 | 0.1167 | 31123.0 | | | 266692.373608 | Y |
| 4 | IC 280-534620/24 | 0.29175 | 72053.0 | | | 246968.294773 | Y |
| 5 | IC 280-534620/23 | 0.4668 | 121971.0 | | | 261291.773779 | Y |
| 6 | IC 280-534620/22 | 0.8169 | 211836.0 | | | 259316.929857 | Y |
| 7 | IC 280-534620/21 | 1.167 | 301281.0 | | | 258167.095116 | Y |
| 8 | IC 280-534620/20 | 2.9175 | 761392.0 | | | 260974.12168 | Y |



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-527768/37  Calibration Date: 03/03/2021 02:53

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 03020037.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 185806 | 197668 | | 532 | 501 | 6.4 | 15.0 |
| DNX | Ave | 142119 | 151812 | | 535 | 501 | 6.8 | 15.0 |
| MNX | Ave | 130340 | 138202 | | 619 | 584 | 6.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-527768/37  Calibration Date: 03/03/2021 02:53

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 03020037.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.52 | 6.42 | 6.62 |
| DNX | 6.83 | 6.73 | 6.93 |
| MNX | 7.24 | 7.08 | 7.38 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020037.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 03-Mar-2021 02:53:28 | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0099486-037 | | | | |
| Operator ID: | | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 03-Mar-2021 13:36:22 | Calib Date: | 03-Mar-2021 02:30:22 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20210302-99486.b\03020036.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1629 | | | | |

First Level Reviewer: zhangji Date: 03-Mar-2021 13:21:26

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.523 | 6.518 | 0.005 | 98933 | 0.5005 | 0.5325 | M |
| 5 DNX | 1 | 6.830 | 6.832 | -0.002 | 75982 | 0.5005 | 0.5346 | M |
| 6 MNX | 1 | 7.237 | 7.232 | 0.005 | 80641 | 0.5835 | 0.6187 | M |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

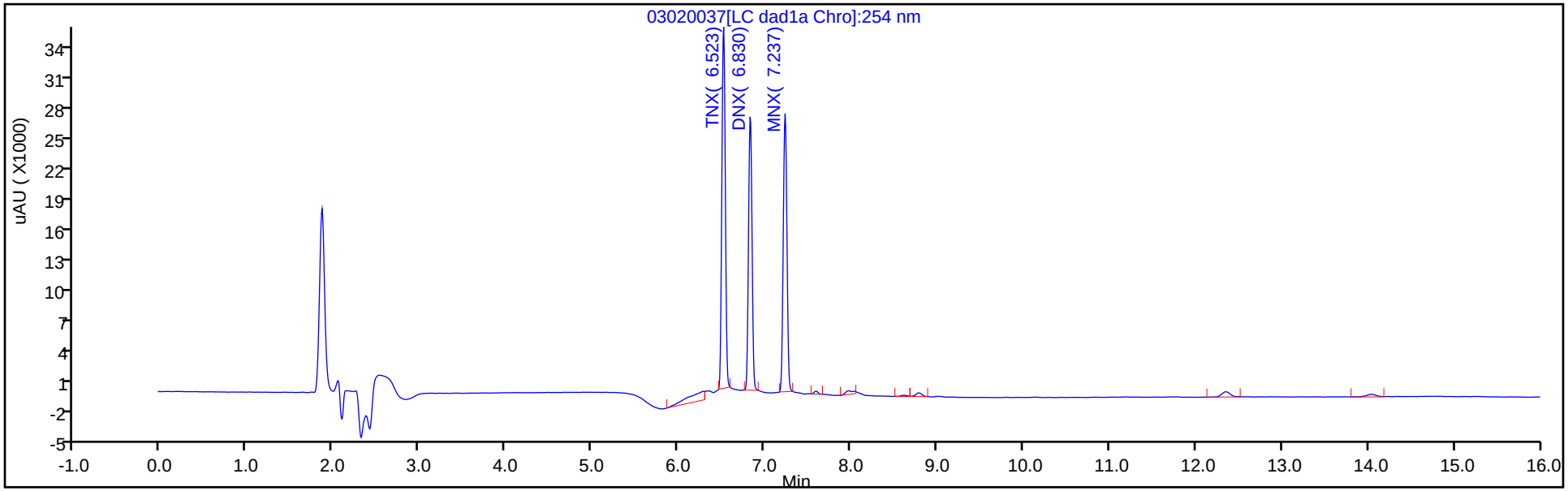
8330_OP_DMT_00009 Amount Added: 50.00 Units: uL

Report Date: 03-Mar-2021 13:36:35 Chrom Revision: 2.3 05-Feb-2021 00:13:28

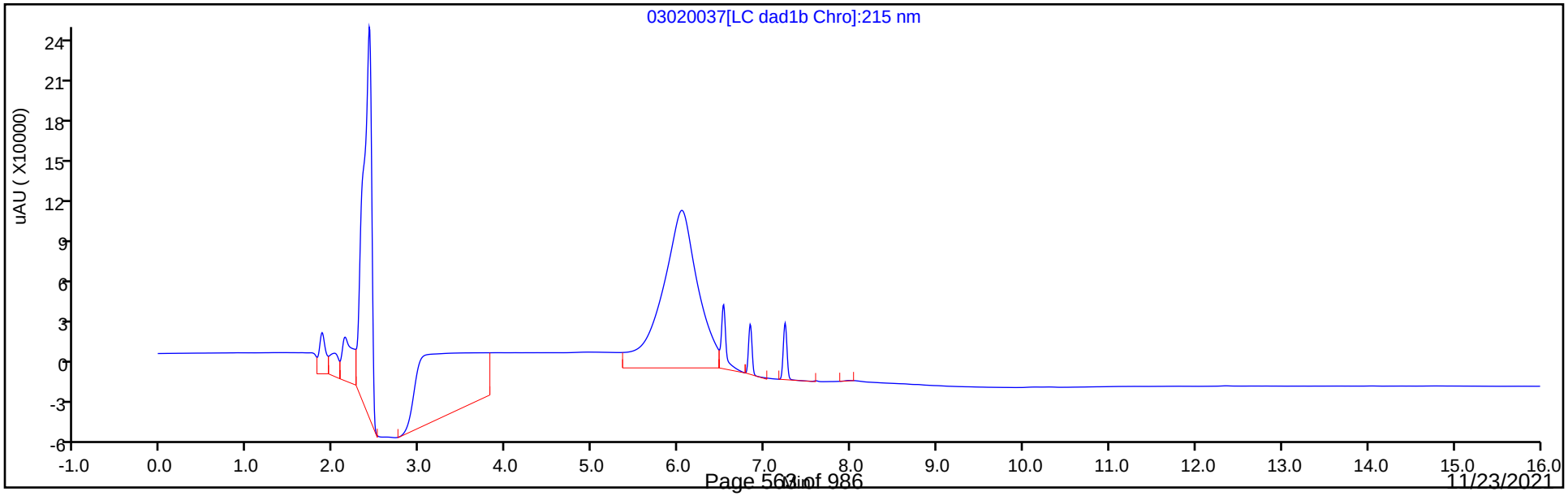
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020037.d | | | | |
| Injection Date: | 03-Mar-2021 02:53:28 | Instrument ID: | CHHPLC_X3 | Operator ID: | |
| Lims ID: | ICV DMT | | | 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

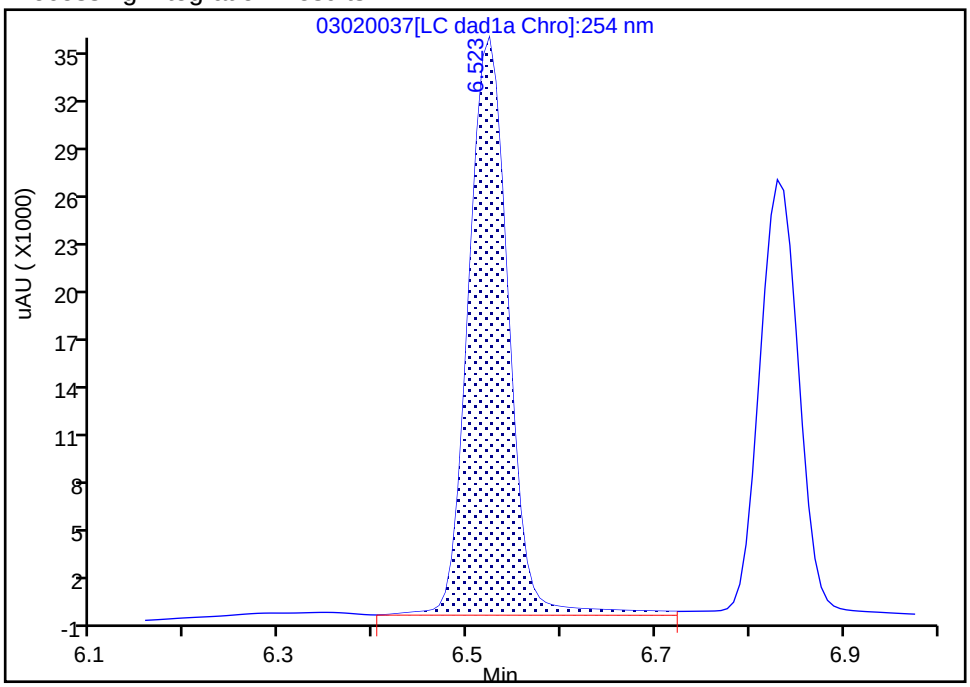
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020037.d | | | | |
| Injection Date: | 03-Mar-2021 02:53:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 37 | Worklist 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

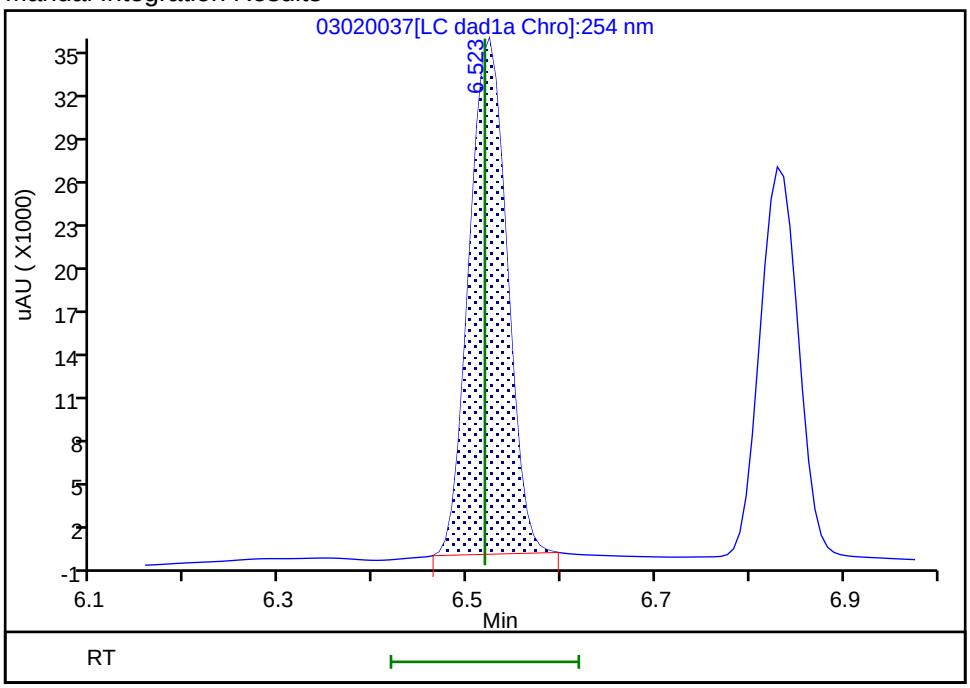
Processing Integration Results

RT: 6.52
Area: 105520
Amount: 0.567904
Amount Units: ug/mL




Manual Integration Results

RT: 6.52
Area: 98933
Amount: 0.532453
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:21:12
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

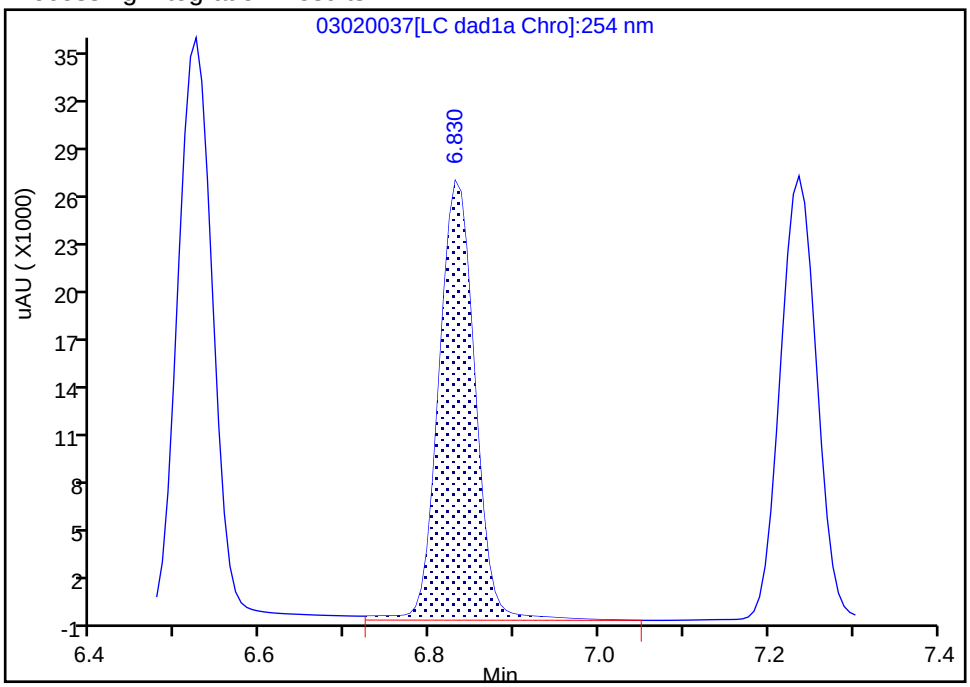
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020037.d | | | | |
| Injection Date: | 03-Mar-2021 02:53:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 37 | Worklist 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

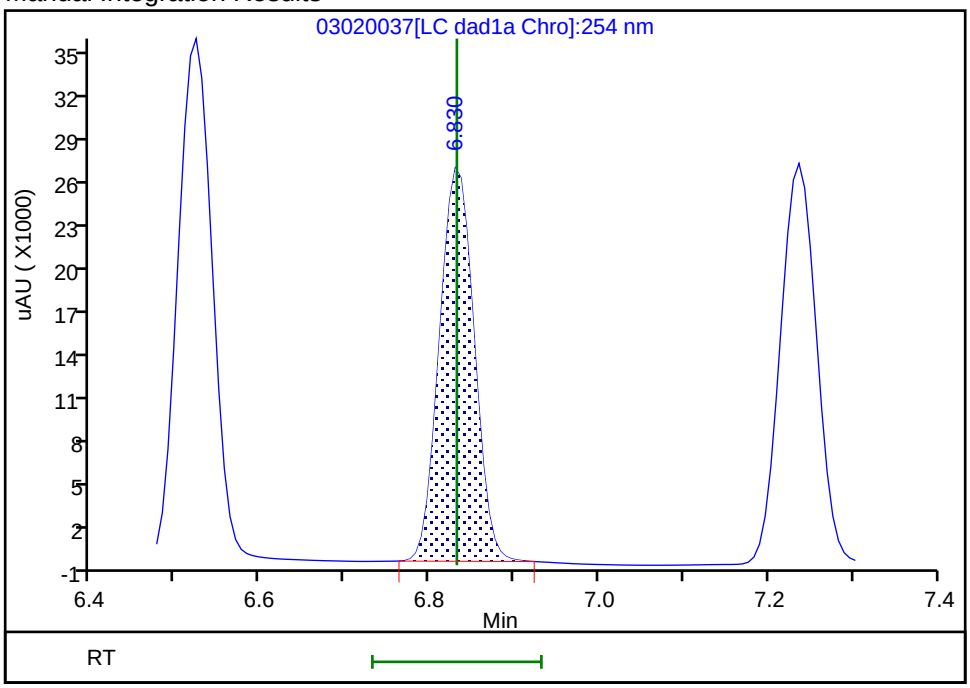
Processing Integration Results

RT: 6.83
Area: 79674
Amount: 0.560613
Amount Units: ug/mL




Manual Integration Results

RT: 6.83
Area: 75982
Amount: 0.534635
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:21:15
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

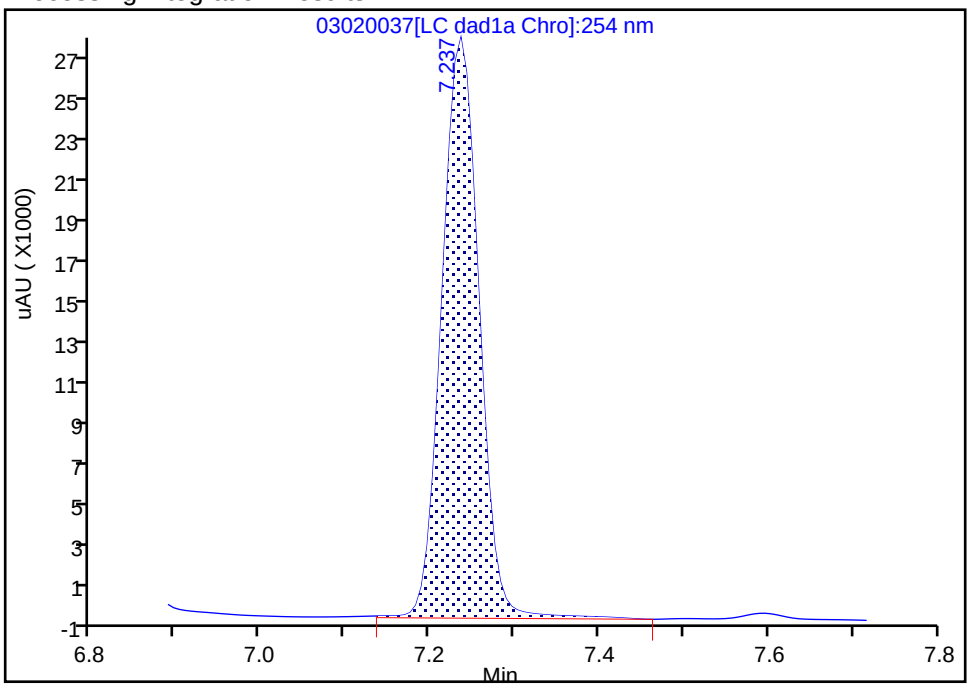
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210302-99486.b\03020037.d | | | | |
| Injection Date: | 03-Mar-2021 02:53:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 37 | Worklist 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 MNX, CAS: 5755-27-1

Signal: 1

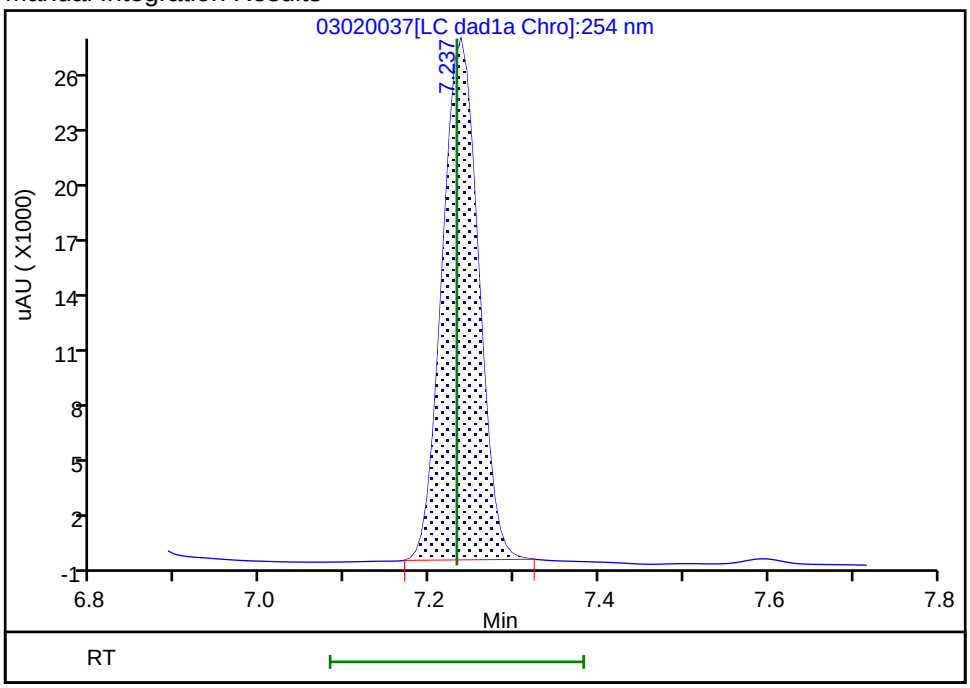
Processing Integration Results

RT: 7.24
Area: 83346
Amount: 0.639449
Amount Units: ug/mL




Manual Integration Results

RT: 7.24
Area: 80641
Amount: 0.618696
Amount Units: ug/mL




Reviewer: zhangji, 03-Mar-2021 13:21:25
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534622/20  Calibration Date: 05/01/2021 21:27

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 020-1401.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 84421 | 82460 | | 488 | 500 | -2.3 | 15.0 |
| RDX | Ave | 106261 | 102780 | | 484 | 500 | -3.3 | 15.0 |
| Picric acid | Ave | 82721 | 86056 | | 520 | 500 | 4.0 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 220317 | 224390 | | 509 | 500 | 1.8 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 296329 | 300634 | | 507 | 500 | 1.5 | 15.0 |
| Nitrobenzene | Ave | 195286 | 196150 | | 502 | 500 | 0.4 | 15.0 |
| Tetryl | Ave | 172420 | 171402 | | 497 | 500 | -0.6 | 15.0 |
| Nitroglycerin | Lin2 | | 67022 | | 5160 | 5000 | 3.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 206038 | 210436 | | 511 | 500 | 2.1 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 152768 | 147828 | | 484 | 500 | -3.2 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 206926 | 203056 | | 491 | 500 | -1.9 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143079 | 144928 | | 506 | 500 | 1.3 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 287012 | 279908 | | 488 | 500 | -2.5 | 15.0 |
| 2-Nitrotoluene | Ave | 128392 | 125290 | | 488 | 500 | -2.4 | 15.0 |
| 4-Nitrotoluene | Ave | 111913 | 108216 | | 483 | 500 | -3.3 | 15.0 |
| 3-Nitrotoluene | Ave | 142246 | 137810 | | 484 | 500 | -3.1 | 15.0 |
| PETN | Ave | 74779 | 76182 | | 5090 | 5000 | 1.9 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 128217 | 134842 | | 526 | 500 | 5.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534622/20  Calibration Date: 05/01/2021 21:27

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 020-1401.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.63 | 6.48 | 6.78 |
| RDX | 7.59 | 7.45 | 7.75 |
| Picric acid | 7.93 | 7.81 | 8.11 |
| 1,3,5-Trinitrobenzene | 8.65 | 8.50 | 8.80 |
| 1,3-Dinitrobenzene | 9.27 | 9.13 | 9.43 |
| Nitrobenzene | 9.66 | 9.51 | 9.81 |
| Tetryl | 9.97 | 9.83 | 10.13 |
| Nitroglycerin | 10.43 | 10.29 | 10.59 |
| 2,4,6-Trinitrotoluene | 10.90 | 10.80 | 11.00 |
| 4-Amino-2,6-dinitrotoluene | 11.10 | 11.01 | 11.21 |
| 2-Amino-4,6-dinitrotoluene | 11.36 | 11.27 | 11.47 |
| 2,6-Dinitrotoluene | 11.53 | 11.43 | 11.63 |
| 2,4-Dinitrotoluene | 11.70 | 11.60 | 11.80 |
| 2-Nitrotoluene | 12.57 | 12.43 | 12.73 |
| 4-Nitrotoluene | 13.01 | 12.86 | 13.16 |
| 3-Nitrotoluene | 13.59 | 13.45 | 13.75 |
| PETN | 14.68 | 14.53 | 14.83 |
| 1,2-Dinitrobenzene | 8.52 | 8.38 | 8.68 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\020-1401.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 01-May-2021 21:27:37 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:29:14 Calib Date: 01-May-2021 21:04:39
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20210501-101094.b\019-1301.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:29:14

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.627 | 6.631 | -0.004 | 41230 | 0.5000 | 0.4884 | M |
| 7 RDX | 1 | 7.593 | 7.598 | -0.005 | 51390 | 0.5000 | 0.4836 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.933 | 7.958 | -0.025 | 43028 | 0.5000 | 0.5202 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.520 | 8.525 | -0.005 | 67421 | 0.5000 | 0.5258 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.647 | 8.651 | -0.004 | 112195 | 0.5000 | 0.5092 | |
| 11 1,3-Dinitrobenzene | 1 | 9.273 | 9.278 | -0.005 | 150317 | 0.5000 | 0.5073 | |
| 12 Nitrobenzene | 1 | 9.660 | 9.664 | -0.004 | 98075 | 0.5000 | 0.5022 | |
| 14 Tetryl | 1 | 9.973 | 9.978 | -0.005 | 85701 | 0.5000 | 0.4970 | |
| 15 Nitroglycerin | 2 | 10.433 | 10.438 | -0.005 | 335112 | 5.00 | 5.16 | |
| 16 2,4,6-Trinitrotoluene | 1 | 10.900 | 10.904 | -0.004 | 105218 | 0.5000 | 0.5107 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.100 | 11.111 | -0.011 | 73914 | 0.5000 | 0.4838 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.360 | 11.371 | -0.011 | 101528 | 0.5000 | 0.4906 | |
| 19 2,6-Dinitrotoluene | 1 | 11.526 | 11.531 | -0.005 | 72464 | 0.5000 | 0.5065 | |
| 20 2,4-Dinitrotoluene | 1 | 11.700 | 11.704 | -0.004 | 139954 | 0.5000 | 0.4876 | |
| 21 o-Nitrotoluene | 1 | 12.566 | 12.578 | -0.012 | 62645 | 0.5000 | 0.4879 | |
| 22 p-Nitrotoluene | 1 | 13.006 | 13.011 | -0.005 | 54108 | 0.5000 | 0.4835 | |
| 23 m-Nitrotoluene | 1 | 13.593 | 13.604 | -0.011 | 68905 | 0.5000 | 0.4844 | |
| 24 PETN | 2 | 14.680 | 14.684 | -0.004 | 380912 | 5.00 | 5.09 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

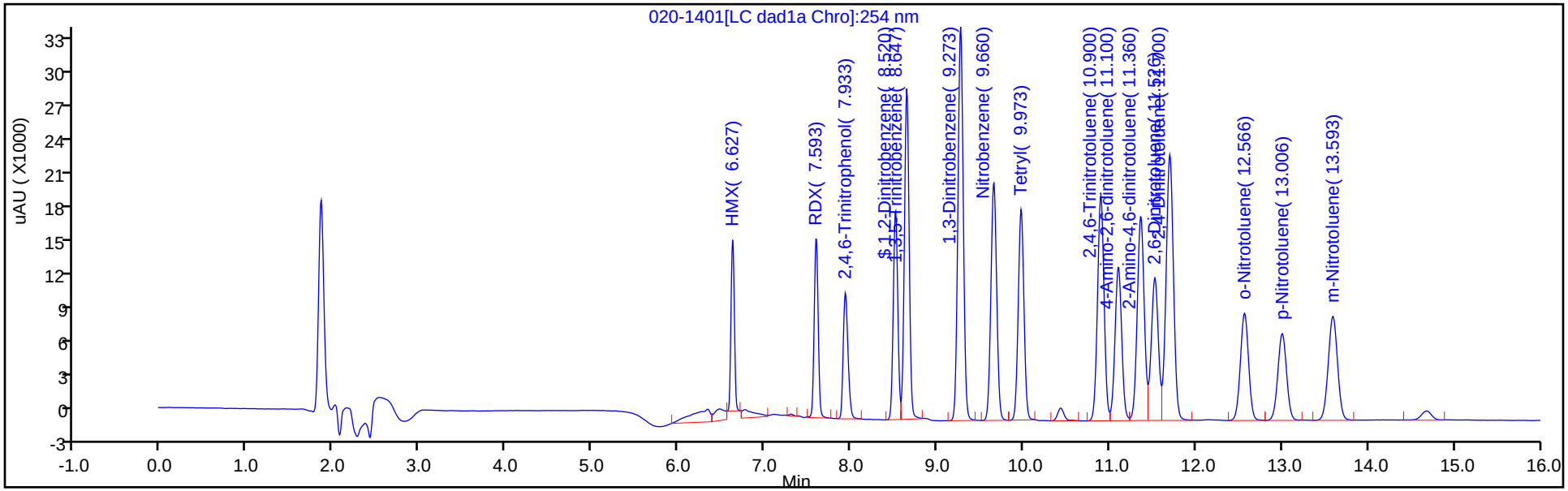
8330 LCS_00108 Amount Added: 50.00 Units: uL
8330Surrogate_00124 Amount Added: 50.00 Units: uL

Report Date: 04-May-2021 13:29:19 Chrom Revision: 2.3 08-Apr-2021 17:17:48

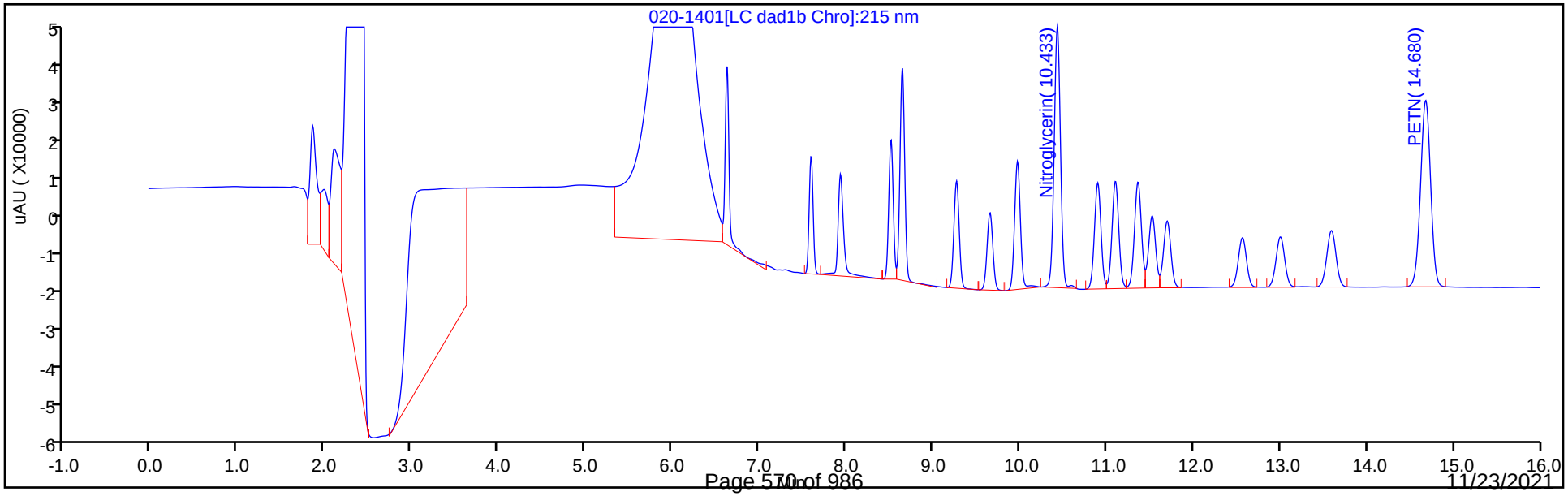
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\020-1401.d | | | | |
| Injection Date: | 01-May-2021 21:27:37 | 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

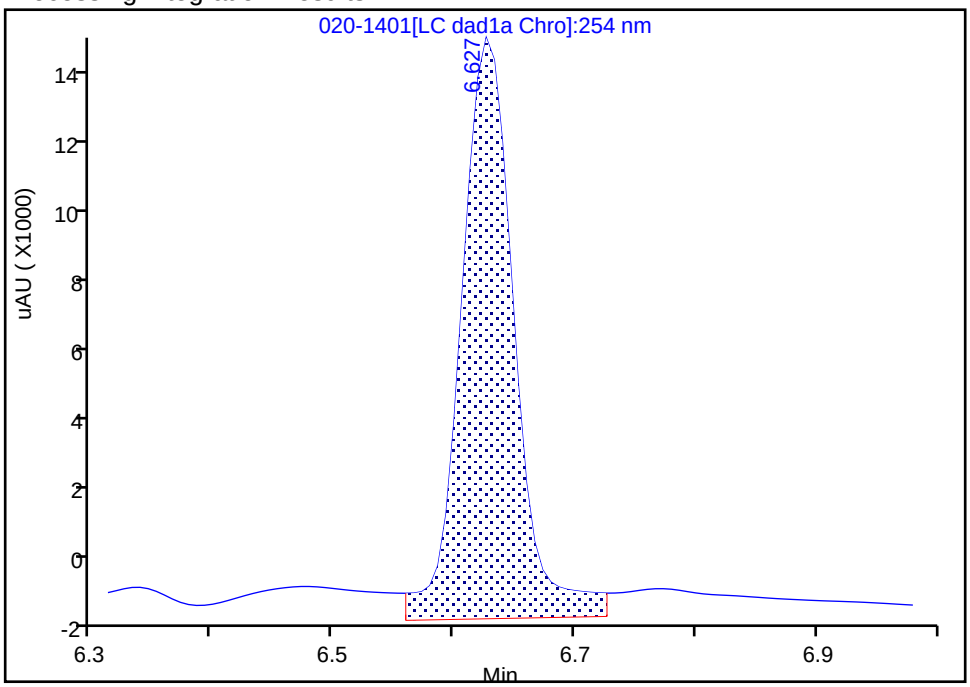
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20210501-101094.b\020-1401.d | | | | |
| Injection Date: | 01-May-2021 21:27:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 20 | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

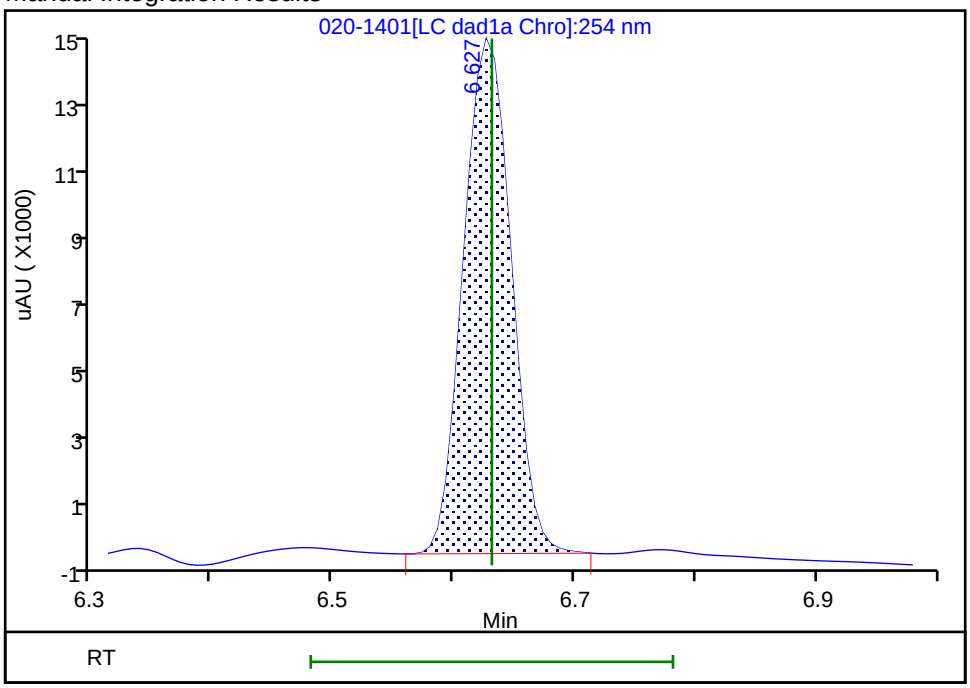
Processing Integration Results

RT: 6.63
Area: 48145
Amount: 0.570294
Amount Units: ug/mL




Manual Integration Results

RT: 6.63
Area: 41230
Amount: 0.488383
Amount Units: ug/mL




Reviewer: zhangji, 04-May-2021 13:24:55
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/16  Calibration Date: 11/03/2021 17:48

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 84421 | 84328 | | 250 | 250 | -0.1 | 15.0 |
| RDX | Ave | 106261 | 100544 | | 237 | 250 | -5.4 | 15.0 |
| Picric acid | Ave | 82721 | 77500 | | 234 | 250 | -6.3 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 220317 | 219509 | | 250 | 251 | -0.4 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 296329 | 295629 | | 250 | 251 | -0.2 | 15.0 |
| Nitrobenzene | Ave | 195286 | 192072 | | 247 | 251 | -1.6 | 15.0 |
| Tetryl | Ave | 172420 | 152794 | | 222 | 251 | -11.4 | 15.0 |
| Nitroglycerin | Lin2 | | 65556 | | 2490 | 2500 | -0.4 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 206038 | 200247 | | 244 | 251 | -2.8 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 152768 | 148827 | | 244 | 250 | -2.6 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 206926 | 199598 | | 242 | 251 | -3.5 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143079 | 144888 | | 254 | 251 | 1.3 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 287012 | 292422 | | 256 | 251 | 1.9 | 15.0 |
| 2-Nitrotoluene | Ave | 128392 | 126276 | | 246 | 250 | -1.6 | 15.0 |
| 4-Nitrotoluene | Ave | 111913 | 109345 | | 245 | 251 | -2.3 | 15.0 |
| 3-Nitrotoluene | Ave | 142246 | 138693 | | 244 | 250 | -2.5 | 15.0 |
| PETN | Ave | 74779 | 67734 | | 2260 | 2500 | -9.4 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 128217 | 130584 | | 255 | 250 | 1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/16  Calibration Date: 11/03/2021 17:48

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.61 | 6.46 | 6.76 |
| RDX | 7.61 | 7.46 | 7.76 |
| Picric acid | 7.97 | 7.82 | 8.12 |
| 1,3,5-Trinitrobenzene | 8.69 | 8.54 | 8.84 |
| 1,3-Dinitrobenzene | 9.33 | 9.18 | 9.48 |
| Nitrobenzene | 9.73 | 9.58 | 9.88 |
| Tetryl | 10.06 | 9.91 | 10.21 |
| Nitroglycerin | 10.52 | 10.37 | 10.67 |
| 2,4,6-Trinitrotoluene | 10.97 | 10.87 | 11.07 |
| 4-Amino-2,6-dinitrotoluene | 11.18 | 11.07 | 11.27 |
| 2-Amino-4,6-dinitrotoluene | 11.43 | 11.33 | 11.53 |
| 2,6-Dinitrotoluene | 11.61 | 11.50 | 11.70 |
| 2,4-Dinitrotoluene | 11.77 | 11.67 | 11.87 |
| 2-Nitrotoluene | 12.65 | 12.50 | 12.80 |
| 4-Nitrotoluene | 13.08 | 12.93 | 13.23 |
| 3-Nitrotoluene | 13.66 | 13.51 | 13.81 |
| PETN | 14.76 | 14.61 | 14.91 |
| 1,2-Dinitrobenzene | 8.57 | 8.42 | 8.72 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030016.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 03-Nov-2021 17:48:09 ALS Bottle#: 7 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0106163-016
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-Nov-2021 12:51:58 Calib Date: 27-Oct-2021 04:27:09
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.606 | 6.605 | 0.001 | 21082 | 0.2500 | 0.2497 | |
| 8 RDX | 1 | 7.606 | 7.605 | 0.001 | 25136 | 0.2500 | 0.2365 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.973 | 7.972 | 0.001 | 19375 | 0.2500 | 0.2342 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.573 | 8.572 | 0.001 | 32646 | 0.2500 | 0.2546 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.693 | 8.692 | 0.001 | 54987 | 0.2505 | 0.2496 | |
| 12 1,3-Dinitrobenzene | 1 | 9.333 | 9.325 | 0.008 | 74055 | 0.2505 | 0.2499 | |
| 13 Nitrobenzene | 1 | 9.726 | 9.725 | 0.001 | 48210 | 0.2510 | 0.2469 | |
| 15 Tetryl | 1 | 10.059 | 10.058 | 0.001 | 38275 | 0.2505 | 0.2220 | |
| 16 Nitroglycerin | 2 | 10.519 | 10.518 | 0.001 | 163889 | 2.50 | 2.49 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.973 | 10.971 | 0.002 | 50262 | 0.2510 | 0.2439 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.179 | 11.171 | 0.008 | 37244 | 0.2503 | 0.2438 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.433 | 11.425 | 0.008 | 50099 | 0.2510 | 0.2421 | |
| 20 2,6-Dinitrotoluene | 1 | 11.606 | 11.598 | 0.008 | 36367 | 0.2510 | 0.2542 | |
| 21 2,4-Dinitrotoluene | 1 | 11.773 | 11.765 | 0.008 | 73398 | 0.2510 | 0.2557 | |
| 22 o-Nitrotoluene | 1 | 12.646 | 12.645 | 0.001 | 31569 | 0.2500 | 0.2459 | |
| 23 p-Nitrotoluene | 1 | 13.079 | 13.078 | 0.001 | 27391 | 0.2505 | 0.2448 | |
| 24 m-Nitrotoluene | 1 | 13.659 | 13.658 | 0.001 | 34708 | 0.2503 | 0.2440 | |
| 25 PETN | 2 | 14.759 | 14.758 | 0.001 | 169334 | 2.50 | 2.26 | |

## Reagents:

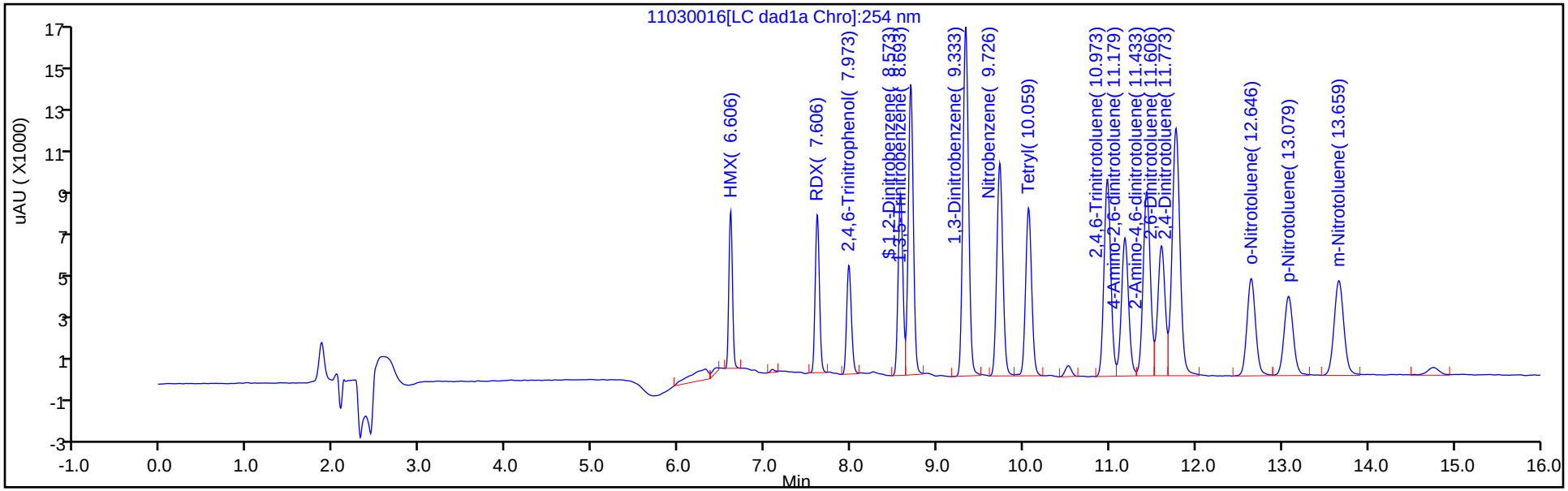
8330IntermStk_00069 Amount Added: 25.00 Units: uL

Report Date: 04-Nov-2021 12:51:58 Chrom Revision: 2.3 22-Sep-2021 15:38:46

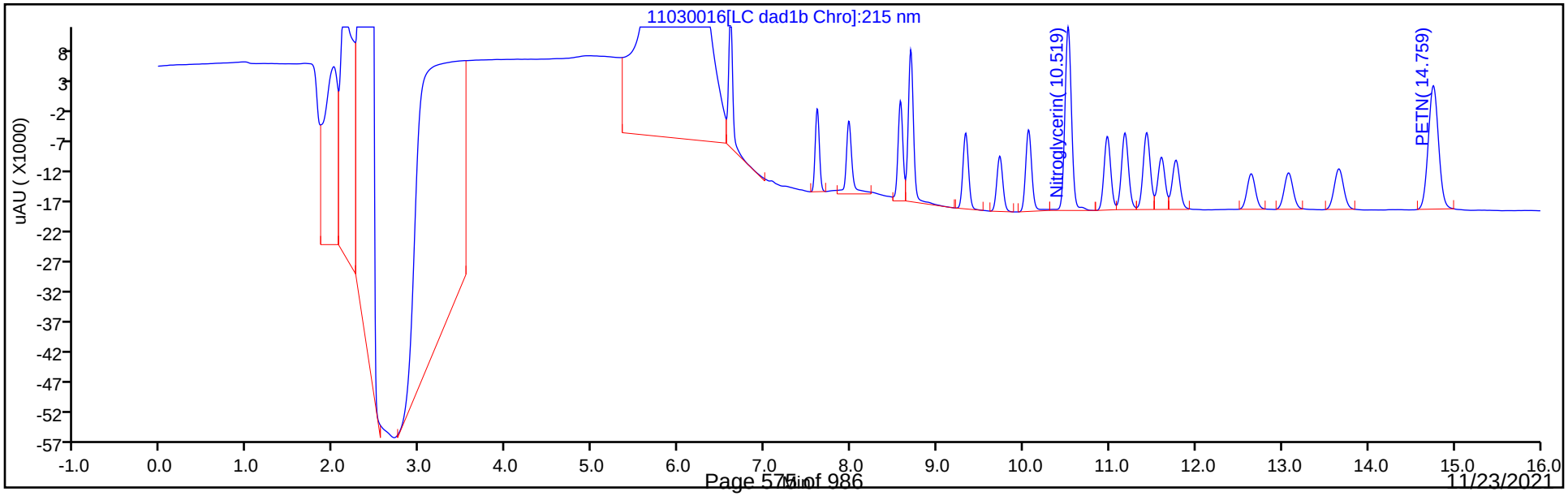
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030016.d | | | | |
| Injection Date: | 03-Nov-2021 17:48:09 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/17  Calibration Date: 11/03/2021 18:11

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030017.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 185806 | 192591 | | 259 | 250 | 3.7 | 15.0 |
| DNX | Ave | 142119 | 146002 | | 257 | 250 | 2.7 | 15.0 |
| MNX | Ave | 130340 | 134081 | | 300 | 292 | 2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/17  Calibration Date: 11/03/2021 18:11

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030017.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.49 | 6.39 | 6.59 |
| DNX | 6.80 | 6.70 | 6.90 |
| MNX | 7.23 | 7.08 | 7.38 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030017.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 03-Nov-2021 18:11:04 | ALS Bottle#: | 9 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0106163-017 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:57 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 03-Nov-2021 18:35:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.489 | 6.489 | 0.000 | 48196 | 0.2503 | 0.2594 | M |
| 6 DNX | 1 | 6.802 | 6.802 | 0.000 | 36537 | 0.2503 | 0.2571 | M |
| 7 MNX | 1 | 7.229 | 7.229 | 0.000 | 39118 | 0.2918 | 0.3001 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

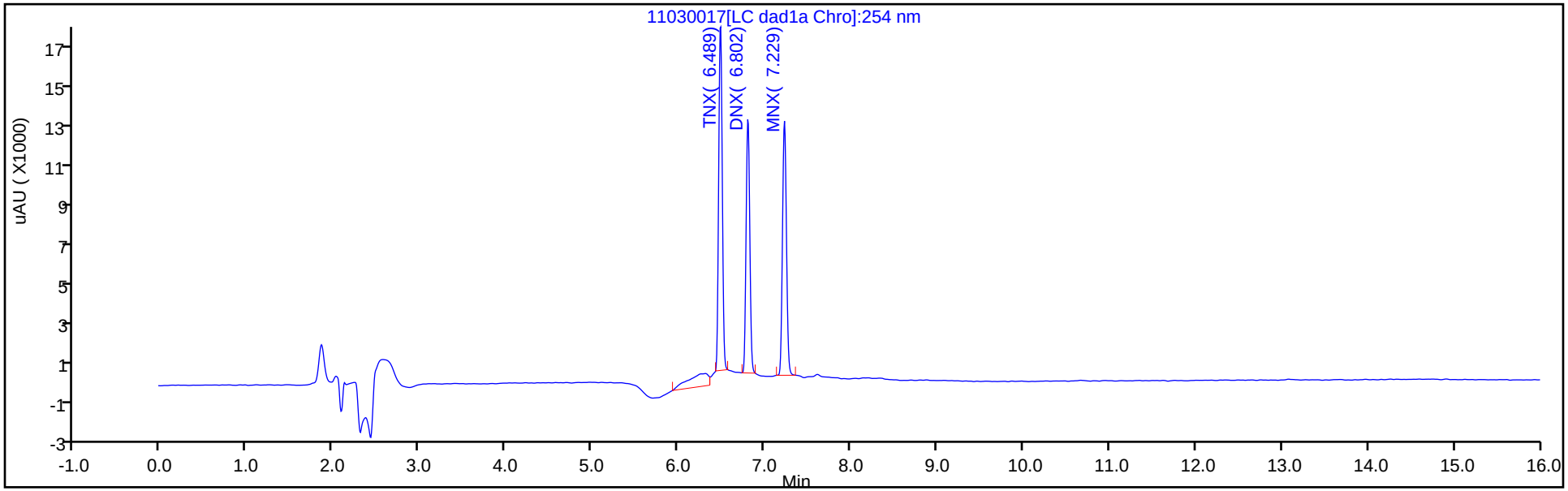
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 04-Nov-2021 12:51:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

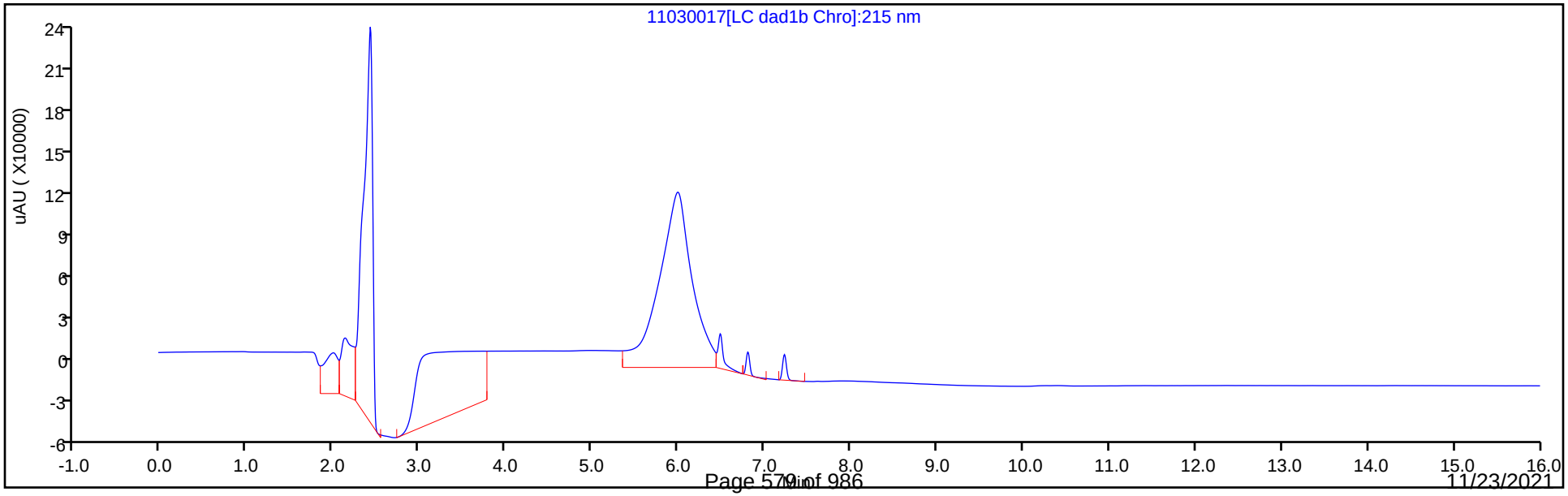
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030017.d | | | | |
| Injection Date: | 03-Nov-2021 18:11:04 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

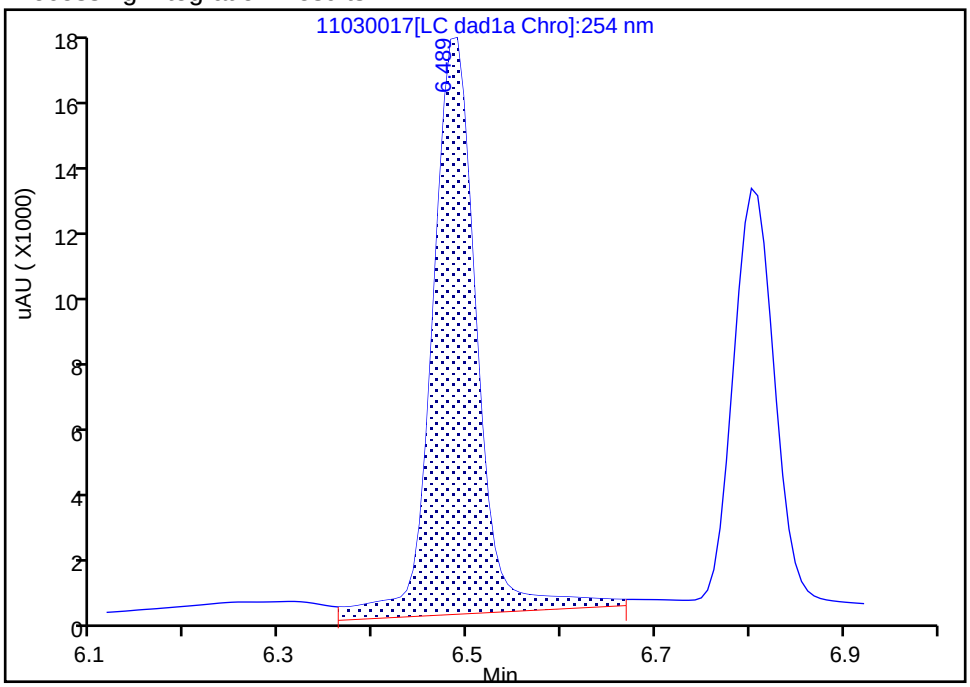
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030017.d | | | | |
| Injection Date: | 03-Nov-2021 18:11:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

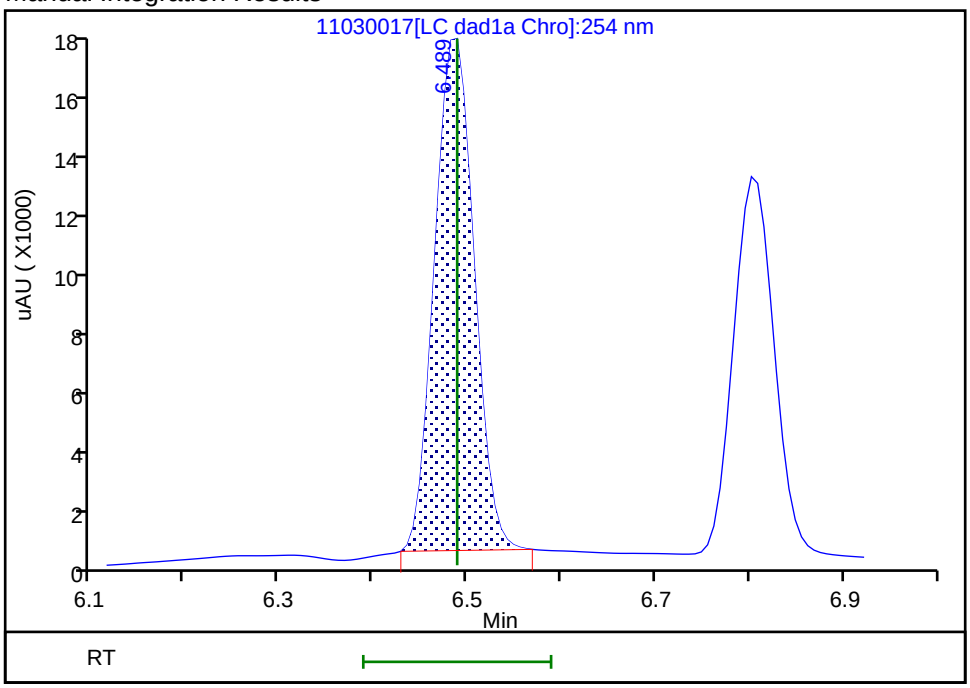
Processing Integration Results

RT: 6.49
Area: 56254
Amount: 0.302757
Amount Units: ug/mL




Manual Integration Results

RT: 6.49
Area: 48196
Amount: 0.259389
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 18:35:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

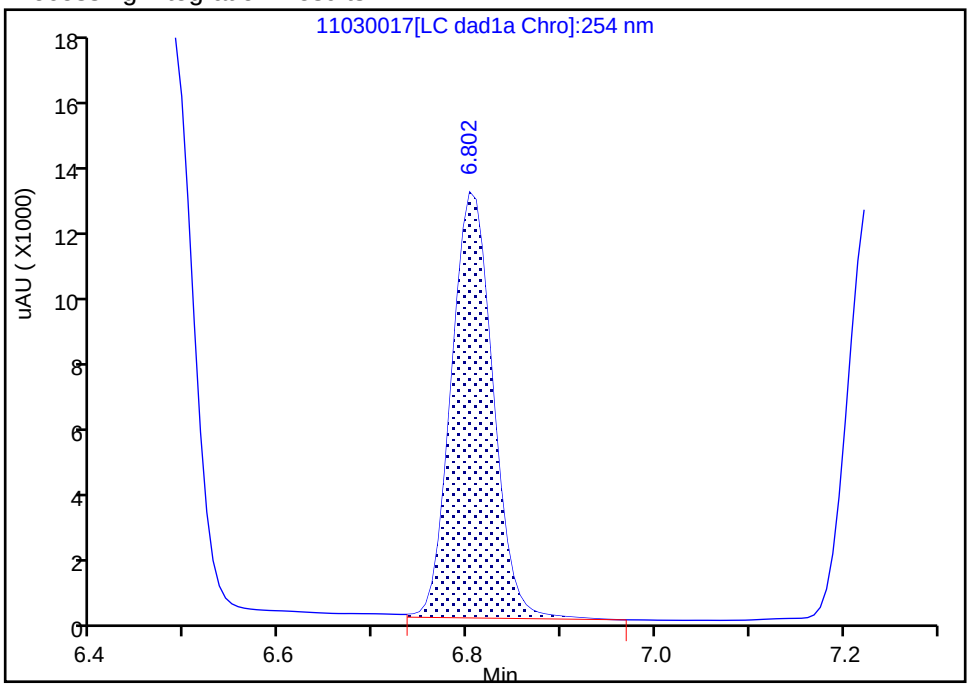
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030017.d | | | | |
| Injection Date: | 03-Nov-2021 18:11:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

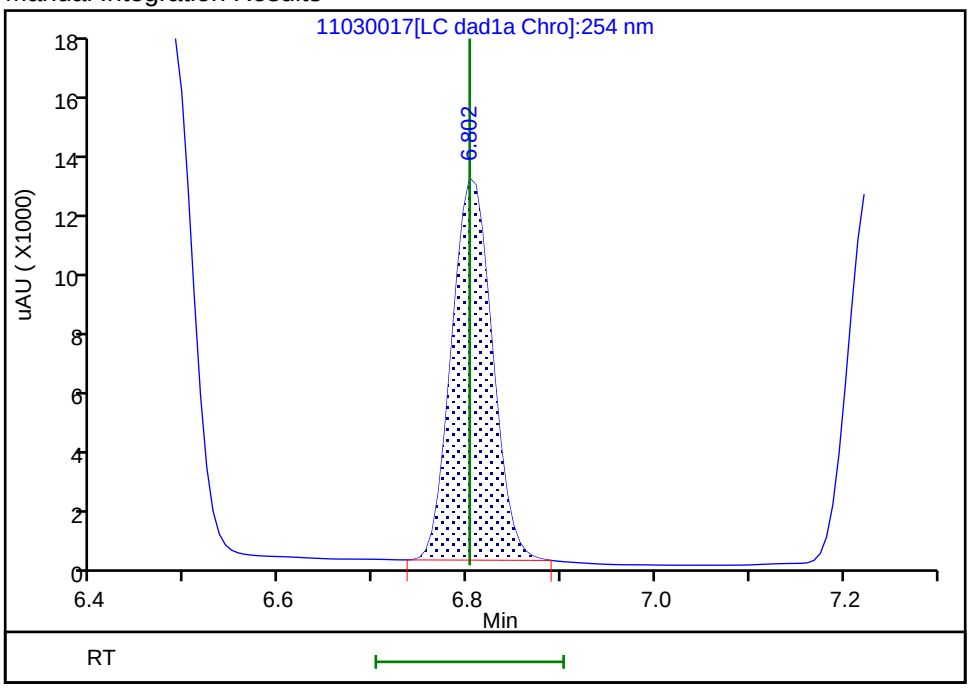
Processing Integration Results

RT: 6.80
Area: 37596
Amount: 0.264538
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 36537
Amount: 0.257087
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 18:35:15

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/28  Calibration Date: 11/03/2021 22:23

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030028.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 84421 | 84876 | | 251 | 250 | 0.5 | 15.0 |
| RDX | Ave | 106261 | 100080 | | 235 | 250 | -5.8 | 15.0 |
| Picric acid | Ave | 82721 | 78104 | | 236 | 250 | -5.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 220317 | 221772 | | 252 | 251 | 0.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 296329 | 296192 | | 250 | 251 | -0.0 | 15.0 |
| Nitrobenzene | Ave | 195286 | 188235 | | 242 | 251 | -3.6 | 15.0 |
| Tetryl | Ave | 172420 | 151800 | | 221 | 251 | -12.0 | 15.0 |
| Nitroglycerin | Lin2 | | 64430 | | 2450 | 2500 | -2.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 206038 | 200761 | | 245 | 251 | -2.6 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 152768 | 148072 | | 243 | 250 | -3.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 206926 | 199386 | | 242 | 251 | -3.6 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143079 | 145482 | | 255 | 251 | 1.7 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 287012 | 291231 | | 255 | 251 | 1.5 | 15.0 |
| 2-Nitrotoluene | Ave | 128392 | 121620 | | 237 | 250 | -5.3 | 15.0 |
| 4-Nitrotoluene | Ave | 111913 | 105729 | | 237 | 251 | -5.5 | 15.0 |
| 3-Nitrotoluene | Ave | 142246 | 135485 | | 238 | 250 | -4.8 | 15.0 |
| PETN | Ave | 74779 | 67528 | | 2260 | 2500 | -9.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 128217 | 129520 | | 253 | 250 | 1.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/28  Calibration Date: 11/03/2021 22:23

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030028.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.60 | 6.46 | 6.76 |
| RDX | 7.61 | 7.46 | 7.76 |
| Picric acid | 7.98 | 7.82 | 8.12 |
| 1,3,5-Trinitrobenzene | 8.70 | 8.54 | 8.84 |
| 1,3-Dinitrobenzene | 9.34 | 9.18 | 9.48 |
| Nitrobenzene | 9.74 | 9.58 | 9.88 |
| Tetryl | 10.08 | 9.91 | 10.21 |
| Nitroglycerin | 10.53 | 10.37 | 10.67 |
| 2,4,6-Trinitrotoluene | 10.99 | 10.87 | 11.07 |
| 4-Amino-2,6-dinitrotoluene | 11.20 | 11.07 | 11.27 |
| 2-Amino-4,6-dinitrotoluene | 11.45 | 11.33 | 11.53 |
| 2,6-Dinitrotoluene | 11.62 | 11.50 | 11.70 |
| 2,4-Dinitrotoluene | 11.79 | 11.67 | 11.87 |
| 2-Nitrotoluene | 12.66 | 12.50 | 12.80 |
| 4-Nitrotoluene | 13.10 | 12.93 | 13.23 |
| 3-Nitrotoluene | 13.68 | 13.51 | 13.81 |
| PETN | 14.78 | 14.61 | 14.91 |
| 1,2-Dinitrobenzene | 8.58 | 8.42 | 8.72 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030028.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 03-Nov-2021 22:23:21 ALS Bottle#: 7 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0106163-028
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-Nov-2021 12:51:51 Calib Date: 27-Oct-2021 04:27:09
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.604 | 6.605 | -0.001 | 21219 | 0.2500 | 0.2513 | |
| 8 RDX | 1 | 7.610 | 7.605 | 0.005 | 25020 | 0.2500 | 0.2355 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.984 | 7.972 | 0.012 | 19526 | 0.2500 | 0.2360 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.584 | 8.572 | 0.012 | 32380 | 0.2500 | 0.2525 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.704 | 8.692 | 0.012 | 55554 | 0.2505 | 0.2522 | |
| 12 1,3-Dinitrobenzene | 1 | 9.343 | 9.325 | 0.018 | 74196 | 0.2505 | 0.2504 | |
| 13 Nitrobenzene | 1 | 9.737 | 9.725 | 0.012 | 47247 | 0.2510 | 0.2419 | |
| 15 Tetryl | 1 | 10.077 | 10.058 | 0.019 | 38026 | 0.2505 | 0.2205 | |
| 16 Nitroglycerin | 2 | 10.530 | 10.518 | 0.012 | 161076 | 2.50 | 2.45 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.990 | 10.971 | 0.019 | 50391 | 0.2510 | 0.2446 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.197 | 11.171 | 0.026 | 37055 | 0.2503 | 0.2426 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.450 | 11.425 | 0.025 | 50046 | 0.2510 | 0.2419 | |
| 20 2,6-Dinitrotoluene | 1 | 11.617 | 11.598 | 0.019 | 36516 | 0.2510 | 0.2552 | |
| 21 2,4-Dinitrotoluene | 1 | 11.790 | 11.765 | 0.025 | 73099 | 0.2510 | 0.2547 | |
| 22 o-Nitrotoluene | 1 | 12.663 | 12.645 | 0.018 | 30405 | 0.2500 | 0.2368 | |
| 23 p-Nitrotoluene | 1 | 13.097 | 13.078 | 0.019 | 26485 | 0.2505 | 0.2367 | |
| 24 m-Nitrotoluene | 1 | 13.683 | 13.658 | 0.025 | 33905 | 0.2503 | 0.2384 | |
| 25 PETN | 2 | 14.783 | 14.758 | 0.025 | 168821 | 2.50 | 2.26 | |

## Reagents:

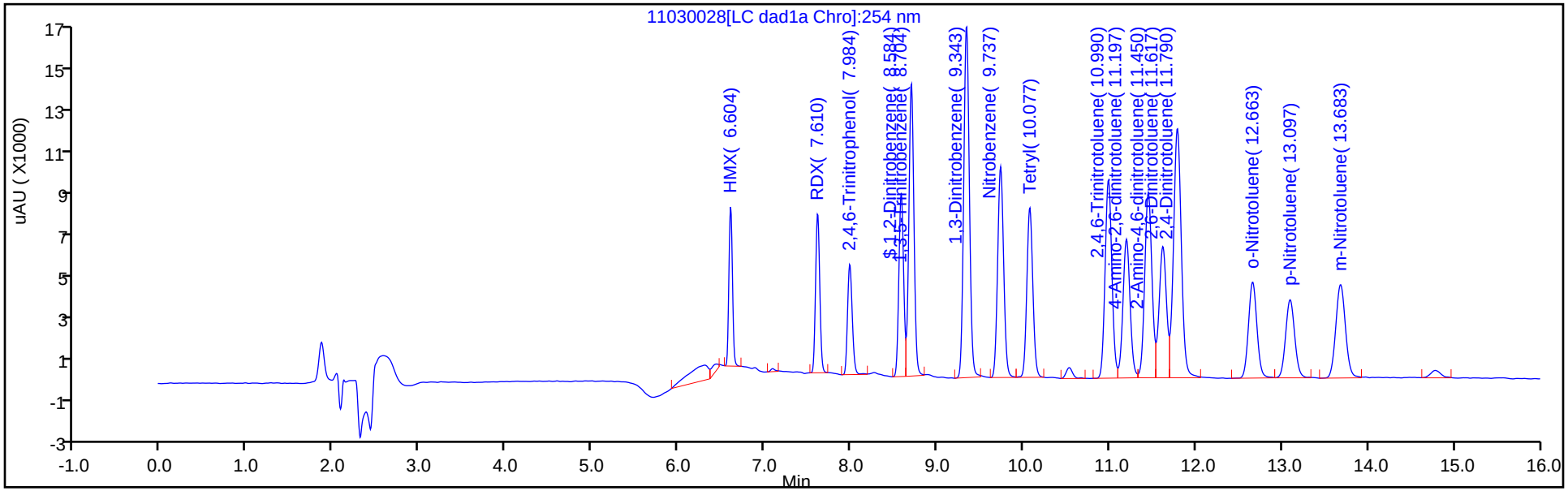
8330IntermStk_00069 Amount Added: 25.00 Units: uL

Report Date: 04-Nov-2021 12:51:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

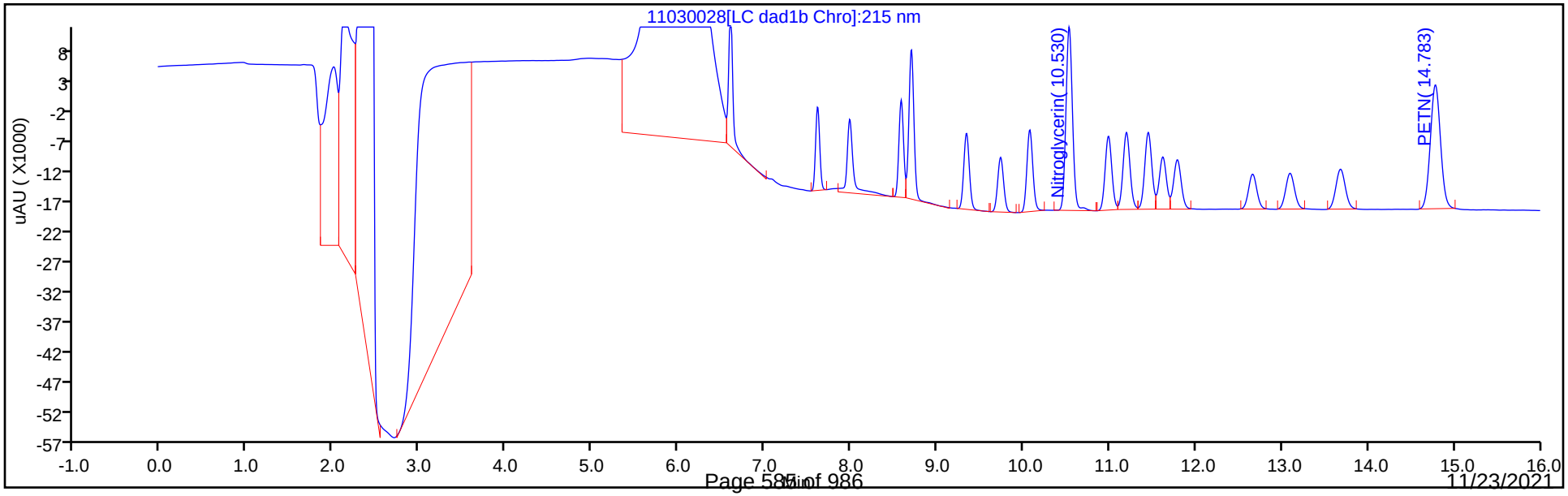
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030028.d | | | | |
| Injection Date: | 03-Nov-2021 22:23:21 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/29  Calibration Date: 11/03/2021 22:46

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030029.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 185806 | 190753 | | 257 | 250 | 2.7 | 15.0 |
| DNX | Ave | 142119 | 144392 | | 254 | 250 | 1.6 | 15.0 |
| MNX | Ave | 130340 | 134763 | | 302 | 292 | 3.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/29  Calibration Date: 11/03/2021 22:46

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030029.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.48 | 6.39 | 6.59 |
| DNX | 6.80 | 6.70 | 6.90 |
| MNX | 7.23 | 7.08 | 7.38 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030029.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 03-Nov-2021 22:46:18 | ALS Bottle#: | 9 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0106163-029 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:50 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 04-Nov-2021 12:24:01

| 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 | 6.489 | -0.006 | 47736 | 0.2503 | 0.2569 | M |
| 6 DNX | 1 | 6.803 | 6.802 | 0.001 | 36134 | 0.2503 | 0.2543 | M |
| 7 MNX | 1 | 7.229 | 7.229 | 0.000 | 39317 | 0.2918 | 0.3016 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

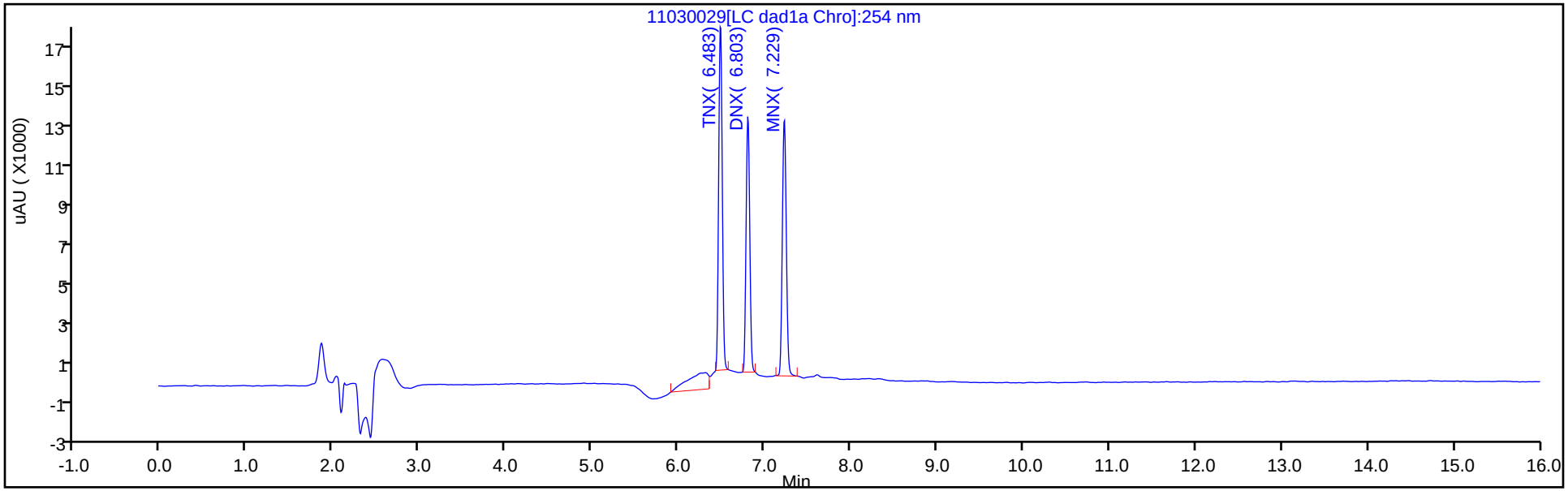
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 04-Nov-2021 12:51:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

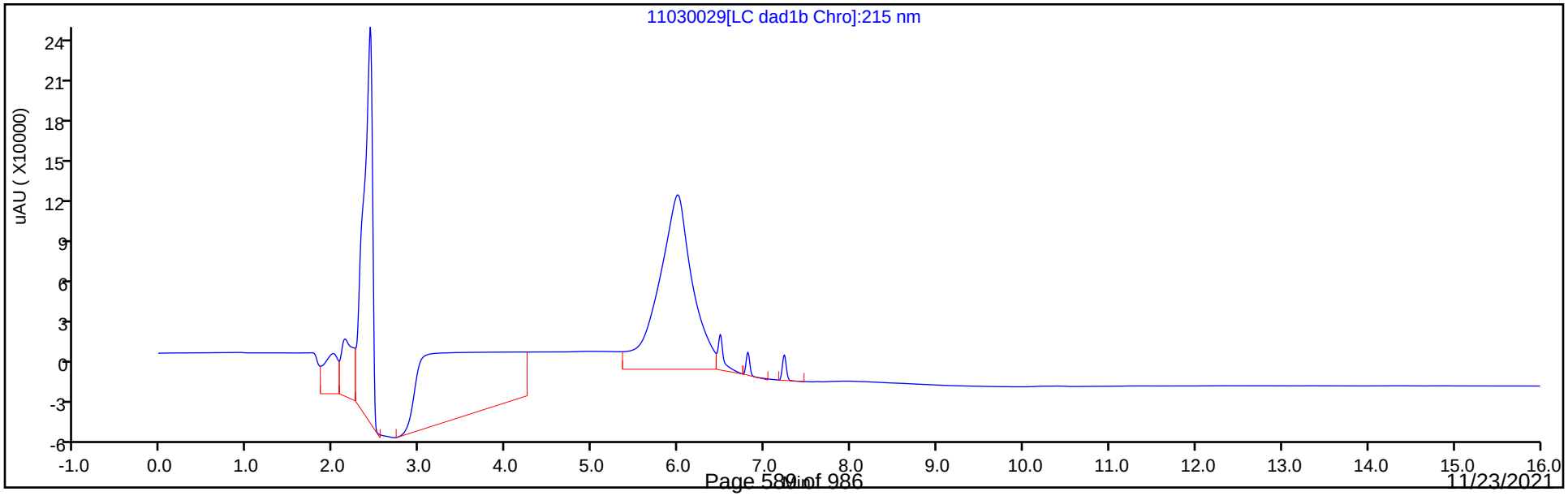
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030029.d | | | | |
| Injection Date: | 03-Nov-2021 22:46:18 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

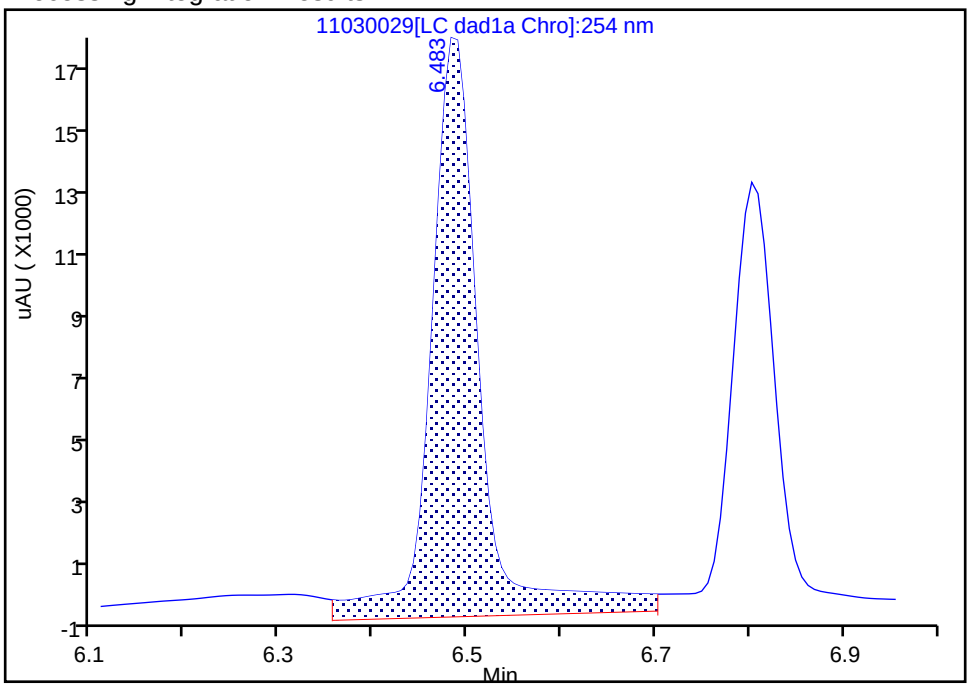
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030029.d | | | | |
| Injection Date: | 03-Nov-2021 22:46:18 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

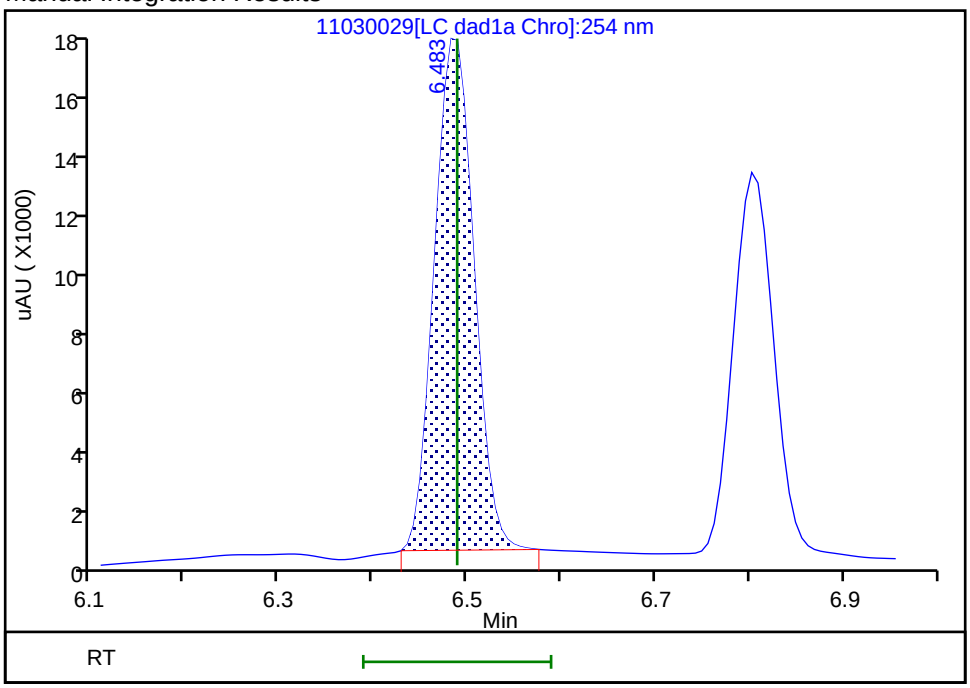
Processing Integration Results

RT: 6.48
Area: 62165
Amount: 0.334569
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 47736
Amount: 0.256913
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:23:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

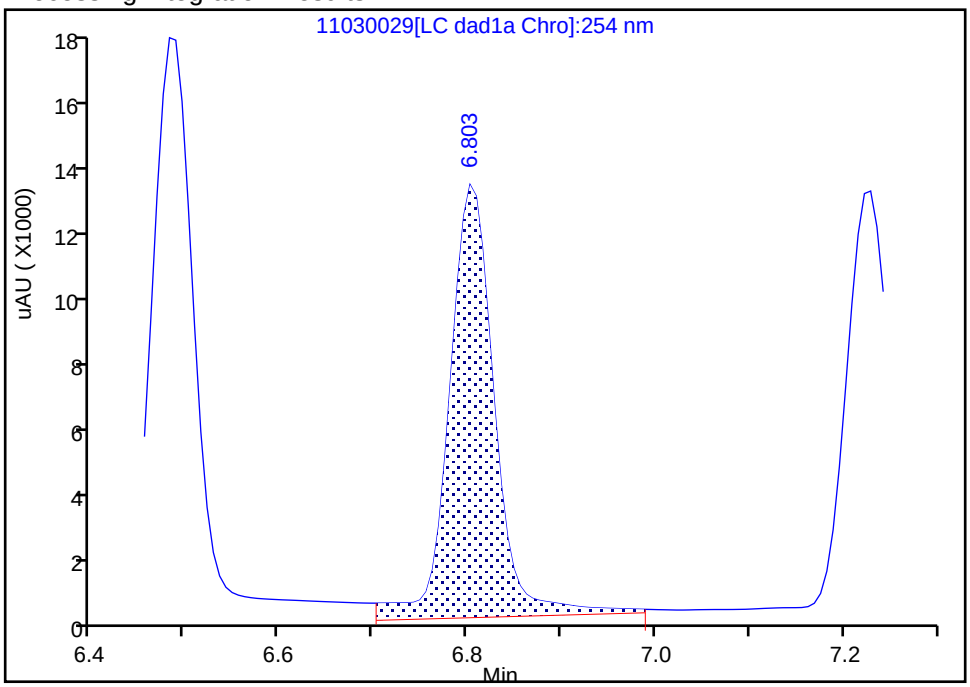
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030029.d | | | | |
| Injection Date: | 03-Nov-2021 22:46:18 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | 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 | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

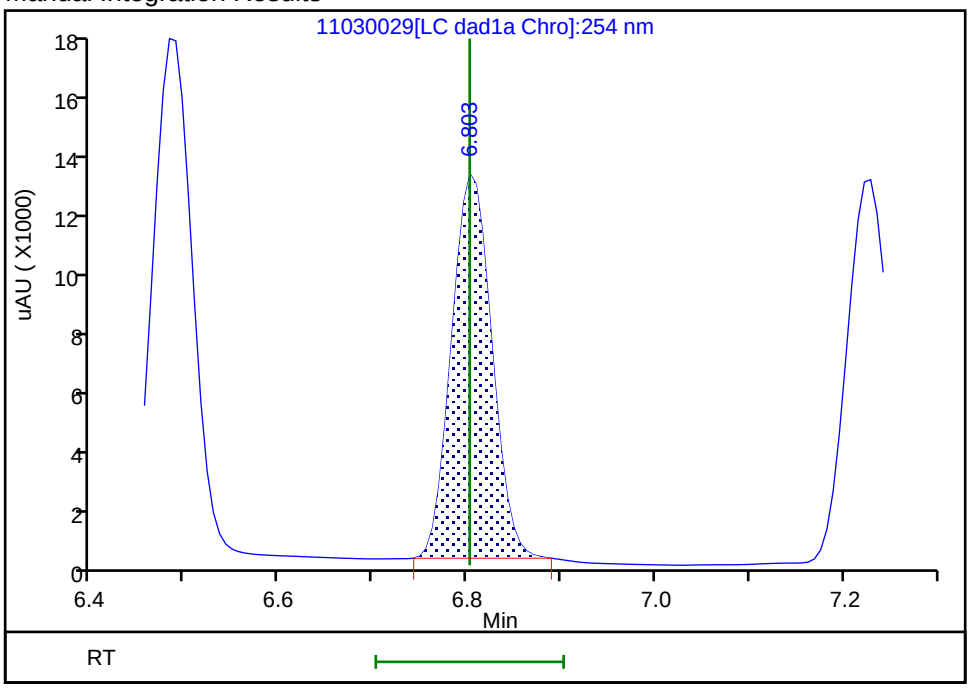
Processing Integration Results

RT: 6.80
Area: 42355
Amount: 0.298024
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 36134
Amount: 0.254251
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:24:00

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/40  Calibration Date: 11/04/2021 02:58

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030040.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 84421 | 84136 | | 249 | 250 | -0.3 | 15.0 |
| RDX | Ave | 106261 | 100996 | | 238 | 250 | -5.0 | 15.0 |
| Picric acid | Ave | 82721 | 78440 | | 237 | 250 | -5.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 220317 | 220271 | | 250 | 251 | -0.0 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 296329 | 296140 | | 250 | 251 | -0.0 | 15.0 |
| Nitrobenzene | Ave | 195286 | 184602 | | 237 | 251 | -5.5 | 15.0 |
| Tetryl | Ave | 172420 | 152838 | | 222 | 251 | -11.4 | 15.0 |
| Nitroglycerin | Lin2 | | 63173 | | 2400 | 2500 | -4.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 206038 | 201402 | | 245 | 251 | -2.2 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 152768 | 149806 | | 245 | 250 | -1.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 206926 | 202056 | | 245 | 251 | -2.4 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143079 | 142733 | | 250 | 251 | -0.2 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 287012 | 292757 | | 256 | 251 | 2.0 | 15.0 |
| 2-Nitrotoluene | Ave | 128392 | 119712 | | 233 | 250 | -6.8 | 15.0 |
| 4-Nitrotoluene | Ave | 111913 | 105226 | | 236 | 251 | -6.0 | 15.0 |
| 3-Nitrotoluene | Ave | 142246 | 133970 | | 236 | 250 | -5.8 | 15.0 |
| PETN | Ave | 74779 | 67938 | | 2270 | 2500 | -9.1 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 128217 | 131488 | | 256 | 250 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/40  Calibration Date: 11/04/2021 02:58

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030040.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.60 | 6.46 | 6.76 |
| RDX | 7.61 | 7.46 | 7.76 |
| Picric acid | 7.98 | 7.82 | 8.12 |
| 1,3,5-Trinitrobenzene | 8.69 | 8.54 | 8.84 |
| 1,3-Dinitrobenzene | 9.33 | 9.18 | 9.48 |
| Nitrobenzene | 9.73 | 9.58 | 9.88 |
| Tetryl | 10.07 | 9.91 | 10.21 |
| Nitroglycerin | 10.53 | 10.37 | 10.67 |
| 2,4,6-Trinitrotoluene | 10.98 | 10.87 | 11.07 |
| 4-Amino-2,6-dinitrotoluene | 11.19 | 11.07 | 11.27 |
| 2-Amino-4,6-dinitrotoluene | 11.44 | 11.33 | 11.53 |
| 2,6-Dinitrotoluene | 11.61 | 11.50 | 11.70 |
| 2,4-Dinitrotoluene | 11.78 | 11.67 | 11.87 |
| 2-Nitrotoluene | 12.65 | 12.50 | 12.80 |
| 4-Nitrotoluene | 13.09 | 12.93 | 13.23 |
| 3-Nitrotoluene | 13.67 | 13.51 | 13.81 |
| PETN | 14.77 | 14.61 | 14.91 |
| 1,2-Dinitrobenzene | 8.57 | 8.42 | 8.72 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030040.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 04-Nov-2021 02:58:28 ALS Bottle#: 7 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0106163-040
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-Nov-2021 12:51:44 Calib Date: 27-Oct-2021 04:27:09
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: zhangji Date: 04-Nov-2021 12:31:57

| 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 | 6.605 | -0.005 | 21034 | 0.2500 | 0.2492 | M |
| 8 RDX | 1 | 7.606 | 7.605 | 0.001 | 25249 | 0.2500 | 0.2376 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.980 | 7.972 | 0.008 | 19610 | 0.2500 | 0.2371 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.573 | 8.572 | 0.001 | 32872 | 0.2500 | 0.2564 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.693 | 8.692 | 0.001 | 55178 | 0.2505 | 0.2504 | |
| 12 1,3-Dinitrobenzene | 1 | 9.333 | 9.325 | 0.008 | 74183 | 0.2505 | 0.2503 | |
| 13 Nitrobenzene | 1 | 9.726 | 9.725 | 0.001 | 46335 | 0.2510 | 0.2373 | |
| 15 Tetryl | 1 | 10.066 | 10.058 | 0.008 | 38286 | 0.2505 | 0.2221 | |
| 16 Nitroglycerin | 2 | 10.526 | 10.518 | 0.008 | 157933 | 2.50 | 2.40 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.979 | 10.971 | 0.008 | 50552 | 0.2510 | 0.2454 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.186 | 11.171 | 0.015 | 37489 | 0.2503 | 0.2454 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.439 | 11.425 | 0.014 | 50716 | 0.2510 | 0.2451 | |
| 20 2,6-Dinitrotoluene | 1 | 11.613 | 11.598 | 0.015 | 35826 | 0.2510 | 0.2504 | |
| 21 2,4-Dinitrotoluene | 1 | 11.779 | 11.765 | 0.014 | 73482 | 0.2510 | 0.2560 | |
| 22 o-Nitrotoluene | 1 | 12.653 | 12.645 | 0.008 | 29928 | 0.2500 | 0.2331 | |
| 23 p-Nitrotoluene | 1 | 13.086 | 13.078 | 0.008 | 26359 | 0.2505 | 0.2355 | |
| 24 m-Nitrotoluene | 1 | 13.673 | 13.658 | 0.015 | 33526 | 0.2503 | 0.2357 | |
| 25 PETN | 2 | 14.773 | 14.758 | 0.015 | 169846 | 2.50 | 2.27 | |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

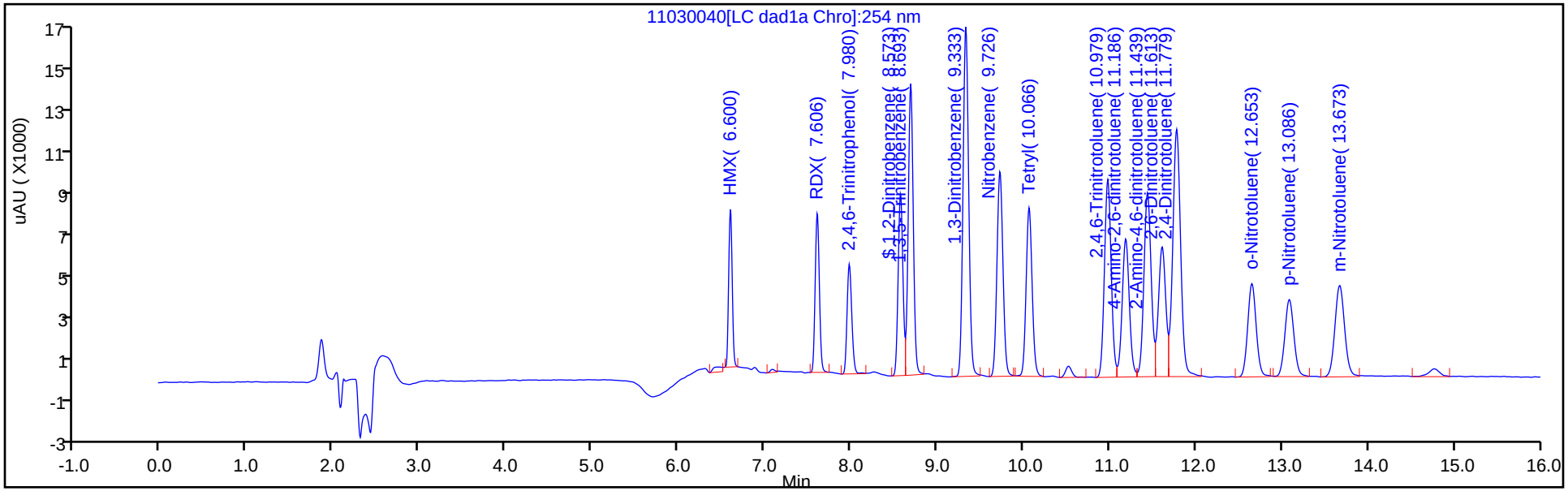
8330IntermStk_00069 Amount Added: 25.00 Units: uL

Report Date: 04-Nov-2021 12:51:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

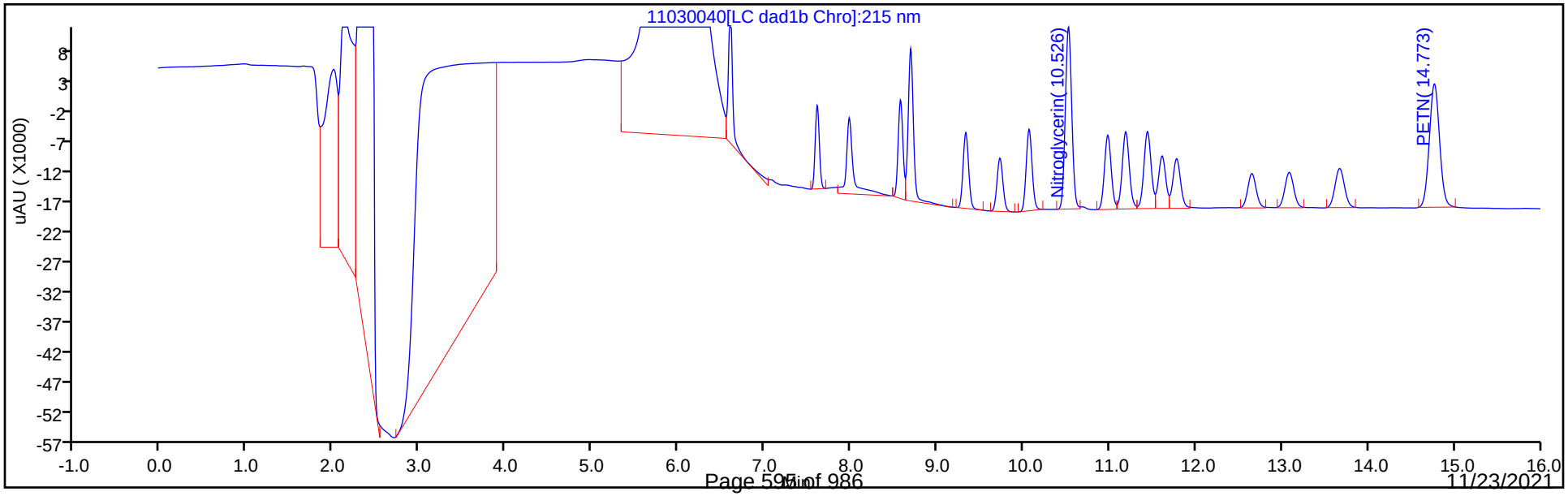
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030040.d | | | | |
| Injection Date: | 04-Nov-2021 02:58:28 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 40 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

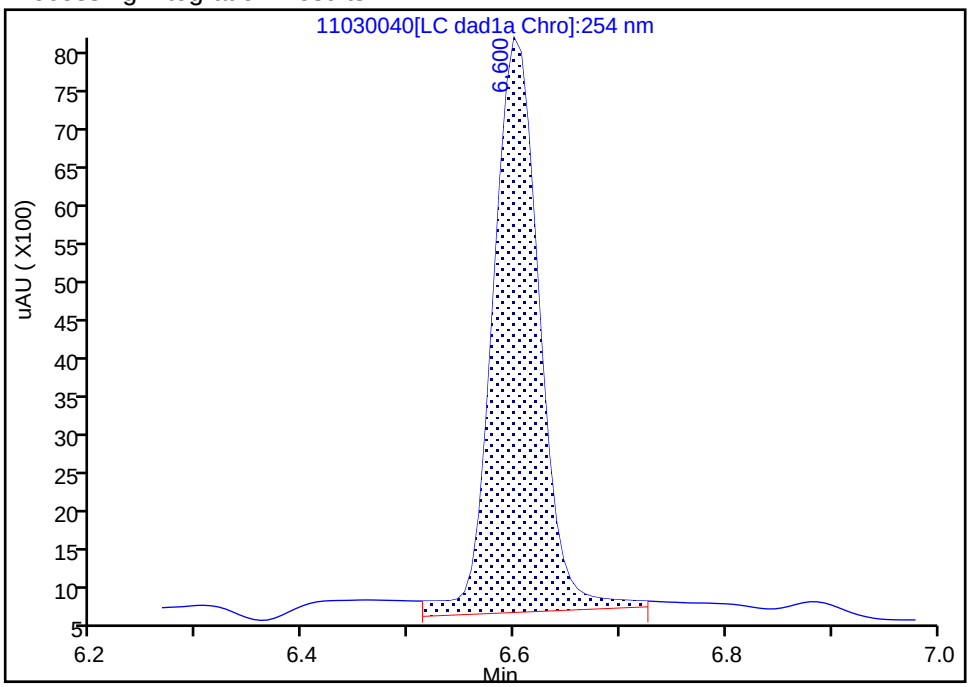
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030040.d | | | | |
| Injection Date: | 04-Nov-2021 02:58:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 40 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 4 HMX, CAS: 2691-41-0

Signal: 1

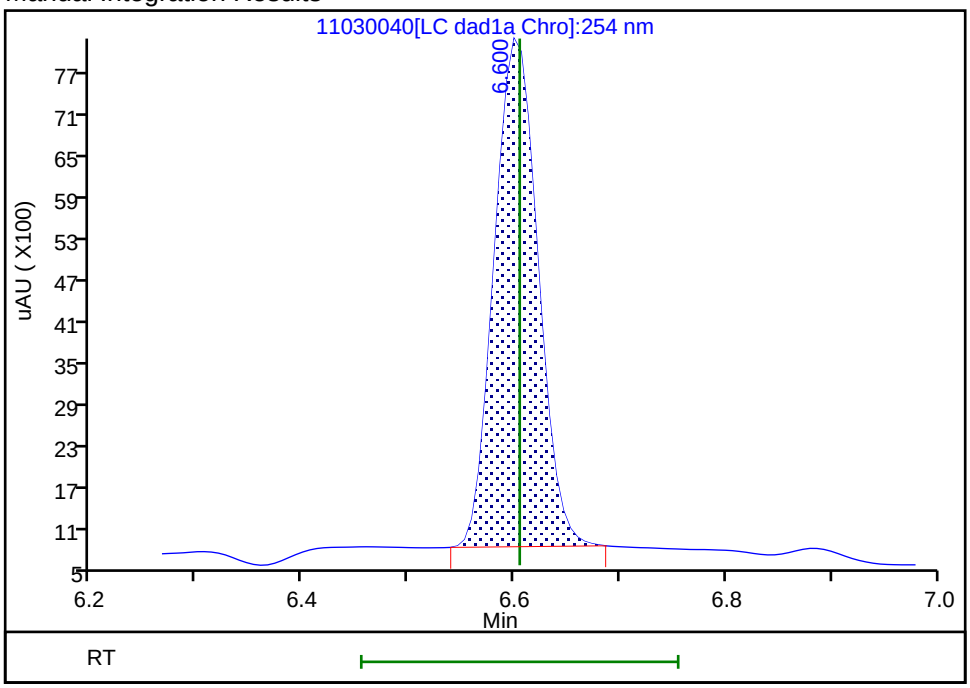
Processing Integration Results

RT: 6.60
Area: 22966
Amount: 0.272040
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 21034
Amount: 0.249155
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:31:56

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/41  Calibration Date: 11/04/2021 03:21

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030041.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 185806 | 188811 | | 254 | 250 | 1.6 | 15.0 |
| DNX | Ave | 142119 | 144148 | | 254 | 250 | 1.4 | 15.0 |
| MNX | Ave | 130340 | 133614 | | 299 | 292 | 2.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/41  Calibration Date: 11/04/2021 03:21

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030041.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.48 | 6.39 | 6.59 |
| DNX | 6.80 | 6.70 | 6.90 |
| MNX | 7.23 | 7.08 | 7.38 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030041.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 04-Nov-2021 03:21:24 | ALS Bottle#: | 9 | Worklist Smp#: | 41 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0106163-041 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:43 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 04-Nov-2021 12:32:10

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.480 | 6.489 | -0.009 | 47250 | 0.2503 | 0.2543 | M |
| 6 DNX | 1 | 6.800 | 6.802 | -0.002 | 36073 | 0.2503 | 0.2538 | M |
| 7 MNX | 1 | 7.227 | 7.229 | -0.002 | 38982 | 0.2918 | 0.2991 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

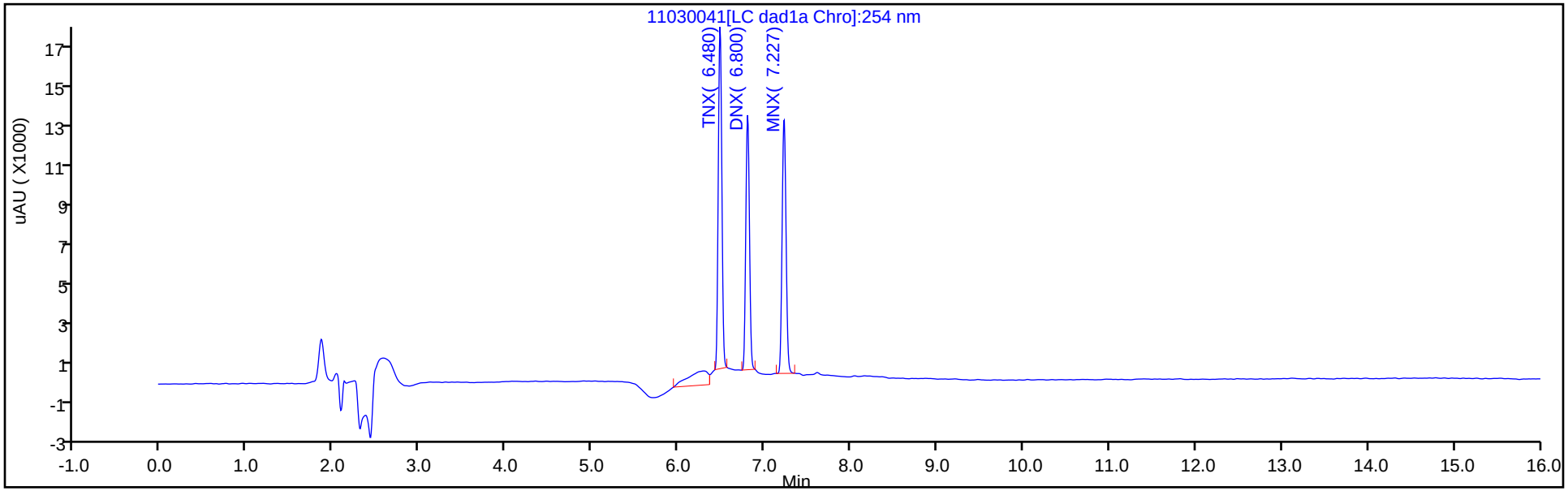
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 04-Nov-2021 12:51:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

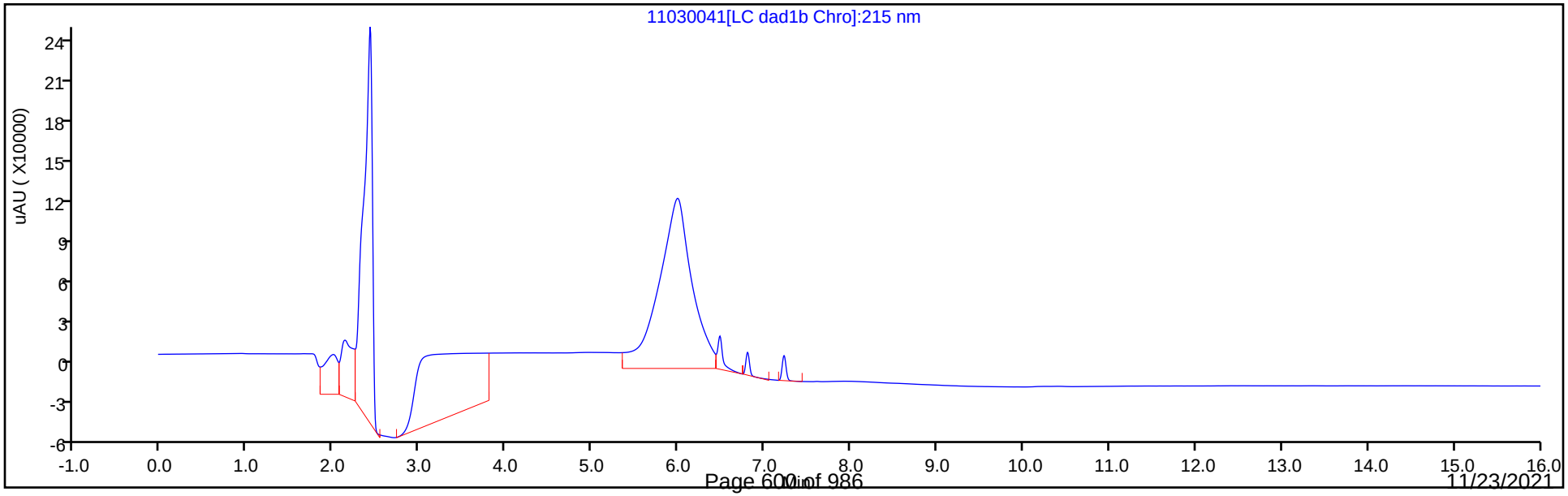
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030041.d | | | | |
| Injection Date: | 04-Nov-2021 03:21:24 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 41 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

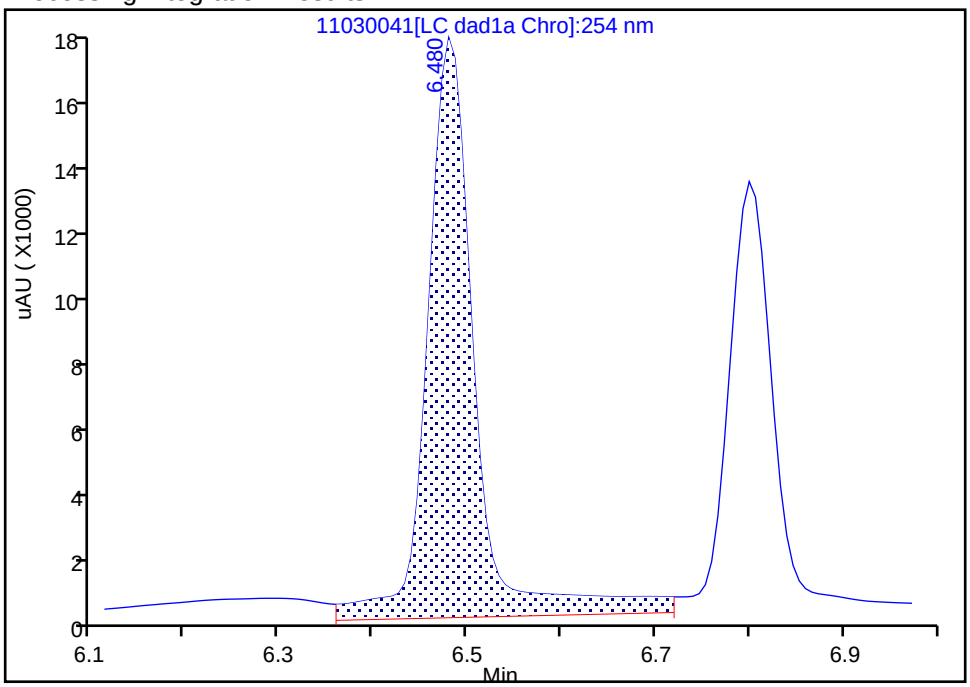
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030041.d | | | | |
| Injection Date: | 04-Nov-2021 03:21:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 41 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

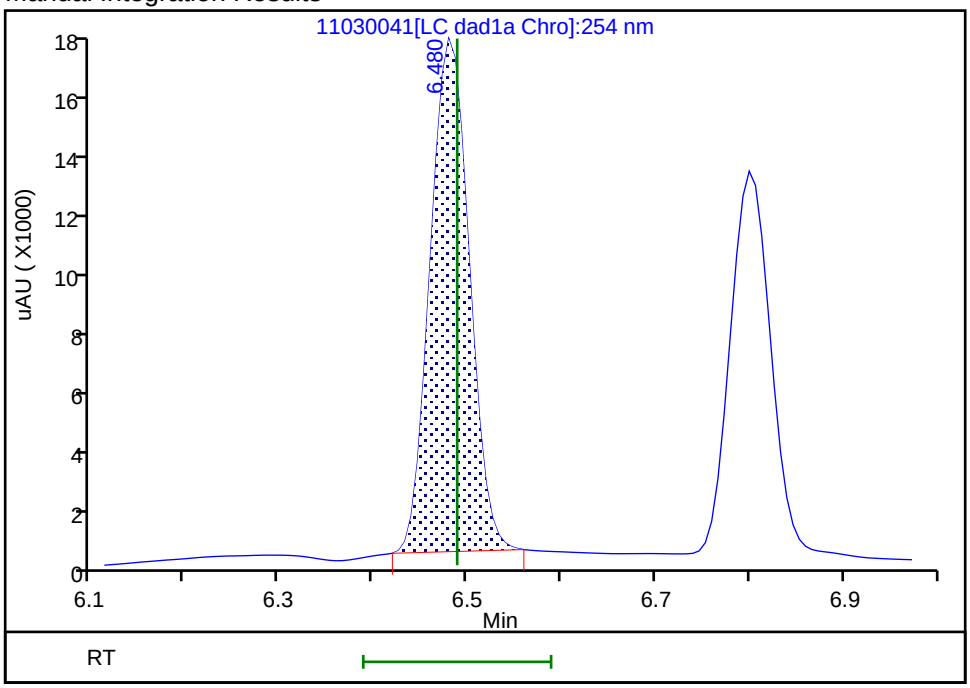
Processing Integration Results

RT: 6.48
Area: 60281
Amount: 0.324430
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 47250
Amount: 0.254297
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:32:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

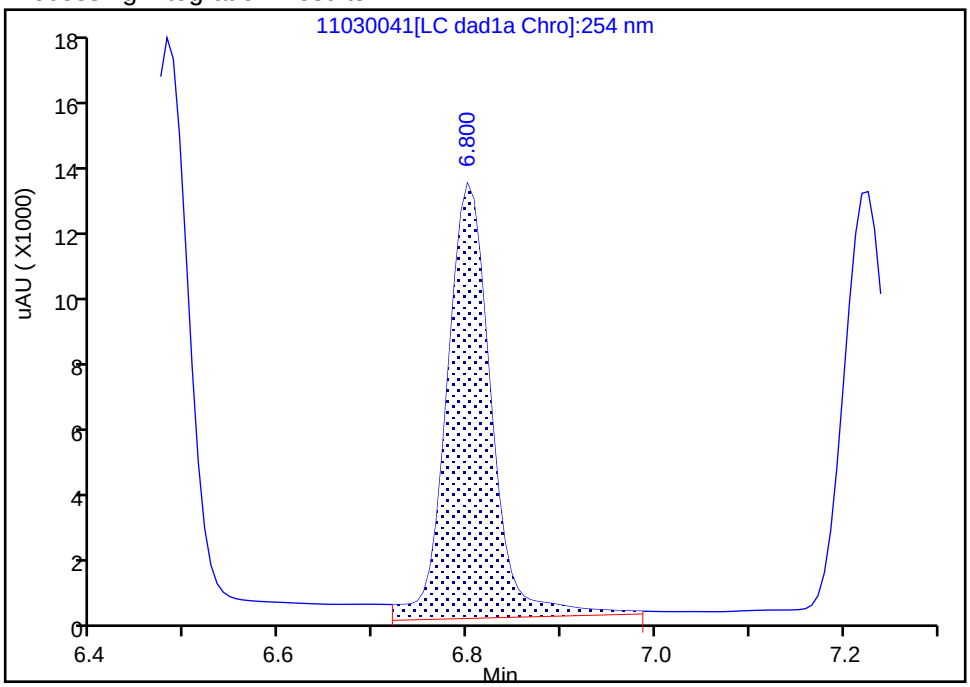
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030041.d | | | | |
| Injection Date: | 04-Nov-2021 03:21:24 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 41 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

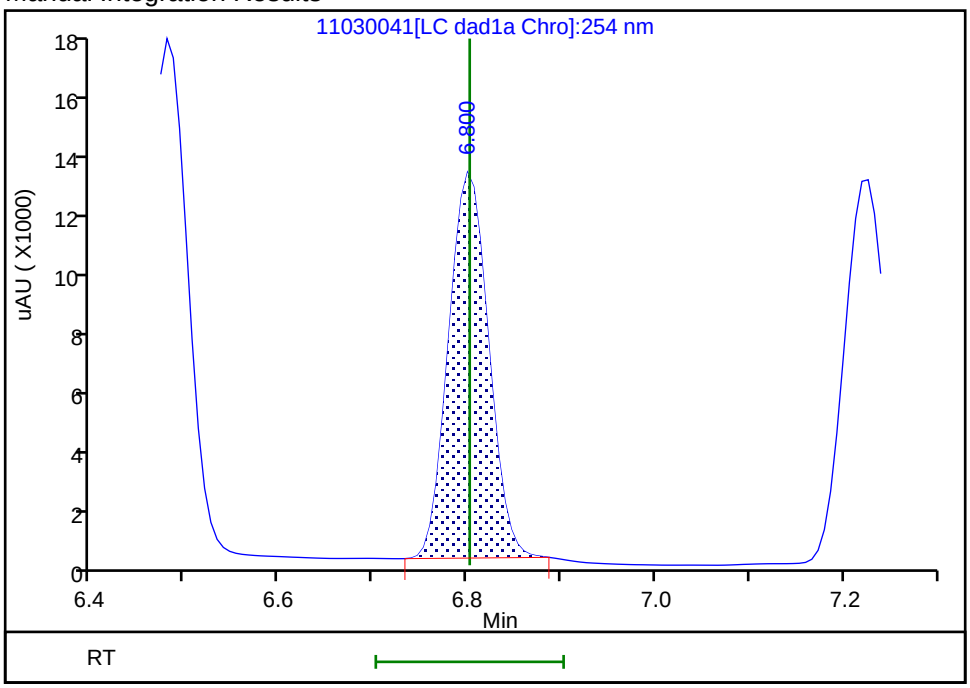
Processing Integration Results

RT: 6.80
Area: 41409
Amount: 0.291368
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 36073
Amount: 0.253822
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:32:08

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/46  Calibration Date: 11/04/2021 05:16

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030046.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 84421 | 85792 | | 254 | 250 | 1.6 | 15.0 |
| RDX | Ave | 106261 | 100988 | | 238 | 250 | -5.0 | 15.0 |
| Picric acid | Ave | 82721 | 78988 | | 239 | 250 | -4.5 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 220317 | 221545 | | 252 | 251 | 0.6 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 296329 | 297102 | | 251 | 251 | 0.3 | 15.0 |
| Nitrobenzene | Ave | 195286 | 183781 | | 236 | 251 | -5.9 | 15.0 |
| Tetryl | Ave | 172420 | 153505 | | 223 | 251 | -11.0 | 15.0 |
| Nitroglycerin | Lin2 | | 63331 | | 2400 | 2500 | -3.8 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 206038 | 201900 | | 246 | 251 | -2.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 152768 | 149023 | | 244 | 250 | -2.5 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 206926 | 201976 | | 245 | 251 | -2.4 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 143079 | 143056 | | 251 | 251 | -0.0 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 287012 | 294311 | | 257 | 251 | 2.5 | 15.0 |
| 2-Nitrotoluene | Ave | 128392 | 119092 | | 232 | 250 | -7.2 | 15.0 |
| 4-Nitrotoluene | Ave | 111913 | 104503 | | 234 | 251 | -6.6 | 15.0 |
| 3-Nitrotoluene | Ave | 142246 | 132304 | | 233 | 250 | -7.0 | 15.0 |
| PETN | Ave | 74779 | 67906 | | 2270 | 2500 | -9.2 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 128217 | 129772 | | 253 | 250 | 1.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/46  Calibration Date: 11/04/2021 05:16

Instrument ID: CHHPLC_X3  Calib Start Date: 05/01/2021 18:01

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 05/01/2021 21:04

Lab File ID: 11030046.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.60 | 6.46 | 6.76 |
| RDX | 7.61 | 7.46 | 7.76 |
| Picric acid | 7.98 | 7.82 | 8.12 |
| 1,3,5-Trinitrobenzene | 8.69 | 8.54 | 8.84 |
| 1,3-Dinitrobenzene | 9.33 | 9.18 | 9.48 |
| Nitrobenzene | 9.72 | 9.58 | 9.88 |
| Tetryl | 10.06 | 9.91 | 10.21 |
| Nitroglycerin | 10.52 | 10.37 | 10.67 |
| 2,4,6-Trinitrotoluene | 10.98 | 10.87 | 11.07 |
| 4-Amino-2,6-dinitrotoluene | 11.18 | 11.07 | 11.27 |
| 2-Amino-4,6-dinitrotoluene | 11.43 | 11.33 | 11.53 |
| 2,6-Dinitrotoluene | 11.60 | 11.50 | 11.70 |
| 2,4-Dinitrotoluene | 11.77 | 11.67 | 11.87 |
| 2-Nitrotoluene | 12.64 | 12.50 | 12.80 |
| 4-Nitrotoluene | 13.08 | 12.93 | 13.23 |
| 3-Nitrotoluene | 13.66 | 13.51 | 13.81 |
| PETN | 14.76 | 14.61 | 14.91 |
| 1,2-Dinitrobenzene | 8.58 | 8.42 | 8.72 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030046.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 04-Nov-2021 05:16:08 ALS Bottle#: 7 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0106163-046
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-Nov-2021 12:51:41 Calib Date: 27-Oct-2021 04:27:09
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

| 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 | 6.605 | -0.003 | 21448 | 0.2500 | 0.2541 | |
| 8 RDX | 1 | 7.609 | 7.605 | 0.004 | 25247 | 0.2500 | 0.2376 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.976 | 7.972 | 0.004 | 19747 | 0.2500 | 0.2387 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.576 | 8.572 | 0.004 | 32443 | 0.2500 | 0.2530 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.689 | 8.692 | -0.003 | 55497 | 0.2505 | 0.2519 | |
| 12 1,3-Dinitrobenzene | 1 | 9.329 | 9.325 | 0.004 | 74424 | 0.2505 | 0.2512 | |
| 13 Nitrobenzene | 1 | 9.722 | 9.725 | -0.003 | 46129 | 0.2510 | 0.2362 | |
| 15 Tetryl | 1 | 10.062 | 10.058 | 0.004 | 38453 | 0.2505 | 0.2230 | |
| 16 Nitroglycerin | 2 | 10.515 | 10.518 | -0.003 | 158327 | 2.50 | 2.40 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.975 | 10.971 | 0.004 | 50677 | 0.2510 | 0.2460 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.182 | 11.171 | 0.011 | 37293 | 0.2503 | 0.2441 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.429 | 11.425 | 0.004 | 50696 | 0.2510 | 0.2450 | |
| 20 2,6-Dinitrotoluene | 1 | 11.602 | 11.598 | 0.004 | 35907 | 0.2510 | 0.2510 | |
| 21 2,4-Dinitrotoluene | 1 | 11.769 | 11.765 | 0.004 | 73872 | 0.2510 | 0.2574 | |
| 22 o-Nitrotoluene | 1 | 12.642 | 12.645 | -0.003 | 29773 | 0.2500 | 0.2319 | |
| 23 p-Nitrotoluene | 1 | 13.075 | 13.078 | -0.003 | 26178 | 0.2505 | 0.2339 | |
| 24 m-Nitrotoluene | 1 | 13.655 | 13.658 | -0.003 | 33109 | 0.2503 | 0.2328 | |
| 25 PETN | 2 | 14.755 | 14.758 | -0.003 | 169764 | 2.50 | 2.27 | |

## Reagents:

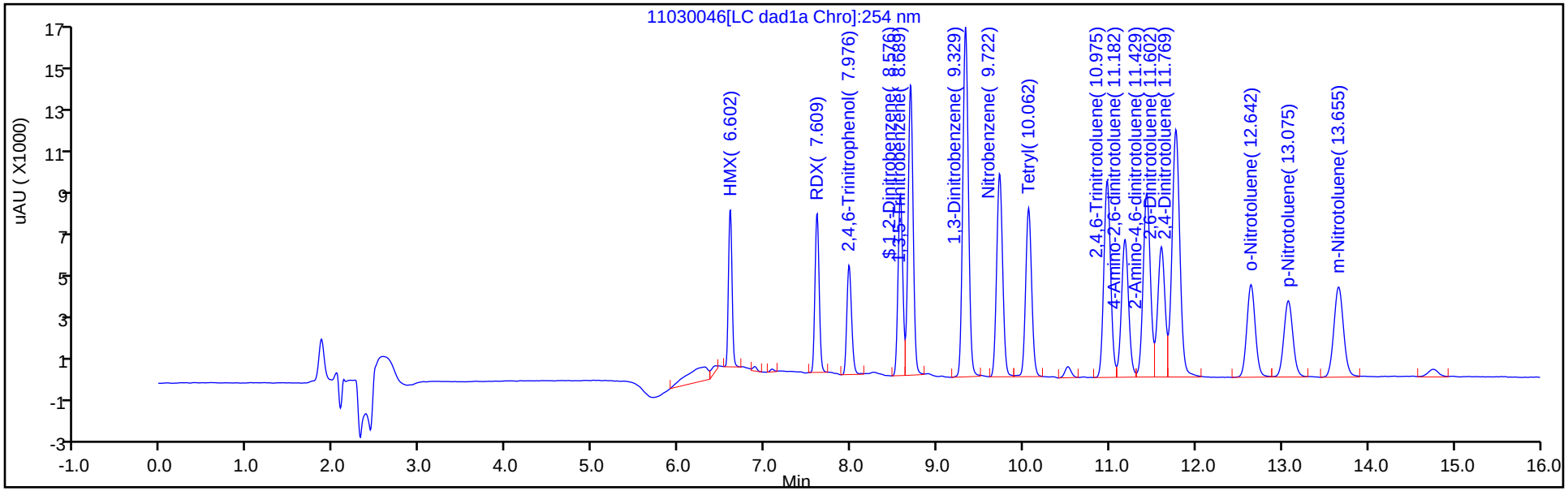
8330IntermStk_00069 Amount Added: 25.00 Units: uL

Report Date: 04-Nov-2021 12:51:41 Chrom Revision: 2.3 22-Sep-2021 15:38:46

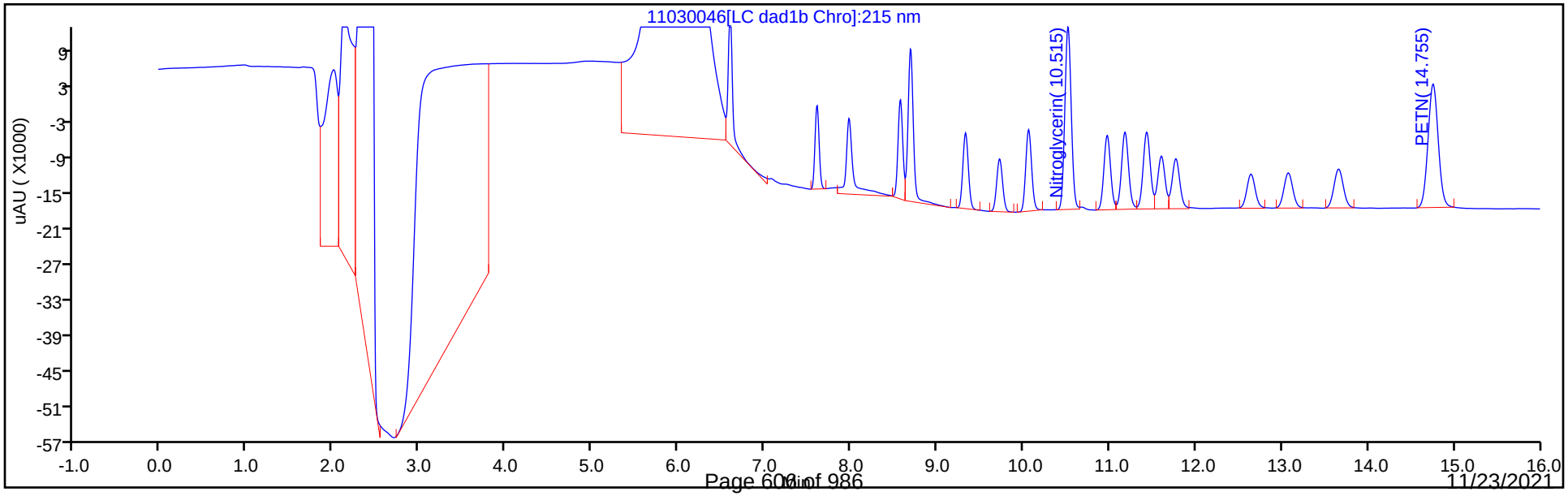
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030046.d | | | | |
| Injection Date: | 04-Nov-2021 05:16:08 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 46 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/47  Calibration Date: 11/04/2021 05:39

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030047.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 185806 | 188224 | | 254 | 250 | 1.3 | 15.0 |
| DNX | Ave | 142119 | 143441 | | 253 | 250 | 0.9 | 15.0 |
| MNX | Ave | 130340 | 133775 | | 299 | 292 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556054/47  Calibration Date: 11/04/2021 05:39

Instrument ID: CHHPLC_X3  Calib Start Date: 03/02/2021 23:49

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/03/2021 02:30

Lab File ID: 11030047.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.48 | 6.39 | 6.59 |
| DNX | 6.80 | 6.70 | 6.90 |
| MNX | 7.22 | 7.08 | 7.38 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030047.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 04-Nov-2021 05:39:07 | ALS Bottle#: | 9 | Worklist Smp#: | 47 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV INT | | | | |
| Misc. Info.: | 280-0106163-047 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:40 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 04-Nov-2021 12:51:34

| 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 | 6.489 | -0.007 | 47103 | 0.2503 | 0.2535 | M |
| 6 DNX | 1 | 6.802 | 6.802 | 0.000 | 35896 | 0.2503 | 0.2526 | M |
| 7 MNX | 1 | 7.222 | 7.229 | -0.007 | 39029 | 0.2918 | 0.2994 | |

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

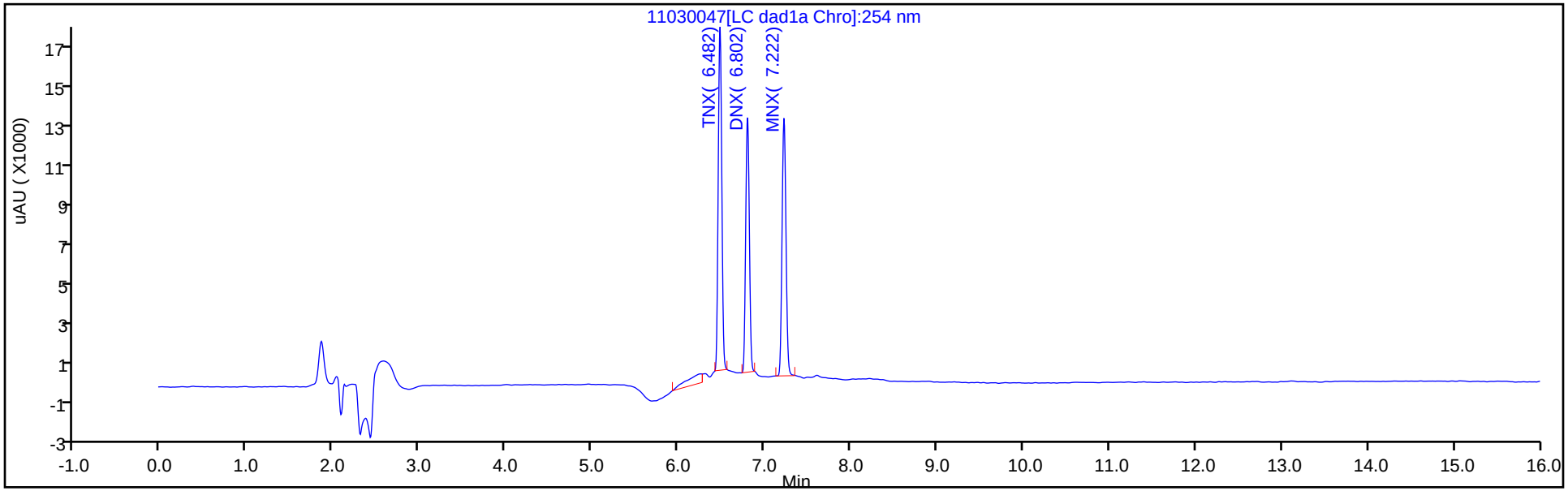
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 04-Nov-2021 12:51:40 Chrom Revision: 2.3 22-Sep-2021 15:38:46

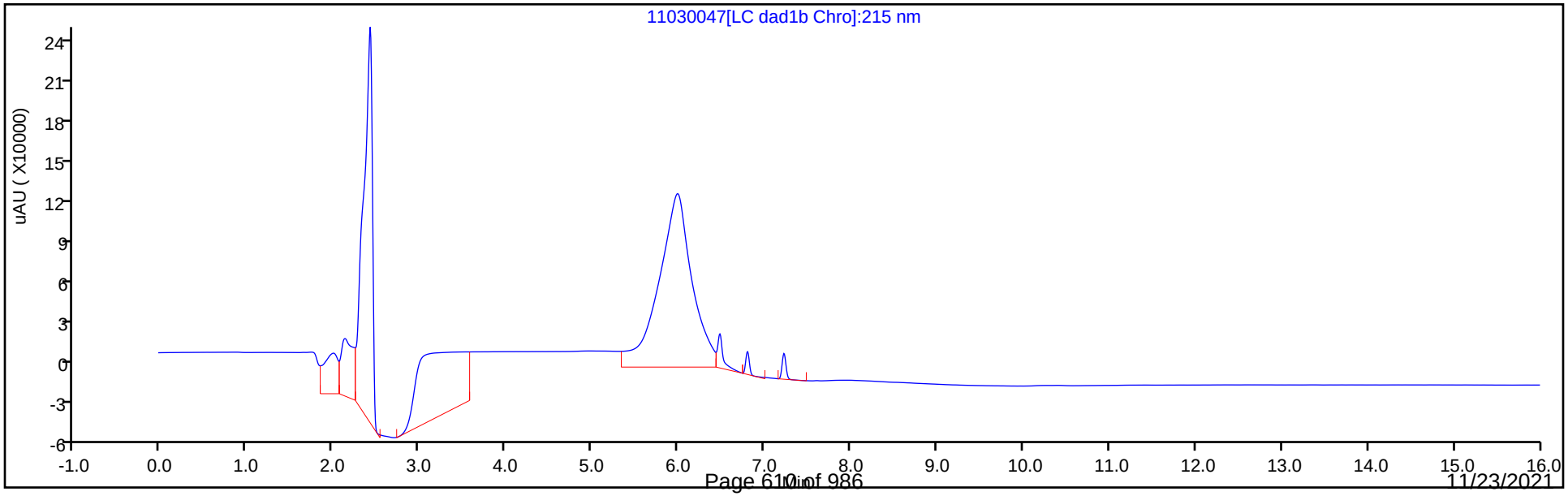
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030047.d | | | | |
| Injection Date: | 04-Nov-2021 05:39:07 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 47 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

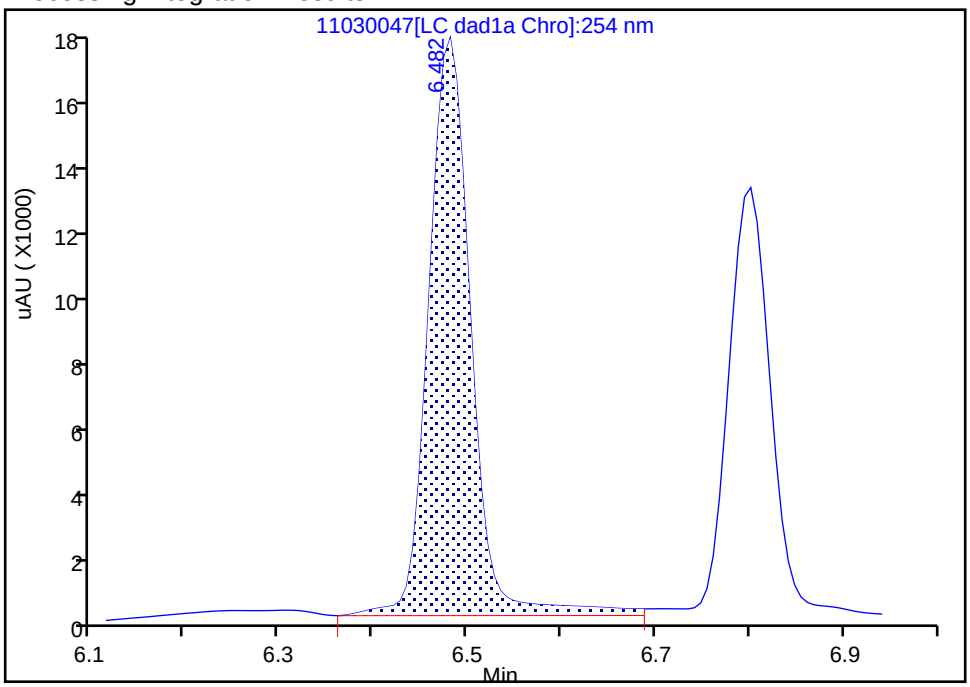
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030047.d | | | | |
| Injection Date: | 04-Nov-2021 05:39:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 47 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

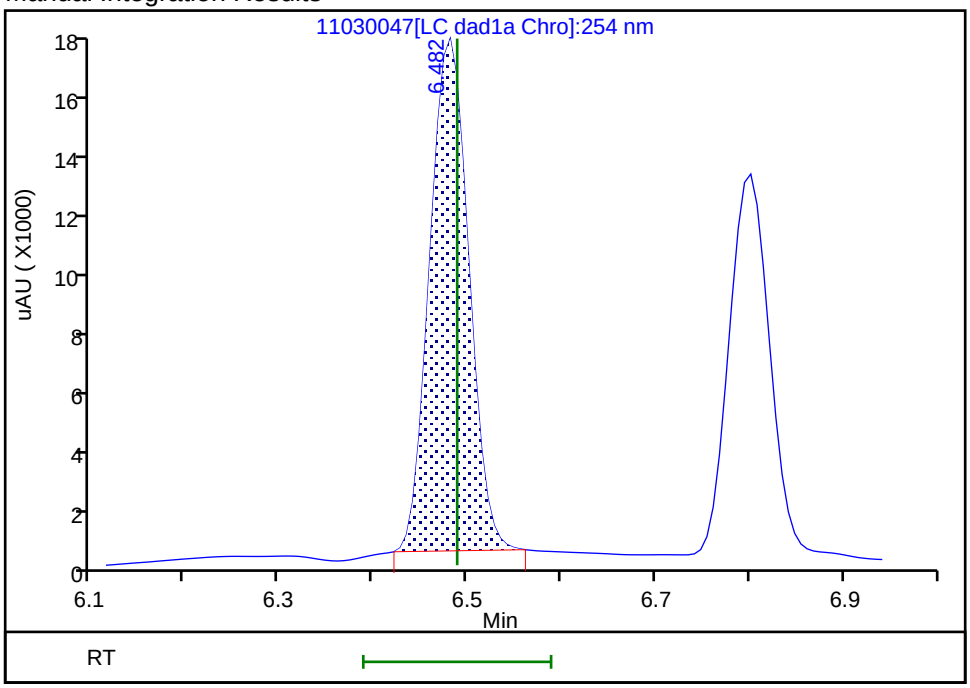
Processing Integration Results

RT: 6.48
Area: 52295
Amount: 0.281449
Amount Units: ug/mL




Manual Integration Results

RT: 6.48
Area: 47103
Amount: 0.253506
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:51:28

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

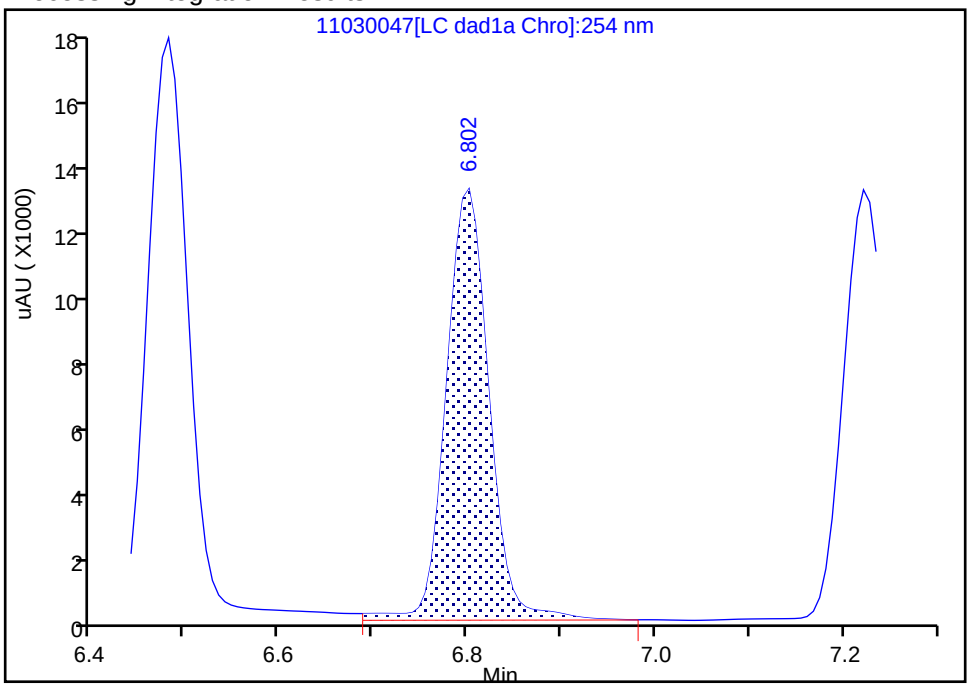
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030047.d | | | | |
| Injection Date: | 04-Nov-2021 05:39:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 47 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 DNX, CAS: 80251-29-2

Signal: 1

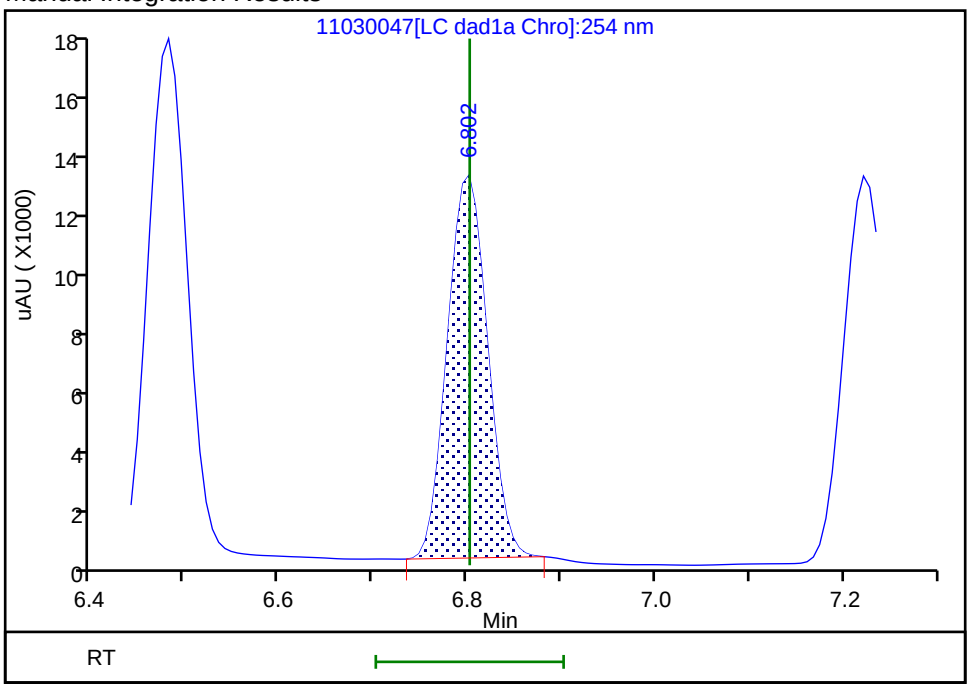
Processing Integration Results

RT: 6.80
Area: 38954
Amount: 0.274094
Amount Units: ug/mL




Manual Integration Results

RT: 6.80
Area: 35896
Amount: 0.252576
Amount Units: ug/mL




Reviewer: zhangji, 04-Nov-2021 12:51:31

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534620/19  Calibration Date: 05/02/2021 00:10

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 019-1401.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Lin2 | | 153834 | | 478 | 500 | -4.3 | 15.0 |
| Picric acid | Ave | 159537 | 164682 | | 516 | 500 | 3.2 | 15.0 |
| RDX | Ave | 204270 | 192088 | | 470 | 500 | -6.0 | 15.0 |
| Nitrobenzene | Ave | 374651 | 372074 | | 497 | 500 | -0.7 | 15.0 |
| 1,3-Dinitrobenzene | Lin2 | | 568356 | | 502 | 500 | 0.5 | 15.0 |
| Nitroglycerin | Ave | 128605 | 126748 | | 4930 | 5000 | -1.4 | 15.0 |
| 2-Nitrotoluene | Ave | 248967 | 234824 | | 472 | 500 | -5.7 | 15.0 |
| 4-Nitrotoluene | Ave | 217187 | 205250 | | 473 | 500 | -5.5 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 296705 | 274856 | | 463 | 500 | -7.4 | 15.0 |
| 3-Nitrotoluene | Ave | 278393 | 258506 | | 464 | 500 | -7.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Lin2 | | 385846 | | 492 | 500 | -1.7 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 419618 | | 505 | 500 | 1.0 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 264314 | | 496 | 500 | -0.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 565713 | 524186 | | 463 | 500 | -7.3 | 15.0 |
| Tetryl | Lin2 | | 317712 | | 494 | 500 | -1.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 384566 | | 513 | 500 | 2.6 | 15.0 |
| PETN | Ave | 137740 | 135365 | | 4910 | 5000 | -1.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 265659 | 258782 | | 487 | 500 | -2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534620/19  Calibration Date: 05/02/2021 00:10

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 019-1401.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.56 | 6.86 |
| Picric acid | 7.83 | 7.78 | 8.08 |
| RDX | 8.87 | 8.76 | 9.06 |
| Nitrobenzene | 11.93 | 11.82 | 12.12 |
| 1,3-Dinitrobenzene | 15.49 | 15.37 | 15.67 |
| Nitroglycerin | 15.92 | 15.79 | 16.09 |
| 2-Nitrotoluene | 16.73 | 16.61 | 16.91 |
| 4-Nitrotoluene | 17.01 | 16.90 | 17.20 |
| 4-Amino-2,6-dinitrotoluene | 17.49 | 17.38 | 17.68 |
| 3-Nitrotoluene | 17.99 | 17.88 | 18.18 |
| 2-Amino-4,6-dinitrotoluene | 18.40 | 18.28 | 18.58 |
| 1,3,5-Trinitrobenzene | 18.92 | 18.79 | 19.09 |
| 2,6-Dinitrotoluene | 20.18 | 20.05 | 20.35 |
| 2,4-Dinitrotoluene | 20.65 | 20.52 | 20.82 |
| Tetryl | 24.31 | 24.16 | 24.46 |
| 2,4,6-Trinitrotoluene | 25.28 | 25.13 | 25.43 |
| PETN | 26.19 | 26.04 | 26.34 |
| 1,2-Dinitrobenzene | 13.06 | 12.94 | 13.24 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\019-1401.D
Lims ID: ICV INT/ADD
Client ID:
Sample Type: ICV
Inject. Date: 02-May-2021 00:10:18 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT/ADD
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 04-May-2021 13:45:38 Calib Date: 01-May-2021 23:35:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\018-1301.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 04-May-2021 13:33:02

| 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 | 4.060 | 4.126 | -0.066 | 216822 | 0.5000 | 0.5224 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.647 | 4.653 | -0.006 | 135044 | 0.5000 | 0.5598 | |
| 6 HMX | 1 | 6.694 | 6.713 | -0.019 | 76917 | 0.5000 | 0.4783 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.827 | 7.933 | -0.106 | 82341 | 0.5000 | 0.5161 | |
| 8 RDX | 1 | 8.874 | 8.906 | -0.032 | 96044 | 0.5000 | 0.4702 | |
| 9 Nitrobenzene | 1 | 11.934 | 11.973 | -0.039 | 186037 | 0.5000 | 0.4966 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.060 | 13.093 | -0.033 | 129391 | 0.5000 | 0.4871 | |
| 11 3,5-Dinitroaniline | 1 | 14.947 | 14.979 | -0.032 | 215841 | 0.5000 | 0.4774 | |
| 12 1,3-Dinitrobenzene | 1 | 15.494 | 15.519 | -0.025 | 284178 | 0.5000 | 0.5024 | |
| 13 Nitroglycerin | 2 | 15.920 | 15.939 | -0.019 | 633738 | 5.00 | 4.93 | |
| 14 o-Nitrotoluene | 1 | 16.727 | 16.759 | -0.032 | 117412 | 0.5000 | 0.4716 | |
| 15 p-Nitrotoluene | 1 | 17.014 | 17.046 | -0.032 | 102625 | 0.5000 | 0.4725 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.494 | 17.526 | -0.032 | 137428 | 0.5000 | 0.4632 | |
| 17 m-Nitrotoluene | 1 | 17.994 | 18.026 | -0.032 | 129253 | 0.5000 | 0.4643 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.400 | 18.426 | -0.026 | 192923 | 0.5000 | 0.4916 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.920 | 18.939 | -0.019 | 209809 | 0.5000 | 0.5052 | |
| 20 2,6-Dinitrotoluene | 1 | 20.180 | 20.199 | -0.019 | 132157 | 0.5000 | 0.4958 | |
| 21 2,4-Dinitrotoluene | 1 | 20.647 | 20.666 | -0.019 | 262093 | 0.5000 | 0.4633 | |
| 22 Tetryl | 1 | 24.314 | 24.313 | 0.001 | 158856 | 0.5000 | 0.4941 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.280 | 25.280 | 0.000 | 192283 | 0.5000 | 0.5131 | |
| 24 PETN | 2 | 26.187 | 26.186 | 0.001 | 676826 | 5.00 | 4.91 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

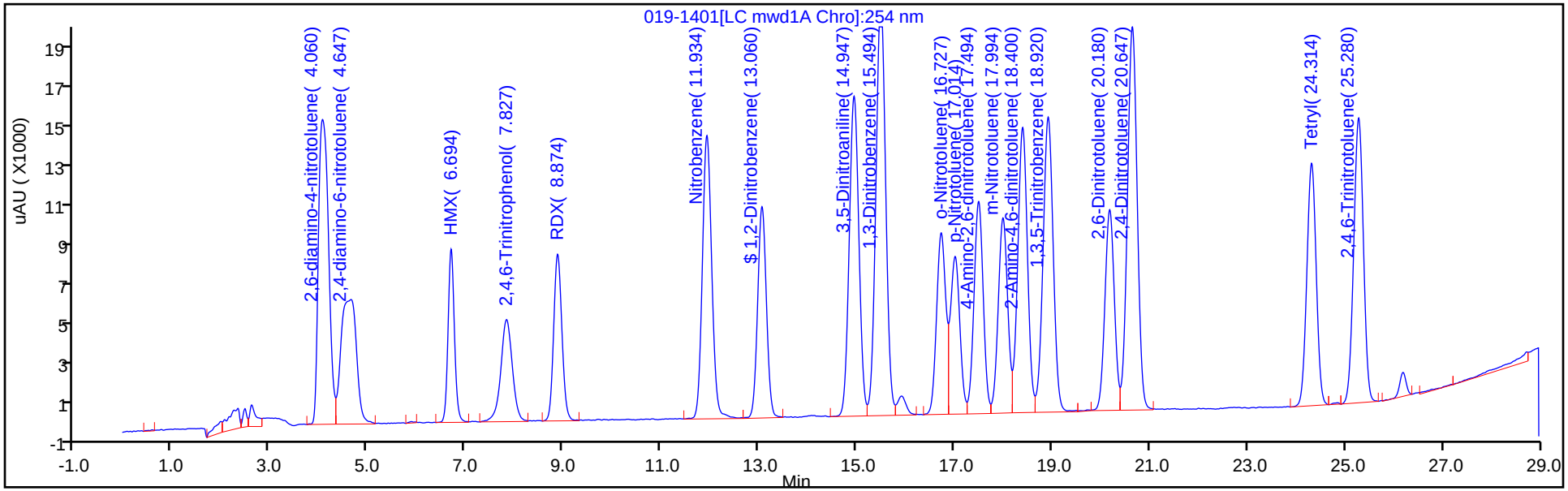
| | | |
|---|---|---|
| 3,5-DNA LCS_00038 | Amount Added: 50.00 | Units: uL |
| 8330 LCS_00108 | Amount Added: 50.00 | Units: uL |
| 8330Surrogate_00124 | Amount Added: 50.00 | Units: uL |
| 8330DiaminLCS_00039 | Amount Added: 50.00 | Units: uL |

Report Date: 04-May-2021 13:45:44 Chrom Revision: 2.3 08-Apr-2021 17:17:48

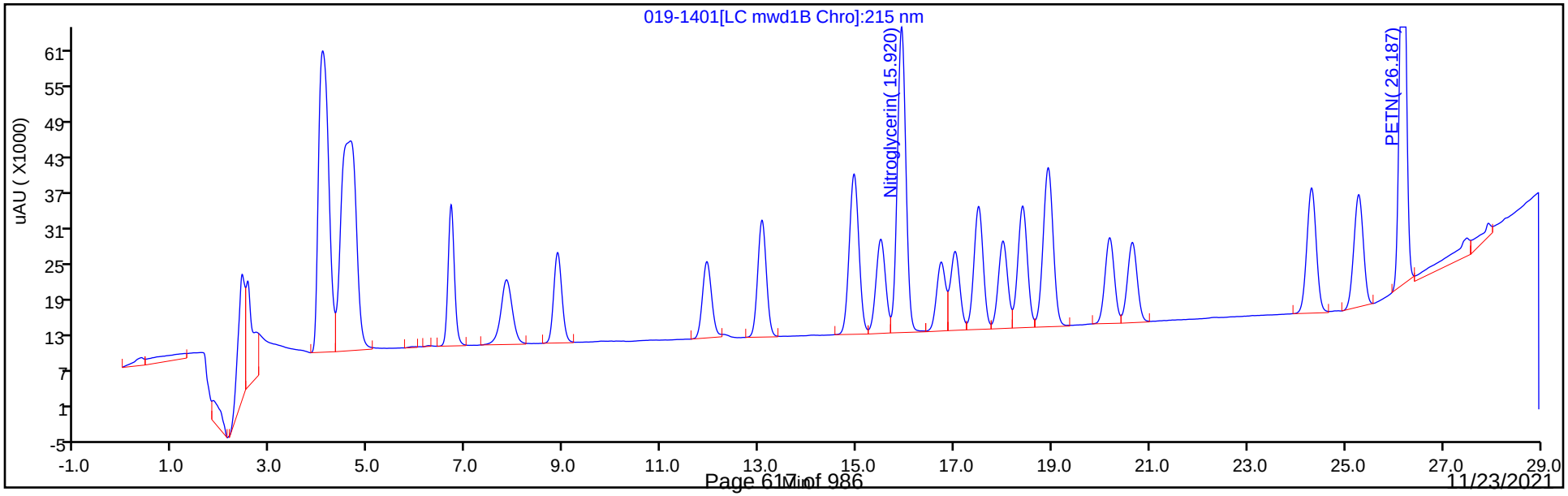
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\019-1401.D | | | | |
| Injection Date: | 02-May-2021 00:10:18 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | ICV INT/ADD | | | 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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

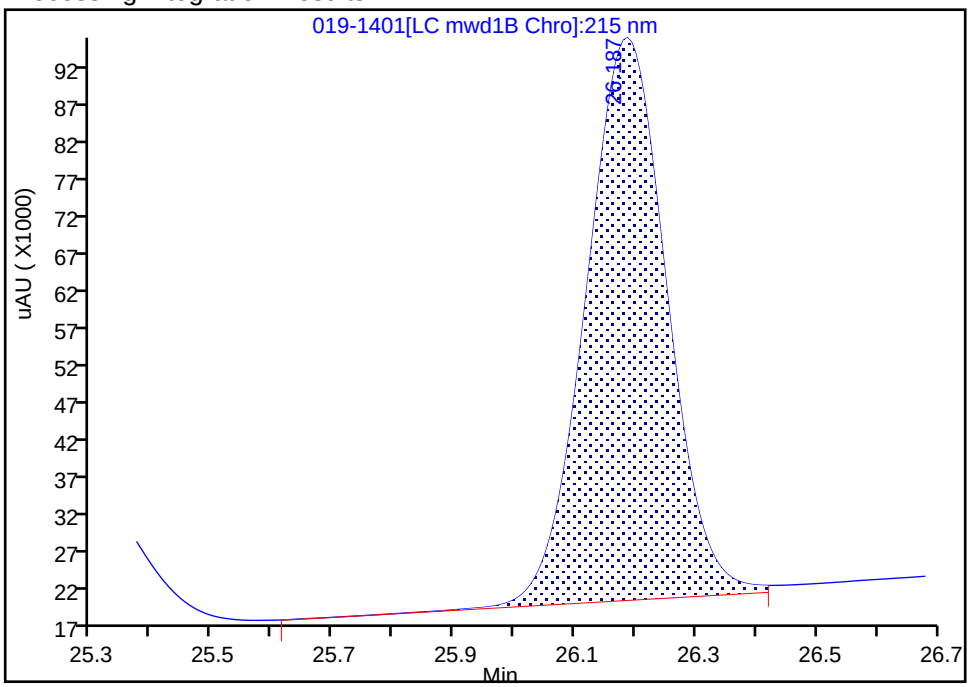
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\019-1401.D | | | | |
| Injection Date: | 02-May-2021 00:10:18 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | ICV INT/ADD | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X5_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC mwd1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

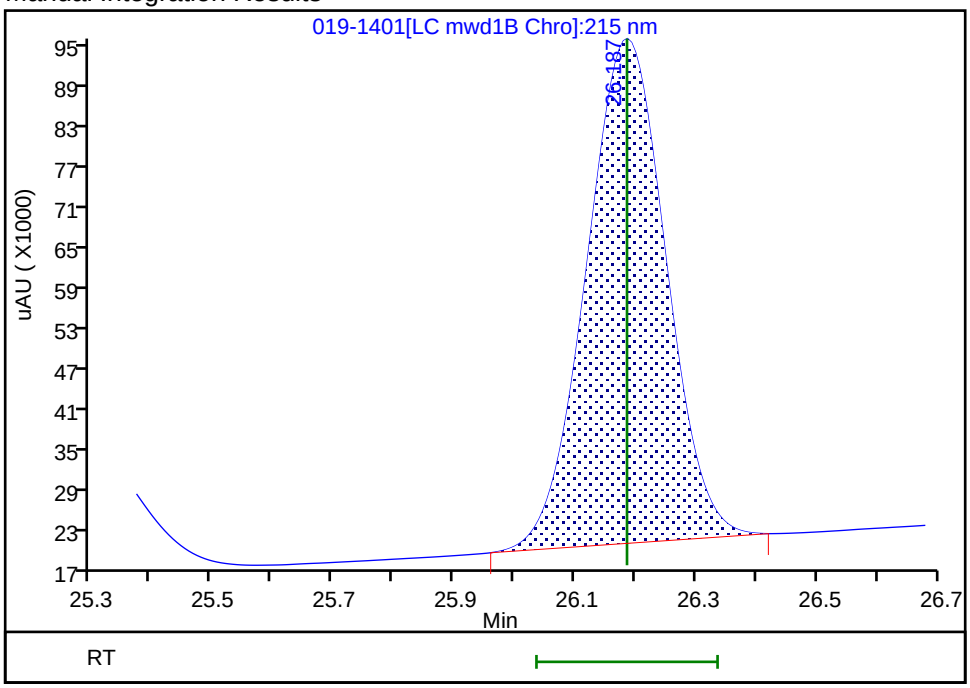
Processing Integration Results

RT: 26.19
Area: 693830
Amount: 5.037230
Amount Units: ug/ml




Manual Integration Results

RT: 26.19
Area: 676826
Amount: 4.913780
Amount Units: ug/ml




Reviewer: zhangji, 04-May-2021 13:43:01

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534620/28  Calibration Date: 05/02/2021 05:26

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 028-2301.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 376144 | 376410 | | 501 | 501 | 0.0 | 15.0 |
| DNX | Ave | 284791 | 287804 | | 506 | 501 | 1.1 | 15.0 |
| MNX | Ave | 264843 | 265575 | | 585 | 584 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: ICV 280-534620/28  Calibration Date: 05/02/2021 05:26

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 028-2301.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.07 | 4.93 | 5.23 |
| DNX | 5.89 | 5.75 | 6.05 |
| MNX | 7.44 | 7.31 | 7.61 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\028-2301.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 02-May-2021 05:26:08 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-May-2021 13:45:38 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1618 | | | | |
| First Level Reviewer: zhangji | | Date: | 04-May-2021 13:36:47 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.067 | 5.075 | -0.008 | 188393 | 0.5005 | 0.5009 | |
| 4 DNX | 1 | 5.894 | 5.902 | -0.008 | 144046 | 0.5005 | 0.5058 | |
| 7 MNX | 1 | 7.441 | 7.455 | -0.014 | 154963 | 0.5835 | 0.5851 | |

## Reagents:

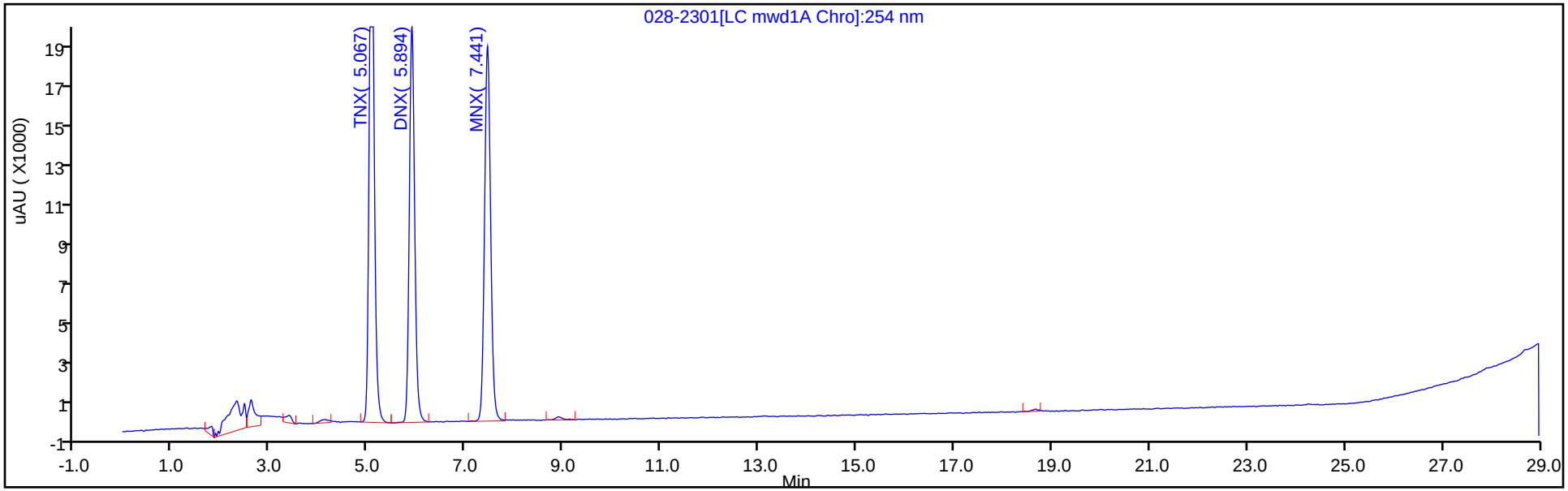
8330_OP_DMT_00010 Amount Added: 50.00 Units: uL

Report Date: 04-May-2021 13:45:44 Chrom Revision: 2.3 08-Apr-2021 17:17:48

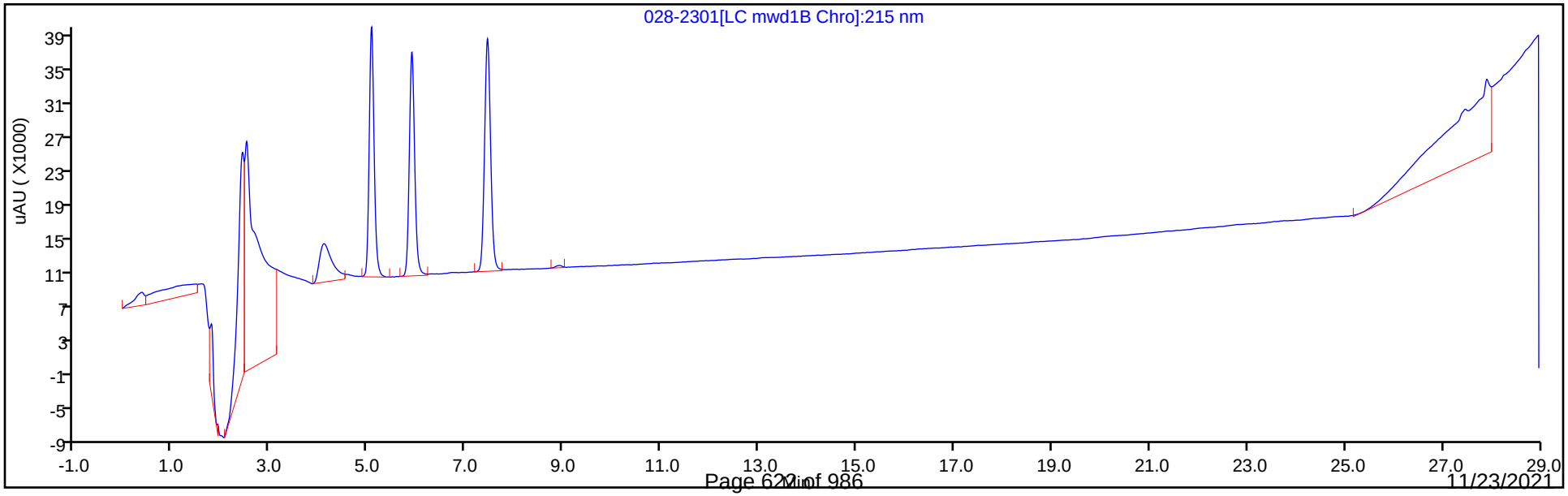
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\028-2301.D | | | | |
| Injection Date: | 02-May-2021 05:26:08 | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/20  Calibration Date: 11/04/2021 22:22

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 11040020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Lin2 | | 167100 | | 257 | 250 | 2.8 | 15.0 |
| Picric acid | Ave | 159537 | 157784 | | 247 | 250 | -1.1 | 15.0 |
| RDX | Ave | 204270 | 201180 | | 246 | 250 | -1.5 | 15.0 |
| Nitrobenzene | Ave | 374651 | 374215 | | 251 | 251 | -0.1 | 15.0 |
| 1,3-Dinitrobenzene | Lin2 | | 599353 | | 264 | 251 | 5.5 | 15.0 |
| Nitroglycerin | Ave | 128605 | 133136 | | 2590 | 2500 | 3.5 | 15.0 |
| 2-Nitrotoluene | Ave | 248967 | 239776 | | 241 | 250 | -3.7 | 15.0 |
| 4-Nitrotoluene | Ave | 217187 | 211309 | | 244 | 251 | -2.7 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 296705 | 286262 | | 241 | 250 | -3.5 | 15.0 |
| 3-Nitrotoluene | Ave | 278393 | 270242 | | 243 | 250 | -2.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Lin2 | | 412534 | | 262 | 251 | 4.5 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 433493 | | 258 | 251 | 3.0 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 275359 | | 258 | 251 | 2.7 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 565713 | 557705 | | 247 | 251 | -1.4 | 15.0 |
| Tetryl | Lin2 | | 299984 | | 231 | 251 | -7.9 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 392303 | | 261 | 251 | 3.9 | 15.0 |
| PETN | Ave | 137740 | 128191 | | 2330 | 2500 | -6.9 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 265659 | 262592 | | 247 | 250 | -1.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/20  Calibration Date: 11/04/2021 22:22

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 11040020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.64 | 6.50 | 6.80 |
| Picric acid | 7.82 | 7.77 | 8.07 |
| RDX | 8.80 | 8.67 | 8.97 |
| Nitrobenzene | 11.87 | 11.73 | 12.03 |
| 1,3-Dinitrobenzene | 15.37 | 15.24 | 15.54 |
| Nitroglycerin | 15.73 | 15.60 | 15.90 |
| 2-Nitrotoluene | 16.61 | 16.47 | 16.77 |
| 4-Nitrotoluene | 16.89 | 16.75 | 17.05 |
| 4-Amino-2,6-dinitrotoluene | 17.35 | 17.21 | 17.51 |
| 3-Nitrotoluene | 17.87 | 17.72 | 18.02 |
| 2-Amino-4,6-dinitrotoluene | 18.23 | 18.11 | 18.41 |
| 1,3,5-Trinitrobenzene | 18.77 | 18.63 | 18.93 |
| 2,6-Dinitrotoluene | 20.02 | 19.88 | 20.18 |
| 2,4-Dinitrotoluene | 20.48 | 20.35 | 20.65 |
| Tetryl | 24.07 | 23.95 | 24.25 |
| 2,4,6-Trinitrotoluene | 25.06 | 24.94 | 25.24 |
| PETN | 25.97 | 25.85 | 26.15 |
| 1,2-Dinitrobenzene | 12.96 | 12.82 | 13.12 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 04-Nov-2021 22:22:28 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0106204-020
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 05-Nov-2021 16:05:30 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1601

First Level Reviewer: zhangji Date: 05-Nov-2021 15:59:47

| 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 | 4.106 | 4.110 | -0.004 | 101442 | 0.2500 | 0.2393 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.620 | 4.623 | -0.003 | 60475 | 0.2500 | 0.2477 | |
| 5 HMX | 1 | 6.640 | 6.650 | -0.010 | 41775 | 0.2500 | 0.2569 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.820 | 7.916 | -0.096 | 39446 | 0.2500 | 0.2473 | |
| 8 RDX | 1 | 8.800 | 8.816 | -0.016 | 50295 | 0.2500 | 0.2462 | |
| 9 Nitrobenzene | 1 | 11.866 | 11.876 | -0.010 | 93928 | 0.2510 | 0.2507 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.959 | 12.969 | -0.010 | 65648 | 0.2500 | 0.2471 | |
| 11 3,5-Dinitroaniline | 1 | 14.819 | 14.836 | -0.017 | 109047 | 0.2500 | 0.2402 | |
| 12 1,3-Dinitrobenzene | 1 | 15.373 | 15.389 | -0.016 | 150138 | 0.2505 | 0.2643 | |
| 13 Nitroglycerin | 2 | 15.733 | 15.749 | -0.016 | 332841 | 2.50 | 2.59 | |
| 14 o-Nitrotoluene | 1 | 16.606 | 16.616 | -0.010 | 59944 | 0.2500 | 0.2408 | |
| 16 p-Nitrotoluene | 1 | 16.893 | 16.903 | -0.010 | 52933 | 0.2505 | 0.2437 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.346 | 17.363 | -0.017 | 71637 | 0.2503 | 0.2414 | |
| 18 m-Nitrotoluene | 1 | 17.866 | 17.869 | -0.003 | 67628 | 0.2503 | 0.2429 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.233 | 18.256 | -0.023 | 103546 | 0.2510 | 0.2624 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.766 | 18.783 | -0.017 | 108590 | 0.2505 | 0.2581 | |
| 21 2,6-Dinitrotoluene | 1 | 20.019 | 20.029 | -0.010 | 69115 | 0.2510 | 0.2577 | |
| 22 2,4-Dinitrotoluene | 1 | 20.479 | 20.496 | -0.017 | 139984 | 0.2510 | 0.2474 | |
| 23 Tetryl | 1 | 24.066 | 24.096 | -0.030 | 75146 | 0.2505 | 0.2306 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.060 | 25.090 | -0.030 | 98468 | 0.2510 | 0.2607 | |
| 25 PETN | 2 | 25.966 | 25.996 | -0.030 | 320477 | 2.50 | 2.33 | M |

## QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

## Reagents:

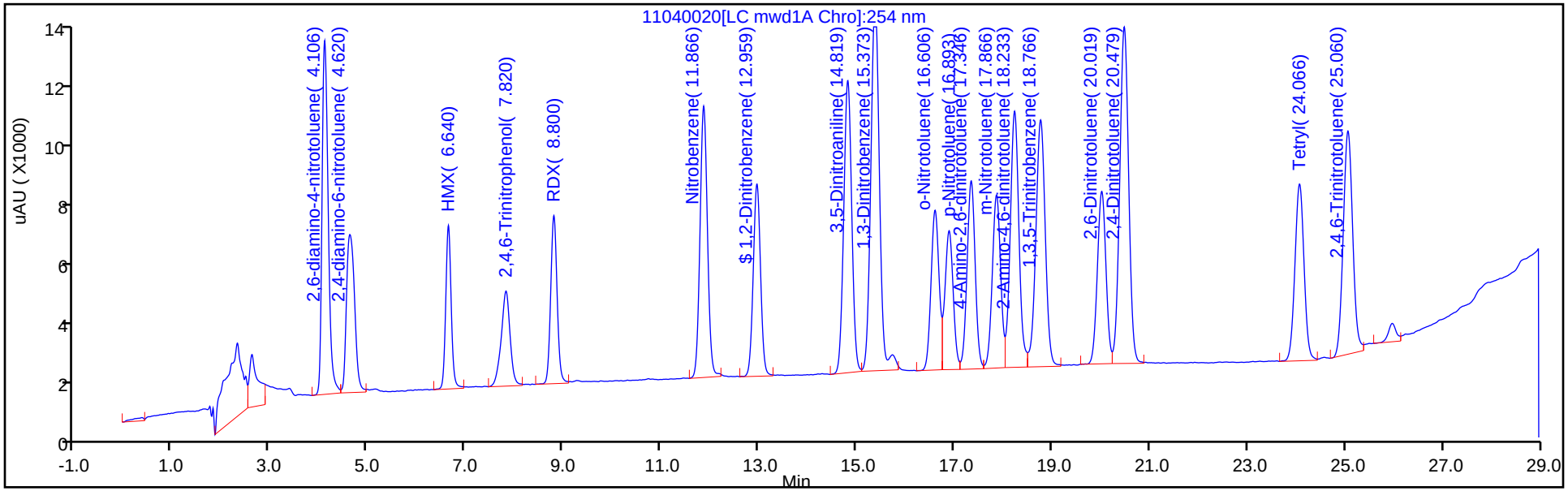
| | | |
|---|---|---|
| 8330IntermStk_00069 | Amount Added: 25.00 | Units: uL |
| 8330_ADDs_00029 | Amount Added: 12.50 | Units: uL |

Report Date: 05-Nov-2021 16:05:30 Chrom Revision: 2.3 22-Sep-2021 15:38:46

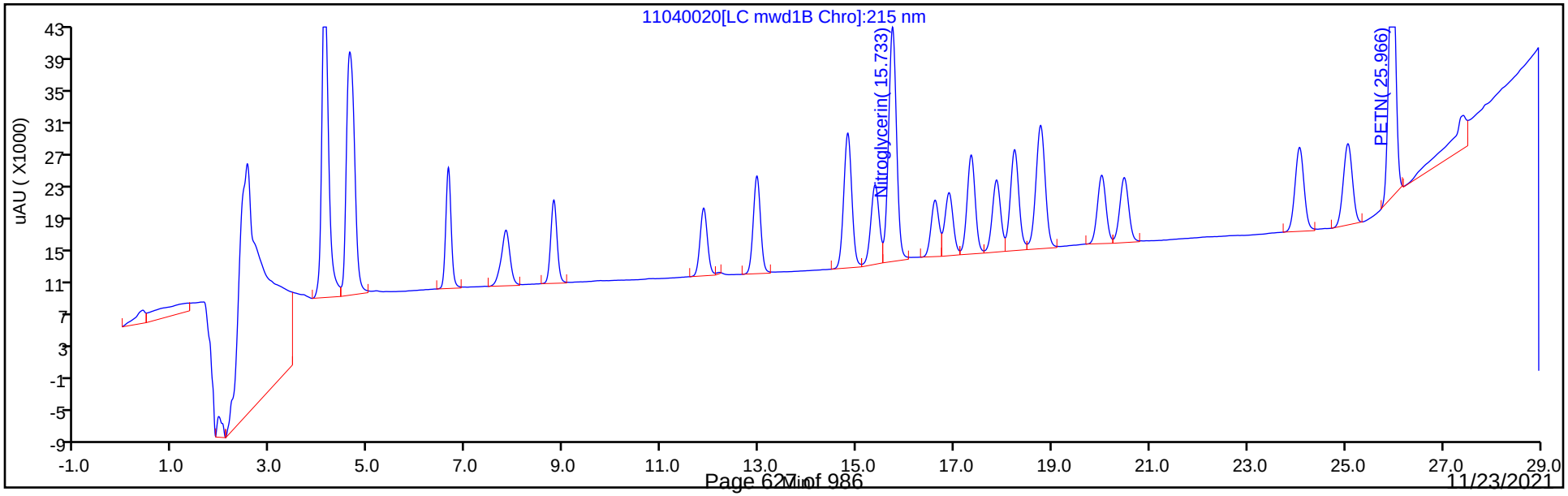
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040020.D | | | | |
| Injection Date: | 04-Nov-2021 22:22:28 | 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 TestAmerica, Denver

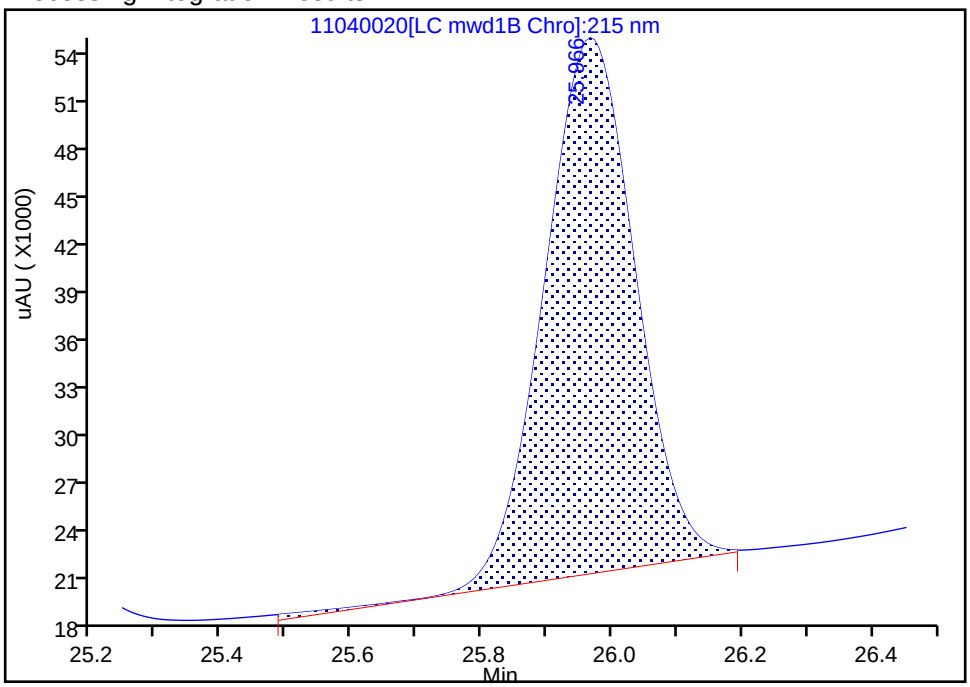
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040020.D | | | | |
| Injection Date: | 04-Nov-2021 22:22:28 | Instrument ID: | CHHPLC_X5 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist 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

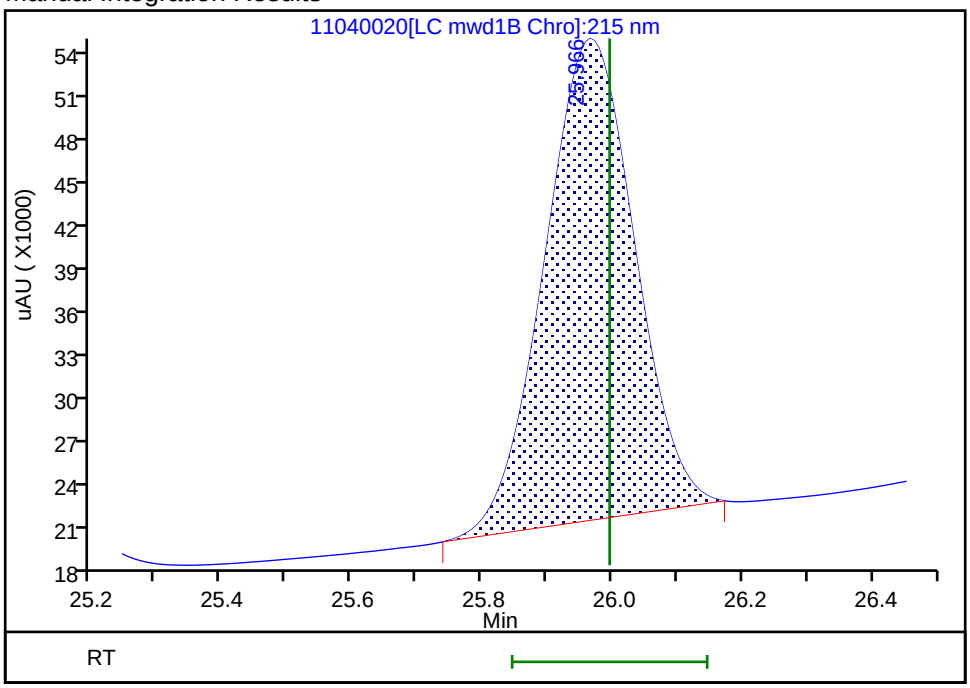
Processing Integration Results

RT: 25.97
Area: 327773
Amount: 2.379643
Amount Units: ug/ml




Manual Integration Results

RT: 25.97
Area: 320477
Amount: 2.326674
Amount Units: ug/ml




Reviewer: zhangji, 05-Nov-2021 15:59:46

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/21  Calibration Date: 11/04/2021 22:57

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 11040021.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 376144 | 369495 | | 246 | 250 | -1.8 | 15.0 |
| DNX | Ave | 284791 | 285770 | | 251 | 250 | 0.3 | 15.0 |
| MNX | Ave | 264843 | 263702 | | 290 | 292 | -0.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/21  Calibration Date: 11/04/2021 22:57

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 11040021.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.03 | 4.89 | 5.19 |
| DNX | 5.85 | 5.71 | 6.01 |
| MNX | 7.37 | 7.23 | 7.53 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040021.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 04-Nov-2021 22:57:29 | ALS Bottle#: | 8 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0106204-021 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Nov-2021 16:05:31 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1601 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.033 | 5.044 | -0.011 | 92466 | 0.2503 | 0.2458 | |
| 4 DNX | 1 | 5.847 | 5.857 | -0.010 | 71514 | 0.2503 | 0.2511 | |
| 6 MNX | 1 | 7.367 | 7.384 | -0.017 | 76935 | 0.2918 | 0.2905 | |

## Reagents:

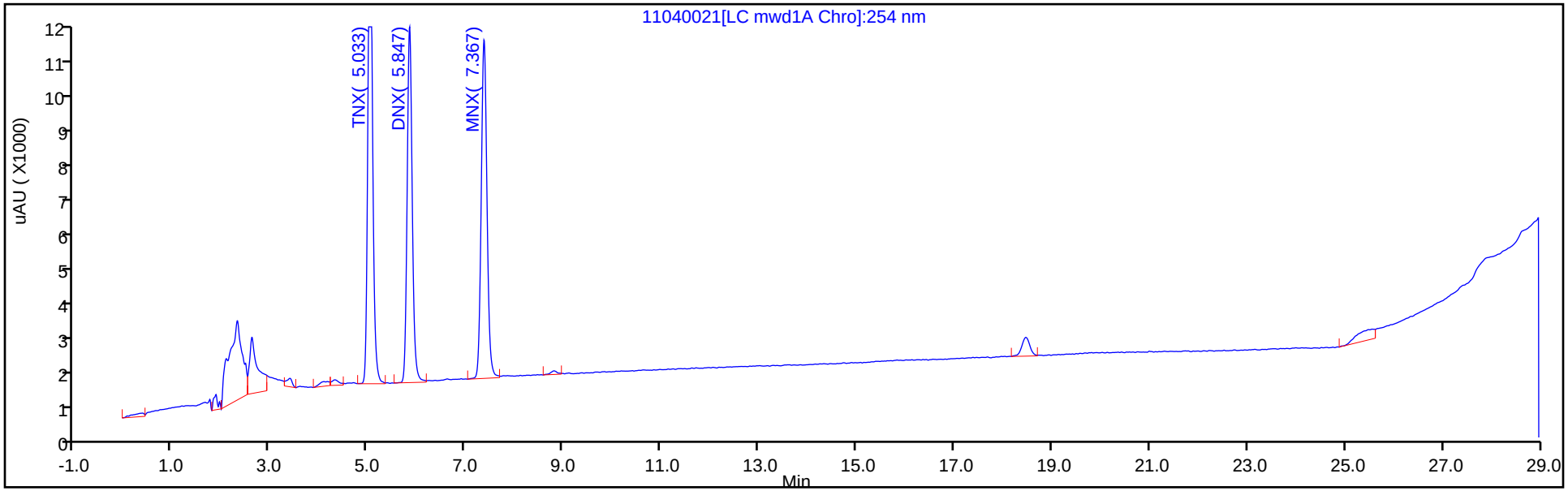
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 05-Nov-2021 16:05:31 Chrom Revision: 2.3 22-Sep-2021 15:38:46

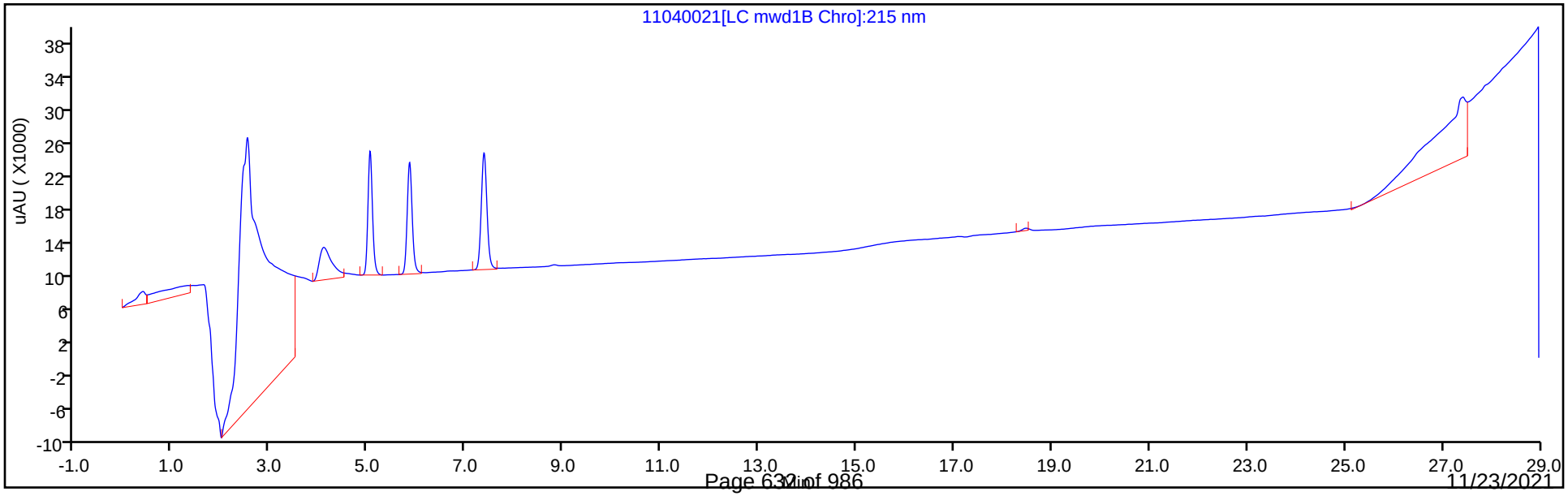
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040021.D | | | | |
| Injection Date: | 04-Nov-2021 22:57:29 | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/31  Calibration Date: 11/05/2021 04:48

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 11040031.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Lin2 | | 166924 | | 257 | 250 | 2.7 | 15.0 |
| Picric acid | Ave | 159537 | 158792 | | 249 | 250 | -0.5 | 15.0 |
| RDX | Ave | 204270 | 201436 | | 247 | 250 | -1.4 | 15.0 |
| Nitrobenzene | Ave | 374651 | 366112 | | 245 | 251 | -2.3 | 15.0 |
| 1,3-Dinitrobenzene | Lin2 | | 604228 | | 266 | 251 | 6.4 | 15.0 |
| Nitroglycerin | Ave | 128605 | 133088 | | 2590 | 2500 | 3.5 | 15.0 |
| 2-Nitrotoluene | Ave | 248967 | 232556 | | 234 | 250 | -6.6 | 15.0 |
| 4-Nitrotoluene | Ave | 217187 | 210291 | | 243 | 251 | -3.2 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 296705 | 286482 | | 242 | 250 | -3.4 | 15.0 |
| 3-Nitrotoluene | Ave | 278393 | 263297 | | 237 | 250 | -5.4 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Lin2 | | 416554 | | 265 | 251 | 5.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 431046 | | 257 | 251 | 2.4 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 276892 | | 259 | 251 | 3.3 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 565713 | 559888 | | 248 | 251 | -1.0 | 15.0 |
| Tetryl | Lin2 | | 297780 | | 229 | 251 | -8.6 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 409641 | | 272 | 251 | 8.5 | 15.0 |
| PETN | Ave | 137740 | 131335 | | 2380 | 2500 | -4.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 265659 | 263196 | | 248 | 250 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/31  Calibration Date: 11/05/2021 04:48

Instrument ID: CHHPLC_X5  Calib Start Date: 05/01/2021 18:54

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/01/2021 23:35

Lab File ID: 11040031.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.66 | 6.50 | 6.80 |
| Picric acid | 7.81 | 7.77 | 8.07 |
| RDX | 8.81 | 8.67 | 8.97 |
| Nitrobenzene | 11.87 | 11.73 | 12.03 |
| 1,3-Dinitrobenzene | 15.37 | 15.24 | 15.54 |
| Nitroglycerin | 15.72 | 15.60 | 15.90 |
| 2-Nitrotoluene | 16.59 | 16.47 | 16.77 |
| 4-Nitrotoluene | 16.87 | 16.75 | 17.05 |
| 4-Amino-2,6-dinitrotoluene | 17.33 | 17.21 | 17.51 |
| 3-Nitrotoluene | 17.84 | 17.72 | 18.02 |
| 2-Amino-4,6-dinitrotoluene | 18.21 | 18.11 | 18.41 |
| 1,3,5-Trinitrobenzene | 18.75 | 18.63 | 18.93 |
| 2,6-Dinitrotoluene | 19.99 | 19.88 | 20.18 |
| 2,4-Dinitrotoluene | 20.45 | 20.35 | 20.65 |
| Tetryl | 24.03 | 23.95 | 24.25 |
| 2,4,6-Trinitrotoluene | 25.03 | 24.94 | 25.24 |
| PETN | 25.93 | 25.85 | 26.15 |
| 1,2-Dinitrobenzene | 12.95 | 12.82 | 13.12 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040031.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 05-Nov-2021 04:48:23 ALS Bottle#: 7 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0106204-031
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 05-Nov-2021 16:05:35 Calib Date: 02-May-2021 04:51:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1601

First Level Reviewer: zhangji Date: 05-Nov-2021 16:04:15

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.133 | 4.110 | 0.023 | 101718 | 0.2500 | 0.2400 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.646 | 4.623 | 0.023 | 61185 | 0.2500 | 0.2507 | |
| 5 HMX | 1 | 6.660 | 6.650 | 0.010 | 41731 | 0.2500 | 0.2567 | |
| 7 2,4,6-Trinitrophenol | 1 | 7.813 | 7.916 | -0.103 | 39698 | 0.2500 | 0.2488 | |
| 8 RDX | 1 | 8.813 | 8.816 | -0.003 | 50359 | 0.2500 | 0.2465 | |
| 9 Nitrobenzene | 1 | 11.866 | 11.876 | -0.010 | 91894 | 0.2510 | 0.2453 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.953 | 12.969 | -0.016 | 65799 | 0.2500 | 0.2477 | |
| 11 3,5-Dinitroaniline | 1 | 14.813 | 14.836 | -0.023 | 109642 | 0.2500 | 0.2415 | |
| 12 1,3-Dinitrobenzene | 1 | 15.366 | 15.389 | -0.023 | 151359 | 0.2505 | 0.2664 | |
| 13 Nitroglycerin | 2 | 15.720 | 15.749 | -0.029 | 332719 | 2.50 | 2.59 | |
| 14 o-Nitrotoluene | 1 | 16.593 | 16.616 | -0.023 | 58139 | 0.2500 | 0.2335 | |
| 16 p-Nitrotoluene | 1 | 16.873 | 16.903 | -0.030 | 52678 | 0.2505 | 0.2425 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 17.326 | 17.363 | -0.037 | 71692 | 0.2503 | 0.2416 | |
| 18 m-Nitrotoluene | 1 | 17.840 | 17.869 | -0.029 | 65890 | 0.2503 | 0.2367 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 18.213 | 18.256 | -0.043 | 104555 | 0.2510 | 0.2650 | |
| 20 1,3,5-Trinitrobenzene | 1 | 18.746 | 18.783 | -0.037 | 107977 | 0.2505 | 0.2566 | |
| 21 2,6-Dinitrotoluene | 1 | 19.993 | 20.029 | -0.036 | 69500 | 0.2510 | 0.2592 | |
| 22 2,4-Dinitrotoluene | 1 | 20.446 | 20.496 | -0.050 | 140532 | 0.2510 | 0.2484 | |
| 23 Tetryl | 1 | 24.033 | 24.096 | -0.063 | 74594 | 0.2505 | 0.2289 | |
| 24 2,4,6-Trinitrotoluene | 1 | 25.033 | 25.090 | -0.057 | 102820 | 0.2510 | 0.2724 | |
| 25 PETN | 2 | 25.933 | 25.996 | -0.063 | 328338 | 2.50 | 2.38 | |

## QC Flag Legend

Processing Flags

## Reagents:

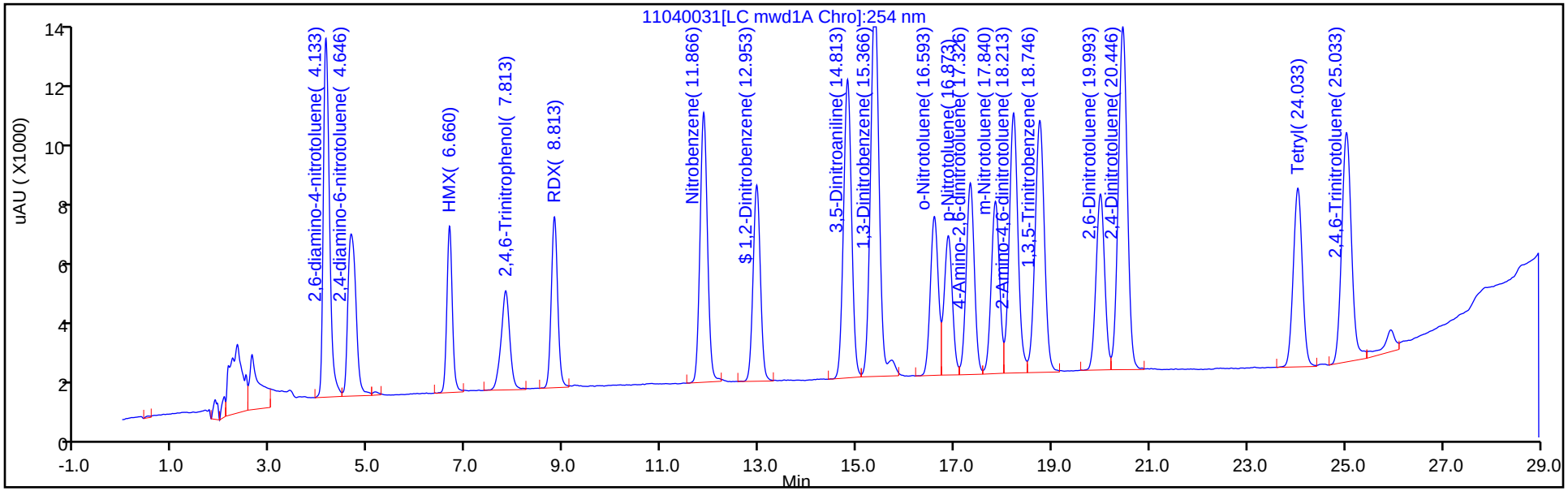
| | | |
|---|---|---|
| 8330IntermStk_00069 | Amount Added: 25.00 | Units: uL |
| 8330_ADDs_00029 | Amount Added: 12.50 | Units: uL |

Report Date: 05-Nov-2021 16:05:36 Chrom Revision: 2.3 22-Sep-2021 15:38:46

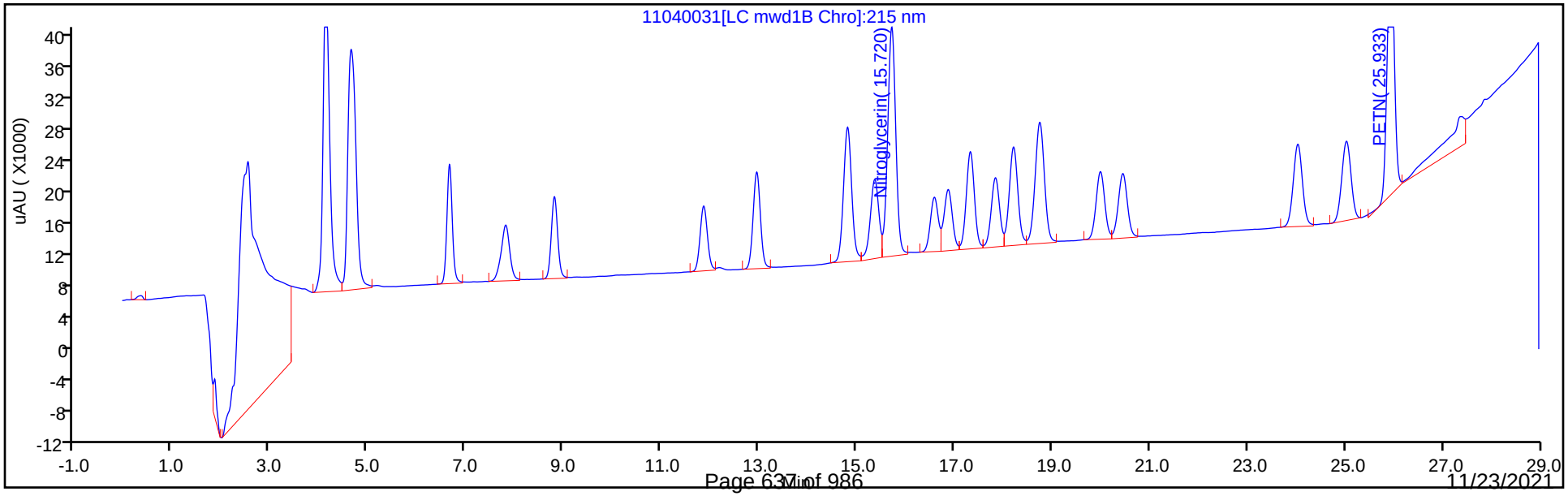
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040031.D | | | | |
| Injection Date: | 05-Nov-2021 04:48:23 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 31 |
| 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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/32  Calibration Date: 11/05/2021 05:23

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 11040032.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 376144 | 366513 | | 244 | 250 | -2.6 | 15.0 |
| DNX | Ave | 284791 | 284999 | | 250 | 250 | 0.0 | 15.0 |
| MNX | Ave | 264843 | 263280 | | 290 | 292 | -0.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Lab Sample ID: CCV 280-556218/32  Calibration Date: 11/05/2021 05:23

Instrument ID: CHHPLC_X5  Calib Start Date: 05/02/2021 00:45

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/02/2021 04:51

Lab File ID: 11040032.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.03 | 4.89 | 5.19 |
| DNX | 5.83 | 5.71 | 6.01 |
| MNX | 7.35 | 7.23 | 7.53 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040032.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 05-Nov-2021 05:23:24 | ALS Bottle#: | 8 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0106204-032 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X5 | | |
| Sublist: | chrom-8330_X5_Luna*sub2 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\8330_X5_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 05-Nov-2021 16:05:36 | Calib Date: | 02-May-2021 04:51:05 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20210501-101093.b\027-2201.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC mwd1A, 254 nm | | |
| Process Host: | CTX1601 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.031 | 5.044 | -0.013 | 91720 | 0.2503 | 0.2438 | |
| 4 DNX | 1 | 5.831 | 5.857 | -0.026 | 71321 | 0.2503 | 0.2504 | |
| 6 MNX | 1 | 7.351 | 7.384 | -0.033 | 76812 | 0.2918 | 0.2900 | |

## Reagents:

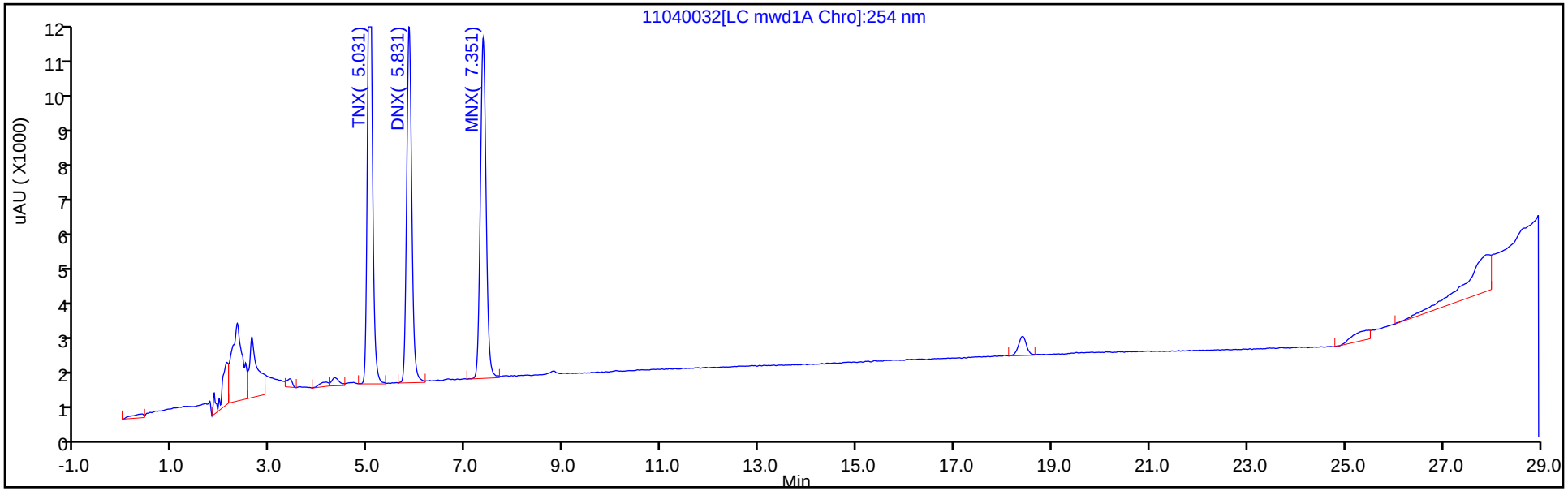
8330 DMT_00009 Amount Added: 12.50 Units: uL

Report Date: 05-Nov-2021 16:05:36 Chrom Revision: 2.3 22-Sep-2021 15:38:46

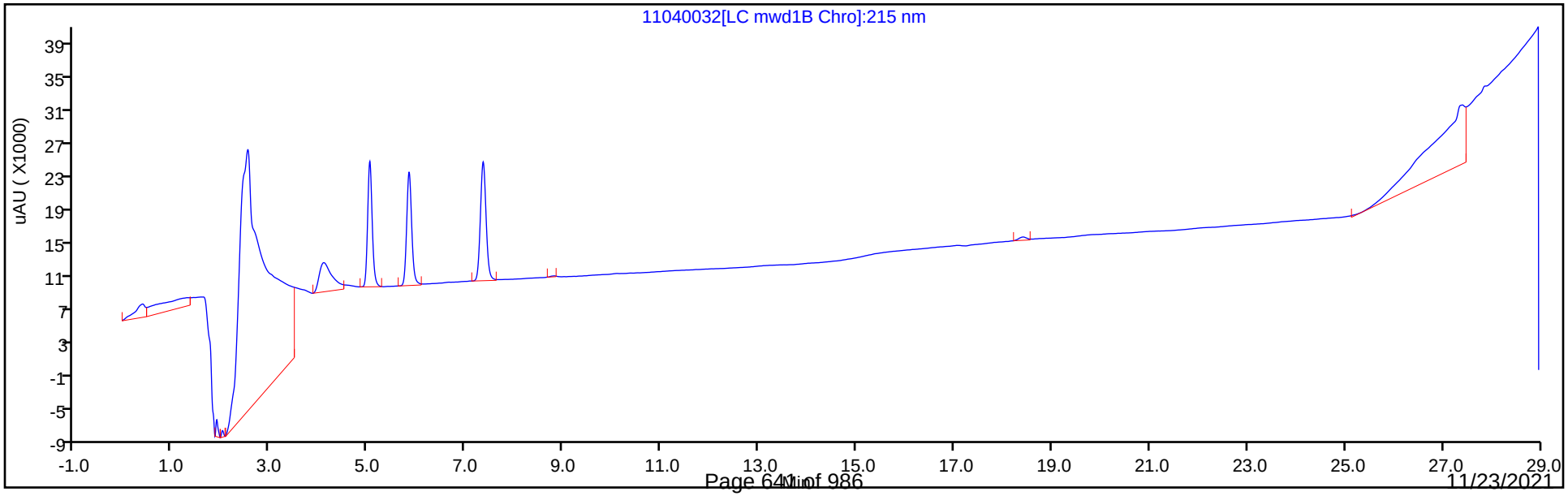
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X5\20211104-106204.b\11040032.D | | | | |
| Injection Date: | 05-Nov-2021 05:23:24 | Instrument ID: | CHHPLC_X5 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 32 |
| 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 TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-555838/1-A
Matrix: Water
Lab File ID: 11030018.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 11/02/2021 15:00
Sample wt/vol: 500(mL)
Date Analyzed: 11/03/2021 18:34
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.: 556054
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 | 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 | 92 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030018.D
Lims ID: MB 280-555838/1-A
Client ID:
Sample Type: MB
Inject. Date: 03-Nov-2021 18:34:03 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-555838/1-
Misc. Info.: 280-0106163-018
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 04-Nov-2021 12:51:51 Calib Date: 27-Oct-2021 04:27:09
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: zhangji Date: 03-Nov-2021 19:17:52

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 Triamine Trinitrobenzene | 1 | | 2.449 | | | | ND | |
| 2 2,6-diamino-4-nitrotoluene | 1 | | 6.470 | | | | ND | |
| 3 TNX | 1 | | 6.489 | | | | ND | U |
| 4 HMX | 1 | | 6.605 | | | | ND | |
| 5 2,4-diamino-6-nitrotoluene | 1 | | 6.650 | | | | ND | |
| 6 DNX | 1 | | 6.802 | | | | ND | |
| 7 MNX | 1 | | 7.229 | | | | ND | |
| 8 RDX | 1 | | 7.605 | | | | ND | |
| 9 2,4,6-Trinitrophenol | 1 | | 7.972 | | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.581 | 8.572 | 0.009 | 23660 | 0.2000 | 0.1845 | M |
| 11 1,3,5-Trinitrobenzene | 1 | | 8.692 | | | | ND | |
| 12 1,3-Dinitrobenzene | 1 | | 9.325 | | | | ND | |
| 13 Nitrobenzene | 1 | | 9.725 | | | | ND | |
| 14 3,5-Dinitroaniline | 1 | | 9.930 | | | | ND | |
| 15 Tetryl | 1 | | 10.058 | | | | ND | |
| 16 Nitroglycerin | 2 | | 10.518 | | | | ND | |
| 17 2,4,6-Trinitrotoluene | 1 | | 10.971 | | | | ND | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | | 11.171 | | | | ND | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | | 11.425 | | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 11.598 | | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 11.765 | | | | ND | |
| 22 o-Nitrotoluene | 1 | | 12.645 | | | | ND | |
| 23 p-Nitrotoluene | 1 | | 13.078 | | | | ND | |
| 24 m-Nitrotoluene | 1 | | 13.658 | | | | ND | |
| 25 PETN | 2 | | 14.758 | | | | ND | |
| 26 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

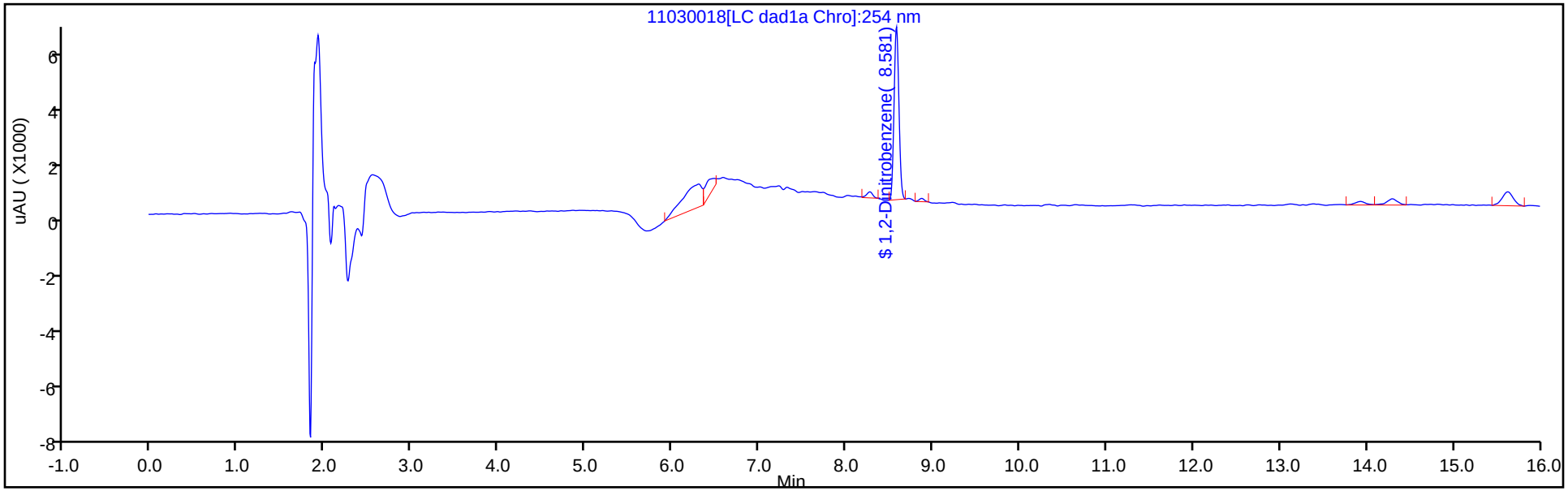
U - Marked Undetected

Report Date: 04-Nov-2021 12:51:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

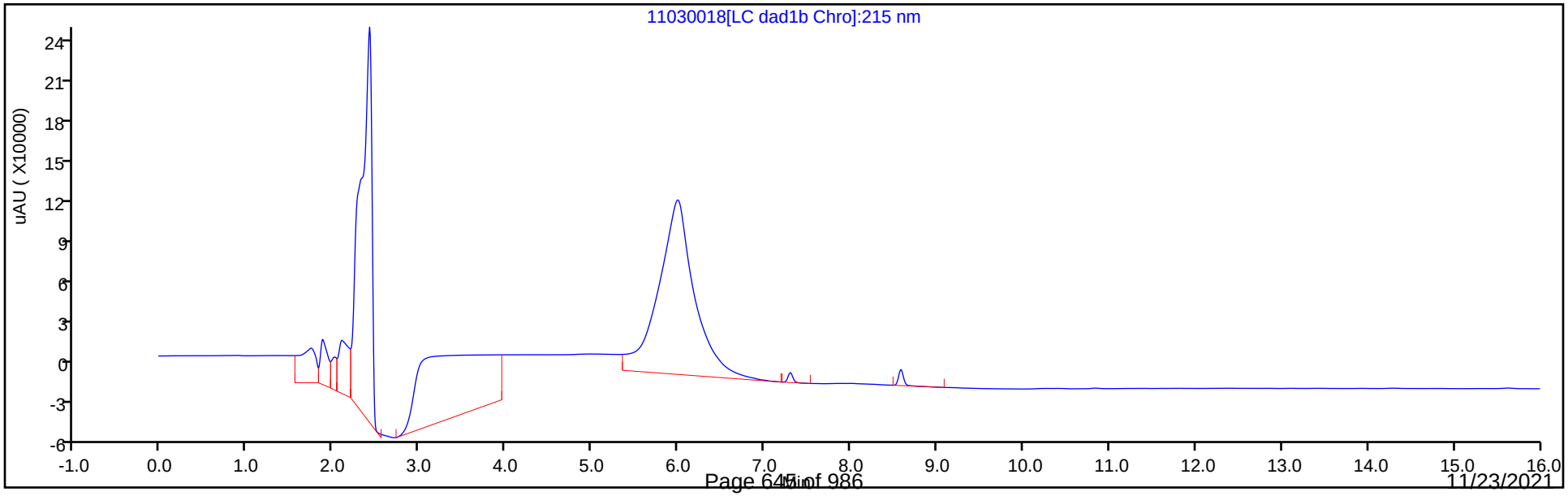
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030018.d | | | | |
| Injection Date: | 03-Nov-2021 18:34:03 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | MB 280-555838/1-A | | | 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030018.D | | | | |
| Lims ID: | MB 280-555838/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 03-Nov-2021 18:34:03 | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-555838/1- | | | | |
| Misc. Info.: | 280-0106163-018 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:51 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 03-Nov-2021 19:17:52

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1845 | 92.27 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

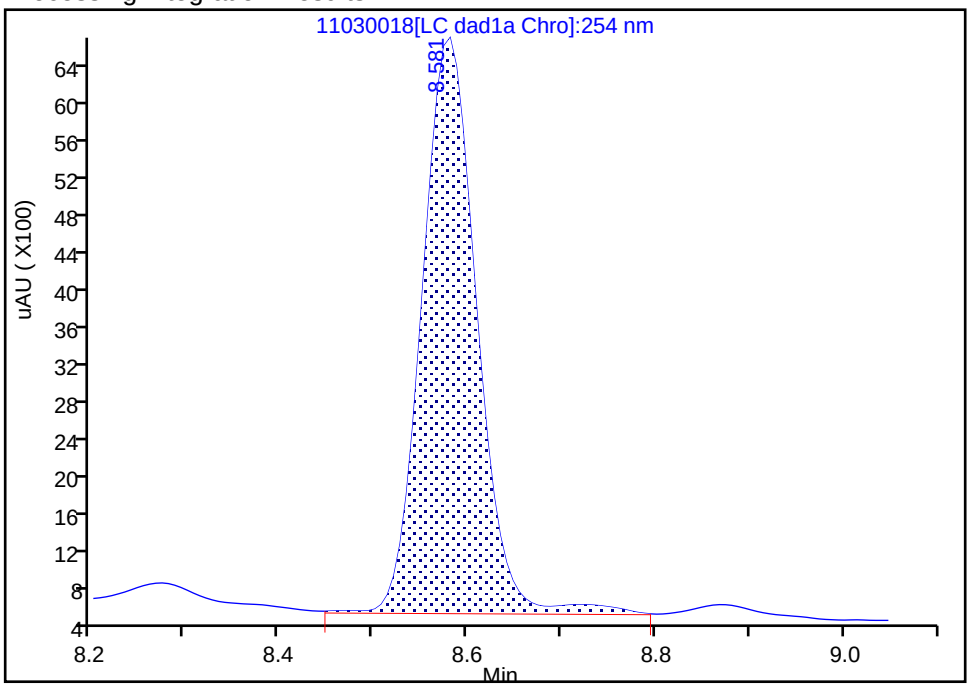
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030018.d | | | | |
| Injection Date: | 03-Nov-2021 18:34:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | MB 280-555838/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

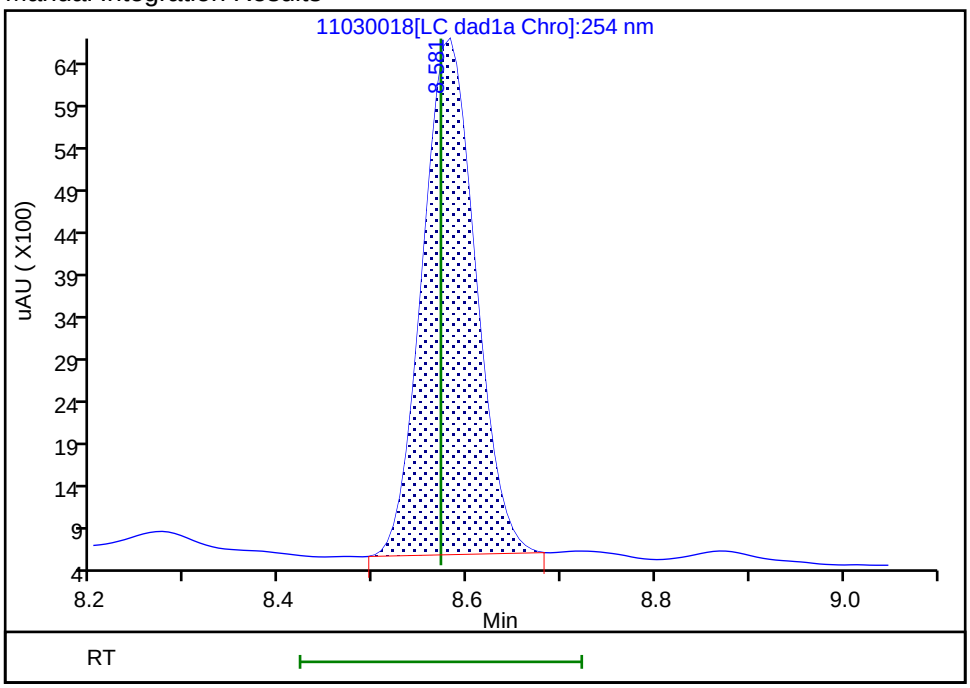
Processing Integration Results

RT: 8.58
Area: 24838
Amount: 0.193718
Amount Units: ug/mL




Manual Integration Results

RT: 8.58
Area: 23660
Amount: 0.184531
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 19:45:19
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-555838/2-A
Matrix: Water
Lab File ID: 11030019.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 11/02/2021 15:00
Sample wt/vol: 500(mL)
Date Analyzed: 11/03/2021 18:57
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.: 556054
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.13 | | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.05 | | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.06 | | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 1.99 | | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.97 | | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.89 | | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 1.55 | | 0.21 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 1.56 | M | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.84 | | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 1.61 | | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 2.02 | M | 0.21 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.77 | | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 1.96 | | 0.21 | 0.20 | 0.052 |
| 479-45-8 | Tetryl | 1.97 | | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 92 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030019.D | | | | |
| Lims ID: | LCS 280-555838/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 03-Nov-2021 18:57:00 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-555838/2 | | | | |
| Misc. Info.: | 280-0106163-019 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:51 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 03-Nov-2021 19:32:48

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 HMX | 1 | 6.600 | 6.605 | -0.005 | 17021 | 0.2000 | 0.2016 | M |
| 8 RDX | 1 | 7.613 | 7.605 | 0.008 | 20872 | 0.2000 | 0.1964 | |
| 9 2,4,6-Trinitrophenol | 1 | 7.973 | 7.972 | 0.001 | 17547 | 0.2000 | 0.2121 | |
| $ 10 1,2-Dinitrobenzene | 1 | 8.580 | 8.572 | 0.008 | 23567 | 0.2000 | 0.1838 | |
| 11 1,3,5-Trinitrobenzene | 1 | 8.700 | 8.692 | 0.008 | 47009 | 0.2000 | 0.2134 | |
| 12 1,3-Dinitrobenzene | 1 | 9.340 | 9.325 | 0.015 | 60646 | 0.2000 | 0.2047 | |
| 13 Nitrobenzene | 1 | 9.733 | 9.725 | 0.008 | 34524 | 0.2000 | 0.1768 | |
| 15 Tetryl | 1 | 10.073 | 10.058 | 0.015 | 34012 | 0.2000 | 0.1973 | |
| 16 Nitroglycerin | 2 | 10.526 | 10.518 | 0.008 | 132209 | 2.00 | 2.00 | |
| 17 2,4,6-Trinitrotoluene | 1 | 10.986 | 10.971 | 0.015 | 42395 | 0.2000 | 0.2058 | |
| 18 4-Amino-2,6-dinitrotoluene | 1 | 11.193 | 11.171 | 0.022 | 28109 | 0.2000 | 0.1840 | |
| 19 2-Amino-4,6-dinitrotoluene | 1 | 11.446 | 11.425 | 0.021 | 39154 | 0.2000 | 0.1892 | |
| 20 2,6-Dinitrotoluene | 1 | 11.613 | 11.598 | 0.015 | 28175 | 0.2000 | 0.1969 | |
| 21 2,4-Dinitrotoluene | 1 | 11.780 | 11.765 | 0.015 | 57001 | 0.2000 | 0.1986 | |
| 22 o-Nitrotoluene | 1 | 12.653 | 12.645 | 0.008 | 19845 | 0.2000 | 0.1546 | |
| 23 p-Nitrotoluene | 1 | 13.086 | 13.078 | 0.008 | 18012 | 0.2000 | 0.1609 | |
| 24 m-Nitrotoluene | 1 | 13.673 | 13.658 | 0.015 | 22219 | 0.2000 | 0.1562 | M |
| 25 PETN | 2 | 14.773 | 14.758 | 0.015 | 151452 | 2.00 | 2.03 | |

## QC Flag Legend

Processing Flags

Review Flags

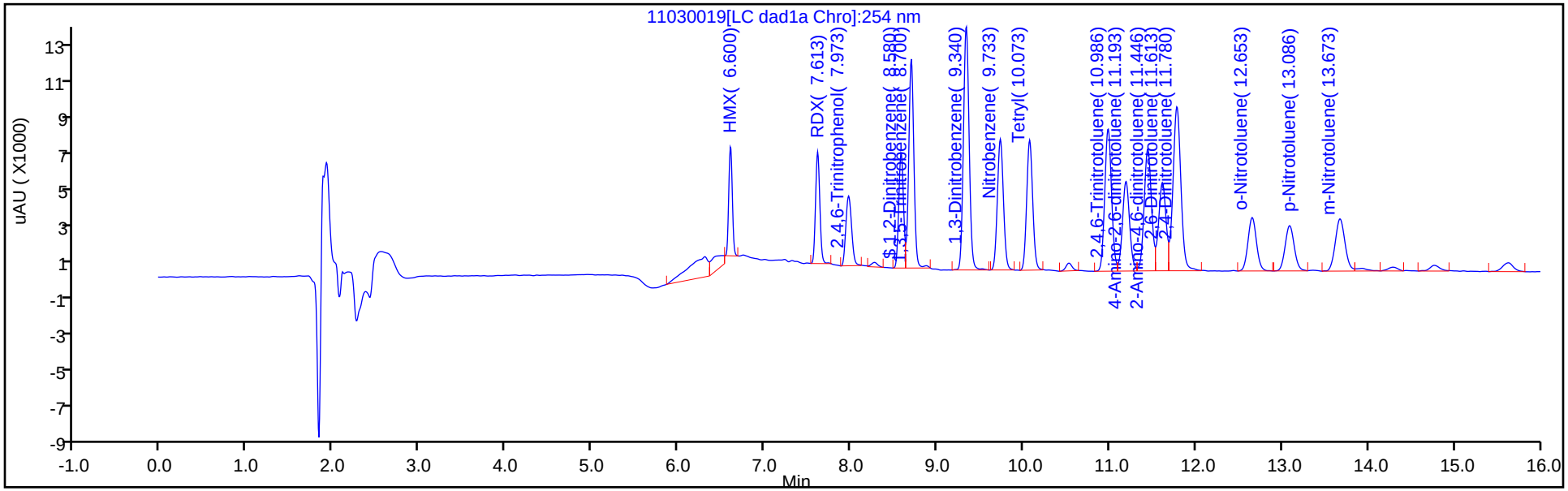
M - Manually Integrated

Report Date: 04-Nov-2021 12:51:56 Chrom Revision: 2.3 22-Sep-2021 15:38:46

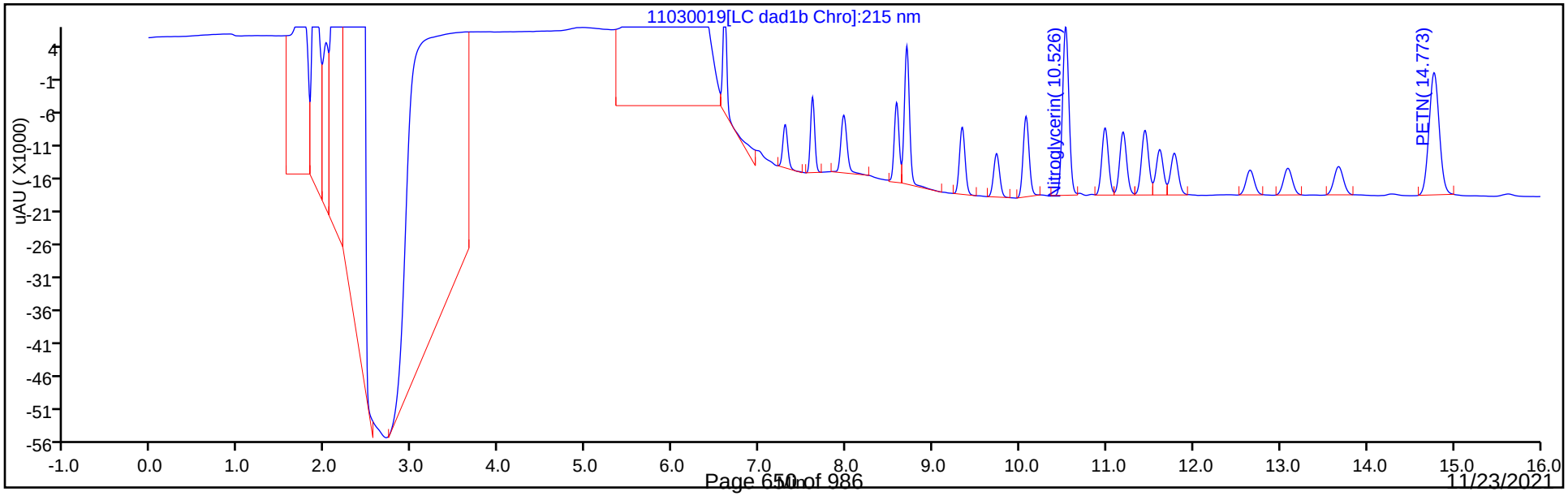
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030019.d | | | | |
| Injection Date: | 03-Nov-2021 18:57:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-555838/2-A | | | 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
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030019.D | | | | |
| Lims ID: | LCS 280-555838/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 03-Nov-2021 18:57:00 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-555838/2 | | | | |
| Misc. Info.: | 280-0106163-019 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:51 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 03-Nov-2021 19:32:48

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1838 | 91.90 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

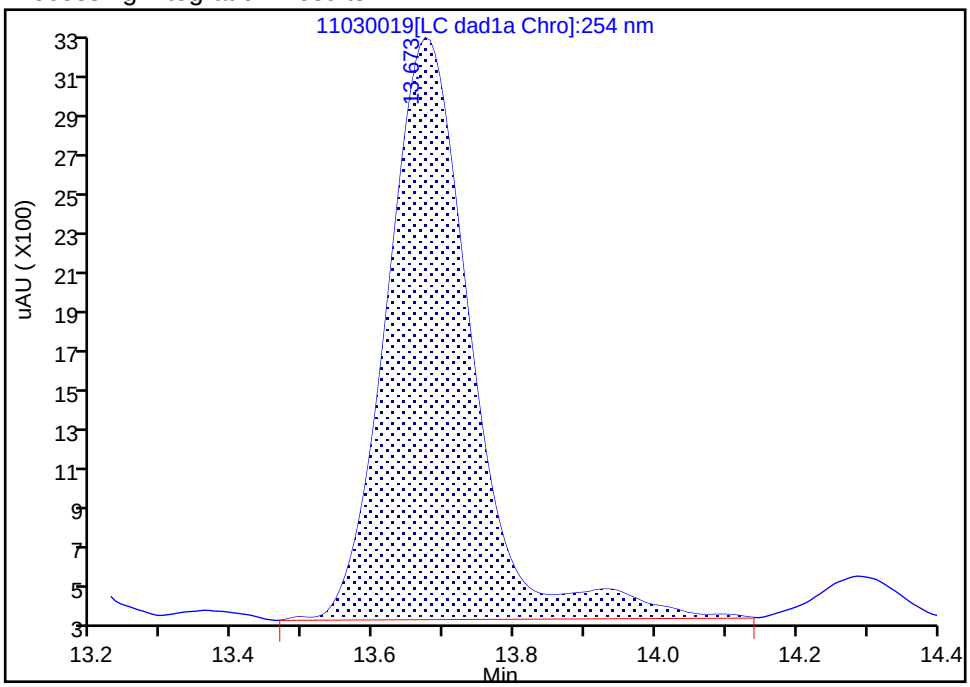
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030019.d | | | | |
| Injection Date: | 03-Nov-2021 18:57:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-555838/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

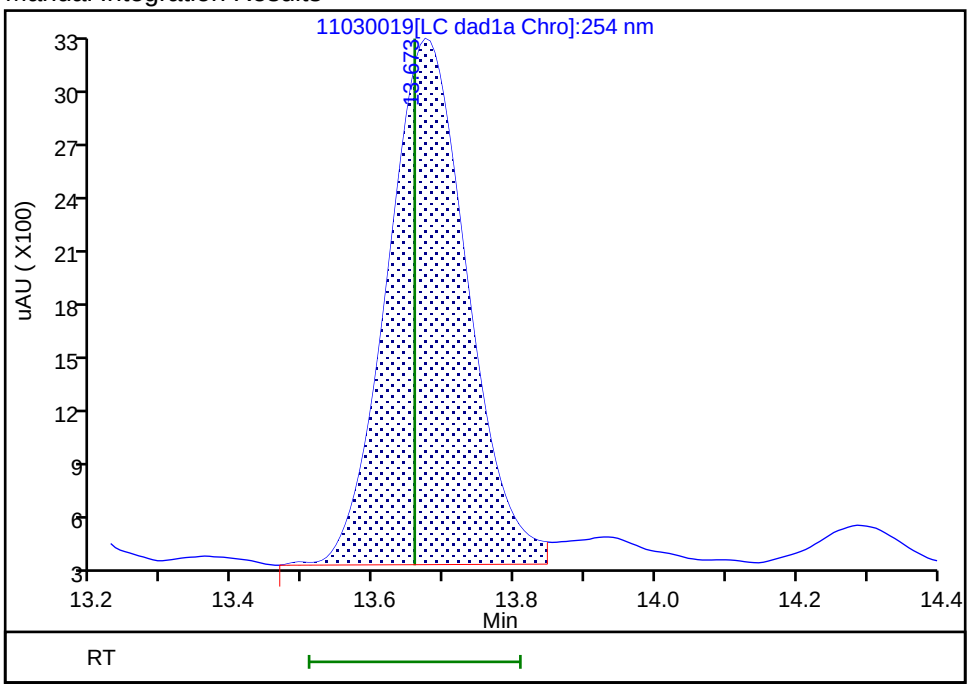
Processing Integration Results

RT: 13.67
Area: 23537
Amount: 0.165467
Amount Units: ug/mL




Manual Integration Results

RT: 13.67
Area: 22219
Amount: 0.156201
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 19:32:47
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

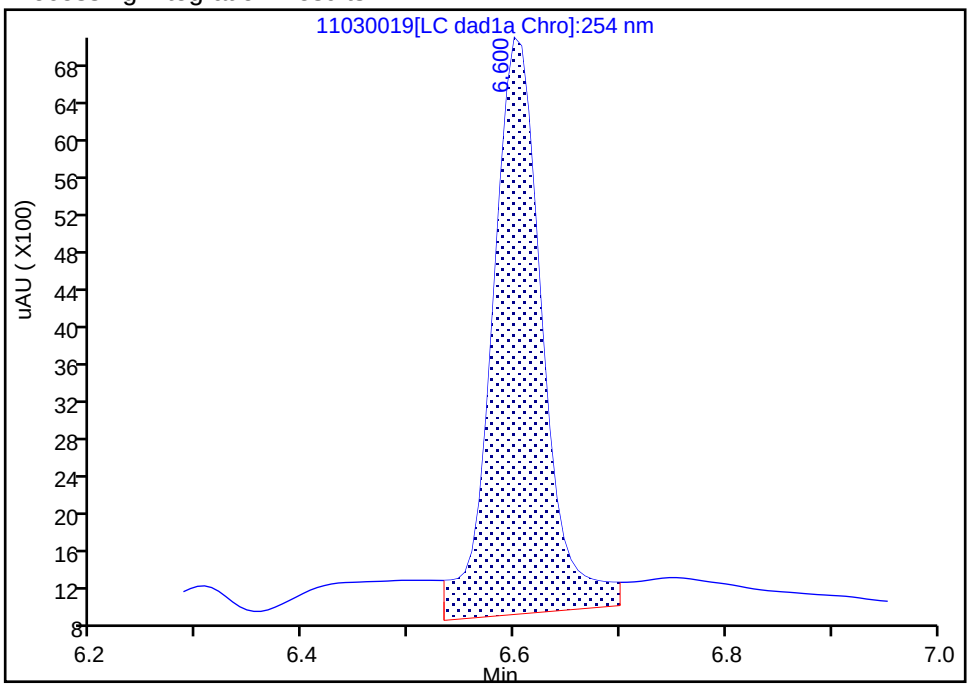
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030019.d | | | | |
| Injection Date: | 03-Nov-2021 18:57:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-555838/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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

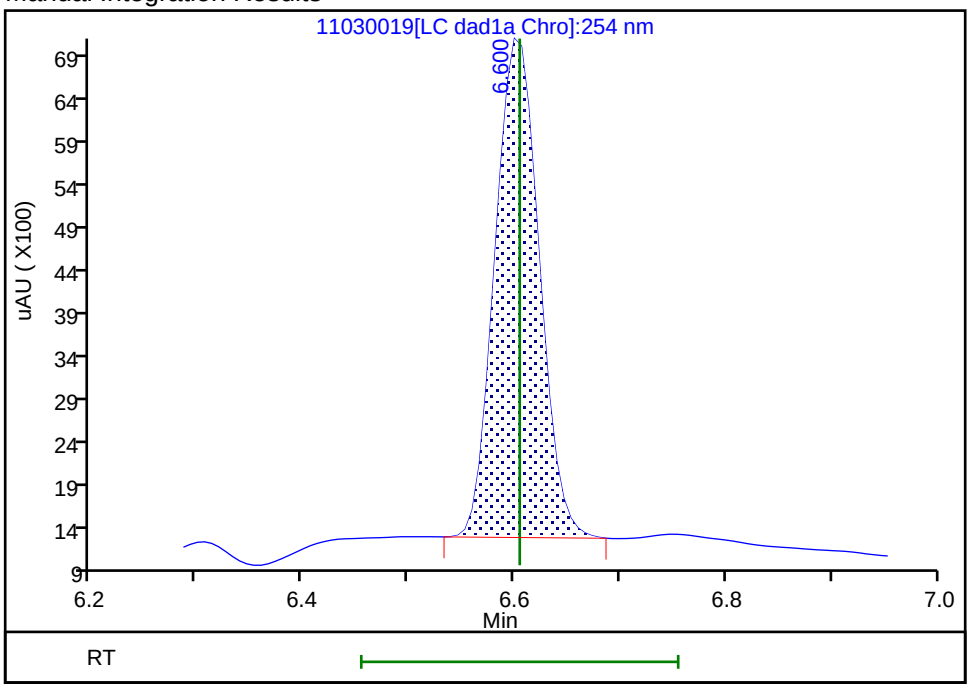
Processing Integration Results

RT: 6.60
Area: 20432
Amount: 0.242024
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 17021
Amount: 0.201619
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 19:32:43
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-555838/3-A
Matrix: Water
Lab File ID: 11030020.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 11/02/2021 15:00
Sample wt/vol: 500(mL)
Date Analyzed: 11/03/2021 19:20
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.: 556054
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.43 | M | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 96 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030020.D | | | | |
| Lims ID: | LCS 280-555838/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 03-Nov-2021 19:20:00 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-555838/3 | | | | |
| Misc. Info.: | 280-0106163-020 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:51 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |
| First Level Reviewer: zhangji | | Date: | 03-Nov-2021 19:45:07 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 6.481 | 6.489 | -0.008 | 39202 | 0.2002 | 0.2110 | M |
| 6 DNX | 1 | 6.801 | 6.802 | -0.001 | 29560 | 0.2002 | 0.2080 | M |
| 7 MNX | 1 | 7.221 | 7.229 | -0.008 | 31612 | 0.2334 | 0.2425 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 8.575 | 8.572 | 0.003 | 24514 | 0.2000 | 0.1912 | M |

## QC Flag Legend

Processing Flags

Review Flags

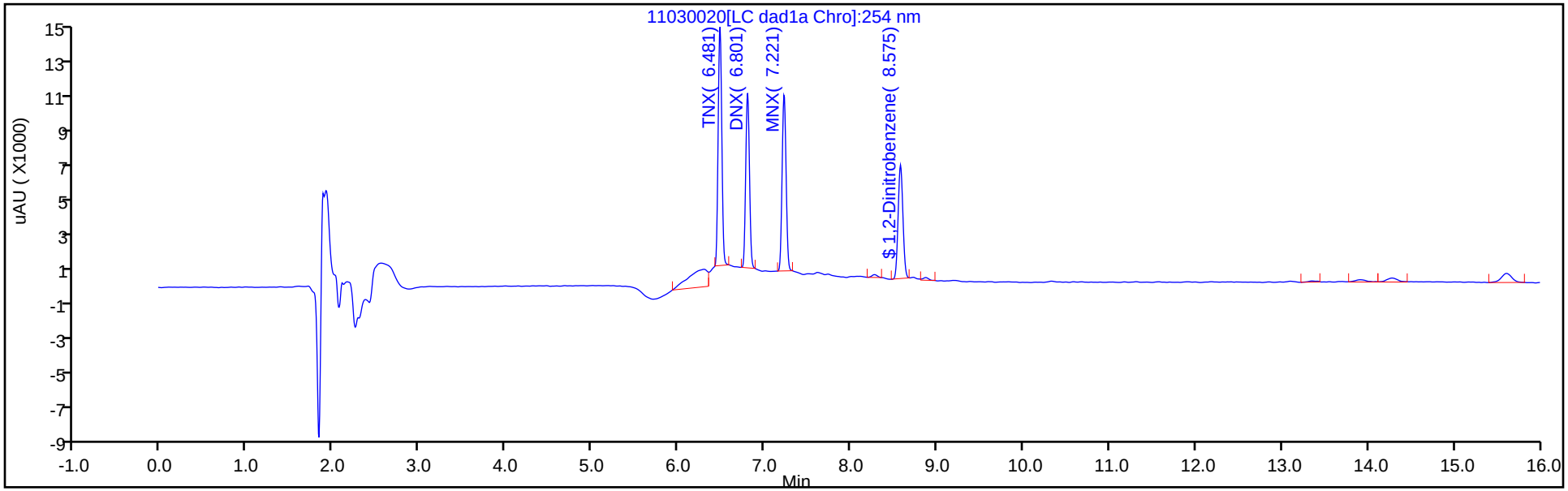
M - Manually Integrated

Report Date: 04-Nov-2021 12:51:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

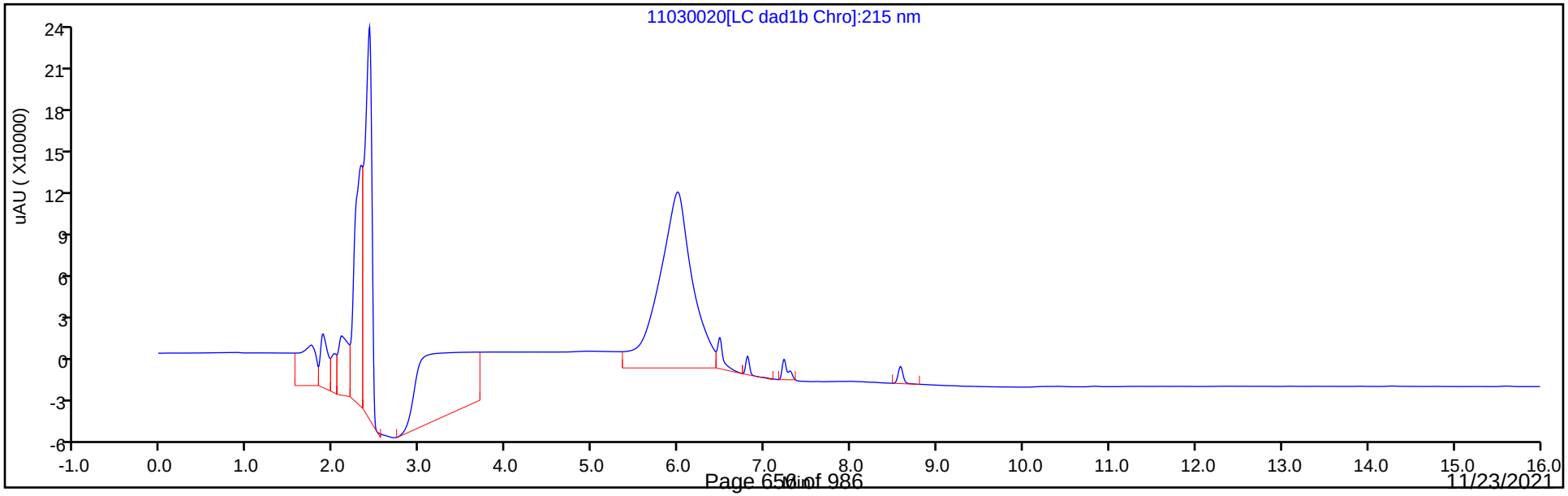
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030020.d | | | | |
| Injection Date: | 03-Nov-2021 19:20:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-555838/3-A | | | 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\11030020.D | | | | |
| Lims ID: | LCS 280-555838/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 03-Nov-2021 19:20:00 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-555838/3 | | | | |
| Misc. Info.: | 280-0106163-020 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20211103-106163.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 04-Nov-2021 12:51:51 | Calib Date: | 27-Oct-2021 04:27:09 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20211027-105955.b\1026T007.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1675 | | | | |

First Level Reviewer: zhangji Date: 03-Nov-2021 19:45:07

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1912 | 95.60 |

Eurofins TestAmerica, Denver

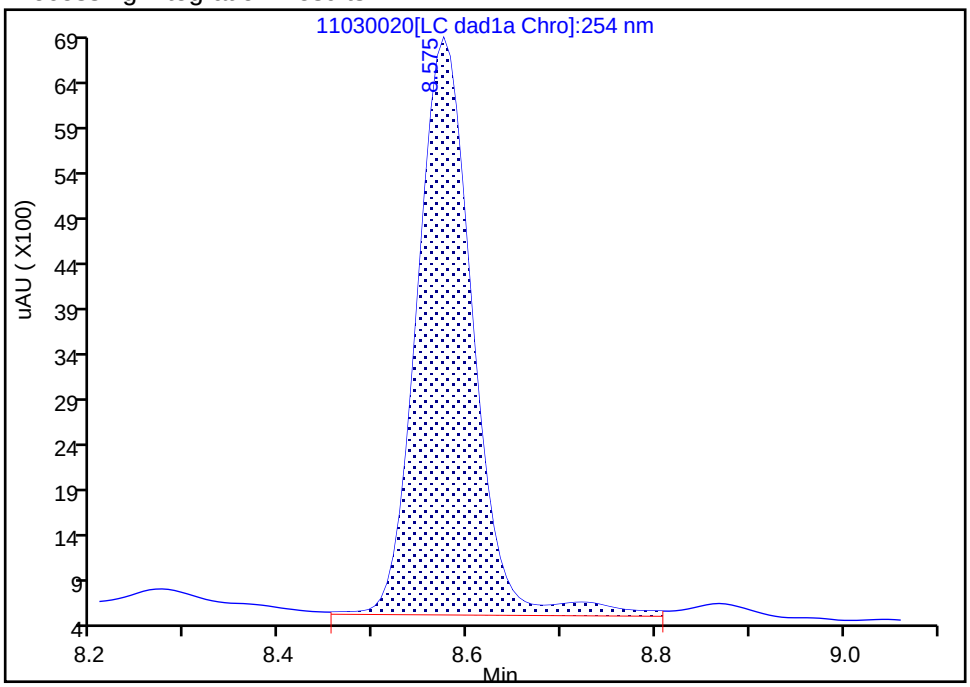
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030020.d | | | | |
| Injection Date: | 03-Nov-2021 19:20:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-555838/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

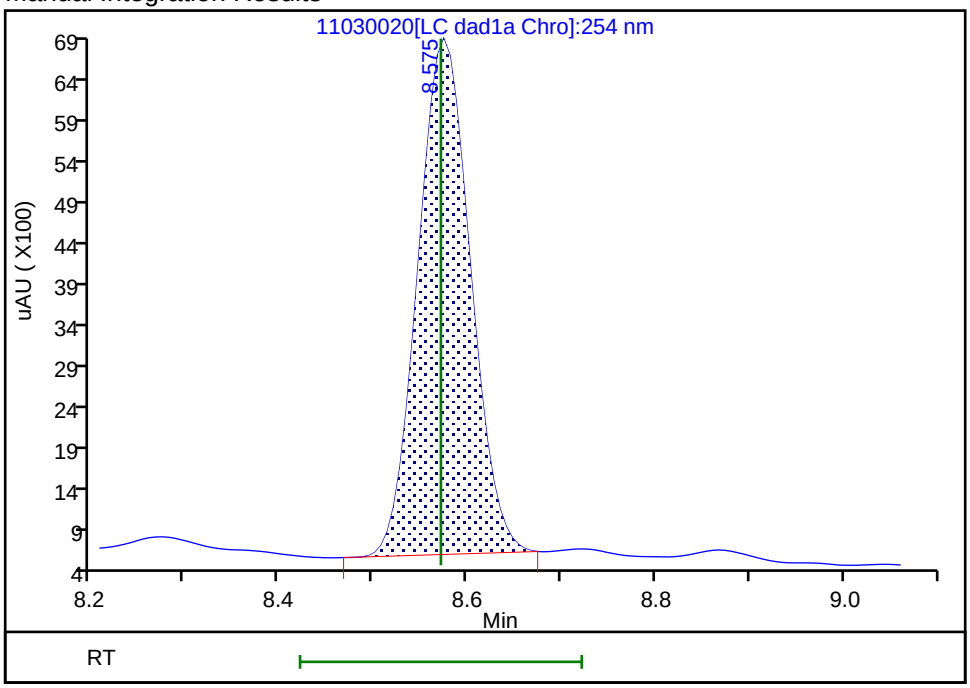
Processing Integration Results

RT: 8.57
Area: 26242
Amount: 0.204668
Amount Units: ug/mL




Manual Integration Results

RT: 8.57
Area: 24514
Amount: 0.191191
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 19:45:02
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

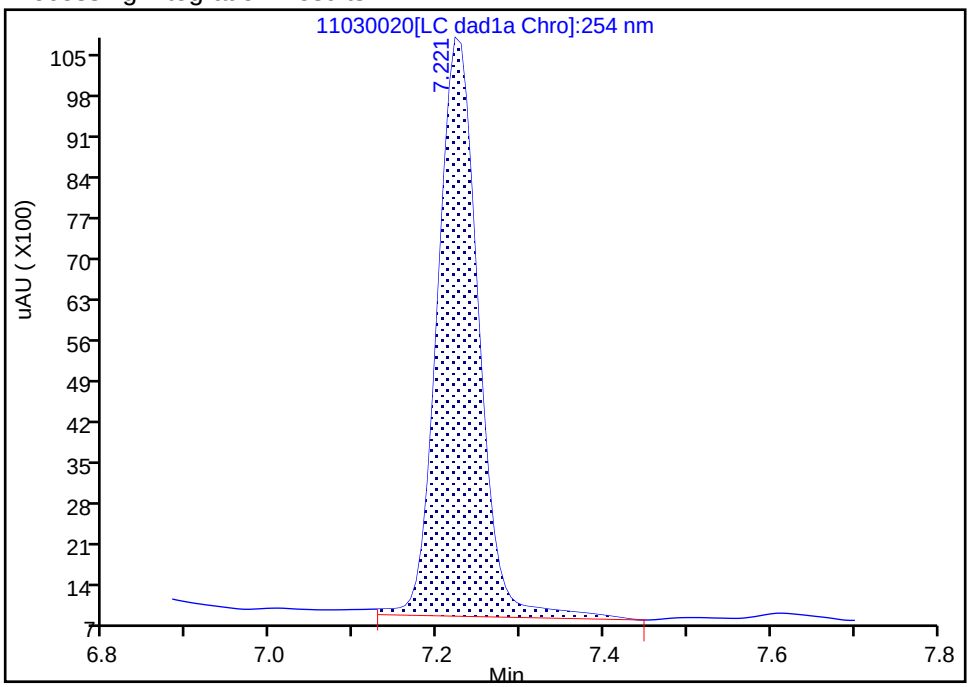
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20211103-106163.b\11030020.d | | | | |
| Injection Date: | 03-Nov-2021 19:20:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-555838/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 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 | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

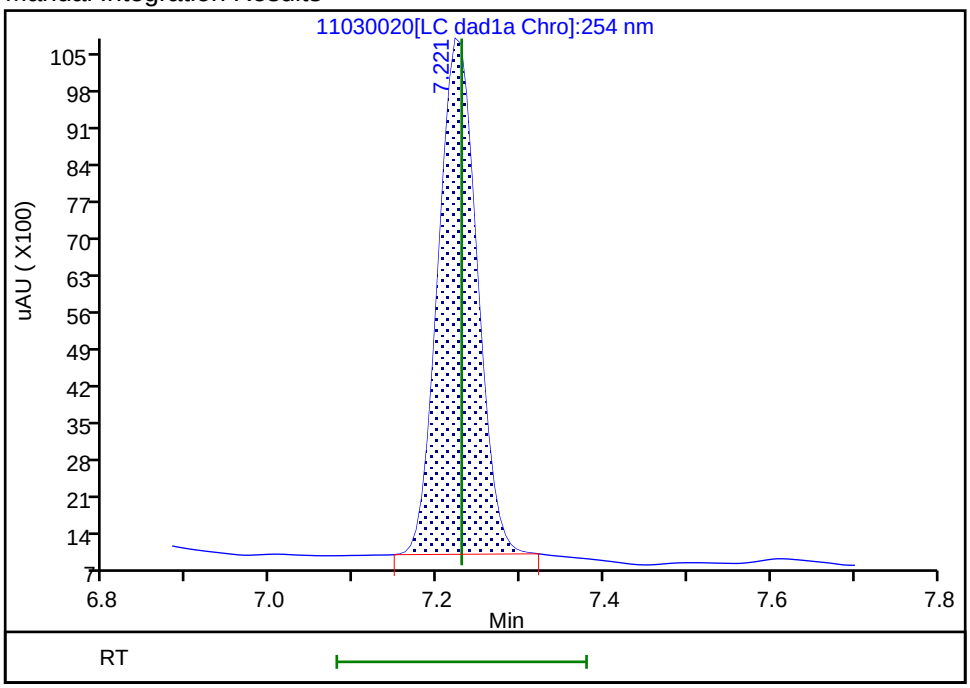
Processing Integration Results

RT: 7.22
Area: 33835
Amount: 0.259590
Amount Units: ug/mL




Manual Integration Results

RT: 7.22
Area: 31612
Amount: 0.242534
Amount Units: ug/mL




Reviewer: zhangji, 03-Nov-2021 19:44:57
Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/02/2021 16:33

Analysis Batch Number: 527768 End Date: 03/03/2021 02:53

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-527768/11 | | 03/02/2021 16:33 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/12 | | 03/02/2021 16:56 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/13 | | 03/02/2021 17:19 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/14 | | 03/02/2021 17:42 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/15 | | 03/02/2021 18:05 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/16 | | 03/02/2021 18:28 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/17 | | 03/02/2021 18:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/18 | | 03/02/2021 19:13 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/58 | | 03/02/2021 19:36 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-527768/19 | | 03/02/2021 19:59 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/20 | | 03/02/2021 20:22 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/21 | | 03/02/2021 20:45 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/22 | | 03/02/2021 21:08 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/23 | | 03/02/2021 21:31 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/24 | | 03/02/2021 21:54 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/25 | | 03/02/2021 22:17 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/26 | | 03/02/2021 22:40 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/27 | | 03/02/2021 23:03 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-527768/28 | | 03/02/2021 23:26 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/29 | | 03/02/2021 23:49 | 1 | 03020029.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/30 | | 03/03/2021 00:12 | 1 | 03020030.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/31 | | 03/03/2021 00:35 | 1 | 03020031.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/32 | | 03/03/2021 00:58 | 1 | 03020032.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/33 | | 03/03/2021 01:21 | 1 | 03020033.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/34 | | 03/03/2021 01:44 | 1 | 03020034.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/35 | | 03/03/2021 02:07 | 1 | 03020035.D | UltraCarb5uODS 4.6(mm) |
| IC 280-527768/36 | | 03/03/2021 02:30 | 1 | 03020036.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-527768/37 | | 03/03/2021 02:53 | 1 | 03020037.D | UltraCarb5uODS 4.6(mm) |

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HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/01/2021 18:54

Analysis Batch Number: 534620 End Date: 05/02/2021 05:26

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-534620/10 | | 05/01/2021 18:54 | 1 | 010-0501.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/11 | | 05/01/2021 19:29 | 1 | 011-0601.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/12 | | 05/01/2021 20:04 | 1 | 012-0701.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/13 | | 05/01/2021 20:39 | 1 | 013-0801.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/14 | | 05/01/2021 21:15 | 1 | 014-0901.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/15 | | 05/01/2021 21:50 | 1 | 015-1001.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/16 | | 05/01/2021 22:25 | 1 | 016-1101.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/17 | | 05/01/2021 23:00 | 1 | 017-1201.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/18 | | 05/01/2021 23:35 | 1 | 018-1301.D | Luna-phenylhex 4.6(mm) |
| ICV 280-534620/19 | | 05/02/2021 00:10 | 1 | 019-1401.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/20 | | 05/02/2021 00:45 | 1 | 020-1501.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/21 | | 05/02/2021 01:20 | 1 | 021-1601.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/22 | | 05/02/2021 01:55 | 1 | 022-1701.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/23 | | 05/02/2021 02:30 | 1 | 023-1801.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/24 | | 05/02/2021 03:05 | 1 | 024-1901.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/25 | | 05/02/2021 03:41 | 1 | 025-2001.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/26 | | 05/02/2021 04:16 | 1 | 026-2101.D | Luna-phenylhex 4.6(mm) |
| IC 280-534620/27 | | 05/02/2021 04:51 | 1 | 027-2201.D | Luna-phenylhex 4.6(mm) |
| ICV 280-534620/28 | | 05/02/2021 05:26 | 1 | 028-2301.D | Luna-phenylhex 4.6(mm) |

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HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/01/2021 18:01

Analysis Batch Number: 534622 End Date: 05/01/2021 21:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-534622/11 | | 05/01/2021 18:01 | 1 | 011-0501.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/12 | | 05/01/2021 18:23 | 1 | 012-0601.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/13 | | 05/01/2021 18:46 | 1 | 013-0701.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/14 | | 05/01/2021 19:09 | 1 | 014-0801.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/15 | | 05/01/2021 19:32 | 1 | 015-0901.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/16 | | 05/01/2021 19:55 | 1 | 016-1001.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/17 | | 05/01/2021 20:18 | 1 | 017-1101.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/18 | | 05/01/2021 20:41 | 1 | 018-1201.D | UltraCarb5uODS 4.6(mm) |
| IC 280-534622/19 | | 05/01/2021 21:04 | 1 | 019-1301.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-534622/20 | | 05/01/2021 21:27 | 1 | 020-1401.D | UltraCarb5uODS 4.6(mm) |

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HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 11/03/2021 17:48

Analysis Batch Number: 556054 End Date: 11/04/2021 05:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-556054/16 | | 11/03/2021 17:48 | 1 | 11030016.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/17 | | 11/03/2021 18:11 | 1 | 11030017.D | UltraCarb5uODS 4.6(mm) |
| MB 280-555838/1-A | | 11/03/2021 18:34 | 1 | 11030018.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-555838/2-A | | 11/03/2021 18:57 | 1 | 11030019.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-555838/3-A | | 11/03/2021 19:20 | 1 | 11030020.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 19:42 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 20:05 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 20:28 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 20:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 21:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 21:37 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 22:00 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/28 | | 11/03/2021 22:23 | 1 | 11030028.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/29 | | 11/03/2021 22:46 | 1 | 11030029.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 23:09 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 23:32 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/03/2021 23:55 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 00:18 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 00:40 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 01:03 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 01:26 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 01:49 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 02:12 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 02:35 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/40 | | 11/04/2021 02:58 | 1 | 11030040.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/41 | | 11/04/2021 03:21 | 1 | 11030041.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 03:44 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 04:07 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 11/04/2021 04:30 | 1 | | UltraCarb5uODS 4.6(mm) |
| 280-154948-1 | EW7-PM21A-7-25 | 11/04/2021 04:53 | 1 | 11030045.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/46 | | 11/04/2021 05:16 | 1 | 11030046.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-556054/47 | | 11/04/2021 05:39 | 1 | 11030047.D | UltraCarb5uODS 4.6(mm) |

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HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 11/04/2021 15:22

Analysis Batch Number: 556218 End Date: 11/05/2021 07:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-556218/7 | | 11/04/2021 15:22 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/8 | | 11/04/2021 15:57 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 16:32 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 17:07 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 17:42 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 18:17 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 18:52 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 19:27 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 20:02 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 20:37 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 21:12 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 21:47 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/20 | | 11/04/2021 22:22 | 1 | 11040020.D | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/21 | | 11/04/2021 22:57 | 1 | 11040021.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/04/2021 23:32 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 00:07 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 00:42 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 01:17 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 01:52 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 02:27 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 03:02 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 03:37 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-154948-1 | EW7-PM21A-7-25 | 11/05/2021 04:12 | 1 | 11040030.D | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/31 | | 11/05/2021 04:48 | 1 | 11040031.D | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/32 | | 11/05/2021 05:23 | 1 | 11040032.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 05:58 | 5 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 11/05/2021 06:33 | 5 | | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/35 | | 11/05/2021 07:08 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-556218/36 | | 11/05/2021 07:43 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555838  Batch Start Date: 11/02/21 15:00  Batch Analyst: Lee, David C

Batch Method: 3535  Batch End Date: 11/02/21 18:04

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | 8330 LCS 00110 | 8330_OP_DMT 00011 |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-555838/1 | | 3535, 8330A | | | | 500 mL | 5 mL | | |
| LCS 280-555838/2 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCS 280-555838/3 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| 280-154948-A-1 | EW7-PM21A-7-25 | 3535, 8330A | T | 798.0 g | 288.5 g | 509.5 mL | 5 mL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00126 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-555838/1 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-555838/2 | | 3535, 8330A | | 0.1 mL | 8330 LCS | | | | |
| LCS 280-555838/3 | | 3535, 8330A | | 0.1 mL | DMT | | | | |
| 280-154948-A-1 | EW7-PM21A-7-25 | 3535, 8330A | T | 0.1 mL | | | | | |

| Batch Notes | |
|---|---|
| First Start time | 11/02/2021 15:45 |
| First End time | 11/02/2021 17:44 |
| SPE Cartridge Type | Porapak RDX |
| SPE Cartridge Lot ID | 05231202A |
| Balance ID | 24350888 |
| Pipette/Syringe/Dispenser ID | JiJi, Soot, DOD |
| Solvent Name | Acetonitrile |
| Solvent Lot # | Acetonitrile_00055 |
| Rinse Solvent Name | 0.1%AAinACN |
| Rinse Solvent Lot | 0.1%AAinACN_00168 |
| Acid Name | Ca2Cl |
| Acid ID | Ca2Cl_Sol_00078 |
| Analyst ID - Spike Analyst | DL |
| Analyst ID - Spike Witness Analyst | Reviewer: TH |
| Batch Comment | DV-OP-0017; Mantel: A/B |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555838  Batch Start Date: 11/02/21 15:00  Batch Analyst: Lee, David C

Batch Method: 3535  Batch End Date: 11/02/21 18:04

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

SDG No.:

Project: Cornhusker (CHAAP)

| Client Sample ID | Lab Sample ID |
| --- | --- |
| EW7-PM21A-7-25 | 280-154948-1 |

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW7-PM21A-7-25
Lab Sample ID: 280-154948-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG ID.:
Matrix: Water
Date Sampled: 10/29/2021 15:55
Reporting Basis: WET
Date Received: 10/30/2021 10:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 1.2 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 24 | 0.50 | 0.25 | 0.095 | mg/L | | | 5 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 110 | 5.0 | 2.5 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 370 | 10 | 6.4 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EW7-PM21A-7-25
Lab Sample ID: 280-154948-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-154948-1
SDG ID.:
Matrix: Water
Date Sampled: 10/29/2021 15:55
Reporting Basis: WET
Date Received: 10/30/2021 10:10

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 5.0 | 1.0 | 0.80 | 0.35 | mg/L | | | 1 | 9060A |

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: RKD  Batch Start Date: 11/17/2021

Reporting Units: mg/L  Analytical Batch No.: 557866

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 14 | ICVL | 10:30 | Ammonia | 0.502 | 0.501 | 100 | 90-110 | | 350.1 ICV_00493 |
| 15 | ICV | 10:32 | Ammonia | 2.51 | 2.51 | 100 | 90-110 | | 350.1 ICV_00493 |
| 16 | ICB | 10:34 | Ammonia | 0.050 | | | | U | |
| 33 | CCVL | 11:08 | Ammonia | 0.495 | 0.500 | 99 | 90-110 | | 350.1 cal_00508 |
| 34 | CCV | 11:10 | Ammonia | 2.55 | 2.50 | 102 | 90-110 | | 350.1 cal_00508 |
| 35 | CCB | 11:12 | Ammonia | 0.050 | | | | U | |
| 49 | CCVL | 11:40 | Ammonia | 0.494 | 0.500 | 99 | 90-110 | | 350.1 cal_00508 |
| 50 | CCV | 11:42 | Ammonia | 2.48 | 2.50 | 99 | 90-110 | | 350.1 cal_00508 |
| 51 | CCB | 11:44 | Ammonia | 0.050 | | | | U | |
| 68 | CCVL | 12:18 | Ammonia | 0.485 | 0.500 | 97 | 90-110 | | 350.1 cal_00508 |
| 69 | CCV | 12:20 | Ammonia | 2.48 | 2.50 | 99 | 90-110 | | 350.1 cal_00508 |
| 70 | CCB | 12:22 | Ammonia | 0.050 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: SVC  Batch Start Date: 11/10/2021

Reporting Units: mg/L  Analytical Batch No.: 557015

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 7 | ICV | 18:37 | Nitrogen, Total Kjeldahl | 5.08 | 5.00 | 102 | 90-110 | | TKN ICV 25_00111 |
| 8 | ICB | 18:38 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 21 | CCV | 18:43 | Nitrogen, Total Kjeldahl | 5.07 | 5.00 | 101 | 90-110 | | TKN 25ppm_00825 |
| 22 | CCB | 18:43 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 32 | CCV | 18:49 | Nitrogen, Total Kjeldahl | 5.10 | 5.00 | 102 | 90-110 | | TKN 25ppm_00825 |
| 33 | CCB | 18:49 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: SVC  Batch Start Date: 11/15/2021

Reporting Units: mg/L  Analytical Batch No.: 557699

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 17 | ICV | 17:04 | Nitrate Nitrite as N | 5.16 | 5.00 | 103 | 90-110 | | NXN ICV INT_00577 |
| 18 | ICVL | 17:06 | Nitrate Nitrite as N | 1.96 | 2.00 | 98 | 90-110 | | NXN ICV INT_00577 |
| 19 | ICB | 17:08 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 51 | CCV | 18:12 | Nitrate Nitrite as N | 5.29 | 5.00 | 106 | 90-110 | | NXN CAL INT_00601 |
| 53 | CCB | 18:16 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 67 | CCV | 18:44 | Nitrate Nitrite as N | 5.02 | 5.00 | 100 | 90-110 | | NXN CAL INT_00601 |
| 68 | CCVL | 18:46 | Nitrate Nitrite as N | 1.05 | 1.00 | 105 | 90-110 | | NXN CAL INT_00601 |
| 69 | CCB | 18:48 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 83 | CCV | 19:16 | Nitrate Nitrite as N | 5.27 | 5.00 | 105 | 90-110 | | NXN CAL INT_00601 |
| 84 | CCVL | 19:18 | Nitrate Nitrite as N | 1.06 | 1.00 | 106 | 90-110 | | NXN CAL INT_00601 |
| 85 | CCB | 19:20 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 99 | CCV | 19:48 | Nitrate Nitrite as N | 5.29 | 5.00 | 106 | 90-110 | | NXN CAL INT_00601 |
| 100 | CCVL | 19:50 | Nitrate Nitrite as N | 1.06 | 1.00 | 106 | 90-110 | | NXN CAL INT_00601 |
| 101 | CCB | 19:52 | Nitrate Nitrite as N | 0.050 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: SPG  Batch Start Date: 11/01/2021

Reporting Units: mg/L  Analytical Batch No.: 555743

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 8 | ICV | 18:54 | Sulfate | 81.4 | 80.0 | 102 | 90-110 | | IC SO4 ICV_00022 |
| 9 | ICB | 19:09 | Sulfate | 2.5 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: SPG  Batch Start Date: 11/19/2021

Reporting Units: mg/L  Analytical Batch No.: 558087

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 1 | CCV | 09:50 | Sulfate | 95.9 | 100 | 96 | 90-110 | | IC LCS_01845 |
| 2 | CCB | 10:05 | Sulfate | 2.5 | | | | U | |
| 17 | CCV | 13:50 | Sulfate | 98.8 | 100 | 99 | 90-110 | | IC LCS_01845 |
| 18 | CCB | 14:05 | Sulfate | 2.5 | | | | U | |
| 25 | CCV | 15:50 | Sulfate | 98.4 | 100 | 98 | 90-110 | | IC LCS_01845 |
| 26 | CCB | 16:05 | Sulfate | 2.5 | | | | U | |
| 38 | CCV | 18:51 | Sulfate | 97.9 | 100 | 98 | 90-110 | | IC LCS_01845 |
| 39 | CCB | 19:06 | Sulfate | 2.5 | | | | U | |
| 50 | CCV | 21:50 | Sulfate | 98.0 | 100 | 98 | 90-110 | | IC LCS_01845 |
| 51 | CCB | 22:05 | Sulfate | 2.5 | | | | U | |
| 62 | CCV | 00:50 | Sulfate | 98.2 | 100 | 98 | 90-110 | | IC LCS_01845 |
| 63 | CCB | 01:05 | Sulfate | 2.5 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: RAF  Batch Start Date: 11/03/2021

Reporting Units: mg/L  Analytical Batch No.: 556162

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ICV | 15:57 | Dissolved Organic Carbon - Quad | 19.1 | 20.0 | 95 | 90-110 | | TOC ICV Std_00047 |
| 2 | ICB | 16:12 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 27 | CCV | 22:39 | Dissolved Organic Carbon - Quad | 24.7 | 25.0 | 99 | 90-110 | | TOC LCS Std_00052 |
| 28 | CCB | 22:54 | Dissolved Organic Carbon - Quad | 0.80 | | | | U | |
| 39 | CCV | 01:44 | Dissolved Organic Carbon - Quad | 25.1 | 25.0 | 100 | 90-110 | | TOC LCS Std_00052 |
| 40 | CCB | 01:59 | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Analyst: ECC  Batch Start Date: 11/11/2021

Reporting Units: mg/L  Analytical Batch No.: 557229

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 16 | CCV | 18:47 | Total Alkalinity as CaCO3 | 195 | 200 | 97 | 90-110 | | Alk daily lcs 01005 |
| 17 | CCB | 18:51 | Total Alkalinity as CaCO3 | 6.4 | | | | U | |
| 28 | CCV | 20:16 | Total Alkalinity as CaCO3 | 202 | 200 | 101 | 90-110 | | Alk daily lcs 01005 |
| 29 | CCB | 20:20 | Total Alkalinity as CaCO3 | 3.11 | | | | J | |

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

| Method | Lab Sample ID | Analyte | Result | Qual | Units | LOQ | Dil |
|---|---|---|---|---|---|---|---|
| Batch ID: 557866 Date: 11/17/2021 10:42 | | | | | | | |
| 350.1 | MB 280-557866/20 | Ammonia | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 557866 Date: 11/17/2021 11:52 | | | | | | | |
| 350.1 | MB 280-557866/55 | Ammonia | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 557015 Date: 11/10/2021 18:38 Prep Batch: 556800 Date: 11/09/2021 15:57 | | | | | | | |
| 351.2 | MB 280-556800/2-A | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 1.0 | 1 |
| Batch ID: 557699 Date: 11/15/2021 18:30 | | | | | | | |
| 353.2 | MB 280-557699/60 | Nitrate Nitrite as N | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 555849 Date: 11/02/2021 11:50 Prep Batch: 555848 Date: 11/02/2021 11:47 | | | | | | | |
| 9034 | MB 280-555848/3-A | Sulfide | 1.9 | U | mg/L | 4.0 | 1 |
| Batch ID: 558087 Date: 11/19/2021 11:05 | | | | | | | |
| 9056A | MB 280-558087/6 | Sulfate | 2.5 | U | mg/L | 5.0 | 1 |
| Batch ID: 556162 Date: 11/04/2021 00:45 | | | | | | | |
| 9060A | MB 280-556007/2-A | Dissolved Organic Carbon - Quad | 0.80 | U | mg/L | 1.0 | 1 |
| Batch ID: 557229 Date: 11/11/2021 17:44 | | | | | | | |
| SM 2320B | MB 280-557229/5 | Total Alkalinity as CaCO3 | 4.22 | J | mg/L | 10 | 1 |

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 556162 Date: 11/04/2021 01:15 | | | | | | | | | | | |
| 9060A | 280-154948-1 | Dissolved Organic Carbon - Quad | 5.0 | | mg/L | | | | | | |
| 9060A | 280-154948-1 MS | Dissolved Organic Carbon - Quad | 30.1 | | mg/L | 25.0 | 100 | 88-112 | | | |

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 556162 Date: 11/04/2021 01:29 | | | | | | | | | | | |
| 9060A | 280-154948-1 MSD | Dissolved Organic Carbon - Quad | 30.2 | | mg/L | 25.0 | 101 | 88-112 | 0 | 15 | |

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

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 557866 | Date: 11/17/2021 10:38 | | | | | | | | | | |
| | | | | | | LCS Source: 350.1 cal_00508 | | | | | |
| 350.1 | LCS 280-557866/18 | Ammonia | 2.54 | | mg/L | 2.50 | 101 | 90-110 | 1 | 10 | |
| Batch ID: 557866 | Date: 11/17/2021 11:48 | | | | | | | | | | |
| | | | | | | LCS Source: 350.1 cal_00508 | | | | | |
| 350.1 | LCS 280-557866/53 | Ammonia | 2.51 | | mg/L | 2.50 | 101 | 90-110 | 1 | 10 | |
| Batch ID: 557015 | Date: 11/10/2021 18:38 | Prep Batch: 556800 | Date: 11/09/2021 15:57 | | | | | | | | |
| | | | | | | LCS Source: TKN 25ppm_00825 | | | | | |
| 351.2 | LCS 280-556800/1-A | Nitrogen, Total Kjeldahl | 6.24 | | mg/L | 6.00 | 104 | 90-110 | | | |
| Batch ID: 557699 | Date: 11/15/2021 18:28 | | | | | | | | | | |
| | | | | | | LCS Source: NXN CAL INT_00601 | | | | | |
| 353.2 | LCS 280-557699/59 | Nitrate Nitrite as N | 5.14 | | mg/L | 5.00 | 103 | 90-110 | | | |
| Batch ID: 555849 | Date: 11/02/2021 11:50 | Prep Batch: 555848 | Date: 11/02/2021 11:47 | | | | | | | | |
| | | | | | | LCS Source: SFD ICV INT_02018 | | | | | |
| 9034 | LCS 280-555848/1-A | Sulfide | 17.6 | | mg/L | 21.2 | 83 | 44-110 | 5 | 20 | |
| Batch ID: 558087 | Date: 11/19/2021 10:35 | | | | | | | | | | |
| | | | | | | LCS Source: IC LCS_01845 | | | | | |
| 9056A | LCS 280-558087/4 | Sulfate | 97.4 | | mg/L | 100 | 97 | 87-112 | 1 | 10 | M |
| Batch ID: 556162 | Date: 11/04/2021 00:30 | | | | | | | | | | |
| | | | | | | LCS Source: TOC LCS Std_00052 | | | | | |
| 9060A | LCS 280-556007/1-A | Dissolved Organic Carbon - Quad | 24.6 | | mg/L | 25.0 | 98 | 88-112 | | | |
| Batch ID: 557229 | Date: 11/11/2021 17:39 | | | | | | | | | | |
| | | | | | | LCS Source: Alk daily lcs_01005 | | | | | |
| SM 2320B | LCS 280-557229/4 | Total Alkalinity as CaCO3 | 205 | | mg/L | 200 | 103 | 89-109 | | | |

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 557866 | Date: 11/17/2021 10:40 | | | | | | | | | | |
| | | | | | | LCSD Source: 350.1 cal_00508 | | | | | |
| 350.1 | LCSD 280-557866/19 | Ammonia | 2.50 | | mg/L | 2.50 | 100 | 90-110 | 1 | 10 | |
| Batch ID: 557866 | Date: 11/17/2021 11:50 | | | | | | | | | | |
| | | | | | | LCSD Source: 350.1 cal_00508 | | | | | |
| 350.1 | LCSD 280-557866/54 | Ammonia | 2.49 | | mg/L | 2.50 | 99 | 90-110 | 1 | 10 | |
| Batch ID: 555849 | Date: 11/02/2021 11:50 | Prep Batch: 555848 | Date: 11/02/2021 11:47 | | | | | | | | |
| | | | | | | LCSD Source: SFD ICV INT_02018 | | | | | |
| 9034 | LCSD 280-555848/2-A | Sulfide | 16.8 | | mg/L | 21.2 | 79 | 44-110 | 5 | 20 | |
| Batch ID: 558087 | Date: 11/19/2021 10:50 | | | | | | | | | | |
| | | | | | | LCSD Source: IC LCS_01845 | | | | | |
| 9056A | LCSD 280-558087/5 | Sulfate | 98.0 | | mg/L | 100 | 98 | 87-112 | 1 | 10 | M |

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

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 558087 | Date: 11/19/2021 10:20 | | | | | | | | | | |
| | | | | | | LCS Source: IC CAL cl/so4_00394 | | | | | |
| 9056A | MRL 280-558087/3 | Sulfate | 2.54 | J | mg/L | 5.00 | 51 | 50-150 | | | |

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

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 TestAmerica, Denver  Job Number: 280-154948-1

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 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

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 TestAmerica, Denver Job Number: 280-154948-1

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 TestAmerica, Denver  Job Number: 280-154948-1

SDG Number:

Matrix: Water  Instrument ID: WC_Alp 2

Method: 353.2  DL Date: 12/16/2011 09:50

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Nitrate Nitrite as N | | 0.1 | 0.019 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

SDG Number:

Matrix: Water  Instrument ID: WC_Alp 2

Method: 353.2  XMDL Date: 05/16/2011 11:21

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Nitrate Nitrite as N | | 0.1 | 0.0191 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

SDG Number:

Matrix: Water  Instrument ID: NOEQUIP

Method: 9034  DL Date: 03/28/2011 13:37

Prep Method: 9030B

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-154948-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

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 TestAmerica, Denver Job Number: 280-154948-1

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 TestAmerica, Denver  Job Number: 280-154948-1

SDG Number:

Matrix: Water  Instrument ID: WC_SHI4

Method: 9060A  DL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-154948-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI4

Method: 9060A XMDL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-154948-1

SDG Number:

Matrix: Water  Instrument ID: WC-AT3

Method: SM 2320B  DL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Total Alkalinity as CaCO3 | | 10 | 3.08 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-154948-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Total Alkalinity as CaCO3 | | 10 | 3.08 |

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Prep Method: 351.2

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-556800/1-A | 11/09/2021 15:57 | 556800 | | 25 | 25 |
| MB 280-556800/2-A | 11/09/2021 15:57 | 556800 | | 25 | 25 |
| 280-154948-1 | 11/09/2021 15:57 | 556800 | | 25 | 25 |

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-555848/1-A | 11/02/2021 11:47 | 555848 | | 50 | 50 |
| LCSD 280-555848/2-A | 11/02/2021 11:47 | 555848 | | 50 | 50 |
| MB 280-555848/3-A | 11/02/2021 11:47 | 555848 | | 50 | 50 |
| 280-154948-1 | 11/02/2021 11:47 | 555848 | | 50 | 50 |

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 11/17/2021 10:04  End Date: 11/17/2021 16:02

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/4 | | | 10:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/5 | | | 10:12 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/6 | | | 10:14 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/7 | | | 10:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/8 | | | 10:18 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/9 | | | 10:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/10 | | | 10:22 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557866/11 | | | 10:24 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICVL 280-557866/14 | 1 | | 10:30 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-557866/15 | 1 | | 10:32 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-557866/16 | 1 | | 10:34 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-557866/18 | 1 | T | 10:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-557866/19 | 1 | T | 10:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-557866/20 | 1 | T | 10:42 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/33 | 1 | | 11:08 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/34 | 1 | | 11:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/35 | 1 | | 11:12 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:24 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 11/17/2021 10:04  End Date: 11/17/2021 16:02

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/49 | 1 | | 11:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/50 | 1 | | 11:42 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/51 | 1 | | 11:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-557866/53 | 1 | T | 11:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-557866/54 | 1 | T | 11:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-557866/55 | 1 | T | 11:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | T | 11:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/68 | 1 | | 12:18 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/69 | 1 | | 12:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/70 | 1 | | 12:22 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/80 | | | 12:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/81 | | | 12:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/82 | | | 12:51 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 11/17/2021 10:04  End Date: 11/17/2021 16:02

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/99 | | | 13:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/100 | | | 13:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/101 | | | 13:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/115 | | | 14:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/116 | | | 14:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/117 | | | 14:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:56 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 4  Analysis Method: 350.1

Start Date: 11/17/2021 10:04  End Date: 11/17/2021 16:02

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/134 | | | 15:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/135 | | | 15:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/136 | | | 15:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557866/149 | | | 15:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557866/150 | | | 15:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557866/151 | | | 16:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:02 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_GAL1  Analysis Method: 351.2

Start Date: 10/12/2021 18:16  End Date: 11/10/2021 19:47

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/1-A | | | 18:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/2-A | | | 18:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/3-A | | | 18:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/4-A | | | 18:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/5-A | | | 18:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-553085/6-A | | | 18:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-553085/7-A | 1 | | 18:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-553085/8-A | 1 | | 18:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-556800/1-A | 1 | T | 18:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-556800/2-A | 1 | T | 18:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-553085/9-A | 1 | | 18:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-553085/10-A | 1 | | 18:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | T | 18:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-553085/9-A | 1 | | 18:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-553085/10-A | 1 | | 18:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:52 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_GAL1  Analysis Method: 351.2

Start Date: 10/12/2021 18:16  End Date: 11/10/2021 19:47

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-553085/9-A | | | 18:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-553085/10-A | | | 18:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-553085/9-A | | | 19:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-553085/10-A | | | 19:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-553085/9-A | | | 19:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-553085/10-A | | | 19:47 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 11/15/2021 16:32  End Date: 11/15/2021 19:54

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/5 | | | 16:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/6 | | | 16:42 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/7 | | | 16:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/8 | | | 16:46 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/9 | | | 16:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/10 | | | 16:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/11 | | | 16:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/12 | | | 16:54 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-557699/13 | | | 16:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-557699/17 | 1 | | 17:04 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICVL 280-557699/18 | 1 | | 17:06 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-557699/19 | 1 | | 17:08 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557699/33 | | | 17:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557699/35 | | | 17:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557699/36 | | | 17:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557699/37 | | | 17:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:48 | | | | | | | | | | | | | | | | | | | | | | | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 11/15/2021 16:32  End Date: 11/15/2021 19:54

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557699/49 | | | 18:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557699/51 | 1 | | 18:12 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557699/52 | | | 18:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557699/53 | 1 | | 18:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-557699/59 | 1 | T | 18:28 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-557699/60 | 1 | T | 18:30 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557699/65 | | | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557699/67 | 1 | | 18:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557699/68 | 1 | | 18:46 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557699/69 | 1 | | 18:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:06 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 11/15/2021 16:32  End Date: 11/15/2021 19:54

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557699/81 | | | 19:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557699/83 | 1 | | 19:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557699/84 | 1 | | 19:18 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557699/85 | 1 | | 19:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 5 | T | 19:26 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557699/97 | | | 19:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557699/99 | 1 | | 19:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-557699/100 | 1 | | 19:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557699/101 | 1 | | 19:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:54 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 11/02/2021 11:50  End Date: 11/02/2021 11:50

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-555848/1-A | 1 | T | 11:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-555848/2-A | 1 | T | 11:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-555848/3-A | 1 | T | 11:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | T | 11:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/01/2021 17:25  End Date: 11/03/2021 17:14

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/2 IC | 1 | | 17:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/3 IC | 1 | | 17:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/4 IC | 1 | | 17:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/5 IC | 1 | | 18:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/6 IC | 1 | | 18:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| STD 280-555743/7 IC | 1 | | 18:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-555743/8 | 1 | | 18:54 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-555743/9 | 1 | | 19:09 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/24 | | | 14:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/25 | | | 14:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/36 | | | 17:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/37 | | | 17:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:13 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/01/2021 17:25  End Date: 11/03/2021 17:14

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/48 | | | 20:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/49 | | | 20:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/60 | | | 23:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/61 | | | 23:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/72 | | | 02:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/73 | | | 02:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/82 | | | 05:28 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/01/2021 17:25  End Date: 11/03/2021 17:14

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/83 | | | 05:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/95 | | | 08:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/96 | | | 08:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/107 | | | 11:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/108 | | | 11:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/119 | | | 14:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/120 | | | 14:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:44 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/01/2021 17:25  End Date: 11/03/2021 17:14

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-555743/129 | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-555743/130 | | | 17:14 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/19/2021 09:50  End Date: 11/20/2021 09:35

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/1 | 1 | | 09:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/2 | 1 | | 10:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MRL 280-558087/3 | 1 | T | 10:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-558087/4 | 1 | T | 10:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-558087/5 | 1 | T | 10:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-558087/6 | 1 | T | 11:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/17 | 1 | | 13:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/18 | 1 | | 14:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/25 | 1 | | 15:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/26 | 1 | | 16:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/38 | 1 | | 18:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/39 | 1 | | 19:06 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:51 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/19/2021 09:50  End Date: 11/20/2021 09:35

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/50 | 1 | | 21:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/51 | 1 | | 22:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | T | 22:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/62 | 1 | | 00:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/63 | 1 | | 01:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/74 | | | 03:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/75 | | | 04:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:06 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_IonChrom13  Analysis Method: 9056A

Start Date: 11/19/2021 09:50  End Date: 11/20/2021 09:35

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/86 | | | 06:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/87 | | | 07:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-558087/96 | | | 09:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-558087/97 | | | 09:35 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_SHI4  Analysis Method: 9060A

Start Date: 11/03/2021 15:57  End Date: 11/04/2021 06:27

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-556162/1 | 1 | | 15:57 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-556162/2 | 1 | | 16:12 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-556162/15 | | | 19:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-556162/16 | | | 19:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-556162/27 | 1 | | 22:39 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-556162/28 | 1 | | 22:54 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-556007/1-A | 1 | D | 00:30 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-556007/2-A | 1 | D | 00:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | D | 01:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 MS | 1 | D | 01:15 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 MSD | 1 | D | 01:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-556162/39 | 1 | | 01:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-556162/40 | 1 | | 01:59 | X | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC_SHI4  Analysis Method: 9060A

Start Date: 11/03/2021 15:57  End Date: 11/04/2021 06:27

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-556162/51 | | | 04:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-556162/52 | | | 04:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-556162/57 | | | 06:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-556162/58 | | | 06:27 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 11/11/2021 17:24  End Date: 11/12/2021 05:57

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-557229/1 | | | 17:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-557229/4 | 1 | T | 17:39 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-557229/5 | 1 | T | 17:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/16 | 1 | | 18:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/17 | 1 | | 18:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-154948-1 | 1 | T | 20:09 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/28 | 1 | | 20:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/29 | 1 | | 20:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:07 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 11/11/2021 17:24  End Date: 11/12/2021 05:57

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/42 | | | 22:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/43 | | | 22:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/54 | | | 23:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/55 | | | 23:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/68 | | | 00:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/69 | | | 01:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/80 | | | 02:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/81 | | | 02:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:35 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 11/11/2021 17:24  End Date: 11/12/2021 05:57

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/94 | | | 03:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/95 | | | 03:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/106 | | | 04:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/107 | | | 04:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/120 | | | 05:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/121 | | | 05:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:46 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-154948-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 11/11/2021 17:24 End Date: 11/12/2021 05:57

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-557229/124 | | | 05:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-557229/125 | | | 05:57 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557866  Batch Start Date: 11/17/21 10:04  Batch Analyst: Dhungel, Rohit K

Batch Method: 350.1  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ClResPres | InitialAmount | FinalAmount | Initial pH | 350.1 cal 00508 | 350.1 ICV 00493 |
|---|---|---|---|---|---|---|---|---|---|
| ICVL 280-557866/14 | | 350.1 | | | 100 mL | 100 mL | | | 0.5 mL |
| ICV 280-557866/15 | | 350.1 | | | 100 mL | 100 mL | | | 2.5 mL |
| ICB 280-557866/16 | | 350.1 | | | 10 mL | 10 mL | | | |
| LCS 280-557866/18 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| LCSD 280-557866/19 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| MB 280-557866/20 | | 350.1 | | | 10 mL | 10 mL | | | |
| CCVL 280-557866/33 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-557866/34 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-557866/35 | | 350.1 | | | 10 mL | 10 mL | | | |
| CCVL 280-557866/49 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-557866/50 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-557866/51 | | 350.1 | | | 10 mL | 10 mL | | | |
| LCS 280-557866/53 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| LCSD 280-557866/54 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| MB 280-557866/55 | | 350.1 | | | 10 mL | 10 mL | | | |
| 280-154948-C-1 | EW7-PM21A-7-25 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-557866/68 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-557866/69 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-557866/70 | | 350.1 | | | 10 mL | 10 mL | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557866  Batch Start Date: 11/17/21 10:04  Batch Analyst: Dhungel, Rohit K

Batch Method: 350.1  Batch End Date:

| Batch Notes | |
|---|---|
| Sodium Nitroprusside ID | 350.1 color_00267 |
| Hypochlorite ID | 350.1 bleach_01522 |
| Carrier Identification | 350.1 complex_00583 |
| Sodium Salicylate ID | sodium sal_00033 |
| Pipette/Syringe/Dispenser ID | SAH5000, 1000 INTERCESSOR, BWH 200 |
| Batch Comment | RKD |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 553085  Batch Start Date: 10/11/21 16:16  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | TKN 25ppm 00825 | TKN ICV 25 00111 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-553085/7 | | 351.2, 351.2 | | 25 mL | 25 mL | | 5 mL | | |
| ICB 280-553085/8 | | 351.2, 351.2 | | 25 mL | 25 mL | | | | |
| CCV 280-553085/9 | | 351.2, 351.2 | | 25 mL | 25 mL | 5 mL | | | |
| CCB 280-553085/10 | | 351.2, 351.2 | | 25 mL | 25 mL | | | | |

| Batch Notes | |
|---|---|
| Block Digestor ID | TKN Hotblock |
| Digestion Solution ID | TKN digestion_00143 |
| Block Digestion Start time | 10/11/21 1700 |
| Oven, Bath or Block Temperature 1 | 160 Degrees C |
| Block Digestion End time | 10/11/21 2300 |
| Oven, Bath or Block Temperature 2 | 380 Degrees C |
| 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556800  Batch Start Date: 11/09/21 15:57  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 00825 | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-556800/1 | | 351.2, 351.2 | | | 25 mL | 25 mL | 6 mL | | |
| MB 280-556800/2 | | 351.2, 351.2 | | | 25 mL | 25 mL | | | |
| 280-154948-C-1 | EW7-PM21A-7-25 | 351.2, 351.2 | T | <2 | 25 mL | 25 mL | | | |

| Batch Notes | |
|---|---|
| Block Digestor ID | TKN Hotblock |
| Digestion Solution ID | TKN digestion_00143 |
| Block Digestion Start time | 11/09/21 1640 |
| Oven, Bath or Block Temperature 1 | 160 Degrees C |
| Block Digestion End time | 11/09/21 2240 |
| Oven, Bath or Block Temperature 2 | 380 Degrees C |
| 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557015  Batch Start Date: 10/12/21 18:16  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | FinalAmount | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-553085/7-A | | 351.2 | | 2 mL | | | | | |
| ICB 280-553085/8-A | | 351.2 | | 2 mL | | | | | |
| LCS 280-556800/1-A | | 351.2 | | 2 mL | | | | | |
| MB 280-556800/2-A | | 351.2 | | 2 mL | | | | | |
| CCV 280-553085/9-A | | 351.2 | | 2 mL | | | | | |
| CCB 280-553085/10-A | | 351.2 | | 2 mL | | | | | |
| 280-154948-C-1-A | EW7-PM21A-7-25 | 351.2 | T | 2 mL | | | | | |
| CCV 280-553085/9-A | | 351.2 | | 2 mL | | | | | |
| CCB 280-553085/10-A | | 351.2 | | 2 mL | | | | | |

| Batch Notes | |
|---|---|
| Hypochlorite ID | TKN hypo_00675 |
| Buffer Reagent ID | TKN buffer_00132 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| Sodium Nitroprusside ID | sodium nitro_00107 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557699  Batch Start Date: 11/15/21 16:32  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 00601 | NXN ICV INT 00577 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-557699/17 | | 353.2 | | 100 mL | 100 mL | | 5 mL | | |
| ICVL 280-557699/18 | | 353.2 | | 100 mL | 100 mL | | 2 mL | | |
| ICB 280-557699/19 | | 353.2 | | 100 mL | 100 mL | | | | |
| CCV 280-557699/51 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCB 280-557699/53 | | 353.2 | | 100 mL | 100 mL | | | | |
| LCS 280-557699/59 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| MB 280-557699/60 | | 353.2 | | 100 mL | 100 mL | | | | |
| CCV 280-557699/67 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-557699/68 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-557699/69 | | 353.2 | | 100 mL | 100 mL | | | | |
| CCV 280-557699/83 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-557699/84 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-557699/85 | | 353.2 | | 100 mL | 100 mL | | | | |
| 280-154948-C-1 | EW7-PM21A-7-25 | 353.2 | T | 100 mL | 100 mL | | | | |
| CCV 280-557699/99 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-557699/100 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-557699/101 | | 353.2 | | 100 mL | 100 mL | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557699  Batch Start Date: 11/15/21 16:32  Batch Analyst: Cherry, Scott V

Batch Method: 353.2  Batch End Date:

| Batch Notes | |
|---|---|
| pH Indicator ID | hc902937 |
| Buffer Reagent ID | NOXT Buffer_00222 |
| Color Reagent ID | NOXT CR_00121 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |
| Cadmium Column Lot ID | q19133-0419 |
| Copper Sulfate ID | CuSO4 NOXT_0014 |
| Hydrochloric Acid ID | 0.5N HCl_0084 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555848  Batch Start Date: 11/02/21 12:00  Batch Analyst: Mitchell, Jacob J

Batch Method: 9030B  Batch End Date: 11/02/21 13:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | DistillUnitPort | Initial pH | Final pH | AcidVolAdded |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-555848/1 | | 9030B, 9034 | | 50 mL | 50 mL | 1 | >9 SU | <2 SU | 5 mL |
| LCSD 280-555848/2 | | 9030B, 9034 | | 50 mL | 50 mL | 2 | >9 SU | <2 SU | 5 mL |
| MB 280-555848/3 | | 9030B, 9034 | | 50 mL | 50 mL | 3 | >9 SU | <2 SU | 5 mL |
| 280-154948-E-1 | EW7-PM21A-7-25 | 9030B, 9034 | T | 50 mL | 50 mL | 8 | >9 SU | <2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD ICV INT 02018 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-555848/1 | | 9030B, 9034 | | 1 mL | | | | | |
| LCSD 280-555848/2 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-555848/3 | | 9030B, 9034 | | | | | | | |
| 280-154948-E-1 | EW7-PM21A-7-25 | 9030B, 9034 | T | | | | | | |

| Batch Notes | |
|---|---|
| Formaldehyde ID | form_00120 |
| Zinc Acetate Buffer ID | znac_00120 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM 1000 |
| Sulfuric Acid Reagent ID Number | SulfuricAcid_00260 |
| pH Indicator ID | HC157843 |
| Distillation Start Time | 11/02/2021 12:00 |
| Uncorrected Temperature 2 | 80 Degrees C |
| Oven, Bath or Block Temperature 2 | 80 Degrees C |
| Distillation End Time | 11/02/2021 13:30 |
| Batch Comment | JM |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555849  Batch Start Date: 11/02/21 13:30  Batch Analyst: Mitchell, Jacob J

Batch Method: 9034  Batch End Date: 11/02/21 14:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | BuretStart1 | BuretStop1 | IodineAmount | TitrantVolume1 | FinalAmount | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-555848/1-A | | 9034 | | 0 mL | 2.8 mL | 5 mL | 2.8 mL | 50 mL | |
| LCSD 280-555848/2-A | | 9034 | | 2.8 mL | 5.7 mL | 5 mL | 2.9 mL | 50 mL | |
| MB 280-555848/3-A | | 9034 | | 5.7 mL | 6.7 mL | 1 mL | 1 mL | 50 mL | |
| 280-154948-E-1-A | EW7-PM21A-7-25 | 9034 | T | 14.6 mL | 15.55 mL | 1 mL | 0.950000000000001 mL | 50 mL | |

| Batch Notes | |
|---|---|
| Normality of First Titrant | 0.025 N |
| Normality of Iodine Solution | 0.025 N |
| Iodine ID | Iod_00271 |
| Hydrochloric Acid ID | HCl Sol_00194 |
| Sodium Thiosulfate ID | Na Thio_00174 |
| Starch Reagent ID | Starch Ind_00066 |
| Pipette/Syringe/Dispenser ID | 5Hz4, ARM 1000 |
| Batch Comment | JM |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555743  Batch Start Date: 11/01/21 17:25  Batch Analyst: Gonzalez, Sofie P

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 00391 | IC Cal low 00605 | IC ICV 5 00340 |
|---|---|---|---|---|---|---|---|---|---|
| STD 280-555743/2 IC | | 9056A | | 5 mL | 5 mL | | 0.02 mL | 0.02 mL | |
| STD 280-555743/3 IC | | 9056A | | 5 mL | 5 mL | | 0.05 mL | 0.05 mL | |
| STD 280-555743/4 IC | | 9056A | | 5 mL | 5 mL | | 0.1 mL | 0.1 mL | |
| STD 280-555743/5 IC | | 9056A | | 5 mL | 5 mL | | 1.2 mL | 0.4 mL | |
| STD 280-555743/6 IC | | 9056A | | 5 mL | 5 mL | | 2.4 mL | 0.8 mL | |
| STD 280-555743/7 IC | | 9056A | | 5 mL | 5 mL | | 4 mL | 1 mL | |
| ICV 280-555743/8 | | 9056A | | 5 mL | 5 mL | 0.4 mL | | | 0.4 mL |
| ICB 280-555743/9 | | 9056A | | 5 mL | 5 mL | | | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | IC SO4 ICV 00022 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STD 280-555743/2 IC | | 9056A | | | | | | | |
| STD 280-555743/3 IC | | 9056A | | | | | | | |
| STD 280-555743/4 IC | | 9056A | | | | | | | |
| STD 280-555743/5 IC | | 9056A | | | | | | | |
| STD 280-555743/6 IC | | 9056A | | | | | | | |
| STD 280-555743/7 IC | | 9056A | | | | | | | |
| ICV 280-555743/8 | | 9056A | | 0.4 mL | | | | | |
| ICB 280-555743/9 | | 9056A | | | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 555743  Batch Start Date: 11/01/21 17:25  Batch Analyst: Gonzalez, Sofie P

Batch Method: 9056A  Batch End Date:

| Batch Notes | |
|---|---|
| Filter ID | SLGB033NB |
| Pipette/Syringe/Dispenser ID | 5000ARM 5000CK IC100 CJ200 |
| Sufficient Volume for Batch QC | yes |
| Eluent 1 ID | IC10 eluent_00002 |
| Batch Comment | CJ and SG |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 558087  Batch Start Date: 11/19/21 09:50  Batch Analyst: Gonzalez, Sofie P

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | IC CAL cl/so4 00394 | IC Cal low 00608 | IC LCS 01845 | |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-558087/1 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/2 | | 9056A | | 10 mL | 10 mL | | | | |
| MRL 280-558087/3 | | 9056A | | 10 mL | 10 mL | 0.2 mL | 0.1 mL | | |
| LCS 280-558087/4 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| LCSD 280-558087/5 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| MB 280-558087/6 | | 9056A | | 10 mL | 10 mL | | | | |
| CCV 280-558087/17 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/18 | | 9056A | | 10 mL | 10 mL | | | | |
| CCV 280-558087/25 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/26 | | 9056A | | 10 mL | 10 mL | | | | |
| CCV 280-558087/38 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/39 | | 9056A | | 10 mL | 10 mL | | | | |
| CCV 280-558087/50 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/51 | | 9056A | | 10 mL | 10 mL | | | | |
| 280-154948-F-1 | EW7-PM21A-7-25 | 9056A | T | 10 mL | 10 mL | | | | |
| 280-154948-F-1 | EW7-PM21A-7-25 | 9056A | T | 10 mL | 10 mL | | | | |
| CCV 280-558087/62 | | 9056A | | 10 mL | 10 mL | | | 10 mL | |
| CCB 280-558087/63 | | 9056A | | 10 mL | 10 mL | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 558087  Batch Start Date: 11/19/21 09:50  Batch Analyst: Gonzalez, Sofie P

Batch Method: 9056A  Batch End Date:

| Batch Notes | |
|---|---|
| Filter ID | SF020E |
| Pipette/Syringe/Dispenser ID | 5000ARM 1000BMf IC100 CJ200 |
| Sufficient Volume for Batch QC | yse |
| Eluent 1 ID | IC10 eluent_00002 |
| Batch Comment | Run by JF reviewed by SG |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556161  Batch Start Date: 11/03/21 15:57  Batch Analyst: Fox, Regan A

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | Final pH | TOC LCS Std 00052 | AnalysisComment |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-556007/1-A | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | 5 mL | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. |
| MB 280-556007/2-A | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. |
| 280-154948-D-1-A | EW7-PM21A-7-25 | 9060A | D | 20 mL | 20 mL | >2 SU | <2 SU | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. |
| 280-154948-D-1-B MS | EW7-PM21A-7-25 | 9060A | D | 50 mL | 50 mL | >2 SU | <2 SU | 1.25 mL | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. |
| 280-154948-D-1-C MSD | EW7-PM21A-7-25 | 9060A | D | 50 mL | 50 mL | >2 SU | <2 SU | 1.25 mL | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. |

| Batch Notes | |
|---|---|
| Acid ID | H2SO4_00210, 0.2% H2SO4_00207 |
| Combustion Catylyst ID | 19003D-03 |
| Pipette/Syringe/Dispenser ID | BWH 5000 |
| pH Paper ID | HC157843 |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556161  Batch Start Date: 11/03/21 15:57  Batch Analyst: Fox, Regan A

Batch Method: 9060A  Batch End Date:

| Basis | Basis Description |
|---|---|
| D | Dissolved |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556162  Batch Start Date: 11/03/21 15:57  Batch Analyst: Fox, Regan A

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | Final pH | TOC ICV Std 00047 | TOC LCS Std 00052 |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-556162/1 | | 9060A | | 50 mL | 50 mL | <2 SU | <2 SU | 1 mL | |
| ICB 280-556162/2 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| CCV 280-556162/27 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| CCB 280-556162/28 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| LCS 280-556007/1-A | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| MB 280-556007/2-A | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |
| 280-154948-D-1-A | EW7-PM21A-7-25 | 9060A | D | 20 mL | 20 mL | >2 SU | <2 SU | | |
| 280-154948-D-1-B MS | EW7-PM21A-7-25 | 9060A | D | 50 mL | 50 mL | >2 SU | <2 SU | | 1.25 mL |
| 280-154948-D-1-C MSD | EW7-PM21A-7-25 | 9060A | D | 50 mL | 50 mL | >2 SU | <2 SU | | 1.25 mL |
| CCV 280-556162/39 | | 9060A | | 200 mL | 200 mL | <2 SU | <2 SU | | 5 mL |
| CCB 280-556162/40 | | 9060A | | 20 mL | 20 mL | <2 SU | <2 SU | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-556162/1 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| ICB 280-556162/2 | | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556162  Batch Start Date: 11/03/21 15:57  Batch Analyst: Fox, Regan A

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-556162/27 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCB 280-556162/28 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| LCS 280-556007/1-A | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| MB 280-556007/2-A | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-154948-D-1-A | EW7-PM21A-7-25 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-154948-D-1-B MS | EW7-PM21A-7-25 | 9060A | D | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| 280-154948-D-1-C MSD | EW7-PM21A-7-25 | 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 TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 556162  Batch Start Date: 11/03/21 15:57  Batch Analyst: Fox, Regan A

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | AnalysisComment | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-556162/39 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |
| CCB 280-556162/40 | | 9060A | | The final volume of these samples was fixed at 50 by the TOCControlV preprocessor. | | | | | |

| Batch Notes | |
|---|---|
| Acid ID | H2SO4_00210, 0.2% H2SO4_00407 |
| Combustion Catylyst ID | 19003D-03 |
| Pipette/Syringe/Dispenser ID | BWH 5000, 1082991 |
| Filter ID | 9743727, 16876568 |
| pH Paper ID | HC157843 |
| Batch Comment | DOC filtration |

| Basis | Basis Description |
|---|---|
| D | Dissolved |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-154948-1

SDG No.:

Batch Number: 557229  Batch Start Date: 11/11/21 17:24  Batch Analyst: Clifford, Emilie CS

Batch Method: SM 2320B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | CalcMsg | Alk daily lcs 01005 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-557229/4 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-557229/5 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-557229/16 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-557229/17 | | SM 2320B | | InitialAmount is blank | | | | | |
| 280-154948-F-1 | EW7-PM21A-7-25 | SM 2320B | T | InitialAmount is blank | | | | | |
| CCV 280-557229/28 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-557229/29 | | SM 2320B | | InitialAmount is blank | | | | | |

| Batch Notes | |
|---|---|
| Nominal Amount Used | 10 mL |
| Acid ID | 0.02 H2SO4_00283 |
| Normality of First Titrant | 0.02 N |
| Sodium Carbonate ID | Alk StkStd_00022 |
| pH Buffer 1 ID | pH 2.0 buffer_00093 |
| pH Buffer 2 ID | pH 4.0 buffer_00202 |
| pH Buffer 3 ID | pH 7.0 buffer_00305 |
| pH Buffer 4 ID | pH 10 buffer_00157 |
| pH Buffer 5 ID | pH 12 buffer_00175 |
| pH Buffer 6 ID | pH 7.0 buffer_00302 |
| Probe ID | PCE 80 pH 1200D_7803 |
| Batch Comment | AT4 freezing and CCV failures reason for hold time expiration and 2nd level delay - EC |

| 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-Nov-21

| 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 2500.00 | U | 1 | 1 | 1 | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 201 | 280-154854-c-1 | U | 1 | 1 | 1 | | |
| 202 | MS 280-154854-c-1 | U | 1 | 1 | 1 | | |
| 203 | MSD 280-154854-c-1 | U | 1 | 1 | 1 | | |
| 204 | Void 280-154858-j-1 | U | 1 | 1 | 1 | | |
| 205 | 280-154931-d-1 | U | 1 | 1 | 1 | | |
| 206 | 280-154931-d-2 | U | 1 | 1 | 1 | | |
| 207 | 280-154931-d-3 | U | 1 | 1 | 1 | | |
| 208 | 280-154931-d-4 | U | 1 | 1 | 1 | | |
| 209 | 280-154931-d-5 | U | 1 | 1 | 1 | | |
| 210 | 280-154931-d-6 | U | 1 | 1 | 1 | | |
| 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 | 280-154945-c-1 | U | 1 | 1 | 1 | | |
| 212 | 280-154945-b-2 | U | 1 | 1 | 1 | | |
| 213 | 280-154905-a-1 | U | 1 | 1 | 1 | | |
| 214 | MS 280-154905-a-1 | U | 1 | 1 | 1 | | |
| 215 | MSD 280-154905-a-1 | U | 1 | 1 | 1 | | |
| 216 | Void 590-16274-e-1 | U | 1 | 1 | 1 | | |
| 217 | Void 590-16274-e-2 | U | 1 | 1 | 1 | | |
| 218 | Void 590-16274-e-3 | U | 1 | 1 | 1 | | |
| 219 | 280-154905-a-11 | U | 1 | 1 | 1 | | |
| 220 | 280-154905-a-16 | U | 1 | 1 | 1 | | |
| 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 | | |
| 107 | LCS 2500.00 | U | 1 | 1 | 1 | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 221 | 280-154907-a-6 | U | 1 | 1 | 1 | | |
| 222 | 280-154948-c-1 | U | 1 | 1 | 1 | | |
| 223 | 280-154905-a-6 | U | 1 | 1 | 1 | | |
| 224 | 280-154945-b-3 | U | 1 | 1 | 1 | | |
| 225 | 280-154974-a-2 | U | 1 | 1 | 1 | | |
| 226 | MS 280-154974-a-2 | U | 1 | 1 | 1 | | |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 227 | MSD 280-154974-a-2 | U | | 1 | 1 | 1 | |
| 228 | 280-154974-a-3 | U | | 1 | 1 | 1 | |
| 229 | 280-155154-a-1 | U | | 1 | 1 | 1 | |
| 230 | Void 280-155643-a-1 | U | | 1 | 2 | 1 | |
| 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 | |
| 204 | Void 280-154858-j-1 | U | | 1 | 10 | 1 | |
| 216 | 590-16274-e-1 | U | | 1 | 2 | 1 | |
| 217 | 590-16274-e-2 | U | | 1 | 2 | 1 | |
| 218 | 590-16274-e-3 | U | | 1 | 2 | 1 | |
| 231 | 280-155208-a-5 | U | | 1 | 1 | 1 | |
| 232 | 280-155208-a-4 | U | | 1 | 1 | 1 | |
| 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 | |
| 107 | LCS 2500.00 | U | | 1 | 1 | 1 | |
| 107 | LCSD 2500.00 | U | | 1 | 1 | 1 | |
| 111 | MB | U | | 1 | 1 | 1 | |
| 233 | 280-154997-b-1 | U | | 1 | 1 | 1 | |
| 234 | MS 280-154997-b-1 | U | | 1 | 1 | 1 | |
| 235 | MSD 280-154997-b-1 | U | | 1 | 1 | 1 | |
| 236 | 280-155643-a-1 | U | | 1 | 100 | 1 | |
| 237 | 280-154858-j-1 | U | | 1 | 200 | 1 | |
| 238 | 280-155208-a-3 | U | | 1 | 1 | 1 | |
| 239 | 280-155208-b-2 | U | | 1 | 1 | 1 | |
| 240 | 280-155208-a-1 | U | | 1 | 1 | 1 | |
| 241 | Void 280-154996-d-1 | U | | 1 | 1 | 1 | |
| 242 | 280-155002-c-6 | U | | 1 | 1 | 1 | |
| 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 | |
| 241 | 280-154996-d-1 | U | | 1 | 10 | 1 | |
| 243 | 280-155002-c-5 | U | | 1 | 20 | 1 | |
| 244 | 280-154997-b-2 | U | | 1 | 1 | 1 | |
| 245 | MS 280-154997-b-2 | U | | 1 | 1 | 1 | |
| 246 | MSD 280-154997-b-2 | U | | 1 | 1 | 1 | |
| 247 | 280-155002-c-4 | U | | 1 | 20 | 1 | |
| 248 | 280-154997-c-4 | U | | 1 | 1 | 1 | |
| 249 | 280-155002-c-2 | U | | 1 | 20 | 1 | |
| 250 | 280-154997-b-5 | U | | 1 | 1 | 1 | |
| 251 | 280-155237-h-2 | U | | 1 | 1 | 1 | |
| 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 | |
| 107 | LCS 2500.00 | U | | 1 | 1 | 1 | |
| 107 | LCSD 2500.00 | U | | 1 | 1 | 1 | |
| 111 | MB | U | | 1 | 1 | 1 | |
| 252 | 280-155237-h-1 | U | | 1 | 1 | 1 | |
| 253 | 280-155012-c-1 | U | | 1 | 1 | 1 | |
| 254 | 280-155012-c-2 | U | | 1 | 1 | 1 | |
| 255 | 280-155002-c-7 | U | | 1 | 10 | 1 | |
| 256 | 280-154997-b-3 | U | | 1 | 1 | 1 | |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 257 | MS 280-154997-b-3 | U | 1 | 1 | 1 | 1 | |
| 258 | MSD 280-154997-b-3 | U | 1 | 1 | 1 | 1 | |
| 259 | 280-155002-c-3 | U | 1 | 50 | 1 | | |
| 260 | 590-16294-a-3 | U | 1 | 1 | 1 | | |
| 201 | Void 590-16293-c-2 | U | 1 | 1 | 5 | 1 | |
| 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 | | |
| 202 | Void 590-16293-c-1 | U | 1 | 1 | 5 | 1 | |
| 203 | 280-155334-a-1 | U | 1 | 1 | 1 | | |
| 204 | 280-155237-h-4 | U | 1 | 1 | 1 | | |
| 205 | 280-155237-h-3 | U | 1 | 1 | 1 | | |
| 206 | 280-154965-a-1 | U | 1 | 1 | 1 | | |
| 207 | 280-154964-a-6 | U | 1 | 1 | 1 | | |
| 208 | 280-154964-a-6 | U | 1 | 1 | 1 | | |
| 202 | 590-16293-c-1 | U | 1 | 10 | 1 | | |
| 201 | 590-16293-c-2 | U | 1 | 20 | 1 | | |
| 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\111721.RST
Date: 17-Nov-21
Operator: RKD

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 106 | Sync | 1 | SYNC | 1 | 1 | 11933 | 1020.034546 | |
| 2 | 0 | Carry Over | 1 | CO | 1 | 1 | 72 | -16.812140 | LO |
| 3 | 0 | Blank | 1 | BLNK | 1 | 1 | 81 | -16.029652 | LO |
| 4 | 101 | Cal 0 ppb | 1 | C | 1 | 1 | 309 | 3.822890 | |
| 5 | 102 | Cal 25 ppb | 1 | C | 1 | 1 | 564 | 26.076305 | |
| 6 | 103 | Cal 50 ppb | 1 | C | 1 | 1 | 752 | 42.434250 | |
| 7 | 104 | Cal 100 ppb | 1 | C | 1 | 1 | 1474 | 105.391373 | |
| 8 | 105 | Cal 500 ppb | 1 | C | 1 | 1 | 5874 | 489.458954 | |
| 9 | 106 | Cal 1000 ppb | 1 | C | 1 | 1 | 11827 | 1010.745178 | |
| 10 | 107 | Cal 2500 ppb | 1 | C | 1 | 1 | 28681 | 2496.543945 | |
| 11 | 108 | Cal 5000 ppb | 1 | C | 1 | 1 | 56710 | 5000.526855 | HI |
| 12 | 0 | Blank | 1 | BLNK | 1 | 1 | -233 | -43.339535 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 14 | 109 | ICVL 500.0 ppb | 1 | U | 1 | 1 | 6013 | 501.600983 | |
| 15 | 110 | ICV 2500.0 ppb | 1 | U | 1 | 1 | 28867 | 2513.082764 | |
| 16 | 111 | ICB | 1 | U | 1 | 1 | 146 | -10.321579 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 18 | 107 | LCS 2500.00 | 1 | U | 1 | 1 | 29139 | 2537.160156 | |
| 19 | 107 | LCSD 2500.00 | 1 | U | 1 | 1 | 28770 | 2504.490967 | |
| 20 | 111 | MB | 1 | U | 1 | 1 | 110 | -13.508460 | LO |
| 21 | 201 | 280-154854-c-1 | 1 | U | 1 | 1 | 1503 | 107.867874 | |
| 22 | 202 | MS 280-154854-c-1 | 1 | U | 1 | 1 | 13066 | 1119.410034 | |
| 23 | 203 | MSD 280-154854-c-1 | 1 | U | 1 | 1 | 13285 | 1138.645264 | |
| 24 | 204 | Void 280-154858-j-1 | 1 | U | 1 | 1 | 216426 | 20053.529297 | HI UM |
| 25 | 205 | 280-154931-d-1 | 1 | U | 1 | 1 | 4374 | 358.436310 | UM FL |
| 26 | 206 | 280-154931-d-2 | 1 | U | 1 | 1 | 2384 | 184.723740 | UM FL |
| 27 | 207 | 280-154931-d-3 | 1 | U | 1 | 1 | 2066 | 157.018463 | UM |
| 28 | 208 | 280-154931-d-4 | 1 | U | 1 | 1 | 1491 | 106.806908 | UM |
| 29 | 209 | 280-154931-d-5 | 1 | U | 1 | 1 | 16468 | 1418.389038 | |
| 30 | 210 | 280-154931-d-6 | 1 | U | 1 | 1 | 9433 | 800.834717 | |
| 31 | 0 | Blank | 1 | BLNK | 1 | 1 | -69 | -29.089445 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 33 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 5940 | 495.186615 | |
| 34 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 29303 | 2551.718506 | |
| 35 | 111 | CCB | 1 | U | 1 | 1 | 224 | -3.584460 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 37 | 211 | 280-154945-c-1 | 1 | U | 1 | 1 | 1134 | 75.694939 | |
| 38 | 212 | 280-154945-b-2 | 1 | U | 1 | 1 | 242 | -2.031225 | LO |
| 39 | 213 | 280-154905-a-1 | 1 | U | 1 | 1 | 105 | -13.950234 | LO |
| 40 | 214 | MS 280-154905-a-1 | 1 | U | 1 | 1 | 11906 | 1017.654602 | |
| 41 | 215 | MSD 280-154905-a-1 | 1 | U | 1 | 1 | 12101 | 1034.771606 | |
| 42 | 216 | Void 590-16274-e-1 | 1 | U | 1 | 1 | 60001 | 5297.210938 | HI |
| 43 | 217 | Void 590-16274-e-2 | 1 | U | 1 | 1 | 64864 | 5736.688477 | HI |
| 44 | 218 | Void 590-16274-e-3 | 1 | U | 1 | 1 | 73493 | 6519.571289 | HI |
| 45 | 219 | 280-154905-a-11 | 1 | U | 1 | 1 | -202 | -40.668629 | LO FL |
| 46 | 220 | 280-154905-a-16 | 1 | U | 1 | 1 | 689 | 36.952850 | FL |
| 47 | 0 | Blank | 1 | BLNK | 1 | 1 | 79 | -16.212036 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 49 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 5927 | 494.081543 | |
| 50 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 28549 | 2484.852539 | |
| 51 | 111 | CCB | 1 | U | 1 | 1 | 180 | -7.389120 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 53 | 107 | LCS 2500.00 | 1 | U | 1 | 1 | 28869 | 2513.257080 | |
| 54 | 107 | LCSD 2500.00 | 1 | U | 1 | 1 | 28578 | 2487.433838 | |
| 55 | 111 | MB | 1 | U | 1 | 1 | 83 | -15.893447 | LO |
| 56 | 221 | 280-154907-a-6 | 1 | U | 1 | 1 | 157 | -9.388067 | LO |
| 57 | 222 | 280-154948-c-1 | 1 | U | 1 | 1 | 13763 | 1180.636841 | |
| 58 | 223 | 280-154905-a-6 | 1 | U | 1 | 1 | -24 | -25.146828 | LO |
| 59 | 224 | 280-154945-b-3 | 1 | U | 1 | 1 | 12 | -22.065159 | LO |
| 60 | 225 | 280-154974-a-2 | 1 | U | 1 | 1 | 137 | -11.113963 | LO |
| 61 | 226 | MS 280-154974-a-2 | 1 | U | 1 | 1 | 11920 | 1018.889832 | |
| 62 | 227 | MSD 280-154974-a-2 | 1 | U | 1 | 1 | 11812 | 1009.367432 | |
| 63 | 228 | 280-154974-a-3 | 1 | U | 1 | 1 | 19451 | 1681.035034 | |
| 64 | 229 | 280-155154-a-1 | 1 | U | 1 | 1 | 10630 | 905.746338 | |
| 65 | 230 | Void 280-155643-a-1 | 1 | U | 2 | 1 | 421032 | 82576.523438 | HI |
| 66 | 0 | Blank | 1 | BLNK | 1 | 1 | -2001 | -197.234848 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 68 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 5823 | 485.004272 | |
| 69 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 28480 | 2478.797119 | |
| 70 | 111 | CCB | 1 | U | 1 | 1 | 173 | -8.040857 | LO |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 72 | 204 | Void 280-154858-j-1 | 1 | U | 10 | 1 | 325076 | 310567.093750 | HI |
| 73 | 216 | 590-16274-e-1 | 1 | U | 2 | 1 | 28607 | 4980.005371 | FL |
| 74 | 217 | 590-16274-e-2 | 1 | U | 2 | 1 | 32719 | 5709.468262 | FL |
| 75 | 218 | 590-16274-e-3 | 1 | U | 2 | 1 | 36986 | 6468.500977 | |
| 76 | 231 | 280-155208-a-5 | 1 | U | 1 | 1 | 625 | 31.353418 | |
| 77 | 232 | 280-155208-a-4 | 1 | U | 1 | 1 | 685 | 36.563152 | |
| 78 | 0 | Blank | 1 | BLNK | 1 | 1 | -40 | -26.540907 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 80 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 5674 | 471.983429 | |
| 81 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 27877 | 2425.365967 | |
| 82 | 111 | CCB | 1 | U | 1 | 1 | 167 | -8.551299 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 84 | 107 | LCS 2500.00 | 1 | U | 1 | 1 | 28329 | 2465.424805 | |
| 85 | 107 | LCSD 2500.00 | 1 | U | 1 | 1 | 28222 | 2455.947021 | |
| 86 | 111 | MB | 1 | U | 1 | 1 | 197 | -5.902561 | LO |
| 87 | 233 | 280-154997-b-1 | 1 | U | 1 | 1 | 135 | -11.352399 | LO |
| 88 | 234 | MS 280-154997-b-1 | 1 | U | 1 | 1 | 11497 | 981.799255 | |
| 89 | 235 | MSD 280-154997-b-1 | 1 | U | 1 | 1 | 11692 | 998.918762 | |
| 90 | 236 | 280-155643-a-1 | 1 | U | 100 | 1 | 14482 | 124381.656250 | |
| 91 | 237 | 280-154858-j-1 | 1 | U | 200 | 1 | 21673 | 375389.343750 | |
| 92 | 238 | 280-155208-a-3 | 1 | U | 1 | 1 | 830 | 49.204029 | |
| 93 | 239 | 280-155208-b-2 | 1 | U | 1 | 1 | 617 | 30.685080 | |
| 94 | 240 | 280-155208-a-1 | 1 | U | 1 | 1 | 388 | 10.707137 | |
| 95 | 241 | Void 280-154996-d-1 | 1 | U | 1 | 1 | 181943 | 16690.611328 | HI |
| 96 | 242 | 280-155002-c-6 | 1 | U | 1 | 1 | 46423 | 4076.755127 | FL |
| 97 | 0 | Blank | 1 | BLNK | 1 | 1 | -226 | -42.790218 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 99 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 5873 | 489.336914 | |
| 100 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 28866 | 2512.969238 | |
| 101 | 111 | CCB | 1 | U | 1 | 1 | 272 | 0.643442 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 103 | 241 | 280-154996-d-1 | 1 | U | 10 | 1 | 23248 | 20159.339844 | |
| 104 | 243 | 280-155002-c-5 | 1 | U | 20 | 1 | 12916 | 22126.376953 | |
| 105 | 244 | 280-154997-b-2 | 1 | U | 1 | 1 | 379 | 9.958917 | |
| 106 | 245 | MS 280-154997-b-2 | 1 | U | 1 | 1 | 11879 | 1015.269897 | |
| 107 | 246 | MSD 280-154997-b-2 | 1 | U | 1 | 1 | 12077 | 1032.667969 | |
| 108 | 247 | 280-155002-c-4 | 1 | U | 20 | 1 | 17096 | 29472.222656 | |
| 109 | 248 | 280-154997-c-4 | 1 | U | 1 | 1 | 211 | -4.696953 | LO |
| 110 | 249 | 280-155002-c-2 | 1 | U | 20 | 1 | 20064 | 34700.785156 | |
| 111 | 250 | 280-154997-b-5 | 1 | U | 1 | 1 | 16 | -21.689745 | LO |
| 112 | 251 | 280-155237-h-2 | 1 | U | 1 | 1 | 35958 | 3142.708008 | |
| 113 | 0 | Blank | 1 | BLNK | 1 | 1 | -103 | -32.061508 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 115 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 6143 | 512.947571 | |
| 116 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 30107 | 2622.988525 | |
| 117 | 111 | CCB | 1 | U | 1 | 1 | 393 | 11.121670 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 119 | 107 | LCS 2500.00 | 1 | U | 1 | 1 | 30419 | 2650.636719 | |
| 120 | 107 | LCSD 2500.00 | 1 | U | 1 | 1 | 30035 | 2616.594727 | |
| 121 | 111 | MB | 1 | U | 1 | 1 | 325 | 5.259944 | |
| 122 | 252 | 280-155237-h-1 | 1 | U | 1 | 1 | 1539 | 110.995216 | |
| 123 | 253 | 280-155012-c-1 | 1 | U | 1 | 1 | 11898 | 1016.988770 | |
| 124 | 254 | 280-155012-c-2 | 1 | U | 1 | 1 | 5445 | 451.927185 | |
| 125 | 255 | 280-155002-c-7 | 1 | U | 10 | 1 | 3536 | 2852.712158 | |
| 126 | 256 | 280-154997-b-3 | 1 | U | 1 | 1 | 276 | 0.942559 | |
| 127 | 257 | MS 280-154997-b-3 | 1 | U | 1 | 1 | 12219 | 1045.116821 | |
| 128 | 258 | MSD 280-154997-b-3 | 1 | U | 1 | 1 | 12151 | 1039.118774 | |
| 129 | 259 | 280-155002-c-3 | 1 | U | 50 | 1 | 33673 | 146975.750000 | |
| 130 | 260 | 590-16294-a-3 | 1 | U | 1 | 1 | 9415 | 799.251648 | |
| 131 | 201 | Void 590-16293-c-2 | 1 | U | 5 | 1 | 90099 | 40185.187500 | HI |
| 132 | 0 | Blank | 1 | BLNK | 1 | 1 | -352 | -53.755917 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 134 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 6235 | 521.040527 | |
| 135 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 30795 | 2684.041504 | |
| 136 | 111 | CCB | 1 | U | 1 | 1 | 253 | -1.083321 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 138 | 202 | Void 590-16293-c-1 | 1 | U | 5 | 1 | 60225 | 26587.566406 | HI |
| 139 | 203 | 280-155334-a-1 | 1 | U | 1 | 1 | -173 | -38.186424 | LO FL |
| 140 | 204 | 280-155237-h-4 | 1 | U | 1 | 1 | 9269 | 786.509888 | FL |
| 141 | 205 | 280-155237-h-3 | 1 | U | 1 | 1 | 10963 | 934.948547 | |
| 142 | 206 | 280-154965-a-1 | 1 | U | 1 | 1 | 87 | -15.505706 | LO |
| 143 | 207 | 280-154964-a-6 | 1 | U | 1 | 1 | 248 | -1.489713 | LO |
| 144 | 208 | 280-154964-a-6 | 1 | U | 1 | 1 | 35 | -19.995739 | LO |
| 145 | 202 | 590-16293-c-1 | 1 | U | 10 | 1 | 30496 | 26574.435547 | |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 146 | 201 | 590-16293-c-2 | 1 | U | 20 | 1 | 23193 | 40222.027344 | |
| 147 | 0 | Blank | 1 | BLNK | 1 | 1 | -85 | -30.498989 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |
| 149 | 105 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 6255 | 522.760620 | |
| 150 | 107 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 30605 | 2667.124512 | |
| 151 | 111 | CCB | 1 | U | 1 | 1 | 258 | -0.579872 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -23.080181 | BL |

NH3:Calibration 1: Peak 4-152

File name: C:\FLOW_4\111721.RST
Date: 17-Nov-21
Operator: RKD

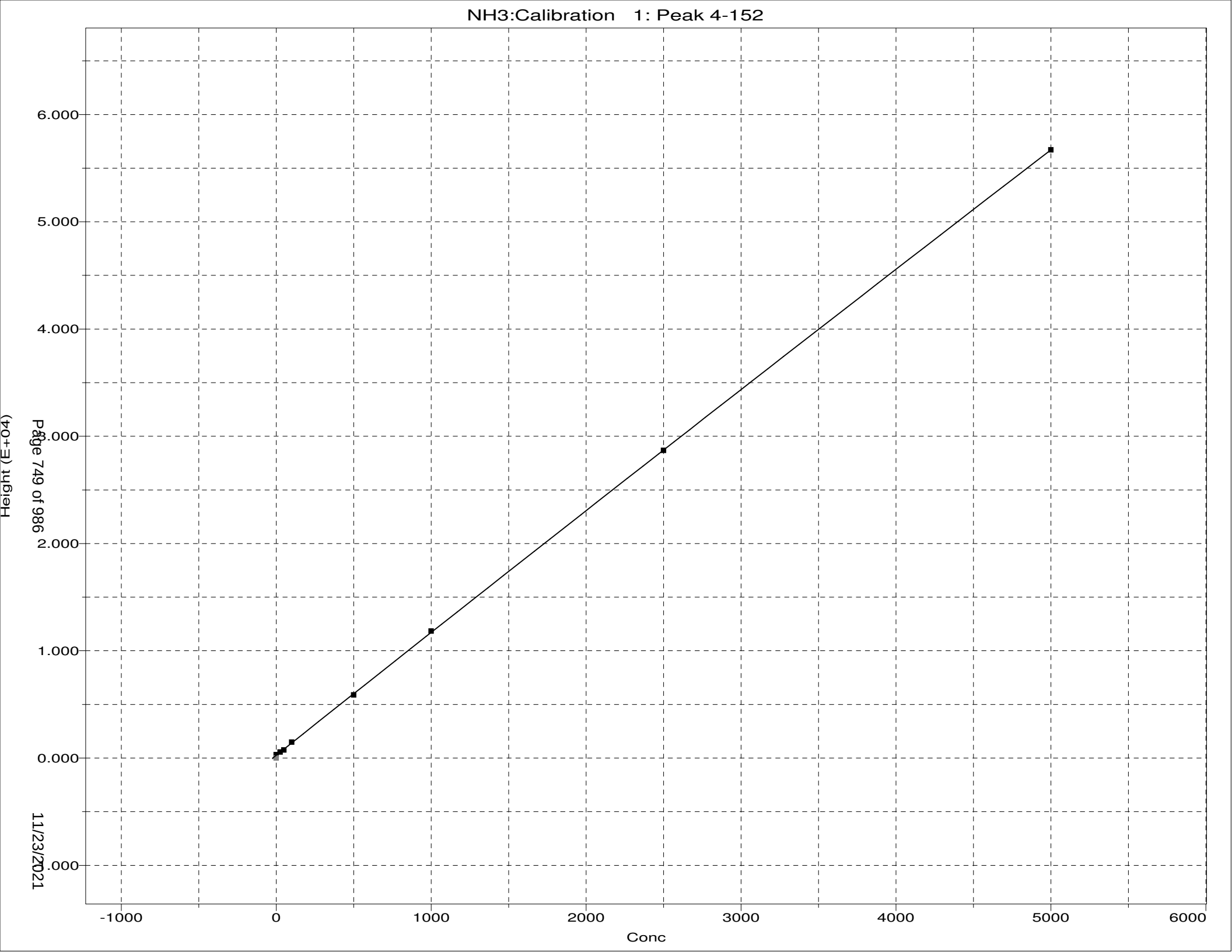
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0 ppb | 0.000000 | 308.845245 |
| * | Cal 25 ppb | 25.000000 | 564.269531 |
| * | Cal 50 ppb | 50.000000 | 752.000732 |
| * | Cal 100 ppb | 100.000000 | 1474.327637 |
| * | Cal 500 ppb | 500.000000 | 5874.089844 |
| * | Cal 1000 ppb | 1000.000000 | 11827.308594 |
| * | Cal 2500 ppb | 2500.000000 | 28680.628906 |
| * | Cal 5000 ppb | 5000.000000 | 56709.699219 |

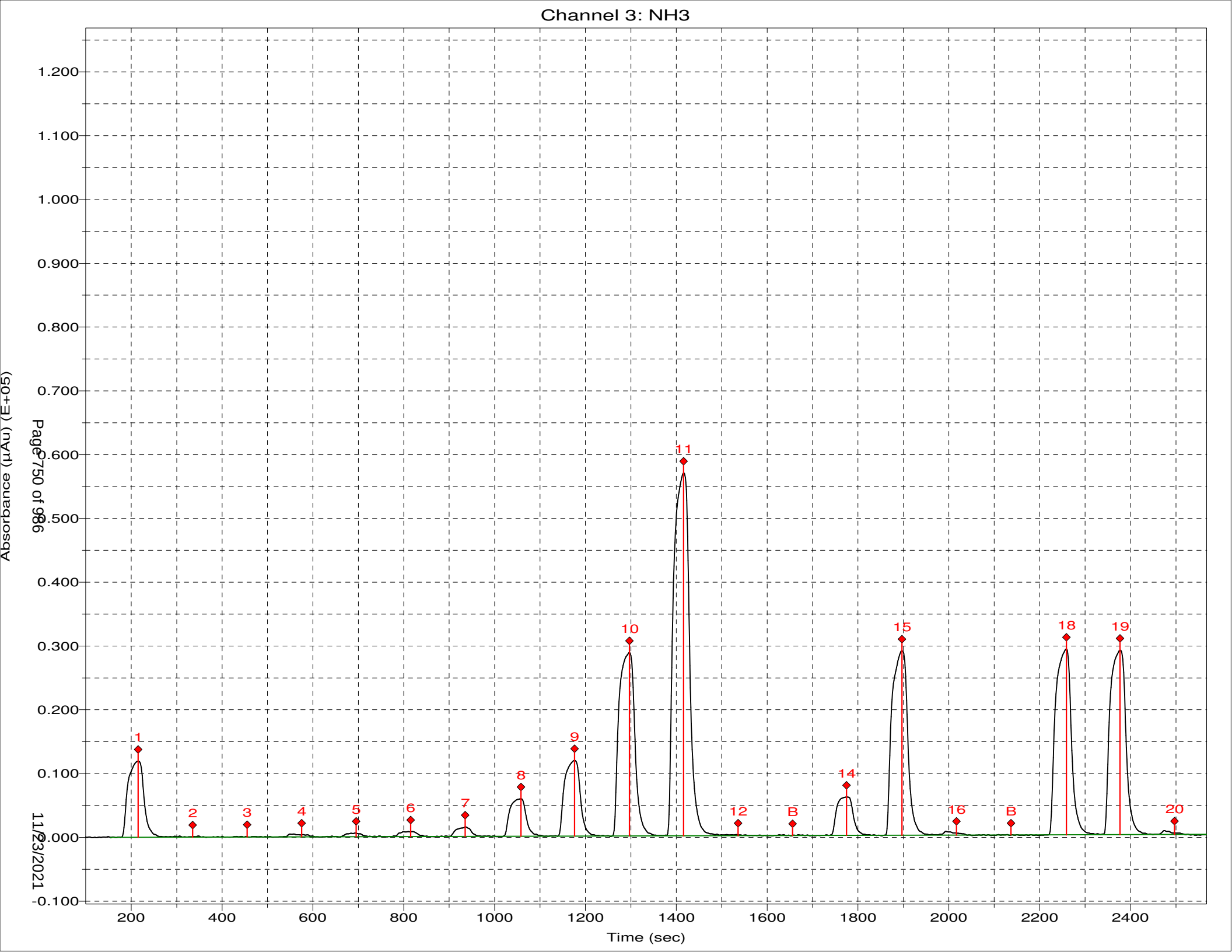
Calib Coef:
x=cyy+by+a
a: (intercept) -2.3080e+01
b: 8.7100e-02
c: 2.6171e-08

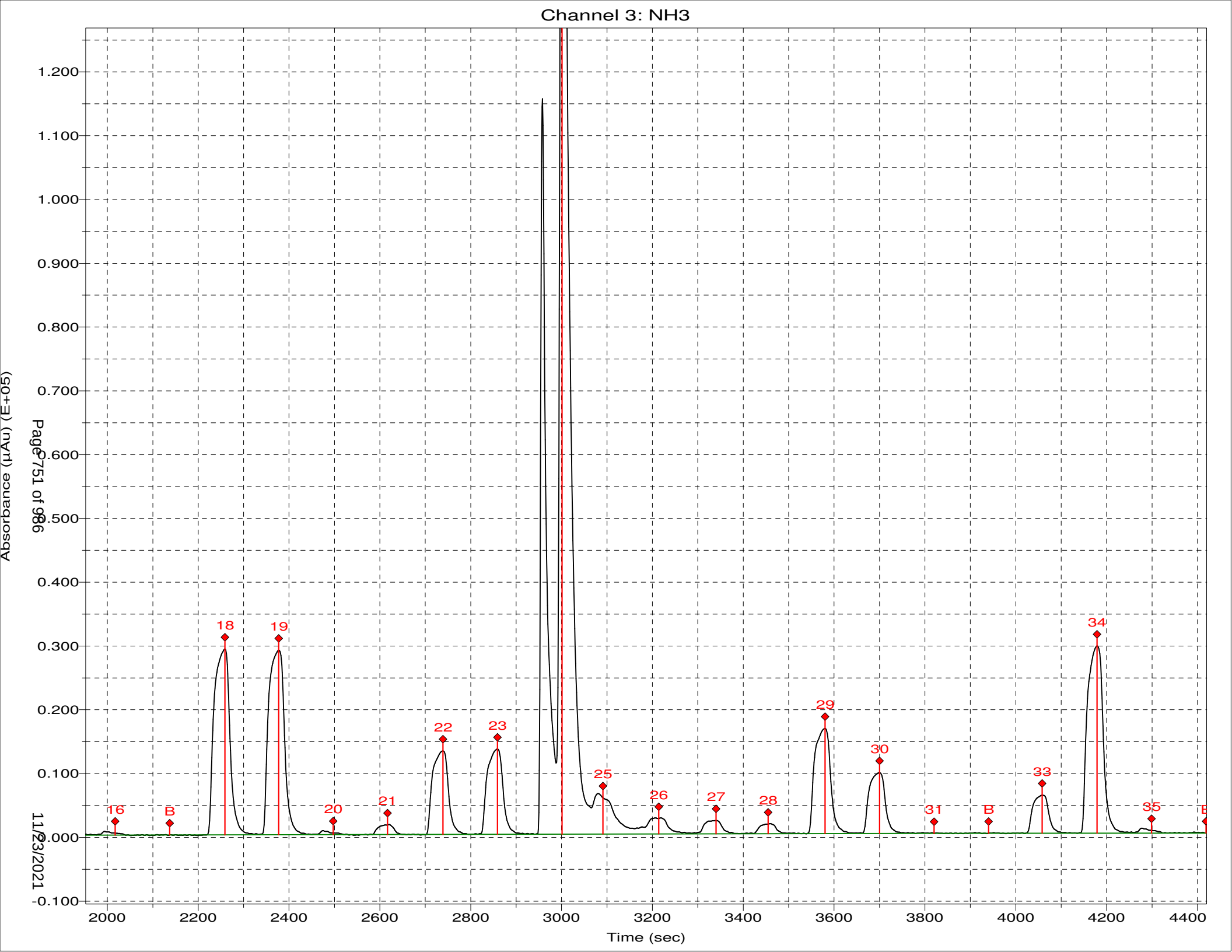
Corr Coef: 0.999992

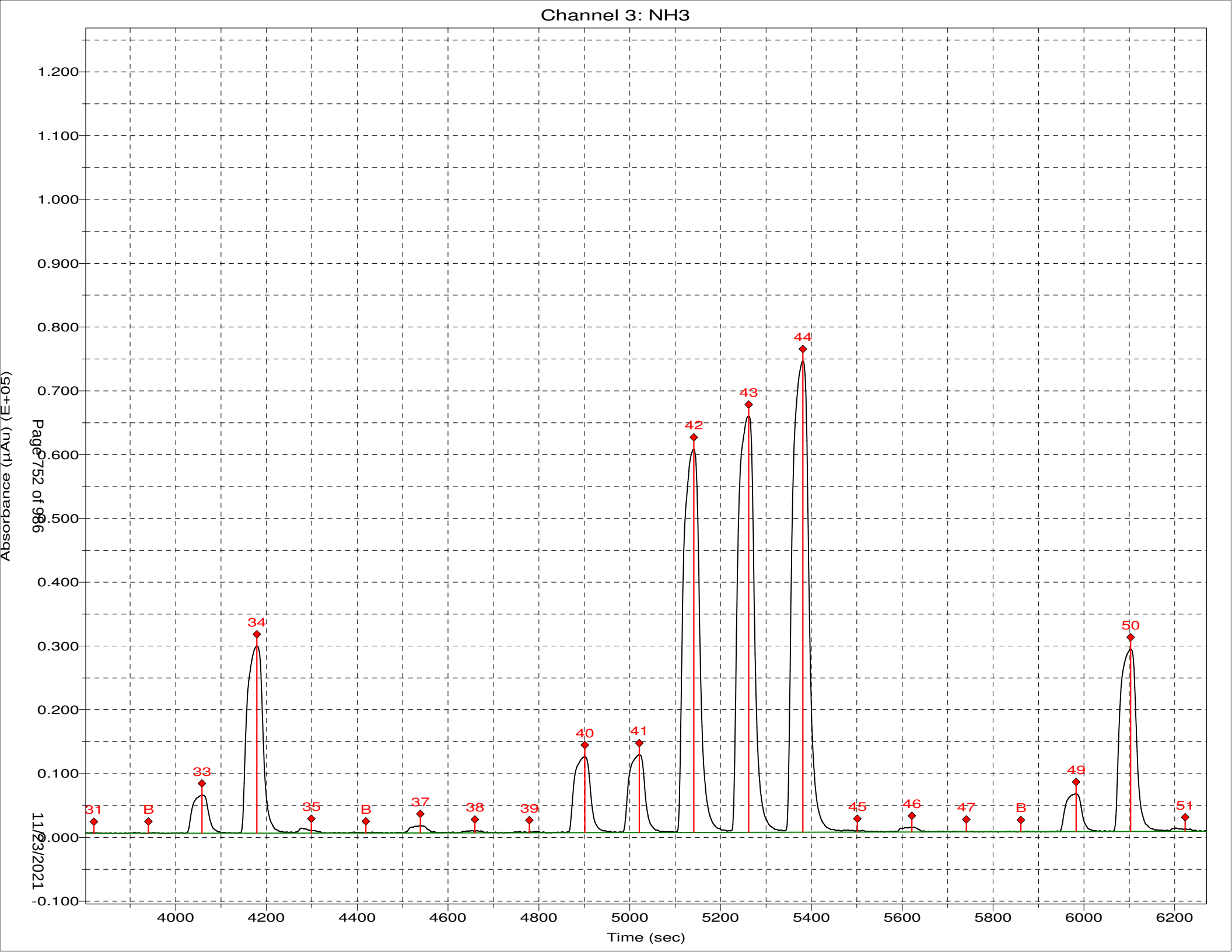
Carryover: 0.603%

No Drift Peaks


NH3:Calibration 1: Peak 4-152
Height (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 3: NH3
Absorbance (µAu) (E+05)
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
Time (sec)
1
2
3
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20


Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec)
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
16
B
18
19
20
21
22
23
25
26
27
28
29
30
31
B
33
34
35
B


Channel 3: NH3
Absorbance (µAu) (E+05)
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1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
Time (sec)
31
B
33
34
35
B
37
38
39
40
41
42
43
44
45
46
47
B
49
50
51
Page 752 of 986
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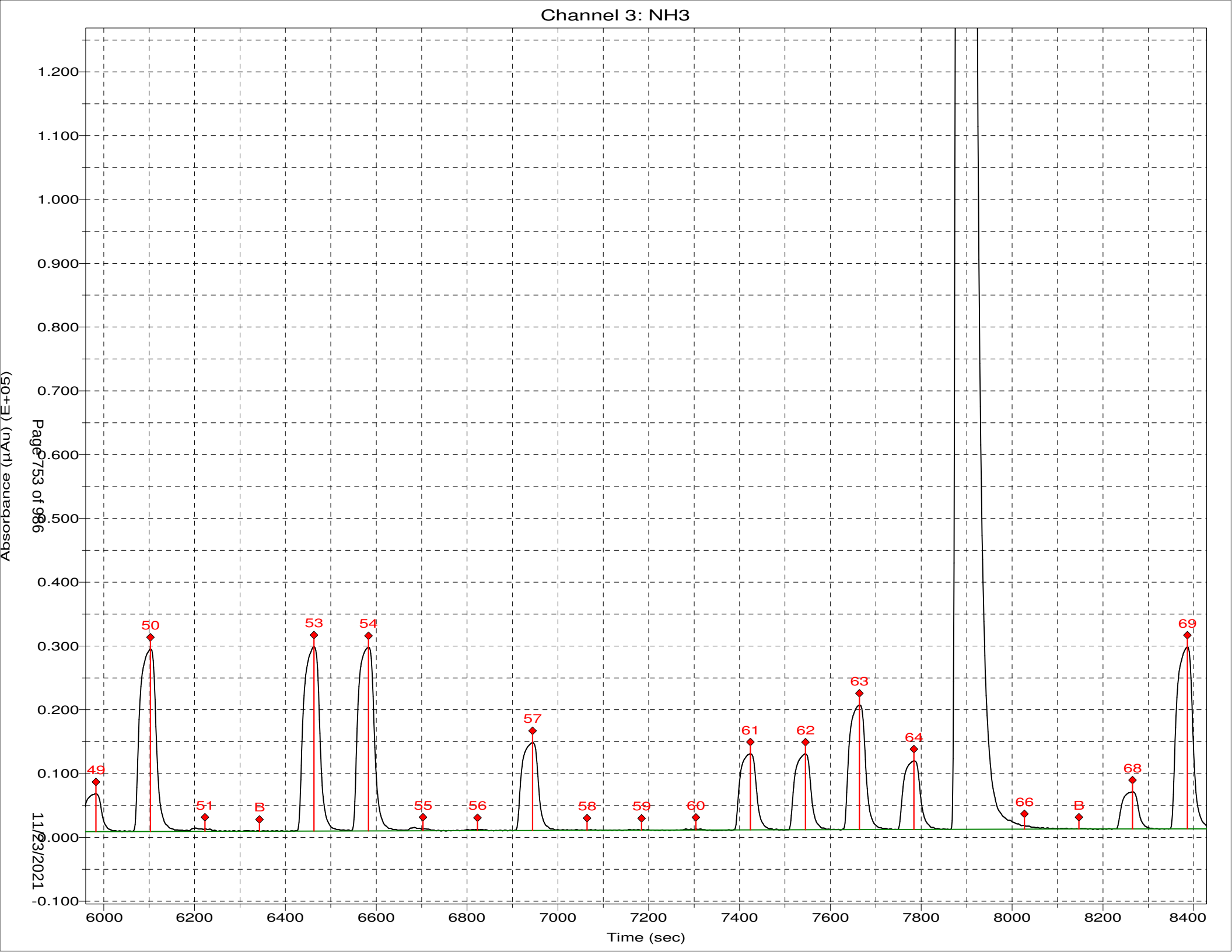
Channel 3: NH3
Absorbance (µAu) (E+05)
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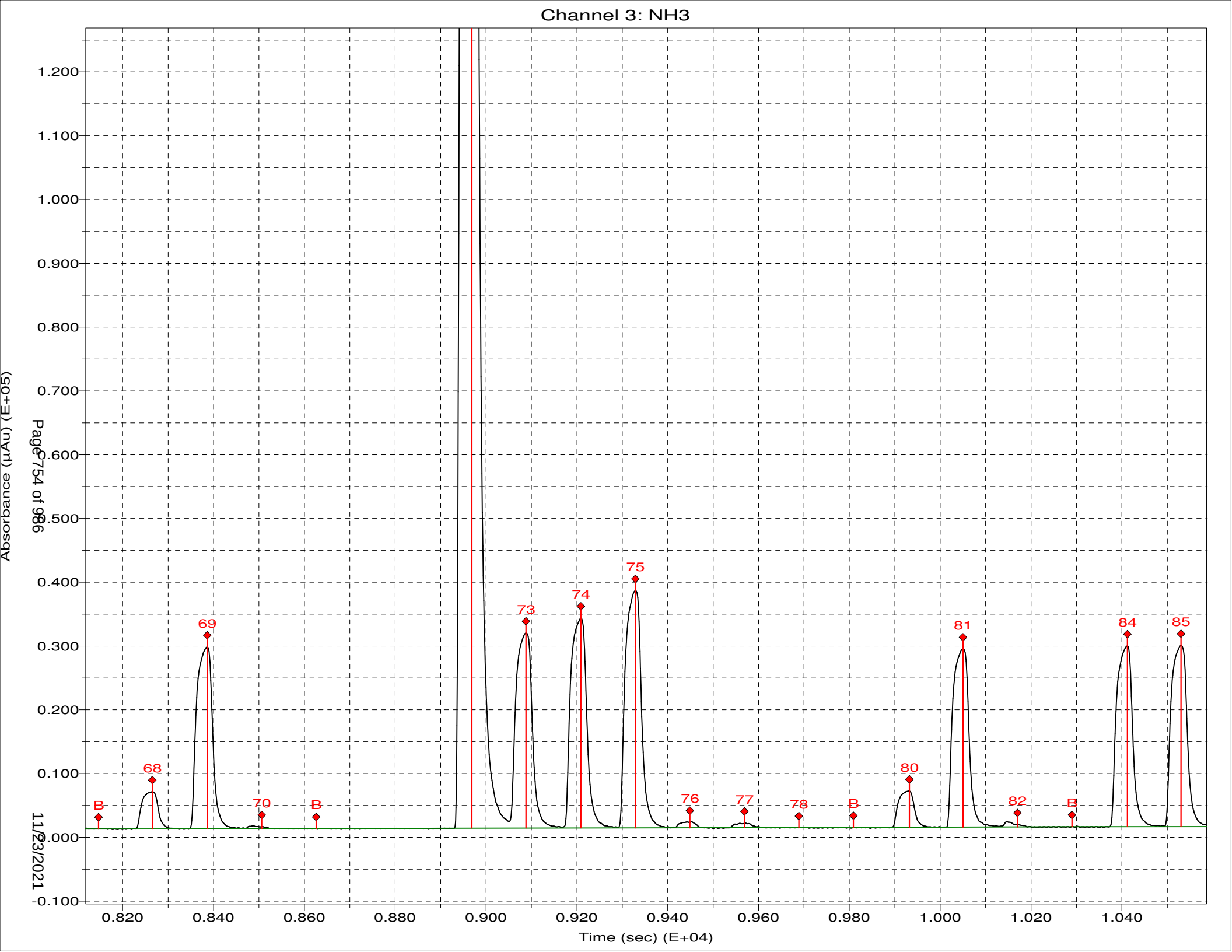
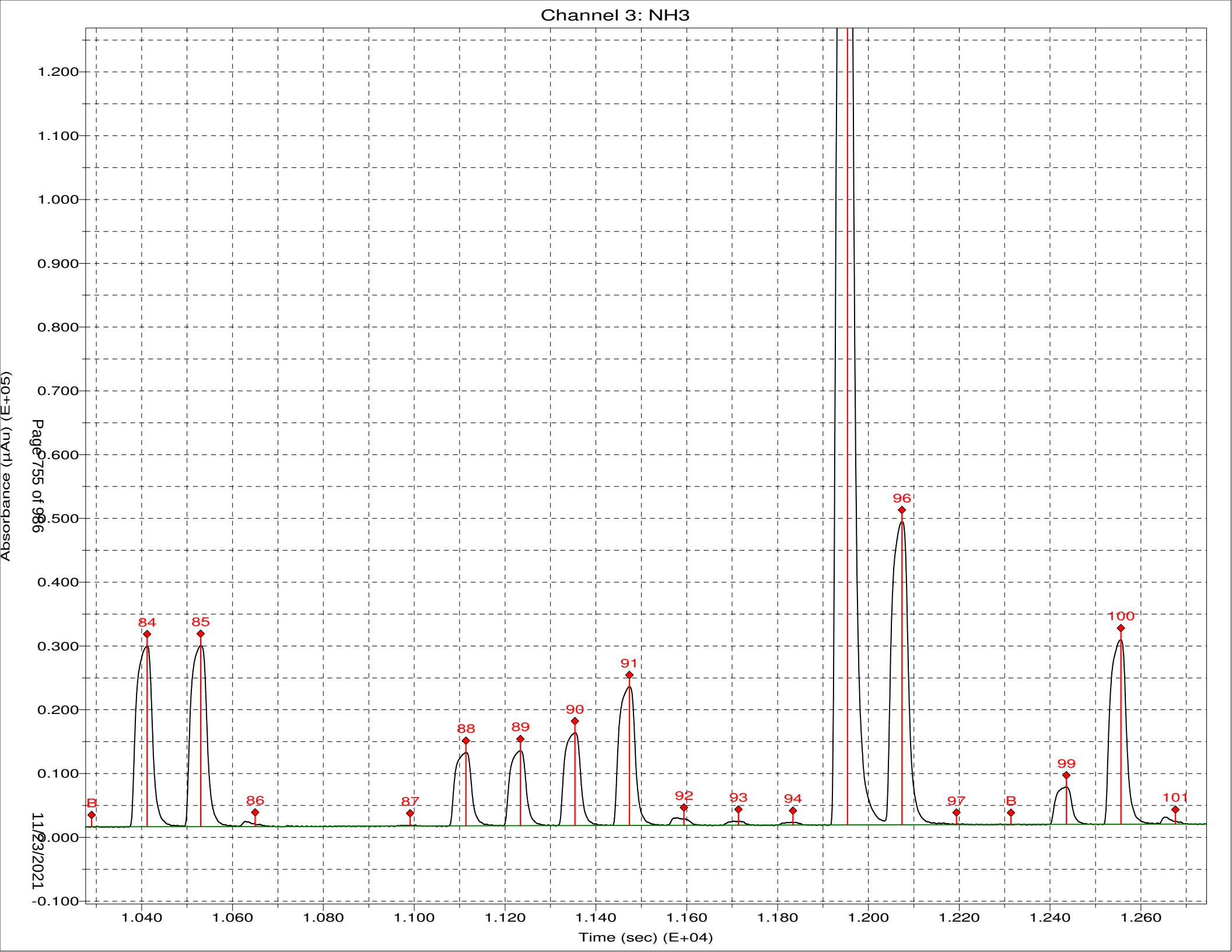
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
Time (sec)
49
50
51
B
53
54
55
56
57
58
59
60
61
62
63
64
66
B
68
69
Page 753 of 986
11/23/2021


Channel 3: NH3
Absorbance (µAu) (E+05)
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
B
68
69
70
B
73
74
75
76
77
78
B
80
81
82
B
84
85
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
Time (sec) (E+04)


Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec) (E+04)
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1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
1.220
1.240
1.260
B
84
85
86
87
88
89
90
91
92
93
94
96
97
B
99
100
101
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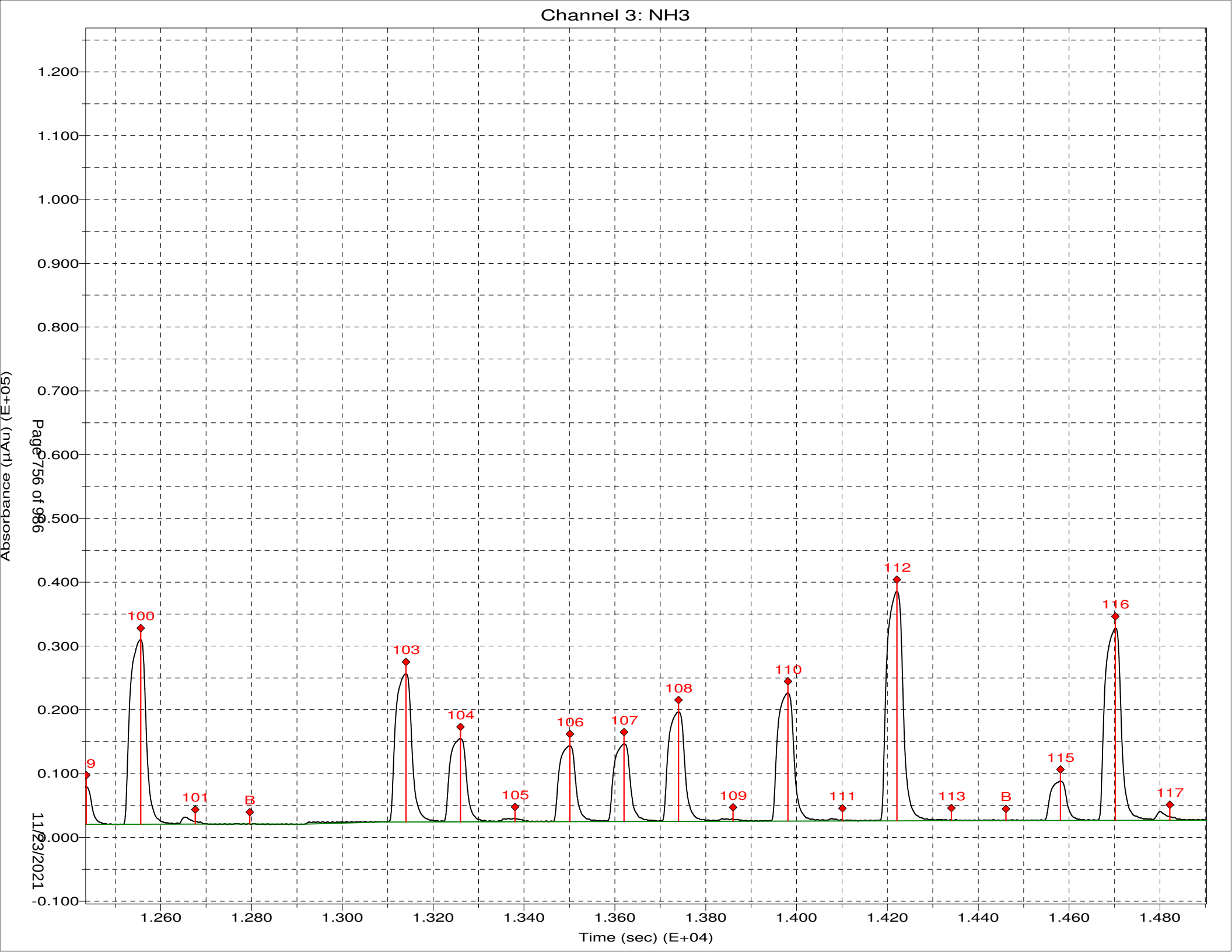
Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec) (E+04)
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
1.260
1.280
1.300
1.320
1.340
1.360
1.380
1.400
1.420
1.440
1.460
1.480
9
100
101
B
103
104
105
106
107
108
109
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111
112
113
B
115
116
117
Page 756 of 986
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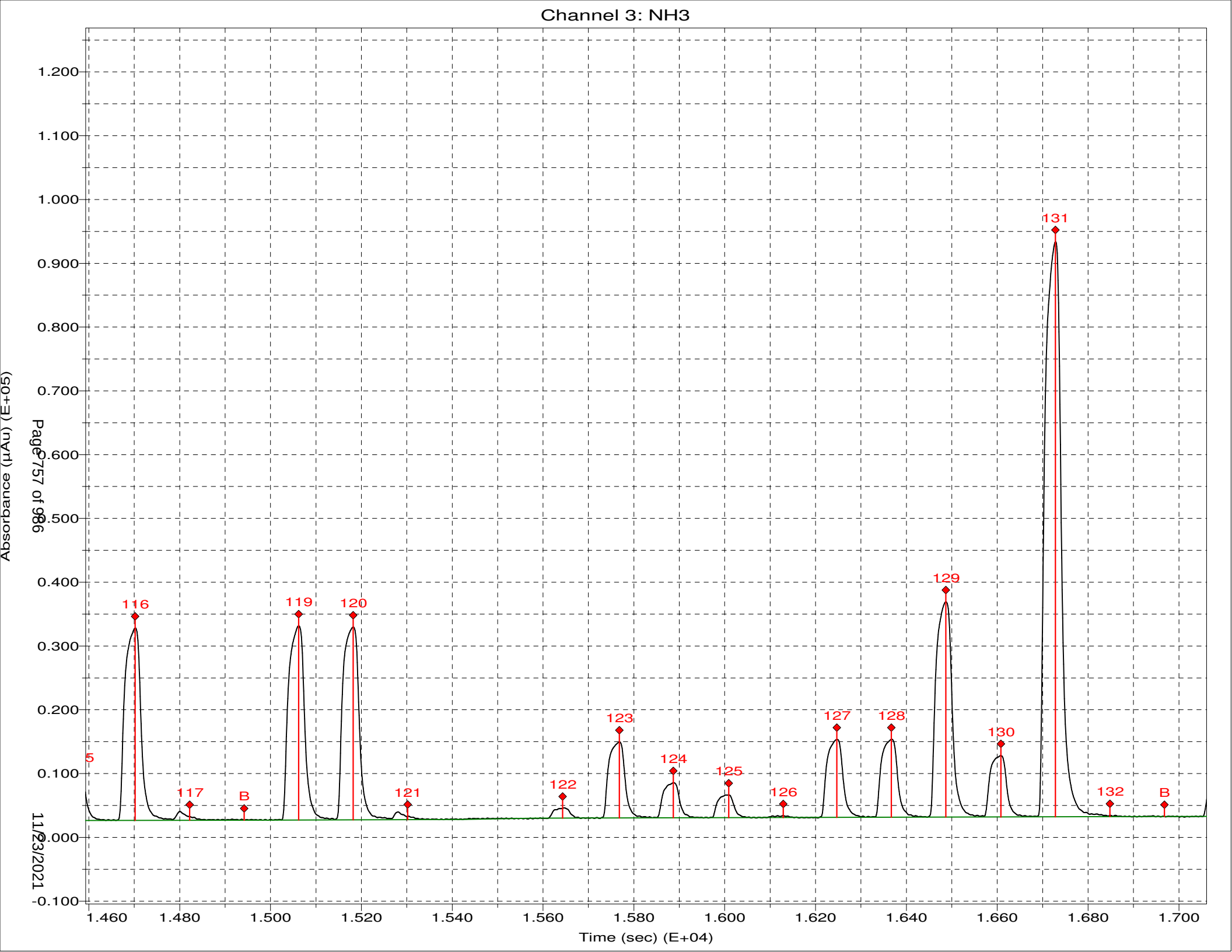
Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec) (E+04)
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1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
1.460
1.480
1.500
1.520
1.540
1.560
1.580
1.600
1.620
1.640
1.660
1.680
1.700
5
116
117
B
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122
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126
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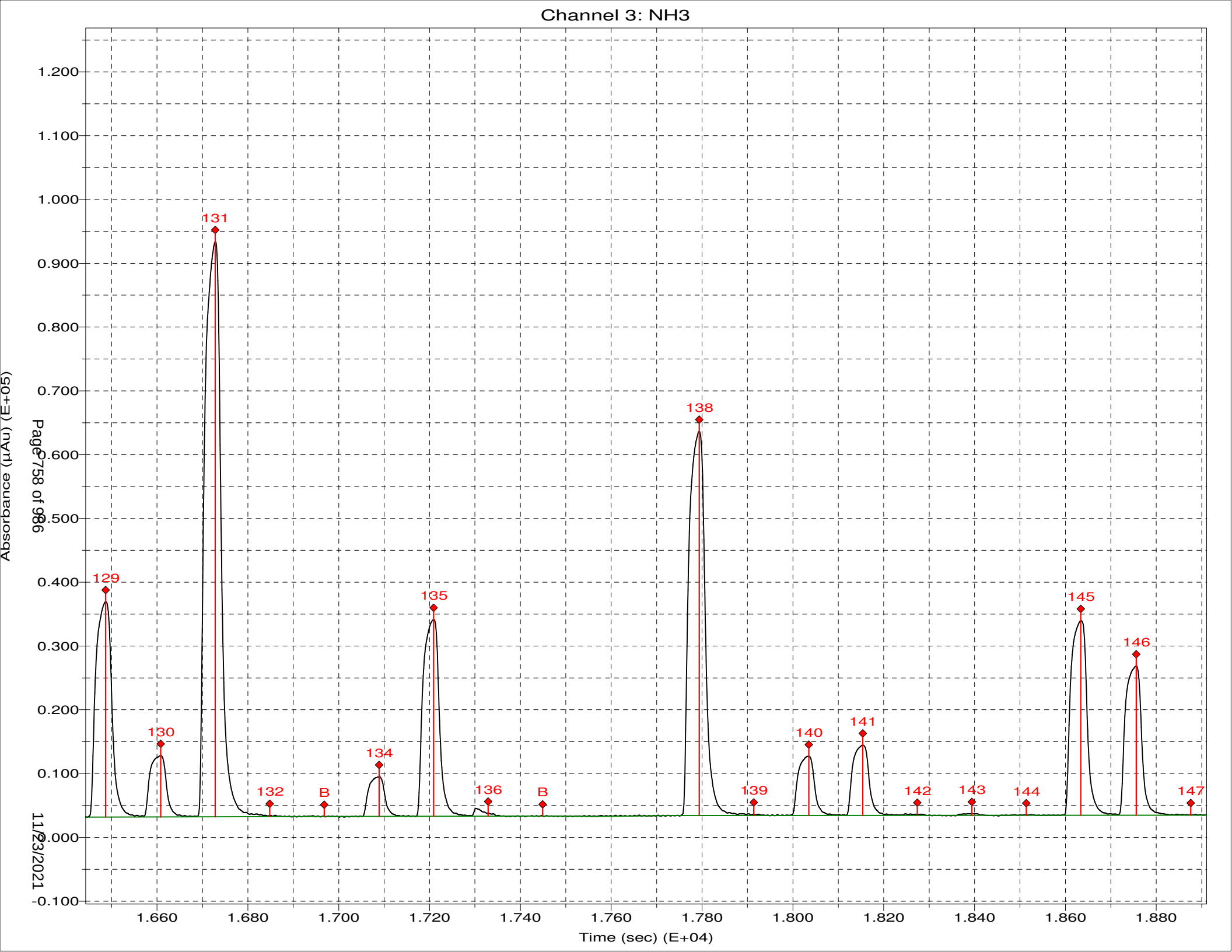
129
130
131
132
B


Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec) (E+04)
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
1.660
1.680
1.700
1.720
1.740
1.760
1.780
1.800
1.820
1.840
1.860
1.880
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130
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132
B
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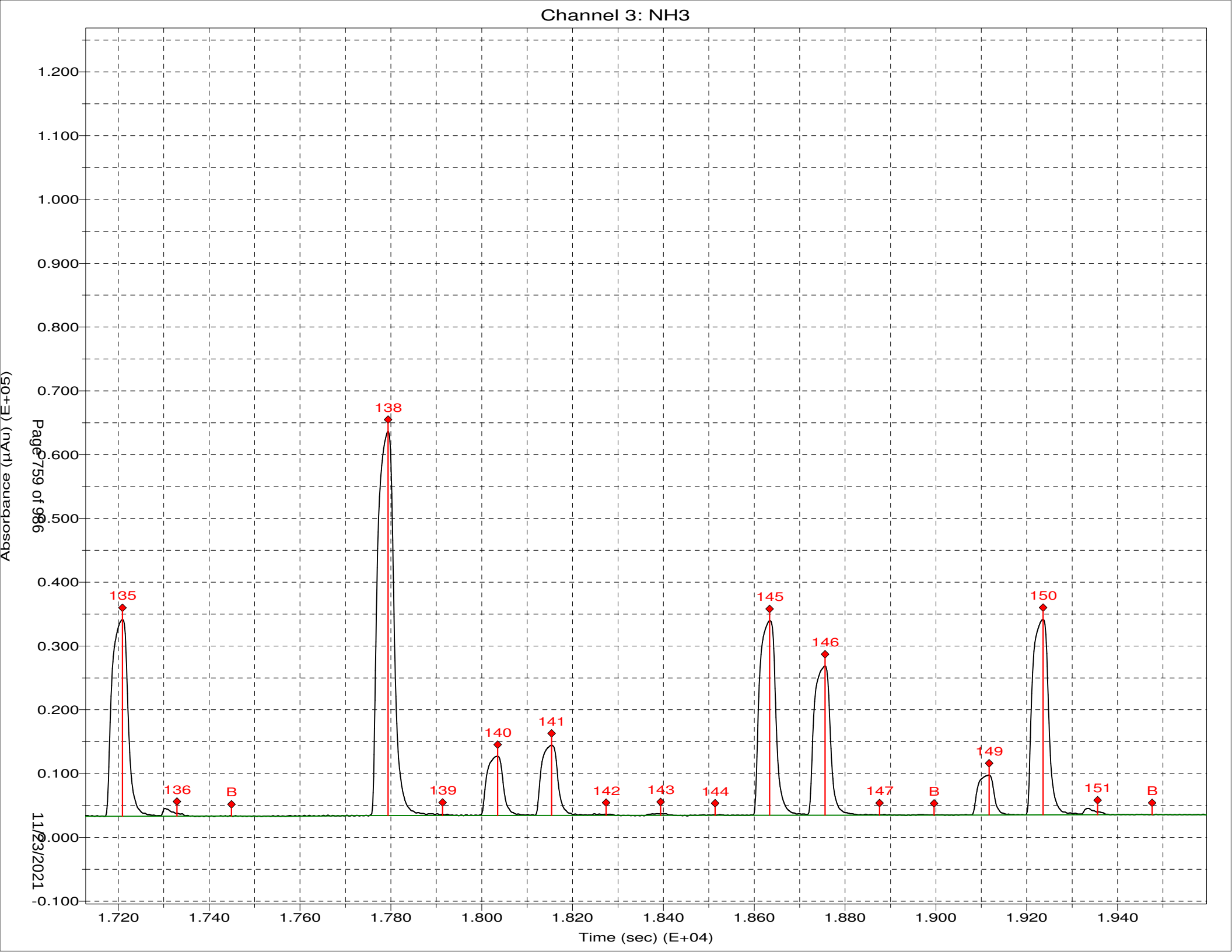
Channel 3: NH3
Absorbance (µAu) (E+05)
Time (sec) (E+04)
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1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
1.720
1.740
1.760
1.780
1.800
1.820
1.840
1.860
1.880
1.900
1.920
1.940
135
136
B
138
139
140
141
142
143
144
145
146
147
B
149
150
151
B

*** Sample Table from Analysis ***

File name: File name
Date: 17-Nov-21

| Cup | Name | Type | R | Dil | Wt | Vial | Comment | | |
|---|---|---|---|---|---|---|---|---|---|
| 106 | Sync | SYNC | 1 | 1 | 1 | | 350.1 Color_00267 | | |
| 0 | Carry Over | CO | 1 | 1 | 1 | | | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | | 350.1 Bleach_01522 | | |
| 101 | Cal 0 ppb | C | 1 | 1 | 1 | | | | |
| 102 | Cal 25 ppb | C | 1 | 1 | 1 | | 350.1 Complex_00583 | | |
| 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 | | | pH | Cr |
| 0 | read baseline | RB | 1 | 1 | 1 | | | | |
| 107 | LCS 2500.00 | U | 1 | 1 | 1 | | | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | | | |
| 111 | MB | U | 1 | 1 | 1 | | | | |
| 201 | 280-154854-c-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 202 | MS 280-154854-c-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 203 | MSD 280-154854-c-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 204 | Void 280-154858-j-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 205 | 280-154931-d-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 206 | 280-154931-d-2 | U | 1 | 1 | 1 | | | <2 | 2 |
| 207 | 280-154931-d-3 | U | 1 | 1 | 1 | | | <2 | 2 |
| 208 | 280-154931-d-4 | U | 1 | 1 | 1 | | | <2 | 2 |
| 209 | 280-154931-d-5 | U | 1 | 1 | 1 | | | <2 | 2 |
| 210 | 280-154931-d-6 | U | 1 | 1 | 1 | | | <2 | 2 |
| 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 | 280-154945-c-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 212 | 280-154945-b-2 | U | 1 | 1 | 1 | | | <2 | 2 |
| 213 | 280-154905-a-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 214 | MS 280-154905-a-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 215 | MSD 280-154905-a-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 216 | Void 590-16274-e-1 | U | 1 | 1 | 1 | | | <2 | 2 |
| 217 | Void 590-16274-e-2 | U | 1 | 1 | 1 | | | <2 | 2 |
| 218 | Void 590-16274-e-3 | U | 1 | 1 | 1 | | | <2 | 2 |
| 219 | 280-154905-a-11 | U | 1 | 1 | 1 | | | <2 | 2 |
| 220 | 280-154905-a-16 | U | 1 | 1 | 1 | | | <2 | 2 |
| 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 | | | | |
| 107 | LCS 2500.00 | U | 1 | 1 | 1 | | | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | | | |
| 111 | MB | U | 1 | 1 | 1 | | | | |
| 221 | 280-154907-a-6 | U | 1 | 1 | 1 | | | <2 | 2 |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment | |
|---|---|---|---|---|---|---|---|---|
| 222 | 280-154948-c-1 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 223 | 280-154905-a-6 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 224 | 280-154945-b-3 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 225 | 280-154974-a-2 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 226 | MS 280-154974-a-2 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 227 | MSD 280-154974-a-2 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 228 | 280-154974-a-3 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 229 | 280-155154-a-1 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 230 | Void 280-155643-a-1 | U | 1 | 1 | 2 | 1 | | |
| 0 | Blank | BLNK | 1 | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | 1 | | |
| 105 | CCVL 500.0 ppb | U | 1 | 1 | 1 | 1 | | |
| 107 | CCV 2500.0 ppb | U | 1 | 1 | 1 | 1 | | |
| 111 | CCB | U | 1 | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | 1 | | |
| 204 | Void 280-154858-j-1 | U | 1 | 1 | 10 | 1 | <2 | 2 |
| 216 | 590-16274-e-1 | U | 1 | 2 | 1 | | <2 | 2 |
| 217 | 590-16274-e-2 | U | 1 | 2 | 1 | | <2 | 2 |
| 218 | 590-16274-e-3 | U | 1 | 2 | 1 | | <2 | 2 |
| 231 | 280-155208-a-5 | U | 1 | 1 | 1 | | <2 | 2 |
| 232 | 280-155208-a-4 | U | 1 | 1 | 1 | | <2 | 2 |
| 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 | | | |
| 107 | LCS 2500.00 | U | 1 | 1 | 1 | | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | | |
| 111 | MB | U | 1 | 1 | 1 | | | |
| 233 | 280-154997-b-1 | U | 1 | 1 | 1 | | <2 | 2 |
| 234 | MS 280-154997-b-1 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 235 | MSD 280-154997-b-1 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 236 | 280-155643-a-1 | U | 1 | 100 | 1 | | <2 | 2 |
| 237 | 280-154858-j-1 | U | 1 | 200 | 1 | | <2 | 2 |
| 238 | 280-155208-a-3 | U | 1 | 1 | 1 | | <2 | 2 |
| 239 | 280-155208-b-2 | U | 1 | 1 | 1 | | <2 | 2 |
| 240 | 280-155208-a-1 | U | 1 | 1 | 1 | | <2 | 2 |
| 241 | Void 280-154996-d-1 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 242 | 280-155002-c-6 | U | 1 | 1 | 1 | | <2 | 2 |
| 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 | | | |
| 241 | 280-154996-d-1 | U | 1 | 10 | 1 | | <2 | 2 |
| 243 | 280-155002-c-5 | U | 1 | 20 | 1 | | <2 | 2 |
| 244 | 280-154997-b-2 | U | 1 | 1 | 1 | | <2 | 2 |
| 245 | MS 280-154997-b-2 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 246 | MSD 280-154997-b-2 | U | 1 | 1 | 1 | 1 | <2 | 2 |
| 247 | 280-155002-c-4 | U | 1 | 20 | 1 | | <2 | 2 |
| 248 | 280-154997-c-4 | U | 1 | 1 | 1 | | <2 | 2 |
| 249 | 280-155002-c-2 | U | 1 | 20 | 1 | | <2 | 2 |
| 250 | 280-154997-b-5 | U | 1 | 1 | 1 | | <2 | 2 |
| 251 | 280-155237-h-2 | U | 1 | 1 | 1 | | | |
| 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 | | | |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 111 | CCB | U | 1 | 1 | 1 | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | |
| 107 | LCS 2500.00 | U | 1 | 1 | 1 | | |
| 107 | LCSD 2500.00 | U | 1 | 1 | 1 | | |
| 111 | MB | U | 1 | 1 | 1 | | |
| 252 | 280-155237-h-1 | U | 1 | 1 | 1 | | |
| 253 | 280-155012-c-1 | U | 1 | 1 | 1 | | |
| 254 | 280-155012-c-2 | U | 1 | 1 | 1 | | |
| 255 | 280-155002-c-7 | U | 1 | 10 | 1 | | |
| 256 | 280-154997-b-3 | U | 1 | 1 | 1 | | |
| 257 | MS 280-154997-b-3 | U | 1 | 1 | 1 | | |
| 258 | MSD 280-154997-b-3 | U | 1 | 1 | 1 | | |
| 259 | 280-155002-c-3 | U | 1 | 50 | 1 | | |
| 260 | 590-16294-a-3 | U | 1 | 1 | 1 | | |
| 201 | Void 590-16293-c-2 | U | 1 | 5 | 1 | | |
| 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 | | |
| 202 | Void 590-16293-c-1 | U | 1 | 5 | 1 | | |
| 203 | 280-155334-a-1 | U | 1 | 1 | 1 | | |
| 204 | 280-155237-h-4 | U | 1 | 1 | 1 | | |
| 205 | 280-155237-h-3 | U | 1 | 1 | 1 | | |
| 206 | 280-154965-a-1 | U | 1 | 1 | 1 | | |
| 207 | 280-154964-a-6 | U | 1 | 1 | 1 | | |
| 208 | 280-154964-a-6 | U | 1 | 1 | 1 | | |
| 202 | 590-16293-c-1 | U | 1 | 10 | 1 | | |
| 201 | 590-16293-c-2 | U | 1 | 20 | 1 | | |
| 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 | | |

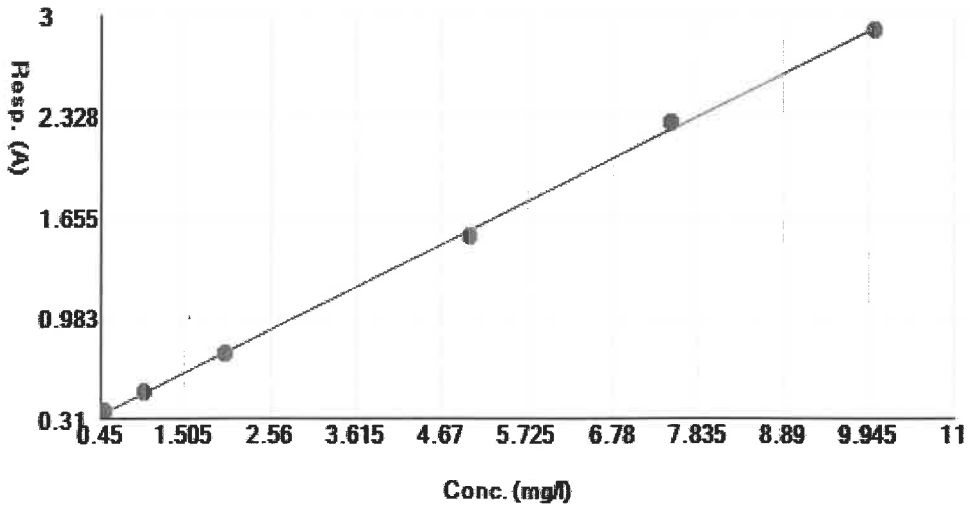
# Calibration results

TKN Version number 1.5 WC_GAL1

| | | | |
|---|---|---|---|
| **Date** | 11/10/2021 | **User** | Dealer |
| **Time** | 6:06:07PM | **Software version: 7.0** | |
| **Analyzer name** | WC_GAL1 | | |

| | | | |
|---|---|---|---|
| **Test** | TKN | **Coeff. of deter.** | 0.999127 |
| **Status** | Accepted | **Total factor** | 3.713 |
| **Accepted** | 10/12/2021 6:20 PM | | |
| **Checked** | 10/12/2021 6:20 PM | | |
| **User name** | Dealer | | |
| **Comment** | | | |
| **Errors** | | | |
| **Factor** | 3.713 | | |
| **Bias** | 0.211 | | |

| Cal/Ctrl | Response | Calc. conc. | Given conc. | Lot | Errors |
|---|---|---|---|---|---|
| TKN 10.0 | 0.359 | 0.54918180 | 0.50000000 | Default | |
| TKN 10.0 | 0.482 | 1.00773200 | 1.00000000 | Default | |
| TKN 10.0 | 0.741 | 1.96879100 | 2.00000000 | Default | |
| TKN 10.0 | 1.517 | 4.84952000 | 5.00000000 | Default | |
| TKN 7.5 | 2.281 | 7.68610600 | 7.50000000 | Default | |
| TKN 10.0 | 2.888 | 9.93867000 | 10.00000000 | Default | |



# Test results report

WC_GAL1

## Test name TKN

| | | | | | |
|---|---|---|---|---|---|
| **Date** | 11/10/2021 | **User** | Dealer | | |
| **Time** | 7:55:03PM | **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 | 5.0793770 | mg/l | | 0.0 | calc | |
| TKN | icb | 1.5 | 0.0321486 | mg/l | | 0.0 | calc | |
| TKN | LCS 280-556800/1-A | 1.5 | 6.2413560 | mg/l | | 0.0 | calc | |
| TKN | MB 280-556800/2-A | 1.5 | 0.0058825 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-22-A | 1.5 | -0.1635448 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-22-B MS | 1.5 | 2.7985110 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-22-C MS | 1.5 | 2.7718580 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-7-A | 1.5 | 0.1915361 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-30-A | 1.5 | 0.4357306 | mg/l | | 0.0 | calc | |
| TKN | 280-154568-D-1-D | 1.5 | 0.2271441 | mg/l | | 0.0 | calc | |
| TKN | 280-154842-A-1-A | 1.5 | -0.4996162 | mg/l | | 0.0 | calc | |
| TKN | 280-154842-A-2-A | 1.5 | 0.0935815 | mg/l | | 0.0 | calc | |
| TKN | 280-154892-D-1-A | 1.5 | 1.5514560 | mg/l | | 0.0 | calc | |
| TKN | 280-154892-D-2-A | 1.5 | 1.6267550 | mg/l | | 0.0 | calc | |
| TKN | ccv1 | 1.5 | 5.0744210 | mg/l | | 0.0 | calc | |
| TKN | ccb1 | 1.5 | 0.0667138 | mg/l | | 0.0 | calc | |
| TKN | 280-154892-E-3-A | 1.5 | 0.9914352 | mg/l | | 0.0 | calc | |
| TKN | 280-154948-C-1-A | 1.5 | -0.2735075 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-23-A | 1.5 | 0.8887254 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-23-B MS | 1.5 | 3.9605150 | mg/l | | 0.0 | calc | |
| TKN | 280-154545-A-23-C MS | 1.5 | 3.9535790 | mg/l | | 0.0 | calc | |

| Test | Sample/ctrl ID | Test version | Result | Unit | Note | Dil. 1 + | Status | Errors |
|---|---|---|---|---|---|---|---|---|
| TKN | 280-155160-A-1-C | 1.5 | 3.4406830 | mg/l | | 0.0 | calc | |
| TKN | 550-173681-C-1-A | 1.5 | 1.6413050 | mg/l | | 0.0 | calc | |
| TKN | 550-173682-B-1-A | 1.5 | 1.1583760 | mg/l | | 0.0 | calc | |
| TKN | 590-16274-E-1-A | 1.5 | 3.5598180 | mg/l | | 0.0 | calc | |
| TKN | ccv2 | 1.5 | 5.1025530 | mg/l | | 0.0 | calc | |
| TKN | ccb2 | 1.5 | 0.0558682 | mg/l | | 0.0 | calc | |
| TKN | 590-16274-E-2-A | 1.5 | 2.0571220 | mg/l | | 0.0 | calc | |
| TKN | 590-16274-E-3-A | 1.5 | 7.1910680 | mg/l | | 0.0 | calc | |
| TKN | 280-154945-B-1-A | 1.5 | 0.0984577 | mg/l | | 0.0 | calc | |
| TKN | 280-154945-B-2-A | 1.5 | 0.0934520 | mg/l | | 0.0 | calc | |
| TKN | LCS 280-556801/1-A | 1.5 | 6.2330650 | mg/l | | 0.0 | calc | |
| TKN | MB 280-556801/2-A | 1.5 | 0.0766577 | mg/l | | 0.0 | calc | |
| TKN | 280-154945-B-3-A | 1.5 | -0.2048375 | mg/l | | 0.0 | calc | |
| TKN | 280-154945-B-3-B MS | 1.5 | 3.0044290 | mg/l | | 0.0 | calc | |
| TKN | 280-154945-B-3-C MSD | 1.5 | 3.0210660 | mg/l | | 0.0 | calc | |
| TKN | 590-16242-D-1-A | 1.5 | 2.9679690 | mg/l | | 0.0 | calc | |
| TKN | ccv3 | 1.5 | 5.0980170 | mg/l | | 0.0 | calc | |
| TKN | ccb3 | 1.5 | 0.0554187 | mg/l | | 0.0 | calc | |
| TKN | 590-16242-D-2-A | 1.5 | 7.0135200 | mg/l | | 0.0 | calc | |
| TKN | 590-16242-D-3-A | 1.5 | 4.1286080 | mg/l | | 0.0 | calc | |
| TKN | 590-16242-E-4-A | 1.5 | 3.6706770 | mg/l | | 0.0 | calc | |
| TKN | 280-154988-B-1-A | 1.5 | 0.0112866 | mg/l | | 0.0 | calc | |
| TKN | 280-154988-C-2-A | 1.5 | 0.2035086 | mg/l | | 0.0 | calc | |
| TKN | 280-154988-B-3-A | 1.5 | -0.5568232 | mg/l | | 0.0 | calc | |
| TKN | MB 280-556802/1-A | 1.5 | 0.0564879 | mg/l | | 0.0 | calc | |
| TKN | MB 280-556802/2-A | 1.5 | 0.0490336 | mg/l | | 0.0 | calc | |

| Test | Sample/ctrl ID | Test version | Result | Unit | Note | Dil. 1 + | Status | Errors |
|---|---|---|---|---|---|---|---|---|
| TKN | MDLV 280-556802/3-A | 1.5 | 1.7317700 | mg/l | | 0.0 | calc | |
| TKN | MDLV 280-556802/4-A | 1.5 | 1.6981050 | mg/l | | 0.0 | calc | |
| TKN | LOQV 280-556802/5-A | 1.5 | 2.2822960 | mg/l | | 0.0 | calc | |
| TKN | ccv4 | 1.5 | 5.0601880 | mg/l | | 0.0 | calc | |
| TKN | 280-155147-A-1 -A | 1.5 | 34.0445800 | mg/l | | 4.0 | calc | |
| TKN | ccb4 | 1.5 | 0.0786465 | mg/l | | 0.0 | calc | |
| TKN | ccv5 | 1.5 | 5.0671440 | mg/l | | 0.0 | calc | |
| TKN | ccb5 | 1.5 | 0.0706240 | 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\111521.RST |
| Sample table path | C:\FLOW_4\111521.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 15-Nov-21 |
| Time acquired | 20:02 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 15-Nov-21 | 16:32 | 109 | SYNC |
| 15-Nov-21 | 16:34 | 0 | Carryover |
| 15-Nov-21 | 16:36 | 0 | Carryover (Statistics) |
| 15-Nov-21 | 16:38 | 0 | read baseline |
| 15-Nov-21 | 16:40 | 101 | Cal 0.00 ppb |
| 15-Nov-21 | 16:42 | 102 | Cal 50.0 ppb |
| 15-Nov-21 | 16:44 | 103 | Cal 100 ppb |
| 15-Nov-21 | 16:46 | 104 | Cal 500 ppb |
| 15-Nov-21 | 16:48 | 105 | Cal 1000 ppb |
| 15-Nov-21 | 16:50 | 106 | Cal 2500 ppb |
| 15-Nov-21 | 16:52 | 107 | Cal 5000 ppb |
| 15-Nov-21 | 16:54 | 108 | Cal 7500 ppb |
| 15-Nov-21 | 16:56 | 109 | Cal 10000 ppb |
| 15-Nov-21 | 16:58 | 0 | Blank |
| 15-Nov-21 | 17:00 | 0 | Read Baseline |
| 15-Nov-21 | 17:02 | 110 | 5000 PPB NO2 |
| 15-Nov-21 | 17:04 | 111 | ICV 5000 PPB |
| 15-Nov-21 | 17:06 | 112 | ICV 2000 PPB |
| 15-Nov-21 | 17:08 | 0 | ICB |
| 15-Nov-21 | 17:10 | 0 | Read Baseline |
| 15-Nov-21 | 17:12 | 107 | LCS |
| 15-Nov-21 | 17:14 | 0 | MB |
| 15-Nov-21 | 17:16 | 113 | 280-154910-B-2 |
| 15-Nov-21 | 17:18 | 114 | 280-154910-B-2 MS |
| 15-Nov-21 | 17:20 | 115 | 280-154910-B-2 MSD |
| 15-Nov-21 | 17:22 | 116 | 280-154910-B-3 |
| 15-Nov-21 | 17:24 | 117 | 280-154910-B-4 |
| 15-Nov-21 | 17:26 | 118 | 280-154850-G-3 |
| 15-Nov-21 | 17:28 | 119 | 280-154775-H-2 |
| 15-Nov-21 | 17:30 | 120 | 280-154794-G-12 |
| 15-Nov-21 | 17:32 | 121 | 280-154846-D-1 |
| 15-Nov-21 | 17:34 | 122 | 280-154846-D-2 |
| 15-Nov-21 | 17:36 | 0 | Rinse |
| 15-Nov-21 | 17:38 | 0 | Read Baseline |
| 15-Nov-21 | 17:40 | 107 | CCV 5000 ppb |
| 15-Nov-21 | 17:42 | 105 | CCVL 1000 ppb |
| 15-Nov-21 | 17:44 | 0 | CCB |
| 15-Nov-21 | 17:46 | 0 | Read Baseline |
| 15-Nov-21 | 17:48 | 123 | 280-154846-D-3 |
| 15-Nov-21 | 17:50 | 124 | 280-154846-D-4 |
| 15-Nov-21 | 17:52 | 125 | 280-154846-D-5 |
| 15-Nov-21 | 17:54 | 126 | ms 280-154846-D-5 |
| 15-Nov-21 | 17:56 | 127 | msd 280-154846-D-5 |
| 15-Nov-21 | 17:58 | 128 | 280-154846-D-6 |

| | |
|---|---|
| Result path | C:\FLOW_4\111521.RST |
| Sample table path | C:\FLOW_4\111521.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 15-Nov-21 |
| Time acquired | 20:02 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 15-Nov-21 | 18:00 | 129 | 280-154846-D-7 |
| 15-Nov-21 | 18:02 | 130 | 280-154846-D-8 |
| 15-Nov-21 | 18:04 | 131 | 280-154846-D-9 |
| 15-Nov-21 | 18:06 | 132 | 280-154846-D-10 |
| 15-Nov-21 | 18:08 | 0 | Rinse |
| 15-Nov-21 | 18:10 | 0 | Read Baseline |
| 15-Nov-21 | 18:12 | 107 | CCV 5000 ppb |
| 15-Nov-21 | 18:14 | 105 | CCVL 1000 ppb |
| 15-Nov-21 | 18:16 | 0 | CCB |
| 15-Nov-21 | 18:18 | 0 | Read Baseline |
| 15-Nov-21 | 18:20 | 133 | 280-154846-D-11 |
| 15-Nov-21 | 18:22 | 134 | 280-154846-D-12 |
| 15-Nov-21 | 18:24 | 135 | 280-154846-D-13 |
| 15-Nov-21 | 18:26 | 136 | 280-154846-D-14 |
| 15-Nov-21 | 18:28 | 107 | LCS |
| 15-Nov-21 | 18:30 | 0 | MB |
| 15-Nov-21 | 18:32 | 137 | 280-154846-D-15 |
| 15-Nov-21 | 18:34 | 138 | ms 280-154846-D-15 |
| 15-Nov-21 | 18:36 | 139 | msd 280-154846-D-15 |
| 15-Nov-21 | 18:38 | 140 | 280-154846-D-16 |
| 15-Nov-21 | 18:40 | 0 | Rinse |
| 15-Nov-21 | 18:42 | 0 | Read Baseline |
| 15-Nov-21 | 18:44 | 107 | CCV 5000 ppb |
| 15-Nov-21 | 18:46 | 105 | CCVL 1000 ppb |
| 15-Nov-21 | 18:48 | 0 | CCB |
| 15-Nov-21 | 18:50 | 0 | Read Baseline |
| 15-Nov-21 | 18:52 | 141 | 280-154846-H-1 |
| 15-Nov-21 | 18:54 | 142 | 280-154846-H-2 |
| 15-Nov-21 | 18:56 | 143 | 280-154846-H-3 |
| 15-Nov-21 | 18:58 | 144 | 280-154846-H-4 |
| 15-Nov-21 | 19:00 | 145 | 280-154846-H-5 |
| 15-Nov-21 | 19:02 | 146 | 280-154846-H-6 |
| 15-Nov-21 | 19:04 | 147 | 280-154846-H-7 |
| 15-Nov-21 | 19:06 | 148 | 280-154846-H-15 |
| 15-Nov-21 | 19:08 | 149 | 280-154846-H-16 |
| 15-Nov-21 | 19:10 | 150 | ms 280-154846-H-16 |
| 15-Nov-21 | 19:12 | 0 | Rinse |
| 15-Nov-21 | 19:14 | 0 | Read Baseline |
| 15-Nov-21 | 19:16 | 107 | CCV 5000 ppb |
| 15-Nov-21 | 19:18 | 105 | CCVL 1000 ppb |
| 15-Nov-21 | 19:20 | 0 | CCB |
| 15-Nov-21 | 19:22 | 0 | Read Baseline |
| 15-Nov-21 | 19:24 | 151 | msd 280-154846-H-16 |
| 15-Nov-21 | 19:26 | 152 | 280-154948-C-1 |
| 15-Nov-21 | 19:28 | 153 | 280-154846-H-8 |
| 15-Nov-21 | 19:30 | 154 | 280-154846-H-9 |
| 15-Nov-21 | 19:32 | 155 | 280-154846-H-10 |
| 15-Nov-21 | 19:34 | 156 | 280-154846-H-11 |
| 15-Nov-21 | 19:36 | 157 | 280-154846-H-12 |
| 15-Nov-21 | 19:38 | 158 | 280-154846-H-13 |
| 15-Nov-21 | 19:40 | 159 | 280-154846-H-14 |
| 15-Nov-21 | 19:42 | 160 | d |
| 15-Nov-21 | 19:44 | 0 | Rinse |
| 15-Nov-21 | 19:46 | 0 | Read Baseline |
| 15-Nov-21 | 19:48 | 107 | CCV 5000 ppb |
| 15-Nov-21 | 19:50 | 105 | CCVL 1000 ppb |
| 15-Nov-21 | 19:52 | 0 | CCB |

| | |
|---|---|
| Result path | C:\FLOW_4\111521.RST |
| Sample table path | C:\FLOW_4\111521.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 15-Nov-21 |
| Time acquired | 20:02 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 15-Nov-21 | 19:54 | 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\111521.RST |
| Sample table path | C:\FLOW_4\111521.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 15-Nov-21 |
| Time acquired | 20:02 |

| | Nitrate as N | | | | | |
|---|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] | |
| SYNC | 2092887 | 9214.189 | UM | | | |
| Carryover | 2655 | 3.606 | | | | |
| Carryover | -566 | -10.589 | LO | | | |
| (Statistics) | | | | 1045 | -3.492 | N |
| read baseline | 0 | -8.095 | BL | | | |
| Cal 0.00 ppb | 969 | -3.827 | LO | | | |
| Cal 50.0 ppb | 13032 | 49.332 | | | | |
| Cal 100 ppb | 25092 | 102.473 | | | | |
| Cal 500 ppb | 122603 | 532.156 | | | | |
| Cal 1000 ppb | 229597 | 1003.623 | | | | |
| Cal 2500 ppb | 556715 | 2445.063 | | | | |
| Cal 5000 ppb | 1119613 | 4925.468 | | | | |
| Cal 7500 ppb | 1746268 | 7686.816 | | | | |
| Cal 10000 ppb | 2250542 | 9908.896 | | | | |
| Blank | 518 | -5.812 | LO | | | |
| Read Baseline | 0 | -8.095 | BL | | | |
| 5000 PPB NO2 | 1176790 | 5177.416 | | | | |
| ICV 5000 PPB | 1172868 | 5160.137 | | | | |
| ICV 2000 PPB | 447471 | 1963.682 | | | | |
| ICB | 316 | -6.700 | LO | | | |
| Read Baseline | 0 | -8.095 | BL | | | |
| LCS | 1113585 | 4898.906 | | | | |
| MB | -826 | -11.734 | LO | | | |
| 280-154910-B-2 | 576814 | 506725.688 | | | | |
| 280-154910-B-2 MS | 1353300 | 1191041.750 | | | | |
| 280-154910-B-2 MSD | 1431190 | 1259685.375 | | | | |
| 280-154910-B-3 | 13062 | 49.462 | | | | |
| 280-154910-B-4 | 9166 | 32.294 | | | | |
| 280-154850-G-3 | 28760 | 118.638 | | | | |
| 280-154775-H-2 | 112701 | 488.520 | | | | |
| 280-154794-G-12 | 4258 | 10.668 | | | | |
| 280-154846-D-1 | 3844 | 8.843 | | | | |
| 280-154846-D-2 | 15003 | 58.016 | | | | |
| Rinse | 570 | -5.585 | LO | | | |
| Read Baseline | 0 | -8.095 | BL | | | |
| CCV 5000 ppb | 1147509 | 5048.392 | | | | |
| CCVL 1000 ppb | 243605 | 1065.349 | | | | |
| CCB | 26 | -7.982 | LO | | | |
| Read Baseline | 0 | -8.095 | BL | | | |
| 280-154846-D-3 | 2886 | 4.624 | | | | |
| 280-154846-D-4 | 3284 | 6.377 | | | | |
| 280-154846-D-5 | 4106 | 9.998 | | | | |
| ms 280-154846-D-5 | 860309 | 3782.847 | | | | |
| msd 280-154846-D-5 | 849412 | 3734.828 | | | | |
| 280-154846-D-6 | 1477 | -1.586 | LO | | | |

Result path C:\FLOW_4\111521.RST
Sample table path C:\FLOW_4\111521.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 15-Nov-21
Time acquired 20:02

| | Nitrate as N | | | | |
|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] |
| 280-154846-D-7 | 2047 | 0.927 | | | |
| 280-154846-D-8 | 3858 | 8.906 | | | |
| 280-154846-D-9 | 2336 | 2.197 | | | |
| 280-154846-D-10 | 4259 | 10.672 | | | |
| Rinse | -1317 | -13.899 | LO | | |
| Read Baseline | 0 | -8.095 | BL UM | | |
| CCV 5000 ppb | 1202112 | 5288.997 | | | |
| CCVL 1000 ppb | 251279 | 1099.162 | UM | | |
| CCB | -904 | -12.080 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| 280-154846-D-11 | 1415 | -1.860 | LO | | |
| 280-154846-D-12 | 581 | -5.537 | LO | | |
| 280-154846-D-13 | 7265 | 23.918 | | | |
| 280-154846-D-14 | 1189 | -2.857 | LO | | |
| LCS | 1168186 | 5139.504 | | | |
| MB | -353 | -9.650 | LO | | |
| 280-154846-D-15 | 3575 | 7.658 | | | |
| ms 280-154846-D-15 | 878846 | 3864.530 | | | |
| msd 280-154846-D-15 | 933867 | 4106.981 | | | |
| 280-154846-D-16 | 3031 | 5.262 | | | |
| Rinse | -464 | -10.140 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| CCV 5000 ppb | 1141351 | 5021.254 | | | |
| CCVL 1000 ppb | 239730 | 1048.273 | | | |
| CCB | 904 | -4.110 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| 280-154846-H-1 | 6436 | 20.266 | | | |
| 280-154846-H-2 | 10060 | 36.235 | | | |
| 280-154846-H-3 | 4596 | 12.157 | | | |
| 280-154846-H-4 | 5608 | 16.619 | | | |
| 280-154846-H-5 | 6946 | 22.514 | | | |
| 280-154846-H-6 | 3585 | 7.704 | | | |
| 280-154846-H-7 | 2803 | 4.258 | | | |
| 280-154846-H-15 | 5010 | 13.980 | | | |
| 280-154846-H-16 | 7624 | 25.500 | | | |
| ms 280-154846-H-16 | 925205 | 4068.811 | | | |
| Rinse | -630 | -10.872 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| CCV 5000 ppb | 1197283 | 5267.720 | | | |
| CCVL 1000 ppb | 242991 | 1062.641 | | | |
| CCB | 431 | -6.196 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| msd 280-154846-H-16 | 925360 | 4069.493 | | | |
| 280-154948-C-1 | 1069783 | 23529.463 | | | |
| 280-154846-H-8 | 1782 | -0.242 | LO | | |
| 280-154846-H-9 | 3976 | 9.427 | | | |
| 280-154846-H-10 | -1914 | -16.528 | LO | | |
| 280-154846-H-11 | -2198 | -17.782 | LO | | |
| 280-154846-H-12 | -2006 | -16.934 | LO | | |
| 280-154846-H-13 | 11809 | 43.942 | | | |
| 280-154846-H-14 | 6383 | 20.031 | | | |
| d | 2111 | 1.209 | | | |
| Rinse | 791 | -4.611 | LO | | |
| Read Baseline | 0 | -8.095 | BL | | |
| CCV 5000 ppb | 1202237 | 5289.549 | | | |
| CCVL 1000 ppb | 242508 | 1060.512 | | | |
| CCB | -3071 | -21.629 | LO | | |

| | |
|---|---|
| Result path | C:\FLOW_4\111521.RST |
| Sample table path | C:\FLOW_4\111521.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 15-Nov-21 |
| Time acquired | 20:02 |

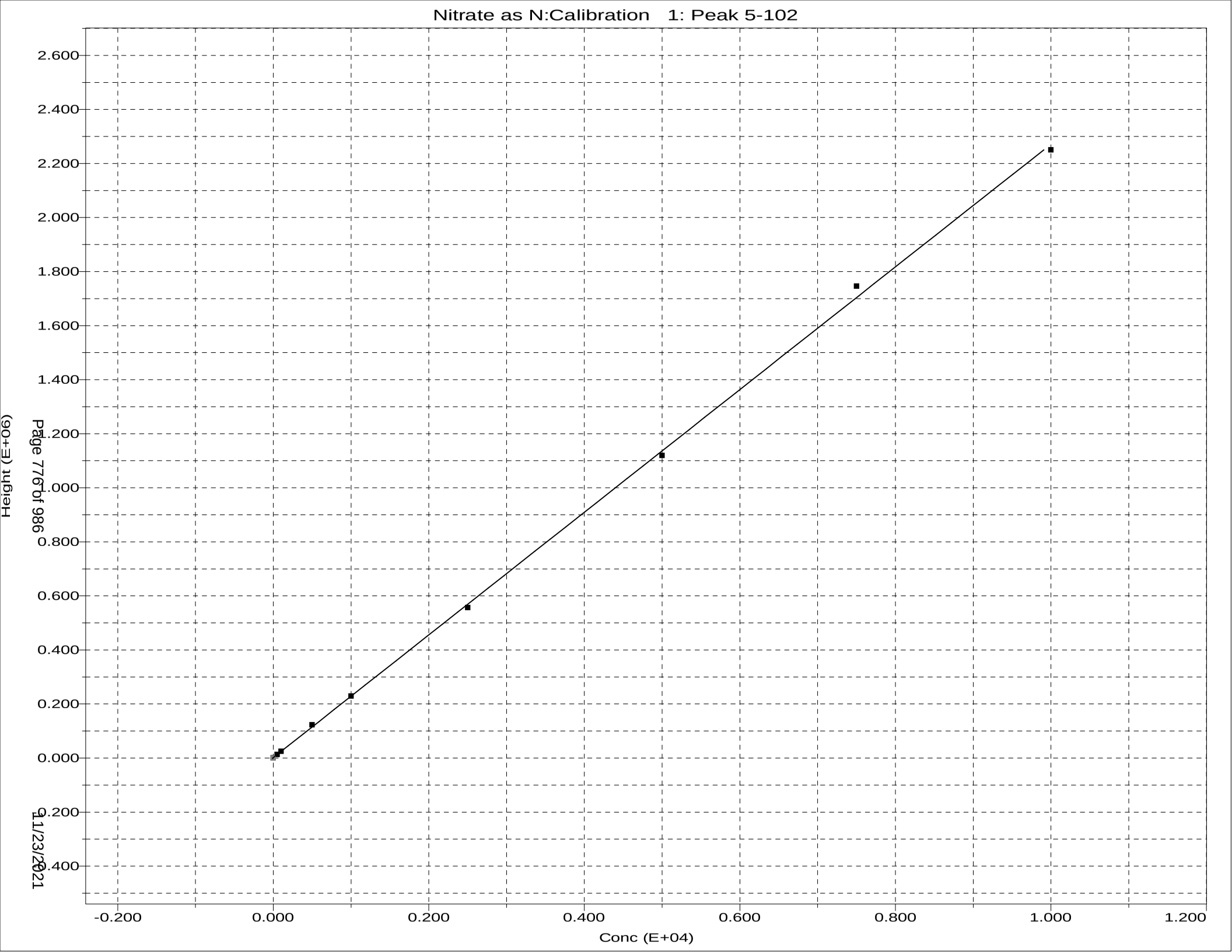
| | Nitrate as N | | | | |
|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] |
| Read Baseline | 0 | -8.095 | BL | | |

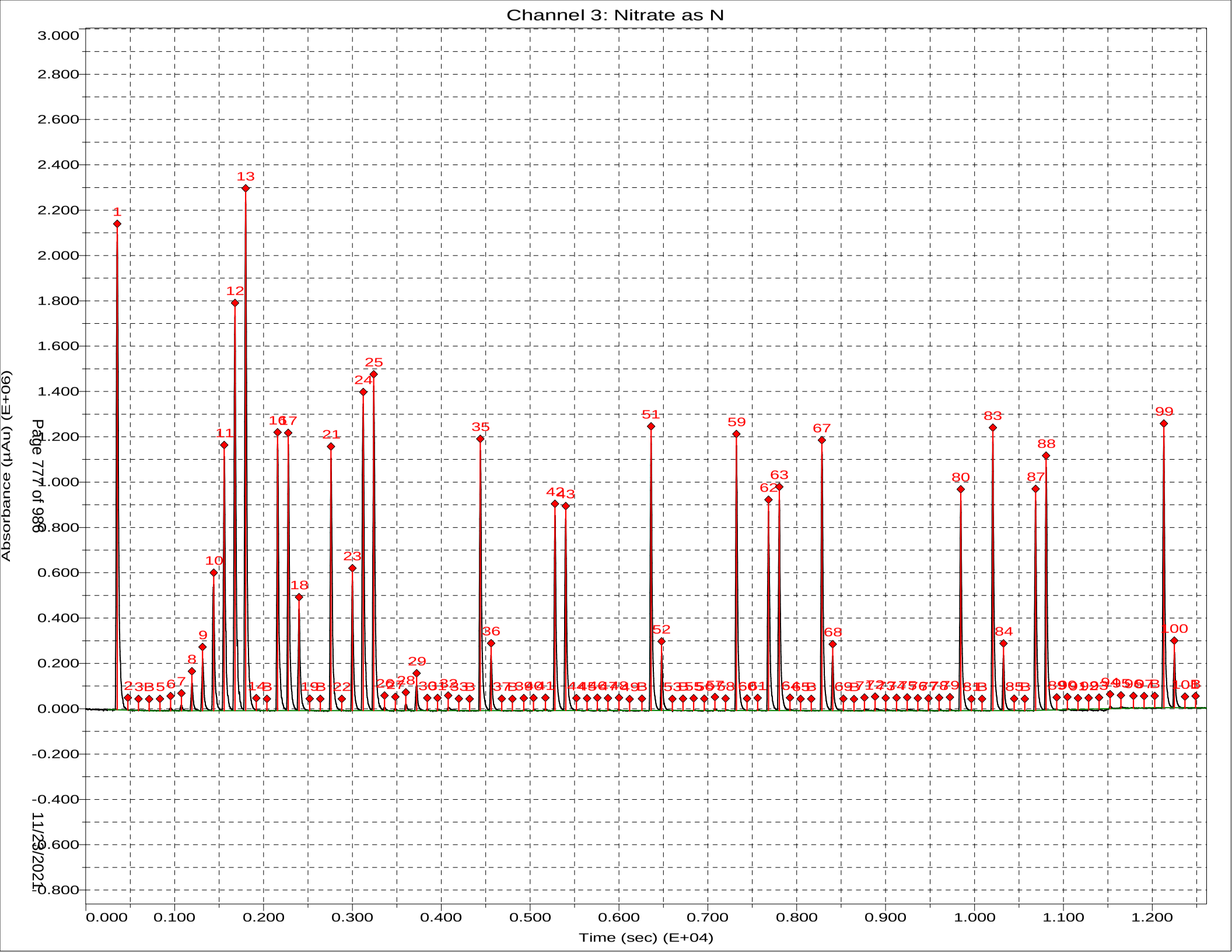
Peak Table:Nitrate as N

File name: C:\FLOW_4\111521.RST
Date: 15-Nov-21
Operator: svc

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 109 | SYNC | 1 | SYNC | 1 | 1 | 2092887 | 9214.189453 | UM |
| 2 | 0 | Carryover | 1 | CO | 1 | 1 | 2655 | 3.605903 | |
| 3 | 0 | Carryover | 2 | CO | 1 | 1 | -566 | -10.588934 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 5 | 101 | Cal 0.00 ppb | 1 | C | 1 | 1 | 969 | -3.827094 | LO |
| 6 | 102 | Cal 50.0 ppb | 1 | C | 1 | 1 | 13032 | 49.331711 | |
| 7 | 103 | Cal 100 ppb | 1 | C | 1 | 1 | 25092 | 102.473343 | |
| 8 | 104 | Cal 500 ppb | 1 | C | 1 | 1 | 122603 | 532.155884 | |
| 9 | 105 | Cal 1000 ppb | 1 | C | 1 | 1 | 229597 | 1003.623474 | |
| 10 | 106 | Cal 2500 ppb | 1 | C | 1 | 1 | 556715 | 2445.063232 | |
| 11 | 107 | Cal 5000 ppb | 1 | C | 1 | 1 | 1119613 | 4925.468262 | |
| 12 | 108 | Cal 7500 ppb | 1 | C | 1 | 1 | 1746268 | 7686.816406 | |
| 13 | 109 | Cal 10000 ppb | 1 | C | 1 | 1 | 2250542 | 9908.895508 | |
| 14 | 0 | Blank | 1 | BLNK | 1 | 1 | 518 | -5.812259 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 16 | 110 | 5000 PPB NO2 | 1 | U | 1 | 1 | 1176790 | 5177.416016 | |
| 17 | 111 | ICV 5000 PPB | 1 | CCV | 1 | 1 | 1172868 | 5160.137207 | |
| 18 | 112 | ICV 2000 PPB | 1 | CCV | 1 | 1 | 447471 | 1963.682129 | |
| 19 | 0 | ICB | 1 | U | 1 | 1 | 316 | -6.700465 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 21 | 107 | LCS | 1 | U | 1 | 1 | 1113585 | 4898.906250 | |
| 22 | 0 | MB | 1 | U | 1 | 1 | -826 | -11.734177 | LO |
| 23 | 113 | 280-154910-B-2 | 1 | U | 200 | 1 | 576814 | 506725.687500 | |
| 24 | 114 | 280-154910-B-2 MS | 1 | U | 200 | 1 | 1353300 | 1191041.750000 | |
| 25 | 115 | 280-154910-B-2 MSD | 1 | U | 200 | 1 | 1431190 | 1259685.375000 | |
| 26 | 116 | 280-154910-B-3 | 1 | U | 1 | 1 | 13062 | 49.461937 | |
| 27 | 117 | 280-154910-B-4 | 1 | U | 1 | 1 | 9166 | 32.293724 | |
| 28 | 118 | 280-154850-G-3 | 1 | U | 1 | 1 | 28760 | 118.637596 | |
| 29 | 119 | 280-154775-H-2 | 1 | U | 1 | 1 | 112701 | 488.520416 | |
| 30 | 120 | 280-154794-G-12 | 1 | U | 1 | 1 | 4258 | 10.667665 | |
| 31 | 121 | 280-154846-D-1 | 1 | U | 1 | 1 | 3844 | 8.843307 | |
| 32 | 122 | 280-154846-D-2 | 1 | U | 1 | 1 | 15003 | 58.015705 | |
| 33 | 0 | Rinse | 1 | U | 1 | 1 | 570 | -5.585286 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 35 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1147509 | 5048.391602 | |
| 36 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 243605 | 1065.348877 | |
| 37 | 0 | CCB | 1 | U | 1 | 1 | 26 | -7.982488 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 39 | 123 | 280-154846-D-3 | 1 | U | 1 | 1 | 2886 | 4.623681 | |
| 40 | 124 | 280-154846-D-4 | 1 | U | 1 | 1 | 3284 | 6.376753 | |
| 41 | 125 | 280-154846-D-5 | 1 | U | 1 | 1 | 4106 | 9.997754 | |
| 42 | 126 | ms 280-154846-D-5 | 1 | U | 1 | 1 | 860309 | 3782.847412 | |
| 43 | 127 | msd 280-154846-D-5 | 1 | U | 1 | 1 | 849412 | 3734.828369 | |
| 44 | 128 | 280-154846-D-6 | 1 | U | 1 | 1 | 1477 | -1.586065 | LO |
| 45 | 129 | 280-154846-D-7 | 1 | U | 1 | 1 | 2047 | 0.926769 | |
| 46 | 130 | 280-154846-D-8 | 1 | U | 1 | 1 | 3858 | 8.906115 | |
| 47 | 131 | 280-154846-D-9 | 1 | U | 1 | 1 | 2336 | 2.196938 | |
| 48 | 132 | 280-154846-D-10 | 1 | U | 1 | 1 | 4259 | 10.672422 | |
| 49 | 0 | Rinse | 1 | U | 1 | 1 | -1317 | -13.899312 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL UM |
| 51 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1202112 | 5288.997070 | |
| 52 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 251279 | 1099.161987 | UM |
| 53 | 0 | CCB | 1 | U | 1 | 1 | -904 | -12.079532 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 55 | 133 | 280-154846-D-11 | 1 | U | 1 | 1 | 1415 | -1.859870 | LO |
| 56 | 134 | 280-154846-D-12 | 1 | U | 1 | 1 | 581 | -5.536820 | LO |
| 57 | 135 | 280-154846-D-13 | 1 | U | 1 | 1 | 7265 | 23.917614 | |
| 58 | 136 | 280-154846-D-14 | 1 | U | 1 | 1 | 1189 | -2.857299 | LO |
| 59 | 107 | LCS | 1 | U | 1 | 1 | 1168186 | 5139.503906 | |
| 60 | 0 | MB | 1 | U | 1 | 1 | -353 | -9.650097 | LO |
| 61 | 137 | 280-154846-D-15 | 1 | U | 1 | 1 | 3575 | 7.658060 | |
| 62 | 138 | ms 280-154846-D-15 | 1 | U | 1 | 1 | 878846 | 3864.530029 | |
| 63 | 139 | msd 280-154846-D-15 | 1 | U | 1 | 1 | 933867 | 4106.981445 | |
| 64 | 140 | 280-154846-D-16 | 1 | U | 1 | 1 | 3031 | 5.262257 | |
| 65 | 0 | Rinse | 1 | U | 1 | 1 | -464 | -10.139794 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 67 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1141351 | 5021.254395 | |
| 68 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 239730 | 1048.273071 | |
| 69 | 0 | CCB | 1 | U | 1 | 1 | 904 | -4.110480 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 71 | 141 | 280-154846-H-1 | 1 | U | 1 | 1 | 6436 | 20.266430 | |
| 72 | 142 | 280-154846-H-2 | 1 | U | 1 | 1 | 10060 | 36.234798 | |
| 73 | 143 | 280-154846-H-3 | 1 | U | 1 | 1 | 4596 | 12.156796 | |
| 74 | 144 | 280-154846-H-4 | 1 | U | 1 | 1 | 5608 | 16.618668 | |
| 75 | 145 | 280-154846-H-5 | 1 | U | 1 | 1 | 6946 | 22.514139 | |
| 76 | 146 | 280-154846-H-6 | 1 | U | 1 | 1 | 3585 | 7.704269 | |
| 77 | 147 | 280-154846-H-7 | 1 | U | 1 | 1 | 2803 | 4.257765 | |
| 78 | 148 | 280-154846-H-15 | 1 | U | 1 | 1 | 5010 | 13.980353 | |
| 79 | 149 | 280-154846-H-16 | 1 | U | 1 | 1 | 7624 | 25.500422 | |
| 80 | 150 | ms 280-154846-H-16 | 1 | U | 1 | 1 | 925205 | 4068.811279 | |
| 81 | 0 | Rinse | 1 | U | 1 | 1 | -630 | -10.872210 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 83 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1197283 | 5267.720215 | |
| 84 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 242991 | 1062.640991 | |
| 85 | 0 | CCB | 1 | U | 1 | 1 | 431 | -6.196165 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 87 | 151 | msd 280-154846-H-16 | 1 | U | 1 | 1 | 925360 | 4069.493408 | |
| 88 | 152 | 280-154948-C-1 | 1 | U | 5 | 1 | 1069783 | 23529.462891 | |
| 89 | 153 | 280-154846-H-8 | 1 | U | 1 | 1 | 1782 | -0.241872 | LO |
| 90 | 154 | 280-154846-H-9 | 1 | U | 1 | 1 | 3976 | 9.426880 | |
| 91 | 155 | 280-154846-H-10 | 1 | U | 1 | 1 | -1914 | -16.528013 | LO |
| 92 | 156 | 280-154846-H-11 | 1 | U | 1 | 1 | -2198 | -17.781975 | LO |
| 93 | 157 | 280-154846-H-12 | 1 | U | 1 | 1 | -2006 | -16.934055 | LO |
| 94 | 158 | 280-154846-H-13 | 1 | U | 1 | 1 | 11809 | 43.942375 | |
| 95 | 159 | 280-154846-H-14 | 1 | U | 1 | 1 | 6383 | 20.030886 | |
| 96 | 160 | d | 1 | U | 1 | 1 | 2111 | 1.209265 | |
| 97 | 0 | Rinse | 1 | U | 1 | 1 | 791 | -4.610563 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |
| 99 | 107 | CCV 5000 ppb | 1 | CCV | 1 | 1 | 1202237 | 5289.548828 | |
| 100 | 105 | CCVL 1000 ppb | 1 | CCV | 1 | 1 | 242508 | 1060.511963 | |
| 101 | 0 | CCB | 1 | U | 1 | 1 | -3071 | -21.629076 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -8.095031 | BL |


Nitrate as N:Calibration 1: Peak 5-102
Height (E+06)
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 777 of 986
11/23/2021

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 16-Nov-21

| 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 | 280-154910-B-2 | U | 1 | 200 | 1 | | | <2 |
| 114 | 280-154910-B-2 MS | U | 1 | 200 | 1 | | | <2 |
| 115 | 280-154910-B-2 MSD | U | 1 | 200 | 1 | | | <2 |
| 116 | 280-154910-B-3 | U | 1 | 1 | 1 | | | <2 |
| 117 | 280-154910-B-4 | U | 1 | 1 | 1 | | | <2 |
| 118 | 280-154850-G-3 | U | 1 | 1 | 1 | | | <2 |
| 119 | 280-154775-H-2 | U | 1 | 1 | 1 | | | <2 |
| 120 | 280-154794-G-12 | U | 1 | 1 | 1 | | | <2 |
| 121 | 280-154846-D-1 | U | 1 | 1 | 1 | Dis. | | <2 |
| 122 | 280-154846-D-2 | U | 1 | 1 | 1 | Dis. | | <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 | | | |
| 123 | 280-154846-D-3 | U | 1 | 1 | 1 | | Dis. | <2 |
| 124 | 280-154846-D-4 | U | 1 | 1 | 1 | | | <2 |
| 125 | 280-154846-D-5 | U | 1 | 1 | 1 | | | <2 |
| 126 | ms 280-154846-D-5 | U | 1 | 1 | 1 | | | <2 |
| 127 | msd 280-154846-D-5 | U | 1 | 1 | 1 | | | <2 |
| 128 | 280-154846-D-6 | U | 1 | 1 | 1 | | | <2 |
| 129 | 280-154846-D-7 | U | 1 | 1 | 1 | | | <2 |
| 130 | 280-154846-D-8 | U | 1 | 1 | 1 | | | <2 |
| 131 | 280-154846-D-9 | U | 1 | 1 | 1 | | | <2 |
| 132 | 280-154846-D-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 | 280-154846-D-11 | U | 1 | 1 | 1 | | Dis | <2 |
| 134 | 280-154846-D-12 | U | 1 | 1 | 1 | | Dis | <2 |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 135 | 280-154846-D-13 | U | 1 | 1 | 1 | Dis | <2 |
| 136 | 280-154846-D-14 | U | 1 | 1 | 1 | Dis | <2 |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 0 | MB | U | 1 | 1 | 1 | | |
| 137 | 280-154846-D-15 | U | 1 | 1 | 1 | Dis. | <2 |
| 138 | ms 280-154846-D-15 | U | 1 | 1 | 1 | | <2 |
| 139 | msd 280-154846-D-15 | U | 1 | 1 | 1 | | <2 |
| 140 | 280-154846-D-16 | 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 | 280-154846-H-1 | U | 1 | 1 | 1 | Total | <2 |
| 142 | 280-154846-H-2 | U | 1 | 1 | 1 | | <2 |
| 143 | 280-154846-H-3 | U | 1 | 1 | 1 | | <2 |
| 144 | 280-154846-H-4 | U | 1 | 1 | 1 | | <2 |
| 145 | 280-154846-H-5 | U | 1 | 1 | 1 | | <2 |
| 146 | 280-154846-H-6 | U | 1 | 1 | 1 | | <2 |
| 147 | 280-154846-H-7 | U | 1 | 1 | 1 | | <2 |
| 148 | 280-154846-H-15 | U | 1 | 1 | 1 | | <2 |
| 149 | 280-154846-H-16 | U | 1 | 1 | 1 | | <2 |
| 150 | ms 280-154846-H-16 | 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 280-154846-H-16 | U | 1 | 1 | 1 | | <2 |
| 152 | 280-154948-C-1 | U | 1 | 5 | 1 | | <2 |
| 153 | 280-154846-H-8 | U | 1 | 1 | 1 | Total | <2 |
| 154 | 280-154846-H-9 | U | 1 | 1 | 1 | | <2 |
| 155 | 280-154846-H-10 | U | 1 | 1 | 1 | | <2 |
| 156 | 280-154846-H-11 | U | 1 | 1 | 1 | | <2 |
| 157 | 280-154846-H-12 | U | 1 | 1 | 1 | | <2 |
| 158 | 280-154846-H-13 | U | 1 | 1 | 1 | | <2 |
| 159 | 280-154846-H-14 | U | 1 | 1 | 1 | | <2 |
| 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: 280-154948-1

**Batch: 555849** **Analyst Initials: JJM**

**Method: 9034** **Instrument: No Equipment Used for this Test**

**Lab Sample ID: LCS 280-555848/1-A** **Analysis Date: Nov 02, 2021 11:50**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 17.6 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: LCSD 280-555848/2-A** **Analysis Date: Nov 02, 2021 11:50**

| 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 280-555848/3-A** **Analysis Date: Nov 02, 2021 11:50**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0 | mg/L | 50 mL | 50 mL |

**Lab Sample ID: 280-154948-E-1-A** **Analysis Date: Nov 02, 2021 11:50**

| Analyte | Detector | Dilution | Raw Result | Unit | Initial Amount | Final Amount |
|---|---|---|---|---|---|---|
| Sulfide | None | 1 | 0.4 | mg/L | 50 mL | 50 mL |

## Sulfide by Titration

| | | | |
|---|---|---|---|
| Analyst: | JM | SOP Information: | |
| Date: | 11/2/2021 | Number: | 91 |
| Titration Solutions | | Calibration Information | |
| Solution 1: | Iodine | Source/Ver-Lot#: | INT_0195 |
| TALS ID | Iod_00271 | Prep Date: | 7/23/2021 |
| Normality: | 0.025 | Made By: | JM |
| Solution 2: | sodium thiosulfate | Concentration: | 976 |
| TALS ID | Na Thio_00174 | Expiration Date: | 11/8/2021 |
| Normality: | 0.025 | | |
| | Starch Indicator | | |
| TALS ID | Starch IND_00066 | | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| CAL | 5 | 0.00 | 7.60 | 20 | 7.60 | 992.000 |
| CAL | 5 | 7.60 | 15.60 | 20 | 8.00 | 960.000 |

| ICV Information | |
|---|---|
| Source/Ver-Lot#: | INT_0190 |
| Prep Date: | 7/23/2021 |
| Made By: | JM |
| Concentration: | 1056 |
| Expiration Date: | 11/8/2021 |
| | |
| | |
| | |

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 6.70 | 20 | 6.70 | 1064.000 |
| ICV | 5 | 6.70 | 13.60 | 20 | 6.90 | 1048.000 |

# TALS Raw Data Report

Job Number: 280-154801-1
LIMS Batch: 555849
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-555848/1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 17.6 mg/L | mg/L | 83 | 44 | 110 | | |
| Sulfide as H2S | | 18.7 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **LCSD 280-555848/2-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 79 | 44 | 110 | 5 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 3 Lab ID: **MB 280-555848/3-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 0 mg/L | mg/L | | | | | |

RS# 4 Lab ID: **280-154934-C-9-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 0.85 mg/L | mg/L | | | | | |

RS# 5 Lab ID: **280-154934-C-9-B MS** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 6 Lab ID: **280-154934-C-9-C MSD** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | 0 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 7 Lab ID: **280-154801-K-1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | -1.6 mg/L | mg/L | | | | | |
| Sulfide as H2S | | -1.7 mg/L | mg/L | | | | | |

# TALS Raw Data Report

Job Number: 280-154918-1
LIMS Batch: 555849
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-555848/1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 17.6 mg/L | mg/L | 83 | 44 | 110 | | |
| Sulfide as H2S | | 18.7 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **LCSD 280-555848/2-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 79 | 44 | 110 | 5 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 3 Lab ID: **MB 280-555848/3-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 0 mg/L | mg/L | | | | | |

RS# 4 Lab ID: **280-154934-C-9-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | | |

RS# 5 Lab ID: **280-154934-C-9-B MS** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 6 Lab ID: **280-154934-C-9-C MSD** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | 0 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 9 Lab ID: **280-154918-J-1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0.4 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 0.425 mg/L | mg/L | | | | | |

# TALS Raw Data Report

Job Number: 280-154934-1
LIMS Batch: 555849
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-555848/1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 17.6 mg/L | mg/L | 83 | 44 | 110 | | |
| Sulfide as H2S | | 18.7 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **LCSD 280-555848/2-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 79 | 44 | 110 | 5 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 3 Lab ID: **MB 280-555848/3-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | | |

RS# 4 Lab ID: **280-154934-C-9-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | | |

RS# 5 Lab ID: **280-154934-C-9-B MS** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 6 Lab ID: **280-154934-C-9-C MSD** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | 0 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

# TALS Raw Data Report

Job Number: 280-154948-1
LIMS Batch: 555849
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-555848/1-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 17.6 mg/L | mg/L | 83 | 44 | 110 | | |
| Sulfide as H2S | | 18.7 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **LCSD 280-555848/2-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 79 | 44 | 110 | 5 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 3 Lab ID: **MB 280-555848/3-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | | |

RS# 4 Lab ID: **280-154934-C-9-A** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | | |

RS# 5 Lab ID: **280-154934-C-9-B MS** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | | |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 6 Lab ID: **280-154934-C-9-C MSD** Inj Date: 11/2/2021 11:50:00AM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 16.8 mg/L | mg/L | 75 | 44 | 110 | 0 | 20 |
| Sulfide as H2S | | 17.85 mg/L | mg/L | | | | | |

RS# 8 Lab ID: **280-154948-E-1-A** Inj Date: 11/2/2021 11:50:00AM 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 | | | | | |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-174 | | | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 01-Nov-2021 17:25:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-002 | | | | |
| Misc. Info.: | 280-0106089-002 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:42 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: jindaratc | | Date: | 01-Nov-2021 18:15:21 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.138 | 3.138 | 0.000 | 5541959 | 0.2000 | 0.2715 | M |
| 2 Chloride | 4.352 | 4.352 | 0.000 | 13171525 | 1.00 | 1.07 | |
| 3 Nitrite as N | 5.102 | 5.102 | 0.000 | 5777575 | NC | NC | |
| 4 Bromide | 6.370 | 6.370 | 0.000 | 1079855 | 0.2000 | 0.2373 | M |
| 5 Nitrate as N | 7.258 | 7.258 | 0.000 | 6576781 | NC | NC | M |
| 7 Orthophosphate as P | 8.725 | 8.725 | 0.000 | 7104735 | NC | NC | |
| 6 Sulfate | 9.942 | 9.942 | 0.000 | 9992591 | 1.00 | 1.14 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

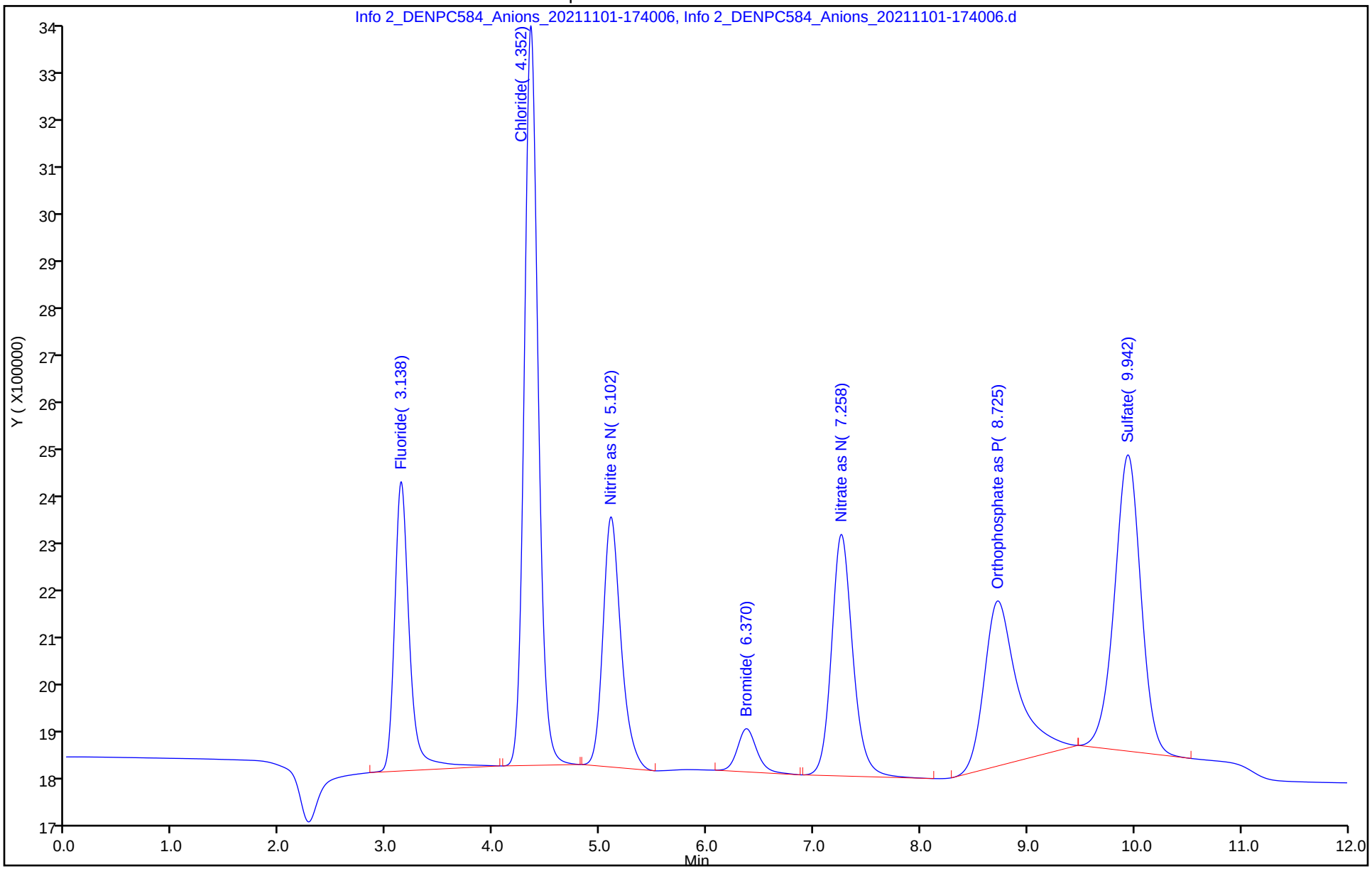
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 0.02 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 0.02 | Units: mL |

Report Date: 03-Nov-2021 15:37:42 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-174006.d | | | | |
| Injection Date: | 01-Nov-2021 17:25:00 | 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 TestAmerica, Denver

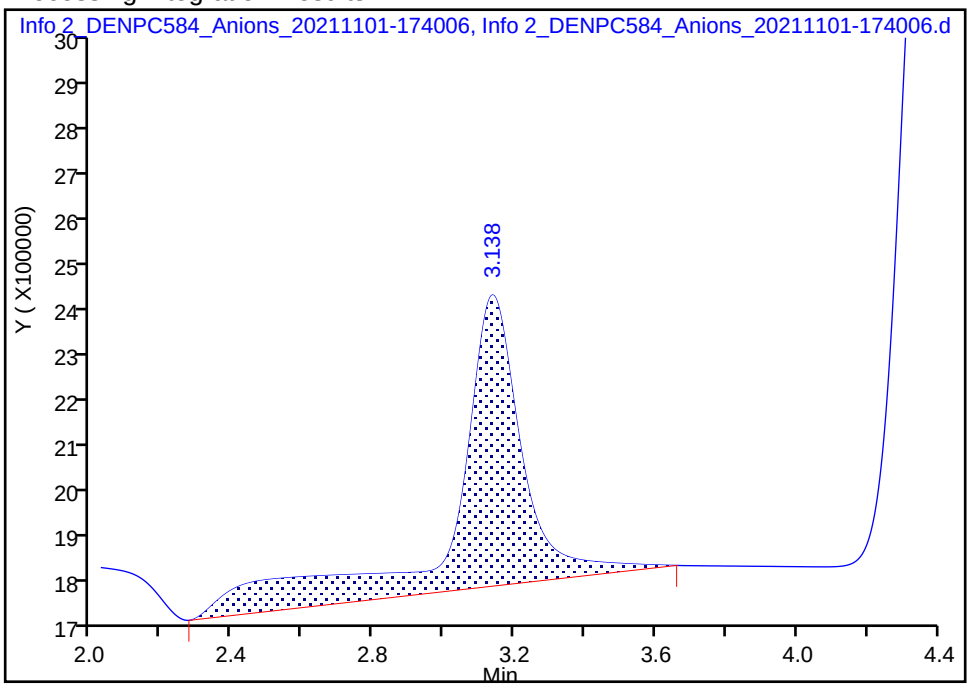
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-174 | | | | |
| Injection Date: | 01-Nov-2021 17:25:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Operator 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

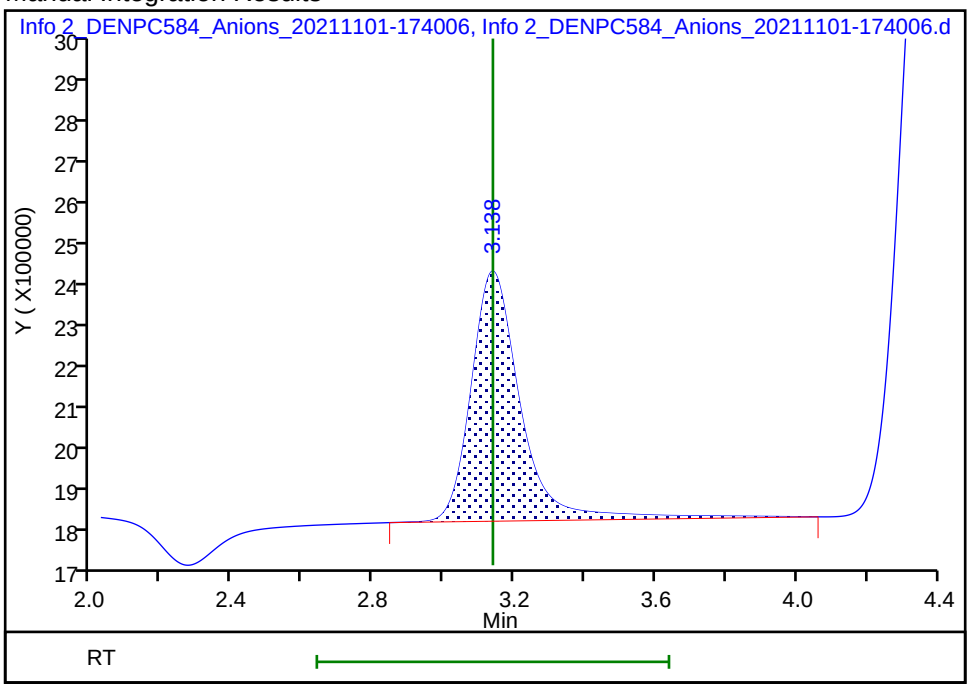
Processing Integration Results

RT: 3.14
Area: 8295370
Amount: 0.242764
Amount Units: ug/ml




Manual Integration Results

RT: 3.14
Area: 5541959
Amount: 0.271529
Amount Units: ug/ml




Reviewer: jindaratc, 01-Nov-2021 18:37:08

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

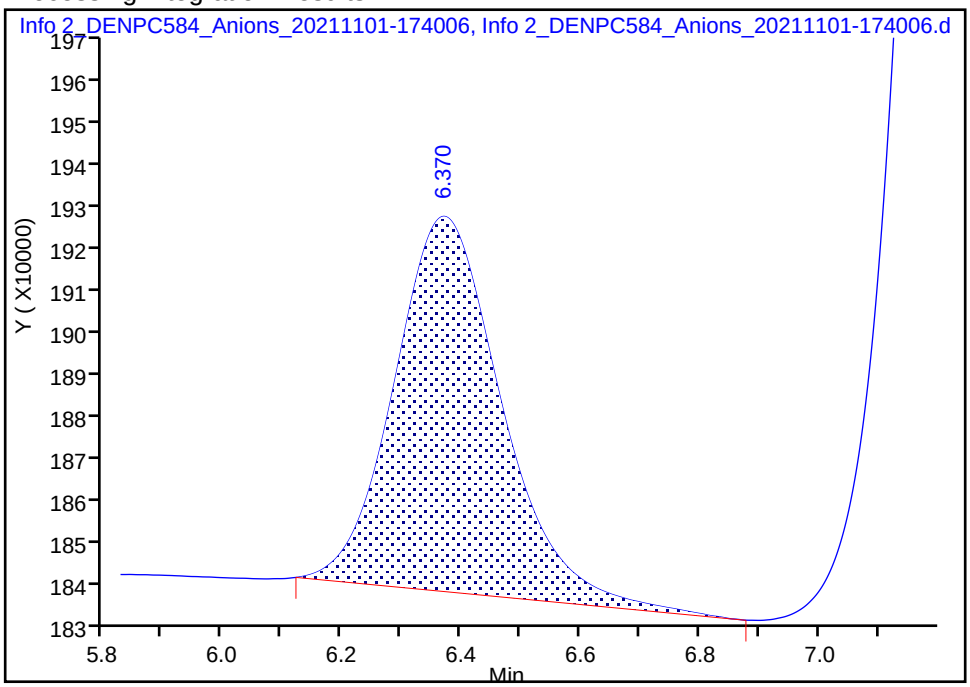
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-174 | | | | |
| Injection Date: | 01-Nov-2021 17:25:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Operator 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

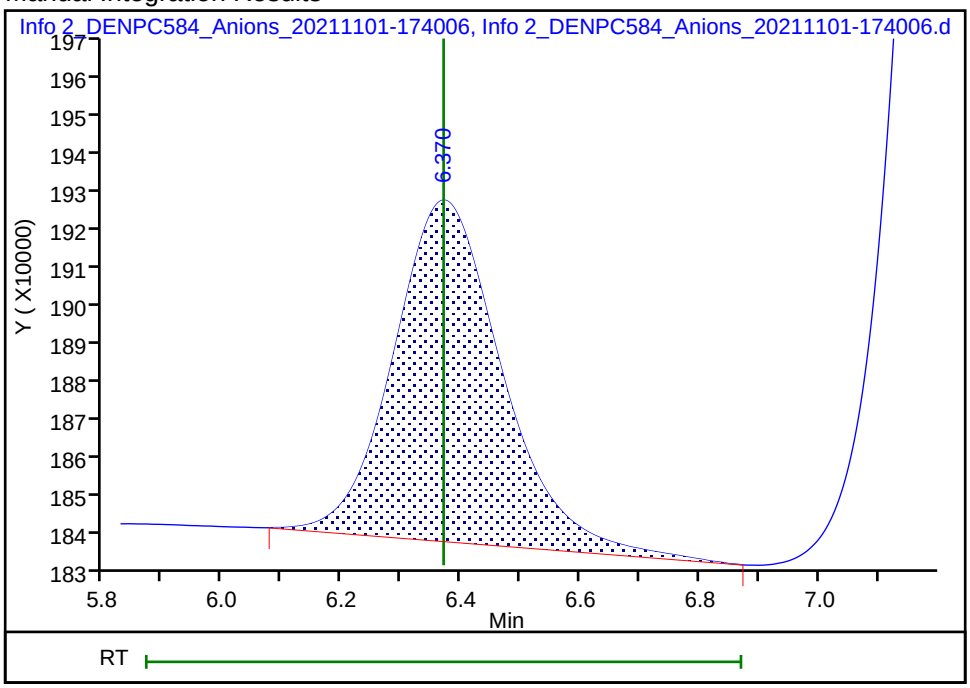
Processing Integration Results

RT: 6.37
Area: 1057445
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 6.37
Area: 1079855
Amount: 0.237310
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:10:01

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

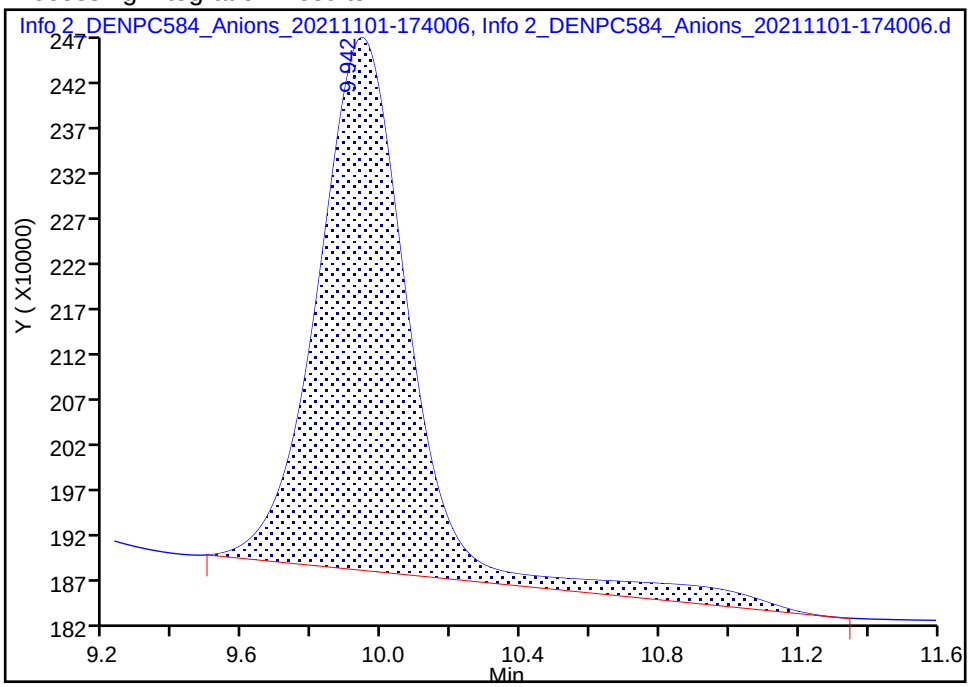
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-174 | | | | |
| Injection Date: | 01-Nov-2021 17:25:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L1 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

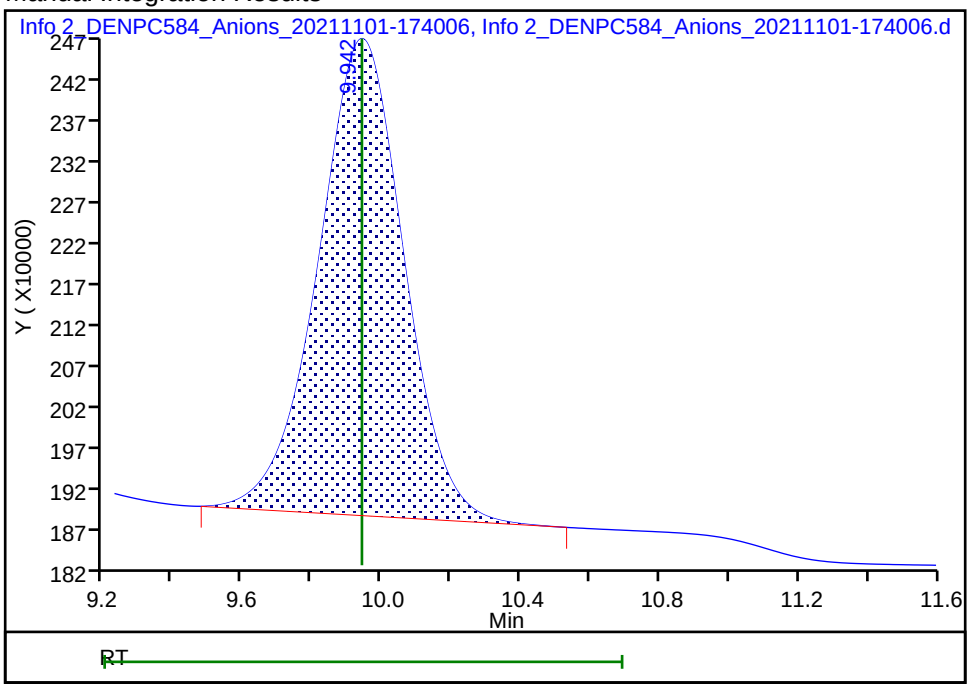
Processing Integration Results

RT: 9.94
Area: 10983163
Amount: 0.441021
Amount Units: ug/ml




Manual Integration Results

RT: 9.94
Area: 9992591
Amount: 1.142293
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:10:25

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-175 | | | | |
| Lims ID: | std L2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 01-Nov-2021 17:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-003 | | | | |
| Misc. Info.: | 280-0106089-003 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:43 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: jindaratc | | Date: | 01-Nov-2021 18:14:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.142 | 3.142 | 0.000 | 14213327 | 0.5000 | 0.4230 | M |
| 2 Chloride | 4.352 | 4.352 | 0.000 | 36434927 | 2.50 | 2.39 | |
| 3 Nitrite as N | 5.098 | 5.098 | 0.000 | 15525604 | NC | NC | |
| 4 Bromide | 6.358 | 6.358 | 0.000 | 2741069 | 0.5000 | 0.4729 | M |
| 5 Nitrate as N | 7.225 | 7.225 | 0.000 | 17912999 | NC | NC | M |
| 7 Orthophosphate as P | 8.722 | 8.722 | 0.000 | 18950136 | NC | NC | |
| 6 Sulfate | 9.943 | 9.943 | 0.000 | 25439643 | 2.50 | 2.32 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

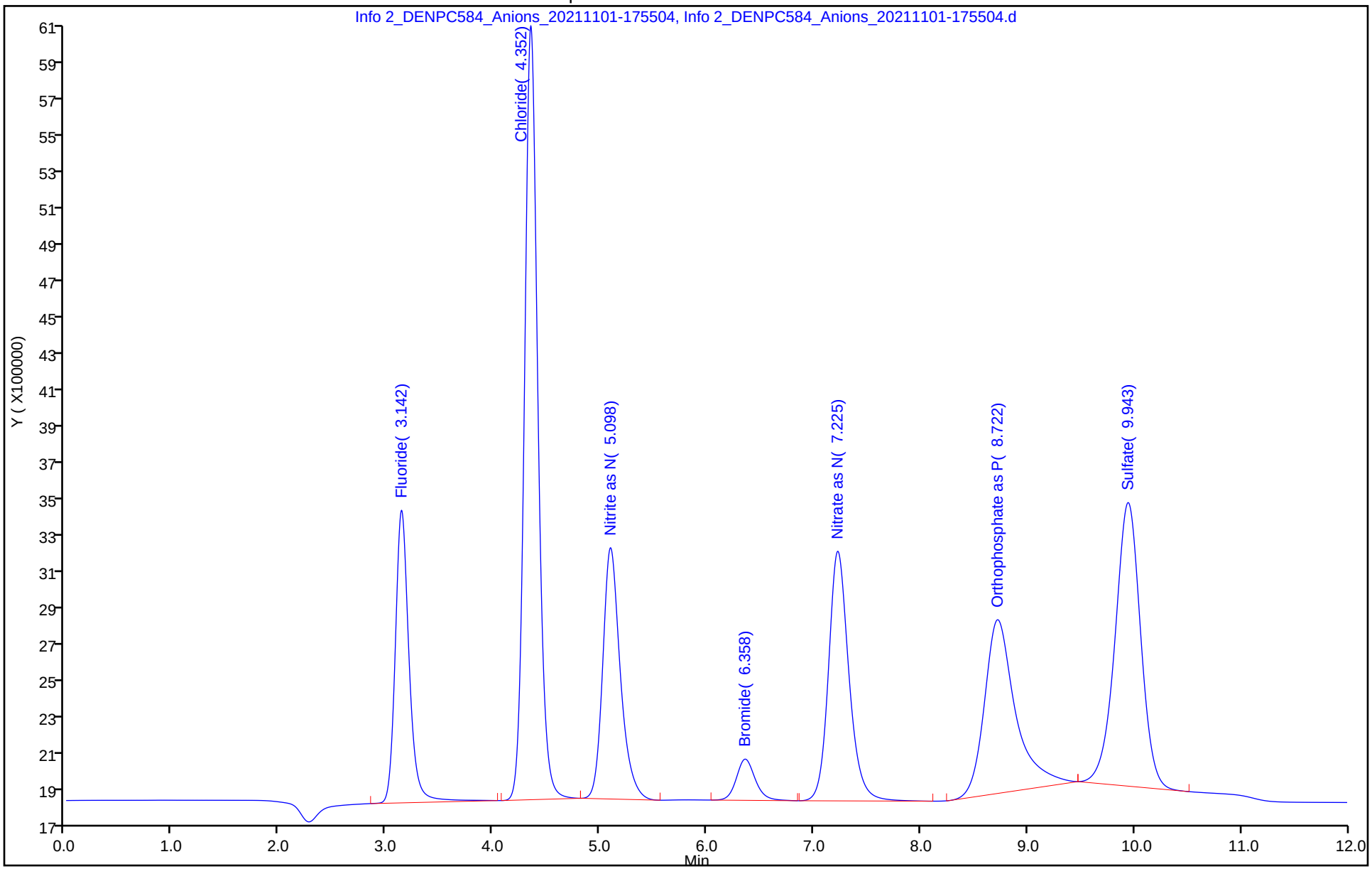
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 0.05 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 0.05 | Units: mL |

Report Date: 03-Nov-2021 15:37:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-175504.d | | | | |
| Injection Date: | 01-Nov-2021 17:40:00 | 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 TestAmerica, Denver

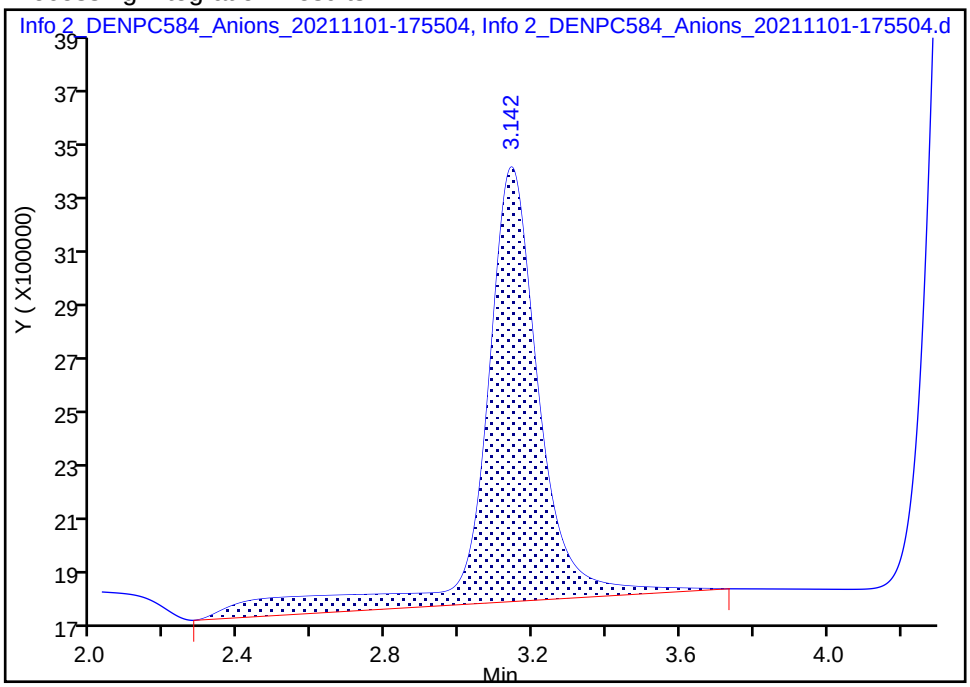
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-175 | | | | |
| Injection Date: | 01-Nov-2021 17:40:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L2 | | | | |
| Client ID: | | | | | |
| Operator 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

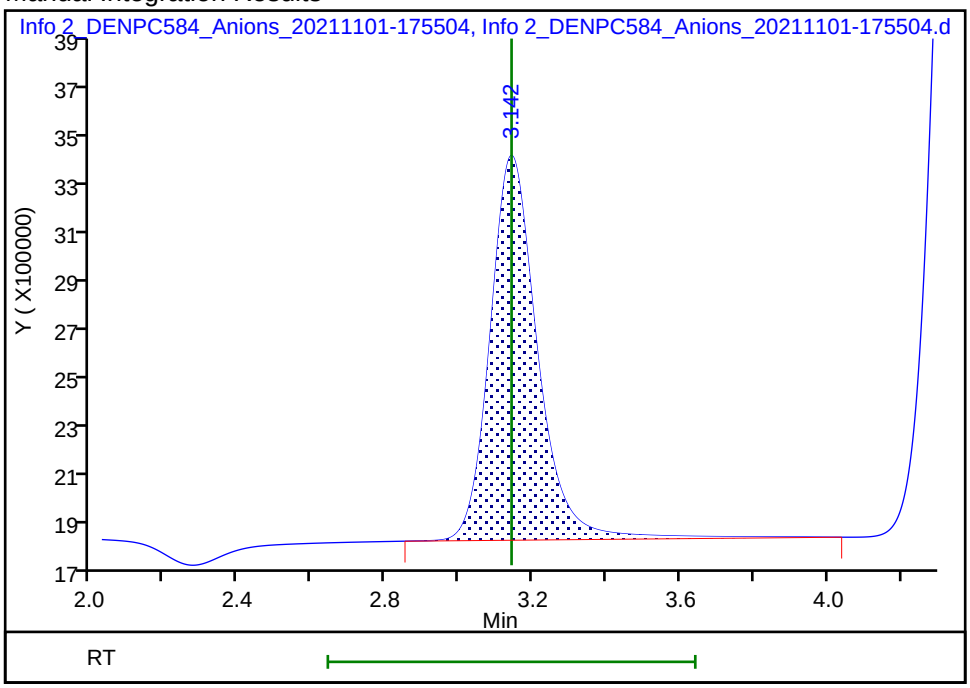
Processing Integration Results

RT: 3.14
Area: 17194524
Amount: 0.437844
Amount Units: ug/ml




Manual Integration Results

RT: 3.14
Area: 14213327
Amount: 0.423045
Amount Units: ug/ml




Reviewer: jindaratc, 01-Nov-2021 18:36:55

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

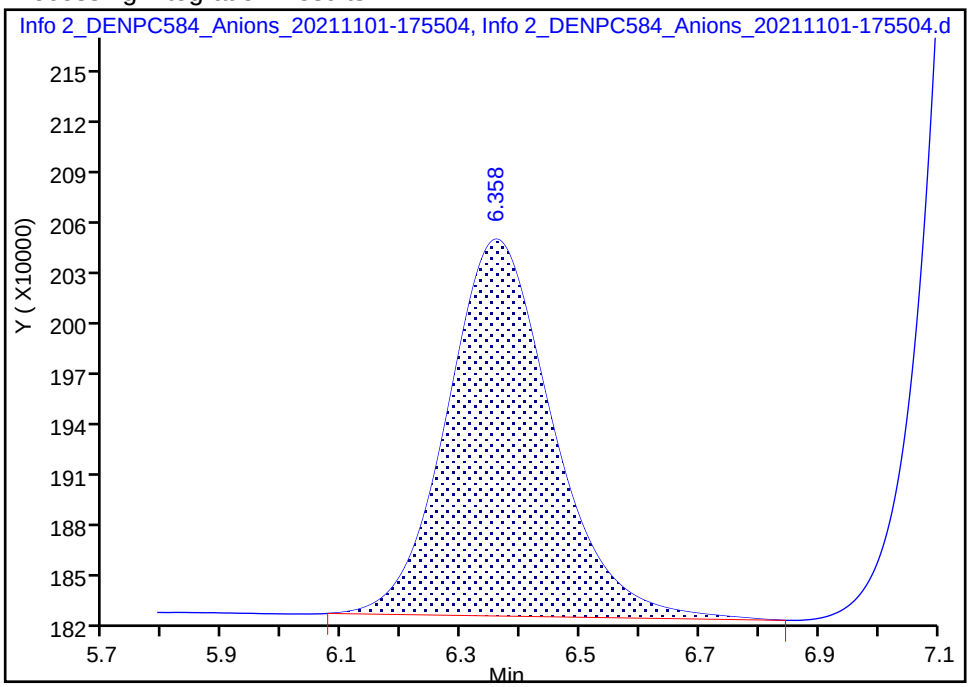
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-175 | | | | |
| Injection Date: | 01-Nov-2021 17:40:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L2 | | | | |
| Client ID: | | | | | |
| Operator 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

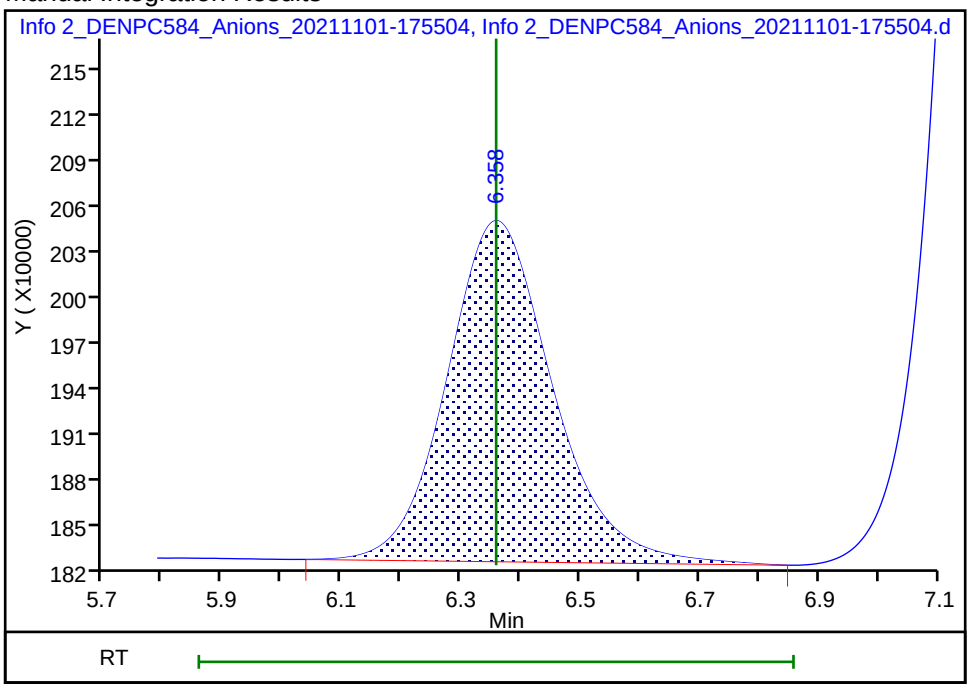
Processing Integration Results

RT: 6.36
Area: 2728660
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 6.36
Area: 2741069
Amount: 0.472902
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:10:55

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

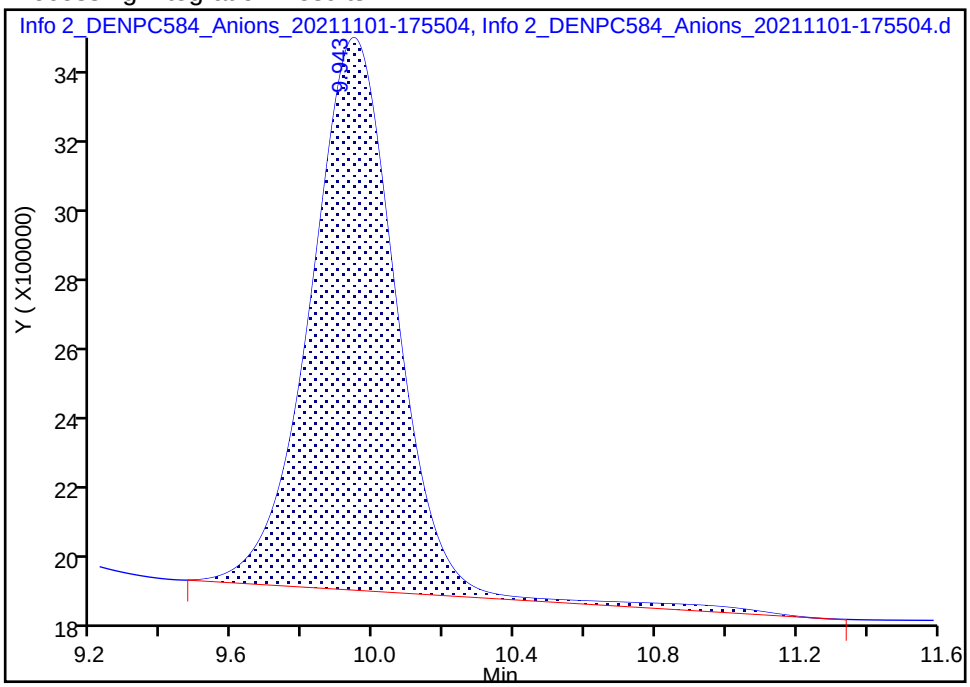
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-175 | | | | |
| Injection Date: | 01-Nov-2021 17:40:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L2 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

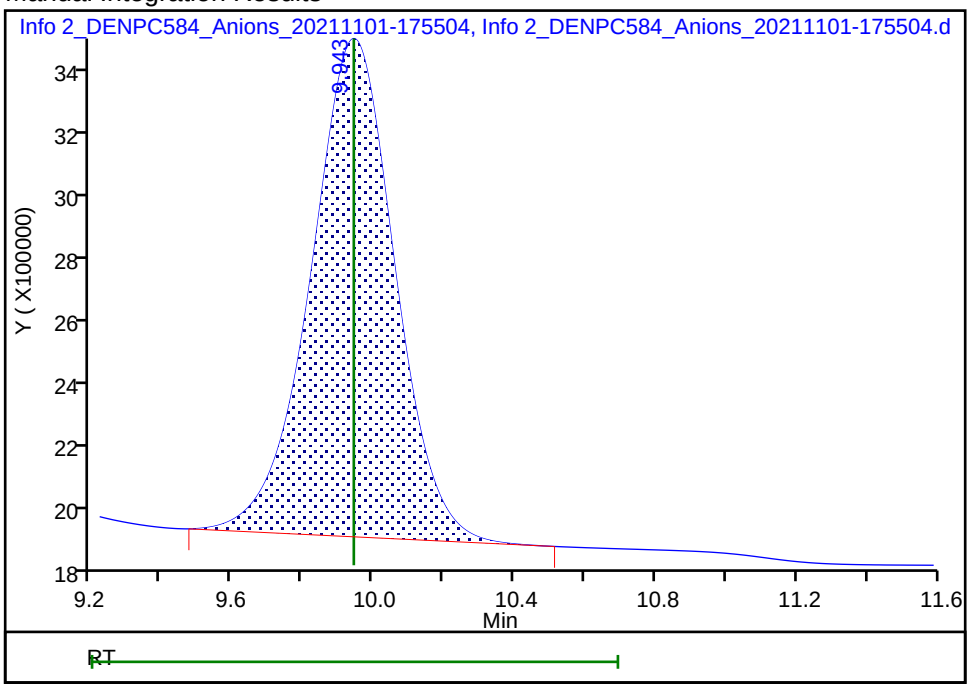
Processing Integration Results

RT: 9.94
Area: 26149394
Amount: 2.000476
Amount Units: ug/ml




Manual Integration Results

RT: 9.94
Area: 25439643
Amount: 2.316872
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:11:10

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-181 | | | | |
| Lims ID: | std L3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 01-Nov-2021 17:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-004 | | | | |
| Misc. Info.: | 280-0106089-004 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:44 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: jindaratc | | Date: | 01-Nov-2021 18:16:05 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.145 | 3.145 | 0.000 | 33814072 | 1.00 | 0.7655 | M |
| 2 Chloride | 4.350 | 4.350 | 0.000 | 79431492 | 5.00 | 4.82 | |
| 3 Nitrite as N | 5.092 | 5.092 | 0.000 | 34053323 | NC | NC | |
| 4 Bromide | 6.350 | 6.350 | 0.000 | 5704707 | 1.00 | 0.8932 | |
| 5 Nitrate as N | 7.198 | 7.198 | 0.000 | 39468175 | NC | NC | |
| 7 Orthophosphate as P | 8.727 | 8.727 | 0.000 | 45373745 | NC | NC | |
| 6 Sulfate | 9.952 | 9.952 | 0.000 | 55284208 | 5.00 | 4.59 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

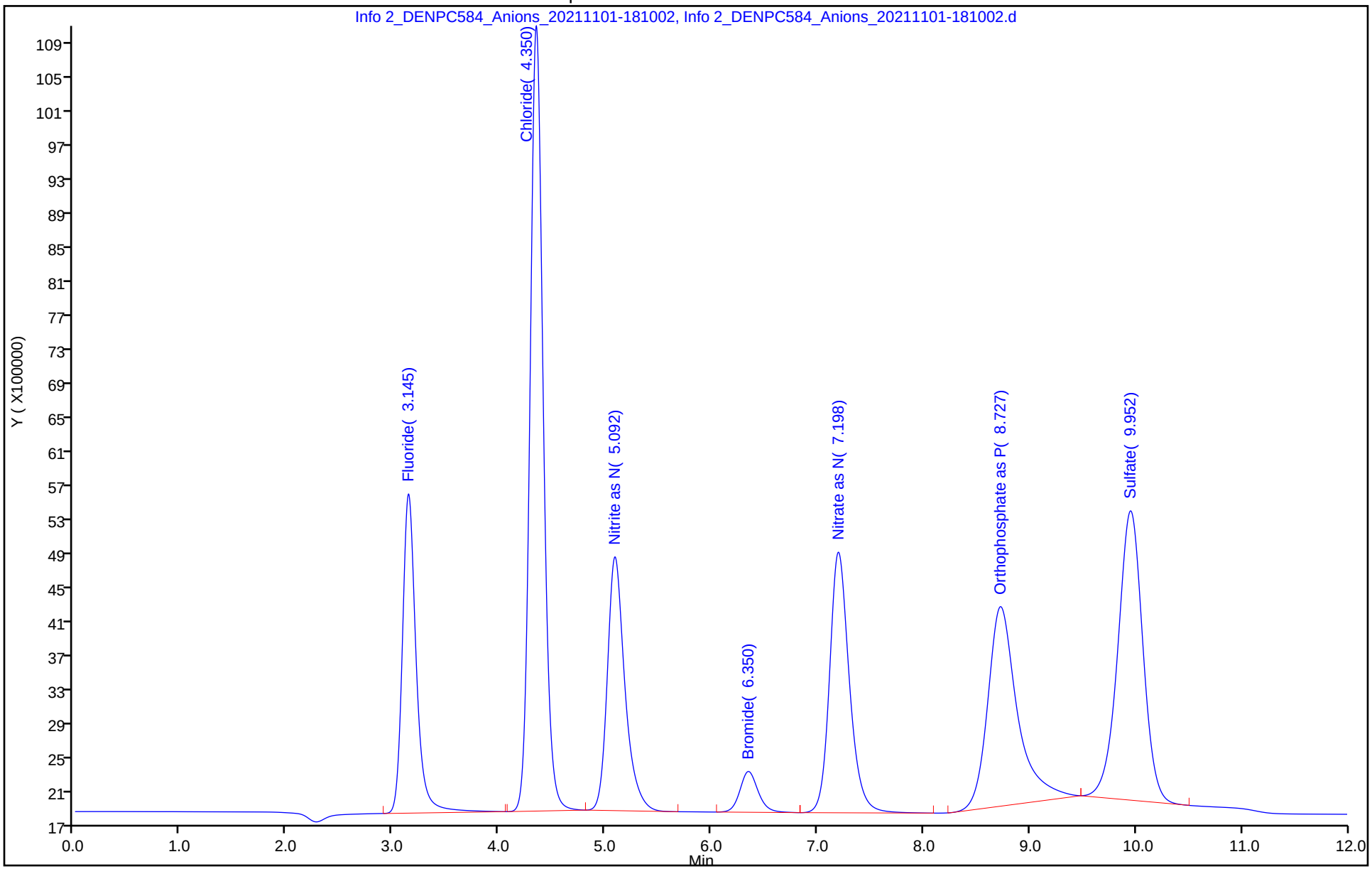
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 0.10 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 0.10 | Units: mL |

Report Date: 03-Nov-2021 15:37:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-181002.d | | | | |
| Injection Date: | 01-Nov-2021 17:55:00 | 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 TestAmerica, Denver

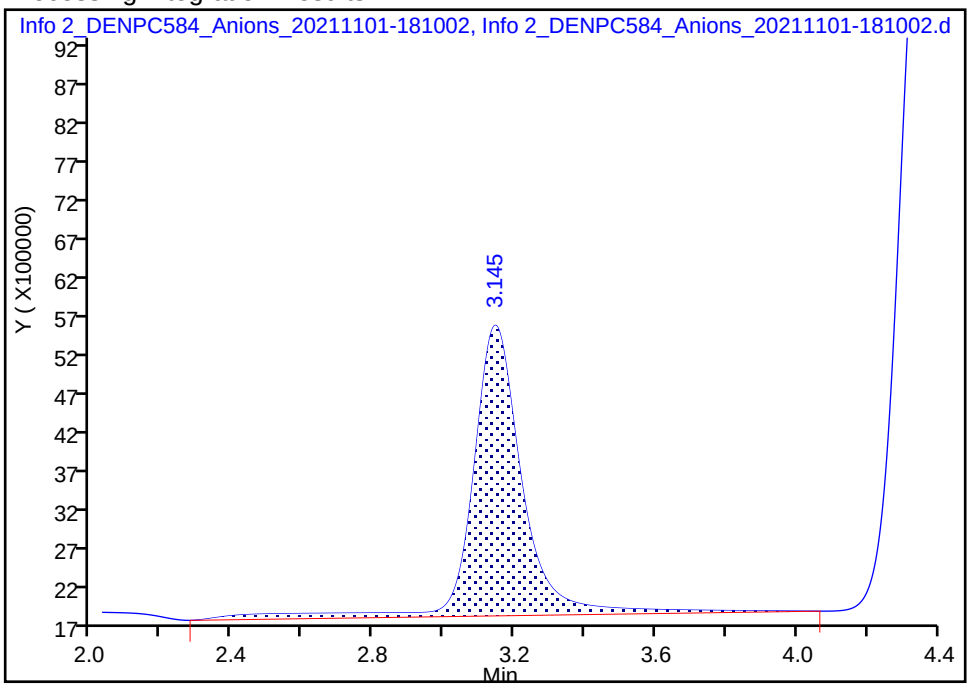
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-181 | | | | |
| Injection Date: | 01-Nov-2021 17:55:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L3 | | | | |
| Client ID: | | | | | |
| Operator 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

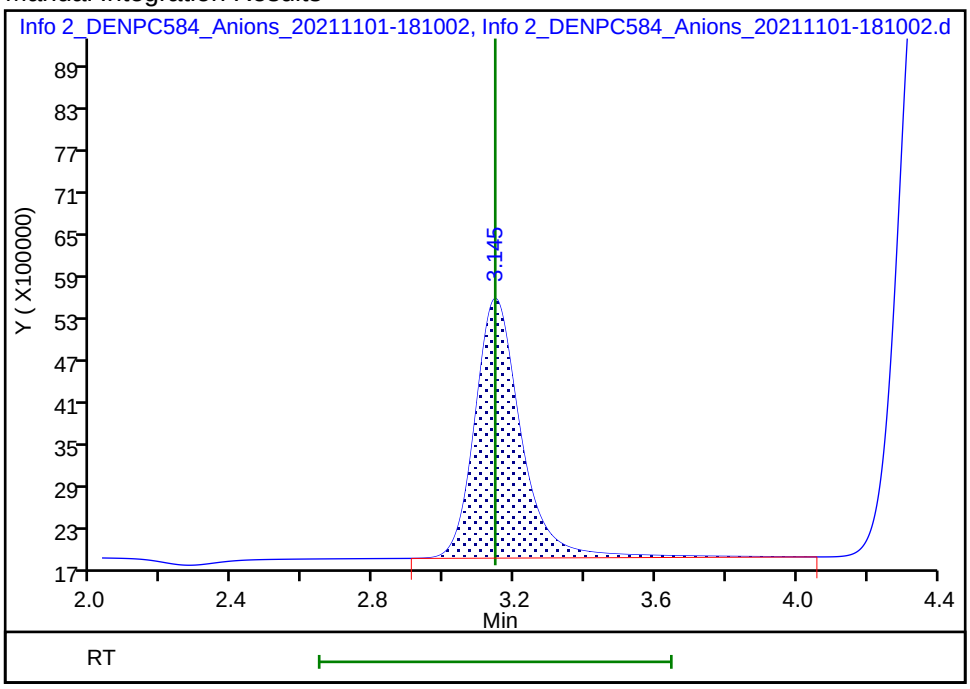
RT: 3.15
Area: 37860794
Amount: 0.783865
Amount Units: ug/ml

Processing Integration Results




RT: 3.15
Area: 33814072
Amount: 0.765531
Amount Units: ug/ml

Manual Integration Results




Reviewer: jindaratc, 01-Nov-2021 18:15:55
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

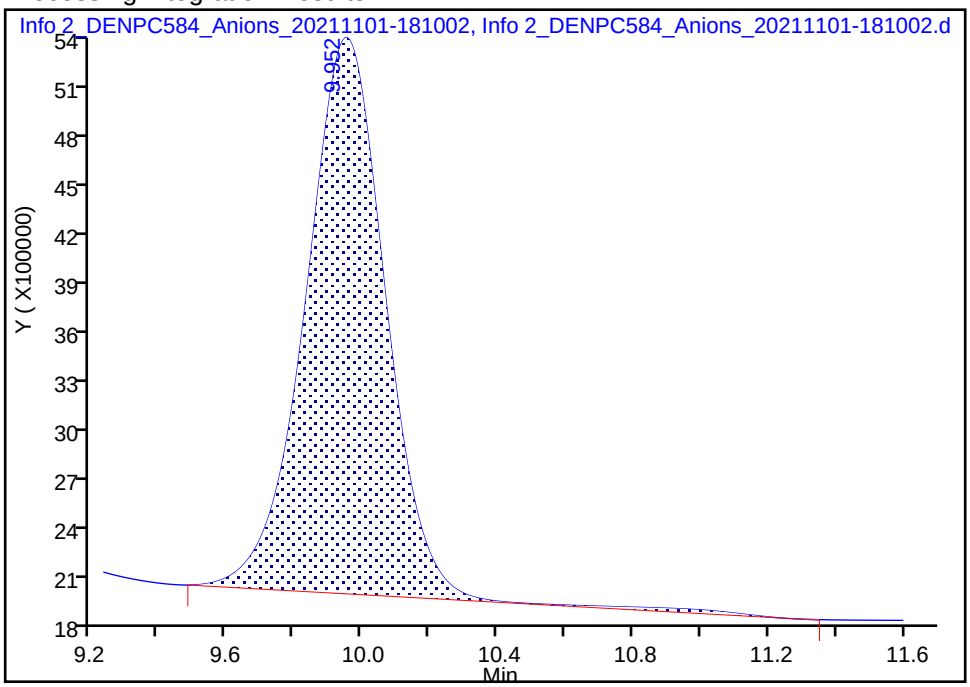
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-181 | | | | |
| Injection Date: | 01-Nov-2021 17:55:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L3 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

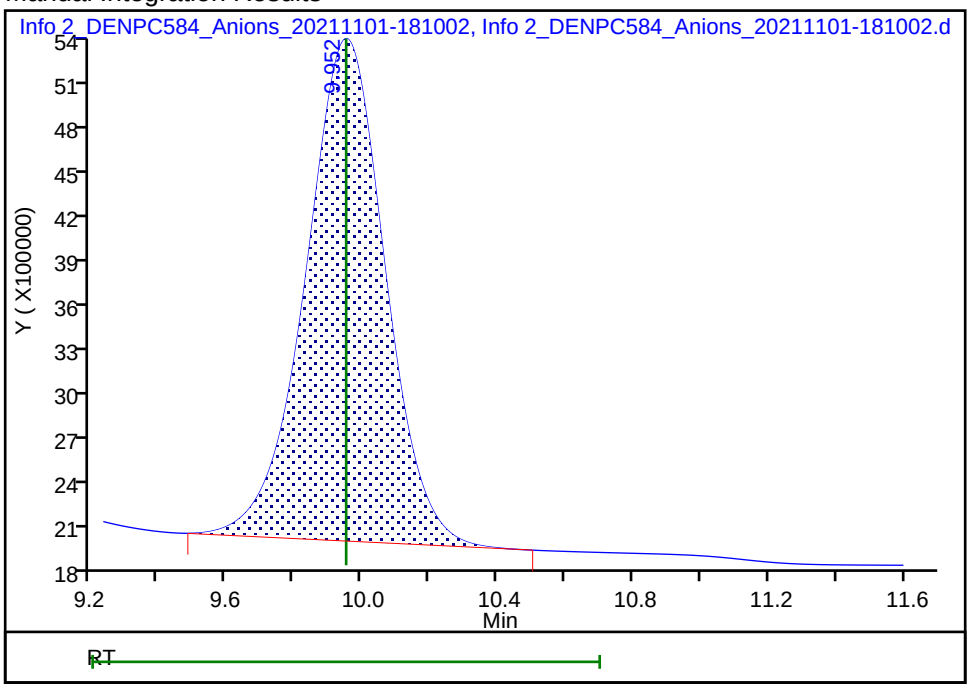
Processing Integration Results

RT: 9.95
Area: 55956579
Amount: 4.529849
Amount Units: ug/ml




Manual Integration Results

RT: 9.95
Area: 55284208
Amount: 4.586224
Amount Units: ug/ml




Reviewer: jindaratc, 01-Nov-2021 18:16:02

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-182 | | | | |
| Lims ID: | std L4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 01-Nov-2021 18:10:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-005 | | | | |
| Misc. Info.: | 280-0106089-005 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:45 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: jindaratc | | Date: | 01-Nov-2021 18:36:21 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.163 | 3.163 | 0.000 | 218790412 | 4.00 | 4.00 | M |
| 2 Chloride | 4.362 | 4.362 | 0.000 | 1063385204 | 60.0 | 60.5 | |
| 3 Nitrite as N | 5.070 | 5.070 | 0.000 | 155178833 | NC | NC | M |
| 4 Bromide | 6.330 | 6.330 | 0.000 | 25957786 | 4.00 | 3.77 | |
| 5 Nitrate as N | 7.132 | 7.132 | 0.000 | 180955263 | NC | NC | |
| 7 Orthophosphate as P | 8.712 | 8.712 | 0.000 | 146543567 | NC | NC | |
| 6 Sulfate | 9.930 | 9.930 | 0.000 | 795718184 | 60.0 | 60.9 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

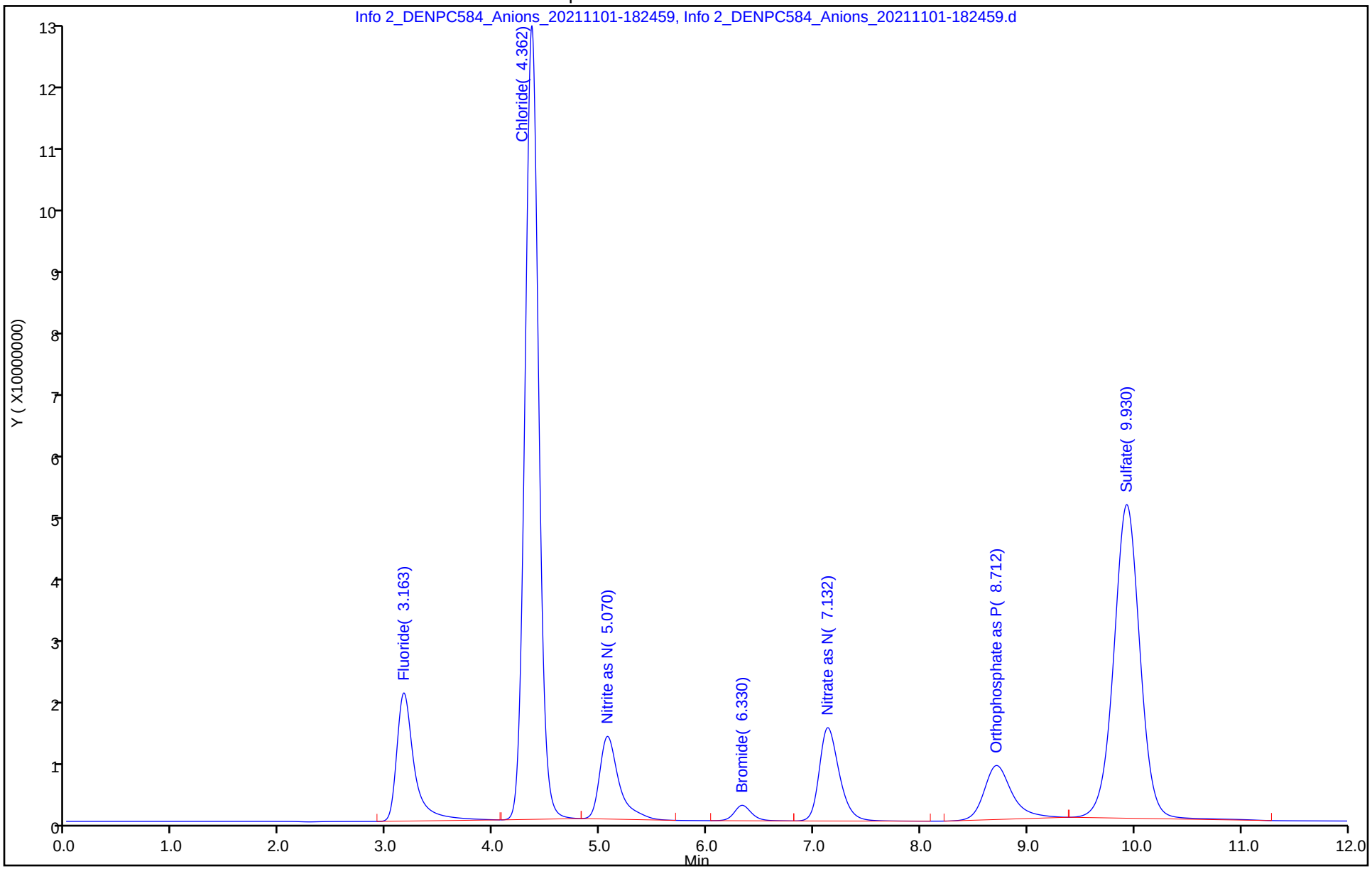
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 0.40 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 1.20 | Units: mL |

Report Date: 03-Nov-2021 15:37:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-182459.d | | | | |
| Injection Date: | 01-Nov-2021 18:10:00 | 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 TestAmerica, Denver

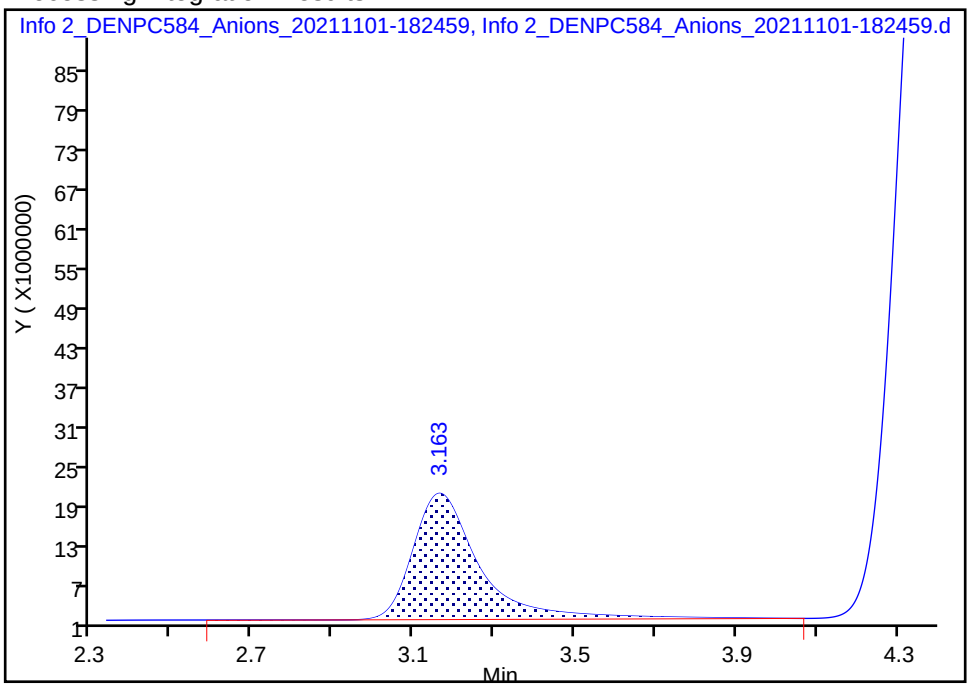
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-182 | | | | |
| Injection Date: | 01-Nov-2021 18:10:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L4 | | | | |
| Client ID: | | | | | |
| Operator 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

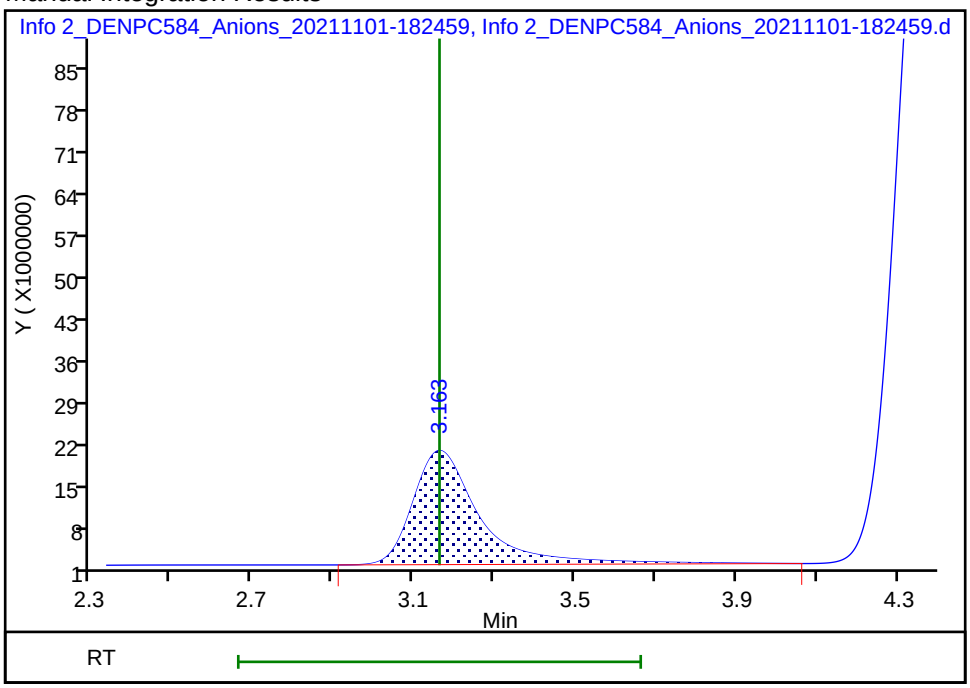
Processing Integration Results

RT: 3.16
Area: 219425100
Amount: 3.655513
Amount Units: ug/ml




Manual Integration Results

RT: 3.16
Area: 218790412
Amount: 3.997646
Amount Units: ug/ml




Reviewer: jindaratc, 01-Nov-2021 18:36:15

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

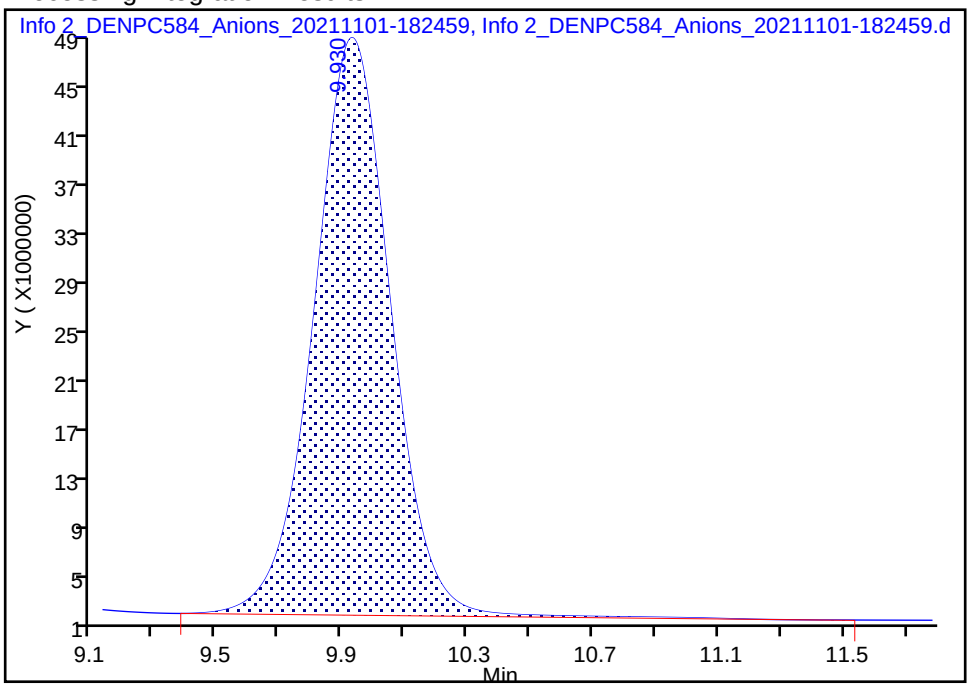
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-182 | | | | |
| Injection Date: | 01-Nov-2021 18:10:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L4 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

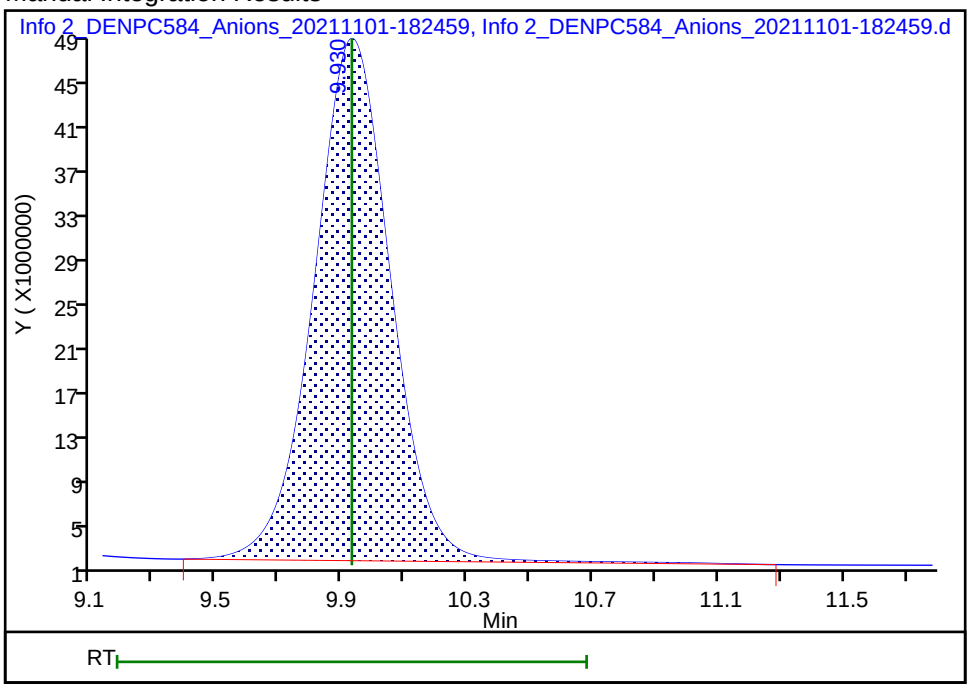
Processing Integration Results

RT: 9.93
Area: 796002033
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 9.93
Area: 795718184
Amount: 60.888112
Amount Units: ug/ml




Reviewer: gonzalezsp, 02-Nov-2021 12:32:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-183 | | | | |
| Lims ID: | std L5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 01-Nov-2021 18:25:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-006 | | | | |
| Misc. Info.: | 280-0106089-006 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:45 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: gonzalezsp | | Date: | 02-Nov-2021 12:33:00 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.180 | 3.180 | 0.000 | 464100629 | 8.00 | 8.28 | M |
| 2 Chloride | 4.387 | 4.387 | 0.000 | 2110238077 | 120.0 | 119.8 | |
| 3 Nitrite as N | 5.058 | 5.058 | 0.000 | 314132694 | NC | NC | M |
| 4 Bromide | 6.327 | 6.327 | 0.000 | 55805529 | 8.00 | 8.00 | |
| 5 Nitrate as N | 7.100 | 7.100 | 0.000 | 375786019 | NC | NC | |
| 7 Orthophosphate as P | 8.710 | 8.710 | 0.000 | 244322507 | NC | NC | |
| 6 Sulfate | 9.920 | 9.920 | 0.000 | 1577364444 | 120.0 | 120.3 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

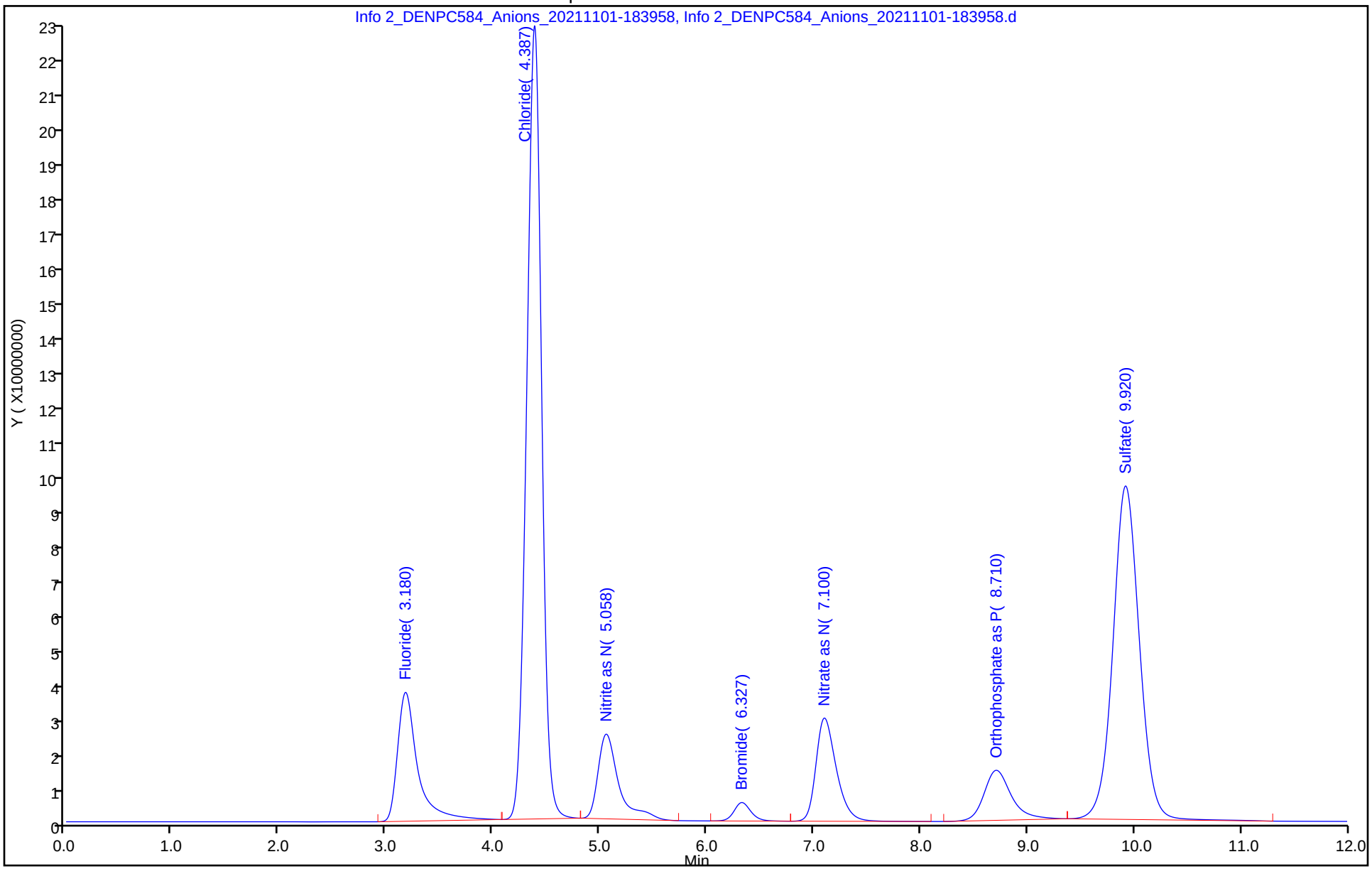
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 0.80 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 2.40 | Units: mL |

Report Date: 03-Nov-2021 15:37:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-183958.d | | | | |
| Injection Date: | 01-Nov-2021 18:25:00 | 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 TestAmerica, Denver

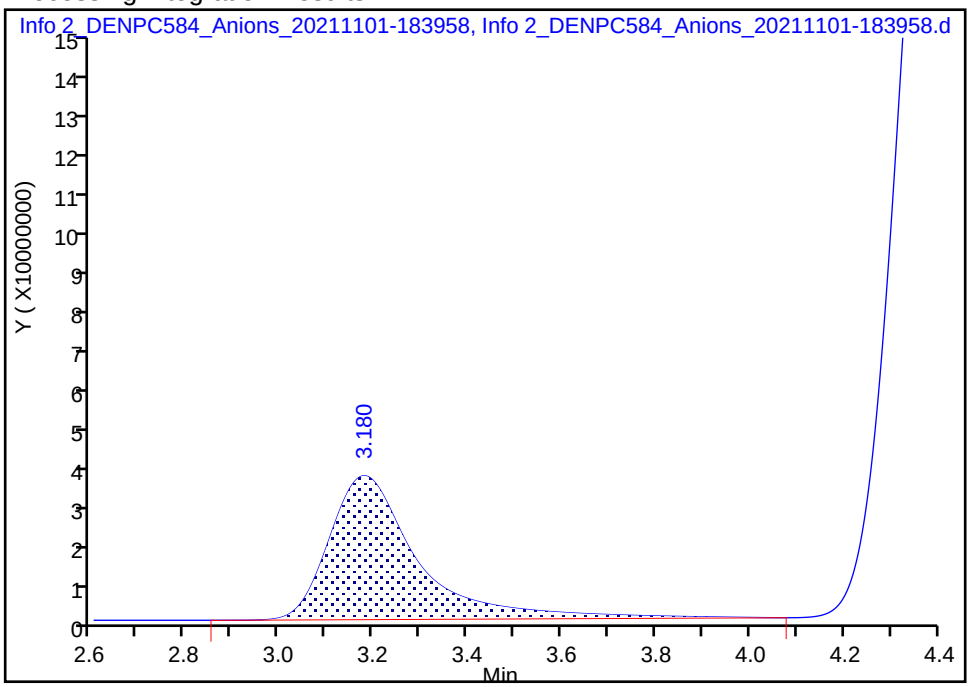
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-183 | | | | |
| Injection Date: | 01-Nov-2021 18:25:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L5 | | | | |
| Client ID: | | | | | |
| Operator 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

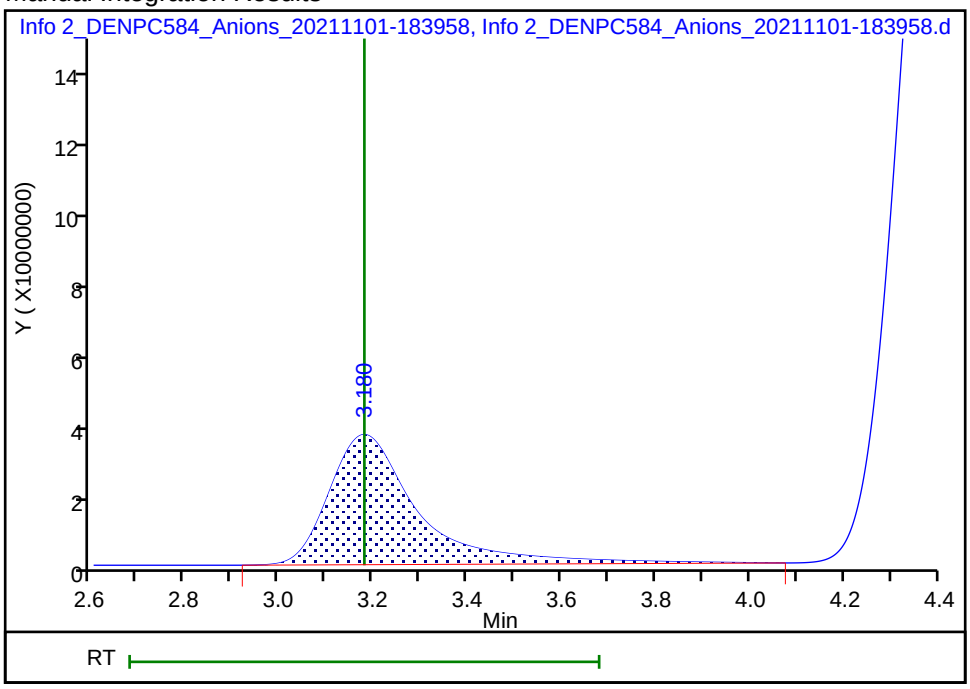
Processing Integration Results

RT: 3.18
Area: 464161037
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 3.18
Area: 464100629
Amount: 8.283982
Amount Units: ug/ml




Reviewer: gonzalezsp, 02-Nov-2021 12:32:53
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

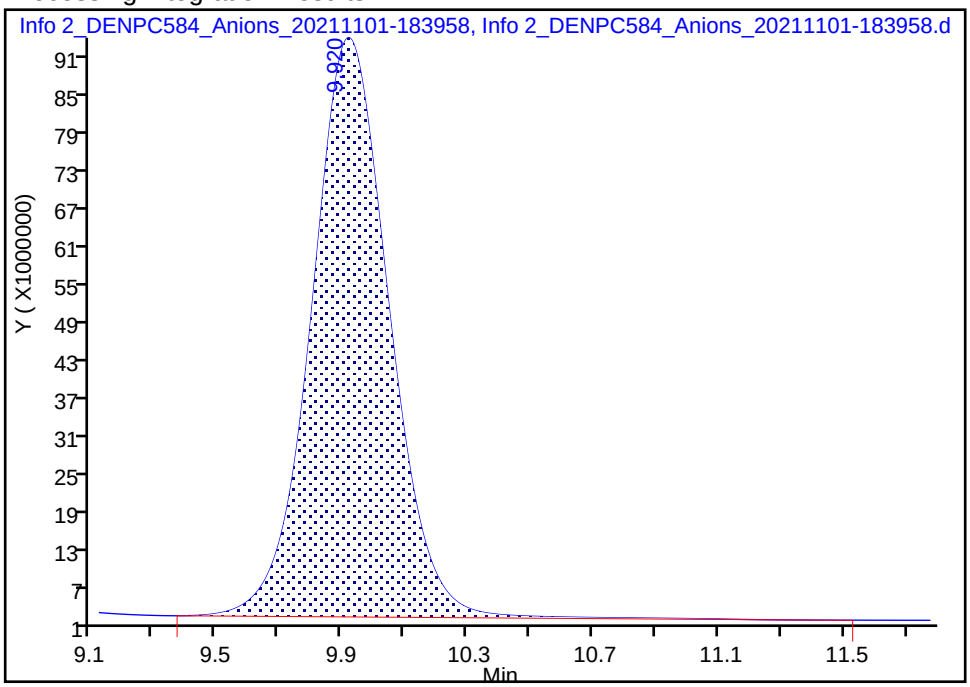
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-183 | | | | |
| Injection Date: | 01-Nov-2021 18:25:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L5 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

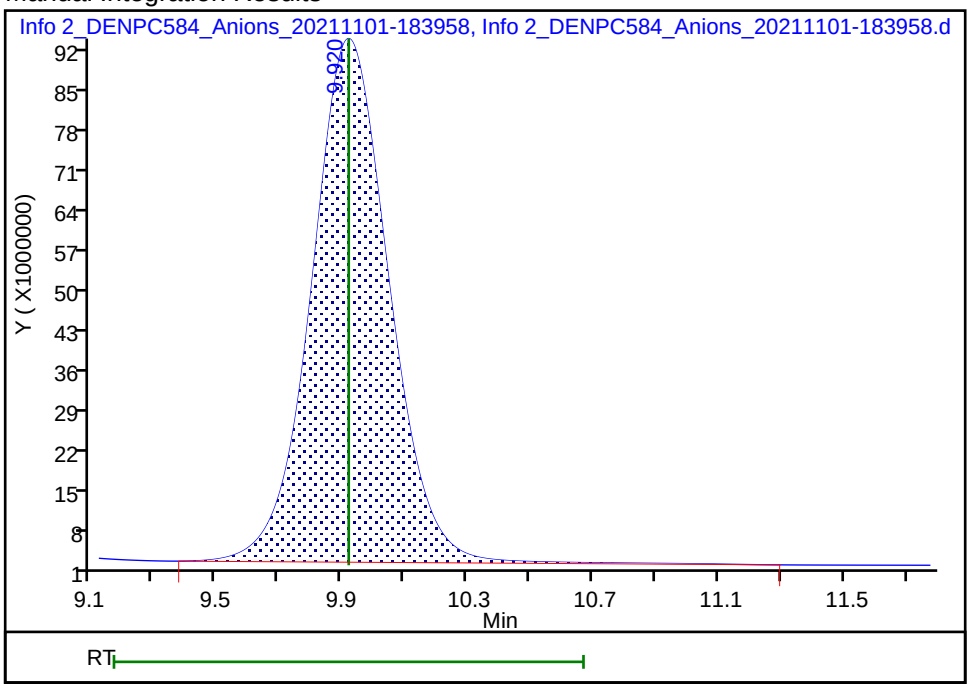
Processing Integration Results

RT: 9.92
Area: 1577579966
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 9.92
Area: 1577364444
Amount: 120.3237
Amount Units: ug/ml




Reviewer: gonzalezsp, 02-Nov-2021 12:32:47

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Lims ID: | std L6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 01-Nov-2021 18:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-007 | | | | |
| Misc. Info.: | 280-0106089-007 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Sublist: | chrom-Anions-IC13*sub1 | | | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:37:46 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |
| First Level Reviewer: jindaratc | | Date: | 01-Nov-2021 19:00:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.182 | 3.182 | 0.000 | 559921268 | 10.0 | 9.96 | |
| 2 Chloride | 4.418 | 4.418 | 0.000 | 3522683325 | 200.0 | 199.8 | |
| 3 Nitrite as N | 5.055 | 5.055 | 0.000 | 390731605 | NC | NC | M |
| 4 Bromide | 6.323 | 6.323 | 0.000 | 72264372 | 10.0 | 10.3 | |
| 5 Nitrate as N | 7.088 | 7.088 | 0.000 | 475947663 | NC | NC | |
| 7 Orthophosphate as P | 8.707 | 8.707 | 0.000 | 287519560 | NC | NC | |
| 6 Sulfate | 9.897 | 9.897 | 0.000 | 2615239363 | 200.0 | 199.2 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

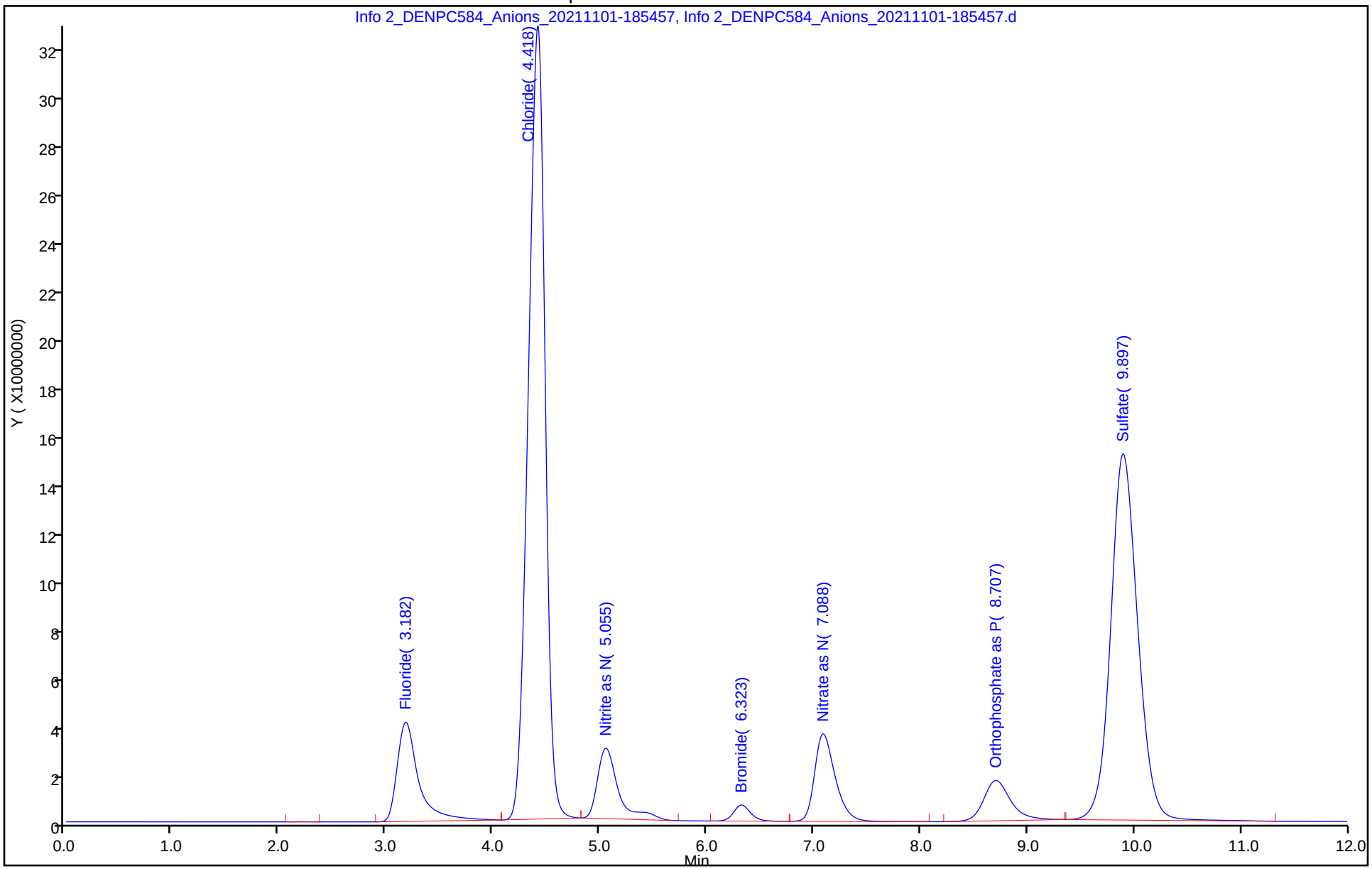
## Reagents:

| | | | |
|---|---|---|---|
| IC Cal low_00605 | Amount Added: | 1.00 | Units: mL |
| IC CAL cl/so4_00391 | Amount Added: | 4.00 | Units: mL |

Report Date: 03-Nov-2021 15:37:47 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185457.d | | | | |
| Injection Date: | 01-Nov-2021 18:40:00 | 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 TestAmerica, Denver

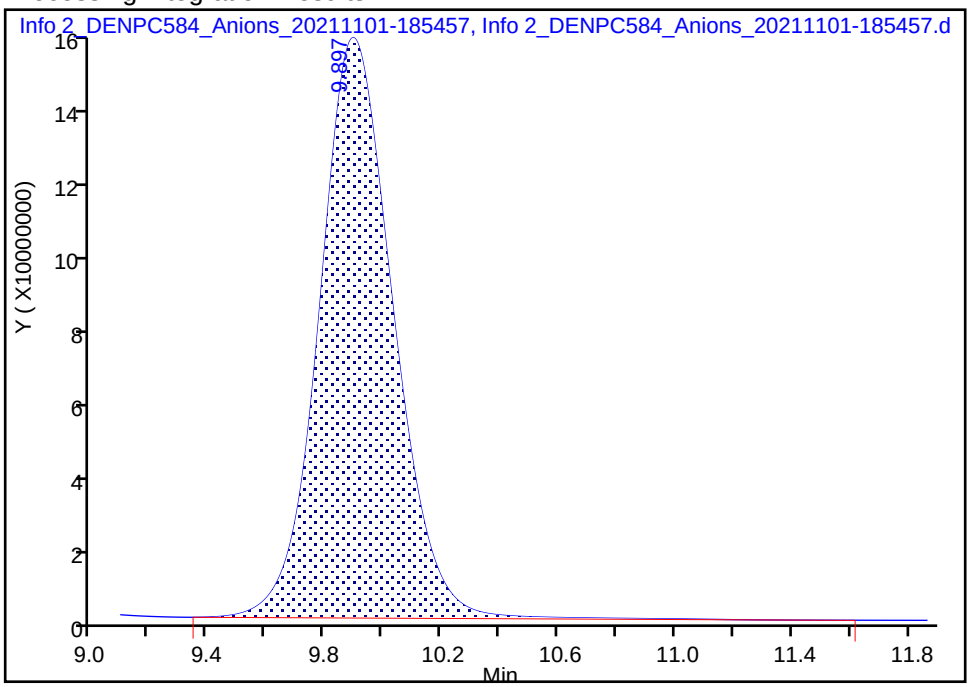
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Injection Date: | 01-Nov-2021 18:40:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | std L6 | | | | |
| Client ID: | | | | | |
| Operator 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 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

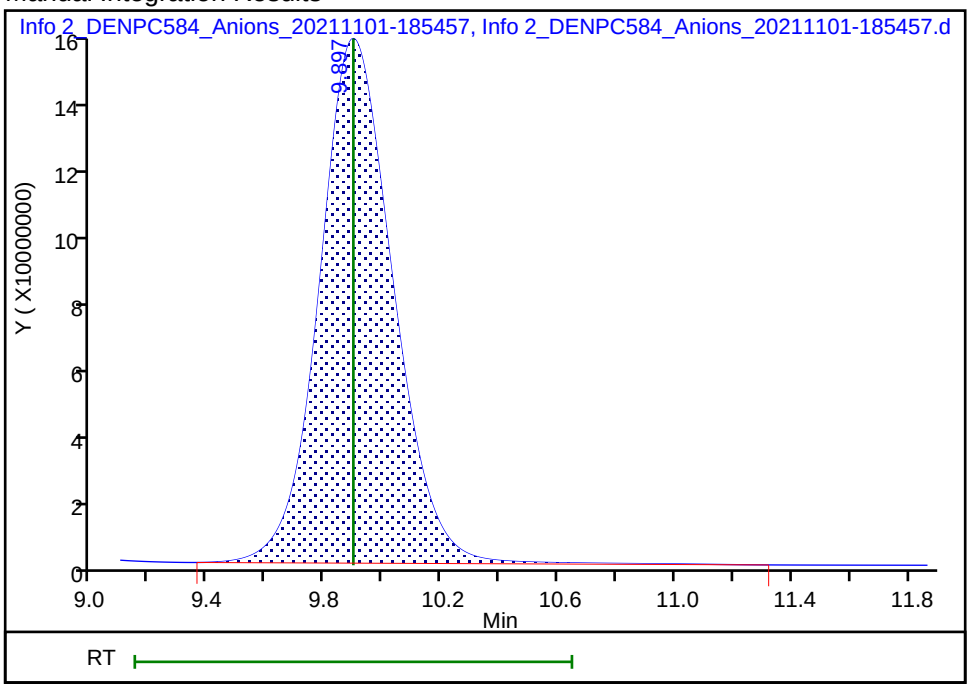
Processing Integration Results

RT: 9.90
Area: 2615830821
Amount: 0
Amount Units: ug/ml




Manual Integration Results

RT: 9.90
Area: 2615239363
Amount: 199.2428
Amount Units: ug/ml




Reviewer: gonzalezsp, 02-Nov-2021 12:33:10

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

# IC Instrument Information

**WL:** 106089 **Inst ID:** IC13 **Analysis Date:** 11/02/21 **Analyst:** JF

| | Rush | Job No. | Samples | Anions | QC Req | HT Exp |
|---|---|---|---|---|---|---|
| 11/1 154444 | ☐ | ~~154267~~ JF 11/2/21 | 8 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/2 | ☐ | 154267 | 2 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/2 | ☐ | 154269 | 2 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/2 | ☐ | 154274 | 2 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/3 | ☐ | 154552 | 11 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/2 | ☐ | 154264 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| 11/3 | ☐ | 154612 | 13 | 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 |
|---|---|---|---|---|---|
| 444 | ~~267~~ JF 11/2/21 | 8 | F Cl NO2 Br NO3 PO4 SO4 | 1,5,20 | Test |
| | 267 | 2 | F Cl NO2 Br NO3 PO4 SO4 | 5,1,20 | ↓ |
| | 269 | 2 | F Cl NO2 Br NO3 PO4 SO4 | 1,5,20 | Test |
| | 274 | 2 | F Cl NO2 Br NO3 PO4 SO4 | 1,5 | ↓ |
| | 552 | 11 | F Cl NO2 Br NO3 PO4 SO4 | 1 | History |
| | 264 | 1 | F Cl NO2 Br NO3 PO4 SO4 | 20 | Rerun |
| | 612 | 13 | F Cl NO2 Br NO3 PO4 SO4 | 1,10 | $Cl^-$ Coverage, Test |
| | | | 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\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

No.Compounds:7

## Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b
Inj Date : 01-Nov-2021 17:25:00, Sublist: chrom-Anions-IC13*sub1

Detector 1: 0005

| | Wet - Anions 28D | | | | Wet - Anions | | | |
|---|---|---|---|---|---|---|---|---|
| Compound | b | M1 | M2 | Err | b | M1 | M2 | Err |
| 1 Fluoride | -999783 | 5723074 | | 0.995 | | | | |
| 2 Chloride | -576133 | 1765743 | | 1.000 | | | | |
| 3 Nitrite as N | | | | | -296432 | 3937491 | | 1.000 |
| 4 Bromide | -593473 | 7051230 | | 0.999 | | | | |
| 5 Nitrate as N | | | | | -426209 | 4735103 | | 1.000 |
| 7 Orthophosphate as P | | | | | 3579559 | 3073151 | R1 | ).983* |
| 6 Sulfate | -502986 | 1315113 | | 1.000 | | | | |

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

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: 0.000-14.917 No. Points: 1561

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17400
Inj Date: 01-Nov-2021 17:25:00 Worklist: 106089 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17550
Inj Date: 01-Nov-2021 17:40:00 Worklist: 106089 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18100
Inj Date: 01-Nov-2021 17:55:00 Worklist: 106089 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18245
Inj Date: 01-Nov-2021 18:10:00 Worklist: 106089 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18395
Inj Date: 01-Nov-2021 18:25:00 Worklist: 106089 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18545
Inj Date: 01-Nov-2021 18:40:00 Worklist: 106089 Sample#: 7

Start Cal Date: 01-Nov-2021 17:25:00 End Cal Date: 01-Nov-2021 18:40:00

## 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 | | | | | | |
| 28887875 | 31051208 | 34053323 | 38794708 | 39266587 | 39073161 | -2964325 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 39374919 | | |
| 5777575 | 15525604 | 34053323 | M155178833 | M314132694 | M390731605 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 5 Nitrate as N | | | Signal: 1 | | | | | | |
| Error: CorrCoef | | | | | | | | | |
| 32883905 | 35825998 | 39468175 | 45238816 | 46973252 | 47594766 | -4262099 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 47351033 | | |
| M6576781 | M17912999 | 39468175 | 180955263 | 375786019 | 475947663 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 7 Orthophosphate as P | | | Signal: 1 | | | | R1 | | |
| 35523675 | 37900272 | 45373745 | 36635892 | 30540313 | 28751956 | 3579559 | | | *0.983 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 30731514 | | |
| 7104735 | 18950136 | 45373745 | 146543567 | 244322507 | 287519560 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

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: 0.000-14.917 No. Points: 1561

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17400
Inj Date: 01-Nov-2021 17:25:00 Worklist: 106089 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17550
Inj Date: 01-Nov-2021 17:40:00 Worklist: 106089 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18100
Inj Date: 01-Nov-2021 17:55:00 Worklist: 106089 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18245
Inj Date: 01-Nov-2021 18:10:00 Worklist: 106089 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18395
Inj Date: 01-Nov-2021 18:25:00 Worklist: 106089 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18545
Inj Date: 01-Nov-2021 18:40:00 Worklist: 106089 Sample#: 7

Start Cal Date: 01-Nov-2021 17:25:00 End Cal Date: 01-Nov-2021 18:40:00

## 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 | | | | | | | | | |
| 27709795 | 28426654 | 33814072 | 54697603 | 58012579 | 55992127 | -9997834 | | | 0.995 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 57230746 | | |
| M5541959 | M14213327 | M33814072 | M218790412 | M464100629 | 559921268 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 2 Chloride | | | | Signal: 1 | | | | | |
| 13171525 | 14573971 | 15886298 | 17723087 | 17585317 | 17613417 | -5761338 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 17657433 | | |
| 13171525 | 36434927 | 79431492 | 1063385204 | 2110238077 | 3522683325 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 4 Bromide | | | | Signal: 1 | | | | | |
| 5399275 | 5482138 | 5704707 | 6489447 | 6975691 | 7226437 | -593473 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 7051230 | | |
| M1079855 | M2741069 | 5704707 | 25957786 | 55805529 | 72264372 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 6 Sulfate | | | | Signal: 1 | | | | | |
| Error: raw_COD | | | | | | | | | |
| 9992591 | 10175857 | 11056842 | 13261970 | 13144704 | 13076197 | -5029862 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 13151139 | | |
| M9992591 | M25439643 | M55284208 | M795718184 | M1577364444 | M2615239363 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-190
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 01-Nov-2021 18:54:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106089-008
Misc. Info.: 280-0106089-008
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 03-Nov-2021 15:43:24 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1610

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.150 | 3.150 | 0.000 | 124219980 | 4.00 | 2.35 | M |
| 2 Chloride | 4.370 | 4.370 | 0.000 | 1403809907 | 80.0 | 79.8 | |
| 3 Nitrite as N | 5.068 | 5.068 | 0.000 | 155866730 | NC | NC | M |
| 4 Bromide | 6.318 | 6.318 | 0.000 | 25595823 | 4.00 | 3.71 | |
| 5 Nitrate as N | 7.123 | 7.123 | 0.000 | 167316645 | NC | NC | |
| 7 Orthophosphate as P | 8.712 | 8.712 | 0.000 | 114776421 | NC | NC | |
| 6 Sulfate | 9.925 | 9.925 | 0.000 | 1065155723 | 80.0 | 81.4 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

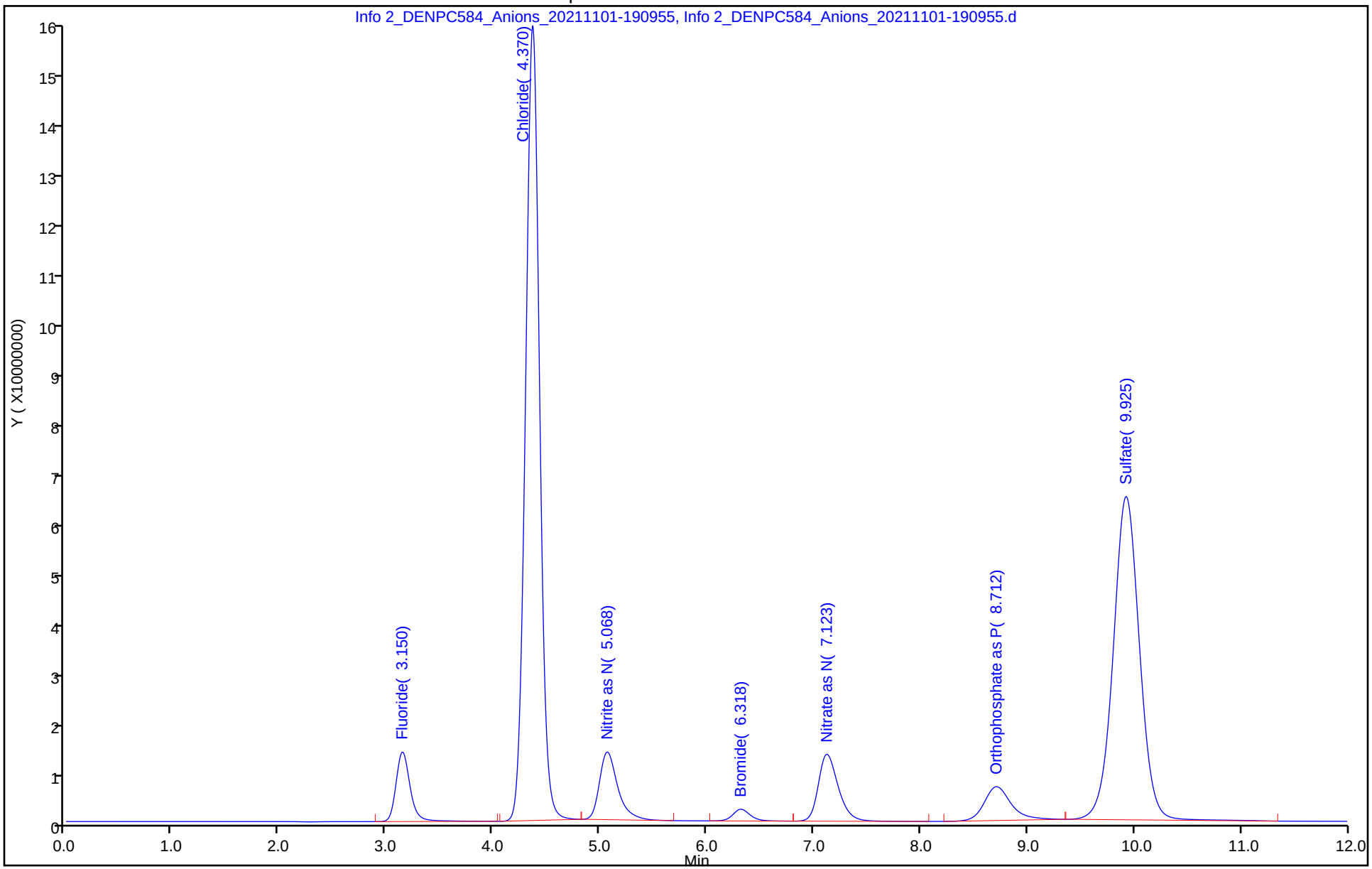
## Reagents:

IC SO4 ICV_00022 Amount Added: 0.40 Units: mL
Cl ICV Std_00002 Amount Added: 0.40 Units: mL
IC ICV 5_00340 Amount Added: 0.40 Units: mL

Report Date: 03-Nov-2021 15:43:24 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-190955.d | | | | |
| Injection Date: | 01-Nov-2021 18:54:00 | 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 | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

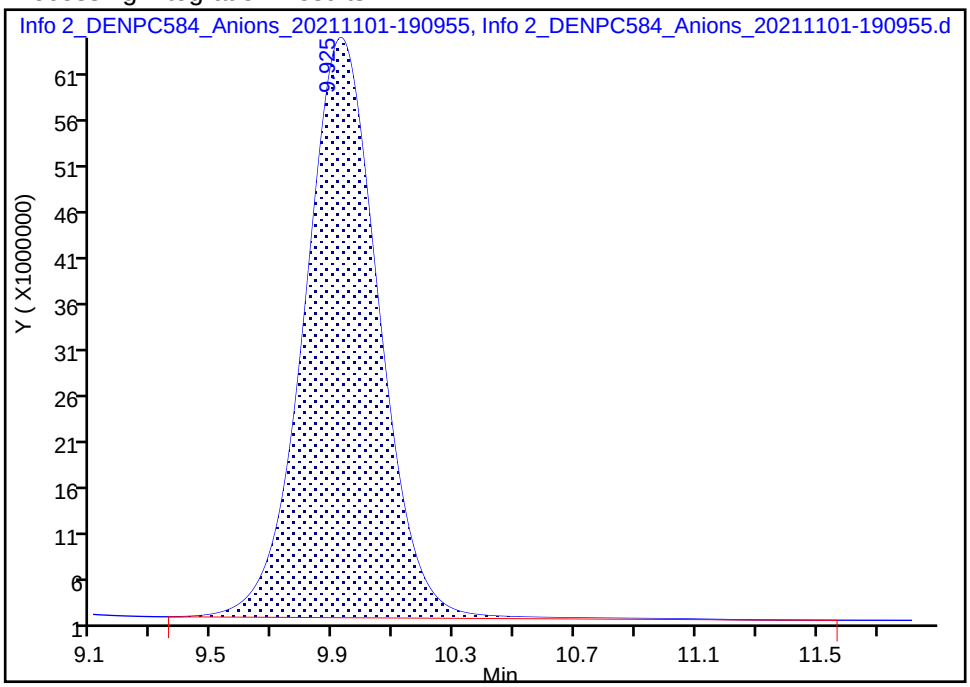
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-190 | | | | |
| Injection Date: | 01-Nov-2021 18:54:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| 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

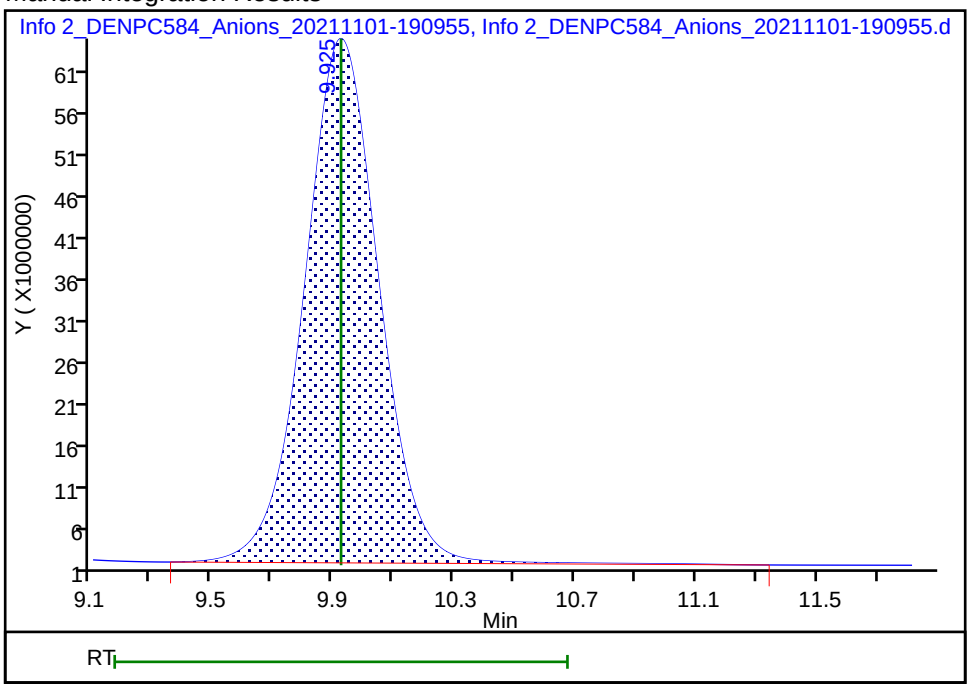
Processing Integration Results

RT: 9.93
Area: 1065412834
Amount: 81.680600
Amount Units: ug/ml




Manual Integration Results

RT: 9.93
Area: 1065155723
Amount: 81.375884
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:15:18

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-192 | | | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Sample Type: | ICB | | | | |
| Inject. Date: | 01-Nov-2021 19:09:00 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106089-009 | | | | |
| Misc. Info.: | 280-0106089-009 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 03-Nov-2021 15:43:25 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1610 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.150 | | | | ND | U |
| 2 Chloride | | 4.370 | | | | ND | |
| 3 Nitrite as N | | 5.068 | | | | ND | |
| 4 Bromide | | 6.318 | | | | ND | |
| 5 Nitrate as N | | 7.123 | | | | ND | |
| 7 Orthophosphate as P | 8.807 | 8.712 | 0.095 | 1591193 | | NC | |
| 6 Sulfate | 10.000 | 9.925 | 0.075 | 685017 | | 0.4346 | M |

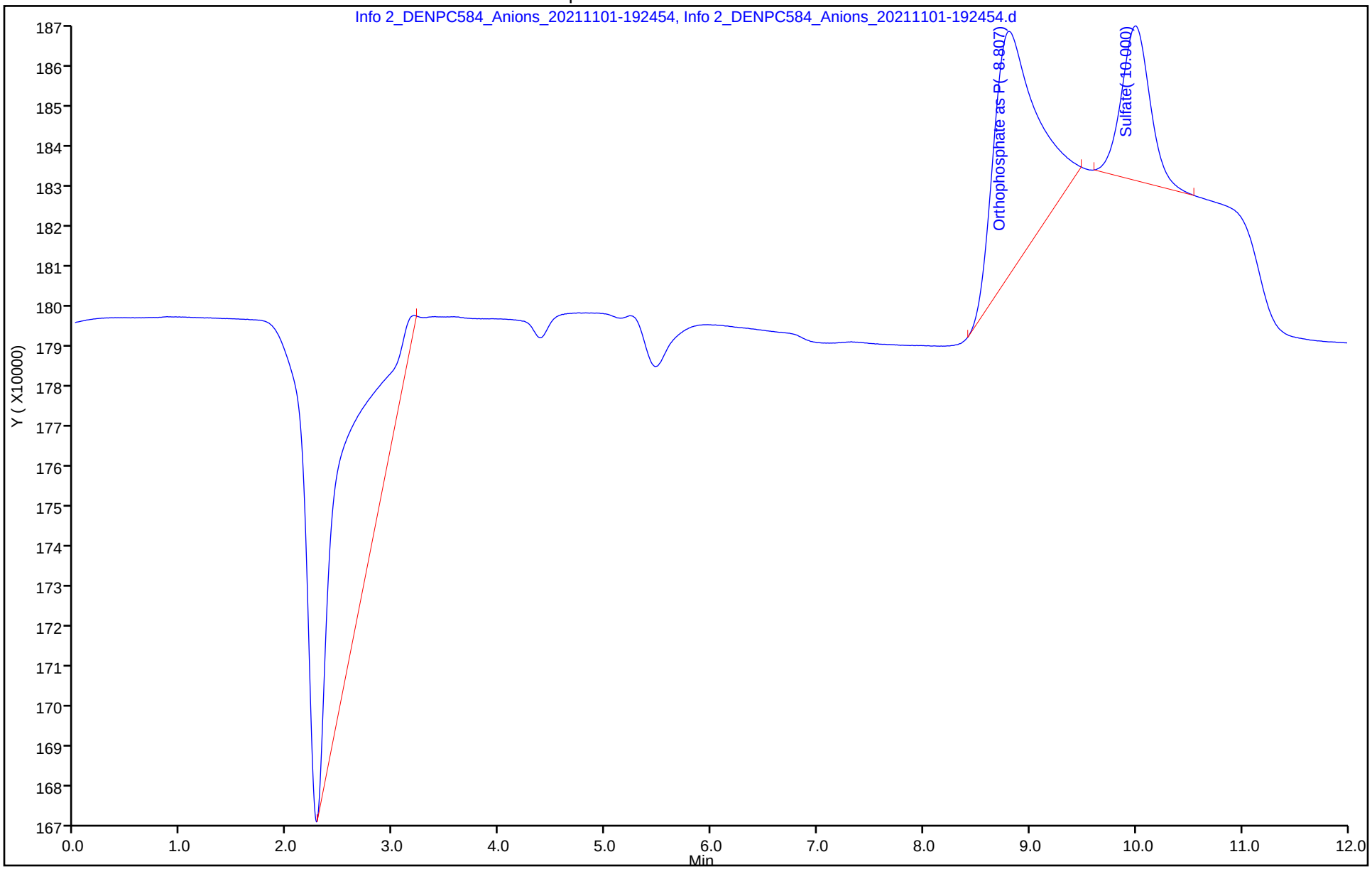
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 03-Nov-2021 15:43:25 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-192454.d | | | | |
| Injection Date: | 01-Nov-2021 19:09:00 | 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 | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

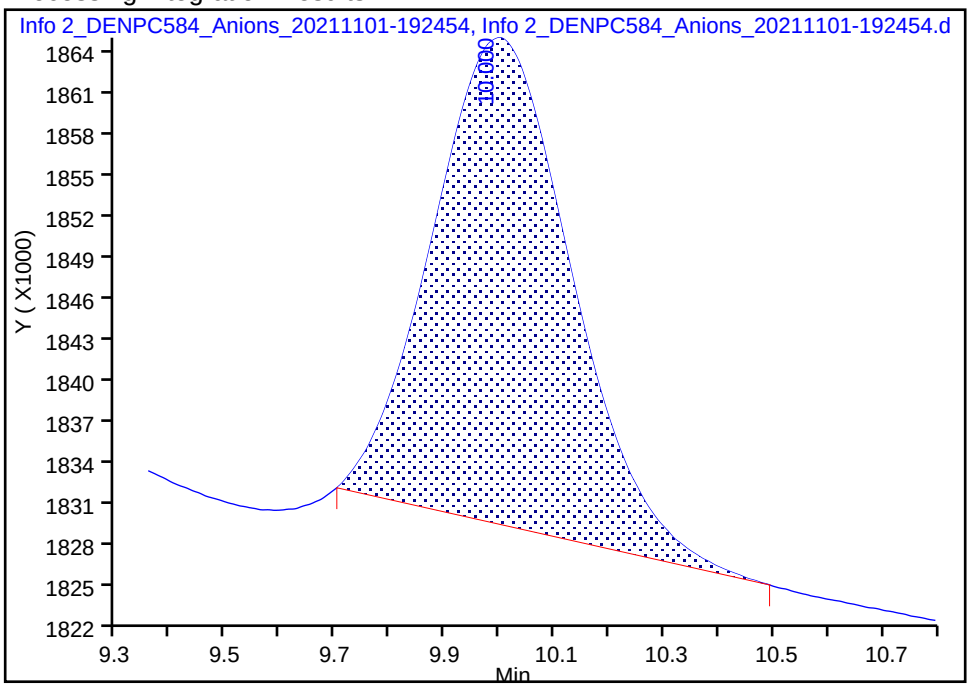
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-192 | | | | |
| Injection Date: | 01-Nov-2021 19:09:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| 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

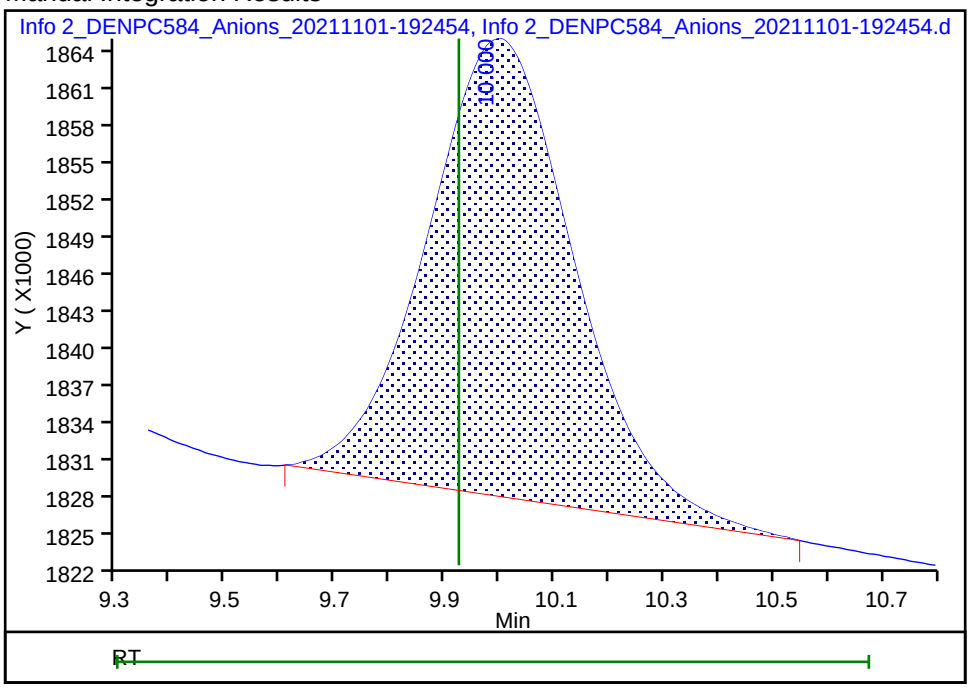
Processing Integration Results

RT: 10.00
Area: 623178
Amount: 0.422236
Amount Units: ug/ml




Manual Integration Results

RT: 10.00
Area: 685017
Amount: 0.434554
Amount Units: ug/ml




Reviewer: gonzalezsp, 03-Nov-2021 09:15:58

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

# IC Instrument Information

**WL:** 106653 **Inst ID:** IC13 **Analysis Date:** 11/19/21 **Analyst:** JF

| Rush | Job No. | Samples | Anions | QC Req | HT Exp |
|---|---|---|---|---|---|
| ☐ | 154885 | 3 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155292 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155293 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155294 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155263 | 4 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 154907 | 5 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 154948 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 154973 | 4 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155013 | 3 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155015 | 12 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155356 | 1 | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | 155378 | 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 | |

## Dilutions

| Job No. | Samples | Anions | Dilution | Reason |
|---|---|---|---|---|
| 885 | 3 | F Cl NO2 Br NO3 PO4 SO4 | 1,10,20,50 | Test |
| 292 | 1 | F Cl NO2 Br NO3 PO4 SO4 | 1,10 | |
| 293 | 1 | F Cl NO2 Br NO3 PO4 SO4 | 1,10 | |
| 294 | 1 | F Cl NO2 Br NO3 PO4 SO4 | 1,10 | |
| 263 | 4 | F Cl NO2 Br NO3 PO4 SO4 | 10,20 | |
| 907 | 5 | F Cl NO2 Br NO3 PO4 SO4 | 1,5 | |
| 948 | 1 | F Cl NO2 Br NO3 PO4 SO4 | 1,5 | |
| 973 | 4 | F Cl NO2 Br NO3 PO4 SO4 | 1,10,5,20 | Test |
| 013 | 3 | F Cl NO2 Br NO3 PO4 SO4 | 1,5 | History |
| 356 | 1 | Cl | SO4 1,20 | Test. |

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

No.Compounds:7

## Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b
Inj Date : 01-Nov-2021 17:25:00, Sublist: chrom-Anions-IC13*sub1

Detector 1: 0005

| | Wet - Anions 28D | | | | Wet - Anions | | | |
|---|---|---|---|---|---|---|---|---|
| Compound | b | M1 | M2 | Err | b | M1 | M2 | Err |
| 1 Fluoride | -999783 | 5723074 | | 0.995 | | | | |
| 2 Chloride | -576133 | 1765743 | | 1.000 | | | | |
| 3 Nitrite as N | | | | | -296432 | 3937491 | | 1.000 |
| 4 Bromide | -593473 | 7051230 | | 0.999 | | | | |
| 5 Nitrate as N | | | | | -426209 | 4735103 | | 1.000 |
| 7 Orthophosphate as P | | | | | 3579559 | 3073151 | R1 | ).983* |
| 6 Sulfate | -502986 | 1315113 | | 1.000 | | | | |

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

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: 0.000-14.917 No. Points: 1561

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17400
Inj Date: 01-Nov-2021 17:25:00 Worklist: 106089 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17550
Inj Date: 01-Nov-2021 17:40:00 Worklist: 106089 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18100
Inj Date: 01-Nov-2021 17:55:00 Worklist: 106089 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18245
Inj Date: 01-Nov-2021 18:10:00 Worklist: 106089 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18395
Inj Date: 01-Nov-2021 18:25:00 Worklist: 106089 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18545
Inj Date: 01-Nov-2021 18:40:00 Worklist: 106089 Sample#: 7

Start Cal Date: 01-Nov-2021 17:25:00 End Cal Date: 01-Nov-2021 18:40:00

## 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 | | | | | | |
| 28887875 | 31051208 | 34053323 | 38794708 | 39266587 | 39073161 | -2964325 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 39374919 | | |
| 5777575 | 15525604 | 34053323 | M155178833 | M314132694 | M390731605 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 5 Nitrate as N | | | Signal: 1 | | | | | | |
| Error: CorrCoef | | | | | | | | | |
| 32883905 | 35825998 | 39468175 | 45238816 | 46973252 | 47594766 | -4262099 | | | 1.000 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 47351033 | | |
| M6576781 | M17912999 | 39468175 | 180955263 | 375786019 | 475947663 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 7 Orthophosphate as P | | | Signal: 1 | | | | R1 | | |
| 35523675 | 37900272 | 45373745 | 36635892 | 30540313 | 28751956 | 3579559 | | | *0.983 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 30731514 | | |
| 7104735 | 18950136 | 45373745 | 146543567 | 244322507 | 287519560 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Anions-IC13.m

| | | | |
|---|---|---|---|
| Instrument: | WC_IonChrom13 | Lims Location: | 280 |
| Lock State: | Initial Calib Locked | Cpnd Order: | Retention Time |
| Integrator: | Falcon | Last Modified: | 03-Nov-2021 15:45:20 |

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: 0.000-14.917 No. Points: 1561

## Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17400
Inj Date: 01-Nov-2021 17:25:00 Worklist: 106089 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-17550
Inj Date: 01-Nov-2021 17:40:00 Worklist: 106089 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18100
Inj Date: 01-Nov-2021 17:55:00 Worklist: 106089 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18245
Inj Date: 01-Nov-2021 18:10:00 Worklist: 106089 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18395
Inj Date: 01-Nov-2021 18:25:00 Worklist: 106089 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-18545
Inj Date: 01-Nov-2021 18:40:00 Worklist: 106089 Sample#: 7

Start Cal Date: 01-Nov-2021 17:25:00 End Cal Date: 01-Nov-2021 18:40:00

## 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 | | | | | | | | | |
| 27709795 | 28426654 | 33814072 | 54697603 | 58012579 | 55992127 | -9997834 | | | 0.995 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 57230746 | | |
| M5541959 | M14213327 | M33814072 | M218790412 | M464100629 | 559921268 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 2 Chloride | | | Signal: 1 | | | | | | |
| 13171525 | 14573971 | 15886298 | 17723087 | 17585317 | 17613417 | -5761338 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 17657433 | | |
| 13171525 | 36434927 | 79431492 | 1063385204 | 2110238077 | 3522683325 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 4 Bromide | | | Signal: 1 | | | | | | |
| 5399275 | 5482138 | 5704707 | 6489447 | 6975691 | 7226437 | -593473 | | | 0.999 |
| 0.200000(1) | 0.500000(2) | 1.0000 (3) | 4.0000 (4) | 8.0000 (5) | 10.0 (6) | | 7051230 | | |
| M1079855 | M2741069 | 5704707 | 25957786 | 55805529 | 72264372 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |
| 6 Sulfate | | | Signal: 1 | | | | | | |
| Error: raw_COD | | | | | | | | | |
| 9992591 | 10175857 | 11056842 | 13261970 | 13144704 | 13076197 | -5029862 | | | 1.000 |
| 1.0000 (1) | 2.5000 (2) | 5.0000 (3) | 60.0 (4) | 120.0 (5) | 200.0 (6) | | 13151139 | | |
| M9992591 | M25439643 | M55284208 | M795718184 | M1577364444 | M2615239363 | | | | |
| 106089(2) | 106089(3) | 106089(4) | 106089(5) | 106089(6) | 106089(7) | | | | |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-100
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 19-Nov-2021 09:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-001
Misc. Info.: 280-0106653-001
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:16 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:45:49

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.140 | 3.140 | 0.000 | 215303306 | 5.00 | 3.94 | |
| 2 Chloride | 4.365 | 4.365 | 0.000 | 1688338139 | 100.0 | 95.9 | |
| 3 Nitrite as N | 5.062 | 5.062 | 0.000 | 192128947 | NC | NC | |
| 4 Bromide | 6.343 | 6.343 | 0.000 | 32038930 | 5.00 | 4.63 | |
| 5 Nitrate as N | 7.158 | 7.158 | 0.000 | 201693617 | NC | NC | |
| 7 Orthophosphate as P | 8.610 | 8.610 | 0.000 | 118300091 | NC | NC | |
| 6 Sulfate | 9.760 | 9.760 | 0.000 | 1256063915 | 100.0 | 95.9 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

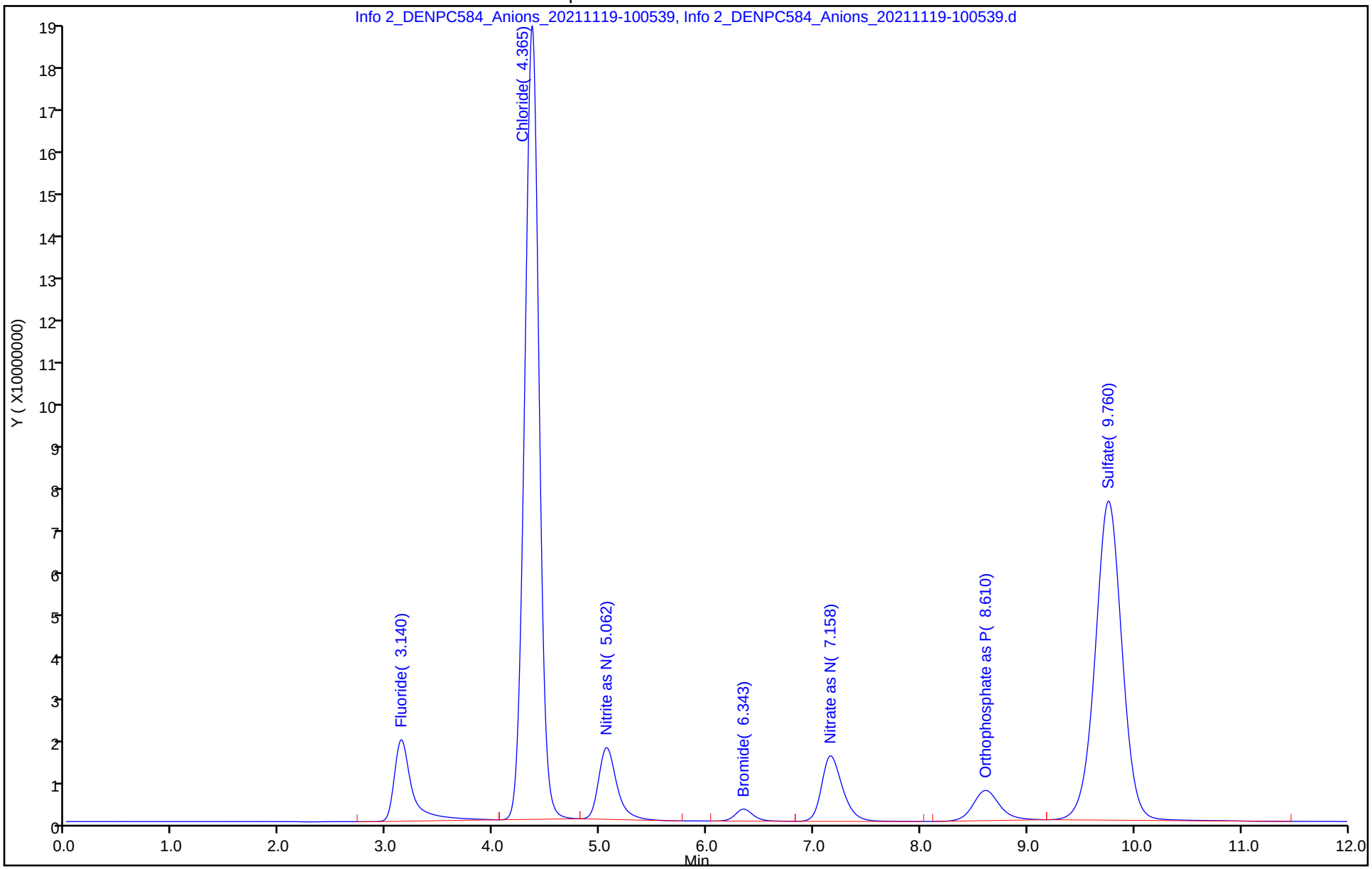
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 19-Nov-2021 16:50:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-100539.d | | | | |
| Injection Date: | 19-Nov-2021 09:50:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-102
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 19-Nov-2021 10:05:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-002
Misc. Info.: 280-0106653-002
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:16 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:46:08

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | |
| 2 Chloride | 4.335 | 4.365 | -0.030 | 113975 | | 0.3327 | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | 6.280 | 6.343 | -0.063 | 283236 | | 0.1243 | |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.695 | 8.610 | 0.085 | 1849849 | | NC | |
| 6 Sulfate | 9.825 | 9.760 | 0.065 | 1373688 | | 0.4869 | M |

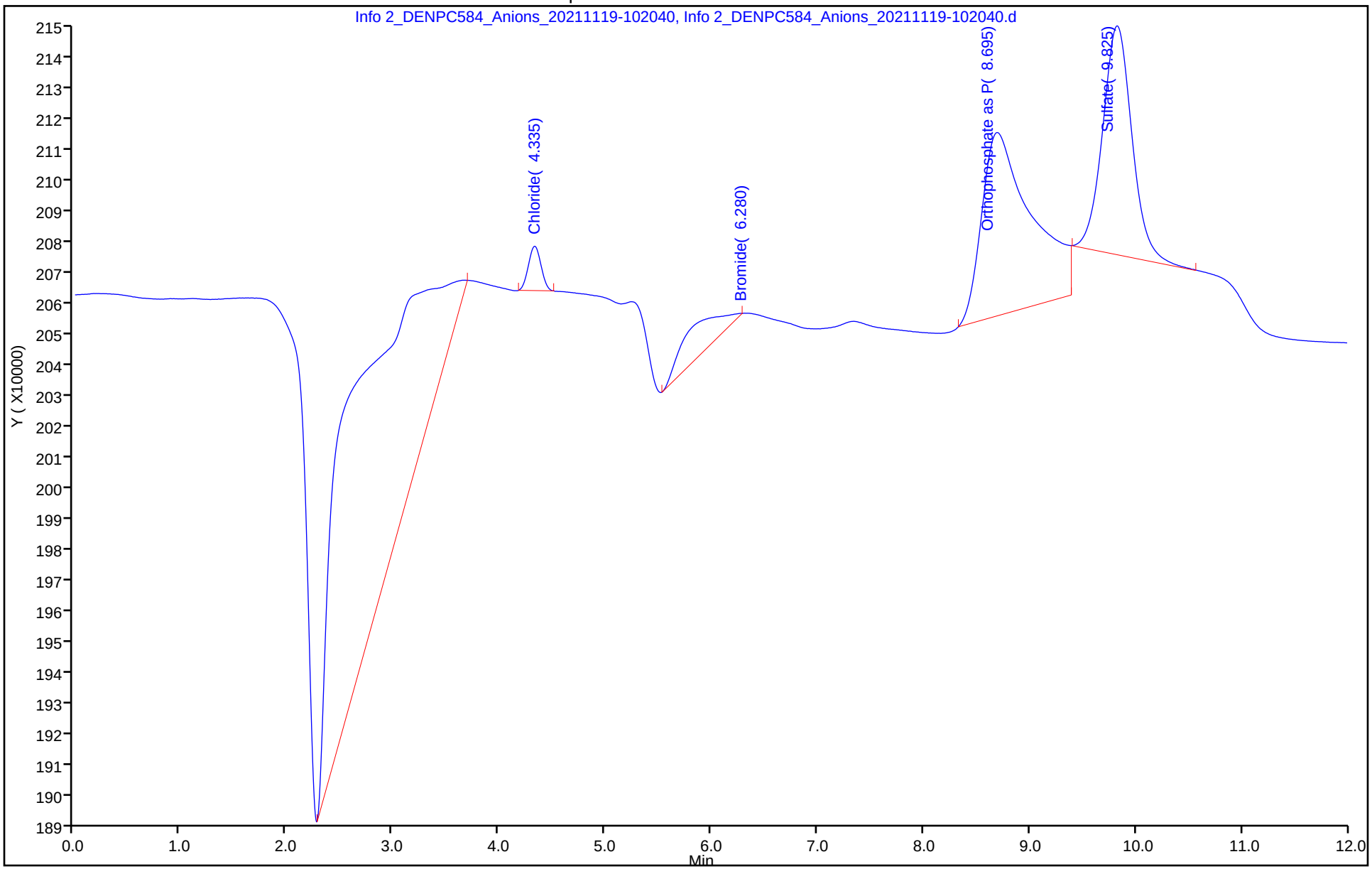
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 19-Nov-2021 16:50:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-102040.d | | | | |
| Injection Date: | 19-Nov-2021 10:05:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

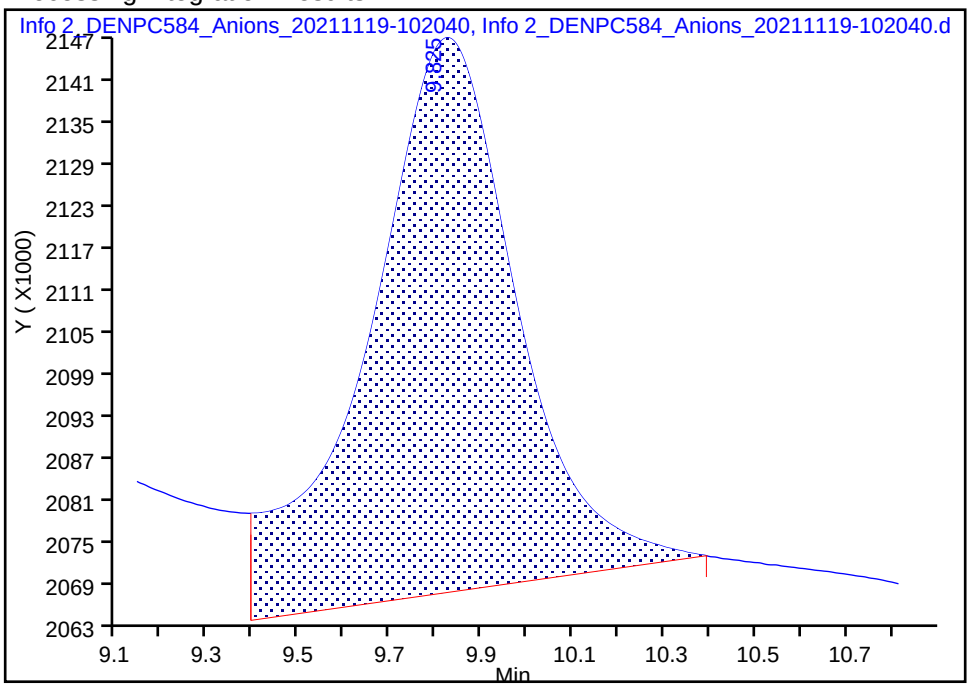
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-102 | | | | |
| Injection Date: | 19-Nov-2021 10:05:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

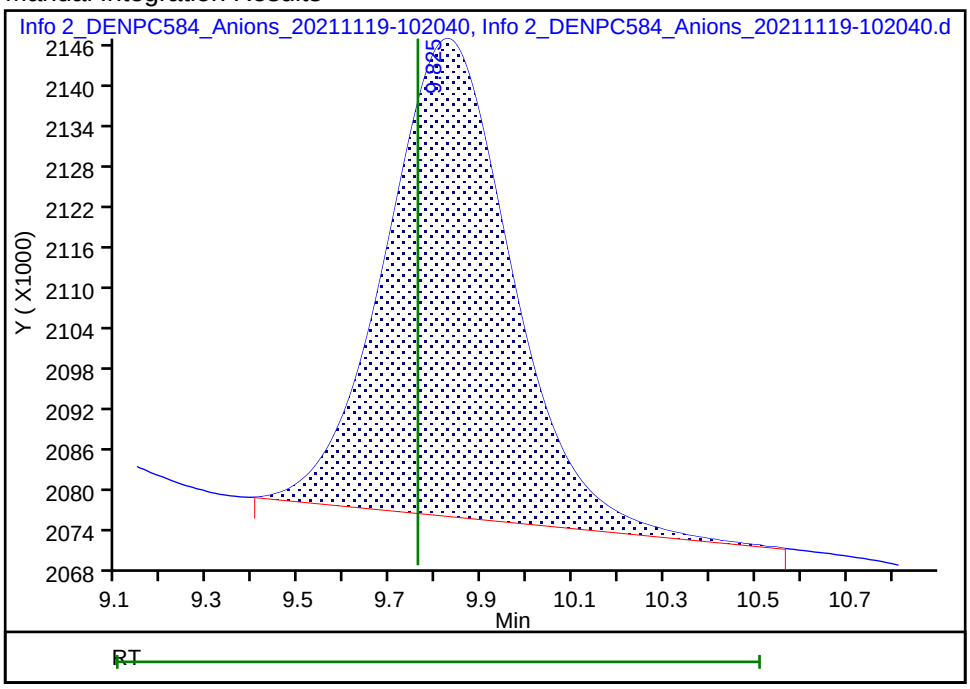
Processing Integration Results

RT: 9.83
Area: 1815128
Amount: 0.520486
Amount Units: ug/ml




Manual Integration Results

RT: 9.83
Area: 1373688
Amount: 0.486920
Amount Units: ug/ml




Reviewer: gonzalezsp, 19-Nov-2021 16:46:04

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-103
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 19-Nov-2021 10:20:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-003
Misc. Info.: 280-0106653-003
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:16 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:46:54

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.132 | 3.140 | -0.008 | 15381345 | 0.5000 | 0.4435 | M |
| 2 Chloride | 4.335 | 4.365 | -0.030 | 35767447 | 5.00 | 2.35 | |
| 3 Nitrite as N | 5.078 | 5.062 | 0.016 | 14595562 | NC | NC | |
| 4 Bromide | 6.363 | 6.343 | 0.020 | 2793594 | 0.5000 | 0.4804 | |
| 5 Nitrate as N | 7.240 | 7.158 | 0.082 | 15813823 | NC | NC | |
| 7 Orthophosphate as P | 8.640 | 8.610 | 0.030 | 14047908 | NC | NC | |
| 6 Sulfate | 9.793 | 9.760 | 0.033 | 28431230 | 5.00 | 2.54 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

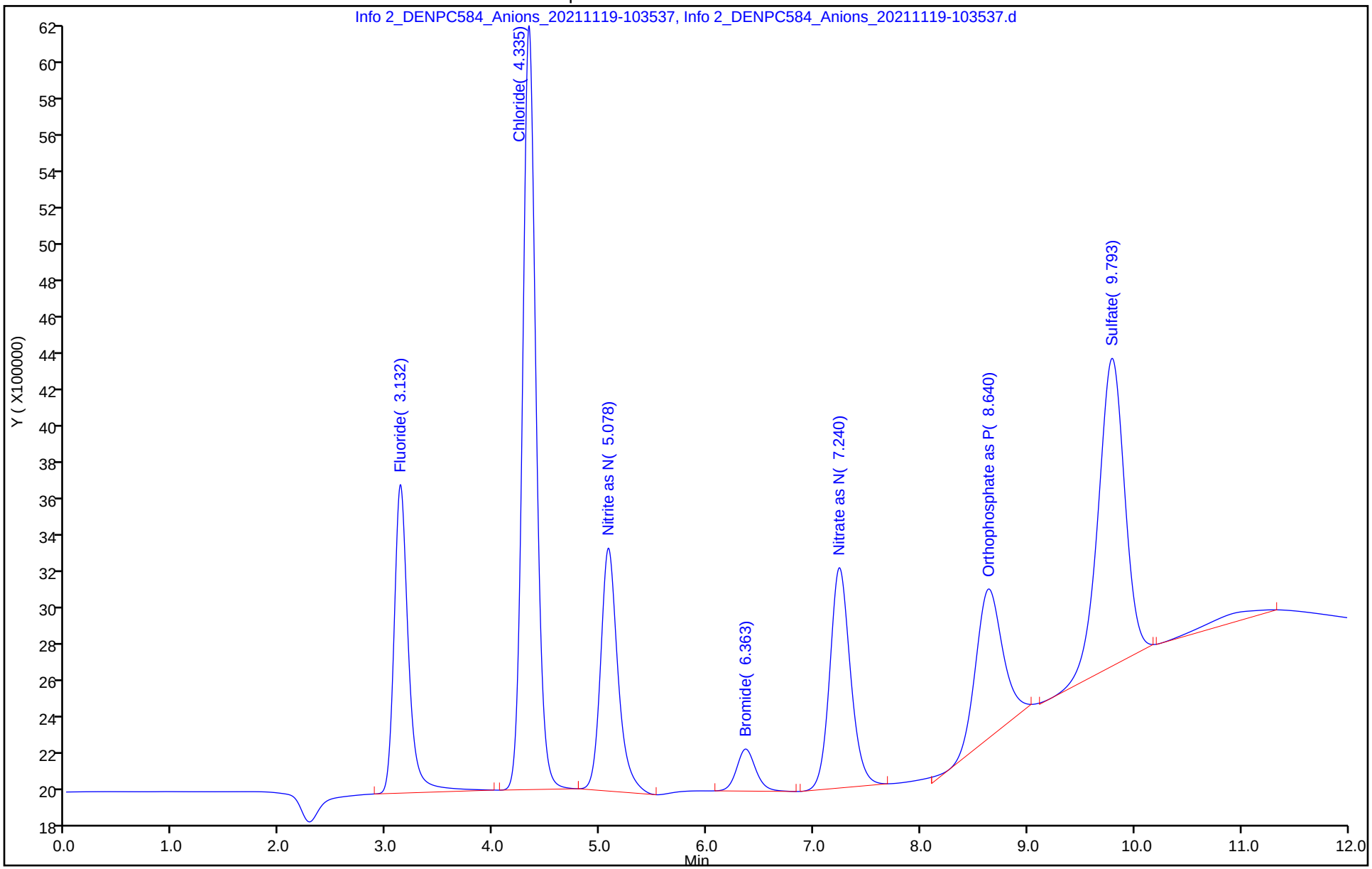
## Reagents:

IC CAL cl/so4_00394 Amount Added: 0.20 Units: mL
IC Cal low_00608 Amount Added: 0.10 Units: mL

Report Date: 19-Nov-2021 16:50:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-103537.d | | | | |
| Injection Date: | 19-Nov-2021 10:20:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-105
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Nov-2021 10:35:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-004
Misc. Info.: 280-0106653-004
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:16 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:47:09

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.145 | 3.140 | 0.005 | 186480448 | 5.00 | 3.43 | |
| 2 Chloride | 4.365 | 4.365 | 0.000 | 1718945803 | 100.0 | 97.7 | |
| 3 Nitrite as N | 5.055 | 5.062 | -0.007 | 190153753 | NC | NC | |
| 4 Bromide | 6.323 | 6.343 | -0.020 | 33747397 | 5.00 | 4.87 | |
| 5 Nitrate as N | 7.128 | 7.158 | -0.030 | 207310527 | NC | NC | |
| 7 Orthophosphate as P | 8.607 | 8.610 | -0.003 | 118071792 | NC | NC | |
| 6 Sulfate | 9.755 | 9.760 | -0.005 | 1275652847 | 100.0 | 97.4 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

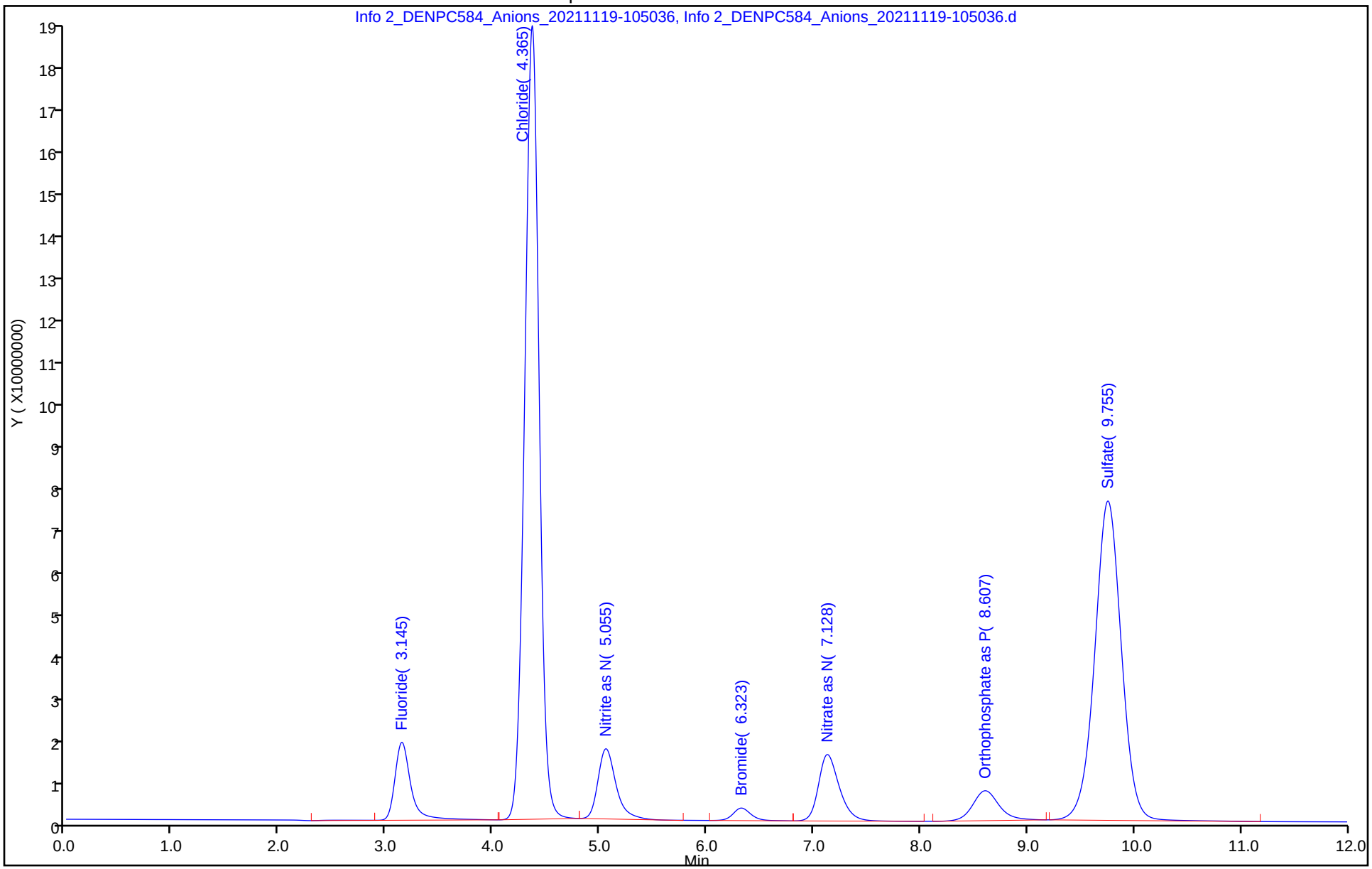
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 19-Nov-2021 16:50:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-105036.d | | | | |
| Injection Date: | 19-Nov-2021 10:35:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

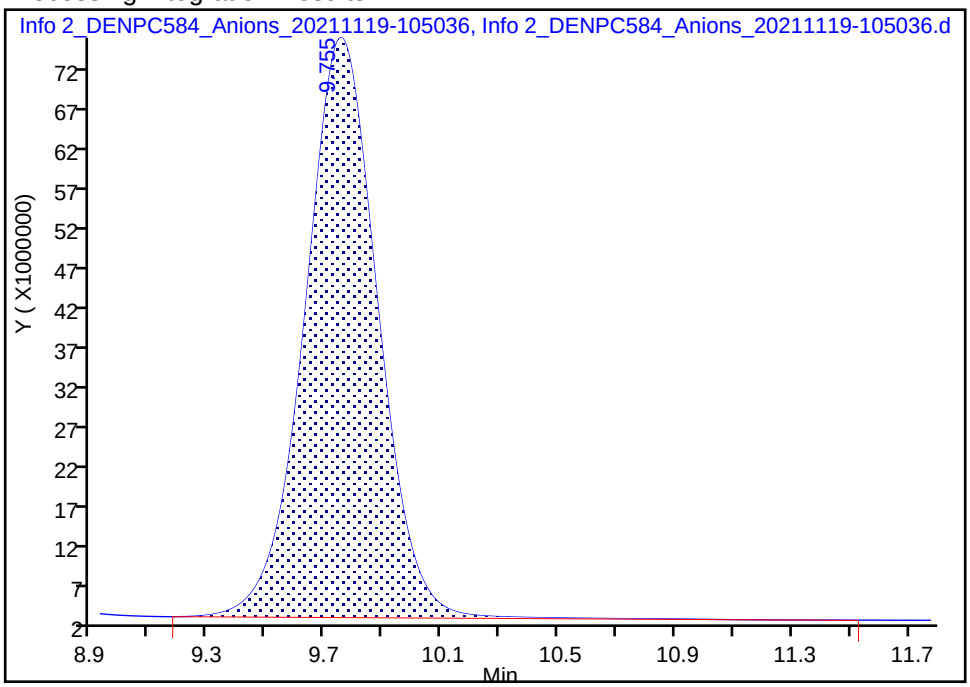
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-105 | | | | |
| Injection Date: | 19-Nov-2021 10:35:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | LCS | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

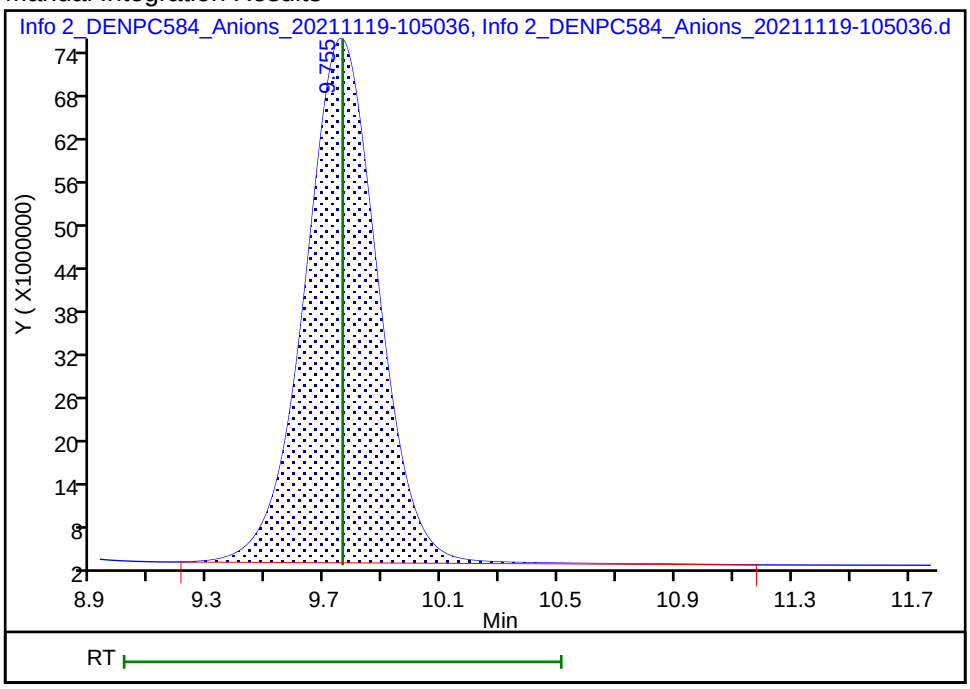
Processing Integration Results

RT: 9.76
Area: 1276081396
Amount: 97.414470
Amount Units: ug/ml




Manual Integration Results

RT: 9.76
Area: 1275652847
Amount: 97.381883
Amount Units: ug/ml




Reviewer: gonzalezsp, 19-Nov-2021 16:47:04

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-110
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 19-Nov-2021 10:50:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-005
Misc. Info.: 280-0106653-005
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:16 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:47:20

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.143 | 3.140 | 0.003 | 205880144 | 5.00 | 3.77 | |
| 2 Chloride | 4.360 | 4.365 | -0.005 | 1724408120 | 100.0 | 98.0 | |
| 3 Nitrite as N | 5.048 | 5.062 | -0.014 | 189340808 | NC | NC | |
| 4 Bromide | 6.317 | 6.343 | -0.026 | 32485029 | 5.00 | 4.69 | |
| 5 Nitrate as N | 7.120 | 7.158 | -0.038 | 205494736 | NC | NC | |
| 7 Orthophosphate as P | 8.607 | 8.610 | -0.003 | 118538784 | NC | NC | |
| 6 Sulfate | 9.755 | 9.760 | -0.005 | 1283610923 | 100.0 | 98.0 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

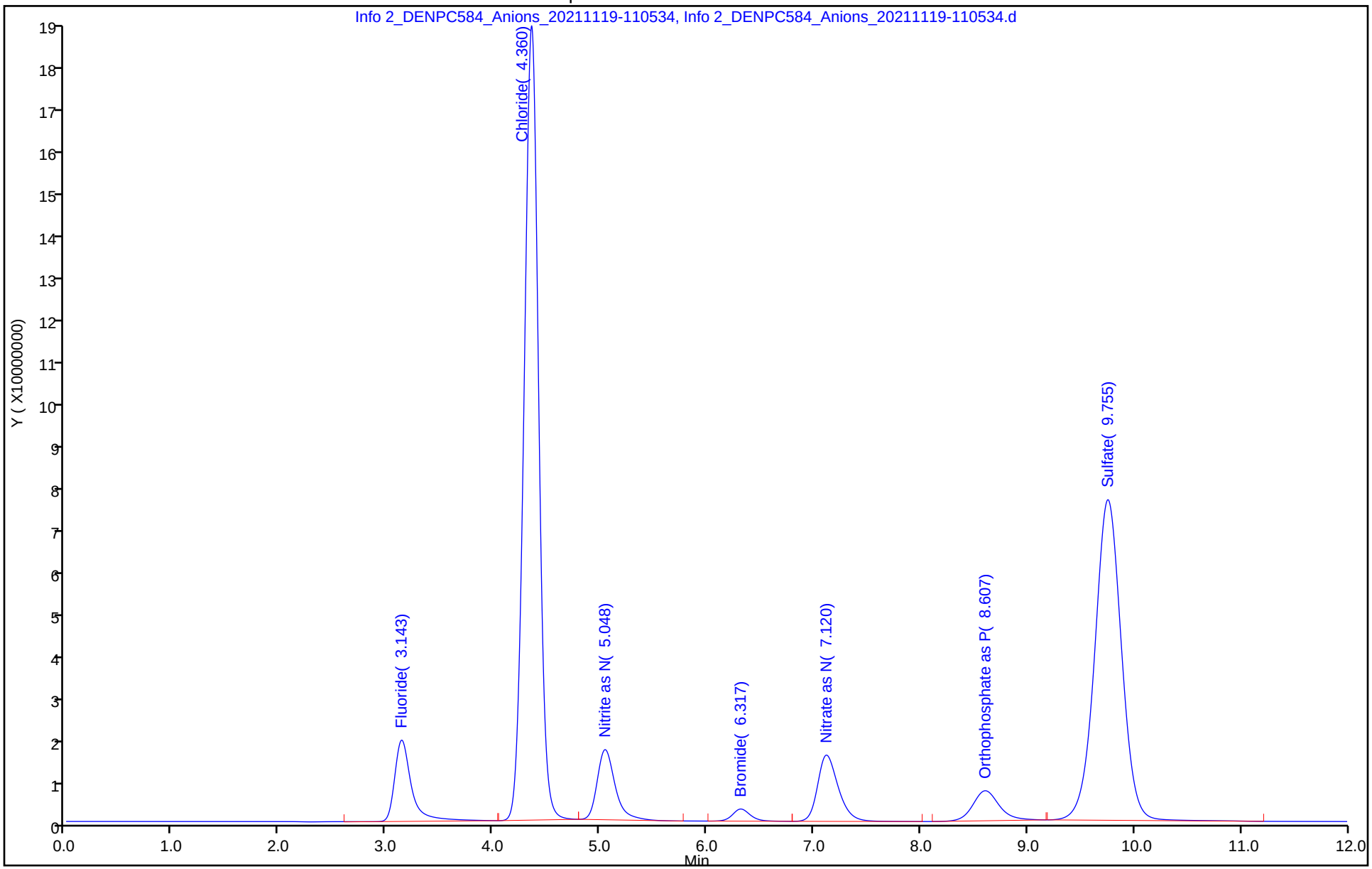
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 19-Nov-2021 16:50:19 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-110534.d | | | | |
| Injection Date: | 19-Nov-2021 10:50:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

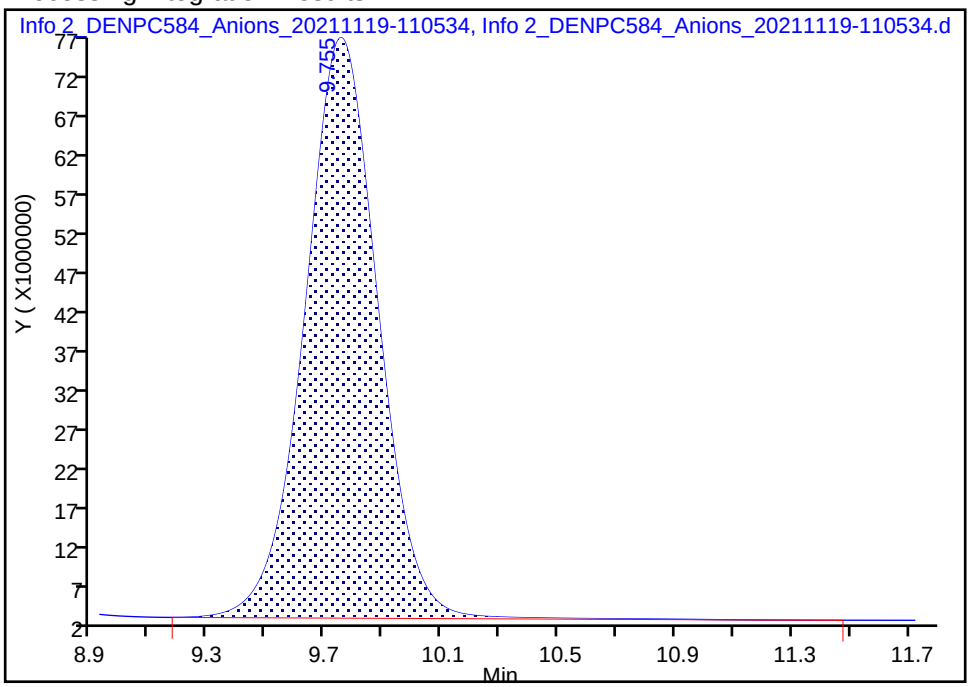
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-110 | | | | |
| Injection Date: | 19-Nov-2021 10:50:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | LCSD | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

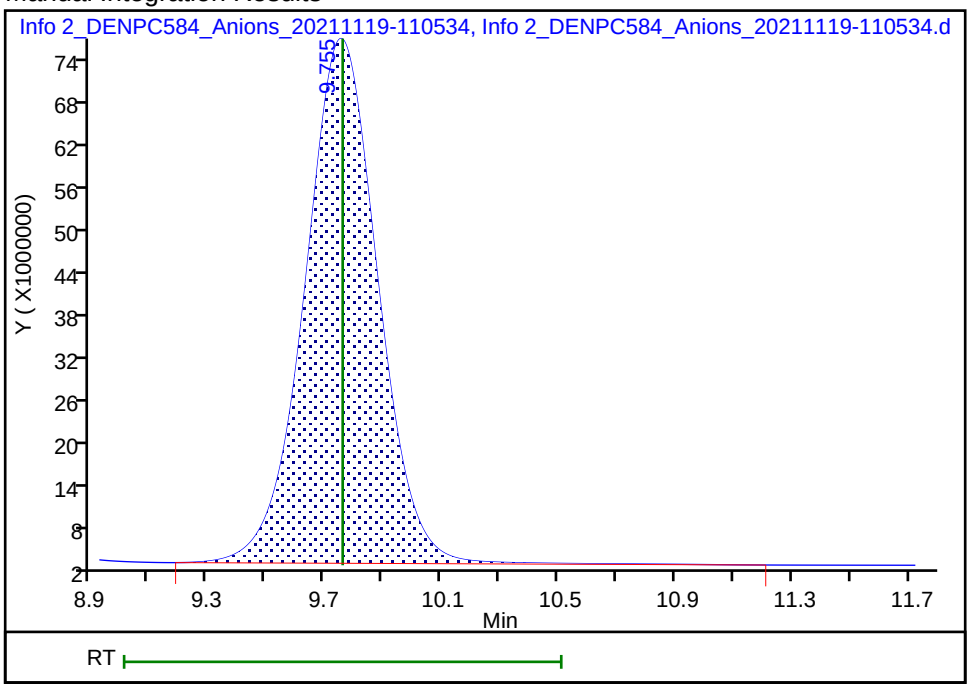
Processing Integration Results

| | |
|---|---|
| RT: | 9.76 |
| Area: | 1283927584 |
| Amount: | 98.011086 |
| Amount Units: | ug/ml |




Manual Integration Results

| | |
|---|---|
| RT: | 9.76 |
| Area: | 1283610923 |
| Amount: | 97.987008 |
| Amount Units: | ug/ml |




Reviewer: gonzalezsp, 19-Nov-2021 16:47:17

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-112
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-Nov-2021 11:05:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-006
Misc. Info.: 280-0106653-006
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:19 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

First Level Reviewer: gonzalezsp Date: 19-Nov-2021 16:47:27

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | U |
| 2 Chloride | | 4.365 | | | | ND | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | 6.012 | 6.012 | 0.000 | 157117 | | 0.1064 | |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.682 | 8.682 | 0.000 | 5420351 | | NC | |
| 6 Sulfate | 9.828 | 9.828 | 0.000 | 1371821 | | 0.4868 | |

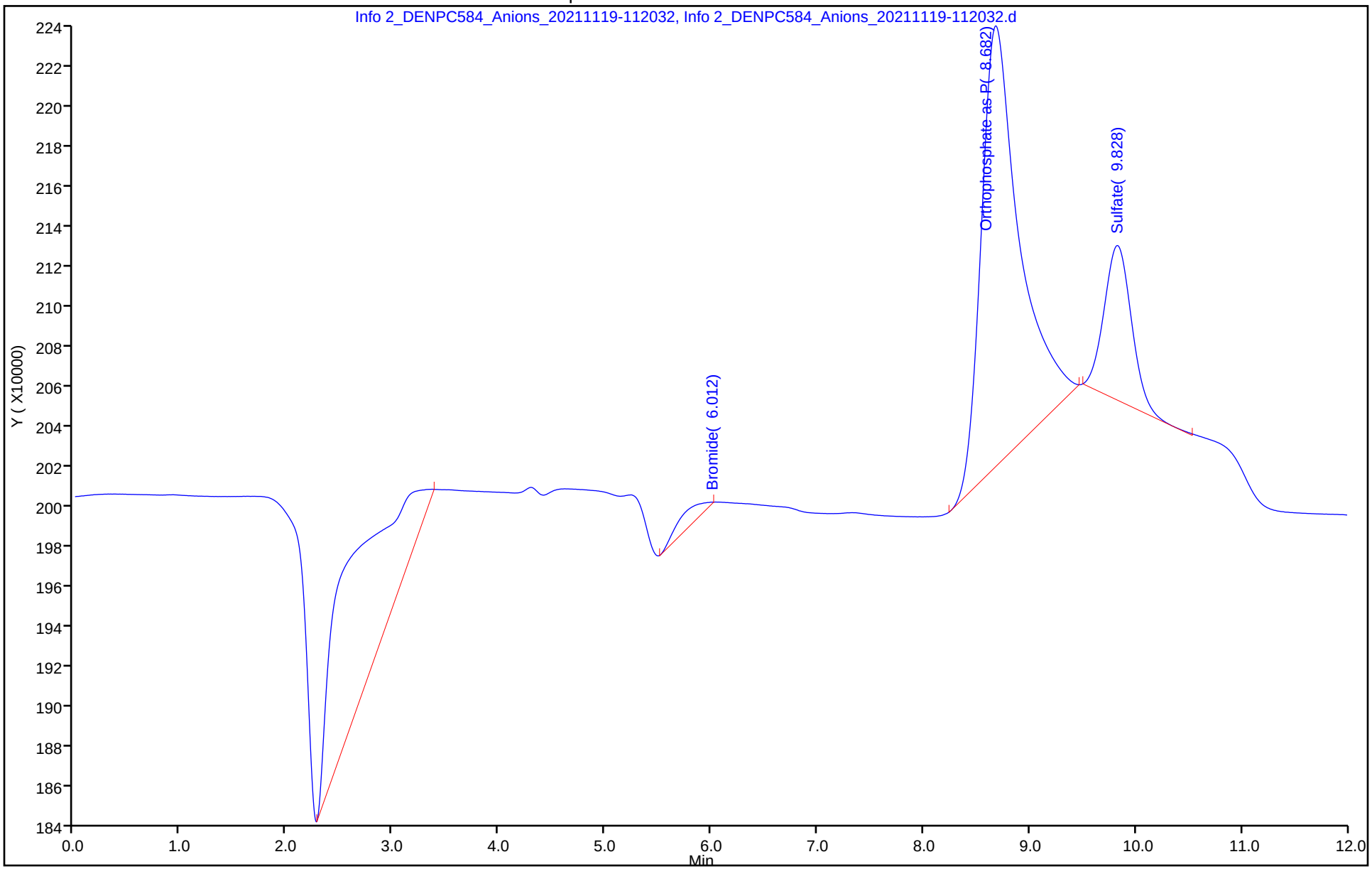
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 19-Nov-2021 16:50:19 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-112032.d | | | | |
| Injection Date: | 19-Nov-2021 11:05:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-140
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-Nov-2021 13:50:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-017
Misc. Info.: 280-0106653-017
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:23 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.140 | 3.140 | 0.000 | 192478791 | 5.00 | 3.54 | |
| 2 Chloride | 4.358 | 4.365 | -0.007 | 1739931391 | 100.0 | 98.9 | |
| 3 Nitrite as N | 5.047 | 5.062 | -0.015 | 192419303 | NC | NC | |
| 4 Bromide | 6.317 | 6.012 | 0.305 | 32305164 | 5.00 | 4.67 | |
| 5 Nitrate as N | 7.120 | 7.158 | -0.038 | 207151057 | NC | NC | |
| 7 Orthophosphate as P | 8.598 | 8.682 | -0.084 | 117204692 | NC | NC | |
| 6 Sulfate | 9.747 | 9.828 | -0.081 | 1293988658 | 100.0 | 98.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

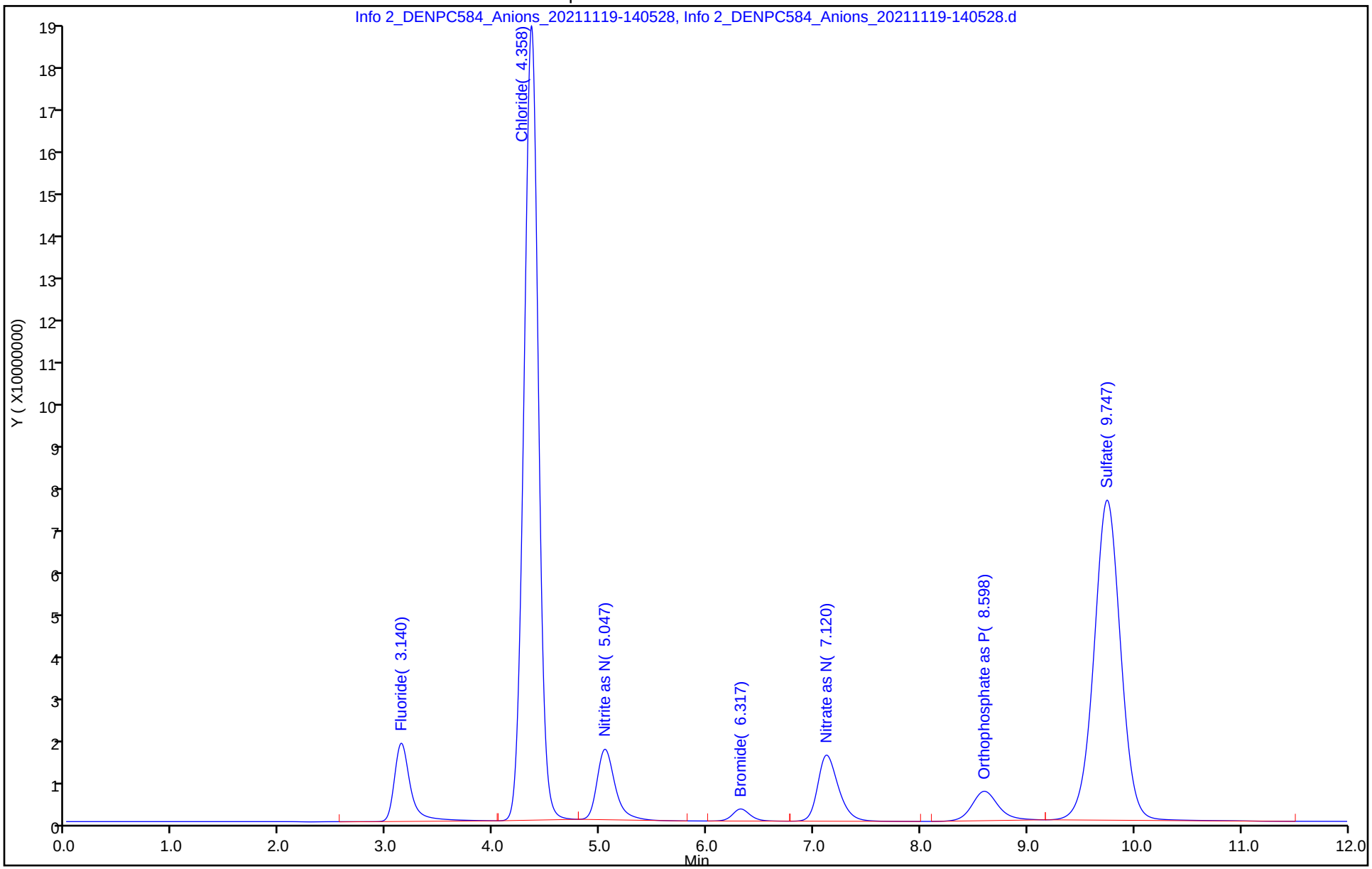
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 19-Nov-2021 16:50:23 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-140528.d | | | | |
| Injection Date: | 19-Nov-2021 13:50:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-142 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 19-Nov-2021 14:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106653-018 | | | | |
| Misc. Info.: | 280-0106653-018 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 19-Nov-2021 16:50:23 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1621 | | | | |
| First Level Reviewer: gonzalezsp | | Date: | 19-Nov-2021 16:49:10 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | U |
| 2 Chloride | 4.335 | 4.365 | -0.030 | 83894 | | 0.3310 | Ma |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | | 6.012 | | | | ND | U |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.693 | 8.682 | 0.011 | 5713805 | | NC | |
| 6 Sulfate | 9.825 | 9.828 | -0.003 | 2091796 | | 0.5415 | M |

## QC Flag Legend

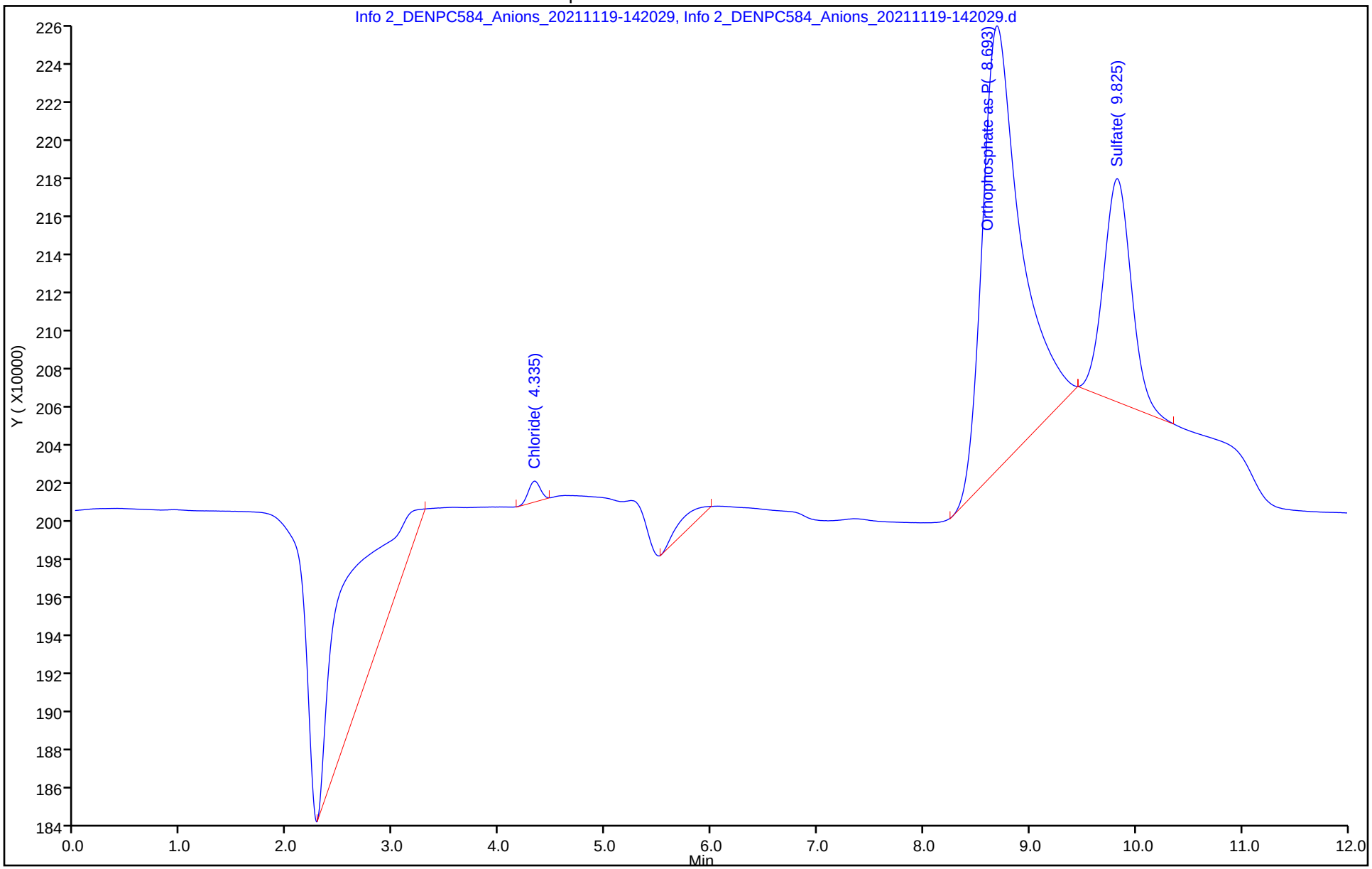
Processing Flags
- NC - Not Calibrated

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Report Date: 19-Nov-2021 16:50:24 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-142029.d | | | | |
| Injection Date: | 19-Nov-2021 14:05:00 | Instrument ID: | WC_IonChrom13 | 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-IC13 | Limit Group: | Wet - Anions 28D | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

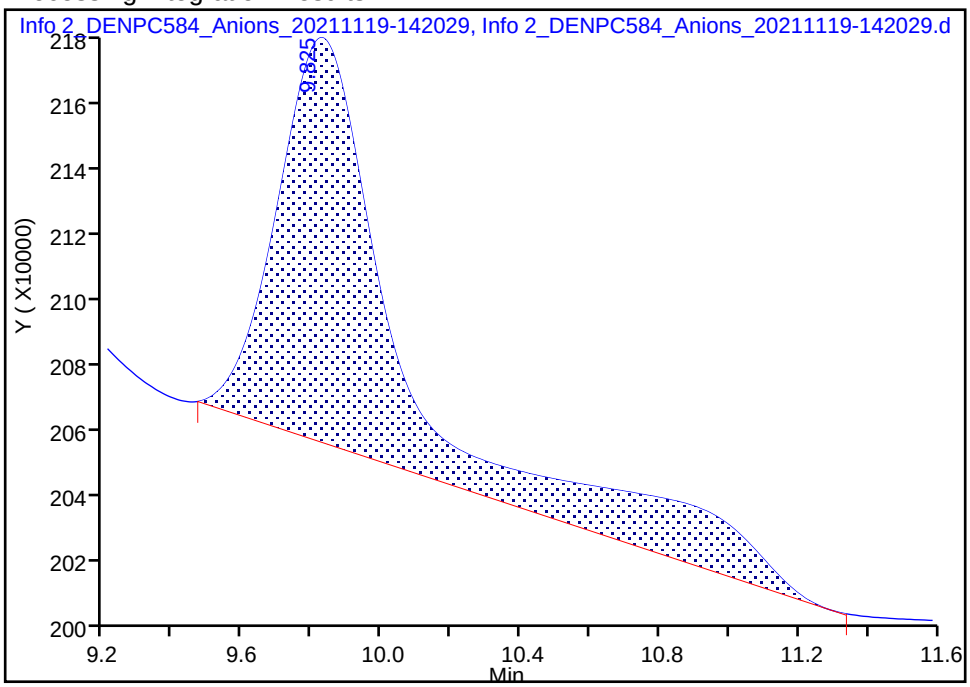
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-142 | | | | |
| Injection Date: | 19-Nov-2021 14:05:00 | Instrument ID: | WC_IonChrom13 | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Operator ID: | wetchemd | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

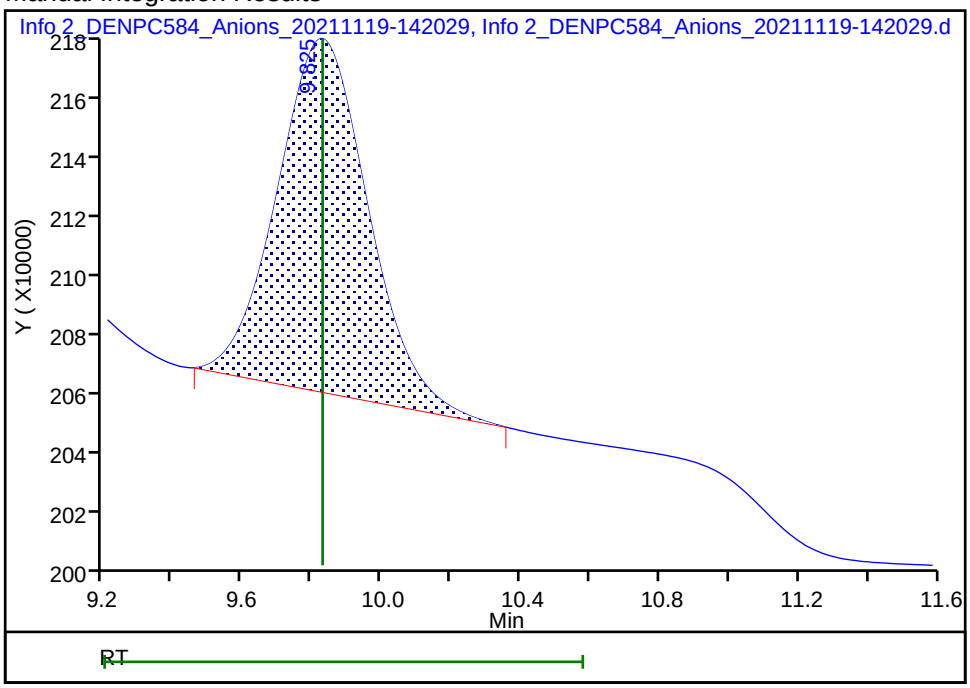
Processing Integration Results

RT: 9.83
Area: 3006137
Amount: 0.611050
Amount Units: ug/ml




Manual Integration Results

RT: 9.83
Area: 2091796
Amount: 0.541524
Amount Units: ug/ml




Reviewer: gonzalezsp, 19-Nov-2021 16:49:03

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-160
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-Nov-2021 15:50:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-025
Misc. Info.: 280-0106653-025
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 19-Nov-2021 16:50:26 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1621

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.137 | 3.140 | -0.003 | 168520754 | 5.00 | 3.12 | |
| 2 Chloride | 4.360 | 4.365 | -0.005 | 1737617134 | 100.0 | 98.7 | |
| 3 Nitrite as N | 5.052 | 5.062 | -0.010 | 194443915 | NC | NC | |
| 4 Bromide | 6.318 | 6.012 | 0.306 | 32520268 | 5.00 | 4.70 | |
| 5 Nitrate as N | 7.128 | 7.158 | -0.030 | 206412209 | NC | NC | |
| 7 Orthophosphate as P | 8.587 | 8.682 | -0.095 | 115259420 | NC | NC | |
| 6 Sulfate | 9.737 | 9.828 | -0.091 | 1289532245 | 100.0 | 98.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

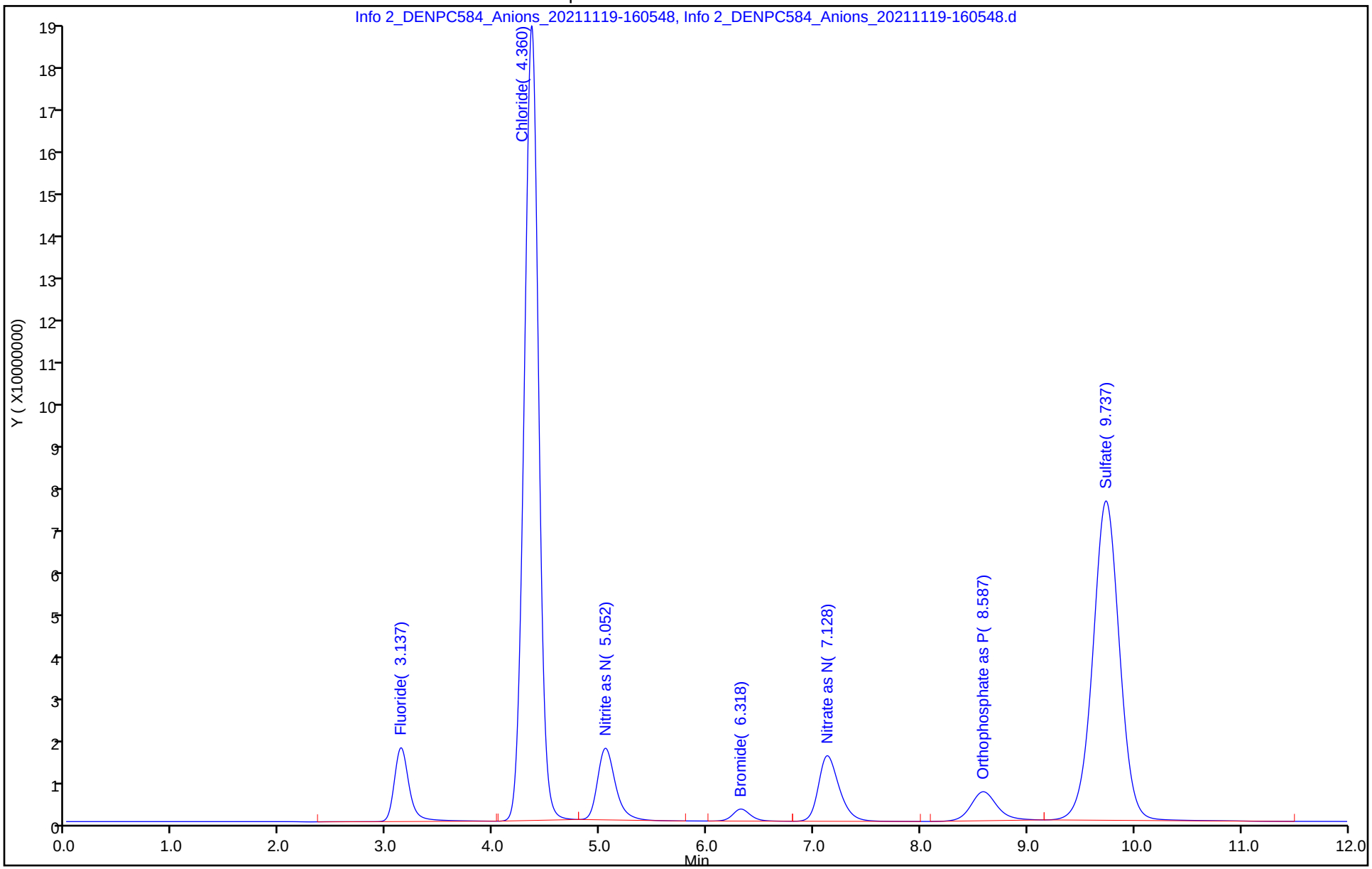
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 19-Nov-2021 16:50:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-160548.d | | | | |
| Injection Date: | 19-Nov-2021 15:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-162 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 19-Nov-2021 16:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106653-026 | | | | |
| Misc. Info.: | 280-0106653-026 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 19-Nov-2021 16:50:26 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1621 | | | | |
| First Level Reviewer: gonzalezsp | | Date: | 19-Nov-2021 16:50:11 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | U |
| 2 Chloride | | 4.365 | | | | ND | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | | 6.012 | | | | ND | U |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.687 | 8.682 | 0.005 | 5196826 | | NC | |
| 6 Sulfate | 9.823 | 9.828 | -0.005 | 1507501 | | 0.4971 | |

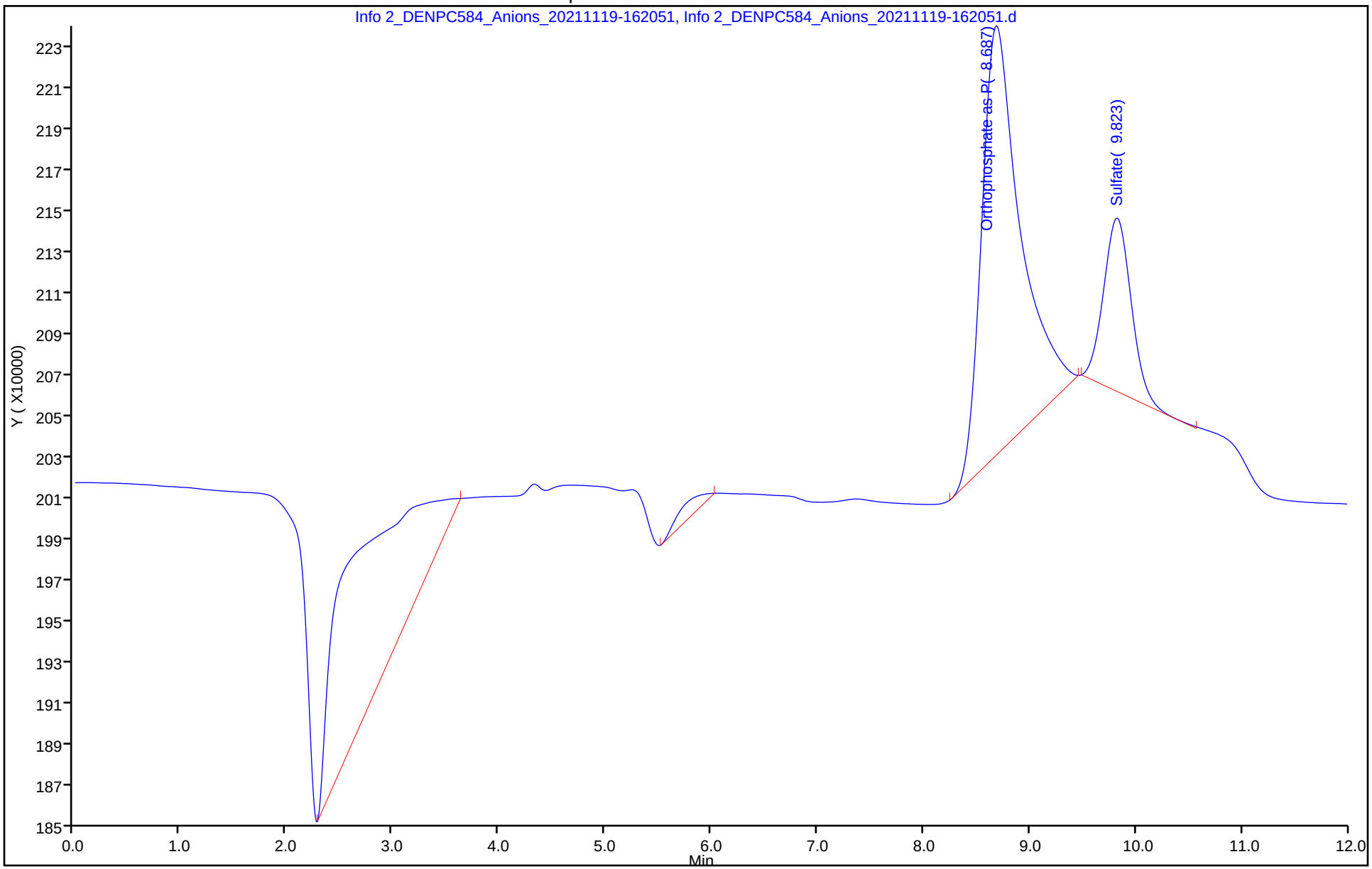
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 19-Nov-2021 16:50:26 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-162051.d | | | | |
| Injection Date: | 19-Nov-2021 16:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-190
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-Nov-2021 18:51:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-038
Misc. Info.: 280-0106653-038
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 22-Nov-2021 17:03:46 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1607

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.150 | 3.140 | 0.010 | 169633063 | 5.00 | 3.14 | |
| 2 Chloride | 4.377 | 4.365 | 0.012 | 1743042243 | 100.0 | 99.0 | |
| 3 Nitrite as N | 5.067 | 5.062 | 0.005 | 192789348 | NC | NC | |
| 4 Bromide | 6.335 | 6.012 | 0.323 | 33360501 | 5.00 | 4.82 | |
| 5 Nitrate as N | 7.143 | 7.158 | -0.015 | 208756559 | NC | NC | |
| 7 Orthophosphate as P | 8.622 | 8.682 | -0.060 | 108611189 | NC | NC | |
| 6 Sulfate | 9.762 | 9.828 | -0.066 | 1282934499 | 100.0 | 97.9 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

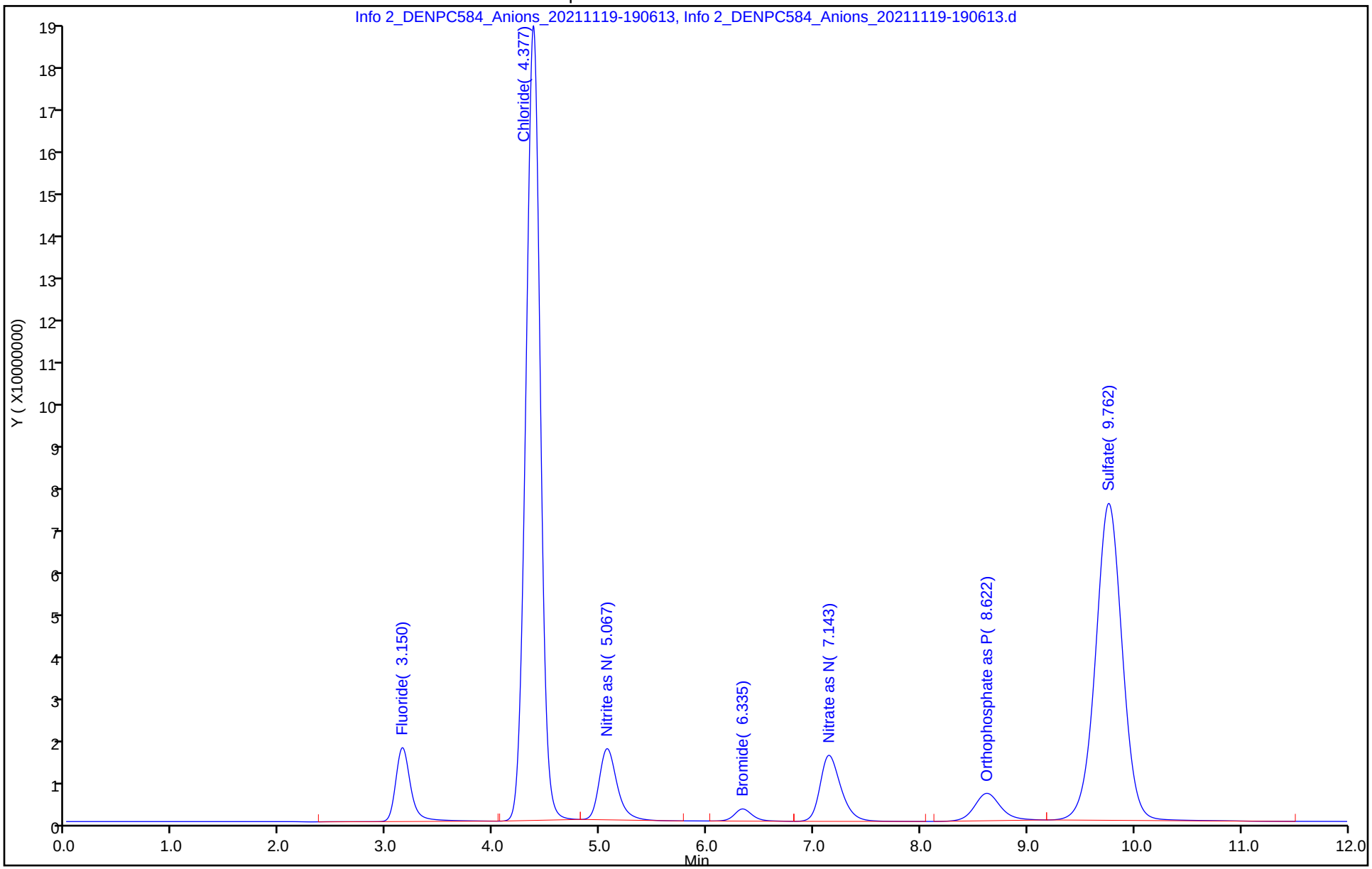
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 22-Nov-2021 17:03:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-190613.d | | | | |
| Injection Date: | 19-Nov-2021 18:51:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 38 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-192 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 19-Nov-2021 19:06:00 | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106653-039 | | | | |
| Misc. Info.: | 280-0106653-039 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 22-Nov-2021 17:03:46 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1607 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | |
| 2 Chloride | | 4.365 | | | | ND | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | 6.038 | 6.012 | 0.026 | 175485 | | 0.1091 | |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.720 | 8.682 | 0.038 | 5590688 | | NC | |
| 6 Sulfate | 9.852 | 9.828 | 0.024 | 2466890 | | 0.5700 | |

## QC Flag Legend

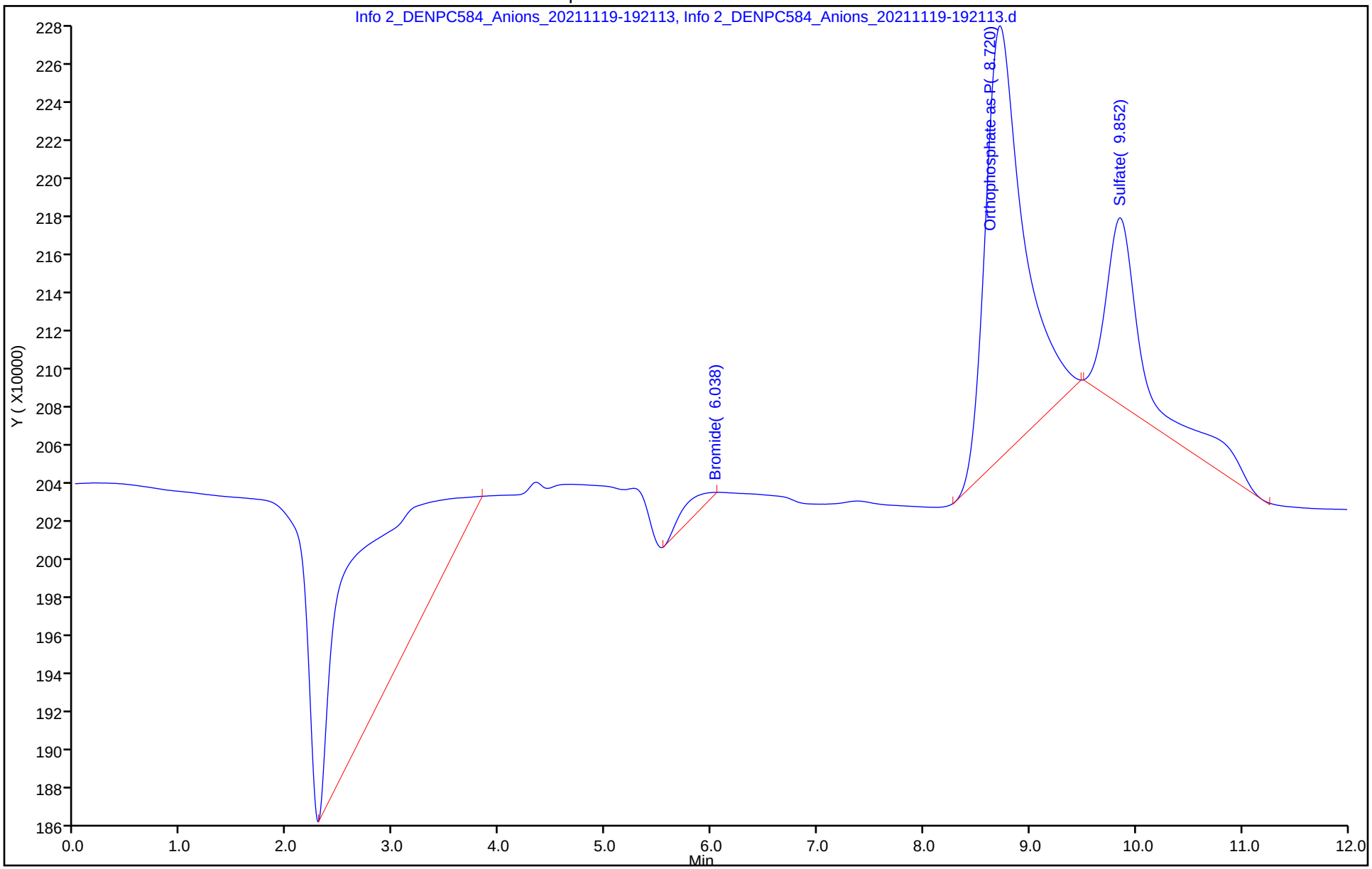
Processing Flags

NC - Not Calibrated

Report Date: 22-Nov-2021 17:03:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-192113.d | | | | |
| Injection Date: | 19-Nov-2021 19:06:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 39 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-220
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-Nov-2021 21:50:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-050
Misc. Info.: 280-0106653-050
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 22-Nov-2021 17:03:50 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1607

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.162 | 3.140 | 0.022 | 169702924 | 5.00 | 3.14 | |
| 2 Chloride | 4.380 | 4.365 | 0.015 | 1744168596 | 100.0 | 99.1 | |
| 3 Nitrite as N | 5.063 | 5.062 | 0.001 | 193537626 | NC | NC | |
| 4 Bromide | 6.313 | 6.012 | 0.301 | 33105431 | 5.00 | 4.78 | |
| 5 Nitrate as N | 7.112 | 7.158 | -0.046 | 208507904 | NC | NC | |
| 7 Orthophosphate as P | 8.647 | 8.682 | -0.035 | 109999476 | NC | NC | |
| 6 Sulfate | 9.792 | 9.828 | -0.036 | 1284286245 | 100.0 | 98.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

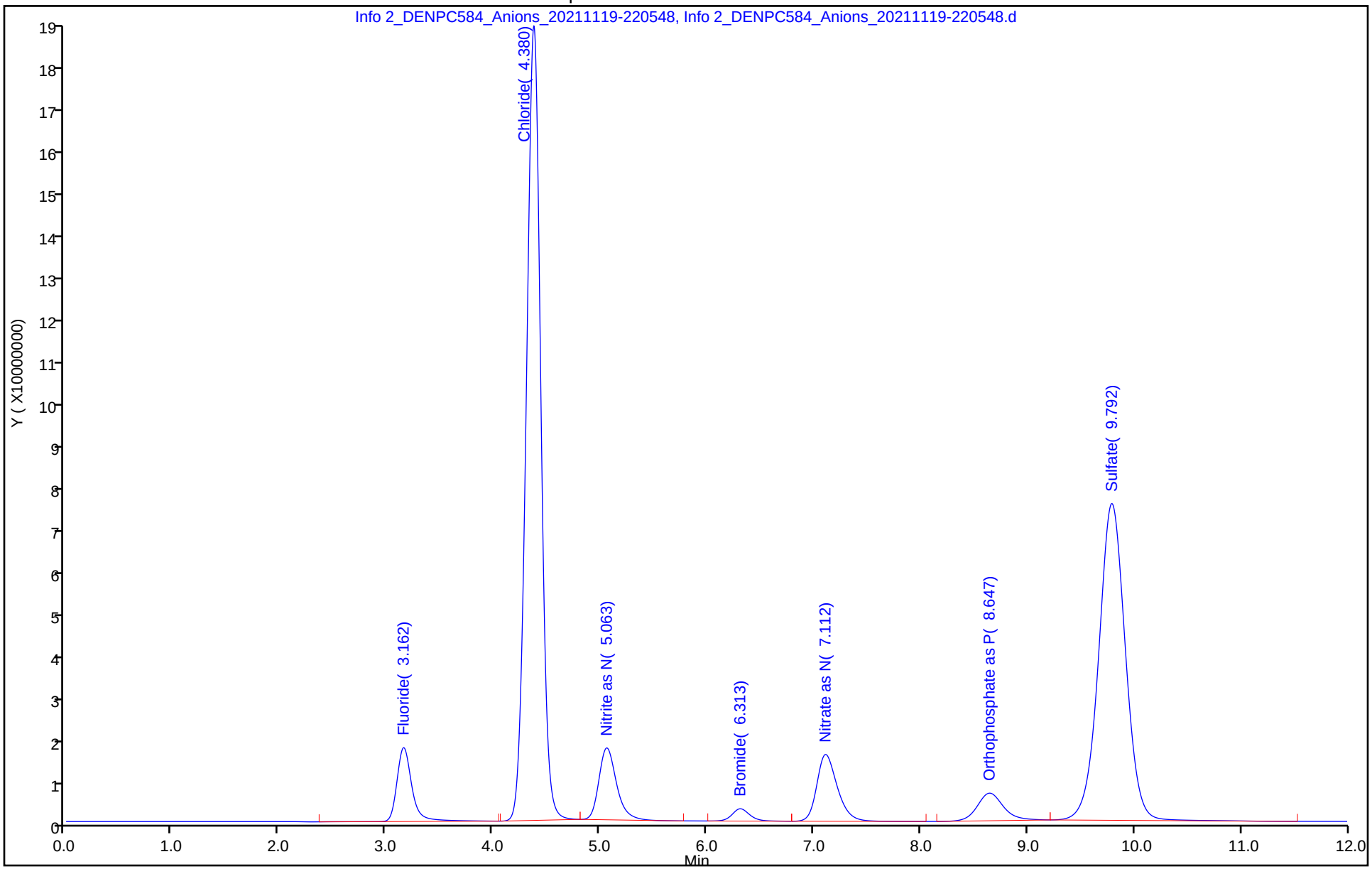
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 22-Nov-2021 17:03:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-220548.d | | | | |
| Injection Date: | 19-Nov-2021 21:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-222 | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 19-Nov-2021 22:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 51 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106653-051 | | | | |
| Misc. Info.: | 280-0106653-051 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 22-Nov-2021 17:03:50 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1607 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | |
| 2 Chloride | | 4.365 | | | | ND | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | 6.072 | 6.012 | 0.060 | 241903 | | 0.1185 | |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.745 | 8.682 | 0.063 | 5601514 | | NC | |
| 6 Sulfate | 9.870 | 9.828 | 0.042 | 3310058 | | 0.6342 | |

## QC Flag Legend

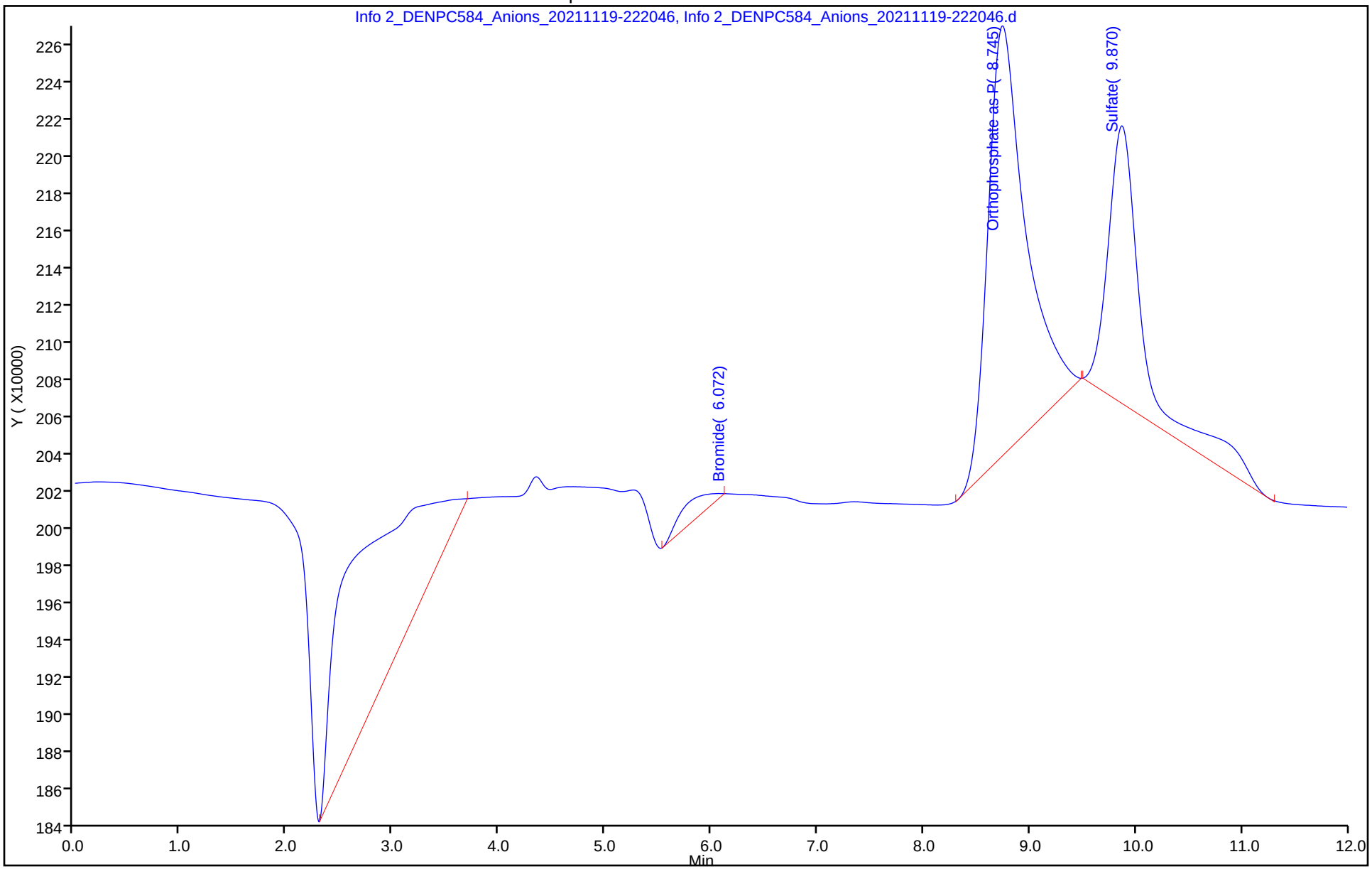
Processing Flags

NC - Not Calibrated

Report Date: 22-Nov-2021 17:03:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-222046.d | | | | |
| Injection Date: | 19-Nov-2021 22:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 51 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-223 | | | | |
| Lims ID: | 280-154948-F-1 | | | | |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 19-Nov-2021 22:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 52 |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0106653-052 | | | | |
| Misc. Info.: | 280-0106653-052 | | | | |
| Operator ID: | wetchemd | Instrument ID: | WC_IonChrom13 | | |
| Method: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 22-Nov-2021 17:03:50 | Calib Date: | 01-Nov-2021 18:40:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185 | | | | |
| Column 1 : | | | Det: 0005 | | |
| Process Host: | CTX1607 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 3.147 | 3.140 | 0.007 | 8976470 | 0.3315 | |
| 2 Chloride | 4.397 | 4.365 | 0.032 | 408869474 | 23.5 | |
| 3 Nitrite as N | 5.557 | 5.062 | 0.495 | 473755 | NC | |
| 4 Bromide | 5.937 | 6.012 | -0.075 | 135833 | 0.1034 | |
| 5 Nitrate as N | 7.063 | 7.158 | -0.095 | 948301599 | NC | |
| 7 Orthophosphate as P | 8.775 | 8.682 | 0.093 | 939488 | NC | |
| 6 Sulfate | 9.808 | 9.828 | -0.020 | 1480118789 | 112.9 | |

## QC Flag Legend

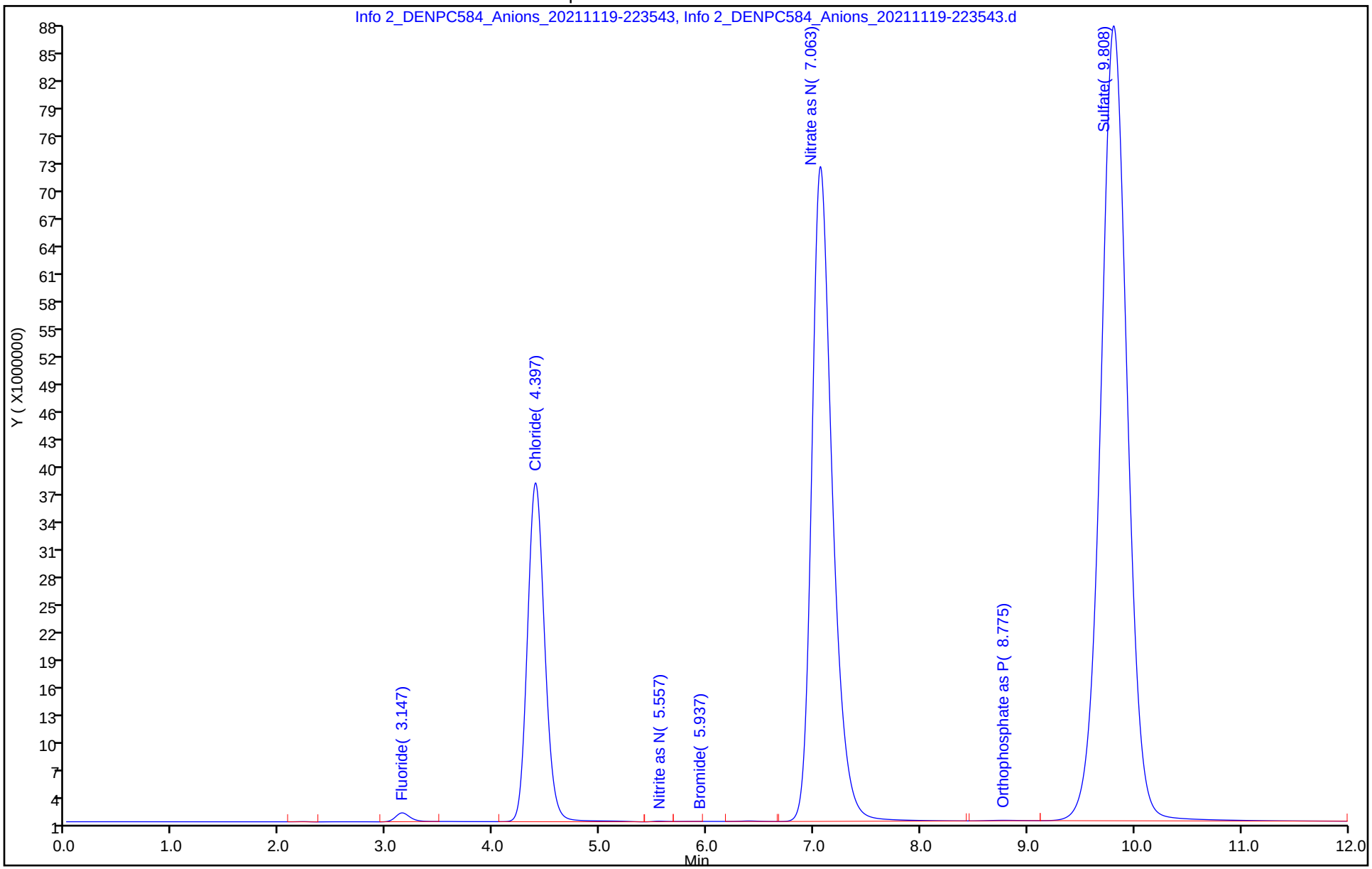
Processing Flags

NC - Not Calibrated

Report Date: 22-Nov-2021 17:03:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211119-223543.d | | | | |
| Injection Date: | 19-Nov-2021 22:20:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | 280-154948-F-1 | Lab Sample ID: | 280-154948-1 | Worklist Smp#: | 52 |
| Client ID: | EW7-PM21A-7-25 | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211120-010
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-Nov-2021 00:50:00 ALS Bottle#: 0 Worklist Smp#: 62
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-062
Misc. Info.: 280-0106653-062
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 22-Nov-2021 17:03:54 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1607

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 3.163 | 3.140 | 0.023 | 163274081 | 5.00 | 3.03 | |
| 2 Chloride | 4.387 | 4.365 | 0.022 | 1747251099 | 100.0 | 99.3 | |
| 3 Nitrite as N | 5.073 | 5.062 | 0.011 | 193985356 | NC | NC | |
| 4 Bromide | 6.323 | 6.012 | 0.311 | 32834267 | 5.00 | 4.74 | |
| 5 Nitrate as N | 7.127 | 7.158 | -0.031 | 207711255 | NC | NC | |
| 7 Orthophosphate as P | 8.648 | 8.682 | -0.034 | 108427769 | NC | NC | |
| 6 Sulfate | 9.797 | 9.828 | -0.031 | 1285833825 | 100.0 | 98.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

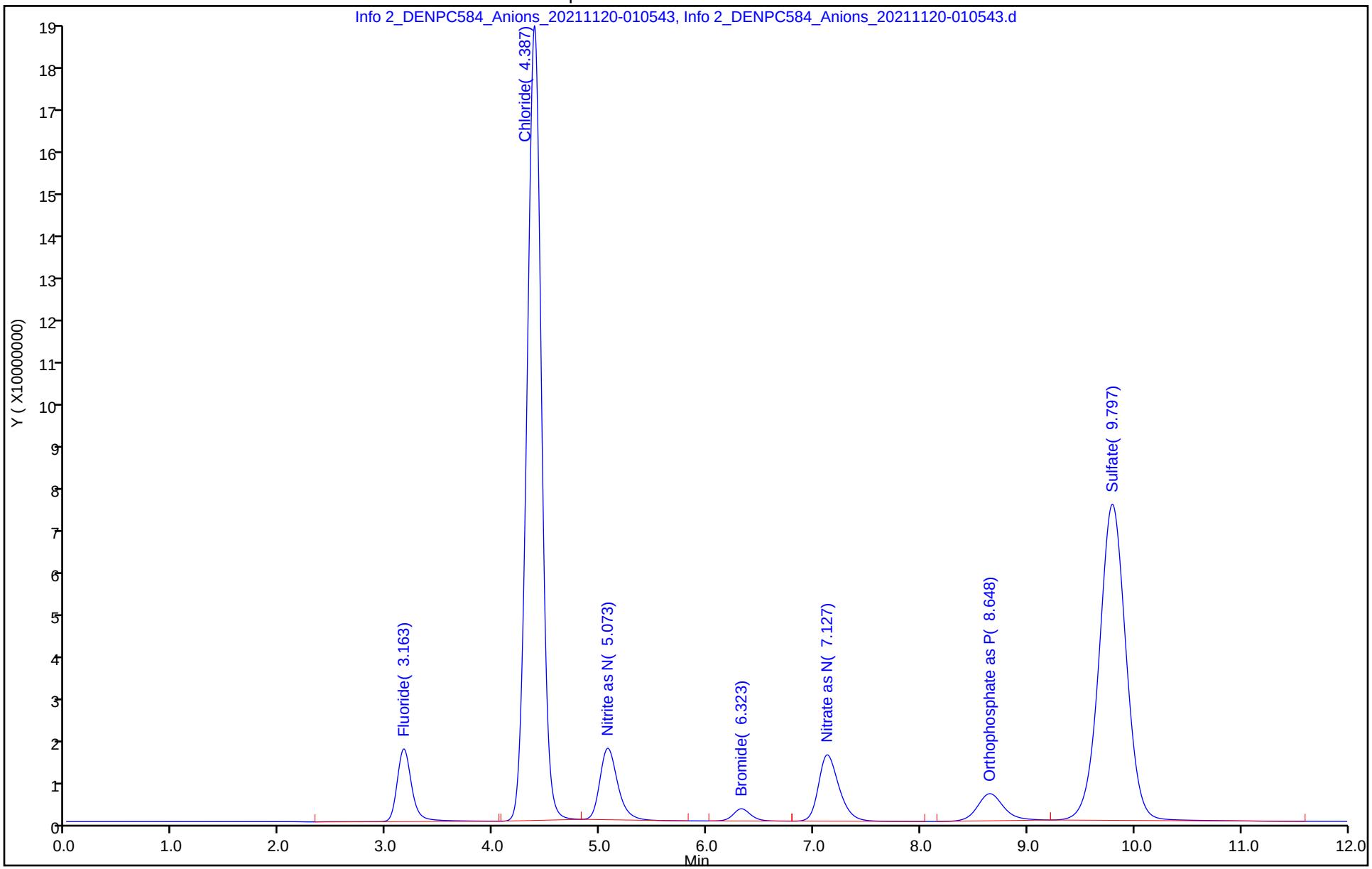
## Reagents:

IC LCS_01845 Amount Added: 10.00 Units: mL

Report Date: 22-Nov-2021 17:03:54 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211120-010543.d | | | | |
| Injection Date: | 20-Nov-2021 00:50:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccv | | | Worklist Smp#: | 62 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211120-012
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 20-Nov-2021 01:05:00 ALS Bottle#: 0 Worklist Smp#: 63
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0106653-063
Misc. Info.: 280-0106653-063
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 22-Nov-2021 17:03:54 Calib Date: 01-Nov-2021 18:40:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20211101-106089.b\Info 2_DENPC584_Anions_20211101-185

Column 1 : Det: 0005
Process Host: CTX1607

First Level Reviewer: jindaratc Date: 22-Nov-2021 17:00:40

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 3.140 | | | | ND | U |
| 2 Chloride | | 4.365 | | | | ND | |
| 3 Nitrite as N | | 5.062 | | | | ND | |
| 4 Bromide | 5.972 | 6.012 | -0.040 | 122788 | | 0.1016 | |
| 5 Nitrate as N | | 7.158 | | | | ND | |
| 7 Orthophosphate as P | 8.743 | 8.682 | 0.061 | 3566898 | | NC | |
| 6 Sulfate | 9.882 | 9.828 | 0.054 | 1479331 | | 0.4950 | |

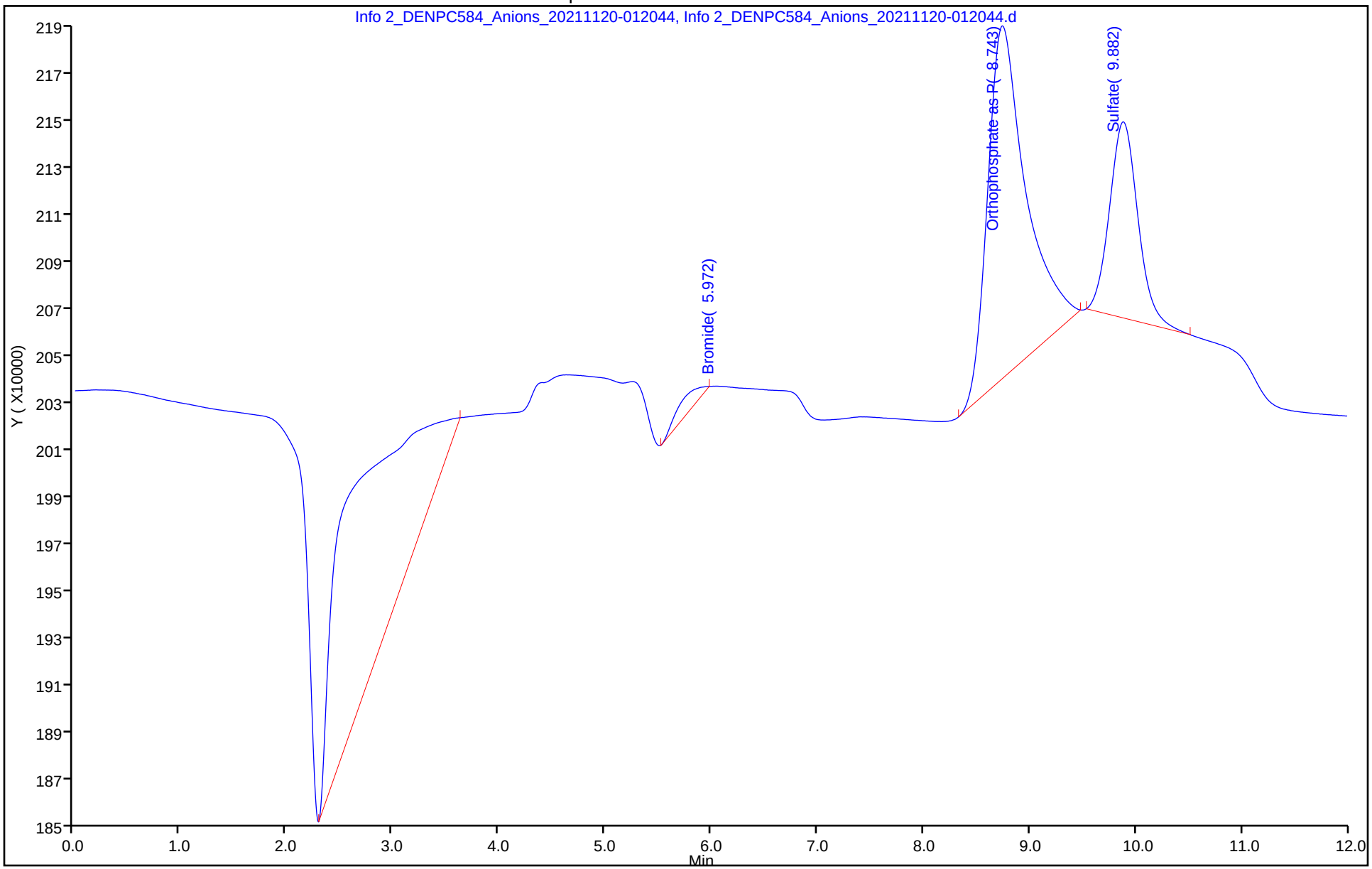
## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 22-Nov-2021 17:03:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\WC_IonChrom13\20211119-106653.b\Info 2_DENPC584_Anions_20211120-012044.d | | | | |
| Injection Date: | 20-Nov-2021 01:05:00 | Instrument ID: | WC_IonChrom13 | Operator ID: | wetchemd |
| Lims ID: | ccb | | | Worklist Smp#: | 63 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | Anions-IC13 | Limit Group: | Wet - Anions 28D | | |



| | Type | Analysis | Sample Name | Sa | Origin | Manual Dilution | Result | Notes | C | Status |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Unknow | NPOC | ICV | | NPOC.met | 1.000 | NPOC:19.08mg/L | | | Completed |
| 2 | Unknow | NPOC | ICB | | NPOC.met | 1.000 | NPOC:0.09116mg/L | | | Completed |
| 3 | Unknow | NPOC | LCS | | NPOC.met | 1.000 | NPOC:24.27mg/L | | | Completed |
| 4 | Unknow | NPOC | MB | | NPOC.met | 1.000 | NPOC:0.1018mg/L | | | Completed |
| 5 | Unknow | NPOC | TIC | | NPOC.met | 1.000 | NPOC:0.1447mg/L | | | Completed |
| 6 | Unknow | NPOC | 280-154997-b-1 | | NPOC.met | 1.000 | NPOC:0.4452mg/L | | | Completed |
| 7 | Unknow | NPOC | MS 280-154997-b-1 | | NPOC.met | 1.000 | NPOC:25.40mg/L | | | Completed |
| 8 | Unknow | NPOC | MSD 280-154997-b-1 | | NPOC.met | 1.000 | NPOC:25.40mg/L | | | Completed |
| 9 | Unknow | NPOC | 280-154997-b-2 | | NPOC.met | 1.000 | NPOC:0.4207mg/L | | | Completed |
| 10 | Unknow | NPOC | 280-154997-b-3 | | NPOC.met | 1.000 | NPOC:0.3945mg/L | | | Completed |
| 11 | Unknow | NPOC | 280-154997-b-4 | | NPOC.met | 1.000 | NPOC:0.4508mg/L | | | Completed |
| 12 | Unknow | NPOC | 280-154997-c-5 | | NPOC.met | 1.000 | NPOC:0.4157mg/L | | | Completed |
| 13 | Unknow | NPOC | 280-154937-a-13 | | NPOC.met | 2.000 | NPOC:59.24mg/L | | | Completed |
| 14 | Unknow | NPOC | 280-155002-c-2 | | NPOC.met | 10.00 | NPOC:127.5mg/L | | | Completed |
| 15 | Unknow | NPOC | CCV | | NPOC.met | 1.000 | NPOC:24.30mg/L | | | Completed |
| 16 | Unknow | NPOC | CCB | | NPOC.met | 1.000 | NPOC:0.09718mg/L | | | Completed |
| 17 | Unknow | NPOC | 280-155002-c-3 | | NPOC.met | 20.00 | NPOC:358.2mg/L | | | Completed |
| 18 | Unknow | NPOC | 280-155002-c-4 | | NPOC.met | 20.00 | NPOC:382.3mg/L | | | Completed |
| 19 | Unknow | NPOC | 280-154996-e-1 | | NPOC.met | 1.000 | NPOC:43.11mg/L | | | Completed |
| 20 | Unknow | NPOC | 580-106856-f-1 | | NPOC.met | 1.000 | NPOC:2.407mg/L | | | Completed |
| 21 | Unknow | NPOC | MS 580-106856-f-1 | | NPOC.met | 1.000 | NPOC:26.74mg/L | | | Completed |
| 22 | Unknow | NPOC | MSD 580-106856-f-1 | | NPOC.met | 1.000 | NPOC:26.81mg/L | | | Completed |
| 23 | Unknow | NPOC | 580-106856-f-2 | | NPOC.met | 1.000 | NPOC:3.579mg/L | | | Completed |
| 24 | Unknow | NPOC | 580-106856-f-3 | | NPOC.met | 1.000 | NPOC:2.775mg/L | | | Completed |
| 25 | Unknow | NPOC | 580-106856-f-4 | | NPOC.met | 1.000 | NPOC:2.560mg/L | | | Completed |
| 26 | Unknow | NPOC | 580-106856-f-5 | | NPOC.met | 1.000 | NPOC:4.759mg/L | | | Completed |
| 27 | Unknow | NPOC | CCV | | NPOC.met | 1.000 | NPOC:24.71mg/L | | | Completed |
| 28 | Unknow | NPOC | CCB | | NPOC.met | 1.000 | NPOC:0.1221mg/L | | | Completed |
| 29 | Unknow | NPOC | 580-106856-f-6 | | NPOC.met | 1.000 | NPOC:1.513mg/L | | | Completed |
| 30 | Unknow | NPOC | 580-106856-f-7 | | NPOC.met | 1.000 | NPOC:1.979mg/L | | | Completed |
| 31 | Unknow | NPOC | 580-106856-f-8 | | NPOC.met | 1.000 | NPOC:1.893mg/L | | | Completed |
| 32 | Unknow | NPOC | 580-106856-f-9 | | NPOC.met | 1.000 | NPOC:1.955mg/L | | | Completed |
| 33 | Unknow | NPOC | 580-106856-f-10 | | NPOC.met | 1.000 | NPOC:3.990mg/L | | | Completed |
| 34 | Unknow | NPOC | lcs 280-556007/1-a | | NPOC.met | 1.000 | NPOC:24.61mg/L | | | Completed |
| 35 | Unknow | NPOC | mb 280-556007/2-a | | NPOC.met | 1.000 | NPOC:0.2214mg/L | | | Completed |
| 36 | Unknow | NPOC | 280-154948-d-1-a | | NPOC.met | 1.000 | NPOC:5.016mg/L | | | Completed |
| 37 | Unknow | NPOC | 280-154948-d-1-b ms | | NPOC.met | 1.000 | NPOC:30.09mg/L | | | Completed |
| 38 | Unknow | NPOC | 280-154948-d-1-c msd | | NPOC.met | 1.000 | NPOC:30.21mg/L | | | Completed |
| 39 | Unknow | NPOC | CCV | | NPOC.met | 1.000 | NPOC:25.10mg/L | | | Completed |
| 40 | Unknow | NPOC | CCB | | NPOC.met | 1.000 | NPOC:0.1234mg/L | | | Completed |
| 41 | Unknow | NPOC | 280-155015-d-1-a | | NPOC.met | 1.000 | NPOC:31.64mg/L | | | Completed |
| 42 | Unknow | NPOC | 280-155015-d-2-a | | NPOC.met | 1.000 | NPOC:11.88mg/L | | | Completed |
| 43 | Unknow | NPOC | 280-155015-d-3-a | | NPOC.met | 1.000 | NPOC:13.15mg/L | | | Completed |
| 44 | Unknow | NPOC | 280-155015-d-4-a | | NPOC.met | 1.000 | NPOC:6.444mg/L | | | Completed |
| 45 | Unknow | NPOC | 280-155015-d-5-a | | NPOC.met | 1.000 | NPOC:17.53mg/L | | | Completed |
| 46 | Unknow | NPOC | 280-155015-d-6-a | | NPOC.met | 1.000 | NPOC:9.671mg/L | | | Completed |
| 47 | Unknow | NPOC | 280-155015-d-7-a | | NPOC.met | 1.000 | NPOC:7.555mg/L | | | Completed |
| 48 | Unknow | NPOC | 280-155015-d-8-a | | NPOC.met | 1.000 | NPOC:14.13mg/L | | | Completed |
| 49 | Unknow | NPOC | 280-155015-d-9-a | | NPOC.met | 1.000 | NPOC:4.048mg/L | | | Completed |
| 50 | Unknow | NPOC | 280-155015-d-10-a | | NPOC.met | 1.000 | NPOC:8.412mg/L | | | Completed |
| 51 | Unknow | NPOC | CCV | | NPOC.met | 1.000 | NPOC:24.74mg/L | | | Completed |
| 52 | Unknow | NPOC | CCB | | NPOC.met | 1.000 | NPOC:0.1301mg/L | | | Completed |
| 53 | Unknow | NPOC | 280-155015-d-10-b ms | | NPOC.met | 1.000 | NPOC:34.17mg/L | | | Completed |

| | A | Date / Time | Vial |
|---|---|---|---|
| 1 | | 11/3/2021 4:03:40 PM | 1 |
| 2 | | 11/3/2021 4:18:31 PM | 2 |
| 3 | | 11/3/2021 4:33:23 PM | 3 |
| 4 | | 11/3/2021 4:48:14 PM | 4 |
| 5 | | 11/3/2021 5:03:05 PM | 5 |
| 6 | | 11/3/2021 5:17:56 PM | 6 |
| 7 | | 11/3/2021 5:32:47 PM | 7 |
| 8 | | 11/3/2021 5:47:38 PM | 8 |
| 9 | | 11/3/2021 6:02:29 PM | 9 |
| 10 | | 11/3/2021 6:17:20 PM | 10 |
| 11 | | 11/3/2021 6:34:16 PM | 11 |
| 12 | | 11/3/2021 6:51:11 PM | 12 |
| 13 | | 11/3/2021 7:06:01 PM | 13 |
| 14 | | 11/3/2021 7:20:52 PM | 14 |
| 15 | | 11/3/2021 7:35:43 PM | 15 |
| 16 | | 11/3/2021 7:50:34 PM | 16 |
| 17 | | 11/3/2021 8:05:25 PM | 17 |
| 18 | | 11/3/2021 8:20:16 PM | 18 |
| 19 | | 11/3/2021 8:35:07 PM | 19 |
| 20 | | 11/3/2021 8:54:09 PM | 20 |
| 21 | | 11/3/2021 9:08:53 PM | 21 |
| 22 | | 11/3/2021 9:23:44 PM | 22 |
| 23 | | 11/3/2021 9:40:40 PM | 23 |
| 24 | | 11/3/2021 9:55:30 PM | 24 |
| 25 | | 11/3/2021 10:16:31 PM | 25 |
| 26 | | 11/3/2021 10:31:15 PM | 26 |
| 27 | | 11/3/2021 10:46:07 PM | 27 |
| 28 | | 11/3/2021 11:00:59 PM | 28 |
| 29 | | 11/3/2021 11:17:56 PM | 29 |
| 30 | | 11/3/2021 11:32:46 PM | 30 |
| 31 | | 11/3/2021 11:49:42 PM | 31 |
| 32 | | 11/4/2021 12:06:58 AM | 32 |
| 33 | | 11/4/2021 12:21:48 AM | 33 |
| 34 | | 11/4/2021 12:36:41 AM | 34 |
| 35 | | 11/4/2021 12:51:33 AM | 35 |
| 36 | | 11/4/2021 1:06:25 AM | 36 |
| 37 | | 11/4/2021 1:21:17 AM | 37 |
| 38 | | 11/4/2021 1:36:09 AM | 38 |
| 39 | | 11/4/2021 1:51:01 AM | 39 |
| 40 | | 11/4/2021 2:05:53 AM | 40 |
| 41 | | 11/4/2021 2:20:45 AM | 41 |
| 42 | | 11/4/2021 2:35:37 AM | 42 |
| 43 | | 11/4/2021 2:50:29 AM | 43 |
| 44 | | 11/4/2021 3:05:21 AM | 44 |
| 45 | | 11/4/2021 3:20:13 AM | 45 |
| 46 | | 11/4/2021 3:35:05 AM | 46 |
| 47 | | 11/4/2021 3:49:57 AM | 47 |
| 48 | | 11/4/2021 4:04:49 AM | 48 |
| 49 | | 11/4/2021 4:19:41 AM | 49 |
| 50 | | 11/4/2021 4:34:33 AM | 50 |
| 51 | | 11/4/2021 4:49:25 AM | 51 |
| 52 | | 11/4/2021 5:04:17 AM | 52 |
| 53 | | 11/4/2021 5:19:09 AM | 53 |

| | Type | Analysis | Sample Name | Sa | Origin | Manual Dilution | Result | Notes | C | Status |
|---|---|---|---|---|---|---|---|---|---|---|
| 54 | Unknow | NPOC | 280-155015-d-10-c msd | | NPOC.met | 1.000 | NPOC:34.16mg/L | | | Completed |
| 55 | Unknow | NPOC | 280-155015-d-11-a | | NPOC.met | 1.000 | NPOC:5.986mg/L | | | Completed |
| 56 | Unknow | NPOC | 280-155015-d-12-a | | NPOC.met | 1.000 | NPOC:3.203mg/L | | | Completed |
| 57 | Unknow | NPOC | CCV | | NPOC.met | 1.000 | NPOC:24.92mg/L | | | Completed |
| 58 | Unknow | NPOC | CCB | | NPOC.met | 1.000 | NPOC:0.1340mg/L | | | Completed |

| | A | Date / Time | Vial |
|---|---|---|---|
| 54 | | 11/4/2021 5:34:01 AM | 54 |
| 55 | | 11/4/2021 5:48:53 AM | 55 |
| 56 | | 11/4/2021 6:03:45 AM | 56 |
| 57 | | 11/4/2021 6:18:37 AM | 57 |
| 58 | | 11/4/2021 6:33:29 AM | 58 |

TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥NPOC.2021_10_14_16_58_48.cal

Date of Creation 6:05:13 PM 10/14/2021
User
System TOC-V CPN

Cal. Curve

Sample Name: CAL
Sample ID:
Object ID 0A-100612-04635090-134654622668-0000
Cal. Curve: NPOC.2021_10_14_16_58_48.cal
Status Completed
Comment:

| Type | Anal. |
|---|---|
| Standard | NPOC |

Conc: 0.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 0.000 | 50uL | 1 | ******* | E | 10/14/2021 5:07:10 P |
| 2 | 0.3334 | 50uL | 1 | ******* | | 10/14/2021 5:09:16 P |
| 3 | 0.2859 | 50uL | 1 | ******* | | 10/14/2021 5:11:21 P |

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 0.3096
SD Area 0.03359
CV Area 10.85%
Vial 88

Conc: 1.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 3.680 | 50uL | 1 | ******* | | 10/14/2021 5:20:00 P |
| 2 | 3.772 | 50uL | 1 | ******* | | 10/14/2021 5:22:06 P |

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 3.726
SD Area 0.06505
CV Area 1.75%
Vial 89

Conc: 5.000mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 12.90 | 50uL | 1 | ******* | | 10/14/2021 5:30:45 P |
| 2 | 13.01 | 50uL | 1 | ******* | | 10/14/2021 5:32:51 P |

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 12.96
SD Area 0.07778
CV Area 0.60%
Vial 90

Conc: 10.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 27.37 | 50uL | 1 | ******* | | 10/14/2021 5:41:31 P |
| 2 | 27.07 | 50uL | 1 | ******* | | 10/14/2021 5:43:37 P |

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 27.22
SD Area 0.2121
CV Area 0.78%
Vial 91

Conc: 25.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 68.60 | 50uL | 1 | ******* | | 10/14/2021 5:52:16 P |
| 2 | 66.78 | 50uL | 1 | ******* | | 10/14/2021 5:54:27 P |

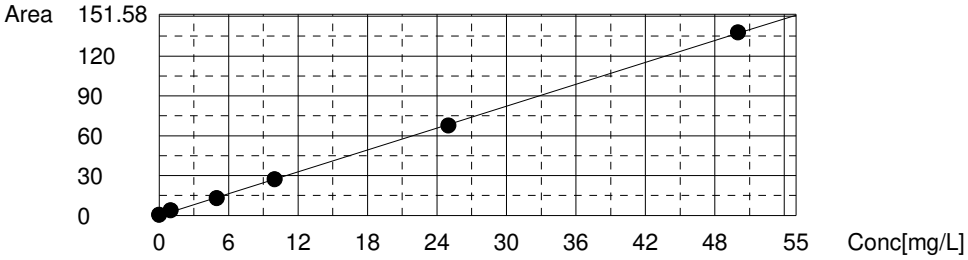
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 67.69
SD Area 1.287
CV Area 1.90%
Vial 92

Conc: 50.00mg/L

| No. | Area | Inj. Vol. | Aut. Dil. | Rem. | Ex. | Date / Time |
|---|---|---|---|---|---|---|
| 1 | 139.3 | 50uL | 1 | ******* | | 10/14/2021 6:03:07 P |
| 2 | 136.3 | 50uL | 1 | ******* | | 10/14/2021 6:05:13 P |

Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 137.8
SD Area 2.121
CV Area 1.54%
Vial 93

Slope: 2.745
Intercept -0.01886
r^2 0.9998
r 0.9999
Zero Shift No



Instr.Information

| | |
|---|---|
| System | TOC-V CPN |
| Instrument Options | TOC/ASI/ |
| Catalyst | Regular Sensitivity |

Sample

| | |
|---|---|
| Sample Name: | ICV |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

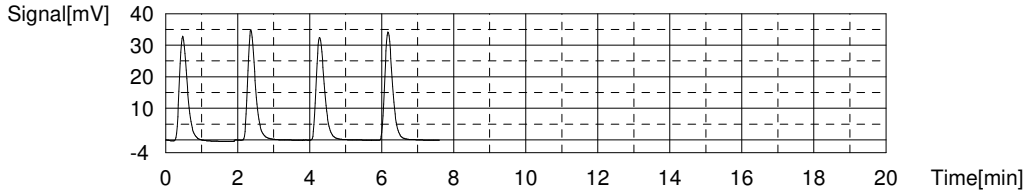
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:19.08mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 51.97 | 18.94mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 3:57:23 PM |
| 2 | 52.96 | 19.30mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 3:59:29 PM |
| 3 | 52.31 | 19.06mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:01:34 PM |
| 4 | 52.17 | 19.01mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:03:40 PM |

| | |
|---|---|
| Mean Area | 52.35 |
| Mean Conc. | 19.08mg/L |




Sample

| | |
|---|---|
| Sample Name: | ICB |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

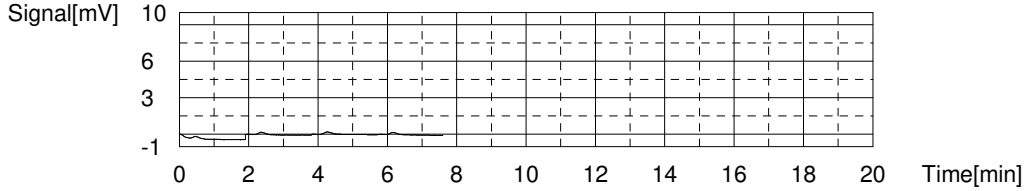
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.09116mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.1332 | 0.05539mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:12:14 PM |
| 2 | 0.2621 | 0.1023mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:14:20 PM |
| 3 | 0.3077 | 0.1190mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:16:25 PM |
| 4 | 0.2226 | 0.08796mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:18:31 PM |

| | |
|---|---|
| Mean Area | 0.2314 |
| Mean Conc. | 0.09116mg/L |



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

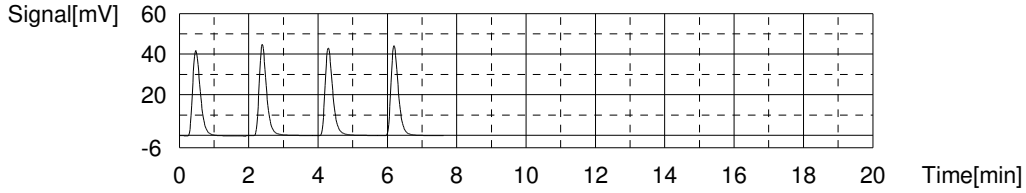
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.27mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.44 | 24.21mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:27:06 PM |
| 2 | 66.68 | 24.30mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:29:12 PM |
| 3 | 66.70 | 24.30mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:31:17 PM |
| 4 | 66.58 | 24.26mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:33:23 PM |

Mean Area 66.60
Mean Conc. 24.27mg/L




Sample

Sample Name: MB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

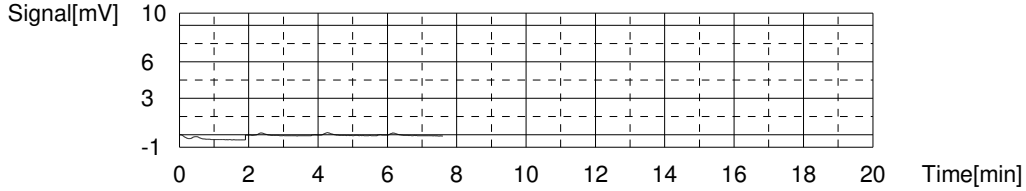
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1018mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2207 | 0.08727mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:41:57 PM |
| 2 | 0.2522 | 0.09874mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:44:03 PM |
| 3 | 0.3021 | 0.1169mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:46:08 PM |
| 4 | 0.2673 | 0.1042mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:48:14 PM |

Mean Area 0.2606
Mean Conc. 0.1018mg/L




Sample

Sample Name: TIC
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

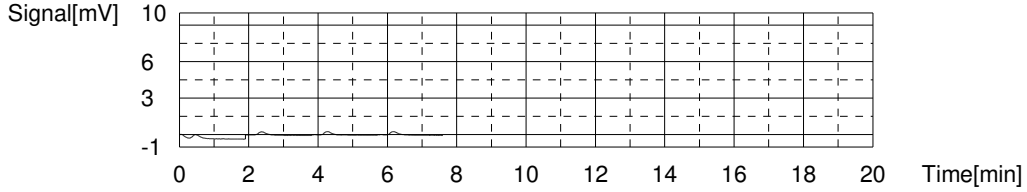
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1447mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3637 | 0.1394mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:56:48 PM |
| 2 | 0.3750 | 0.1435mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 4:58:54 PM |
| 3 | 0.3986 | 0.1521mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:00:59 PM |
| 4 | 0.3763 | 0.1439mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:03:05 PM |

Mean Area 0.3784
Mean Conc. 0.1447mg/L




Sample

Sample Name: 280-154997-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

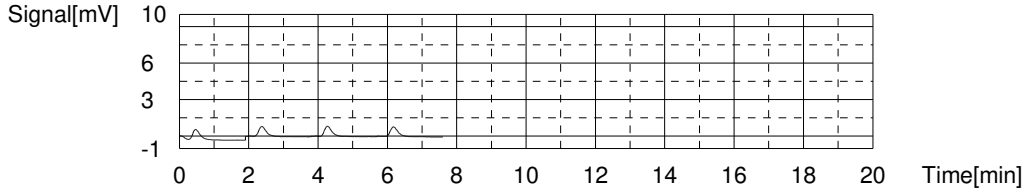
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.4452mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.159 | 0.4291mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:11:39 PM |
| 2 | 1.221 | 0.4516mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:13:45 PM |
| 3 | 1.237 | 0.4575mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:15:50 PM |
| 4 | 1.196 | 0.4425mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:17:56 PM |

Mean Area 1.203
Mean Conc. 0.4452mg/L




Sample

Sample Name: MS 280-154997-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

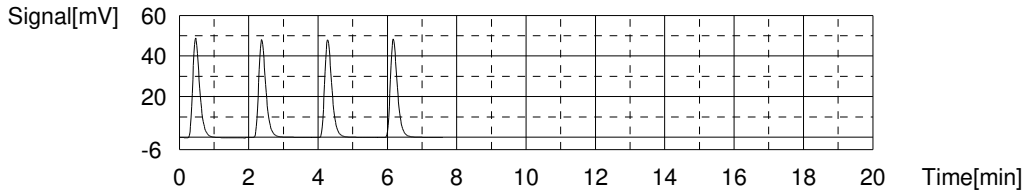
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.40mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.18 | 25.21mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:26:30 PM |
| 2 | 70.01 | 25.51mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:28:36 PM |
| 3 | 70.26 | 25.60mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:30:41 PM |
| 4 | 69.36 | 25.27mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:32:47 PM |

Mean Area 69.70
Mean Conc. 25.40mg/L




Sample

Sample Name: MSD 280-154997-b-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

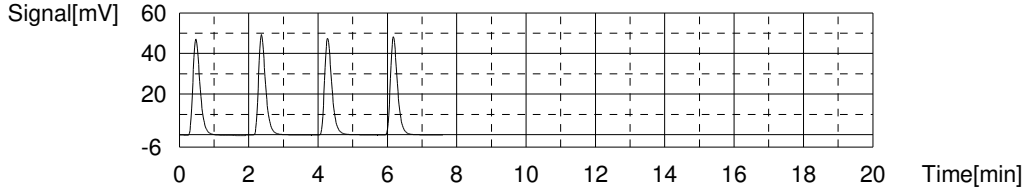
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.40mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.15 | 25.20mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:41:21 PM |
| 2 | 70.55 | 25.71mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:43:27 PM |
| 3 | 69.91 | 25.47mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:45:32 PM |
| 4 | 69.24 | 25.23mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:47:38 PM |

Mean Area 69.71
Mean Conc. 25.40mg/L




Sample

Sample Name: 280-154997-b-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

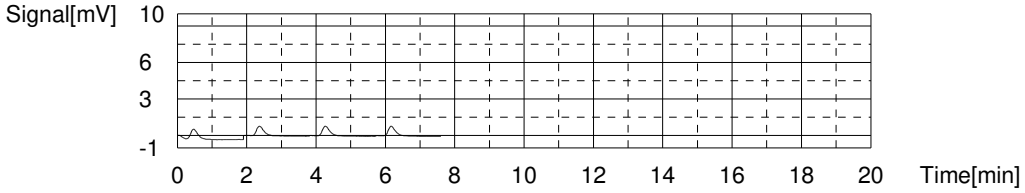
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.4207mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.089 | 0.4036mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:56:12 PM |
| 2 | 1.139 | 0.4218mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 5:58:18 PM |
| 3 | 1.174 | 0.4345mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:00:23 PM |
| 4 | 1.142 | 0.4229mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:02:29 PM |

Mean Area 1.136
Mean Conc. 0.4207mg/L




Sample

Sample Name: 280-154997-b-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

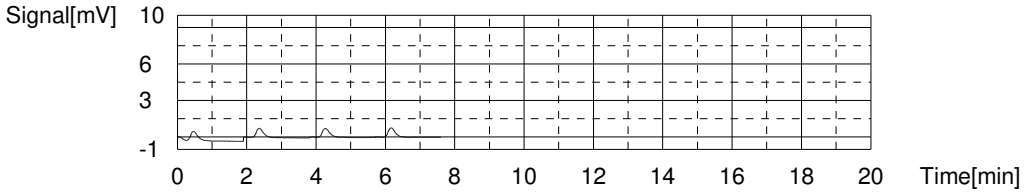
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.3945mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.016 | 0.3770mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:11:03 PM |
| 2 | 1.068 | 0.3959mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:13:09 PM |
| 3 | 1.062 | 0.3937mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:15:14 PM |
| 4 | 1.110 | 0.4112mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:17:20 PM |

Mean Area 1.064
Mean Conc. 0.3945mg/L




Sample

Sample Name: 280-154997-b-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

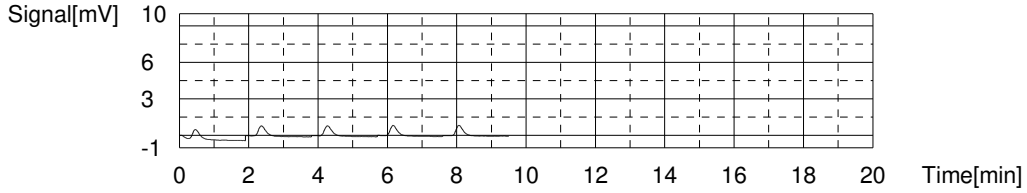
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.4508mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.9340 | 0.3471mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:25:54 PM |
| 2 | 1.221 | 0.4516mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:28:00 PM |
| 3 | 1.203 | 0.4451mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:30:05 PM |
| 4 | 1.206 | 0.4462mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:32:11 PM |
| 5 | 1.245 | 0.4604mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:34:16 PM |

Mean Area 1.219
Mean Conc. 0.4508mg/L




Sample

Sample Name: 280-154997-c-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

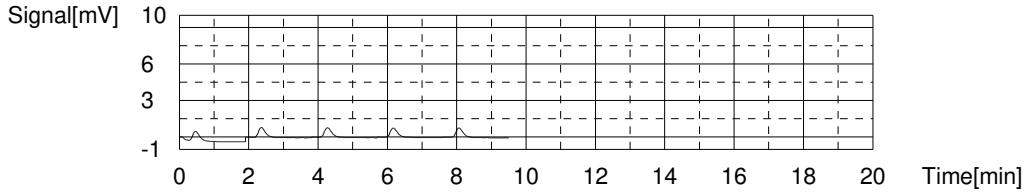
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.4157mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.9336 | 0.3470mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:42:49 PM |
| 2 | 1.157 | 0.4283mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:44:55 PM |
| 3 | 1.148 | 0.4251mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:47:00 PM |
| 4 | 1.113 | 0.4123mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:49:06 PM |
| 5 | 1.071 | 0.3970mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:51:11 PM |

Mean Area 1.122
Mean Conc. 0.4157mg/L




Sample

Sample Name: 280-154937-a-13
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

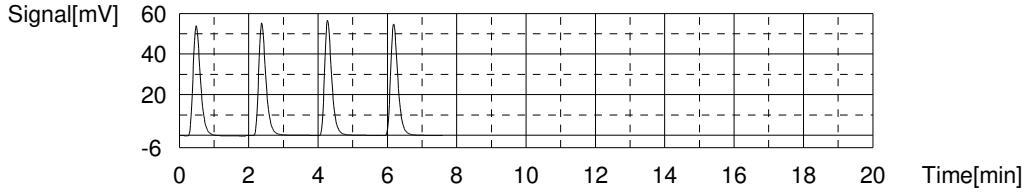
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 2.000 | NPOC:59.24mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 81.43 | 59.34mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 6:59:44 PM |
| 2 | 81.35 | 59.28mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:01:50 PM |
| 3 | 81.20 | 59.17mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:03:55 PM |
| 4 | 81.17 | 59.15mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:06:01 PM |

Mean Area 81.29
Mean Conc. 59.24mg/L




Sample

Sample Name: 280-155002-c-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

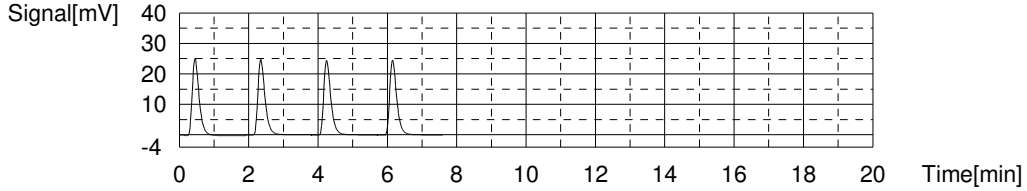
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 10.00 | NPOC:127.5mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 34.82 | 126.9mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:14:35 PM |
| 2 | 35.53 | 129.5mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:16:41 PM |
| 3 | 34.79 | 126.8mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:18:46 PM |
| 4 | 34.84 | 127.0mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:20:52 PM |

Mean Area 34.99
Mean Conc. 127.5mg/L




Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

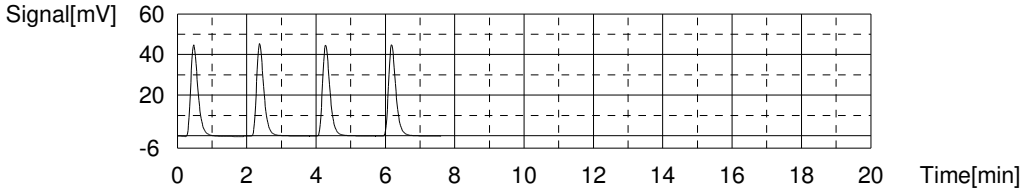
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.30mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.42 | 24.20mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:29:26 PM |
| 2 | 66.99 | 24.41mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:31:32 PM |
| 3 | 66.62 | 24.27mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:33:37 PM |
| 4 | 66.71 | 24.31mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:35:43 PM |

Mean Area 66.69
Mean Conc. 24.30mg/L




Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

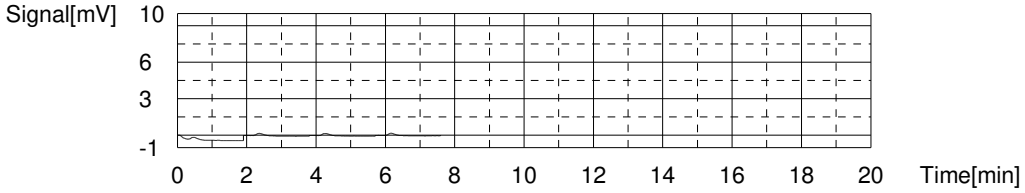
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.09718mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.1855 | 0.07444mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:44:17 PM |
| 2 | 0.2782 | 0.1082mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:46:23 PM |
| 3 | 0.2629 | 0.1026mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:48:28 PM |
| 4 | 0.2651 | 0.1034mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:50:34 PM |

Mean Area 0.2479
Mean Conc. 0.09718mg/L




Sample

Sample Name: 280-155002-c-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

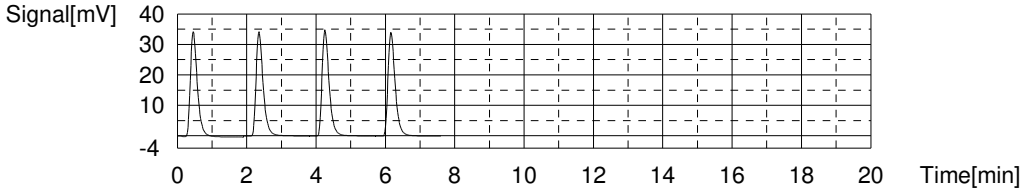
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 20.00 | NPOC:358.2mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 48.67 | 354.7mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 7:59:08 PM |
| 2 | 48.92 | 356.5mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:01:14 PM |
| 3 | 49.57 | 361.3mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:03:19 PM |
| 4 | 49.45 | 360.4mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:05:25 PM |

Mean Area 49.15
Mean Conc. 358.2mg/L




Sample

Sample Name: 280-155002-c-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

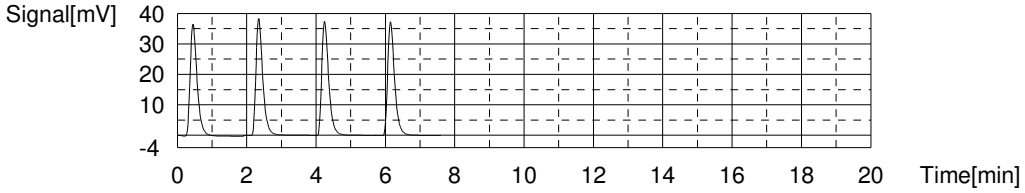
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 20.00 | NPOC:382.3mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 51.72 | 376.9mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:13:59 PM |
| 2 | 53.21 | 387.8mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:16:05 PM |
| 3 | 52.44 | 382.2mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:18:10 PM |
| 4 | 52.45 | 382.3mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:20:16 PM |

Mean Area 52.45
Mean Conc. 382.3mg/L




Sample

Sample Name: 280-154996-e-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

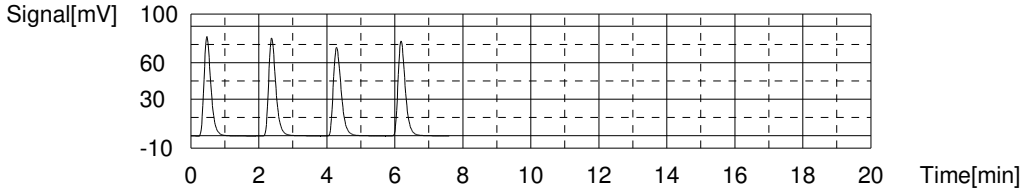
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:43.11mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 117.5 | 42.81mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:28:50 PM |
| 2 | 119.8 | 43.65mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:30:56 PM |
| 3 | 118.3 | 43.10mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:33:01 PM |
| 4 | 117.7 | 42.88mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:35:07 PM |

Mean Area 118.3
Mean Conc. 43.11mg/L




Sample

Sample Name: 580-106856-f-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

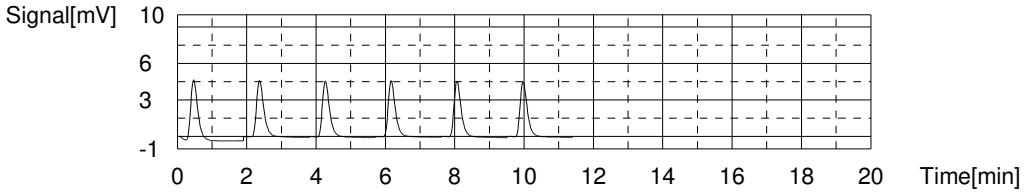
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.407mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.923 | 2.529mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:43:41 PM |
| 2 | 6.835 | 2.497mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:45:47 PM |
| 3 | 6.641 | 2.426mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:47:52 PM |
| 4 | 6.598 | 2.410mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:49:58 PM |
| 5 | 6.523 | 2.383mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:52:03 PM |
| 6 | 6.593 | 2.409mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 8:54:09 PM |

Mean Area 6.589
Mean Conc. 2.407mg/L




Sample

Sample Name: MS 580-106856-f-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

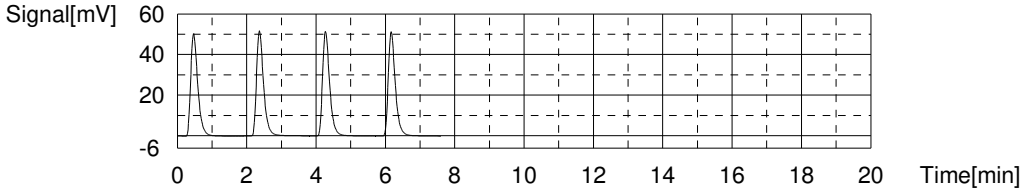
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.74mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 73.30 | 26.71mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:02:36 PM |
| 2 | 73.62 | 26.82mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:04:42 PM |
| 3 | 73.67 | 26.84mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:06:47 PM |
| 4 | 72.91 | 26.57mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:08:53 PM |

Mean Area 73.38
Mean Conc. 26.74mg/L




Sample

Sample Name: MSD 580-106856-f-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

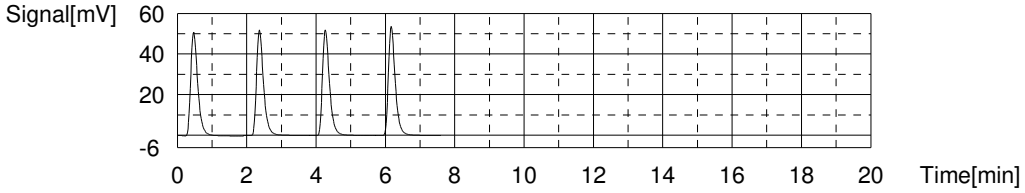
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.81mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 72.66 | 26.47mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:17:27 PM |
| 2 | 73.48 | 26.77mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:19:33 PM |
| 3 | 73.81 | 26.89mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:21:38 PM |
| 4 | 74.42 | 27.12mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:23:44 PM |

Mean Area 73.59
Mean Conc. 26.81mg/L




Sample

Sample Name: 580-106856-f-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

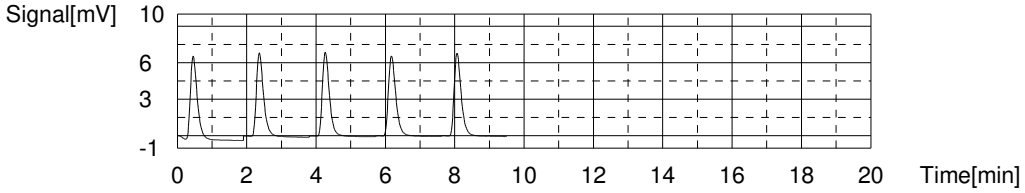
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.579mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 9.167 | 3.346mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:32:18 PM |
| 2 | 9.880 | 3.606mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:34:24 PM |
| 3 | 9.702 | 3.541mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:36:29 PM |
| 4 | 9.886 | 3.608mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:38:35 PM |
| 5 | 9.758 | 3.561mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:40:40 PM |

Mean Area 9.807
Mean Conc. 3.579mg/L




Sample

Sample Name: 580-106856-f-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

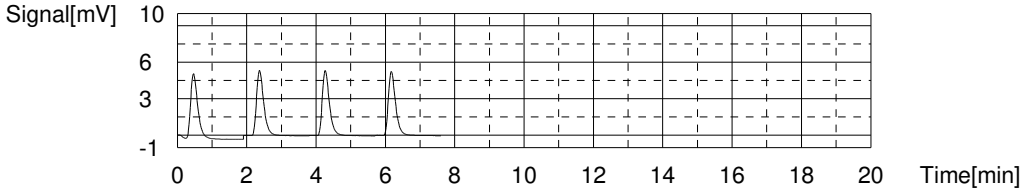
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.775mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.426 | 2.712mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:49:13 PM |
| 2 | 7.763 | 2.835mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:51:19 PM |
| 3 | 7.559 | 2.760mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:53:24 PM |
| 4 | 7.653 | 2.795mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 9:55:30 PM |

Mean Area 7.600
Mean Conc. 2.775mg/L




Sample

Sample Name: 580-106856-f-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

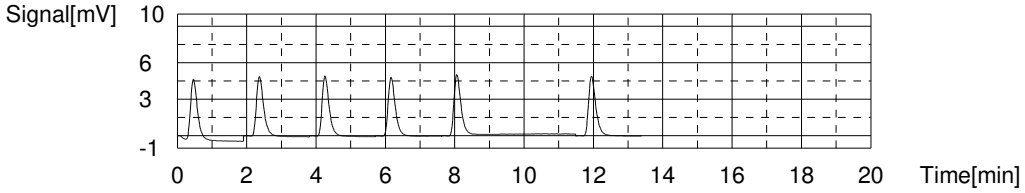
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.560mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.667 | 2.435mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:04:04 PM |
| 2 | 7.054 | 2.576mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:06:10 PM |
| 3 | 6.848 | 2.501mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:08:15 PM |
| 4 | 6.977 | 2.548mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:10:21 PM |
| 5 | 8.240 | 3.008mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:14:25 PM |
| 6 | 7.153 | 2.613mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:16:31 PM |

Mean Area 7.008
Mean Conc. 2.560mg/L




Sample

Sample Name: 580-106856-f-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

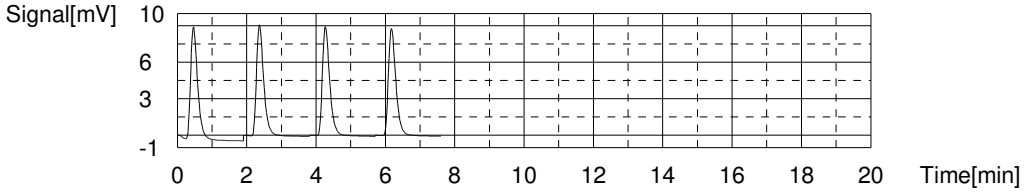
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.759mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.67 | 4.622mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:24:58 PM |
| 2 | 13.20 | 4.815mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:27:04 PM |
| 3 | 13.14 | 4.793mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:29:09 PM |
| 4 | 13.17 | 4.804mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:31:15 PM |

Mean Area 13.05
Mean Conc. 4.759mg/L




Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

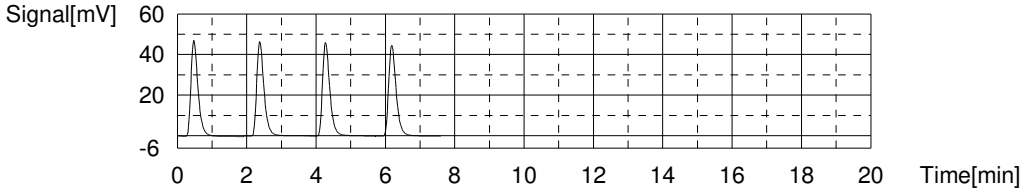
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.71mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 67.85 | 24.72mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:39:49 PM |
| 2 | 67.96 | 24.76mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:41:55 PM |
| 3 | 67.57 | 24.62mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:44:01 PM |
| 4 | 67.93 | 24.75mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:46:07 PM |

Mean Area 67.83
Mean Conc. 24.71mg/L




Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

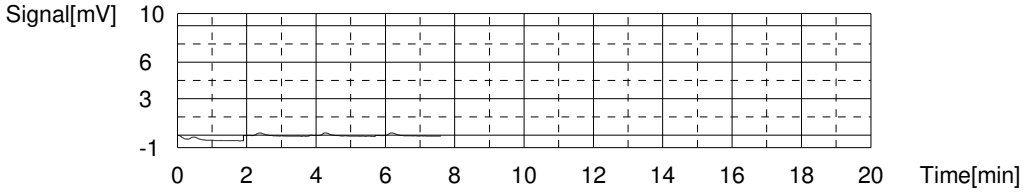
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1221mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2053 | 0.08166mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:54:43 PM |
| 2 | 0.3651 | 0.1399mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:56:48 PM |
| 3 | 0.3525 | 0.1353mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 10:58:54 PM |
| 4 | 0.3426 | 0.1317mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:00:59 PM |

Mean Area 0.3164
Mean Conc. 0.1221mg/L




Sample

Sample Name: 580-106856-f-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

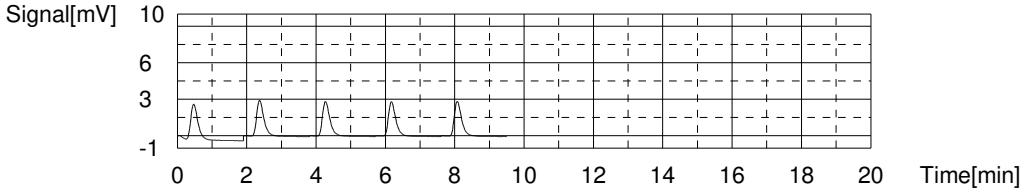
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.513mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 4.057 | 1.485mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:09:34 PM |
| 2 | 4.271 | 1.563mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:11:39 PM |
| 3 | 4.209 | 1.540mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:13:45 PM |
| 4 | 4.086 | 1.495mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:15:50 PM |
| 5 | 4.185 | 1.531mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:17:56 PM |

Mean Area 4.134
Mean Conc. 1.513mg/L




Sample

Sample Name: 580-106856-f-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

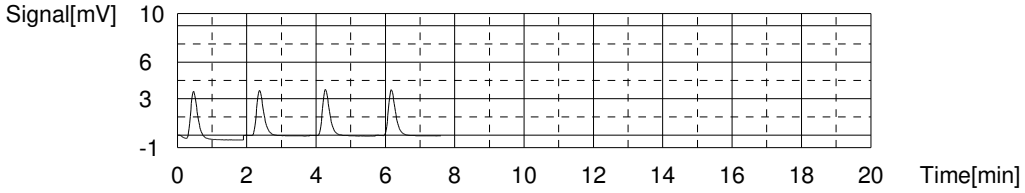
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.979mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.332 | 1.949mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:26:29 PM |
| 2 | 5.415 | 1.979mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:28:34 PM |
| 3 | 5.454 | 1.994mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:30:40 PM |
| 4 | 5.454 | 1.994mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:32:46 PM |

Mean Area 5.414
Mean Conc. 1.979mg/L




Sample

Sample Name: 580-106856-f-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

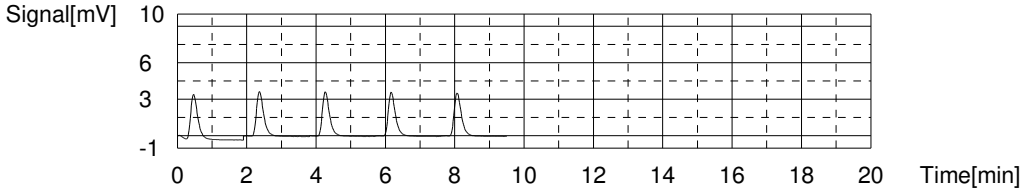
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.893mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 4.901 | 1.792mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:41:20 PM |
| 2 | 5.291 | 1.934mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:43:25 PM |
| 3 | 5.186 | 1.896mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:45:31 PM |
| 4 | 5.137 | 1.878mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:47:37 PM |
| 5 | 5.092 | 1.862mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:49:42 PM |

Mean Area 5.177
Mean Conc. 1.893mg/L




Sample

Sample Name: 580-106856-f-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

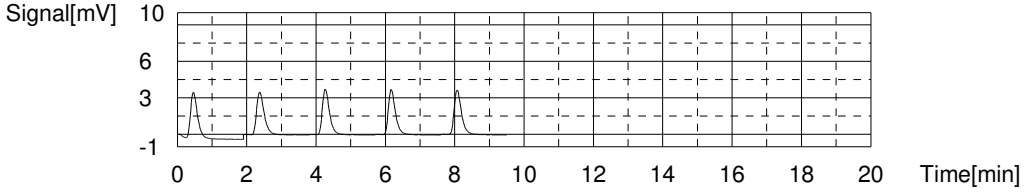
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.955mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.091 | 1.861mg/L | 50uL | 1 | E | NPOC.2021_10_14_16_58_48.cal | 11/3/2021 11:58:36 PM |
| 2 | 5.334 | 1.950mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:00:41 AM |
| 3 | 5.344 | 1.954mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:02:47 AM |
| 4 | 5.315 | 1.943mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:04:53 AM |
| 5 | 5.402 | 1.975mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:06:58 AM |

Mean Area 5.349
Mean Conc. 1.955mg/L




Sample

Sample Name: 580-106856-f-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

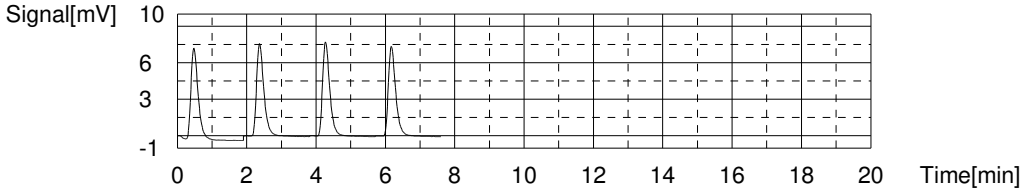
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.990mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 10.71 | 3.908mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:15:32 AM |
| 2 | 11.06 | 4.036mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:17:37 AM |
| 3 | 11.12 | 4.058mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:19:43 AM |
| 4 | 10.85 | 3.959mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:21:48 AM |

Mean Area 10.94
Mean Conc. 3.990mg/L




Sample

Sample Name: lcs 280-556007/1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

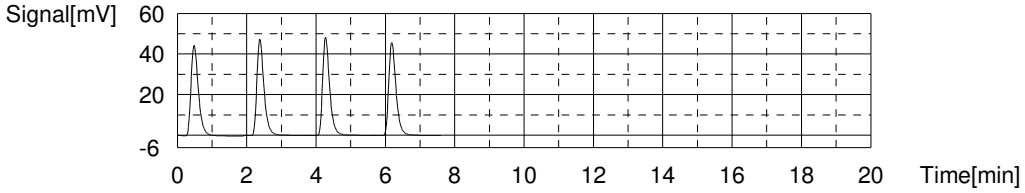
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.61mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.65 | 24.29mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:30:24 AM |
| 2 | 68.18 | 24.84mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:32:29 AM |
| 3 | 68.00 | 24.78mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:34:35 AM |
| 4 | 67.38 | 24.55mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:36:41 AM |

Mean Area 67.55
Mean Conc. 24.61mg/L




Sample

Sample Name: mb 280-556007/2-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

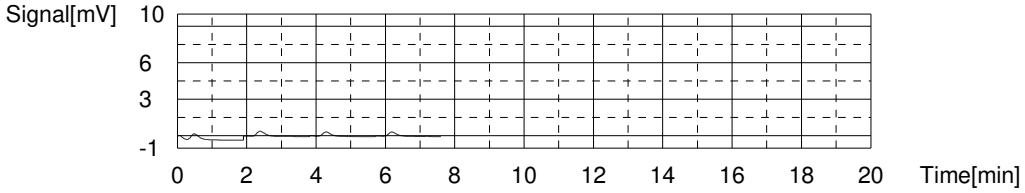
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2214mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6370 | 0.2389mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:45:16 AM |
| 2 | 0.6349 | 0.2381mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:47:21 AM |
| 3 | 0.5547 | 0.2089mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:49:27 AM |
| 4 | 0.5296 | 0.1998mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 12:51:33 AM |

Mean Area 0.5891
Mean Conc. 0.2214mg/L




Sample

Sample Name: 280-154948-d-1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

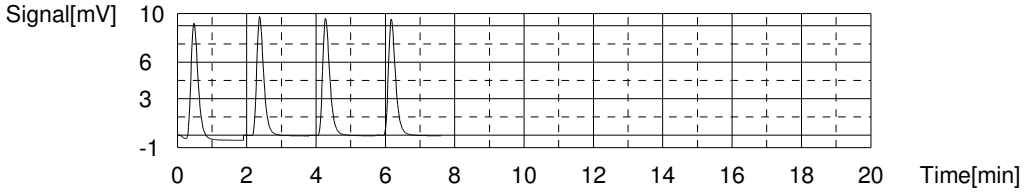
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.016mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 13.51 | 4.928mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:00:08 AM |
| 2 | 13.78 | 5.027mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:02:13 AM |
| 3 | 13.91 | 5.074mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:04:19 AM |
| 4 | 13.80 | 5.034mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:06:25 AM |

Mean Area 13.75
Mean Conc. 5.016mg/L




Sample

Sample Name: 280-154948-d-1-b ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

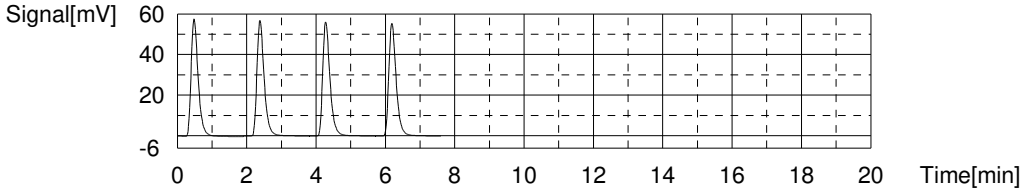
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:30.09mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 82.64 | 30.11mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:15:00 AM |
| 2 | 82.81 | 30.17mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:17:05 AM |
| 3 | 82.40 | 30.02mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:19:11 AM |
| 4 | 82.51 | 30.06mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:21:17 AM |

Mean Area 82.59
Mean Conc. 30.09mg/L




Sample

Sample Name: 280-154948-d-1-c msd
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

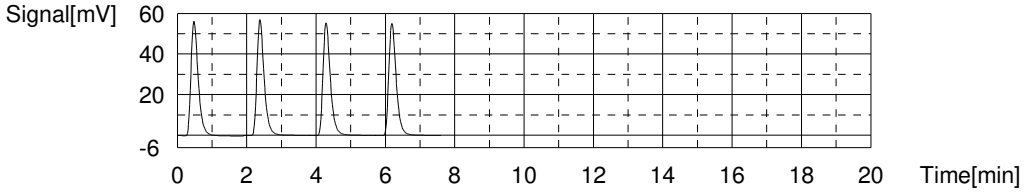
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:30.21mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 82.90 | 30.20mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:29:52 AM |
| 2 | 83.16 | 30.30mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:31:57 AM |
| 3 | 82.63 | 30.11mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:34:03 AM |
| 4 | 83.01 | 30.25mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:36:09 AM |

Mean Area 82.92
Mean Conc. 30.21mg/L




Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

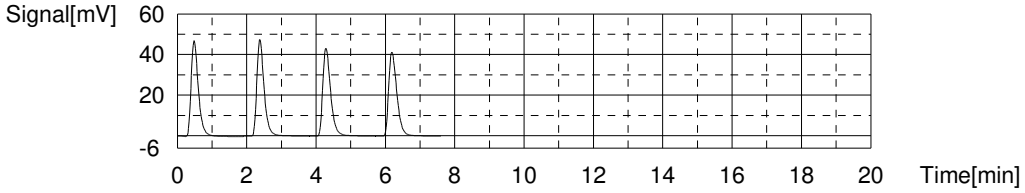
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.10mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.30 | 25.25mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:44:44 AM |
| 2 | 69.49 | 25.32mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:46:49 AM |
| 3 | 68.33 | 24.90mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:48:55 AM |
| 4 | 68.45 | 24.94mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:51:01 AM |

Mean Area 68.89
Mean Conc. 25.10mg/L




Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

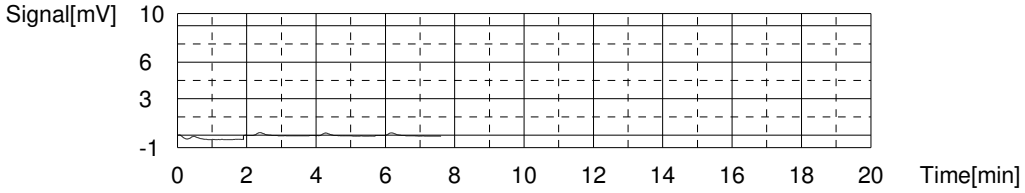
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1234mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.2389 | 0.09390mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 1:59:36 AM |
| 2 | 0.3783 | 0.1447mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:01:41 AM |
| 3 | 0.3131 | 0.1209mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:03:47 AM |
| 4 | 0.3494 | 0.1341mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:05:53 AM |

Mean Area 0.3199
Mean Conc. 0.1234mg/L




Sample

Sample Name: 280-155015-d-1-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

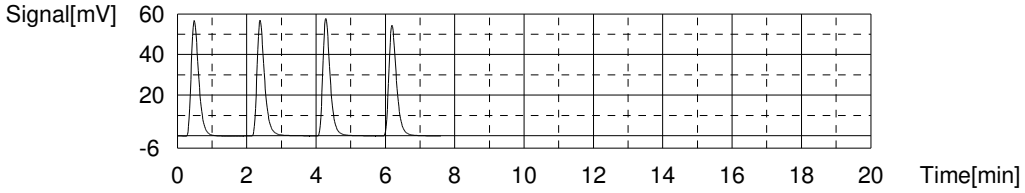
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:31.64mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 88.12 | 32.11mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:14:28 AM |
| 2 | 87.94 | 32.04mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:16:33 AM |
| 3 | 86.04 | 31.35mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:18:39 AM |
| 4 | 85.31 | 31.08mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:20:45 AM |

Mean Area 86.85
Mean Conc. 31.64mg/L




Sample

Sample Name: 280-155015-d-2-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

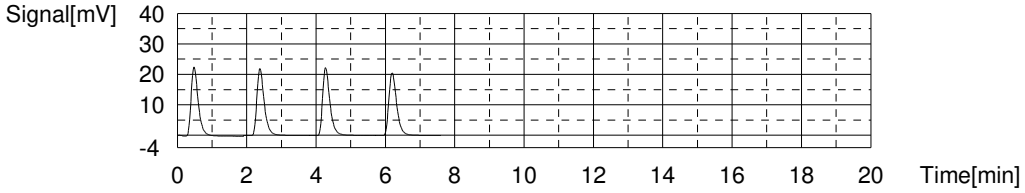
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:11.88mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 32.53 | 11.86mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:29:20 AM |
| 2 | 32.60 | 11.88mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:31:25 AM |
| 3 | 32.63 | 11.89mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:33:31 AM |
| 4 | 32.60 | 11.88mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:35:37 AM |

Mean Area 32.59
Mean Conc. 11.88mg/L




Sample

Sample Name: 280-155015-d-3-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

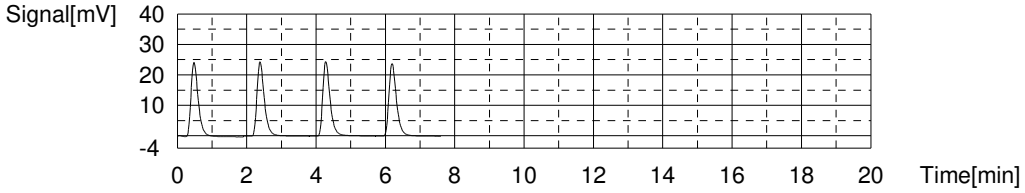
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:13.15mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 35.78 | 13.04mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:44:12 AM |
| 2 | 36.16 | 13.18mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:46:17 AM |
| 3 | 36.03 | 13.13mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:48:23 AM |
| 4 | 36.36 | 13.25mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:50:29 AM |

Mean Area 36.08
Mean Conc. 13.15mg/L




Sample

Sample Name: 280-155015-d-4-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

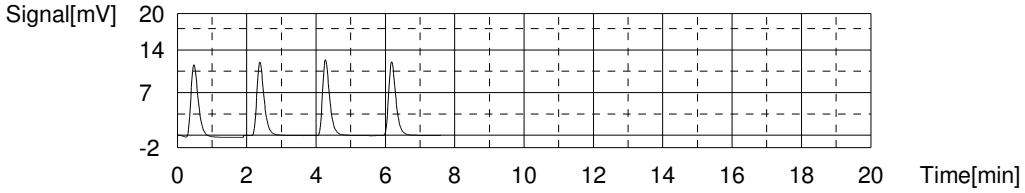
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.444mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 17.40 | 6.345mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 2:59:04 AM |
| 2 | 17.73 | 6.465mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:01:09 AM |
| 3 | 17.79 | 6.487mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:03:15 AM |
| 4 | 17.76 | 6.476mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:05:21 AM |

Mean Area 17.67
Mean Conc. 6.444mg/L




Sample

Sample Name: 280-155015-d-5-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

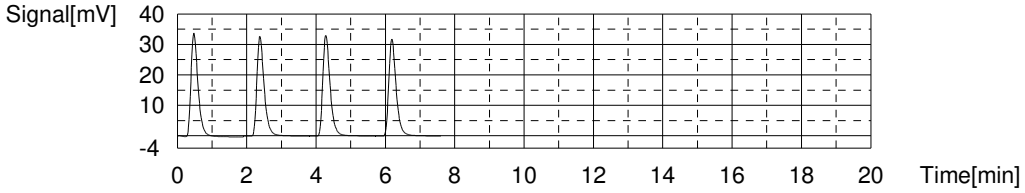
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:17.53mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 48.53 | 17.68mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:13:56 AM |
| 2 | 47.96 | 17.48mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:16:01 AM |
| 3 | 48.57 | 17.70mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:18:07 AM |
| 4 | 47.33 | 17.25mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:20:13 AM |

Mean Area 48.10
Mean Conc. 17.53mg/L




Sample

Sample Name: 280-155015-d-6-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

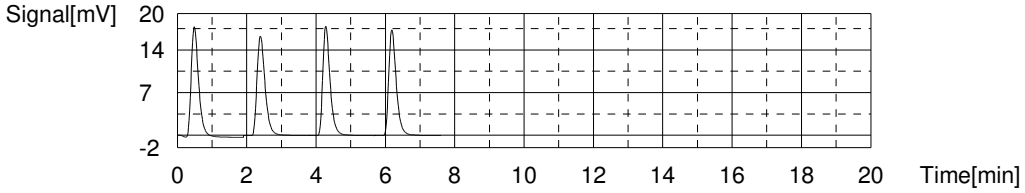
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.671mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 26.87 | 9.795mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:28:48 AM |
| 2 | 26.43 | 9.635mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:30:53 AM |
| 3 | 26.35 | 9.605mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:32:59 AM |
| 4 | 26.47 | 9.649mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:35:05 AM |

Mean Area 26.53
Mean Conc. 9.671mg/L




Sample

Sample Name: 280-155015-d-7-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

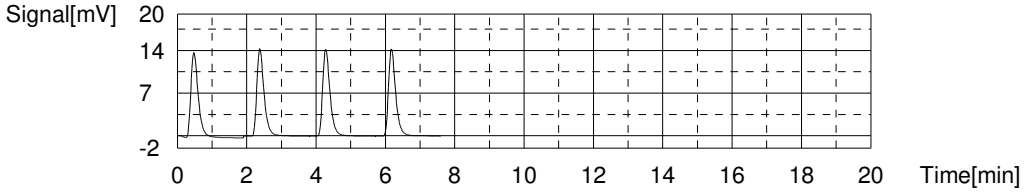
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.555mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 20.24 | 7.380mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:43:40 AM |
| 2 | 20.94 | 7.635mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:45:45 AM |
| 3 | 20.98 | 7.649mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:47:51 AM |
| 4 | 20.73 | 7.558mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:49:57 AM |

Mean Area 20.72
Mean Conc. 7.555mg/L




Sample

Sample Name: 280-155015-d-8-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

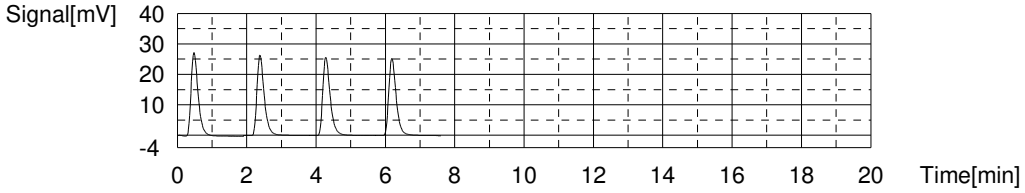
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:14.13mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 39.60 | 14.43mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 3:58:32 AM |
| 2 | 38.86 | 14.16mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:00:37 AM |
| 3 | 38.55 | 14.05mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:02:43 AM |
| 4 | 38.08 | 13.88mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:04:49 AM |

Mean Area 38.77
Mean Conc. 14.13mg/L




Sample

Sample Name: 280-155015-d-9-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

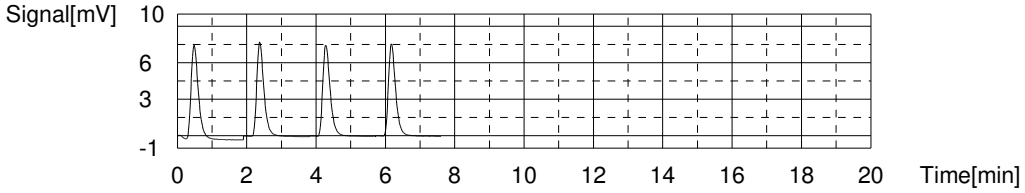
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.048mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.19 | 4.083mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:13:24 AM |
| 2 | 11.16 | 4.072mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:15:30 AM |
| 3 | 11.10 | 4.050mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:17:35 AM |
| 4 | 10.93 | 3.988mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:19:41 AM |

Mean Area 11.10
Mean Conc. 4.048mg/L




Sample

Sample Name: 280-155015-d-10-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

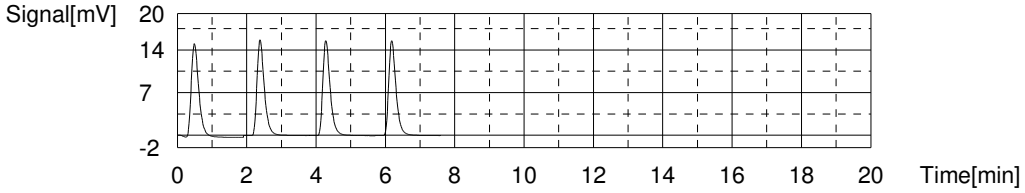
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:8.412mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 23.12 | 8.429mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:28:16 AM |
| 2 | 23.30 | 8.494mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:30:21 AM |
| 3 | 23.09 | 8.418mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:32:27 AM |
| 4 | 22.79 | 8.309mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:34:33 AM |

Mean Area 23.08
Mean Conc. 8.412mg/L




Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

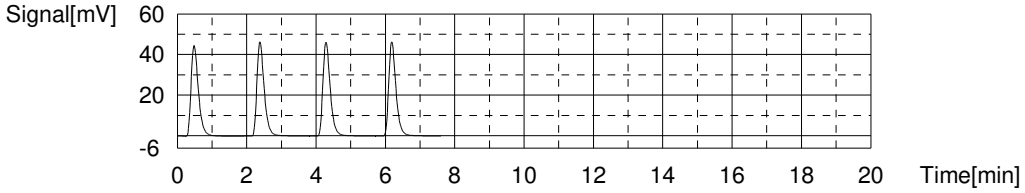
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.74mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 67.12 | 24.46mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:43:08 AM |
| 2 | 68.21 | 24.85mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:45:13 AM |
| 3 | 68.50 | 24.96mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:47:19 AM |
| 4 | 67.74 | 24.68mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:49:25 AM |

Mean Area 67.89
Mean Conc. 24.74mg/L




Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

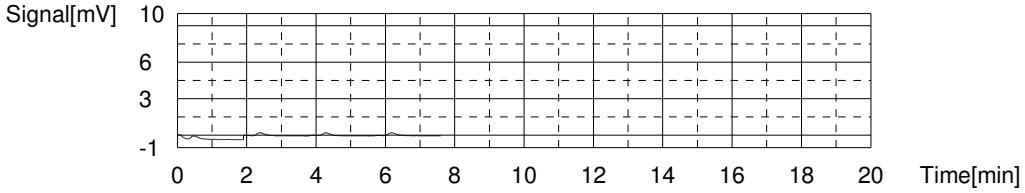
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1301mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3085 | 0.1192mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 4:58:00 AM |
| 2 | 0.3841 | 0.1468mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:00:05 AM |
| 3 | 0.3115 | 0.1203mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:02:11 AM |
| 4 | 0.3494 | 0.1341mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:04:17 AM |

Mean Area 0.3384
Mean Conc. 0.1301mg/L




Sample

Sample Name: 280-155015-d-10-b ms
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

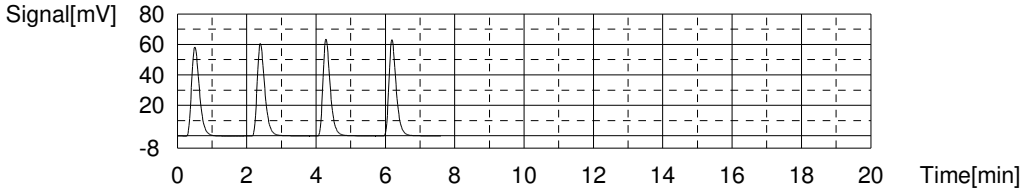
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:34.17mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 94.20 | 34.32mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:12:52 AM |
| 2 | 94.37 | 34.38mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:14:58 AM |
| 3 | 93.59 | 34.10mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:17:03 AM |
| 4 | 93.03 | 33.90mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:19:09 AM |

Mean Area 93.80
Mean Conc. 34.17mg/L




Sample

Sample Name: 280-155015-d-10-c msd
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

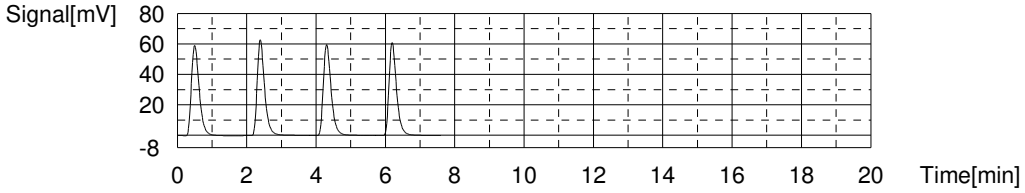
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:34.16mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 94.31 | 34.36mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:27:44 AM |
| 2 | 94.25 | 34.34mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:29:50 AM |
| 3 | 93.67 | 34.13mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:31:55 AM |
| 4 | 92.76 | 33.80mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:34:01 AM |

Mean Area 93.75
Mean Conc. 34.16mg/L




Sample

Sample Name: 280-155015-d-11-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

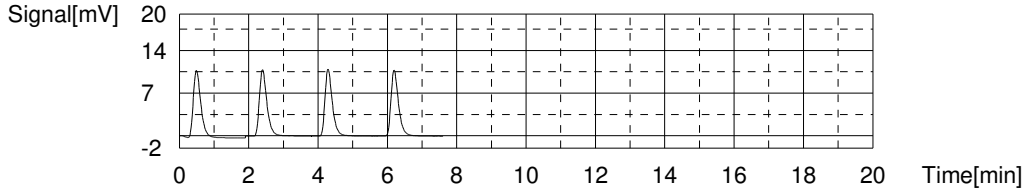
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.986mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 16.59 | 6.050mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:42:36 AM |
| 2 | 16.53 | 6.028mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:44:41 AM |
| 3 | 16.20 | 5.908mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:46:47 AM |
| 4 | 16.34 | 5.959mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:48:53 AM |

Mean Area 16.42
Mean Conc. 5.986mg/L




Sample

Sample Name: 280-155015-d-12-a
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

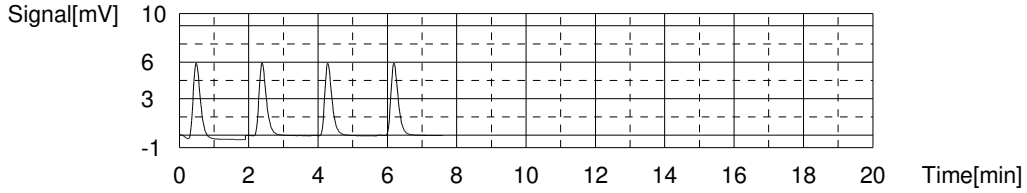
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.203mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.760 | 3.198mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:57:28 AM |
| 2 | 8.874 | 3.239mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 5:59:33 AM |
| 3 | 8.665 | 3.163mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:01:39 AM |
| 4 | 8.792 | 3.210mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:03:45 AM |

Mean Area 8.773
Mean Conc. 3.203mg/L




Sample

Sample Name: CCV
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

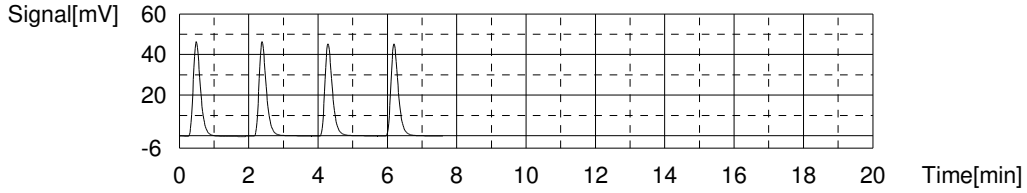
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.92mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 68.73 | 25.04mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:12:20 AM |
| 2 | 68.49 | 24.96mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:14:26 AM |
| 3 | 68.46 | 24.94mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:16:31 AM |
| 4 | 67.90 | 24.74mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:18:37 AM |

Mean Area 68.40
Mean Conc. 24.92mg/L




Sample

Sample Name: CCB
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

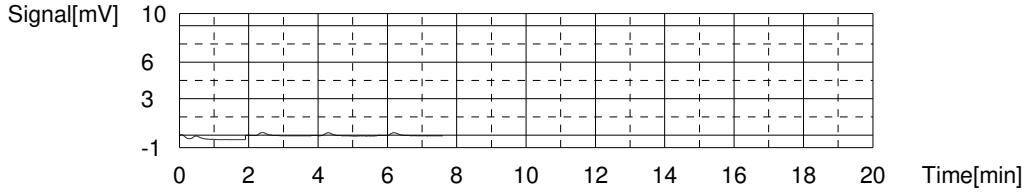
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1340mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3048 | 0.1179mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:27:12 AM |
| 2 | 0.3843 | 0.1469mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:29:18 AM |
| 3 | 0.3669 | 0.1405mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:31:23 AM |
| 4 | 0.3397 | 0.1306mg/L | 50uL | 1 | | NPOC.2021_10_14_16_58_48.cal | 11/4/2021 6:33:29 AM |

Mean Area 0.3489
Mean Conc. 0.1340mg/L



 Shi 4

9060A

| | Type | Analysis | Sample Name | Sa | O | M | pH Result | Notes | C | St | A | D | Vial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | Unknow | NPOC | ICV | | N | 1 | <2 ✓ | | | D | | | 1 |
| 2* | Unknow | NPOC | ICB | | N | 1 | ✓ | | | D | | | 2 |
| 3* | Unknow | NPOC | LCS | | N | 1 | ✓ | | | D | | | 3 |
| 4* | Unknow | NPOC | MB | | N | 1 | ✓ | | | D | | | 4 |
| 5* | Unknow | NPOC | TIC | | N | 1 | ✓ | | | D | | | 5 |
| 6* | Unknow | NPOC | 280-154997-b-1 | | N | 1 | ✓ | | | D | | | 6 |
| 7* | Unknow | NPOC | MS 280-154997-b-1 | | N | 1 | ✓ | | | D | | | 7 |
| 8* | Unknow | NPOC | MSD 280-154997-b-1 | | N | 1 | ✓ | | | D | | | 8 |
| 9* | Unknow | NPOC | 280-154997-b-2 | | N | 1 | ✓ | | | D | | | 9 |
| 10* | Unknow | NPOC | 280-154997-b-3 | | N | 1 | ✓ | | | D | | | 10 |
| 11* | Unknow | NPOC | 280-154997-b-4 | | N | 1 | ✓ | | | D | | | 11 |
| 12* | Unknow | NPOC | 280-154997-c-5 | | N | 1 | ✓ | | | D | | | 12 |
| 13* | Unknow | NPOC | 280-154937-a-13 | | N | 1 | ✓ | 2X Dil-rerun | | D | | | 13 |
| 14* | Unknow | NPOC | 280-155002-c-2 | | N | 1 | ✓ | 10X Dil-odor | | D | | | 14 |
| 15* | Unknow | NPOC | CCV | | N | 1 | ✓ | | | D | | | 15 |
| 16* | Unknow | NPOC | CCB | | N | 1 | ✓ | | | D | | | 16 |
| 17* | Unknow | NPOC | 280-155002-c-3 | | N | 1 | ✓ | 20X Dil-odor | | D | | | 17 |
| 18* | Unknow | NPOC | 280-155002-c-4 | | N | 1 | ✓ | 20X Dil-odor | | D | | | 18 |
| 19* | Unknow | NPOC | 280-154996-e-1 | | N | 1 | ✓ | | | D | | | 19 |
| 20* | Unknow | NPOC | 580-106856-f-1 | | N | 1 | ✓ | | | D | | | 20 |
| 21* | Unknow | NPOC | MS 580-106856-f-1 | | N | 1 | ✓ | | | D | | | 21 |
| 22* | Unknow | NPOC | MSD 580-106856-f-1 | | N | 1 | ✓ | | | D | | | 22 |
| 23* | Unknow | NPOC | 580-106856-f-2 | | N | 1 | ✓ | | | D | | | 23 |
| 24* | Unknow | NPOC | 580-106856-f-3 | | N | 1 | ✓ | | | D | | | 24 |
| 25* | Unknow | NPOC | 580-106856-f-4 | | N | 1 | ✓ | | | D | | | 25 |
| 26* | Unknow | NPOC | 580-106856-f-5 | | N | 1 | ✓ | | | D | | | 26 |
| 27* | Unknow | NPOC | CCV | | N | 1 | ✓ | | | D | | | 27 |
| 28* | Unknow | NPOC | CCB | | N | 1 | ✓ | | | D | | | 28 |
| 29* | Unknow | NPOC | 580-106856-f-6 | | N | 1 | ✓ | | | D | | | 29 |
| 30* | Unknow | NPOC | 580-106856-f-7 | | N | 1 | ✓ | | | D | | | 30 |
| 31* | Unknow | NPOC | 580-106856-f-8 | | N | 1 | ✓ | | | D | | | 31 |
| 32* | Unknow | NPOC | 580-106856-f-9 | | N | 1 | ✓ | | | D | | | 32 |
| 33* | Unknow | NPOC | 580-106856-f-10 | | N | 1 | ✓ | | | D | | | 33 |
| 34* | Unknow | NPOC | lcs 280-556007/1-a | | N | 1 | ✓ | filtration | | D | | | 34 |
| 35* | Unknow | NPOC | mb 280-556007/2-a | | N | 1 | ✓ | | | D | | | 35 |
| 36* | Unknow | NPOC | 280-154948-d-1-a | | N | 1 | >2 | DOC | | D | | | 36 |
| 37* | Unknow | NPOC | 280-154948-d-1-b ms | | N | 1 | >2 | DOC | | D | | | 37 |
| 38* | Unknow | NPOC | 280-154948-d-1-c msd | | N | 1 | >2 | DOC | | D | | | 38 |
| 39* | Unknow | NPOC | CCV | | N | 1 | ✓ | | | D | | | 39 |
| 40* | Unknow | NPOC | CCB | | N | 1 | ✓ | | | D | | | 40 |
| 41* | Unknow | NPOC | 280-155015-d-1-a | | N | 1 | >2 | DOC | | D | | | 41 |
| 42* | Unknow | NPOC | 280-155015-d-2-a | | N | 1 | >2 | DOC | | D | | | 42 |
| 43* | Unknow | NPOC | 280-155015-d-3-a | | N | 1 | >2 | DOC | | D | | | 43 |
| 44* | Unknow | NPOC | 280-155015-d-4-a | | N | 1 | >2 | DOC | | D | | | 44 |
| 45* | Unknow | NPOC | 280-155015-d-5-a | | N | 1 | >2 | DOC | | D | | | 45 |
| 46* | Unknow | NPOC | 280-155015-d-6-a | | N | 1 | >2 | DOC | | D | | | 46 |
| 47* | Unknow | NPOC | 280-155015-d-7-a | | N | 1 | >2 | DOC | | D | | | 47 |
| 48* | Unknow | NPOC | 280-155015-d-8-a | | N | 1 | >2 | DOC | | D | | | 48 |
| 49* | Unknow | NPOC | 280-155015-d-9-a | | N | 1 | >2 | DOC | | D | | | 49 |
| 50* | Unknow | NPOC | 280-155015-d-10-a | | N | 1 | >2 | DOC | | D | | | 50 |
| 51* | Unknow | NPOC | CCV | | N | 1 | ✓ | | | D | | | 51 |

 Sh. 4

9060A

| | Type | Analysis | Sample Name | Sa | O | M | PH Result | Notes | C | St | A | D | Vial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 52* | Unknow | NPOC | CCB | | N | 1 | <2 ✓ | | | D | | | 52 |
| 53* | Unknow | NPOC | 280-155015-d-10-b ms | | N | 1 | >2 | DOC filtration | | D | | | 53 |
| 54* | Unknow | NPOC | 280-155015-d-10-c msd | | N | 1 | >2 | DOC | | D | | | 54 |
| 55* | Unknow | NPOC | 280-155015-d-11-a | | N | 1 | >2 | DOC | | D | | | 55 |
| 56* | Unknow | NPOC | 280-155015-d-12-a | | N | 1 | >2 | DOC | | D | | | 56 |
| 57* | Unknow | NPOC | CCV | | N | 1 | ✓ | | | D | | | 57 |
| 58* | Unknow | NPOC | CCB | | N | 1 | ✓ | | | D | | | 58 |

BWH 5000

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007

Analyst: Fox, Regan A

Batch Open: 11/3/2021 10:54:00AM

Batch End:

## Sample Filtration

| | Input Sample Lab ID (Analytical Method) | SDG (Job #) | Matrix | Initial Amount | Final Amount | Due Date | Analytical TAT | Div Rank | Comments | Output Sample Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LCS~280-556007/1 N/A | N/A | | | | N/A | N/A | N/A | | LCS 280-556007/1-A |
| 2 | MB~280-556007/2 N/A | N/A | | | | N/A | N/A | N/A | | MB 280-556007/2-A |
| 3 | 280-154948-D-1 (9060A_Diss) | N/A (280-154948-1) | Water | | | 11/17/21 | 18_Days | 4 | | 280-154948-D-1-A |
| 4 | 280-154948-D-1~MS (9060A_Diss) | N/A (280-154948-1) | Water | | | 11/17/21 | 18_Days | 4 | | 280-154948-D-1-B MS |
| 5 | 280-154948-D-1~MSD (9060A_Diss) | N/A (280-154948-1) | Water | | | 11/17/21 | 18_Days | 4 | | 280-154948-D-1-C MSD |
| 6 | 280-155015-D-1 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-1-A |
| 7 | 280-155015-D-2 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-2-A |
| 8 | 280-155015-D-3 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-3-A |
| 9 | 280-155015-D-4 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-4-A |
| 10 | 280-155015-D-5 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-5-A |
| 11 | 280-155015-D-6 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-6-A |
| 12 | 280-155015-D-7 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-7-A |
| 13 | 280-155015-D-8 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-8-A |
| 14 | 280-155015-D-9 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | | 280-155015-D-9-A |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007

Analyst: Fox, Regan A

Batch Open: 11/3/2021 10:54:00AM

Batch End:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 15 | 280-155015-D-10 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | 280-155015-D-10-A |
| 16 | 280-155015-D-10~MS (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | 280-155015-D-10-B MS |
| 17 | 280-155015-D-10~MSD (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | 280-155015-D-10-C MSD |
| 18 | 280-155015-D-11 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | 280-155015-D-11-A |
| 19 | 280-155015-D-12 (9060A_Diss) | N/A (280-155015-1) | Water | | | 11/20/21 | 18_Days | 4 | 280-155015-D-12-A |
| 20 | N/A | N/A | | | | N/A | N/A | N/A | |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007

Analyst: Fox, Regan A

Batch Open: 11/3/2021 10:54:00AM

Batch End:

## Batch Notes

| | |
|---|---|
| Pipette/Syringe/Dispenser ID | 1082991 |
| Filter ID | 9743727, 16876568 |
| Nitric Acid ID | N/A |
| Batch Comment | DOC filtration |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007

Analyst: Fox, Regan A

Batch Open: 11/3/2021 10:54:00AM

Batch End:

## Comments

| | | |
|---|---|---|
| 280-154948-D-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-154948-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-154948-D-1~MS | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-1 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-2 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-3 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-4 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-5 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-6 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-7 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-8 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-9 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-10 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-10~M | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-10~M | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| 280-155015-D-11 | | |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007 Analyst: Fox, Regan A Batch Open: 11/3/2021 10:54:00AM

Batch End:

| | | |
|---|---|---|
| 280-155015-D-12 | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |
| | Method Comments: | Q5Rev3.1-12212015_Std Var App_60day disposal |

# FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-556007

Analyst: Fox, Regan A

Batch Open: 11/3/2021 10:54:00AM

Batch End:

## Reagent Additions Worksheet

| Lab ID | Reagent Code | Amount Added | Final Amount | By | Witness |
|---|---|---|---|---|---|
| | | | | | |

**Other Reagents:**

| Reagent | Amount/Units | Lot#: |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

# MANTECH INC.

## Calibration Report

Report Date: 11/11/2021 : 4:25 PM

### Calibration Record # 1033

**Calibration Settings**

| | | | | |
|---|---|---|---|---|
| Calibration ID | PH | Date | 11/11/2021 | |
| Channel | 1 | Time | 4:25 PM | |
| Probe Type | pH | Temperature | 296.07 K | 22.92 C |
| Probe ID | PH ELECTRODE | Analysis Type | Single Line Fit | |

**Calibration Results**

| | | | |
|---|---|---|---|
| Slope | -59.307 | CorrCoeff | 1.0000 |
| Intercept | -15.504 | Equation: Y = (-59.307) X + (-15.504 ) | |

**Calibration Validity** **True** Operator

| | Result | Minimum | Maximum |
|---|---|---|---|
| **Slope** | -59.307 | -65.00 | -54.00 |
| **Intercept** | -15.504 | -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 | 281.12 |
| | 4.00 | 161.74 |
| | 7.00 | -15.50 |
| | 10.00 | -191.16 |
| | 12.00 | -313.72 |

# TALS Raw Data Report

Job Number: 280-154838-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 26 Lab ID: **280-154838-C-7** Inj Date: 11/11/2021 8:03:23PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 502.90 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 502.90 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 613.538 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154848-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | 5.15 J mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.06 mg/L | 6.4 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | 3.73 J mg/L | | | | |

# TALS Raw Data Report

RS# 19 Lab ID: **280-154848-E-4** Inj Date: 11/11/2021 7:12:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 1134.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 1134.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 1383.6142 mg/L | mg/L | | | | |

RS# 20 Lab ID: **280-154848-E-11** Inj Date: 11/11/2021 7:20:17PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 430.91 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 430.91 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 525.7102 mg/L | mg/L | | | | |

RS# 21 Lab ID: **280-154848-E-12** Inj Date: 11/11/2021 7:27:23PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 471.26 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 471.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 574.9372 mg/L | mg/L | | | | |

RS# 22 Lab ID: **280-154848-E-8** Inj Date: 11/11/2021 7:34:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 416.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 416.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 507.5932 mg/L | mg/L | | | | |

RS# 23 Lab ID: **280-154848-E-10** Inj Date: 11/11/2021 7:40:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 417.62 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 417.62 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 509.4964 mg/L | mg/L | | | | |

RS# 24 Lab ID: **280-154848-E-9** Inj Date: 11/11/2021 7:48:48PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 580.72 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 580.72 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 708.4784 mg/L | mg/L | | | | |

RS# 25 Lab ID: **280-154848-E-3** Inj Date: 11/11/2021 7:55:13PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | 6.4 U | mg/L |
| Bicarbonate Alkalinity | 356.32 | mg/L | | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | 6.4 U | mg/L |
| Alkalinity | 356.32 | mg/L | | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | 6.4 U | mg/L |
| Bicarbonate ion as H | 434.7104 | mg/L | | mg/L |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 | mg/L | | mg/L | | | | |
| Alkalinity | | 202.26 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | 6.4 U | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 | mg/L | 3.11 J | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 3.11 | mg/L | 3.11 J | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 | mg/L | 3.79 J | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154852-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 30 Lab ID: **LCS 280-557229/30** Inj Date: 11/11/2021 8:26:59PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 74.40 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 122.43 mg/L | mg/L | | | | |
| Alkalinity | | 196.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 135.61 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 32 Lab ID: **280-154958-E-2** Inj Date: 11/11/2021 8:37:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 275.8786 mg/L | mg/L | | | | |

RS# 33 Lab ID: **280-154958-E-2 DU** Inj Date: 11/11/2021 8:43:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 275.0612 mg/L | mg/L | | | 0.3 | 20 |

RS# 34 Lab ID: **280-154852-O-1** Inj Date: 11/11/2021 9:03:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2414.20 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2414.20 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 2945.324 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 71.87 | mg/L | mg/L |
| Bicarbonate Alkalinity | 0.00 | mg/L | mg/L |
| Carbonate Alkalinity a | 131.96 | mg/L | mg/L |
| Alkalinity | 203.83 | mg/L | mg/L |
| Phenolphthalein Alka | 137.85 | mg/L | mg/L |
| Bicarbonate ion as H | 0 | mg/L | mg/L |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Phenolphthalein Alka | | 128.65 | mg/L | mg/L | | | |
| Bicarbonate ion as H | | 0 | mg/L | mg/L | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 15.63 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 19.0686 | mg/L | mg/L | | | | |

RS# 76 Lab ID: **280-154858-D-1** Inj Date: 11/12/2021 2:03:33AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2464.38 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 2464.38 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3006.5436 | mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 | mg/L | mg/L | | | | |
| Alkalinity | | 205.88 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | mg/L | | | | |

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 2.92 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 | mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154854-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 30 Lab ID: **LCS 280-557229/30** Inj Date: 11/11/2021 8:26:59PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 74.40 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 122.43 mg/L | mg/L | | | | |
| Alkalinity | | 196.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 135.61 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 32 Lab ID: **280-154958-E-2** Inj Date: 11/11/2021 8:37:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 275.8786 mg/L | mg/L | | | | |

RS# 33 Lab ID: **280-154958-E-2 DU** Inj Date: 11/11/2021 8:43:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 275.0612 mg/L | mg/L | | | 0.3 | 20 |

RS# 35 Lab ID: **280-154854-B-6** Inj Date: 11/11/2021 9:17:23PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 1344.18 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 1344.18 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 1639.8996 mg/L | mg/L | | | | |

RS# 36 Lab ID: **280-154854-B-4** Inj Date: 11/11/2021 9:23:40PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 330.27 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 330.27 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 402.9294 mg/L | mg/L | | | | |

RS# 37 Lab ID: **280-154854-B-5** Inj Date: 11/11/2021 9:30:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 486.84 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 486.84 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 593.9448 mg/L | mg/L | | | | |

RS# 38 Lab ID: **280-154854-B-8** Inj Date: 11/11/2021 9:37:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | |
| Bicarbonate Alkalinity | | 327.17 | mg/L | mg/L | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | |
| Alkalinity | | 327.17 | mg/L | mg/L | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | |
| Bicarbonate ion as H | | 399.1474 | mg/L | mg/L | | | |

RS# 39 Lab ID: **280-154854-B-3** Inj Date: 11/11/2021 9:47:42PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 851.59 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 851.59 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 1038.9398 | mg/L | mg/L | | | | |

RS# 40 Lab ID: **280-154854-B-2** Inj Date: 11/11/2021 9:58:17PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 989.60 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 989.60 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 1207.312 | mg/L | mg/L | | | | |

RS# 41 Lab ID: **280-154854-B-1** Inj Date: 11/11/2021 10:07:13PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 736.85 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 736.85 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 898.957 | mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 | mg/L | mg/L | | | | |
| Alkalinity | | 201.77 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 3.16 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 | mg/L | mg/L | | | | |

RS# 44 Lab ID: **280-154854-B-9** Inj Date: 11/11/2021 10:31:24PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 1330.59 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 1330.59 | mg/L | mg/L | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | |
| Bicarbonate ion as H | | 1623.3198 | mg/L | mg/L | | | |

RS# 45 Lab ID: **280-154854-B-7** Inj Date: 11/11/2021 10:38:20PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 433.74 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 433.74 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 529.1628 | mg/L | mg/L | | | | |

RS# 46 Lab ID: **280-154854-B-10** Inj Date: 11/11/2021 10:43:03PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.27 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 4.27 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.2094 | mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 | mg/L | mg/L | | | | |
| Alkalinity | | 203.83 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 | mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | | |
| Alkalinity | | 3.42 | mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 | mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154885-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | 5.15 J mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | 3.73 J mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | 3.79 J mg/L | | | | |

RS# 30 Lab ID: **LCS 280-557229/30** Inj Date: 11/11/2021 8:26:59PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 74.40 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 122.43 mg/L | mg/L | | | | |
| Alkalinity | | 196.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 135.61 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | 4.44 J mg/L | | | | |

RS# 32 Lab ID: **280-154958-E-2** Inj Date: 11/11/2021 8:37:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 275.8786 mg/L | mg/L | | | | |

RS# 33 Lab ID: **280-154958-E-2 DU** Inj Date: 11/11/2021 8:43:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 275.0612 mg/L | mg/L | | | 0.3 | 20 |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | 3.86 J mg/L | | | | |

RS# 50 Lab ID: **280-154885-B-2** Inj Date: 11/11/2021 11:10:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 413.04 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 413.04 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 503.9088 mg/L | mg/L | | | | |

RS# 51 Lab ID: **280-154885-B-3** Inj Date: 11/11/2021 11:17:57PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | | mg/L | | |
| Bicarbonate Alkalinity | | 580.41 | mg/L | | mg/L | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | | mg/L | | |
| Alkalinity | | 580.41 | mg/L | | mg/L | | |
| Phenolphthalein Alka | | 0.00 | mg/L | | mg/L | | |
| Bicarbonate ion as H | | 708.1002 | mg/L | | mg/L | | |

RS# 52 Lab ID: **280-154885-C-1** Inj Date: 11/11/2021 11:22:49PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.40 | mg/L | 4.4 J | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | | mg/L | | | | |
| Alkalinity | | 4.40 | mg/L | 4.4 J | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 5.368 | mg/L | 5.4 J | mg/L | | | | |

RS# 53 Lab ID: **280-154885-B-4** Inj Date: 11/11/2021 11:29:54PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 448.24 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | | mg/L | | | | |
| Alkalinity | | 448.24 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 546.8528 | mg/L | | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 | mg/L | | mg/L | | | | |
| Alkalinity | | 203.83 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | | mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 | mg/L | 3.42 J | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | | mg/L | | | | |
| Alkalinity | | 3.42 | mg/L | 3.42 J | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 | mg/L | 4.17 J | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154888-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | 5.15 J mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 14 Lab ID: **280-154888-B-1** Inj Date: 11/11/2021 6:33:19PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 288.97 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 288.97 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 352.5434 mg/L | mg/L | | | | |

RS# 15 Lab ID: **280-154888-B-2** Inj Date: 11/11/2021 6:40:49PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 411.58 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 411.58 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 502.1276 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | 3.73 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154892-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | mg/L |
| Bicarbonate Alkalinity | 15.63 | mg/L | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | mg/L |
| Alkalinity | 15.63 | mg/L | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | mg/L |

RS# 70 Lab ID: **280-154892-A-2** Inj Date: 11/12/2021 1:11:02AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 279.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 279.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 340.685 mg/L | mg/L | | | | |

RS# 71 Lab ID: **280-154892-A-3** Inj Date: 11/12/2021 1:16:19AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 179.48 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 179.48 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 218.9656 mg/L | mg/L | | | | |

RS# 72 Lab ID: **280-154892-A-1** Inj Date: 11/12/2021 1:22:22AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 274.91 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 274.91 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 335.3902 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.92 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154921-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 30 Lab ID: **LCS 280-557229/30** Inj Date: 11/11/2021 8:26:59PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 74.40 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 122.43 mg/L | mg/L | | | | |
| Alkalinity | | 196.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 135.61 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 32 Lab ID: **280-154958-E-2** Inj Date: 11/11/2021 8:37:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 275.8786 mg/L | mg/L | | | | |

RS# 33 Lab ID: **280-154958-E-2 DU** Inj Date: 11/11/2021 8:43:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 275.0612 mg/L | mg/L | | | 0.3 | 20 |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 47 Lab ID: **280-154921-A-2** Inj Date: 11/11/2021 10:50:09PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 468.05 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 468.05 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 571.021 mg/L | mg/L | | | | |

RS# 48 Lab ID: **280-154921-A-3** Inj Date: 11/11/2021 10:56:55PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | mg/L |
| Bicarbonate Alkalinity | 416.44 | mg/L | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | mg/L |
| Alkalinity | 416.44 | mg/L | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 508.0568 | mg/L | mg/L |

RS# 49 Lab ID: **280-154921-A-4** Inj Date: 11/11/2021 11:02:30PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 194.69 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 194.69 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 237.5218 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154945-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | mg/L |
| Bicarbonate Alkalinity | 15.63 | mg/L | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | mg/L |
| Alkalinity | 15.63 | mg/L | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | mg/L |

RS# 73 Lab ID: **280-154945-A-1** Inj Date: 11/12/2021 1:29:37AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 496.69 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 496.69 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 605.9618 mg/L | mg/L | | | | |

RS# 74 Lab ID: **280-154945-A-2** Inj Date: 11/12/2021 1:36:54AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 495.44 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 495.44 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 604.4368 mg/L | mg/L | | | | |

RS# 75 Lab ID: **280-154945-A-3** Inj Date: 11/12/2021 1:42:21AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 192.15 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 192.15 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 234.423 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.92 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154948-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | 5.15 J mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.06 mg/L | 6.4 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | 3.73 J mg/L | | | | |

# TALS Raw Data Report

RS# 27 Lab ID: **280-154948-F-1** Inj Date: 11/11/2021 8:09:58PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 371.57 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 371.57 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 453.3154 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | 3.79 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-154958-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 30 Lab ID: **LCS 280-557229/30** Inj Date: 11/11/2021 8:26:59PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 74.40 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 122.43 mg/L | mg/L | | | | |
| Alkalinity | | 196.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 135.61 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 32 Lab ID: **280-154958-E-2** Inj Date: 11/11/2021 8:37:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 226.13 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 275.8786 mg/L | mg/L | | | | |

RS# 33 Lab ID: **280-154958-E-2 DU** Inj Date: 11/11/2021 8:43:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 225.46 mg/L | mg/L | | | 0.3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 275.0612 mg/L | mg/L | | | 0.3 | 20 |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-155012-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 60 Lab ID: **280-155012-B-1** Inj Date: 11/12/2021 12:07:29AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 387.58 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 387.58 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 472.8476 mg/L | mg/L | | | | |

RS# 61 Lab ID: **280-155012-B-2** Inj Date: 11/12/2021 12:14:40AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | mg/L |
| Bicarbonate Alkalinity | 344.15 | mg/L | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | mg/L |
| Alkalinity | 344.15 | mg/L | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 419.863 | mg/L | mg/L |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 19.0686 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-155035-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | mg/L |
| Bicarbonate Alkalinity | 15.63 | mg/L | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | mg/L |
| Alkalinity | 15.63 | mg/L | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | mg/L |

# TALS Raw Data Report

Job Number: 280-155069-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | 4.22 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | 5.15 J mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 8 Lab ID: **280-155069-C-6** Inj Date: 11/11/2021 6:00:25PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 177.56 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 177.56 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 216.6232 mg/L | mg/L | | | | |

RS# 9 Lab ID: **280-155069-C-4** Inj Date: 11/11/2021 6:05:40PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 168.32 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 168.32 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 205.3504 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 10 Lab ID: **280-155069-C-5** Inj Date: 11/11/2021 6:11:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 176.90 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 176.90 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 215.818 mg/L | mg/L | | | | |

RS# 11 Lab ID: **280-155069-C-7** Inj Date: 11/11/2021 6:16:38PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 193.20 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 193.20 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 235.704 mg/L | mg/L | | | | |

RS# 12 Lab ID: **280-155069-C-2** Inj Date: 11/11/2021 6:21:52PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 166.43 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 166.43 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 203.0446 mg/L | mg/L | | | | |

RS# 13 Lab ID: **280-155069-C-3** Inj Date: 11/11/2021 6:27:06PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 165.92 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 165.92 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 202.4224 mg/L | mg/L | | | | |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | 3.73 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-155102-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 4 Lab ID: **LCS 280-557229/4** Inj Date: 11/11/2021 5:39:12PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 89.49 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 115.68 mg/L | mg/L | | | | |
| Alkalinity | | 205.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 147.33 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 5 Lab ID: **MB 280-557229/5** Inj Date: 11/11/2021 5:44:11PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 4.22 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 5.1484 mg/L | mg/L | | | | |

RS# 6 Lab ID: **280-155069-C-1** Inj Date: 11/11/2021 5:49:36PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 161.25 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 196.725 mg/L | mg/L | | | | |

RS# 7 Lab ID: **280-155069-A-1 DU** Inj Date: 11/11/2021 5:55:00PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 168.12 mg/L | mg/L | | | 4 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 205.1064 mg/L | mg/L | | | 4 | 20 |

RS# 16 Lab ID: **CCV 280-557229/16** Inj Date: 11/11/2021 6:47:05PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 99.11 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 95.66 mg/L | mg/L | | | | |
| Alkalinity | | 194.78 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 146.95 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 17 Lab ID: **CCB 280-557229/17** Inj Date: 11/11/2021 6:51:56PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7332 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 18 Lab ID: **280-155102-B-1** Inj Date: 11/11/2021 7:01:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 749.68 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 17.93 mg/L | mg/L | | | | |
| Alkalinity | | 767.61 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 8.97 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 914.6096 mg/L | mg/L | | | | |

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-155141-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.11 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.64 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.16 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 3.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 2.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 62 Lab ID: **280-155141-E-5** Inj Date: 11/12/2021 12:20:47AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 302.02 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 302.02 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 368.4644 mg/L | mg/L | | | | |

RS# 63 Lab ID: **280-155141-D-3** Inj Date: 11/12/2021 12:27:33AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | mg/L | | | |
| Bicarbonate Alkalinity | | 411.43 | mg/L | mg/L | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | mg/L | | | |
| Alkalinity | | 411.43 | mg/L | mg/L | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | mg/L | | | |
| Bicarbonate ion as H | | 501.9446 | mg/L | mg/L | | | |

RS# 64 Lab ID: **280-155141-E-1** Inj Date: 11/12/2021 12:32:59AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 211.58 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 211.58 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 258.1276 mg/L | mg/L | | | | |

RS# 65 Lab ID: **280-155141-F-2** Inj Date: 11/12/2021 12:40:33AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 528.93 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 528.93 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 645.2946 mg/L | mg/L | | | | |

RS# 66 Lab ID: **280-155141-E-6** Inj Date: 11/12/2021 12:48:11AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 525.86 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 525.86 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 641.5492 mg/L | mg/L | | | | |

RS# 67 Lab ID: **280-155141-E-4** Inj Date: 11/12/2021 12:53:25AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 164.91 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 164.91 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 201.1902 mg/L | mg/L | | | | |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | mg/L | | | | |
| Alkalinity | | 15.63 mg/L | mg/L | | | | |

| | | | |
|---|---|---|---|
| Phenolphthalein Alka | 0.00 | mg/L | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | mg/L |

# TALS Raw Data Report

Job Number: 280-206636-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | 4.17 J mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 2.94 mg/L | 6.4 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | 3.59 J mg/L | | | | |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 19.0686 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

# TALS Raw Data Report

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 2.92 mg/L | 6.4 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | 3.56 J mg/L | | | | |

RS# 82 Lab ID: **LCS 280-557229/82** Inj Date: 11/12/2021 2:35:07AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 92.18 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Carbonate Alkalinity a | | 117.79 mg/L | mg/L | | | | |
| Alkalinity | | 209.97 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 151.07 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 6.4 U mg/L | | | | |

RS# 83 Lab ID: **MB 280-557229/83** Inj Date: 11/12/2021 2:39:54AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 mg/L | 3.87 J mg/L | | | | |

RS# 84 Lab ID: **680-206680-B-1** Inj Date: 11/12/2021 2:44:50AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 122.09 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 122.09 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 148.9498 mg/L | mg/L | | | | |

RS# 85 Lab ID: **680-206680-B-1 DU** Inj Date: 11/12/2021 2:49:41AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 118.92 mg/L | mg/L | | | 3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Alkalinity | | 118.92 mg/L | mg/L | | | 3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 145.0824 mg/L | mg/L | | | 3 | 20 |

RS# 93 Lab ID: **680-206636-A-1** Inj Date: 11/12/2021 3:25:04AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 28.82 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 28.82 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 35.1604 mg/L | mg/L | | | | |

RS# 94 Lab ID: **CCV 280-557229/94** Inj Date: 11/12/2021 3:30:51AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Hydroxide Alkalinity | 61.27 | mg/L | | | mg/L |
| Bicarbonate Alkalinity | 0.00 | mg/L | 6.4 | U | mg/L |
| Carbonate Alkalinity a | 141.25 | mg/L | | | mg/L |
| Alkalinity | 202.51 | mg/L | | | mg/L |
| Phenolphthalein Alka | 131.89 | mg/L | | | mg/L |
| Bicarbonate ion as H | 0 | mg/L | 6.4 | U | mg/L |

RS# 95 Lab ID: **CCB 280-557229/95** Inj Date: 11/12/2021 3:35:43AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 mg/L | 3.87 J mg/L | | | | |

RS# 96 Lab ID: **680-206636-G-4** Inj Date: 11/12/2021 3:40:01AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 44.47 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 44.47 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 54.2534 mg/L | mg/L | | | | |

RS# 97 Lab ID: **680-206636-A-9** Inj Date: 11/12/2021 3:44:18AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 43.17 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 43.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 52.6674 mg/L | mg/L | | | | |

RS# 98 Lab ID: **680-206636-A-8** Inj Date: 11/12/2021 3:48:29AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 7.73 mg/L | 7.7 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 7.73 mg/L | 7.7 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 9.4306 mg/L | 9.4 J mg/L | | | | |

RS# 99 Lab ID: **680-206636-A-5** Inj Date: 11/12/2021 3:52:45AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 25.28 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 25.28 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate ion as H | | 30.8416 mg/L | mg/L | | | | |

RS# 100 Lab ID: **680-206636-A-7** Inj Date: 11/12/2021 3:57:02AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Bicarbonate Alkalinity | | 22.23 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 6.4 U mg/L | | | | |
| Alkalinity | | 22.23 mg/L | mg/L | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | |
| Bicarbonate ion as H | | 27.1206 | mg/L | | mg/L | | | |

RS# 101 Lab ID: **680-206636-G-6** Inj Date: 11/12/2021 4:01:19AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 31.25 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 31.25 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 38.125 | mg/L | | mg/L | | | | |

RS# 102 Lab ID: **680-206636-G-10** Inj Date: 11/12/2021 4:05:47AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 12.51 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 12.51 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 15.2622 | mg/L | | mg/L | | | | |

RS# 103 Lab ID: **680-206636-A-3** Inj Date: 11/12/2021 4:10:14AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 81.72 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 81.72 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 99.6984 | mg/L | | mg/L | | | | |

RS# 104 Lab ID: **680-206636-A-2** Inj Date: 11/12/2021 4:14:34AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 11.23 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 11.23 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 13.7006 | mg/L | | mg/L | | | | |

RS# 106 Lab ID: **CCV 280-557229/106** Inj Date: 11/12/2021 4:24:58AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 55.12 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Carbonate Alkalinity a | | 154.15 | mg/L | | mg/L | | | | |
| Alkalinity | | 209.27 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 132.20 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | 6.4 U | mg/L | | | | |

RS# 107 Lab ID: **CCB 280-557229/107** Inj Date: 11/12/2021 4:29:50AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.77 | mg/L | 6.4 U | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Alkalinity | | 2.77 | mg/L | 6.4 U | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 6.4 U | mg/L | | | | |
| Bicarbonate ion as H | | 3.3794 | mg/L | 3.38 J | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-206680-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | 4.17 J mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | 3.59 J mg/L | | | | |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 19.0686 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

# TALS Raw Data Report

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | 3.56 J mg/L | | | | |

RS# 82 Lab ID: **LCS 280-557229/82** Inj Date: 11/12/2021 2:35:07AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 92.18 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 117.79 mg/L | mg/L | | | | |
| Alkalinity | | 209.97 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 151.07 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 83 Lab ID: **MB 280-557229/83** Inj Date: 11/12/2021 2:39:54AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 mg/L | 3.87 J mg/L | | | | |

RS# 84 Lab ID: **680-206680-B-1** Inj Date: 11/12/2021 2:44:50AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 122.09 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 122.09 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 148.9498 mg/L | mg/L | | | | |

RS# 85 Lab ID: **680-206680-B-1 DU** Inj Date: 11/12/2021 2:49:41AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 118.92 mg/L | mg/L | | | 3 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Alkalinity | | 118.92 mg/L | mg/L | | | 3 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 145.0824 mg/L | mg/L | | | 3 | 20 |

RS# 86 Lab ID: **680-206680-B-8** Inj Date: 11/12/2021 2:54:55AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 153.75 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 153.75 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 187.575 mg/L | mg/L | | | | |

RS# 87 Lab ID: **680-206680-B-6** Inj Date: 11/12/2021 2:59:03AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | 3.1 U | mg/L | |
| Bicarbonate Alkalinity | 37.08 | mg/L | | mg/L | |
| Carbonate Alkalinity a | 0.00 | mg/L | 3.1 U | mg/L | |
| Alkalinity | 37.08 | mg/L | | mg/L | |
| Phenolphthalein Alka | 0.00 | mg/L | 3.1 U | mg/L | |
| Bicarbonate ion as H | 45.2376 | mg/L | | mg/L | |

RS# 88 Lab ID: **680-206680-B-2** Inj Date: 11/12/2021 3:03:29AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 52.46 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 52.46 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 64.0012 mg/L | mg/L | | | | |

RS# 89 Lab ID: **680-206680-B-3** Inj Date: 11/12/2021 3:07:56AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 53.42 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 53.42 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 65.1724 mg/L | mg/L | | | | |

RS# 90 Lab ID: **680-206680-B-7** Inj Date: 11/12/2021 3:12:13AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 37.58 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 37.58 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 45.8476 mg/L | mg/L | | | | |

RS# 91 Lab ID: **680-206680-B-4** Inj Date: 11/12/2021 3:16:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 62.07 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 62.07 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 75.7254 mg/L | mg/L | | | | |

RS# 92 Lab ID: **680-206680-B-5** Inj Date: 11/12/2021 3:20:47AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 38.94 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 38.94 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 47.5068 mg/L | mg/L | | | | |

RS# 94 Lab ID: **CCV 280-557229/94** Inj Date: 11/12/2021 3:30:51AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 61.27 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 141.25 mg/L | mg/L | | | | |
| Alkalinity | | 202.51 mg/L | mg/L | | | | |

| | | | | |
|---|---|---|---|---|
| Phenolphthalein Alka | 131.89 | mg/L | | mg/L |
| Bicarbonate ion as H | 0 | mg/L | 3.1 U | mg/L |

RS# 95 Lab ID: **CCB 280-557229/95** Inj Date: 11/12/2021 3:35:43AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 | mg/L | 3.17 J | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 3.17 | mg/L | 3.17 J | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 | mg/L | 3.87 J | mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-206906-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | 4.17 J mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | 3.59 J mg/L | | | | |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 15.63 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 19.0686 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

# TALS Raw Data Report

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | 3.56 J mg/L | | | | |

RS# 82 Lab ID: **LCS 280-557229/82** Inj Date: 11/12/2021 2:35:07AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 92.18 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 117.79 mg/L | mg/L | | | | |
| Alkalinity | | 209.97 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 151.07 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 83 Lab ID: **MB 280-557229/83** Inj Date: 11/12/2021 2:39:54AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 mg/L | 3.87 J mg/L | | | | |

RS# 94 Lab ID: **CCV 280-557229/94** Inj Date: 11/12/2021 3:30:51AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 61.27 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 141.25 mg/L | mg/L | | | | |
| Alkalinity | | 202.51 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 131.89 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 95 Lab ID: **CCB 280-557229/95** Inj Date: 11/12/2021 3:35:43AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.17 mg/L | 3.17 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8674 mg/L | 3.87 J mg/L | | | | |

RS# 105 Lab ID: **680-206906-C-12** Inj Date: 11/12/2021 4:19:02AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 70.58 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 70.58 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 86.1076 mg/L | mg/L | | | | |

RS# 106 Lab ID: **CCV 280-557229/106** Inj Date: 11/12/2021 4:24:58AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Hydroxide Alkalinity | 55.12 | mg/L | | | mg/L |
| Bicarbonate Alkalinity | 0.00 | mg/L | 3.1 | U | mg/L |
| Carbonate Alkalinity a | 154.15 | mg/L | | | mg/L |
| Alkalinity | 209.27 | mg/L | | | mg/L |
| Phenolphthalein Alka | 132.20 | mg/L | | | mg/L |
| Bicarbonate ion as H | 0 | mg/L | 3.1 | U | mg/L |

RS# 107 Lab ID: **CCB 280-557229/107** Inj Date: 11/12/2021 4:29:50AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.77 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.77 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.3794 mg/L | 3.38 J mg/L | | | | |

RS# 108 Lab ID: **LCS 280-557229/108** Inj Date: 11/12/2021 4:35:57AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 53.10 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 147.96 mg/L | mg/L | | | | |
| Alkalinity | | 201.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 127.08 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 109 Lab ID: **MB 280-557229/109** Inj Date: 11/12/2021 4:40:41AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.70 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.70 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.294 mg/L | 3.29 J mg/L | | | | |

RS# 110 Lab ID: **680-206906-C-1** Inj Date: 11/12/2021 4:44:57AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 47.30 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 47.30 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 57.706 mg/L | mg/L | | | | |

RS# 111 Lab ID: **680-206906-C-1 DU** Inj Date: 11/12/2021 4:49:15AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 50.52 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Alkalinity | | 50.52 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 61.6344 mg/L | mg/L | | | 7 | 20 |

RS# 112 Lab ID: **680-206906-C-2** Inj Date: 11/12/2021 4:54:21AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 166.74 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 166.74 mg/L | mg/L | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | |
| Bicarbonate ion as H | | 203.4228 | mg/L | | mg/L | | |

RS# 113 Lab ID: **680-206906-C-3** Inj Date: 11/12/2021 4:58:42AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 17.17 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 17.17 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 20.9474 | mg/L | | mg/L | | | | |

RS# 114 Lab ID: **680-206906-C-4** Inj Date: 11/12/2021 5:03:18AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 89.74 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 89.74 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 109.4828 | mg/L | | mg/L | | | | |

RS# 115 Lab ID: **680-206906-C-5** Inj Date: 11/12/2021 5:07:45AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 70.55 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 70.55 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 86.071 | mg/L | | mg/L | | | | |

RS# 116 Lab ID: **680-206906-C-6** Inj Date: 11/12/2021 5:12:22AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 89.92 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 89.92 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 109.7024 | mg/L | | mg/L | | | | |

RS# 117 Lab ID: **680-206906-C-7** Inj Date: 11/12/2021 5:18:03AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 122.15 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 122.15 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 149.023 | mg/L | | mg/L | | | | |

RS# 118 Lab ID: **680-206906-C-8** Inj Date: 11/12/2021 5:23:11AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 160.89 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 160.89 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 196.2858 | mg/L | | mg/L | | | | |

# TALS Raw Data Report

RS# 119 Lab ID: **680-206906-C-9** Inj Date: 11/12/2021 5:27:19AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 35.38 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 35.38 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 43.1636 mg/L | mg/L | | | | |

RS# 120 Lab ID: **CCV 280-557229/120** Inj Date: 11/12/2021 5:33:22AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 53.29 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 153.51 mg/L | mg/L | | | | |
| Alkalinity | | 206.80 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.05 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 121 Lab ID: **CCB 280-557229/121** Inj Date: 11/12/2021 5:38:07AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.55 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.55 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.111 mg/L | 3.11 J mg/L | | | | |

RS# 122 Lab ID: **680-206906-C-10** Inj Date: 11/12/2021 5:42:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 40.83 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 40.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 49.8126 mg/L | mg/L | | | | |

RS# 123 Lab ID: **680-206906-C-11** Inj Date: 11/12/2021 5:46:51AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 66.73 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 66.73 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 81.4106 mg/L | mg/L | | | | |

RS# 124 Lab ID: **CCV 280-557229/124** Inj Date: 11/12/2021 5:52:47AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 48.02 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 156.89 mg/L | mg/L | | | | |
| Alkalinity | | 204.91 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 126.47 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 125 Lab ID: **CCB 280-557229/125** Inj Date: 11/12/2021 5:57:31AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Bicarbonate Alkalinity | 2.99 | mg/L | 3.1 | U | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | 3.1 | U | mg/L |
| Alkalinity | 2.99 | mg/L | 3.1 | U | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | 3.1 | U | mg/L |
| Bicarbonate ion as H | 3.6478 | mg/L | 3.65 | J | mg/L |

# TALS Raw Data Report

Job Number: 280-206909-1
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | 3.79 J mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | 4.44 J mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | 3.86 J mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | 4.17 J mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | 3.59 J mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | 3.1 U | mg/L |
| Bicarbonate Alkalinity | 15.63 | mg/L | | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | 3.1 U | mg/L |
| Alkalinity | 15.63 | mg/L | | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | 3.1 U | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | | mg/L |

RS# 78 Lab ID: **680-206909-C-2** Inj Date: 11/12/2021 2:12:15AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 81.28 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 81.28 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 99.1616 mg/L | mg/L | | | | |

RS# 79 Lab ID: **680-206909-C-1** Inj Date: 11/12/2021 2:17:22AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 144.06 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 144.06 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 175.7532 mg/L | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 mg/L | mg/L | | | | |
| Alkalinity | | 205.88 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.92 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 mg/L | 3.56 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-207006-2
LIMS Batch: 557229
Equipment: WC-AT3

Laboratory: Eurofins TestAmerica, Denver

RS# 28 Lab ID: **CCV 280-557229/28** Inj Date: 11/11/2021 8:16:01PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 73.93 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 128.32 mg/L | mg/L | | | | |
| Alkalinity | | 202.26 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 138.10 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 29 Lab ID: **CCB 280-557229/29** Inj Date: 11/11/2021 8:20:53PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.11 mg/L | 3.11 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.7942 mg/L | 3.79 J mg/L | | | | |

RS# 31 Lab ID: **MB 280-557229/31** Inj Date: 11/11/2021 8:31:50PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.64 mg/L | 3.64 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.4408 mg/L | 4.44 J mg/L | | | | |

RS# 42 Lab ID: **CCV 280-557229/42** Inj Date: 11/11/2021 10:13:04PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 58.52 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.25 mg/L | mg/L | | | | |
| Alkalinity | | 201.77 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 130.14 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 43 Lab ID: **CCB 280-557229/43** Inj Date: 11/11/2021 10:17:46PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.16 mg/L | 3.16 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.8552 mg/L | 3.86 J mg/L | | | | |

RS# 54 Lab ID: **CCV 280-557229/54** Inj Date: 11/11/2021 11:36:10PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.87 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 131.96 mg/L | mg/L | | | | |
| Alkalinity | | 203.83 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 137.85 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

# TALS Raw Data Report

RS# 55 Lab ID: **CCB 280-557229/55** Inj Date: 11/11/2021 11:41:08PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 3.42 mg/L | 3.42 J mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 4.1724 mg/L | 4.17 J mg/L | | | | |

RS# 56 Lab ID: **LCS 280-557229/56** Inj Date: 11/11/2021 11:47:34PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 72.36 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 124.00 mg/L | mg/L | | | | |
| Alkalinity | | 196.35 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 134.36 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 57 Lab ID: **MB 280-557229/57** Inj Date: 11/11/2021 11:52:18PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 2.94 mg/L | 3.1 U mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 3.5868 mg/L | 3.59 J mg/L | | | | |

RS# 58 Lab ID: **280-155035-C-1** Inj Date: 11/11/2021 11:56:35PM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Alkalinity | | 39.00 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Bicarbonate ion as H | | 47.58 mg/L | mg/L | | | | |

RS# 59 Lab ID: **280-155035-C-1 DU** Inj Date: 11/12/2021 12:00:53AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 20 |
| Carbonate Alkalinity a | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Alkalinity | | 41.75 mg/L | mg/L | | | 7 | 10 |
| Phenolphthalein Alka | | 0.00 mg/L | 3.1 U mg/L | | | NC | 20 |
| Bicarbonate ion as H | | 50.935 mg/L | mg/L | | | 7 | 20 |

RS# 68 Lab ID: **CCV 280-557229/68** Inj Date: 11/12/2021 12:59:30AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 57.12 mg/L | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 mg/L | 3.1 U mg/L | | | | |
| Carbonate Alkalinity a | | 143.05 mg/L | mg/L | | | | |
| Alkalinity | | 200.17 mg/L | mg/L | | | | |
| Phenolphthalein Alka | | 128.65 mg/L | mg/L | | | | |
| Bicarbonate ion as H | | 0 mg/L | 3.1 U mg/L | | | | |

RS# 69 Lab ID: **CCB 280-557229/69** Inj Date: 11/12/2021 1:05:05AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Hydroxide Alkalinity | 0.00 | mg/L | 3.1 U | mg/L |
| Bicarbonate Alkalinity | 15.63 | mg/L | | mg/L |
| Carbonate Alkalinity a | 0.00 | mg/L | 3.1 U | mg/L |
| Alkalinity | 15.63 | mg/L | | mg/L |
| Phenolphthalein Alka | 0.00 | mg/L | 3.1 U | mg/L |
| Bicarbonate ion as H | 19.0686 | mg/L | | mg/L |

RS# 77 Lab ID: **680-207006-C-18** Inj Date: 11/12/2021 2:07:49AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 45.06 | mg/L | | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 45.06 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 54.9732 | mg/L | | mg/L | | | | |

RS# 80 Lab ID: **CCV 280-557229/80** Inj Date: 11/12/2021 2:23:23AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 71.82 | mg/L | | mg/L | | | | |
| Bicarbonate Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Carbonate Alkalinity a | | 134.06 | mg/L | | mg/L | | | | |
| Alkalinity | | 205.88 | mg/L | | mg/L | | | | |
| Phenolphthalein Alka | | 138.85 | mg/L | | mg/L | | | | |
| Bicarbonate ion as H | | 0 | mg/L | 3.1 U | mg/L | | | | |

RS# 81 Lab ID: **CCB 280-557229/81** Inj Date: 11/12/2021 2:28:16AM Dil: 1.0 Meth: 2320B

| Analyte | Rspnse | Raw Res/Units | | Final Res/Qual/Units | | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate Alkalinity | | 2.92 | mg/L | 3.1 U | mg/L | | | | |
| Carbonate Alkalinity a | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Alkalinity | | 2.92 | mg/L | 3.1 U | mg/L | | | | |
| Phenolphthalein Alka | | 0.00 | mg/L | 3.1 U | mg/L | | | | |
| Bicarbonate ion as H | | 3.5624 | mg/L | 3.56 J | mg/L | | | | |

# Test America

AT3

## Water Analysis Historical Data Report

**Run Number** 3720 **Order Number** 20211111-3

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | pH2 | pH3 | Acid | palk ppm | talk ppm | bcarb ppm | carb ppm | hydr ppm | mL @8.3 | mL @4.5 | mL @4.2 | tcon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RINSE | 11/11/2021 | 5:24 PM | 22.43 | -1.00 | 5.84 | -1.00 | -1.00 | -1.00 | .00 | 6.41 | 6.41 | .00 | .00 | .00 | .07 | .08 | .02 |
| INITIAL CHECK | 11/11/2021 | 5:30 PM | 22.31 | -1.00 | 10.64 | -1.00 | -1.00 | -1.00 | 146.75 | 202.67 | .00 | 111.83 | 90.84 | 1.47 | 2.03 | -1.00 | .02 |
| BUFFER 7 | 11/11/2021 | 5:33 PM | 21.34 | -1.00 | 7.01 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 | -1.00 |
| LCS | 11/11/2021 | 5:39 PM | 21.74 | -1.00 | 10.67 | -1.00 | -1.00 | -1.00 | 147.33 | 205.17 | .00 | 115.68 | 89.49 | 1.47 | 2.05 | -1.00 | .02 |
| MB | 11/11/2021 | 5:44 PM | 21.69 | -1.00 | 7.88 | -1.00 | -1.00 | -1.00 | .00 | 4.22 | 4.22 | .00 | .00 | .00 | .05 | .06 | .02 |
| 280-155069-c-1 | 11/11/2021 | 5:49 PM | 21.32 | -1.00 | 7.04 | -1.00 | -1.00 | -1.00 | .00 | 161.25 | 161.25 | .00 | .00 | .00 | 1.61 | -1.00 | .02 |
| 280-155069-a-1du | 11/11/2021 | 5:55 PM | 21.25 | -1.00 | 7.14 | -1.00 | -1.00 | -1.00 | .00 | 168.12 | 168.12 | .00 | .00 | .00 | 1.68 | -1.00 | .02 |
| 280-155069-c-6 | 11/11/2021 | 6:00 PM | 21.22 | -1.00 | 7.26 | -1.00 | -1.00 | -1.00 | .00 | 177.56 | 177.56 | .00 | .00 | .00 | 1.73 | -1.00 | .02 |
| 280-155069-c-4 | 11/11/2021 | 6:05 PM | 21.37 | -1.00 | 7.16 | -1.00 | -1.00 | -1.00 | .00 | 168.32 | 168.32 | .00 | .00 | .00 | 1.68 | -1.00 | .02 |
| 280-155069-c-5 | 11/11/2021 | 6:11 PM | 21.61 | -1.00 | 7.30 | -1.00 | -1.00 | -1.00 | .00 | 176.90 | 176.90 | .00 | .00 | .00 | 1.77 | -1.00 | .02 |
| 280-155069-c-7 | 11/11/2021 | 6:16 PM | 21.47 | -1.00 | 7.20 | -1.00 | -1.00 | -1.00 | .00 | 193.20 | 193.20 | .00 | .00 | .00 | 1.93 | -1.00 | .02 |
| 280-155069-c-2 | 11/11/2021 | 6:21 PM | 21.09 | -1.00 | 7.11 | -1.00 | -1.00 | -1.00 | .00 | 166.43 | 166.43 | .00 | .00 | .00 | 1.66 | -1.00 | .02 |
| 280-155069-c-3 | 11/11/2021 | 6:27 PM | 20.91 | -1.00 | 7.13 | -1.00 | -1.00 | -1.00 | .00 | 165.92 | 165.92 | .00 | .00 | .00 | 1.66 | -1.00 | .02 |
| 280-154888-b-1 | 11/11/2021 | 6:33 PM | 20.94 | -1.00 | 7.48 | -1.00 | -1.00 | -1.00 | .00 | 288.97 | 288.97 | .00 | .00 | .00 | 2.89 | -1.00 | .02 |
| 280-154888-b-2 | 11/11/2021 | 6:40 PM | 21.11 | -1.00 | 7.67 | -1.00 | -1.00 | -1.00 | .00 | 411.58 | 411.58 | .00 | .00 | .00 | 4.12 | -1.00 | .02 |
| CCV | 11/11/2021 | 6:47 PM | 21.43 | -1.00 | 10.65 | -1.00 | -1.00 | -1.00 | 146.95 | 194.78 | .00 | 95.66 | 99.11 | 1.47 | 1.95 | -1.00 | .02 |
| CCB | 11/11/2021 | 6:51 PM | 21.63 | -1.00 | 7.90 | -1.00 | -1.00 | -1.00 | .00 | 3.06 | 3.06 | .00 | .00 | .00 | .04 | .05 | .02 |
| 280-155102-b-1 | 11/11/2021 | 7:01 PM | 21.64 | -1.00 | 8.31 | -1.00 | -1.00 | -1.00 | 8.97 | 767.61 | 749.68 | 17.93 | .00 | .09 | 7.68 | -1.00 | .02 |
| 280-154848-e-4 | 11/11/2021 | 7:12 PM | 22.13 | -1.00 | 7.00 | -1.00 | -1.00 | -1.00 | .00 | 1,134.11 | 1,134.11 | .00 | .00 | .00 | 11.34 | -1.00 | .02 |
| 280-154848-e-11 | 11/11/2021 | 7:20 PM | 22.77 | -1.00 | 7.31 | -1.00 | -1.00 | -1.00 | .00 | 430.91 | 430.91 | .00 | .00 | .00 | 4.31 | -1.00 | .02 |
| 280-154848-e-12 | 11/11/2021 | 7:27 PM | 22.66 | -1.00 | 7.23 | -1.00 | -1.00 | -1.00 | .00 | 471.26 | 471.26 | .00 | .00 | .00 | 4.71 | -1.00 | .02 |
| 280-154848-e-8 | 11/11/2021 | 7:34 PM | 22.43 | -1.00 | 7.42 | -1.00 | -1.00 | -1.00 | .00 | 416.06 | 416.06 | .00 | .00 | .00 | 4.16 | -1.00 | .02 |
| 280-154848-e-10 | 11/11/2021 | 7:40 PM | 22.32 | -1.00 | 7.31 | -1.00 | -1.00 | -1.00 | .00 | 417.62 | 417.62 | .00 | .00 | .00 | 4.18 | -1.00 | .02 |
| 280-154848-e-9 | 11/11/2021 | 7:48 PM | 22.26 | -1.00 | 7.01 | -1.00 | -1.00 | -1.00 | .00 | 580.72 | 580.72 | .00 | .00 | .00 | 5.81 | -1.00 | .02 |
| 280-154848-e-3 | 11/11/2021 | 7:55 PM | 22.35 | -1.00 | 7.28 | -1.00 | -1.00 | -1.00 | .00 | 356.32 | 356.32 | .00 | .00 | .00 | 3.56 | -1.00 | .02 |
| 280-154838-c-7 | 11/11/2021 | 8:03 PM | 22.35 | -1.00 | 7.52 | -1.00 | -1.00 | -1.00 | .00 | 502.90 | 502.90 | .00 | .00 | .00 | 5.03 | -1.00 | .02 |
| 280-154948-f-1 | 11/11/2021 | 8:09 PM | 22.51 | -1.00 | 6.96 | -1.00 | -1.00 | -1.00 | .00 | 371.57 | 371.57 | .00 | .00 | .00 | 3.72 | -1.00 | .02 |
| CCV | 11/11/2021 | 8:16 PM | 22.61 | -1.00 | 10.57 | -1.00 | -1.00 | -1.00 | 138.10 | 202.26 | .00 | 128.32 | 73.93 | 1.38 | 2.02 | -1.00 | .02 |
| CCB | 11/11/2021 | 8:20 PM | 22.90 | -1.00 | 7.94 | -1.00 | -1.00 | -1.00 | .00 | 3.11 | 3.11 | .00 | .00 | .00 | .04 | .05 | .02 |

**Run Number** 3720 **Order Number** 20211111-3

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | pH2 | pH3 | Acid | palk ppm | talk ppm | bcarb ppm | carb ppm | hydr ppm | mL @8.3 | mL @4.5 | mL @4.2 | tcon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 280-155012-b-2 | 11/12/2021 | 12:14 AM | 22.70 | -1.00 | 7.24 | -1.00 | -1.00 | -1.00 | .00 | 344.15 | 344.15 | .00 | .00 | .00 | 3.44 | -1.00 | .02 |
| 280-155141-e-5 | 11/12/2021 | 12:20 AM | 22.86 | -1.00 | 7.28 | -1.00 | -1.00 | -1.00 | .00 | 302.02 | 302.02 | .00 | .00 | .00 | 3.02 | -1.00 | .02 |
| 280-155141-d-3 | 11/12/2021 | 12:27 AM | 23.25 | -1.00 | 7.36 | -1.00 | -1.00 | -1.00 | .00 | 411.43 | 411.43 | .00 | .00 | .00 | 4.11 | -1.00 | .02 |
| 280-155141-e-1 | 11/12/2021 | 12:32 AM | 23.06 | -1.00 | 7.02 | -1.00 | -1.00 | -1.00 | .00 | 211.58 | 211.58 | .00 | .00 | .00 | 2.12 | -1.00 | .02 |
| 280-155141-f-2 | 11/12/2021 | 12:40 AM | 22.86 | -1.00 | 7.42 | -1.00 | -1.00 | -1.00 | .00 | 528.93 | 528.93 | .00 | .00 | .00 | 5.29 | -1.00 | .02 |
| 280-155141-e-6 | 11/12/2021 | 12:48 AM | 22.80 | -1.00 | 7.38 | -1.00 | -1.00 | -1.00 | .00 | 525.86 | 525.86 | .00 | .00 | .00 | 5.26 | -1.00 | .02 |
| 280-155141-e-4 | 11/12/2021 | 12:53 AM | 22.74 | -1.00 | 7.12 | -1.00 | -1.00 | -1.00 | .00 | 164.91 | 164.91 | .00 | .00 | .00 | 1.65 | -1.00 | .02 |
| CCV | 11/12/2021 | 12:59 AM | 22.58 | -1.00 | 10.52 | -1.00 | -1.00 | -1.00 | 128.65 | 200.17 | .00 | 143.05 | 57.12 | 1.29 | 2.00 | -1.00 | .02 |
| CCB | 11/12/2021 | 1:05 AM | 22.57 | -1.00 | 7.62 | -1.00 | -1.00 | -1.00 | .00 | 15.63 | 15.63 | .00 | .00 | .00 | .18 | .20 | .02 |
| 280-154892-a-2 | 11/12/2021 | 1:11 AM | 22.60 | -1.00 | 7.66 | -1.00 | -1.00 | -1.00 | .00 | 279.25 | 279.25 | .00 | .00 | .00 | 2.79 | -1.00 | .02 |
| 280-154892-a-3 | 11/12/2021 | 1:16 AM | 22.60 | -1.00 | 7.43 | -1.00 | -1.00 | -1.00 | .00 | 179.48 | 179.48 | .00 | .00 | .00 | 1.79 | -1.00 | .02 |
| 280-154892-a-1 | 11/12/2021 | 1:22 AM | 22.64 | -1.00 | 7.77 | -1.00 | -1.00 | -1.00 | .00 | 274.91 | 274.91 | .00 | .00 | .00 | 2.75 | -1.00 | .02 |
| 280-154945-a-1 | 11/12/2021 | 1:29 AM | 22.78 | -1.00 | 7.66 | -1.00 | -1.00 | -1.00 | .00 | 496.69 | 496.69 | .00 | .00 | .00 | 4.97 | -1.00 | .02 |
| 280-154945-a-2 | 11/12/2021 | 1:36 AM | 22.93 | -1.00 | 7.73 | -1.00 | -1.00 | -1.00 | .00 | 495.44 | 495.44 | .00 | .00 | .00 | 4.95 | -1.00 | .02 |
| 280-154945-a-3 | 11/12/2021 | 1:42 AM | 23.19 | -1.00 | 7.70 | -1.00 | -1.00 | -1.00 | .00 | 192.15 | 192.15 | .00 | .00 | .00 | 1.92 | -1.00 | .02 |
| 280-154858-d-1 | 11/12/2021 | 2:03 AM | 22.96 | -1.00 | 8.19 | -1.00 | -1.00 | -1.00 | .00 | 2,464.38 | 2,464.38 | .00 | .00 | .00 | 24.64 | -1.00 | .02 |
| 680-207006-c-18 | 11/12/2021 | 2:07 AM | 23.07 | -1.00 | 6.87 | -1.00 | -1.00 | -1.00 | .00 | 45.06 | 45.06 | .00 | .00 | .00 | .45 | -1.00 | .02 |
| 680-206909-c-2 | 11/12/2021 | 2:12 AM | 22.80 | -1.00 | 6.52 | -1.00 | -1.00 | -1.00 | .00 | 81.28 | 81.28 | .00 | .00 | .00 | .81 | -1.00 | .02 |
| 680-206909-c-1 | 11/12/2021 | 2:17 AM | 22.67 | -1.00 | 6.92 | -1.00 | -1.00 | -1.00 | .00 | 144.06 | 144.06 | .00 | .00 | .00 | 1.44 | -1.00 | .02 |
| CCV | 11/12/2021 | 2:23 AM | 22.63 | -1.00 | 10.48 | -1.00 | -1.00 | -1.00 | 138.85 | 205.88 | .00 | 134.06 | 71.82 | 1.39 | 2.06 | -1.00 | .02 |
| CCB | 11/12/2021 | 2:28 AM | 22.64 | -1.00 | 7.57 | -1.00 | -1.00 | -1.00 | .00 | 2.92 | 2.92 | .00 | .00 | .00 | .04 | .05 | .02 |
| LCS | 11/12/2021 | 2:35 AM | 22.63 | -1.00 | 10.46 | -1.00 | -1.00 | -1.00 | 151.07 | 209.97 | .00 | 117.79 | 92.18 | 1.51 | 2.10 | -1.00 | .02 |
| MB | 11/12/2021 | 2:39 AM | 22.72 | -1.00 | 7.61 | -1.00 | -1.00 | -1.00 | .00 | 3.17 | 3.17 | .00 | .00 | .00 | .04 | .05 | .02 |
| 680-206680-b-1 | 11/12/2021 | 2:44 AM | 22.74 | -1.00 | 6.72 | -1.00 | -1.00 | -1.00 | .00 | 122.09 | 122.09 | .00 | .00 | .00 | 1.22 | -1.00 | .02 |
| DU | 11/12/2021 | 2:49 AM | 22.84 | -1.00 | 6.79 | -1.00 | -1.00 | -1.00 | .00 | 118.92 | 118.92 | .00 | .00 | .00 | 1.19 | -1.00 | .02 |
| 680-206680-b-8 | 11/12/2021 | 2:54 AM | 23.27 | -1.00 | 7.07 | -1.00 | -1.00 | -1.00 | .00 | 153.75 | 153.75 | .00 | .00 | .00 | 1.54 | -1.00 | .02 |
| 680-206680-b-6 | 11/12/2021 | 2:59 AM | 23.12 | -1.00 | 6.20 | -1.00 | -1.00 | -1.00 | .00 | 37.08 | 37.08 | .00 | .00 | .00 | .37 | -1.00 | .02 |
| 680-206680-b-2 | 11/12/2021 | 3:03 AM | 22.92 | -1.00 | 6.35 | -1.00 | -1.00 | -1.00 | .00 | 52.46 | 52.46 | .00 | .00 | .00 | .52 | -1.00 | .02 |
| 680-206680-b-3 | 11/12/2021 | 3:07 AM | 22.83 | -1.00 | 6.44 | -1.00 | -1.00 | -1.00 | .00 | 53.42 | 53.42 | .00 | .00 | .00 | .53 | -1.00 | .02 |
| 680-206680-b-7 | 11/12/2021 | 3:12 AM | 22.74 | -1.00 | 6.17 | -1.00 | -1.00 | -1.00 | .00 | 37.58 | 37.58 | .00 | .00 | .00 | .38 | -1.00 | .02 |
| 680-206680-b-4 | 11/12/2021 | 3:16 AM | 22.70 | -1.00 | 6.50 | -1.00 | -1.00 | -1.00 | .00 | 62.07 | 62.07 | .00 | .00 | .00 | .62 | -1.00 | .02 |

**Run Number** 3720 **Order Number** 20211111-3

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | pH2 | pH3 | Acid | palk ppm | talk ppm | bcarb ppm | carb ppm | hydr ppm | mL @8.3 | mL @4.5 | mL @4.2 | tcon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 680-206680-b-5 | 11/12/2021 | 3:20 AM | 22.74 | -1.00 | 6.32 | -1.00 | -1.00 | -1.00 | .00 | 38.94 | 38.94 | .00 | .00 | .00 | .39 | -1.00 | .02 |
| 680-206636-a-1 | 11/12/2021 | 3:25 AM | 22.69 | -1.00 | 6.13 | -1.00 | -1.00 | -1.00 | .00 | 28.82 | 28.82 | .00 | .00 | .00 | .29 | -1.00 | .02 |
| CCV | 11/12/2021 | 3:30 AM | 22.72 | -1.00 | 10.44 | -1.00 | -1.00 | -1.00 | 131.89 | 202.51 | .00 | 141.25 | 61.27 | 1.32 | 2.03 | -1.00 | .02 |
| CCB | 11/12/2021 | 3:35 AM | 22.90 | -1.00 | 7.96 | -1.00 | -1.00 | -1.00 | .00 | 3.17 | 3.17 | .00 | .00 | .00 | .04 | .05 | .02 |
| 680-206636-g-4 | 11/12/2021 | 3:40 AM | 22.95 | -1.00 | 6.10 | -1.00 | -1.00 | -1.00 | .00 | 44.47 | 44.47 | .00 | .00 | .00 | .44 | -1.00 | .02 |
| 680-206636-a-9 | 11/12/2021 | 3:44 AM | 23.06 | -1.00 | 6.42 | -1.00 | -1.00 | -1.00 | .00 | 43.17 | 43.17 | .00 | .00 | .00 | .43 | -1.00 | .02 |
| 680-206636-a-8 | 11/12/2021 | 3:48 AM | 23.30 | -1.00 | 5.76 | -1.00 | -1.00 | -1.00 | .00 | 7.73 | 7.73 | .00 | .00 | .00 | .08 | .09 | .02 |
| 680-206636-a-5 | 11/12/2021 | 3:52 AM | 23.17 | -1.00 | 6.16 | -1.00 | -1.00 | -1.00 | .00 | 25.28 | 25.28 | .00 | .00 | .00 | .25 | -1.00 | .02 |
| 680-206636-a-7 | 11/12/2021 | 3:57 AM | 23.03 | -1.00 | 6.13 | -1.00 | -1.00 | -1.00 | .00 | 22.23 | 22.23 | .00 | .00 | .00 | .22 | -1.00 | .02 |
| 680-206636-g-6 | 11/12/2021 | 4:01 AM | 22.98 | -1.00 | 6.17 | -1.00 | -1.00 | -1.00 | .00 | 31.25 | 31.25 | .00 | .00 | .00 | .31 | -1.00 | .02 |
| 680-206636-g-10 | 11/12/2021 | 4:05 AM | 22.92 | -1.00 | 6.17 | -1.00 | -1.00 | -1.00 | .00 | 12.51 | 12.51 | .00 | .00 | .00 | .13 | .14 | .02 |
| 680-206636-a-3 | 11/12/2021 | 4:10 AM | 22.90 | -1.00 | 6.46 | -1.00 | -1.00 | -1.00 | .00 | 81.72 | 81.72 | .00 | .00 | .00 | .82 | -1.00 | .02 |
| 680-206636-a-2 | 11/12/2021 | 4:14 AM | 22.89 | -1.00 | 6.24 | -1.00 | -1.00 | -1.00 | .00 | 11.23 | 11.23 | .00 | .00 | .00 | .12 | .12 | .02 |
| 680-206906-c-12 | 11/12/2021 | 4:19 AM | 22.92 | -1.00 | 6.32 | -1.00 | -1.00 | -1.00 | .00 | 70.58 | 70.58 | .00 | .00 | .00 | .71 | -1.00 | .02 |
| CCV | 11/12/2021 | 4:24 AM | 22.98 | -1.00 | 10.42 | -1.00 | -1.00 | -1.00 | 132.20 | 209.27 | .00 | 154.15 | 55.12 | 1.32 | 2.09 | -1.00 | .02 |
| CCB | 11/12/2021 | 4:29 AM | 23.09 | -1.00 | 8.00 | -1.00 | -1.00 | -1.00 | .00 | 2.77 | 2.77 | .00 | .00 | .00 | .04 | .05 | .02 |
| LCS | 11/12/2021 | 4:35 AM | 23.15 | -1.00 | 10.41 | -1.00 | -1.00 | -1.00 | 127.08 | 201.06 | .00 | 147.96 | 53.10 | 1.27 | 2.01 | -1.00 | .02 |
| MB | 11/12/2021 | 4:40 AM | 23.67 | -1.00 | 8.02 | -1.00 | -1.00 | -1.00 | .00 | 2.70 | 2.70 | .00 | .00 | .00 | .04 | .04 | .02 |
| 680-206906-c-1 | 11/12/2021 | 4:44 AM | 23.47 | -1.00 | 6.41 | -1.00 | -1.00 | -1.00 | .00 | 47.30 | 47.30 | .00 | .00 | .00 | .47 | -1.00 | .02 |
| DU | 11/12/2021 | 4:49 AM | 23.30 | -1.00 | 6.44 | -1.00 | -1.00 | -1.00 | .00 | 50.52 | 50.52 | .00 | .00 | .00 | .51 | -1.00 | .02 |
| 680-206906-c-2 | 11/12/2021 | 4:54 AM | 23.22 | -1.00 | 6.72 | -1.00 | -1.00 | -1.00 | .00 | 166.74 | 166.74 | .00 | .00 | .00 | 1.67 | -1.00 | .02 |
| 680-206906-c-3 | 11/12/2021 | 4:58 AM | 23.17 | -1.00 | 6.26 | -1.00 | -1.00 | -1.00 | .00 | 17.17 | 17.17 | .00 | .00 | .00 | .18 | .18 | .02 |
| 680-206906-c-4 | 11/12/2021 | 5:03 AM | 23.14 | -1.00 | 6.68 | -1.00 | -1.00 | -1.00 | .00 | 89.74 | 89.74 | .00 | .00 | .00 | .90 | -1.00 | .02 |
| 680-206906-c-5 | 11/12/2021 | 5:07 AM | 23.17 | -1.00 | 6.43 | -1.00 | -1.00 | -1.00 | .00 | 70.55 | 70.55 | .00 | .00 | .00 | .71 | -1.00 | .02 |
| 680-206906-c-6 | 11/12/2021 | 5:12 AM | 23.23 | -1.00 | 6.64 | -1.00 | -1.00 | -1.00 | .00 | 89.92 | 89.92 | .00 | .00 | .00 | .90 | -1.00 | .02 |
| 680-206906-c-7 | 11/12/2021 | 5:18 AM | 23.28 | -1.00 | 6.58 | -1.00 | -1.00 | -1.00 | .00 | 122.15 | 122.15 | .00 | .00 | .00 | 1.22 | -1.00 | .02 |
| 680-206906-c-8 | 11/12/2021 | 5:23 AM | 23.28 | -1.00 | 6.93 | -1.00 | -1.00 | -1.00 | .00 | 160.89 | 160.89 | .00 | .00 | .00 | 1.61 | -1.00 | .02 |
| 680-206906-c-9 | 11/12/2021 | 5:27 AM | 23.30 | -1.00 | 6.42 | -1.00 | -1.00 | -1.00 | .00 | 35.38 | 35.38 | .00 | .00 | .00 | .35 | -1.00 | .02 |
| CCV | 11/12/2021 | 5:33 AM | 23.35 | -1.00 | 10.41 | -1.00 | -1.00 | -1.00 | 130.05 | 206.80 | .00 | 153.51 | 53.29 | 1.30 | 2.07 | -1.00 | .02 |
| CCB | 11/12/2021 | 5:38 AM | 23.76 | -1.00 | 7.72 | -1.00 | -1.00 | -1.00 | .00 | 2.55 | 2.55 | .00 | .00 | .00 | .03 | .04 | .02 |
| 680-206906-c-10 | 11/12/2021 | 5:42 AM | 23.65 | -1.00 | 6.37 | -1.00 | -1.00 | -1.00 | .00 | 40.83 | 40.83 | .00 | .00 | .00 | .41 | -1.00 | .02 |

**Run Number** 3720 **Order Number** 20211111-3

| SampleID | RunDate | RunTime | Temp | cond (uS) | pH | pH2 | pH3 | Acid | palk ppm | talk ppm | bcarb ppm | carb ppm | hydr ppm | mL @8.3 | mL @4.5 | mL @4.2 | tcon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 680-206906-c-11 | 11/12/2021 | 5:46 AM | 23.54 | -1.00 | 6.37 | -1.00 | -1.00 | -1.00 | .00 | 66.73 | 66.73 | .00 | .00 | .00 | .67 | -1.00 | .02 |
| CCV | 11/12/2021 | 5:52 AM | 23.51 | -1.00 | 10.38 | -1.00 | -1.00 | -1.00 | 126.47 | 204.91 | .00 | 156.89 | 48.02 | 1.26 | 2.05 | -1.00 | .02 |
| CCB | 11/12/2021 | 5:57 AM | 23.57 | -1.00 | 7.99 | -1.00 | -1.00 | -1.00 | .00 | 2.99 | 2.99 | .00 | .00 | .00 | .04 | .05 | .02 |

# 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-29-21 | 1555 | | X | EW7-PM21A-7-25 | AQ | 9 | A,B,C,D,E,F | X | X | X | X | X | X | | 6°C |

280-154948 Chain of Custody

| Signatures | Date | Time |
|---|---|---|
| Relinquished by: | 10-29-21 | 1700 |
| Received by: | 10/30/2021 | 1210 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 5355 3978 5765

**Lab Address:**
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions
* Filter groundwater sample before analyzing for DOC

(A) (2) 500mL Ambers (Explosives)
(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2/NO_3$)
(C) (1) 250mL HDPE ($SO_4$, Alkalinity)
(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)
(E) (1) 250mL Amber (DOC)*
(F) (3) 40 mL VOA w/ HCl (Methane)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

-0.4FR11+1.0

2020573

Wgt: 10.00 LBS

DV:

rofins | Environment Tes 5355 3978 5478
TestAmerica 5355 3978 57

1801484

Environment Testin
TestAmerica

1801485

eurofins | Environment Testing
TestAmerica

-0.4

Part # 159470-434 RIT2 EXP 07/22

ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

SHIP DATE: 18OCT21
ACTWGT: 10.00 LB MAN
CAD: 0562071/CAFE3507

570C3/14BA/5F4D

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-113339

RMA:

FedEx Express

J211020121101uv

FedEx
TRK# 0221 5355 3978 5765

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US DEN

J211020121101uv

Part # 159470-435 RIT2 EXP 04/22

3676756 10/29 56DJ3/14BA/FE4A

280-154948 Waybill

# Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-154948-1

**Login Number: 154948**
**List Number: 1**
**Creator: Roehsner, Karen P**

**List Source: Eurofins TestAmerica, Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | 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. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |