# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

| Sample Identification # | Date Collected | Date Received | Matrix | Analysis |
|---|---|---|---|---|
| SoilWC-LTM-Apr20 | 4/7/2020 | 4/8/2020 | Soil | Explosives (8330A) |
| WaterWC-LTM-Apr20 | 4/7/2020 | 4/8/2020 | Water | Explosives (8330A) |

## 1.0 Laboratory Case Narrative \ Cooler Receipt Form

| Verification Criteria | Yes | No | N/A |
|---|---|---|---|
| Were any DoD QSM deviations noted in the laboratory case narrative? | X | | |
| Were DoD QSM corrective actions followed if deviations were noted? | X | | |
| Were any issues noted in the cooler receipt form? | | X | |

The case narrative indicated that some surrogate and MS/MSD recoveries were outside evaluation criteria. These issues are discussed further in the ADR report.

The case narrative also indicated that a CCV %D was outside of evaluation criteria. This issue is discussed further in Section 5.0.

No other issues were noted in the case narrative or cooler receipt form.

## 2.0 Sample Documentation

| Verification Criteria | Yes | No |
|---|---|---|
| Were all samples documented correctly on the chain-of-custody (COC) and samples labels? | X | |
| Were all sample identifications (IDs) documented correctly on sample labels? | X | |
| Did samples listed on COCs match the sample labels? | X | |
| Were samples relinquished properly on the COC? | X | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

## 3.0 Initial Calibration

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration:** | **3/4/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration:** | **3/18/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration:** | **4/13/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration:** | **4/23/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

## 4.0 Initial Calibration Verification [(ICV) Second Source]

| **Method 8330A ICV Criteria (Filename)** | **03040033.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Initial Calibration Verification:** | **3/5/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **03180016.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Initial Calibration Verification:** | **3/18/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **04130016.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Initial Calibration Verification:** | **4/13/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **04220016.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Initial Calibration Verification:** | **4/23/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

## 5.0 Continuing Calibration Verification (CCV)

| **Method 8330A CCV Criteria (Filename)** | **04150007_8** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **4/15/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A CCV Criteria (Filename)** | **04150019_20** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **4/15/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A CCV Criteria (Filename)** | **04220007_9** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **4/22/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A CCV Criteria (Filename)** | **04220018_20** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **4/22/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

| **Method 8330A CCV Criteria (Filename)** | **04220033_4.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration Verification:** | **4/23/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | | X | |

The %Ds for RDX (16.6%), 2-nitrotoluene (19.3%), 3-nitrotoluene (29.2%), and 2-Amino-4,6-dinitrotoluene (18.3%) were outside of evaluation criteria with high biases. RDX was qualified in Section 8.0 and no additional qualification was required based on CCV %Ds. The other associated results were nondetect and no qualification of data was required.

| **Method 8330A CCV Criteria (Filename)** | **04220045_6.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration Verification:** | **4/24/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | | X | |

The %Ds for 2-nitrotoluene (27.4%) and 3-nitrotoluene (26.9%) were outside of evaluation criteria with high bias. Associated results were nondetect and no qualification of data was required.

## 6.0 Blank Samples

| **Blank Criteria** | **Yes** | **No** | **N/A** |
|---|---|---|---|
| Were method blanks analyzed with every preparatory batch? | X | | |
| Were target analytes detected > ½ the LOQ and > 1/10 the amount measured in any sample or 1/10 the regulatory limit (whichever is greater)? | | X | |
| Were target analytes detected in method, trip or calibration blanks? | | X | |

## 7.0 Sensitivity

| **Sensitivity Criteria** | **Yes** | **No** | **N/A** |
|---|---|---|---|
| Was the laboratory sensitivity consistent with project (QAPP) requirements? | X | | |
| Did all analytes meet sensitivity requirements? | X | | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-135347** **AECOM Chemist: Jared DeSadier**
**Date Verified: 5/28/2020** **AECOM ITR: Jared Grogan**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A, 353.2, 350.1, 351.2, RSK-175, 9060A, 2320B, 9056A**

## 8.0 Additional Qualifications

| Additional Qualification Criteria | Yes | No | N/A |
|---|---|---|---|
| Were common laboratory contaminants detected? | | X | |
| Was professional judgment used to qualify data (if yes, list below)? | X | | |

The RPD between the primary and confirmation column for some explosives samples was above evaluation criteria. Qualification of data is shown in the table below.

| Sample ID | Analysis | Analyte | RPD | Qual |
|---|---|---|---|---|
| WATERWC-LTM-Apr20 | Explosives | RDX | 44.0 | **J** |

## 9.0 Completeness

| Completeness Criteria | Yes | No | N/A |
|---|---|---|---|
| Were any data rejected during the verification process? | | X | |
| Were any samples lost, broken, or in any other manner in not verified? | | X | |
| Were requested sample analyses performed, the correct analyte lists used, and correct sample preparation and analyses methods and units utilized? | X | | |

# Data Qualifier Summary

**Lab Reporting Batch ID: 280-135347-1** **Laboratory: TAL DEN**

**EDD Filename:**
**280-135347-1_52_2a_Brice_CornhuskerAAP** **eQAPP Name: CHAAP_EQAPP_20180320**

***Method Category:*** **SVOA**

***Method:*** **8330A** ***Matrix:*** **Water**

***Sample ID:*** **WATERWC-LTM-Apr20** ***Collected:*** **AM** ***Analysis Type:*** **Initial/TOT** ***Dilution:*** **1**

| Analyte | Lab Result | Lab Qual | DL | DL Type | RL | RL Type | Units | Data Review Qual | Reason Code |
|---|---|---|---|---|---|---|---|---|---|
| RDX | 13 | M Q | 0.41 | LOD | 0.41 | LOQ | ug/L | J | Surr, ProfJudg |
| HMX | 9.3 | M Q | 0.20 | LOD | 0.41 | LOQ | ug/L | J | Surr |

* denotes a non-reportable result

**Project Name and Number: Unknown - Unknown**

# Data Qualifier Summary

**Lab Reporting Batch ID: 280-135347-1**

**Laboratory: TAL DEN**

**EDD Filename:**
**280-135347-1_52_2a_Brice_CornhuskerAAP**

**eQAPP Name: CHAAP_EQAPP_20180320**

## Reason Code Legend

| *Reason Code* | *Description* |
|---|---|
| ProfJudg | Professional Judgment |
| Surr | Surrogate/Tracer Recovery Upper Estimation |

* denotes a non-reportable result

**Project Name and Number: Unknown - Unknown**

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-139906** **AECOM Chemist: Jared DeSadier**
**Date Verified: 9/3/2020** **AECOM ITR: Jeff Aust**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A**

| Sample Identification # | Date Collected | Date Received | Matrix | Analysis |
|---|---|---|---|---|
| WaterWC-LTM-Aug20 | 8/27/2020 | 8/28/2020 | Water | Explosives (8330A) |

## 1.0 Laboratory Case Narrative \ Cooler Receipt Form

| Verification Criteria | Yes | No | N/A |
|---|---|---|---|
| Were any DoD QSM deviations noted in the laboratory case narrative? | X | | |
| Were DoD QSM corrective actions followed if deviations were noted? | X | | |
| Were any issues noted in the cooler receipt form? | | X | |

The case narrative indicated that some surrogate recoveries were outside of evaluation criteria. This issue is discussed further in the ADR report.

No other issues were noted in the case narrative or cooler receipt form.

## 2.0 Sample Documentation

| Verification Criteria | Yes | No |
|---|---|---|
| Were all samples documented correctly on the chain-of-custody (COC) and samples labels? | X | |
| Were all sample identifications (IDs) documented correctly on sample labels? | X | |
| Did samples listed on COCs match the sample labels? | X | |
| Were samples relinquished properly on the COC? | X | |

## 3.0 Initial Calibration

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration:** | **3/4/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-139906** **AECOM Chemist: Jared DeSadier**
**Date Verified: 9/3/2020** **AECOM ITR: Jeff Aust**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A**

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration:** | **3/18/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration:** | **5/14/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

| **Method 8330A Initial Calibration Criteria** | | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration:** | **5/14/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was at least a five point calibration completed for all analytes prior to sample analysis and one option below? | X | | |
| Option 1: RSD for each analyte ≤ 20%? | X | | |
| Option 2: If linear least squares regression was used was the $r^2 \geq 0.99$? | | | X |
| Option 3: If non-linear regression was used was the coefficient of determination $r^2 \geq 0.99$? | | | X |
| If non-linear regression was used were 6 points used for second order and 7 points for third order? | | | X |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-139906** **AECOM Chemist: Jared DeSadier**
**Date Verified: 9/3/2020** **AECOM ITR: Jeff Aust**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A**

## 4.0 Initial Calibration Verification [(ICV) Second Source]

| **Method 8330A ICV Criteria (Filename)** | **03040033.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Initial Calibration Verification:** | **3/5/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **03180016.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Initial Calibration Verification:** | **3/18/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **05140016.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2-LUNA** | | |
| **Date of Initial Calibration Verification:** | **5/14/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A ICV Criteria (Filename)** | **05140026.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2-LUNA** | | |
| **Date of Initial Calibration Verification:** | **5/15/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the ICV analyzed after each calibration? | X | | |
| Was the ICV for all analytes within ± 15% of the true value? | X | | |

## 5.0 Continuing Calibration Verification (CCV)

| **Method 8330A CCV Criteria (Filename)** | **09010020-1.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **9/1/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-139906** **AECOM Chemist: Jared DeSadier**
**Date Verified: 9/3/2020** **AECOM ITR: Jeff Aust**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A**

| **Method 8330A CCV Criteria (Filename)** | **09010030-1.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_X3** | | |
| **Date of Calibration Verification:** | **9/2/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A CCV Criteria (Filename)** | **09010019-20.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration Verification:** | **9/1/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

| **Method 8330A CCV Criteria (Filename)** | **09010029-30.D** | | |
|---|---|---|---|
| **Instrument:** | **CHHPLC_G2_LUNA** | | |
| **Date of Calibration Verification:** | **9/2/2020** | | |
| | **Yes** | **No** | **N/A** |
| Was the CCV analyzed daily before sample analysis? | X | | |
| Was the CCV analyzed every 10 field samples and at the end of the analysis sequence? | X | | |
| Was the CCV for all analytes within ± 15% of the true value? | X | | |

## 6.0 Sensitivity

| **Sensitivity Criteria** | **Yes** | **No** | **N/A** |
|---|---|---|---|
| Was the laboratory sensitivity consistent with project (QAPP) requirements? | X | | |
| Did all analytes meet sensitivity requirements? | X | | |

## 7.0 Additional Qualifications

| **Additional Qualification Criteria** | **Yes** | **No** | **N/A** |
|---|---|---|---|
| Were common laboratory contaminants detected? | | X | |
| Was professional judgment used to qualify data (if yes, list below)? | | X | |

# CHAAP Data Verification

**Laboratory and SDG#: TADenver 280-139906** **AECOM Chemist: Jared DeSadier**
**Date Verified: 9/3/2020** **AECOM ITR: Jeff Aust**
**Guidance: DoD QSM Version 5.1 (January 2017)**
**Applicable QAPP: Cornhusker Army Ammunition Plant QAPP (Brice and AECOM, October 2018)**
**Applicable Analytical Methods: 8330A**

## 8.0 Completeness

| Completeness Criteria | Yes | No | N/A |
|---|---|---|---|
| Were any data rejected during the verification process? | | X | |
| Were any samples lost, broken, or in any other manner in not verified? | | X | |
| Were requested sample analyses performed, the correct analyte lists used, and correct sample preparation and analyses methods and units utilized? | X | | |

# Data Qualifier Summary

**Lab Reporting Batch ID: 280-139906-1** **Laboratory: TAL DEN**

**EDD Filename:**
**280-139906-1_52_2a_Brice_CornhuskerAAP** **eQAPP Name: CHAAP_EQAPP_20180320**

***Method Category:*** **SVOA**

***Method:*** **8330A** ***Matrix:*** **Water**

***Sample ID:*** **WATERWC-LTM-AUG20** ***Collected:*** **AM** ***Analysis Type:*** **Initial/TOT** ***Dilution:*** **1**

| Analyte | Lab Result | Lab Qual | DL | DL Type | RL | RL Type | Units | Data Review Qual | Reason Code |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-TRINITROBENZENE | 0.21 | U Q | 0.21 | LOD | 0.22 | LOQ | ug/L | UJ | Surr |
| 1,3-DINITROBENZENE | 0.11 | U Q | 0.11 | LOD | 0.12 | LOQ | ug/L | UJ | Surr |
| 2,4-DINITROTOLUENE | 0.085 | U Q | 0.085 | LOD | 0.11 | LOQ | ug/L | UJ | Surr |
| 2,6-DINITROTOLUENE | 0.085 | U Q | 0.085 | LOD | 0.11 | LOQ | ug/L | UJ | Surr |
| 2-NITROTOLUENE | 0.21 | U Q | 0.21 | LOD | 0.22 | LOQ | ug/L | UJ | Surr |
| 3-NITROTOLUENE | 0.43 | U M Q | 0.43 | LOD | 0.43 | LOQ | ug/L | UJ | Surr |
| 4-AMINO-2,6-DINITROTOLUENE | 0.13 | U Q | 0.13 | LOD | 0.16 | LOQ | ug/L | UJ | Surr |
| 4-NITROTOLUENE | 0.43 | U Q | 0.43 | LOD | 0.44 | LOQ | ug/L | UJ | Surr |
| HMX | 0.21 | U Q | 0.21 | LOD | 0.22 | LOQ | ug/L | UJ | Surr |
| NITROBENZENE | 0.21 | U Q | 0.21 | LOD | 0.22 | LOQ | ug/L | UJ | Surr |
| RDX | 0.21 | U Q | 0.21 | LOD | 0.22 | LOQ | ug/L | UJ | Surr |
| Tetryl | 0.11 | U Q | 0.11 | LOD | 0.12 | LOQ | ug/L | UJ | Surr |
| 2,4,6-TRINITROTOLUENE | 0.11 | U M Q | 0.11 | LOD | 0.12 | LOQ | ug/L | UJ | Surr |

* denotes a non-reportable result

**Project Name and Number: Unknown - Unknown**

# Data Qualifier Summary

**Lab Reporting Batch ID: 280-139906-1**

**Laboratory: TAL DEN**

**EDD Filename:**
**280-139906-1_52_2a_Brice_CornhuskerAAP**

**eQAPP Name: CHAAP_EQAPP_20180320**

## Reason Code Legend

| *Reason Code* | *Description* |
|---|---|
| Surr | Surrogate/Tracer Recovery Lower Estimation |

* denotes a non-reportable result

**Project Name and Number: Unknown - Unknown**

Environment Testing
TestAmerica

# ANALYTICAL REPORT

Job Number: 280-135347-1

Job Description: Cornhusker (CHAAP)

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

Attention: Corey Schwabenlander

Approved for release.
Patrick J McEntee
Client Service Manager
4/27/2020 6:05 AM

Patrick J McEntee, Client Service Manager
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0107
patrick.mcentee@testamericainc.com
04/27/2020

cc: Corey Anderson
Mr. Gary Carson
Dean Converse
Jared DeSadier
Mr. Anthony Farinacci
Jennifer Zorinsky

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

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

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


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

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 4

Definitions . . . . . 4

Case Narrative . . . . . 5

Detection Summary . . . . . 6

Client Sample Results . . . . . 7

Action Limits . . . . . 8

Default Detection Limits . . . . . 9

Surrogate Summary . . . . . 10

QC Sample Results . . . . . 11

QC Association . . . . . 15

Chronicle . . . . . 16

Certification Summary . . . . . 17

Method Summary . . . . . 18

Sample Summary . . . . . 19

Manual Integration Summary . . . . . 20

Reagent Traceability . . . . . 38

COAs . . . . . 42

Organic Sample Data . . . . . 127

HPLC/IC . . . . . 127

8330A_DOD5 . . . . . 127

8330A_DOD5 QC Summary . . . . . 128

8330A_DOD5 Sample Data . . . . . 142

Standards Data . . . . . 167

8330A_DOD5 ICAL Data . . . . . 167

8330A_DOD5 CCAL Data . . . . . 366

# Table of Contents

Raw QC Data . . . . . 476
8330A_DOD5 Blank Data . . . . . 476
8330A_DOD5 LCS/LCSD Data . . . . . 487
8330A_DOD5 MS/MSD Data . . . . . 510
8330A_DOD5 Run Logs . . . . . 533
8330A_DOD5 Prep Data . . . . . 540
Shipping and Receiving Documents . . . . . 544
Client Chain of Custody . . . . . 545
Sample Receipt Checklist . . . . . 547

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| M | Manual integrated compound. |
| Q | One or more quality control criteria failed. |
| U | Undetected at the Limit of Detection. |

## Glossary

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

# CASE NARRATIVE

## Client: Brice Environmental Services, Corp

## Project: Cornhusker (CHAAP)

## Report Number: 280-135347-1

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

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

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

**RECEIPT**
The samples were received on 4/8/2020 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

**NITROAROMATICS AND NITRAMINES (HPLC)**
Sample SOILWC-LTM-Apr20 (280-135347-1) was analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were leached on 04/17/2020, prepared on 04/20/2020 and analyzed on 04/22/2020.

MNX failed the recovery criteria low for the MSD of sample SOILWC-LTM-Apr20MSD (280-135347-1) in batch 280-492475. Refer to the QC report for details.

The following samples were air dried and sieved per the procedure; however, the samples contained material that would not pass through the sieve: SOILWC-LTM-Apr20 (280-135347-1), (280-135347-B-1 MS) and (280-135347-B-1 MSD). This material was removed and not extracted. The material appeared to be rocks with some vegetation (non-soil mass is 228.72g).

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

**NITROAROMATICS AND NITRAMINES (HPLC)**
Sample WATERWC-LTM-Apr20 (280-135347-2) was analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 04/13/2020 and analyzed on 04/15/2020 and 04/24/2020.

1,2-Dinitrobenzene failed the surrogate recovery criteria high for WATERWC-LTM-Apr20 (280-135347-2). Refer to the QC report for details. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The following sample required filtration to reduce matrix interferences: WATERWC-LTM-Apr20 (280-135347-2).

The continuing calibration verification (CCV) associated with batch 280-492532 recovered above the upper control limit for m-Nitrotoluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: WATERWC-LTM-Apr20 (280-135347-2) and (CCV 280-492532/34).

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

# Detection Summary

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

Job ID: 280-135347-1

## Client Sample ID: SOILWC-LTM-Apr20 — Lab Sample ID: 280-135347-1

No Detections.

## Client Sample ID: WATERWC-LTM-Apr20 — Lab Sample ID: 280-135347-2

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| HMX | 9.3 | M Q | 0.41 | 0.20 | 0.090 | ug/L | 1 | | 8330A | Total/NA |
| RDX | 13 | M Q | 0.41 | 0.41 | 0.16 | ug/L | 1 | | 8330A | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 280-135347-1

## Client Sample ID: SOILWC-LTM-Apr20

**Lab Sample ID: 280-135347-1**

**Date Collected: 04/07/20 11:00**
**Matrix: Solid**
**Date Received: 04/08/20 08:45**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2-Nitrotoluene | 0.16 | U | 0.25 | 0.16 | 0.082 | mg/Kg | | 04/22/20 17:56 | 1 |
| HMX | 0.16 | U | 0.25 | 0.16 | 0.076 | mg/Kg | | 04/22/20 17:56 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.25 | U | 0.25 | 0.25 | 0.038 | mg/Kg | | 04/22/20 17:56 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.099 | mg/Kg | | 04/22/20 17:56 | 1 |
| 2,6-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.053 | mg/Kg | | 04/22/20 17:56 | 1 |
| 2,4-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.049 | mg/Kg | | 04/22/20 17:56 | 1 |
| 2,4,6-Trinitrotoluene | 0.16 | U | 0.25 | 0.16 | 0.057 | mg/Kg | | 04/22/20 17:56 | 1 |
| 1,3-Dinitrobenzene | 0.16 | U | 0.25 | 0.16 | 0.060 | mg/Kg | | 04/22/20 17:56 | 1 |
| 1,3,5-Trinitrobenzene | 0.16 | U | 0.25 | 0.16 | 0.070 | mg/Kg | | 04/22/20 17:56 | 1 |
| 3-Nitrotoluene | 0.25 | U | 0.49 | 0.25 | 0.11 | mg/Kg | | 04/22/20 17:56 | 1 |
| 4-Nitrotoluene | 0.16 | U | 0.39 | 0.16 | 0.11 | mg/Kg | | 04/22/20 17:56 | 1 |
| RDX | 0.16 | U | 0.25 | 0.16 | 0.084 | mg/Kg | | 04/22/20 17:56 | 1 |
| MNX | 49 | U | 98 | 49 | 9.8 | mg/Kg | | 04/22/20 17:56 | 1 |
| Nitrobenzene | 0.16 | U M | 0.25 | 0.16 | 0.060 | mg/Kg | | 04/22/20 17:56 | 1 |
| Tetryl | 0.11 | U | 0.49 | 0.11 | 0.054 | mg/Kg | | 04/22/20 17:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *97* | | *89 - 123* | *04/20/20 14:13* | *04/22/20 17:56* | *1* |

## Client Sample ID: WATERWC-LTM-Apr20

**Lab Sample ID: 280-135347-2**

**Date Collected: 04/07/20 11:00**
**Matrix: Water**
**Date Received: 04/08/20 08:45**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.41 | U M | 1.0 | 0.41 | 0.20 | ug/L | | 04/15/20 15:02 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U M | 0.41 | 0.20 | 0.091 | ug/L | | 04/15/20 15:02 | 1 |
| 2,4,6-Trinitrotoluene | 0.41 | U | 0.41 | 0.41 | 0.16 | ug/L | | 04/15/20 15:02 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U M | 0.41 | 0.20 | 0.086 | ug/L | | 04/15/20 15:02 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.066 | ug/L | | 04/15/20 15:02 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.052 | ug/L | | 04/15/20 15:02 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.41 | 0.20 | 0.087 | ug/L | | 04/15/20 15:02 | 1 |
| 3-Nitrotoluene | 0.41 | U Q | 0.41 | 0.41 | 0.20 | ug/L | | 04/24/20 00:33 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.059 | ug/L | | 04/15/20 15:02 | 1 |
| 4-Nitrotoluene | 0.41 | U M | 1.0 | 0.41 | 0.20 | ug/L | | 04/15/20 15:02 | 1 |
| **HMX** | **9.3** | **M Q** | 0.41 | 0.20 | 0.090 | ug/L | | 04/15/20 15:02 | 1 |
| MNX | 0.41 | U | 2.0 | 0.41 | 0.16 | ug/L | | 04/24/20 00:33 | 1 |
| Nitrobenzene | 0.20 | U M | 0.41 | 0.20 | 0.093 | ug/L | | 04/15/20 15:02 | 1 |
| **RDX** | **13** | **M Q** | 0.41 | 0.41 | 0.16 | ug/L | | 04/15/20 15:02 | 1 |
| Tetryl | 0.20 | U | 0.25 | 0.20 | 0.081 | ug/L | | 04/15/20 15:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *141* | *M Q* | *83 - 119* | *04/13/20 10:17* | *04/15/20 15:02* | *1* |
| *1,2-Dinitrobenzene* | *91* | *M* | *83 - 119* | *04/13/20 10:17* | *04/24/20 00:33* | *1* |

# Action Limit Summary

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

Job ID: 280-135347-1

## Client Sample ID: SOILWC-LTM-Apr20

## Lab Sample ID: 280-135347-1

### Bay West Perterson Soil USEPA Action Lim

| Analyte | Result | Qualifier | Unit | High Reg Limit | LOQ | Method | Prep Type |
|---|---|---|---|---|---|---|---|
| 2-Nitrotoluene | 0.16 | U | mg/Kg | 2.9000 | 0.25 | 8330A | Total/NA |
| HMX | 0.16 | U | mg/Kg | 3800.0 | 0.25 | 8330A | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.25 | U | mg/Kg | 150.00 | 0.25 | 8330A | Total/NA |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | mg/Kg | 150.00 | 0.25 | 8330A | Total/NA |
| 2,6-Dinitrotoluene | 0.11 | U | mg/Kg | 61.000 | 0.25 | 8330A | Total/NA |
| 2,4-Dinitrotoluene | 0.11 | U | mg/Kg | 1.6000 | 0.25 | 8330A | Total/NA |
| 2,4,6-Trinitrotoluene | 0.16 | U | mg/Kg | 19.000 | 0.25 | 8330A | Total/NA |
| 1,3-Dinitrobenzene | 0.16 | U | mg/Kg | 6.1000 | 0.25 | 8330A | Total/NA |
| 1,3,5-Trinitrobenzene | 0.16 | U | mg/Kg | 2200.0 | 0.25 | 8330A | Total/NA |
| 3-Nitrotoluene | 0.25 | U | mg/Kg | 6.1000 | 0.49 | 8330A | Total/NA |
| 4-Nitrotoluene | 0.16 | U | mg/Kg | 30.000 | 0.39 | 8330A | Total/NA |
| RDX | 0.16 | U | mg/Kg | 5.6000 | 0.25 | 8330A | Total/NA |
| Nitrobenzene | 0.16 | U M | mg/Kg | 4.8000 | 0.25 | 8330A | Total/NA |
| Tetryl | 0.11 | U | mg/Kg | 240.00 | 0.49 | 8330A | Total/NA |

# Default Detection Limits

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

Job ID: 280-135347-1

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

### Prep: 3535

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| 1,3,5-Trinitrobenzene | 1.0 | 0.20 | ug/L |
| 1,3-Dinitrobenzene | 0.40 | 0.089 | ug/L |
| 2,4,6-Trinitrotoluene | 0.40 | 0.16 | ug/L |
| 2,4-Dinitrotoluene | 0.40 | 0.084 | ug/L |
| 2,6-Dinitrotoluene | 0.20 | 0.065 | ug/L |
| 2-Amino-4,6-dinitrotoluene | 0.20 | 0.051 | ug/L |
| 2-Nitrotoluene | 0.40 | 0.086 | ug/L |
| 3-Nitrotoluene | 0.40 | 0.20 | ug/L |
| 4-Amino-2,6-dinitrotoluene | 0.20 | 0.058 | ug/L |
| 4-Nitrotoluene | 1.0 | 0.20 | ug/L |
| HMX | 0.40 | 0.088 | ug/L |
| MNX | 2.0 | 0.15 | ug/L |
| Nitrobenzene | 0.40 | 0.091 | ug/L |
| RDX | 0.40 | 0.16 | ug/L |
| Tetryl | 0.24 | 0.079 | ug/L |

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

### Prep: Sieve/Ultrasoni

### Drying: Prep/Air Dry

| Analyte | LOQ | DL | Units |
|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.25 | 0.071 | mg/Kg |
| 1,3-Dinitrobenzene | 0.25 | 0.061 | mg/Kg |
| 2,4,6-Trinitrotoluene | 0.25 | 0.058 | mg/Kg |
| 2,4-Dinitrotoluene | 0.25 | 0.050 | mg/Kg |
| 2,6-Dinitrotoluene | 0.25 | 0.054 | mg/Kg |
| 2-Amino-4,6-dinitrotoluene | 0.25 | 0.10 | mg/Kg |
| 2-Nitrotoluene | 0.25 | 0.084 | mg/Kg |
| 3-Nitrotoluene | 0.50 | 0.12 | mg/Kg |
| 4-Amino-2,6-dinitrotoluene | 0.25 | 0.039 | mg/Kg |
| 4-Nitrotoluene | 0.40 | 0.11 | mg/Kg |
| HMX | 0.25 | 0.078 | mg/Kg |
| MNX | 100 | 10 | mg/Kg |
| Nitrobenzene | 0.25 | 0.061 | mg/Kg |
| RDX | 0.26 | 0.085 | mg/Kg |
| Tetryl | 0.50 | 0.055 | mg/Kg |

# Surrogate Summary

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

Job ID: 280-135347-1

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

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

| Lab Sample ID | Client Sample ID | 12DNB1 (89-123) |
|---|---|---|
| 280-135347-1 | SOILWC-LTM-Apr20 | 97 |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | 94 |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | 98 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | 96 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | 98 |
| LCS 280-492251/2-A | Lab Control Sample | 96 |
| LCS 280-492251/3-A | Lab Control Sample | 98 |
| MB 280-492251/1-A | Method Blank | 98 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

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

| Lab Sample ID | Client Sample ID | 12DNB1 (83-119) |
|---|---|---|
| 280-135347-2 | WATERWC-LTM-Apr20 | 141 M Q |
| LCS 280-491558/2-A | Lab Control Sample | 98 |
| LCS 280-491558/3-A | Lab Control Sample | 101 |
| LCSD 280-491558/4-A | Lab Control Sample Dup | 111 |
| MB 280-491558/1-A | Method Blank | 99 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

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

| Lab Sample ID | Client Sample ID | 12DNB2 (83-119) |
|---|---|---|
| 280-135347-2 | WATERWC-LTM-Apr20 | 91 M |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

# QC Sample Results

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

Job ID: 280-135347-1

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

**Lab Sample ID: MB 280-491558/1-A**
**Matrix: Water**
**Analysis Batch: 491832**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 491558**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 | ug/L | | 04/15/20 13:30 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.065 | ug/L | | 04/15/20 13:30 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 04/15/20 13:30 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.051 | ug/L | | 04/15/20 13:30 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.089 | ug/L | | 04/15/20 13:30 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.086 | ug/L | | 04/15/20 13:30 | 1 |
| 1,3,5-Trinitrobenzene | 0.40 | U M | 1.0 | 0.40 | 0.20 | ug/L | | 04/15/20 13:30 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.058 | ug/L | | 04/15/20 13:30 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 | ug/L | | 04/15/20 13:30 | 1 |
| 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 04/15/20 13:30 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 04/15/20 13:30 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 04/15/20 13:30 | 1 |
| Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 | ug/L | | 04/15/20 13:30 | 1 |
| RDX | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 04/15/20 13:30 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 | ug/L | | 04/15/20 13:30 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *99* | | *83 - 119* | *04/13/20 10:17* | *04/15/20 13:30* | *1* |

**Lab Sample ID: LCS 280-491558/2-A**
**Matrix: Water**
**Analysis Batch: 491832**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 491558**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 2.00 | 1.77 | | ug/L | | 88 | 78 - 120 |
| 2,6-Dinitrotoluene | 2.00 | 1.87 | | ug/L | | 93 | 77 - 127 |
| 2,4,6-Trinitrotoluene | 2.00 | 1.96 | | ug/L | | 98 | 71 - 123 |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.70 | | ug/L | | 85 | 79 - 120 |
| 1,3-Dinitrobenzene | 2.00 | 1.88 | | ug/L | | 94 | 78 - 120 |
| 2-Nitrotoluene | 2.00 | 1.55 | | ug/L | | 77 | 70 - 127 |
| 1,3,5-Trinitrobenzene | 2.00 | 2.06 | | ug/L | | 103 | 73 - 125 |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.55 | | ug/L | | 77 | 76 - 125 |
| 3-Nitrotoluene | 2.00 | 1.75 | | ug/L | | 87 | 73 - 125 |
| 4-Nitrotoluene | 2.00 | 1.61 | | ug/L | | 81 | 71 - 127 |
| HMX | 2.00 | 1.96 | M | ug/L | | 98 | 65 - 135 |
| Nitrobenzene | 2.00 | 1.70 | | ug/L | | 85 | 65 - 134 |
| RDX | 2.00 | 1.88 | | ug/L | | 94 | 68 - 130 |
| Tetryl | 2.00 | 1.84 | | ug/L | | 92 | 64 - 128 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *98* | | *83 - 119* |

**Lab Sample ID: LCS 280-491558/3-A**
**Matrix: Water**
**Analysis Batch: 491832**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 491558**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| MNX | 2.33 | 2.16 | | ug/L | | 92 | 57 - 132 |

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

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1,2-Dinitrobenzene | 101 | | 83 - 119 |

**Lab Sample ID: LCSD 280-491558/4-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 491832** — **Prep Batch: 491558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | | | 2.33 | 2.27 | | ug/L | | 97 | 57 - 132 | 5 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1,2-Dinitrobenzene | 111 | | 83 - 119 |

**Lab Sample ID: MB 280-492251/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.050 | mg/Kg | | 04/22/20 16:47 | 1 |
| 2,6-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.054 | mg/Kg | | 04/22/20 16:47 | 1 |
| 2,4,6-Trinitrotoluene | 0.17 | U | 0.25 | 0.17 | 0.058 | mg/Kg | | 04/22/20 16:47 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.10 | mg/Kg | | 04/22/20 16:47 | 1 |
| 1,3-Dinitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.061 | mg/Kg | | 04/22/20 16:47 | 1 |
| 2-Nitrotoluene | 0.17 | U | 0.25 | 0.17 | 0.084 | mg/Kg | | 04/22/20 16:47 | 1 |
| 1,3,5-Trinitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.071 | mg/Kg | | 04/22/20 16:47 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.25 | U | 0.25 | 0.25 | 0.039 | mg/Kg | | 04/22/20 16:47 | 1 |
| 3-Nitrotoluene | 0.25 | U | 0.50 | 0.25 | 0.12 | mg/Kg | | 04/22/20 16:47 | 1 |
| 4-Nitrotoluene | 0.17 | U | 0.40 | 0.17 | 0.11 | mg/Kg | | 04/22/20 16:47 | 1 |
| HMX | 0.17 | U | 0.25 | 0.17 | 0.078 | mg/Kg | | 04/22/20 16:47 | 1 |
| MNX | 50 | U | 100 | 50 | 10 | mg/Kg | | 04/22/20 16:47 | 1 |
| Nitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.061 | mg/Kg | | 04/22/20 16:47 | 1 |
| RDX | 0.17 | U | 0.26 | 0.17 | 0.085 | mg/Kg | | 04/22/20 16:47 | 1 |
| Tetryl | 0.11 | U | 0.50 | 0.11 | 0.055 | mg/Kg | | 04/22/20 16:47 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dinitrobenzene | 98 | | 89 - 123 | 04/20/20 14:13 | 04/22/20 16:47 | 1 |

**Lab Sample ID: LCS 280-492251/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | | | 2.50 | 2.40 | | mg/Kg | | 96 | 82 - 123 | | |
| 2,6-Dinitrotoluene | | | 2.50 | 2.57 | | mg/Kg | | 103 | 86 - 119 | | |
| 2,4,6-Trinitrotoluene | | | 2.50 | 2.61 | | mg/Kg | | 104 | 75 - 125 | | |
| 2-Amino-4,6-dinitrotoluene | | | 2.50 | 2.55 | | mg/Kg | | 102 | 87 - 121 | | |
| 1,3-Dinitrobenzene | | | 2.50 | 2.51 | | mg/Kg | | 100 | 84 - 124 | | |
| 2-Nitrotoluene | | | 2.50 | 2.37 | | mg/Kg | | 95 | 84 - 120 | | |
| 1,3,5-Trinitrobenzene | | | 2.50 | 2.59 | | mg/Kg | | 103 | 81 - 123 | | |
| 4-Amino-2,6-dinitrotoluene | | | 2.50 | 2.32 | | mg/Kg | | 93 | 84 - 124 | | |
| 3-Nitrotoluene | | | 2.50 | 2.55 | | mg/Kg | | 102 | 79 - 127 | | |
| 4-Nitrotoluene | | | 2.50 | 2.46 | | mg/Kg | | 98 | 83 - 122 | | |

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

**Lab Sample ID: LCS 280-492251/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| HMX | 2.50 | 2.45 | M | mg/Kg | | 98 | 77 - 122 |
| Nitrobenzene | 2.50 | 2.56 | | mg/Kg | | 102 | 80 - 128 |
| RDX | 2.50 | 2.26 | | mg/Kg | | 90 | 82 - 124 |
| Tetryl | 2.50 | 2.52 | | mg/Kg | | 101 | 66 - 138 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *96* | | *89 - 123* |

**Lab Sample ID: LCS 280-492251/3-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| MNX | 2.92 | 50 | U M | mg/Kg | | 89 | 50 - 150 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *98* | | *89 - 123* |

**Lab Sample ID: 280-135347-1 MS** — **Client Sample ID: SOILWC-LTM-Apr20**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 0.11 | U | 2.39 | 2.30 | | mg/Kg | | 96 | 82 - 123 |
| 2,6-Dinitrotoluene | 0.11 | U | 2.39 | 2.39 | | mg/Kg | | 100 | 86 - 119 |
| 2,4,6-Trinitrotoluene | 0.16 | U | 2.39 | 2.35 | | mg/Kg | | 98 | 75 - 125 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 2.39 | 2.38 | | mg/Kg | | 100 | 87 - 121 |
| 1,3-Dinitrobenzene | 0.16 | U | 2.39 | 2.35 | | mg/Kg | | 98 | 84 - 124 |
| 2-Nitrotoluene | 0.16 | U | 2.39 | 2.31 | | mg/Kg | | 96 | 84 - 120 |
| 1,3,5-Trinitrobenzene | 0.16 | U | 2.39 | 2.38 | | mg/Kg | | 100 | 81 - 123 |
| 4-Amino-2,6-dinitrotoluene | 0.25 | U | 2.39 | 2.03 | | mg/Kg | | 85 | 84 - 124 |
| 3-Nitrotoluene | 0.25 | U | 2.39 | 2.46 | | mg/Kg | | 103 | 79 - 127 |
| 4-Nitrotoluene | 0.16 | U | 2.39 | 2.40 | | mg/Kg | | 100 | 83 - 122 |
| HMX | 0.16 | U | 2.39 | 2.24 | M | mg/Kg | | 94 | 77 - 122 |
| Nitrobenzene | 0.16 | U M | 2.39 | 2.42 | | mg/Kg | | 101 | 80 - 128 |
| RDX | 0.16 | U | 2.39 | 2.11 | | mg/Kg | | 88 | 82 - 124 |
| Tetryl | 0.11 | U | 2.39 | 2.27 | | mg/Kg | | 95 | 66 - 138 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *94* | | *89 - 123* |

**Lab Sample ID: 280-135347-1 MS** — **Client Sample ID: SOILWC-LTM-Apr20**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 492475** — **Prep Batch: 492251**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| MNX | 49 | U | 2.81 | 48 | U | mg/Kg | | NC | 50 - 150 |

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

**Lab Sample ID: 280-135347-1 MS**
**Matrix: Solid**
**Analysis Batch: 492475**

**Client Sample ID: SOILWC-LTM-Apr20**
**Prep Type: Total/NA**
**Prep Batch: 492251**

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *98* | | *89 - 123* |

**Lab Sample ID: 280-135347-1 MSD**
**Matrix: Solid**
**Analysis Batch: 492475**

**Client Sample ID: SOILWC-LTM-Apr20**
**Prep Type: Total/NA**
**Prep Batch: 492251**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 0.11 | U | 2.40 | 2.37 | | mg/Kg | | 98 | 82 - 123 | 3 | 30 |
| 2,6-Dinitrotoluene | 0.11 | U | 2.40 | 2.47 | | mg/Kg | | 103 | 86 - 119 | 3 | 30 |
| 2,4,6-Trinitrotoluene | 0.16 | U | 2.40 | 2.43 | | mg/Kg | | 101 | 75 - 125 | 3 | 30 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 2.40 | 2.42 | | mg/Kg | | 101 | 87 - 121 | 2 | 30 |
| 1,3-Dinitrobenzene | 0.16 | U | 2.40 | 2.40 | | mg/Kg | | 100 | 84 - 124 | 2 | 30 |
| 2-Nitrotoluene | 0.16 | U | 2.40 | 2.31 | | mg/Kg | | 96 | 84 - 120 | 0 | 30 |
| 1,3,5-Trinitrobenzene | 0.16 | U | 2.40 | 2.51 | | mg/Kg | | 105 | 81 - 123 | 5 | 30 |
| 4-Amino-2,6-dinitrotoluene | 0.25 | U | 2.40 | 2.06 | | mg/Kg | | 86 | 84 - 124 | 2 | 30 |
| 3-Nitrotoluene | 0.25 | U | 2.40 | 2.46 | | mg/Kg | | 102 | 79 - 127 | 0 | 30 |
| 4-Nitrotoluene | 0.16 | U | 2.40 | 2.40 | | mg/Kg | | 100 | 83 - 122 | 0 | 30 |
| HMX | 0.16 | U | 2.40 | 2.29 | M | mg/Kg | | 95 | 77 - 122 | 2 | 30 |
| Nitrobenzene | 0.16 | U M | 2.40 | 2.44 | | mg/Kg | | 102 | 80 - 128 | 1 | 30 |
| RDX | 0.16 | U | 2.40 | 2.13 | | mg/Kg | | 89 | 82 - 124 | 1 | 30 |
| Tetryl | 0.11 | U | 2.40 | 2.39 | | mg/Kg | | 99 | 66 - 138 | 5 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *96* | | *89 - 123* |

**Lab Sample ID: 280-135347-1 MSD**
**Matrix: Solid**
**Analysis Batch: 492475**

**Client Sample ID: SOILWC-LTM-Apr20**
**Prep Type: Total/NA**
**Prep Batch: 492251**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | 49 | U | 2.82 | 48 | U M | mg/Kg | | NC | 50 - 150 | NC | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *98* | | *89 - 123* |

# QC Association Summary

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

Job ID: 280-135347-1

## HPLC/IC

### Prep Batch: 491558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-2 | WATERWC-LTM-Apr20 | Total/NA | Water | 3535 | |
| MB 280-491558/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 280-491558/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCS 280-491558/3-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCSD 280-491558/4-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |

### Analysis Batch: 491832

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-2 | WATERWC-LTM-Apr20 | Total/NA | Water | 8330A | 491558 |
| MB 280-491558/1-A | Method Blank | Total/NA | Water | 8330A | 491558 |
| LCS 280-491558/2-A | Lab Control Sample | Total/NA | Water | 8330A | 491558 |
| LCS 280-491558/3-A | Lab Control Sample | Total/NA | Water | 8330A | 491558 |
| LCSD 280-491558/4-A | Lab Control Sample Dup | Total/NA | Water | 8330A | 491558 |

### Drying Batch: 492118

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-1 | SOILWC-LTM-Apr20 | Total/NA | Solid | Prep/Air Dry | |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | Total/NA | Solid | Prep/Air Dry | |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | Total/NA | Solid | Prep/Air Dry | |

### Prep Batch: 492251

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-1 | SOILWC-LTM-Apr20 | Total/NA | Solid | Sieve/Ultrasoni | 492118 |
| MB 280-492251/1-A | Method Blank | Total/NA | Solid | Sieve/Ultrasoni | |
| LCS 280-492251/2-A | Lab Control Sample | Total/NA | Solid | Sieve/Ultrasoni | |
| LCS 280-492251/3-A | Lab Control Sample | Total/NA | Solid | Sieve/Ultrasoni | |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | Total/NA | Solid | Sieve/Ultrasoni | 492118 |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | Total/NA | Solid | Sieve/Ultrasoni | 492118 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | Total/NA | Solid | Sieve/Ultrasoni | 492118 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | Total/NA | Solid | Sieve/Ultrasoni | 492118 |

### Analysis Batch: 492475

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-1 | SOILWC-LTM-Apr20 | Total/NA | Solid | 8330A | 492251 |
| MB 280-492251/1-A | Method Blank | Total/NA | Solid | 8330A | 492251 |
| LCS 280-492251/2-A | Lab Control Sample | Total/NA | Solid | 8330A | 492251 |
| LCS 280-492251/3-A | Lab Control Sample | Total/NA | Solid | 8330A | 492251 |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | Total/NA | Solid | 8330A | 492251 |
| 280-135347-1 MS | SOILWC-LTM-Apr20 | Total/NA | Solid | 8330A | 492251 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | Total/NA | Solid | 8330A | 492251 |
| 280-135347-1 MSD | SOILWC-LTM-Apr20 | Total/NA | Solid | 8330A | 492251 |

### Analysis Batch: 492532

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-135347-2 | WATERWC-LTM-Apr20 | Total/NA | Water | 8330A | 491558 |

# Lab Chronicle

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

Job ID: 280-135347-1

## Client Sample ID: SOILWC-LTM-Apr20

**Lab Sample ID: 280-135347-1**

**Date Collected: 04/07/20 11:00**

**Matrix: Solid**

**Date Received: 04/08/20 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Drying | Prep/Air Dry | | | 1.0 g | 1.0 g | 492118 | 04/17/20 13:07 | EKB | TAL DEN |
| Total/NA | Prep | Sieve/Ultrasoni | | | 2.04 g | 20 mL | 492251 | 04/20/20 14:13 | TEH | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 492475 | 04/22/20 17:56 | CBB | TAL DEN |

## Client Sample ID: WATERWC-LTM-Apr20

**Lab Sample ID: 280-135347-2**

**Date Collected: 04/07/20 11:00**

**Matrix: Water**

**Date Received: 04/08/20 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3535 | | | 489.1 mL | 5 mL | 491558 | 04/13/20 10:17 | AJP | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 492532 | 04/24/20 00:33 | CBB | TAL DEN |
| Total/NA | Prep | 3535 | | | 489.1 mL | 5 mL | 491558 | 04/13/20 10:17 | AJP | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | 1 mL | 1.0 mL | 491832 | 04/15/20 15:02 | CBB | 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: 280-135347-1

## Laboratory: Eurofins TestAmerica, Denver

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

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

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|

# Method Summary

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

Job ID: 280-135347-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8330A | Nitroaromatics and Nitramines (HPLC) | EPA | TAL DEN |
| 3535 | Solid-Phase Extraction (SPE) | SW846 | TAL DEN |
| Prep/Air Dry | Preparation, Air drying | None | TAL DEN |
| Sieve/Ultrasoni | Sieve and Ultrasonic Water Bath Extraction (Explosives) | SW846 | TAL DEN |

**Protocol References:**

EPA = US Environmental Protection Agency

None = None

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: 280-135347-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---|---|---|---|---|---|
| 280-135347-1 | SOILWC-LTM-Apr20 | Solid | 04/07/20 11:00 | 04/08/20 08:45 | |
| 280-135347-2 | WATERWC-LTM-Apr20 | Water | 04/07/20 11:00 | 04/08/20 08:45 | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 491590

Lab Sample ID: IC 280-491590/7 Client Sample ID:

Date Analyzed: 04/13/20 14:40 Lab File ID: 04130007.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.81 | Baseline | beckerc | 04/14/20 08:21 |

Lab Sample ID: IC 280-491590/8 Client Sample ID:

Date Analyzed: 04/13/20 15:15 Lab File ID: 04130008.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3-Dinitrobenzene | 15.64 | Baseline | beckerc | 04/14/20 08:22 |
| 2-Nitrotoluene | 16.66 | Baseline | beckerc | 04/14/20 08:22 |
| 4-Nitrotoluene | 16.92 | Baseline | beckerc | 04/14/20 08:22 |
| 4-Amino-2,6-dinitrotoluene | 17.26 | Baseline | beckerc | 04/14/20 08:22 |
| 3-Nitrotoluene | 17.87 | Baseline | beckerc | 04/14/20 08:22 |
| 2-Amino-4,6-dinitrotoluene | 18.11 | Baseline | beckerc | 04/14/20 08:22 |
| 1,3,5-Trinitrobenzene | 19.01 | Baseline | beckerc | 04/14/20 08:22 |
| 2,6-Dinitrotoluene | 19.95 | Baseline | beckerc | 04/14/20 08:22 |
| 2,4-Dinitrotoluene | 20.42 | Baseline | beckerc | 04/14/20 08:22 |

Lab Sample ID: IC 280-491590/9 Client Sample ID:

Date Analyzed: 04/13/20 15:50 Lab File ID: 04130009.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.89 | Baseline | beckerc | 04/14/20 08:24 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 491590

Lab Sample ID: IC 280-491590/10 Client Sample ID:

Date Analyzed: 04/13/20 16:25 Lab File ID: 04130010.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.91 | Baseline | beckerc | 04/14/20 08:24 |
| 2-Nitrotoluene | 16.68 | Baseline | beckerc | 04/14/20 08:24 |
| 4-Nitrotoluene | 16.95 | Baseline | beckerc | 04/14/20 08:24 |
| 4-Amino-2,6-dinitrotoluene | 17.30 | Baseline | beckerc | 04/14/20 08:24 |
| 3-Nitrotoluene | 17.89 | Baseline | beckerc | 04/14/20 08:24 |
| 2-Amino-4,6-dinitrotoluene | 18.16 | Baseline | beckerc | 04/14/20 08:24 |
| 1,3,5-Trinitrobenzene | 19.03 | Baseline | beckerc | 04/14/20 08:24 |
| 2,6-Dinitrotoluene | 19.97 | Baseline | beckerc | 04/14/20 08:24 |
| 2,4-Dinitrotoluene | 20.44 | Baseline | beckerc | 04/14/20 08:24 |

Lab Sample ID: IC 280-491590/11 Client Sample ID:

Date Analyzed: 04/13/20 17:00 Lab File ID: 04130011.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.90 | Baseline | beckerc | 04/14/20 08:25 |
| 2-Nitrotoluene | 16.67 | Baseline | beckerc | 04/14/20 08:26 |
| 4-Nitrotoluene | 16.93 | Baseline | beckerc | 04/14/20 08:26 |
| 4-Amino-2,6-dinitrotoluene | 17.28 | Baseline | beckerc | 04/14/20 08:26 |
| 3-Nitrotoluene | 17.87 | Baseline | beckerc | 04/14/20 08:26 |
| 2-Amino-4,6-dinitrotoluene | 18.15 | Baseline | beckerc | 04/14/20 08:26 |
| 1,3,5-Trinitrobenzene | 19.02 | Baseline | beckerc | 04/14/20 08:26 |
| 2,6-Dinitrotoluene | 19.96 | Baseline | beckerc | 04/14/20 08:26 |
| 2,4-Dinitrotoluene | 20.43 | Baseline | beckerc | 04/14/20 08:26 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 491590

Lab Sample ID: IC 280-491590/12 Client Sample ID:

Date Analyzed: 04/13/20 17:35 Lab File ID: 04130012.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.92 | Baseline | beckerc | 04/14/20 08:26 |
| 2-Nitrotoluene | 16.68 | Baseline | beckerc | 04/14/20 08:27 |
| 4-Nitrotoluene | 16.95 | Baseline | beckerc | 04/14/20 08:27 |
| 4-Amino-2,6-dinitrotoluene | 17.30 | Baseline | beckerc | 04/14/20 08:27 |
| 3-Nitrotoluene | 17.88 | Baseline | beckerc | 04/14/20 08:27 |
| 2-Amino-4,6-dinitrotoluene | 18.16 | Baseline | beckerc | 04/14/20 08:27 |
| 1,3,5-Trinitrobenzene | 19.03 | Baseline | beckerc | 04/14/20 08:27 |
| 2,6-Dinitrotoluene | 19.97 | Baseline | beckerc | 04/14/20 08:27 |
| 2,4-Dinitrotoluene | 20.44 | Baseline | beckerc | 04/14/20 08:27 |
| PETN | 25.35 | Baseline | beckerc | 04/14/20 08:27 |

Lab Sample ID: IC 280-491590/13 Client Sample ID:

Date Analyzed: 04/13/20 18:10 Lab File ID: 04130013.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3-Dinitrobenzene | 15.68 | Baseline | beckerc | 04/14/20 08:28 |
| Nitroglycerin | 15.92 | Baseline | beckerc | 04/14/20 08:27 |
| 2-Nitrotoluene | 16.67 | Baseline | beckerc | 04/14/20 08:28 |
| 4-Nitrotoluene | 16.93 | Baseline | beckerc | 04/14/20 08:28 |
| 4-Amino-2,6-dinitrotoluene | 17.30 | Baseline | beckerc | 04/14/20 08:28 |
| 3-Nitrotoluene | 17.88 | Baseline | beckerc | 04/14/20 08:28 |
| 2-Amino-4,6-dinitrotoluene | 18.16 | Baseline | beckerc | 04/14/20 08:28 |
| 1,3,5-Trinitrobenzene | 19.02 | Baseline | beckerc | 04/14/20 08:28 |
| 2,6-Dinitrotoluene | 19.96 | Baseline | beckerc | 04/14/20 08:28 |
| 2,4-Dinitrotoluene | 20.43 | Baseline | beckerc | 04/14/20 08:28 |
| Tetryl | 23.71 | Baseline | beckerc | 04/14/20 08:28 |
| 2,4,6-Trinitrotoluene | 24.82 | Baseline | beckerc | 04/14/20 08:28 |
| PETN | 25.35 | Baseline | beckerc | 04/14/20 08:28 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 491590

Lab Sample ID: IC 280-491590/14 Client Sample ID:

Date Analyzed: 04/13/20 18:45 Lab File ID: 04130014.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3-Dinitrobenzene | 15.67 | Baseline | beckerc | 04/14/20 08:29 |
| Nitroglycerin | 15.91 | Baseline | beckerc | 04/14/20 08:29 |
| 2-Nitrotoluene | 16.68 | Baseline | beckerc | 04/14/20 08:29 |
| 4-Nitrotoluene | 16.93 | Baseline | beckerc | 04/14/20 08:29 |
| 4-Amino-2,6-dinitrotoluene | 17.32 | Baseline | beckerc | 04/14/20 08:29 |
| 3-Nitrotoluene | 17.89 | Baseline | beckerc | 04/14/20 08:29 |
| 2-Amino-4,6-dinitrotoluene | 18.15 | Baseline | beckerc | 04/14/20 08:29 |
| 1,3,5-Trinitrobenzene | 19.03 | Baseline | beckerc | 04/14/20 08:29 |
| 2,6-Dinitrotoluene | 19.96 | Baseline | beckerc | 04/14/20 08:38 |
| 2,4-Dinitrotoluene | 20.44 | Baseline | beckerc | 04/14/20 08:38 |
| 2,4,6-Trinitrotoluene | 25.07 | Baseline | beckerc | 04/14/20 08:29 |
| PETN | 25.56 | Baseline | beckerc | 04/14/20 08:39 |

Lab Sample ID: IC 280-491590/15 Client Sample ID:

Date Analyzed: 04/13/20 19:20 Lab File ID: 04130015.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2,6-Dinitrotoluene | 20.00 | Baseline | beckerc | 04/14/20 08:31 |
| 2,4-Dinitrotoluene | 20.48 | Unspecified | | |

Lab Sample ID: ICV 280-491590/16 Client Sample ID:

Date Analyzed: 04/13/20 19:55 Lab File ID: 04130016.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.91 | Baseline | beckerc | 04/14/20 08:42 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 492532

Lab Sample ID: IC 280-492532/10 Client Sample ID:

Date Analyzed: 04/22/20 19:22 Lab File ID: 04220010.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 5.43 | Baseline | beckerc | 04/23/20 11:02 |
| DNX | 6.25 | Baseline | beckerc | 04/23/20 11:02 |
| MNX | 7.76 | Baseline | beckerc | 04/23/20 11:02 |

Lab Sample ID: IC 280-492532/11 Client Sample ID:

Date Analyzed: 04/22/20 19:57 Lab File ID: 04220011.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 5.44 | Baseline | beckerc | 04/23/20 11:02 |
| DNX | 6.26 | Baseline | beckerc | 04/23/20 11:02 |
| MNX | 7.77 | Baseline | beckerc | 04/23/20 11:02 |

Lab Sample ID: IC 280-492532/12 Client Sample ID:

Date Analyzed: 04/22/20 20:32 Lab File ID: 04220012.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 5.44 | Baseline | beckerc | 04/23/20 11:03 |
| DNX | 6.25 | Baseline | beckerc | 04/23/20 11:03 |
| MNX | 7.76 | Baseline | beckerc | 04/23/20 11:03 |

Lab Sample ID: IC 280-492532/13 Client Sample ID:

Date Analyzed: 04/22/20 21:07 Lab File ID: 04220013.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 5.44 | Baseline | beckerc | 04/23/20 11:03 |
| DNX | 6.25 | Baseline | beckerc | 04/23/20 11:03 |
| MNX | 7.76 | Baseline | beckerc | 04/23/20 11:03 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 492532

Lab Sample ID: IC 280-492532/14 Client Sample ID:

Date Analyzed: 04/23/20 07:38 Lab File ID: 04220014.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 5.40 | Baseline | beckerc | 04/23/20 11:03 |

Lab Sample ID: ICV 280-492532/16 Client Sample ID:

Date Analyzed: 04/23/20 08:48 Lab File ID: 04220016.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.74 | Baseline | beckerc | 04/23/20 11:07 |

Lab Sample ID: CCV 280-492532/34 Client Sample ID:

Date Analyzed: 04/23/20 18:43 Lab File ID: 04220034.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.87 | Baseline | beckerc | 04/24/20 11:19 |
| 2-Nitrotoluene | 16.67 | Baseline | beckerc | 04/24/20 14:39 |
| 4-Nitrotoluene | 16.95 | Baseline | beckerc | 04/24/20 14:39 |
| 4-Amino-2,6-dinitrotoluene | 17.25 | Baseline | beckerc | 04/24/20 14:39 |
| 3-Nitrotoluene | 17.91 | Baseline | beckerc | 04/24/20 14:39 |
| 2-Amino-4,6-dinitrotoluene | 18.11 | Baseline | beckerc | 04/24/20 11:19 |
| 1,3,5-Trinitrobenzene | 19.00 | Baseline | beckerc | 04/24/20 11:19 |
| 2,6-Dinitrotoluene | 19.95 | Baseline | beckerc | 04/24/20 11:19 |
| 2,4-Dinitrotoluene | 20.42 | Baseline | beckerc | 04/24/20 11:19 |

Lab Sample ID: 280-135347-2 Client Sample ID: WATERWC-LTM-Apr20

Date Analyzed: 04/24/20 00:33 Lab File ID: 04220044.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 13.12 | Baseline | beckerc | 04/24/20 11:27 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 492532

Lab Sample ID: CCV 280-492532/46 Client Sample ID:

Date Analyzed: 04/24/20 01:43 Lab File ID: 04220046.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Picric acid | 5.76 | Baseline | beckerc | 04/24/20 11:28 |
| HMX | 7.01 | Baseline | beckerc | 04/24/20 11:28 |
| RDX | 9.19 | Baseline | beckerc | 04/24/20 11:28 |
| Nitrobenzene | 12.19 | Baseline | beckerc | 04/24/20 11:29 |
| 1,2-Dinitrobenzene | 13.13 | Baseline | beckerc | 04/24/20 11:29 |
| Nitroglycerin | 15.89 | Baseline | beckerc | 04/24/20 11:28 |
| 2-Nitrotoluene | 16.70 | Baseline | beckerc | 04/24/20 11:29 |
| 4-Nitrotoluene | 16.95 | Baseline | beckerc | 04/24/20 11:29 |
| 4-Amino-2,6-dinitrotoluene | 17.28 | Baseline | beckerc | 04/24/20 11:29 |
| 3-Nitrotoluene | 17.99 | Unspecified | | |
| 2-Amino-4,6-dinitrotoluene | 18.12 | Baseline | beckerc | 04/24/20 11:29 |
| 1,3,5-Trinitrobenzene | 19.02 | Baseline | beckerc | 04/24/20 11:29 |
| 2,6-Dinitrotoluene | 19.97 | Baseline | beckerc | 04/24/20 11:29 |
| 2,4-Dinitrotoluene | 20.43 | Baseline | beckerc | 04/24/20 11:29 |
| PETN | 25.35 | Baseline | beckerc | 04/24/20 11:27 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 491832

Lab Sample ID: CCV 280-491832/7 Client Sample ID:

Date Analyzed: 04/15/20 12:44 Lab File ID: 04150007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/16/20 10:24 |

Lab Sample ID: CCV 280-491832/8 Client Sample ID:

Date Analyzed: 04/15/20 13:07 Lab File ID: 04150008.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.60 | Baseline | beckerc | 04/16/20 10:25 |
| DNX | 6.93 | Baseline | beckerc | 04/16/20 10:25 |

Lab Sample ID: MB 280-491558/1-A Client Sample ID:

Date Analyzed: 04/15/20 13:30 Lab File ID: 04150009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3,5-Trinitrobenzene | | Invalid Compound ID | beckerc | 04/16/20 10:25 |

Lab Sample ID: LCS 280-491558/2-A Client Sample ID:

Date Analyzed: 04/15/20 13:53 Lab File ID: 04150010.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/16/20 10:26 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 491832

Lab Sample ID: 280-135347-2 Client Sample ID: WATERWC-LTM-Apr20

Date Analyzed: 04/15/20 15:02 Lab File ID: 04150013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/16/20 10:27 |
| MNX | 7.37 | Baseline | beckerc | 04/16/20 10:28 |
| RDX | 7.77 | Baseline | beckerc | 04/16/20 10:28 |
| 1,2-Dinitrobenzene | 8.75 | Baseline | beckerc | 04/16/20 10:31 |
| 1,3,5-Trinitrobenzene | | Invalid Compound ID | beckerc | 04/16/20 10:29 |
| 1,3-Dinitrobenzene | | Invalid Compound ID | beckerc | 04/16/20 10:29 |
| 2,4-Dinitrotoluene | | Invalid Compound ID | beckerc | 04/16/20 10:31 |
| 4-Nitrotoluene | | Invalid Compound ID | beckerc | 04/16/20 10:31 |
| Nitrobenzene | | Invalid Compound ID | beckerc | 04/16/20 10:29 |
| 3-Nitrotoluene | 13.92 | Baseline | beckerc | 04/16/20 10:30 |

Lab Sample ID: CCV 280-491832/19 Client Sample ID:

Date Analyzed: 04/15/20 17:20 Lab File ID: 04150019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/16/20 10:32 |

Lab Sample ID: CCV 280-491832/20 Client Sample ID:

Date Analyzed: 04/15/20 17:43 Lab File ID: 04150020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.60 | Baseline | beckerc | 04/16/20 10:33 |
| DNX | 6.93 | Baseline | beckerc | 04/16/20 10:33 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 492475

Lab Sample ID: CCV 280-492475/7 Client Sample ID:

Date Analyzed: 04/22/20 15:38 Lab File ID: 04220007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/23/20 11:49 |
| 2-Nitrotoluene | 12.85 | Baseline | beckerc | 04/23/20 11:49 |
| 4-Nitrotoluene | 13.29 | Baseline | beckerc | 04/23/20 11:49 |
| 3-Nitrotoluene | 13.88 | Baseline | beckerc | 04/23/20 11:49 |

Lab Sample ID: CCV 280-492475/9 Client Sample ID:

Date Analyzed: 04/22/20 16:24 Lab File ID: 04220009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.60 | Baseline | beckerc | 04/23/20 11:51 |
| DNX | 6.92 | Baseline | beckerc | 04/23/20 11:51 |

Lab Sample ID: LCS 280-492251/2-A Client Sample ID:

Date Analyzed: 04/22/20 17:10 Lab File ID: 04220011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 04/23/20 11:52 |

Lab Sample ID: LCS 280-492251/3-A Client Sample ID:

Date Analyzed: 04/22/20 17:33 Lab File ID: 04220012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.35 | Baseline | beckerc | 04/23/20 11:52 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 492475

Lab Sample ID: 280-135347-1 Client Sample ID: SOILWC-LTM-Apr20

Date Analyzed: 04/22/20 17:56 Lab File ID: 04220013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitrobenzene | | Invalid Compound ID | beckerc | 04/23/20 11:53 |

Lab Sample ID: 280-135347-1 MS Client Sample ID: SOILWC-LTM-Apr20 MS

Date Analyzed: 04/22/20 18:19 Lab File ID: 04220014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/23/20 11:53 |

Lab Sample ID: 280-135347-1 MSD Client Sample ID: SOILWC-LTM-Apr20 MSD

Date Analyzed: 04/22/20 18:42 Lab File ID: 04220015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/23/20 11:54 |

Lab Sample ID: 280-135347-1 MSD Client Sample ID: SOILWC-LTM-Apr20 MSD

Date Analyzed: 04/22/20 19:28 Lab File ID: 04220017.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.36 | Baseline | beckerc | 04/23/20 11:55 |

Lab Sample ID: CCV 280-492475/18 Client Sample ID:

Date Analyzed: 04/22/20 19:51 Lab File ID: 04220018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.70 | Baseline | beckerc | 04/23/20 11:55 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 492475

Lab Sample ID: CCV 280-492475/20 Client Sample ID:

Date Analyzed: 04/22/20 20:37 Lab File ID: 04220020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.59 | Baseline | beckerc | 04/23/20 11:56 |
| DNX | 6.92 | Baseline | beckerc | 04/23/20 11:56 |

8330A

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **8330 DMT_00005** | 03/31/20 | 01/21/20 | Acetonitrile, Lot 231453 | 5 mL | MNX,TNX,DNX_00032 | 1 mL | DNX | 20.02 ug/mL |
| | | | | | | | MNX | 23.34 ug/mL |
| | | | | | | | TNX | 20.02 ug/mL |
| .MNX,TNX,DNX_00032 | 12/31/19 | ULTRA Scientific, Lot CS-5628 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330 DMT_00006** | 02/28/21 | 04/15/20 | Acetonitrile, Lot ACN_00232 | 5 mL | MNX,TNX,DNX_00043 | 1 mL | DNX | 20.02 ug/mL |
| | | | | | | | MNX | 23.34 ug/mL |
| | | | | | | | TNX | 20.02 ug/mL |
| .MNX,TNX,DNX_00043 | 02/28/21 | ULTRA Scientific, Lot 006516106 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330 LCS_00095** | 07/24/20 | 01/24/20 | Acetonitrile, Lot ACN_00231 | 100 mL | 8330LCSMix1_00113 | 1 mL | 1,3,5-Trinitrobenzene | 10 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | 8330LCSmix2_00009 | 1 mL | 2,6-Dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10 ug/mL |
| | | | | | | | Tetryl | 10 ug/mL |
| .8330LCSMix1_00113 | 07/31/24 | Restek, Lot A0151407 | | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1000 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1000 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| .8330LCSmix2_00009 | 05/31/24 | Restek, Lot A0149387 | | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| **8330 LCS_00096** | 07/31/20 | 03/18/20 | Acetonitrile, Lot Acetonitrile_00044 | 100 mL | 8330_NG_Stk_00076 | 1 mL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_NG_Stk_00083 | 1 mL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00086 | 1 mL | PETN | 100 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | 8330_PETN_Stk_00088 | 1 mL | PETN | 100 ug/mL |
| | | | | | 8330LCSMix1_00115 | 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_00010 | 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_00088 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |
| .8330_NG_Stk_00076 | 08/31/22 | Restek, Lot A0151571 | | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_NG_Stk_00083 | 07/31/20 | Restek, Lot A0129124 | | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00086 | 09/30/22 | Restek, Lot A0152514 | | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330_PETN_Stk_00088 | 11/30/22 | Restek, Lot A0154763 | | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330LCSMix1_00115 | 07/31/24 | Restek, Lot A0151407 | | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1000 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1000 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| .8330LCSmix2_00010 | 05/31/23 | Restek, Lot A0149387 | | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| .PicricARestek_00088 | 11/30/24 | Restek, Lot A0155054 | | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 1000 ug/mL |
| **8330_OP_DMT_00006** | 02/24/21 | 02/24/20 | Acetonitrile, Lot 0000196715 | 10 mL | MNX,TNX,DNX_00042 | 1 mL | DNX | 10.01 ug/mL |
| | | | | | | | MNX | 11.67 ug/mL |
| | | | | | | | TNX | 10.01 ug/mL |
| .MNX,TNX,DNX_00042 | 02/28/21 | ULTRA Scientific, Lot 006516106 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330IntermStk_00061** | 09/09/21 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330_NG_Stk_00075 | 200 uL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00087 | 200 uL | PETN | 100 ug/mL |
| | | | | | 8330ICALStock_00030 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **8330Surrogate_00110** | 05/17/20 | 12/17/19 | Acetonitrile, Lot ACN_00223 | 250 mL | 8330SurrStkSS_00145 | 0.25 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00158 | 0.25 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00160 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00161 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| .8330SurrStkSS_00145 | 03/31/23 | Restek, Lot A0135839 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00158 | 07/31/24 | Restek, Lot A0146866 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00160 | 10/28/22 | Restek, Lot A0150790 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00161 | 07/31/24 | Restek, Lot A0150790 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| **8330Surrogate_00111** | 09/09/20 | 03/09/20 | Acetonitrile, Lot Acetonitrile_00044 | 250 mL | 8330SurrStkSS_00159 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00163 | 0.5 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00165 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330SurrStkSS_00159 | 07/31/24 | Restek, Lot A0150790 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00163 | 11/30/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00165 | 11/30/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| **8330Surrogate_00112** | 10/09/20 | 04/09/20 | Acetonitrile, Lot ACN_00233 | 250 mL | 8330SurrStock_00165 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStock_00166 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStock_00167 | 0.5 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330SurrStock_00165 | 10/09/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStock_00166 | 10/09/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStock_00167 | 10/09/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |

# 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 17034 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 17025 TESTING LABORATORY

ISO17025 Cert No. AT-1937

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

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

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

# Reagent

# 8330_NG_Stk_00075

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

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.:** A0151571

**Description :** Custom Nitroglycerin Standard

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

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

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

## CERTIFIED VALUES

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

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

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

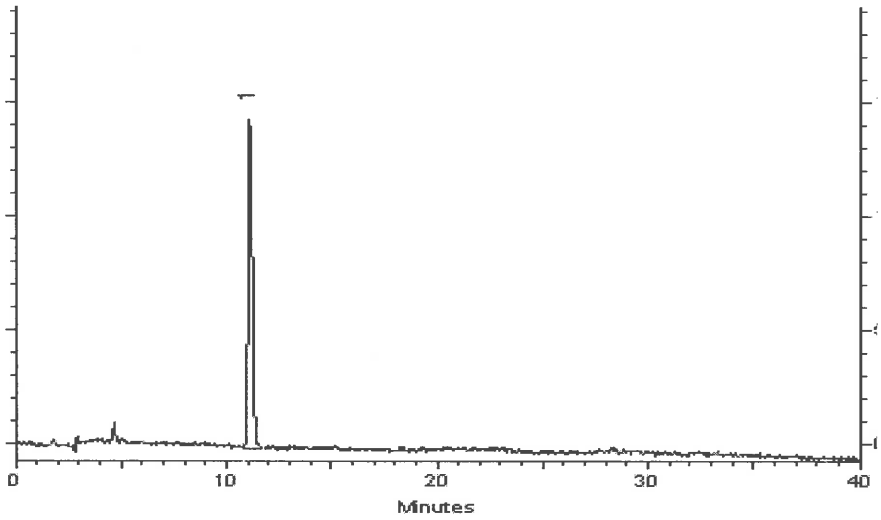
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Joseph Jaglowski - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 09-Aug-2019

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

# Reagent

# 8330_NG_Stk_00076

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.:** A0151571

**Description :** Custom Nitroglycerin Standard

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

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

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

## CERTIFIED VALUES

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

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

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

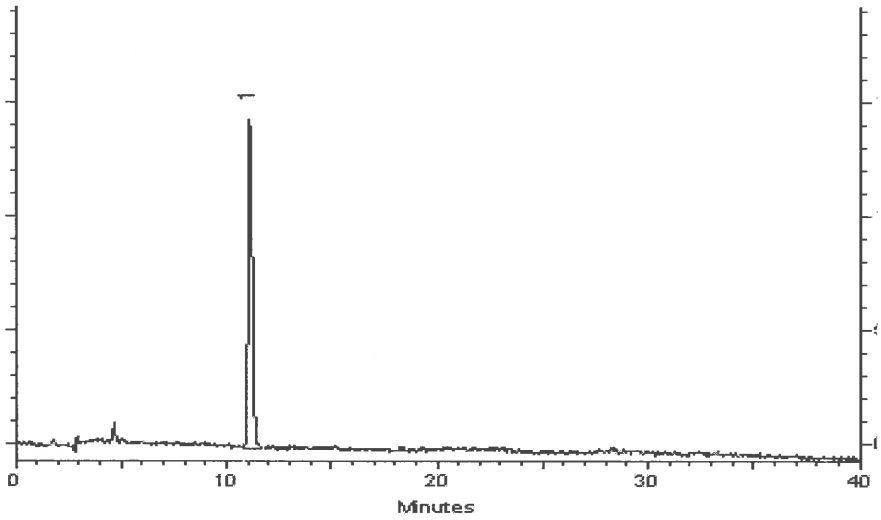
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Joseph Jaglowski - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 09-Aug-2019

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

# Reagent

# 8330_PETN_Stk_00086

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 568872 **Lot No.:** A0152514

**Description :** Custom PETN Standard

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

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

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

### CERTIFIED VALUES

| Elution Order | Compound | | | Grav. Conc. (weight/volume) | | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | PETN | | | 5,004.0 | µg/mL | +/- | 46.5345 | µg/mL | Gravimetric |
| | **CAS #** | 78-11-5 | (Lot 051108JLM) | | | +/- | 276.4626 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 321.6664 | µg/mL | Stressed |

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

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

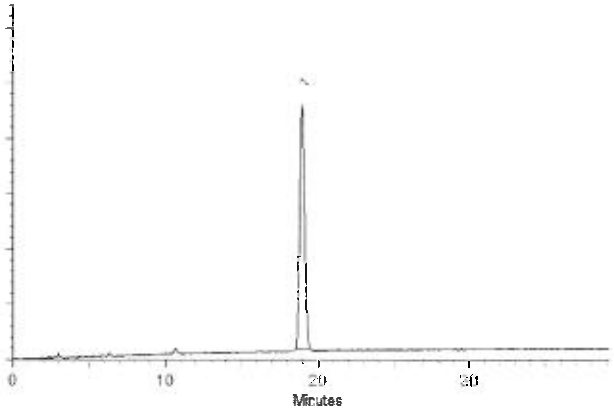
**Flow Rate:**
1.0 ml/min.

**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.

Matt Fragassi - Mix Technician

**Date Mixed:** 03-Sep-2019 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 06-Sep-2019

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

# 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

## CERTIFIED VALUES

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

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

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

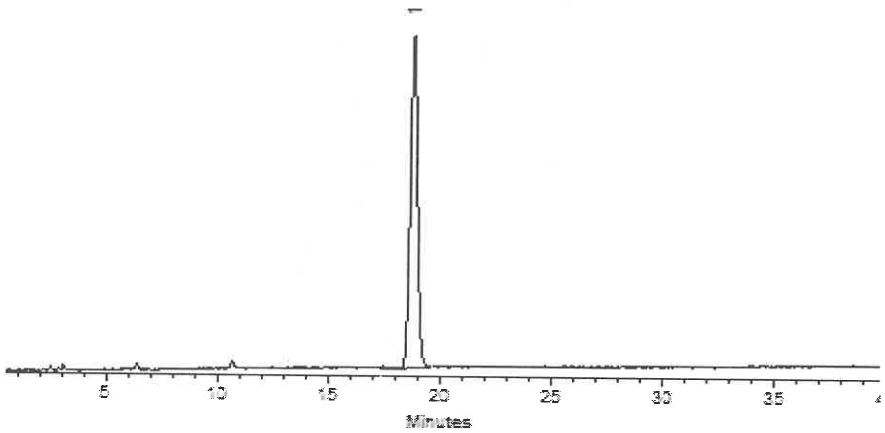
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330_PETN_Stk_00088

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

## CERTIFIED VALUES

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

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

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

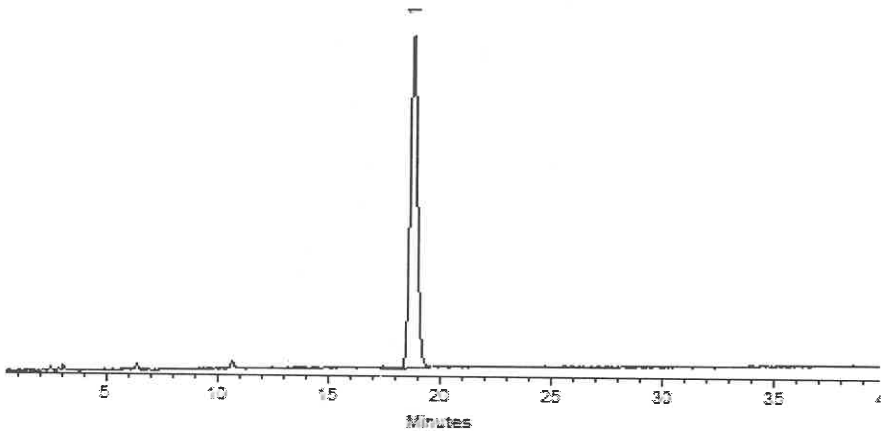
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330LCSMix1_00113

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

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

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

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

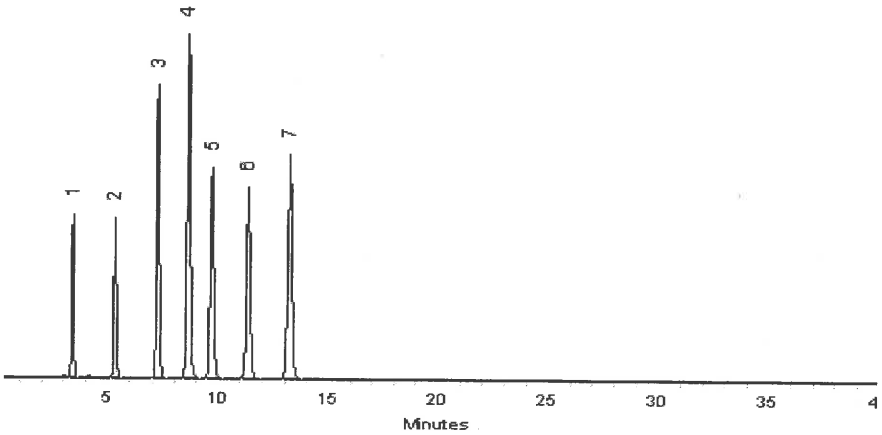
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 01-Aug-2019

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

# Reagent

# 8330LCSMix1_00115

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

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

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

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

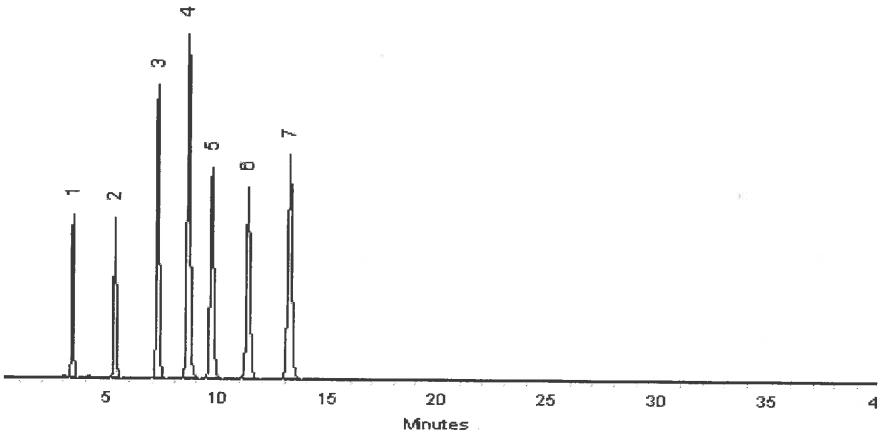
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 01-Aug-2019

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

# Reagent

# 8330LCSmix2_00009

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31451 **Lot No.:** A0149387

**Description :** 8330 Calibration Mix #2

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | Tetryl<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 999.6 µg/mL | +/- 5.9373 µg/mL<br>+/- 54.7611 µg/mL<br>+/- 63.8568 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot 1437483V) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,010.0 µg/mL | +/- 5.9991 µg/mL<br>+/- 55.3308 µg/mL<br>+/- 64.5212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot 07329LG) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

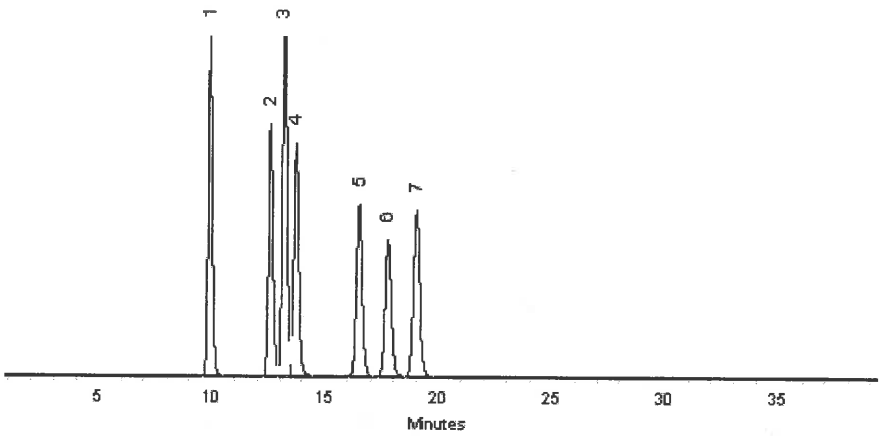
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-May-2019

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

# Reagent

# 8330LCSmix2_00010

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31451 **Lot No.:** A0149387

**Description :** 8330 Calibration Mix #2

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | Tetryl<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 999.6 µg/mL | +/- 5.9373 µg/mL<br>+/- 54.7611 µg/mL<br>+/- 63.8568 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot 1437483V) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,010.0 µg/mL | +/- 5.9991 µg/mL<br>+/- 55.3308 µg/mL<br>+/- 64.5212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot 07329LG) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

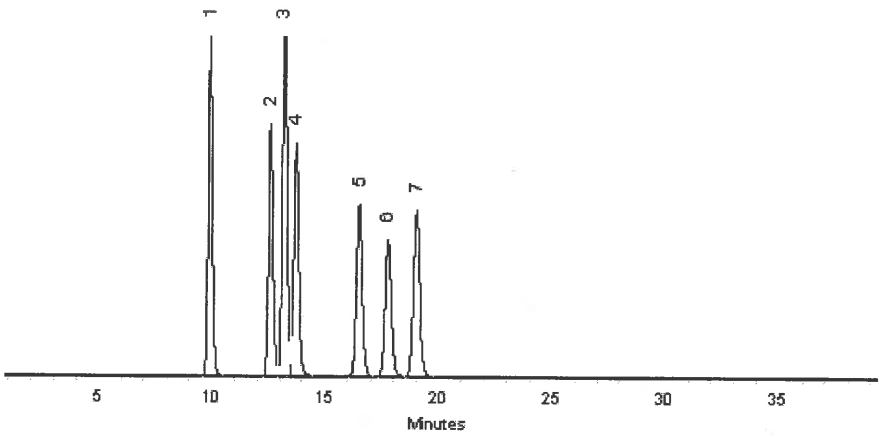
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-May-2019

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

# Reagent

# 8330PAStkPS_00061

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

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

**Signal Word: Danger**

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

**Certified Reference Material**

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

*Page 1 of 1*

*For use in routine laboratory analysis.*

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

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

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

*SAFETY DATA SHEET*

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 - Product Identifiers

Catalog Name: M-8330-ADD-3

Description: Picric Acid in Acetonitrile/Methanol Blend

### 1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

### 1.3 - Supplier Details

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

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

### 1.4 - Emergency Telephone Number

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

24 hours / 7 days a week

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 - GHS Label Elements

**Signal Word: Danger**

**Hazard Codes:**

H225 - Highly Flammable (Flammable liquids, category 2)

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

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

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

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

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

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

**Precautionary Codes:**

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

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





## SECTION 2 - HAZARDS IDENTIFICATION *- continued*

### 2.1 - GHS Label Elements *- continued*

P260 - Do not breathe vapor.

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

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

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

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

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

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

### 2.2 - Other Hazards

#### 2.2.1 - Symptom of Exposure Health/Environment

Highly Flammable (Flammable liquids, category 2)

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

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

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

#### 2.2.2 - Potential Health Effects

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

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

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

Irritating to mucous membrane and upper respiratory system.

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

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

#### 2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

#### 2.2.4 - Carcinogenicity

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

## SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Picric Acid in Acetonitrile/Methanol Blend

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

## SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids
Bases
Oxidizers

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

Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Human Health Toxicity**

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

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

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

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

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

## SECTION 12 - ECOLOGICAL INFORMATION

**Environmental Toxicity**

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

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

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

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

## SECTION 13 - DISPOSAL CONSIDERATIONS

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

## SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

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

Poison by Inhalation: No

Marine Pollutant: No





## SECTION 15 - REGULATORY INFORMATION

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

All components are listed on the TSCA Inventory.

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

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

## SECTION 16 - OTHER INFORMATION

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

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

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

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

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

## HMIS/NFPA HAZARD INDEX

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

* - Additional Hazard

## GHS HAZARD INDEX

Category 1 - Most Severe
Category 5 - Least Severe

**** End of Document ****

# Reagent

# 8330Surrogate_00110

eurofins | Environment Testing TestAmerica

8330Surrogate_00110

good ✓

# Reagent ID: 8330Surrogate_00110

| | | | |
|---|---|---|---|
| | | Expiration Date: | 05/17/2020 |
| Description: | 10ug/mL 1,2-Dinitrobenzene | Laboratory: | Eurofins TestAmerica, Denver |
| No. of Bottles: | 1 | Prepared By: | Bourgery, David F |
| Storage Location: | Explosives Prep | Solvent: | Acetonitrile |
| Reagent Volume: | 250.000 mL | Solvent Lot: | ACN_00223 |
| Creation Date: | 12/17/2019 | | |
| Open Date: | | | |
| Container(s): | 6017392 | | |

WL 88127 → C18

Comment: Stored Frozen. 6 month expiration date. Take 1mL of 1,2 Dinitrobenzene (8330SurrStock) and Dilute to 100 mL in ACN. Mulitply recipe as needed.

POS #6

## Reagent Analyte Information

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

## Source Reagents

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

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0088127-006 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

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

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

| | | |
|---|---|---|
| 280-132013-A-1-A | 600-197143-C-1-A | 280-131992-C-1-A |
| 280-131988-A-1-A | 280-131988-A-2-A | 280-131988-A-3-A |
| 280-131988-B-4-A | | |

# Reagent

# 8330Surrogate_00111

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200410-90750.b\04100006.D

Lims ID: C18column:B16162 Inj. Date: 10-Apr-2020 12:45:10

Worklist ID: 280-0090750-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 |
|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.1000 | 0.0982 | 98.2 | 83-119 |

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

280-135165-A-3-A

# Reagent

# 8330Surrogate_00112

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200410-90750.b\04100006.D

Lims ID: C18column:B16162 Inj. Date: 10-Apr-2020 12:45:10

Worklist ID: 280-0090750-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 |
|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.1000 | 0.0982 | 98.2 | 83-119 |

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

280-135165-A-3-A

# Reagent

# 8330SurrStkSS_00145

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31453 **Lot No.:** A0135839

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,000.0 µg/mL | +/- 5.9397 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKBW2921V) | | +/- 56.0822 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 57.3938 | µg/mL | Stressed |

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

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

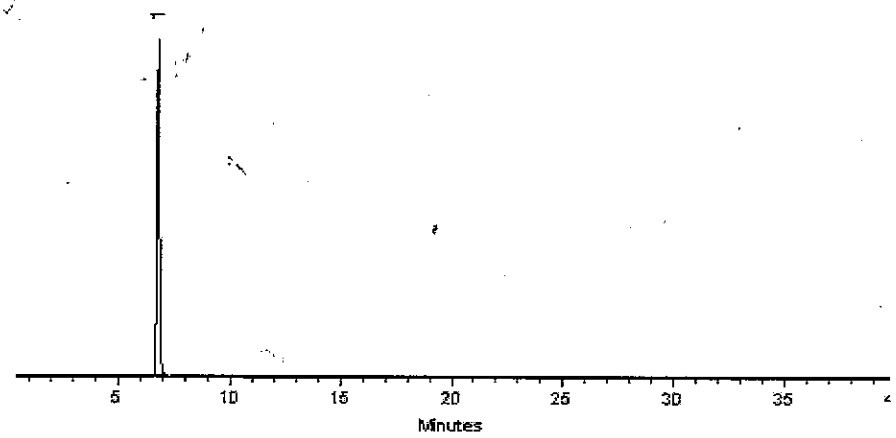
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Dustin J Lidgett

**Dustin Lidgett - Mix Technician** **Date Mixed:** 05-Mar-2018 **Balance:** 1128360905

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 09-Mar-2018

**Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330SurrStkSS_00158

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

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

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

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

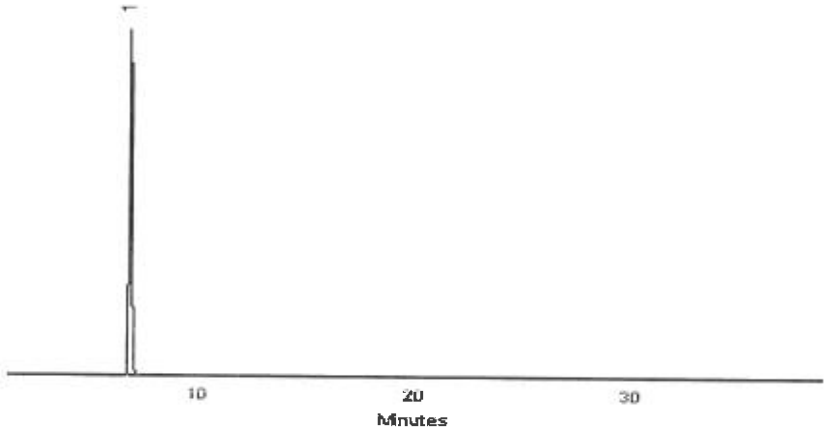
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Walker Workman - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330SurrStkSS_00159

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

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

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

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

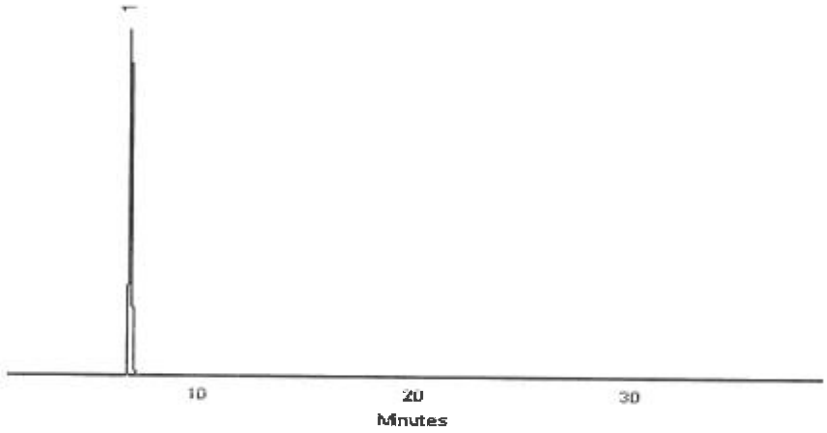
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Walker Workman - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330SurrStkSS_00160

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

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

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

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

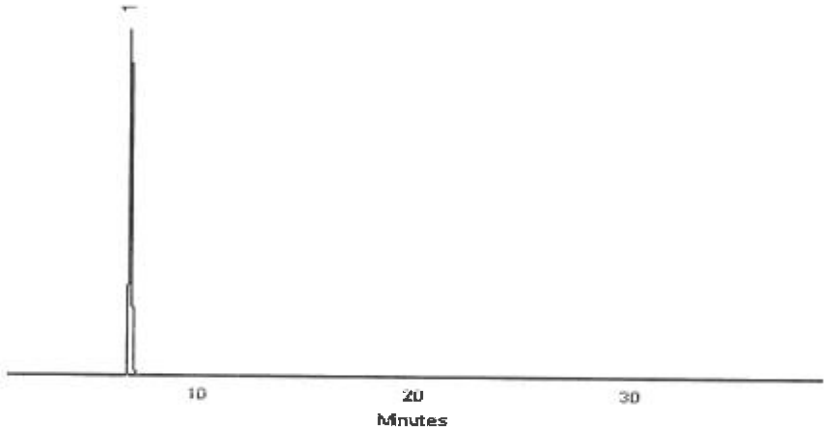
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Walker Workman - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330SurrStkSS_00161

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

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

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

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

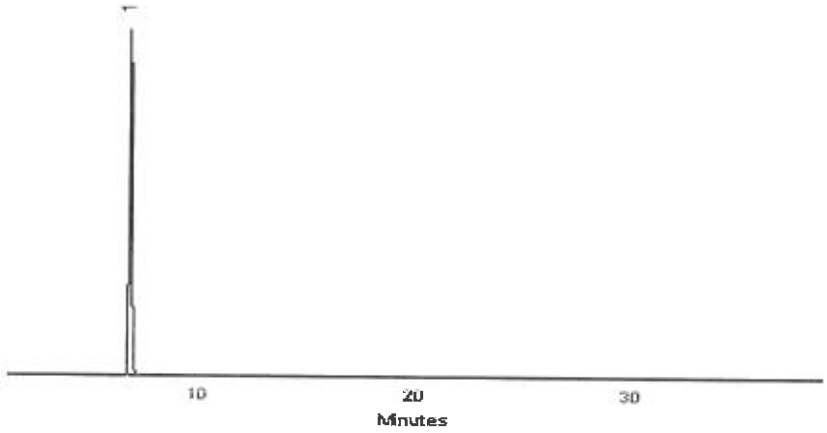
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Walker Workman - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330SurrStkSS_00163

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

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

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

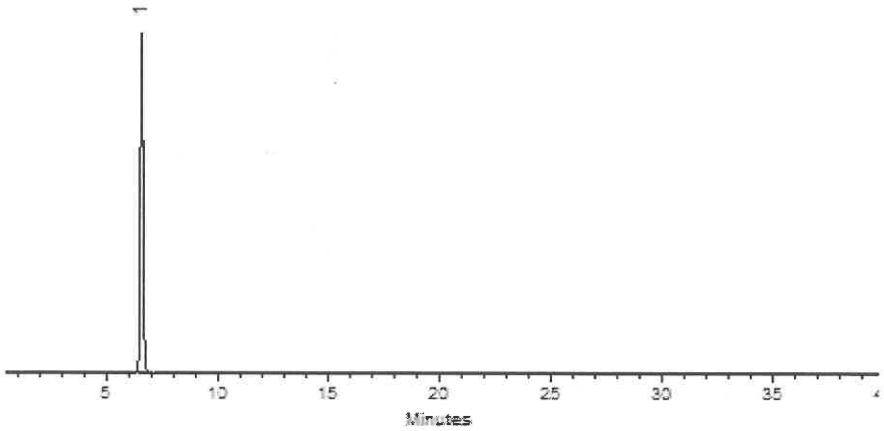
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

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

# Reagent

# 8330SurrStkSS_00165

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

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

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

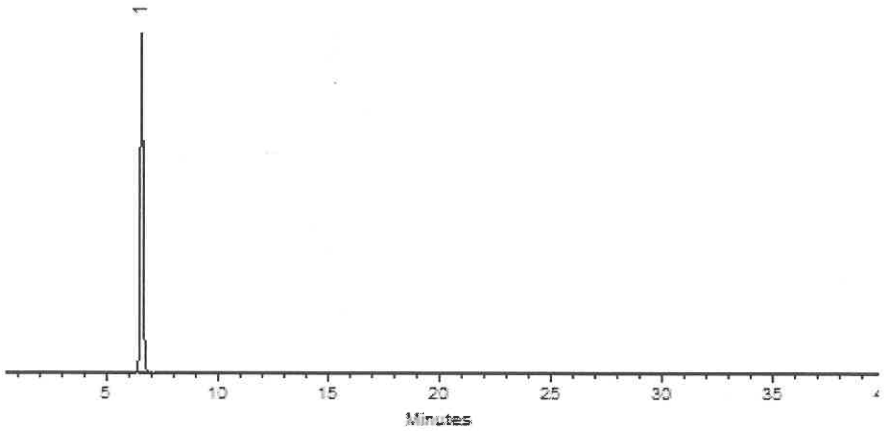
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

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

# Reagent

# 8330SurrStock_00164

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

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

**Danger 2**

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

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

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

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

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

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

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

See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager



*For use in routine laboratory analysis.*

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

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

# Reagent

# 8330SurrStock_00165

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_00166

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

# MNX,TNX,DNX_00032

Agilent

# Certificate of Analysis
# ISO Guide 34

## Custom Standard

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

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

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

**Matrix:** acetonitrile

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

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

Monica Bourgeois
QMS Representative

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

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

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

ORG ver 1.1


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

# Reagent

---

# MNX,TNX,DNX_00042

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 24-Jan-2020

**Lot Number:** 0006516106 **Expiration Date:** 28-Feb-2021

**Description:**

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

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.1 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

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

**Homogeneity:**

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

**Intended Use:**

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

**Instructions for Use:**

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

**Hazards:**

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

**Expiration of Certification:**

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

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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

Page: 1 of 2

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

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



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

# Certificate of Analysis

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

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

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

Page: 2 of 2

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

ISO 17025 Cert
No. AT-1937

# Reagent

# MNX,TNX,DNX_00043

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 24-Jan-2020

**Lot Number:** 0006516106 **Expiration Date:** 28-Feb-2021

**Description:**

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

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.1 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

**Traceability:**

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

**Homogeneity:**

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

**Intended Use:**

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

**Instructions for Use:**

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

**Hazards:**

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

**Expiration of Certification:**

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

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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



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

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



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

# Certificate of Analysis

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

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

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

Page: 2 of 2

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

ISO 17025 Cert
No. AT-1937

Reagent

---

# PicricARestek_00088

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31499 **Lot No.:** A0155054

**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 :** November 30, 2024 **Storage:** 10°C or colder

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Picric Acid | 999.1 µg/mL | +/- 5.9344 | µg/mL | Gravimetric |
| | **CAS #** 88-89-1 (Lot 06130CU) | | +/- 54.7337 | µg/mL | Unstressed |
| | **Purity** 97% | | +/- 63.8249 | µg/mL | Stressed |

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

**Specific Reference Material Notes:**
This is a derivatized analysis.

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

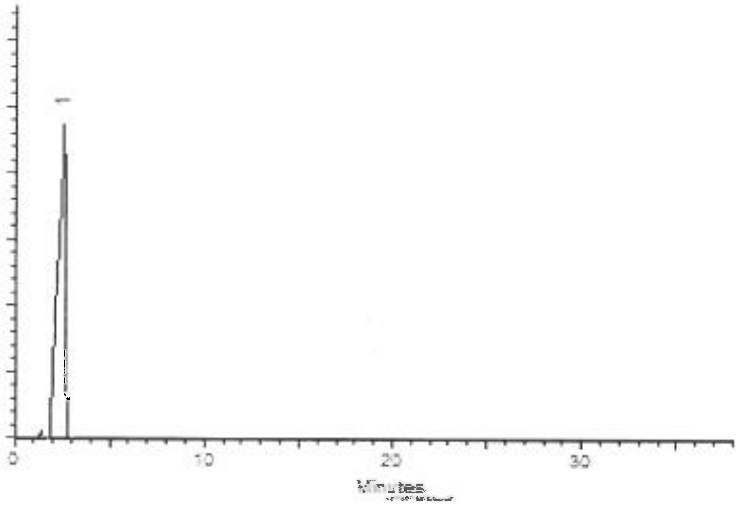
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Jessica McClenahan - Operations Technician I

**Date Mixed:** 14-Nov-2019 **Balance:** B707717271

Fiona Yue Lo - QC Analyst

**Date Passed:** 17-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.

# 8330A_DOD5

## Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Matrix: Solid  Level: Low

GC Column (1): UltraCarb5u  ID: 4.6 (mm)

| Client Sample ID | Lab Sample ID | 12DNB1 # |
|---|---|---|
| SOILWC-LTM-Apr20 | 280-135347-1 | 97 |
| | MB 280-492251/1-A | 98 |
| | LCS 280-492251/2-A | 96 |
| | LCS 280-492251/3-A | 98 |
| SOILWC-LTM-Apr20 MS | 280-135347-1 MS | 94 |
| SOILWC-LTM-Apr20 MS | 280-135347-1 MS | 98 |
| SOILWC-LTM-Apr20 MSD | 280-135347-1 MSD | 96 |
| SOILWC-LTM-Apr20 MSD | 280-135347-1 MSD | 98 |

| | QC LIMITS |
|---|---|
| 12DNB = 1,2-Dinitrobenzene | 89-123 |

# Column to be used to flag recovery values

FORM II 8330A

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

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 # |
|---|---|---|---|
| WATERWC-LTM-Apr20 | 280-135347-2 | | 91 M |
| WATERWC-LTM-Apr20 | 280-135347-2 | 141 M Q | |
| | MB 280-491558/1-A | 99 | |
| | LCS 280-491558/2-A | 98 | |
| | LCS 280-491558/3-A | 101 | |
| | LCSD 280-491558/4-A | 111 | |

| | 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.: 280-135347-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 04150010.D

Lab ID: LCS 280-491558/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 2.00 | 1.77 | 88 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 1.87 | 93 | 77-127 | |
| 2,4,6-Trinitrotoluene | 2.00 | 1.96 | 98 | 71-123 | |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.70 | 85 | 79-120 | |
| 1,3-Dinitrobenzene | 2.00 | 1.88 | 94 | 78-120 | |
| 2-Nitrotoluene | 2.00 | 1.55 | 77 | 70-127 | |
| 1,3,5-Trinitrobenzene | 2.00 | 2.06 | 103 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.55 | 77 | 76-125 | |
| 3-Nitrotoluene | 2.00 | 1.75 | 87 | 73-125 | |
| 4-Nitrotoluene | 2.00 | 1.61 | 81 | 71-127 | |
| HMX | 2.00 | 1.96 | 98 | 65-135 | M |
| Nitrobenzene | 2.00 | 1.70 | 85 | 65-134 | |
| RDX | 2.00 | 1.88 | 94 | 68-130 | |
| Tetryl | 2.00 | 1.84 | 92 | 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.: 280-135347-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 04150011.D

Lab ID: LCS 280-491558/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.33 | 2.16 | 92 | 57-132 | |

# 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.: 280-135347-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 04220011.D

Lab ID: LCS 280-492251/2-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 2.50 | 2.40 | 96 | 82-123 | |
| 2,6-Dinitrotoluene | 2.50 | 2.57 | 103 | 86-119 | |
| 2,4,6-Trinitrotoluene | 2.50 | 2.61 | 104 | 75-125 | |
| 2-Amino-4,6-dinitrotoluene | 2.50 | 2.55 | 102 | 87-121 | |
| 1,3-Dinitrobenzene | 2.50 | 2.51 | 100 | 84-124 | |
| 2-Nitrotoluene | 2.50 | 2.37 | 95 | 84-120 | |
| 1,3,5-Trinitrobenzene | 2.50 | 2.59 | 103 | 81-123 | |
| 4-Amino-2,6-dinitrotoluene | 2.50 | 2.32 | 93 | 84-124 | |
| 3-Nitrotoluene | 2.50 | 2.55 | 102 | 79-127 | |
| 4-Nitrotoluene | 2.50 | 2.46 | 98 | 83-122 | |
| HMX | 2.50 | 2.45 | 98 | 77-122 | M |
| Nitrobenzene | 2.50 | 2.56 | 102 | 80-128 | |
| RDX | 2.50 | 2.26 | 90 | 82-124 | |
| Tetryl | 2.50 | 2.52 | 101 | 66-138 | |

# 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.: 280-135347-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 04220012.D

Lab ID: LCS 280-492251/3-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.92 | 50 U | 89 | 50-150 | M |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 04150012.D

Lab ID: LCSD 280-491558/4-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| MNX | 2.33 | 2.27 | 97 | 5 | 30 | 57-132 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 04220014.D

Lab ID: 280-135347-1 MS Client ID: SOILWC-LTM-Apr20 MS

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 2.39 | 0.11 U | 2.30 | 96 | 82-123 | |
| 2,6-Dinitrotoluene | 2.39 | 0.11 U | 2.39 | 100 | 86-119 | |
| 2,4,6-Trinitrotoluene | 2.39 | 0.16 U | 2.35 | 98 | 75-125 | |
| 2-Amino-4,6-dinitrotoluene | 2.39 | 0.11 U | 2.38 | 100 | 87-121 | |
| 1,3-Dinitrobenzene | 2.39 | 0.16 U | 2.35 | 98 | 84-124 | |
| 2-Nitrotoluene | 2.39 | 0.16 U | 2.31 | 96 | 84-120 | |
| 1,3,5-Trinitrobenzene | 2.39 | 0.16 U | 2.38 | 100 | 81-123 | |
| 4-Amino-2,6-dinitrotoluene | 2.39 | 0.25 U | 2.03 | 85 | 84-124 | |
| 3-Nitrotoluene | 2.39 | 0.25 U | 2.46 | 103 | 79-127 | |
| 4-Nitrotoluene | 2.39 | 0.16 U | 2.40 | 100 | 83-122 | |
| HMX | 2.39 | 0.16 U | 2.24 | 94 | 77-122 | M |
| Nitrobenzene | 2.39 | 0.16 U | 2.42 | 101 | 80-128 | |
| RDX | 2.39 | 0.16 U | 2.11 | 88 | 82-124 | |
| Tetryl | 2.39 | 0.11 U | 2.27 | 95 | 66-138 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 04220016.D

Lab ID: 280-135347-1 MS Client ID: SOILWC-LTM-Apr20 MS

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| MNX | 2.81 | 49 U | 48 U | NC | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 04220015.D

Lab ID: 280-135347-1 MSD Client ID: SOILWC-LTM-Apr20 MSD

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 2.40 | 2.37 | 98 | 3 | 30 | 82-123 | |
| 2,6-Dinitrotoluene | 2.40 | 2.47 | 103 | 3 | 30 | 86-119 | |
| 2,4,6-Trinitrotoluene | 2.40 | 2.43 | 101 | 3 | 30 | 75-125 | |
| 2-Amino-4,6-dinitrotoluene | 2.40 | 2.42 | 101 | 2 | 30 | 87-121 | |
| 1,3-Dinitrobenzene | 2.40 | 2.40 | 100 | 2 | 30 | 84-124 | |
| 2-Nitrotoluene | 2.40 | 2.31 | 96 | 0 | 30 | 84-120 | |
| 1,3,5-Trinitrobenzene | 2.40 | 2.51 | 105 | 5 | 30 | 81-123 | |
| 4-Amino-2,6-dinitrotoluene | 2.40 | 2.06 | 86 | 2 | 30 | 84-124 | |
| 3-Nitrotoluene | 2.40 | 2.46 | 102 | 0 | 30 | 79-127 | |
| 4-Nitrotoluene | 2.40 | 2.40 | 100 | 0 | 30 | 83-122 | |
| HMX | 2.40 | 2.29 | 95 | 2 | 30 | 77-122 | M |
| Nitrobenzene | 2.40 | 2.44 | 102 | 1 | 30 | 80-128 | |
| RDX | 2.40 | 2.13 | 89 | 1 | 30 | 82-124 | |
| Tetryl | 2.40 | 2.39 | 99 | 5 | 30 | 66-138 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Matrix: Solid  Level: Low  Lab File ID: 04220017.D

Lab ID: 280-135347-1 MSD  Client ID: SOILWC-LTM-Apr20 MSD

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| MNX | 2.82 | 48 U | NC | NC | 30 | 50-150 | 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.: 280-135347-1

SDG No.:

Lab Sample ID: MB 280-491558/1-A

Matrix: Water  Date Extracted: 04/13/2020 10:17

Lab File ID:(1) 04150009.D  Lab File ID:(2)

Date Analyzed:(1) 04/15/2020 13:30  Date Analyzed:(2)

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

GC Column:(1) UltraCarb5uO ID: 4.6(mm)  GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|
| | LCS 280-491558/2-A | 04/15/2020 13:53 | |
| | LCS 280-491558/3-A | 04/15/2020 14:16 | |
| | LCSD 280-491558/4-A | 04/15/2020 14:39 | |
| WATERWC-LTM-Apr20 | 280-135347-2 | 04/15/2020 15:02 | 04/24/2020 00:33 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: MB 280-492251/1-A

Matrix: Solid  Date Extracted: 04/20/2020 14:13

Lab File ID:(1) 04220010.D  Lab File ID:(2)

Date Analyzed:(1) 04/22/2020 16:47  Date Analyzed:(2)

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

GC Column:(1) UltraCarb5uO ID: 4.6(mm)  GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|
| | LCS 280-492251/2-A | 04/22/2020 17:10 | |
| | LCS 280-492251/3-A | 04/22/2020 17:33 | |
| SOILWC-LTM-Apr20 | 280-135347-1 | 04/22/2020 17:56 | |
| SOILWC-LTM-Apr20 MS | 280-135347-1 MS | 04/22/2020 18:19 | |
| SOILWC-LTM-Apr20 MSD | 280-135347-1 MSD | 04/22/2020 18:42 | |
| SOILWC-LTM-Apr20 MS | 280-135347-1 MS | 04/22/2020 19:05 | |
| SOILWC-LTM-Apr20 MSD | 280-135347-1 MSD | 04/22/2020 19:28 | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Client Sample ID: WATERWC-LTM-Apr20 Lab Sample ID: 280-135347-2

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

Date Analyzed (1): 04/15/2020 15:02 Date Analyzed (2): 04/24/2020 00:33

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| HMX | 1 | | 6.70 | 6.55 | 6.85 | 9.3 | | 14.5 |
| | 2 | | 7.00 | 6.83 | 7.13 | 8.1 | | |
| RDX | 1 | | 7.77 | 7.62 | 7.92 | 13 | | 44.0 |
| | 2 | | 9.18 | 9.01 | 9.31 | 8.4 | | |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: SOILWC-LTM-Apr20
Lab Sample ID: 280-135347-1
Matrix: Solid
Lab File ID: 04220013.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2.04(g)
Date Analyzed: 04/22/2020 17:56
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 88-72-2 | 2-Nitrotoluene | 0.16 | U | 0.25 | 0.16 | 0.082 |
| 2691-41-0 | HMX | 0.16 | U | 0.25 | 0.16 | 0.076 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.25 | U | 0.25 | 0.25 | 0.038 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.099 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.053 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.049 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.16 | U | 0.25 | 0.16 | 0.057 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.16 | U | 0.25 | 0.16 | 0.060 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.16 | U | 0.25 | 0.16 | 0.070 |
| 99-08-1 | 3-Nitrotoluene | 0.25 | U | 0.49 | 0.25 | 0.11 |
| 99-99-0 | 4-Nitrotoluene | 0.16 | U | 0.39 | 0.16 | 0.11 |
| 121-82-4 | RDX | 0.16 | U | 0.25 | 0.16 | 0.084 |
| 5755-27-1 | MNX | 49 | U | 98 | 49 | 9.8 |
| 98-95-3 | Nitrobenzene | 0.16 | U M | 0.25 | 0.16 | 0.060 |
| 479-45-8 | Tetryl | 0.11 | U | 0.49 | 0.11 | 0.054 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 97 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220013.D
Lims ID: 280-135347-B-1-D
Client ID: SOILWC-LTM-Apr20
Sample Type: Client
Inject. Date: 22-Apr-2020 17:56:28 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-135347-B-1-D
Misc. Info.: 280-0090980-013
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:53:34

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | | 6.558 | | | ND | U |
| | 2 TNX | 1 | | 6.597 | | | ND | |
| | 3 HMX | 1 | | 6.699 | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | ND | |
| | 5 DNX | 1 | | 6.924 | | | ND | |
| | 6 MNX | 1 | | 7.364 | | | ND | |
| | 7 RDX | 1 | | 7.772 | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.072 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.734 | 8.732 | 0.002 | 33365 | 0.2414 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.945 | | | ND | U |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | ND | |
| | 14 Tetryl | 1 | | 10.252 | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.758 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.865 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.298 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.898 | | | ND | |
| | 24 PETN | 2 | | 14.992 | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | ND | |

## QC Flag Legend

Review Flags

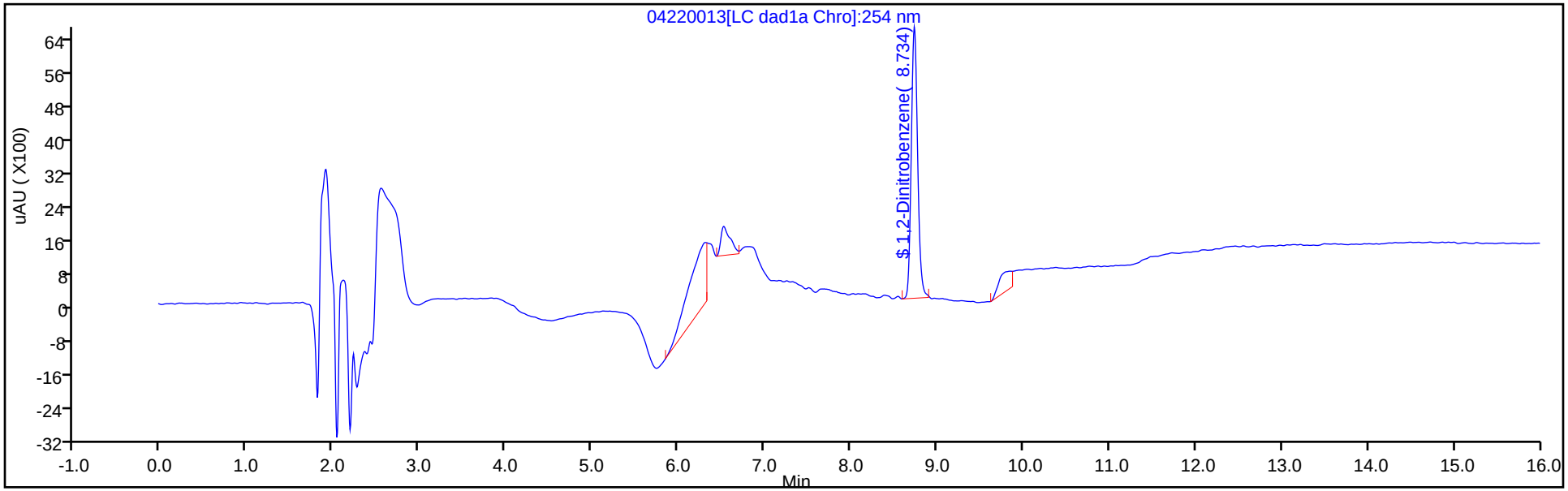
U - Marked Undetected

Report Date: 23-Apr-2020 12:03:31 Chrom Revision: 2.3 11-Mar-2020 18:53:20

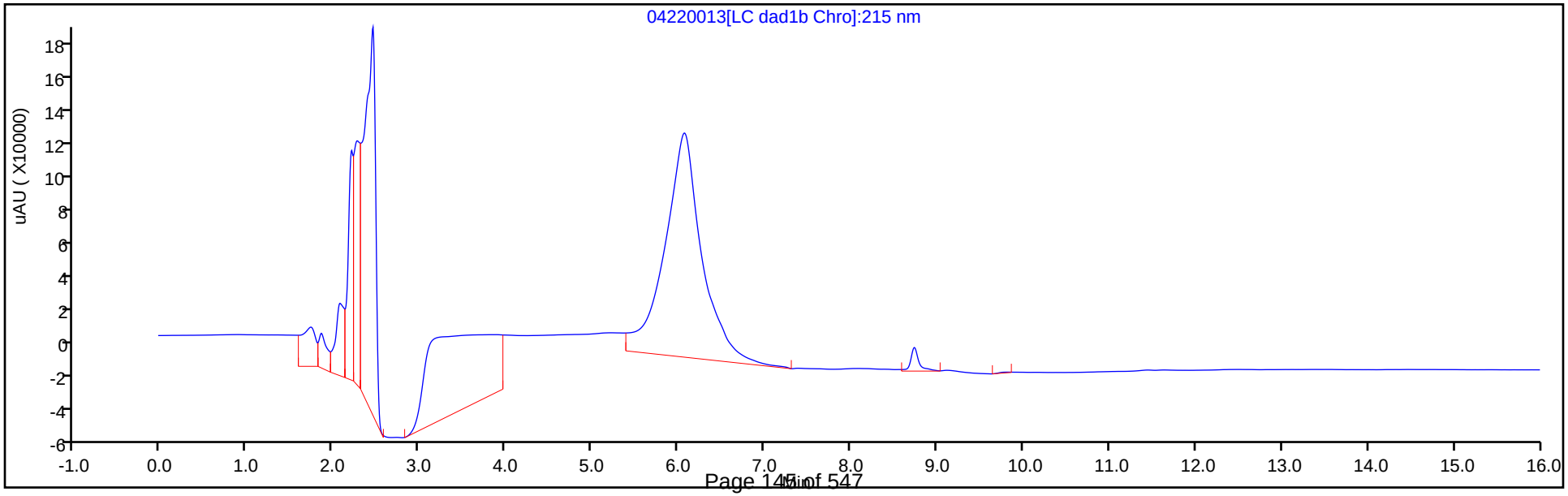
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 17:56:28 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-B-1-D | Lab Sample ID: | 280-135347-1 | Worklist Smp#: | 13 |
| Client ID: | SOILWC-LTM-Apr20 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220013.D | | | | |
| Lims ID: | 280-135347-B-1-D | | | | |
| Client ID: | SOILWC-LTM-Apr20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 22-Apr-2020 17:56:28 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-B-1-D | | | | |
| Misc. Info.: | 280-0090980-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | |

| | | |
|---|---|---|
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | Det: LC DAD1B, 254 nm |
| Process Host: | CTX0327 | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:53:34

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2414 | 96.56 |

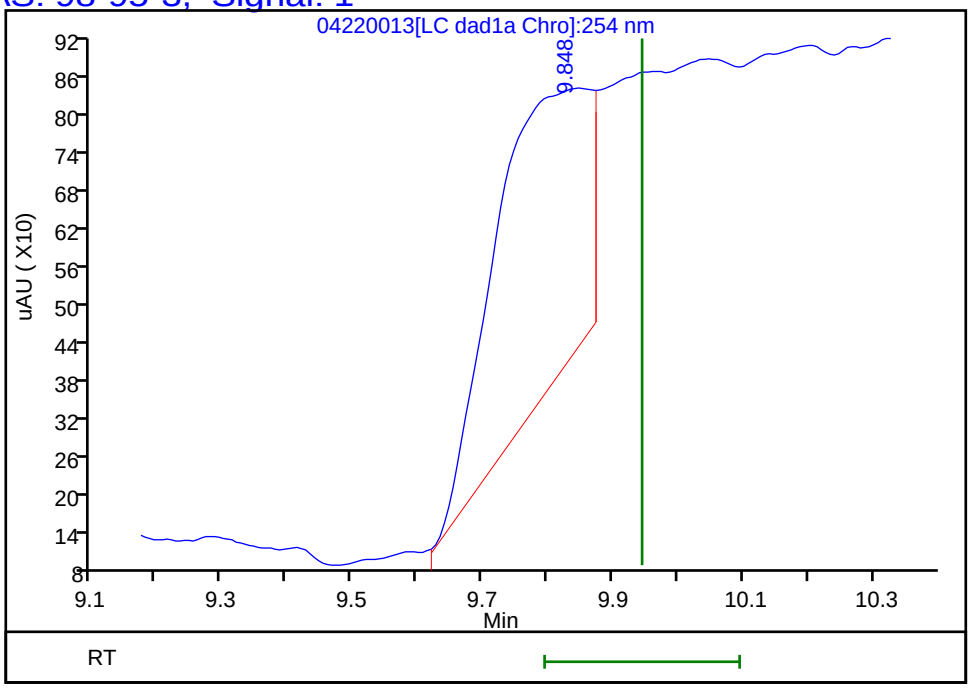
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 17:56:28 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-B-1-D | Lab Sample ID: | 280-135347-1 | | |
| Client ID: | SOILWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 12 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 9.85
Response: 4821
Amount: 0.024057




Reviewer: beckerc, 23-Apr-2020 11:53:34
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.: 280-135347-1
SDG No.:
Client Sample ID: WATERWC-LTM-Apr20
Lab Sample ID: 280-135347-2
Matrix: Water
Lab File ID: 04150013.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 489.1(mL)
Date Analyzed: 04/15/2020 15:02
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 491832
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.41 | U M | 1.0 | 0.41 | 0.20 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U M | 0.41 | 0.20 | 0.091 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.41 | U | 0.41 | 0.41 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.20 | U M | 0.41 | 0.20 | 0.086 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.066 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.052 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.41 | 0.20 | 0.087 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.059 |
| 99-99-0 | 4-Nitrotoluene | 0.41 | U M | 1.0 | 0.41 | 0.20 |
| 2691-41-0 | HMX | 9.3 | M Q | 0.41 | 0.20 | 0.090 |
| 98-95-3 | Nitrobenzene | 0.20 | U M | 0.41 | 0.20 | 0.093 |
| 121-82-4 | RDX | 13 | M Q | 0.41 | 0.41 | 0.16 |
| 479-45-8 | Tetryl | 0.20 | U | 0.25 | 0.20 | 0.081 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 141 | M Q | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150013.D | | | | |
| Lims ID: | 280-135347-A-2-A | | | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 15-Apr-2020 15:02:27 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-A-2-A | | | | |
| Misc. Info.: | 280-0090829-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 20-Apr-2020 18:08:20 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0320 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.699 | 6.699 | 0.000 | 78398 | 0.9120 | M |
| 6 MNX | 1 | 7.372 | 7.364 | 0.008 | 27571 | 0.1739 | M |
| 7 RDX | 1 | 7.772 | 7.772 | 0.000 | 150512 | 1.29 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.745 | 8.732 | 0.013 | 38841 | 0.2810 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | ND | U |
| 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | ND | U |
| 12 Nitrobenzene | 1 | | 9.945 | | | ND | U |
| 14 Tetryl | 1 | | 10.252 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | ND | |
| 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | ND | MU |
| 21 o-Nitrotoluene | 1 | | 12.865 | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.298 | | | ND | MU |
| 23 m-Nitrotoluene | 1 | 13.918 | 13.898 | 0.020 | 17575 | 0.1229 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

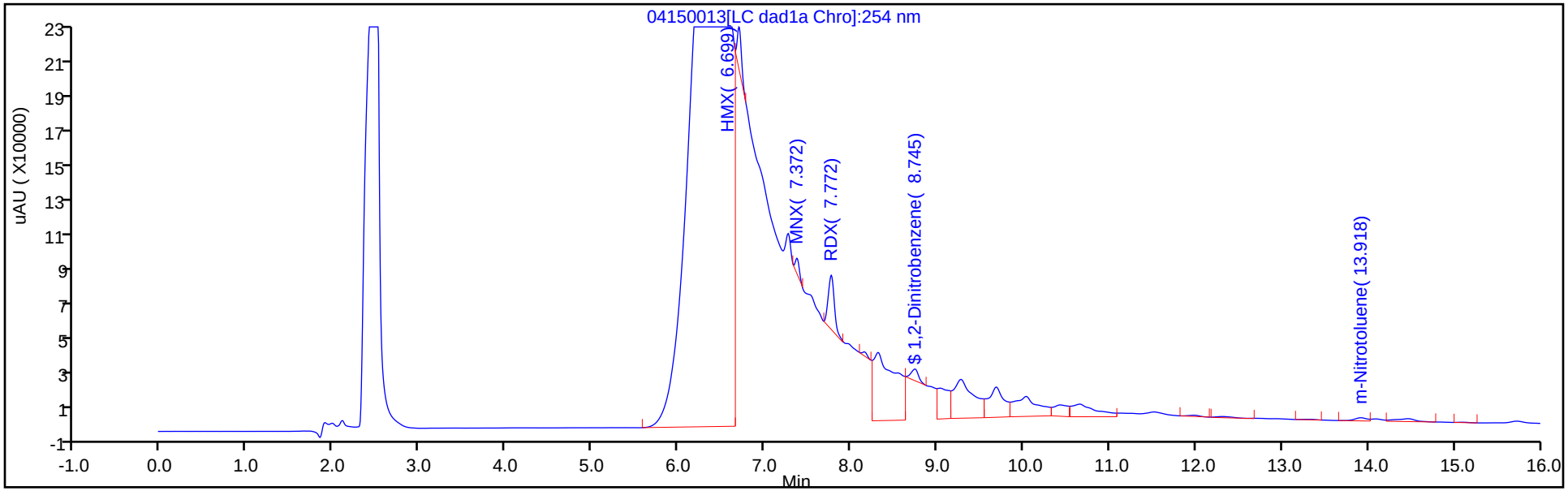
U - Marked Undetected

Report Date: 20-Apr-2020 18:08:20 Chrom Revision: 2.3 11-Mar-2020 18:53:20

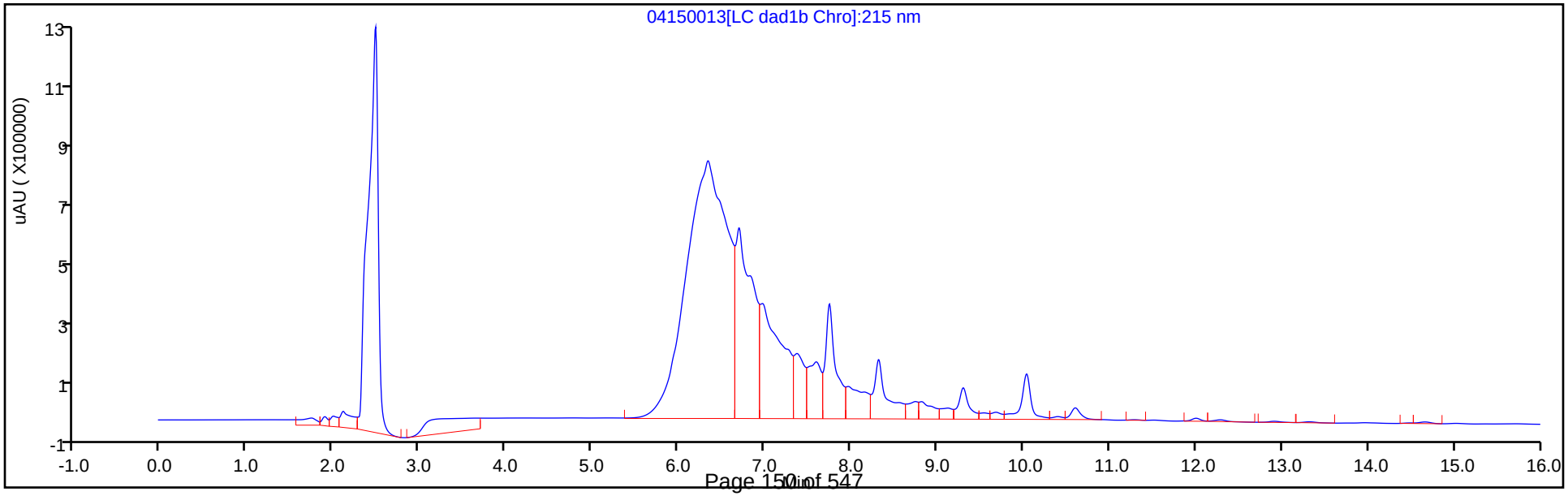
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | Worklist Smp#: | 13 |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150013.D | | | | |
| Lims ID: | 280-135347-A-2-A | | | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 15-Apr-2020 15:02:27 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-A-2-A | | | | |
| Misc. Info.: | 280-0090829-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 20-Apr-2020 18:08:20 | Calib Date: | 18-Mar-2020 14:39:27 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | |

| | | |
|---|---|---|
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | Det: LC DAD1B, 254 nm |
| Process Host: | CTX0320 | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2810 | 140.51 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

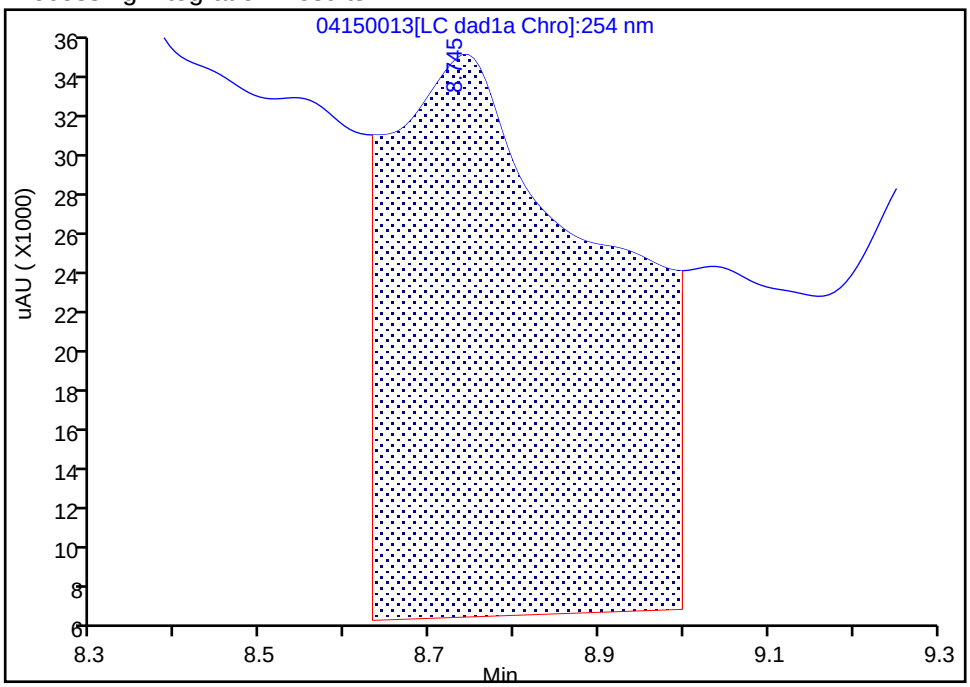
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

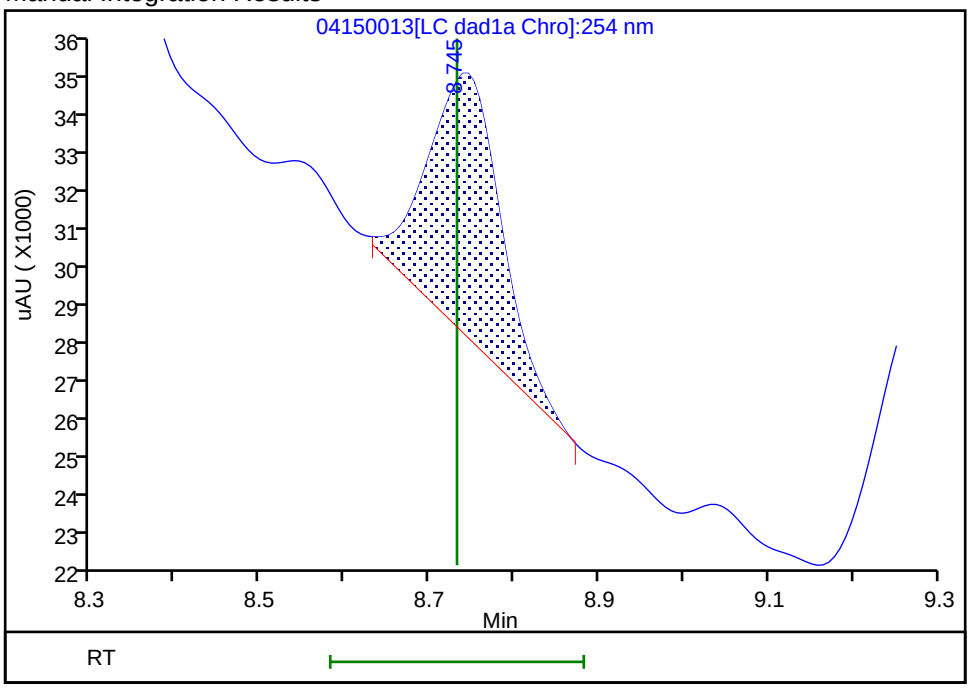
Processing Integration Results

RT: 8.75
Area: 487973
Amount: 3.530607
Amount Units: ug/mL




Manual Integration Results

RT: 8.75
Area: 38841
Amount: 0.281024
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:31:17

Audit Action: Manually Integrated Audit Reason: Baseline

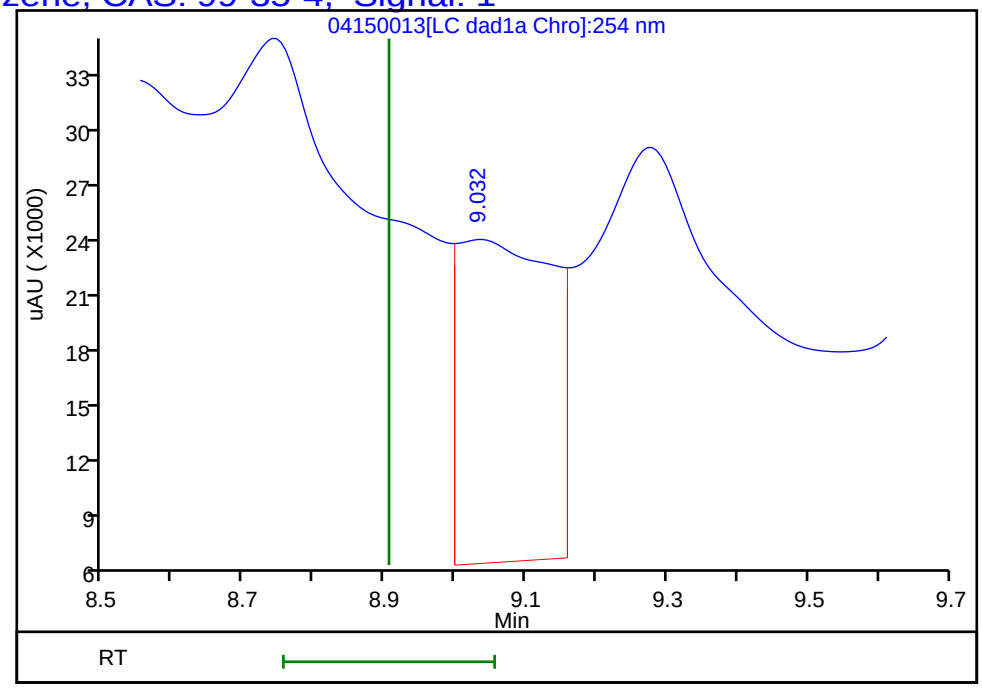
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 10 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 9.03
Response: 157623
Amount: 0.684398




Reviewer: beckerc, 16-Apr-2020 10:30:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

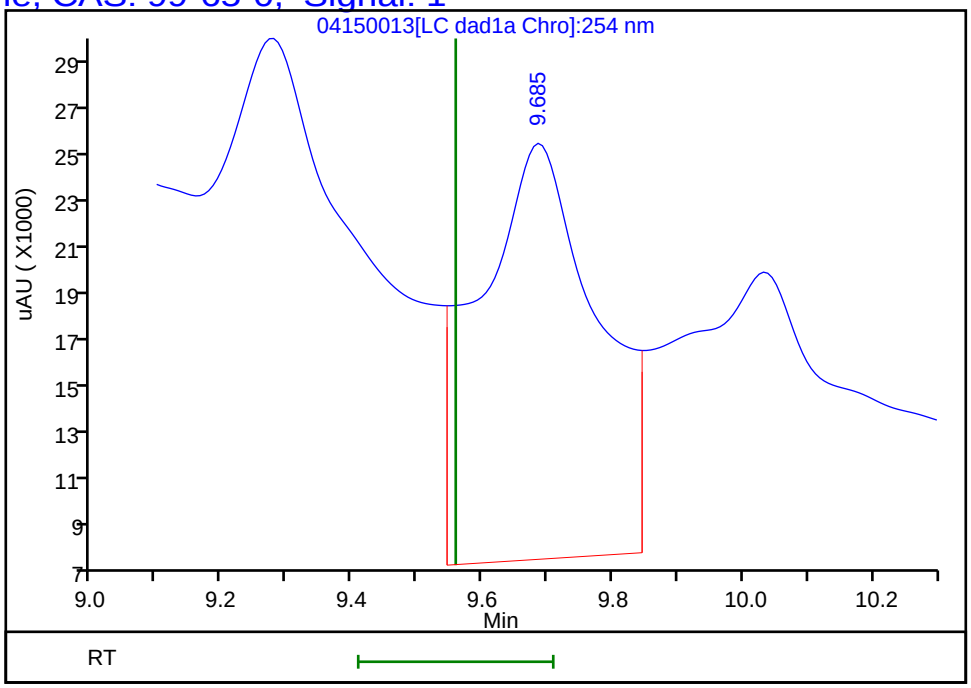
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 11 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.69
Response: 213604
Amount: 0.696492




Reviewer: beckerc, 16-Apr-2020 10:30:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

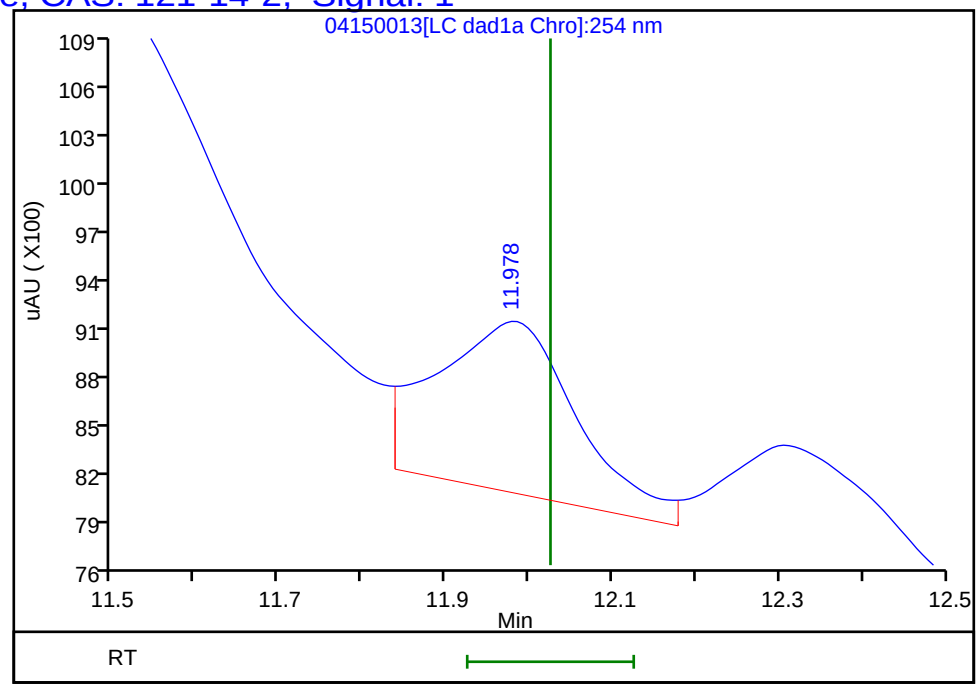
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 20 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.98
Response: 11862
Amount: 0.039073




Reviewer: beckerc, 16-Apr-2020 10:31:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

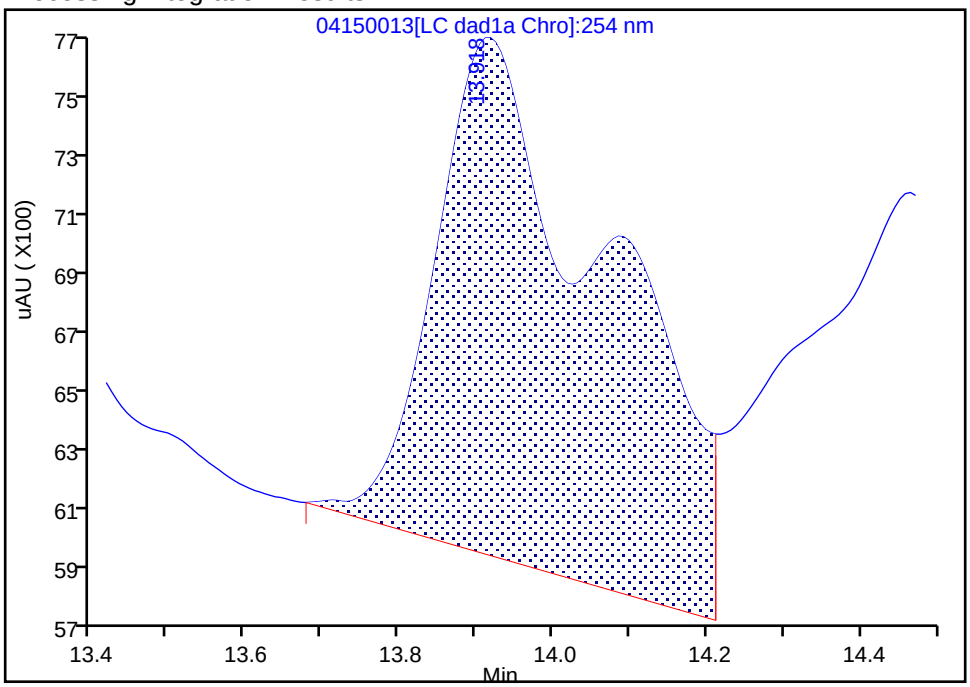
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

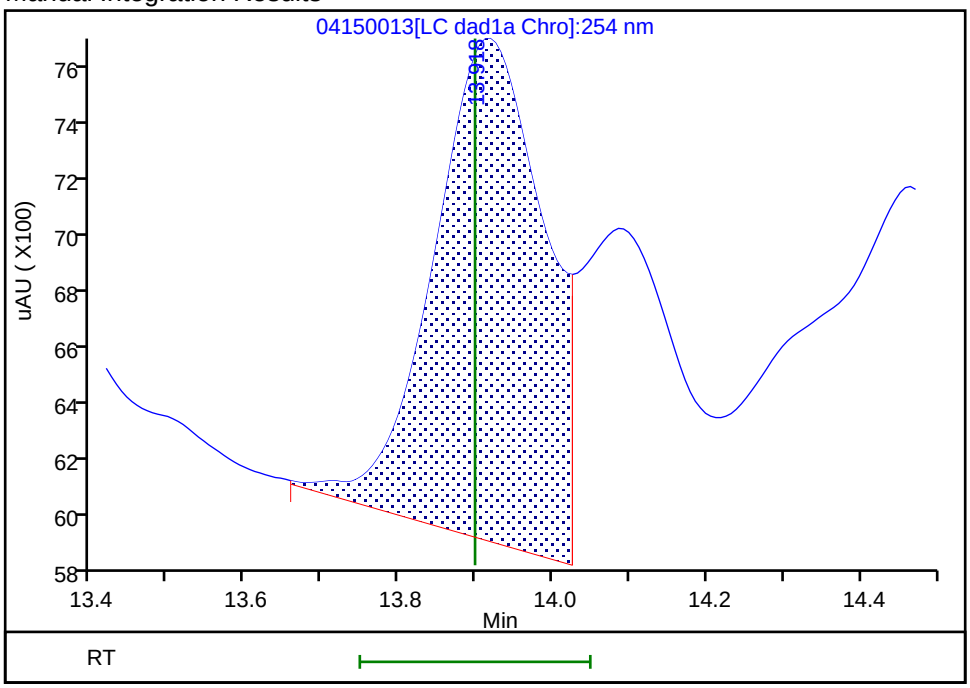
Processing Integration Results

RT: 13.92
Area: 27765
Amount: 0.194122
Amount Units: ug/mL




Manual Integration Results

RT: 13.92
Area: 17575
Amount: 0.122877
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:30:18

Audit Action: Manually Integrated Audit Reason: Baseline

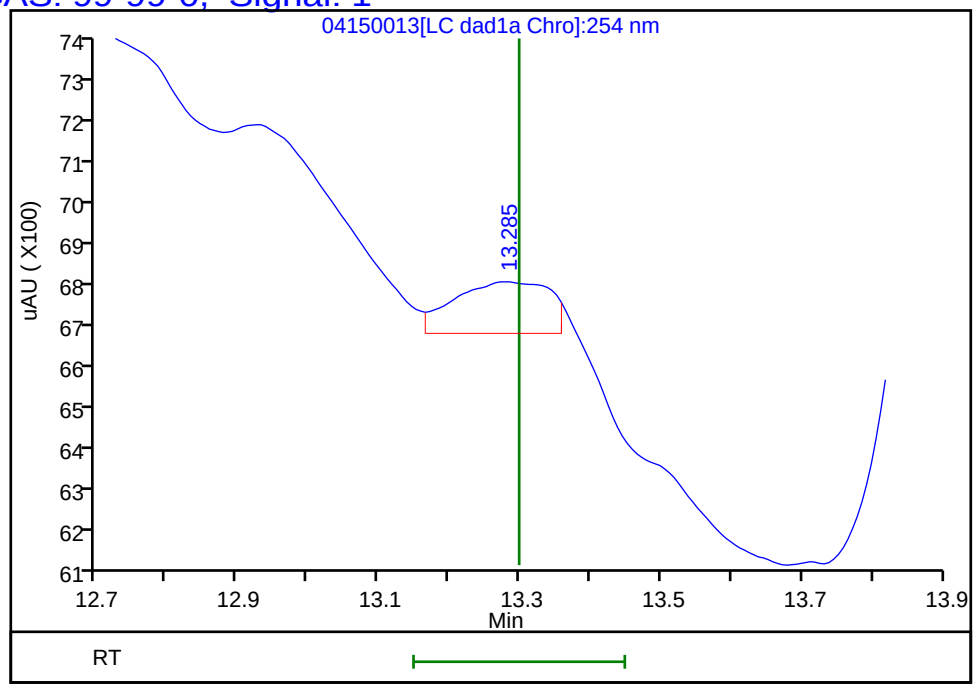
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 22 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 13.29
Response: 1128
Amount: 0.009982




Reviewer: beckerc, 16-Apr-2020 10:31:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

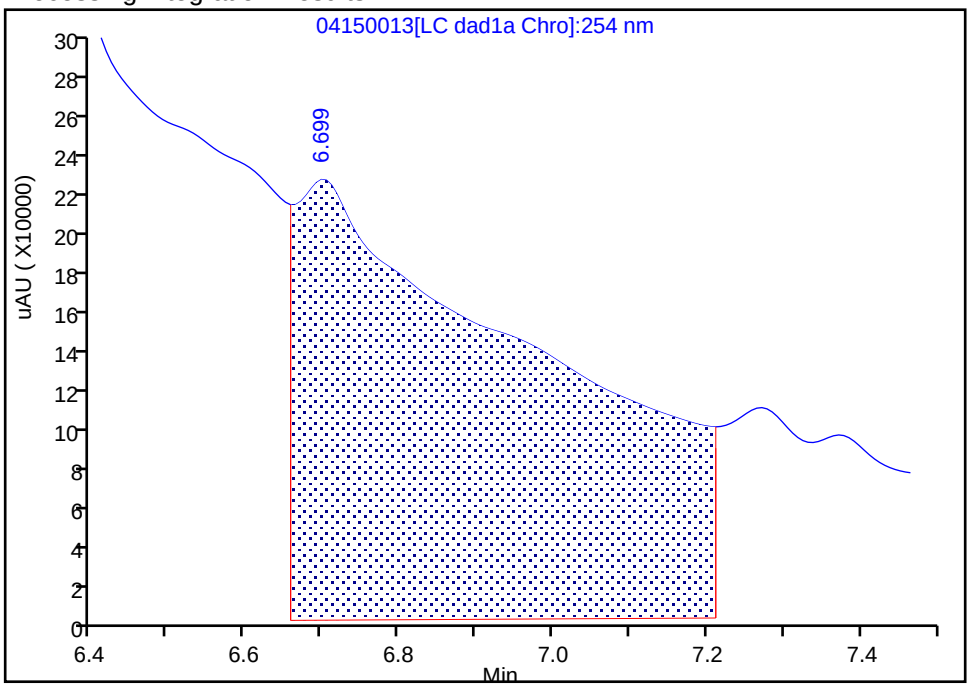
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

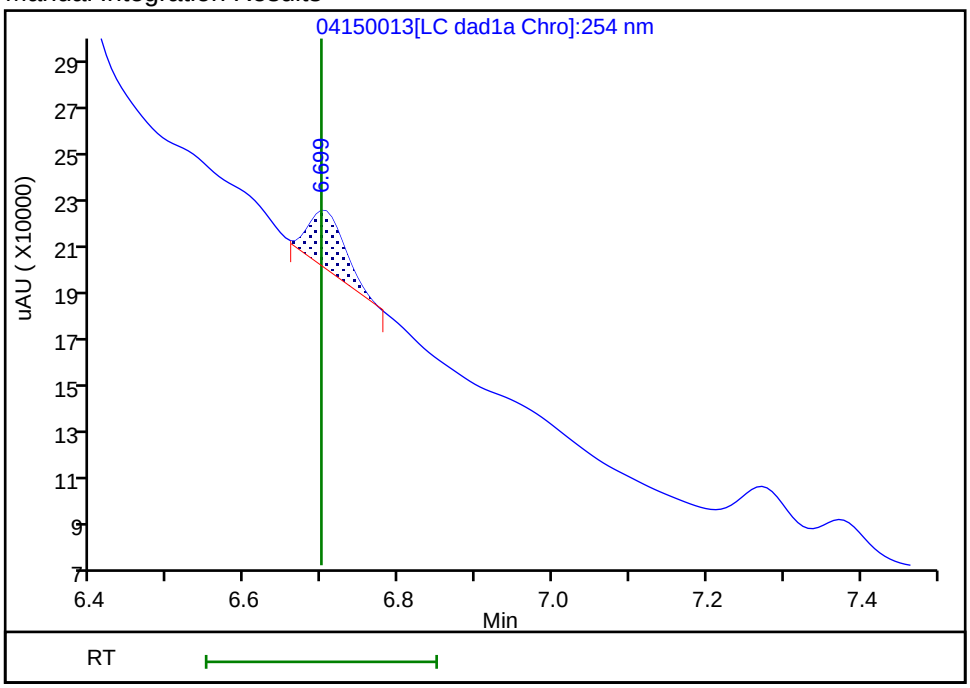
Processing Integration Results

RT: 6.70
Area: 4947617
Amount: 57.555750
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 78398
Amount: 0.912006
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:27:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

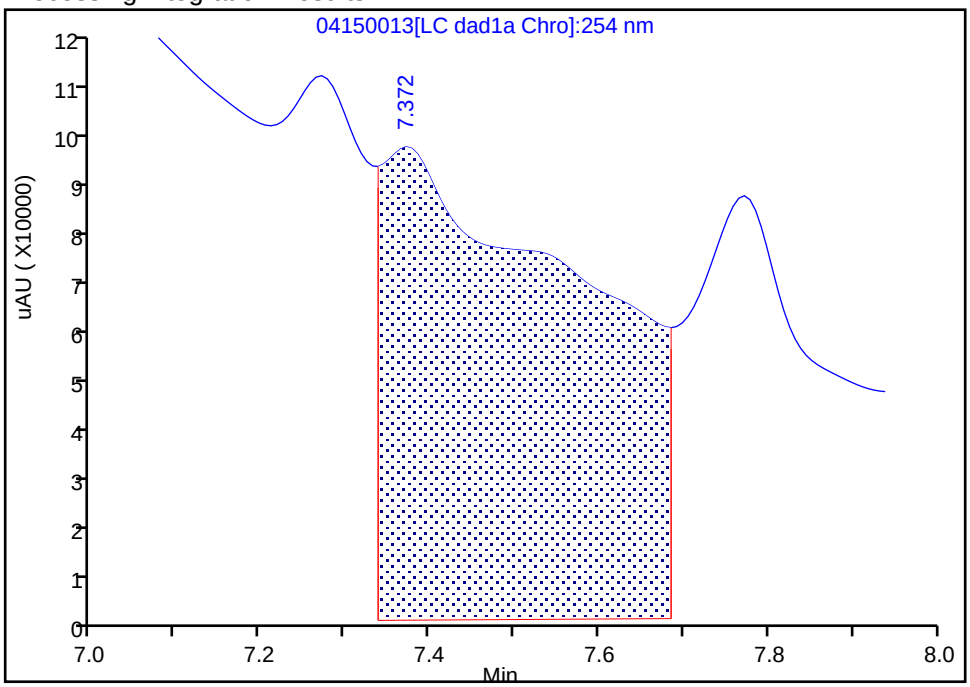
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

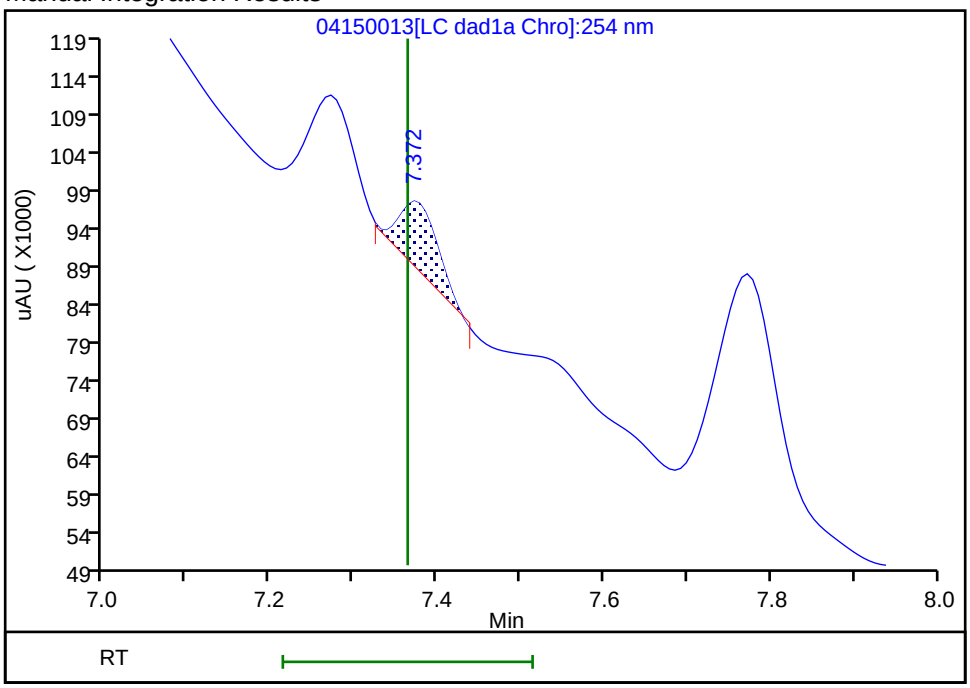
Processing Integration Results

RT: 7.37
Area: 1511201
Amount: 9.531733
Amount Units: ug/mL




Manual Integration Results

RT: 7.37
Area: 27571
Amount: 0.173901
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:28:09

Audit Action: Manually Integrated Audit Reason: Baseline

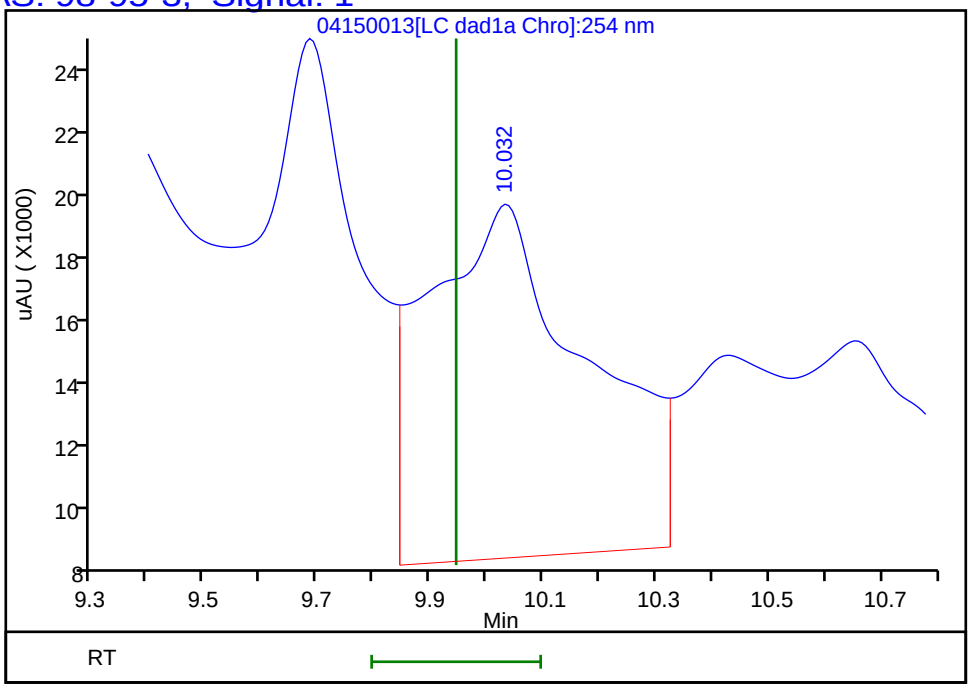
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 12 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 10.03
Response: 218937
Amount: 1.092486




Reviewer: beckerc, 16-Apr-2020 10:30:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

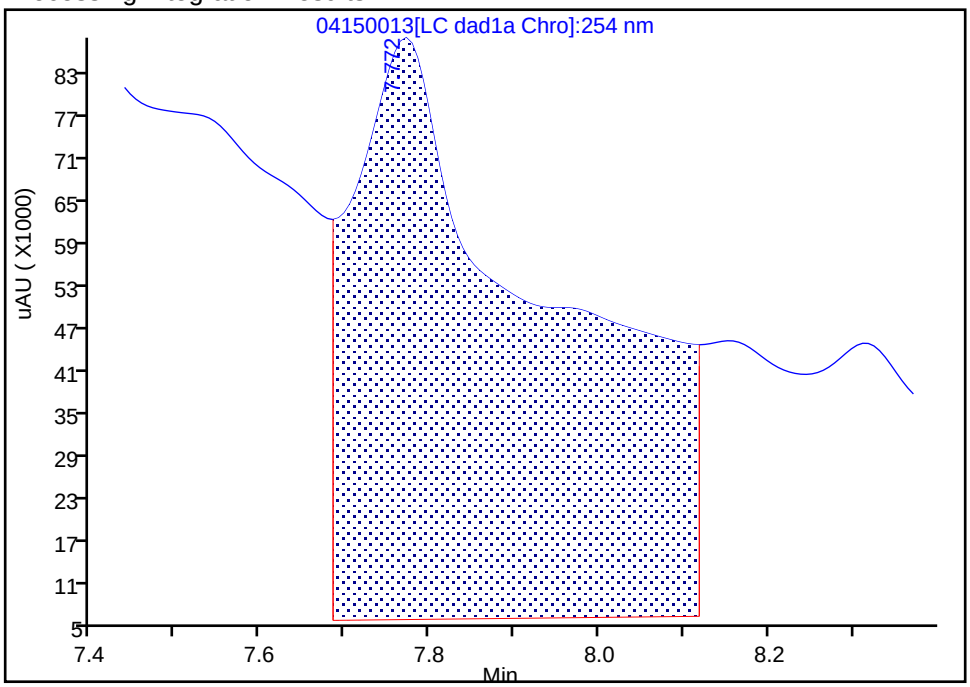
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150013.d | | | | |
| Injection Date: | 15-Apr-2020 15:02:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 RDX, CAS: 121-82-4

Signal: 1

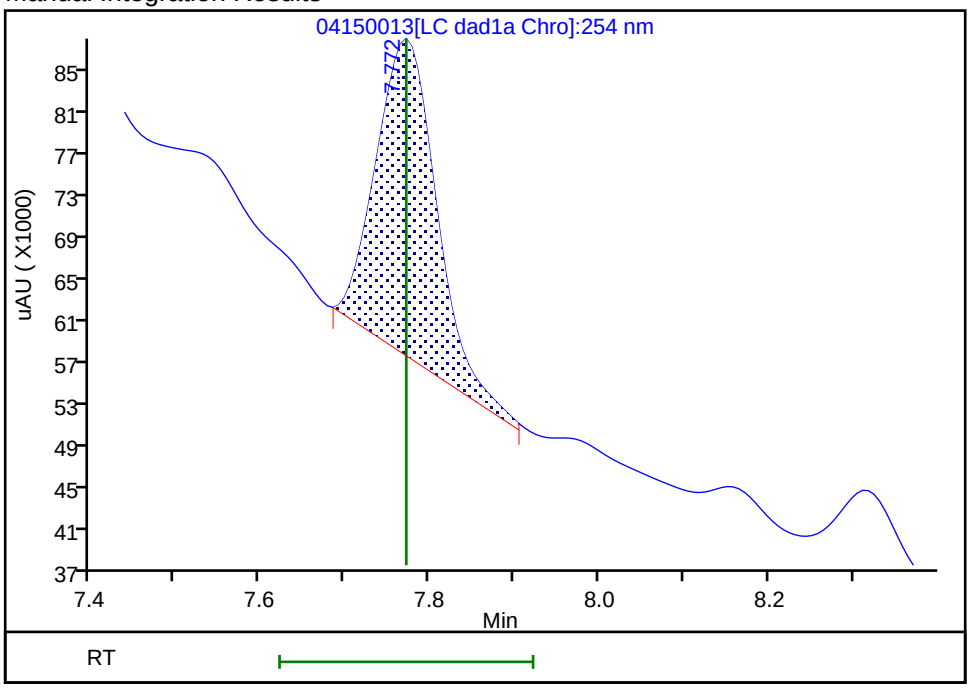
Processing Integration Results

RT: 7.77
Area: 1353511
Amount: 11.606855
Amount Units: ug/mL




Manual Integration Results

RT: 7.77
Area: 150512
Amount: 1.290696
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:28:25

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: WATERWC-LTM-Apr20
Lab Sample ID: 280-135347-2
Matrix: Water
Lab File ID: 04220044.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 489.1(mL)
Date Analyzed: 04/24/2020 00:33
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.: 492532
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-08-1 | 3-Nitrotoluene | 0.41 | U Q | 0.41 | 0.41 | 0.20 |
| 5755-27-1 | MNX | 0.41 | U | 2.0 | 0.41 | 0.16 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 91 | *M* | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220044.D | | | | |
| Lims ID: | 280-135347-A-2-A | | | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Apr-2020 00:33:38 | ALS Bottle#: | 44 | Worklist Smp#: | 44 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-A-2-A | | | | |
| Misc. Info.: | 280-0090989-044 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:40 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |
| First Level Reviewer: beckerc | | Date: | 24-Apr-2020 11:27:31 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 6 HMX | 1 | 6.995 | 6.982 | 0.013 | 137059 | 0.7884 | |
| 7 MNX | 1 | | 7.769 | | | ND | |
| 8 RDX | 1 | 9.175 | 9.162 | 0.013 | 174480 | 0.8254 | |
| 9 Nitrobenzene | 1 | | 12.156 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.115 | 13.076 | 0.039 | 52675 | 0.1811 | M |
| 12 1,3-Dinitrobenzene | 1 | | 15.596 | | | ND | |
| 14 o-Nitrotoluene | 1 | 16.621 | 16.629 | -0.008 | 14952 | 0.0605 | |
| 15 p-Nitrotoluene | 1 | | 16.896 | | | ND | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.235 | 17.202 | 0.033 | 22614 | 0.0738 | |
| 17 m-Nitrotoluene | 1 | | 17.896 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.141 | 18.049 | 0.092 | 35375 | 0.0789 | |
| 19 1,3,5-Trinitrobenzene | 1 | | 18.956 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 19.902 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 20.369 | | | ND | |
| 22 Tetryl | 1 | | 23.622 | | | ND | |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.756 | | | ND | |

## QC Flag Legend

Review Flags

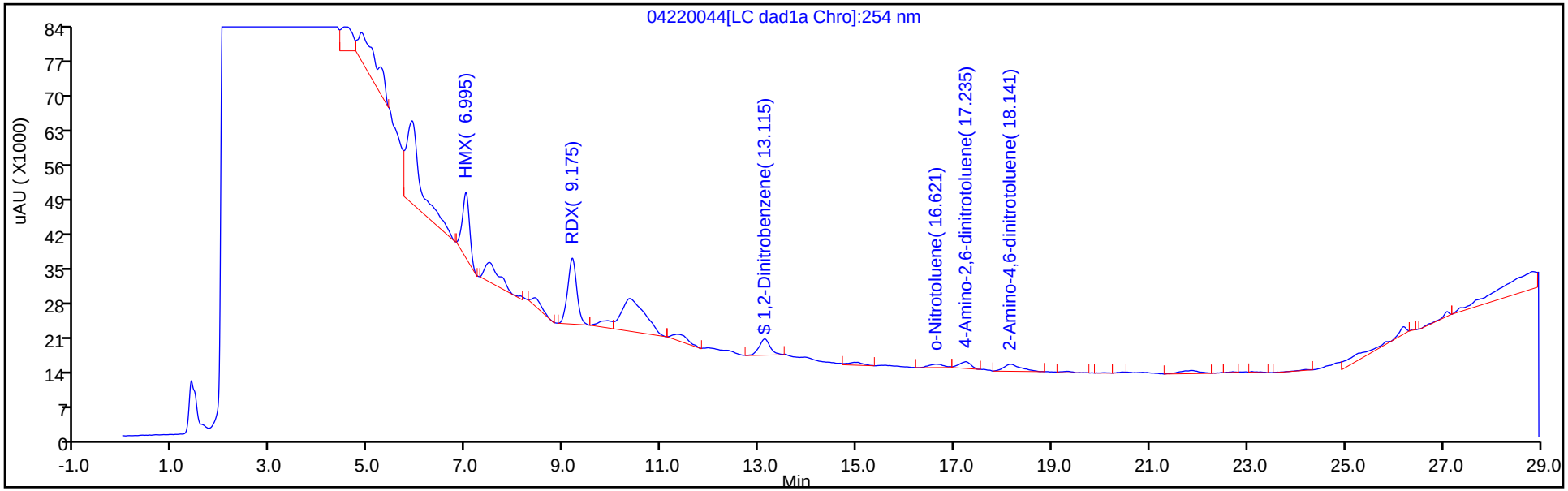
M - Manually Integrated

Report Date: 24-Apr-2020 14:30:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

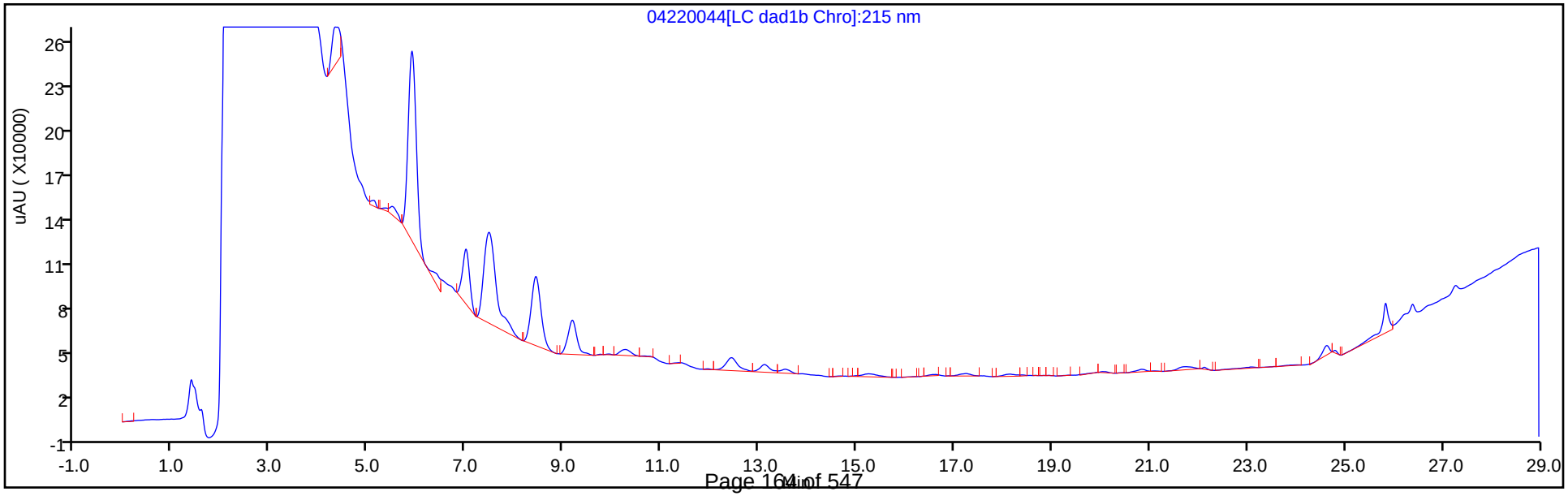
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220044.d | | | | |
| Injection Date: | 24-Apr-2020 00:33:38 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | Worklist Smp#: | 44 |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 44 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220044.D | | | | |
| Lims ID: | 280-135347-A-2-A | | | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Apr-2020 00:33:38 | ALS Bottle#: | 44 | Worklist Smp#: | 44 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-A-2-A | | | | |
| Misc. Info.: | 280-0090989-044 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:40 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 24-Apr-2020 11:27:31

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1811 | 90.55 |

Eurofins TestAmerica, Denver

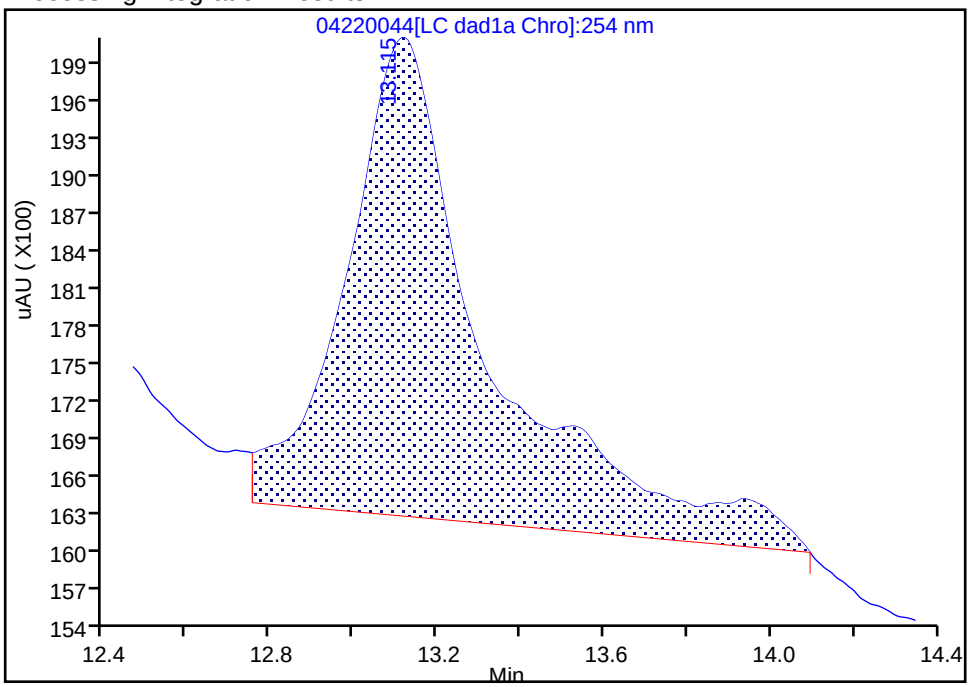
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220044.d | | | | |
| Injection Date: | 24-Apr-2020 00:33:38 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-135347-A-2-A | Lab Sample ID: | 280-135347-2 | | |
| Client ID: | WATERWC-LTM-Apr20 | | | | |
| Operator ID: | CB | ALS Bottle#: | 44 | Worklist Smp#: | 44 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

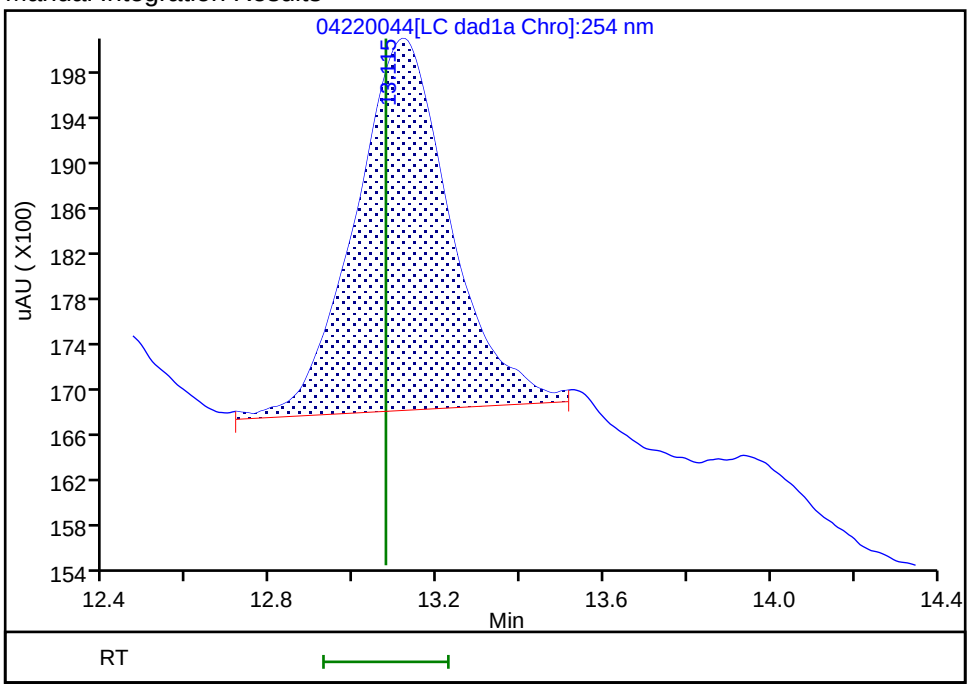
Processing Integration Results

RT: 13.11
Area: 91316
Amount: 0.318652
Amount Units: ug/ml




Manual Integration Results

RT: 13.11
Area: 52675
Amount: 0.181097
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:27:19
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 491590

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2020 14:40 Calibration End Date: 04/13/2020 19:20 Calibration ID: 43346

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-491590/15 | 04130015.D |
| Level 2 | IC 280-491590/14 | 04130014.D |
| Level 3 | IC 280-491590/13 | 04130013.D |
| Level 4 | IC 280-491590/12 | 04130012.D |
| Level 5 | IC 280-491590/11 | 04130011.D |
| Level 6 | IC 280-491590/10 | 04130010.D |
| Level 7 | IC 280-491590/9 | 04130009.D |
| Level 8 | IC 280-491590/8 | 04130008.D |
| Level 9 | IC 280-491590/7 | 04130007.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Picric acid | | +++++ | 5.698 | 5.662 | 5.609 | 5.545 | 5.474 | 5.387 | | | 5.459 - 5.759 | 5.563 |
| HMX | | 7.026 | 7.025 | 7.029 | 7.029 | 7.025 | 7.007 | 7.000 | 6.939 | | 6.879 - 7.179 | 7.010 |
| RDX | | 9.226 | 9.218 | 9.235 | 9.222 | 9.212 | 9.201 | 9.180 | 9.105 | | 9.072 - 9.372 | 9.200 |
| Nitrobenzene | | 12.193 | 12.198 | 12.202 | 12.195 | 12.192 | 12.174 | 12.166 | 12.078 | | 12.045 - 12.345 | 12.175 |
| 1,3-Dinitrobenzene | | 15.666 | 15.678 | 15.675 | 15.669 | 15.672 | 15.647 | 15.640 | 15.558 | | 15.519 - 15.819 | 15.651 |
| Nitroglycerin | | 15.913 | 15.918 | 15.915 | 15.902 | 15.912 | 15.894 | 15.886 | 15.805 | | 15.752 - 16.052 | 15.893 |
| 2-Nitrotoluene | | 16.679 | 16.671 | 16.675 | 16.669 | 16.679 | 16.661 | 16.660 | | | 16.519 - 16.819 | 16.671 |
| 4-Nitrotoluene | | 16.933 | 16.931 | 16.948 | 16.929 | 16.945 | 16.921 | 16.920 | | | 16.779 - 17.079 | 16.932 |
| 4-Amino-2,6-dinitrotoluene | | 17.319 | 17.298 | 17.302 | 17.282 | 17.299 | 17.267 | 17.260 | | | 17.132 - 17.432 | 17.290 |
| 3-Nitrotoluene | | 17.893 | 17.884 | 17.882 | 17.869 | 17.885 | 17.867 | 17.866 | | | 17.719 - 18.019 | 17.878 |
| 2-Amino-4,6-dinitrotoluene | | 18.153 | 18.164 | 18.162 | 18.149 | 18.159 | 18.134 | 18.113 | | | 17.999 - 18.299 | 18.148 |
| 1,3,5-Trinitrobenzene | | 19.033 | 19.024 | 19.028 | 19.015 | 19.032 | 19.014 | 19.006 | 18.932 | | 18.865 - 19.165 | 19.011 |
| 2,6-Dinitrotoluene | 19.995 | 19.959 | 19.964 | 19.968 | 19.955 | 19.972 | 19.954 | 19.946 | 19.865 | | 19.805 - 20.105 | 19.953 |
| 2,4-Dinitrotoluene | 20.481 | 20.439 | 20.431 | 20.442 | 20.429 | 20.439 | 20.421 | 20.420 | 20.338 | | 20.279 - 20.579 | 20.427 |
| Tetryl | | 23.733 | 23.705 | 23.722 | 23.709 | 23.712 | 23.701 | 23.700 | 23.632 | | 23.559 - 23.859 | 23.702 |
| 2,4,6-Trinitrotoluene | | 25.066 | 24.818 | 24.815 | 24.802 | 24.805 | 24.801 | 24.800 | 24.745 | | 24.652 - 24.952 | 24.832 |
| PETN | | 25.559 | 25.351 | 25.349 | 25.342 | 25.339 | 25.334 | 25.340 | 25.305 | | 25.192 - 25.492 | 25.365 |
| 1,2-Dinitrobenzene | | 13.146 | 13.138 | 13.142 | 13.135 | 13.139 | 13.114 | 13.106 | 13.012 | | 12.985 - 13.285 | 13.117 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 491590

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2020 14:40 Calibration End Date: 04/13/2020 19:20 Calibration ID: 43346

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-491590/15 | 04130015.D |
| Level 2 | IC 280-491590/14 | 04130014.D |
| Level 3 | IC 280-491590/13 | 04130013.D |
| Level 4 | IC 280-491590/12 | 04130012.D |
| Level 5 | IC 280-491590/11 | 04130011.D |
| Level 6 | IC 280-491590/10 | 04130010.D |
| Level 7 | IC 280-491590/9 | 04130009.D |
| Level 8 | IC 280-491590/8 | 04130008.D |
| Level 9 | IC 280-491590/7 | 04130007.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 | | | | | | | | |
| Picric acid | 153172 | +++++<br>163760 | 157600<br>167536 | 157550<br>171076 | Ave | | 161782.286 | | | | 4.2 | | 20.0 | | | |
| HMX | 174244<br>171542 | 161560<br>177730 | 183740<br>174531 | 173990<br>173461 | Ave | | 173849.804 | | | | 3.6 | | 20.0 | | | |
| RDX | 217100<br>208534 | 196480<br>212273 | 252120<br>214434 | 222230<br>213043 | Lin1 | 649.155227 | 210589.604 | | | | | | | 0.9990 | | 0.9900 |
| Nitrobenzene | 422231<br>411776 | 386892<br>415468 | 448187<br>419417 | 423456<br>413459 | Ave | | 417610.917 | | | | 4.0 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 647940<br>642065 | 562794<br>637131 | 628762<br>652137 | 645898<br>618937 | Ave | | 629458.112 | | | | 4.6 | | 20.0 | | | |
| Nitroglycerin | 146442<br>142487 | 106392<br>143892 | 139236<br>143851 | 140470<br>138833 | Ave | | 137700.255 | | | | 9.4 | | 20.0 | | | |
| 2-Nitrotoluene | 242588 | 280640<br>250183 | 216980<br>236503 | 244530<br>227272 | Lin2 | 823.896365 | 233380.913 | | | | | | | 0.9930 | | 0.9900 |
| 4-Nitrotoluene | 241788 | 199242<br>244059 | 217345<br>235639 | 237166<br>229960 | Qua | -1616.3873 | 255842.645 | -24387.379 | | | | | | 1.0000 | | 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.: 280-135347-1 Analy Batch No.: 491590

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2020 14:40 Calibration End Date: 04/13/2020 19:20 Calibration ID: 43346

| 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 | 320120 | 265295<br>327610 | 284815<br>319695 | 316264<br>312869 | Qua | -2456.3216 | 341749.565 | -26347.753 | | | | | | 1.0000 | | 0.9900 |
| 3-Nitrotoluene | 248484 | 179461<br>250782 | 238082<br>243021 | 244026<br>229035 | Lin2 | -1486.3100 | 250012.147 | | | | | | | 0.9960 | | 0.9900 |
| 2-Amino-4,6-dinitrotoluene | 466347 | 369602<br>479943 | 434681<br>479296 | 459382<br>475443 | Qua | -3303.9933 | 491183.913 | -11992.466 | | | | | | 1.0000 | | 0.9900 |
| 1,3,5-Trinitrobenzene | 441988<br>449728 | 379401<br>454084 | 430479<br>462449 | 435858<br>443948 | Lin2 | -1761.7239 | 454676.525 | | | | | | | 1.0000 | | 0.9900 |
| 2,6-Dinitrotoluene | 214661<br>278825<br>273006 | 219402<br>284402 | 290199<br>286178 | 272371<br>281792 | Ave | | 266759.612 | | | | 10.8 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 457450<br>592478<br>605665 | 520120<br>599880 | 617629<br>608288 | 582231<br>599924 | Ave | | 575962.885 | | | | 9.2 | | 20.0 | | | |
| Tetryl | 349134<br>342890 | 312415<br>348715 | 364092<br>348301 | 364731<br>344678 | Ave | | 346869.342 | | | | 4.7 | | 20.0 | | | |
| 2,4,6-Trinitrotoluene | 395088<br>393063 | 302231<br>393257 | 379880<br>393849 | 427321<br>393849 | Lin2 | -2167.0459 | 406220.187 | | | | | | | 0.9970 | | 0.9900 |
| PETN | 142819<br>136340 | 103596<br>142388 | 145332<br>141892 | 148283<br>140685 | Lin1 | -1536.8750 | 139190.866 | | | | | | | 0.9990 | | 0.9900 |
| 1,2-Dinitrobenzene | 292332<br>280064 | 285560<br>280045 | 351600<br>286460 | 296960<br>281155 | Qua | 1757.48783 | 281304.289 | -785.01108 | | | | | | 1.0000 | | 0.9900 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 491590

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2020 14:40 Calibration End Date: 04/13/2020 19:20 Calibration ID: 43346

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-491590/15 | 04130015.D |
| Level 2 | IC 280-491590/14 | 04130014.D |
| Level 3 | IC 280-491590/13 | 04130013.D |
| Level 4 | IC 280-491590/12 | 04130012.D |
| Level 5 | IC 280-491590/11 | 04130011.D |
| Level 6 | IC 280-491590/10 | 04130010.D |
| Level 7 | IC 280-491590/9 | 04130009.D |
| Level 8 | IC 280-491590/8 | 04130008.D |
| Level 9 | IC 280-491590/7 | 04130007.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 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Picric acid | Ave | 65504 | +++++<br>117275 | 7880<br>171076 | 15755 | 38293 | 0.400 | +++++<br>0.700 | 0.0500<br>1.00 | 0.100 | 0.250 |
| HMX | Ave | 71092 | 4039<br>122172 | 9187<br>173461 | 17399<br>428855 | 43561 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Lin1 | 84909 | 4912<br>150104 | 12606<br>213043 | 22223<br>521334 | 54275 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Nitrobenzene | Ave | 166852 | 9711<br>294766 | 22499<br>415113 | 42515<br>1033559 | 105980 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 255362 | 14098<br>457409 | 31501<br>620175 | 64719<br>1608372 | 162309 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 575566 | 26598<br>1006956 | 69618<br>1388326 | 140470<br>3562167 | 366106 | 4.00 | 0.250<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2-Nitrotoluene | Lin2 | 100073 | 7016<br>165552 | 10849<br>227272 | 24453 | 60647 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100 | 0.250 |
| 4-Nitrotoluene | Qua | 97819 | 4991<br>165277 | 10889<br>230420 | 23764 | 60568 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Qua | 131175 | 6639<br>224010 | 14255<br>313182 | 31658 | 80110 | 0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.250 |
| 3-Nitrotoluene | Lin2 | 100413 | 4491<br>170285 | 11916<br>229264 | 24427 | 62183 | 0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Qua | 192745 | 9277<br>336849 | 21821<br>477345 | 46122 | 117053 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100 | 0.251 |
| 1,3,5-Trinitrobenzene | Lin2 | 181997 | 9504<br>324362 | 21567<br>444836 | 43673<br>1126568 | 110718 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Ave | 2694<br>114216 | 5507<br>201126 | 14568<br>282919 | 27346<br>685245 | 69985 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4-Dinitrotoluene | Ave | 5741<br>240912 | 13055<br>427505 | 31005<br>602324 | 58456<br>1520218 | 148712 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 491590

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/13/2020 14:40 Calibration End Date: 04/13/2020 19:20 Calibration ID: 43346

| 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 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Tetryl | Ave | 139765 | 7826<br>244298 | 18241<br>345367 | 36546<br>858940 | 87458 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4,6-Trinitrotoluene | Lin2 | 157932 | 7586<br>276797 | 19070<br>395424 | 42903<br>986589 | 99167 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| PETN | Lin1 | 569551 | 25899<br>993246 | 72666<br>1406846 | 148283<br>3408507 | 357048 | 4.00 | 0.250<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 1,2-Dinitrobenzene | Qua | 112018 | 7139<br>200522 | 17580<br>281155 | 29696<br>700160 | 73083 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2
Qua = Quadratic

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130007.D
Lims ID: IC FULL 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 13-Apr-2020 14:40:45 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 9
Misc. Info.: 280-0090784-007
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:09 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:22:08

| 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 | 4.285 | 4.389 | -0.104 | 1318710 | 2.50 | 2.41 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | | 4.949 | | | ND | ND | U |
| 5 2,4,6-Trinitrophenol | 1 | | 5.609 | | | ND | ND | |
| 6 HMX | 1 | 6.939 | 7.029 | -0.090 | 428855 | 2.50 | 2.47 | |
| 8 RDX | 1 | 9.105 | 9.222 | -0.117 | 521334 | 2.50 | 2.47 | |
| 9 Nitrobenzene | 1 | 12.078 | 12.195 | -0.117 | 1033559 | 2.51 | 2.47 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.012 | 13.135 | -0.123 | 700160 | 2.50 | 2.50 | |
| 11 3,5-Dinitroaniline | 1 | 14.858 | 14.989 | -0.131 | 1568454 | 2.50 | 2.52 | |
| 12 1,3-Dinitrobenzene | 1 | 15.558 | 15.669 | -0.111 | 1608372 | 2.51 | 2.56 | |
| 13 Nitroglycerin | 2 | 15.805 | 15.902 | -0.097 | 3562167 | 25.0 | 25.9 | M |
| 14 o-Nitrotoluene | 1 | | 16.669 | | | ND | ND | U |
| 15 p-Nitrotoluene | 1 | | 16.929 | | | ND | ND | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | | 17.282 | | | ND | ND | U |
| 17 m-Nitrotoluene | 1 | | 17.869 | | | ND | ND | U |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 18.149 | | | ND | ND | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.932 | 19.015 | -0.083 | 1126568 | 2.51 | 2.48 | |
| 20 2,6-Dinitrotoluene | 1 | 19.865 | 19.955 | -0.090 | 685245 | 2.51 | 2.57 | |
| 21 2,4-Dinitrotoluene | 1 | 20.338 | 20.429 | -0.091 | 1520218 | 2.51 | 2.64 | |
| 22 Tetryl | 1 | 23.632 | 23.709 | -0.077 | 858940 | 2.51 | 2.48 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.745 | 24.802 | -0.057 | 986589 | 2.51 | 2.43 | |
| 24 PETN | 2 | 25.305 | 25.342 | -0.037 | 3408507 | 25.0 | 24.5 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

## Reagents:

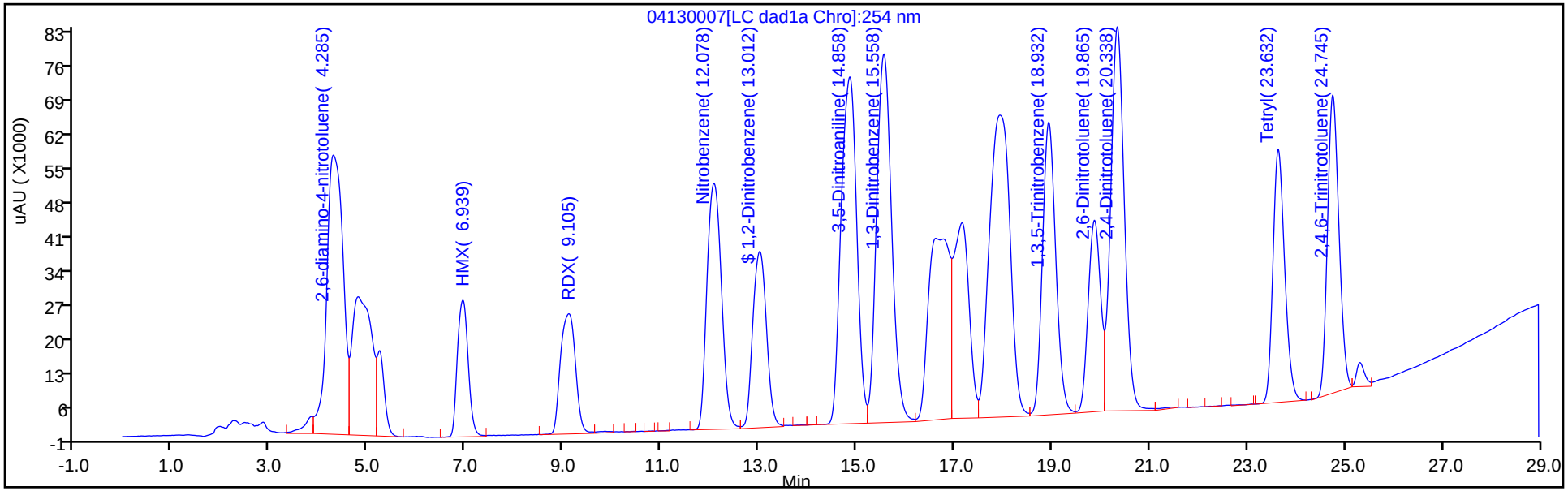
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 250.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 125.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:09 Chrom Revision: 2.3 11-Mar-2020 18:53:20

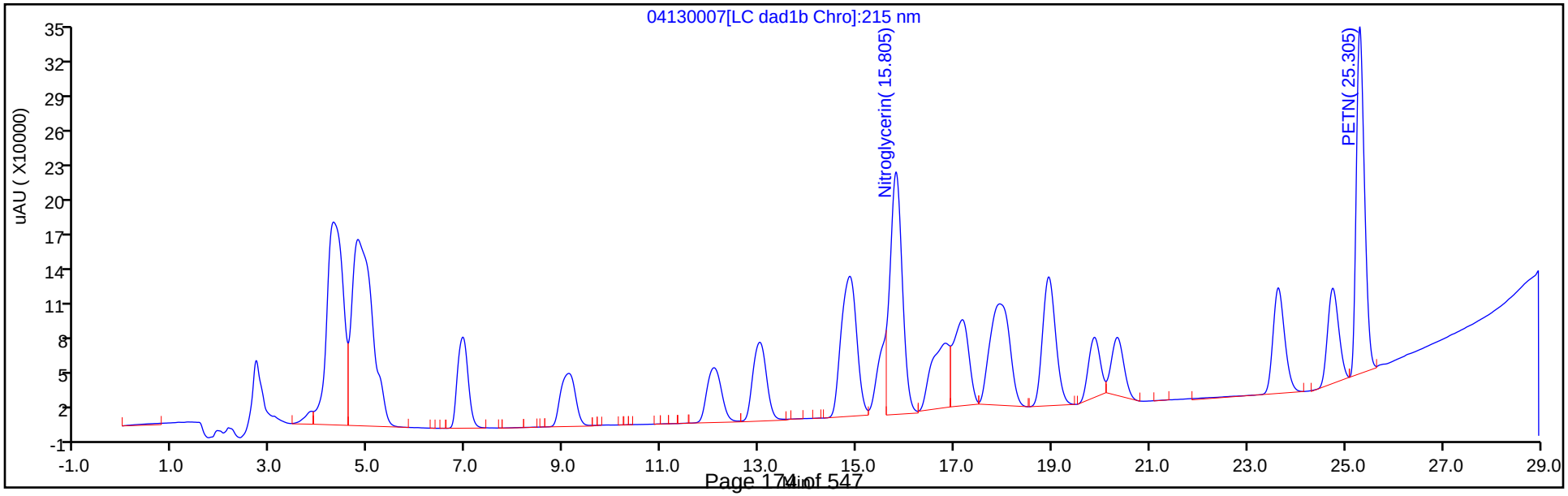
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130007.d | | | | |
| Injection Date: | 13-Apr-2020 14:40:45 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 9 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

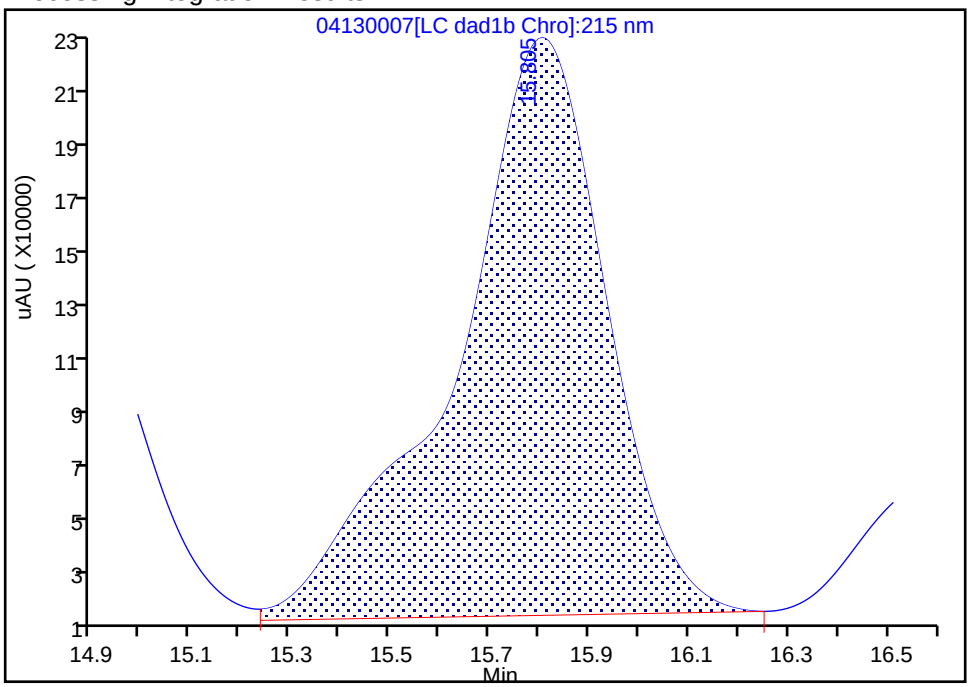
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130007.d | | | | |
| Injection Date: | 13-Apr-2020 14:40:45 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

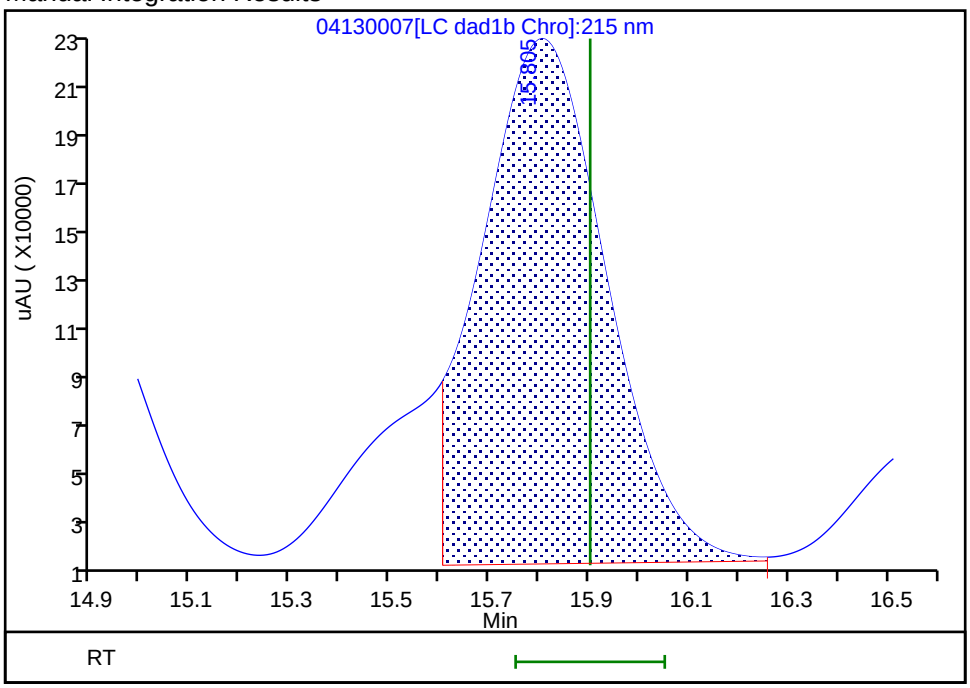
Processing Integration Results

RT: 15.81
Area: 4286713
Amount: 24.981675
Amount Units: ug/ml




Manual Integration Results

RT: 15.81
Area: 3562167
Amount: 25.868994
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:21:47

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130008.D
Lims ID: IC FULL 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Apr-2020 15:15:42 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 8
Misc. Info.: 280-0090784-008
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:08 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:22:58

| | 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 | 4.353 | 4.389 | -0.036 | 527921 | 1.00 | 0.9653 | |
| | 2 2,4-diamino-6-nitrotoluene | 1 | 4.920 | 4.949 | -0.029 | 326227 | 1.00 | 1.02 | |
| | 5 2,4,6-Trinitrophenol | 1 | 5.387 | 5.609 | -0.222 | 171076 | 1.00 | 1.06 | |
| | 6 HMX | 1 | 7.000 | 7.029 | -0.029 | 173461 | 1.00 | 1.00 | |
| | 8 RDX | 1 | 9.180 | 9.222 | -0.042 | 213043 | 1.00 | 1.01 | |
| | 9 Nitrobenzene | 1 | 12.166 | 12.195 | -0.029 | 415113 | 1.00 | 0.99 | |
| $ | 10 1,2-Dinitrobenzene | 1 | 13.106 | 13.135 | -0.029 | 281155 | 1.00 | 1.00 | |
| | 11 3,5-Dinitroaniline | 1 | 14.953 | 14.989 | -0.036 | 617154 | 1.00 | 0.99 | |
| | 12 1,3-Dinitrobenzene | 1 | 15.640 | 15.669 | -0.029 | 620175 | 1.00 | 0.9853 | M |
| | 13 Nitroglycerin | 2 | 15.886 | 15.902 | -0.016 | 1388326 | 10.0 | 10.1 | |
| | 14 o-Nitrotoluene | 1 | 16.660 | 16.669 | -0.009 | 227272 | 1.00 | 0.9703 | M |
| | 15 p-Nitrotoluene | 1 | 16.920 | 16.929 | -0.009 | 230420 | 1.00 | 1.00 | M |
| | 16 4-Amino-2,6-dinitrotoluene | 1 | 17.260 | 17.282 | -0.022 | 313182 | 1.00 | 1.00 | M |
| | 17 m-Nitrotoluene | 1 | 17.866 | 17.869 | -0.003 | 229264 | 1.00 | 0.9230 | M |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 18.113 | 18.149 | -0.036 | 477345 | 1.00 | 1.00 | M |
| | 19 1,3,5-Trinitrobenzene | 1 | 19.006 | 19.015 | -0.009 | 444836 | 1.00 | 0.9822 | M |
| | 20 2,6-Dinitrotoluene | 1 | 19.946 | 19.955 | -0.009 | 282919 | 1.00 | 1.06 | M |
| | 21 2,4-Dinitrotoluene | 1 | 20.420 | 20.429 | -0.009 | 602324 | 1.00 | 1.05 | M |
| | 22 Tetryl | 1 | 23.700 | 23.709 | -0.009 | 345367 | 1.00 | 1.00 | |
| | 23 2,4,6-Trinitrotoluene | 1 | 24.800 | 24.802 | -0.002 | 395424 | 1.00 | 0.9788 | |
| | 24 PETN | 2 | 25.340 | 25.342 | -0.002 | 1406846 | 10.0 | 10.1 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

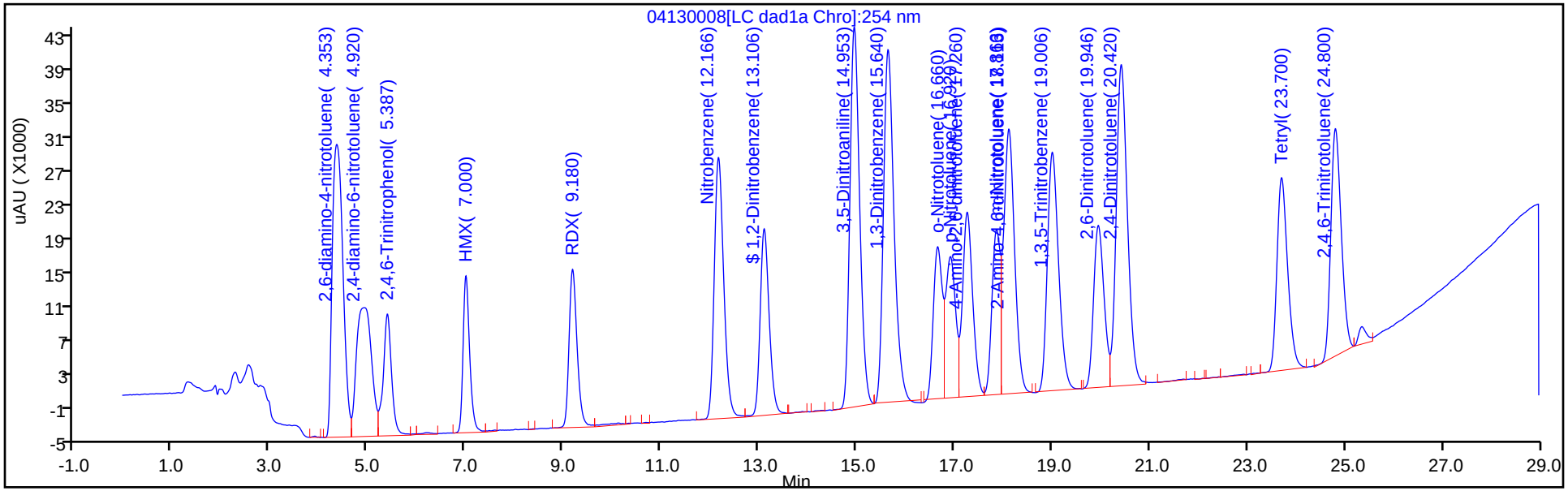
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 100.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 50.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:08 Chrom Revision: 2.3 11-Mar-2020 18:53:20

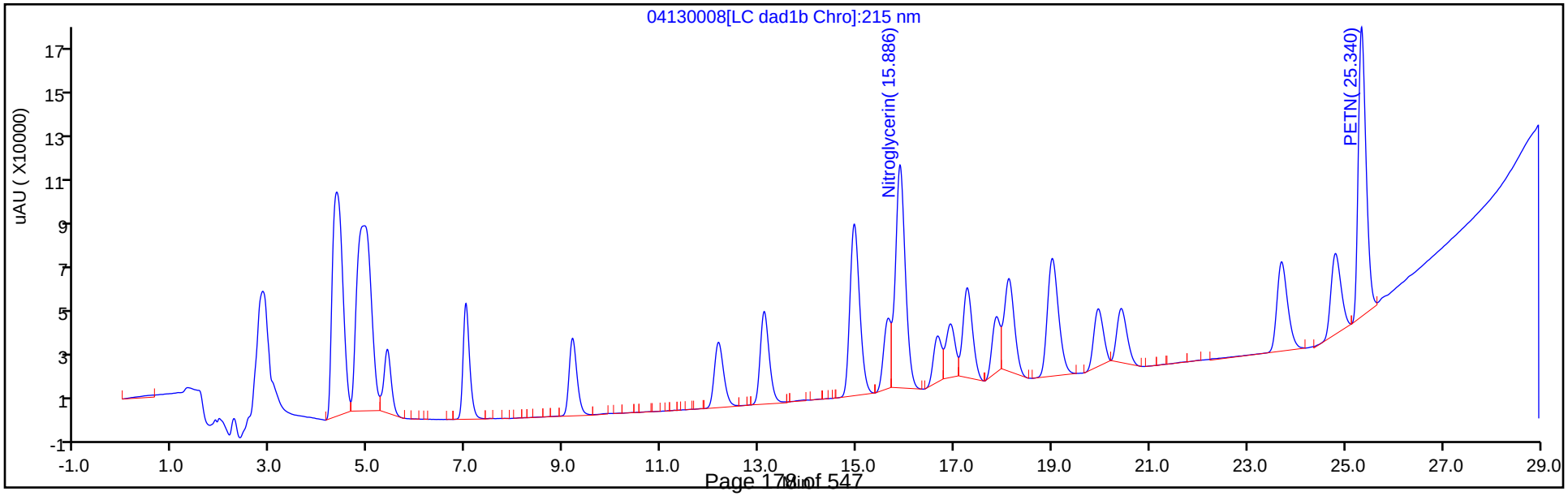
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 8 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

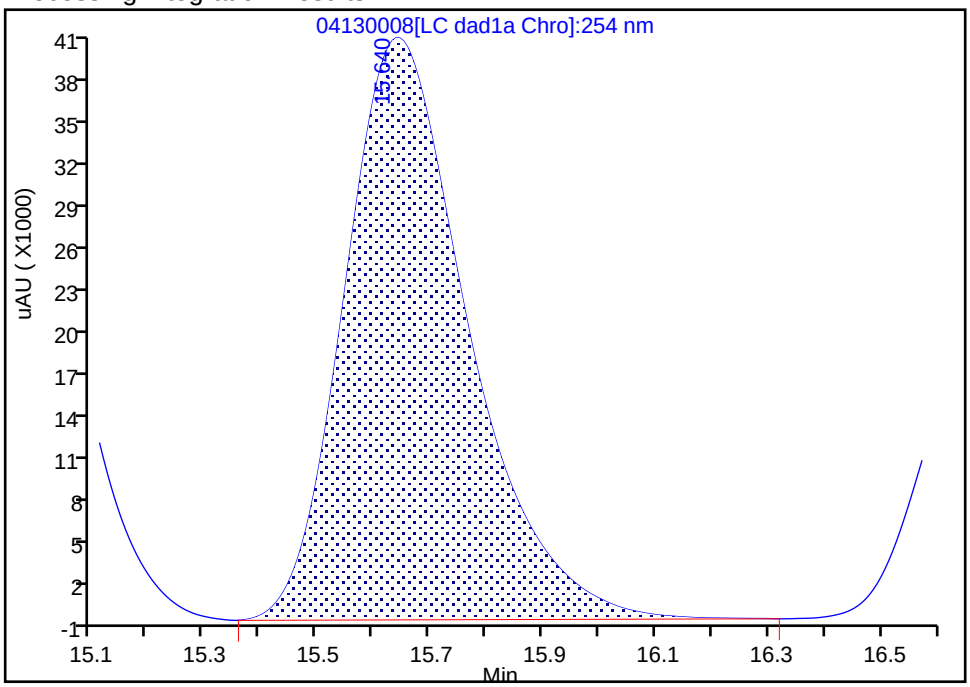
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

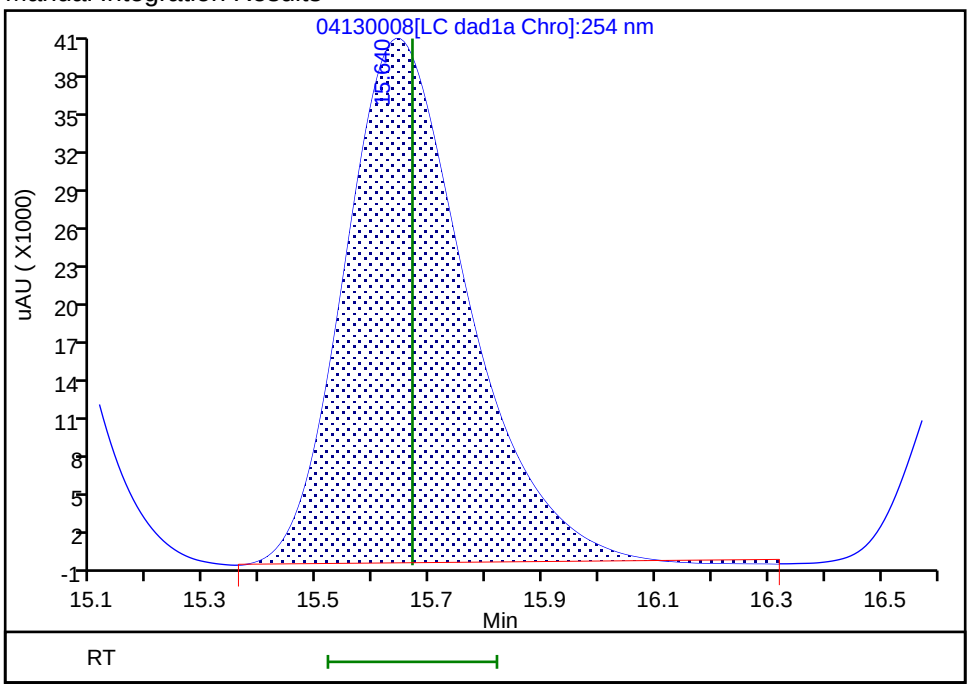
Processing Integration Results

RT: 15.64
Area: 632329
Amount: 0.932507
Amount Units: ug/ml




Manual Integration Results

RT: 15.64
Area: 620175
Amount: 0.985252
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

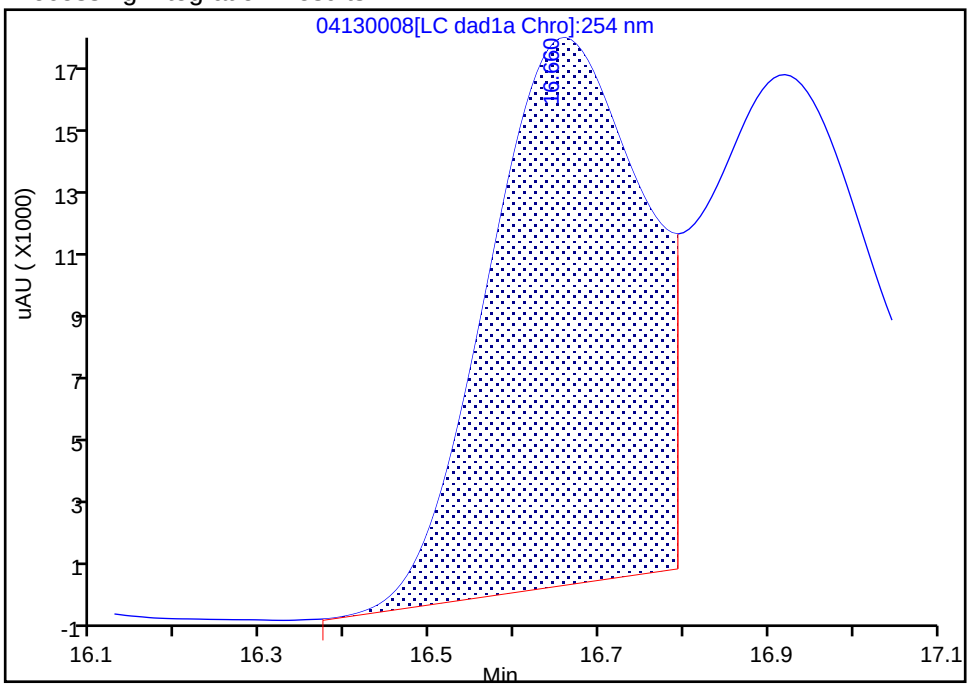
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

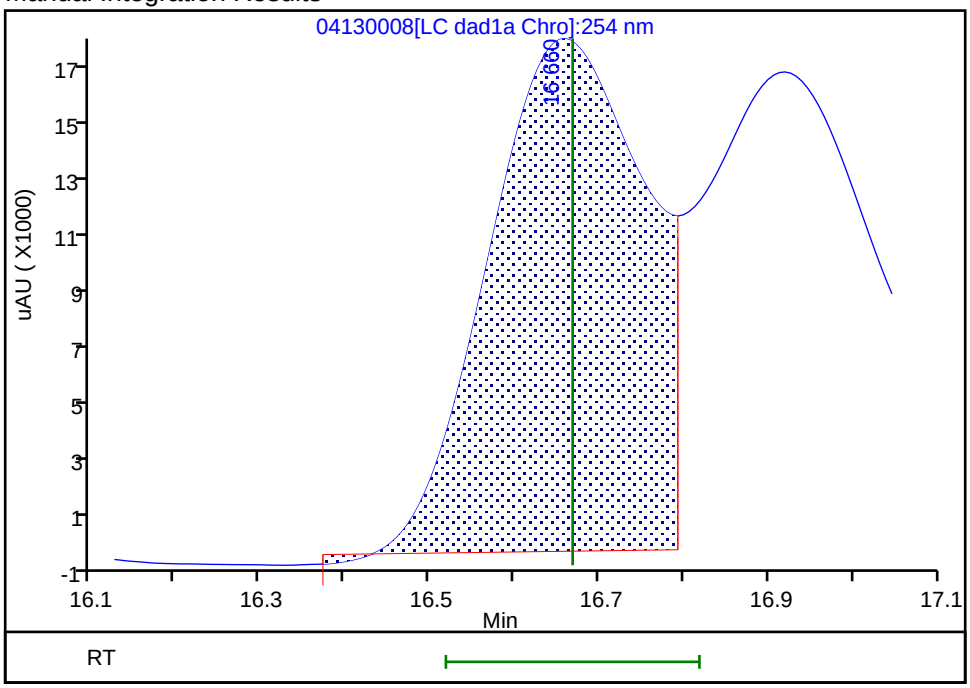
Processing Integration Results

RT: 16.66
Area: 218339
Amount: 1.004769
Amount Units: ug/ml




Manual Integration Results

RT: 16.66
Area: 227272
Amount: 0.970294
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

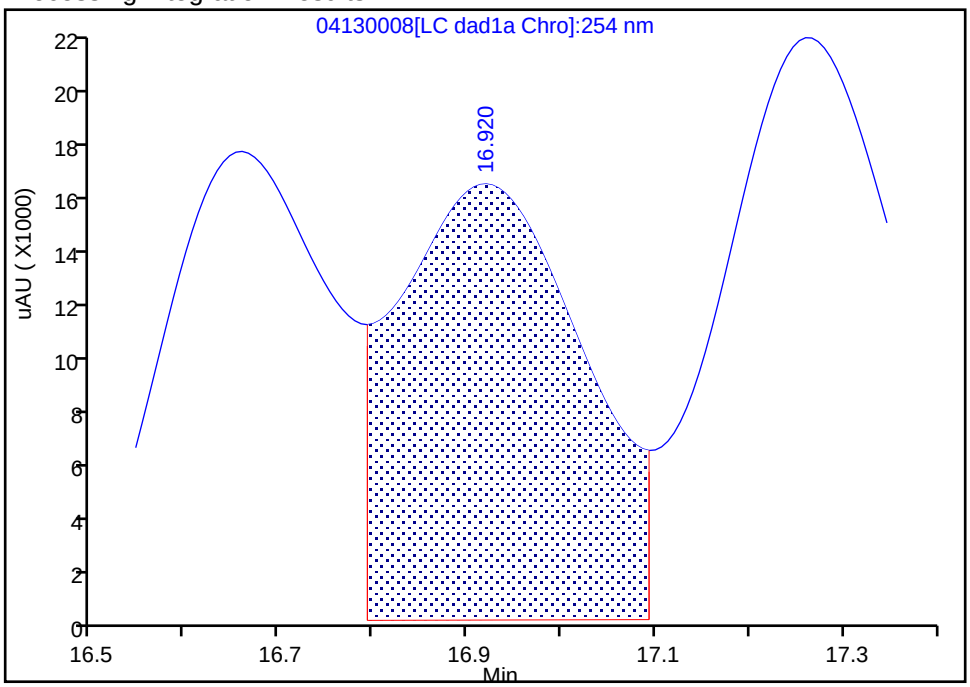
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

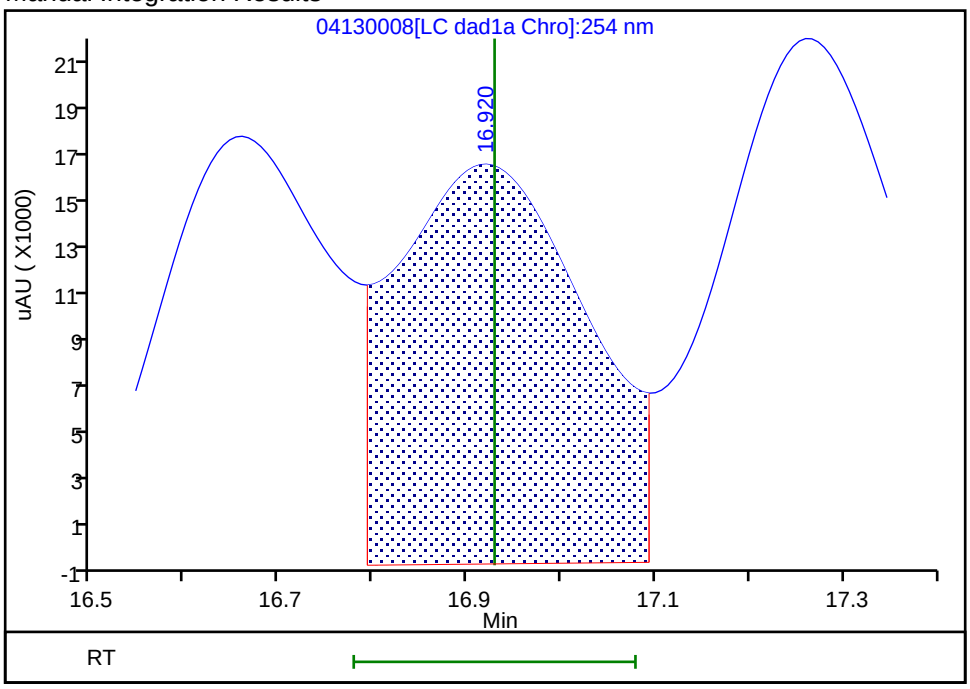
Processing Integration Results

RT: 16.92
Area: 211862
Amount: 0.981464
Amount Units: ug/ml




Manual Integration Results

RT: 16.92
Area: 230420
Amount: 1.002807
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

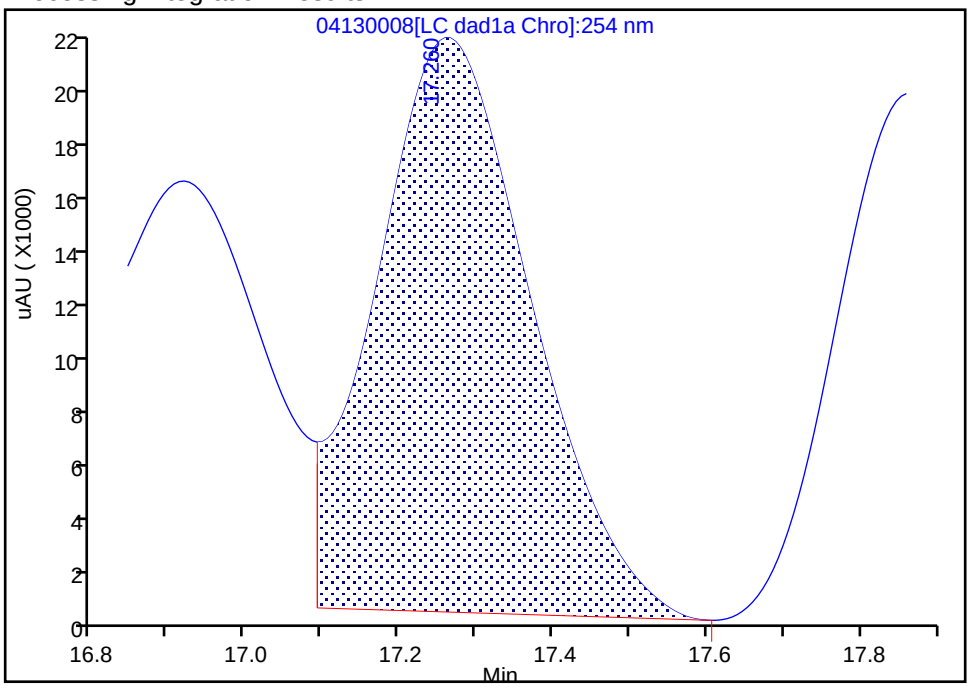
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

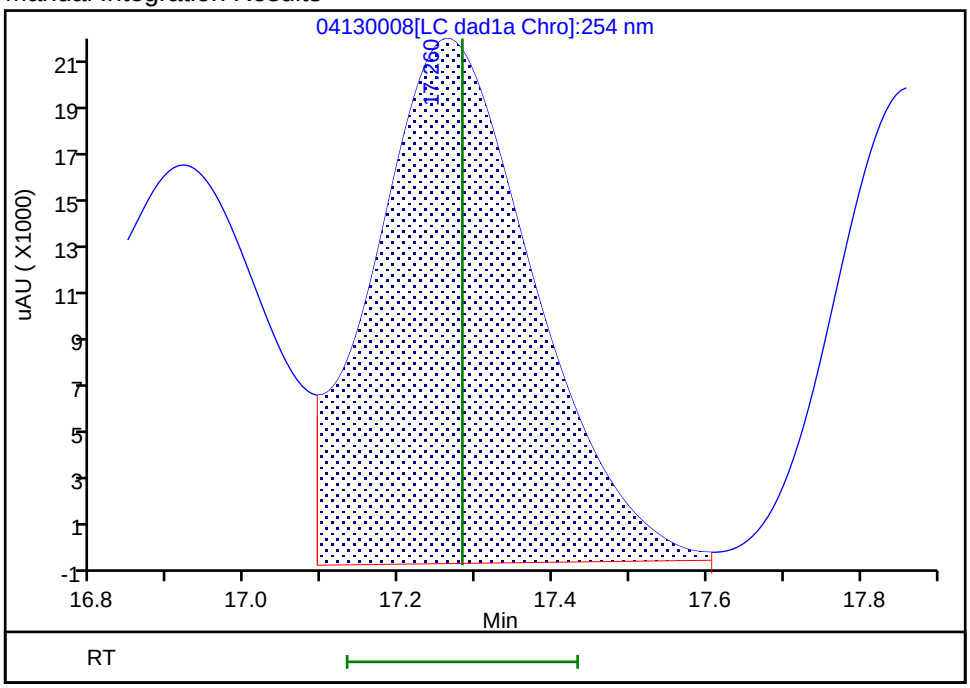
Processing Integration Results

RT: 17.26
Area: 293008
Amount: 0.981675
Amount Units: ug/ml




Manual Integration Results

RT: 17.26
Area: 313182
Amount: 1.000818
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

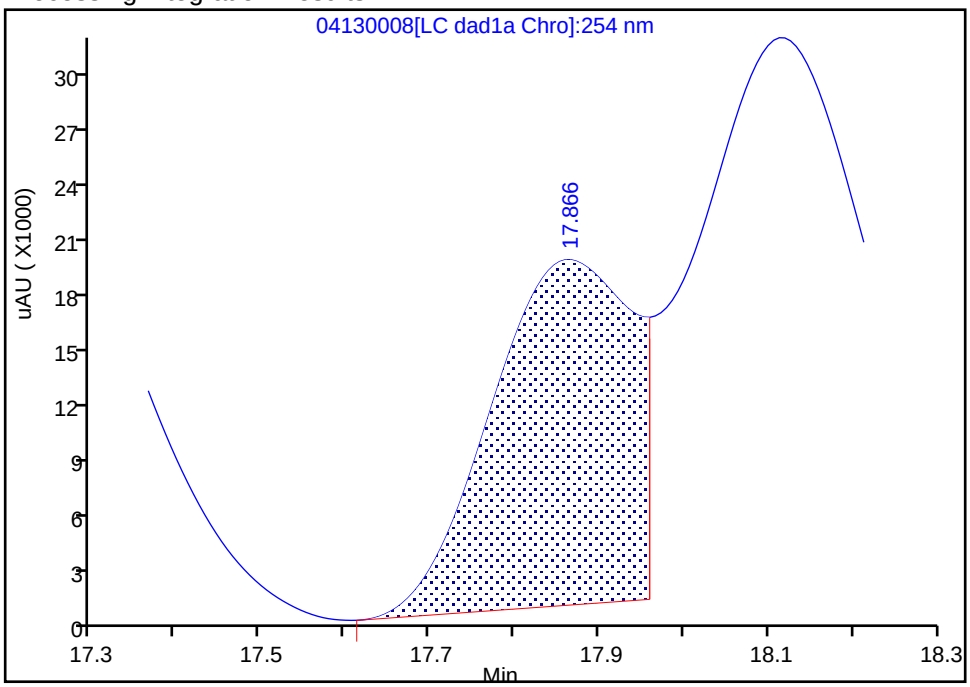
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

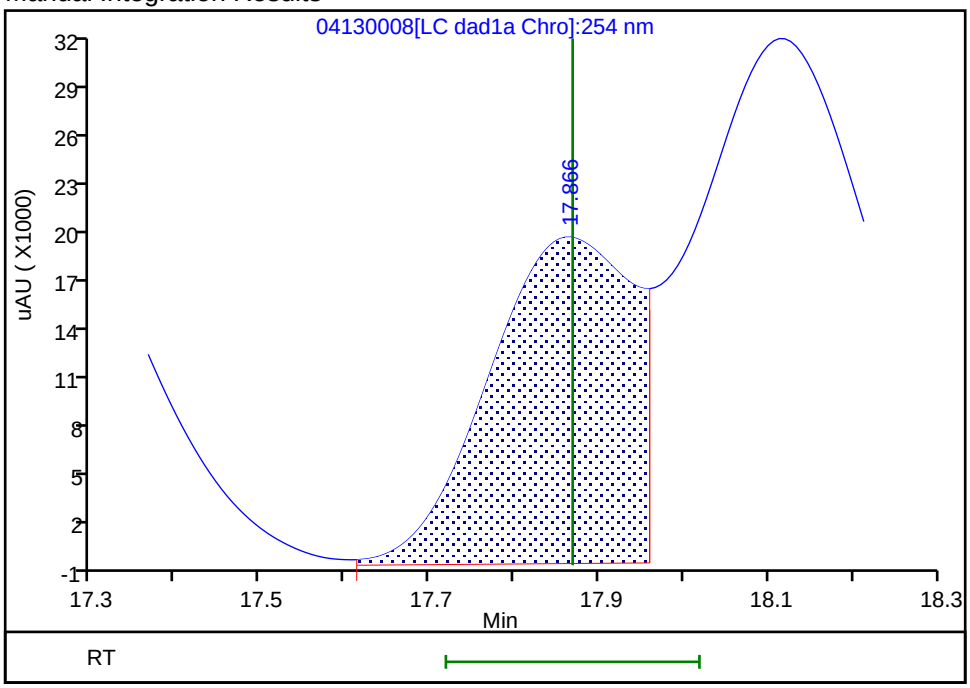
Processing Integration Results

RT: 17.87
Area: 212395
Amount: 1.057909
Amount Units: ug/ml




Manual Integration Results

RT: 17.87
Area: 229264
Amount: 0.922956
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

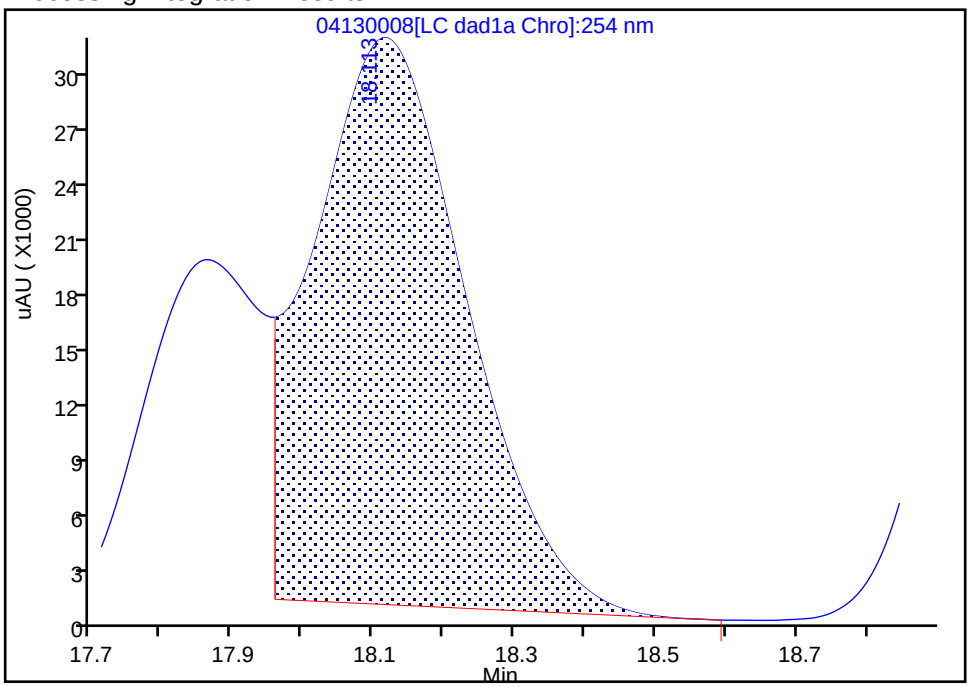
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

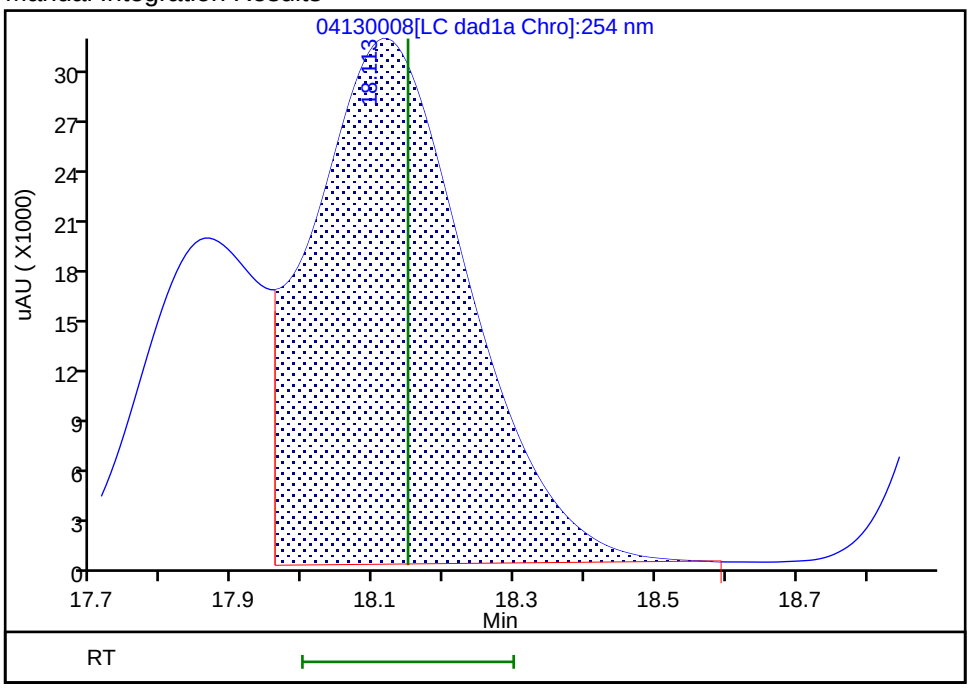
Processing Integration Results

RT: 18.11
Area: 454013
Amount: 0.989111
Amount Units: ug/ml




Manual Integration Results

RT: 18.11
Area: 477345
Amount: 1.003120
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

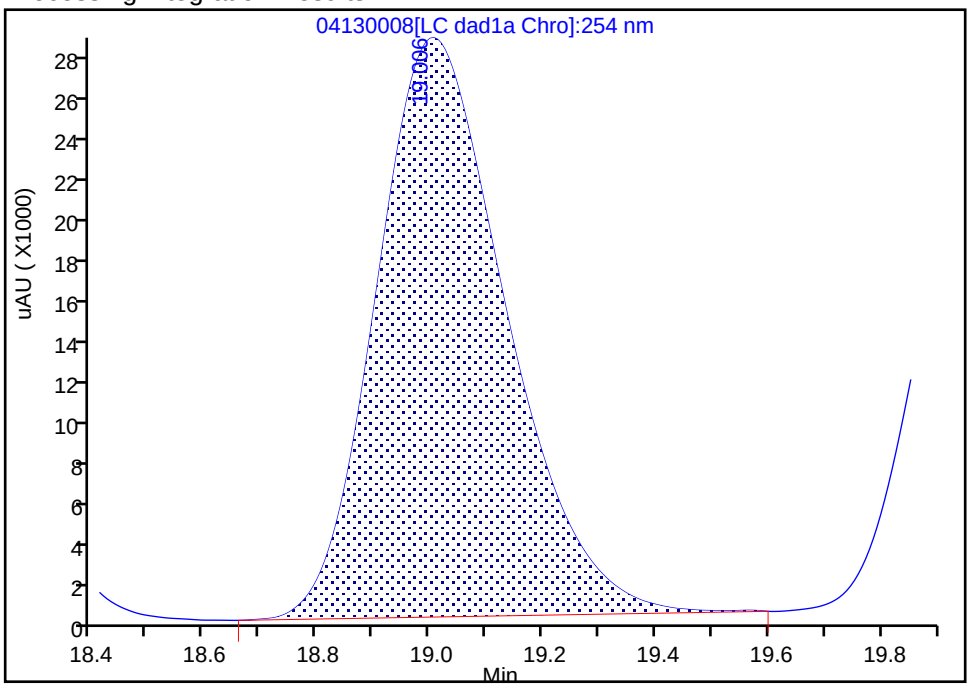
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

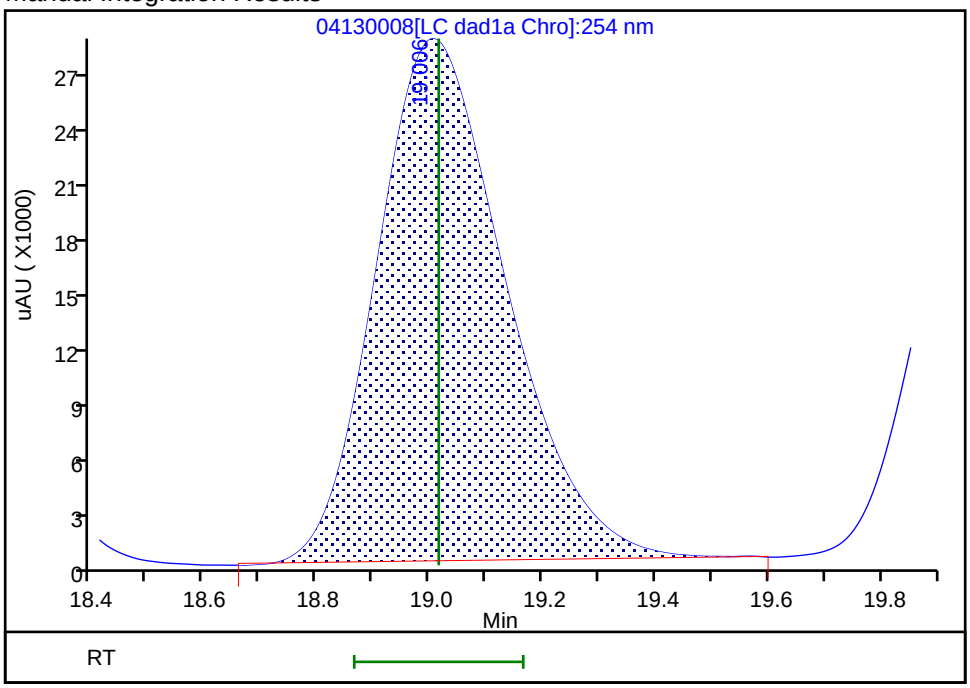
Processing Integration Results

RT: 19.01
Area: 448643
Amount: 1.014629
Amount Units: ug/ml




Manual Integration Results

RT: 19.01
Area: 444836
Amount: 0.982232
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

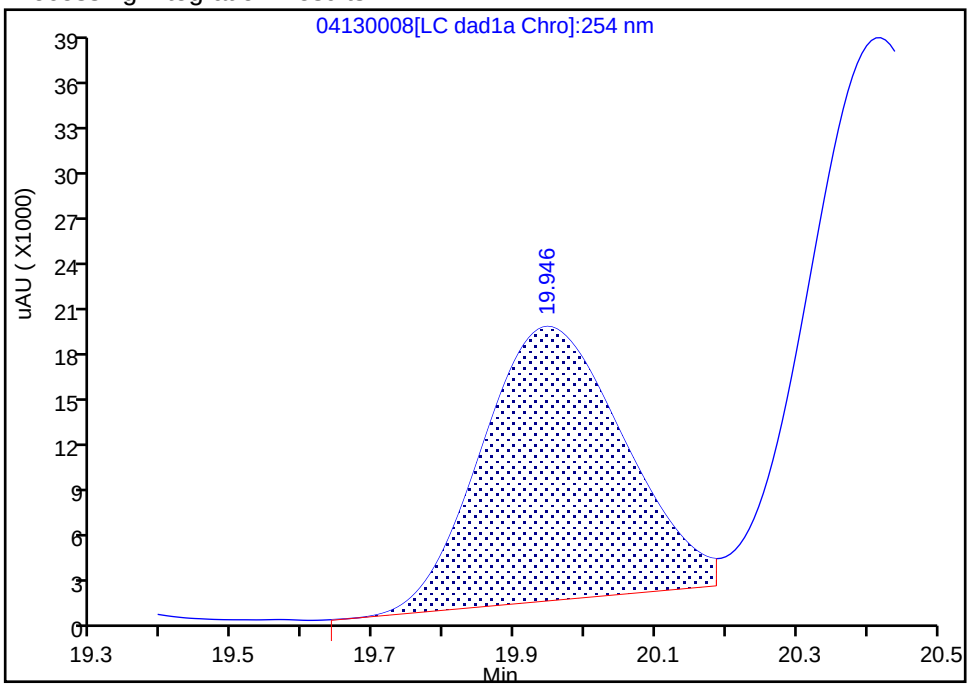
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

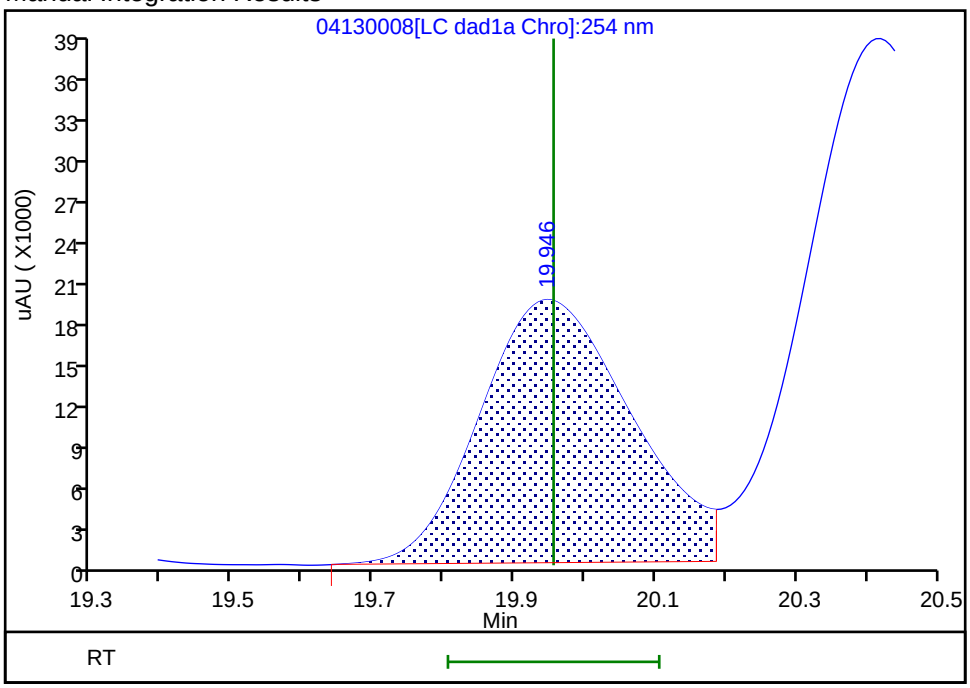
Processing Integration Results

RT: 19.95
Area: 251464
Amount: 0.809023
Amount Units: ug/ml




Manual Integration Results

RT: 19.95
Area: 282919
Amount: 1.060577
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

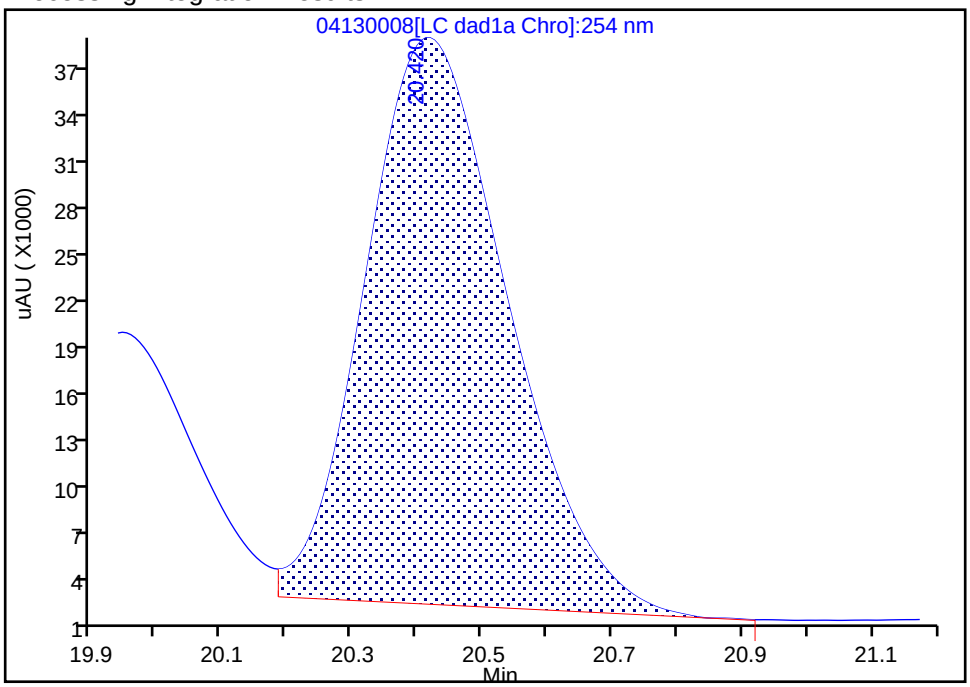
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130008.d | | | | |
| Injection Date: | 13-Apr-2020 15:15:42 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

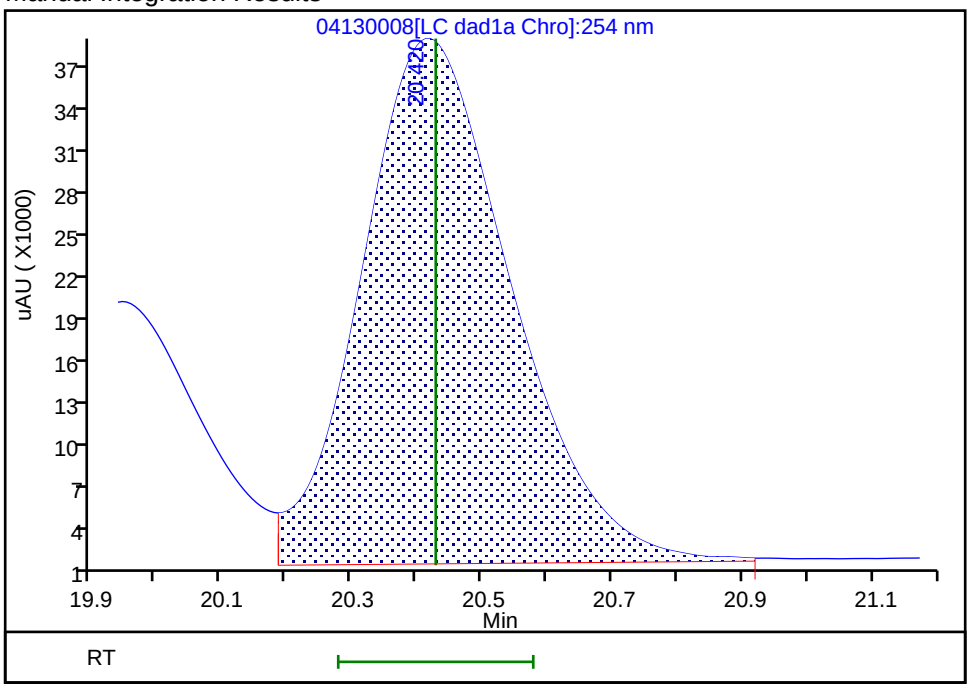
Processing Integration Results

RT: 20.42
Area: 555200
Amount: 0.986320
Amount Units: ug/ml




Manual Integration Results

RT: 20.42
Area: 602324
Amount: 1.045769
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:22:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130009.D
Lims ID: IC FULL 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Apr-2020 15:50:41 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 7
Misc. Info.: 280-0090784-009
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:07 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:24:18

| 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 | 4.367 | 4.389 | -0.022 | 369981 | 0.7000 | 0.6765 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.934 | 4.949 | -0.015 | 227508 | 0.7000 | 0.7099 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.474 | 5.609 | -0.135 | 117275 | 0.7000 | 0.7249 | |
| 6 HMX | 1 | 7.007 | 7.029 | -0.022 | 122172 | 0.7000 | 0.7027 | |
| 8 RDX | 1 | 9.201 | 9.222 | -0.021 | 150104 | 0.7000 | 0.7097 | |
| 9 Nitrobenzene | 1 | 12.174 | 12.195 | -0.021 | 294766 | 0.7028 | 0.7058 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.114 | 13.135 | -0.021 | 200522 | 0.7000 | 0.7080 | |
| 11 3,5-Dinitroaniline | 1 | 14.961 | 14.989 | -0.028 | 439592 | 0.7000 | 0.7056 | |
| 12 1,3-Dinitrobenzene | 1 | 15.647 | 15.669 | -0.022 | 457409 | 0.7014 | 0.7267 | |
| 13 Nitroglycerin | 2 | 15.894 | 15.902 | -0.008 | 1006956 | 7.00 | 7.31 | M |
| 14 o-Nitrotoluene | 1 | 16.661 | 16.669 | -0.008 | 165552 | 0.7000 | 0.7058 | |
| 15 p-Nitrotoluene | 1 | 16.921 | 16.929 | -0.008 | 165277 | 0.7014 | 0.6989 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.267 | 17.282 | -0.015 | 224010 | 0.7007 | 0.7005 | |
| 17 m-Nitrotoluene | 1 | 17.867 | 17.869 | -0.002 | 170285 | 0.7007 | 0.6871 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.134 | 18.149 | -0.015 | 336849 | 0.7028 | 0.7046 | |
| 19 1,3,5-Trinitrobenzene | 1 | 19.014 | 19.015 | -0.001 | 324362 | 0.7014 | 0.7173 | |
| 20 2,6-Dinitrotoluene | 1 | 19.954 | 19.955 | -0.001 | 201126 | 0.7028 | 0.7540 | |
| 21 2,4-Dinitrotoluene | 1 | 20.421 | 20.429 | -0.008 | 427505 | 0.7028 | 0.7422 | |
| 22 Tetryl | 1 | 23.701 | 23.709 | -0.008 | 244298 | 0.7014 | 0.7043 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.801 | 24.802 | -0.001 | 276797 | 0.7028 | 0.6867 | |
| 24 PETN | 2 | 25.334 | 25.342 | -0.008 | 993246 | 7.00 | 7.15 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

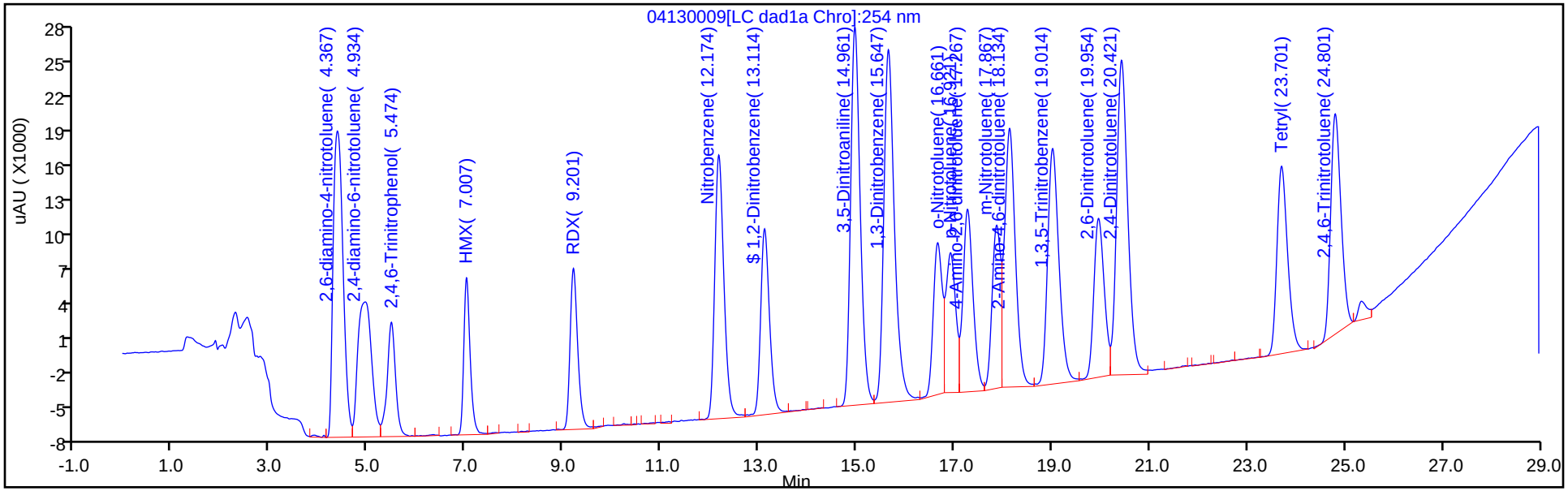
| | | | |
|---|---|---|---|
| 8330_ADDs_00023 | Amount Added: | 35.00 | Units: uL |
| 8330IntermStk_00061 | Amount Added: | 70.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:07 Chrom Revision: 2.3 11-Mar-2020 18:53:20

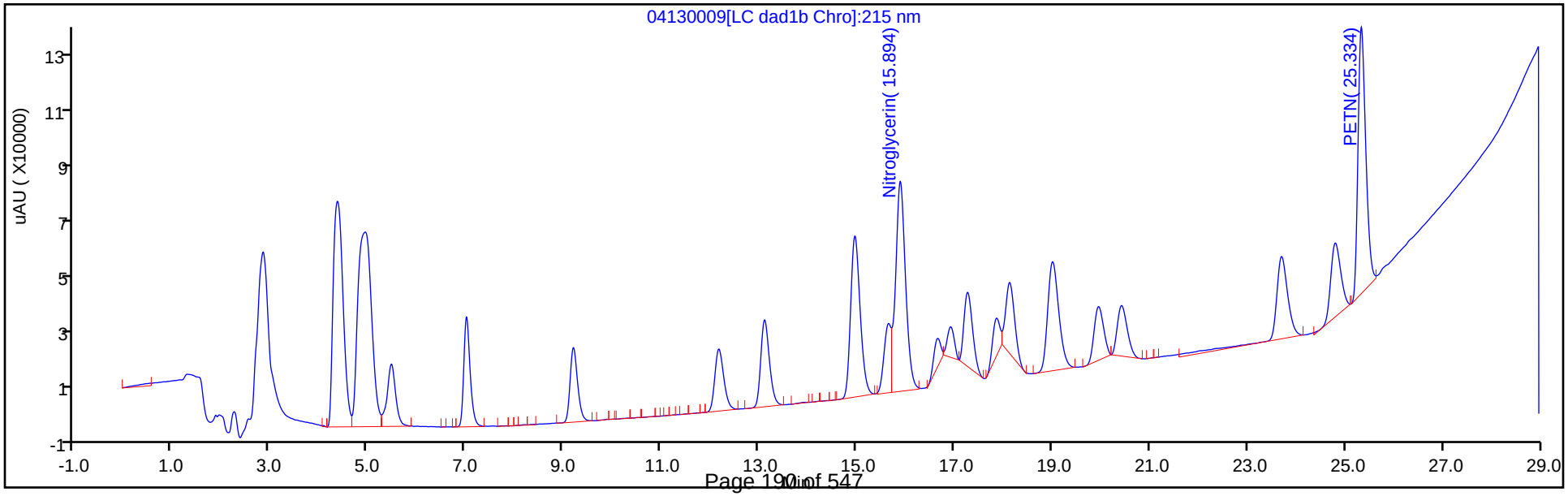
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130009.d | | | | |
| Injection Date: | 13-Apr-2020 15:50:41 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver

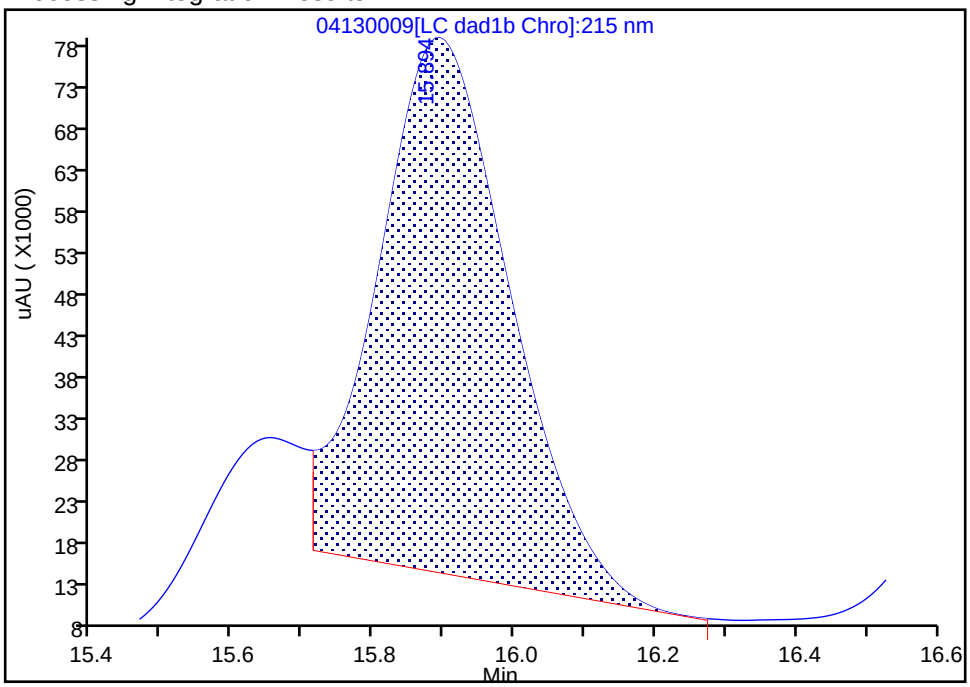
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130009.d | | | | |
| Injection Date: | 13-Apr-2020 15:50:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

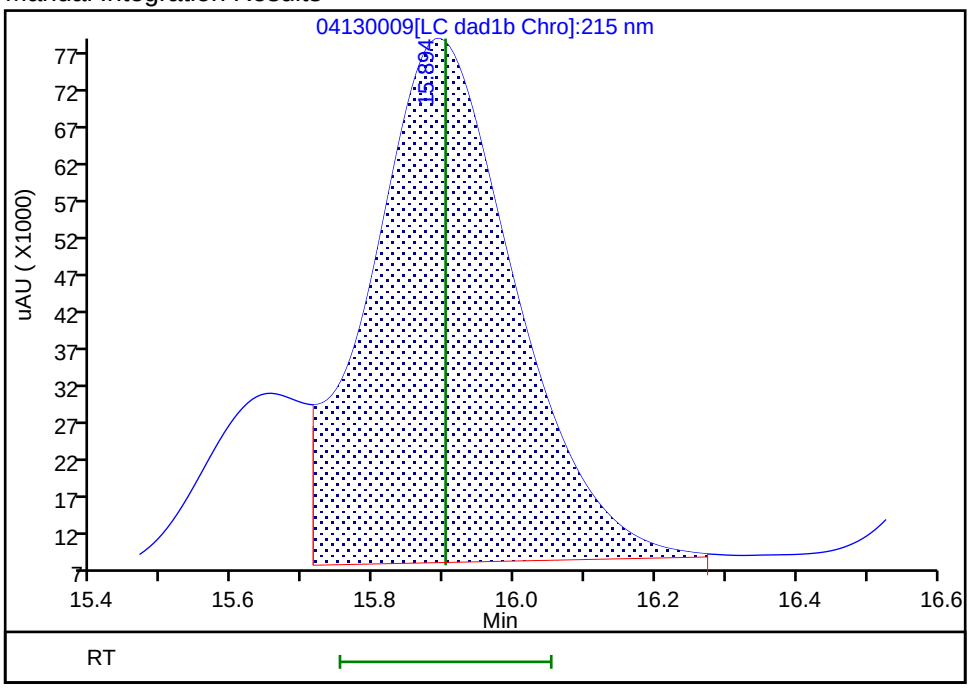
Processing Integration Results

RT: 15.89
Area: 840300
Amount: 6.250870
Amount Units: ug/ml




Manual Integration Results

RT: 15.89
Area: 1006956
Amount: 7.312666
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:09
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130010.D
Lims ID: IC FULL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Apr-2020 16:25:44 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 6
Misc. Info.: 280-0090784-010
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:06 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:25:11

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.379 | 4.389 | -0.010 | 214866 | 0.4000 | 0.3929 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.945 | 4.949 | -0.004 | 131452 | 0.4000 | 0.4092 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.545 | 5.609 | -0.064 | 65504 | 0.4000 | 0.4049 | |
| 6 HMX | 1 | 7.025 | 7.029 | -0.004 | 71092 | 0.4000 | 0.4089 | |
| 8 RDX | 1 | 9.212 | 9.222 | -0.010 | 84909 | 0.4000 | 0.4001 | |
| 9 Nitrobenzene | 1 | 12.192 | 12.195 | -0.003 | 166852 | 0.4016 | 0.3995 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.139 | 13.135 | 0.004 | 112018 | 0.4000 | 0.3924 | |
| 11 3,5-Dinitroaniline | 1 | 14.992 | 14.989 | 0.003 | 250753 | 0.4000 | 0.4016 | |
| 12 1,3-Dinitrobenzene | 1 | 15.672 | 15.669 | 0.003 | 255362 | 0.4008 | 0.4057 | |
| 13 Nitroglycerin | 2 | 15.912 | 15.902 | 0.010 | 575566 | 4.00 | 4.18 | M |
| 14 o-Nitrotoluene | 1 | 16.679 | 16.669 | 0.010 | 100073 | 0.4000 | 0.4253 | M |
| 15 p-Nitrotoluene | 1 | 16.945 | 16.929 | 0.016 | 97819 | 0.4008 | 0.4042 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.299 | 17.282 | 0.017 | 131175 | 0.4004 | 0.4036 | M |
| 17 m-Nitrotoluene | 1 | 17.885 | 17.869 | 0.016 | 100413 | 0.4004 | 0.4076 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.159 | 18.149 | 0.010 | 192745 | 0.4016 | 0.4031 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.032 | 19.015 | 0.017 | 181997 | 0.4008 | 0.4042 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.972 | 19.955 | 0.017 | 114216 | 0.4016 | 0.4282 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.439 | 20.429 | 0.010 | 240912 | 0.4016 | 0.4183 | M |
| 22 Tetryl | 1 | 23.712 | 23.709 | 0.003 | 139765 | 0.4008 | 0.4029 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.805 | 24.802 | 0.003 | 157932 | 0.4016 | 0.3941 | |
| 24 PETN | 2 | 25.339 | 25.342 | -0.003 | 569551 | 4.00 | 4.10 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

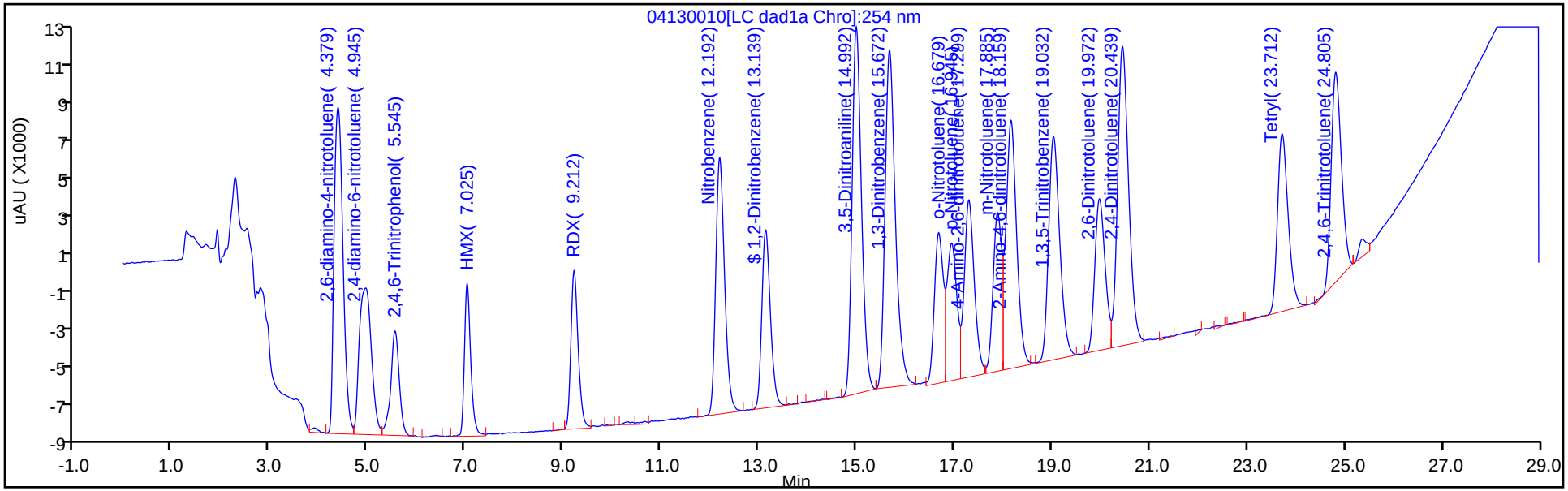
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 40.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 20.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:07 Chrom Revision: 2.3 11-Mar-2020 18:53:20

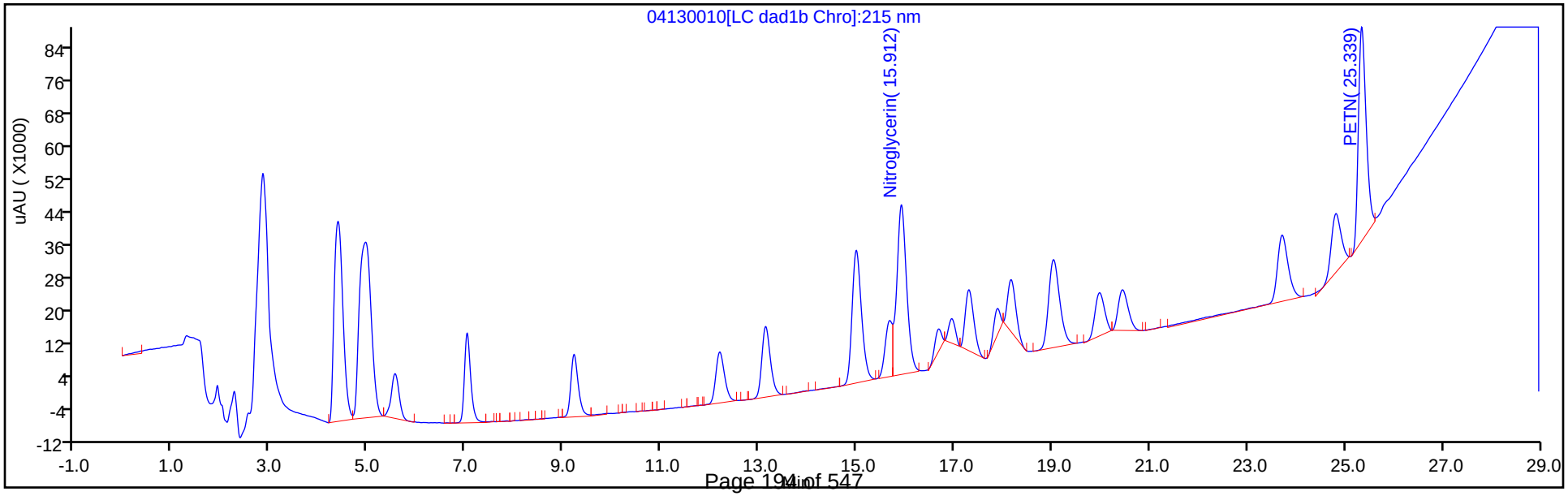
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 6 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

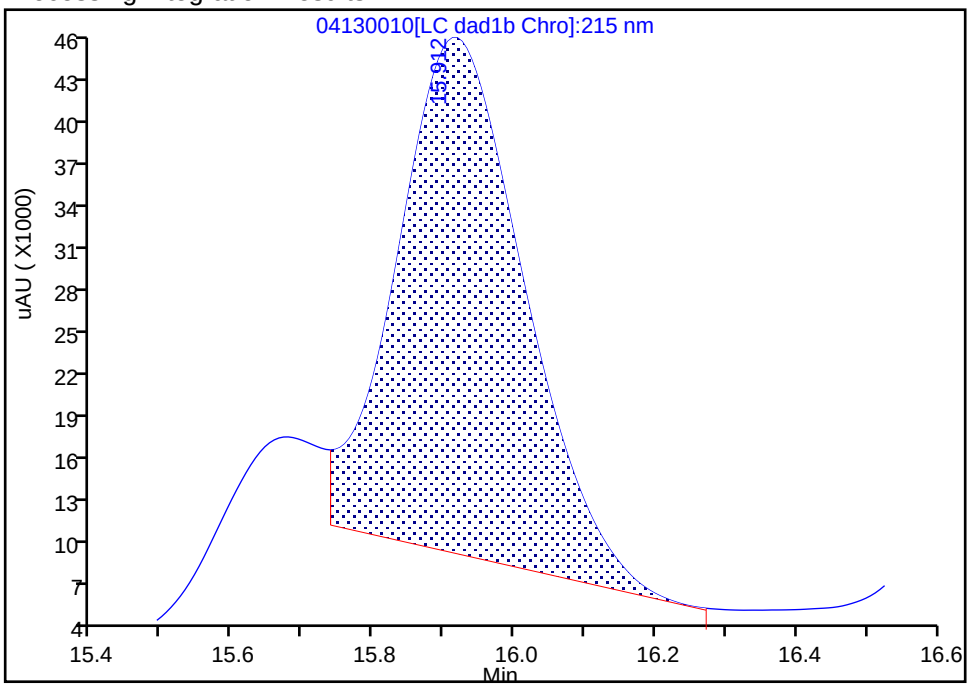
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

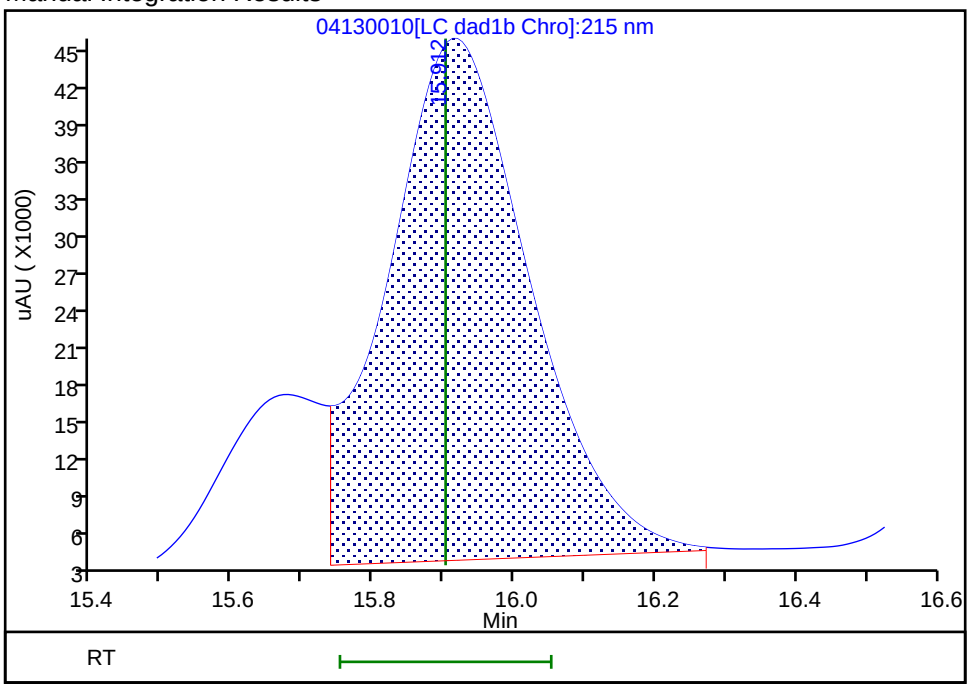
Processing Integration Results

RT: 15.91
Area: 457774
Amount: 3.359715
Amount Units: ug/ml




Manual Integration Results

RT: 15.91
Area: 575566
Amount: 4.179847
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:46
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

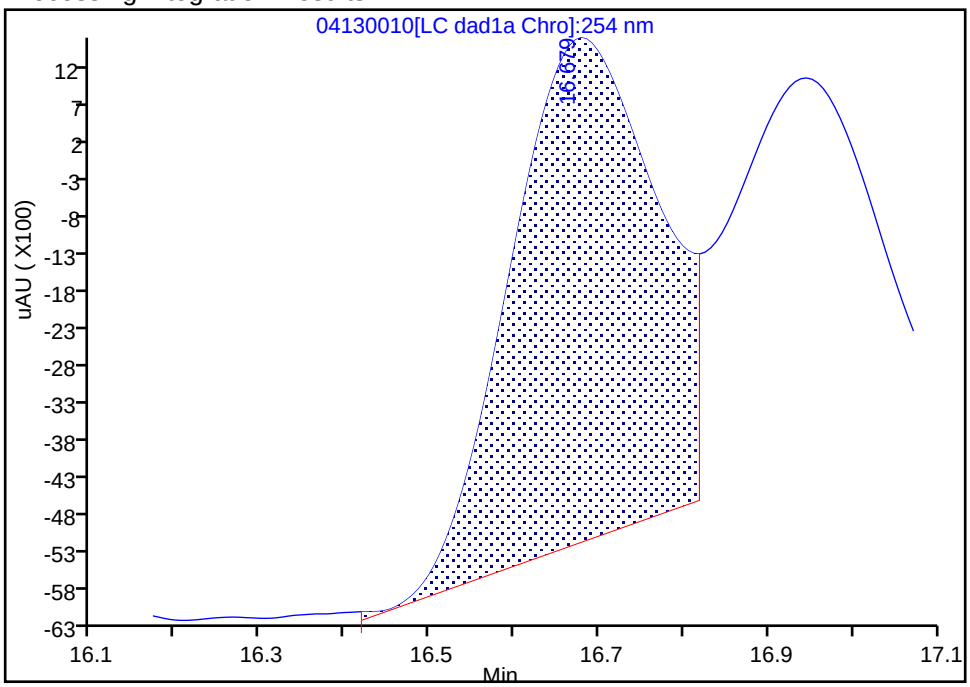
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

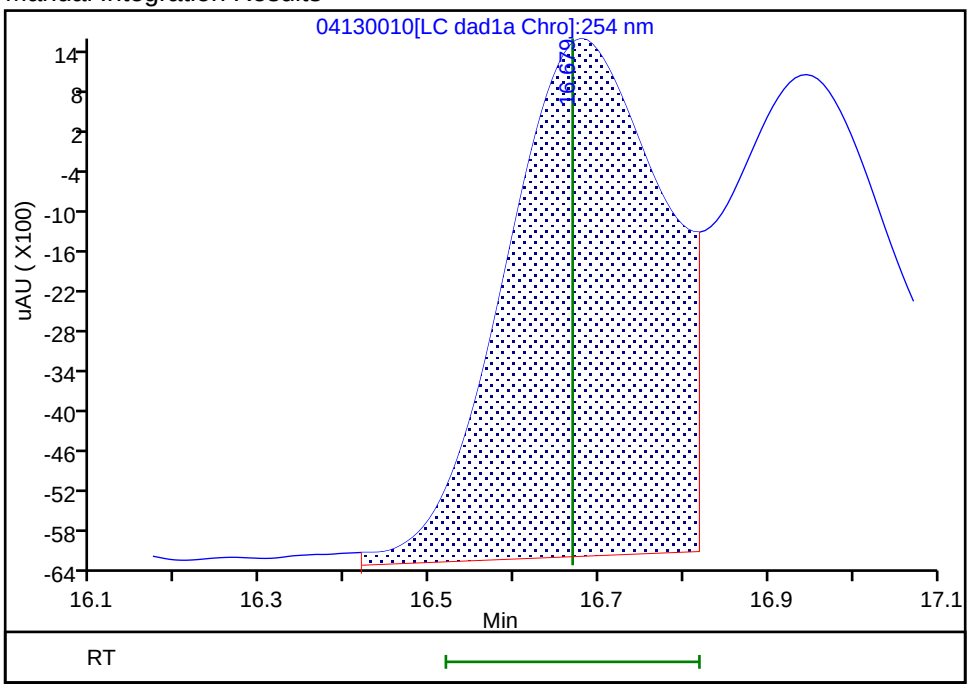
Processing Integration Results

RT: 16.68
Area: 81473
Amount: 0.371660
Amount Units: ug/ml




Manual Integration Results

RT: 16.68
Area: 100073
Amount: 0.425267
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

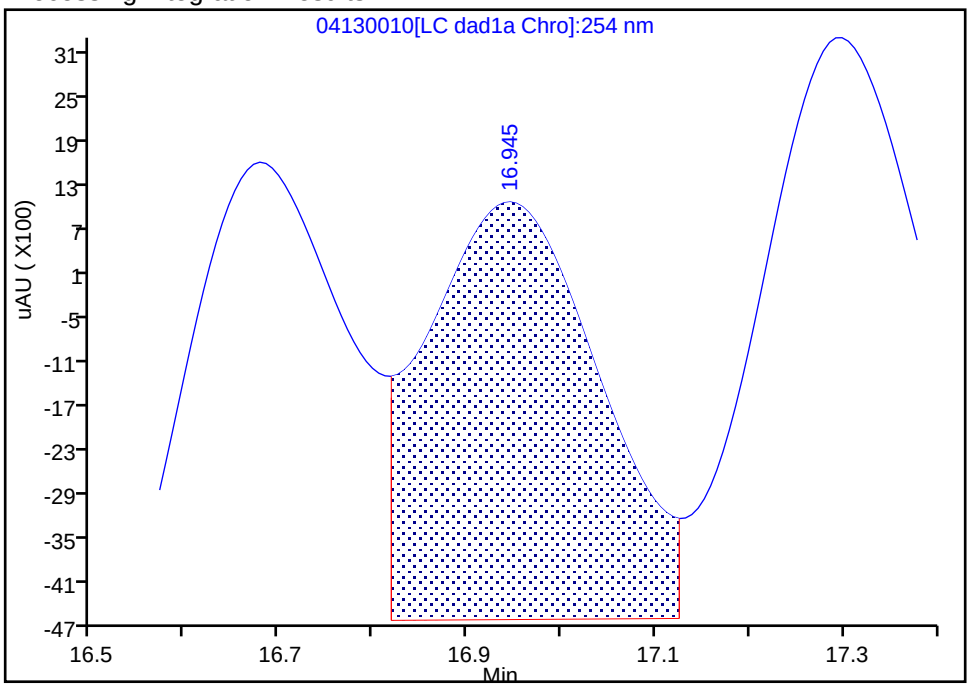
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

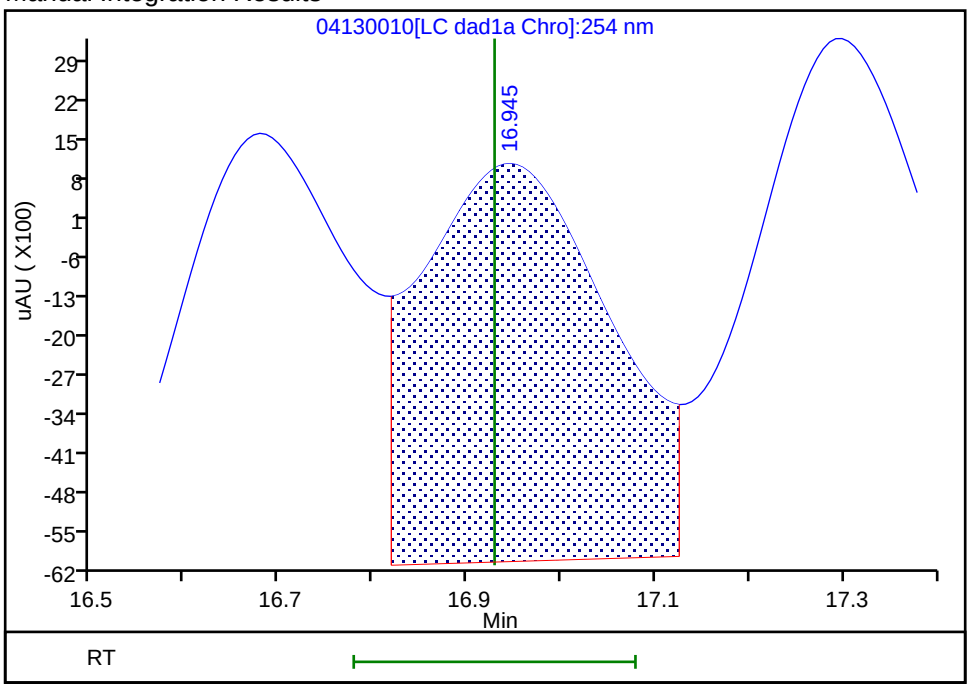
Processing Integration Results

RT: 16.95
Area: 71885
Amount: 0.331445
Amount Units: ug/ml




Manual Integration Results

RT: 16.95
Area: 97819
Amount: 0.404234
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

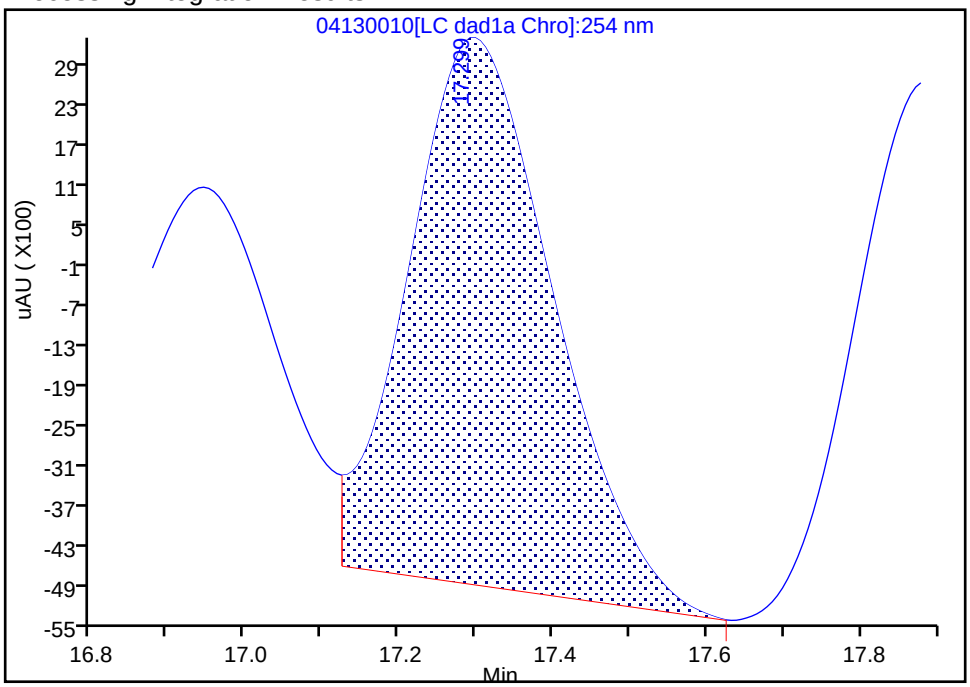
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

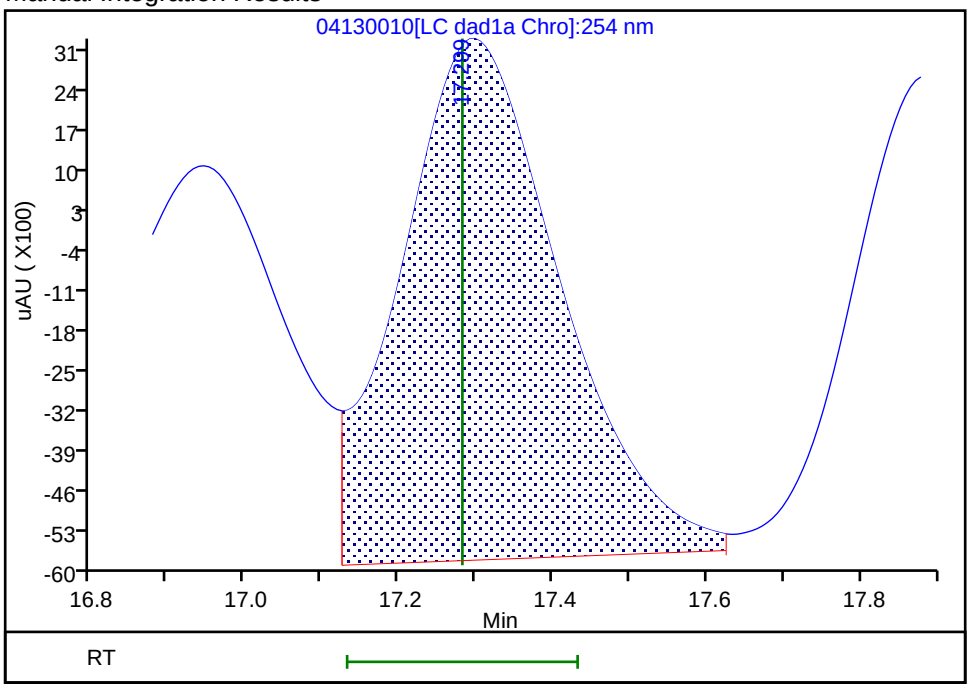
Processing Integration Results

RT: 17.30
Area: 106785
Amount: 0.371642
Amount Units: ug/ml




Manual Integration Results

RT: 17.30
Area: 131175
Amount: 0.403578
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

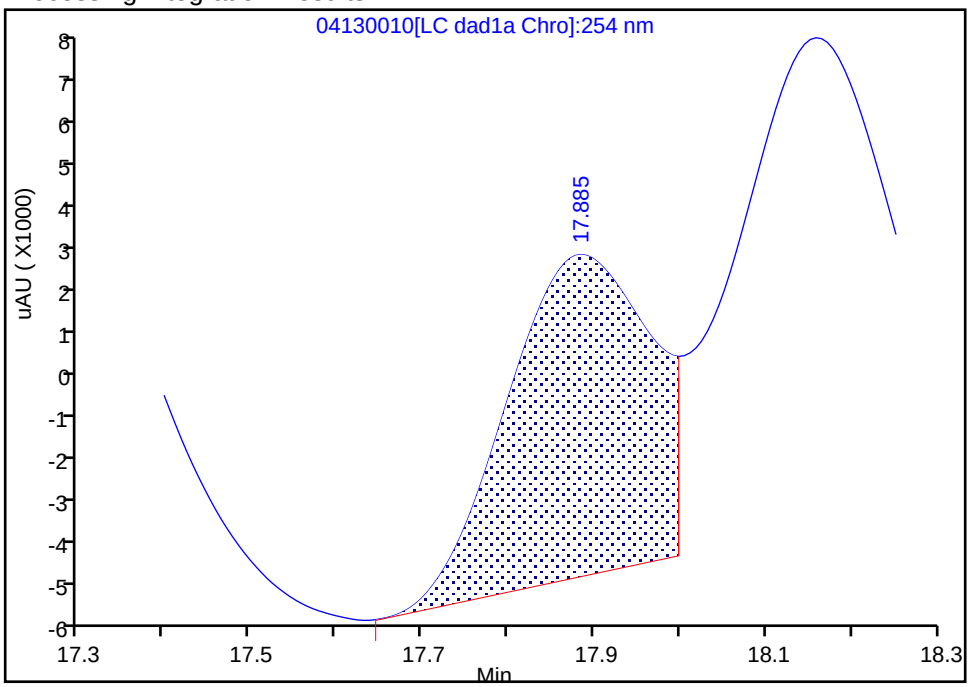
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

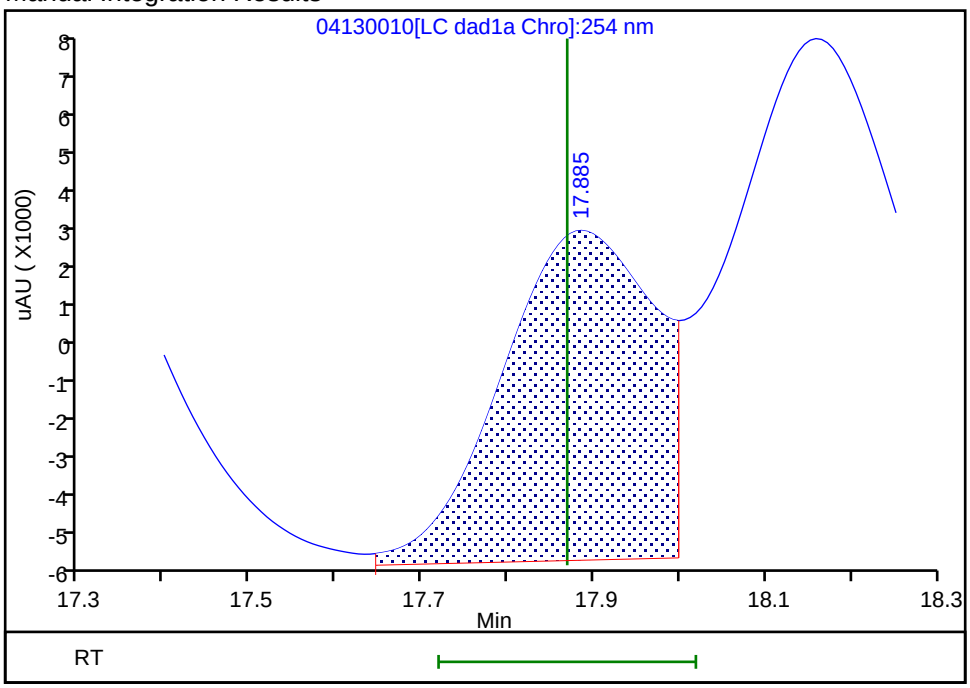
Processing Integration Results

RT: 17.89
Area: 81609
Amount: 0.396865
Amount Units: ug/ml




Manual Integration Results

RT: 17.89
Area: 100413
Amount: 0.407577
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

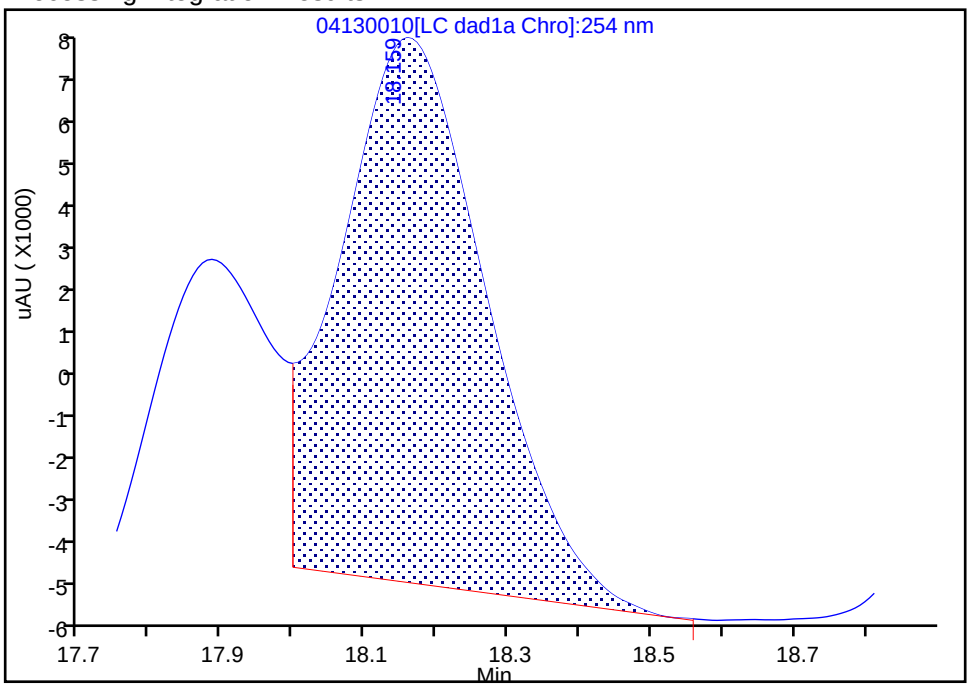
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

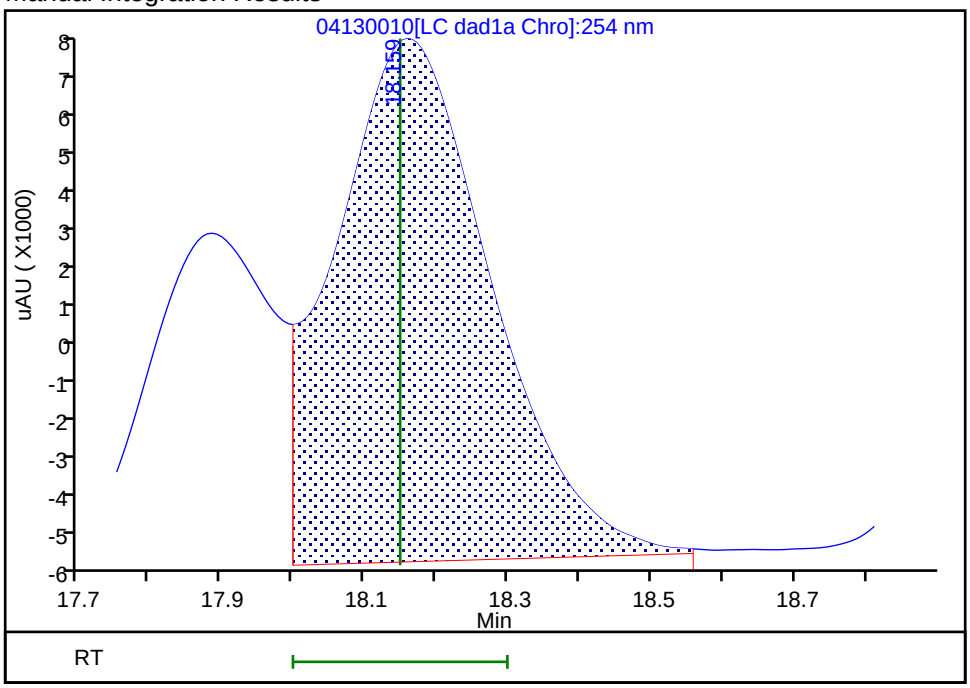
Processing Integration Results

RT: 18.16
Area: 166185
Amount: 0.382380
Amount Units: ug/ml




Manual Integration Results

RT: 18.16
Area: 192745
Amount: 0.403103
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

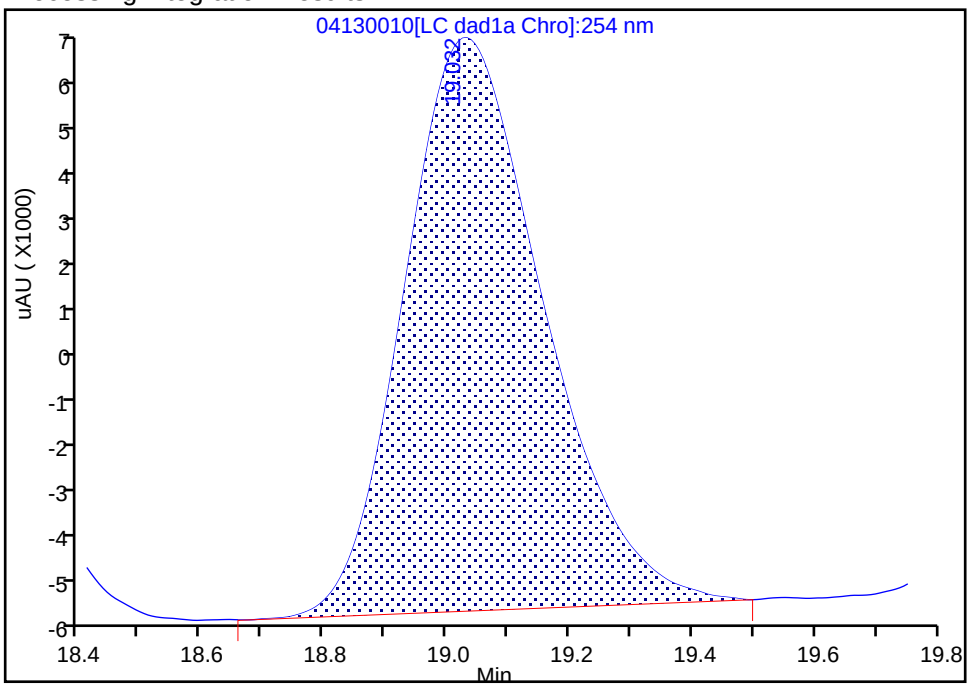
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

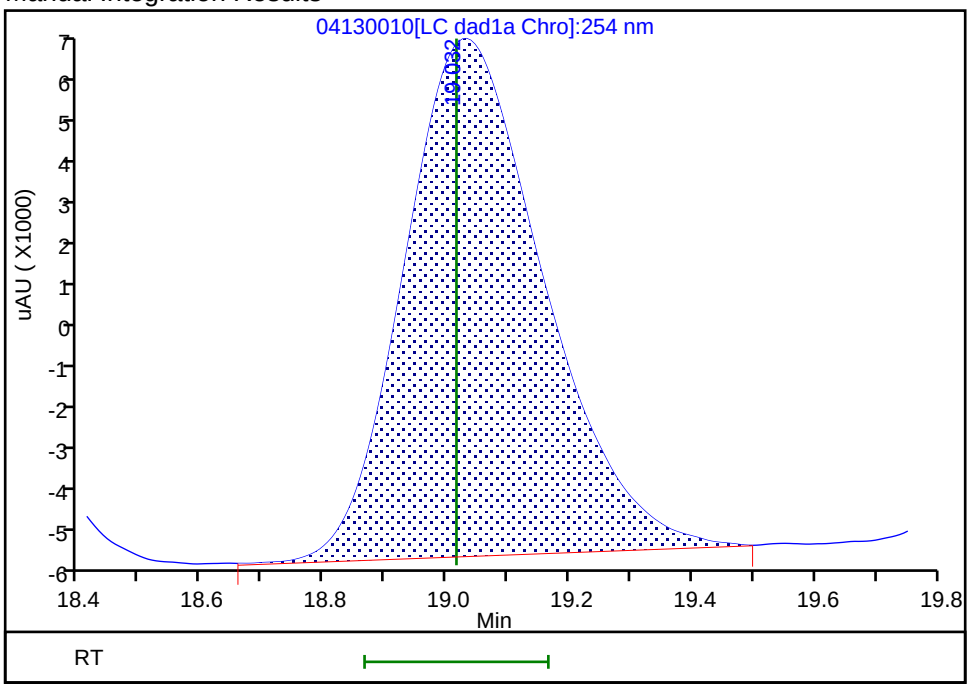
Processing Integration Results

RT: 19.03
Area: 181039
Amount: 0.408090
Amount Units: ug/ml




Manual Integration Results

RT: 19.03
Area: 181997
Amount: 0.404153
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

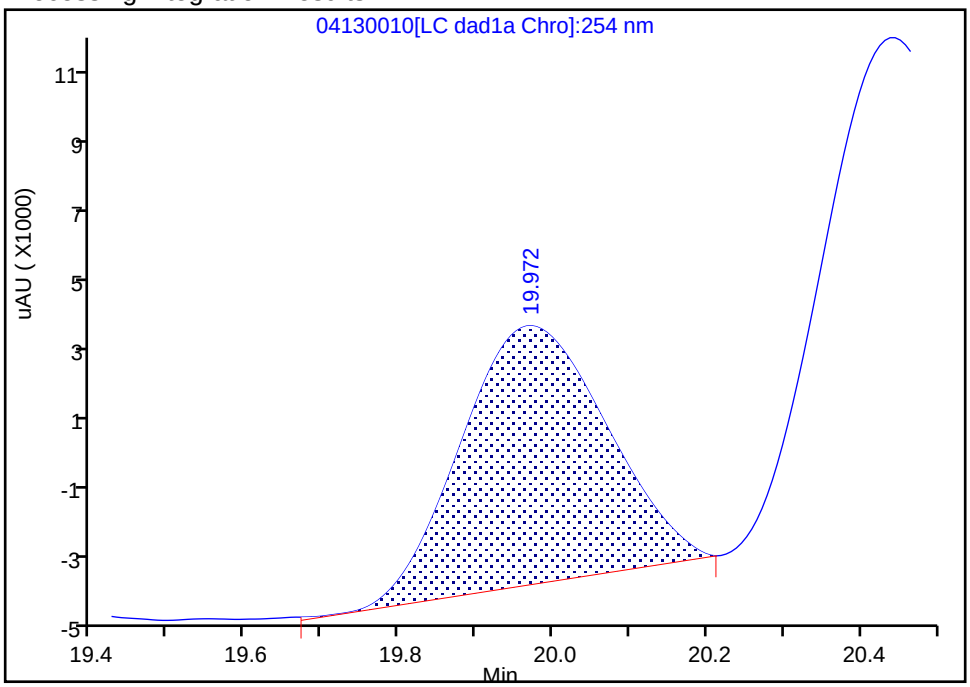
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

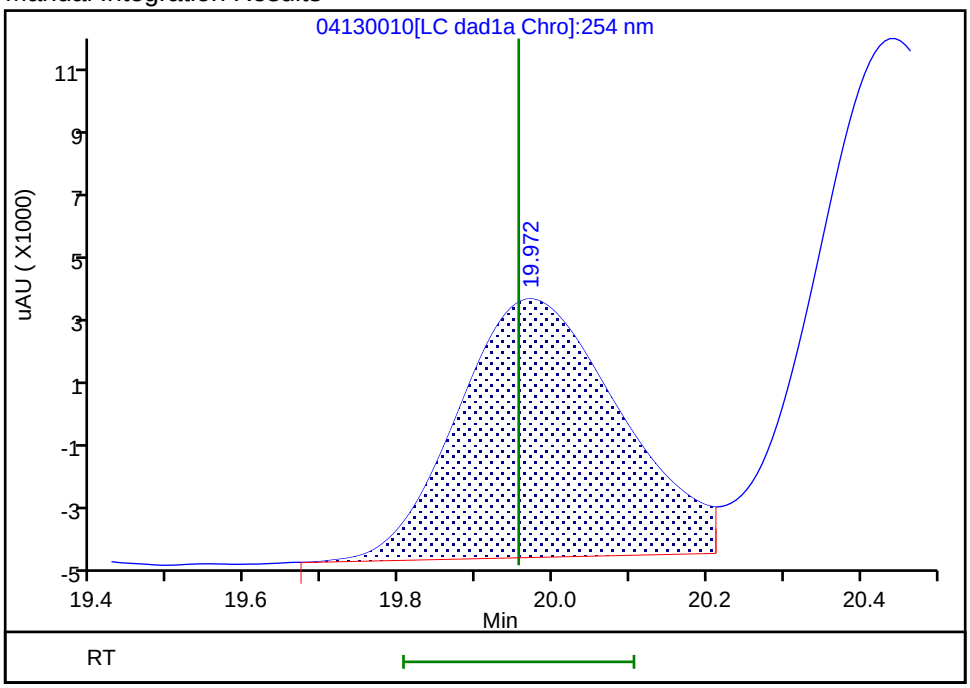
Processing Integration Results

RT: 19.97
Area: 92864
Amount: 0.295458
Amount Units: ug/ml




Manual Integration Results

RT: 19.97
Area: 114216
Amount: 0.428161
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

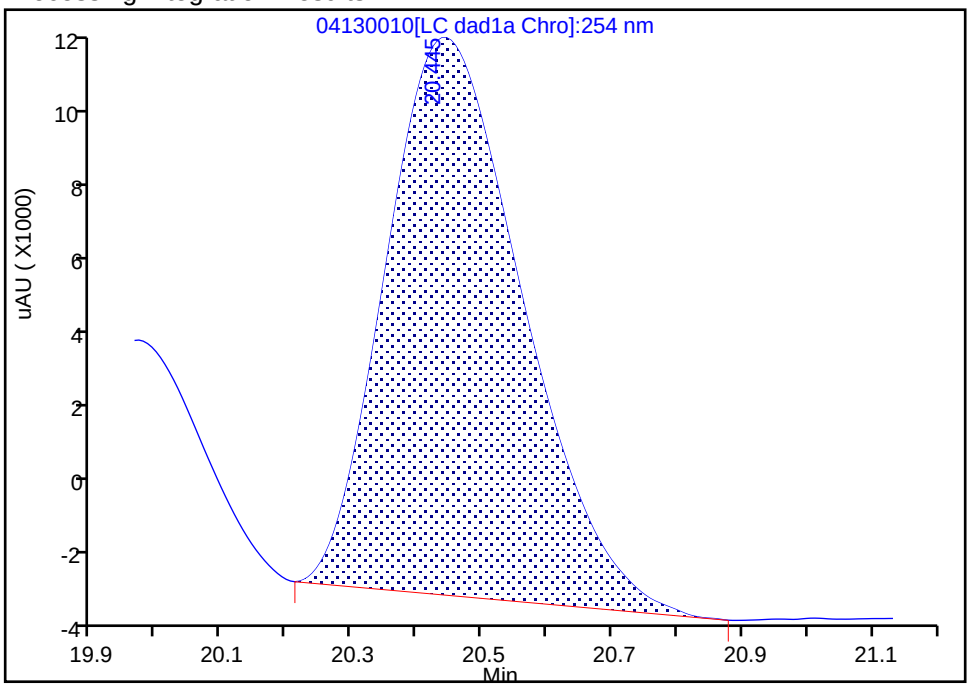
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130010.d | | | | |
| Injection Date: | 13-Apr-2020 16:25:44 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

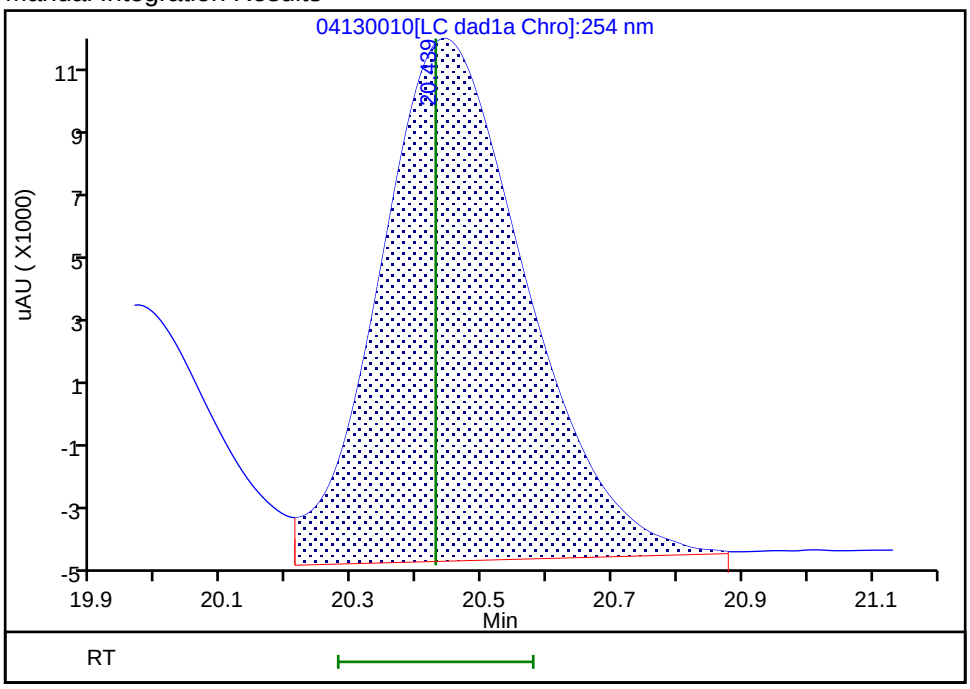
Processing Integration Results

RT: 20.45
Area: 211892
Amount: 0.372974
Amount Units: ug/ml




Manual Integration Results

RT: 20.44
Area: 240912
Amount: 0.418277
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:24:59

Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130011.D
Lims ID: IC FULL 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-Apr-2020 17:00:41 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 5
Misc. Info.: 280-0090784-011
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:06 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:26:10

| 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 | 4.389 | 4.389 | 0.000 | 128562 | 0.2500 | 0.2351 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.949 | 4.949 | 0.000 | 76001 | 0.2500 | 0.2355 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.609 | 5.609 | 0.000 | 38293 | 0.2500 | 0.2367 | |
| 6 HMX | 1 | 7.029 | 7.029 | 0.000 | 43561 | 0.2500 | 0.2506 | |
| 8 RDX | 1 | 9.222 | 9.222 | 0.000 | 54275 | 0.2500 | 0.2546 | |
| 9 Nitrobenzene | 1 | 12.195 | 12.195 | 0.000 | 105980 | 0.2510 | 0.2538 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.135 | 13.135 | 0.000 | 73083 | 0.2500 | 0.2537 | |
| 11 3,5-Dinitroaniline | 1 | 14.989 | 14.989 | 0.000 | 156166 | 0.2500 | 0.2493 | |
| 12 1,3-Dinitrobenzene | 1 | 15.669 | 15.669 | 0.000 | 162309 | 0.2505 | 0.2579 | |
| 13 Nitroglycerin | 2 | 15.902 | 15.902 | 0.000 | 366106 | 2.50 | 2.66 | M |
| 14 o-Nitrotoluene | 1 | 16.669 | 16.669 | 0.000 | 60647 | 0.2500 | 0.2563 | M |
| 15 p-Nitrotoluene | 1 | 16.929 | 16.929 | 0.000 | 60568 | 0.2505 | 0.2490 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.282 | 17.282 | 0.000 | 80110 | 0.2503 | 0.2463 | M |
| 17 m-Nitrotoluene | 1 | 17.869 | 17.869 | 0.000 | 62183 | 0.2503 | 0.2547 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.149 | 18.149 | 0.000 | 117053 | 0.2510 | 0.2465 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.015 | 19.015 | 0.000 | 110718 | 0.2505 | 0.2474 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.955 | 19.955 | 0.000 | 69985 | 0.2510 | 0.2624 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.429 | 20.429 | 0.000 | 148712 | 0.2510 | 0.2582 | M |
| 22 Tetryl | 1 | 23.709 | 23.709 | 0.000 | 87458 | 0.2505 | 0.2521 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.802 | 24.802 | 0.000 | 99167 | 0.2510 | 0.2495 | |
| 24 PETN | 2 | 25.342 | 25.342 | 0.000 | 357048 | 2.50 | 2.58 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

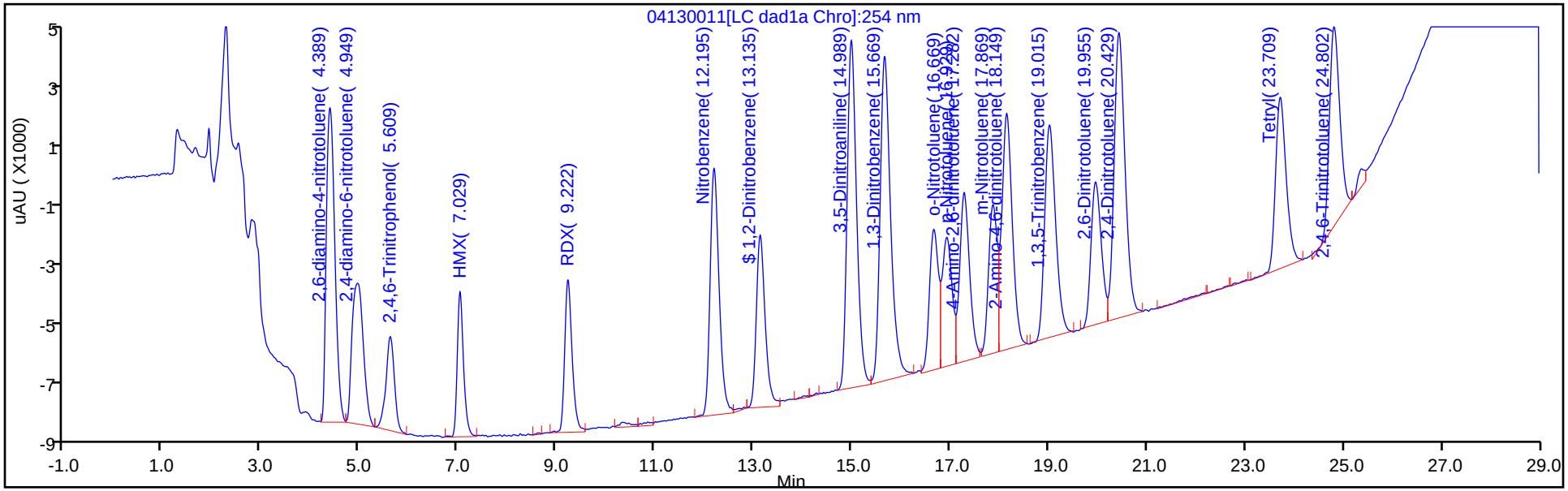
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |

Report Date: 14-Apr-2020 09:13:06 Chrom Revision: 2.3 11-Mar-2020 18:53:20

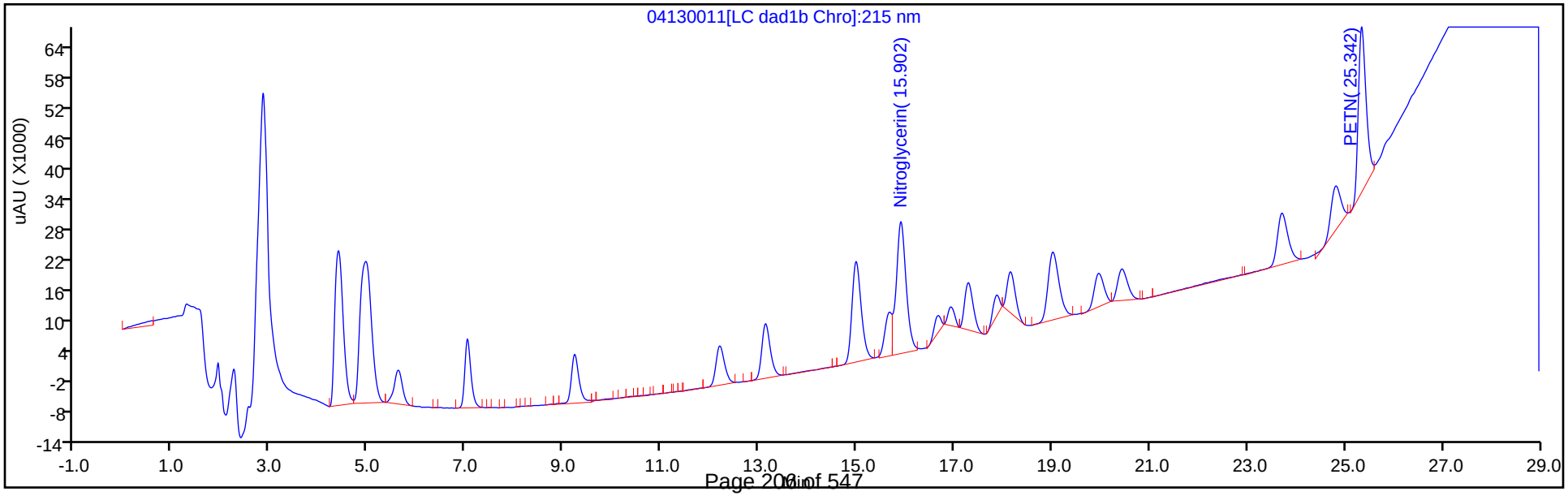
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 5 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

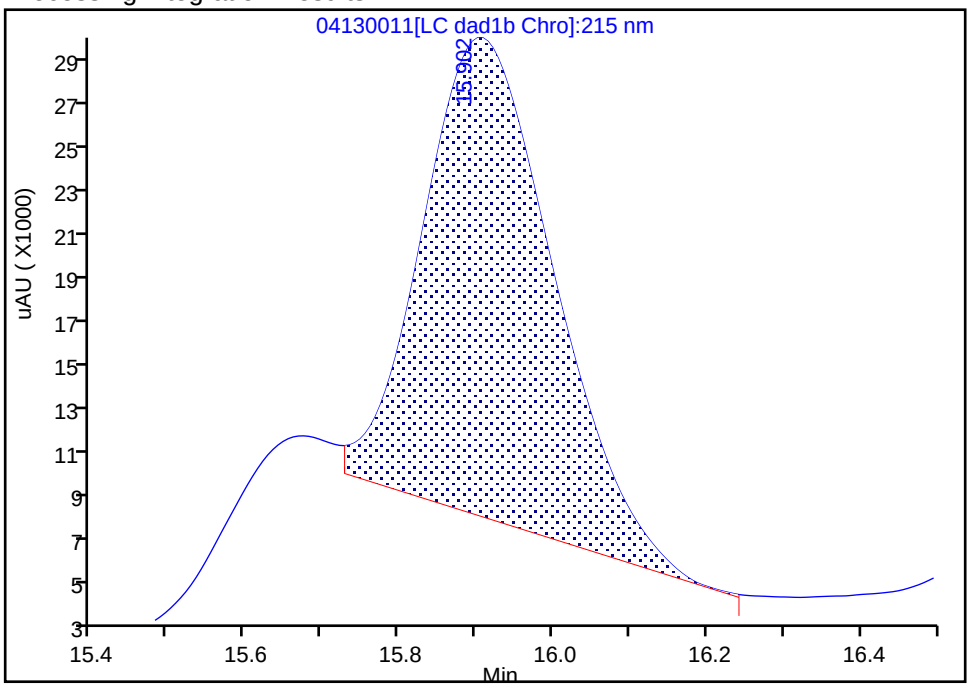
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

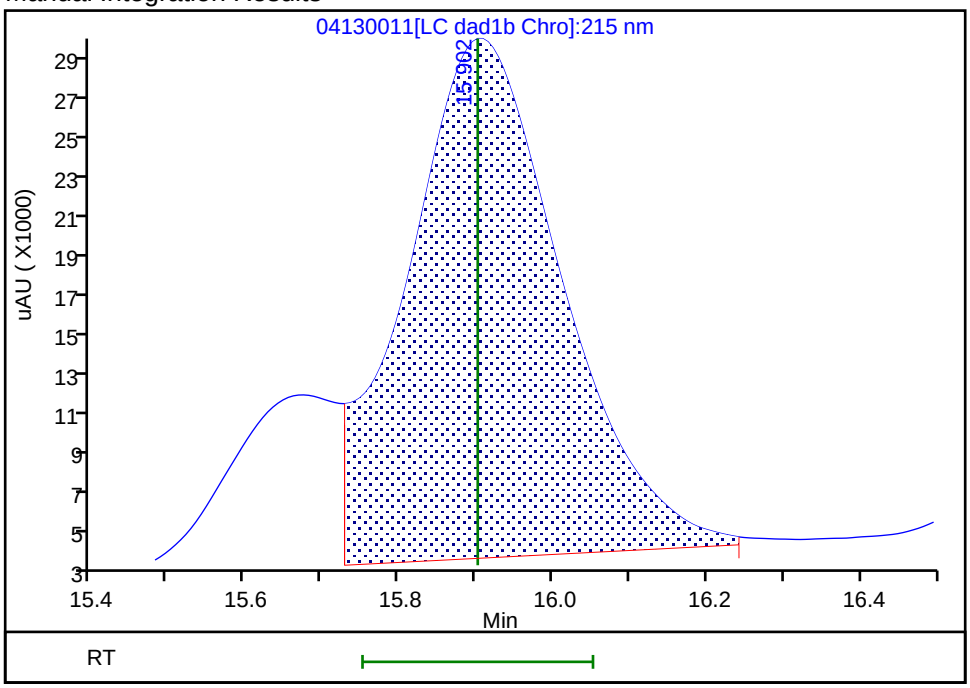
Processing Integration Results

RT: 15.90
Area: 256643
Amount: 1.918323
Amount Units: ug/ml




Manual Integration Results

RT: 15.90
Area: 366106
Amount: 2.658717
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:25:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

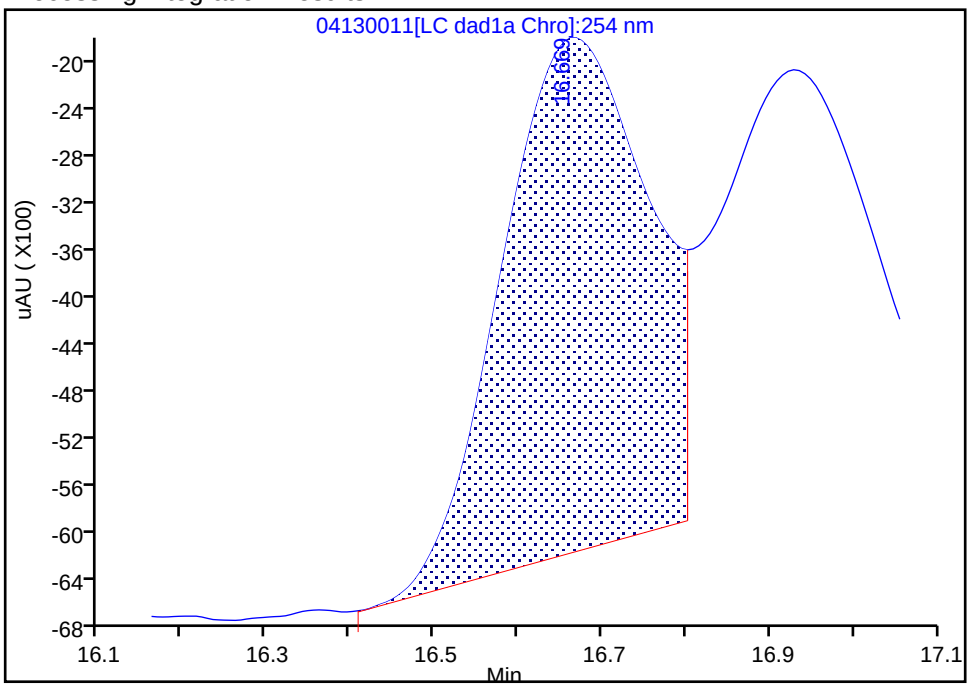
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

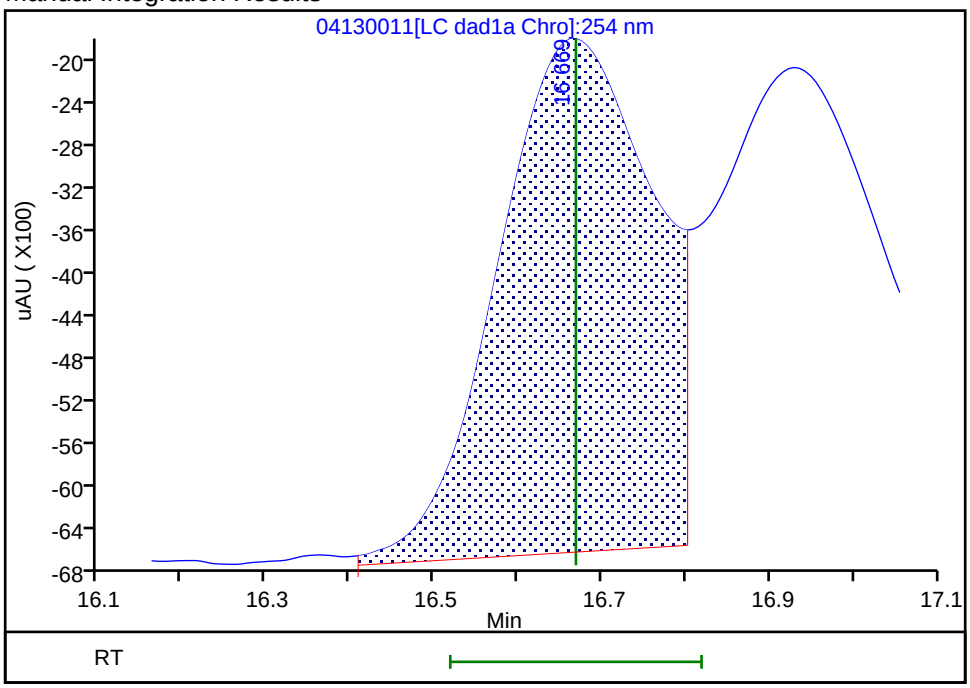
Processing Integration Results

RT: 16.67
Area: 52021
Amount: 0.228606
Amount Units: ug/ml




Manual Integration Results

RT: 16.67
Area: 60647
Amount: 0.256332
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

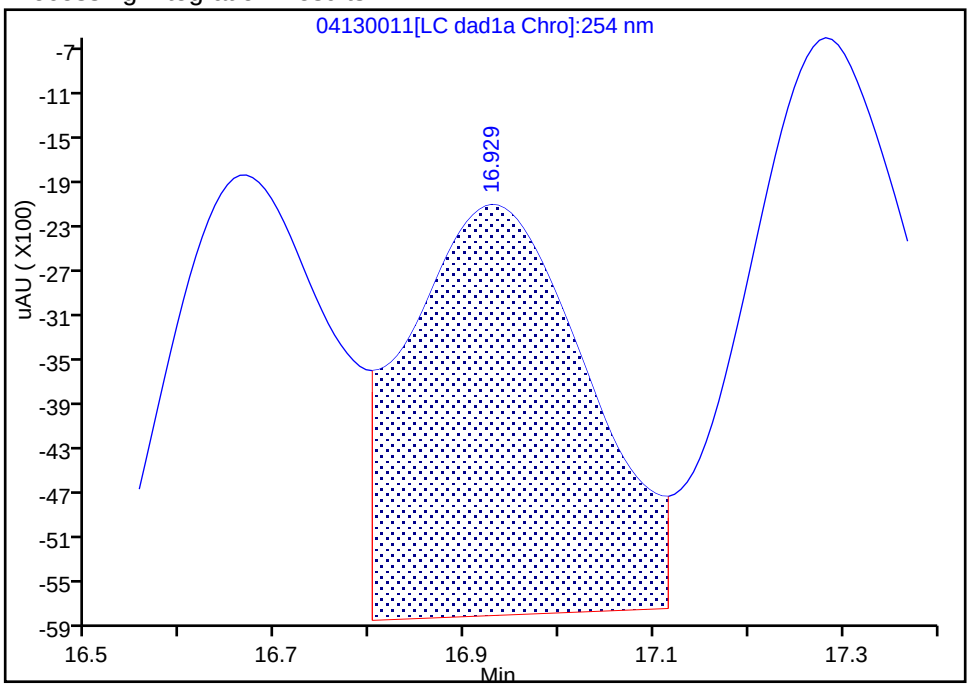
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

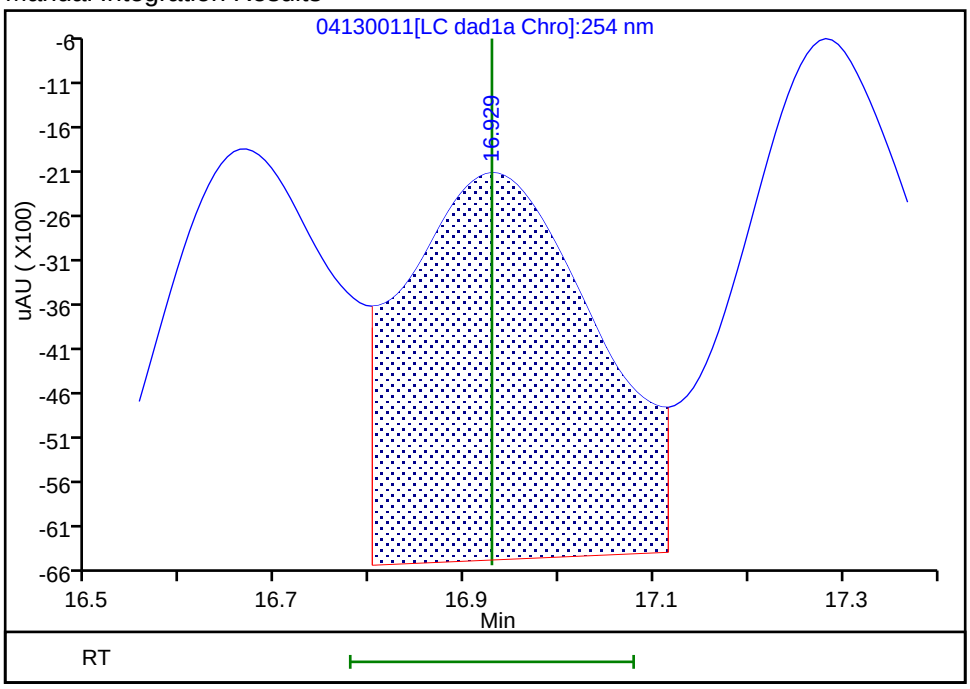
Processing Integration Results

RT: 16.93
Area: 48649
Amount: 0.218763
Amount Units: ug/ml




Manual Integration Results

RT: 16.93
Area: 60568
Amount: 0.248966
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

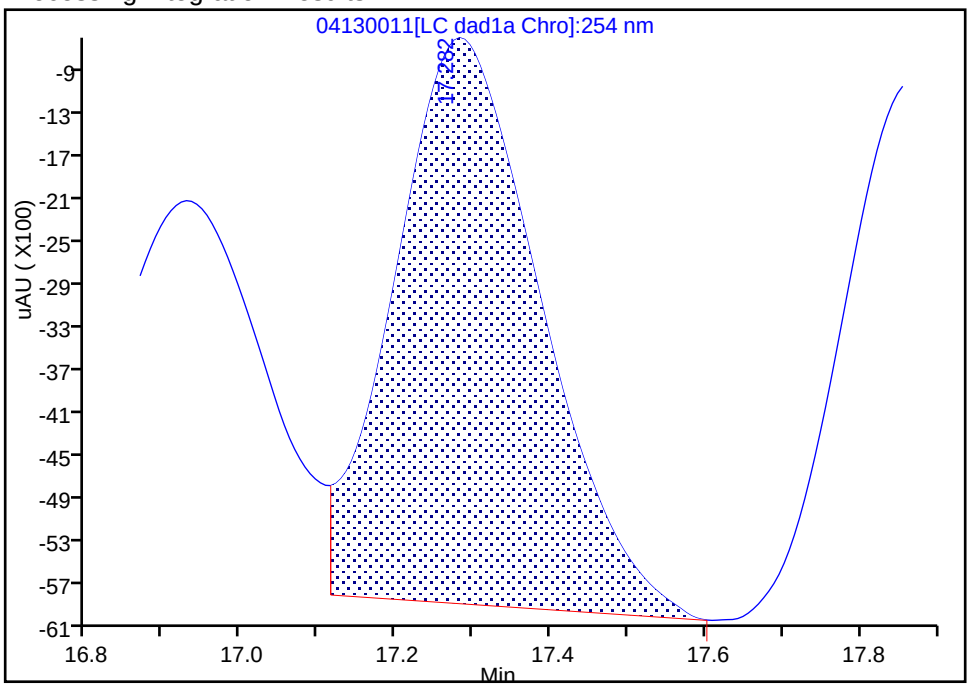
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

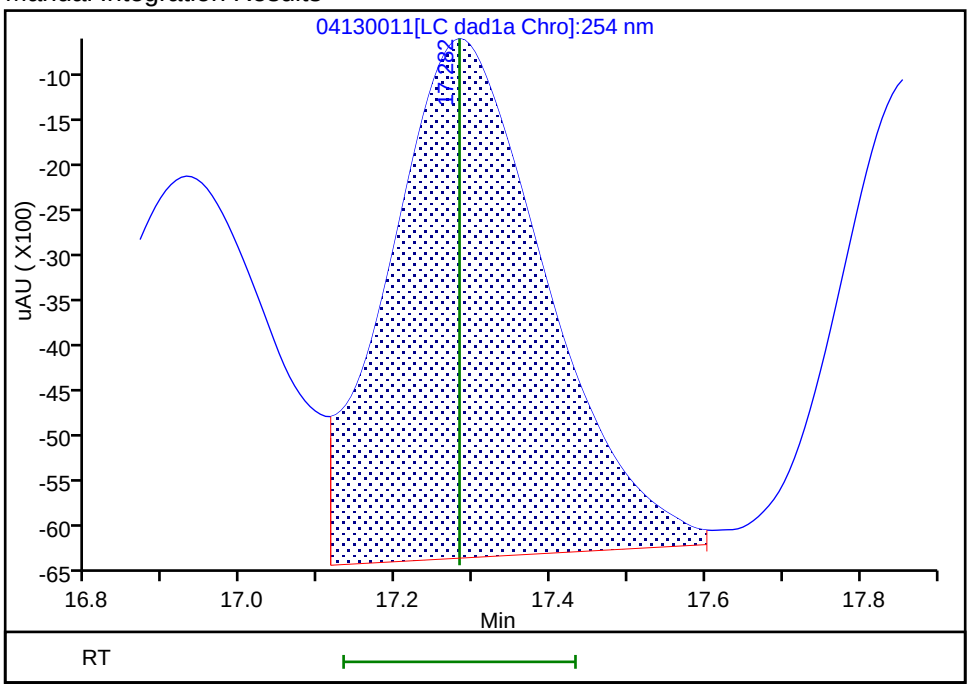
Processing Integration Results

RT: 17.28
Area: 68868
Amount: 0.222290
Amount Units: ug/ml




Manual Integration Results

RT: 17.28
Area: 80110
Amount: 0.246275
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

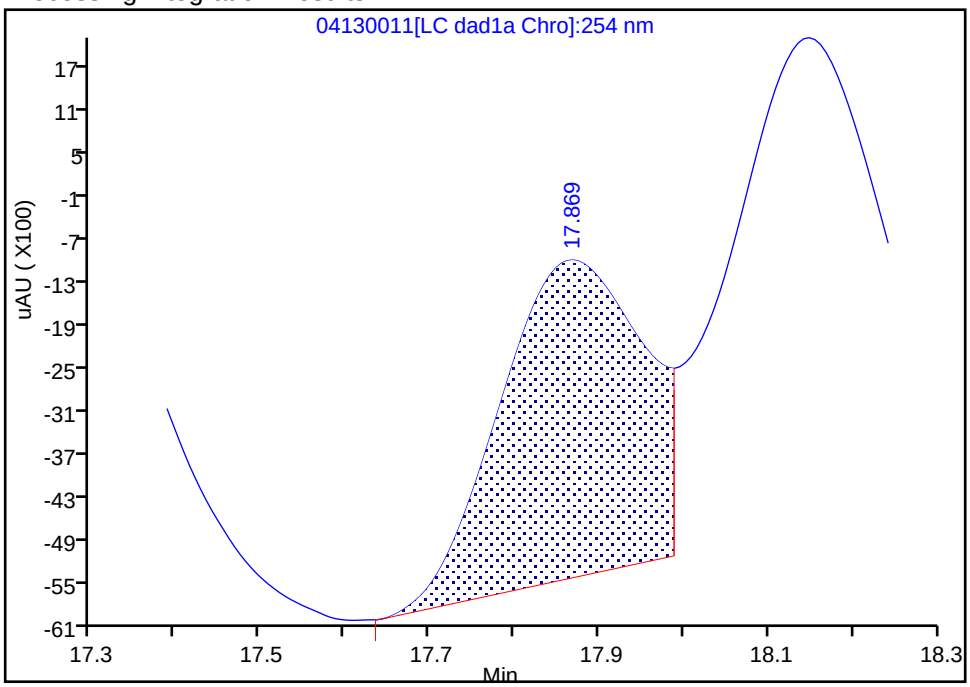
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

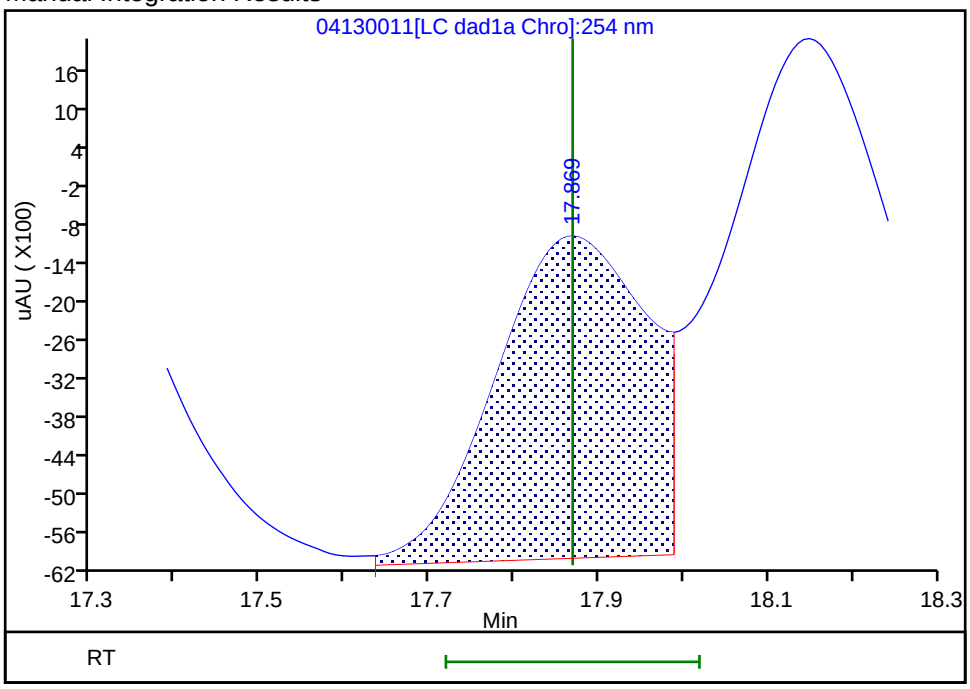
Processing Integration Results

RT: 17.87
Area: 51541
Amount: 0.239039
Amount Units: ug/ml




Manual Integration Results

RT: 17.87
Area: 62183
Amount: 0.254665
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

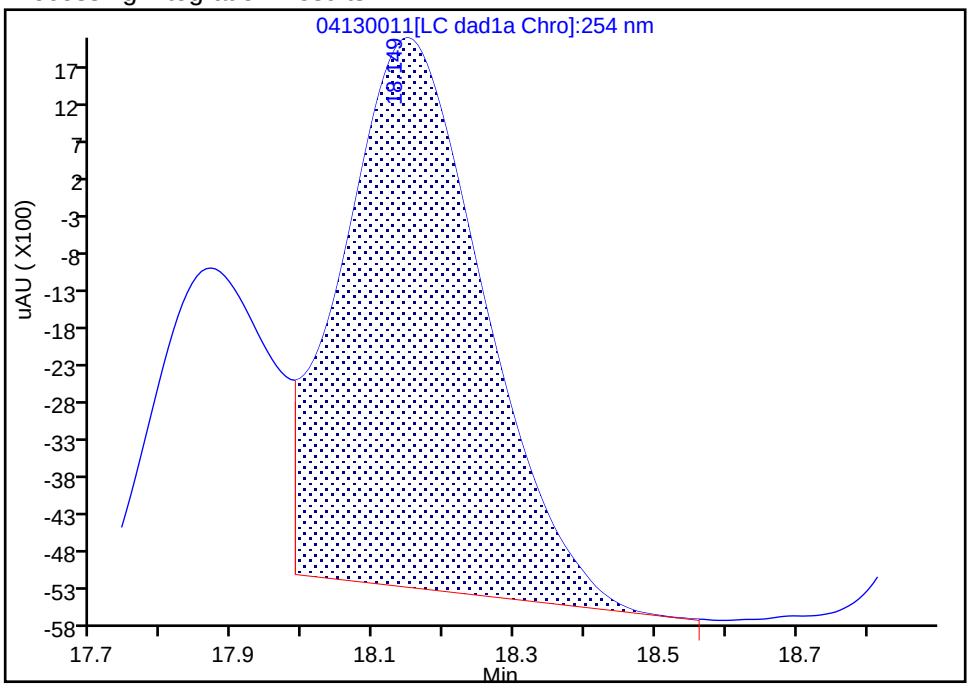
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

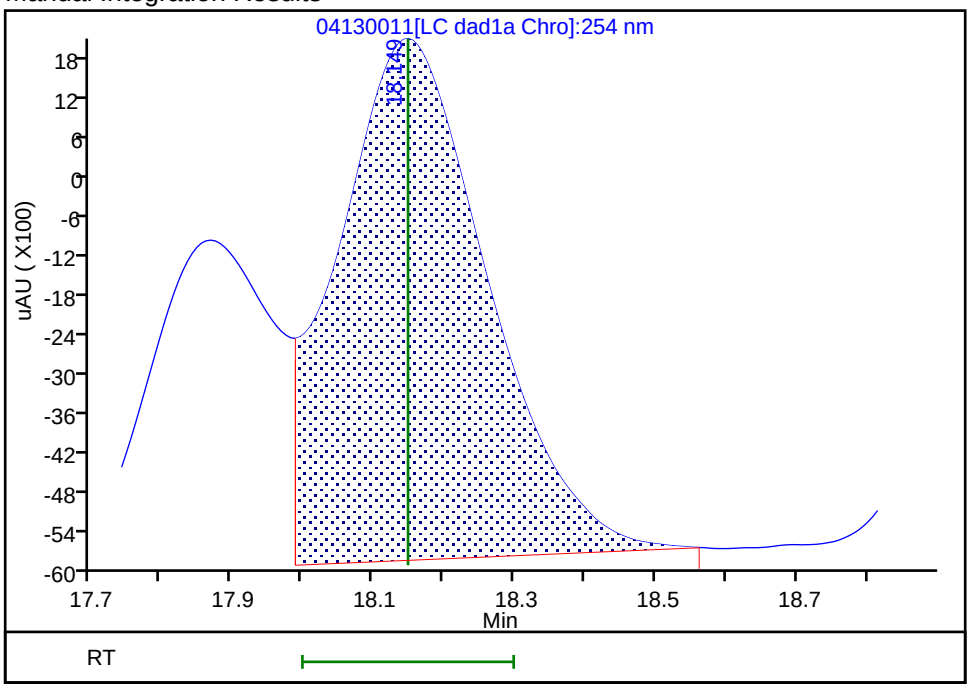
Processing Integration Results

RT: 18.15
Area: 102381
Amount: 0.226201
Amount Units: ug/ml




Manual Integration Results

RT: 18.15
Area: 117053
Amount: 0.246518
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

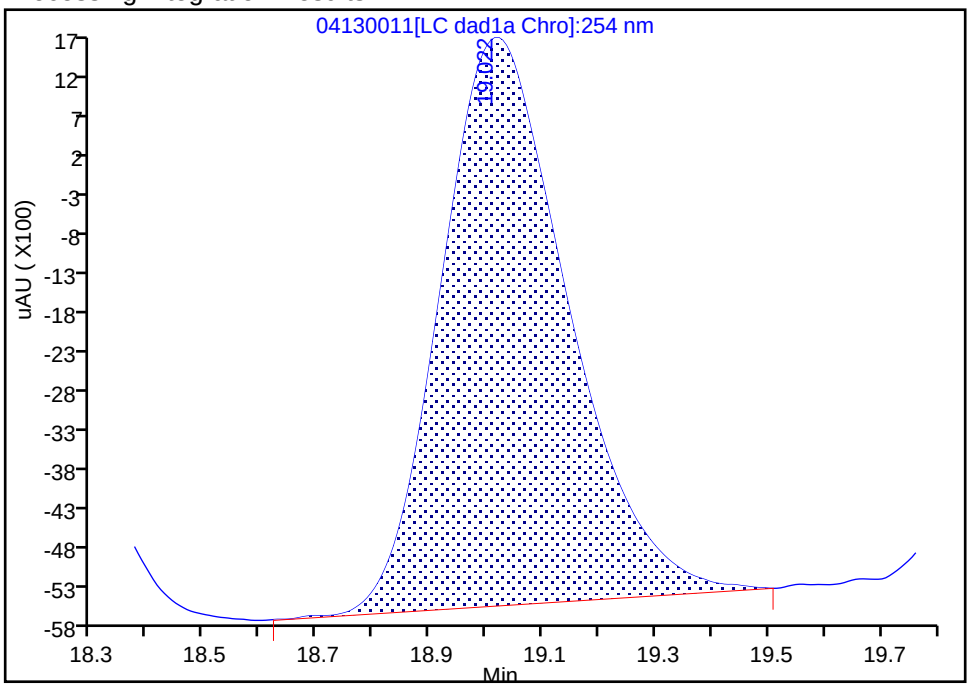
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

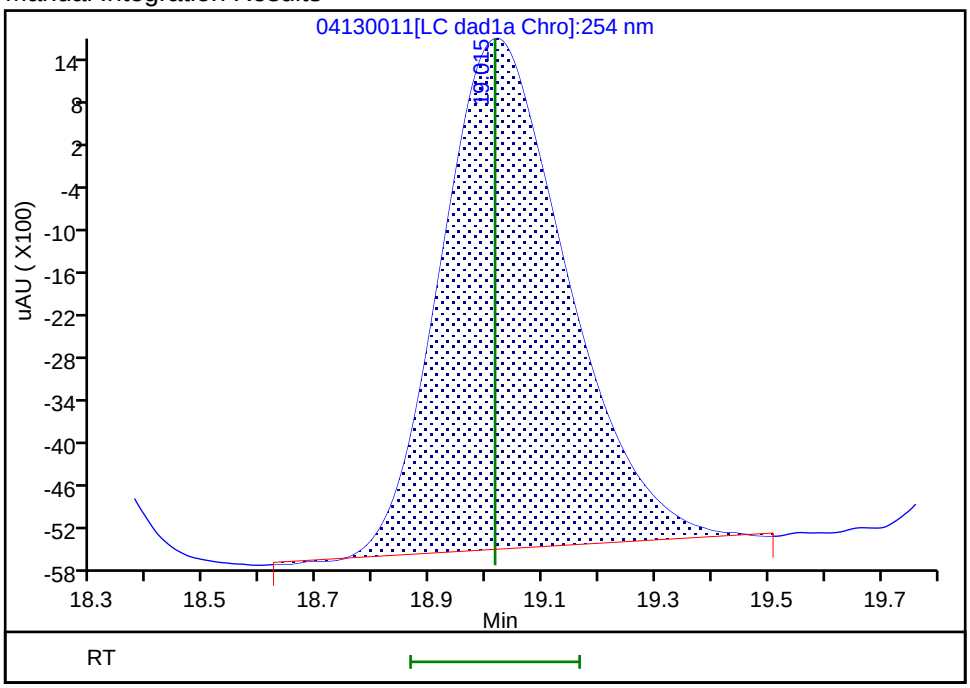
Processing Integration Results

RT: 19.02
Area: 113006
Amount: 0.253330
Amount Units: ug/ml




Manual Integration Results

RT: 19.02
Area: 110718
Amount: 0.247384
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

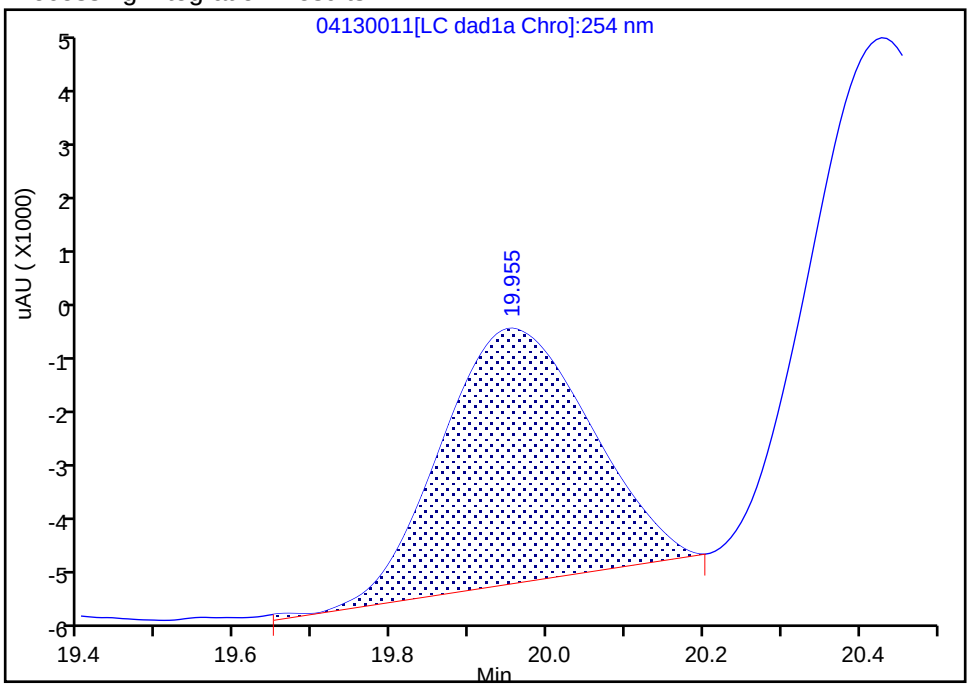
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

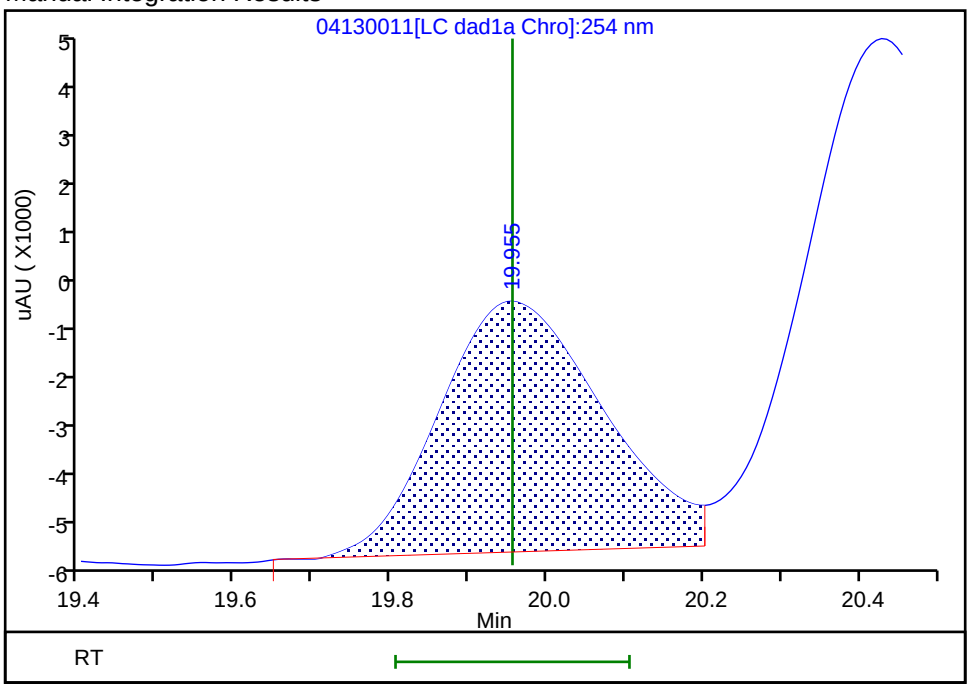
Processing Integration Results

RT: 19.96
Area: 58946
Amount: 0.184084
Amount Units: ug/ml




Manual Integration Results

RT: 19.96
Area: 69985
Amount: 0.262352
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

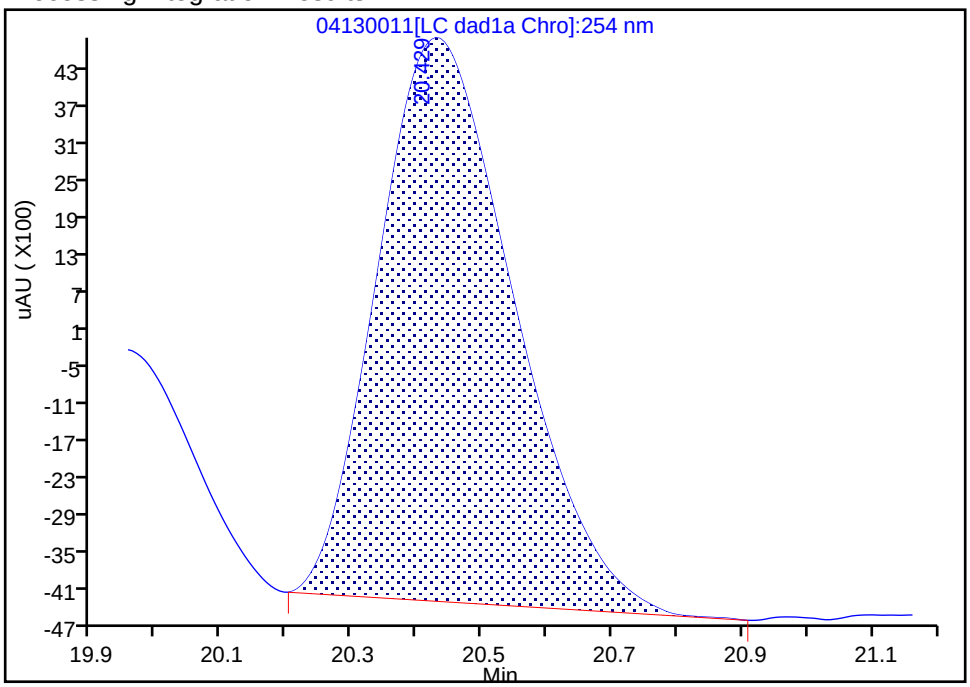
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130011.d | | | | |
| Injection Date: | 13-Apr-2020 17:00:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

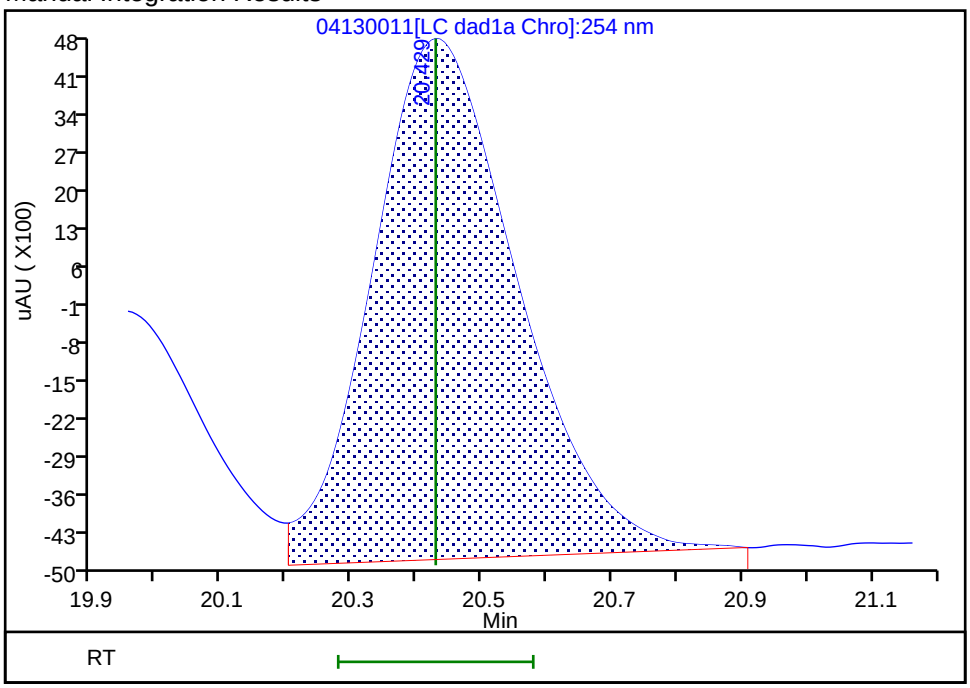
Processing Integration Results

RT: 20.43
Area: 132367
Amount: 0.229746
Amount Units: ug/ml




Manual Integration Results

RT: 20.43
Area: 148712
Amount: 0.258197
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130012.D
Lims ID: IC FULL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Apr-2020 17:35:39 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 4
Misc. Info.: 280-0090784-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:05 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:27:27

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.389 | 4.389 | 0.000 | 54159 | 0.1000 | 0.0990 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.942 | 4.949 | -0.007 | 32429 | 0.1000 | 0.0991 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.662 | 5.609 | 0.053 | 15755 | 0.1000 | 0.0974 | |
| 6 HMX | 1 | 7.029 | 7.029 | 0.000 | 17399 | 0.1000 | 0.1001 | |
| 8 RDX | 1 | 9.235 | 9.222 | 0.013 | 22223 | 0.1000 | 0.1024 | |
| 9 Nitrobenzene | 1 | 12.202 | 12.195 | 0.007 | 42515 | 0.1004 | 0.1018 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.142 | 13.135 | 0.007 | 29696 | 0.1000 | 0.0993 | |
| 11 3,5-Dinitroaniline | 1 | 15.002 | 14.989 | 0.013 | 63274 | 0.1000 | 0.0998 | |
| 12 1,3-Dinitrobenzene | 1 | 15.675 | 15.669 | 0.006 | 64719 | 0.1002 | 0.1028 | |
| 13 Nitroglycerin | 2 | 15.915 | 15.902 | 0.013 | 140470 | 1.00 | 1.02 | M |
| 14 o-Nitrotoluene | 1 | 16.675 | 16.669 | 0.006 | 24453 | 0.1000 | 0.1012 | M |
| 15 p-Nitrotoluene | 1 | 16.948 | 16.929 | 0.019 | 23764 | 0.1002 | 0.1002 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.302 | 17.282 | 0.020 | 31658 | 0.1001 | 0.1006 | M |
| 17 m-Nitrotoluene | 1 | 17.882 | 17.869 | 0.013 | 24427 | 0.1001 | 0.1036 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.162 | 18.149 | 0.013 | 46122 | 0.1004 | 0.1009 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.028 | 19.015 | 0.013 | 43673 | 0.1002 | 0.0999 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.968 | 19.955 | 0.013 | 27346 | 0.1004 | 0.1025 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.442 | 20.429 | 0.013 | 58456 | 0.1004 | 0.1015 | M |
| 22 Tetryl | 1 | 23.722 | 23.709 | 0.013 | 36546 | 0.1002 | 0.1054 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.815 | 24.802 | 0.013 | 42903 | 0.1004 | 0.1109 | |
| 24 PETN | 2 | 25.349 | 25.342 | 0.007 | 148283 | 1.00 | 1.08 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

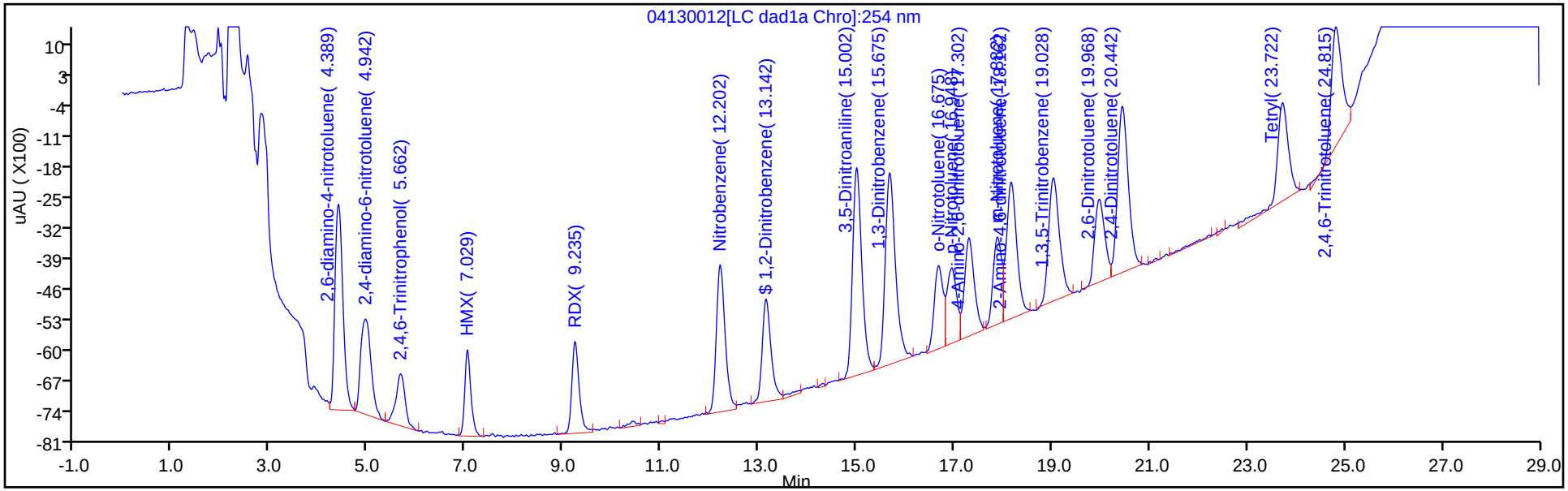
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 10.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 5.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:05 Chrom Revision: 2.3 11-Mar-2020 18:53:20

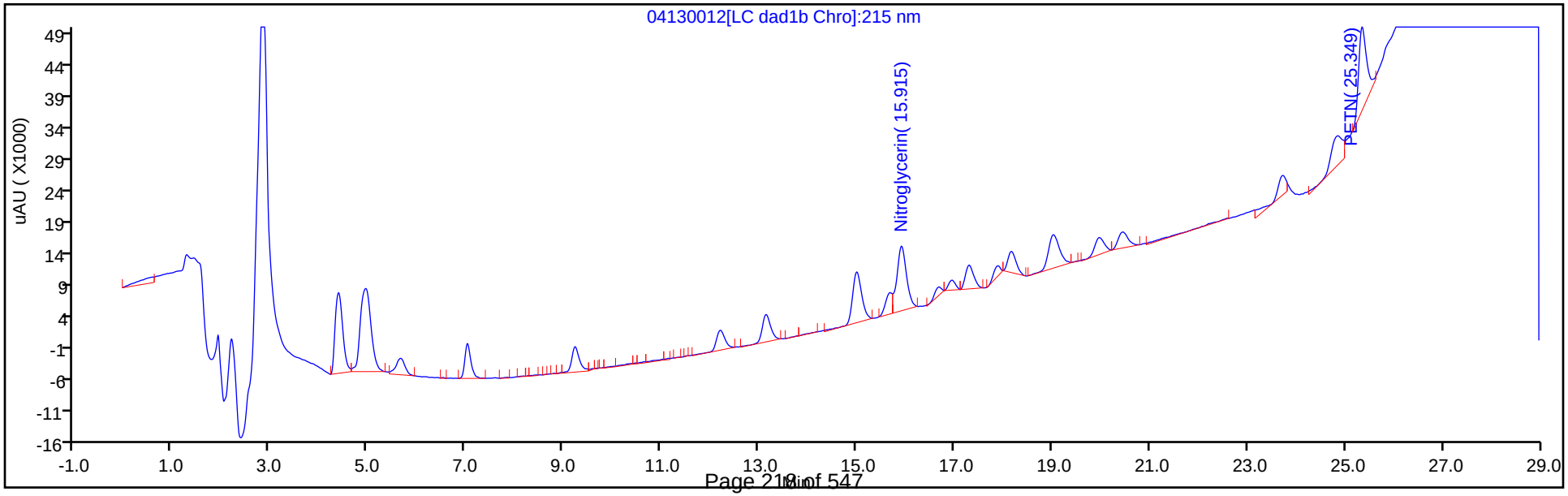
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 4 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

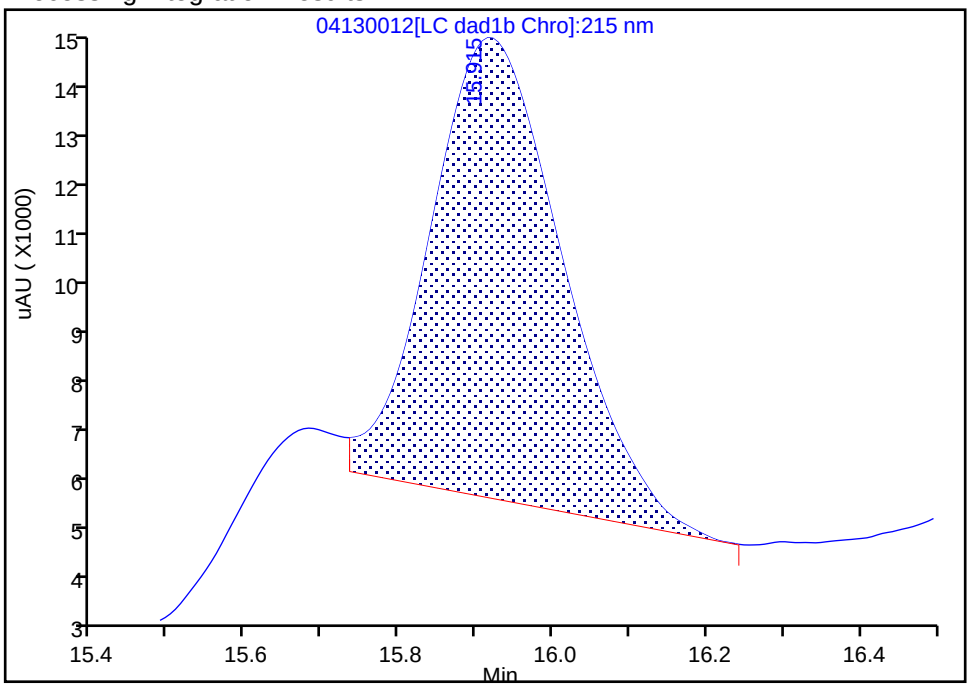
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

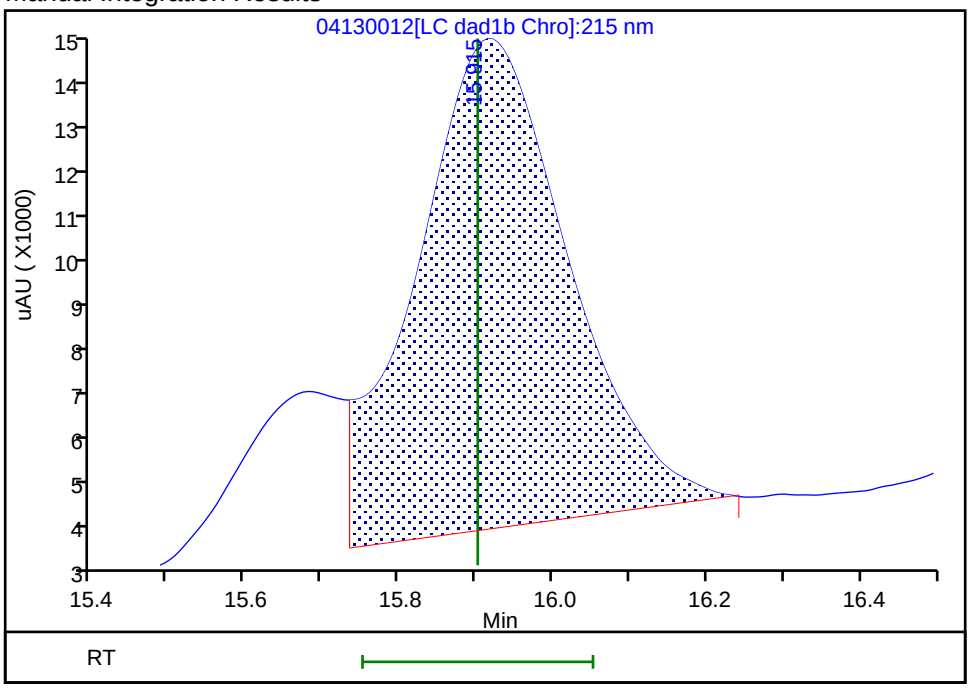
Processing Integration Results

RT: 15.92
Area: 104051
Amount: 0.750457
Amount Units: ug/ml




Manual Integration Results

RT: 15.92
Area: 140470
Amount: 1.020114
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:26:36
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

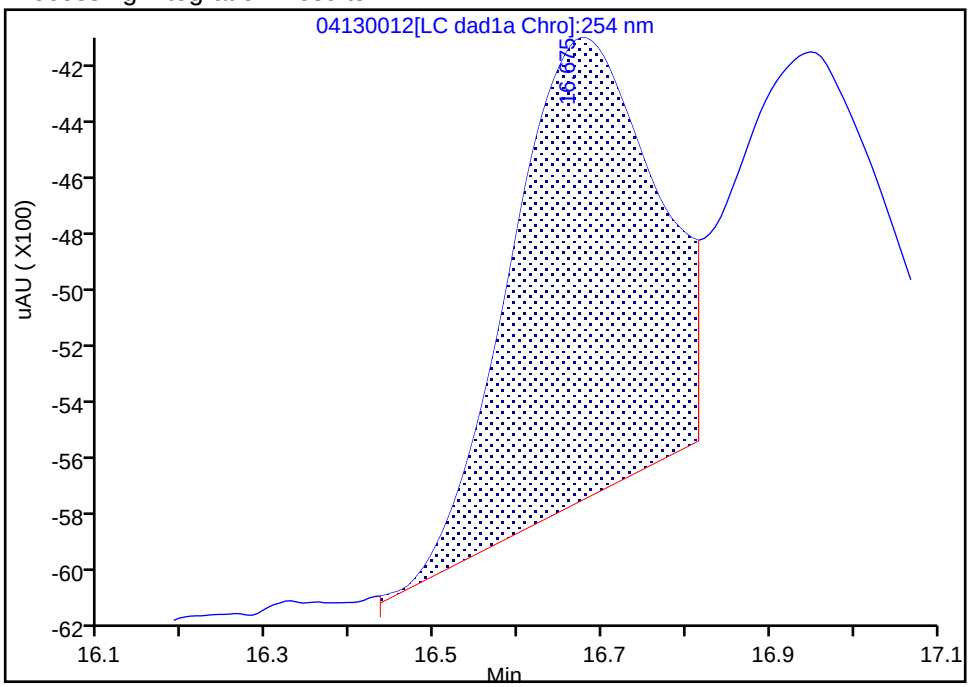
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

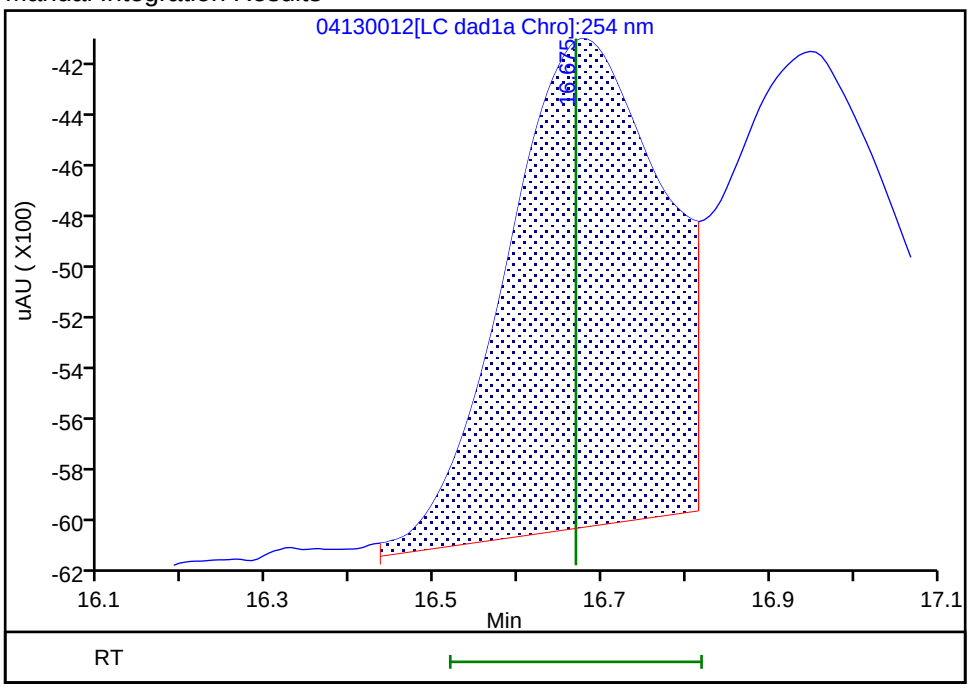
Processing Integration Results

RT: 16.68
Area: 19369
Amount: 0.083331
Amount Units: ug/ml




Manual Integration Results

RT: 16.68
Area: 24453
Amount: 0.101247
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

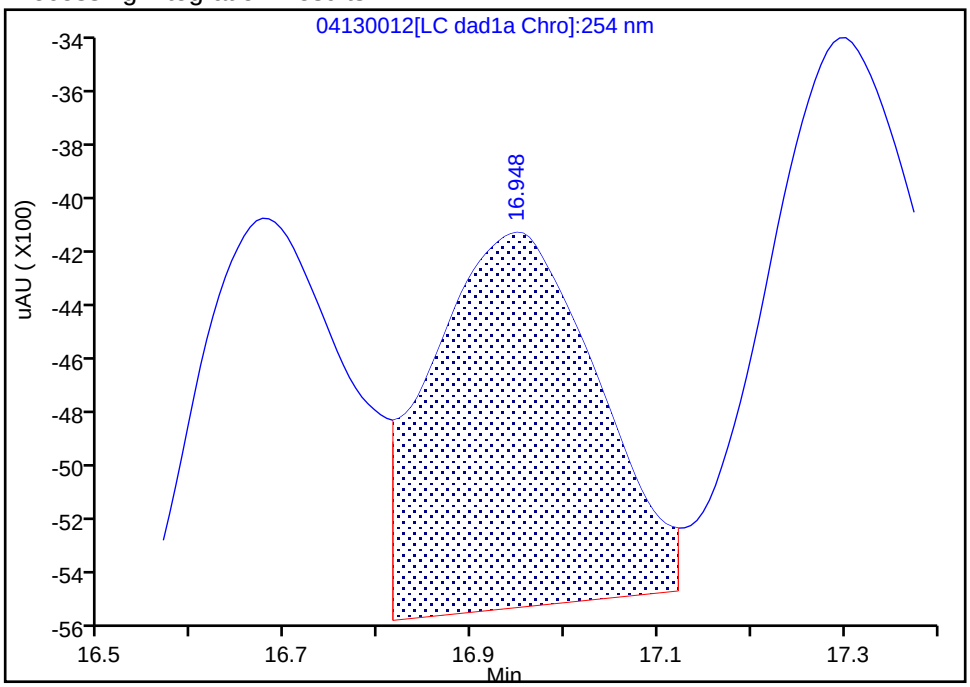
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

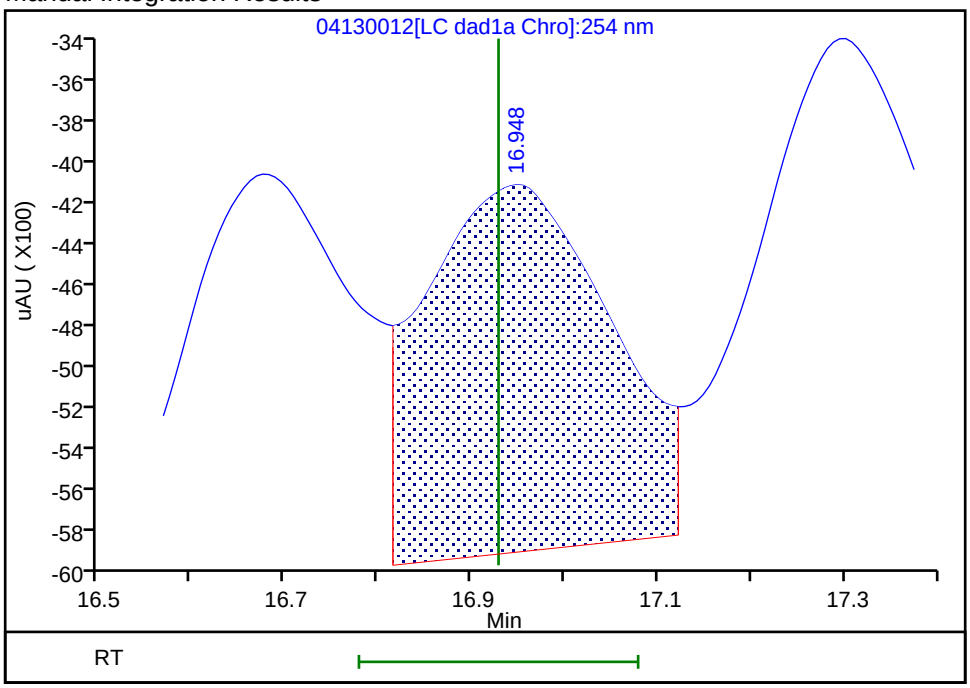
Processing Integration Results

RT: 16.95
Area: 16385
Amount: 0.074390
Amount Units: ug/ml




Manual Integration Results

RT: 16.95
Area: 23764
Amount: 0.100159
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

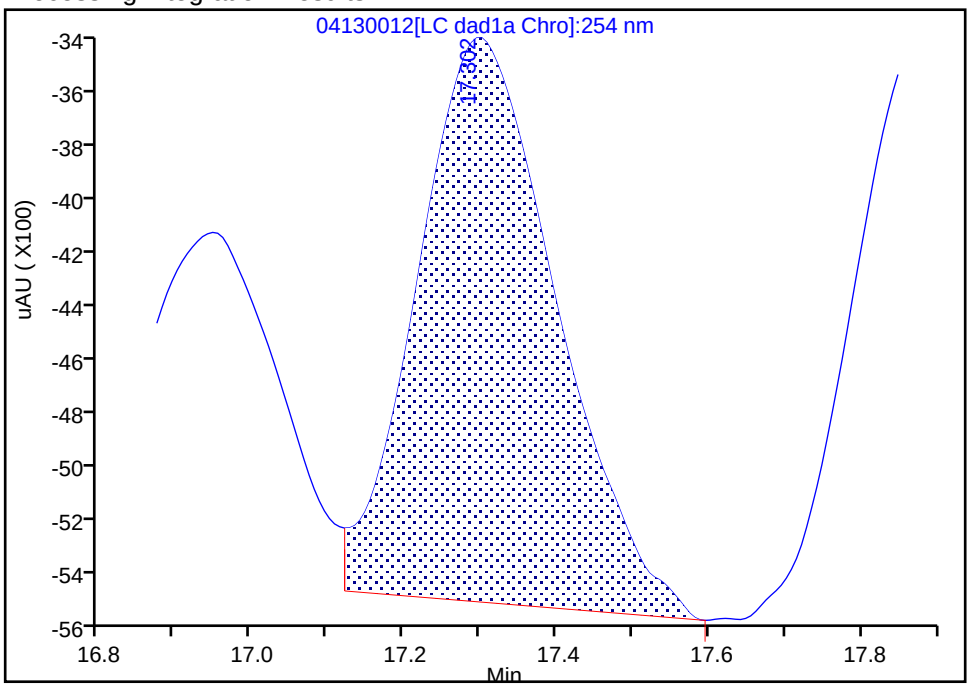
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

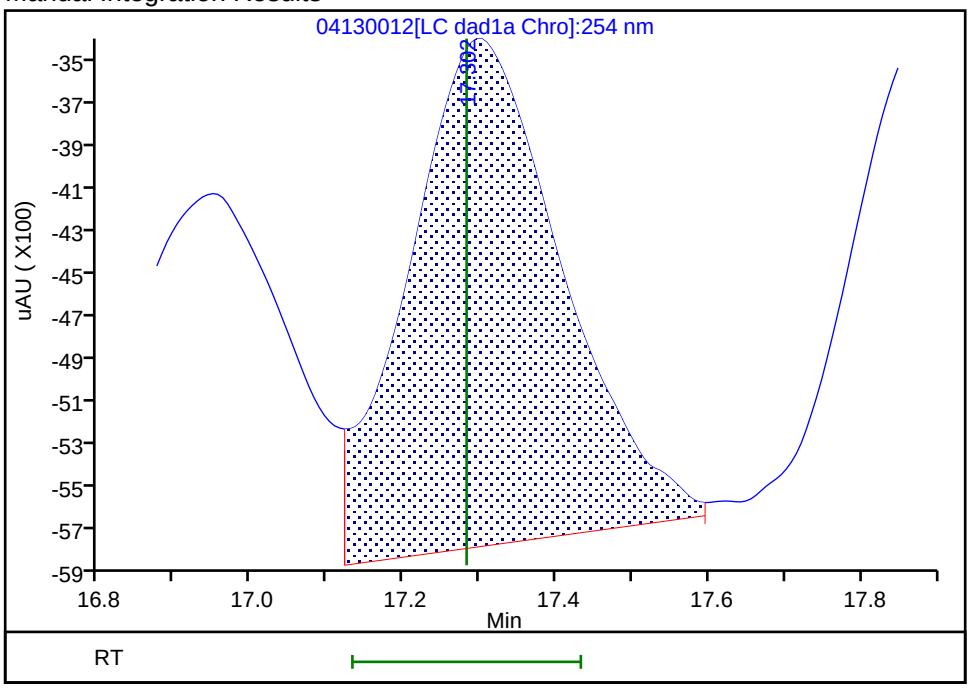
Processing Integration Results

RT: 17.30
Area: 25410
Amount: 0.082909
Amount Units: ug/ml




Manual Integration Results

RT: 17.30
Area: 31658
Amount: 0.100603
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

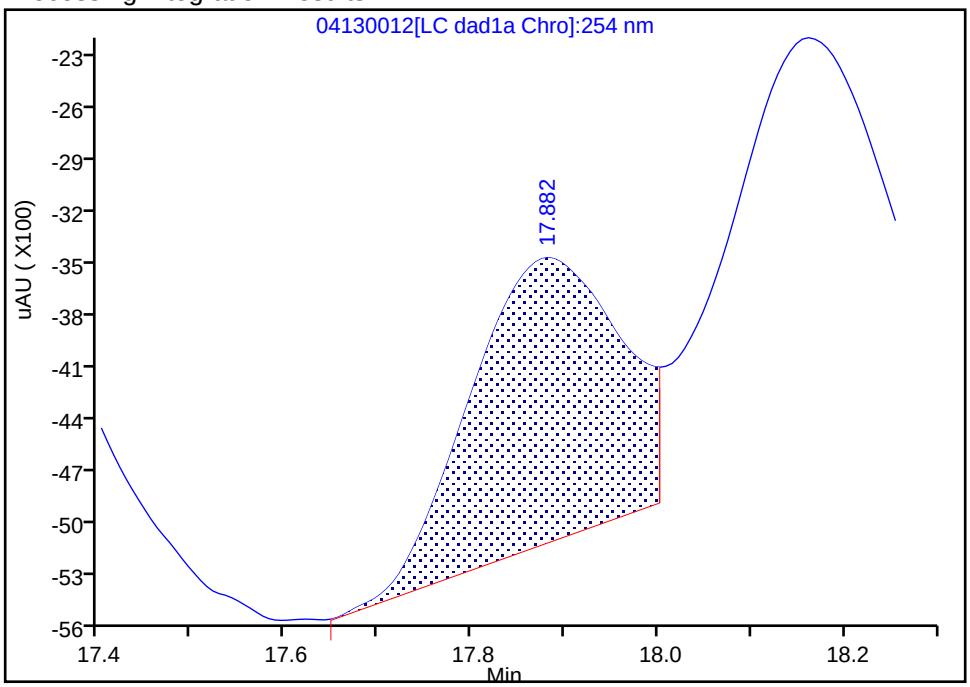
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

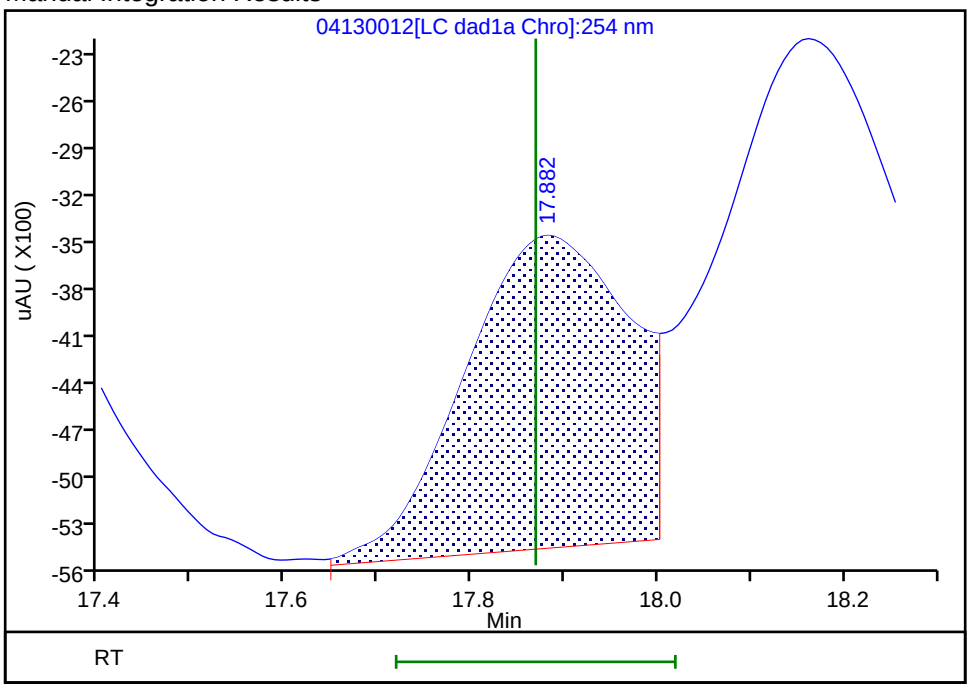
Processing Integration Results

RT: 17.88
Area: 18354
Amount: 0.080065
Amount Units: ug/ml




Manual Integration Results

RT: 17.88
Area: 24427
Amount: 0.103648
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

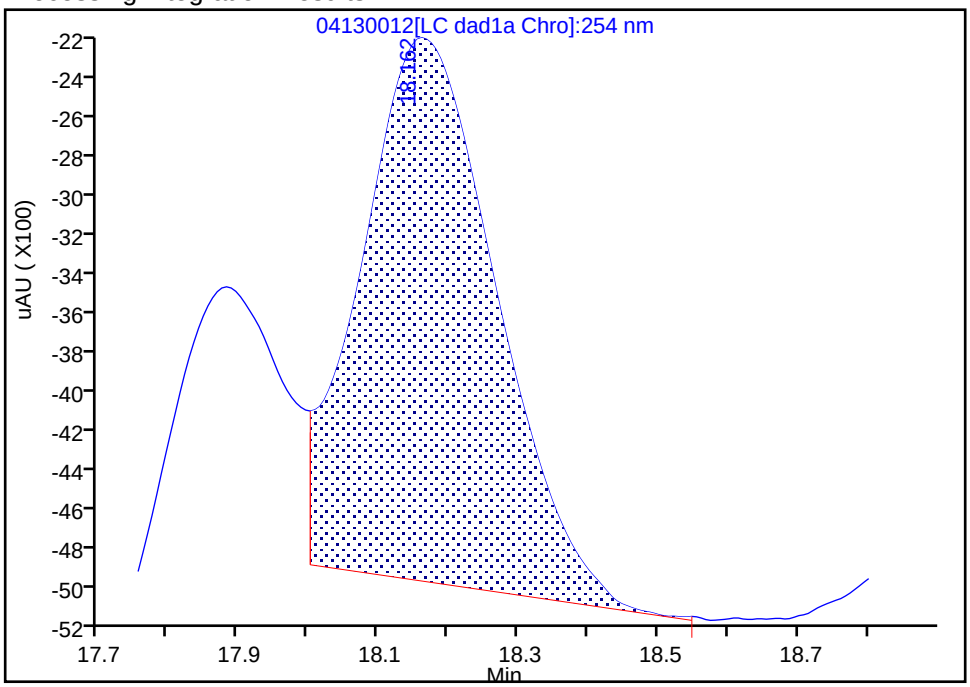
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

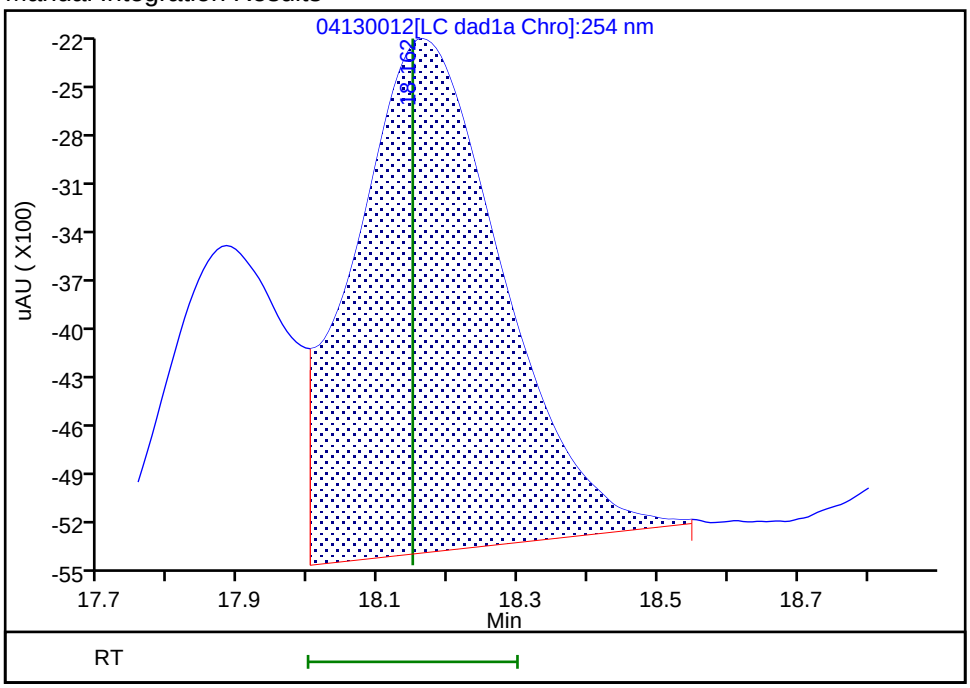
Processing Integration Results

RT: 18.16
Area: 37184
Amount: 0.084990
Amount Units: ug/ml




Manual Integration Results

RT: 18.16
Area: 46122
Amount: 0.100875
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

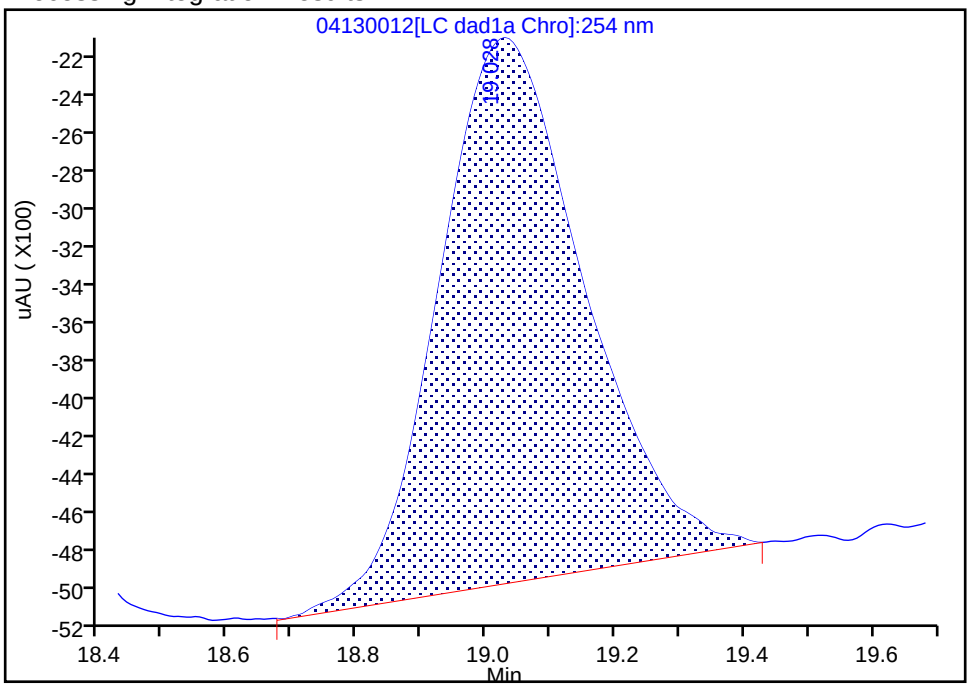
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

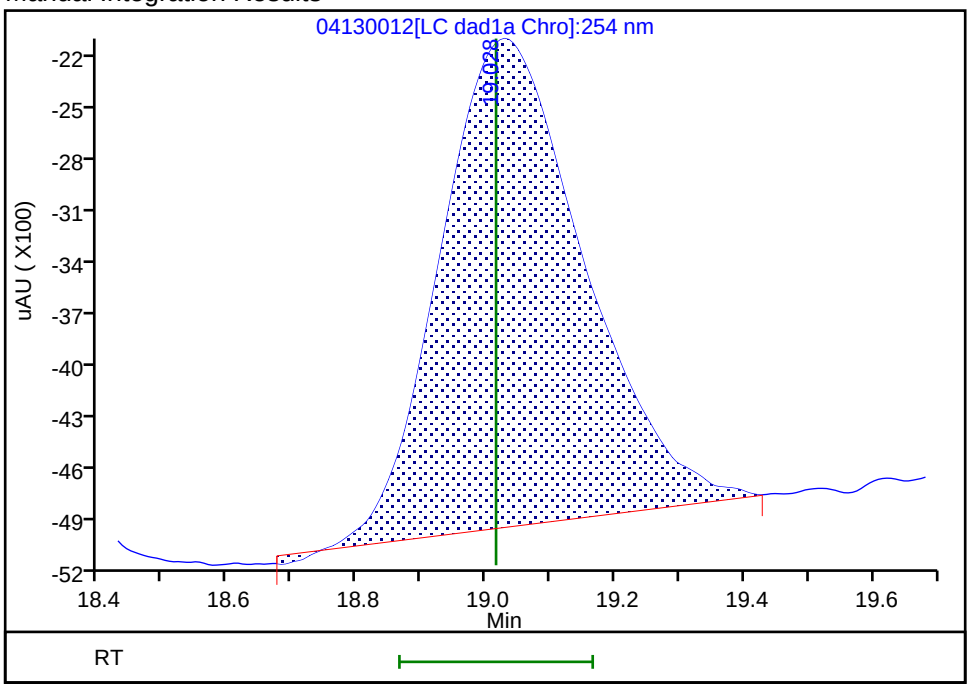
Processing Integration Results

RT: 19.03
Area: 44826
Amount: 0.098837
Amount Units: ug/ml




Manual Integration Results

RT: 19.03
Area: 43673
Amount: 0.099928
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

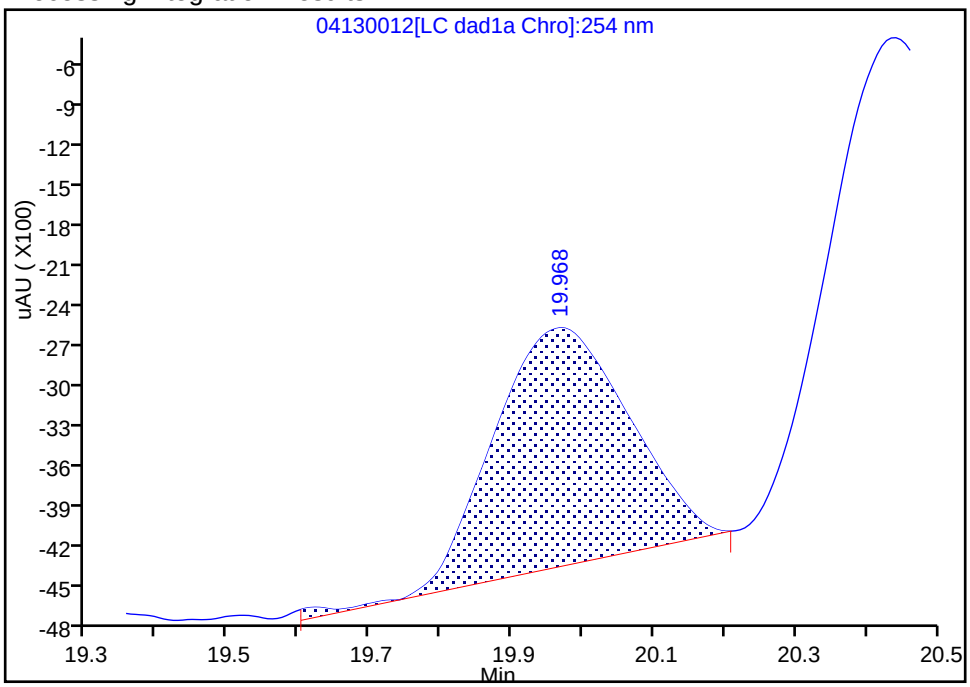
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

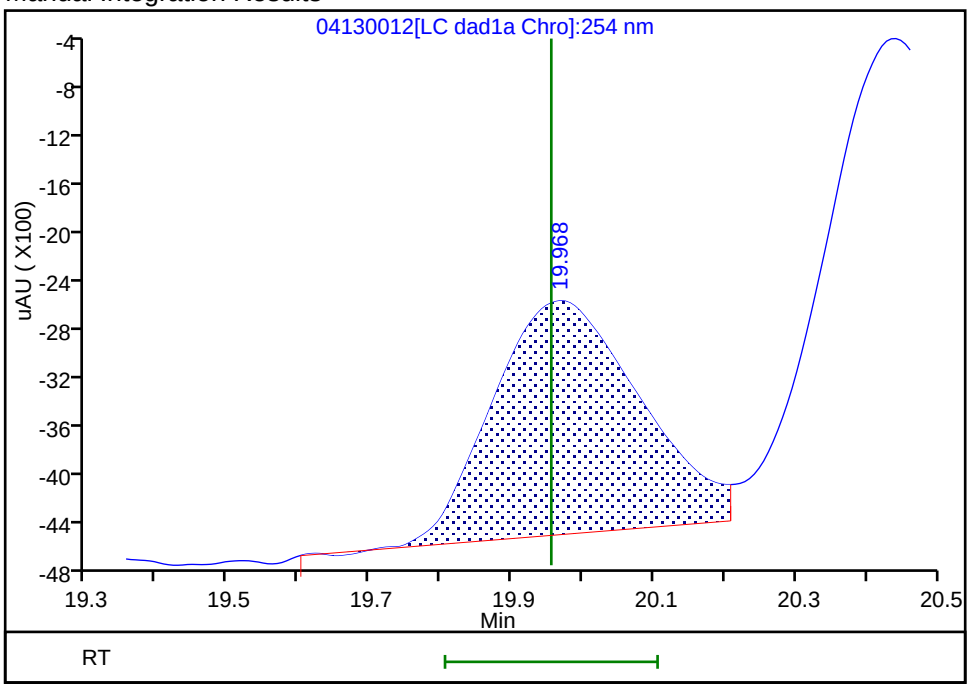
Processing Integration Results

RT: 19.97
Area: 23414
Amount: 0.072021
Amount Units: ug/ml




Manual Integration Results

RT: 19.97
Area: 27346
Amount: 0.102512
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

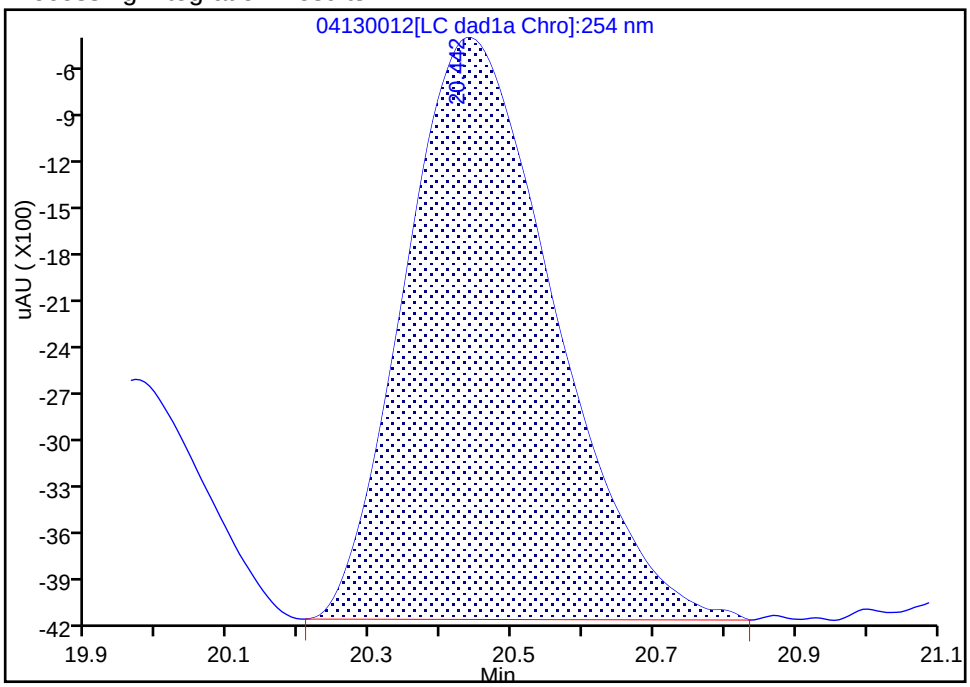
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

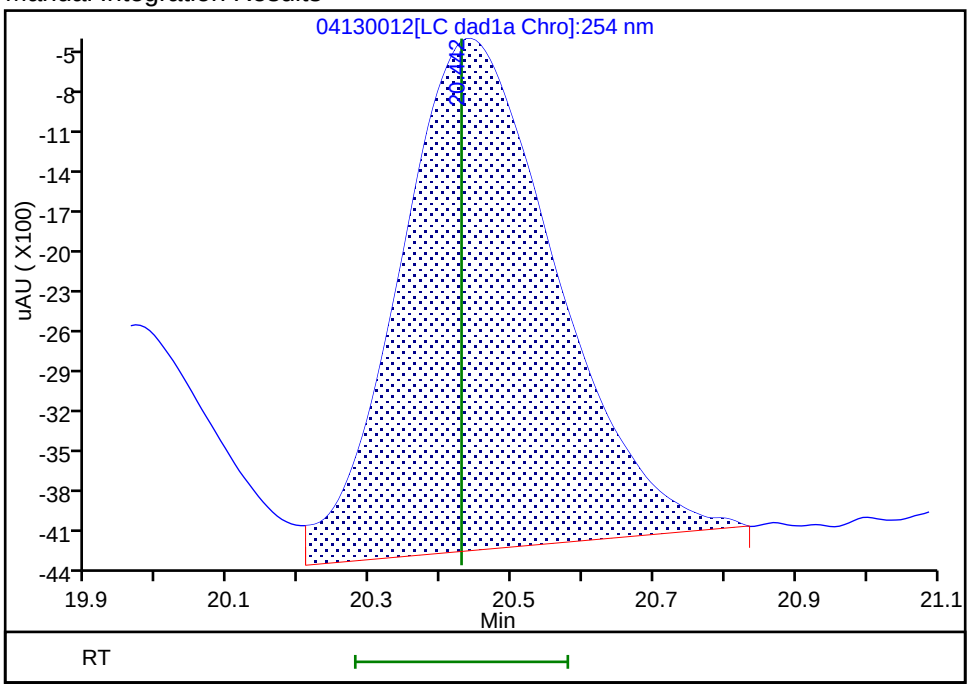
Processing Integration Results

RT: 20.44
Area: 53004
Amount: 0.090857
Amount Units: ug/ml




Manual Integration Results

RT: 20.44
Area: 58456
Amount: 0.101493
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

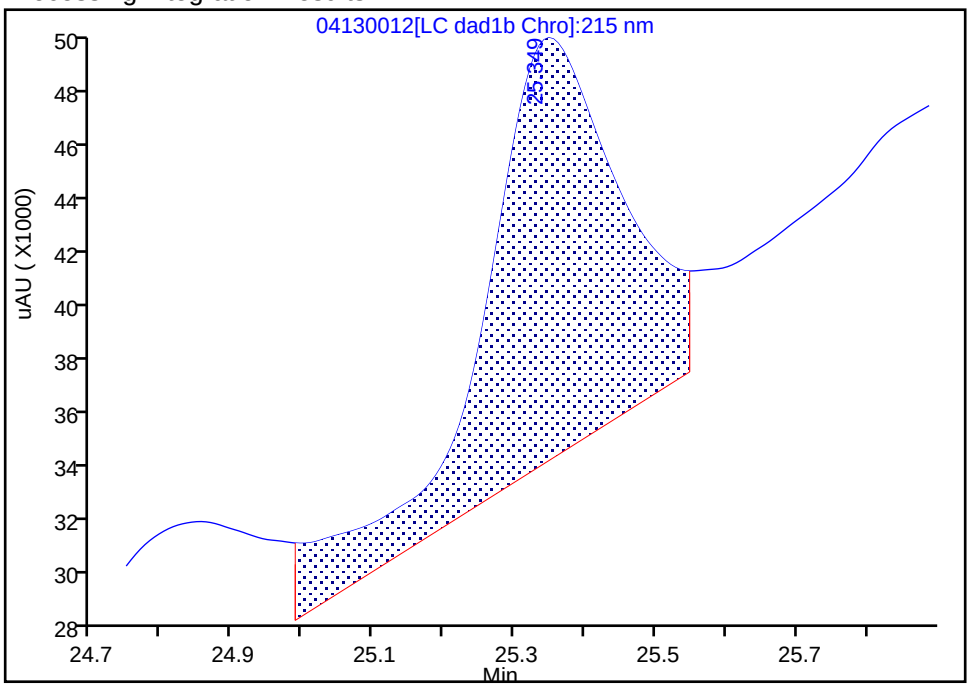
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130012.d | | | | |
| Injection Date: | 13-Apr-2020 17:35:39 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

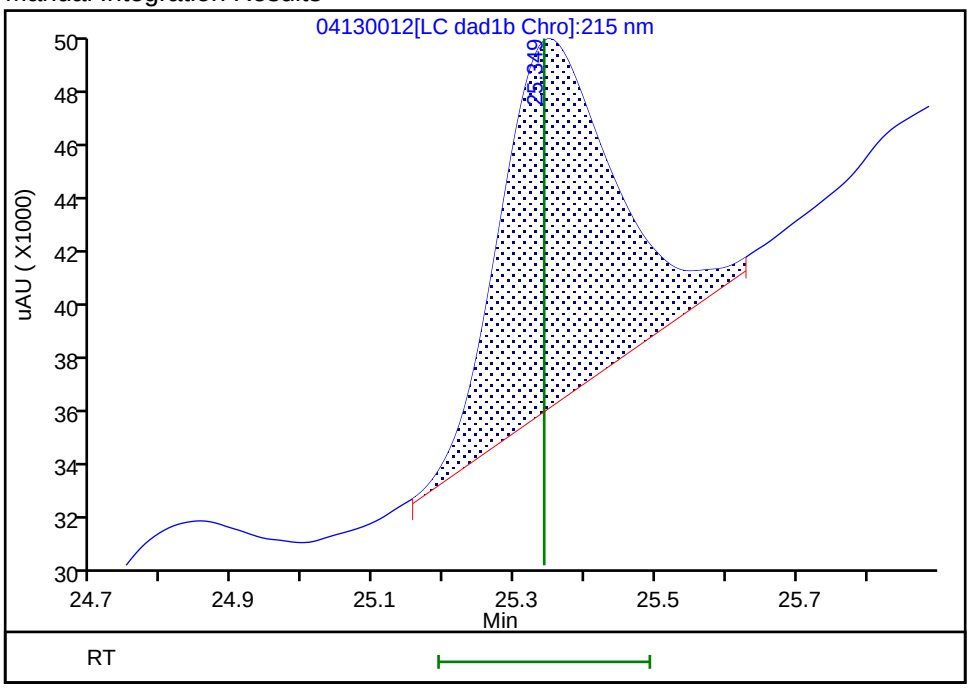
Processing Integration Results

RT: 25.35
Area: 207749
Amount: 1.234892
Amount Units: ug/ml




Manual Integration Results

RT: 25.35
Area: 148283
Amount: 1.076363
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:06

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130013.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Apr-2020 18:10:32 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0090784-013
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:04 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:28:42

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.391 | 4.389 | 0.002 | 27730 | 0.0500 | 0.0507 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.951 | 4.949 | 0.002 | 16928 | 0.0500 | 0.0505 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.698 | 5.609 | 0.089 | 7880 | 0.0500 | 0.0487 | |
| 6 HMX | 1 | 7.025 | 7.029 | -0.004 | 9187 | 0.0500 | 0.0528 | |
| 8 RDX | 1 | 9.218 | 9.222 | -0.004 | 12606 | 0.0500 | 0.0568 | |
| 9 Nitrobenzene | 1 | 12.198 | 12.195 | 0.003 | 22499 | 0.0502 | 0.0539 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.138 | 13.135 | 0.003 | 17580 | 0.0500 | 0.0563 | |
| 11 3,5-Dinitroaniline | 1 | 14.998 | 14.989 | 0.009 | 31934 | 0.0500 | 0.0493 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.678 | 15.669 | 0.009 | 31501 | 0.0501 | 0.0500 | M |
| 13 Nitroglycerin | 2 | 15.918 | 15.902 | 0.016 | 69618 | 0.5000 | 0.5056 | M |
| 14 o-Nitrotoluene | 1 | 16.671 | 16.669 | 0.002 | 10849 | 0.0500 | 0.0430 | M |
| 15 p-Nitrotoluene | 1 | 16.931 | 16.929 | 0.002 | 10889 | 0.0501 | 0.0491 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.298 | 17.282 | 0.016 | 14255 | 0.0501 | 0.0491 | M |
| 17 m-Nitrotoluene | 1 | 17.884 | 17.869 | 0.015 | 11916 | 0.0501 | 0.0536 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.164 | 18.149 | 0.015 | 21821 | 0.0502 | 0.0512 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.024 | 19.015 | 0.009 | 21567 | 0.0501 | 0.0513 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.964 | 19.955 | 0.009 | 14568 | 0.0502 | 0.0546 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.431 | 20.429 | 0.002 | 31005 | 0.0502 | 0.0538 | M |
| 22 Tetryl | 1 | 23.705 | 23.709 | -0.004 | 18241 | 0.0501 | 0.0526 | M |
| 23 2,4,6-Trinitrotoluene | 1 | 24.818 | 24.802 | 0.016 | 19070 | 0.0502 | 0.0523 | M |
| 24 PETN | 2 | 25.351 | 25.342 | 0.009 | 72666 | 0.5000 | 0.5331 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

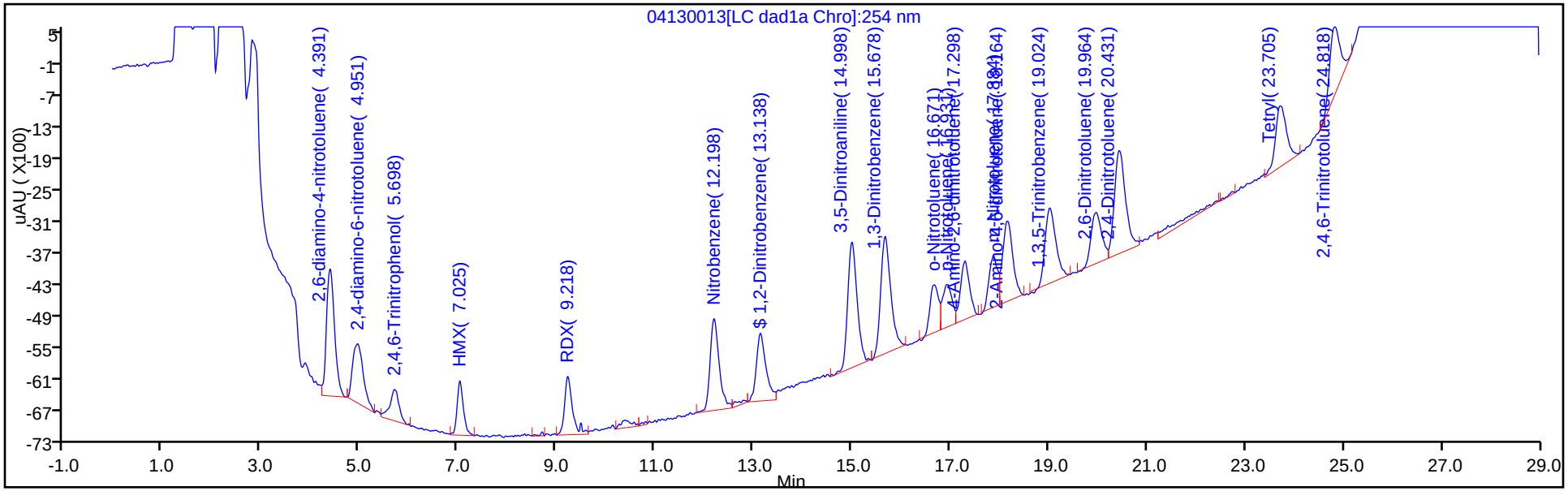
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 5.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 2.50 | Units: uL |

Report Date: 14-Apr-2020 09:13:04 Chrom Revision: 2.3 11-Mar-2020 18:53:20

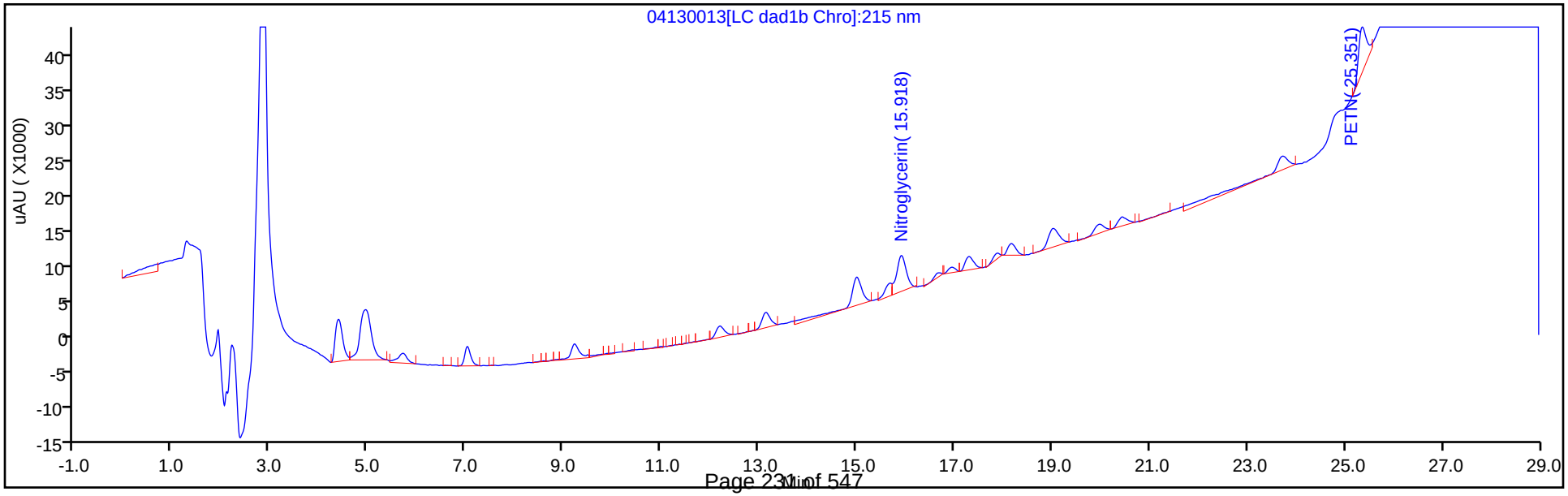
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 3 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver

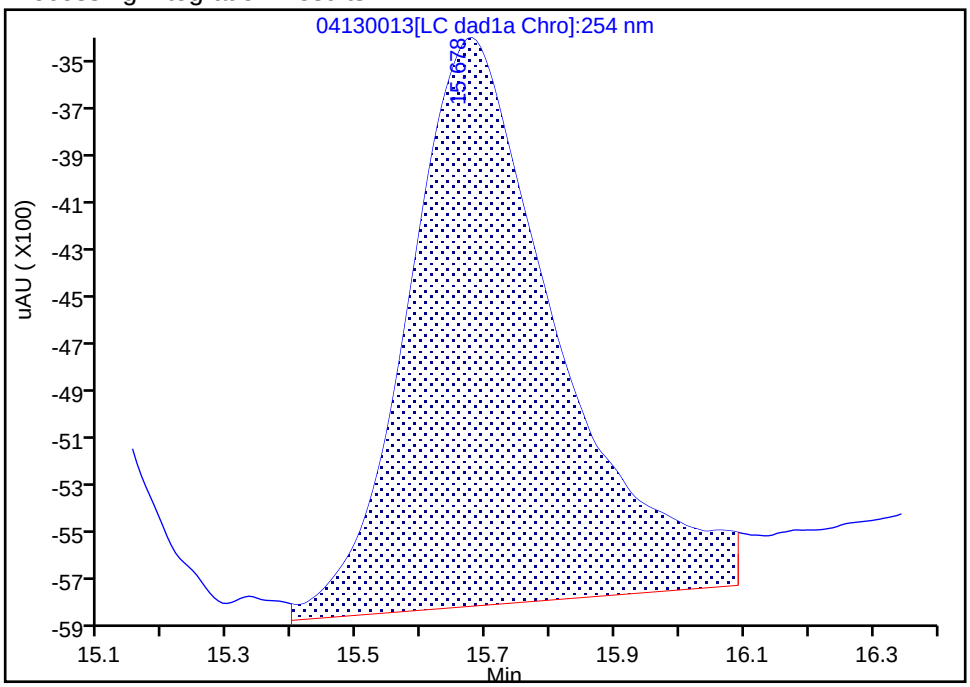
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

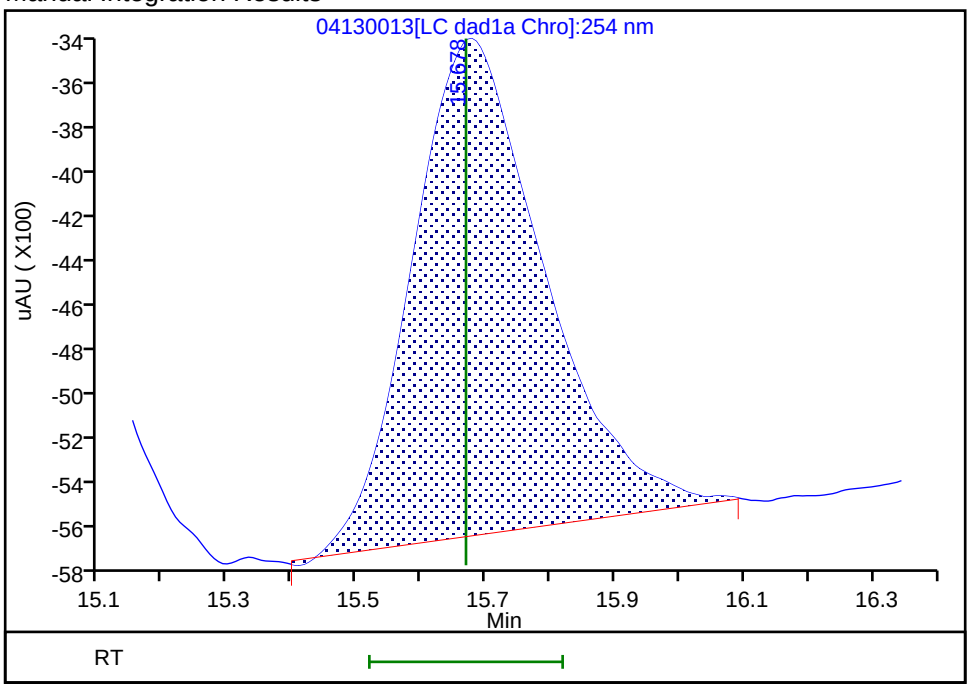
Processing Integration Results

RT: 15.68
Area: 37700
Amount: 0.055708
Amount Units: ug/ml




Manual Integration Results

RT: 15.68
Area: 31501
Amount: 0.050045
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

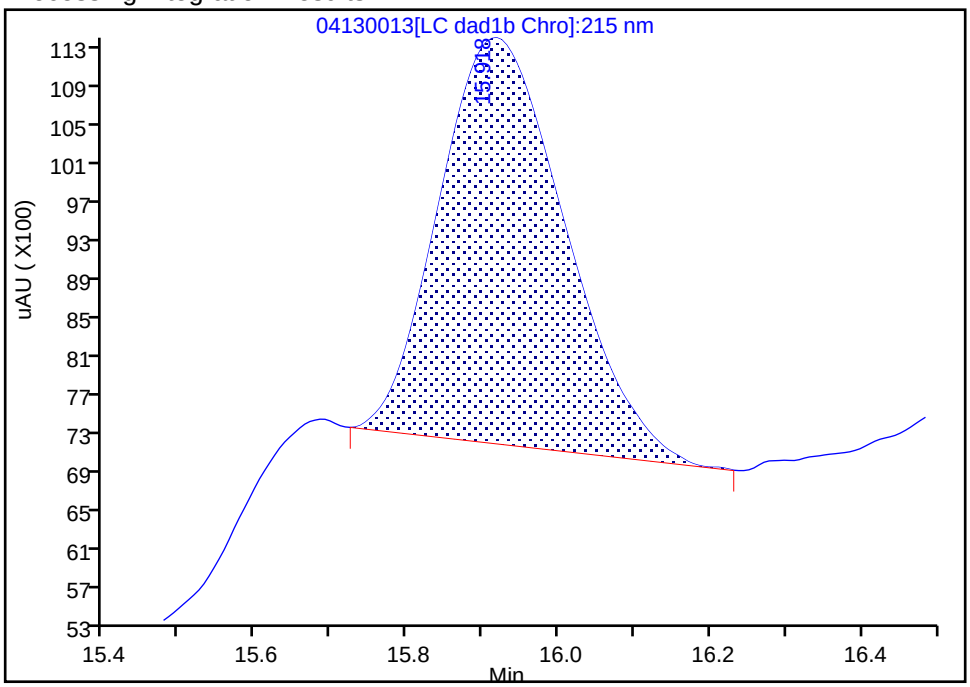
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

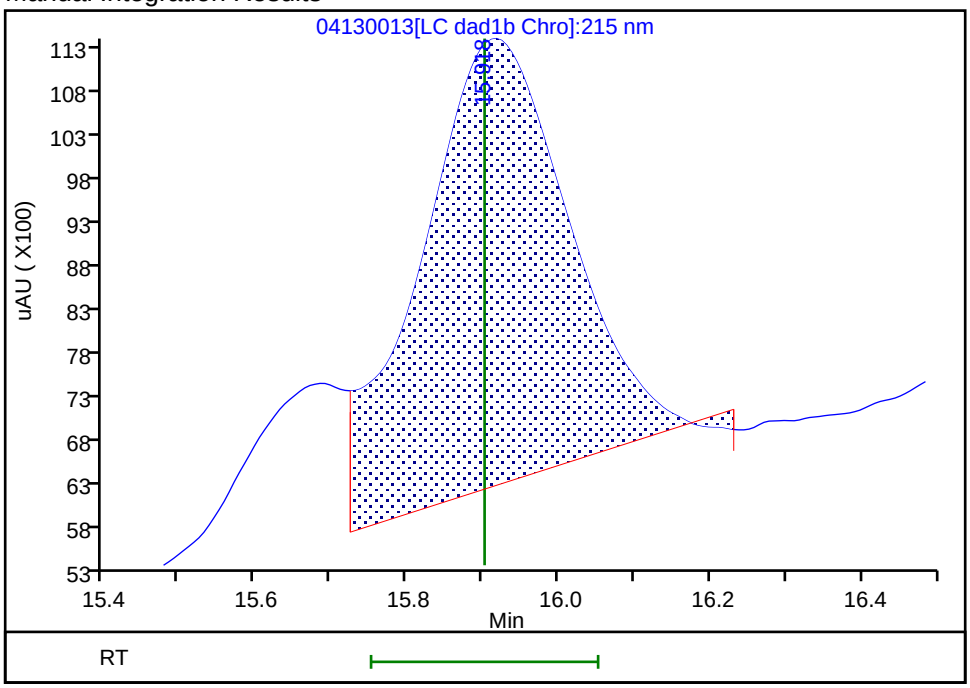
Processing Integration Results

RT: 15.92
Area: 48642
Amount: 0.340877
Amount Units: ug/ml




Manual Integration Results

RT: 15.92
Area: 69618
Amount: 0.505576
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:27:52
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

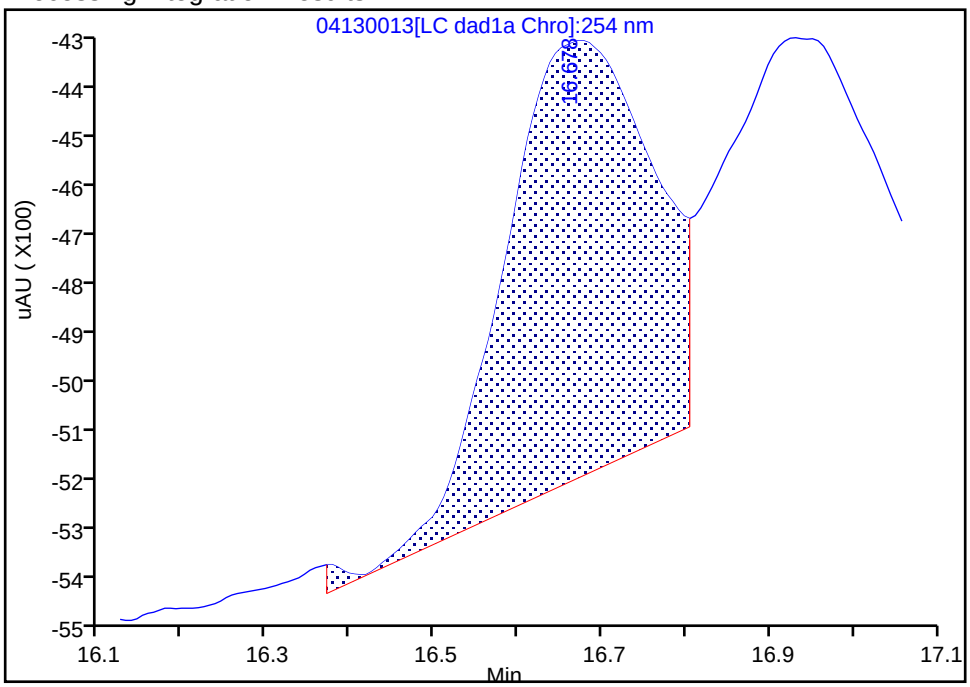
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

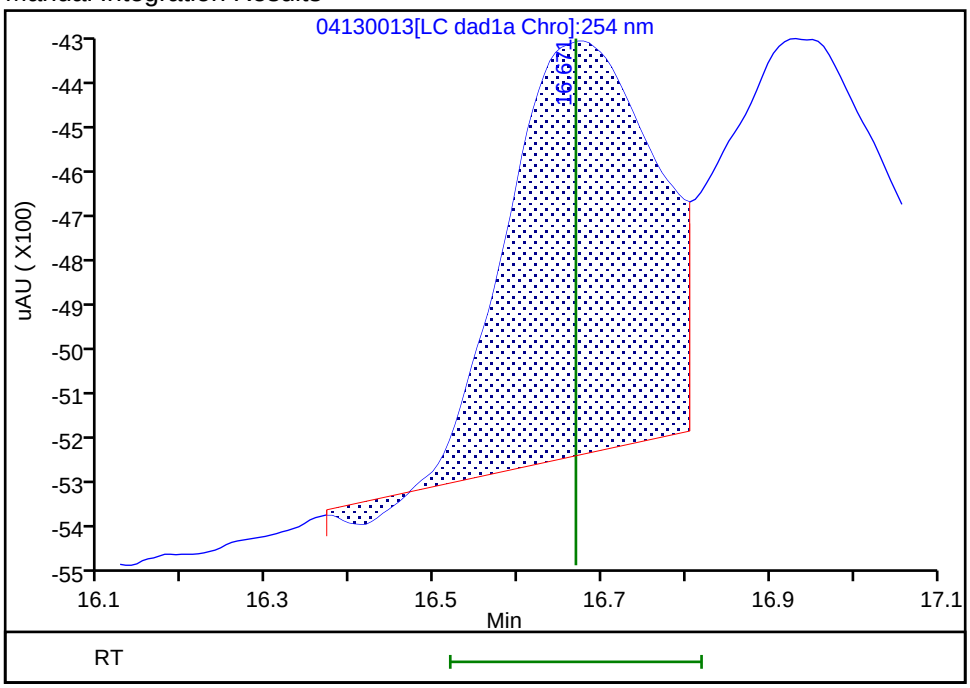
Processing Integration Results

RT: 16.68
Area: 10576
Amount: 0.044595
Amount Units: ug/ml




Manual Integration Results

RT: 16.67
Area: 10849
Amount: 0.042956
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

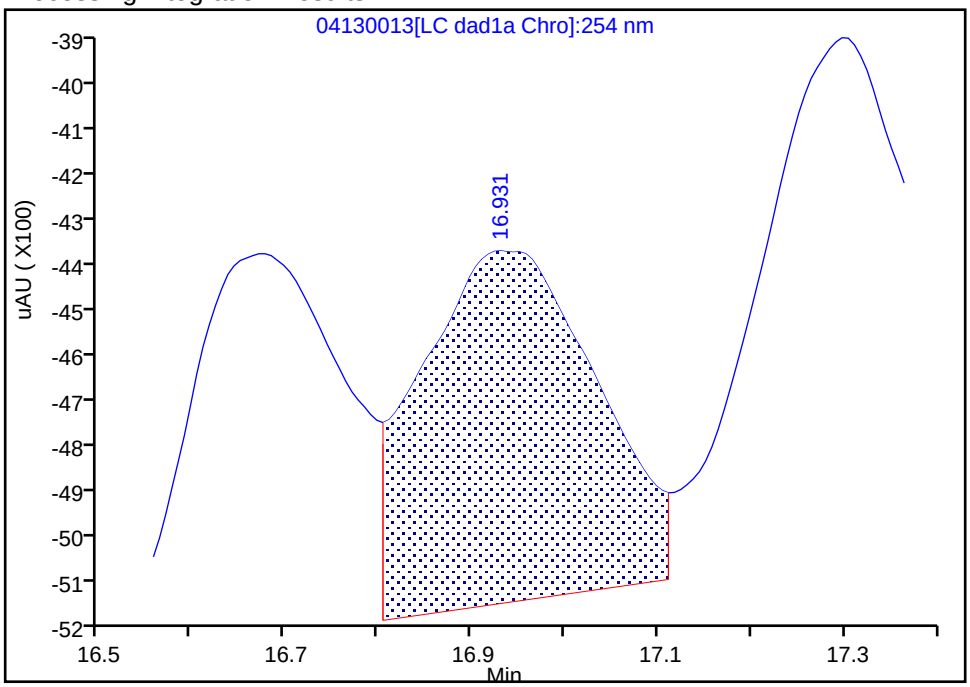
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

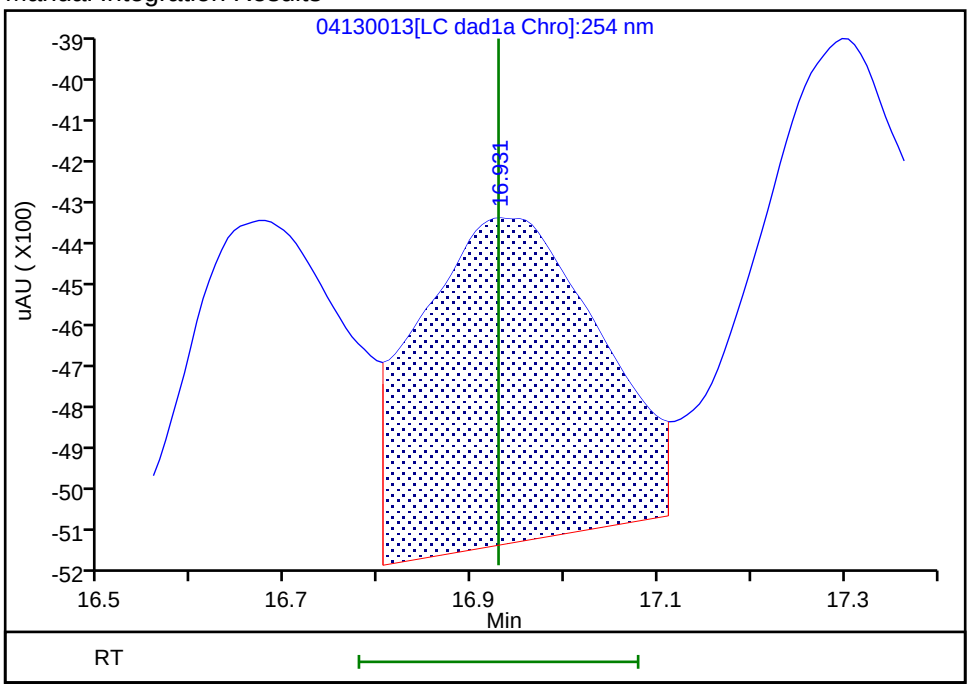
Processing Integration Results

RT: 16.93
Area: 9592
Amount: 0.039410
Amount Units: ug/ml




Manual Integration Results

RT: 16.93
Area: 10889
Amount: 0.049109
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

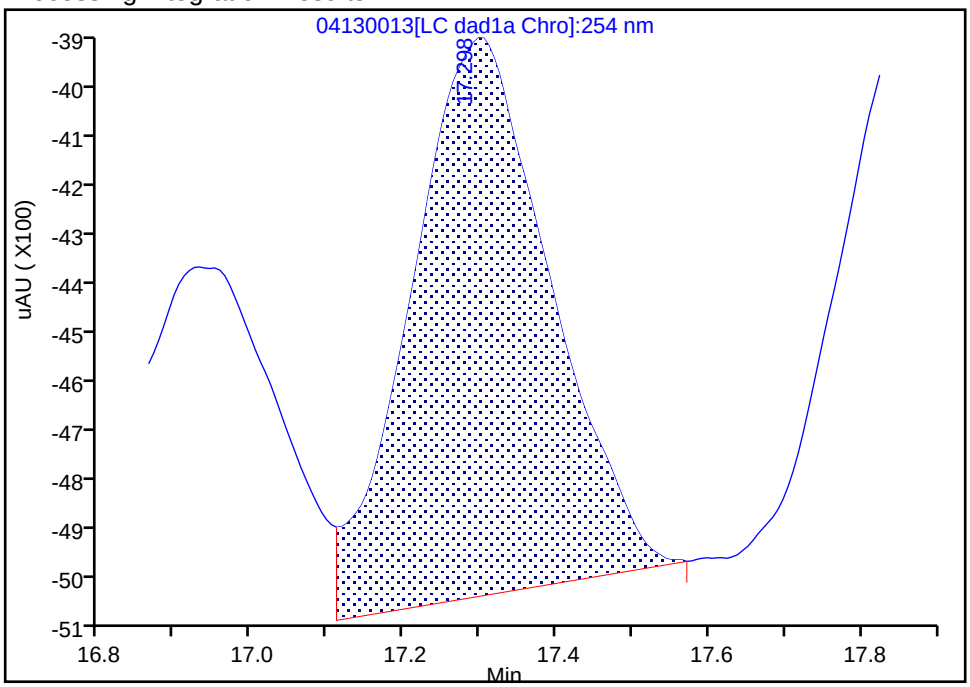
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

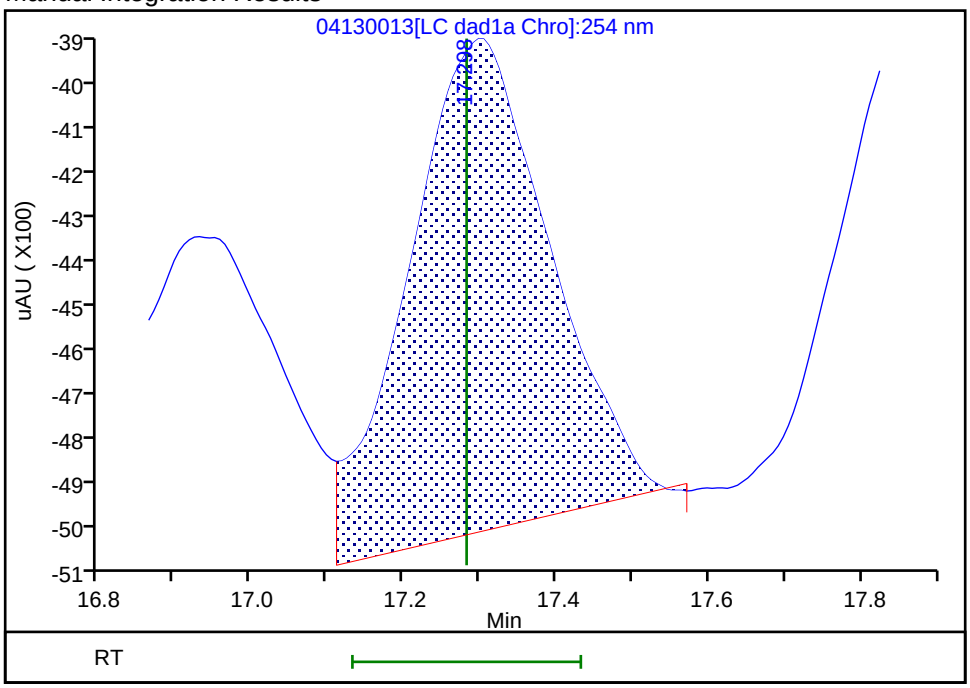
Processing Integration Results

RT: 17.30
Area: 13772
Amount: 0.044619
Amount Units: ug/ml




Manual Integration Results

RT: 17.30
Area: 14255
Amount: 0.049085
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

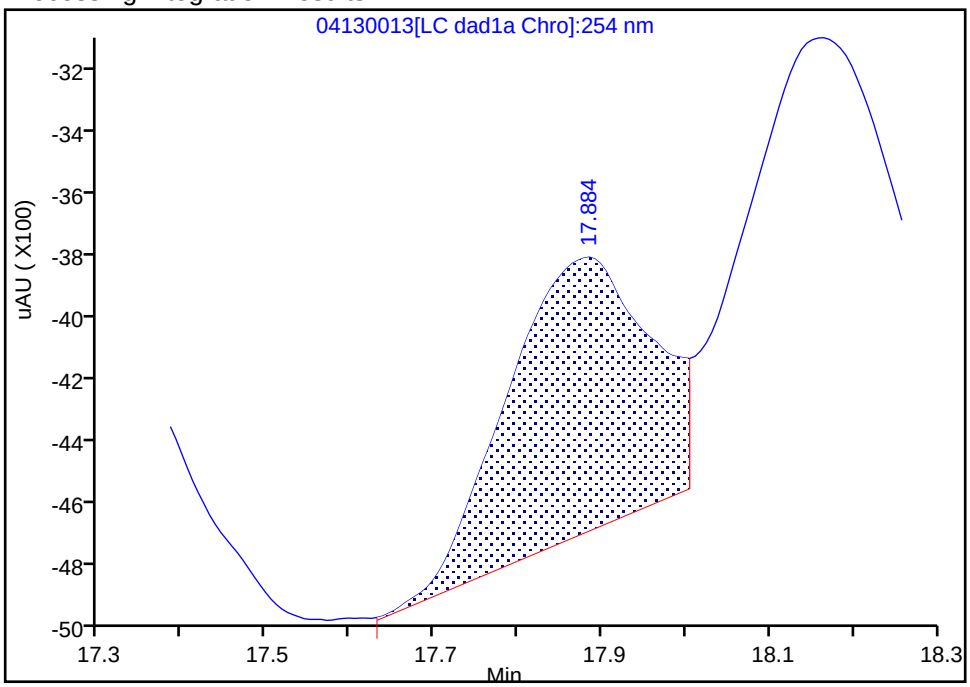
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

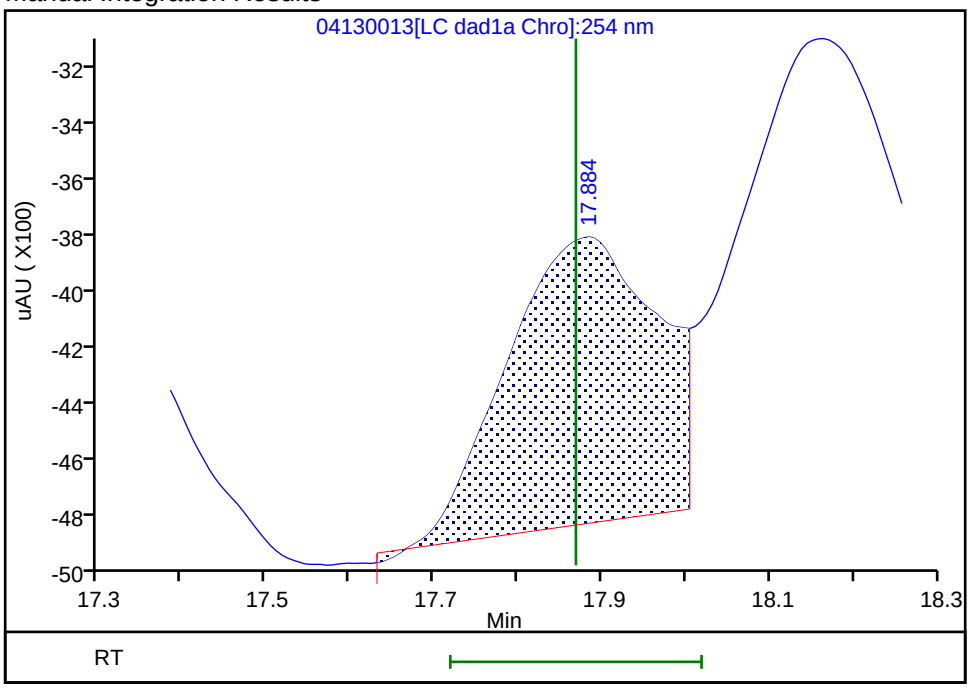
Processing Integration Results

RT: 17.88
Area: 10012
Amount: 0.040786
Amount Units: ug/ml




Manual Integration Results

RT: 17.88
Area: 11916
Amount: 0.053607
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

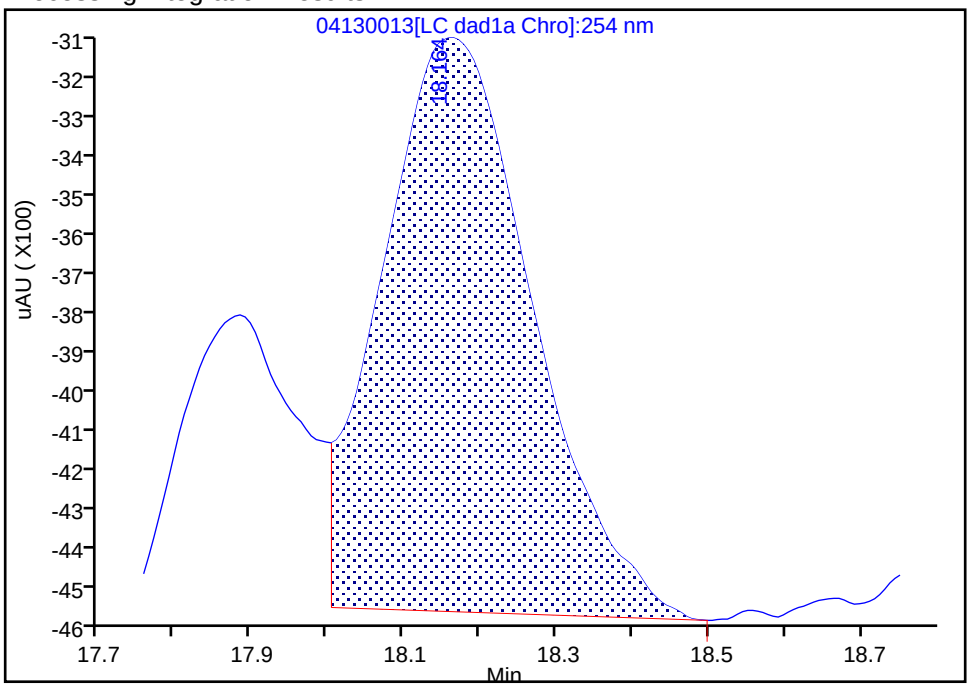
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

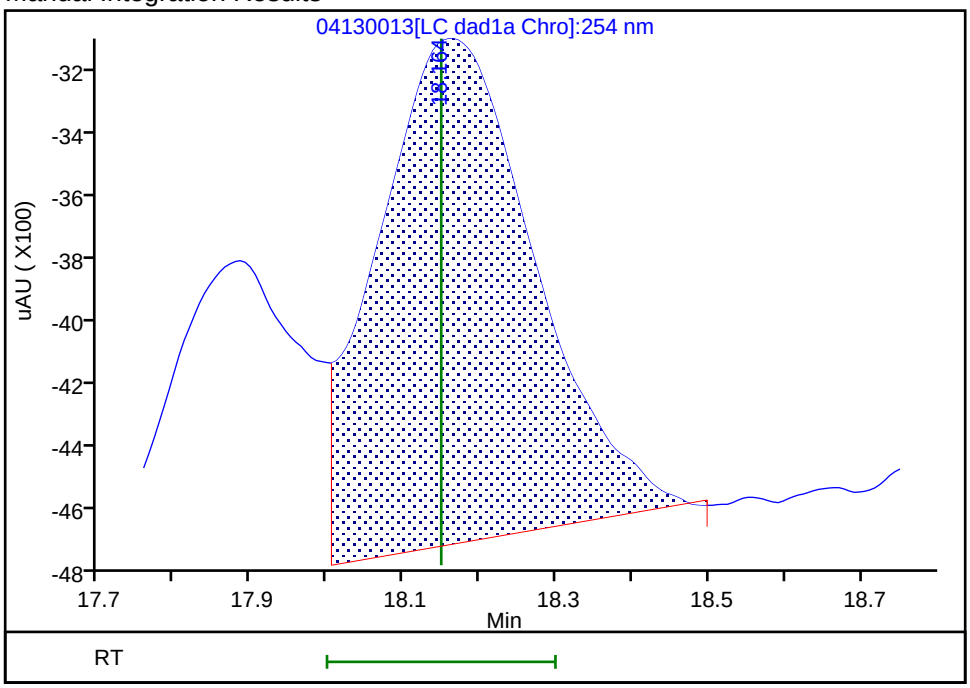
Processing Integration Results

RT: 18.16
Area: 18935
Amount: 0.044137
Amount Units: ug/ml




Manual Integration Results

RT: 18.16
Area: 21821
Amount: 0.051216
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

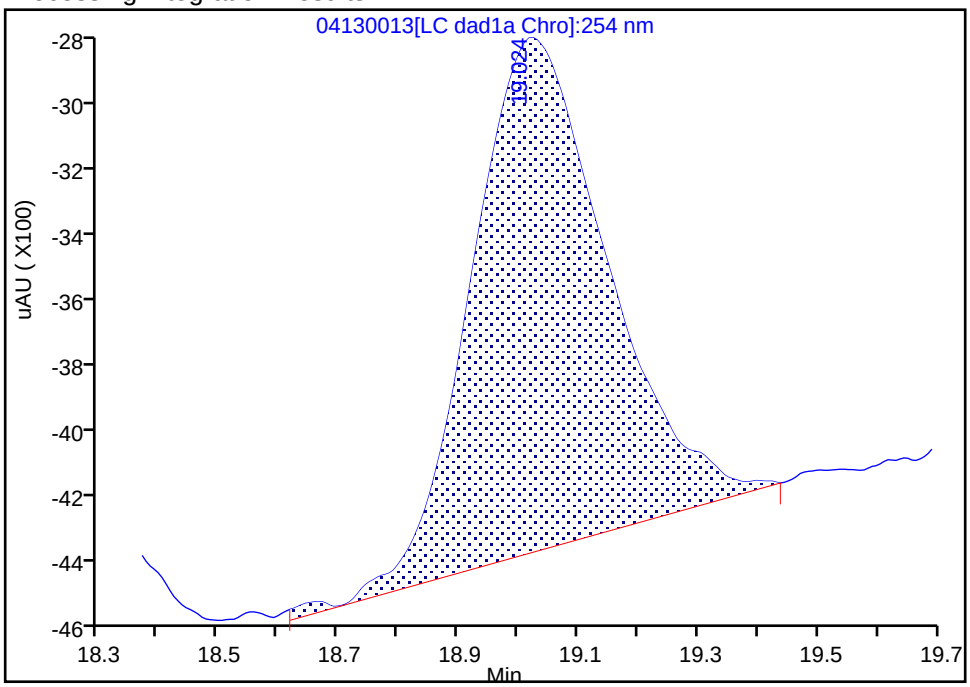
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

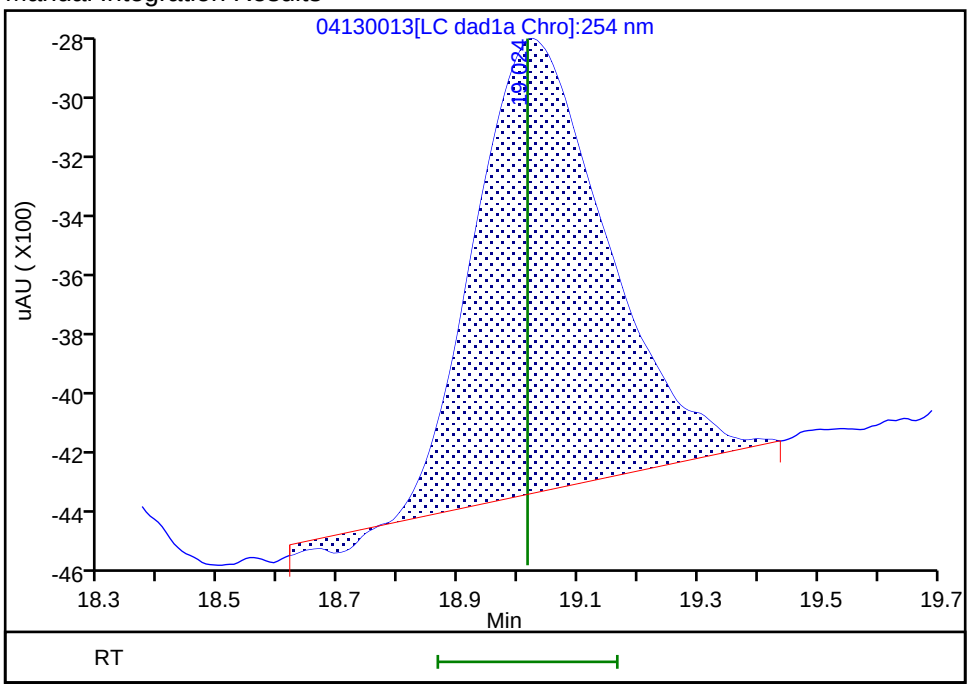
Processing Integration Results

RT: 19.02
Area: 23166
Amount: 0.049656
Amount Units: ug/ml




Manual Integration Results

RT: 19.02
Area: 21567
Amount: 0.051308
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

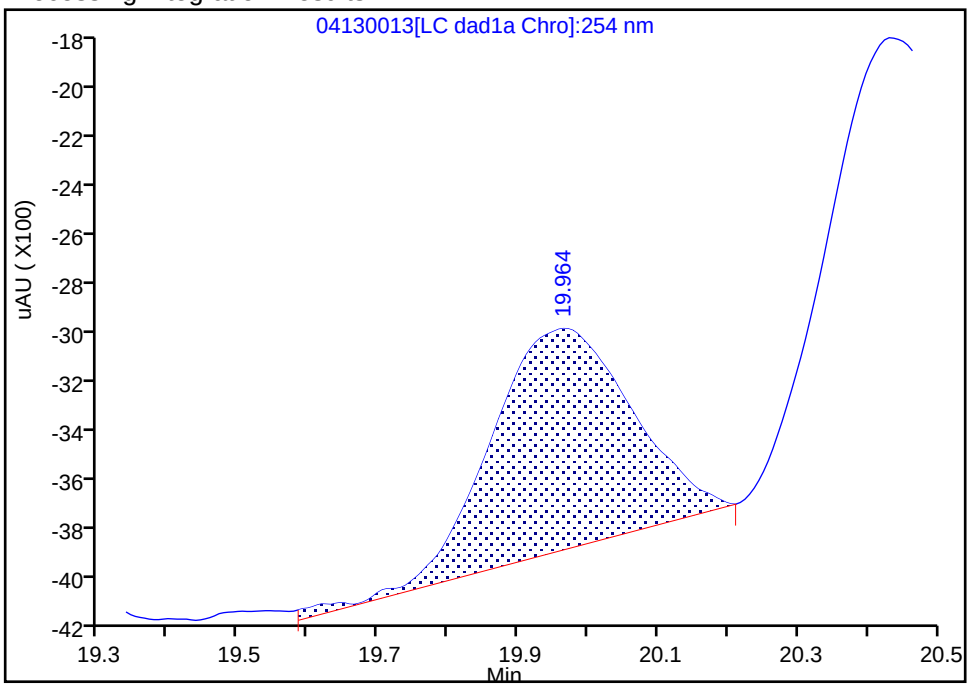
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

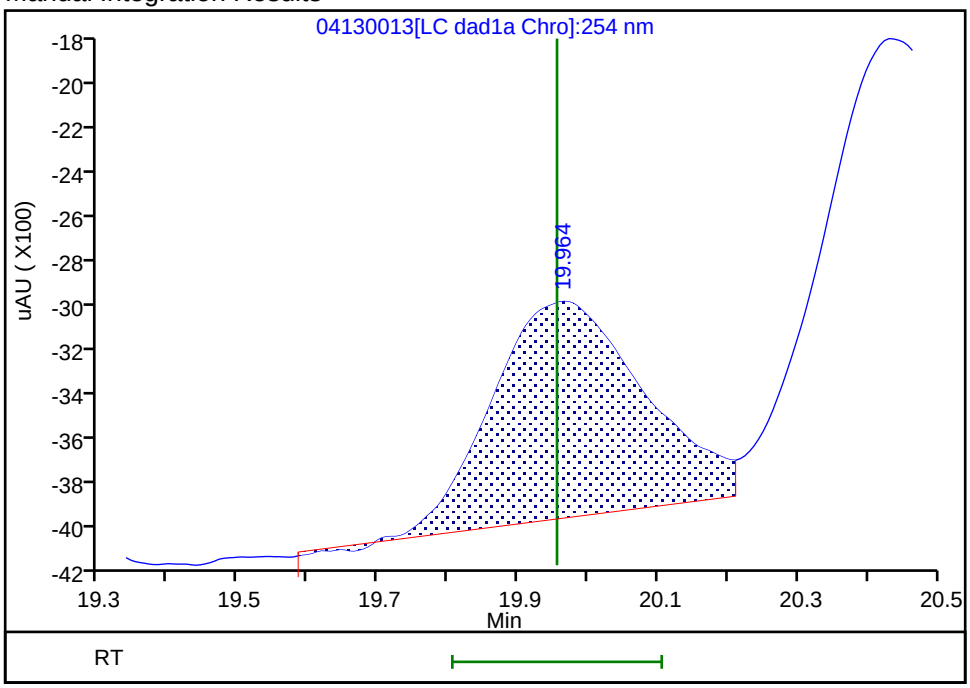
Processing Integration Results

RT: 19.96
Area: 12670
Amount: 0.038458
Amount Units: ug/ml




Manual Integration Results

RT: 19.96
Area: 14568
Amount: 0.054611
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

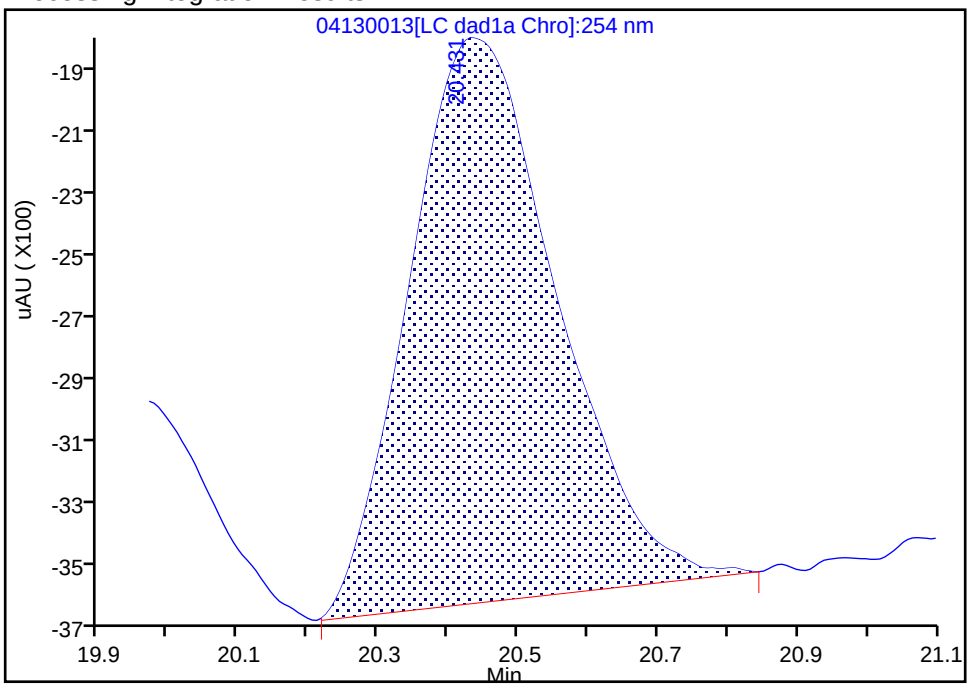
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

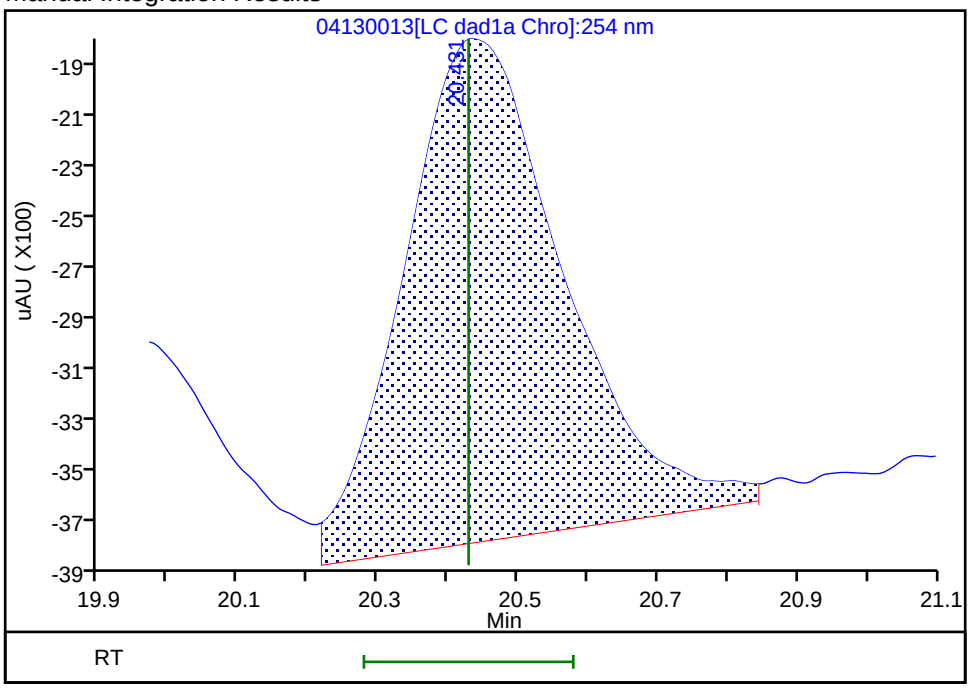
Processing Integration Results

RT: 20.43
Area: 26832
Amount: 0.045523
Amount Units: ug/ml




Manual Integration Results

RT: 20.43
Area: 31005
Amount: 0.053832
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:22
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

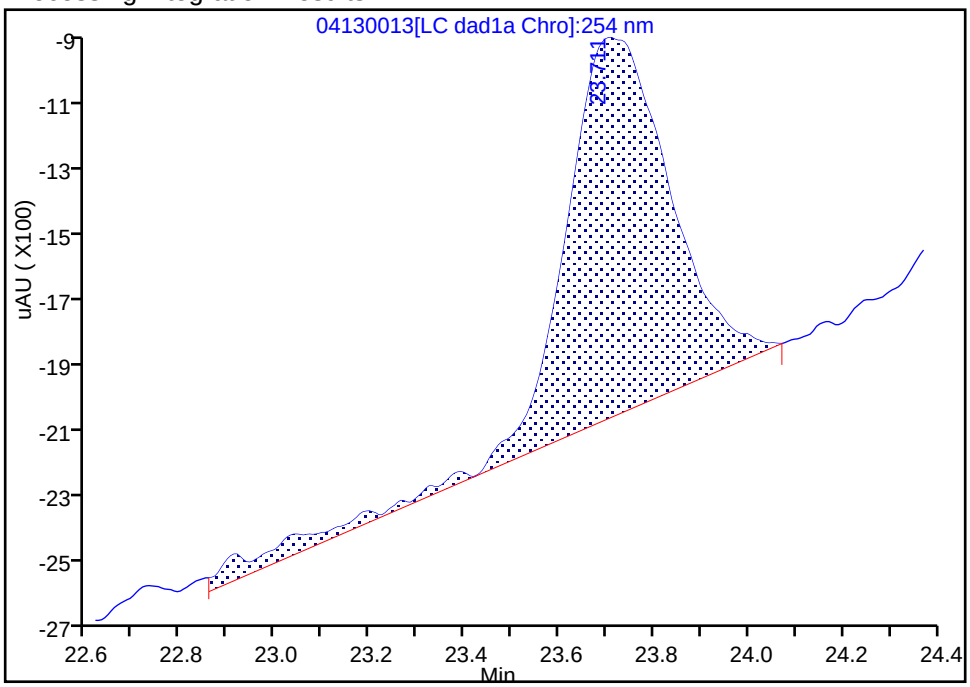
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 22 Tetryl, CAS: 479-45-8

Signal: 1

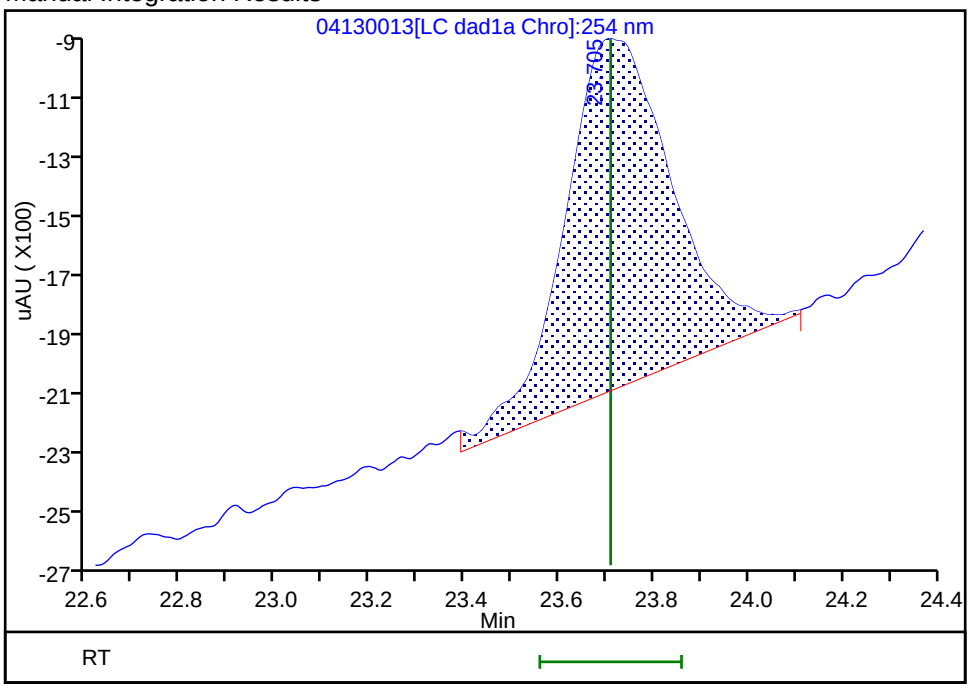
Processing Integration Results

RT: 23.71
Area: 18143
Amount: 0.045136
Amount Units: ug/ml




Manual Integration Results

RT: 23.70
Area: 18241
Amount: 0.052588
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:32
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

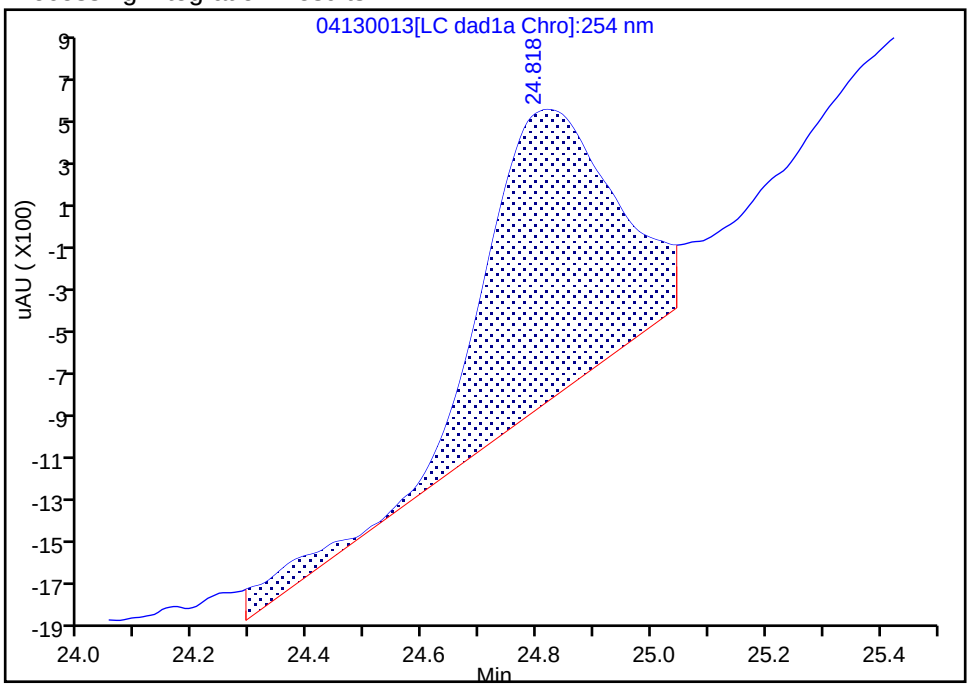
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

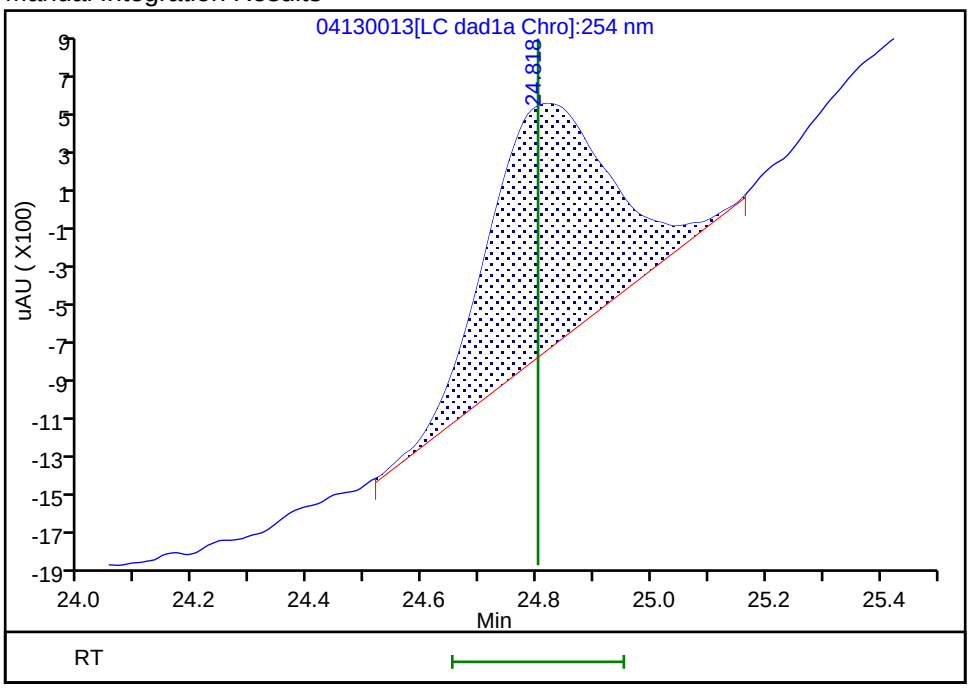
Processing Integration Results

RT: 24.82
Area: 22319
Amount: 0.054439
Amount Units: ug/ml




Manual Integration Results

RT: 24.82
Area: 19070
Amount: 0.052280
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

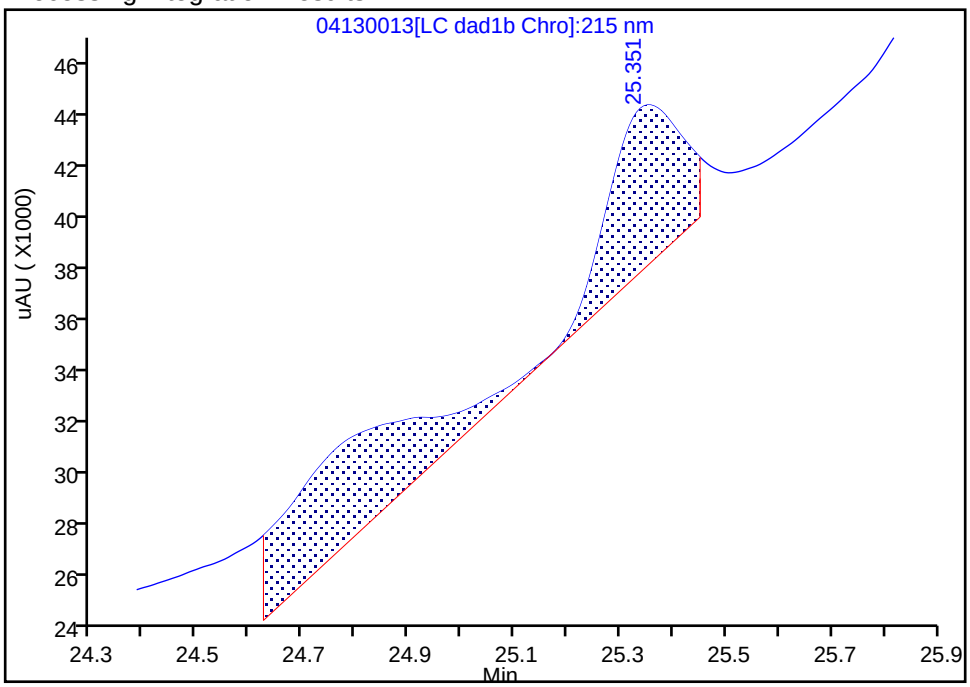
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130013.d | | | | |
| Injection Date: | 13-Apr-2020 18:10:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

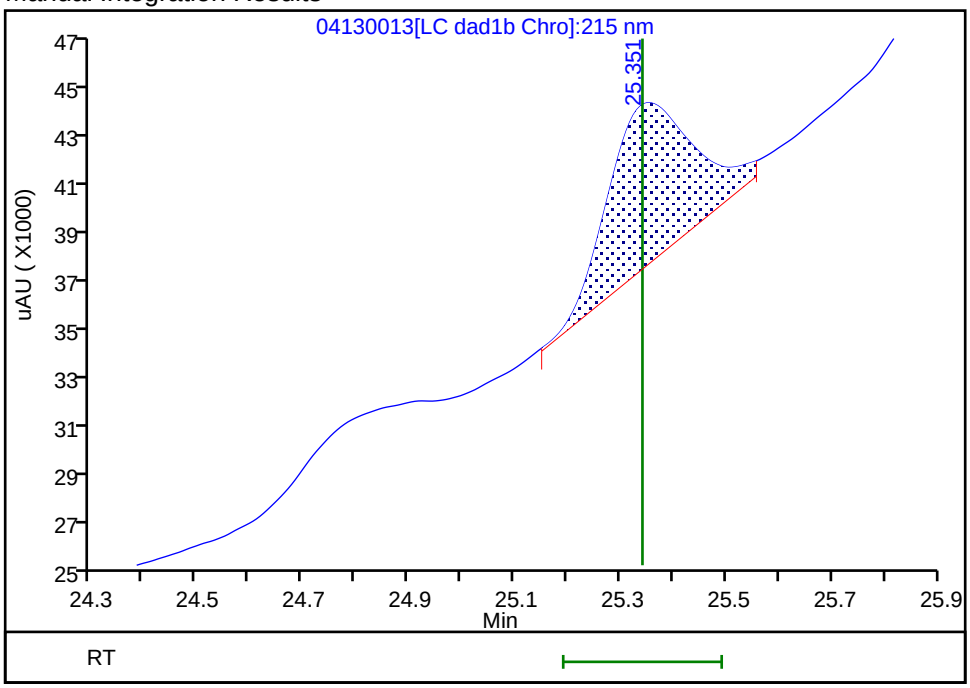
Processing Integration Results

RT: 25.35
Area: 130009
Amount: 0.716410
Amount Units: ug/ml




Manual Integration Results

RT: 25.35
Area: 72666
Amount: 0.533102
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:28:05

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130014.D
Lims ID: IC FULL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Apr-2020 18:45:28 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 2
Misc. Info.: 280-0090784-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:04 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:29:56

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.393 | 4.389 | 0.004 | 12876 | 0.0200 | 0.0235 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.933 | 4.949 | -0.016 | 7177 | 0.0200 | 0.0200 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.759 | 5.609 | 0.150 | 2528 | 0.0250 | 0.0156 | |
| 6 HMX | 1 | 7.026 | 7.029 | -0.003 | 4039 | 0.0250 | 0.0232 | |
| 8 RDX | 1 | 9.226 | 9.222 | 0.004 | 4912 | 0.0250 | 0.0202 | |
| 9 Nitrobenzene | 1 | 12.193 | 12.195 | -0.002 | 9711 | 0.0251 | 0.0233 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.146 | 13.135 | 0.011 | 7139 | 0.0250 | 0.0191 | |
| 11 3,5-Dinitroaniline | 1 | 14.999 | 14.989 | 0.010 | 13784 | 0.0200 | 0.0201 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.666 | 15.669 | -0.003 | 14098 | 0.0251 | 0.0224 | M |
| 13 Nitroglycerin | 2 | 15.913 | 15.902 | 0.011 | 26598 | 0.2500 | 0.1932 | M |
| 14 o-Nitrotoluene | 1 | 16.679 | 16.669 | 0.010 | 7016 | 0.0250 | 0.0265 | M |
| 15 p-Nitrotoluene | 1 | 16.933 | 16.929 | 0.004 | 4991 | 0.0251 | 0.0259 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.319 | 17.282 | 0.037 | 6639 | 0.0250 | 0.0267 | M |
| 17 m-Nitrotoluene | 1 | 17.893 | 17.869 | 0.024 | 4491 | 0.0250 | 0.0239 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.153 | 18.149 | 0.004 | 9277 | 0.0251 | 0.0256 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.033 | 19.015 | 0.018 | 9504 | 0.0251 | 0.0248 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.959 | 19.955 | 0.004 | 5507 | 0.0251 | 0.0206 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.439 | 20.429 | 0.010 | 13055 | 0.0251 | 0.0227 | M |
| 22 Tetryl | 1 | 23.733 | 23.709 | 0.024 | 7826 | 0.0251 | 0.0226 | |
| 23 2,4,6-Trinitrotoluene | 1 | 25.066 | 24.802 | 0.264 | 7586 | 0.0251 | 0.0240 | M |
| 24 PETN | 2 | 25.559 | 25.342 | 0.217 | 25899 | 0.2500 | 0.1971 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

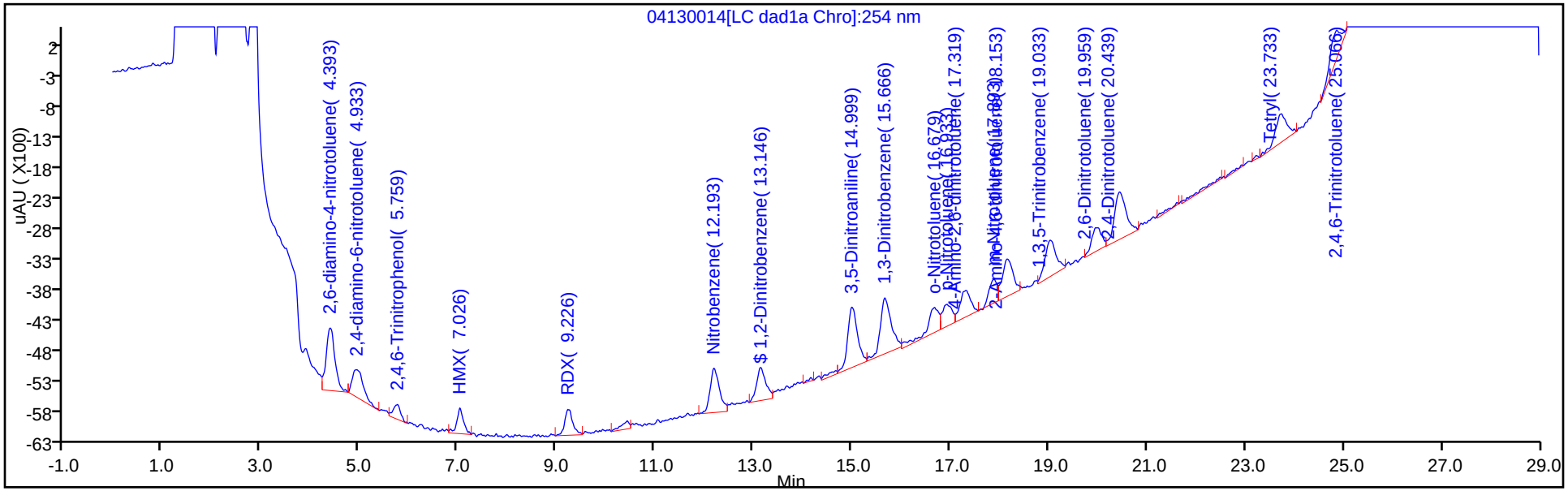
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 2.50 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 1.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:04 Chrom Revision: 2.3 11-Mar-2020 18:53:20

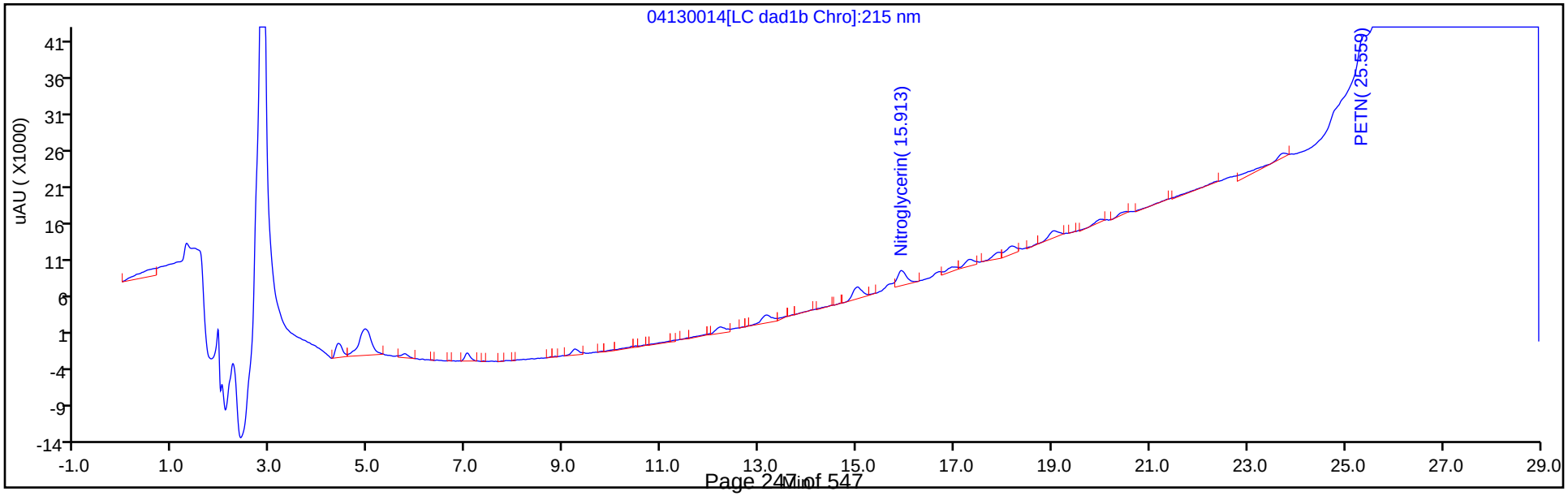
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 2 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

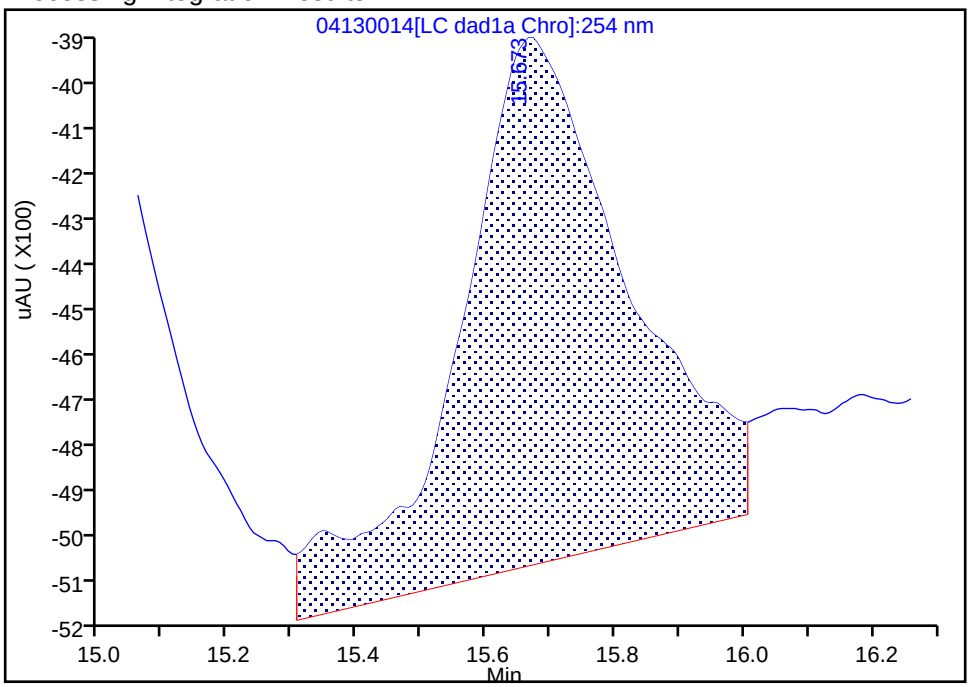
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

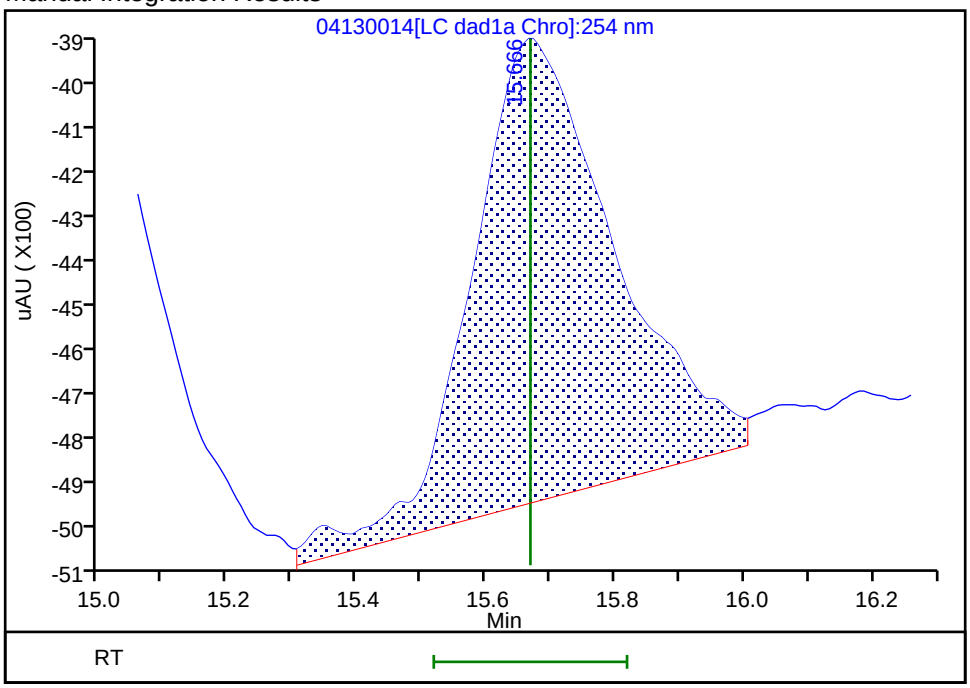
Processing Integration Results

RT: 15.67
Area: 18760
Amount: 0.028296
Amount Units: ug/ml




Manual Integration Results

RT: 15.67
Area: 14098
Amount: 0.022397
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

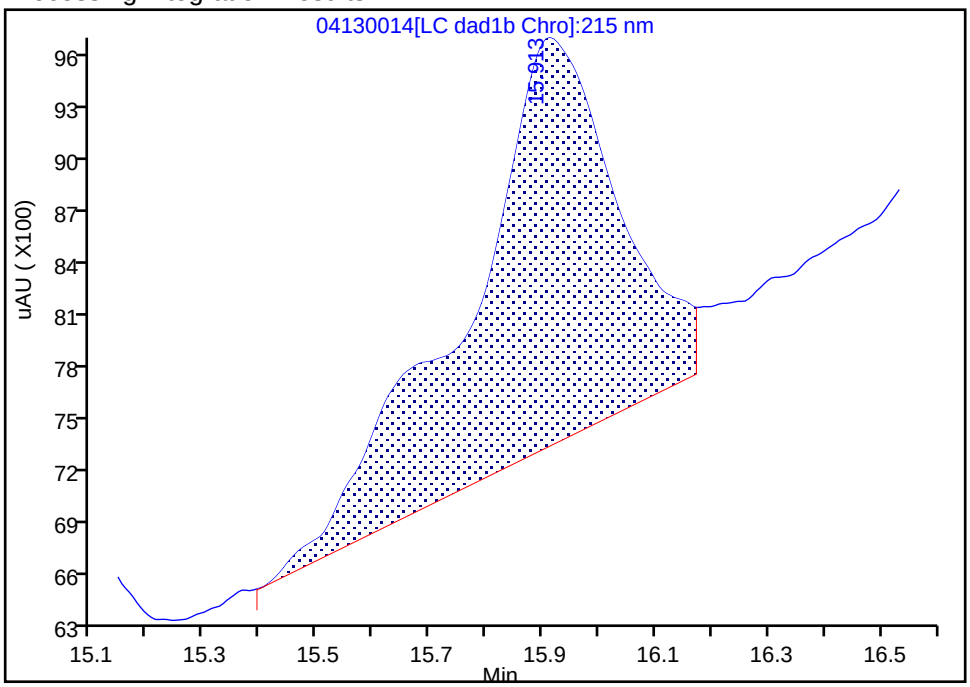
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

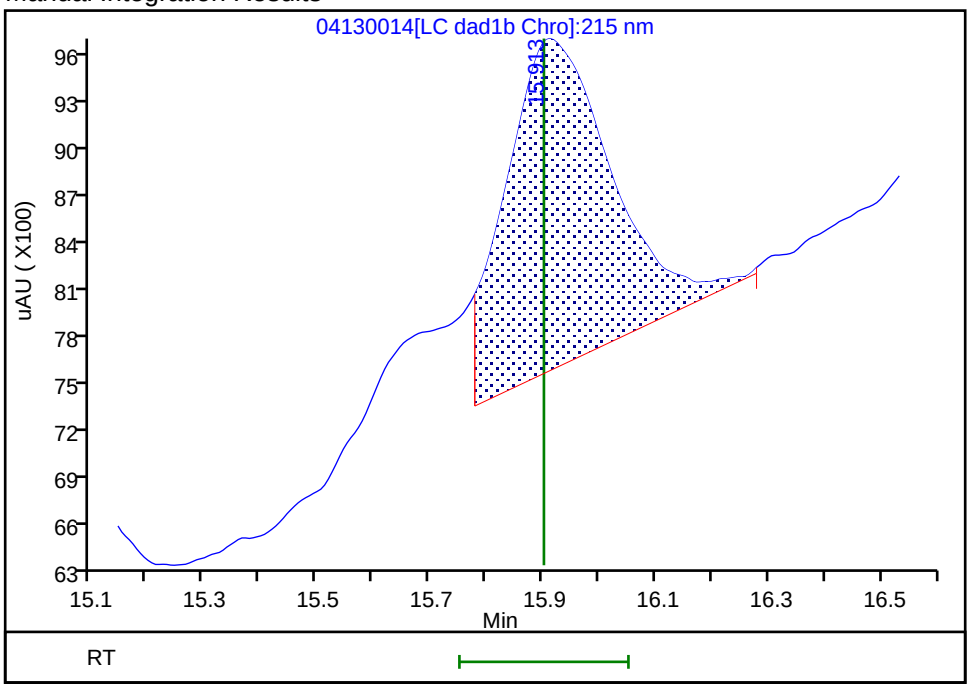
Processing Integration Results

RT: 15.91
Area: 42429
Amount: 0.287931
Amount Units: ug/ml




Manual Integration Results

RT: 15.91
Area: 26598
Amount: 0.193159
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

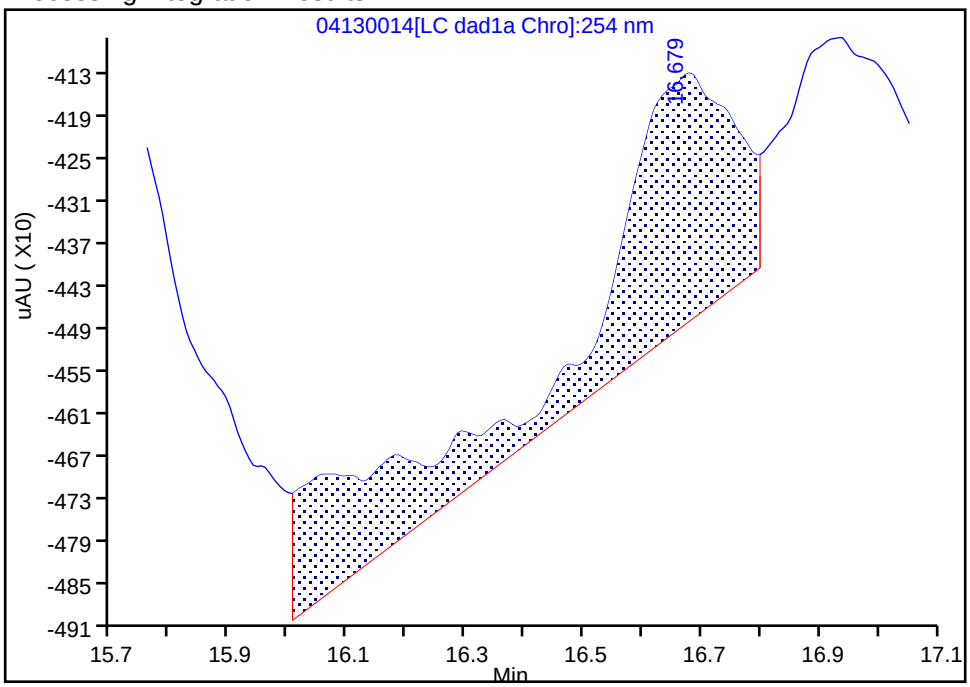
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

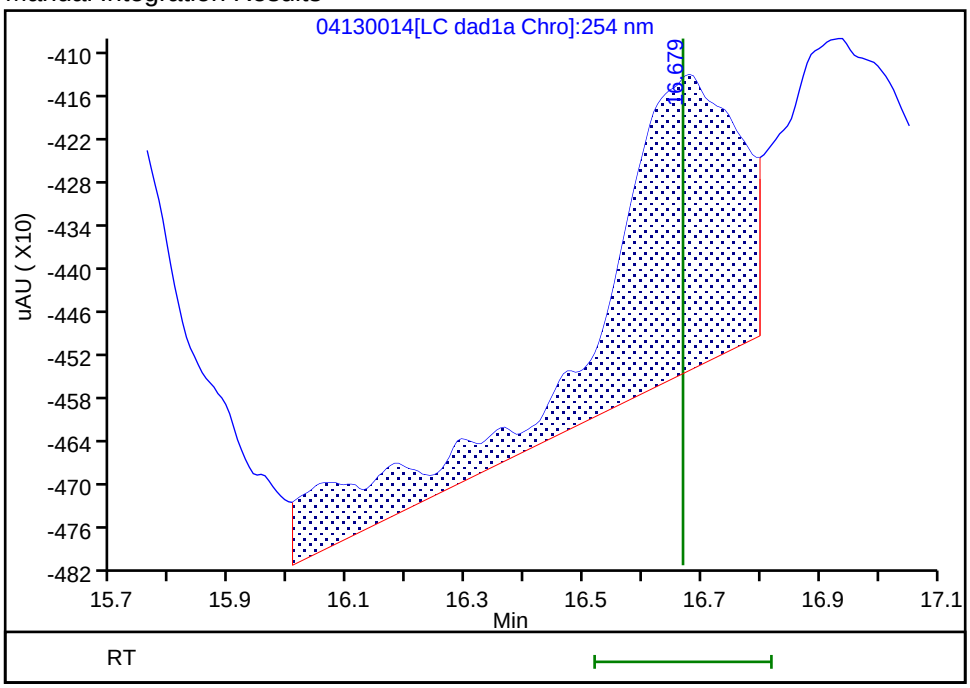
Processing Integration Results

RT: 16.68
Area: 7135
Amount: 0.030304
Amount Units: ug/ml




Manual Integration Results

RT: 16.68
Area: 7016
Amount: 0.026532
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

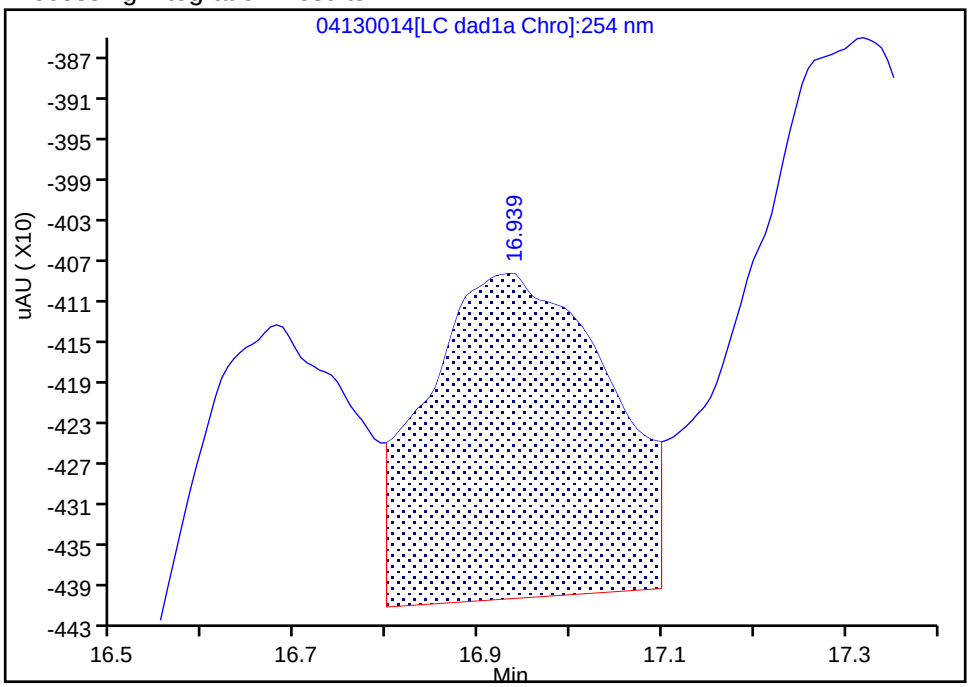
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

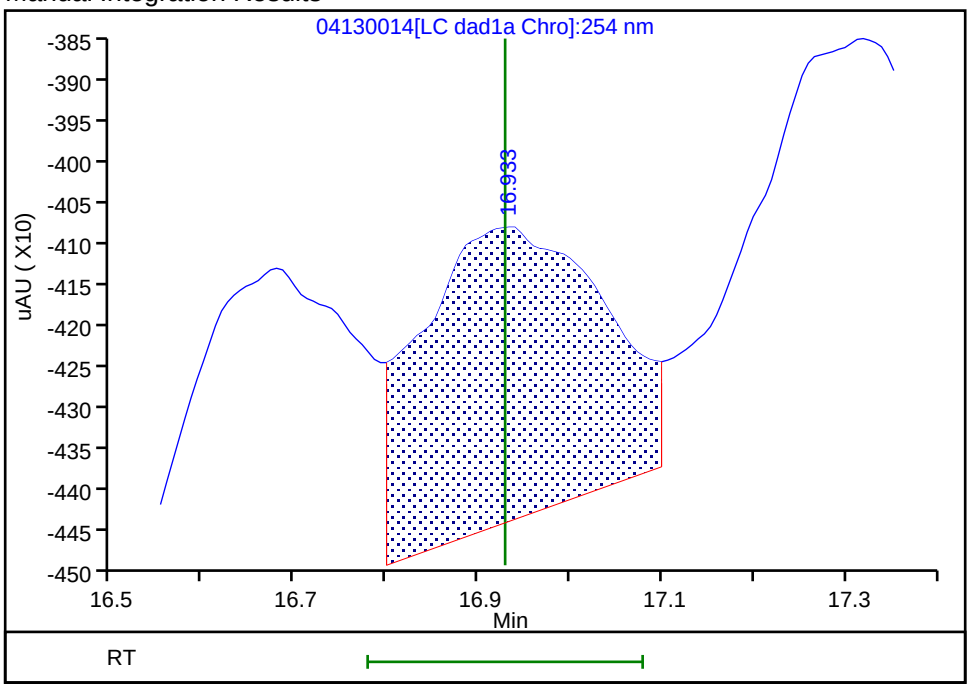
Processing Integration Results

RT: 16.94
Area: 4343
Amount: 0.015664
Amount Units: ug/ml




Manual Integration Results

RT: 16.93
Area: 4991
Amount: 0.025890
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

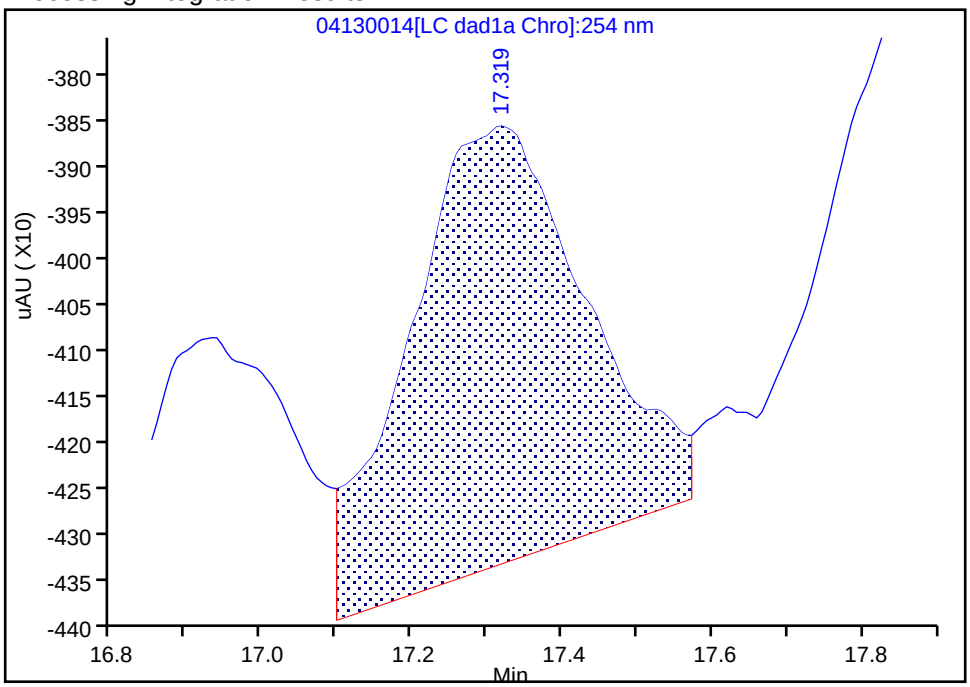
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

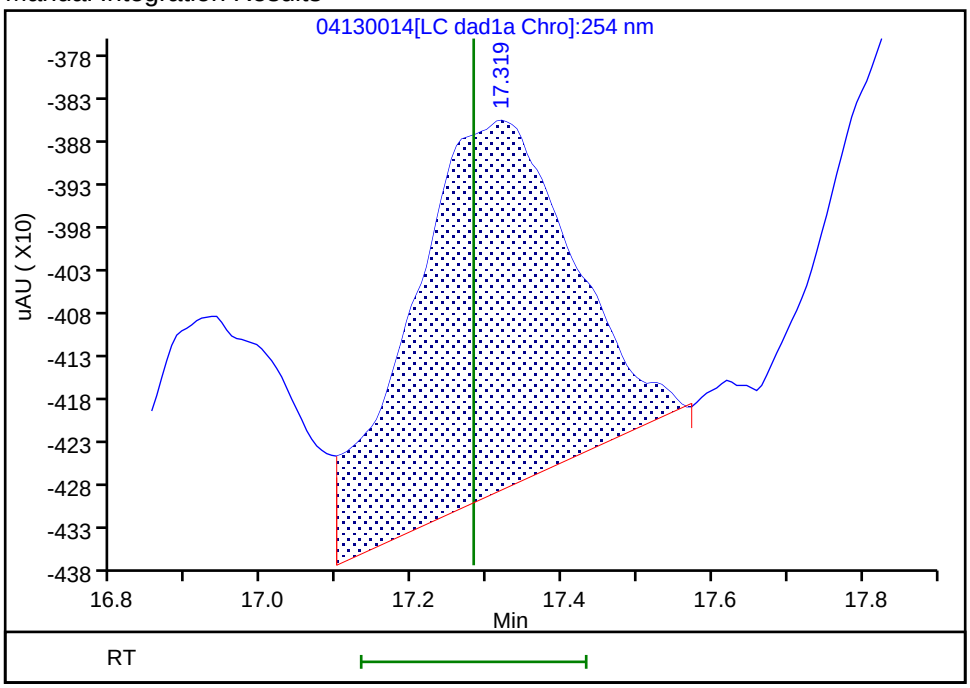
Processing Integration Results

RT: 17.32
Area: 7889
Amount: 0.026678
Amount Units: ug/ml




Manual Integration Results

RT: 17.32
Area: 6639
Amount: 0.026669
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

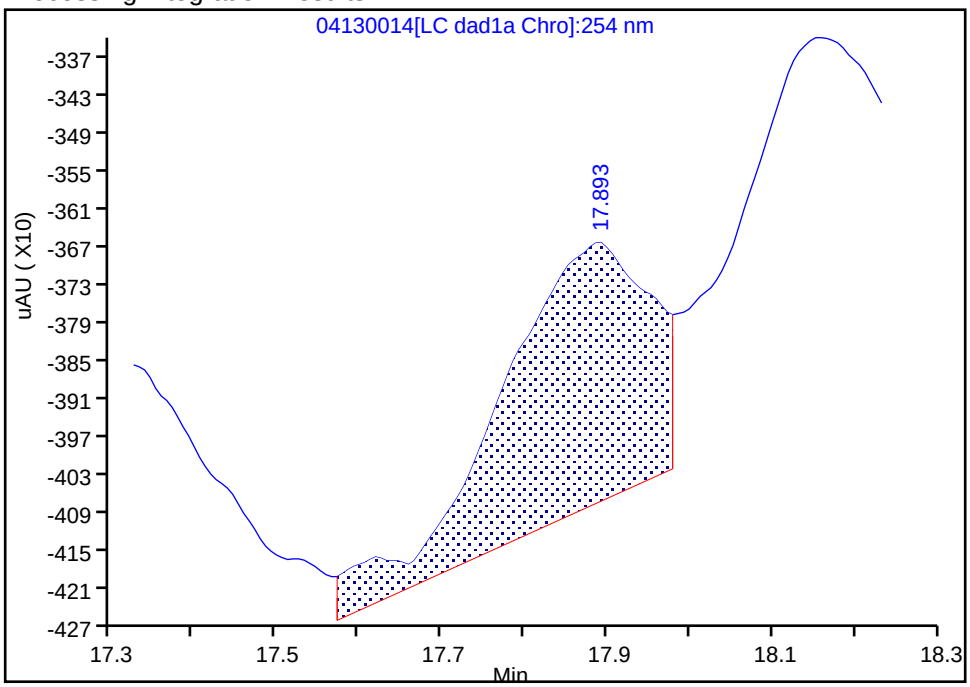
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

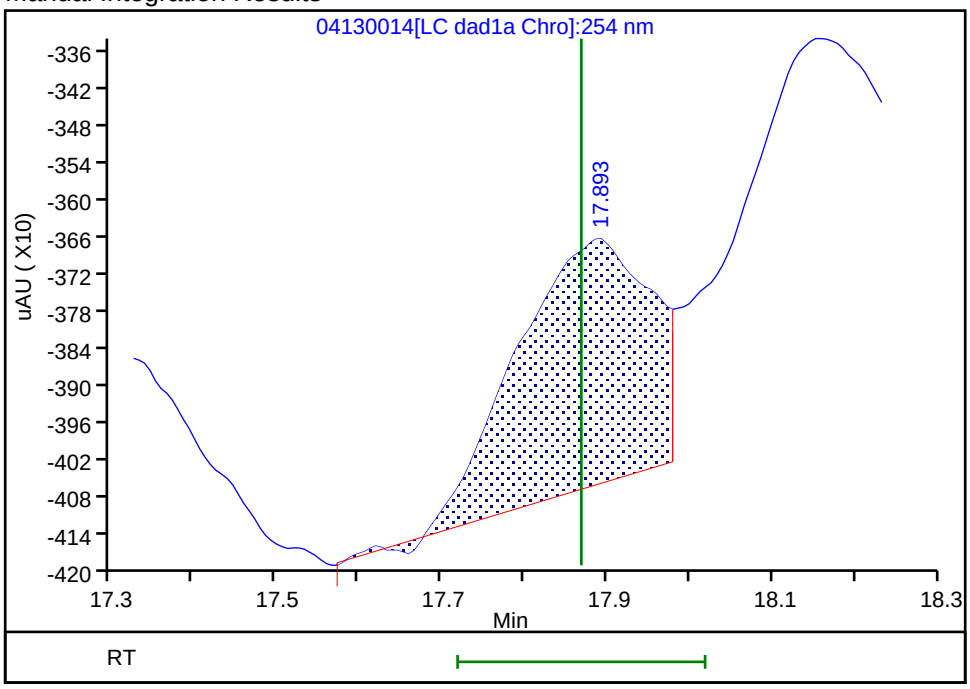
Processing Integration Results

RT: 17.89
Area: 5345
Amount: 0.020034
Amount Units: ug/ml




Manual Integration Results

RT: 17.89
Area: 4491
Amount: 0.023908
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

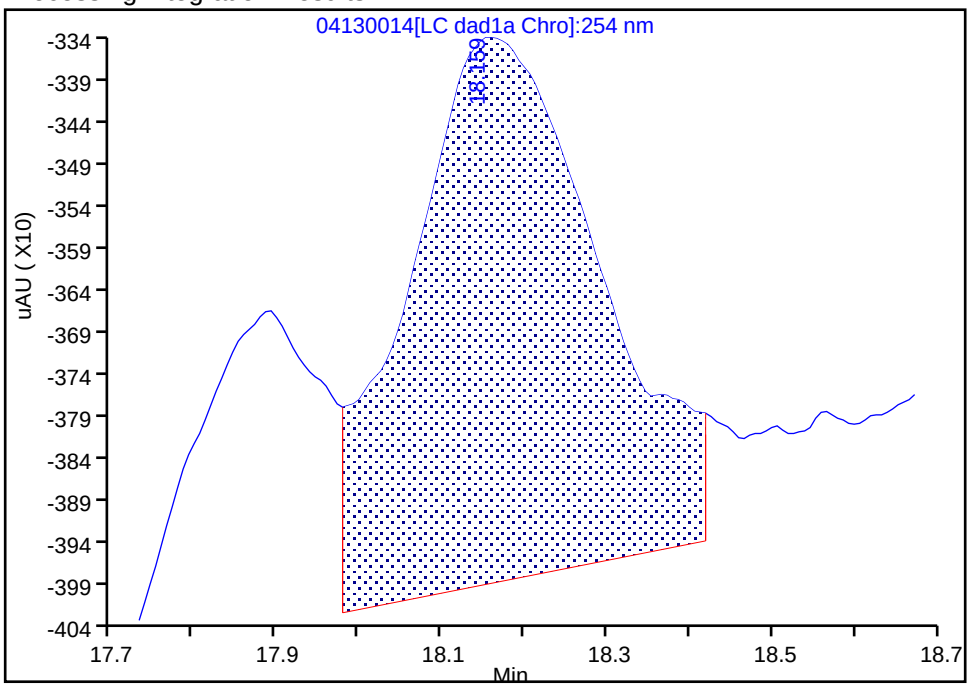
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

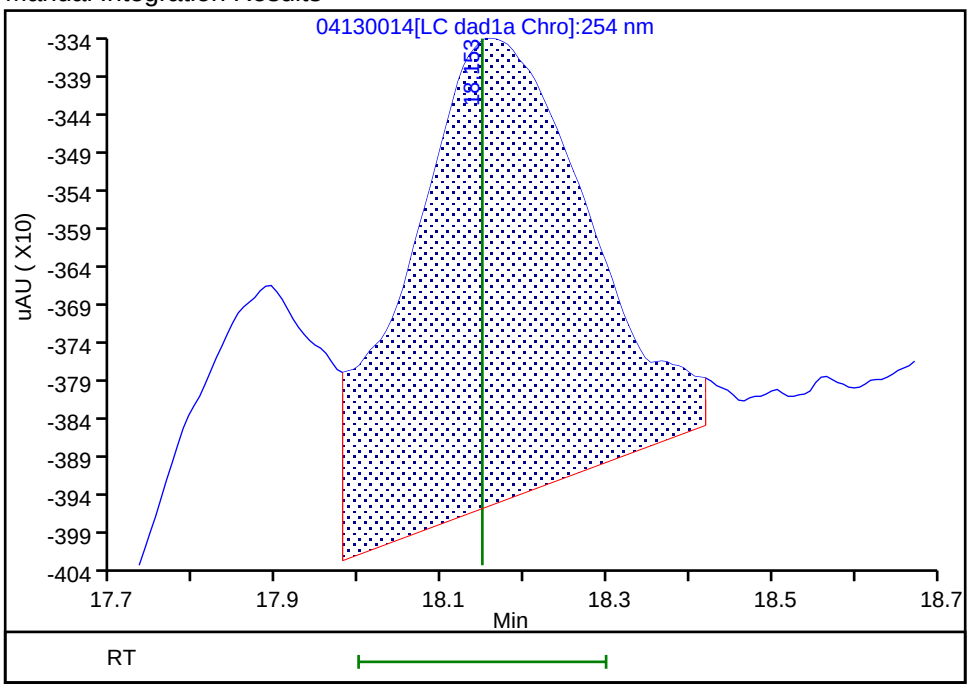
Processing Integration Results

RT: 18.16
Area: 10412
Amount: 0.025136
Amount Units: ug/ml




Manual Integration Results

RT: 18.15
Area: 9277
Amount: 0.025630
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

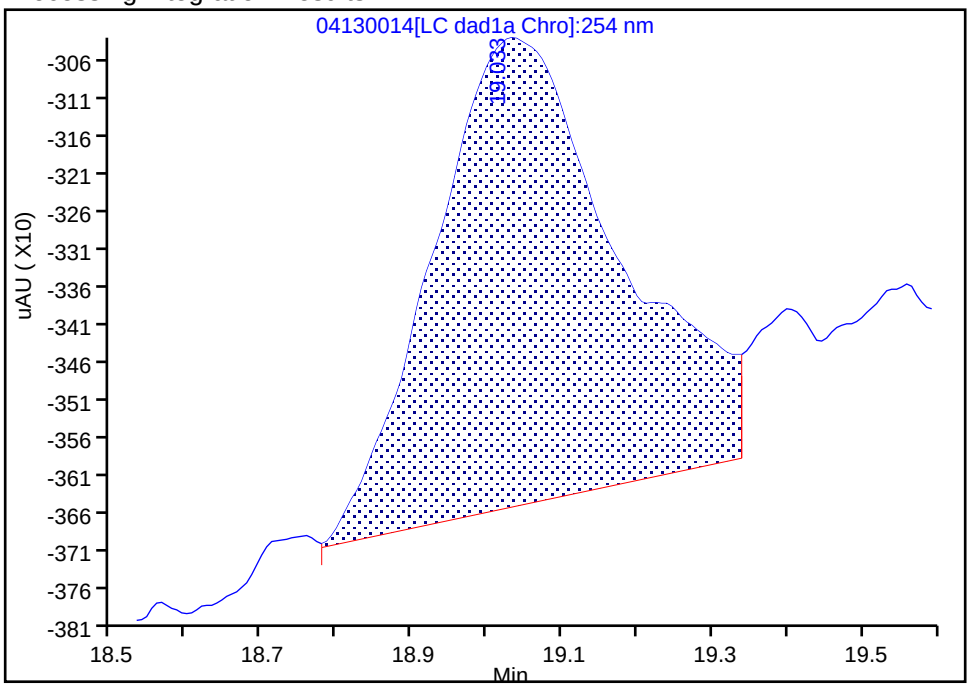
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

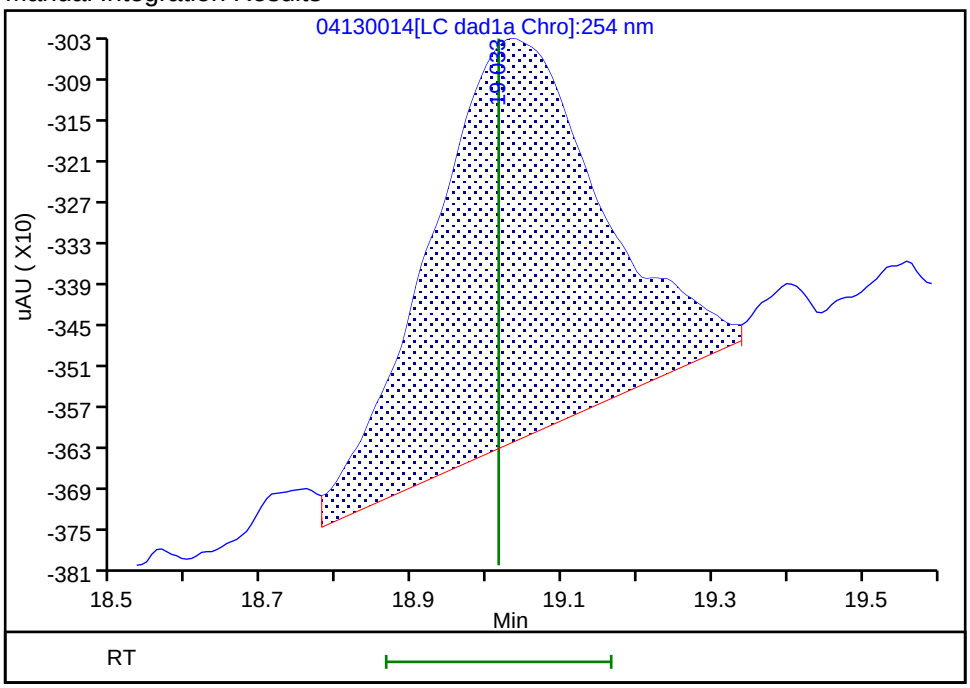
Processing Integration Results

RT: 19.03
Area: 10747
Amount: 0.021468
Amount Units: ug/ml




Manual Integration Results

RT: 19.03
Area: 9504
Amount: 0.024777
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:39
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

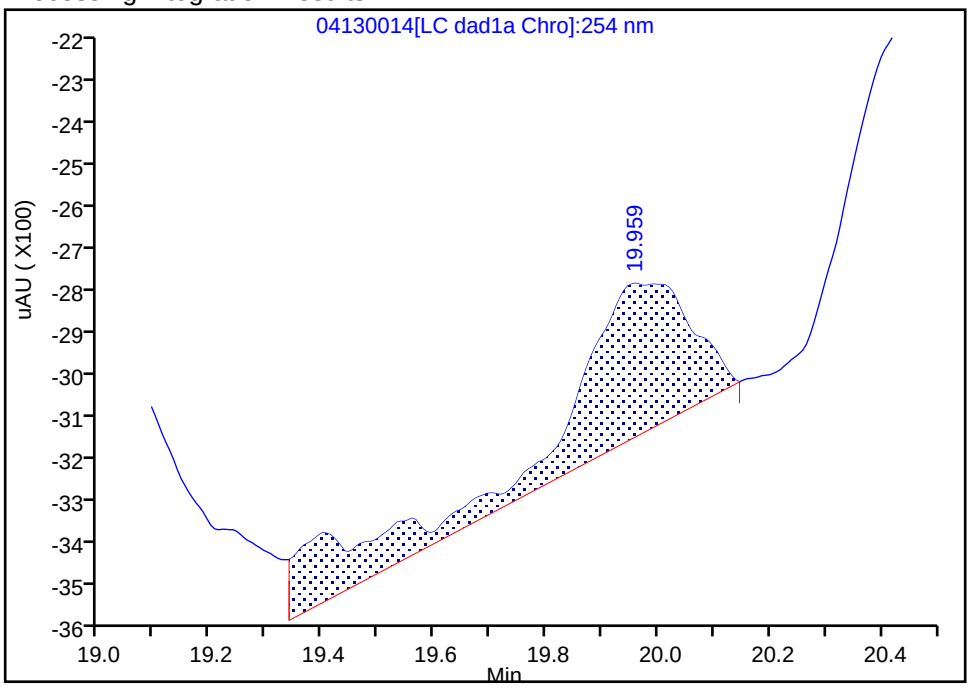
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

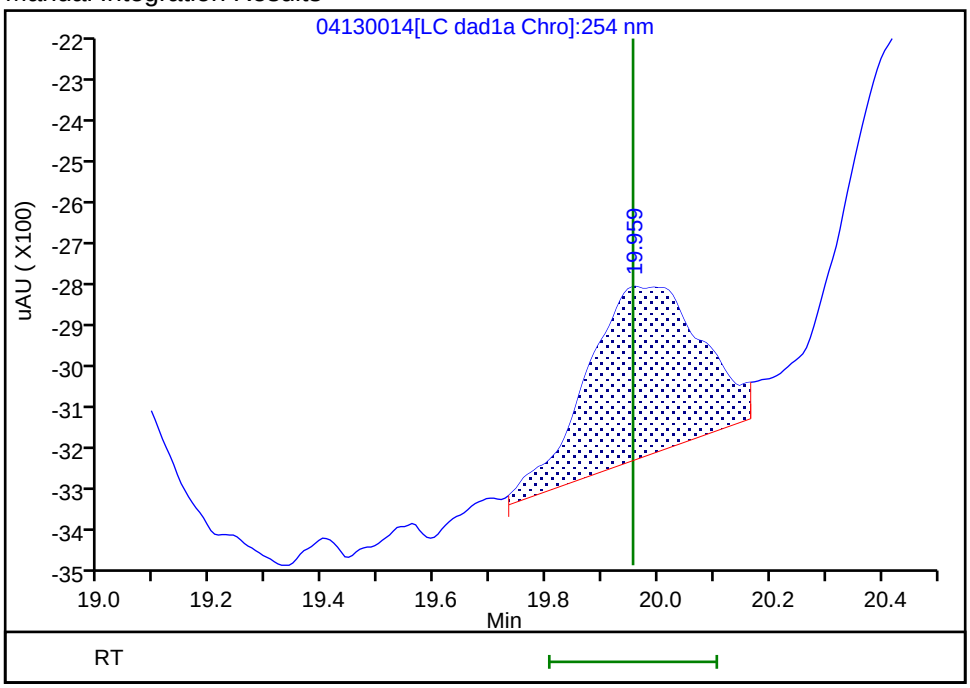
Processing Integration Results

RT: 19.96
Area: 6430
Amount: 0.019272
Amount Units: ug/ml




Manual Integration Results

RT: 19.96
Area: 5507
Amount: 0.020644
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:38:30
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

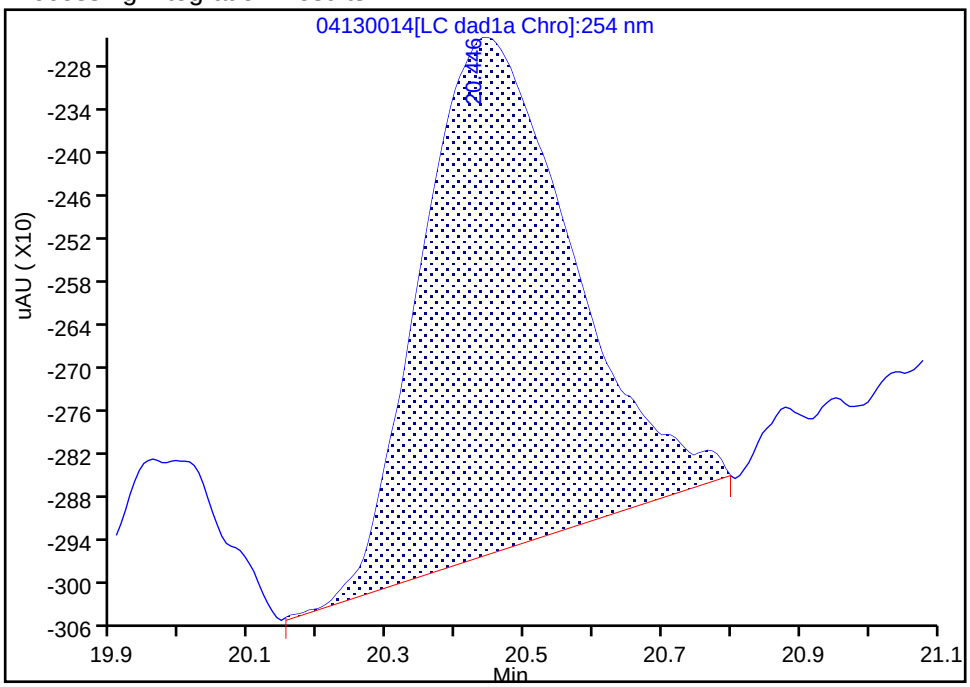
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

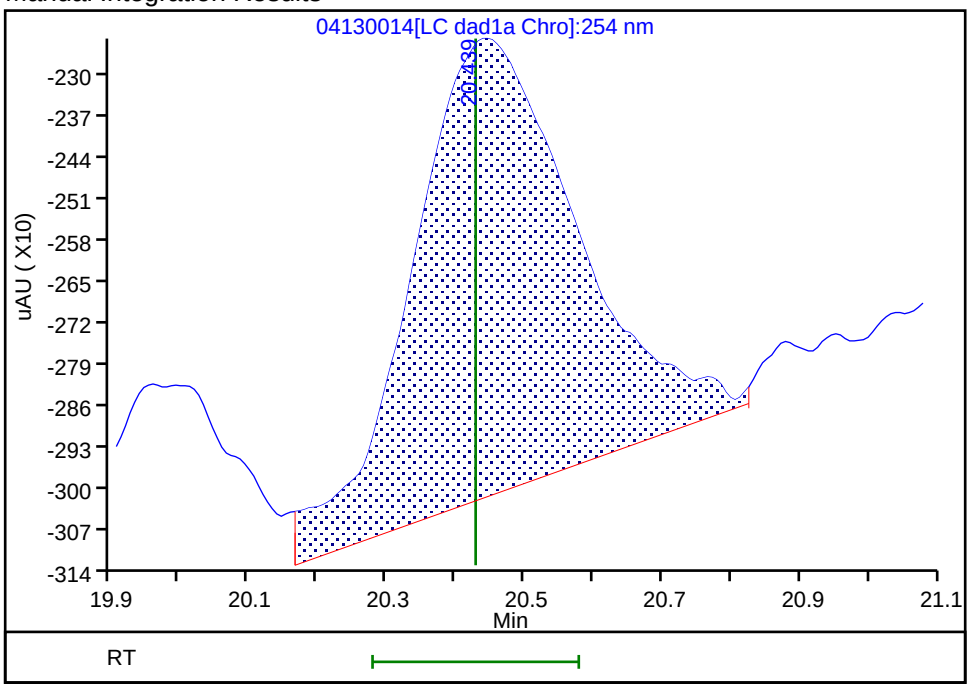
Processing Integration Results

RT: 20.45
Area: 10972
Amount: 0.018328
Amount Units: ug/ml




Manual Integration Results

RT: 20.44
Area: 13055
Amount: 0.022666
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:38:20
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

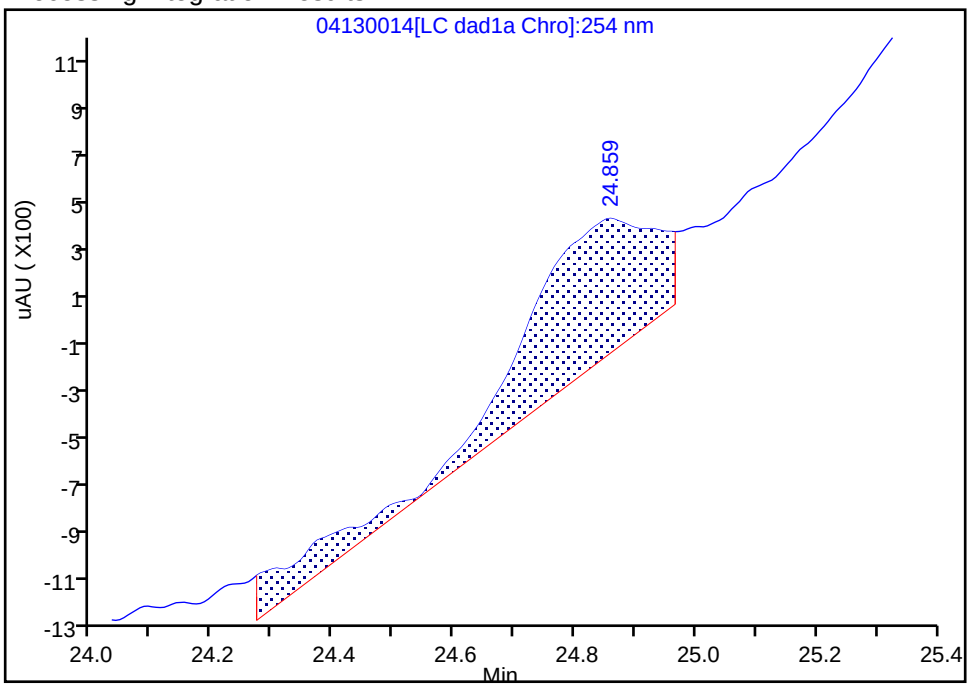
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

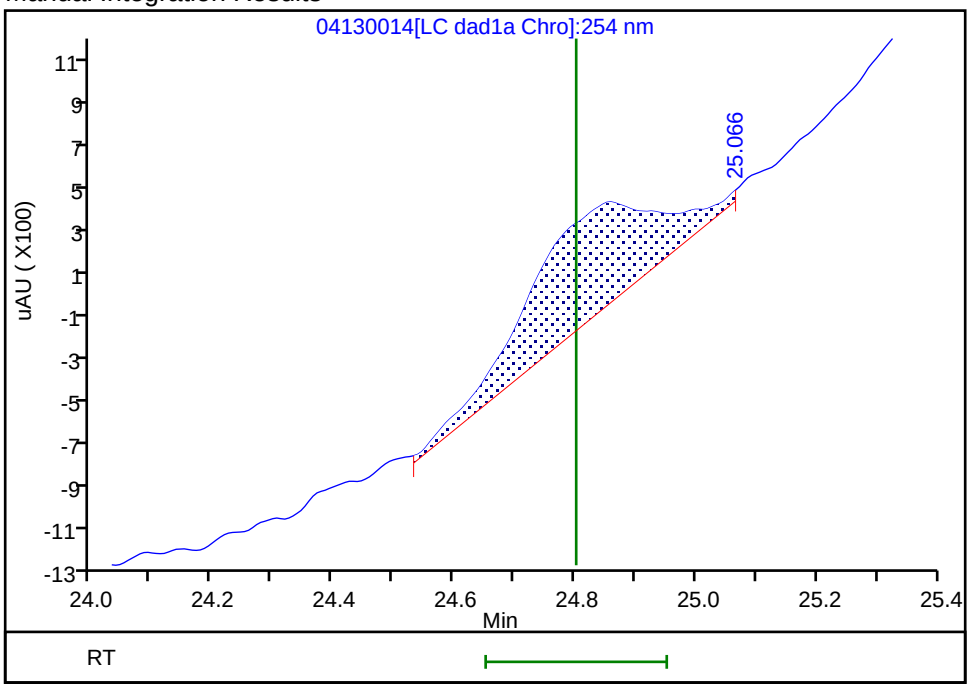
Processing Integration Results

RT: 24.86
Area: 10069
Amount: 0.025229
Amount Units: ug/ml




Manual Integration Results

RT: 25.07
Area: 7586
Amount: 0.024009
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:29:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

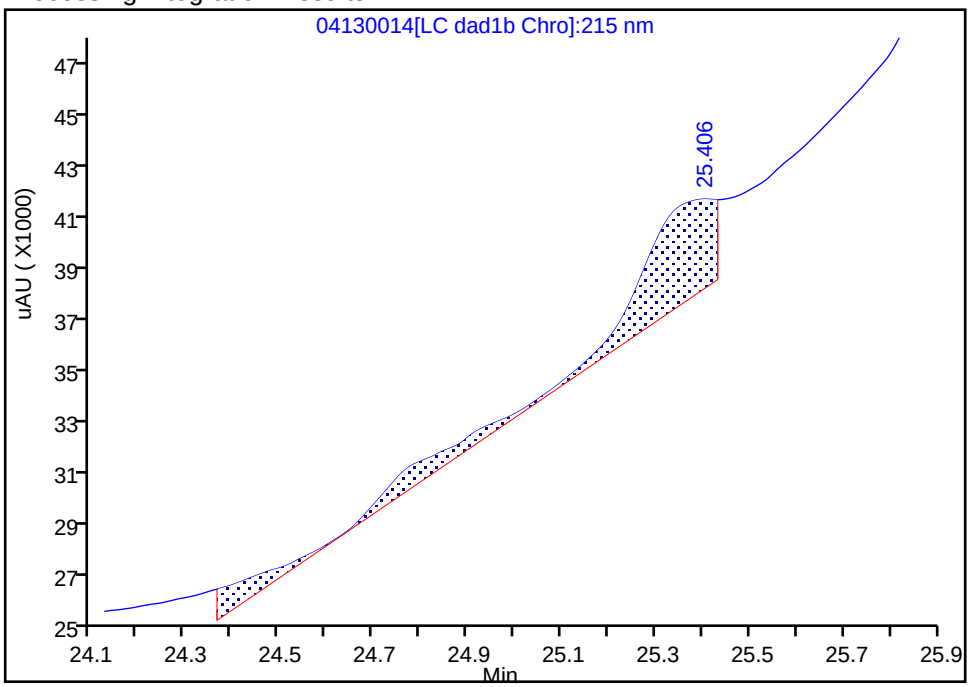
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130014.d | | | | |
| Injection Date: | 13-Apr-2020 18:45:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

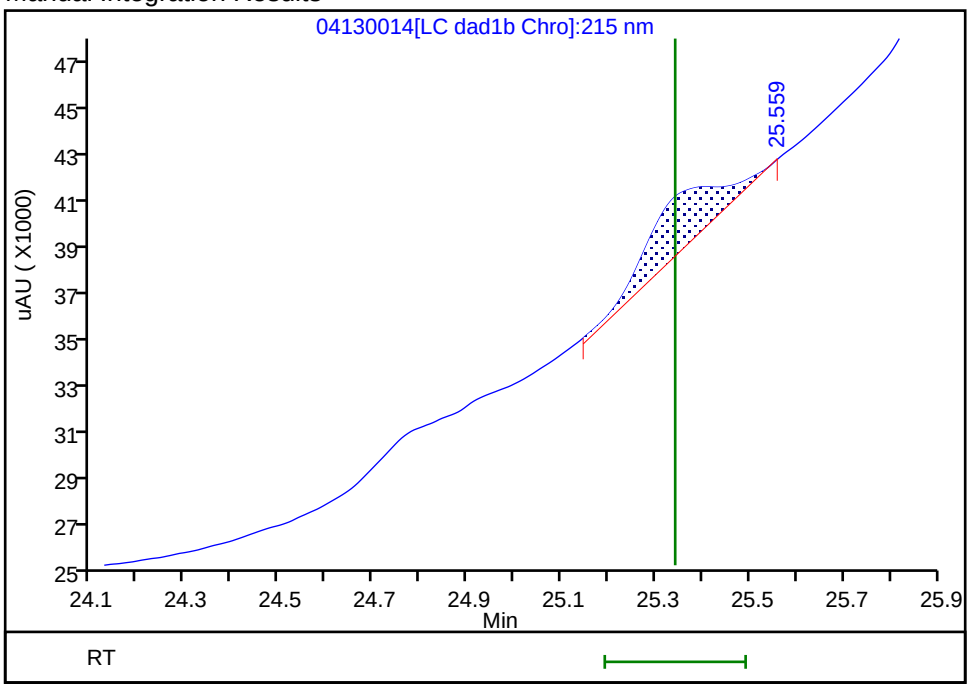
Processing Integration Results

RT: 25.41
Area: 58203
Amount: 0.300350
Amount Units: ug/ml




Manual Integration Results

RT: 25.56
Area: 25899
Amount: 0.197110
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:39:45

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Apr-2020 19:20:28 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0090784-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:13:03 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:37:39

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | | 4.389 | | | ND | ND | U |
| 2 2,4-diamino-6-nitrotoluene | 1 | | 4.949 | | | ND | ND | U |
| 5 2,4,6-Trinitrophenol | 1 | | 5.609 | | | ND | ND | |
| 6 HMX | 1 | | 7.029 | | | ND | ND | U |
| 8 RDX | 1 | | 9.222 | | | ND | ND | U |
| 9 Nitrobenzene | 1 | | 12.195 | | | ND | ND | U |
| $ 10 1,2-Dinitrobenzene | 1 | | 13.135 | | | ND | ND | MU |
| 11 3,5-Dinitroaniline | 1 | | 14.989 | | | ND | ND | U |
| 12 1,3-Dinitrobenzene | 1 | | 15.669 | | | ND | ND | U |
| 13 Nitroglycerin | 2 | | 15.902 | | | ND | ND | U |
| 14 o-Nitrotoluene | 1 | | 16.669 | | | ND | ND | U |
| 15 p-Nitrotoluene | 1 | | 16.929 | | | ND | ND | U |
| 16 4-Amino-2,6-dinitrotoluene | 1 | | 17.282 | | | ND | ND | U |
| 17 m-Nitrotoluene | 1 | | 17.869 | | | ND | ND | U |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 18.149 | | | ND | ND | U |
| 19 1,3,5-Trinitrobenzene | 1 | | 19.015 | | | ND | ND | U |
| 20 2,6-Dinitrotoluene | 1 | 19.995 | 19.955 | 0.040 | 2694 | 0.0126 | 0.0101 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.481 | 20.429 | 0.052 | 5741 | 0.0126 | 0.0100 | M |
| 22 Tetryl | 1 | | 23.709 | | | ND | ND | U |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.802 | | | ND | ND | |
| 24 PETN | 2 | | 25.342 | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

## Reagents:

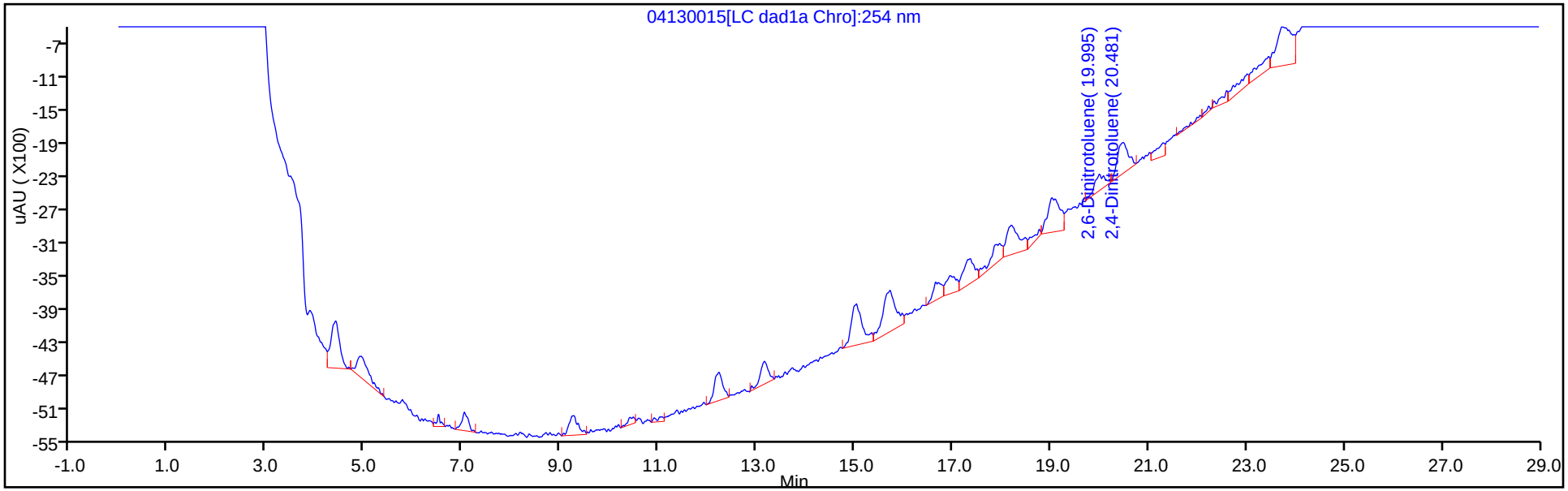
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 1.25 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 0.50 | Units: uL |

Report Date: 14-Apr-2020 09:13:03 Chrom Revision: 2.3 11-Mar-2020 18:53:20

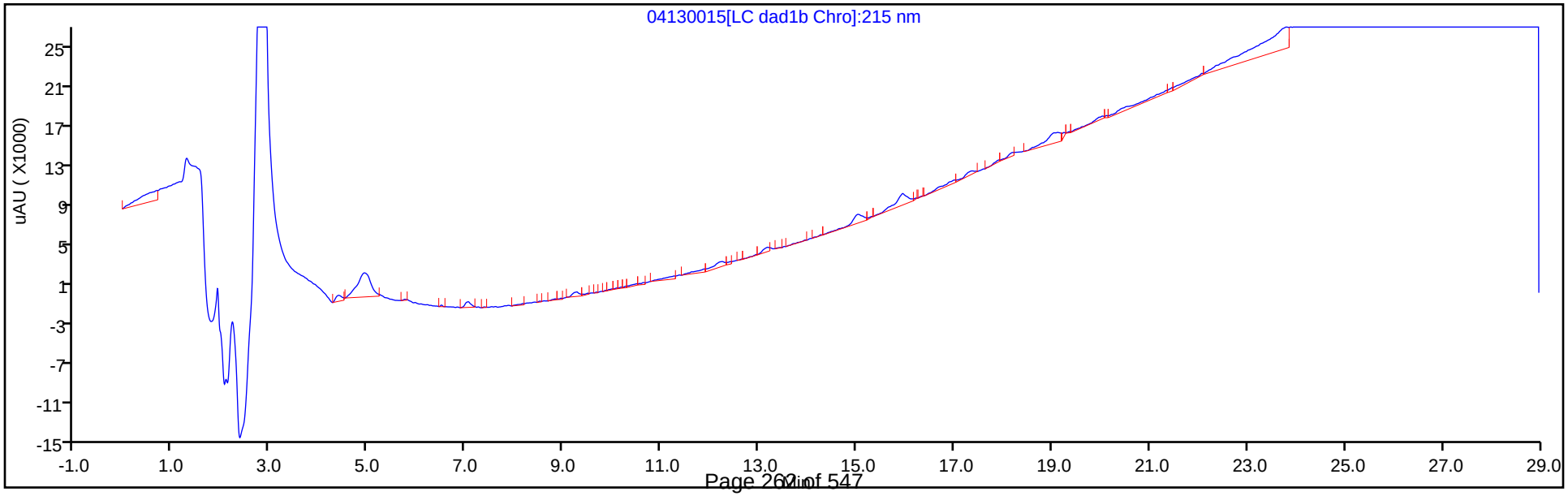
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130015.d | | | | |
| Injection Date: | 13-Apr-2020 19:20:28 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 1 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

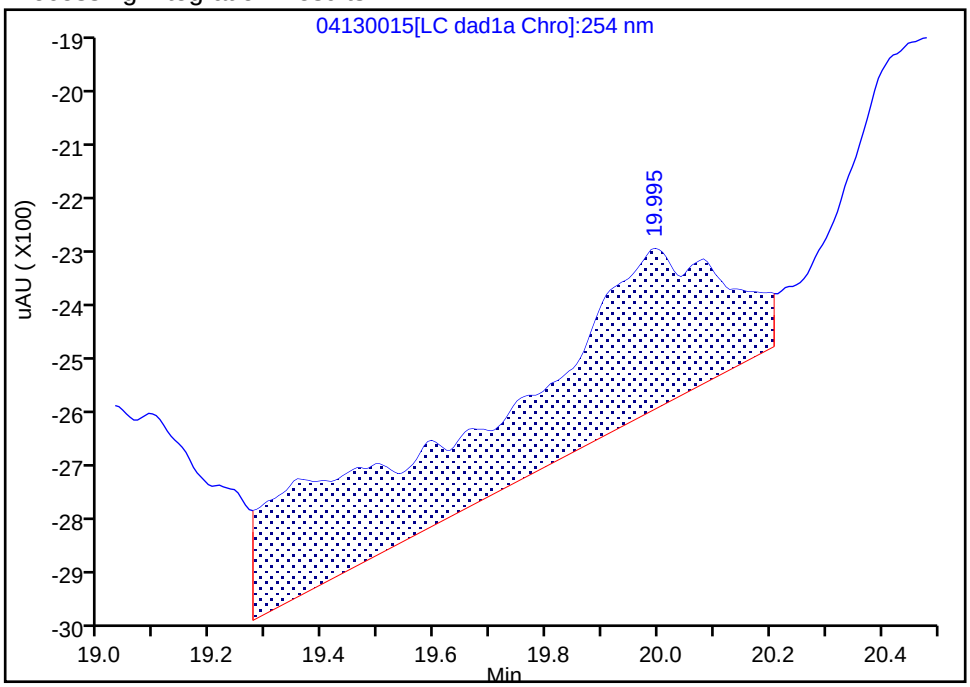
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130015.d | | | | |
| Injection Date: | 13-Apr-2020 19:20:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

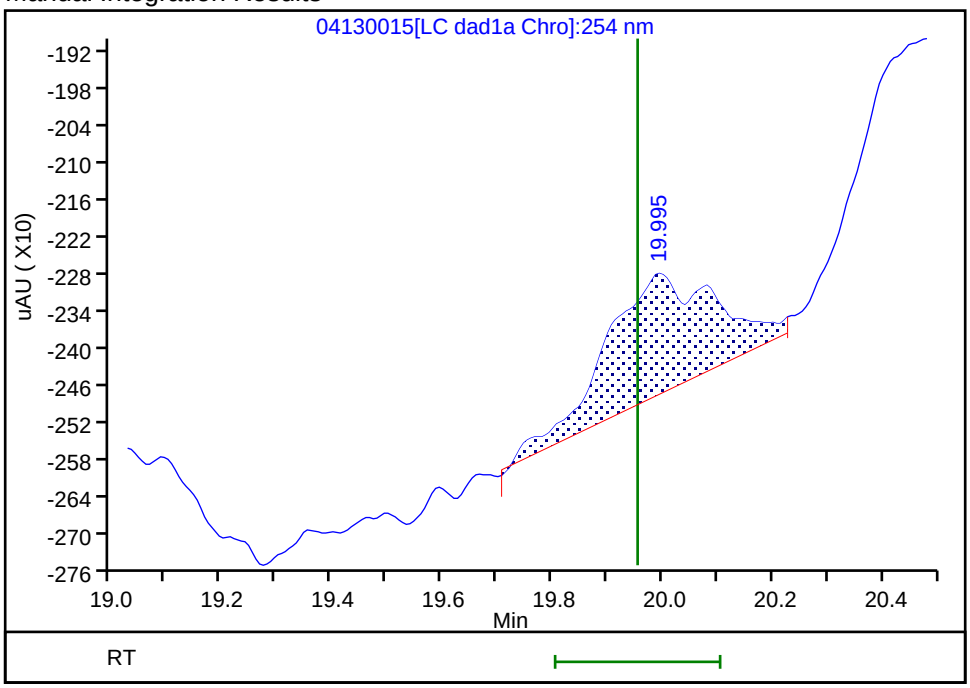
Processing Integration Results

RT: 19.99
Area: 9788
Amount: 0.030139
Amount Units: ug/ml




Manual Integration Results

RT: 19.99
Area: 2694
Amount: 0.010099
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:31:17
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 492532

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/22/2020 17:37 Calibration End Date: 04/23/2020 08:13 Calibration ID: 43561

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-492532/14 | 04220014.D |
| Level 2 | IC 280-492532/13 | 04220013.D |
| Level 3 | IC 280-492532/12 | 04220012.D |
| Level 4 | IC 280-492532/11 | 04220011.D |
| Level 5 | IC 280-492532/10 | 04220010.D |
| Level 6 | IC 280-492532/9 | 04220009.D |
| Level 7 | IC 280-492532/8 | 04220008.D |
| Level 8 | IC 280-492532/7 | 04220007.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 5.400 | 5.444 | 5.439 | 5.442 | 5.432 | 5.432 | 5.434 | 5.416 | | | 5.292 - 5.592 | 5.430 |
| DNX | 6.206 | 6.250 | 6.252 | 6.255 | 6.246 | 6.245 | 6.248 | 6.229 | | | 6.105 - 6.405 | 6.241 |
| MNX | 7.713 | 7.764 | 7.759 | 7.769 | 7.759 | 7.752 | 7.761 | 7.743 | | | 7.619 - 7.919 | 7.753 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 492532

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/22/2020 17:37 Calibration End Date: 04/23/2020 08:13 Calibration ID: 43561

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-492532/14 | 04220014.D |
| Level 2 | IC 280-492532/13 | 04220013.D |
| Level 3 | IC 280-492532/12 | 04220012.D |
| Level 4 | IC 280-492532/11 | 04220011.D |
| Level 5 | IC 280-492532/10 | 04220010.D |
| Level 6 | IC 280-492532/9 | 04220009.D |
| Level 7 | IC 280-492532/8 | 04220008.D |
| Level 8 | IC 280-492532/7 | 04220007.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 | 453047<br>405295 | 438102<br>413849 | 435514<br>439424 | 407568<br>408302 | Ave | | 425137.694 | | | | 4.3 | | 20.0 | | | |
| DNX | 395005<br>291533 | 332388<br>309635 | 317882<br>324290 | 301483<br>301172 | Ave | | 321673.437 | | | | 10.1 | | 20.0 | | | |
| MNX | 304584<br>271403 | 286135<br>281381 | 290283<br>291155 | 273361<br>273054 | Ave | | 283919.594 | | | | 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.: 280-135347-1 Analy Batch No.: 492532

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/22/2020 17:37 Calibration End Date: 04/23/2020 08:13 Calibration ID: 43561

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-492532/14 | 04220014.D |
| Level 2 | IC 280-492532/13 | 04220013.D |
| Level 3 | IC 280-492532/12 | 04220012.D |
| Level 4 | IC 280-492532/11 | 04220011.D |
| Level 5 | IC 280-492532/10 | 04220010.D |
| Level 6 | IC 280-492532/9 | 04220009.D |
| Level 7 | IC 280-492532/8 | 04220008.D |
| Level 8 | IC 280-492532/7 | 04220007.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 | 9070<br>289984 | 21927<br>439863 | 43595<br>1021777 | 101994 | 162280 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 7908<br>216961 | 16636<br>324614 | 31820<br>753684 | 75446 | 116730 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 7109<br>229860 | 16696<br>339778 | 33876<br>796636 | 79753 | 126691 | 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\G2_LUNA\20200422-90989.b\04220007.D | | | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 9 | | |
| Inject. Date: | 22-Apr-2020 17:37:03 | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 9 | | | | |
| Misc. Info.: | 280-0090989-007 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:14 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:01:21

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.416 | 5.442 | -0.026 | 1021777 | 2.50 | 2.40 | |
| 4 DNX | 1 | 6.229 | 6.255 | -0.026 | 753684 | 2.50 | 2.34 | |
| 7 MNX | 1 | 7.743 | 7.769 | -0.026 | 796636 | 2.92 | 2.81 | |

## Reagents:

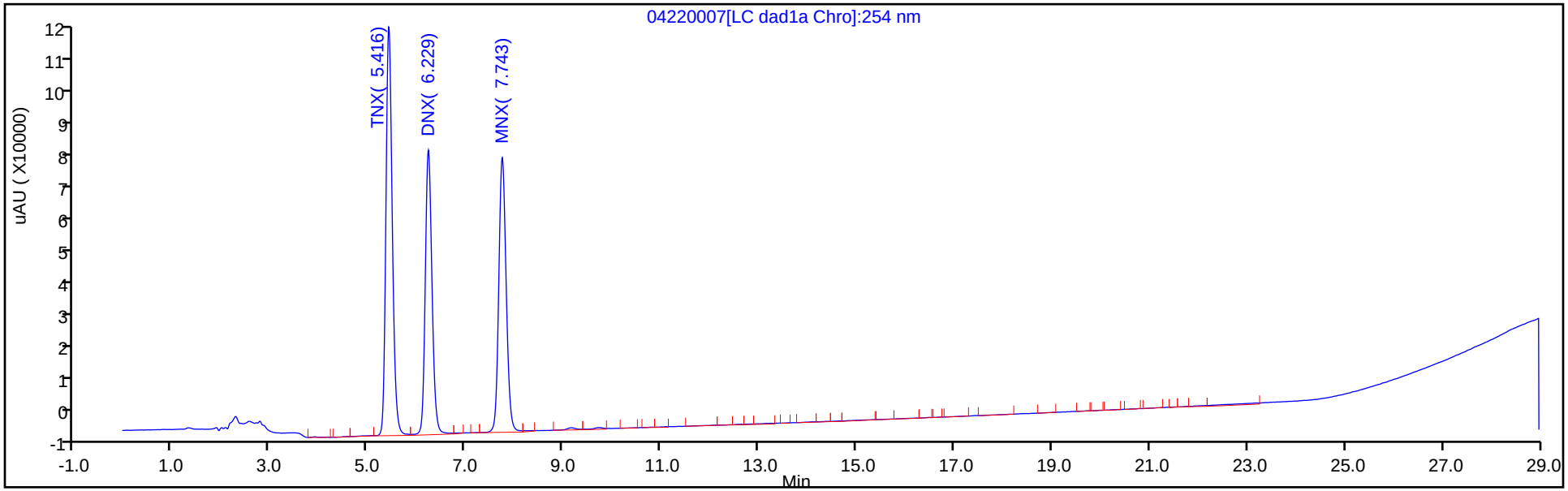
8330 DMT_00006 Amount Added: 125.00 Units: uL

Report Date: 24-Apr-2020 14:30:14 Chrom Revision: 2.3 11-Mar-2020 18:53:20

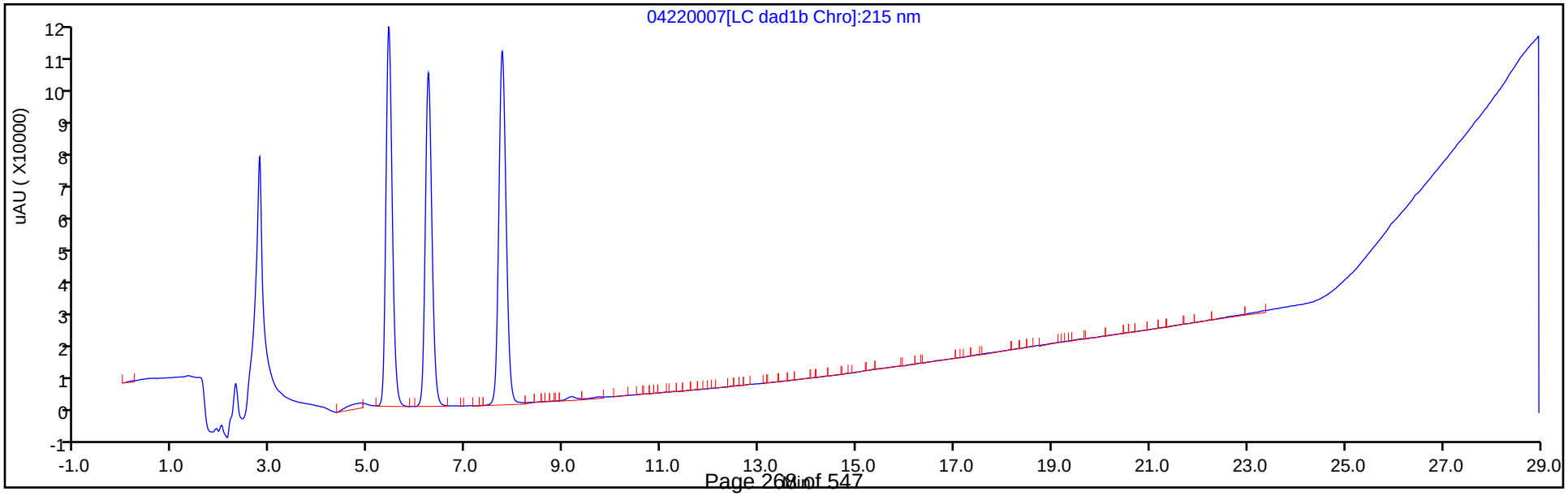
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 17:37:03 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 9 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220008.D | | | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 22-Apr-2020 18:12:04 | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 8 | | | | |
| Misc. Info.: | 280-0090989-008 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:20 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 24-Apr-2020 11:15:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.434 | 5.442 | -0.008 | 439863 | 1.00 | 1.03 | |
| 4 DNX | 1 | 6.248 | 6.255 | -0.007 | 324614 | 1.00 | 1.01 | |
| 7 MNX | 1 | 7.761 | 7.769 | -0.008 | 339778 | 1.17 | 1.20 | |

## Reagents:

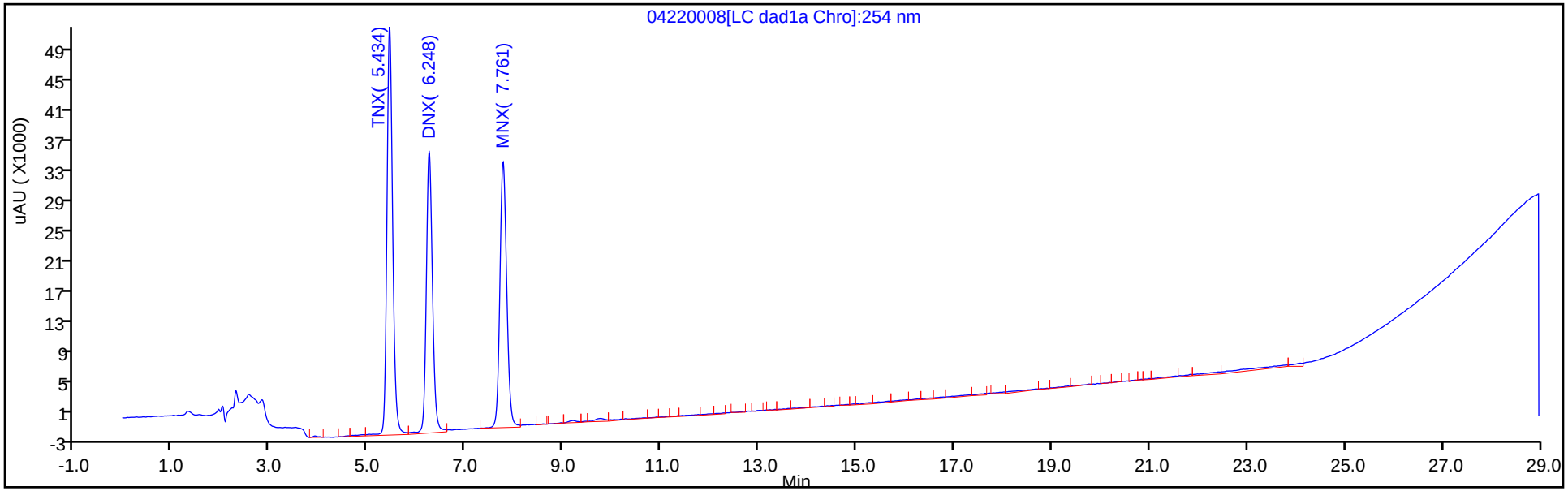
8330 DMT_00006 Amount Added: 50.00 Units: uL

Report Date: 24-Apr-2020 14:30:22 Chrom Revision: 2.3 11-Mar-2020 18:53:20

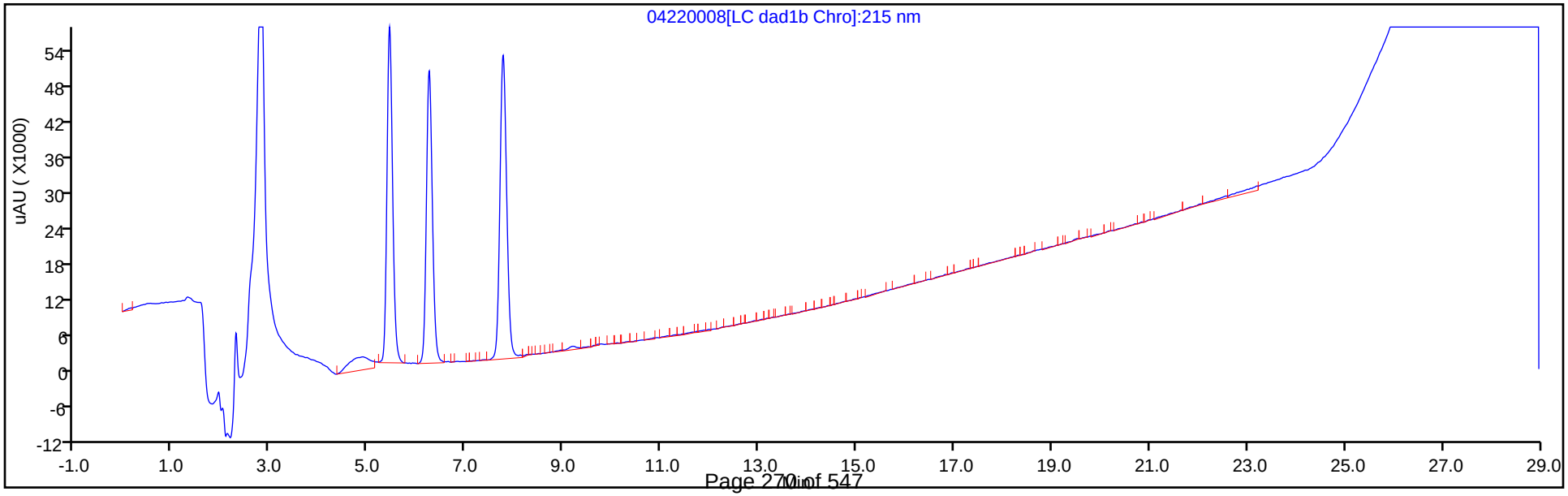
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220008.d | | | | |
| Injection Date: | 22-Apr-2020 18:12:04 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 8 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220009.D | | | | |
| Lims ID: | IC FULL 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 22-Apr-2020 18:47:05 | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 7 | | | | |
| Misc. Info.: | 280-0090989-009 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:26 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.432 | 5.442 | -0.010 | 289984 | 0.7007 | 0.6821 | |
| 4 DNX | 1 | 6.245 | 6.255 | -0.010 | 216961 | 0.7007 | 0.6745 | |
| 7 MNX | 1 | 7.752 | 7.769 | -0.017 | 229860 | 0.8169 | 0.8096 | |

## Reagents:

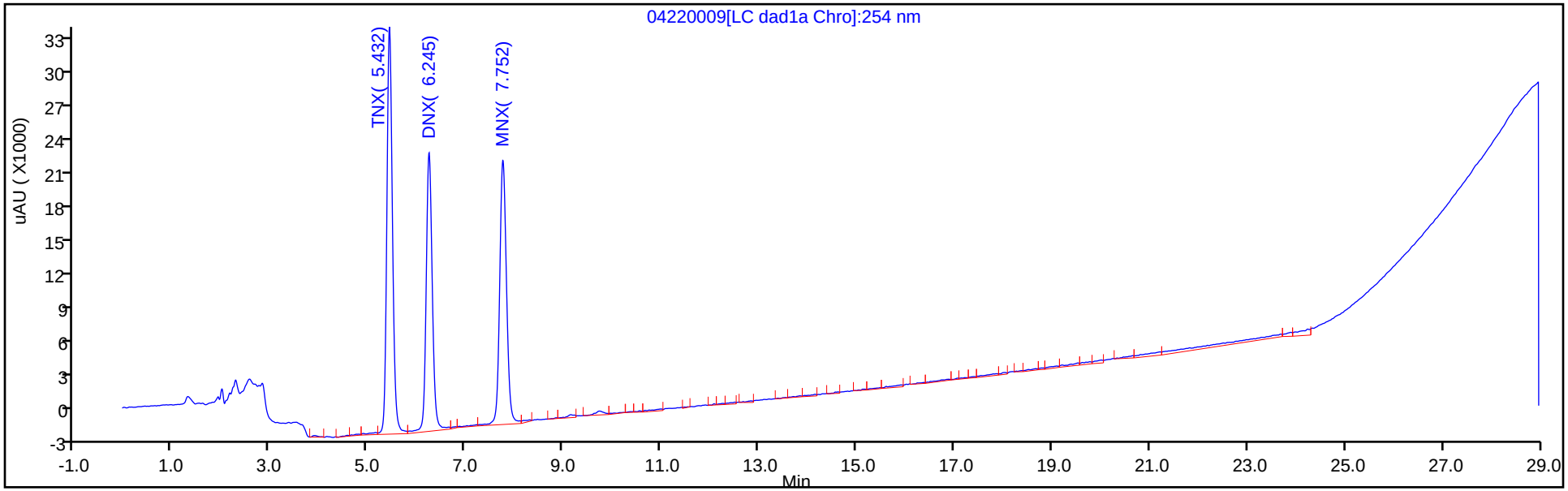
8330 DMT_00006 Amount Added: 35.00 Units: uL

Report Date: 24-Apr-2020 14:30:29 Chrom Revision: 2.3 11-Mar-2020 18:53:20

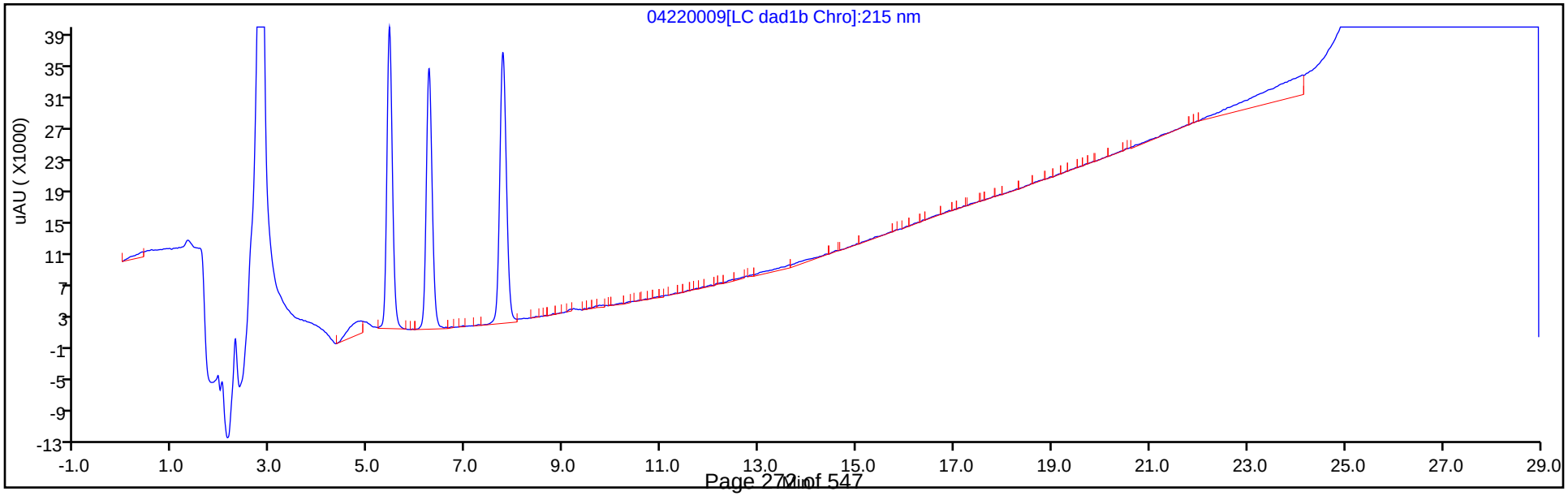
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220009.d | | | | |
| Injection Date: | 22-Apr-2020 18:47:05 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220010.D | | | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 22-Apr-2020 19:22:06 | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 6 | | | | |
| Misc. Info.: | 280-0090989-010 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:30 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:02:29

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.432 | 5.442 | -0.010 | 162280 | 0.4004 | 0.3817 | M |
| 4 DNX | 1 | 6.246 | 6.255 | -0.009 | 116730 | 0.4004 | 0.3629 | M |
| 7 MNX | 1 | 7.759 | 7.769 | -0.010 | 126691 | 0.4668 | 0.4462 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

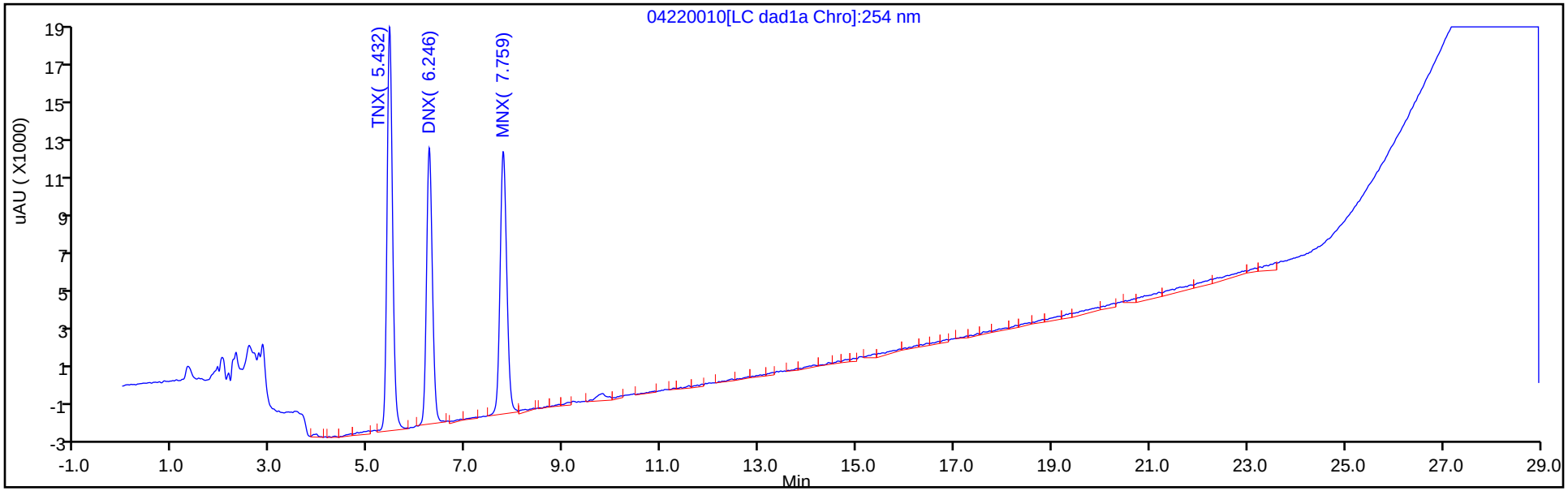
8330 DMT_00006 Amount Added: 20.00 Units: uL

Report Date: 24-Apr-2020 14:30:30 Chrom Revision: 2.3 11-Mar-2020 18:53:20

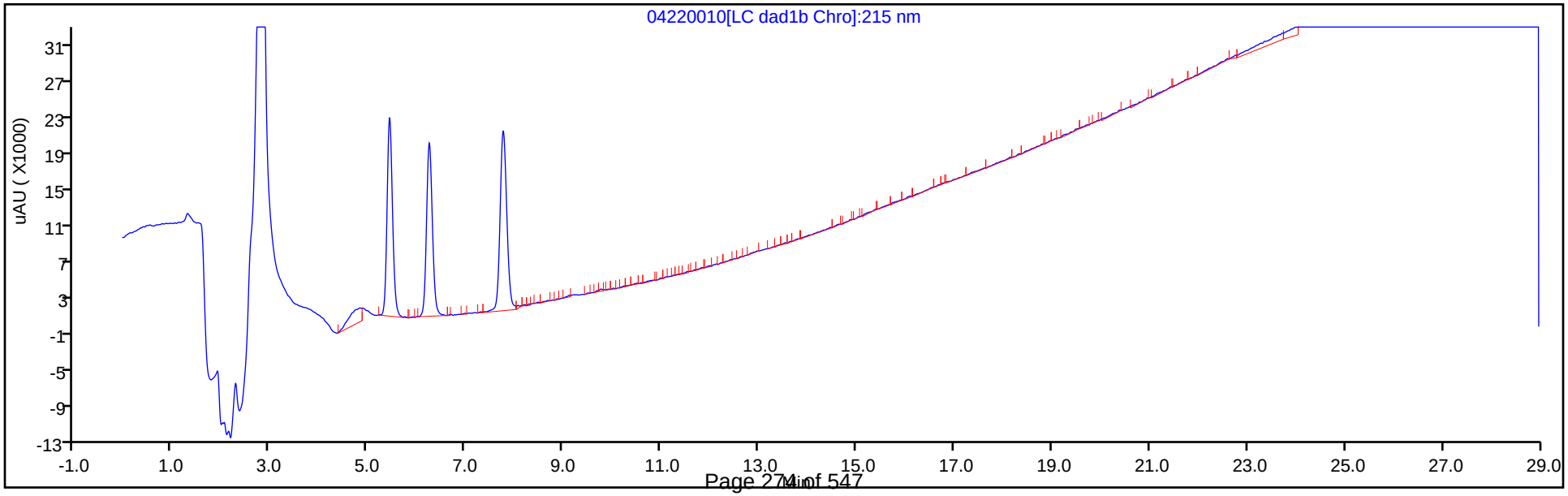
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220010.d | | | | |
| Injection Date: | 22-Apr-2020 19:22:06 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 6 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

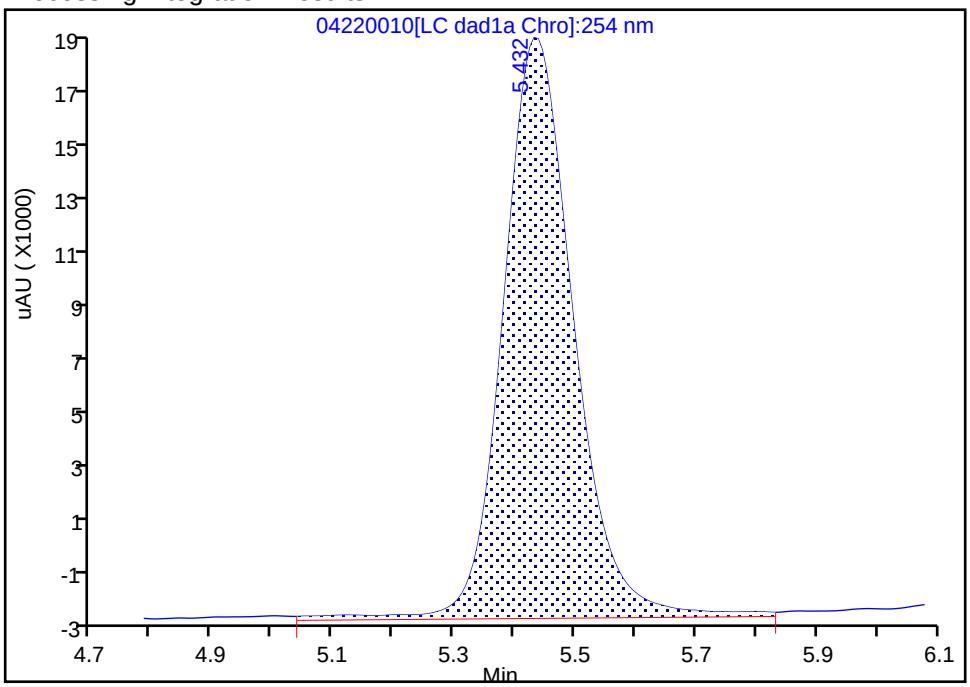
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220010.d | | | | |
| Injection Date: | 22-Apr-2020 19:22:06 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

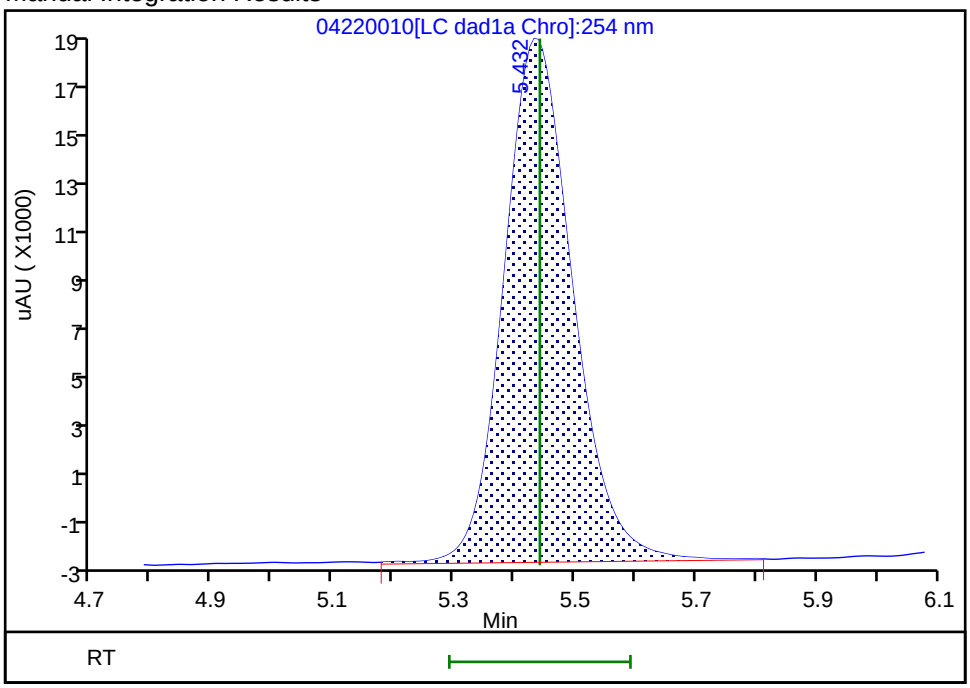
Processing Integration Results

RT: 5.43
Area: 167558
Amount: 0.380502
Amount Units: ug/ml




Manual Integration Results

RT: 5.43
Area: 162280
Amount: 0.381712
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

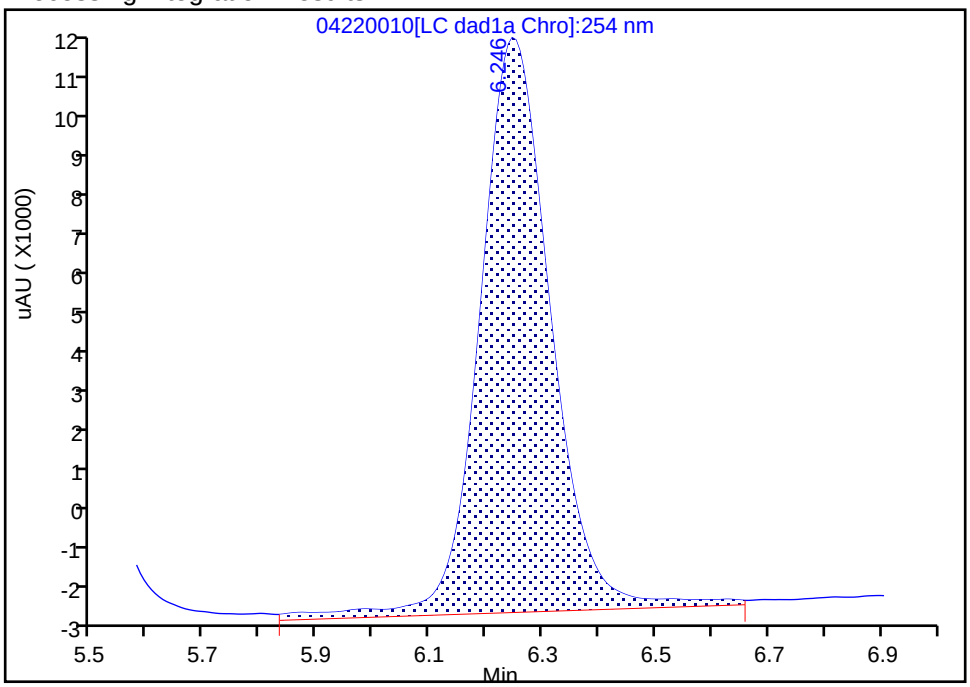
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220010.d | | | | |
| Injection Date: | 22-Apr-2020 19:22:06 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 4 DNX, CAS: 80251-29-2

Signal: 1

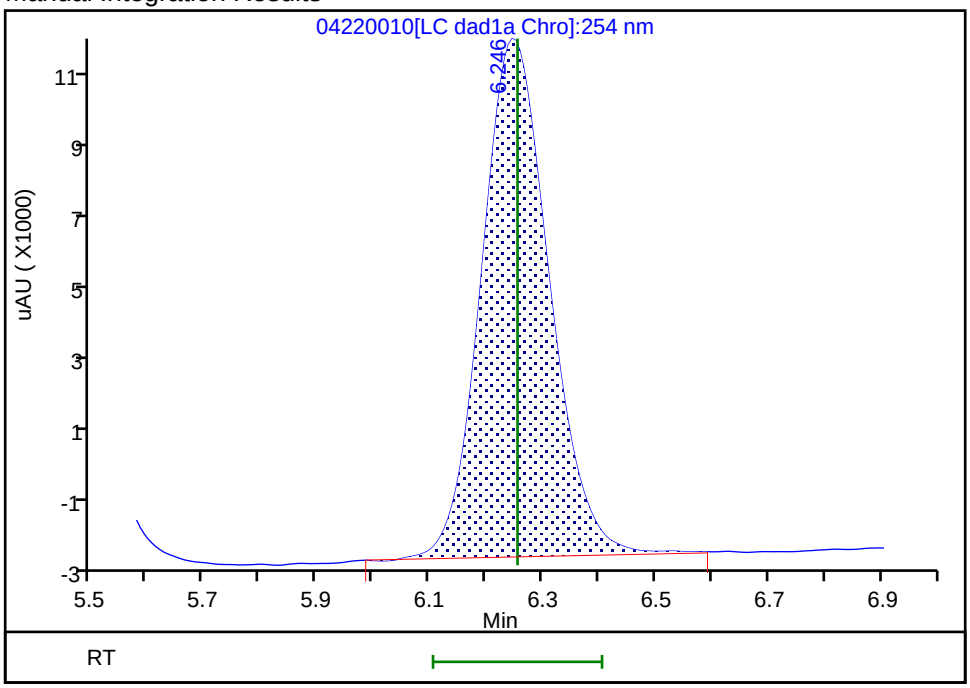
Processing Integration Results

RT: 6.25
Area: 124991
Amount: 0.357377
Amount Units: ug/ml




Manual Integration Results

RT: 6.25
Area: 116730
Amount: 0.362884
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:16
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

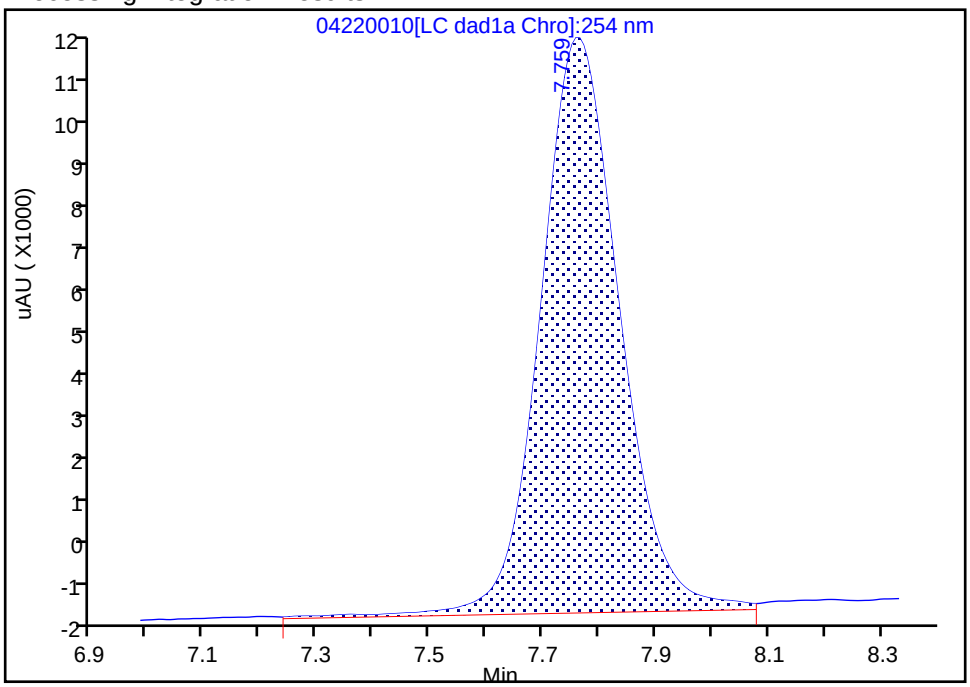
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220010.d | | | | |
| Injection Date: | 22-Apr-2020 19:22:06 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

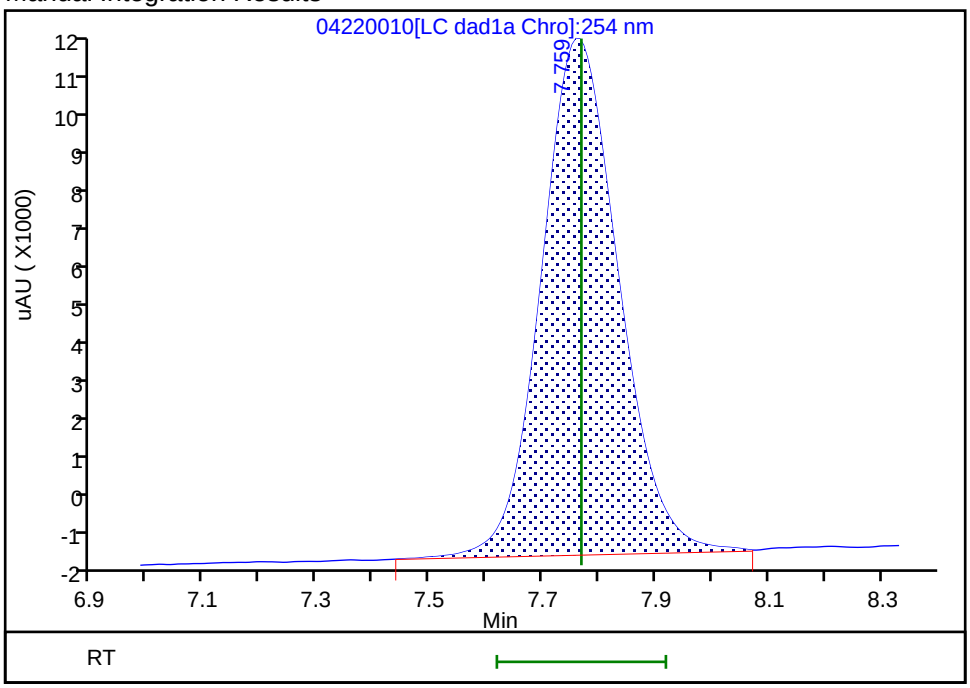
Processing Integration Results

RT: 7.76
Area: 130610
Amount: 0.414402
Amount Units: ug/ml




Manual Integration Results

RT: 7.76
Area: 126691
Amount: 0.446221
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:25
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220011.D | | | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 22-Apr-2020 19:57:04 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 5 | | | | |
| Misc. Info.: | 280-0090989-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:30 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:02:55

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.442 | 5.442 | 0.000 | 101994 | 0.2503 | 0.2399 | M |
| 4 DNX | 1 | 6.255 | 6.255 | 0.000 | 75446 | 0.2503 | 0.2345 | M |
| 7 MNX | 1 | 7.769 | 7.769 | 0.000 | 79753 | 0.2918 | 0.2809 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

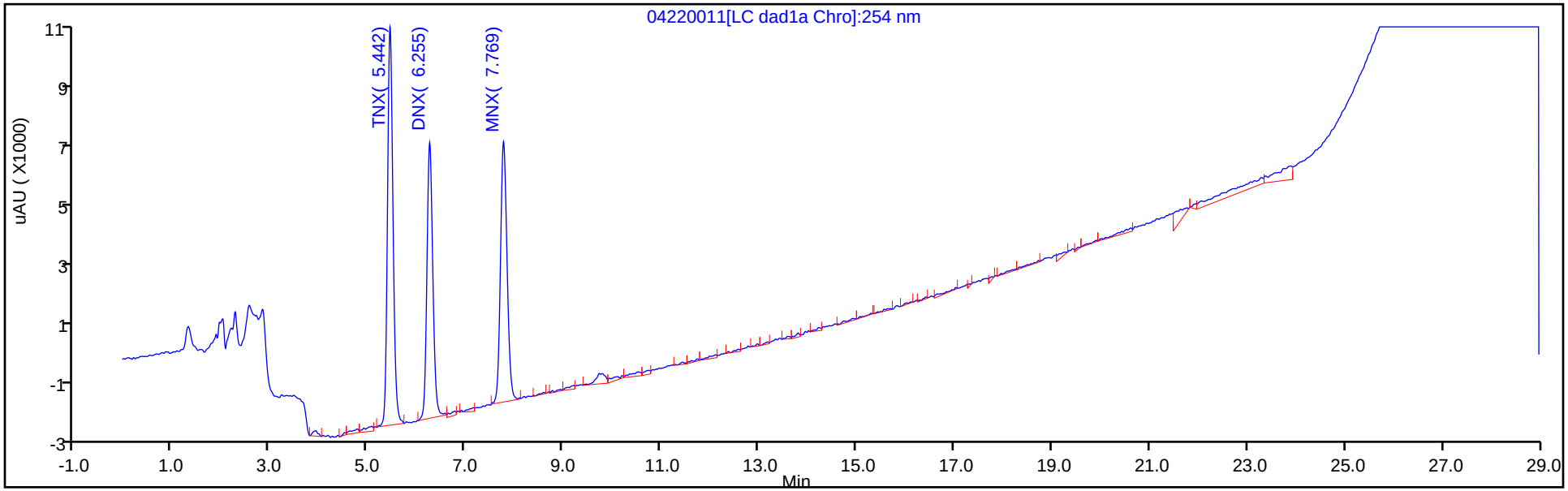
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 24-Apr-2020 14:30:30 Chrom Revision: 2.3 11-Mar-2020 18:53:20

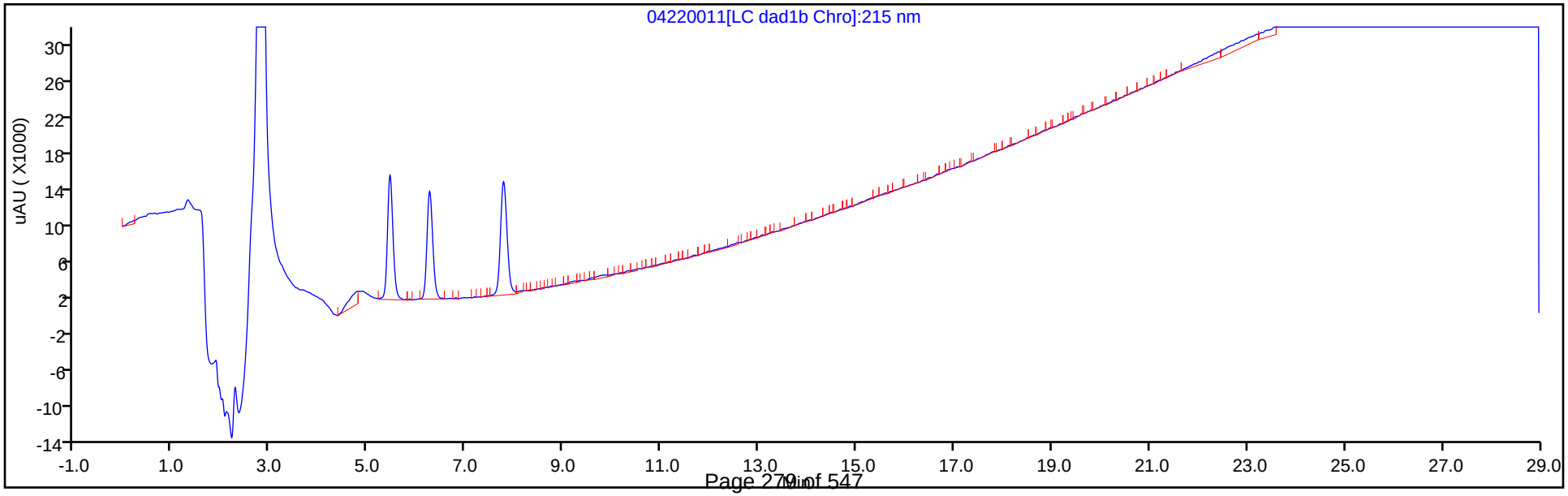
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 19:57:04 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 5 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

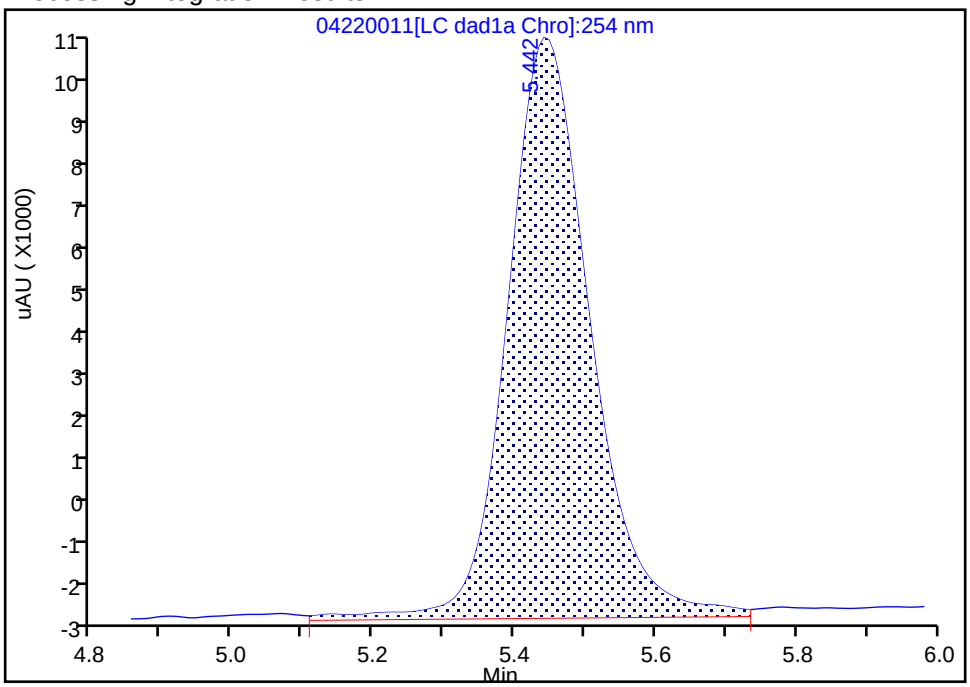
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 19:57:04 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

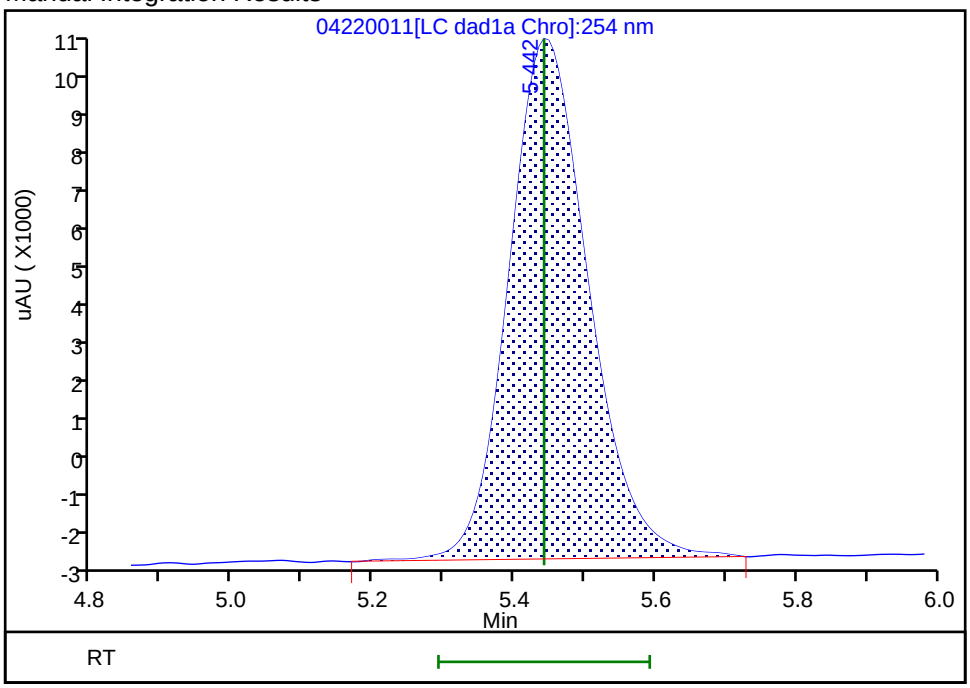
Processing Integration Results

RT: 5.44
Area: 107357
Amount: 0.244607
Amount Units: ug/ml




Manual Integration Results

RT: 5.44
Area: 101994
Amount: 0.239908
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

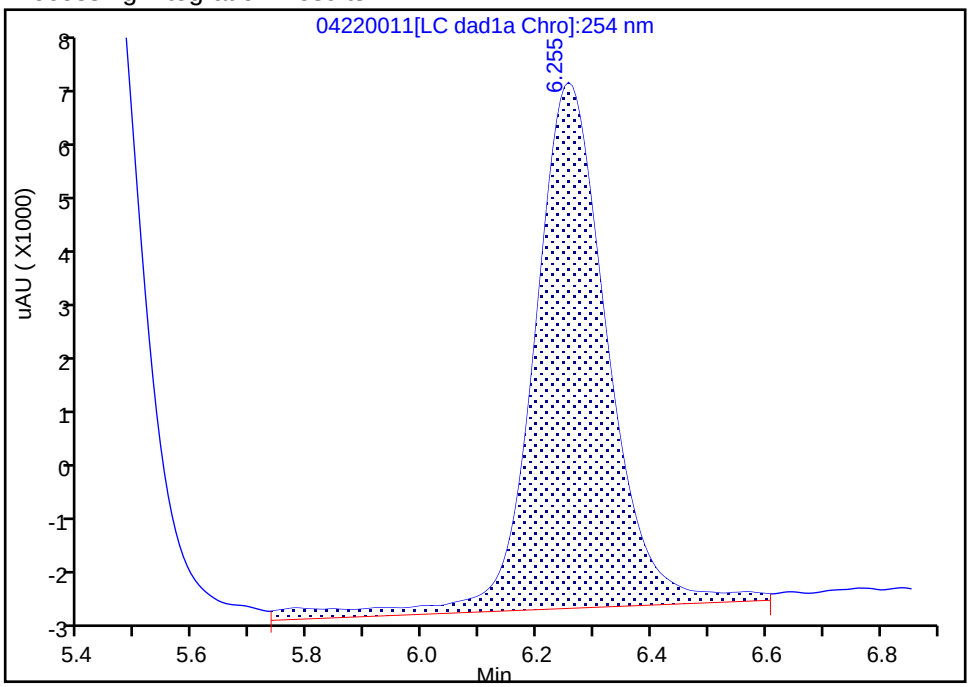
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 19:57:04 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 4 DNX, CAS: 80251-29-2

Signal: 1

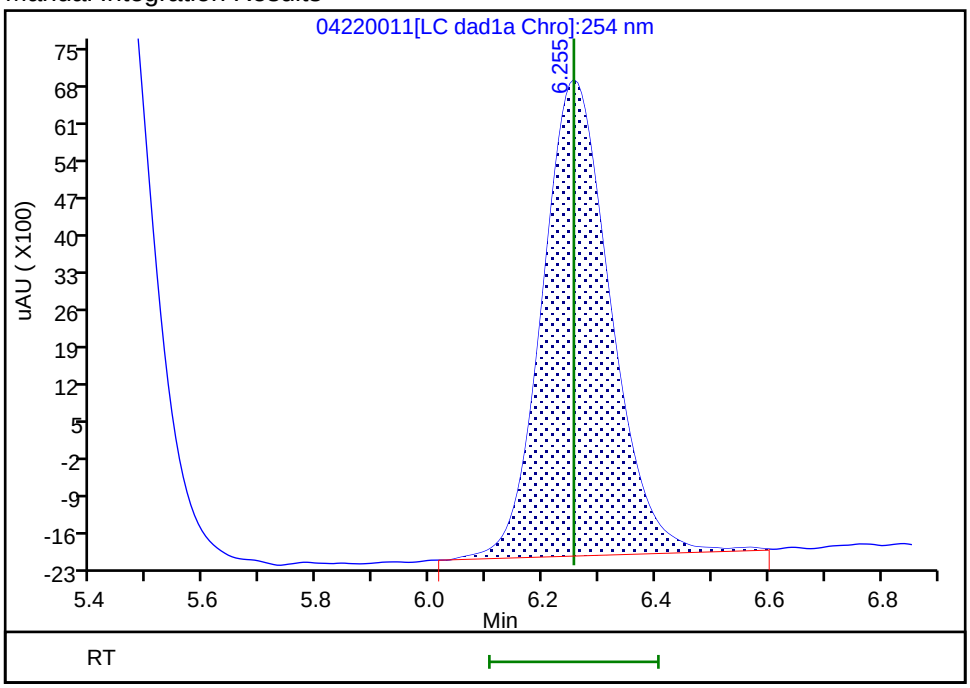
Processing Integration Results

RT: 6.26
Area: 82171
Amount: 0.236496
Amount Units: ug/ml




Manual Integration Results

RT: 6.26
Area: 75446
Amount: 0.234542
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

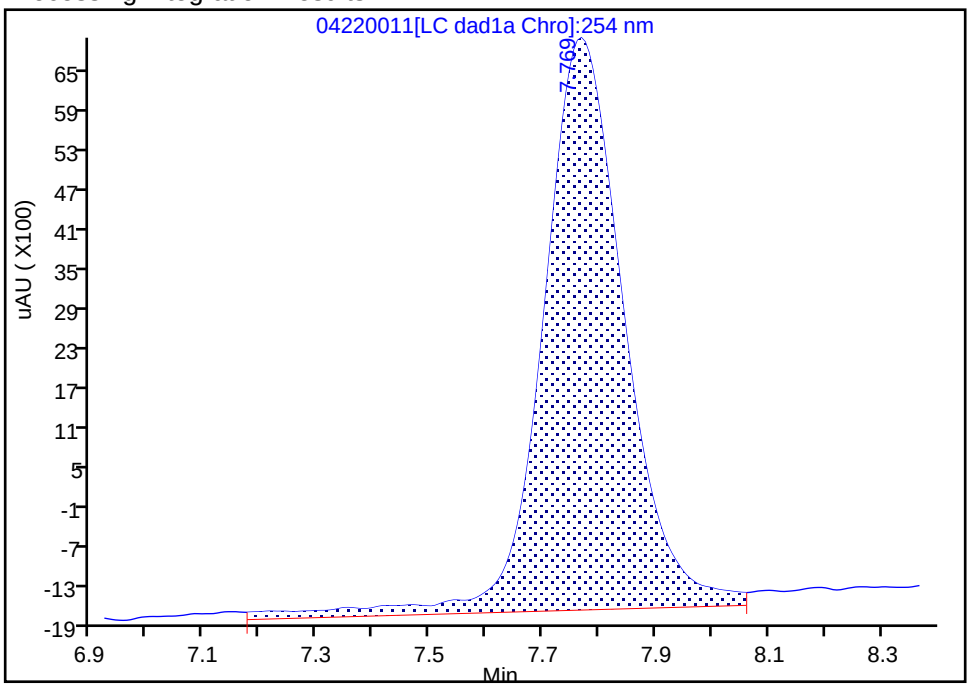
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 19:57:04 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

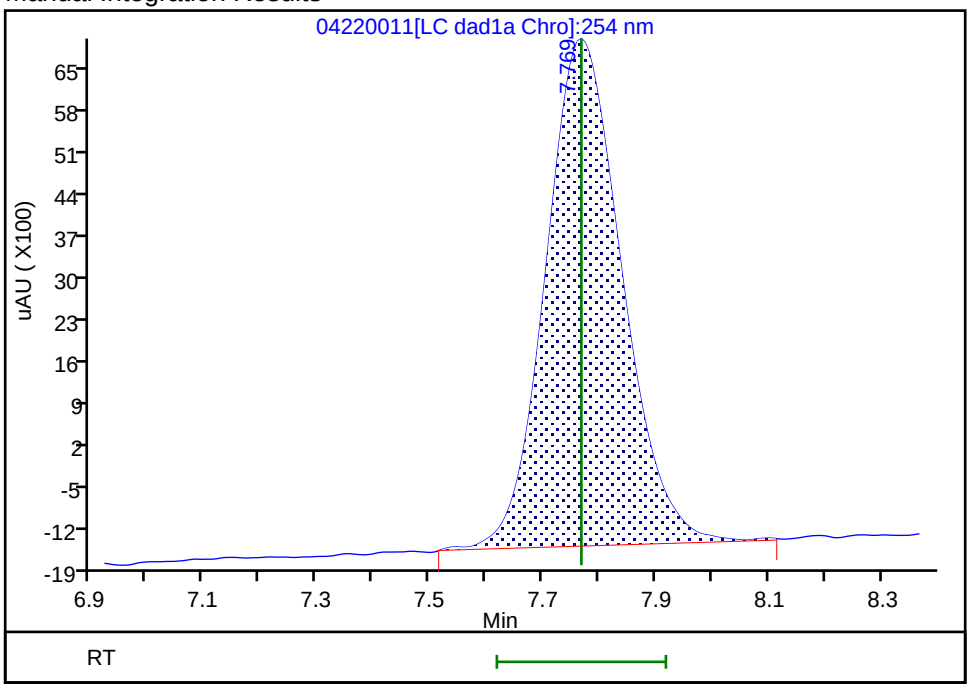
Processing Integration Results

RT: 7.77
Area: 87586
Amount: 0.278720
Amount Units: ug/ml




Manual Integration Results

RT: 7.77
Area: 79753
Amount: 0.280900
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:02:51
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220012.D | | | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 22-Apr-2020 20:32:02 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 4 | | | | |
| Misc. Info.: | 280-0090989-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:31 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:03:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.439 | 5.442 | -0.003 | 43595 | 0.1001 | 0.1025 | M |
| 4 DNX | 1 | 6.252 | 6.255 | -0.003 | 31820 | 0.1001 | 0.0989 | M |
| 7 MNX | 1 | 7.759 | 7.769 | -0.010 | 33876 | 0.1167 | 0.1193 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

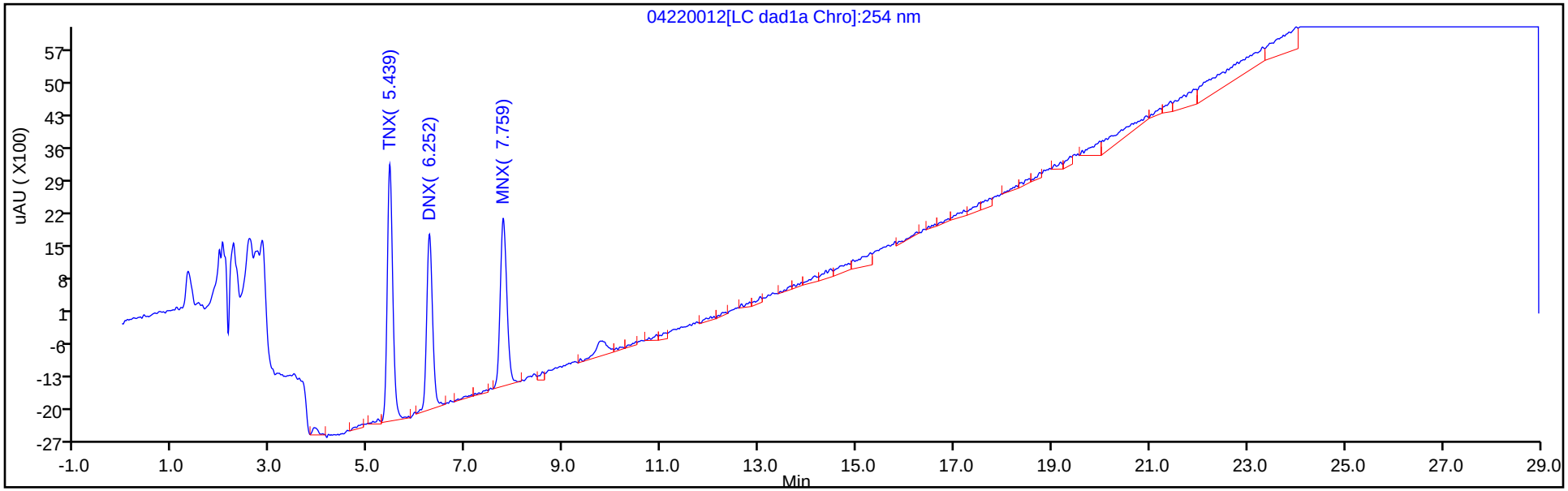
8330 DMT_00006 Amount Added: 5.00 Units: uL

Report Date: 24-Apr-2020 14:30:31 Chrom Revision: 2.3 11-Mar-2020 18:53:20

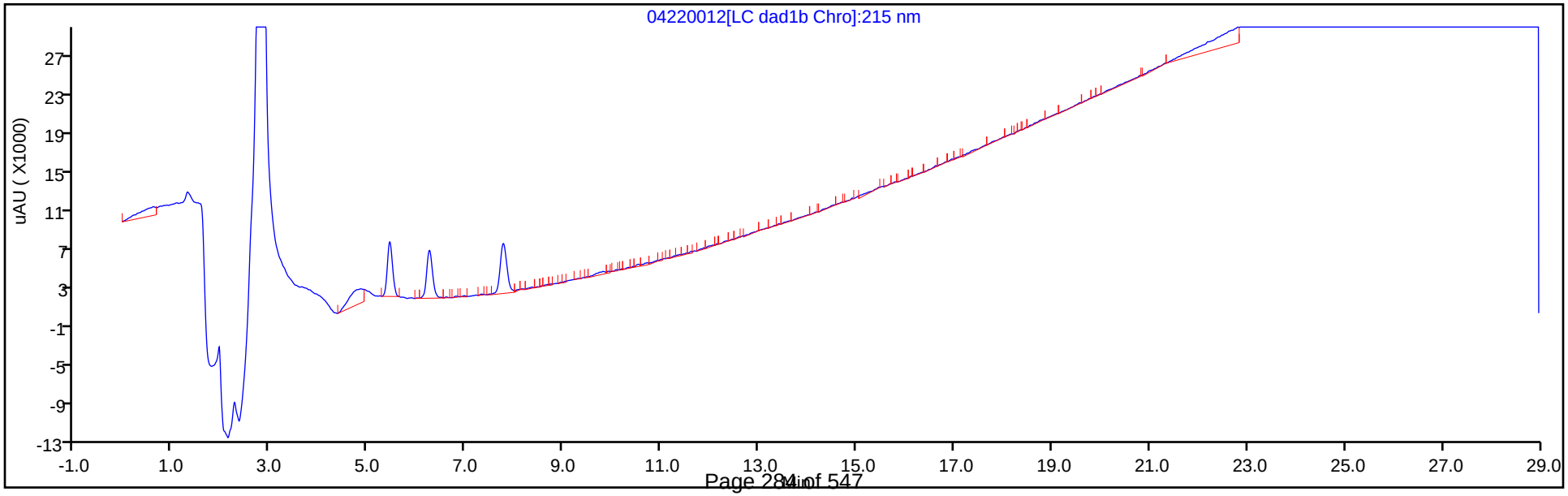
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 20:32:02 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 4 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

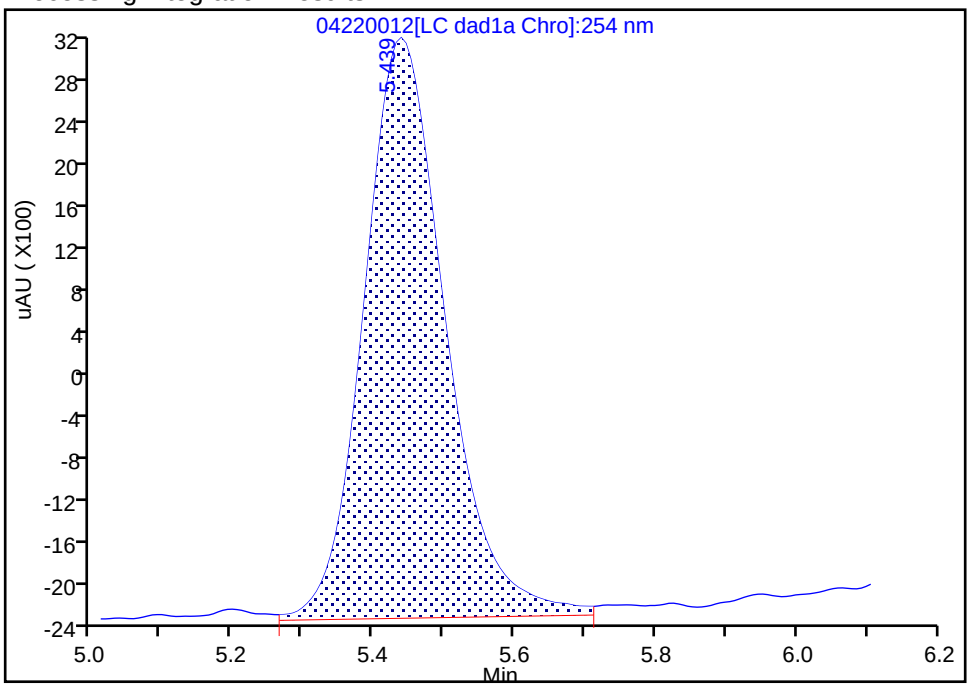
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 20:32:02 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

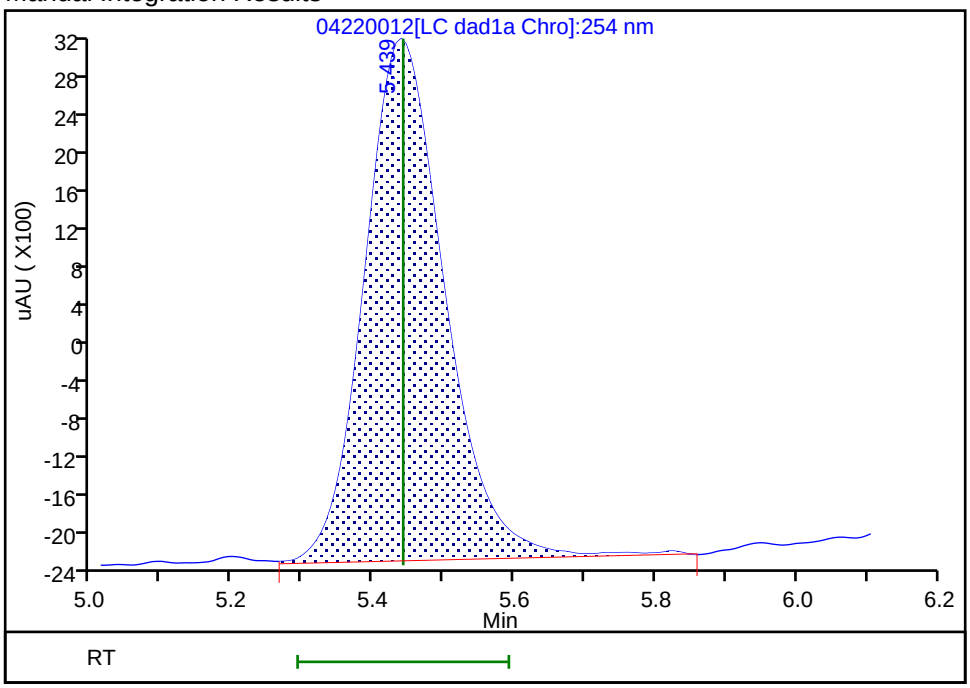
Processing Integration Results

RT: 5.44
Area: 44554
Amount: 0.102068
Amount Units: ug/ml




Manual Integration Results

RT: 5.44
Area: 43595
Amount: 0.102543
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

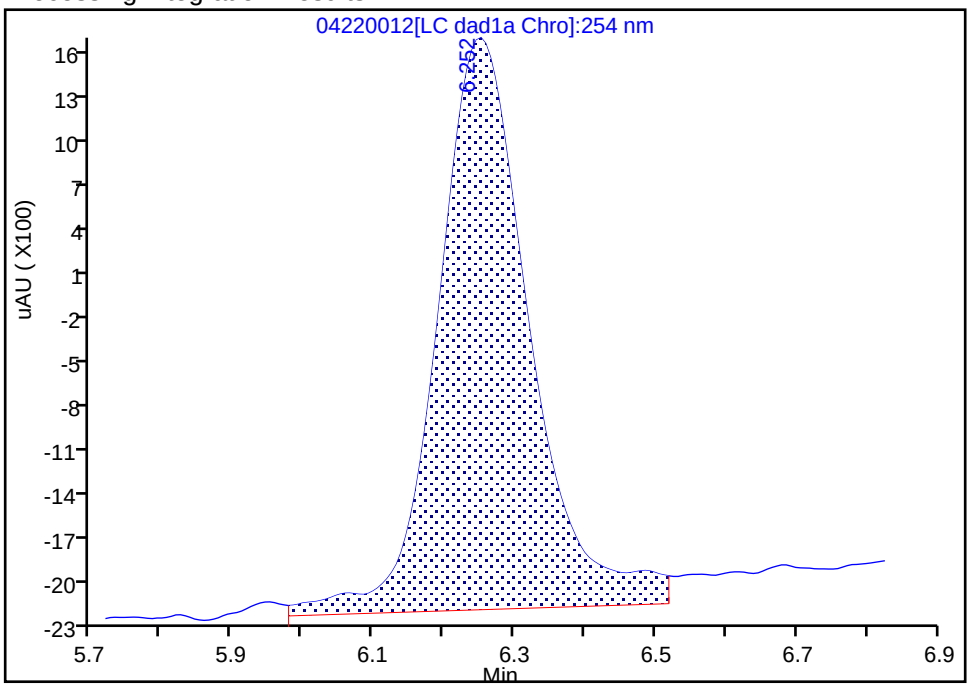
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 20:32:02 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 4 DNX, CAS: 80251-29-2

Signal: 1

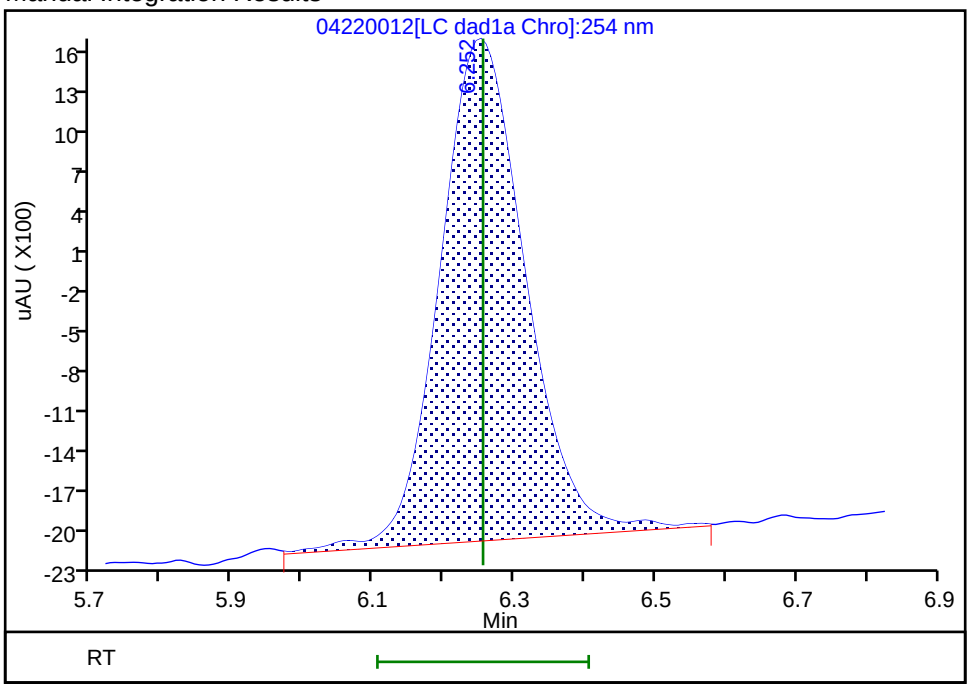
Processing Integration Results

RT: 6.25
Area: 35240
Amount: 0.102303
Amount Units: ug/ml




Manual Integration Results

RT: 6.25
Area: 31820
Amount: 0.098920
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

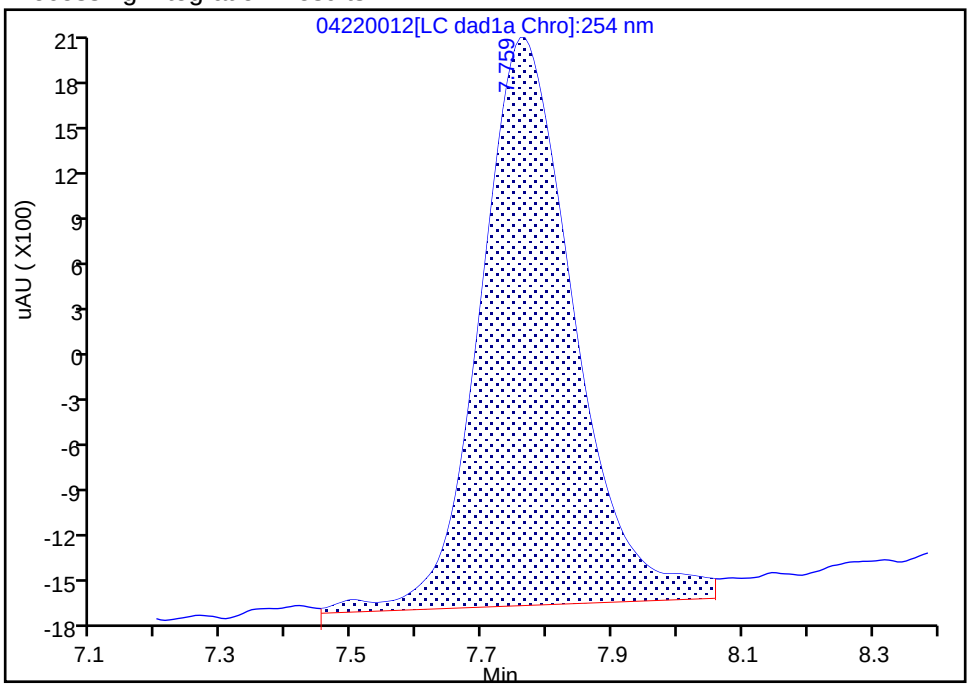
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 20:32:02 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

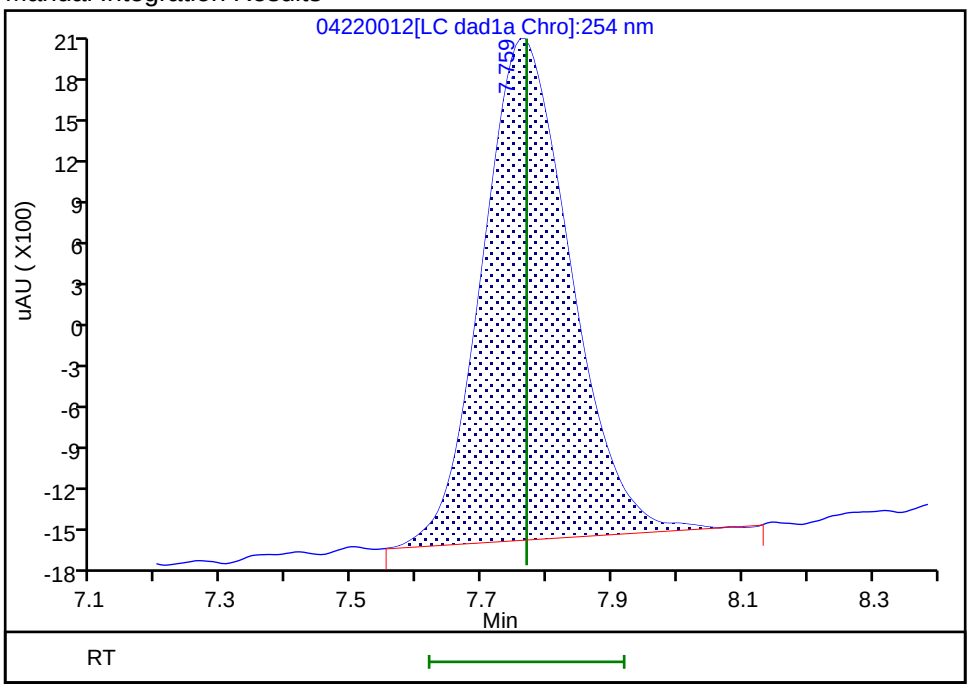
Processing Integration Results

RT: 7.76
Area: 36936
Amount: 0.118666
Amount Units: ug/ml




Manual Integration Results

RT: 7.76
Area: 33876
Amount: 0.119315
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:14

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220013.D | | | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 22-Apr-2020 21:07:00 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 3 | | | | |
| Misc. Info.: | 280-0090989-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:31 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:03:43

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.444 | 5.442 | 0.002 | 21927 | 0.0501 | 0.0516 | M |
| 4 DNX | 1 | 6.250 | 6.255 | -0.005 | 16636 | 0.0501 | 0.0517 | M |
| 7 MNX | 1 | 7.764 | 7.769 | -0.005 | 16696 | 0.0584 | 0.0588 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

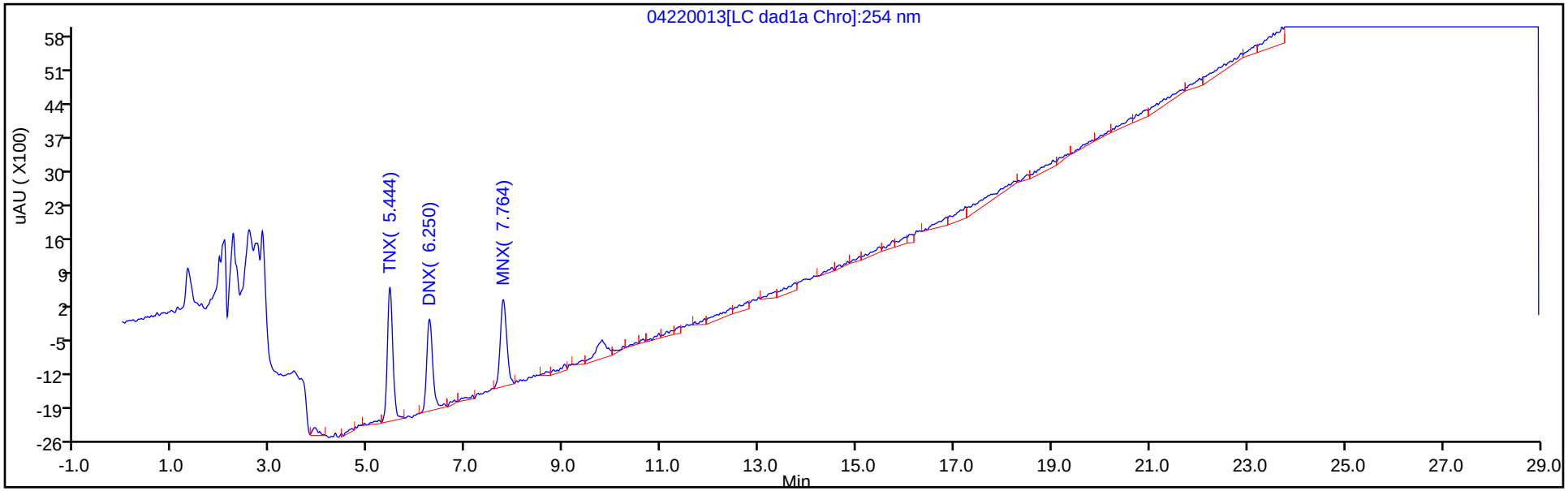
8330 DMT_00006 Amount Added: 2.50 Units: uL

Report Date: 24-Apr-2020 14:30:31 Chrom Revision: 2.3 11-Mar-2020 18:53:20

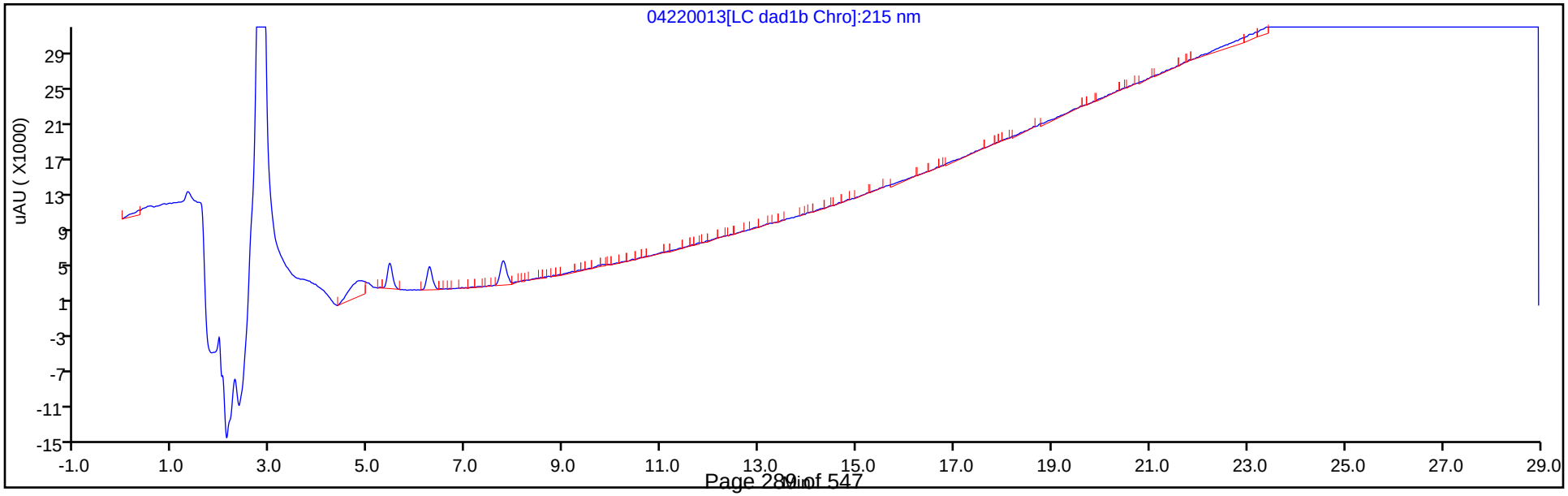
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 21:07:00 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 3 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

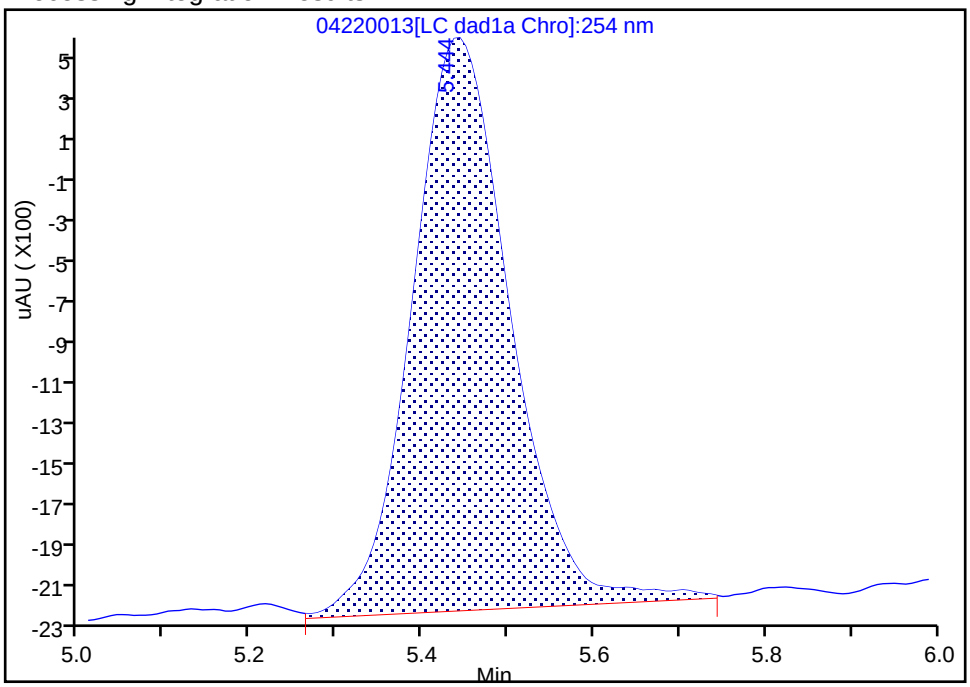
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 21:07:00 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

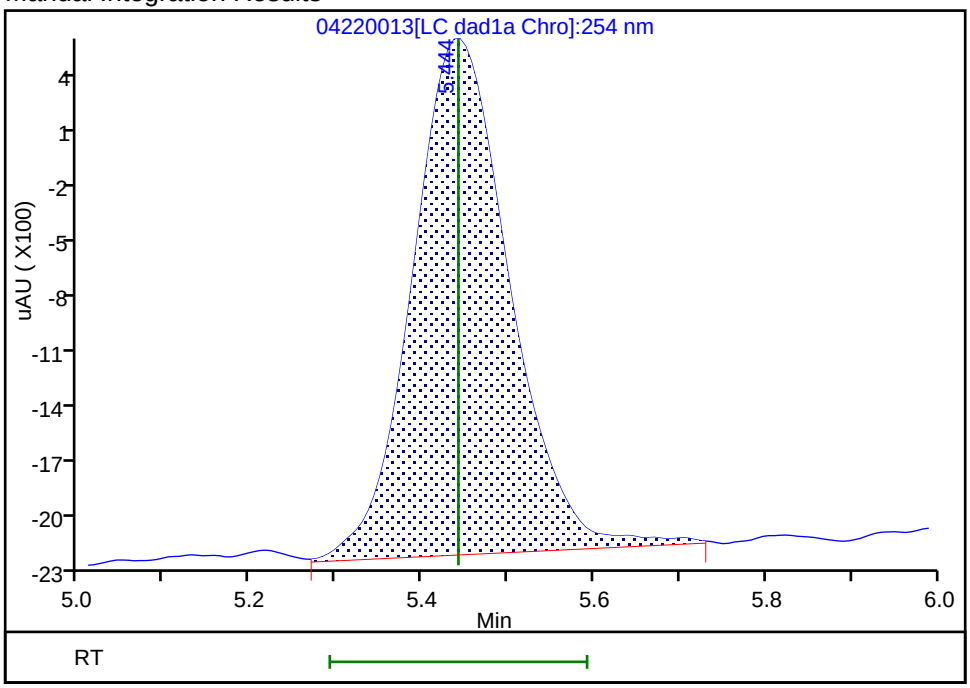
Processing Integration Results

RT: 5.44
Area: 22233
Amount: 0.051057
Amount Units: ug/ml




Manual Integration Results

RT: 5.44
Area: 21927
Amount: 0.051576
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:28

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

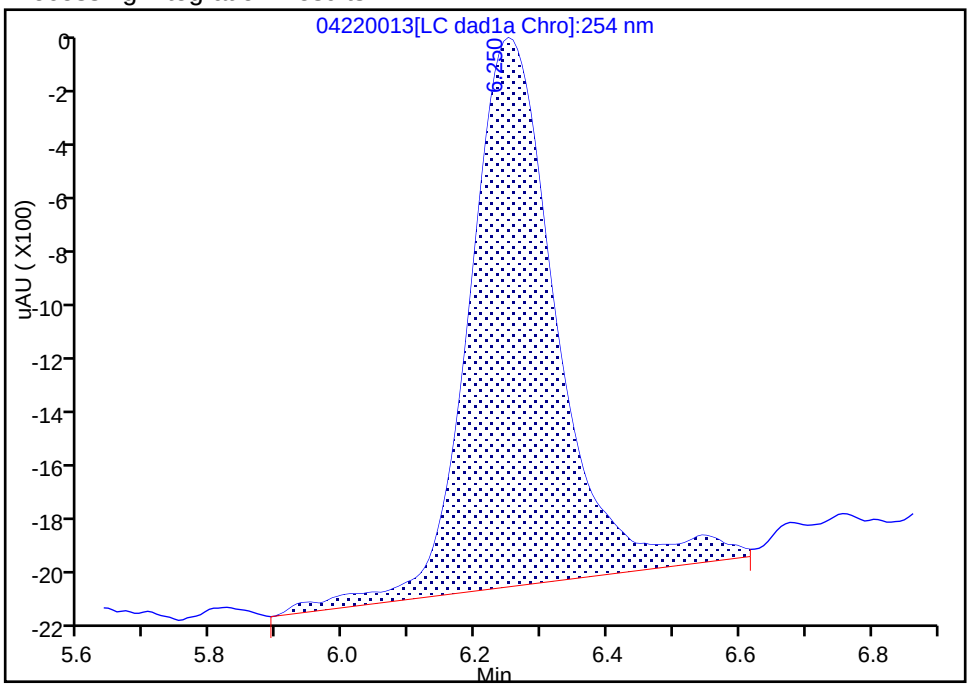
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 21:07:00 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 4 DNX, CAS: 80251-29-2

Signal: 1

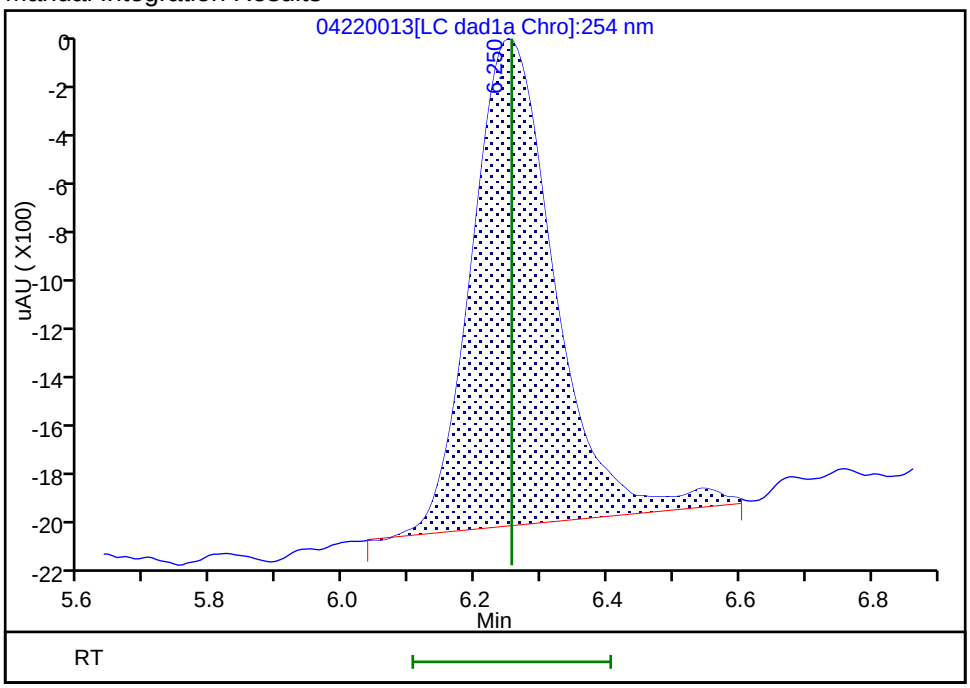
Processing Integration Results

RT: 6.25
Area: 18018
Amount: 0.052890
Amount Units: ug/ml




Manual Integration Results

RT: 6.25
Area: 16636
Amount: 0.051717
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

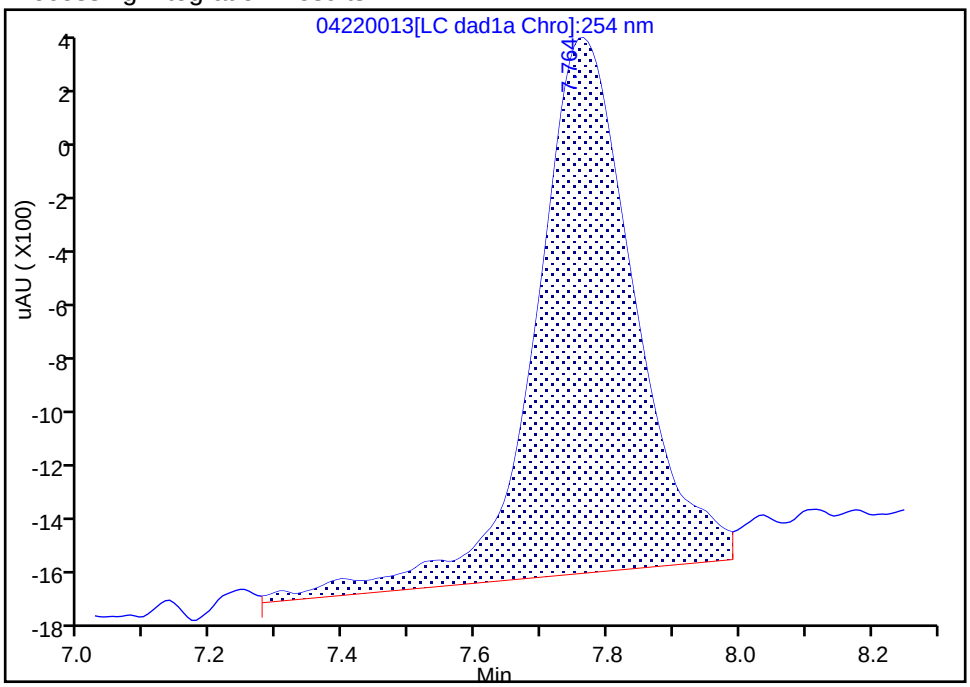
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220013.d | | | | |
| Injection Date: | 22-Apr-2020 21:07:00 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

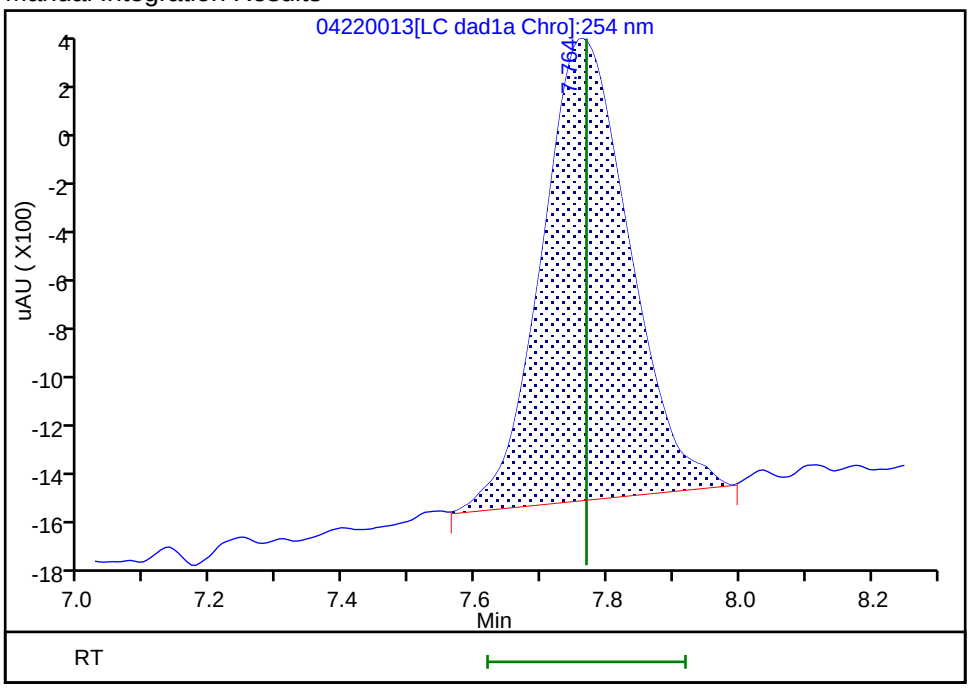
Processing Integration Results

RT: 7.76
Area: 19796
Amount: 0.064200
Amount Units: ug/ml




Manual Integration Results

RT: 7.76
Area: 16696
Amount: 0.058805
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:38

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 23-Apr-2020 07:38:43 | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC FULL 2 | | | | |
| Misc. Info.: | 280-0090989-014 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:32 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:01:03

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.400 | 5.442 | -0.042 | 9070 | 0.0200 | 0.0213 | M |
| 4 DNX | 1 | 6.206 | 6.255 | -0.049 | 7908 | 0.0200 | 0.0246 | |
| 7 MNX | 1 | 7.713 | 7.769 | -0.056 | 7109 | 0.0233 | 0.0250 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

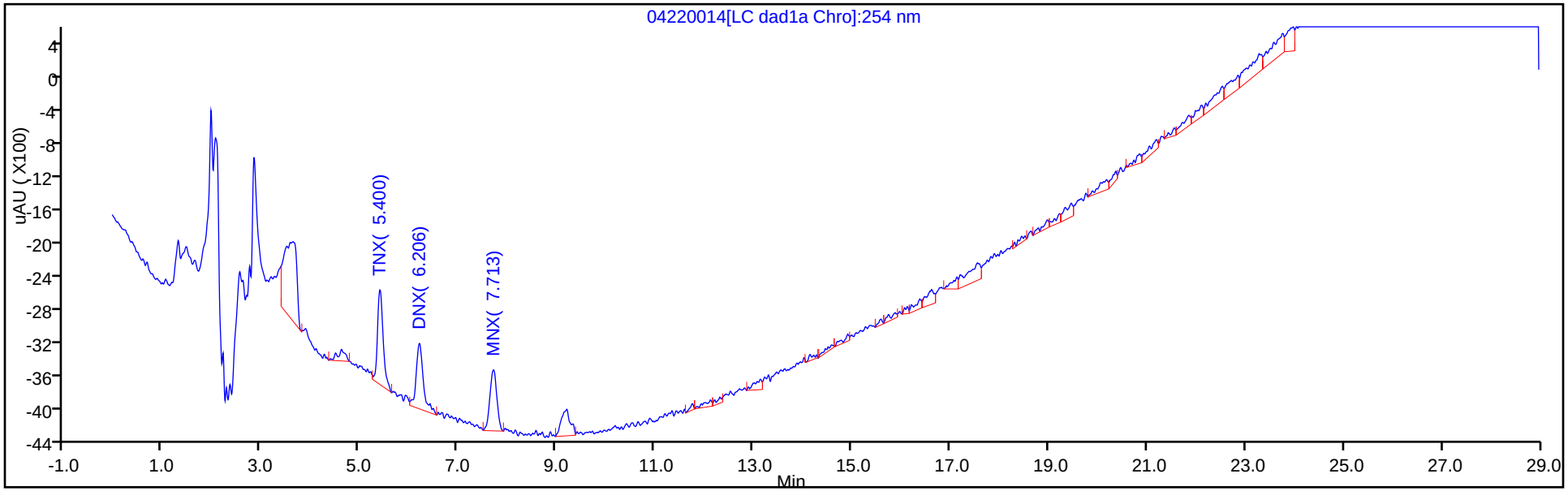
8330 DMT_00006 Amount Added: 1.00 Units: uL

Report Date: 24-Apr-2020 14:30:32 Chrom Revision: 2.3 11-Mar-2020 18:53:20

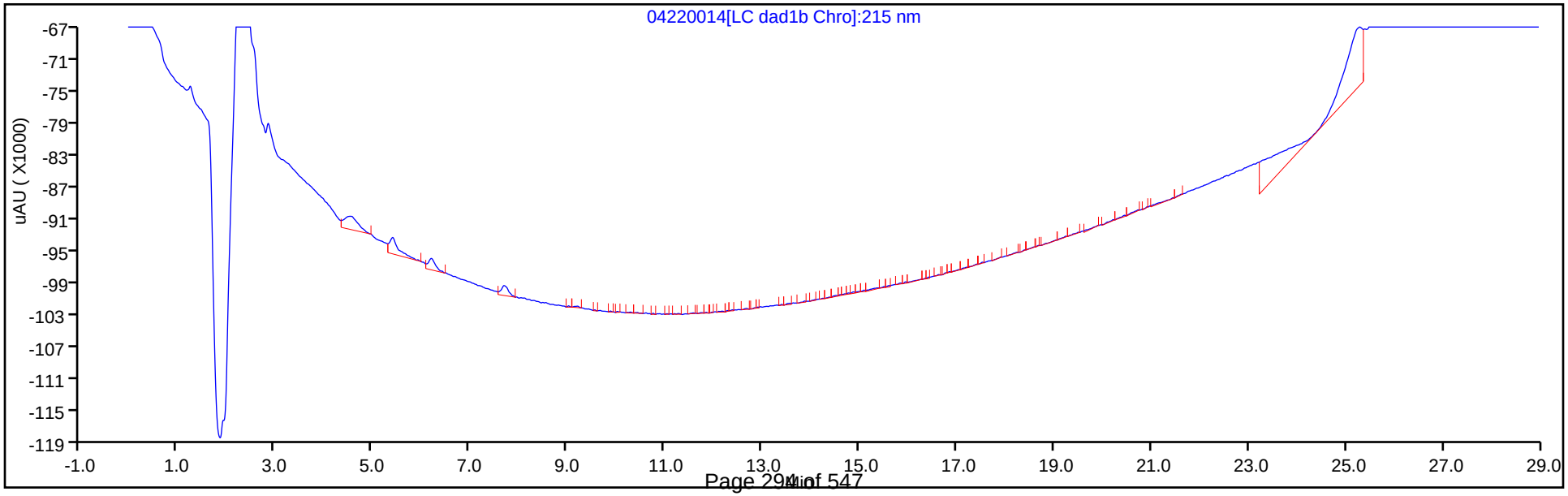
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220014.d | | | | |
| Injection Date: | 23-Apr-2020 07:38:43 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 2 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

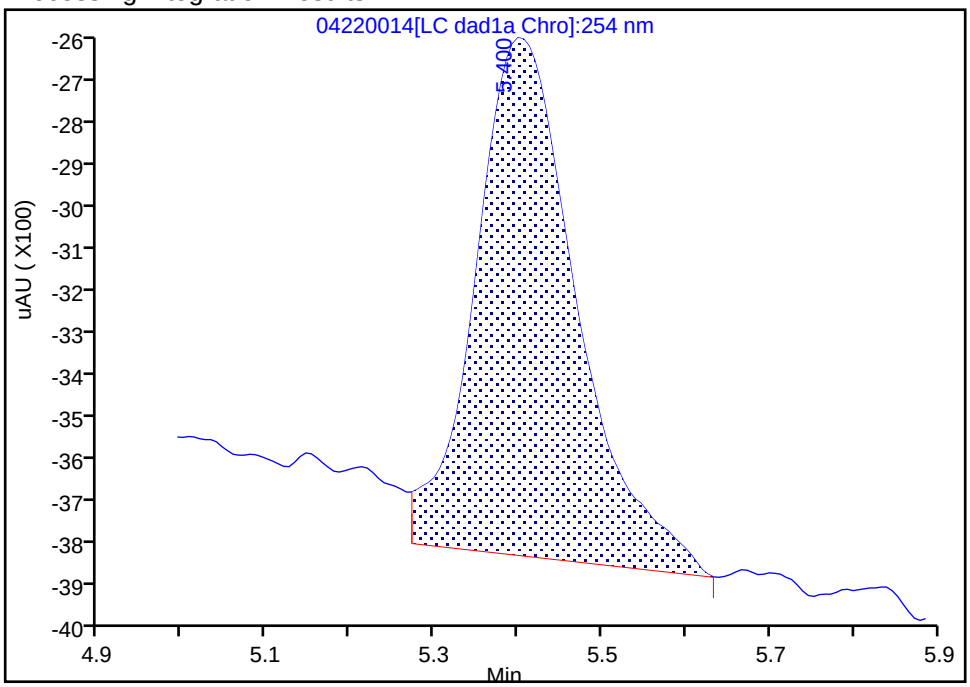
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220014.d | | | | |
| Injection Date: | 23-Apr-2020 07:38:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 3 TNX, CAS: 13980-04-6

Signal: 1

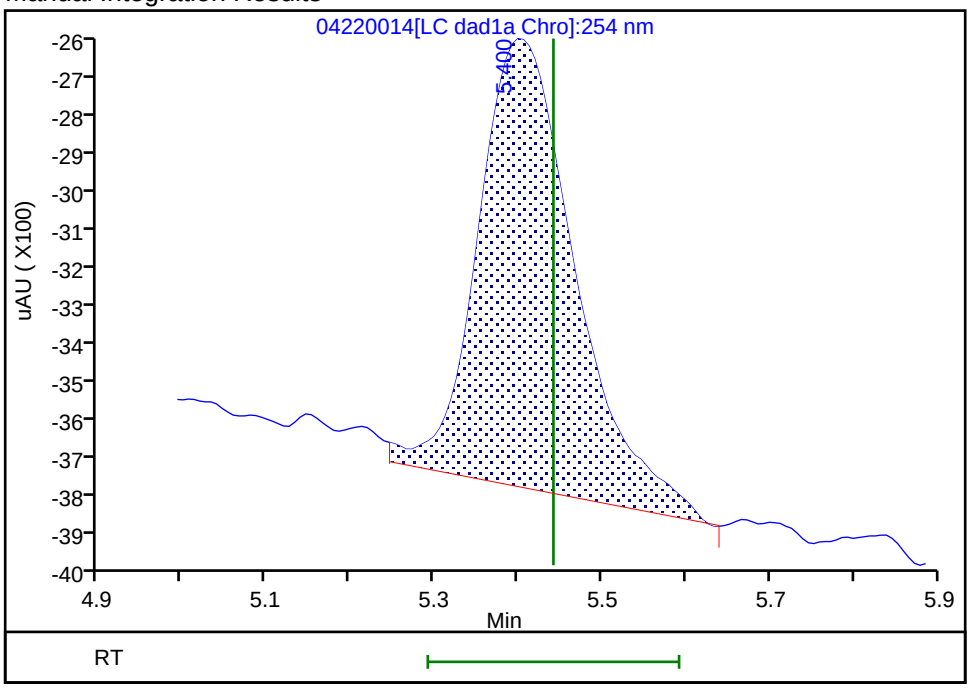
Processing Integration Results

RT: 5.40
Area: 9853
Amount: 0.022663
Amount Units: ug/ml




Manual Integration Results

RT: 5.40
Area: 9070
Amount: 0.021334
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:03:57

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 6.592 | 6.588 | 6.589 | 6.591 | 6.591 | 6.591 | 6.591 | 6.590 | | | 6.491 - 6.691 | 6.590 |
| DNX | 6.912 | 6.914 | 6.915 | 6.918 | 6.917 | 6.918 | 6.918 | 6.916 | | | 6.818 - 7.018 | 6.916 |
| MNX | 7.359 | 7.354 | 7.355 | 7.358 | 7.357 | 7.358 | 7.358 | 7.356 | | | 7.208 - 7.508 | 7.357 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 216933<br>212722 | 213207<br>212002 | 209810<br>219067 | 231497<br>225632 | Ave | | 217608.702 | | | | 3.5 | | 20.0 | | | |
| DNX | 117133<br>161214 | 137942<br>160624 | 149221<br>163997 | 167576<br>165720 | Ave | | 152928.307 | | | | 11.5 | | 20.0 | | | |
| MNX | 175621<br>156707 | 161285<br>152355 | 156238<br>154895 | 157686<br>153564 | Ave | | 158544.202 | | | | 4.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| TNX | Ave | 4343<br>148550 | 10671<br>219286 | 21002<br>564643 | 57932 | 85174 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 2345<br>112549 | 6904<br>164161 | 14937<br>414714 | 41936 | 64550 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 4099<br>124459 | 9411<br>180763 | 18233<br>448024 | 46005 | 73151 | 0.0233<br>0.817 | 0.0584<br>1.17 | 0.117<br>2.92 | 0.292 | 0.467 |

Curve Type Legend:
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040025.D | | | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 04-Mar-2020 21:00:00 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L8 | | | | |
| Misc. Info.: | 280-0089779-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:20 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:04

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.590 | 6.591 | -0.001 | 564643 | 2.50 | 2.59 | M |
| 5 DNX | 1 | 6.916 | 6.918 | -0.002 | 414714 | 2.50 | 2.71 | M |
| 6 MNX | 1 | 7.356 | 7.358 | -0.002 | 448024 | 2.92 | 2.83 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

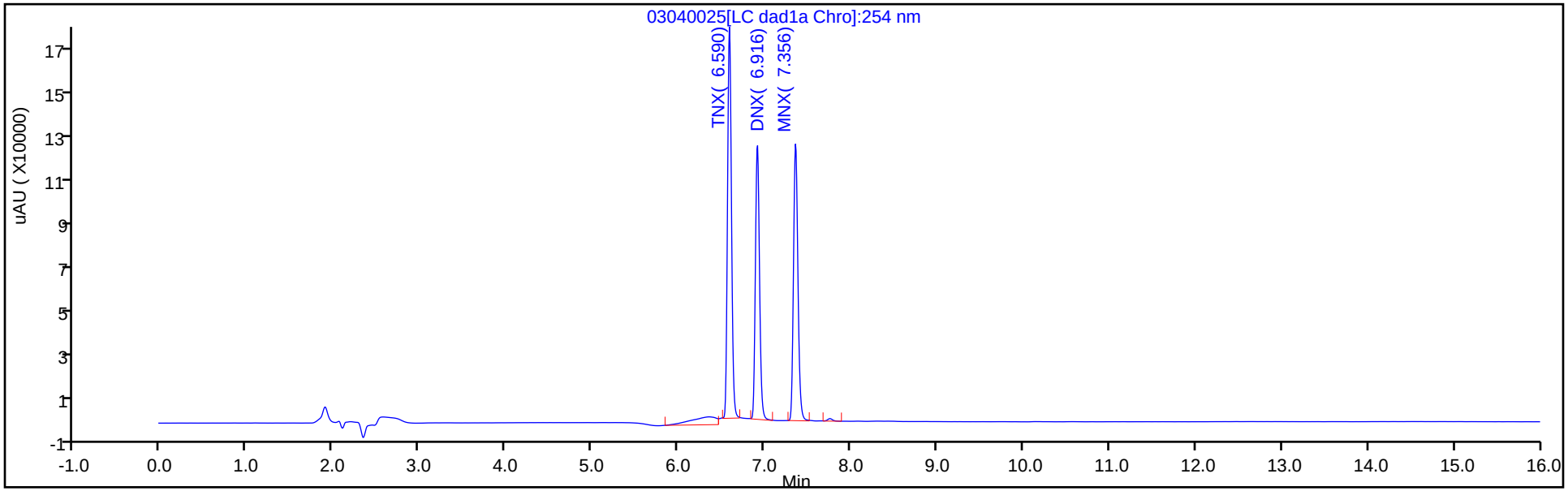
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

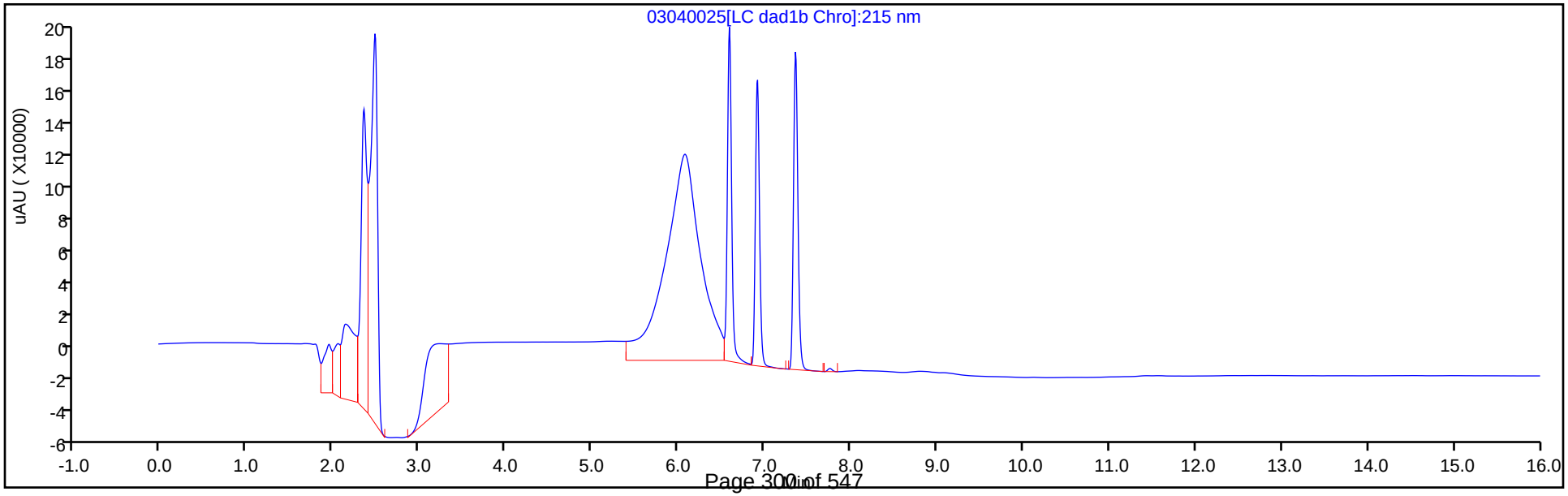
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L8 | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

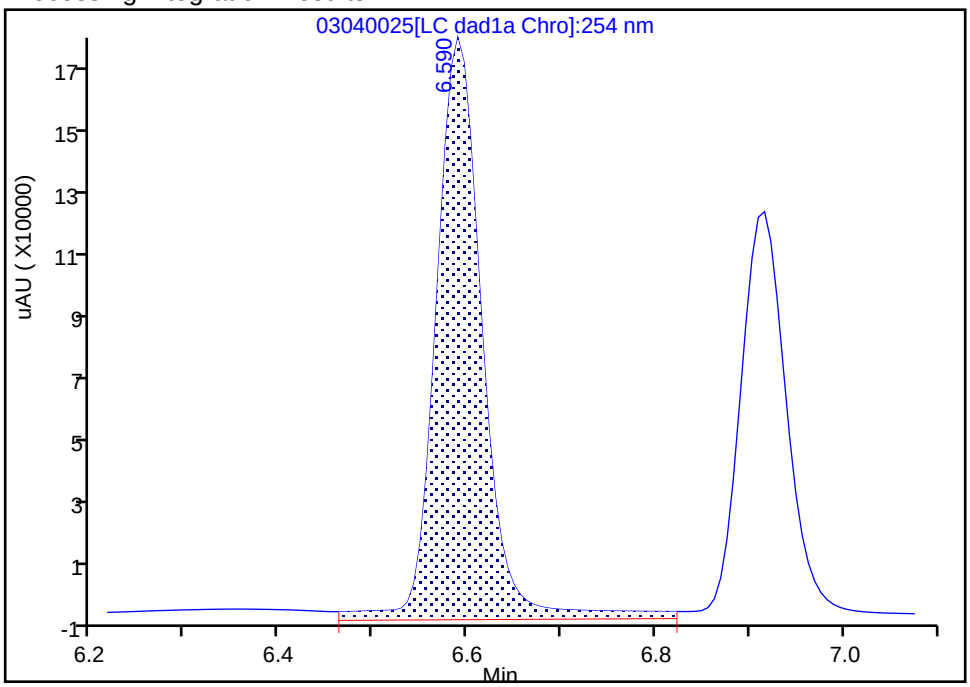
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

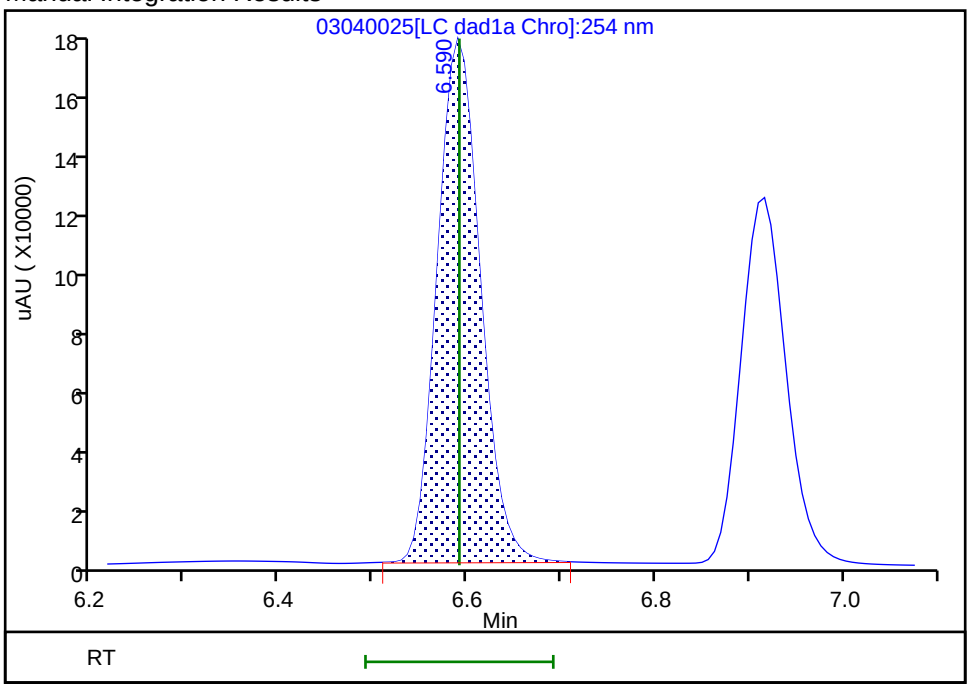
Processing Integration Results

RT: 6.59
Area: 620676
Amount: 2.450904
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 564643
Amount: 2.594763
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:29:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

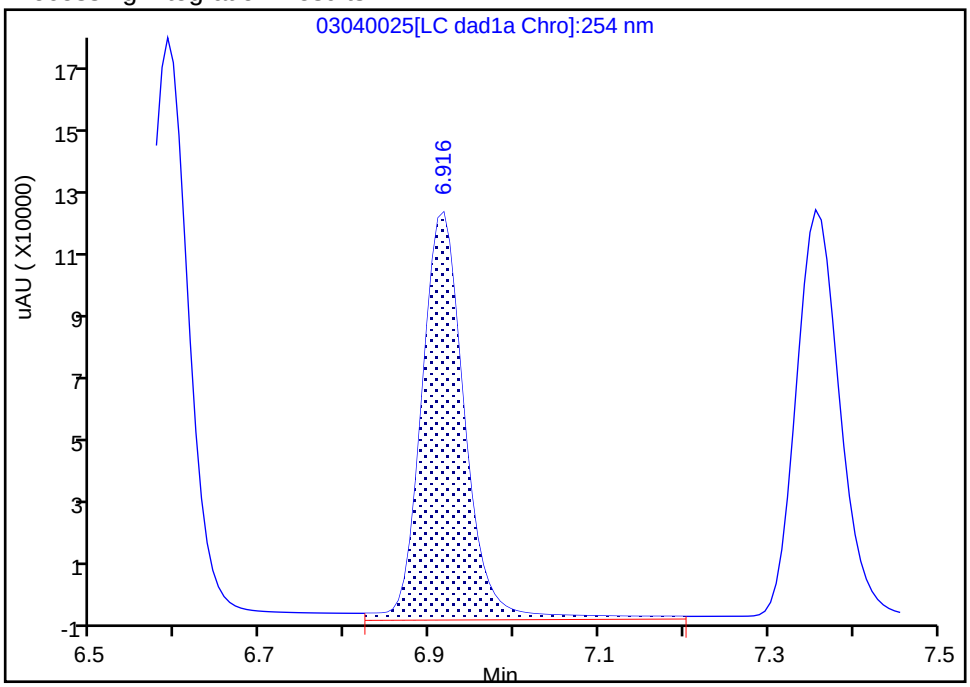
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

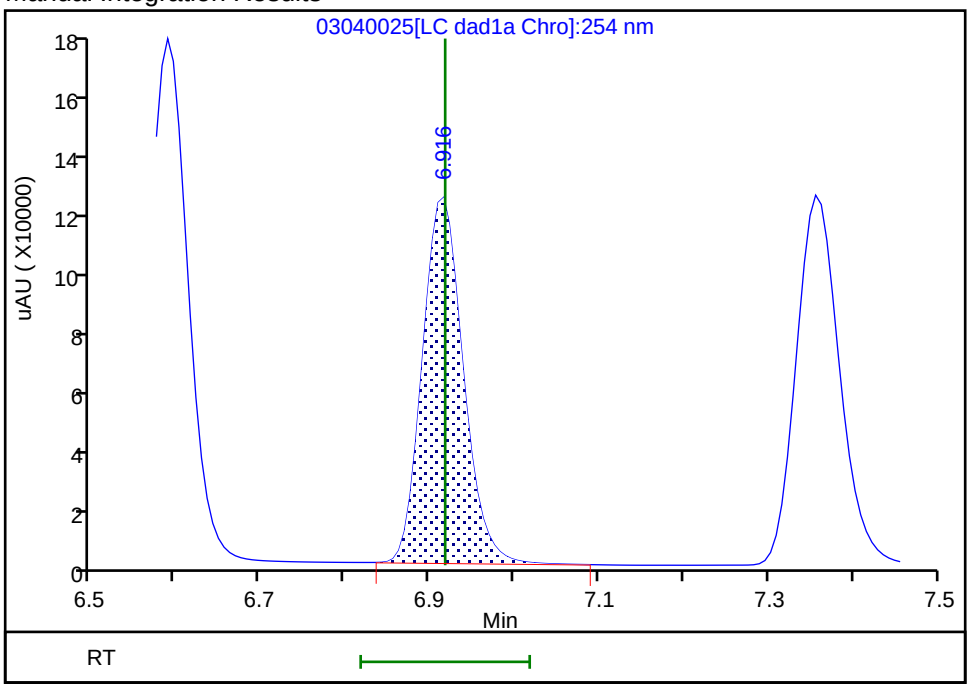
Processing Integration Results

RT: 6.92
Area: 445633
Amount: 2.254277
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 414714
Amount: 2.711820
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:29:52
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

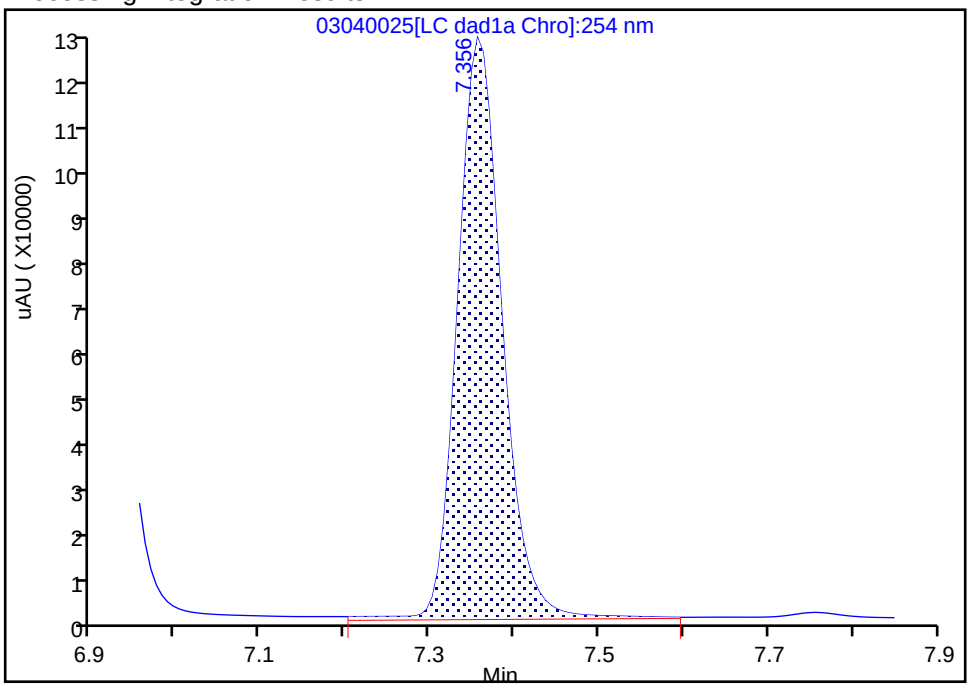
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

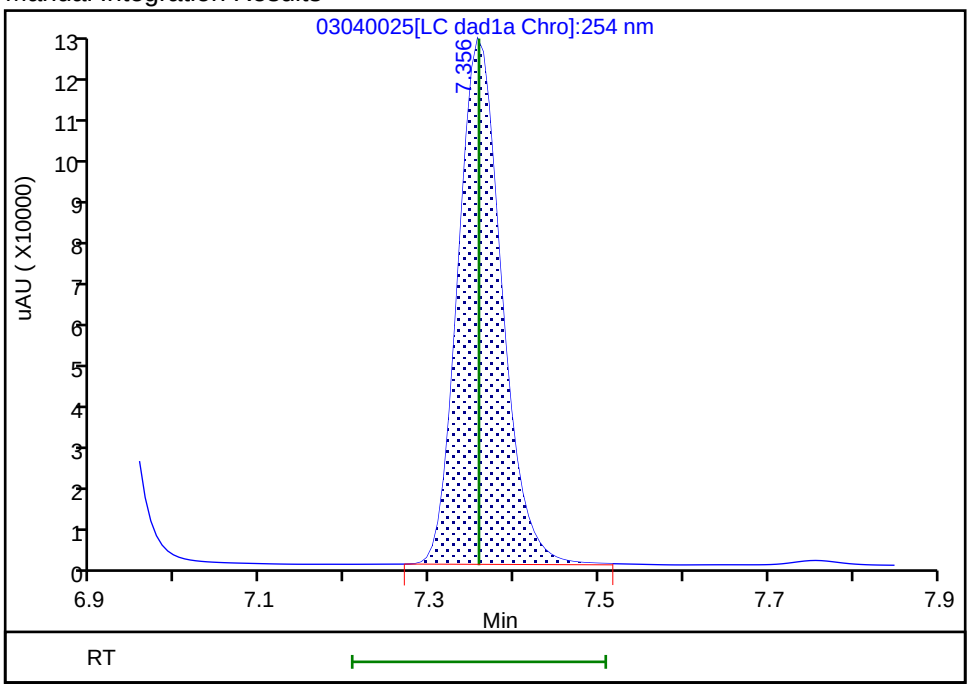
Processing Integration Results

RT: 7.36
Area: 461400
Amount: 2.899748
Amount Units: ug/mL




Manual Integration Results

RT: 7.36
Area: 448024
Amount: 2.825862
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040026.D | | | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 04-Mar-2020 21:23:03 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L7 | | | | |
| Misc. Info.: | 280-0089779-026 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:21 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 219286 | 1.00 | 1.01 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 164161 | 1.00 | 1.07 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 180763 | 1.17 | 1.14 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

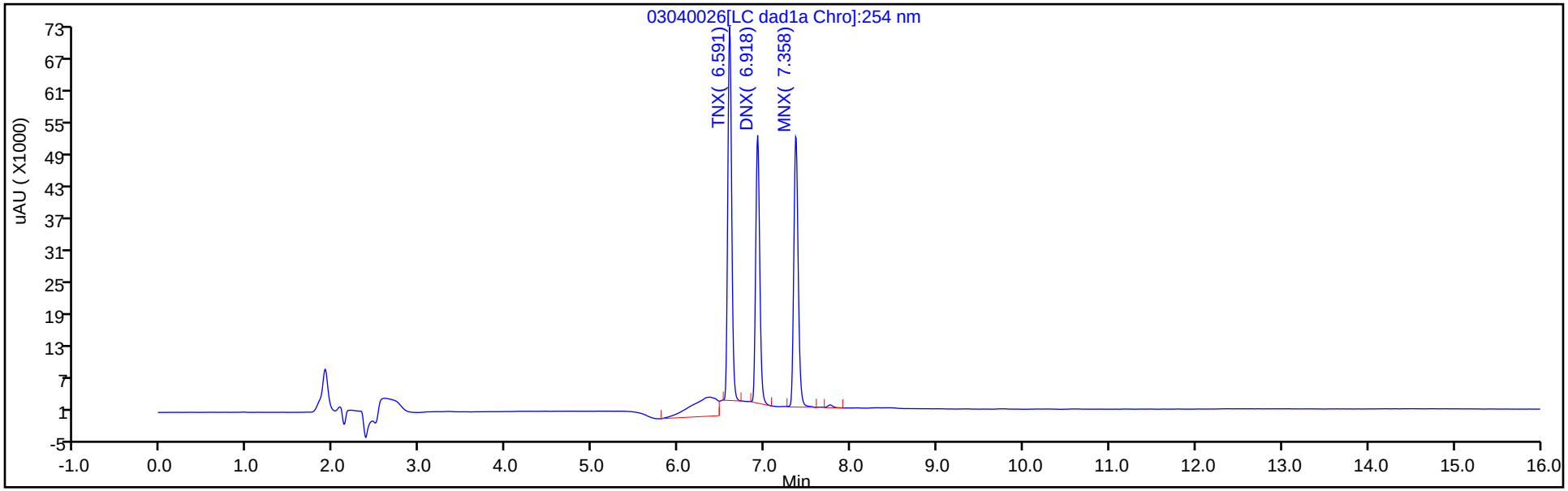
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

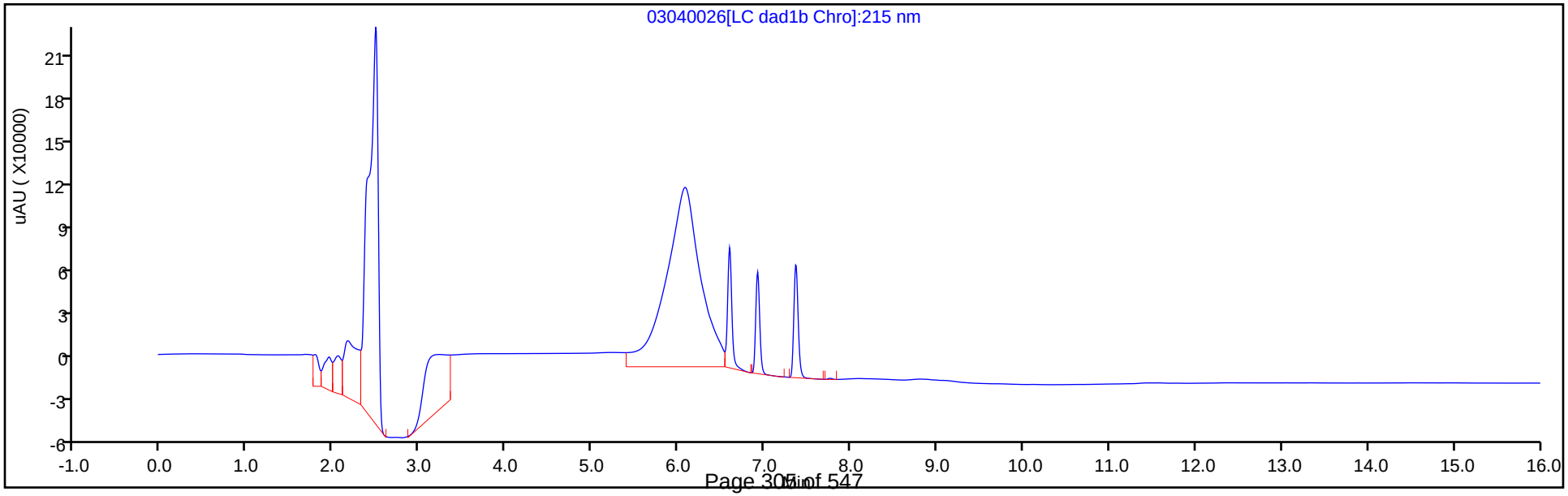
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L7 | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

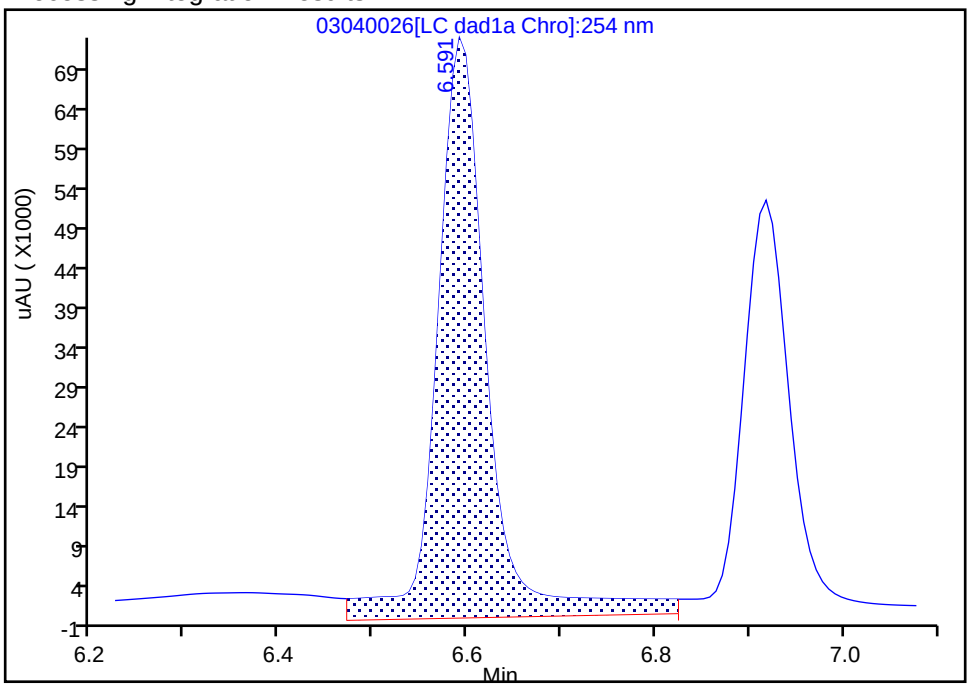
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

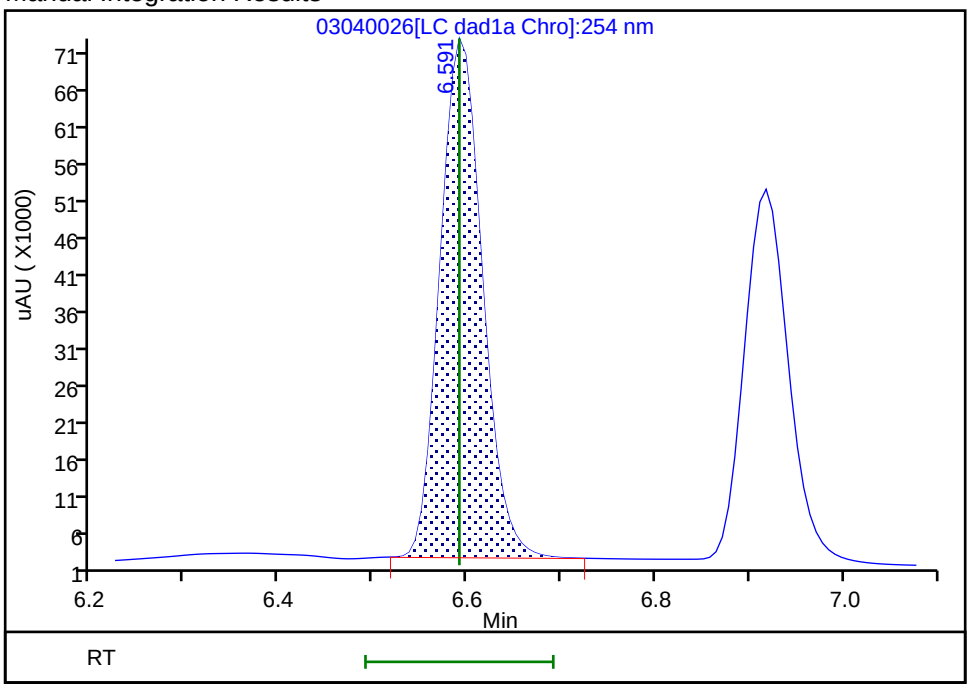
Processing Integration Results

RT: 6.59
Area: 269369
Amount: 1.068967
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 219286
Amount: 1.007708
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

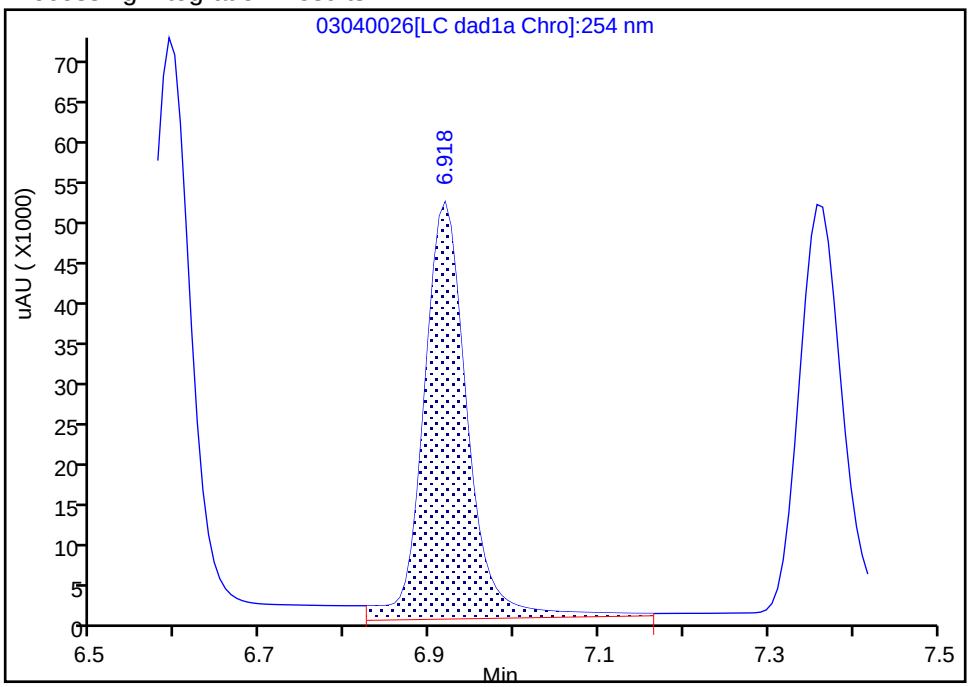
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

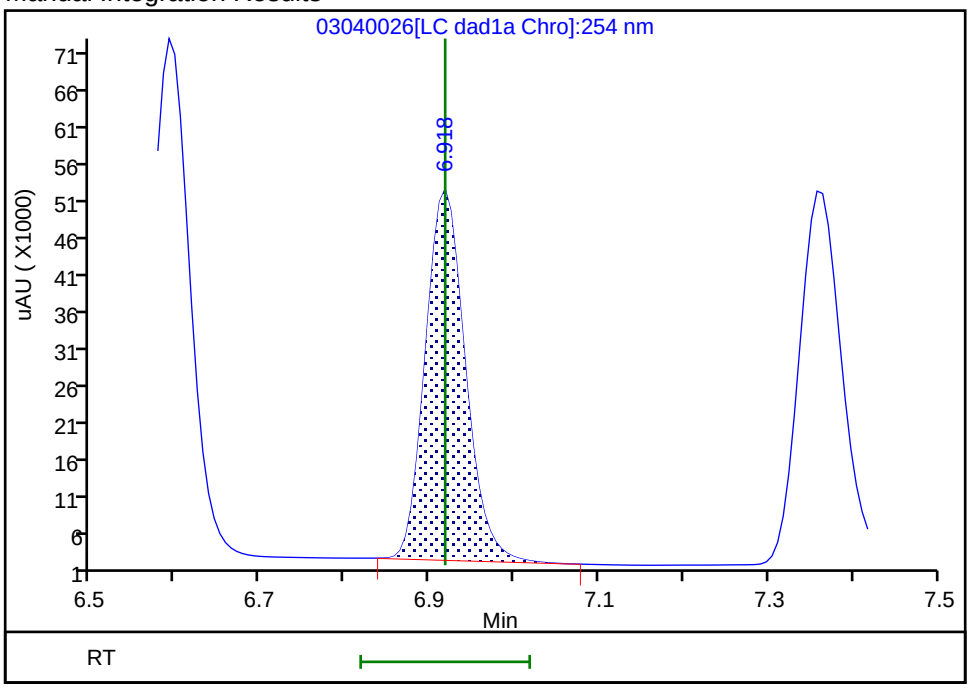
Processing Integration Results

RT: 6.92
Area: 184230
Amount: 0.939283
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 164161
Amount: 1.073451
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040027.D | | | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 04-Mar-2020 21:45:58 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L6 | | | | |
| Misc. Info.: | 280-0089779-027 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:23 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 148550 | 0.7007 | 0.6826 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 112549 | 0.7007 | 0.7360 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 124459 | 0.8169 | 0.7850 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

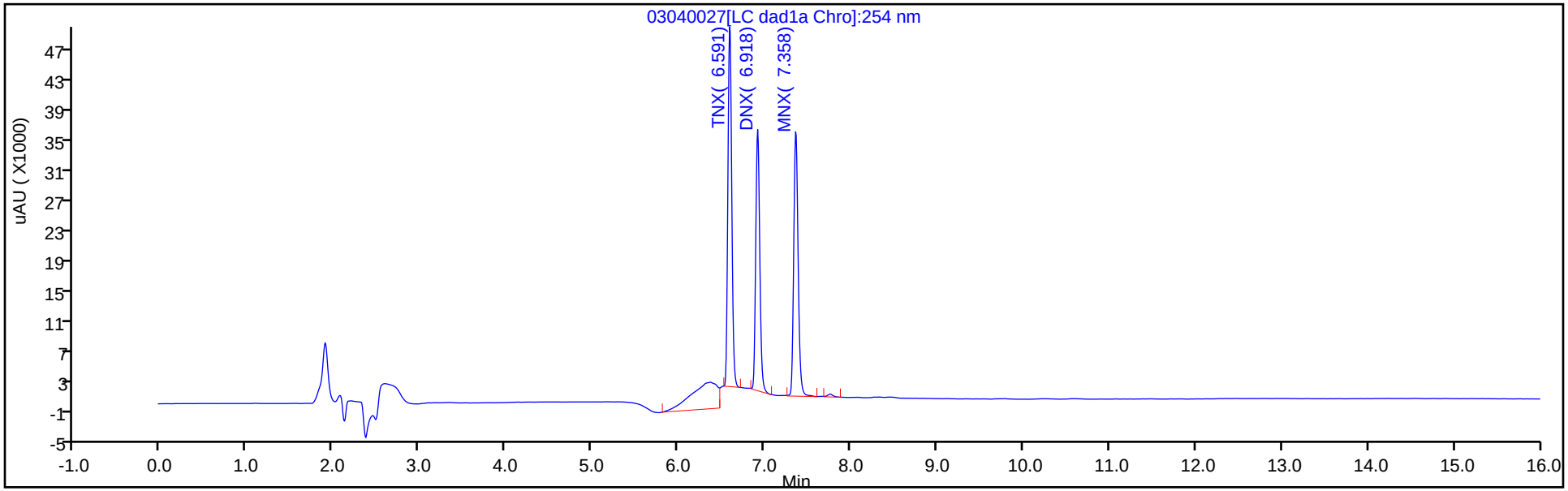
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

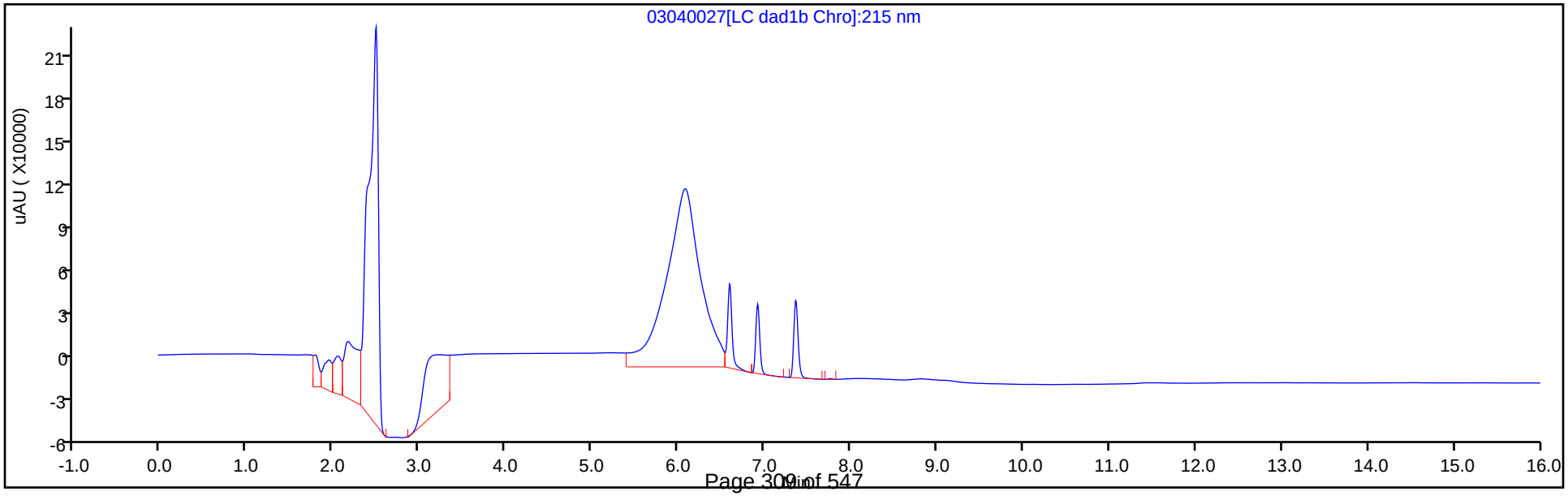
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L6 | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

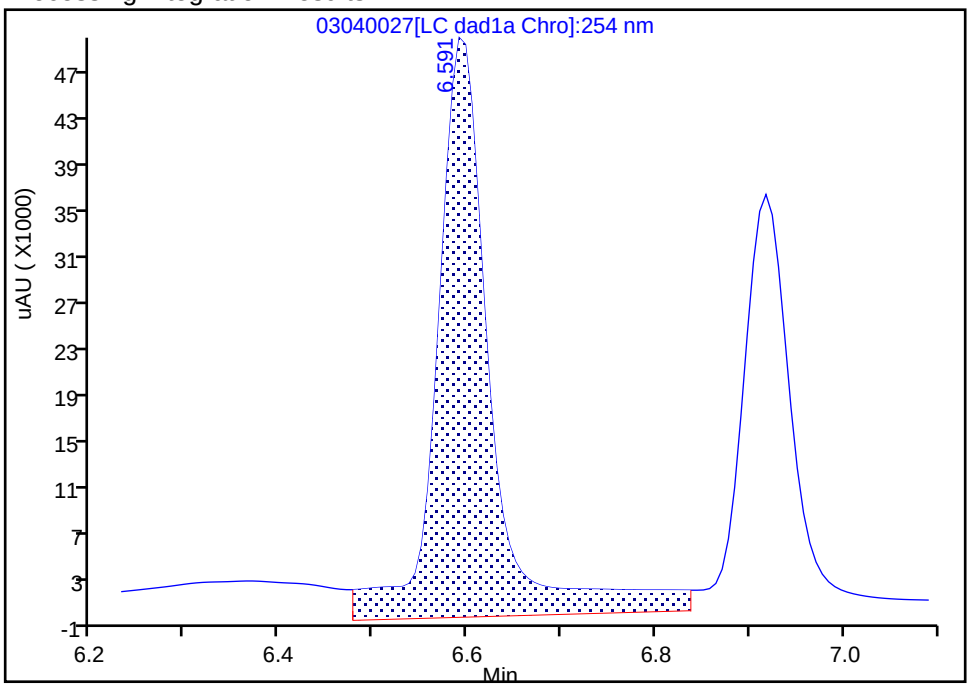
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

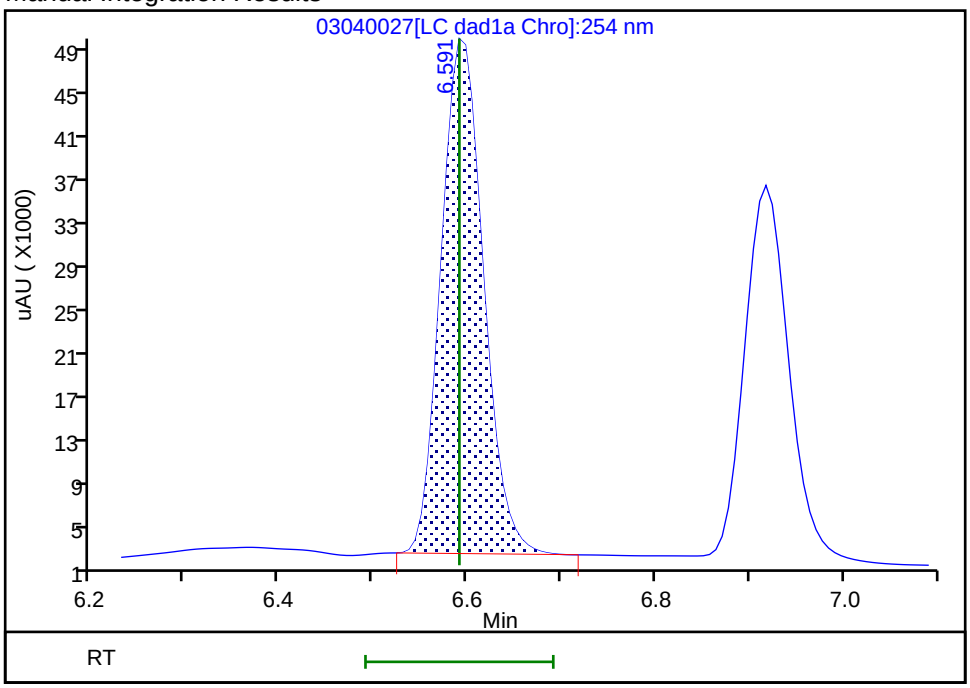
Processing Integration Results

RT: 6.59
Area: 198883
Amount: 0.812342
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 148550
Amount: 0.682647
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

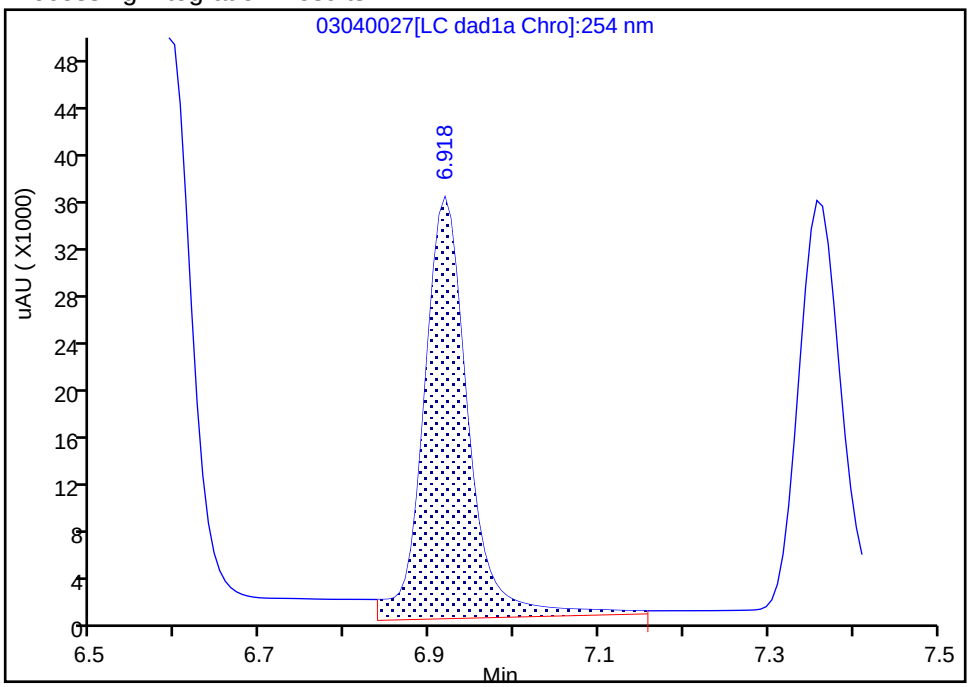
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

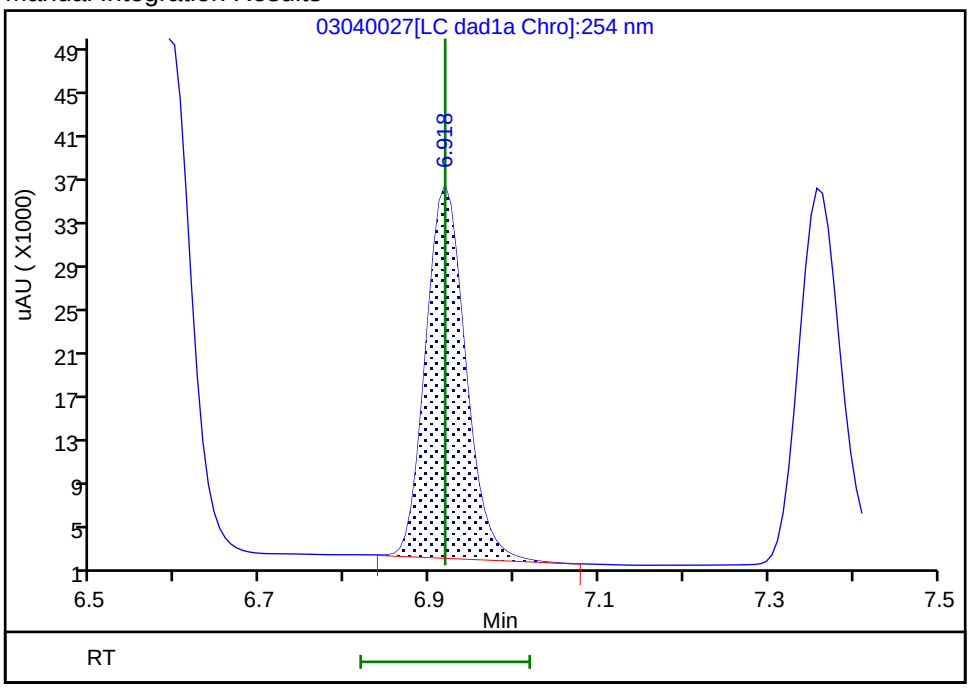
Processing Integration Results

RT: 6.92
Area: 130368
Amount: 0.673274
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 112549
Amount: 0.735959
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:49
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040028.D | | | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 04-Mar-2020 22:09:00 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L5 | | | | |
| Misc. Info.: | 280-0089779-028 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:24 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 85174 | 0.4004 | 0.3914 | M |
| 5 DNX | 1 | 6.917 | 6.918 | -0.001 | 64550 | 0.4004 | 0.4221 | M |
| 6 MNX | 1 | 7.357 | 7.358 | -0.001 | 73151 | 0.4668 | 0.4614 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

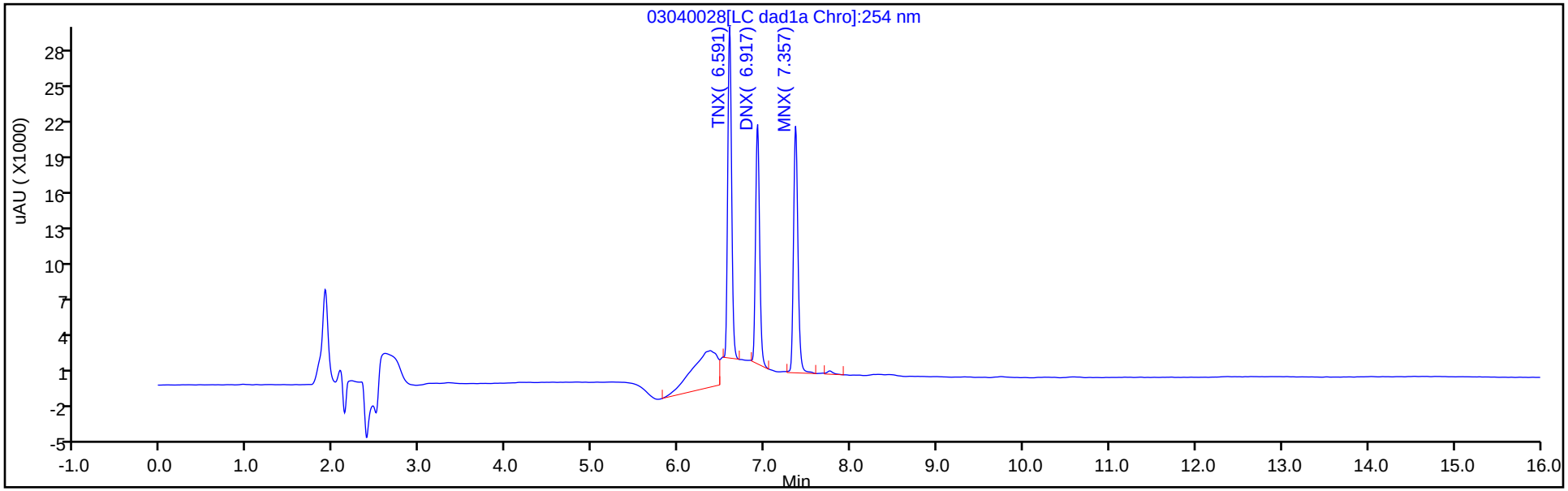
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

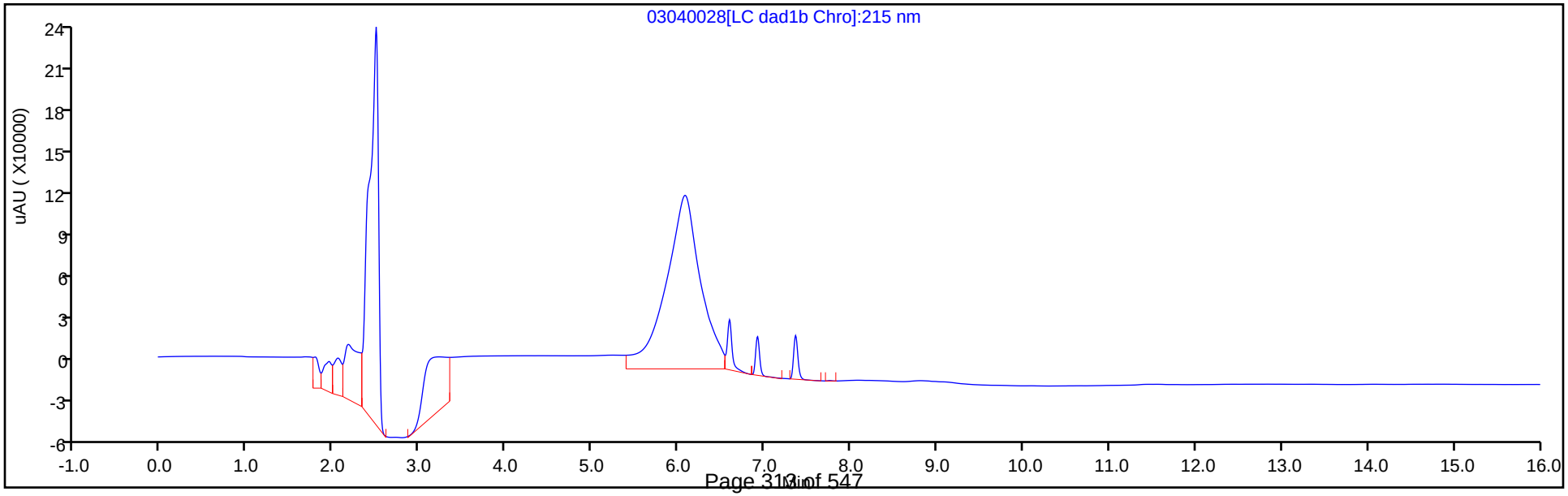
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L5 | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

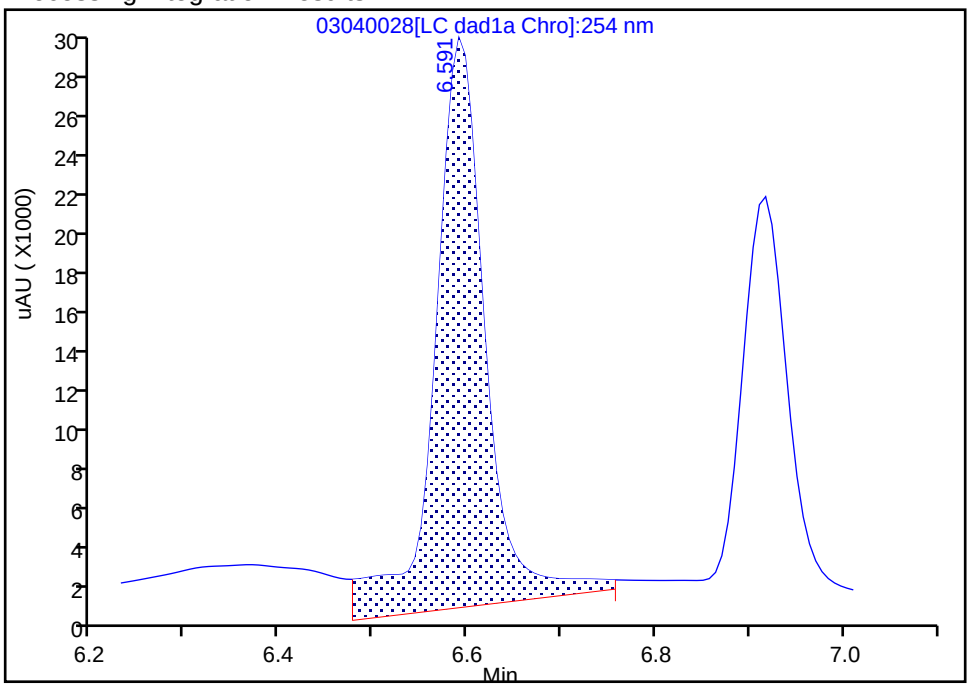
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

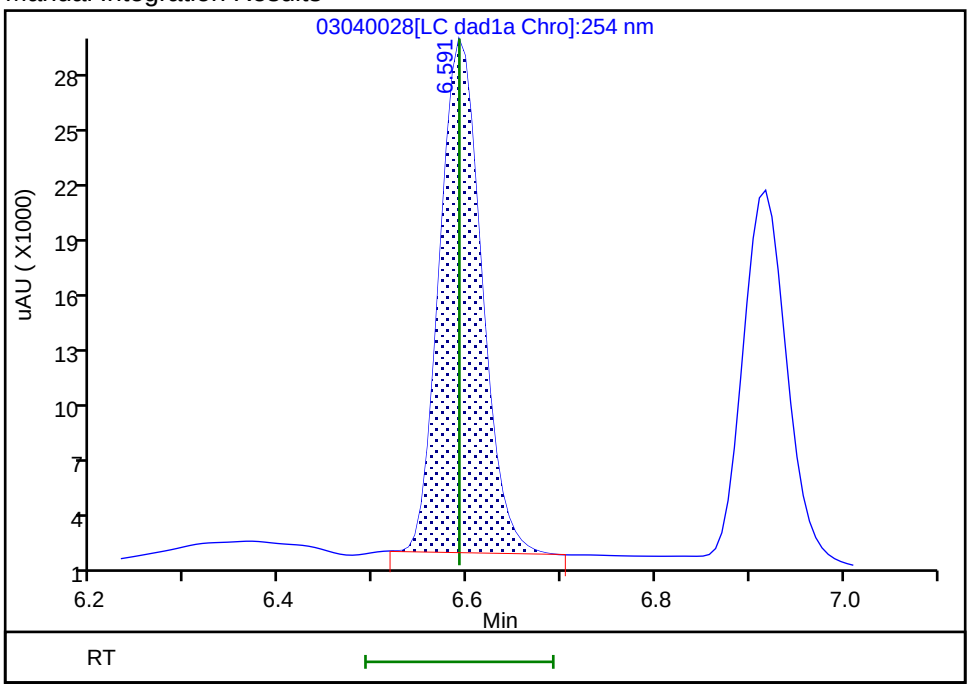
Processing Integration Results

RT: 6.59
Area: 108455
Amount: 0.455381
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 85174
Amount: 0.391409
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

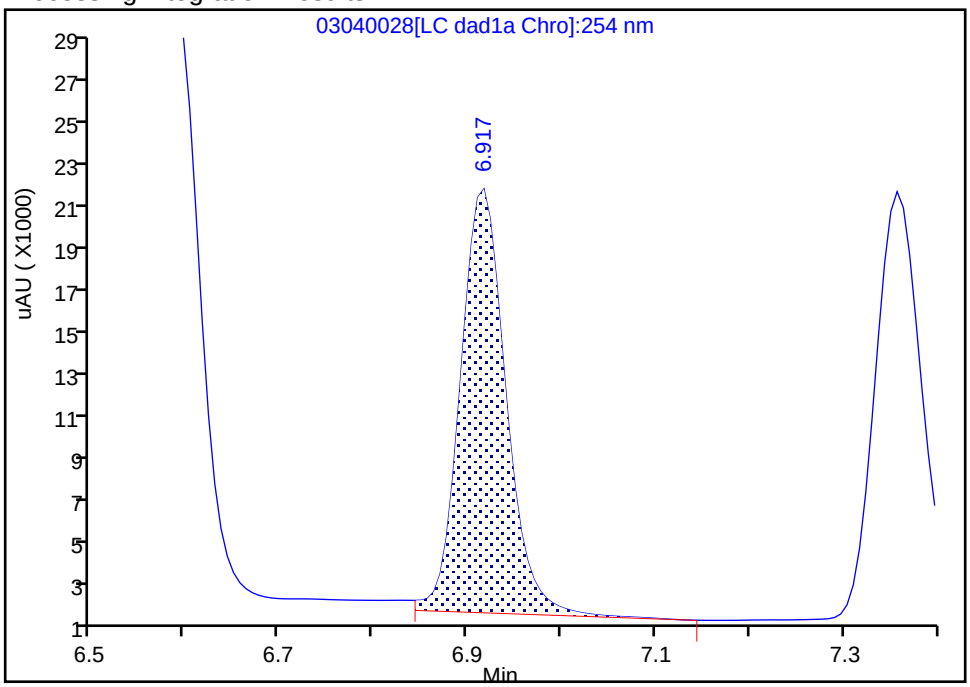
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

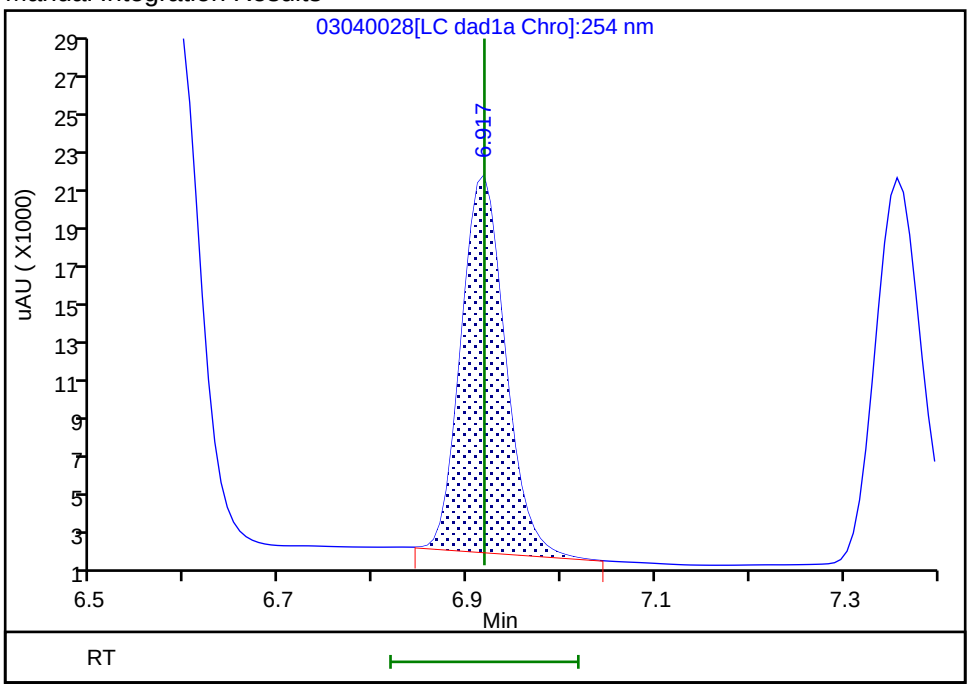
Processing Integration Results

RT: 6.92
Area: 67686
Amount: 0.396160
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 64550
Amount: 0.422093
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:13

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040029.D | | | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 04-Mar-2020 22:31:57 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L4 | | | | |
| Misc. Info.: | 280-0089779-029 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:24 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 57932 | 0.2503 | 0.2662 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 41936 | 0.2503 | 0.2742 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 46005 | 0.2918 | 0.2902 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

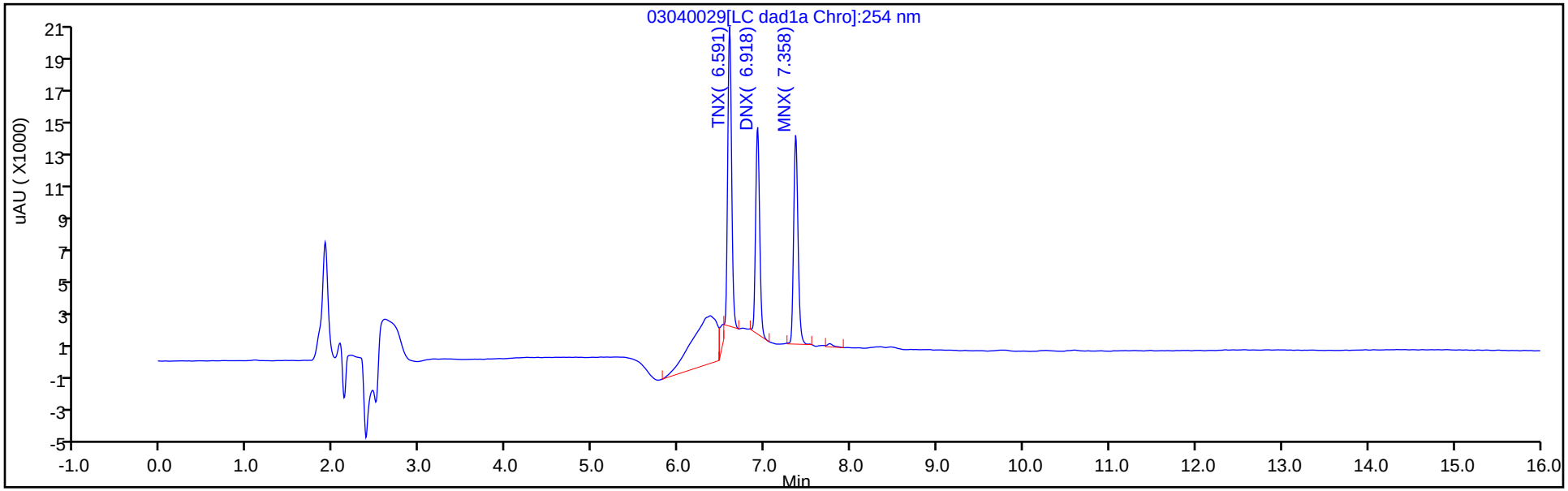
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

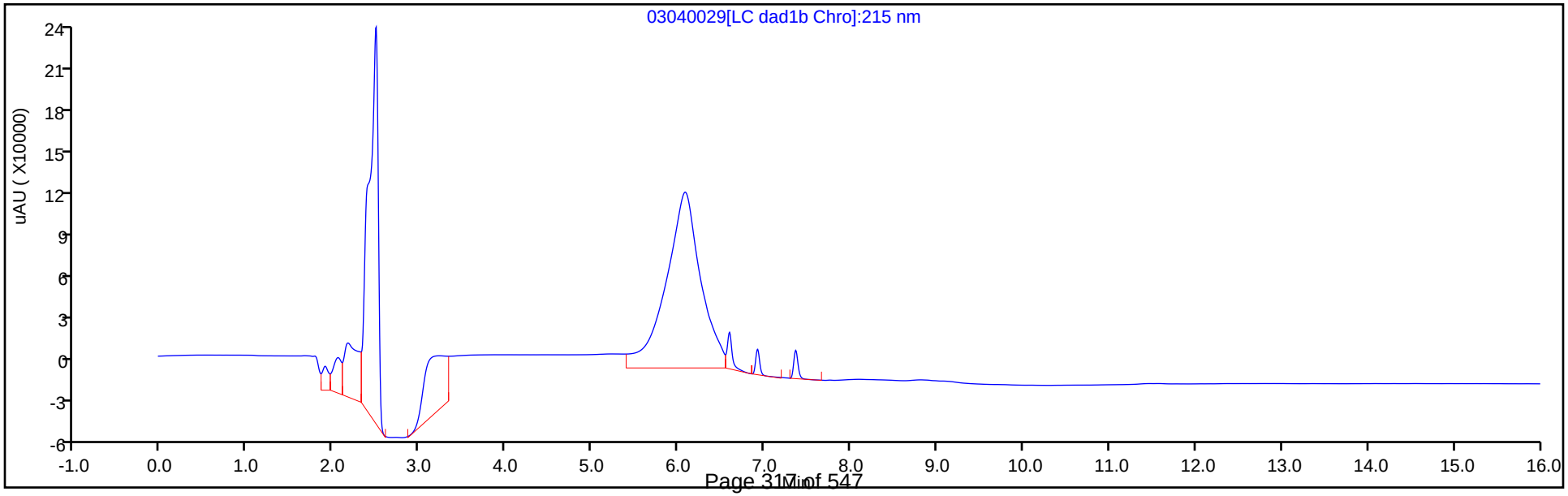
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L4 | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

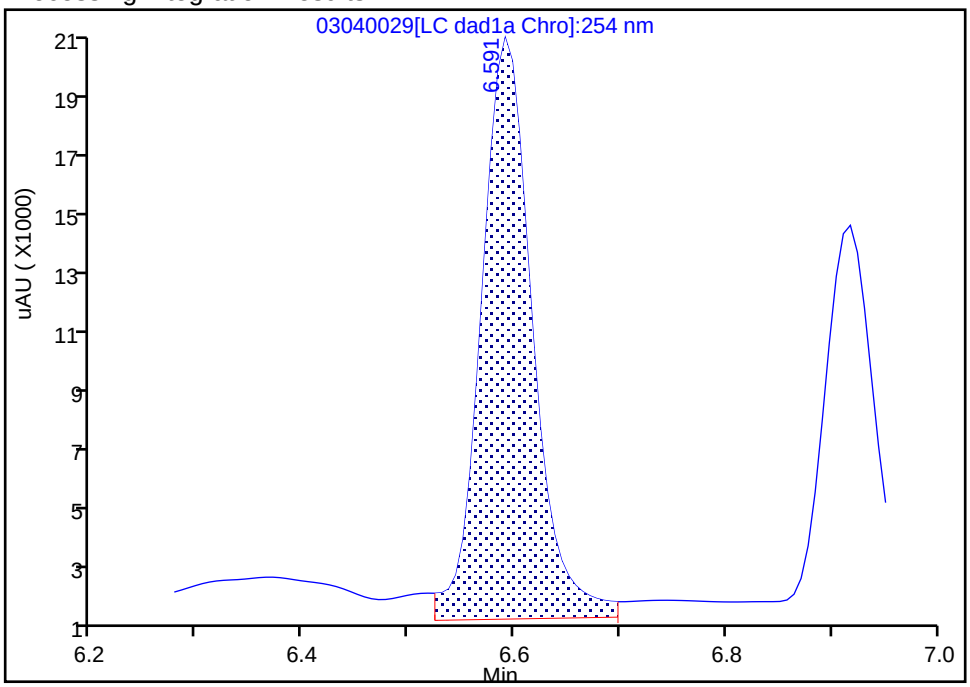
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

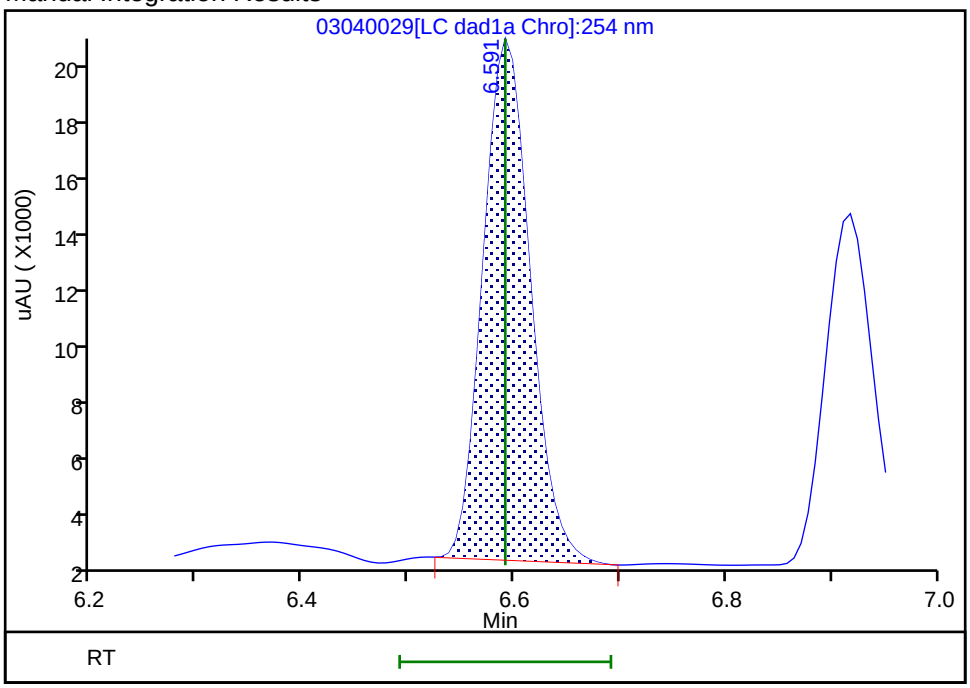
Processing Integration Results

RT: 6.59
Area: 65279
Amount: 0.274722
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 57932
Amount: 0.266221
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

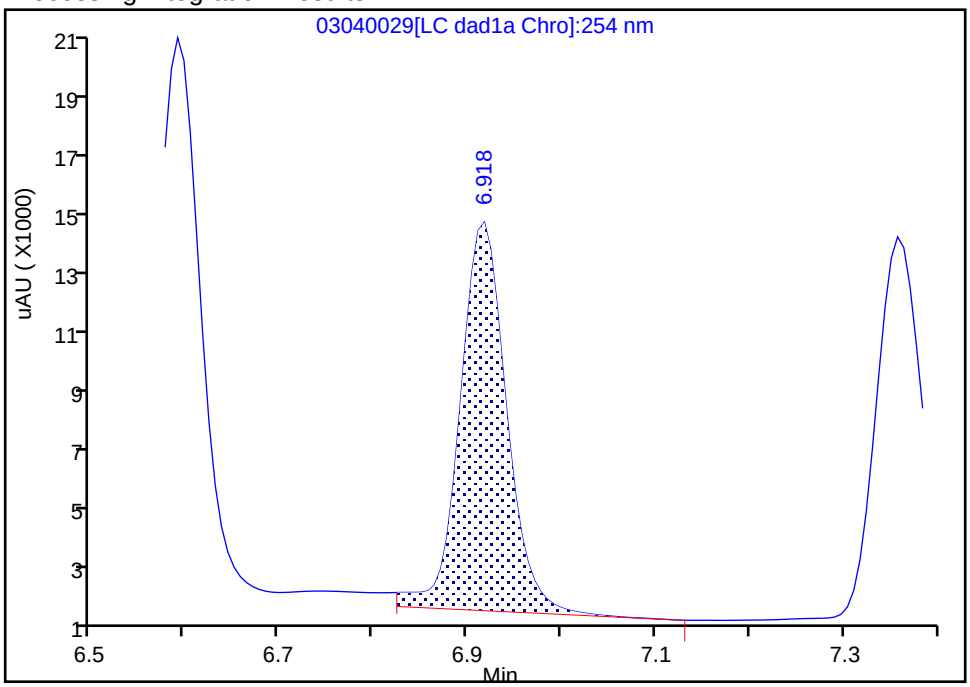
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

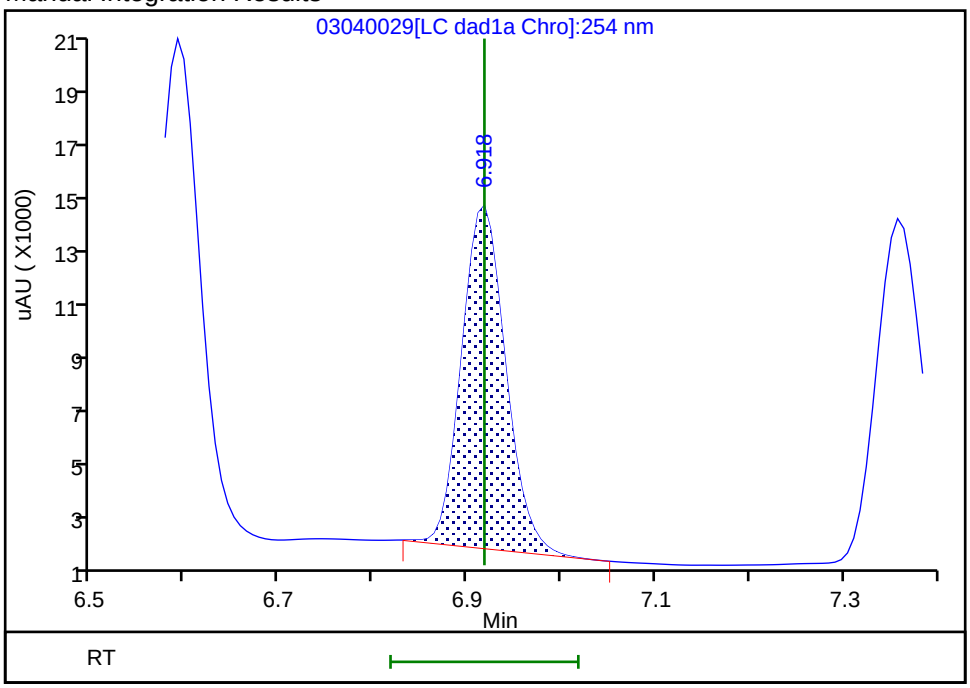
Processing Integration Results

RT: 6.92
Area: 45380
Amount: 0.263025
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 41936
Amount: 0.274220
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040030.D | | | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 04-Mar-2020 22:54:53 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L3 | | | | |
| Misc. Info.: | 280-0089779-030 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:25 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:08

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.589 | 6.591 | -0.002 | 21002 | 0.1001 | 0.0965 | M |
| 5 DNX | 1 | 6.915 | 6.918 | -0.003 | 14937 | 0.1001 | 0.0977 | M |
| 6 MNX | 1 | 7.355 | 7.358 | -0.003 | 18233 | 0.1167 | 0.1150 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

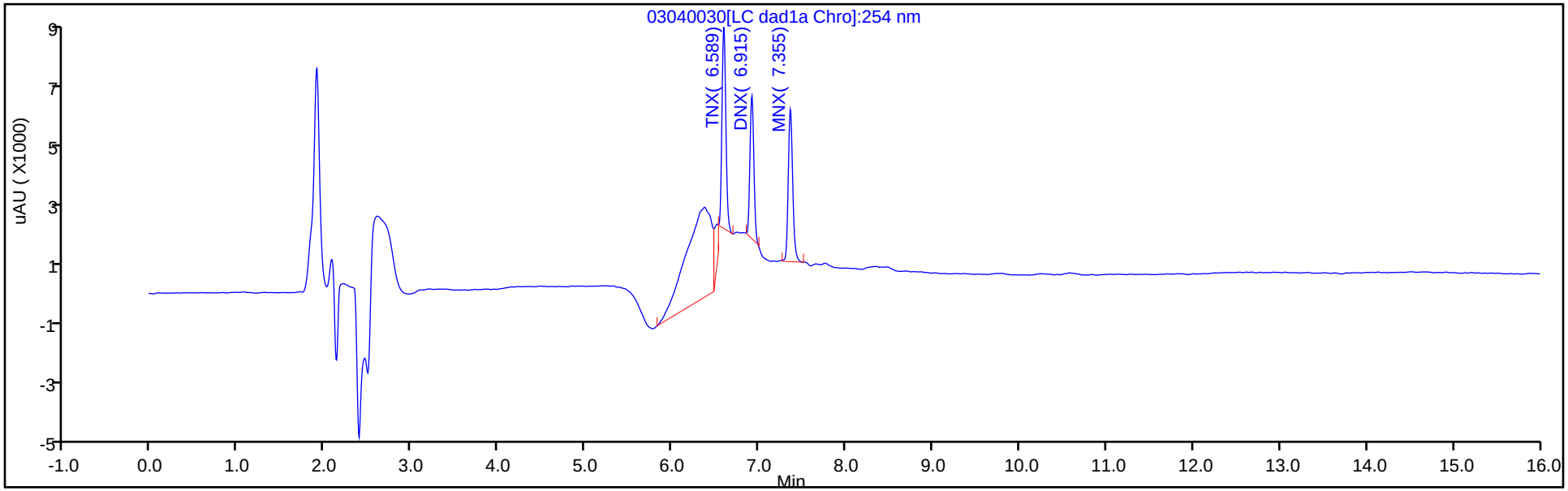
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

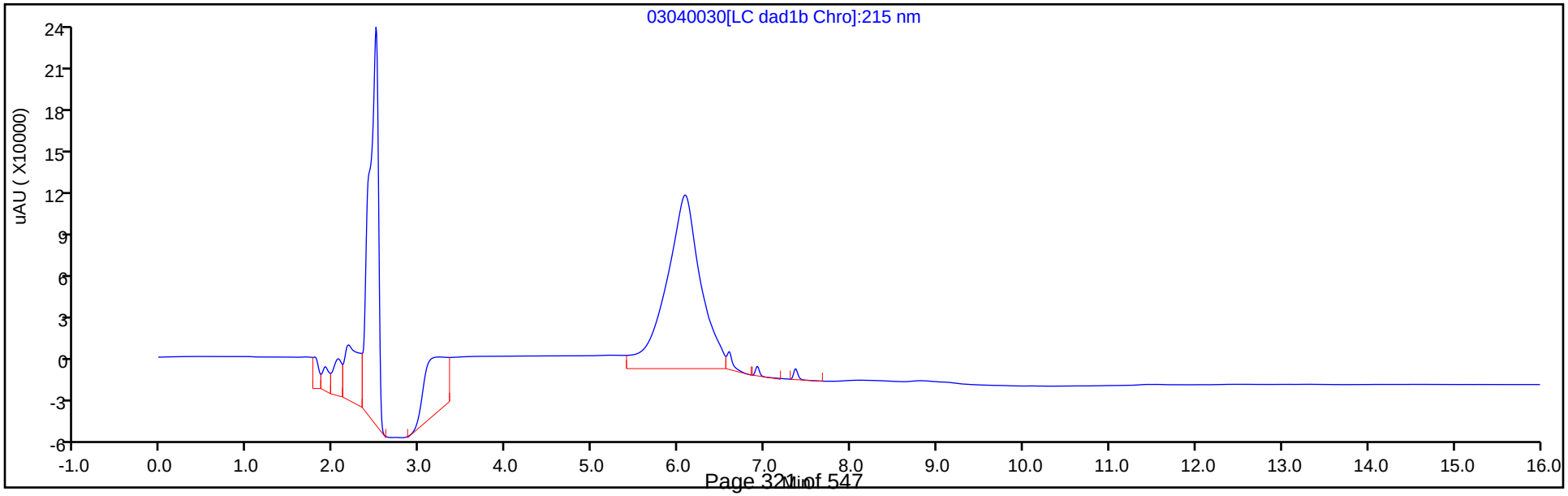
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L3 | | | Worklist Smp#: | 30 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

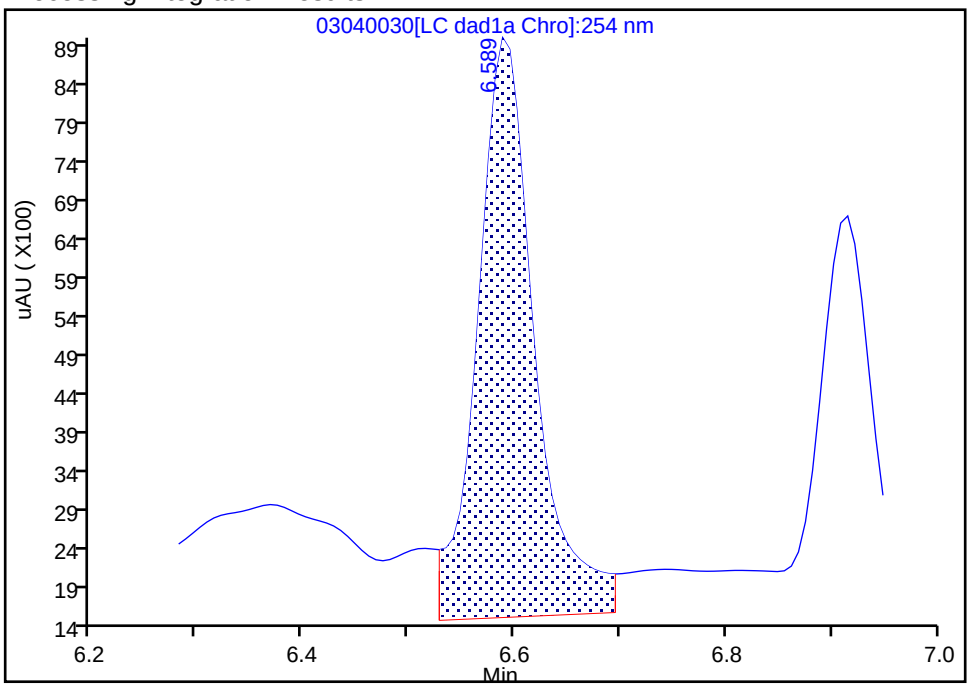
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

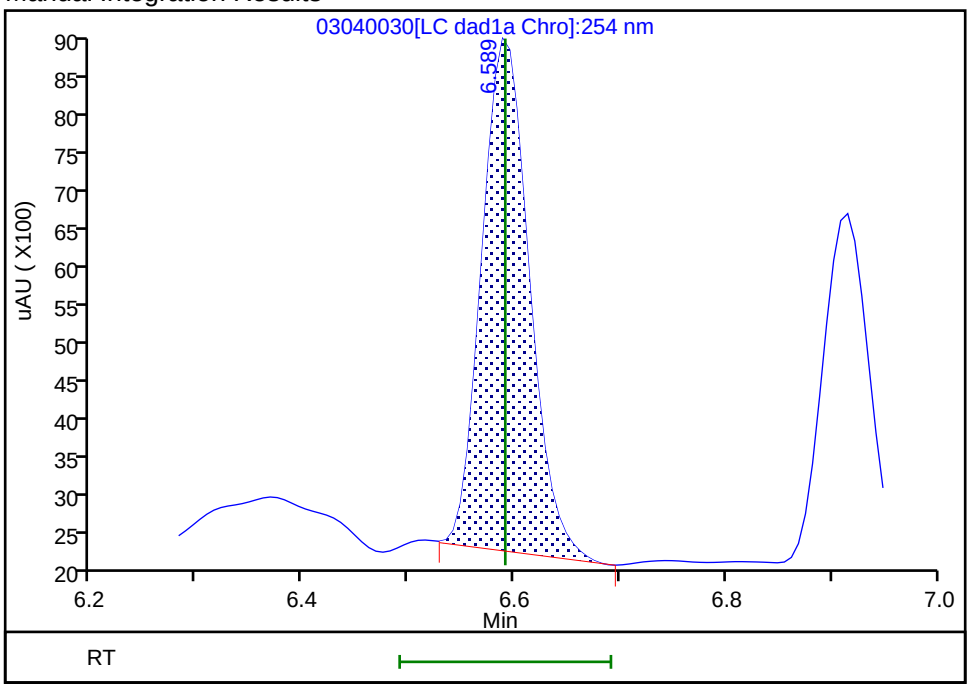
Processing Integration Results

RT: 6.59
Area: 27927
Amount: 0.102862
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 21002
Amount: 0.096513
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:59

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

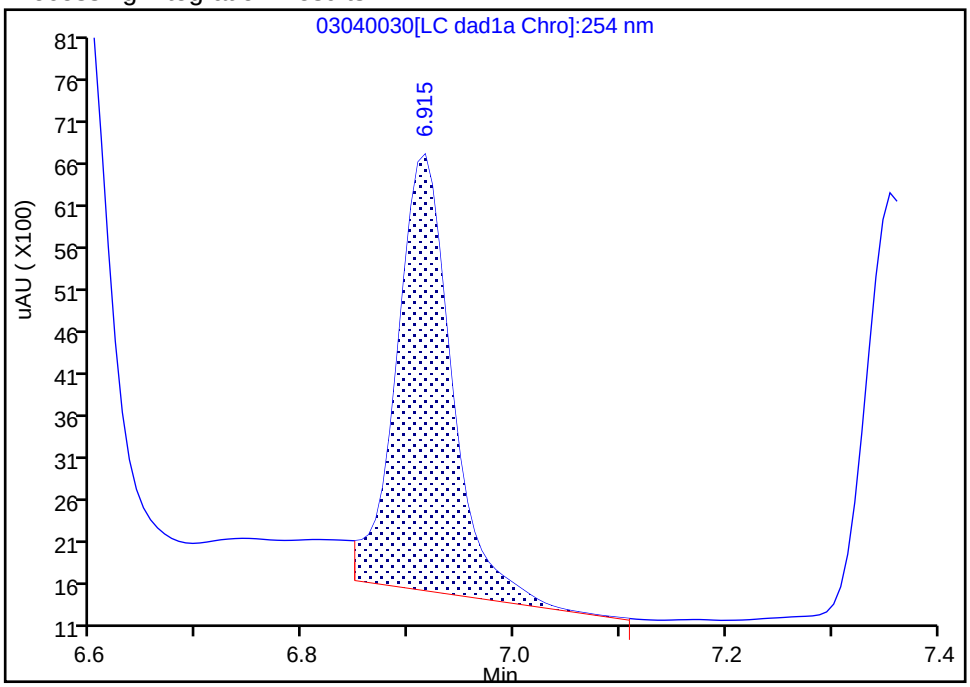
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

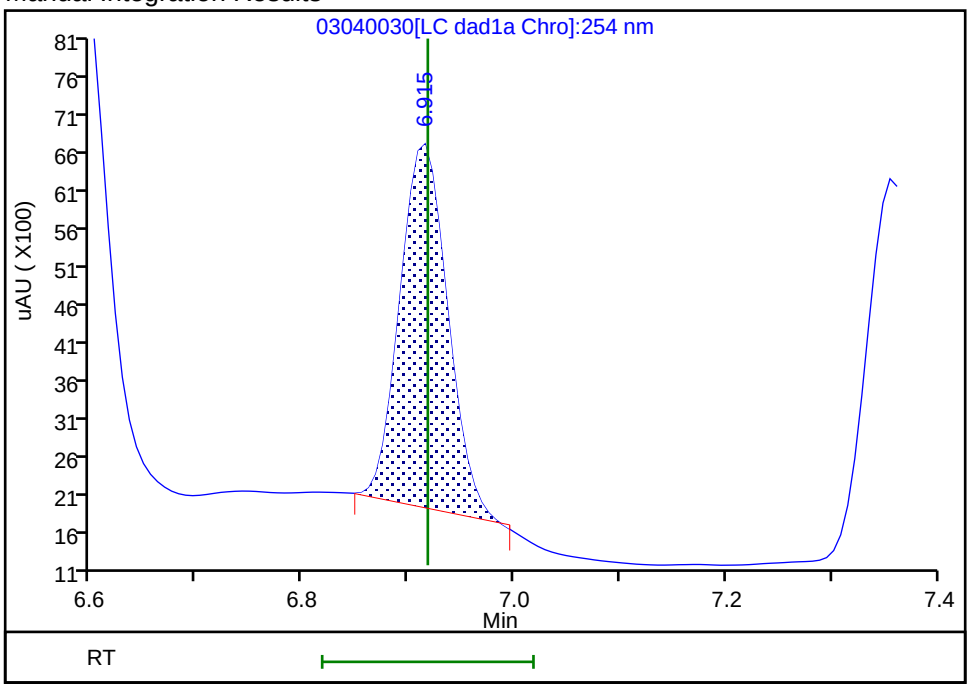
Processing Integration Results

RT: 6.92
Area: 18794
Amount: 0.101797
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 14937
Amount: 0.097673
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:04
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040031.D | | | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 04-Mar-2020 23:17:52 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L2 | | | | |
| Misc. Info.: | 280-0089779-031 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:26 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:31

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.588 | 6.591 | -0.003 | 10671 | 0.0501 | 0.0490 | M |
| 5 DNX | 1 | 6.914 | 6.918 | -0.004 | 6904 | 0.0501 | 0.0451 | M |
| 6 MNX | 1 | 7.354 | 7.358 | -0.004 | 9411 | 0.0584 | 0.0594 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

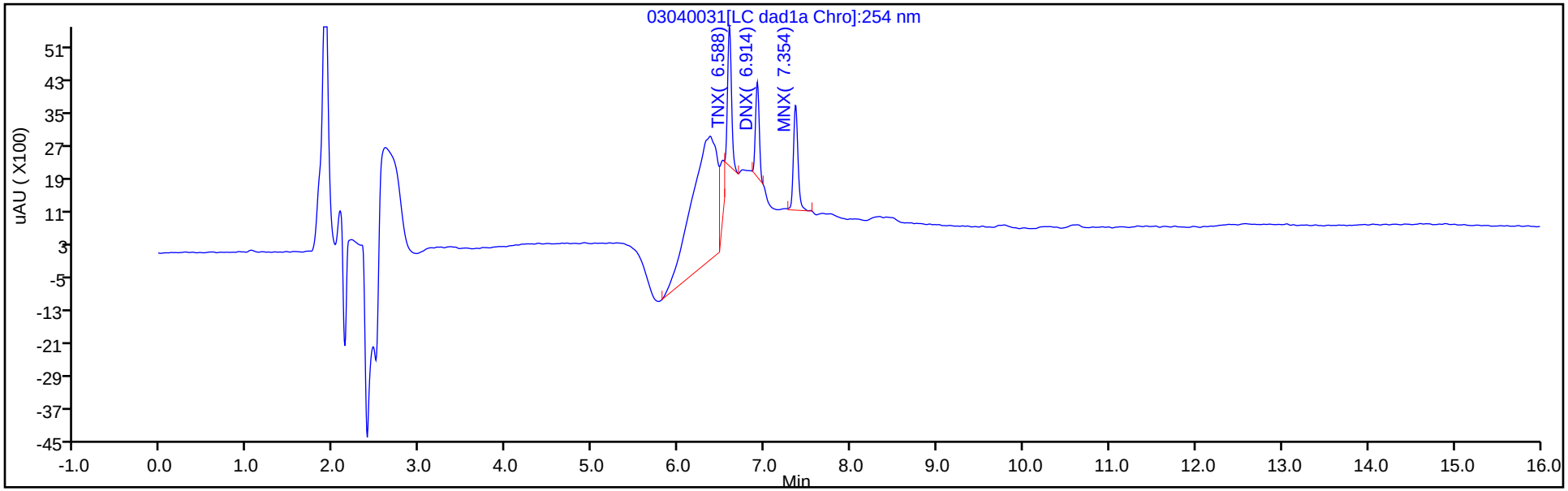
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

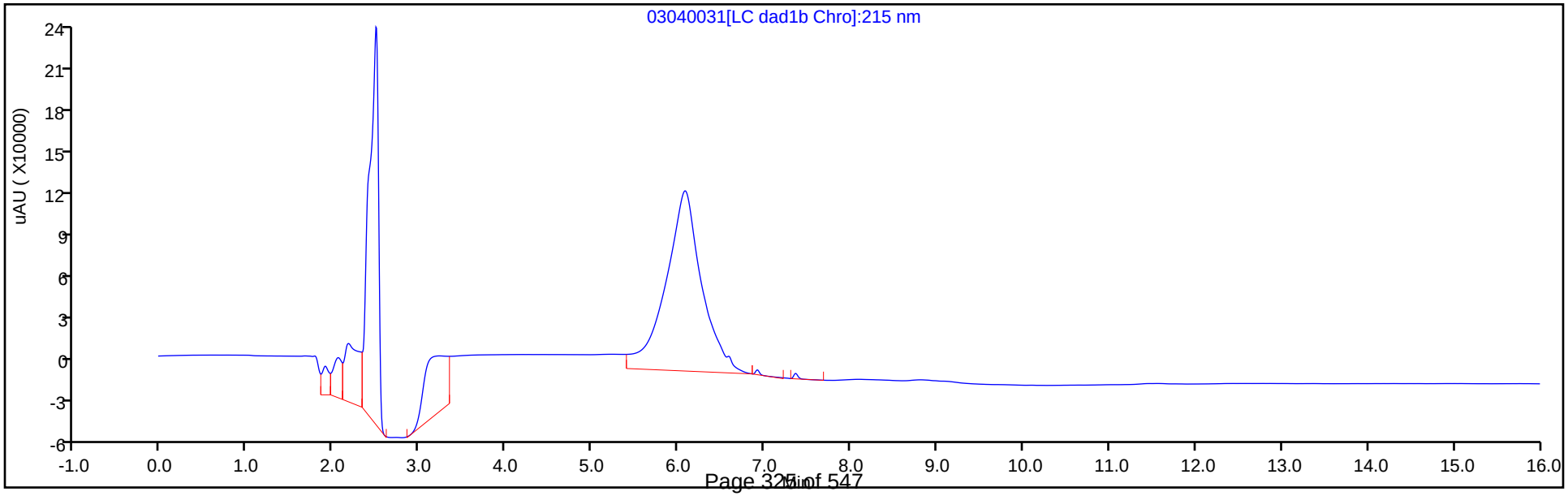
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L2 | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

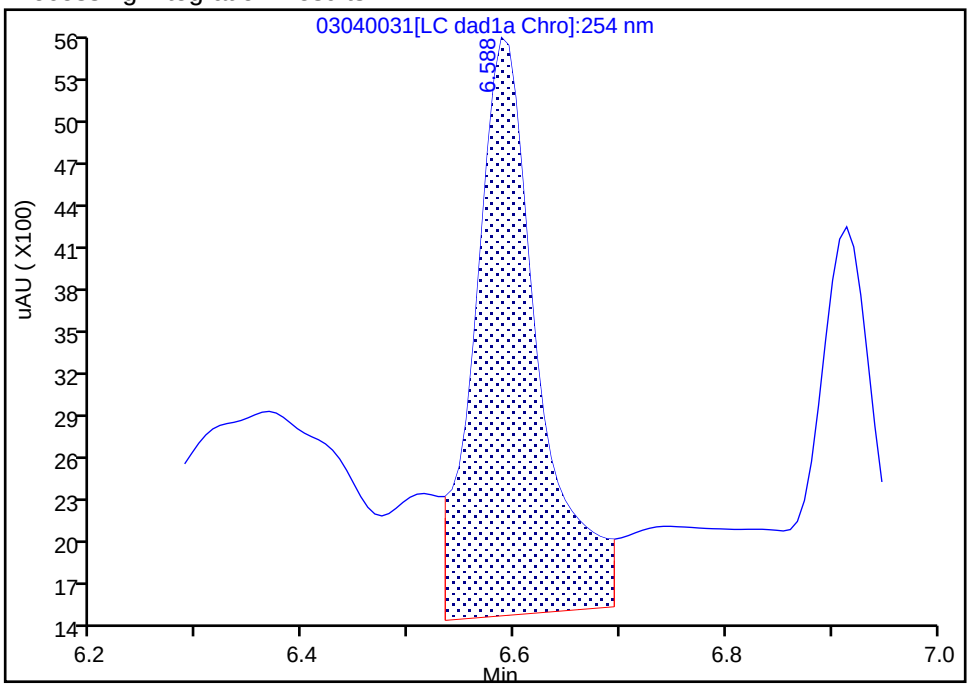
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

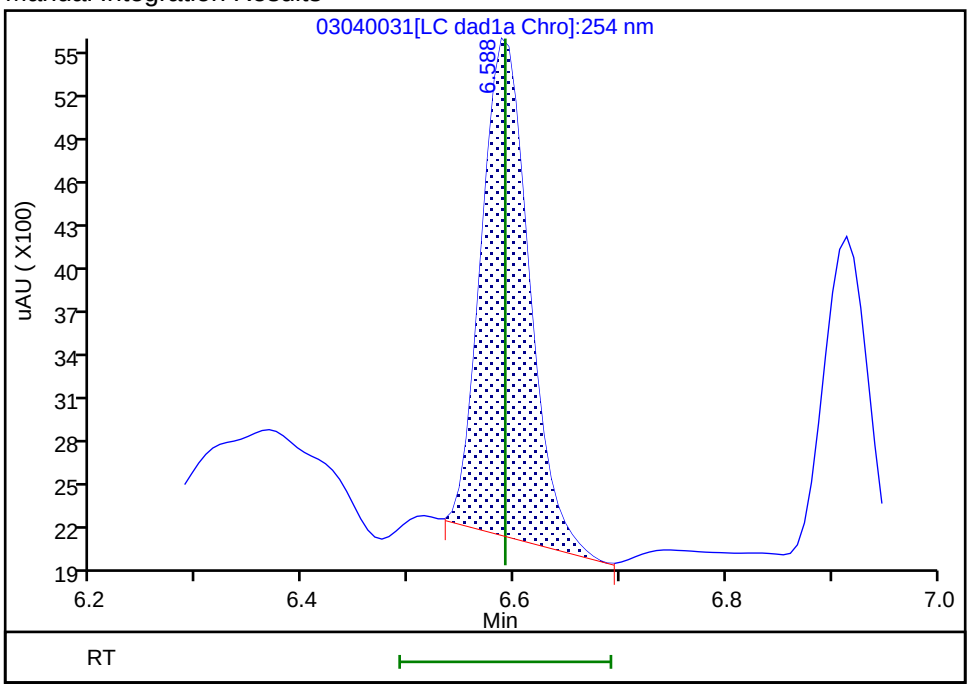
Processing Integration Results

RT: 6.59
Area: 17098
Amount: 0.055915
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 10671
Amount: 0.049038
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

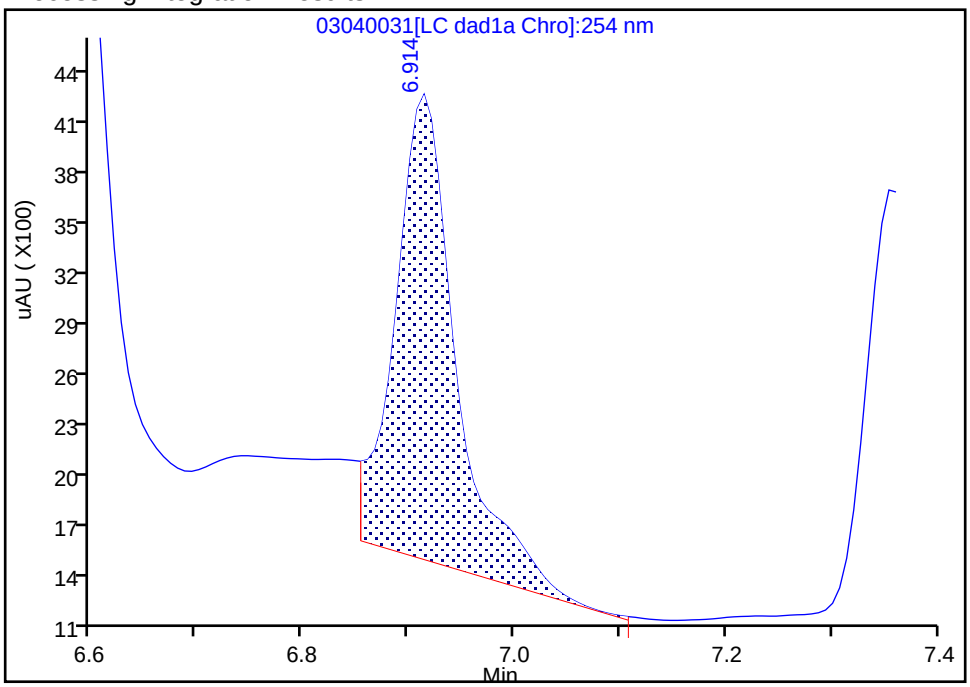
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

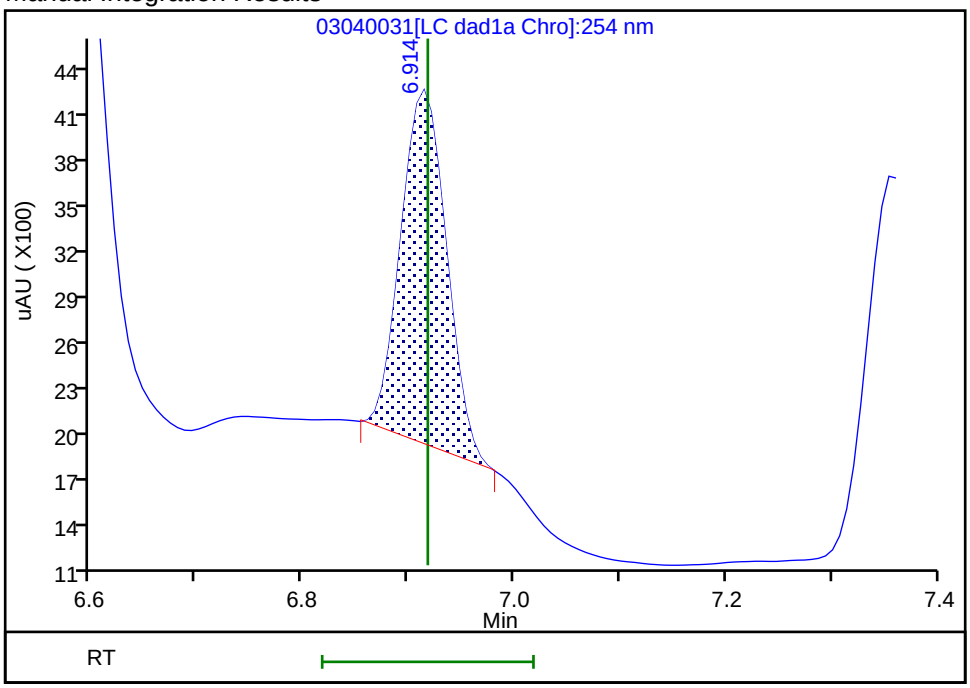
Processing Integration Results

RT: 6.91
Area: 11060
Amount: 0.055514
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 6904
Amount: 0.045145
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:28

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 04-Mar-2020 23:40:46 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L1 | | | | |
| Misc. Info.: | 280-0089779-032 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:27 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:54

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.592 | 6.591 | 0.001 | 4343 | 0.0200 | 0.0200 | M |
| 5 DNX | 1 | 6.912 | 6.918 | -0.006 | 2345 | 0.0200 | 0.0153 | M |
| 6 MNX | 1 | 7.359 | 7.358 | 0.001 | 4099 | 0.0233 | 0.0259 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

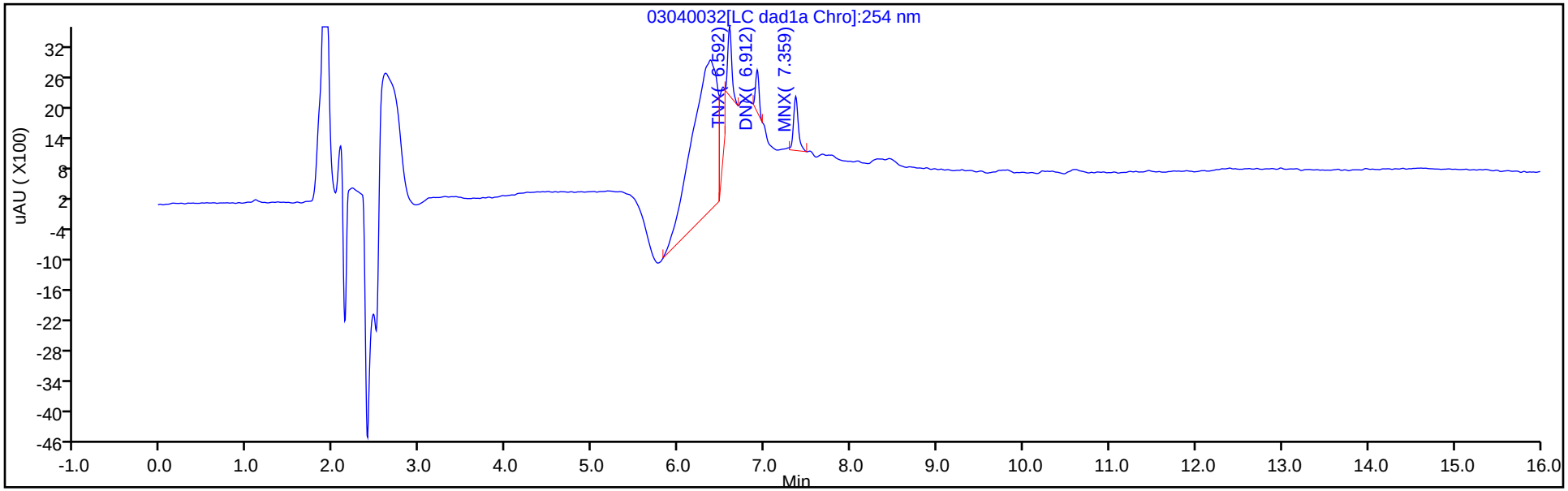
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

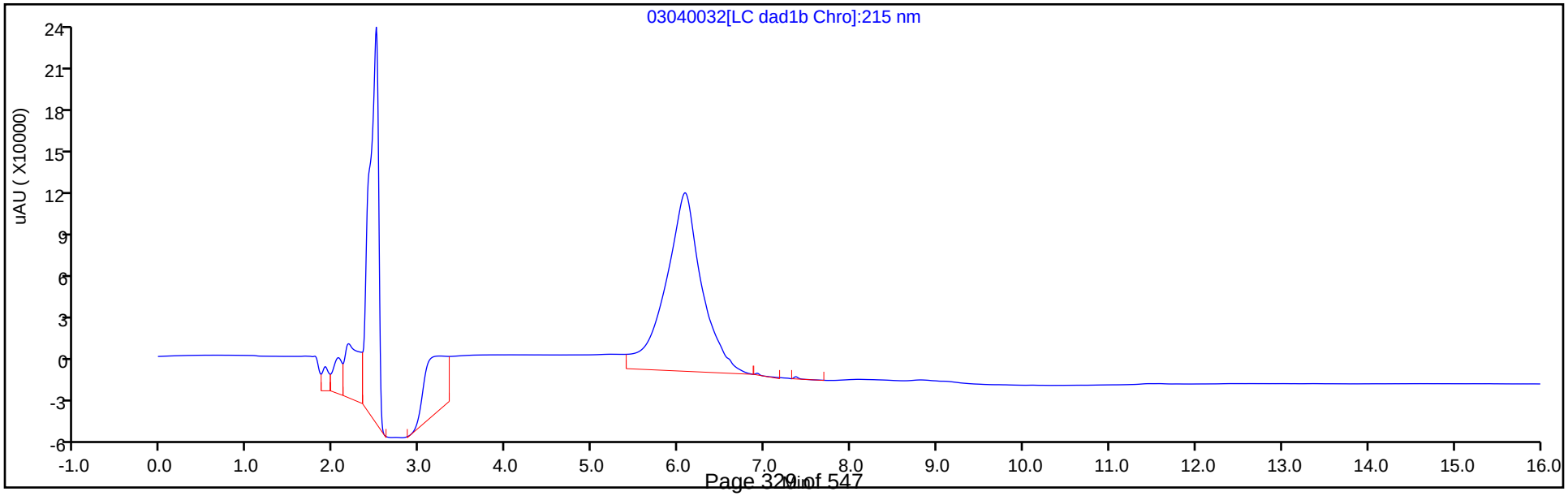
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L1 | | | Worklist Smp#: | 32 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

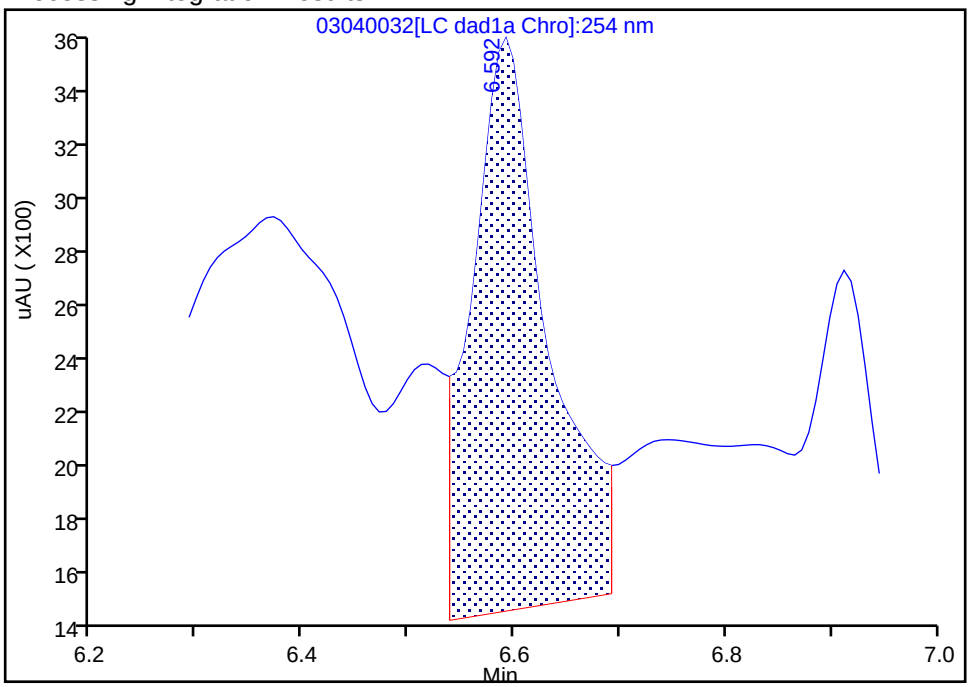
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

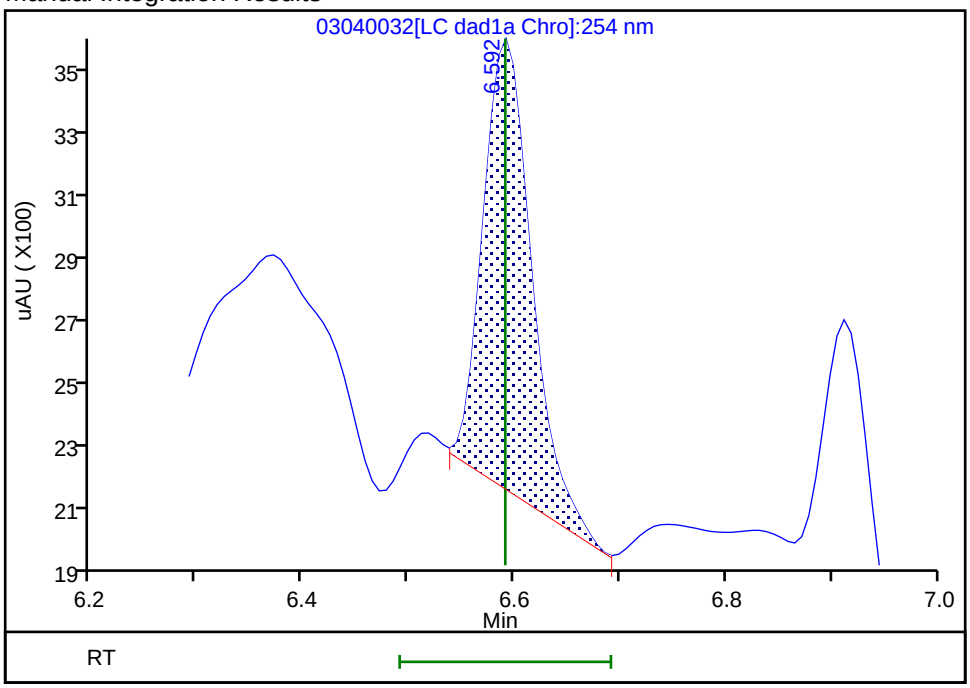
Processing Integration Results

RT: 6.59
Area: 10465
Amount: 0.032149
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 4343
Amount: 0.019958
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

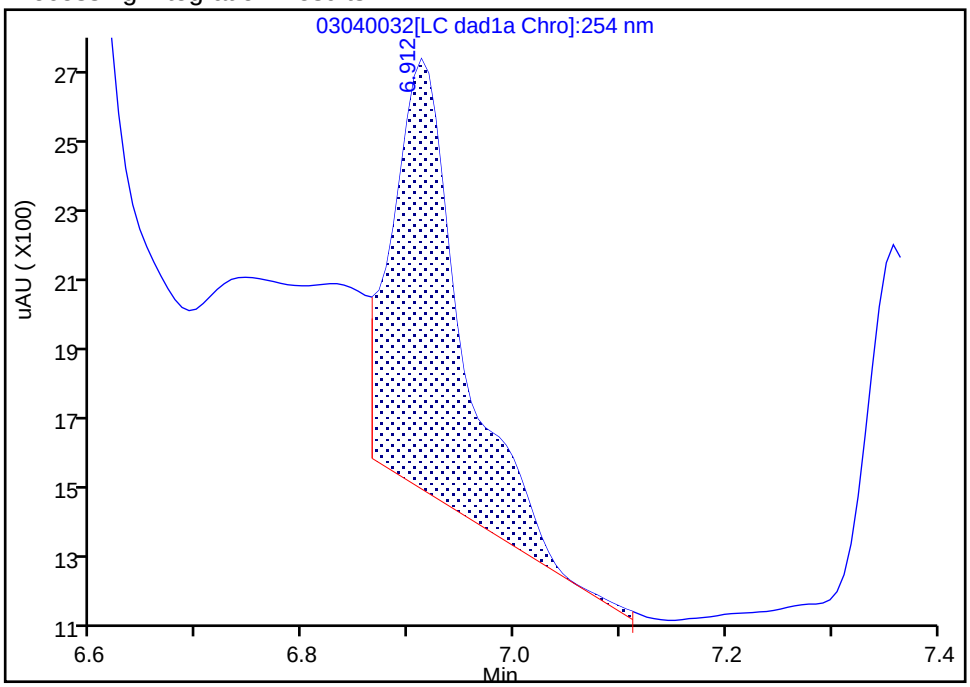
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

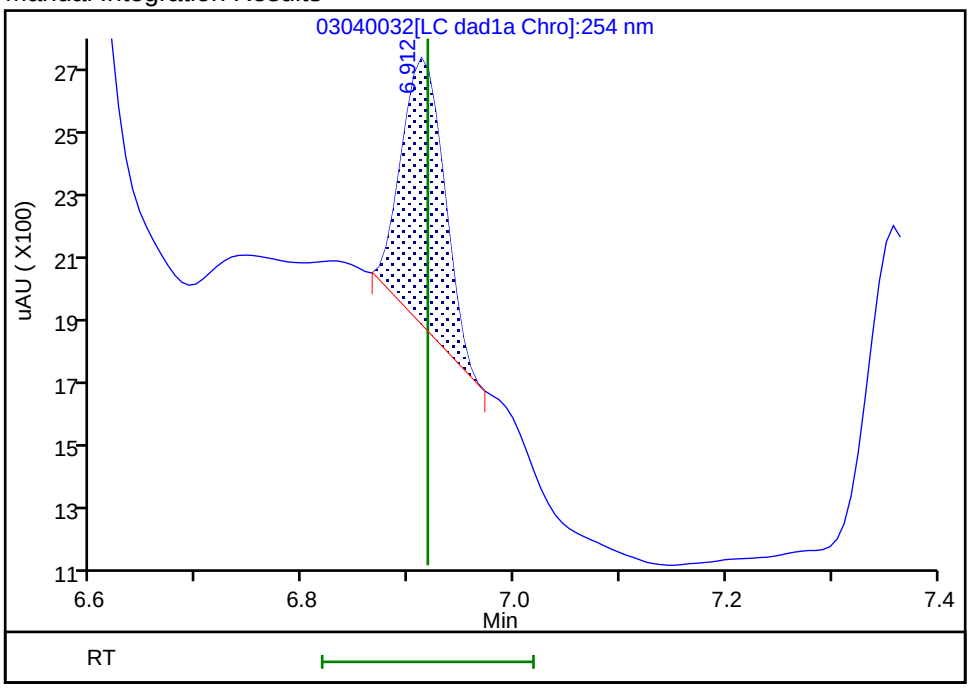
Processing Integration Results

RT: 6.91
Area: 5489
Amount: 0.028357
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 2345
Amount: 0.015334
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HMX | | 6.689 | 6.687 | 6.689 | 6.688 | 6.687 | 6.687 | 6.687 | 6.678 | | 6.539 - 6.839 | 6.687 |
| RDX | | 7.755 | 7.753 | 7.749 | 7.754 | 7.754 | 7.754 | 7.754 | 7.745 | | 7.599 - 7.899 | 7.752 |
| Picric acid | 8.082 | 8.082 | 8.080 | 8.076 | 8.068 | 8.054 | 8.041 | 8.034 | 7.978 | | 7.926 - 8.226 | 8.055 |
| 1,3,5-Trinitrobenzene | 8.888 | 8.889 | 8.887 | 8.883 | 8.888 | 8.887 | 8.881 | 8.887 | 8.878 | | 8.733 - 9.033 | 8.885 |
| 1,3-Dinitrobenzene | 9.535 | 9.535 | 9.533 | 9.529 | 9.534 | 9.527 | 9.527 | 9.534 | 9.525 | | 9.379 - 9.679 | 9.531 |
| Nitrobenzene | 9.915 | 9.922 | 9.920 | 9.916 | 9.921 | 9.914 | 9.914 | 9.914 | 9.911 | | 9.766 - 10.066 | 9.916 |
| Tetryl | 10.221 | 10.215 | 10.220 | 10.216 | 10.221 | 10.221 | 10.214 | 10.221 | 10.218 | | 10.066 - 10.366 | 10.219 |
| Nitroglycerin | 10.735 | 10.735 | 10.733 | 10.729 | 10.734 | 10.734 | 10.727 | 10.727 | 10.725 | | 10.579 - 10.879 | 10.731 |
| 2,4,6-Trinitrotoluene | 11.195 | 11.189 | 11.186 | 11.183 | 11.194 | 11.187 | 11.181 | 11.187 | 11.185 | | 11.083 - 11.283 | 11.187 |
| 4-Amino-2,6-dinitrotoluene | 11.341 | 11.342 | 11.340 | 11.336 | 11.347 | 11.341 | 11.334 | 11.334 | 11.331 | | 11.236 - 11.436 | 11.338 |
| 2-Amino-4,6-dinitrotoluene | 11.635 | 11.629 | 11.633 | 11.623 | 11.634 | 11.627 | 11.621 | 11.621 | 11.618 | | 11.523 - 11.723 | 11.627 |
| 2,6-Dinitrotoluene | 11.795 | 11.789 | 11.793 | 11.783 | 11.794 | 11.787 | 11.781 | 11.787 | 11.785 | | 11.683 - 11.883 | 11.788 |
| 2,4-Dinitrotoluene | 11.995 | 11.989 | 11.986 | 11.983 | 11.987 | 11.987 | 11.981 | 11.981 | 11.978 | | 11.883 - 12.083 | 11.985 |
| 2-Nitrotoluene | 12.828 | 12.822 | 12.833 | 12.823 | 12.827 | 12.827 | 12.814 | 12.821 | 12.818 | | 12.673 - 12.973 | 12.824 |
| 4-Nitrotoluene | 13.268 | 13.269 | 13.260 | 13.256 | 13.261 | 13.261 | 13.254 | 13.254 | 13.251 | | 13.106 - 13.406 | 13.259 |
| 3-Nitrotoluene | 13.855 | 13.849 | 13.853 | 13.849 | 13.854 | 13.854 | 13.841 | 13.847 | 13.845 | | 13.699 - 13.999 | 13.850 |
| PETN | | +++++ | 14.946 | 14.936 | 14.941 | 14.941 | 14.927 | 14.941 | 14.945 | | 14.786 - 15.086 | 14.940 |
| 1,2-Dinitrobenzene | 8.715 | 8.709 | 8.713 | 8.709 | 8.714 | 8.714 | 8.714 | 8.714 | 8.705 | | 8.559 - 8.859 | 8.712 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 91008<br>92308 | 61440<br>91473 | 86460<br>91820 | 90800<br>92351 | Ave | | 85962.1667 | | | | 12.3 | | 20.0 | | | |
| RDX | 112944<br>111897 | 112680<br>113215 | 121400<br>111841 | 117010<br>112730 | Ave | | 116613.070 | | | | 6.7 | | 20.0 | | | |
| Picric acid | 86560<br>86468<br>88192 | 70960<br>86698 | 86100<br>86851 | 86470<br>87876 | Ave | | 85130.5476 | | | | 6.3 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 192016<br>239677<br>242392 | 193413<br>242552 | 239242<br>242052 | 236826<br>244610 | Ave | | 230308.873 | | | | 9.3 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 254770<br>321218<br>326628 | 250299<br>322290 | 322275<br>320369 | 318333<br>323988 | Ave | | 306685.717 | | | | 10.0 | | 20.0 | | | |
| Nitrobenzene | 173386<br>209084<br>210856 | 165538<br>209462 | 208865<br>209202 | 207759<br>209472 | Ave | | 200402.631 | | | | 8.8 | | 20.0 | | | |
| Tetryl | 132854<br>188850<br>191963 | 139401<br>190152 | 182355<br>189763 | 184900<br>193048 | Ave | | 177031.954 | | | | 13.3 | | 20.0 | | | |
| Nitroglycerin | 54320<br>73708<br>72647 | 54804<br>73682 | 66982<br>72630 | 71269<br>73160 | Ave | | 68133.4679 | | | | 11.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 143984<br>216888<br>217948 | 171594<br>215762 | 214622<br>218499 | 217430<br>219552 | Ave | | 204030.971 | | | | 13.3 | | 20.0 | | | |
| 4-Amino-2,6-dinitrotoluene | 78402<br>173379<br>171541 | 137582<br>174883 | 169630<br>168893 | 172757<br>173075 | Lin2 | -1163.6365 | 178372.945 | | | | | | | 0.9980 | | 0.9900 |
| 2-Amino-4,6-dinitrotoluene | 169163<br>213685<br>217128 | 161195<br>213177 | 209223<br>213799 | 209592<br>218387 | Ave | | 202816.698 | | | | 10.7 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 120159<br>159558<br>155029 | 119004<br>160244 | 157012<br>158940 | 158576<br>156549 | Ave | | 149452.337 | | | | 11.4 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 250359<br>318972<br>321972 | 249960<br>319980 | 313566<br>317703 | 316753<br>322992 | Ave | | 303584.095 | | | | 10.0 | | 20.0 | | | |
| 2-Nitrotoluene | 129200<br>138416<br>134514 | 122720<br>134575 | 151060<br>133944 | 137330<br>133699 | Ave | | 135050.876 | | | | 5.6 | | 20.0 | | | |
| 4-Nitrotoluene | 86228<br>119058<br>116822 | 100160<br>116285 | 128064<br>116245 | 117874<br>116311 | Ave | | 113005.083 | | | | 10.9 | | 20.0 | | | |
| 3-Nitrotoluene | 112128<br>149894<br>149503 | 125035<br>150095 | 155005<br>148550 | 148232<br>148816 | Ave | | 143028.635 | | | | 10.0 | | 20.0 | | | |
| PETN | <br>80472<br>82059 | +++++<br>82077 | 74814<br>81281 | 78947<br>82446 | Ave | | 78604.5748 | | | | 6.9 | | 20.0 | | | |
| 1,2-Dinitrobenzene | 122480<br>142220<br>143478 | 119840<br>142918 | 144780<br>142683 | 141270<br>144242 | Ave | | 138212.217 | | | | 7.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| HMX | Ave | 36589 | 1536<br>64274 | 4323<br>92351 | 9080<br>230770 | 22752 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | 45286 | 2817<br>78289 | 6070<br>112730 | 11701<br>279743 | 28236 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Picric acid | Ave | 1082<br>34679 | 1774<br>60796 | 4305<br>87876 | 8647<br>220480 | 21617 | 0.0125<br>0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| 1,3,5-Trinitrobenzene | Ave | 2405<br>97215 | 4845<br>169775 | 11986<br>245099 | 23730<br>607193 | 60039 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 3191<br>129174 | 6270<br>224707 | 16146<br>324636 | 31897<br>818202 | 80465 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitrobenzene | Ave | 2176<br>84120 | 4155<br>147027 | 10485<br>210310 | 20859<br>529249 | 52480 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Ave | 1664<br>76213 | 3492<br>133100 | 9136<br>193434 | 18527<br>480867 | 47307 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 6790<br>294728 | 13701<br>508407 | 33491<br>731600 | 71269<br>1816166 | 184270 | 0.125<br>4.00 | 0.250<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2,4,6-Trinitrotoluene | Ave | 1807<br>86650 | 4307<br>153561 | 10774<br>220430 | 21830<br>547050 | 54439 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | 981<br>70023 | 3443<br>118343 | 8490<br>173248 | 17293<br>429281 | 43388 | 0.0125<br>0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Ave | 2123<br>85612 | 4046<br>150258 | 10503<br>219261 | 21043<br>544991 | 53635 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Ave | 1508<br>64354 | 2987<br>111703 | 7882<br>157175 | 15921<br>389124 | 40049 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4-Dinitrotoluene | Ave | 3142<br>128504 | 6274<br>223282 | 15741<br>324284 | 31802<br>808149 | 80062 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2-Nitrotoluene | Ave | 1615<br>53830 | 3068<br>93761 | 7553<br>133699 | 13733<br>336284 | 34604 | 0.0125<br>0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| 4-Nitrotoluene | Ave | 1080<br>46607 | 2509<br>81534 | 6416<br>116544 | 11811<br>292638 | 29824 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 3-Nitrotoluene | Ave | 1403<br>60098 | 3129<br>104089 | 7758<br>148965 | 14838<br>374131 | 37511 | 0.0125<br>0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| PETN | Ave | <br>328307 | +++++<br>568970 | 37407<br>824461 | 78947<br>2051483 | 201180 | <br>4.00 | +++++<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 1,2-Dinitrobenzene | Ave | 1531<br>57167 | 2996<br>99878 | 7239<br>144242 | 14127<br>358694 | 35555 | 0.0125<br>0.400 | 0.0250<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: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180007.D | | | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 9 | | |
| Inject. Date: | 18-Mar-2020 11:35:53 | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L9 | | | | |
| Misc. Info.: | 280-0090150-007 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:39 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |
| First Level Reviewer: beckerc | | Date: | 19-Mar-2020 08:41:44 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.678 | 6.689 | -0.011 | 230770 | 2.50 | 2.68 | M |
| 7 RDX | 1 | 7.745 | 7.749 | -0.004 | 279743 | 2.50 | 2.40 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.978 | 8.076 | -0.098 | 220480 | 2.50 | 2.59 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.705 | 8.709 | -0.004 | 358694 | 2.50 | 2.60 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.878 | 8.883 | -0.005 | 607193 | 2.51 | 2.64 | |
| 11 1,3-Dinitrobenzene | 1 | 9.525 | 9.529 | -0.004 | 818202 | 2.51 | 2.67 | M |
| 12 Nitrobenzene | 1 | 9.911 | 9.916 | -0.005 | 529249 | 2.51 | 2.64 | |
| 14 Tetryl | 1 | 10.218 | 10.216 | 0.002 | 480867 | 2.51 | 2.72 | |
| 15 Nitroglycerin | 2 | 10.725 | 10.729 | -0.004 | 1816166 | 25.0 | 26.7 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.185 | 11.183 | 0.002 | 547050 | 2.51 | 2.68 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.331 | 11.336 | -0.005 | 429281 | 2.50 | 2.41 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.618 | 11.623 | -0.005 | 544991 | 2.51 | 2.69 | |
| 19 2,6-Dinitrotoluene | 1 | 11.785 | 11.783 | 0.002 | 389124 | 2.51 | 2.60 | |
| 20 2,4-Dinitrotoluene | 1 | 11.978 | 11.983 | -0.005 | 808149 | 2.51 | 2.66 | |
| 21 o-Nitrotoluene | 1 | 12.818 | 12.823 | -0.005 | 336284 | 2.50 | 2.49 | |
| 22 p-Nitrotoluene | 1 | 13.251 | 13.256 | -0.005 | 292638 | 2.51 | 2.59 | |
| 23 m-Nitrotoluene | 1 | 13.845 | 13.849 | -0.004 | 374131 | 2.50 | 2.62 | |
| 24 PETN | 2 | 14.945 | 14.936 | 0.009 | 2051483 | 25.0 | 26.1 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

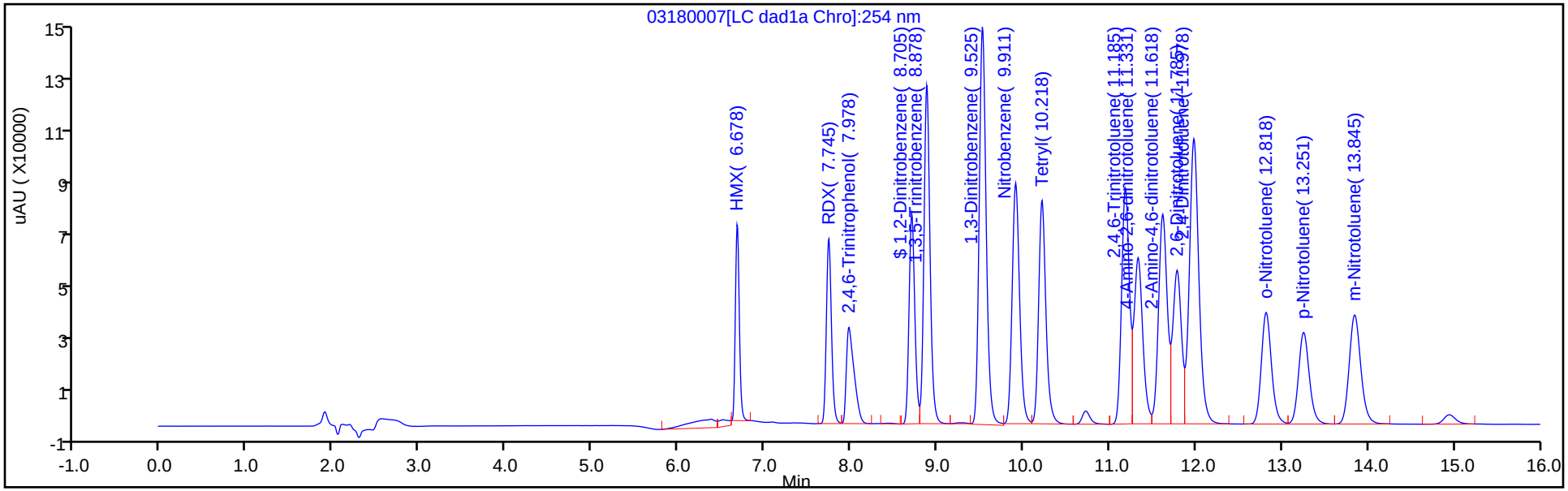
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 26-Mar-2020 15:45:39 Chrom Revision: 2.3 11-Mar-2020 18:53:20

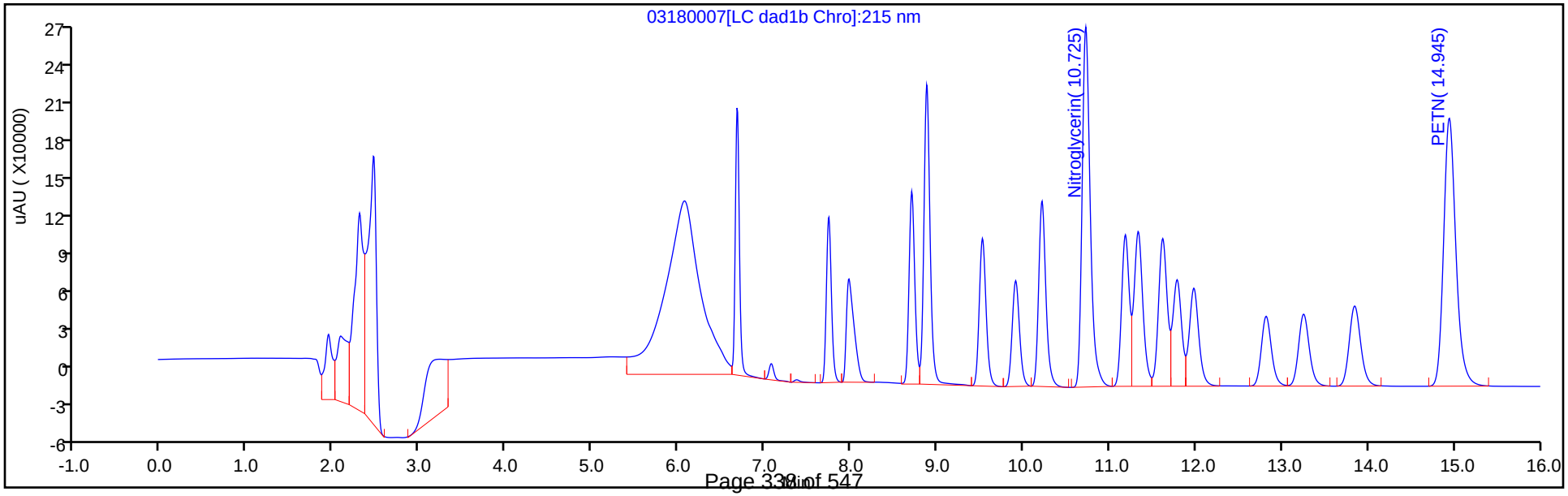
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L9 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

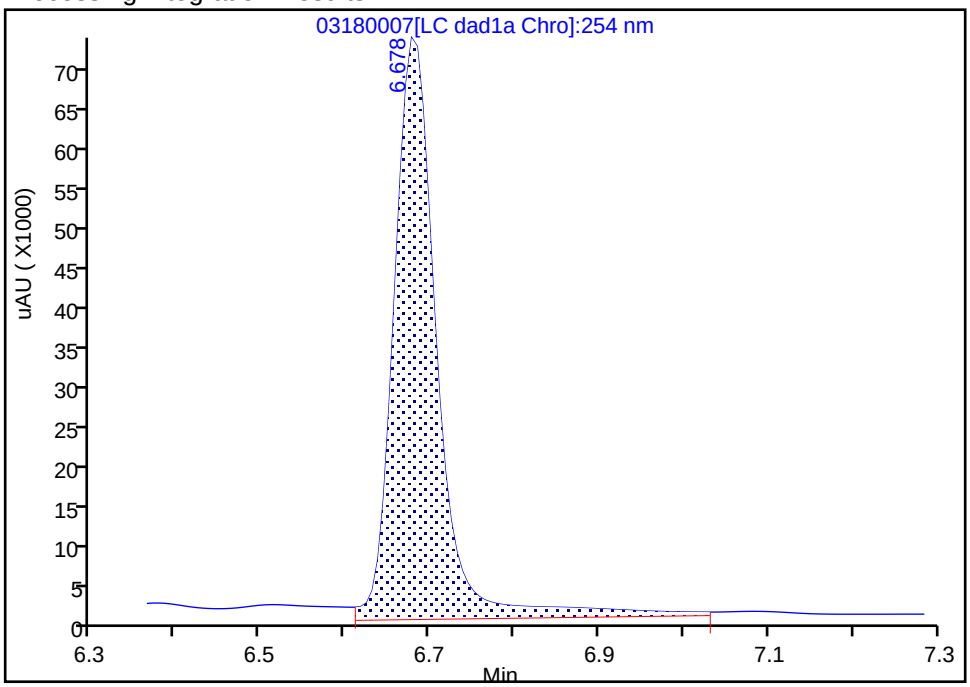
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

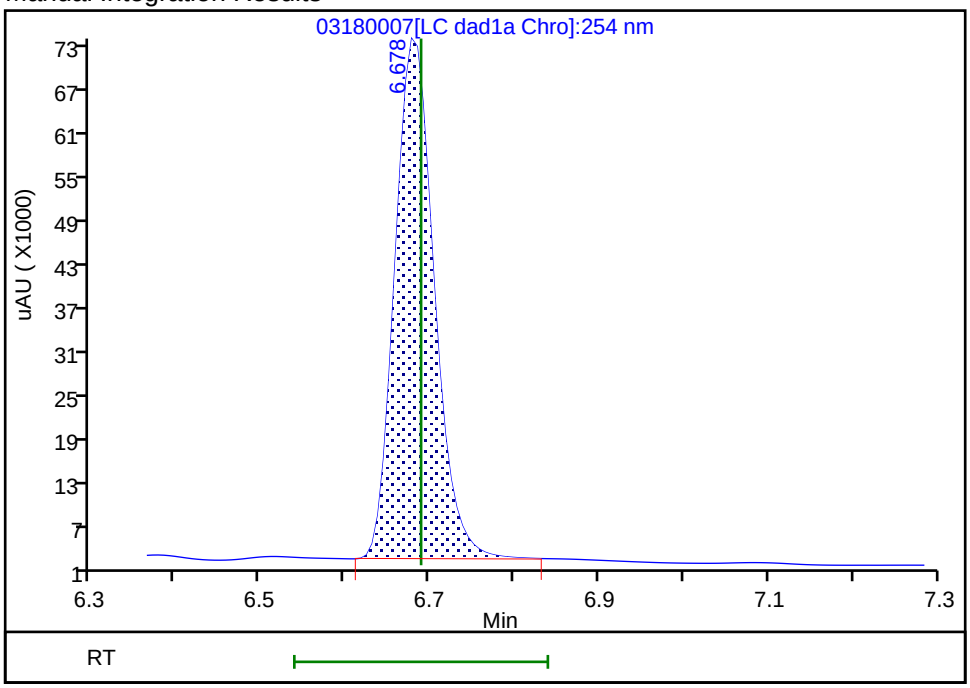
Processing Integration Results

RT: 6.68
Area: 261160
Amount: 2.488946
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 230770
Amount: 2.684553
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:25

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

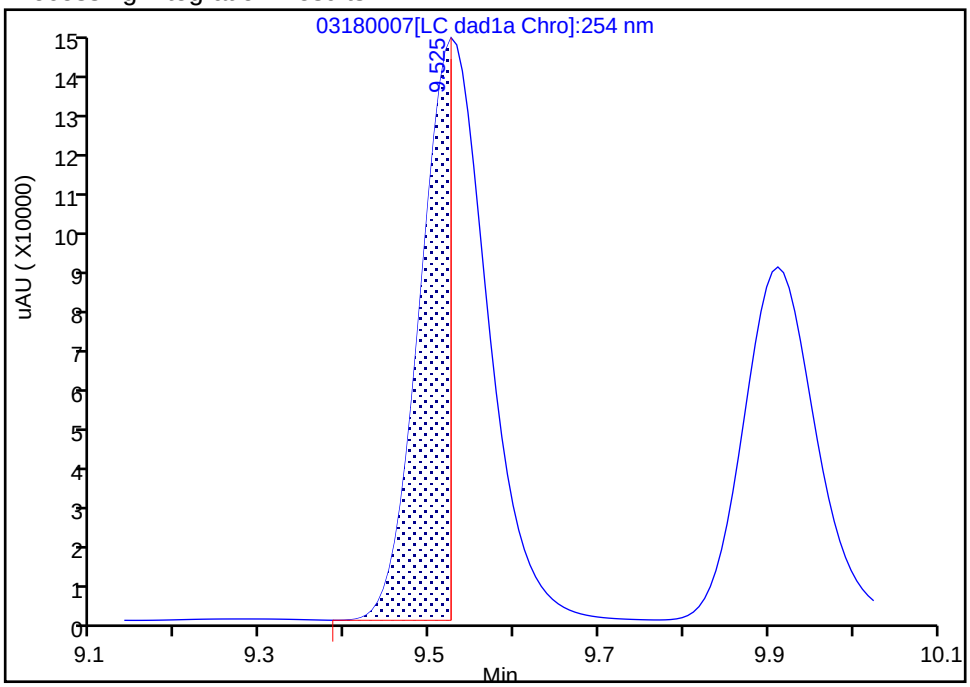
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 11 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

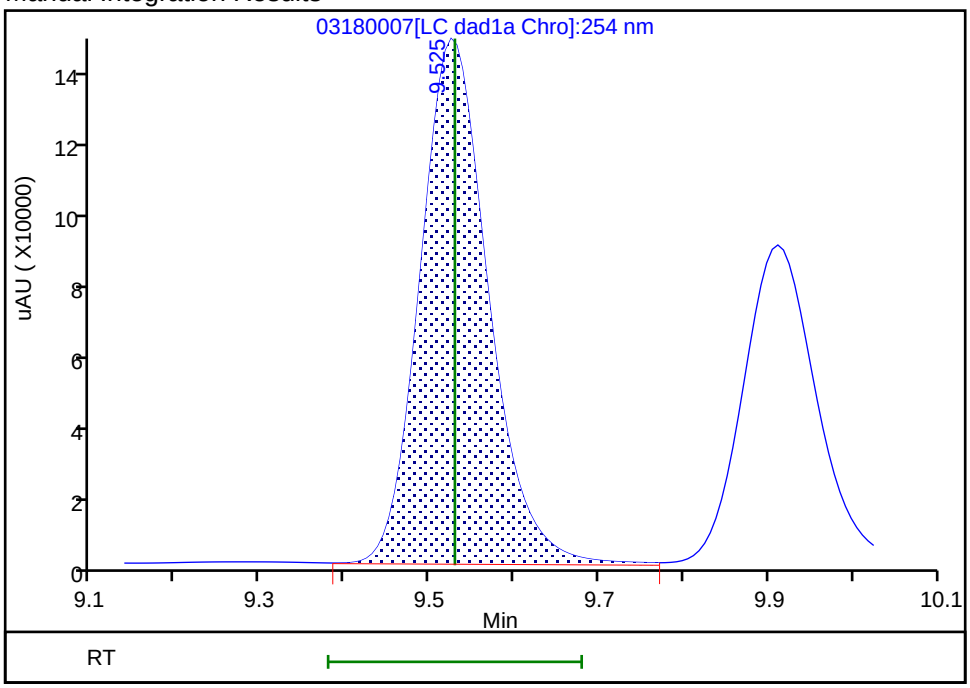
Processing Integration Results

RT: 9.52
Area: 362918
Amount: 1.345398
Amount Units: ug/mL




Manual Integration Results

RT: 9.52
Area: 818202
Amount: 2.667884
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:39
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180008.D
Lims ID: IC MAIN L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Mar-2020 11:58:50 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L8
Misc. Info.: 280-0090150-008
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:40 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:12

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 92351 | 1.00 | 1.07 | M |
| 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 112730 | 1.00 | 0.9667 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.034 | 8.076 | -0.042 | 87876 | 1.00 | 1.03 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 144242 | 1.00 | 1.04 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 245099 | 1.00 | 1.06 | |
| 11 1,3-Dinitrobenzene | 1 | 9.534 | 9.529 | 0.005 | 324636 | 1.00 | 1.06 | |
| 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 210310 | 1.00 | 1.05 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 193434 | 1.00 | 1.09 | |
| 15 Nitroglycerin | 2 | 10.727 | 10.729 | -0.002 | 731600 | 10.0 | 10.7 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.187 | 11.183 | 0.004 | 220430 | 1.00 | 1.08 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.334 | 11.336 | -0.002 | 173248 | 1.00 | 0.9778 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.621 | 11.623 | -0.002 | 219261 | 1.00 | 1.08 | |
| 19 2,6-Dinitrotoluene | 1 | 11.787 | 11.783 | 0.004 | 157175 | 1.00 | 1.05 | |
| 20 2,4-Dinitrotoluene | 1 | 11.981 | 11.983 | -0.002 | 324284 | 1.00 | 1.07 | |
| 21 o-Nitrotoluene | 1 | 12.821 | 12.823 | -0.002 | 133699 | 1.00 | 0.9900 | |
| 22 p-Nitrotoluene | 1 | 13.254 | 13.256 | -0.002 | 116544 | 1.00 | 1.03 | |
| 23 m-Nitrotoluene | 1 | 13.847 | 13.849 | -0.002 | 148965 | 1.00 | 1.04 | |
| 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 824461 | 10.0 | 10.5 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

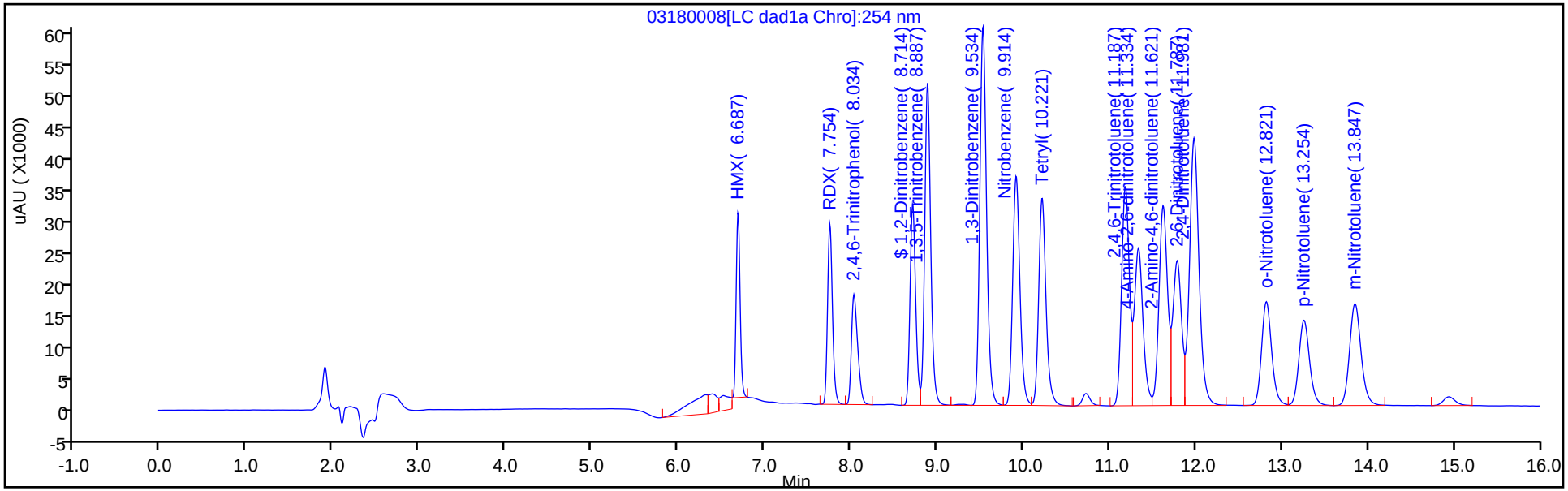
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 26-Mar-2020 15:45:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

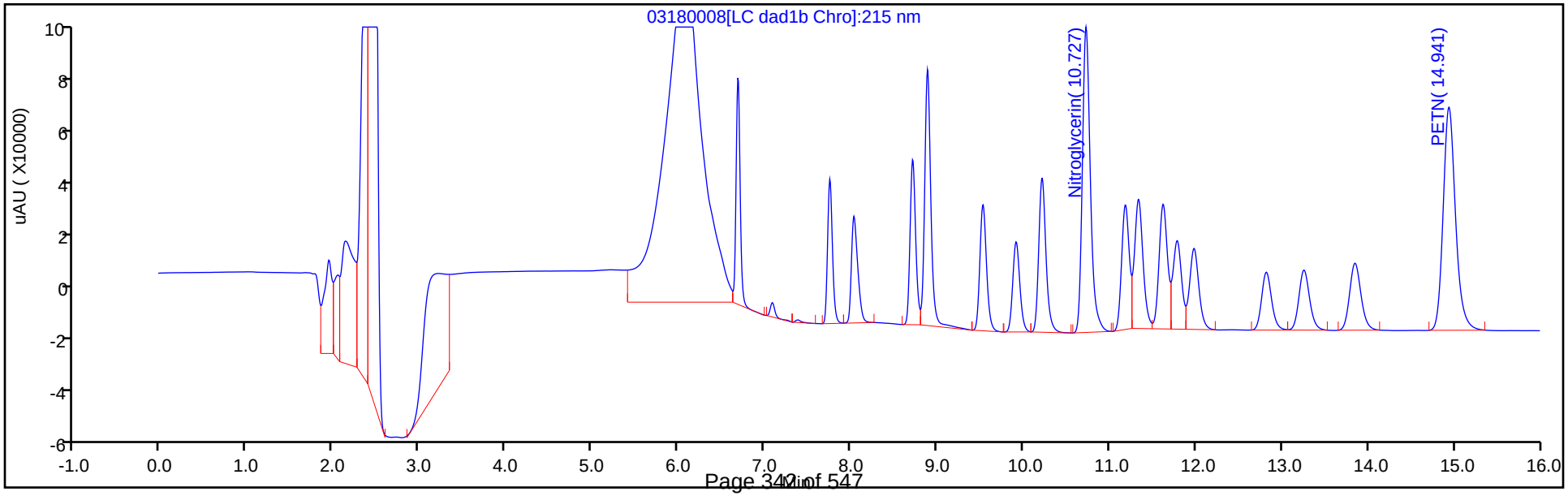
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d | | | | |
| Injection Date: | 18-Mar-2020 11:58:50 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L8 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

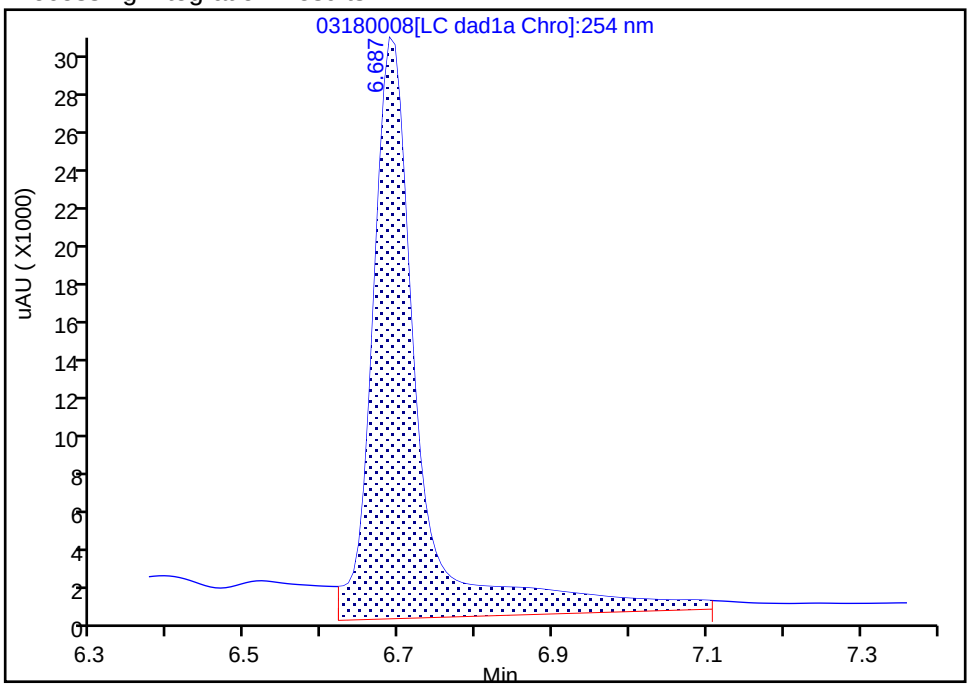
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d | | | | |
| Injection Date: | 18-Mar-2020 11:58:50 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

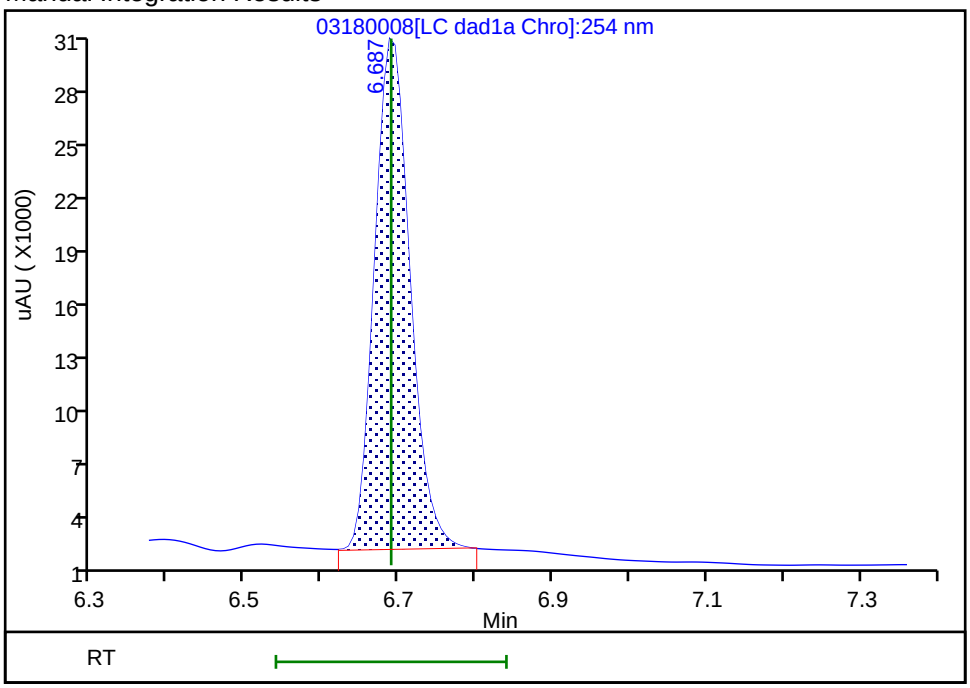
Processing Integration Results

RT: 6.69
Area: 128593
Amount: 1.149770
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 92351
Amount: 1.074321
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180009.D
Lims ID: IC MAIN L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Mar-2020 12:21:47 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L7
Misc. Info.: 280-0090150-009
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:38

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 64274 | 0.7000 | 0.7477 | M |
| 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 78289 | 0.7000 | 0.6714 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.041 | 8.076 | -0.035 | 60796 | 0.7000 | 0.7142 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 99878 | 0.7000 | 0.7226 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.881 | 8.883 | -0.002 | 169775 | 0.7014 | 0.7372 | |
| 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.529 | -0.002 | 224707 | 0.7014 | 0.7327 | |
| 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 147027 | 0.7028 | 0.7337 | |
| 14 Tetryl | 1 | 10.214 | 10.216 | -0.002 | 133100 | 0.7014 | 0.7518 | |
| 15 Nitroglycerin | 2 | 10.727 | 10.729 | -0.002 | 508407 | 7.00 | 7.46 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.181 | 11.183 | -0.002 | 153561 | 0.7028 | 0.7526 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.334 | 11.336 | -0.002 | 118343 | 0.7007 | 0.6700 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.621 | 11.623 | -0.002 | 150258 | 0.7028 | 0.7409 | |
| 19 2,6-Dinitrotoluene | 1 | 11.781 | 11.783 | -0.002 | 111703 | 0.7028 | 0.7474 | |
| 20 2,4-Dinitrotoluene | 1 | 11.981 | 11.983 | -0.002 | 223282 | 0.7028 | 0.7355 | |
| 21 o-Nitrotoluene | 1 | 12.814 | 12.823 | -0.009 | 93761 | 0.7000 | 0.6943 | |
| 22 p-Nitrotoluene | 1 | 13.254 | 13.256 | -0.002 | 81534 | 0.7014 | 0.7215 | |
| 23 m-Nitrotoluene | 1 | 13.841 | 13.849 | -0.008 | 104089 | 0.7007 | 0.7277 | |
| 24 PETN | 2 | 14.927 | 14.936 | -0.009 | 568970 | 7.00 | 7.24 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

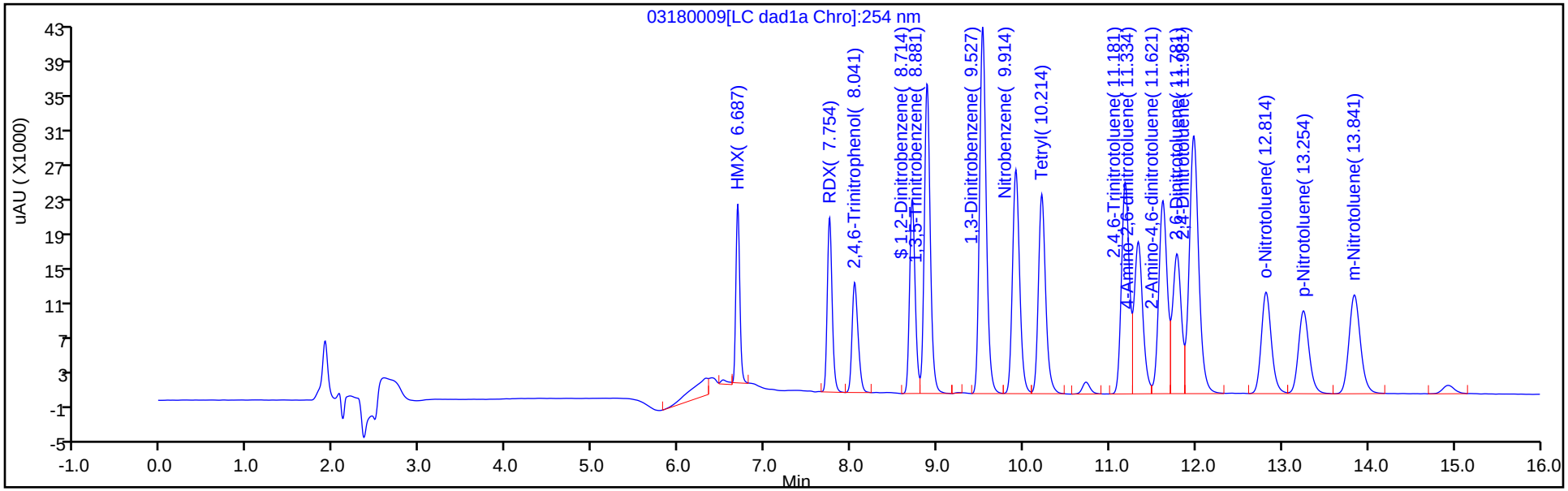
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 26-Mar-2020 15:45:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

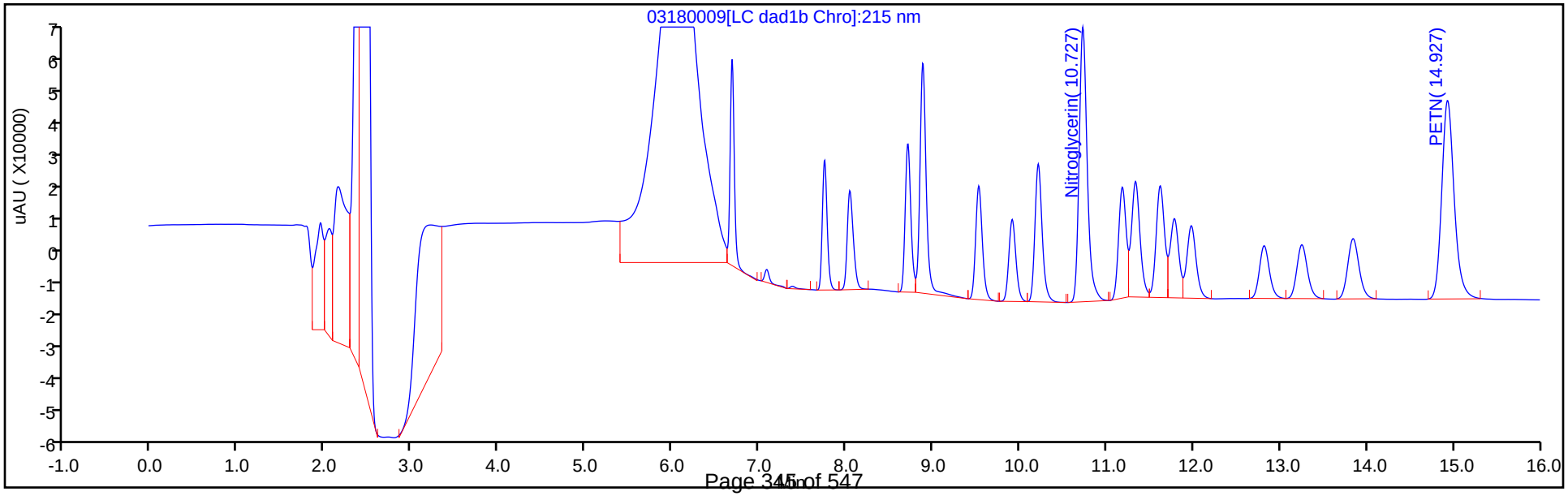
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d | | | | |
| Injection Date: | 18-Mar-2020 12:21:47 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

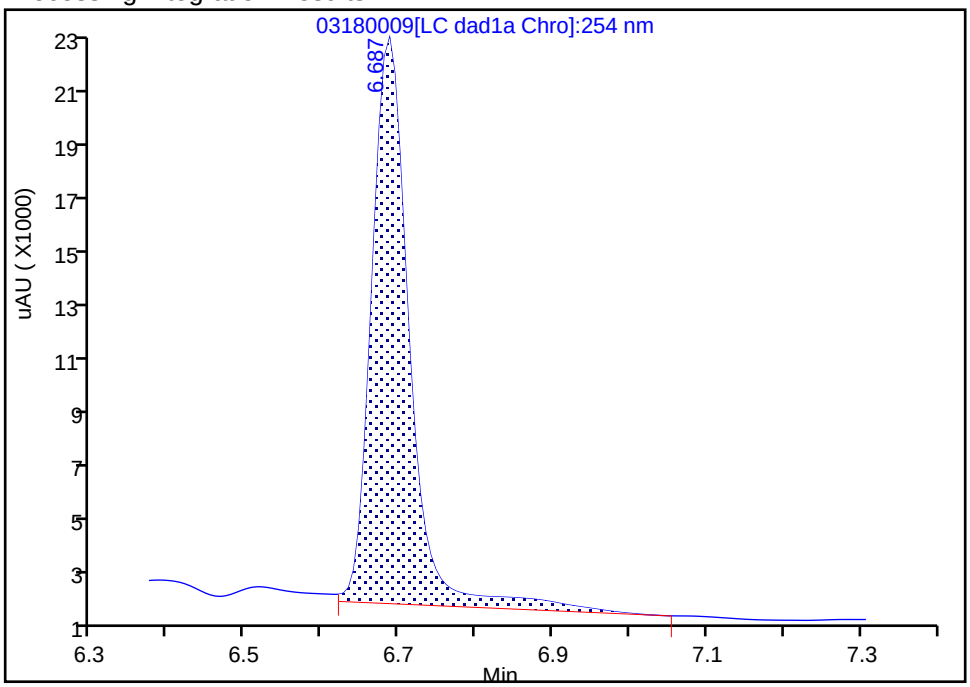
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d | | | | |
| Injection Date: | 18-Mar-2020 12:21:47 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

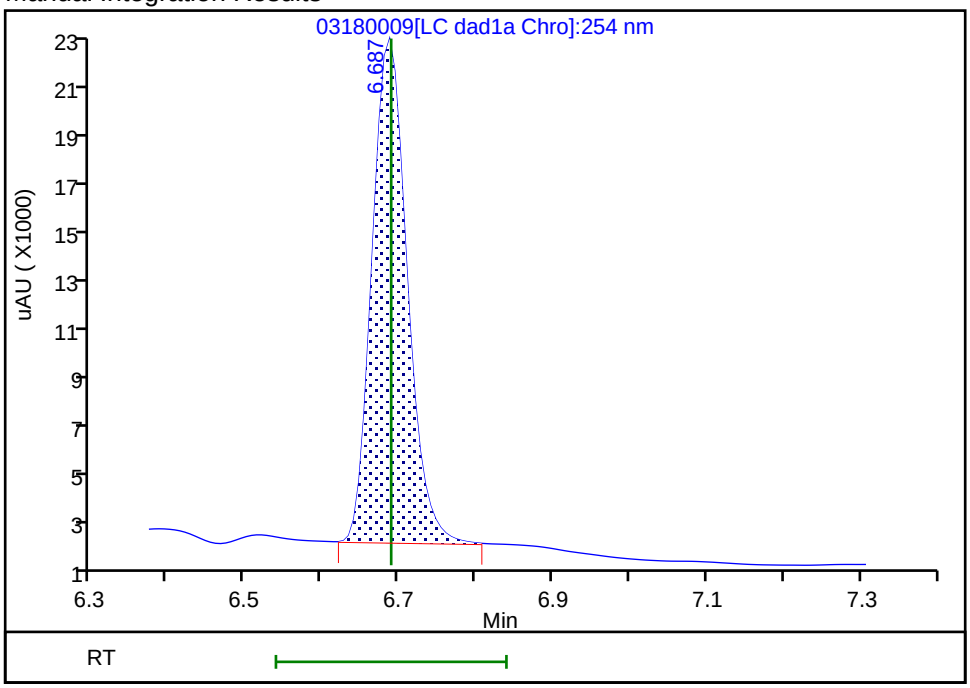
Processing Integration Results

RT: 6.69
Area: 70764
Amount: 0.364265
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 64274
Amount: 0.747701
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:42:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180010.D
Lims ID: IC MAIN L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2020 12:44:45 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L6
Misc. Info.: 280-0090150-010
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:13

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 36589 | 0.4000 | 0.4256 | M |
| 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 45286 | 0.4000 | 0.3883 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.054 | 8.076 | -0.022 | 34679 | 0.4000 | 0.4074 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 57167 | 0.4000 | 0.4136 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 97215 | 0.4008 | 0.4221 | |
| 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.529 | -0.002 | 129174 | 0.4008 | 0.4212 | |
| 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 84120 | 0.4016 | 0.4198 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 76213 | 0.4008 | 0.4305 | |
| 15 Nitroglycerin | 2 | 10.734 | 10.729 | 0.005 | 294728 | 4.00 | 4.33 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.187 | 11.183 | 0.004 | 86650 | 0.4016 | 0.4247 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.341 | 11.336 | 0.005 | 70023 | 0.4004 | 0.3991 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.627 | 11.623 | 0.004 | 85612 | 0.4016 | 0.4221 | |
| 19 2,6-Dinitrotoluene | 1 | 11.787 | 11.783 | 0.004 | 64354 | 0.4016 | 0.4306 | |
| 20 2,4-Dinitrotoluene | 1 | 11.987 | 11.983 | 0.004 | 128504 | 0.4016 | 0.4233 | |
| 21 o-Nitrotoluene | 1 | 12.827 | 12.823 | 0.004 | 53830 | 0.4000 | 0.3986 | |
| 22 p-Nitrotoluene | 1 | 13.261 | 13.256 | 0.005 | 46607 | 0.4008 | 0.4124 | |
| 23 m-Nitrotoluene | 1 | 13.854 | 13.849 | 0.005 | 60098 | 0.4004 | 0.4202 | |
| 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 328307 | 4.00 | 4.18 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

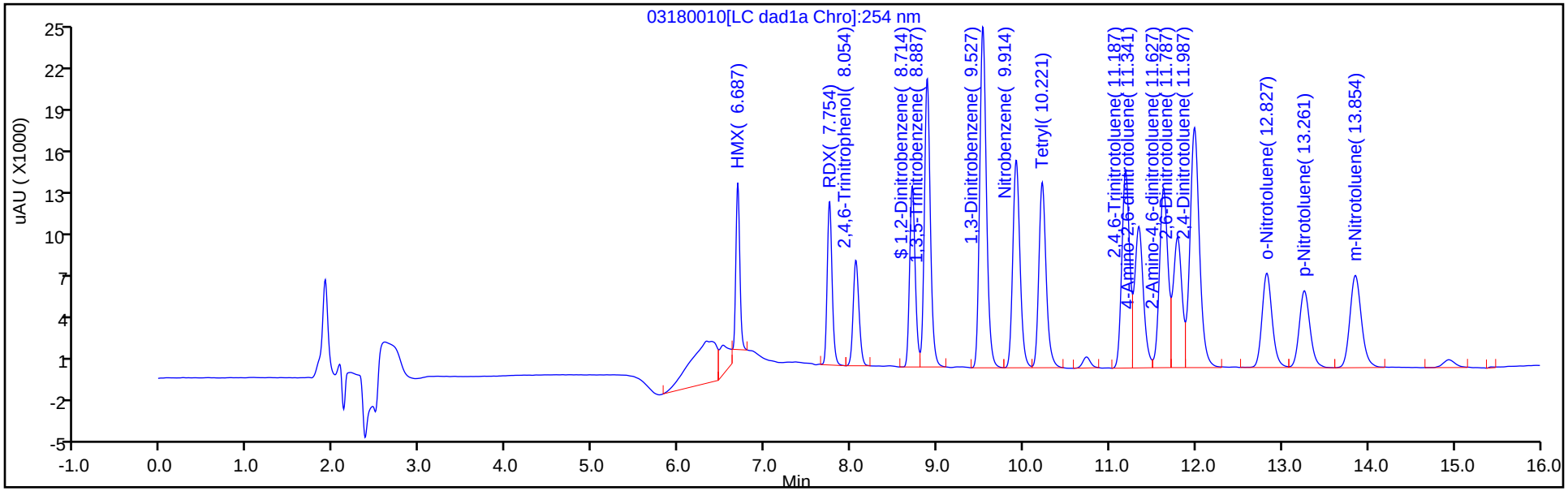
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

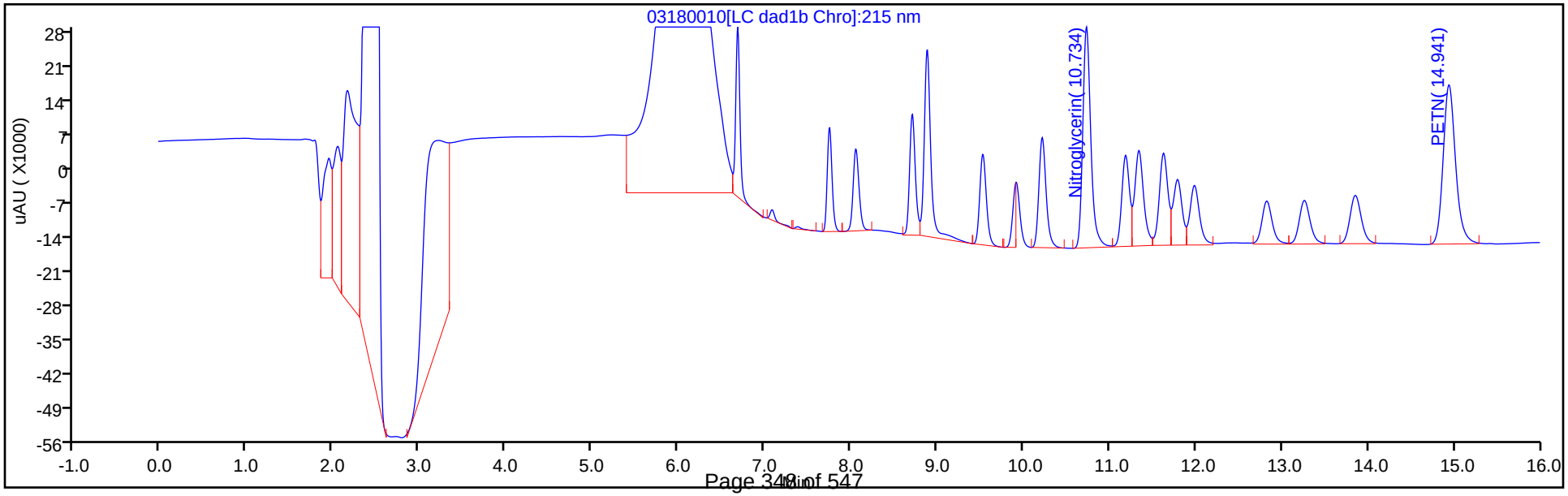
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d | | | | |
| Injection Date: | 18-Mar-2020 12:44:45 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L6 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

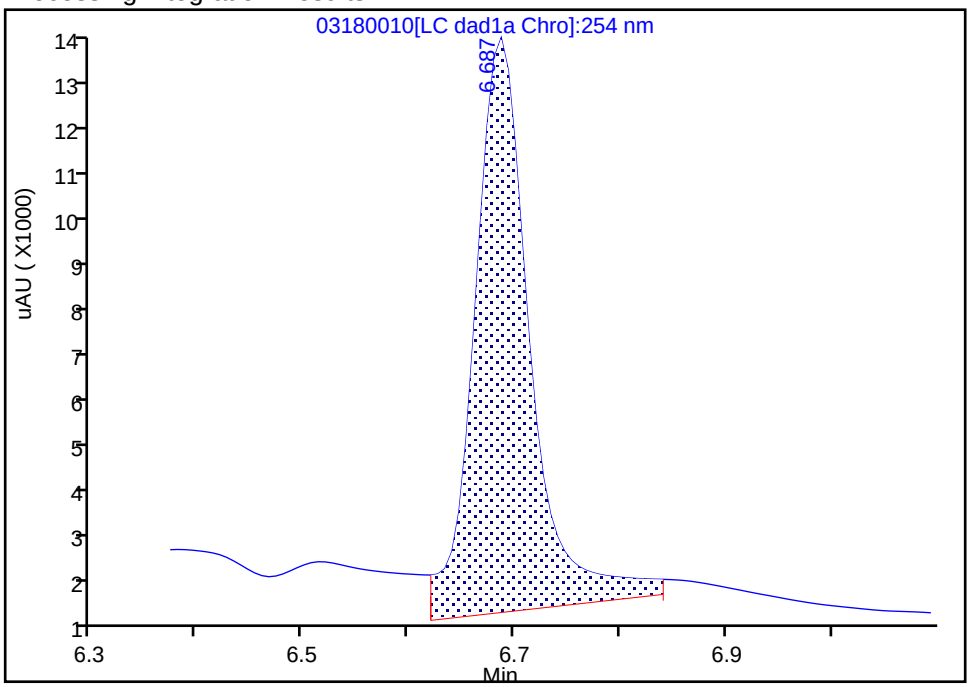
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d | | | | |
| Injection Date: | 18-Mar-2020 12:44:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

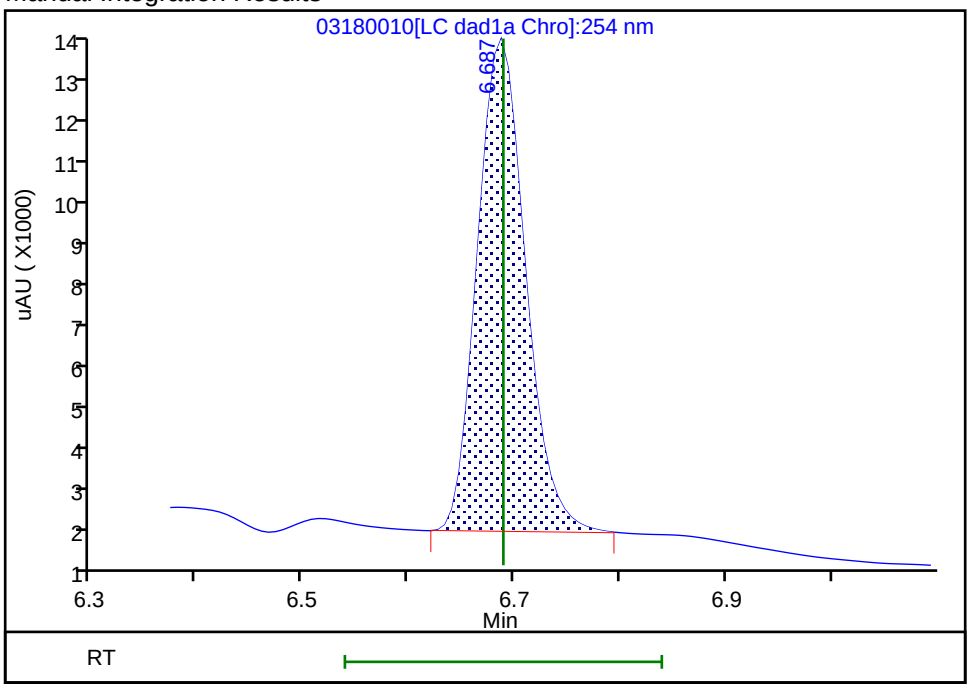
Processing Integration Results

RT: 6.69
Area: 45375
Amount: 0.234818
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 36589
Amount: 0.425641
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:42:54
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180011.D | | | | |
| Lims ID: | IC MAIN L5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 18-Mar-2020 13:07:42 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L5 | | | | |
| Misc. Info.: | 280-0090150-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:42 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:30

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | 6.688 | 6.689 | -0.001 | 22752 | 0.2500 | 0.2647 | M |
| | 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 28236 | 0.2500 | 0.2421 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.068 | 8.076 | -0.008 | 21617 | 0.2500 | 0.2539 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 35555 | 0.2500 | 0.2572 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.888 | 8.883 | 0.005 | 60039 | 0.2505 | 0.2607 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.534 | 9.529 | 0.005 | 80465 | 0.2505 | 0.2624 | |
| | 12 Nitrobenzene | 1 | 9.921 | 9.916 | 0.005 | 52480 | 0.2510 | 0.2619 | |
| | 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 47307 | 0.2505 | 0.2672 | |
| | 15 Nitroglycerin | 2 | 10.734 | 10.729 | 0.005 | 184270 | 2.50 | 2.70 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.194 | 11.183 | 0.011 | 54439 | 0.2510 | 0.2668 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.347 | 11.336 | 0.011 | 43388 | 0.2503 | 0.2498 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.634 | 11.623 | 0.011 | 53635 | 0.2510 | 0.2645 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.794 | 11.783 | 0.011 | 40049 | 0.2510 | 0.2680 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.987 | 11.983 | 0.004 | 80062 | 0.2510 | 0.2637 | |
| | 21 o-Nitrotoluene | 1 | 12.827 | 12.823 | 0.004 | 34604 | 0.2500 | 0.2562 | |
| | 22 p-Nitrotoluene | 1 | 13.261 | 13.256 | 0.005 | 29824 | 0.2505 | 0.2639 | |
| | 23 m-Nitrotoluene | 1 | 13.854 | 13.849 | 0.005 | 37511 | 0.2503 | 0.2623 | |
| | 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 201180 | 2.50 | 2.56 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

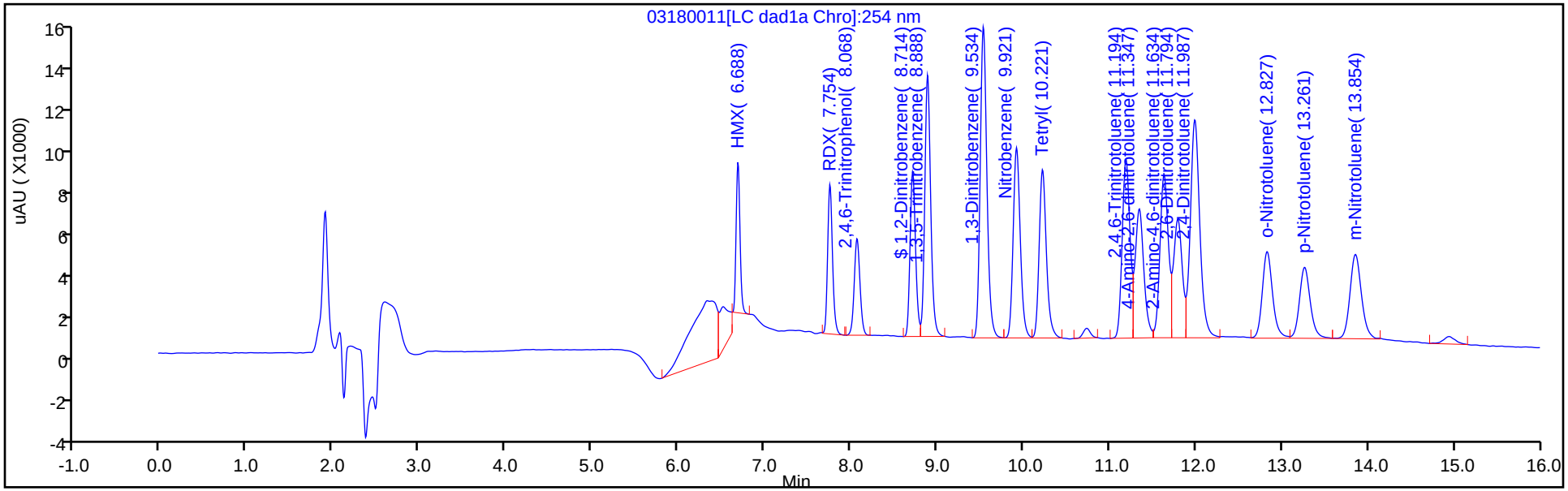
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

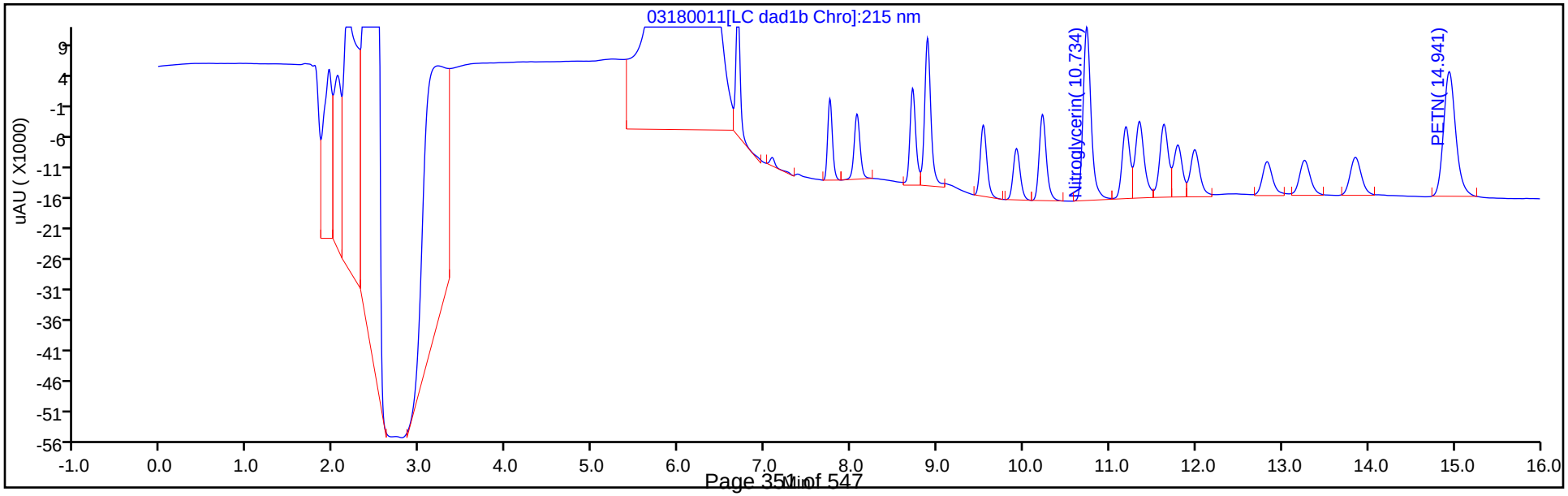
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d | | | | |
| Injection Date: | 18-Mar-2020 13:07:42 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L5 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

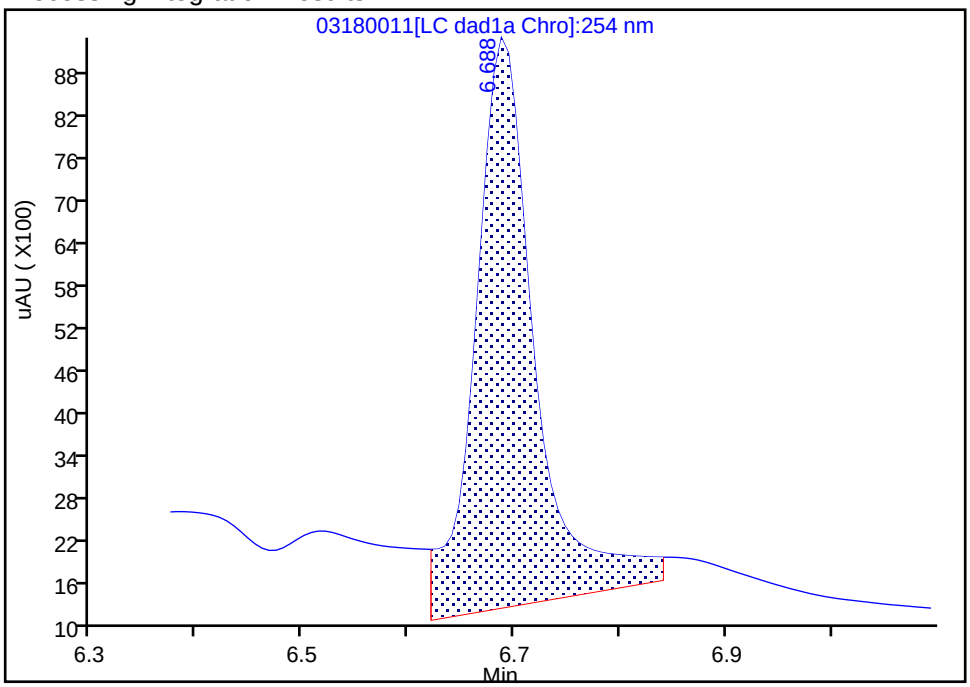
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d | | | | |
| Injection Date: | 18-Mar-2020 13:07:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

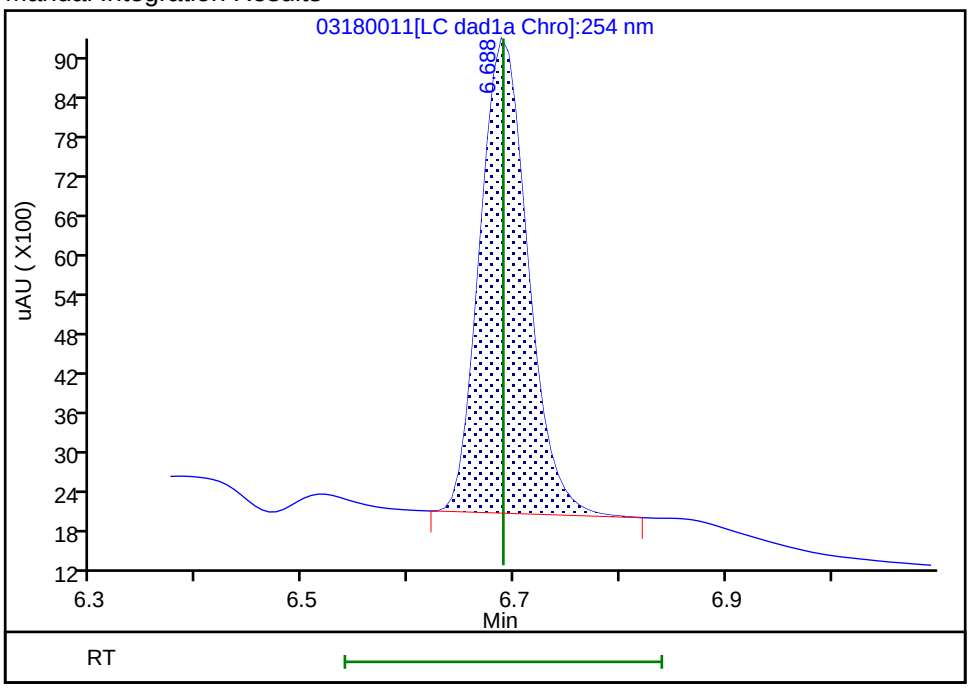
Processing Integration Results

RT: 6.69
Area: 31475
Amount: 0.164968
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 22752
Amount: 0.264675
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:43:23

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180012.D
Lims ID: IC MAIN L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 18-Mar-2020 13:30:35 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L4
Misc. Info.: 280-0090150-012
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:43 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:47

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.689 | 6.689 | 0.000 | 9080 | 0.1000 | 0.1056 | M |
| 7 RDX | 1 | 7.749 | 7.749 | 0.000 | 11701 | 0.1000 | 0.1003 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.076 | 8.076 | 0.000 | 8647 | 0.1000 | 0.1016 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.709 | 0.000 | 14127 | 0.1000 | 0.1022 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.883 | 8.883 | 0.000 | 23730 | 0.1002 | 0.1030 | |
| 11 1,3-Dinitrobenzene | 1 | 9.529 | 9.529 | 0.000 | 31897 | 0.1002 | 0.1040 | |
| 12 Nitrobenzene | 1 | 9.916 | 9.916 | 0.000 | 20859 | 0.1004 | 0.1041 | |
| 14 Tetryl | 1 | 10.216 | 10.216 | 0.000 | 18527 | 0.1002 | 0.1047 | |
| 15 Nitroglycerin | 2 | 10.729 | 10.729 | 0.000 | 71269 | 1.00 | 1.05 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.183 | 11.183 | 0.000 | 21830 | 0.1004 | 0.1070 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.336 | 11.336 | 0.000 | 17293 | 0.1001 | 0.1035 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.623 | 11.623 | 0.000 | 21043 | 0.1004 | 0.1038 | |
| 19 2,6-Dinitrotoluene | 1 | 11.783 | 11.783 | 0.000 | 15921 | 0.1004 | 0.1065 | |
| 20 2,4-Dinitrotoluene | 1 | 11.983 | 11.983 | 0.000 | 31802 | 0.1004 | 0.1048 | |
| 21 o-Nitrotoluene | 1 | 12.823 | 12.823 | 0.000 | 13733 | 0.1000 | 0.1017 | |
| 22 p-Nitrotoluene | 1 | 13.256 | 13.256 | 0.000 | 11811 | 0.1002 | 0.1045 | |
| 23 m-Nitrotoluene | 1 | 13.849 | 13.849 | 0.000 | 14838 | 0.1001 | 0.1037 | |
| 24 PETN | 2 | 14.936 | 14.936 | 0.000 | 78947 | 1.00 | 1.00 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

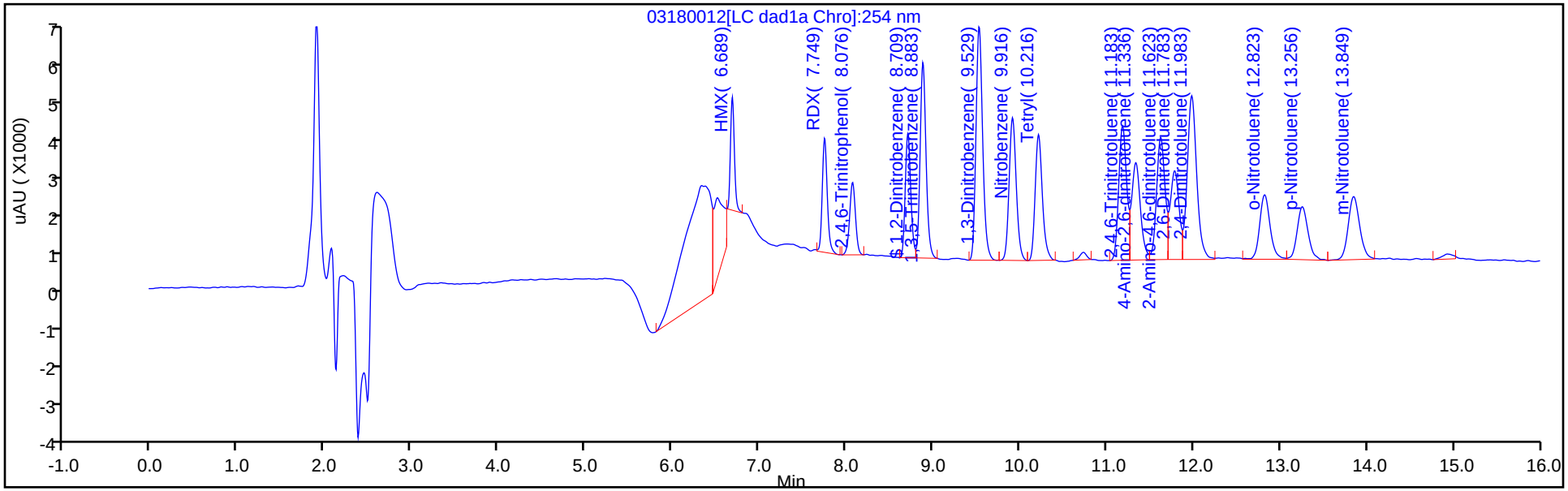
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 26-Mar-2020 15:45:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

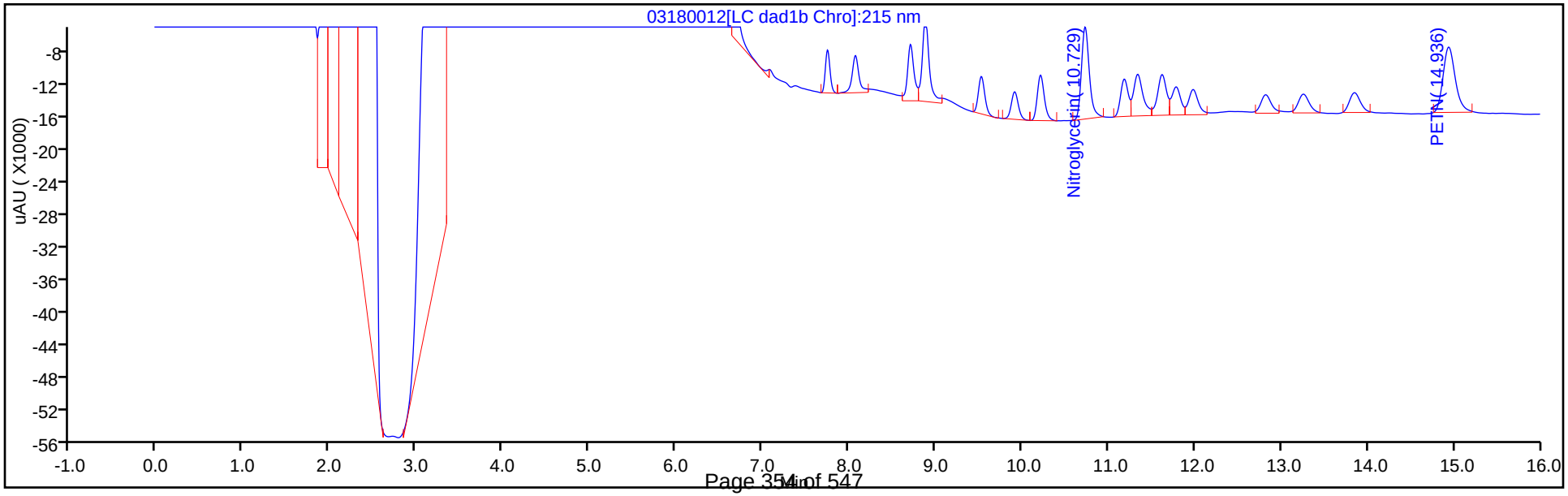
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d | | | | |
| Injection Date: | 18-Mar-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L4 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

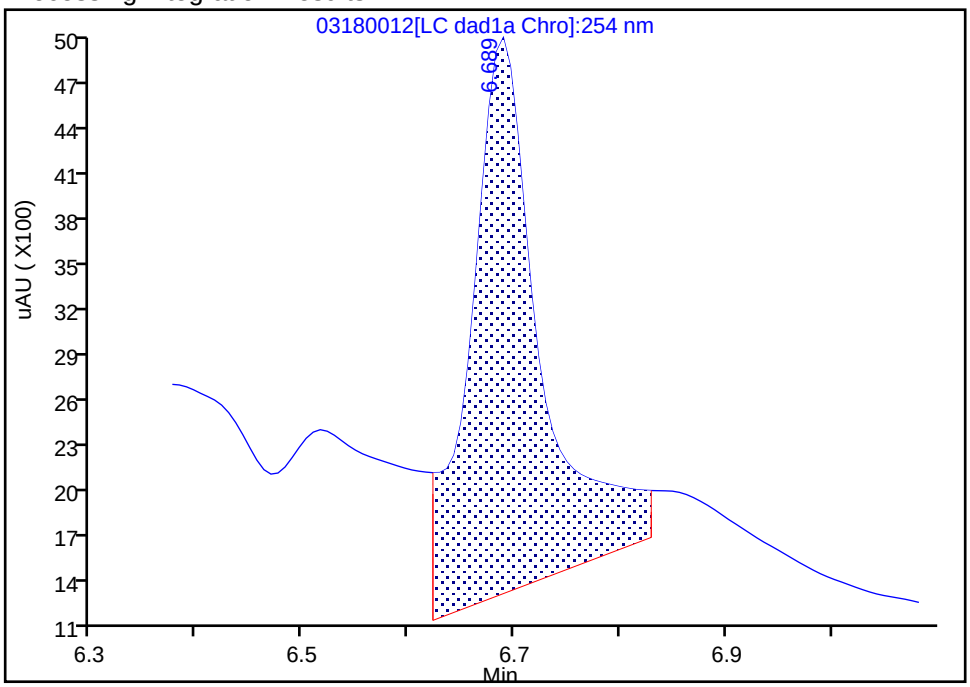
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d | | | | |
| Injection Date: | 18-Mar-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

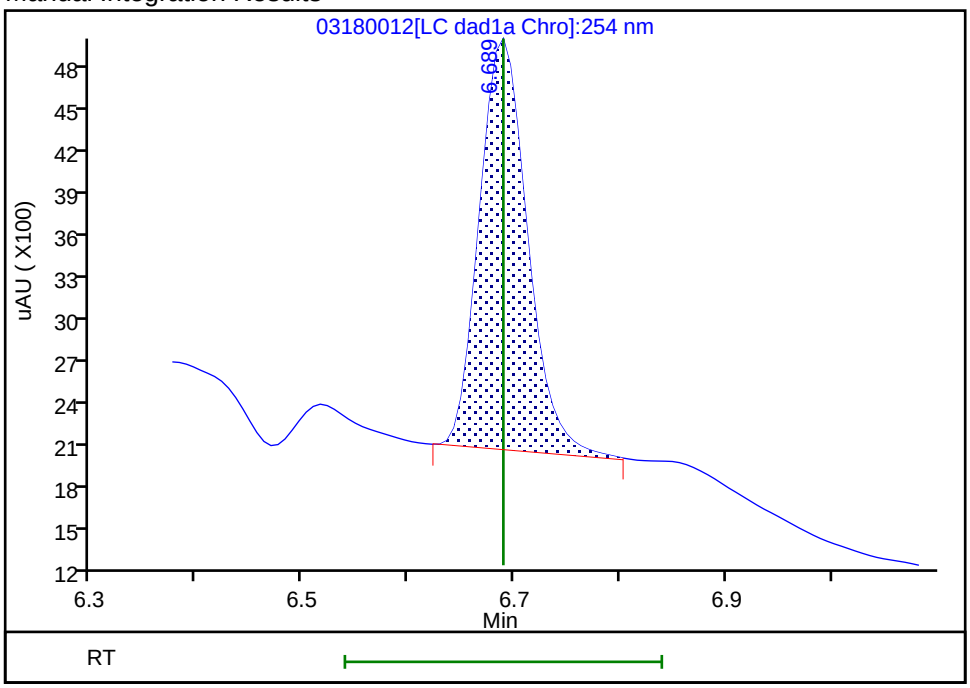
Processing Integration Results

RT: 6.69
Area: 16912
Amount: 0.090478
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 9080
Amount: 0.105628
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:43:42

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180013.D
Lims ID: IC MAIN L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Mar-2020 13:53:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L3
Misc. Info.: 280-0090150-013
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:05

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 4323 | 0.0500 | 0.0503 | M |
| 7 RDX | 1 | 7.753 | 7.749 | 0.004 | 6070 | 0.0500 | 0.0521 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.080 | 8.076 | 0.004 | 4305 | 0.0500 | 0.0506 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.713 | 8.709 | 0.004 | 7239 | 0.0500 | 0.0524 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 11986 | 0.0501 | 0.0520 | |
| 11 1,3-Dinitrobenzene | 1 | 9.533 | 9.529 | 0.004 | 16146 | 0.0501 | 0.0526 | |
| 12 Nitrobenzene | 1 | 9.920 | 9.916 | 0.004 | 10485 | 0.0502 | 0.0523 | |
| 14 Tetryl | 1 | 10.220 | 10.216 | 0.004 | 9136 | 0.0501 | 0.0516 | |
| 15 Nitroglycerin | 2 | 10.733 | 10.729 | 0.004 | 33491 | 0.5000 | 0.4915 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.186 | 11.183 | 0.003 | 10774 | 0.0502 | 0.0528 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.340 | 11.336 | 0.004 | 8490 | 0.0501 | 0.0541 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.633 | 11.623 | 0.010 | 10503 | 0.0502 | 0.0518 | |
| 19 2,6-Dinitrotoluene | 1 | 11.793 | 11.783 | 0.010 | 7882 | 0.0502 | 0.0527 | |
| 20 2,4-Dinitrotoluene | 1 | 11.986 | 11.983 | 0.003 | 15741 | 0.0502 | 0.0519 | |
| 21 o-Nitrotoluene | 1 | 12.833 | 12.823 | 0.010 | 7553 | 0.0500 | 0.0559 | |
| 22 p-Nitrotoluene | 1 | 13.260 | 13.256 | 0.004 | 6416 | 0.0501 | 0.0568 | |
| 23 m-Nitrotoluene | 1 | 13.853 | 13.849 | 0.004 | 7758 | 0.0501 | 0.0542 | |
| 24 PETN | 2 | 14.946 | 14.936 | 0.010 | 37407 | 0.5000 | 0.4759 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

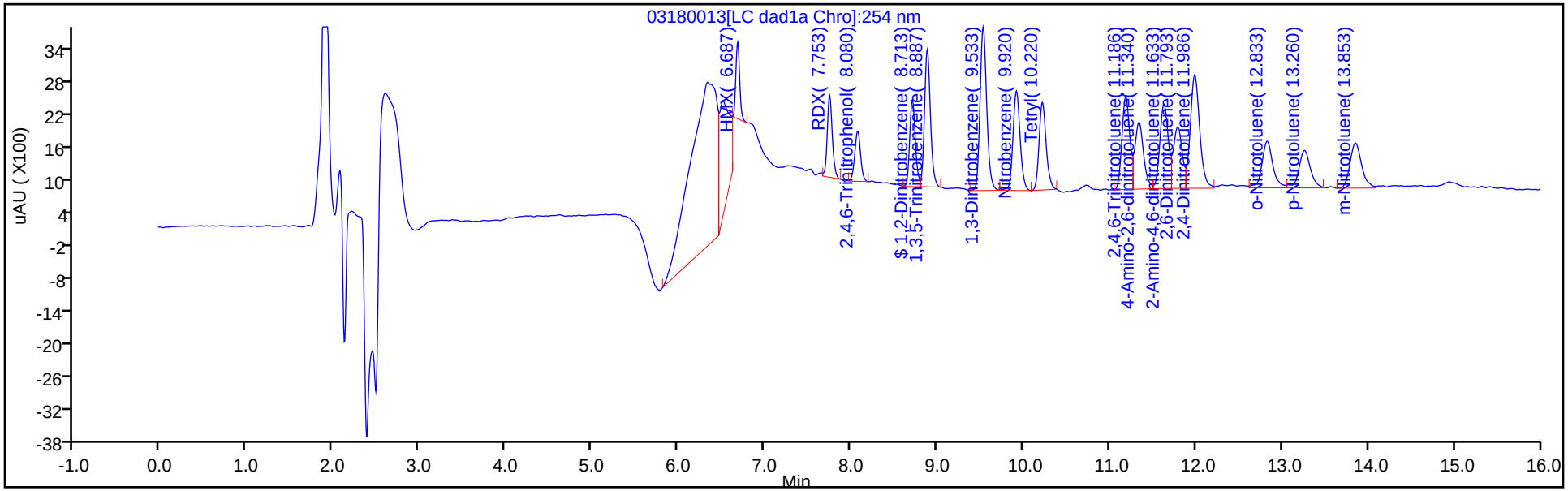
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 26-Mar-2020 15:45:44 Chrom Revision: 2.3 11-Mar-2020 18:53:20

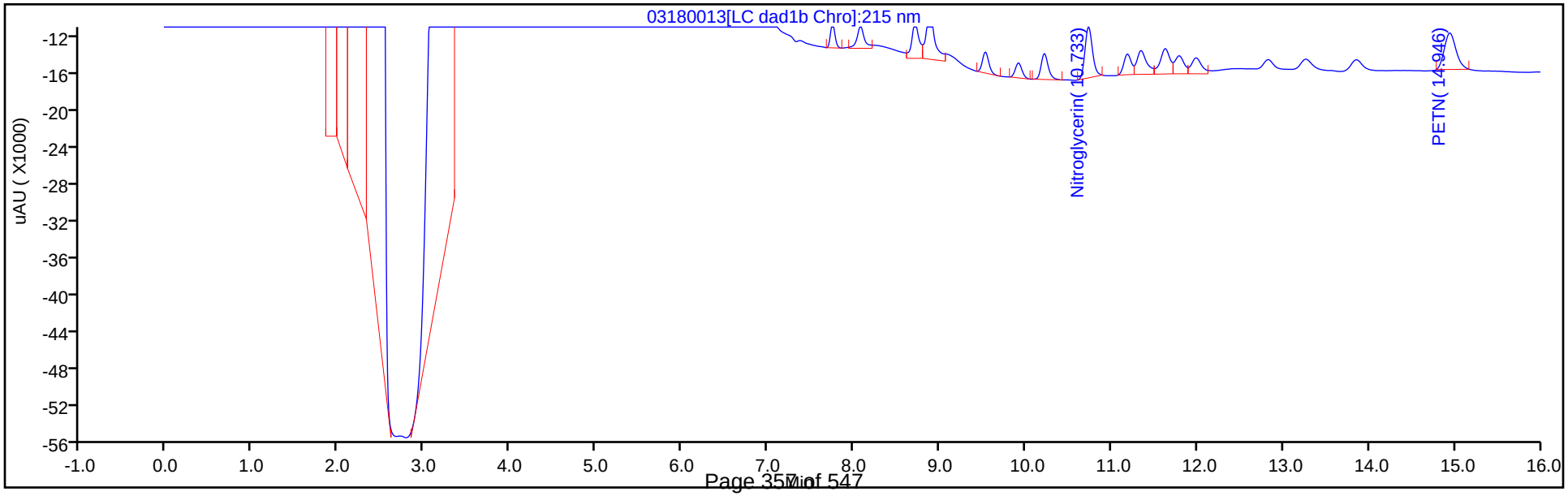
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d | | | | |
| Injection Date: | 18-Mar-2020 13:53:37 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L3 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

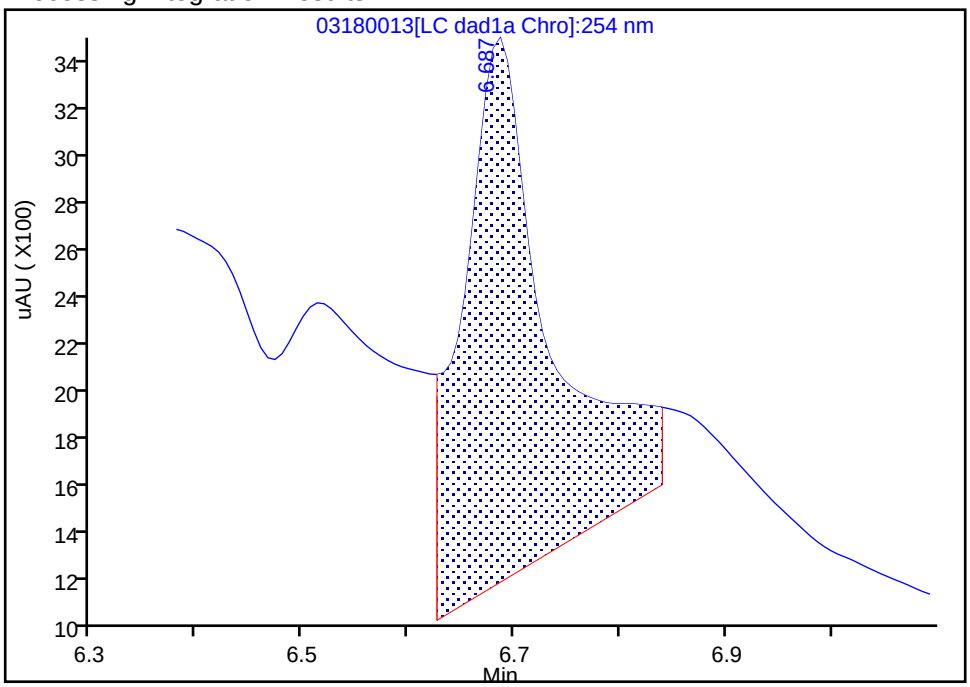
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d | | | | |
| Injection Date: | 18-Mar-2020 13:53:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

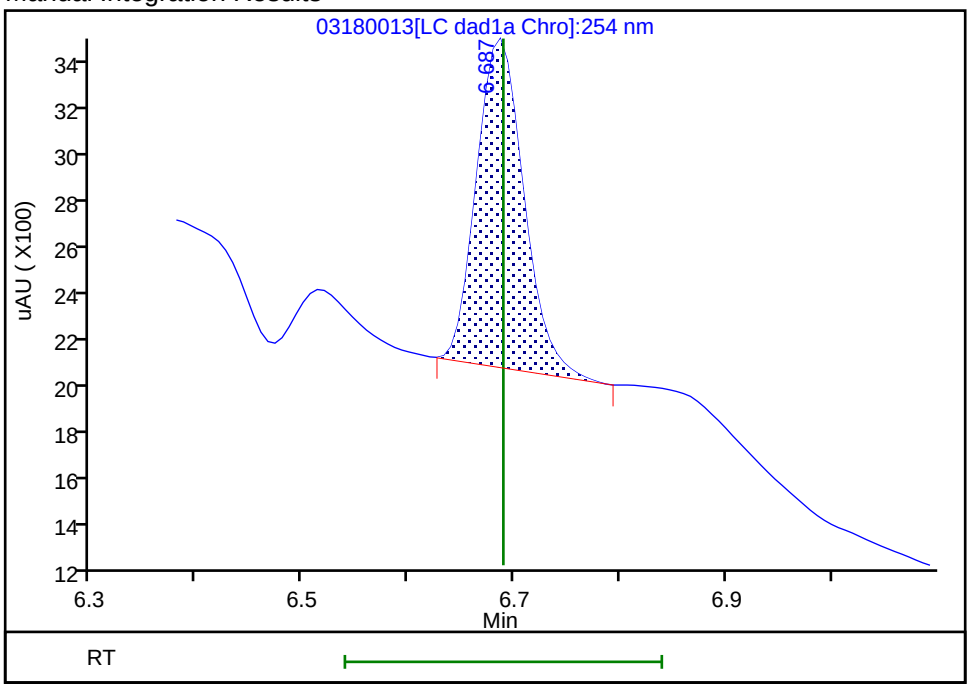
Processing Integration Results

RT: 6.69
Area: 12509
Amount: 0.070190
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 4323
Amount: 0.050290
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180014.D
Lims ID: IC MAIN L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2020 14:16:32 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L2
Misc. Info.: 280-0090150-014
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.689 | 6.689 | 0.000 | 1536 | 0.0250 | 0.0179 | M |
| 7 RDX | 1 | 7.755 | 7.749 | 0.006 | 2817 | 0.0250 | 0.0242 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.082 | 8.076 | 0.006 | 1774 | 0.0250 | 0.0208 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.709 | 0.000 | 2996 | 0.0250 | 0.0217 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.889 | 8.883 | 0.006 | 4845 | 0.0251 | 0.0210 | |
| 11 1,3-Dinitrobenzene | 1 | 9.535 | 9.529 | 0.006 | 6270 | 0.0251 | 0.0204 | |
| 12 Nitrobenzene | 1 | 9.922 | 9.916 | 0.006 | 4155 | 0.0251 | 0.0207 | |
| 14 Tetryl | 1 | 10.215 | 10.216 | -0.001 | 3492 | 0.0251 | 0.0197 | |
| 15 Nitroglycerin | 2 | 10.735 | 10.729 | 0.006 | 13701 | 0.2500 | 0.2011 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.189 | 11.183 | 0.006 | 4307 | 0.0251 | 0.0211 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.342 | 11.336 | 0.006 | 3443 | 0.0250 | 0.0258 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.629 | 11.623 | 0.006 | 4046 | 0.0251 | 0.0199 | M |
| 19 2,6-Dinitrotoluene | 1 | 11.789 | 11.783 | 0.006 | 2987 | 0.0251 | 0.0200 | M |
| 20 2,4-Dinitrotoluene | 1 | 11.989 | 11.983 | 0.006 | 6274 | 0.0251 | 0.0207 | |
| 21 o-Nitrotoluene | 1 | 12.822 | 12.823 | -0.001 | 3068 | 0.0250 | 0.0227 | |
| 22 p-Nitrotoluene | 1 | 13.269 | 13.256 | 0.013 | 2509 | 0.0251 | 0.0222 | |
| 23 m-Nitrotoluene | 1 | 13.849 | 13.849 | 0.000 | 3129 | 0.0250 | 0.0219 | |
| 24 PETN | 2 | 14.942 | 14.936 | 0.006 | 11624 | 0.2500 | 0.1479 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

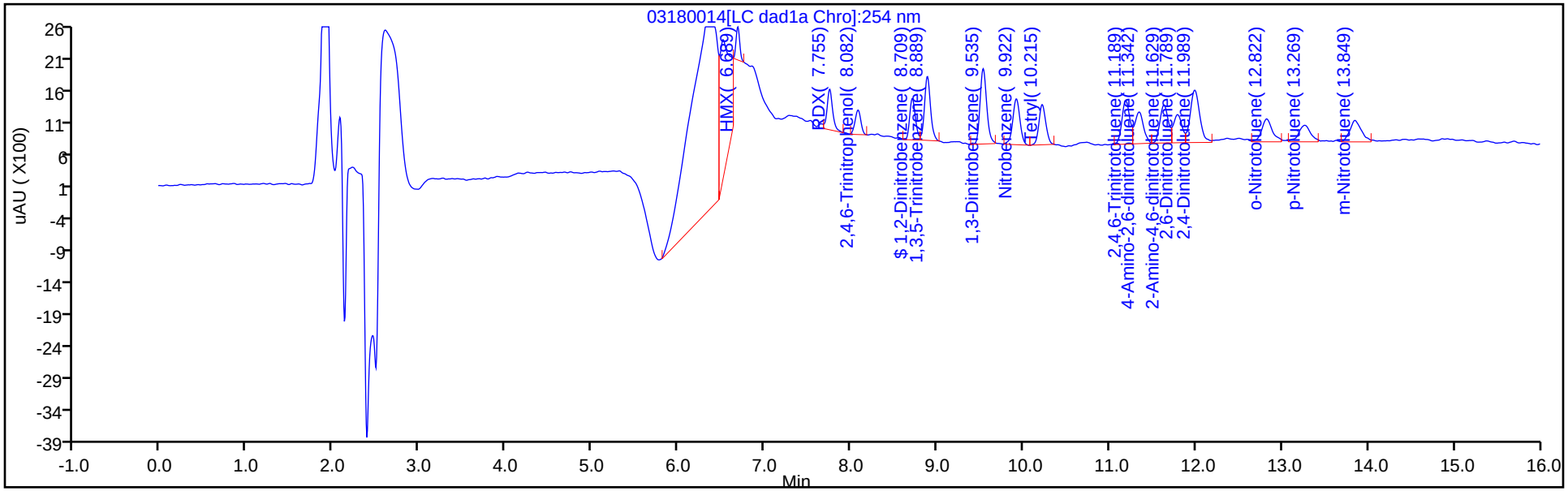
8330IntermStk_00061 Amount Added: 2.50 Units: uL

Report Date: 26-Mar-2020 15:45:45 Chrom Revision: 2.3 11-Mar-2020 18:53:20

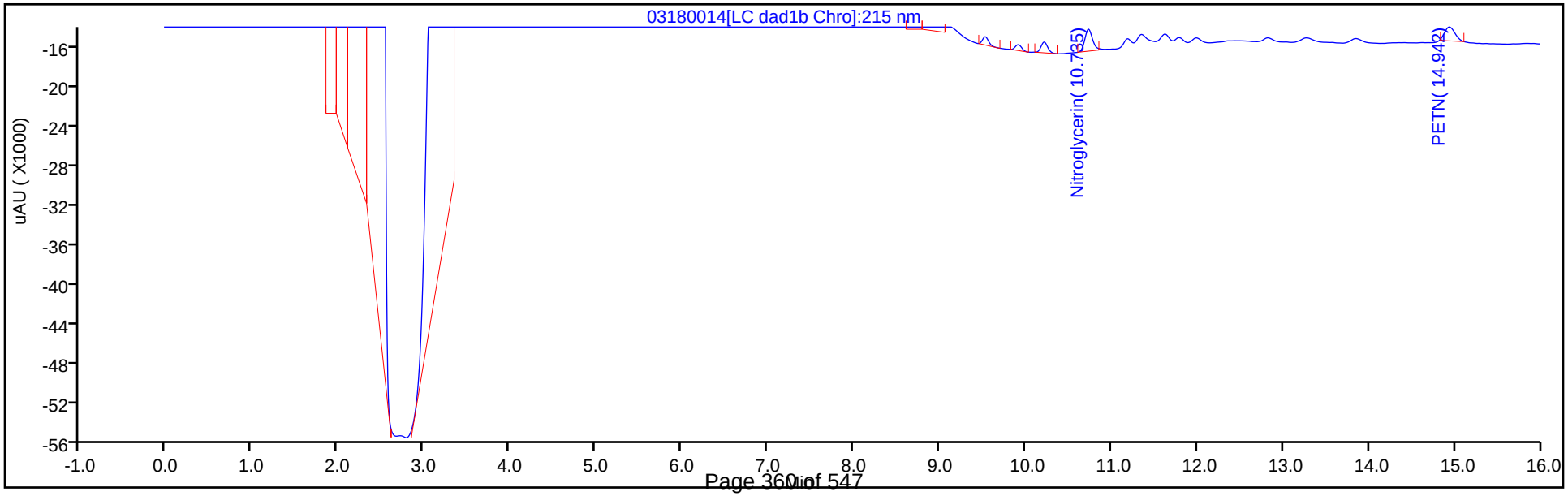
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L2 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

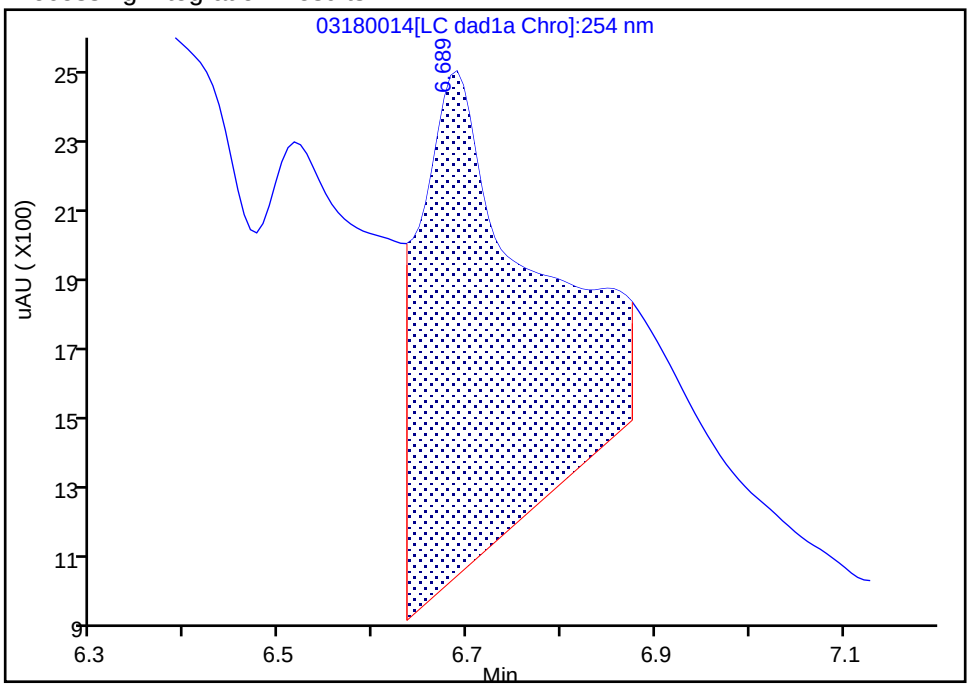
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

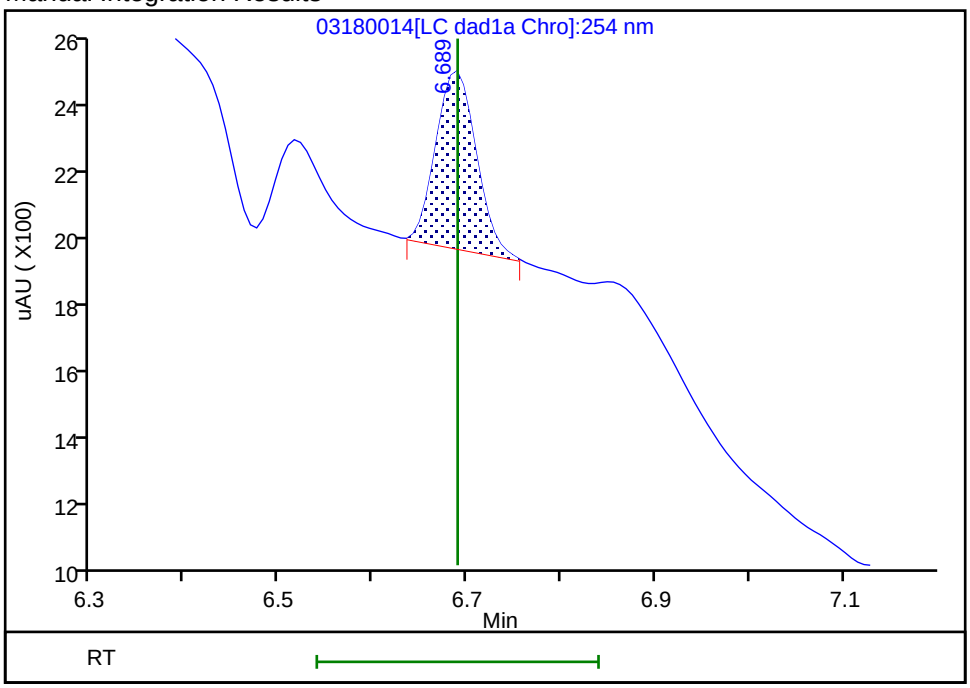
Processing Integration Results

RT: 6.69
Area: 11606
Amount: 0.072526
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 1536
Amount: 0.017868
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

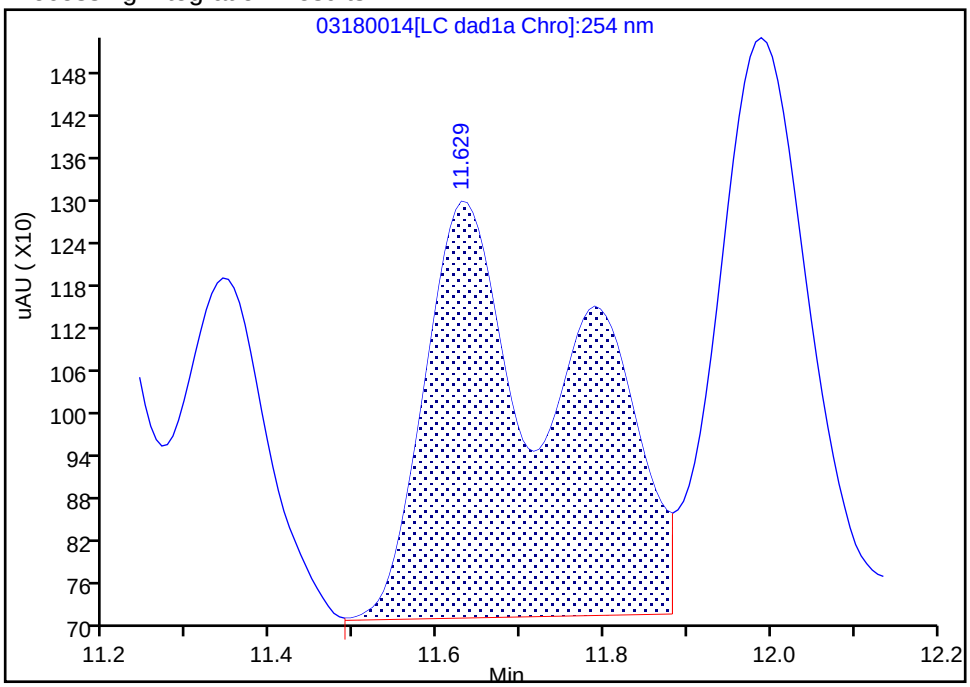
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

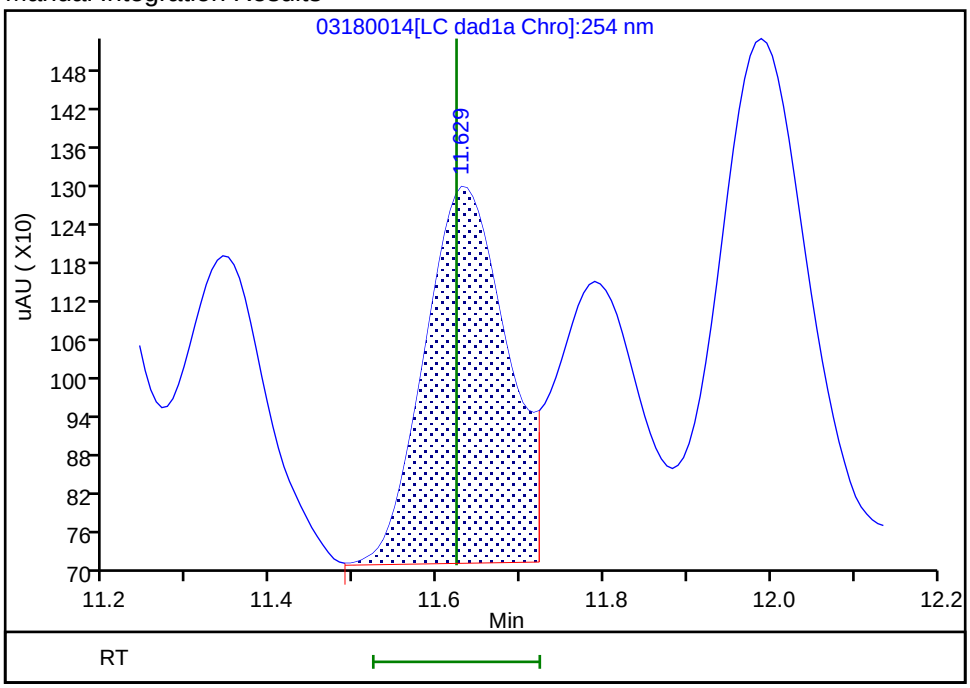
Processing Integration Results

RT: 11.63
Area: 7030
Amount: 0.030654
Amount Units: ug/mL




Manual Integration Results

RT: 11.63
Area: 4046
Amount: 0.019949
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:36
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D
Lims ID: IC MAIN L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Mar-2020 14:39:27 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L1
Misc. Info.: 280-0090150-015
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:45 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:46:42

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.689 | | | ND | ND | MU |
| 7 RDX | 1 | | 7.749 | | | ND | ND | MU |
| 8 2,4,6-Trinitrophenol | 1 | 8.082 | 8.076 | 0.006 | 1082 | 0.0125 | 0.0127 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.715 | 8.709 | 0.006 | 1531 | 0.0125 | 0.0111 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.888 | 8.883 | 0.005 | 2405 | 0.0125 | 0.0104 | |
| 11 1,3-Dinitrobenzene | 1 | 9.535 | 9.529 | 0.006 | 3191 | 0.0125 | 0.0104 | |
| 12 Nitrobenzene | 1 | 9.915 | 9.916 | -0.001 | 2176 | 0.0126 | 0.0109 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 1664 | 0.0125 | 0.009399 | |
| 15 Nitroglycerin | 2 | 10.735 | 10.729 | 0.006 | 6790 | 0.1250 | 0.0997 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.195 | 11.183 | 0.012 | 1807 | 0.0126 | 0.008856 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.341 | 11.336 | 0.005 | 981 | 0.0125 | 0.0120 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.635 | 11.623 | 0.012 | 2123 | 0.0126 | 0.0105 | M |
| 19 2,6-Dinitrotoluene | 1 | 11.795 | 11.783 | 0.012 | 1508 | 0.0126 | 0.0101 | M |
| 20 2,4-Dinitrotoluene | 1 | 11.995 | 11.983 | 0.012 | 3142 | 0.0126 | 0.0103 | |
| 21 o-Nitrotoluene | 1 | 12.828 | 12.823 | 0.005 | 1615 | 0.0125 | 0.0120 | |
| 22 p-Nitrotoluene | 1 | 13.268 | 13.256 | 0.012 | 1080 | 0.0125 | 0.009557 | |
| 23 m-Nitrotoluene | 1 | 13.855 | 13.849 | 0.006 | 1403 | 0.0125 | 0.009809 | |
| 24 PETN | 2 | | 14.936 | | | ND | ND | MU |

## QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
U - Marked Undetected

## Reagents:

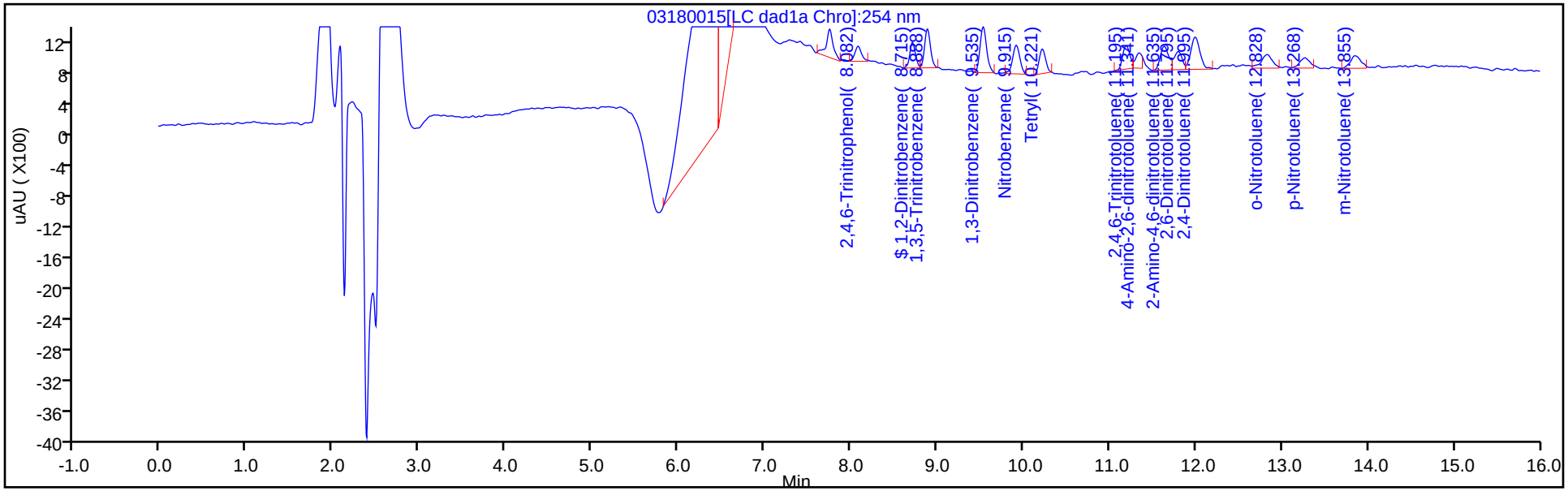
8330IntermStk_00061 Amount Added: 1.25 Units: uL

Report Date: 26-Mar-2020 15:45:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

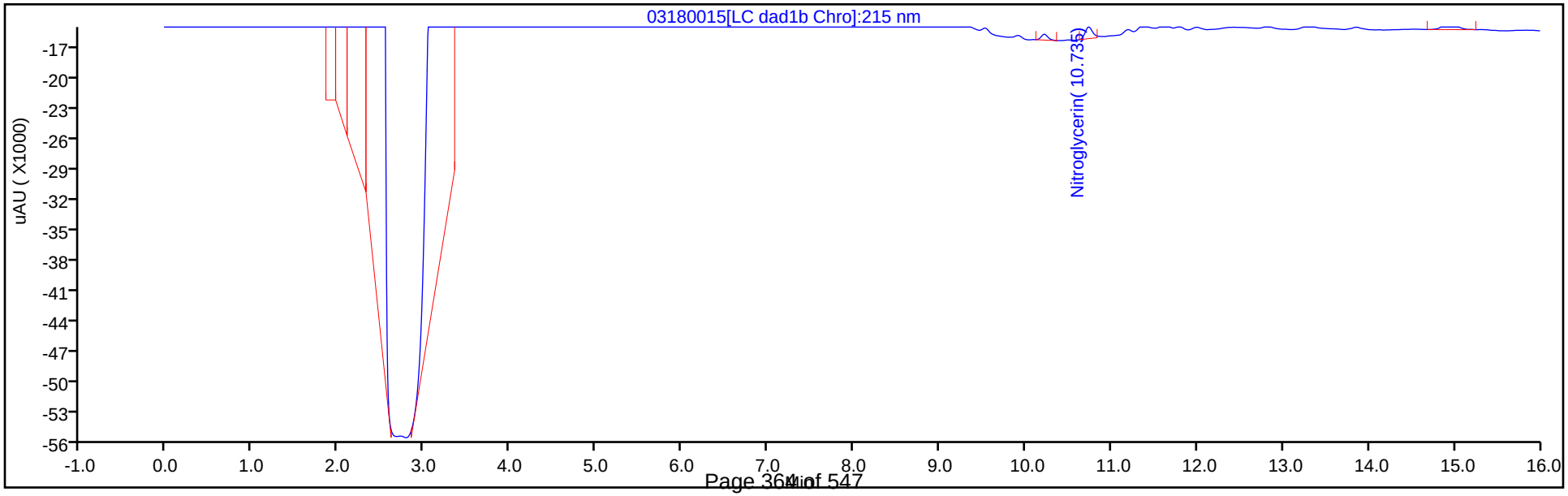
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d | | | | |
| Injection Date: | 18-Mar-2020 14:39:27 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L1 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

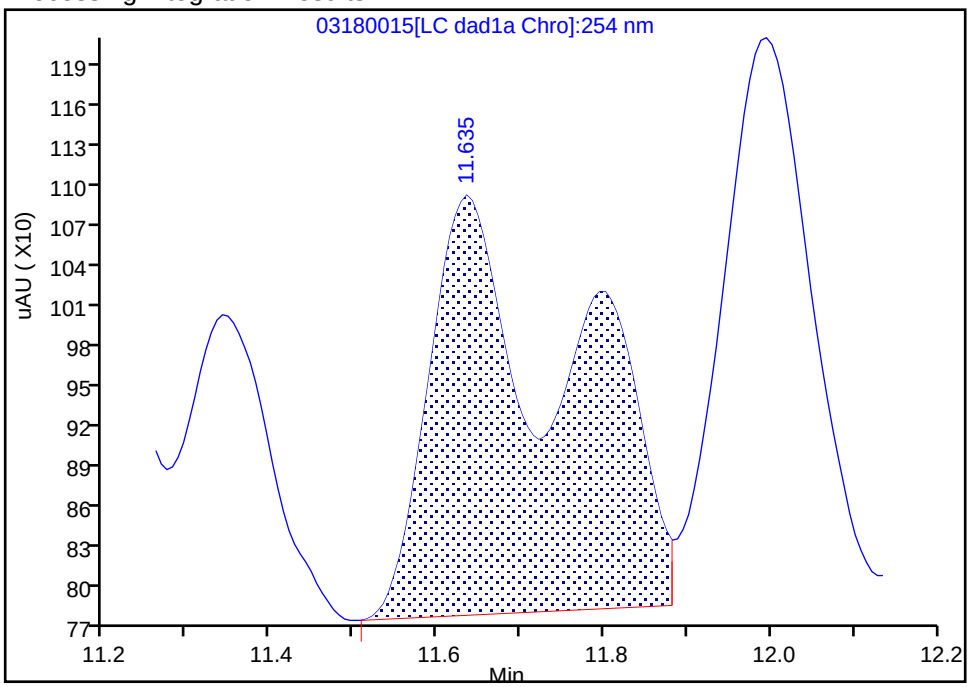
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d | | | | |
| Injection Date: | 18-Mar-2020 14:39:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

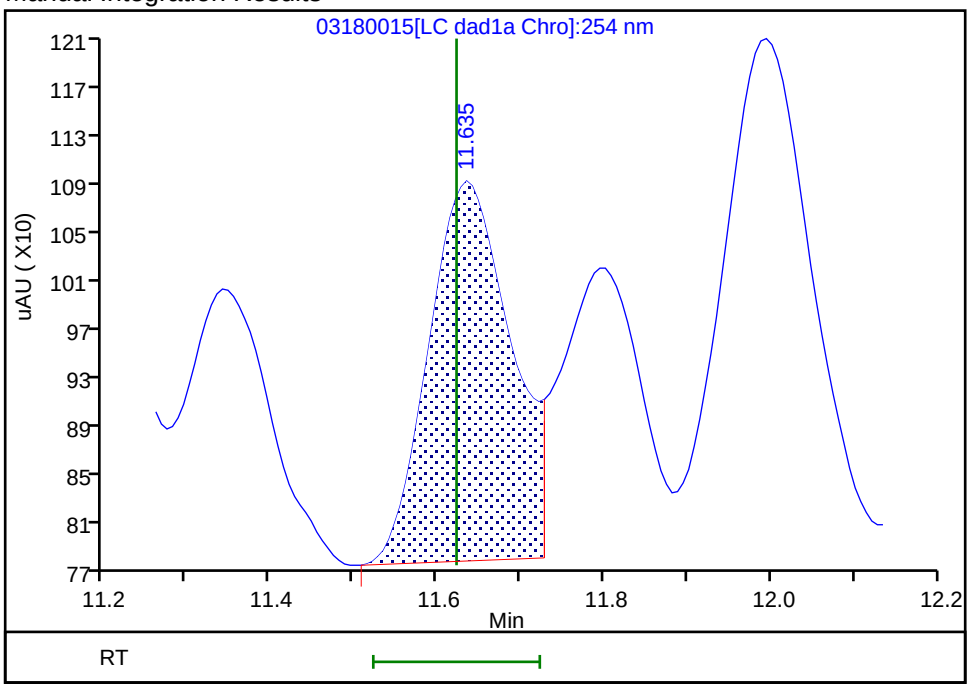
Processing Integration Results

RT: 11.63
Area: 3626
Amount: 0.016777
Amount Units: ug/mL




Manual Integration Results

RT: 11.63
Area: 2123
Amount: 0.010468
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:46:18
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-491590/16  Calibration Date: 04/13/2020 19:55

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04130016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Ave | 161782 | 166223 | | 411 | 400 | 2.7 | 15.0 |
| HMX | Ave | 173850 | 172893 | | 398 | 400 | -0.6 | 15.0 |
| RDX | Lin1 | | 213780 | | 403 | 400 | 0.7 | 15.0 |
| Nitrobenzene | Ave | 417611 | 418695 | | 401 | 400 | 0.3 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 629458 | 660508 | | 420 | 400 | 4.9 | 15.0 |
| Nitroglycerin | Ave | 137700 | 142770 | | 4150 | 4000 | 3.7 | 15.0 |
| 2-Nitrotoluene | Lin2 | | 239300 | | 407 | 400 | 1.7 | 15.0 |
| 4-Nitrotoluene | Qua | | 241858 | | 400 | 400 | -0.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Qua | | 319643 | | 393 | 400 | -1.7 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 255060 | | 414 | 400 | 3.5 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Qua | | 484130 | | 405 | 400 | 1.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 488710 | | 434 | 400 | 8.5 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 266760 | 288208 | | 432 | 400 | 8.0 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 575963 | 579150 | | 402 | 400 | 0.6 | 15.0 |
| Tetryl | Ave | 346869 | 351113 | | 405 | 400 | 1.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 398428 | | 398 | 400 | -0.6 | 15.0 |
| PETN | Lin1 | | 137608 | | 3970 | 4000 | -0.9 | 15.0 |
| 1,2-Dinitrobenzene | Qua | | 290573 | | 407 | 400 | 1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-491590/16  Calibration Date: 04/13/2020 19:55

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04130016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 5.67 | 5.46 | 5.76 |
| HMX | 7.01 | 6.88 | 7.18 |
| RDX | 9.20 | 9.07 | 9.37 |
| Nitrobenzene | 12.17 | 12.05 | 12.35 |
| 1,3-Dinitrobenzene | 15.65 | 15.52 | 15.82 |
| Nitroglycerin | 15.91 | 15.75 | 16.05 |
| 2-Nitrotoluene | 16.65 | 16.52 | 16.82 |
| 4-Nitrotoluene | 16.92 | 16.78 | 17.08 |
| 4-Amino-2,6-dinitrotoluene | 17.28 | 17.13 | 17.43 |
| 3-Nitrotoluene | 17.86 | 17.72 | 18.02 |
| 2-Amino-4,6-dinitrotoluene | 18.15 | 18.00 | 18.30 |
| 1,3,5-Trinitrobenzene | 19.01 | 18.87 | 19.17 |
| 2,6-Dinitrotoluene | 19.95 | 19.81 | 20.11 |
| 2,4-Dinitrotoluene | 20.43 | 20.28 | 20.58 |
| Tetryl | 23.71 | 23.56 | 23.86 |
| 2,4,6-Trinitrotoluene | 24.80 | 24.65 | 24.95 |
| PETN | 25.35 | 25.19 | 25.49 |
| 1,2-Dinitrobenzene | 13.12 | 12.99 | 13.29 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130016.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 13-Apr-2020 19:55:27 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0090784-016
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Apr-2020 09:12:59 Calib Date: 13-Apr-2020 19:20:28
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200413-90784.b\04130015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0310

First Level Reviewer: beckerc Date: 14-Apr-2020 08:43:09

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.352 | 4.389 | -0.037 | 175806 | 0.4000 | 0.3214 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.945 | 4.949 | -0.004 | 108592 | 0.4000 | 0.3376 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.665 | 5.609 | 0.056 | 66489 | 0.4000 | 0.4110 | |
| 6 HMX | 1 | 7.012 | 7.029 | -0.017 | 69157 | 0.4000 | 0.3978 | |
| 8 RDX | 1 | 9.198 | 9.222 | -0.024 | 85512 | 0.4000 | 0.4030 | |
| 9 Nitrobenzene | 1 | 12.172 | 12.195 | -0.023 | 167478 | 0.4000 | 0.4010 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.118 | 13.135 | -0.017 | 116229 | 0.4000 | 0.4074 | |
| 11 3,5-Dinitroaniline | 1 | 14.978 | 14.989 | -0.011 | 204226 | 0.4000 | 0.3267 | |
| 12 1,3-Dinitrobenzene | 1 | 15.652 | 15.669 | -0.017 | 264203 | 0.4000 | 0.4197 | |
| 13 Nitroglycerin | 2 | 15.912 | 15.902 | 0.010 | 571081 | 4.00 | 4.15 | M |
| 14 o-Nitrotoluene | 1 | 16.652 | 16.669 | -0.017 | 95720 | 0.4000 | 0.4066 | |
| 15 p-Nitrotoluene | 1 | 16.918 | 16.929 | -0.011 | 96743 | 0.4000 | 0.3997 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.278 | 17.282 | -0.004 | 127857 | 0.4000 | 0.3932 | |
| 17 m-Nitrotoluene | 1 | 17.858 | 17.869 | -0.011 | 102024 | 0.4000 | 0.4140 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.145 | 18.149 | -0.004 | 193652 | 0.4000 | 0.4050 | |
| 19 1,3,5-Trinitrobenzene | 1 | 19.012 | 19.015 | -0.003 | 195484 | 0.4000 | 0.4338 | |
| 20 2,6-Dinitrotoluene | 1 | 19.945 | 19.955 | -0.010 | 115283 | 0.4000 | 0.4322 | |
| 21 2,4-Dinitrotoluene | 1 | 20.425 | 20.429 | -0.004 | 231660 | 0.4000 | 0.4022 | |
| 22 Tetryl | 1 | 23.712 | 23.709 | 0.003 | 140445 | 0.4000 | 0.4049 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.798 | 24.802 | -0.004 | 159371 | 0.4000 | 0.3977 | |
| 24 PETN | 2 | 25.345 | 25.342 | 0.003 | 550432 | 4.00 | 3.97 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

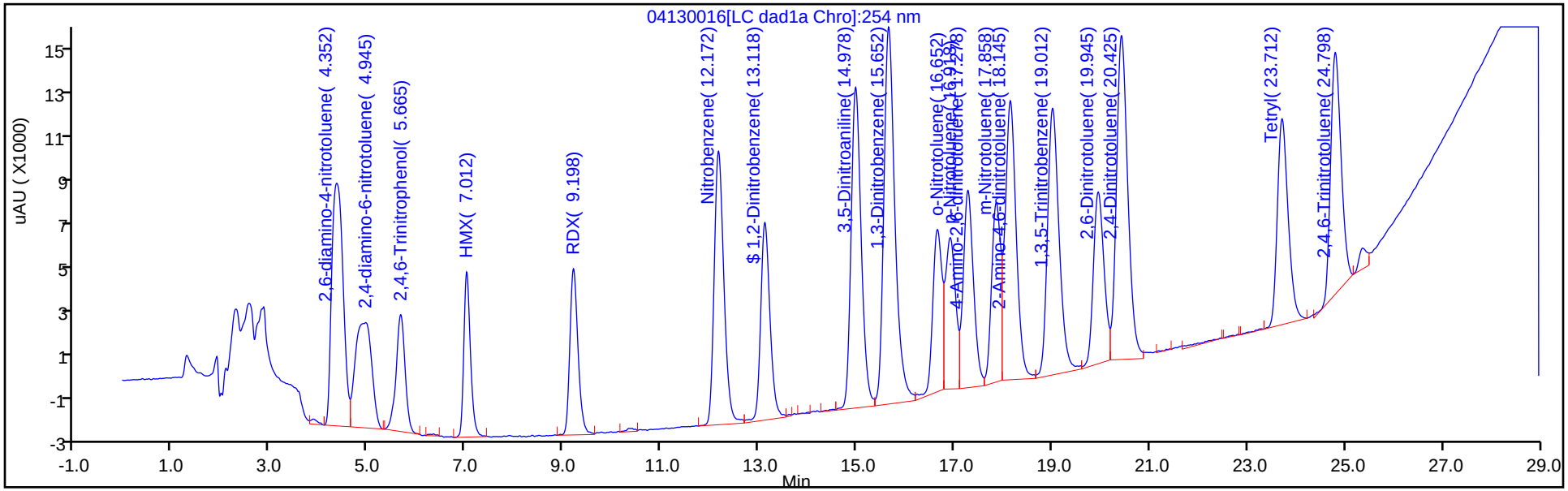
| | | | |
|---|---|---|---|
| 8330Surrogate_00111 | Amount Added: | 40.00 | Units: uL |
| 3,5-DNA LCS_00034 | Amount Added: | 40.00 | Units: uL |
| 8330 LCS_00096 | Amount Added: | 40.00 | Units: uL |
| 8330DiaminLCS_00037 | Amount Added: | 40.00 | Units: uL |

Report Date: 14-Apr-2020 09:13:02 Chrom Revision: 2.3 11-Mar-2020 18:53:20

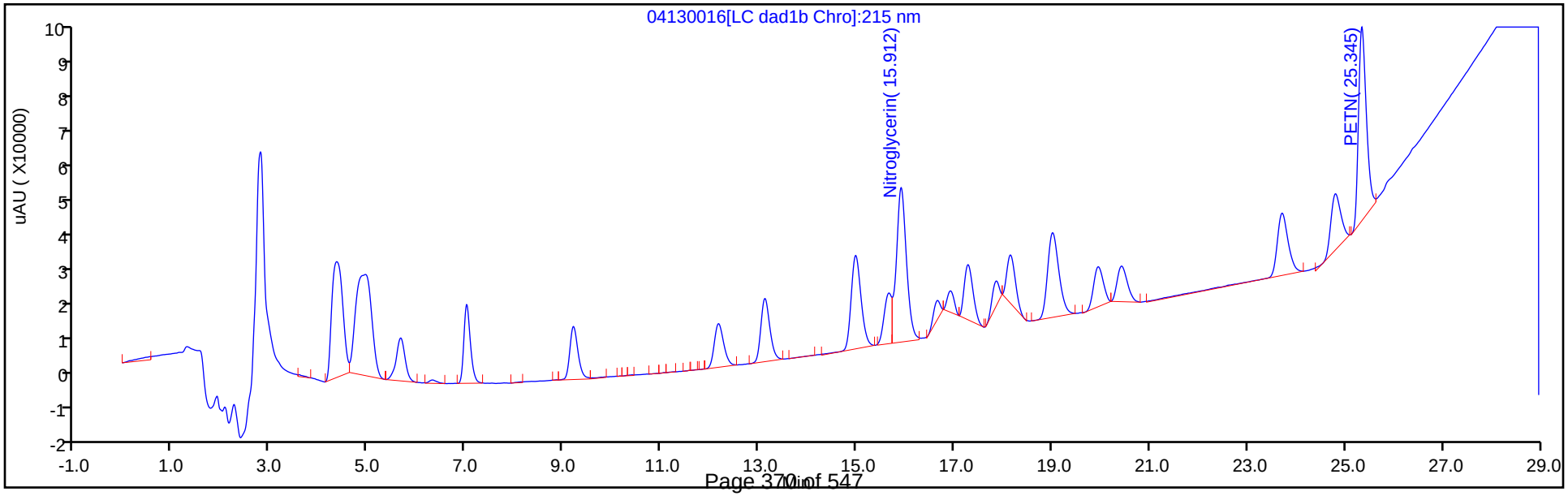
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130016.d | | | | |
| Injection Date: | 13-Apr-2020 19:55:27 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | ICV FULL | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

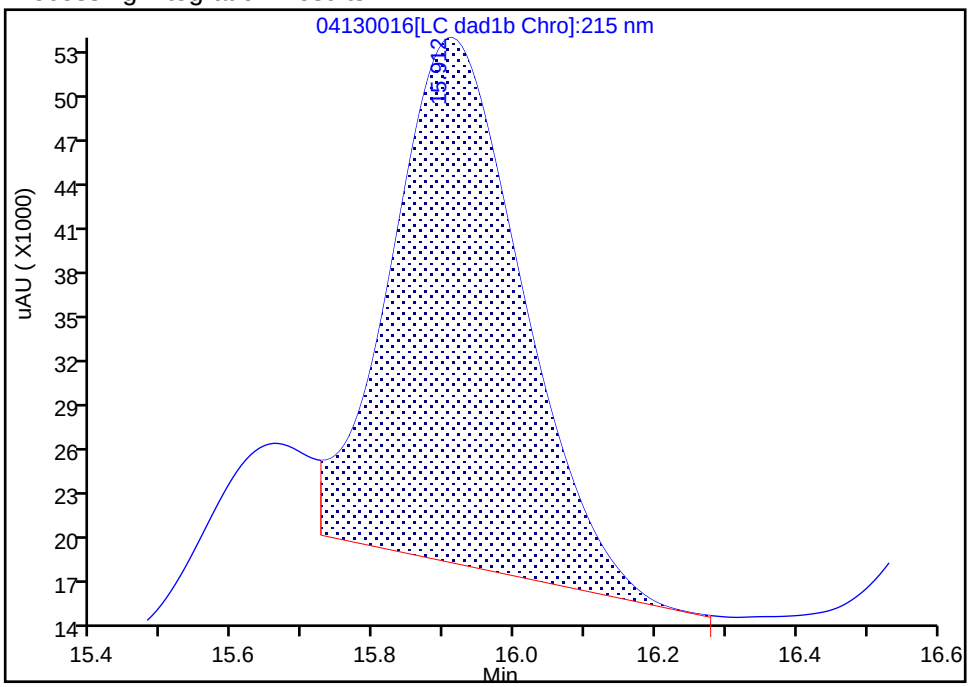
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200413-90784.b\04130016.d | | | | |
| Injection Date: | 13-Apr-2020 19:55:27 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

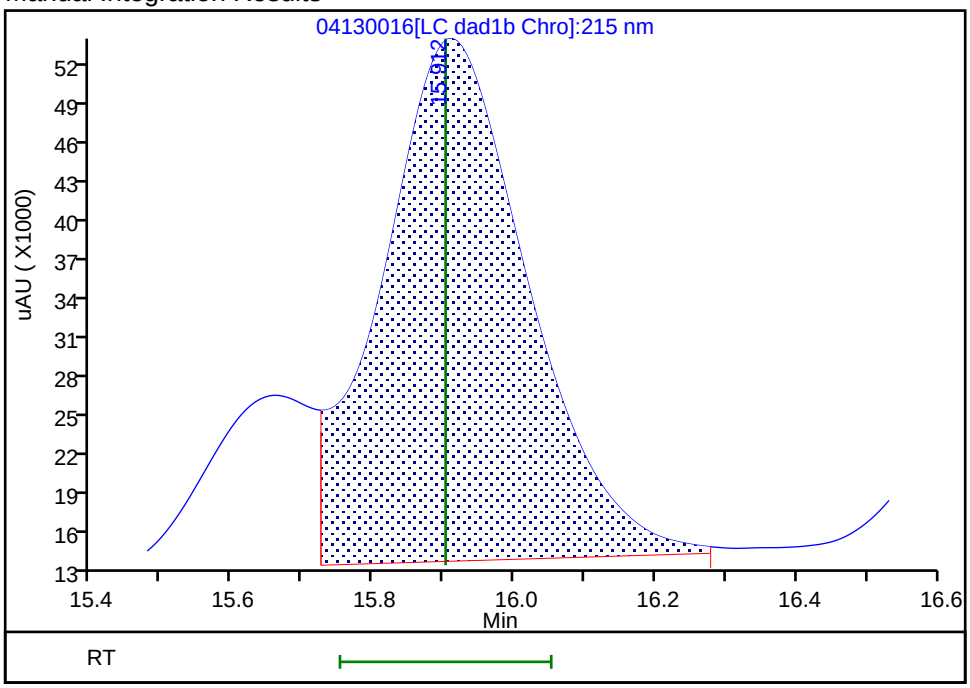
Processing Integration Results

RT: 15.91
Area: 453022
Amount: 3.289914
Amount Units: ug/ml




Manual Integration Results

RT: 15.91
Area: 571081
Amount: 4.147276
Amount Units: ug/ml




Reviewer: beckerc, 14-Apr-2020 08:42:55
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-492532/16  Calibration Date: 04/23/2020 08:48

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 425138 | 399056 | | 376 | 400 | -6.1 | 15.0 |
| DNX | Ave | 321673 | 305372 | | 380 | 400 | -5.1 | 15.0 |
| MNX | Ave | 283920 | 275604 | | 453 | 467 | -2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-492532/16  Calibration Date: 04/23/2020 08:48

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.42 | 5.29 | 5.59 |
| DNX | 6.23 | 6.11 | 6.41 |
| MNX | 7.74 | 7.62 | 7.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220016.D | | | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 23-Apr-2020 08:48:41 | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV FULL | | | | |
| Misc. Info.: | 280-0090989-016 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:32 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:07:11

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.423 | 5.442 | -0.019 | 159782 | 0.4004 | 0.3758 | |
| 4 DNX | 1 | 6.230 | 6.255 | -0.025 | 122271 | 0.4004 | 0.3801 | |
| 7 MNX | 1 | 7.743 | 7.769 | -0.026 | 128652 | 0.4668 | 0.4531 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

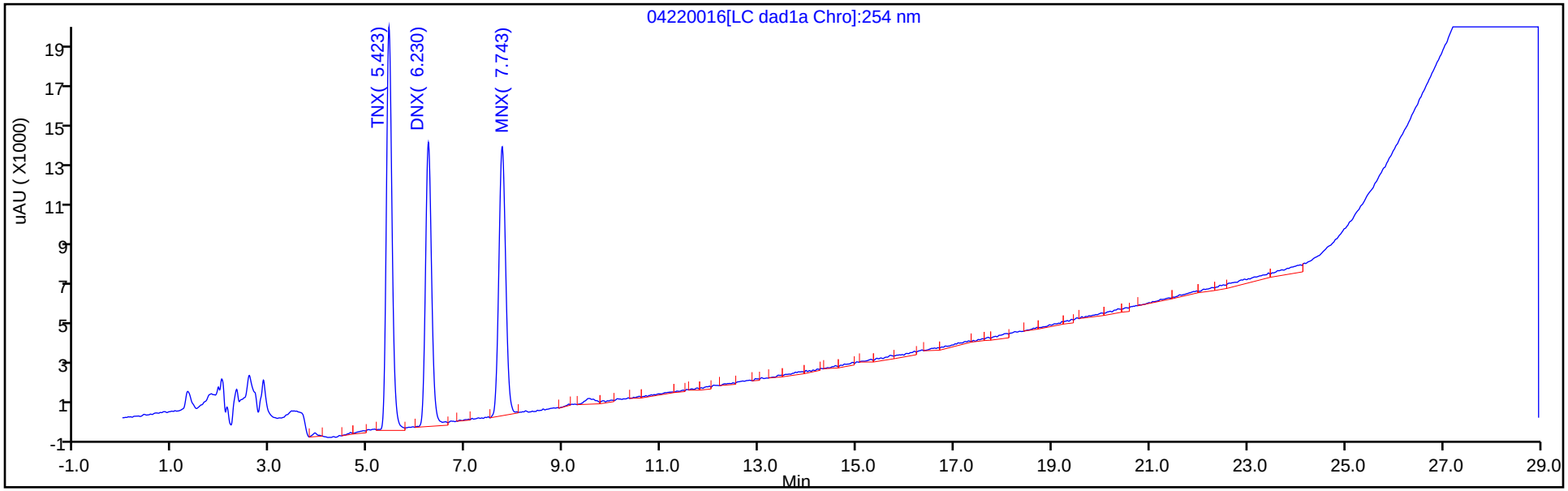
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 24-Apr-2020 14:30:33 Chrom Revision: 2.3 11-Mar-2020 18:53:20

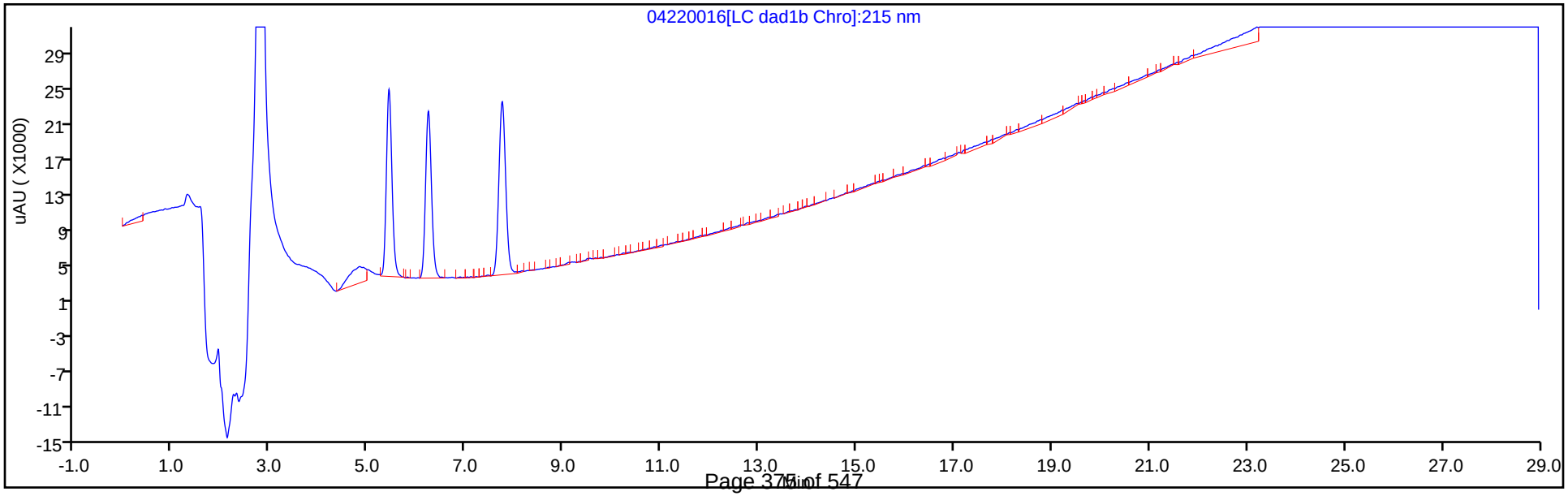
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220016.d | | | | |
| Injection Date: | 23-Apr-2020 08:48:41 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | ICV FULL | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

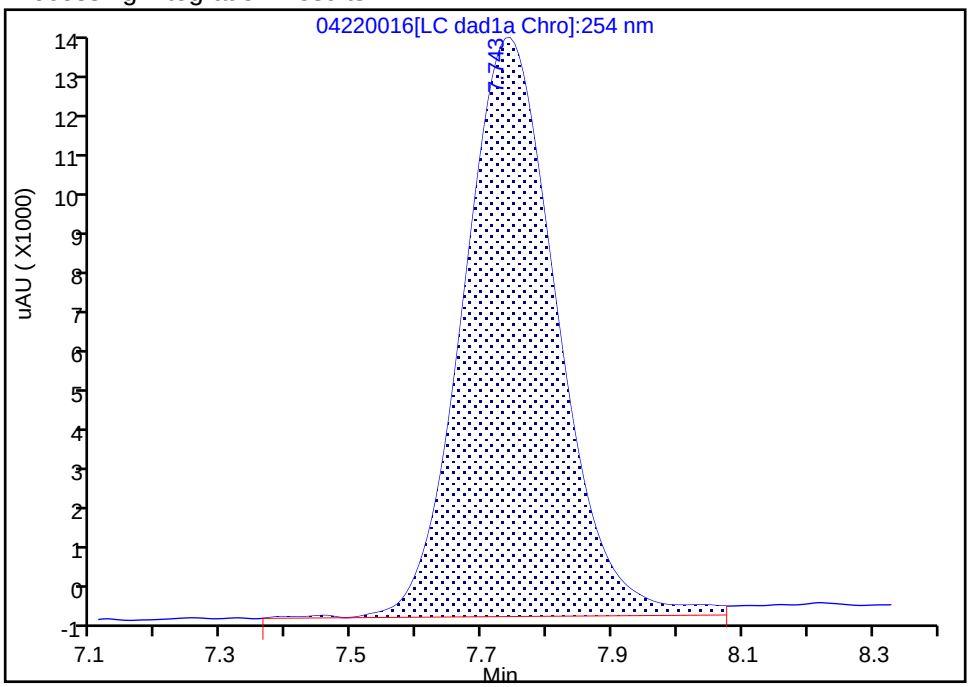
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220016.d | | | | |
| Injection Date: | 23-Apr-2020 08:48:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

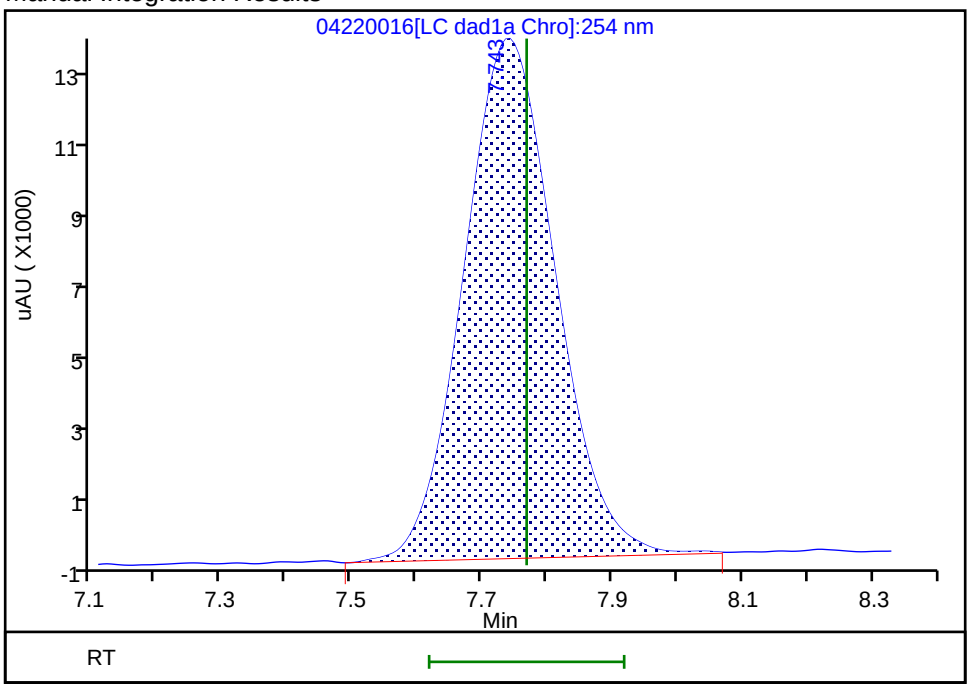
Processing Integration Results

RT: 7.74
Area: 132171
Amount: 0.465523
Amount Units: ug/ml




Manual Integration Results

RT: 7.74
Area: 128652
Amount: 0.453128
Amount Units: ug/ml




Reviewer: beckerc, 23-Apr-2020 11:07:07
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/33  Calibration Date: 04/23/2020 18:08

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220033.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 425138 | 407636 | | 240 | 250 | -4.1 | 15.0 |
| DNX | Ave | 321673 | 299752 | | 233 | 250 | -6.8 | 15.0 |
| MNX | Ave | 283920 | 294605 | | 303 | 292 | 3.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/33  Calibration Date: 04/23/2020 18:08

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.45 | 5.29 | 5.59 |
| DNX | 6.27 | 6.11 | 6.41 |
| MNX | 7.79 | 7.62 | 7.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220033.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 23-Apr-2020 18:08:52 | ALS Bottle#: | 11 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV | | | | |
| Misc. Info.: | 280-0090989-033 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:40 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.453 | 5.442 | 0.011 | 102011 | 0.2503 | 0.2399 | |
| 4 DNX | 1 | 6.273 | 6.255 | 0.018 | 75013 | 0.2503 | 0.2332 | |
| 7 MNX | 1 | 7.793 | 7.769 | 0.024 | 85951 | 0.2918 | 0.3027 | |

## Reagents:

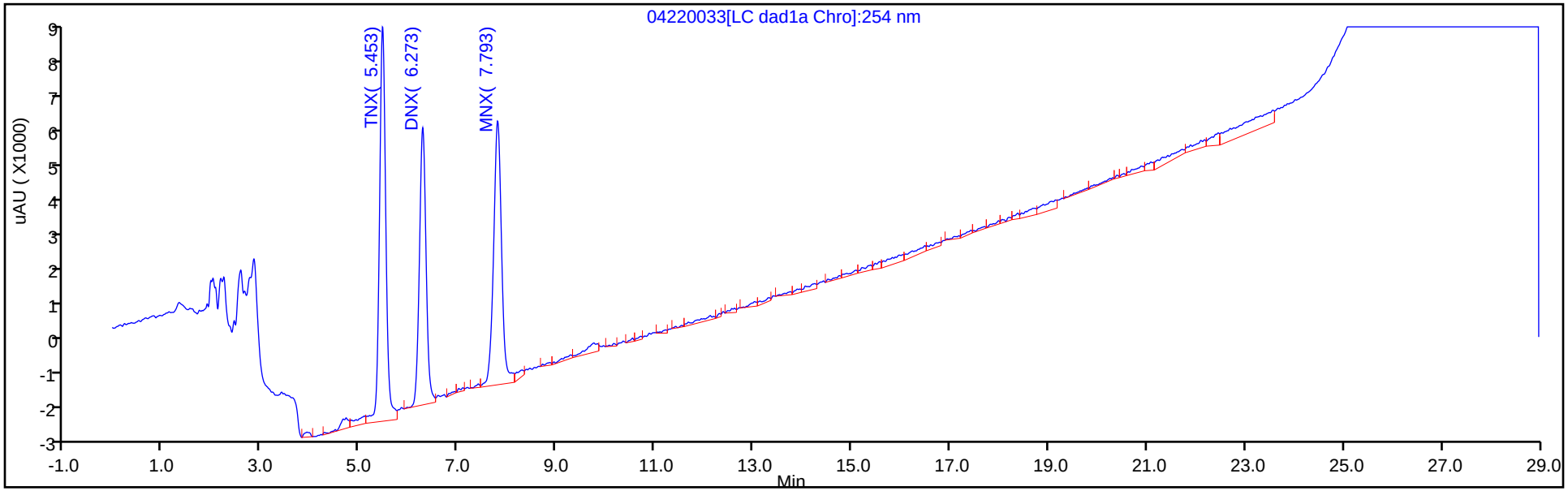
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 24-Apr-2020 14:30:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

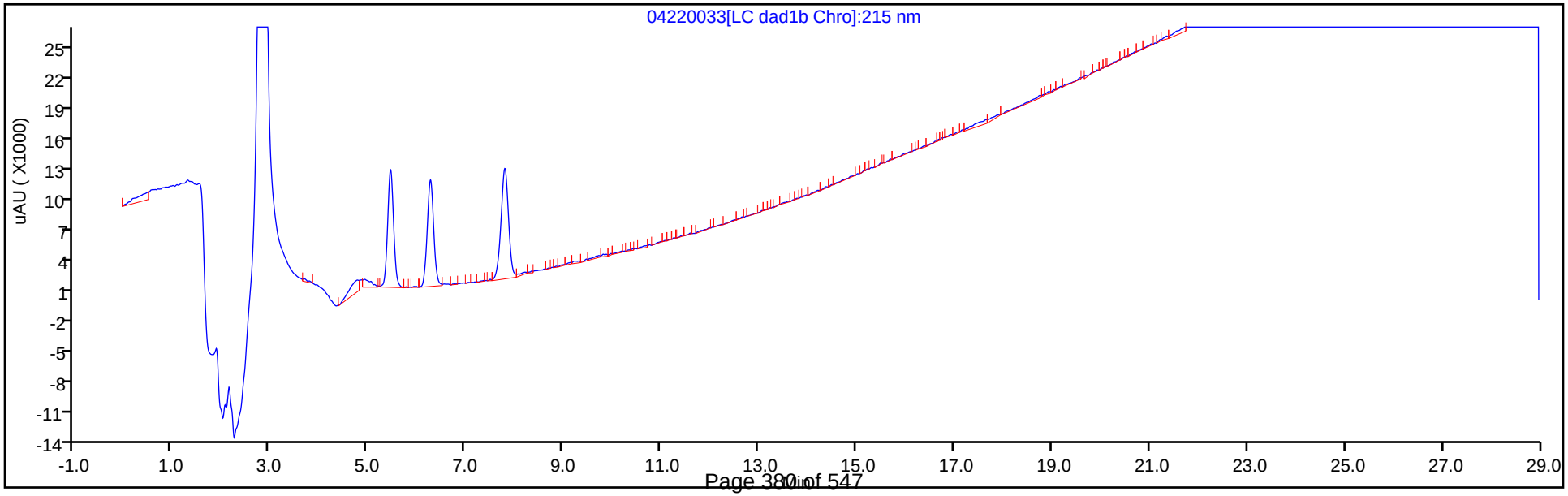
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220033.d | | | | |
| Injection Date: | 23-Apr-2020 18:08:52 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/34  Calibration Date: 04/23/2020 18:43

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04220034.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Ave | 161782 | 185436 | | 287 | 250 | 14.6 | 15.0 |
| HMX | Ave | 173850 | 189912 | | 273 | 250 | 9.2 | 15.0 |
| RDX | Lin1 | | 248080 | | 291 | 250 | 16.6* | 15.0 |
| Nitrobenzene | Ave | 417611 | 416705 | | 250 | 251 | -0.2 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 629458 | 628164 | | 250 | 251 | -0.2 | 15.0 |
| Nitroglycerin | Ave | 137700 | 129566 | | 2350 | 2500 | -5.9 | 15.0 |
| 2-Nitrotoluene | Lin2 | | 281772 | | 298 | 250 | 19.3* | 15.0 |
| 4-Nitrotoluene | Qua | | 228447 | | 235 | 251 | -6.1 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Qua | | 278765 | | 215 | 250 | -14.1 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 317187 | | 323 | 250 | 29.2* | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Qua | | 386271 | | 205 | 251 | -18.3* | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 443824 | | 248 | 251 | -0.8 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 266760 | 287271 | | 270 | 251 | 7.7 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 575963 | 594394 | | 259 | 251 | 3.2 | 15.0 |
| Tetryl | Ave | 346869 | 346271 | | 250 | 251 | -0.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 408693 | | 258 | 251 | 2.7 | 15.0 |
| PETN | Lin1 | | 136444 | | 2460 | 2500 | -1.5 | 15.0 |
| 1,2-Dinitrobenzene | Qua | | 294476 | | 256 | 250 | 2.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/34  Calibration Date: 04/23/2020 18:43

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04220034.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 5.77 | 5.58 | 5.88 |
| HMX | 7.01 | 6.83 | 7.13 |
| RDX | 9.19 | 9.01 | 9.31 |
| Nitrobenzene | 12.18 | 12.01 | 12.31 |
| 1,3-Dinitrobenzene | 15.64 | 15.45 | 15.75 |
| Nitroglycerin | 15.87 | 15.69 | 15.99 |
| 2-Nitrotoluene | 16.67 | 16.48 | 16.78 |
| 4-Nitrotoluene | 16.95 | 16.75 | 17.05 |
| 4-Amino-2,6-dinitrotoluene | 17.25 | 17.05 | 17.35 |
| 3-Nitrotoluene | 17.91 | 17.75 | 18.05 |
| 2-Amino-4,6-dinitrotoluene | 18.11 | 17.90 | 18.20 |
| 1,3,5-Trinitrobenzene | 19.00 | 18.81 | 19.11 |
| 2,6-Dinitrotoluene | 19.95 | 19.75 | 20.05 |
| 2,4-Dinitrotoluene | 20.42 | 20.22 | 20.52 |
| Tetryl | 23.69 | 23.47 | 23.77 |
| 2,4,6-Trinitrotoluene | 24.81 | 24.61 | 24.91 |
| PETN | 25.36 | 25.16 | 25.46 |
| 1,2-Dinitrobenzene | 13.10 | 12.93 | 13.23 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220034.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Apr-2020 18:43:52 ALS Bottle#: 17 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0090989-034
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 24-Apr-2020 14:41:11 Calib Date: 23-Apr-2020 07:38:43
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 24-Apr-2020 14:40:08

| 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 | 4.380 | 4.369 | 0.011 | 140905 | 0.2500 | 0.2576 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.920 | 4.909 | 0.011 | 93297 | 0.2500 | 0.2897 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.774 | 5.729 | 0.045 | 46359 | 0.2500 | 0.2866 | |
| 6 HMX | 1 | 7.014 | 6.982 | 0.032 | 47478 | 0.2500 | 0.2731 | |
| 8 RDX | 1 | 9.194 | 9.162 | 0.032 | 62020 | 0.2500 | 0.2914 | |
| 9 Nitrobenzene | 1 | 12.180 | 12.156 | 0.024 | 104593 | 0.2510 | 0.2505 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.100 | 13.076 | 0.024 | 73619 | 0.2500 | 0.2556 | |
| 11 3,5-Dinitroaniline | 1 | 14.940 | 14.896 | 0.044 | 161803 | 0.2500 | 0.2584 | |
| 12 1,3-Dinitrobenzene | 1 | 15.640 | 15.596 | 0.044 | 157355 | 0.2505 | 0.2500 | |
| 13 Nitroglycerin | 2 | 15.874 | 15.842 | 0.032 | 323916 | 2.50 | 2.35 | M |
| 14 o-Nitrotoluene | 1 | 16.674 | 16.629 | 0.045 | 70443 | 0.2500 | 0.2983 | M |
| 15 p-Nitrotoluene | 1 | 16.947 | 16.896 | 0.051 | 57226 | 0.2505 | 0.2353 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.247 | 17.202 | 0.045 | 69761 | 0.2503 | 0.2149 | M |
| 17 m-Nitrotoluene | 1 | 17.914 | 17.896 | 0.018 | 79376 | 0.2503 | 0.3234 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.107 | 18.049 | 0.058 | 96954 | 0.2510 | 0.2051 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.000 | 18.956 | 0.044 | 111178 | 0.2505 | 0.2484 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.954 | 19.902 | 0.052 | 72105 | 0.2510 | 0.2703 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.420 | 20.369 | 0.051 | 149193 | 0.2510 | 0.2590 | M |
| 22 Tetryl | 1 | 23.694 | 23.622 | 0.072 | 86741 | 0.2505 | 0.2501 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.814 | 24.756 | 0.058 | 102582 | 0.2510 | 0.2579 | |
| 24 PETN | 2 | 25.360 | 25.309 | 0.051 | 341109 | 2.50 | 2.46 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

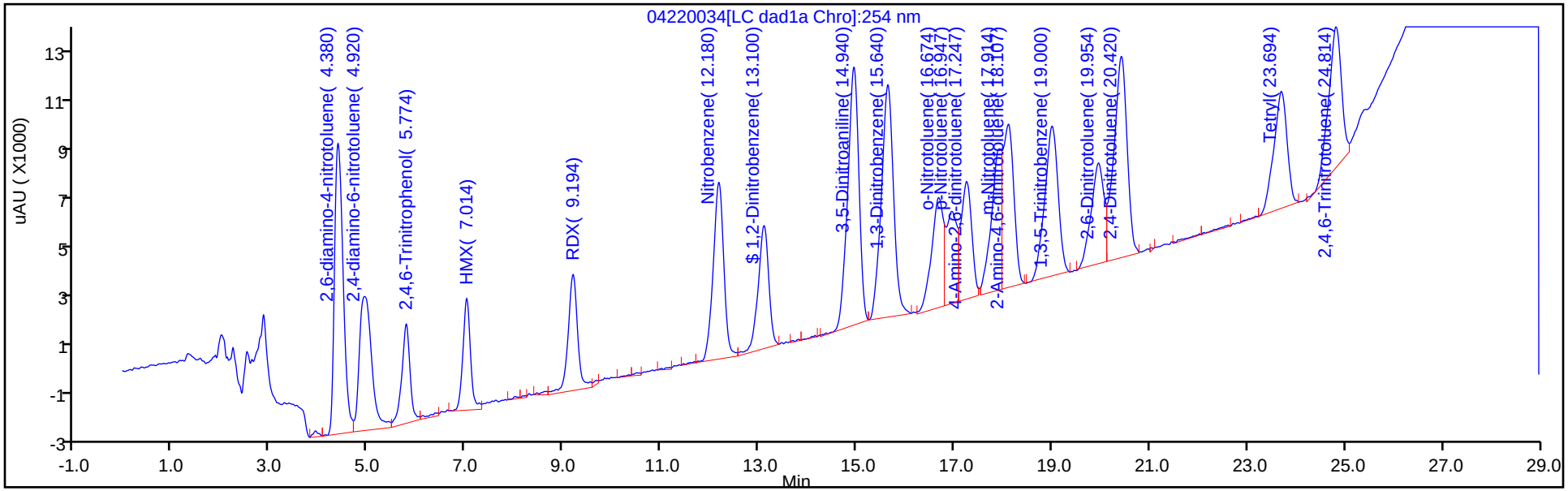
| | | | |
|---|---|---|---|
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |

Report Date: 24-Apr-2020 14:41:11 Chrom Revision: 2.3 11-Mar-2020 18:53:20

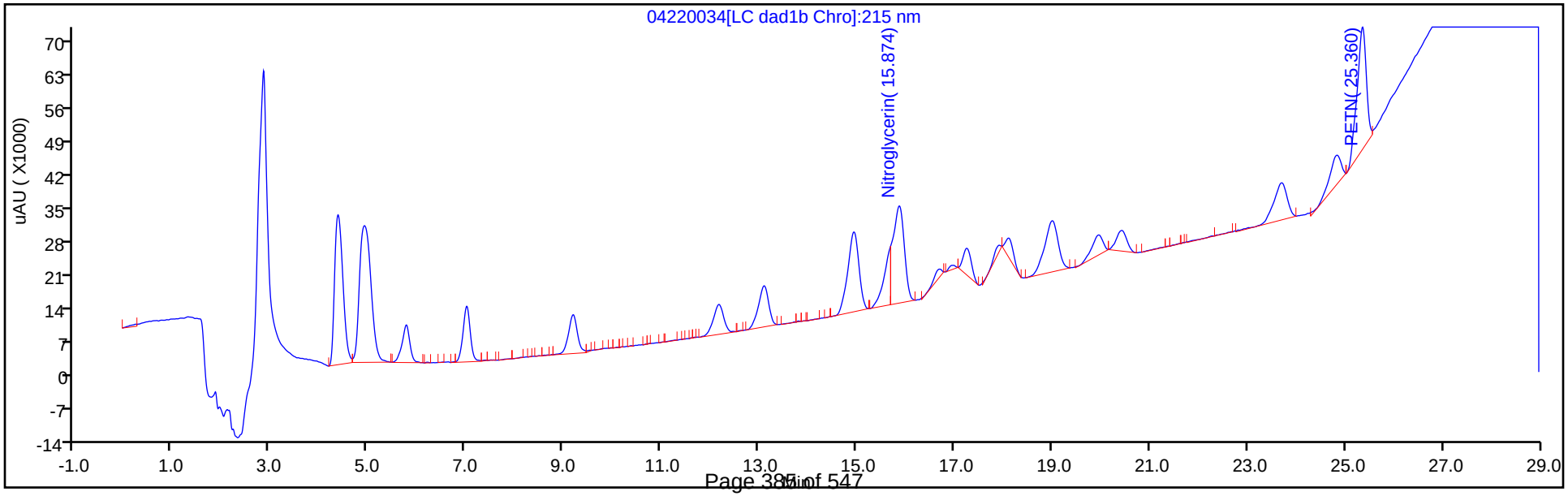
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

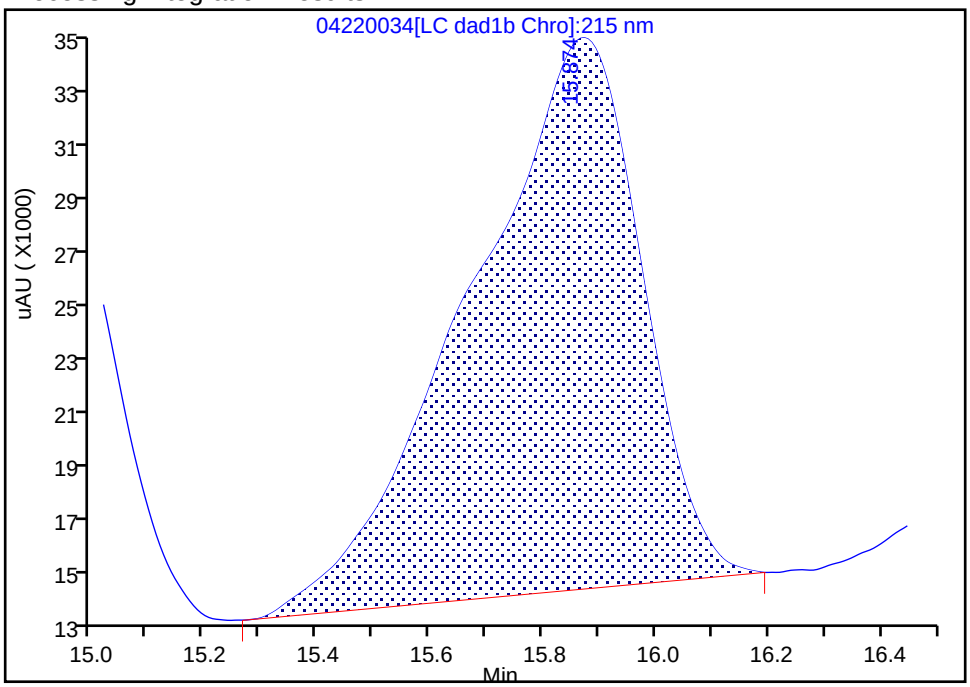
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

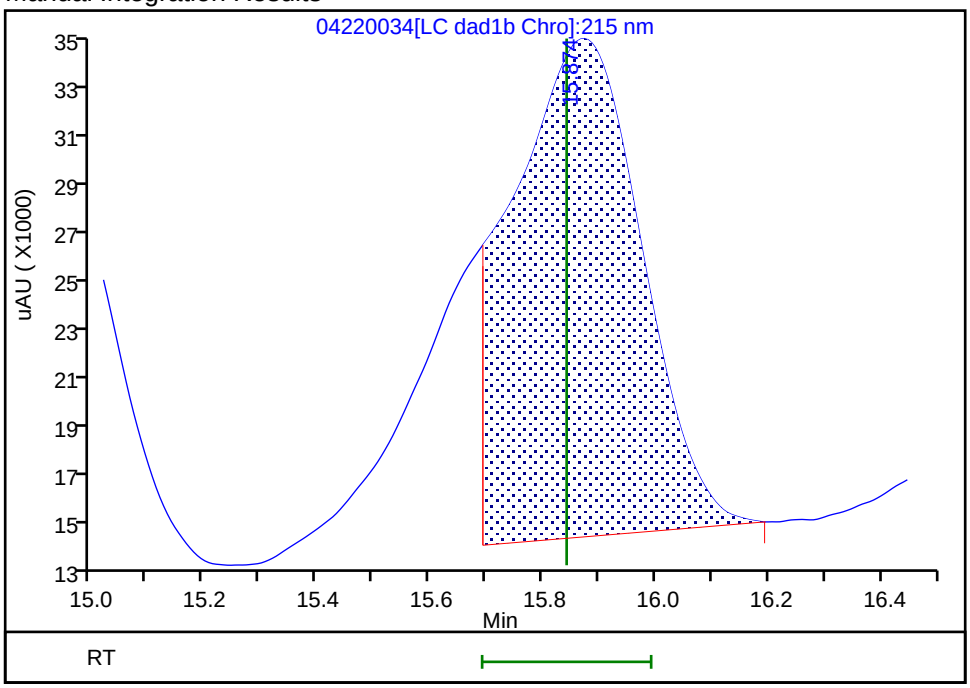
Processing Integration Results

RT: 15.87
Area: 433723
Amount: 3.149762
Amount Units: ug/ml




Manual Integration Results

RT: 15.87
Area: 323916
Amount: 2.352327
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:19:21
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

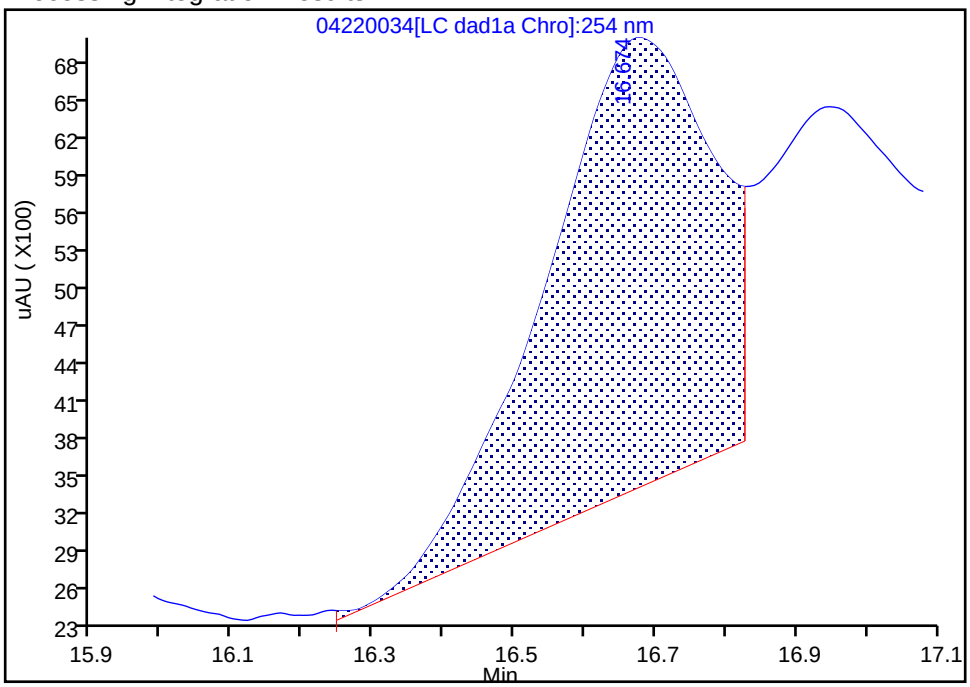
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

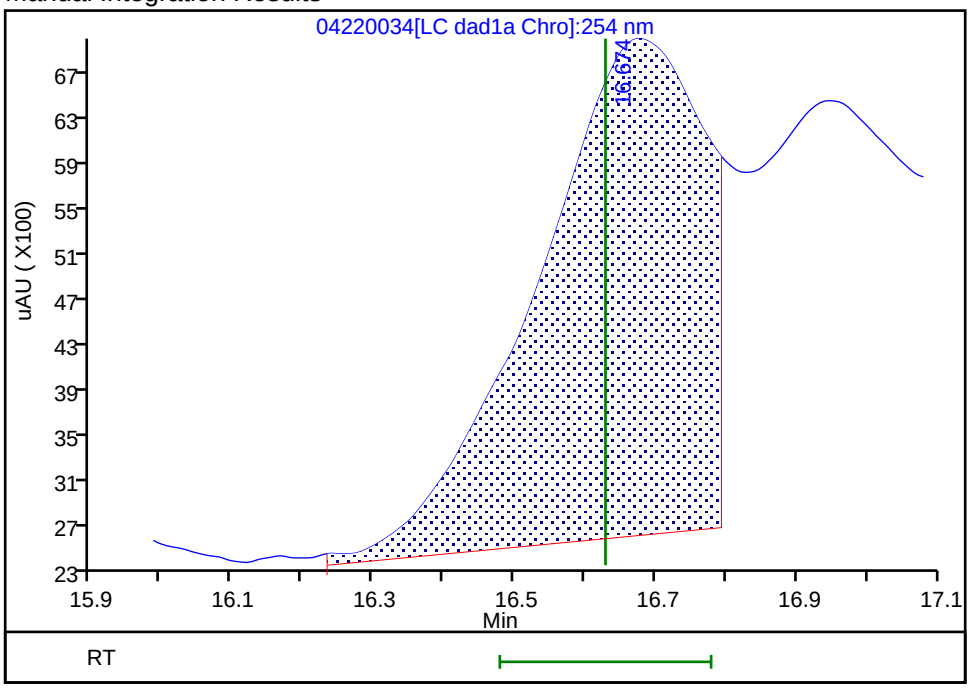
Processing Integration Results

RT: 16.67
Area: 57636
Amount: 0.243431
Amount Units: ug/ml




Manual Integration Results

RT: 16.67
Area: 70443
Amount: 0.298307
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 14:39:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

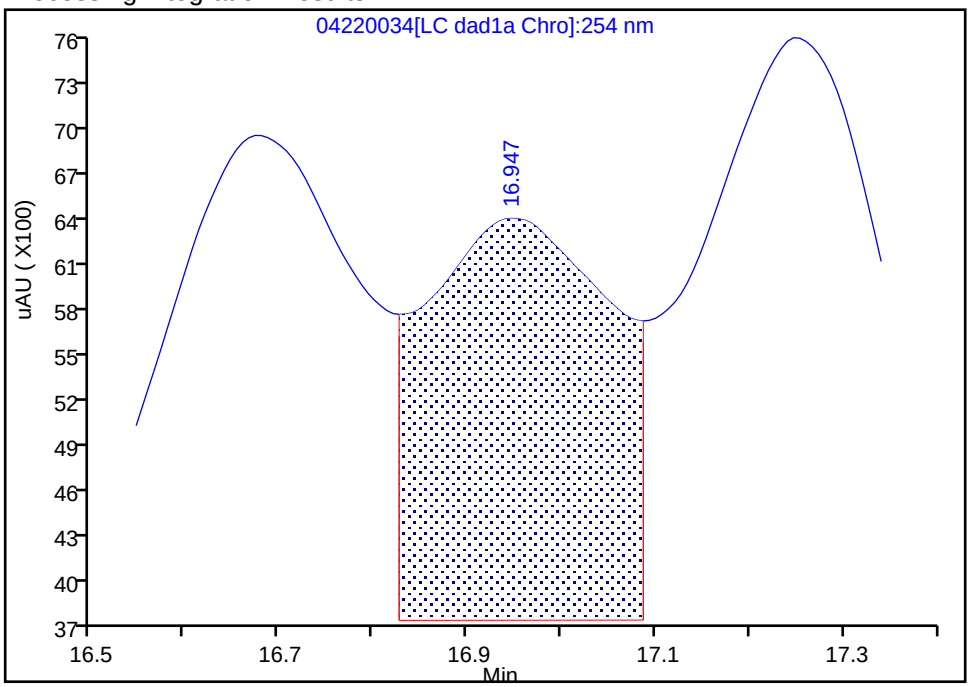
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

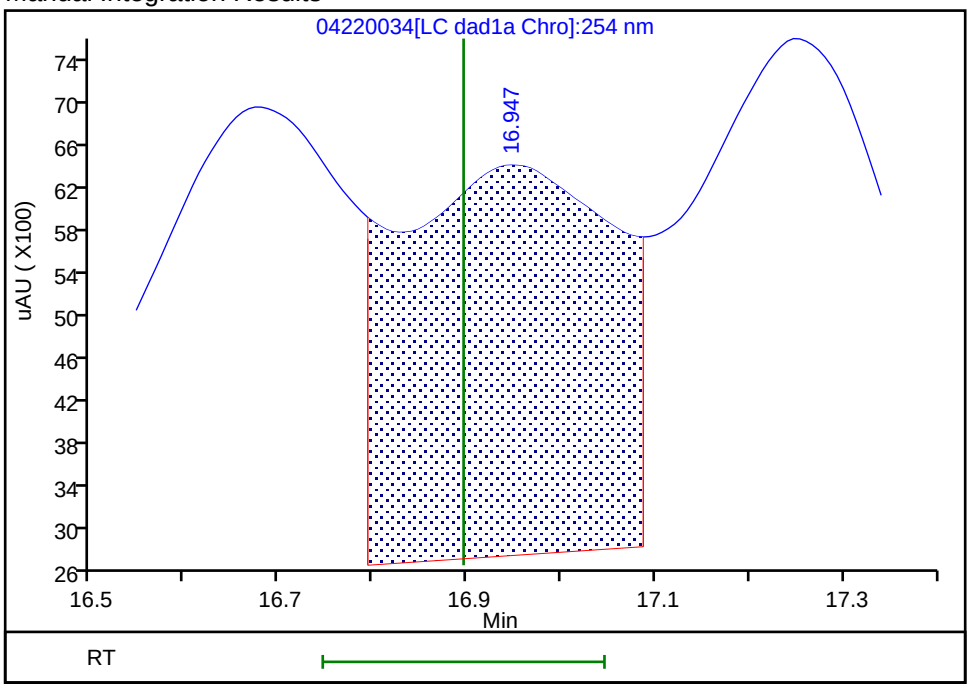
Processing Integration Results

RT: 16.95
Area: 35443
Amount: 0.146910
Amount Units: ug/ml




Manual Integration Results

RT: 16.95
Area: 57226
Amount: 0.235271
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 14:39:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

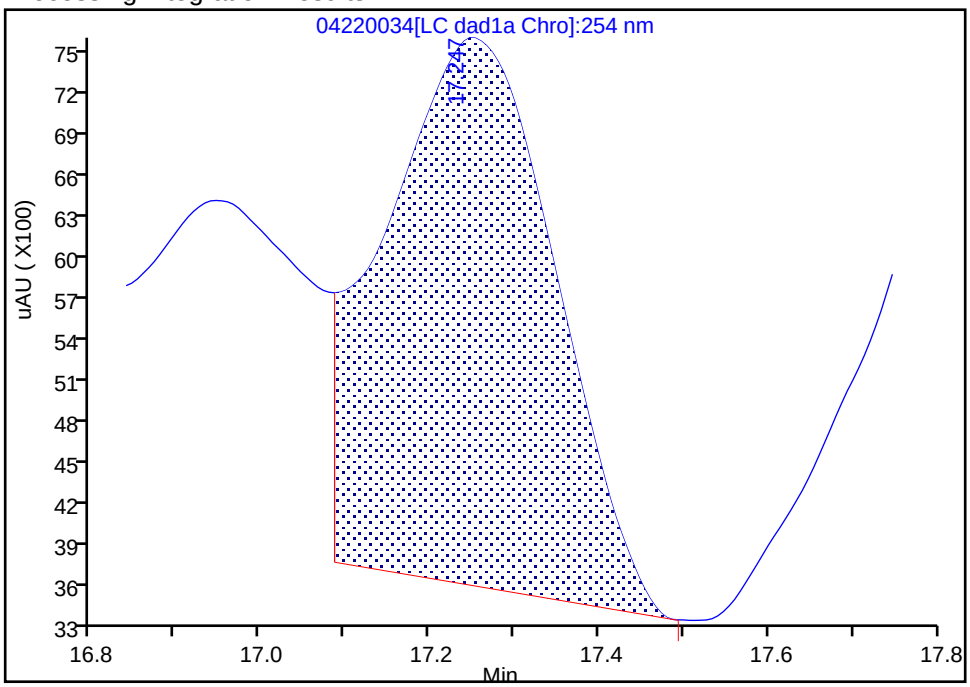
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

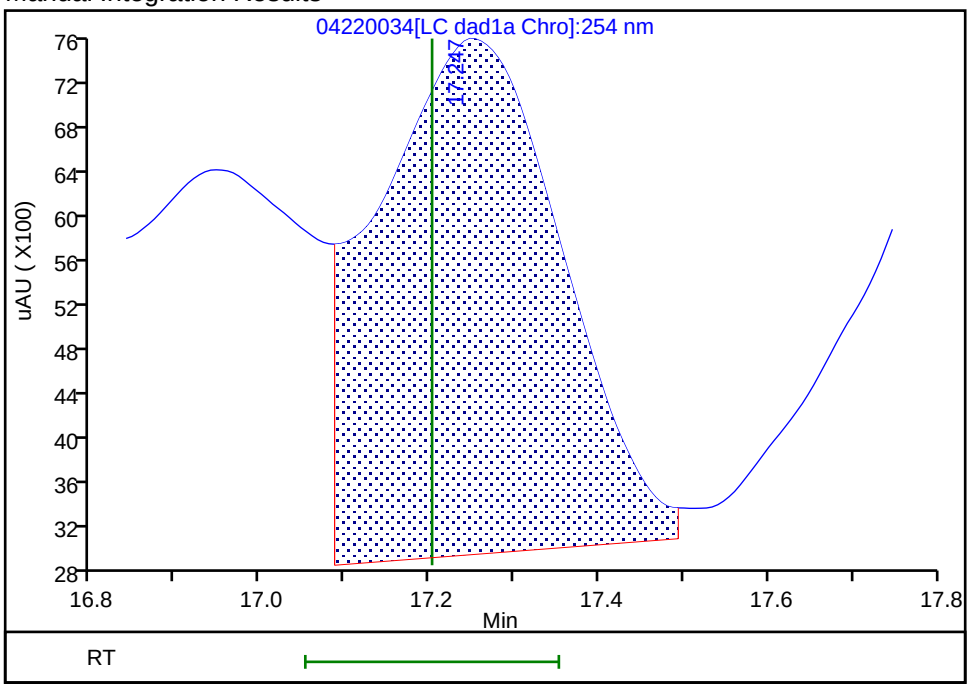
Processing Integration Results

RT: 17.25
Area: 55206
Amount: 0.170981
Amount Units: ug/ml




Manual Integration Results

RT: 17.25
Area: 69761
Amount: 0.214876
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 14:39:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

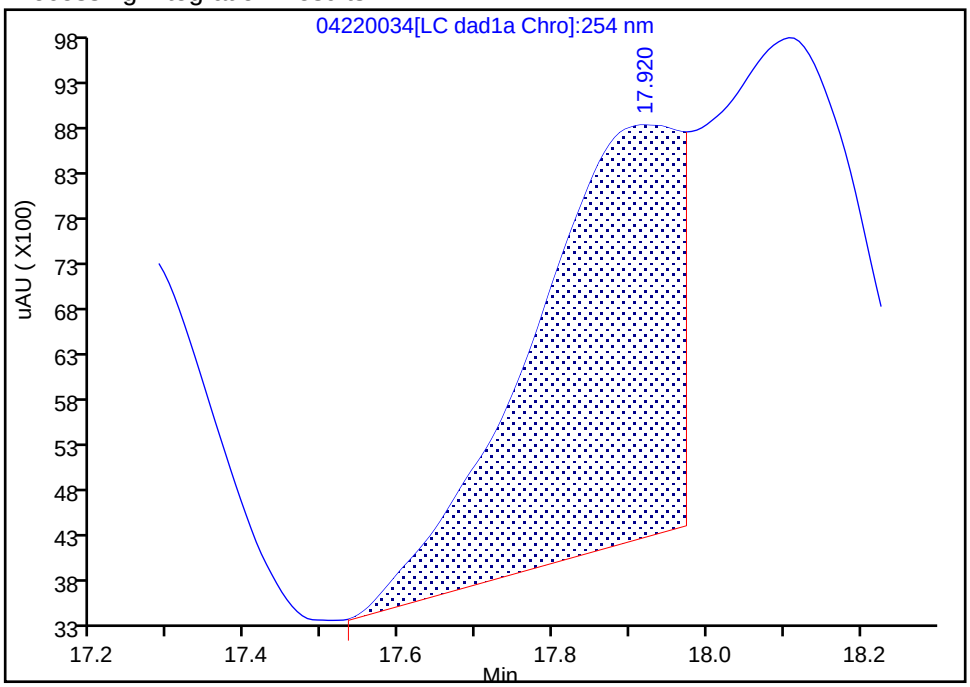
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

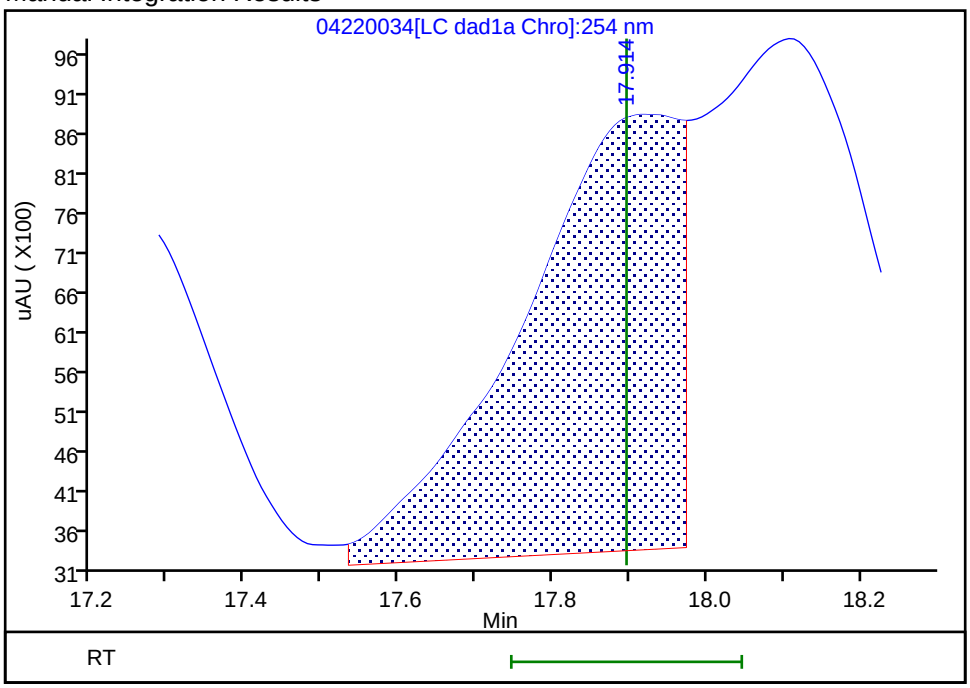
Processing Integration Results

RT: 17.92
Area: 61872
Amount: 0.253421
Amount Units: ug/ml




Manual Integration Results

RT: 17.91
Area: 79376
Amount: 0.323434
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 14:39:47
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

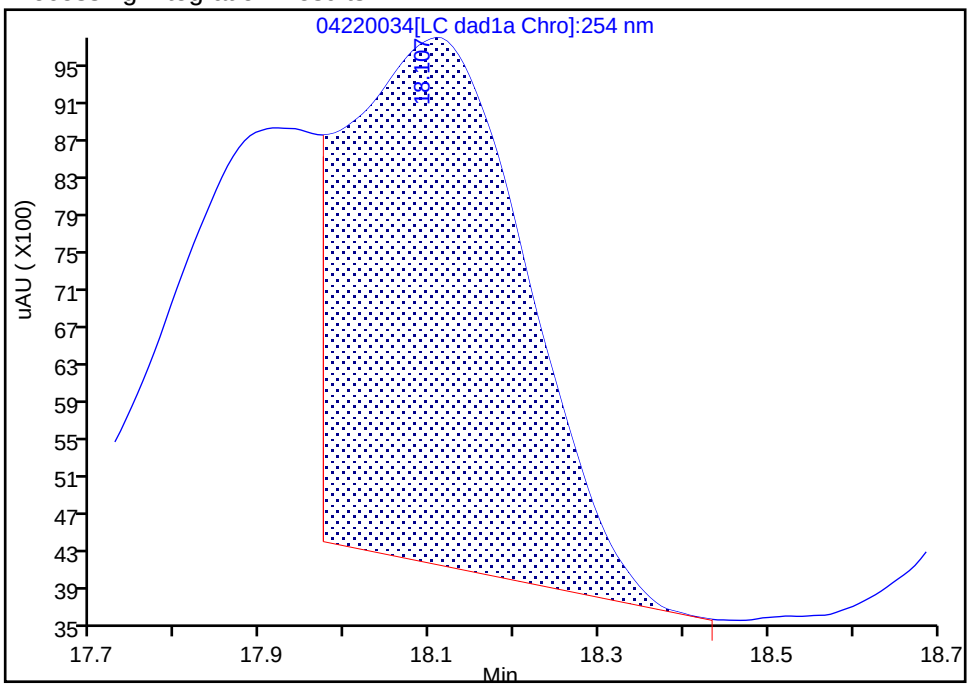
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

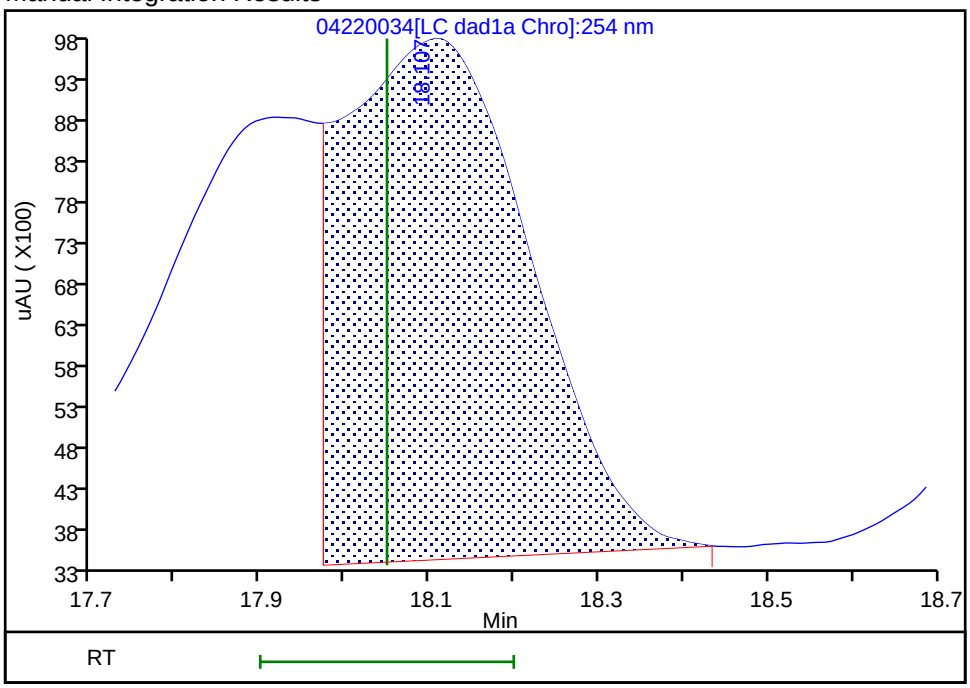
Processing Integration Results

RT: 18.11
Area: 82326
Amount: 0.175082
Amount Units: ug/ml




Manual Integration Results

RT: 18.11
Area: 96954
Amount: 0.205142
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

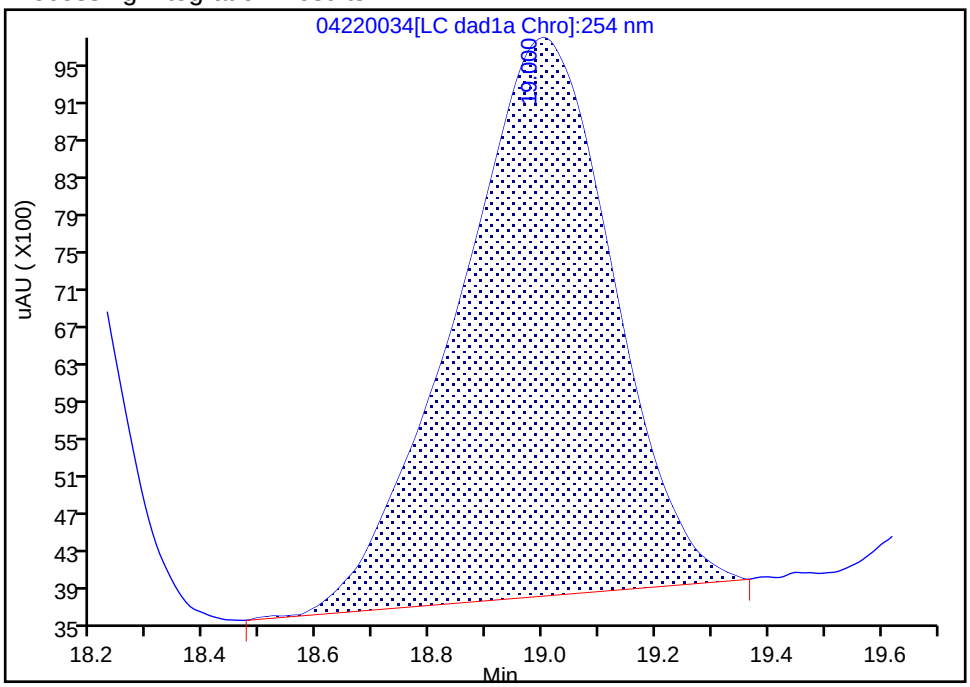
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

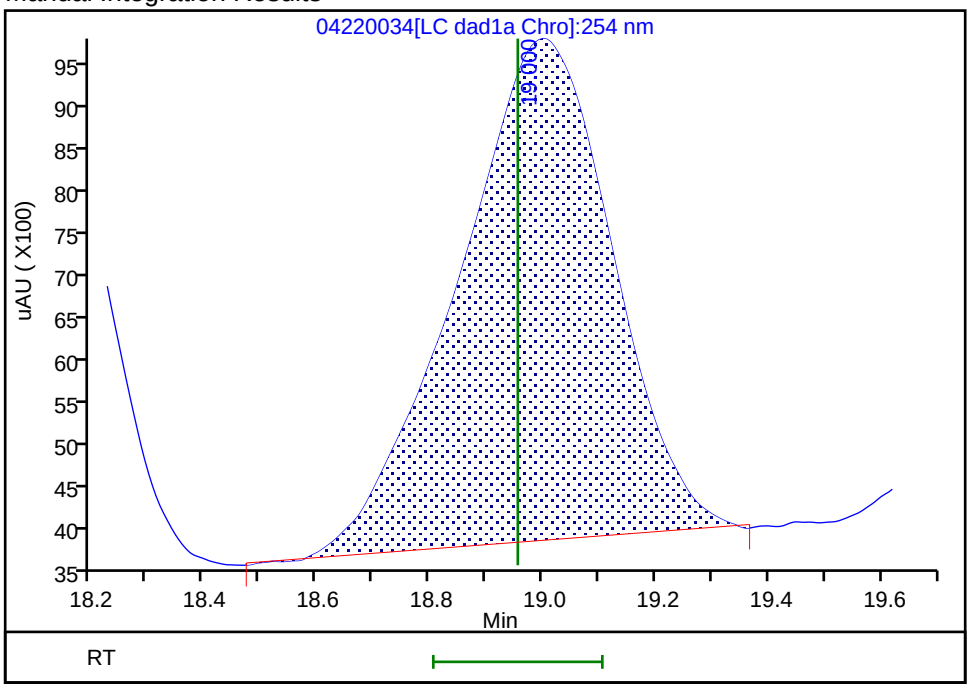
Processing Integration Results

RT: 19.00
Area: 113001
Amount: 0.252405
Amount Units: ug/ml




Manual Integration Results

RT: 19.00
Area: 111178
Amount: 0.248396
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

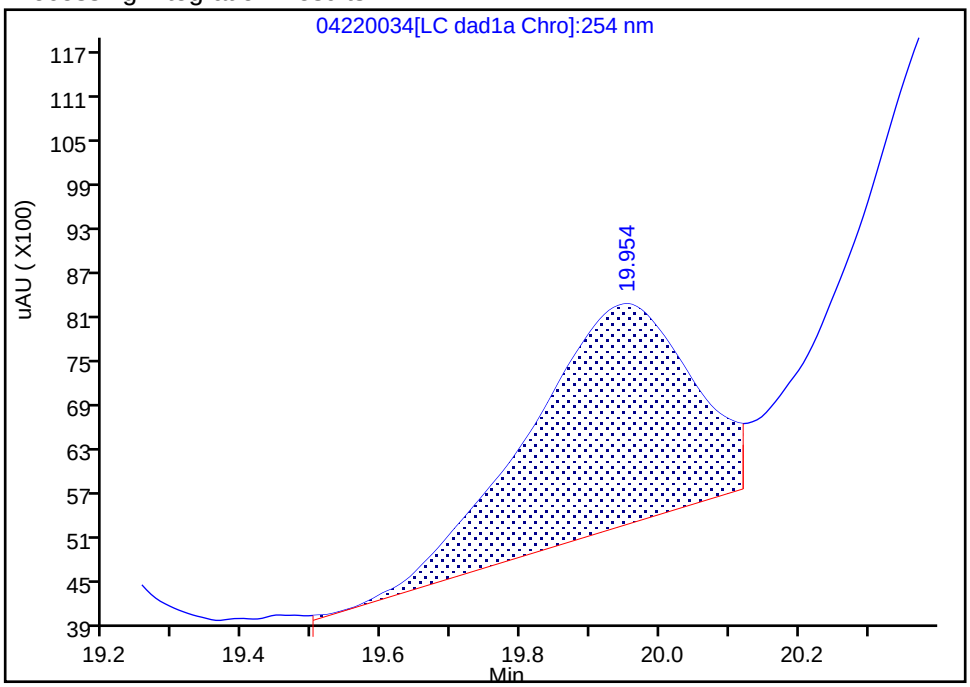
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

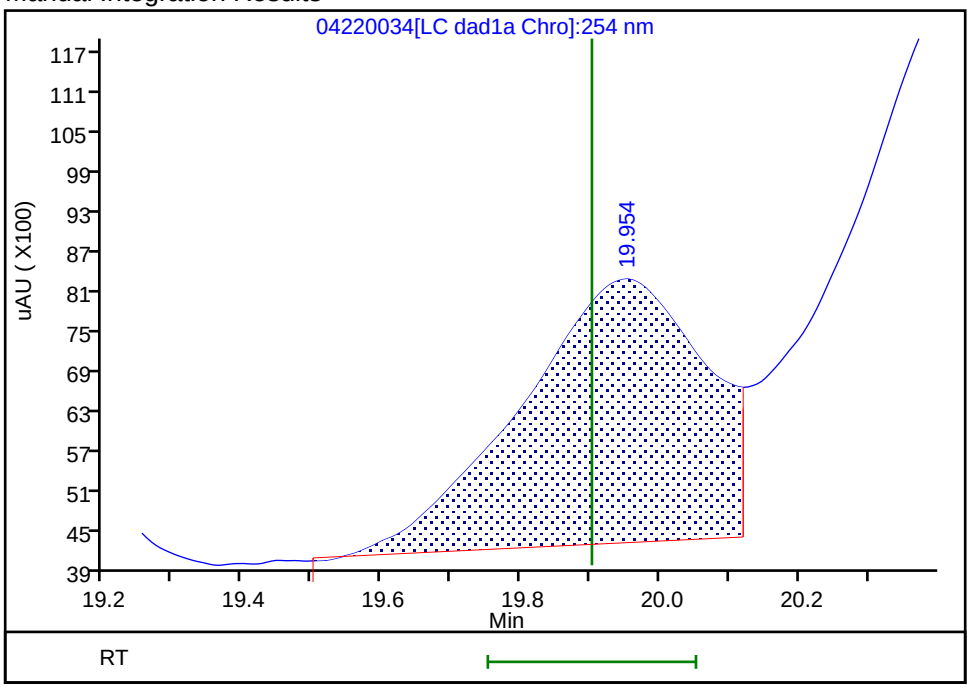
Processing Integration Results

RT: 19.95
Area: 49022
Amount: 0.183768
Amount Units: ug/ml




Manual Integration Results

RT: 19.95
Area: 72105
Amount: 0.270300
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

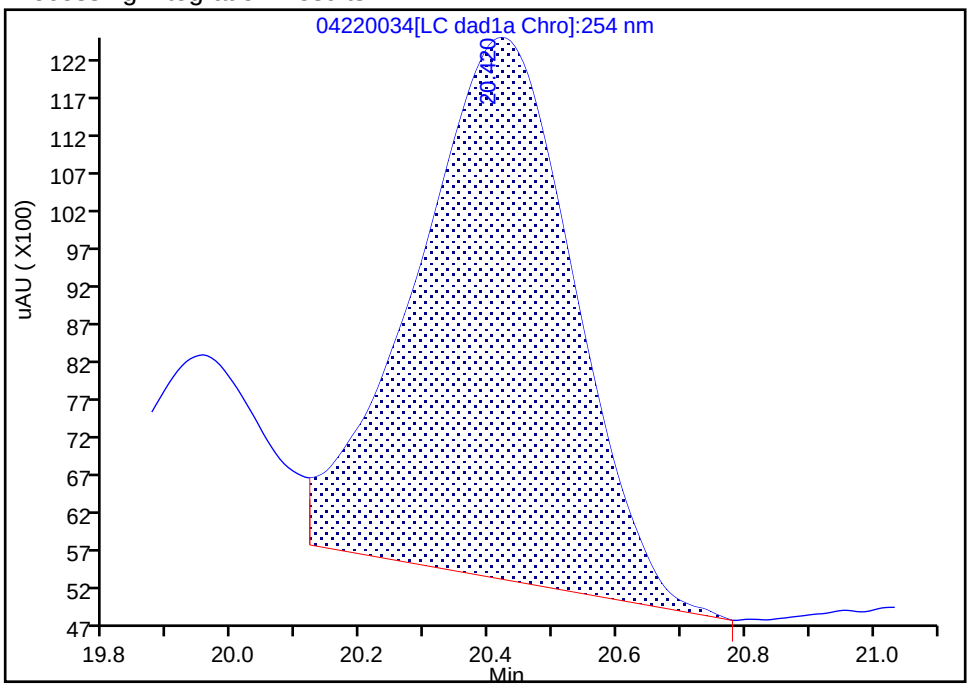
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220034.d | | | | |
| Injection Date: | 23-Apr-2020 18:43:52 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 34 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

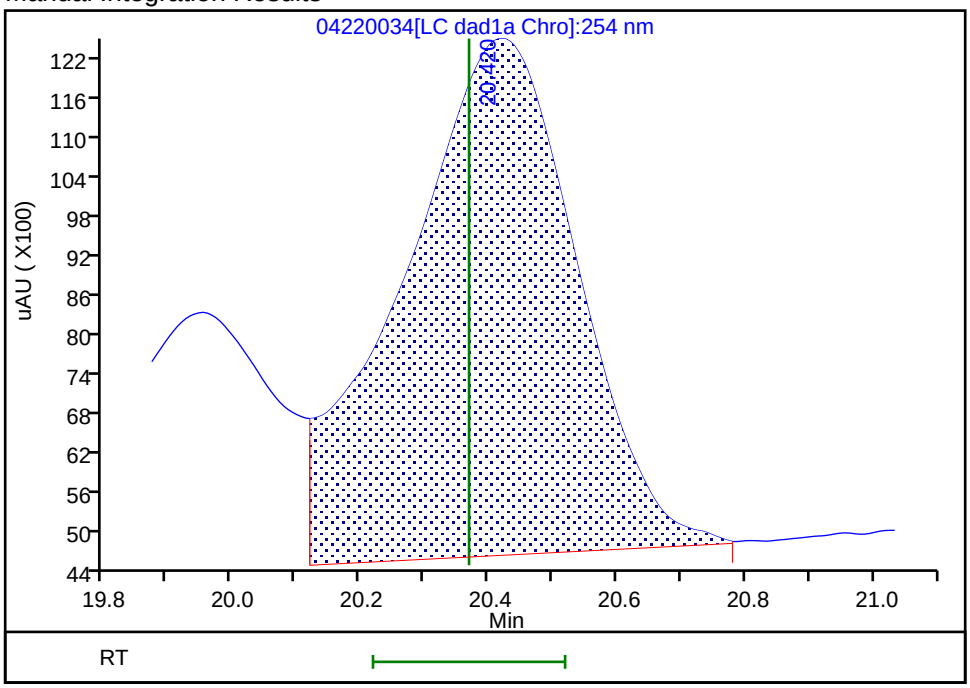
Processing Integration Results

RT: 20.42
Area: 121908
Amount: 0.211659
Amount Units: ug/ml




Manual Integration Results

RT: 20.42
Area: 149193
Amount: 0.259032
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/45  Calibration Date: 04/24/2020 01:08

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220045.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 425138 | 384108 | | 226 | 250 | -9.7 | 15.0 |
| DNX | Ave | 321673 | 302585 | | 235 | 250 | -5.9 | 15.0 |
| MNX | Ave | 283920 | 292521 | | 301 | 292 | 3.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/45  Calibration Date: 04/24/2020 01:08

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/22/2020 17:37

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/23/2020 08:13

Lab File ID: 04220045.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.45 | 5.29 | 5.59 |
| DNX | 6.27 | 6.11 | 6.41 |
| MNX | 7.79 | 7.62 | 7.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220045.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Apr-2020 01:08:33 | ALS Bottle#: | 11 | Worklist Smp#: | 45 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV | | | | |
| Misc. Info.: | 280-0090989-045 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 24-Apr-2020 14:30:46 | Calib Date: | 23-Apr-2020 07:38:43 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0308 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.452 | 5.442 | 0.010 | 96123 | 0.2503 | 0.2261 | |
| 4 DNX | 1 | 6.265 | 6.255 | 0.010 | 75722 | 0.2503 | 0.2354 | |
| 7 MNX | 1 | 7.792 | 7.769 | 0.023 | 85343 | 0.2918 | 0.3006 | |

## Reagents:

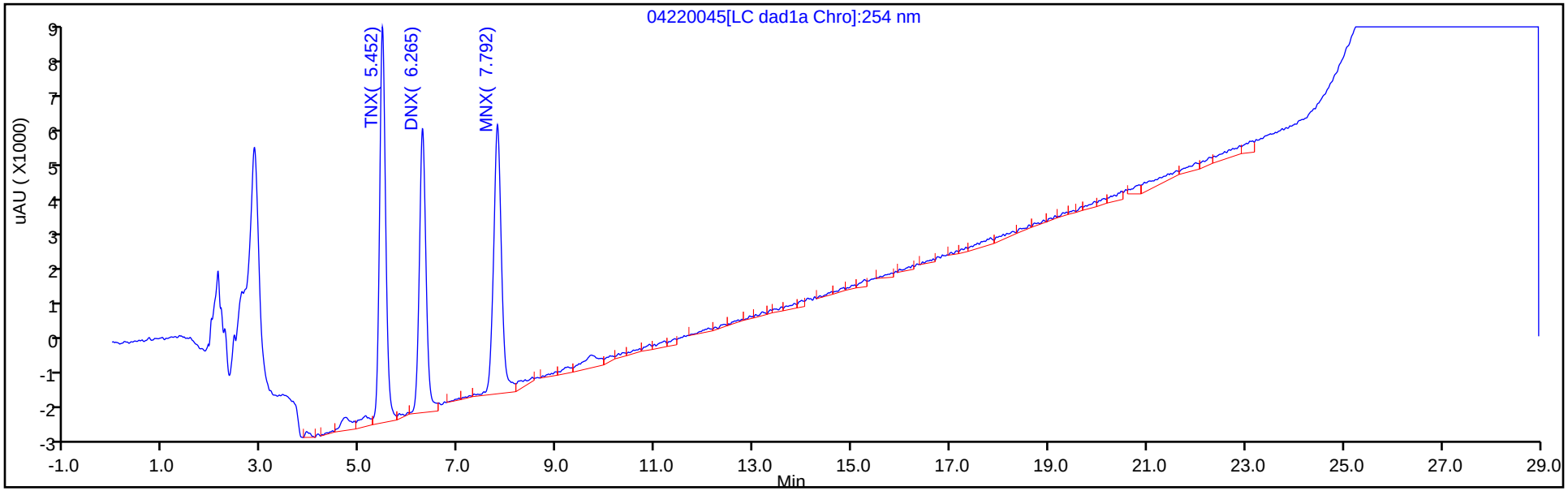
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 24-Apr-2020 14:30:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

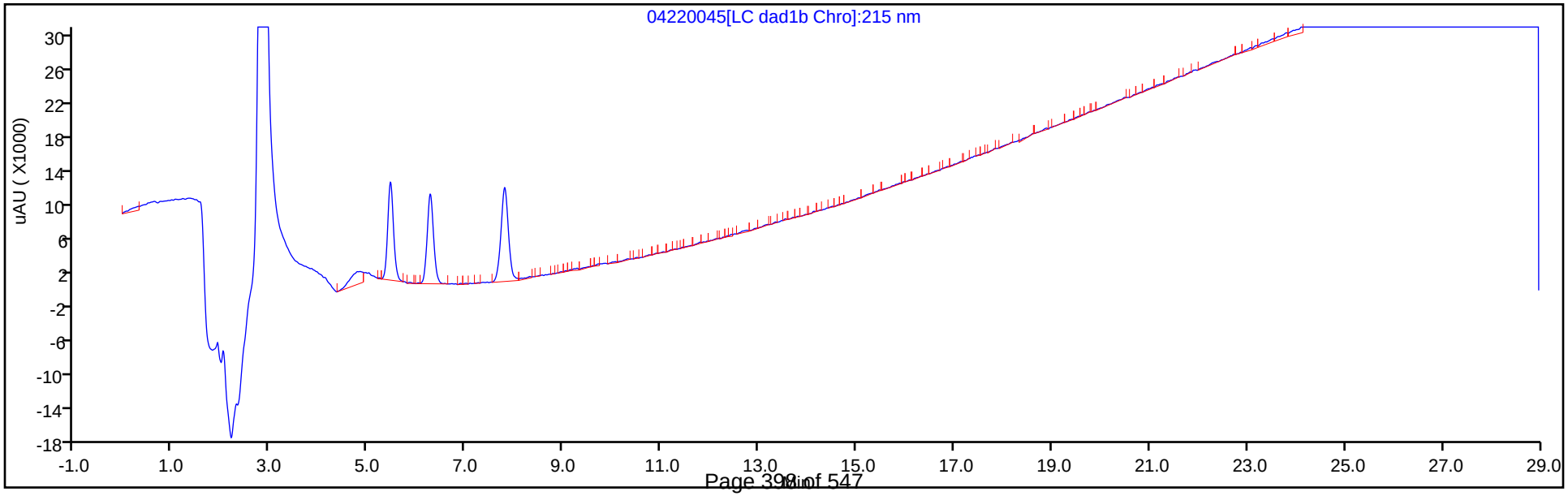
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220045.d | | | | |
| Injection Date: | 24-Apr-2020 01:08:33 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 45 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/46  Calibration Date: 04/24/2020 01:43

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04220046.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Ave | 161782 | 166172 | | 257 | 250 | 2.7 | 15.0 |
| HMX | Ave | 173850 | 182964 | | 263 | 250 | 5.2 | 15.0 |
| RDX | Lin1 | | 213796 | | 251 | 250 | 0.3 | 15.0 |
| Nitrobenzene | Ave | 417611 | 404598 | | 243 | 251 | -3.1 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 629458 | 663713 | | 264 | 251 | 5.4 | 15.0 |
| Nitroglycerin | Ave | 137700 | 129115 | | 2340 | 2500 | -6.2 | 15.0 |
| 2-Nitrotoluene | Lin2 | | 300720 | | 319 | 250 | 27.4* | 15.0 |
| 4-Nitrotoluene | Qua | | 209768 | | 216 | 251 | -13.7 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Qua | | 311600 | | 240 | 250 | -4.2 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 311341 | | 318 | 250 | 26.9* | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Qua | | 420307 | | 223 | 251 | -11.3 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 471557 | | 264 | 251 | 5.3 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 266760 | 285685 | | 269 | 251 | 7.1 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 575963 | 612490 | | 267 | 251 | 6.3 | 15.0 |
| Tetryl | Ave | 346869 | 342423 | | 247 | 251 | -1.3 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 412773 | | 260 | 251 | 3.7 | 15.0 |
| PETN | Lin1 | | 138336 | | 2500 | 2500 | -0.2 | 15.0 |
| 1,2-Dinitrobenzene | Qua | | 280048 | | 243 | 250 | -2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492532/46  Calibration Date: 04/24/2020 01:43

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 04/13/2020 14:40

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 04/13/2020 19:20

Lab File ID: 04220046.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 5.76 | 5.58 | 5.88 |
| HMX | 7.01 | 6.83 | 7.13 |
| RDX | 9.19 | 9.01 | 9.31 |
| Nitrobenzene | 12.19 | 12.01 | 12.31 |
| 1,3-Dinitrobenzene | 15.66 | 15.45 | 15.75 |
| Nitroglycerin | 15.89 | 15.69 | 15.99 |
| 2-Nitrotoluene | 16.70 | 16.48 | 16.78 |
| 4-Nitrotoluene | 16.95 | 16.75 | 17.05 |
| 4-Amino-2,6-dinitrotoluene | 17.28 | 17.05 | 17.35 |
| 3-Nitrotoluene | 17.99 | 17.75 | 18.05 |
| 2-Amino-4,6-dinitrotoluene | 18.12 | 17.90 | 18.20 |
| 1,3,5-Trinitrobenzene | 19.02 | 18.81 | 19.11 |
| 2,6-Dinitrotoluene | 19.97 | 19.75 | 20.05 |
| 2,4-Dinitrotoluene | 20.43 | 20.22 | 20.52 |
| Tetryl | 23.71 | 23.47 | 23.77 |
| 2,4,6-Trinitrotoluene | 24.82 | 24.61 | 24.91 |
| PETN | 25.35 | 25.16 | 25.46 |
| 1,2-Dinitrobenzene | 13.13 | 12.93 | 13.23 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220046.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Apr-2020 01:43:32 ALS Bottle#: 17 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0090989-046
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 24-Apr-2020 14:30:47 Calib Date: 23-Apr-2020 07:38:43
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200422-90989.b\04220014.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 24-Apr-2020 10:37:53

| 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 | 4.371 | 4.369 | 0.002 | 139935 | 0.2500 | 0.2559 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.925 | 4.909 | 0.016 | 88518 | 0.2500 | 0.2747 | M |
| 5 2,4,6-Trinitrophenol | 1 | 5.758 | 5.729 | 0.029 | 41543 | 0.2500 | 0.2568 | M |
| 6 HMX | 1 | 7.011 | 6.982 | 0.029 | 45741 | 0.2500 | 0.2631 | M |
| 8 RDX | 1 | 9.191 | 9.162 | 0.029 | 53449 | 0.2500 | 0.2507 | M |
| 9 Nitrobenzene | 1 | 12.191 | 12.156 | 0.035 | 101554 | 0.2510 | 0.2432 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 13.125 | 13.076 | 0.049 | 70012 | 0.2500 | 0.2428 | M |
| 11 3,5-Dinitroaniline | 1 | 14.965 | 14.896 | 0.069 | 170662 | 0.2500 | 0.2727 | |
| 12 1,3-Dinitrobenzene | 1 | 15.658 | 15.596 | 0.062 | 166260 | 0.2505 | 0.2641 | |
| 13 Nitroglycerin | 2 | 15.891 | 15.842 | 0.049 | 322787 | 2.50 | 2.34 | M |
| 14 o-Nitrotoluene | 1 | 16.698 | 16.629 | 0.069 | 75180 | 0.2500 | 0.3186 | M |
| 15 p-Nitrotoluene | 1 | 16.945 | 16.896 | 0.049 | 52547 | 0.2505 | 0.2162 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.278 | 17.202 | 0.076 | 77978 | 0.2503 | 0.2398 | M |
| 17 m-Nitrotoluene | 1 | 17.991 | 17.896 | 0.095 | 77913 | 0.2503 | 0.3176 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.118 | 18.049 | 0.069 | 105497 | 0.2510 | 0.2227 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 19.018 | 18.956 | 0.062 | 118125 | 0.2505 | 0.2637 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.965 | 19.902 | 0.063 | 71707 | 0.2510 | 0.2688 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.425 | 20.369 | 0.056 | 153735 | 0.2510 | 0.2669 | M |
| 22 Tetryl | 1 | 23.705 | 23.622 | 0.083 | 85777 | 0.2505 | 0.2473 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.818 | 24.756 | 0.062 | 103606 | 0.2510 | 0.2604 | |
| 24 PETN | 2 | 25.351 | 25.309 | 0.042 | 345841 | 2.50 | 2.50 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

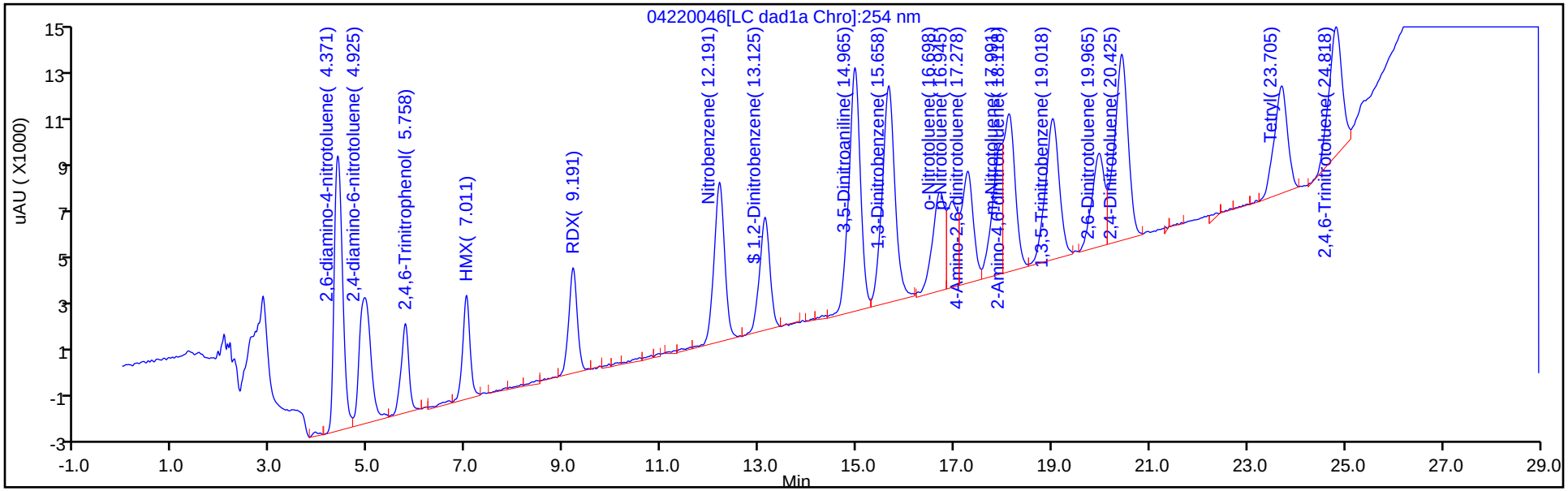
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |

Report Date: 24-Apr-2020 14:30:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

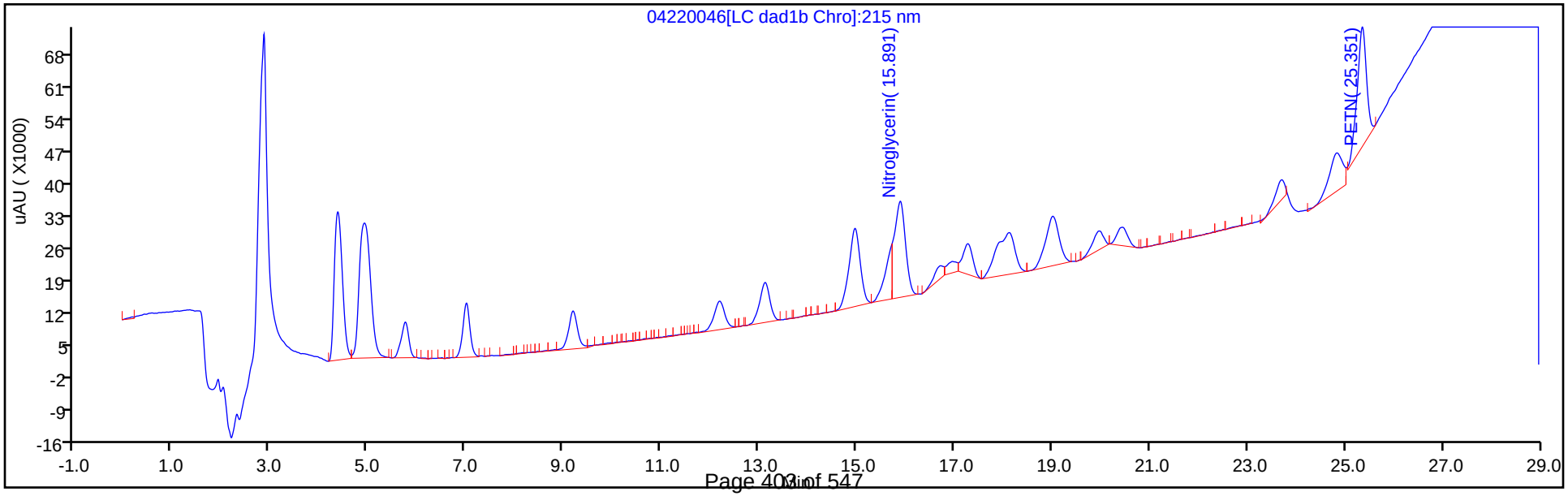
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV | | | Worklist Smp#: | 46 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

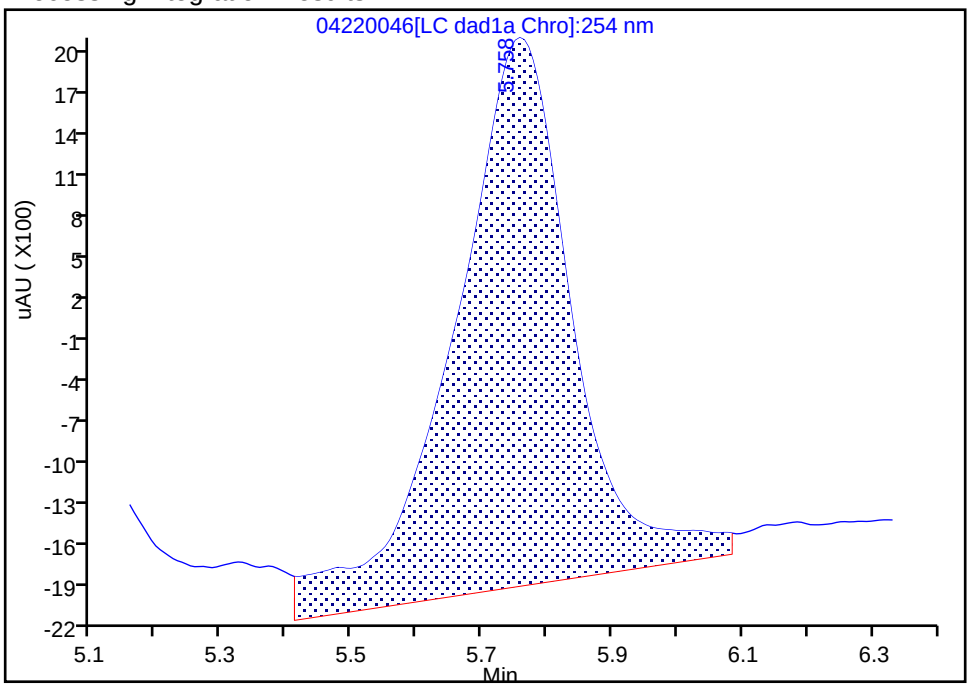
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

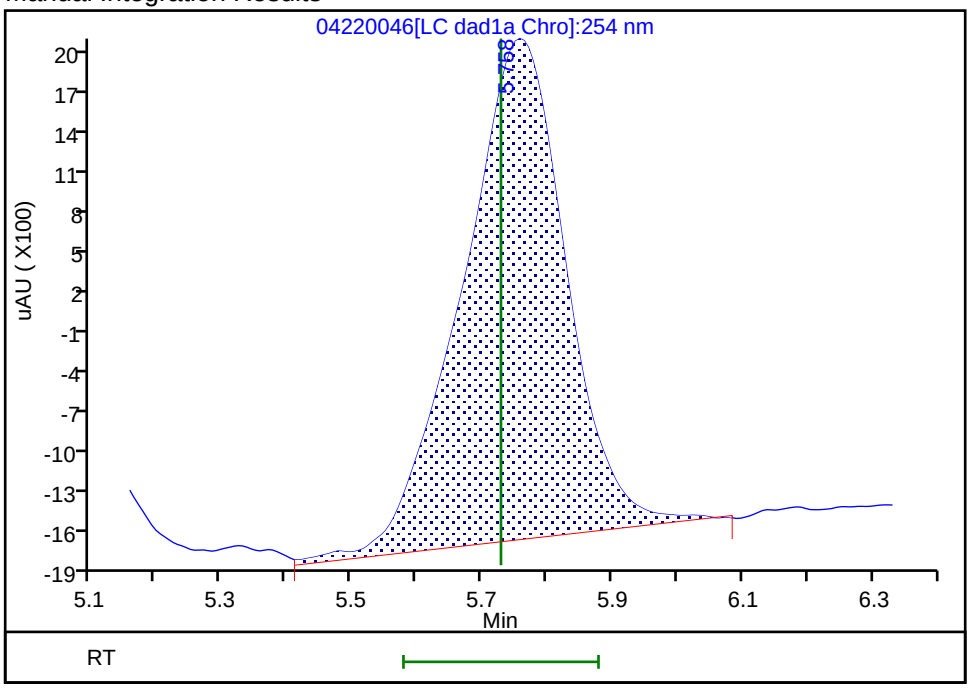
Processing Integration Results

RT: 5.76
Area: 50512
Amount: 0.312222
Amount Units: ug/ml




Manual Integration Results

RT: 5.76
Area: 41543
Amount: 0.256783
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:28:13
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

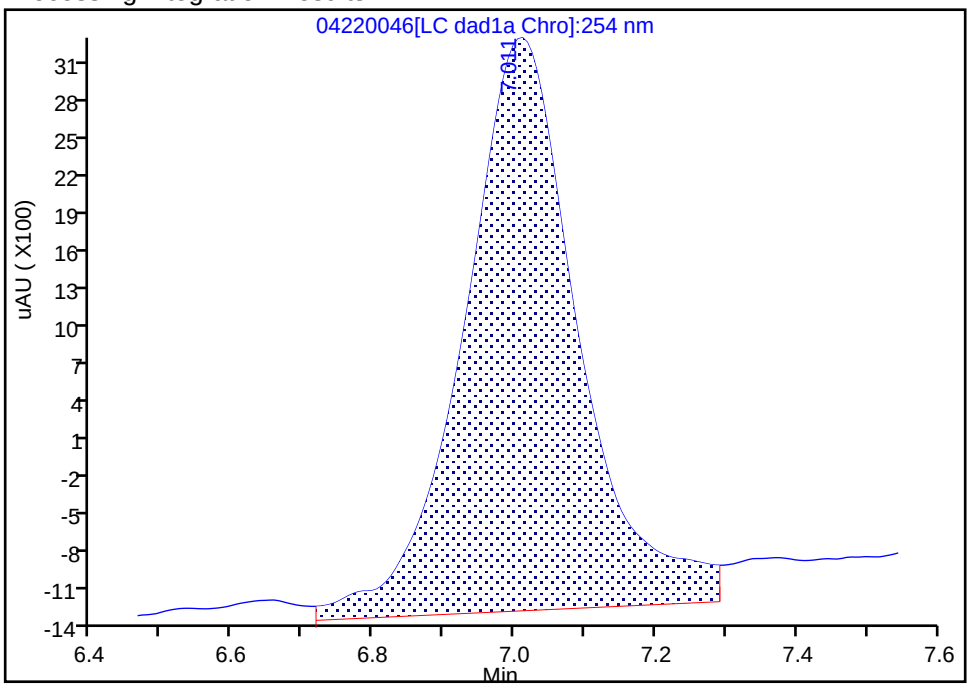
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 6 HMX, CAS: 2691-41-0

Signal: 1

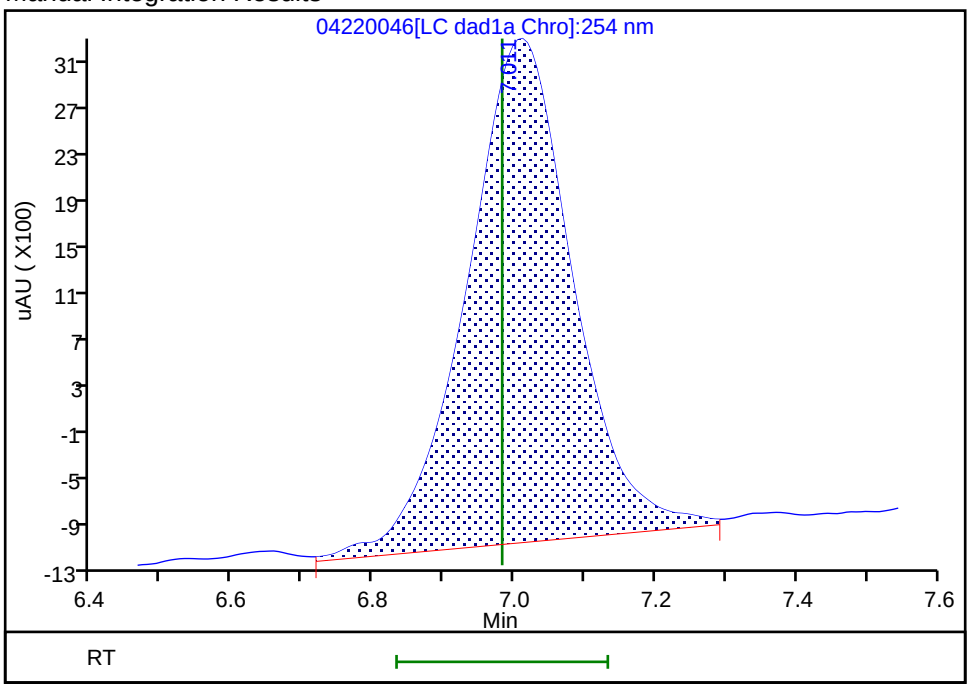
Processing Integration Results

RT: 7.01
Area: 51073
Amount: 0.293777
Amount Units: ug/ml




Manual Integration Results

RT: 7.01
Area: 45741
Amount: 0.263106
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:28:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

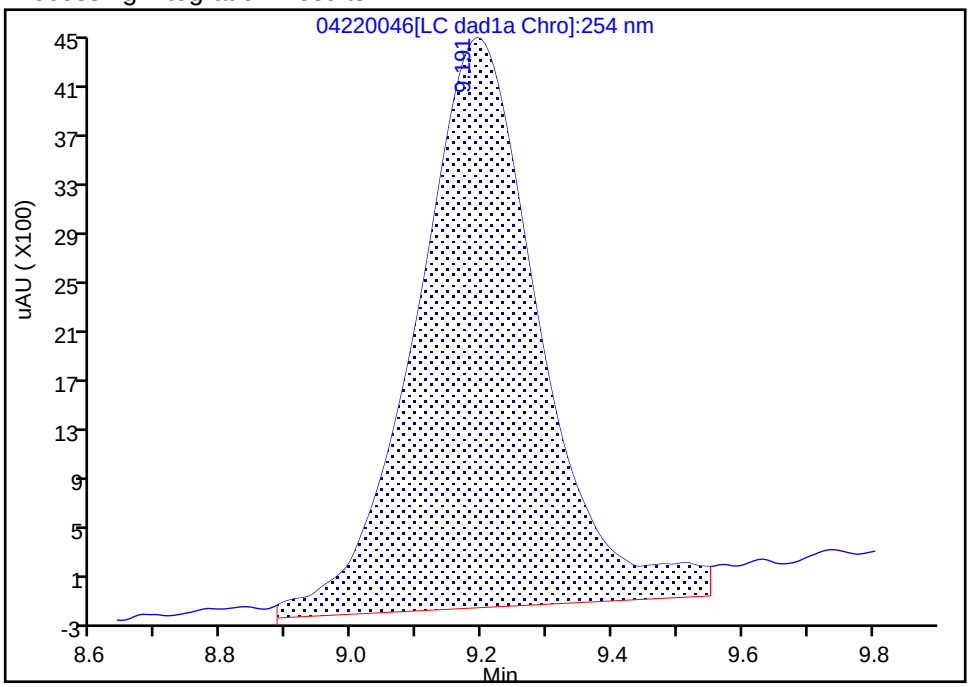
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

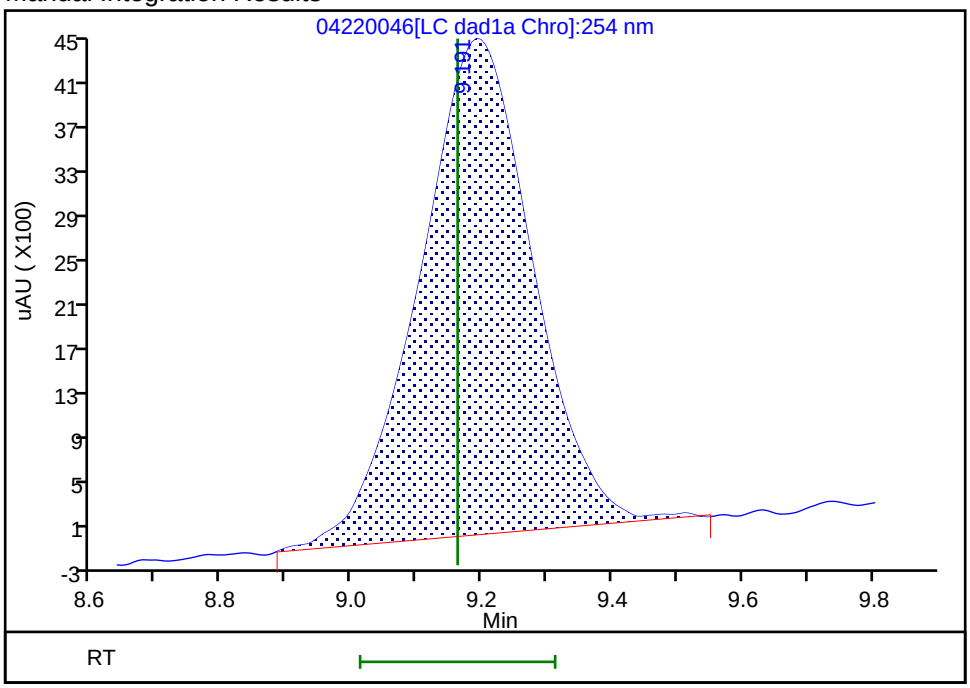
Processing Integration Results

RT: 9.19
Area: 60469
Amount: 0.284059
Amount Units: ug/ml




Manual Integration Results

RT: 9.19
Area: 53449
Amount: 0.250724
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:28:25
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

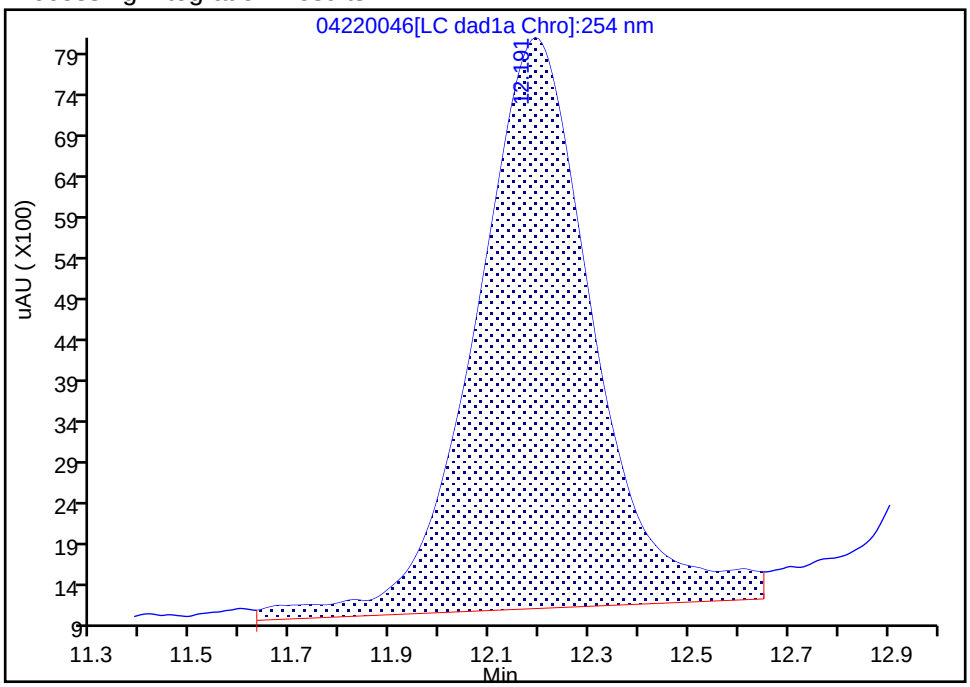
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 9 Nitrobenzene, CAS: 98-95-3

Signal: 1

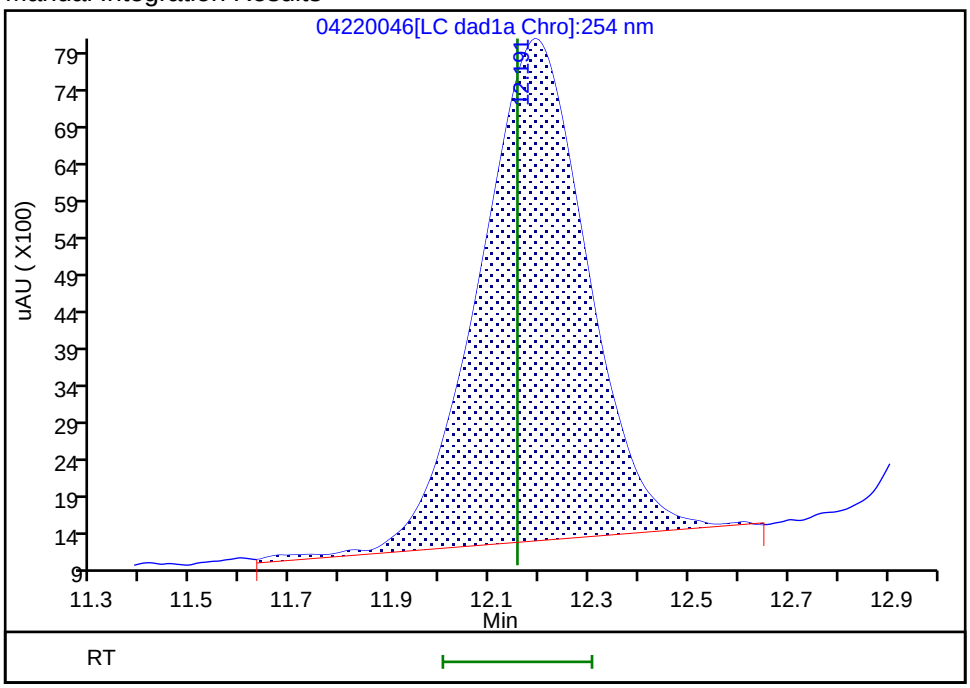
Processing Integration Results

RT: 12.19
Area: 114620
Amount: 0.274466
Amount Units: ug/ml




Manual Integration Results

RT: 12.19
Area: 101554
Amount: 0.243179
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

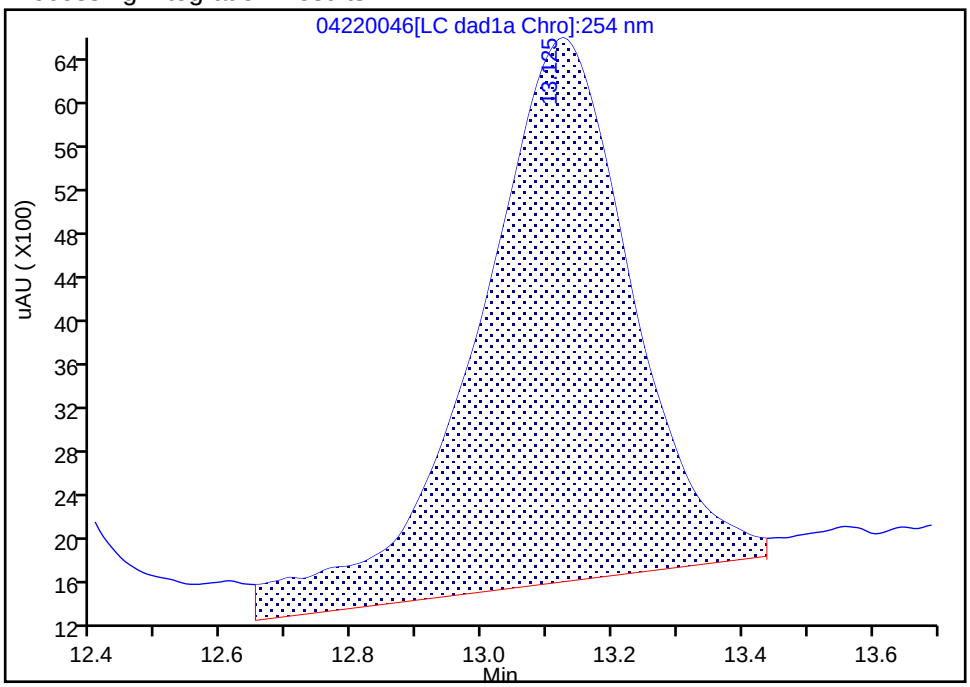
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

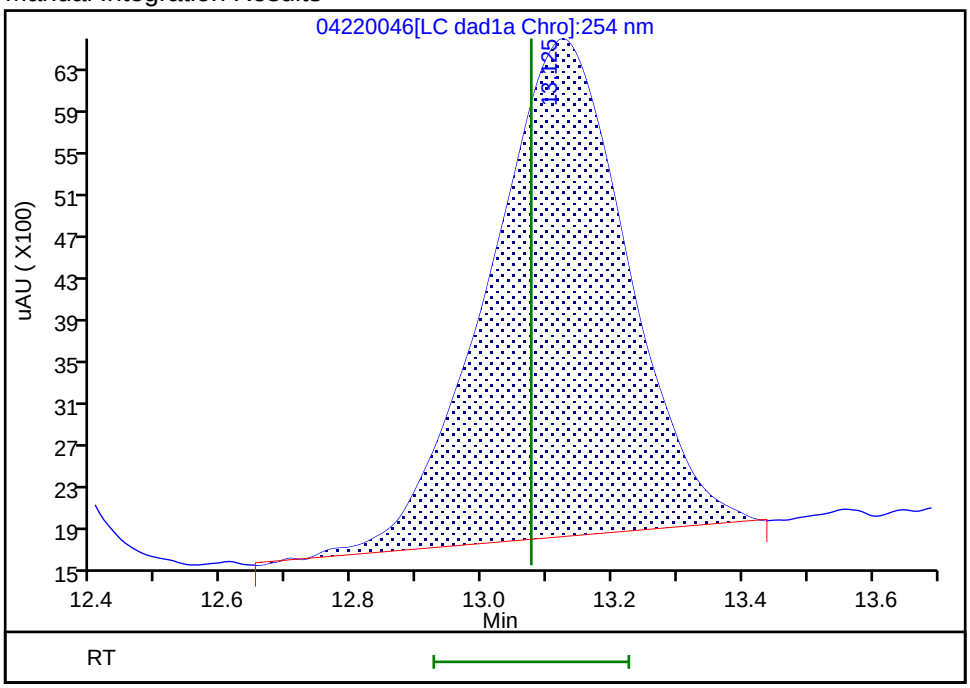
Processing Integration Results

RT: 13.12
Area: 82473
Amount: 0.287163
Amount Units: ug/ml




Manual Integration Results

RT: 13.12
Area: 70012
Amount: 0.242800
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

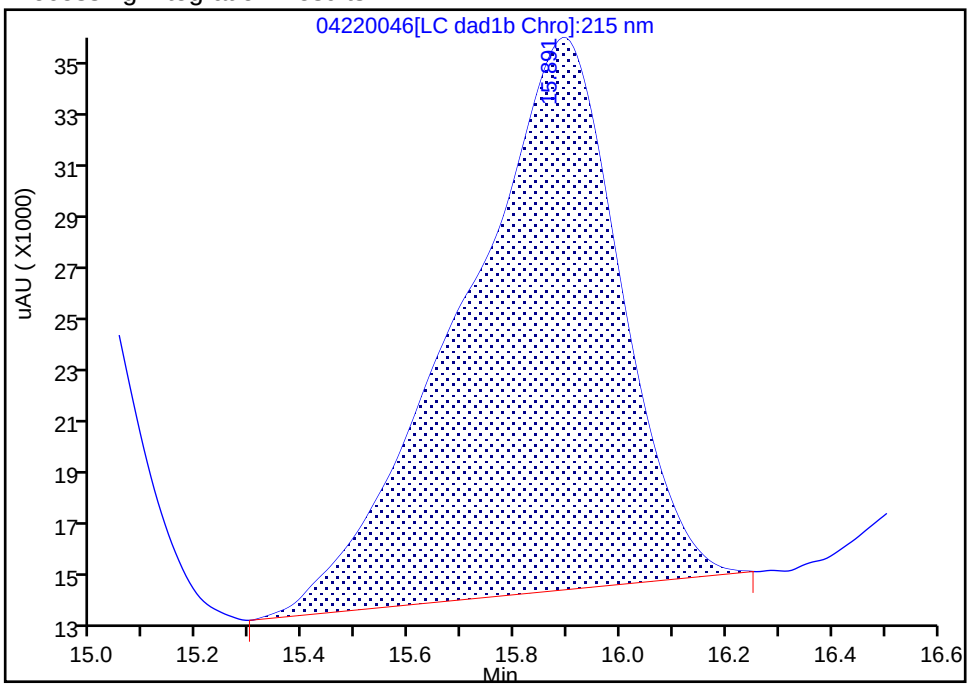
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

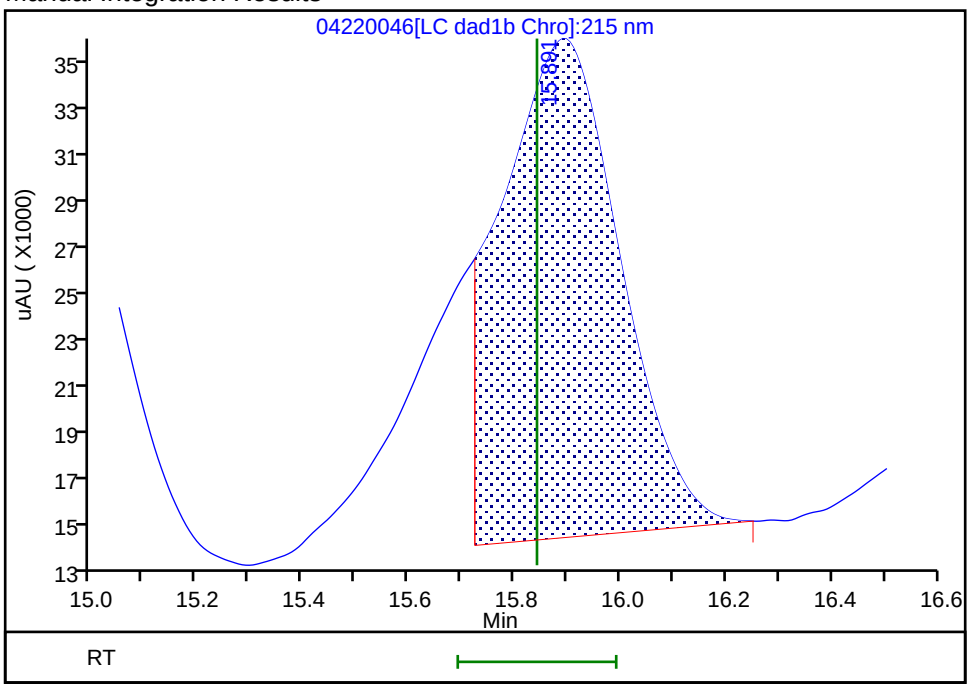
Processing Integration Results

RT: 15.89
Area: 433098
Amount: 3.145223
Amount Units: ug/ml




Manual Integration Results

RT: 15.89
Area: 322787
Amount: 2.344128
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:28:44
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

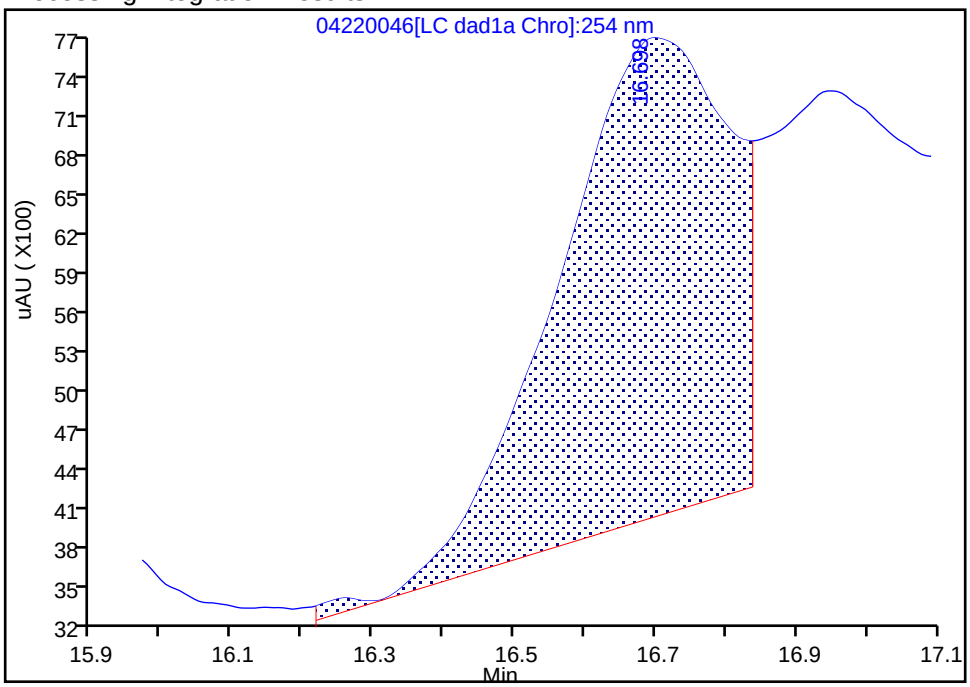
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

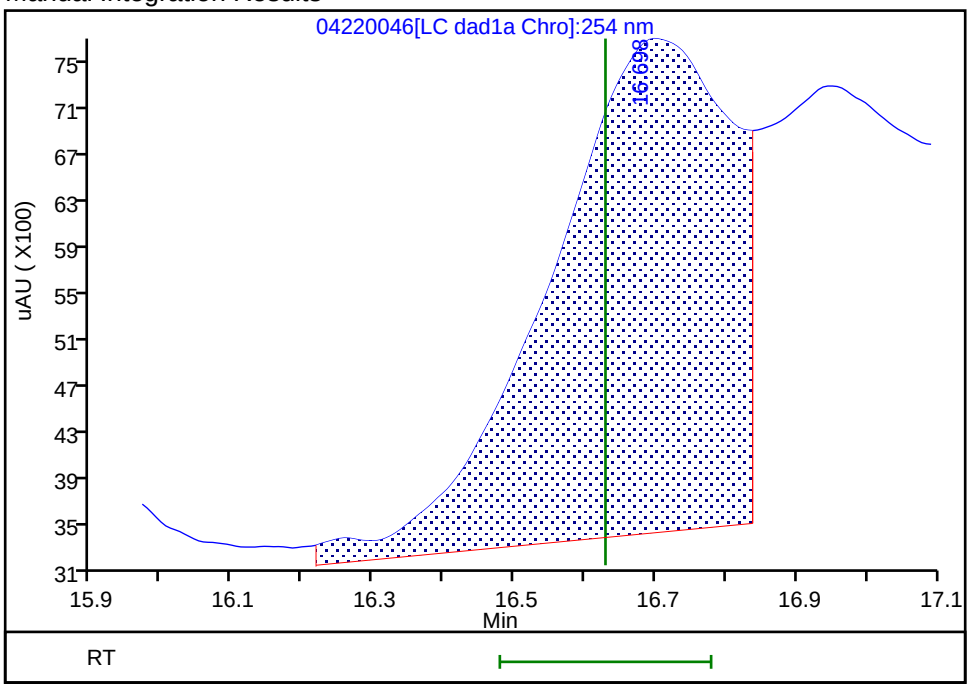
Processing Integration Results

RT: 16.70
Area: 60858
Amount: 0.257237
Amount Units: ug/ml




Manual Integration Results

RT: 16.70
Area: 75180
Amount: 0.318604
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

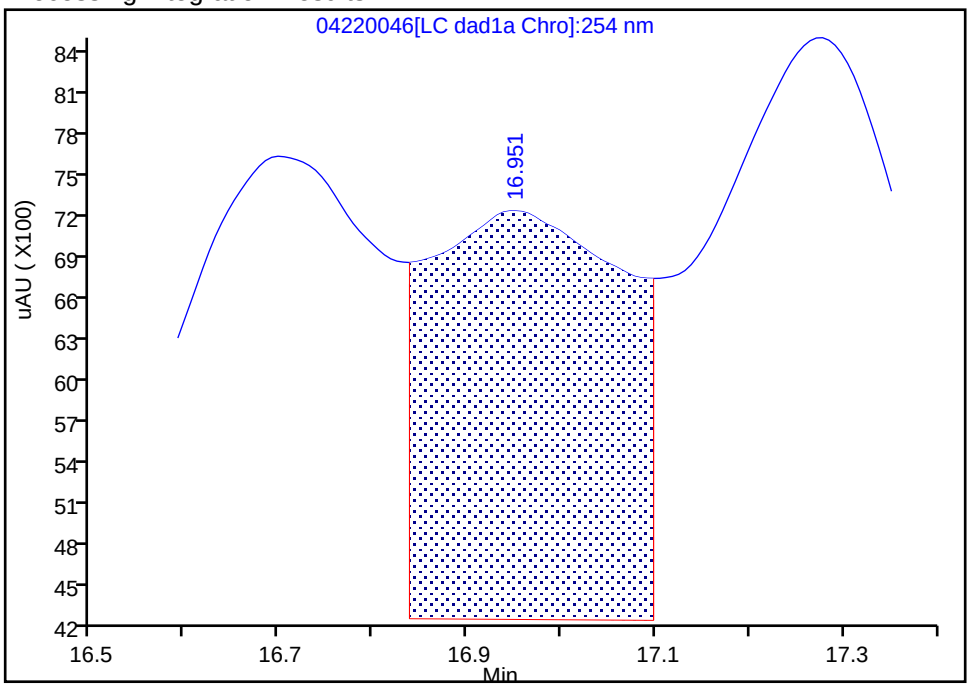
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

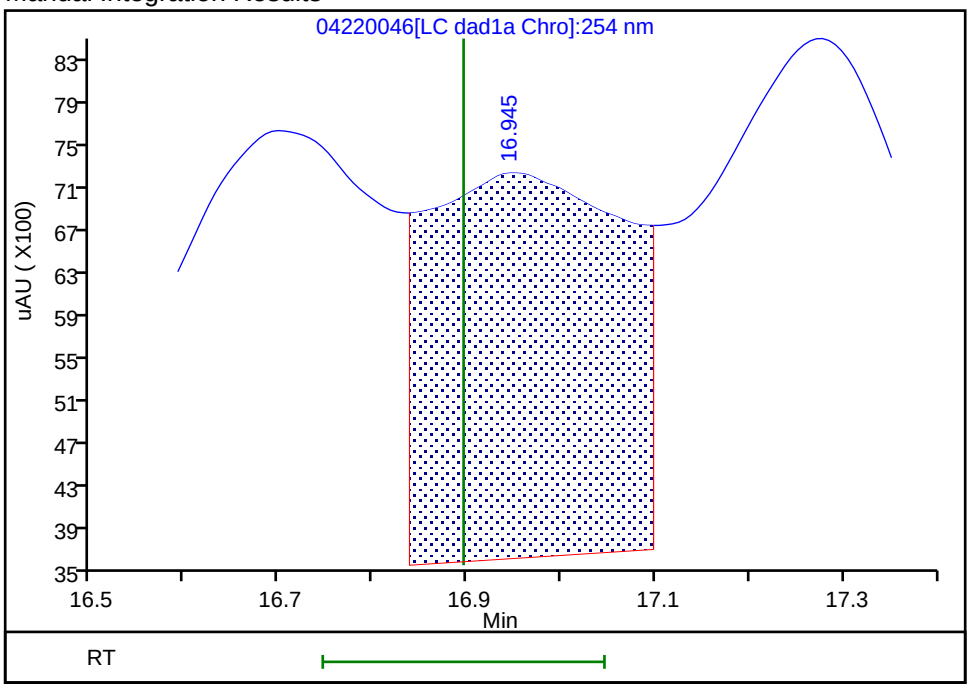
Processing Integration Results

RT: 16.95
Area: 42735
Amount: 0.176318
Amount Units: ug/ml




Manual Integration Results

RT: 16.94
Area: 52547
Amount: 0.216160
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

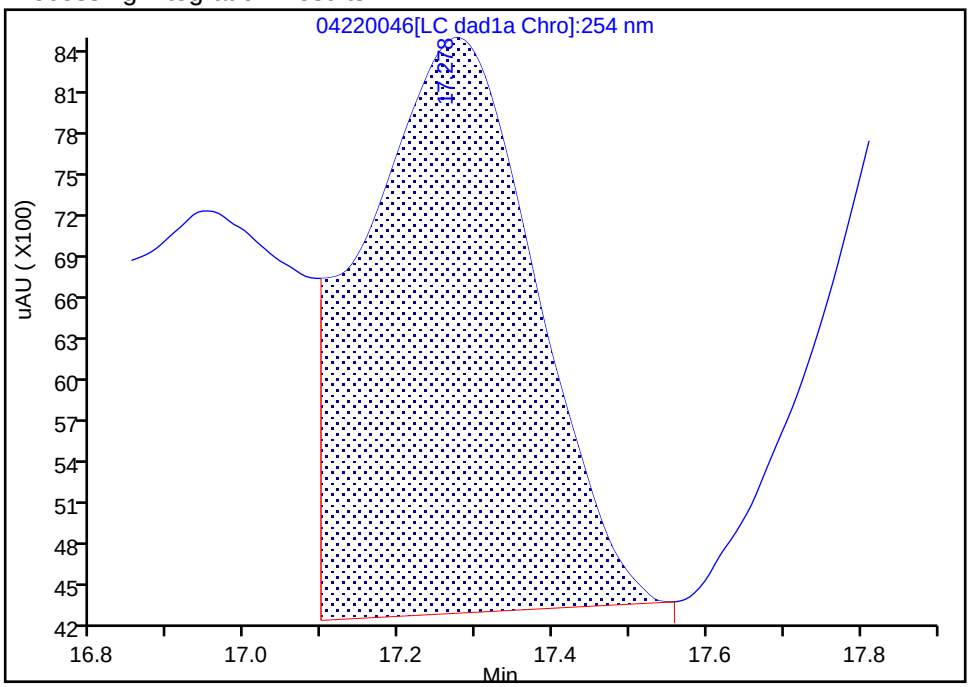
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

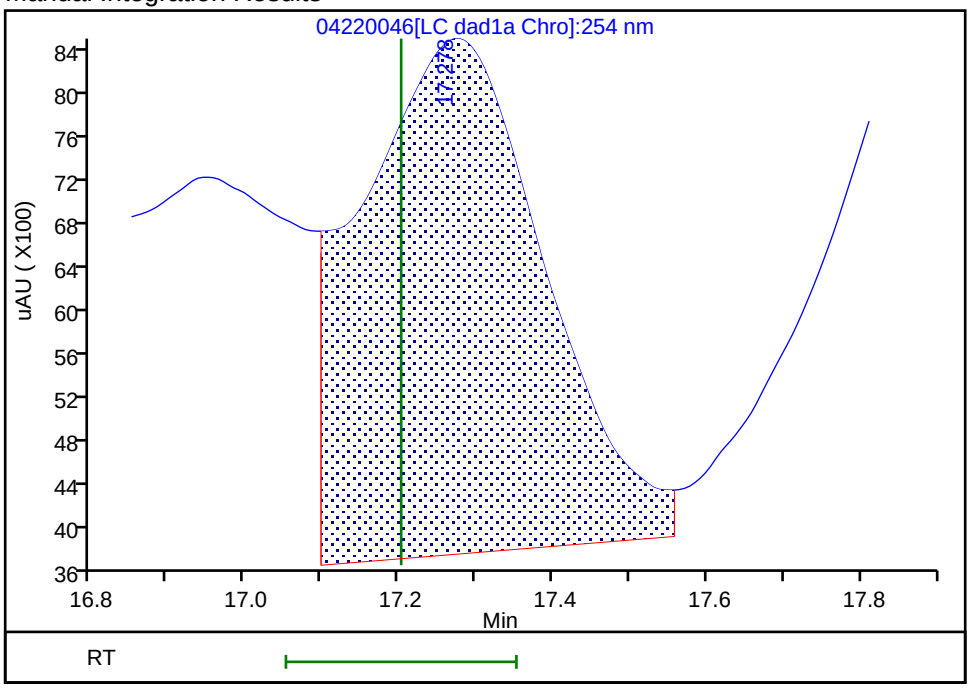
Processing Integration Results

RT: 17.28
Area: 64578
Amount: 0.199210
Amount Units: ug/ml




Manual Integration Results

RT: 17.28
Area: 77978
Amount: 0.239794
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

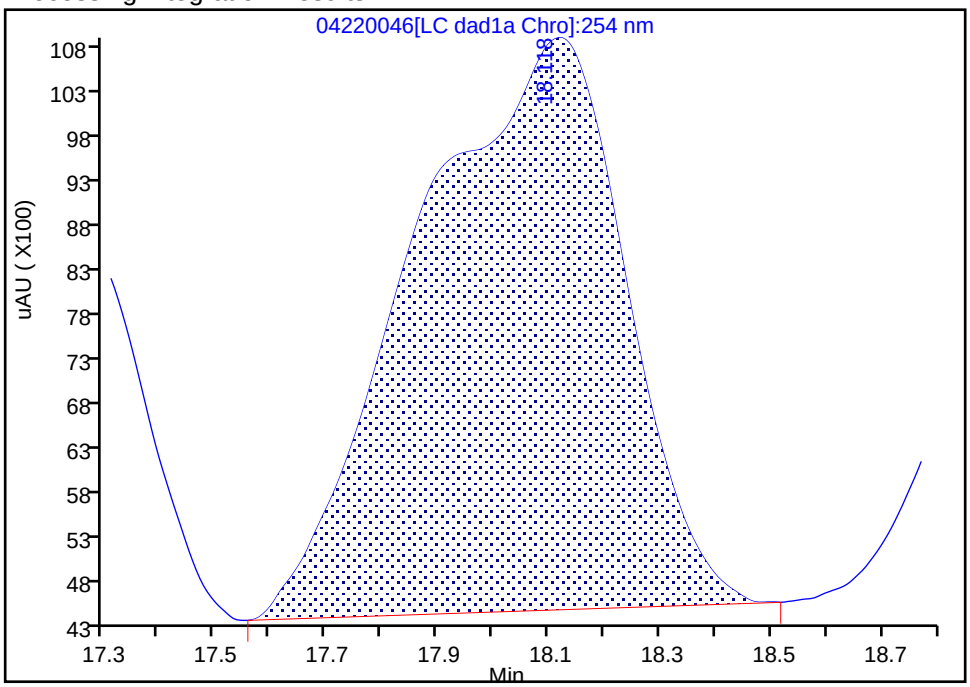
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

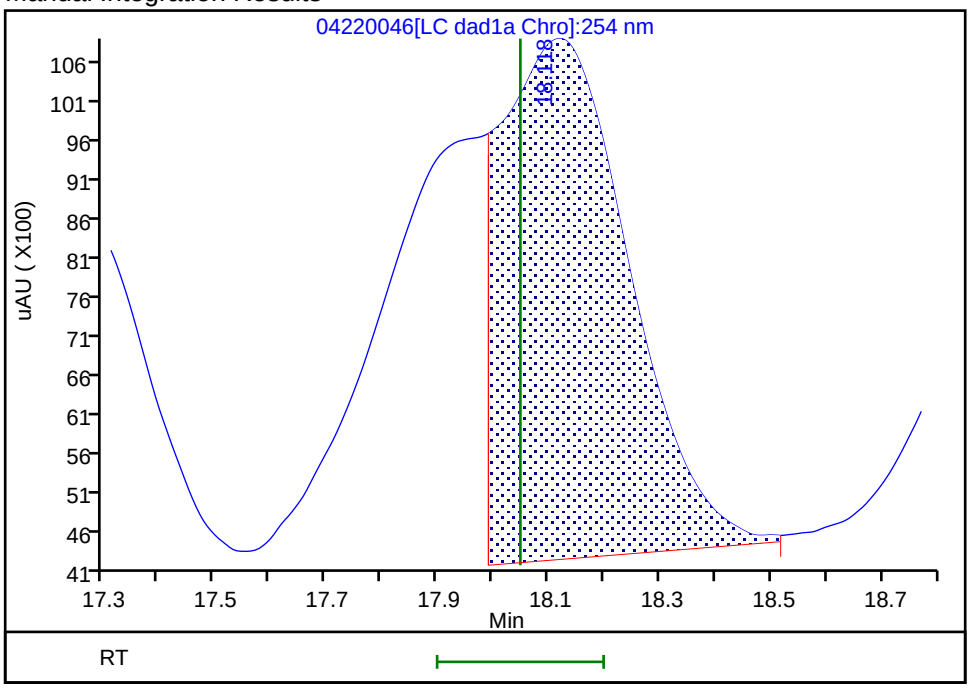
Processing Integration Results

RT: 18.12
Area: 168953
Amount: 0.353753
Amount Units: ug/ml




Manual Integration Results

RT: 18.12
Area: 105497
Amount: 0.222719
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:24
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

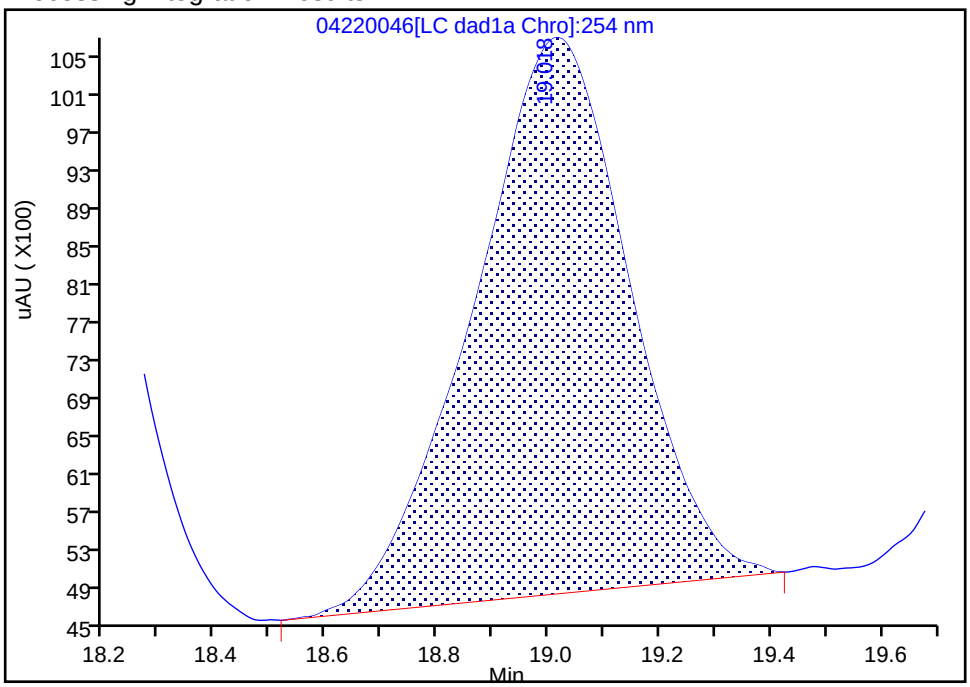
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

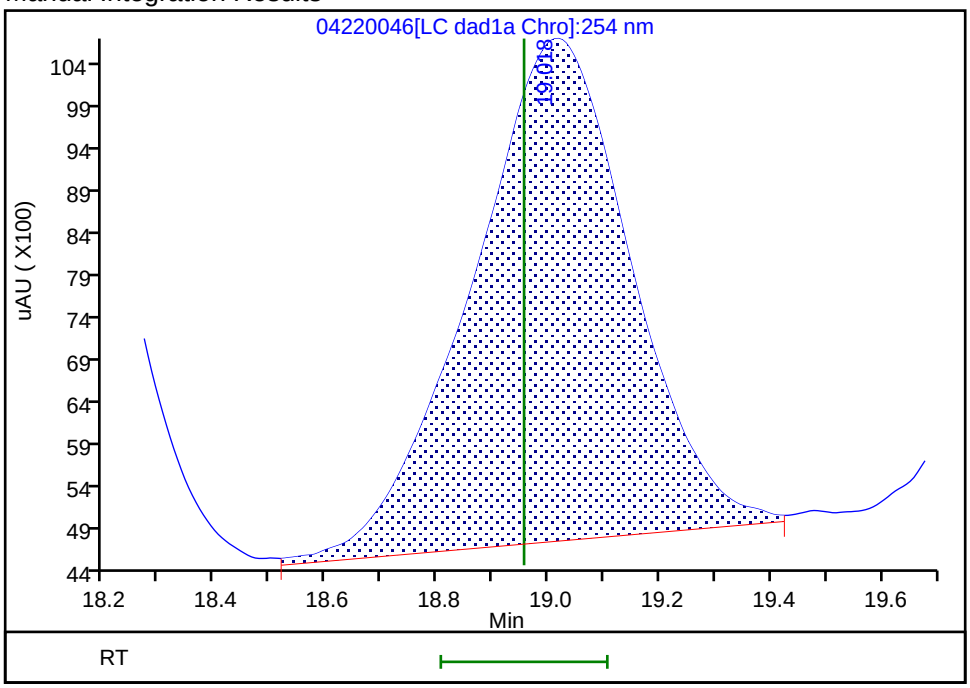
Processing Integration Results

RT: 19.02
Area: 114045
Amount: 0.254701
Amount Units: ug/ml




Manual Integration Results

RT: 19.02
Area: 118125
Amount: 0.263675
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

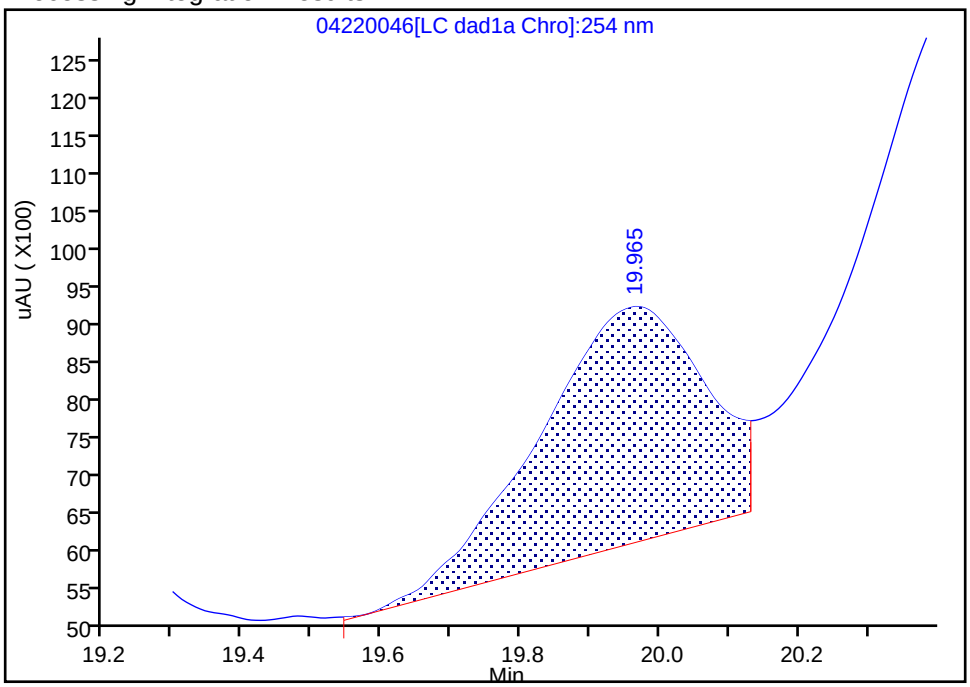
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

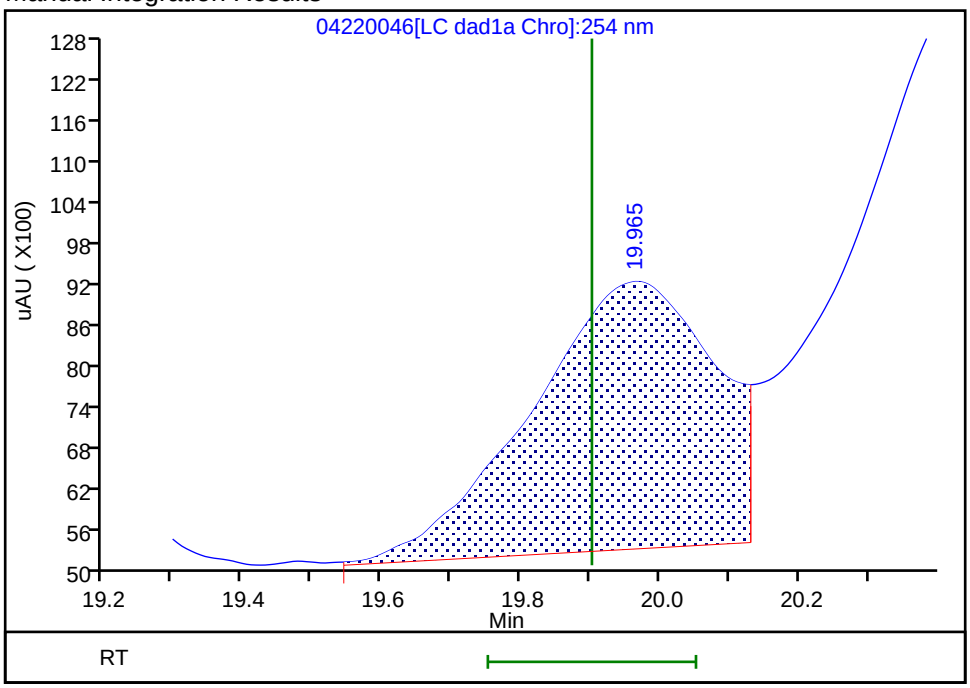
Processing Integration Results

RT: 19.96
Area: 52153
Amount: 0.195506
Amount Units: ug/ml




Manual Integration Results

RT: 19.96
Area: 71707
Amount: 0.268808
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

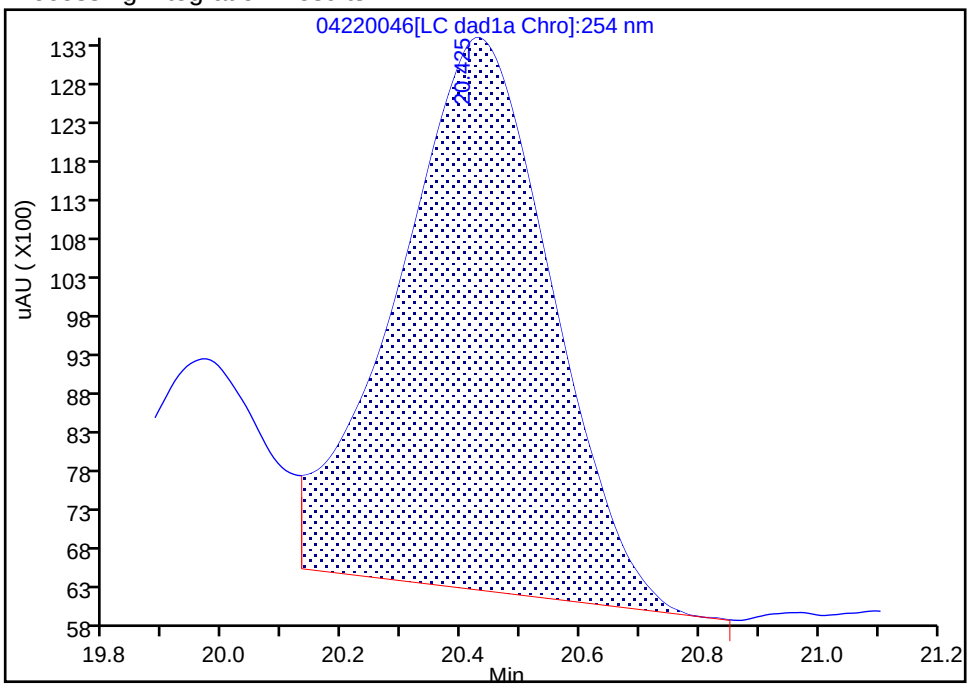
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

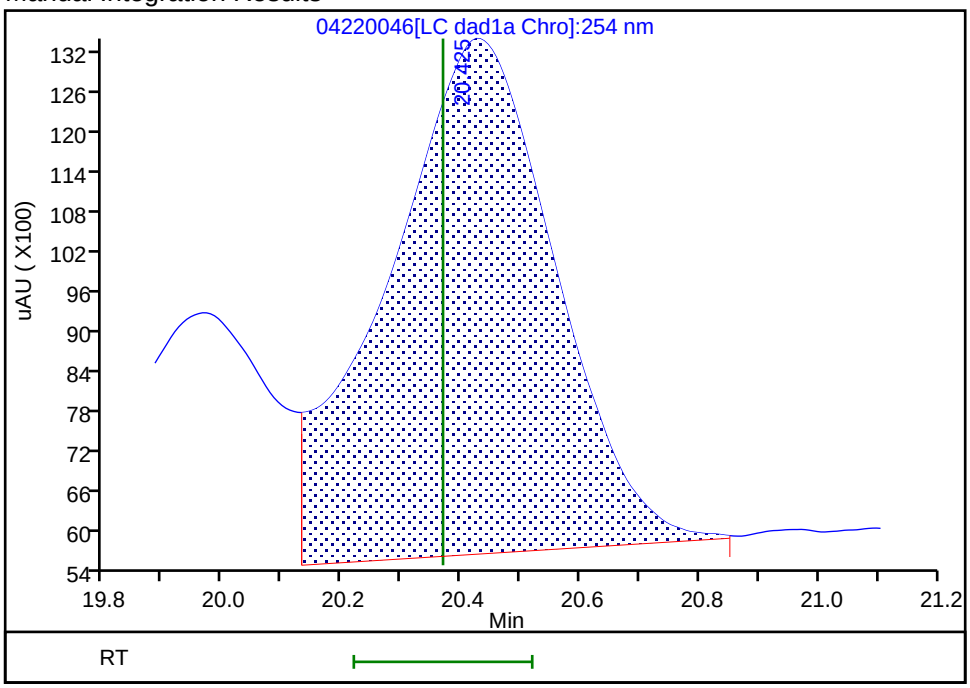
Processing Integration Results

RT: 20.42
Area: 129090
Amount: 0.224129
Amount Units: ug/ml




Manual Integration Results

RT: 20.42
Area: 153735
Amount: 0.266918
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:29:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

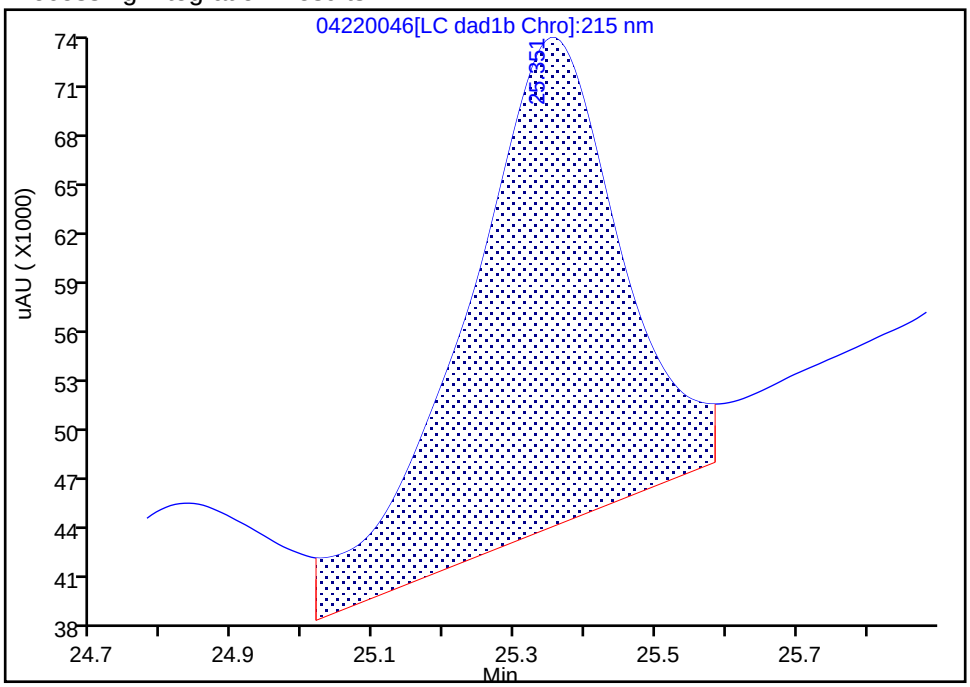
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200422-90989.b\04220046.d | | | | |
| Injection Date: | 24-Apr-2020 01:43:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 46 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

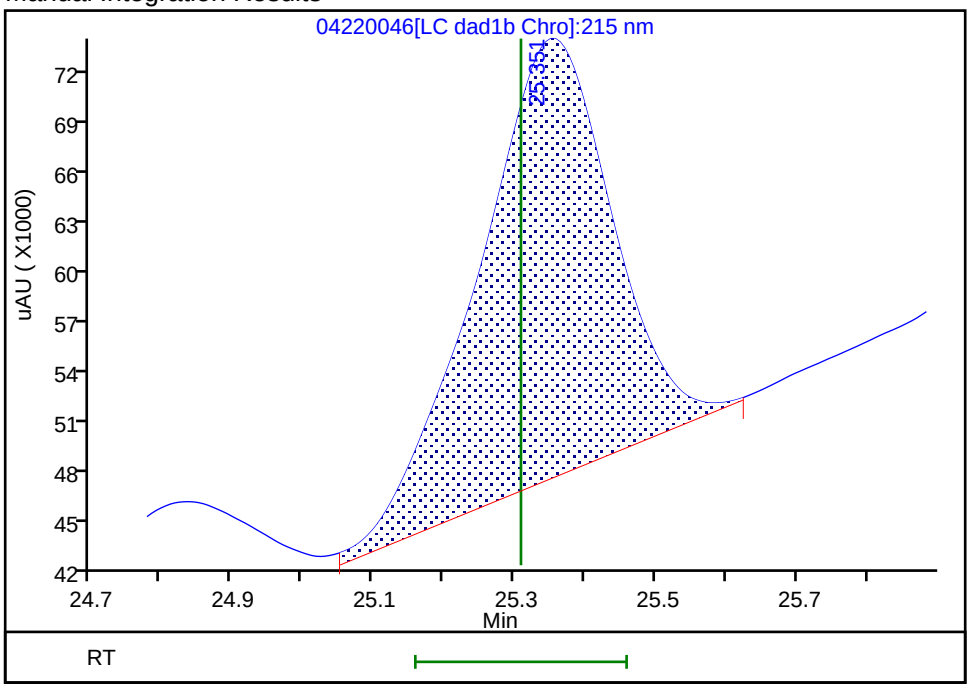
Processing Integration Results

RT: 25.35
Area: 439742
Amount: 3.170315
Amount Units: ug/ml




Manual Integration Results

RT: 25.35
Area: 345841
Amount: 2.495694
Amount Units: ug/ml




Reviewer: beckerc, 24-Apr-2020 11:27:54

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 189186 | | 348 | 400 | -13.1 | 15.0 |
| DNX | Ave | 152928 | 145270 | | 380 | 400 | -5.0 | 15.0 |
| MNX | Ave | 158544 | 136780 | | 403 | 467 | -13.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.59 | 6.49 | 6.69 |
| DNX | 6.91 | 6.81 | 7.01 |
| MNX | 7.36 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040033.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 05-Mar-2020 00:03:48 | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0089779-033 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:28 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:37:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.594 | 6.594 | 0.000 | 75750 | 0.4004 | 0.3481 | M |
| 5 DNX | 1 | 6.914 | 6.914 | 0.000 | 58166 | 0.4004 | 0.3803 | M |
| 6 MNX | 1 | 7.361 | 7.361 | 0.000 | 63849 | 0.4668 | 0.4027 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

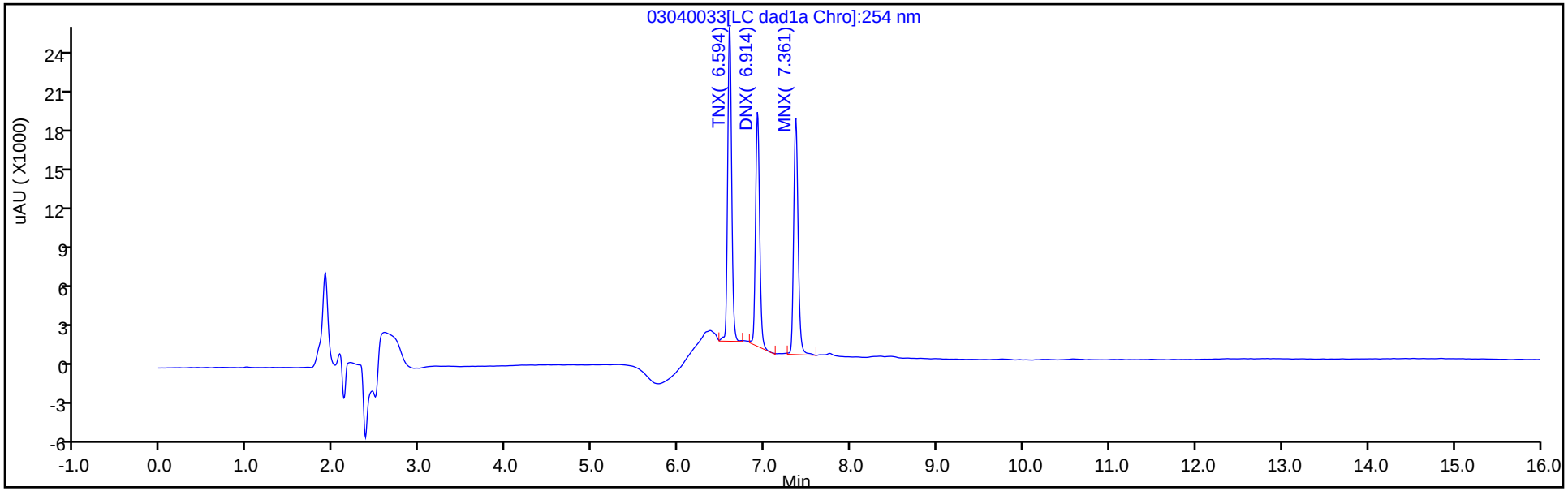
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

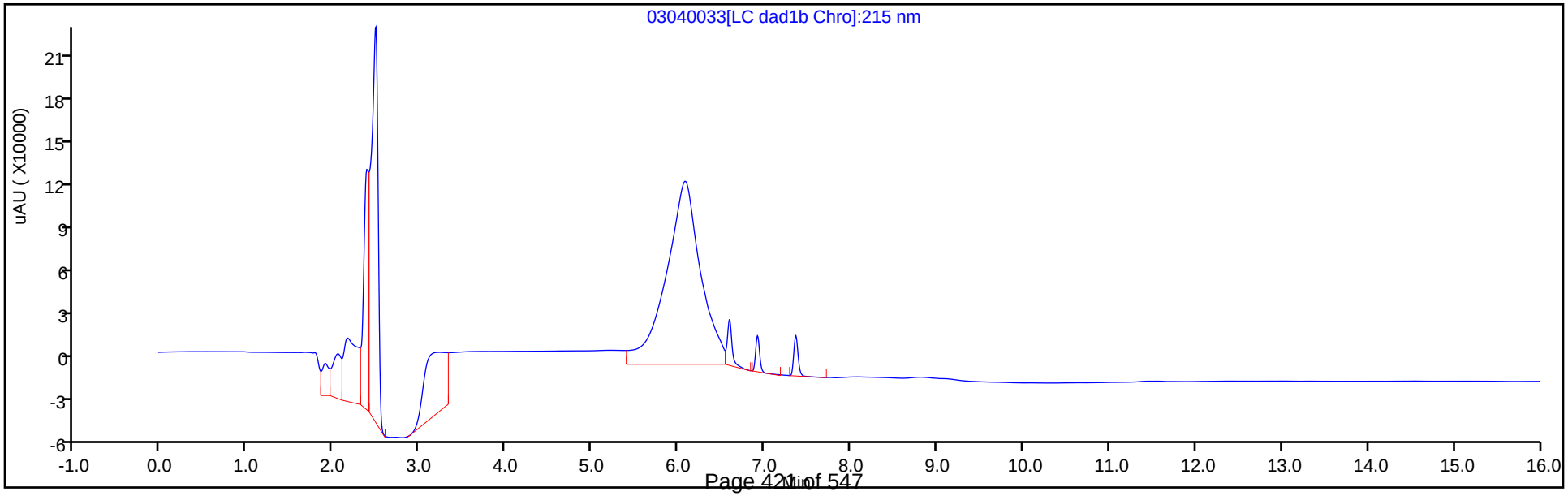
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

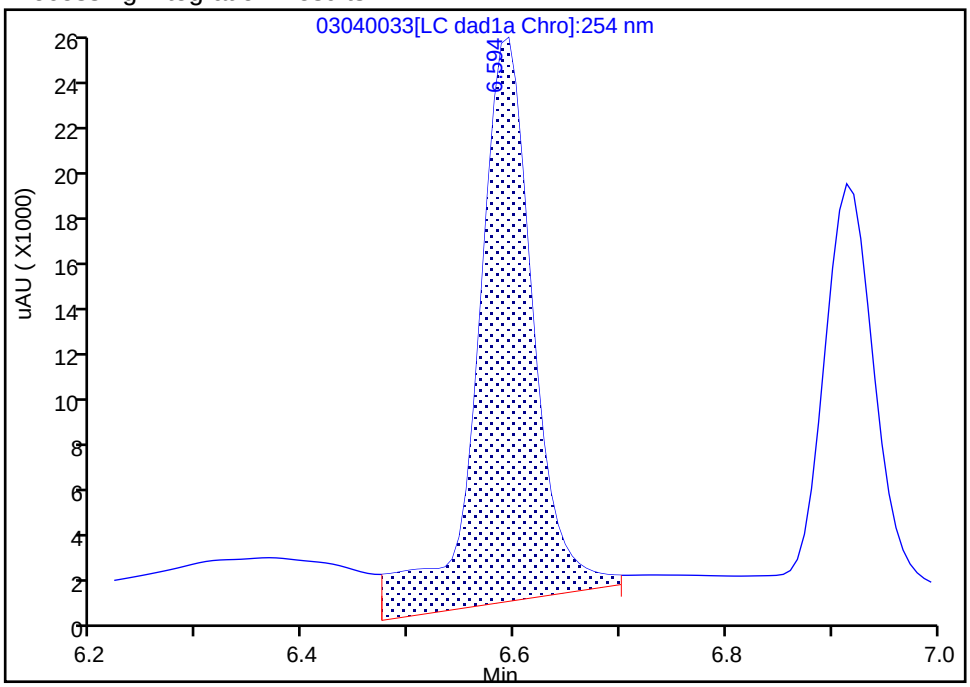
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

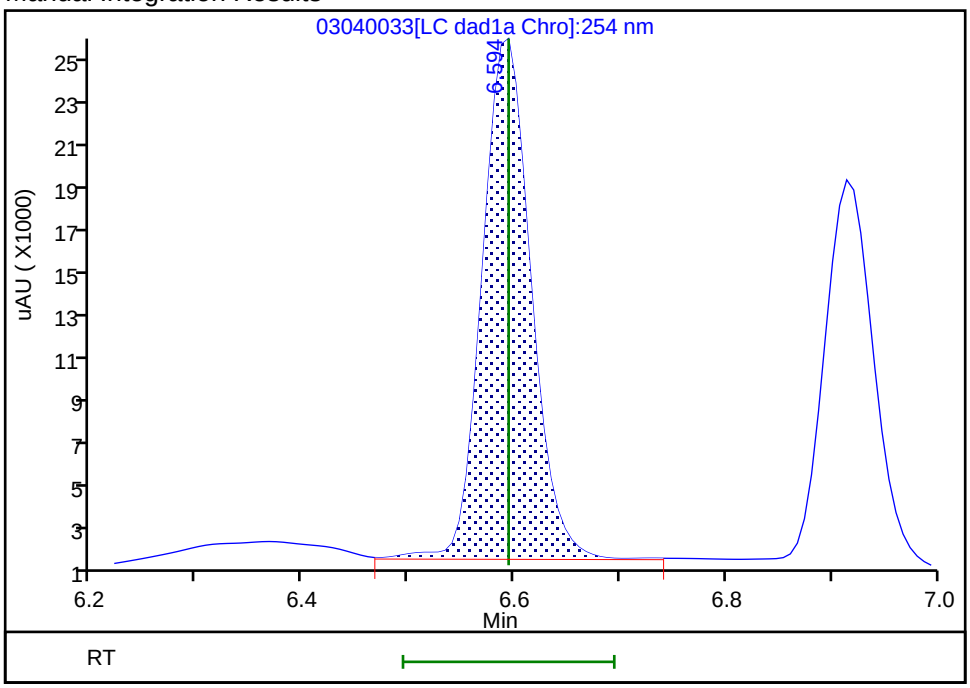
Processing Integration Results

RT: 6.59
Area: 91215
Amount: 0.419170
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 75750
Amount: 0.348102
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

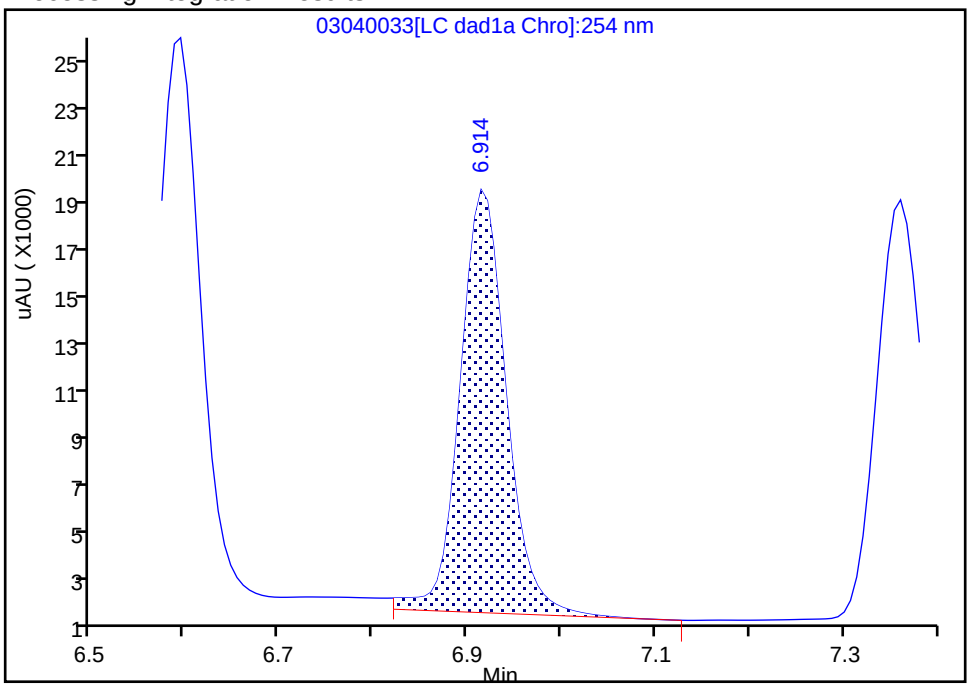
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

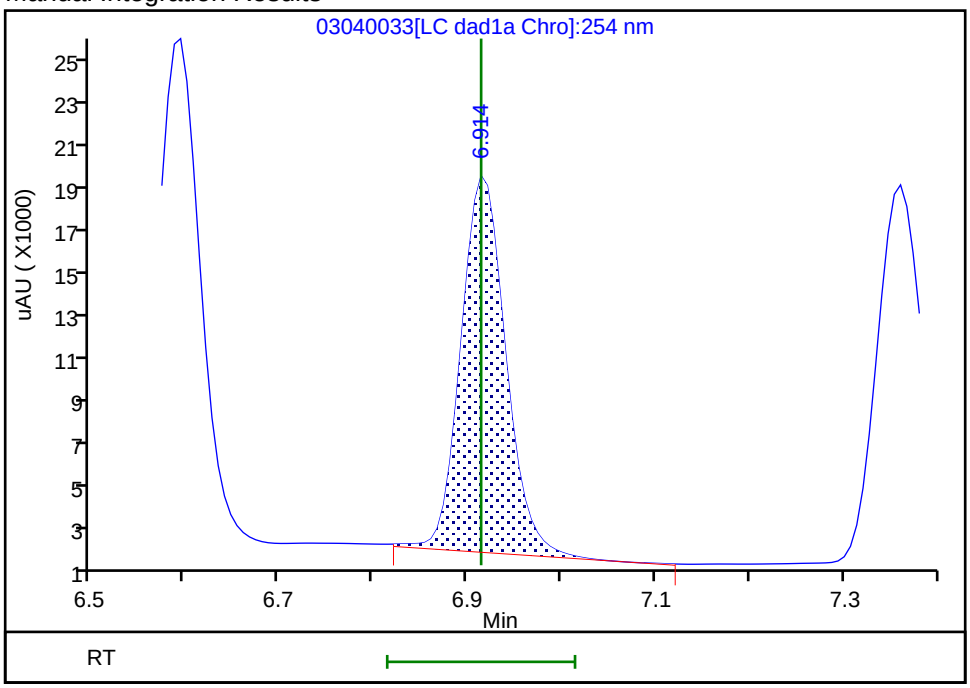
Processing Integration Results

RT: 6.91
Area: 60901
Amount: 0.398232
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 58166
Amount: 0.380348
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-489145/16  Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 85080 | | 396 | 400 | -1.0 | 15.0 |
| RDX | Ave | 116613 | 105640 | | 362 | 400 | -9.4 | 15.0 |
| Picric acid | Ave | 85131 | 85323 | | 401 | 400 | 0.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 238740 | | 415 | 400 | 3.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 307370 | | 401 | 400 | 0.2 | 15.0 |
| Nitrobenzene | Ave | 200403 | 202493 | | 404 | 400 | 1.0 | 15.0 |
| Tetryl | Ave | 177032 | 175175 | | 396 | 400 | -1.0 | 15.0 |
| Nitroglycerin | Ave | 68133 | 67461 | | 3960 | 4000 | -1.0 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 204823 | | 402 | 400 | 0.4 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 159183 | | 363 | 400 | -9.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 202785 | | 400 | 400 | -0.0 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 151720 | | 406 | 400 | 1.5 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 291863 | | 385 | 400 | -3.9 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 128890 | | 382 | 400 | -4.6 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 112495 | | 398 | 400 | -0.5 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 145235 | | 406 | 400 | 1.5 | 15.0 |
| PETN | Ave | 78605 | 75679 | | 3850 | 4000 | -3.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 136648 | | 395 | 400 | -1.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: ICV 280-489145/16  Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.06 | 7.91 | 8.21 |
| 1,3,5-Trinitrobenzene | 8.89 | 8.74 | 9.04 |
| 1,3-Dinitrobenzene | 9.53 | 9.38 | 9.68 |
| Nitrobenzene | 9.92 | 9.77 | 10.07 |
| Tetryl | 10.22 | 10.07 | 10.37 |
| Nitroglycerin | 10.73 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.18 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.34 | 11.24 | 11.44 |
| 2-Amino-4,6-dinitrotoluene | 11.63 | 11.53 | 11.73 |
| 2,6-Dinitrotoluene | 11.79 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.98 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.82 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.26 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.85 | 13.70 | 14.00 |
| PETN | 14.94 | 14.79 | 15.09 |
| 1,2-Dinitrobenzene | 8.71 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180016.D
Lims ID: ICV MAIN
Client ID:
Sample Type: ICV
Inject. Date: 18-Mar-2020 15:02:22 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV MAIN
Misc. Info.: 280-0090150-016
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:46 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:47:14

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.685 | 6.685 | 0.000 | 34032 | 0.4000 | 0.3959 | M |
| 7 RDX | 1 | 7.751 | 7.751 | 0.000 | 42256 | 0.4000 | 0.3624 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.058 | 8.058 | 0.000 | 34129 | 0.4000 | 0.4009 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.711 | 8.711 | 0.000 | 54659 | 0.4000 | 0.3955 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.885 | 8.885 | 0.000 | 95496 | 0.4000 | 0.4146 | |
| 11 1,3-Dinitrobenzene | 1 | 9.531 | 9.531 | 0.000 | 122948 | 0.4000 | 0.4009 | |
| 12 Nitrobenzene | 1 | 9.918 | 9.918 | 0.000 | 80997 | 0.4000 | 0.4042 | |
| 14 Tetryl | 1 | 10.218 | 10.218 | 0.000 | 70070 | 0.4000 | 0.3958 | |
| 15 Nitroglycerin | 2 | 10.731 | 10.731 | 0.000 | 269842 | 4.00 | 3.96 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.184 | 11.184 | 0.000 | 81929 | 0.4000 | 0.4016 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.344 | 11.344 | 0.000 | 63673 | 0.4000 | 0.3635 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.631 | 11.631 | 0.000 | 81114 | 0.4000 | 0.3999 | |
| 19 2,6-Dinitrotoluene | 1 | 11.791 | 11.791 | 0.000 | 60688 | 0.4000 | 0.4061 | |
| 20 2,4-Dinitrotoluene | 1 | 11.984 | 11.984 | 0.000 | 116745 | 0.4000 | 0.3846 | |
| 21 o-Nitrotoluene | 1 | 12.824 | 12.824 | 0.000 | 51556 | 0.4000 | 0.3818 | |
| 22 p-Nitrotoluene | 1 | 13.264 | 13.264 | 0.000 | 44998 | 0.4000 | 0.3982 | |
| 23 m-Nitrotoluene | 1 | 13.851 | 13.851 | 0.000 | 58094 | 0.4000 | 0.4062 | |
| 24 PETN | 2 | 14.938 | 14.938 | 0.000 | 302716 | 4.00 | 3.85 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

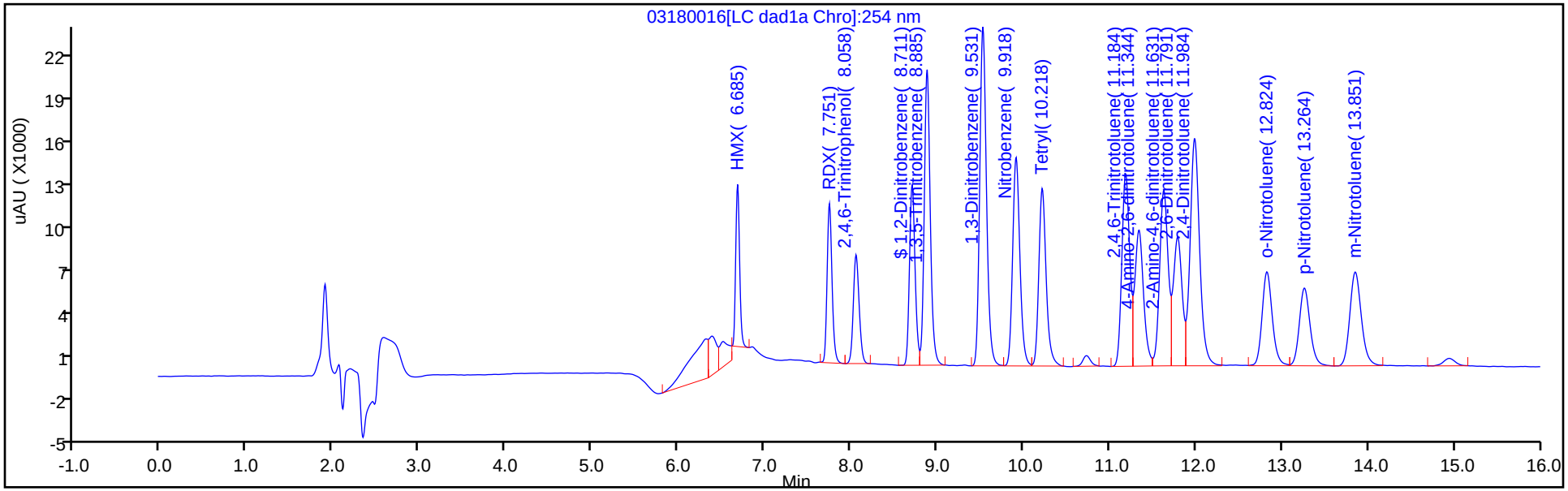
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

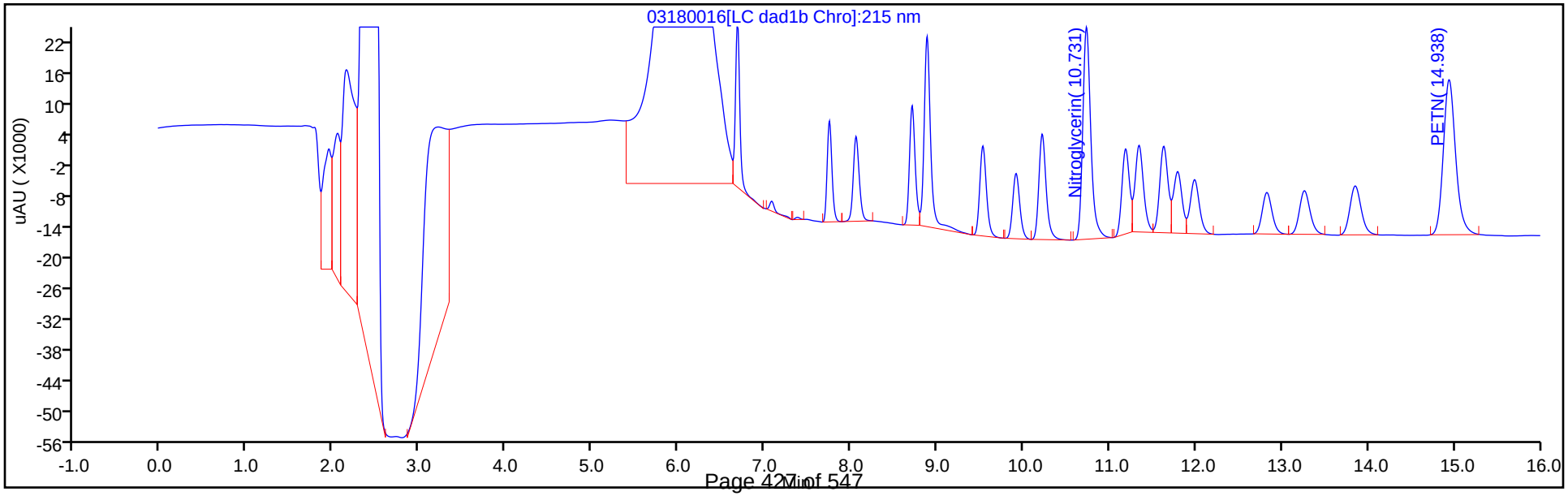
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d | | | | |
| Injection Date: | 18-Mar-2020 15:02:22 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | ICV MAIN | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

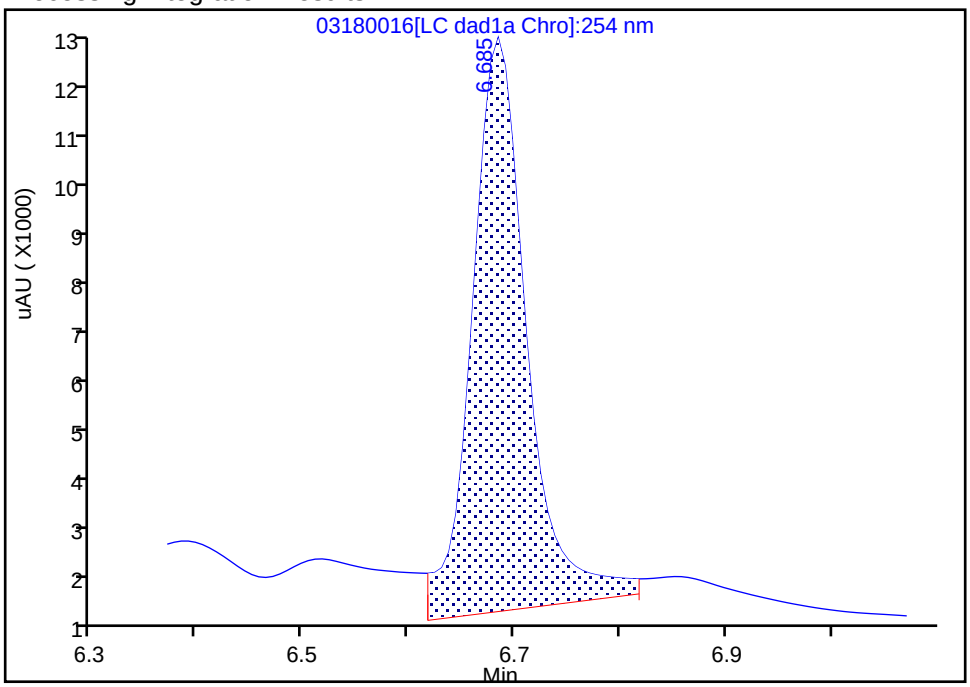
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d | | | | |
| Injection Date: | 18-Mar-2020 15:02:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV MAIN | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

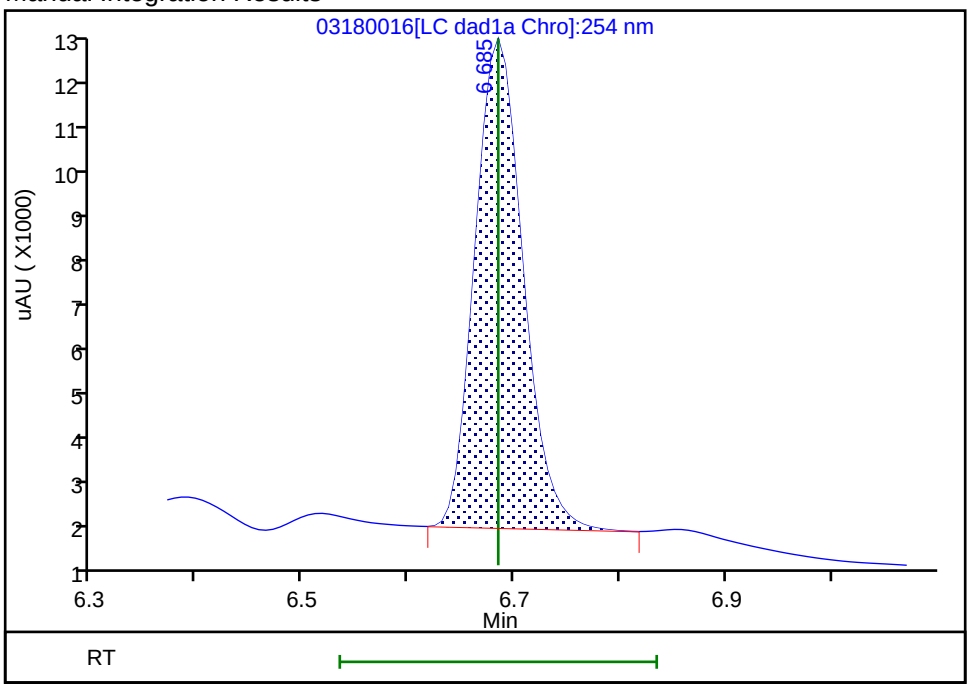
Processing Integration Results

RT: 6.68
Area: 41406
Amount: 0.494354
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 34032
Amount: 0.395895
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:47:09

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/7  Calibration Date: 04/15/2020 12:44

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04150007.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 87960 | | 256 | 250 | 2.3 | 15.0 |
| RDX | Ave | 116613 | 106764 | | 229 | 250 | -8.4 | 15.0 |
| Picric acid | Ave | 85131 | 81736 | | 240 | 250 | -4.0 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 232012 | | 252 | 251 | 0.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 309122 | | 252 | 251 | 0.8 | 15.0 |
| Nitrobenzene | Ave | 200403 | 204171 | | 256 | 251 | 1.9 | 15.0 |
| Tetryl | Ave | 177032 | 175932 | | 249 | 251 | -0.6 | 15.0 |
| Nitroglycerin | Ave | 68133 | 70939 | | 2600 | 2500 | 4.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 203896 | | 251 | 251 | -0.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 163852 | | 236 | 250 | -5.5 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 201873 | | 250 | 251 | -0.5 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 152207 | | 256 | 251 | 1.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 307625 | | 254 | 251 | 1.3 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 131580 | | 244 | 250 | -2.6 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 113908 | | 253 | 251 | 0.8 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 143073 | | 250 | 250 | 0.0 | 15.0 |
| PETN | Ave | 78605 | 79969 | | 2540 | 2500 | 1.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 137596 | | 249 | 250 | -0.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/7  Calibration Date: 04/15/2020 12:44

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04150007.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.70 | 6.55 | 6.85 |
| RDX | 7.78 | 7.62 | 7.92 |
| Picric acid | 8.12 | 7.92 | 8.22 |
| 1,3,5-Trinitrobenzene | 8.92 | 8.76 | 9.06 |
| 1,3-Dinitrobenzene | 9.58 | 9.41 | 9.71 |
| Nitrobenzene | 9.97 | 9.80 | 10.10 |
| Tetryl | 10.29 | 10.10 | 10.40 |
| Nitroglycerin | 10.80 | 10.61 | 10.91 |
| 2,4,6-Trinitrotoluene | 11.26 | 11.12 | 11.32 |
| 4-Amino-2,6-dinitrotoluene | 11.42 | 11.28 | 11.48 |
| 2-Amino-4,6-dinitrotoluene | 11.71 | 11.57 | 11.77 |
| 2,6-Dinitrotoluene | 11.86 | 11.73 | 11.93 |
| 2,4-Dinitrotoluene | 12.06 | 11.93 | 12.13 |
| 2-Nitrotoluene | 12.91 | 12.72 | 13.02 |
| 4-Nitrotoluene | 13.34 | 13.15 | 13.45 |
| 3-Nitrotoluene | 13.93 | 13.75 | 14.05 |
| PETN | 15.02 | 14.84 | 15.14 |
| 1,2-Dinitrobenzene | 8.76 | 8.58 | 8.88 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 15-Apr-2020 12:44:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0090829-007
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 16-Apr-2020 10:40:40 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0316

First Level Reviewer: beckerc Date: 16-Apr-2020 10:25:02

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.698 | 6.699 | -0.001 | 21990 | 0.2500 | 0.2558 | M |
| 7 RDX | 1 | 7.784 | 7.772 | 0.012 | 26691 | 0.2500 | 0.2289 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.118 | 8.072 | 0.046 | 20434 | 0.2500 | 0.2400 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.758 | 8.732 | 0.026 | 34399 | 0.2500 | 0.2489 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.924 | 8.905 | 0.019 | 58119 | 0.2505 | 0.2524 | |
| 11 1,3-Dinitrobenzene | 1 | 9.584 | 9.558 | 0.026 | 77435 | 0.2505 | 0.2525 | |
| 12 Nitrobenzene | 1 | 9.971 | 9.945 | 0.026 | 51247 | 0.2510 | 0.2557 | |
| 14 Tetryl | 1 | 10.291 | 10.252 | 0.039 | 44071 | 0.2505 | 0.2489 | |
| 15 Nitroglycerin | 2 | 10.804 | 10.758 | 0.046 | 177347 | 2.50 | 2.60 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.257 | 11.218 | 0.039 | 51178 | 0.2510 | 0.2508 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.424 | 11.378 | 0.046 | 41004 | 0.2503 | 0.2364 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.711 | 11.665 | 0.046 | 50670 | 0.2510 | 0.2498 | |
| 19 2,6-Dinitrotoluene | 1 | 11.864 | 11.825 | 0.039 | 38204 | 0.2510 | 0.2556 | |
| 20 2,4-Dinitrotoluene | 1 | 12.064 | 12.025 | 0.039 | 77214 | 0.2510 | 0.2543 | |
| 21 o-Nitrotoluene | 1 | 12.911 | 12.865 | 0.046 | 32895 | 0.2500 | 0.2436 | |
| 22 p-Nitrotoluene | 1 | 13.344 | 13.298 | 0.046 | 28534 | 0.2505 | 0.2525 | |
| 23 m-Nitrotoluene | 1 | 13.931 | 13.898 | 0.033 | 35804 | 0.2503 | 0.2503 | |
| 24 PETN | 2 | 15.024 | 14.992 | 0.032 | 199923 | 2.50 | 2.54 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

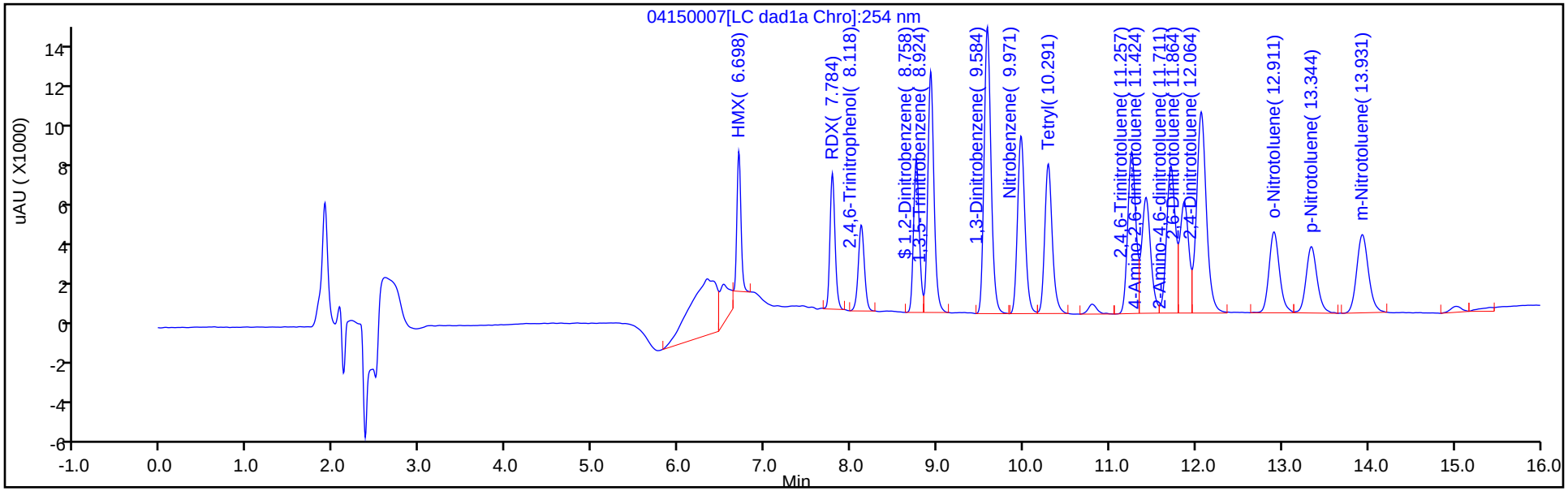
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 16-Apr-2020 10:40:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

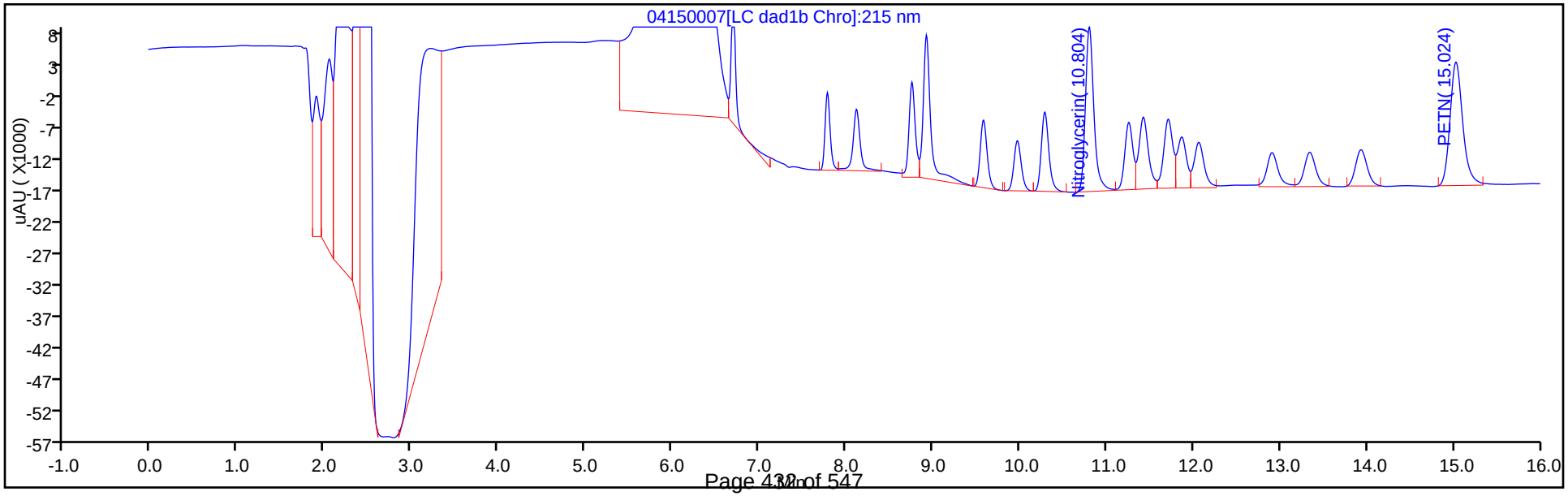
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150007.d | | | | |
| Injection Date: | 15-Apr-2020 12:44:30 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

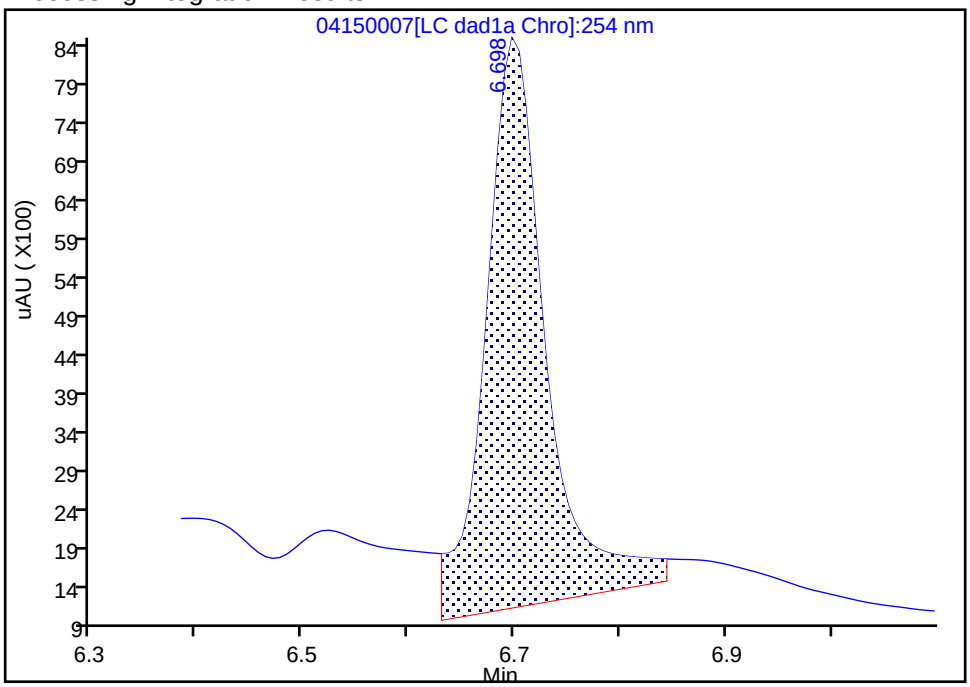
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150007.d | | | | |
| Injection Date: | 15-Apr-2020 12:44:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

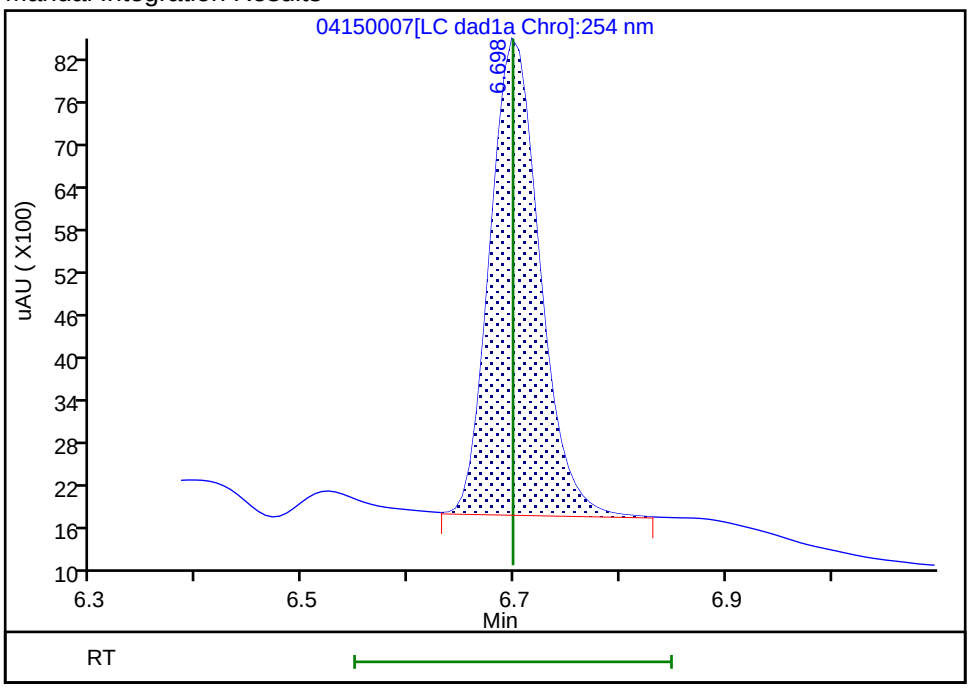
Processing Integration Results

RT: 6.70
Area: 29156
Amount: 0.339172
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 21990
Amount: 0.255810
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:24:54
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/8  Calibration Date: 04/15/2020 13:07

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04150008.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 203868 | | 234 | 250 | -6.3 | 15.0 |
| DNX | Ave | 152928 | 151868 | | 249 | 250 | -0.7 | 15.0 |
| MNX | Ave | 158544 | 140260 | | 258 | 292 | -11.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/8  Calibration Date: 04/15/2020 13:07

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04150008.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.60 | 6.50 | 6.70 |
| DNX | 6.93 | 6.82 | 7.02 |
| MNX | 7.37 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150008.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 15-Apr-2020 13:07:39 | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090829-008 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |

First Level Reviewer: beckerc Date: 16-Apr-2020 10:25:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.601 | 6.597 | 0.004 | 51018 | 0.2503 | 0.2344 | M |
| 5 DNX | 1 | 6.927 | 6.924 | 0.003 | 38005 | 0.2503 | 0.2485 | M |
| 6 MNX | 1 | 7.374 | 7.364 | 0.010 | 40921 | 0.2918 | 0.2581 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

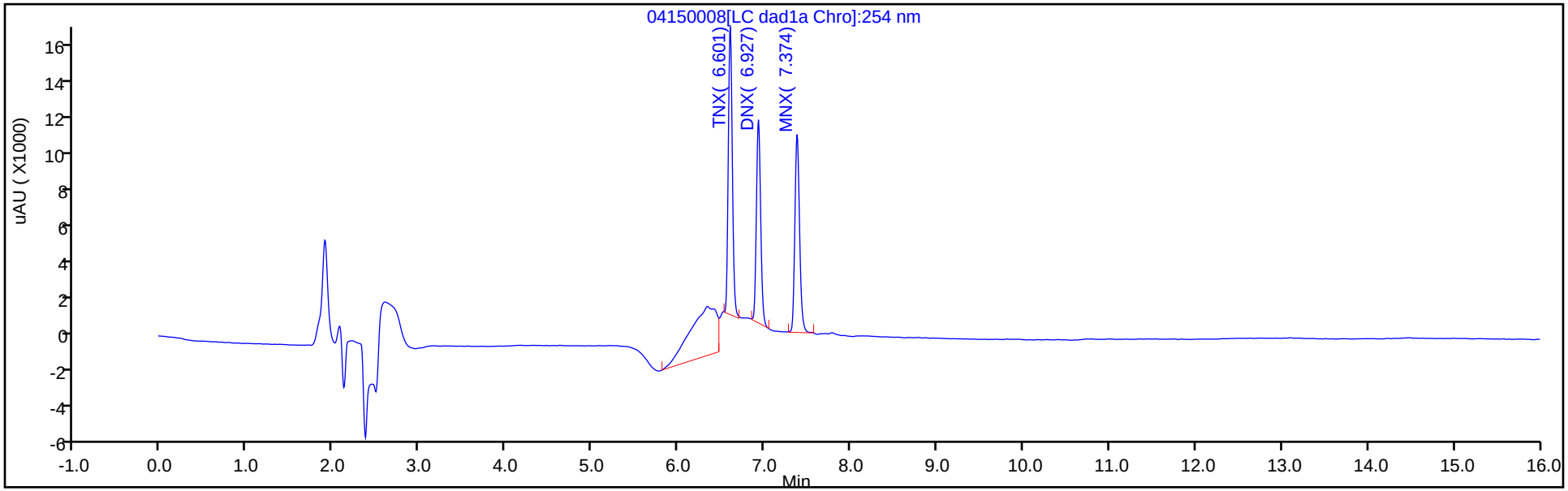
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 16-Apr-2020 10:40:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

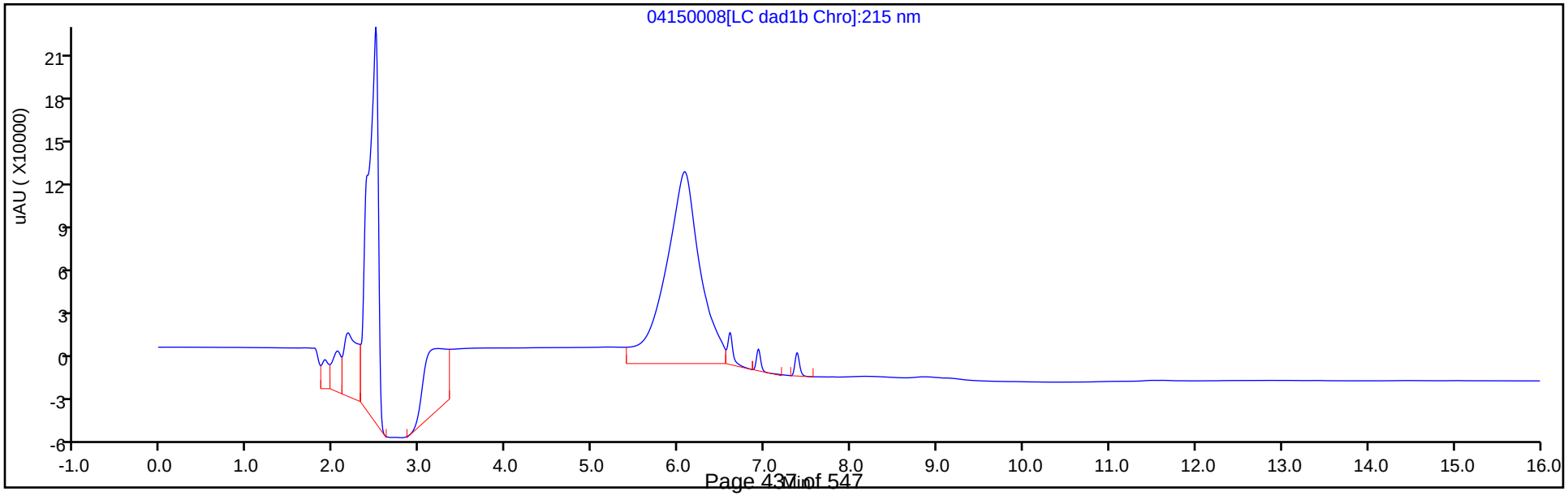
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150008.d | | | | |
| Injection Date: | 15-Apr-2020 13:07:39 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

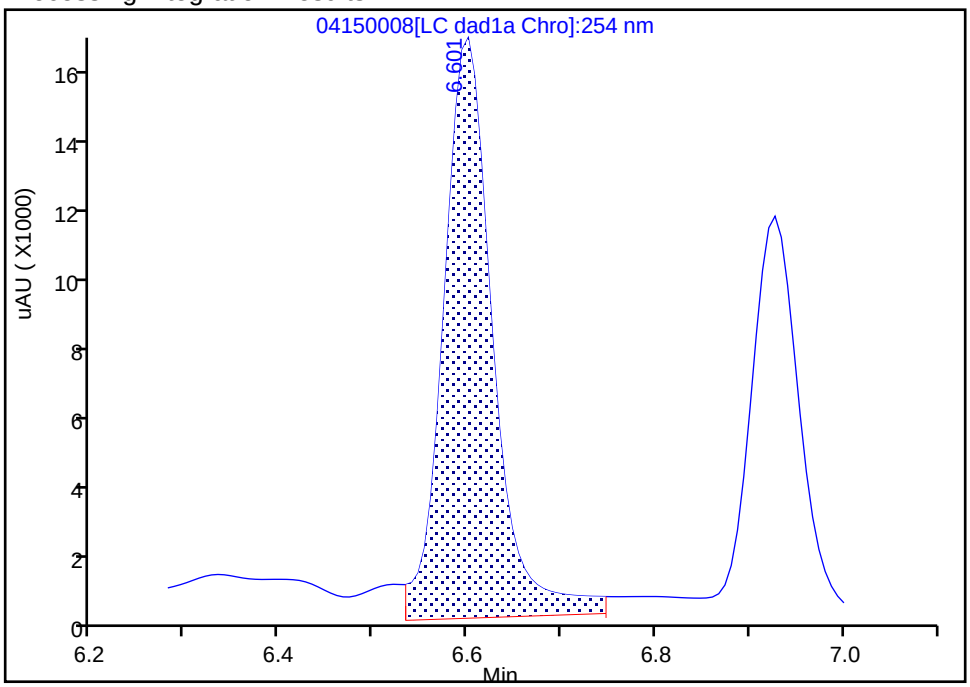
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150008.d | | | | |
| Injection Date: | 15-Apr-2020 13:07:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

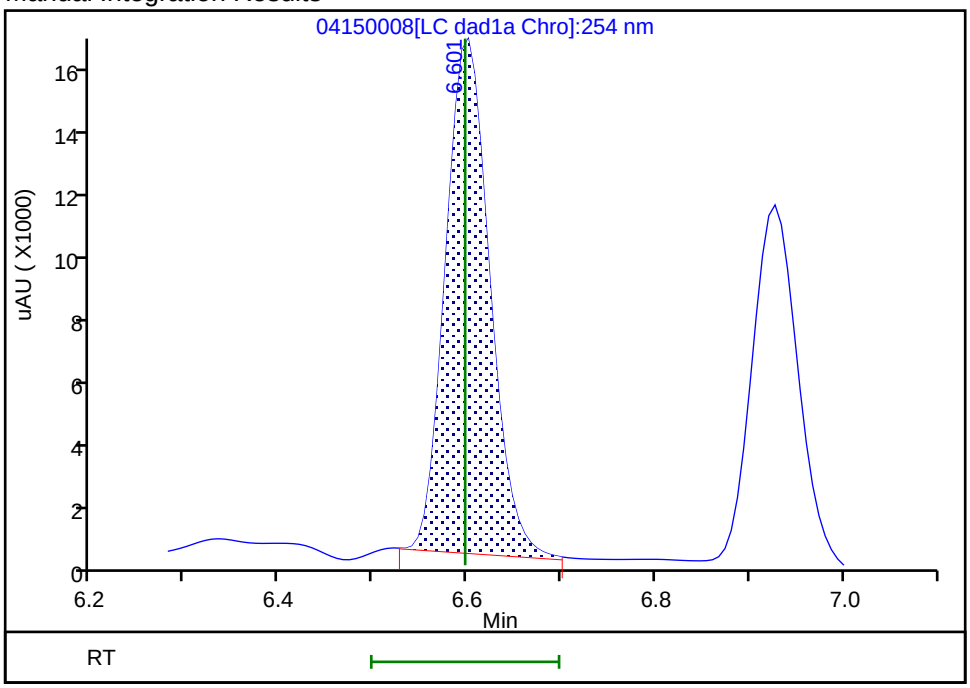
Processing Integration Results

RT: 6.60
Area: 59854
Amount: 0.275053
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 51018
Amount: 0.234448
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:25:19

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

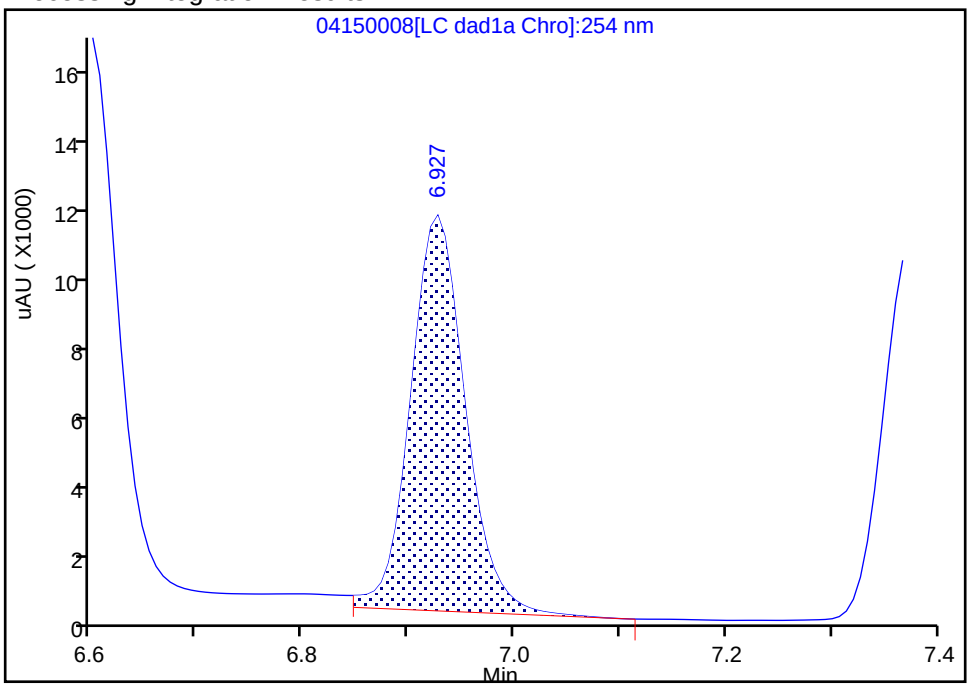
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150008.d | | | | |
| Injection Date: | 15-Apr-2020 13:07:39 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

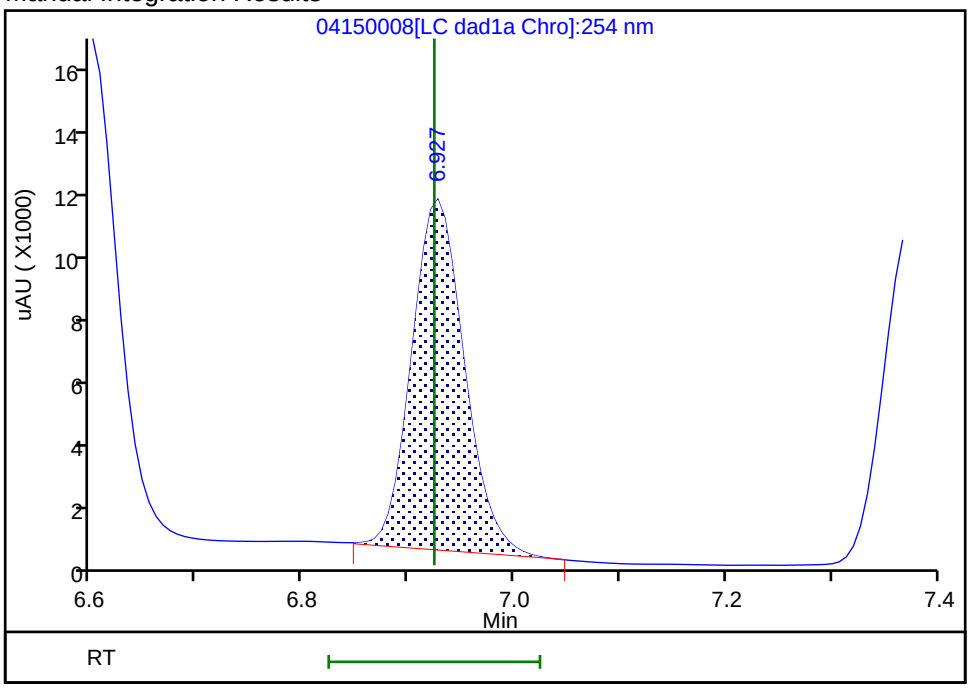
Processing Integration Results

RT: 6.93
Area: 40287
Amount: 0.263437
Amount Units: ug/mL




Manual Integration Results

RT: 6.93
Area: 38005
Amount: 0.248515
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:25:26

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/19  Calibration Date: 04/15/2020 17:20

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04150019.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 88560 | | 258 | 250 | 3.0 | 15.0 |
| RDX | Ave | 116613 | 108236 | | 232 | 250 | -7.2 | 15.0 |
| Picric acid | Ave | 85131 | 81424 | | 239 | 250 | -4.4 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 231745 | | 252 | 251 | 0.6 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 310455 | | 254 | 251 | 1.2 | 15.0 |
| Nitrobenzene | Ave | 200403 | 202442 | | 254 | 251 | 1.0 | 15.0 |
| Tetryl | Ave | 177032 | 175848 | | 249 | 251 | -0.7 | 15.0 |
| Nitroglycerin | Ave | 68133 | 70668 | | 2590 | 2500 | 3.7 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 203892 | | 251 | 251 | -0.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 165247 | | 238 | 250 | -4.8 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 202155 | | 250 | 251 | -0.3 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 152072 | | 255 | 251 | 1.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 311000 | | 257 | 251 | 2.4 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 131532 | | 243 | 250 | -2.6 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 113198 | | 251 | 251 | 0.2 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 144116 | | 252 | 250 | 0.8 | 15.0 |
| PETN | Ave | 78605 | 79397 | | 2530 | 2500 | 1.0 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 137548 | | 249 | 250 | -0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/19  Calibration Date: 04/15/2020 17:20

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04150019.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.70 | 6.55 | 6.85 |
| RDX | 7.78 | 7.62 | 7.92 |
| Picric acid | 8.11 | 7.92 | 8.22 |
| 1,3,5-Trinitrobenzene | 8.92 | 8.76 | 9.06 |
| 1,3-Dinitrobenzene | 9.58 | 9.41 | 9.71 |
| Nitrobenzene | 9.97 | 9.80 | 10.10 |
| Tetryl | 10.28 | 10.10 | 10.40 |
| Nitroglycerin | 10.80 | 10.61 | 10.91 |
| 2,4,6-Trinitrotoluene | 11.26 | 11.12 | 11.32 |
| 4-Amino-2,6-dinitrotoluene | 11.42 | 11.28 | 11.48 |
| 2-Amino-4,6-dinitrotoluene | 11.71 | 11.57 | 11.77 |
| 2,6-Dinitrotoluene | 11.87 | 11.73 | 11.93 |
| 2,4-Dinitrotoluene | 12.07 | 11.93 | 12.13 |
| 2-Nitrotoluene | 12.92 | 12.72 | 13.02 |
| 4-Nitrotoluene | 13.36 | 13.15 | 13.45 |
| 3-Nitrotoluene | 13.95 | 13.75 | 14.05 |
| PETN | 15.06 | 14.84 | 15.14 |
| 1,2-Dinitrobenzene | 8.75 | 8.58 | 8.88 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150019.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 15-Apr-2020 17:20:00 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0090829-019
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 16-Apr-2020 10:40:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0316

First Level Reviewer: beckerc Date: 16-Apr-2020 10:32:45

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.696 | 6.699 | -0.003 | 22140 | 0.2500 | 0.2576 | M |
| 7 RDX | 1 | 7.776 | 7.772 | 0.004 | 27059 | 0.2500 | 0.2320 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.110 | 8.072 | 0.038 | 20356 | 0.2500 | 0.2391 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.750 | 8.732 | 0.018 | 34387 | 0.2500 | 0.2488 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.916 | 8.905 | 0.011 | 58052 | 0.2505 | 0.2521 | |
| 11 1,3-Dinitrobenzene | 1 | 9.576 | 9.558 | 0.018 | 77769 | 0.2505 | 0.2536 | |
| 12 Nitrobenzene | 1 | 9.969 | 9.945 | 0.024 | 50813 | 0.2510 | 0.2536 | |
| 14 Tetryl | 1 | 10.283 | 10.252 | 0.031 | 44050 | 0.2505 | 0.2488 | |
| 15 Nitroglycerin | 2 | 10.796 | 10.758 | 0.038 | 176671 | 2.50 | 2.59 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.256 | 11.218 | 0.038 | 51177 | 0.2510 | 0.2508 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.423 | 11.378 | 0.045 | 41353 | 0.2503 | 0.2384 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.709 | 11.665 | 0.044 | 50741 | 0.2510 | 0.2502 | |
| 19 2,6-Dinitrotoluene | 1 | 11.869 | 11.825 | 0.044 | 38170 | 0.2510 | 0.2554 | |
| 20 2,4-Dinitrotoluene | 1 | 12.069 | 12.025 | 0.044 | 78061 | 0.2510 | 0.2571 | |
| 21 o-Nitrotoluene | 1 | 12.916 | 12.865 | 0.051 | 32883 | 0.2500 | 0.2435 | |
| 22 p-Nitrotoluene | 1 | 13.356 | 13.298 | 0.058 | 28356 | 0.2505 | 0.2509 | |
| 23 m-Nitrotoluene | 1 | 13.949 | 13.898 | 0.051 | 36065 | 0.2503 | 0.2522 | |
| 24 PETN | 2 | 15.063 | 14.992 | 0.071 | 198492 | 2.50 | 2.53 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

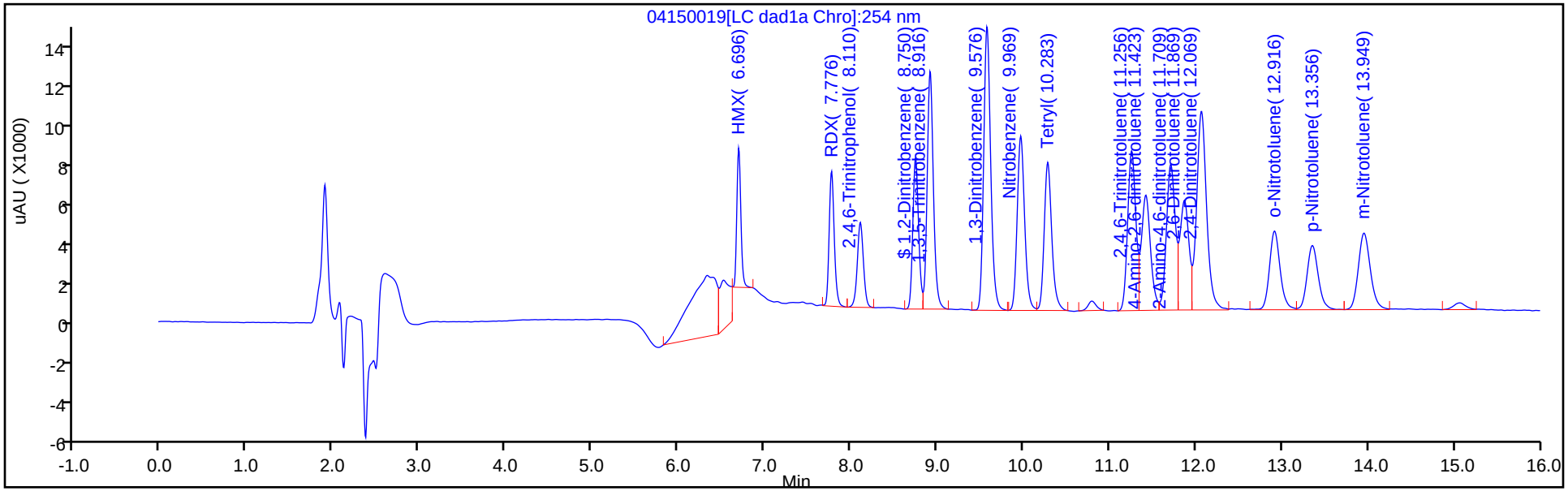
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 16-Apr-2020 10:40:44 Chrom Revision: 2.3 11-Mar-2020 18:53:20

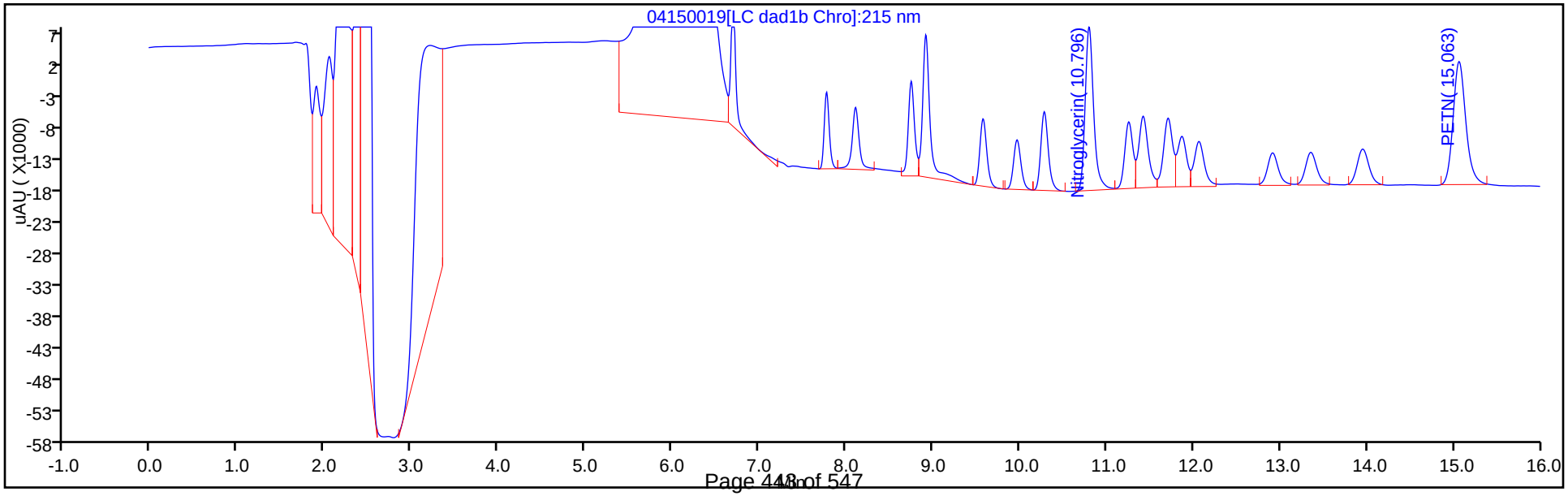
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150019.d | | | | |
| Injection Date: | 15-Apr-2020 17:20:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 19 |
| 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

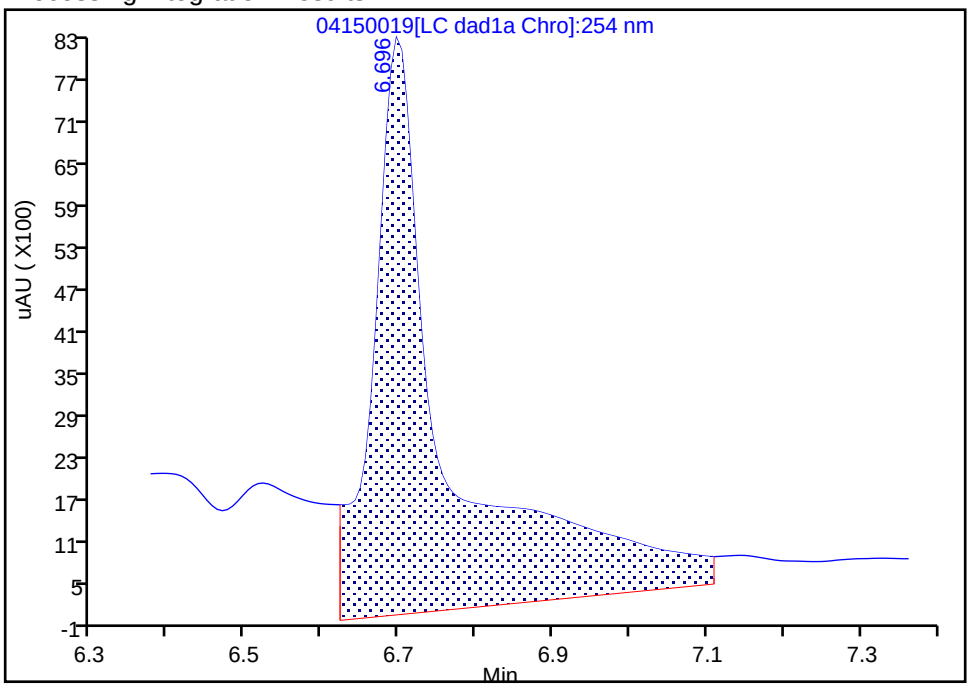
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150019.d | | | | |
| Injection Date: | 15-Apr-2020 17:20:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | 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

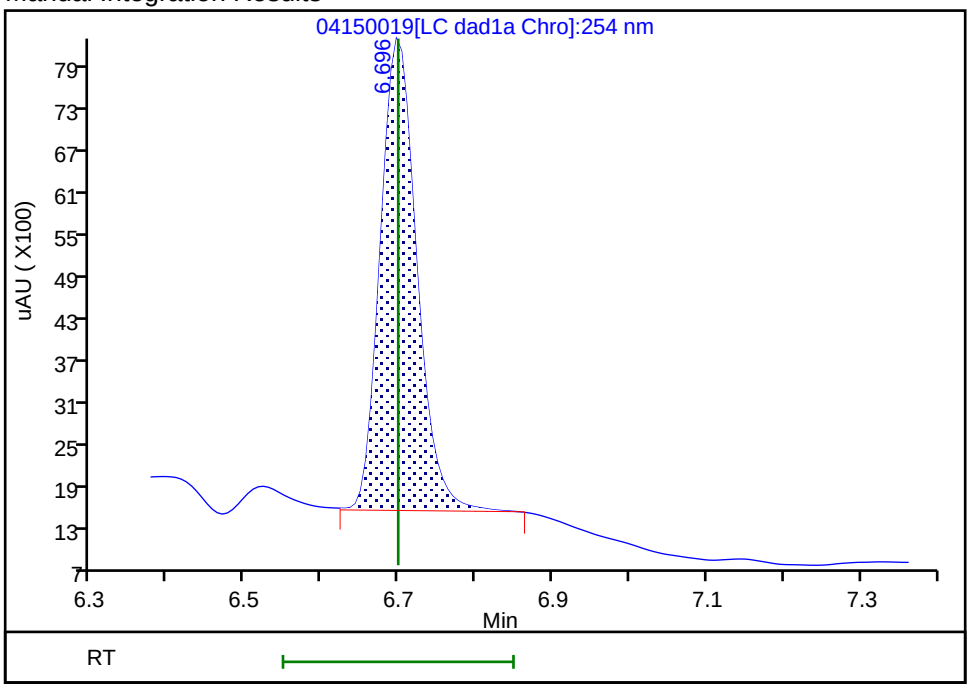
Processing Integration Results

RT: 6.70
Area: 55666
Amount: 0.647564
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 22140
Amount: 0.257555
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:32:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/20  Calibration Date: 04/15/2020 17:43

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04150020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 198545 | | 228 | 250 | -8.8 | 15.0 |
| DNX | Ave | 152928 | 150557 | | 246 | 250 | -1.6 | 15.0 |
| MNX | Ave | 158544 | 139613 | | 257 | 292 | -11.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-491832/20  Calibration Date: 04/15/2020 17:43

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04150020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.60 | 6.50 | 6.70 |
| DNX | 6.93 | 6.82 | 7.02 |
| MNX | 7.37 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150020.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 15-Apr-2020 17:43:10 | ALS Bottle#: | 8 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090829-020 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:45 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |

First Level Reviewer: beckerc Date: 16-Apr-2020 10:33:11

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.599 | 6.597 | 0.002 | 49686 | 0.2503 | 0.2283 | M |
| 5 DNX | 1 | 6.926 | 6.924 | 0.002 | 37677 | 0.2503 | 0.2464 | M |
| 6 MNX | 1 | 7.373 | 7.364 | 0.009 | 40732 | 0.2918 | 0.2569 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

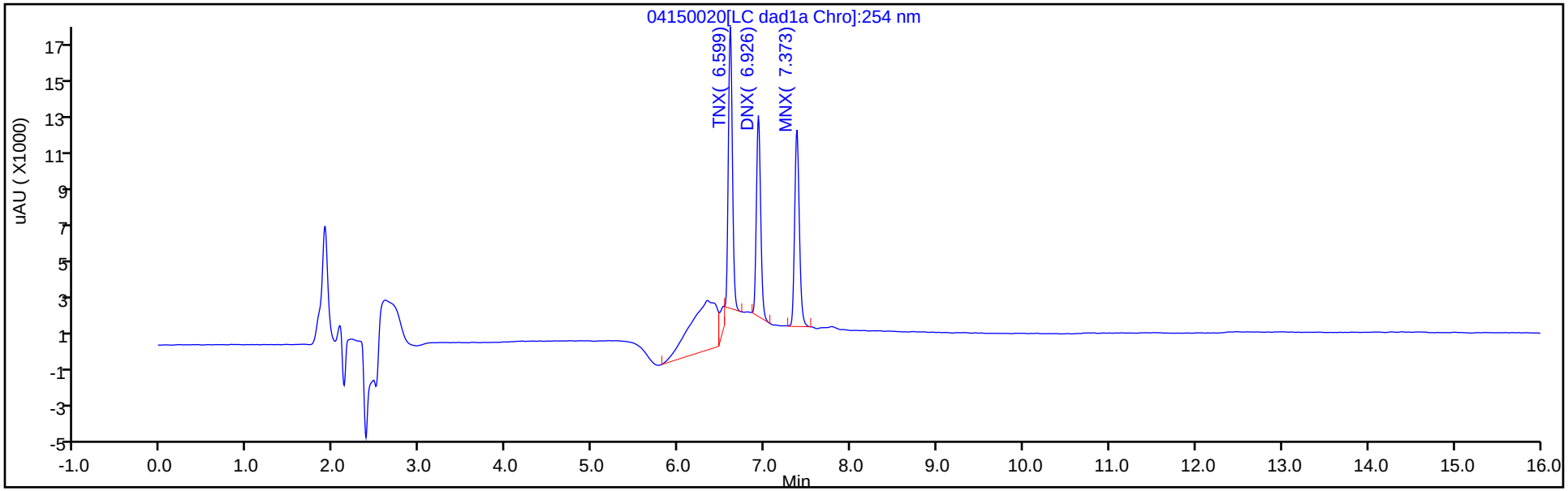
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 16-Apr-2020 10:40:45 Chrom Revision: 2.3 11-Mar-2020 18:53:20

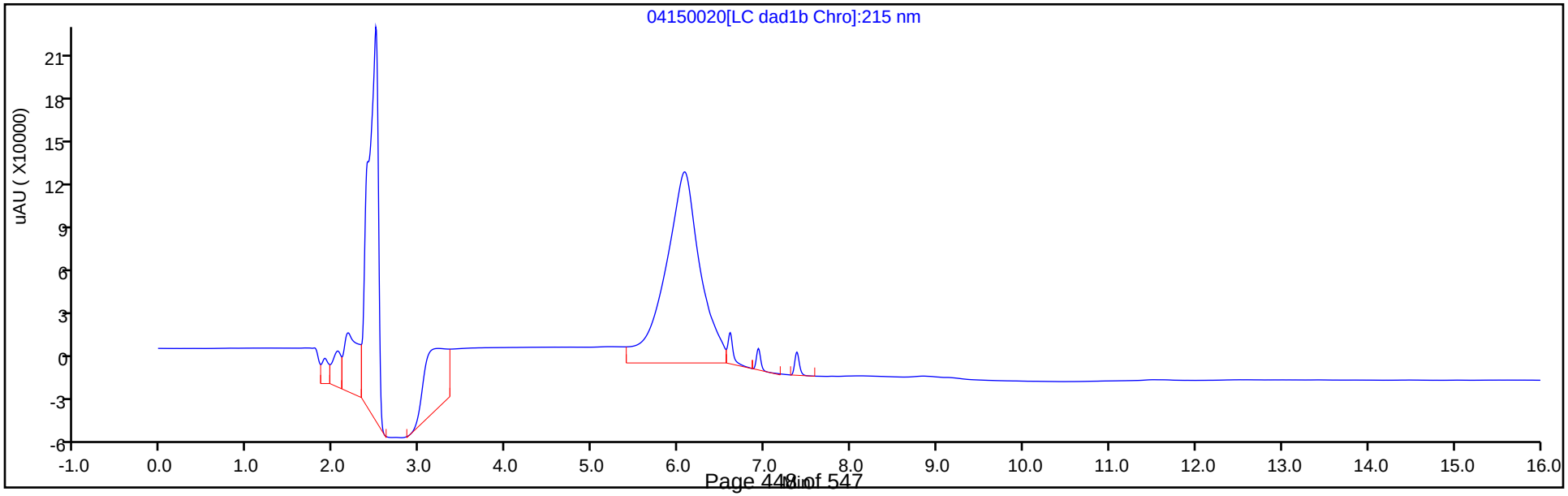
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150020.d | | | | |
| Injection Date: | 15-Apr-2020 17:43:10 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 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

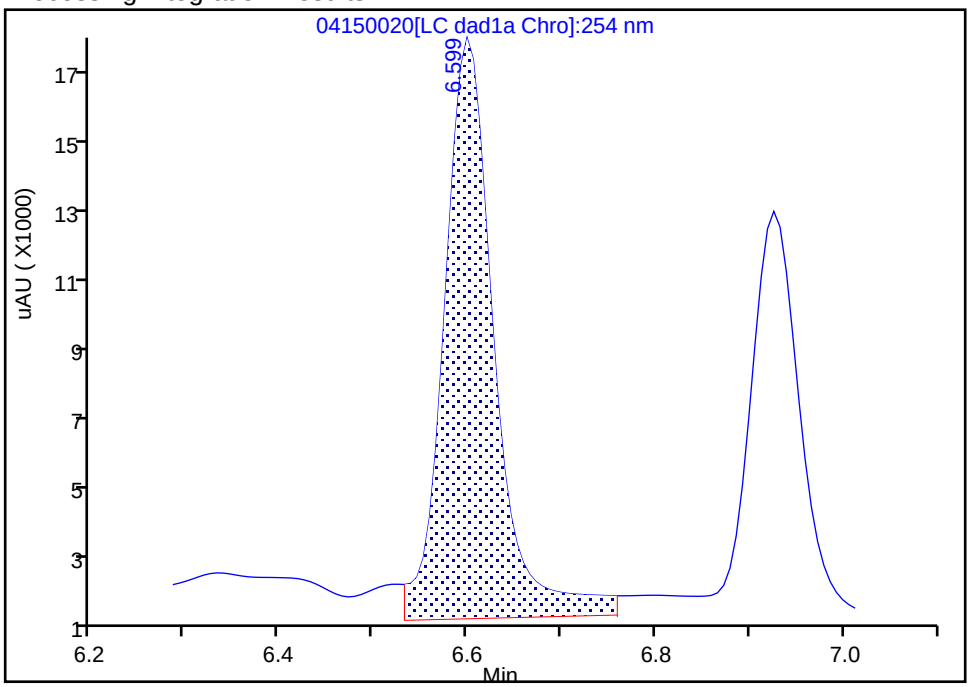
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150020.d | | | | |
| Injection Date: | 15-Apr-2020 17:43:10 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

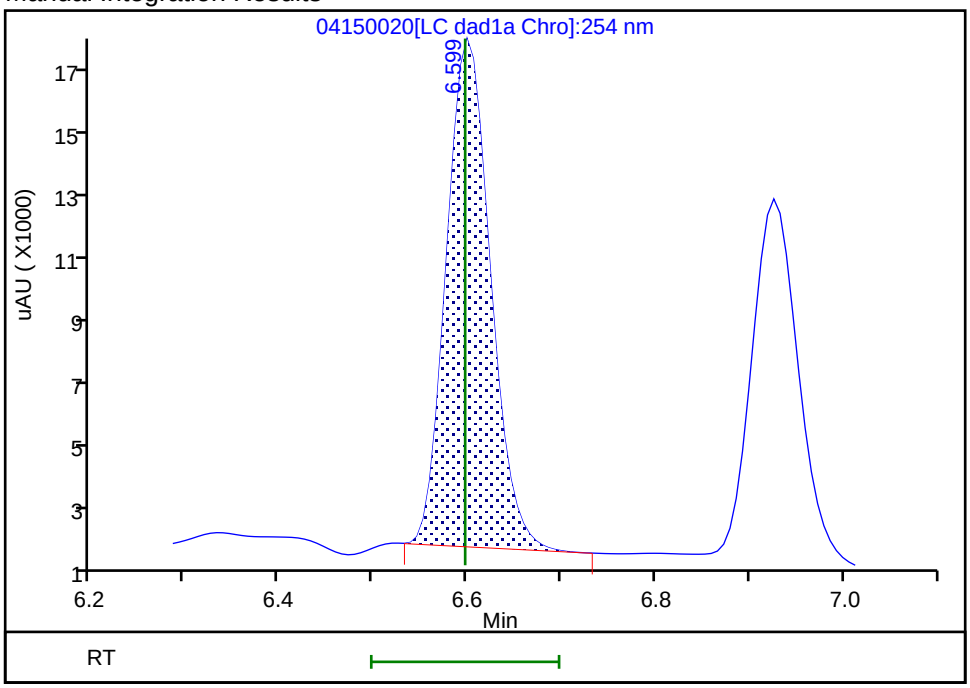
Processing Integration Results

RT: 6.60
Area: 59869
Amount: 0.275122
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 49686
Amount: 0.228327
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:33:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

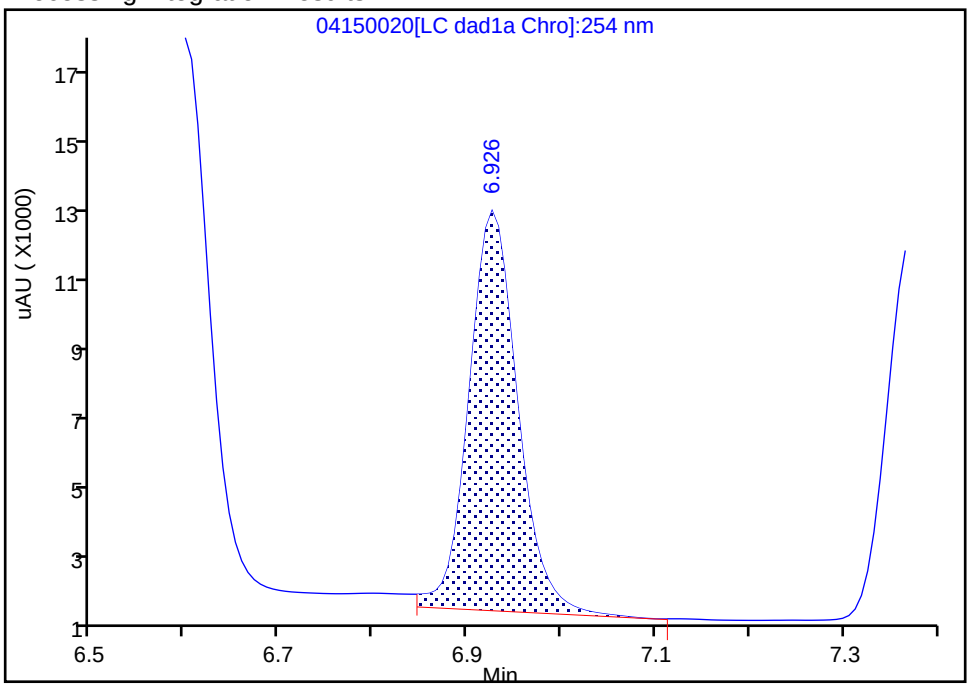
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150020.d | | | | |
| Injection Date: | 15-Apr-2020 17:43:10 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

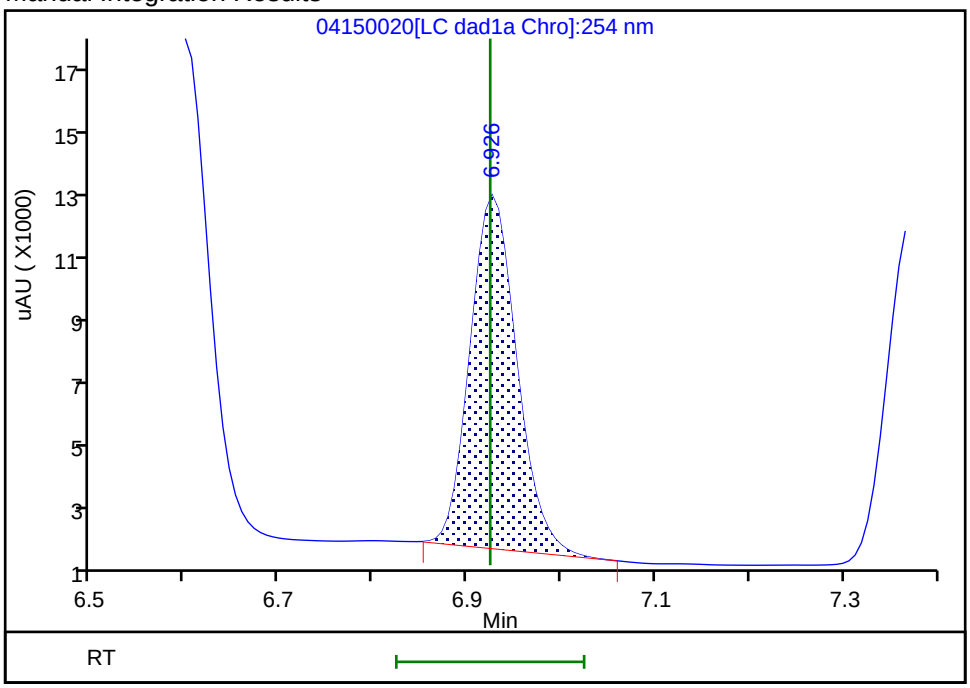
Processing Integration Results

RT: 6.93
Area: 40307
Amount: 0.263568
Amount Units: ug/mL




Manual Integration Results

RT: 6.93
Area: 37677
Amount: 0.246370
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:33:07

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/7  Calibration Date: 04/22/2020 15:38

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04220007.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 87300 | | 254 | 250 | 1.6 | 15.0 |
| RDX | Ave | 116613 | 108868 | | 233 | 250 | -6.6 | 15.0 |
| Picric acid | Ave | 85131 | 83788 | | 246 | 250 | -1.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 234659 | | 255 | 251 | 1.9 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 311637 | | 255 | 251 | 1.6 | 15.0 |
| Nitrobenzene | Ave | 200403 | 204976 | | 257 | 251 | 2.3 | 15.0 |
| Tetryl | Ave | 177032 | 177277 | | 251 | 251 | 0.1 | 15.0 |
| Nitroglycerin | Ave | 68133 | 71143 | | 2610 | 2500 | 4.4 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 204462 | | 252 | 251 | 0.2 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 164867 | | 238 | 250 | -5.0 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 198462 | | 246 | 251 | -2.1 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 149183 | | 251 | 251 | -0.2 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 302896 | | 250 | 251 | -0.2 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 152460 | | 282 | 250 | 12.9 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 128152 | | 284 | 251 | 13.4 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 148156 | | 259 | 250 | 3.6 | 15.0 |
| PETN | Ave | 78605 | 81969 | | 2610 | 2500 | 4.3 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 138876 | | 251 | 250 | 0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/7  Calibration Date: 04/22/2020 15:38

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04220007.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.70 | 6.55 | 6.85 |
| RDX | 7.77 | 7.62 | 7.92 |
| Picric acid | 8.12 | 7.92 | 8.22 |
| 1,3,5-Trinitrobenzene | 8.91 | 8.76 | 9.06 |
| 1,3-Dinitrobenzene | 9.56 | 9.41 | 9.71 |
| Nitrobenzene | 9.95 | 9.80 | 10.10 |
| Tetryl | 10.25 | 10.10 | 10.40 |
| Nitroglycerin | 10.76 | 10.61 | 10.91 |
| 2,4,6-Trinitrotoluene | 11.21 | 11.12 | 11.32 |
| 4-Amino-2,6-dinitrotoluene | 11.37 | 11.28 | 11.48 |
| 2-Amino-4,6-dinitrotoluene | 11.67 | 11.57 | 11.77 |
| 2,6-Dinitrotoluene | 11.82 | 11.73 | 11.93 |
| 2,4-Dinitrotoluene | 12.01 | 11.93 | 12.13 |
| 2-Nitrotoluene | 12.85 | 12.72 | 13.02 |
| 4-Nitrotoluene | 13.29 | 13.15 | 13.45 |
| 3-Nitrotoluene | 13.88 | 13.75 | 14.05 |
| PETN | 14.96 | 14.84 | 15.14 |
| 1,2-Dinitrobenzene | 8.74 | 8.58 | 8.88 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 22-Apr-2020 15:38:29 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0090980-007
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:29 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:49:38

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.699 | 6.699 | 0.000 | 21825 | 0.2500 | 0.2539 | M |
| 7 RDX | 1 | 7.772 | 7.772 | 0.000 | 27217 | 0.2500 | 0.2334 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.119 | 8.072 | 0.047 | 20947 | 0.2500 | 0.2461 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.739 | 8.732 | 0.007 | 34719 | 0.2500 | 0.2512 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.905 | 8.905 | 0.000 | 58782 | 0.2505 | 0.2552 | |
| 11 1,3-Dinitrobenzene | 1 | 9.559 | 9.558 | 0.001 | 78065 | 0.2505 | 0.2545 | |
| 12 Nitrobenzene | 1 | 9.945 | 9.945 | 0.000 | 51449 | 0.2510 | 0.2567 | |
| 14 Tetryl | 1 | 10.245 | 10.252 | -0.007 | 44408 | 0.2505 | 0.2508 | |
| 15 Nitroglycerin | 2 | 10.759 | 10.758 | 0.001 | 177858 | 2.50 | 2.61 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.212 | 11.218 | -0.006 | 51320 | 0.2510 | 0.2515 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.372 | 11.378 | -0.006 | 41258 | 0.2503 | 0.2378 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.665 | 11.665 | 0.000 | 49814 | 0.2510 | 0.2456 | |
| 19 2,6-Dinitrotoluene | 1 | 11.819 | 11.825 | -0.006 | 37445 | 0.2510 | 0.2505 | |
| 20 2,4-Dinitrotoluene | 1 | 12.012 | 12.025 | -0.013 | 76027 | 0.2510 | 0.2504 | |
| 21 o-Nitrotoluene | 1 | 12.852 | 12.865 | -0.013 | 38115 | 0.2500 | 0.2822 | M |
| 22 p-Nitrotoluene | 1 | 13.285 | 13.298 | -0.013 | 32102 | 0.2505 | 0.2841 | M |
| 23 m-Nitrotoluene | 1 | 13.879 | 13.898 | -0.019 | 37076 | 0.2503 | 0.2592 | M |
| 24 PETN | 2 | 14.959 | 14.992 | -0.033 | 204923 | 2.50 | 2.61 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

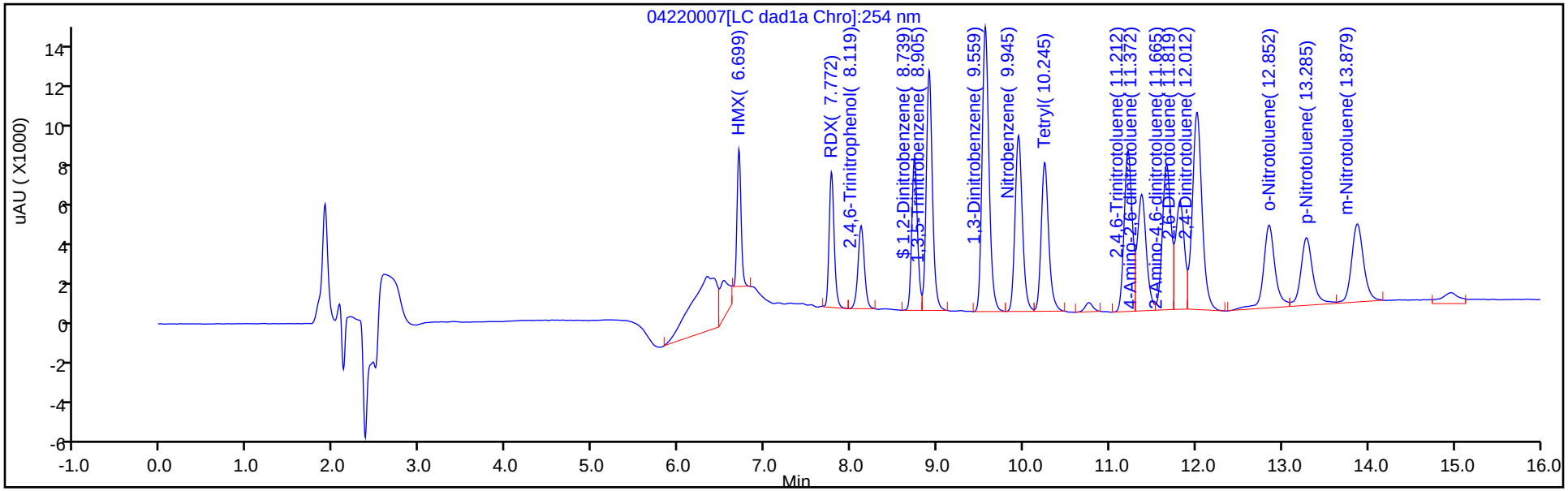
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 23-Apr-2020 12:03:29 Chrom Revision: 2.3 11-Mar-2020 18:53:20

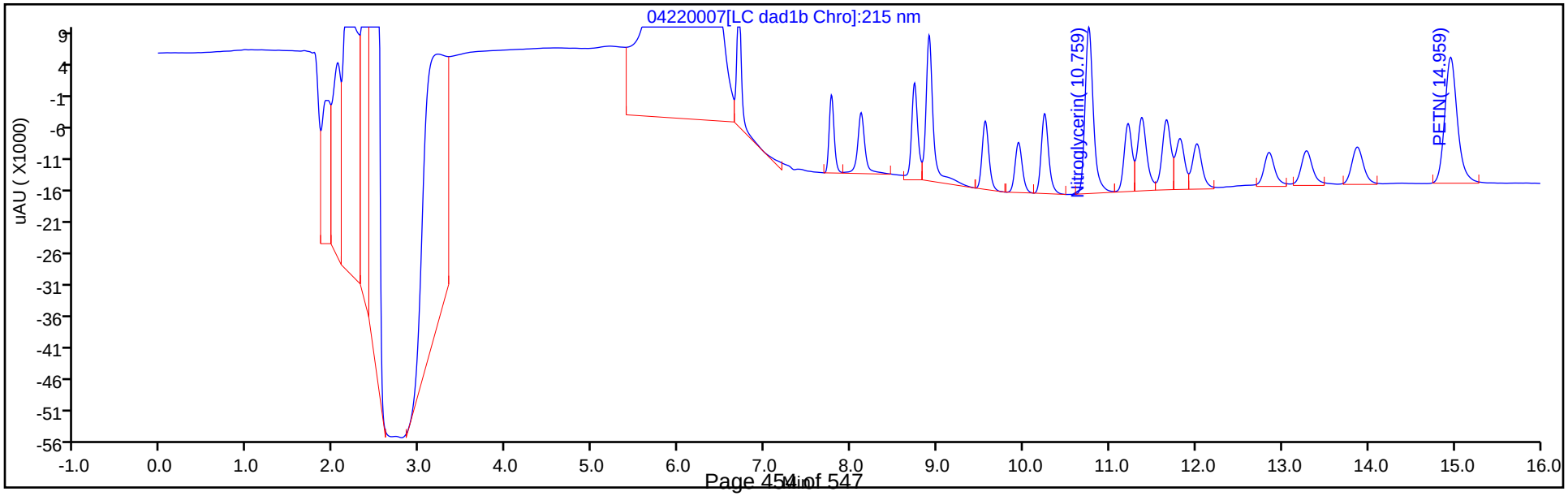
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 15:38:29 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

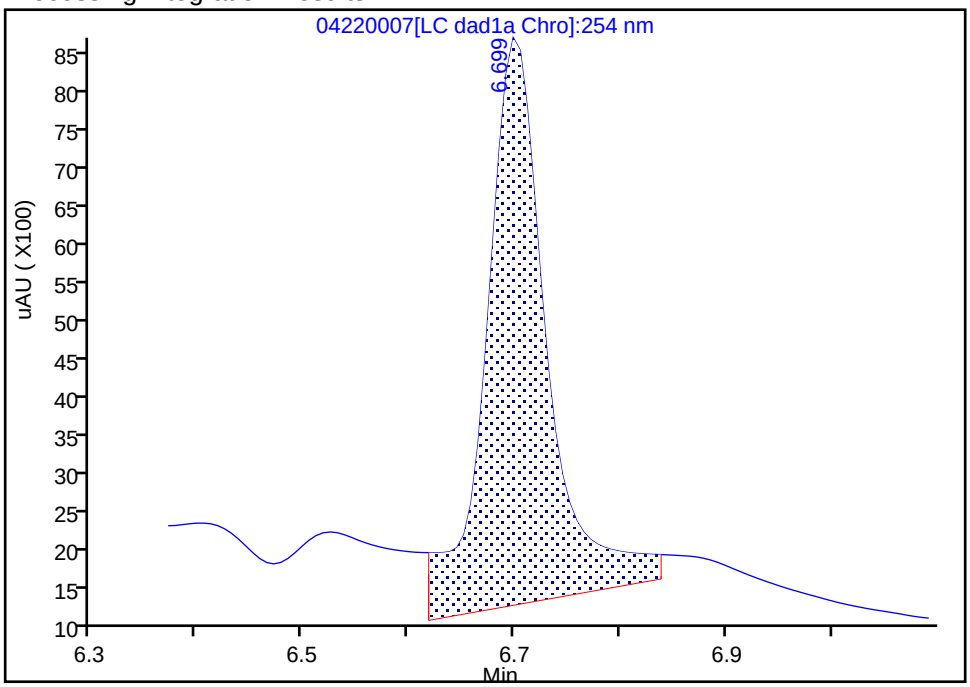
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 15:38:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

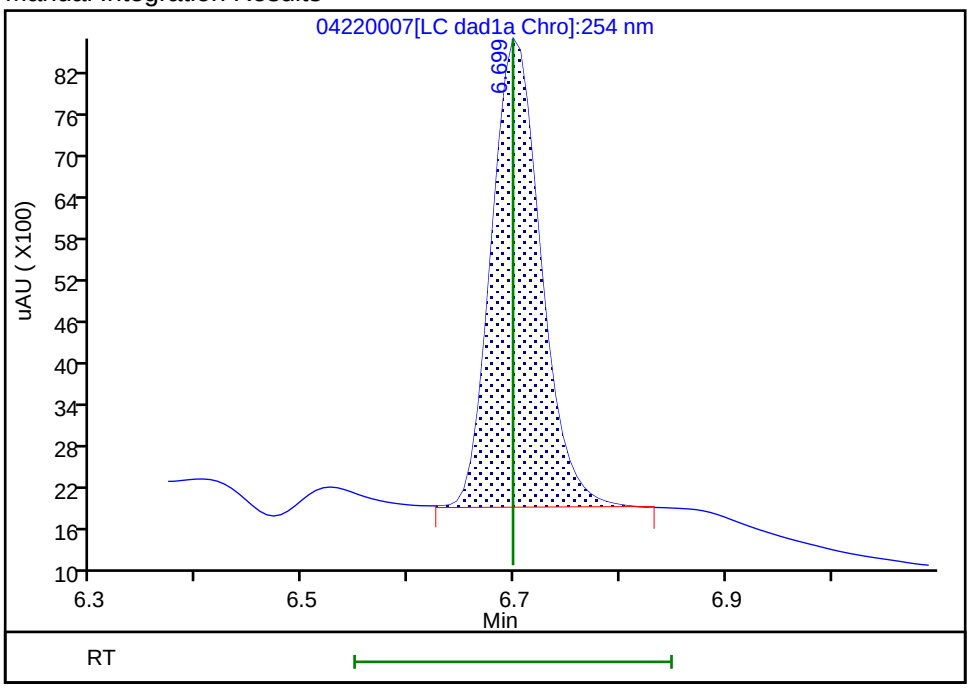
Processing Integration Results

RT: 6.70
Area: 29669
Amount: 0.345140
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 21825
Amount: 0.253891
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:49:06
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

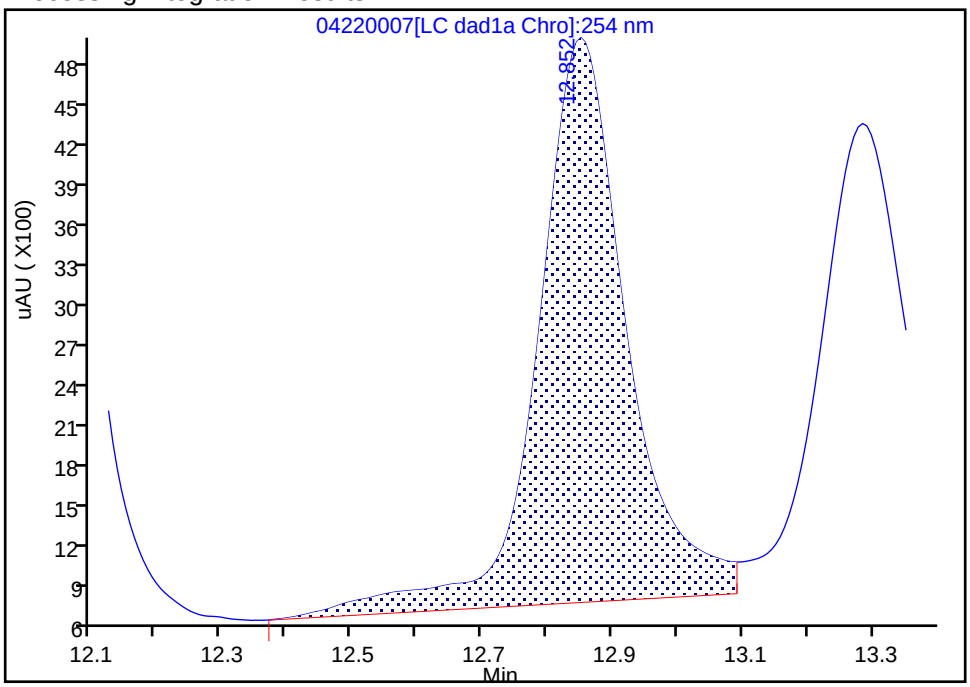
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 15:38:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 21 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

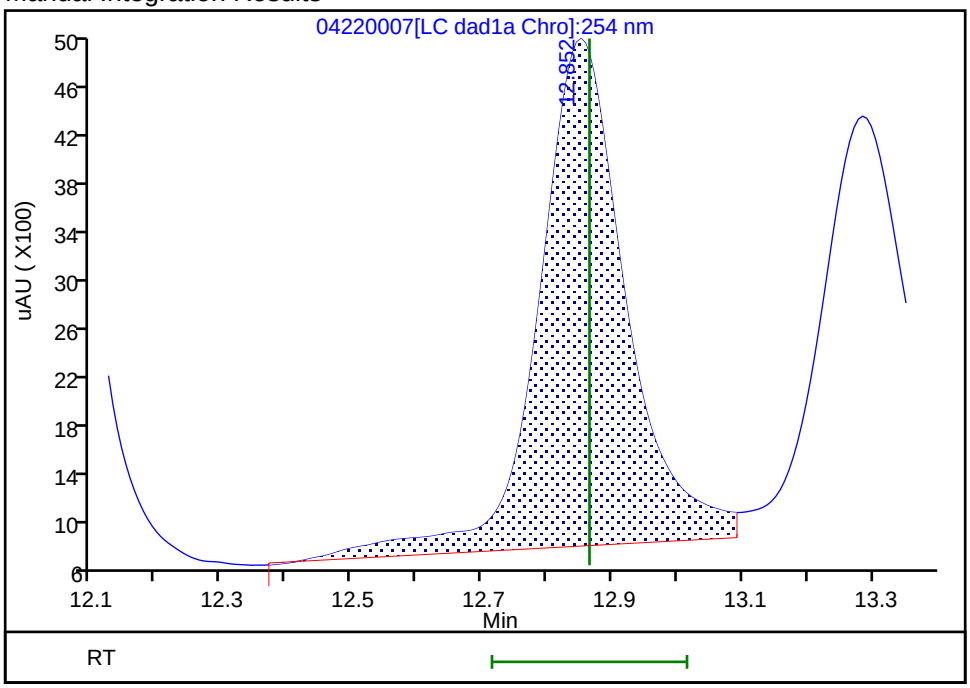
Processing Integration Results

RT: 12.85
Area: 39065
Amount: 0.289261
Amount Units: ug/mL




Manual Integration Results

RT: 12.85
Area: 38115
Amount: 0.282227
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:49:27
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

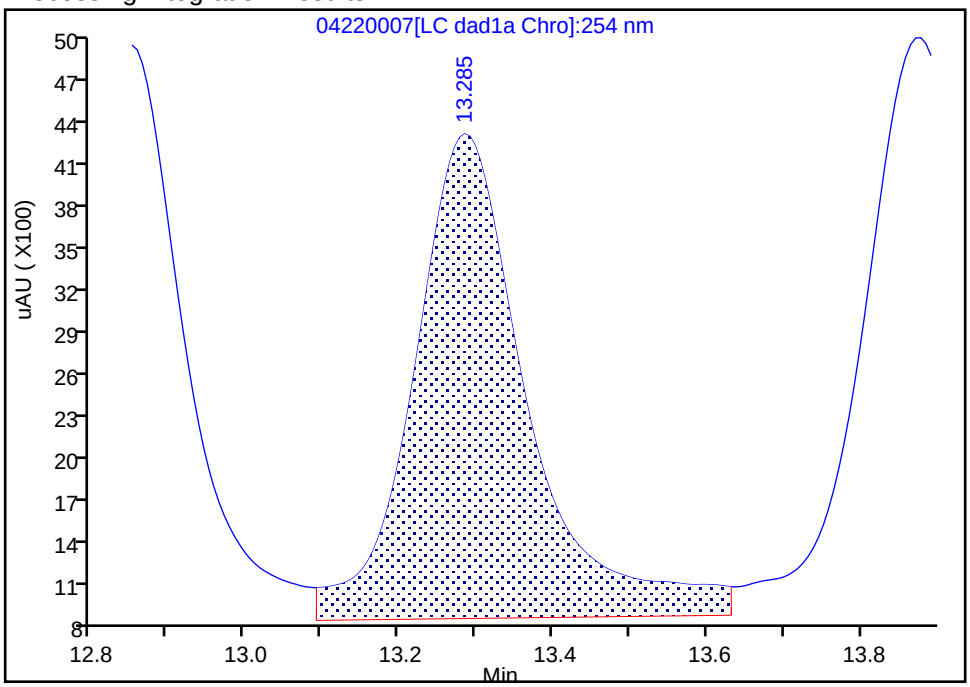
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 15:38:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 22 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

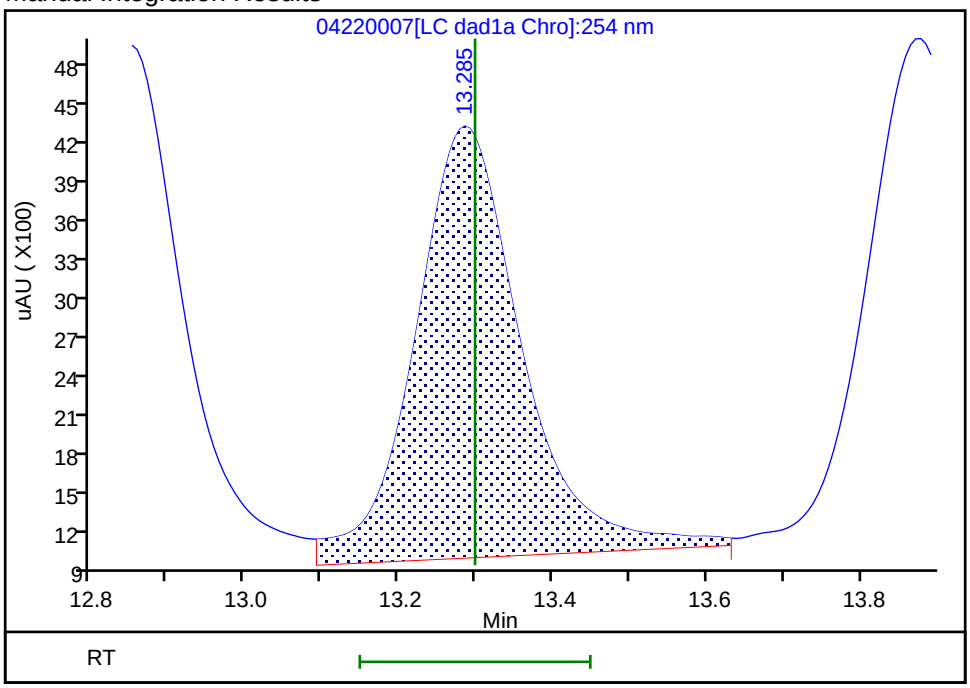
Processing Integration Results

RT: 13.29
Area: 34888
Amount: 0.308729
Amount Units: ug/mL




Manual Integration Results

RT: 13.29
Area: 32102
Amount: 0.284076
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:49:27
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

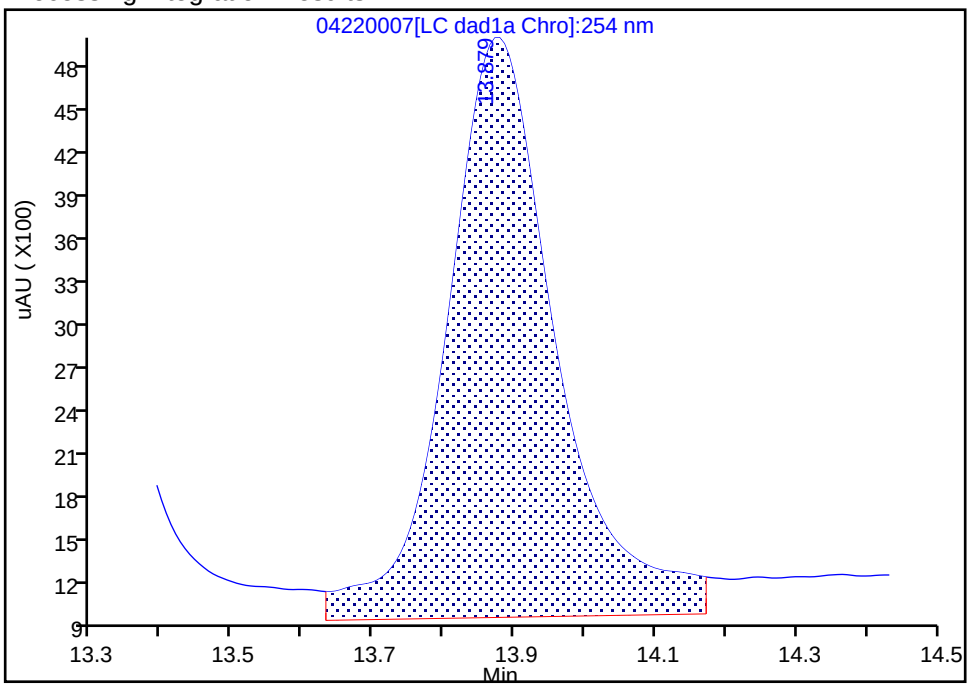
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220007.d | | | | |
| Injection Date: | 22-Apr-2020 15:38:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

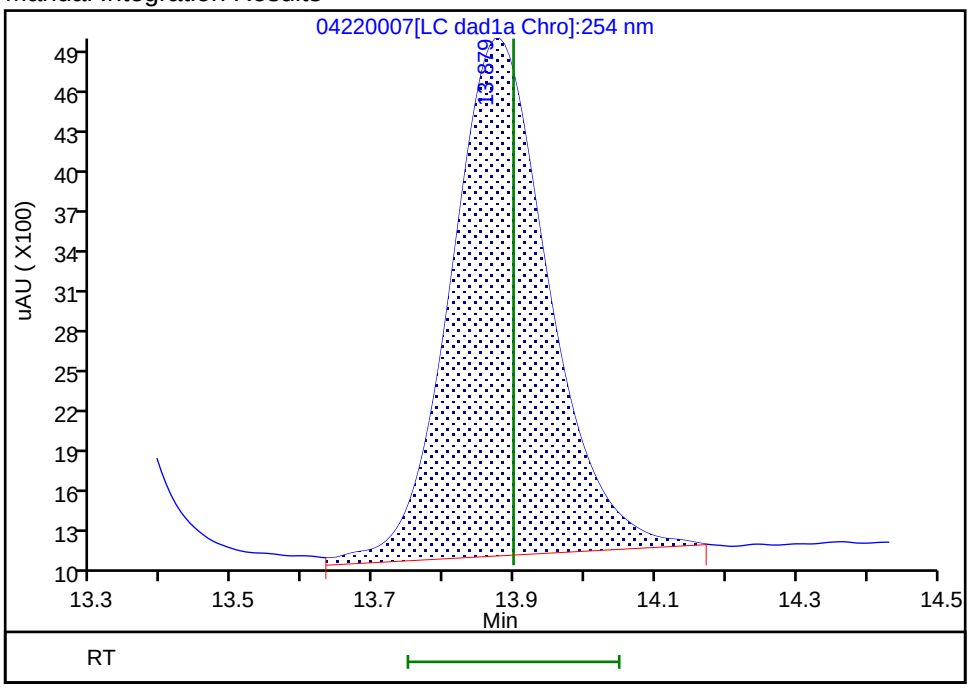
Processing Integration Results

RT: 13.88
Area: 43475
Amount: 0.303960
Amount Units: ug/mL




Manual Integration Results

RT: 13.88
Area: 37076
Amount: 0.259221
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:49:27
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/9  Calibration Date: 04/22/2020 16:24

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04220009.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 207241 | | 238 | 250 | -4.8 | 15.0 |
| DNX | Ave | 152928 | 151417 | | 248 | 250 | -1.0 | 15.0 |
| MNX | Ave | 158544 | 141368 | | 260 | 292 | -10.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/9  Calibration Date: 04/22/2020 16:24

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04220009.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.60 | 6.50 | 6.70 |
| DNX | 6.92 | 6.82 | 7.02 |
| MNX | 7.37 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220009.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 22-Apr-2020 16:24:26 | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090980-009 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:51:59

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.602 | 6.597 | 0.005 | 51862 | 0.2503 | 0.2383 | M |
| 5 DNX | 1 | 6.922 | 6.924 | -0.002 | 37892 | 0.2503 | 0.2478 | M |
| 6 MNX | 1 | 7.369 | 7.364 | 0.005 | 41244 | 0.2918 | 0.2601 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

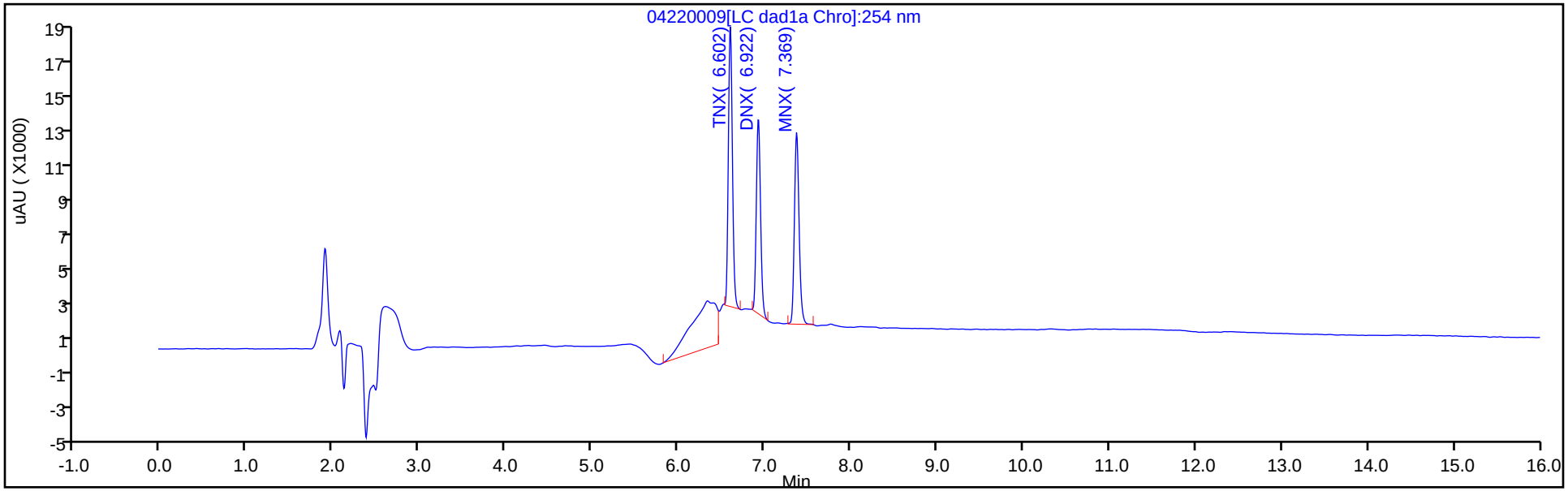
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 23-Apr-2020 12:03:30 Chrom Revision: 2.3 11-Mar-2020 18:53:20

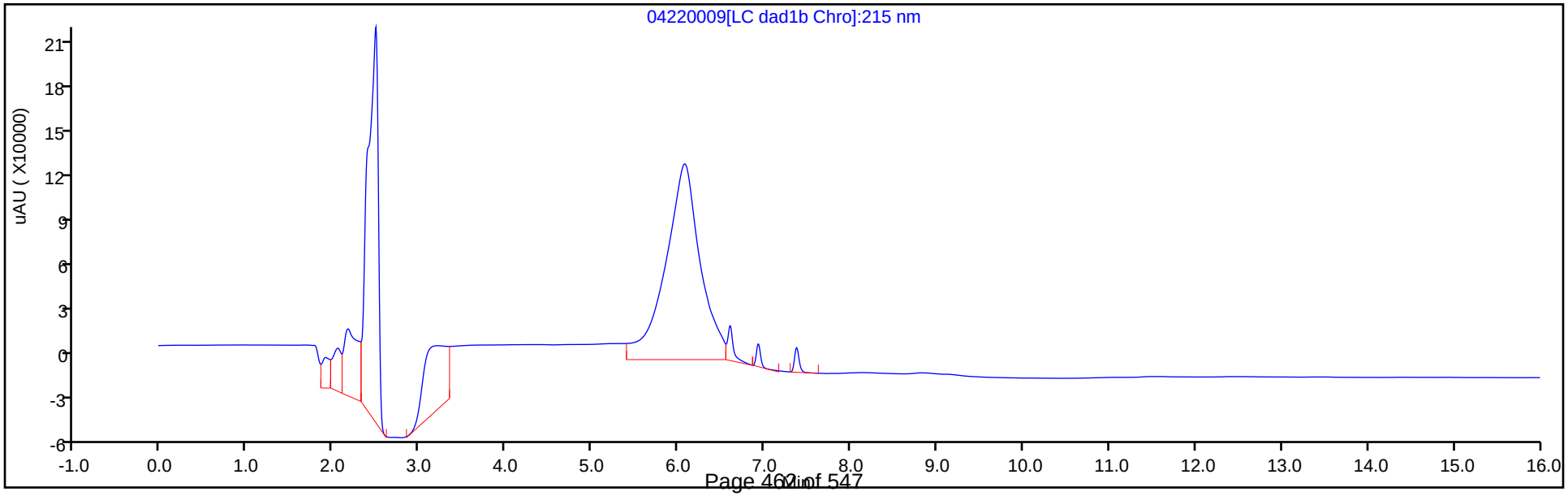
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220009.d | | | | |
| Injection Date: | 22-Apr-2020 16:24:26 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

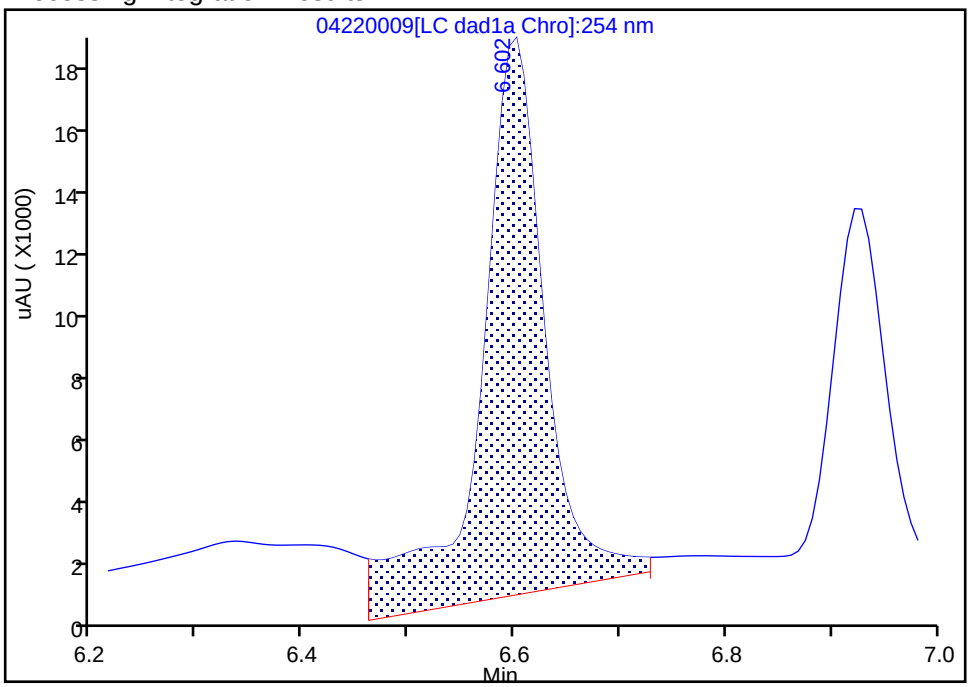
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220009.d | | | | |
| Injection Date: | 22-Apr-2020 16:24:26 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

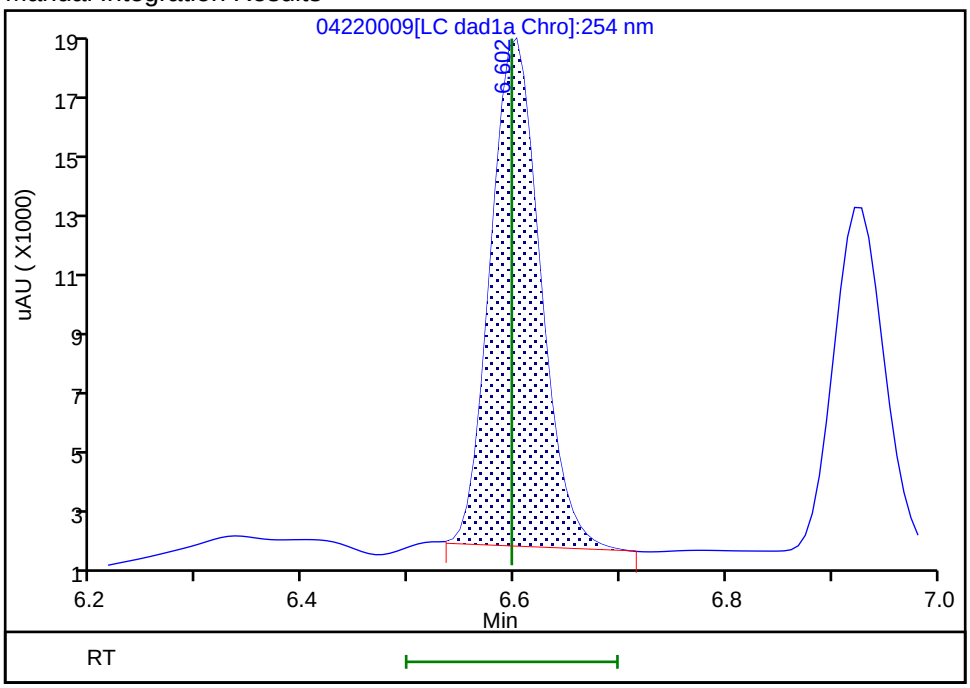
Processing Integration Results

RT: 6.60
Area: 73059
Amount: 0.335736
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 51862
Amount: 0.238327
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:51:53
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

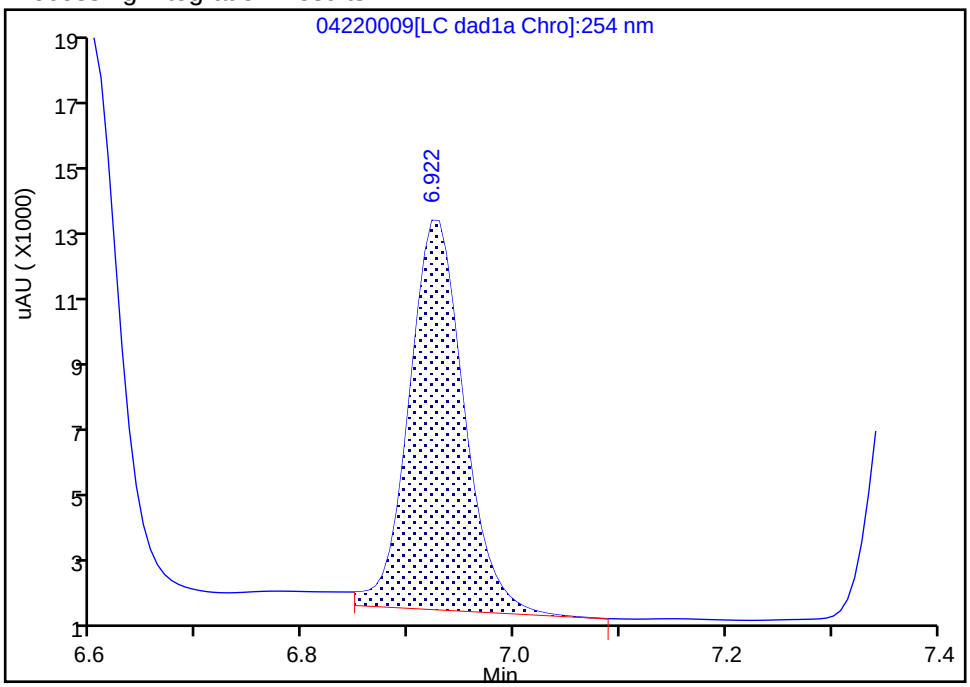
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220009.d | | | | |
| Injection Date: | 22-Apr-2020 16:24:26 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

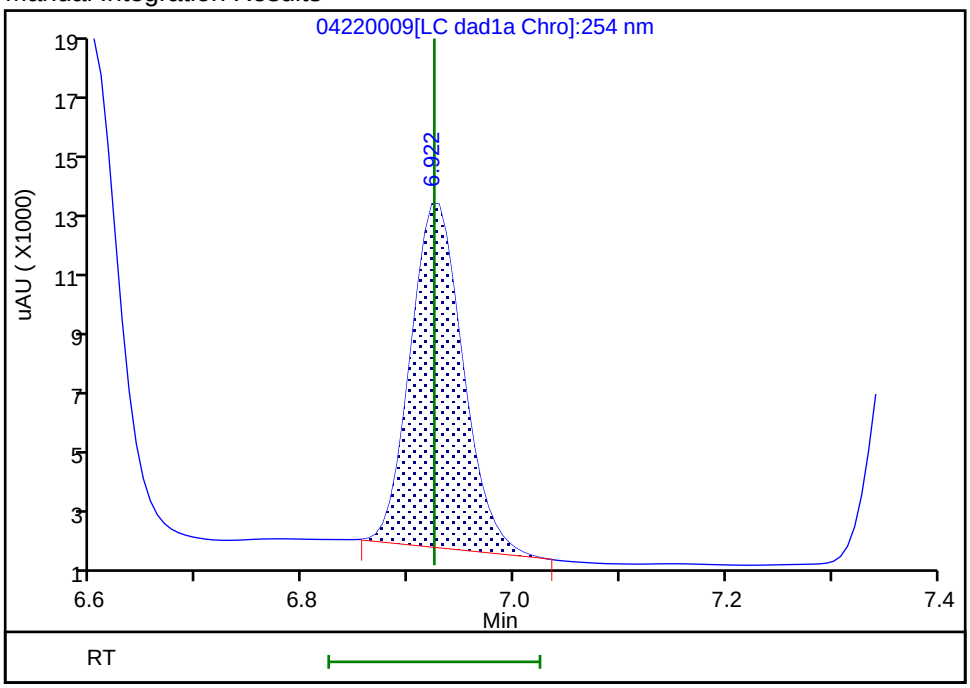
Processing Integration Results

RT: 6.92
Area: 40542
Amount: 0.265105
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 37892
Amount: 0.247776
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:51:56
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/18  Calibration Date: 04/22/2020 19:51

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04220018.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 87144 | | 253 | 250 | 1.4 | 15.0 |
| RDX | Ave | 116613 | 108844 | | 233 | 250 | -6.7 | 15.0 |
| Picric acid | Ave | 85131 | 83480 | | 245 | 250 | -1.9 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 235725 | | 256 | 251 | 2.4 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 311848 | | 255 | 251 | 1.7 | 15.0 |
| Nitrobenzene | Ave | 200403 | 203327 | | 255 | 251 | 1.5 | 15.0 |
| Tetryl | Ave | 177032 | 178463 | | 253 | 251 | 0.8 | 15.0 |
| Nitroglycerin | Ave | 68133 | 71205 | | 2610 | 2500 | 4.5 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 205936 | | 253 | 251 | 0.9 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 167141 | | 241 | 250 | -3.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 206964 | | 256 | 251 | 2.0 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 152064 | | 255 | 251 | 1.7 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 309359 | | 256 | 251 | 1.9 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 131916 | | 244 | 250 | -2.3 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 113872 | | 252 | 251 | 0.8 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 144496 | | 253 | 250 | 1.0 | 15.0 |
| PETN | Ave | 78605 | 80000 | | 2540 | 2500 | 1.8 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 139808 | | 253 | 250 | 1.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/18  Calibration Date: 04/22/2020 19:51

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 04220018.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.70 | 6.55 | 6.85 |
| RDX | 7.78 | 7.62 | 7.92 |
| Picric acid | 8.12 | 7.92 | 8.22 |
| 1,3,5-Trinitrobenzene | 8.92 | 8.76 | 9.06 |
| 1,3-Dinitrobenzene | 9.58 | 9.41 | 9.71 |
| Nitrobenzene | 9.96 | 9.80 | 10.10 |
| Tetryl | 10.27 | 10.10 | 10.40 |
| Nitroglycerin | 10.78 | 10.61 | 10.91 |
| 2,4,6-Trinitrotoluene | 11.24 | 11.12 | 11.32 |
| 4-Amino-2,6-dinitrotoluene | 11.40 | 11.28 | 11.48 |
| 2-Amino-4,6-dinitrotoluene | 11.69 | 11.57 | 11.77 |
| 2,6-Dinitrotoluene | 11.84 | 11.73 | 11.93 |
| 2,4-Dinitrotoluene | 12.04 | 11.93 | 12.13 |
| 2-Nitrotoluene | 12.88 | 12.72 | 13.02 |
| 4-Nitrotoluene | 13.32 | 13.15 | 13.45 |
| 3-Nitrotoluene | 13.91 | 13.75 | 14.05 |
| PETN | 15.00 | 14.84 | 15.14 |
| 1,2-Dinitrobenzene | 8.75 | 8.58 | 8.88 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220018.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 22-Apr-2020 19:51:14 ALS Bottle#: 7 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0090980-018
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:33 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:55:31

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.697 | 6.699 | -0.002 | 21786 | 0.2500 | 0.2534 | M |
| 7 RDX | 1 | 7.777 | 7.772 | 0.005 | 27211 | 0.2500 | 0.2333 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.124 | 8.072 | 0.052 | 20870 | 0.2500 | 0.2452 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.750 | 8.732 | 0.018 | 34952 | 0.2500 | 0.2529 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.917 | 8.905 | 0.012 | 59049 | 0.2505 | 0.2564 | |
| 11 1,3-Dinitrobenzene | 1 | 9.577 | 9.558 | 0.019 | 78118 | 0.2505 | 0.2547 | |
| 12 Nitrobenzene | 1 | 9.963 | 9.945 | 0.018 | 51035 | 0.2510 | 0.2547 | |
| 14 Tetryl | 1 | 10.270 | 10.252 | 0.018 | 44705 | 0.2505 | 0.2525 | |
| 15 Nitroglycerin | 2 | 10.783 | 10.758 | 0.025 | 178013 | 2.50 | 2.61 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.237 | 11.218 | 0.019 | 51690 | 0.2510 | 0.2533 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.403 | 11.378 | 0.025 | 41827 | 0.2503 | 0.2410 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.690 | 11.665 | 0.025 | 51948 | 0.2510 | 0.2561 | |
| 19 2,6-Dinitrotoluene | 1 | 11.843 | 11.825 | 0.018 | 38168 | 0.2510 | 0.2554 | |
| 20 2,4-Dinitrotoluene | 1 | 12.043 | 12.025 | 0.018 | 77649 | 0.2510 | 0.2558 | |
| 21 o-Nitrotoluene | 1 | 12.883 | 12.865 | 0.018 | 32979 | 0.2500 | 0.2442 | |
| 22 p-Nitrotoluene | 1 | 13.317 | 13.298 | 0.019 | 28525 | 0.2505 | 0.2524 | |
| 23 m-Nitrotoluene | 1 | 13.910 | 13.898 | 0.012 | 36160 | 0.2503 | 0.2528 | |
| 24 PETN | 2 | 14.997 | 14.992 | 0.005 | 199999 | 2.50 | 2.54 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

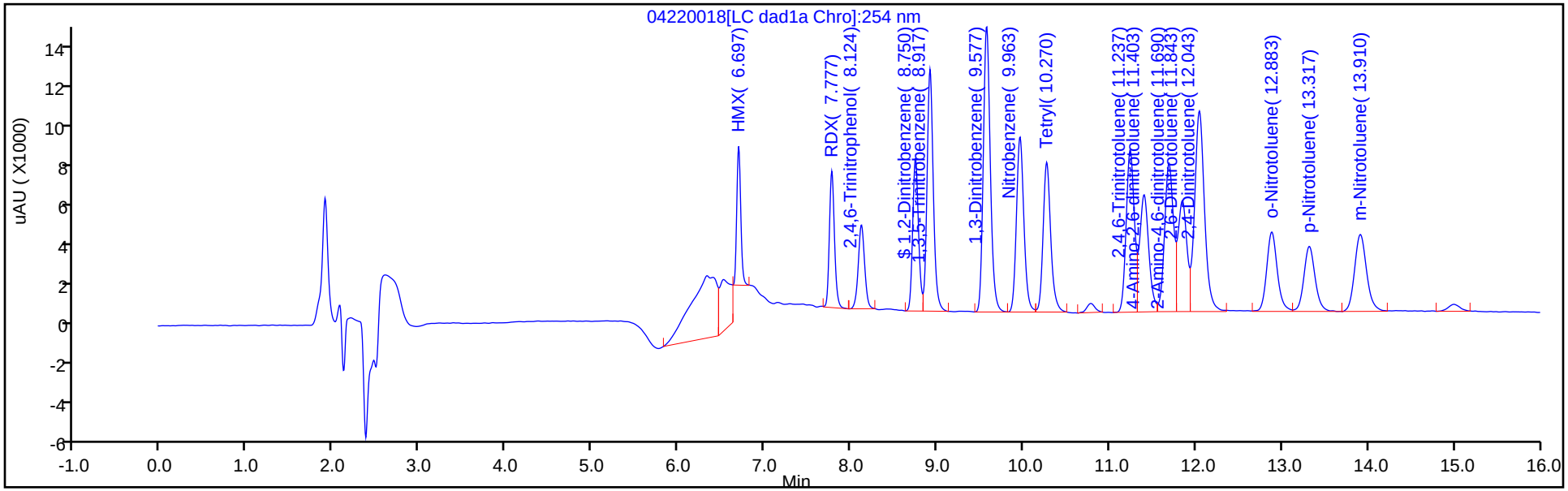
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 23-Apr-2020 12:03:33 Chrom Revision: 2.3 11-Mar-2020 18:53:20

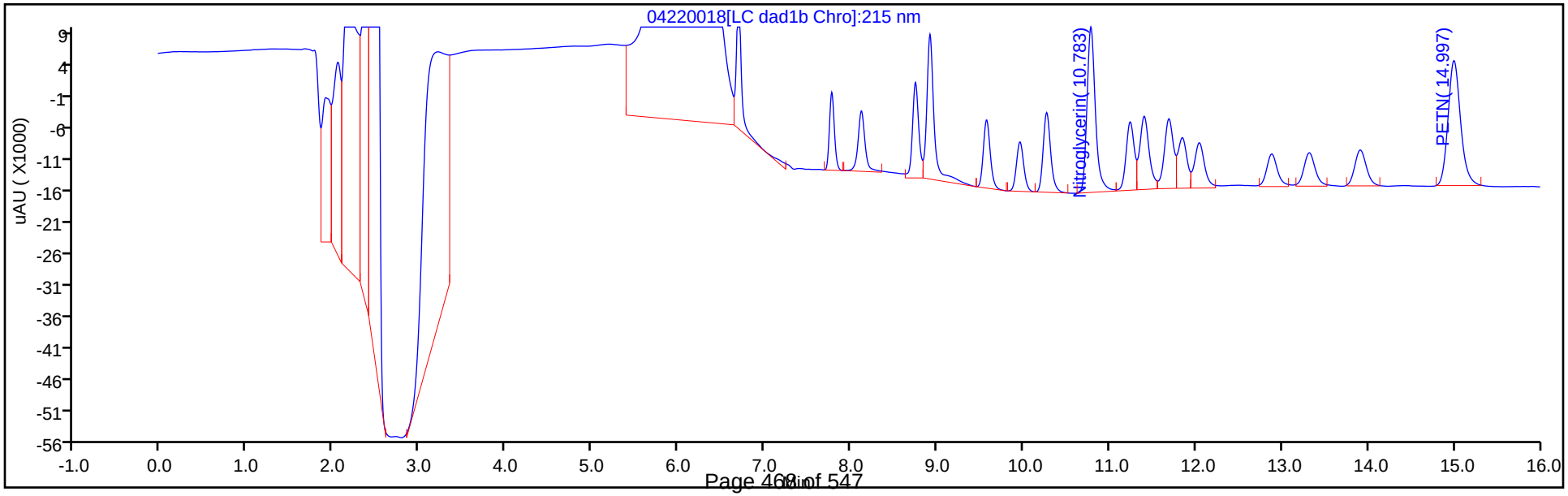
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220018.d | | | | |
| Injection Date: | 22-Apr-2020 19:51:14 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 18 |
| 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

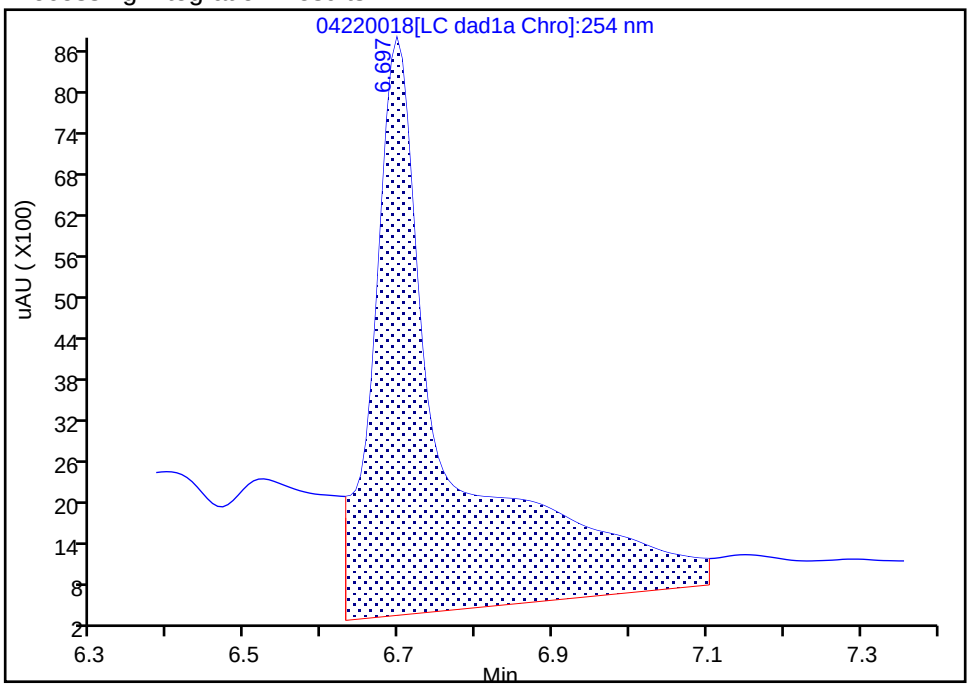
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220018.d | | | | |
| Injection Date: | 22-Apr-2020 19:51:14 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | 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

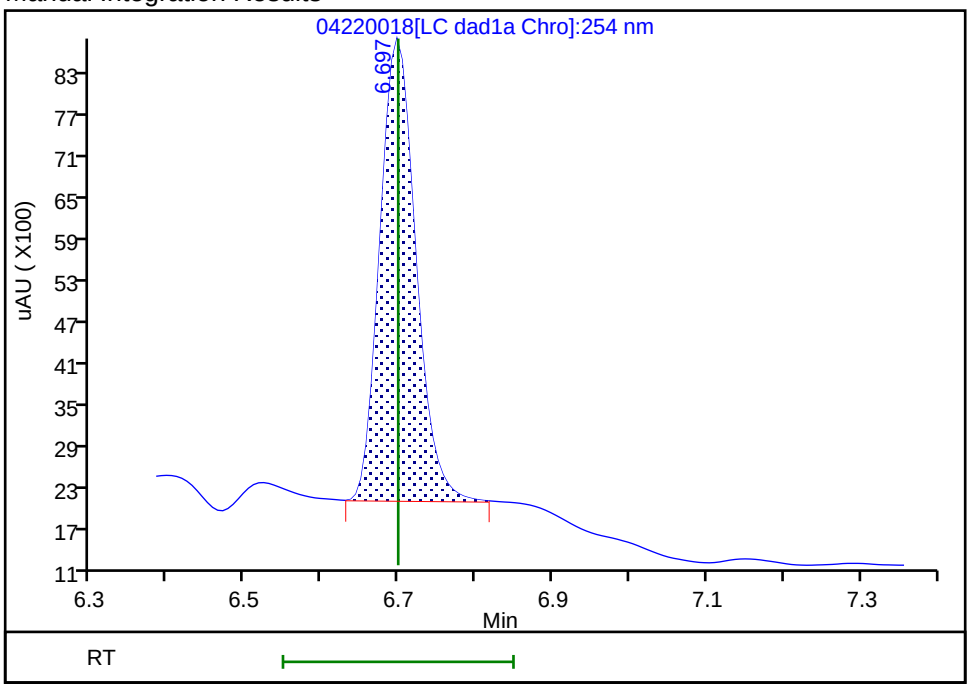
Processing Integration Results

RT: 6.70
Area: 57565
Amount: 0.669655
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 21786
Amount: 0.253437
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:55:24

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/20  Calibration Date: 04/22/2020 20:37

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04220020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 203620 | | 234 | 250 | -6.4 | 15.0 |
| DNX | Ave | 152928 | 151832 | | 248 | 250 | -0.7 | 15.0 |
| MNX | Ave | 158544 | 139671 | | 257 | 292 | -11.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Lab Sample ID: CCV 280-492475/20  Calibration Date: 04/22/2020 20:37

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 04220020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.59 | 6.50 | 6.70 |
| DNX | 6.92 | 6.82 | 7.02 |
| MNX | 7.37 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220020.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 22-Apr-2020 20:37:13 | ALS Bottle#: | 9 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090980-020 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:34 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:56:20

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.594 | 6.597 | -0.003 | 50956 | 0.2503 | 0.2342 | M |
| 5 DNX | 1 | 6.921 | 6.924 | -0.003 | 37996 | 0.2503 | 0.2485 | M |
| 6 MNX | 1 | 7.368 | 7.364 | 0.004 | 40749 | 0.2918 | 0.2570 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

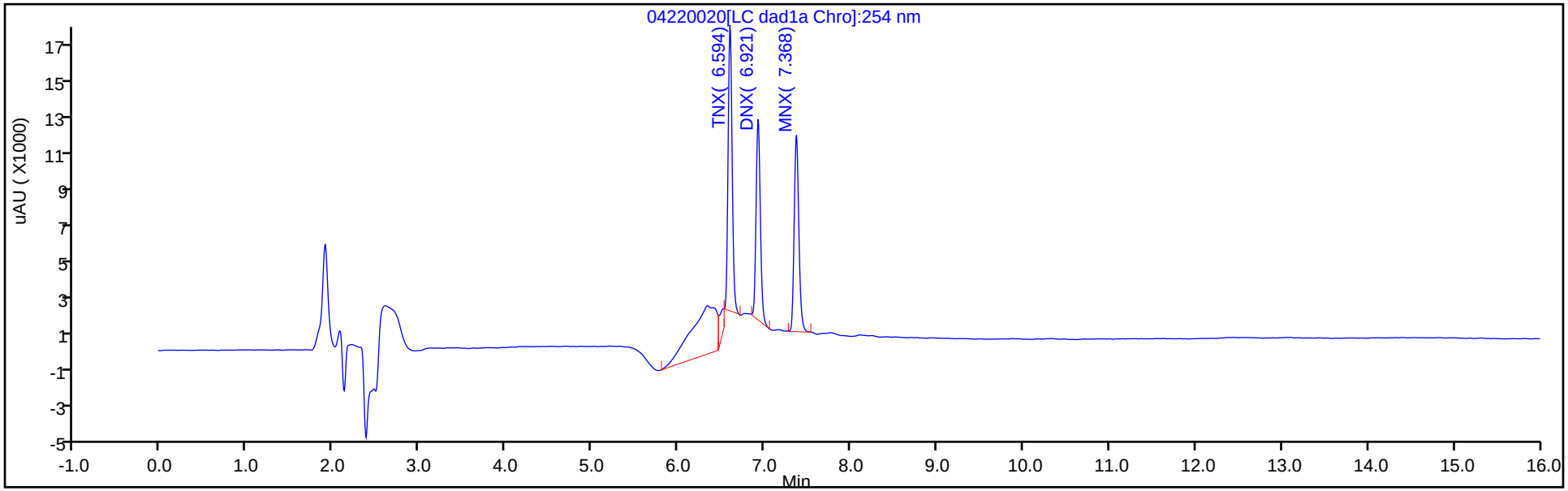
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 23-Apr-2020 12:03:35 Chrom Revision: 2.3 11-Mar-2020 18:53:20

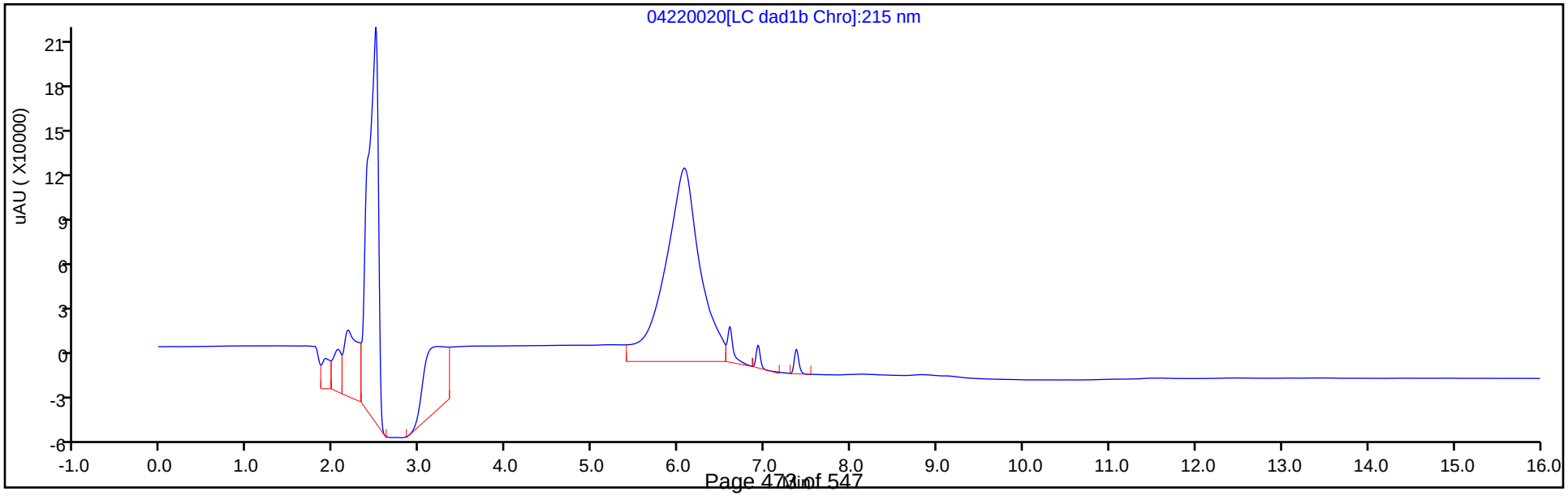
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220020.d | | | | |
| Injection Date: | 22-Apr-2020 20:37:13 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 20 |
| 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



Eurofins TestAmerica, Denver

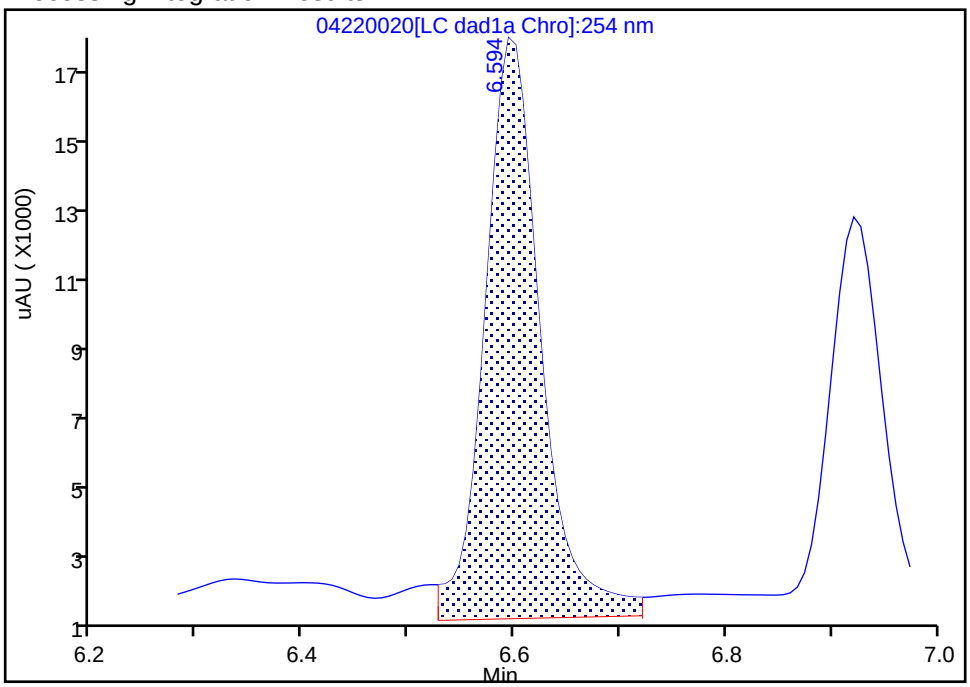
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220020.d | | | | |
| Injection Date: | 22-Apr-2020 20:37:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

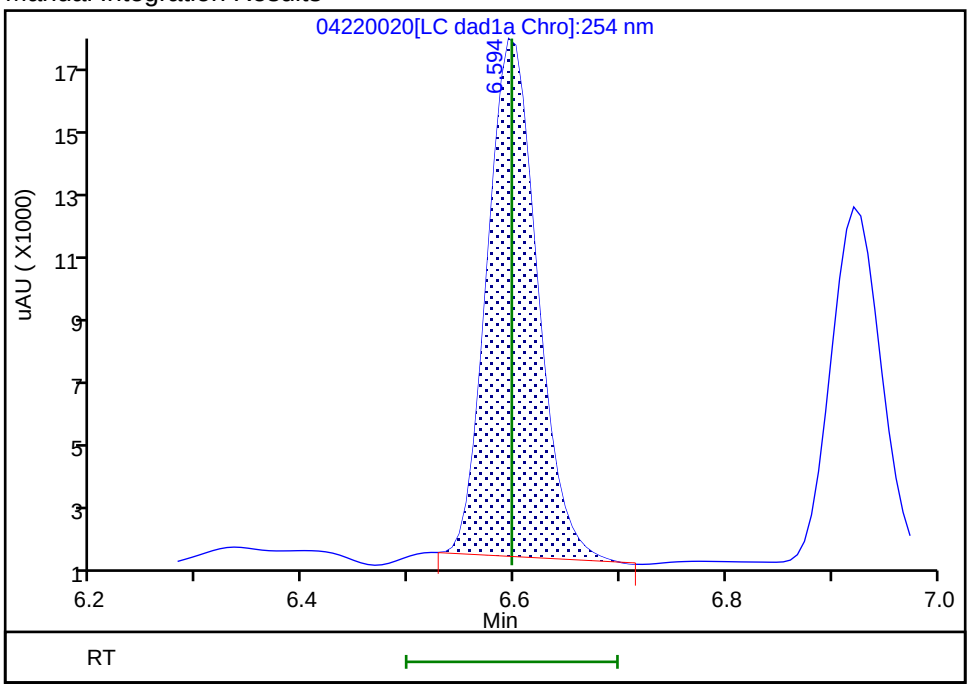
Processing Integration Results

RT: 6.59
Area: 59937
Amount: 0.275435
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 50956
Amount: 0.234163
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:56:13
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

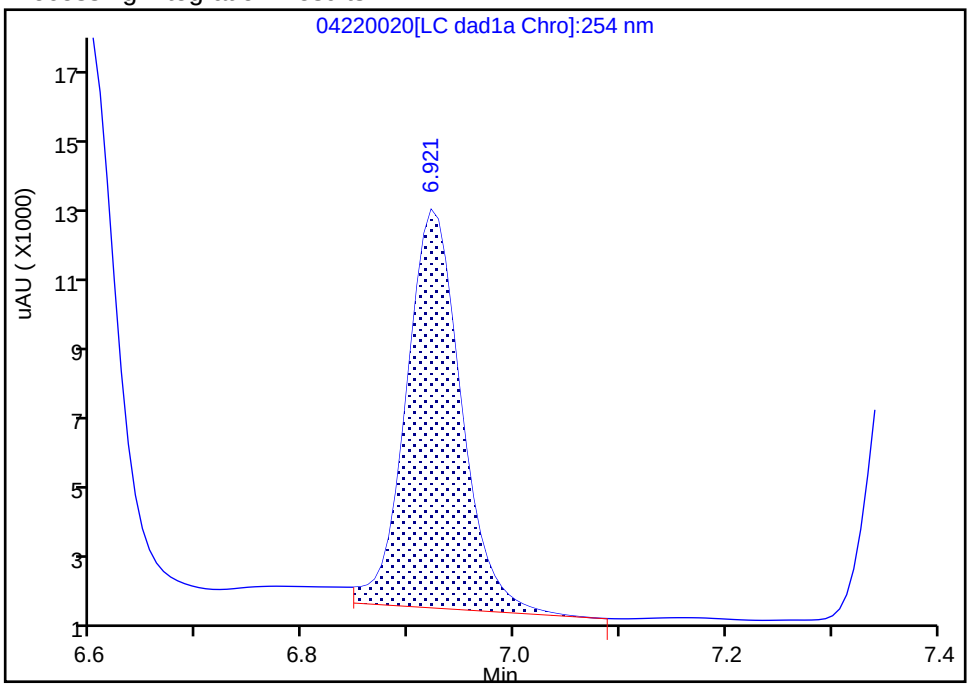
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220020.d | | | | |
| Injection Date: | 22-Apr-2020 20:37:13 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

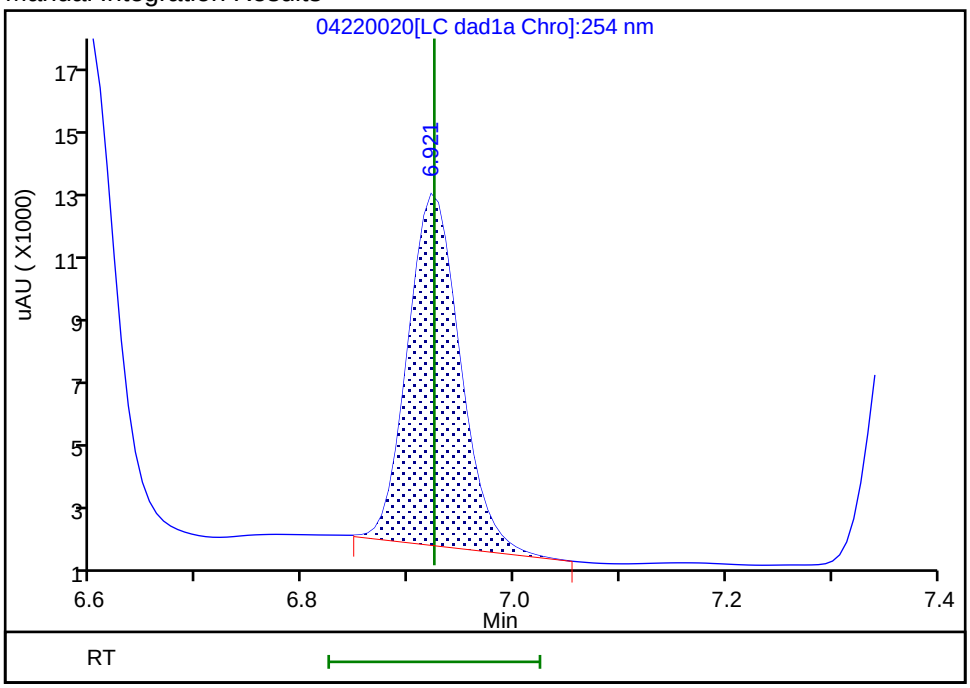
Processing Integration Results

RT: 6.92
Area: 40610
Amount: 0.265549
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 37996
Amount: 0.248456
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:56:17
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-491558/1-A
Matrix: Water
Lab File ID: 04150009.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 500(mL)
Date Analyzed: 04/15/2020 13:30
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 491832
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.065 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.051 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.089 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.086 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.40 | U M | 1.0 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.058 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 |
| 2691-41-0 | HMX | 0.20 | U | 0.40 | 0.20 | 0.088 |
| 5755-27-1 | MNX | 0.40 | U | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 |
| 121-82-4 | RDX | 0.40 | U | 0.40 | 0.40 | 0.16 |
| 479-45-8 | Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 99 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150009.D
Lims ID: MB 280-491558/1-A
Client ID:
Sample Type: MB
Inject. Date: 15-Apr-2020 13:30:35 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-491558/1-
Misc. Info.: 280-0090829-009
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 16-Apr-2020 10:40:40 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0316

First Level Reviewer: beckerc Date: 16-Apr-2020 10:25:59

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | | 6.558 | | | | ND | |
| | 2 TNX | 1 | | 6.597 | | | | ND | |
| | 3 HMX | 1 | | 6.699 | | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | | 6.924 | | | | ND | |
| | 6 MNX | 1 | | 7.364 | | | | ND | |
| | 7 RDX | 1 | | 7.772 | | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.111 | 8.072 | 0.039 | 1033 | | 0.0121 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.757 | 8.732 | 0.025 | 27497 | 0.2000 | 0.1989 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | | ND | U |
| | 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.945 | | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | | 10.252 | | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.758 | | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.865 | | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.298 | | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.898 | | | | ND | |
| | 24 PETN | 2 | | 14.992 | | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

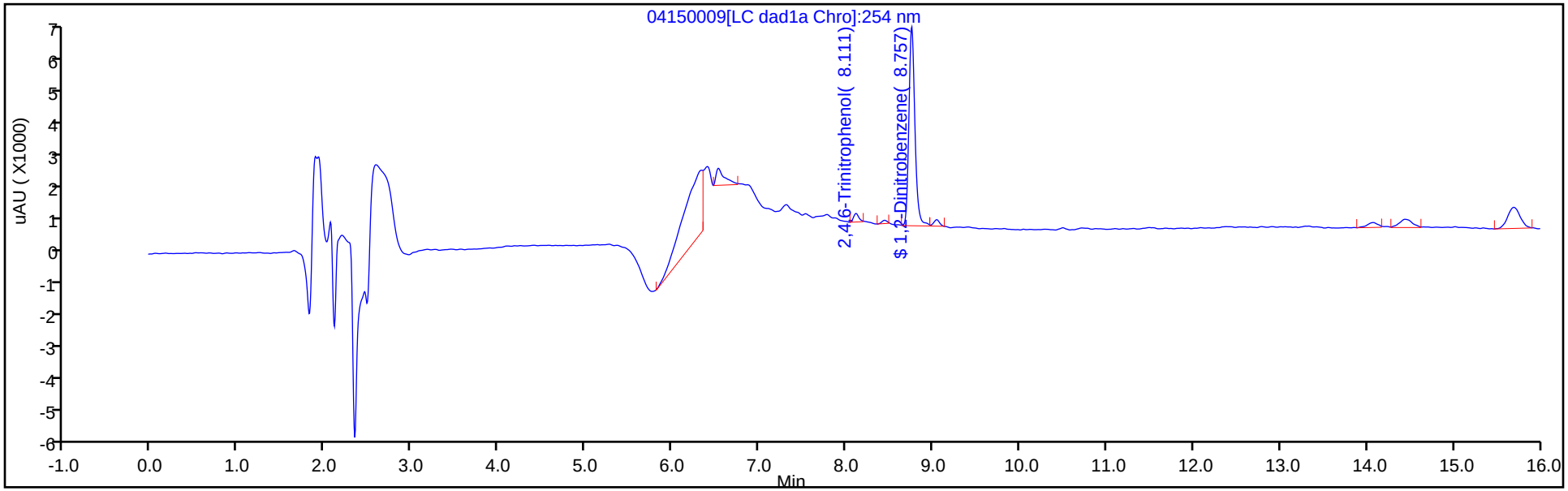
U - Marked Undetected

Report Date: 16-Apr-2020 10:40:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

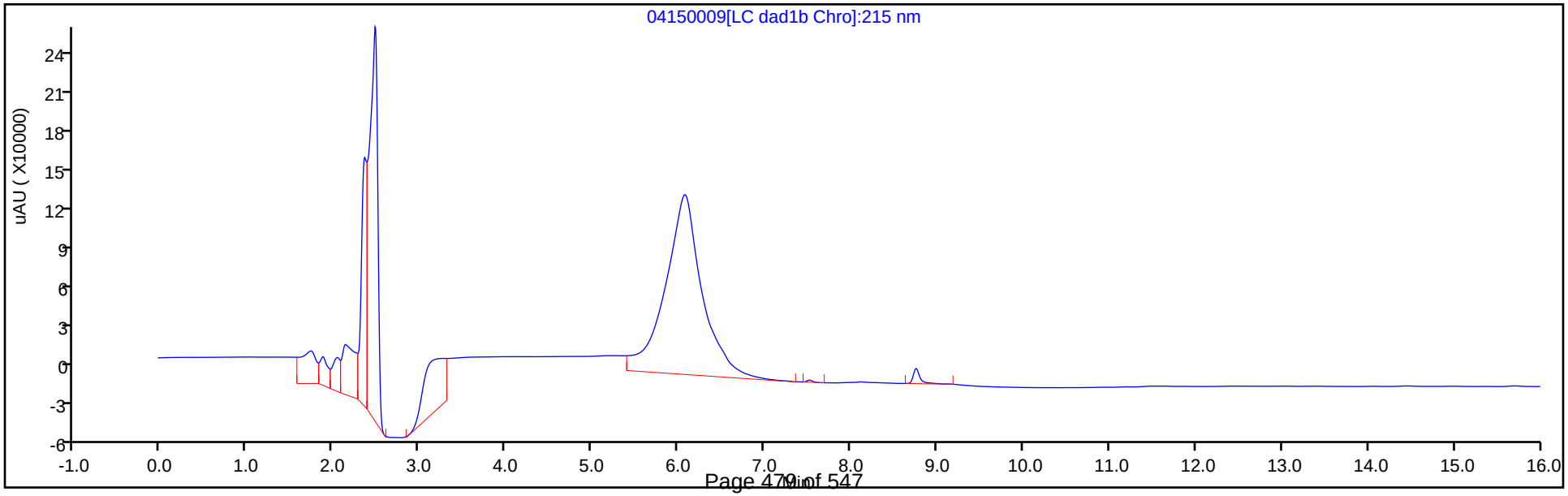
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150009.d | | | | |
| Injection Date: | 15-Apr-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | MB 280-491558/1-A | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150009.D | | | | |
| Lims ID: | MB 280-491558/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 15-Apr-2020 13:30:35 | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-491558/1- | | | | |
| Misc. Info.: | 280-0090829-009 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |
| First Level Reviewer: beckerc | | Date: | 16-Apr-2020 10:25:59 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1989 | 99.47 |

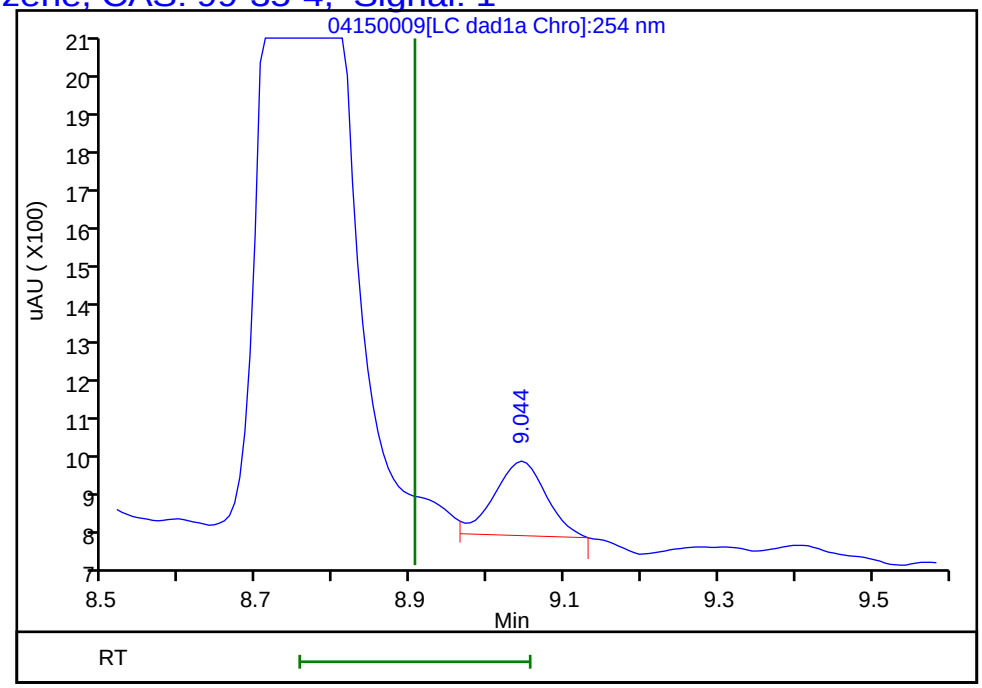
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150009.d | | | | |
| Injection Date: | 15-Apr-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | MB 280-491558/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 10 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 9.04
Response: 863
Amount: 0.003747




Reviewer: beckerc, 16-Apr-2020 10:25:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-492251/1-A
Matrix: Solid
Lab File ID: 04220010.D
Analysis Method: 8330A
Date Collected:
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2(g)
Date Analyzed: 04/22/2020 16:47
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.050 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.054 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.17 | U | 0.25 | 0.17 | 0.058 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.25 | 0.11 | 0.10 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.061 |
| 88-72-2 | 2-Nitrotoluene | 0.17 | U | 0.25 | 0.17 | 0.084 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.071 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.25 | U | 0.25 | 0.25 | 0.039 |
| 99-08-1 | 3-Nitrotoluene | 0.25 | U | 0.50 | 0.25 | 0.12 |
| 99-99-0 | 4-Nitrotoluene | 0.17 | U | 0.40 | 0.17 | 0.11 |
| 2691-41-0 | HMX | 0.17 | U | 0.25 | 0.17 | 0.078 |
| 5755-27-1 | MNX | 50 | U | 100 | 50 | 10 |
| 98-95-3 | Nitrobenzene | 0.17 | U | 0.25 | 0.17 | 0.061 |
| 121-82-4 | RDX | 0.17 | U | 0.26 | 0.17 | 0.085 |
| 479-45-8 | Tetryl | 0.11 | U | 0.50 | 0.11 | 0.055 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220010.D
Lims ID: MB 280-492251/1-A
Client ID:
Sample Type: MB
Inject. Date: 22-Apr-2020 16:47:32 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-492251/1-
Misc. Info.: 280-0090980-010
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:52:10

| | 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 | | 6.558 | | | | ND | U |
| | 2 TNX | 1 | | 6.597 | | | | ND | |
| | 3 HMX | 1 | | 6.699 | | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | | 6.924 | | | | ND | |
| | 6 MNX | 1 | | 7.364 | | | | ND | |
| | 7 RDX | 1 | | 7.772 | | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.072 | | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.732 | 8.732 | 0.000 | 33995 | 0.2500 | 0.2460 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.945 | | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | | 10.252 | | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.758 | | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.865 | | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.298 | | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.898 | | | | ND | |
| | 24 PETN | 2 | | 14.992 | | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

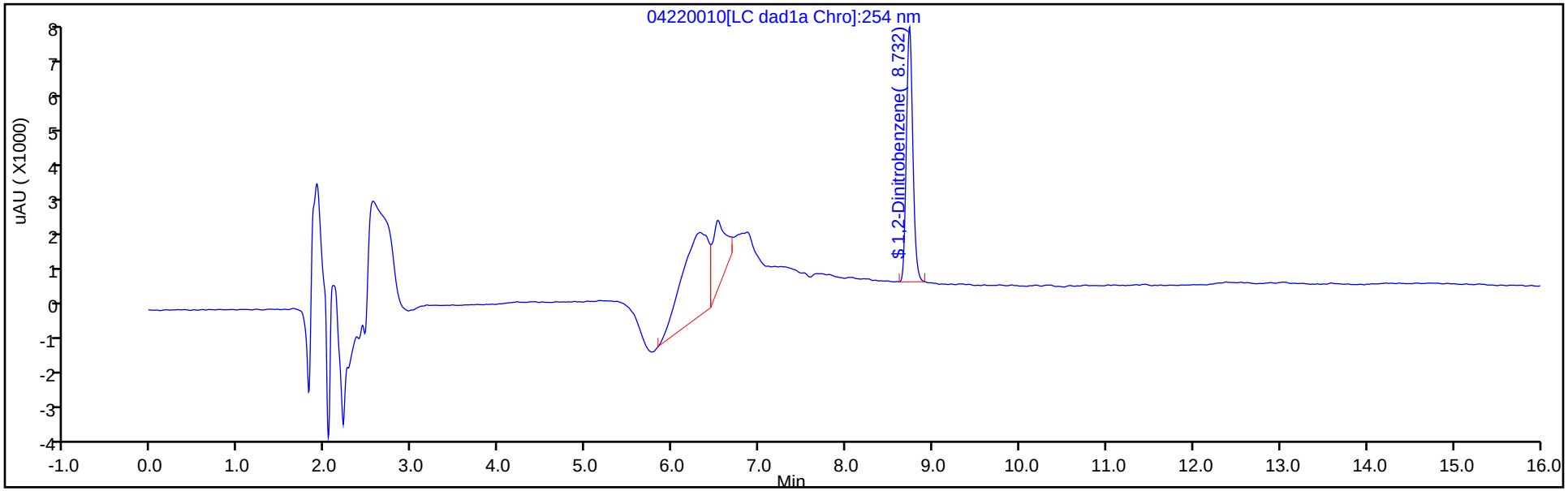
U - Marked Undetected

Report Date: 23-Apr-2020 12:03:30 Chrom Revision: 2.3 11-Mar-2020 18:53:20

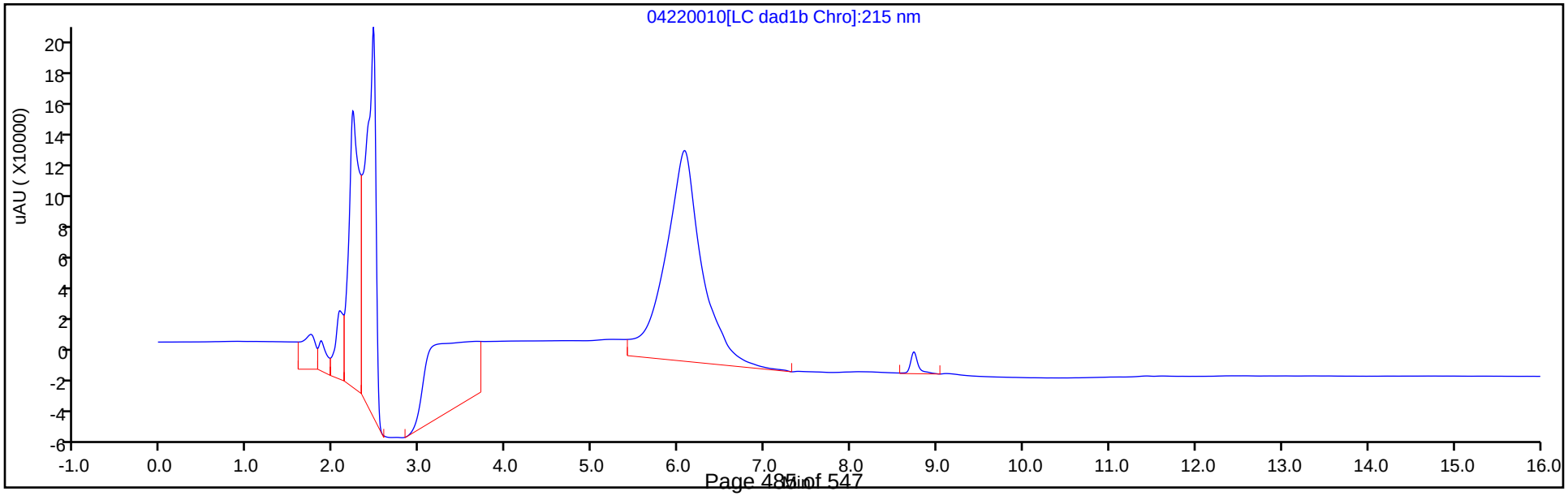
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220010.d | | | | |
| Injection Date: | 22-Apr-2020 16:47:32 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | MB 280-492251/1-A | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220010.D | | | | |
| Lims ID: | MB 280-492251/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 22-Apr-2020 16:47:32 | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-492251/1- | | | | |
| Misc. Info.: | 280-0090980-010 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:52:10

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2460 | 98.38 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-491558/2-A
Matrix: Water
Lab File ID: 04150010.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 500(mL)
Date Analyzed: 04/15/2020 13:53
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.: 491832
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 1.77 | | 0.40 | 0.20 | 0.084 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.87 | | 0.20 | 0.20 | 0.065 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.96 | | 0.40 | 0.40 | 0.16 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.70 | | 0.20 | 0.12 | 0.051 |
| 99-65-0 | 1,3-Dinitrobenzene | 1.88 | | 0.40 | 0.20 | 0.089 |
| 88-72-2 | 2-Nitrotoluene | 1.55 | | 0.40 | 0.20 | 0.086 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.06 | | 1.0 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.55 | | 0.20 | 0.12 | 0.058 |
| 99-08-1 | 3-Nitrotoluene | 1.75 | | 0.40 | 0.40 | 0.20 |
| 99-99-0 | 4-Nitrotoluene | 1.61 | | 1.0 | 0.40 | 0.20 |
| 2691-41-0 | HMX | 1.96 | M | 0.40 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.70 | | 0.40 | 0.20 | 0.091 |
| 121-82-4 | RDX | 1.88 | | 0.40 | 0.40 | 0.16 |
| 479-45-8 | Tetryl | 1.84 | | 0.24 | 0.20 | 0.079 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150010.D
Lims ID: LCS 280-491558/2-A
Client ID:
Sample Type: LCS
Inject. Date: 15-Apr-2020 13:53:33 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-491558/2
Misc. Info.: 280-0090829-010
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 16-Apr-2020 10:40:40 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0316

First Level Reviewer: beckerc Date: 16-Apr-2020 10:26:36

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.701 | 6.699 | 0.002 | 16871 | 0.2000 | 0.1963 | M |
| 7 RDX | 1 | 7.787 | 7.772 | 0.015 | 21897 | 0.2000 | 0.1878 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.114 | 8.072 | 0.042 | 18531 | 0.2000 | 0.2177 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.761 | 8.732 | 0.029 | 27130 | 0.2000 | 0.1963 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.927 | 8.905 | 0.022 | 47330 | 0.2000 | 0.2055 | |
| 11 1,3-Dinitrobenzene | 1 | 9.587 | 9.558 | 0.029 | 57660 | 0.2000 | 0.1880 | |
| 12 Nitrobenzene | 1 | 9.974 | 9.945 | 0.029 | 34166 | 0.2000 | 0.1705 | |
| 14 Tetryl | 1 | 10.294 | 10.252 | 0.042 | 32565 | 0.2000 | 0.1839 | |
| 15 Nitroglycerin | 2 | 10.800 | 10.758 | 0.042 | 137829 | 2.00 | 2.02 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.260 | 11.218 | 0.042 | 39899 | 0.2000 | 0.1956 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.427 | 11.378 | 0.049 | 26412 | 0.2000 | 0.1546 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.714 | 11.665 | 0.049 | 34576 | 0.2000 | 0.1705 | |
| 19 2,6-Dinitrotoluene | 1 | 11.867 | 11.825 | 0.042 | 27880 | 0.2000 | 0.1865 | |
| 20 2,4-Dinitrotoluene | 1 | 12.067 | 12.025 | 0.042 | 53653 | 0.2000 | 0.1767 | |
| 21 o-Nitrotoluene | 1 | 12.914 | 12.865 | 0.049 | 20924 | 0.2000 | 0.1549 | |
| 22 p-Nitrotoluene | 1 | 13.354 | 13.298 | 0.056 | 18250 | 0.2000 | 0.1615 | |
| 23 m-Nitrotoluene | 1 | 13.947 | 13.898 | 0.049 | 24997 | 0.2000 | 0.1748 | |
| 24 PETN | 2 | 15.047 | 14.992 | 0.055 | 148053 | 2.00 | 1.88 | |

## QC Flag Legend

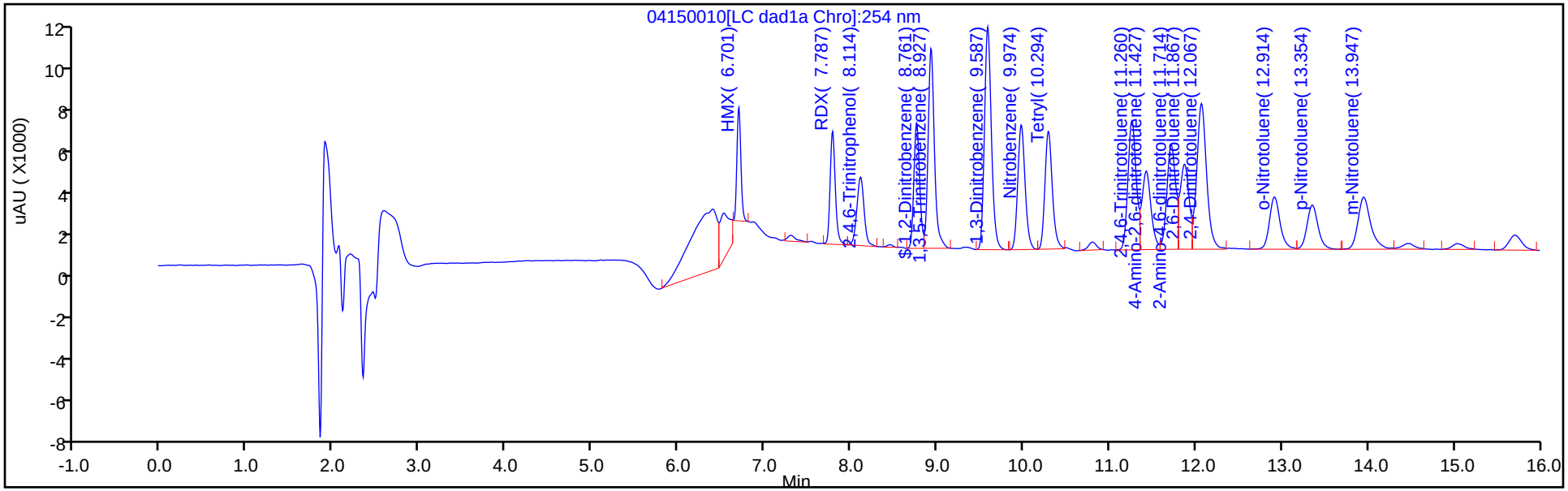
Review Flags
M - Manually Integrated

Report Date: 16-Apr-2020 10:40:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

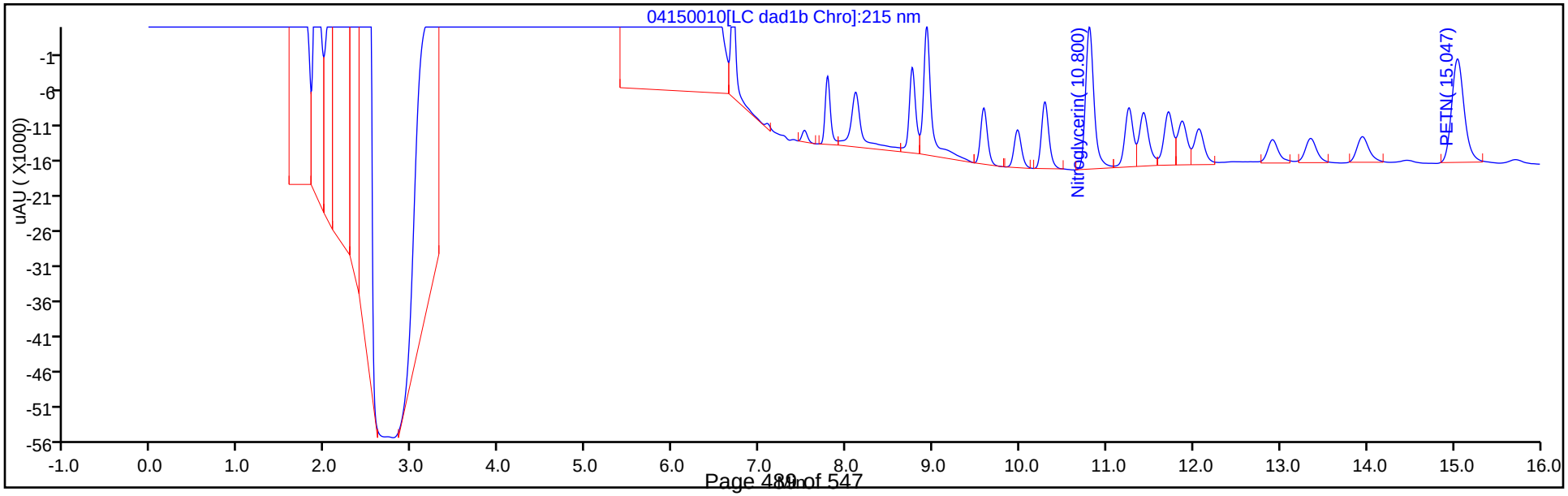
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150010.d | | | | |
| Injection Date: | 15-Apr-2020 13:53:33 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-491558/2-A | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150010.D | | | | |
| Lims ID: | LCS 280-491558/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 15-Apr-2020 13:53:33 | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-491558/2 | | | | |
| Misc. Info.: | 280-0090829-010 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |

First Level Reviewer: beckerc Date: 16-Apr-2020 10:26:36

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1963 | 98.15 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

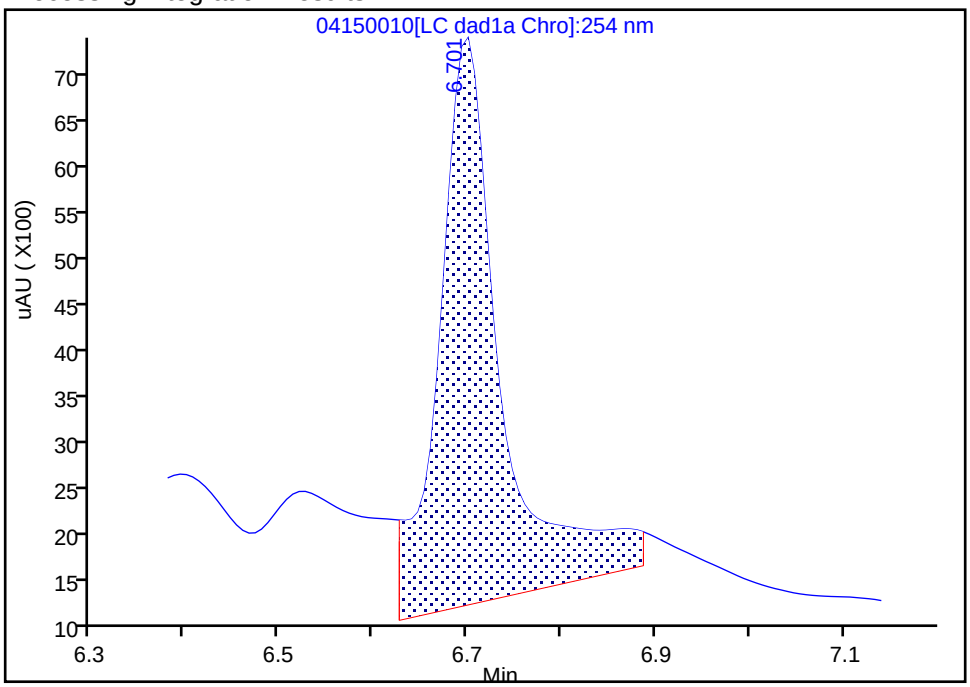
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150010.d | | | | |
| Injection Date: | 15-Apr-2020 13:53:33 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-491558/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

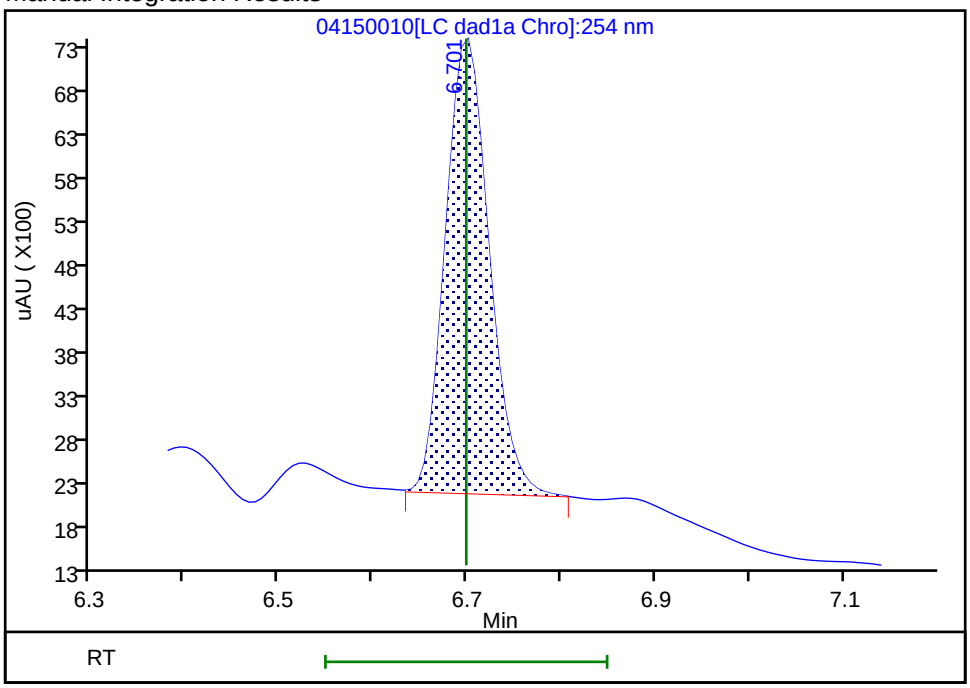
Processing Integration Results

RT: 6.70
Area: 28048
Amount: 0.326283
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 16871
Amount: 0.196261
Amount Units: ug/mL




Reviewer: beckerc, 16-Apr-2020 10:26:22

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-491558/3-A
Matrix: Water
Lab File ID: 04150011.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 500(mL)
Date Analyzed: 04/15/2020 14:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 491832
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.16 | | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 101 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150011.D | | | | |
| Lims ID: | LCS 280-491558/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 15-Apr-2020 14:16:30 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-491558/3 | | | | |
| Misc. Info.: | 280-0090829-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | |

| | | |
|---|---|---|
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | Det: LC DAD1B, 254 nm |
| Process Host: | CTX0316 | |

First Level Reviewer: beckerc Date: 16-Apr-2020 10:26:50

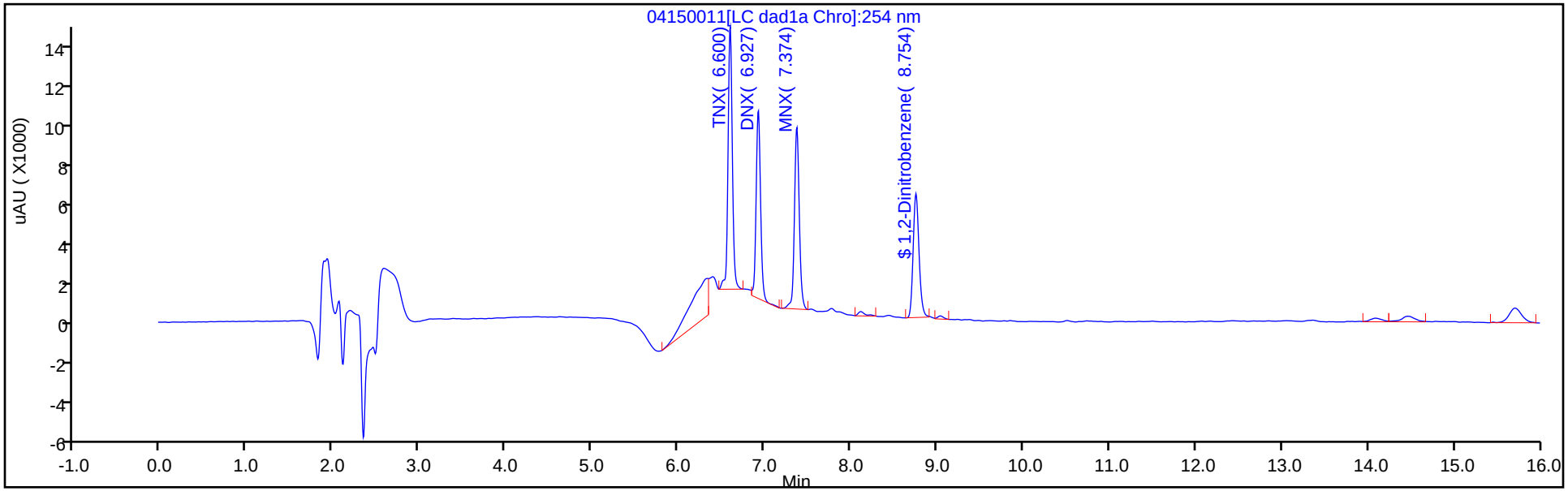
| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.600 | 6.597 | 0.003 | 43559 | 0.2002 | 0.2002 | |
| 5 DNX | 1 | 6.927 | 6.924 | 0.003 | 32277 | 0.2002 | 0.2111 | |
| 6 MNX | 1 | 7.374 | 7.364 | 0.010 | 34174 | 0.2334 | 0.2155 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.754 | 8.732 | 0.022 | 28030 | 0.2000 | 0.2028 | |

Report Date: 16-Apr-2020 10:40:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

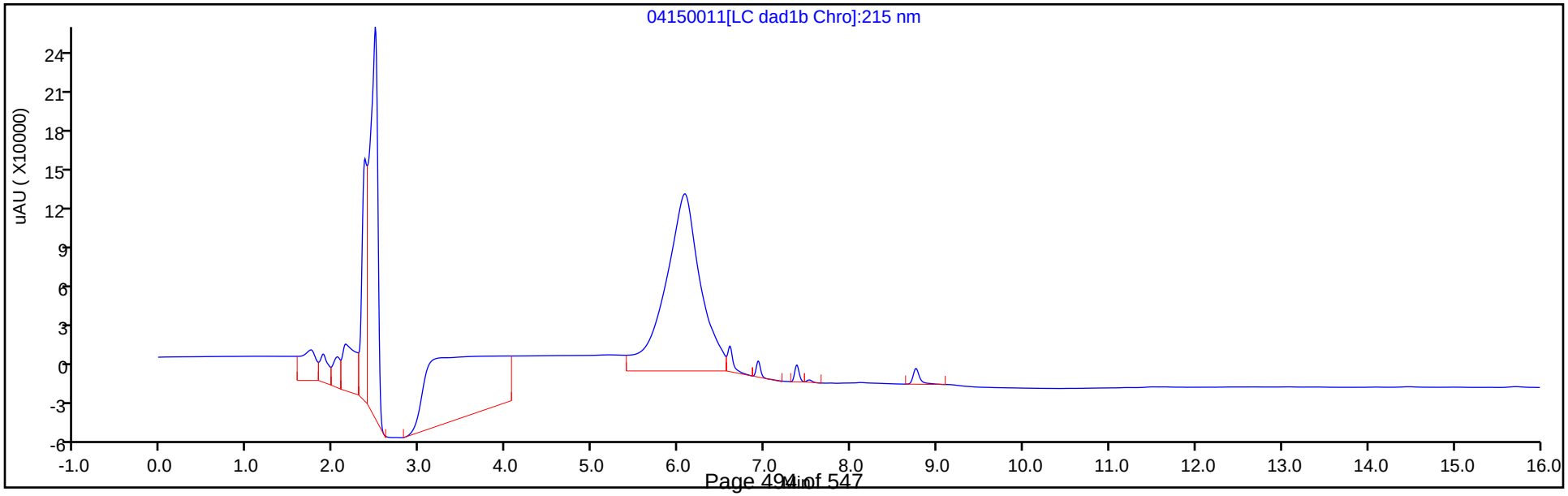
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150011.d | | | | |
| Injection Date: | 15-Apr-2020 14:16:30 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-491558/3-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150011.D | | | | |
| Lims ID: | LCS 280-491558/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 15-Apr-2020 14:16:30 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-491558/3 | | | | |
| Misc. Info.: | 280-0090829-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |
| First Level Reviewer: beckerc | | Date: | 16-Apr-2020 10:26:50 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2028 | 101.40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-492251/2-A
Matrix: Solid
Lab File ID: 04220011.D
Analysis Method: 8330A
Date Collected:
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2(g)
Date Analyzed: 04/22/2020 17:10
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 2.40 | | 0.25 | 0.11 | 0.050 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.57 | | 0.25 | 0.11 | 0.054 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.61 | | 0.25 | 0.17 | 0.058 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.55 | | 0.25 | 0.11 | 0.10 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.51 | | 0.25 | 0.17 | 0.061 |
| 88-72-2 | 2-Nitrotoluene | 2.37 | | 0.25 | 0.17 | 0.084 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.59 | | 0.25 | 0.17 | 0.071 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 2.32 | | 0.25 | 0.25 | 0.039 |
| 99-08-1 | 3-Nitrotoluene | 2.55 | | 0.50 | 0.25 | 0.12 |
| 99-99-0 | 4-Nitrotoluene | 2.46 | | 0.40 | 0.17 | 0.11 |
| 2691-41-0 | HMX | 2.45 | M | 0.25 | 0.17 | 0.078 |
| 98-95-3 | Nitrobenzene | 2.56 | | 0.25 | 0.17 | 0.061 |
| 121-82-4 | RDX | 2.26 | | 0.26 | 0.17 | 0.085 |
| 479-45-8 | Tetryl | 2.52 | | 0.50 | 0.11 | 0.055 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 96 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220011.D
Lims ID: LCS 280-492251/2-A
Client ID:
Sample Type: LCS
Inject. Date: 22-Apr-2020 17:10:29 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-492251/2
Misc. Info.: 280-0090980-011
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:52:39

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.693 | 6.699 | -0.006 | 21047 | 0.2500 | 0.2448 | M |
| 7 RDX | 1 | 7.760 | 7.772 | -0.012 | 26360 | 0.2500 | 0.2260 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.113 | 8.072 | 0.041 | 21360 | 0.2500 | 0.2509 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.733 | 8.732 | 0.001 | 33303 | 0.2500 | 0.2410 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.900 | 8.905 | -0.005 | 59577 | 0.2500 | 0.2587 | |
| 11 1,3-Dinitrobenzene | 1 | 9.553 | 9.558 | -0.005 | 76974 | 0.2500 | 0.2510 | |
| 12 Nitrobenzene | 1 | 9.939 | 9.945 | -0.006 | 51255 | 0.2500 | 0.2558 | |
| 14 Tetryl | 1 | 10.253 | 10.252 | 0.001 | 44568 | 0.2500 | 0.2518 | |
| 15 Nitroglycerin | 2 | 10.766 | 10.758 | 0.008 | 172223 | 2.50 | 2.53 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.219 | 11.218 | 0.001 | 53275 | 0.2500 | 0.2611 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.373 | 11.378 | -0.005 | 40143 | 0.2500 | 0.2316 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.659 | 11.665 | -0.006 | 51711 | 0.2500 | 0.2550 | |
| 19 2,6-Dinitrotoluene | 1 | 11.819 | 11.825 | -0.006 | 38406 | 0.2500 | 0.2570 | |
| 20 2,4-Dinitrotoluene | 1 | 12.013 | 12.025 | -0.012 | 72800 | 0.2500 | 0.2398 | |
| 21 o-Nitrotoluene | 1 | 12.853 | 12.865 | -0.012 | 31940 | 0.2500 | 0.2365 | |
| 22 p-Nitrotoluene | 1 | 13.286 | 13.298 | -0.012 | 27778 | 0.2500 | 0.2458 | |
| 23 m-Nitrotoluene | 1 | 13.879 | 13.898 | -0.019 | 36485 | 0.2500 | 0.2551 | |
| 24 PETN | 2 | 14.973 | 14.992 | -0.019 | 185885 | 2.50 | 2.36 | |

## QC Flag Legend

Review Flags

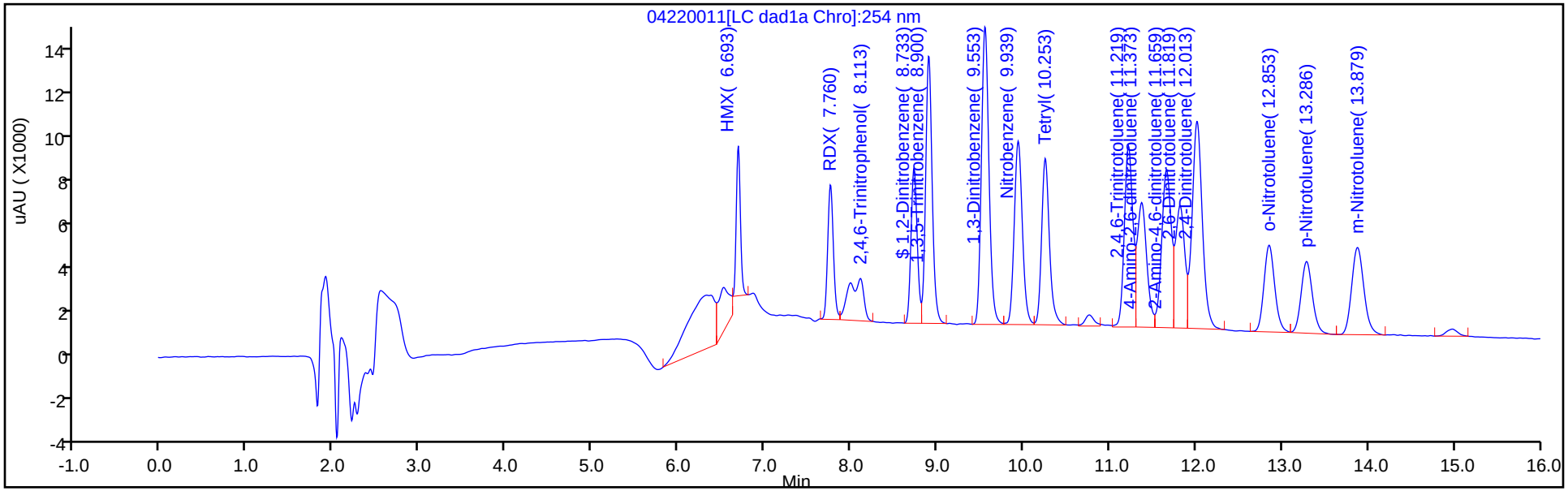
M - Manually Integrated

Report Date: 23-Apr-2020 12:03:31 Chrom Revision: 2.3 11-Mar-2020 18:53:20

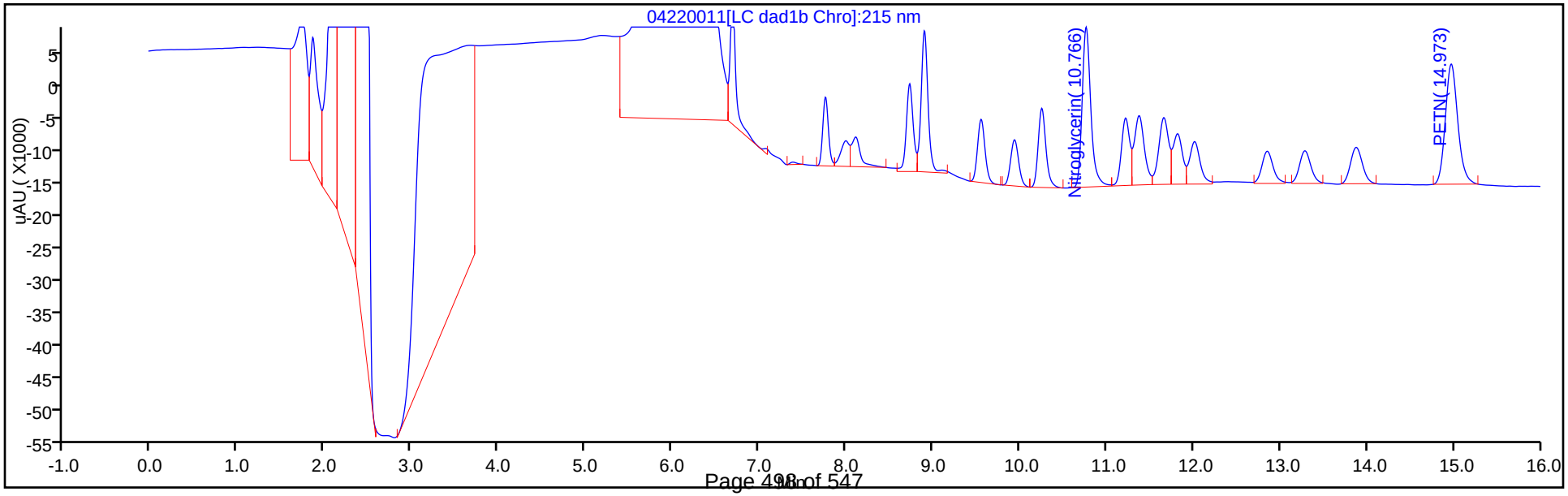
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 17:10:29 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-492251/2-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220011.D | | | | |
| Lims ID: | LCS 280-492251/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 22-Apr-2020 17:10:29 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-492251/2 | | | | |
| Misc. Info.: | 280-0090980-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:52:39

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2410 | 96.38 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

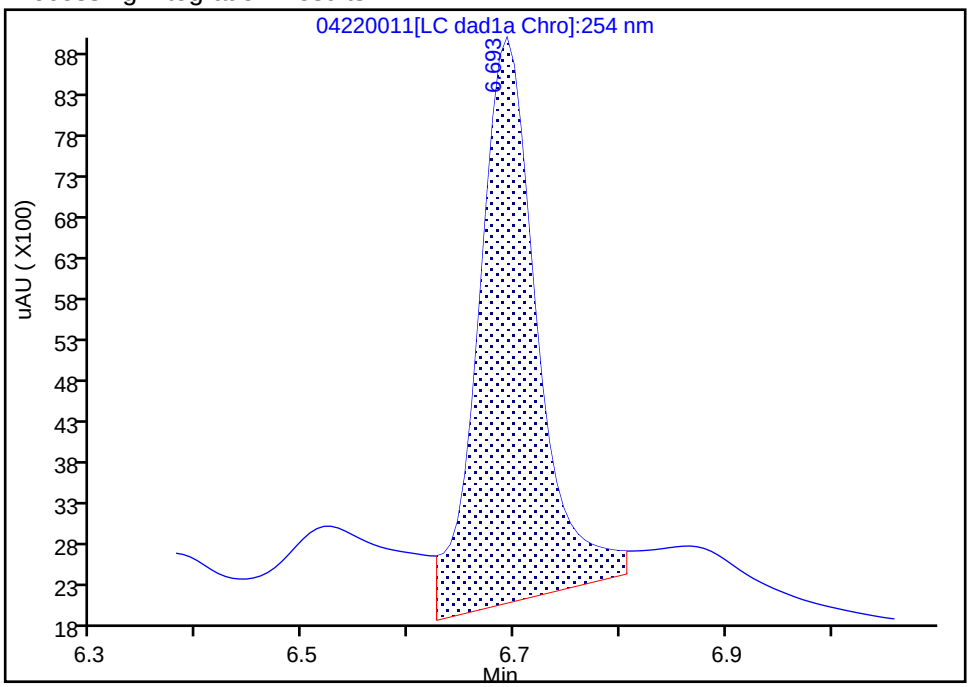
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220011.d | | | | |
| Injection Date: | 22-Apr-2020 17:10:29 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-492251/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

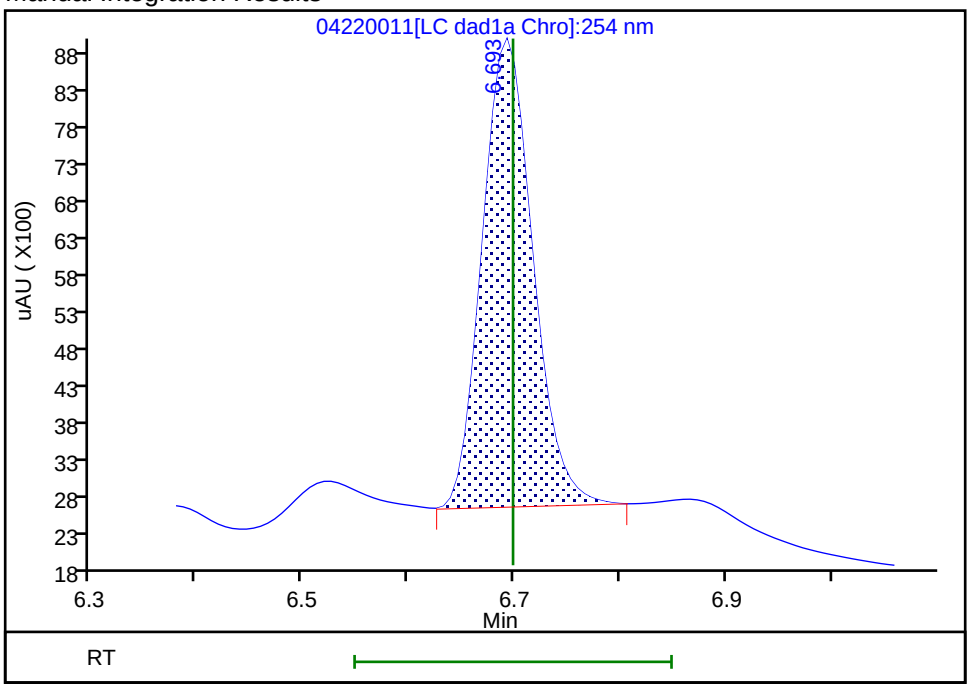
Processing Integration Results

RT: 6.69
Area: 26744
Amount: 0.311114
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 21047
Amount: 0.244840
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:52:22
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-492251/3-A
Matrix: Solid
Lab File ID: 04220012.D
Analysis Method: 8330A
Date Collected:
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2(g)
Date Analyzed: 04/22/2020 17:33
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 50 | U M | 100 | 50 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220012.D | | | | |
| Lims ID: | LCS 280-492251/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 22-Apr-2020 17:33:23 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-492251/3 | | | | |
| Misc. Info.: | 280-0090980-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | |

| | | |
|---|---|---|
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | Det: LC DAD1B, 254 nm |
| Process Host: | CTX0327 | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:53:03

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.587 | 6.597 | -0.010 | 51912 | 0.2503 | 0.2386 | M |
| 5 DNX | 1 | 6.913 | 6.924 | -0.011 | 39232 | 0.2503 | 0.2565 | M |
| 6 MNX | 1 | 7.353 | 7.364 | -0.011 | 41265 | 0.2918 | 0.2603 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.733 | 8.732 | 0.001 | 33765 | 0.2500 | 0.2443 | |

## QC Flag Legend

Review Flags

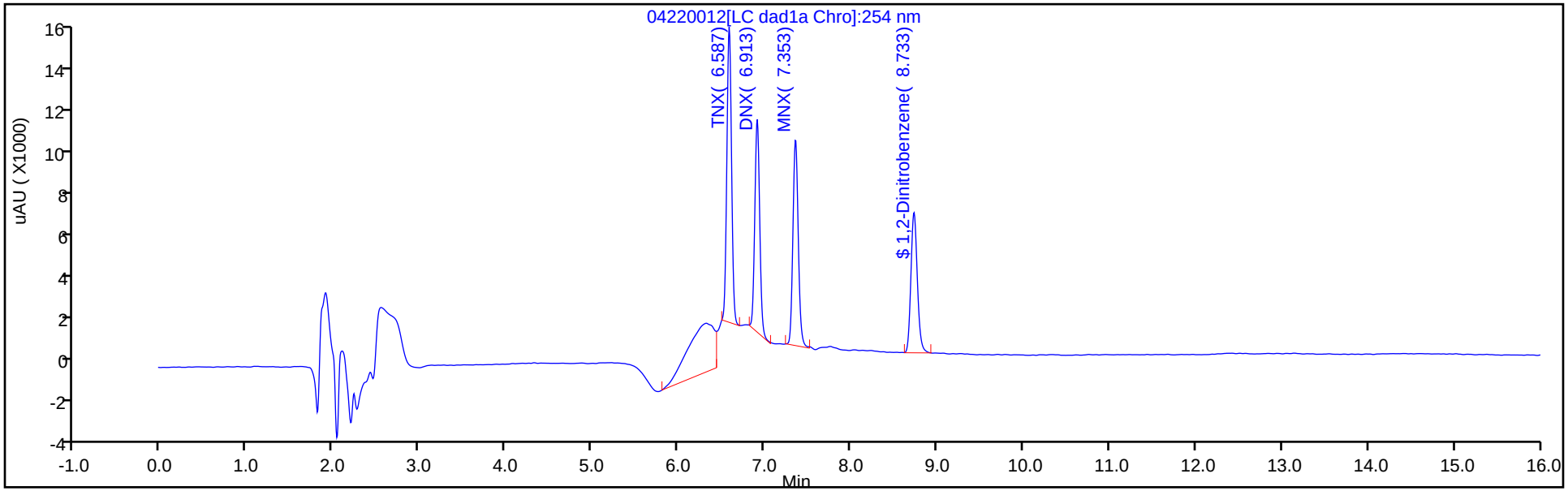
M - Manually Integrated

Report Date: 23-Apr-2020 12:03:31 Chrom Revision: 2.3 11-Mar-2020 18:53:20

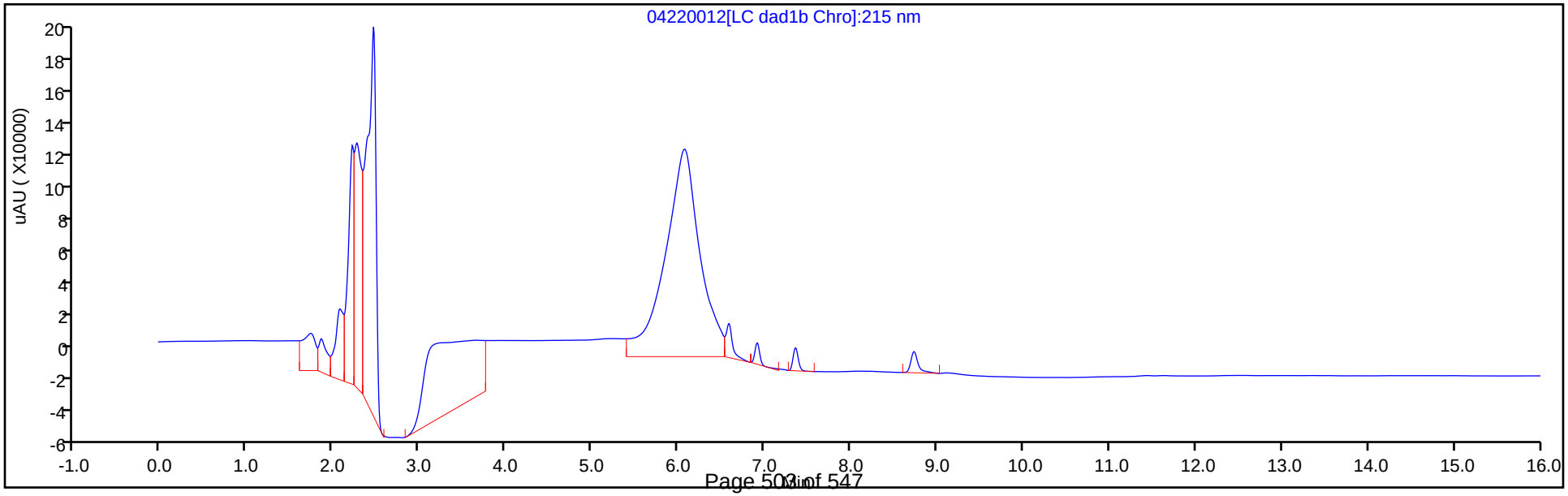
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 17:33:23 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-492251/3-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220012.D | | | | |
| Lims ID: | LCS 280-492251/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 22-Apr-2020 17:33:23 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-492251/3 | | | | |
| Misc. Info.: | 280-0090980-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:53:03

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2443 | 97.72 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

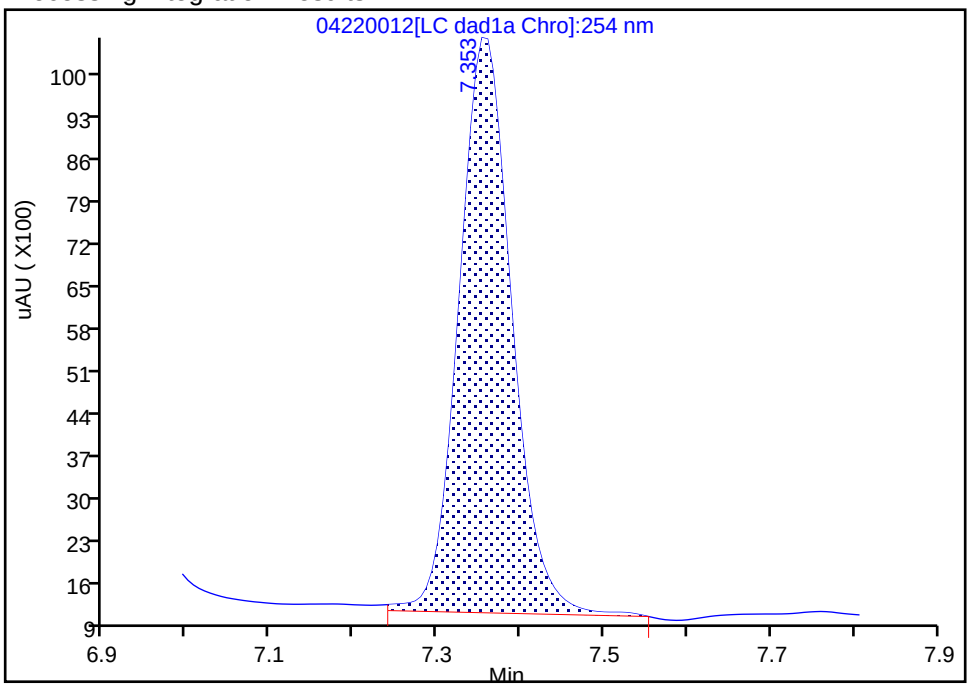
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220012.d | | | | |
| Injection Date: | 22-Apr-2020 17:33:23 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-492251/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

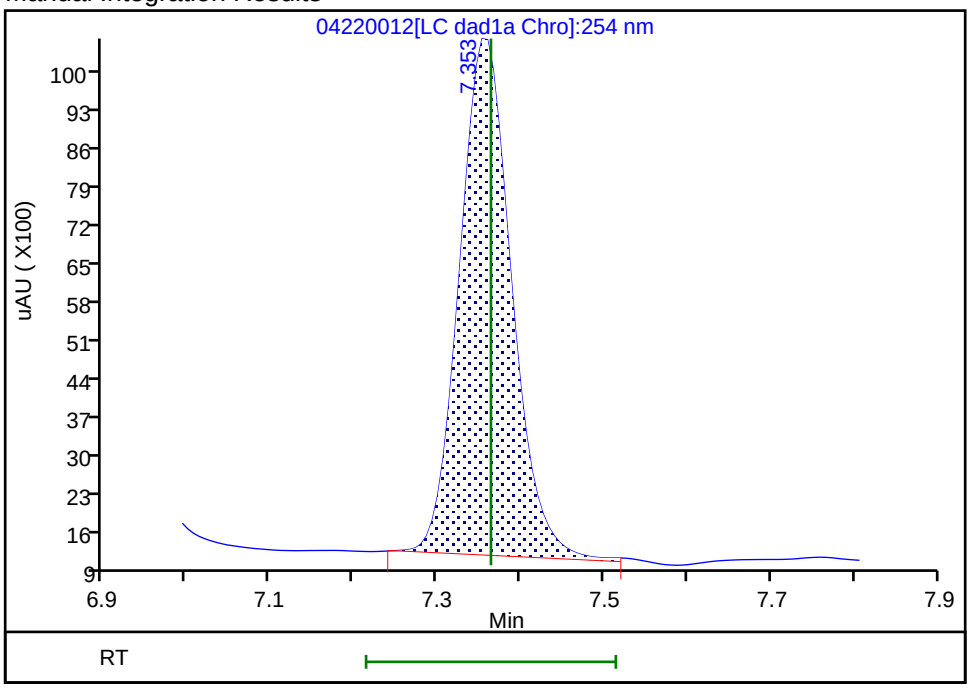
Processing Integration Results

RT: 7.35
Area: 42191
Amount: 0.266115
Amount Units: ug/mL




Manual Integration Results

RT: 7.35
Area: 41265
Amount: 0.260274
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:52:58

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-491558/4-A
Matrix: Water
Lab File ID: 04150012.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 04/13/2020 10:17
Sample wt/vol: 500(mL)
Date Analyzed: 04/15/2020 14:39
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 491832
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.27 | | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 111 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150012.D | | | | |
| Lims ID: | LCSD 280-491558/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 15-Apr-2020 14:39:25 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-491558/ | | | | |
| Misc. Info.: | 280-0090829-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |
| First Level Reviewer: beckerc | | Date: | 16-Apr-2020 10:27:16 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.603 | 6.597 | 0.006 | 42334 | 0.2002 | 0.1945 | M |
| 5 DNX | 1 | 6.930 | 6.924 | 0.006 | 32684 | 0.2002 | 0.2137 | M |
| 6 MNX | 1 | 7.377 | 7.364 | 0.013 | 36068 | 0.2334 | 0.2275 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.750 | 8.732 | 0.018 | 30564 | 0.2000 | 0.2211 | |

## QC Flag Legend

Review Flags

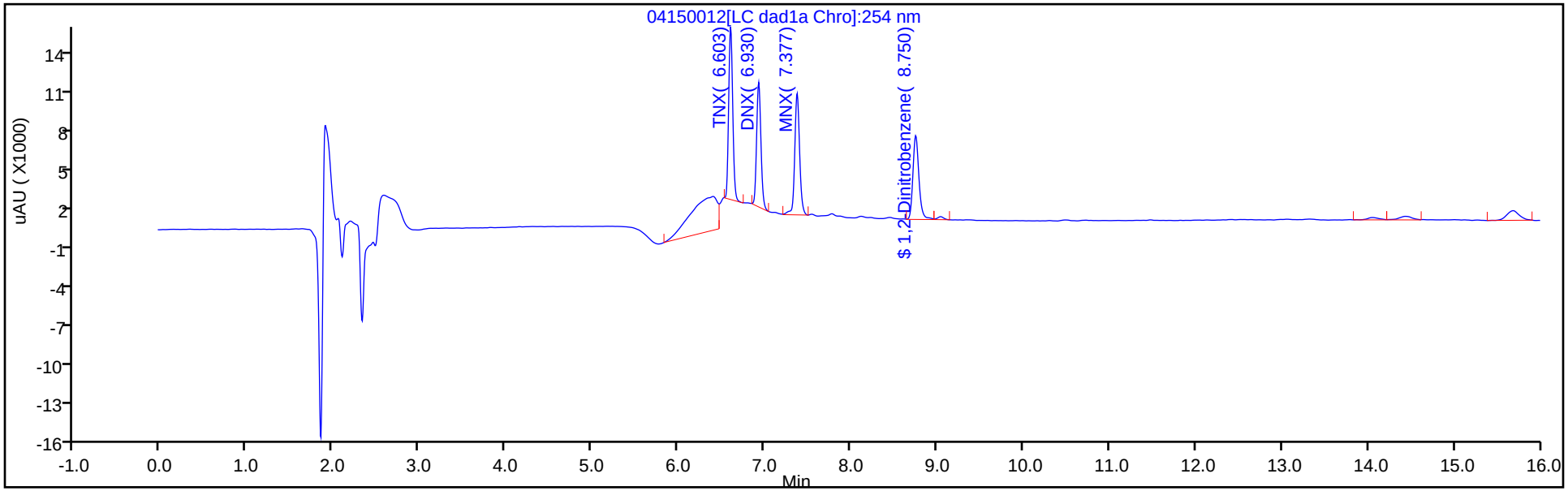
M - Manually Integrated

Report Date: 16-Apr-2020 10:40:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

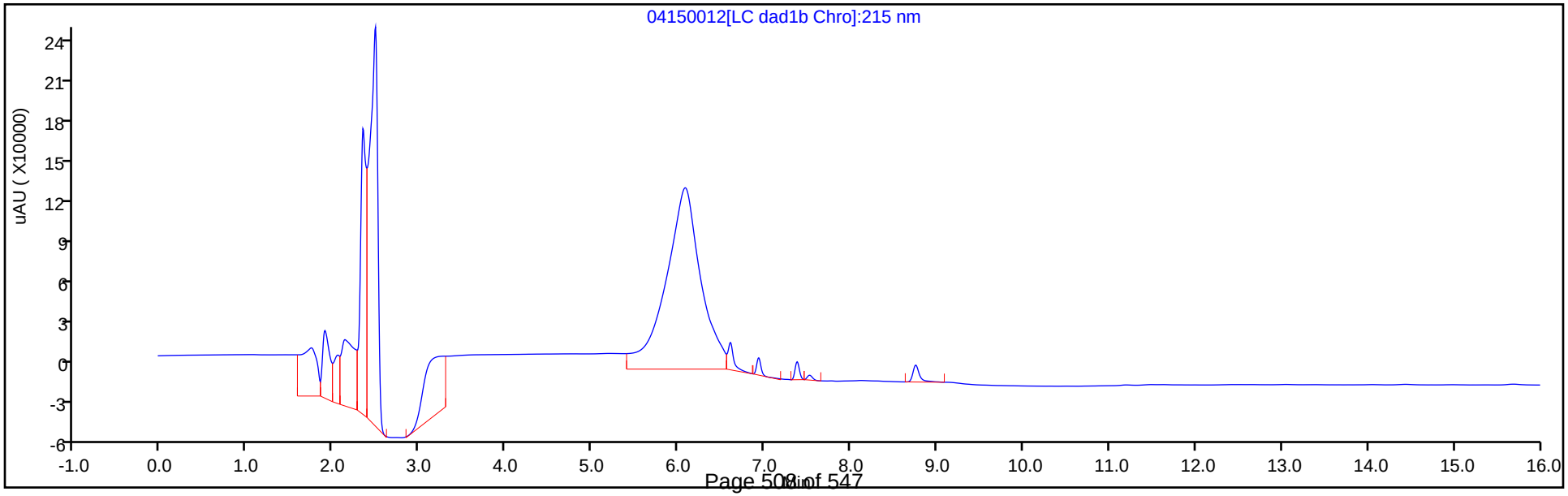
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200415-90829.b\04150012.d | | | | |
| Injection Date: | 15-Apr-2020 14:39:25 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCSD 280-491558/4-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\04150012.D | | | | |
| Lims ID: | LCSD 280-491558/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 15-Apr-2020 14:39:25 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-491558/ | | | | |
| Misc. Info.: | 280-0090829-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200415-90829.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 16-Apr-2020 10:40:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0316 | | | | |
| First Level Reviewer: beckerc | | Date: | 16-Apr-2020 10:27:16 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2211 | 110.57 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: SOILWC-LTM-Apr20 MS
Lab Sample ID: 280-135347-1 MS
Matrix: Solid
Lab File ID: 04220014.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2.09(g)
Date Analyzed: 04/22/2020 18:19
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 2.30 | | 0.24 | 0.11 | 0.048 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.39 | | 0.24 | 0.11 | 0.052 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.35 | | 0.24 | 0.16 | 0.055 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.38 | | 0.24 | 0.11 | 0.097 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.35 | | 0.24 | 0.16 | 0.058 |
| 88-72-2 | 2-Nitrotoluene | 2.31 | | 0.24 | 0.16 | 0.080 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.38 | | 0.24 | 0.16 | 0.068 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 2.03 | | 0.24 | 0.24 | 0.037 |
| 99-08-1 | 3-Nitrotoluene | 2.46 | | 0.48 | 0.24 | 0.11 |
| 99-99-0 | 4-Nitrotoluene | 2.40 | | 0.38 | 0.16 | 0.10 |
| 2691-41-0 | HMX | 2.24 | M | 0.24 | 0.16 | 0.074 |
| 98-95-3 | Nitrobenzene | 2.42 | | 0.24 | 0.16 | 0.059 |
| 121-82-4 | RDX | 2.11 | | 0.25 | 0.16 | 0.082 |
| 479-45-8 | Tetryl | 2.27 | | 0.48 | 0.11 | 0.052 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 94 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220014.D
Lims ID: 280-135347-B-1-E MS
Client ID:
Sample Type: MS
Inject. Date: 22-Apr-2020 18:19:27 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-135347-B-1-E
Misc. Info.: 280-0090980-014
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:07

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | | 6.558 | | | | ND | U |
| | 2 TNX | 1 | | 6.597 | | | | ND | |
| | 3 HMX | 1 | 6.699 | 6.699 | 0.000 | 20139 | 0.2500 | 0.2343 | M |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | | 6.924 | | | | ND | |
| | 6 MNX | 1 | | 7.364 | | | | ND | |
| | 7 RDX | 1 | 7.773 | 7.772 | 0.001 | 25712 | 0.2500 | 0.2205 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.119 | 8.072 | 0.047 | 19708 | 0.2500 | 0.2315 | M |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.739 | 8.732 | 0.007 | 32488 | 0.2500 | 0.2351 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.906 | 8.905 | 0.001 | 57370 | 0.2500 | 0.2491 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.552 | 9.558 | -0.006 | 75234 | 0.2500 | 0.2453 | |
| | 12 Nitrobenzene | 1 | 9.939 | 9.945 | -0.006 | 50752 | 0.2500 | 0.2533 | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | 10.246 | 10.252 | -0.006 | 41987 | 0.2500 | 0.2372 | |
| | 15 Nitroglycerin | 2 | 10.759 | 10.758 | 0.001 | 170167 | 2.50 | 2.50 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.212 | 11.218 | -0.006 | 50185 | 0.2500 | 0.2460 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.366 | 11.378 | -0.012 | 36665 | 0.2500 | 0.2121 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.659 | 11.665 | -0.006 | 50536 | 0.2500 | 0.2492 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.812 | 11.825 | -0.013 | 37361 | 0.2500 | 0.2500 | |
| | 20 2,4-Dinitrotoluene | 1 | 12.012 | 12.025 | -0.013 | 72902 | 0.2500 | 0.2401 | |
| | 21 o-Nitrotoluene | 1 | 12.846 | 12.865 | -0.019 | 32544 | 0.2500 | 0.2410 | |
| | 22 p-Nitrotoluene | 1 | 13.286 | 13.298 | -0.012 | 28291 | 0.2500 | 0.2504 | |
| | 23 m-Nitrotoluene | 1 | 13.879 | 13.898 | -0.019 | 36748 | 0.2500 | 0.2569 | |
| | 24 PETN | 2 | 14.979 | 14.992 | -0.013 | 187095 | 2.50 | 2.38 | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

M - Manually Integrated

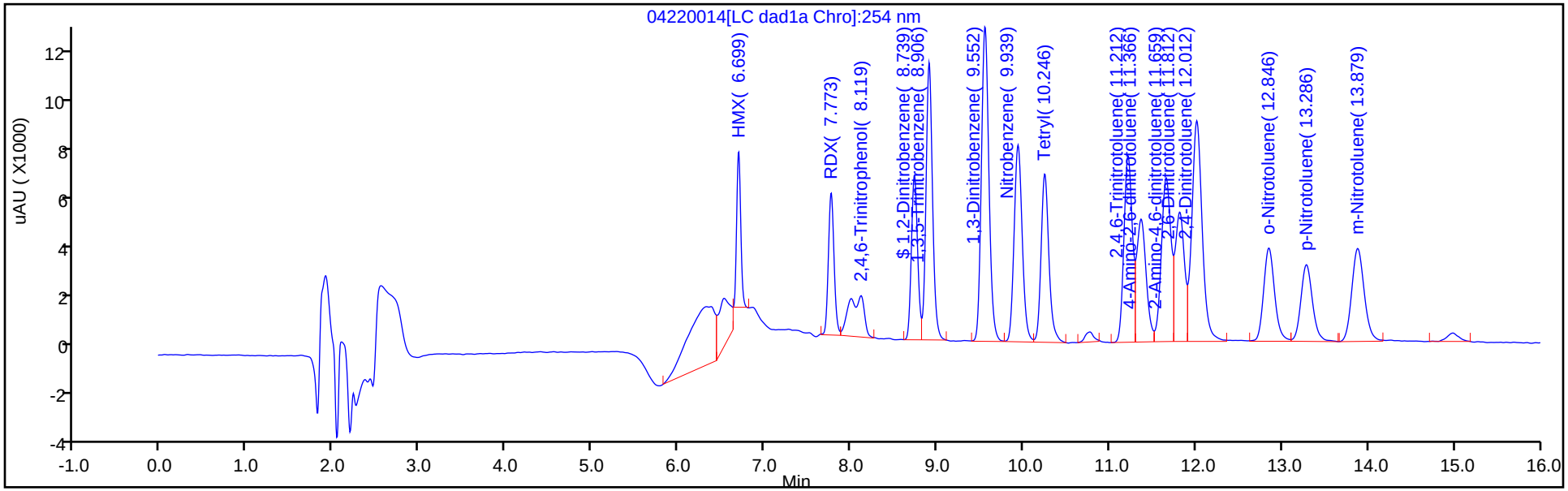
U - Marked Undetected

Report Date: 23-Apr-2020 12:03:32 Chrom Revision: 2.3 11-Mar-2020 18:53:20

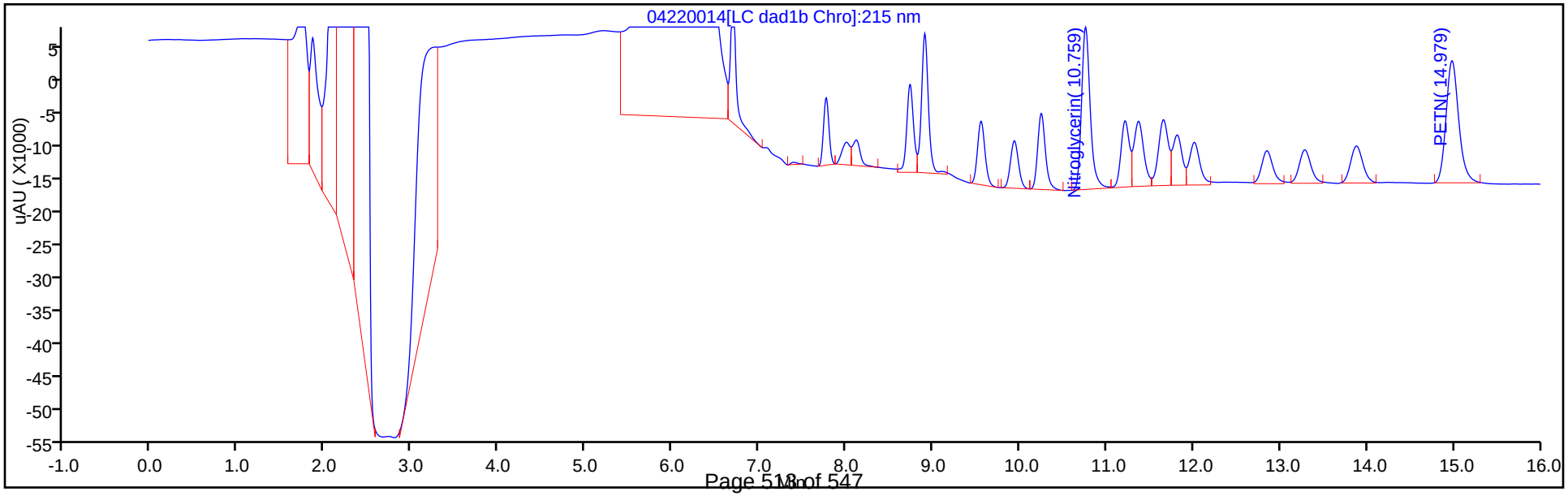
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220014.d | | | | |
| Injection Date: | 22-Apr-2020 18:19:27 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-B-1-E MS | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220014.D | | | | |
| Lims ID: | 280-135347-B-1-E MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 22-Apr-2020 18:19:27 | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-B-1-E | | | | |
| Misc. Info.: | 280-0090980-014 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:07

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2351 | 94.02 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

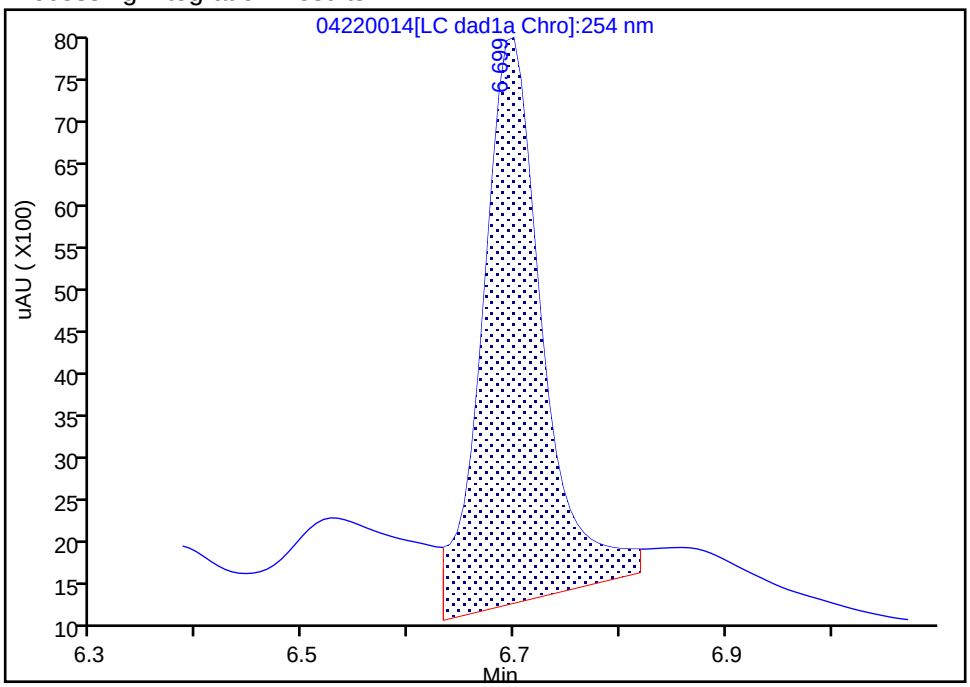
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220014.d | | | | |
| Injection Date: | 22-Apr-2020 18:19:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-B-1-E MS | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

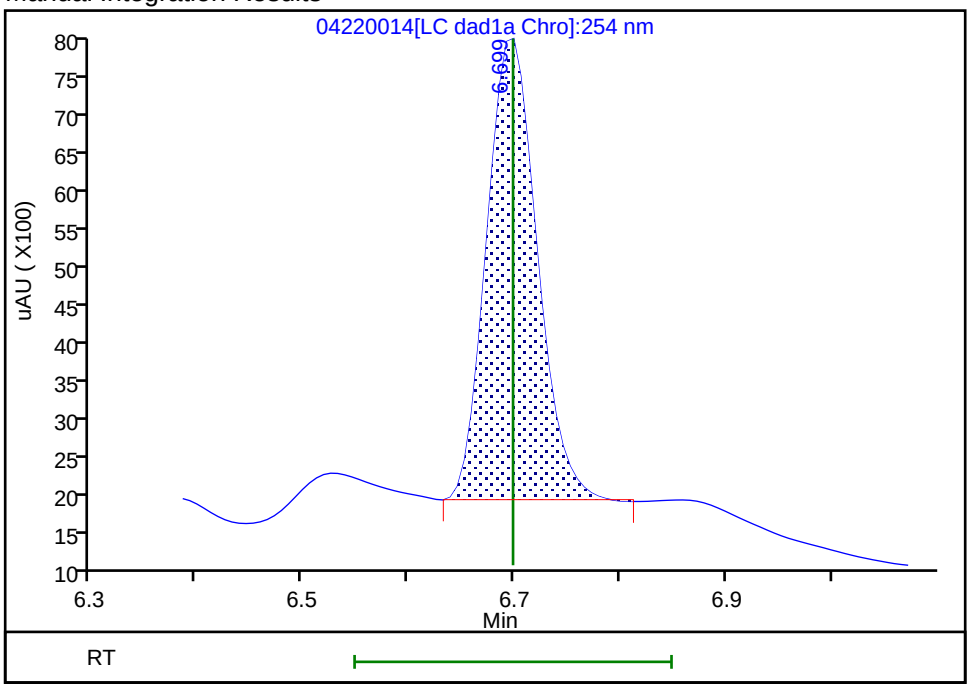
Processing Integration Results

RT: 6.70
Area: 26726
Amount: 0.310904
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 20139
Amount: 0.234277
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:53:50
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: SOILWC-LTM-Apr20 MS
Lab Sample ID: 280-135347-1 MS
Matrix: Solid
Lab File ID: 04220016.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2.08(g)
Date Analyzed: 04/22/2020 19:05
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 48 | U | 96 | 48 | 9.6 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220016.D
Lims ID: 280-135347-B-1-G MS
Client ID:
Sample Type: MS
Inject. Date: 22-Apr-2020 19:05:16 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-135347-B-1-G
Misc. Info.: 280-0090980-016
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:52

| | 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 | | 6.558 | | | | ND | |
| | 2 TNX | 1 | 6.589 | 6.597 | -0.008 | 53053 | 0.2503 | 0.2438 | M |
| | 3 HMX | 1 | | 6.699 | | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | 6.916 | 6.924 | -0.008 | 37670 | 0.2503 | 0.2463 | M |
| | 6 MNX | 1 | 7.363 | 7.364 | -0.001 | 40305 | 0.2918 | 0.2542 | |
| | 7 RDX | 1 | | 7.772 | | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.072 | | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.736 | 8.732 | 0.004 | 33712 | 0.2500 | 0.2439 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.945 | | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | | 10.252 | | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.758 | | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.865 | | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.298 | | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.898 | | | | ND | |
| | 24 PETN | 2 | | 14.992 | | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

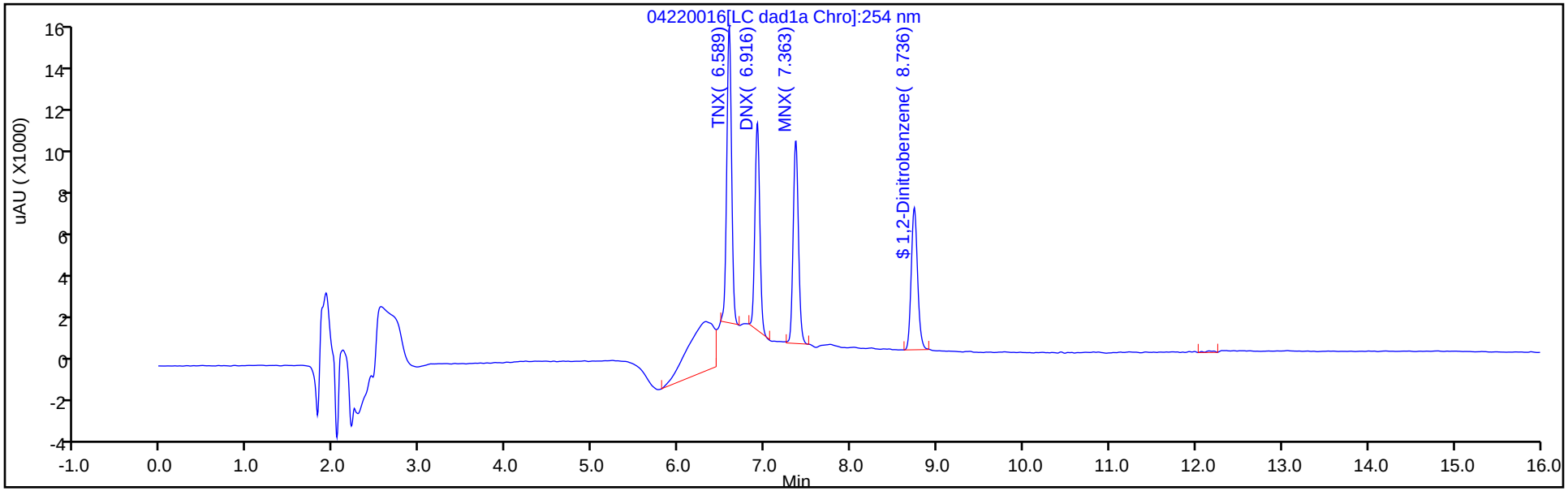
M - Manually Integrated

Report Date: 23-Apr-2020 12:03:33 Chrom Revision: 2.3 11-Mar-2020 18:53:20

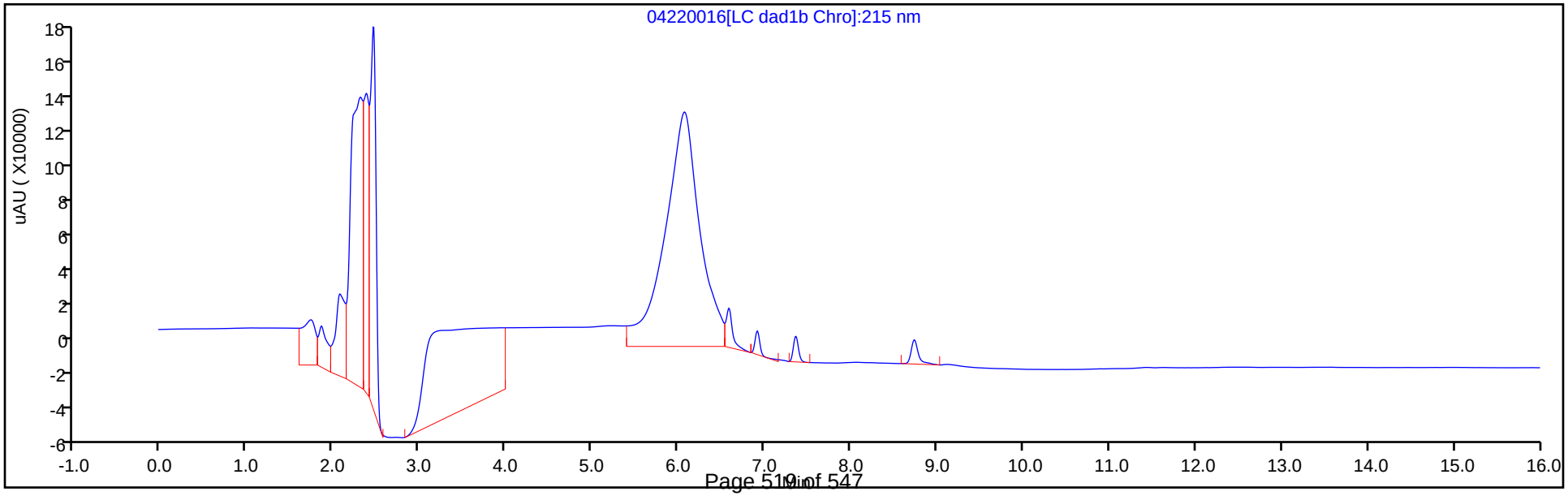
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220016.d | | | | |
| Injection Date: | 22-Apr-2020 19:05:16 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-B-1-G MS | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220016.D | | | | |
| Lims ID: | 280-135347-B-1-G MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 22-Apr-2020 19:05:16 | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-B-1-G | | | | |
| Misc. Info.: | 280-0090980-016 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:52

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2439 | 97.57 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: SOILWC-LTM-Apr20 MSD
Lab Sample ID: 280-135347-1 MSD
Matrix: Solid
Lab File ID: 04220015.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2.08(g)
Date Analyzed: 04/22/2020 18:42
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 2.37 | | 0.24 | 0.11 | 0.048 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.47 | | 0.24 | 0.11 | 0.052 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.43 | | 0.24 | 0.16 | 0.056 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.42 | | 0.24 | 0.11 | 0.097 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.40 | | 0.24 | 0.16 | 0.059 |
| 88-72-2 | 2-Nitrotoluene | 2.31 | | 0.24 | 0.16 | 0.081 |
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.51 | | 0.24 | 0.16 | 0.068 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 2.06 | | 0.24 | 0.24 | 0.038 |
| 99-08-1 | 3-Nitrotoluene | 2.46 | | 0.48 | 0.24 | 0.11 |
| 99-99-0 | 4-Nitrotoluene | 2.40 | | 0.38 | 0.16 | 0.10 |
| 2691-41-0 | HMX | 2.29 | M | 0.24 | 0.16 | 0.075 |
| 98-95-3 | Nitrobenzene | 2.44 | | 0.24 | 0.16 | 0.059 |
| 121-82-4 | RDX | 2.13 | | 0.25 | 0.16 | 0.082 |
| 479-45-8 | Tetryl | 2.39 | | 0.48 | 0.11 | 0.053 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 96 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220015.D
Lims ID: 280-135347-B-1-F MSD
Client ID:
Sample Type: MSD
Inject. Date: 22-Apr-2020 18:42:22 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-135347-B-1-F
Misc. Info.: 280-0090980-015
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:35

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | | 6.558 | | | | ND | U |
| | 2 TNX | 1 | | 6.597 | | | | ND | |
| | 3 HMX | 1 | 6.696 | 6.699 | -0.003 | 20504 | 0.2500 | 0.2385 | M |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | | 6.924 | | | | ND | |
| | 6 MNX | 1 | | 7.364 | | | | ND | |
| | 7 RDX | 1 | 7.763 | 7.772 | -0.009 | 25867 | 0.2500 | 0.2218 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.109 | 8.072 | 0.037 | 20610 | 0.2500 | 0.2421 | M |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.736 | 8.732 | 0.004 | 33095 | 0.2500 | 0.2395 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.903 | 8.905 | -0.002 | 60230 | 0.2500 | 0.2615 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.556 | 9.558 | -0.002 | 76697 | 0.2500 | 0.2501 | |
| | 12 Nitrobenzene | 1 | 9.942 | 9.945 | -0.003 | 50936 | 0.2500 | 0.2542 | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | 10.256 | 10.252 | 0.004 | 43954 | 0.2500 | 0.2483 | |
| | 15 Nitroglycerin | 2 | 10.769 | 10.758 | 0.011 | 171095 | 2.50 | 2.51 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.222 | 11.218 | 0.004 | 51638 | 0.2500 | 0.2531 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.382 | 11.378 | 0.004 | 37130 | 0.2500 | 0.2147 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.669 | 11.665 | 0.004 | 51095 | 0.2500 | 0.2519 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.829 | 11.825 | 0.004 | 38424 | 0.2500 | 0.2571 | |
| | 20 2,4-Dinitrotoluene | 1 | 12.022 | 12.025 | -0.003 | 74704 | 0.2500 | 0.2461 | |
| | 21 o-Nitrotoluene | 1 | 12.862 | 12.865 | -0.003 | 32458 | 0.2500 | 0.2403 | |
| | 22 p-Nitrotoluene | 1 | 13.296 | 13.298 | -0.002 | 28262 | 0.2500 | 0.2501 | |
| | 23 m-Nitrotoluene | 1 | 13.889 | 13.898 | -0.009 | 36624 | 0.2500 | 0.2561 | |
| | 24 PETN | 2 | 14.989 | 14.992 | -0.003 | 186442 | 2.50 | 2.37 | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

M - Manually Integrated

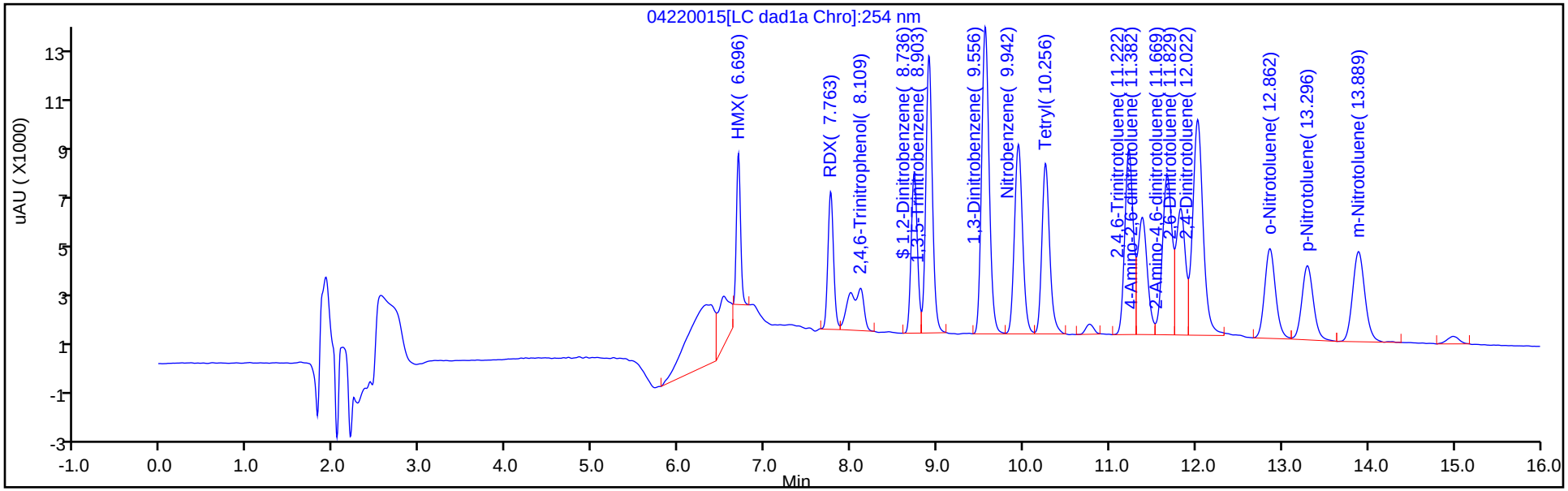
U - Marked Undetected

Report Date: 23-Apr-2020 12:03:32 Chrom Revision: 2.3 11-Mar-2020 18:53:20

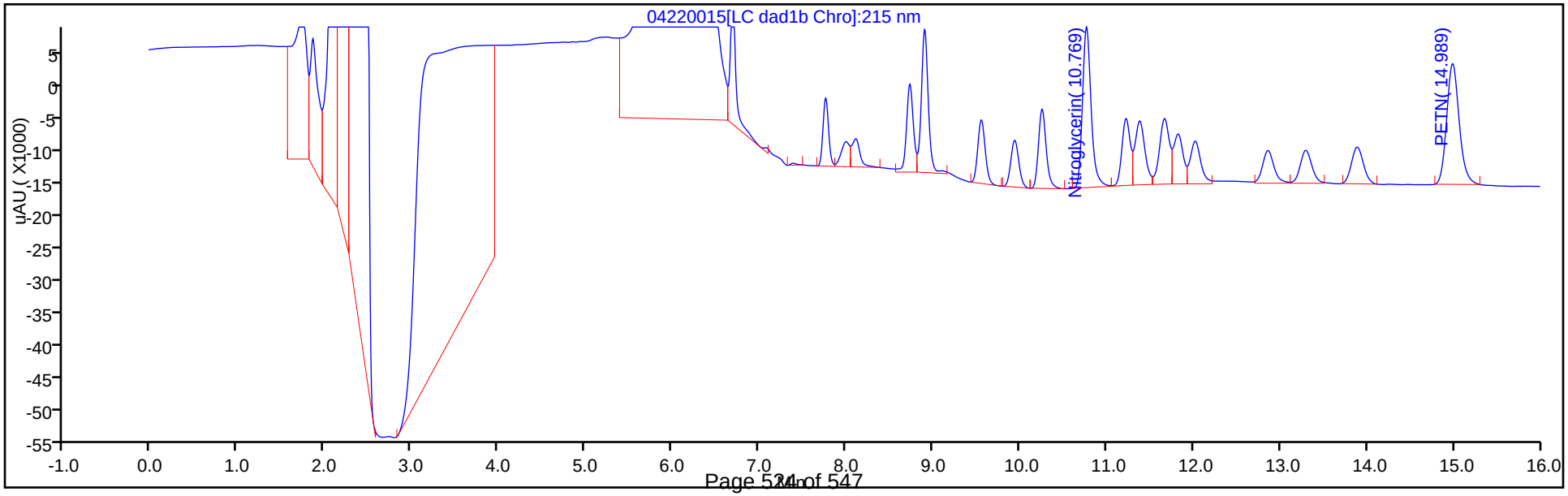
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220015.d | | | | |
| Injection Date: | 22-Apr-2020 18:42:22 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-B-1-F MSD | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220015.D | | | | |
| Lims ID: | 280-135347-B-1-F MSD | | | | |
| Client ID: | | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 22-Apr-2020 18:42:22 | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-B-1-F | | | | |
| Misc. Info.: | 280-0090980-015 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:54:35

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2395 | 95.78 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

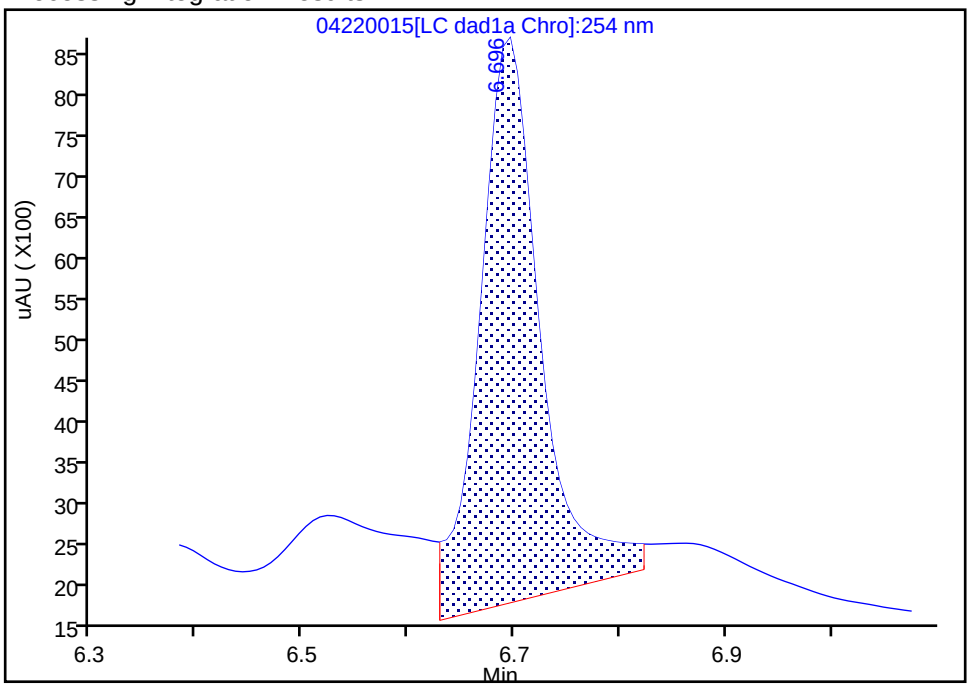
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220015.d | | | | |
| Injection Date: | 22-Apr-2020 18:42:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-B-1-F MSD | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

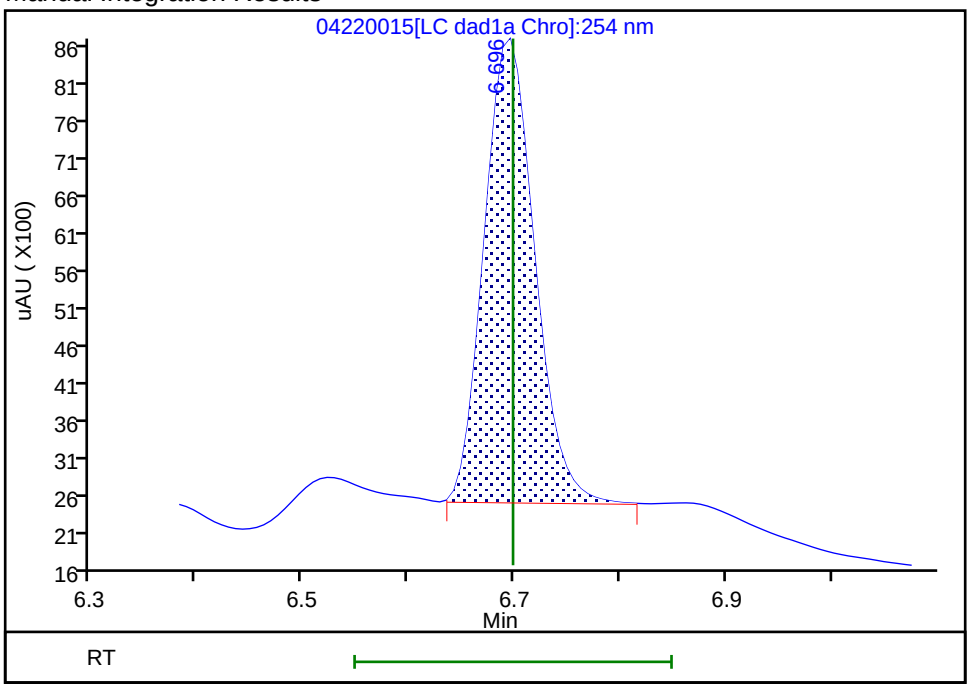
Processing Integration Results

RT: 6.70
Area: 27778
Amount: 0.323142
Amount Units: ug/mL




Manual Integration Results

RT: 6.70
Area: 20504
Amount: 0.238524
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:54:23

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-135347-1
SDG No.:
Client Sample ID: SOILWC-LTM-Apr20 MSD
Lab Sample ID: 280-135347-1 MSD
Matrix: Solid
Lab File ID: 04220017.D
Analysis Method: 8330A
Date Collected: 04/07/2020 11:00
Extraction Method: Sieve/Ultrasoni
Date Extracted: 04/20/2020 14:13
Sample wt/vol: 2.07(g)
Date Analyzed: 04/22/2020 19:28
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 492475
Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 48 | U M | 97 | 48 | 9.7 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 89-123 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220017.D
Lims ID: 280-135347-B-1-H MSD
Client ID:
Sample Type: MSD
Inject. Date: 22-Apr-2020 19:28:17 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-135347-B-1-H
Misc. Info.: 280-0090980-017
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-Apr-2020 12:03:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0327

First Level Reviewer: beckerc Date: 23-Apr-2020 11:55:13

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | | 6.558 | | | | ND | |
| | 2 TNX | 1 | 6.585 | 6.597 | -0.012 | 53997 | 0.2503 | 0.2481 | M |
| | 3 HMX | 1 | | 6.699 | | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.745 | | | | ND | |
| | 5 DNX | 1 | 6.911 | 6.924 | -0.013 | 38285 | 0.2503 | 0.2503 | M |
| | 6 MNX | 1 | 7.358 | 7.364 | -0.006 | 39653 | 0.2918 | 0.2501 | M |
| | 7 RDX | 1 | | 7.772 | | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.072 | | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.738 | 8.732 | 0.006 | 33978 | 0.2500 | 0.2458 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.905 | | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.558 | | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.945 | | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.178 | | | | ND | |
| | 14 Tetryl | 1 | | 10.252 | | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.758 | | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.218 | | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.378 | | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.665 | | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.825 | | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 12.025 | | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.865 | | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.298 | | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.898 | | | | ND | |
| | 24 PETN | 2 | | 14.992 | | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

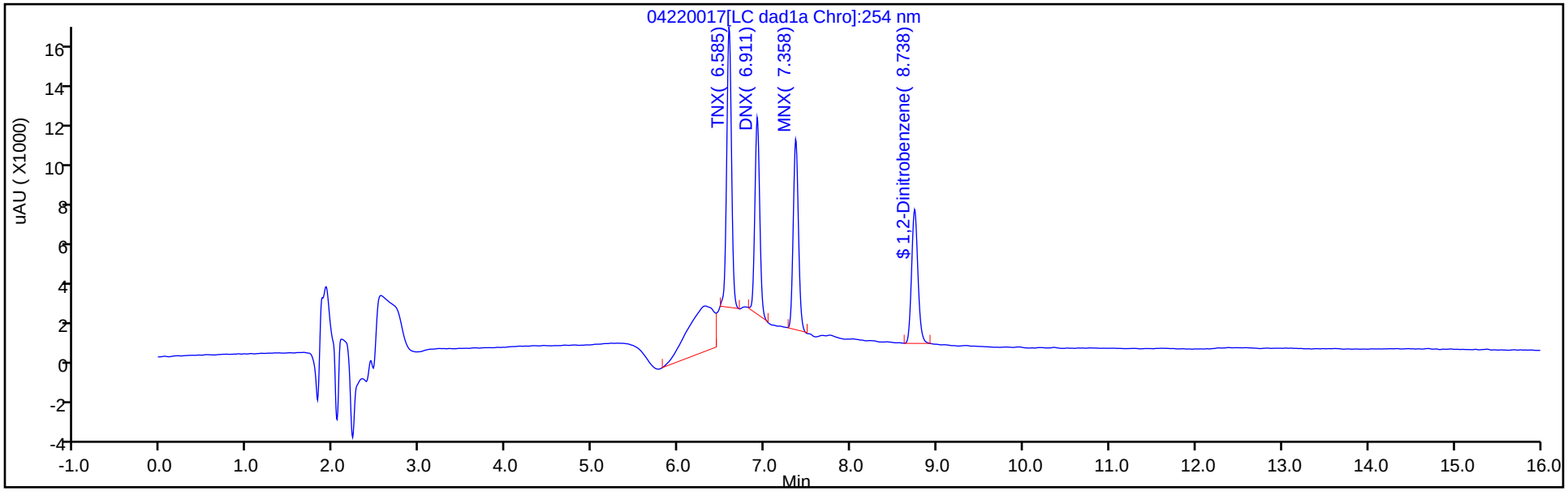
M - Manually Integrated

Report Date: 23-Apr-2020 12:03:33 Chrom Revision: 2.3 11-Mar-2020 18:53:20

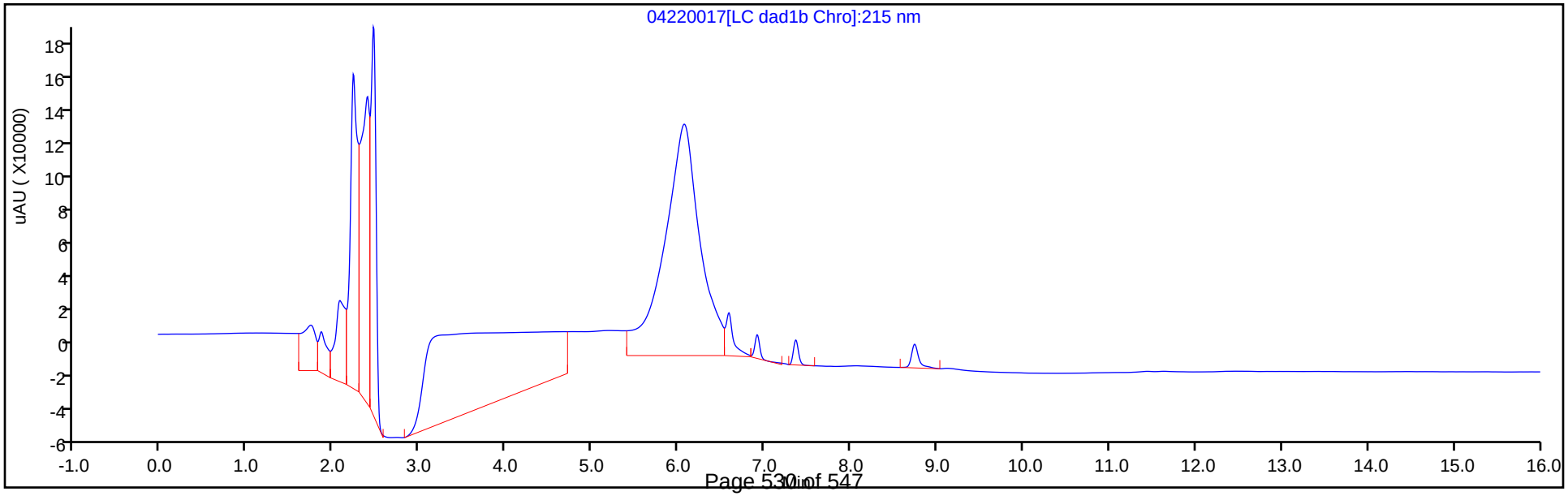
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220017.d | | | | |
| Injection Date: | 22-Apr-2020 19:28:17 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-135347-B-1-H MSD | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\04220017.D | | | | |
| Lims ID: | 280-135347-B-1-H MSD | | | | |
| Client ID: | | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 22-Apr-2020 19:28:17 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-135347-B-1-H | | | | |
| Misc. Info.: | 280-0090980-017 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200422-90980.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 23-Apr-2020 12:03:30 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0327 | | | | |

First Level Reviewer: beckerc Date: 23-Apr-2020 11:55:13

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2458 | 98.34 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

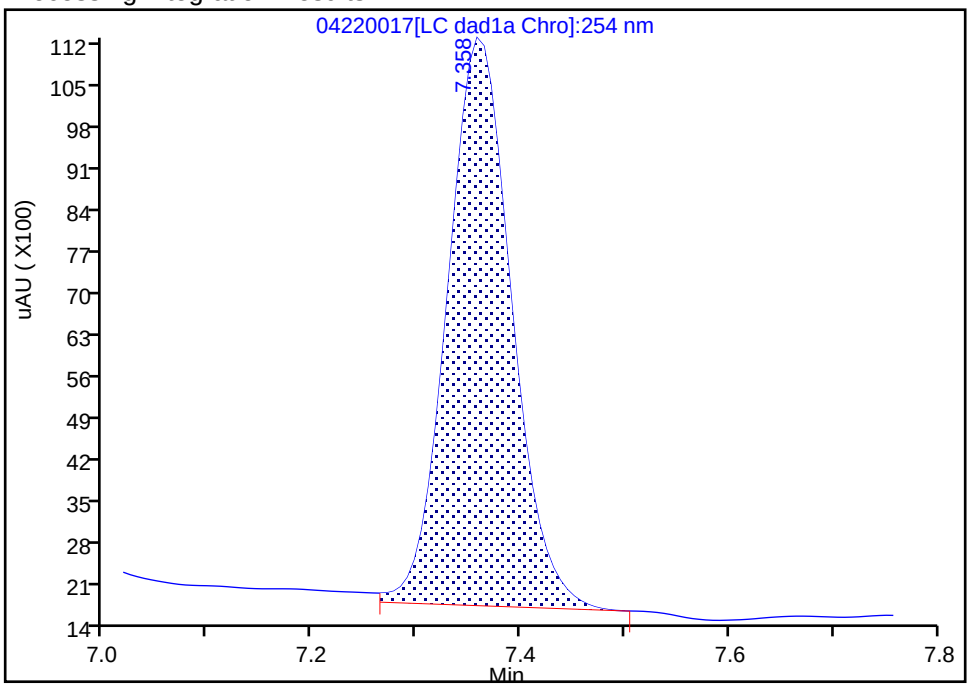
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200422-90980.b\04220017.d | | | | |
| Injection Date: | 22-Apr-2020 19:28:17 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-135347-B-1-H MSD | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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 | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

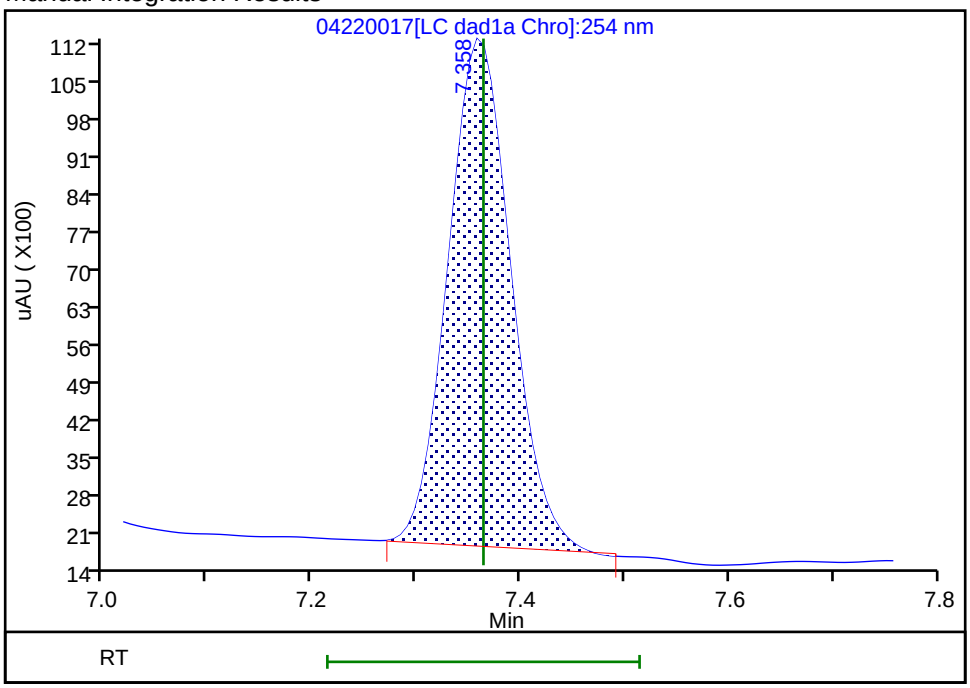
Processing Integration Results

RT: 7.36
Area: 41029
Amount: 0.258786
Amount Units: ug/mL




Manual Integration Results

RT: 7.36
Area: 39653
Amount: 0.250107
Amount Units: ug/mL




Reviewer: beckerc, 23-Apr-2020 11:55:10

Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/04/2020 14:07

Analysis Batch Number: 487658 End Date: 03/05/2020 00:03

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-487658/7 | | 03/04/2020 14:07 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/8 | | 03/04/2020 14:30 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/9 | | 03/04/2020 14:53 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/10 | | 03/04/2020 15:16 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/11 | | 03/04/2020 15:39 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/12 | | 03/04/2020 16:01 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/13 | | 03/04/2020 16:24 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/14 | | 03/04/2020 16:47 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/15 | | 03/04/2020 17:10 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/16 | | 03/04/2020 17:33 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/17 | | 03/04/2020 17:56 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/18 | | 03/04/2020 18:19 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/19 | | 03/04/2020 18:42 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/20 | | 03/04/2020 19:05 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/21 | | 03/04/2020 19:28 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/22 | | 03/04/2020 19:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/23 | | 03/04/2020 20:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/24 | | 03/04/2020 20:37 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/25 | | 03/04/2020 21:00 | 1 | 03040025.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/26 | | 03/04/2020 21:23 | 1 | 03040026.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/27 | | 03/04/2020 21:45 | 1 | 03040027.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/28 | | 03/04/2020 22:09 | 1 | 03040028.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/29 | | 03/04/2020 22:31 | 1 | 03040029.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/30 | | 03/04/2020 22:54 | 1 | 03040030.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/31 | | 03/04/2020 23:17 | 1 | 03040031.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/32 | | 03/04/2020 23:40 | 1 | 03040032.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/33 | | 03/05/2020 00:03 | 1 | 03040033.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/18/2020 11:35

Analysis Batch Number: 489145 End Date: 03/18/2020 15:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-489145/7 | | 03/18/2020 11:35 | 1 | 03180007.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/8 | | 03/18/2020 11:58 | 1 | 03180008.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/9 | | 03/18/2020 12:21 | 1 | 03180009.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/10 | | 03/18/2020 12:44 | 1 | 03180010.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/11 | | 03/18/2020 13:07 | 1 | 03180011.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/12 | | 03/18/2020 13:30 | 1 | 03180012.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/13 | | 03/18/2020 13:53 | 1 | 03180013.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/14 | | 03/18/2020 14:16 | 1 | 03180014.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/15 | | 03/18/2020 14:39 | 1 | 03180015.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-489145/16 | | 03/18/2020 15:02 | 1 | 03180016.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/13/2020 14:40

Analysis Batch Number: 491590 End Date: 04/15/2020 04:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-491590/7 | | 04/13/2020 14:40 | 1 | 04130007.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/8 | | 04/13/2020 15:15 | 1 | 04130008.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/9 | | 04/13/2020 15:50 | 1 | 04130009.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/10 | | 04/13/2020 16:25 | 1 | 04130010.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/11 | | 04/13/2020 17:00 | 1 | 04130011.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/12 | | 04/13/2020 17:35 | 1 | 04130012.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/13 | | 04/13/2020 18:10 | 1 | 04130013.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/14 | | 04/13/2020 18:45 | 1 | 04130014.D | Luna-phenylhex 4.6(mm) |
| IC 280-491590/15 | | 04/13/2020 19:20 | 1 | 04130015.D | Luna-phenylhex 4.6(mm) |
| ICV 280-491590/16 | | 04/13/2020 19:55 | 1 | 04130016.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/13/2020 20:30 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/13/2020 21:05 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/13/2020 21:40 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/13/2020 22:15 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/21 | | 04/13/2020 22:50 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/13/2020 23:25 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 00:00 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 00:35 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 01:10 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 01:45 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 02:20 | 50 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 02:55 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 03:30 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 04:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 04:39 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/32 | | 04/14/2020 05:14 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 05:49 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/34 | | 04/14/2020 06:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 06:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 07:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 08:09 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 08:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 09:19 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 09:54 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 10:29 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 11:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 11:39 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 12:14 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/45 | | 04/14/2020 12:49 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 13:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 13:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 14:34 | 250 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/49 | | 04/14/2020 15:09 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 15:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 16:19 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/13/2020 14:40

Analysis Batch Number: 491590 End Date: 04/15/2020 04:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 04/14/2020 16:54 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 17:29 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 18:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 18:39 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 19:14 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 19:49 | 50 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 20:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 20:59 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/60 | | 04/14/2020 21:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 22:09 | 100 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/62 | | 04/14/2020 22:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 23:19 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/14/2020 23:54 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 00:29 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 01:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 01:39 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 02:14 | 100 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 02:49 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 03:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/15/2020 03:59 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-491590/72 | | 04/15/2020 04:34 | 1 | | Luna-phenylhex 4.6(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 04/15/2020 12:44

Analysis Batch Number: 491832 End Date: 04/15/2020 23:50

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-491832/7 | | 04/15/2020 12:44 | 1 | 04150007.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/8 | | 04/15/2020 13:07 | 1 | 04150008.D | UltraCarb5uODS 4.6(mm) |
| MB 280-491558/1-A | | 04/15/2020 13:30 | 1 | 04150009.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-491558/2-A | | 04/15/2020 13:53 | 1 | 04150010.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-491558/3-A | | 04/15/2020 14:16 | 1 | 04150011.D | UltraCarb5uODS 4.6(mm) |
| LCSD 280-491558/4-A | | 04/15/2020 14:39 | 1 | 04150012.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-2 | | 04/15/2020 15:02 | 1 | 04150013.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 15:25 | 50 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 15:48 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 16:11 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 16:34 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 16:57 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/19 | | 04/15/2020 17:20 | 1 | 04150019.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/20 | | 04/15/2020 17:43 | 1 | 04150020.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 18:06 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 18:29 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 18:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 19:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 19:37 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 20:00 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 20:23 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 20:46 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 21:09 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 21:32 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/31 | | 04/15/2020 21:55 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/32 | | 04/15/2020 22:18 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 22:41 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 04/15/2020 23:04 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/35 | | 04/15/2020 23:27 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-491832/36 | | 04/15/2020 23:50 | 1 | | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 04/22/2020 15:38

Analysis Batch Number: 492475 End Date: 04/22/2020 20:37

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-492475/7 | | 04/22/2020 15:38 | 1 | 04220007.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-492475/8 | | 04/22/2020 16:01 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-492475/9 | | 04/22/2020 16:24 | 1 | 04220009.D | UltraCarb5uODS 4.6(mm) |
| MB 280-492251/1-A | | 04/22/2020 16:47 | 1 | 04220010.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-492251/2-A | | 04/22/2020 17:10 | 1 | 04220011.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-492251/3-A | | 04/22/2020 17:33 | 1 | 04220012.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-1 | | 04/22/2020 17:56 | 1 | 04220013.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-1 MS | | 04/22/2020 18:19 | 1 | 04220014.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-1 MSD | | 04/22/2020 18:42 | 1 | 04220015.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-1 MS | | 04/22/2020 19:05 | 1 | 04220016.D | UltraCarb5uODS 4.6(mm) |
| 280-135347-1 MSD | | 04/22/2020 19:28 | 1 | 04220017.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-492475/18 | | 04/22/2020 19:51 | 1 | 04220018.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-492475/19 | | 04/22/2020 20:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-492475/20 | | 04/22/2020 20:37 | 1 | 04220020.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-135347-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/22/2020 17:37

Analysis Batch Number: 492532 End Date: 04/24/2020 01:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-492532/7 | | 04/22/2020 17:37 | 1 | 04220007.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/8 | | 04/22/2020 18:12 | 1 | 04220008.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/9 | | 04/22/2020 18:47 | 1 | 04220009.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/10 | | 04/22/2020 19:22 | 1 | 04220010.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/11 | | 04/22/2020 19:57 | 1 | 04220011.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/12 | | 04/22/2020 20:32 | 1 | 04220012.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/13 | | 04/22/2020 21:07 | 1 | 04220013.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/14 | | 04/23/2020 07:38 | 1 | 04220014.D | Luna-phenylhex 4.6(mm) |
| IC 280-492532/15 | | 04/23/2020 08:13 | 1 | | Luna-phenylhex 4.6(mm) |
| ICV 280-492532/16 | | 04/23/2020 08:48 | 1 | 04220016.D | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/17 | | 04/23/2020 09:23 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 09:58 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 10:33 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 11:08 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 11:43 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 12:18 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 12:53 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 13:28 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 14:03 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 14:38 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/28 | | 04/23/2020 15:14 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/29 | | 04/23/2020 15:49 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 16:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 16:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 17:33 | 50 | | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/33 | | 04/23/2020 18:08 | 1 | 04220033.D | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/34 | | 04/23/2020 18:43 | 1 | 04220034.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 19:18 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 19:53 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 20:28 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 21:03 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 21:38 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 22:13 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 22:48 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 23:23 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 04/23/2020 23:58 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-135347-2 | | 04/24/2020 00:33 | 1 | 04220044.D | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/45 | | 04/24/2020 01:08 | 1 | 04220045.D | Luna-phenylhex 4.6(mm) |
| CCV 280-492532/46 | | 04/24/2020 01:43 | 1 | 04220046.D | Luna-phenylhex 4.6(mm) |

8330A

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Batch Number: 491558  Batch Start Date: 04/13/20 13:37  Batch Analyst: Pepping, Andrew J

Batch Method: 3535  Batch End Date: 04/13/20 17:08

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | 8330 LCS 00096 | 8330_OP_DMT 00006 |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-491558/1 | | 3535, 8330A | | | | 500 mL | 5 mL | | |
| LCS 280-491558/2 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCS 280-491558/3 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| LCSD 280-491558/4 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| 280-135347-A-2 | WATERWC-LTM-Apr20 | 3535, 8330A | T | 751.8 g | 262.7 g | 489.1 mL | 5 mL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00110 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-491558/1 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-491558/2 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-491558/3 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCSD 280-491558/4 | | 3535, 8330A | | 0.1 mL | | | | | |
| 280-135347-A-2 | WATERWC-LTM-Apr20 | 3535, 8330A | T | 0.1 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Batch Number: 491558  Batch Start Date: 04/13/20 13:37  Batch Analyst: Pepping, Andrew J

Batch Method: 3535  Batch End Date: 04/13/20 17:08

| Batch Notes | |
|---|---|
| Acid ID | CaCl2_Sol_00071 |
| Acid Name | CaCl2 |
| Balance ID | 24350888 |
| First End time | 04/13/2020 16:31 |
| Manifold ID | A, B |
| Pipette/Syringe/Dispenser ID | Jiji, DOD, Soot |
| Rinse Solvent Lot | 0.1%AAinACN_00138 |
| Rinse Solvent Name | 0.1%AAinACN |
| Solvent Lot # | ACN_00233 |
| Solvent Name | ACN |
| SPE Cartridge Lot ID | 005130024A |
| SPE Cartridge Type | Poropak Rdx 500mg |
| Analyst ID - Spike Analyst | AP |
| Analyst ID - Spike Witness Analyst | Reviewer: FL |
| First Start time | 04/13/2020 13:54 |

| 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.

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-135347-1

SDG No.:

Batch Number: 492251  Batch Start Date: 04/20/20 14:13  Batch Analyst: Holahan, Thomas E

Batch Method: Sieve/Ultrasoni  Batch End Date: 04/21/20 12:49

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | 8330 LCS 00096 | 8330_OP_DMT 00006 | 8330Surrogate 00112 | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-492251/1 | | Sieve/Ultrasoni, 8330A | | 2 g | 20 mL | | | 0.5 mL | |
| LCS 280-492251/2 | | Sieve/Ultrasoni, 8330A | | 2 g | 20 mL | 0.5 mL | | 0.5 mL | |
| LCS 280-492251/3 | | Sieve/Ultrasoni, 8330A | | 2 g | 20 mL | | 0.5 mL | 0.5 mL | |
| 280-135347-B-1-A | SOILWC-LTM-Apr20 | Sieve/Ultrasoni, 8330A | T | 2.04 g | 20 mL | | | 0.5 mL | |
| 280-135347-B-1-B MS | SOILWC-LTM-Apr20 | Sieve/Ultrasoni, 8330A | T | 2.09 g | 20 mL | 0.5 mL | | 0.5 mL | |
| 280-135347-B-1-C MSD | SOILWC-LTM-Apr20 | Sieve/Ultrasoni, 8330A | T | 2.08 g | 20 mL | 0.5 mL | | 0.5 mL | |
| 280-135347-B-1-B MS | SOILWC-LTM-Apr20 | Sieve/Ultrasoni, 8330A | T | 2.08 g | 20 mL | | 0.5 mL | 0.5 mL | |
| 280-135347-B-1-C MSD | SOILWC-LTM-Apr20 | Sieve/Ultrasoni, 8330A | T | 2.07 g | 20 mL | | 0.5 mL | 0.5 mL | |

| Batch Notes | |
|---|---|
| Balance ID | C33519 |
| Date Sample was Dried | 492118 |
| Filter ID | 00268261 |
| Filter Type | 0.2um |
| Pipette ID | 1n2s |
| Pipette ID for Solvent | Firine |
| Analyst ID - Reagent Drop Witness | Reviewer: DL |
| Blank Sand Lot # | 195327 |
| Solvent Lot # | 0.1%AAinACN_00141 |
| Solvent Name | 0.1%AAinACN |
| Sonication End Date | 4/21/20 |
| Sonication Start Date | 4/20/20 |
| Sonication Start Time | 17:19 |
| Sonication Stop Time | 11:21 |
| SOP Number | DV-OP-0018 |

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.: 280-135347-1

SDG No.:

Batch Number: 492251  Batch Start Date: 04/20/20 14:13  Batch Analyst: Holahan, Thomas E

Batch Method: Sieve/Ultrasoni  Batch End Date: 04/21/20 12:49

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**AECOM**
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

# CHAIN OF CUSTODY RECORD



Project Name: CHAAP
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): RH BE

Bill to: Brice Engineering

Remarks: standard TAT

| Sample Date | Sample Time | Type Comp. | Type Grab | Sample Identification | Matrix | Containers No. | Containers Type | Explosives+MNX (8330A) | TKN (351.2), $NH_3$ (350.1), $NO_2/NO_3$ (353.2) | $SO_4$ (9056A), Alkalinity (2320B) | Sulfide (9034) | DOC (9060A)* | Methane (RSK 175) | 8330A DOD5 | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-7-20 | 1100 | X | | SoilWC-LTM-Apr20 | Soil | 2 | 8 oz | | | | | | | X | 6°C |
| 4-7-20 | 1100 | X | | WAterWC-LTM-Apr20 | AQ | 2 | A | X | | | | | | | 6°C |

280-135347 Chain of Custody

| Signatures | Date | Time |
|---|---|---|
| Relinquished by: RH | 4-7-20 | 1700 |
| Received by: [illegible] | 04/08/2020 | 0845 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 172858363804

**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

1.3, ER9, +0.3 JO 04/08/2020

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020035

FedEx Express

FedEx

TRK# 0221 1728 5836 3804

WED – 08 APR 10:30A
PRIORITY OVERNIGHT

XH WHHA

80002
CO – US DEN

280-135347 Waybill

#3676756 04/07 56BJ3/9C25/FE4A

# Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-135347-1

**Login Number: 135347**
**List Number: 1**
**Creator: Johnston, Michelle A**

**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"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing America

# ANALYTICAL REPORT

Job Number: 280-139906-1

Job Description: Cornhusker (CHAAP)

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

Attention: Corey Schwabenlander

Approved for release.
Patrick J McEntee
Client Service Manager
9/2/2020 4:58 PM

Patrick J McEntee, Client Service Manager
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0107
Patrick.McEntee@Eurofinset.com
09/02/2020

cc: Dean Converse
Jared DeSadier
Mr. Anthony Farinacci

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

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

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

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

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 4

Definitions . . . . . 4

Case Narrative . . . . . 5

Detection Summary . . . . . 6

Client Sample Results . . . . . 7

Default Detection Limits . . . . . 8

Surrogate Summary . . . . . 9

QC Sample Results . . . . . 10

QC Association . . . . . 12

Chronicle . . . . . 13

Certification Summary . . . . . 14

Method Summary . . . . . 15

Sample Summary . . . . . 16

Manual Integration Summary . . . . . 17

Reagent Traceability . . . . . 33

COAs . . . . . 40

Organic Sample Data . . . . . 163

HPLC/IC . . . . . 163

8330A_DOD5 . . . . . 163

8330A_DOD5 QC Summary . . . . . 164

8330A_DOD5 Sample Data . . . . . 170

Standards Data . . . . . 190

8330A_DOD5 ICAL Data . . . . . 190

8330A_DOD5 CCAL Data . . . . . 372

Raw QC Data . . . . . 465

# Table of Contents

8330A_DOD5 Blank Data . . . . . 465

8330A_DOD5 LCS/LCSD Data . . . . . 471

8330A_DOD5 Run Logs . . . . . 491

8330A_DOD5 Prep Data . . . . . 497

Shipping and Receiving Documents . . . . . 499

Client Chain of Custody . . . . . 500

Sample Receipt Checklist . . . . . 502

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| M | Manual integrated compound. |
| Q | One or more quality control criteria failed. |
| 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: 280-139906-1

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 8/28/2020 9:30 AM; 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.

**NITROAROMATICS AND NITRAMINES (HPLC)**
Sample WATERWC-LTM-AUG20 (280-139906-1) was analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 08/29/2020 and analyzed on 09/02/2020.

Surrogate recovery for the following sample was outside control limits: WATERWC-LTM-AUG20 (280-139906-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within %R limit in the confirmation instrument.

The following sample required filtration to reduce matrix interferences: WATERWC-LTM-AUG20 (280-139906-1).

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

# Detection Summary

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

Job ID: 280-139906-1

## Client Sample ID: WATERWC-LTM-AUG20 — Lab Sample ID: 280-139906-1

No Detections.

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 280-139906-1

## Client Sample ID: WATERWC-LTM-AUG20

**Lab Sample ID: 280-139906-1**

**Date Collected: 08/27/20 11:00**
**Date Received: 08/28/20 09:30**

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.090 | ug/L | | 09/02/20 00:09 | 1 |
| 1,3-Dinitrobenzene | 0.11 | U Q | 0.12 | 0.11 | 0.039 | ug/L | | 09/02/20 00:09 | 1 |
| 2,4,6-Trinitrotoluene | 0.11 | U M Q | 0.12 | 0.11 | 0.048 | ug/L | | 09/02/20 00:09 | 1 |
| 2,4-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.029 | ug/L | | 09/02/20 00:09 | 1 |
| 2,6-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.043 | ug/L | | 09/02/20 00:09 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 | ug/L | | 09/02/20 02:27 | 1 |
| 2-Nitrotoluene | 0.21 | U Q | 0.22 | 0.21 | 0.091 | ug/L | | 09/02/20 00:09 | 1 |
| 3-Nitrotoluene | 0.43 | U M Q | 0.43 | 0.43 | 0.21 | ug/L | | 09/02/20 00:09 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U Q | 0.16 | 0.13 | 0.061 | ug/L | | 09/02/20 00:09 | 1 |
| 4-Nitrotoluene | 0.43 | U Q | 0.44 | 0.43 | 0.11 | ug/L | | 09/02/20 00:09 | 1 |
| HMX | 0.21 | U Q | 0.22 | 0.21 | 0.093 | ug/L | | 09/02/20 00:09 | 1 |
| MNX | 0.43 | U | 2.1 | 0.43 | 0.16 | ug/L | | 09/02/20 02:27 | 1 |
| Nitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.097 | ug/L | | 09/02/20 00:09 | 1 |
| RDX | 0.21 | U Q | 0.22 | 0.21 | 0.055 | ug/L | | 09/02/20 00:09 | 1 |
| Tetryl | 0.11 | U Q | 0.12 | 0.11 | 0.034 | ug/L | | 09/02/20 00:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *80* | *M Q* | *83 - 119* | *08/29/20 15:45* | *09/02/20 00:09* | *1* |
| *1,2-Dinitrobenzene* | *89* | *M* | *83 - 119* | *08/29/20 15:45* | *09/02/20 02:27* | *1* |

# Default Detection Limits

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

Job ID: 280-139906-1

## 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 |

# Surrogate Summary

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

Job ID: 280-139906-1

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

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

| Lab Sample ID | Client Sample ID | 12DNB1 (83-119) |
|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | 80 M Q |
| LCS 280-507292/2-A | Lab Control Sample | 101 |
| LCS 280-507292/4-A | Lab Control Sample | 100 |
| LCSD 280-507292/3-A | Lab Control Sample Dup | 98 |
| LCSD 280-507292/5-A | Lab Control Sample Dup | 102 |
| MB 280-507292/1-A | Method Blank | 112 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

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

| Lab Sample ID | Client Sample ID | 12DNB2 (83-119) |
|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | 89 M |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

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

**Lab Sample ID: MB 280-507292/1-A**
**Matrix: Water**
**Analysis Batch: 507610**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 507292**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.20 | U M | 0.21 | 0.20 | 0.084 | ug/L | | 09/01/20 21:51 | 1 |
| 1,3-Dinitrobenzene | 0.10 | U | 0.11 | 0.10 | 0.037 | ug/L | | 09/01/20 21:51 | 1 |
| 2,4,6-Trinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.045 | ug/L | | 09/01/20 21:51 | 1 |
| 2,4-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.027 | ug/L | | 09/01/20 21:51 | 1 |
| 2,6-Dinitrotoluene | 0.080 | U | 0.10 | 0.080 | 0.040 | ug/L | | 09/01/20 21:51 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.10 | U | 0.11 | 0.10 | 0.051 | ug/L | | 09/01/20 21:51 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.21 | 0.20 | 0.086 | ug/L | | 09/01/20 21:51 | 1 |
| 3-Nitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.20 | ug/L | | 09/01/20 21:51 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.15 | 0.12 | 0.058 | ug/L | | 09/01/20 21:51 | 1 |
| 4-Nitrotoluene | 0.40 | U | 0.41 | 0.40 | 0.10 | ug/L | | 09/01/20 21:51 | 1 |
| HMX | 0.20 | U | 0.21 | 0.20 | 0.088 | ug/L | | 09/01/20 21:51 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 09/01/20 21:51 | 1 |
| Nitrobenzene | 0.20 | U | 0.21 | 0.20 | 0.091 | ug/L | | 09/01/20 21:51 | 1 |
| RDX | 0.20 | U | 0.21 | 0.20 | 0.052 | ug/L | | 09/01/20 21:51 | 1 |
| Tetryl | 0.10 | U | 0.11 | 0.10 | 0.032 | ug/L | | 09/01/20 21:51 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *112* | | *83 - 119* | *08/29/20 15:45* | *09/01/20 21:51* | *1* |

**Lab Sample ID: LCS 280-507292/2-A**
**Matrix: Water**
**Analysis Batch: 507610**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 507292**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.35 | | ug/L | | 118 | 73 - 125 |
| 1,3-Dinitrobenzene | 2.00 | 2.19 | | ug/L | | 109 | 78 - 120 |
| 2,4,6-Trinitrotoluene | 2.00 | 2.22 | | ug/L | | 111 | 71 - 123 |
| 2,4-Dinitrotoluene | 2.00 | 2.08 | | ug/L | | 104 | 78 - 120 |
| 2,6-Dinitrotoluene | 2.00 | 2.27 | M | ug/L | | 114 | 77 - 127 |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 2.00 | M | ug/L | | 100 | 79 - 120 |
| 2-Nitrotoluene | 2.00 | 1.77 | | ug/L | | 88 | 70 - 127 |
| 3-Nitrotoluene | 2.00 | 2.02 | | ug/L | | 101 | 73 - 125 |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.88 | | ug/L | | 94 | 76 - 125 |
| 4-Nitrotoluene | 2.00 | 2.02 | | ug/L | | 101 | 71 - 127 |
| HMX | 2.00 | 2.17 | | ug/L | | 109 | 65 - 135 |
| Nitrobenzene | 2.00 | 1.99 | | ug/L | | 99 | 65 - 134 |
| RDX | 2.00 | 2.01 | | ug/L | | 100 | 68 - 130 |
| Tetryl | 2.00 | 2.11 | | ug/L | | 106 | 64 - 128 |

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

**Lab Sample ID: LCS 280-507292/4-A**
**Matrix: Water**
**Analysis Batch: 507610**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 507292**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| MNX | 2.33 | 2.08 | | ug/L | | 89 | 57 - 132 |

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

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

**Lab Sample ID: LCSD 280-507292/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 507610** — **Prep Batch: 507292**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | | | 2.00 | 2.30 | | ug/L | | 115 | 73 - 125 | 2 | 30 |
| 1,3-Dinitrobenzene | | | 2.00 | 2.14 | | ug/L | | 107 | 78 - 120 | 2 | 30 |
| 2,4,6-Trinitrotoluene | | | 2.00 | 2.18 | | ug/L | | 109 | 71 - 123 | 2 | 30 |
| 2,4-Dinitrotoluene | | | 2.00 | 2.03 | | ug/L | | 101 | 78 - 120 | 3 | 30 |
| 2,6-Dinitrotoluene | | | 2.00 | 2.14 | M | ug/L | | 107 | 77 - 127 | 6 | 30 |
| 2-Amino-4,6-dinitrotoluene | | | 2.00 | 1.96 | M | ug/L | | 98 | 79 - 120 | 2 | 30 |
| 2-Nitrotoluene | | | 2.00 | 1.59 | | ug/L | | 80 | 70 - 127 | 11 | 30 |
| 3-Nitrotoluene | | | 2.00 | 1.78 | | ug/L | | 89 | 73 - 125 | 13 | 30 |
| 4-Amino-2,6-dinitrotoluene | | | 2.00 | 1.82 | | ug/L | | 91 | 76 - 125 | 4 | 30 |
| 4-Nitrotoluene | | | 2.00 | 1.83 | | ug/L | | 91 | 71 - 127 | 10 | 30 |
| HMX | | | 2.00 | 2.19 | | ug/L | | 109 | 65 - 135 | 1 | 30 |
| Nitrobenzene | | | 2.00 | 1.86 | | ug/L | | 93 | 65 - 134 | 7 | 30 |
| RDX | | | 2.00 | 1.95 | | ug/L | | 98 | 68 - 130 | 3 | 30 |
| Tetryl | | | 2.00 | 2.06 | | ug/L | | 103 | 64 - 128 | 2 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *98* | | *83 - 119* |

**Lab Sample ID: LCSD 280-507292/5-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 507610** — **Prep Batch: 507292**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | | | 2.33 | 2.07 | | ug/L | | 89 | 57 - 132 | 0 | 30 |

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

# QC Association Summary

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

Job ID: 280-139906-1

## HPLC/IC

### Prep Batch: 507292

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | Total/NA | Water | 3535 | |
| MB 280-507292/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 280-507292/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCS 280-507292/4-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCSD 280-507292/3-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |
| LCSD 280-507292/5-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |

### Analysis Batch: 507610

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | Total/NA | Water | 8330A | 507292 |
| MB 280-507292/1-A | Method Blank | Total/NA | Water | 8330A | 507292 |
| LCS 280-507292/2-A | Lab Control Sample | Total/NA | Water | 8330A | 507292 |
| LCS 280-507292/4-A | Lab Control Sample | Total/NA | Water | 8330A | 507292 |
| LCSD 280-507292/3-A | Lab Control Sample Dup | Total/NA | Water | 8330A | 507292 |
| LCSD 280-507292/5-A | Lab Control Sample Dup | Total/NA | Water | 8330A | 507292 |

### Analysis Batch: 507615

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | Total/NA | Water | 8330A | 507292 |

# Lab Chronicle

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

Job ID: 280-139906-1

## Client Sample ID: WATERWC-LTM-AUG20

## Lab Sample ID: 280-139906-1

**Date Collected: 08/27/20 11:00**
**Date Received: 08/28/20 09:30**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3535 | | | 469.2 mL | 5 mL | 507292 | 08/29/20 15:45 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 507615 | 09/02/20 02:27 | JZ | TAL DEN |
| Total/NA | Prep | 3535 | | | 469.2 mL | 5 mL | 507292 | 08/29/20 15:45 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 507610 | 09/02/20 00:09 | JZ | 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: 280-139906-1

## Laboratory: Eurofins TestAmerica, Denver

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

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

# Method Summary

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

Job ID: 280-139906-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8330A | Nitroaromatics and Nitramines (HPLC) | EPA | TAL DEN |
| 3535 | Solid-Phase Extraction (SPE) | SW846 | TAL DEN |

**Protocol References:**

EPA = US Environmental Protection Agency

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: 280-139906-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---|---|---|---|---|---|
| 280-139906-1 | WATERWC-LTM-AUG20 | Water | 08/27/20 11:00 | 08/28/20 09:30 | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 507615

Lab Sample ID: CCV 280-507615/19 Client Sample ID:

Date Analyzed: 09/01/20 21:47 Lab File ID: 09010019.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitrobenzene | 12.08 | Baseline | zhangji | 09/02/20 14:12 |
| 1,2-Dinitrobenzene | 13.09 | Baseline | zhangji | 09/02/20 14:12 |
| 1,3-Dinitrobenzene | 15.59 | Baseline | zhangji | 09/02/20 14:12 |
| Nitroglycerin | 15.79 | Baseline | zhangji | 09/02/20 14:12 |
| 2-Nitrotoluene | 16.54 | Baseline | zhangji | 09/02/20 14:12 |
| 4-Nitrotoluene | 16.82 | Baseline | zhangji | 09/02/20 14:12 |
| 4-Amino-2,6-dinitrotoluene | 17.27 | Baseline | zhangji | 09/02/20 14:12 |
| 3-Nitrotoluene | 17.75 | Baseline | zhangji | 09/02/20 14:12 |
| 2-Amino-4,6-dinitrotoluene | 18.18 | Baseline | zhangji | 09/02/20 14:12 |
| 1,3,5-Trinitrobenzene | 18.91 | Baseline | zhangji | 09/02/20 14:12 |
| 2,6-Dinitrotoluene | 19.87 | Baseline | zhangji | 09/02/20 14:12 |
| 2,4-Dinitrotoluene | 20.37 | Baseline | zhangji | 09/02/20 14:12 |

Lab Sample ID: 280-139906-1 Client Sample ID: WATERWC-LTM-AUG20

Date Analyzed: 09/02/20 02:27 Lab File ID: 09010027.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2,4-Dinitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| 2-Nitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| 3-Nitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| 4-Amino-2,6-dinitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| 4-Nitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| RDX | | Invalid Compound ID | zhangji | 09/02/20 14:14 |
| 1,2-Dinitrobenzene | 13.01 | Baseline | zhangji | 09/02/20 14:14 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 507615

Lab Sample ID: CCV 280-507615/29 Client Sample ID:

Date Analyzed: 09/02/20 03:37 Lab File ID: 09010029.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.69 | Baseline | zhangji | 09/02/20 14:15 |
| 2-Nitrotoluene | 16.46 | Baseline | zhangji | 09/02/20 14:15 |
| 4-Nitrotoluene | 16.73 | Baseline | zhangji | 09/02/20 14:15 |
| 4-Amino-2,6-dinitrotoluene | 17.19 | Baseline | zhangji | 09/02/20 14:15 |
| 3-Nitrotoluene | 17.67 | Baseline | zhangji | 09/02/20 14:15 |
| 2-Amino-4,6-dinitrotoluene | 18.10 | Baseline | zhangji | 09/02/20 14:15 |
| 1,3,5-Trinitrobenzene | 18.83 | Baseline | zhangji | 09/02/20 14:15 |
| 2,6-Dinitrotoluene | 19.78 | Baseline | zhangji | 09/02/20 14:15 |
| 2,4-Dinitrotoluene | 20.28 | Baseline | zhangji | 09/02/20 14:15 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 507610

Lab Sample ID: CCV 280-507610/20 Client Sample ID:

Date Analyzed: 09/01/20 21:05 Lab File ID: 09010020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Amino-4,6-dinitrotoluene | 11.67 | Peak assignment corrected | zhangji | 09/01/20 21:31 |
| 2,6-Dinitrotoluene | 11.81 | Peak assignment corrected | zhangji | 09/01/20 21:31 |

Lab Sample ID: CCV 280-507610/21 Client Sample ID:

Date Analyzed: 09/01/20 21:28 Lab File ID: 09010021.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.61 | Baseline | zhangji | 09/01/20 21:54 |
| DNX | 6.92 | Baseline | zhangji | 09/01/20 21:54 |

Lab Sample ID: MB 280-507292/1-A Client Sample ID:

Date Analyzed: 09/01/20 21:51 Lab File ID: 09010022.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3,5-Trinitrobenzene | | Invalid Compound ID | zhangji | 09/02/20 13:45 |

Lab Sample ID: LCS 280-507292/2-A Client Sample ID:

Date Analyzed: 09/01/20 22:14 Lab File ID: 09010023.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Amino-4,6-dinitrotoluene | 11.67 | Peak assignment corrected | zhangji | 09/02/20 13:45 |
| 2,6-Dinitrotoluene | 11.81 | Peak assignment corrected | zhangji | 09/02/20 13:45 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 507610

Lab Sample ID: LCSD 280-507292/3-A Client Sample ID:

Date Analyzed: 09/01/20 22:37 Lab File ID: 09010024.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Amino-4,6-dinitrotoluene | 11.68 | Peak assignment corrected | zhangji | 09/02/20 13:46 |
| 2,6-Dinitrotoluene | 11.81 | Peak assignment corrected | zhangji | 09/02/20 13:46 |

Lab Sample ID: 280-139906-1 Client Sample ID: WATERWC-LTM-AUG20

Date Analyzed: 09/02/20 00:09 Lab File ID: 09010028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.40 | Baseline | zhangji | 09/02/20 13:48 |
| 1,2-Dinitrobenzene | 8.73 | Baseline | zhangji | 09/02/20 13:47 |
| 2,4,6-Trinitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 13:48 |
| 3-Nitrotoluene | | Invalid Compound ID | zhangji | 09/02/20 13:48 |
| 2-Amino-4,6-dinitrotoluene | 11.63 | Baseline | zhangji | 09/02/20 13:48 |

Lab Sample ID: CCV 280-507610/30 Client Sample ID:

Date Analyzed: 09/02/20 00:54 Lab File ID: 09010030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.72 | Baseline | zhangji | 09/02/20 13:48 |
| 2-Amino-4,6-dinitrotoluene | 11.68 | Baseline | zhangji | 09/02/20 13:48 |
| 2,6-Dinitrotoluene | 11.81 | Baseline | zhangji | 09/02/20 13:48 |

Lab Sample ID: CCV 280-507610/31 Client Sample ID:

Date Analyzed: 09/02/20 01:17 Lab File ID: 09010031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.62 | Baseline | zhangji | 09/02/20 13:49 |
| DNX | 6.94 | Baseline | zhangji | 09/02/20 13:49 |

8330A

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **8330 DMT_00005** | 03/31/20 | 01/21/20 | Acetonitrile, Lot 231453 | 5 mL | MNX,TNX,DNX_00032 | 1 mL | DNX | 20.02 ug/mL |
| | | | | | | | MNX | 23.34 ug/mL |
| | | | | | | | TNX | 20.02 ug/mL |
| .MNX,TNX,DNX_00032 | 12/31/19 | ULTRA Scientific, Lot CS-5628 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330 DMT_00006** | 02/28/21 | 04/15/20 | Acetonitrile, Lot ACN_00232 | 5 mL | MNX,TNX,DNX_00043 | 1 mL | DNX | 20.02 ug/mL |
| | | | | | | | MNX | 23.34 ug/mL |
| | | | | | | | TNX | 20.02 ug/mL |
| .MNX,TNX,DNX_00043 | 02/28/21 | ULTRA Scientific, Lot 006516106 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330 LCS_00095** | 07/24/20 | 01/24/20 | Acetonitrile, Lot ACN_00231 | 100 mL | 8330LCSMix1_00113 | 1 mL | 1,3,5-Trinitrobenzene | 10 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | 8330LCSmix2_00009 | 1 mL | 2,6-Dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10 ug/mL |
| | | | | | | | Tetryl | 10 ug/mL |
| .8330LCSMix1_00113 | 07/31/24 | Restek, Lot A0151407 | | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1000 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1000 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| .8330LCSmix2_00009 | 05/31/24 | Restek, Lot A0149387 | | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| **8330 LCS_00098** | 07/31/20 | 04/28/20 | Acetonitrile, Lot Acetonitrile_00233 | 100 mL | 8330LCSMix1_00111 | 1 mL | 1,3,5-Trinitrobenzene | 10 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,4-Dinitrotoluene | 10 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | 8330LCSmix2_00011 | 1 mL | 2,6-Dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10 ug/mL |
| | | | | | | | Tetryl | 10 ug/mL |
| .8330LCSMix1_00111 | 10/28/20 | | Restek, Lot A0151407 | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1000 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1000 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| .8330LCSmix2_00011 | 10/28/20 | | Restek, Lot A0157533 | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| **8330 LCS_00102** | 12/19/20 | 07/25/20 | Acetonitrile, Lot Acetonitrile_00044 | 100 mL | 8330 LCSMix2_00109 | 0.3 mL | 2,6-Dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10 ug/mL |
| | | | | | | | Tetryl | 10 ug/mL |
| | | | | | 8330_NG_Stk_00086 | 1 mL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_NG_Stk_00087 | 1 mL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00075 | 0.5 mL | PETN | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00081 | 0.5 mL | PETN | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00098 | 1 mL | PETN | 100 ug/mL |
| | | | | | 8330LCSMix1_00107 | 0.9 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 |
| | | | | | 8330LCSMix1_00109 | 0.1 mL | 1,3,5-Trinitrobenzene | 10 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,4-Dinitrotoluene | 10 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | 8330LCSmix2_00005 | 0.7 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_00089 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |
| .8330 LCSMix2_00109 | 05/31/24 | | Restek, Lot A0149387 | | (Purchased Reagent) | | 2,6-Dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1000 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1000 ug/mL |
| | | | | | | | Tetryl | 1000 ug/mL |
| .8330_NG_Stk_00086 | 06/19/21 | | Restek, Lot A0161120 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_NG_Stk_00087 | 06/19/21 | | Restek, Lot A0161120 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00075 | 03/31/21 | | Restek, Lot A0136306 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330_PETN_Stk_00081 | 03/31/21 | | Restek, Lot A0136306 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330_PETN_Stk_00098 | 06/19/21 | | Restek, Lot A0159876 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330LCSMix1_00107 | 10/31/22 | | Restek, Lot A0131772 | | (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 |
| .8330LCSMix1_00109 | 10/31/22 | | Restek, Lot A0131772 | | (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_00005 | 08/31/23 | | Restek, Lot A0122699 | | (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_00089 | 06/19/21 | | Restek, Lot A0131892 | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 1000 ug/mL |
| **8330_OP_DMT_00006** | 02/24/21 | 02/24/20 | Acetonitrile, Lot 0000196715 | 10 mL | MNX,TNX,DNX_00042 | 1 mL | MNX | 11.67 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .MNX,TNX,DNX_00042 | 02/28/21 | ULTRA Scientific, Lot 006516106 | | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| **8330_OP_DMT_00008** | 02/28/21 | 04/30/20 | Acetonitrile, Lot 0000249516 | 10 mL | MNX,TNX,DNX_00046 | 1 mL | MNX | 11.67 ug/mL |
| .MNX,TNX,DNX_00046 | 02/28/21 | ULTRA Scientific, Lot 006516106 | | | (Purchased Reagent) | | MNX | 116.7 ug/mL |
| **8330_OP_DMT_00009** | 05/31/21 | 08/14/20 | Acetonitrile, Lot Acetonitrile_00045 | 25 mL | MNX,TNX,DNX_00048 | 1 mL | DNX | 10.01 ug/mL |
| | | | | | | | MNX | 11.67 ug/mL |
| | | | | | | | TNX | 10.01 ug/mL |
| | | | | | MNX,TNX,DNX_00049 | 0.5 mL | DNX | 10.01 ug/mL |
| | | | | | | | MNX | 11.67 ug/mL |
| | | | | | | | TNX | 10.01 ug/mL |
| | | | | | MNX,TNX,DNX_00050 | 1 mL | DNX | 10.01 ug/mL |
| | | | | | | | MNX | 11.67 ug/mL |
| | | | | | | | TNX | 10.01 ug/mL |
| .MNX,TNX,DNX_00048 | 05/31/21 | Agilent, Lot 0006535619 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| .MNX,TNX,DNX_00049 | 05/31/21 | Agilent, Lot 0006535619 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| .MNX,TNX,DNX_00050 | 05/31/21 | Agilent, Lot 0006535619 | | | (Purchased Reagent) | | DNX | 100.1 ug/mL |
| | | | | | | | MNX | 116.7 ug/mL |
| | | | | | | | TNX | 100.1 ug/mL |
| **8330IntermStk_00061** | 09/09/21 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330_NG_Stk_00075 | 200 uL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00087 | 200 uL | PETN | 100 ug/mL |
| | | | | | 8330ICALStock_00030 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10.02 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10.04 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | | | Tetryl | 10.02 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330PAStkPS_00061 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |
| .8330_NG_Stk_00075 | 08/31/22 | Restek, Lot A0151571 | | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00087 | 11/30/22 | Restek, Lot A0154763 | | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330ICALStock_00030 | 03/03/22 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330 Stock_TS_00015 | 1 mL | 1,3,5-Trinitrobenzene | 100.2 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 100.2 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,4,6-Trinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Nitrotoluene | 100 ug/mL |
| | | | | | | | 3-Nitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Nitrotoluene | 100.2 ug/mL |
| | | | | | | | HMX | 100 ug/mL |
| | | | | | | | Nitrobenzene | 100.4 ug/mL |
| | | | | | | | RDX | 100 ug/mL |
| | | | | | | | Tetryl | 100.2 ug/mL |
| | | | | | 8330SurrStock_00164 | 1 mL | 1,2-Dinitrobenzene | 100 ug/mL |
| ..8330 Stock_TS_00015 | 03/31/22 | Ultra Scientific, Lot CT-0801 | | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1002 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1002 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1004 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1002 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1004 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| | | | | | | | Tetryl | 1002 ug/mL |
| ..8330SurrStock_00164 | 07/01/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330PAStkPS_00061 | 09/09/21 | AccuStandard, Lot 214121302-02 | | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 100 ug/mL |
| **8330IntermStk_00064** | 09/09/21 | 04/06/20 | Acetonitrile, Lot 130057 | 10 mL | 8330_NG_Stk_00075 | 200 uL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00087 | 200 uL | PETN | 100 ug/mL |
| | | | | | 8330ICALStock_00030 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10.02 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10.04 ug/mL |
| | | | | | | | RDX | 10 ug/mL |
| | | | | | | | Tetryl | 10.02 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330PAStkPS_00061 | 1 mL | 2,4,6-Trinitrophenol | 10 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .8330_NG_Stk_00075 | 08/31/22 | | Restek, Lot A0151571 | | (Purchased Reagent) | | Nitroglycerin | 5000 ug/mL |
| .8330_PETN_Stk_00087 | 11/30/22 | | Restek, Lot A0154763 | | (Purchased Reagent) | | PETN | 5000 ug/mL |
| .8330ICALStock_00030 | 03/03/22 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330 Stock_TS_00015 | 1 mL | 1,3,5-Trinitrobenzene | 100.2 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 100.2 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 100.4 ug/mL |
| | | | | | | | 2-Nitrotoluene | 100 ug/mL |
| | | | | | | | 3-Nitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 100.1 ug/mL |
| | | | | | | | 4-Nitrotoluene | 100.2 ug/mL |
| | | | | | | | HMX | 100 ug/mL |
| | | | | | | | Nitrobenzene | 100.4 ug/mL |
| | | | | | | | RDX | 100 ug/mL |
| | | | | | | | Tetryl | 100.2 ug/mL |
| | | | | | 8330SurrStock_00164 | 1 mL | 1,2-Dinitrobenzene | 100 ug/mL |
| ..8330 Stock_TS_00015 | 03/31/22 | | Ultra Scientific, Lot CT-0801 | | (Purchased Reagent) | | 1,3,5-Trinitrobenzene | 1002 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 1002 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 1004 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 1004 ug/mL |
| | | | | | | | 2-Nitrotoluene | 1000 ug/mL |
| | | | | | | | 3-Nitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 1001 ug/mL |
| | | | | | | | 4-Nitrotoluene | 1002 ug/mL |
| | | | | | | | HMX | 1000 ug/mL |
| | | | | | | | Nitrobenzene | 1004 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| | | | | | | | Tetryl | 1002 ug/mL |
| ..8330SurrStock_00164 | 07/01/26 | | AccuStandard, Lot 216071012 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330PAStkPS_00061 | 09/09/21 | | AccuStandard, Lot 214121302-02 | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 100 ug/mL |
| **8330Surrogate_00110** | 05/17/20 | 12/17/19 | Acetonitrile, Lot ACN_00223 | 250 mL | 8330SurrStkSS_00145 | 0.25 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00158 | 0.25 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00160 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | 8330SurrStkSS_00161 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330SurrStkSS_00145 | 03/31/23 | | Restek, Lot A0135839 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00158 | 07/31/24 | | Restek, Lot A0146866 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00160 | 10/28/22 | | Restek, Lot A0150790 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330SurrStkSS_00161 | 07/31/24 | | Restek, Lot A0150790 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| **8330Surrogate_00114** | 11/07/20 | 05/07/20 | Acetonitrile, Lot ACN_00234 | 100 mL | 8330SurrStkSS_00157 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| .8330SurrStkSS_00157 | 11/07/20 | | Restek, Lot A0146866 | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **8330Surrogate_00118** | 02/10/21 | 08/10/20 | Acetonitrile, Lot Acetonitrile_00045 | 500 mL | 8330SurrStkSS_00172 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00173 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00174 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00175 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| | | | | | 8330SurrStkSS_00176 | 1 mL | 1,2-Dinitrobenzene | 10 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 10 ug/mL |
| .8330SurrStkSS_00172 | 11/30/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00173 | 11/30/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00174 | 11/01/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00175 | 11/01/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |
| .8330SurrStkSS_00176 | 11/01/24 | Restek, Lot A0155113 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dinitrobenzene (Surr) | 1000 ug/mL |

# Reagent

# 8330 LCS_00098

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0091143-006 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

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

# Reagent

# 8330 LCSMix2_00109

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# 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. :** 31451 **Lot No.:** A0149387

**Description :** 8330 Calibration Mix #2

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | Tetryl<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 999.6 µg/mL | +/- 5.9373 µg/mL<br>+/- 54.7611 µg/mL<br>+/- 63.8568 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot 1437483V) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,010.0 µg/mL | +/- 5.9991 µg/mL<br>+/- 55.3308 µg/mL<br>+/- 64.5212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot 07329LG) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

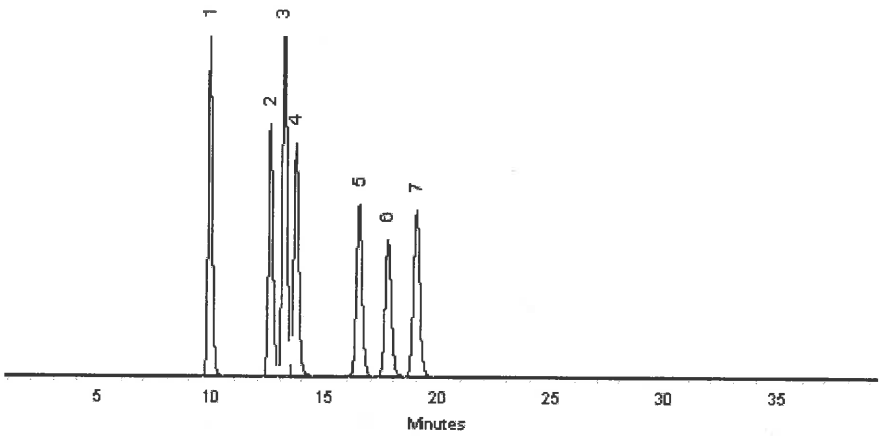
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-May-2019

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

Reagent

# 8330 Stock_TS_00015

# Certificate of Analysis
# ISO Guide 34

Agilent

## Stock Standard

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

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

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

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

**Matrix:** acetonitrile

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

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

ANAB ACCREDITED ISO Guide 34 REFERENCE MATERIAL PRODUCER

ISO Guide 34 Cert No. AR-1936

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

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO17025 Cert No. AT-1937

# Certificate of Analysis
# ISO Guide 34

## Stock Standard

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

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

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

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

# Reagent

# 8330_NG_Stk_00075

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

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.:** A0151571

**Description :** Custom Nitroglycerin Standard

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

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

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

## CERTIFIED VALUES

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

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

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

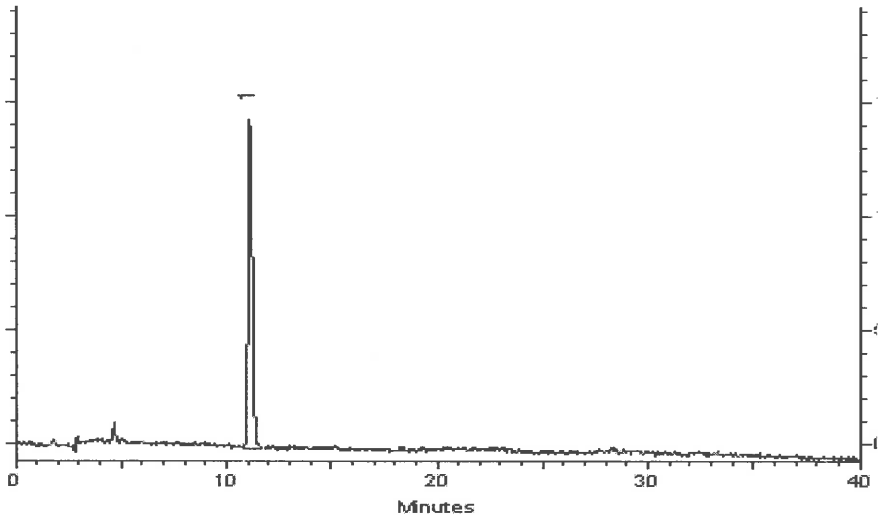
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Joseph Jaglowski - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 09-Aug-2019

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

# Reagent

# 8330_NG_Stk_00086

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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.:** A0161120

**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, 2023 **Storage:** 10°C or colder

### 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% | 5,024.0 µg/mL | +/- 46.7205 µg/mL<br>+/- 277.5676 µg/mL<br>+/- 322.9521 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

# Reagent

# 8330_NG_Stk_00087

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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.:** A0161120

**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, 2023 **Storage:** 10°C or colder

### 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% | 5,024.0 µg/mL | +/- 46.7205 µg/mL<br>+/- 277.5676 µg/mL<br>+/- 322.9521 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

# 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_PETN_Stk_00075

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** Custom PETN Standard

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

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

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

### CERTIFIED VALUES

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

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

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

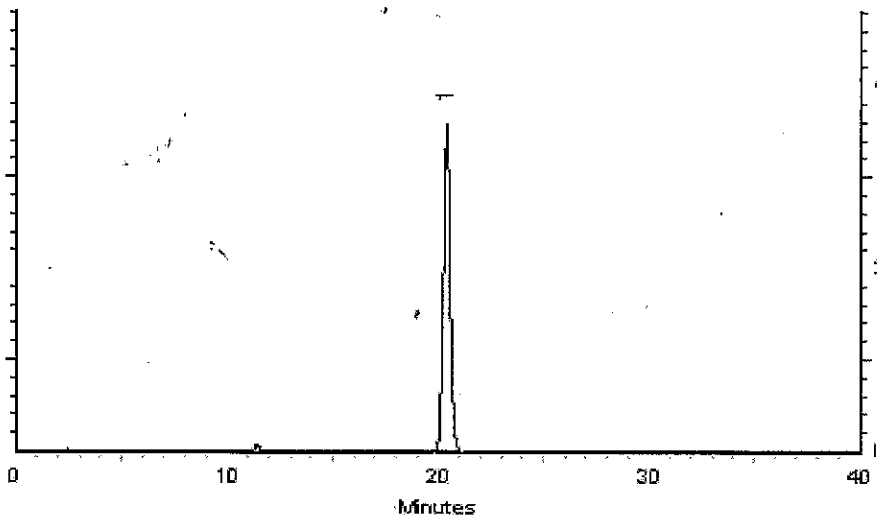
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

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

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-Mar-2018

REVIEWED

**Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330_PETN_Stk_00081

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** Custom PETN Standard

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

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

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

### CERTIFIED VALUES

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

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

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

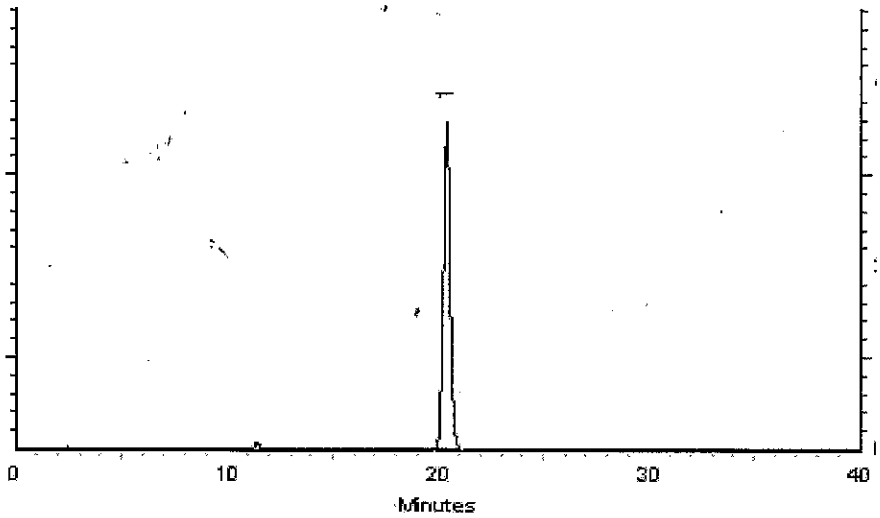
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

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

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-Mar-2018

REVIEWED

**Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330_PETN_Stk_00087

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

## CERTIFIED VALUES

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

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

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

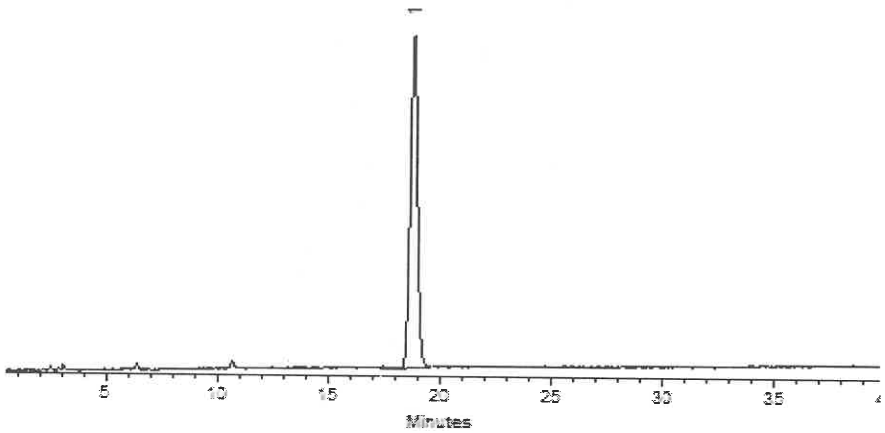
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

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

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

# Reagent

# 8330LCSMix1_00107

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31450 **Lot No.:** A0131772

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | HMX<br>**CAS #** 2691-41-0<br>**Purity** 98% | (Lot 111005JLM) | 1,009.4 µg/mL | +/- 5.9955 µg/mL<br>+/- 55.2980 µg/mL<br>+/- 64.4829 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080220JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 97% | (Lot DJ5QO) | 1,009.8 µg/mL | +/- 5.9977 µg/mL<br>+/- 55.3182 µg/mL<br>+/- 64.5065 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBB1436V) | 1,008.0 µg/mL | +/- 5.9872 µg/mL<br>+/- 55.2213 µg/mL<br>+/- 64.3934 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBF2348V) | 1,002.0 µg/mL | +/- 5.9516 µg/mL<br>+/- 54.8926 µg/mL<br>+/- 64.0101 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 2554100) | 1,008.0 µg/mL | +/- 5.9872 µg/mL<br>+/- 55.2213 µg/mL<br>+/- 64.3934 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690V) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

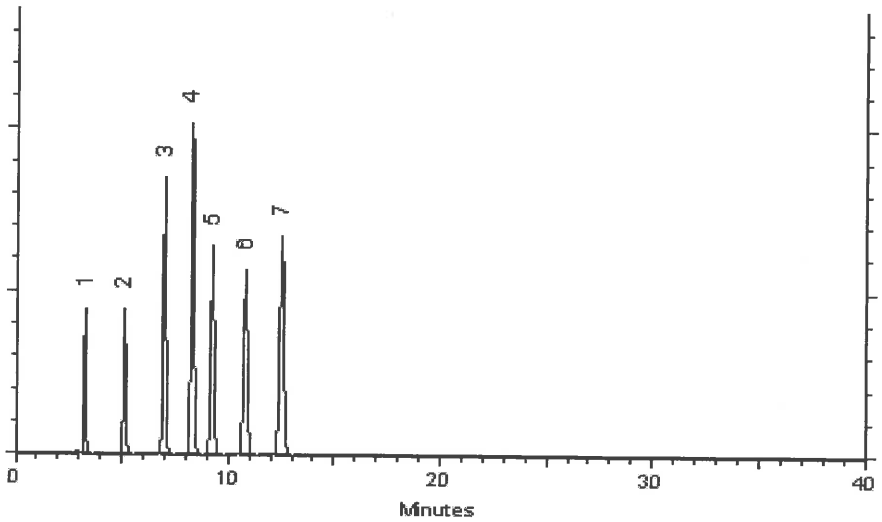
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Dawn Brownson - Mix Technician **Date Mixed:** 19-Oct-2017 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 23-Oct-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330LCSMix1_00109

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31450 **Lot No.:** A0131772

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | HMX<br>**CAS #** 2691-41-0<br>**Purity** 98% | (Lot 111005JLM) | 1,009.4 µg/mL | +/- 5.9955 µg/mL<br>+/- 55.2980 µg/mL<br>+/- 64.4829 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080220JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 97% | (Lot DJ5QO) | 1,009.8 µg/mL | +/- 5.9977 µg/mL<br>+/- 55.3182 µg/mL<br>+/- 64.5065 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBB1436V) | 1,008.0 µg/mL | +/- 5.9872 µg/mL<br>+/- 55.2213 µg/mL<br>+/- 64.3934 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBF2348V) | 1,002.0 µg/mL | +/- 5.9516 µg/mL<br>+/- 54.8926 µg/mL<br>+/- 64.0101 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 2554100) | 1,008.0 µg/mL | +/- 5.9872 µg/mL<br>+/- 55.2213 µg/mL<br>+/- 64.3934 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690V) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

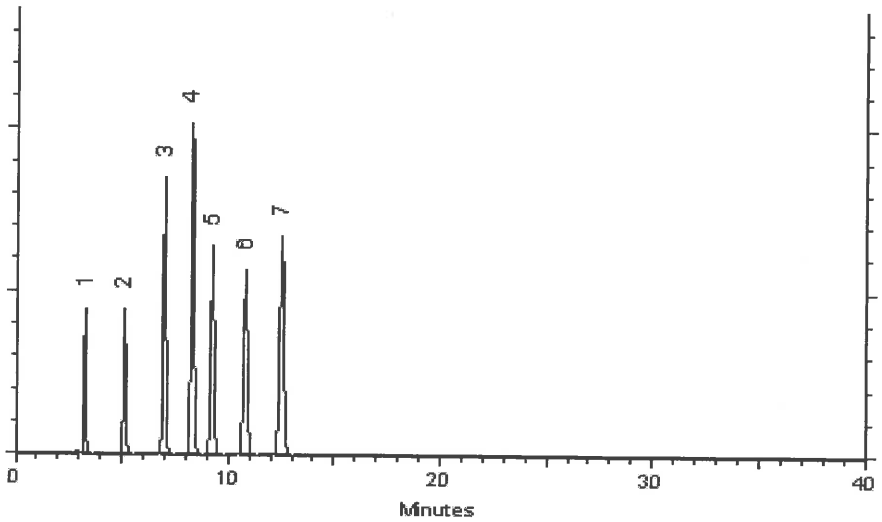
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Dawn Brownson - Mix Technician

**Date Mixed:** 19-Oct-2017 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-Oct-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330LCSMix1_00111

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

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

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

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

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

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

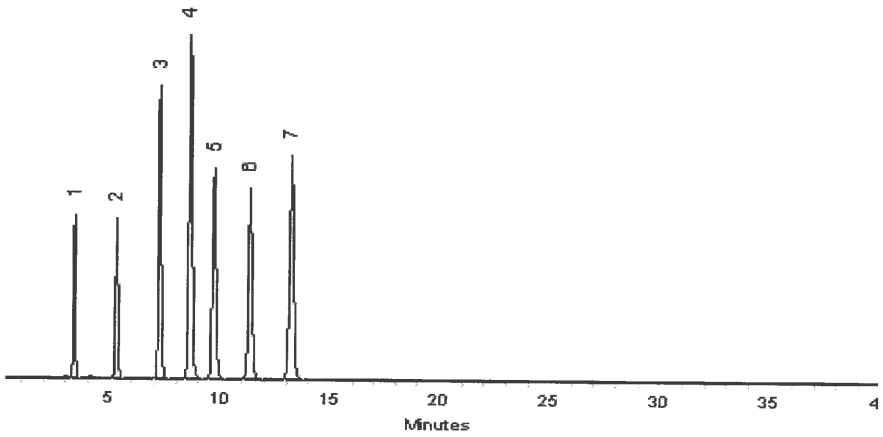
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 01-Aug-2019

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

# Reagent

# 8330LCSMix1_00113

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Calibration Mix #1

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

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

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

## CERTIFIED VALUES

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

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

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

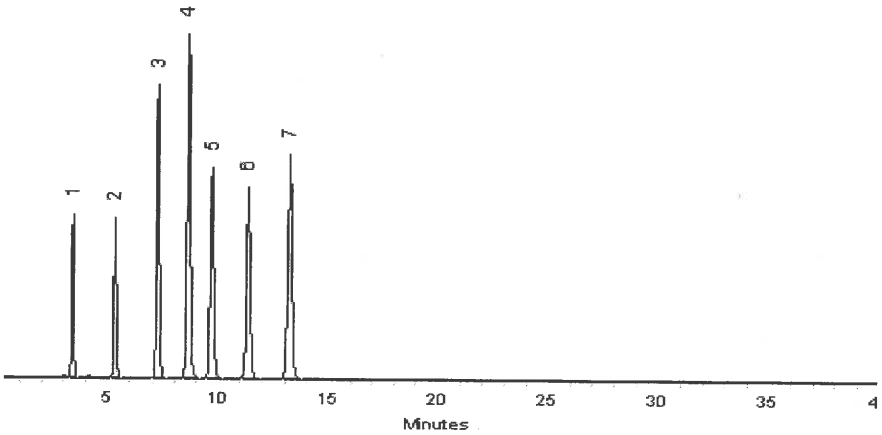
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 01-Aug-2019

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

# Reagent

# 8330LCSmix2_00009

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31451 **Lot No.:** A0149387

**Description :** 8330 Calibration Mix #2

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

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

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

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|---|
| 1 | Tetryl<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 999.6 µg/mL | +/- 5.9373 µg/mL<br>+/- 54.7611 µg/mL<br>+/- 63.8568 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot 1437483V) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,010.0 µg/mL | +/- 5.9991 µg/mL<br>+/- 55.3308 µg/mL<br>+/- 64.5212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot 07329LG) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

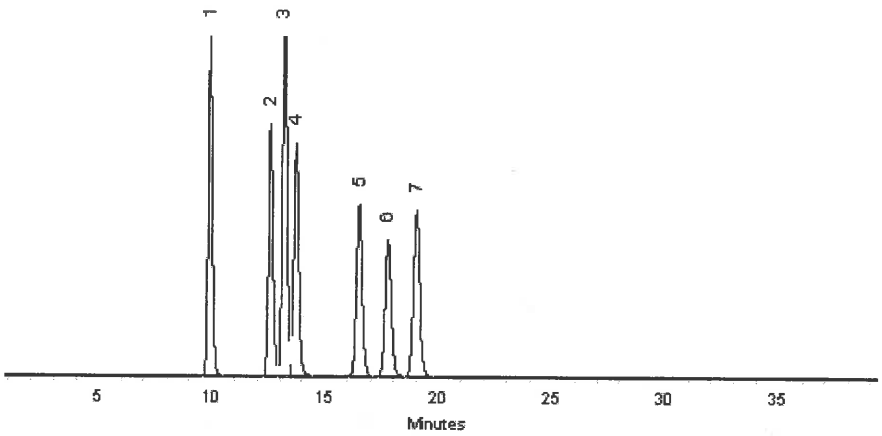
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Lane Kibe - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 23-May-2019

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

# Reagent

# 8330LCSmix2_00011

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

**Description :** 8330 Calibration Mix #2

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

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

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

## CERTIFIED VALUES

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

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

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

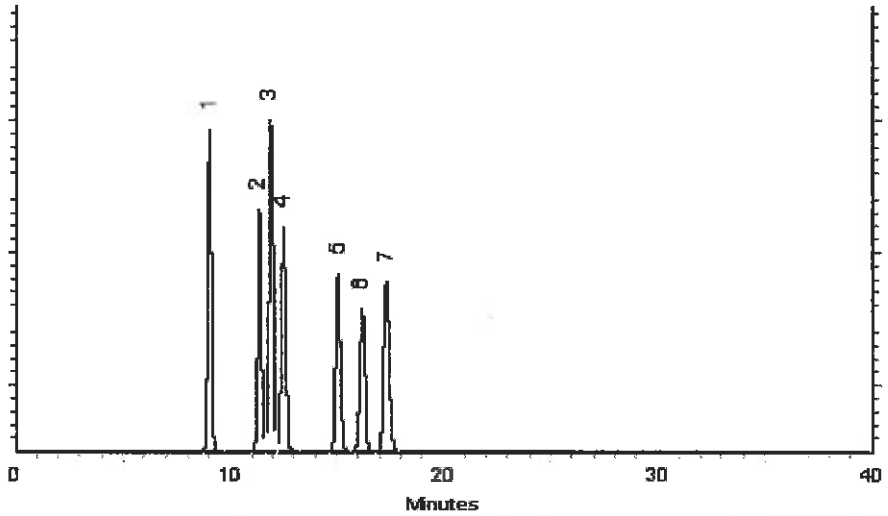
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210nm & 254nm




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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 10-Feb-2020

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

## General Certified Reference Material Notes

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Reagent

# 8330PAStkPS_00061

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

# CERTIFICATE OF ANALYSIS

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

**Signal Word: Danger**

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

**Certified Reference Material**

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

*Page 1 of 1*

*For use in routine laboratory analysis.*

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

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

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

*SAFETY DATA SHEET*

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 - Product Identifiers

Catalog Name: M-8330-ADD-3

Description: Picric Acid in Acetonitrile/Methanol Blend

### 1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

### 1.3 - Supplier Details

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

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

### 1.4 - Emergency Telephone Number

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

24 hours / 7 days a week

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 - GHS Label Elements

**Signal Word: Danger**

**Hazard Codes:**

H225 - Highly Flammable (Flammable liquids, category 2)

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

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

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

H336 - Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

H360 - California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

H370 - Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

**Precautionary Codes:**

P202 - This product should only by used by persons trained in the safe handling of hazardous chemicals.

P233 - Store in a tightly closed container. (P404)





## SECTION 2 - HAZARDS IDENTIFICATION *- continued*

### 2.1 - GHS Label Elements *- continued*

P260 - Do not breathe vapor.

P262 - Do not get in eyes, on skin or clothing.

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P340 - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

P352 - Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

### 2.2 - Other Hazards

#### 2.2.1 - Symptom of Exposure Health/Environment

Highly Flammable (Flammable liquids, category 2)

Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

After ingestion or inhalation, initial symptoms may be only that of mild intoxication, but may become severe after 12 or 18 hours.

Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

#### 2.2.2 - Potential Health Effects

Causes severe eye irritation. (Eye damage/irritation, category 2A)

Irritating to skin. (Skin corrosion/irritation, category 2)

May be harmful if absorbed through the skin. (Acute toxicity, dermal, category 5)

Irritating to mucous membrane and upper respiratory system.

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

May be harmful if swallowed. (Acute toxicity, oral, category 5)

#### 2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

#### 2.2.4 - Carcinogenicity

California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

## SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Picric Acid in Acetonitrile/Methanol Blend

| | | | ACGIH -TLV (mg/m³) | | | OSHA -PEL (mg/m³) | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | % Concentration | TWA | STEL | Skin | TWA | STEL | Skin |
| Picric acid | 88-89-1 | 0.010 | 0.1 | | | 0.1 | | |
| Acetonitrile | 75-05-8 | 49.995 | | | | 70 | | |
| Methanol | 67-56-1 | 49.995 | | | | 260 | | |

## SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids
Bases
Oxidizers

Hazardous Decomposition: Hydrogen cyanide (HCN); Carbon oxides; Nitrogen oxides Forms HCN when heated to about 120 °C

Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Human Health Toxicity**

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

No specific human health toxicity information is available for this product. Information provided is based on similar products.

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

## SECTION 12 - ECOLOGICAL INFORMATION

**Environmental Toxicity**

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No specific environmental toxicity information is available for this product. It is not expected to be an environmental concern.

No other information related to the ecological properties of this product is available at this time.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

## SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable liquid, n.o.s. (Acetonitrile, Methanol)

Poison by Inhalation: No

Marine Pollutant: No





## SECTION 15 - REGULATORY INFORMATION

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

All components are listed on the TSCA Inventory.

**For laboratory, research and development use only. Not for manufacturing or commercial purposes.**

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

## SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend : N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

## HMIS/NFPA HAZARD INDEX

0 - Minimal
1 - Slight
2 - Moderate
3 - Serious
4 - Severe

* - Additional Hazard

## GHS HAZARD INDEX

Category 1 - Most Severe
Category 5 - Least Severe

**** End of Document ****

# Reagent

# 8330Surrogate_00110

eurofins | Environment Testing TestAmerica

8330Surrogate_00110

good ✓

# Reagent ID: 8330Surrogate_00110

| | | | |
|---|---|---|---|
| | | Expiration Date: | 05/17/2020 |
| Description: | 10ug/mL 1,2-Dinitrobenzene | Laboratory: | Eurofins TestAmerica, Denver |
| No. of Bottles: | 1 | Prepared By: | Bourgery, David F |
| Storage Location: | Explosives Prep | Solvent: | Acetonitrile |
| Reagent Volume: | 250.000 mL | Solvent Lot: | ACN_00223 |
| Creation Date: | 12/17/2019 | | |
| Open Date: | | | |
| Container(s): | 6017392 | | |

WL 88127 → C18

Comment: Stored Frozen. 6 month expiration date. Take 1mL of 1,2 Dinitrobenzene (8330SurrStock) and Dilute to 100 mL in ACN. Mulitply recipe as needed.

POS #6

## Reagent Analyte Information

| Analyte | Source ID | Source Exp. Date | Source Conc. | Source Conc. Units | Final Conc. | Final Conc. Units |
|---|---|---|---|---|---|---|
| 1,2-Dinitrobenzene | 8330SurrStkSS_00145 | 03/31/2023 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene (Surr) | 8330SurrStkSS_00145 | 03/31/2023 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene | 8330SurrStkSS_00158 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene (Surr) | 8330SurrStkSS_00158 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene | 8330SurrStkSS_00160 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene (Surr) | 8330SurrStkSS_00160 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene | 8330SurrStkSS_00161 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |
| 1,2-Dinitrobenzene (Surr) | 8330SurrStkSS_00161 | 07/31/2024 | 1000.00000 | ug/mL | 10.00000 | ug/mL |

## Source Reagents

| Reagent | Description | Type | Expiration | Vendor | Vendor Lot # | Vendor Cat Lot # | Volume Used | Volume Units |
|---|---|---|---|---|---|---|---|---|
| 8330SurrStkSS_00145 | 31453, 1000ug/mL Restek 1,2-DNB SS | ASTD | 03/31/23 | Restek | A0135839 | 31453 | 0.25000 | mL |
| 8330SurrStkSS_00158 | 31453, 1000ug/mL Restek 1,2-DNB SS | ASTD | 07/31/24 | Restek | A0146866 | 31453 | 0.25000 | mL |
| 8330SurrStkSS_00160 | 31453, 1000ug/mL Restek 1,2-DNB SS | ASTD | 07/31/24 | Restek | A0150790 | 31453 | 1.00000 | mL |
| 8330SurrStkSS_00161 | 31453, 1000ug/mL Restek 1,2-DNB SS | ASTD | 07/31/24 | Restek | A0150790 | 31453 | 1.00000 | mL |

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromna\Denver\ChromData\CHHPLC_X\20191220-88127.b\12200006.D

Lims ID: C18column:B16162 Inj. Date: 20-Dec-2019 11:19:02

Worklist ID: 280-0088127-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 | Limits 2 3535 | Limits 3 3535 |
|---|---|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.4000 | 0.3843 | 96.1 | 83-119 | 63-127 | |

Samples for Limit Group: 1, Lims Prep Method: 3535

| | | |
|---|---|---|
| 280-132090-A-2-A | 280-132090-A-3-A | 280-132090-A-4-A |
| 280-132090-A-5-A | 280-132090-A-6-A | 280-132090-A-7-A |
| 280-132090-A-8-A | 280-132031-A-1-A | 280-132031-A-2-A |
| 280-132031-A-3-A | 280-132031-A-4-A | 280-131963-A-1-B |
| 280-131963-B-2-A | 280-131963-A-3-A | 280-131963-B-4-A |
| 280-131977-A-1-A | 280-131977-B-2-A | 280-131977-B-3-A |
| 280-131977-A-4-A | 280-131977-A-5-A | 280-131977-A-6-A |

Samples for Limit Group: 2, Lims Prep Method: 3535

| | | |
|---|---|---|
| 280-131996-A-4-A | 280-131996-A-5-A | 280-131996-A-6-A |
| 280-131996-A-7-A | 280-131996-A-8-A | 280-131996-A-9-A |
| 280-131996-A-11-A | 280-131996-A-12-A | 280-131996-A-13-A |
| 280-131996-A-14-A | 280-131996-A-15-A | 280-131996-A-1-A |
| 280-131996-A-2-A | 280-131996-A-3-A | 280-131996-A-10-A |

Samples for Limit Group: 3, Lims Prep Method: 3535

| | | |
|---|---|---|
| 280-132013-A-1-A | 600-197143-C-1-A | 280-131992-C-1-A |
| 280-131988-A-1-A | 280-131988-A-2-A | 280-131988-A-3-A |
| 280-131988-B-4-A | | |

# Reagent

# 8330Surrogate_00114

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\G2_LUNA\20200507-91339.b\05070004.D

Lims ID: CaCl2_Sol_00054 Inj. Date: 07-May-2020 12:25:53

Worklist ID: 280-0091339-004 Instrument: CHHPLC_G2_LUNA

Method: G2_8330_Luna

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 0B_Sonc_ |
|---|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1868 | 93.4 | 83-122 |

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-135356-A-2-D

# Reagent

# 8330Surrogate_00118

# Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200811-94035.b\08110006.D

Lims ID: C18column:B16162 Inj. Date: 11-Aug-2020 16:19:46

Worklist ID: 280-0094035-006 Instrument: CHHPLC_X3

Method: 8330_X3

| Compound | Amount Added | Amount Recovered | %Rec | Limits 1 3535 | Limits 2 3535 |
|---|---|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2500 | 0.2461 | 98.5 | 63-127 | 83-119 |

Samples for Limit Group: 1, Lims Prep Method: 3535

320-63384-A-1-A 320-63384-A-5-A 320-63384-A-6-A

320-63384-A-7-A 320-63384-A-15-A 600-209239-G-1-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-139250-A-1-A 280-139250-A-2-A 280-139250-A-3-A

280-139250-A-4-A

# Reagent

# 8330SurrStkSS_00145

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0135839

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2023 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,000.0 µg/mL | +/- 5.9397 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKBW2921V) | | +/- 56.0822 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 57.3938 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

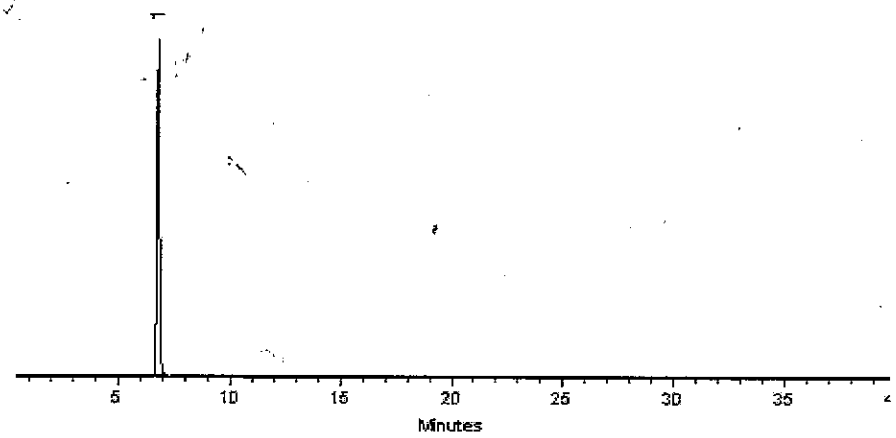
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J Lidgett

**Dustin Lidgett - Mix Technician** **Date Mixed:** 05-Mar-2018 **Balance:** 1128360905

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 09-Mar-2018

**Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\,stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

# Reagent

# 8330SurrStkSS_00157

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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. :** 31453 **Lot No.:** A0146866

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,003.0 µg/mL | +/- 5.9575 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- 56.2504 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 57.5660 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

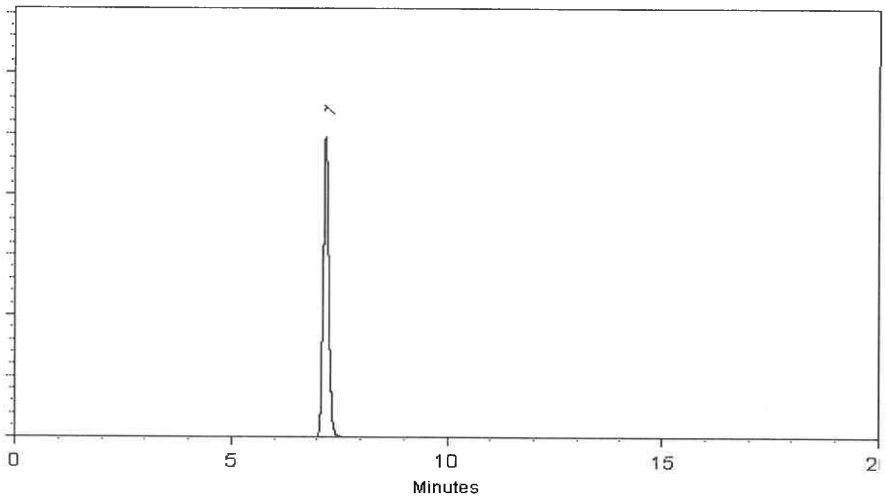
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

**Date Mixed:** 11-Mar-2019 **Balance:** 1128353505

Fang-Yun Lo - GC Analyst

**Date Passed:** 14-Mar-2019

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

# Reagent

# 8330SurrStkSS_00158

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0150790

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | 1,003.0 µg/mL | +/- 5.9575 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 (Lot MKCH6067) | | +/- 56.2504 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5660 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

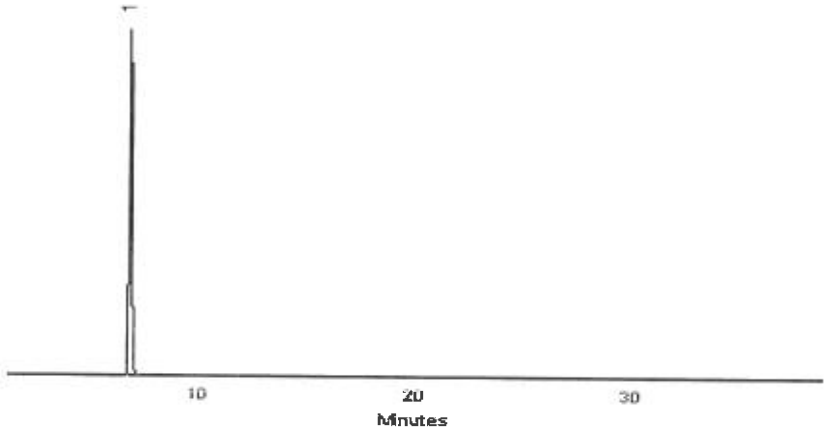
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

**Date Mixed:** 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00160

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0150790

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | 1,003.0 µg/mL | +/- 5.9575 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 (Lot MKCH6067) | | +/- 56.2504 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5660 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

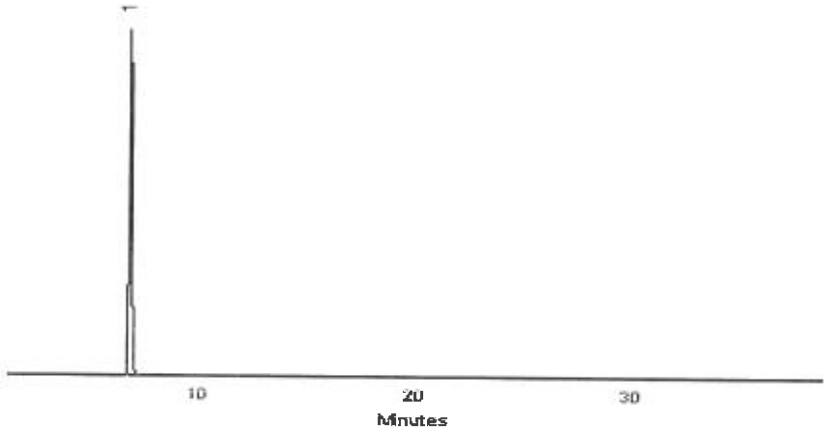
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

**Date Mixed:** 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00161

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0150790

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | 1,003.0 µg/mL | +/- 5.9575 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 (Lot MKCH6067) | | +/- 56.2504 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5660 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

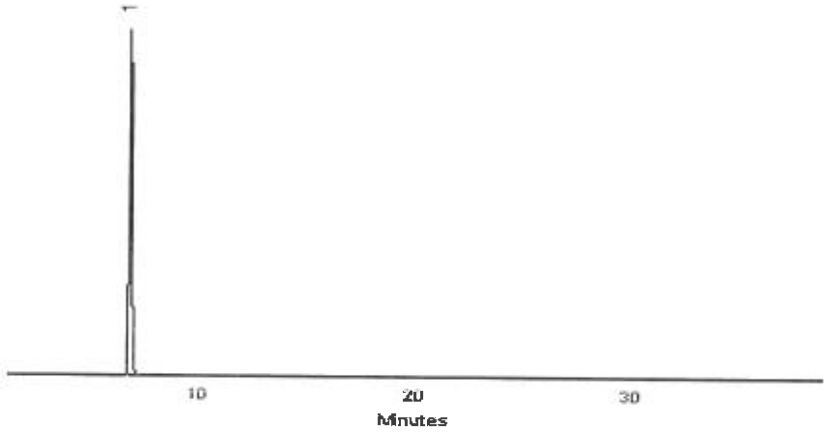
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

**Date Mixed:** 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00172

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

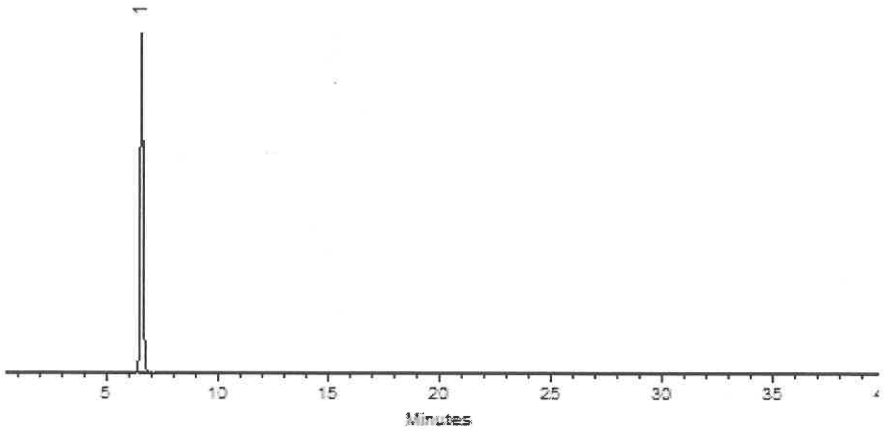
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00173

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

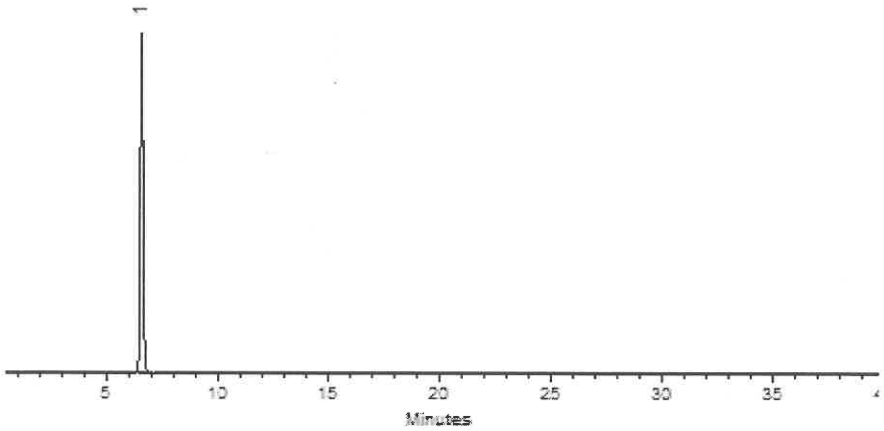
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00174

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

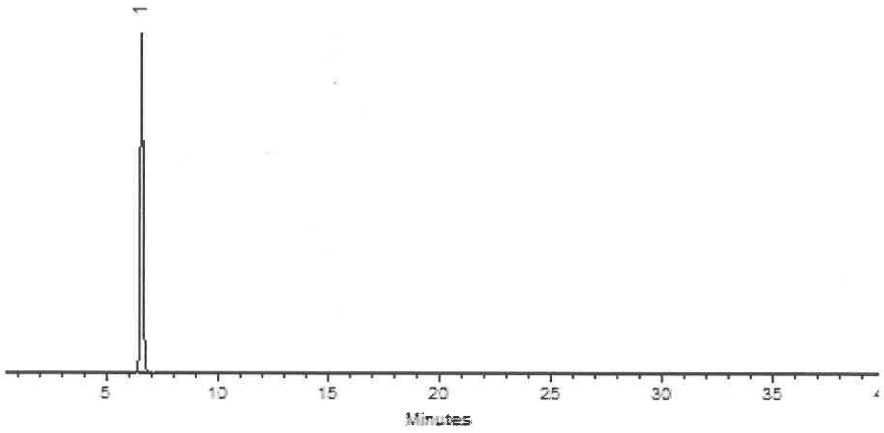
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00175

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

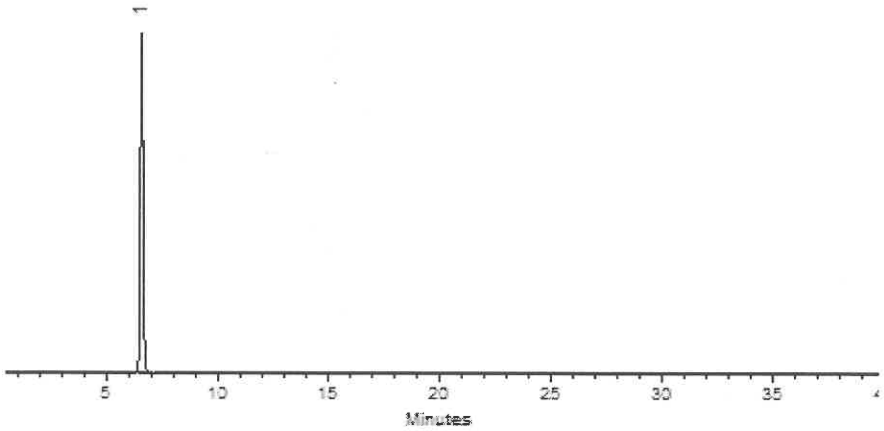
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStkSS_00176

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31453 **Lot No.:** A0155113

**Description :** 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2024 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1,2-Dinitrobenzene | | 1,004.0 µg/mL | +/- | 5.9635 | µg/mL | Gravimetric |
| | **CAS #** 528-29-0 | (Lot MKCH6067) | | +/- | 56.3065 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- | 57.6234 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

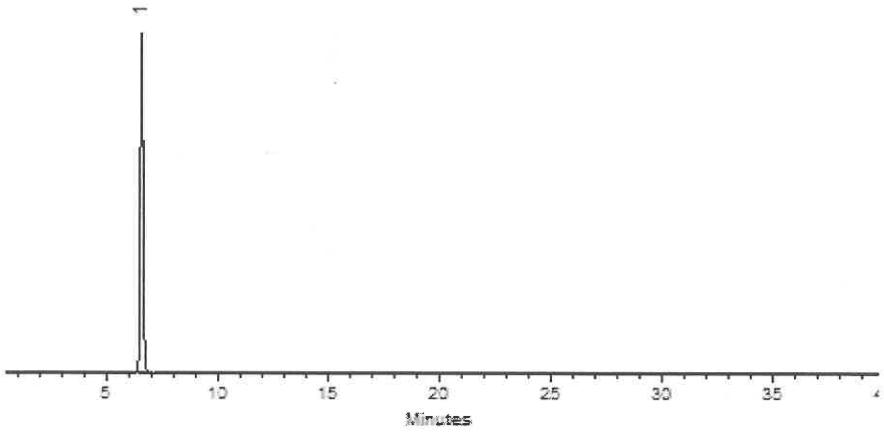
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 20-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Reagent

# 8330SurrStock_00164

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-SS
**Description:** 1,2-Dinitrobenzene
**Lot:** 216071012
**Solvent:** Methanol
**Hazards:** **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

**Danger 2**

**Date Certified:** Jul 1, 2016
**Expiration:** Jul 1, 2026
**Sample Size:** 1 mL
**Components:** 1
**Storage Condition:** Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

| Component | CAS # | Purity % (GC/FID) | Prepared Concentration[1] (µg/mL) | Certified Analyte Concentration[2] (µg/mL) |
|---|---|---|---|---|
| 1,2-Dinitrobenzene | 528-29-0 | 100.0 | 100.1 | 1001 |

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] All weights are traceable through NIST, Test No. 822-275872-11

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager



*For use in routine laboratory analysis.*

**AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015**

QR-ORG/INO-001
Rev. 5/18

# Reagent

---

# MNX,TNX,DNX_00032

Agilent

# Certificate of Analysis
# ISO Guide 34

## Custom Standard

| | | | | | |
|---|---|---|---|---|---|
| **Product Number:** | CUS-23984 | | | **Page:** | 1 of 1 |
| **Lot Number:** | CS-5628 | **Lot Issue Date:** | 16-Nov-2018 | **Expiration Date:** | 31-Dec-2019 |

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | | RM12428 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane | | RM12428 | 100.1 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane | | RM12428 | 116.7 ± 0.6 µg/mL |

**Matrix:** acetonitrile

**Storage:** Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Managment System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

ORG ver 1.1


250 Smith Street North Kingstown, Rhode Island 02852 **www.ultrasci.com**

# Reagent

---

# MNX,TNX,DNX_00042

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 24-Jan-2020

**Lot Number:** 0006516106 **Expiration Date:** 28-Feb-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.1 ± 0.6 µg/mL |

**Matrix:** acetonitrile

**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006516106

**Maintenance of Certification:**
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026



www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

# Reagent

---

# MNX,TNX,DNX_00043

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 24-Jan-2020

**Lot Number:** 0006516106 **Expiration Date:** 28-Feb-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.1 ± 0.6 µg/mL |

**Matrix:** acetonitrile

**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026



www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006516106

**Maintenance of Certification:**
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

# Reagent

---

# MNX,TNX,DNX_00046

Agilent

# Certificate of Analysis

**Product Name:** Custom Standard

**Product Number:** CUS-23984 **Lot Issue Date:** 24-Jan-2020

**Lot Number:** 0006516106 **Expiration Date:** 28-Feb-2021

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | Concentration ± Uncertainty |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | N/A | RM12426 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX) | N/A | RM12428 | 100.4 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX) | N/A | RM12428 | 117.1 ± 0.6 µg/mL |

**Matrix:** acetonitrile

**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/ CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006516106

**Maintenance of Certification:**
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

# Reagent

---

# MNX,TNX,DNX_00048

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



www.agilent.com/quality/

CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# Reagent

---

# MNX,TNX,DNX_00049

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



www.agilent.com/quality/

CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# 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



www.agilent.com/quality/

CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Reagent

---

# PicricARestek_00089

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31499 **Lot No.:** A0131892

**Description :** Picric Acid Standard

1000µg/mL, Methanol, 1mL/ampul *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** October 31, 2022 **Storage:** 10°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Picric Acid<br>**CAS #** 88-89-1<br>**Purity** 97%<br>(Lot 06130CU) | 1,004.9 µg/mL | +/- 5.9689 | µg/mL | Gravimetric |
| | | | +/- 55.0525 | µg/mL | Unstressed |
| | | | +/- 64.1967 | µg/mL | Stressed |

**Solvent:** Methanol
**CAS #** 67-56-1
**Purity** 99%

**Specific Reference Material Notes:**
This is a derivatized analysis.

**Column:**
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

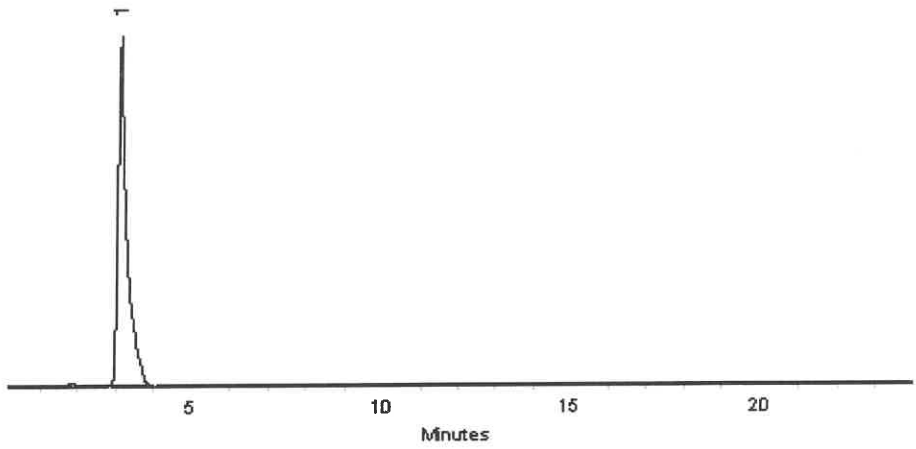
**Flow Rate:**
1.0 ml/min.

**Mobile Phase A:**
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

**Det. Type:**
Wavelength: 210 nm




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

**Date Mixed:** 25-Oct-2017 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 30-Oct-2017

**Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397**

# 8330A_DOD5

## Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

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 # |
|---|---|---|---|
| WATERWC-LTM-AUG20 | 280-139906-1 | | 89 M |
| WATERWC-LTM-AUG20 | 280-139906-1 | 80 M Q | |
| | MB 280-507292/1-A | 112 | |
| | LCS 280-507292/2-A | 101 | |
| | LCS 280-507292/4-A | 100 | |
| | LCSD 280-507292/3-A | 98 | |
| | LCSD 280-507292/5-A | 102 | |

| | 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.: 280-139906-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 09010023.D

Lab ID: LCS 280-507292/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.35 | 118 | 73-125 | |
| 1,3-Dinitrobenzene | 2.00 | 2.19 | 109 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.00 | 2.22 | 111 | 71-123 | |
| 2,4-Dinitrotoluene | 2.00 | 2.08 | 104 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 2.27 | 114 | 77-127 | M |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 2.00 | 100 | 79-120 | M |
| 2-Nitrotoluene | 2.00 | 1.77 | 88 | 70-127 | |
| 3-Nitrotoluene | 2.00 | 2.02 | 101 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.88 | 94 | 76-125 | |
| 4-Nitrotoluene | 2.00 | 2.02 | 101 | 71-127 | |
| HMX | 2.00 | 2.17 | 109 | 65-135 | |
| Nitrobenzene | 2.00 | 1.99 | 99 | 65-134 | |
| RDX | 2.00 | 2.01 | 100 | 68-130 | |
| Tetryl | 2.00 | 2.11 | 106 | 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.: 280-139906-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 09010025.D

Lab ID: LCS 280-507292/4-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.33 | 2.08 | 89 | 57-132 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 09010024.D

Lab ID: LCSD 280-507292/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.30 | 115 | 2 | 30 | 73-125 | |
| 1,3-Dinitrobenzene | 2.00 | 2.14 | 107 | 2 | 30 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.00 | 2.18 | 109 | 2 | 30 | 71-123 | |
| 2,4-Dinitrotoluene | 2.00 | 2.03 | 101 | 3 | 30 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 2.14 | 107 | 6 | 30 | 77-127 | M |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.96 | 98 | 2 | 30 | 79-120 | M |
| 2-Nitrotoluene | 2.00 | 1.59 | 80 | 11 | 30 | 70-127 | |
| 3-Nitrotoluene | 2.00 | 1.78 | 89 | 13 | 30 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.82 | 91 | 4 | 30 | 76-125 | |
| 4-Nitrotoluene | 2.00 | 1.83 | 91 | 10 | 30 | 71-127 | |
| HMX | 2.00 | 2.19 | 109 | 1 | 30 | 65-135 | |
| Nitrobenzene | 2.00 | 1.86 | 93 | 7 | 30 | 65-134 | |
| RDX | 2.00 | 1.95 | 98 | 3 | 30 | 68-130 | |
| Tetryl | 2.00 | 2.06 | 103 | 2 | 30 | 64-128 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 09010026.D

Lab ID: LCSD 280-507292/5-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| MNX | 2.33 | 2.07 | 89 | 0 | 30 | 57-132 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: MB 280-507292/1-A

Matrix: Water  Date Extracted: 08/29/2020 15:45

Lab File ID:(1) 09010022.D  Lab File ID:(2)

Date Analyzed:(1) 09/01/2020 21:51  Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3  Instrument ID:(2) CHHPLC_G2_LUNA

GC Column:(1) UltraCarb5uO ID: 4.6(mm)  GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|
| | LCS 280-507292/2-A | 09/01/2020 22:14 | |
| | LCSD 280-507292/3-A | 09/01/2020 22:37 | |
| | LCS 280-507292/4-A | 09/01/2020 23:00 | |
| | LCSD 280-507292/5-A | 09/01/2020 23:23 | |
| WATERWC-LTM-AUG20 | 280-139906-1 | 09/02/2020 00:09 | 09/02/2020 02:27 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID: WATERWC-LTM-AUG20
Lab Sample ID: 280-139906-1
Matrix: Water
Lab File ID: 09010028.D
Analysis Method: 8330A
Date Collected: 08/27/2020 11:00
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 469.2(mL)
Date Analyzed: 09/02/2020 00:09
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.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.090 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.11 | U Q | 0.12 | 0.11 | 0.039 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.11 | U M Q | 0.12 | 0.11 | 0.048 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.029 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.085 | U Q | 0.11 | 0.085 | 0.043 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U Q | 0.22 | 0.21 | 0.091 |
| 99-08-1 | 3-Nitrotoluene | 0.43 | U M Q | 0.43 | 0.43 | 0.21 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.13 | U Q | 0.16 | 0.13 | 0.061 |
| 99-99-0 | 4-Nitrotoluene | 0.43 | U Q | 0.44 | 0.43 | 0.11 |
| 2691-41-0 | HMX | 0.21 | U Q | 0.22 | 0.21 | 0.093 |
| 98-95-3 | Nitrobenzene | 0.21 | U Q | 0.22 | 0.21 | 0.097 |
| 121-82-4 | RDX | 0.21 | U Q | 0.22 | 0.21 | 0.055 |
| 479-45-8 | Tetryl | 0.11 | U Q | 0.12 | 0.11 | 0.034 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 80 | M Q | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010028.D | | | | |
| Lims ID: | 280-139906-A-1-A | | | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 02-Sep-2020 00:09:01 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-139906-A-1-A | | | | |
| Misc. Info.: | 280-0094633-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |
| First Level Reviewer: zhangji | | Date: | 02-Sep-2020 13:48:23 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.707 | | | ND | |
| 6 MNX | 1 | 7.404 | 7.360 | 0.044 | 12972 | 0.0818 | M |
| 7 RDX | 1 | | 7.754 | | | ND | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.731 | 8.701 | 0.030 | 22068 | 0.1597 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.881 | | | ND | |
| 11 1,3-Dinitrobenzene | 1 | | 9.520 | | | ND | |
| 12 Nitrobenzene | 1 | | 9.887 | | | ND | |
| 14 Tetryl | 1 | | 10.187 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.154 | | | ND | U |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.314 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.631 | 11.600 | 0.031 | 1907 | 0.009403 | M |
| 19 2,6-Dinitrotoluene | 1 | | 11.734 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.940 | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.754 | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.187 | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.767 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

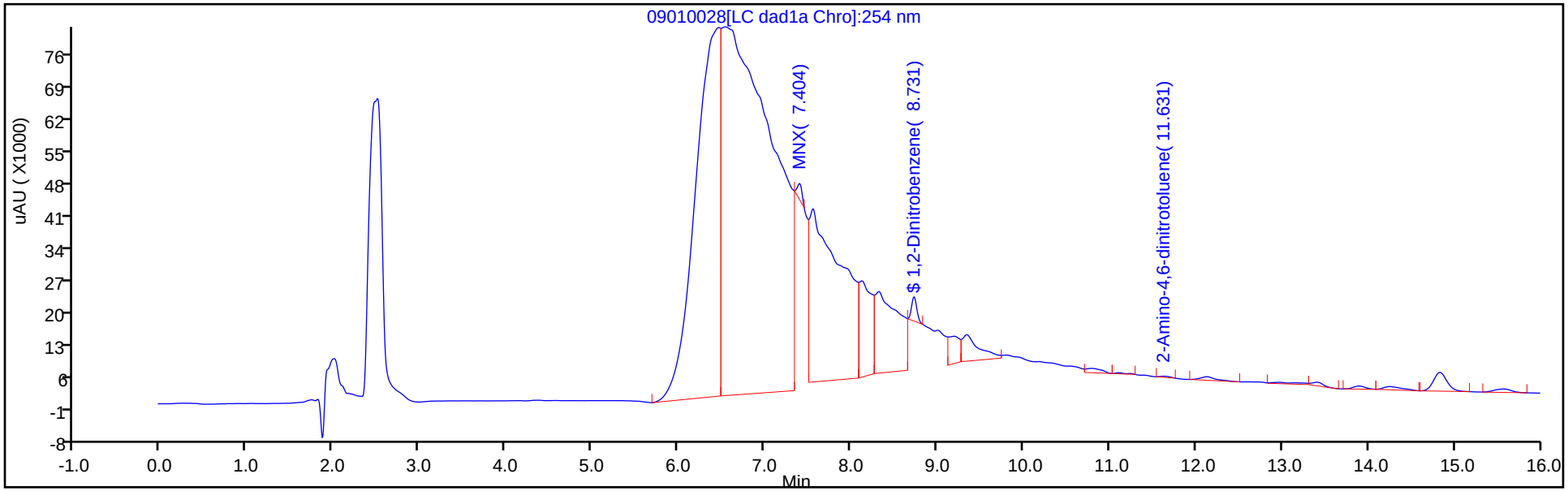
U - Marked Undetected

Report Date: 02-Sep-2020 14:00:47 Chrom Revision: 2.3 20-Aug-2020 13:57:12

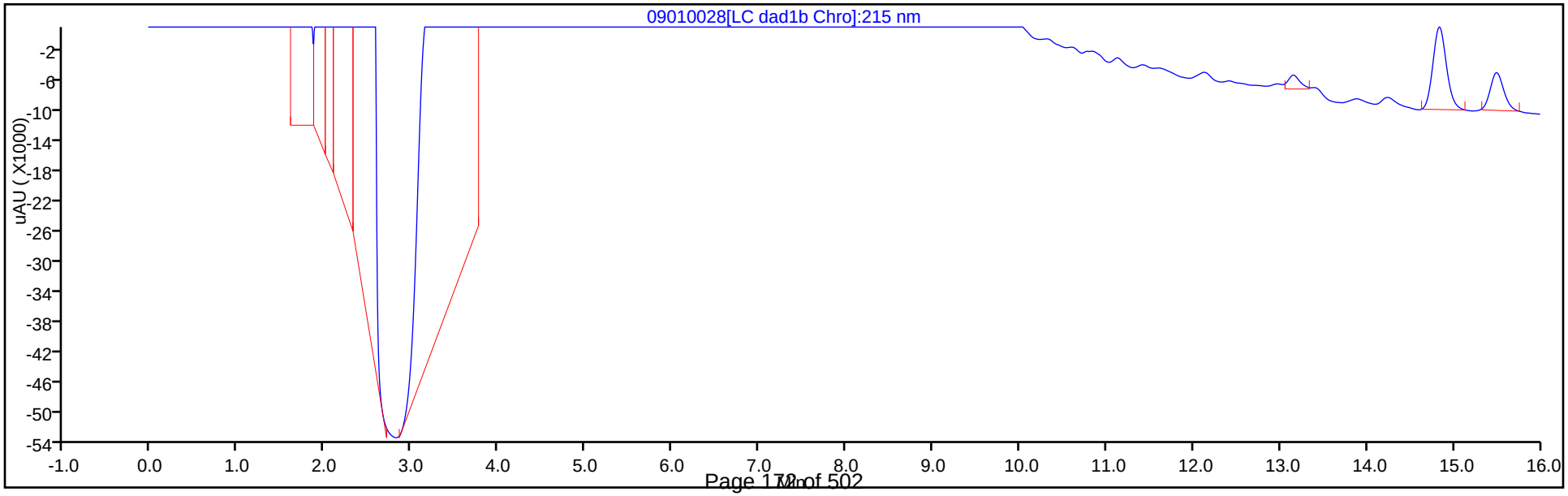
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | Worklist Smp#: | 28 |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010028.D | | | | |
| Lims ID: | 280-139906-A-1-A | | | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 02-Sep-2020 00:09:01 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-139906-A-1-A | | | | |
| Misc. Info.: | 280-0094633-028 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 |
| Integrator: | Falcon | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | |

| | | |
|---|---|---|
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | Det: LC DAD1B, 254 nm |
| Process Host: | CTX1039 | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:48:23

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1597 | 79.83 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

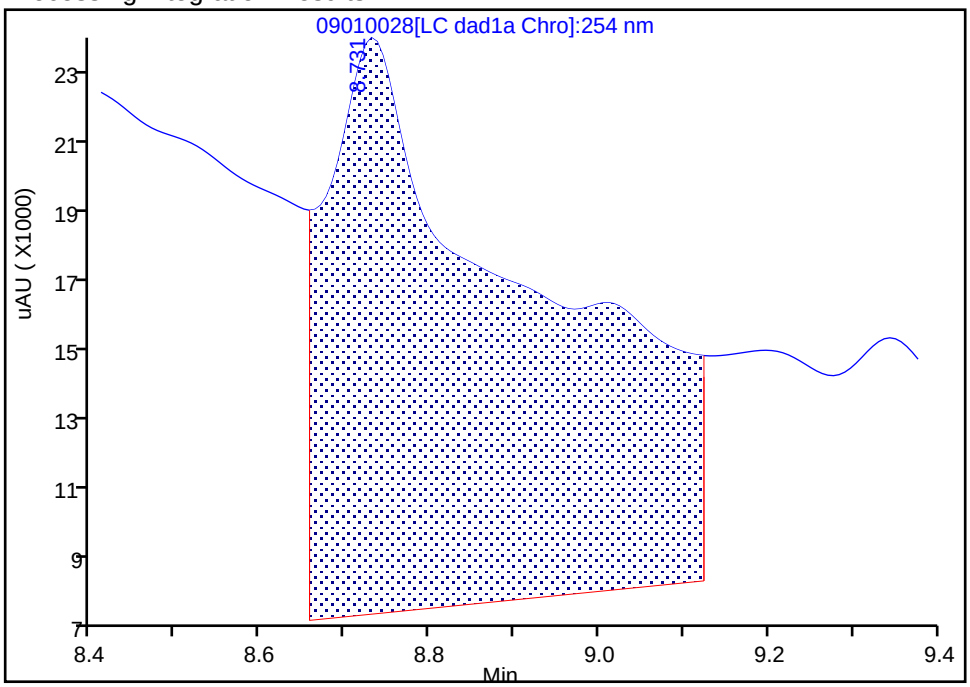
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

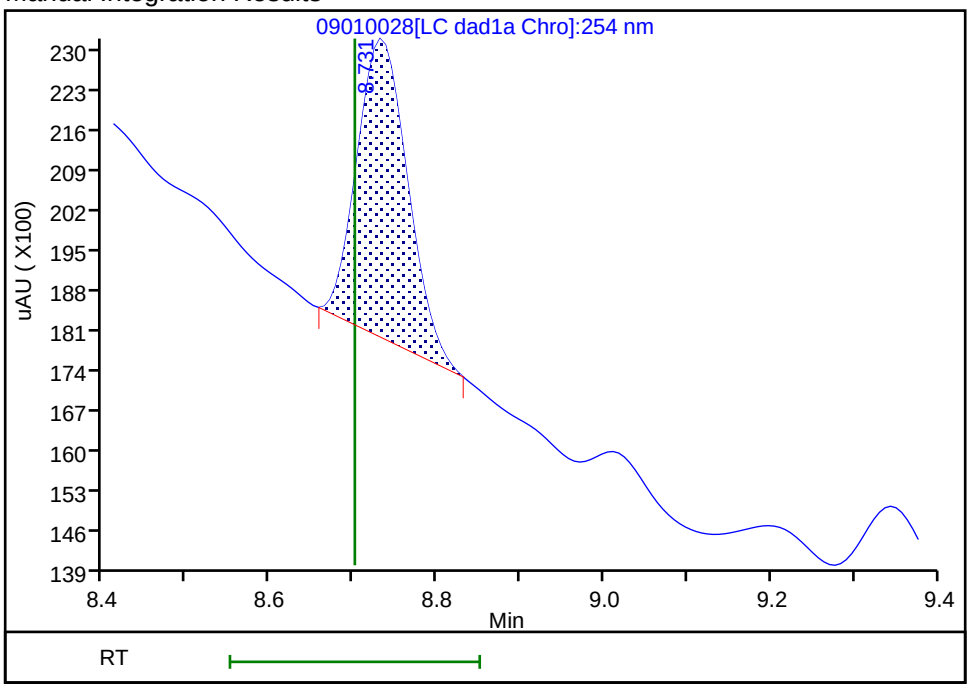
Processing Integration Results

RT: 8.73
Area: 267343
Amount: 1.934294
Amount Units: ug/mL




Manual Integration Results

RT: 8.73
Area: 22068
Amount: 0.159668
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:47:57
Audit Action: Manually Integrated Audit Reason: Baseline

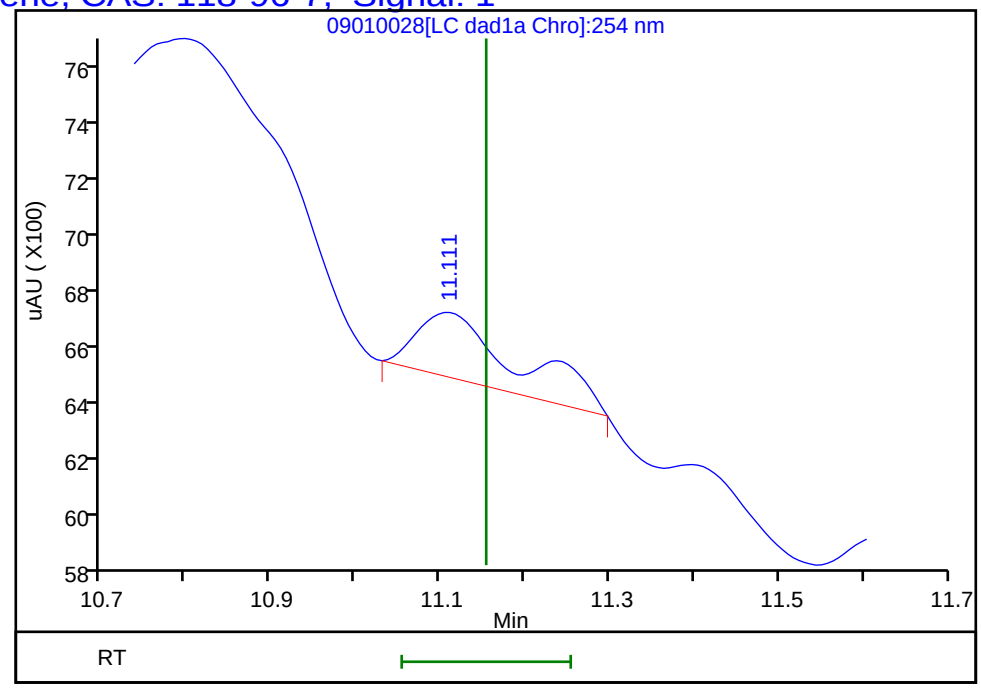
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 16 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 11.11
Response: 1894
Amount: 0.009283




Reviewer: zhangji, 02-Sep-2020 13:48:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

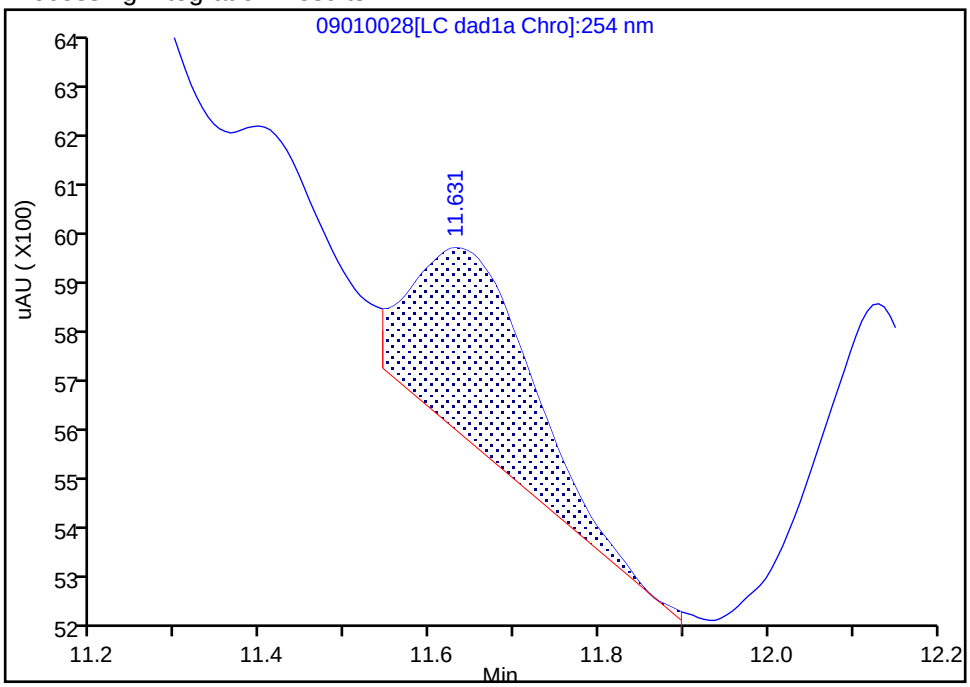
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

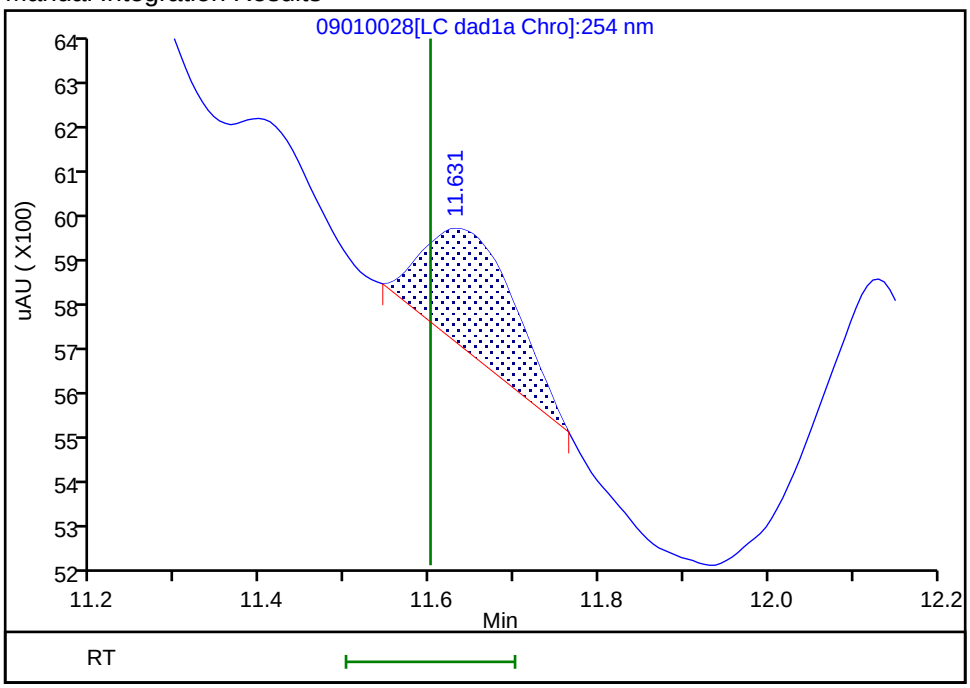
Processing Integration Results

RT: 11.63
Area: 3511
Amount: 0.017311
Amount Units: ug/mL




Manual Integration Results

RT: 11.63
Area: 1907
Amount: 0.009403
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:48:18

Audit Action: Manually Integrated Audit Reason: Baseline

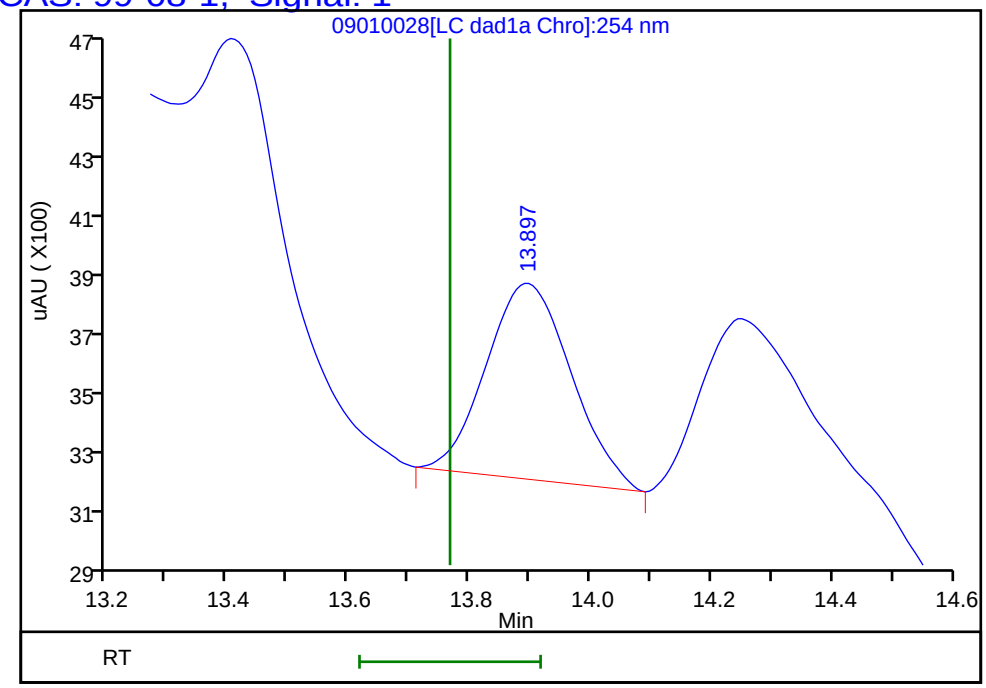
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.90
Response: 6459
Amount: 0.045159




Reviewer: zhangji, 02-Sep-2020 13:48:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Denver

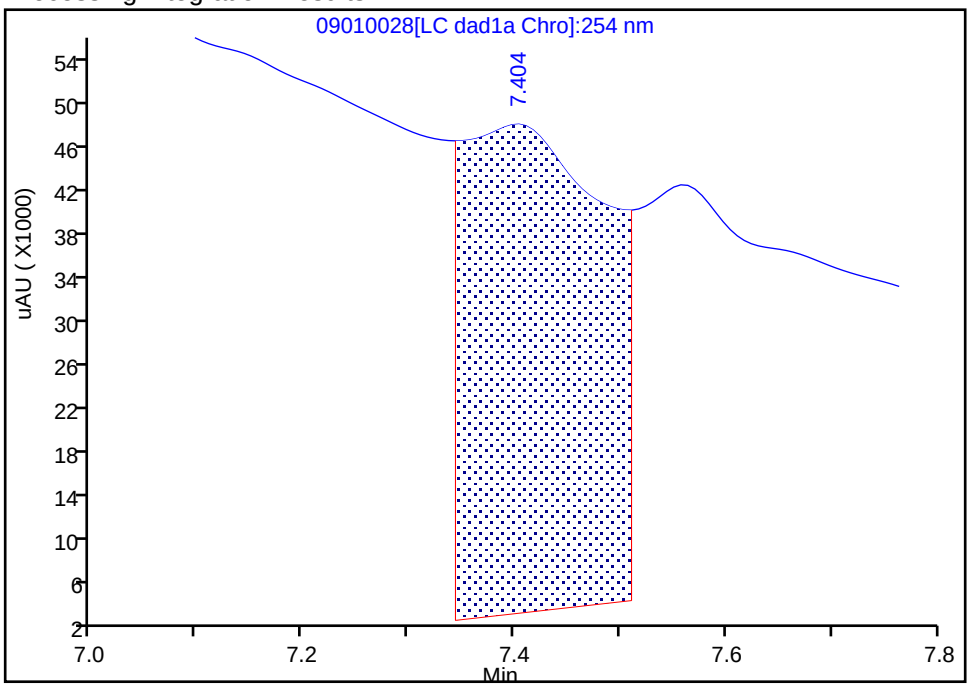
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010028.d | | | | |
| Injection Date: | 02-Sep-2020 00:09:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

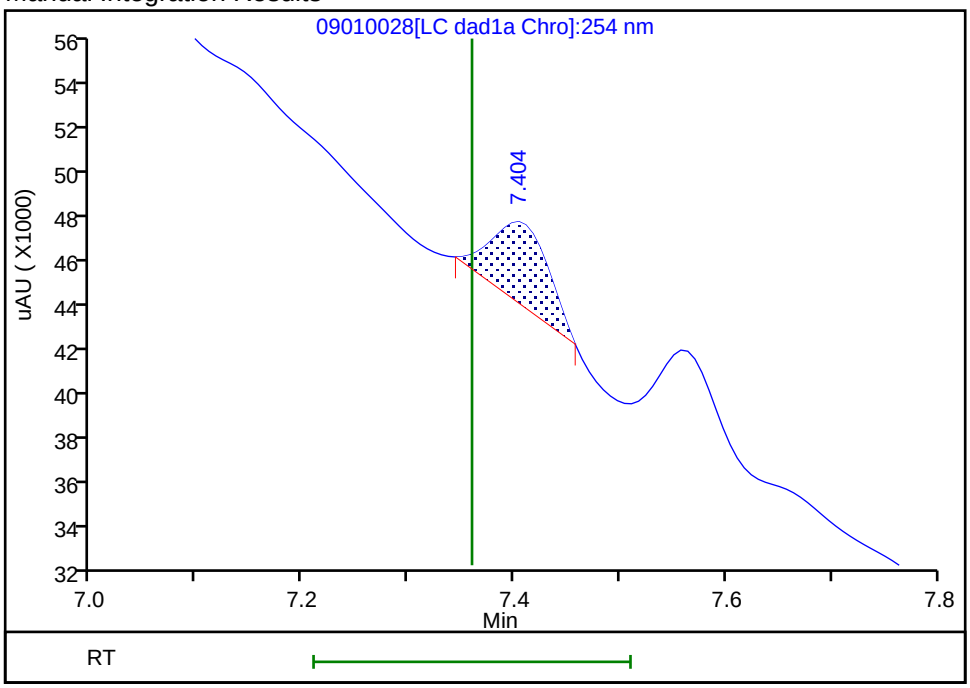
Processing Integration Results

RT: 7.40
Area: 406390
Amount: 2.563260
Amount Units: ug/mL




Manual Integration Results

RT: 7.40
Area: 12972
Amount: 0.081819
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:48:07
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID: WATERWC-LTM-AUG20
Lab Sample ID: 280-139906-1
Matrix: Water
Lab File ID: 09010027.D
Analysis Method: 8330A
Date Collected: 08/27/2020 11:00
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 469.2(mL)
Date Analyzed: 09/02/2020 02:27
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.: 507615
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.12 | 0.11 | 0.054 |
| 5755-27-1 | MNX | 0.43 | U | 2.1 | 0.43 | 0.16 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 89 | *M* | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010027.D
Lims ID: 280-139906-A-1-A
Client ID: WATERWC-LTM-AUG20
Sample Type: Client
Inject. Date: 02-Sep-2020 02:27:32 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-139906-A-1-A
Misc. Info.: 280-0094635-027
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:36:12 Calib Date: 07-Jul-2020 23:49:12
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 14:15:01

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 6 HMX | 1 | | 6.971 | | | ND | |
| 7 MNX | 1 | | 7.764 | | | ND | |
| 8 RDX | 1 | | 9.125 | | | ND | U |
| 9 Nitrobenzene | 1 | | 12.018 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.005 | 13.018 | -0.013 | 50992 | 0.1773 | M |
| 12 1,3-Dinitrobenzene | 1 | | 15.518 | | | ND | |
| 14 o-Nitrotoluene | 1 | | 16.458 | | | ND | U |
| 15 p-Nitrotoluene | 1 | | 16.731 | | | ND | U |
| 16 4-Amino-2,6-dinitrotoluene | 1 | | 17.185 | | | ND | U |
| 17 m-Nitrotoluene | 1 | | 17.665 | | | ND | U |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 18.098 | | | ND | |
| 19 1,3,5-Trinitrobenzene | 1 | | 18.831 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 19.778 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 20.278 | | | ND | U |
| 22 Tetryl | 1 | | 23.605 | | | ND | |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.651 | | | ND | |

## QC Flag Legend

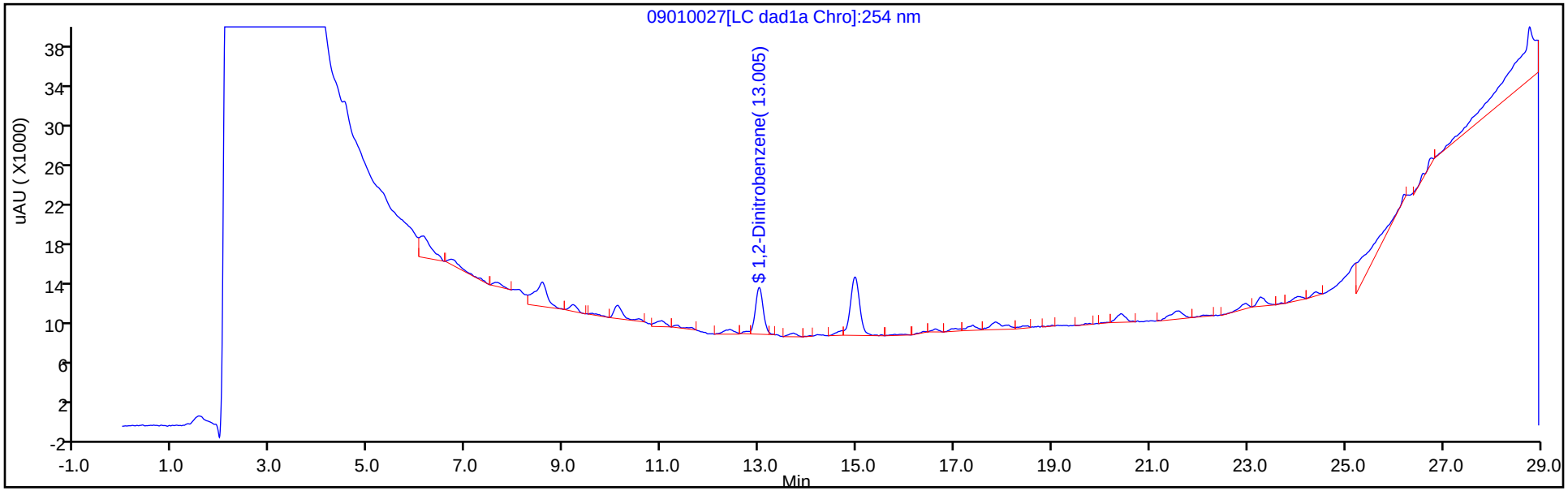
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 02-Sep-2020 14:36:18 Chrom Revision: 2.3 20-Aug-2020 13:57:12

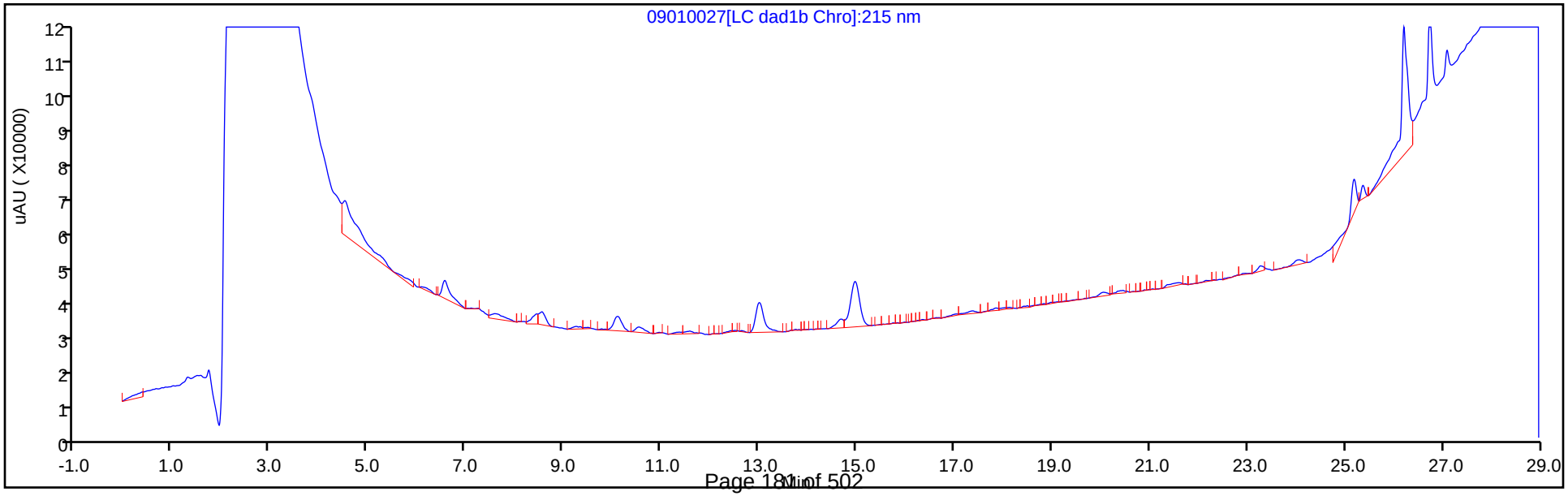
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | JZ |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | Worklist Smp#: | 27 |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010027.D | | | | |
| Lims ID: | 280-139906-A-1-A | | | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 02-Sep-2020 02:27:32 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-139906-A-1-A | | | | |
| Misc. Info.: | 280-0094635-027 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:36:12 | Calib Date: | 07-Jul-2020 23:49:12 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 14:15:01

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.1773 | 88.65 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

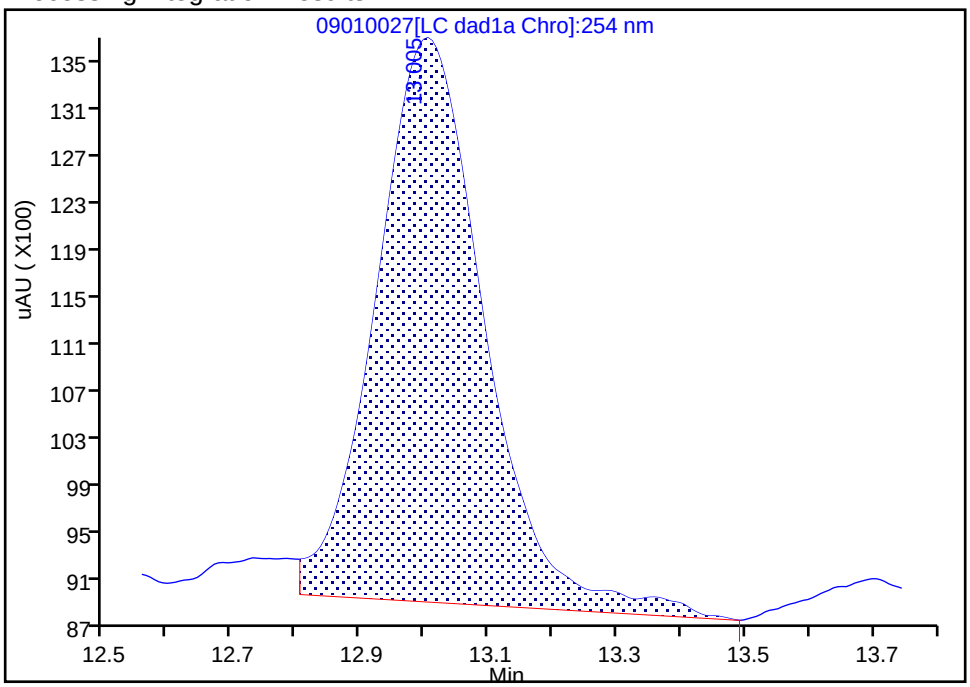
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

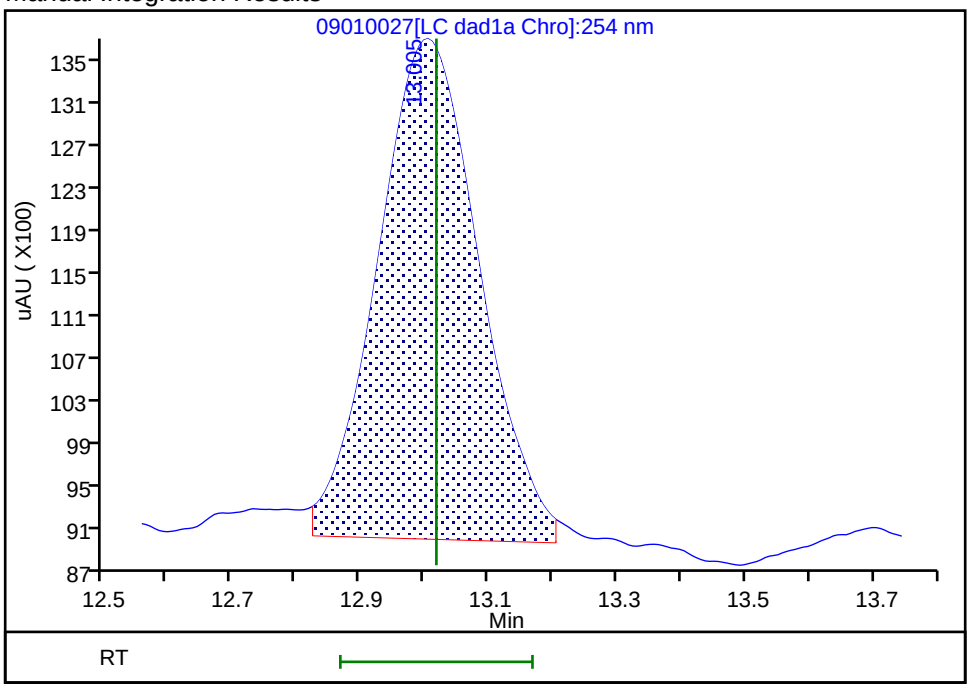
Processing Integration Results

RT: 13.00
Area: 55676
Amount: 0.194197
Amount Units: ug/ml




Manual Integration Results

RT: 13.00
Area: 50992
Amount: 0.177302
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:14:59

Audit Action: Split an Integrated Peak Audit Reason: Baseline

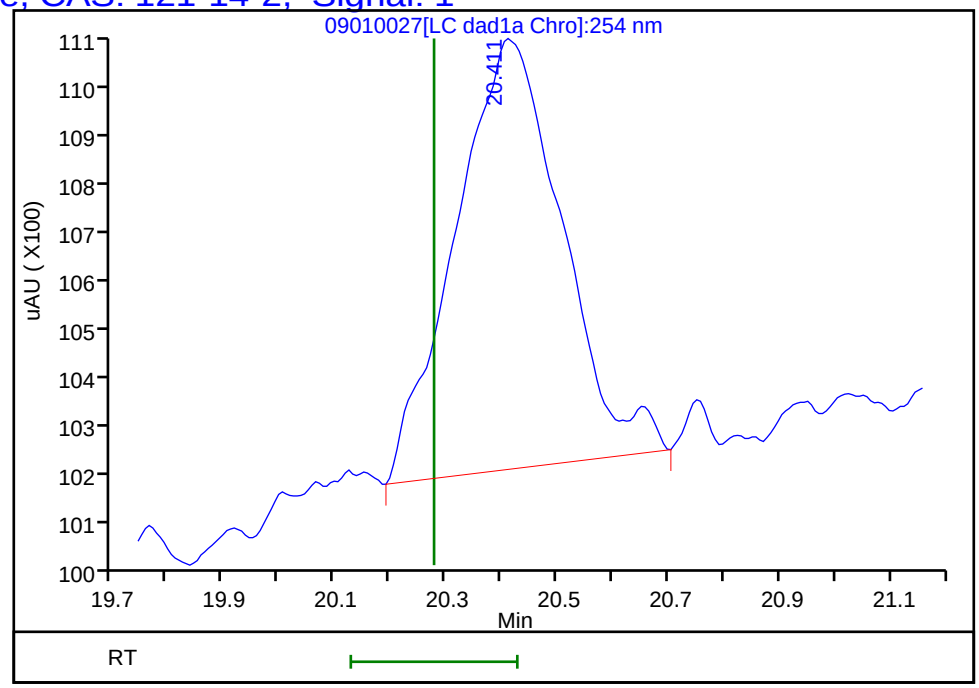
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 20.41
Response: 11325
Amount: 0.017692




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

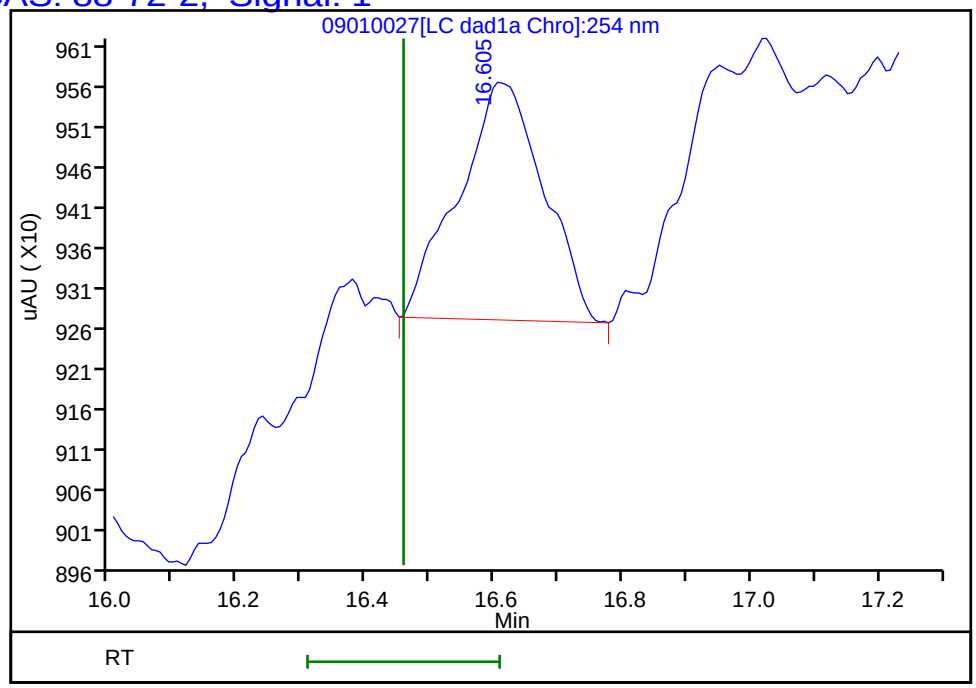
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.60
Response: 2703
Amount: 0.009902




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

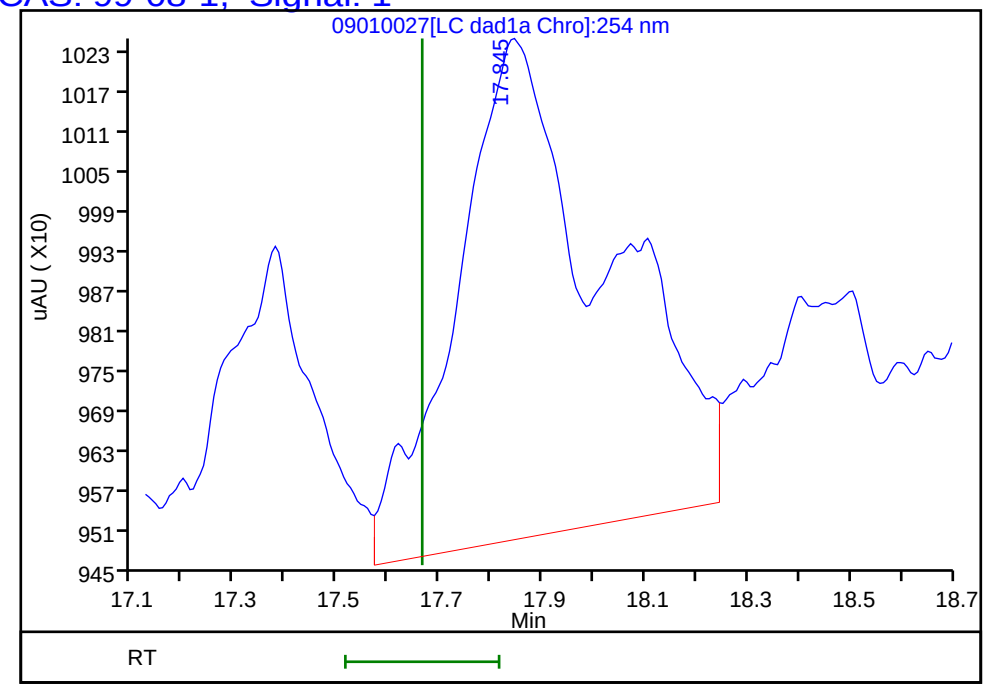
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 17.84
Response: 15378
Amount: 0.051547




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

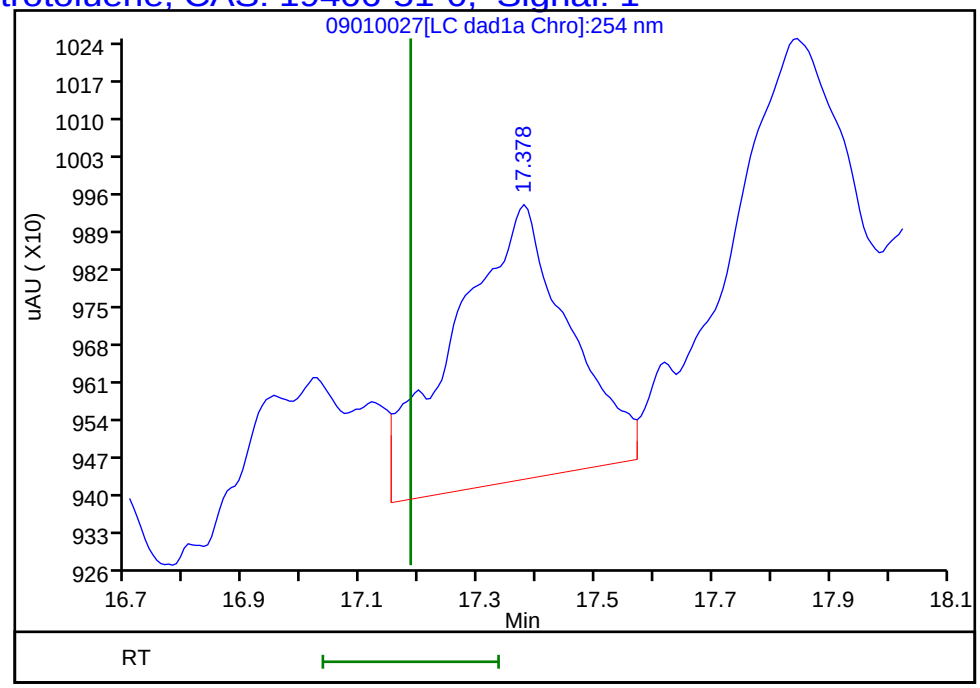
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 17.38
Response: 7007
Amount: 0.020296




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

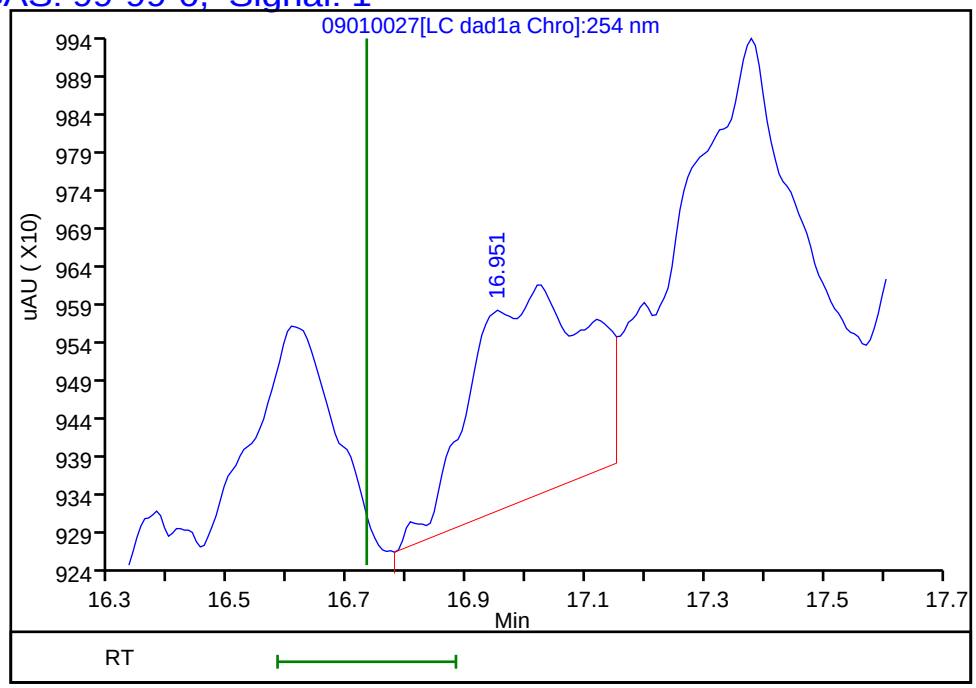
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 16.95
Response: 3793
Amount: 0.015746




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

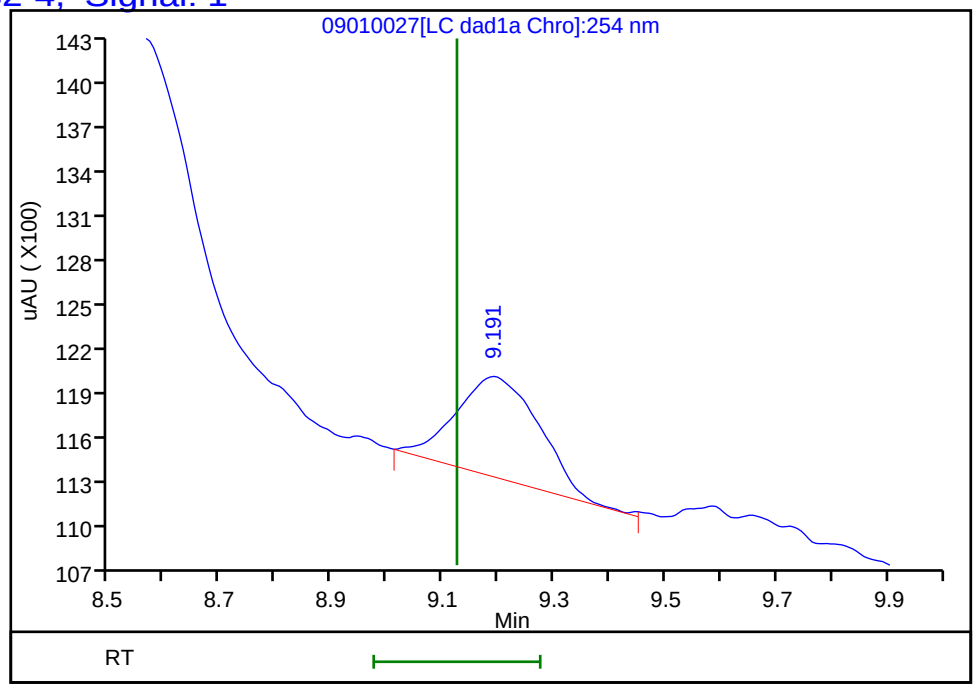
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010027.d | | | | |
| Injection Date: | 02-Sep-2020 02:27:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-139906-A-1-A | Lab Sample ID: | 280-139906-1 | | |
| Client ID: | WATERWC-LTM-AUG20 | | | | |
| Operator ID: | JZ | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4, Signal: 1

RT: 9.19
Response: 7025
Amount: 0.028749




Reviewer: zhangji, 02-Sep-2020 14:15:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/15 | 05140015.D |
| Level 2 | IC 280-494886/14 | 05140014.D |
| Level 3 | IC 280-494886/13 | 05140013.D |
| Level 4 | IC 280-494886/12 | 05140012.D |
| Level 5 | IC 280-494886/11 | 05140011.D |
| Level 6 | IC 280-494886/10 | 05140010.D |
| Level 7 | IC 280-494886/9 | 05140009.D |
| Level 8 | IC 280-494886/8 | 05140008.D |
| Level 9 | IC 280-494886/7 | 05140007.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Picric acid | | 6.322 | 6.331 | 6.308 | 6.300 | 6.267 | 6.235 | 6.195 | +++++ | | 6.150 - 6.450 | 6.280 |
| HMX | | 6.982 | 6.984 | 6.994 | 6.986 | 6.987 | 6.982 | 6.968 | 6.916 | | 6.836 - 7.136 | 6.975 |
| RDX | | 9.095 | 9.184 | 9.181 | 9.173 | 9.173 | 9.162 | 9.148 | 9.076 | | 9.023 - 9.323 | 9.149 |
| Nitrobenzene | | 12.095 | 12.110 | 12.114 | 12.106 | 12.107 | 12.095 | 12.088 | 11.995 | | 11.956 - 12.256 | 12.089 |
| 1,3-Dinitrobenzene | | 15.542 | 15.544 | 15.554 | 15.553 | 15.553 | 15.548 | 15.541 | 15.469 | | 15.403 - 15.703 | 15.538 |
| Nitroglycerin | | 15.855 | 15.844 | 15.848 | 15.853 | 15.853 | 15.842 | 15.848 | 15.782 | | 15.703 - 16.003 | 15.841 |
| 2-Nitrotoluene | | 16.515 | 16.550 | 16.534 | 16.533 | 16.540 | 16.535 | 16.535 | 16.475 | | 16.383 - 16.683 | 16.527 |
| 4-Nitrotoluene | | 16.795 | 16.837 | 16.828 | 16.820 | 16.820 | 16.808 | 16.815 | 16.715 | | 16.670 - 16.970 | 16.805 |
| 4-Amino-2,6-dinitrotoluene | | 17.155 | 17.157 | 17.148 | 17.146 | 17.153 | 17.142 | 17.141 | 17.069 | | 16.996 - 17.296 | 17.139 |
| 3-Nitrotoluene | | 17.748 | 17.724 | 17.741 | 17.753 | 17.747 | 17.742 | 17.741 | 17.782 | | 17.603 - 17.903 | 17.747 |
| 2-Amino-4,6-dinitrotoluene | | 18.048 | 18.030 | 18.054 | 18.046 | 18.040 | 18.035 | 18.028 | 17.935 | | 17.896 - 18.196 | 18.027 |
| 1,3,5-Trinitrobenzene | | 18.855 | 18.864 | 18.881 | 18.886 | 18.887 | 18.875 | 18.881 | 18.829 | | 18.736 - 19.036 | 18.870 |
| 2,6-Dinitrotoluene | +++++ | 19.828 | 19.817 | 19.794 | 19.806 | 19.807 | 19.795 | 19.801 | 19.742 | | 19.656 - 19.956 | 19.799 |
| 2,4-Dinitrotoluene | 20.295 | 20.295 | 20.290 | 20.288 | 20.293 | 20.293 | 20.288 | 20.288 | 20.235 | | 20.143 - 20.443 | 20.285 |
| Tetryl | | 23.529 | 23.557 | 23.548 | 23.553 | 23.553 | 23.542 | 23.555 | 23.516 | | 23.403 - 23.703 | 23.544 |
| 2,4,6-Trinitrotoluene | | 24.682 | 24.637 | 24.654 | 24.653 | 24.647 | 24.642 | 24.648 | 24.616 | | 24.503 - 24.803 | 24.647 |
| PETN | | +++++ | 25.277 | 25.281 | 25.280 | 25.280 | 25.275 | 25.281 | 25.269 | | 25.130 - 25.430 | 25.278 |
| 1,2-Dinitrobenzene | | 13.022 | 13.037 | 13.048 | 13.040 | 13.040 | 13.028 | 13.028 | 12.949 | | 12.890 - 13.190 | 13.024 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/15 | 05140015.D |
| Level 2 | IC 280-494886/14 | 05140014.D |
| Level 3 | IC 280-494886/13 | 05140013.D |
| Level 4 | IC 280-494886/12 | 05140012.D |
| Level 5 | IC 280-494886/11 | 05140011.D |
| Level 6 | IC 280-494886/10 | 05140010.D |
| Level 7 | IC 280-494886/9 | 05140009.D |
| Level 8 | IC 280-494886/8 | 05140008.D |
| Level 9 | IC 280-494886/7 | 05140007.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Picric acid | 194456<br>+++++ | 227320<br>170053 | 189240<br>169399 | 231700<br>174504 | Ave | | 193810.153 | | | | 13.5 | | 20.0 | | | |
| HMX | 216260<br>175837 | 400720<br>186210 | 252920<br>179567 | 242940<br>183992 | Lin2 | 5323.97093 | 177012.867 | | | | | | | 0.9900 | | 0.9900 |
| RDX | 250504<br>220101 | 251440<br>221363 | 302380<br>217280 | 272330<br>219481 | Ave | | 244359.838 | | | | 12.7 | | 20.0 | | | |
| Nitrobenzene | 422566<br>420057 | 411355<br>413613 | 566215<br>420302 | 425090<br>434621 | Ave | | 439227.211 | | | | 11.8 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 687780<br>651230 | 649900<br>645107 | 741737<br>661018 | 688743<br>667994 | Ave | | 674188.610 | | | | 4.7 | | 20.0 | | | |
| Nitroglycerin | 132151<br>128856 | 106184<br>127479 | 128084<br>121758 | 141489<br>128426 | Ave | | 126803.331 | | | | 7.9 | | 20.0 | | | |
| 2-Nitrotoluene | 252584<br>263350 | 272480<br>263733 | 320060<br>259206 | 290620<br>261684 | Ave | | 272964.527 | | | | 8.1 | | 20.0 | | | |
| 4-Nitrotoluene | 237944<br>205745 | 214531<br>233965 | 309222<br>235547 | 259042<br>231055 | Ave | | 240881.296 | | | | 13.2 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 316356<br>338348 | 374386<br>325764 | 441918<br>319452 | 324156<br>321498 | Ave | | 345234.619 | | | | 12.5 | | 20.0 | | | |
| 3-Nitrotoluene | 284364<br>280237 | 276523<br>288039 | 385215<br>286309 | 305554<br>280373 | Ave | | 298326.800 | | | | 12.1 | | 20.0 | | | |
| 2-Amino-4,6-dinitrotoluene | 449641<br>452344 | 413386<br>446609 | 577331<br>454954 | 473367<br>454056 | Ave | | 465211.017 | | | | 10.4 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 473888<br>459025 | 432016<br>445838 | 531916<br>461195 | 509261<br>466466 | Ave | | 472450.766 | | | | 7.0 | | 20.0 | | | |
| 2,6-Dinitrotoluene | +++++<br>296084<br>293622 | 462869<br>294056 | 380618<br>294513 | 345209<br>297272 | Lin2 | 4435.95604 | 289218.236 | | | | | | | 0.9990 | | 0.9900 |
| 2,4-Dinitrotoluene | 636653<br>610554<br>606816 | 669761<br>610082 | 743068<br>605778 | 672311<br>605997 | Ave | | 640113.339 | | | | 7.4 | | 20.0 | | | |
| Tetryl | 368208<br>349575 | 394172<br>348927 | 403234<br>350489 | 384701<br>350116 | Ave | | 368677.570 | | | | 6.1 | | 20.0 | | | |
| 2,4,6-Trinitrotoluene | 399076<br>406271 | 460040<br>393653 | 565060<br>401302 | 430359<br>406644 | Lin1 | 3158.03416 | 401610.023 | | | | | | | 0.9990 | | 0.9900 |
| PETN | 135296<br>128081 | +++++<br>139434 | 204240<br>136840 | 132172<br>136576 | Lin1 | 27366.0232 | 129287.517 | | | | | | | 0.9980 | | 0.9900 |
| 1,2-Dinitrobenzene | 249500<br>288347 | 337440<br>268080 | 374880<br>263961 | 306830<br>274673 | Lin1 | 1839.02265 | 277228.024 | | | | | | | 0.9970 | | 0.9900 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/15 | 05140015.D |
| Level 2 | IC 280-494886/14 | 05140014.D |
| Level 3 | IC 280-494886/13 | 05140013.D |
| Level 4 | IC 280-494886/12 | 05140012.D |
| Level 5 | IC 280-494886/11 | 05140011.D |
| Level 6 | IC 280-494886/10 | 05140010.D |
| Level 7 | IC 280-494886/9 | 05140009.D |
| Level 8 | IC 280-494886/8 | 05140008.D |
| Level 9 | IC 280-494886/7 | 05140007.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Picric acid | Ave | 68021 | 5683<br>118579 | 9462<br>174504 | 23170<br>+++++ | 48614 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>+++++ | 0.250 |
| HMX | Lin2 | 74484 | 10018<br>125697 | 12646<br>183992 | 24294<br>439592 | 54065 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | 88545 | 6286<br>152096 | 15119<br>219481 | 27233<br>550253 | 62626 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Nitrobenzene | Ave | 166107 | 10325<br>295388 | 28424<br>436359 | 42679<br>1054344 | 106064 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 258559 | 16280<br>463638 | 37161<br>669330 | 69012<br>1631331 | 172289 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 509915 | 26546<br>852305 | 64042<br>1284256 | 141489<br>3221406 | 330378 | 4.00 | 0.250<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2-Nitrotoluene | Ave | 105493 | 6812<br>181444 | 16003<br>261684 | 29062<br>658375 | 63146 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| 4-Nitrotoluene | Ave | 93773 | 5374<br>165213 | 15492<br>231517 | 25956<br>515391 | 59605 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Ave | 130436 | 9369<br>223840 | 22118<br>321819 | 32448<br>846716 | 79168 | 0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 3-Nitrotoluene | Ave | 115331 | 6920<br>200617 | 19280<br>280653 | 30586<br>701292 | 71162 | 0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Ave | 179358 | 10376<br>319742 | 28982<br>455872 | 47526<br>1135384 | 112860 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3,5-Trinitrobenzene | Ave | 178692 | 10822<br>323482 | 26649<br>467399 | 51028<br>1149858 | 118709 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Lin2 | +++++<br>118093 | 11618<br>206984 | 19107<br>298461 | 34659<br>736990 | 74317 | +++++<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4-Dinitrotoluene | Ave | 7990<br>245009 | 16811<br>425741 | 37302<br>608421 | 67500<br>1523108 | 153249 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Tetryl | Ave | 139850 | 9874<br>245833 | 20202<br>350816 | 38547<br>875686 | 92236 | 0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4,6-Trinitrotoluene | Lin1 | 158091 | 11547<br>282035 | 28366<br>408271 | 43208<br>1019741 | 100168 | 0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| PETN | Lin1 | 557734 | +++++<br>957879 | 102120<br>1365764 | 132172<br>3202028 | 338241 | 4.00 | +++++<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 1,2-Dinitrobenzene | Lin1 | 107232 | 8436<br>184773 | 18744<br>274673 | 30683<br>720867 | 62375 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140007.D
Lims ID: IC FULL 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-May-2020 16:16:43 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 9
Misc. Info.: 280-0091518-007
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:54 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 14-May-2020 17:09:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.302 | 4.366 | -0.064 | 946682 | 2.50 | 2.21 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.769 | 4.880 | -0.111 | 410736 | 2.50 | 1.70 | M |
| 5 2,4,6-Trinitrophenol | 1 | 6.096 | 6.300 | -0.204 | 359637 | 2.50 | 1.86 | |
| 6 HMX | 1 | 6.916 | 6.986 | -0.070 | 439592 | 2.50 | 2.45 | |
| 8 RDX | 1 | 9.076 | 9.173 | -0.097 | 550253 | 2.50 | 2.25 | |
| 9 Nitrobenzene | 1 | 11.995 | 12.106 | -0.111 | 1054344 | 2.51 | 2.40 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.949 | 13.040 | -0.091 | 720867 | 2.50 | 2.59 | |
| 11 3,5-Dinitroaniline | 1 | 14.795 | 14.886 | -0.091 | 1218279 | 2.50 | 2.51 | a |
| 12 1,3-Dinitrobenzene | 1 | 15.469 | 15.553 | -0.084 | 1631331 | 2.51 | 2.42 | |
| 13 Nitroglycerin | 2 | 15.782 | 15.853 | -0.071 | 3221406 | 25.0 | 25.4 | |
| 14 o-Nitrotoluene | 1 | 16.475 | 16.533 | -0.058 | 658375 | 2.50 | 2.41 | a |
| 15 p-Nitrotoluene | 1 | 16.715 | 16.820 | -0.105 | 515391 | 2.51 | 2.14 | a |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.069 | 17.146 | -0.077 | 846716 | 2.50 | 2.45 | a |
| 17 m-Nitrotoluene | 1 | 17.782 | 17.753 | 0.029 | 701292 | 2.50 | 2.35 | Ma |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 17.935 | 18.046 | -0.111 | 1135384 | 2.51 | 2.44 | Ma |
| 19 1,3,5-Trinitrobenzene | 1 | 18.829 | 18.886 | -0.057 | 1149858 | 2.51 | 2.43 | a |
| 20 2,6-Dinitrotoluene | 1 | 19.742 | 19.806 | -0.064 | 736990 | 2.51 | 2.53 | a |
| 21 2,4-Dinitrotoluene | 1 | 20.235 | 20.293 | -0.058 | 1523108 | 2.51 | 2.38 | a |
| 22 Tetryl | 1 | 23.516 | 23.553 | -0.037 | 875686 | 2.51 | 2.38 | a |
| 23 2,4,6-Trinitrotoluene | 1 | 24.616 | 24.653 | -0.037 | 1019741 | 2.51 | 2.53 | a |
| 24 PETN | 2 | 25.269 | 25.280 | -0.011 | 3202028 | 25.0 | 24.6 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

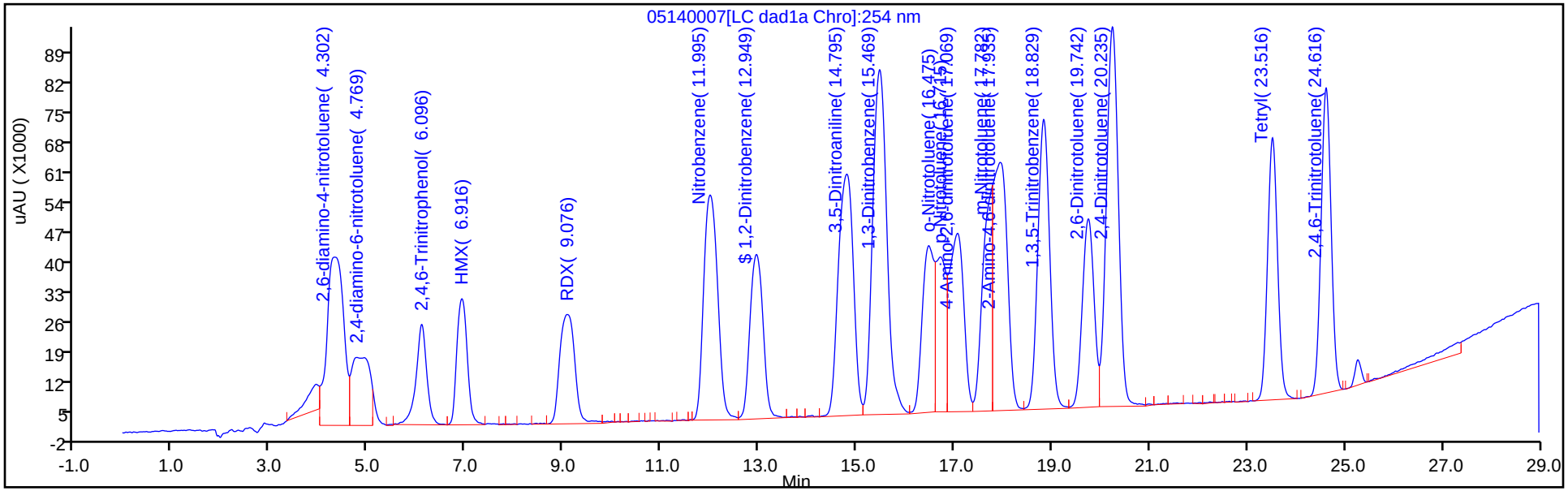
| | | |
|---|---|---|
| 8330IntermStk_00064 | Amount Added: 250.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: 125.00 | Units: uL |

Report Date: 15-May-2020 12:00:54 Chrom Revision: 2.3 05-May-2020 17:48:18

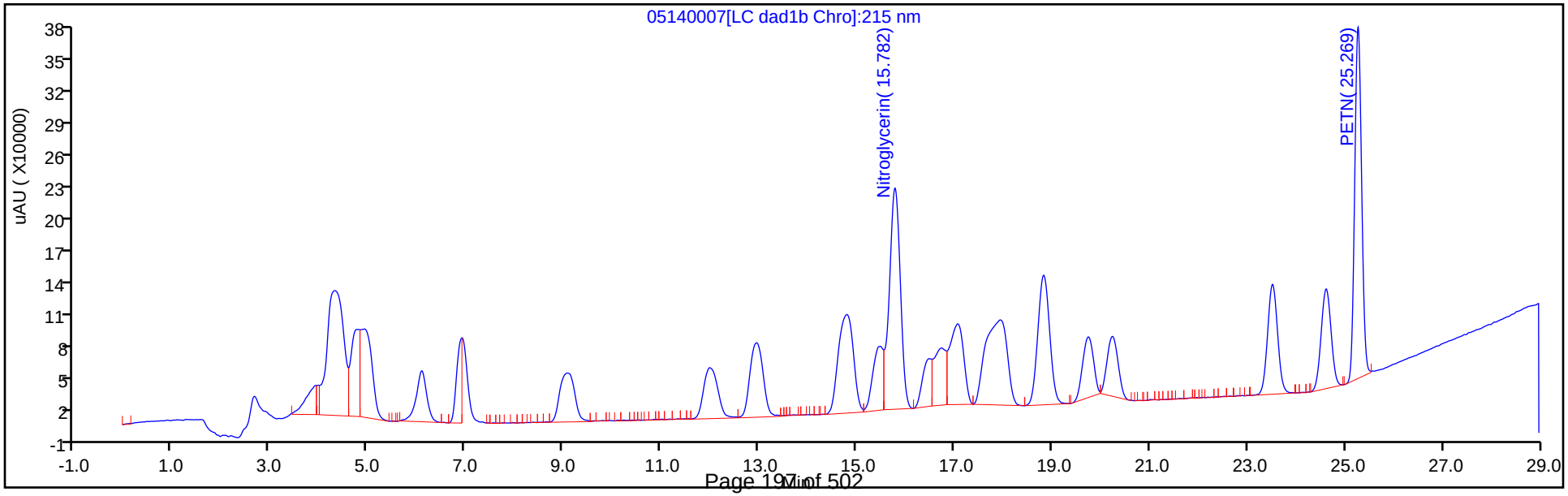
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 9 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

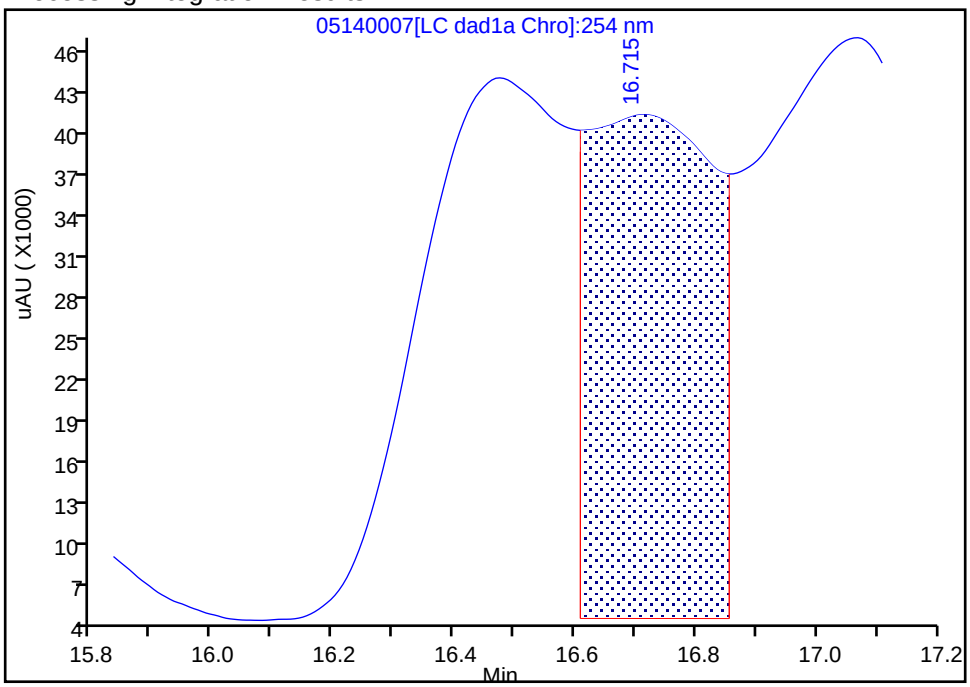
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

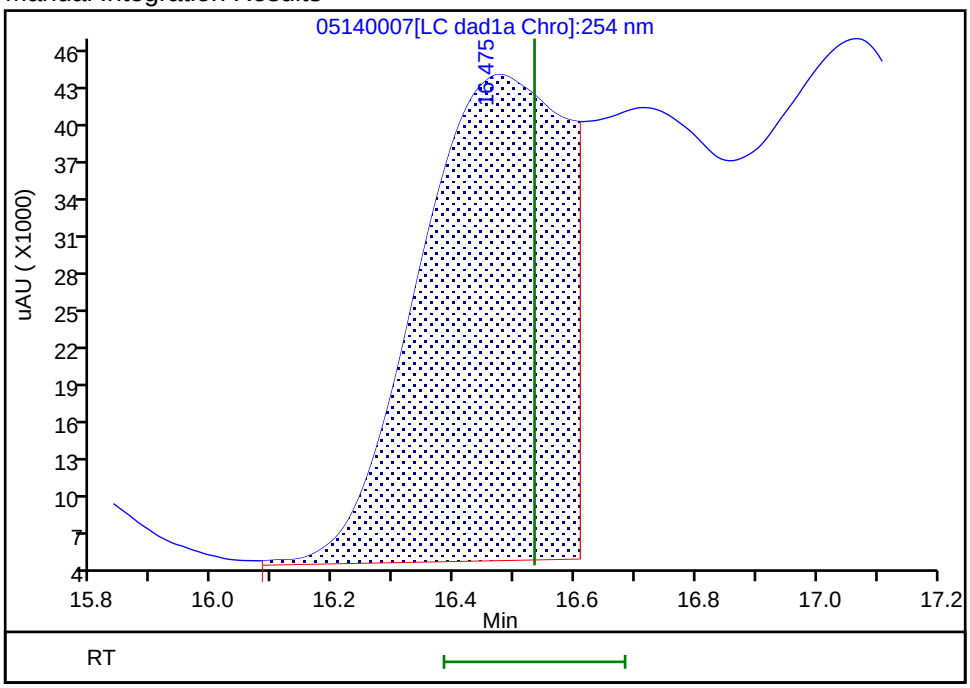
Processing Integration Results

RT: 16.72
Area: 515391
Amount: 1.955872
Amount Units: ug/ml




Manual Integration Results

RT: 16.48
Area: 658375
Amount: 2.411943
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:09:15
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

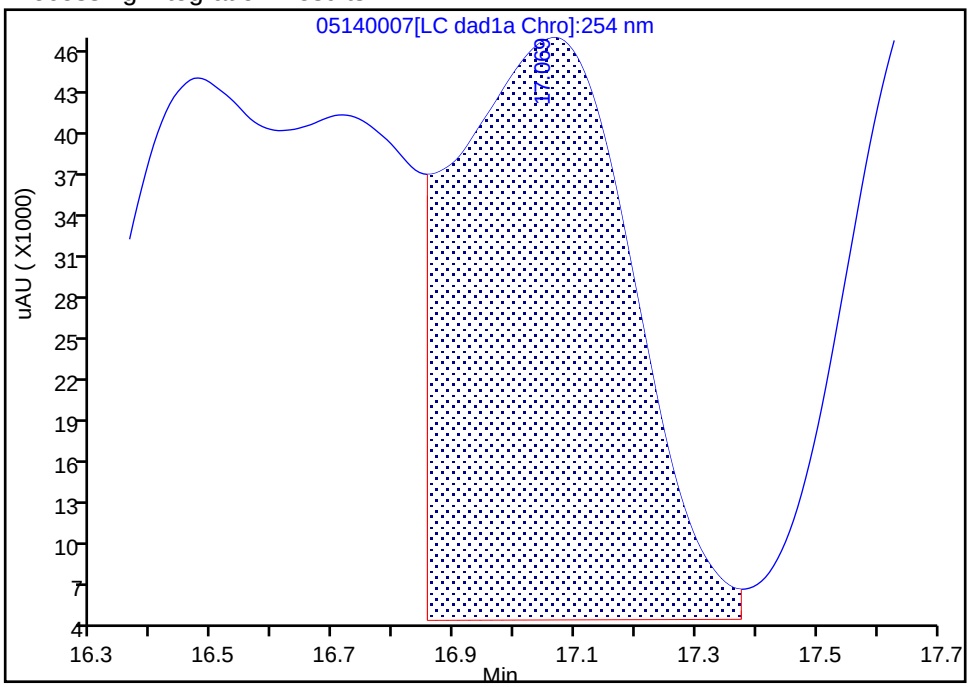
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

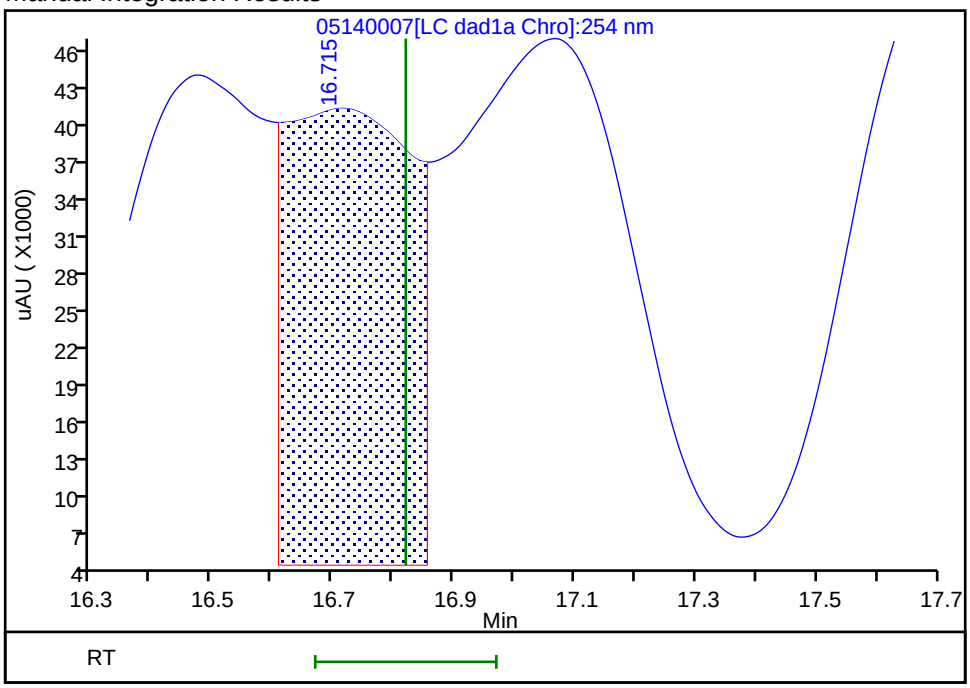
Processing Integration Results

RT: 17.07
Area: 846716
Amount: 4.099164
Amount Units: ug/ml




Manual Integration Results

RT: 16.72
Area: 515391
Amount: 2.139606
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:09:12

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

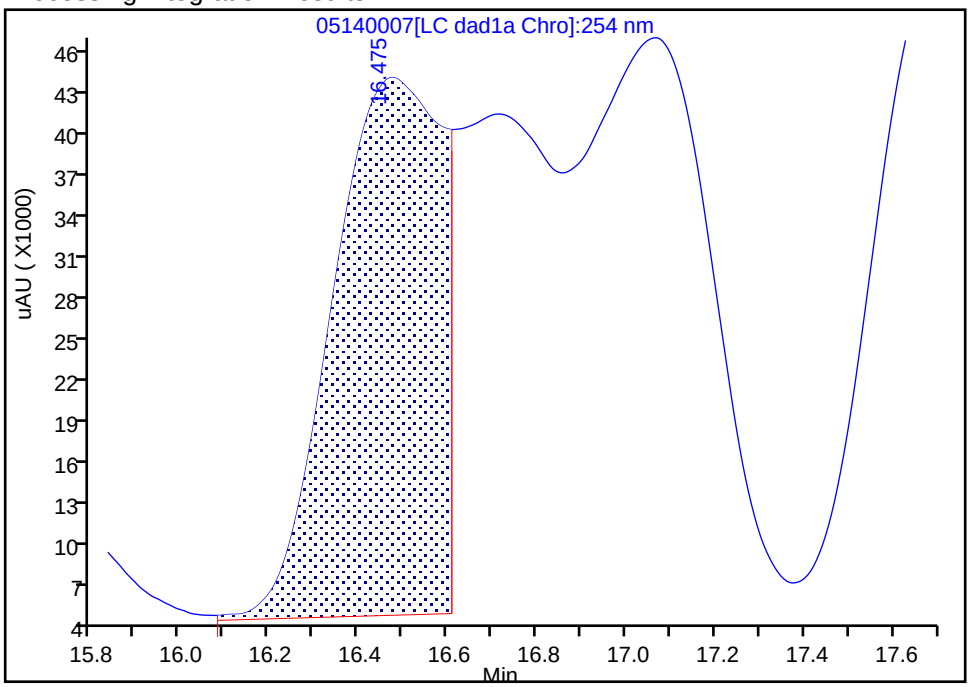
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

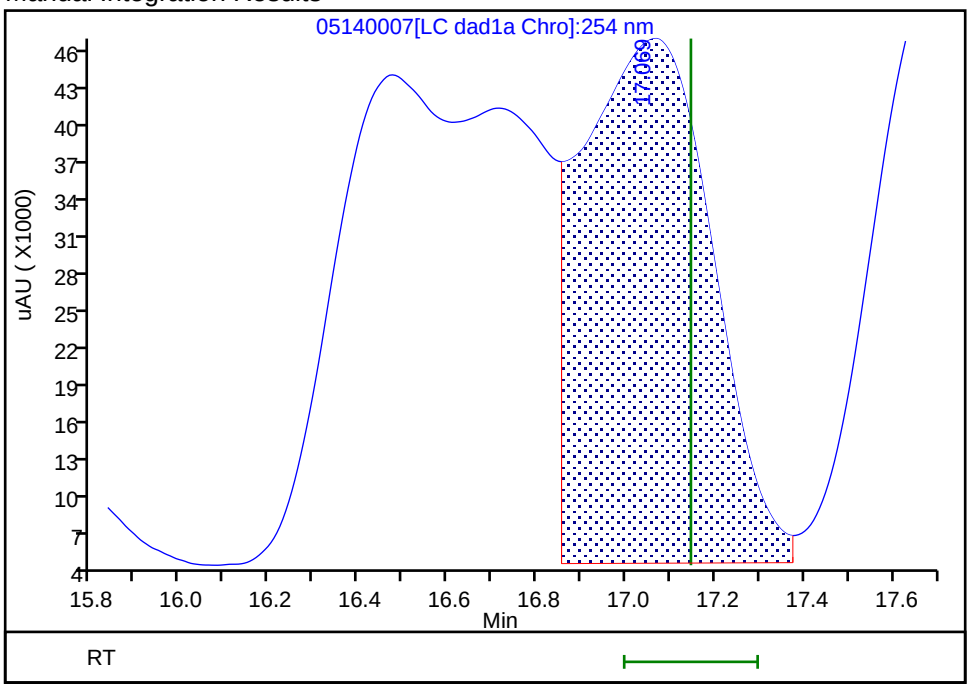
Processing Integration Results

RT: 16.48
Area: 658375
Amount: 2.145710
Amount Units: ug/ml




Manual Integration Results

RT: 17.07
Area: 846716
Amount: 2.452581
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:59
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

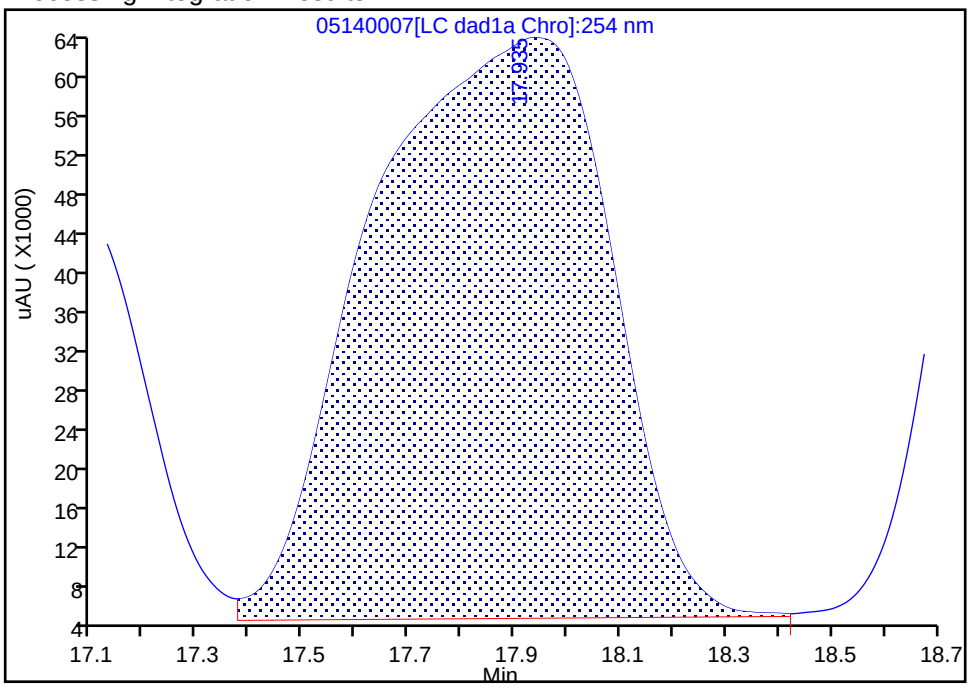
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

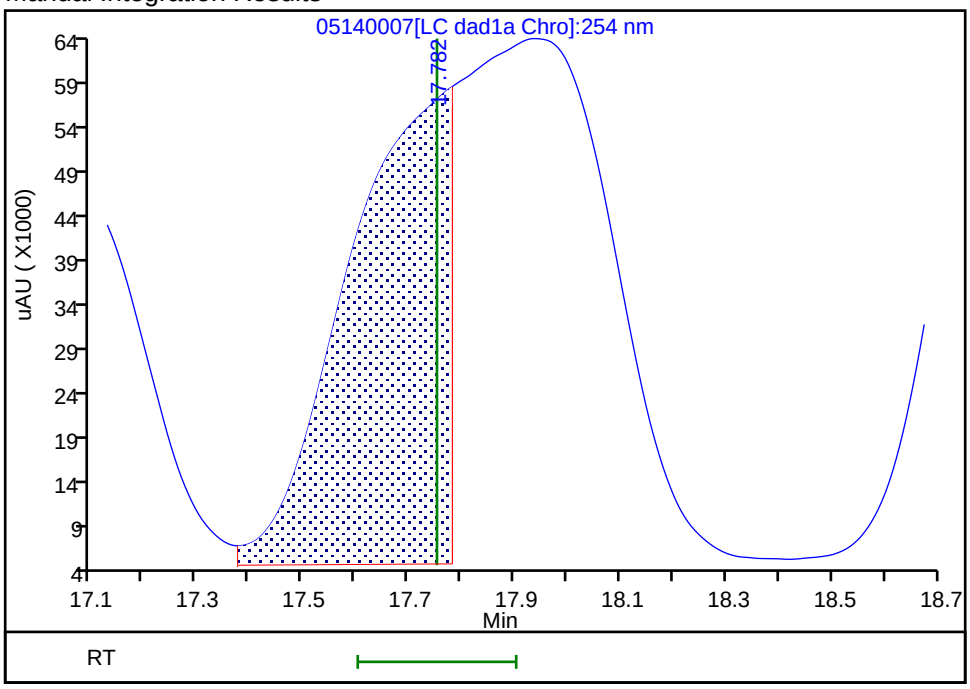
Processing Integration Results

RT: 17.94
Area: 1836650
Amount: 6.513789
Amount Units: ug/ml




Manual Integration Results

RT: 17.78
Area: 701292
Amount: 2.350751
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:45

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

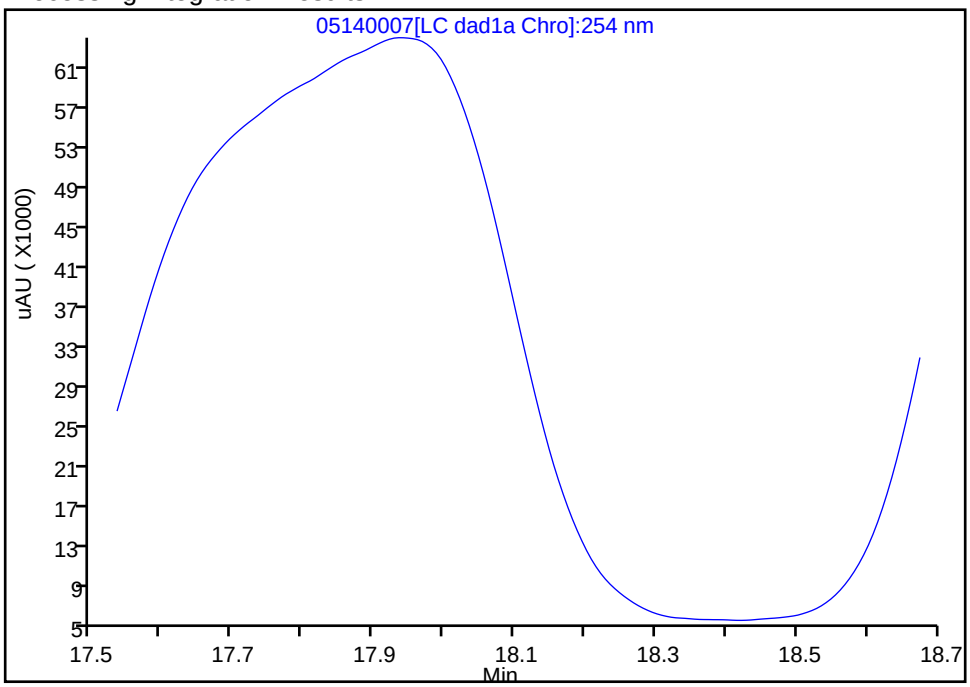
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

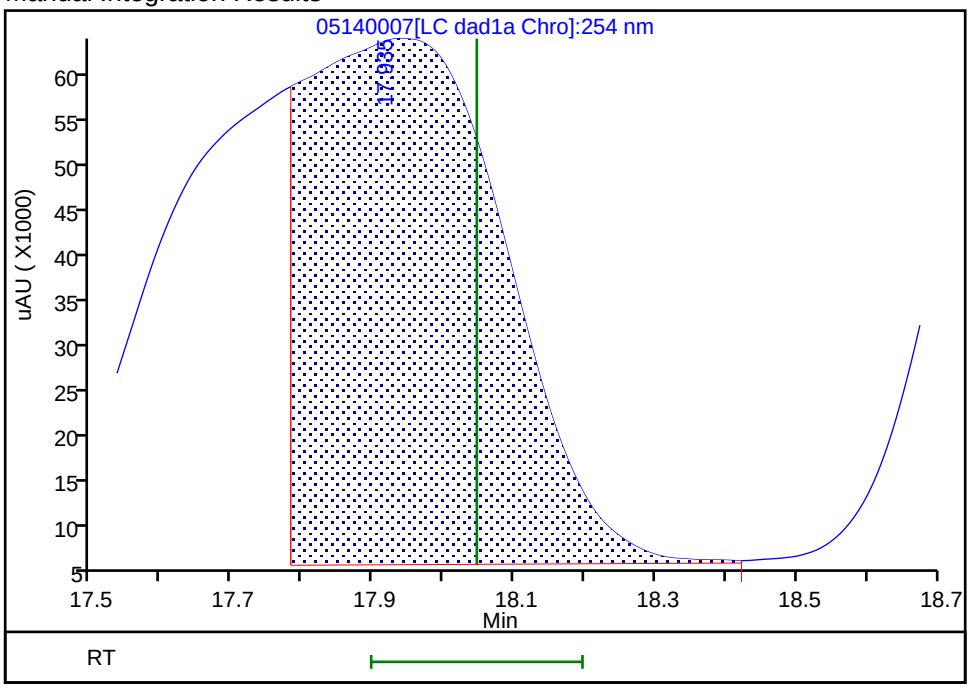
Not Detected
Expected RT: 18.05

Processing Integration Results




Manual Integration Results

RT: 17.94
Area: 1135384
Amount: 2.440578
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:40
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

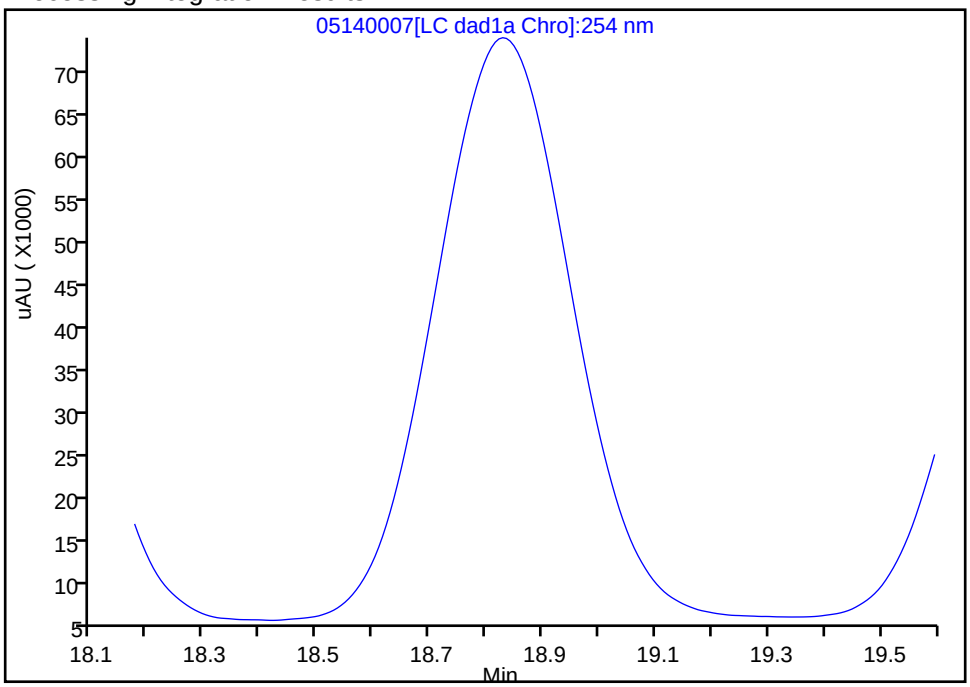
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

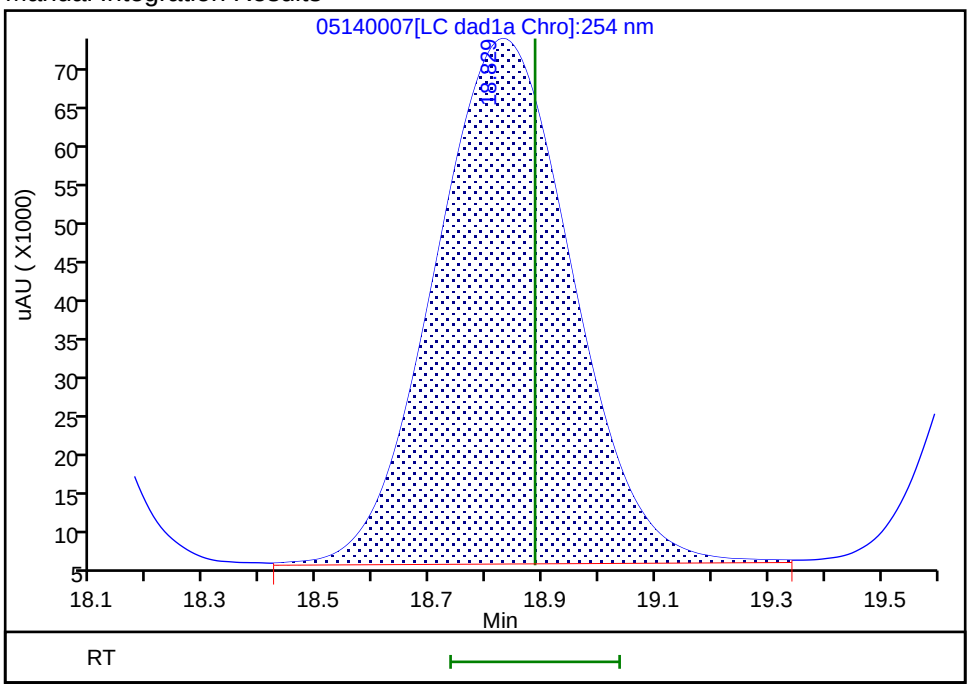
Not Detected
Expected RT: 18.89

Processing Integration Results




Manual Integration Results

RT: 18.83
Area: 1149858
Amount: 2.433816
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:26
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

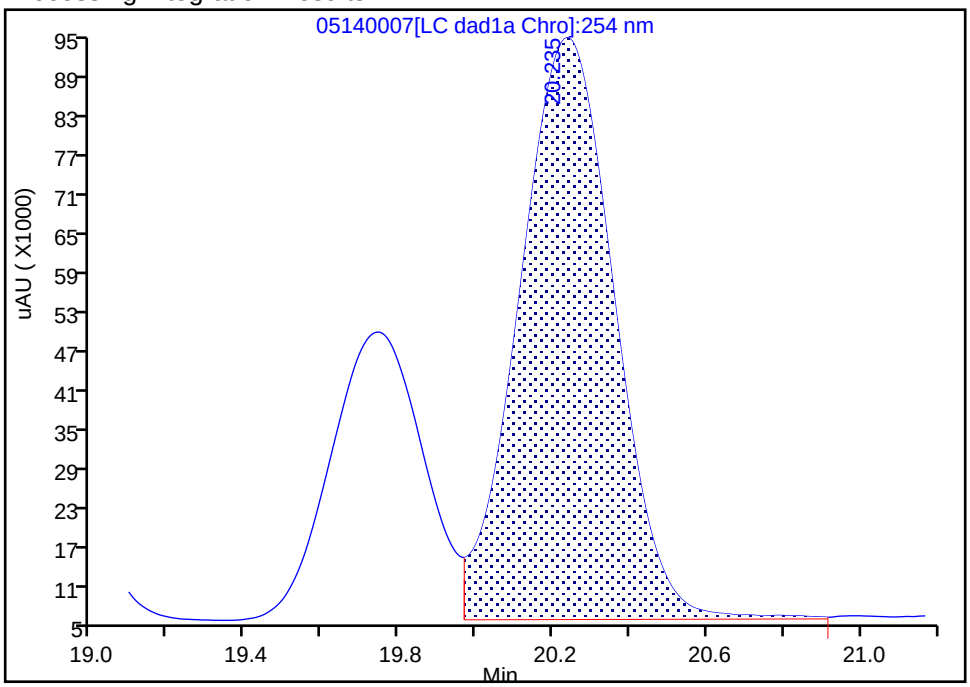
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

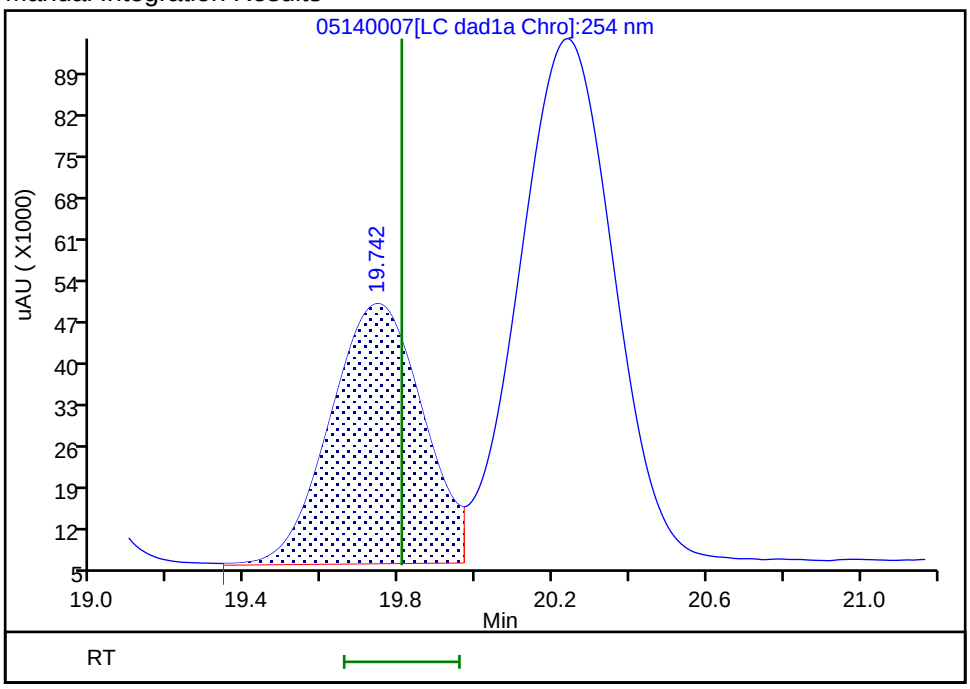
Processing Integration Results

RT: 20.24
Area: 1523108
Amount: 2.510000
Amount Units: ug/ml




Manual Integration Results

RT: 19.74
Area: 736990
Amount: 2.532876
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:23
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

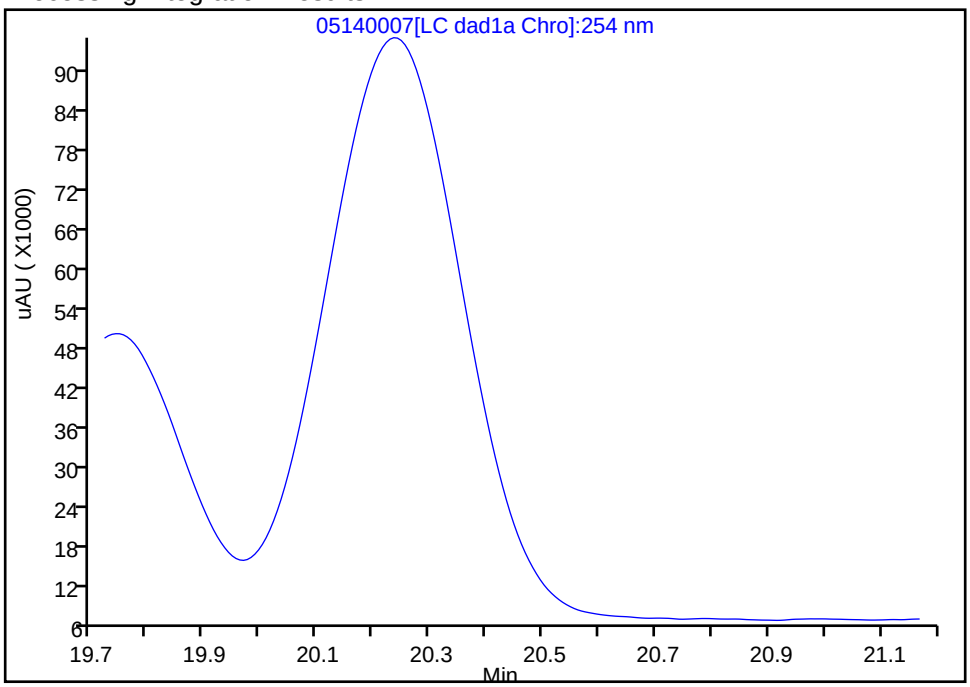
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

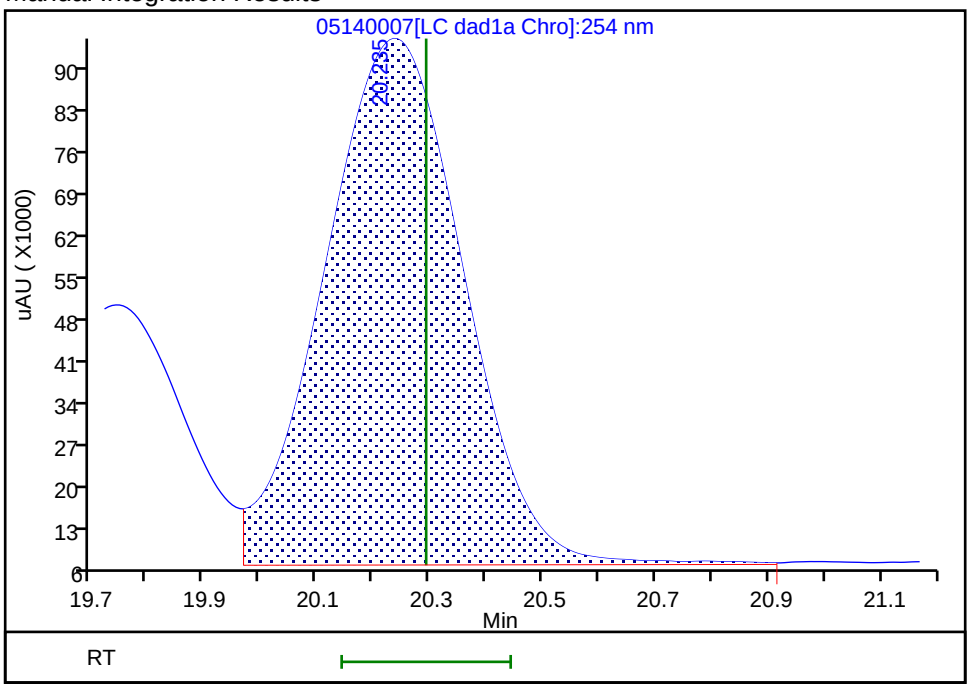
Not Detected
Expected RT: 20.29

Processing Integration Results




Manual Integration Results

RT: 20.24
Area: 1523108
Amount: 2.379435
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:20
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

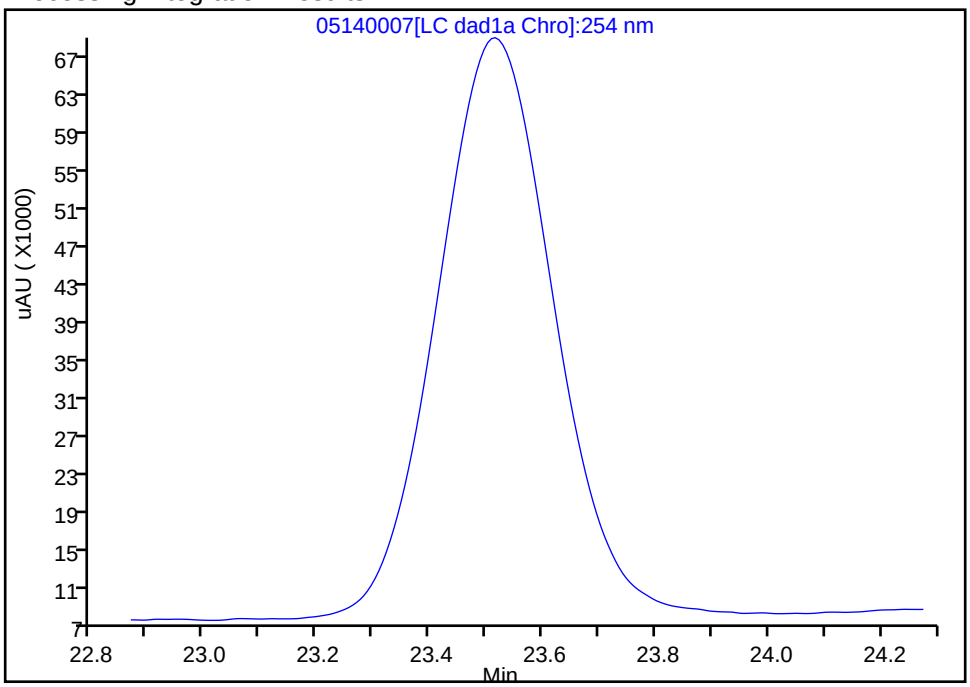
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 22 Tetryl, CAS: 479-45-8

Signal: 1

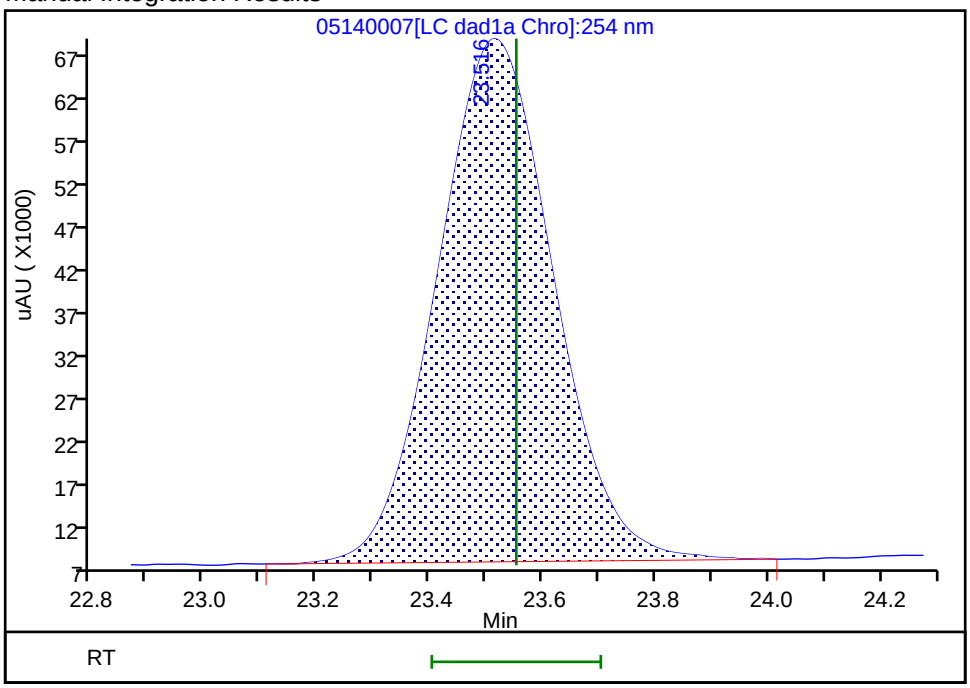
Not Detected
Expected RT: 23.55

Processing Integration Results




Manual Integration Results

RT: 23.52
Area: 875686
Amount: 2.375208
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:11
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

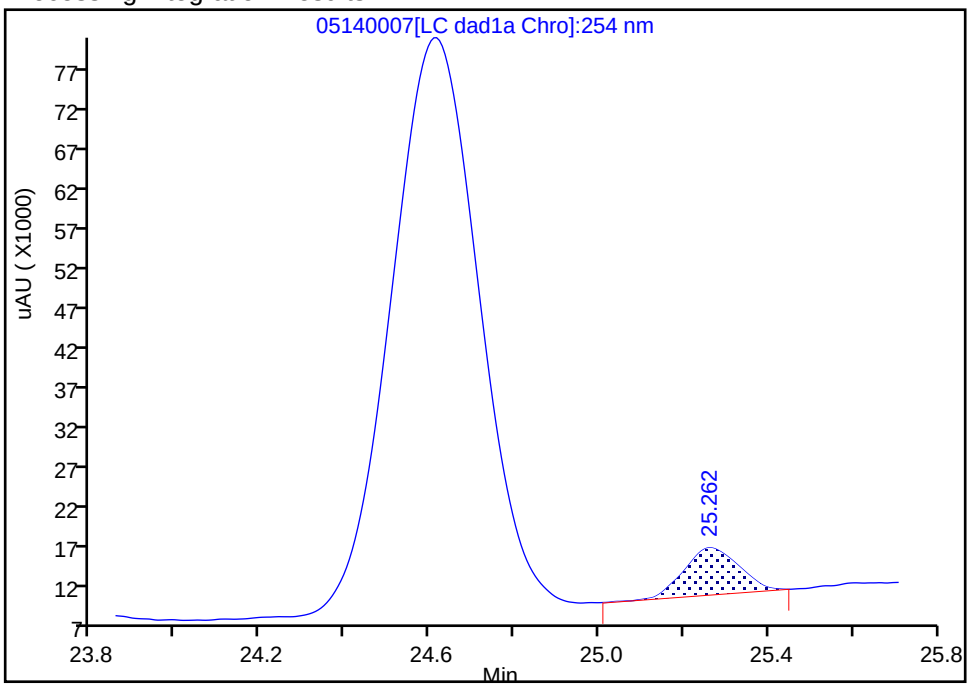
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d | | | | |
| Injection Date: | 14-May-2020 16:16:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

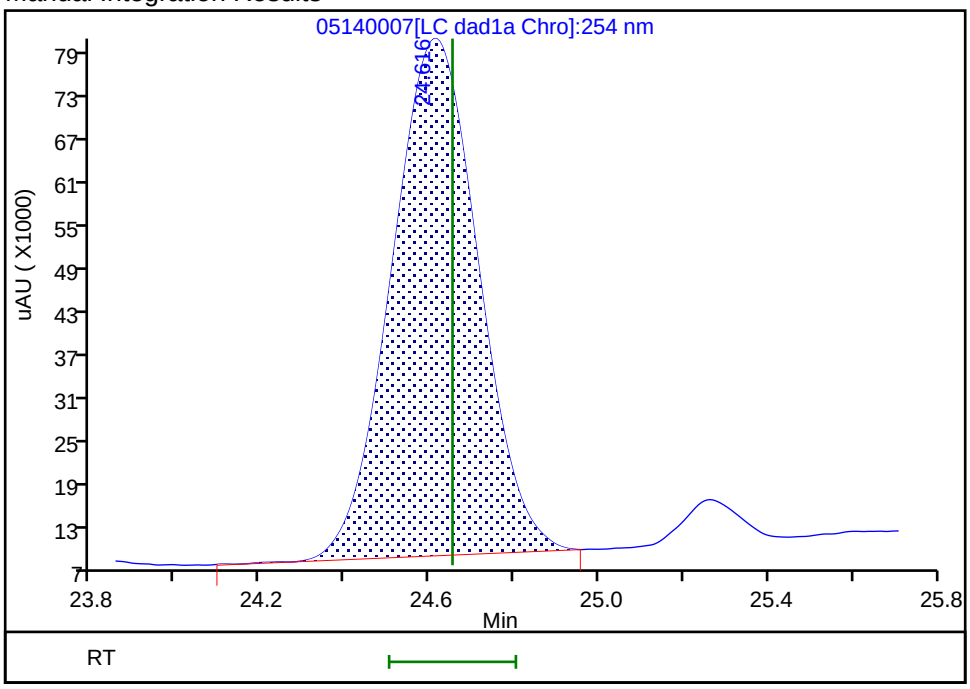
Processing Integration Results

RT: 25.26
Area: 53117
Amount: 0.098897
Amount Units: ug/ml




Manual Integration Results

RT: 24.62
Area: 1019741
Amount: 2.531269
Amount Units: ug/ml




Reviewer: zhangji, 14-May-2020 17:08:08
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140008.D
Lims ID: IC FULL 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-May-2020 16:51:43 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 8
Misc. Info.: 280-0091518-008
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:55 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:19:25

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.315 | 4.366 | -0.051 | 424864 | 1.00 | 0.9896 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.908 | 4.880 | 0.028 | 226554 | 1.00 | 0.9296 | M |
| 5 2,4,6-Trinitrophenol | 1 | 6.195 | 6.300 | -0.105 | 174504 | 1.00 | 0.9004 | |
| 6 HMX | 1 | 6.968 | 6.986 | -0.018 | 183992 | 1.00 | 1.01 | |
| 8 RDX | 1 | 9.148 | 9.173 | -0.025 | 219481 | 1.00 | 0.8982 | |
| 9 Nitrobenzene | 1 | 12.088 | 12.106 | -0.018 | 436359 | 1.00 | 0.99 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.028 | 13.040 | -0.012 | 274673 | 1.00 | 0.9842 | M |
| 11 3,5-Dinitroaniline | 1 | 14.868 | 14.886 | -0.018 | 495596 | 1.00 | 1.02 | |
| 12 1,3-Dinitrobenzene | 1 | 15.541 | 15.553 | -0.012 | 669330 | 1.00 | 0.99 | |
| 13 Nitroglycerin | 2 | 15.848 | 15.853 | -0.005 | 1284256 | 10.0 | 10.1 | |
| 14 o-Nitrotoluene | 1 | 16.535 | 16.533 | 0.002 | 261684 | 1.00 | 0.9587 | |
| 15 p-Nitrotoluene | 1 | 16.815 | 16.820 | -0.005 | 231517 | 1.00 | 0.9611 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.141 | 17.146 | -0.005 | 321819 | 1.00 | 0.9322 | |
| 17 m-Nitrotoluene | 1 | 17.741 | 17.753 | -0.012 | 280653 | 1.00 | 0.9408 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.028 | 18.046 | -0.018 | 455872 | 1.00 | 0.9799 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.881 | 18.886 | -0.005 | 467399 | 1.00 | 0.9893 | |
| 20 2,6-Dinitrotoluene | 1 | 19.801 | 19.806 | -0.005 | 298461 | 1.00 | 1.02 | |
| 21 2,4-Dinitrotoluene | 1 | 20.288 | 20.293 | -0.005 | 608421 | 1.00 | 0.9505 | |
| 22 Tetryl | 1 | 23.555 | 23.553 | 0.002 | 350816 | 1.00 | 0.9516 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.648 | 24.653 | -0.005 | 408271 | 1.00 | 1.01 | |
| 24 PETN | 2 | 25.281 | 25.280 | 0.001 | 1365764 | 10.0 | 10.4 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

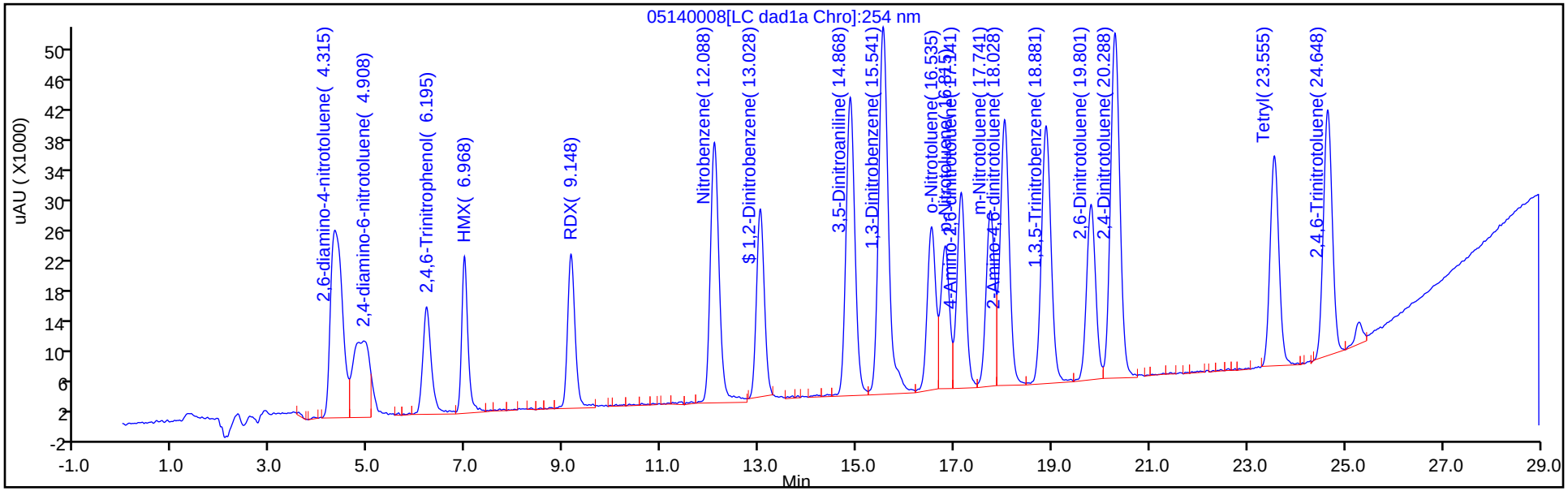
| | | |
|---|---|---|
| 8330IntermStk_00064 | Amount Added: 100.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: 50.00 | Units: uL |

Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

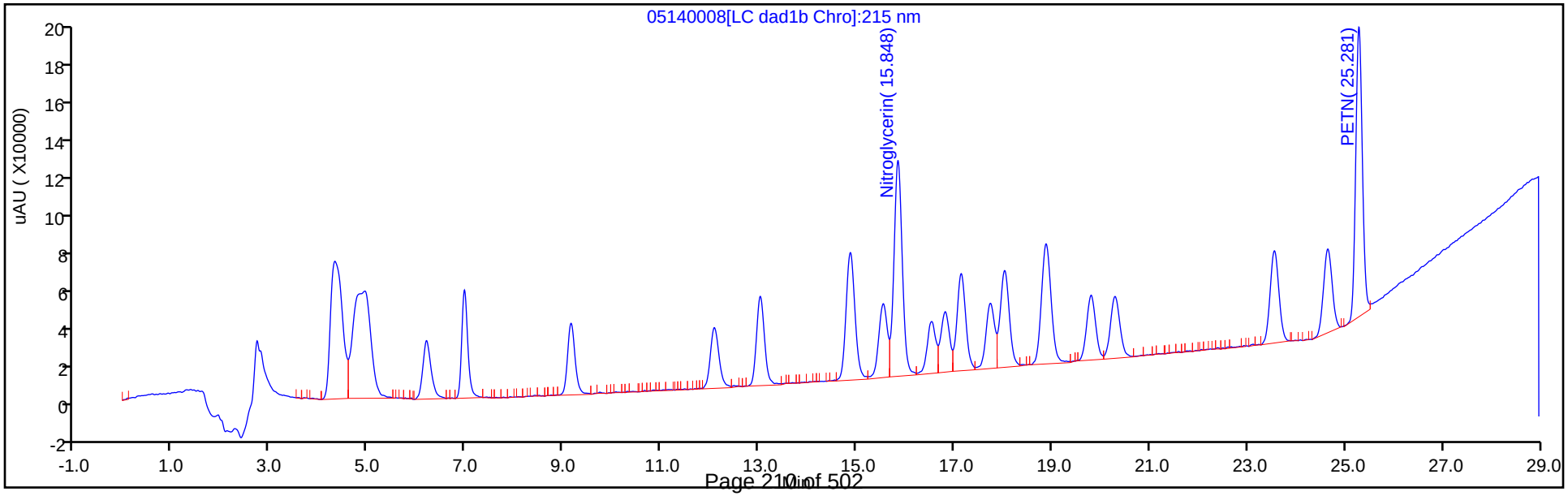
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d | | | | |
| Injection Date: | 14-May-2020 16:51:43 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 8 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

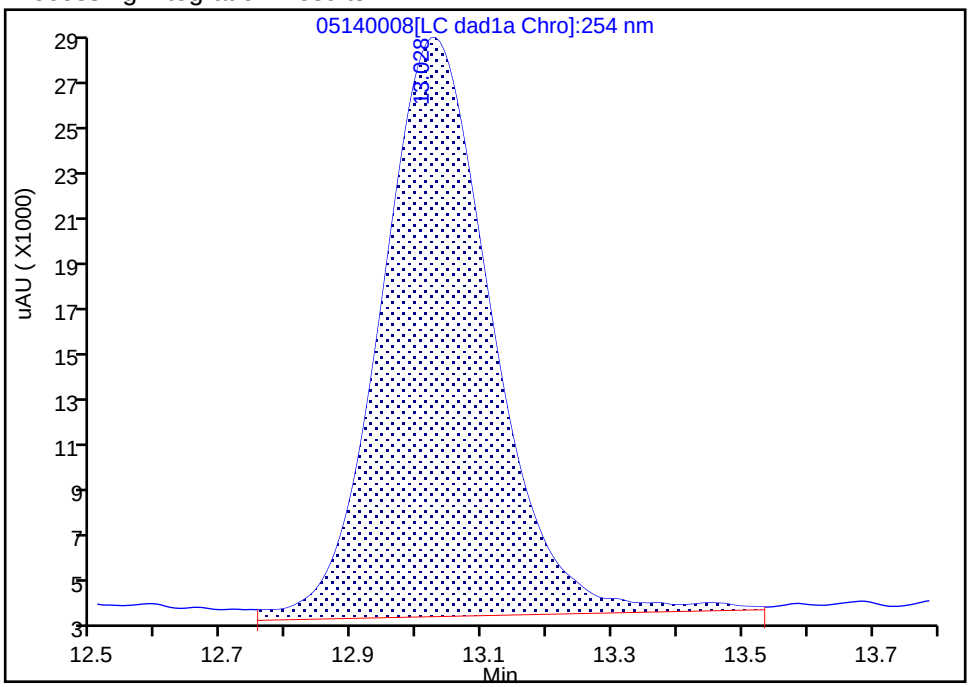
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d | | | | |
| Injection Date: | 14-May-2020 16:51:43 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

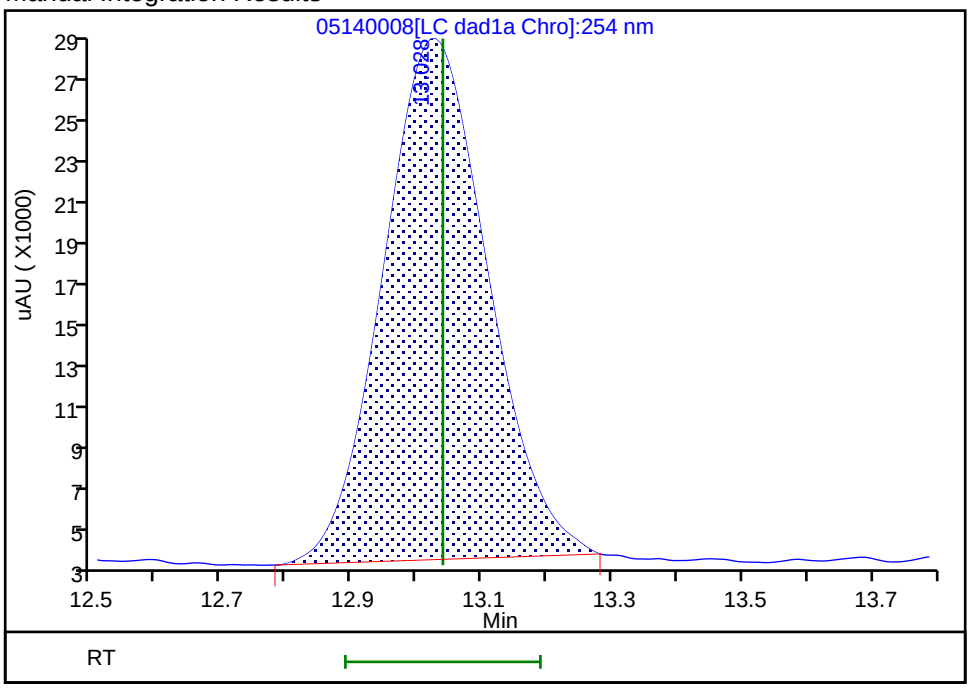
Processing Integration Results

RT: 13.03
Area: 297550
Amount: 0.923853
Amount Units: ug/ml




Manual Integration Results

RT: 13.03
Area: 274673
Amount: 0.984150
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:34:32

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140009.D
Lims ID: IC FULL 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-May-2020 17:26:40 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 7
Misc. Info.: 280-0091518-009
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:55 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:20:09

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.342 | 4.366 | -0.024 | 272072 | 0.7000 | 0.6337 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.915 | 4.880 | 0.035 | 176663 | 0.7000 | 0.7197 | |
| 5 2,4,6-Trinitrophenol | 1 | 6.235 | 6.300 | -0.065 | 118579 | 0.7000 | 0.6118 | |
| 6 HMX | 1 | 6.982 | 6.986 | -0.004 | 125697 | 0.7000 | 0.6800 | |
| 8 RDX | 1 | 9.162 | 9.173 | -0.011 | 152096 | 0.7000 | 0.6224 | |
| 9 Nitrobenzene | 1 | 12.095 | 12.106 | -0.011 | 295388 | 0.7028 | 0.6725 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.028 | 13.040 | -0.012 | 184773 | 0.7000 | 0.6599 | M |
| 11 3,5-Dinitroaniline | 1 | 14.875 | 14.886 | -0.011 | 320559 | 0.7000 | 0.6552 | |
| 12 1,3-Dinitrobenzene | 1 | 15.548 | 15.553 | -0.005 | 463638 | 0.7014 | 0.6877 | |
| 13 Nitroglycerin | 2 | 15.842 | 15.853 | -0.011 | 852305 | 7.00 | 6.72 | |
| 14 o-Nitrotoluene | 1 | 16.535 | 16.533 | 0.002 | 181444 | 0.7000 | 0.6647 | |
| 15 p-Nitrotoluene | 1 | 16.808 | 16.820 | -0.012 | 165213 | 0.7014 | 0.6859 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.142 | 17.146 | -0.004 | 223840 | 0.7007 | 0.6484 | |
| 17 m-Nitrotoluene | 1 | 17.742 | 17.753 | -0.011 | 200617 | 0.7007 | 0.6725 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.035 | 18.046 | -0.011 | 319742 | 0.7028 | 0.6873 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.875 | 18.886 | -0.011 | 323482 | 0.7014 | 0.6847 | |
| 20 2,6-Dinitrotoluene | 1 | 19.795 | 19.806 | -0.011 | 206984 | 0.7028 | 0.7003 | |
| 21 2,4-Dinitrotoluene | 1 | 20.288 | 20.293 | -0.005 | 425741 | 0.7028 | 0.6651 | |
| 22 Tetryl | 1 | 23.542 | 23.553 | -0.011 | 245833 | 0.7014 | 0.6668 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.642 | 24.653 | -0.011 | 282035 | 0.7028 | 0.6944 | |
| 24 PETN | 2 | 25.275 | 25.280 | -0.005 | 957879 | 7.00 | 7.20 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

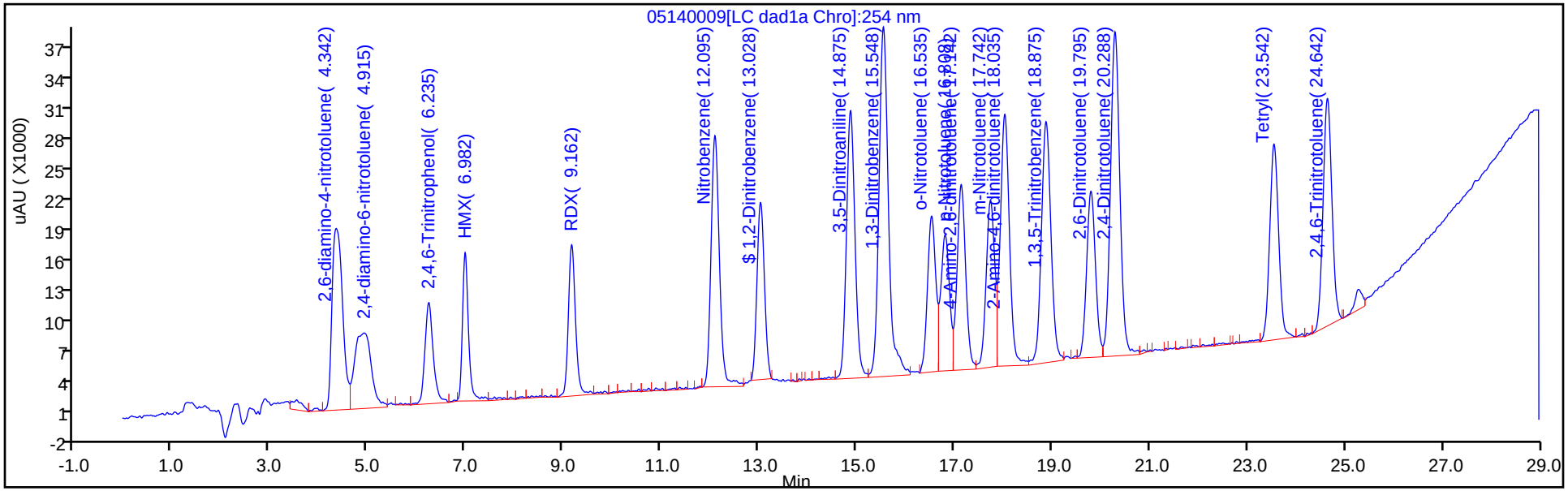
| | | | |
|---|---|---|---|
| 8330_ADDs_00026 | Amount Added: | 35.00 | Units: uL |
| 8330IntermStk_00064 | Amount Added: | 70.00 | Units: uL |

Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

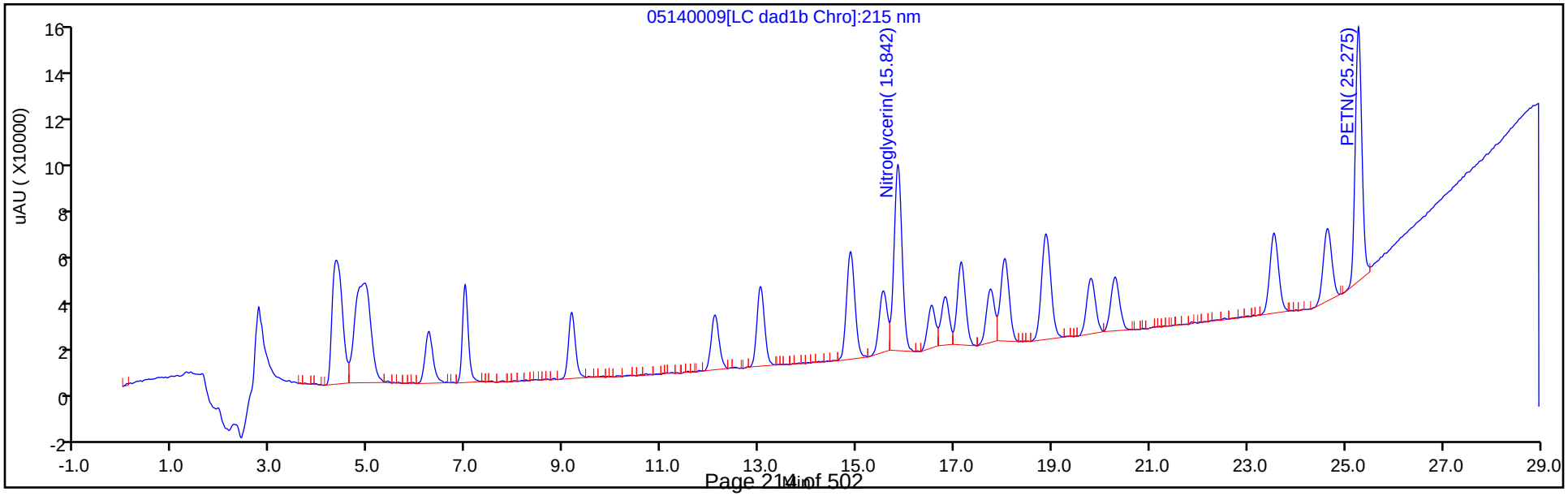
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d | | | | |
| Injection Date: | 14-May-2020 17:26:40 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

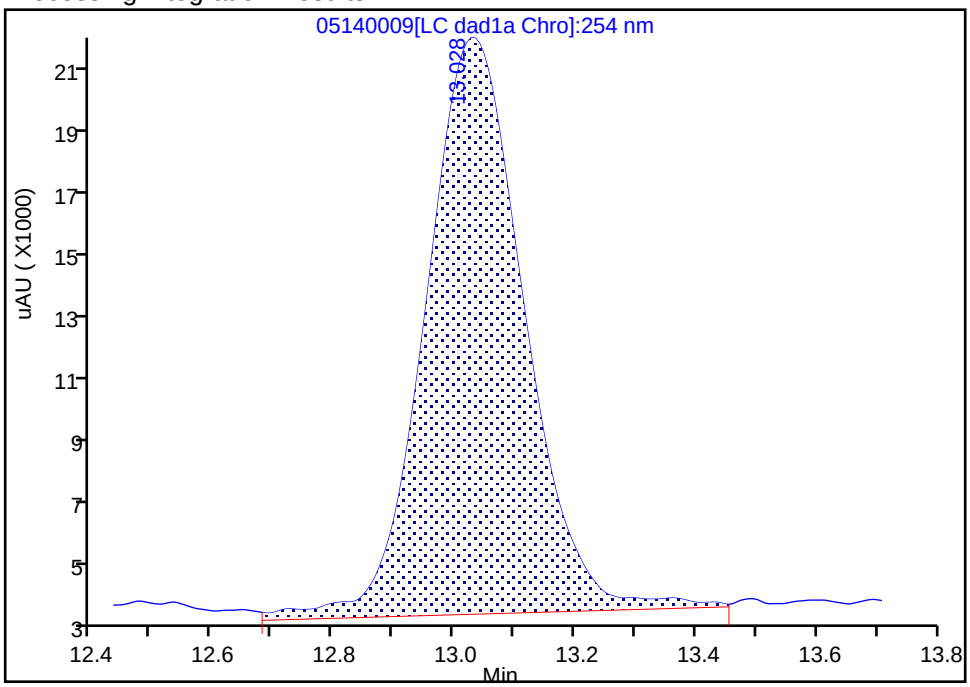
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d | | | | |
| Injection Date: | 14-May-2020 17:26:40 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

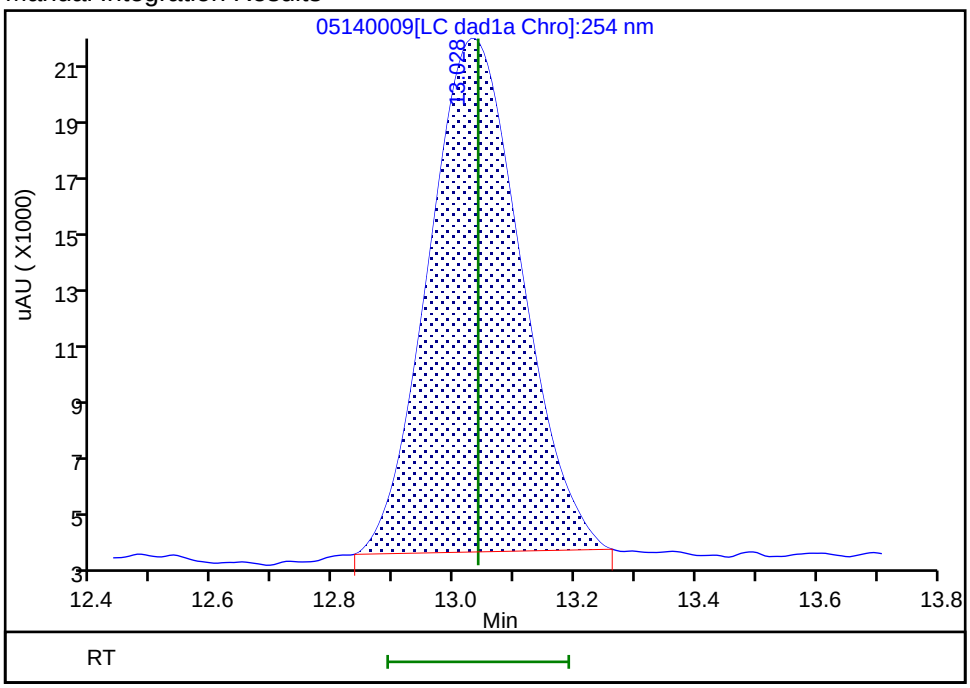
Processing Integration Results

RT: 13.03
Area: 203295
Amount: 0.637674
Amount Units: ug/ml




Manual Integration Results

RT: 13.03
Area: 184773
Amount: 0.659868
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:34:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140010.D
Lims ID: IC FULL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-May-2020 18:01:41 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 6
Misc. Info.: 280-0091518-010
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:52:49

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.347 | 4.366 | -0.019 | 161291 | 0.4000 | 0.3757 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.940 | 4.880 | 0.060 | 100170 | 0.4000 | 0.3980 | M |
| 5 2,4,6-Trinitrophenol | 1 | 6.267 | 6.300 | -0.033 | 68021 | 0.4000 | 0.3510 | a |
| 6 HMX | 1 | 6.987 | 6.986 | 0.001 | 74484 | 0.4000 | 0.3907 | |
| 8 RDX | 1 | 9.173 | 9.173 | 0.000 | 88545 | 0.4000 | 0.3624 | |
| 9 Nitrobenzene | 1 | 12.107 | 12.106 | 0.001 | 166107 | 0.4016 | 0.3782 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.040 | 13.040 | 0.000 | 107232 | 0.4000 | 0.3802 | M |
| 11 3,5-Dinitroaniline | 1 | 14.887 | 14.886 | 0.001 | 190015 | 0.4000 | 0.3861 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.553 | 15.553 | 0.000 | 258559 | 0.4008 | 0.3835 | M |
| 13 Nitroglycerin | 2 | 15.853 | 15.853 | 0.000 | 509915 | 4.00 | 4.02 | |
| 14 o-Nitrotoluene | 1 | 16.540 | 16.533 | 0.007 | 105493 | 0.4000 | 0.3865 | M |
| 15 p-Nitrotoluene | 1 | 16.820 | 16.820 | 0.000 | 93773 | 0.4008 | 0.3893 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.153 | 17.146 | 0.007 | 130436 | 0.4004 | 0.3778 | M |
| 17 m-Nitrotoluene | 1 | 17.747 | 17.753 | -0.006 | 115331 | 0.4004 | 0.3866 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.040 | 18.046 | -0.006 | 179358 | 0.4016 | 0.3855 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.887 | 18.886 | 0.001 | 178692 | 0.4008 | 0.3782 | |
| 20 2,6-Dinitrotoluene | 1 | 19.807 | 19.806 | 0.001 | 118093 | 0.4016 | 0.3930 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.293 | 20.293 | 0.000 | 245009 | 0.4016 | 0.3828 | M |
| 22 Tetryl | 1 | 23.553 | 23.553 | 0.000 | 139850 | 0.4008 | 0.3793 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.647 | 24.653 | -0.006 | 158091 | 0.4016 | 0.3858 | |
| 24 PETN | 2 | 25.280 | 25.280 | 0.000 | 557734 | 4.00 | 4.10 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

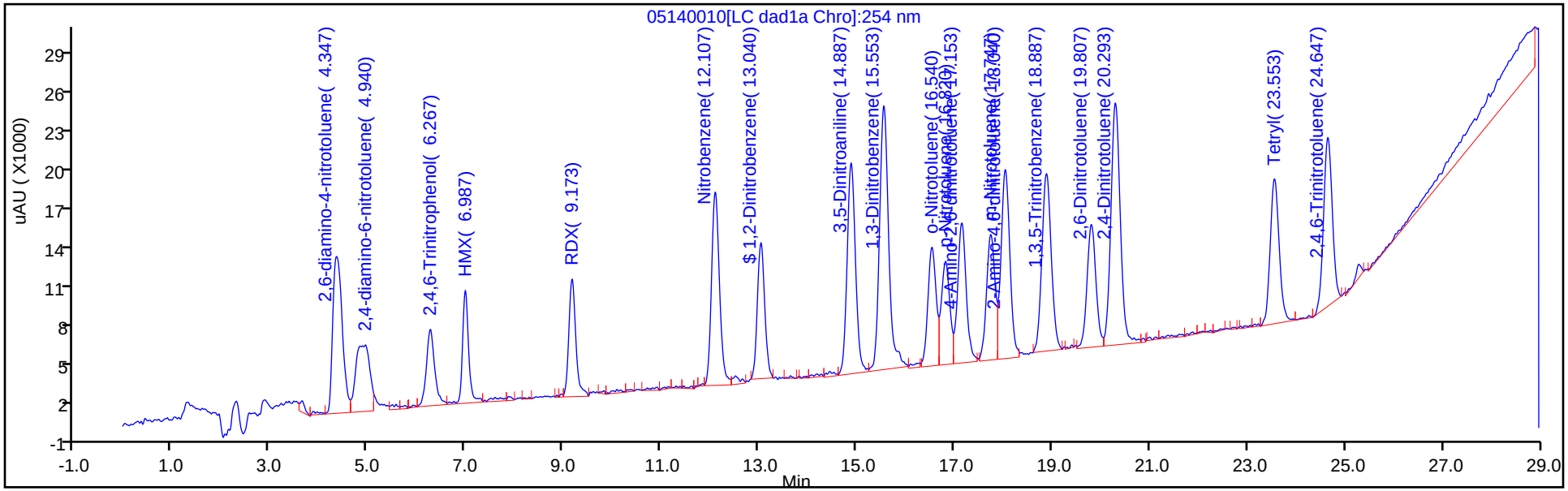
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 40.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: | 20.00 | Units: uL |

Report Date: 15-May-2020 12:00:56 Chrom Revision: 2.3 05-May-2020 17:48:18

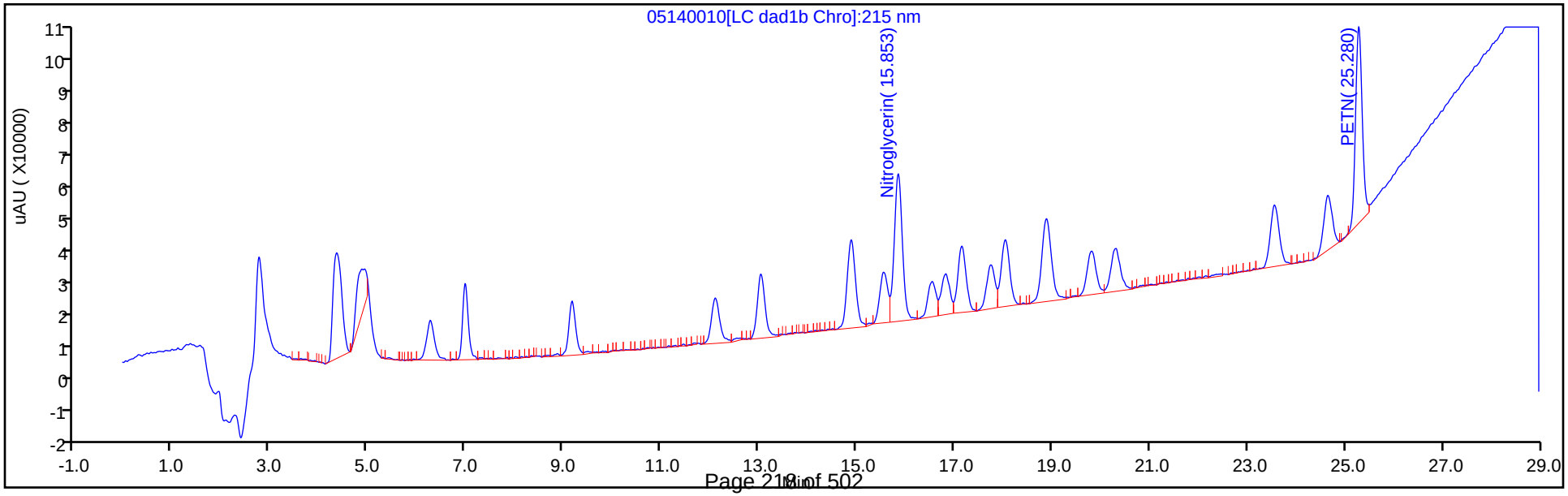
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 6 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

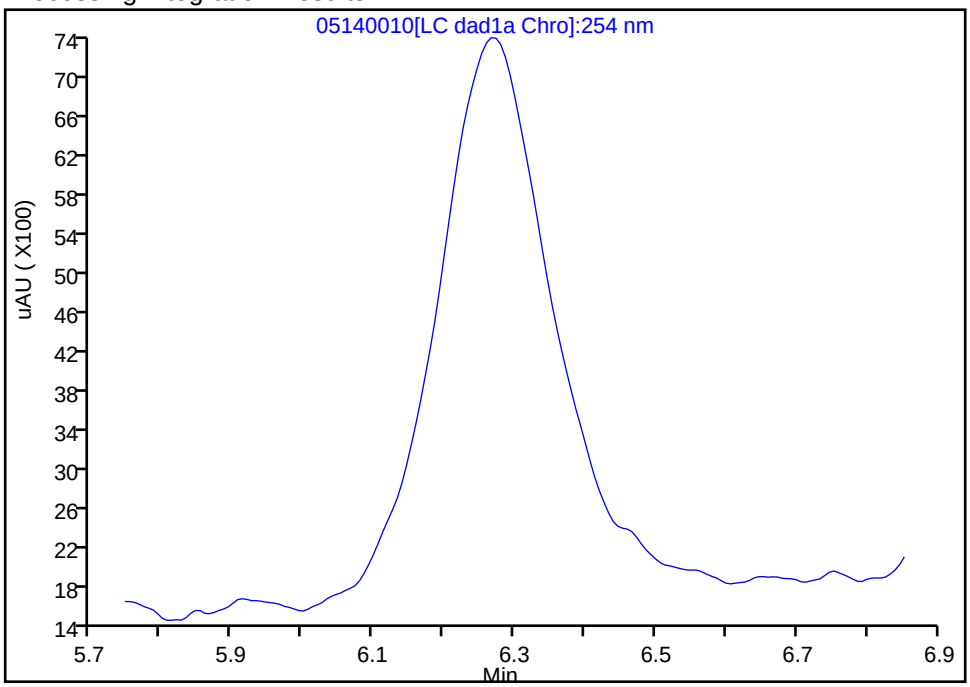
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

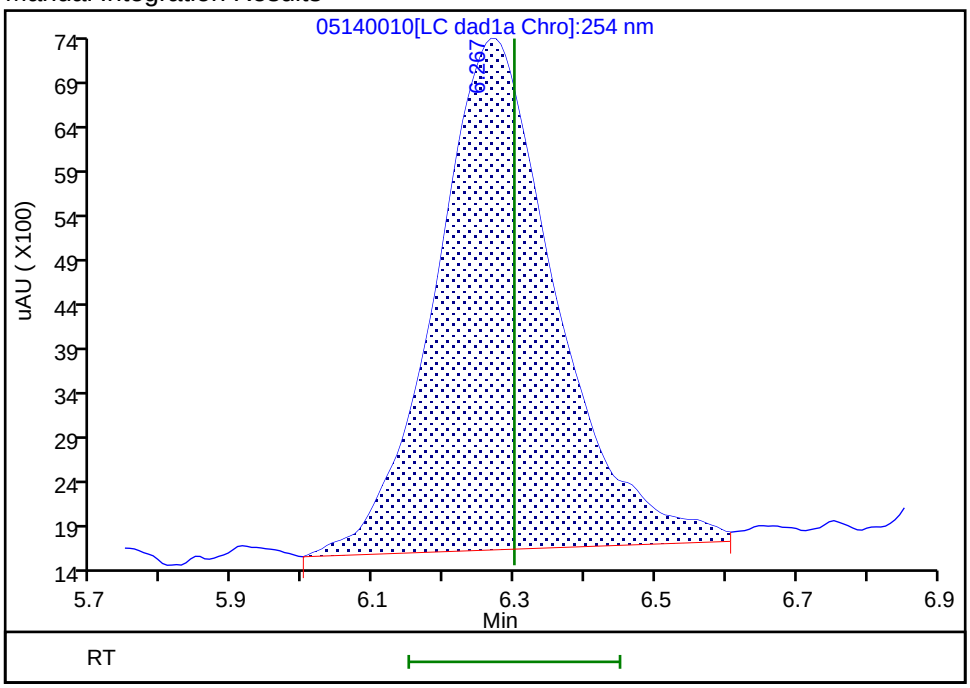
Not Detected
Expected RT: 6.30

Processing Integration Results




Manual Integration Results

RT: 6.27
Area: 68021
Amount: 0.350967
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:14
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

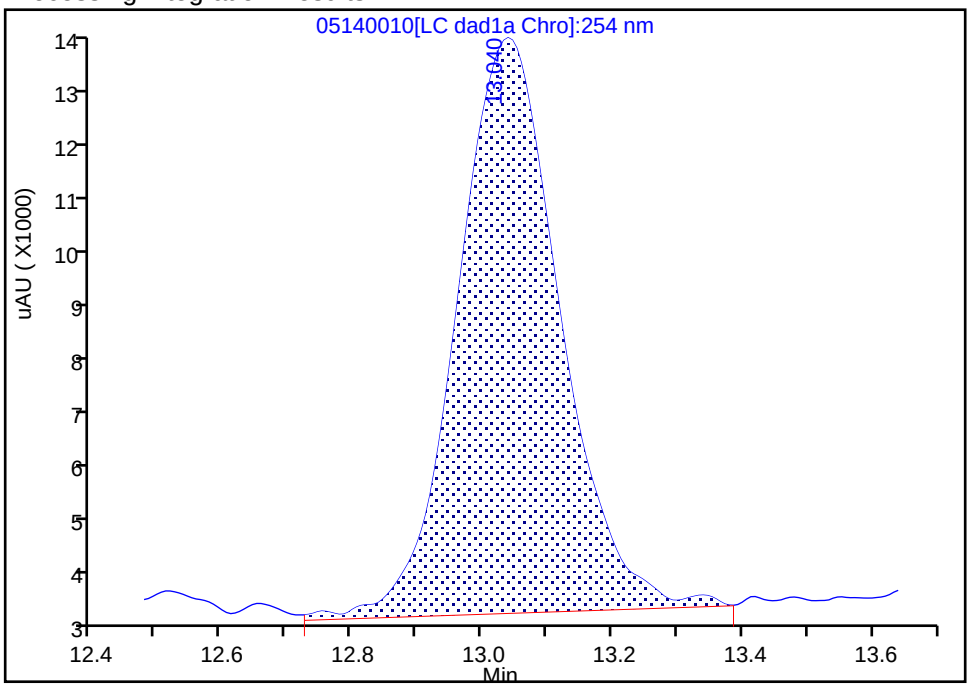
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

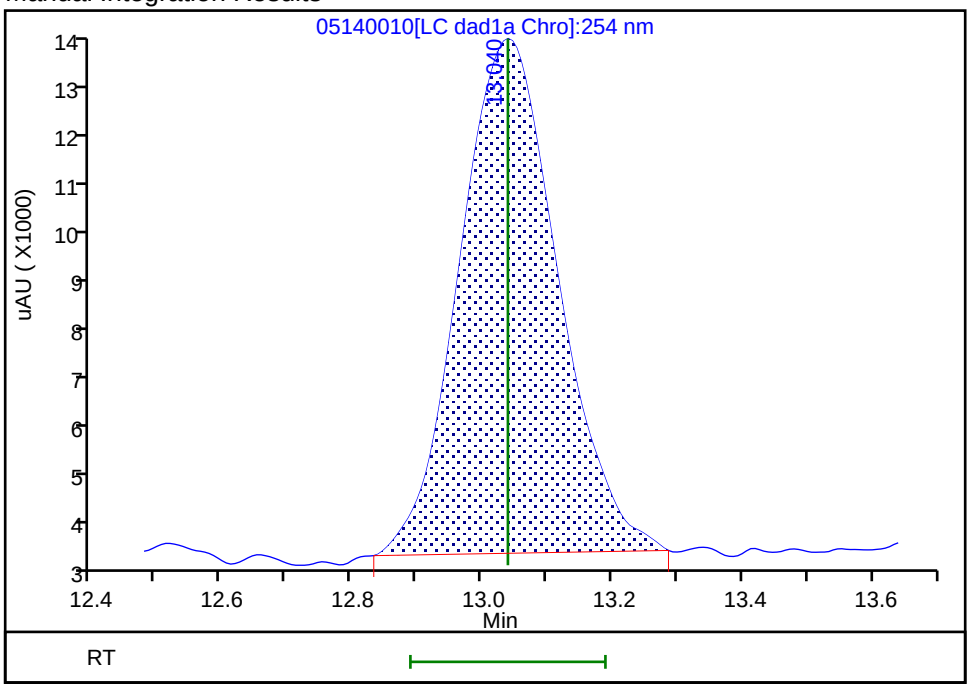
Processing Integration Results

RT: 13.04
Area: 114682
Amount: 0.364039
Amount Units: ug/ml




Manual Integration Results

RT: 13.04
Area: 107232
Amount: 0.380167
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:34:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

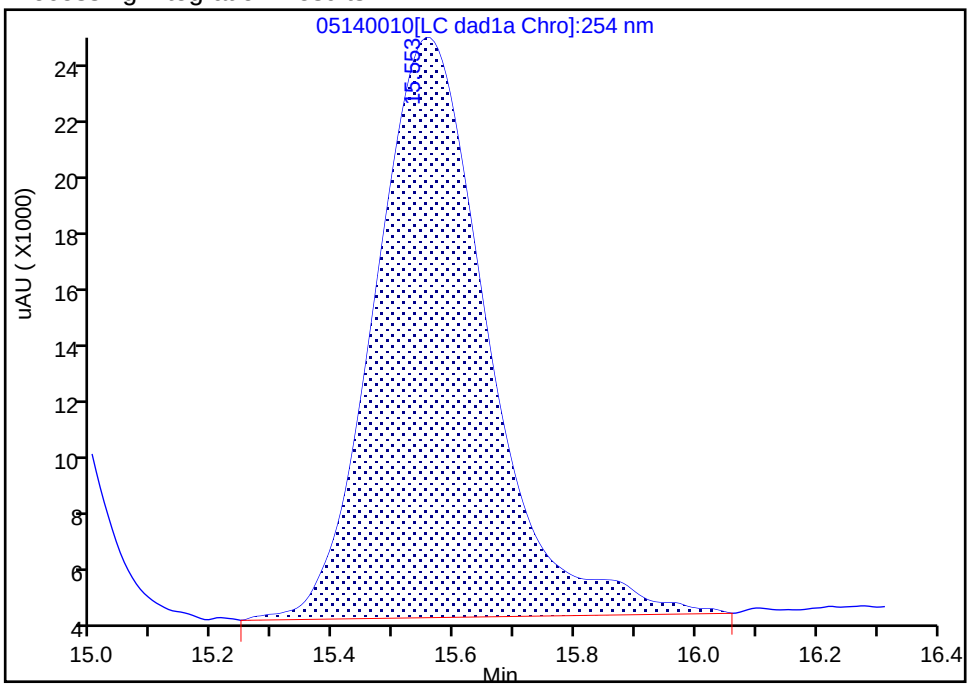
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

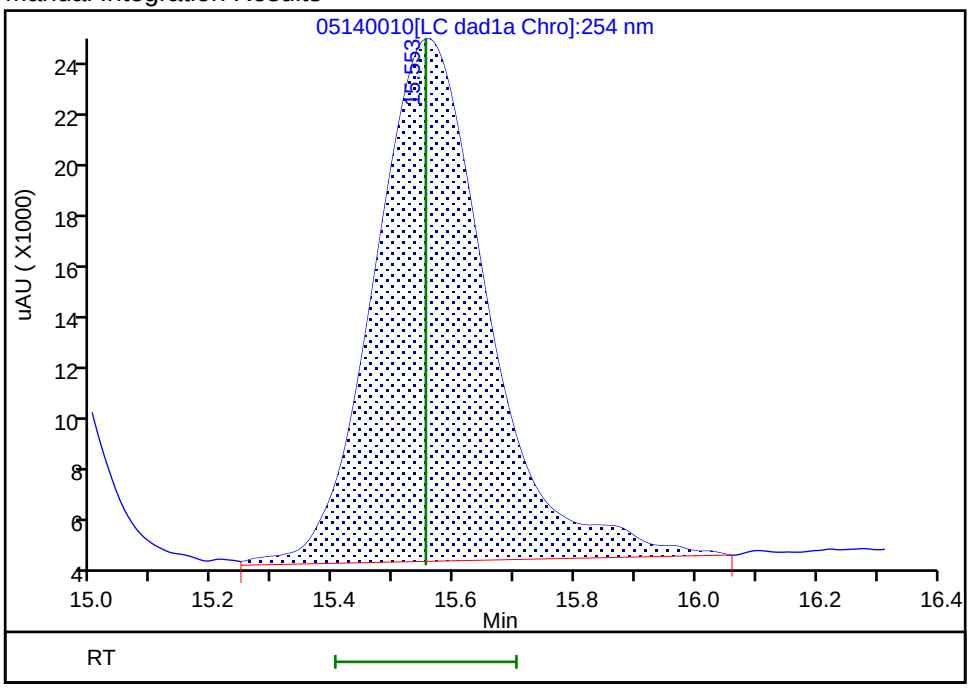
Processing Integration Results

RT: 15.55
Area: 255534
Amount: 0.374138
Amount Units: ug/ml




Manual Integration Results

RT: 15.55
Area: 258559
Amount: 0.383511
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

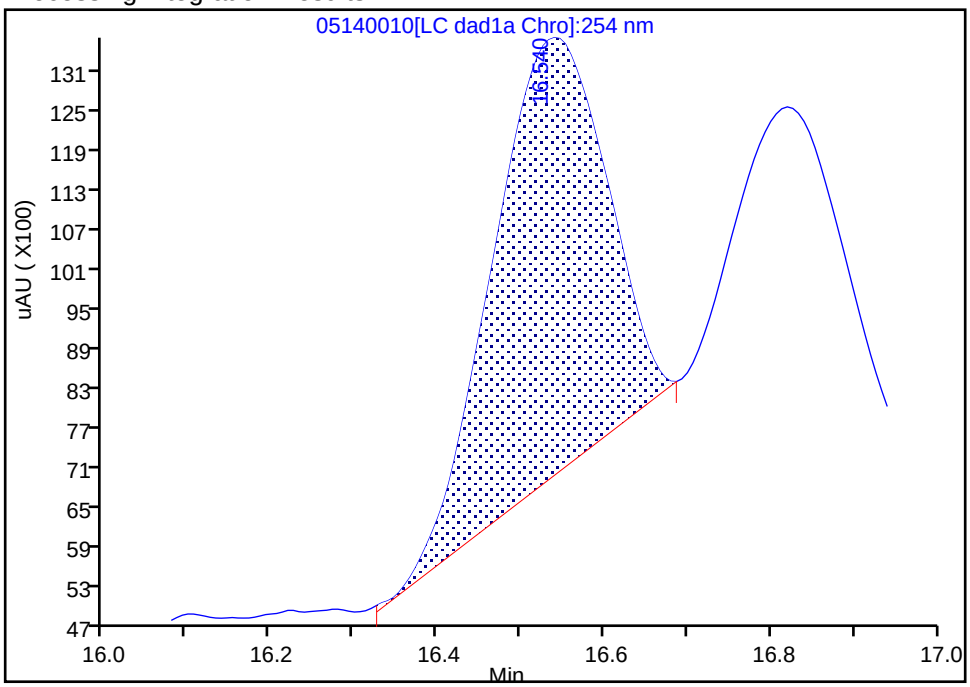
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

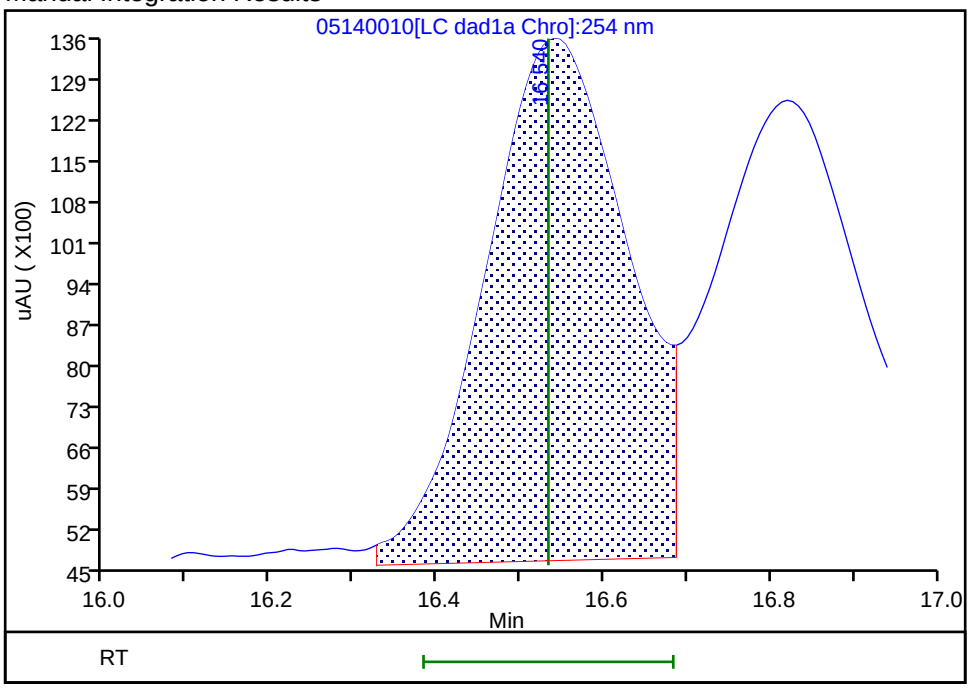
Processing Integration Results

RT: 16.54
Area: 63784
Amount: 0.238403
Amount Units: ug/ml




Manual Integration Results

RT: 16.54
Area: 105493
Amount: 0.386471
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

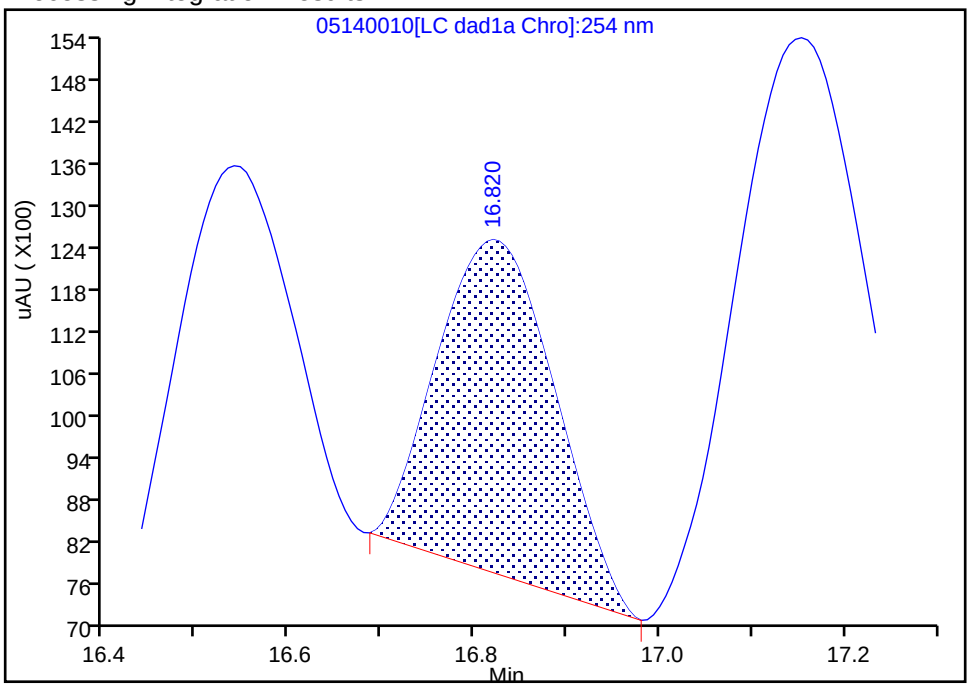
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

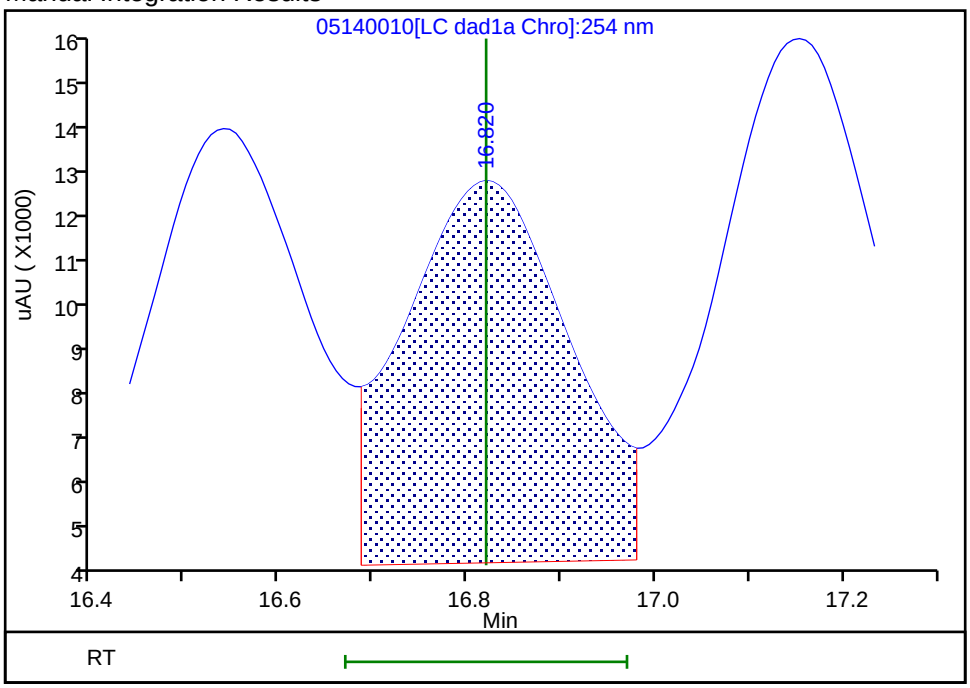
Processing Integration Results

RT: 16.82
Area: 42038
Amount: 0.176152
Amount Units: ug/ml




Manual Integration Results

RT: 16.82
Area: 93773
Amount: 0.389291
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

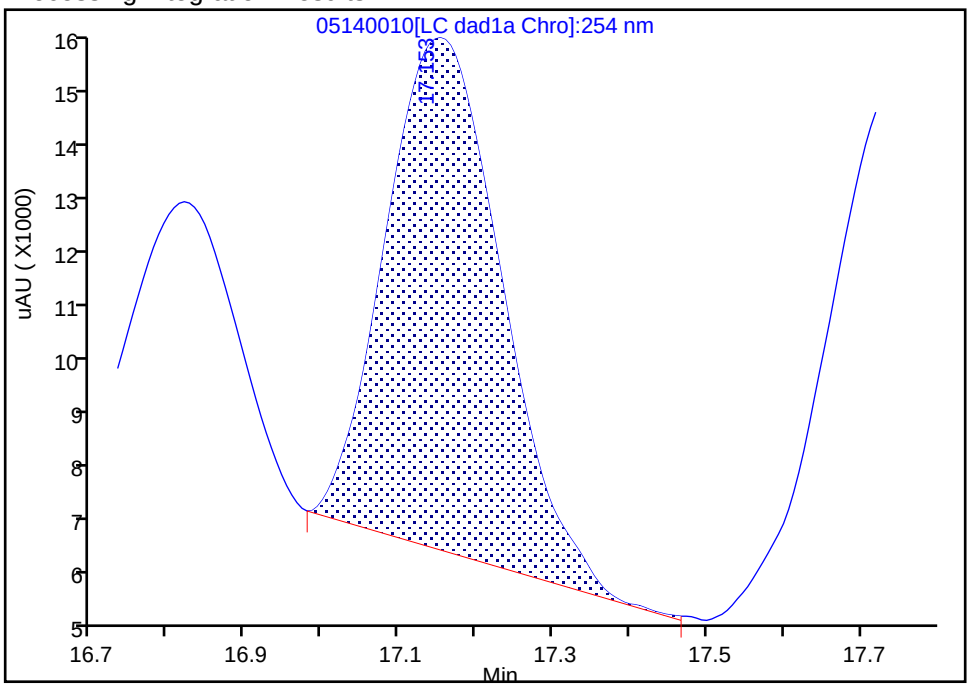
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

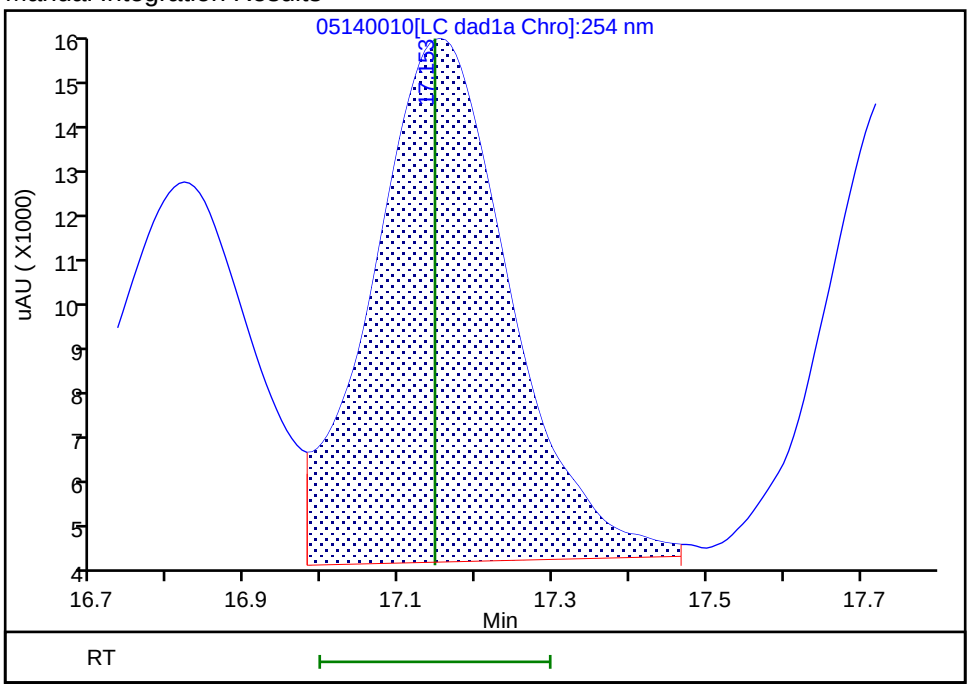
Processing Integration Results

RT: 17.15
Area: 95002
Amount: 0.278639
Amount Units: ug/ml




Manual Integration Results

RT: 17.15
Area: 130436
Amount: 0.377818
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

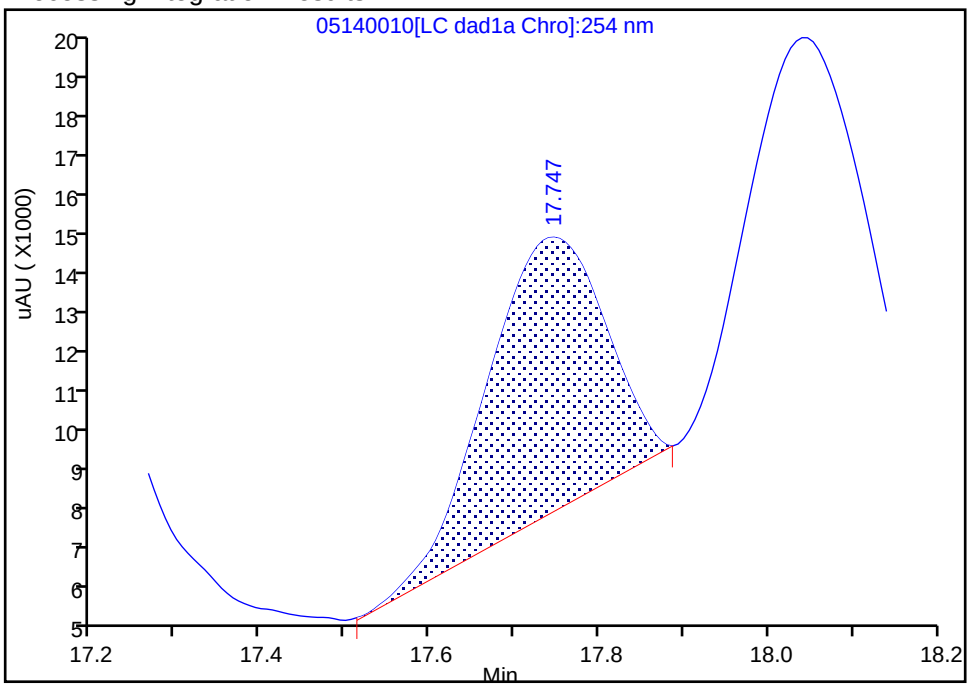
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

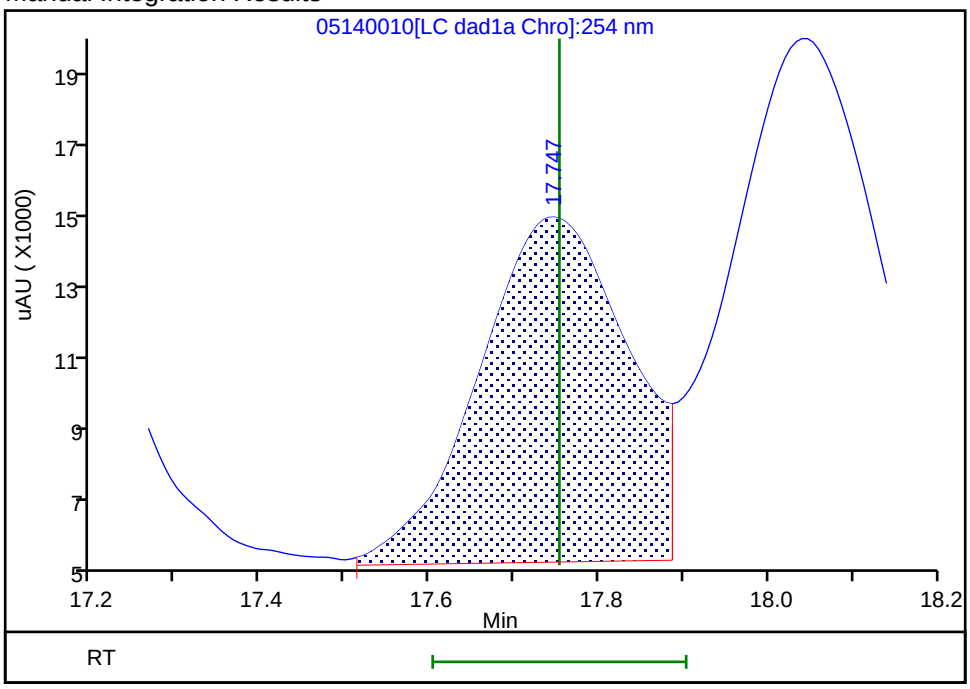
Processing Integration Results

RT: 17.75
Area: 65895
Amount: 0.232967
Amount Units: ug/ml




Manual Integration Results

RT: 17.75
Area: 115331
Amount: 0.386593
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

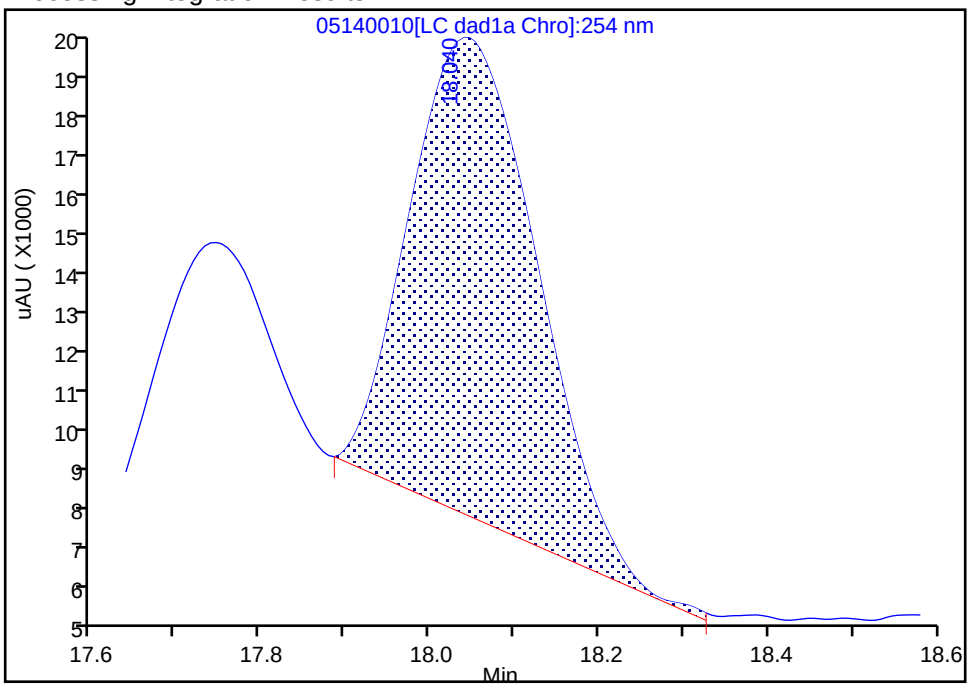
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

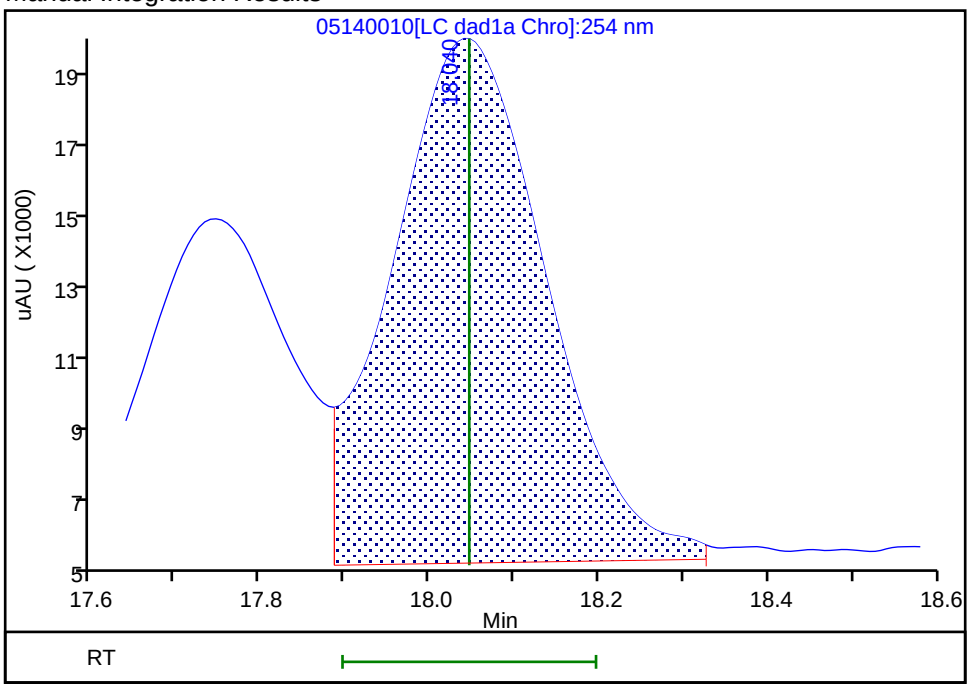
Processing Integration Results

RT: 18.04
Area: 120261
Amount: 0.277181
Amount Units: ug/ml




Manual Integration Results

RT: 18.04
Area: 179358
Amount: 0.385541
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

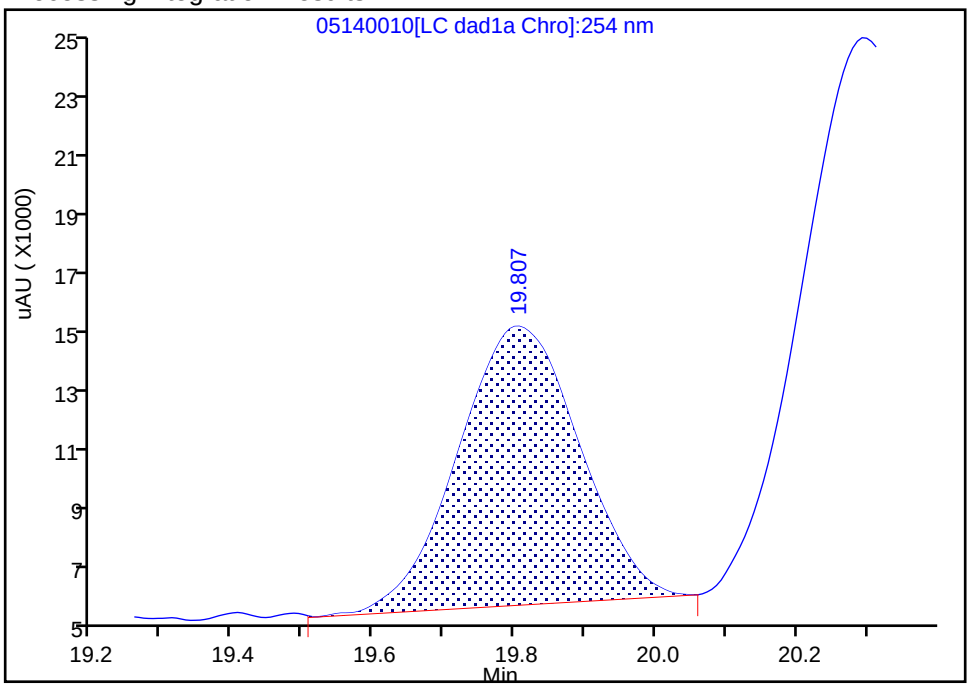
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

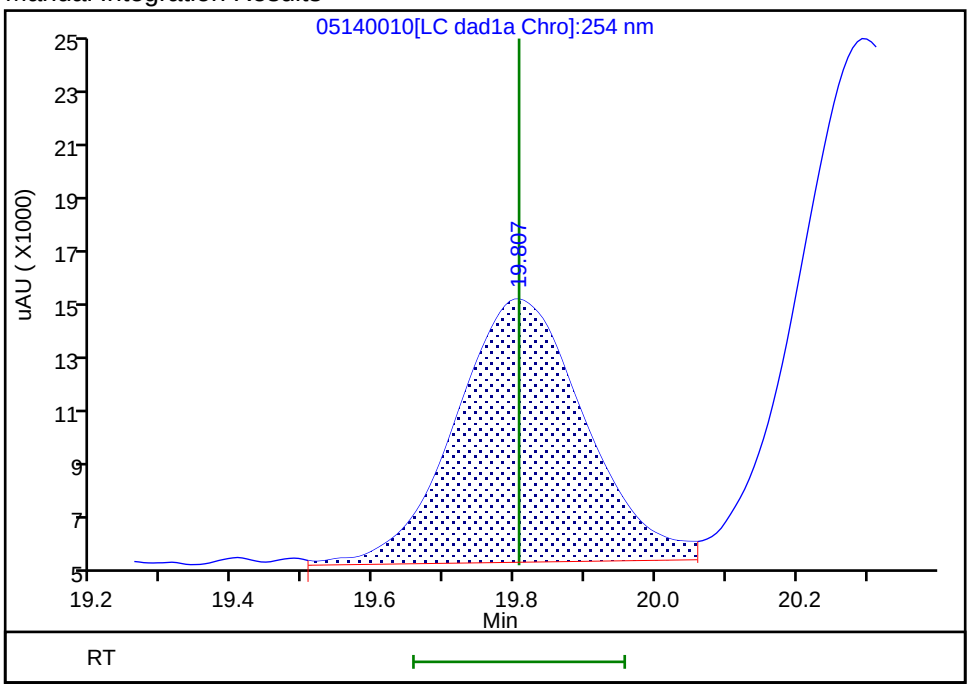
Processing Integration Results

RT: 19.81
Area: 105710
Amount: 0.311662
Amount Units: ug/ml




Manual Integration Results

RT: 19.81
Area: 118093
Amount: 0.392980
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

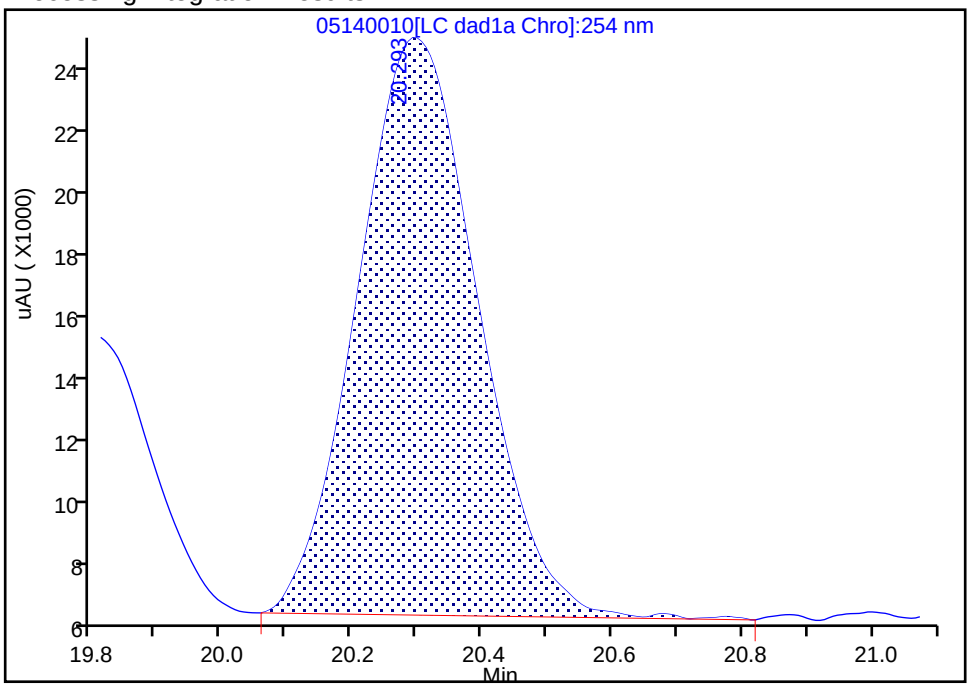
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

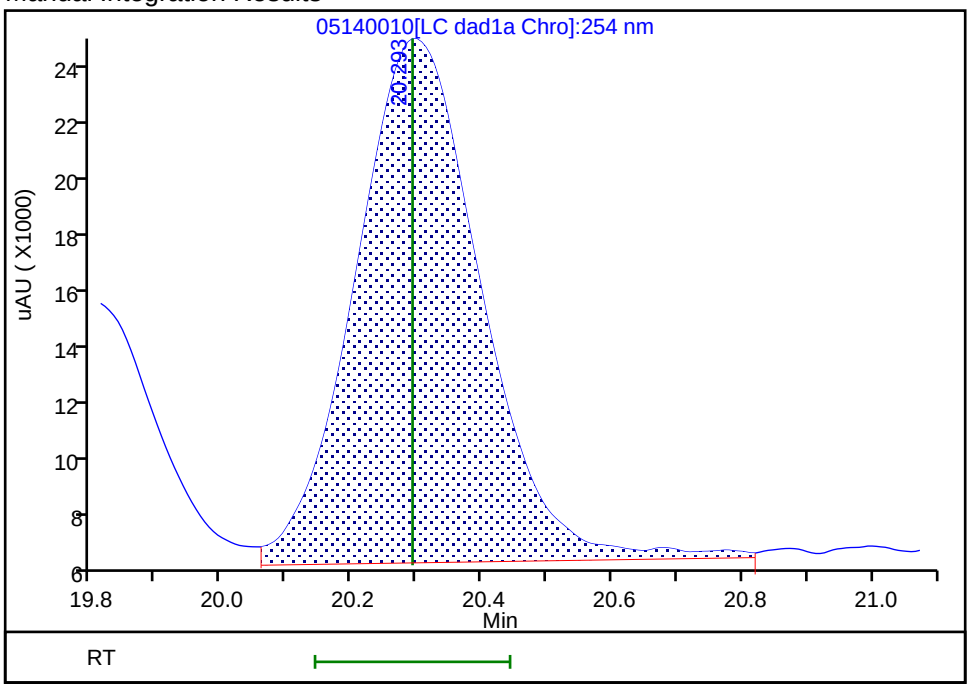
Processing Integration Results

RT: 20.29
Area: 226951
Amount: 0.348081
Amount Units: ug/ml




Manual Integration Results

RT: 20.29
Area: 245009
Amount: 0.382759
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

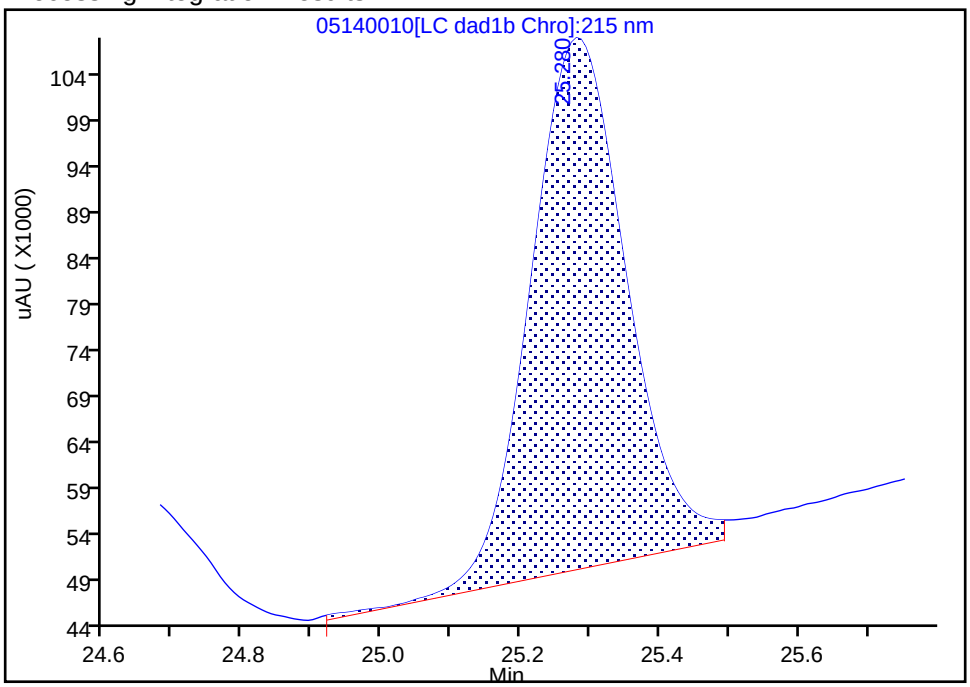
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d | | | | |
| Injection Date: | 14-May-2020 18:01:41 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

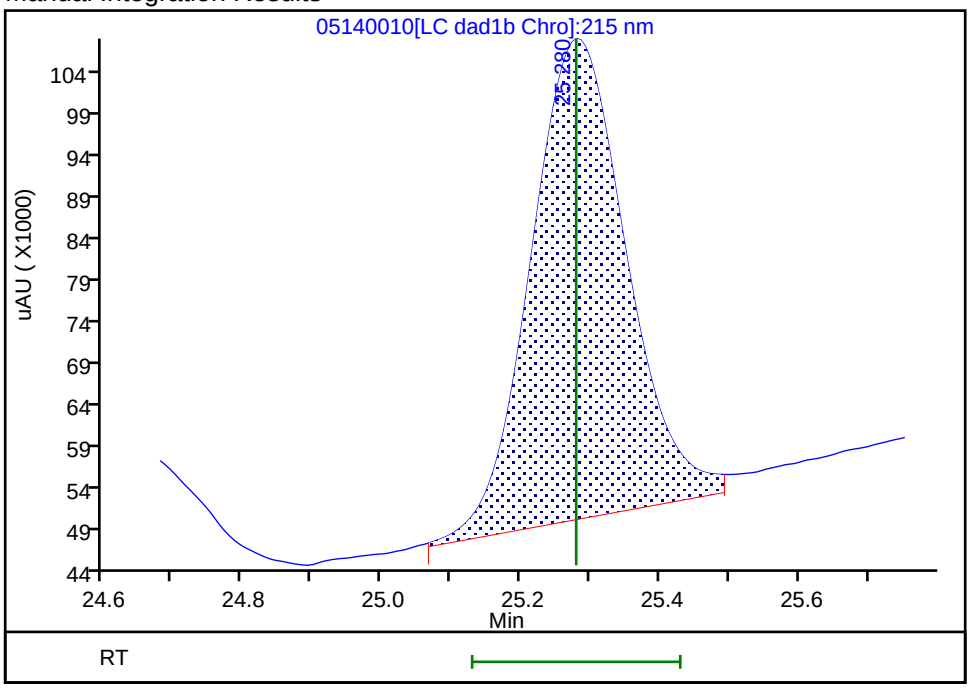
Processing Integration Results

RT: 25.28
Area: 559852
Amount: 4.200524
Amount Units: ug/ml




Manual Integration Results

RT: 25.28
Area: 557734
Amount: 4.102237
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:25:18

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140011.D
Lims ID: IC FULL 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-May-2020 18:36:40 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 5
Misc. Info.: 280-0091518-011
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:20:54

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.366 | 4.366 | 0.000 | 106754 | 0.2500 | 0.2487 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.880 | 4.880 | 0.000 | 74938 | 0.2500 | 0.2919 | |
| 5 2,4,6-Trinitrophenol | 1 | 6.300 | 6.300 | 0.000 | 48614 | 0.2500 | 0.2508 | a |
| 6 HMX | 1 | 6.986 | 6.986 | 0.000 | 54065 | 0.2500 | 0.2754 | |
| 8 RDX | 1 | 9.173 | 9.173 | 0.000 | 62626 | 0.2500 | 0.2563 | |
| 9 Nitrobenzene | 1 | 12.106 | 12.106 | 0.000 | 106064 | 0.2510 | 0.2415 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.040 | 13.040 | 0.000 | 62375 | 0.2500 | 0.2184 | M |
| 11 3,5-Dinitroaniline | 1 | 14.886 | 14.886 | 0.000 | 130301 | 0.2500 | 0.2629 | |
| 12 1,3-Dinitrobenzene | 1 | 15.553 | 15.553 | 0.000 | 172289 | 0.2505 | 0.2556 | |
| 13 Nitroglycerin | 2 | 15.853 | 15.853 | 0.000 | 330378 | 2.50 | 2.61 | M |
| 14 o-Nitrotoluene | 1 | 16.533 | 16.533 | 0.000 | 63146 | 0.2500 | 0.2313 | |
| 15 p-Nitrotoluene | 1 | 16.820 | 16.820 | 0.000 | 59605 | 0.2505 | 0.2474 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.146 | 17.146 | 0.000 | 79168 | 0.2503 | 0.2293 | |
| 17 m-Nitrotoluene | 1 | 17.753 | 17.753 | 0.000 | 71162 | 0.2503 | 0.2385 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.046 | 18.046 | 0.000 | 112860 | 0.2510 | 0.2426 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.886 | 18.886 | 0.000 | 118709 | 0.2505 | 0.2513 | |
| 20 2,6-Dinitrotoluene | 1 | 19.806 | 19.806 | 0.000 | 74317 | 0.2510 | 0.2416 | |
| 21 2,4-Dinitrotoluene | 1 | 20.293 | 20.293 | 0.000 | 153249 | 0.2510 | 0.2394 | |
| 22 Tetryl | 1 | 23.553 | 23.553 | 0.000 | 92236 | 0.2505 | 0.2502 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.653 | 24.653 | 0.000 | 100168 | 0.2510 | 0.2416 | |
| 24 PETN | 2 | 25.280 | 25.280 | 0.000 | 338241 | 2.50 | 2.40 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

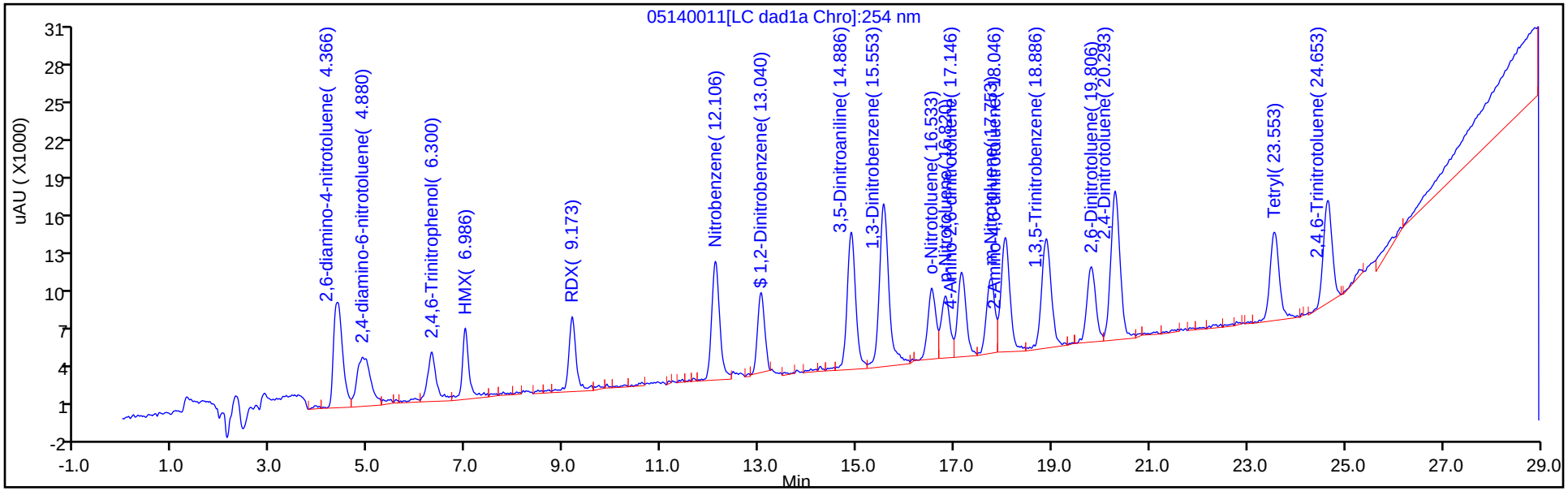
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: | 12.50 | Units: uL |

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

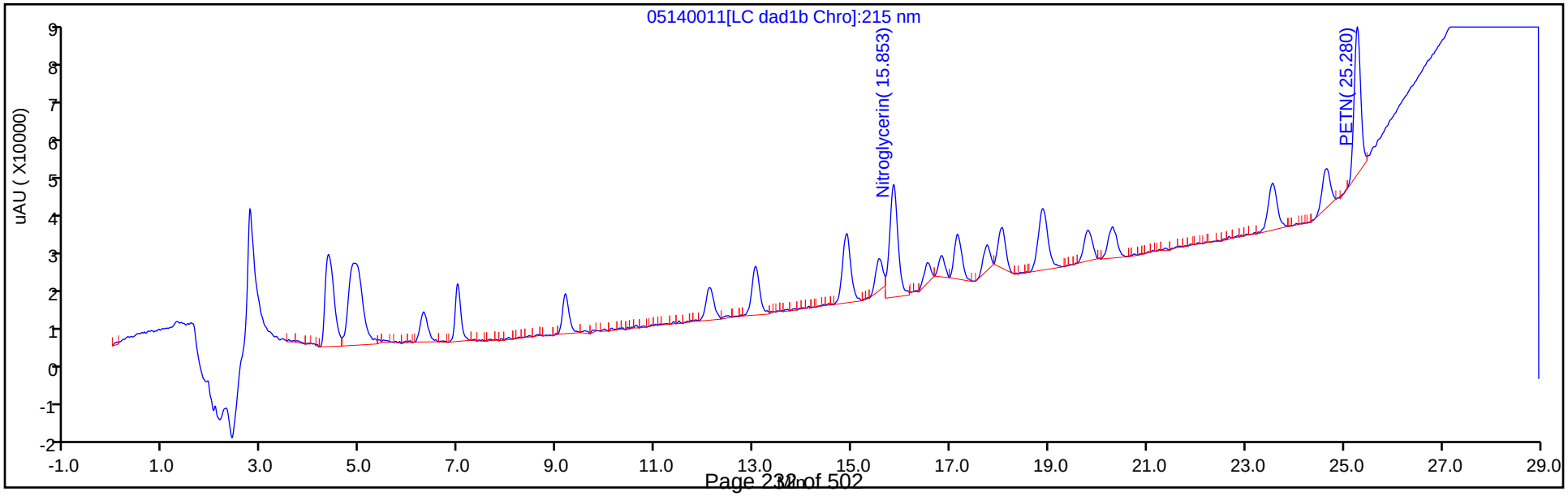
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d | | | | |
| Injection Date: | 14-May-2020 18:36:40 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 5 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

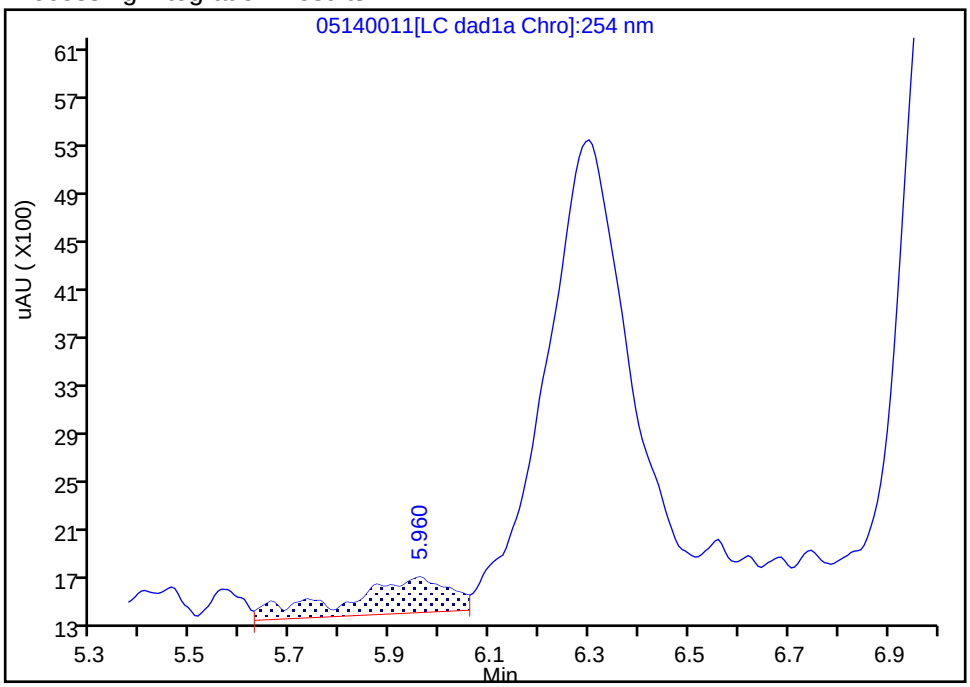
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d | | | | |
| Injection Date: | 14-May-2020 18:36:40 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

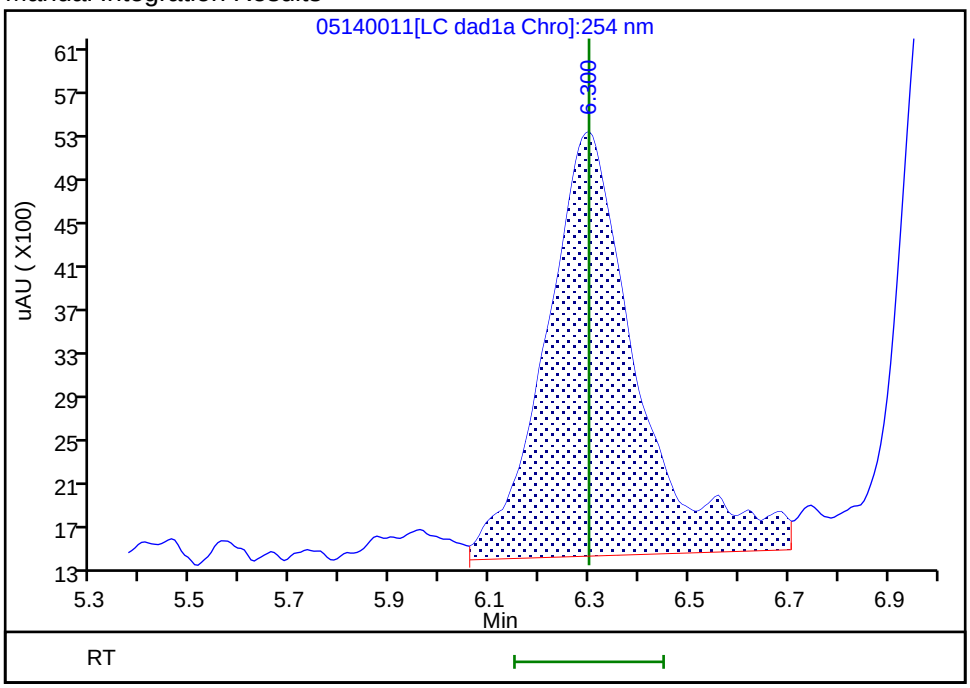
Processing Integration Results

RT: 5.96
Area: 4251
Amount: 0.036696
Amount Units: ug/ml




Manual Integration Results

RT: 6.30
Area: 48614
Amount: 0.250833
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:20:52
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

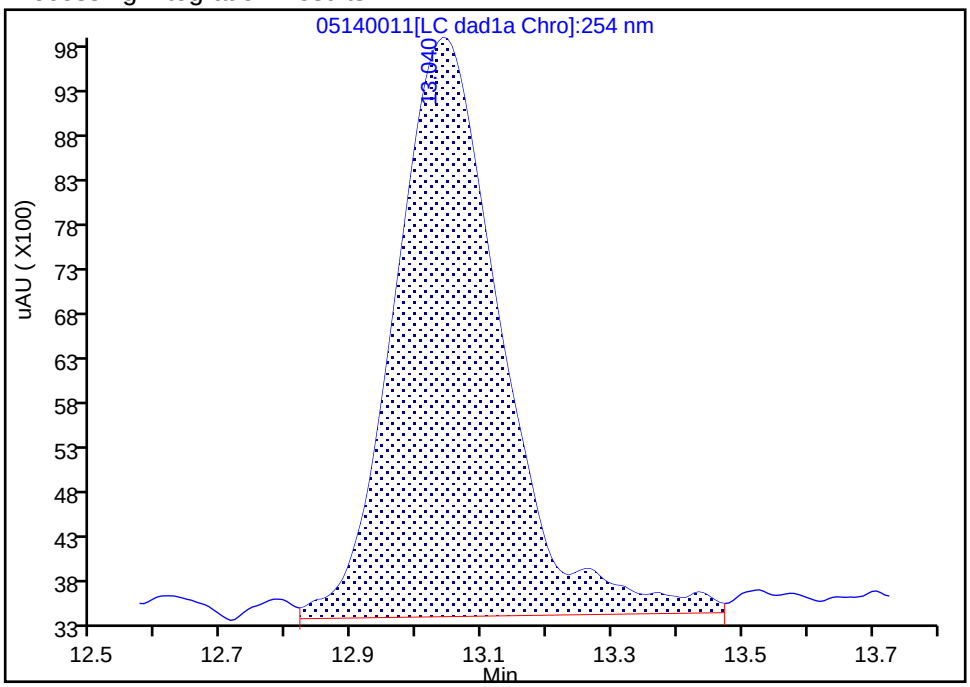
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d | | | | |
| Injection Date: | 14-May-2020 18:36:40 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

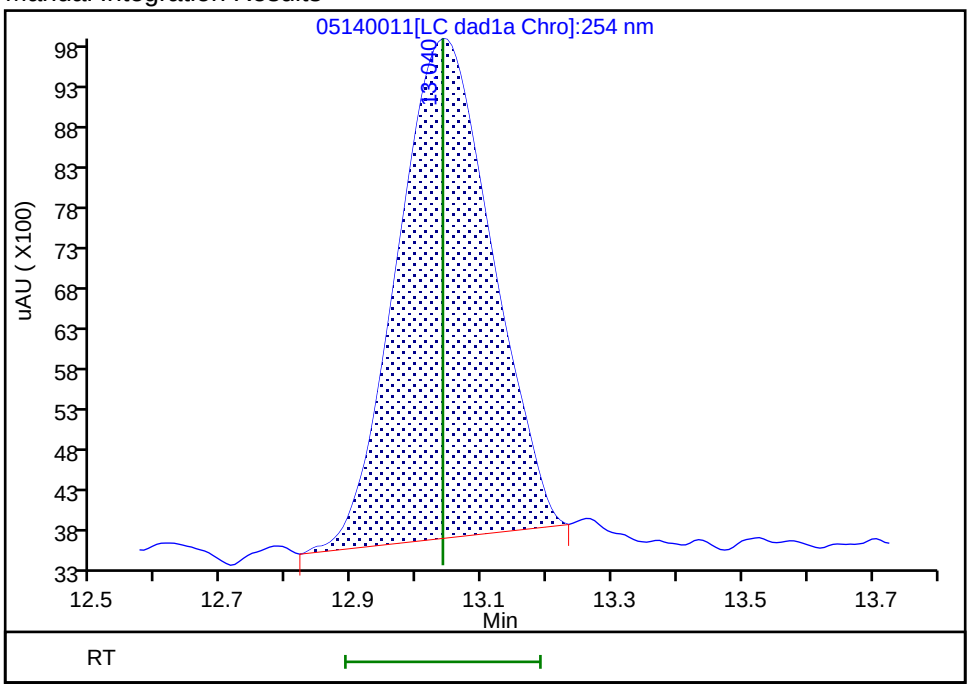
Processing Integration Results

RT: 13.04
Area: 73345
Amount: 0.234804
Amount Units: ug/ml




Manual Integration Results

RT: 13.04
Area: 62375
Amount: 0.218362
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:35:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

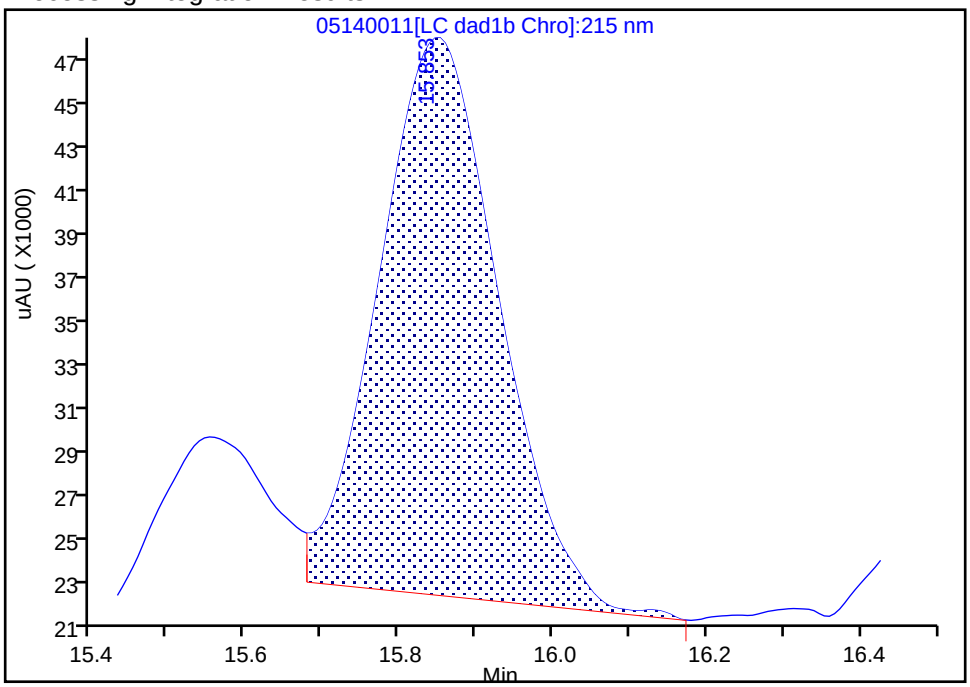
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d | | | | |
| Injection Date: | 14-May-2020 18:36:40 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

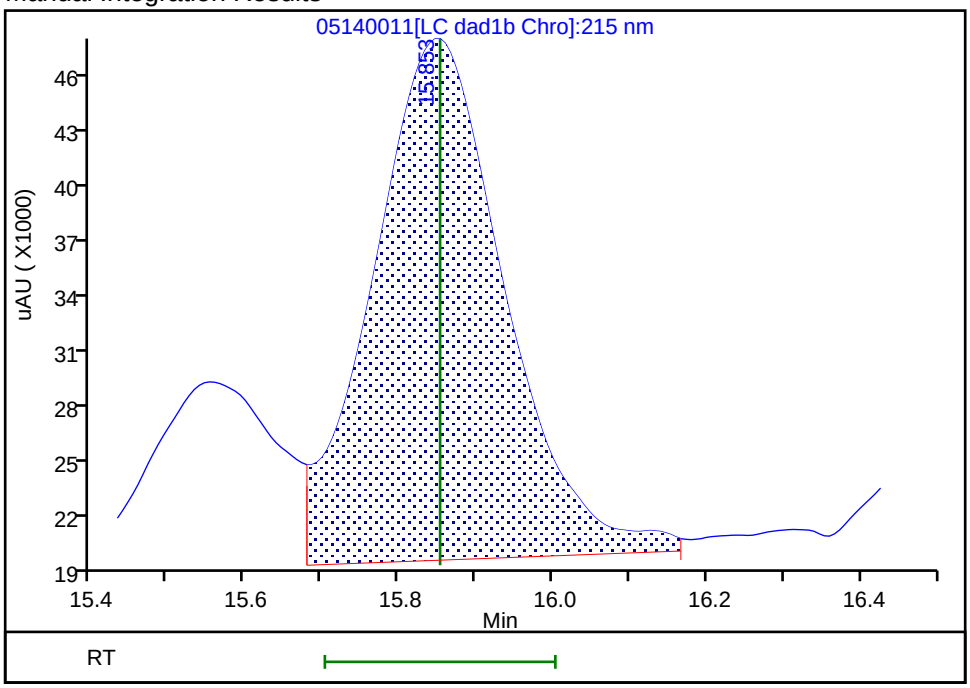
Processing Integration Results

RT: 15.85
Area: 276053
Amount: 2.464482
Amount Units: ug/ml




Manual Integration Results

RT: 15.85
Area: 330378
Amount: 2.605436
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:32:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

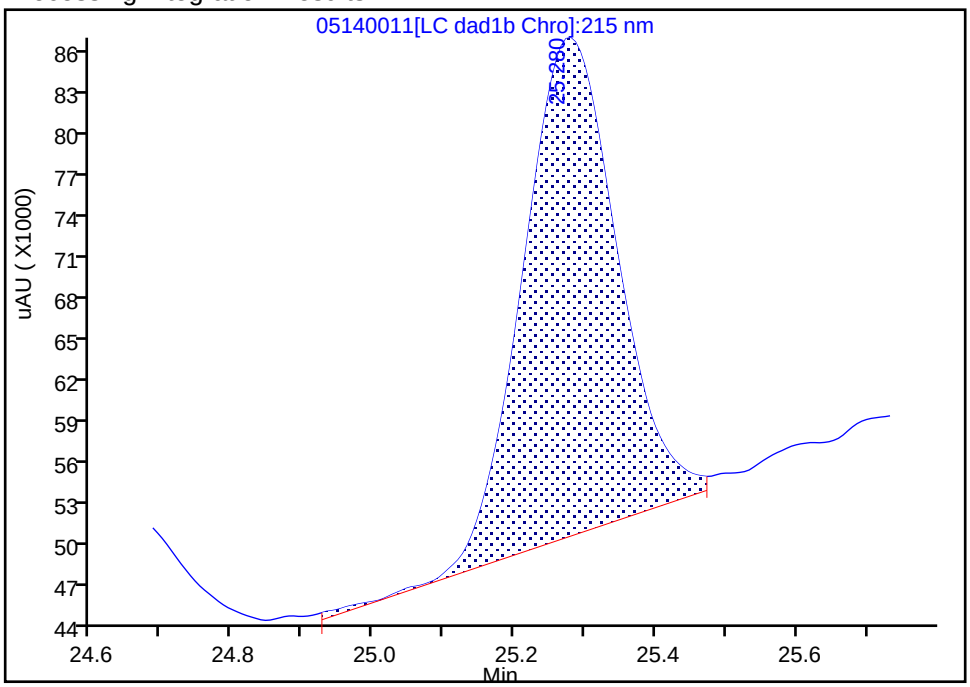
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d | | | | |
| Injection Date: | 14-May-2020 18:36:40 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

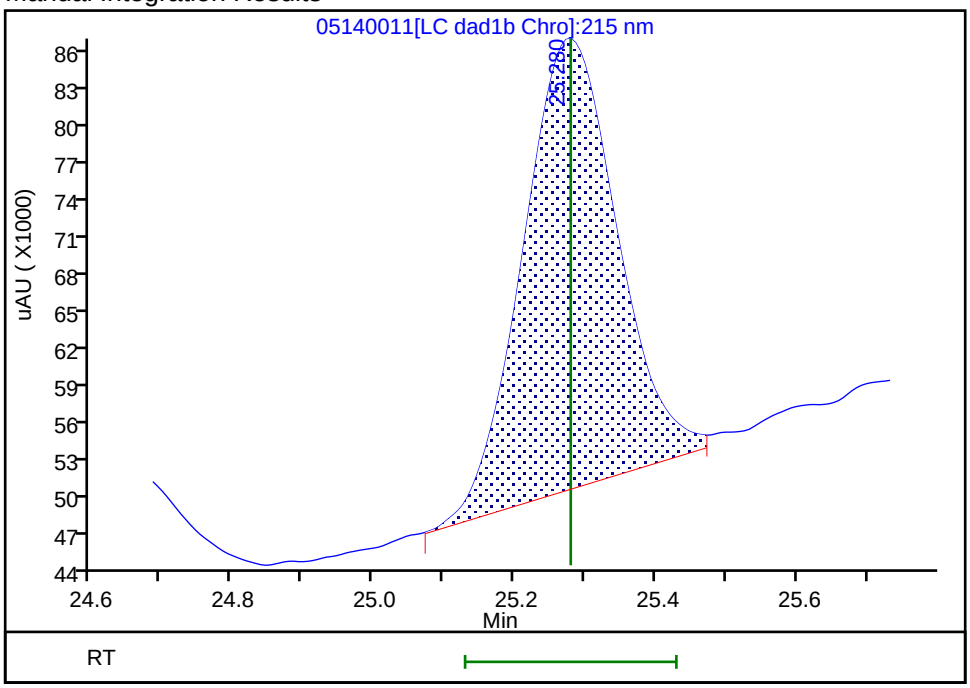
Processing Integration Results

RT: 25.28
Area: 339815
Amount: 2.534573
Amount Units: ug/ml




Manual Integration Results

RT: 25.28
Area: 338241
Amount: 2.404524
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:25:08

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140012.D
Lims ID: IC FULL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-May-2020 19:11:37 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 4
Misc. Info.: 280-0091518-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:57 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:21:52

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.361 | 4.366 | -0.005 | 44739 | 0.1000 | 0.1042 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.941 | 4.880 | 0.061 | 33889 | 0.1000 | 0.1193 | |
| 5 2,4,6-Trinitrophenol | 1 | 6.308 | 6.300 | 0.008 | 23170 | 0.1000 | 0.1195 | a |
| 6 HMX | 1 | 6.994 | 6.986 | 0.008 | 24294 | 0.1000 | 0.1072 | |
| 8 RDX | 1 | 9.181 | 9.173 | 0.008 | 27233 | 0.1000 | 0.1114 | |
| 9 Nitrobenzene | 1 | 12.114 | 12.106 | 0.008 | 42679 | 0.1004 | 0.0972 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.048 | 13.040 | 0.008 | 30683 | 0.1000 | 0.1040 | |
| 11 3,5-Dinitroaniline | 1 | 14.901 | 14.886 | 0.015 | 51716 | 0.1000 | 0.1009 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.554 | 15.553 | 0.001 | 69012 | 0.1002 | 0.1024 | M |
| 13 Nitroglycerin | 2 | 15.848 | 15.853 | -0.005 | 141489 | 1.00 | 1.12 | M |
| 14 o-Nitrotoluene | 1 | 16.534 | 16.533 | 0.001 | 29062 | 0.1000 | 0.1065 | M |
| 15 p-Nitrotoluene | 1 | 16.828 | 16.820 | 0.008 | 25956 | 0.1002 | 0.1078 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.148 | 17.146 | 0.002 | 32448 | 0.1001 | 0.0940 | M |
| 17 m-Nitrotoluene | 1 | 17.741 | 17.753 | -0.012 | 30586 | 0.1001 | 0.1025 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.054 | 18.046 | 0.008 | 47526 | 0.1004 | 0.1022 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.881 | 18.886 | -0.005 | 51028 | 0.1002 | 0.1080 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.794 | 19.806 | -0.012 | 34659 | 0.1004 | 0.1045 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.288 | 20.293 | -0.005 | 67500 | 0.1004 | 0.1055 | M |
| 22 Tetryl | 1 | 23.548 | 23.553 | -0.005 | 38547 | 0.1002 | 0.1046 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.654 | 24.653 | 0.001 | 43208 | 0.1004 | 0.0997 | |
| 24 PETN | 2 | 25.281 | 25.280 | 0.001 | 132172 | 1.00 | 0.8106 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

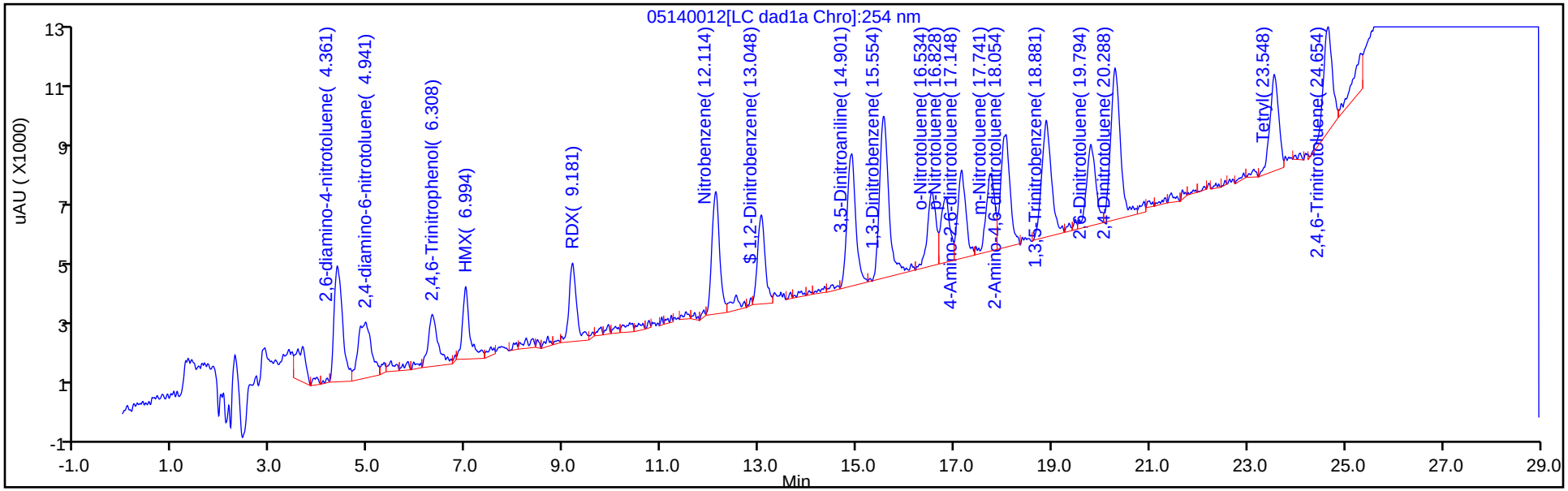
| | | |
|---|---|---|
| 8330IntermStk_00064 | Amount Added: 10.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: 5.00 | Units: uL |

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

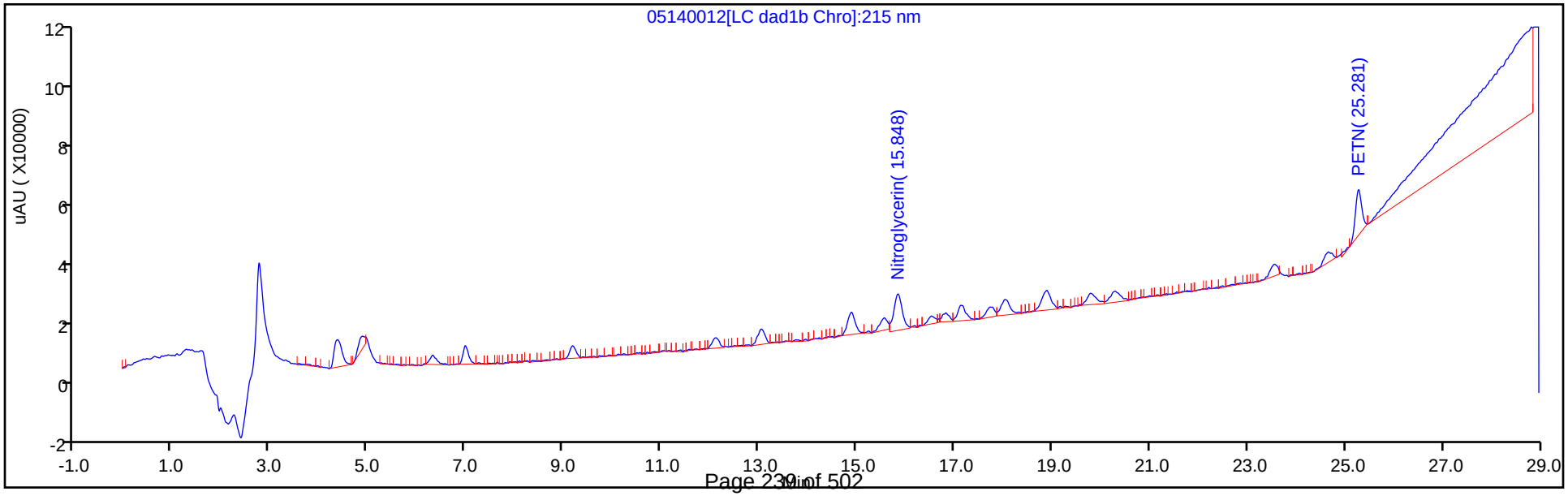
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 4 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

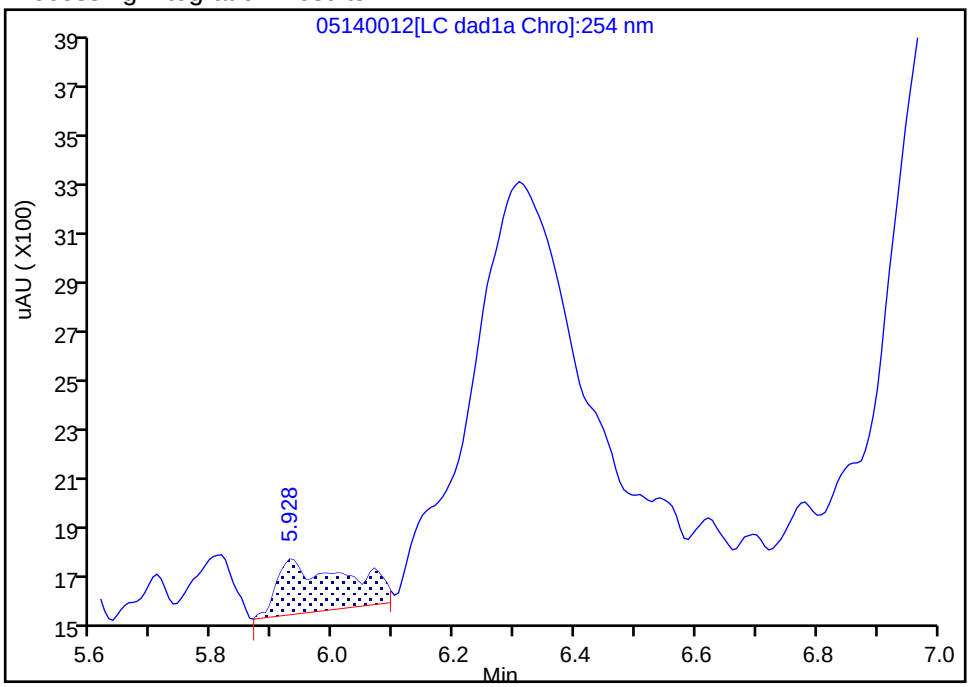
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

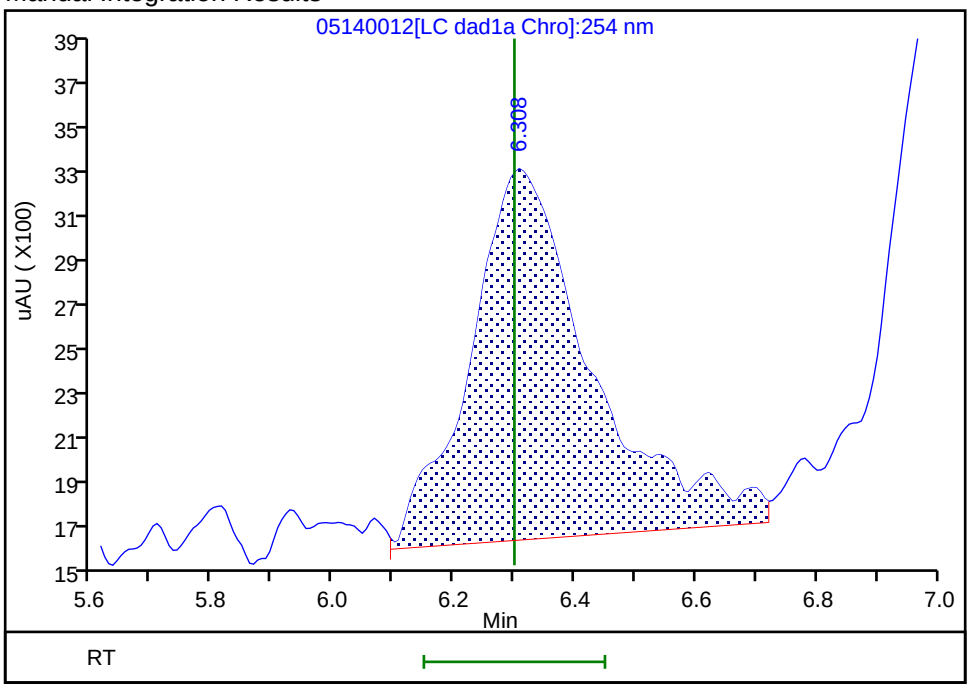
Processing Integration Results

RT: 5.93
Area: 1700
Amount: 0.010784
Amount Units: ug/ml




Manual Integration Results

RT: 6.31
Area: 23170
Amount: 0.119550
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

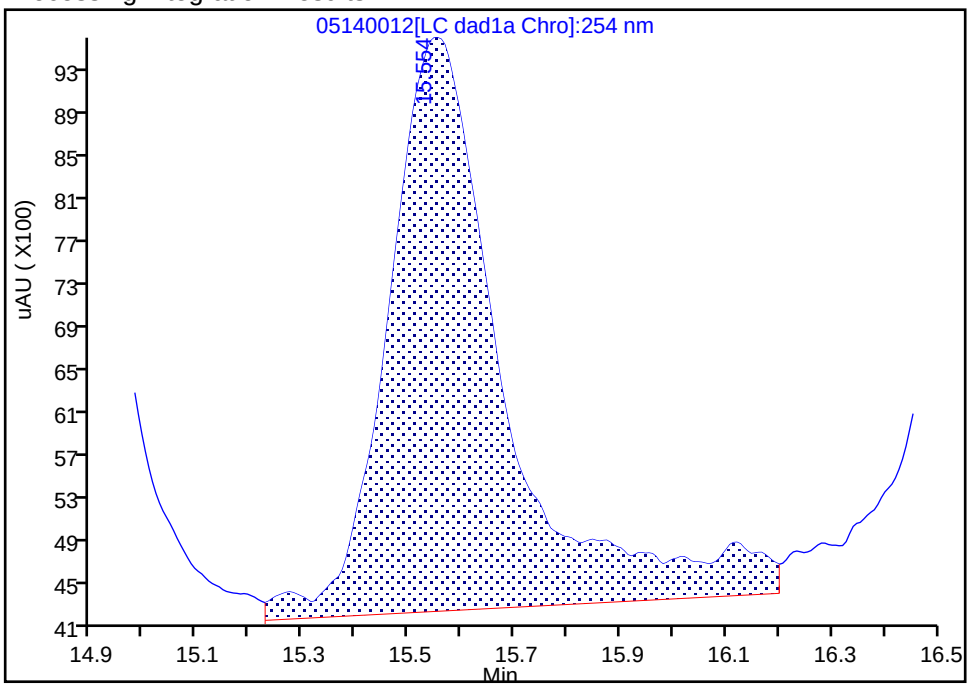
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

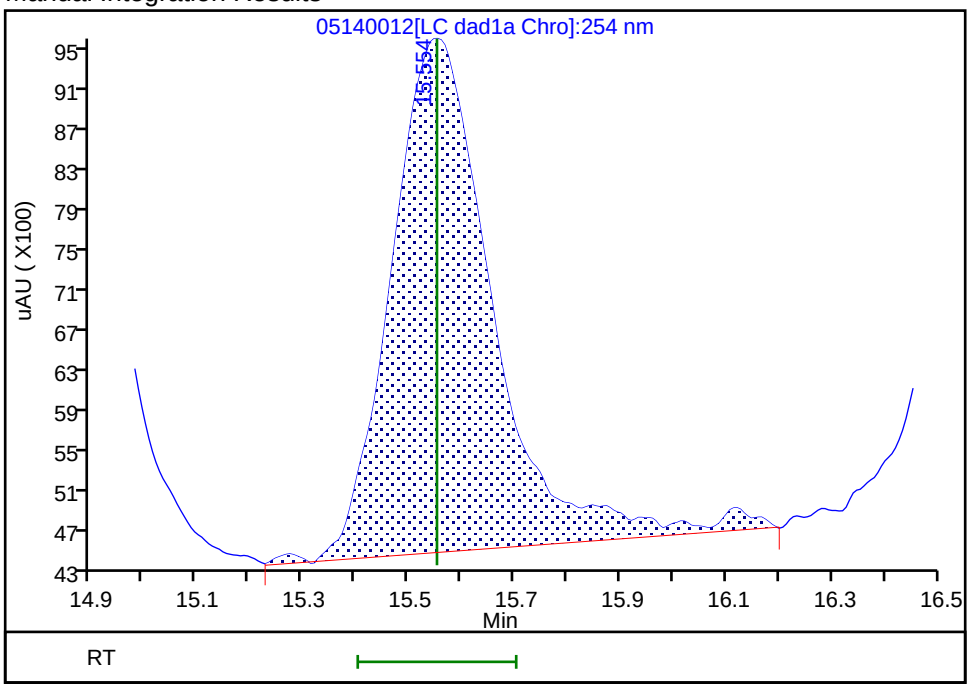
Processing Integration Results

RT: 15.55
Area: 81626
Amount: 0.119366
Amount Units: ug/ml




Manual Integration Results

RT: 15.55
Area: 69012
Amount: 0.102363
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

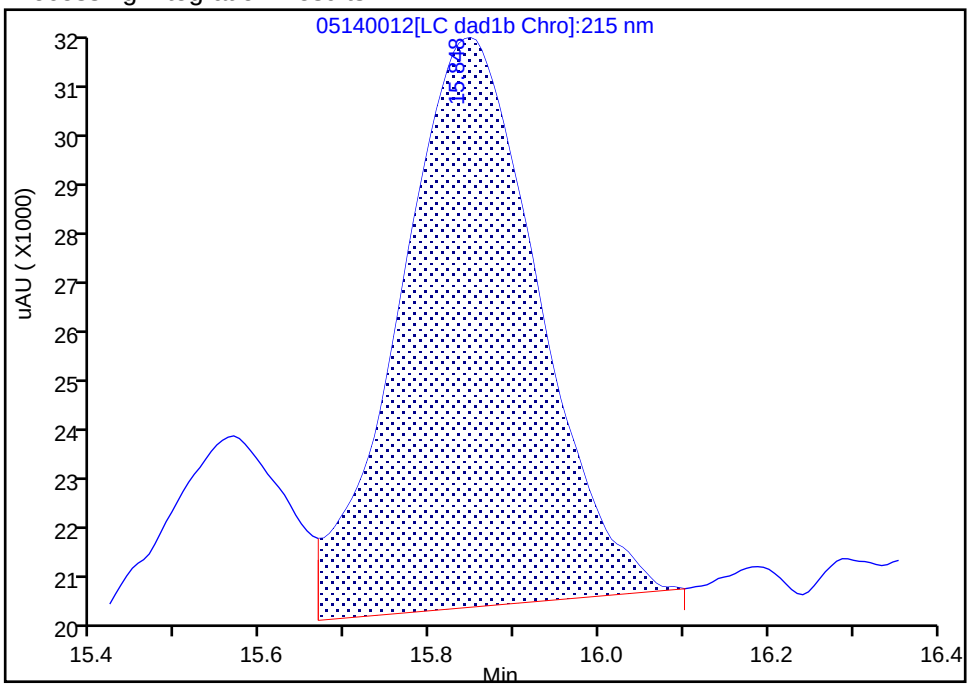
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

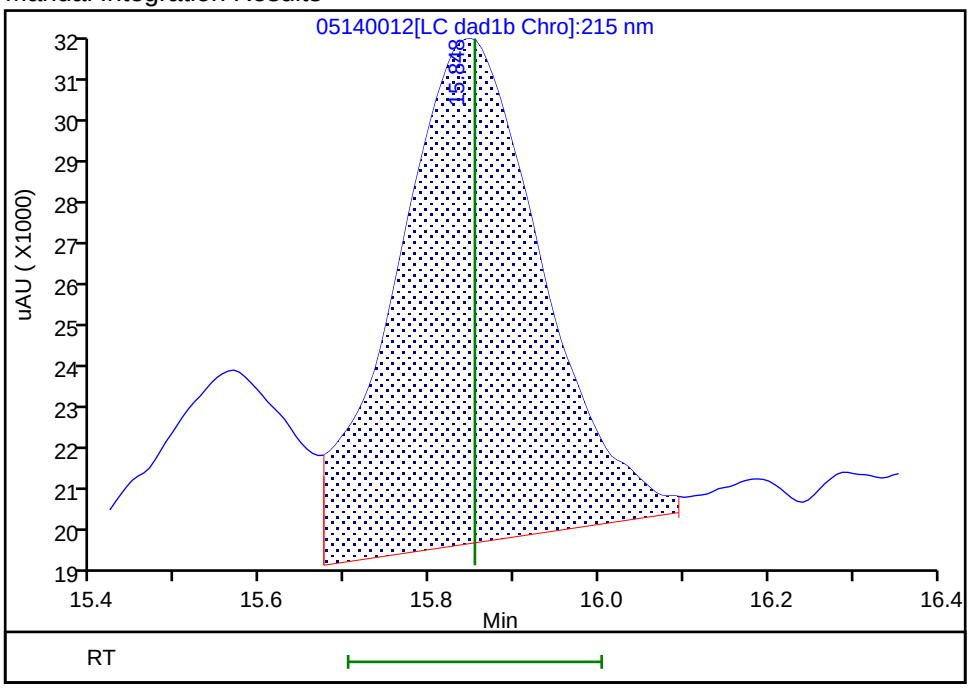
Processing Integration Results

RT: 15.85
Area: 125471
Amount: 1.093631
Amount Units: ug/ml




Manual Integration Results

RT: 15.85
Area: 141489
Amount: 1.115815
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:32:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

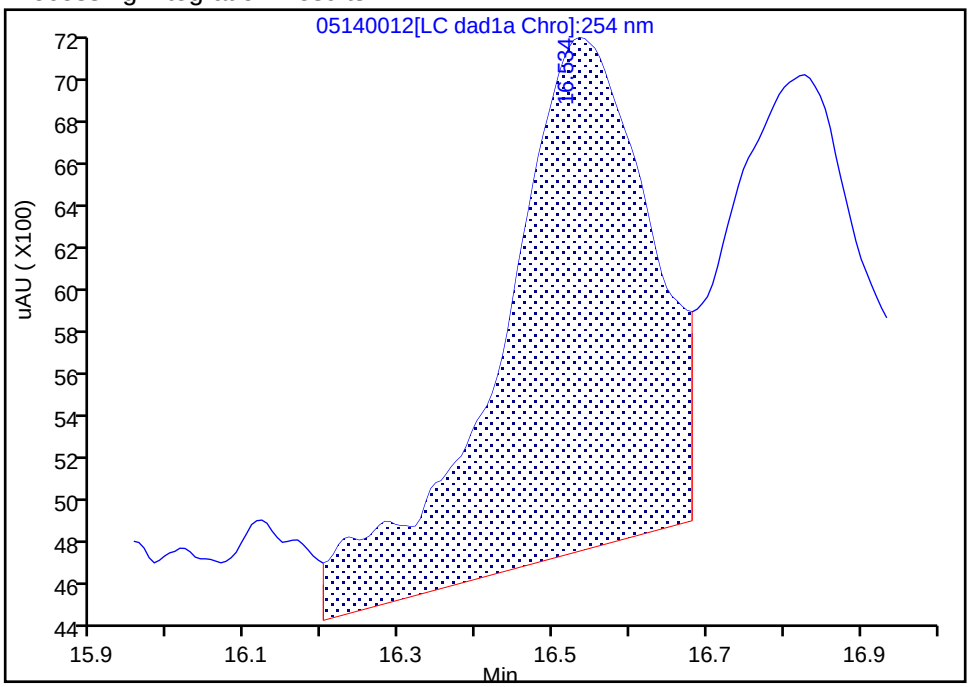
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

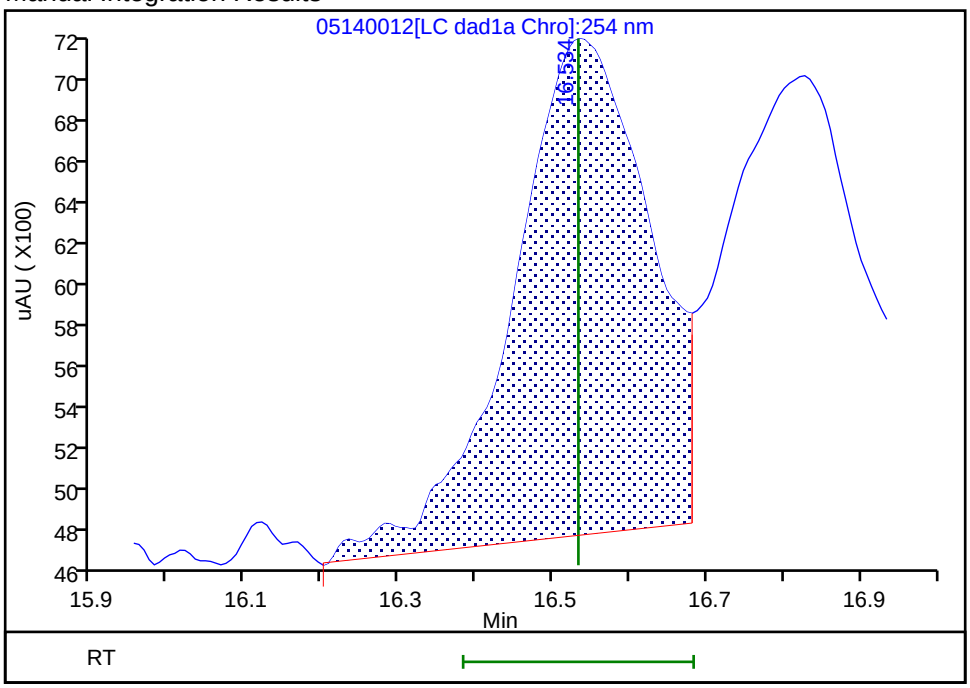
Processing Integration Results

RT: 16.53
Area: 33080
Amount: 0.118510
Amount Units: ug/ml




Manual Integration Results

RT: 16.53
Area: 29062
Amount: 0.106468
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

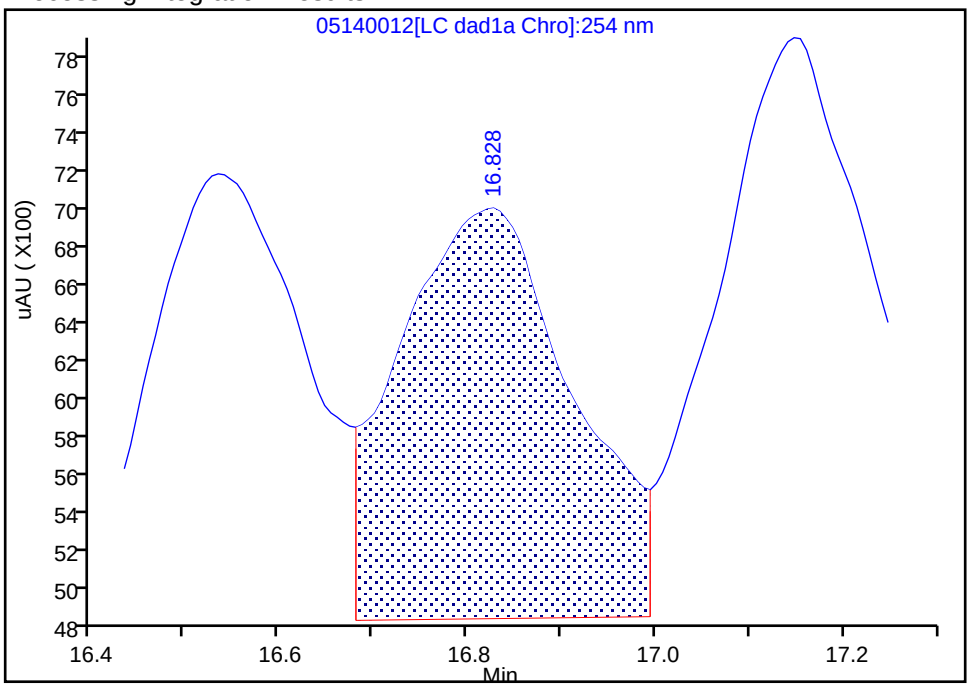
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

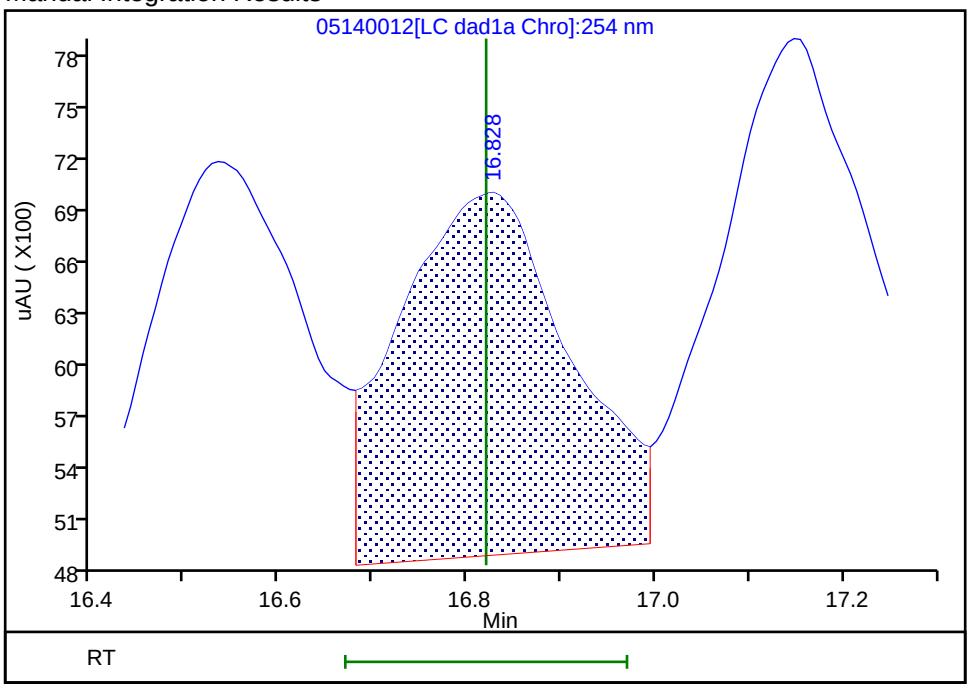
Processing Integration Results

RT: 16.83
Area: 26887
Amount: 0.106277
Amount Units: ug/ml




Manual Integration Results

RT: 16.83
Area: 25956
Amount: 0.107754
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

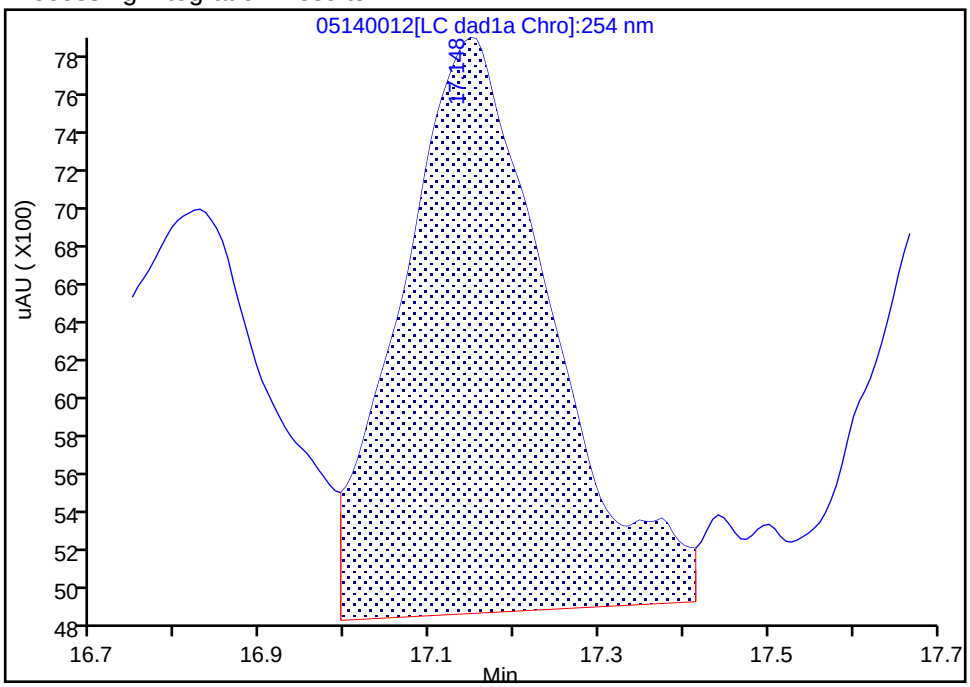
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

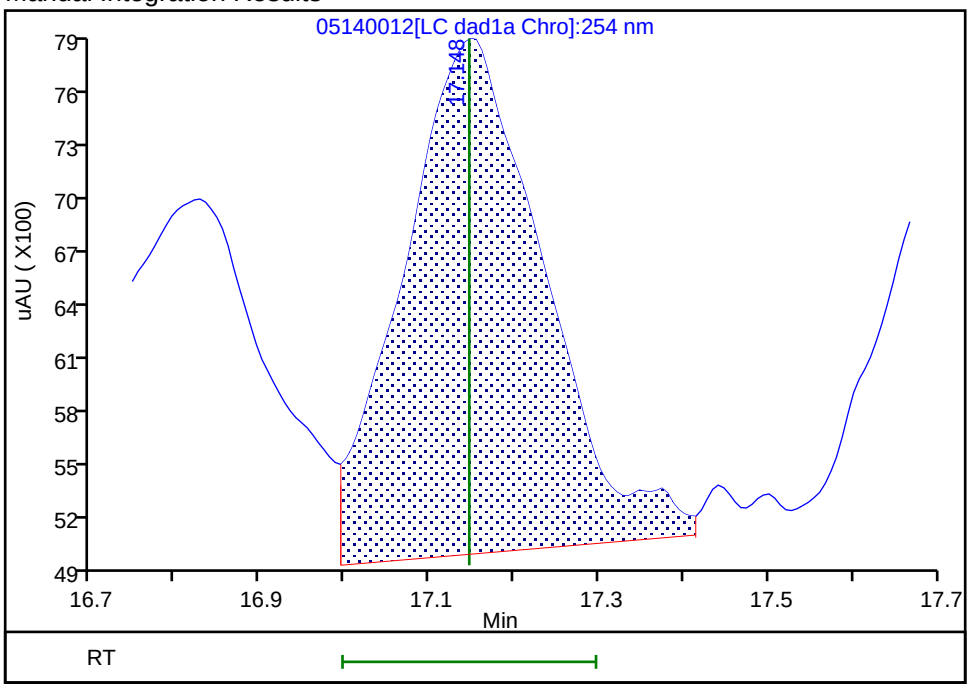
Processing Integration Results

RT: 17.15
Area: 35863
Amount: 0.102237
Amount Units: ug/ml




Manual Integration Results

RT: 17.15
Area: 32448
Amount: 0.093988
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

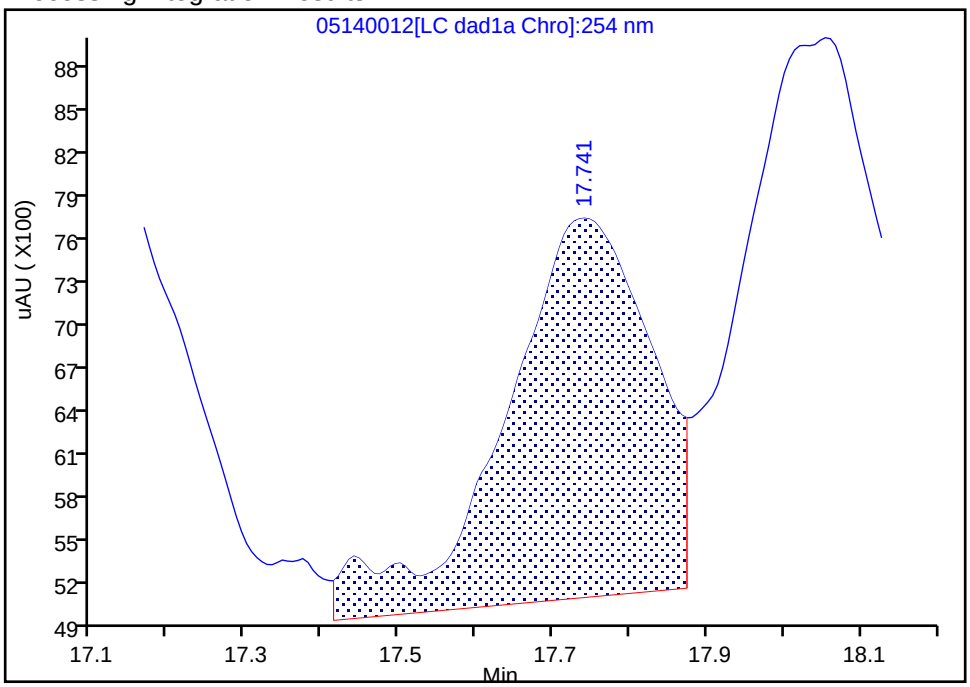
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

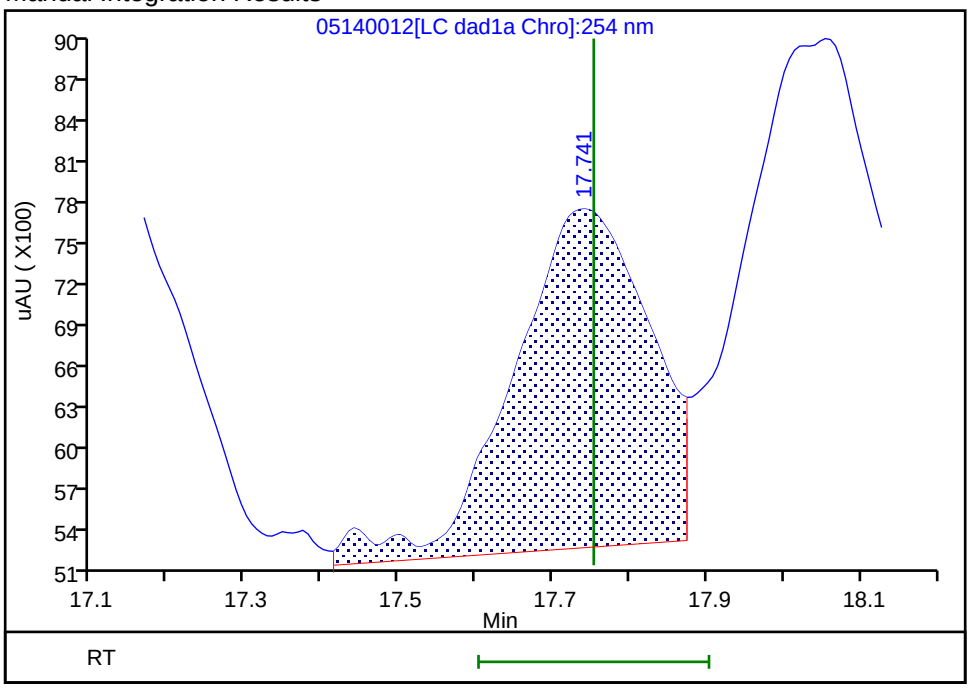
Processing Integration Results

RT: 17.74
Area: 34712
Amount: 0.117045
Amount Units: ug/ml




Manual Integration Results

RT: 17.74
Area: 30586
Amount: 0.102525
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

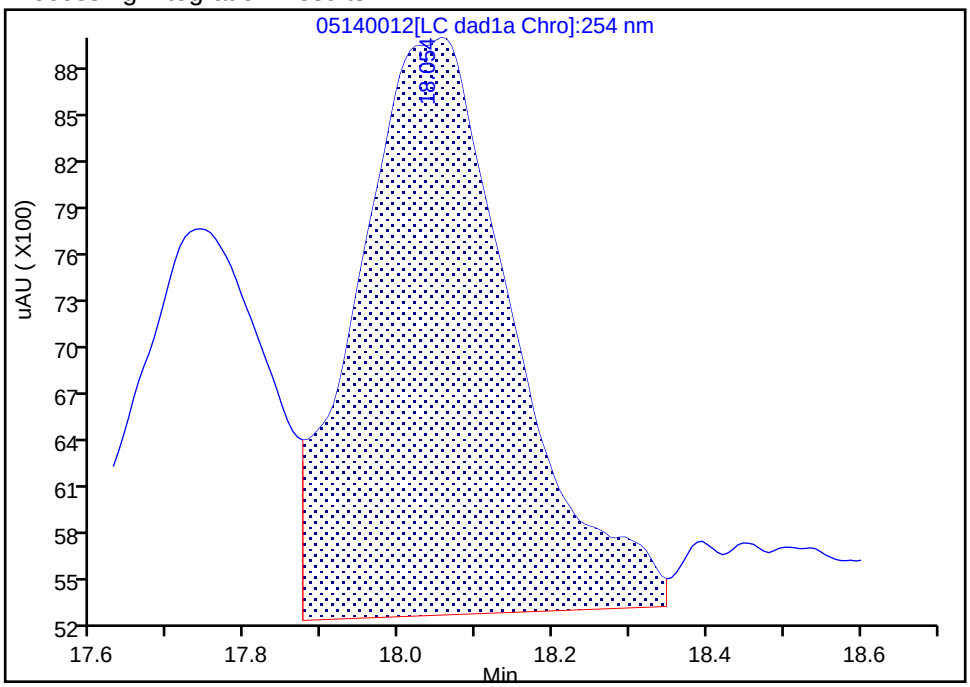
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

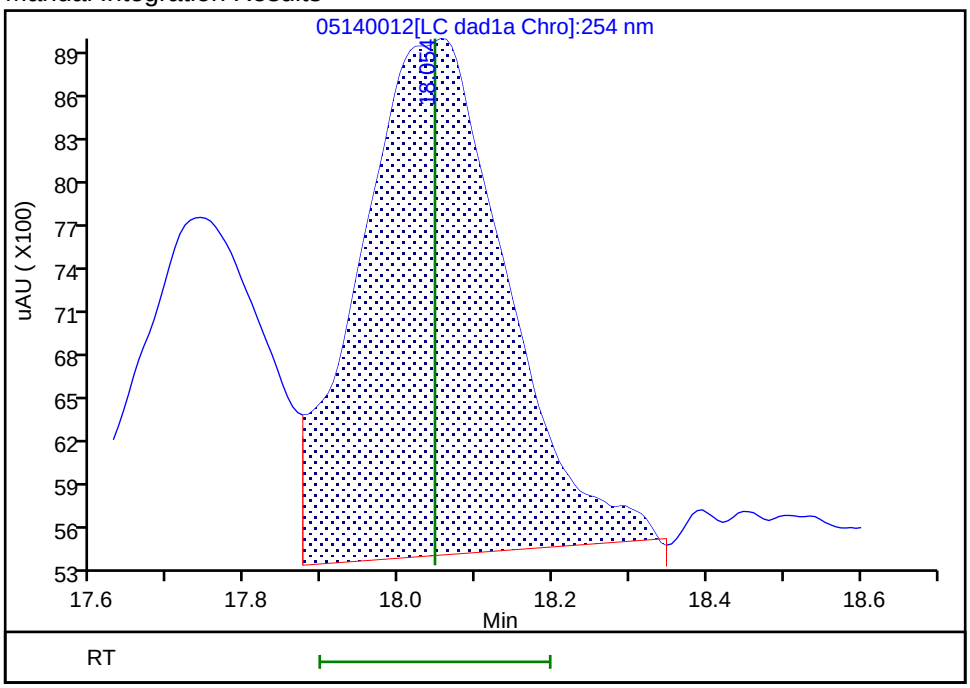
Processing Integration Results

RT: 18.05
Area: 52538
Amount: 0.110599
Amount Units: ug/ml




Manual Integration Results

RT: 18.05
Area: 47526
Amount: 0.102160
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

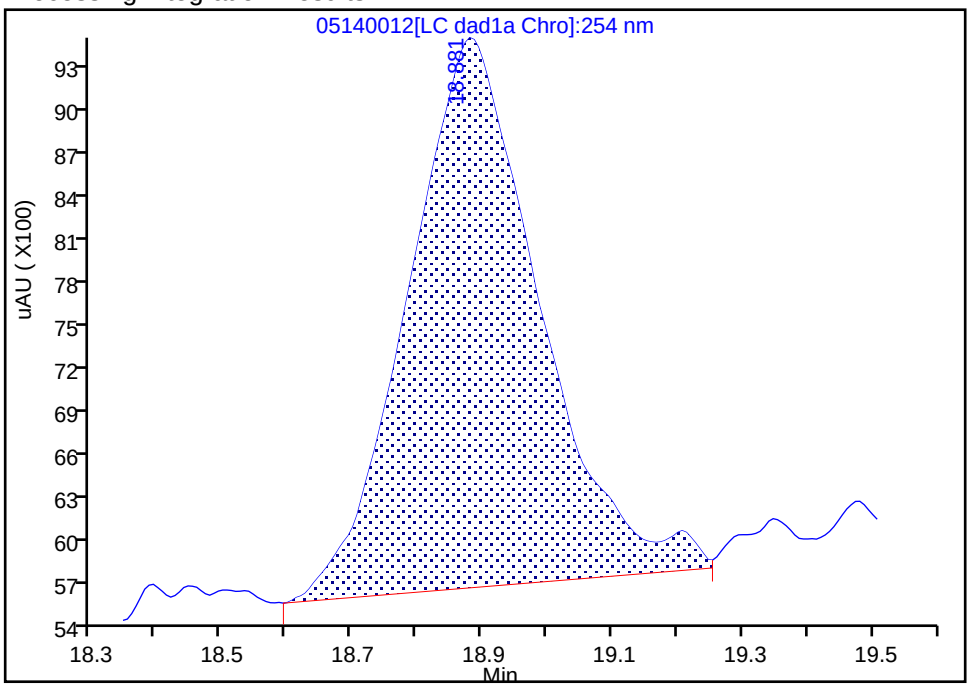
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

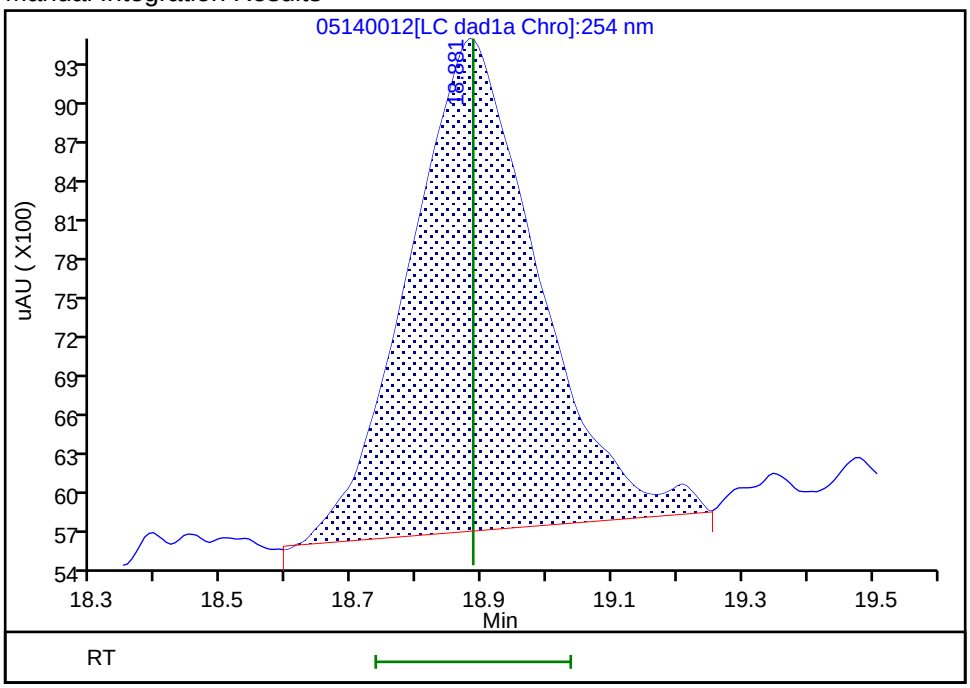
Processing Integration Results

RT: 18.88
Area: 52433
Amount: 0.109995
Amount Units: ug/ml




Manual Integration Results

RT: 18.88
Area: 51028
Amount: 0.108007
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

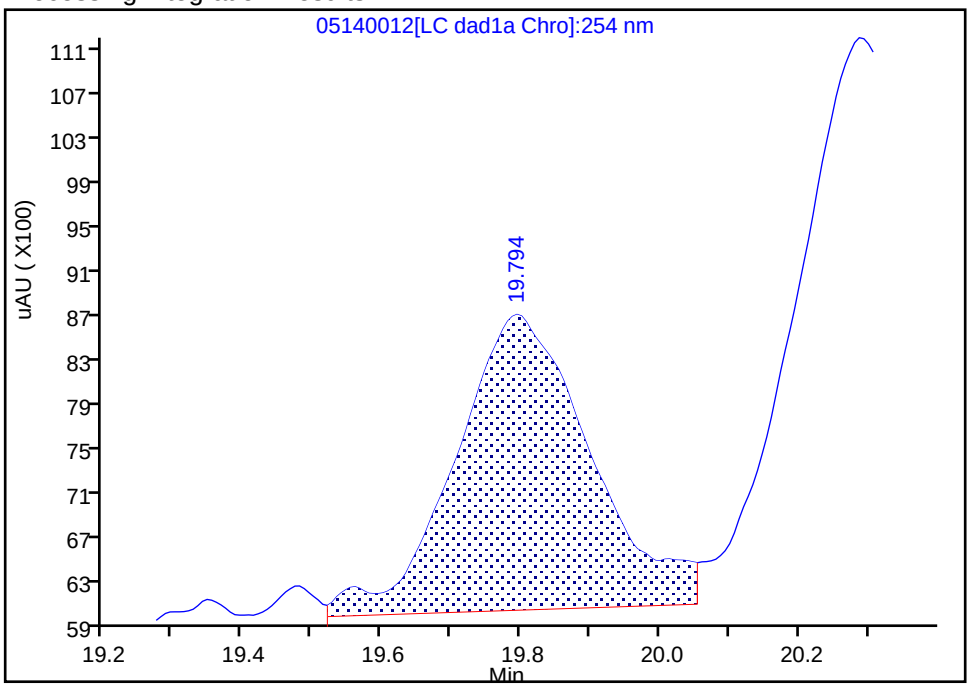
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

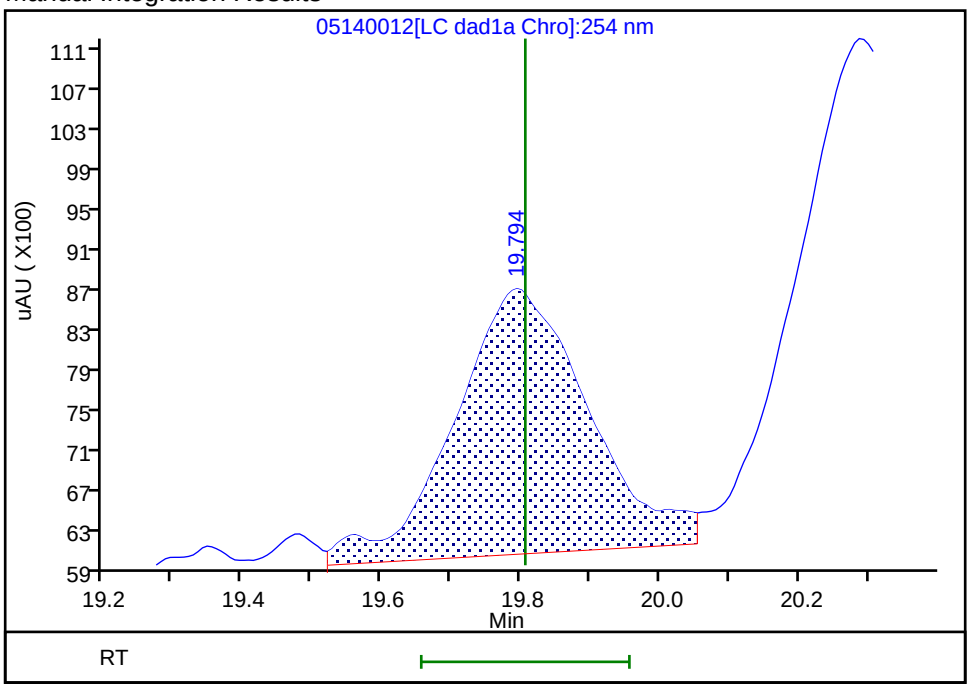
Processing Integration Results

RT: 19.79
Area: 35123
Amount: 0.102517
Amount Units: ug/ml




Manual Integration Results

RT: 19.79
Area: 34659
Amount: 0.104499
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

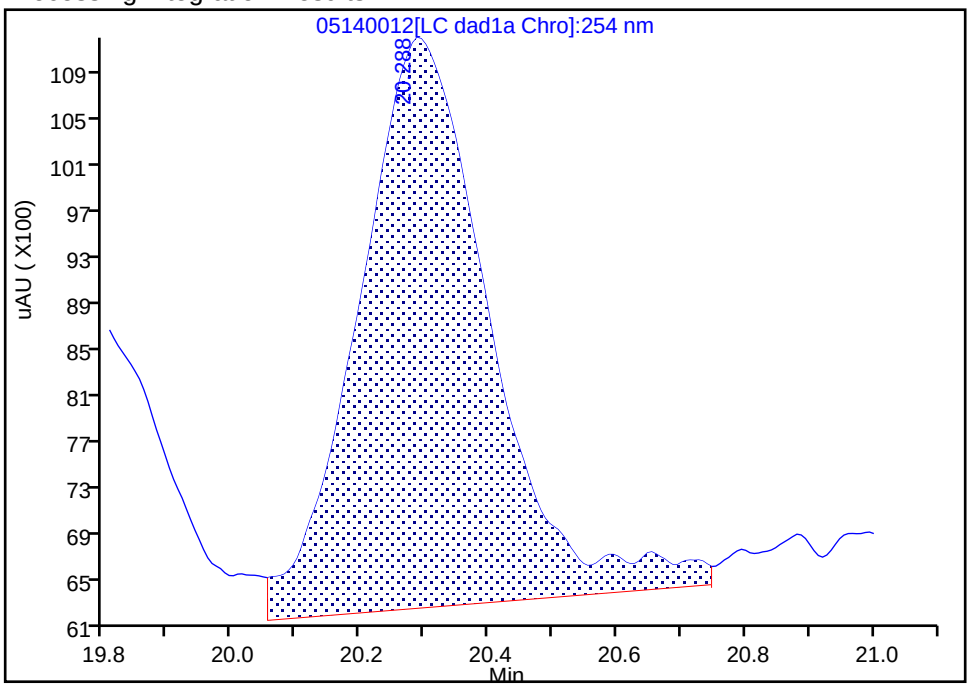
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

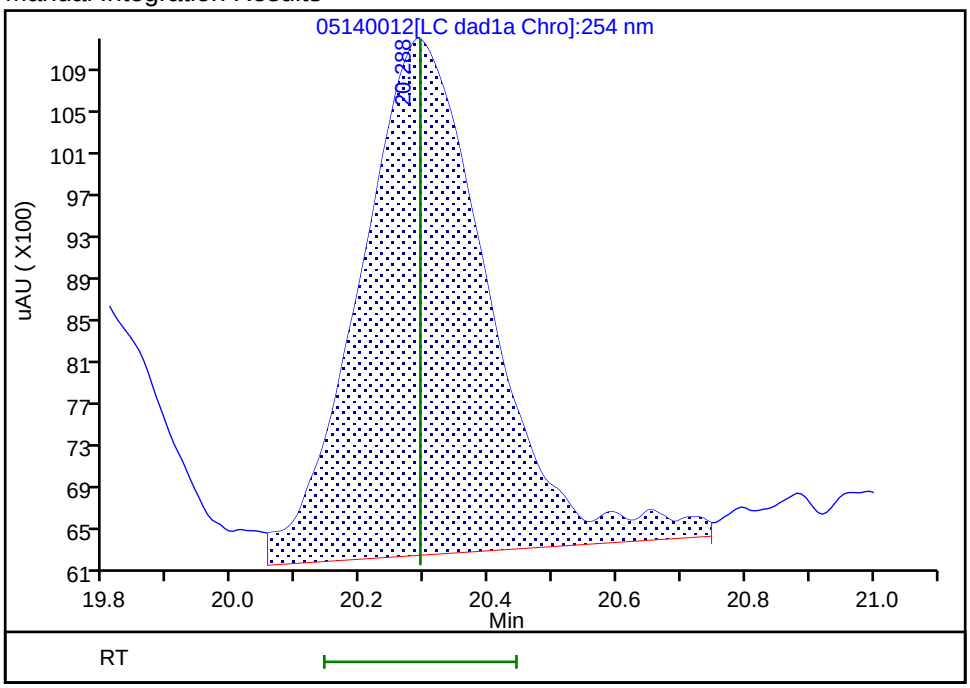
Processing Integration Results

RT: 20.29
Area: 69455
Amount: 0.105715
Amount Units: ug/ml




Manual Integration Results

RT: 20.29
Area: 67500
Amount: 0.105450
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

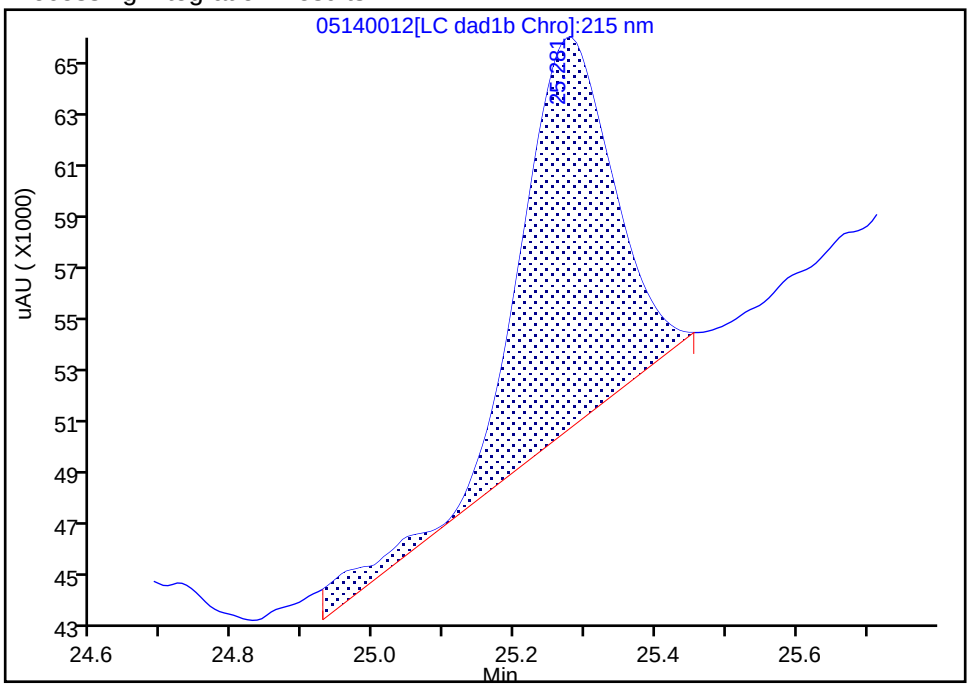
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d | | | | |
| Injection Date: | 14-May-2020 19:11:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

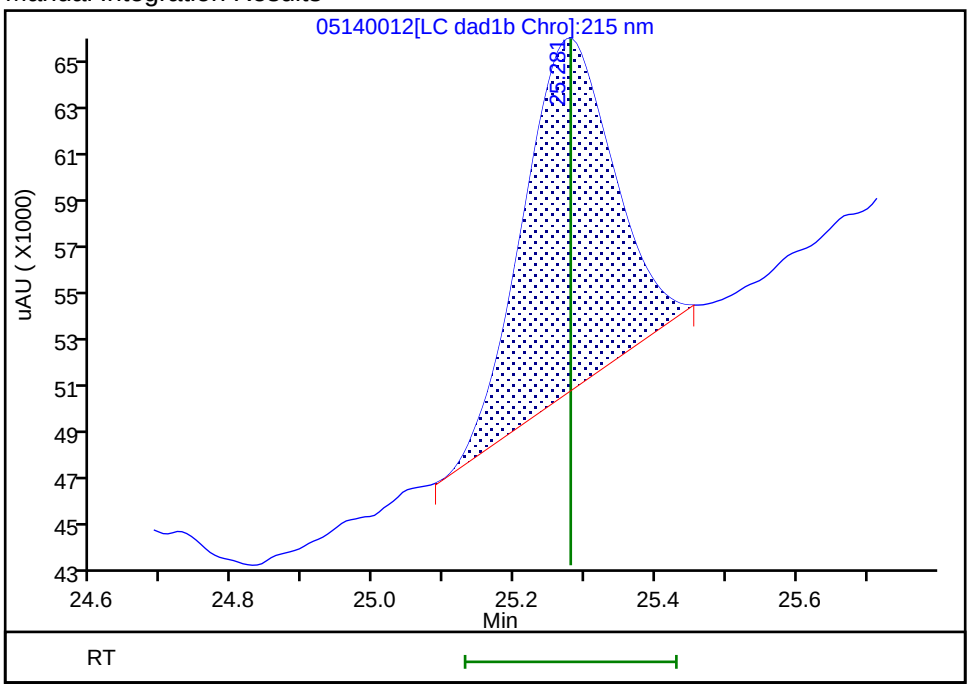
Processing Integration Results

RT: 25.28
Area: 139443
Amount: 1.011611
Amount Units: ug/ml




Manual Integration Results

RT: 25.28
Area: 132172
Amount: 0.810643
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:24:59

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140013.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-May-2020 19:46:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0091518-013
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:17

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.357 | 4.366 | -0.009 | 22969 | 0.0500 | 0.0535 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.851 | 4.880 | -0.029 | 16562 | 0.0500 | 0.0464 | |
| 5 2,4,6-Trinitrophenol | 1 | 6.331 | 6.300 | 0.031 | 9462 | 0.0500 | 0.0488 | a |
| 6 HMX | 1 | 6.984 | 6.986 | -0.002 | 12646 | 0.0500 | 0.0414 | |
| 8 RDX | 1 | 9.184 | 9.173 | 0.011 | 15119 | 0.0500 | 0.0619 | |
| 9 Nitrobenzene | 1 | 12.110 | 12.106 | 0.004 | 28424 | 0.0502 | 0.0647 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.037 | 13.040 | -0.003 | 18744 | 0.0500 | 0.0610 | M |
| 11 3,5-Dinitroaniline | 1 | 14.890 | 14.886 | 0.004 | 27916 | 0.0500 | 0.0518 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.544 | 15.553 | -0.009 | 37161 | 0.0501 | 0.0551 | M |
| 13 Nitroglycerin | 2 | 15.844 | 15.853 | -0.009 | 64042 | 0.5000 | 0.5050 | M |
| 14 o-Nitrotoluene | 1 | 16.550 | 16.533 | 0.017 | 16003 | 0.0500 | 0.0586 | M |
| 15 p-Nitrotoluene | 1 | 16.837 | 16.820 | 0.017 | 15492 | 0.0501 | 0.0643 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.157 | 17.146 | 0.011 | 22118 | 0.0501 | 0.0641 | M |
| 17 m-Nitrotoluene | 1 | 17.724 | 17.753 | -0.029 | 19280 | 0.0501 | 0.0646 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.030 | 18.046 | -0.016 | 28982 | 0.0502 | 0.0623 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.864 | 18.886 | -0.022 | 26649 | 0.0501 | 0.0564 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.817 | 19.806 | 0.011 | 19107 | 0.0502 | 0.0507 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.290 | 20.293 | -0.003 | 37302 | 0.0502 | 0.0583 | M |
| 22 Tetryl | 1 | 23.557 | 23.553 | 0.004 | 20202 | 0.0501 | 0.0548 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.637 | 24.653 | -0.016 | 28366 | 0.0502 | 0.0628 | |
| 24 PETN | 2 | 25.277 | 25.280 | -0.003 | 102120 | 0.5000 | 0.5782 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

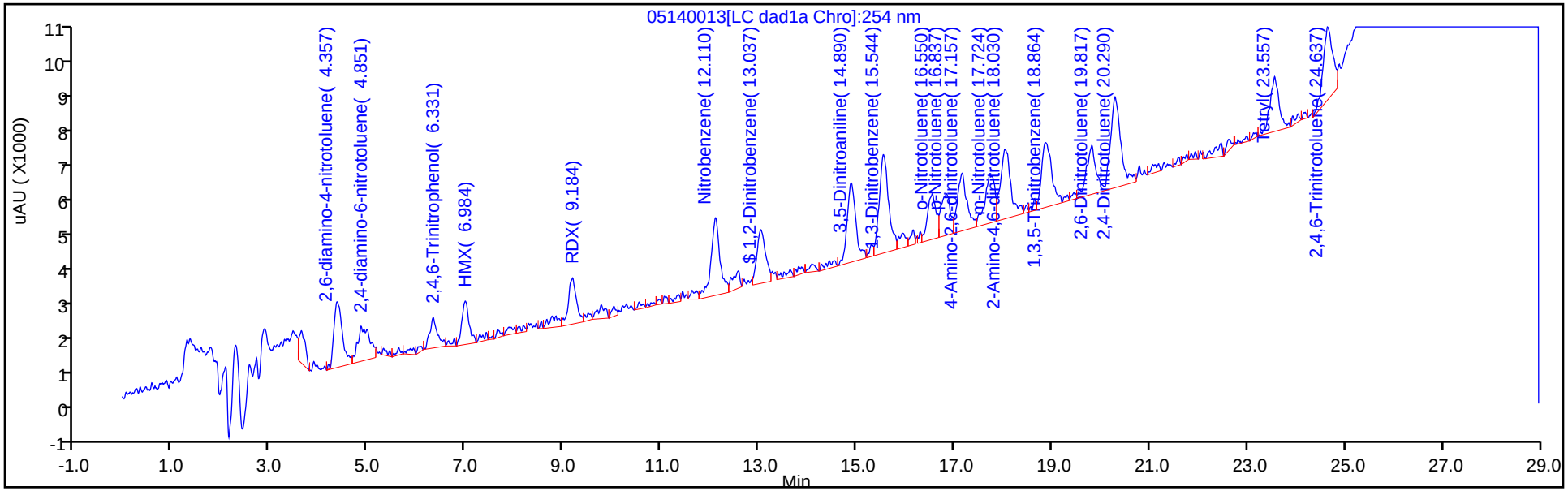
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 5.00 | Units: uL |
| 8330_ADDs_00026 | Amount Added: | 2.50 | Units: uL |

Report Date: 15-May-2020 12:00:58 Chrom Revision: 2.3 05-May-2020 17:48:18

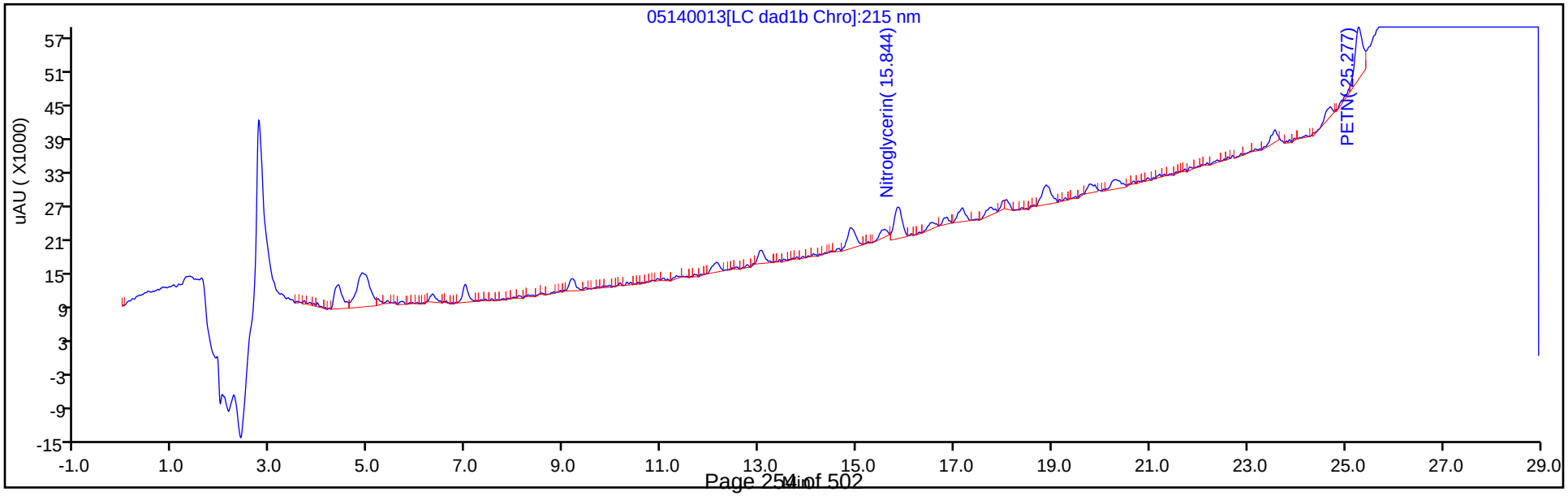
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 3 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

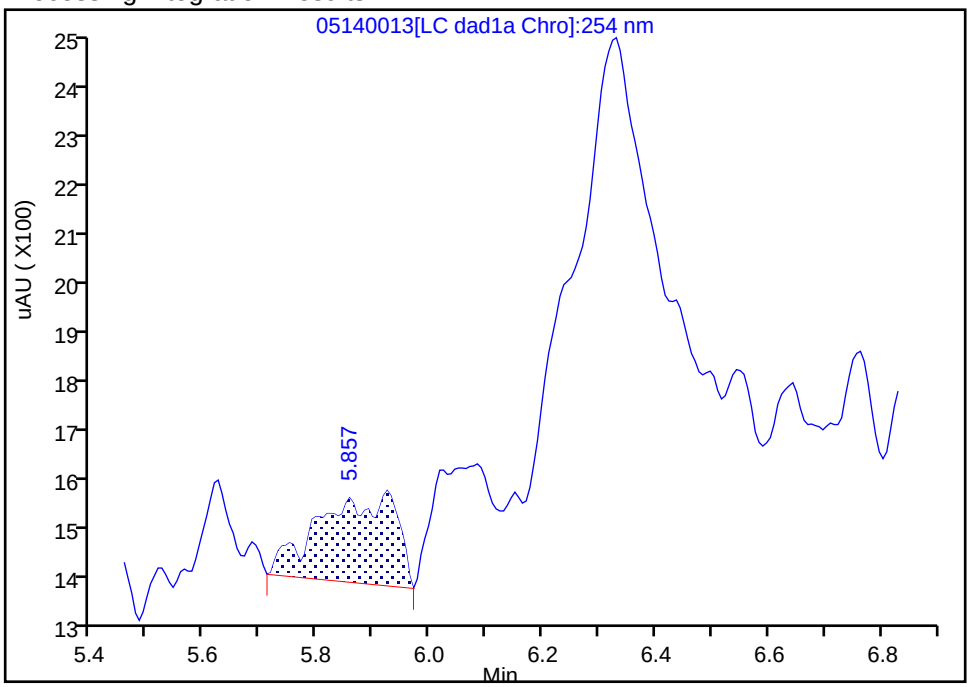
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

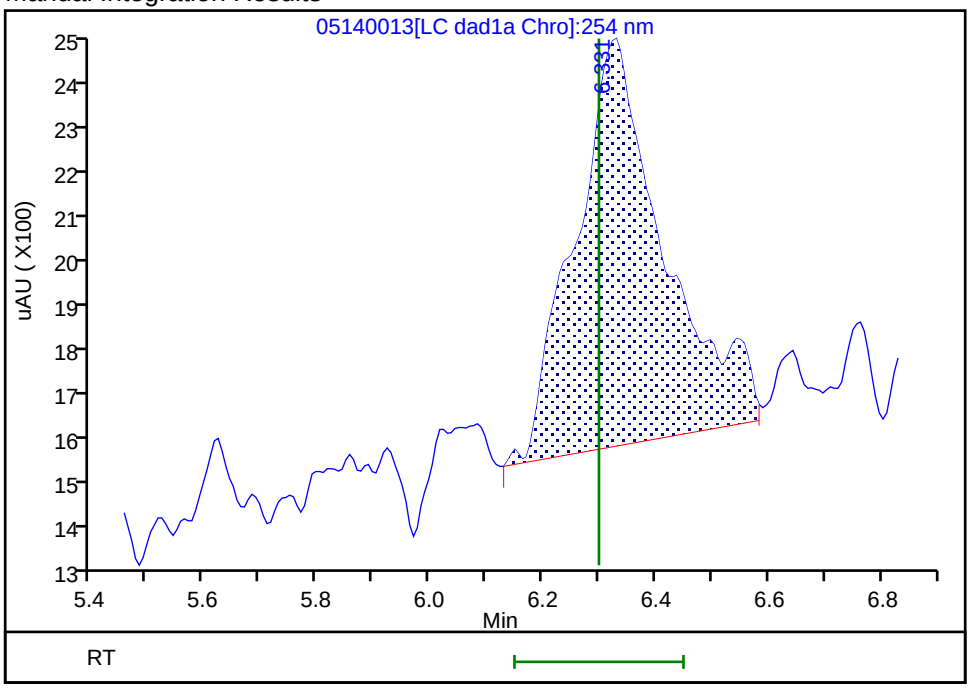
Processing Integration Results

RT: 5.86
Area: 1615
Amount: 0.011701
Amount Units: ug/ml




Manual Integration Results

RT: 6.33
Area: 9462
Amount: 0.048821
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:16
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

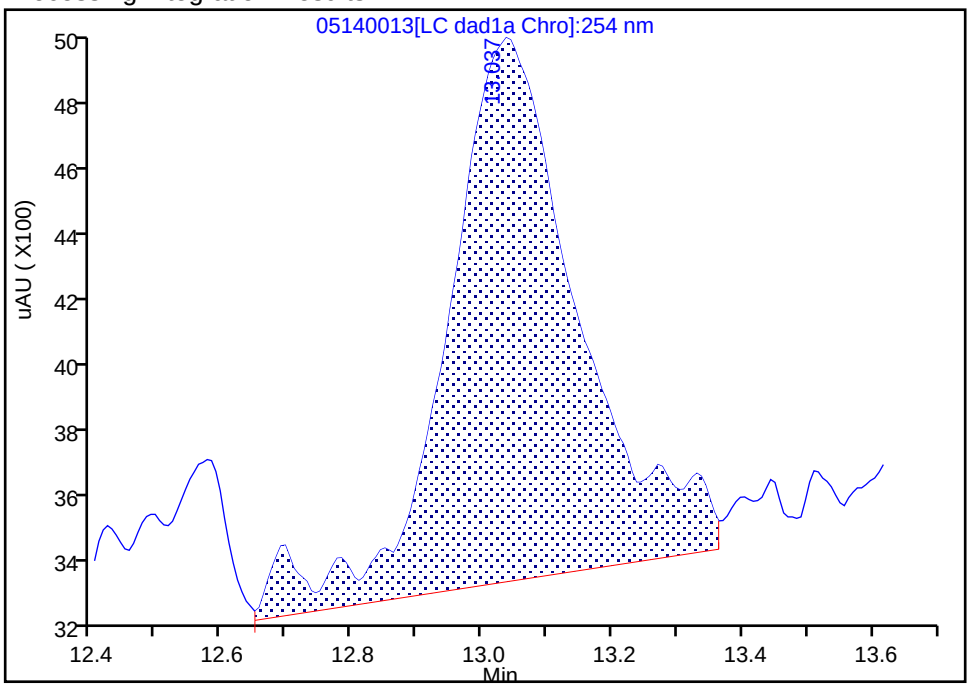
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

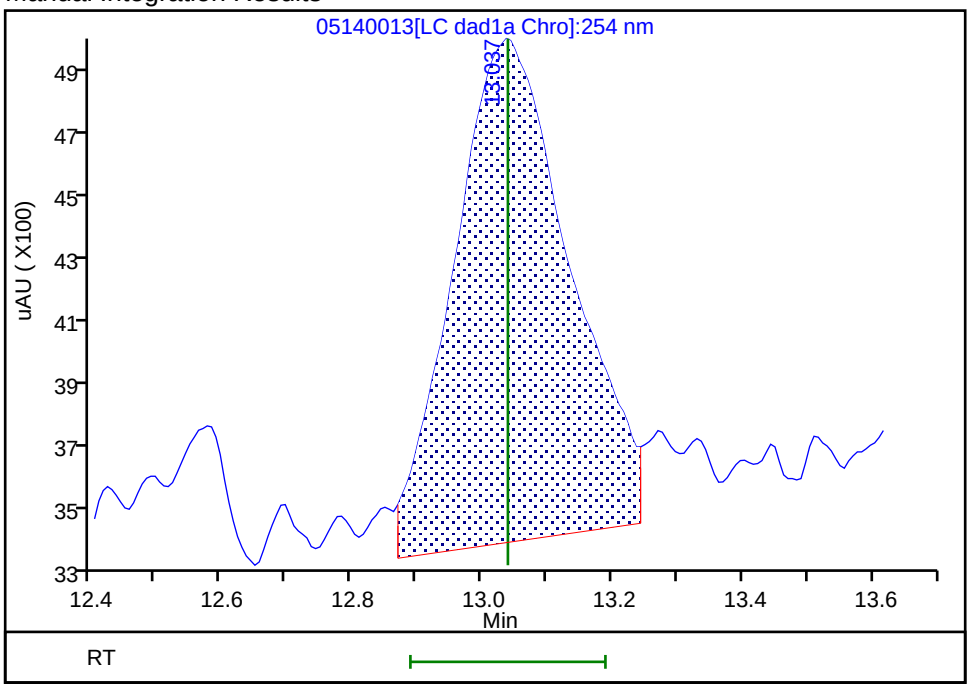
Processing Integration Results

RT: 13.04
Area: 21320
Amount: 0.066490
Amount Units: ug/ml




Manual Integration Results

RT: 13.04
Area: 18744
Amount: 0.060979
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:35:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

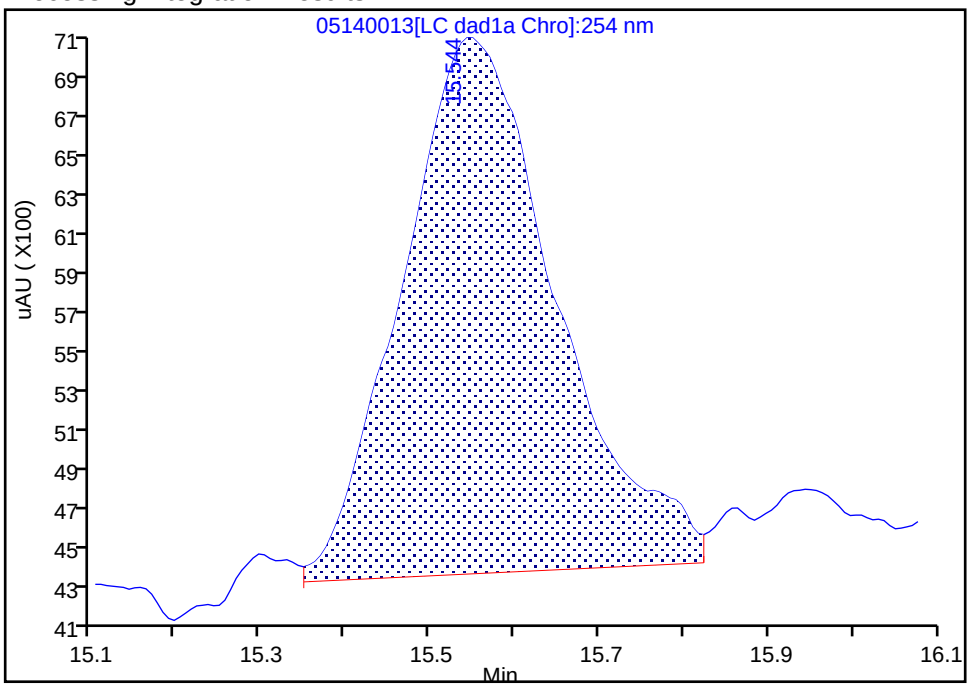
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

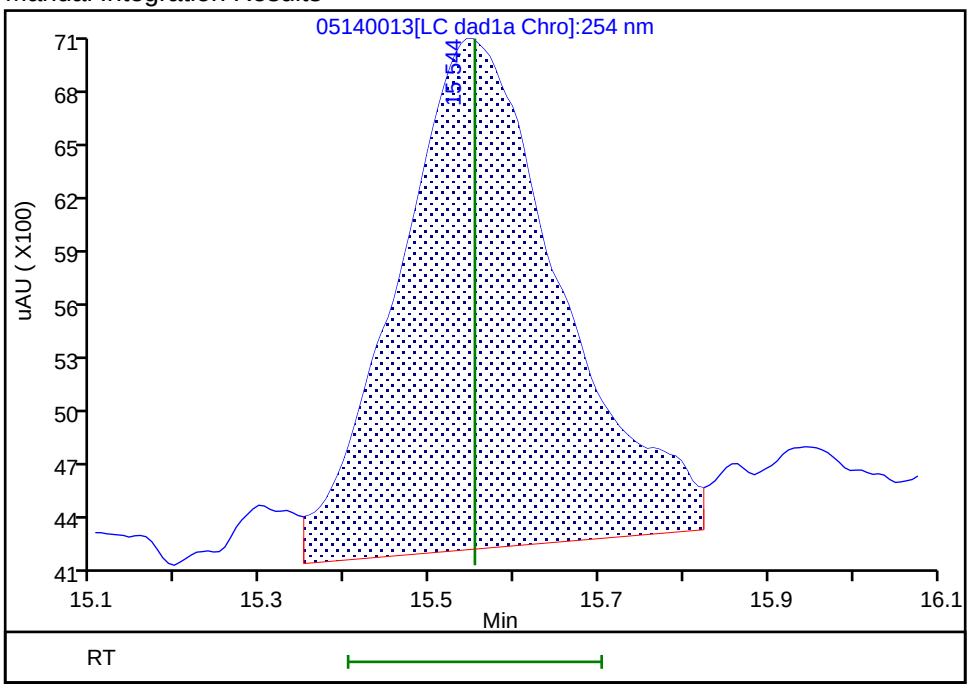
Processing Integration Results

RT: 15.54
Area: 33327
Amount: 0.049753
Amount Units: ug/ml




Manual Integration Results

RT: 15.54
Area: 37161
Amount: 0.055120
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

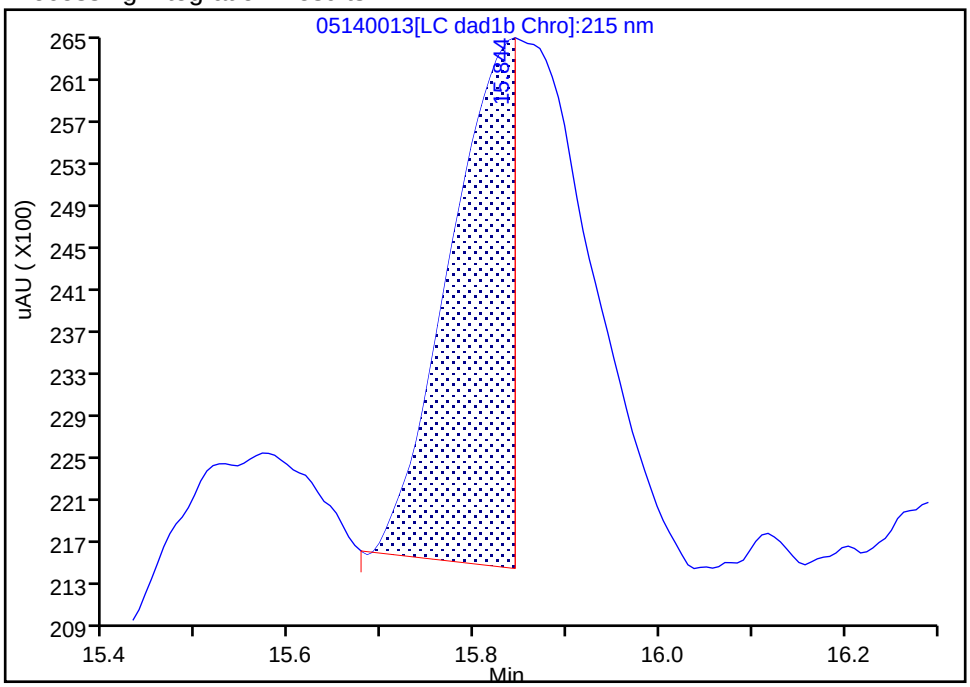
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

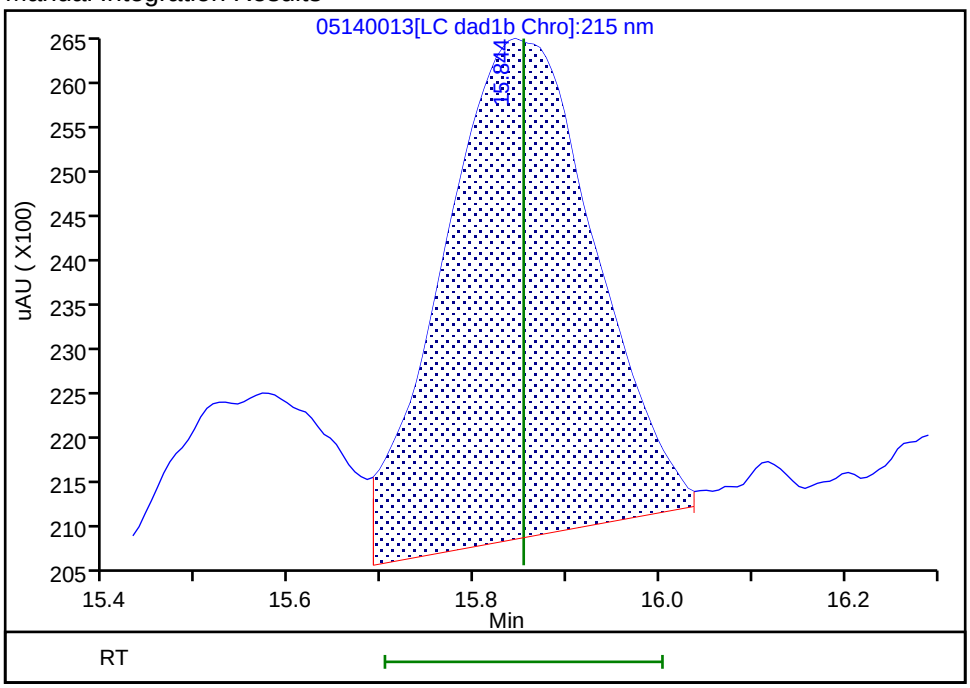
Processing Integration Results

RT: 15.84
Area: 23753
Amount: 0.203485
Amount Units: ug/ml




Manual Integration Results

RT: 15.84
Area: 64042
Amount: 0.505050
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:32:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

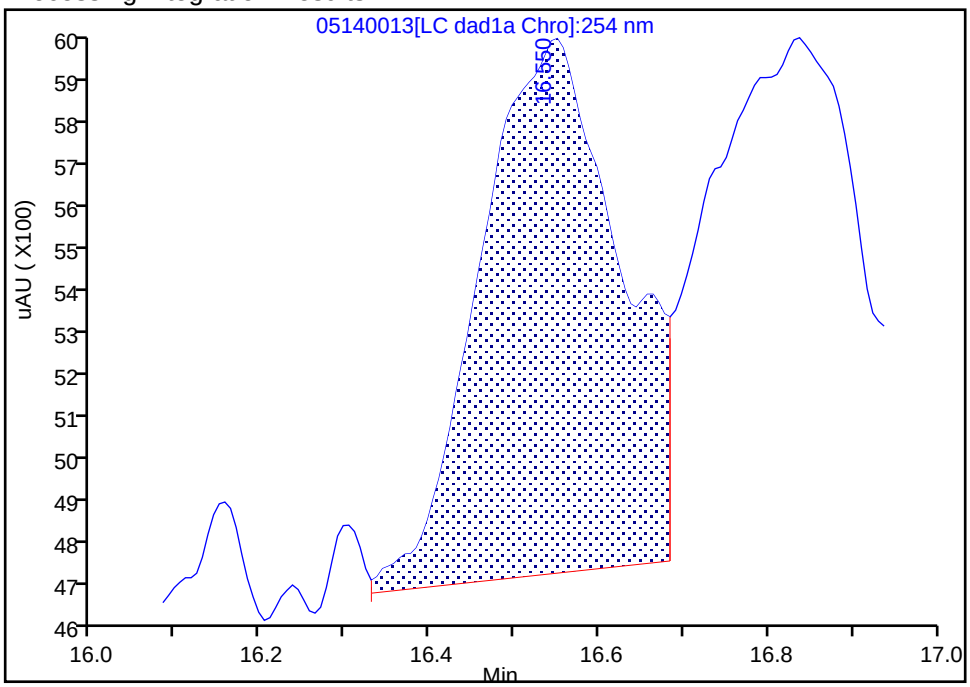
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

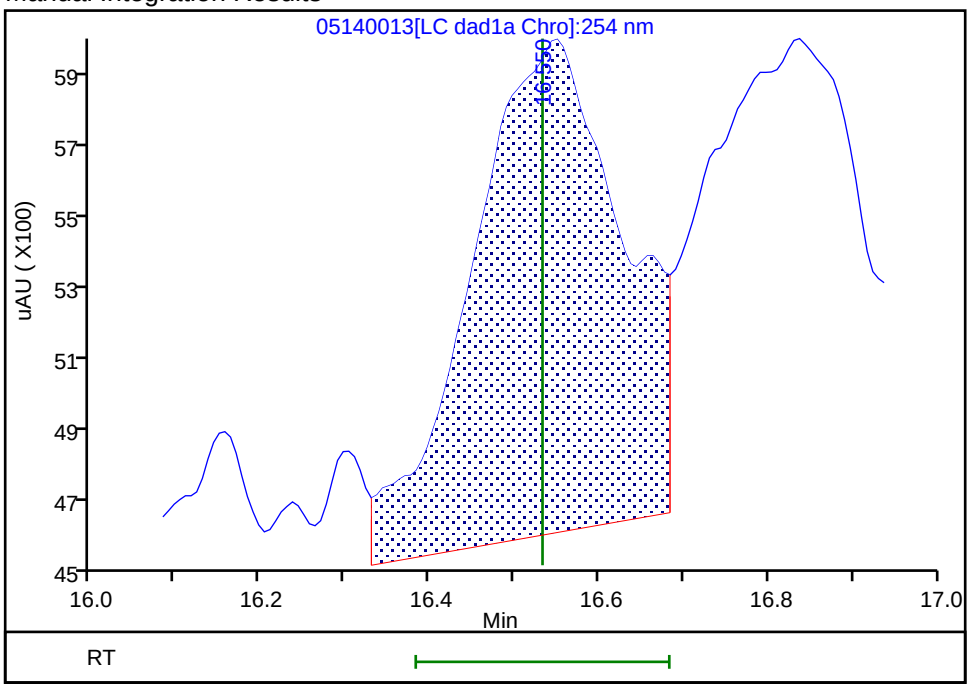
Processing Integration Results

RT: 16.55
Area: 13586
Amount: 0.049463
Amount Units: ug/ml




Manual Integration Results

RT: 16.55
Area: 16003
Amount: 0.058627
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

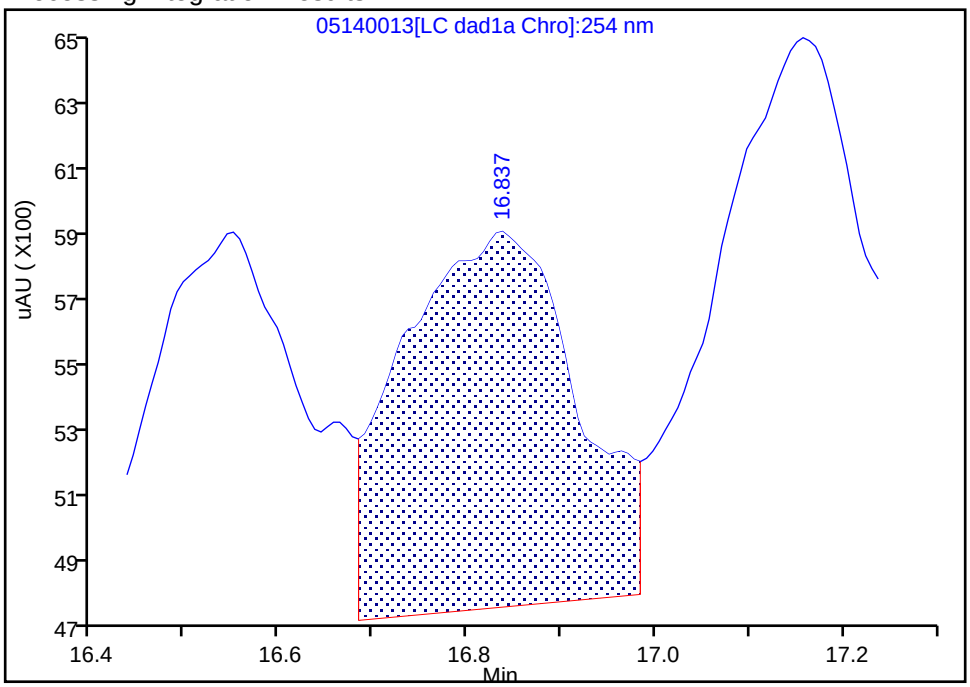
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

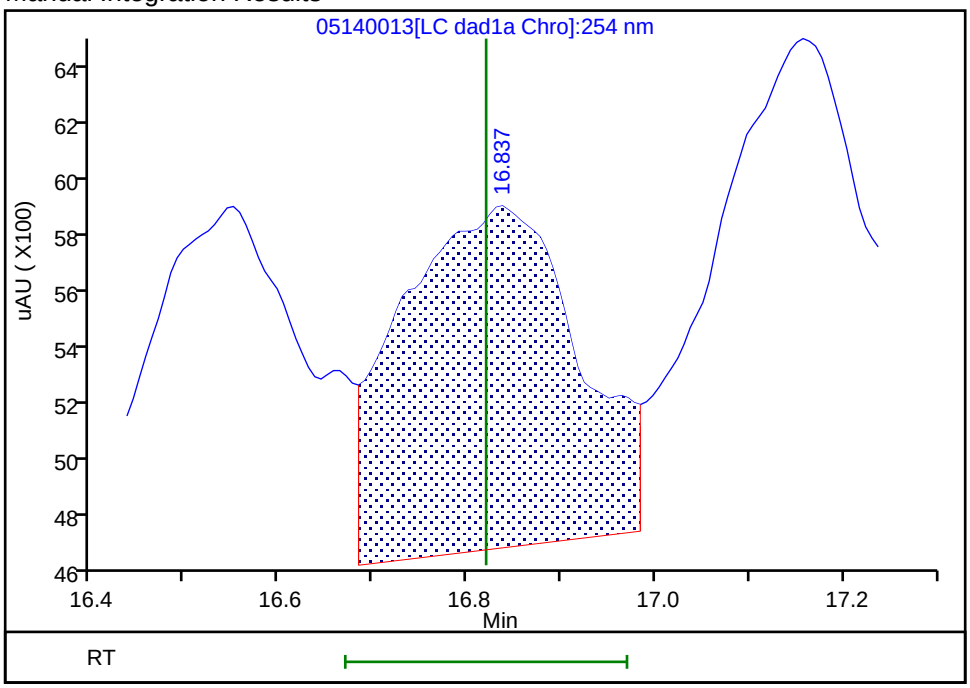
Processing Integration Results

RT: 16.84
Area: 14394
Amount: 0.057129
Amount Units: ug/ml




Manual Integration Results

RT: 16.84
Area: 15492
Amount: 0.064314
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

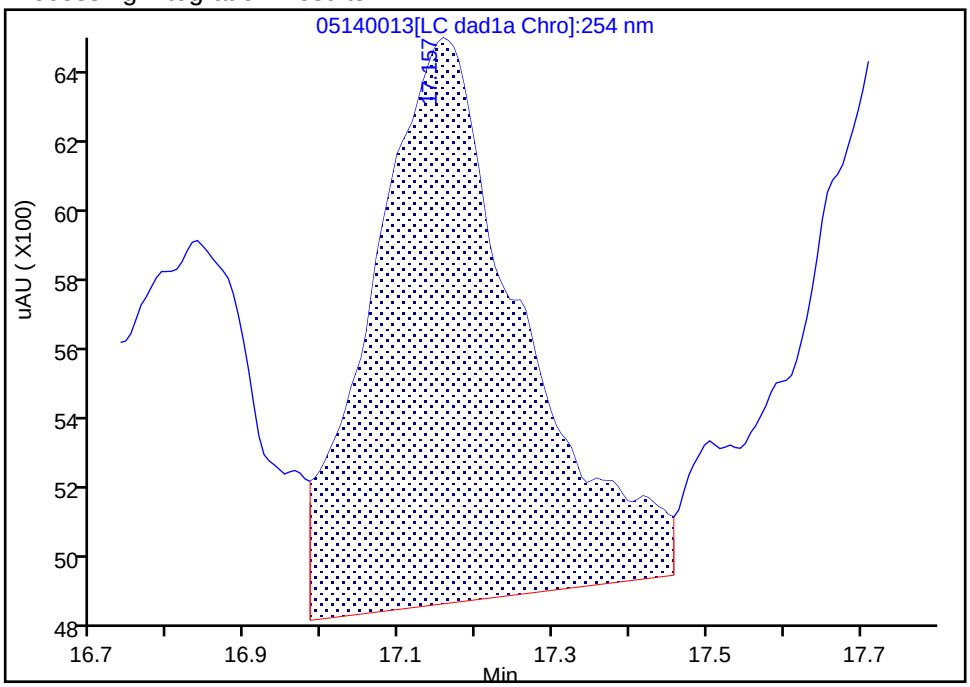
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

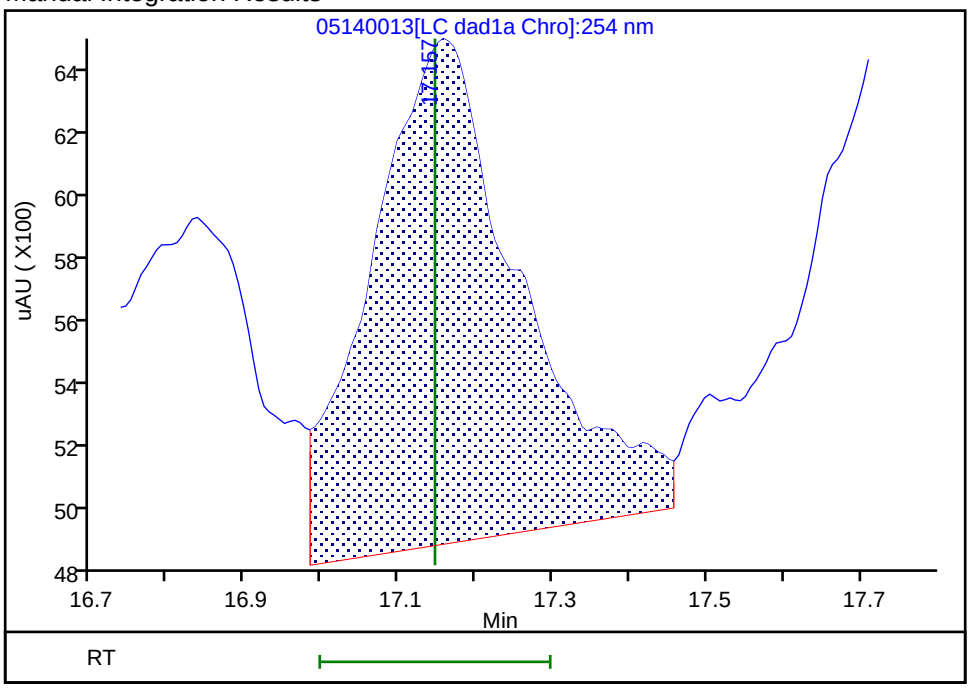
Processing Integration Results

RT: 17.16
Area: 21749
Amount: 0.062679
Amount Units: ug/ml




Manual Integration Results

RT: 17.16
Area: 22118
Amount: 0.064067
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

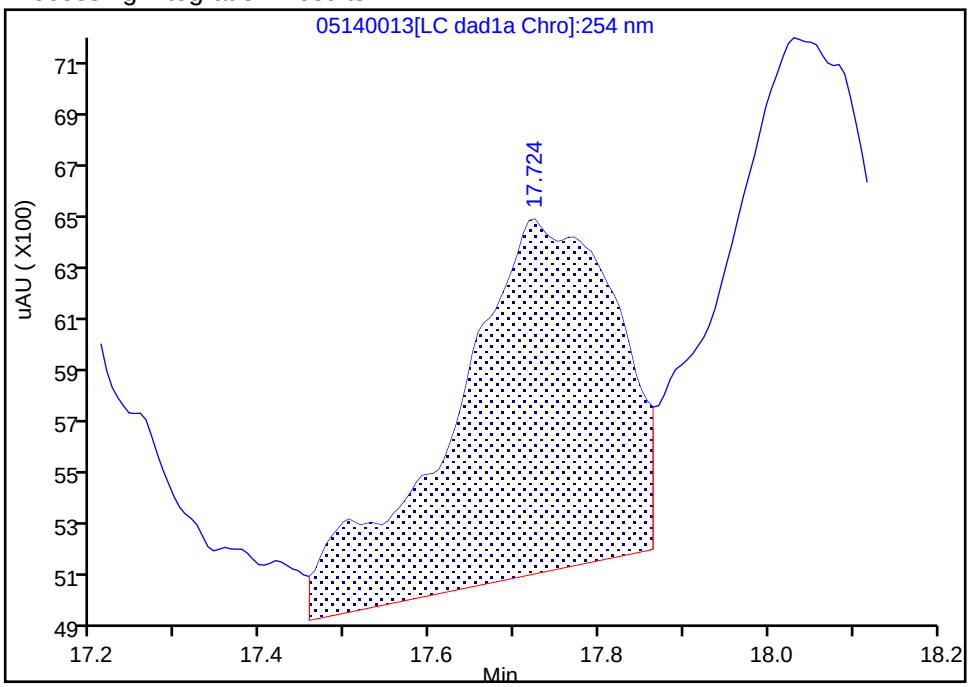
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

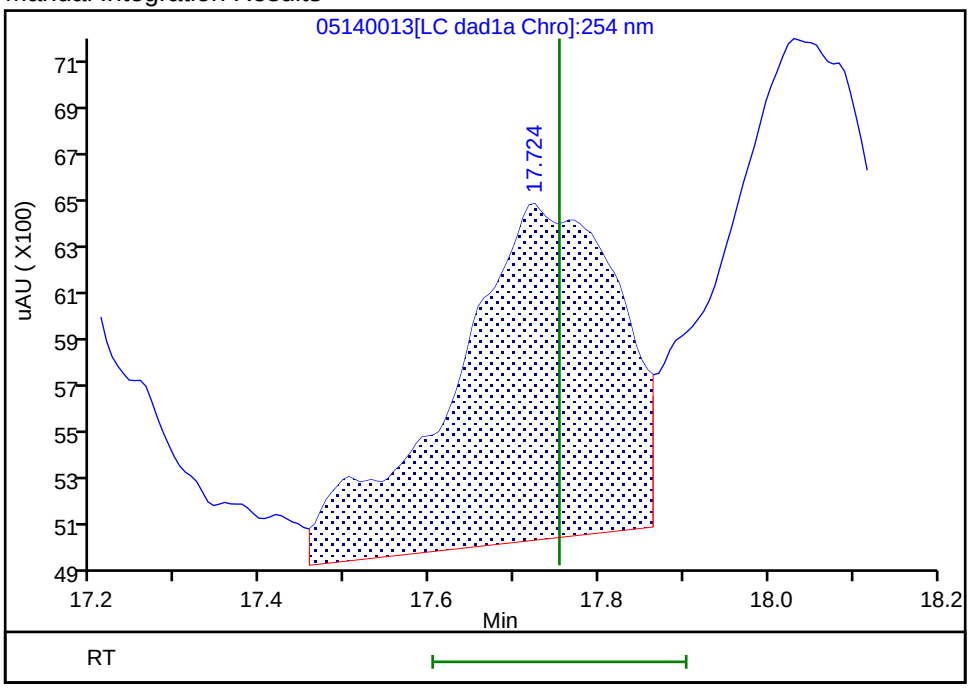
Processing Integration Results

RT: 17.72
Area: 18317
Amount: 0.062732
Amount Units: ug/ml




Manual Integration Results

RT: 17.72
Area: 19280
Amount: 0.064627
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

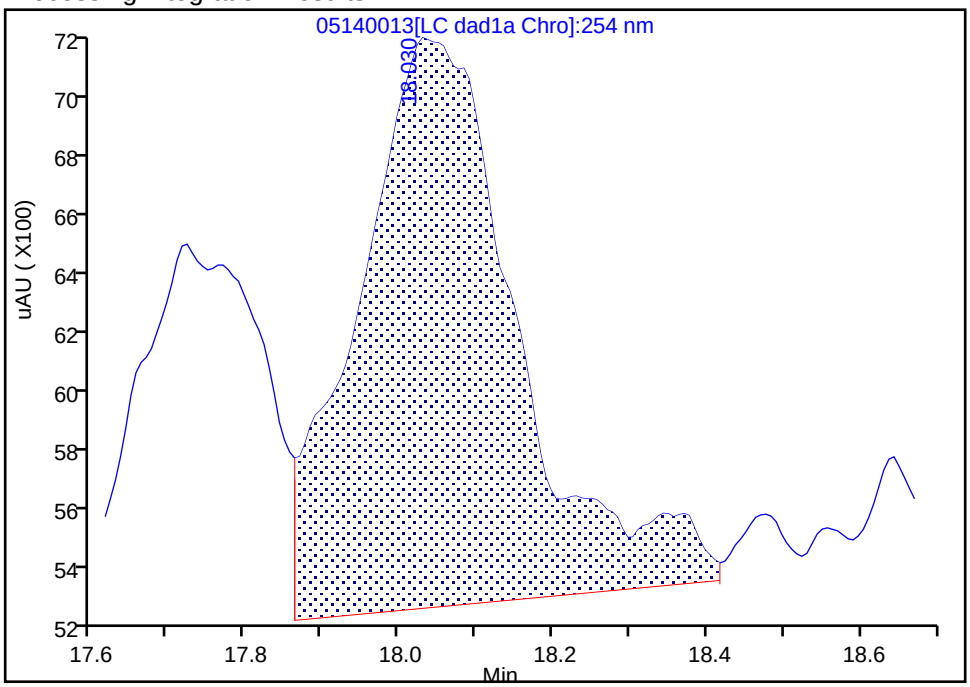
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

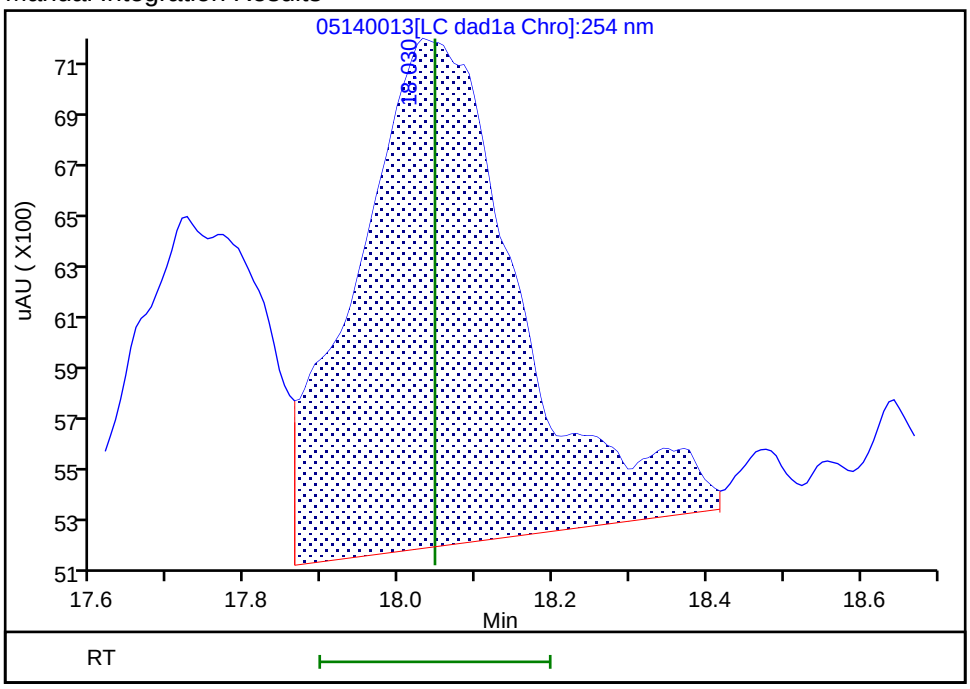
Processing Integration Results

RT: 18.03
Area: 27239
Amount: 0.055134
Amount Units: ug/ml




Manual Integration Results

RT: 18.03
Area: 28982
Amount: 0.062299
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

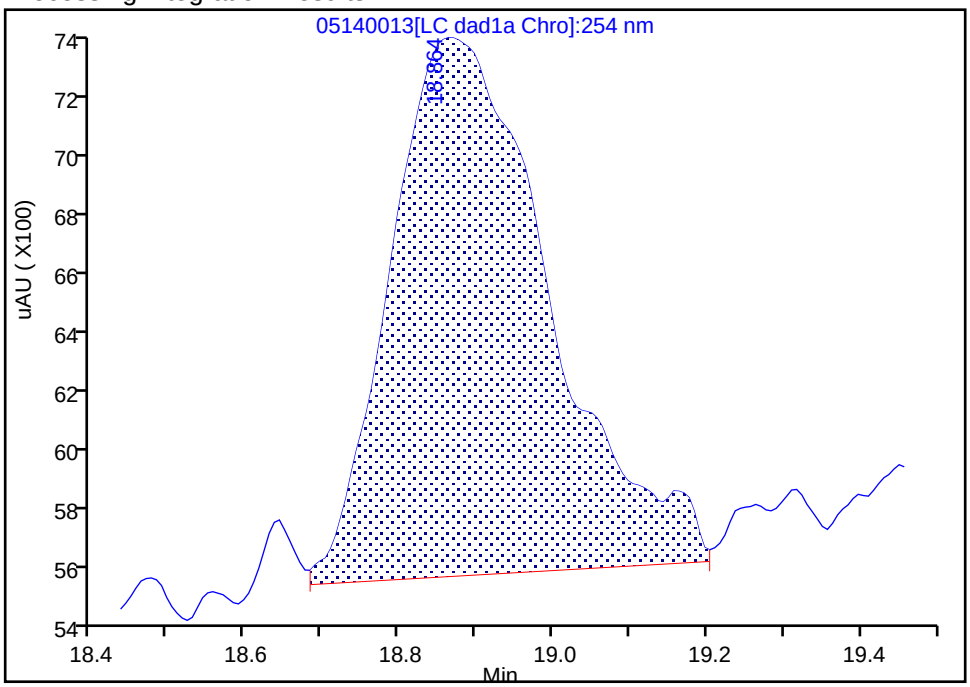
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

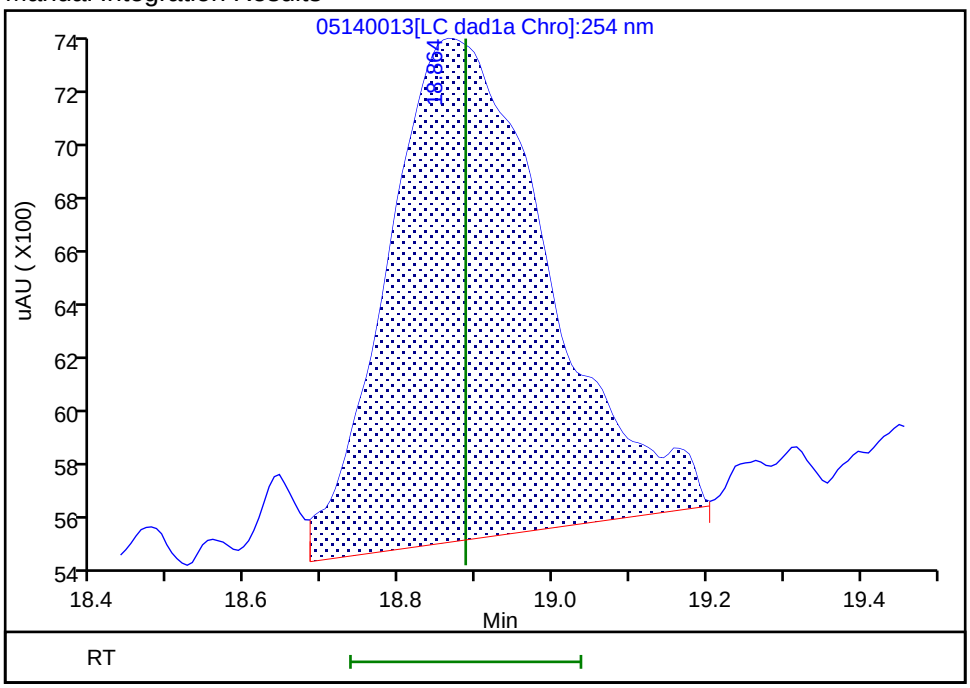
Processing Integration Results

RT: 18.86
Area: 25370
Amount: 0.053396
Amount Units: ug/ml




Manual Integration Results

RT: 18.86
Area: 26649
Amount: 0.056406
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

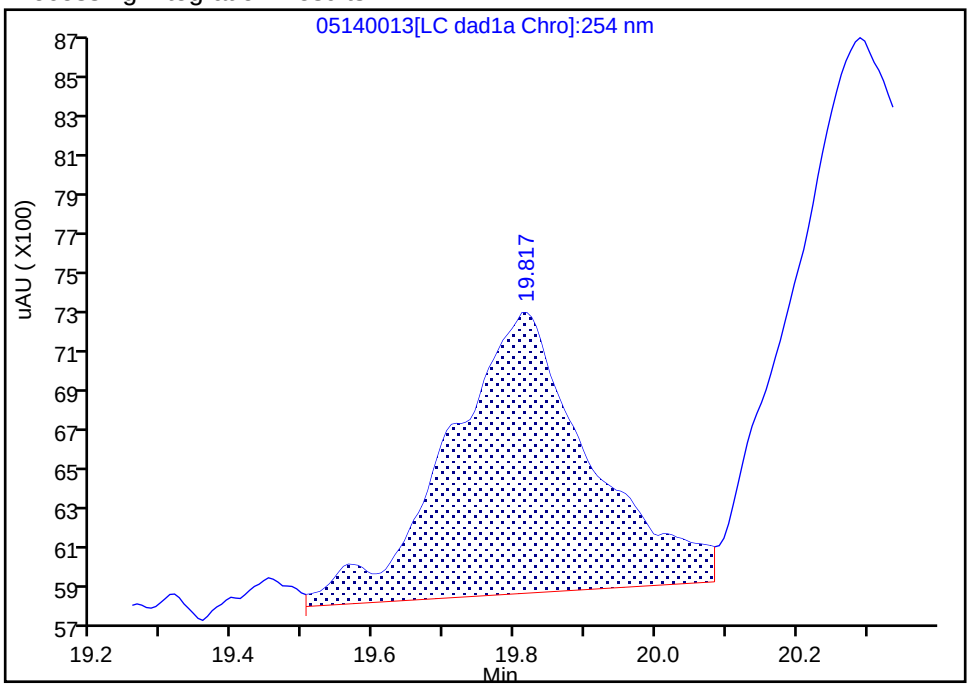
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

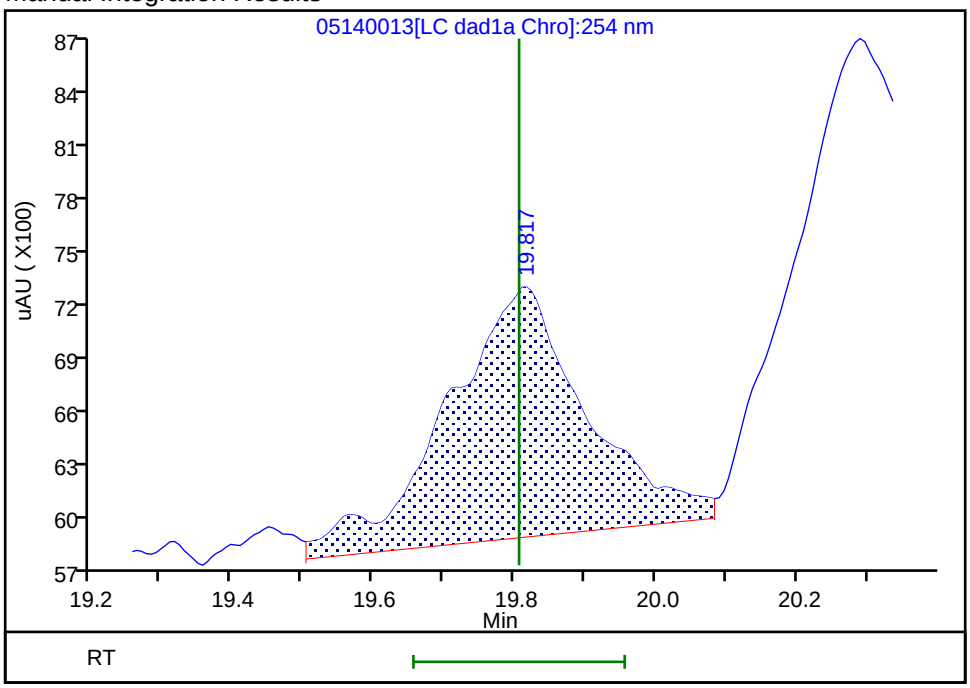
Processing Integration Results

RT: 19.82
Area: 19664
Amount: 0.057481
Amount Units: ug/ml




Manual Integration Results

RT: 19.82
Area: 19107
Amount: 0.050727
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

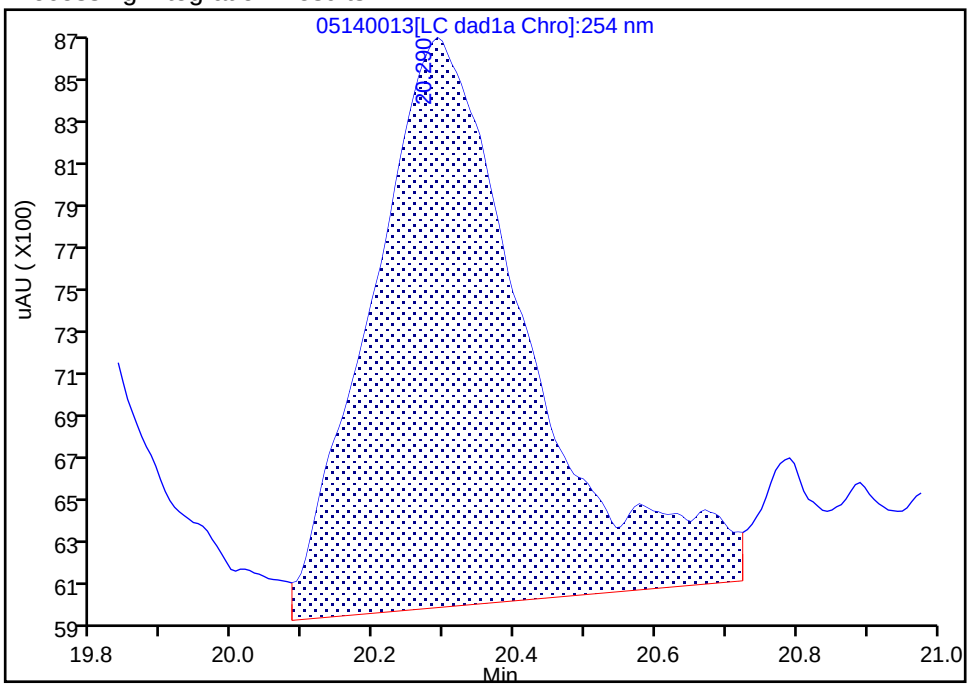
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

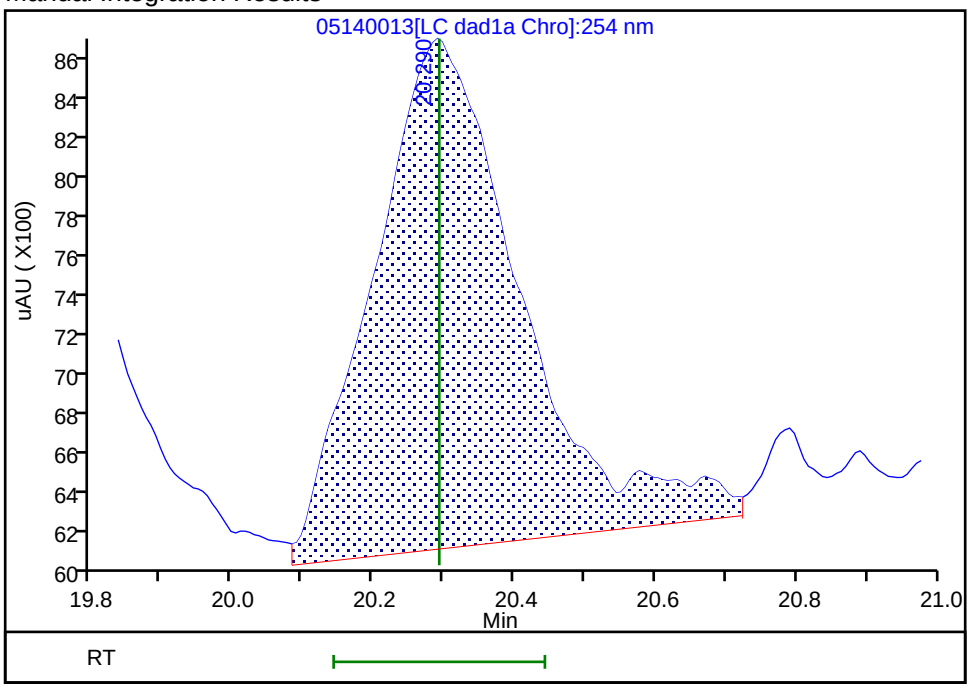
Processing Integration Results

RT: 20.29
Area: 41123
Amount: 0.062799
Amount Units: ug/ml




Manual Integration Results

RT: 20.29
Area: 37302
Amount: 0.058274
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

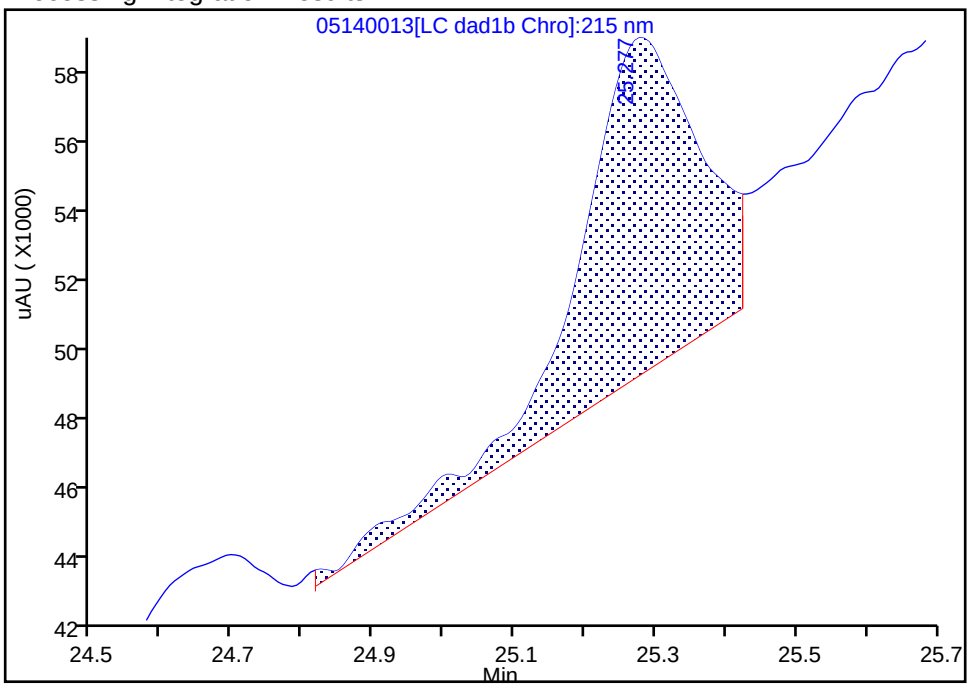
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d | | | | |
| Injection Date: | 14-May-2020 19:46:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

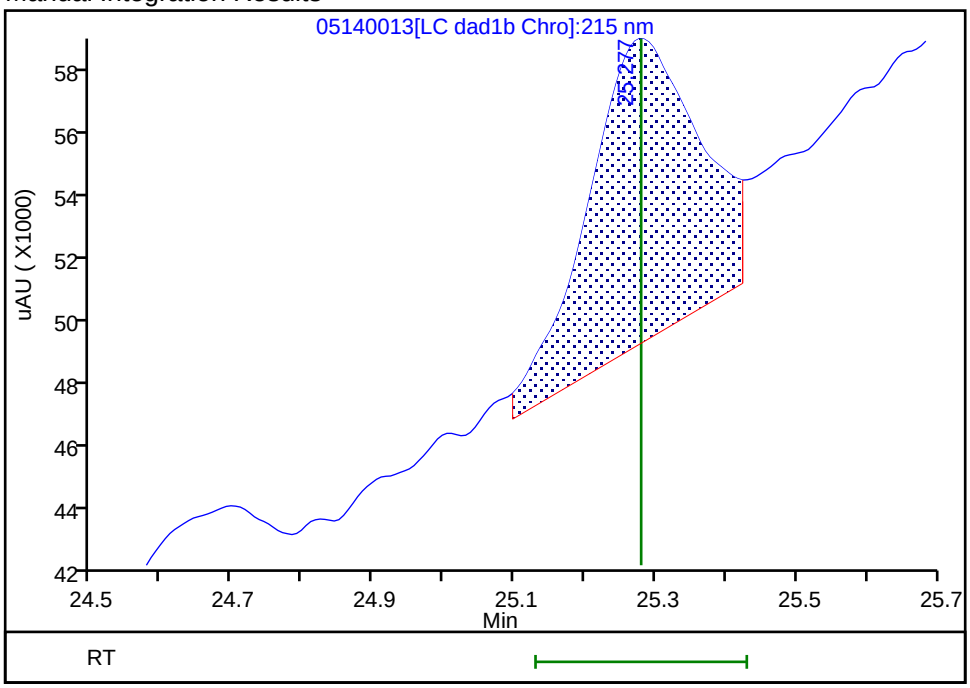
Processing Integration Results

RT: 25.28
Area: 109947
Amount: 0.773174
Amount Units: ug/ml




Manual Integration Results

RT: 25.28
Area: 102120
Amount: 0.578199
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:24:48
Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140014.D
Lims ID: IC FULL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-May-2020 20:21:33 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 2
Misc. Info.: 280-0091518-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.375 | 4.366 | 0.009 | 10106 | 0.0200 | 0.0235 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.855 | 4.880 | -0.025 | 9147 | 0.0200 | 0.0152 | |
| 5 2,4,6-Trinitrophenol | 1 | 6.322 | 6.300 | 0.022 | 5683 | 0.0250 | 0.0293 | a |
| 6 HMX | 1 | 6.982 | 6.986 | -0.004 | 10018 | 0.0250 | 0.0265 | |
| 8 RDX | 1 | 9.095 | 9.173 | -0.078 | 6286 | 0.0250 | 0.0257 | |
| 9 Nitrobenzene | 1 | 12.095 | 12.106 | -0.011 | 10325 | 0.0251 | 0.0235 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.022 | 13.040 | -0.018 | 8436 | 0.0250 | 0.0238 | M |
| 11 3,5-Dinitroaniline | 1 | 14.862 | 14.886 | -0.024 | 12305 | 0.0200 | 0.0197 | |
| 12 1,3-Dinitrobenzene | 1 | 15.542 | 15.553 | -0.011 | 16280 | 0.0251 | 0.0241 | |
| 13 Nitroglycerin | 2 | 15.855 | 15.853 | 0.002 | 26546 | 0.2500 | 0.2093 | |
| 14 o-Nitrotoluene | 1 | 16.515 | 16.533 | -0.018 | 6812 | 0.0250 | 0.0250 | |
| 15 p-Nitrotoluene | 1 | 16.795 | 16.820 | -0.025 | 5374 | 0.0251 | 0.0223 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.155 | 17.146 | 0.009 | 9369 | 0.0250 | 0.0271 | |
| 17 m-Nitrotoluene | 1 | 17.748 | 17.753 | -0.005 | 6920 | 0.0250 | 0.0232 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.048 | 18.046 | 0.002 | 10376 | 0.0251 | 0.0223 | |
| 19 1,3,5-Trinitrobenzene | 1 | 18.855 | 18.886 | -0.031 | 10822 | 0.0251 | 0.0229 | |
| 20 2,6-Dinitrotoluene | 1 | 19.828 | 19.806 | 0.022 | 11618 | 0.0251 | 0.0248 | |
| 21 2,4-Dinitrotoluene | 1 | 20.295 | 20.293 | 0.002 | 16811 | 0.0251 | 0.0263 | |
| 22 Tetryl | 1 | 23.529 | 23.553 | -0.024 | 9874 | 0.0251 | 0.0268 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.682 | 24.653 | 0.029 | 11547 | 0.0251 | 0.0209 | |
| 24 PETN | 2 | 25.282 | 25.280 | 0.002 | 20453 | 0.2500 | -0.0535 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

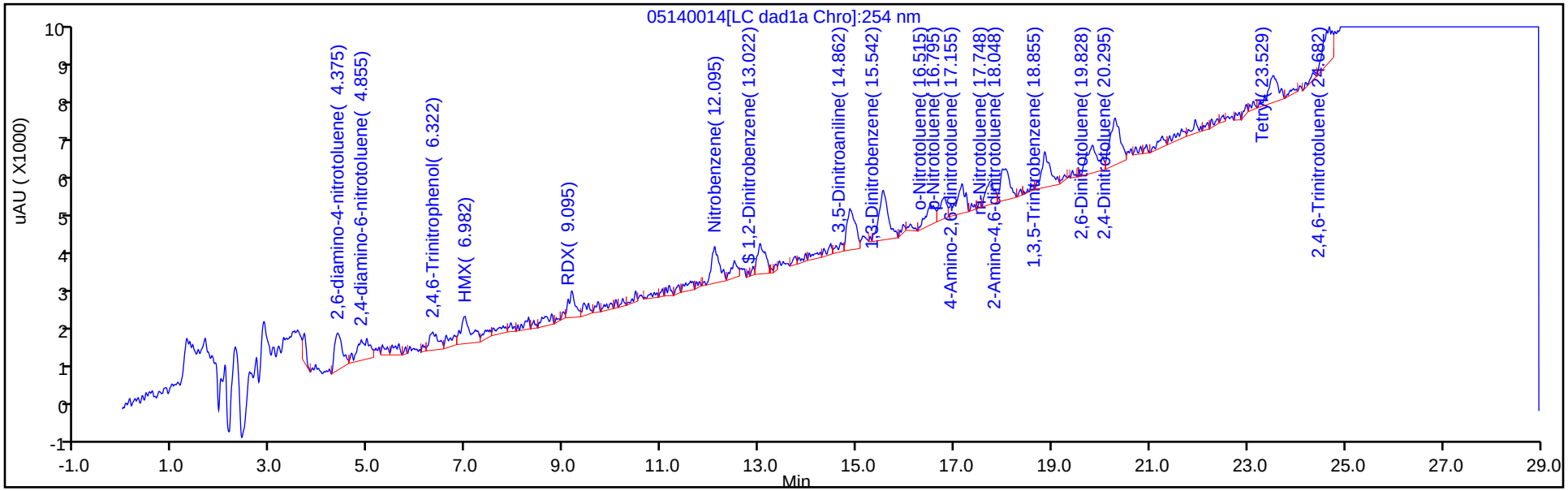
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 2.50 | Units: uL |
| 8330_ADDs_00026 | Amount Added: | 1.00 | Units: uL |

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

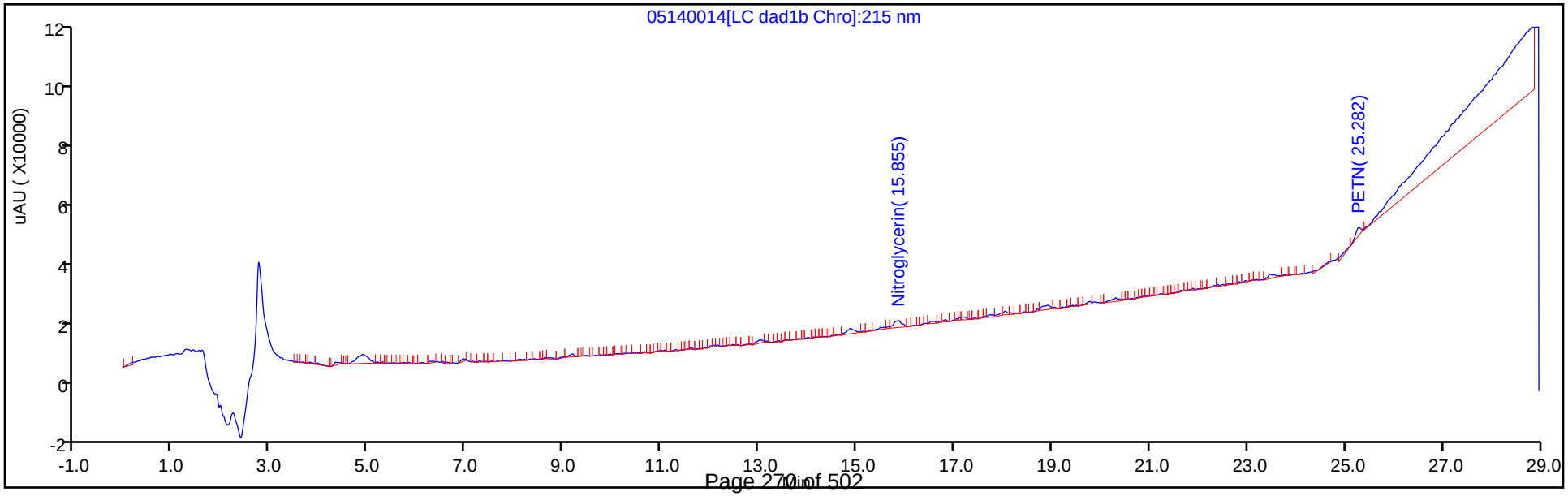
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d | | | | |
| Injection Date: | 14-May-2020 20:21:33 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 2 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

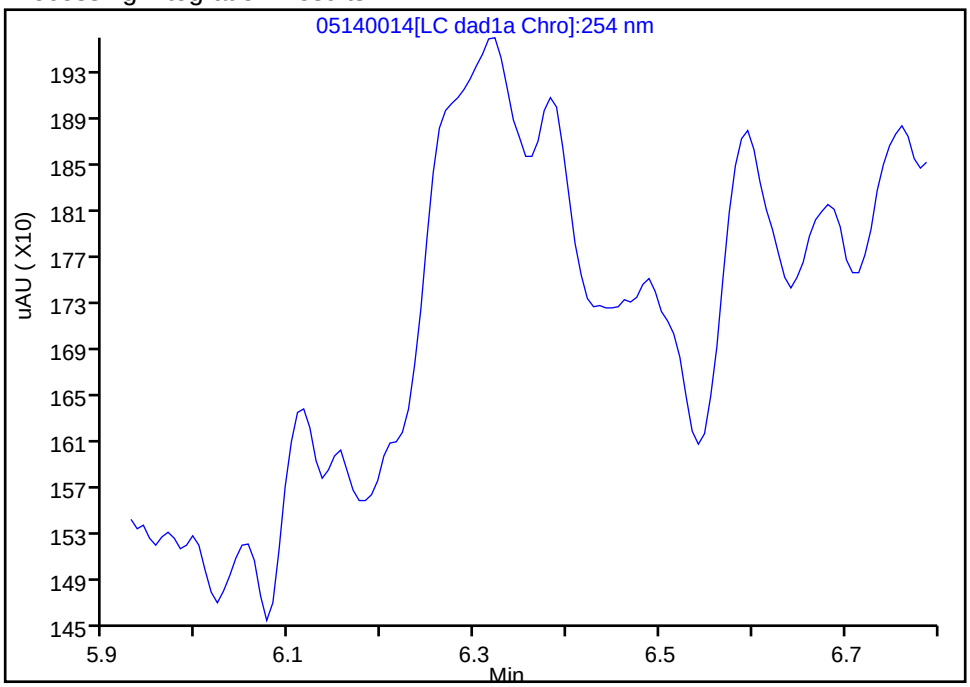
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d | | | | |
| Injection Date: | 14-May-2020 20:21:33 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

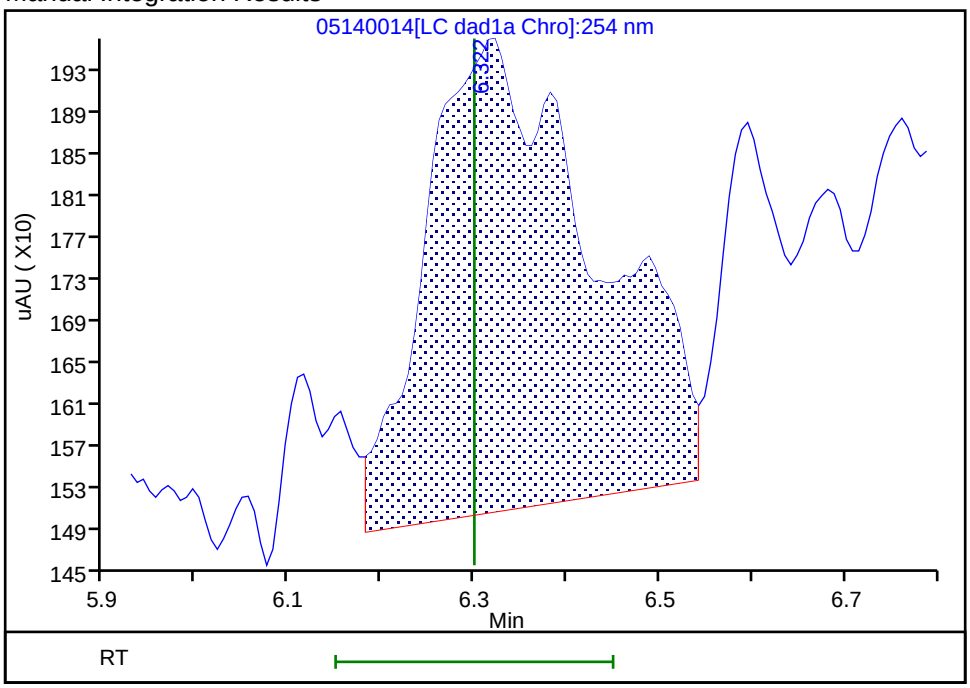
Not Detected
Expected RT: 6.30

Processing Integration Results




Manual Integration Results

RT: 6.32
Area: 5683
Amount: 0.029323
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:22:29
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

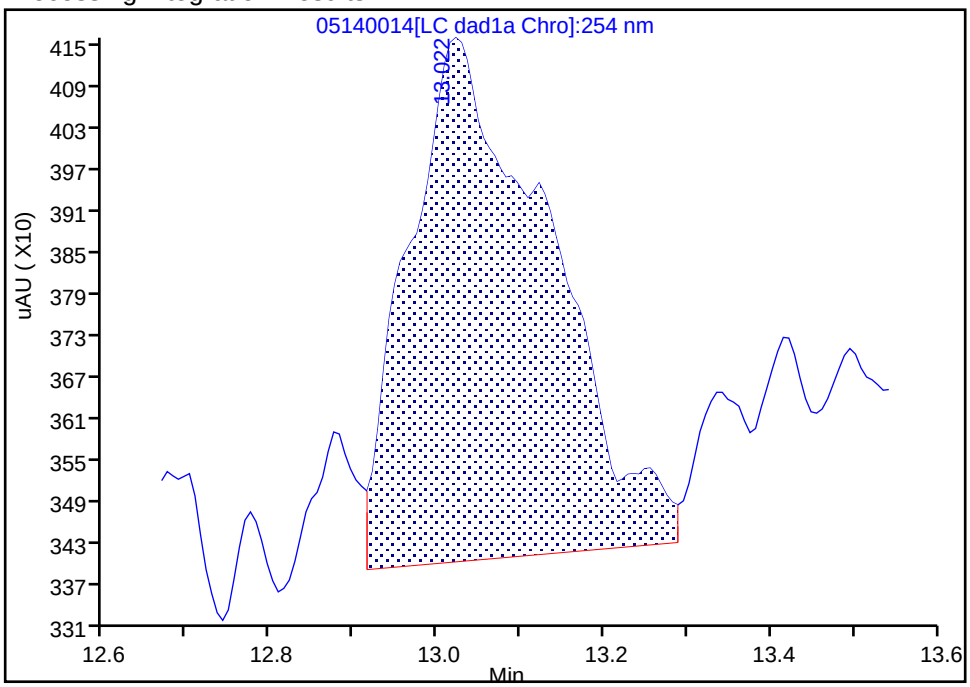
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d | | | | |
| Injection Date: | 14-May-2020 20:21:33 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

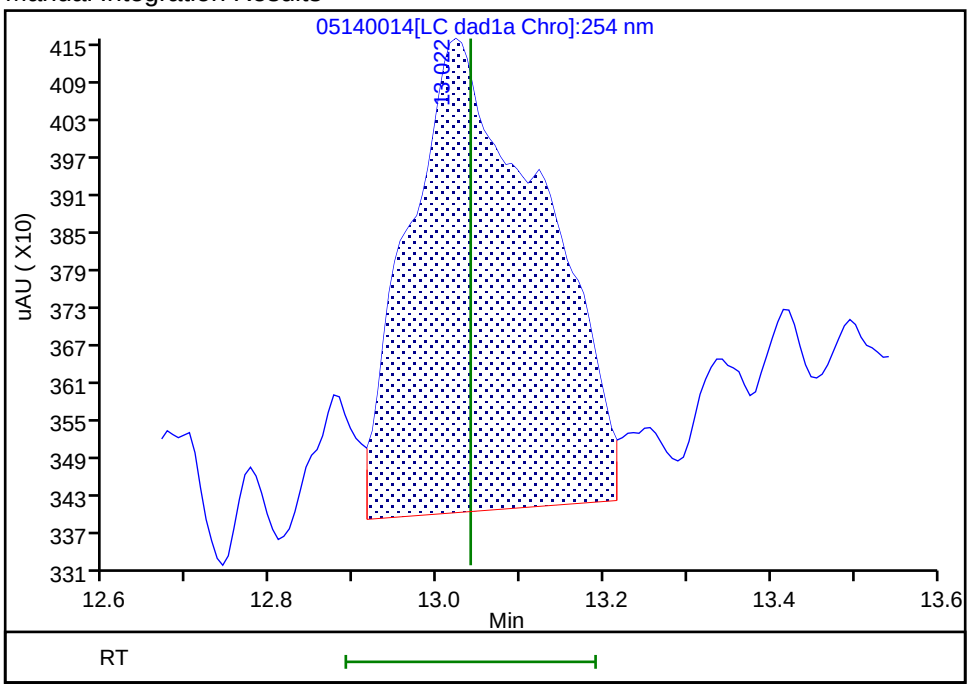
Processing Integration Results

RT: 13.02
Area: 8831
Amount: 0.029561
Amount Units: ug/ml




Manual Integration Results

RT: 13.02
Area: 8436
Amount: 0.023796
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:35:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

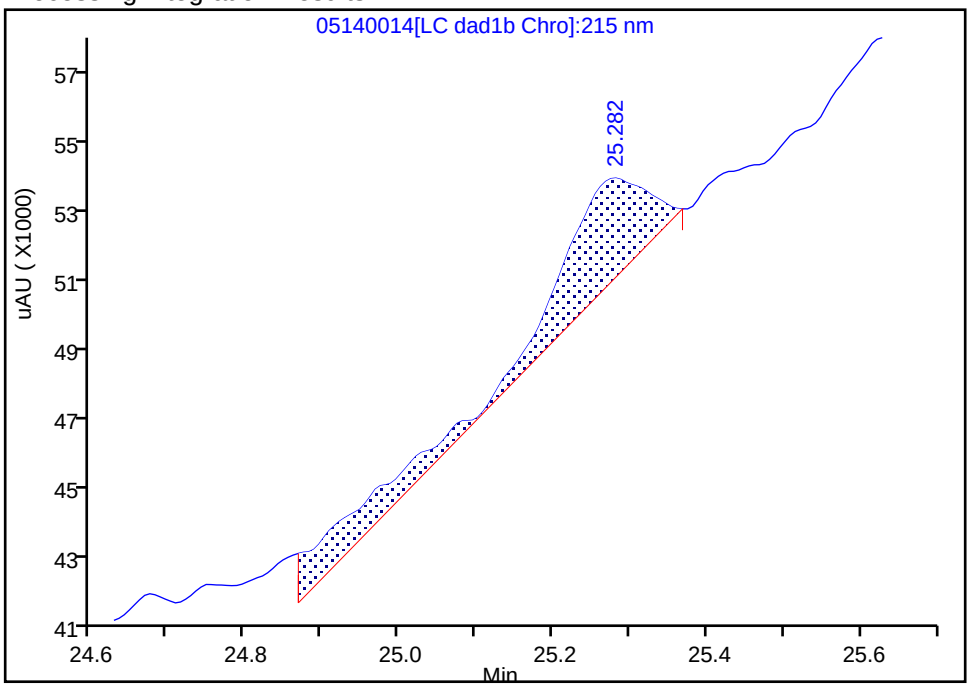
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d | | | | |
| Injection Date: | 14-May-2020 20:21:33 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

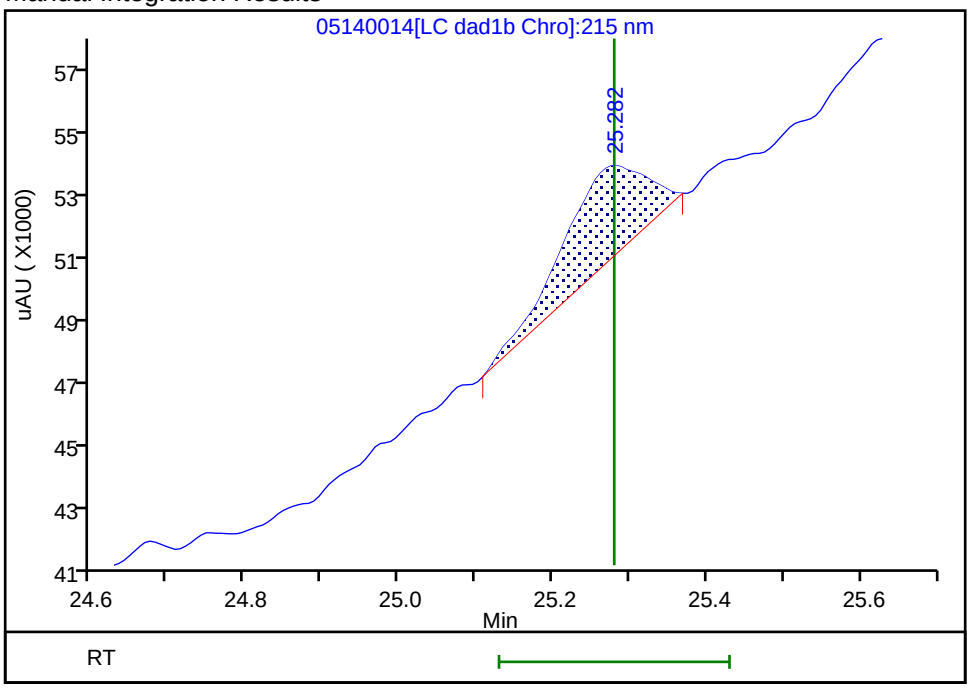
Processing Integration Results

RT: 25.28
Area: 31007
Amount: 0.129673
Amount Units: ug/ml




Manual Integration Results

RT: 25.28
Area: 20453
Amount: -0.053470
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:24:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-May-2020 20:56:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0091518-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:24:04

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | | 4.366 | | | ND | ND | U |
| 2 2,4-diamino-6-nitrotoluene | 1 | | 4.880 | | | ND | ND | U |
| 5 2,4,6-Trinitrophenol | 1 | | 6.300 | | | ND | ND | U |
| 6 HMX | 1 | | 6.986 | | | ND | ND | U |
| 8 RDX | 1 | | 9.173 | | | ND | ND | U |
| 9 Nitrobenzene | 1 | | 12.106 | | | ND | ND | U |
| $ 10 1,2-Dinitrobenzene | 1 | | 13.040 | | | ND | ND | U |
| 11 3,5-Dinitroaniline | 1 | | 14.886 | | | ND | ND | U |
| 12 1,3-Dinitrobenzene | 1 | | 15.553 | | | ND | ND | U |
| 13 Nitroglycerin | 2 | | 15.853 | | | ND | ND | U |
| 14 o-Nitrotoluene | 1 | | 16.533 | | | ND | ND | U |
| 15 p-Nitrotoluene | 1 | | 16.820 | | | ND | ND | U |
| 16 4-Amino-2,6-dinitrotoluene | 1 | | 17.146 | | | ND | ND | U |
| 17 m-Nitrotoluene | 1 | | 17.753 | | | ND | ND | U |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 18.046 | | | ND | ND | U |
| 19 1,3,5-Trinitrobenzene | 1 | | 18.886 | | | ND | ND | U |
| 20 2,6-Dinitrotoluene | 1 | 19.755 | 19.806 | -0.051 | 4758 | 0.0126 | 0.001113 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.295 | 20.293 | 0.002 | 7990 | 0.0126 | 0.0125 | M |
| 22 Tetryl | 1 | | 23.553 | | | ND | ND | U |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.653 | | | ND | ND | U |
| 24 PETN | 2 | | 25.280 | | | ND | ND | U |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

## Reagents:

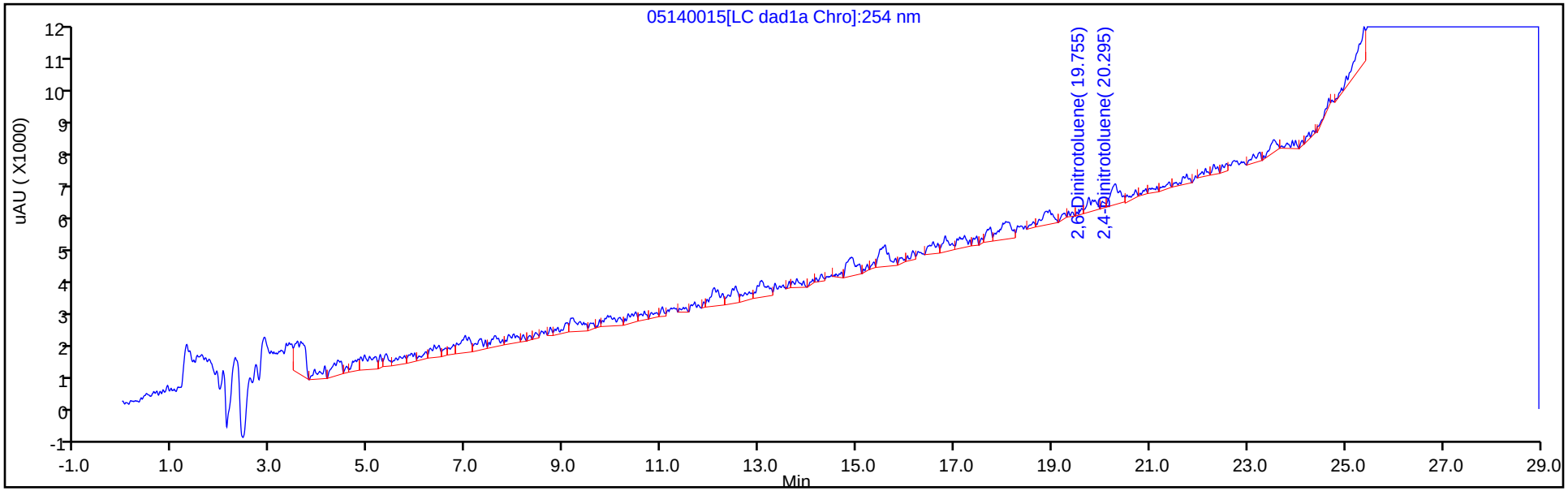
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 1.25 | Units: uL |
| 8330_ADDs_00026 | Amount Added: | 0.50 | Units: uL |

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

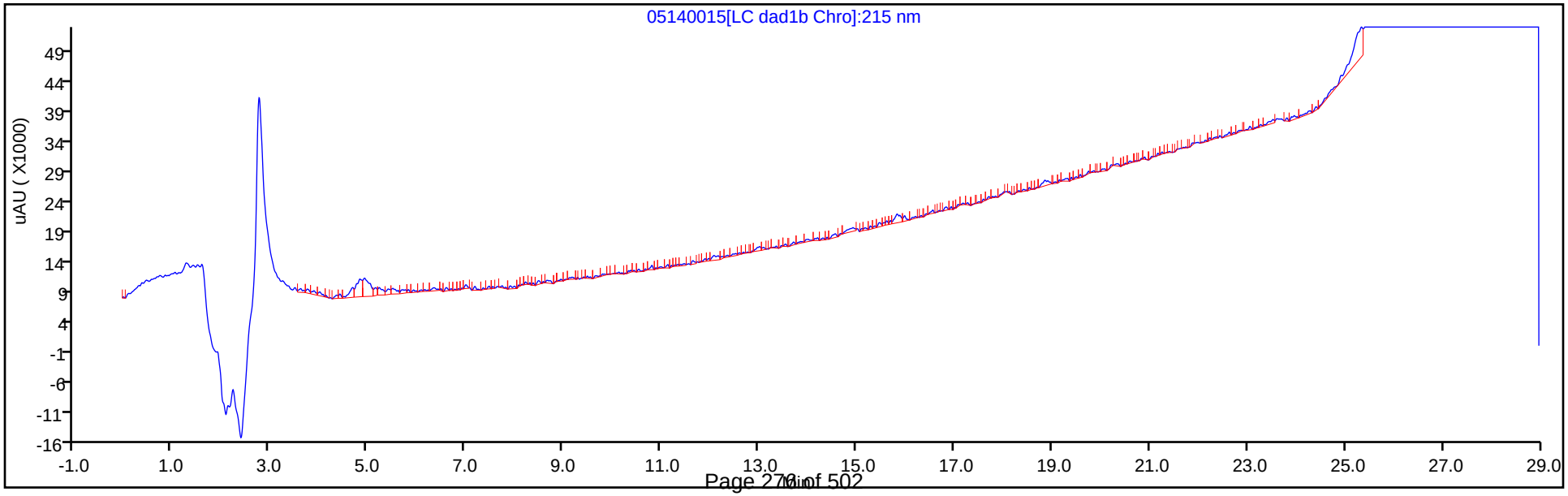
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d | | | | |
| Injection Date: | 14-May-2020 20:56:30 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC FULL 1 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

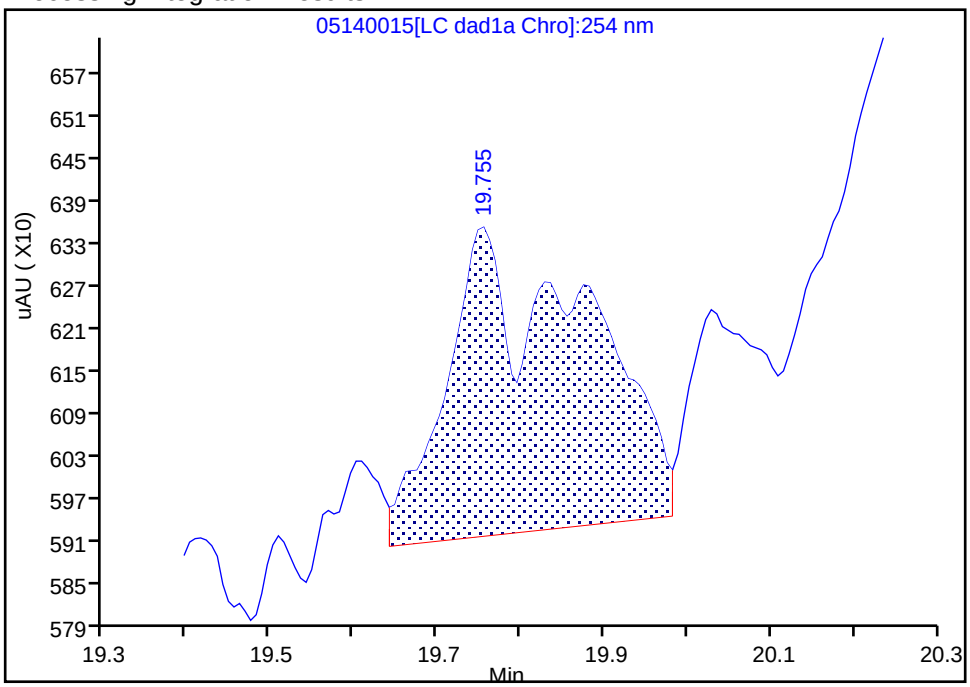
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d | | | | |
| Injection Date: | 14-May-2020 20:56:30 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

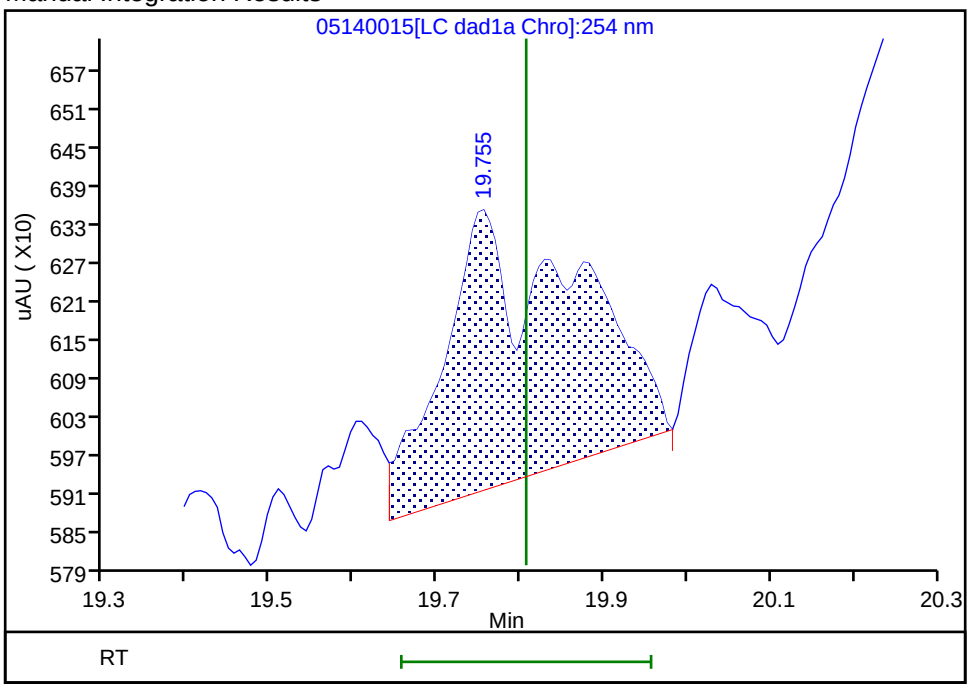
Processing Integration Results

RT: 19.76
Area: 5064
Amount: 0.014857
Amount Units: ug/ml




Manual Integration Results

RT: 19.76
Area: 4758
Amount: 0.001113
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

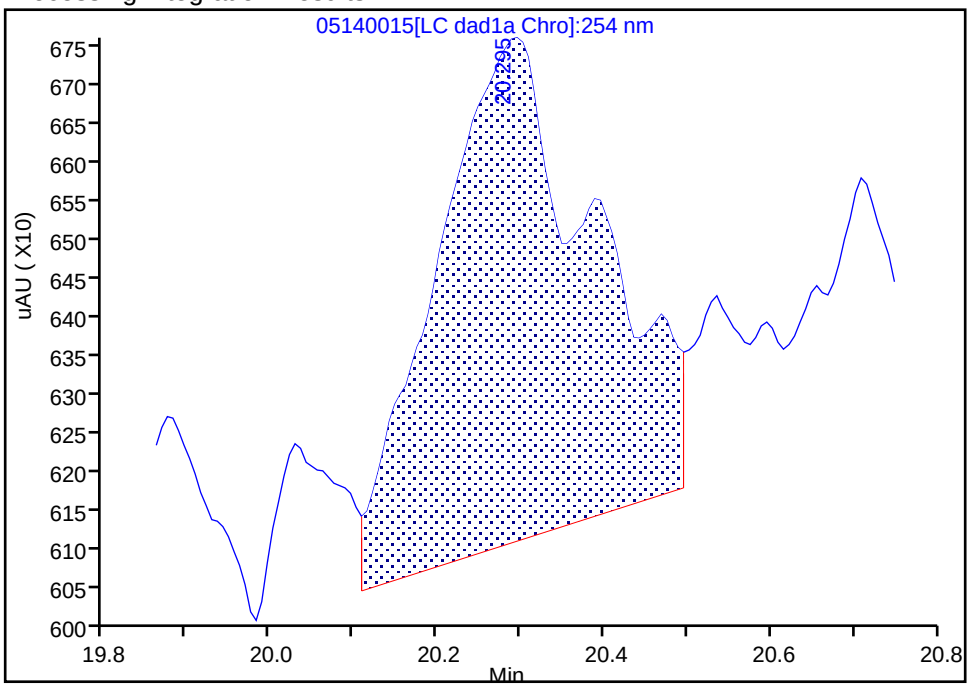
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d | | | | |
| Injection Date: | 14-May-2020 20:56:30 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

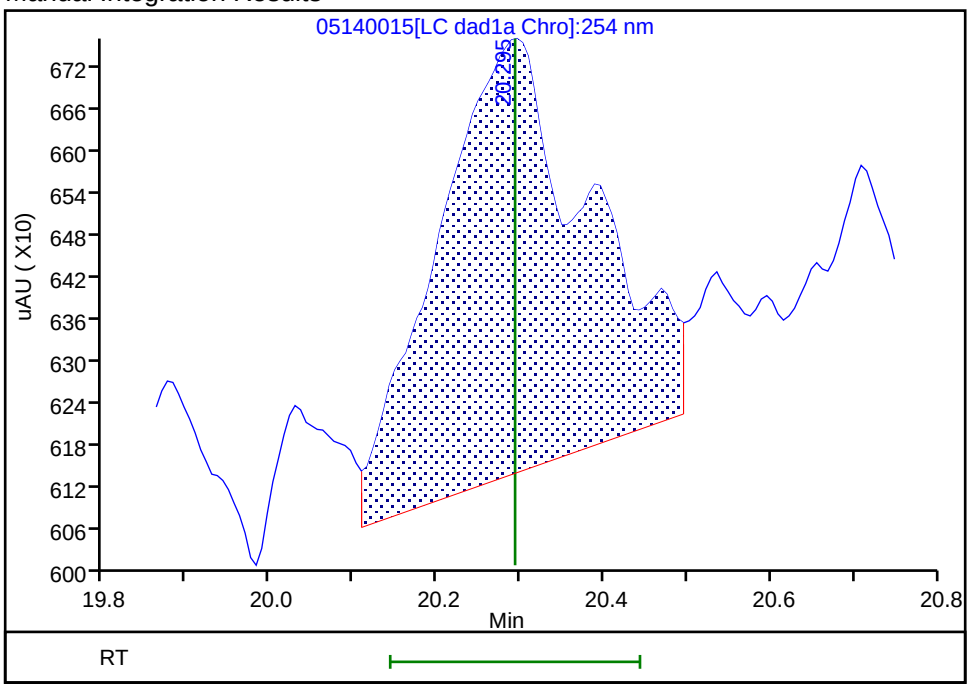
Processing Integration Results

RT: 20.30
Area: 8698
Amount: 0.013456
Amount Units: ug/ml




Manual Integration Results

RT: 20.30
Area: 7990
Amount: 0.012482
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/24 | 05140024.D |
| Level 2 | IC 280-494886/23 | 05140023.D |
| Level 3 | IC 280-494886/22 | 05140022.D |
| Level 4 | IC 280-494886/21 | 05140021.D |
| Level 5 | IC 280-494886/20 | 05140020.D |
| Level 6 | IC 280-494886/19 | 05140019.D |
| Level 7 | IC 280-494886/18 | 05140018.D |
| Level 8 | IC 280-494886/17 | 05140017.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 5.430 | 5.411 | 5.420 | 5.417 | 5.419 | 5.416 | 5.408 | 5.395 | | | 5.267 - 5.567 | 5.415 |
| DNX | 6.217 | 6.224 | 6.226 | 6.231 | 6.226 | 6.223 | 6.214 | 6.202 | | | 6.081 - 6.381 | 6.220 |
| MNX | 7.737 | 7.744 | 7.740 | 7.744 | 7.739 | 7.736 | 7.728 | 7.709 | | | 7.594 - 7.894 | 7.735 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/24 | 05140024.D |
| Level 2 | IC 280-494886/23 | 05140023.D |
| Level 3 | IC 280-494886/22 | 05140022.D |
| Level 4 | IC 280-494886/21 | 05140021.D |
| Level 5 | IC 280-494886/20 | 05140020.D |
| Level 6 | IC 280-494886/19 | 05140019.D |
| Level 7 | IC 280-494886/18 | 05140018.D |
| Level 8 | IC 280-494886/17 | 05140017.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 552048<br>411823 | 425974<br>414575 | 452338<br>409749 | 404831<br>415188 | Ave | | 435815.884 | | | | 11.3 | | 20.0 | | | |
| DNX | 380619<br>318914 | 320939<br>302202 | 322807<br>308244 | 308000<br>307920 | Ave | | 321205.643 | | | | 7.8 | | 20.0 | | | |
| MNX | 510454<br>287059 | 337087<br>281216 | 295227<br>270908 | 285954<br>281272 | Lin2 | 5408.61434 | 266896.431 | | | | | | | 0.9970 | | 0.9900 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-494886/24 | 05140024.D |
| Level 2 | IC 280-494886/23 | 05140023.D |
| Level 3 | IC 280-494886/22 | 05140022.D |
| Level 4 | IC 280-494886/21 | 05140021.D |
| Level 5 | IC 280-494886/20 | 05140020.D |
| Level 6 | IC 280-494886/19 | 05140019.D |
| Level 7 | IC 280-494886/18 | 05140018.D |
| Level 8 | IC 280-494886/17 | 05140017.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 | 11052<br>290493 | 21320<br>410159 | 45279<br>1039009 | 101309 | 164894 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 7620<br>211753 | 16063<br>308552 | 32313<br>770570 | 77077 | 127693 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Lin2 | 11914<br>229725 | 19669<br>316150 | 34453<br>820612 | 83427 | 133999 | 0.0233<br>0.817 | 0.0584<br>1.17 | 0.117<br>2.92 | 0.292 | 0.467 |

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140017.D | | | | |
| Lims ID: | IC DMT 9 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 9 | | |
| Inject. Date: | 14-May-2020 22:06:26 | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 9 | | | | |
| Misc. Info.: | 280-0091518-017 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:02 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

First Level Reviewer: zhangji Date: 15-May-2020 11:36:21

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.395 | 5.417 | -0.022 | 1039009 | 2.50 | 2.38 | |
| 4 DNX | 1 | 6.202 | 6.231 | -0.029 | 770570 | 2.50 | 2.40 | |
| 7 MNX | 1 | 7.709 | 7.744 | -0.035 | 820612 | 2.92 | 3.05 | a |

## QC Flag Legend

Review Flags

a - User Assigned ID

## Reagents:

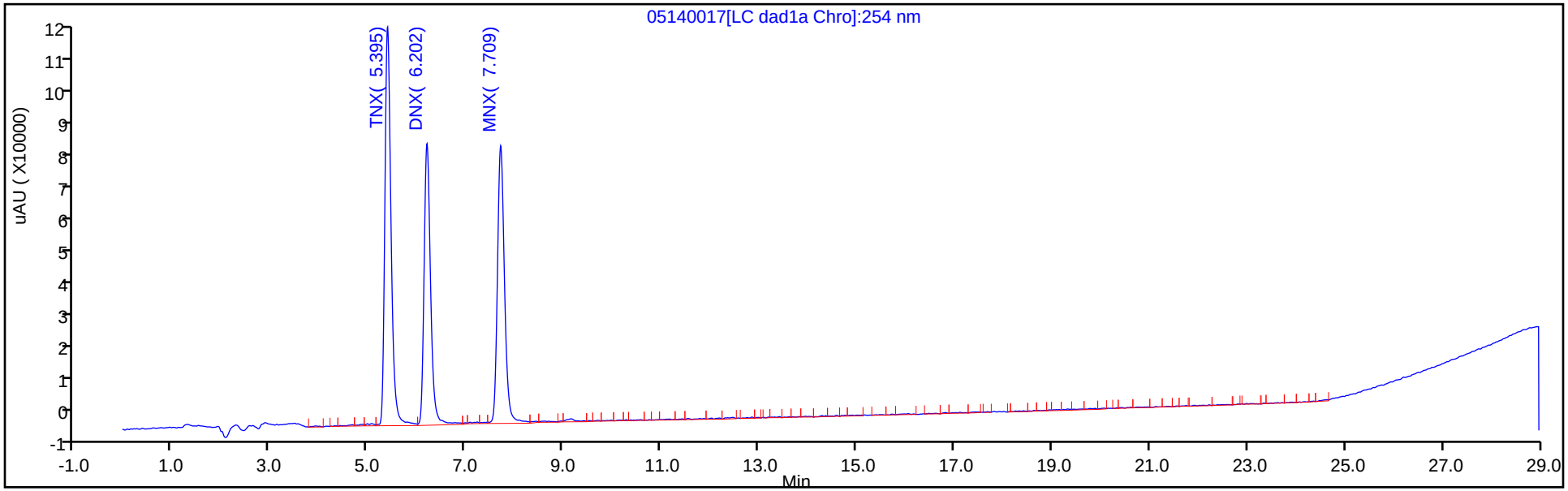
8330 DMT_00006 Amount Added: 125.00 Units: uL

Report Date: 15-May-2020 12:01:02 Chrom Revision: 2.3 05-May-2020 17:48:18

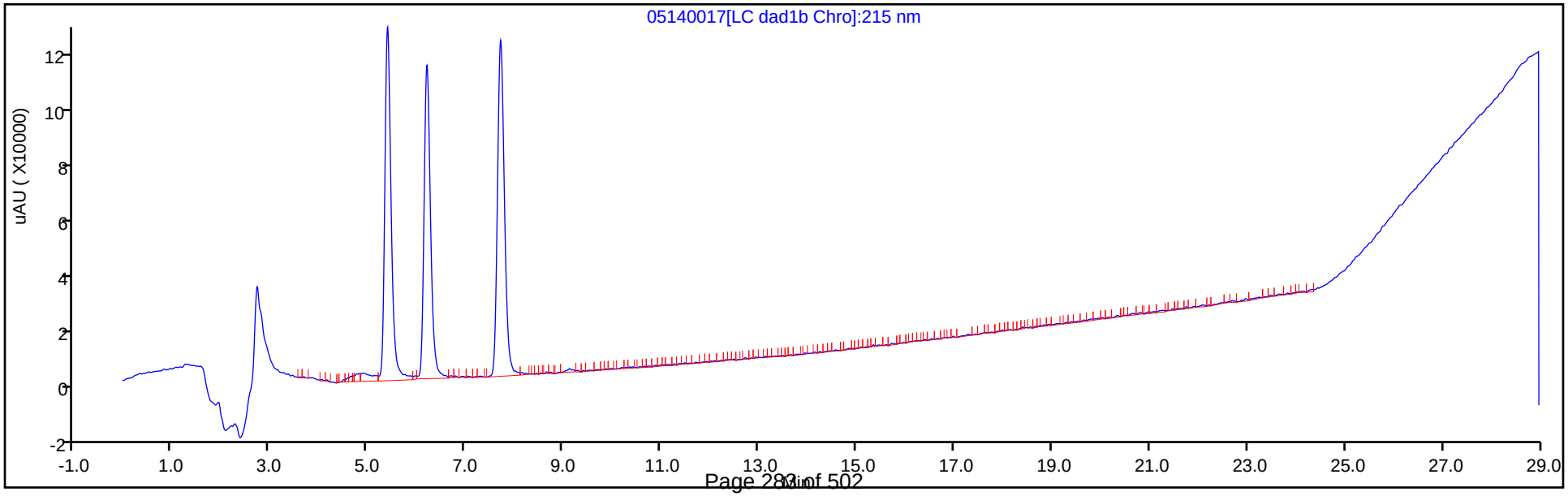
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d | | | | |
| Injection Date: | 14-May-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 9 | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

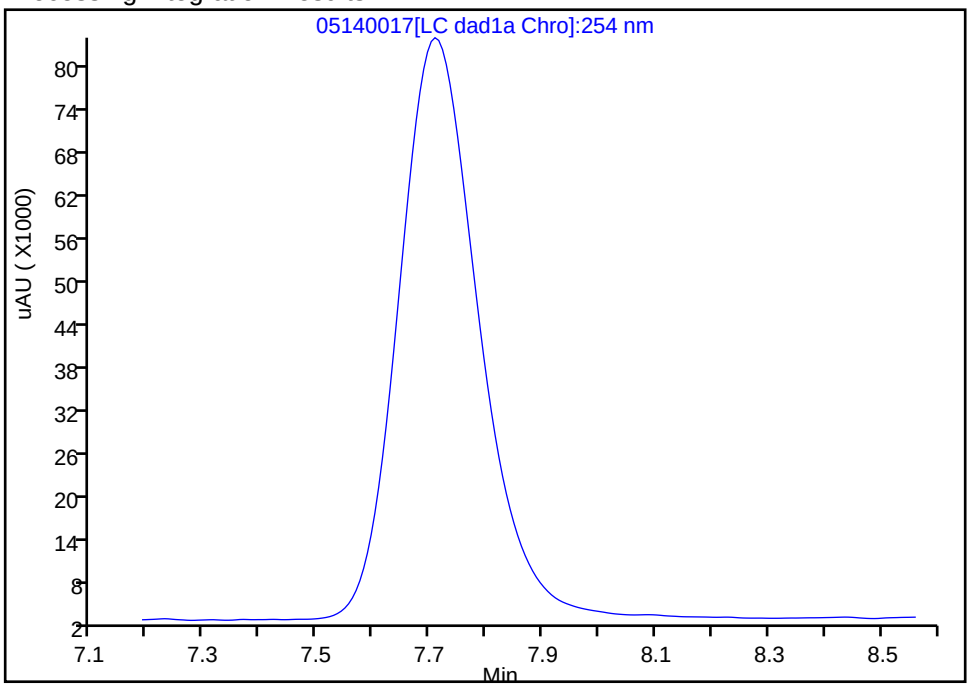
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d | | | | |
| Injection Date: | 14-May-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 17 | Worklist Smp#: | 17 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

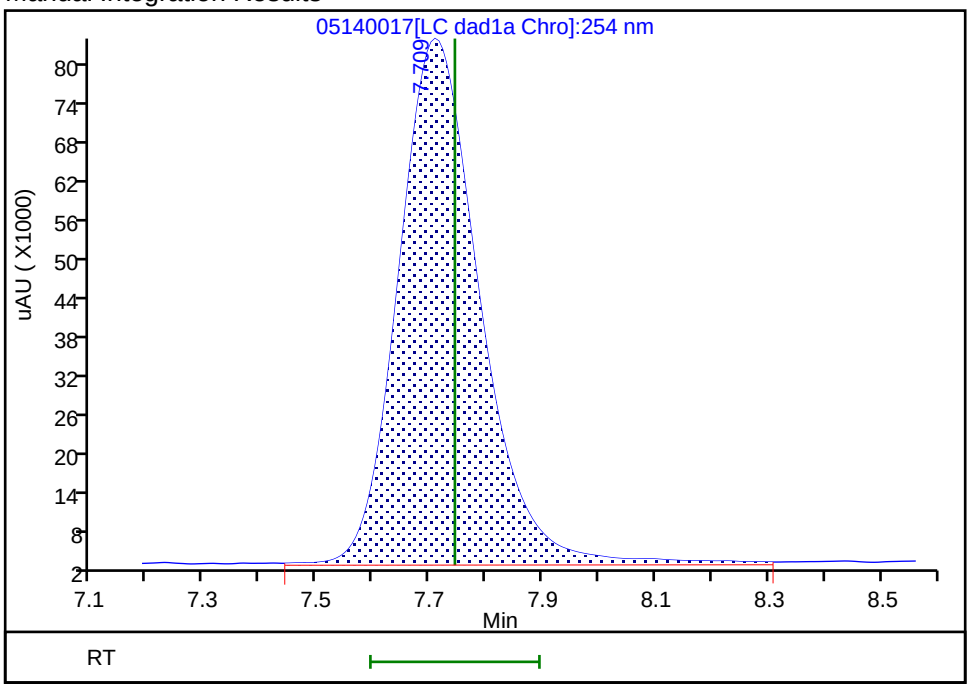
Not Detected
Expected RT: 7.74

Processing Integration Results




RT: 7.71
Area: 820612
Amount: 3.054381
Amount Units: ug/ml

Manual Integration Results




Reviewer: zhangji, 15-May-2020 11:36:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140018.D | | | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 14-May-2020 22:41:23 | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 8 | | | | |
| Misc. Info.: | 280-0091518-018 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:02 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

First Level Reviewer: zhangji Date: 15-May-2020 11:36:48

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.408 | 5.417 | -0.009 | 410159 | 1.00 | 0.9411 | |
| 4 DNX | 1 | 6.214 | 6.231 | -0.017 | 308552 | 1.00 | 0.9606 | |
| 7 MNX | 1 | 7.728 | 7.744 | -0.016 | 316150 | 1.17 | 1.16 | a |

## QC Flag Legend

Review Flags

a - User Assigned ID

## Reagents:

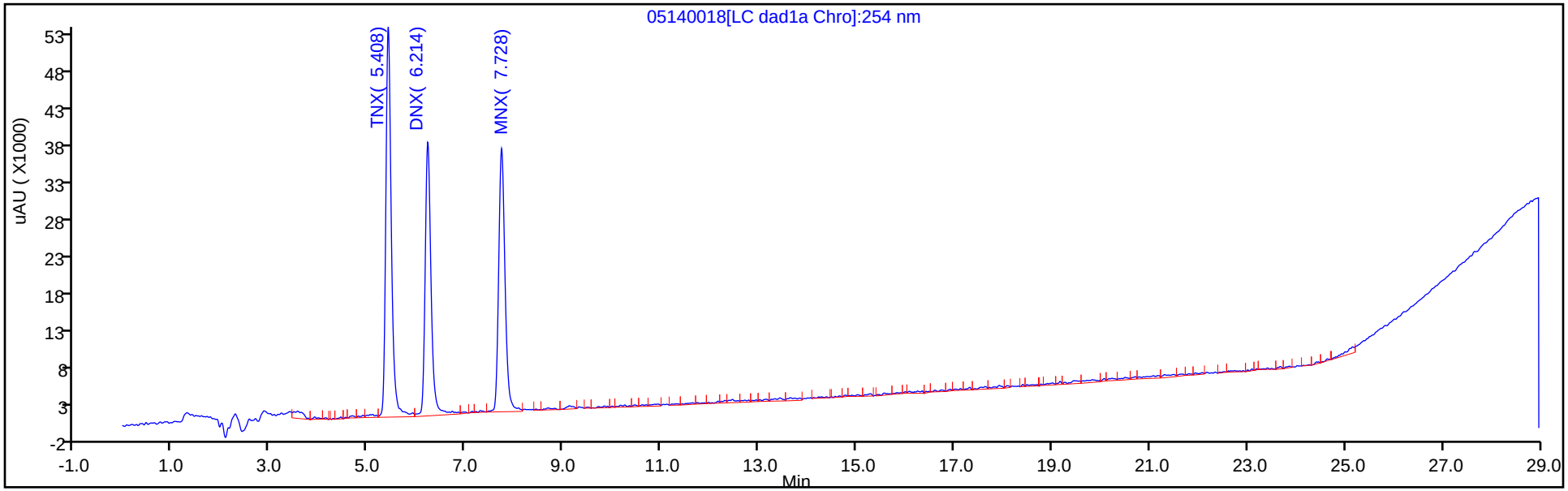
8330 DMT_00006 Amount Added: 50.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

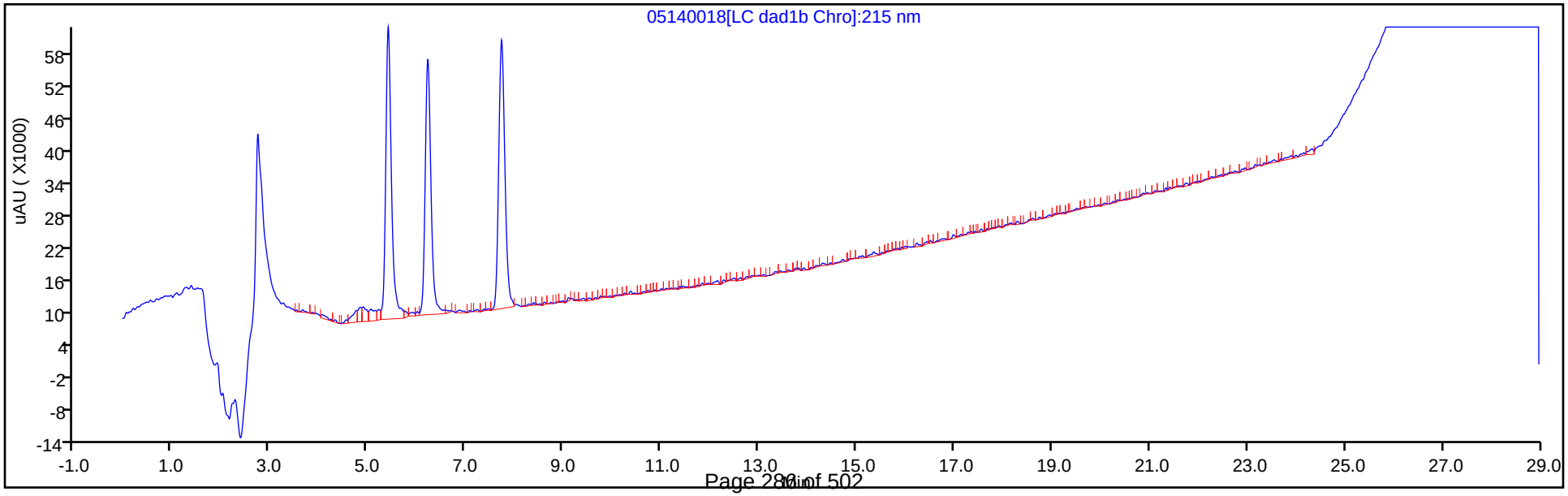
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d | | | | |
| Injection Date: | 14-May-2020 22:41:23 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 8 | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

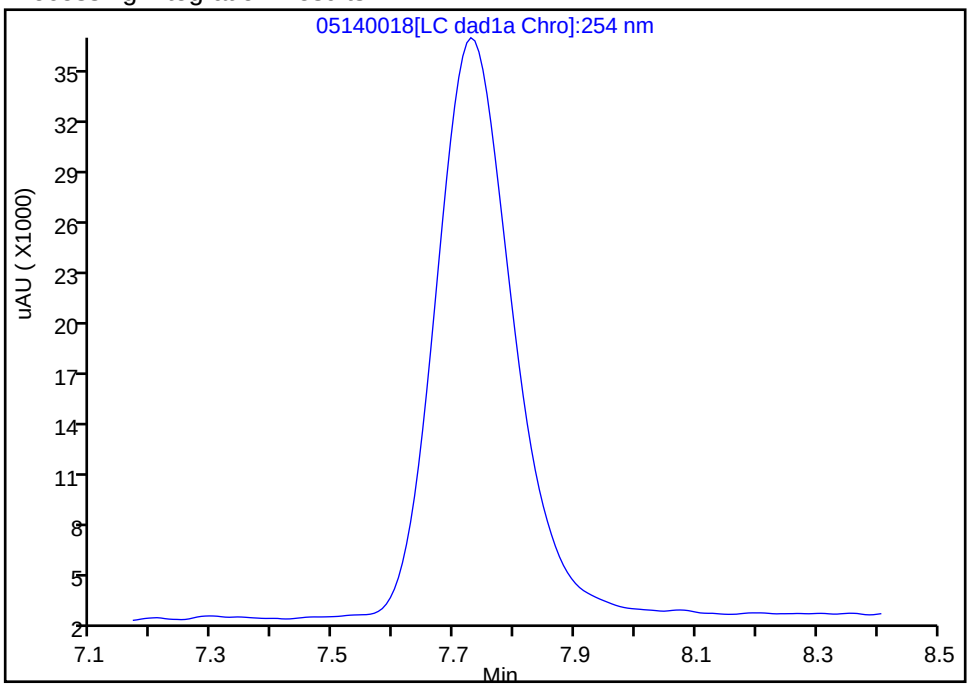
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d | | | | |
| Injection Date: | 14-May-2020 22:41:23 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 18 | Worklist Smp#: | 18 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

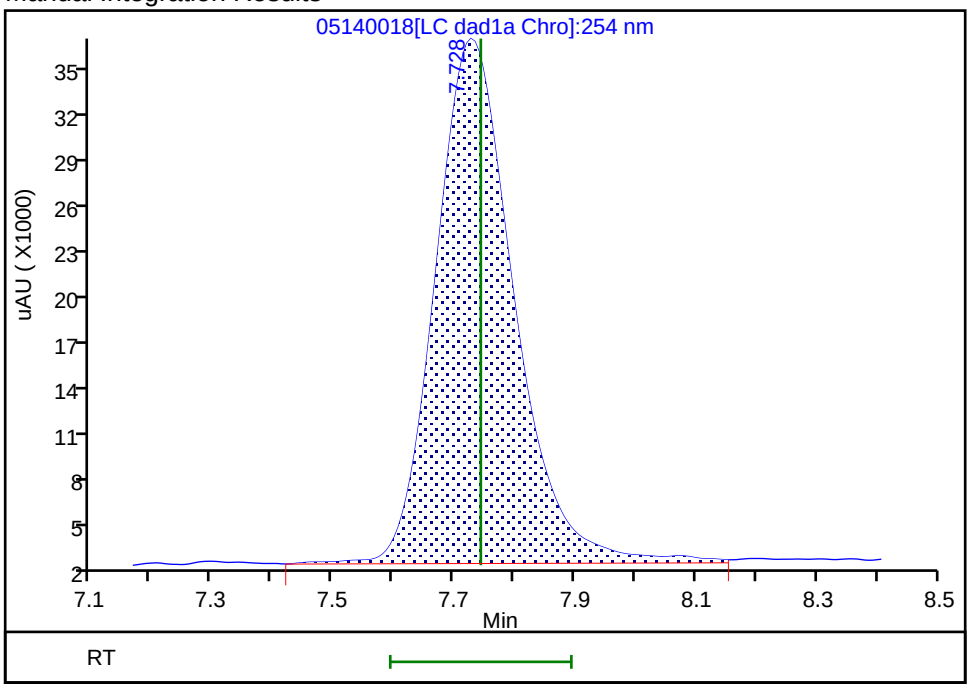
Not Detected
Expected RT: 7.74

Processing Integration Results




Manual Integration Results

RT: 7.73
Area: 316150
Amount: 1.164277
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:36:46
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140019.D | | | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 14-May-2020 23:16:26 | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 7 | | | | |
| Misc. Info.: | 280-0091518-019 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:03 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

First Level Reviewer: zhangji Date: 15-May-2020 11:36:56

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.416 | 5.417 | -0.001 | 290493 | 0.7007 | 0.6665 | |
| 4 DNX | 1 | 6.223 | 6.231 | -0.008 | 211753 | 0.7007 | 0.6592 | |
| 7 MNX | 1 | 7.736 | 7.744 | -0.008 | 229725 | 0.8169 | 0.8405 | a |

## QC Flag Legend

Review Flags

a - User Assigned ID

## Reagents:

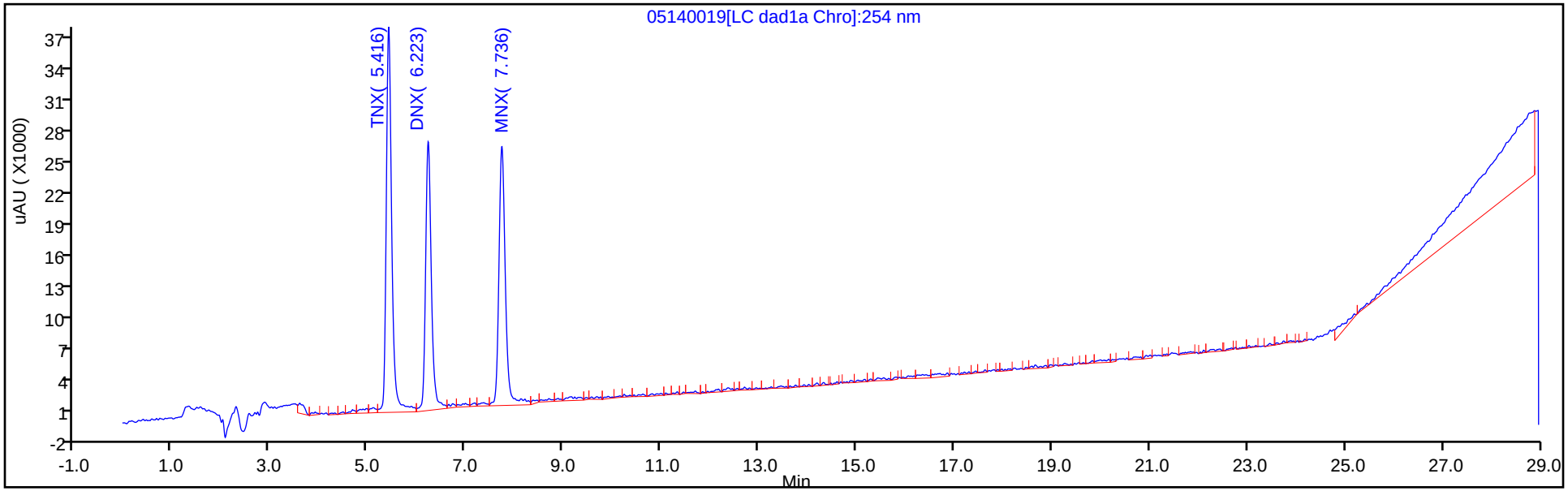
8330 DMT_00006 Amount Added: 35.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

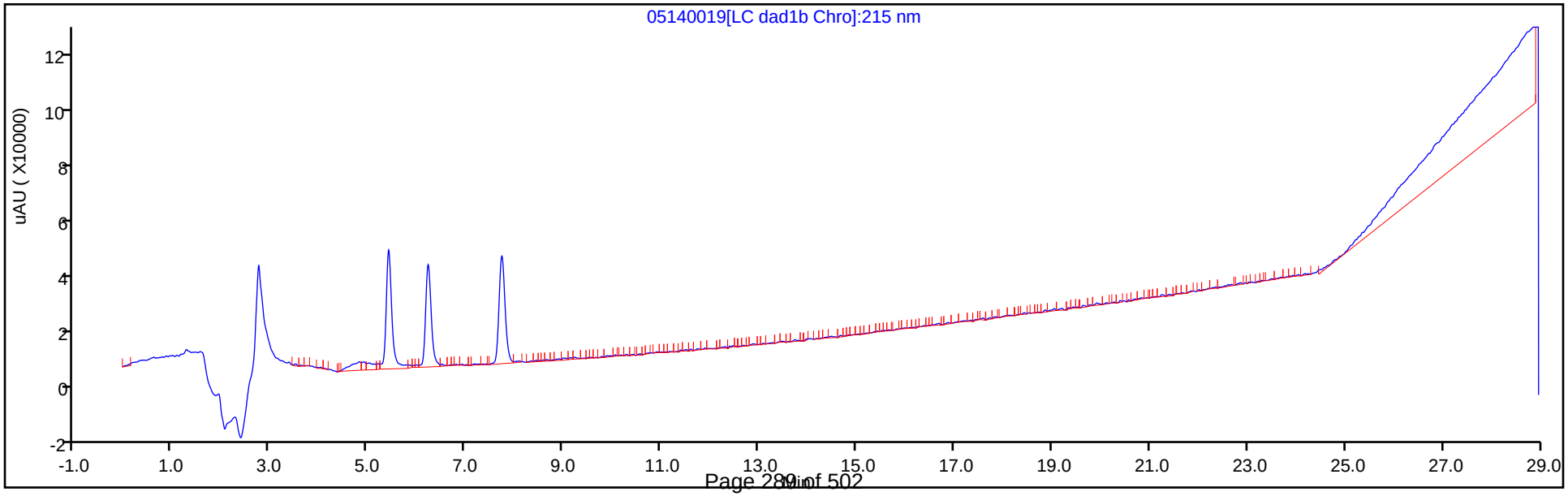
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d | | | | |
| Injection Date: | 14-May-2020 23:16:26 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 7 | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

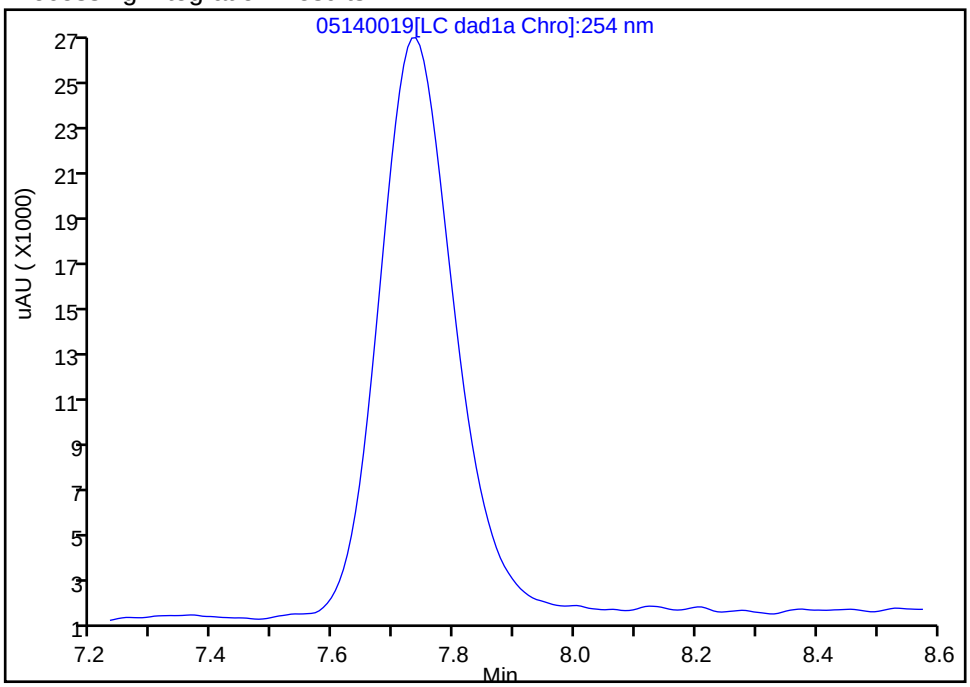
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d | | | | |
| Injection Date: | 14-May-2020 23:16:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 19 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

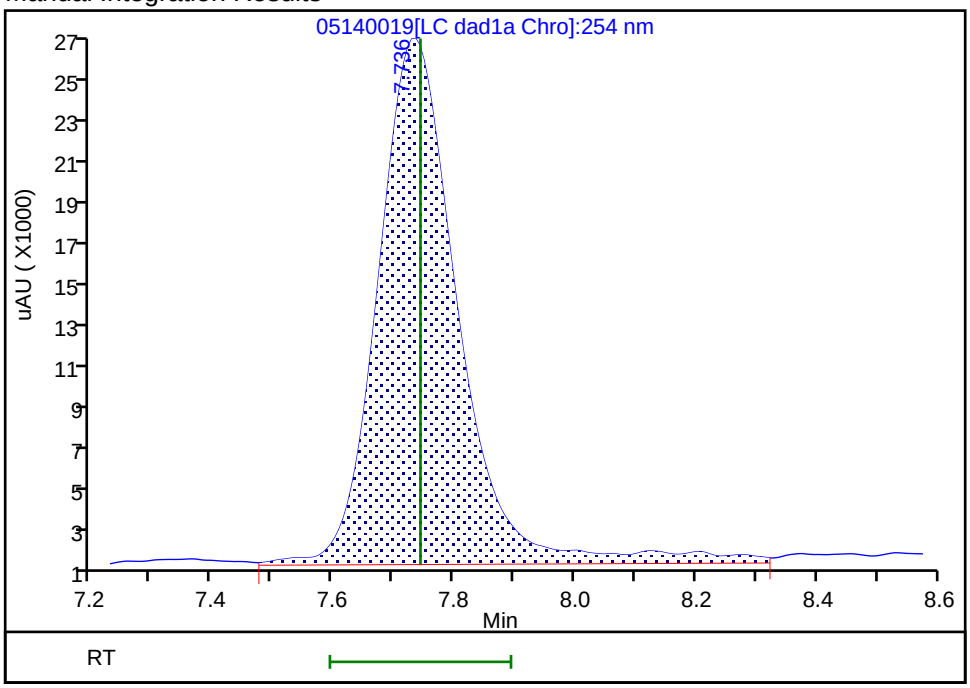
Processing Integration Results

Not Detected
Expected RT: 7.74




Manual Integration Results

RT: 7.74
Area: 229725
Amount: 0.840462
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:36:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140020.D | | | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 14-May-2020 23:51:28 | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 6 | | | | |
| Misc. Info.: | 280-0091518-020 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:03 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |
| First Level Reviewer: zhangji | | Date: | 15-May-2020 11:37:01 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.419 | 5.417 | 0.002 | 164894 | 0.4004 | 0.3784 | |
| 4 DNX | 1 | 6.226 | 6.231 | -0.005 | 127693 | 0.4004 | 0.3975 | |
| 7 MNX | 1 | 7.739 | 7.744 | -0.005 | 133999 | 0.4668 | 0.4818 | a |

## QC Flag Legend

Review Flags

a - User Assigned ID

## Reagents:

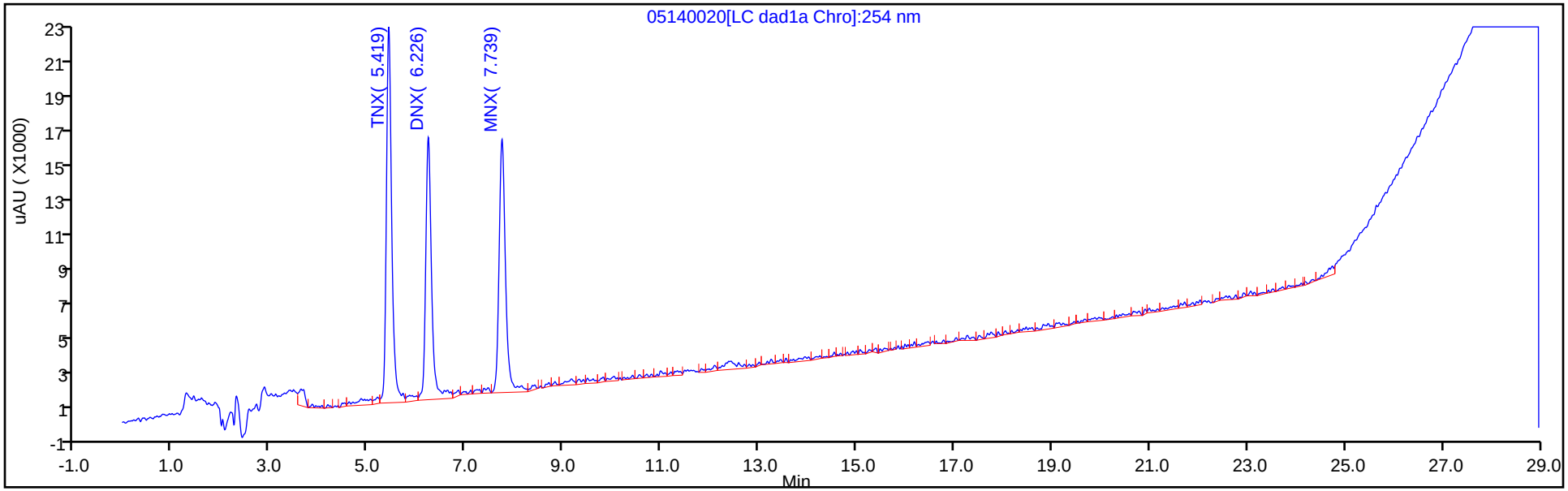
8330 DMT_00006 Amount Added: 20.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

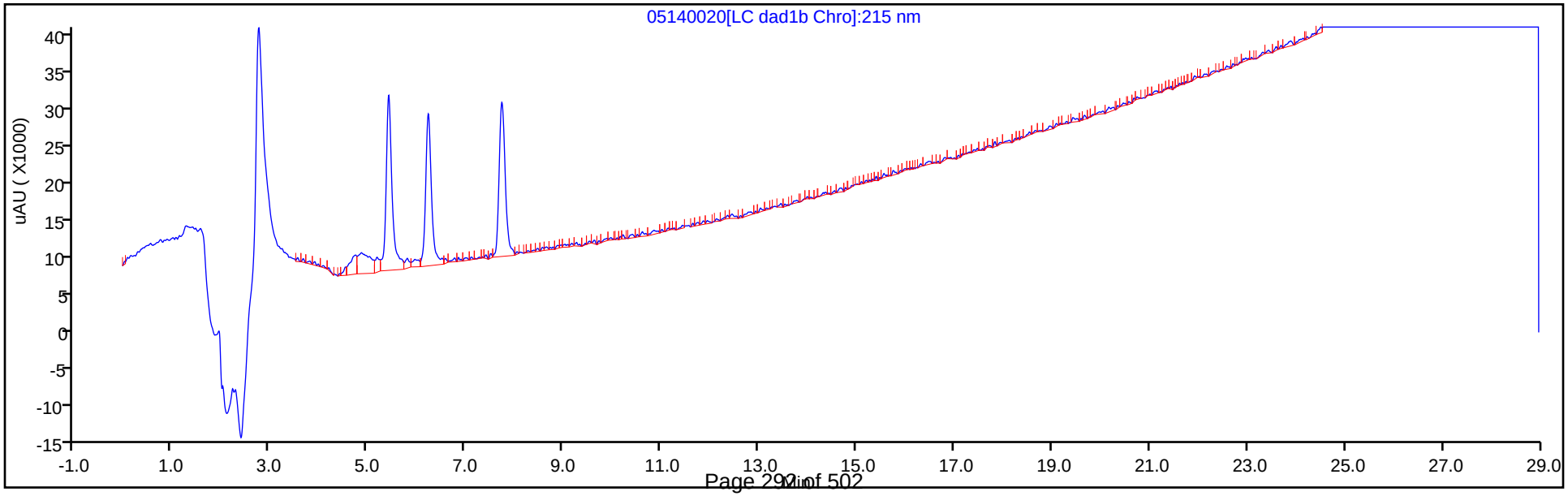
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d | | | | |
| Injection Date: | 14-May-2020 23:51:28 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 6 | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

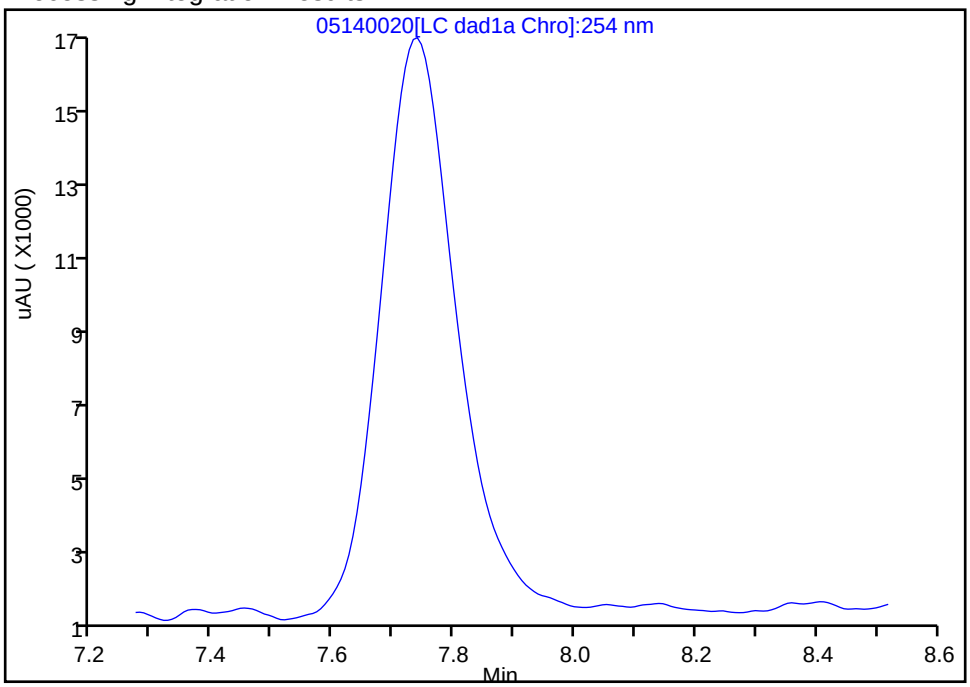
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d | | | | |
| Injection Date: | 14-May-2020 23:51:28 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 20 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 7 MNX, CAS: 5755-27-1

Signal: 1

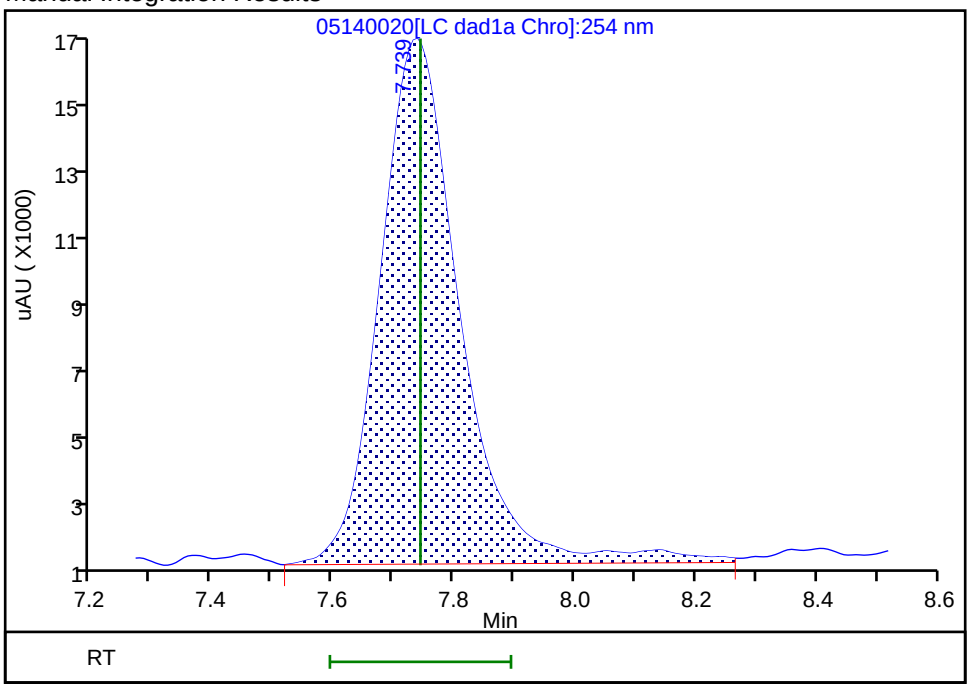
Not Detected
Expected RT: 7.74

Processing Integration Results




RT: 7.74
Area: 133999
Amount: 0.481799
Amount Units: ug/ml

Manual Integration Results




Reviewer: zhangji, 15-May-2020 11:36:59
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140021.D | | | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 15-May-2020 00:26:25 | ALS Bottle#: | 21 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 5 | | | | |
| Misc. Info.: | 280-0091518-021 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:04 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.417 | 5.417 | 0.000 | 101309 | 0.2503 | 0.2325 | |
| 4 DNX | 1 | 6.231 | 6.231 | 0.000 | 77077 | 0.2503 | 0.2400 | |
| 7 MNX | 1 | 7.744 | 7.744 | 0.000 | 83427 | 0.2918 | 0.2923 | |

## Reagents:

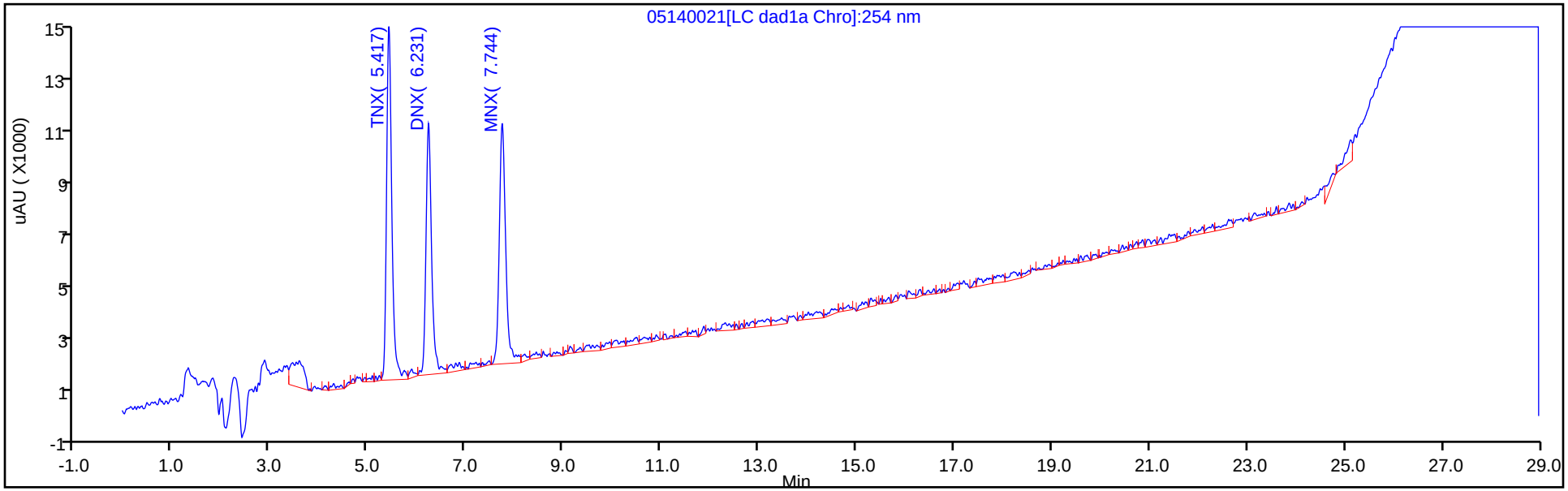
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

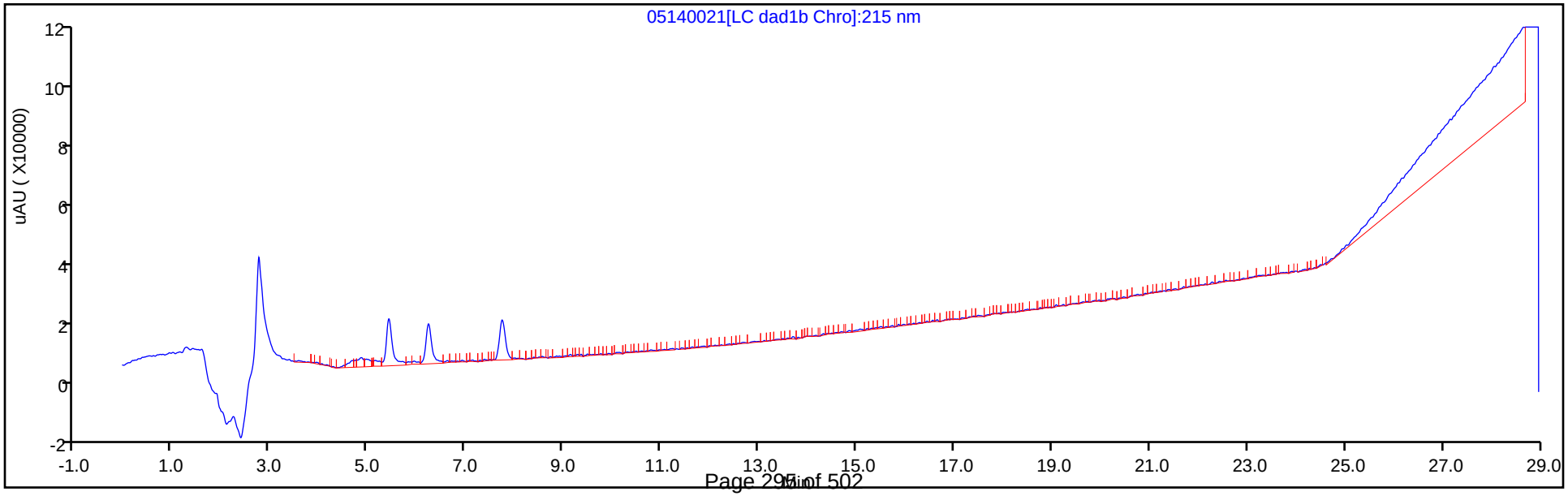
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140021.d | | | | |
| Injection Date: | 15-May-2020 00:26:25 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 5 | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140022.D | | | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 15-May-2020 01:01:25 | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 4 | | | | |
| Misc. Info.: | 280-0091518-022 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:04 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.420 | 5.417 | 0.003 | 45279 | 0.1001 | 0.1039 | |
| 4 DNX | 1 | 6.226 | 6.231 | -0.005 | 32313 | 0.1001 | 0.1006 | |
| 7 MNX | 1 | 7.740 | 7.744 | -0.004 | 34453 | 0.1167 | 0.1088 | |

## Reagents:

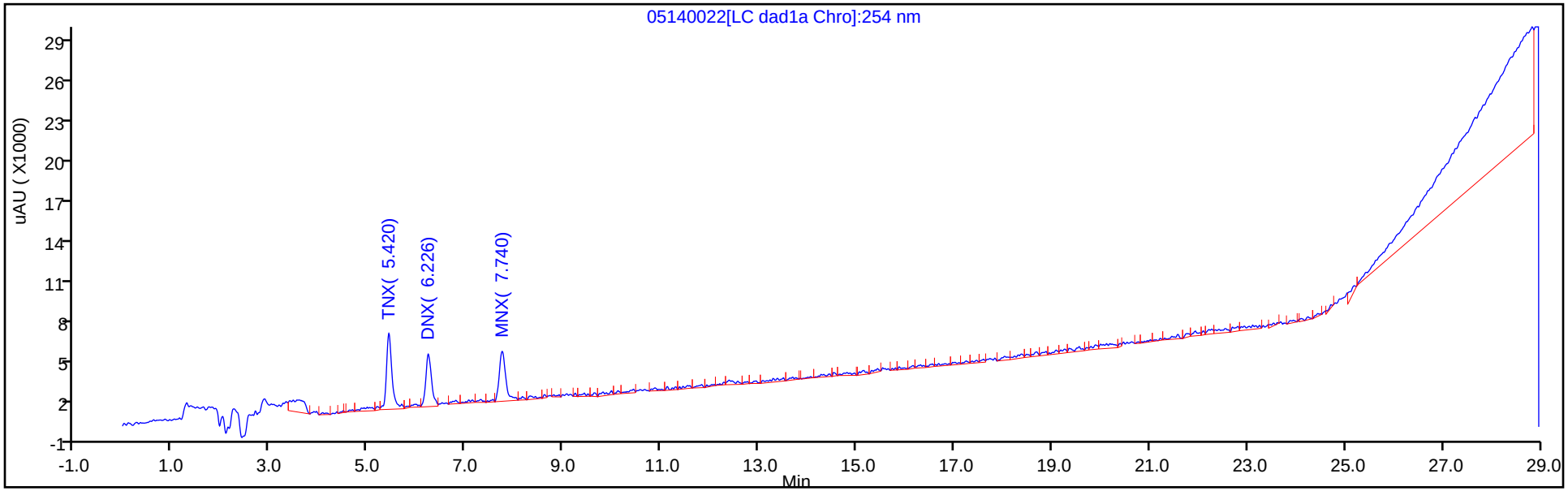
8330 DMT_00006 Amount Added: 5.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

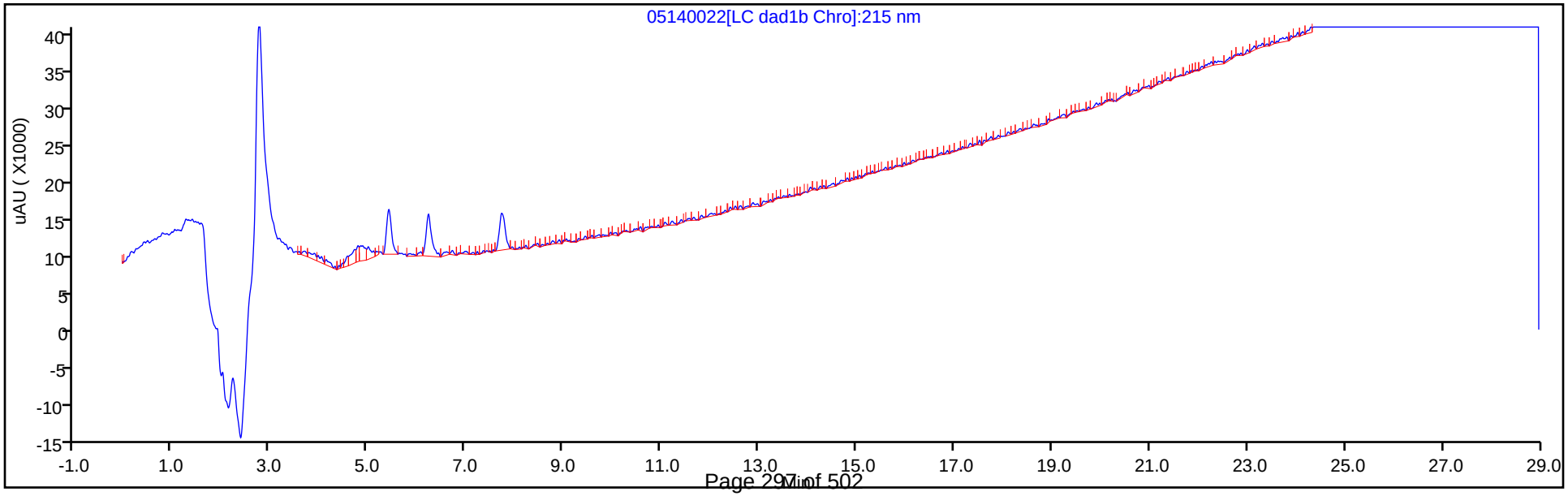
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140022.d | | | | |
| Injection Date: | 15-May-2020 01:01:25 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 4 | | | Worklist Smp#: | 22 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140023.D | | | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 15-May-2020 01:36:23 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 3 | | | | |
| Misc. Info.: | 280-0091518-023 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:05 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.411 | 5.417 | -0.006 | 21320 | 0.0501 | 0.0489 | |
| 4 DNX | 1 | 6.224 | 6.231 | -0.007 | 16063 | 0.0501 | 0.0500 | |
| 7 MNX | 1 | 7.744 | 7.744 | 0.000 | 19669 | 0.0584 | 0.0534 | |

## Reagents:

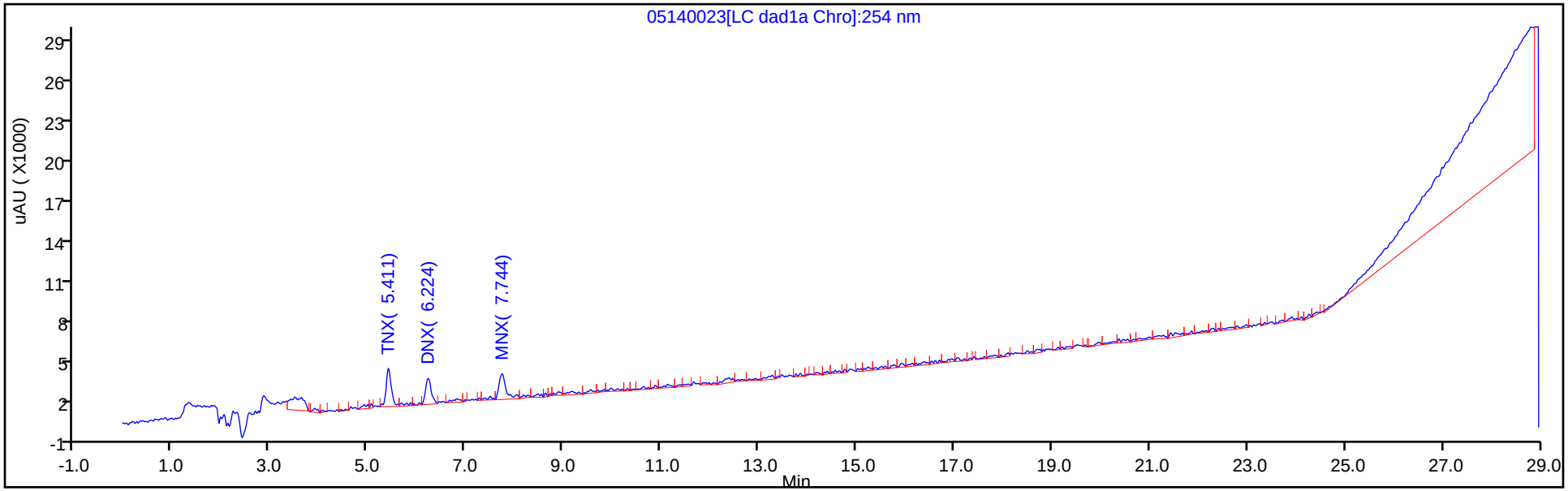
8330 DMT_00006 Amount Added: 2.50 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

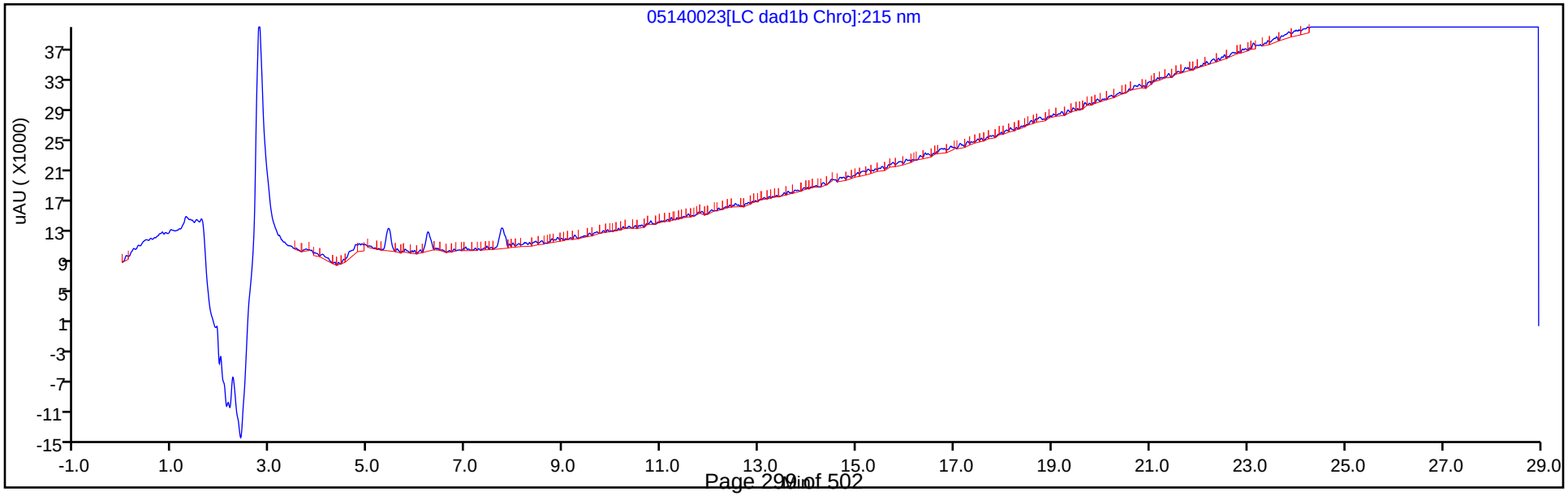
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140023.d | | | | |
| Injection Date: | 15-May-2020 01:36:23 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 3 | | | Worklist Smp#: | 23 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 15-May-2020 02:11:20 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT 2 | | | | |
| Misc. Info.: | 280-0091518-024 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:05 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.430 | 5.417 | 0.013 | 11052 | 0.0200 | 0.0254 | |
| 4 DNX | 1 | 6.217 | 6.231 | -0.014 | 7620 | 0.0200 | 0.0237 | |
| 7 MNX | 1 | 7.737 | 7.744 | -0.007 | 11914 | 0.0233 | 0.0244 | |

## Reagents:

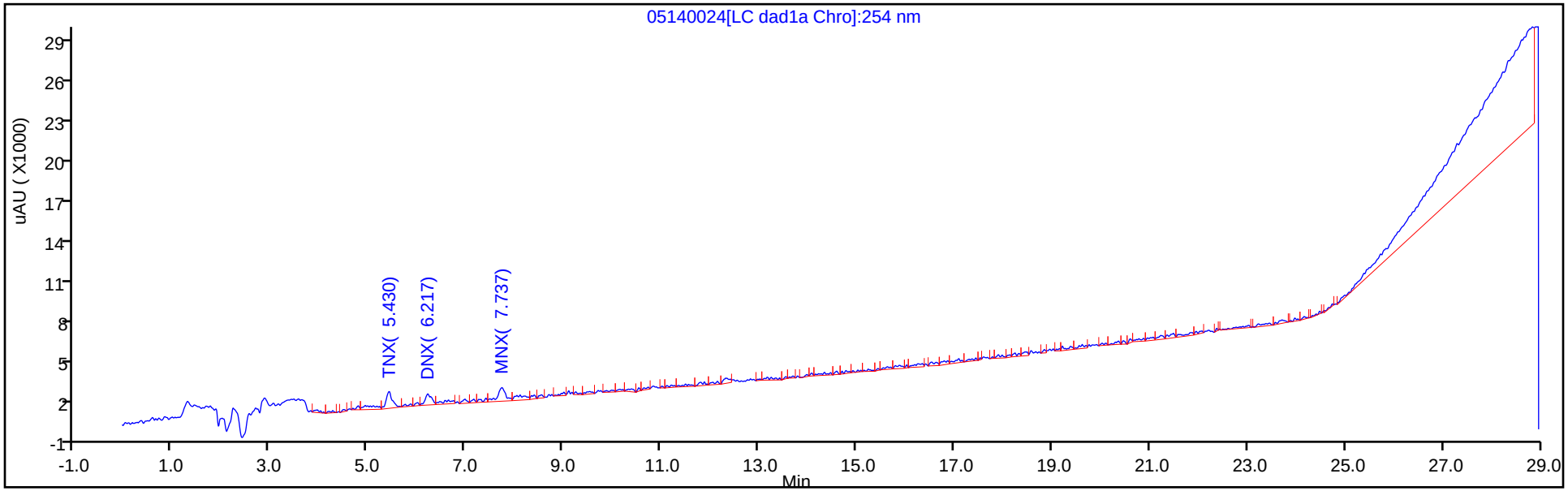
8330 DMT_00006 Amount Added: 1.00 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

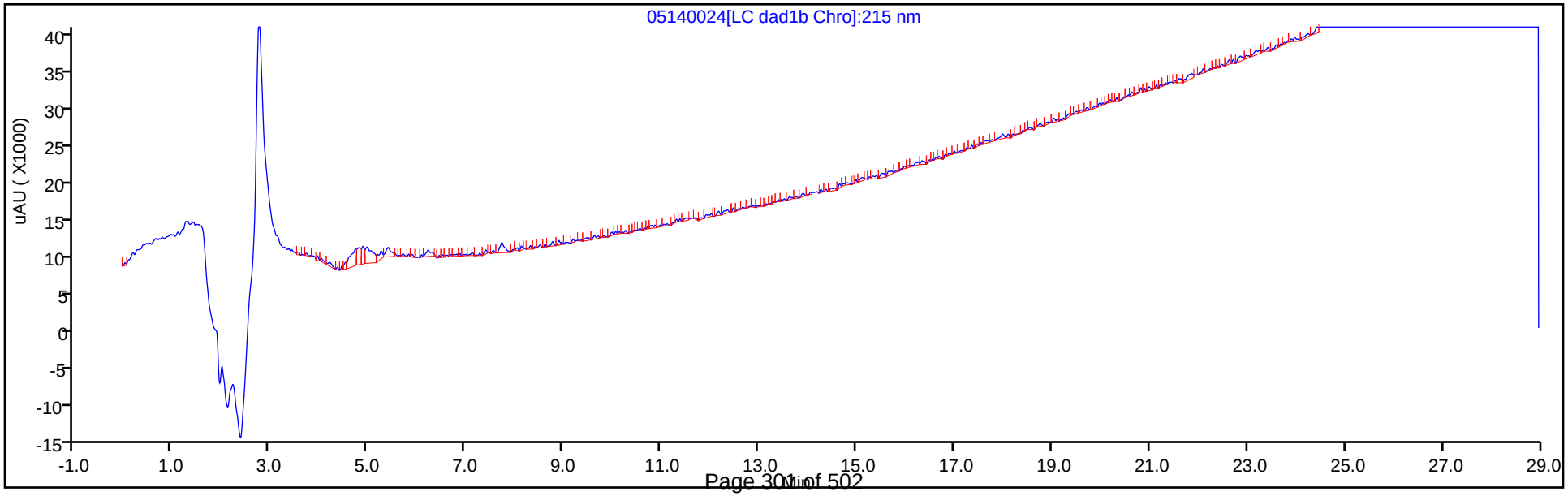
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140024.d | | | | |
| Injection Date: | 15-May-2020 02:11:20 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | IC DMT 2 | | | Worklist Smp#: | 24 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TNX | 6.592 | 6.588 | 6.589 | 6.591 | 6.591 | 6.591 | 6.591 | 6.590 | | | 6.491 - 6.691 | 6.590 |
| DNX | 6.912 | 6.914 | 6.915 | 6.918 | 6.917 | 6.918 | 6.918 | 6.916 | | | 6.818 - 7.018 | 6.916 |
| MNX | 7.359 | 7.354 | 7.355 | 7.358 | 7.357 | 7.358 | 7.358 | 7.356 | | | 7.208 - 7.508 | 7.357 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 216933<br>212722 | 213207<br>212002 | 209810<br>219067 | 231497<br>225632 | Ave | | 217608.702 | | | | 3.5 | | 20.0 | | | |
| DNX | 117133<br>161214 | 137942<br>160624 | 149221<br>163997 | 167576<br>165720 | Ave | | 152928.307 | | | | 11.5 | | 20.0 | | | |
| MNX | 175621<br>156707 | 161285<br>152355 | 156238<br>154895 | 157686<br>153564 | Ave | | 158544.202 | | | | 4.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-487658/32 | 03040032.D |
| Level 2 | IC 280-487658/31 | 03040031.D |
| Level 3 | IC 280-487658/30 | 03040030.D |
| Level 4 | IC 280-487658/29 | 03040029.D |
| Level 5 | IC 280-487658/28 | 03040028.D |
| Level 6 | IC 280-487658/27 | 03040027.D |
| Level 7 | IC 280-487658/26 | 03040026.D |
| Level 8 | IC 280-487658/25 | 03040025.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| TNX | Ave | 4343<br>148550 | 10671<br>219286 | 21002<br>564643 | 57932 | 85174 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 2345<br>112549 | 6904<br>164161 | 14937<br>414714 | 41936 | 64550 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 4099<br>124459 | 9411<br>180763 | 18233<br>448024 | 46005 | 73151 | 0.0233<br>0.817 | 0.0584<br>1.17 | 0.117<br>2.92 | 0.292 | 0.467 |

Curve Type Legend:
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040025.D | | | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 04-Mar-2020 21:00:00 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L8 | | | | |
| Misc. Info.: | 280-0089779-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:20 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:04

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.590 | 6.591 | -0.001 | 564643 | 2.50 | 2.59 | M |
| 5 DNX | 1 | 6.916 | 6.918 | -0.002 | 414714 | 2.50 | 2.71 | M |
| 6 MNX | 1 | 7.356 | 7.358 | -0.002 | 448024 | 2.92 | 2.83 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

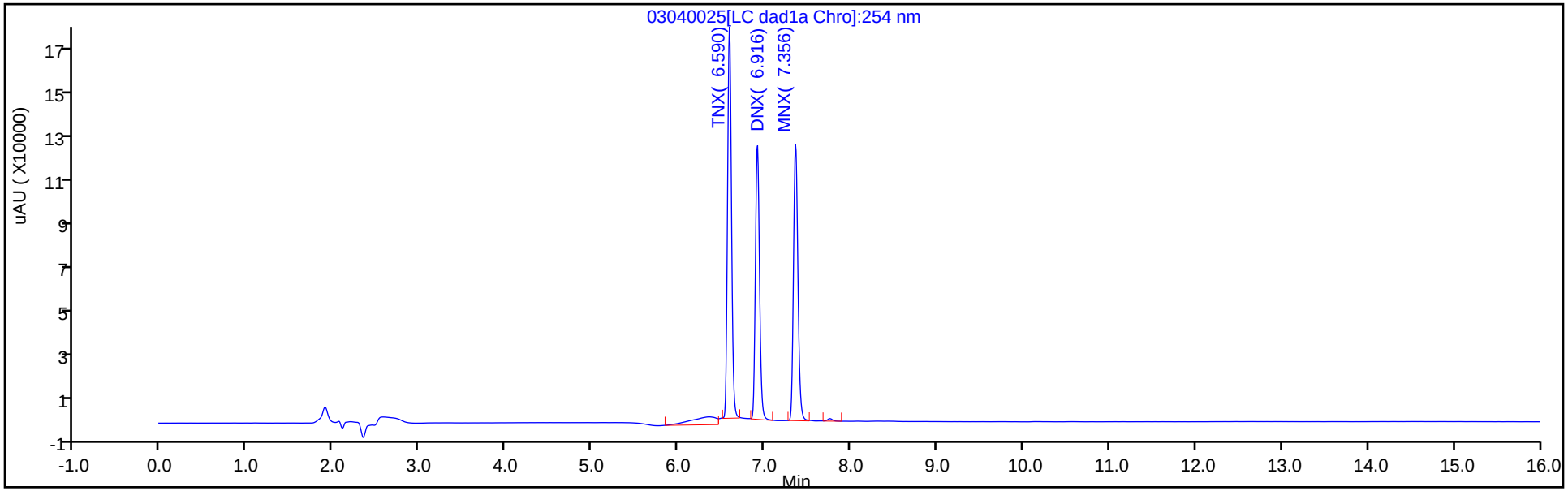
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

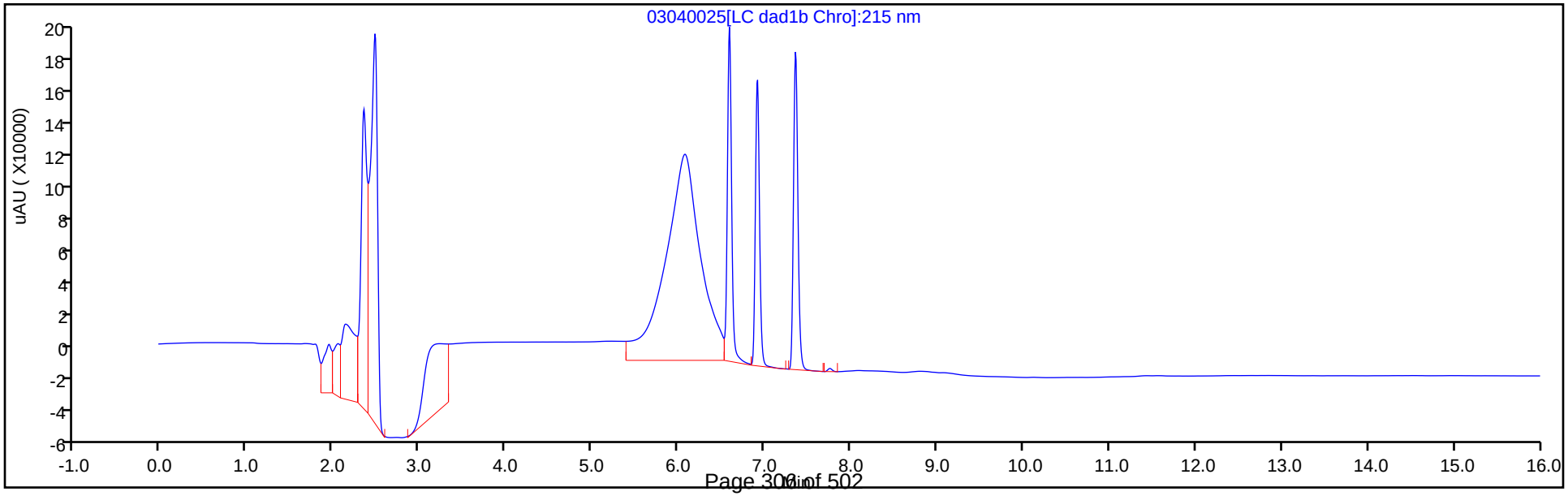
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L8 | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

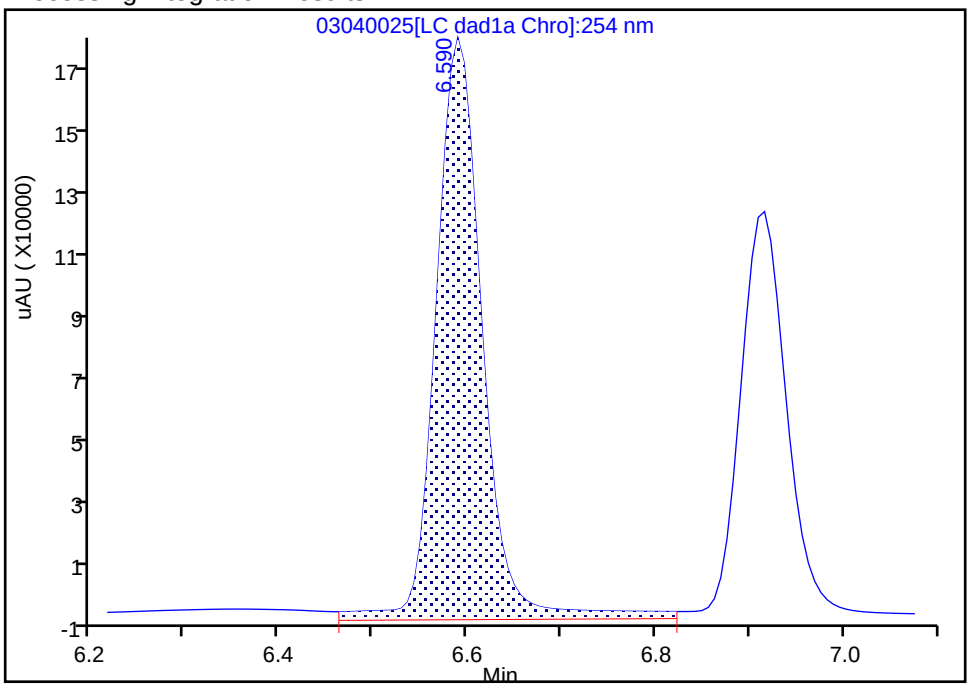
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

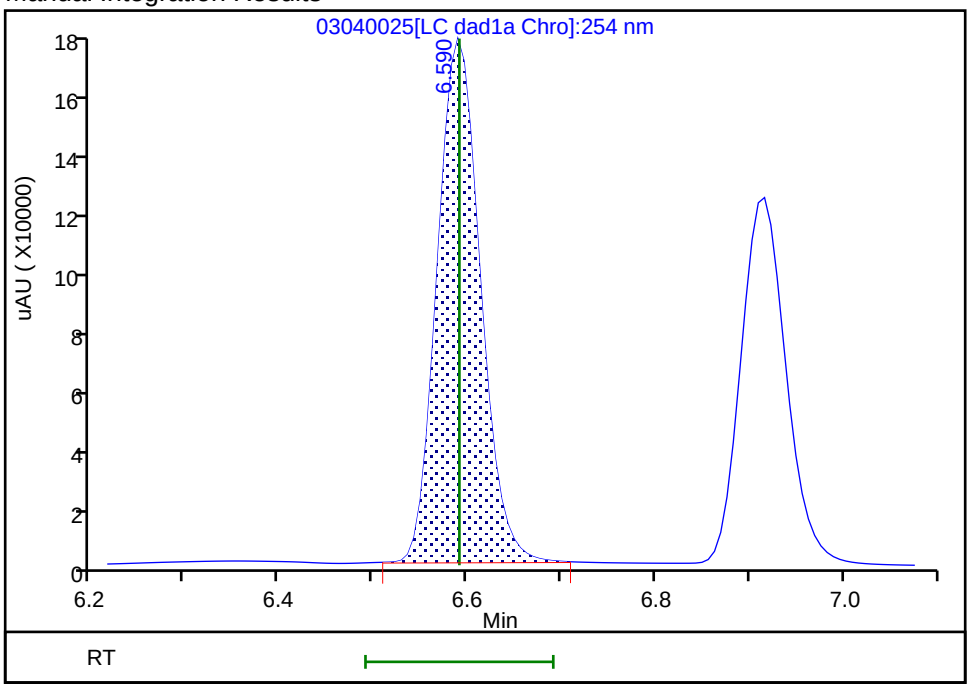
Processing Integration Results

RT: 6.59
Area: 620676
Amount: 2.450904
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 564643
Amount: 2.594763
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:29:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

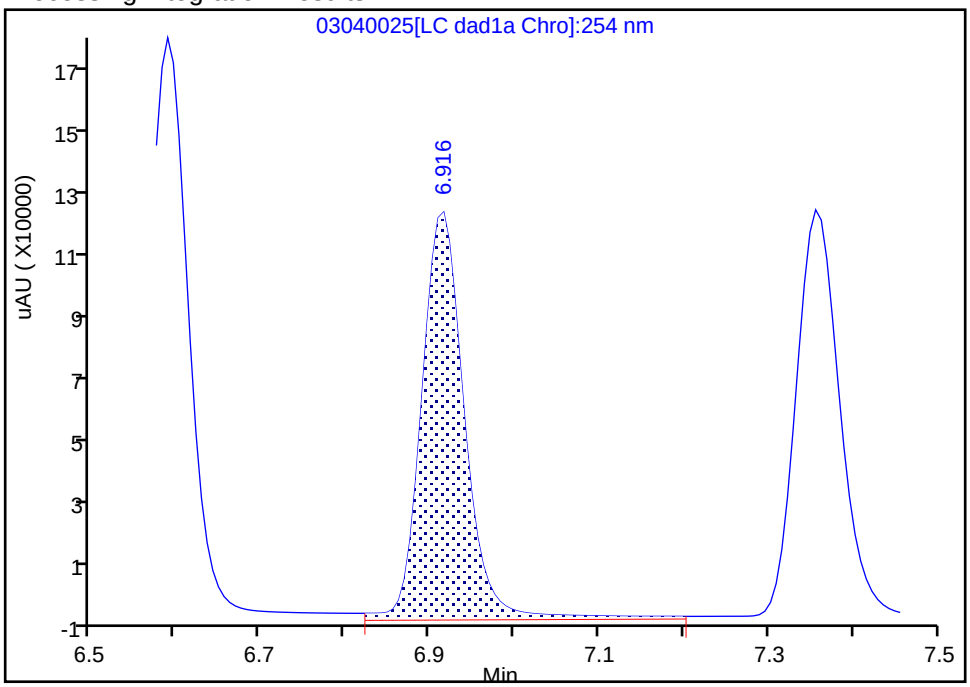
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

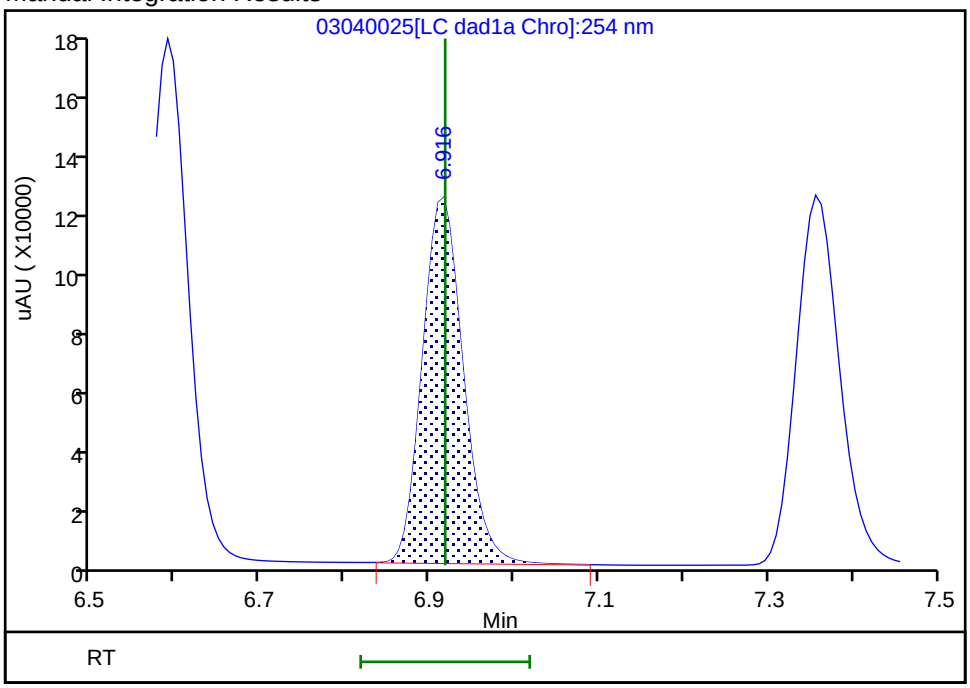
Processing Integration Results

RT: 6.92
Area: 445633
Amount: 2.254277
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 414714
Amount: 2.711820
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:29:52
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

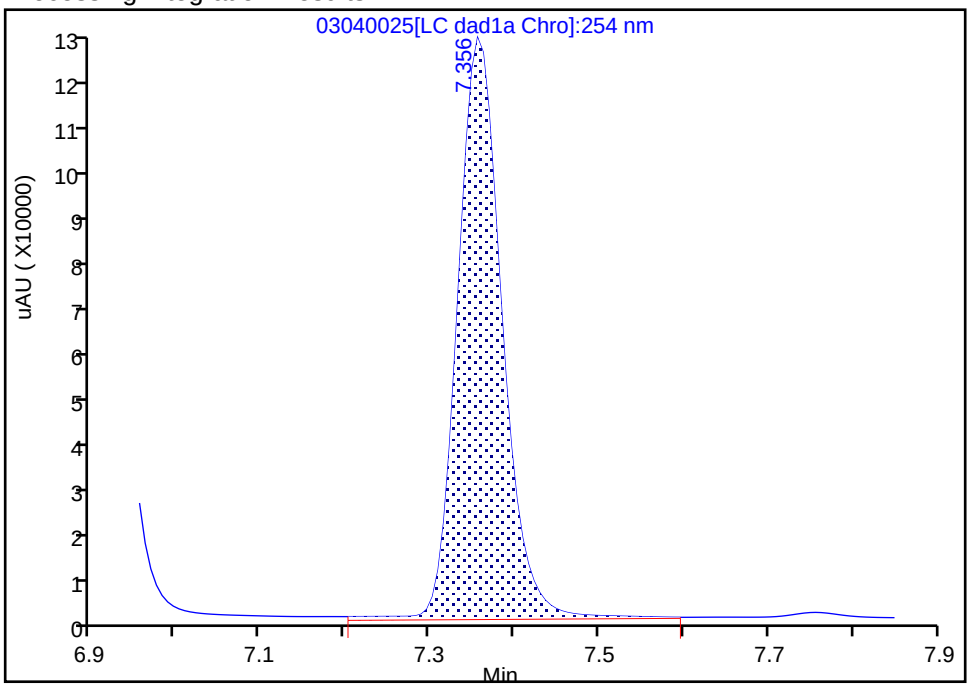
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

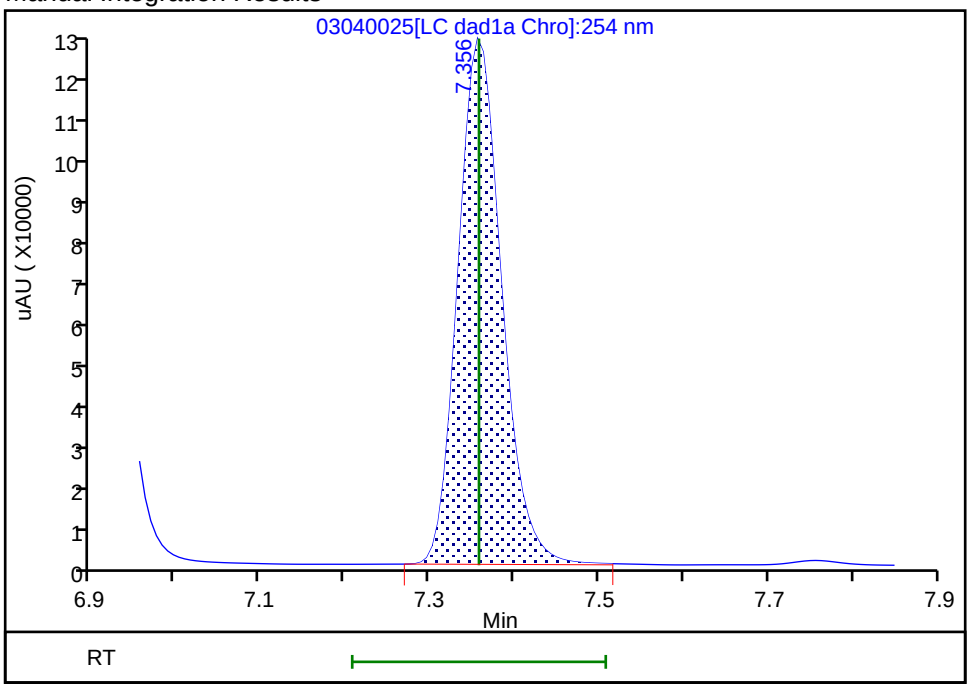
Processing Integration Results

RT: 7.36
Area: 461400
Amount: 2.899748
Amount Units: ug/mL




Manual Integration Results

RT: 7.36
Area: 448024
Amount: 2.825862
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:00
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040026.D | | | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 04-Mar-2020 21:23:03 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L7 | | | | |
| Misc. Info.: | 280-0089779-026 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:21 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 219286 | 1.00 | 1.01 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 164161 | 1.00 | 1.07 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 180763 | 1.17 | 1.14 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

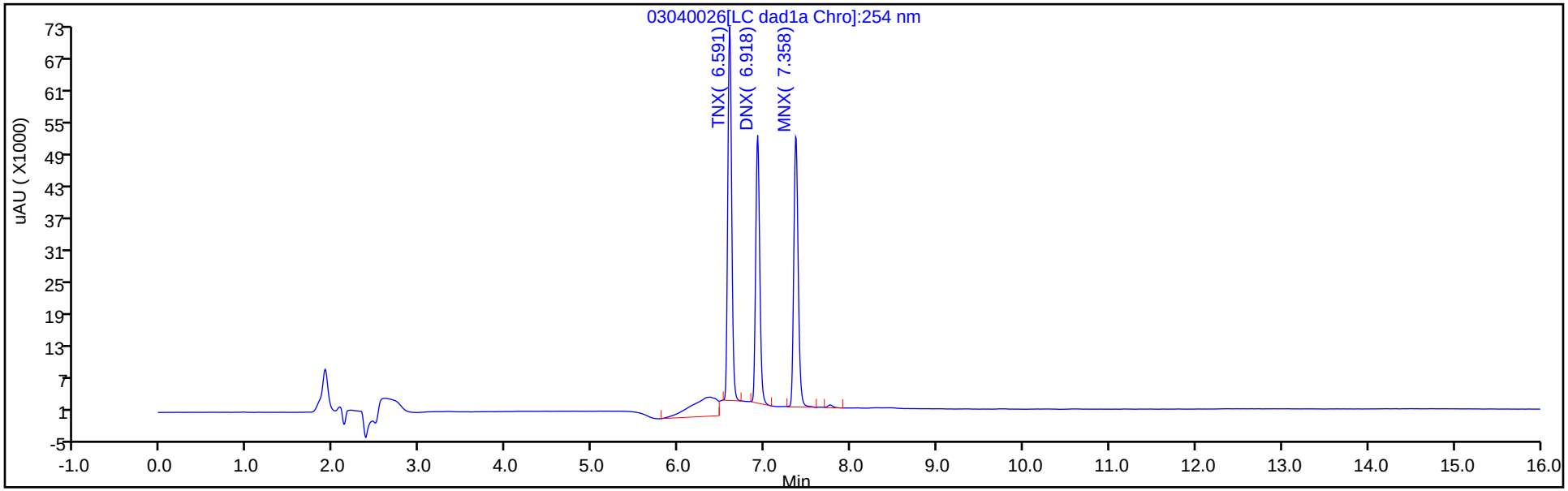
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

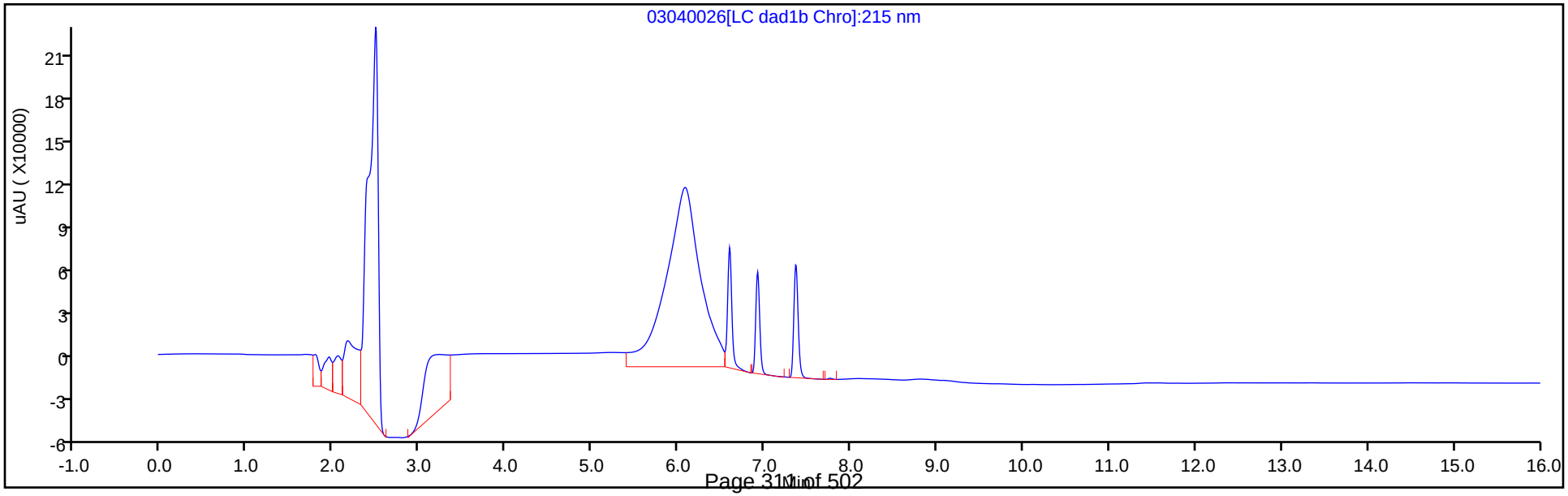
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L7 | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

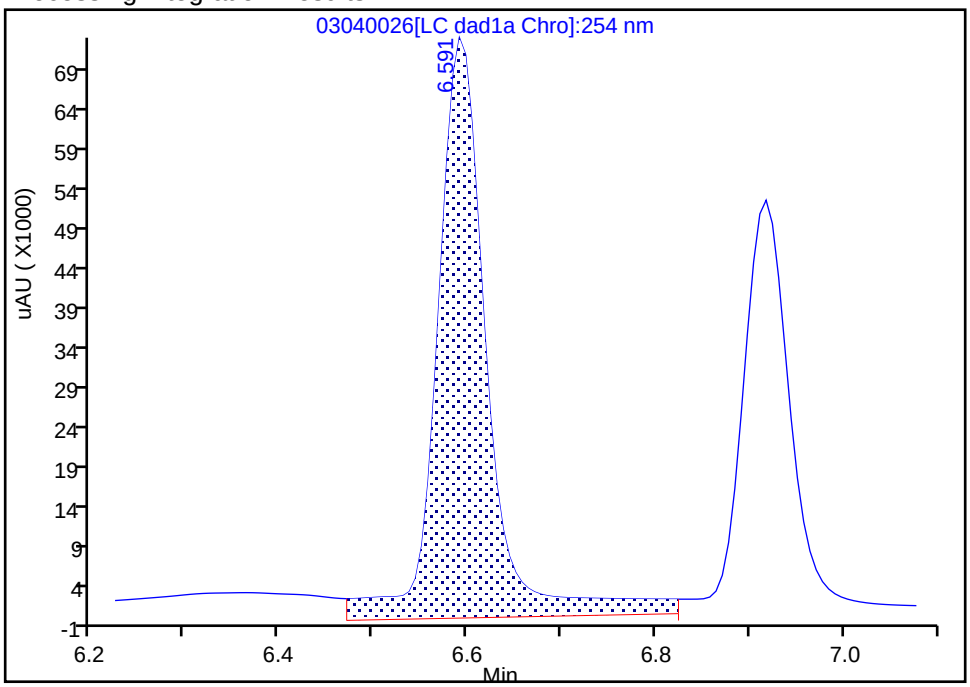
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

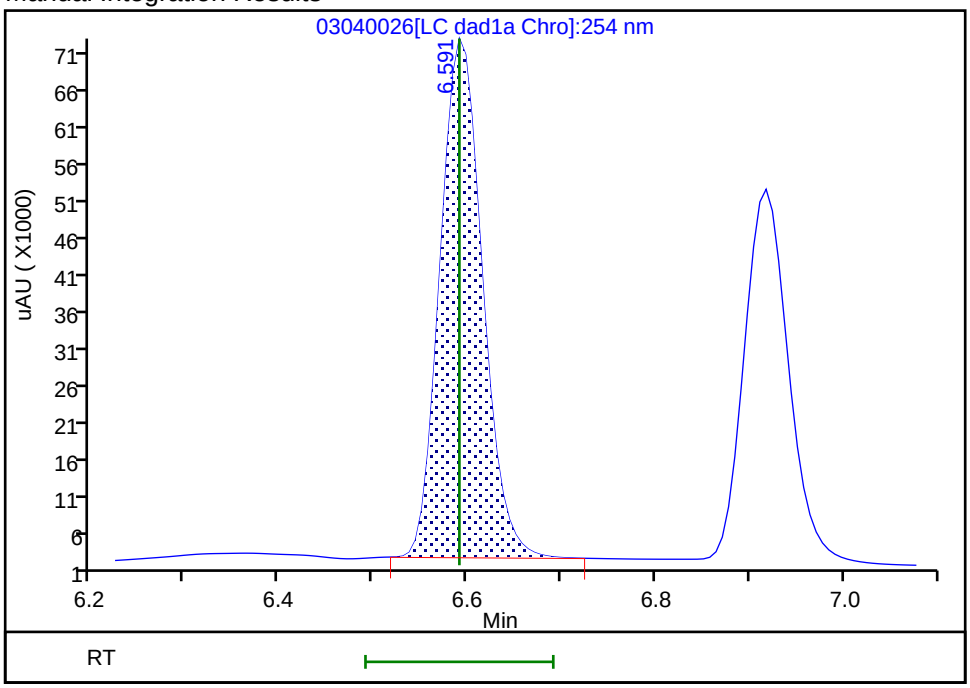
Processing Integration Results

RT: 6.59
Area: 269369
Amount: 1.068967
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 219286
Amount: 1.007708
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

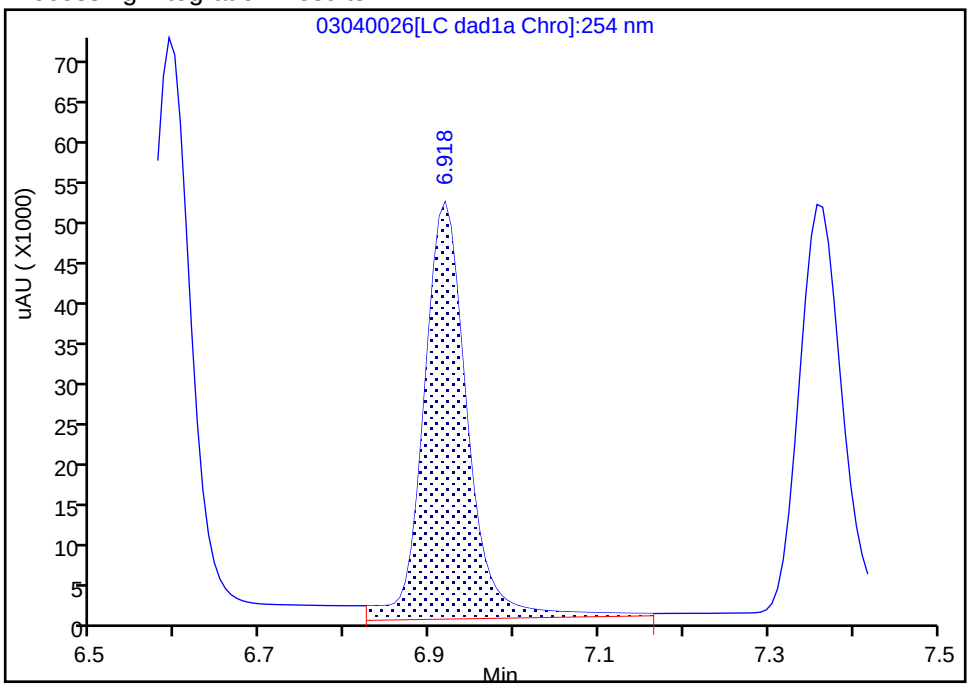
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

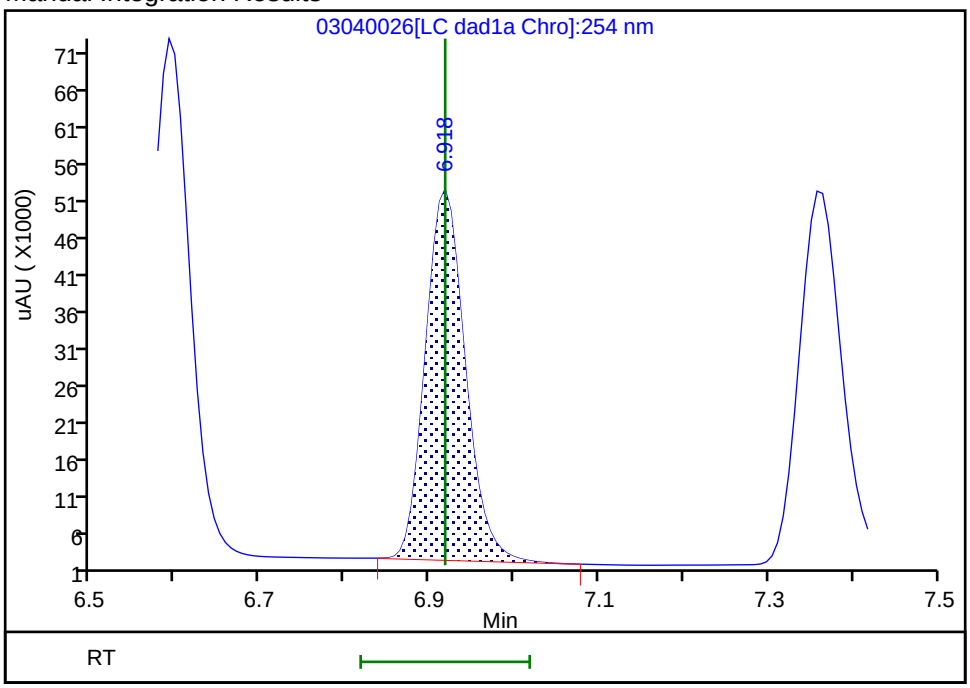
Processing Integration Results

RT: 6.92
Area: 184230
Amount: 0.939283
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 164161
Amount: 1.073451
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040027.D | | | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 04-Mar-2020 21:45:58 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L6 | | | | |
| Misc. Info.: | 280-0089779-027 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:23 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 148550 | 0.7007 | 0.6826 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 112549 | 0.7007 | 0.7360 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 124459 | 0.8169 | 0.7850 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

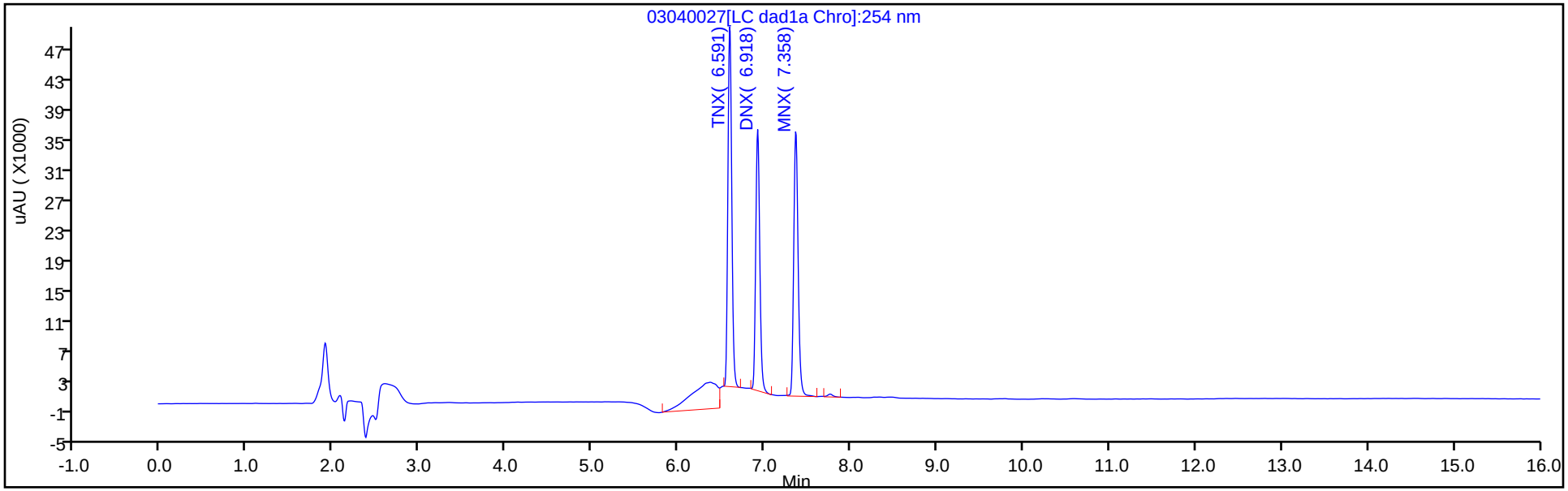
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

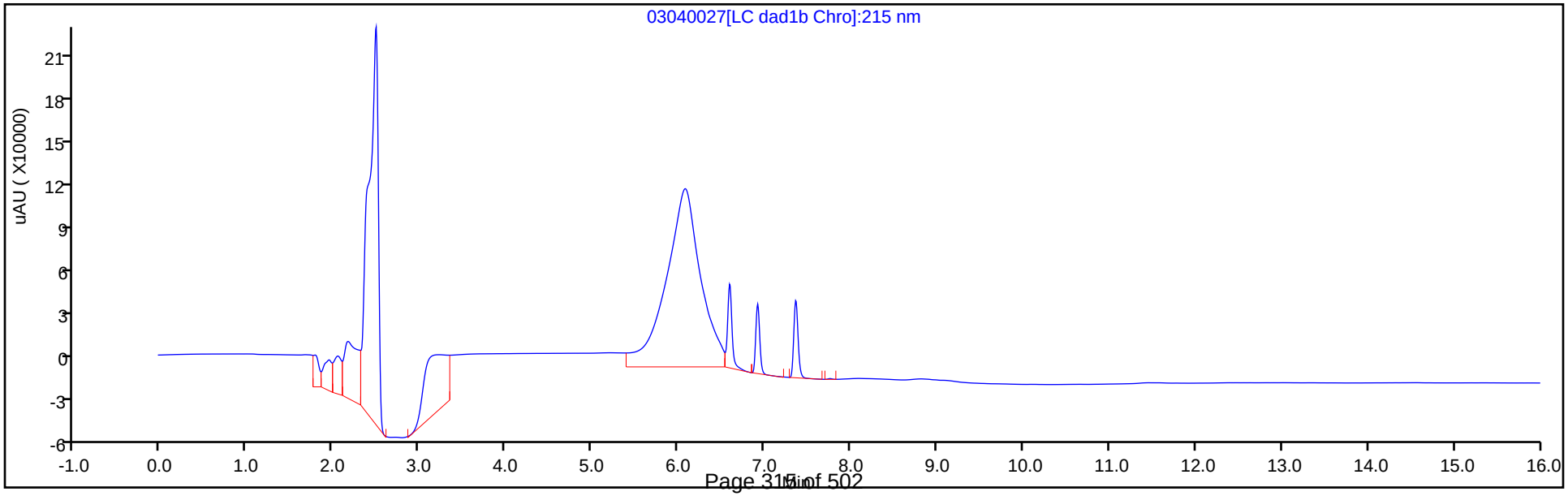
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L6 | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

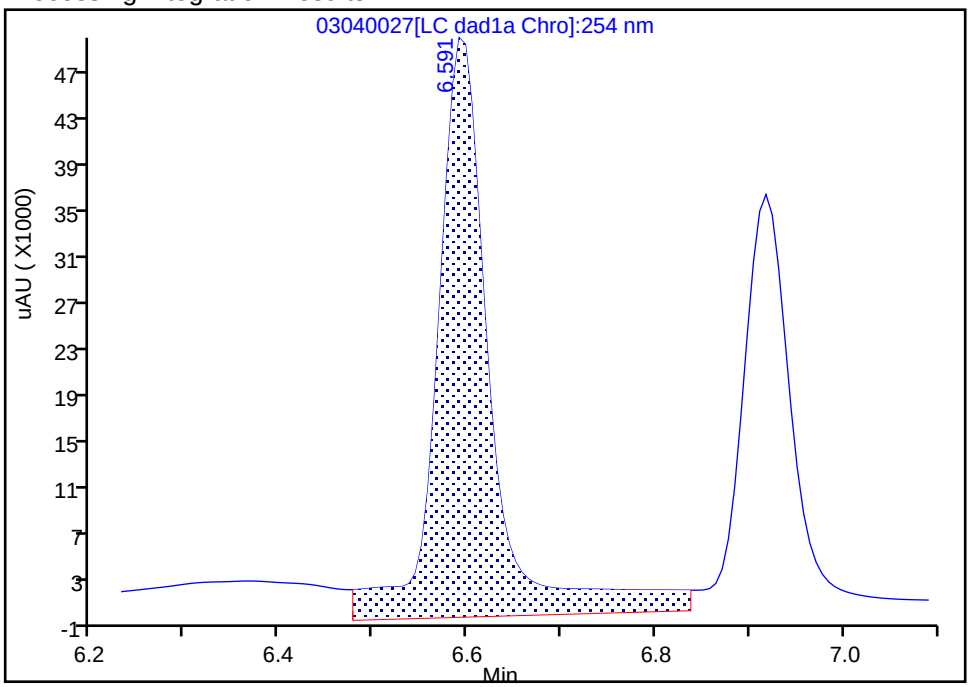
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

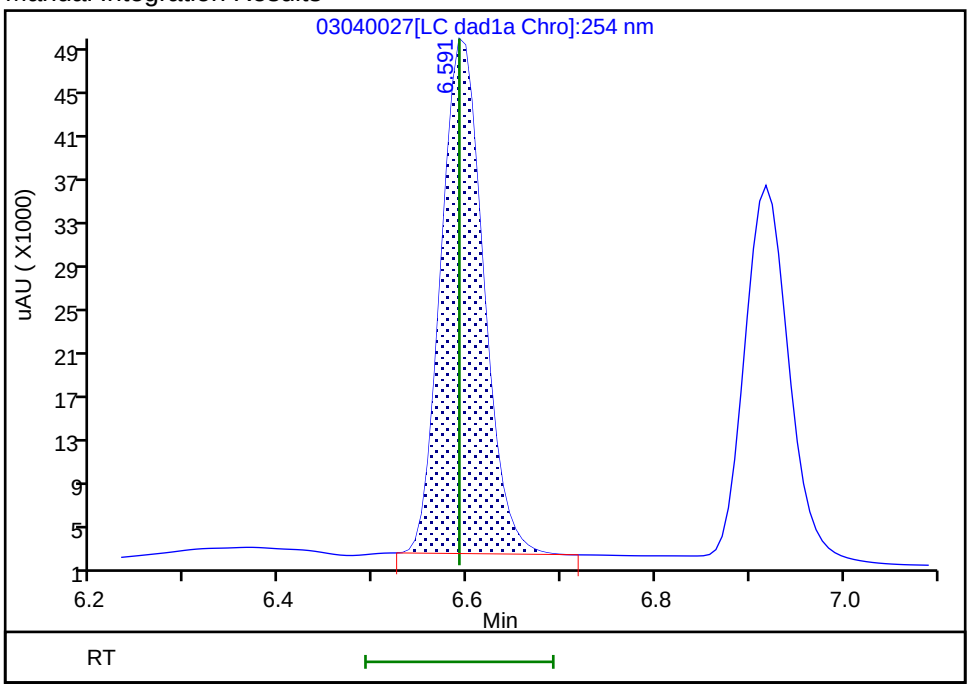
Processing Integration Results

RT: 6.59
Area: 198883
Amount: 0.812342
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 148550
Amount: 0.682647
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

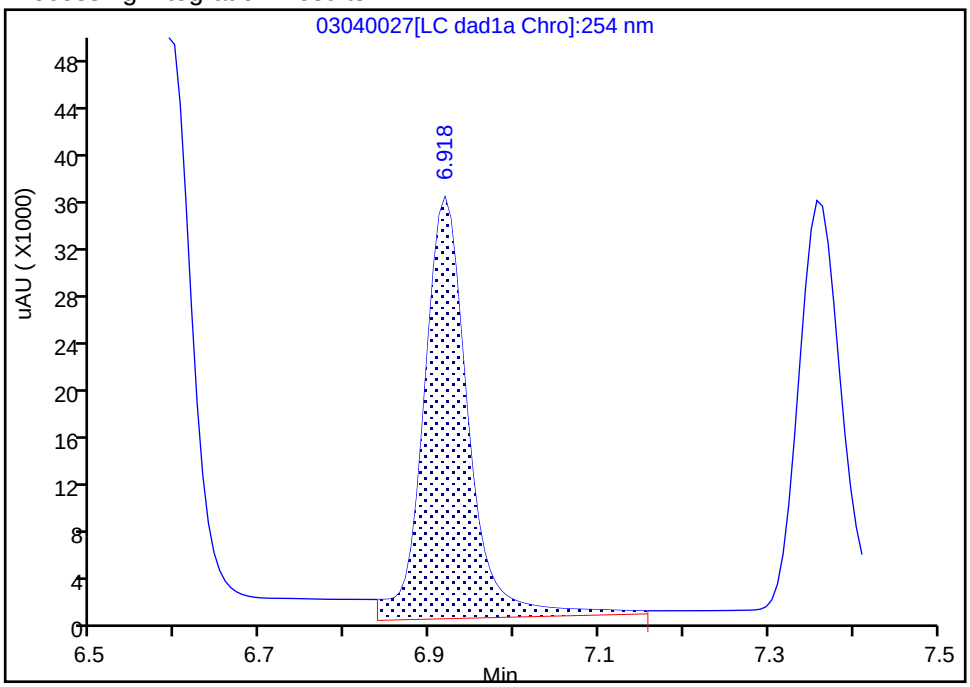
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

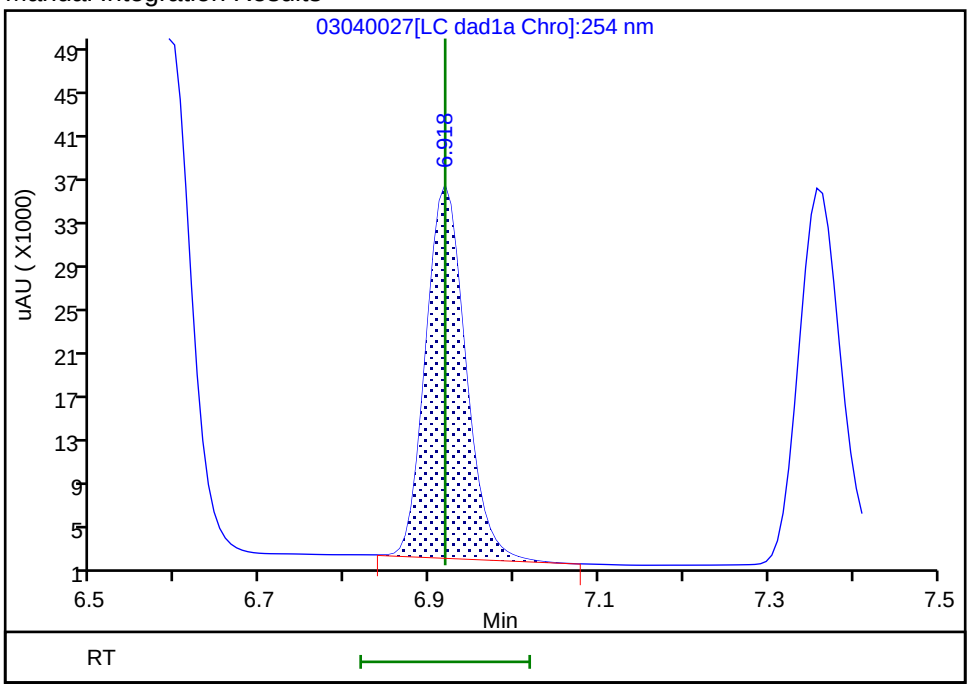
Processing Integration Results

RT: 6.92
Area: 130368
Amount: 0.673274
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 112549
Amount: 0.735959
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:30:49

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040028.D | | | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 04-Mar-2020 22:09:00 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L5 | | | | |
| Misc. Info.: | 280-0089779-028 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:24 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:18

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 85174 | 0.4004 | 0.3914 | M |
| 5 DNX | 1 | 6.917 | 6.918 | -0.001 | 64550 | 0.4004 | 0.4221 | M |
| 6 MNX | 1 | 7.357 | 7.358 | -0.001 | 73151 | 0.4668 | 0.4614 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

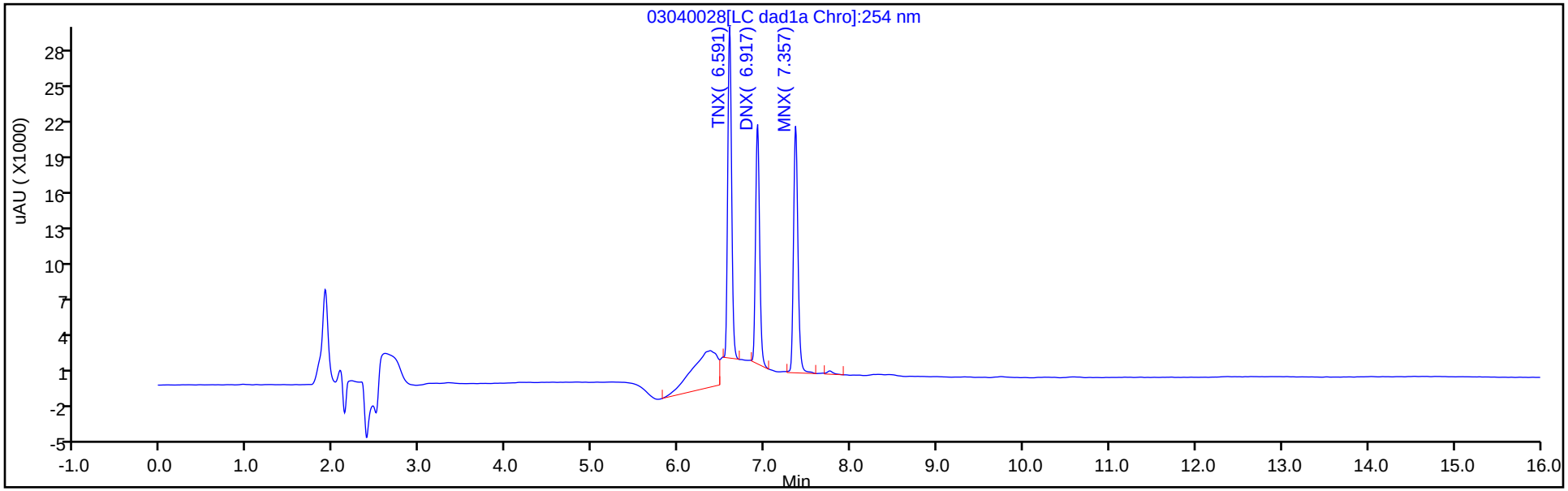
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

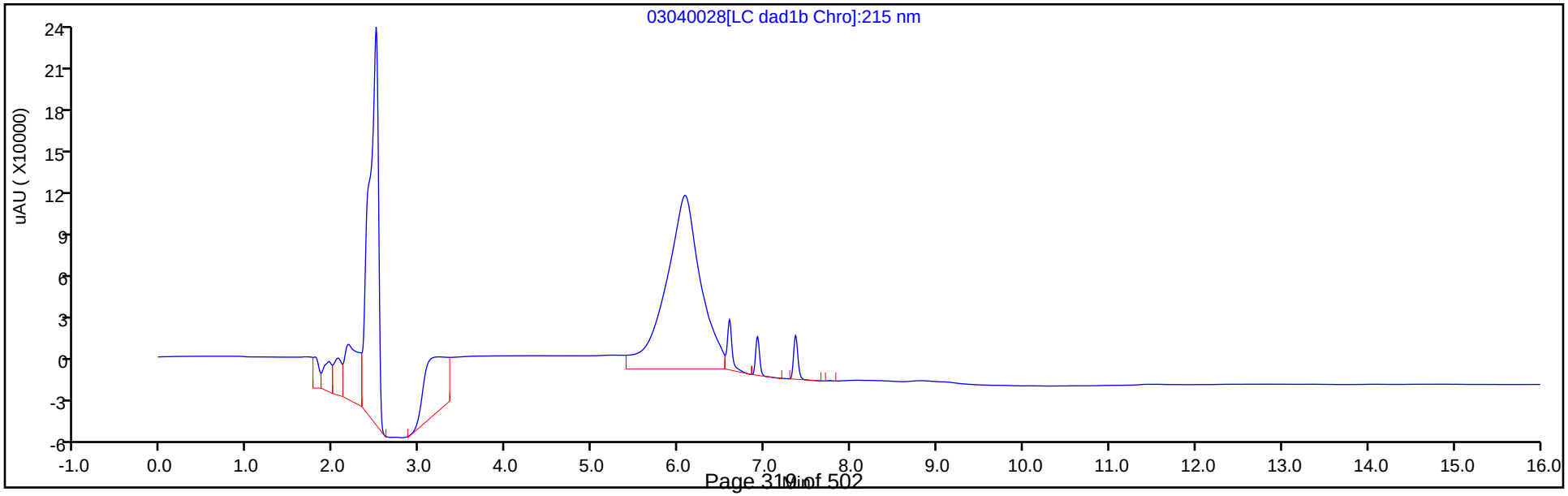
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L5 | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 28 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

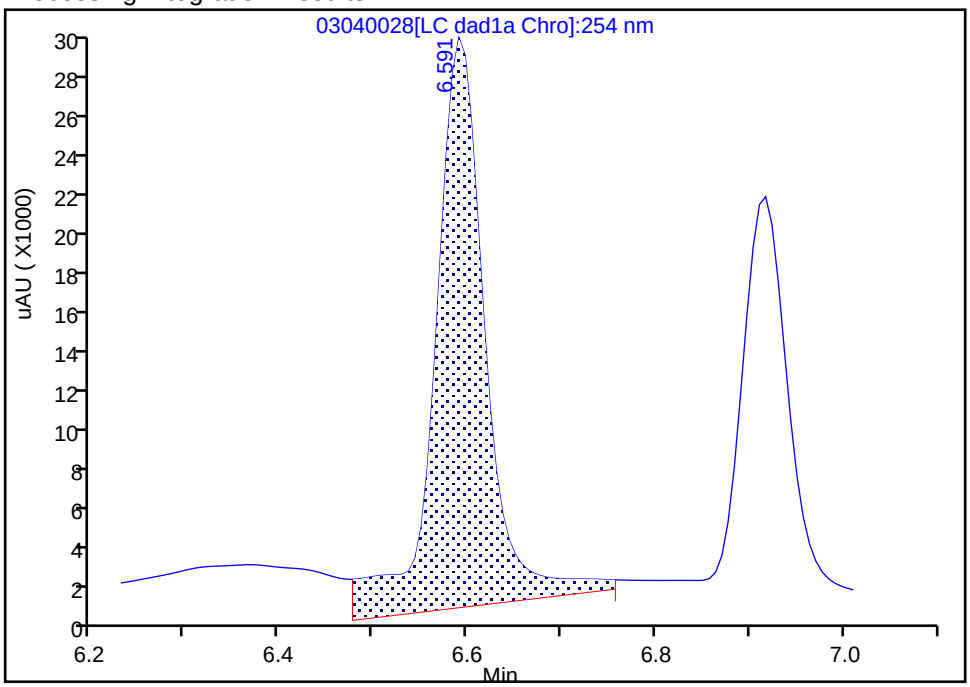
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

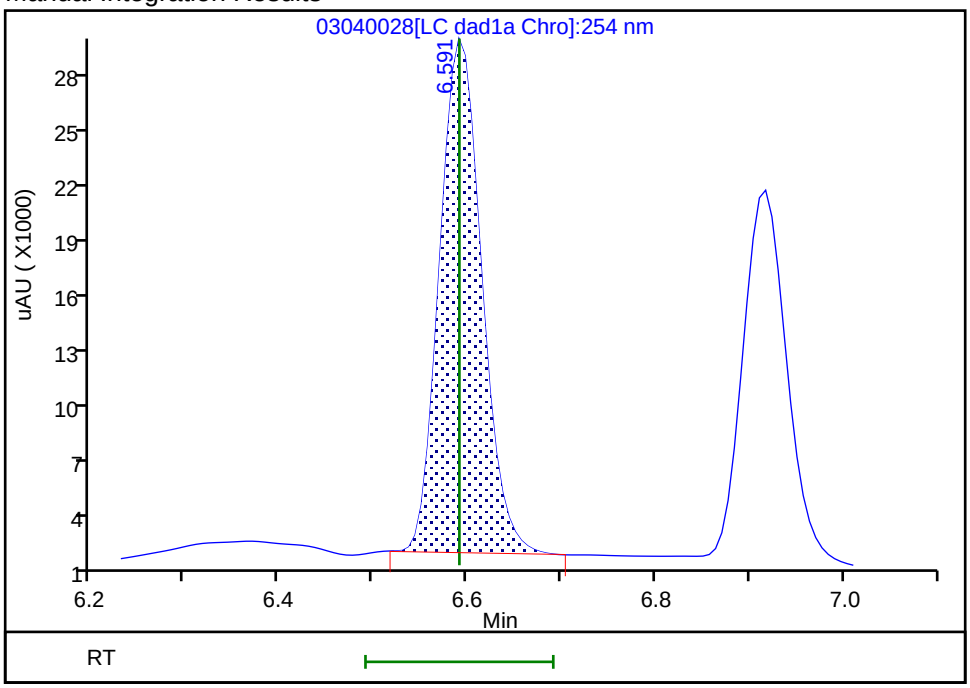
Processing Integration Results

RT: 6.59
Area: 108455
Amount: 0.455381
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 85174
Amount: 0.391409
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

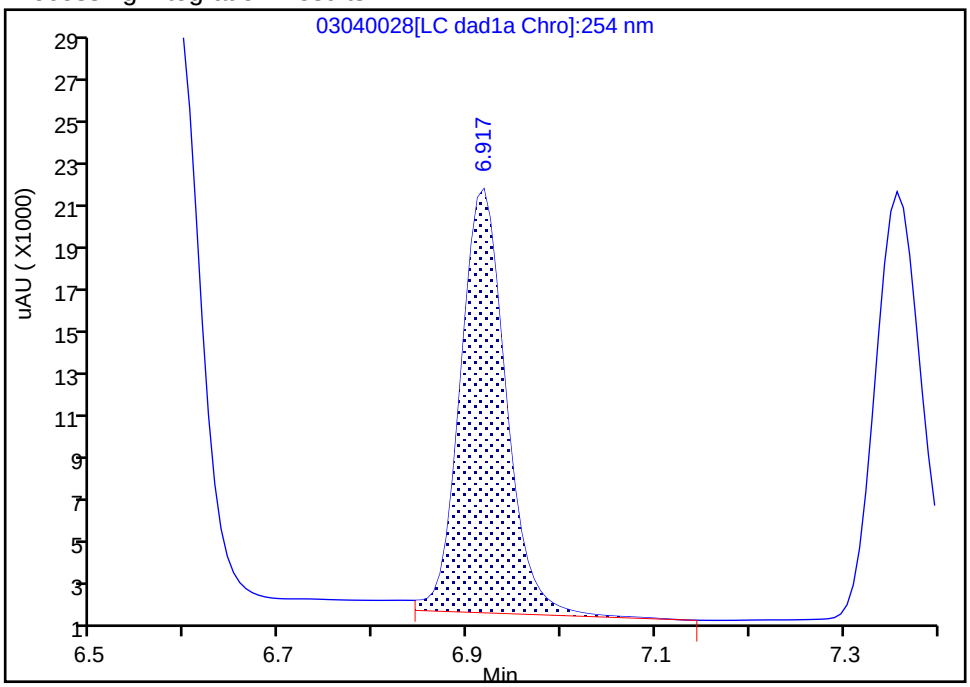
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

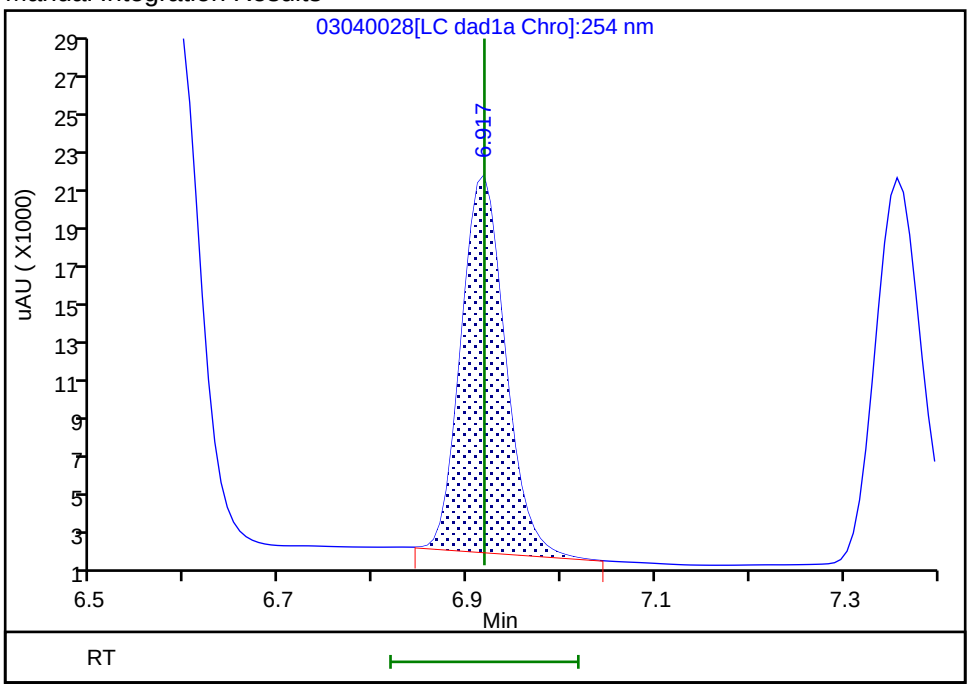
Processing Integration Results

RT: 6.92
Area: 67686
Amount: 0.396160
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 64550
Amount: 0.422093
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:13

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040029.D | | | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 04-Mar-2020 22:31:57 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L4 | | | | |
| Misc. Info.: | 280-0089779-029 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:24 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.591 | 6.591 | 0.000 | 57932 | 0.2503 | 0.2662 | M |
| 5 DNX | 1 | 6.918 | 6.918 | 0.000 | 41936 | 0.2503 | 0.2742 | M |
| 6 MNX | 1 | 7.358 | 7.358 | 0.000 | 46005 | 0.2918 | 0.2902 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

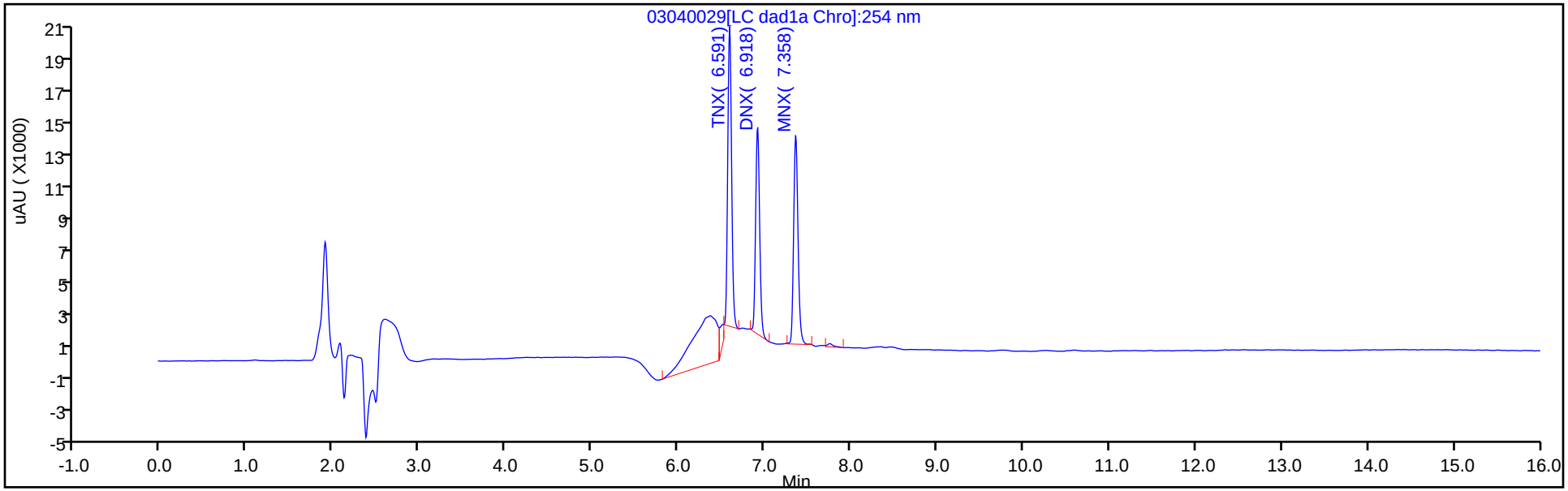
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

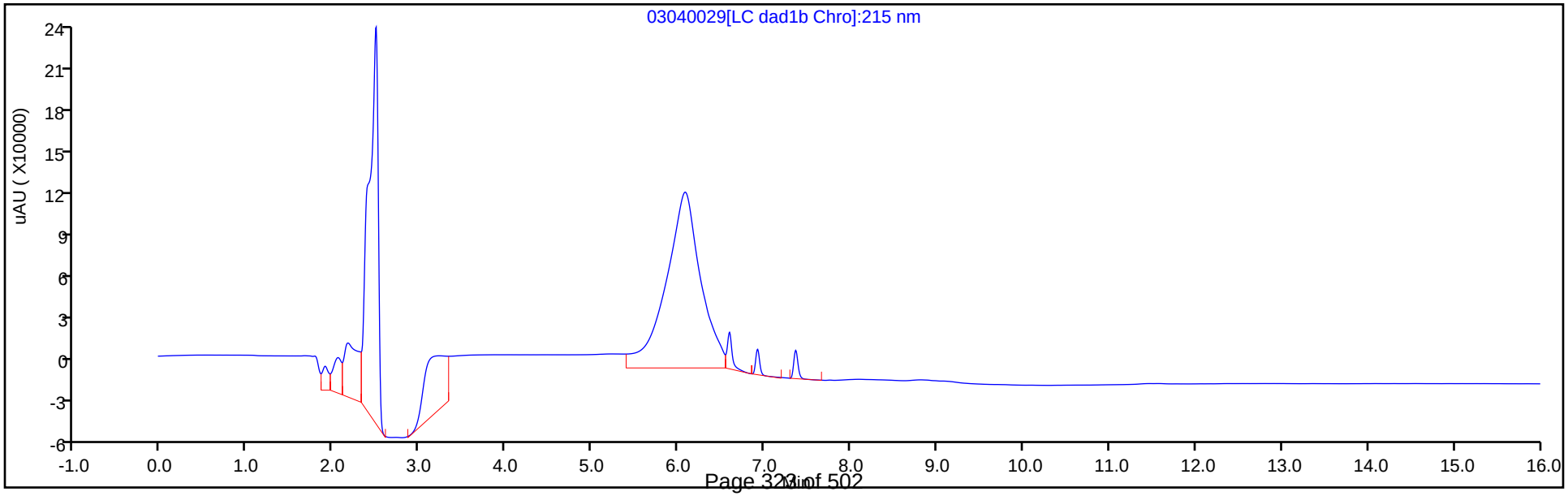
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L4 | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 29 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

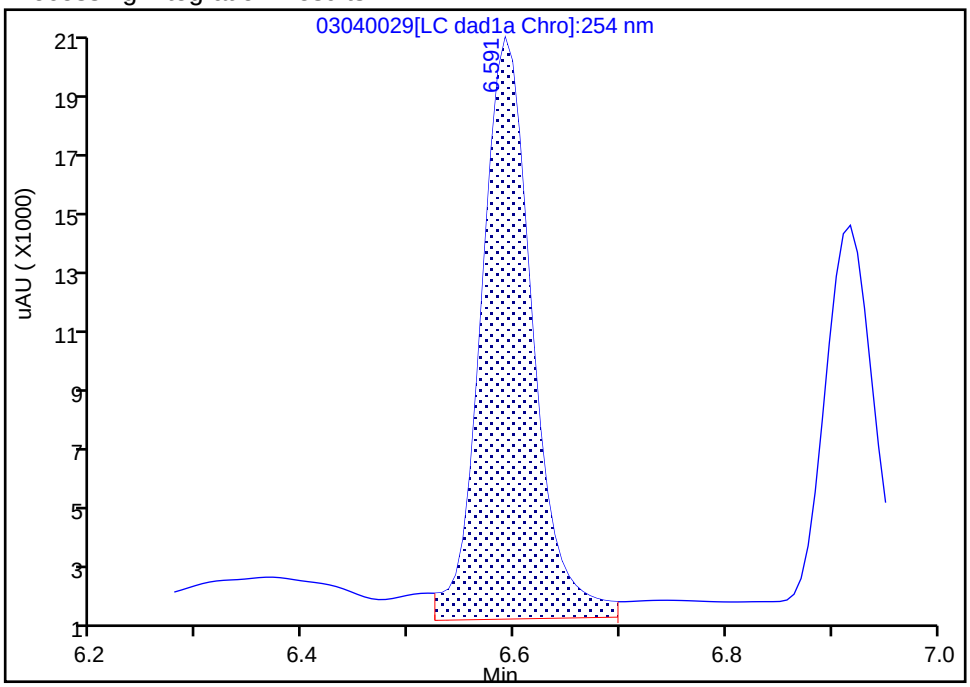
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

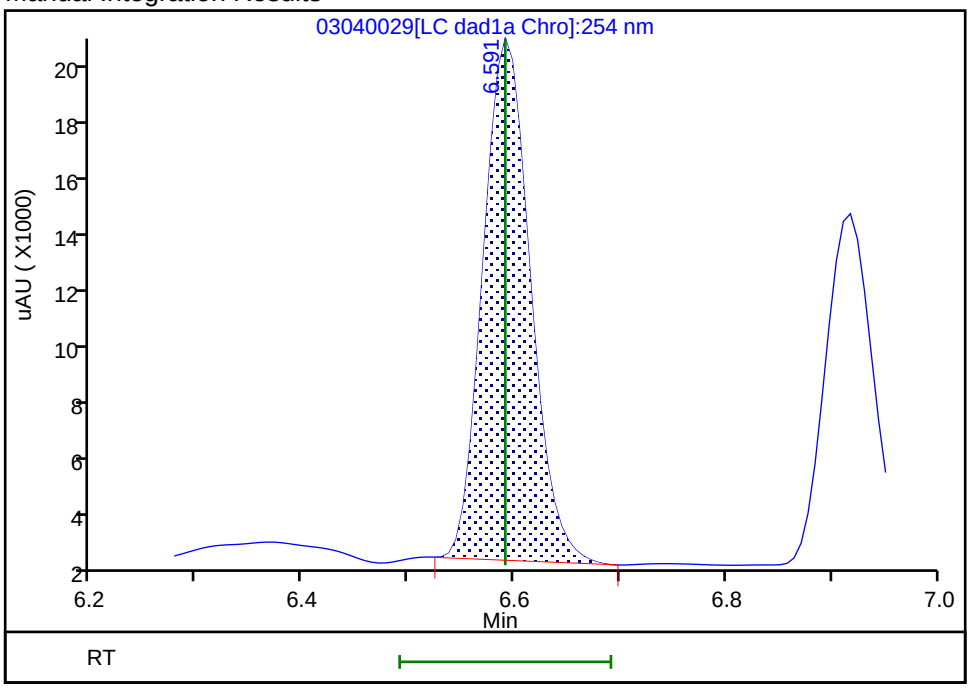
Processing Integration Results

RT: 6.59
Area: 65279
Amount: 0.274722
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 57932
Amount: 0.266221
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

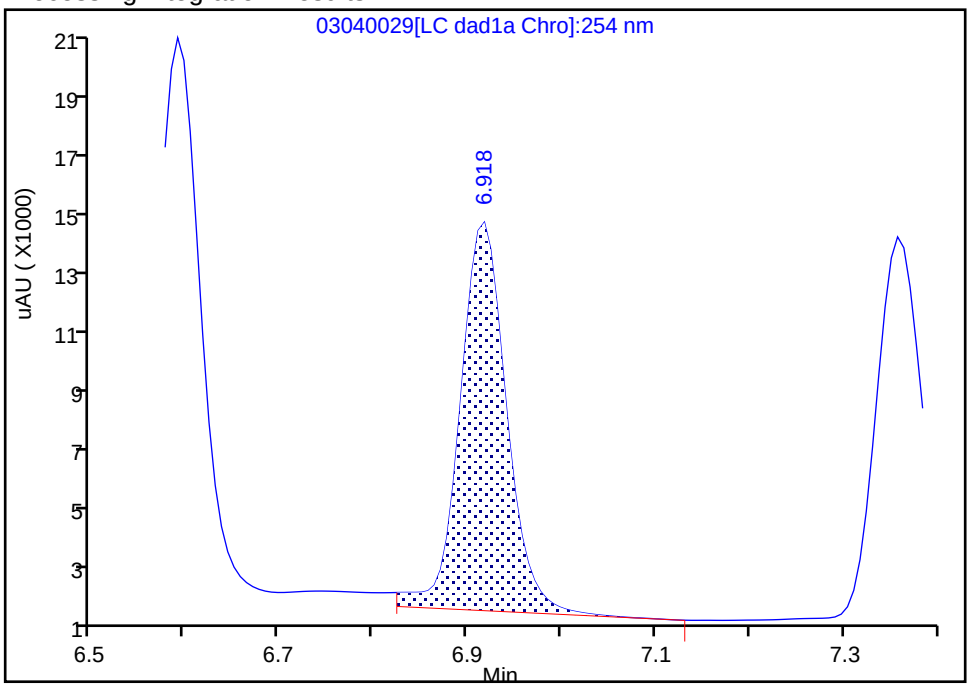
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

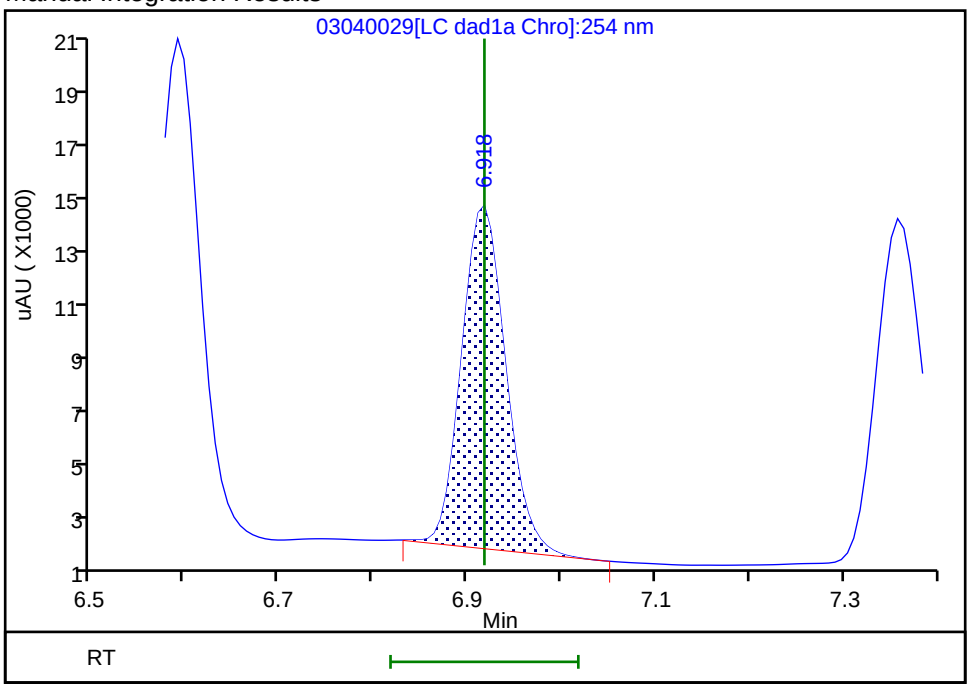
Processing Integration Results

RT: 6.92
Area: 45380
Amount: 0.263025
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 41936
Amount: 0.274220
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040030.D | | | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 04-Mar-2020 22:54:53 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L3 | | | | |
| Misc. Info.: | 280-0089779-030 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:25 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:08

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.589 | 6.591 | -0.002 | 21002 | 0.1001 | 0.0965 | M |
| 5 DNX | 1 | 6.915 | 6.918 | -0.003 | 14937 | 0.1001 | 0.0977 | M |
| 6 MNX | 1 | 7.355 | 7.358 | -0.003 | 18233 | 0.1167 | 0.1150 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

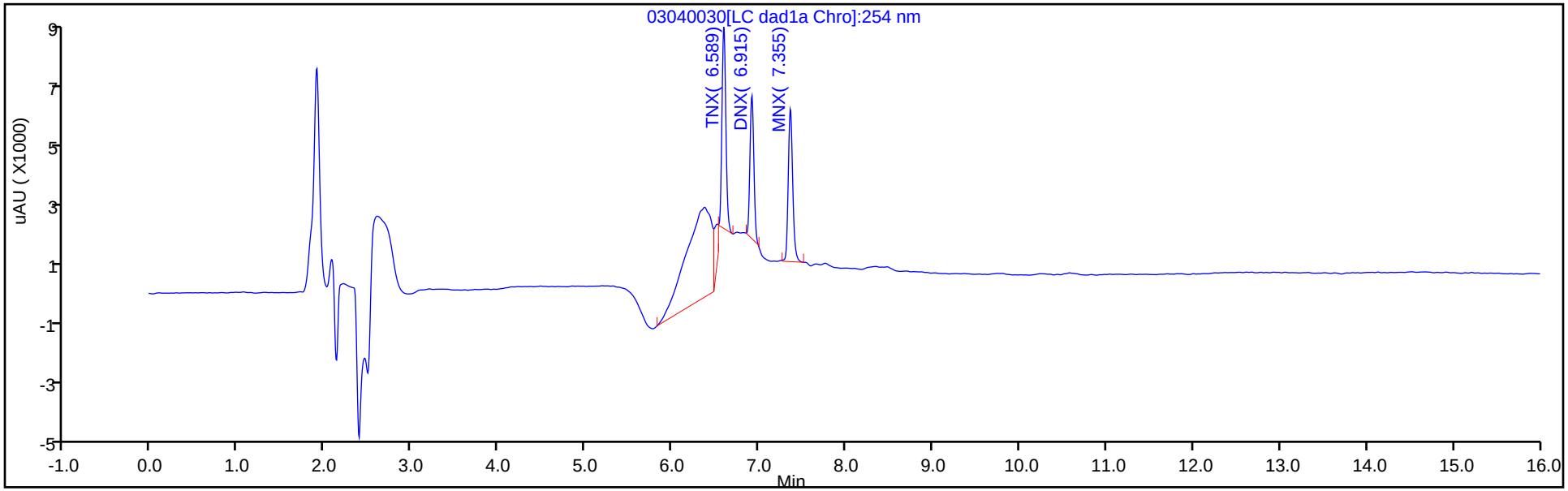
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

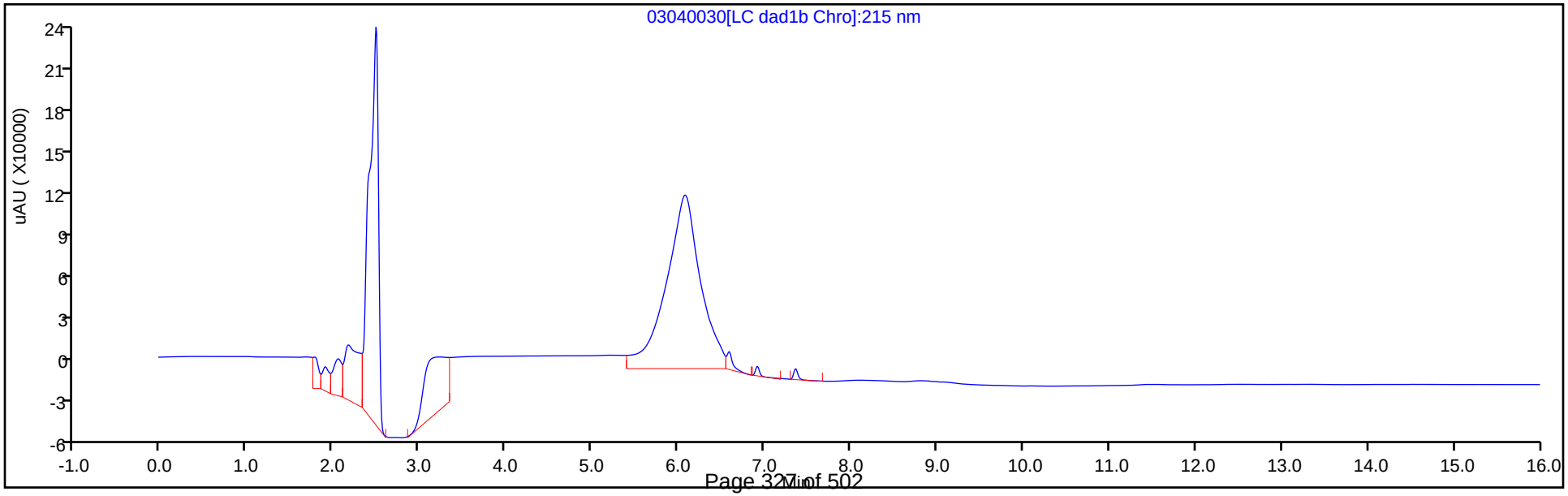
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L3 | | | Worklist Smp#: | 30 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

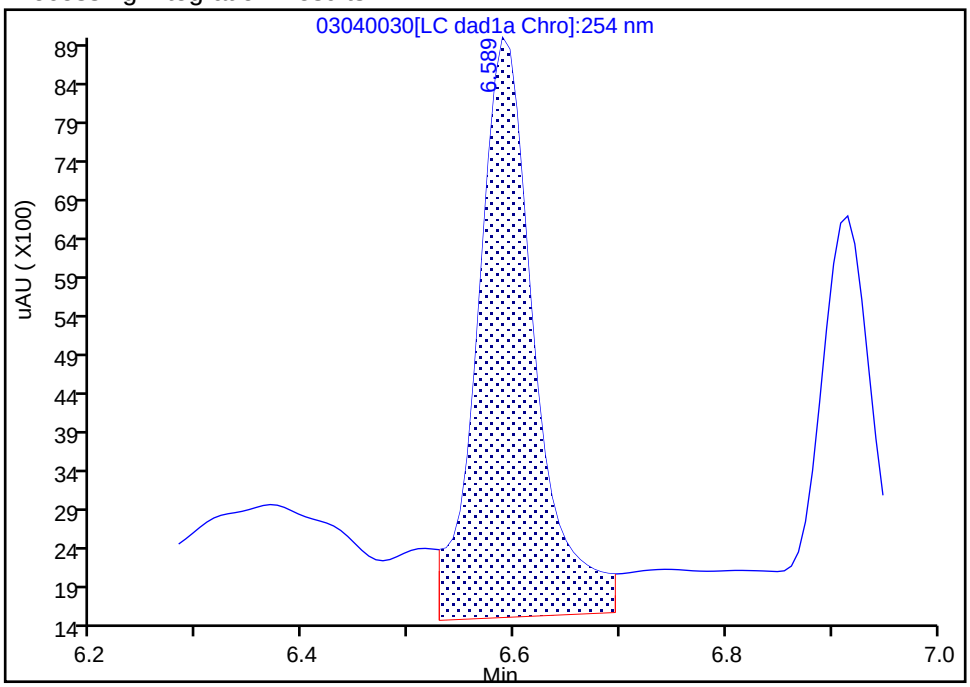
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

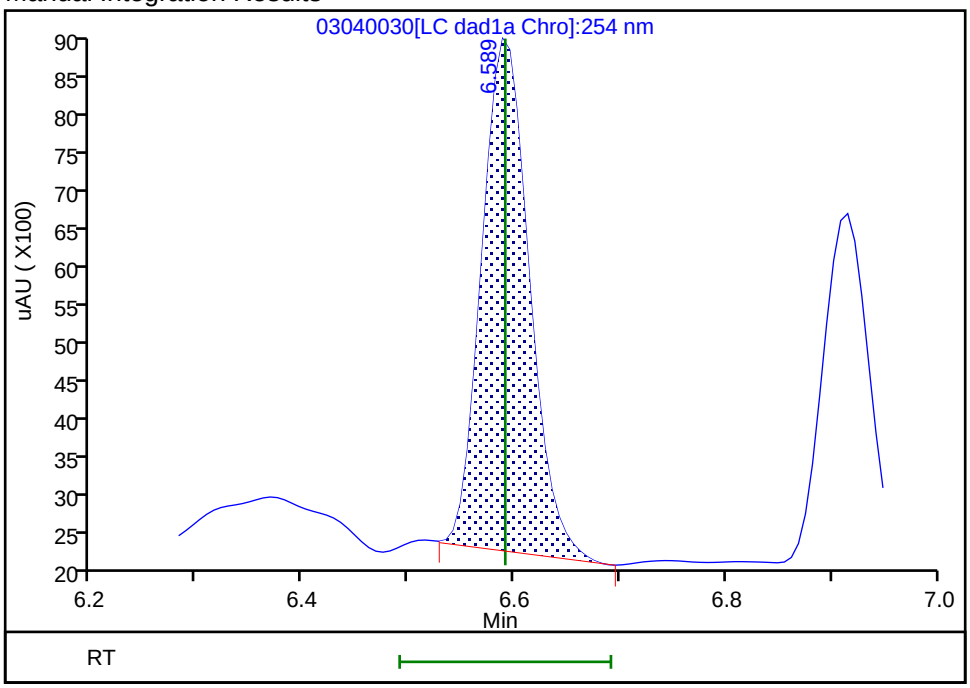
Processing Integration Results

RT: 6.59
Area: 27927
Amount: 0.102862
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 21002
Amount: 0.096513
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:31:59
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

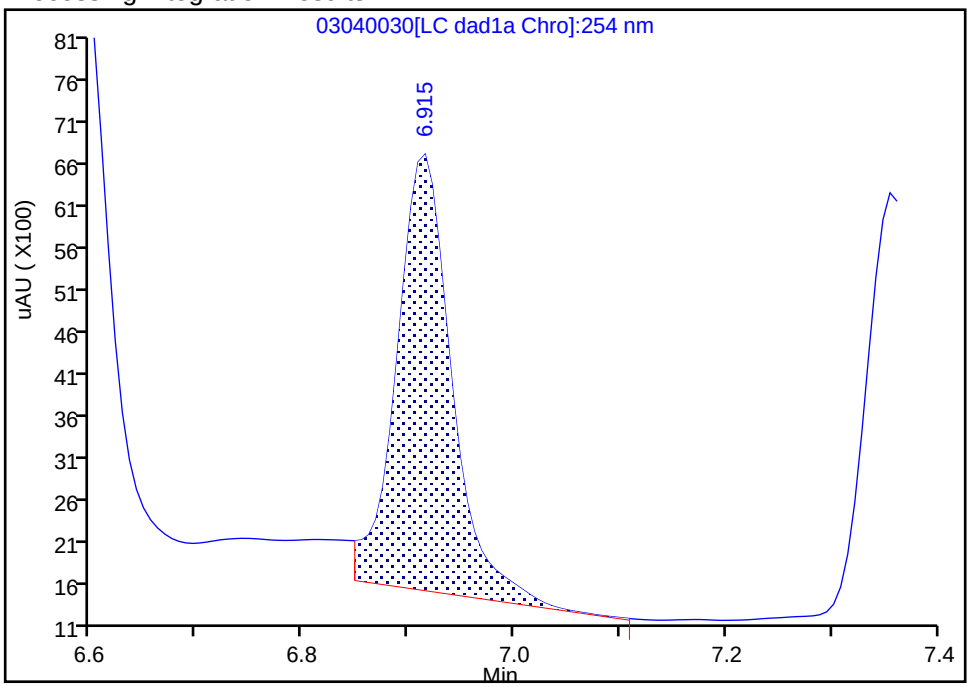
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

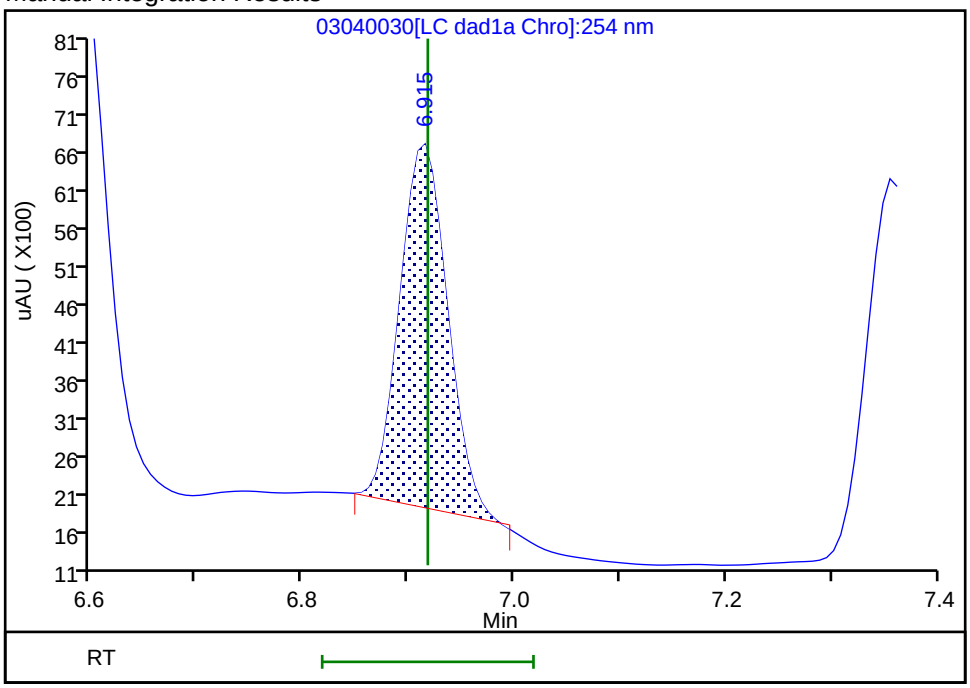
Processing Integration Results

RT: 6.92
Area: 18794
Amount: 0.101797
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 14937
Amount: 0.097673
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:04
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040031.D | | | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 04-Mar-2020 23:17:52 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L2 | | | | |
| Misc. Info.: | 280-0089779-031 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:26 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:31

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.588 | 6.591 | -0.003 | 10671 | 0.0501 | 0.0490 | M |
| 5 DNX | 1 | 6.914 | 6.918 | -0.004 | 6904 | 0.0501 | 0.0451 | M |
| 6 MNX | 1 | 7.354 | 7.358 | -0.004 | 9411 | 0.0584 | 0.0594 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

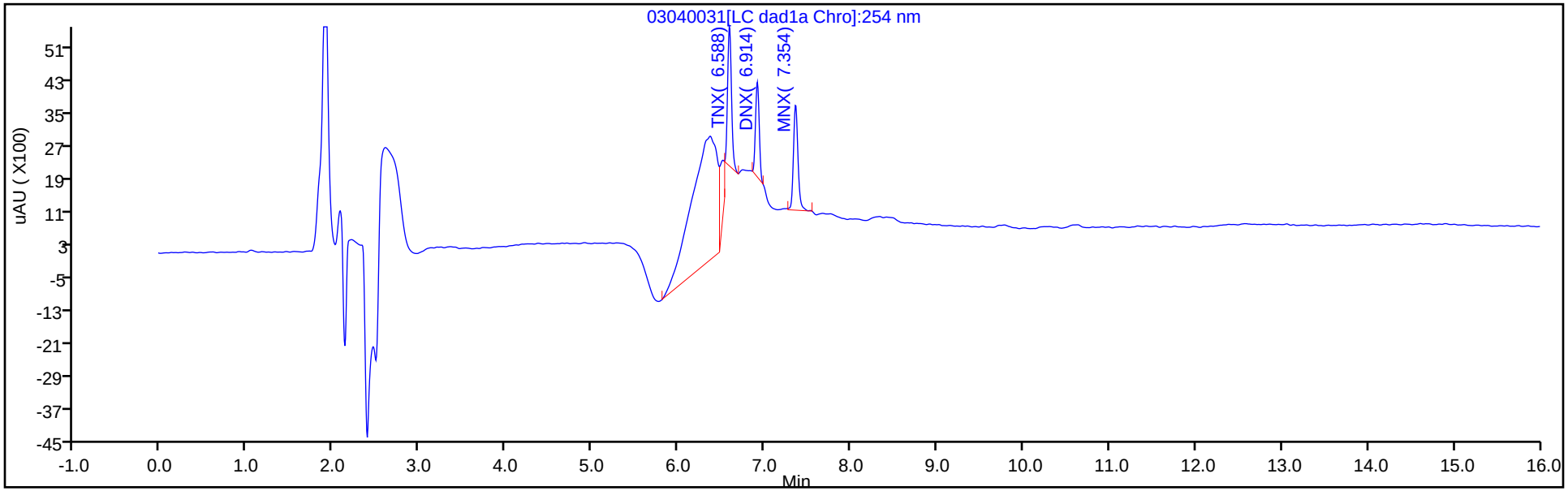
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

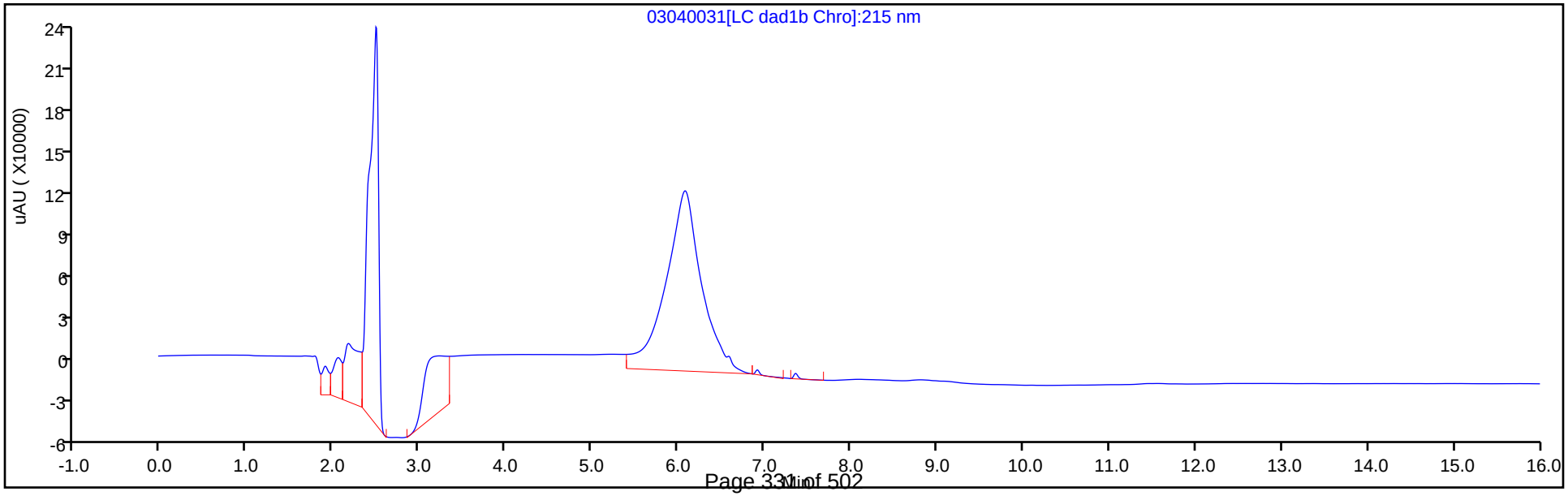
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L2 | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

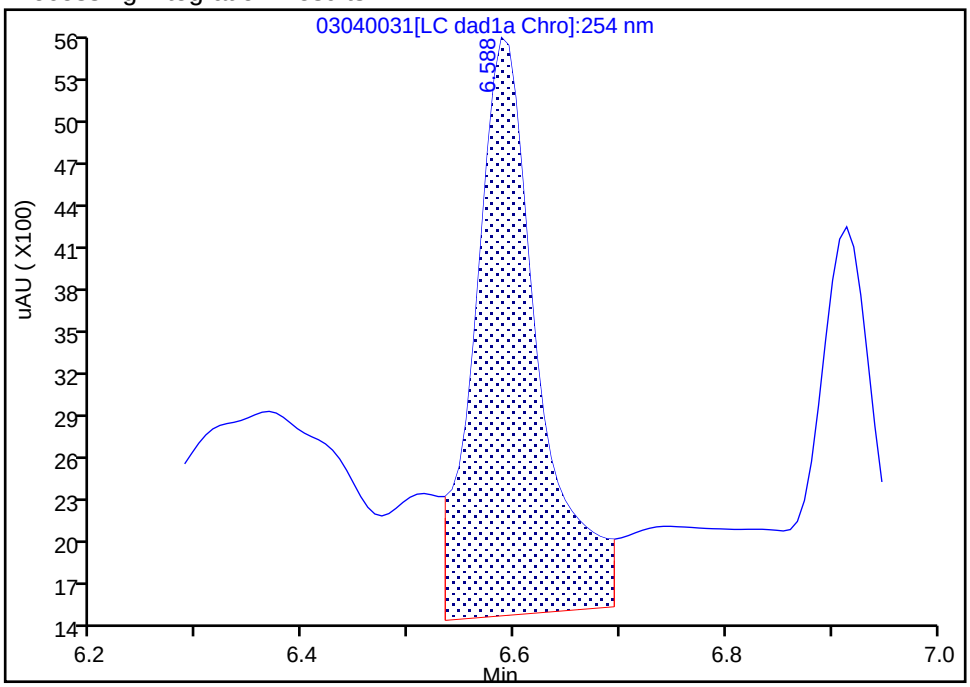
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

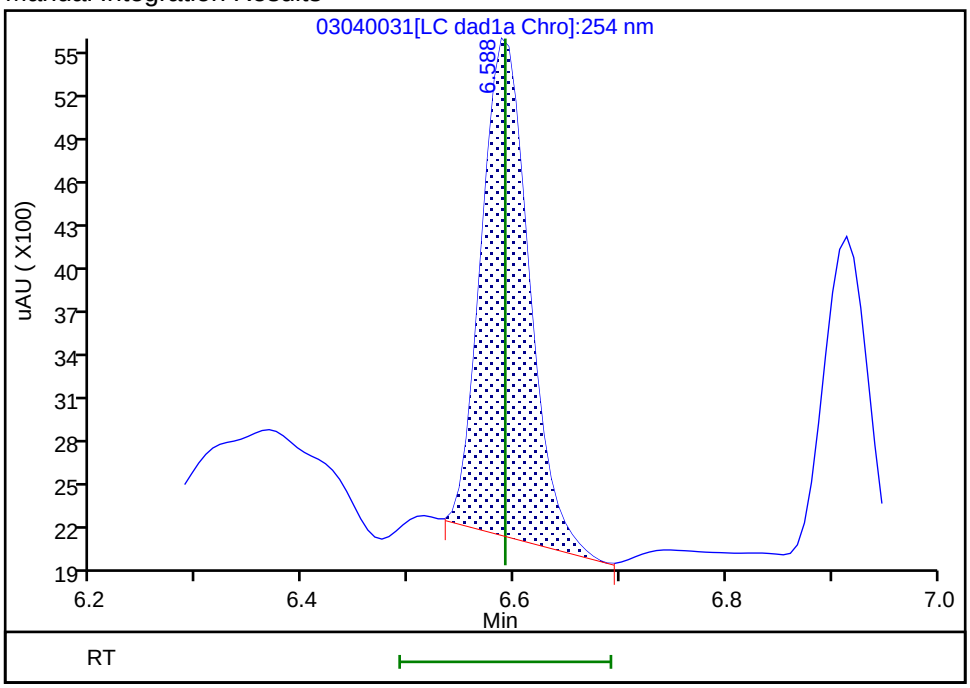
Processing Integration Results

RT: 6.59
Area: 17098
Amount: 0.055915
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 10671
Amount: 0.049038
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

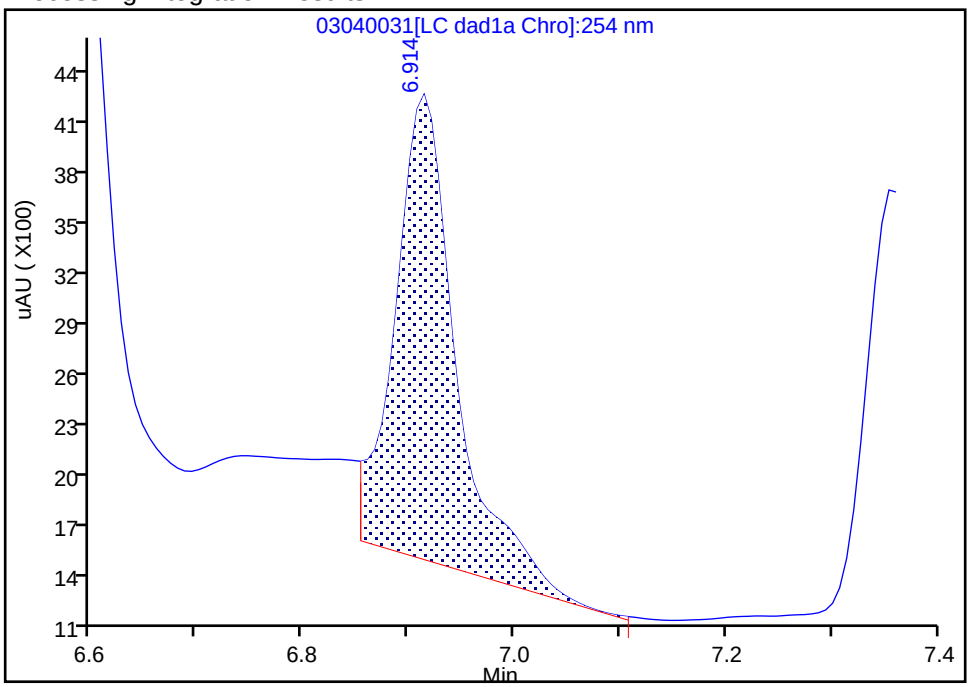
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

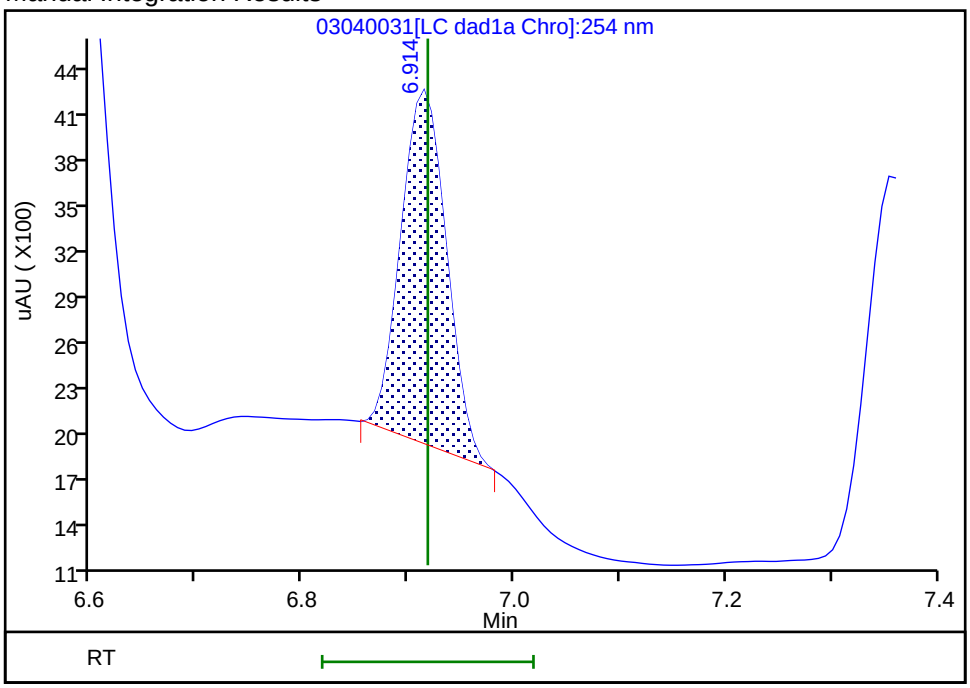
Processing Integration Results

RT: 6.91
Area: 11060
Amount: 0.055514
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 6904
Amount: 0.045145
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:28

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 04-Mar-2020 23:40:46 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC DMT L1 | | | | |
| Misc. Info.: | 280-0089779-032 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:27 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:54

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.592 | 6.591 | 0.001 | 4343 | 0.0200 | 0.0200 | M |
| 5 DNX | 1 | 6.912 | 6.918 | -0.006 | 2345 | 0.0200 | 0.0153 | M |
| 6 MNX | 1 | 7.359 | 7.358 | 0.001 | 4099 | 0.0233 | 0.0259 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

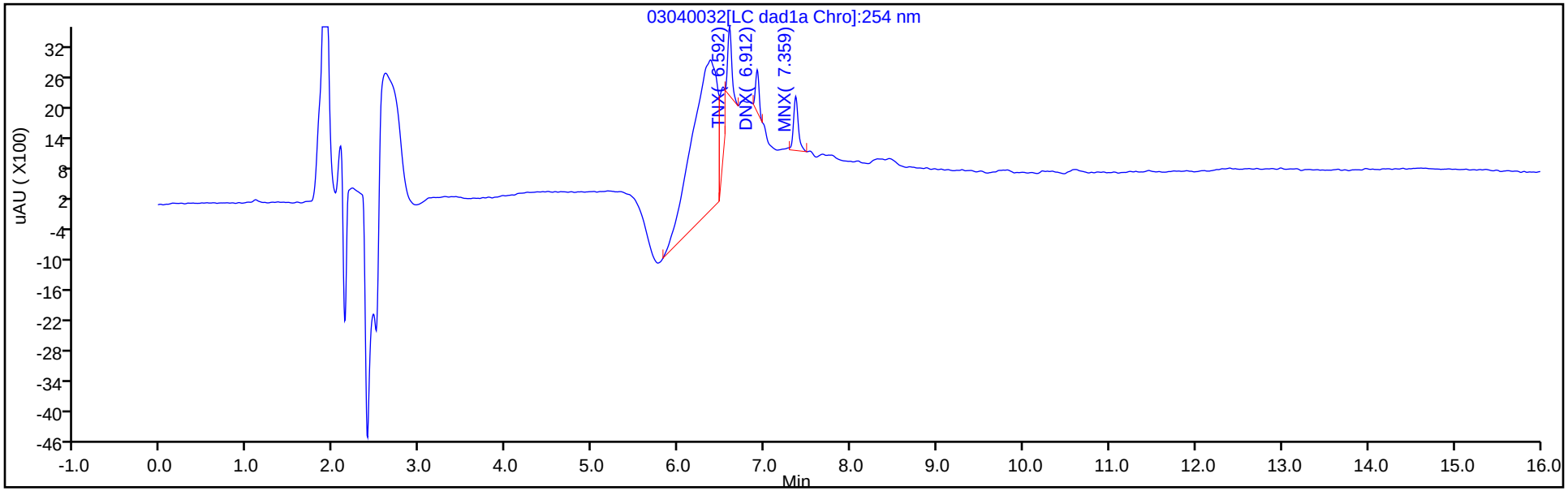
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

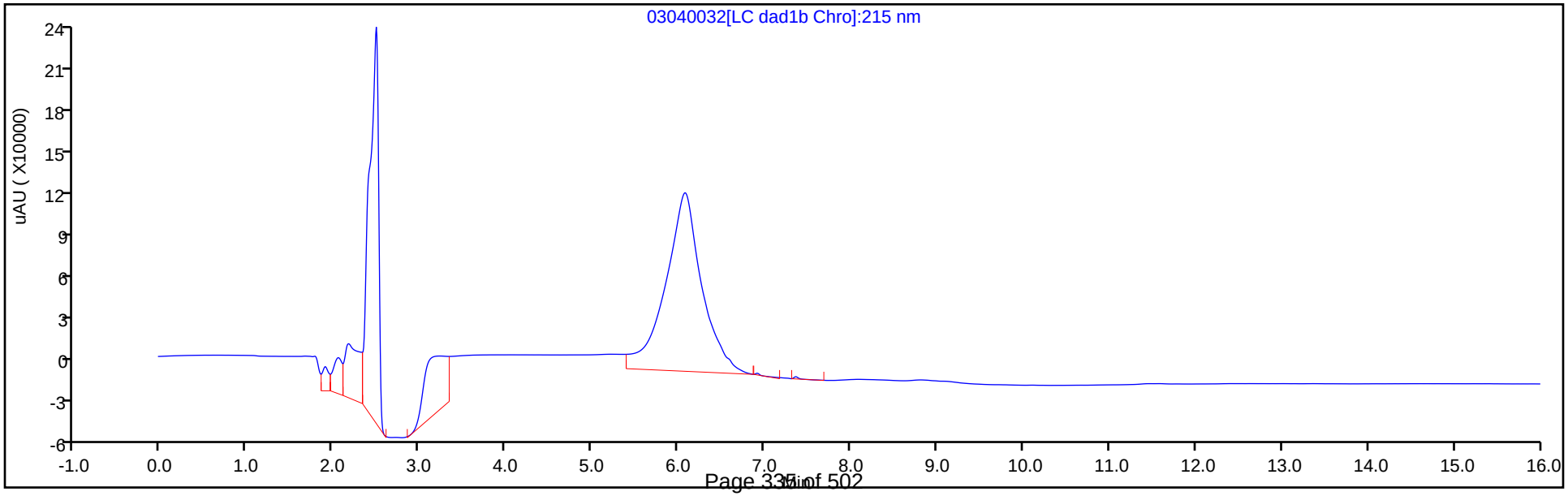
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC DMT L1 | | | Worklist Smp#: | 32 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

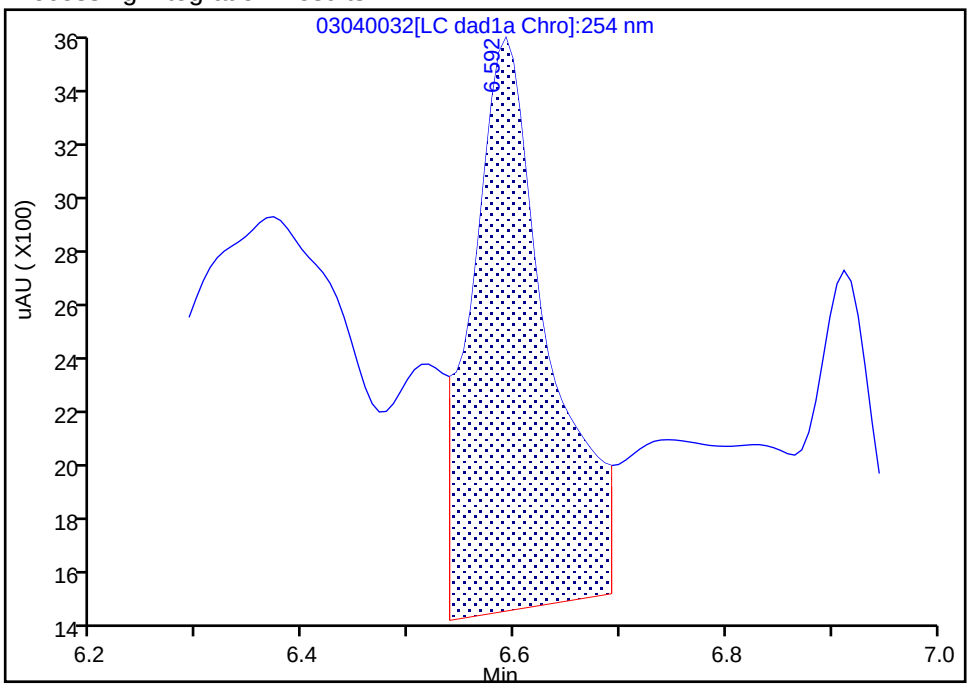
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

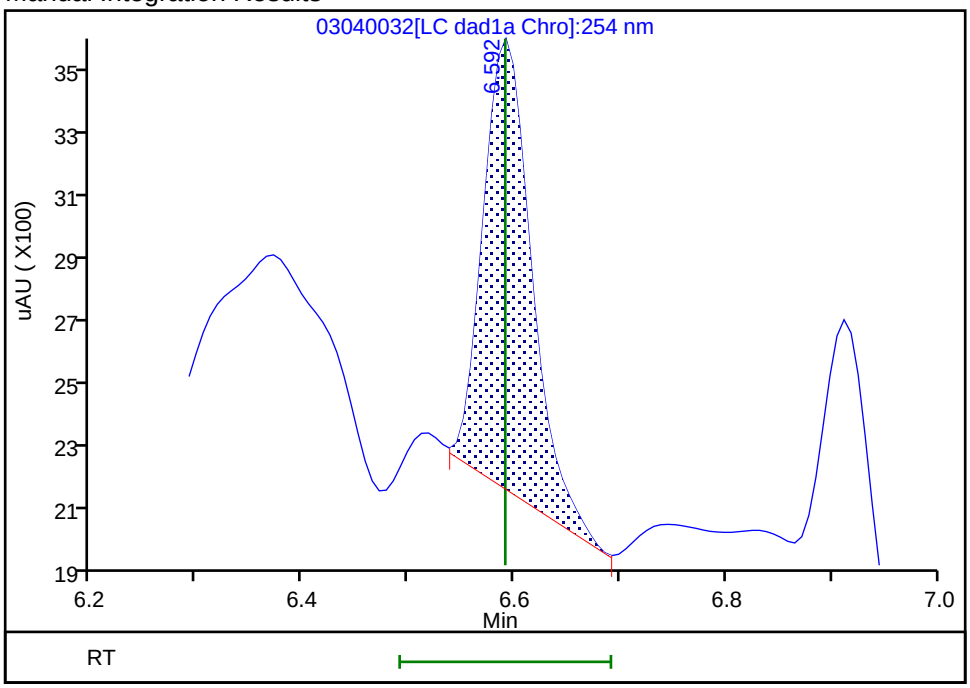
Processing Integration Results

RT: 6.59
Area: 10465
Amount: 0.032149
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 4343
Amount: 0.019958
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

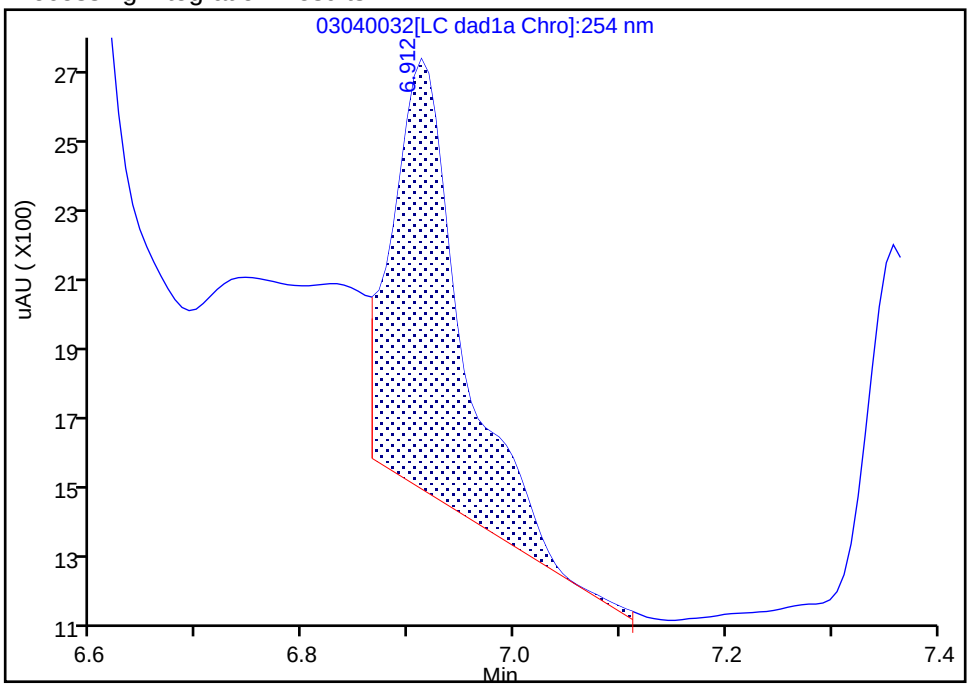
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

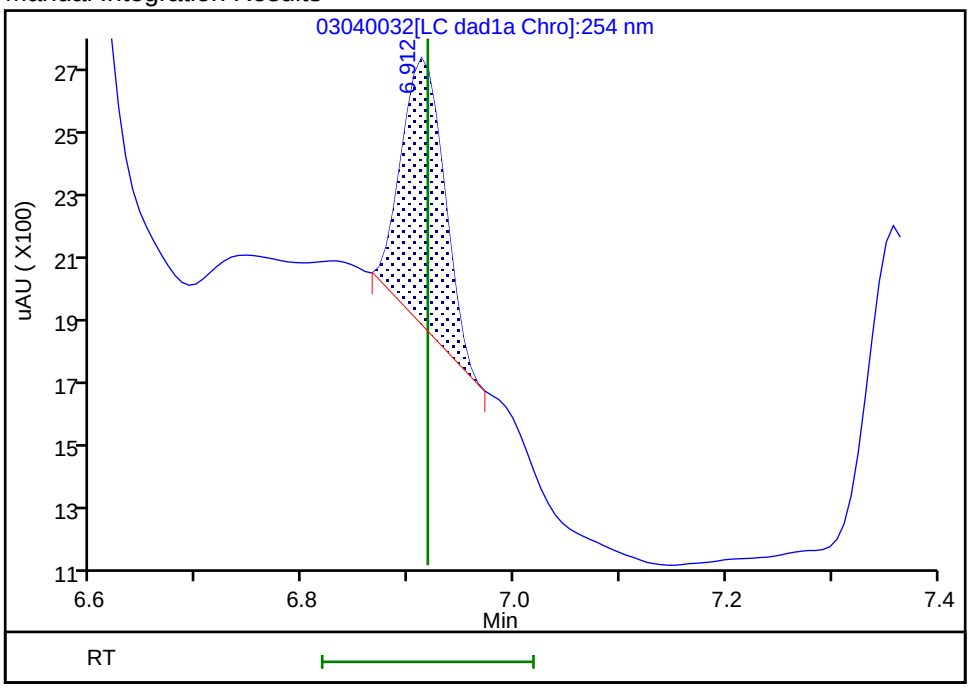
Processing Integration Results

RT: 6.91
Area: 5489
Amount: 0.028357
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 2345
Amount: 0.015334
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:32:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HMX | | 6.689 | 6.687 | 6.689 | 6.688 | 6.687 | 6.687 | 6.687 | 6.678 | | 6.539 - 6.839 | 6.687 |
| RDX | | 7.755 | 7.753 | 7.749 | 7.754 | 7.754 | 7.754 | 7.754 | 7.745 | | 7.599 - 7.899 | 7.752 |
| Picric acid | 8.082 | 8.082 | 8.080 | 8.076 | 8.068 | 8.054 | 8.041 | 8.034 | 7.978 | | 7.926 - 8.226 | 8.055 |
| 1,3,5-Trinitrobenzene | 8.888 | 8.889 | 8.887 | 8.883 | 8.888 | 8.887 | 8.881 | 8.887 | 8.878 | | 8.733 - 9.033 | 8.885 |
| 1,3-Dinitrobenzene | 9.535 | 9.535 | 9.533 | 9.529 | 9.534 | 9.527 | 9.527 | 9.534 | 9.525 | | 9.379 - 9.679 | 9.531 |
| Nitrobenzene | 9.915 | 9.922 | 9.920 | 9.916 | 9.921 | 9.914 | 9.914 | 9.914 | 9.911 | | 9.766 - 10.066 | 9.916 |
| Tetryl | 10.221 | 10.215 | 10.220 | 10.216 | 10.221 | 10.221 | 10.214 | 10.221 | 10.218 | | 10.066 - 10.366 | 10.219 |
| Nitroglycerin | 10.735 | 10.735 | 10.733 | 10.729 | 10.734 | 10.734 | 10.727 | 10.727 | 10.725 | | 10.579 - 10.879 | 10.731 |
| 2,4,6-Trinitrotoluene | 11.195 | 11.189 | 11.186 | 11.183 | 11.194 | 11.187 | 11.181 | 11.187 | 11.185 | | 11.083 - 11.283 | 11.187 |
| 4-Amino-2,6-dinitrotoluene | 11.341 | 11.342 | 11.340 | 11.336 | 11.347 | 11.341 | 11.334 | 11.334 | 11.331 | | 11.236 - 11.436 | 11.338 |
| 2-Amino-4,6-dinitrotoluene | 11.635 | 11.629 | 11.633 | 11.623 | 11.634 | 11.627 | 11.621 | 11.621 | 11.618 | | 11.523 - 11.723 | 11.627 |
| 2,6-Dinitrotoluene | 11.795 | 11.789 | 11.793 | 11.783 | 11.794 | 11.787 | 11.781 | 11.787 | 11.785 | | 11.683 - 11.883 | 11.788 |
| 2,4-Dinitrotoluene | 11.995 | 11.989 | 11.986 | 11.983 | 11.987 | 11.987 | 11.981 | 11.981 | 11.978 | | 11.883 - 12.083 | 11.985 |
| 2-Nitrotoluene | 12.828 | 12.822 | 12.833 | 12.823 | 12.827 | 12.827 | 12.814 | 12.821 | 12.818 | | 12.673 - 12.973 | 12.824 |
| 4-Nitrotoluene | 13.268 | 13.269 | 13.260 | 13.256 | 13.261 | 13.261 | 13.254 | 13.254 | 13.251 | | 13.106 - 13.406 | 13.259 |
| 3-Nitrotoluene | 13.855 | 13.849 | 13.853 | 13.849 | 13.854 | 13.854 | 13.841 | 13.847 | 13.845 | | 13.699 - 13.999 | 13.850 |
| PETN | | +++++ | 14.946 | 14.936 | 14.941 | 14.941 | 14.927 | 14.941 | 14.945 | | 14.786 - 15.086 | 14.940 |
| 1,2-Dinitrobenzene | 8.715 | 8.709 | 8.713 | 8.709 | 8.714 | 8.714 | 8.714 | 8.714 | 8.705 | | 8.559 - 8.859 | 8.712 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 91008<br>92308 | 61440<br>91473 | 86460<br>91820 | 90800<br>92351 | Ave | | 85962.1667 | | | | 12.3 | | 20.0 | | | |
| RDX | 112944<br>111897 | 112680<br>113215 | 121400<br>111841 | 117010<br>112730 | Ave | | 116613.070 | | | | 6.7 | | 20.0 | | | |
| Picric acid | 86560<br>86468<br>88192 | 70960<br>86698 | 86100<br>86851 | 86470<br>87876 | Ave | | 85130.5476 | | | | 6.3 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 192016<br>239677<br>242392 | 193413<br>242552 | 239242<br>242052 | 236826<br>244610 | Ave | | 230308.873 | | | | 9.3 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 254770<br>321218<br>326628 | 250299<br>322290 | 322275<br>320369 | 318333<br>323988 | Ave | | 306685.717 | | | | 10.0 | | 20.0 | | | |
| Nitrobenzene | 173386<br>209084<br>210856 | 165538<br>209462 | 208865<br>209202 | 207759<br>209472 | Ave | | 200402.631 | | | | 8.8 | | 20.0 | | | |
| Tetryl | 132854<br>188850<br>191963 | 139401<br>190152 | 182355<br>189763 | 184900<br>193048 | Ave | | 177031.954 | | | | 13.3 | | 20.0 | | | |
| Nitroglycerin | 54320<br>73708<br>72647 | 54804<br>73682 | 66982<br>72630 | 71269<br>73160 | Ave | | 68133.4679 | | | | 11.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<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 | 143984<br>216888<br>217948 | 171594<br>215762 | 214622<br>218499 | 217430<br>219552 | Ave | | 204030.971 | | | | 13.3 | | 20.0 | | | |
| 4-Amino-2,6-dinitrotoluene | 78402<br>173379<br>171541 | 137582<br>174883 | 169630<br>168893 | 172757<br>173075 | Lin2 | -1163.6365 | 178372.945 | | | | | | | 0.9980 | | 0.9900 |
| 2-Amino-4,6-dinitrotoluene | 169163<br>213685<br>217128 | 161195<br>213177 | 209223<br>213799 | 209592<br>218387 | Ave | | 202816.698 | | | | 10.7 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 120159<br>159558<br>155029 | 119004<br>160244 | 157012<br>158940 | 158576<br>156549 | Ave | | 149452.337 | | | | 11.4 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 250359<br>318972<br>321972 | 249960<br>319980 | 313566<br>317703 | 316753<br>322992 | Ave | | 303584.095 | | | | 10.0 | | 20.0 | | | |
| 2-Nitrotoluene | 129200<br>138416<br>134514 | 122720<br>134575 | 151060<br>133944 | 137330<br>133699 | Ave | | 135050.876 | | | | 5.6 | | 20.0 | | | |
| 4-Nitrotoluene | 86228<br>119058<br>116822 | 100160<br>116285 | 128064<br>116245 | 117874<br>116311 | Ave | | 113005.083 | | | | 10.9 | | 20.0 | | | |
| 3-Nitrotoluene | 112128<br>149894<br>149503 | 125035<br>150095 | 155005<br>148550 | 148232<br>148816 | Ave | | 143028.635 | | | | 10.0 | | 20.0 | | | |
| PETN | <br>80472<br>82059 | +++++<br>82077 | 74814<br>81281 | 78947<br>82446 | Ave | | 78604.5748 | | | | 6.9 | | 20.0 | | | |
| 1,2-Dinitrobenzene | 122480<br>142220<br>143478 | 119840<br>142918 | 144780<br>142683 | 141270<br>144242 | Ave | | 138212.217 | | | | 7.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 280-489145/15 | 03180015.D |
| Level 2 | IC 280-489145/14 | 03180014.D |
| Level 3 | IC 280-489145/13 | 03180013.D |
| Level 4 | IC 280-489145/12 | 03180012.D |
| Level 5 | IC 280-489145/11 | 03180011.D |
| Level 6 | IC 280-489145/10 | 03180010.D |
| Level 7 | IC 280-489145/9 | 03180009.D |
| Level 8 | IC 280-489145/8 | 03180008.D |
| Level 9 | IC 280-489145/7 | 03180007.D |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| HMX | Ave | 36589 | 1536<br>64274 | 4323<br>92351 | 9080<br>230770 | 22752 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| RDX | Ave | 45286 | 2817<br>78289 | 6070<br>112730 | 11701<br>279743 | 28236 | 0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| Picric acid | Ave | 1082<br>34679 | 1774<br>60796 | 4305<br>87876 | 8647<br>220480 | 21617 | 0.0125<br>0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |
| 1,3,5-Trinitrobenzene | Ave | 2405<br>97215 | 4845<br>169775 | 11986<br>245099 | 23730<br>607193 | 60039 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 1,3-Dinitrobenzene | Ave | 3191<br>129174 | 6270<br>224707 | 16146<br>324636 | 31897<br>818202 | 80465 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitrobenzene | Ave | 2176<br>84120 | 4155<br>147027 | 10485<br>210310 | 20859<br>529249 | 52480 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| Tetryl | Ave | 1664<br>76213 | 3492<br>133100 | 9136<br>193434 | 18527<br>480867 | 47307 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| Nitroglycerin | Ave | 6790<br>294728 | 13701<br>508407 | 33491<br>731600 | 71269<br>1816166 | 184270 | 0.125<br>4.00 | 0.250<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 2,4,6-Trinitrotoluene | Ave | 1807<br>86650 | 4307<br>153561 | 10774<br>220430 | 21830<br>547050 | 54439 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | 981<br>70023 | 3443<br>118343 | 8490<br>173248 | 17293<br>429281 | 43388 | 0.0125<br>0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| 2-Amino-4,6-dinitrotoluene | Ave | 2123<br>85612 | 4046<br>150258 | 10503<br>219261 | 21043<br>544991 | 53635 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,6-Dinitrotoluene | Ave | 1508<br>64354 | 2987<br>111703 | 7882<br>157175 | 15921<br>389124 | 40049 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2,4-Dinitrotoluene | Ave | 3142<br>128504 | 6274<br>223282 | 15741<br>324284 | 31802<br>808149 | 80062 | 0.0126<br>0.402 | 0.0251<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 |
| 2-Nitrotoluene | Ave | 1615<br>53830 | 3068<br>93761 | 7553<br>133699 | 13733<br>336284 | 34604 | 0.0125<br>0.400 | 0.0250<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<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 |
| 4-Nitrotoluene | Ave | 1080<br>46607 | 2509<br>81534 | 6416<br>116544 | 11811<br>292638 | 29824 | 0.0125<br>0.401 | 0.0251<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 |
| 3-Nitrotoluene | Ave | 1403<br>60098 | 3129<br>104089 | 7758<br>148965 | 14838<br>374131 | 37511 | 0.0125<br>0.400 | 0.0250<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 |
| PETN | Ave | <br>328307 | +++++<br>568970 | 37407<br>824461 | 78947<br>2051483 | 201180 | <br>4.00 | +++++<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 |
| 1,2-Dinitrobenzene | Ave | 1531<br>57167 | 2996<br>99878 | 7239<br>144242 | 14127<br>358694 | 35555 | 0.0125<br>0.400 | 0.0250<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: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180007.D | | | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 9 | | |
| Inject. Date: | 18-Mar-2020 11:35:53 | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L9 | | | | |
| Misc. Info.: | 280-0090150-007 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:39 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:41:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.678 | 6.689 | -0.011 | 230770 | 2.50 | 2.68 | M |
| 7 RDX | 1 | 7.745 | 7.749 | -0.004 | 279743 | 2.50 | 2.40 | |
| 8 2,4,6-Trinitrophenol | 1 | 7.978 | 8.076 | -0.098 | 220480 | 2.50 | 2.59 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.705 | 8.709 | -0.004 | 358694 | 2.50 | 2.60 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.878 | 8.883 | -0.005 | 607193 | 2.51 | 2.64 | |
| 11 1,3-Dinitrobenzene | 1 | 9.525 | 9.529 | -0.004 | 818202 | 2.51 | 2.67 | M |
| 12 Nitrobenzene | 1 | 9.911 | 9.916 | -0.005 | 529249 | 2.51 | 2.64 | |
| 14 Tetryl | 1 | 10.218 | 10.216 | 0.002 | 480867 | 2.51 | 2.72 | |
| 15 Nitroglycerin | 2 | 10.725 | 10.729 | -0.004 | 1816166 | 25.0 | 26.7 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.185 | 11.183 | 0.002 | 547050 | 2.51 | 2.68 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.331 | 11.336 | -0.005 | 429281 | 2.50 | 2.41 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.618 | 11.623 | -0.005 | 544991 | 2.51 | 2.69 | |
| 19 2,6-Dinitrotoluene | 1 | 11.785 | 11.783 | 0.002 | 389124 | 2.51 | 2.60 | |
| 20 2,4-Dinitrotoluene | 1 | 11.978 | 11.983 | -0.005 | 808149 | 2.51 | 2.66 | |
| 21 o-Nitrotoluene | 1 | 12.818 | 12.823 | -0.005 | 336284 | 2.50 | 2.49 | |
| 22 p-Nitrotoluene | 1 | 13.251 | 13.256 | -0.005 | 292638 | 2.51 | 2.59 | |
| 23 m-Nitrotoluene | 1 | 13.845 | 13.849 | -0.004 | 374131 | 2.50 | 2.62 | |
| 24 PETN | 2 | 14.945 | 14.936 | 0.009 | 2051483 | 25.0 | 26.1 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

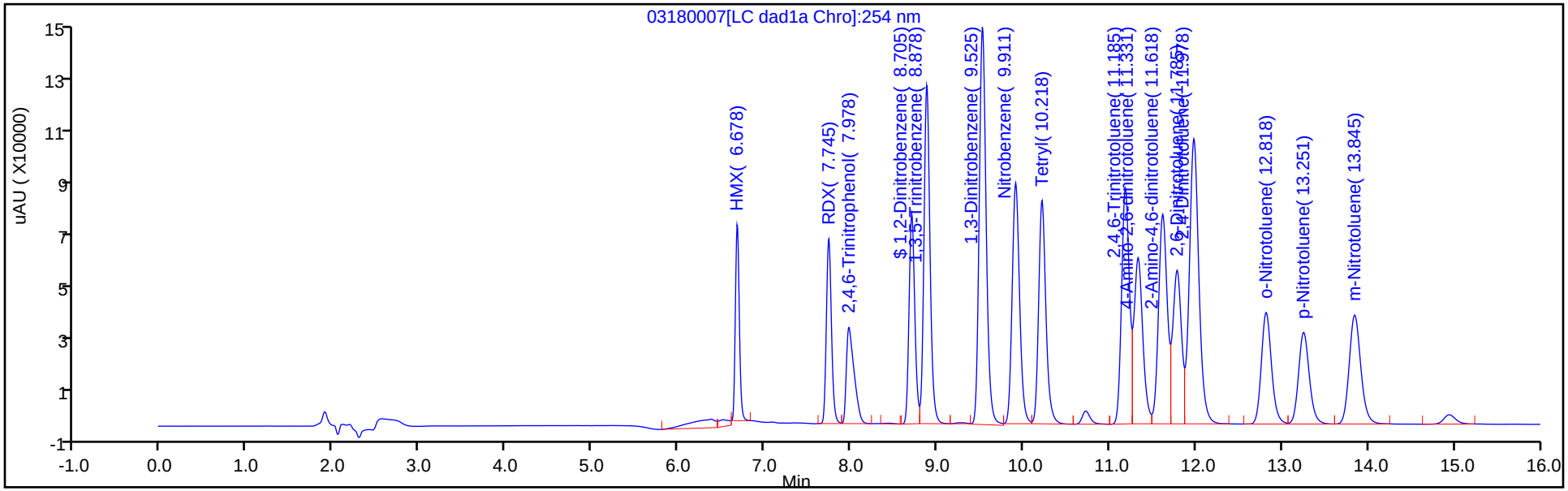
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 26-Mar-2020 15:45:39 Chrom Revision: 2.3 11-Mar-2020 18:53:20

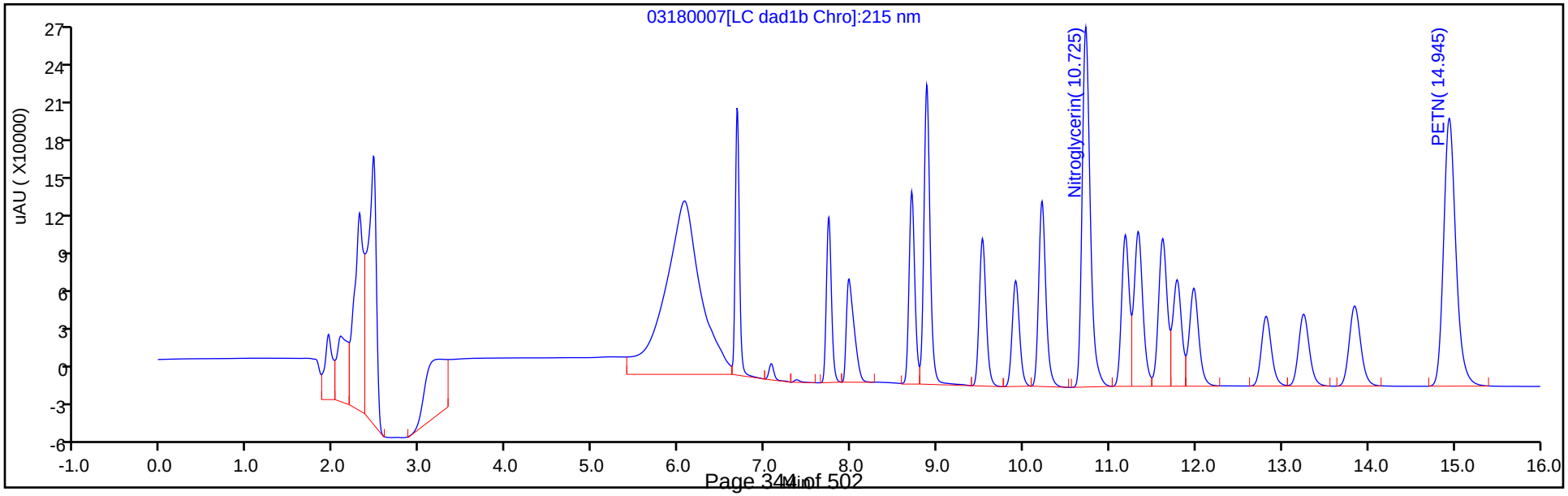
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L9 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

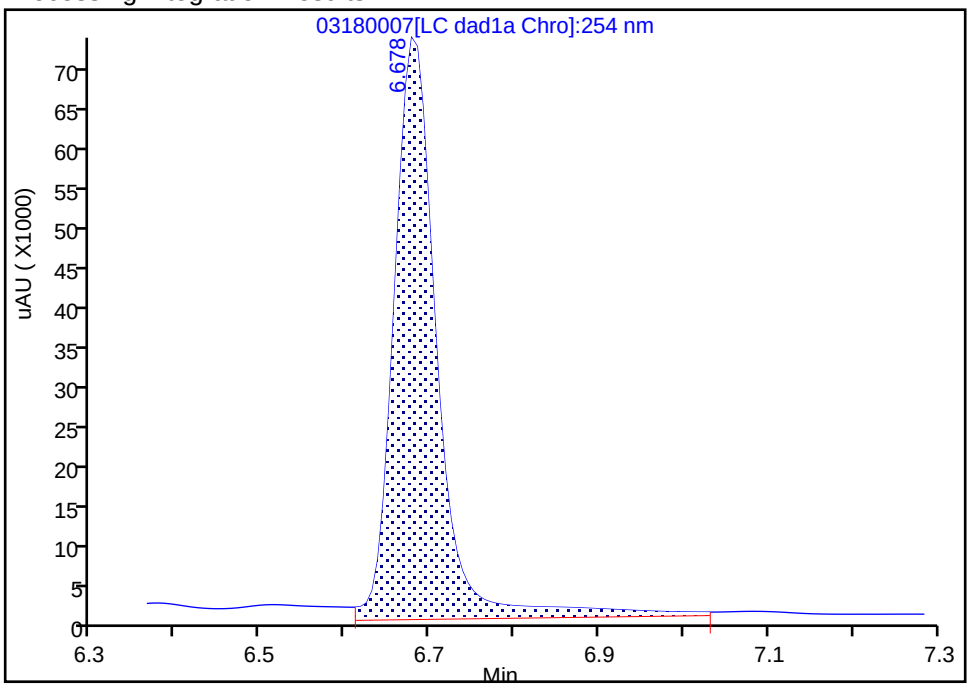
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

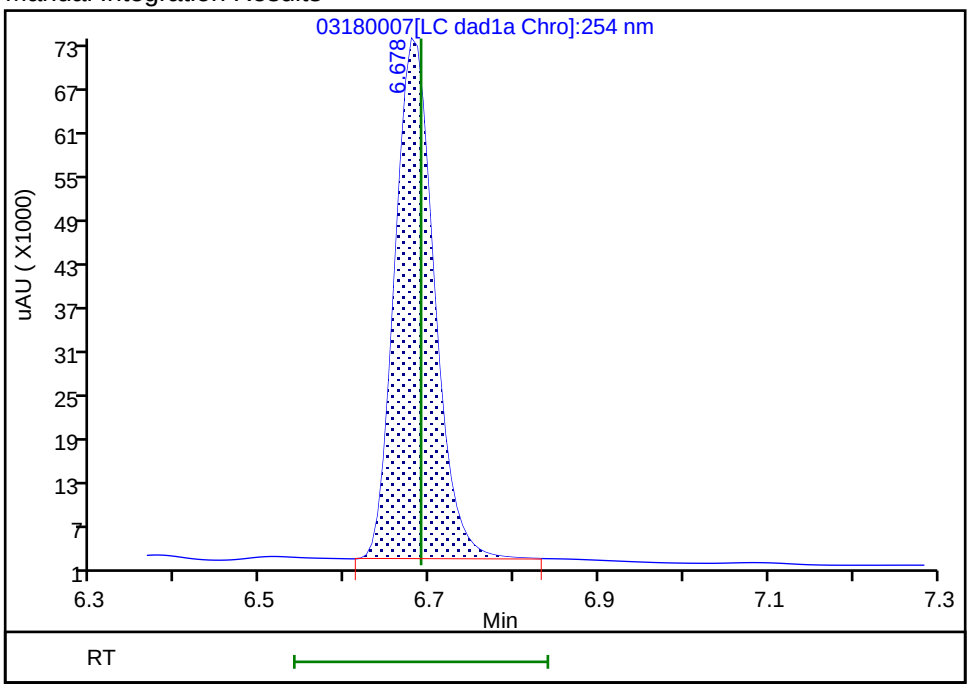
Processing Integration Results

RT: 6.68
Area: 261160
Amount: 2.488946
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 230770
Amount: 2.684553
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:25

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

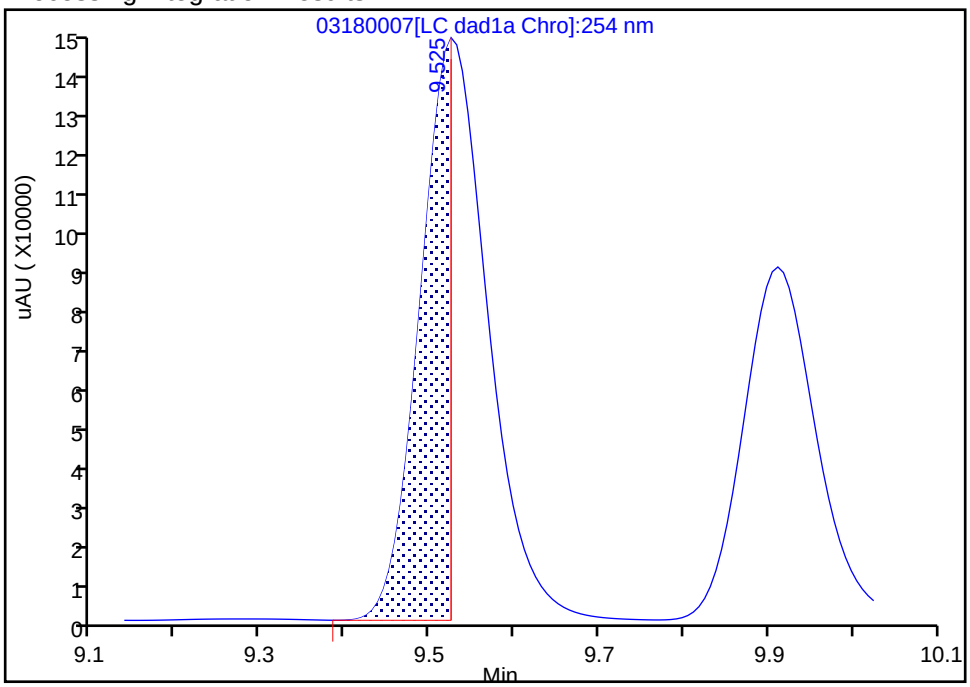
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d | | | | |
| Injection Date: | 18-Mar-2020 11:35:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L9 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 7 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 11 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

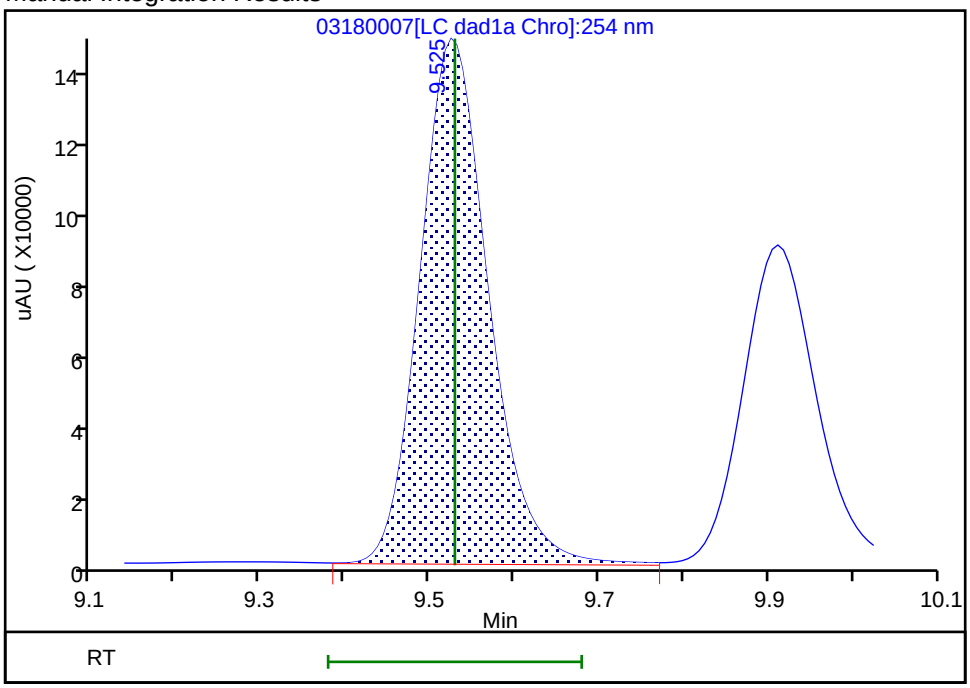
Processing Integration Results

RT: 9.52
Area: 362918
Amount: 1.345398
Amount Units: ug/mL




Manual Integration Results

RT: 9.52
Area: 818202
Amount: 2.667884
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:39
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180008.D | | | | |
| Lims ID: | IC MAIN L8 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 8 | | |
| Inject. Date: | 18-Mar-2020 11:58:50 | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L8 | | | | |
| Misc. Info.: | 280-0090150-008 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:40 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:12

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 92351 | 1.00 | 1.07 | M |
| | 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 112730 | 1.00 | 0.9667 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.034 | 8.076 | -0.042 | 87876 | 1.00 | 1.03 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 144242 | 1.00 | 1.04 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 245099 | 1.00 | 1.06 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.534 | 9.529 | 0.005 | 324636 | 1.00 | 1.06 | |
| | 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 210310 | 1.00 | 1.05 | |
| | 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 193434 | 1.00 | 1.09 | |
| | 15 Nitroglycerin | 2 | 10.727 | 10.729 | -0.002 | 731600 | 10.0 | 10.7 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.187 | 11.183 | 0.004 | 220430 | 1.00 | 1.08 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.334 | 11.336 | -0.002 | 173248 | 1.00 | 0.9778 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.621 | 11.623 | -0.002 | 219261 | 1.00 | 1.08 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.787 | 11.783 | 0.004 | 157175 | 1.00 | 1.05 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.981 | 11.983 | -0.002 | 324284 | 1.00 | 1.07 | |
| | 21 o-Nitrotoluene | 1 | 12.821 | 12.823 | -0.002 | 133699 | 1.00 | 0.9900 | |
| | 22 p-Nitrotoluene | 1 | 13.254 | 13.256 | -0.002 | 116544 | 1.00 | 1.03 | |
| | 23 m-Nitrotoluene | 1 | 13.847 | 13.849 | -0.002 | 148965 | 1.00 | 1.04 | |
| | 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 824461 | 10.0 | 10.5 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

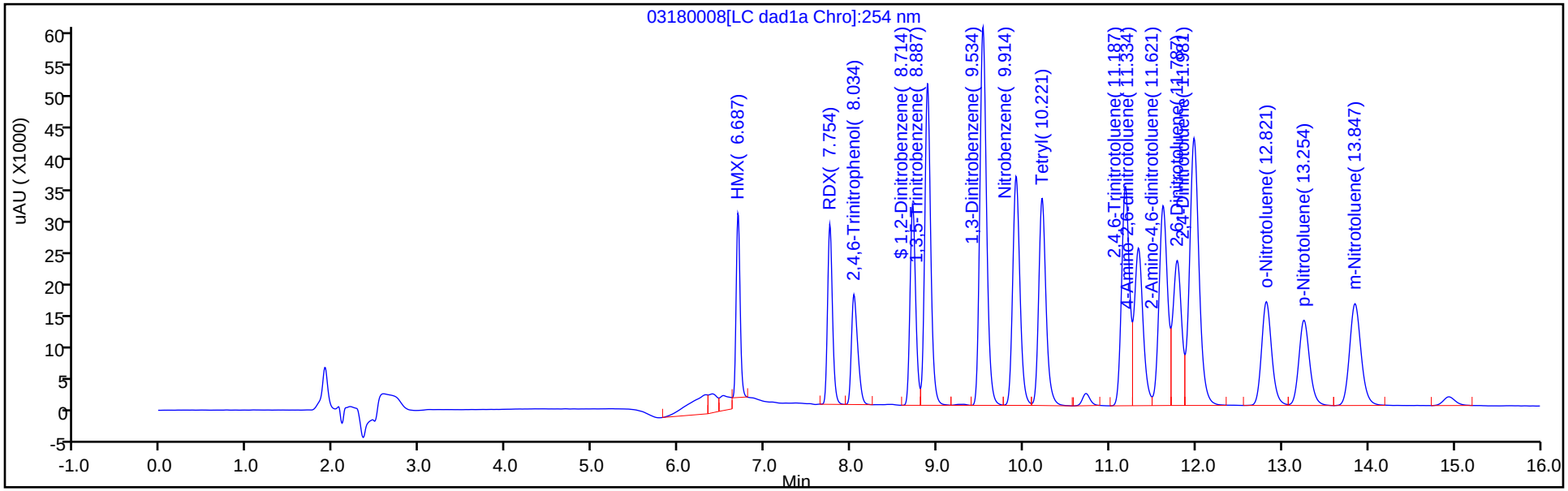
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 26-Mar-2020 15:45:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

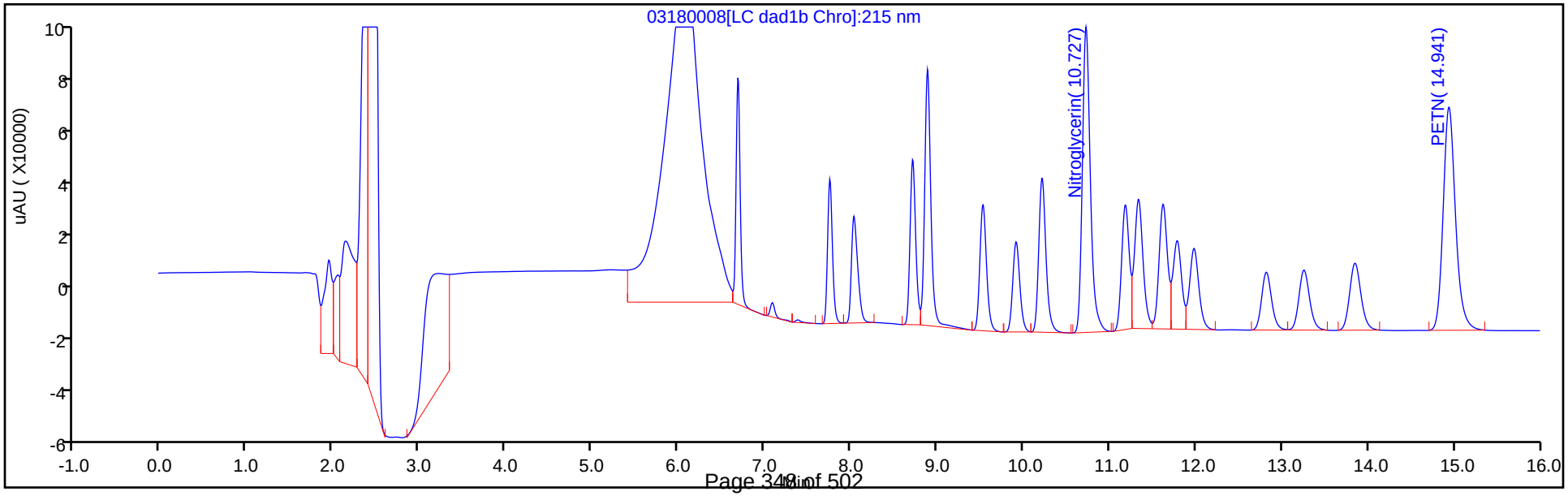
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d | | | | |
| Injection Date: | 18-Mar-2020 11:58:50 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L8 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

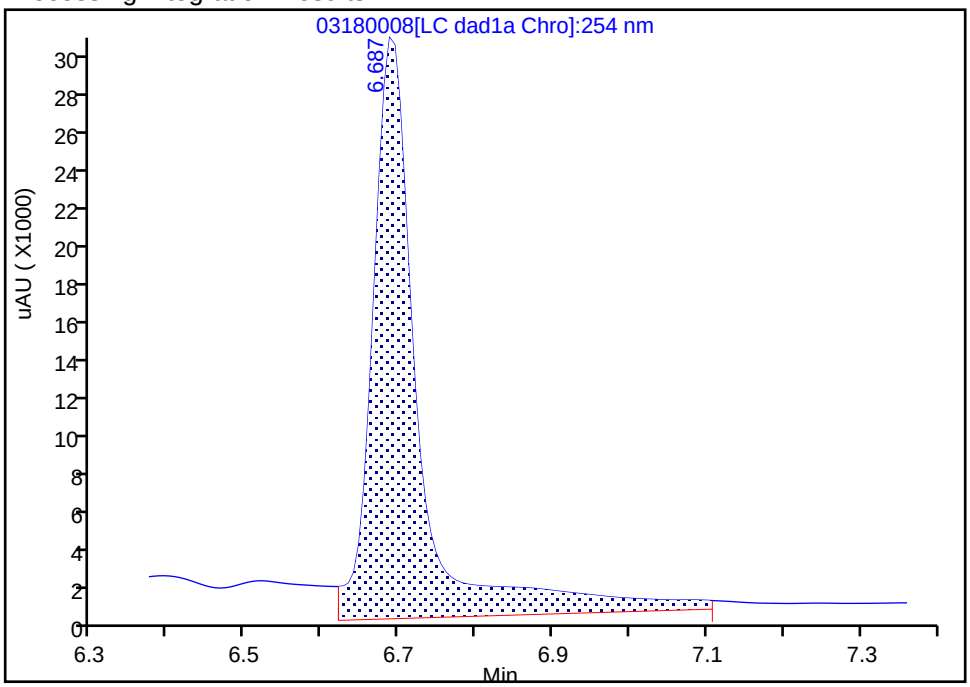
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d | | | | |
| Injection Date: | 18-Mar-2020 11:58:50 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 8 | Worklist Smp#: | 8 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

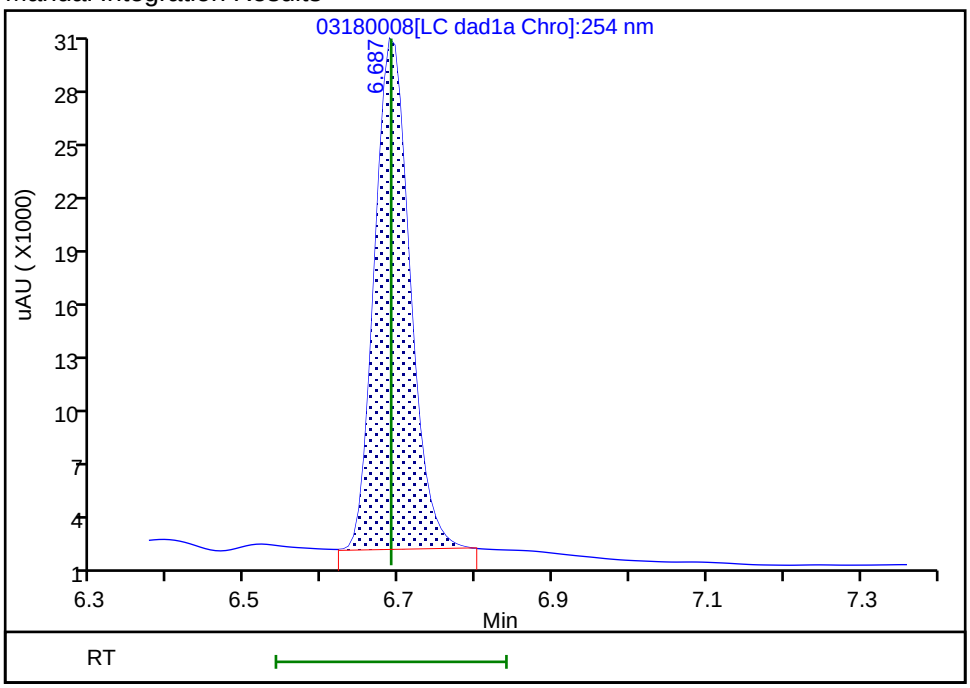
Processing Integration Results

RT: 6.69
Area: 128593
Amount: 1.149770
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 92351
Amount: 1.074321
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:41:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180009.D | | | | |
| Lims ID: | IC MAIN L7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 18-Mar-2020 12:21:47 | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L7 | | | | |
| Misc. Info.: | 280-0090150-009 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:41 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:38

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 64274 | 0.7000 | 0.7477 | M |
| | 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 78289 | 0.7000 | 0.6714 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.041 | 8.076 | -0.035 | 60796 | 0.7000 | 0.7142 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 99878 | 0.7000 | 0.7226 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.881 | 8.883 | -0.002 | 169775 | 0.7014 | 0.7372 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.529 | -0.002 | 224707 | 0.7014 | 0.7327 | |
| | 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 147027 | 0.7028 | 0.7337 | |
| | 14 Tetryl | 1 | 10.214 | 10.216 | -0.002 | 133100 | 0.7014 | 0.7518 | |
| | 15 Nitroglycerin | 2 | 10.727 | 10.729 | -0.002 | 508407 | 7.00 | 7.46 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.181 | 11.183 | -0.002 | 153561 | 0.7028 | 0.7526 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.334 | 11.336 | -0.002 | 118343 | 0.7007 | 0.6700 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.621 | 11.623 | -0.002 | 150258 | 0.7028 | 0.7409 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.781 | 11.783 | -0.002 | 111703 | 0.7028 | 0.7474 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.981 | 11.983 | -0.002 | 223282 | 0.7028 | 0.7355 | |
| | 21 o-Nitrotoluene | 1 | 12.814 | 12.823 | -0.009 | 93761 | 0.7000 | 0.6943 | |
| | 22 p-Nitrotoluene | 1 | 13.254 | 13.256 | -0.002 | 81534 | 0.7014 | 0.7215 | |
| | 23 m-Nitrotoluene | 1 | 13.841 | 13.849 | -0.008 | 104089 | 0.7007 | 0.7277 | |
| | 24 PETN | 2 | 14.927 | 14.936 | -0.009 | 568970 | 7.00 | 7.24 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

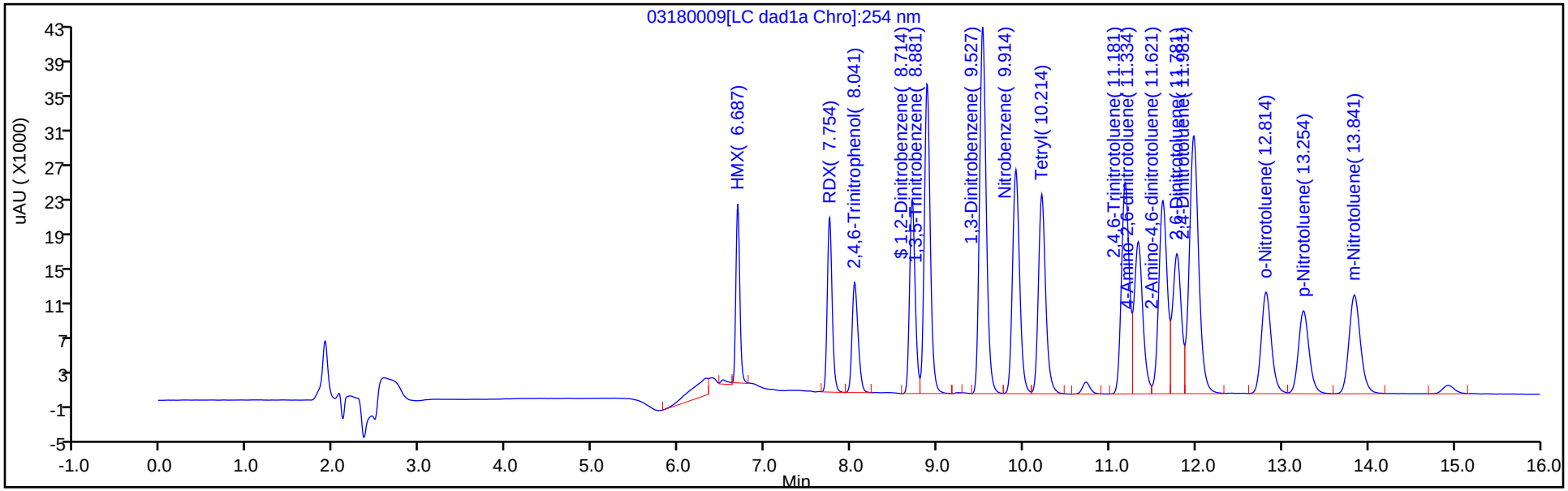
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 26-Mar-2020 15:45:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

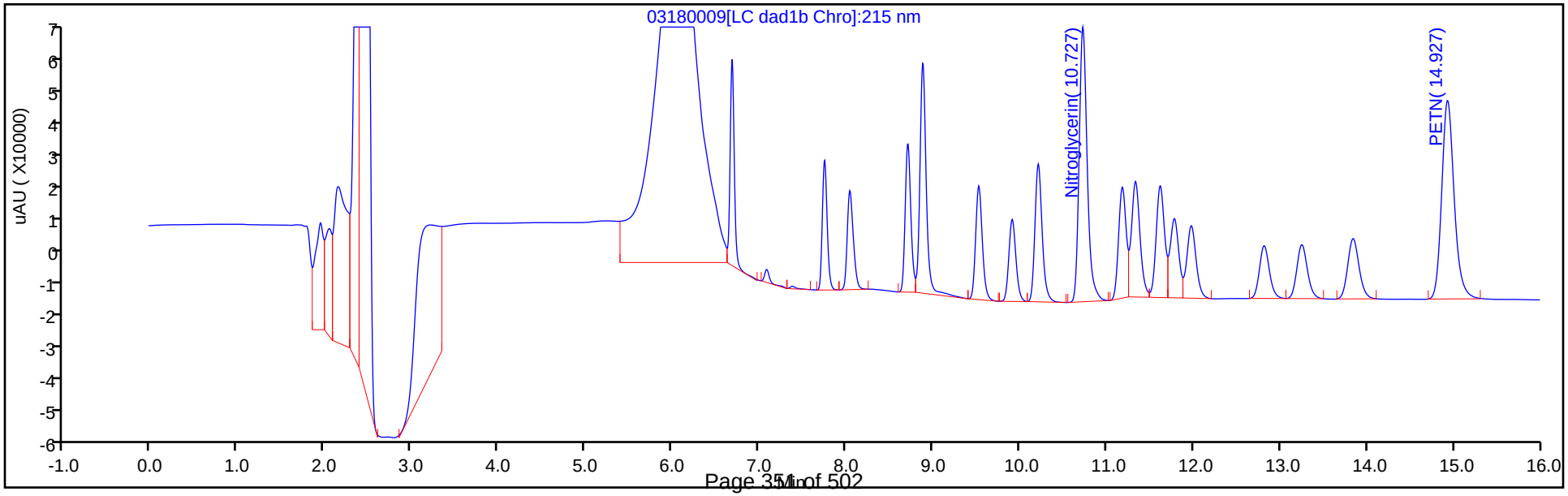
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d | | | | |
| Injection Date: | 18-Mar-2020 12:21:47 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

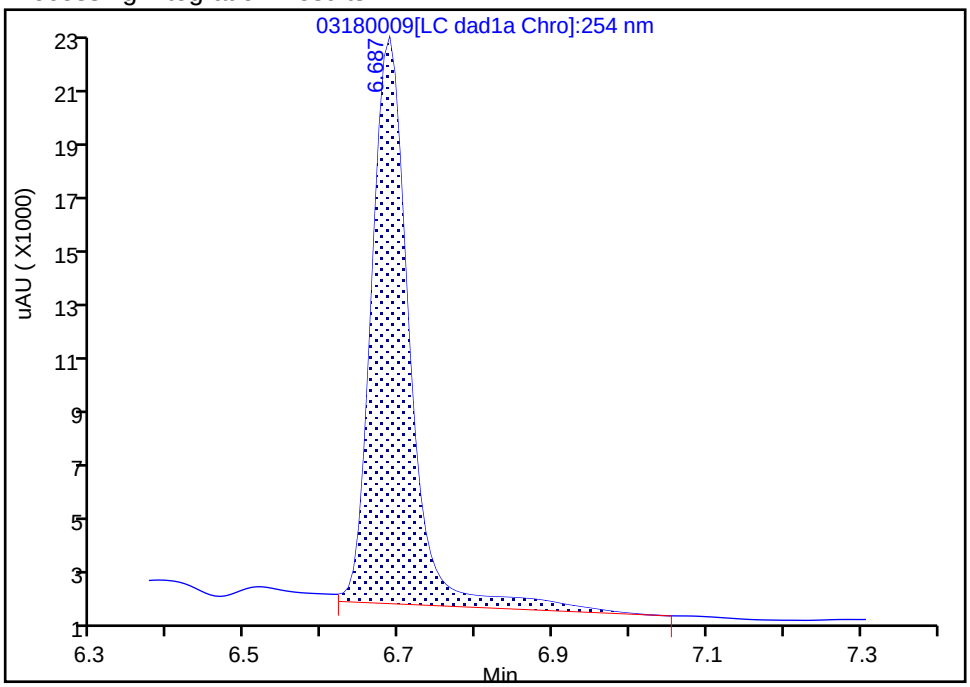
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d | | | | |
| Injection Date: | 18-Mar-2020 12:21:47 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

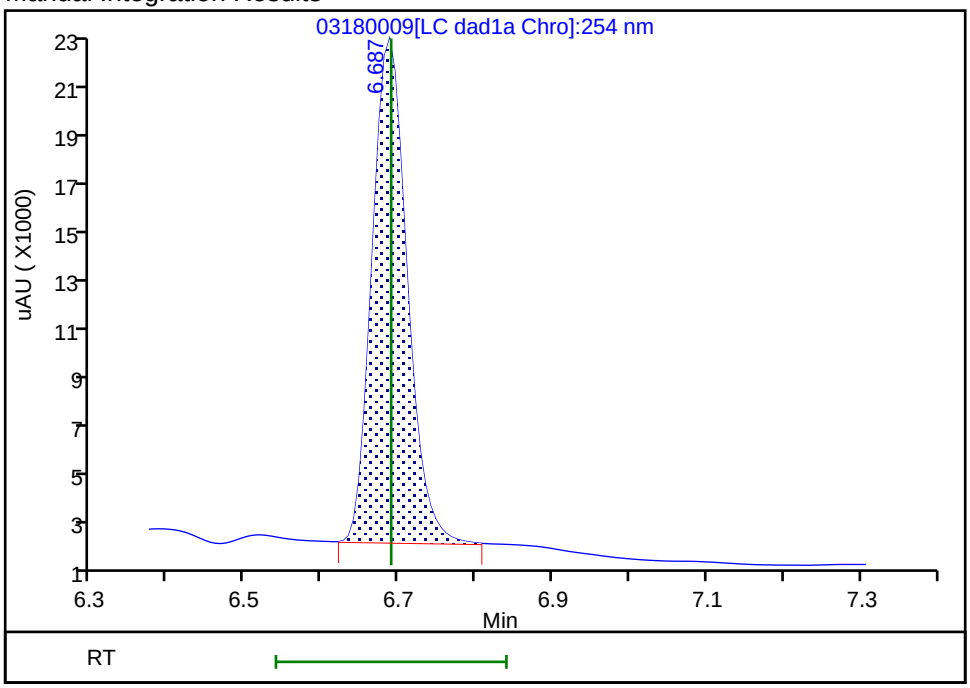
Processing Integration Results

RT: 6.69
Area: 70764
Amount: 0.364265
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 64274
Amount: 0.747701
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:42:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180010.D
Lims ID: IC MAIN L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2020 12:44:45 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L6
Misc. Info.: 280-0090150-010
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:13

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 36589 | 0.4000 | 0.4256 | M |
| 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 45286 | 0.4000 | 0.3883 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.054 | 8.076 | -0.022 | 34679 | 0.4000 | 0.4074 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 57167 | 0.4000 | 0.4136 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 97215 | 0.4008 | 0.4221 | |
| 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.529 | -0.002 | 129174 | 0.4008 | 0.4212 | |
| 12 Nitrobenzene | 1 | 9.914 | 9.916 | -0.002 | 84120 | 0.4016 | 0.4198 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 76213 | 0.4008 | 0.4305 | |
| 15 Nitroglycerin | 2 | 10.734 | 10.729 | 0.005 | 294728 | 4.00 | 4.33 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.187 | 11.183 | 0.004 | 86650 | 0.4016 | 0.4247 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.341 | 11.336 | 0.005 | 70023 | 0.4004 | 0.3991 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.627 | 11.623 | 0.004 | 85612 | 0.4016 | 0.4221 | |
| 19 2,6-Dinitrotoluene | 1 | 11.787 | 11.783 | 0.004 | 64354 | 0.4016 | 0.4306 | |
| 20 2,4-Dinitrotoluene | 1 | 11.987 | 11.983 | 0.004 | 128504 | 0.4016 | 0.4233 | |
| 21 o-Nitrotoluene | 1 | 12.827 | 12.823 | 0.004 | 53830 | 0.4000 | 0.3986 | |
| 22 p-Nitrotoluene | 1 | 13.261 | 13.256 | 0.005 | 46607 | 0.4008 | 0.4124 | |
| 23 m-Nitrotoluene | 1 | 13.854 | 13.849 | 0.005 | 60098 | 0.4004 | 0.4202 | |
| 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 328307 | 4.00 | 4.18 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

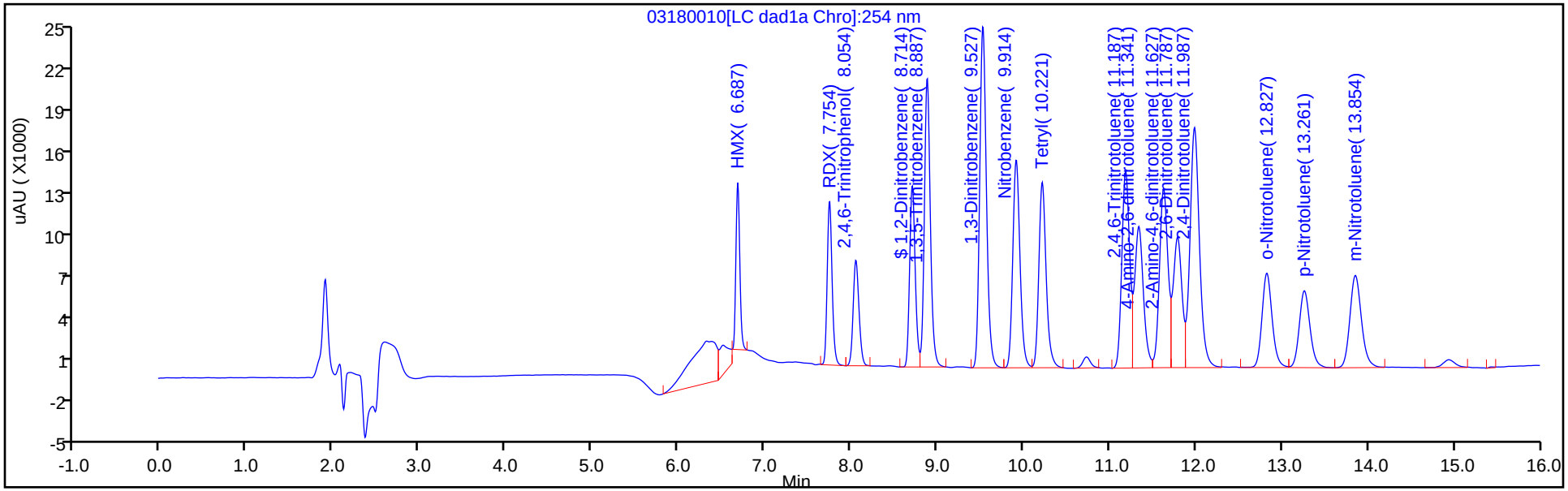
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

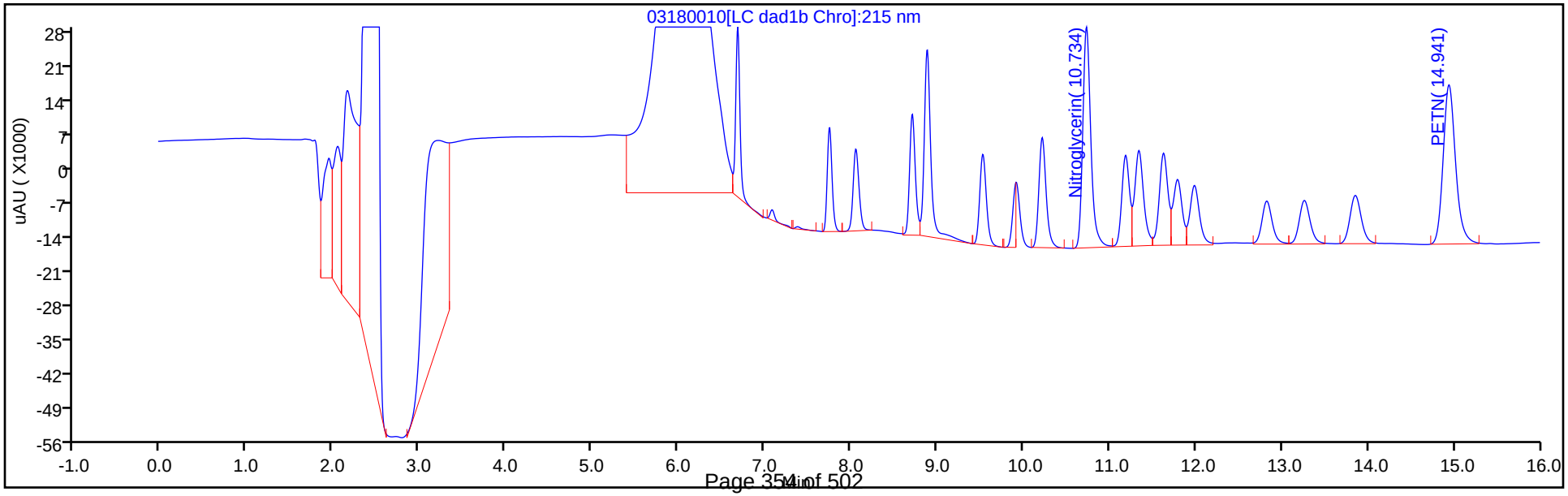
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d | | | | |
| Injection Date: | 18-Mar-2020 12:44:45 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L6 | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

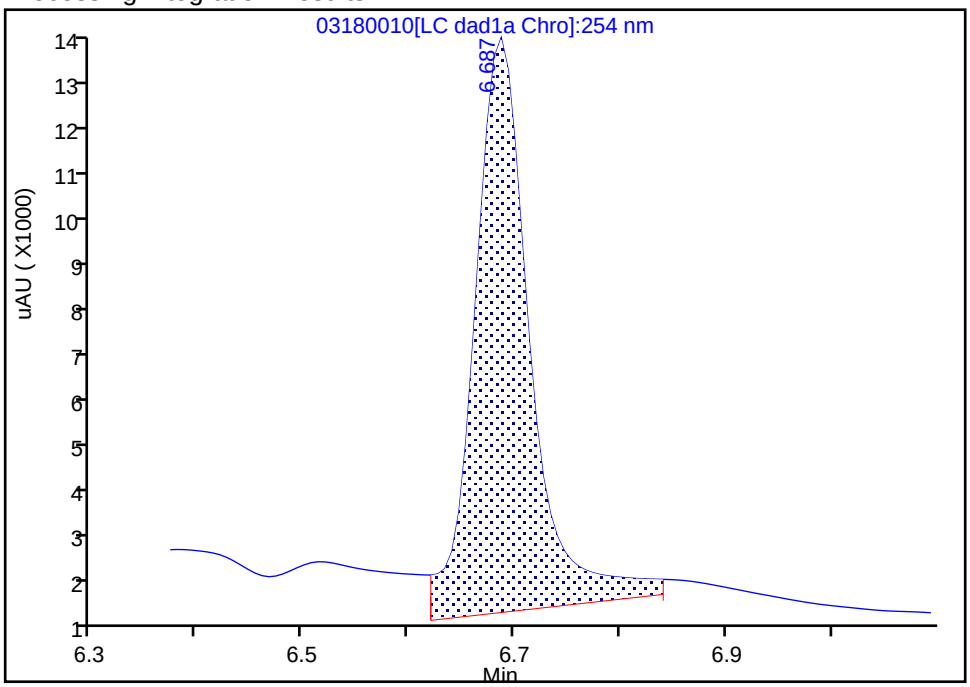
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d | | | | |
| Injection Date: | 18-Mar-2020 12:44:45 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

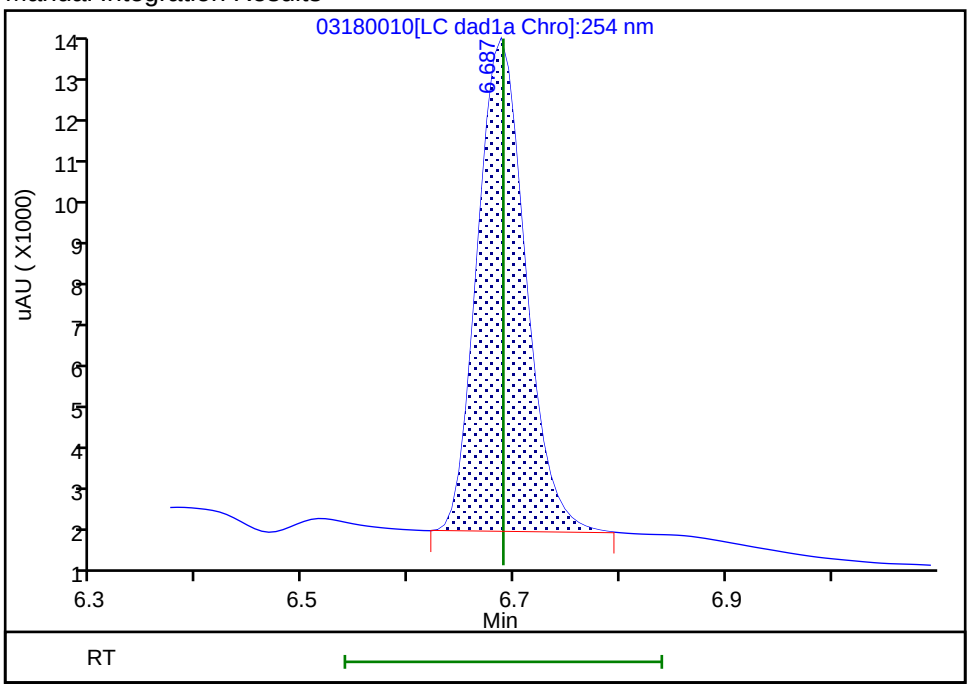
Processing Integration Results

RT: 6.69
Area: 45375
Amount: 0.234818
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 36589
Amount: 0.425641
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:42:54

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180011.D | | | | |
| Lims ID: | IC MAIN L5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 18-Mar-2020 13:07:42 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L5 | | | | |
| Misc. Info.: | 280-0090150-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:42 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:30

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.688 | 6.689 | -0.001 | 22752 | 0.2500 | 0.2647 | M |
| 7 RDX | 1 | 7.754 | 7.749 | 0.005 | 28236 | 0.2500 | 0.2421 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.068 | 8.076 | -0.008 | 21617 | 0.2500 | 0.2539 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.709 | 0.005 | 35555 | 0.2500 | 0.2572 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.888 | 8.883 | 0.005 | 60039 | 0.2505 | 0.2607 | |
| 11 1,3-Dinitrobenzene | 1 | 9.534 | 9.529 | 0.005 | 80465 | 0.2505 | 0.2624 | |
| 12 Nitrobenzene | 1 | 9.921 | 9.916 | 0.005 | 52480 | 0.2510 | 0.2619 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 47307 | 0.2505 | 0.2672 | |
| 15 Nitroglycerin | 2 | 10.734 | 10.729 | 0.005 | 184270 | 2.50 | 2.70 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.194 | 11.183 | 0.011 | 54439 | 0.2510 | 0.2668 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.347 | 11.336 | 0.011 | 43388 | 0.2503 | 0.2498 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.634 | 11.623 | 0.011 | 53635 | 0.2510 | 0.2645 | |
| 19 2,6-Dinitrotoluene | 1 | 11.794 | 11.783 | 0.011 | 40049 | 0.2510 | 0.2680 | |
| 20 2,4-Dinitrotoluene | 1 | 11.987 | 11.983 | 0.004 | 80062 | 0.2510 | 0.2637 | |
| 21 o-Nitrotoluene | 1 | 12.827 | 12.823 | 0.004 | 34604 | 0.2500 | 0.2562 | |
| 22 p-Nitrotoluene | 1 | 13.261 | 13.256 | 0.005 | 29824 | 0.2505 | 0.2639 | |
| 23 m-Nitrotoluene | 1 | 13.854 | 13.849 | 0.005 | 37511 | 0.2503 | 0.2623 | |
| 24 PETN | 2 | 14.941 | 14.936 | 0.005 | 201180 | 2.50 | 2.56 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

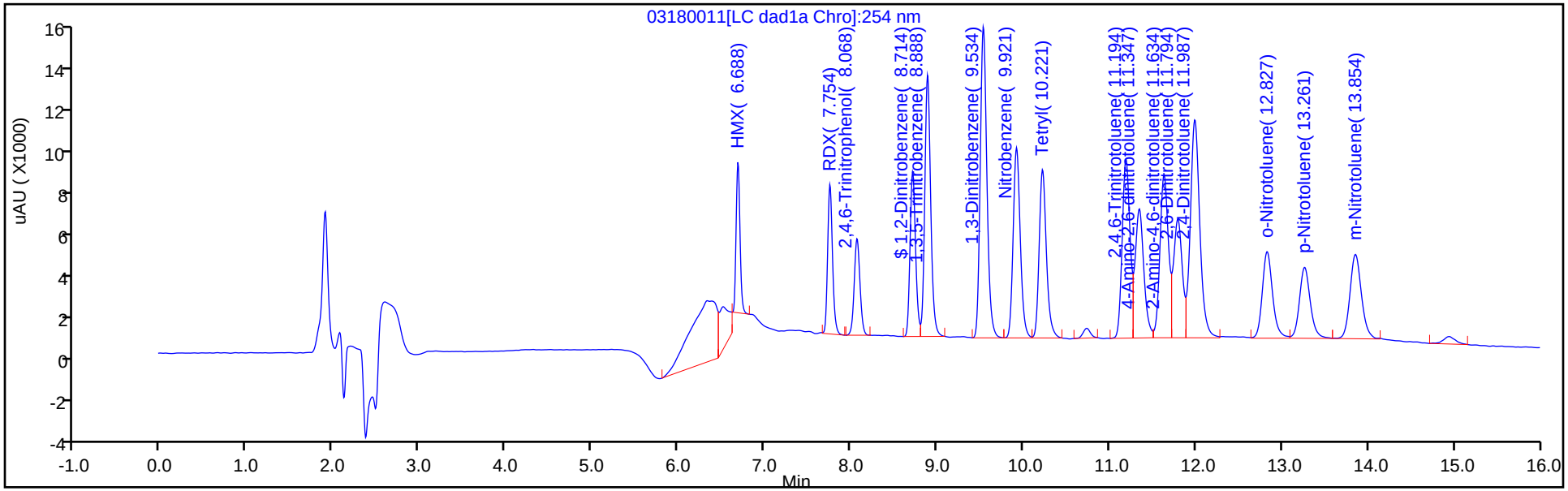
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

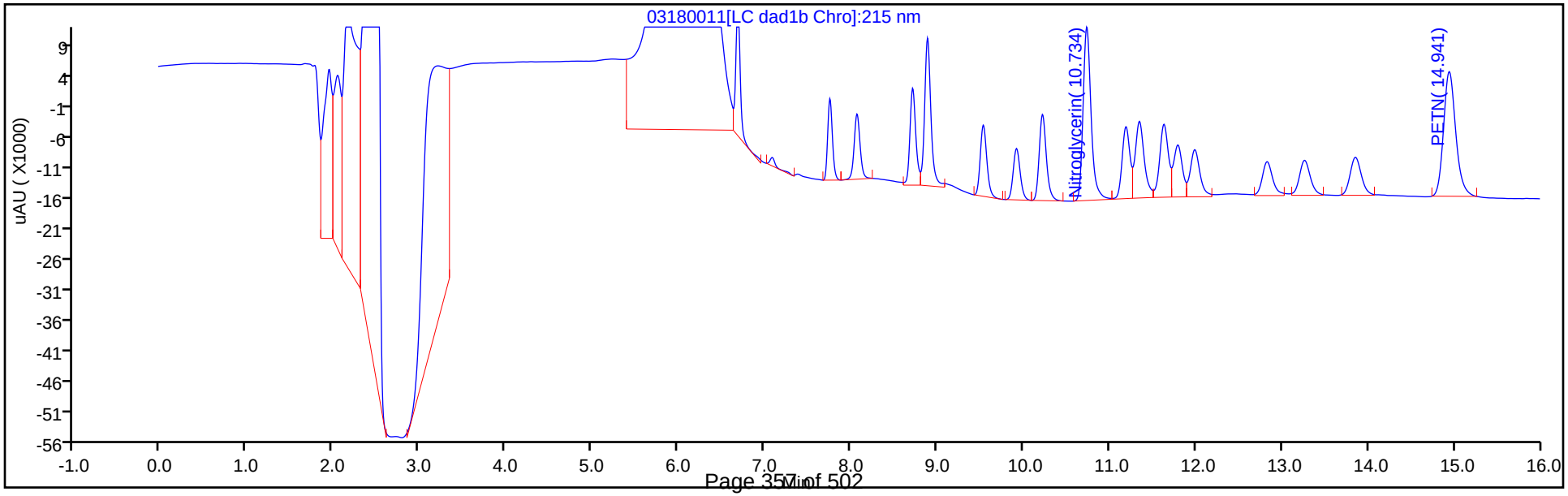
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d | | | | |
| Injection Date: | 18-Mar-2020 13:07:42 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L5 | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

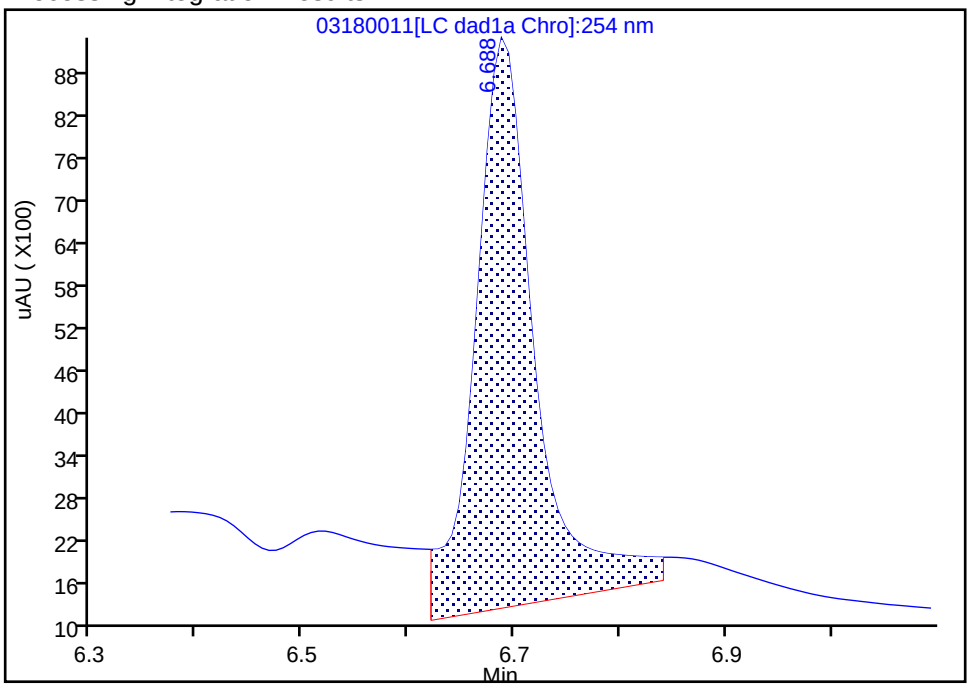
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d | | | | |
| Injection Date: | 18-Mar-2020 13:07:42 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

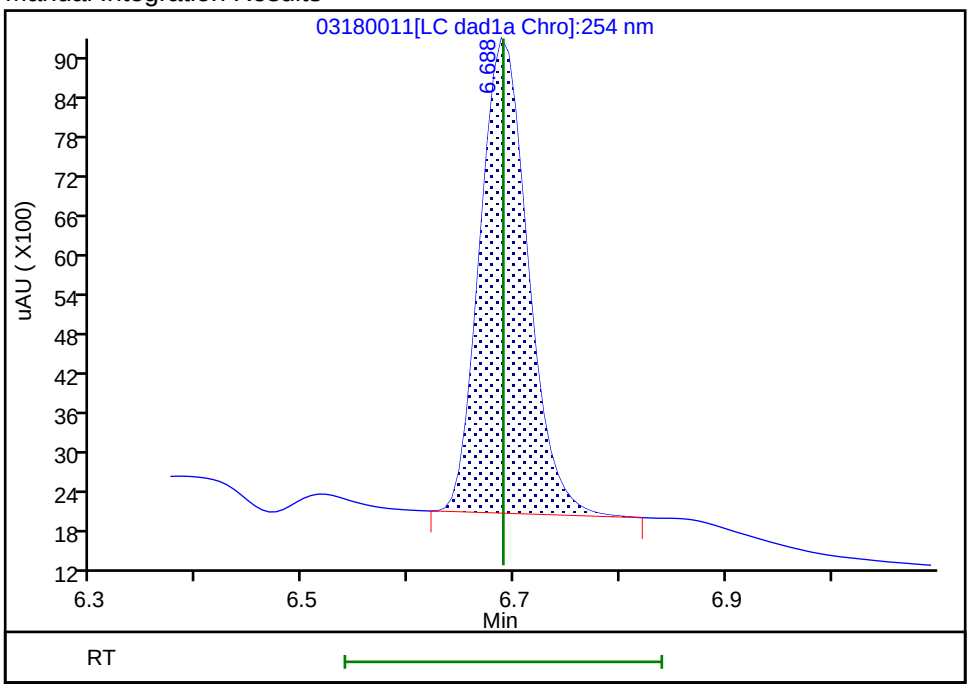
Processing Integration Results

RT: 6.69
Area: 31475
Amount: 0.164968
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 22752
Amount: 0.264675
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:43:23

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180012.D | | | | |
| Lims ID: | IC MAIN L4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 18-Mar-2020 13:30:35 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | IC MAIN L4 | | | | |
| Misc. Info.: | 280-0090150-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub9 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 26-Mar-2020 15:45:43 | Calib Date: | 18-Mar-2020 14:39:27 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:47

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | 6.689 | 6.689 | 0.000 | 9080 | 0.1000 | 0.1056 | M |
| | 7 RDX | 1 | 7.749 | 7.749 | 0.000 | 11701 | 0.1000 | 0.1003 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.076 | 8.076 | 0.000 | 8647 | 0.1000 | 0.1016 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.709 | 0.000 | 14127 | 0.1000 | 0.1022 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.883 | 8.883 | 0.000 | 23730 | 0.1002 | 0.1030 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.529 | 9.529 | 0.000 | 31897 | 0.1002 | 0.1040 | |
| | 12 Nitrobenzene | 1 | 9.916 | 9.916 | 0.000 | 20859 | 0.1004 | 0.1041 | |
| | 14 Tetryl | 1 | 10.216 | 10.216 | 0.000 | 18527 | 0.1002 | 0.1047 | |
| | 15 Nitroglycerin | 2 | 10.729 | 10.729 | 0.000 | 71269 | 1.00 | 1.05 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.183 | 11.183 | 0.000 | 21830 | 0.1004 | 0.1070 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.336 | 11.336 | 0.000 | 17293 | 0.1001 | 0.1035 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.623 | 11.623 | 0.000 | 21043 | 0.1004 | 0.1038 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.783 | 11.783 | 0.000 | 15921 | 0.1004 | 0.1065 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.983 | 11.983 | 0.000 | 31802 | 0.1004 | 0.1048 | |
| | 21 o-Nitrotoluene | 1 | 12.823 | 12.823 | 0.000 | 13733 | 0.1000 | 0.1017 | |
| | 22 p-Nitrotoluene | 1 | 13.256 | 13.256 | 0.000 | 11811 | 0.1002 | 0.1045 | |
| | 23 m-Nitrotoluene | 1 | 13.849 | 13.849 | 0.000 | 14838 | 0.1001 | 0.1037 | |
| | 24 PETN | 2 | 14.936 | 14.936 | 0.000 | 78947 | 1.00 | 1.00 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

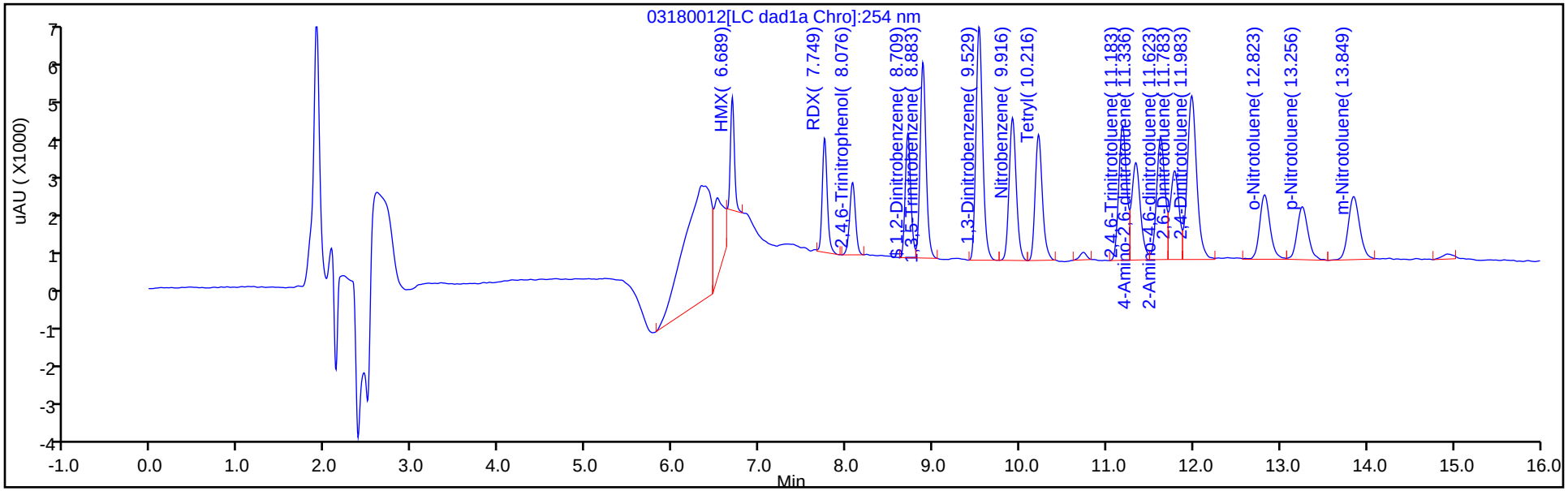
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 26-Mar-2020 15:45:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

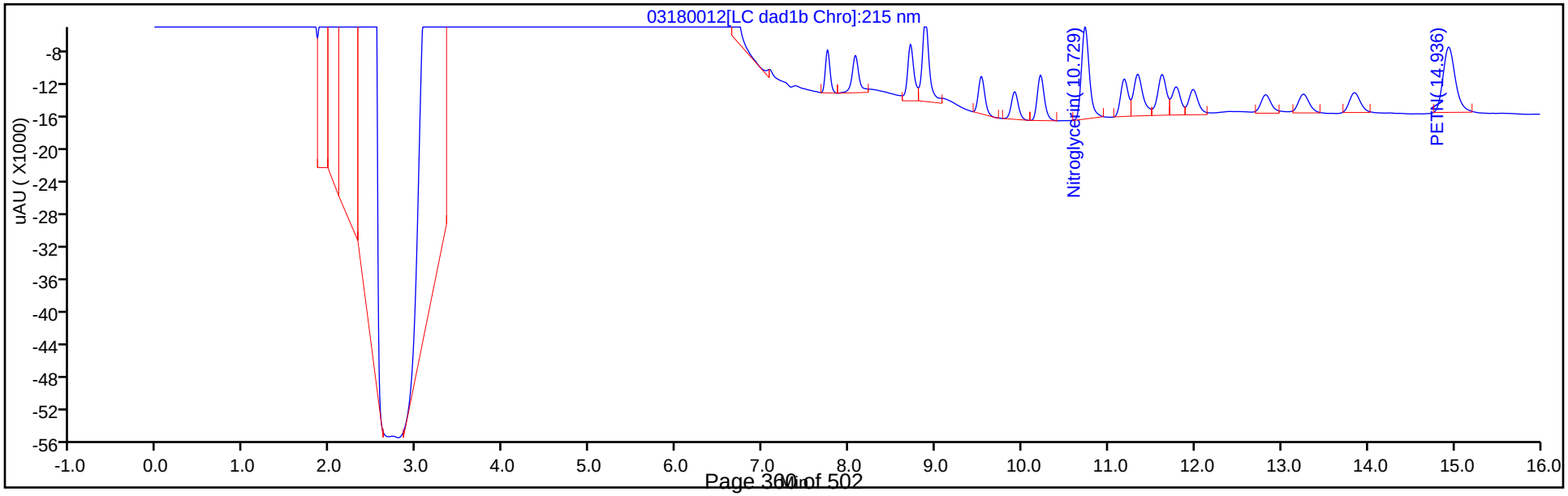
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d | | | | |
| Injection Date: | 18-Mar-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L4 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

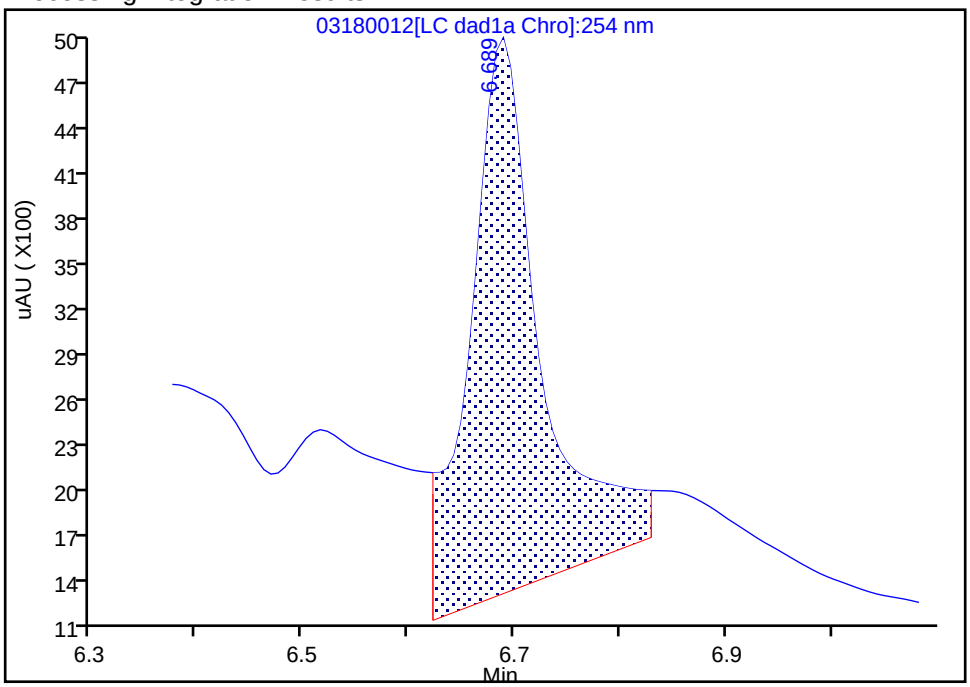
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d | | | | |
| Injection Date: | 18-Mar-2020 13:30:35 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

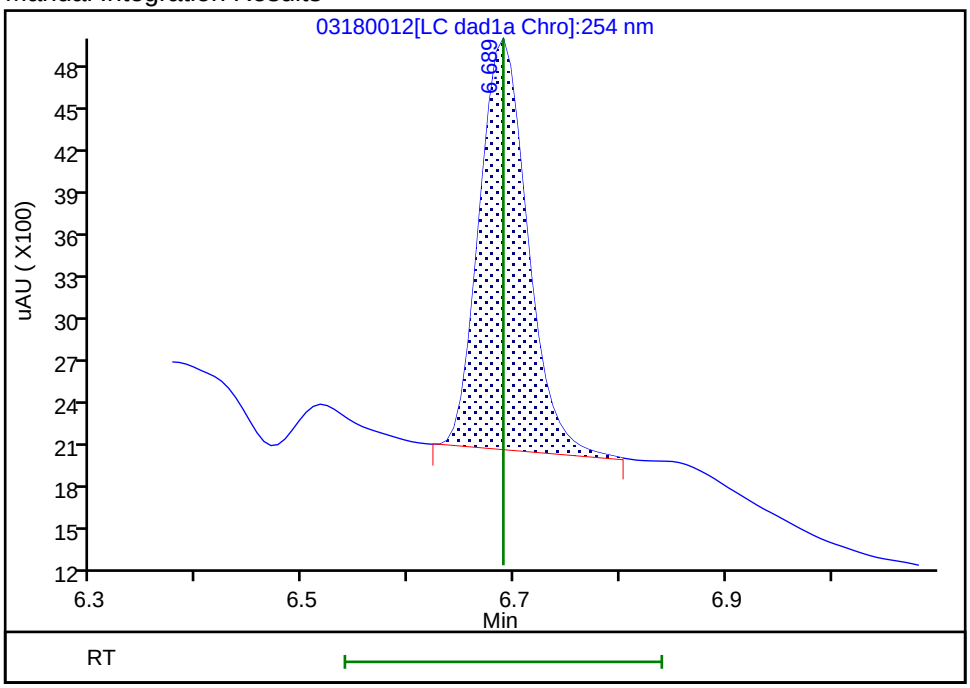
Processing Integration Results

RT: 6.69
Area: 16912
Amount: 0.090478
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 9080
Amount: 0.105628
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:43:42

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180013.D
Lims ID: IC MAIN L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Mar-2020 13:53:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L3
Misc. Info.: 280-0090150-013
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:05

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.689 | -0.002 | 4323 | 0.0500 | 0.0503 | M |
| 7 RDX | 1 | 7.753 | 7.749 | 0.004 | 6070 | 0.0500 | 0.0521 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.080 | 8.076 | 0.004 | 4305 | 0.0500 | 0.0506 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.713 | 8.709 | 0.004 | 7239 | 0.0500 | 0.0524 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.887 | 8.883 | 0.004 | 11986 | 0.0501 | 0.0520 | |
| 11 1,3-Dinitrobenzene | 1 | 9.533 | 9.529 | 0.004 | 16146 | 0.0501 | 0.0526 | |
| 12 Nitrobenzene | 1 | 9.920 | 9.916 | 0.004 | 10485 | 0.0502 | 0.0523 | |
| 14 Tetryl | 1 | 10.220 | 10.216 | 0.004 | 9136 | 0.0501 | 0.0516 | |
| 15 Nitroglycerin | 2 | 10.733 | 10.729 | 0.004 | 33491 | 0.5000 | 0.4915 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.186 | 11.183 | 0.003 | 10774 | 0.0502 | 0.0528 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.340 | 11.336 | 0.004 | 8490 | 0.0501 | 0.0541 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.633 | 11.623 | 0.010 | 10503 | 0.0502 | 0.0518 | |
| 19 2,6-Dinitrotoluene | 1 | 11.793 | 11.783 | 0.010 | 7882 | 0.0502 | 0.0527 | |
| 20 2,4-Dinitrotoluene | 1 | 11.986 | 11.983 | 0.003 | 15741 | 0.0502 | 0.0519 | |
| 21 o-Nitrotoluene | 1 | 12.833 | 12.823 | 0.010 | 7553 | 0.0500 | 0.0559 | |
| 22 p-Nitrotoluene | 1 | 13.260 | 13.256 | 0.004 | 6416 | 0.0501 | 0.0568 | |
| 23 m-Nitrotoluene | 1 | 13.853 | 13.849 | 0.004 | 7758 | 0.0501 | 0.0542 | |
| 24 PETN | 2 | 14.946 | 14.936 | 0.010 | 37407 | 0.5000 | 0.4759 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

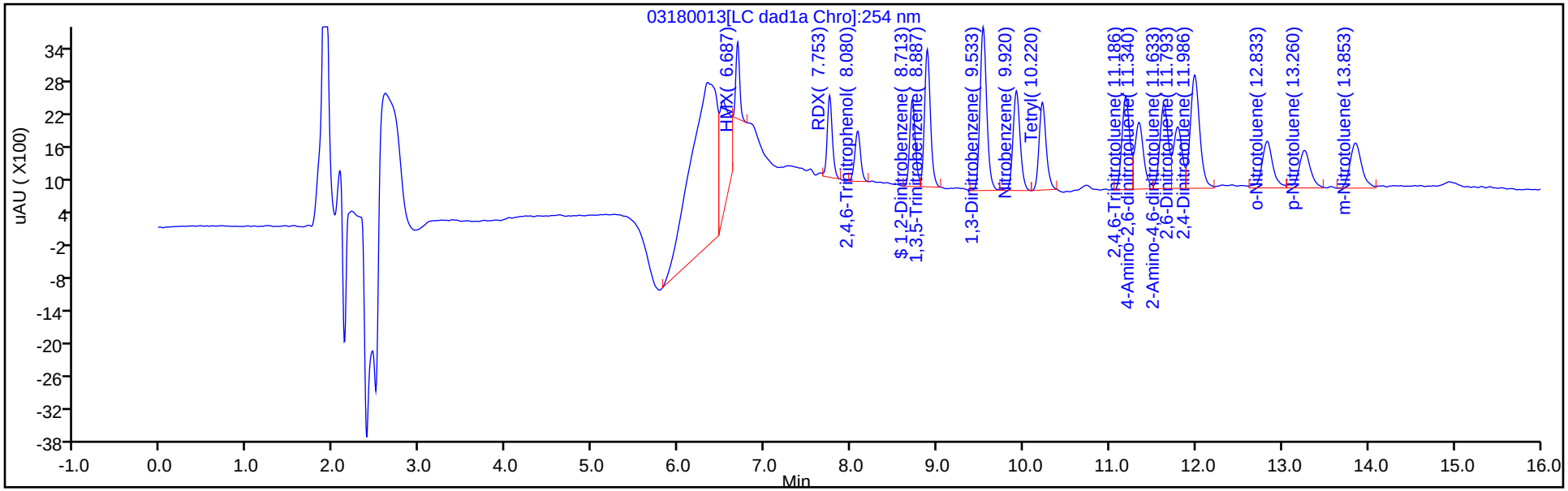
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 26-Mar-2020 15:45:44 Chrom Revision: 2.3 11-Mar-2020 18:53:20

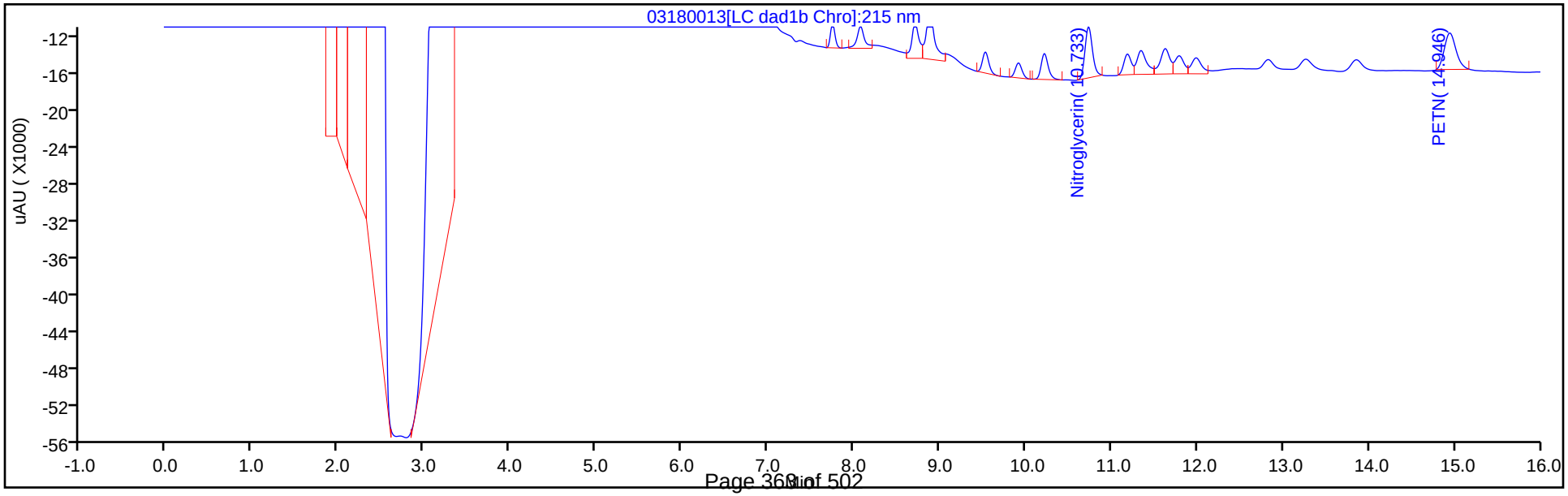
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d | | | | |
| Injection Date: | 18-Mar-2020 13:53:37 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L3 | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

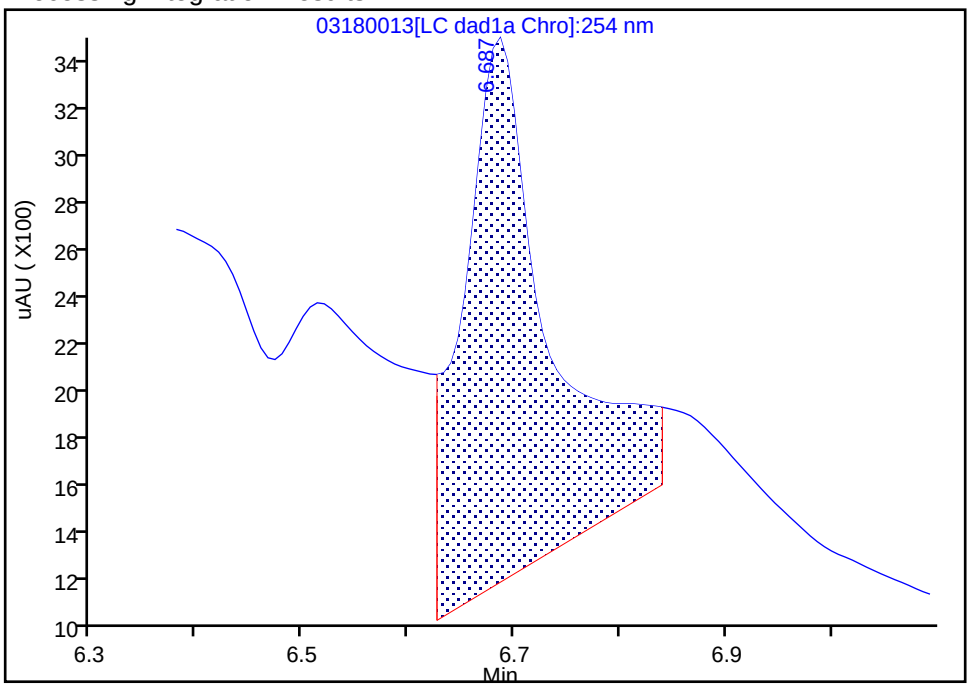
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d | | | | |
| Injection Date: | 18-Mar-2020 13:53:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

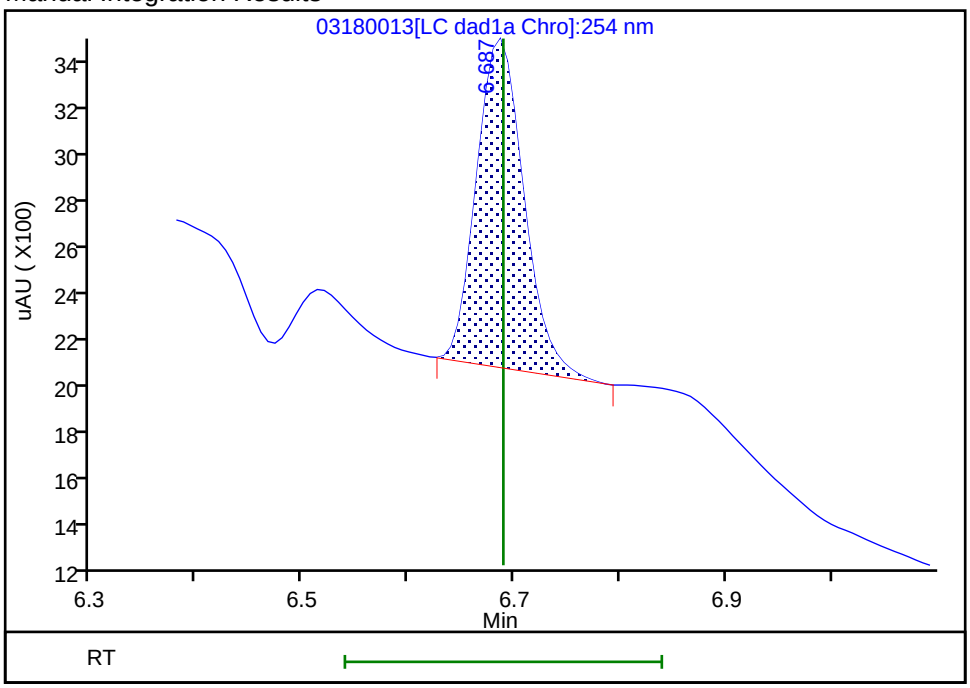
Processing Integration Results

RT: 6.69
Area: 12509
Amount: 0.070190
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 4323
Amount: 0.050290
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180014.D
Lims ID: IC MAIN L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2020 14:16:32 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L2
Misc. Info.: 280-0090150-014
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:44

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.689 | 6.689 | 0.000 | 1536 | 0.0250 | 0.0179 | M |
| 7 RDX | 1 | 7.755 | 7.749 | 0.006 | 2817 | 0.0250 | 0.0242 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.082 | 8.076 | 0.006 | 1774 | 0.0250 | 0.0208 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.709 | 0.000 | 2996 | 0.0250 | 0.0217 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.889 | 8.883 | 0.006 | 4845 | 0.0251 | 0.0210 | |
| 11 1,3-Dinitrobenzene | 1 | 9.535 | 9.529 | 0.006 | 6270 | 0.0251 | 0.0204 | |
| 12 Nitrobenzene | 1 | 9.922 | 9.916 | 0.006 | 4155 | 0.0251 | 0.0207 | |
| 14 Tetryl | 1 | 10.215 | 10.216 | -0.001 | 3492 | 0.0251 | 0.0197 | |
| 15 Nitroglycerin | 2 | 10.735 | 10.729 | 0.006 | 13701 | 0.2500 | 0.2011 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.189 | 11.183 | 0.006 | 4307 | 0.0251 | 0.0211 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.342 | 11.336 | 0.006 | 3443 | 0.0250 | 0.0258 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.629 | 11.623 | 0.006 | 4046 | 0.0251 | 0.0199 | M |
| 19 2,6-Dinitrotoluene | 1 | 11.789 | 11.783 | 0.006 | 2987 | 0.0251 | 0.0200 | M |
| 20 2,4-Dinitrotoluene | 1 | 11.989 | 11.983 | 0.006 | 6274 | 0.0251 | 0.0207 | |
| 21 o-Nitrotoluene | 1 | 12.822 | 12.823 | -0.001 | 3068 | 0.0250 | 0.0227 | |
| 22 p-Nitrotoluene | 1 | 13.269 | 13.256 | 0.013 | 2509 | 0.0251 | 0.0222 | |
| 23 m-Nitrotoluene | 1 | 13.849 | 13.849 | 0.000 | 3129 | 0.0250 | 0.0219 | |
| 24 PETN | 2 | 14.942 | 14.936 | 0.006 | 11624 | 0.2500 | 0.1479 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

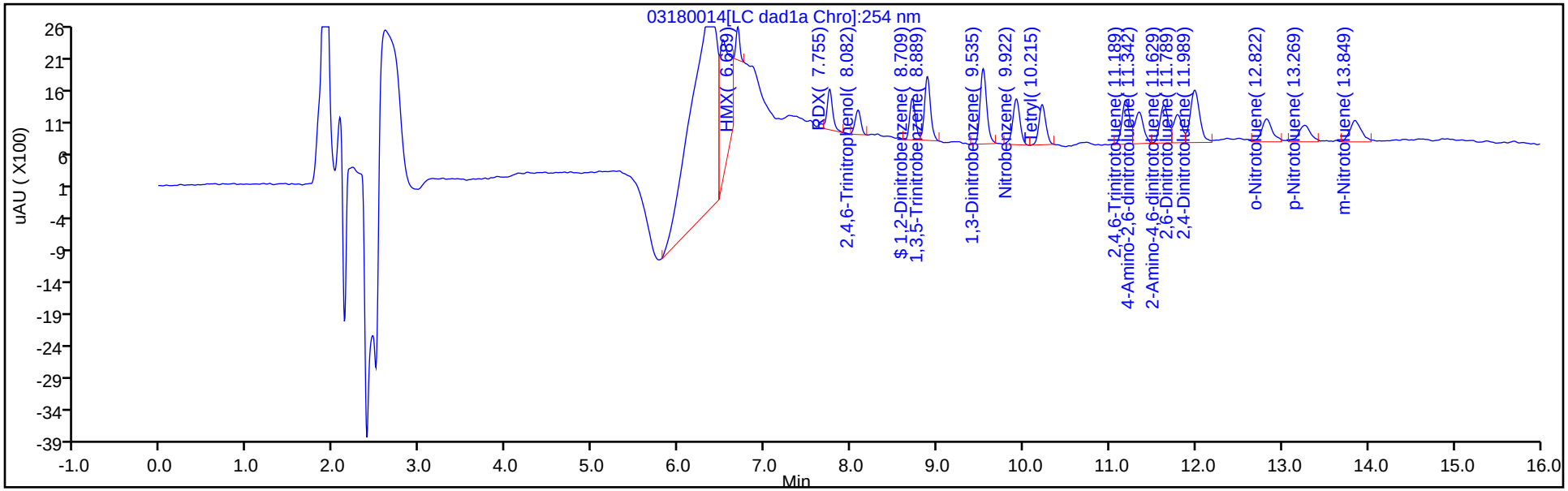
8330IntermStk_00061 Amount Added: 2.50 Units: uL

Report Date: 26-Mar-2020 15:45:45 Chrom Revision: 2.3 11-Mar-2020 18:53:20

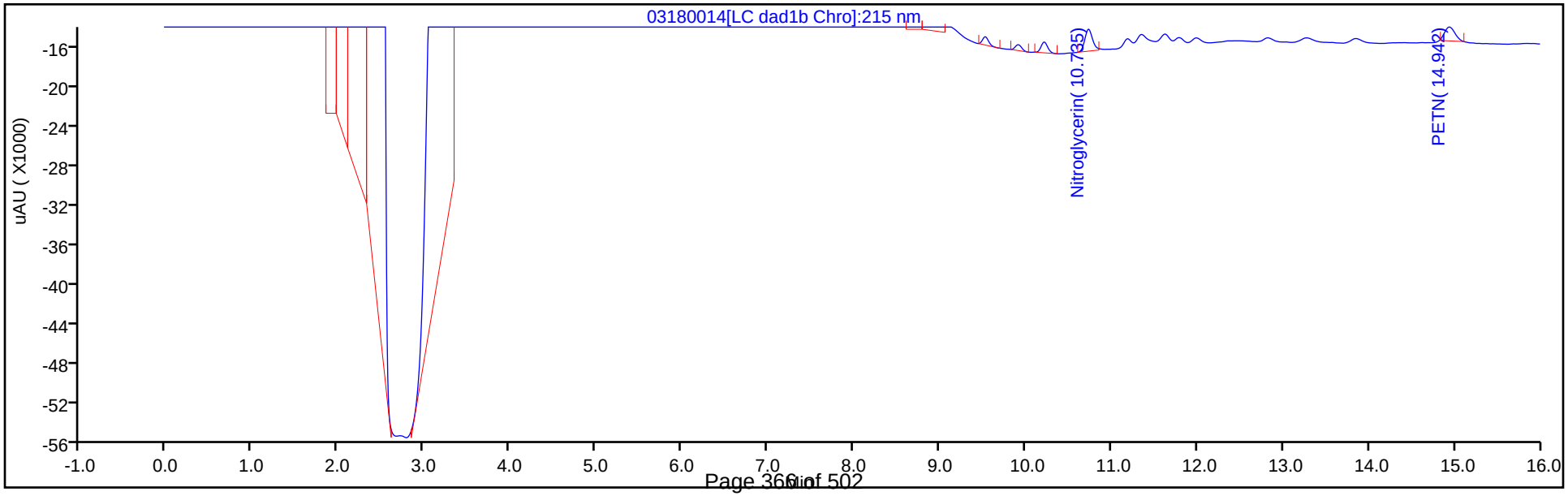
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L2 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

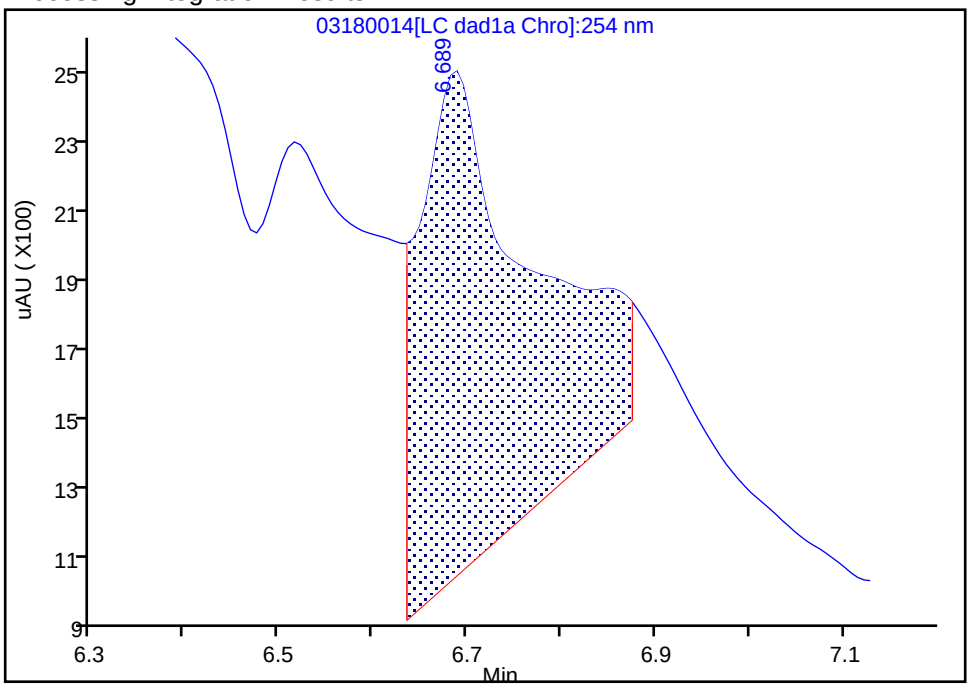
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

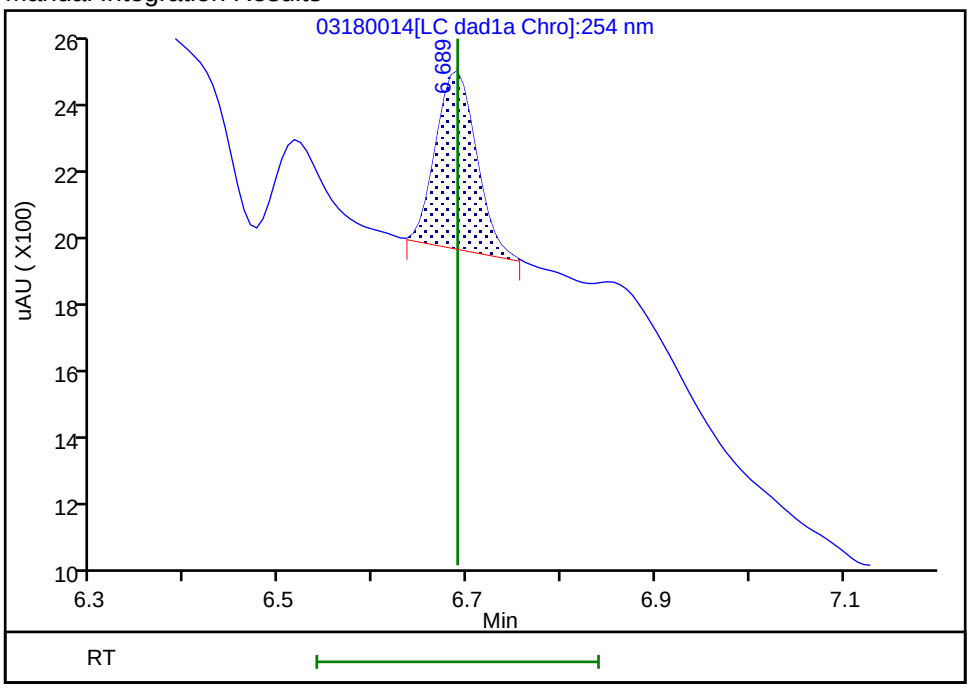
Processing Integration Results

RT: 6.69
Area: 11606
Amount: 0.072526
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 1536
Amount: 0.017868
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

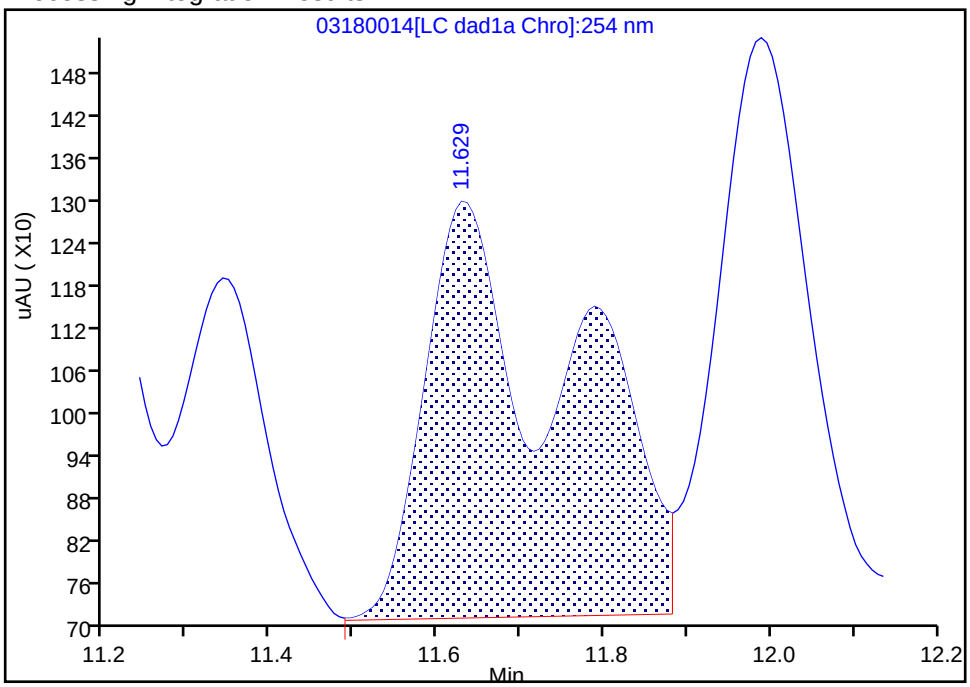
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d | | | | |
| Injection Date: | 18-Mar-2020 14:16:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 14 | Worklist Smp#: | 14 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

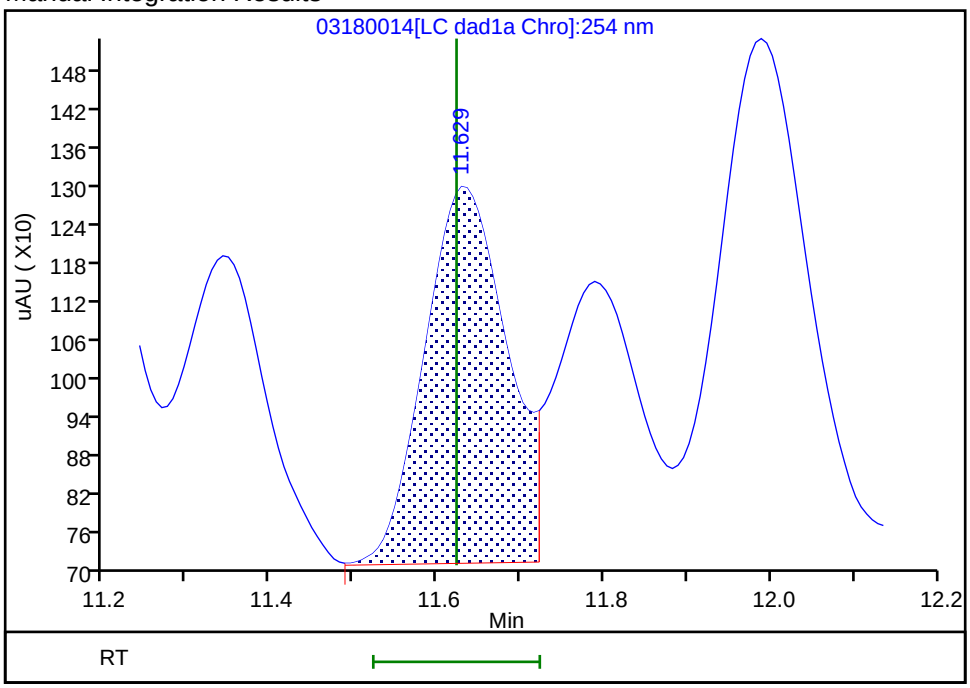
Processing Integration Results

RT: 11.63
Area: 7030
Amount: 0.030654
Amount Units: ug/mL




Manual Integration Results

RT: 11.63
Area: 4046
Amount: 0.019949
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:44:36
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D
Lims ID: IC MAIN L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Mar-2020 14:39:27 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L1
Misc. Info.: 280-0090150-015
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:45 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:46:42

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.689 | | | ND | ND | MU |
| 7 RDX | 1 | | 7.749 | | | ND | ND | MU |
| 8 2,4,6-Trinitrophenol | 1 | 8.082 | 8.076 | 0.006 | 1082 | 0.0125 | 0.0127 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.715 | 8.709 | 0.006 | 1531 | 0.0125 | 0.0111 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.888 | 8.883 | 0.005 | 2405 | 0.0125 | 0.0104 | |
| 11 1,3-Dinitrobenzene | 1 | 9.535 | 9.529 | 0.006 | 3191 | 0.0125 | 0.0104 | |
| 12 Nitrobenzene | 1 | 9.915 | 9.916 | -0.001 | 2176 | 0.0126 | 0.0109 | |
| 14 Tetryl | 1 | 10.221 | 10.216 | 0.005 | 1664 | 0.0125 | 0.009399 | |
| 15 Nitroglycerin | 2 | 10.735 | 10.729 | 0.006 | 6790 | 0.1250 | 0.0997 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.195 | 11.183 | 0.012 | 1807 | 0.0126 | 0.008856 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.341 | 11.336 | 0.005 | 981 | 0.0125 | 0.0120 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.635 | 11.623 | 0.012 | 2123 | 0.0126 | 0.0105 | M |
| 19 2,6-Dinitrotoluene | 1 | 11.795 | 11.783 | 0.012 | 1508 | 0.0126 | 0.0101 | M |
| 20 2,4-Dinitrotoluene | 1 | 11.995 | 11.983 | 0.012 | 3142 | 0.0126 | 0.0103 | |
| 21 o-Nitrotoluene | 1 | 12.828 | 12.823 | 0.005 | 1615 | 0.0125 | 0.0120 | |
| 22 p-Nitrotoluene | 1 | 13.268 | 13.256 | 0.012 | 1080 | 0.0125 | 0.009557 | |
| 23 m-Nitrotoluene | 1 | 13.855 | 13.849 | 0.006 | 1403 | 0.0125 | 0.009809 | |
| 24 PETN | 2 | | 14.936 | | | ND | ND | MU |

## QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
U - Marked Undetected

## Reagents:

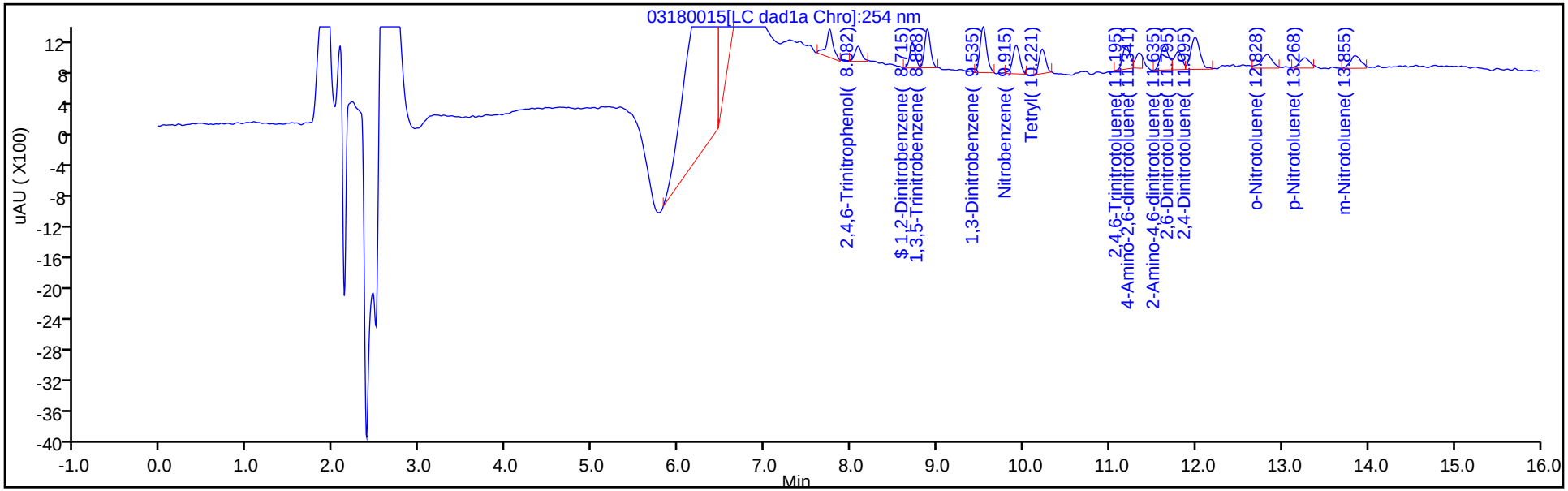
8330IntermStk_00061 Amount Added: 1.25 Units: uL

Report Date: 26-Mar-2020 15:45:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

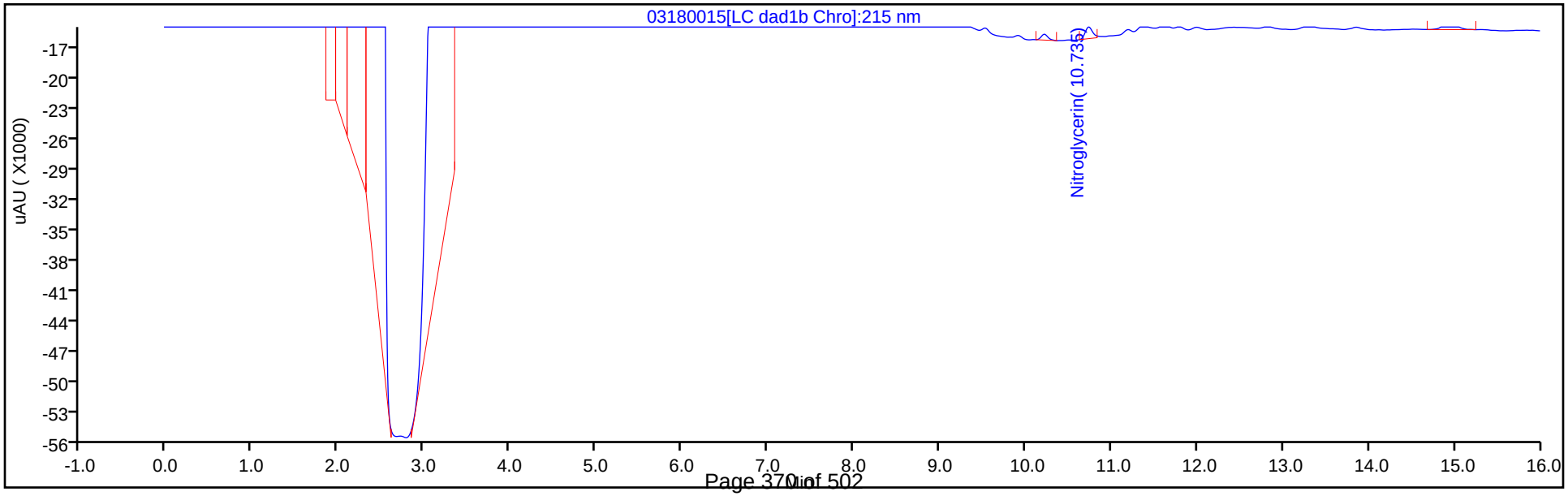
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d | | | | |
| Injection Date: | 18-Mar-2020 14:39:27 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | IC MAIN L1 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

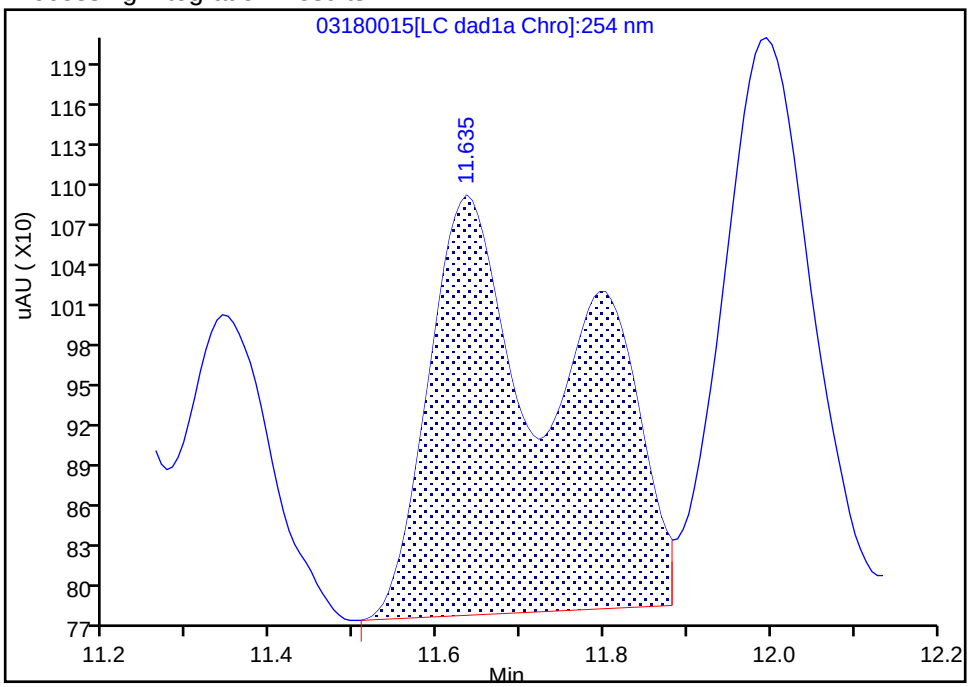
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d | | | | |
| Injection Date: | 18-Mar-2020 14:39:27 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | Worklist Smp#: | 15 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

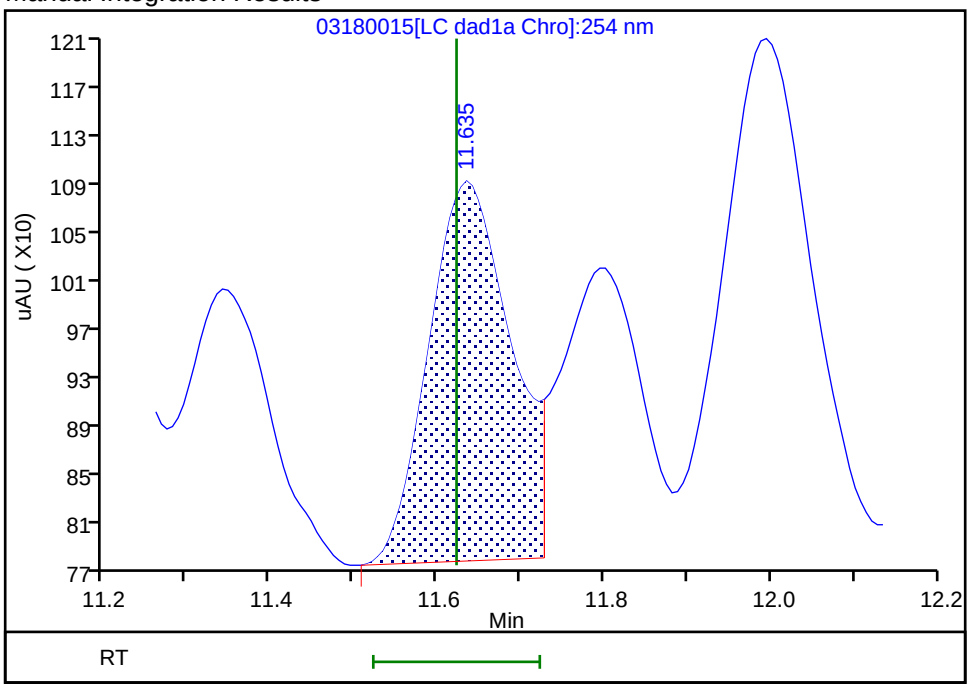
Processing Integration Results

RT: 11.63
Area: 3626
Amount: 0.016777
Amount Units: ug/mL




Manual Integration Results

RT: 11.63
Area: 2123
Amount: 0.010468
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:46:18
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-494886/16  Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Ave | 193810 | 184585 | | 381 | 400 | -4.8 | 15.0 |
| HMX | Lin2 | | 178815 | | 374 | 400 | -6.5 | 15.0 |
| RDX | Ave | 244360 | 211628 | | 346 | 400 | -13.4 | 15.0 |
| Nitrobenzene | Ave | 439227 | 438053 | | 399 | 400 | -0.3 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 674189 | 636963 | | 378 | 400 | -5.5 | 15.0 |
| Nitroglycerin | Ave | 126803 | 122258 | | 3860 | 4000 | -3.6 | 15.0 |
| 2-Nitrotoluene | Ave | 272965 | 263495 | | 386 | 400 | -3.5 | 15.0 |
| 4-Nitrotoluene | Ave | 240881 | 229805 | | 382 | 400 | -4.6 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 345235 | 318460 | | 369 | 400 | -7.8 | 15.0 |
| 3-Nitrotoluene | Ave | 298327 | 286883 | | 385 | 400 | -3.8 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 465211 | 446188 | | 384 | 400 | -4.1 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 472451 | 495920 | | 420 | 400 | 5.0 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 302720 | | 403 | 400 | 0.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 640113 | 590383 | | 369 | 400 | -7.8 | 15.0 |
| Tetryl | Ave | 368678 | 347680 | | 377 | 400 | -5.7 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin1 | | 390228 | | 381 | 400 | -4.8 | 15.0 |
| PETN | Lin1 | | 124707 | | 3650 | 4000 | -8.8 | 15.0 |
| 1,2-Dinitrobenzene | Lin1 | | 250760 | | 355 | 400 | -11.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-494886/16  Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 6.23 | 6.15 | 6.45 |
| HMX | 6.95 | 6.84 | 7.14 |
| RDX | 9.12 | 9.02 | 9.32 |
| Nitrobenzene | 12.05 | 11.96 | 12.26 |
| 1,3-Dinitrobenzene | 15.50 | 15.40 | 15.70 |
| Nitroglycerin | 15.81 | 15.70 | 16.00 |
| 2-Nitrotoluene | 16.49 | 16.38 | 16.68 |
| 4-Nitrotoluene | 16.77 | 16.67 | 16.97 |
| 4-Amino-2,6-dinitrotoluene | 17.10 | 17.00 | 17.30 |
| 3-Nitrotoluene | 17.69 | 17.60 | 17.90 |
| 2-Amino-4,6-dinitrotoluene | 17.99 | 17.90 | 18.20 |
| 1,3,5-Trinitrobenzene | 18.83 | 18.74 | 19.04 |
| 2,6-Dinitrotoluene | 19.75 | 19.66 | 19.96 |
| 2,4-Dinitrotoluene | 20.24 | 20.14 | 20.44 |
| Tetryl | 23.51 | 23.40 | 23.70 |
| 2,4,6-Trinitrotoluene | 24.61 | 24.50 | 24.80 |
| PETN | 25.25 | 25.13 | 25.43 |
| 1,2-Dinitrobenzene | 12.99 | 12.89 | 13.19 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140016.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2020 21:31:26 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0091518-016
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 14-May-2020 20:56:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:55:09

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.307 | 4.366 | -0.059 | 179307 | 0.4000 | 0.4177 | M |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.840 | 4.880 | -0.040 | 97723 | 0.4000 | 0.3877 | M |
| 5 2,4,6-Trinitrophenol | 1 | 6.234 | 6.300 | -0.066 | 73834 | 0.4000 | 0.3810 | a |
| 6 HMX | 1 | 6.954 | 6.986 | -0.032 | 71526 | 0.4000 | 0.3740 | |
| 8 RDX | 1 | 9.120 | 9.173 | -0.053 | 84651 | 0.4000 | 0.3464 | |
| 9 Nitrobenzene | 1 | 12.053 | 12.106 | -0.053 | 175221 | 0.4000 | 0.3989 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.987 | 13.040 | -0.053 | 100304 | 0.4000 | 0.3552 | |
| 11 3,5-Dinitroaniline | 1 | 14.827 | 14.886 | -0.059 | 185478 | 0.4000 | 0.3767 | |
| 12 1,3-Dinitrobenzene | 1 | 15.500 | 15.553 | -0.053 | 254785 | 0.4000 | 0.3779 | |
| 13 Nitroglycerin | 2 | 15.807 | 15.853 | -0.046 | 489033 | 4.00 | 3.86 | |
| 14 o-Nitrotoluene | 1 | 16.493 | 16.533 | -0.040 | 105398 | 0.4000 | 0.3861 | M |
| 15 p-Nitrotoluene | 1 | 16.767 | 16.820 | -0.053 | 91922 | 0.4000 | 0.3816 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.100 | 17.146 | -0.046 | 127384 | 0.4000 | 0.3690 | M |
| 17 m-Nitrotoluene | 1 | 17.693 | 17.753 | -0.060 | 114753 | 0.4000 | 0.3847 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 17.987 | 18.046 | -0.059 | 178475 | 0.4000 | 0.3836 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.833 | 18.886 | -0.053 | 198368 | 0.4000 | 0.4199 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.753 | 19.806 | -0.053 | 121088 | 0.4000 | 0.4033 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.240 | 20.293 | -0.053 | 236153 | 0.4000 | 0.3689 | M |
| 22 Tetryl | 1 | 23.507 | 23.553 | -0.046 | 139072 | 0.4000 | 0.3772 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.607 | 24.653 | -0.046 | 156091 | 0.4000 | 0.3808 | |
| 24 PETN | 2 | 25.254 | 25.280 | -0.026 | 498829 | 4.00 | 3.65 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

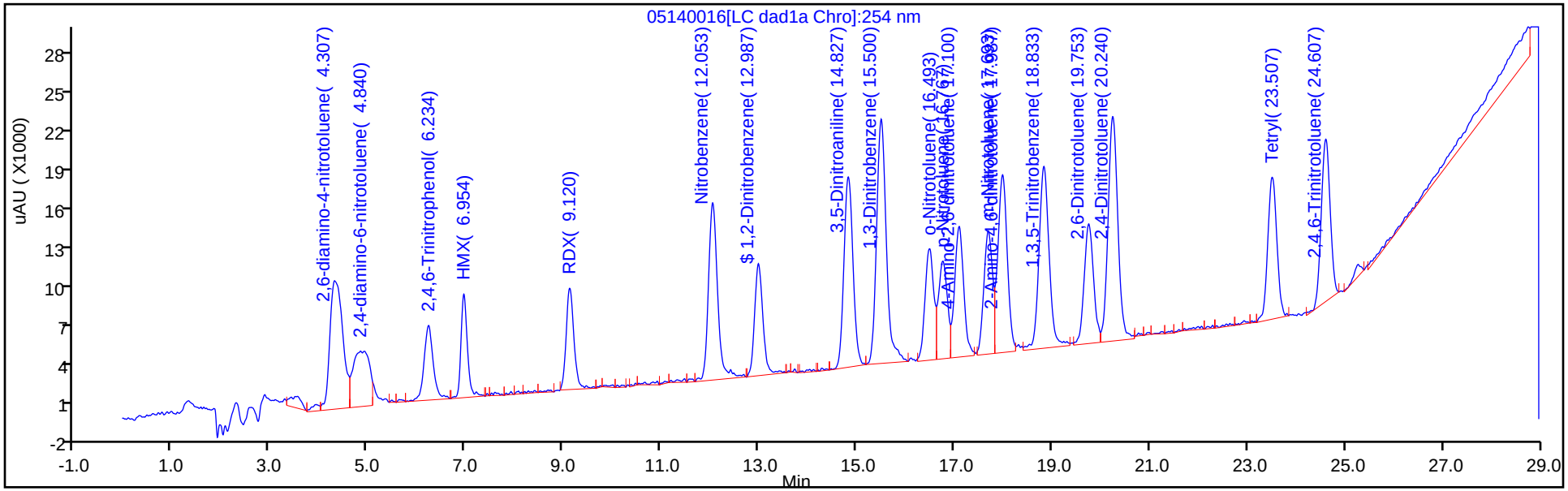
| | | | |
|---|---|---|---|
| 8330Surrogate_00114 | Amount Added: | 40.00 | Units: uL |
| 3,5-DNA LCS_00036 | Amount Added: | 40.00 | Units: uL |
| 8330 LCS_00098 | Amount Added: | 40.00 | Units: uL |
| 8330DiaminLCS_00038 | Amount Added: | 40.00 | Units: uL |

Report Date: 15-May-2020 12:01:01 Chrom Revision: 2.3 05-May-2020 17:48:18

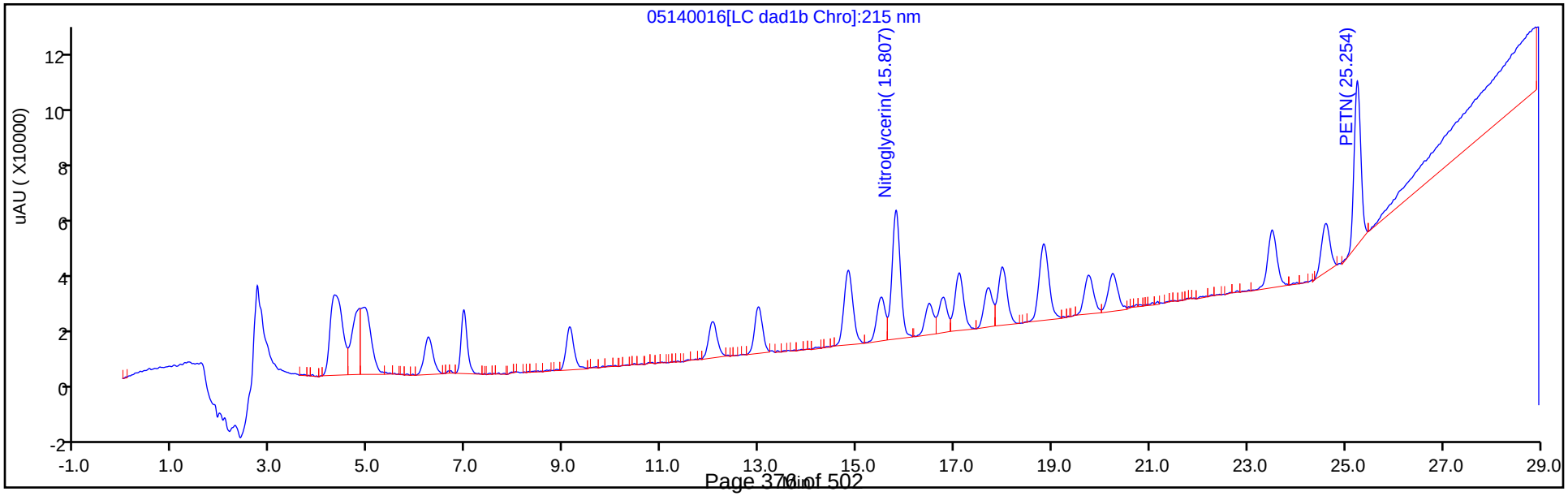
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | ICV FULL | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

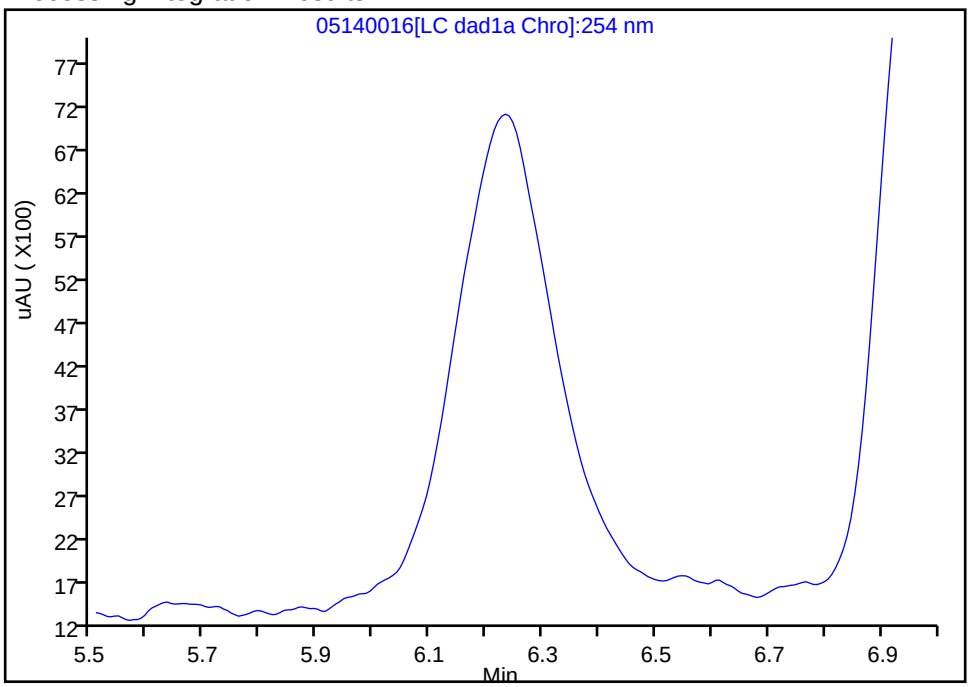
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

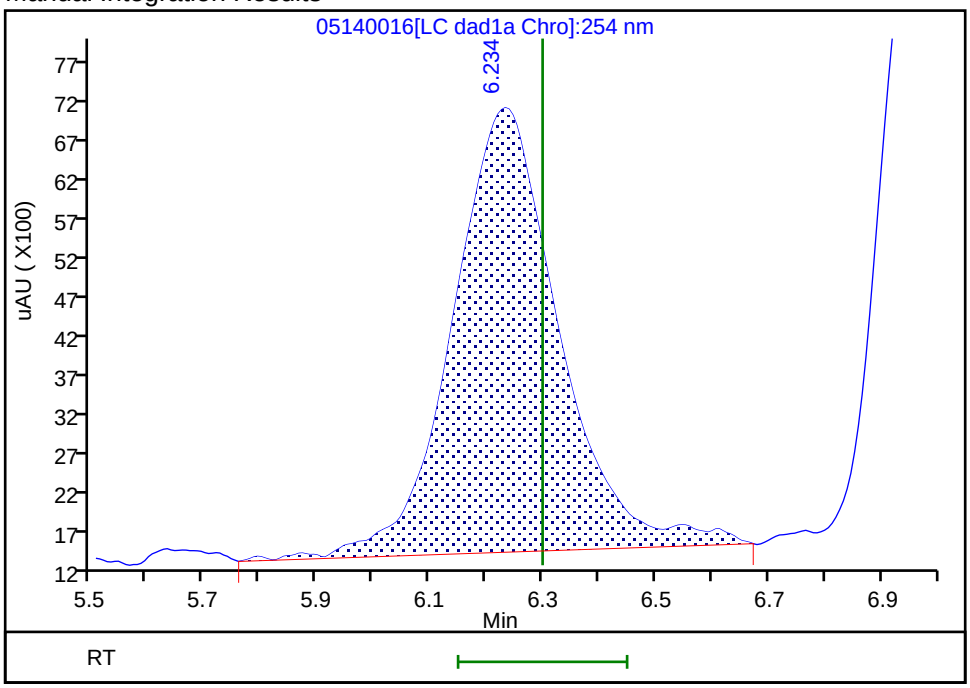
Not Detected
Expected RT: 6.30

Processing Integration Results




RT: 6.23
Area: 73834
Amount: 0.380960
Amount Units: ug/ml

Manual Integration Results




Reviewer: zhangji, 15-May-2020 11:14:55
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

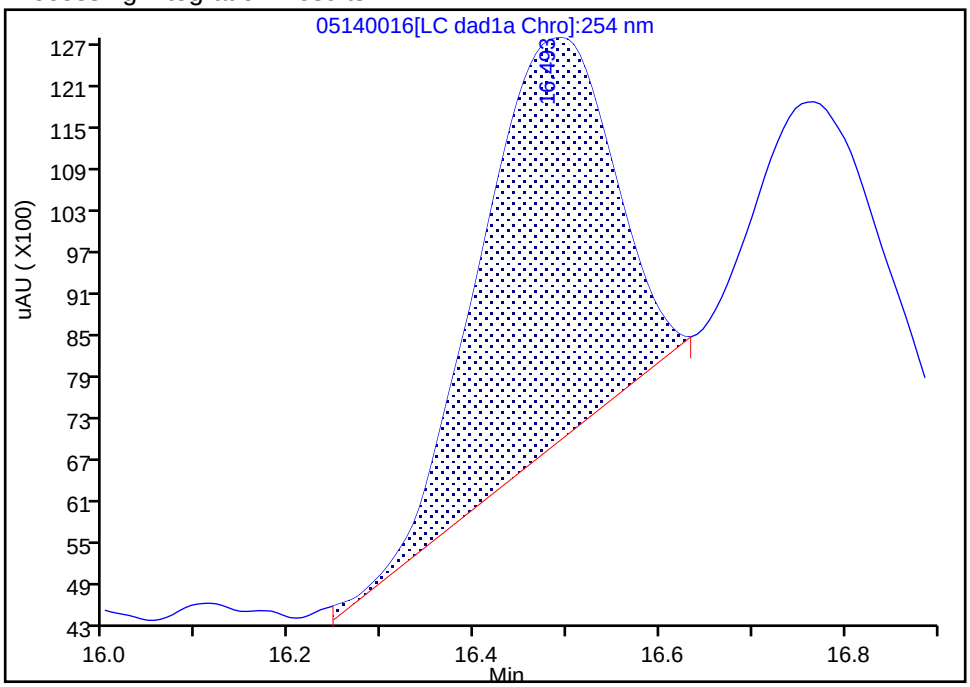
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

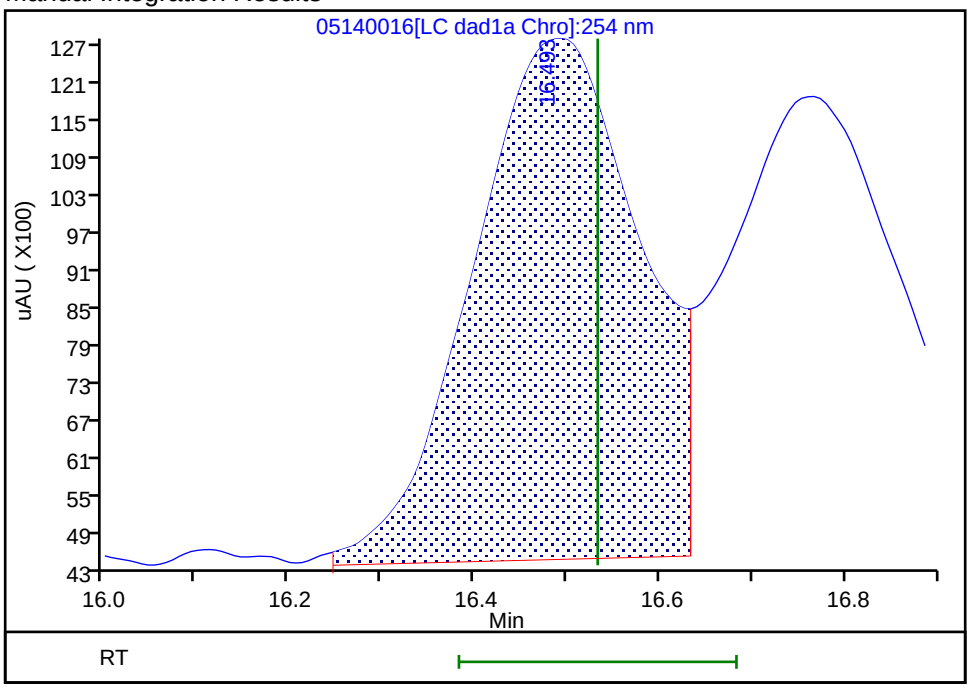
Processing Integration Results

RT: 16.49
Area: 59335
Amount: 0.217373
Amount Units: ug/ml




Manual Integration Results

RT: 16.49
Area: 105398
Amount: 0.386123
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

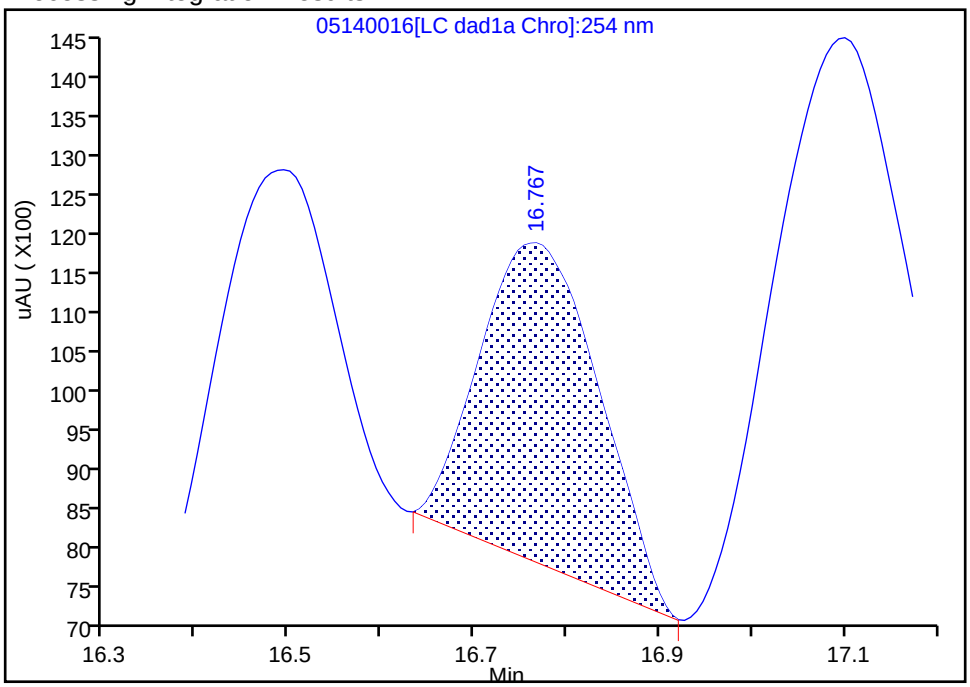
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

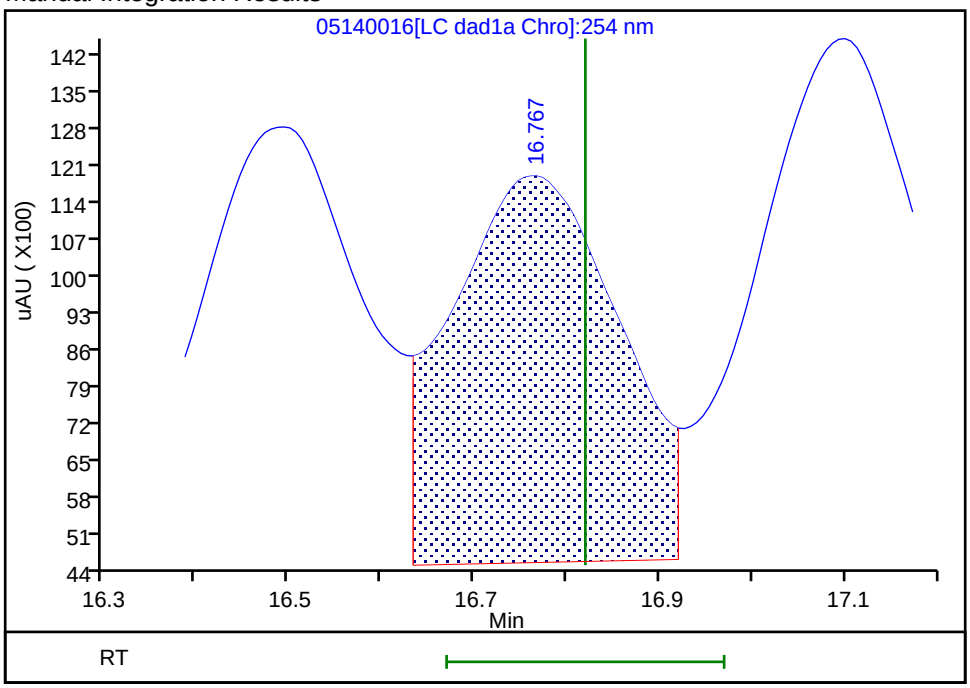
Processing Integration Results

RT: 16.77
Area: 36452
Amount: 0.151328
Amount Units: ug/ml




Manual Integration Results

RT: 16.77
Area: 91922
Amount: 0.381607
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

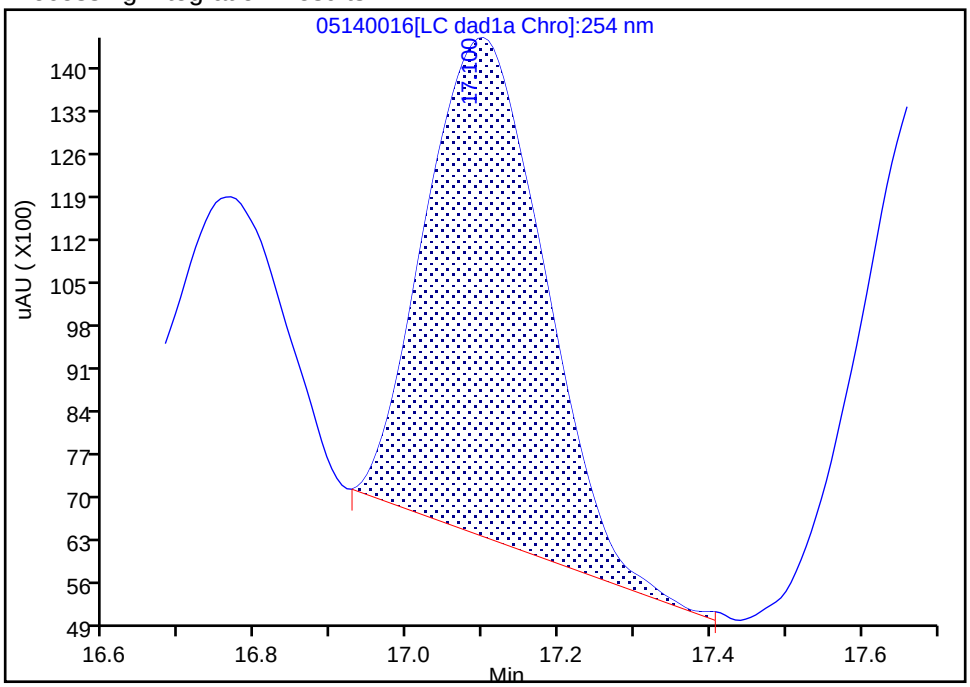
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

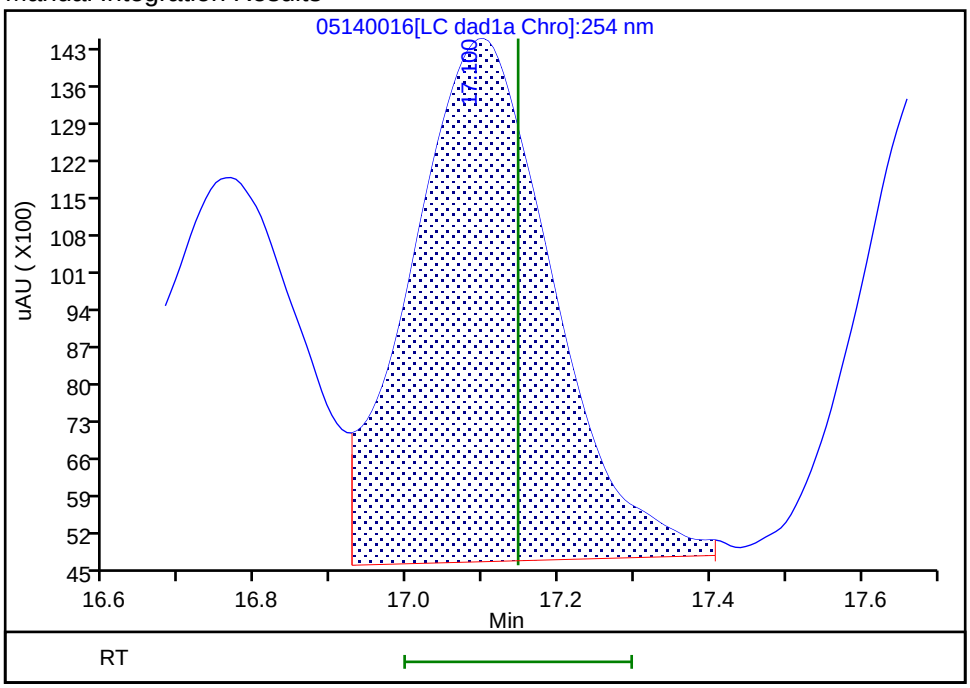
Processing Integration Results

RT: 17.10
Area: 89570
Amount: 0.259447
Amount Units: ug/ml




Manual Integration Results

RT: 17.10
Area: 127384
Amount: 0.368978
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

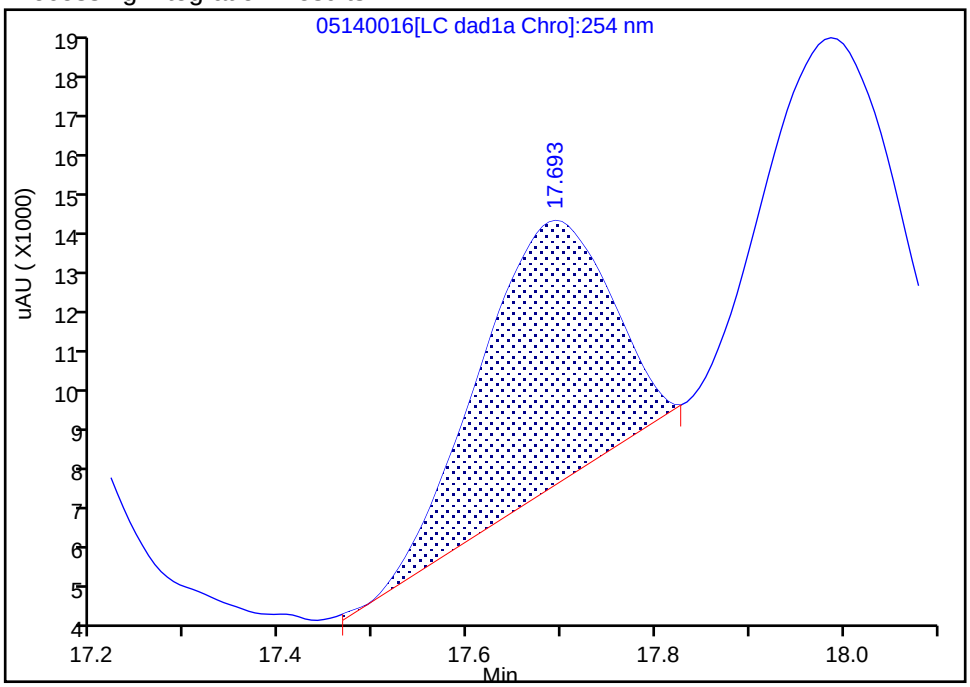
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

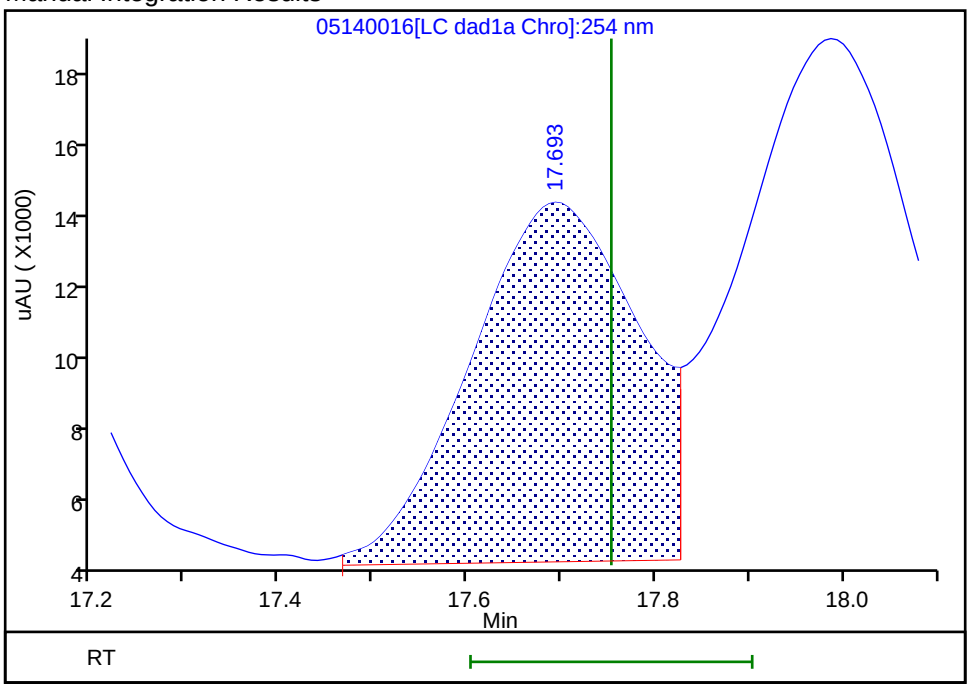
Processing Integration Results

RT: 17.69
Area: 60008
Amount: 0.201149
Amount Units: ug/ml




Manual Integration Results

RT: 17.69
Area: 114753
Amount: 0.384655
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

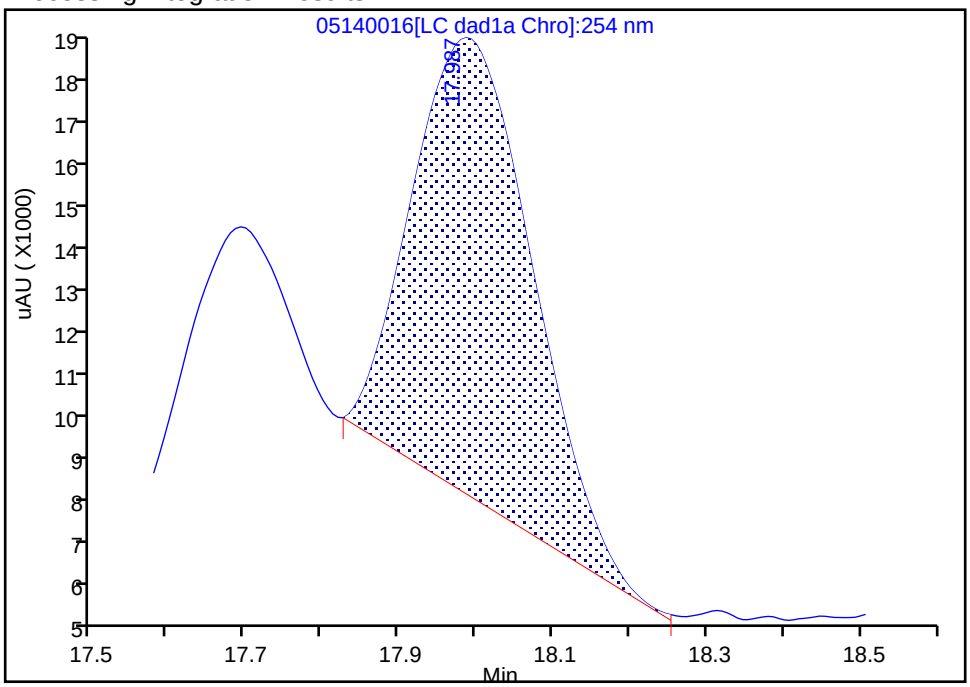
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

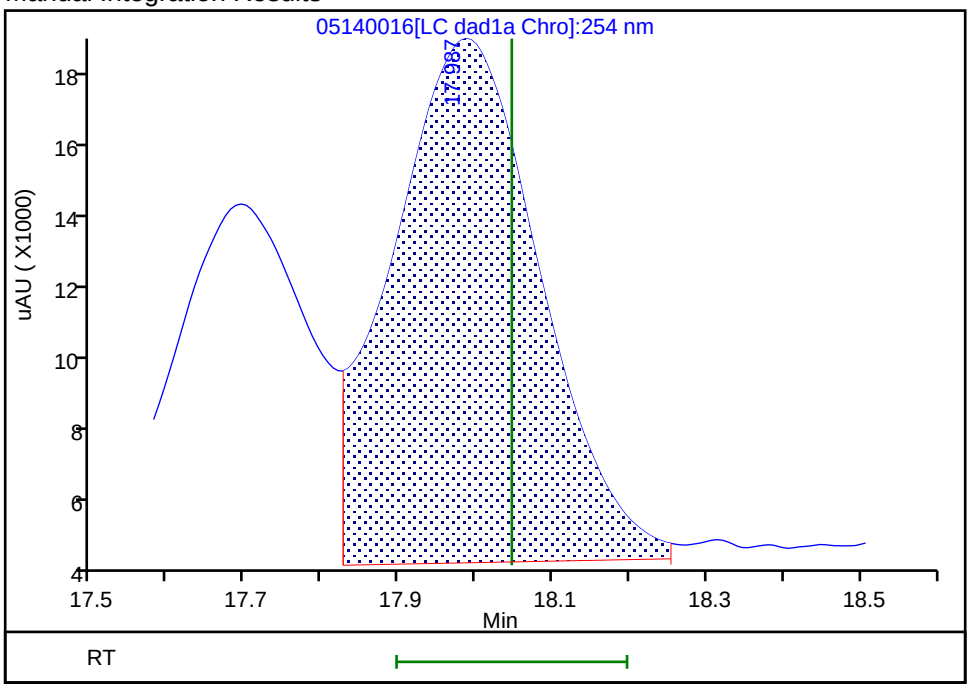
Processing Integration Results

RT: 17.99
Area: 111749
Amount: 0.240211
Amount Units: ug/ml




Manual Integration Results

RT: 17.99
Area: 178475
Amount: 0.383643
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

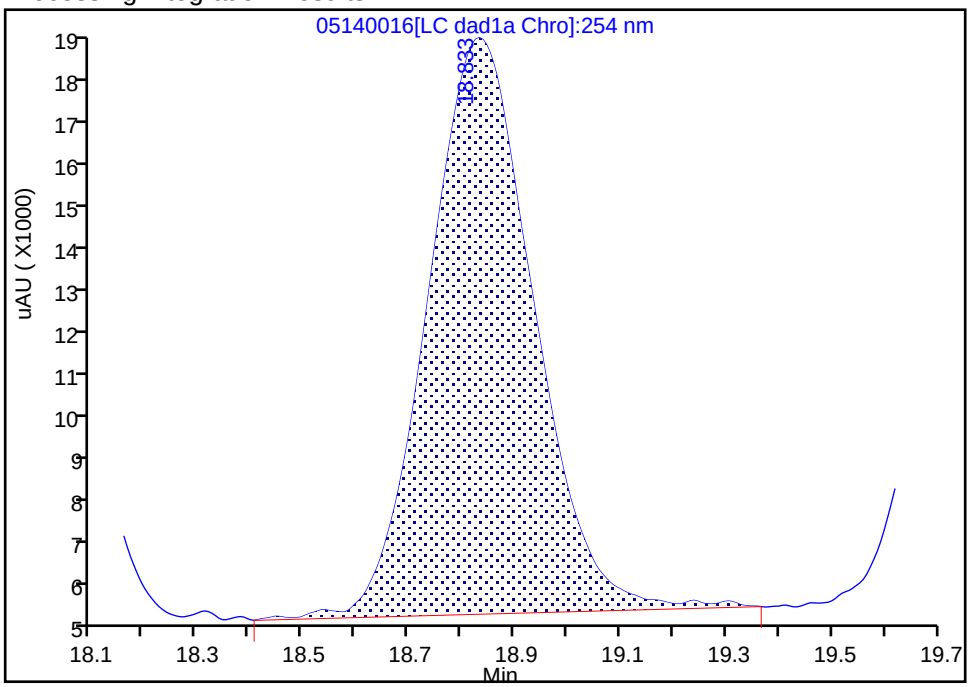
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

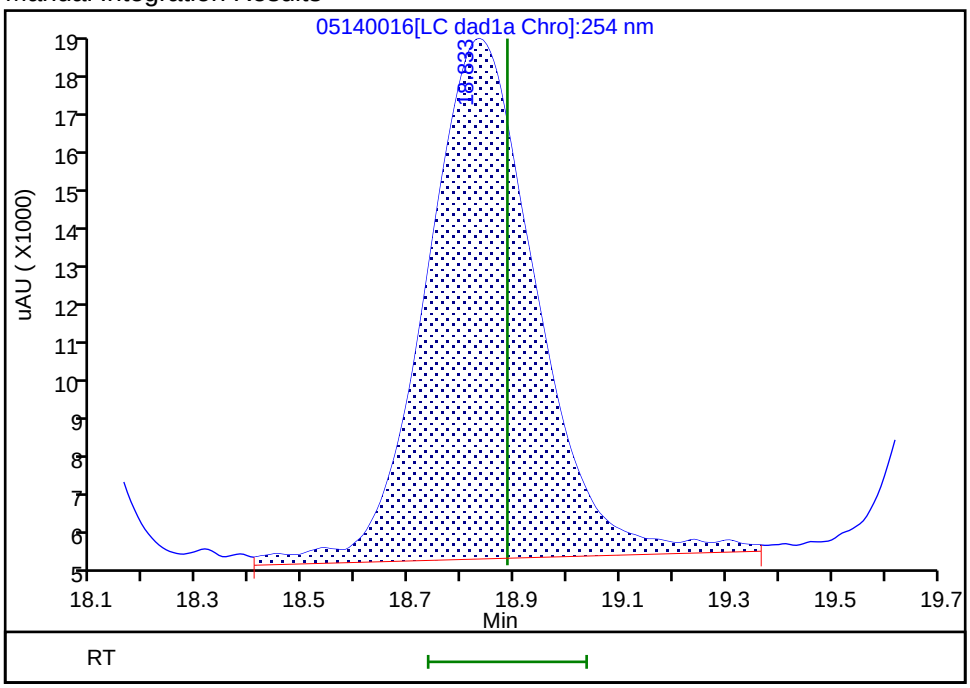
Processing Integration Results

RT: 18.83
Area: 187655
Amount: 0.397195
Amount Units: ug/ml




Manual Integration Results

RT: 18.83
Area: 198368
Amount: 0.419870
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

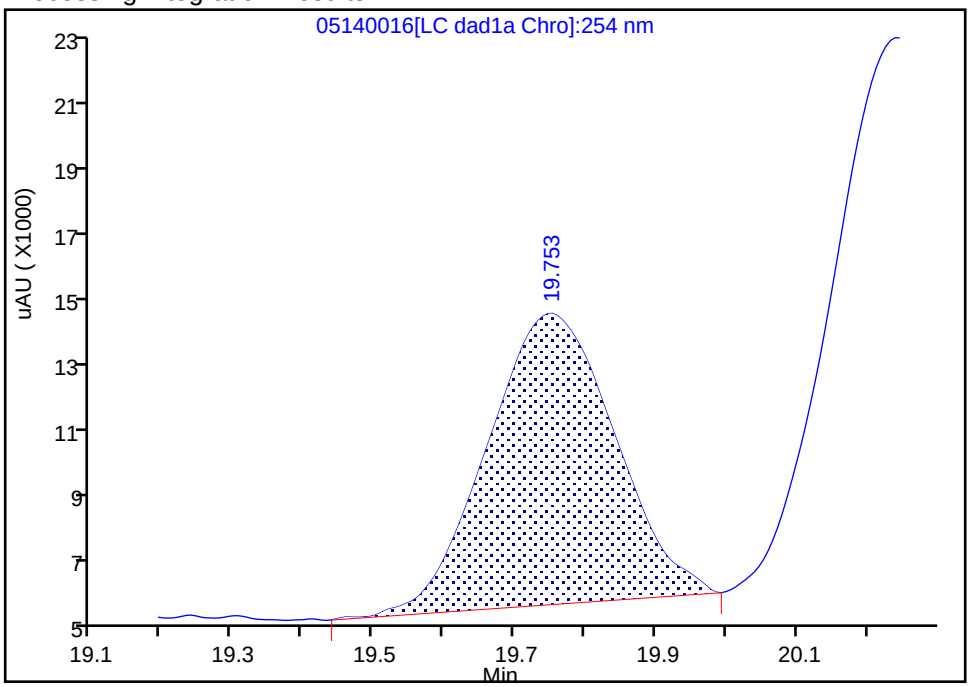
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

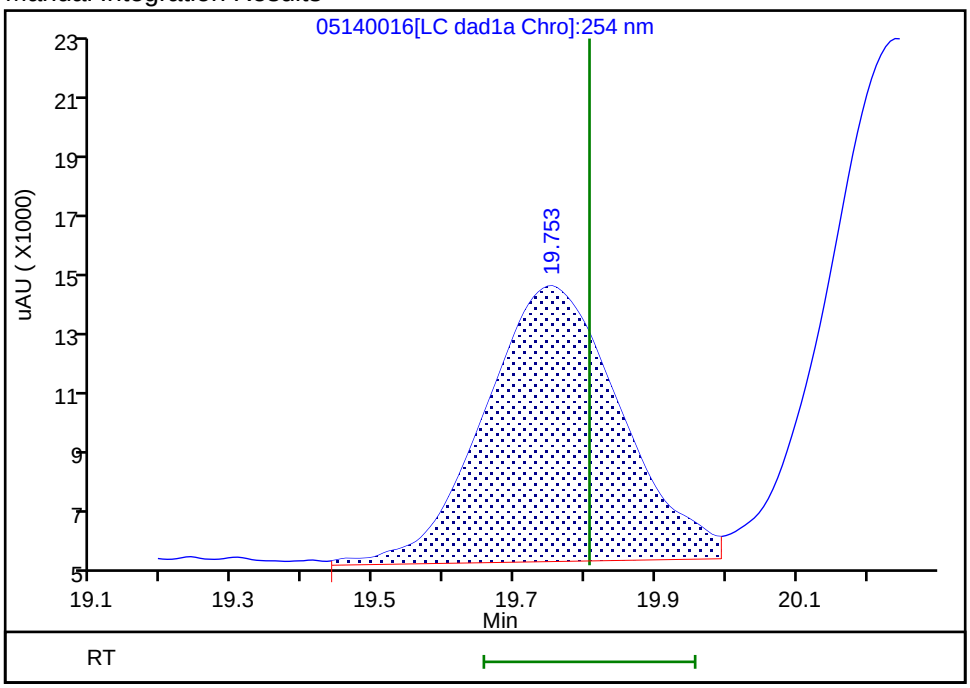
Processing Integration Results

RT: 19.75
Area: 106845
Amount: 0.315968
Amount Units: ug/ml




Manual Integration Results

RT: 19.75
Area: 121088
Amount: 0.403336
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

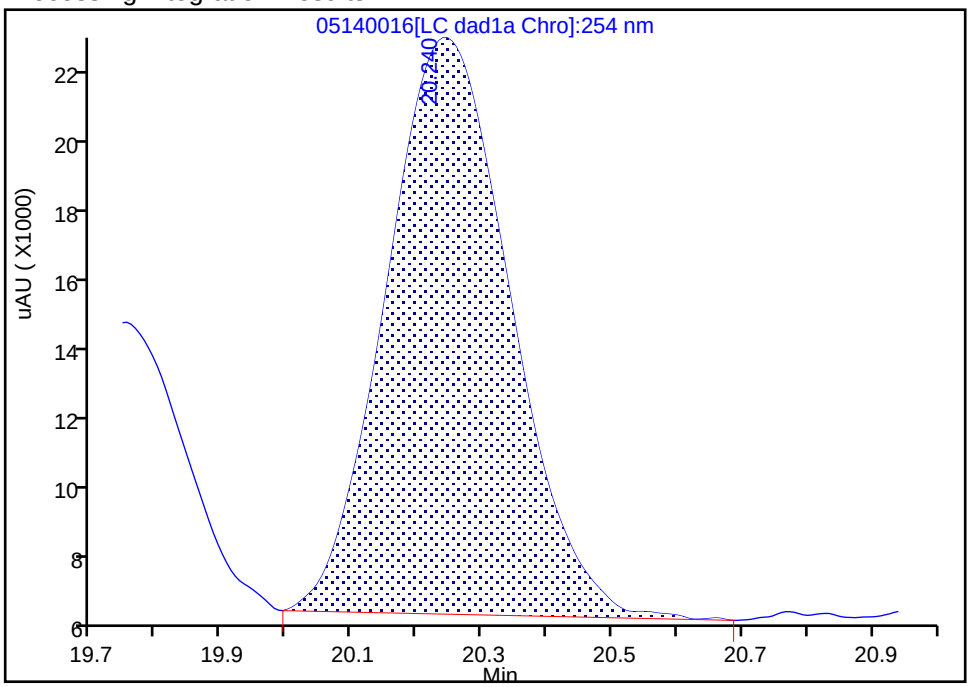
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d | | | | |
| Injection Date: | 14-May-2020 21:31:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

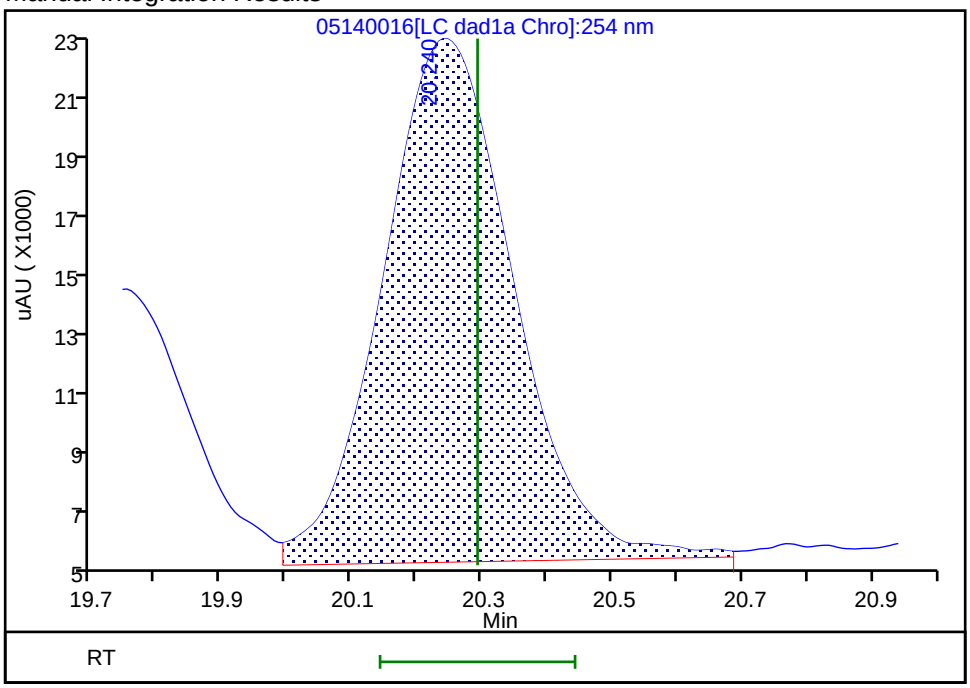
Processing Integration Results

RT: 20.24
Area: 217350
Amount: 0.339549
Amount Units: ug/ml




Manual Integration Results

RT: 20.24
Area: 236153
Amount: 0.368924
Amount Units: ug/ml




Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-494886/26  Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 435816 | 391496 | | 360 | 400 | -10.2 | 15.0 |
| DNX | Ave | 321206 | 289486 | | 361 | 400 | -9.9 | 15.0 |
| MNX | Lin2 | | 268209 | | 449 | 467 | -3.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-494886/26  Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.41 | 5.27 | 5.57 |
| DNX | 6.22 | 6.08 | 6.38 |
| MNX | 7.73 | 7.59 | 7.89 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140026.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 15-May-2020 03:21:17 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0091518-026 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 15-May-2020 12:01:05 | Calib Date: | 15-May-2020 02:11:20 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX0318 | | | | |

First Level Reviewer: zhangji Date: 15-May-2020 11:38:34

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.408 | 5.417 | -0.009 | 156755 | 0.4004 | 0.3597 | |
| 4 DNX | 1 | 6.215 | 6.231 | -0.016 | 115910 | 0.4004 | 0.3609 | |
| 7 MNX | 1 | 7.728 | 7.744 | -0.016 | 125200 | 0.4668 | 0.4488 | |

## Reagents:

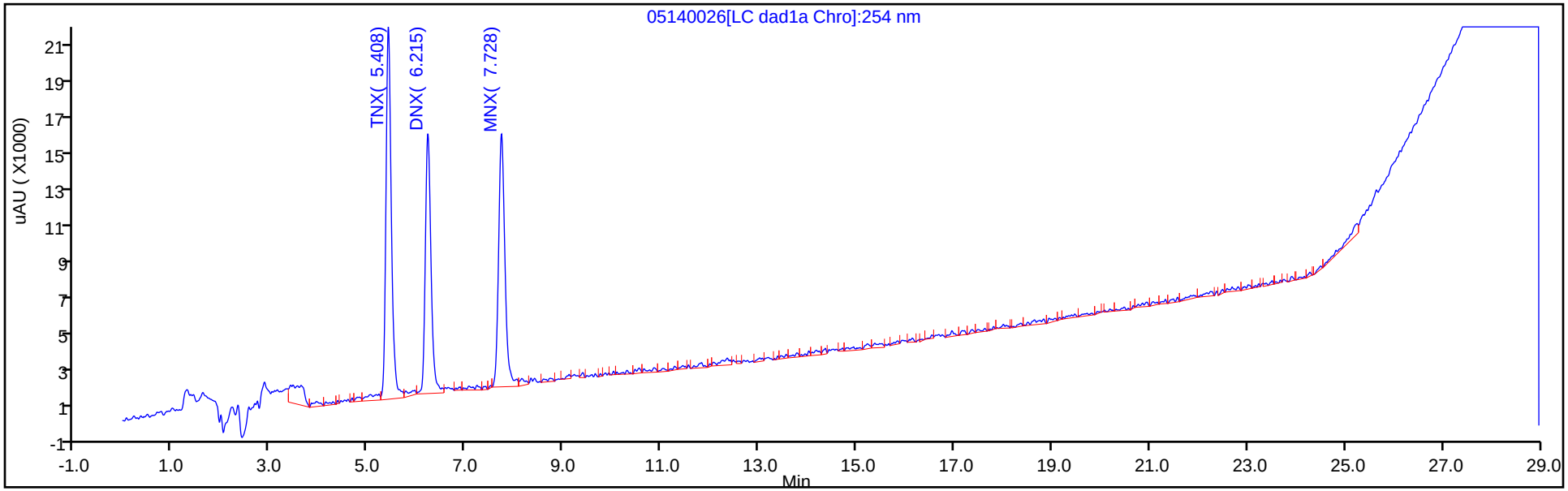
8330_OP_DMT_00008 Amount Added: 40.00 Units: uL

Report Date: 15-May-2020 12:01:06 Chrom Revision: 2.3 05-May-2020 17:48:18

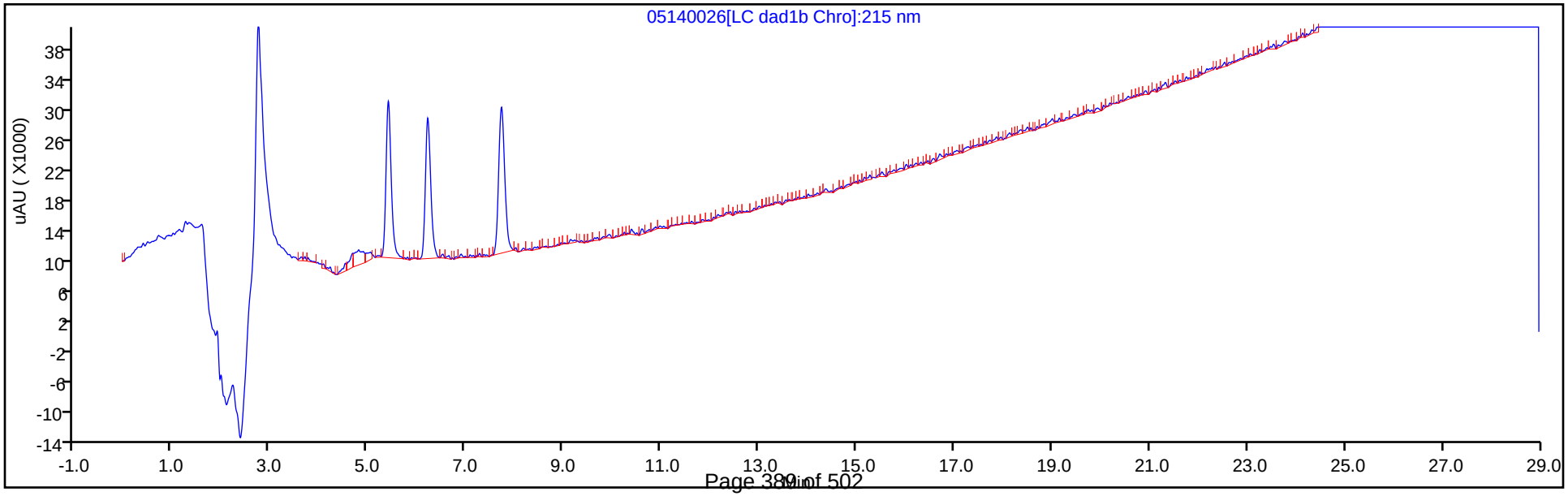
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140026.d | | | | |
| Injection Date: | 15-May-2020 03:21:17 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/19  Calibration Date: 09/01/2020 21:47

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 09010019.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Lin2 | | 178772 | | 222 | 250 | -11.0 | 15.0 |
| Picric acid | Ave | 193810 | 179056 | | 231 | 250 | -7.6 | 15.0 |
| RDX | Ave | 244360 | 217624 | | 223 | 250 | -10.9 | 15.0 |
| Nitrobenzene | Ave | 439227 | 392418 | | 224 | 251 | -10.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 674189 | 656124 | | 244 | 251 | -2.7 | 15.0 |
| Nitroglycerin | Ave | 126803 | 129426 | | 2550 | 2500 | 2.1 | 15.0 |
| 2-Nitrotoluene | Ave | 272965 | 259748 | | 238 | 250 | -4.8 | 15.0 |
| 4-Nitrotoluene | Ave | 240881 | 242631 | | 252 | 251 | 0.7 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 345235 | 319708 | | 232 | 250 | -7.4 | 15.0 |
| 3-Nitrotoluene | Ave | 298327 | 290406 | | 244 | 250 | -2.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 465211 | 443984 | | 240 | 251 | -4.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 472451 | 464000 | | 246 | 251 | -1.8 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 289068 | | 236 | 251 | -6.2 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 640113 | 589948 | | 231 | 251 | -7.8 | 15.0 |
| Tetryl | Ave | 368678 | 356946 | | 243 | 251 | -3.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin1 | | 410307 | | 249 | 251 | -1.0 | 15.0 |
| PETN | Lin1 | | 137270 | | 2440 | 2500 | -2.3 | 15.0 |
| 1,2-Dinitrobenzene | Lin1 | | 270564 | | 237 | 250 | -5.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/19  Calibration Date: 09/01/2020 21:47

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 09010019.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 7.01 | 6.82 | 7.12 |
| Picric acid | 7.88 | 7.63 | 7.93 |
| RDX | 9.17 | 8.98 | 9.28 |
| Nitrobenzene | 12.08 | 11.87 | 12.17 |
| 1,3-Dinitrobenzene | 15.59 | 15.37 | 15.67 |
| Nitroglycerin | 15.79 | 15.54 | 15.84 |
| 2-Nitrotoluene | 16.54 | 16.31 | 16.61 |
| 4-Nitrotoluene | 16.82 | 16.58 | 16.88 |
| 4-Amino-2,6-dinitrotoluene | 17.27 | 17.04 | 17.34 |
| 3-Nitrotoluene | 17.75 | 17.52 | 17.82 |
| 2-Amino-4,6-dinitrotoluene | 18.18 | 17.95 | 18.25 |
| 1,3,5-Trinitrobenzene | 18.91 | 18.68 | 18.98 |
| 2,6-Dinitrotoluene | 19.87 | 19.63 | 19.93 |
| 2,4-Dinitrotoluene | 20.37 | 20.13 | 20.43 |
| Tetryl | 23.71 | 23.46 | 23.76 |
| 2,4,6-Trinitrotoluene | 24.74 | 24.50 | 24.80 |
| PETN | 25.30 | 25.06 | 25.36 |
| 1,2-Dinitrobenzene | 13.09 | 12.87 | 13.17 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010019.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-Sep-2020 21:47:53 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0094635-019
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:36:20 Calib Date: 07-Jul-2020 23:49:12
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 14:12:44

| 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 | 4.378 | 4.358 | 0.020 | 104189 | 0.2500 | 0.2427 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.931 | 4.898 | 0.033 | 61850 | 0.2500 | 0.2368 | |
| 6 HMX | 1 | 7.005 | 6.971 | 0.034 | 44693 | 0.2500 | 0.2224 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.878 | 7.778 | 0.100 | 44764 | 0.2500 | 0.2310 | |
| 8 RDX | 1 | 9.171 | 9.125 | 0.046 | 54406 | 0.2500 | 0.2226 | |
| 9 Nitrobenzene | 1 | 12.078 | 12.018 | 0.060 | 98497 | 0.2510 | 0.2243 | M |
| $ 10 1,2-Dinitrobenzene | 1 | 13.085 | 13.018 | 0.067 | 67641 | 0.2500 | 0.2374 | M |
| 11 3,5-Dinitroaniline | 1 | 14.991 | 14.925 | 0.066 | 120746 | 0.2500 | 0.2432 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.585 | 15.518 | 0.067 | 164359 | 0.2505 | 0.2438 | M |
| 13 Nitroglycerin | 2 | 15.785 | 15.691 | 0.094 | 323564 | 2.50 | 2.55 | M |
| 14 o-Nitrotoluene | 1 | 16.538 | 16.458 | 0.080 | 64937 | 0.2500 | 0.2379 | M |
| 15 p-Nitrotoluene | 1 | 16.818 | 16.731 | 0.087 | 60779 | 0.2505 | 0.2523 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.265 | 17.185 | 0.080 | 80007 | 0.2503 | 0.2317 | M |
| 17 m-Nitrotoluene | 1 | 17.751 | 17.665 | 0.086 | 72674 | 0.2503 | 0.2436 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.178 | 18.098 | 0.080 | 111440 | 0.2510 | 0.2395 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.911 | 18.831 | 0.080 | 116232 | 0.2505 | 0.2460 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.871 | 19.778 | 0.093 | 72556 | 0.2510 | 0.2355 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.365 | 20.278 | 0.087 | 148077 | 0.2510 | 0.2313 | M |
| 22 Tetryl | 1 | 23.705 | 23.605 | 0.100 | 89415 | 0.2505 | 0.2425 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.738 | 24.651 | 0.087 | 102987 | 0.2510 | 0.2486 | |
| 24 PETN | 2 | 25.298 | 25.211 | 0.087 | 343175 | 2.50 | 2.44 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

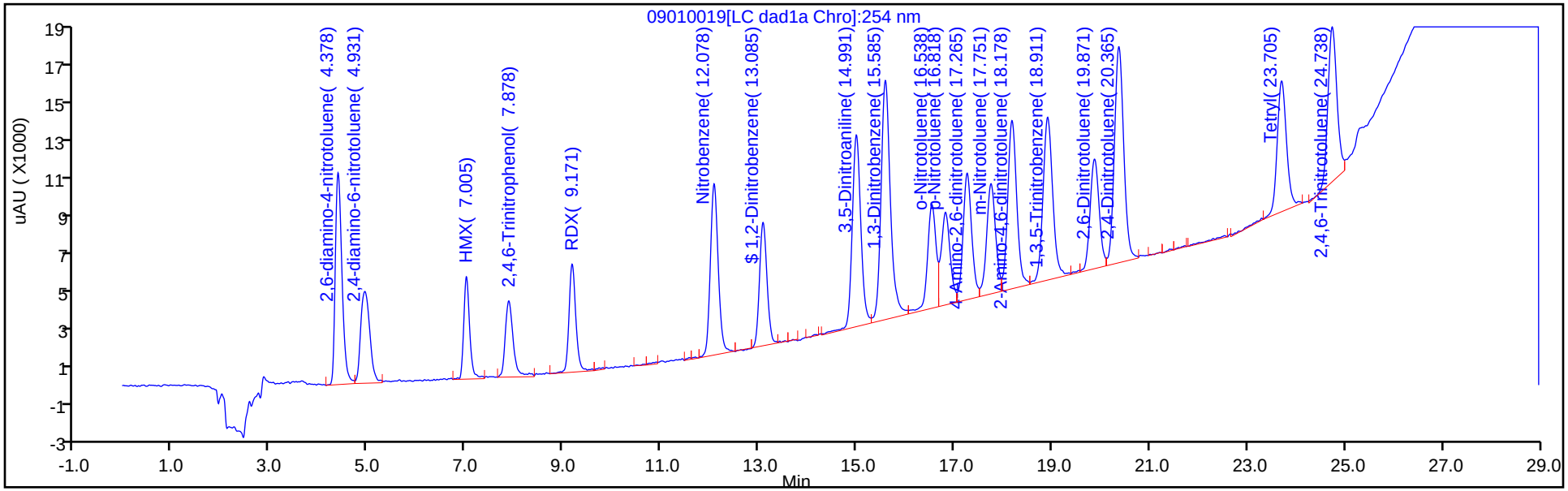
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 12.50 | Units: uL |

Report Date: 02-Sep-2020 14:36:21 Chrom Revision: 2.3 20-Aug-2020 13:57:12

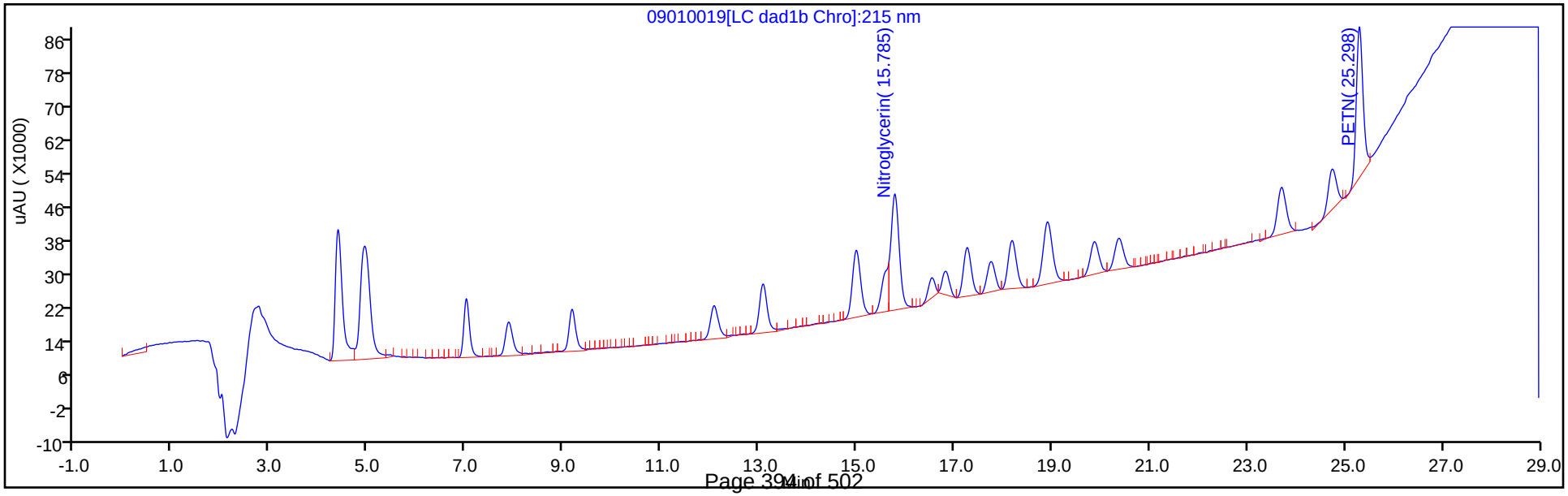
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

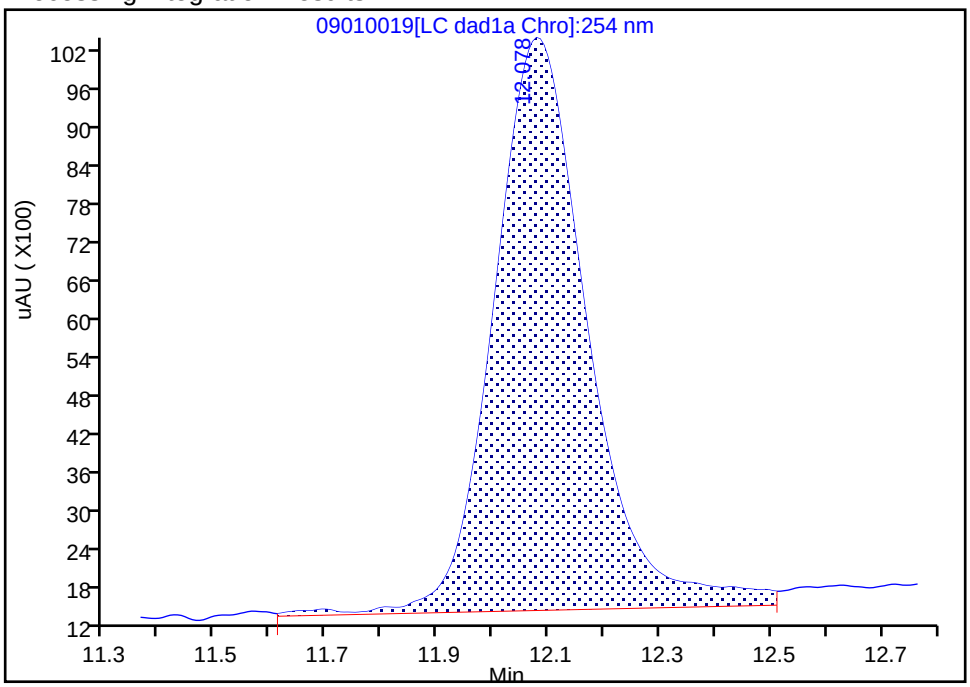
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 9 Nitrobenzene, CAS: 98-95-3

Signal: 1

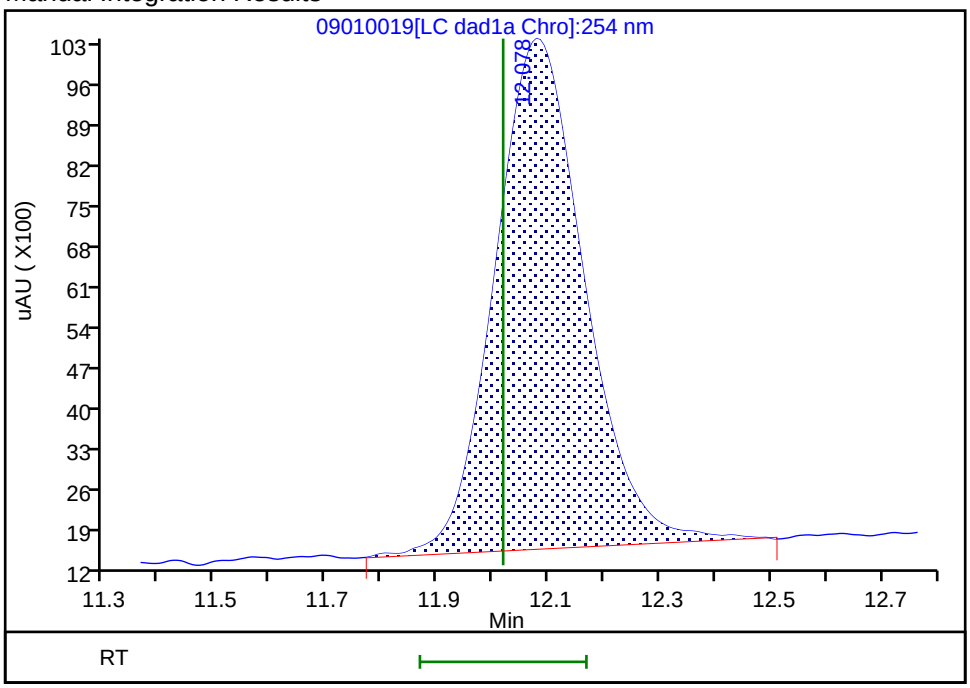
Processing Integration Results

RT: 12.08
Area: 105211
Amount: 0.239537
Amount Units: ug/ml




Manual Integration Results

RT: 12.08
Area: 98497
Amount: 0.224251
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:43
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

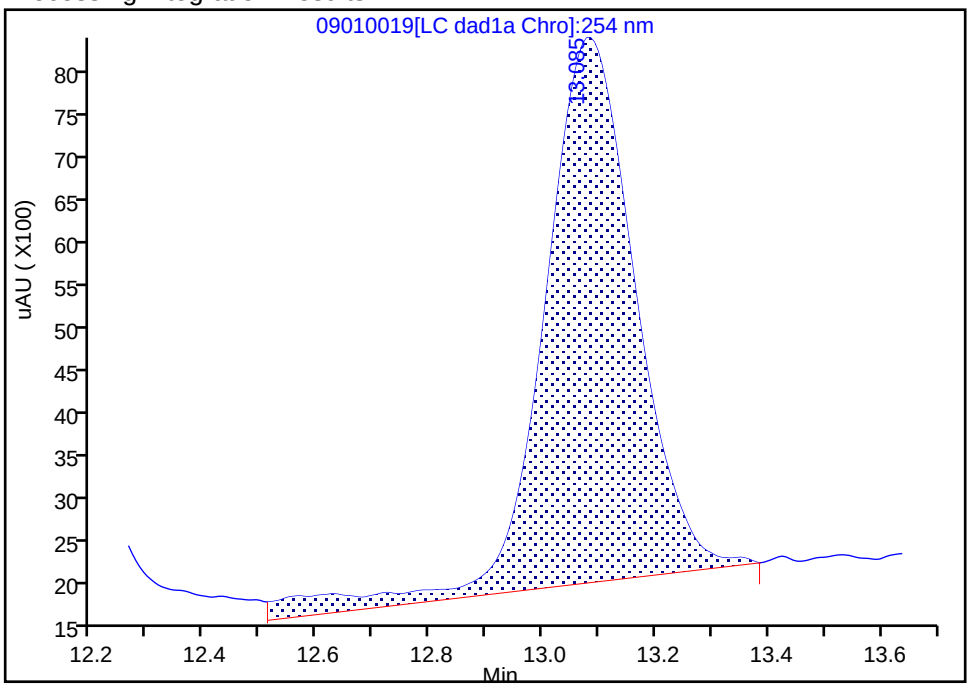
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## $ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

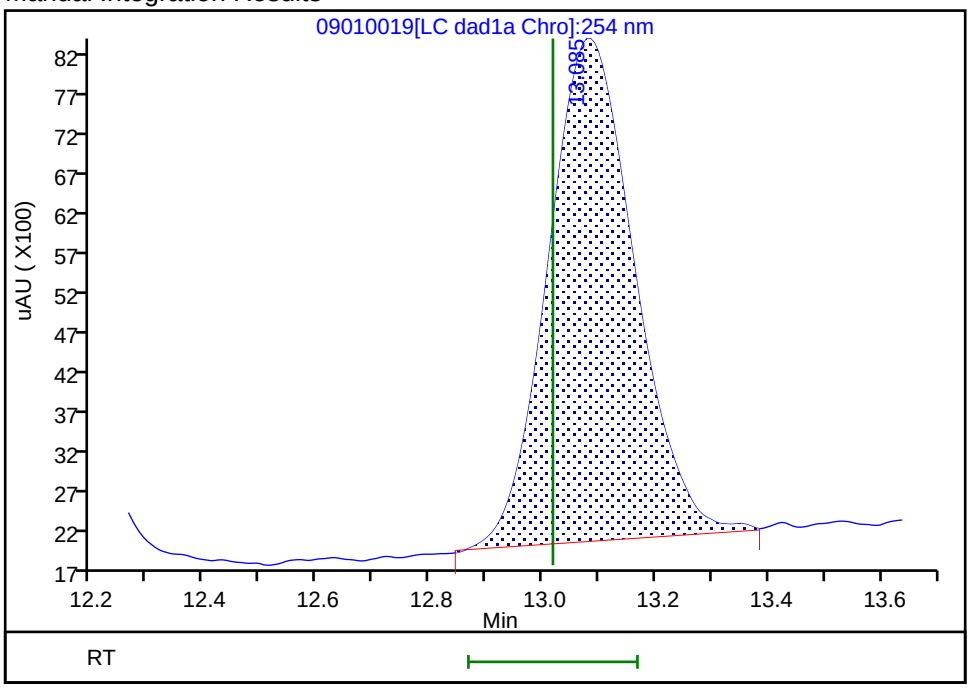
Processing Integration Results

RT: 13.08
Area: 73202
Amount: 0.257416
Amount Units: ug/ml




Manual Integration Results

RT: 13.08
Area: 67641
Amount: 0.237357
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:41

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver

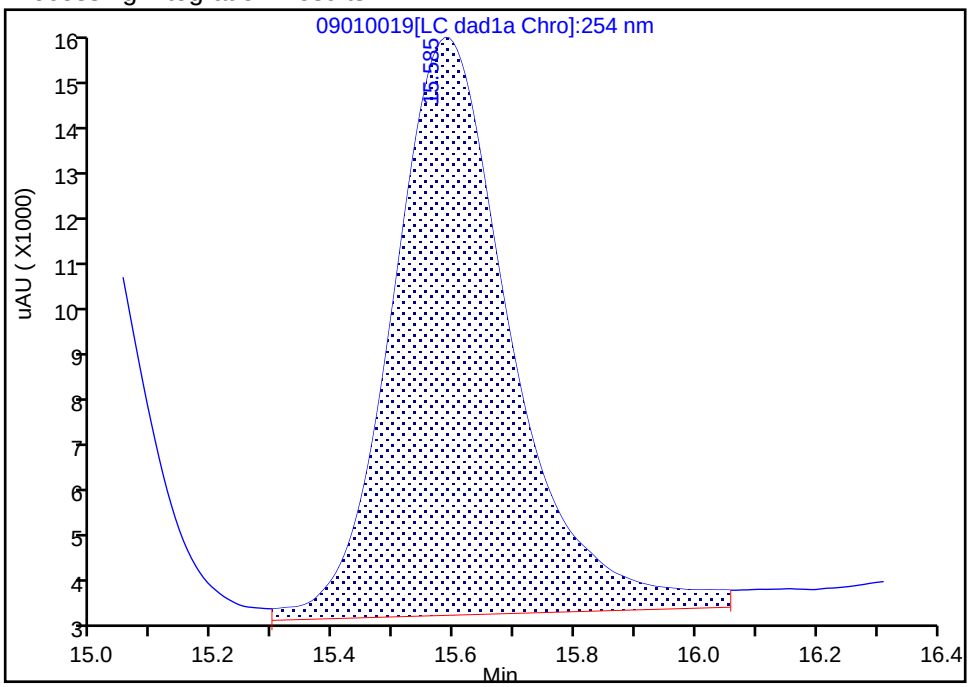
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

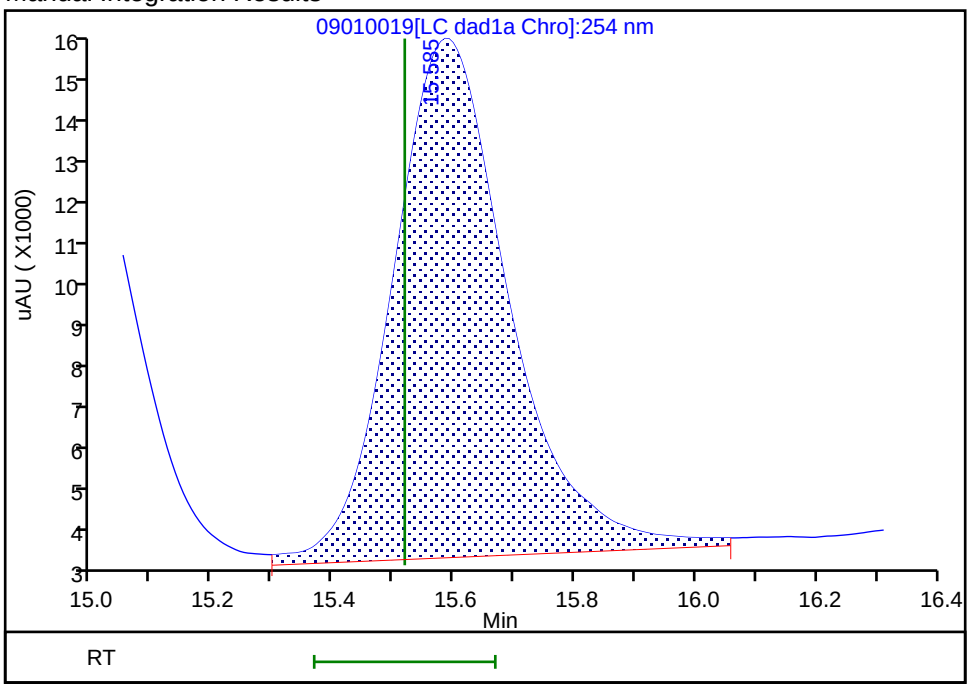
Processing Integration Results

RT: 15.58
Area: 168417
Amount: 0.249807
Amount Units: ug/ml




Manual Integration Results

RT: 15.58
Area: 164359
Amount: 0.243788
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

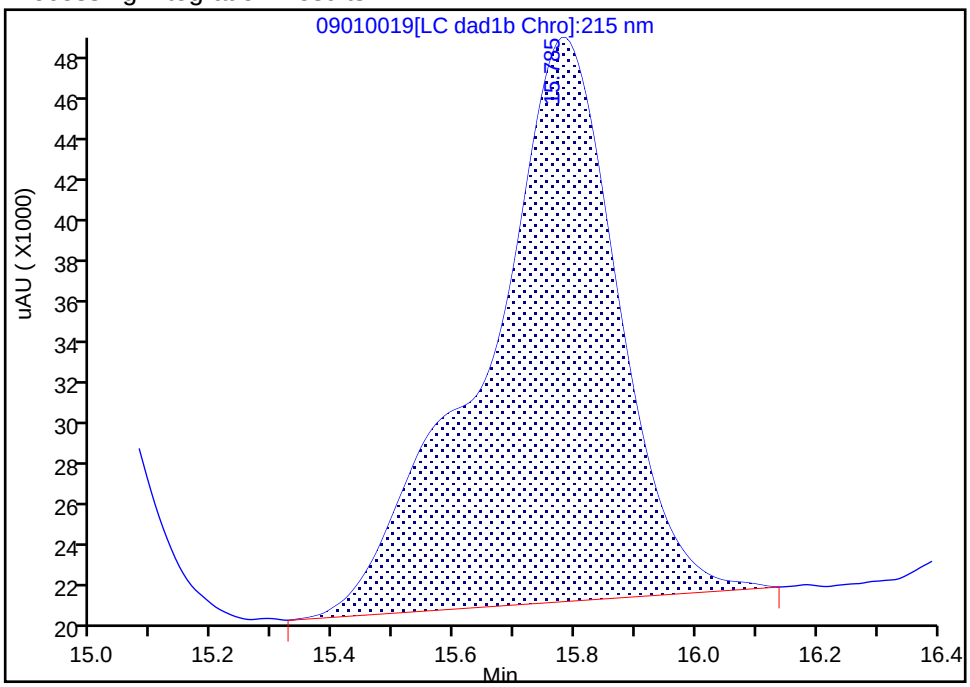
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

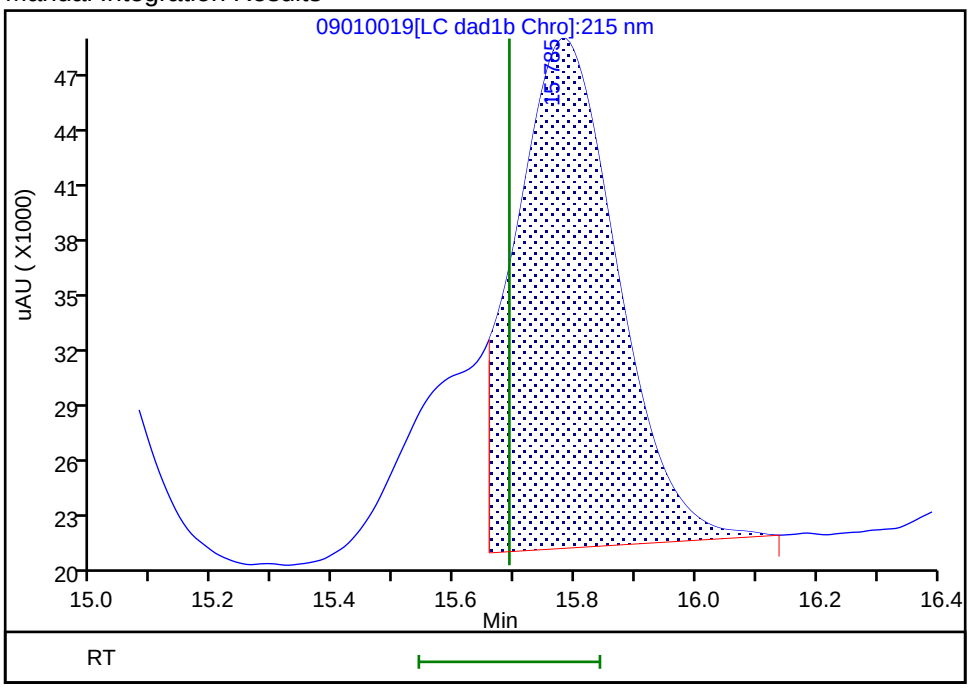
Processing Integration Results

RT: 15.78
Area: 421026
Amount: 3.320307
Amount Units: ug/ml




Manual Integration Results

RT: 15.78
Area: 323564
Amount: 2.551700
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:36

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

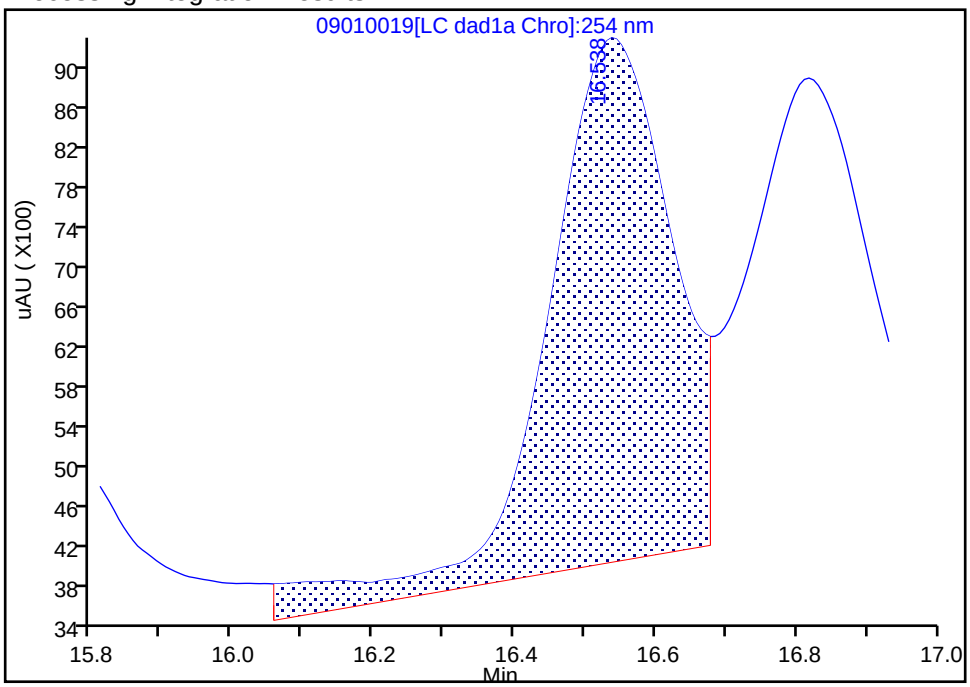
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

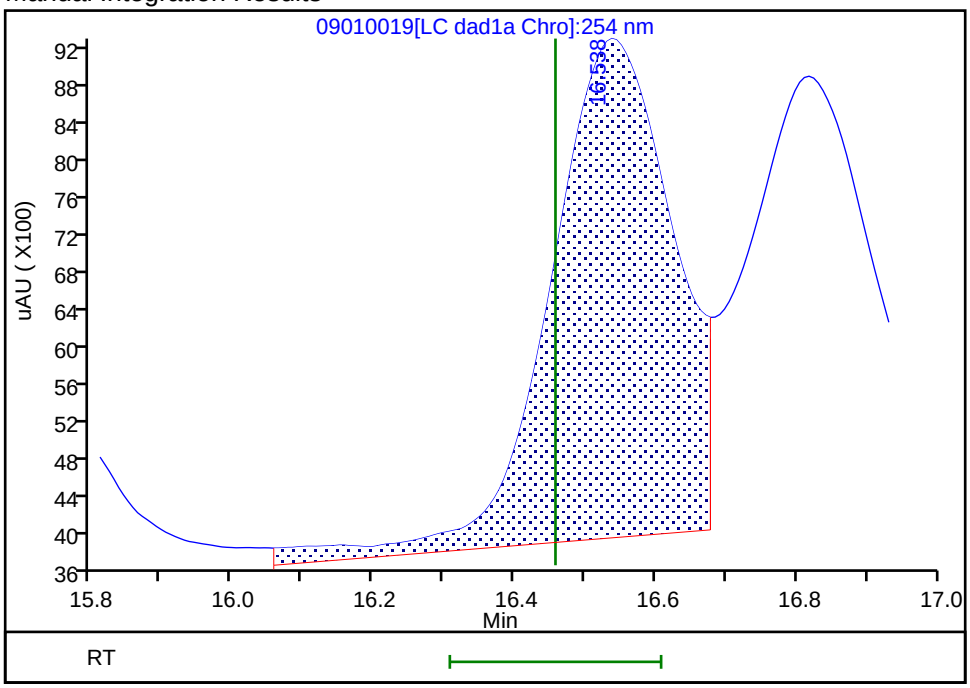
Processing Integration Results

RT: 16.54
Area: 64770
Amount: 0.237284
Amount Units: ug/ml




Manual Integration Results

RT: 16.54
Area: 64937
Amount: 0.237895
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

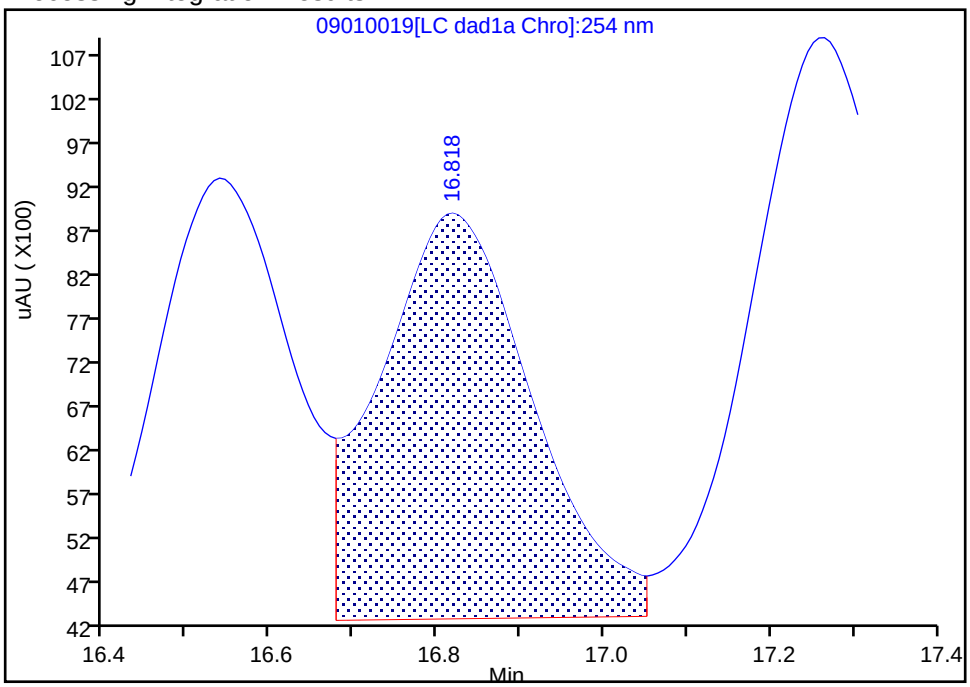
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

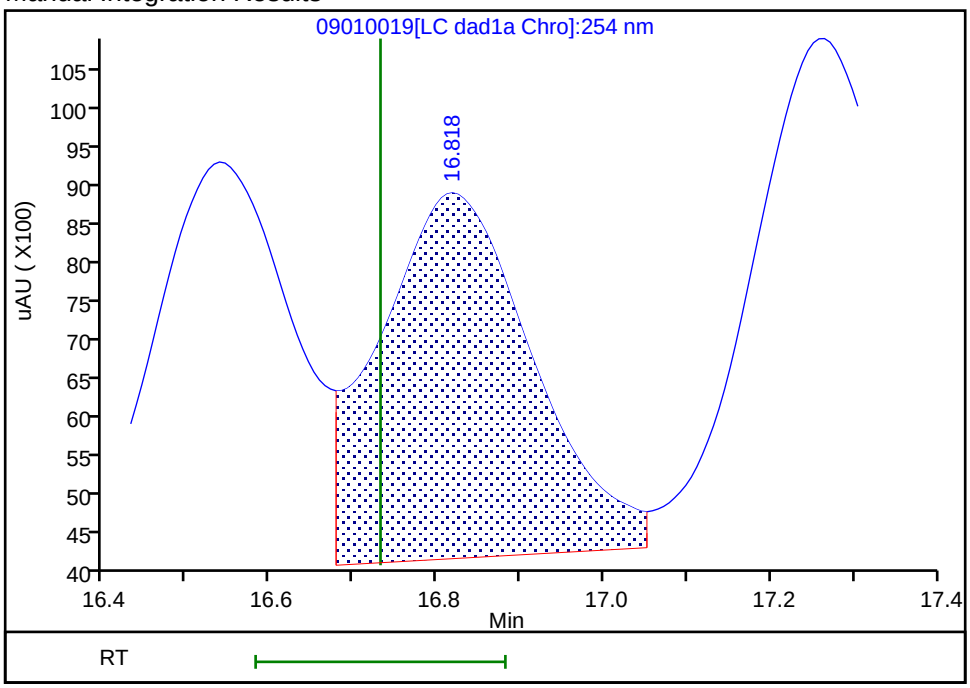
Processing Integration Results

RT: 16.82
Area: 58584
Amount: 0.243207
Amount Units: ug/ml




Manual Integration Results

RT: 16.82
Area: 60779
Amount: 0.252319
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

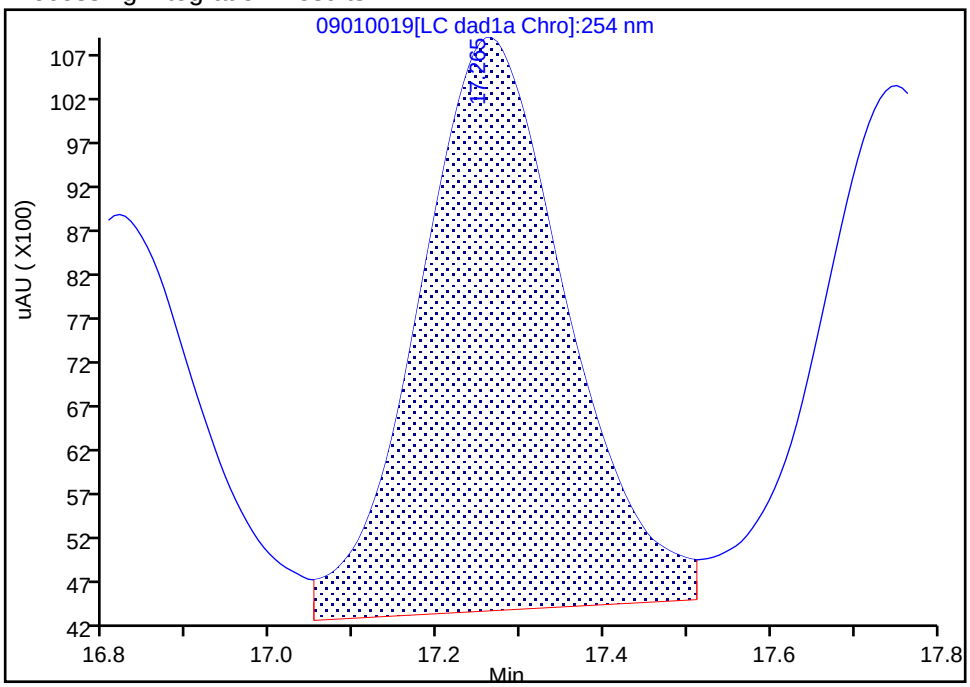
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

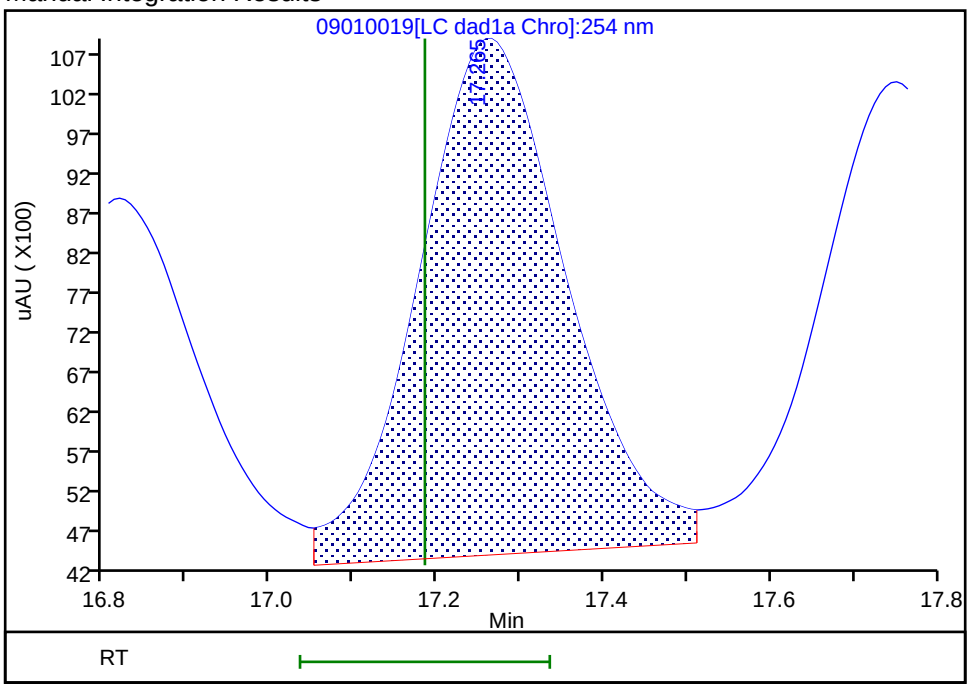
Processing Integration Results

RT: 17.26
Area: 80435
Amount: 0.232986
Amount Units: ug/ml




Manual Integration Results

RT: 17.26
Area: 80007
Amount: 0.231747
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

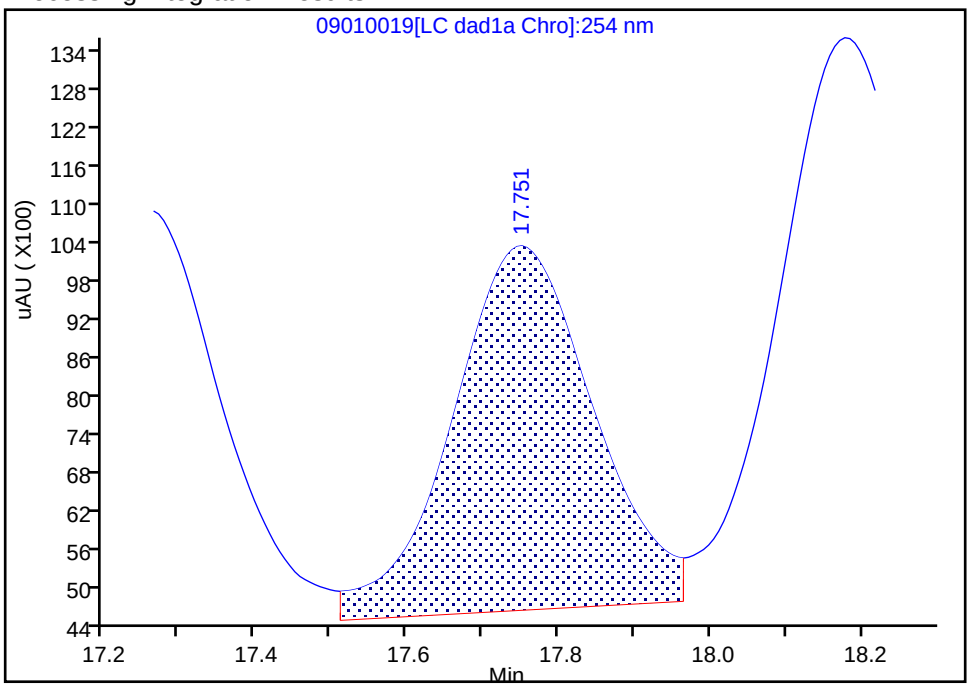
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

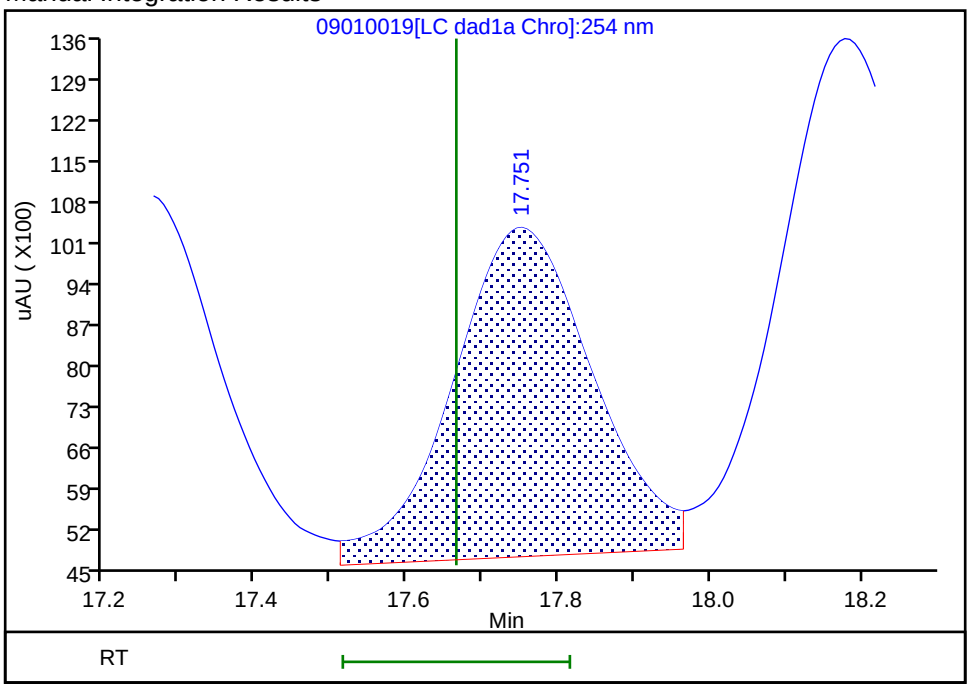
Processing Integration Results

RT: 17.75
Area: 73436
Amount: 0.246160
Amount Units: ug/ml




Manual Integration Results

RT: 17.75
Area: 72674
Amount: 0.243605
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

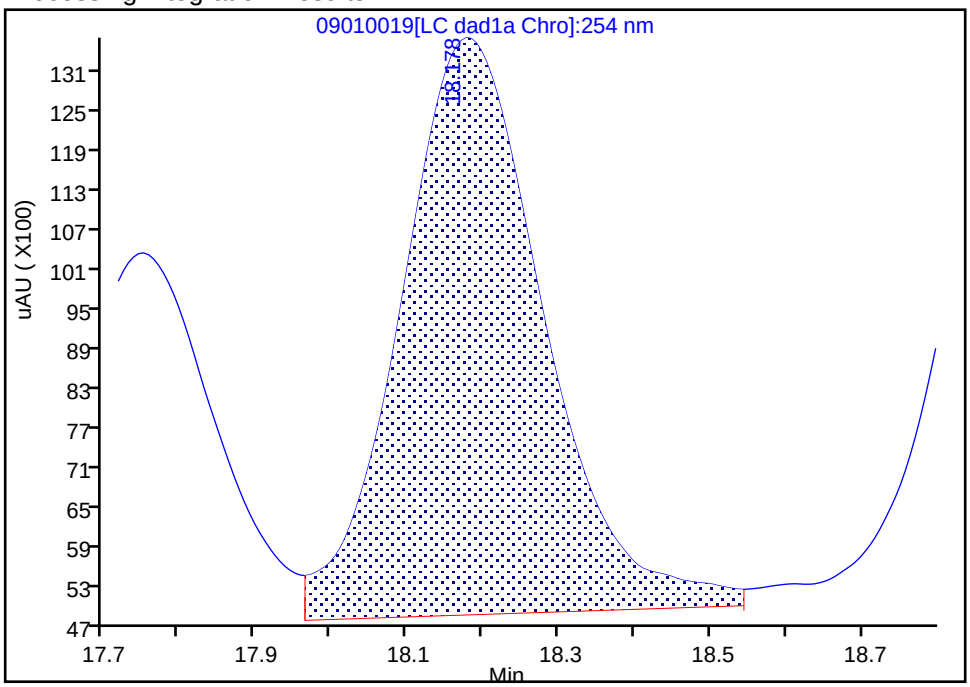
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

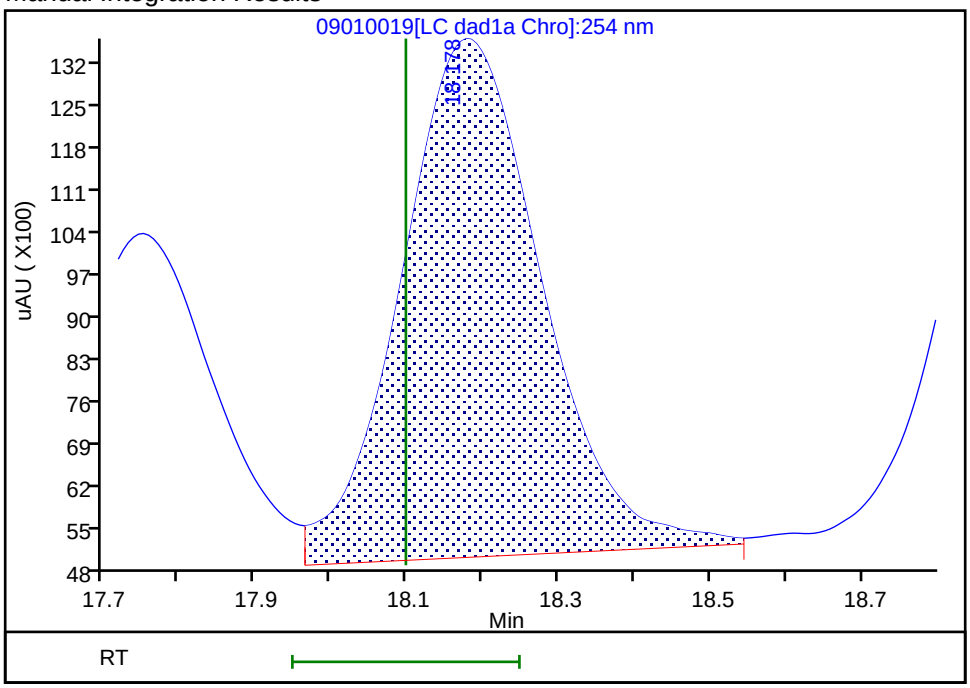
Processing Integration Results

RT: 18.18
Area: 114363
Amount: 0.245830
Amount Units: ug/ml




Manual Integration Results

RT: 18.18
Area: 111440
Amount: 0.239547
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

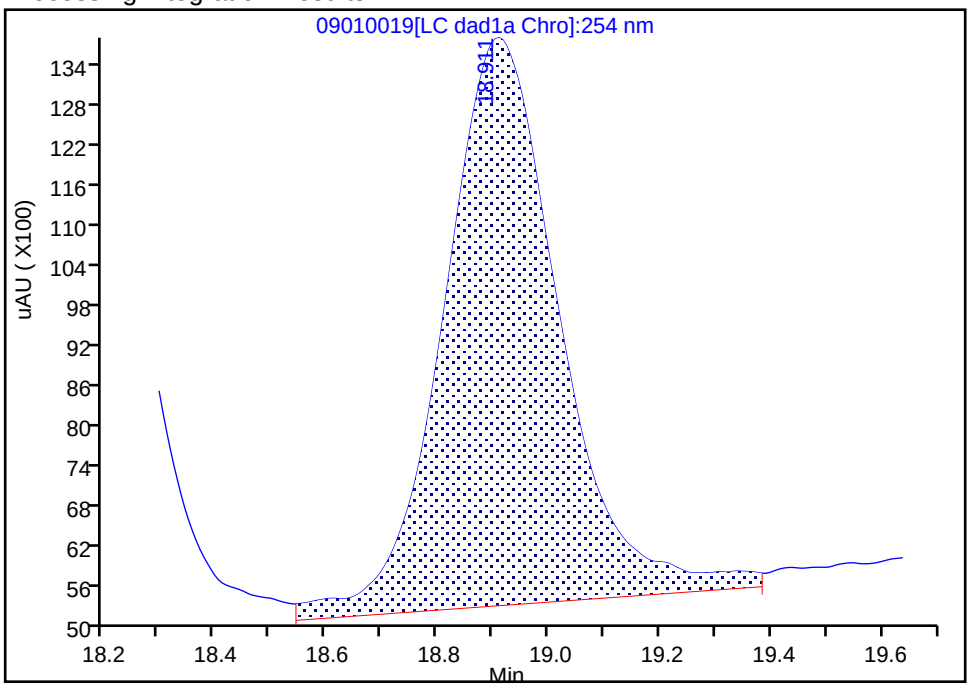
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

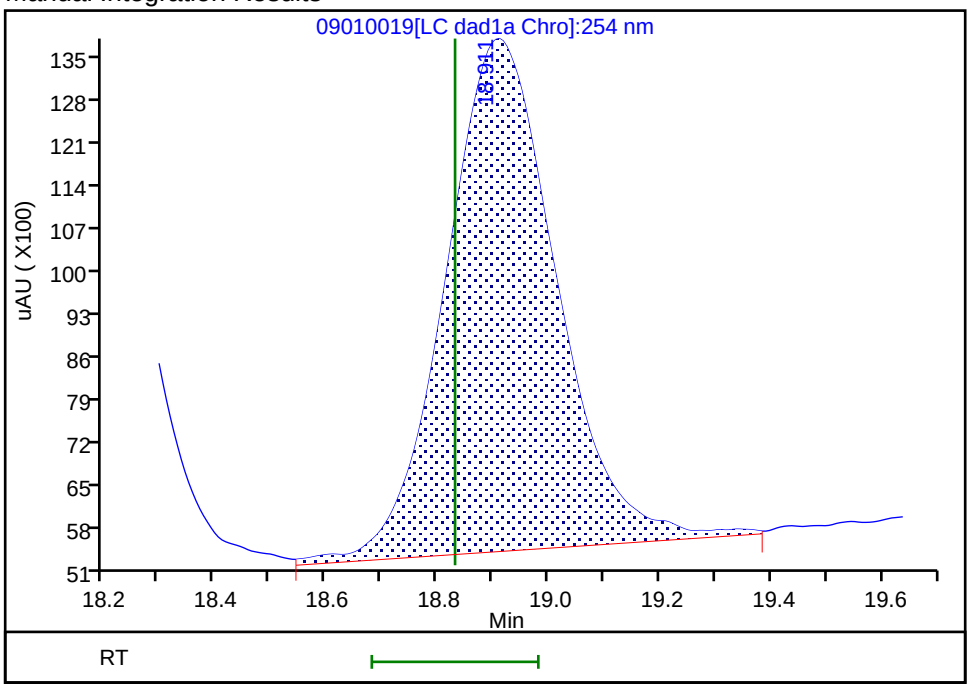
Processing Integration Results

RT: 18.91
Area: 123968
Amount: 0.262393
Amount Units: ug/ml




Manual Integration Results

RT: 18.91
Area: 116232
Amount: 0.246019
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

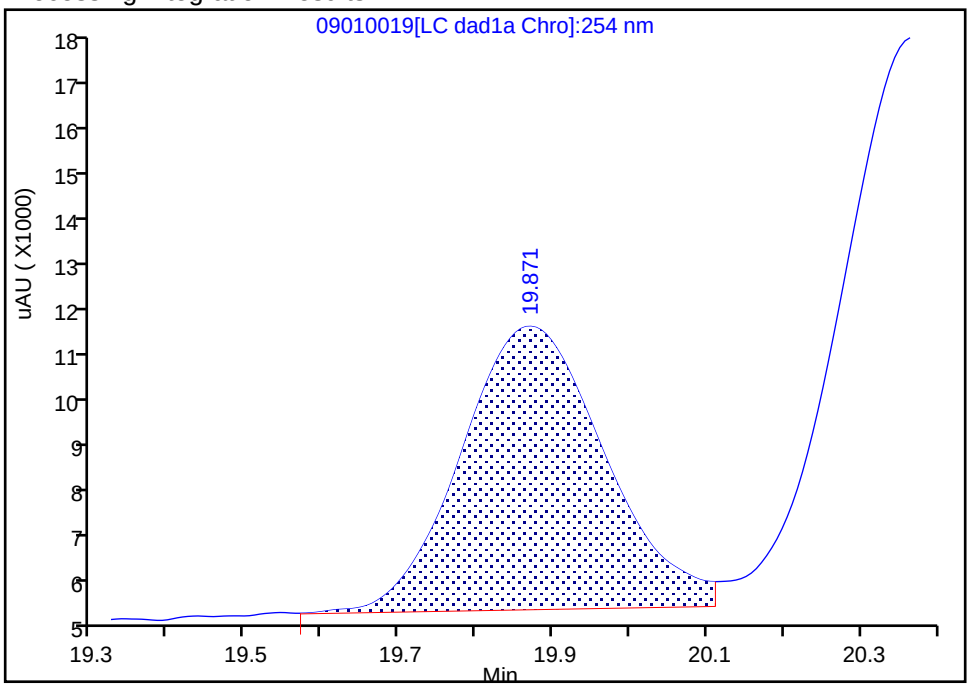
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

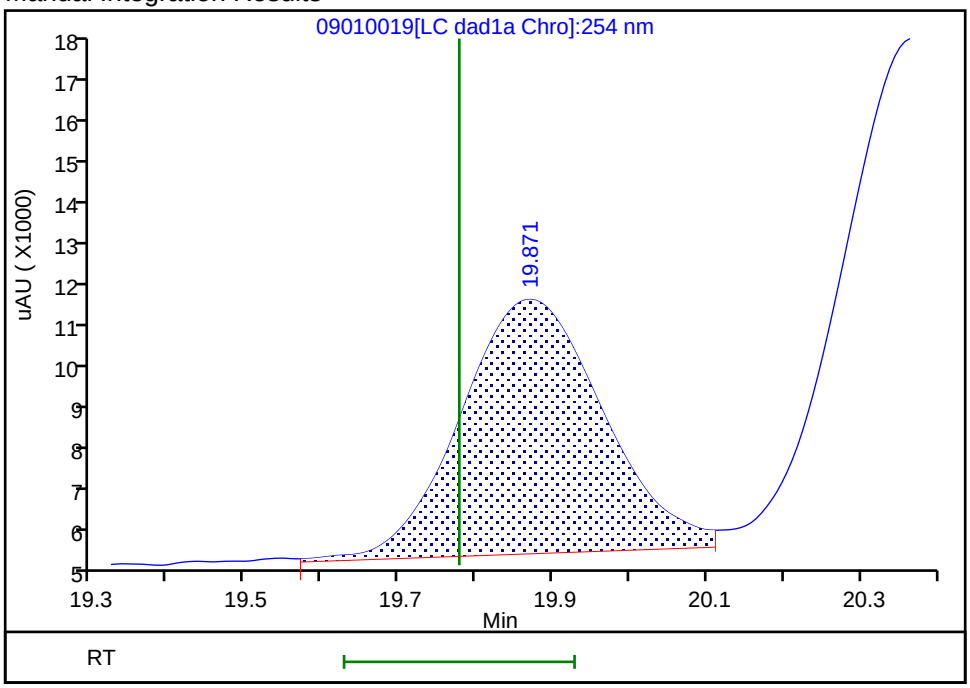
Processing Integration Results

RT: 19.87
Area: 73561
Amount: 0.239007
Amount Units: ug/ml




Manual Integration Results

RT: 19.87
Area: 72556
Amount: 0.235532
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

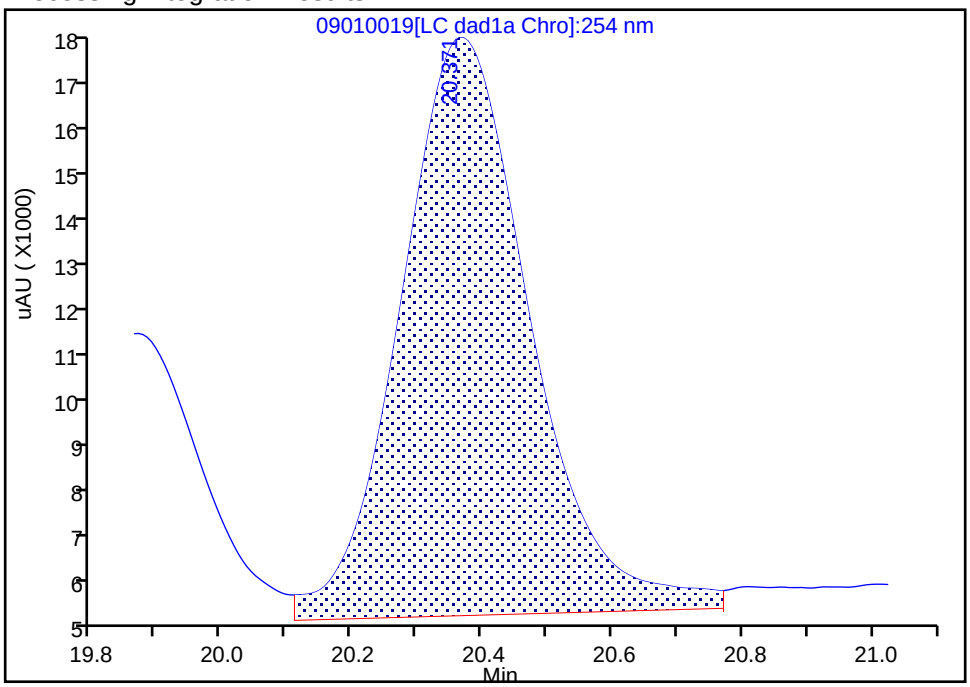
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010019.d | | | | |
| Injection Date: | 01-Sep-2020 21:47:53 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

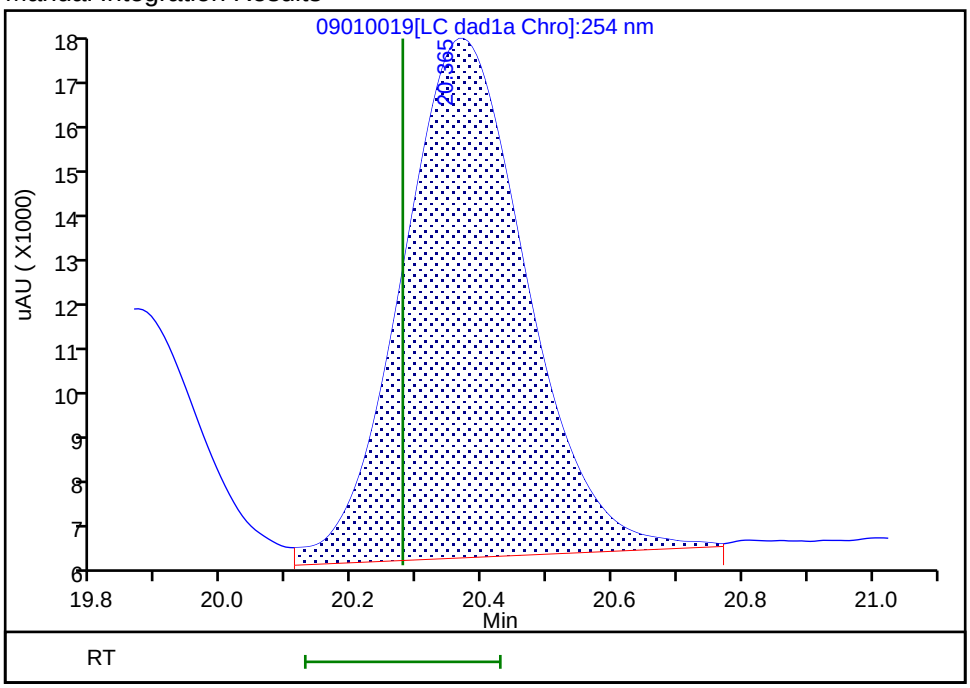
Processing Integration Results

RT: 20.37
Area: 156156
Amount: 0.243951
Amount Units: ug/ml




Manual Integration Results

RT: 20.36
Area: 148077
Amount: 0.231329
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:12:31
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/20  Calibration Date: 09/01/2020 22:22

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 09010020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 435816 | 406961 | | 234 | 250 | -6.6 | 15.0 |
| DNX | Ave | 321206 | 308236 | | 240 | 250 | -4.0 | 15.0 |
| MNX | Lin2 | | 279177 | | 285 | 292 | -2.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/20  Calibration Date: 09/01/2020 22:22

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 09010020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.40 | 5.27 | 5.57 |
| DNX | 6.22 | 6.09 | 6.39 |
| MNX | 7.76 | 7.61 | 7.91 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010020.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 01-Sep-2020 22:22:55 | ALS Bottle#: | 8 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0094635-020 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:36:22 | Calib Date: | 07-Jul-2020 23:49:12 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 14:12:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.402 | 5.417 | -0.015 | 101842 | 0.2503 | 0.2337 | |
| 4 DNX | 1 | 6.222 | 6.237 | -0.015 | 77136 | 0.2503 | 0.2401 | |
| 7 MNX | 1 | 7.755 | 7.764 | -0.009 | 81450 | 0.2918 | 0.2849 | |

## Reagents:

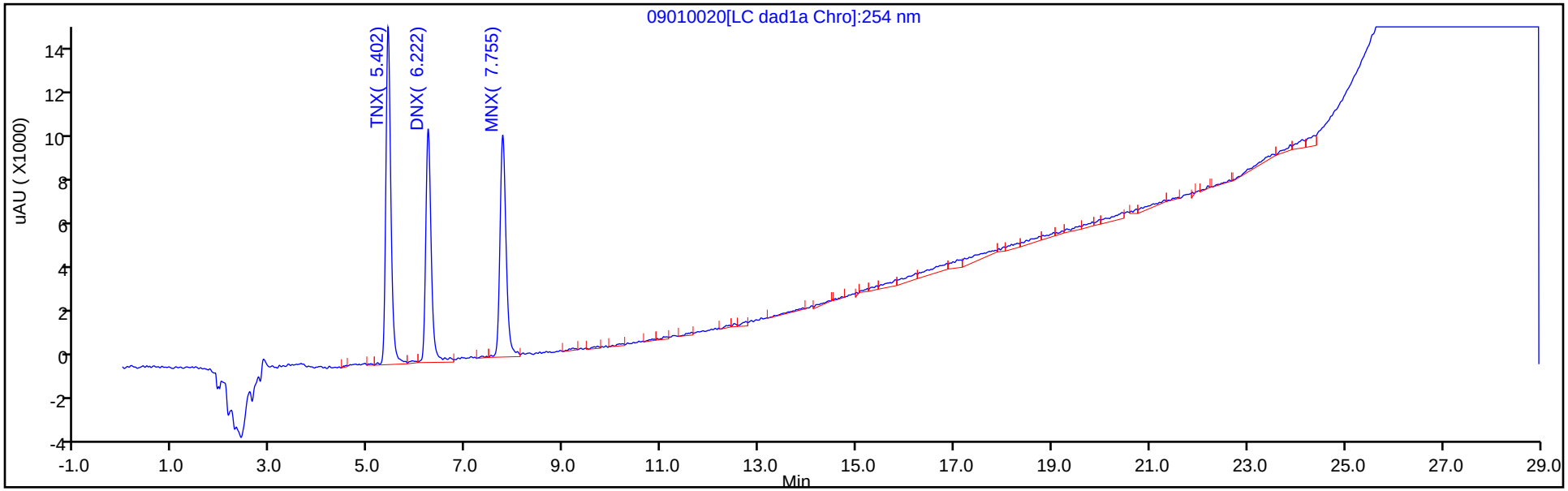
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Sep-2020 14:36:22 Chrom Revision: 2.3 20-Aug-2020 13:57:12

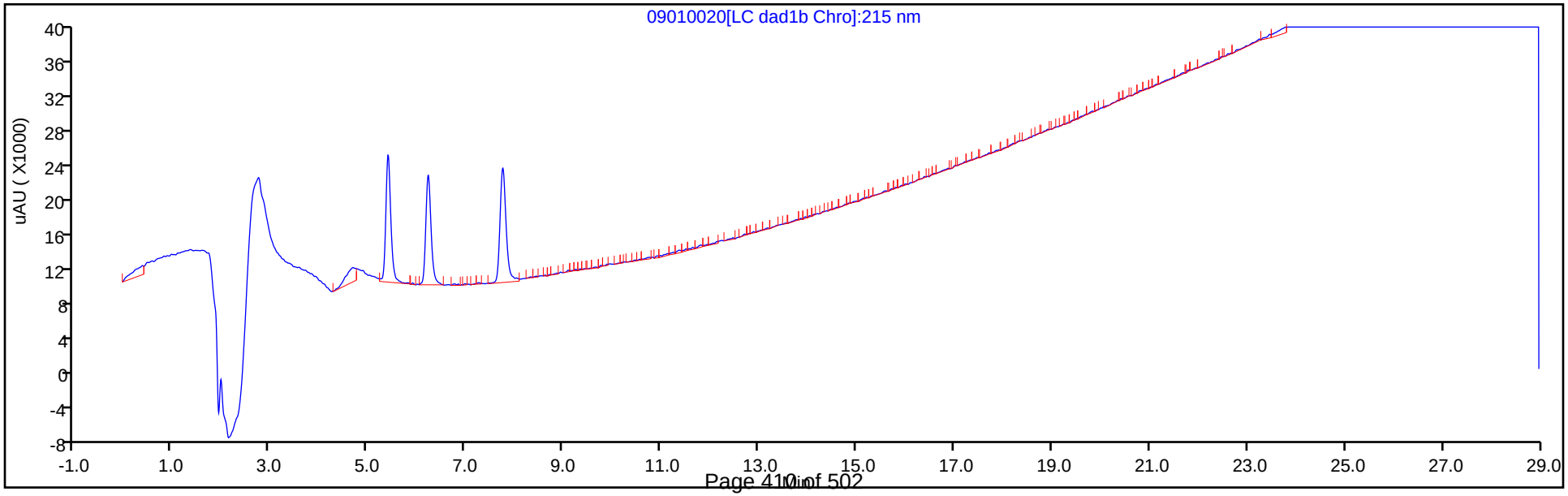
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010020.d | | | | |
| Injection Date: | 01-Sep-2020 22:22:55 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/29  Calibration Date: 09/02/2020 03:37

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 09010029.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Lin2 | | 186928 | | 234 | 250 | -6.4 | 15.0 |
| Picric acid | Ave | 193810 | 188816 | | 244 | 250 | -2.6 | 15.0 |
| RDX | Ave | 244360 | 231124 | | 236 | 250 | -5.4 | 15.0 |
| Nitrobenzene | Ave | 439227 | 386263 | | 221 | 251 | -12.1 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 674189 | 614455 | | 228 | 251 | -8.9 | 15.0 |
| Nitroglycerin | Ave | 126803 | 123553 | | 2440 | 2500 | -2.6 | 15.0 |
| 2-Nitrotoluene | Ave | 272965 | 237156 | | 217 | 250 | -13.1 | 15.0 |
| 4-Nitrotoluene | Ave | 240881 | 226216 | | 235 | 251 | -6.1 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 345235 | 305726 | | 222 | 250 | -11.4 | 15.0 |
| 3-Nitrotoluene | Ave | 298327 | 280579 | | 235 | 250 | -5.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 465211 | 443088 | | 239 | 251 | -4.8 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 472451 | 464132 | | 246 | 251 | -1.8 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 288331 | | 235 | 251 | -6.4 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 640113 | 589526 | | 231 | 251 | -7.9 | 15.0 |
| Tetryl | Ave | 368678 | 389313 | | 265 | 251 | 5.6 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin1 | | 384088 | | 232 | 251 | -7.5 | 15.0 |
| PETN | Lin1 | | 137454 | | 2450 | 2500 | -2.2 | 15.0 |
| 1,2-Dinitrobenzene | Lin1 | | 281960 | | 248 | 250 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/29  Calibration Date: 09/02/2020 03:37

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/14/2020 20:56

Lab File ID: 09010029.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.97 | 6.82 | 7.12 |
| Picric acid | 7.78 | 7.63 | 7.93 |
| RDX | 9.13 | 8.98 | 9.28 |
| Nitrobenzene | 12.02 | 11.87 | 12.17 |
| 1,3-Dinitrobenzene | 15.52 | 15.37 | 15.67 |
| Nitroglycerin | 15.69 | 15.54 | 15.84 |
| 2-Nitrotoluene | 16.46 | 16.31 | 16.61 |
| 4-Nitrotoluene | 16.73 | 16.58 | 16.88 |
| 4-Amino-2,6-dinitrotoluene | 17.19 | 17.04 | 17.34 |
| 3-Nitrotoluene | 17.67 | 17.52 | 17.82 |
| 2-Amino-4,6-dinitrotoluene | 18.10 | 17.95 | 18.25 |
| 1,3,5-Trinitrobenzene | 18.83 | 18.68 | 18.98 |
| 2,6-Dinitrotoluene | 19.78 | 19.63 | 19.93 |
| 2,4-Dinitrotoluene | 20.28 | 20.13 | 20.43 |
| Tetryl | 23.61 | 23.46 | 23.76 |
| 2,4,6-Trinitrotoluene | 24.65 | 24.50 | 24.80 |
| PETN | 25.21 | 25.06 | 25.36 |
| 1,2-Dinitrobenzene | 13.02 | 12.87 | 13.17 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010029.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 02-Sep-2020 03:37:26 ALS Bottle#: 7 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0094635-029
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:36:19 Calib Date: 07-Jul-2020 23:49:12
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D

Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 14:15:32

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 2,6-diamino-4-nitrotoluene | 1 | 4.358 | 4.358 | 0.000 | 104959 | 0.2500 | 0.2445 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.898 | 4.898 | 0.000 | 64007 | 0.2500 | 0.2459 | |
| 6 HMX | 1 | 6.971 | 6.971 | 0.000 | 46732 | 0.2500 | 0.2339 | |
| 5 2,4,6-Trinitrophenol | 1 | 7.778 | 7.778 | 0.000 | 47204 | 0.2500 | 0.2436 | |
| 8 RDX | 1 | 9.125 | 9.125 | 0.000 | 57781 | 0.2500 | 0.2365 | |
| 9 Nitrobenzene | 1 | 12.018 | 12.018 | 0.000 | 96952 | 0.2510 | 0.2207 | |
| $ 10 1,2-Dinitrobenzene | 1 | 13.018 | 13.018 | 0.000 | 70490 | 0.2500 | 0.2476 | |
| 11 3,5-Dinitroaniline | 1 | 14.925 | 14.925 | 0.000 | 112990 | 0.2500 | 0.2272 | |
| 12 1,3-Dinitrobenzene | 1 | 15.518 | 15.518 | 0.000 | 153921 | 0.2505 | 0.2283 | |
| 13 Nitroglycerin | 2 | 15.691 | 15.691 | 0.000 | 308883 | 2.50 | 2.44 | M |
| 14 o-Nitrotoluene | 1 | 16.458 | 16.458 | 0.000 | 59289 | 0.2500 | 0.2172 | M |
| 15 p-Nitrotoluene | 1 | 16.731 | 16.731 | 0.000 | 56667 | 0.2505 | 0.2352 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 17.185 | 17.185 | 0.000 | 76508 | 0.2503 | 0.2216 | M |
| 17 m-Nitrotoluene | 1 | 17.665 | 17.665 | 0.000 | 70215 | 0.2503 | 0.2354 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 18.098 | 18.098 | 0.000 | 111215 | 0.2510 | 0.2391 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.831 | 18.831 | 0.000 | 116265 | 0.2505 | 0.2461 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.778 | 19.778 | 0.000 | 72371 | 0.2510 | 0.2349 | M |
| 21 2,4-Dinitrotoluene | 1 | 20.278 | 20.278 | 0.000 | 147971 | 0.2510 | 0.2312 | M |
| 22 Tetryl | 1 | 23.605 | 23.605 | 0.000 | 97523 | 0.2505 | 0.2645 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.651 | 24.651 | 0.000 | 96406 | 0.2510 | 0.2322 | |
| 24 PETN | 2 | 25.211 | 25.211 | 0.000 | 343635 | 2.50 | 2.45 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

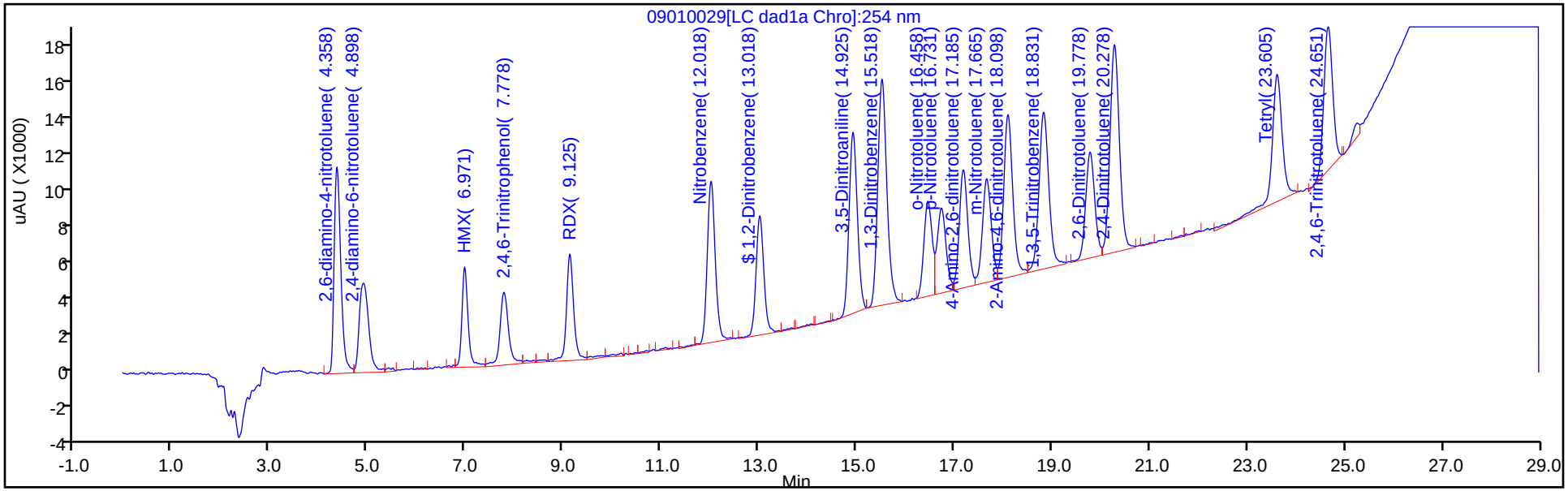
| | | | |
|---|---|---|---|
| 8330IntermStk_00064 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00027 | Amount Added: | 12.50 | Units: uL |

Report Date: 02-Sep-2020 14:36:19 Chrom Revision: 2.3 20-Aug-2020 13:57:12

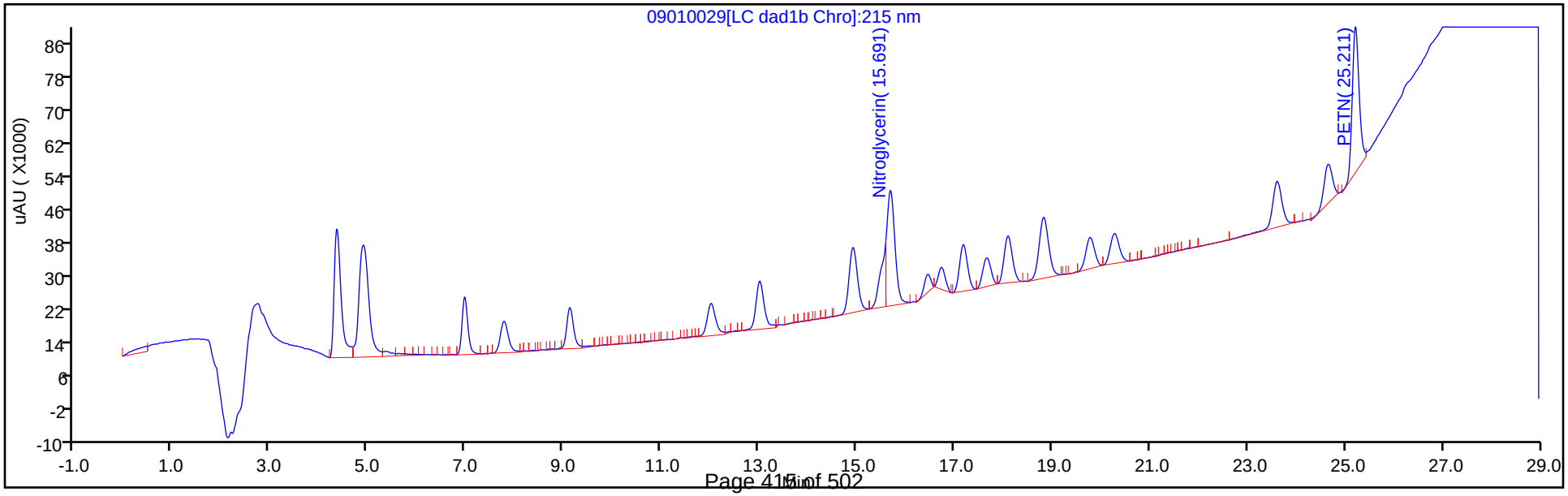
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | JZ |
| Lims ID: | CCV | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

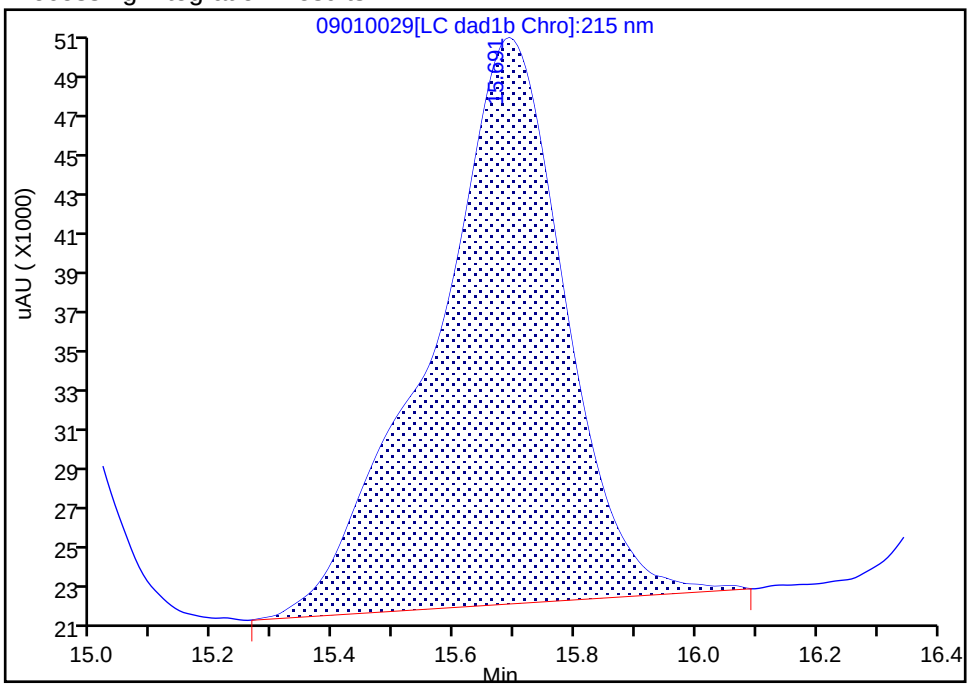
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

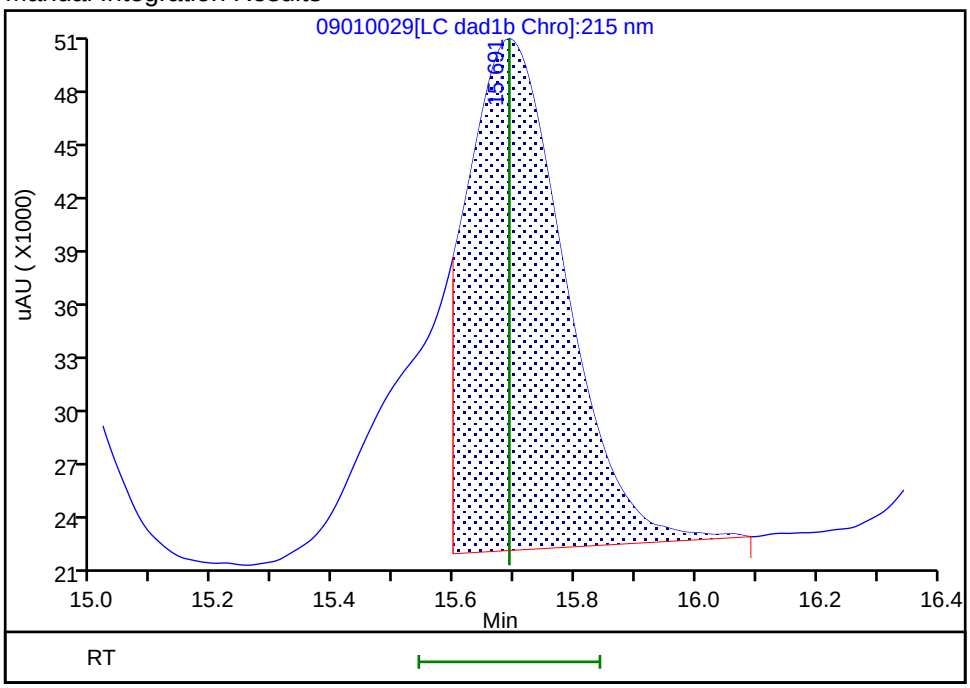
Processing Integration Results

RT: 15.69
Area: 422265
Amount: 3.330078
Amount Units: ug/ml




Manual Integration Results

RT: 15.69
Area: 308883
Amount: 2.435922
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:28

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

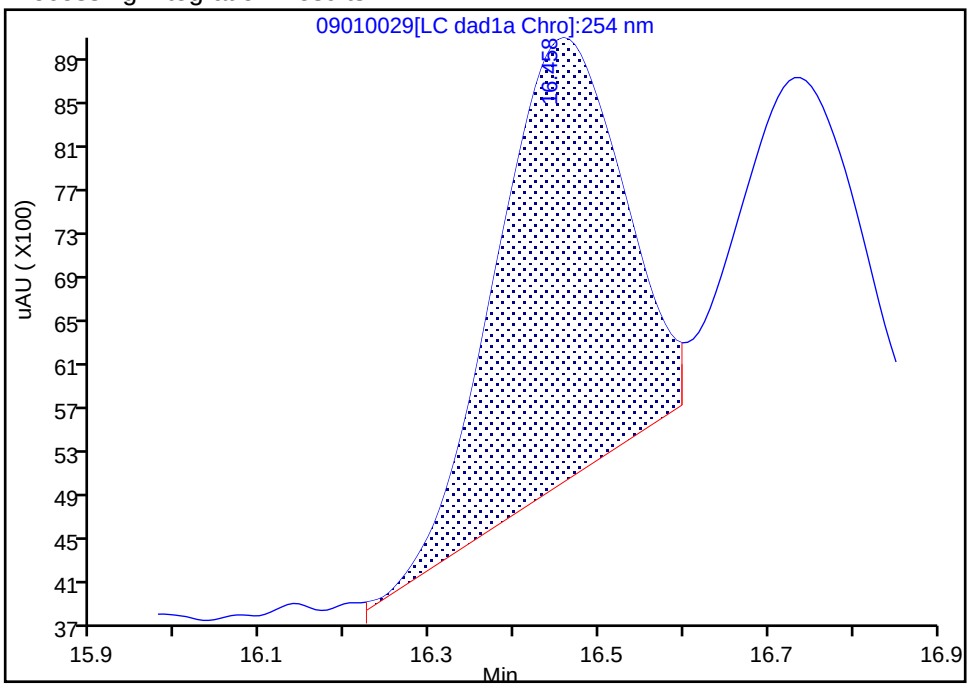
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

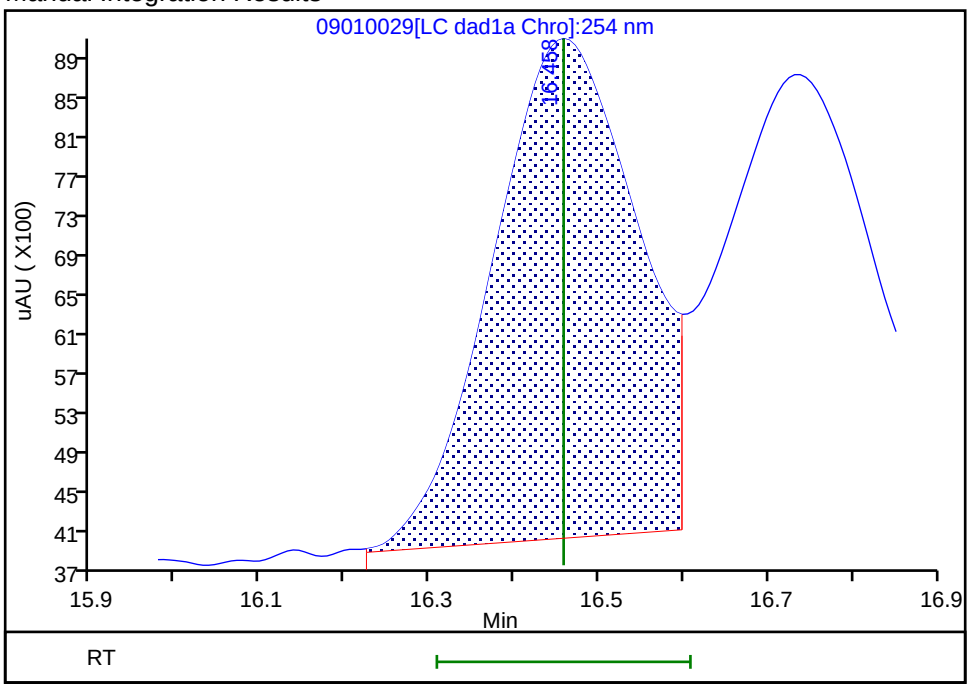
Processing Integration Results

RT: 16.46
Area: 41895
Amount: 0.153481
Amount Units: ug/ml




Manual Integration Results

RT: 16.46
Area: 59289
Amount: 0.217204
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

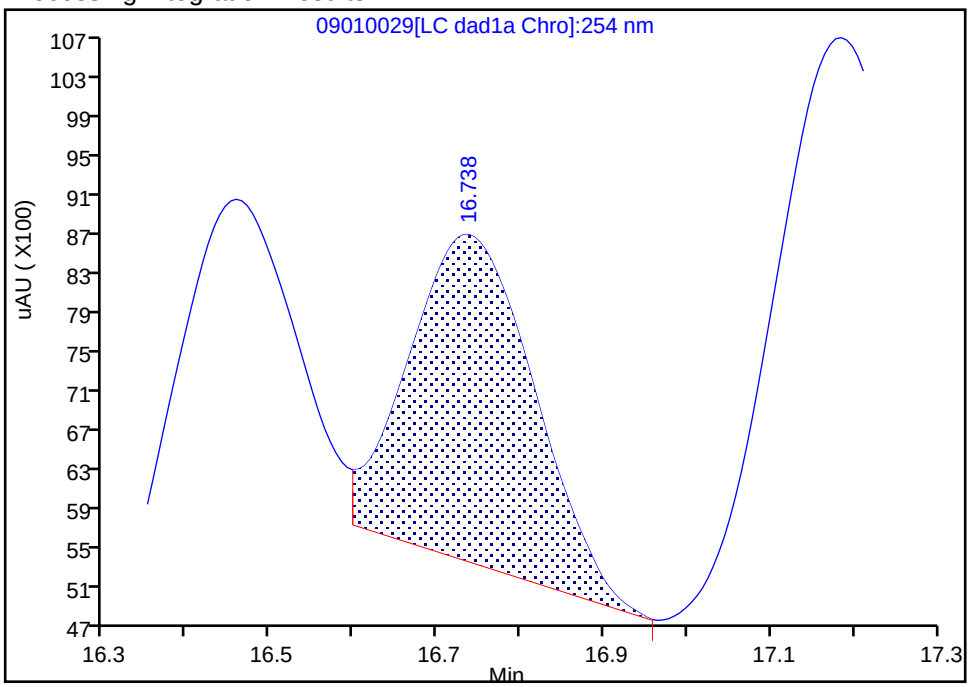
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

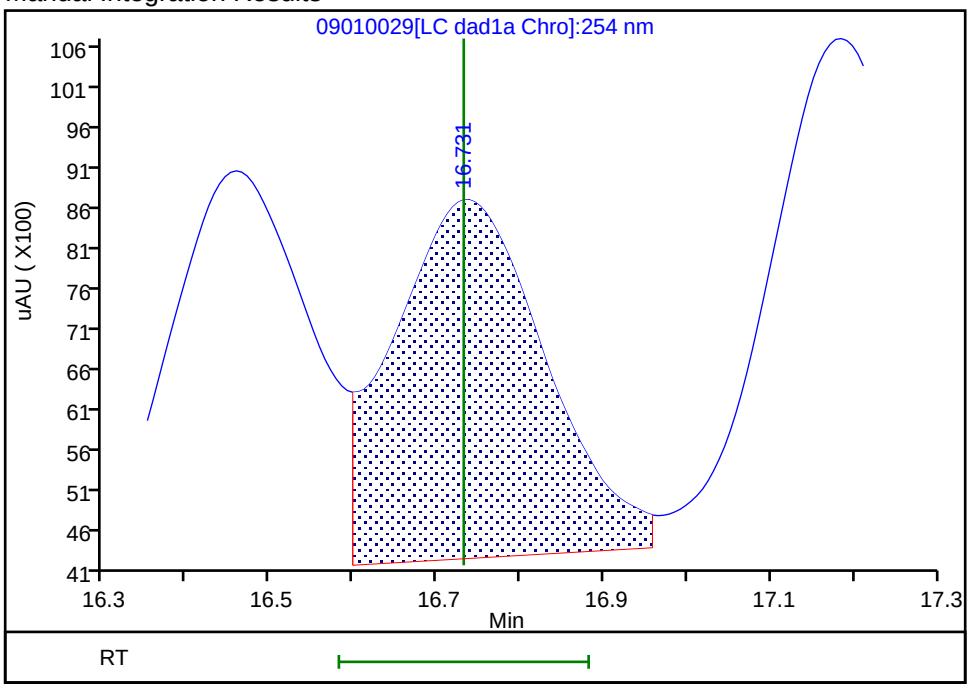
Processing Integration Results

RT: 16.74
Area: 35154
Amount: 0.145939
Amount Units: ug/ml




Manual Integration Results

RT: 16.73
Area: 56667
Amount: 0.235249
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

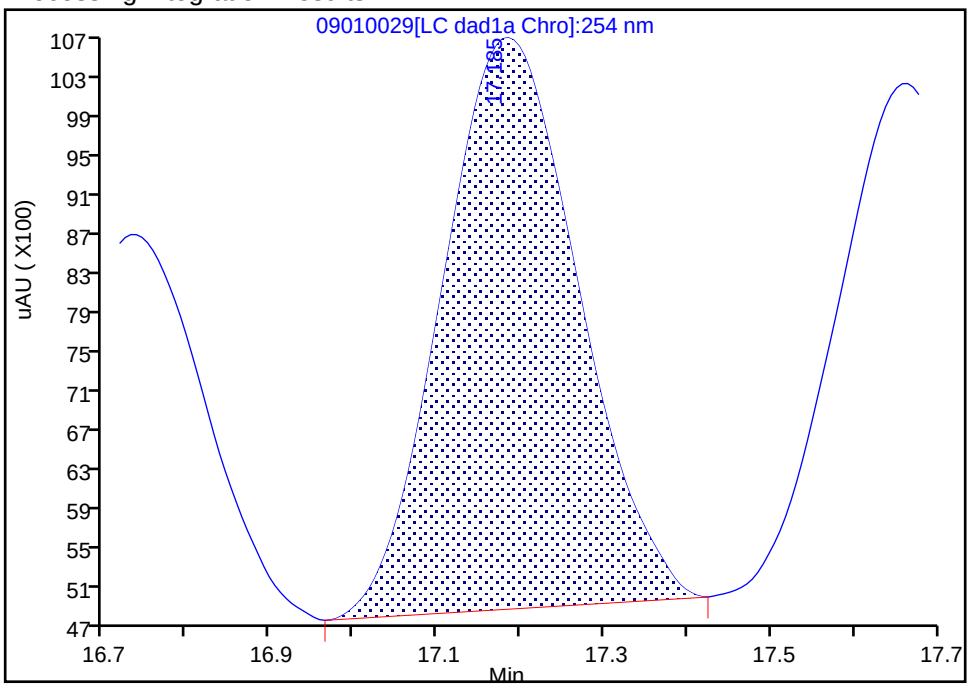
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

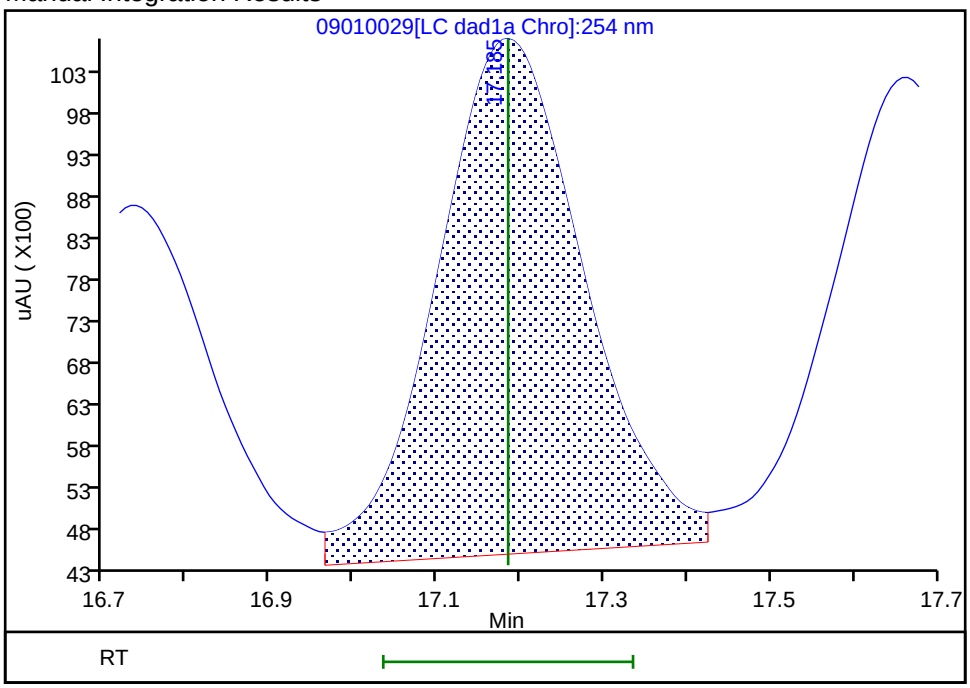
Processing Integration Results

RT: 17.18
Area: 66144
Amount: 0.191591
Amount Units: ug/ml




Manual Integration Results

RT: 17.18
Area: 76508
Amount: 0.221612
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

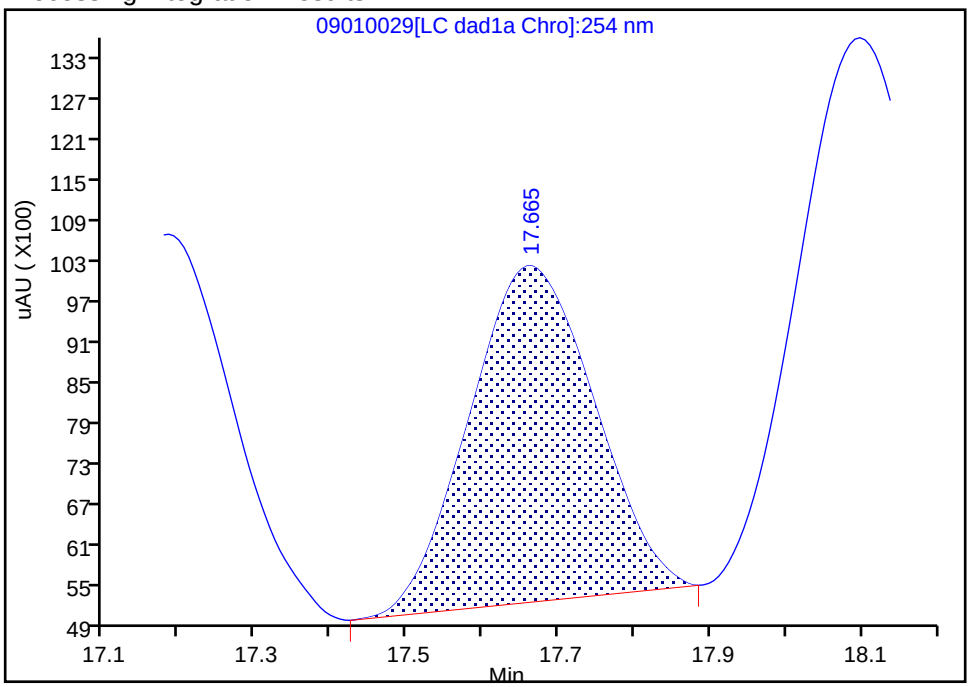
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

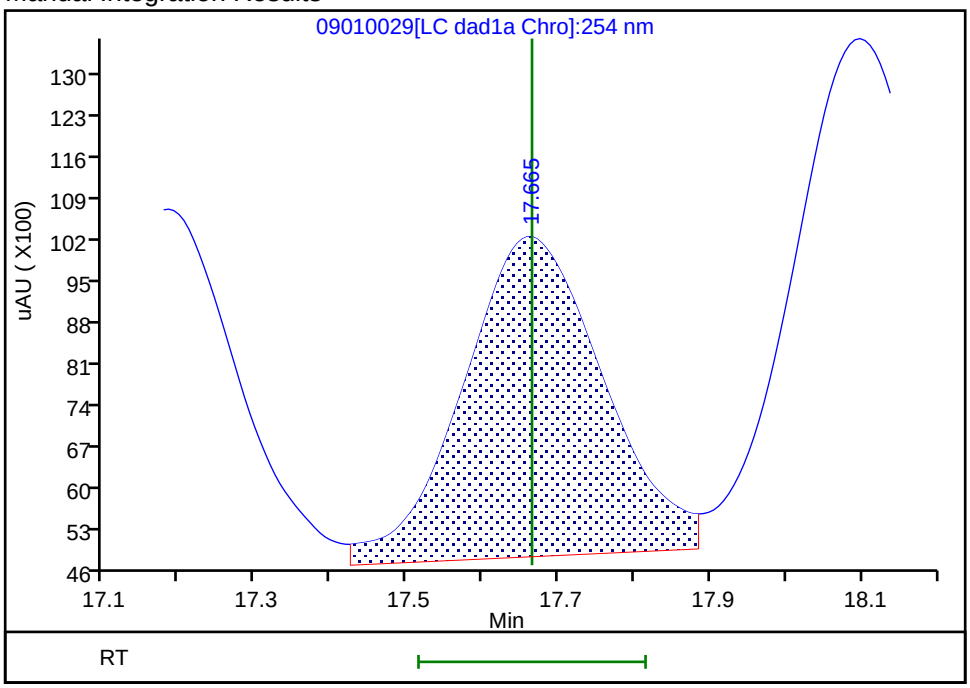
Processing Integration Results

RT: 17.66
Area: 57105
Amount: 0.191418
Amount Units: ug/ml




Manual Integration Results

RT: 17.66
Area: 70215
Amount: 0.235363
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

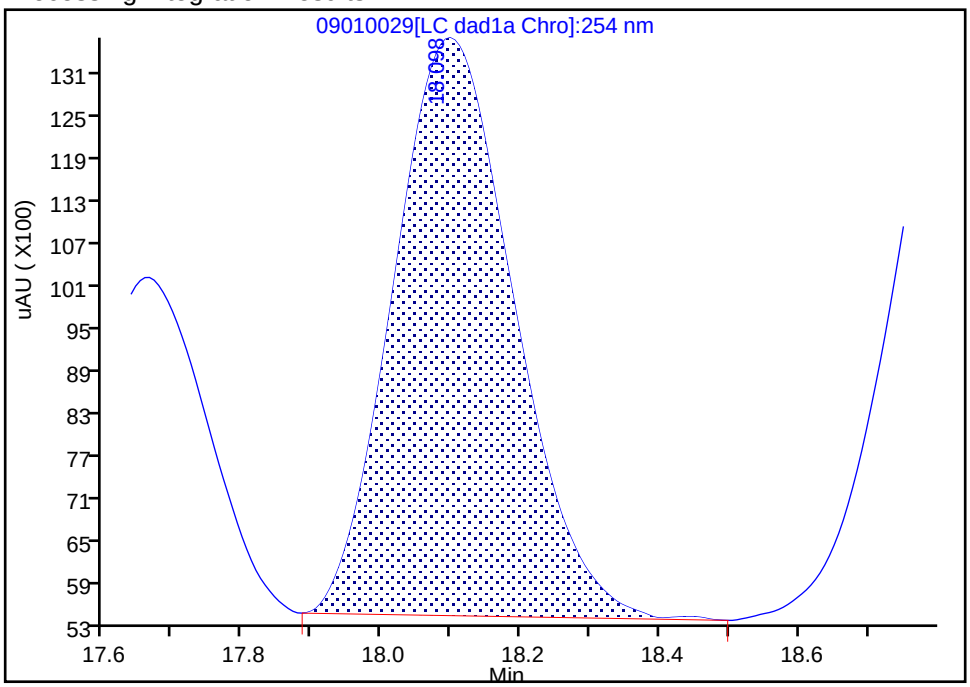
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

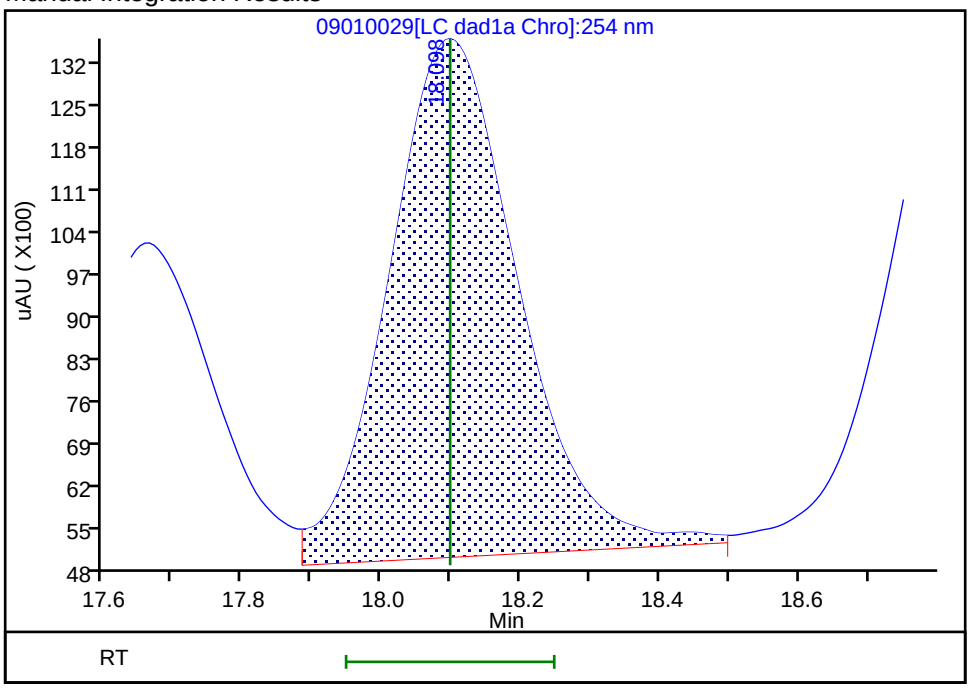
Processing Integration Results

RT: 18.10
Area: 98041
Amount: 0.210745
Amount Units: ug/ml




Manual Integration Results

RT: 18.10
Area: 111215
Amount: 0.239064
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

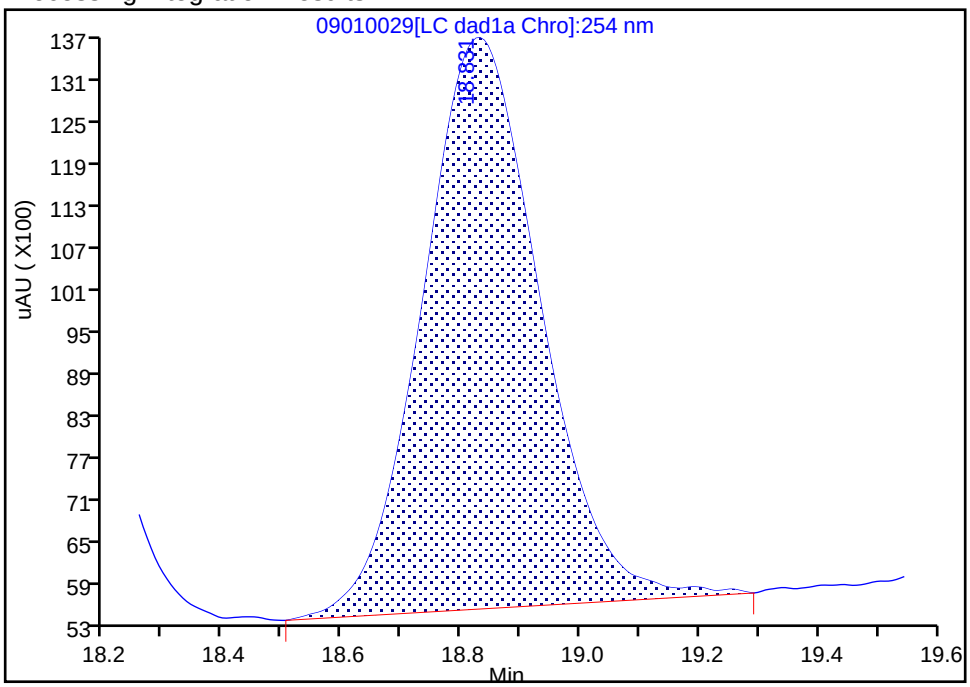
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

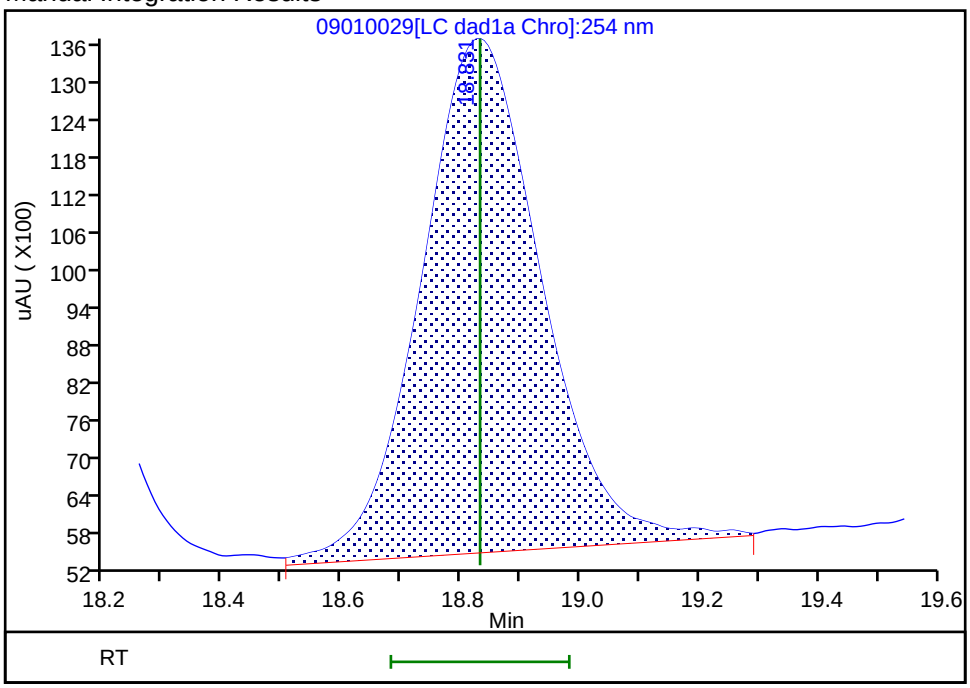
Processing Integration Results

RT: 18.83
Area: 112772
Amount: 0.238696
Amount Units: ug/ml




Manual Integration Results

RT: 18.83
Area: 116265
Amount: 0.246089
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

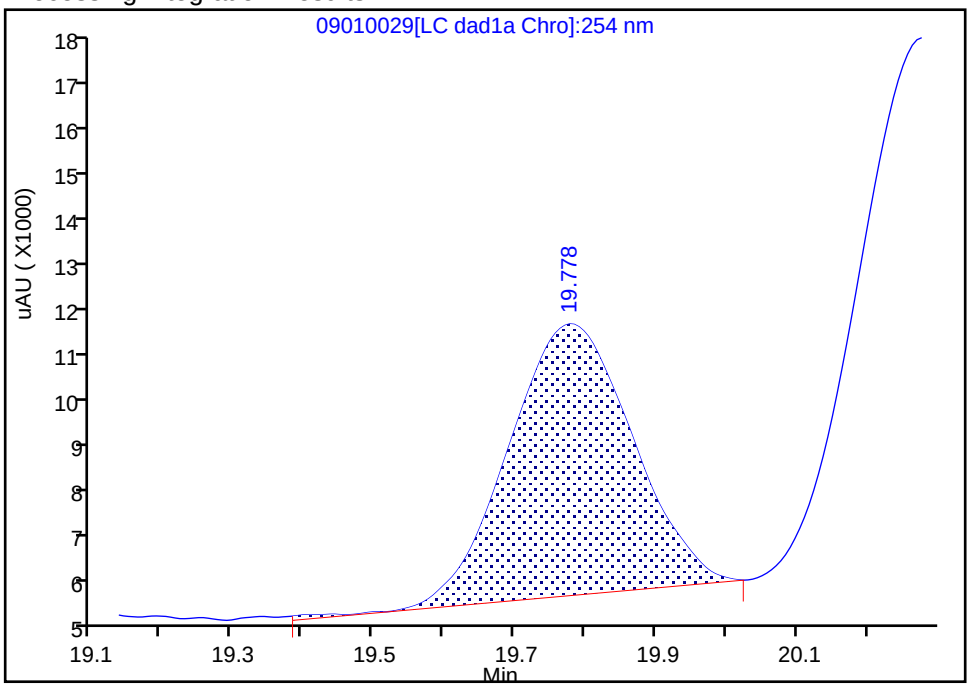
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

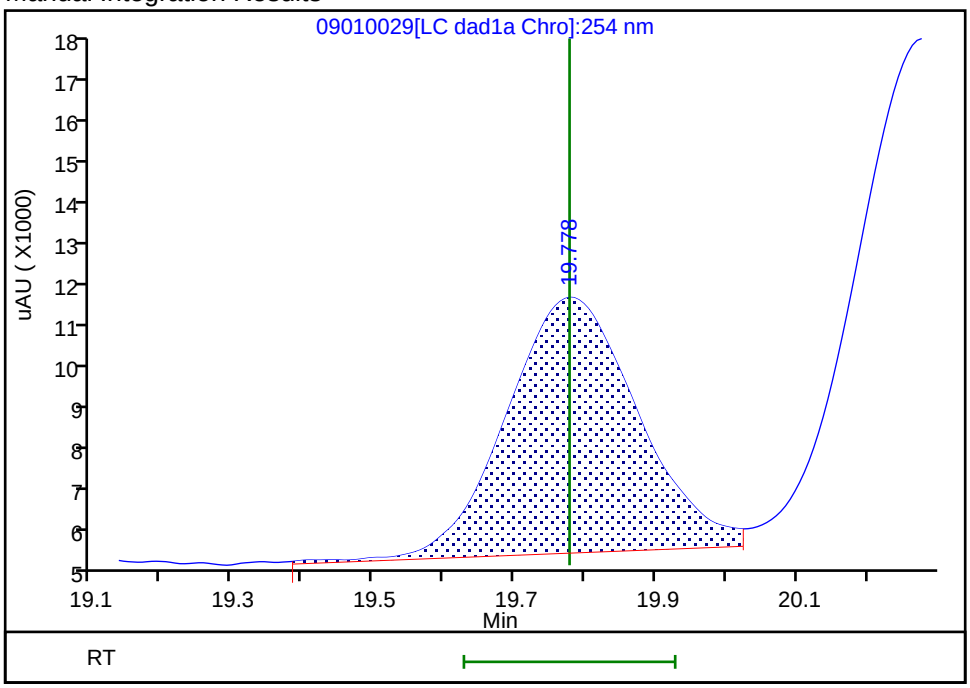
Processing Integration Results

RT: 19.78
Area: 65575
Amount: 0.211394
Amount Units: ug/ml




Manual Integration Results

RT: 19.78
Area: 72371
Amount: 0.234892
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

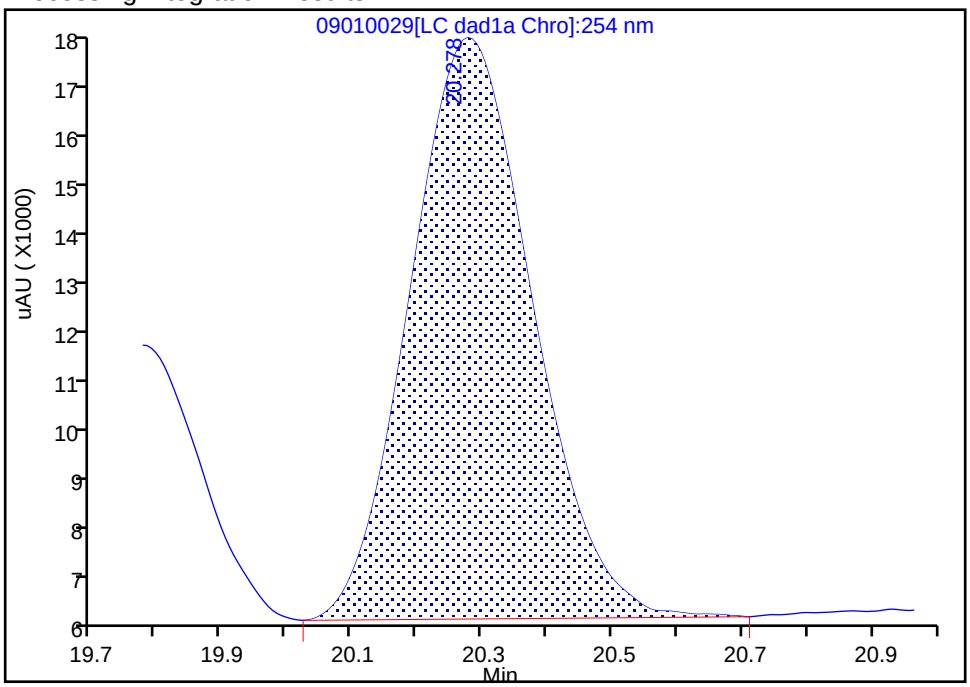
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010029.d | | | | |
| Injection Date: | 02-Sep-2020 03:37:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

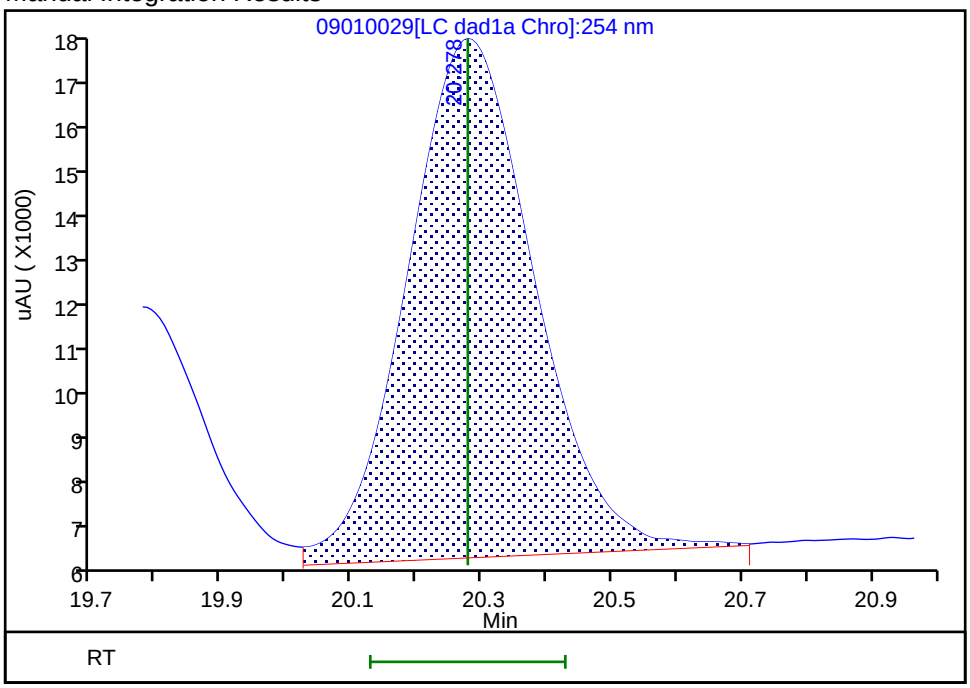
Processing Integration Results

RT: 20.28
Area: 139546
Amount: 0.218002
Amount Units: ug/ml




Manual Integration Results

RT: 20.28
Area: 147971
Amount: 0.231164
Amount Units: ug/ml




Reviewer: zhangji, 02-Sep-2020 14:15:21
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/30  Calibration Date: 09/02/2020 04:12

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 09010030.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 435816 | 409311 | | 235 | 250 | -6.1 | 15.0 |
| DNX | Ave | 321206 | 297399 | | 232 | 250 | -7.4 | 15.0 |
| MNX | Lin2 | | 280027 | | 286 | 292 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507615/30  Calibration Date: 09/02/2020 04:12

Instrument ID: CHHPLC_G2_LUNA  Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex  ID: 4.60(mm)  Calib End Date: 05/15/2020 02:46

Lab File ID: 09010030.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.37 | 5.27 | 5.57 |
| DNX | 6.19 | 6.09 | 6.39 |
| MNX | 7.71 | 7.61 | 7.91 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\09010030.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 02-Sep-2020 04:12:31 | ALS Bottle#: | 8 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0094635-030 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromfs\Denver\ChromData\G2_LUNA\20200901-94635.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:36:20 | Calib Date: | 07-Jul-2020 23:49:12 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\G2_LUNA\20200707-93077.b\07070016.D | | | | |
| Column 1 : | Luna-Phenyl hexyl ( 4.60 mm) | | Det: LC DAD1A, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 14:15:37

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.374 | 5.417 | -0.043 | 102430 | 0.2503 | 0.2350 | |
| 4 DNX | 1 | 6.188 | 6.237 | -0.049 | 74424 | 0.2503 | 0.2317 | |
| 7 MNX | 1 | 7.708 | 7.764 | -0.056 | 81698 | 0.2918 | 0.2858 | |

## Reagents:

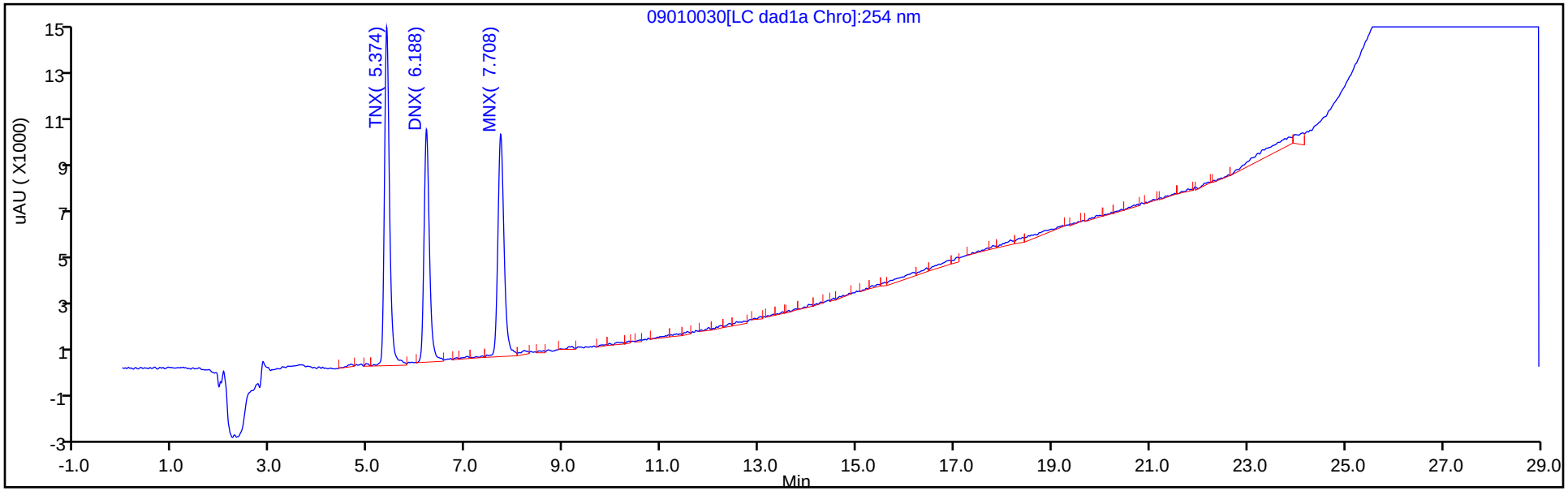
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Sep-2020 14:36:20 Chrom Revision: 2.3 20-Aug-2020 13:57:12

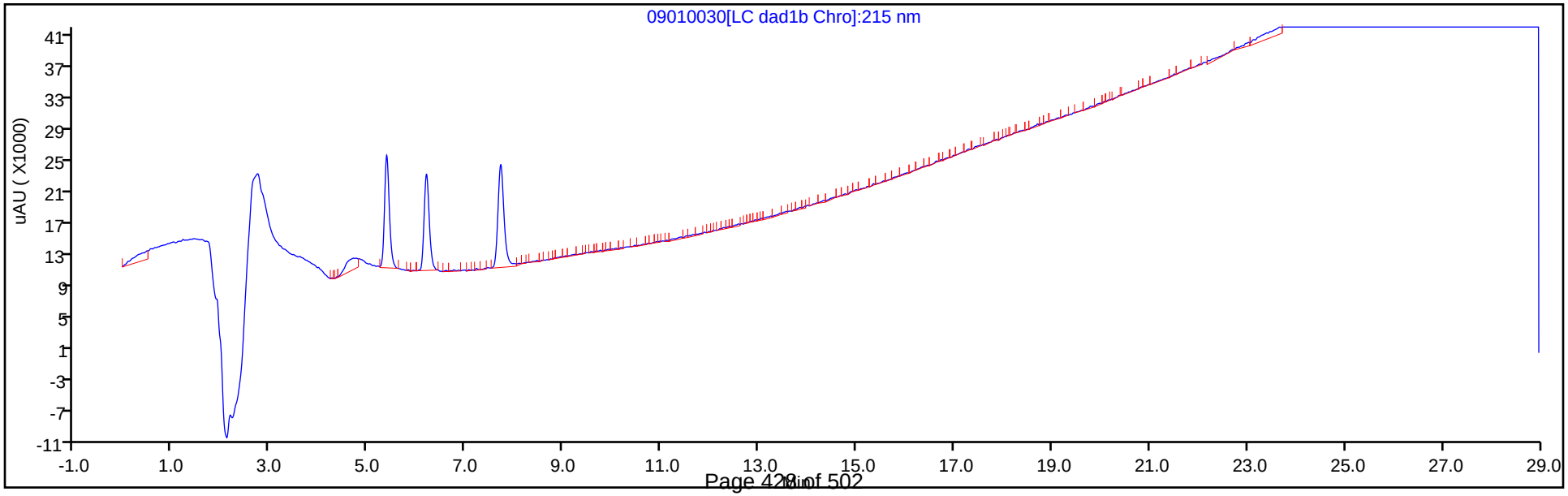
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\g2_luna\20200901-94635.b\09010030.d | | | | |
| Injection Date: | 02-Sep-2020 04:12:31 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 30 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

Column: Luna-Phenyl hexyl ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1




Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 189186 | | 348 | 400 | -13.1 | 15.0 |
| DNX | Ave | 152928 | 145270 | | 380 | 400 | -5.0 | 15.0 |
| MNX | Ave | 158544 | 136780 | | 403 | 467 | -13.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.59 | 6.49 | 6.69 |
| DNX | 6.91 | 6.81 | 7.01 |
| MNX | 7.36 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040033.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 05-Mar-2020 00:03:48 | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0089779-033 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:28 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:37:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.594 | 6.594 | 0.000 | 75750 | 0.4004 | 0.3481 | M |
| 5 DNX | 1 | 6.914 | 6.914 | 0.000 | 58166 | 0.4004 | 0.3803 | M |
| 6 MNX | 1 | 7.361 | 7.361 | 0.000 | 63849 | 0.4668 | 0.4027 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

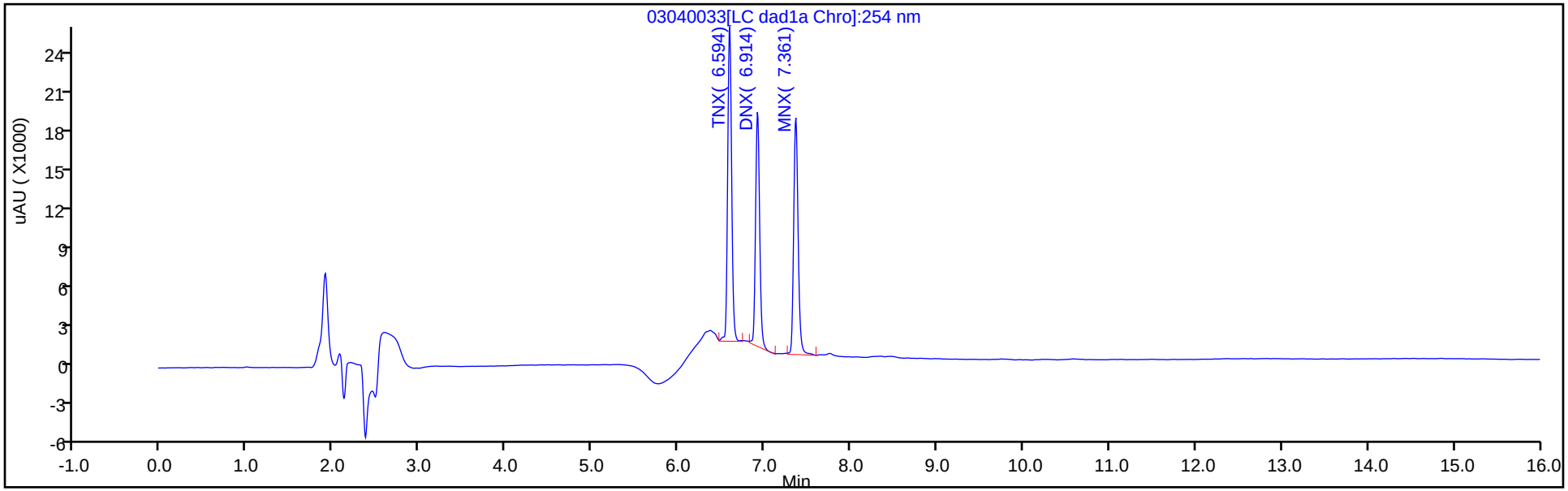
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

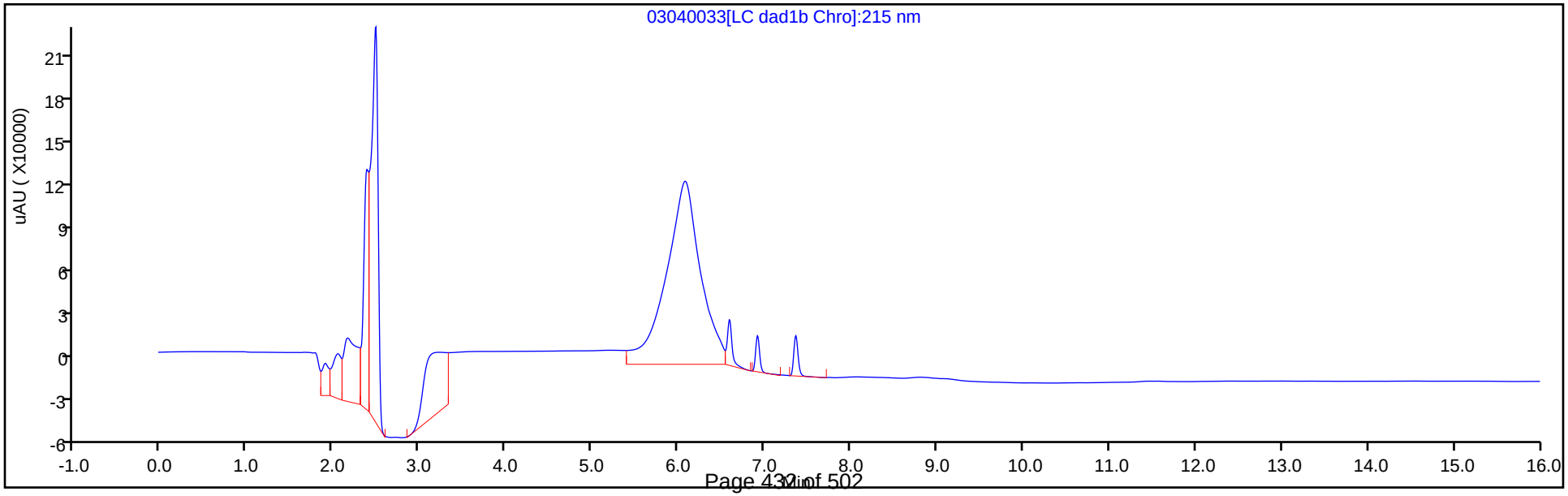
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

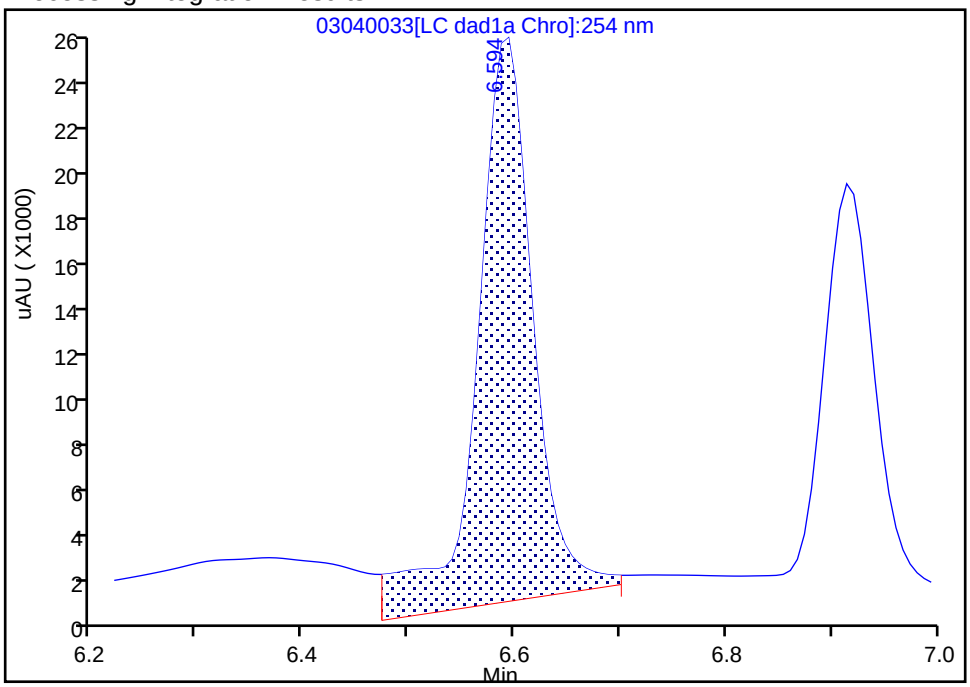
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

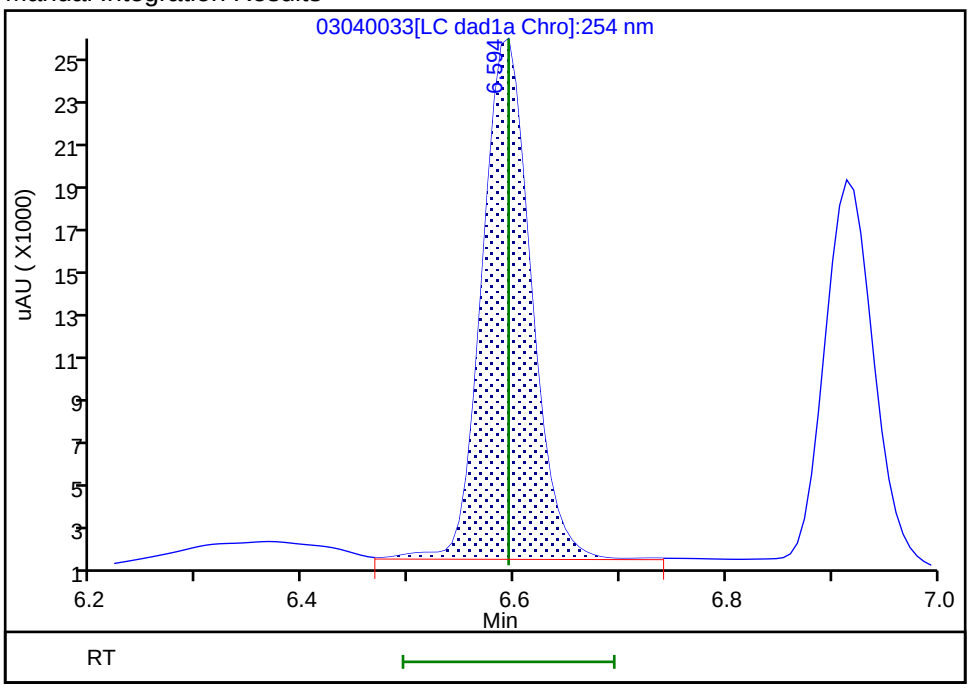
Processing Integration Results

RT: 6.59
Area: 91215
Amount: 0.419170
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 75750
Amount: 0.348102
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

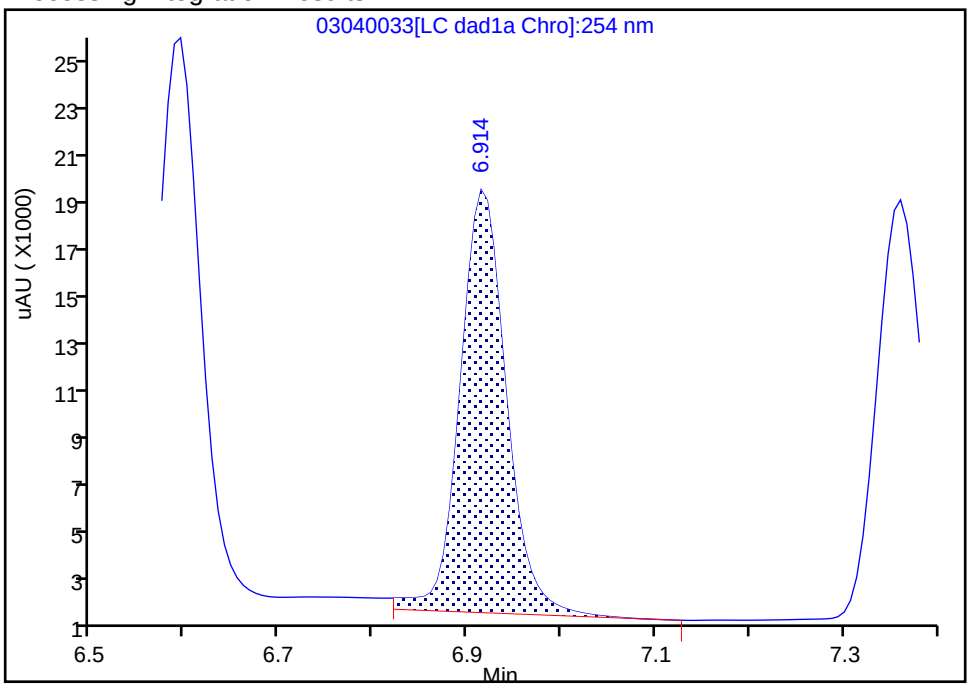
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

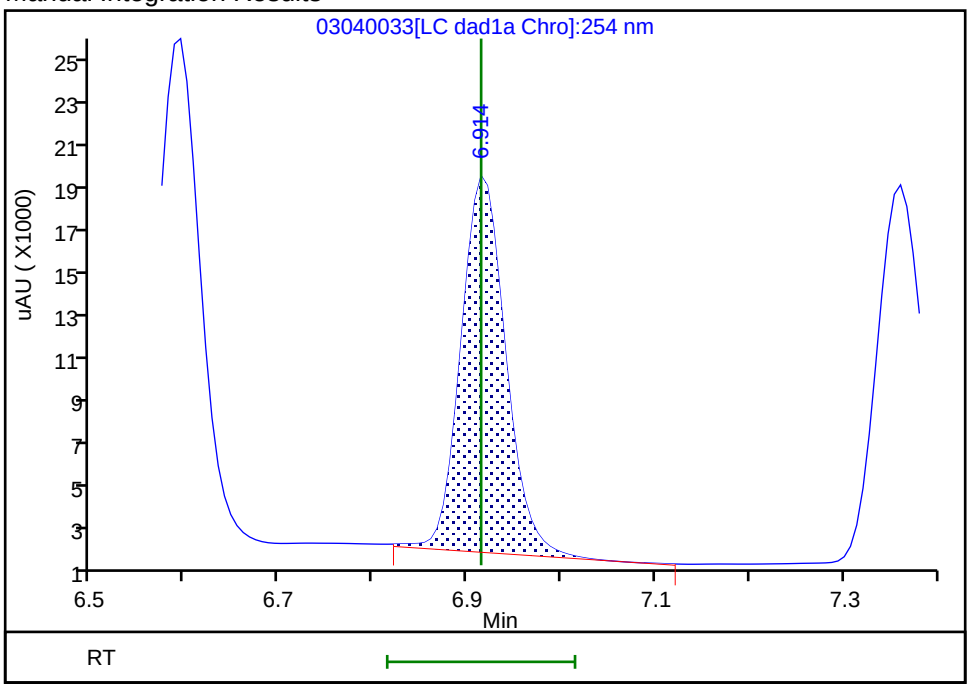
Processing Integration Results

RT: 6.91
Area: 60901
Amount: 0.398232
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 58166
Amount: 0.380348
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-489145/16  Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 85080 | | 396 | 400 | -1.0 | 15.0 |
| RDX | Ave | 116613 | 105640 | | 362 | 400 | -9.4 | 15.0 |
| Picric acid | Ave | 85131 | 85323 | | 401 | 400 | 0.2 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 238740 | | 415 | 400 | 3.7 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 307370 | | 401 | 400 | 0.2 | 15.0 |
| Nitrobenzene | Ave | 200403 | 202493 | | 404 | 400 | 1.0 | 15.0 |
| Tetryl | Ave | 177032 | 175175 | | 396 | 400 | -1.0 | 15.0 |
| Nitroglycerin | Ave | 68133 | 67461 | | 3960 | 4000 | -1.0 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 204823 | | 402 | 400 | 0.4 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 159183 | | 363 | 400 | -9.1 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 202785 | | 400 | 400 | -0.0 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 151720 | | 406 | 400 | 1.5 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 291863 | | 385 | 400 | -3.9 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 128890 | | 382 | 400 | -4.6 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 112495 | | 398 | 400 | -0.5 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 145235 | | 406 | 400 | 1.5 | 15.0 |
| PETN | Ave | 78605 | 75679 | | 3850 | 4000 | -3.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 136648 | | 395 | 400 | -1.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: ICV 280-489145/16  Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.06 | 7.91 | 8.21 |
| 1,3,5-Trinitrobenzene | 8.89 | 8.74 | 9.04 |
| 1,3-Dinitrobenzene | 9.53 | 9.38 | 9.68 |
| Nitrobenzene | 9.92 | 9.77 | 10.07 |
| Tetryl | 10.22 | 10.07 | 10.37 |
| Nitroglycerin | 10.73 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.18 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.34 | 11.24 | 11.44 |
| 2-Amino-4,6-dinitrotoluene | 11.63 | 11.53 | 11.73 |
| 2,6-Dinitrotoluene | 11.79 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.98 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.82 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.26 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.85 | 13.70 | 14.00 |
| PETN | 14.94 | 14.79 | 15.09 |
| 1,2-Dinitrobenzene | 8.71 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180016.D
Lims ID: ICV MAIN
Client ID:
Sample Type: ICV
Inject. Date: 18-Mar-2020 15:02:22 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV MAIN
Misc. Info.: 280-0090150-016
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:46 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:47:14

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.685 | 6.685 | 0.000 | 34032 | 0.4000 | 0.3959 | M |
| 7 RDX | 1 | 7.751 | 7.751 | 0.000 | 42256 | 0.4000 | 0.3624 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.058 | 8.058 | 0.000 | 34129 | 0.4000 | 0.4009 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.711 | 8.711 | 0.000 | 54659 | 0.4000 | 0.3955 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.885 | 8.885 | 0.000 | 95496 | 0.4000 | 0.4146 | |
| 11 1,3-Dinitrobenzene | 1 | 9.531 | 9.531 | 0.000 | 122948 | 0.4000 | 0.4009 | |
| 12 Nitrobenzene | 1 | 9.918 | 9.918 | 0.000 | 80997 | 0.4000 | 0.4042 | |
| 14 Tetryl | 1 | 10.218 | 10.218 | 0.000 | 70070 | 0.4000 | 0.3958 | |
| 15 Nitroglycerin | 2 | 10.731 | 10.731 | 0.000 | 269842 | 4.00 | 3.96 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.184 | 11.184 | 0.000 | 81929 | 0.4000 | 0.4016 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.344 | 11.344 | 0.000 | 63673 | 0.4000 | 0.3635 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.631 | 11.631 | 0.000 | 81114 | 0.4000 | 0.3999 | |
| 19 2,6-Dinitrotoluene | 1 | 11.791 | 11.791 | 0.000 | 60688 | 0.4000 | 0.4061 | |
| 20 2,4-Dinitrotoluene | 1 | 11.984 | 11.984 | 0.000 | 116745 | 0.4000 | 0.3846 | |
| 21 o-Nitrotoluene | 1 | 12.824 | 12.824 | 0.000 | 51556 | 0.4000 | 0.3818 | |
| 22 p-Nitrotoluene | 1 | 13.264 | 13.264 | 0.000 | 44998 | 0.4000 | 0.3982 | |
| 23 m-Nitrotoluene | 1 | 13.851 | 13.851 | 0.000 | 58094 | 0.4000 | 0.4062 | |
| 24 PETN | 2 | 14.938 | 14.938 | 0.000 | 302716 | 4.00 | 3.85 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

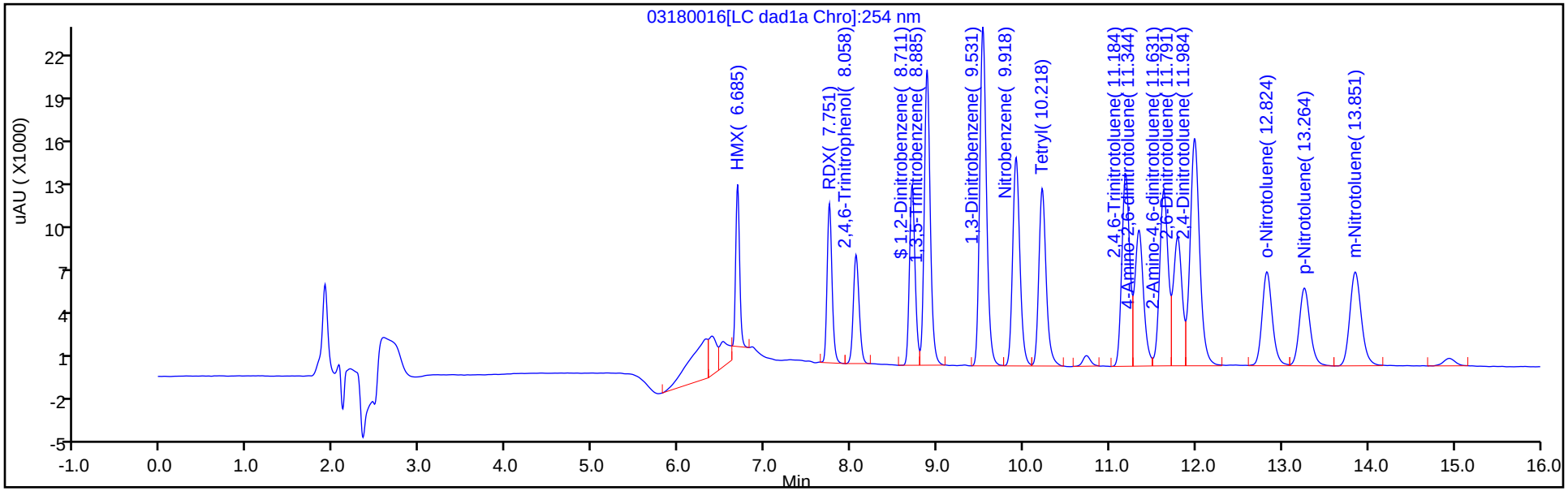
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

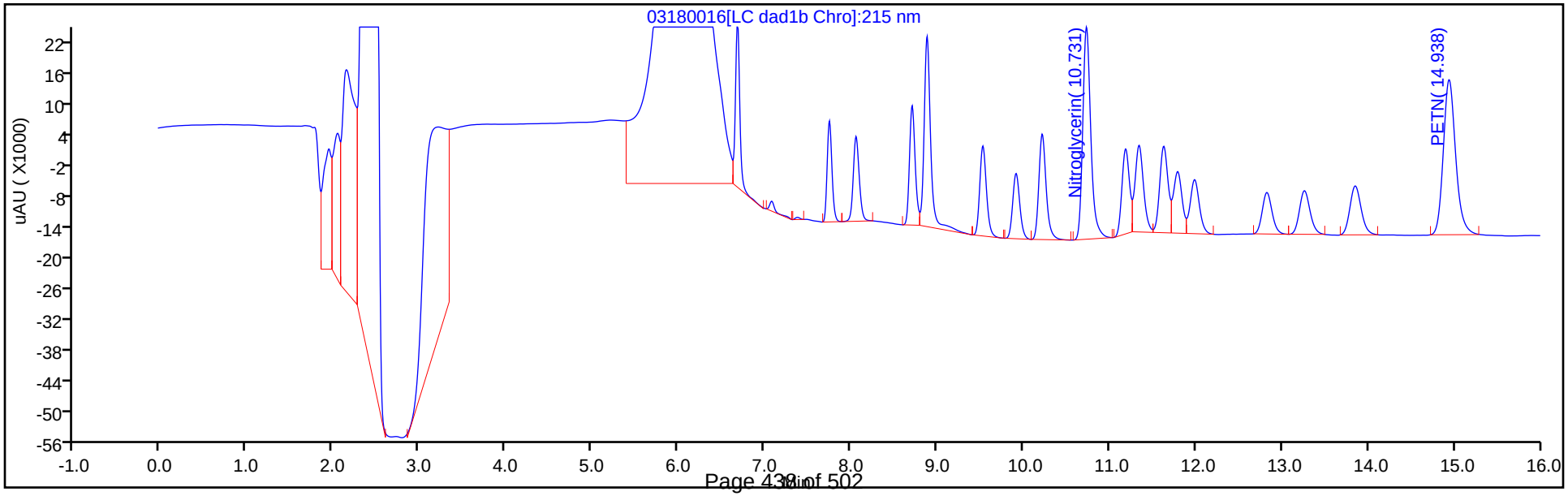
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d | | | | |
| Injection Date: | 18-Mar-2020 15:02:22 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | ICV MAIN | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

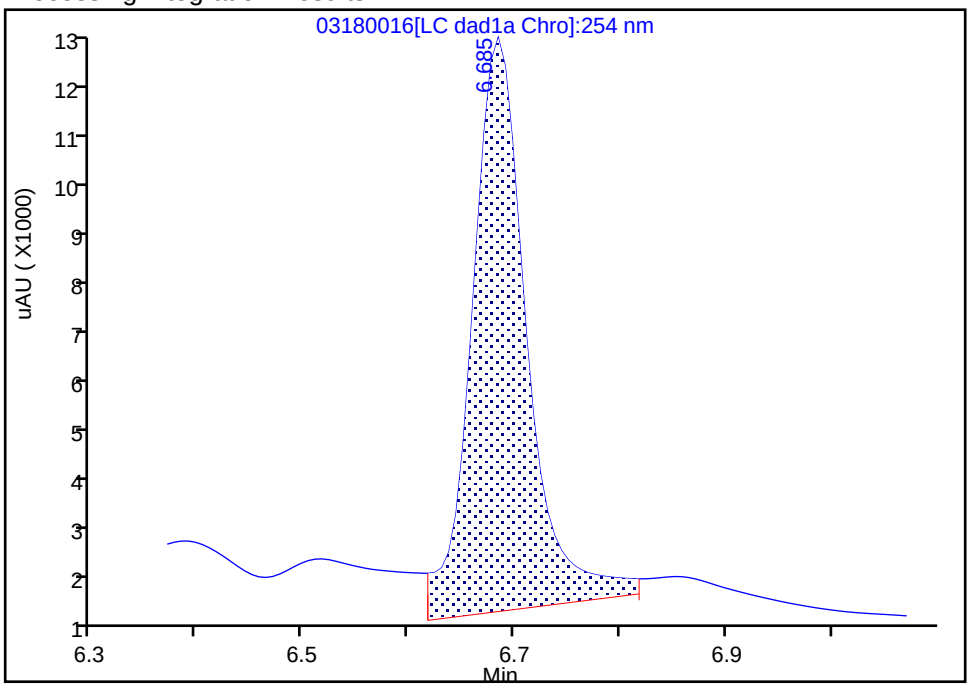
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d | | | | |
| Injection Date: | 18-Mar-2020 15:02:22 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV MAIN | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 16 | Worklist Smp#: | 16 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

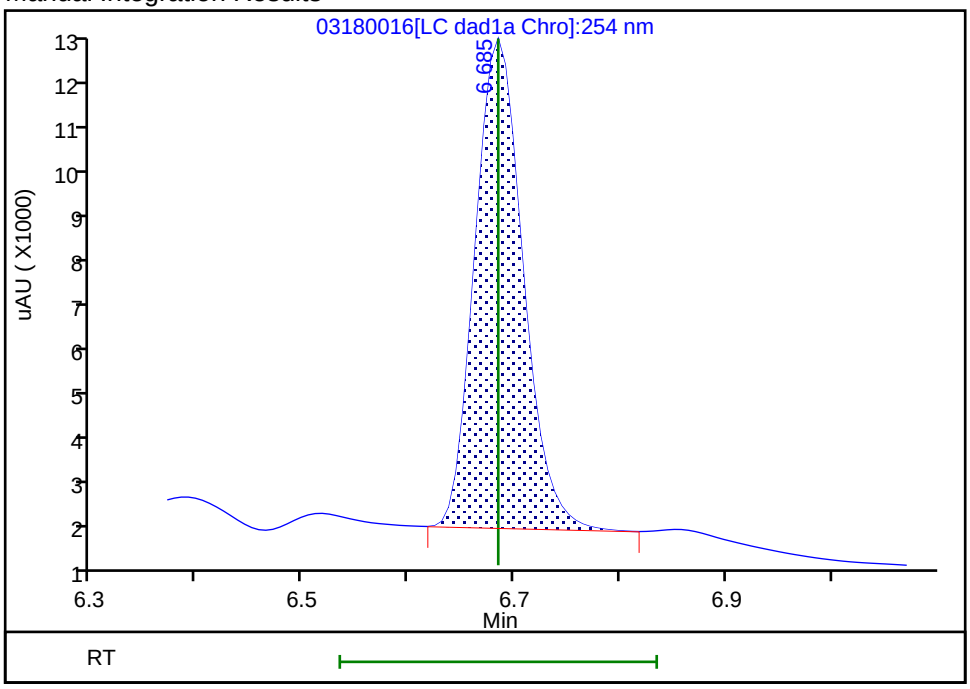
Processing Integration Results

RT: 6.68
Area: 41406
Amount: 0.494354
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 34032
Amount: 0.395895
Amount Units: ug/mL




Reviewer: beckerc, 19-Mar-2020 08:47:09

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/20  Calibration Date: 09/01/2020 21:05

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 09010020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 90704 | | 264 | 250 | 5.5 | 15.0 |
| RDX | Ave | 116613 | 110864 | | 238 | 250 | -4.9 | 15.0 |
| Picric acid | Ave | 85131 | 84828 | | 249 | 250 | -0.4 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 238998 | | 260 | 251 | 3.8 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 317685 | | 259 | 251 | 3.6 | 15.0 |
| Nitrobenzene | Ave | 200403 | 197486 | | 247 | 251 | -1.5 | 15.0 |
| Tetryl | Ave | 177032 | 179677 | | 254 | 251 | 1.5 | 15.0 |
| Nitroglycerin | Ave | 68133 | 72016 | | 2640 | 2500 | 5.7 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 215857 | | 266 | 251 | 5.8 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 165451 | | 239 | 250 | -4.6 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 208259 | | 258 | 251 | 2.7 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 156649 | | 263 | 251 | 4.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 313518 | | 259 | 251 | 3.3 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 128276 | | 237 | 250 | -5.0 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 111333 | | 247 | 251 | -1.5 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 141526 | | 248 | 250 | -1.1 | 15.0 |
| PETN | Ave | 78605 | 90900 | | 2890 | 2500 | 15.6* | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 143328 | | 259 | 250 | 3.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/20  Calibration Date: 09/01/2020 21:05

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 09010020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.71 | 6.56 | 6.86 |
| RDX | 7.77 | 7.60 | 7.90 |
| Picric acid | 8.06 | 7.89 | 8.19 |
| 1,3,5-Trinitrobenzene | 8.90 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.55 | 9.37 | 9.67 |
| Nitrobenzene | 9.93 | 9.74 | 10.04 |
| Tetryl | 10.24 | 10.04 | 10.34 |
| Nitroglycerin | 10.75 | 10.54 | 10.84 |
| 2,4,6-Trinitrotoluene | 11.21 | 11.05 | 11.25 |
| 4-Amino-2,6-dinitrotoluene | 11.38 | 11.21 | 11.41 |
| 2-Amino-4,6-dinitrotoluene | 11.67 | 11.50 | 11.70 |
| 2,6-Dinitrotoluene | 11.81 | 11.63 | 11.83 |
| 2,4-Dinitrotoluene | 12.01 | 11.84 | 12.04 |
| 2-Nitrotoluene | 12.84 | 12.60 | 12.90 |
| 4-Nitrotoluene | 13.27 | 13.04 | 13.34 |
| 3-Nitrotoluene | 13.86 | 13.62 | 13.92 |
| PETN | 14.96 | 14.68 | 14.98 |
| 1,2-Dinitrobenzene | 8.72 | 8.55 | 8.85 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010020.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 01-Sep-2020 21:05:07 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0094633-020
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 01-Sep-2020 21:32:05 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1069

First Level Reviewer: zhangji Date: 01-Sep-2020 21:31:54

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.710 | 6.707 | 0.003 | 22676 | 0.2500 | 0.2638 | |
| 7 RDX | 1 | 7.770 | 7.754 | 0.016 | 27716 | 0.2500 | 0.2377 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.063 | 8.041 | 0.022 | 21207 | 0.2500 | 0.2491 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.723 | 8.701 | 0.022 | 35832 | 0.2500 | 0.2593 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.903 | 8.881 | 0.022 | 59869 | 0.2505 | 0.2600 | |
| 11 1,3-Dinitrobenzene | 1 | 9.550 | 9.520 | 0.030 | 79580 | 0.2505 | 0.2595 | |
| 12 Nitrobenzene | 1 | 9.930 | 9.887 | 0.043 | 49569 | 0.2510 | 0.2473 | |
| 14 Tetryl | 1 | 10.243 | 10.187 | 0.056 | 45009 | 0.2505 | 0.2542 | |
| 15 Nitroglycerin | 2 | 10.750 | 10.694 | 0.056 | 180040 | 2.50 | 2.64 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.210 | 11.154 | 0.056 | 54180 | 0.2510 | 0.2655 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.383 | 11.314 | 0.069 | 41404 | 0.2503 | 0.2386 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.670 | 11.600 | 0.070 | 52273 | 0.2510 | 0.2577 | a |
| 19 2,6-Dinitrotoluene | 1 | 11.810 | 11.734 | 0.076 | 39319 | 0.2510 | 0.2631 | a |
| 20 2,4-Dinitrotoluene | 1 | 12.010 | 11.940 | 0.070 | 78693 | 0.2510 | 0.2592 | |
| 21 o-Nitrotoluene | 1 | 12.837 | 12.754 | 0.083 | 32069 | 0.2500 | 0.2375 | |
| 22 p-Nitrotoluene | 1 | 13.270 | 13.187 | 0.083 | 27889 | 0.2505 | 0.2468 | |
| 23 m-Nitrotoluene | 1 | 13.863 | 13.767 | 0.096 | 35417 | 0.2503 | 0.2476 | |
| 24 PETN | 2 | 14.957 | 14.827 | 0.130 | 227249 | 2.50 | 2.89 | |

## QC Flag Legend

Review Flags
a - User Assigned ID

## Reagents:

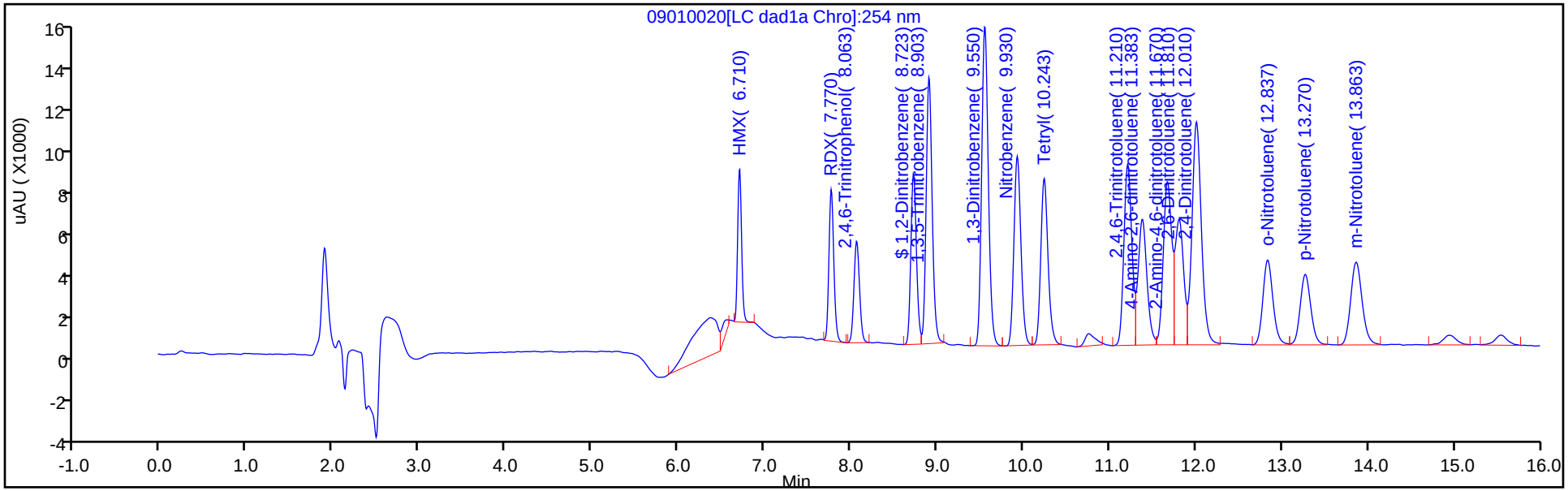
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 01-Sep-2020 21:32:05 Chrom Revision: 2.3 20-Aug-2020 13:57:12

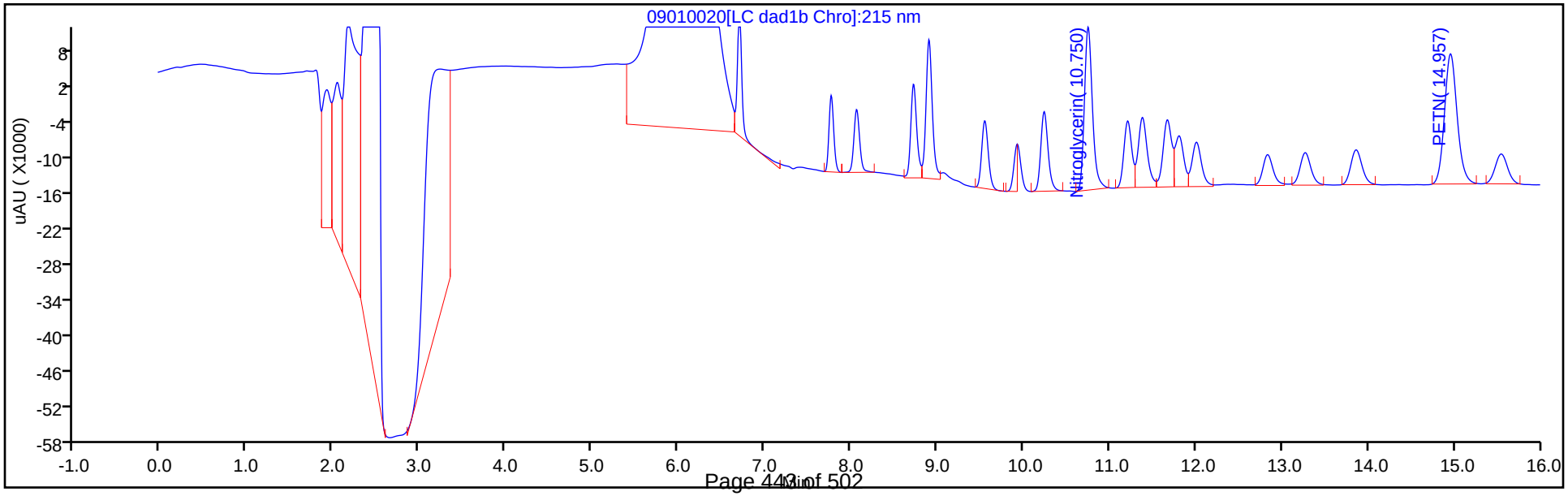
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010020.d | | | | |
| Injection Date: | 01-Sep-2020 21:05:07 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver

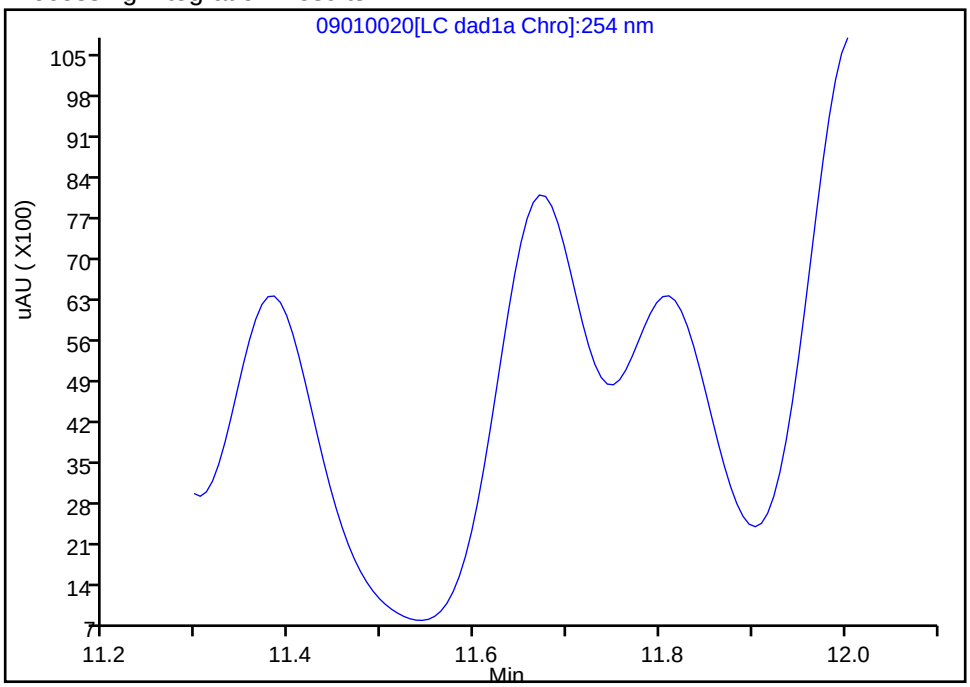
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010020.d | | | | |
| Injection Date: | 01-Sep-2020 21:05:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | 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 | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

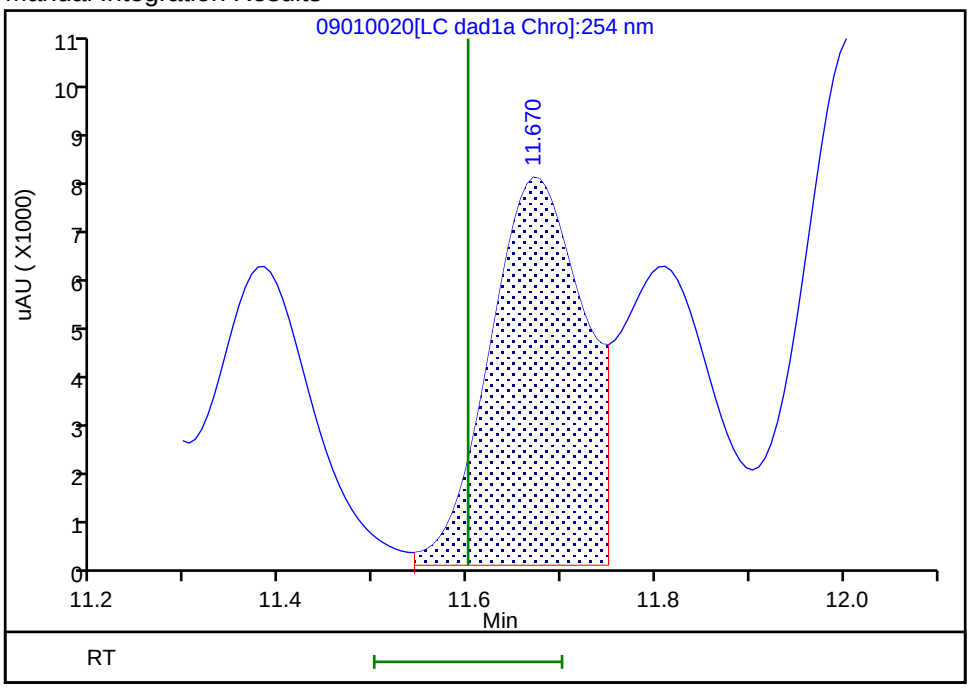
Not Detected
Expected RT: 11.60

Processing Integration Results




Manual Integration Results

RT: 11.67
Area: 52273
Amount: 0.257735
Amount Units: ug/mL




Reviewer: zhangji, 01-Sep-2020 21:31:40
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver

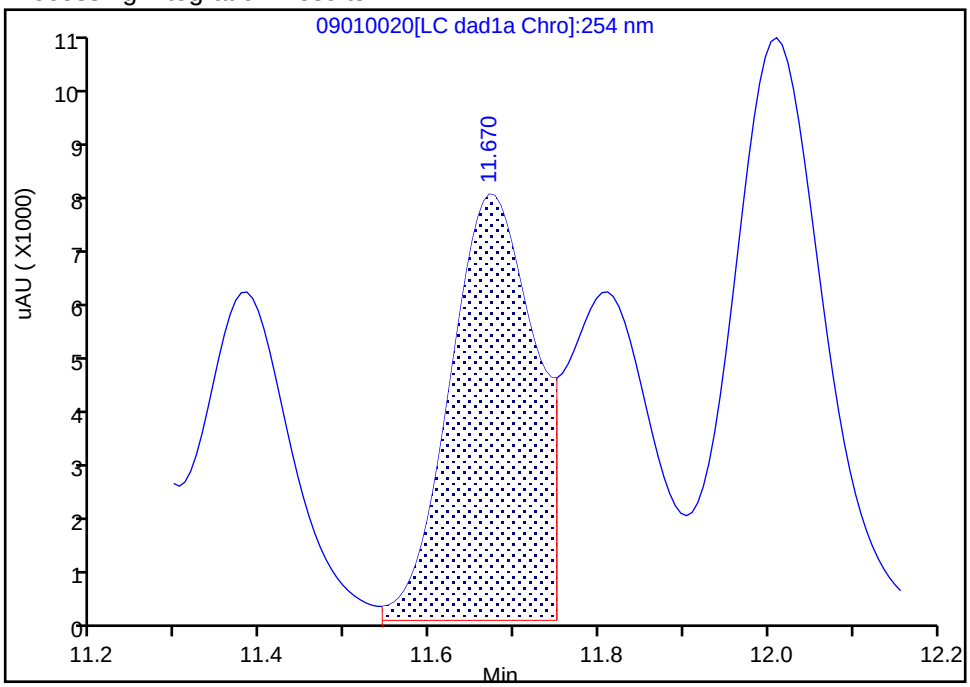
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010020.d | | | | |
| Injection Date: | 01-Sep-2020 21:05:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | 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 | | |

## 19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

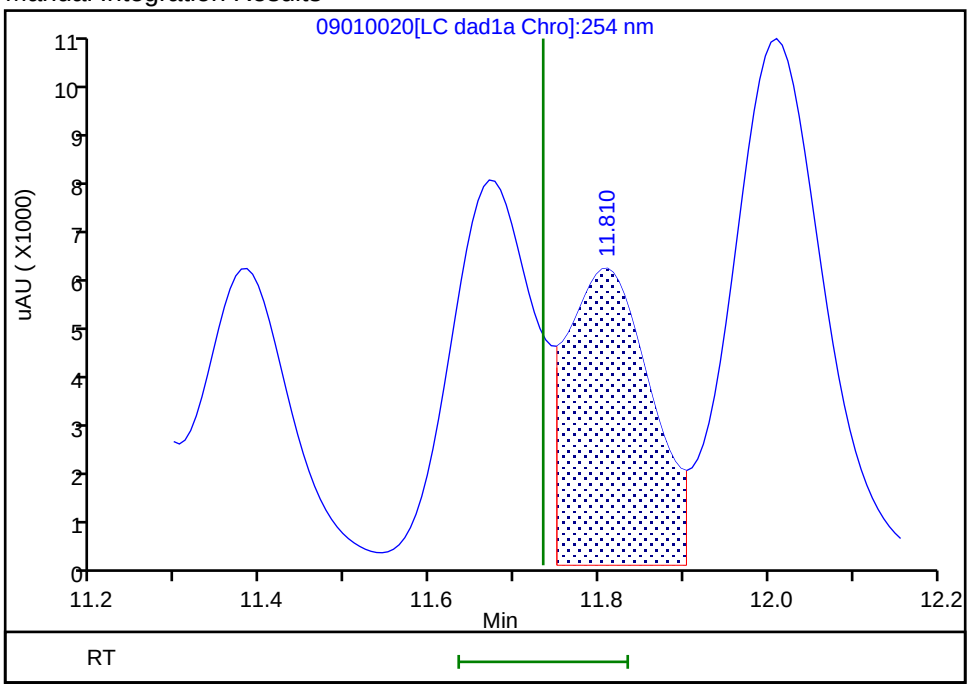
RT: 11.67
Area: 52273
Amount: 0.349764
Amount Units: ug/mL

Processing Integration Results




RT: 11.81
Area: 39319
Amount: 0.263087
Amount Units: ug/mL

Manual Integration Results




Reviewer: zhangji, 01-Sep-2020 21:31:45
Audit Action: Assigned Compound ID Audit Reason:

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/21  Calibration Date: 09/01/2020 21:28

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 09010021.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 202625 | | 233 | 250 | -6.9 | 15.0 |
| DNX | Ave | 152928 | 149335 | | 244 | 250 | -2.3 | 15.0 |
| MNX | Ave | 158544 | 137762 | | 254 | 292 | -13.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/21  Calibration Date: 09/01/2020 21:28

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 09010021.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.61 | 6.51 | 6.71 |
| DNX | 6.92 | 6.83 | 7.03 |
| MNX | 7.37 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010021.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 01-Sep-2020 21:28:05 | ALS Bottle#: | 9 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0094633-021 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 01-Sep-2020 21:54:55

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.605 | 6.606 | -0.001 | 50707 | 0.2503 | 0.2330 | M |
| 5 DNX | 1 | 6.918 | 6.926 | -0.008 | 37371 | 0.2503 | 0.2444 | M |
| 6 MNX | 1 | 7.365 | 7.360 | 0.005 | 40192 | 0.2918 | 0.2535 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

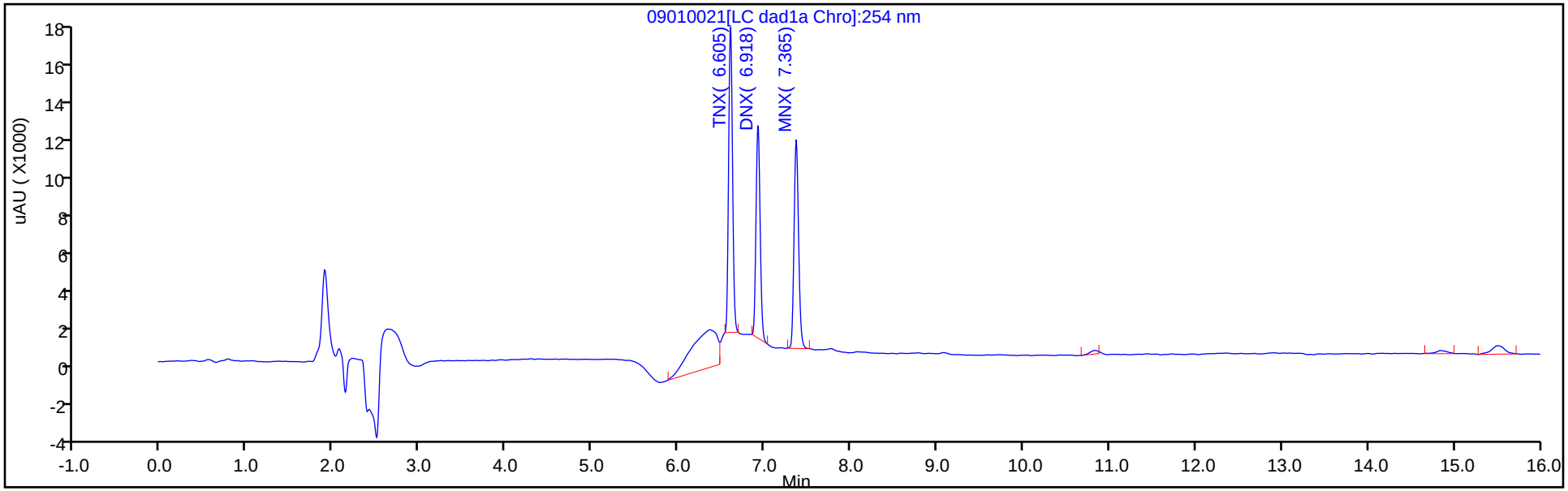
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Sep-2020 14:00:44 Chrom Revision: 2.3 20-Aug-2020 13:57:12

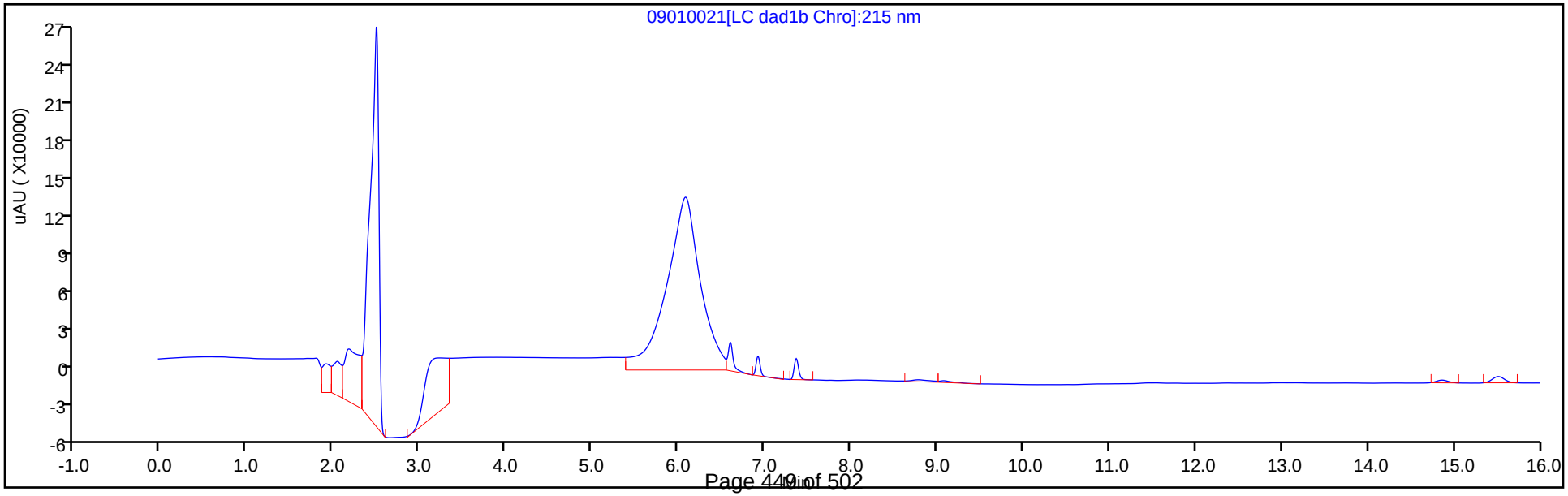
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010021.d | | | | |
| Injection Date: | 01-Sep-2020 21:28:05 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 21 |
| 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

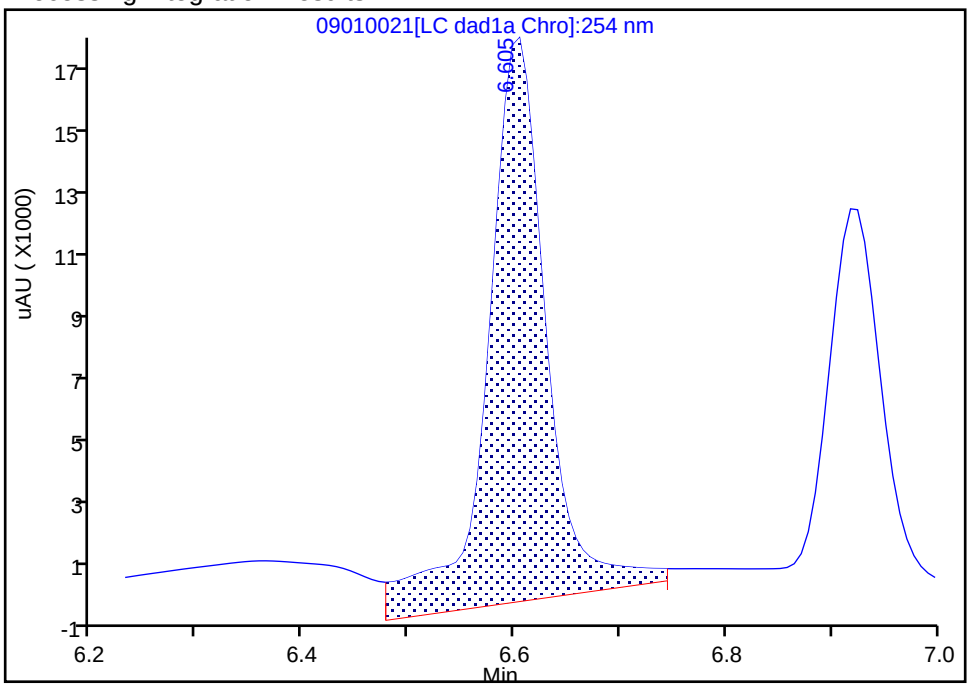
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010021.d | | | | |
| Injection Date: | 01-Sep-2020 21:28:05 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

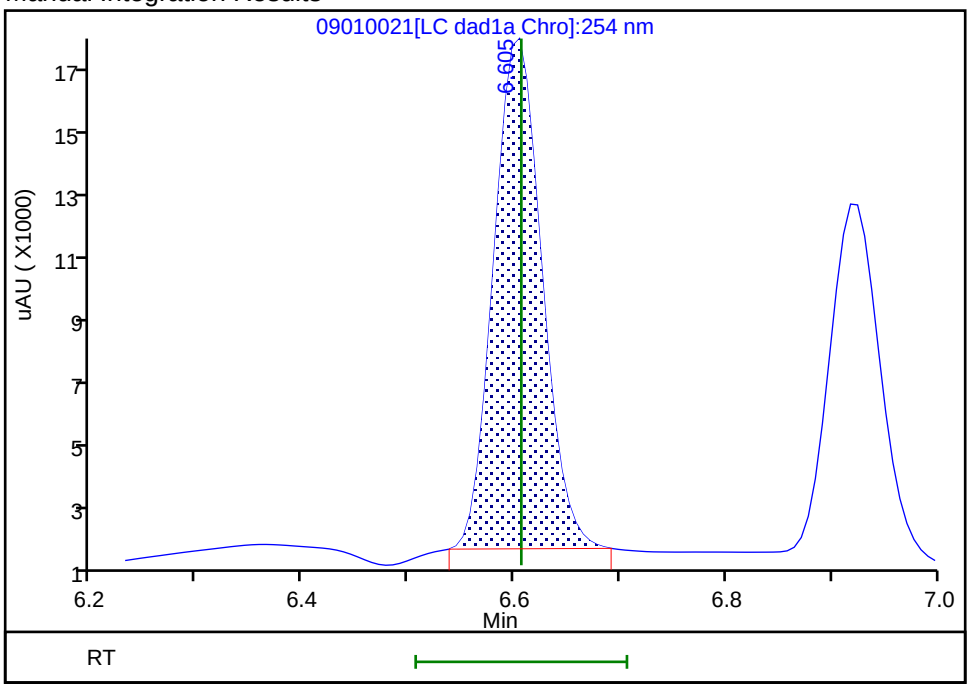
Processing Integration Results

RT: 6.60
Area: 66672
Amount: 0.306385
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 50707
Amount: 0.233019
Amount Units: ug/mL




Reviewer: zhangji, 01-Sep-2020 21:54:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

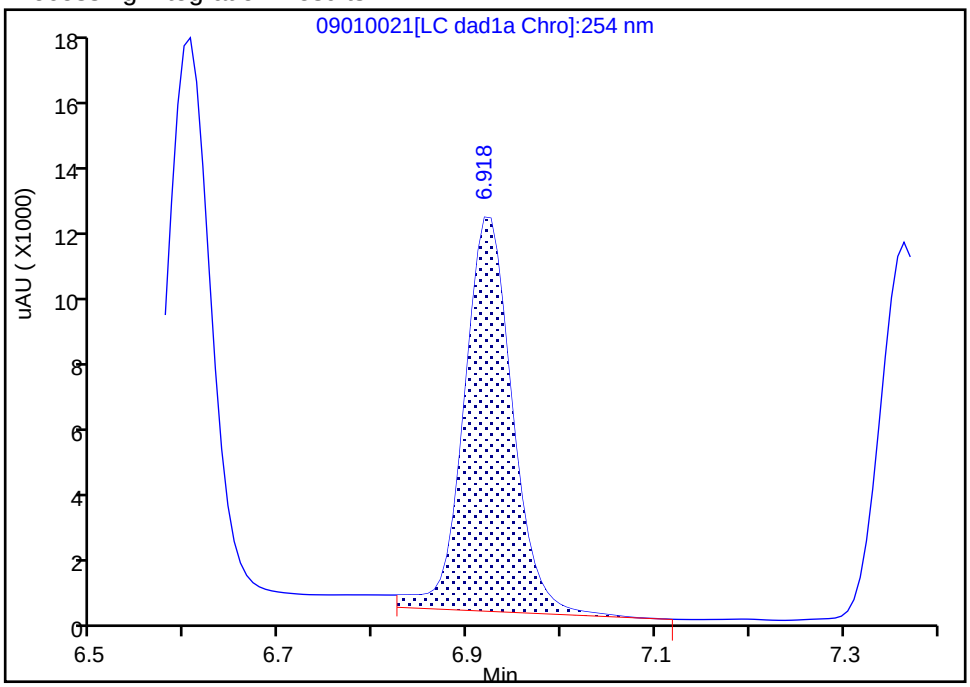
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010021.d | | | | |
| Injection Date: | 01-Sep-2020 21:28:05 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 21 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

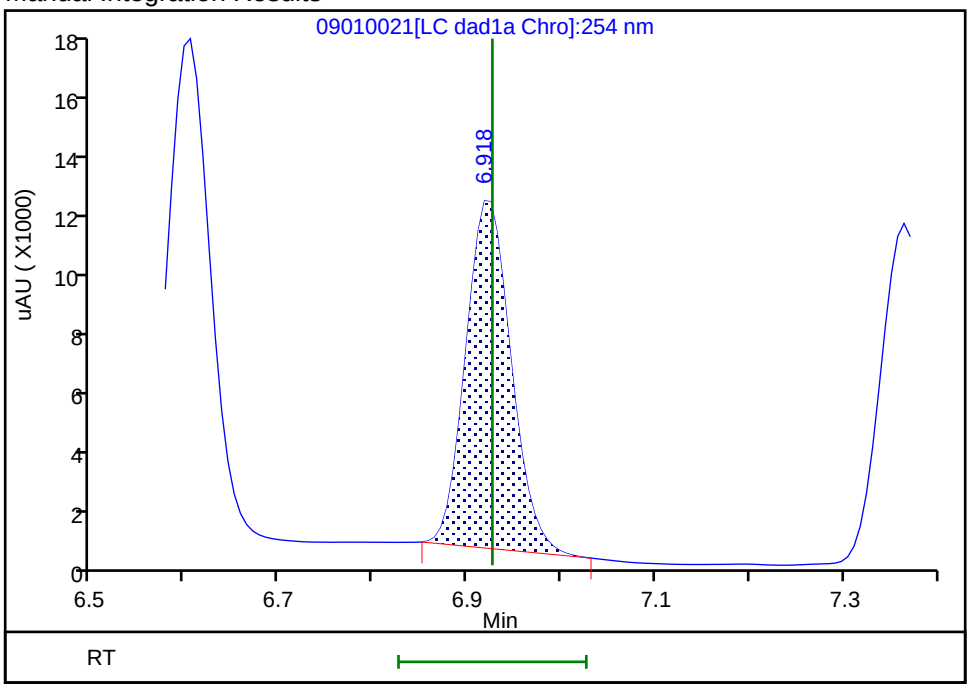
Processing Integration Results

RT: 6.92
Area: 40795
Amount: 0.266759
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 37371
Amount: 0.244369
Amount Units: ug/mL




Reviewer: zhangji, 01-Sep-2020 21:54:51
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/30  Calibration Date: 09/02/2020 00:54

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 09010030.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 85962 | 92024 | | 268 | 250 | 7.1 | 15.0 |
| RDX | Ave | 116613 | 110752 | | 237 | 250 | -5.0 | 15.0 |
| Picric acid | Ave | 85131 | 84868 | | 249 | 250 | -0.3 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 230309 | 241900 | | 263 | 251 | 5.0 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 306686 | 320188 | | 262 | 251 | 4.4 | 15.0 |
| Nitrobenzene | Ave | 200403 | 197056 | | 247 | 251 | -1.7 | 15.0 |
| Tetryl | Ave | 177032 | 181218 | | 256 | 251 | 2.4 | 15.0 |
| Nitroglycerin | Ave | 68133 | 75558 | | 2770 | 2500 | 10.9 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 204031 | 213968 | | 263 | 251 | 4.9 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 167928 | | 242 | 250 | -3.2 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 202817 | 206191 | | 255 | 251 | 1.7 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 149452 | 160044 | | 269 | 251 | 7.1 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 303584 | 315486 | | 261 | 251 | 3.9 | 15.0 |
| 2-Nitrotoluene | Ave | 135051 | 126784 | | 235 | 250 | -6.1 | 15.0 |
| 4-Nitrotoluene | Ave | 113005 | 113465 | | 252 | 251 | 0.4 | 15.0 |
| 3-Nitrotoluene | Ave | 143029 | 138042 | | 242 | 250 | -3.5 | 15.0 |
| PETN | Ave | 78605 | 92642 | | 2950 | 2500 | 17.9* | 15.0 |
| 1,2-Dinitrobenzene | Ave | 138212 | 145312 | | 263 | 250 | 5.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/30  Calibration Date: 09/02/2020 00:54

Instrument ID: CHHPLC_X3  Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/18/2020 14:39

Lab File ID: 09010030.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.72 | 6.56 | 6.86 |
| RDX | 7.79 | 7.60 | 7.90 |
| Picric acid | 8.08 | 7.89 | 8.19 |
| 1,3,5-Trinitrobenzene | 8.92 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.56 | 9.37 | 9.67 |
| Nitrobenzene | 9.94 | 9.74 | 10.04 |
| Tetryl | 10.24 | 10.04 | 10.34 |
| Nitroglycerin | 10.76 | 10.54 | 10.84 |
| 2,4,6-Trinitrotoluene | 11.22 | 11.05 | 11.25 |
| 4-Amino-2,6-dinitrotoluene | 11.38 | 11.21 | 11.41 |
| 2-Amino-4,6-dinitrotoluene | 11.68 | 11.50 | 11.70 |
| 2,6-Dinitrotoluene | 11.81 | 11.63 | 11.83 |
| 2,4-Dinitrotoluene | 12.02 | 11.84 | 12.04 |
| 2-Nitrotoluene | 12.84 | 12.60 | 12.90 |
| 4-Nitrotoluene | 13.28 | 13.04 | 13.34 |
| 3-Nitrotoluene | 13.87 | 13.62 | 13.92 |
| PETN | 14.97 | 14.68 | 14.98 |
| 1,2-Dinitrobenzene | 8.74 | 8.55 | 8.85 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010030.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 02-Sep-2020 00:54:58 ALS Bottle#: 7 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0094633-030
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:00:48 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 13:48:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.724 | 6.707 | 0.017 | 23006 | 0.2500 | 0.2676 | M |
| 7 RDX | 1 | 7.791 | 7.754 | 0.037 | 27688 | 0.2500 | 0.2374 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.084 | 8.041 | 0.043 | 21217 | 0.2500 | 0.2492 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.744 | 8.701 | 0.043 | 36328 | 0.2500 | 0.2628 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.924 | 8.881 | 0.043 | 60596 | 0.2505 | 0.2631 | |
| 11 1,3-Dinitrobenzene | 1 | 9.564 | 9.520 | 0.044 | 80207 | 0.2505 | 0.2615 | |
| 12 Nitrobenzene | 1 | 9.937 | 9.887 | 0.050 | 49461 | 0.2510 | 0.2468 | |
| 14 Tetryl | 1 | 10.244 | 10.187 | 0.057 | 45395 | 0.2505 | 0.2564 | |
| 15 Nitroglycerin | 2 | 10.757 | 10.694 | 0.063 | 188894 | 2.50 | 2.77 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.217 | 11.154 | 0.063 | 53706 | 0.2510 | 0.2632 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.384 | 11.314 | 0.070 | 42024 | 0.2503 | 0.2421 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.677 | 11.600 | 0.077 | 51754 | 0.2510 | 0.2552 | a |
| 19 2,6-Dinitrotoluene | 1 | 11.811 | 11.734 | 0.077 | 40171 | 0.2510 | 0.2688 | a |
| 20 2,4-Dinitrotoluene | 1 | 12.017 | 11.940 | 0.077 | 79187 | 0.2510 | 0.2608 | |
| 21 o-Nitrotoluene | 1 | 12.837 | 12.754 | 0.083 | 31696 | 0.2500 | 0.2347 | |
| 22 p-Nitrotoluene | 1 | 13.277 | 13.187 | 0.090 | 28423 | 0.2505 | 0.2515 | |
| 23 m-Nitrotoluene | 1 | 13.871 | 13.767 | 0.104 | 34545 | 0.2503 | 0.2415 | |
| 24 PETN | 2 | 14.971 | 14.827 | 0.144 | 231604 | 2.50 | 2.95 | |

## QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

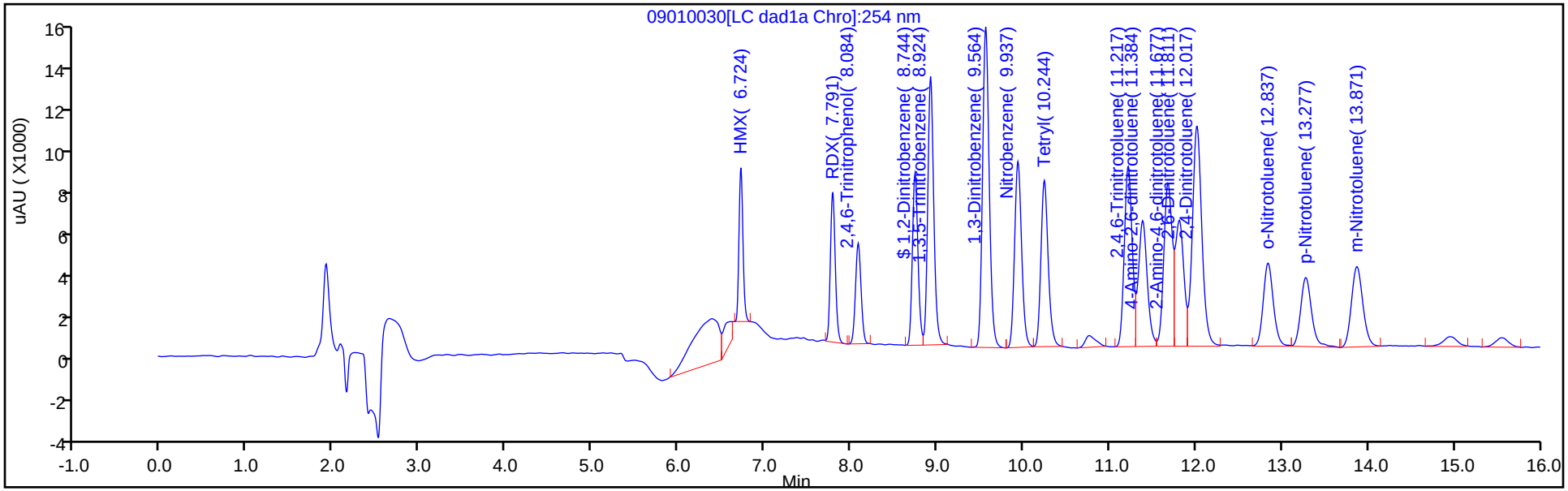
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 02-Sep-2020 14:00:48 Chrom Revision: 2.3 20-Aug-2020 13:57:12

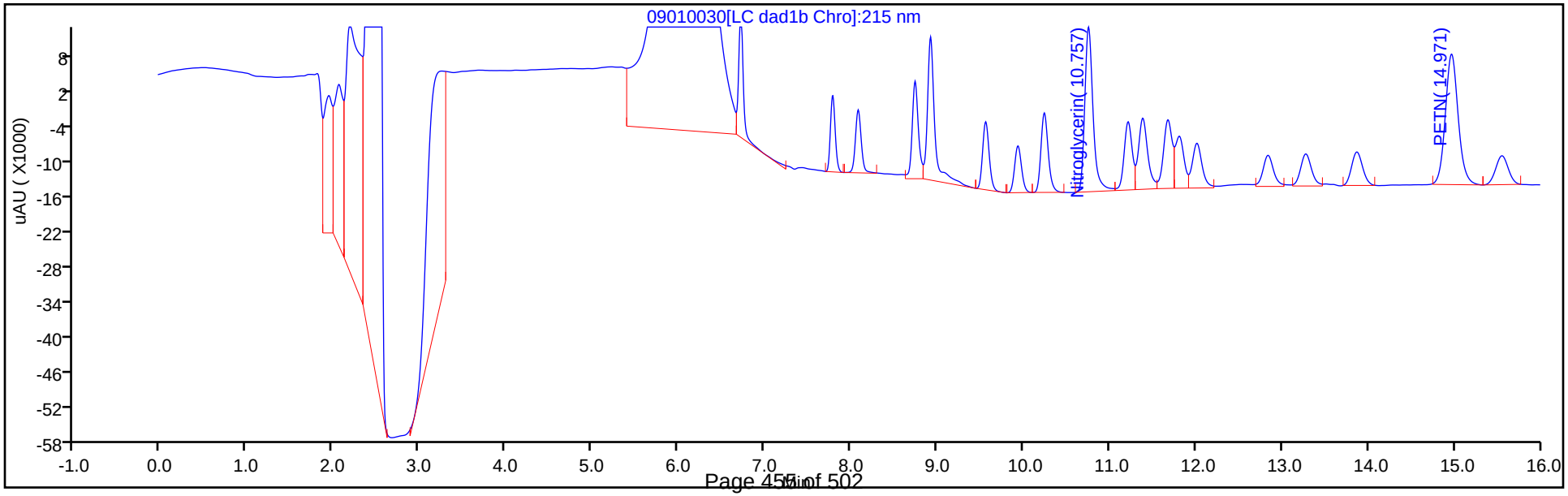
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010030.d | | | | |
| Injection Date: | 02-Sep-2020 00:54:58 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV INT | | | Worklist Smp#: | 30 |
| 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

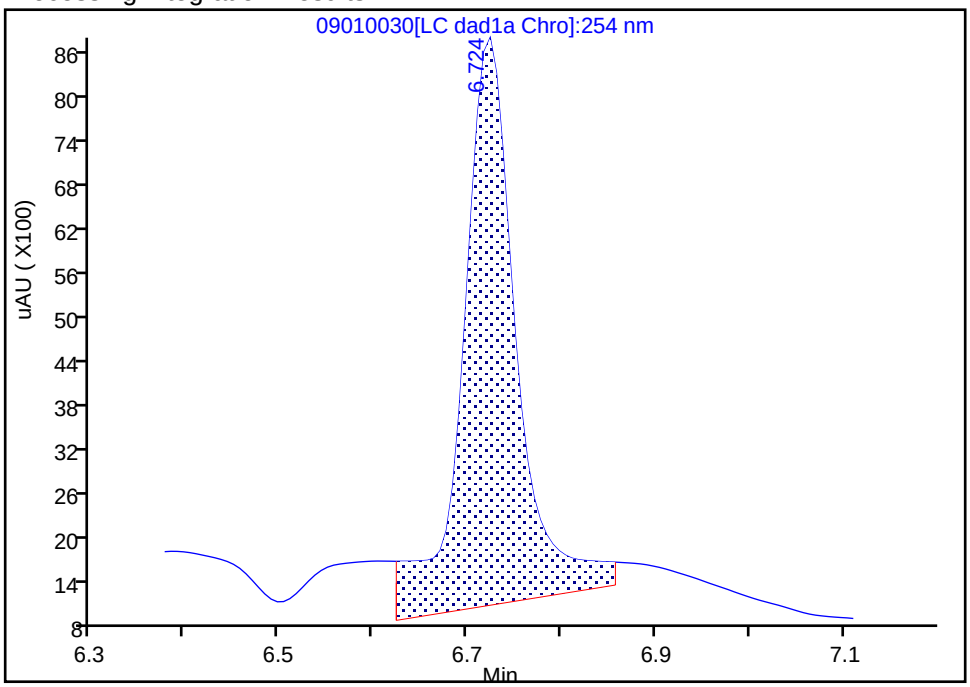
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010030.d | | | | |
| Injection Date: | 02-Sep-2020 00:54:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

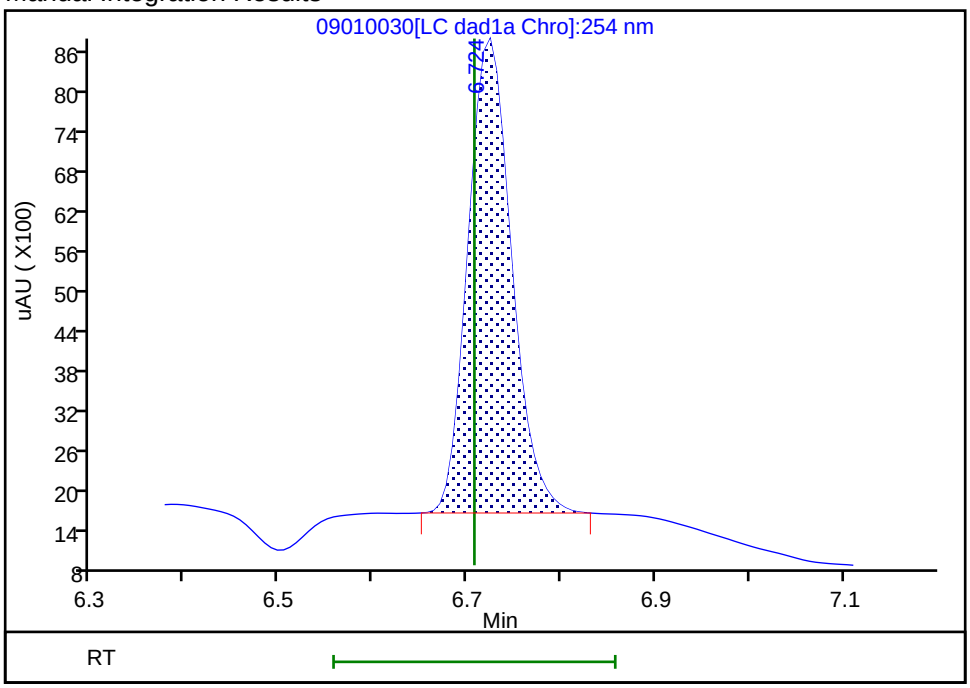
Processing Integration Results

RT: 6.72
Area: 30990
Amount: 0.360507
Amount Units: ug/mL




Manual Integration Results

RT: 6.72
Area: 23006
Amount: 0.267629
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:48:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

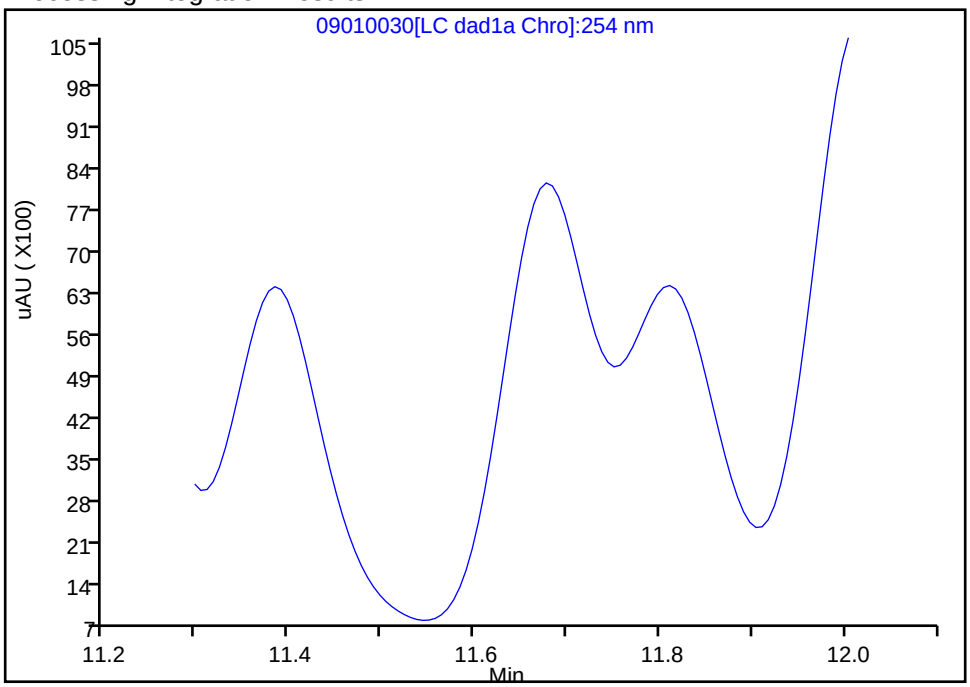
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010030.d | | | | |
| Injection Date: | 02-Sep-2020 00:54:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | 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 | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

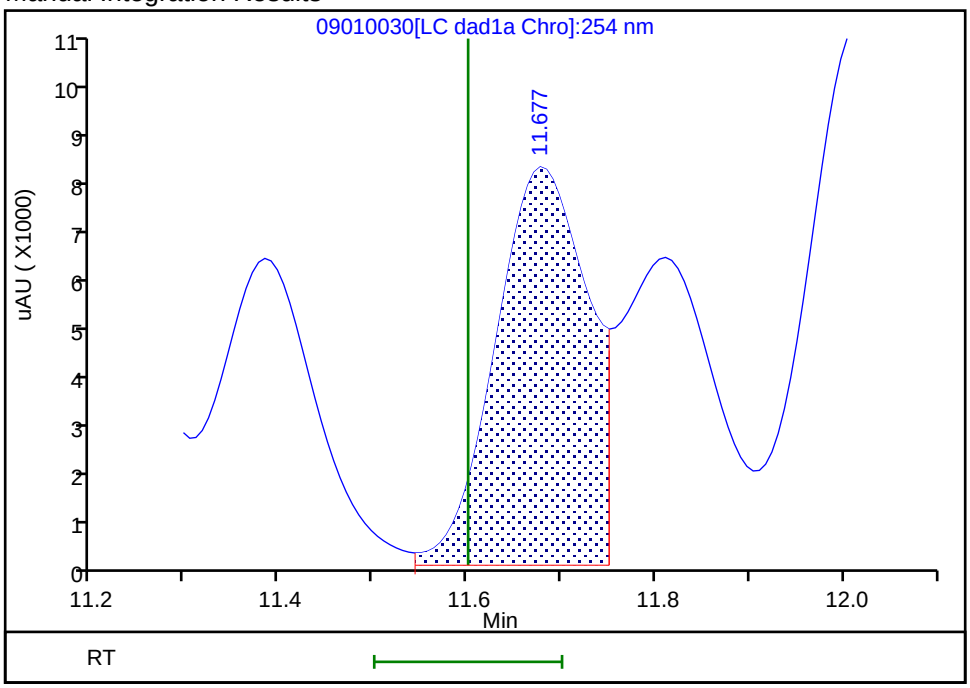
Not Detected
Expected RT: 11.60

Processing Integration Results




Manual Integration Results

RT: 11.68
Area: 51754
Amount: 0.255176
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:48:45
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins TestAmerica, Denver

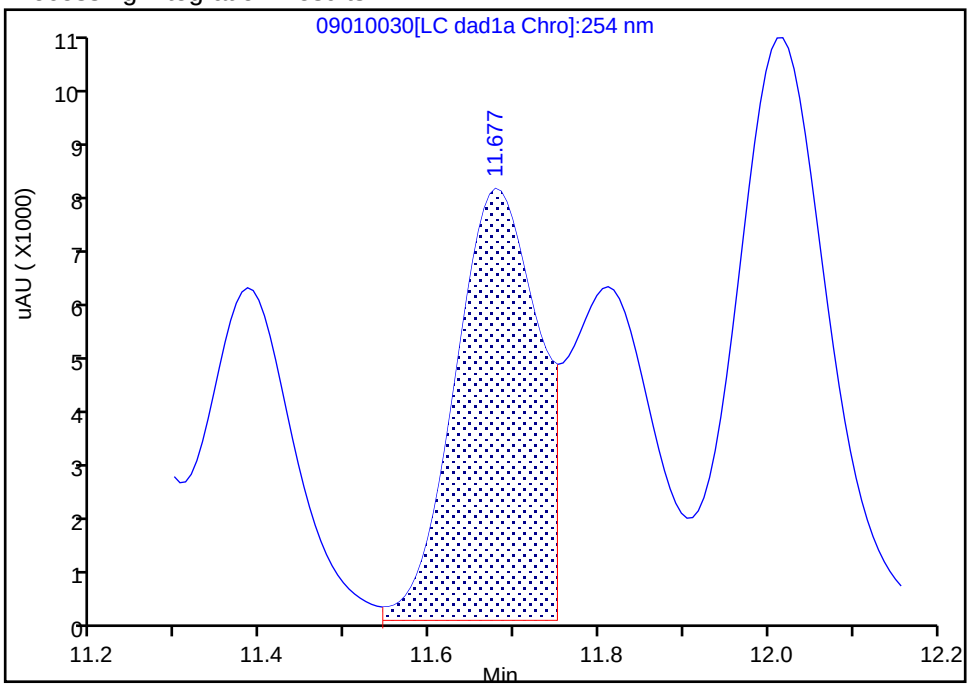
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010030.d | | | | |
| Injection Date: | 02-Sep-2020 00:54:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 7 | 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 | | |

## 19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

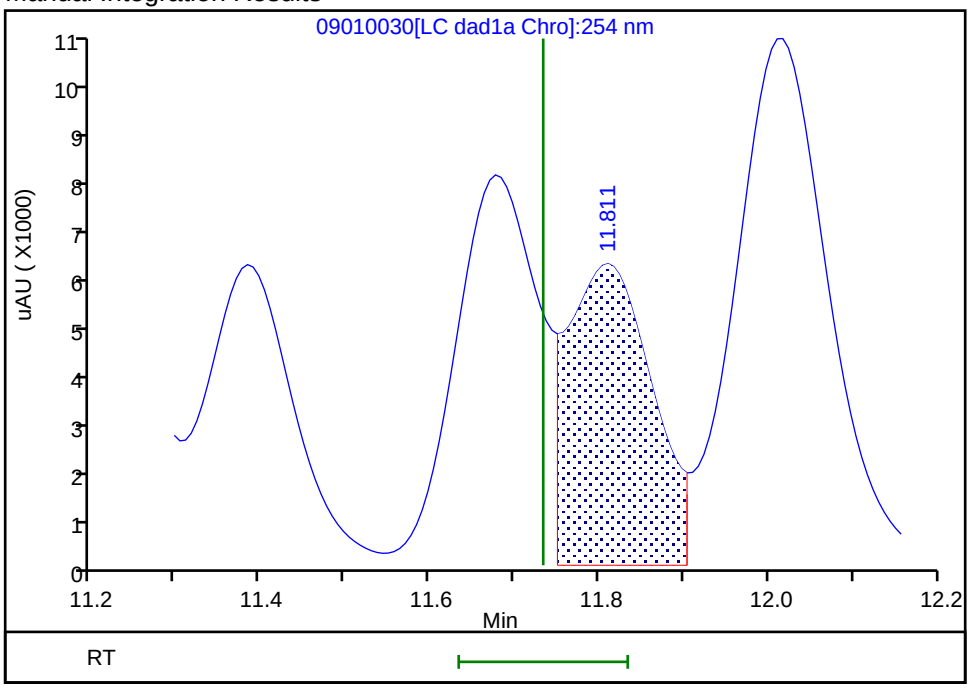
Processing Integration Results

RT: 11.68
Area: 51754
Amount: 0.346291
Amount Units: ug/mL




Manual Integration Results

RT: 11.81
Area: 40171
Amount: 0.268788
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:48:48
Audit Action: Assigned Compound ID Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/31  Calibration Date: 09/02/2020 01:17

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 09010031.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 201055 | | 231 | 250 | -7.6 | 15.0 |
| DNX | Ave | 152928 | 148667 | | 243 | 250 | -2.8 | 15.0 |
| MNX | Ave | 158544 | 137782 | | 254 | 292 | -13.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Lab Sample ID: CCV 280-507610/31  Calibration Date: 09/02/2020 01:17

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 09010031.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.62 | 6.51 | 6.71 |
| DNX | 6.94 | 6.83 | 7.03 |
| MNX | 7.39 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010031.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 02-Sep-2020 01:17:59 | ALS Bottle#: | 9 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0094633-031 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:48 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:49:05

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.621 | 6.606 | 0.015 | 50314 | 0.2503 | 0.2312 | M |
| 5 DNX | 1 | 6.941 | 6.926 | 0.015 | 37204 | 0.2503 | 0.2433 | M |
| 6 MNX | 1 | 7.387 | 7.360 | 0.027 | 40198 | 0.2918 | 0.2535 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

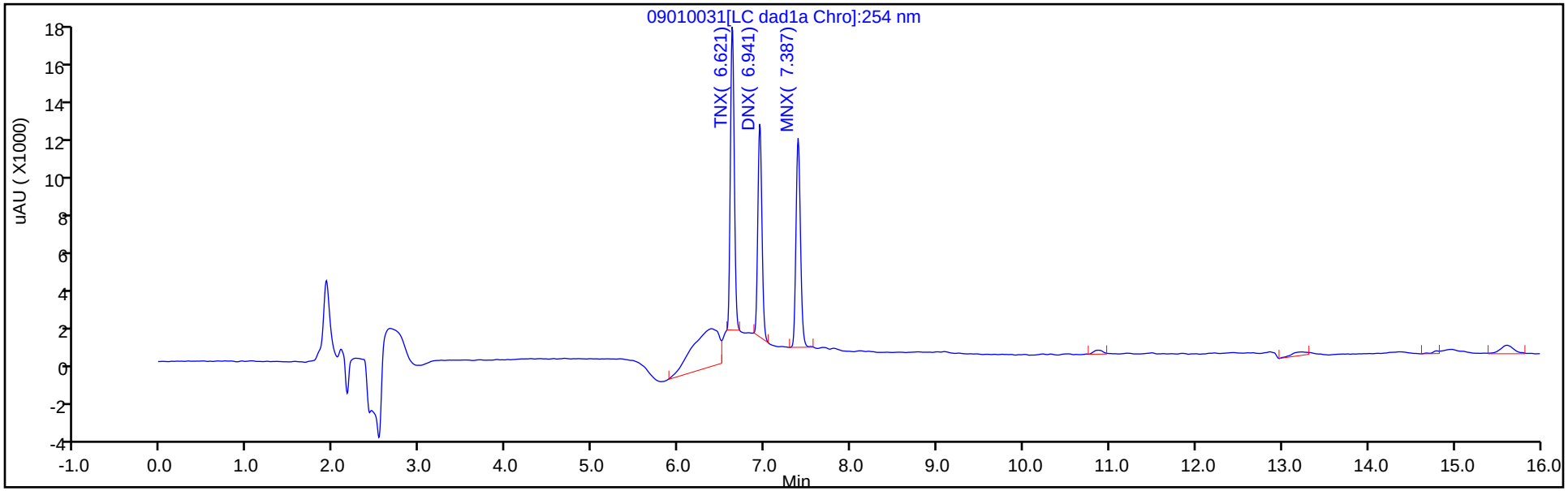
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 02-Sep-2020 14:00:49 Chrom Revision: 2.3 20-Aug-2020 13:57:12

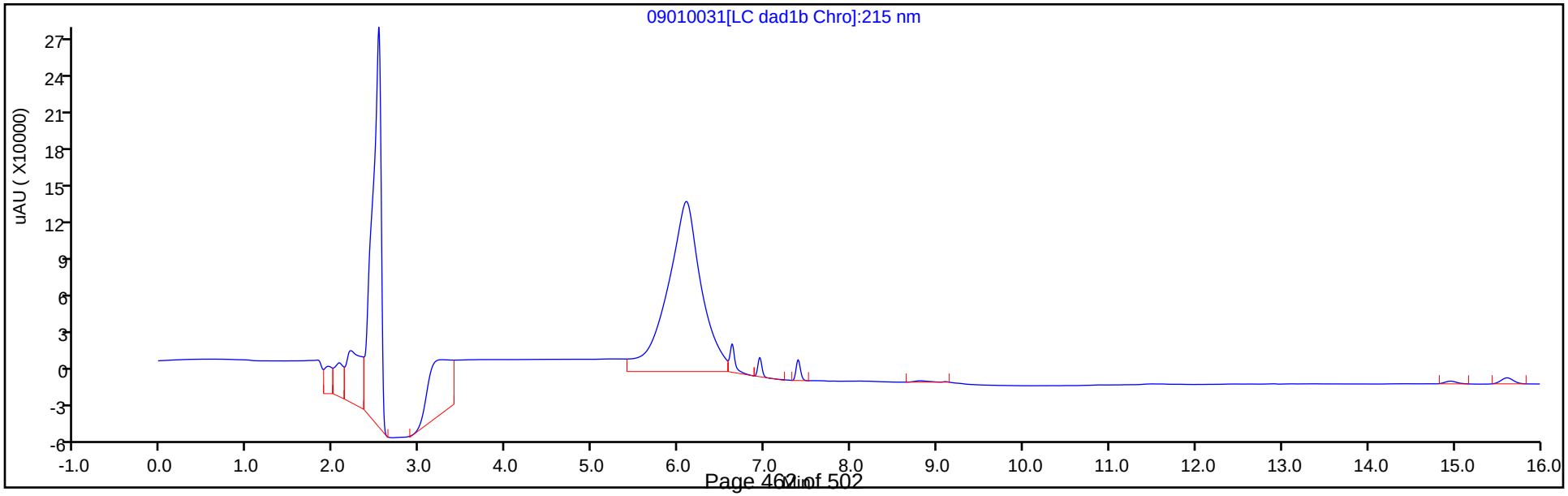
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010031.d | | | | |
| Injection Date: | 02-Sep-2020 01:17:59 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 31 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

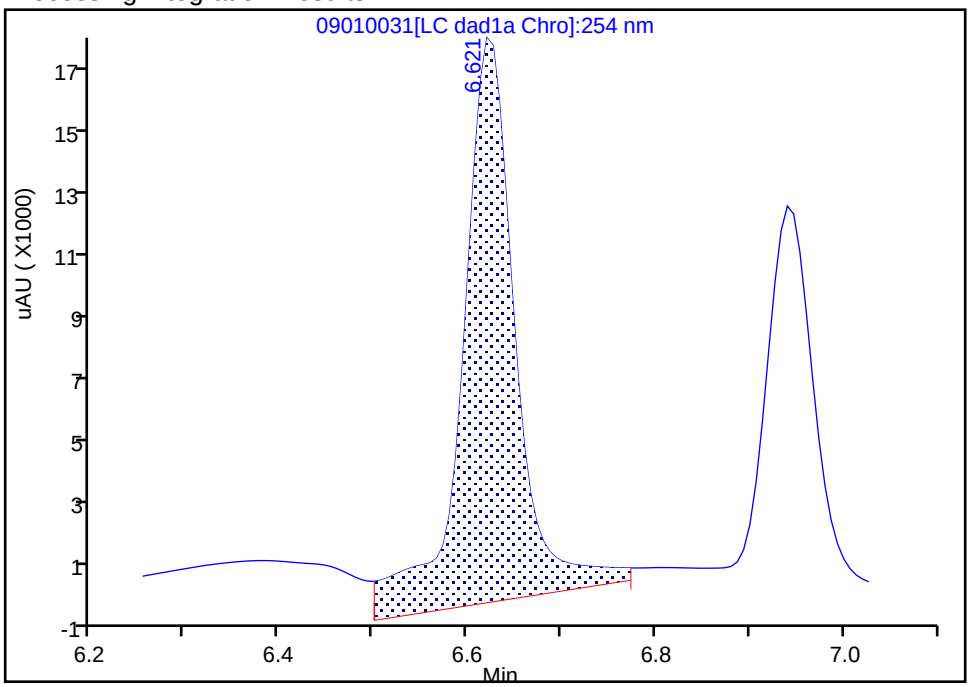
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010031.d | | | | |
| Injection Date: | 02-Sep-2020 01:17:59 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

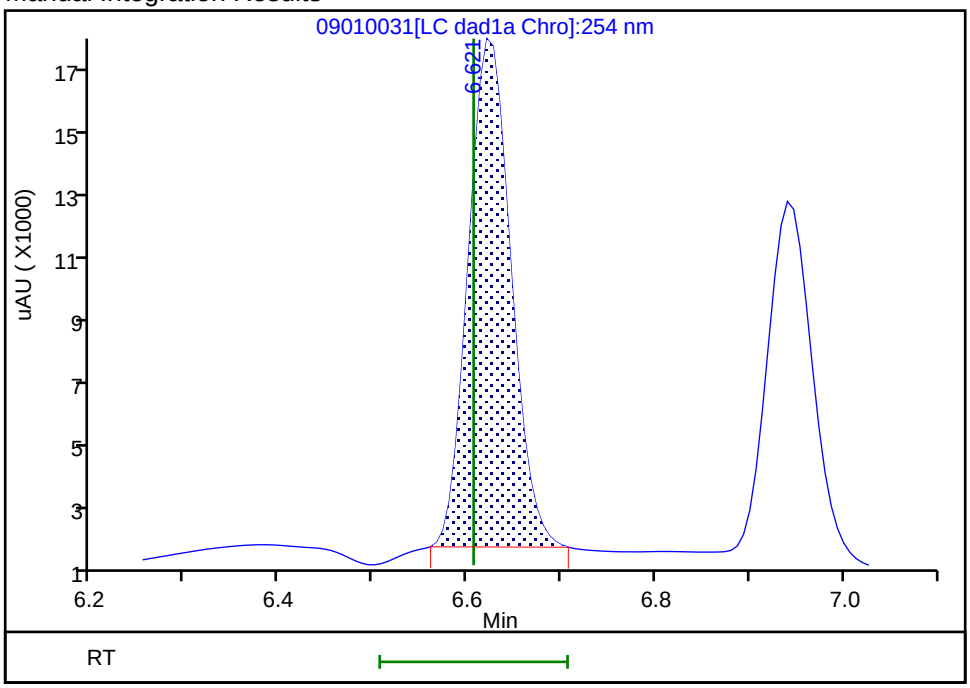
Processing Integration Results

RT: 6.62
Area: 67493
Amount: 0.310158
Amount Units: ug/mL




Manual Integration Results

RT: 6.62
Area: 50314
Amount: 0.231213
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:49:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

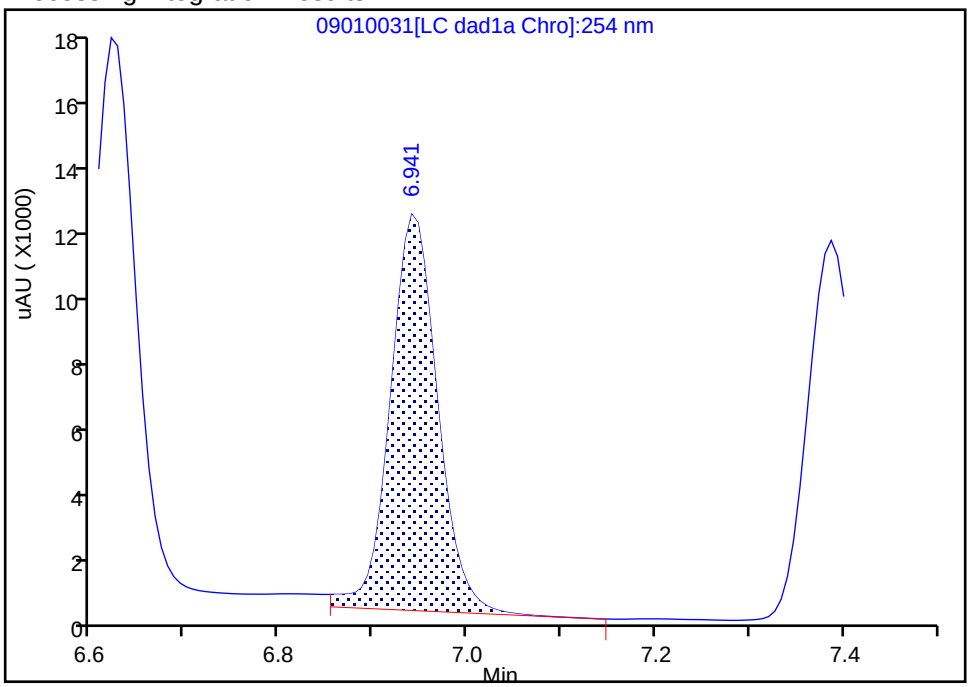
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010031.d | | | | |
| Injection Date: | 02-Sep-2020 01:17:59 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 9 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

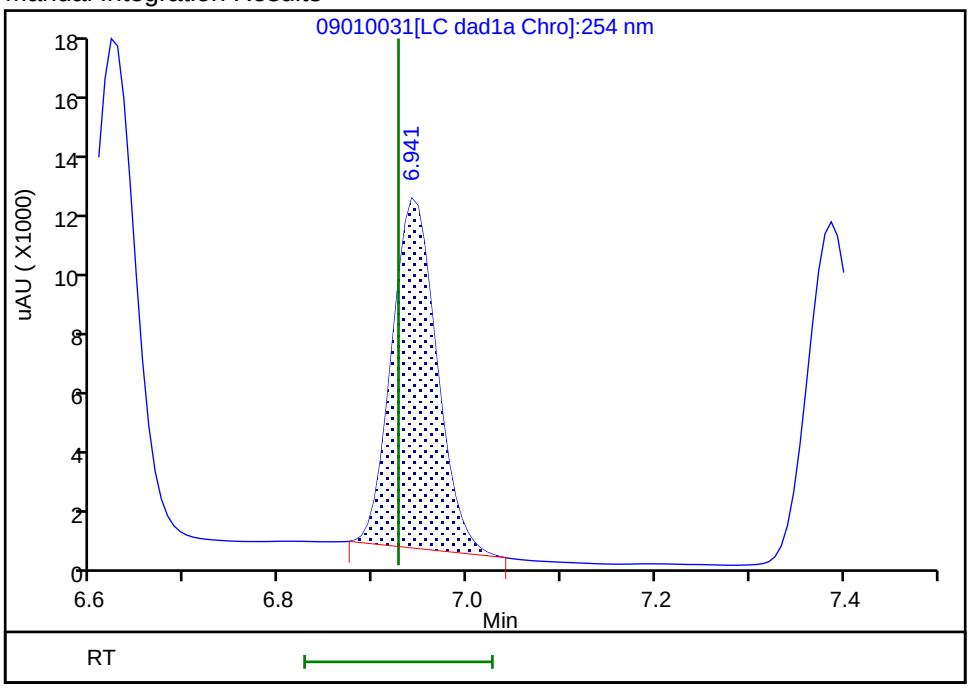
Processing Integration Results

RT: 6.94
Area: 40111
Amount: 0.262286
Amount Units: ug/mL




Manual Integration Results

RT: 6.94
Area: 37204
Amount: 0.243277
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:49:04
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-507292/1-A
Matrix: Water
Lab File ID: 09010022.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 500(mL)
Date Analyzed: 09/01/2020 21:51
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.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.20 | U M | 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 | 112 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010022.D
Lims ID: MB 280-507292/1-A
Client ID:
Sample Type: MB
Inject. Date: 01-Sep-2020 21:51:07 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-507292/1-
Misc. Info.: 280-0094633-022
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:00:43 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 13:45:25

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 26 Triamine Trinitrobenzene | 1 | | 2.540 | | | | ND | |
| 1 2,6-diamino-4-nitrotoluene | 1 | | 6.587 | | | | ND | U |
| 2 TNX | 1 | | 6.606 | | | | ND | |
| 3 HMX | 1 | | 6.707 | | | | ND | |
| 4 2,4-diamino-6-nitrotoluene | 1 | | 6.773 | | | | ND | |
| 5 DNX | 1 | | 6.926 | | | | ND | |
| 6 MNX | 1 | | 7.360 | | | | ND | |
| 7 RDX | 1 | | 7.754 | | | | ND | |
| 8 2,4,6-Trinitrophenol | 1 | | 8.041 | | | | ND | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.701 | 0.013 | 30991 | 0.2000 | 0.2242 | |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.881 | | | | ND | U |
| 11 1,3-Dinitrobenzene | 1 | | 9.520 | | | | ND | |
| 12 Nitrobenzene | 1 | | 9.887 | | | | ND | |
| 14 Tetryl | 1 | | 10.187 | | | | ND | |
| 13 3,5-Dinitroaniline | 1 | | 10.207 | | | | ND | |
| 15 Nitroglycerin | 2 | | 10.694 | | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.154 | | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.314 | | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.600 | | | | ND | |
| 19 2,6-Dinitrotoluene | 1 | | 11.734 | | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.940 | | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.754 | | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.187 | | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.767 | | | | ND | |
| 24 PETN | 2 | 14.854 | 14.827 | 0.027 | 19606 | | 0.2494 | |
| 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

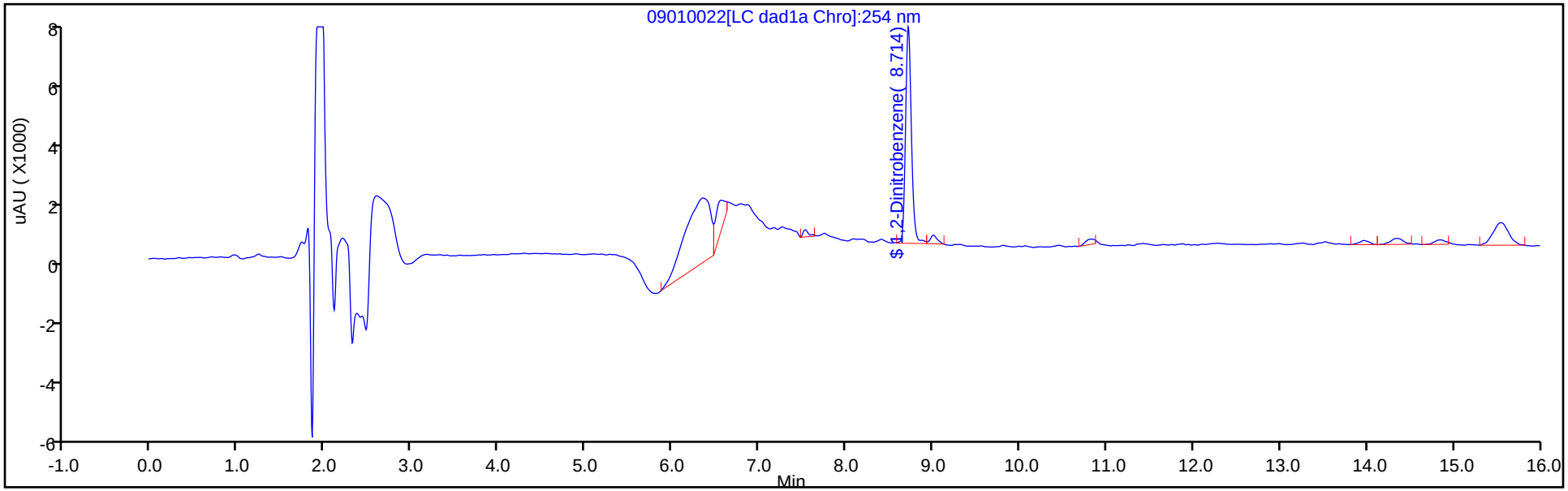
U - Marked Undetected

Report Date: 02-Sep-2020 14:00:44 Chrom Revision: 2.3 20-Aug-2020 13:57:12

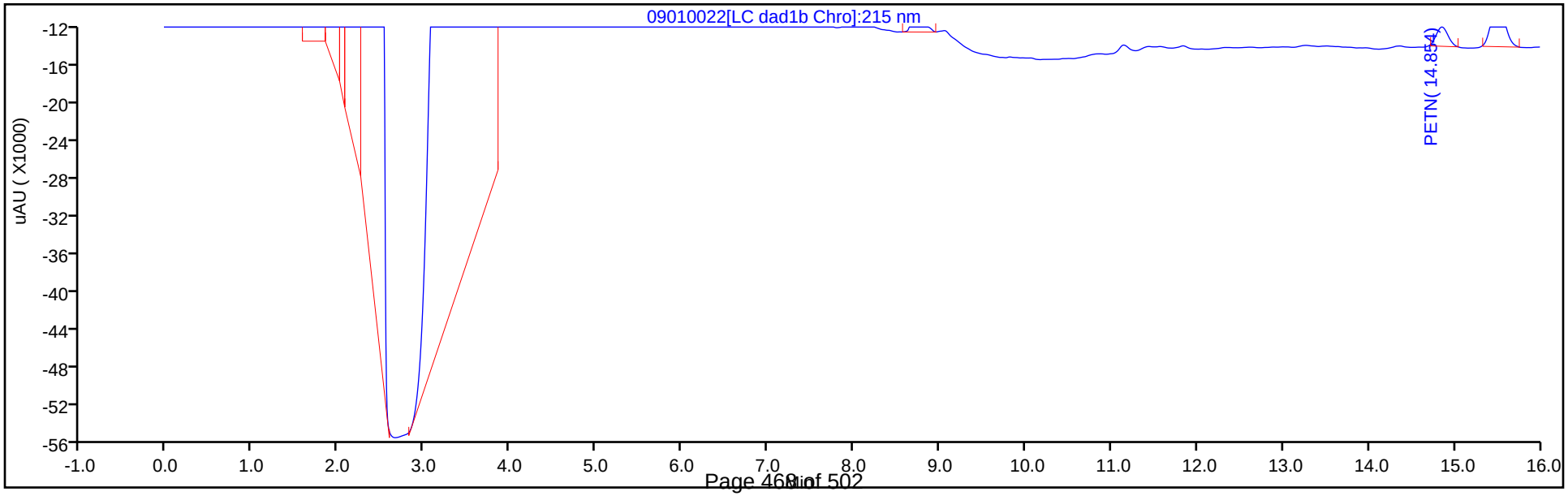
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010022.d | | | | |
| Injection Date: | 01-Sep-2020 21:51:07 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | MB 280-507292/1-A | | | Worklist Smp#: | 22 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| 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\20200901-94633.b\09010022.D | | | | |
| Lims ID: | MB 280-507292/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 01-Sep-2020 21:51:07 | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-507292/1- | | | | |
| Misc. Info.: | 280-0094633-022 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:45:25

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2242 | 112.11 |

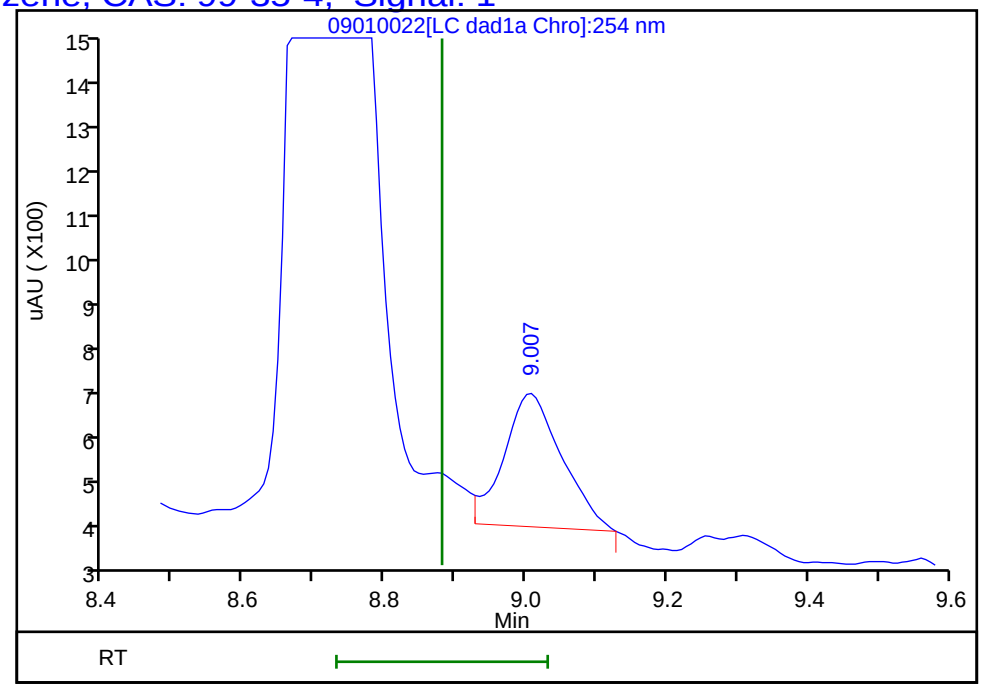
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010022.d | | | | |
| Injection Date: | 01-Sep-2020 21:51:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | MB 280-507292/1-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 22 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 10 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 9.01
Response: 1506
Amount: 0.006539




Reviewer: zhangji, 02-Sep-2020 13:45:25
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.: 280-139906-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-507292/2-A
Matrix: Water
Lab File ID: 09010023.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 500(mL)
Date Analyzed: 09/01/2020 22:14
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.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.35 | | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.19 | | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.22 | | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 2.08 | | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.27 | M | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 2.00 | M | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 1.77 | | 0.21 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 2.02 | | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.88 | | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 2.02 | | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 2.17 | | 0.21 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.99 | | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 2.01 | | 0.21 | 0.20 | 0.052 |
| 479-45-8 | Tetryl | 2.11 | | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 101 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010023.D
Lims ID: LCS 280-507292/2-A
Client ID:
Sample Type: LCS
Inject. Date: 01-Sep-2020 22:14:06 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-507292/2
Misc. Info.: 280-0094633-023
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:00:43 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 13:45:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.704 | 6.707 | -0.003 | 18686 | 0.2000 | 0.2174 | |
| 7 RDX | 1 | 7.771 | 7.754 | 0.017 | 23427 | 0.2000 | 0.2009 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.057 | 8.041 | 0.016 | 18240 | 0.2000 | 0.2143 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.731 | 8.701 | 0.030 | 27965 | 0.2000 | 0.2023 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.911 | 8.881 | 0.030 | 54149 | 0.2000 | 0.2351 | |
| 11 1,3-Dinitrobenzene | 1 | 9.557 | 9.520 | 0.037 | 67143 | 0.2000 | 0.2189 | |
| 12 Nitrobenzene | 1 | 9.931 | 9.887 | 0.044 | 39819 | 0.2000 | 0.1987 | |
| 14 Tetryl | 1 | 10.244 | 10.187 | 0.057 | 37440 | 0.2000 | 0.2115 | |
| 15 Nitroglycerin | 2 | 10.751 | 10.694 | 0.057 | 153504 | 2.00 | 2.25 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.211 | 11.154 | 0.057 | 45301 | 0.2000 | 0.2220 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.384 | 11.314 | 0.070 | 32456 | 0.2000 | 0.1885 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.671 | 11.600 | 0.071 | 40553 | 0.2000 | 0.1999 | a |
| 19 2,6-Dinitrotoluene | 1 | 11.811 | 11.734 | 0.077 | 33987 | 0.2000 | 0.2274 | a |
| 20 2,4-Dinitrotoluene | 1 | 12.011 | 11.940 | 0.071 | 63157 | 0.2000 | 0.2080 | |
| 21 o-Nitrotoluene | 1 | 12.831 | 12.754 | 0.077 | 23890 | 0.2000 | 0.1769 | |
| 22 p-Nitrotoluene | 1 | 13.264 | 13.187 | 0.077 | 22859 | 0.2000 | 0.2023 | |
| 23 m-Nitrotoluene | 1 | 13.857 | 13.767 | 0.090 | 28847 | 0.2000 | 0.2017 | |
| 24 PETN | 2 | 14.951 | 14.827 | 0.124 | 180783 | 2.00 | 2.30 | |

## QC Flag Legend

Review Flags

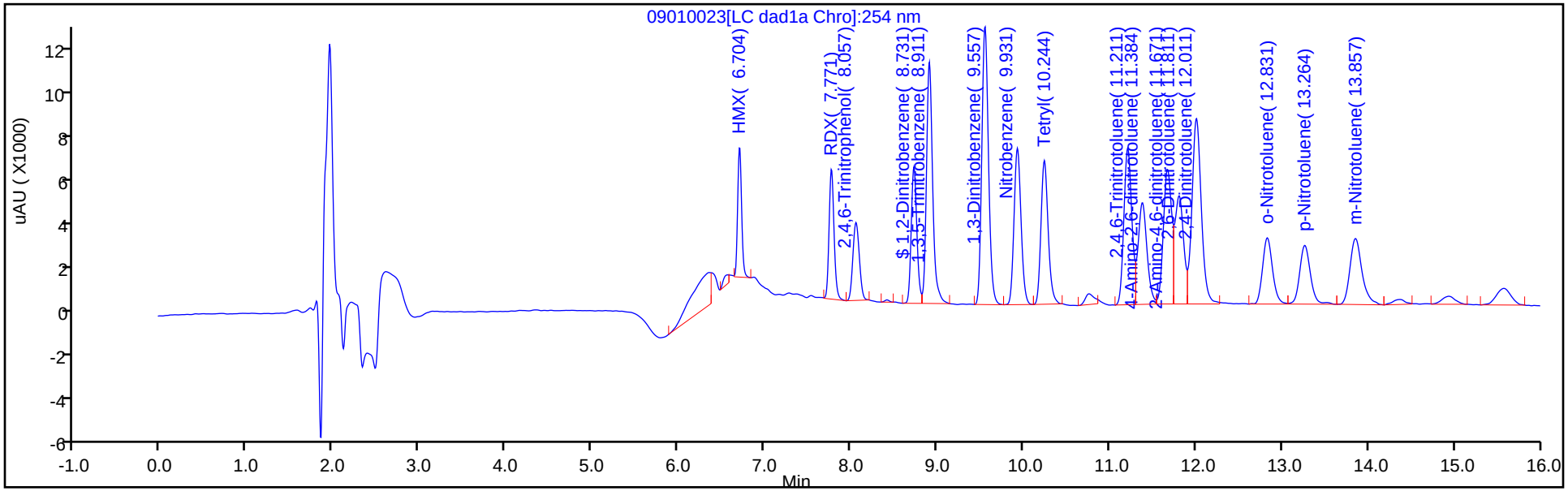
a - User Assigned ID

Report Date: 02-Sep-2020 14:00:45 Chrom Revision: 2.3 20-Aug-2020 13:57:12

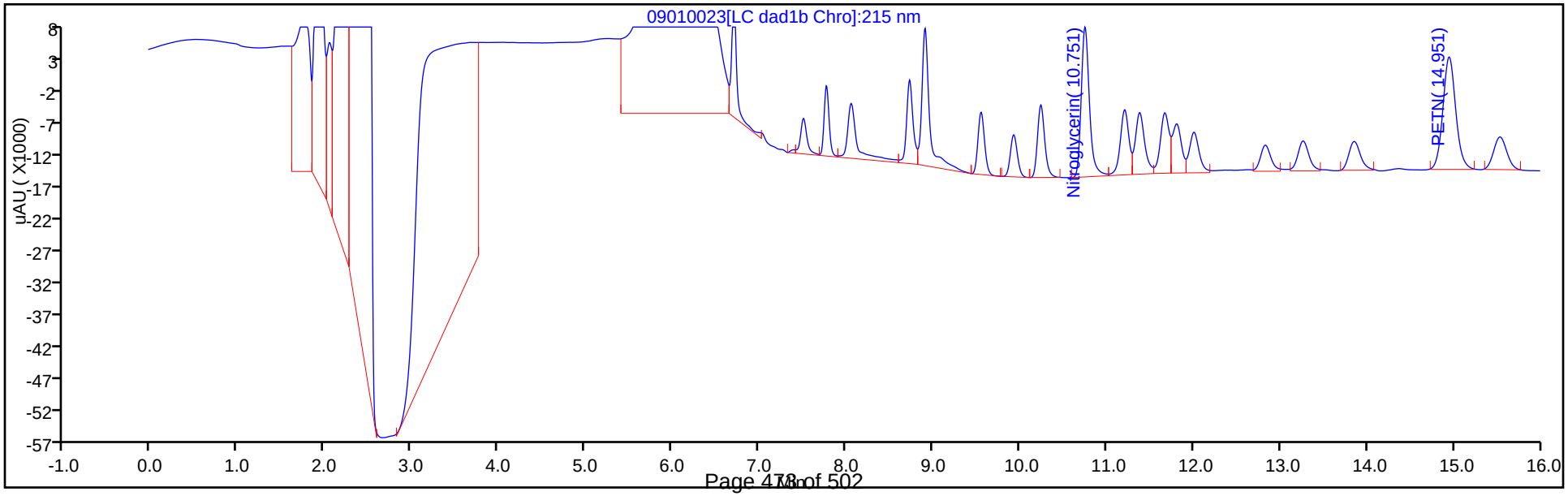
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010023.d | | | | |
| Injection Date: | 01-Sep-2020 22:14:06 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-507292/2-A | | | Worklist Smp#: | 23 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010023.D | | | | |
| Lims ID: | LCS 280-507292/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 01-Sep-2020 22:14:06 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-507292/2 | | | | |
| Misc. Info.: | 280-0094633-023 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:45:51

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2023 | 101.17 |

Eurofins TestAmerica, Denver

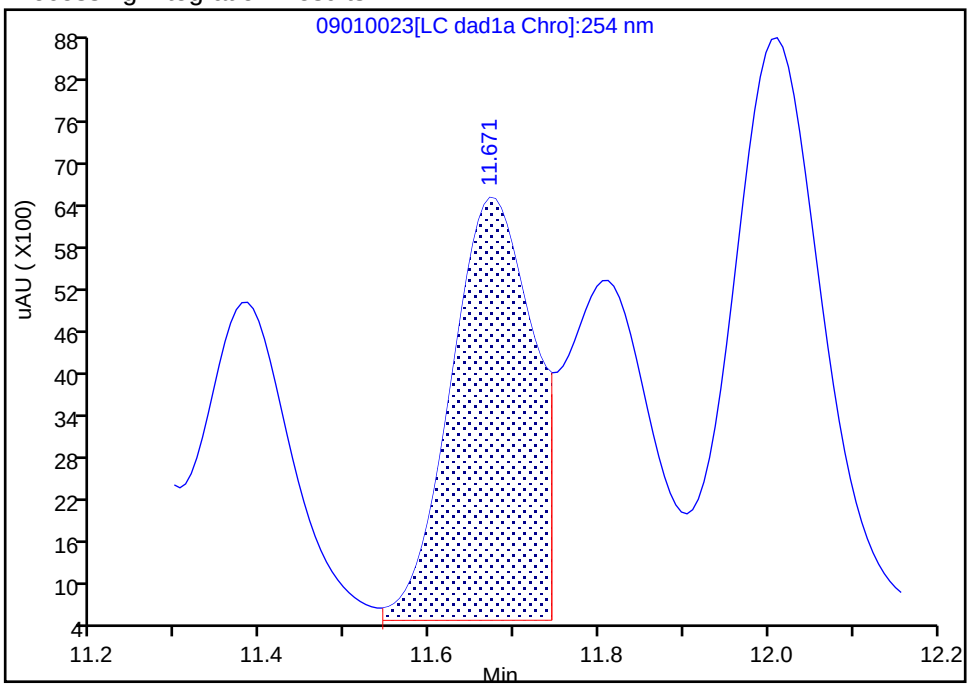
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010023.d | | | | |
| Injection Date: | 01-Sep-2020 22:14:06 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-507292/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

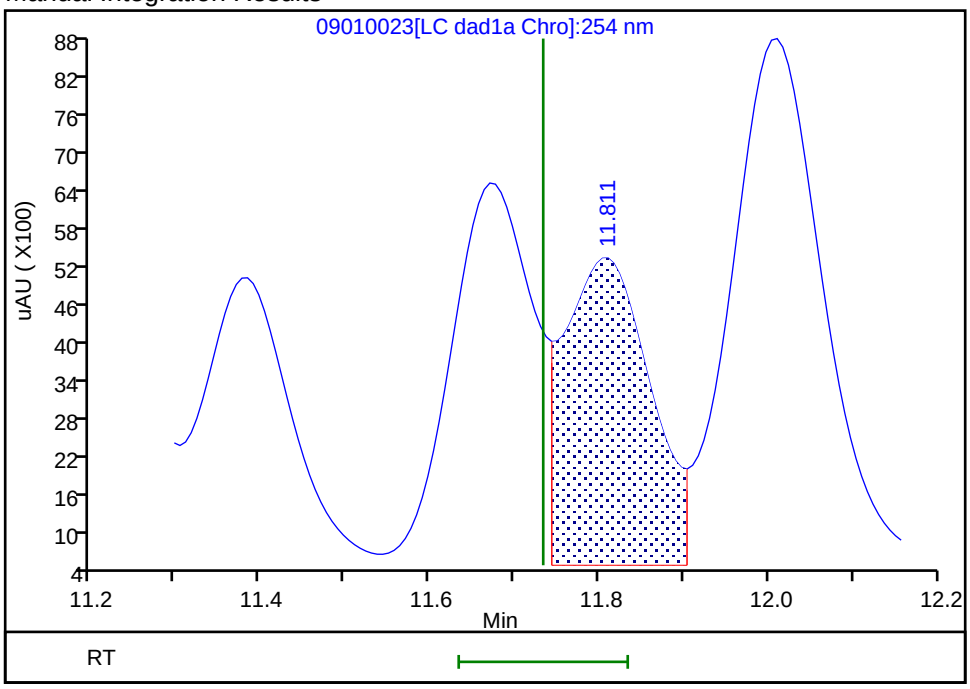
Processing Integration Results

RT: 11.67
Area: 40553
Amount: 0.271344
Amount Units: ug/mL




Manual Integration Results

RT: 11.81
Area: 33987
Amount: 0.227410
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:45:46
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

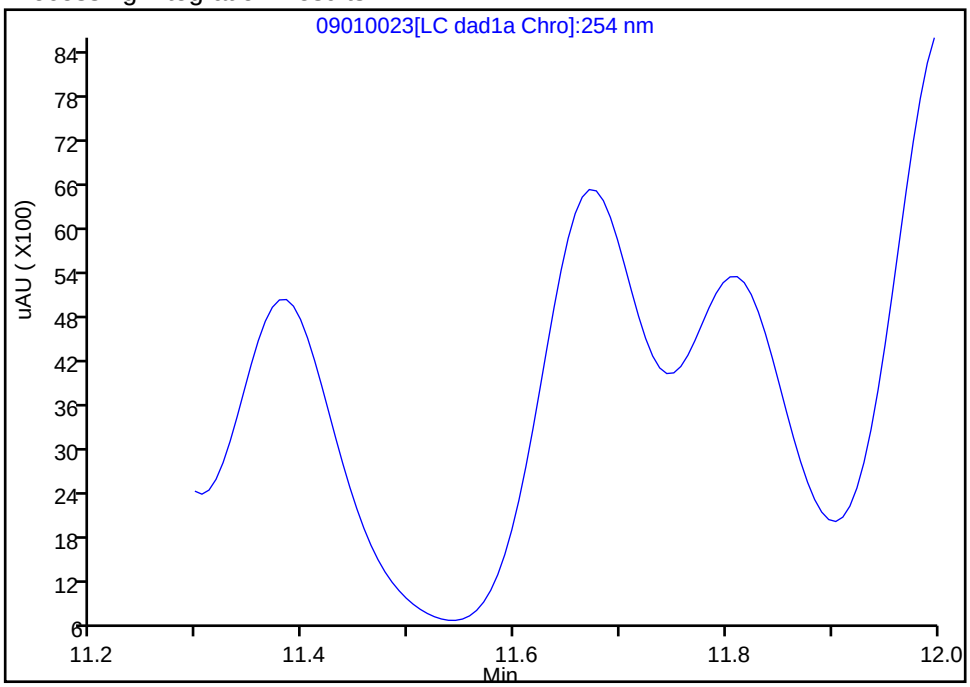
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010023.d | | | | |
| Injection Date: | 01-Sep-2020 22:14:06 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-507292/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

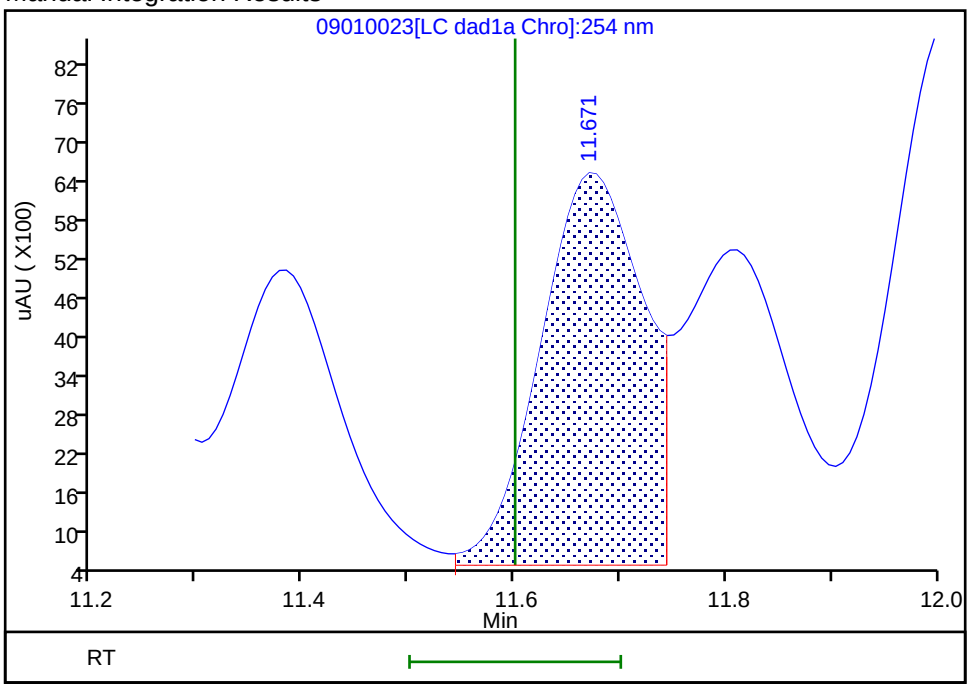
Not Detected
Expected RT: 11.60

Processing Integration Results




Manual Integration Results

RT: 11.67
Area: 40553
Amount: 0.199949
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:45:44
Audit Action: Assigned Compound ID Audit Reason:

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-507292/4-A
Matrix: Water
Lab File ID: 09010025.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 500(mL)
Date Analyzed: 09/01/2020 23:00
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.08 | | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010025.D | | | | |
| Lims ID: | LCS 280-507292/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 01-Sep-2020 23:00:04 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-507292/4 | | | | |
| Misc. Info.: | 280-0094633-025 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |
| First Level Reviewer: zhangji | | Date: | 02-Sep-2020 13:46:50 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.620 | 6.606 | 0.014 | 38480 | 0.2002 | 0.1768 | M |
| 5 DNX | 1 | 6.933 | 6.926 | 0.007 | 29802 | 0.2002 | 0.1949 | M |
| 6 MNX | 1 | 7.373 | 7.360 | 0.013 | 32905 | 0.2334 | 0.2075 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.720 | 8.701 | 0.019 | 27633 | 0.2000 | 0.1999 | |

## QC Flag Legend

Review Flags

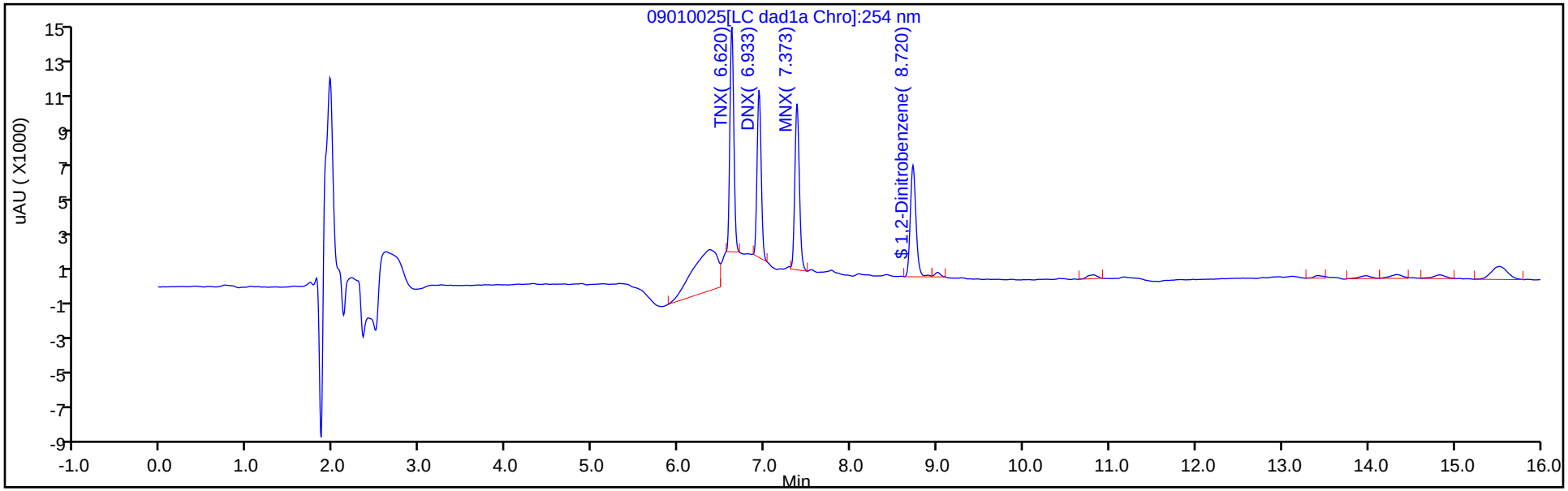
M - Manually Integrated

Report Date: 02-Sep-2020 14:00:46 Chrom Revision: 2.3 20-Aug-2020 13:57:12

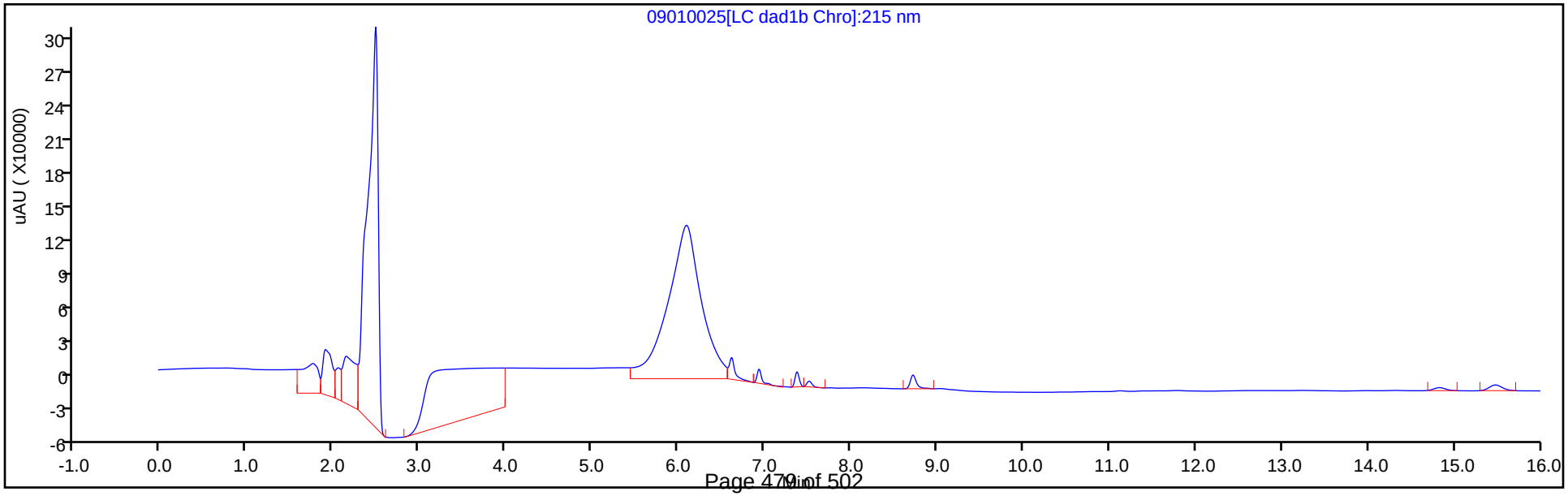
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010025.d | | | | |
| Injection Date: | 01-Sep-2020 23:00:04 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCS 280-507292/4-A | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010025.D | | | | |
| Lims ID: | LCS 280-507292/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 01-Sep-2020 23:00:04 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-507292/4 | | | | |
| Misc. Info.: | 280-0094633-025 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:46:50

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1999 | 99.97 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-507292/3-A
Matrix: Water
Lab File ID: 09010024.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 500(mL)
Date Analyzed: 09/01/2020 22:37
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 2.30 | | 0.21 | 0.20 | 0.084 |
| 99-65-0 | 1,3-Dinitrobenzene | 2.14 | | 0.11 | 0.10 | 0.037 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 2.18 | | 0.11 | 0.10 | 0.045 |
| 121-14-2 | 2,4-Dinitrotoluene | 2.03 | | 0.10 | 0.080 | 0.027 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.14 | M | 0.10 | 0.080 | 0.040 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.96 | M | 0.11 | 0.10 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 1.59 | | 0.21 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 1.78 | | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.82 | | 0.15 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 1.83 | | 0.41 | 0.40 | 0.10 |
| 2691-41-0 | HMX | 2.19 | | 0.21 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.86 | | 0.21 | 0.20 | 0.091 |
| 121-82-4 | RDX | 1.95 | | 0.21 | 0.20 | 0.052 |
| 479-45-8 | Tetryl | 2.06 | | 0.11 | 0.10 | 0.032 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 98 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010024.D
Lims ID: LCSD 280-507292/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 01-Sep-2020 22:37:03 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-507292/
Misc. Info.: 280-0094633-024
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 02-Sep-2020 14:00:43 Calib Date: 26-Jun-2020 01:16:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D

Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1039

First Level Reviewer: zhangji Date: 02-Sep-2020 13:46:20

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | 6.708 | 6.707 | 0.001 | 18794 | 0.2000 | 0.2186 | |
| | 7 RDX | 1 | 7.768 | 7.754 | 0.014 | 22781 | 0.2000 | 0.1954 | |
| | 8 2,4,6-Trinitrophenol | 1 | 8.055 | 8.041 | 0.014 | 17837 | 0.2000 | 0.2095 | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.728 | 8.701 | 0.027 | 27223 | 0.2000 | 0.1970 | |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.908 | 8.881 | 0.027 | 52872 | 0.2000 | 0.2296 | |
| | 11 1,3-Dinitrobenzene | 1 | 9.555 | 9.520 | 0.035 | 65573 | 0.2000 | 0.2138 | |
| | 12 Nitrobenzene | 1 | 9.928 | 9.887 | 0.041 | 37177 | 0.2000 | 0.1855 | |
| | 14 Tetryl | 1 | 10.241 | 10.187 | 0.054 | 36540 | 0.2000 | 0.2064 | |
| | 15 Nitroglycerin | 2 | 10.748 | 10.694 | 0.054 | 145115 | 2.00 | 2.13 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.215 | 11.154 | 0.061 | 44453 | 0.2000 | 0.2179 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.381 | 11.314 | 0.067 | 31295 | 0.2000 | 0.1820 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.675 | 11.600 | 0.075 | 39688 | 0.2000 | 0.1957 | a |
| | 19 2,6-Dinitrotoluene | 1 | 11.808 | 11.734 | 0.074 | 31980 | 0.2000 | 0.2140 | a |
| | 20 2,4-Dinitrotoluene | 1 | 12.008 | 11.940 | 0.068 | 61575 | 0.2000 | 0.2028 | |
| | 21 o-Nitrotoluene | 1 | 12.835 | 12.754 | 0.081 | 21504 | 0.2000 | 0.1592 | |
| | 22 p-Nitrotoluene | 1 | 13.268 | 13.187 | 0.081 | 20628 | 0.2000 | 0.1825 | |
| | 23 m-Nitrotoluene | 1 | 13.861 | 13.767 | 0.094 | 25433 | 0.2000 | 0.1778 | |
| | 24 PETN | 2 | 14.948 | 14.827 | 0.121 | 176301 | 2.00 | 2.24 | |

## QC Flag Legend

Review Flags

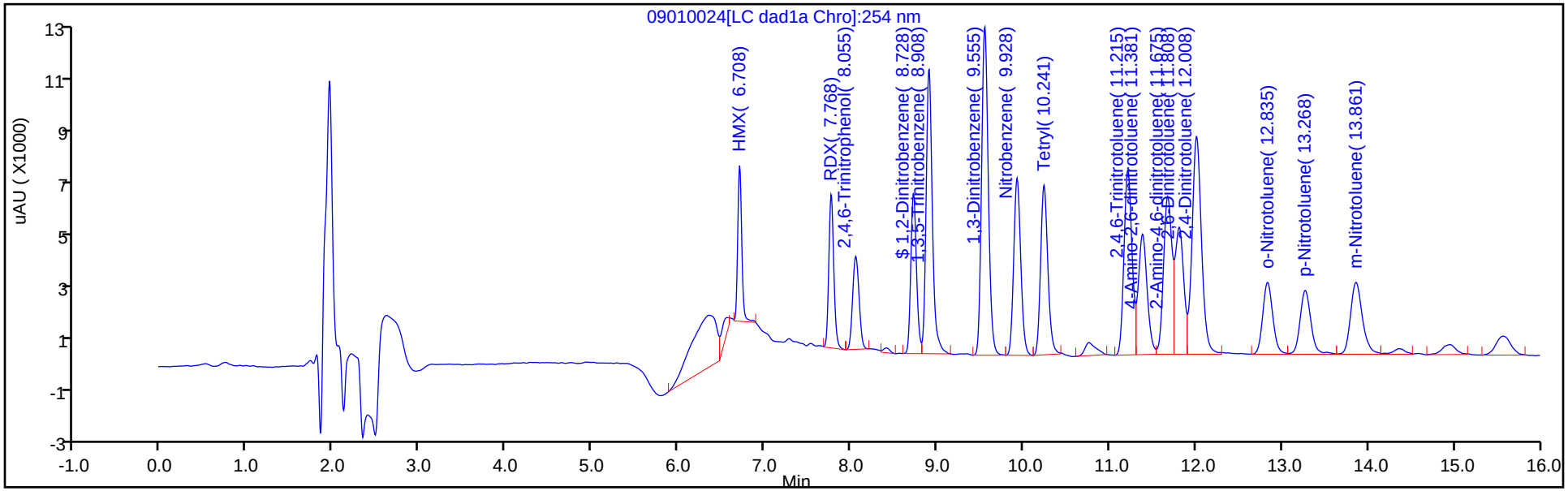
a - User Assigned ID

Report Date: 02-Sep-2020 14:00:45 Chrom Revision: 2.3 20-Aug-2020 13:57:12

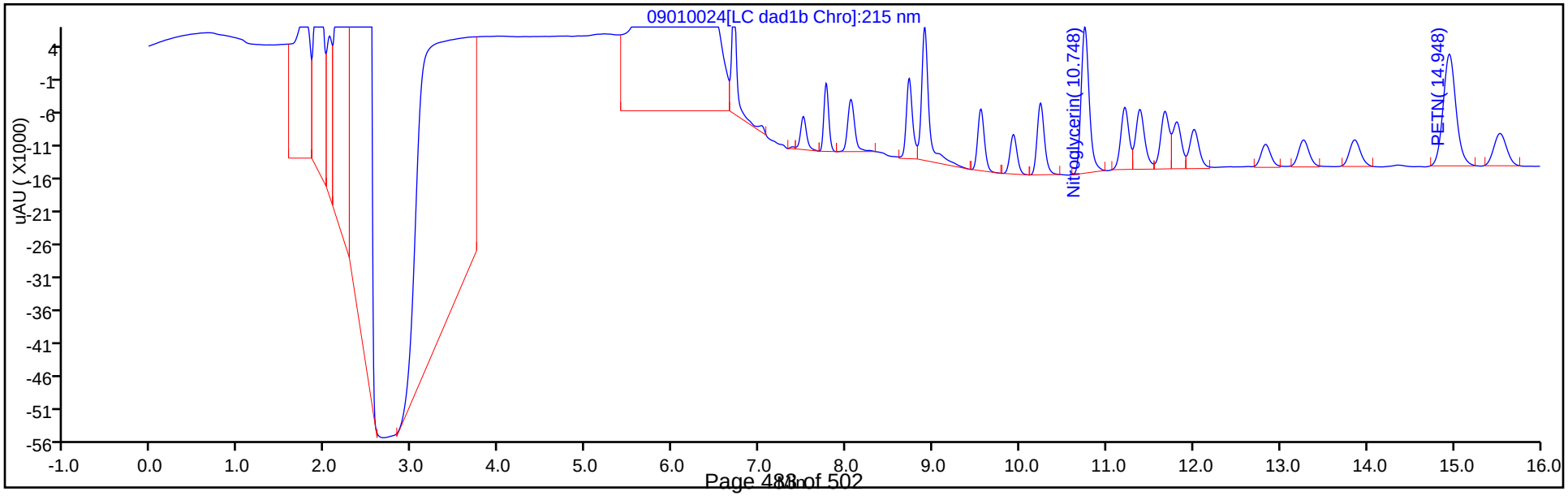
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010024.d | | | | |
| Injection Date: | 01-Sep-2020 22:37:03 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCSD 280-507292/3-A | | | Worklist Smp#: | 24 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010024.D | | | | |
| Lims ID: | LCSD 280-507292/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 01-Sep-2020 22:37:03 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-507292/ | | | | |
| Misc. Info.: | 280-0094633-024 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:46:20

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1970 | 98.48 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

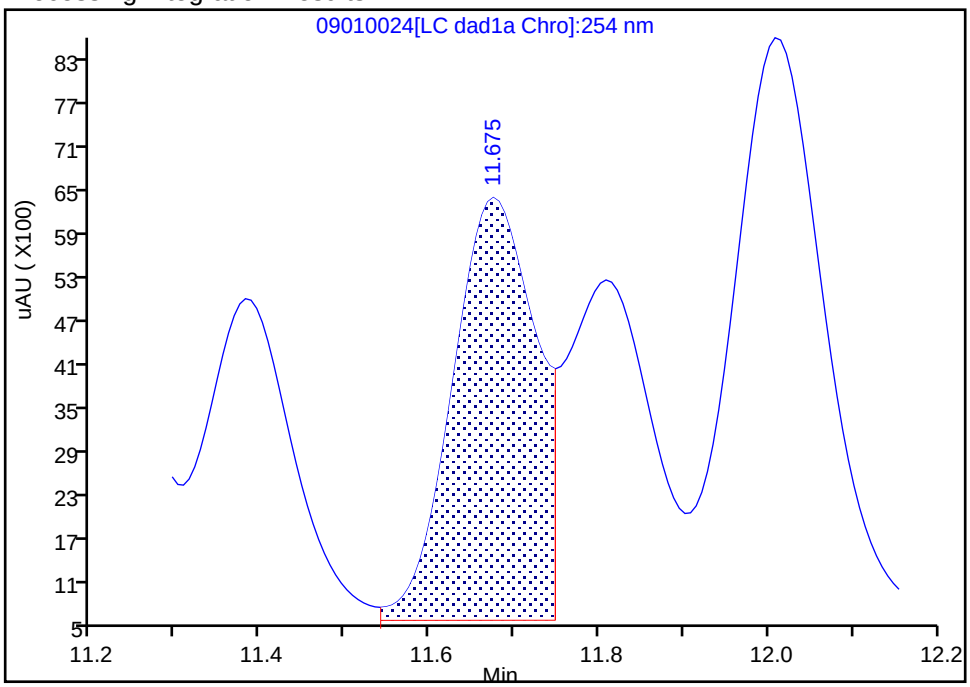
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010024.d | | | | |
| Injection Date: | 01-Sep-2020 22:37:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCSD 280-507292/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

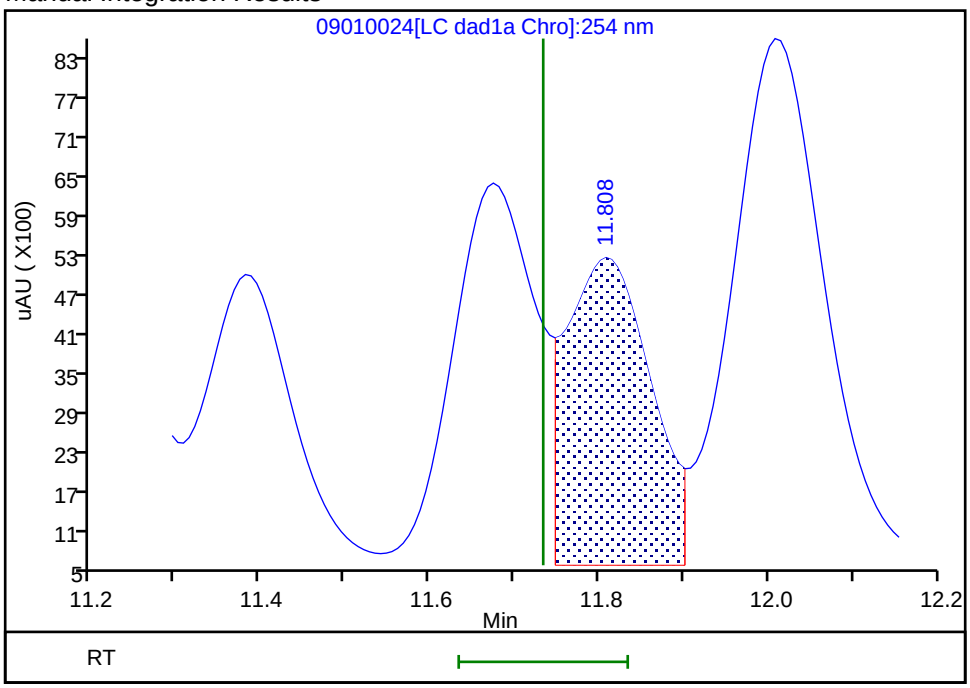
Processing Integration Results

RT: 11.67
Area: 39688
Amount: 0.265556
Amount Units: ug/mL




Manual Integration Results

RT: 11.81
Area: 31980
Amount: 0.213981
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:46:09
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

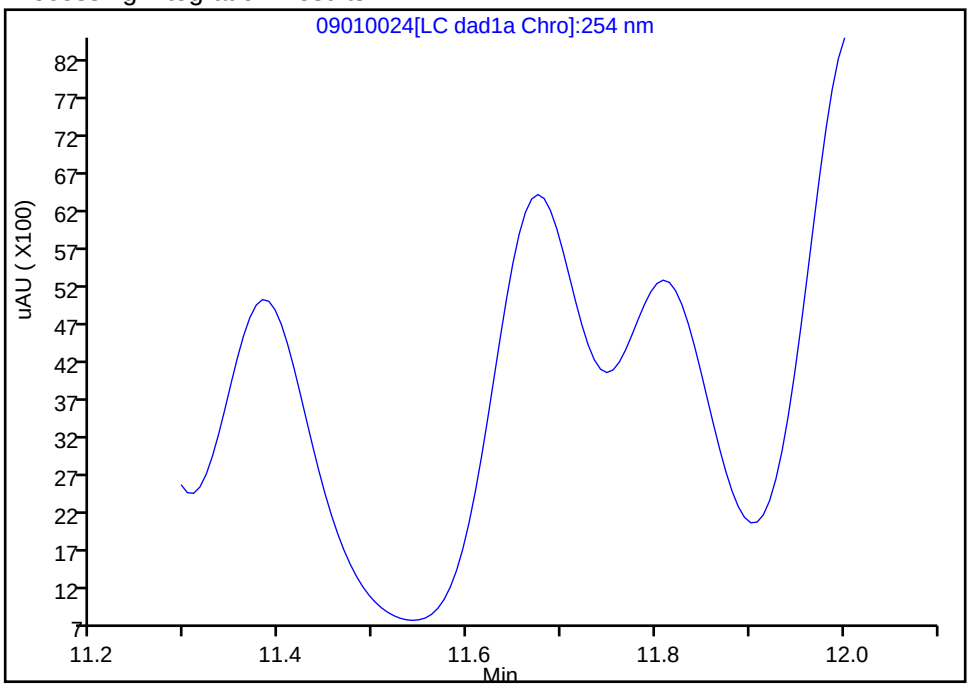
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010024.d | | | | |
| Injection Date: | 01-Sep-2020 22:37:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCSD 280-507292/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | JZ | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

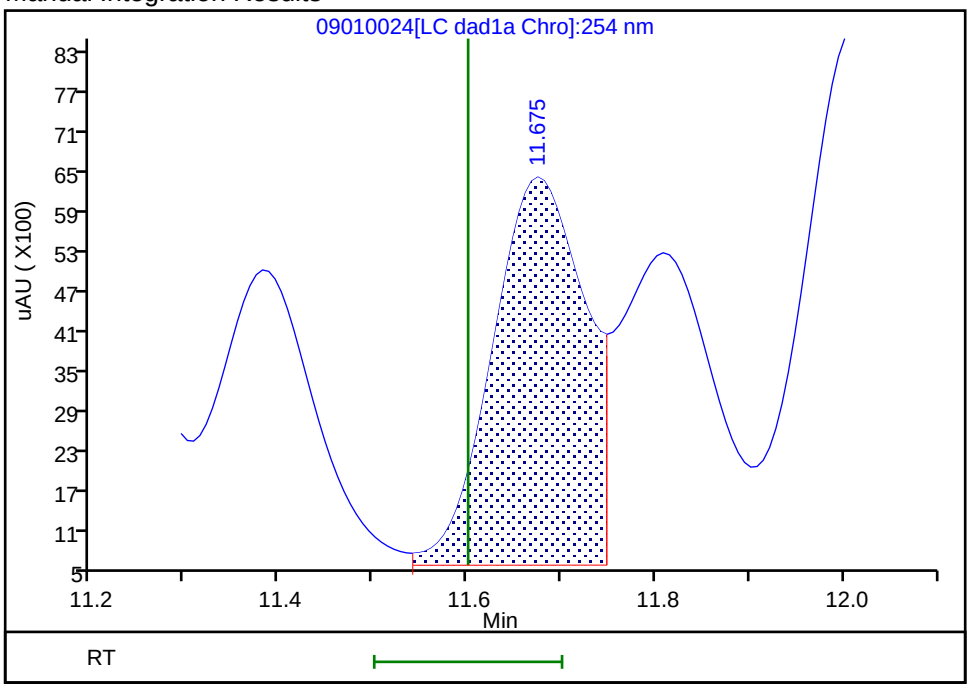
Not Detected
Expected RT: 11.60

Processing Integration Results




Manual Integration Results

RT: 11.67
Area: 39688
Amount: 0.195684
Amount Units: ug/mL




Reviewer: zhangji, 02-Sep-2020 13:46:05
Audit Action: Assigned Compound ID Audit Reason:

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-139906-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-507292/5-A
Matrix: Water
Lab File ID: 09010026.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 08/29/2020 15:45
Sample wt/vol: 500(mL)
Date Analyzed: 09/01/2020 23:23
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.: 507610
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.07 | | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 102 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010026.D | | | | |
| Lims ID: | LCSD 280-507292/5-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 01-Sep-2020 23:23:00 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-507292/ | | | | |
| Misc. Info.: | 280-0094633-026 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |
| First Level Reviewer: zhangji | | Date: | 02-Sep-2020 13:47:41 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.611 | 6.606 | 0.005 | 37689 | 0.2002 | 0.1732 | M |
| 5 DNX | 1 | 6.925 | 6.926 | -0.001 | 29250 | 0.2002 | 0.1913 | M |
| 6 MNX | 1 | 7.371 | 7.360 | 0.011 | 32800 | 0.2334 | 0.2069 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.731 | 8.701 | 0.030 | 28327 | 0.2000 | 0.2050 | |

## QC Flag Legend

Review Flags

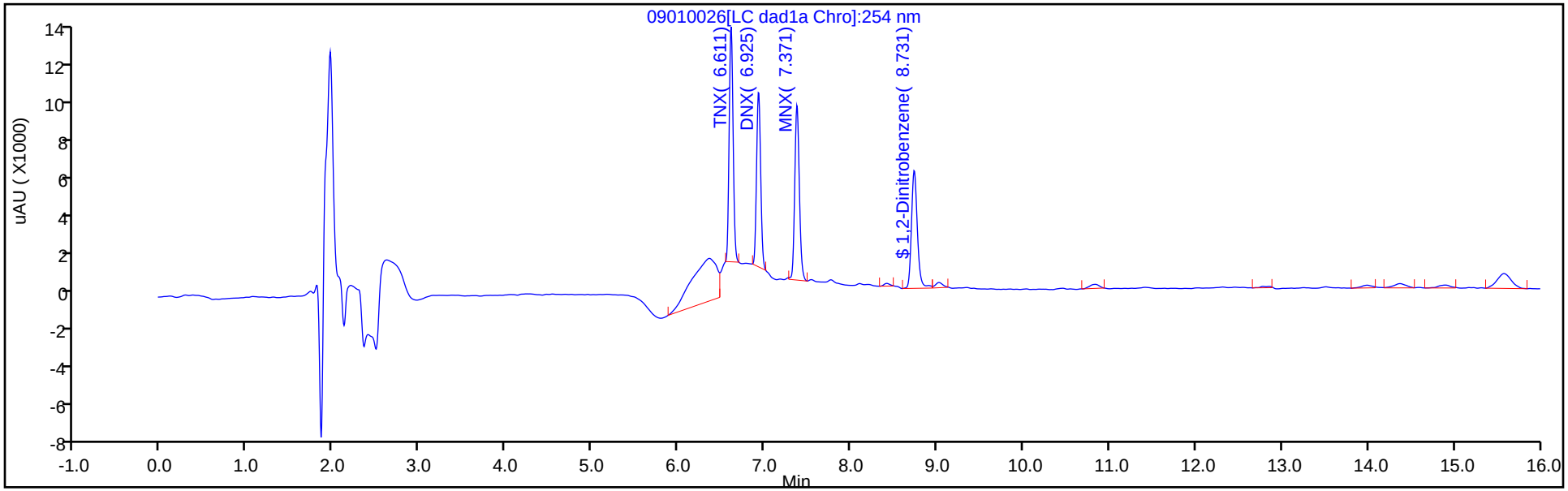
M - Manually Integrated

Report Date: 02-Sep-2020 14:00:46 Chrom Revision: 2.3 20-Aug-2020 13:57:12

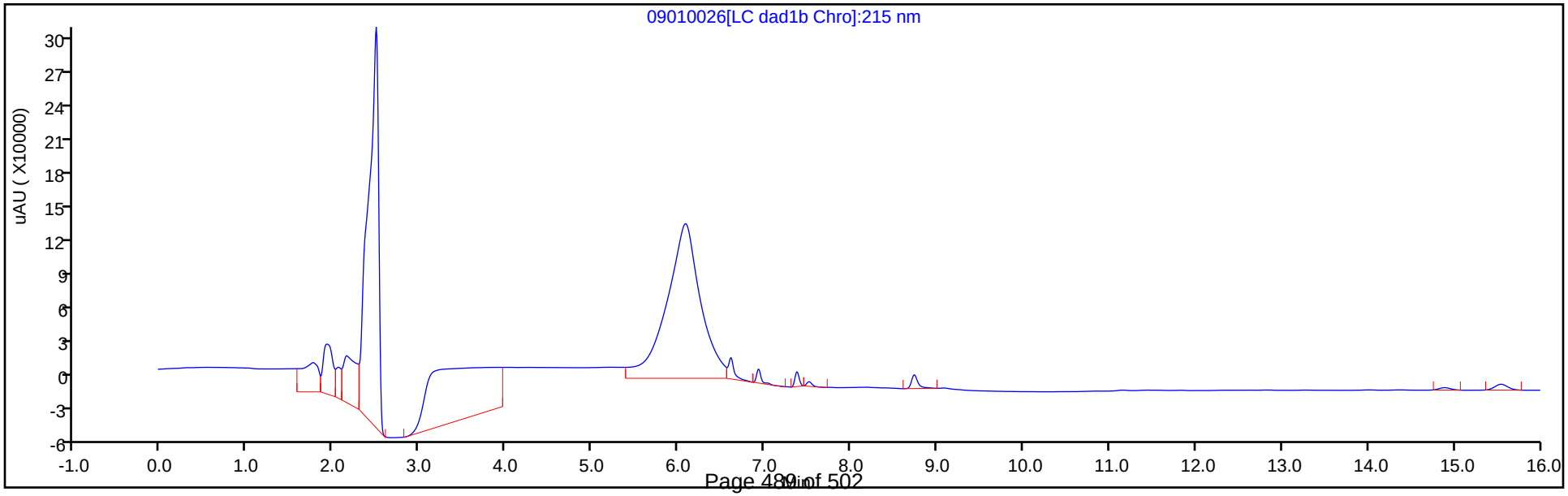
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\denver\chromdata\chhplc_x\20200901-94633.b\09010026.d | | | | |
| Injection Date: | 01-Sep-2020 23:23:00 | Instrument ID: | CHHPLC_X3 | Operator ID: | JZ |
| Lims ID: | LCSD 280-507292/5-A | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

Column: UltraCarb5uODS (20) ( 4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1




Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\09010026.D | | | | |
| Lims ID: | LCSD 280-507292/5-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 01-Sep-2020 23:23:00 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-507292/ | | | | |
| Misc. Info.: | 280-0094633-026 | | | | |
| Operator ID: | JZ | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromfs\Denver\ChromData\CHHPLC_X\20200901-94633.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 02-Sep-2020 14:00:43 | Calib Date: | 26-Jun-2020 01:16:48 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Denver\ChromData\CHHPLC_X\20200625-92750.b\06250013.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX1039 | | | | |

First Level Reviewer: zhangji Date: 02-Sep-2020 13:47:41

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2050 | 102.48 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/04/2020 14:07

Analysis Batch Number: 487658 End Date: 03/05/2020 00:03

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-487658/7 | | 03/04/2020 14:07 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/8 | | 03/04/2020 14:30 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/9 | | 03/04/2020 14:53 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/10 | | 03/04/2020 15:16 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/11 | | 03/04/2020 15:39 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/12 | | 03/04/2020 16:01 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/13 | | 03/04/2020 16:24 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/14 | | 03/04/2020 16:47 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/15 | | 03/04/2020 17:10 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/16 | | 03/04/2020 17:33 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/17 | | 03/04/2020 17:56 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/18 | | 03/04/2020 18:19 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/19 | | 03/04/2020 18:42 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/20 | | 03/04/2020 19:05 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/21 | | 03/04/2020 19:28 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/22 | | 03/04/2020 19:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/23 | | 03/04/2020 20:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/24 | | 03/04/2020 20:37 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/25 | | 03/04/2020 21:00 | 1 | 03040025.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/26 | | 03/04/2020 21:23 | 1 | 03040026.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/27 | | 03/04/2020 21:45 | 1 | 03040027.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/28 | | 03/04/2020 22:09 | 1 | 03040028.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/29 | | 03/04/2020 22:31 | 1 | 03040029.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/30 | | 03/04/2020 22:54 | 1 | 03040030.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/31 | | 03/04/2020 23:17 | 1 | 03040031.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/32 | | 03/04/2020 23:40 | 1 | 03040032.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/33 | | 03/05/2020 00:03 | 1 | 03040033.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/18/2020 11:35

Analysis Batch Number: 489145 End Date: 03/18/2020 15:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-489145/7 | | 03/18/2020 11:35 | 1 | 03180007.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/8 | | 03/18/2020 11:58 | 1 | 03180008.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/9 | | 03/18/2020 12:21 | 1 | 03180009.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/10 | | 03/18/2020 12:44 | 1 | 03180010.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/11 | | 03/18/2020 13:07 | 1 | 03180011.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/12 | | 03/18/2020 13:30 | 1 | 03180012.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/13 | | 03/18/2020 13:53 | 1 | 03180013.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/14 | | 03/18/2020 14:16 | 1 | 03180014.D | UltraCarb5uODS 4.6(mm) |
| IC 280-489145/15 | | 03/18/2020 14:39 | 1 | 03180015.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-489145/16 | | 03/18/2020 15:02 | 1 | 03180016.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-494886/7 | | 05/14/2020 16:16 | 1 | 05140007.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/8 | | 05/14/2020 16:51 | 1 | 05140008.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/9 | | 05/14/2020 17:26 | 1 | 05140009.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/10 | | 05/14/2020 18:01 | 1 | 05140010.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/11 | | 05/14/2020 18:36 | 1 | 05140011.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/12 | | 05/14/2020 19:11 | 1 | 05140012.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/13 | | 05/14/2020 19:46 | 1 | 05140013.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/14 | | 05/14/2020 20:21 | 1 | 05140014.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/15 | | 05/14/2020 20:56 | 1 | 05140015.D | Luna-phenylhex 4.6(mm) |
| ICV 280-494886/16 | | 05/14/2020 21:31 | 1 | 05140016.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/17 | | 05/14/2020 22:06 | 1 | 05140017.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/18 | | 05/14/2020 22:41 | 1 | 05140018.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/19 | | 05/14/2020 23:16 | 1 | 05140019.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/20 | | 05/14/2020 23:51 | 1 | 05140020.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/21 | | 05/15/2020 00:26 | 1 | 05140021.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/22 | | 05/15/2020 01:01 | 1 | 05140022.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/23 | | 05/15/2020 01:36 | 1 | 05140023.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/24 | | 05/15/2020 02:11 | 1 | 05140024.D | Luna-phenylhex 4.6(mm) |
| IC 280-494886/25 | | 05/15/2020 02:46 | 1 | | Luna-phenylhex 4.6(mm) |
| ICV 280-494886/26 | | 05/15/2020 03:21 | 1 | 05140026.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 03:56 | 50 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 04:31 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 05:06 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/30 | | 05/15/2020 05:41 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/31 | | 05/15/2020 06:16 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 06:51 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 07:26 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 08:01 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 08:36 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 09:11 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 09:46 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 10:21 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 10:56 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 11:31 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 12:06 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/42 | | 05/15/2020 12:40 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/43 | | 05/15/2020 13:15 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 13:50 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 14:25 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 15:00 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 15:35 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 16:10 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 16:45 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 17:20 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 17:55 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 05/15/2020 18:30 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 05/15/2020 19:05 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/54 | | 05/15/2020 19:40 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-494886/55 | | 05/15/2020 20:15 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 09/01/2020 21:05

Analysis Batch Number: 507610 End Date: 09/02/2020 01:17

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-507610/20 | | 09/01/2020 21:05 | 1 | 09010020.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-507610/21 | | 09/01/2020 21:28 | 1 | 09010021.D | UltraCarb5uODS 4.6(mm) |
| MB 280-507292/1-A | | 09/01/2020 21:51 | 1 | 09010022.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-507292/2-A | | 09/01/2020 22:14 | 1 | 09010023.D | UltraCarb5uODS 4.6(mm) |
| LCSD 280-507292/3-A | | 09/01/2020 22:37 | 1 | 09010024.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-507292/4-A | | 09/01/2020 23:00 | 1 | 09010025.D | UltraCarb5uODS 4.6(mm) |
| LCSD 280-507292/5-A | | 09/01/2020 23:23 | 1 | 09010026.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 09/01/2020 23:46 | 1 | | UltraCarb5uODS 4.6(mm) |
| 280-139906-1 | WATERWC-LTM-AUG20 | 09/02/2020 00:09 | 1 | 09010028.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 09/02/2020 00:31 | 200 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-507610/30 | | 09/02/2020 00:54 | 1 | 09010030.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-507610/31 | | 09/02/2020 01:17 | 1 | 09010031.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-139906-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 09/01/2020 21:47

Analysis Batch Number: 507615 End Date: 09/02/2020 04:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-507615/19 | | 09/01/2020 21:47 | 1 | 09010019.D | Luna-phenylhex 4.6(mm) |
| CCV 280-507615/20 | | 09/01/2020 22:22 | 1 | 09010020.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/01/2020 22:57 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/01/2020 23:32 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/02/2020 00:07 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/02/2020 00:42 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/02/2020 01:17 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-139906-1 | WATERWC-LTM-AUG20 | 09/02/2020 02:27 | 1 | 09010027.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 09/02/2020 03:02 | 200 | | Luna-phenylhex 4.6(mm) |
| CCV 280-507615/29 | | 09/02/2020 03:37 | 1 | 09010029.D | Luna-phenylhex 4.6(mm) |
| CCV 280-507615/30 | | 09/02/2020 04:12 | 1 | 09010030.D | Luna-phenylhex 4.6(mm) |

8330A

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Batch Number: 507292  Batch Start Date: 08/29/20 15:45  Batch Analyst: Appenzeller, Kayla S

Batch Method: 3535  Batch End Date: 08/29/20 19:06

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | 8330 LCS 00102 | 8330_OP_DMT 00009 |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-507292/1 | | 3535, 8330A | | | | 500 mL | 5 mL | | |
| LCS 280-507292/2 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCSD 280-507292/3 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCS 280-507292/4 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| LCSD 280-507292/5 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| 280-139906-A-1 | WATERWC-LTM-AUG20 | 3535, 8330A | T | 755.8 g | 286.6 g | 469.2 mL | 5 mL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00118 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-507292/1 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-507292/2 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCSD 280-507292/3 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-507292/4 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCSD 280-507292/5 | | 3535, 8330A | | 0.1 mL | | | | | |
| 280-139906-A-1 | WATERWC-LTM-AUG20 | 3535, 8330A | T | 0.1 mL | filtered | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-139906-1

SDG No.:

Batch Number: 507292  Batch Start Date: 08/29/20 15:45  Batch Analyst: Appenzeller, Kayla S

Batch Method: 3535  Batch End Date: 08/29/20 19:06

| Batch Notes | |
|---|---|
| Acid ID | CaCl2_Sol_00072 |
| Acid Name | CaCl2 |
| Balance ID | 24350888 |
| Batch Comment | DV-OP-0017 Mantle:A |
| First End time | 08/29/2020 18:47 |
| Manifold ID | A |
| Pipette/Syringe/Dispenser ID | Jiji, DOD, Soot |
| Rinse Solvent Lot | 0.1%AAinACN_00146 |
| Rinse Solvent Name | 0.1%AAinACN |
| Solvent Lot # | ACN_00236 |
| Solvent Name | Acetonitrile |
| SPE Cartridge Lot ID | 005130024A |
| SPE Cartridge Type | Porapak RDX |
| Analyst ID - Spike Analyst | KA |
| Analyst ID - Spike Witness Analyst | Reviewer:JZ |
| First Start time | 08/29/2020 16:03 |

| 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.

# 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~~ 2020

AECOM Project Number: 60565355

Project Location: Grand Island, Nebraska

AECOM Project Manager: Dean Converse

Sampler(s): RH, DC

Bill to: Brice Engineering

| Sample Date | Sample Time | Type Comp. | Type Grab | Sample Identification | Matrix | Containers No. | Containers Type | Explosives-MNX (8330A) | TKN (351.2), $NH_3$ (350.1), $NO_2$-$NO_3$ (353.2) | $SO_4$ (9056A), Alkalinity (2320B) | Sulfide (9034) | DOC (9060A)* | Methane (RSK 175) | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8-27-20 | 1100 | | X | Water WC-LTM-Aug20 | $H_2O$ | 2 | A | X | | | | | | | 6°C |

Analytical Parameters

Remarks: standard TAT

280-139906 Chain of Custody

| Signatures | Date | Time |
|---|---|---|
| Relinquished by: | 8/27/20 | 1100 |
| Received by: ETA-Dem | 8/28/20 | 0930 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details

Method of Shipment: Federal Express

Airbill Number: See email

**Lab Address:**
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions

* Filter groundwater sample before analyzing for DOC

(A) (2) 500mL Ambers (Explosives)
(B) (1) 500mL HDPE w/ $H_2SO_4$ (TKN, $NH_3$, $NO_2$/$NO_3$)
(C) (1) 250mL HDPE ($SO_4$, Alkalinity)
(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)
(E) (1) 250mL Amber (DOC)*
(F) (3) 40 mL VOA w/ HCl (Methane)

TAL/Brice Project #: 28017805

0.8 IR#11 -0.2 RP 8/28/20

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2019543

280-139906 Waybill

650

4 10:30 3405 08 28

(999) 999-9999
RECEIVER
TEST AMERICA
DENVER
4955 YARROW ST
ARVADA, CO 80002
UNITED STATES US

SHIP DATE: 27AUG20
ACTWGT: 26.00 LB
CAD: 6994183/SSFE2110
DIMS: 23x15x13 IN

BILL THIRD PARTY

SAMPLE RECEIVER
TEST AMERICA
DENVER
4955 YARROW ST
ARVADA CO 80002

(999) 999-9999 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0201 3962 4699 3405

FRI - 28 AUG 10:30A
PRIORITY OVERNIGHT
AHS
80002
CO-US DEN

XH LAAA

# Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-139906-1

**Login Number: 139906**
**List Number: 1**
**Creator: Pottruff, Reed W**

**List Source: Eurofins TestAmerica, Denver**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |