

Thursday, February 02, 2012

REQUEST NUMBER: 12-698

**LOS ALAMOS****NATIONAL LABORATORY**

ATTN: Mike Franks

Severn Trent Laboratories, Inc., St. Louis  
13715 Rider Trail N.  
Earth City, MO 63045

These Samples are on:

LANL Request Number:12-698

Per Agreement Number:63639-001-10

Project Cost Code: MR1A015AGWJ0

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/2/2012****TURNAROUND/REPORT DUE: 3/3/2012****TURNAROUND REQ'D: 30 Days****RAD SCREENING: Yes, Below Background****LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature: 

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|-------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8330 | 1     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 1     | CAAN-12-2199 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2199 | WG            | 2/1/2012     |                      |

Final Page of REQUEST NUMBER 12-698

Thursday, February 02, 2012

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 12-698C

LOS ALAMOS

REQUEST NUMBER: 12-698

NATIONAL LABORATORY

ATTN: Mike Franks

TURNAROUND/REPORT DUE: 3/3/2012

Severn Trent Laboratories, Inc., St. Louis

TURNAROUND REQ'D: 30

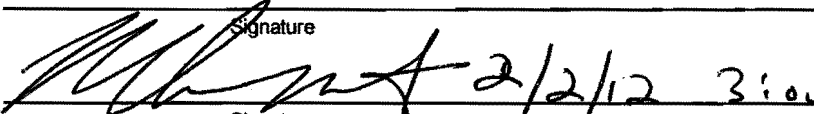
13715 Rider Trail N.

Earth City, MO 63045

LAB REQUEST COMMENTS:

| SAMPLE ID    | CTNR | CTNR DESC   | ORDER      | PRESERV | MATRIX |
|--------------|------|-------------|------------|---------|--------|
| CAAN-12-2031 | 1    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2031 | 2    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2199 | 1    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2199 | 2    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |

Relinquished By:                      Date              Time                      Received By:                      Date              Time

Signature                      Signature  
 2/2/12 3:00  
Signature                      Signature

Signature                      Signature

Received for DISPOSAL By:      Date              Time                      Remarks: \_\_\_\_\_

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3734

EVENT NAME: Ancho, MDA AB Mon. Group Sampling Q2, January 2012, 2011  
Interim Plan rev. 1

SAMPLE ID: CAAN-12-2031

WORK ORDER:

| AS PLANNED                  |  | AS COLLECTED             |  | AS PLANNED                  |  | AS COLLECTED             |  |
|-----------------------------|--|--------------------------|--|-----------------------------|--|--------------------------|--|
| DATE COLLECTED(MM/DD/YYYY): |  | 2 / 1 / 2012             |  | MEDIA:                      |  | WGR                      |  |
| TIME COLLECTED (HH:MM)      |  | 1245                     |  | SUB-MEDIA:                  |  | UA                       |  |
| PRS ID: Ancho               |  | OK                       |  | SAMPLE TECH CODE:           |  | GSP                      |  |
| LOCATION ID: R-30           |  |                          |  | FIELD QC TYPE:              |  | NA                       |  |
| LOCATION TYPE: MON          |  |                          |  | FIELD PREP:                 |  | UF                       |  |
| PORT: SINGLE COMPLETION     |  |                          |  | SAMPLE USAGE:               |  | INV                      |  |
|                             |  |                          |  | SCREEN/PORT DESC:           |  |                          |  |
| FIELD MATRIX: WG            |  |                          |  | EXCAVATED: YES/NO/NA        |  | NA                       |  |
| COMPOSITE TYPE: NA          |  |                          |  | COMPOSITE TIME INTERVAL: NA |  | WATER FLOWING: YES/NO/NA |  |
| BOREHOLE: YES/NO/NA         |  | BOREHOLE DECLINATION: NA |  | BOREHOLE DIRECTION: NA      |  |                          |  |

| # | PRIORITY | ORDER               | CNTNR                    | PRESERVATIVE            | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|---------------------|--------------------------|-------------------------|---------------|----------------------|
| 2 | NA       | WSP-8260B-VOA       | 40 ML SEPTUM AMBER GLASS | Hydrochloric Acid (HCL) | Y             | NA                   |
| 3 |          | WSP-8270C-SVOA      | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 3 |          | WSP-8321A-NMED HEXP | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 1 |          | WSP-GrossA/B        | 1 LITER POLY             | None                    | Y             | NA                   |
| 2 |          | WSP-HEXMOD          | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 1 |          | WSP-LL-H-3          | 1 LITER POLY             | None                    | Y             | NA                   |
| 1 |          | WSP-RAD             | 1 GAL POLY               | Nitric Acid (HNO3)      | Y             | NA                   |
| 1 |          | WSP-TKN+TOC         | 500 ML AMBER GLASS       | Sulfuric Acid (H2SO4)   | Y             | NA                   |
| 1 |          | Re226+228           | 1 GAL POLY               | Nitric Acid (HNO3)      | NA 1/30/12    | NA                   |

SAMPLE DESC: NA

SAMPLE COMMENTS:

Deibel generator running ~50 away during sampling

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

| pH   | TC    | SC (mg/L) | DO (mg/L) | ORP (mV) | Q (gpm)  | Turb (NTU) |
|------|-------|-----------|-----------|----------|----------|------------|
| 7.97 | 22.25 | 117       | 7.98      | 176.6    | 4.25 gpm | 1.25       |

COLLECTED BY (PRINT) D Woody

REVIEWED BY (PRINT) W. Shaw

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|-----------------|-----------|-------------|-----------|
|                 |           |             |           |

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 3734

EVENT NAME: Ancho, MDA AB Mon. Group Sampling Q2, January 2012, 2011  
Interim Plan rev 1

|                        |                  |                               |                  |
|------------------------|------------------|-------------------------------|------------------|
| (Printed Name) J Woody | 02/01/12         | (Printed Name) Sheri Sherwood | 02/01/12         |
| (Signature) J Woody    | 1415             | (Signature) Sheri Sherwood    | 1415             |
| <b>RELINQUISHED BY</b> | <b>Date/Time</b> | <b>RECEIVED BY</b>            | <b>Date/Time</b> |
| (Printed Name)         |                  | (Printed Name)                |                  |
| (Signature)            |                  | (Signature)                   |                  |

3734

CAAN-12-2031

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3734

EVENT NAME: Ancho, MDA AB Mon. Group Sampling Q2, January 2012, 2011  
Interim Plan rev. 1

SAMPLE ID: CAAN-12-2199

WORK ORDER:

| AS PLANNED                  |                      | AS COLLECTED |  | AS PLANNED               |     | AS COLLECTED |    |
|-----------------------------|----------------------|--------------|--|--------------------------|-----|--------------|----|
| DATE COLLECTED(MM/DD/YYYY): |                      | 2/1/2012     |  | MEDIA:                   | WGR |              | OK |
| TIME COLLECTED (HH:MM)      |                      | 1245         |  | SUB-MEDIA:               | UA  |              |    |
| PRS ID:                     | Ancho                | OK           |  | SAMPLE TECH CODE:        | GSP |              |    |
| LOCATION ID:                | R-30                 |              |  | FIELD QC TYPE:           | ED  |              |    |
| LOCATION TYPE:              | MON                  |              |  | FIELD PREP:              | UF  |              |    |
| PORT:                       | SINGLE<br>COMPLETION |              |  | SAMPLE USAGE:            | QC  |              |    |
|                             |                      |              |  | SCREEN/PORT DESC:        |     |              |    |
| FIELD MATRIX:               | WG                   |              |  | EXCAVATED: YES/NO/NA     | NA  |              |    |
| COMPOSITE TYPE:             | NA                   |              |  | COMPOSITE TIME INTERVAL: | NA  |              |    |
| BOREHOLE: YES/NO/NA         | NA                   |              |  | BOREHOLE DECLINATION:    | NA  |              |    |
|                             |                      |              |  | BOREHOLE DIRECTION:      | NA  |              |    |

| # | PRIORITY | ORDER               | CNTNR                    | PRESERVATIVE            | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|---------------------|--------------------------|-------------------------|---------------|----------------------|
| 2 | NA       | WSP-8260B-VOA       | 40 ML SEPTUM AMBER GLASS | Hydrochloric Acid (HCL) | Y             | NA                   |
| 1 | NA       | WSP-8270C-SVOA      | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 1 | NA       | WSP-8321A-NMED HEXP | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 1 | NA       | WSP-GrossA/B        | 1 LITER POLY             | None                    | Y             | NA                   |
| 2 | NA       | WSP-HEXMOD          | 1 LITER AMBER GLASS      | Ice                     | Y             | NA                   |
| 1 | NA       | WSP-LL-H-3          | 1 LITER POLY             | None                    | Y             | NA                   |
| 1 | NA       | WSP-RAD             | 1 GAL POLY               | Nitric Acid (HNO3)      | Y             | NA                   |
| 1 | NA       | WSP-TKN+TOC         | 500 ML AMBER GLASS       | Sulfuric Acid (H2SO4)   | Y             | NA                   |

SAMPLE DESC: QC Sample of CAAN-12-2031

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT)

J. Romero

REVIEWED BY (PRINT)

W. Jha

RELINQUISHED BY

(Printed Name)

Date/Time

RECEIVED BY

(Printed Name)

Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 3734

EVENT NAME: Ancho, MDA AB Mon. Group Sampling Q2, January 2012, 2011  
Interim Plan rev. 1

|                             |                  |                                          |                  |
|-----------------------------|------------------|------------------------------------------|------------------|
| (Signature)                 |                  | (Signature)                              | ONS              |
| <b>RELINQUISHED BY</b>      | <b>Date/Time</b> | <b>RECEIVED BY</b>                       | <b>Date/Time</b> |
| (Printed Name) D. Woody     | 02/01/12         | (Printed Name) <del>Shari Sherwood</del> | 12/01/12         |
| (Signature) <i>D. Woody</i> | 1415             | (Signature) <i>Shari Sherwood</i>        | 1415             |

3734

CAAN-12-219 9

**DATA VALIDATION COVER SHEET****5117-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 12-698 VALIDATION DATE: 3/8/12 LAB CODE: STSLCONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. LouisVALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |                                            |                                                     |                                                 |                                                               |
|--------------------------------------------|-----------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> TPH-GRO           | <input checked="" type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES                  |
| <input type="checkbox"/> TPH-DRO           | <input type="checkbox"/> METALS                     | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE                       |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY             | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
- ☐ OTHER (DESCRIBE): \_\_\_\_\_

**Section II. Completeness Check**

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

- The surrogate %R was < the laboratory LAL but  $\geq 10\%$  in the LCS. This was a QC sample and, thus, no sample data were qualified as a result.
- The MS/MSD RPD did not meet laboratory acceptance criteria for MNX. It should be noted that the MS and MSD parent sample was from another LANL RN. Since MS/MSD analyses were not required for this method, no sample data were qualified.

Reviewed by: Eric T. MinkLevel: 1Date: 3/11/12

VALIDATOR'S SIGNATURE: \_\_\_\_\_

DATE: 3/8/12

# HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

## High Explosive (HE) Analytical Data Validation Checklist

Records Use only



| Yes                      | No                                  | N/A                                 |                                                                                                                                                                                           | Assign Qualifier Listed Below If Criterion = Yes |                  |
|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|
|                          |                                     |                                     |                                                                                                                                                                                           | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. The holding time was >1 and ≤2 times the applicable holding time requirement.                                                                                                          | UJ, H9                                           | J-, H9           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2. The holding time was >2 times the applicable holding time requirement.                                                                                                                 | R, H9a                                           | J-, H9a          |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.                                                                                       | R, H9b                                           | R, H9b           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.                                                                | UJ, R, H7                                        | J, H7            |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995. | UJ, H7a                                          | J, H7a           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.                                                  | UJ, H7c                                          | J, H7c           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 7. The ICV and/or CCV were not analyzed at the appropriate method frequency.                                                                                                              | UJ, H7d                                          | J, H7d           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.                                | R, H7f                                           | R, H7f           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 9. The sample result is ≤5 times the concentration of the related analyte in the method blank.                                                                                            | U, H4                                            | N/A              |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.                                                   | N/A                                              | J, H4a           |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.                                                      | U, H4d                                           | N/A              |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                                             | R, H4e                                           | R, H4e           |



**HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST****5117-2****High Explosive (HE) Analytical Data Validation Checklist**

Records Use only



| Yes   No   N/A<br>(Check One)       |                                     |                                     |                                                                                                                                                           | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|-------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|
|                                     |                                     |                                     |                                                                                                                                                           | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.                                              | R, H0                                               | J, H0               |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).   | N/A                                                 | J, H0a              |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.      | R, H0b                                              | R, H0b              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.                                             | R, H3                                               | J-, H3              |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.      | UJ, H3a                                             | J-, H3a             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.       | N/A                                                 | J+, H3b             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package. | UJ, H3c                                             | J, H3c              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                | R, H3d                                              | R, H3d              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.                                   | R, H12                                              | J-, H12             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.                    | UJ, H12a                                            | J-, H12a            |

# HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

## High Explosive (HE) Analytical Data Validation Checklist

Records Use only



| Yes No N/A                          |                                     |                                     |                                                                                                                                                                                                                                                                                                  | Assign Qualifier Listed Below If Criterion = Yes |                  |
|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|
| (Check One)                         |                                     |                                     |                                                                                                                                                                                                                                                                                                  | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.                                                                                                                                                                    | N/A                                              | J+, H12b         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                                                                                                                                                                | R, H12c                                          | R, H12c          |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 25. The analyte was not confirmed on a second dissimilar column.                                                                                                                                                                                                                                 | N/A                                              | R, H8            |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                                                                                                                                           | R, H8a                                           | R, H8a           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 27. Duplicate, dilution, or reanalysis.                                                                                                                                                                                                                                                          | UJ, H88                                          | J, H88           |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference. | UJ, R, H15                                       | R, H15           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.                                   | U, U_LAB                                         | J, J_LAB, NQ, NQ |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.                                                                                           | UJ, R, H19                                       | J, R, H19        |

## Los Alamos National Laboratory

Client Sample ID: CAAAN-12-2031

## HPLC

Lot-Sample #....: F2B030443-001    Work Order #....: MQLGV1AA    Matrix.....: WATER  
Date Sampled....: 02/01/12    Date Received...: 02/03/12  
Prep Date.....: 02/06/12    Analysis Date...: 02/14/12  
Prep Batch #....: 2037080    Analysis Time...: 02:31  
Dilution Factor: 1  
Method.....: SW846 8330/8330A

| PARAMETER | RESULT | REPORTING<br>LIMIT | UNITS |
|-----------|--------|--------------------|-------|
| DNX       | ND     | 0.50               | ug/L  |
| TNX       | ND     | 0.50               | ug/L  |
| MNX       | ND     | 0.50               | ug/L  |

| SURROGATE          | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|--------------------|---------------------|--------------------|
| 1,2-Dinitrobenzene | 91                  | (65 - 128)         |

LMF  
3/8/12

## Los Alamos National Laboratory

Client Sample ID: CAAAN-12-2199

## HPLC

Lot-Sample #...: F2B030443-002    Work Order #...: MQLGX1AA    Matrix.....: WATER  
 Date Sampled...: 02/01/12    Date Received...: 02/03/12  
 Prep Date.....: 02/06/12    Analysis Date...: 02/14/12  
 Prep Batch #...: 2037080    Analysis Time...: 03:06  
 Dilution Factor: 1  
 Method.....: SW846 8330/8330A

| PARAMETER | RESULT | REPORTING<br>LIMIT | UNITS |
|-----------|--------|--------------------|-------|
| DNX       | ND     | 0.50               | ug/L  |
| TNX       | ND     | 0.50               | ug/L  |
| MNX       | ND     | 0.50               | ug/L  |

| SURROGATE          | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|--------------------|---------------------|--------------------|
| 1,2-Dinitrobenzene | 90                  | (65 - 128)         |

 LMF  
 3/8/12

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 12-698C

**REQUEST NUMBER: 12-698**

TURNAROUND/REPORT DUE: 3/3/2012

TURNAROUND REQ'D: 30

Earth City, MO 63045

LAB REQUEST COMMENTS:

Thursday, February 02, 2012

REQUEST NUMBER: 12-698

**LOS ALAMOS**  
**NATIONAL LABORATORY**

ATTN: Mike Franks

Severn Trent Laboratories, Inc., St. Louis  
13715 Rider Trail N.  
Earth City, MO 63045

These Samples are on:

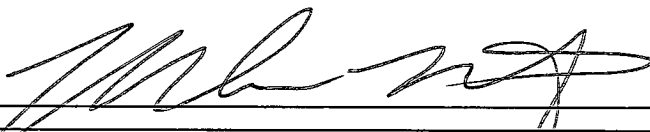
LANL Request Number:12-698  
Per Agreement Number:63639-001-10  
Project Cost Code: MR1A015AGWJ0

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/2/2012****TURNAROUND/REPORT DUE: 3/3/2012****TURNAROUND REQ'D: 30 Days****RAD SCREENING: Yes, Below Background****LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|-------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8330 | 1     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 1     | CAAN-12-2199 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2199 | WG            | 2/1/2012     |                      |

Final Page of REQUEST NUMBER 12-698



TestAmerica Laboratories, Inc.

## ANALYTICAL REPORT

PROJECT NO. 12-698

Groundwater

Lot #: F2B030443

Joylene Valdez or Keith Greene

Los Alamos National Laboratory

SMO TA-00 Bldg 1237

DP: 03U; MS: 707

Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Michael C. Franks" with a stylized "for" written below it.

Michael C. Franks  
Project Manager

February 21, 2012

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**Case Narrative**LOT NUMBER: **F2B030443**LANL Request Number: **12-698**

This report contains the analytical results for the two samples received under chain of custody number 12-698 by TestAmerica St. Louis on February 3, 2012. These samples are associated with your Groundwater project.

All applicable quality control procedures met method-specified acceptance criteria except as noted in the following case narrative.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances**Sample Receiving**

Samples were received at 5-6 °C. No problems were noted at the time of sample receipt.

**Explosives Method 8330**

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

**QC Batch: 2037080**

The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits. The LCS Surrogate recovery (82%) is outside the lower acceptance limit (83%). LCS spike recoveries are within QC limits demonstrating acceptable sample extraction and instrument performance.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F2B030441-002 (this request). The Matrix Spike and Matrix Spike Duplicate recoveries are within stated limits. The MS/MSD RPD value is not within method acceptance criteria for MNX. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix. The samples associated with this QC were not detected in the samples for this analyte. Surrogate is in control for both the MS and MSD.

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

**F2B030443****CLIENT ANALYSIS SUMMARY**

Storage Loc: **3-86**  
 Date Received: 2012-02-03  
 Analytical Due Date: 2012-02-24  
 Report Due Date: 2012-02-28  
 Report Type: D Expanded Deliverable  
 EDD Code: 99

Project Manager: MCF Quote #: 85724 SDG: F2B040443  
 Project: 12-698 Groundwater  
 PO#: 63639-001-10 Report to: Joylene Valdez or Keith  
 Client: 108581 Los Alamos National Laboratory

#SMPS in LOT: 2

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT, EXCEPT RAD \*\*\*\*\* METALS AND WETCHEMISTRY \*\*\*\*\* Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

| SAMPLE # | CLIENT SAMPLE ID | Site ID | Client Matrix | DATE/TIME SAMPLED | WORKORDER | I     |
|----------|------------------|---------|---------------|-------------------|-----------|-------|
| 1        | CAAN-12-2031     |         |               | 2012-02-01 / 0    | MQLGV     | WATER |

SAMPLE COMMENTS:

|    |    |                  |                                         |    |                            |    |                                  |         |            |    |
|----|----|------------------|-----------------------------------------|----|----------------------------|----|----------------------------------|---------|------------|----|
| XX | A0 | SW846 8330/8330A | WATER, 8330, WSP-HEXMOD<br>(MN/DNX/TNX) | 20 | EXTRACTION, SOLID<br>PHASE | 9Q | ORG FLAGS FOR INORG;<br>STANDARD | PROT: O | WRK<br>LOC | 06 |
|----|----|------------------|-----------------------------------------|----|----------------------------|----|----------------------------------|---------|------------|----|

| SAMPLE # | CLIENT SAMPLE ID | Site ID | Client Matrix | DATE/TIME SAMPLED | WORKORDER | I     |
|----------|------------------|---------|---------------|-------------------|-----------|-------|
| 2        | CAAN-12-2199     |         |               | 2012-02-01 / 0    | MQLGX     | WATER |

SAMPLE COMMENTS:

|    |    |                  |                                         |    |                            |    |                                  |         |            |    |
|----|----|------------------|-----------------------------------------|----|----------------------------|----|----------------------------------|---------|------------|----|
| XX | A0 | SW846 8330/8330A | WATER, 8330, WSP-HEXMOD<br>(MN/DNX/TNX) | 20 | EXTRACTION, SOLID<br>PHASE | 9Q | ORG FLAGS FOR INORG;<br>STANDARD | PROT: O | WRK<br>LOC | 06 |
|----|----|------------------|-----------------------------------------|----|----------------------------|----|----------------------------------|---------|------------|----|

CUR 214

Hard Copy Required

Thursday, February 02, 2012

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 12-698C

LOS ALAMOS

REQUEST NUMBER: 12-698

NATIONAL LABORATORY

ATTN: Mike Franks

TURNAROUND/REPORT DUE: 3/3/2012

Severn Trent Laboratories, Inc., St. Louis

TURNAROUND REQ'D: 30

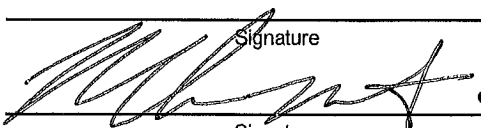
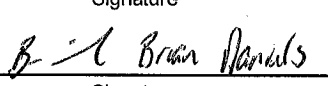
13715 Rider Trail N.

Earth City, MO 63045

LAB REQUEST COMMENTS:

| SAMPLE ID    | CTNR | CTNR DESC   | ORDER      | PRESERV | MATRIX |
|--------------|------|-------------|------------|---------|--------|
| CAAN-12-2031 | 1    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2031 | 2    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2199 | 1    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |
| CAAN-12-2199 | 2    | AMBER GLASS | WSP-HEXMOD | Ice     | WG     |

Relinquished By:                      Date              Time                      Received By:                      Date              Time

 Signature                      2/2/12              3:00                       Signature  
 Signature                      Signature

Signature                      Signature

Received for DISPOSAL By:    Date              Time                      Remarks: \_\_\_\_\_

Signature

Hard Copy Required

Page 1 of 1

Thursday, February 02, 2012

REQUEST NUMBER: 12-698

**LOS ALAMOS****NATIONAL LABORATORY**

ATTN: Mike Franks

Severn Trent Laboratories, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number: 12-698

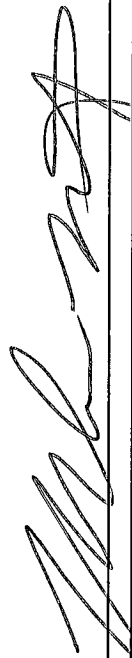
Per Agreement Number: 63639-001-10

Project Cost Code: MR1A015AGWJ0

Please analyse the enclosed samples  
according to the schedule indicated:**SHIP DATE: 2/2/2012****TURNAROUND/REPORT DUE: 3/3/2012****TURNAROUND REQ'D: 30 Days****RAD SCREENING: Yes, Below Background****LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|-------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8330 | 1     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2031 | WG            | 2/1/2012     |                      |
|          |             | 1     | CAAN-12-2199 | WG            | 2/1/2012     |                      |
|          |             | 2     | CAAN-12-2199 | WG            | 2/1/2012     |                      |

Final Page of REQUEST NUMBER 12-698

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F2B036434CUR Form #: 2 1 4**CONDITION UPON RECEIPT FORM**Client: LANLQuote No: 85789COC/RFA No: see belowInitiated By: BDDate: 2/3/12Time: 0920**Shipping Information**Shipper: FedEx UPS DHL Courier Client Other: \_\_\_\_\_Multiple Packages: (Y) N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7209 7856 3148

6. \_\_\_\_\_

1. 6

6. \_\_\_\_\_

2. 3137

7. \_\_\_\_\_

2. 6

7. \_\_\_\_\_

3. 3126

8. \_\_\_\_\_

3. 5

8. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

|                     |                                                                      |                      |                                                                             |
|---------------------|----------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------|
| 1. <u>(Y)</u> N     | Are there custody seals present on the cooler?                       | 8. <u>(Y)</u> N      | Are there custody seals present on bottles?                                 |
| 2. Y <u>(N)</u> N/A | Do custody seals on cooler appear to be tampered with?               | 9. Y <u>(N)</u> N/A  | Do custody seals on bottles appear to be tampered with?                     |
| 3. <u>(Y)</u> N     | Were contents of cooler frisked after opening, but before unpacking? | 10. <u>(Y)</u> N N/A | Was sample received with proper pH <sup>1</sup> ? (If not, make note below) |
| 4. <u>(Y)</u> N     | Sample received with Chain of Custody?                               | 11. Y N <u>(N/A)</u> | Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?   |
| 5. <u>(Y)</u> N N/A | Does the Chain of Custody match sample ID's on the container(s)?     | 12. <u>(Y)</u> N     | Sample received in proper containers?                                       |
| 6. <u>(Y)</u> N     | Was sample received broken?                                          | 13. Y N <u>(N/A)</u> | Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)    |
| 7. <u>(Y)</u> N     | Is sample volume sufficient for analysis?                            | 14. Y N <u>(N/A)</u> | Was Internal COC/Workshare received?                                        |

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.Notes: CAS 12-698C702CTA: 53Stadelmaier53-46. 114 for CAAV-12-2027 received broken**Corrective Action:**☐ Client Contact Name: \_\_\_\_\_☐ Sample(s) processed "as is" \_\_\_\_\_☐ Sample(s) on hold until: \_\_\_\_\_Project Management Review: CMS

Informed by: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Date: 02-07-12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\Slsrv01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

## METHODS SUMMARY

F2B030443

| PARAMETER                             | ANALYTICAL<br>METHOD | PREPARATION<br>METHOD |
|---------------------------------------|----------------------|-----------------------|
| Nitroaromatics and Nitramines by HPLC | SW846 8330/8330      | SW846 3535            |

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

## SAMPLE SUMMARY

**F2B030443**

| <u>WO #</u> | <u>SAMPLE#</u> | <u>CLIENT SAMPLE ID</u> | <u>SAMPLED</u><br><u>DATE</u> | <u>SAMP</u><br><u>TIME</u> |
|-------------|----------------|-------------------------|-------------------------------|----------------------------|
| MQLGV       | 001            | CAAN-12-2031            | 02/01/12                      |                            |
| MQLGX       | 002            | CAAN-12-2199            | 02/01/12                      |                            |

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**QC DATA ASSOCIATION SUMMARY****F2B030443**

Sample Preparation and Analysis Control Numbers

| <u>SAMPLE#</u> | <u>MATRIX</u> | <u>ANALYTICAL<br/>METHOD</u> | <u>LEACH<br/>BATCH #</u> | <u>PREP<br/>BATCH #</u> | <u>MS RUN#</u> |
|----------------|---------------|------------------------------|--------------------------|-------------------------|----------------|
| 001            | WATER         | SW846 8330/8330A             |                          | 2037080                 | 2037042        |
| 002            | WATER         | SW846 8330/8330A             |                          | 2037080                 | 2037042        |



## Los Alamos National Laboratory

Client Sample ID: CAAAN-12-2031

## HPLC

Lot-Sample #....: F2B030443-001    Work Order #....: MQLGV1AA    Matrix.....: WATER  
 Date Sampled....: 02/01/12    Date Received...: 02/03/12  
 Prep Date.....: 02/06/12    Analysis Date...: 02/14/12  
 Prep Batch #....: 2037080    Analysis Time...: 02:31  
 Dilution Factor: 1  
 Method.....: SW846 8330/8330A

| PARAMETER | RESULT | REPORTING<br>LIMIT | UNITS |
|-----------|--------|--------------------|-------|
| DNX       | ND     | 0.50               | ug/L  |
| TNX       | ND     | 0.50               | ug/L  |
| MNX       | ND     | 0.50               | ug/L  |

| SURROGATE          | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|--------------------|---------------------|--------------------|
| 1,2-Dinitrobenzene | 91                  | (65 - 128)         |

## Los Alamos National Laboratory

Client Sample ID: CAAAN-12-2199

## HPLC

Lot-Sample #...: F2B030443-002    Work Order #...: MQLGX1AA    Matrix.....: WATER  
 Date Sampled...: 02/01/12    Date Received...: 02/03/12  
 Prep Date.....: 02/06/12    Analysis Date...: 02/14/12  
 Prep Batch #...: 2037080    Analysis Time...: 03:06  
 Dilution Factor: 1  
 Method.....: SW846 8330/8330A

| PARAMETER          | RESULT   | REPORTING  |       |
|--------------------|----------|------------|-------|
|                    |          | LIMIT      | UNITS |
| DNX                | ND       | 0.50       | ug/L  |
| TNX                | ND       | 0.50       | ug/L  |
| MNX                | ND       | 0.50       | ug/L  |
|                    | PERCENT  | RECOVERY   |       |
| SURROGATE          | RECOVERY | LIMITS     |       |
| 1,2-Dinitrobenzene | 90       | (65 - 128) |       |

## METHOD BLANK REPORT

## HPLC

Client Lot #....: F2B030443      Work Order #....: MQMAV1AA      Matrix.....: WATER  
 MB Lot-Sample #: F2B060000-080      Prep Date.....: 02/06/12      Analysis Time...: 23:02  
 Analysis Date...: 02/13/12      Prep Batch #....: 2037080  
 Dilution Factor: 1

| <u>PARAMETER</u> | <u>RESULT</u> | <u>REPORTING</u> |              | <u>METHOD</u>    |
|------------------|---------------|------------------|--------------|------------------|
|                  |               | <u>LIMIT</u>     | <u>UNITS</u> |                  |
| MNX              | ND            | 0.50             | ug/L         | SW846 8330/8330A |
| DNX              | ND            | 0.50             | ug/L         | SW846 8330/8330A |
| TNX              | ND            | 0.50             | ug/L         | SW846 8330/8330A |

| <u>SURROGATE</u>   | <u>PERCENT</u><br><u>RECOVERY</u> | <u>RECOVERY</u><br><u>LIMITS</u> |
|--------------------|-----------------------------------|----------------------------------|
| 1,2-Dinitrobenzene | 89                                | (65 - 128)                       |

**NOTE(S) :**


---

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## HPLC

Client Lot #...: F2B030443      Work Order #...: MQMAV1AC      Matrix.....: WATER  
 LCS Lot-Sample#: F2B060000-080  
 Prep Date.....: 02/06/12      Analysis Date...: 02/13/12  
 Prep Batch #...: 2037080      Analysis Time...: 23:37  
 Dilution Factor: 1

| <u>PARAMETER</u> | <u>PERCENT<br/>RECOVERY</u> | <u>RECOVERY<br/>LIMITS</u> | <u>METHOD</u>           |
|------------------|-----------------------------|----------------------------|-------------------------|
| <b>TNX</b>       | <b>57</b>                   | <b>(46 - 110)</b>          | <b>SW846 8330/8330A</b> |
| <b>MNX</b>       | <b>73</b>                   | <b>(66 - 122)</b>          | <b>SW846 8330/8330A</b> |
| <b>DNX</b>       | <b>67</b>                   | <b>(55 - 116)</b>          | <b>SW846 8330/8330A</b> |

| <u>SURROGATE</u>   | <u>PERCENT<br/>RECOVERY</u> | <u>RECOVERY<br/>LIMITS</u> |
|--------------------|-----------------------------|----------------------------|
| 1,2-Dinitrobenzene | 82 *                        | (83 - 110)                 |

**NOTE(S) :**

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

Bold print denotes control parameters

\* Surrogate recovery is outside stated control limits.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## HPLC

Client Lot #...: F2B030443      Work Order #...: MQLGP1AC-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2B030441-002      MQLGP1AD-MSD  
 Date Sampled...: 02/01/12      Date Received...: 02/03/12  
 Prep Date.....: 02/06/12      Analysis Date...: 02/14/12  
 Prep Batch #...: 2037080      Analysis Time...: 01:21  
 Dilution Factor: 1

| PARAMETER  | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS | RPD       | RPD<br>LIMITS | METHOD                  |
|------------|---------------------|--------------------|-----------|---------------|-------------------------|
| <b>MNX</b> | <b>74</b>           | <b>(36 - 150)</b>  |           |               | <b>SW846 8330/8330A</b> |
|            | <b>91 p</b>         | <b>(36 - 150)</b>  | <b>21</b> | <b>(0-20)</b> | <b>SW846 8330/8330A</b> |
| <b>DNX</b> | <b>69</b>           | <b>(35 - 149)</b>  |           |               | <b>SW846 8330/8330A</b> |
|            | <b>83</b>           | <b>(35 - 149)</b>  | <b>18</b> | <b>(0-20)</b> | <b>SW846 8330/8330A</b> |
| <b>TNX</b> | <b>62</b>           | <b>(24 - 150)</b>  |           |               | <b>SW846 8330/8330A</b> |
|            | <b>75</b>           | <b>(24 - 150)</b>  | <b>19</b> | <b>(0-30)</b> | <b>SW846 8330/8330A</b> |

| SURROGATE          | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|--------------------|---------------------|--------------------|
| 1,2-Dinitrobenzene | 75                  | (65 - 128)         |
|                    | 90                  | (65 - 128)         |

**NOTE (S) :**

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

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

# **HPLC SAMPLE AND QC DATA**

**Form I (s)**

Explosives

## Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc.      SDG Number:F2B040443

Matrix: (soil/water) WATER      Lab Sample ID:F2B030441 002

Method: SW846 8330/8330A

Nitroaromatics &amp; Nitramines: Explosives (8330/A)

Sample WT/Vol: 500.5 / mL

Date Received: 02/03/12

Work Order: MQLGP1AA

Date Extracted:02/06/12

Dilution factor: 1

Date Analyzed: 02/14/12

Moisture %:NA

QC Batch: 2037080

Client Sample Id: INTRA-LAB QC

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.50                 | U |
| 80251-29-2 | DNX      | 0.50                 | U |
| 13980-04-6 | TNX      | 0.50                 | U |

| <u>SURROGATE RECOVERY</u> | <u>%</u> | <u>ACCEPTABLE LIMITS</u> |
|---------------------------|----------|--------------------------|
| 1,2-Dinitrobenzene        | 86       | (65 - 128 )              |

## Los Alamos National Laboratory

Lab Name: TestAmerica Laboratories, Inc.

SDG Number: F2B040443

Matrix: (soil/water) WATER

Lab Sample ID: F2B030443 001

Method: SW846 8330/8330A

Nitroaromatics &amp; Nitramines: Explosives (8330/A)

Sample WT/Vol: 501 / mL

Date Received: 02/03/12

Work Order: MQLGV1AA

Date Extracted: 02/06/12

Dilution factor: 1

Date Analyzed: 02/14/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: CAAN-12-2031

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.50                 | U |
| 80251-29-2 | DNX      | 0.50                 | U |
| 13980-04-6 | TNX      | 0.50                 | U |

SURROGATE RECOVERY%ACCEPTABLE LIMITS

1,2-Dinitrobenzene

91

(65 - 128 )



## Los Alamos National Laboratory

Lab Name: TestAmerica Laboratories, Inc.

SDG Number: F2B040443

Matrix: (soil/water) WATER

Lab Sample ID: F2B030443 002

Method: SW846 8330/8330A

Nitroaromatics &amp; Nitramines: Explosives (8330/A)

Sample WT/Vol: 501.9 / mL

Date Received: 02/03/12

Work Order: MQLGX1AA

Date Extracted: 02/06/12

Dilution factor: 1

Date Analyzed: 02/14/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: CAAN-12-2199

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.50                 | U |
| 80251-29-2 | DNX      | 0.50                 | U |
| 13980-04-6 | TNX      | 0.50                 | U |

SURROGATE RECOVERY%ACCEPTABLE LIMITS

1,2-Dinitrobenzene

90

(65 - 128 )

Los Alamos National Laboratory  
METHOD BLANK COMPOUNDS

Lab Name: TestAmerica Laboratories, Inc.      SDG Number: F2B040443

Matrix: (soil/water) WATER      Lab Sample ID: F2B060000 080

Method: SW846 8330/8330A

Nitroaromatics & Nitramines: Explosives (8330/A)

Sample WT/Vol: 500 / mL      Date Received: 02/03/12

Work Order: MQMAV1AA      Date Extracted: 02/06/12

Dilution factor: 1      Date Analyzed: 02/13/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: INTRA-LAB BLANK

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.50                 | U |
| 80251-29-2 | DNX      | 0.50                 | U |
| 13980-04-6 | TNX      | 0.50                 | U |

| <u>SURROGATE RECOVERY</u> | <u>%</u> | <u>ACCEPTABLE LIMITS</u> |
|---------------------------|----------|--------------------------|
| 1,2-Dinitrobenzene        | 89       | ( 65      - 128    )     |

Los Alamos National Laboratory  
CHECK SAMPLE COMPOUNDS

Lab Name: TestAmerica Laboratories, Inc.      SDG Number: F2B040443

Matrix: (soil/water) WATER      Lab Sample ID: F2B060000 080

Method: SW846 8330/8330A

Nitroaromatics & Nitramines: Explosives (8330/A)

Sample WT/Vol: 500 / mL      Date Received: 02/03/12

Work Order: MQMAV1AC      Date Extracted: 02/06/12

Dilution factor: 1      Date Analyzed: 02/13/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: CHECK SAMPLE

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.528                |   |
| 80251-29-2 | DNX      | 0.364                |   |
| 13980-04-6 | TNX      | 0.449                |   |

| <u>SURROGATE RECOVERY</u> | <u>%</u> | <u>ACCEPTABLE LIMITS</u> |
|---------------------------|----------|--------------------------|
| 1,2-Dinitrobenzene        | 82       | (83 - 110 )              |

Los Alamos National Laboratory  
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: TestAmerica Laboratories, Inc.      SDG Number: F2B040443

Matrix: (soil/water) WATER      Lab Sample ID: F2B030441 002

Method: SW846 8330/8330A

Nitroaromatics & Nitramines: Explosives (8330/A)

Sample WT/Vol: 500.5 / mL

Date Received: 02/03/12

Work Order: MQLGP1AD

Date Extracted: 02/06/12

Dilution factor: 1

Date Analyzed: 02/14/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: LAB MS/MSD

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.657                | p |
| 80251-29-2 | DNX      | 0.451                |   |
| 13980-04-6 | TNX      | 0.595                |   |

| <u>SURROGATE RECOVERY</u> | <u>%</u> | <u>ACCEPTABLE LIMITS</u> |
|---------------------------|----------|--------------------------|
| 1,2-Dinitrobenzene        | 90       | ( 65      -   128   )    |

Los Alamos National Laboratory  
MATRIX SPIKE COMPOUNDS

Lab Name: TestAmerica Laboratories, Inc.      SDG Number: F2B040443

Matrix: (soil/water) WATER      Lab Sample ID: F2B030441 002

Method: SW846 8330/8330A

Nitroaromatics & Nitramines: Explosives (8330/A)

Sample WT/Vol: 500.5 / mL      Date Received: 02/03/12

Work Order: MQLGP1AC      Date Extracted: 02/06/12

Dilution factor: 1      Date Analyzed: 02/14/12

Moisture %: NA

QC Batch: 2037080

Client Sample Id: LAB MS/MSD

|            |          | CONCENTRATION UNITS: |   |
|------------|----------|----------------------|---|
| CAS NO.    | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 5755-27-1  | MNX      | 0.533                |   |
| 80251-29-2 | DNX      | 0.377                |   |
| 13980-04-6 | TNX      | 0.491                |   |

| <u>SURROGATE RECOVERY</u> | <u>%</u> | <u>ACCEPTABLE LIMITS</u> |
|---------------------------|----------|--------------------------|
| 1,2-Dinitrobenzene        | 75       | ( 65      - 128    )     |

# **HPLC ADDITIONAL FORMS**

## SW846 8330/8330A SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc.

Client: Los Alamos National Laboratory

Lab Code: TALSTL

SDG No: F2B040443

Lot #: F2B030443

Extraction: XXI20A09Q

|    | CLIENT ID.           | SRG01 | TOT OUT |
|----|----------------------|-------|---------|
|    | =====                | ===== | =====   |
| 01 | INTRA-LAB QC         | 86    | 00      |
| 02 | CAAN-12-2031         | 91    | 00      |
| 03 | CAAN-12-2199         | 90    | 00      |
| 04 | METHOD BLK. MQMAV1AA | 89    | 00      |
| 05 | LCS MQMAV1AC         | 82 *  | 01      |
| 06 | LAB MS/MSD D         | 90    | 00      |
| 07 | LAB MS/MSD S         | 75    | 00      |

SURROGATES

SRG01 = 1,2-Dinitrobenzene

QC LIMITS

( 65-128)

- # Column to be used to flag recovery values  
 \* Values outside of required QC Limits  
 D System monitoring Compound diluted out

FORM II

## SW846 8330/8330A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc.

Client: Los Alamos National Laboratory

Lab Code: TALSTL

SDG No: F2B040443

Matrix Spike ID: LAB MS/MSD

Lot #: F2B030441

WO #: MQLGP1AC

BATCH: 2037080

| COMPOUND | SPIKE<br>ADDED<br>(ug/L ) | SAMPLE<br>CONCENT.<br>(ug/L ) | MS<br>CONCENT.<br>(ug/L ) | MS<br>%<br>REC | LIMITS<br>REC | QUAL  |
|----------|---------------------------|-------------------------------|---------------------------|----------------|---------------|-------|
| =====    | =====                     | =====                         | =====                     | =====          | =====         | ===== |
| DNX      | 0.545                     | ND                            | 0.377                     | 69             | 35- 149       |       |
| TNX      | 0.789                     | ND                            | 0.491                     | 62             | 24- 150       |       |
| MNX      | 0.719                     | ND                            | 0.533                     | 74             | 36- 150       |       |

## NOTES(S):

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: \_\_\_\_0\_\_\_\_ out of \_\_\_\_0\_\_\_\_ outside limits

Spike Recovery: \_\_\_\_0\_\_\_\_ out of \_\_\_\_3\_\_\_\_ outside limits

COMMENTS:



## SW846 8330/8330A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc.

Client: Los Alamos National Laboratory

Lab Code: TALSTL

SDG No: F2B040443

Matrix Spike ID: LAB MS/MSD

Lot #: F2B030441

WO #: MQLGP1AD

BATCH: 2037080

| COMPOUND | SPIKE<br>ADDED<br>(ug/L ) | MSD<br>CONCENT.<br>(ug/L ) | MSD<br>%<br>REC | %<br>RPD | QC LIMITS<br>RPD | REC | QUAL     |
|----------|---------------------------|----------------------------|-----------------|----------|------------------|-----|----------|
| MNX      | 0.719                     | 0.657                      | 91              | 21       | *                | 20  | 36 - 150 |
| DNX      | 0.545                     | 0.451                      | 83              | 18       | -                | 20  | 35 - 149 |
| TNX      | 0.789                     | 0.595                      | 75              | 19       | -                | 30  | 24 - 150 |

## NOTES(S) :

p Relative percent difference (RPD) is outside stated control limits.

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD:   1   out of   3   outside limitsSpike Recovery:   0   out of   3   outside limits

COMMENTS:

## SW846 8330/8330A CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc.

Client: Los Alamos National Laboratory

Lab Code: TALSTL

SDG No: F2B040443

Lot #: F2B060000

WO #: MQMAV1AC

BATCH: 2037080

| COMPOUND | SPIKE<br>ADDED<br>(ug/L ) | SAMPLE<br>CONCENT.<br>(ug/L ) | %<br>REC | QC<br>LIMITS<br>REC | QUAL  |
|----------|---------------------------|-------------------------------|----------|---------------------|-------|
| =====    | =====                     | =====                         | =====    | =====               | ===== |
| TNX      | 0.790                     | 0.449                         | 57       | 46 - 110            |       |
| MNX      | 0.720                     | 0.528                         | 73       | 66 - 122            |       |
| DNX      | 0.546                     | 0.364                         | 67       | 55 - 116            |       |

## NOTES(S):

\* Values outside of QC limits

Spike Recovery:   0   out of   3   outside limits

COMMENTS:

SW846 8330/8330A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

MQMAV1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F2B040443

Lab File ID: EBLK531.

Lot Number: F2B030443

Date Analyzed: 02/13/12

Time Analyzed: 23:02

Matrix: WATER

Date Extracted:02/06/12

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCE

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

|    | CLIENT ID.   | SAMPLE<br>WORK ORDER # | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|--------------|------------------------|----------------|------------------|------------------|
|    | =====        | =====                  | =====          | =====            | =====            |
| 01 | INTRA-LAB QC | MQLGP1AA               | ESMP534.       | 02/14/12         | 00:46            |
| 02 | LAB MS/MSD   | MQLGP1AC S             | ESMP535.       | 02/14/12         | 01:21            |
| 03 | LAB MS/MSD   | MQLGP1AD D             | ESMP536.       | 02/14/12         | 01:56            |
| 04 | CAAN-12-2031 | MQLGV1AA               | ESMP537.       | 02/14/12         | 02:31            |
| 05 | CAAN-12-2199 | MQLGX1AA               | ESMP538.       | 02/14/12         | 03:06            |
| 06 | CHECK SAMPLE | MQMAV1AC C             | ELCS532.       | 02/13/12         | 23:37            |
| 07 |              |                        |                |                  |                  |
| 08 |              |                        |                |                  |                  |
| 09 |              |                        |                |                  |                  |
| 10 |              |                        |                |                  |                  |
| 11 |              |                        |                |                  |                  |
| 12 |              |                        |                |                  |                  |
| 13 |              |                        |                |                  |                  |
| 14 |              |                        |                |                  |                  |
| 15 |              |                        |                |                  |                  |
| 16 |              |                        |                |                  |                  |
| 17 |              |                        |                |                  |                  |
| 18 |              |                        |                |                  |                  |
| 19 |              |                        |                |                  |                  |
| 20 |              |                        |                |                  |                  |
| 21 |              |                        |                |                  |                  |
| 22 |              |                        |                |                  |                  |
| 23 |              |                        |                |                  |                  |
| 24 |              |                        |                |                  |                  |
| 25 |              |                        |                |                  |                  |
| 26 |              |                        |                |                  |                  |
| 27 |              |                        |                |                  |                  |
| 28 |              |                        |                |                  |                  |
| 29 |              |                        |                |                  |                  |
| 30 |              |                        |                |                  |                  |

COMMENTS:

FORM 8  
8330 ANALYTICAL SEQUENCE

Lab Name: Contract: 108581

Lab Code: Case No.: SAS No.: SDG No.: F2B030443

GC Column: ALLURE C-18 ID: 4.60 (mm) Init. Calib. Date(s): 02/13/12 02/13/12

Instrument ID: LCE

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

| MEAN SURROGATE RT FROM INITIAL CALIBRATION<br>S1 : 8.09 |                      |                  |                  |                  |            |       |  |
|---------------------------------------------------------|----------------------|------------------|------------------|------------------|------------|-------|--|
|                                                         | CLIENT<br>SAMPLE NO. | LAB<br>SAMPLE ID | DATE<br>ANALYZED | TIME<br>ANALYZED | S1<br>RT # | RT #  |  |
|                                                         | =====                | =====            | =====            | =====            | =====      | ===== |  |
| 01                                                      | 8330 CCV             | 8330 CCV         | 02/13/12         | 2227             | 8.07       |       |  |
| 02                                                      | ZZZZZ                | ZZZZZ            | 02/13/12         | 2302             | 8.11       |       |  |
| 03                                                      | ZZZZZ                | ZZZZZ            | 02/13/12         | 2337             | 8.11       |       |  |
| 04                                                      | ZZZZZ                | ZZZZZ            | 02/14/12         | 0046             | 8.10       |       |  |
| 05                                                      | ZZZZZ                | ZZZZZ            | 02/14/12         | 0121             | 8.11       |       |  |
| 06                                                      | ZZZZZ                | ZZZZZ            | 02/14/12         | 0156             | 8.10       |       |  |
| 07                                                      | ZZZZZ                | ZZZZZ            | 02/14/12         | 0231             | 8.10       |       |  |
| 08                                                      | ZZZZZ                | ZZZZZ            | 02/14/12         | 0306             | 8.10       |       |  |
| 09                                                      | 8330 CCV             | 8330 CCV         | 02/14/12         | 0450             | 8.08       |       |  |
| 10                                                      |                      |                  |                  |                  |            |       |  |
| 11                                                      |                      |                  |                  |                  |            |       |  |
| 12                                                      |                      |                  |                  |                  |            |       |  |

QC LIMITS

S1 = 1,2-Dinitrobenzene (+/- 0.20 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

# **HPLC STANDARDS DATA**

## **INITIAL CALIBRATION DATA**

## **CALIBRATION VERIFICATION DATA**

Report Date : 14-Feb-2012 12:50

## TestAmerica St. Louis

## INITIAL CALIBRATION DATA

Start Cal Date : 13-FEB-2012 13:06  
 End Cal Date : 13-FEB-2012 17:48  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 4.14  
 Integrator : HP Genie  
 Method file : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Last Edit : 14-Feb-2012 12:49 Lce.i  
 Curve Type : Average

## Calibration File Names:

Level 1: \\slsvr01\HPLC\Lce.i\E120213.b\EICL514B.D  
 Level 2: \\slsvr01\HPLC\Lce.i\E120213.b\EICL515B.D  
 Level 3: \\slsvr01\HPLC\Lce.i\E120213.b\EICL516B.D  
 Level 4: \\slsvr01\HPLC\Lce.i\E120213.b\EICL517B.D  
 Level 5: \\slsvr01\HPLC\Lce.i\E120213.b\EICL518B.D  
 Level 6: \\slsvr01\HPLC\Lce.i\E120213.b\EICL519B.D  
 Level 7: \\slsvr01\HPLC\Lce.i\E120213.b\EICL520B.D  
 Level 8: \\slsvr01\HPLC\Lce.i\E120213.b\EICL521B.D  
 Level 9: \\slsvr01\HPLC\Lce.i\E120213.b\EICL522B.D

AF  
2/14/12

| Compound                | 10.000<br>Level 1   | 20.000<br>Level 2   | 50.000<br>Level 3    | 200.000<br>Level 4 | 500.000<br>Level 5 | 1000.000<br>Level 6 | RRF  | % RSD  |
|-------------------------|---------------------|---------------------|----------------------|--------------------|--------------------|---------------------|------|--------|
|                         | 2500.000<br>Level 7 | 5000.000<br>Level 8 | 1.000e+04<br>Level 9 |                    |                    |                     |      |        |
| 1 HMX                   | 315<br>302          | 317<br>304          | 317<br>296           | 307                | 303                | 305                 | 307  | 2.389  |
| 2 TNX                   | 745<br>++++         | 691<br>++++         | 720<br>++++          | 688                | 683                | 550                 | 680  | 10.003 |
| 3 DNX                   | 534<br>++++         | 558<br>++++         | 582<br>++++          | 569                | 570                | 458                 | 545  | 8.352  |
| 4 MNX                   | 411<br>++++         | 425<br>++++         | 466<br>++++          | 467                | 465                | 374                 | 435  | 8.752  |
| 6 RDX                   | 438<br>366          | 397<br>368          | 376<br>360           | 367                | 363                | 368                 | 378  | 6.580  |
| 8 1,3,5-Trinitrobenzene | 828<br>860          | 851<br>867          | 873<br>847           | 868                | 863                | 874                 | 859  | 1.730  |
| 9 1,3-Dinitrobenzene    | 1031<br>1043        | 1052<br>1050        | 1057<br>1027         | 1043               | 1043               | 1050                | 1044 | 0.944  |
| 10 Tetryl               | 652<br>605          | 646<br>610          | 639<br>595           | 628                | 624                | 611                 | 623  | 3.128  |

Report Date : 14-Feb-2012 12:50

## TestAmerica St. Louis

## INITIAL CALIBRATION DATA

Start Cal Date : 13-FEB-2012 13:06  
 End Cal Date : 13-FEB-2012 17:48  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 4.14  
 Integrator : HP Genie  
 Method file : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Last Edit : 14-Feb-2012 12:49 Lce.i  
 Curve Type : Average

| Compound                      | 10.000   | 20.000   | 50.000    | 200.000 | 500.000 | 1000.000 | RRF  | % RSD  |
|-------------------------------|----------|----------|-----------|---------|---------|----------|------|--------|
|                               | Level 1  | Level 2  | Level 3   | Level 4 | Level 5 | Level 6  |      |        |
|                               | 2500.000 | 5000.000 | 1.000e+04 |         |         |          |      |        |
|                               | Level 7  | Level 8  | Level 9   |         |         |          |      |        |
| =====                         |          |          |           |         |         |          |      |        |
| 11 Nitrobenzene               | 845      | 806      | 799       | 799     | 805     | 818      |      |        |
|                               | 811      | 819      | 801       |         |         |          | 811  | 1.801  |
| -----                         |          |          |           |         |         |          |      |        |
| 12 Nitroglycerin              | 332      | 248      | 266       | 237     | 235     | 239      |      |        |
|                               | 237      | 239      | 233       |         |         |          | 252  | 12.560 |
| -----                         |          |          |           |         |         |          |      |        |
| 13 2,4,6-Trinitrotoluene      | 828      | 748      | 816       | 780     | 773     | 774      |      |        |
|                               | 769      | 774      | 755       |         |         |          | 780  | 3.348  |
| -----                         |          |          |           |         |         |          |      |        |
| 14 4-Amino-2,6-Dinitrotoluene | 570      | 563      | 581       | 546     | 545     | 552      |      |        |
|                               | 548      | 552      | 540       |         |         |          | 555  | 2.419  |
| -----                         |          |          |           |         |         |          |      |        |
| 15 2-Amino-4,6-Dinitrotoluene | 857      | 815      | 857       | 806     | 804     | 810      |      |        |
|                               | 805      | 811      | 793       |         |         |          | 817  | 2.840  |
| -----                         |          |          |           |         |         |          |      |        |
| 16 2,6-Dinitrotoluene         | 541      | 536      | 556       | 533     | 535     | 536      |      |        |
|                               | 534      | 538      | 526       |         |         |          | 537  | 1.532  |
| -----                         |          |          |           |         |         |          |      |        |
| 17 2,4-Dinitrotoluene         | 1058     | 1054     | 1095      | 1058    | 1060    | 1068     |      |        |
|                               | 1064     | 1071     | 1046      |         |         |          | 1064 | 1.320  |
| -----                         |          |          |           |         |         |          |      |        |
| 18 2-Nitrotoluene             | 503      | 550      | 520       | 495     | 499     | 500      |      |        |
|                               | 497      | 501      | 490       |         |         |          | 506  | 3.637  |
| -----                         |          |          |           |         |         |          |      |        |
| 19 4-Nitrotoluene             | 565      | 451      | 485       | 429     | 429     | 434      |      |        |
|                               | 429      | 434      | 424       |         |         |          | 453  | 10.106 |
| -----                         |          |          |           |         |         |          |      |        |
| 20 3-Nitrotoluene             | 624      | 598      | 579       | 548     | 544     | 552      |      |        |
|                               | 545      | 550      | 540       |         |         |          | 564  | 5.200  |
| -----                         |          |          |           |         |         |          |      |        |
| 21 PETN                       | 228      | 254      | 269       | 271     | 267     | 274      |      |        |
|                               | 273      | 275      | 269       |         |         |          | 265  | 5.660  |
| =====                         |          |          |           |         |         |          |      |        |

Report Date : 14-Feb-2012 12:50

## TestAmerica St. Louis

## INITIAL CALIBRATION DATA

Start Cal Date : 13-FEB-2012 13:06  
 End Cal Date : 13-FEB-2012 17:48  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 4.14  
 Integrator : HP Genie  
 Method file : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Last Edit : 14-Feb-2012 12:49 Lce.i  
 Curve Type : Average

| Compound                | 10.000   | 20.000   | 50.000    | 200.000 | 500.000 | 1000.000 |       |       |
|-------------------------|----------|----------|-----------|---------|---------|----------|-------|-------|
|                         | Level 1  | Level 2  | Level 3   | Level 4 | Level 5 | Level 6  | RRF   | % RSD |
|                         | -----    | -----    | -----     | -----   | -----   | -----    |       |       |
|                         | 2500.000 | 5000.000 | 1.000e+04 |         |         |          |       |       |
|                         | Level 7  | Level 8  | Level 9   |         |         |          |       |       |
| =====                   | =====    | =====    | =====     | =====   | =====   | =====    | ===== | ===== |
| \$ 7 1,2-Dinitrobenzene | 449      | 459      | 493       | 485     | 483     | 442      |       |       |
|                         | 487      | 490      | 480       |         |         |          | 474   | 4.027 |
| -----                   | -----    | -----    | -----     | -----   | -----   | -----    | ----- | ----- |
|                         |          |          |           |         |         |          |       |       |



Report Date : 14-Feb-2012 12:50

## TestAmerica St. Louis

## COMPOUND LISTING

Method file : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Quant Method : ESTD Target Version : 4.14  
 Last Update : 14-Feb-2012 12:49 Number of Cpnds : 20  
 Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events Values

```

-----
Initial:Thresh Units      5.000000
Initial:Peak Width       0.100000
Initial:Area Reject      20.000000
Initial:Solvent Slope    100000.000000
Initial:Split Solvent    2000.000000
  3.000:Baseline Now      n/a
  4.720:Baseline Now      n/a
  7.600:Baseline Now      n/a
  9.800:Baseline Now      n/a
 11.000:Baseline Now      n/a
 19.500:Baseline Next Valley ON
  
```

AF  
2/14/12

| Compound                   | RT     | RT Window     | RF        |
|----------------------------|--------|---------------|-----------|
| 1 HMX                      | 3.359  | 3.159-3.559   | 3.07e+002 |
| 2 TNX                      | 3.696  | 3.496-3.896   | 6.80e+002 |
| 3 DNX                      | 4.139  | 3.939-4.339   | 5.45e+002 |
| 4 MNX                      | 4.989  | 4.789-5.189   | 4.35e+002 |
| 6 RDX                      | 5.842  | 5.642-6.042   | 3.78e+002 |
| \$ 7 1,2-Dinitrobenzene    | 8.087  | 7.887-8.287   | 4.74e+002 |
| 8 1,3,5-Trinitrobenzene    | 8.461  | 8.261-8.661   | 8.59e+002 |
| 9 1,3-Dinitrobenzene       | 10.390 | 10.190-10.590 | 1.04e+003 |
| 10 Tetryl                  | 11.730 | 11.530-11.930 | 6.23e+002 |
| 11 Nitrobenzene            | 12.141 | 11.941-12.341 | 8.11e+002 |
| 12 Nitroglycerin           | 13.761 | 13.561-13.961 | 2.52e+002 |
| 13 2,4,6-Trinitrotoluene   | 14.240 | 14.040-14.440 | 7.80e+002 |
| 14 4-Amino-2,6-Dinitrotolu | 14.741 | 14.541-14.941 | 5.55e+002 |
| 15 2-Amino-4,6-Dinitrotolu | 15.482 | 15.222-15.742 | 8.17e+002 |
| 16 2,6-Dinitrotoluene      | 16.498 | 16.158-16.838 | 5.37e+002 |
| 17 2,4-Dinitrotoluene      | 17.095 | 16.765-17.425 | 1.06e+003 |
| 18 2-Nitrotoluene          | 20.656 | 20.156-21.156 | 5.06e+002 |
| 19 4-Nitrotoluene          | 22.406 | 21.876-22.936 | 4.53e+002 |
| 20 3-Nitrotoluene          | 24.097 | 23.497-24.697 | 5.64e+002 |
| 21 PETN                    | 26.945 | 26.545-27.345 | 2.65e+002 |

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL514.D  
 Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL514.D  
 Lab Smp Id: 8330 ICAL-1 Client Smp ID: 8330 ICAL-1  
 Inj Date : 13-FEB-2012 13:06  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-1  
 Misc Info : 8330 ICAL-1  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

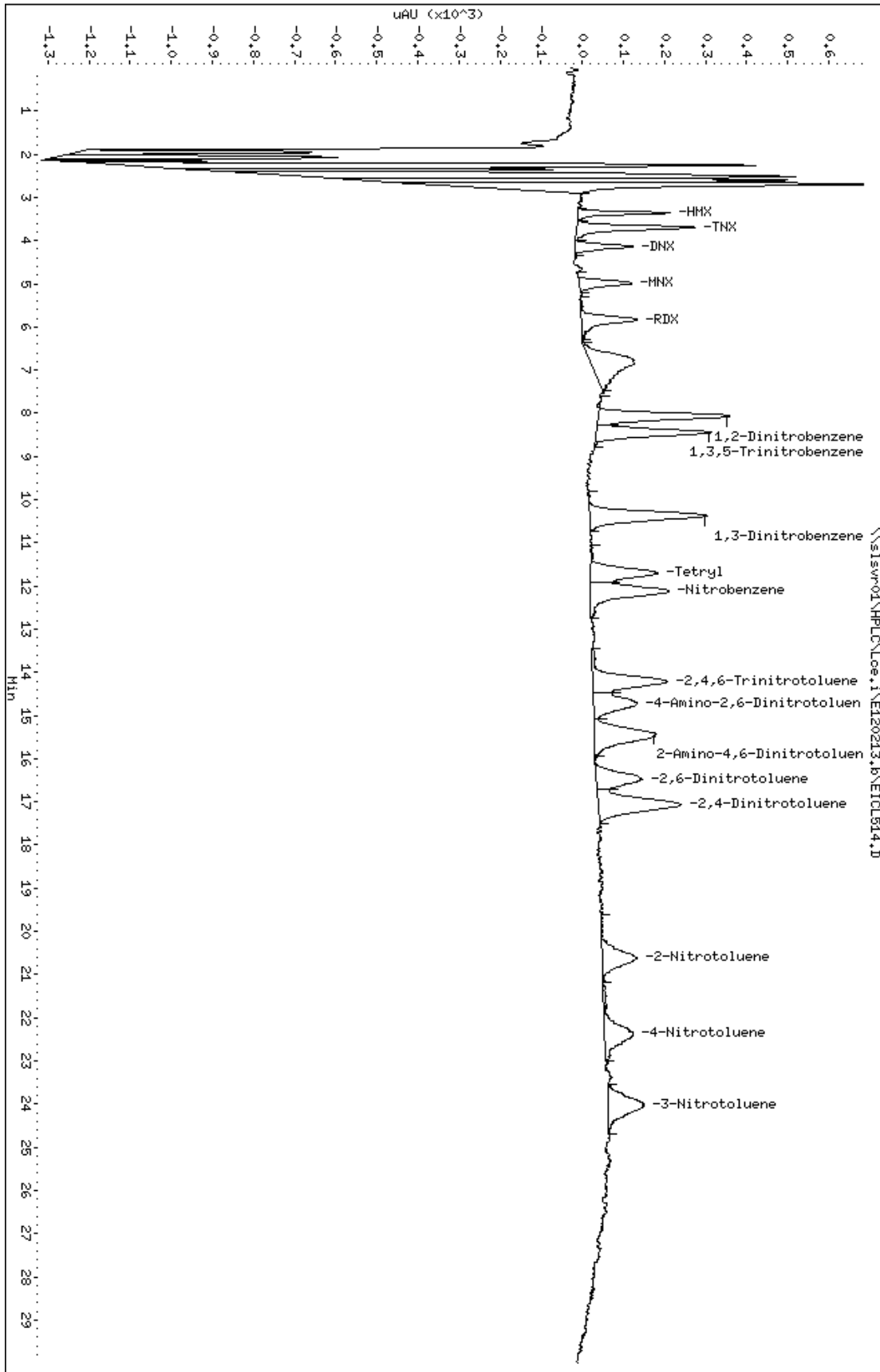
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.360  | 3.358  | 0.002  | 3147     | 10.0000            | 10.25             |
| 2 TNX                         | 3.696  | 3.695  | 0.001  | 5887     | 7.90000            | 8.661             |
| 3 DNX                         | 4.141  | 4.138  | 0.003  | 2935     | 5.50000            | 5.384             |
| 4 MNX                         | 4.988  | 4.988  | 0.000  | 2960     | 7.20000            | 6.809             |
| 6 RDX                         | 5.835  | 5.842  | -0.007 | 4377     | 10.0000            | 11.58             |
| \$ 7 1,2-Dinitrobenzene       | 8.066  | 8.086  | -0.020 | 8988     | 20.0000            | 18.95             |
| 8 1,3,5-Trinitrobenzene       | 8.447  | 8.460  | -0.013 | 8277     | 10.0000            | 9.636             |
| 9 1,3-Dinitrobenzene          | 10.373 | 10.389 | -0.016 | 10308    | 10.0000            | 9.872             |
| 10 Tetryl                     | 11.701 | 11.729 | -0.028 | 6518     | 10.0000            | 10.46             |
| 11 Nitrobenzene               | 12.122 | 12.141 | -0.019 | 8447     | 10.0000            | 10.41             |
| 13 2,4,6-Trinitrotoluene      | 14.211 | 14.239 | -0.028 | 8279     | 10.0000            | 10.62             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.719 | 14.740 | -0.021 | 5701     | 10.0000            | 10.27             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.432 | 15.481 | -0.049 | 8570     | 10.0000            | 10.48             |
| 16 2,6-Dinitrotoluene         | 16.469 | 16.497 | -0.028 | 5410     | 10.0000            | 10.07             |
| 17 2,4-Dinitrotoluene         | 17.065 | 17.094 | -0.029 | 10575    | 10.0000            | 9.941             |
| 18 2-Nitrotoluene             | 20.612 | 20.655 | -0.043 | 5029     | 10.0000            | 9.937             |
| 19 4-Nitrotoluene             | 22.371 | 22.405 | -0.034 | 5646     | 10.0000            | 12.46             |
| 20 3-Nitrotoluene             | 24.003 | 24.097 | -0.094 | 6235     | 10.0000            | 11.05             |

Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL514.D  
Date : 13-FEB-2012 13:06  
Client ID: 8330 ICAL-1  
Sample Info: 8330 ICAL-1  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL514B.D  
 Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL514B.D  
 Lab Smp Id: 8330 ICAL-1 Client Smp ID: 8330 ICAL-1  
 Inj Date : 13-FEB-2012 13:06  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-1  
 Misc Info : 8330 ICAL-1  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

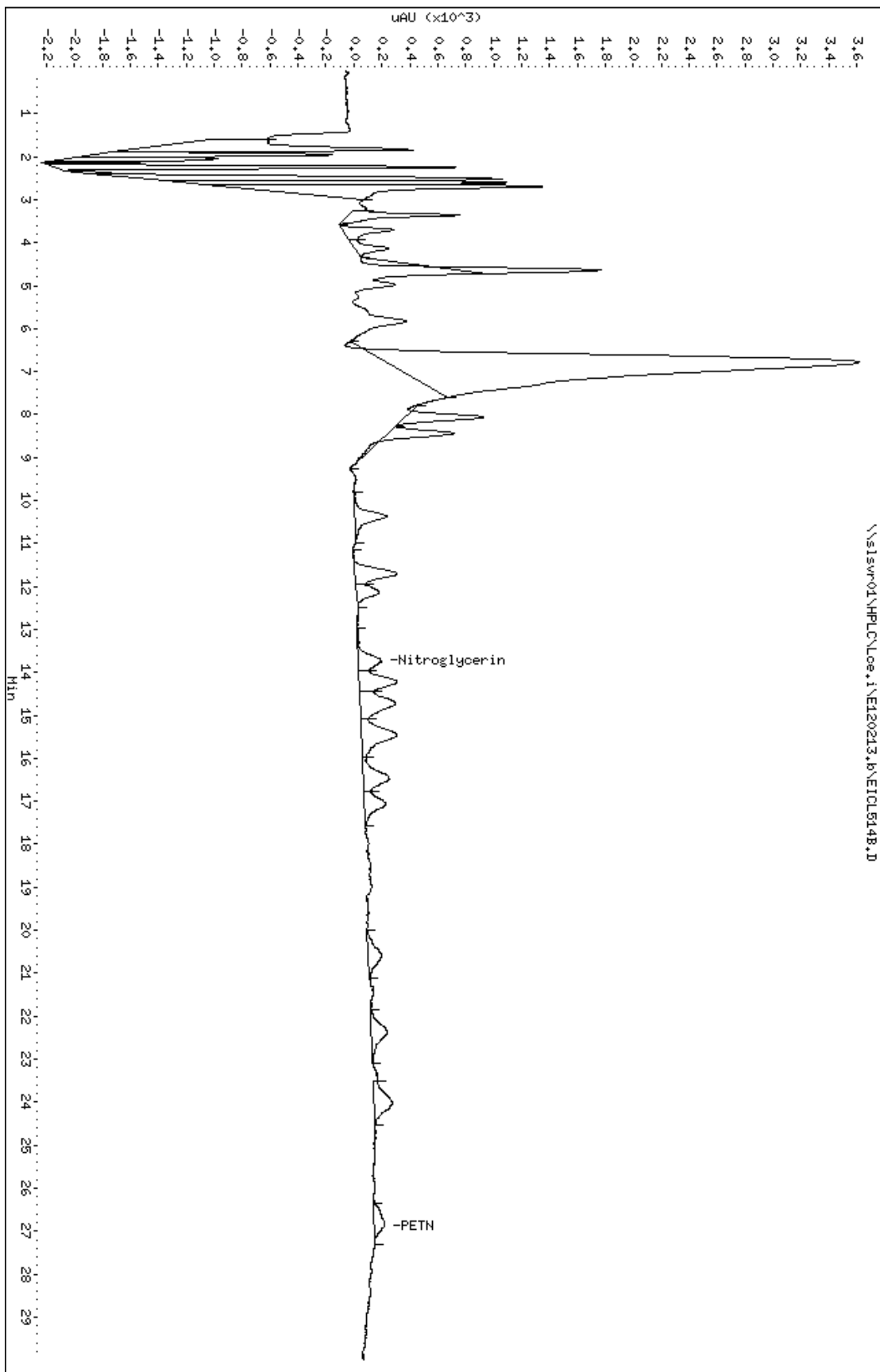
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.741 | 13.760 | -0.019 | 8295     | 25.0000            | 32.93             |
| 21 PETN          | 26.880 | 26.945 | -0.065 | 5706     | 25.0000            | 21.57             |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\NELCL514B.D  
 Date : 13-FEB-2012 13:06  
 Client ID: 8330 ICAL-1  
 Sample Info: 8330 ICAL-1  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL515.D

Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL515.D  
 Lab Smp Id: 8330 ICAL-2 Client Smp ID: 8330 ICAL-2  
 Inj Date : 13-FEB-2012 13:41  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-2  
 Misc Info : 8330 ICAL-2  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

|                               |        |        |        |          | AMOUNTS |          |
|-------------------------------|--------|--------|--------|----------|---------|----------|
|                               |        |        |        |          | CAL-AMT | ON-COL   |
|                               |        |        |        |          | ( ug/L) | ( ug/L)  |
| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE |         |          |
| =====                         | ----   | -----  | -----  | -----    | -----   | -----    |
| 1 HMX                         | 3.356  | 3.358  | -0.002 | 6330     | 20.0000 | 20.61    |
| 2 TNX                         | 3.691  | 3.695  | -0.004 | 10924    | 15.8000 | 16.07    |
| 3 DNX                         | 4.135  | 4.138  | -0.003 | 6141     | 11.0000 | 11.26    |
| 4 MNX                         | 4.980  | 4.988  | -0.008 | 6116     | 14.4000 | 14.07    |
| 6 RDX                         | 5.832  | 5.842  | -0.010 | 7937     | 20.0000 | 21.00    |
| \$ 7 1,2-Dinitrobenzene       | 8.070  | 8.086  | -0.016 | 18350    | 40.0000 | 38.69    |
| 8 1,3,5-Trinitrobenzene       | 8.445  | 8.460  | -0.015 | 17024    | 20.0000 | 19.82    |
| 9 1,3-Dinitrobenzene          | 10.373 | 10.389 | -0.016 | 21042    | 20.0000 | 20.15    |
| 10 Tetryl                     | 11.702 | 11.729 | -0.027 | 12911    | 20.0000 | 20.72    |
| 11 Nitrobenzene               | 12.124 | 12.141 | -0.017 | 16125    | 20.0000 | 19.87    |
| 13 2,4,6-Trinitrotoluene      | 14.218 | 14.239 | -0.021 | 14966    | 20.0000 | 19.20    |
| 14 4-Amino-2,6-Dinitrotoluene | 14.716 | 14.740 | -0.024 | 11262    | 20.0000 | 20.29    |
| 15 2-Amino-4,6-Dinitrotoluene | 15.460 | 15.481 | -0.021 | 16299    | 20.0000 | 19.94    |
| 16 2,6-Dinitrotoluene         | 16.464 | 16.497 | -0.033 | 10714    | 20.0000 | 19.94    |
| 17 2,4-Dinitrotoluene         | 17.070 | 17.094 | -0.024 | 21072    | 20.0000 | 19.81    |
| 18 2-Nitrotoluene             | 20.600 | 20.655 | -0.055 | 10998    | 20.0000 | 21.73(M) |
| 19 4-Nitrotoluene             | 22.374 | 22.405 | -0.031 | 9020     | 20.0000 | 19.90    |
| 20 3-Nitrotoluene             | 24.047 | 24.097 | -0.050 | 11965    | 20.0000 | 21.20    |

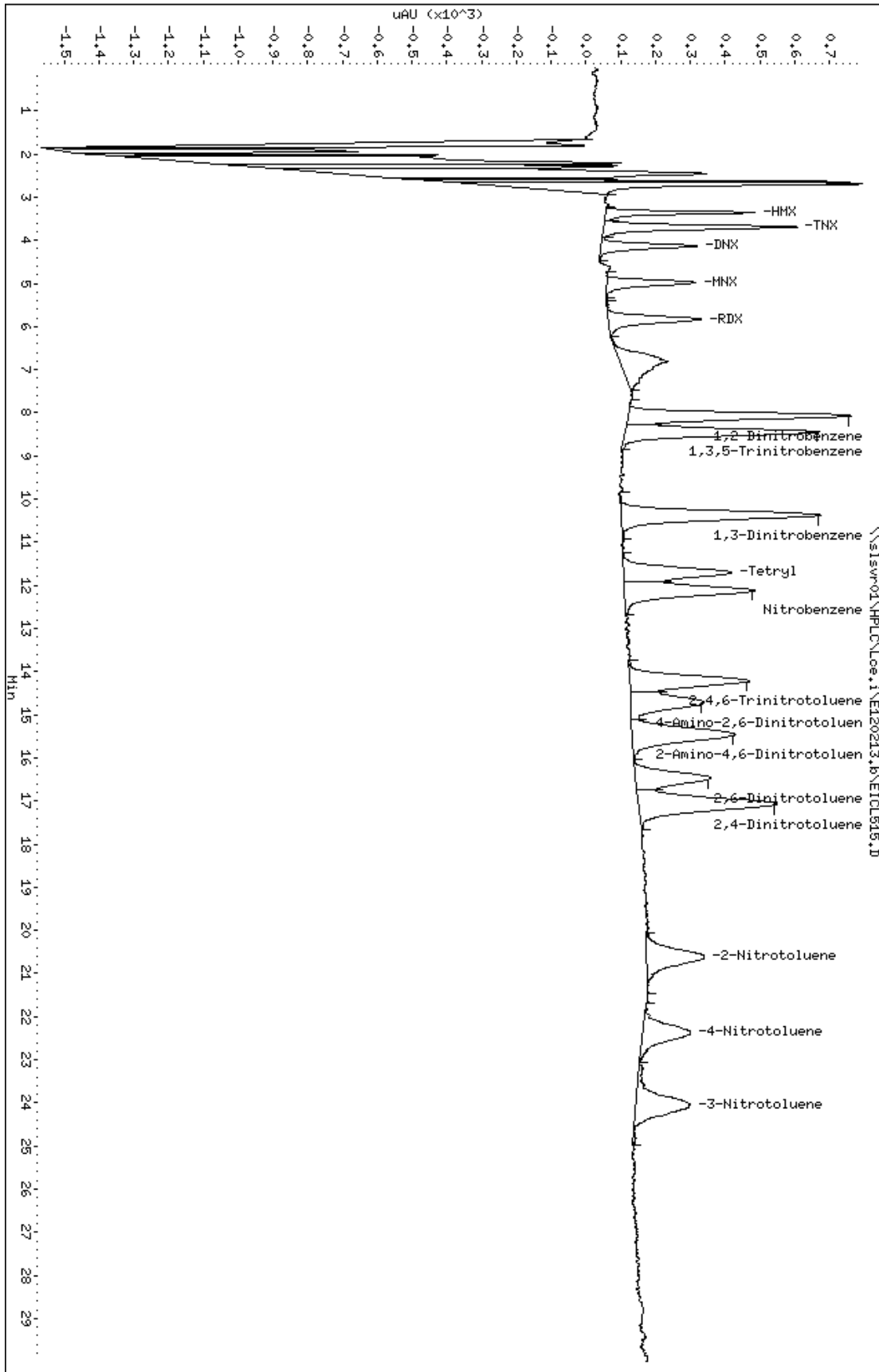
Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL515.D  
Report Date: 14-Feb-2012 12:53

#### QC Flag Legend

M - Compound response manually integrated.

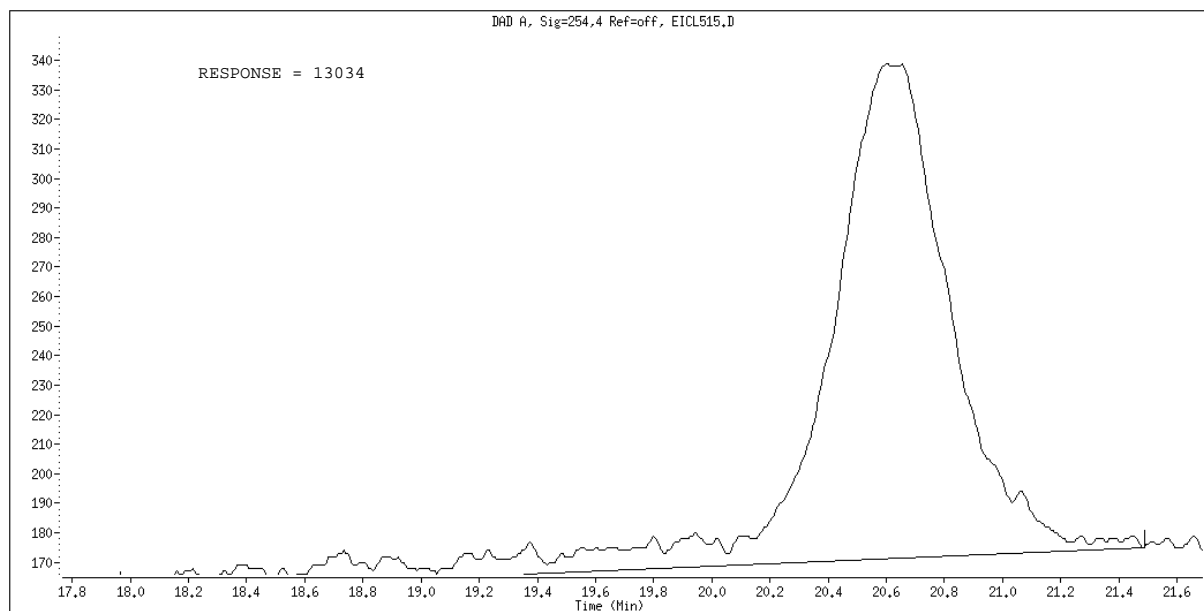
Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL515.D  
 Date : 13-FEB-2012 13:41  
 Client ID: 8330 ICAL-2  
 Sample Info: 8330 ICAL-2  
 Purge Volume: 500.0  
 Column Phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60

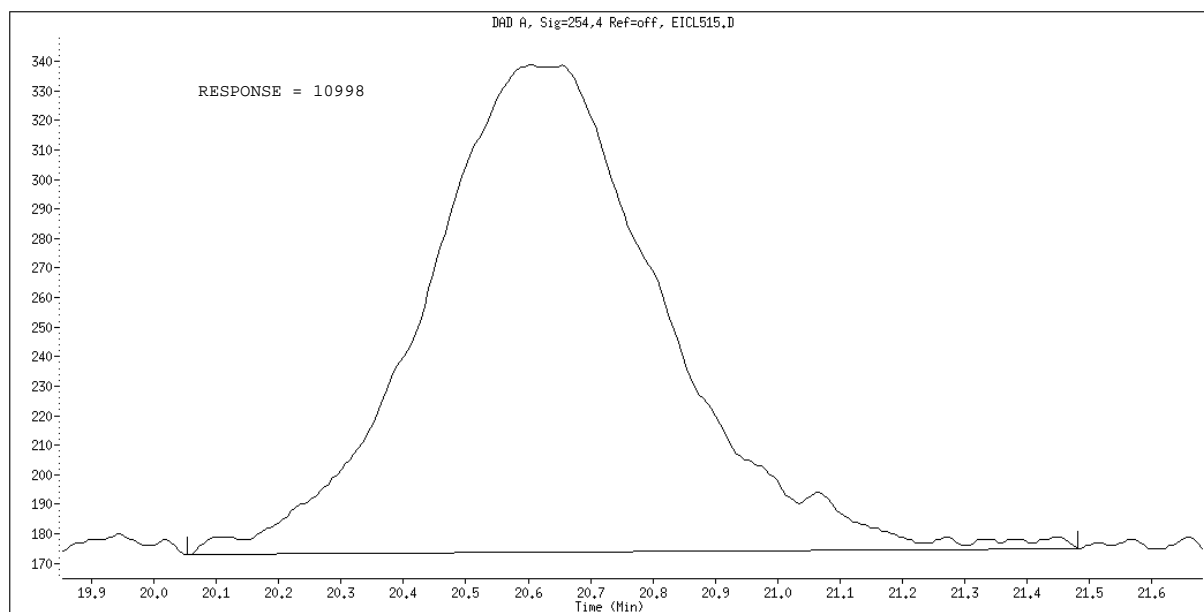




Data File Name: EICL515.D  
Inj. Date and Time: 13-FEB-2012 13:41  
Instrument ID: Lce.i  
Client ID: 8330 ICAL-2  
Compound Name: 2-Nitrotoluene  
CAS #: 88-72-2



Original Integration



Manual Integration

Manually Integrated By: flakera  
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL515B.D  
 Report Date: 14-Feb-2012 12:53

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL515B.D  
 Lab Smp Id: 8330 ICAL-2 Client Smp ID: 8330 ICAL-2  
 Inj Date : 13-FEB-2012 13:41  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-2  
 Misc Info : 8330 ICAL-2  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

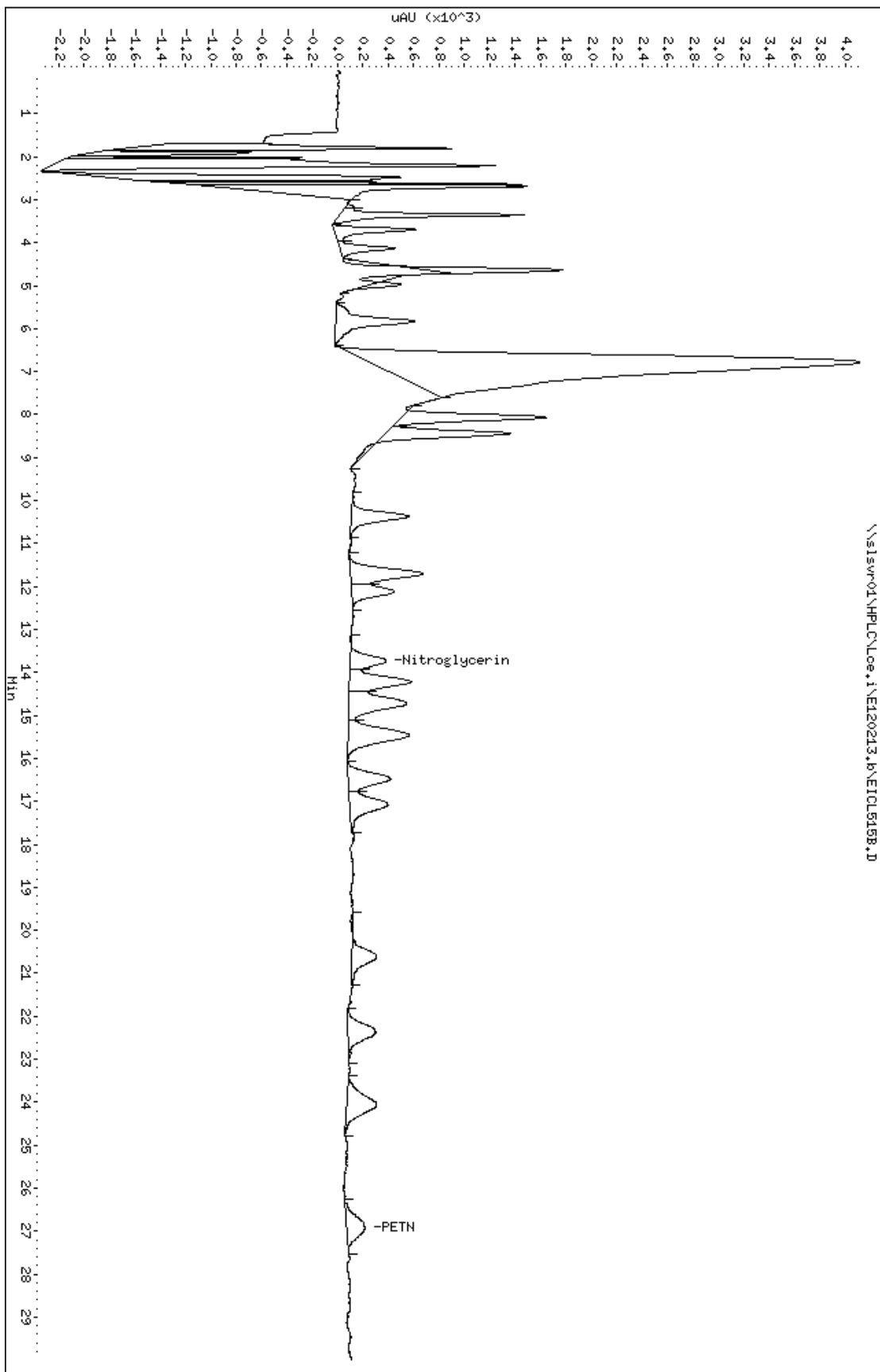
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.741 | 13.760 | -0.019 | 12423    | 50.0000            | 49.32             |
| 21 PETN          | 26.925 | 26.945 | -0.020 | 12694    | 50.0000            | 47.99             |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\NELC515B.D  
 Date : 13-FEB-2012 13:41  
 Client ID: 8330 ICAL-2  
 Sample Info: 8330 ICAL-2  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL516.D

Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL516.D  
 Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3  
 Inj Date : 13-FEB-2012 14:16  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-3  
 Misc Info : 8330 ICAL-3  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

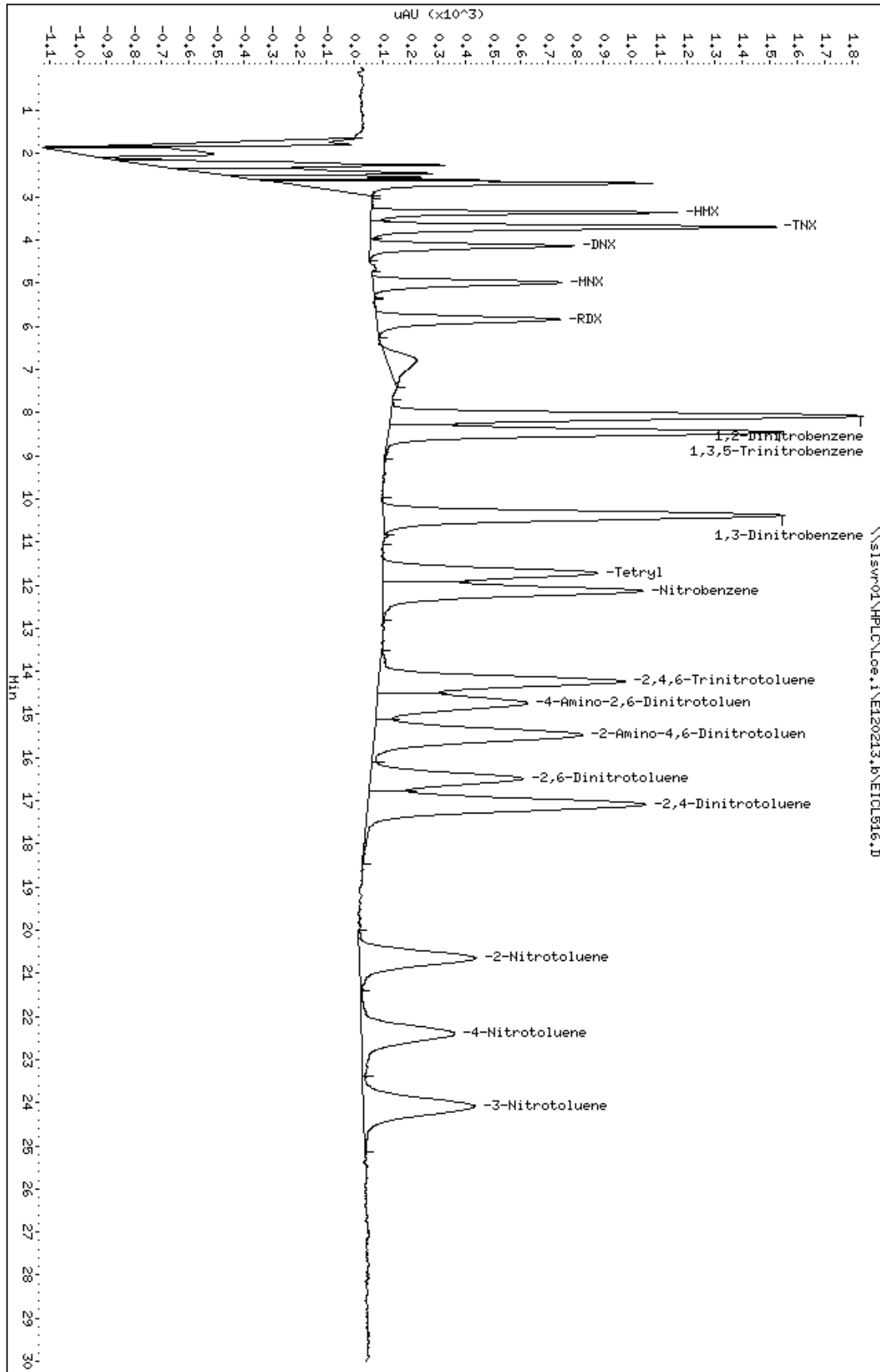
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

|                               |        |        |        |          | AMOUNTS |         |
|-------------------------------|--------|--------|--------|----------|---------|---------|
|                               |        |        |        |          | CAL-AMT | ON-COL  |
|                               |        |        |        |          | ( ug/L) | ( ug/L) |
| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE |         |         |
| =====                         | ----   | -----  | -----  | -----    | -----   | -----   |
| 1 HMX                         | 3.360  | 3.358  | 0.002  | 15853    | 50.0000 | 51.62   |
| 2 TNX                         | 3.696  | 3.695  | 0.001  | 28455    | 39.5000 | 41.86   |
| 3 DNX                         | 4.137  | 4.138  | -0.001 | 16000    | 27.5000 | 29.35   |
| 4 MNX                         | 4.988  | 4.988  | 0.000  | 16774    | 36.0000 | 38.59   |
| 6 RDX                         | 5.840  | 5.842  | -0.002 | 18803    | 50.0000 | 49.74   |
| \$ 7 1,2-Dinitrobenzene       | 8.081  | 8.086  | -0.005 | 49334    | 100.000 | 104.0   |
| 8 1,3,5-Trinitrobenzene       | 8.454  | 8.460  | -0.006 | 43658    | 50.0000 | 50.82   |
| 9 1,3-Dinitrobenzene          | 10.383 | 10.389 | -0.006 | 52854    | 50.0000 | 50.62   |
| 10 Tetryl                     | 11.721 | 11.729 | -0.008 | 31934    | 50.0000 | 51.25   |
| 11 Nitrobenzene               | 12.137 | 12.141 | -0.004 | 39931    | 50.0000 | 49.21   |
| 13 2,4,6-Trinitrotoluene      | 14.234 | 14.239 | -0.005 | 40801    | 50.0000 | 52.33   |
| 14 4-Amino-2,6-Dinitrotoluene | 14.738 | 14.740 | -0.002 | 29034    | 50.0000 | 52.30   |
| 15 2-Amino-4,6-Dinitrotoluene | 15.473 | 15.481 | -0.008 | 42835    | 50.0000 | 52.40   |
| 16 2,6-Dinitrotoluene         | 16.490 | 16.497 | -0.007 | 27813    | 50.0000 | 51.77   |
| 17 2,4-Dinitrotoluene         | 17.087 | 17.094 | -0.007 | 54768    | 50.0000 | 51.49   |
| 18 2-Nitrotoluene             | 20.650 | 20.655 | -0.005 | 26009    | 50.0000 | 51.39   |
| 19 4-Nitrotoluene             | 22.401 | 22.405 | -0.004 | 24253    | 50.0000 | 53.51   |
| 20 3-Nitrotoluene             | 24.085 | 24.097 | -0.012 | 28951    | 50.0000 | 51.30   |

Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL516.D  
Date : 13-FEB-2012 14:16  
Client ID: 8330 ICAL-3  
Sample Info: 8330 ICAL-3  
Purge Volume: 500.0  
Column Phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL516B.D  
 Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL516B.D  
 Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3  
 Inj Date : 13-FEB-2012 14:16  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-3  
 Misc Info : 8330 ICAL-3  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

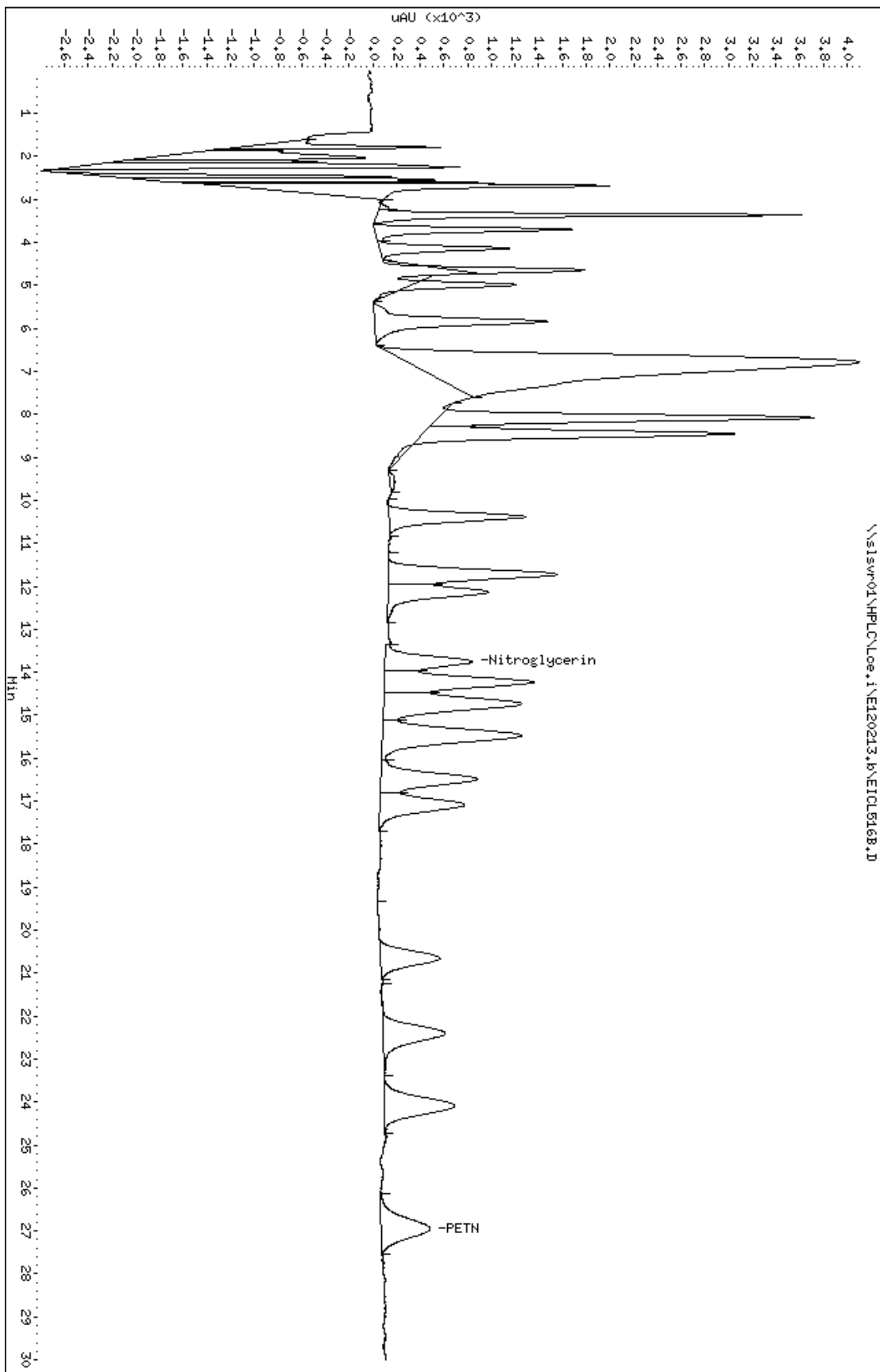
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        |        |        |        |          | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.755 | 13.760 | -0.005 | 33283    | 125.000            | 132.1             |
| 21 PETN          | 26.952 | 26.945 | 0.007  | 33642    | 125.000            | 127.2             |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\NELCL516B.D  
 Date : 13-FEB-2012 14:16  
 Client ID: 8330 ICAL-3  
 Sample Info: 8330 ICAL-3  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL517.D

Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL517.D  
 Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4  
 Inj Date : 13-FEB-2012 14:51  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-4  
 Misc Info : 8330 ICAL-4  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

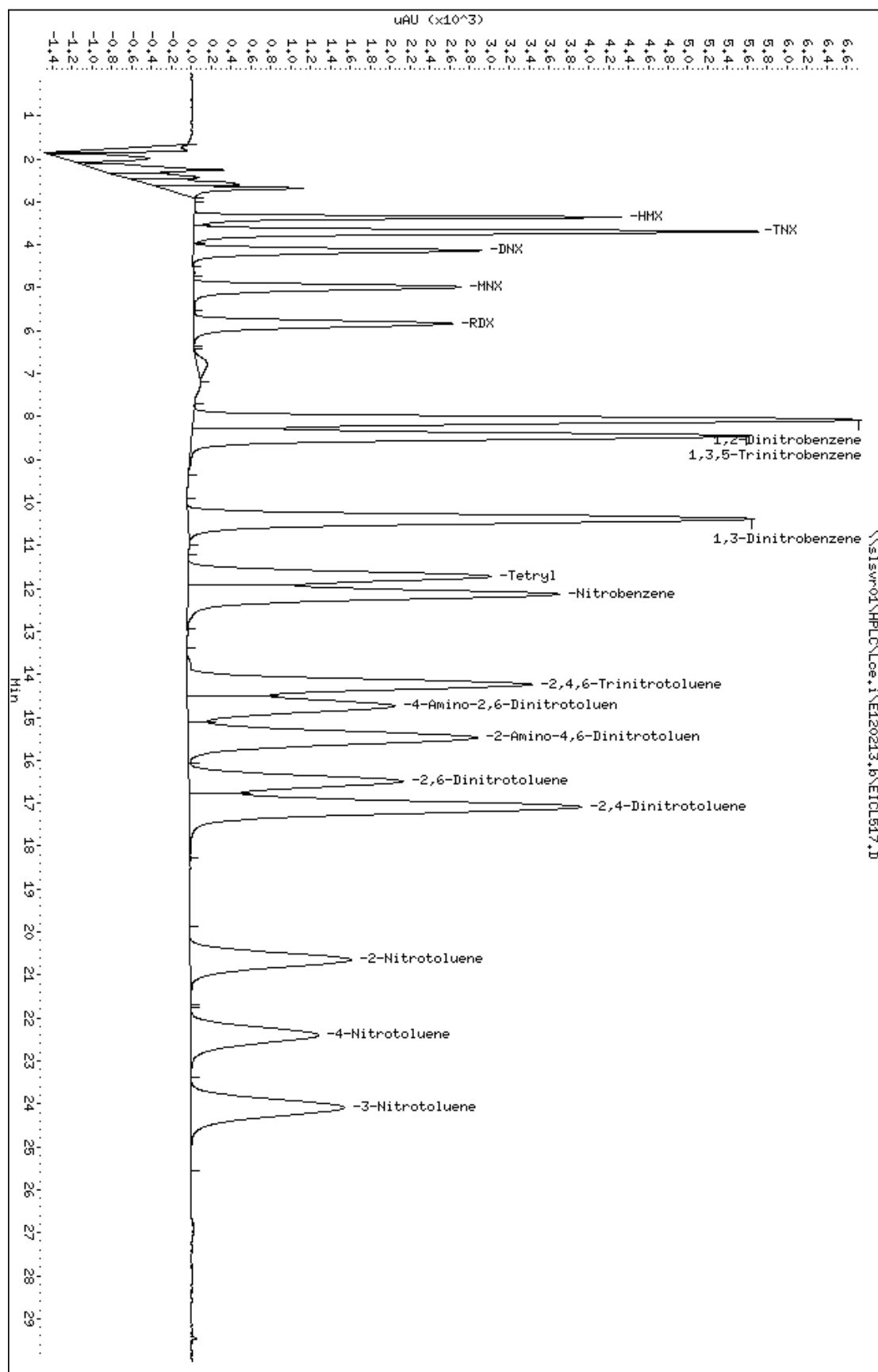
| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.357  | 3.358  | -0.001 | 61321    | 200.000            | 199.7             |
| 2 TNX                         | 3.694  | 3.695  | -0.001 | 108759   | 158.000            | 160.0             |
| 3 DNX                         | 4.136  | 4.138  | -0.002 | 62633    | 110.000            | 114.9             |
| 4 MNX                         | 4.985  | 4.988  | -0.003 | 67273    | 144.000            | 154.8             |
| 6 RDX                         | 5.838  | 5.842  | -0.004 | 73449    | 200.000            | 194.3             |
| \$ 7 1,2-Dinitrobenzene       | 8.078  | 8.086  | -0.008 | 194133   | 400.000            | 409.3             |
| 8 1,3,5-Trinitrobenzene       | 8.453  | 8.460  | -0.007 | 173640   | 200.000            | 202.1             |
| 9 1,3-Dinitrobenzene          | 10.381 | 10.389 | -0.008 | 208661   | 200.000            | 199.8             |
| 10 Tetryl                     | 11.723 | 11.729 | -0.006 | 125522   | 200.000            | 201.4             |
| 11 Nitrobenzene               | 12.138 | 12.141 | -0.003 | 159796   | 200.000            | 196.9             |
| 13 2,4,6-Trinitrotoluene      | 14.238 | 14.239 | -0.001 | 155911   | 200.000            | 200.0             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.737 | 14.740 | -0.003 | 109186   | 200.000            | 196.7             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.476 | 15.481 | -0.005 | 161159   | 200.000            | 197.2             |
| 16 2,6-Dinitrotoluene         | 16.493 | 16.497 | -0.004 | 106631   | 200.000            | 198.5             |
| 17 2,4-Dinitrotoluene         | 17.090 | 17.094 | -0.004 | 211557   | 200.000            | 198.9             |
| 18 2-Nitrotoluene             | 20.648 | 20.655 | -0.007 | 98906    | 200.000            | 195.4             |
| 19 4-Nitrotoluene             | 22.400 | 22.405 | -0.005 | 85872    | 200.000            | 189.4             |
| 20 3-Nitrotoluene             | 24.087 | 24.097 | -0.010 | 109612   | 200.000            | 194.2             |



Data File: \\slswr01\HPLC\Loc.i\EA120213.b\EICL517.D  
 Date : 13-FEB-2012 14:51  
 Client ID: 8330 ICAL-4  
 Sample Info: 8330 ICAL-4  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loe.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL517B.D  
 Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL517B.D  
 Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4  
 Inj Date : 13-FEB-2012 14:51  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-4  
 Misc Info : 8330 ICAL-4  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

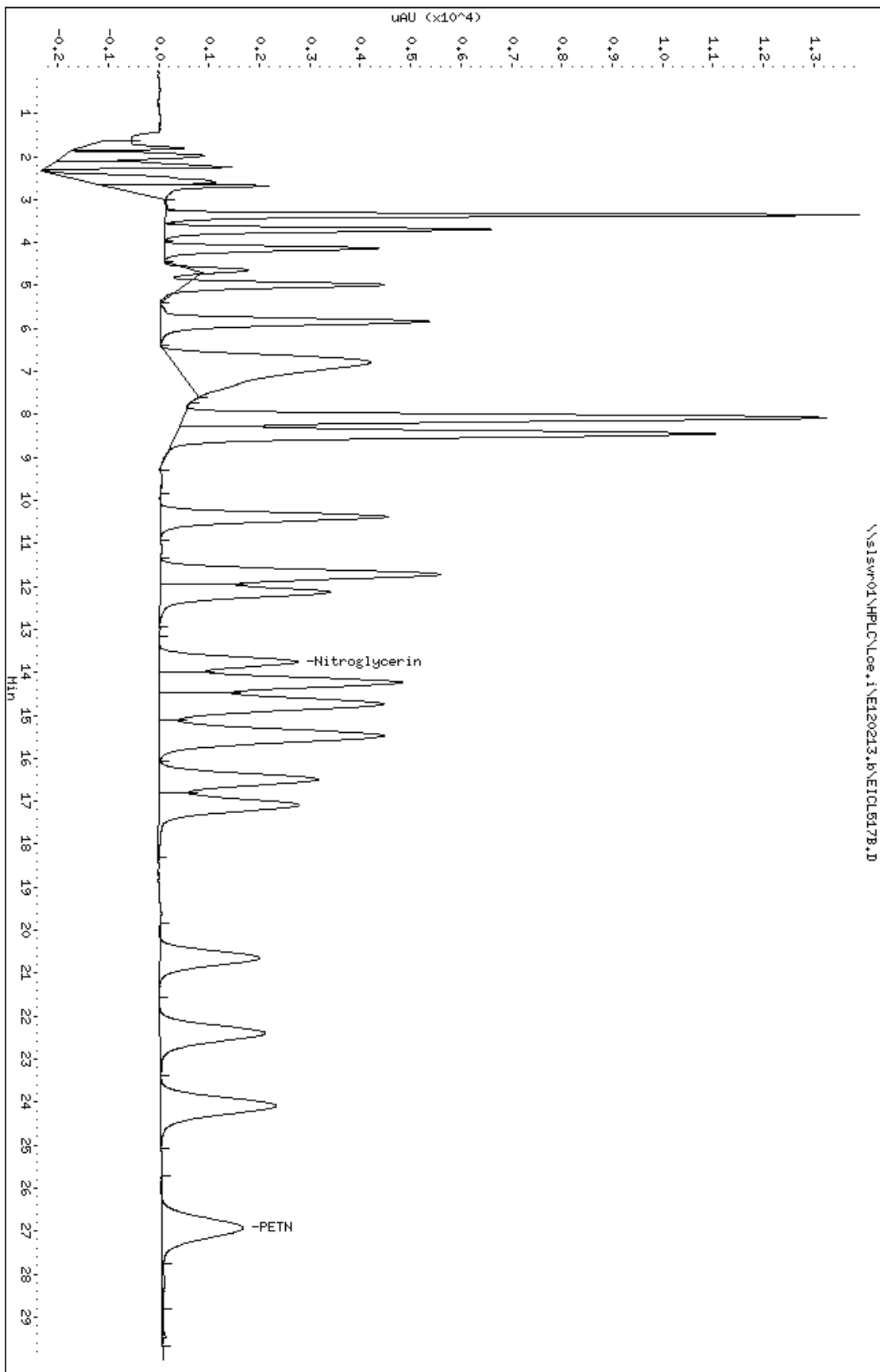
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.759 | 13.760 | -0.001 | 118646   | 500.000            | 471.0             |
| 21 PETN          | 26.928 | 26.945 | -0.017 | 135314   | 500.000            | 511.6             |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\NELCL517B.D  
 Date : 13-FEB-2012 14:51  
 Client ID: 8330 ICAL-4  
 Sample Info: 8330 ICAL-4  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL518.D  
 Report Date: 14-Feb-2012 12:53

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL518.D  
 Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5  
 Inj Date : 13-FEB-2012 15:25  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-5  
 Misc Info : 8330 ICAL-5  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

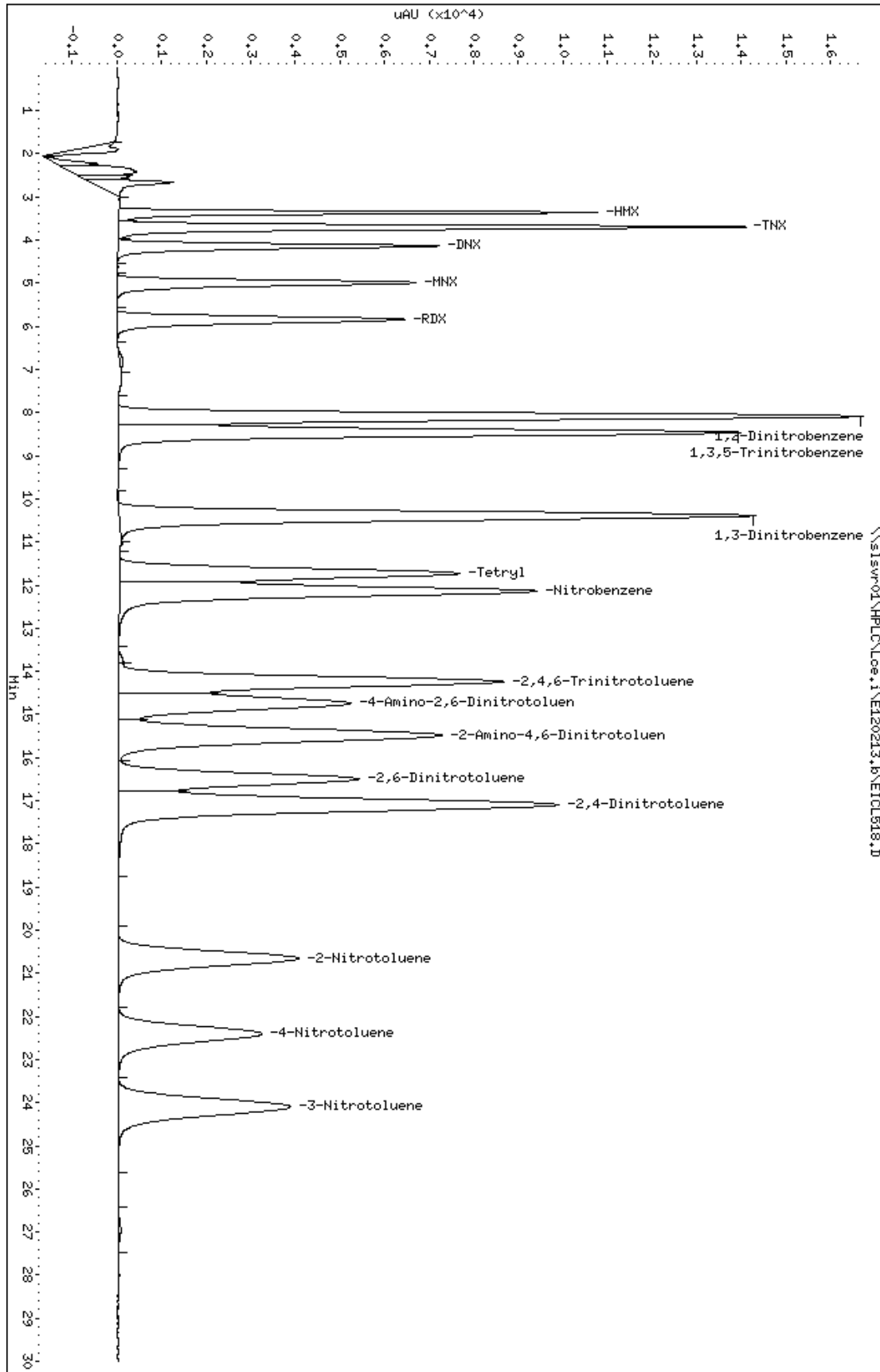
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.358  | 3.358  | 0.000  | 151277   | 500.000            | 492.6             |
| 2 TNX                         | 3.695  | 3.695  | 0.000  | 269946   | 395.000            | 397.1             |
| 3 DNX                         | 4.138  | 4.138  | 0.000  | 156634   | 275.000            | 287.3             |
| 4 MNX                         | 4.988  | 4.988  | 0.000  | 167355   | 360.000            | 385.0             |
| 6 RDX                         | 5.842  | 5.842  | 0.000  | 181544   | 500.000            | 480.2             |
| \$ 7 1,2-Dinitrobenzene       | 8.086  | 8.086  | 0.000  | 482820   | 1000.00            | 1018              |
| 8 1,3,5-Trinitrobenzene       | 8.460  | 8.460  | 0.000  | 431529   | 500.000            | 502.4             |
| 9 1,3-Dinitrobenzene          | 10.389 | 10.389 | 0.000  | 521673   | 500.000            | 499.6             |
| 10 Tetryl                     | 11.729 | 11.729 | 0.000  | 312005   | 500.000            | 500.7             |
| 11 Nitrobenzene               | 12.141 | 12.141 | 0.000  | 402432   | 500.000            | 496.0             |
| 13 2,4,6-Trinitrotoluene      | 14.239 | 14.239 | 0.000  | 386355   | 500.000            | 495.5             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.740 | 14.740 | 0.000  | 272396   | 500.000            | 490.7             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.481 | 15.481 | 0.000  | 401843   | 500.000            | 491.6             |
| 16 2,6-Dinitrotoluene         | 16.497 | 16.497 | 0.000  | 267473   | 500.000            | 497.8             |
| 17 2,4-Dinitrotoluene         | 17.094 | 17.094 | 0.000  | 529983   | 500.000            | 498.2             |
| 18 2-Nitrotoluene             | 20.655 | 20.655 | 0.000  | 249599   | 500.000            | 493.2             |
| 19 4-Nitrotoluene             | 22.405 | 22.405 | 0.000  | 214513   | 500.000            | 473.3             |
| 20 3-Nitrotoluene             | 24.097 | 24.097 | 0.000  | 271991   | 500.000            | 482.0             |

Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL518.D  
Date : 13-FEB-2012 15:25  
Client ID: 8330 ICAL-5  
Sample Info: 8330 ICAL-5  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL518B.D  
 Report Date: 14-Feb-2012 12:53

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL518B.D  
 Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5  
 Inj Date : 13-FEB-2012 15:25  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-5  
 Misc Info : 8330 ICAL-5  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

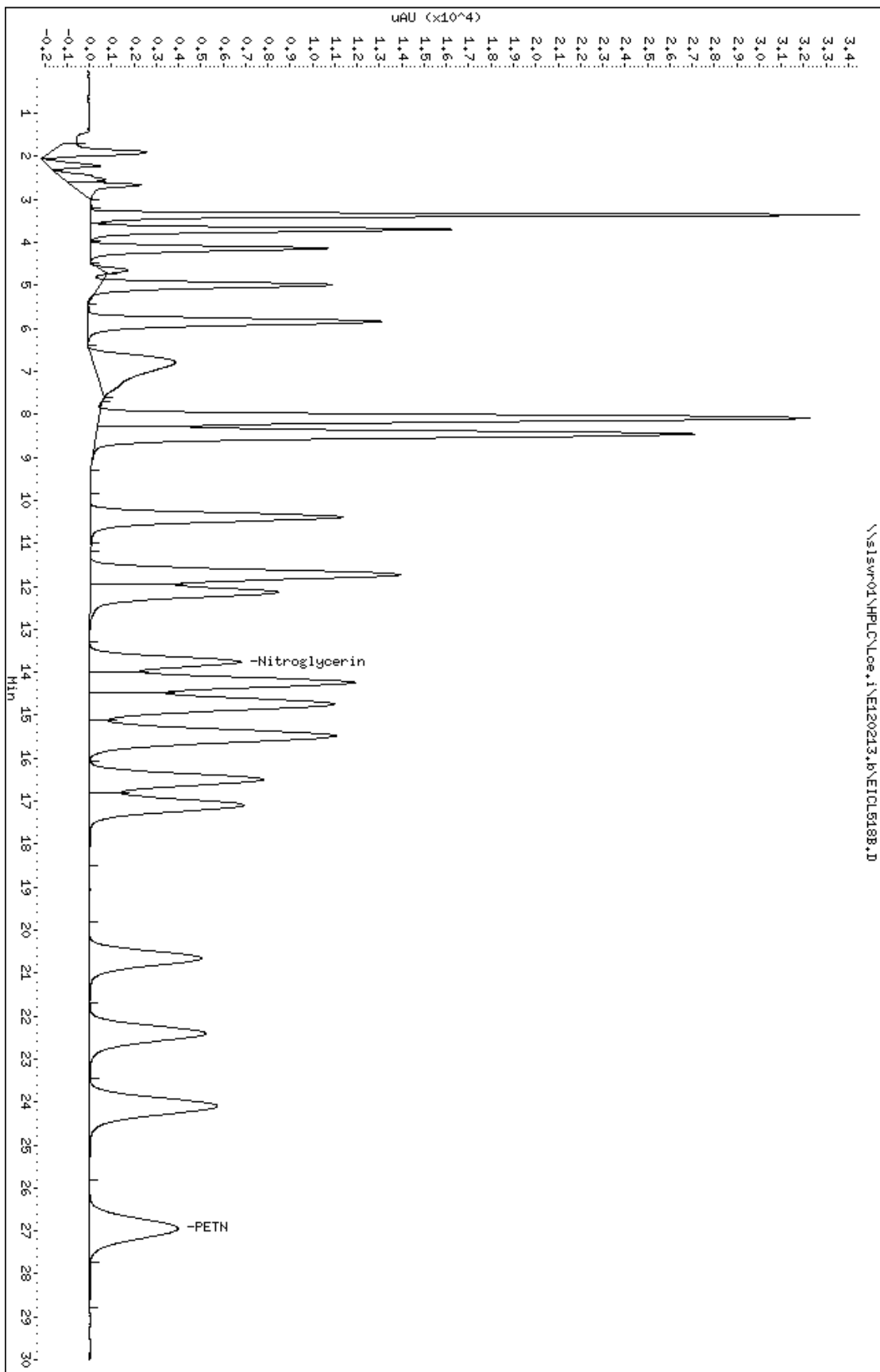
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        |        |        |        |          | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.760 | 13.760 | 0.000  | 293252   | 1250.00            | 1164              |
| 21 PETN          | 26.945 | 26.945 | 0.000  | 334191   | 1250.00            | 1263              |

Data File: \\slswr01\HPLC\Loc.i\EI20213.b\EICL518B.D  
 Date : 13-FEB-2012 15:25  
 Client ID: 8330 ICAL-5  
 Sample Info: 8330 ICAL-5  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL519.D

Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL519.D  
 Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6  
 Inj Date : 13-FEB-2012 16:04  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-6  
 Misc Info : 8330 ICAL-6  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

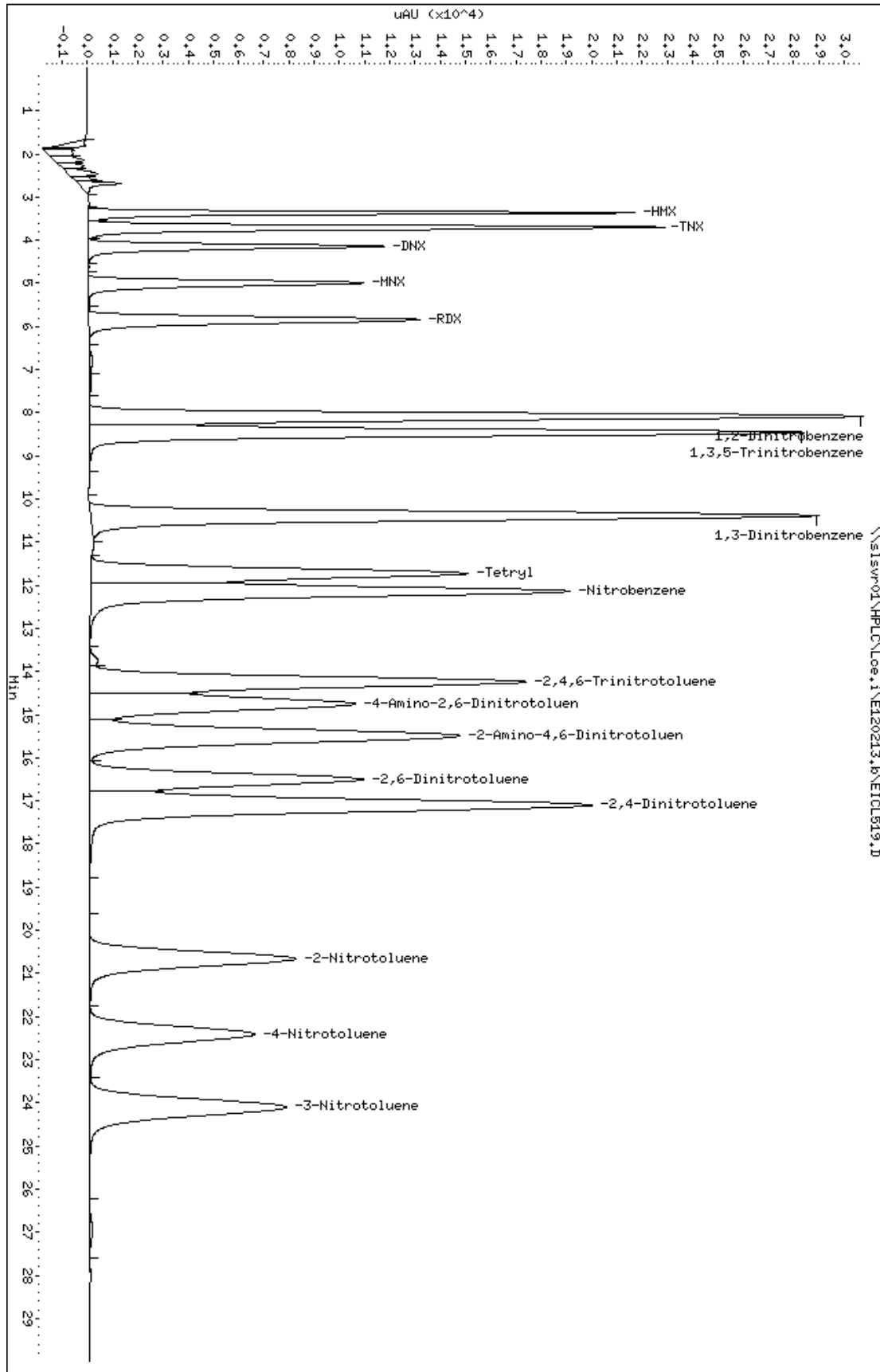
| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

|                               |        |        |        |          | AMOUNTS |         |
|-------------------------------|--------|--------|--------|----------|---------|---------|
|                               |        |        |        |          | CAL-AMT | ON-COL  |
| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | ( ug/L) | ( ug/L) |
| =====                         | ----   | -----  | -----  | -----    | -----   | -----   |
| 1 HMX                         | 3.362  | 3.358  | 0.004  | 304676   | 1000.00 | 992.0   |
| 2 TNX                         | 3.699  | 3.695  | 0.004  | 434133   | 790.000 | 638.7   |
| 3 DNX                         | 4.142  | 4.138  | 0.004  | 252100   | 550.000 | 462.4   |
| 4 MNX                         | 4.991  | 4.988  | 0.003  | 269550   | 720.000 | 620.1   |
| 6 RDX                         | 5.843  | 5.842  | 0.001  | 368037   | 1000.00 | 973.5   |
| \$ 7 1,2-Dinitrobenzene       | 8.081  | 8.086  | -0.005 | 883843   | 2000.00 | 1863    |
| 8 1,3,5-Trinitrobenzene       | 8.456  | 8.460  | -0.004 | 873769   | 1000.00 | 1017    |
| 9 1,3-Dinitrobenzene          | 10.386 | 10.389 | -0.003 | 1050293  | 1000.00 | 1006    |
| 10 Tetryl                     | 11.728 | 11.729 | -0.001 | 610915   | 1000.00 | 980.4   |
| 11 Nitrobenzene               | 12.140 | 12.141 | -0.001 | 818350   | 1000.00 | 1008    |
| 13 2,4,6-Trinitrotoluene      | 14.242 | 14.239 | 0.003  | 774239   | 1000.00 | 993.0   |
| 14 4-Amino-2,6-Dinitrotoluene | 14.750 | 14.740 | 0.010  | 551574   | 1000.00 | 993.7   |
| 15 2-Amino-4,6-Dinitrotoluene | 15.492 | 15.481 | 0.011  | 810058   | 1000.00 | 991.0   |
| 16 2,6-Dinitrotoluene         | 16.502 | 16.497 | 0.005  | 536454   | 1000.00 | 998.5   |
| 17 2,4-Dinitrotoluene         | 17.101 | 17.094 | 0.007  | 1067808  | 1000.00 | 1004    |
| 18 2-Nitrotoluene             | 20.660 | 20.655 | 0.005  | 499808   | 1000.00 | 987.6   |
| 19 4-Nitrotoluene             | 22.410 | 22.405 | 0.005  | 433608   | 1000.00 | 956.6   |
| 20 3-Nitrotoluene             | 24.102 | 24.097 | 0.005  | 551522   | 1000.00 | 977.3   |



Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICLS19.D  
 Date : 13-FEB-2012 16:04  
 Client ID: 8330 ICAL-6  
 Sample Info: 8330 ICAL-6  
 Purge Volume: 500.0  
 Column Phase: Allure C-18

Instrument: Loe.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL519B.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL519B.D  
 Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6  
 Inj Date : 13-FEB-2012 16:04  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-6  
 Misc Info : 8330 ICAL-6  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

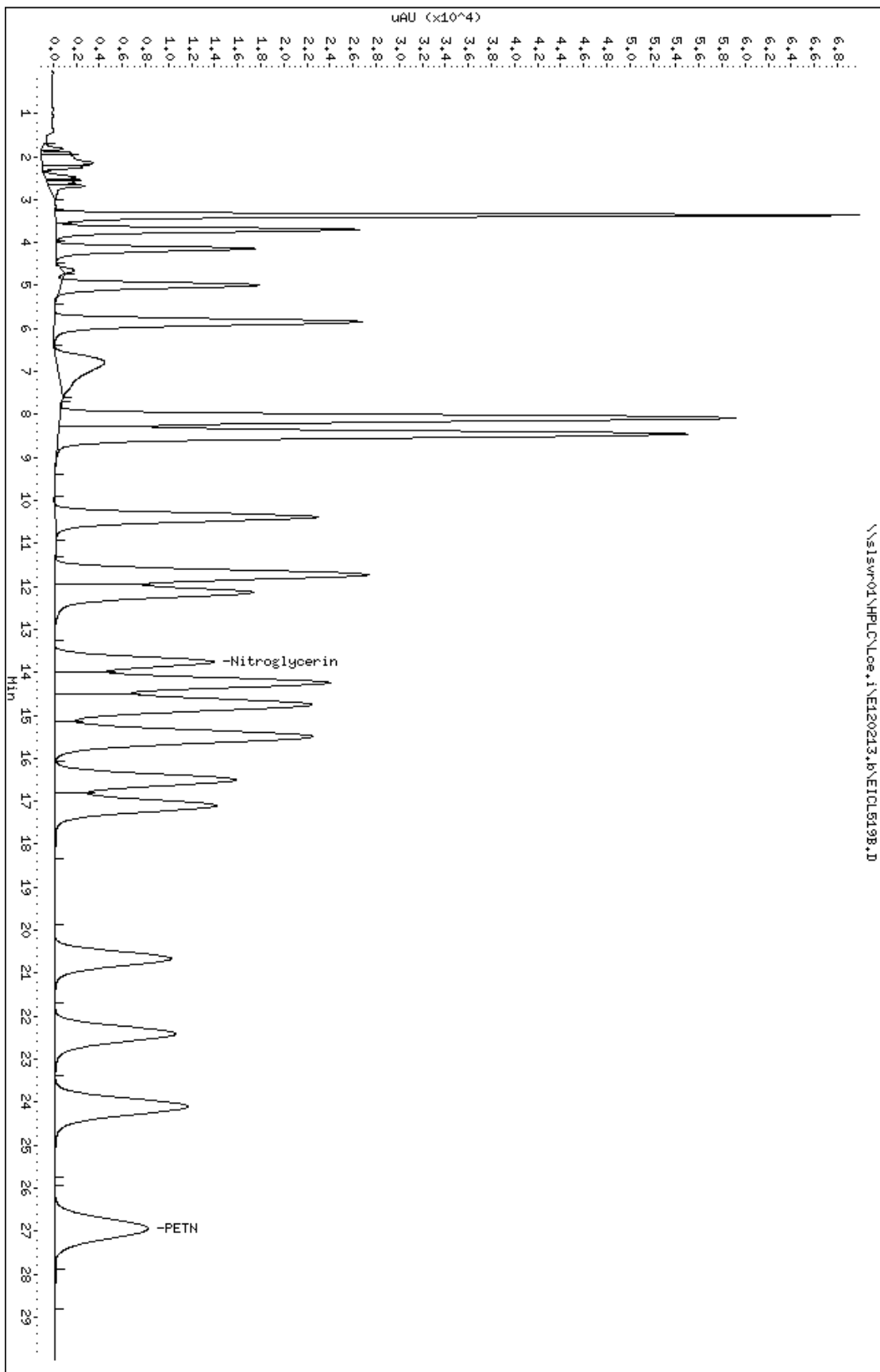
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        |        |        |        |          | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.760 | 13.760 | 0.000  | 598062   | 2500.00            | 2374              |
| 21 PETN          | 26.942 | 26.945 | -0.003 | 685460   | 2500.00            | 2591              |

Data File: \\slswr01\HPLC\Loc.i\EI20213.b\EICL519B.D  
Date : 13-FEB-2012 16:04  
Client ID: 8330 ICAL-6  
Sample Info: 8330 ICAL-6  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL520.D

Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL520.D  
 Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7  
 Inj Date : 13-FEB-2012 16:39  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-7  
 Misc Info : 8330 ICAL-7  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

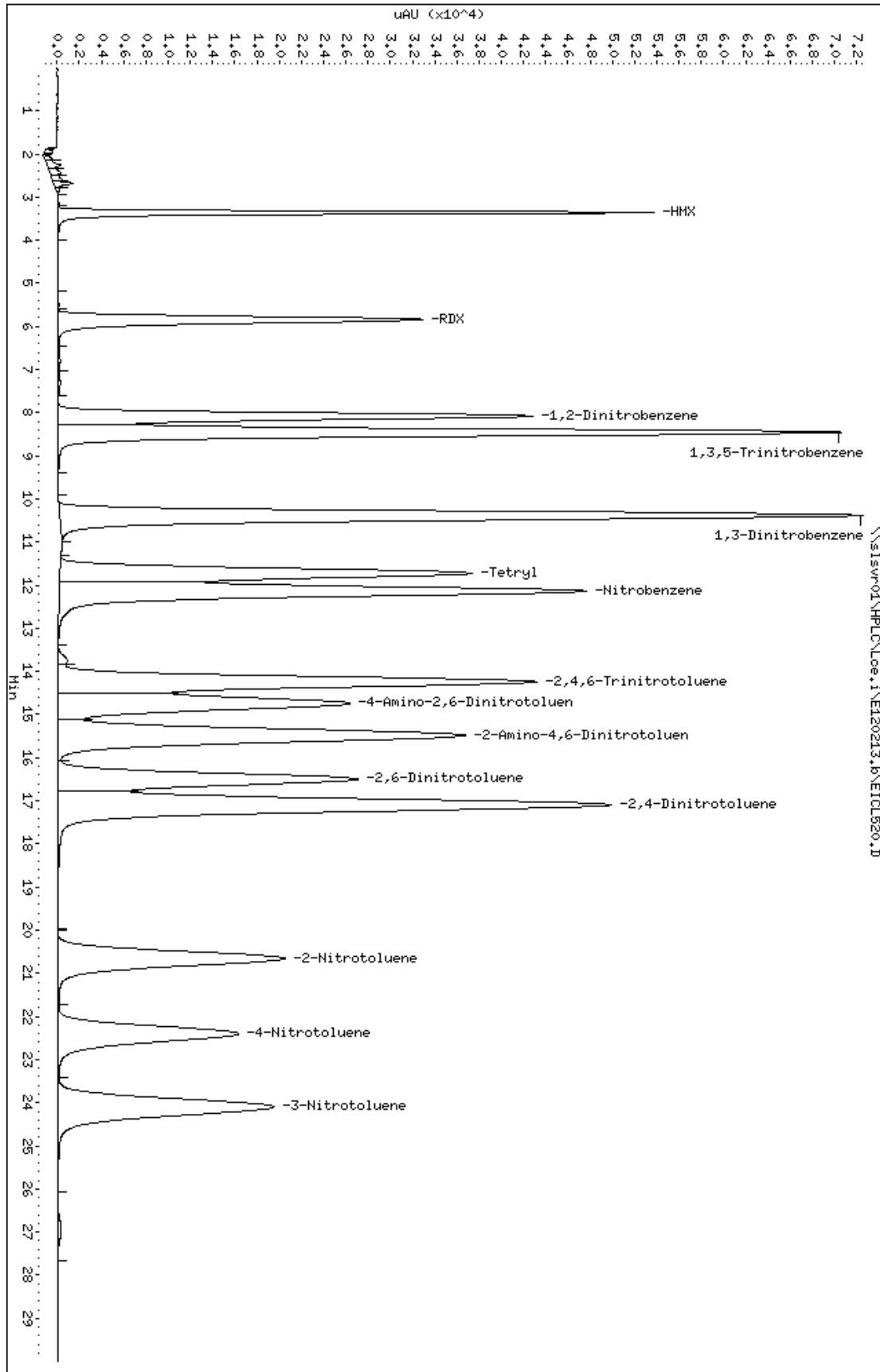
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.359  | 3.358  | 0.001  | 755968   | 2500.00            | 2461              |
| 6 RDX                         | 5.841  | 5.842  | -0.001 | 913805   | 2500.00            | 2417              |
| \$ 7 1,2-Dinitrobenzene       | 8.080  | 8.086  | -0.006 | 1217300  | 2500.00            | 2566              |
| 8 1,3,5-Trinitrobenzene       | 8.455  | 8.460  | -0.005 | 2150868  | 2500.00            | 2504              |
| 9 1,3-Dinitrobenzene          | 10.382 | 10.389 | -0.007 | 2606613  | 2500.00            | 2496              |
| 10 Tetryl                     | 11.724 | 11.729 | -0.005 | 1513663  | 2500.00            | 2429              |
| 11 Nitrobenzene               | 12.137 | 12.141 | -0.004 | 2026814  | 2500.00            | 2498              |
| 13 2,4,6-Trinitrotoluene      | 14.241 | 14.239 | 0.002  | 1921928  | 2500.00            | 2465              |
| 14 4-Amino-2,6-Dinitrotoluene | 14.742 | 14.740 | 0.002  | 1368833  | 2500.00            | 2466              |
| 15 2-Amino-4,6-Dinitrotoluene | 15.482 | 15.481 | 0.001  | 2012401  | 2500.00            | 2462              |
| 16 2,6-Dinitrotoluene         | 16.499 | 16.497 | 0.002  | 1334248  | 2500.00            | 2483              |
| 17 2,4-Dinitrotoluene         | 17.095 | 17.094 | 0.001  | 2659845  | 2500.00            | 2500              |
| 18 2-Nitrotoluene             | 20.656 | 20.655 | 0.001  | 1242568  | 2500.00            | 2455              |
| 19 4-Nitrotoluene             | 22.400 | 22.405 | -0.005 | 1072332  | 2500.00            | 2366              |
| 20 3-Nitrotoluene             | 24.097 | 24.097 | 0.000  | 1363076  | 2500.00            | 2415              |

Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL520.D  
Date : 13-FEB-2012 16:39  
Client ID: 8330 ICAL-7  
Sample Info: 8330 ICAL-7  
Purge Volume: 500.0  
Column Phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL520B.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL520B.D  
 Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7  
 Inj Date : 13-FEB-2012 16:39  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-7  
 Misc Info : 8330 ICAL-7  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

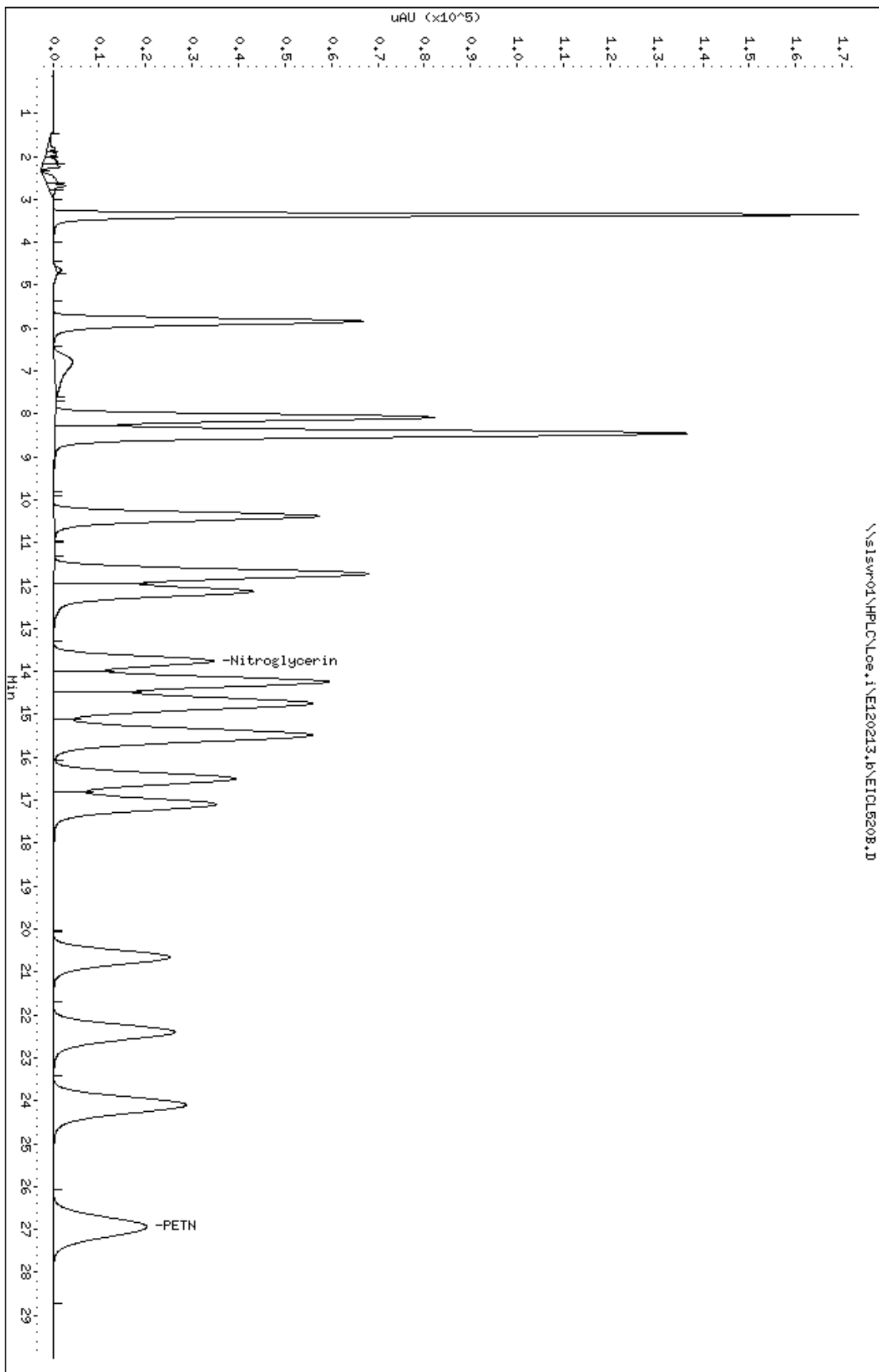
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.758 | 13.760 | -0.002 | 1483726  | 6250.00            | 5890              |
| 21 PETN          | 26.939 | 26.945 | -0.006 | 1706940  | 6250.00            | 6453              |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\EICL5208.D  
 Date : 13-FEB-2012 16:39  
 Client ID: 8330 ICAL-7  
 Sample Info: 8330 ICAL-7  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL521.D

Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL521.D  
 Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8  
 Inj Date : 13-FEB-2012 17:13  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-8  
 Misc Info : 8330 ICAL-8  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

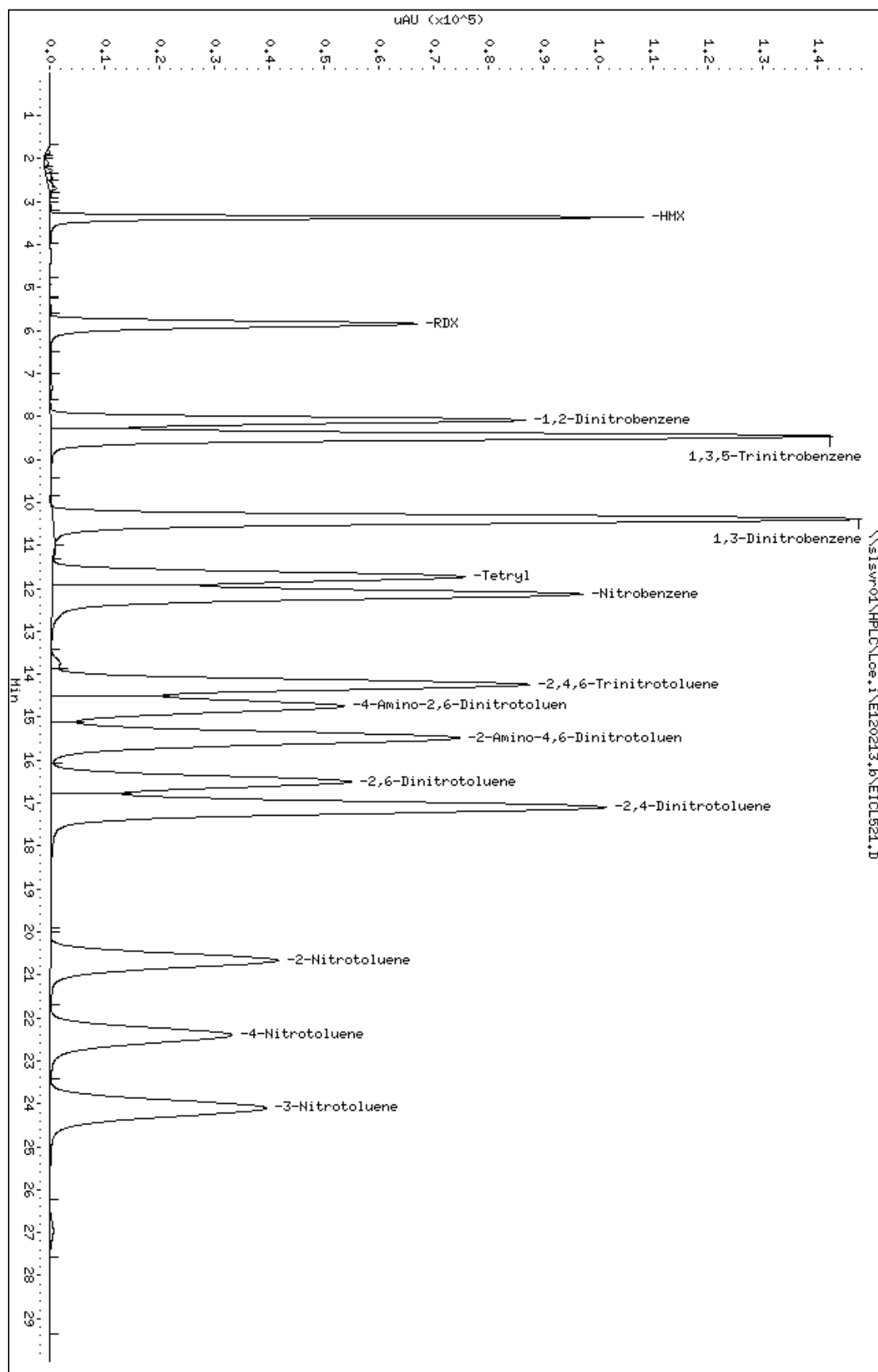
| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.359  | 3.358  | 0.001  | 1518360  | 5000.00            | 4944              |
| 6 RDX                         | 5.843  | 5.842  | 0.001  | 1841193  | 5000.00            | 4870              |
| \$ 7 1,2-Dinitrobenzene       | 8.085  | 8.086  | -0.001 | 2452092  | 5000.00            | 5170              |
| 8 1,3,5-Trinitrobenzene       | 8.459  | 8.460  | -0.001 | 4332866  | 5000.00            | 5044              |
| 9 1,3-Dinitrobenzene          | 10.385 | 10.389 | -0.004 | 5251985  | 5000.00            | 5030              |
| 10 Tetryl                     | 11.730 | 11.729 | 0.001  | 3047673  | 5000.00            | 4891              |
| 11 Nitrobenzene               | 12.138 | 12.141 | -0.003 | 4095677  | 5000.00            | 5047              |
| 13 2,4,6-Trinitrotoluene      | 14.244 | 14.239 | 0.005  | 3870600  | 5000.00            | 4964              |
| 14 4-Amino-2,6-Dinitrotoluene | 14.744 | 14.740 | 0.004  | 2760471  | 5000.00            | 4973              |
| 15 2-Amino-4,6-Dinitrotoluene | 15.482 | 15.481 | 0.001  | 4055222  | 5000.00            | 4961              |
| 16 2,6-Dinitrotoluene         | 16.504 | 16.497 | 0.007  | 2690543  | 5000.00            | 5008              |
| 17 2,4-Dinitrotoluene         | 17.097 | 17.094 | 0.003  | 5357256  | 5000.00            | 5036              |
| 18 2-Nitrotoluene             | 20.663 | 20.655 | 0.008  | 2506205  | 5000.00            | 4952              |
| 19 4-Nitrotoluene             | 22.400 | 22.405 | -0.005 | 2167957  | 5000.00            | 4783              |
| 20 3-Nitrotoluene             | 24.101 | 24.097 | 0.004  | 2748807  | 5000.00            | 4871              |



Data File: \\sisvr01\HPLC\Loc.i\1E120213.b\1C1521.D  
Date : 13-FEB-2012 17:13  
Client ID: 8330 ICAL-8  
Sample Info: 8330 ICAL-8  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL521B.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL521B.D  
 Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8  
 Inj Date : 13-FEB-2012 17:13  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-8  
 Misc Info : 8330 ICAL-8  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

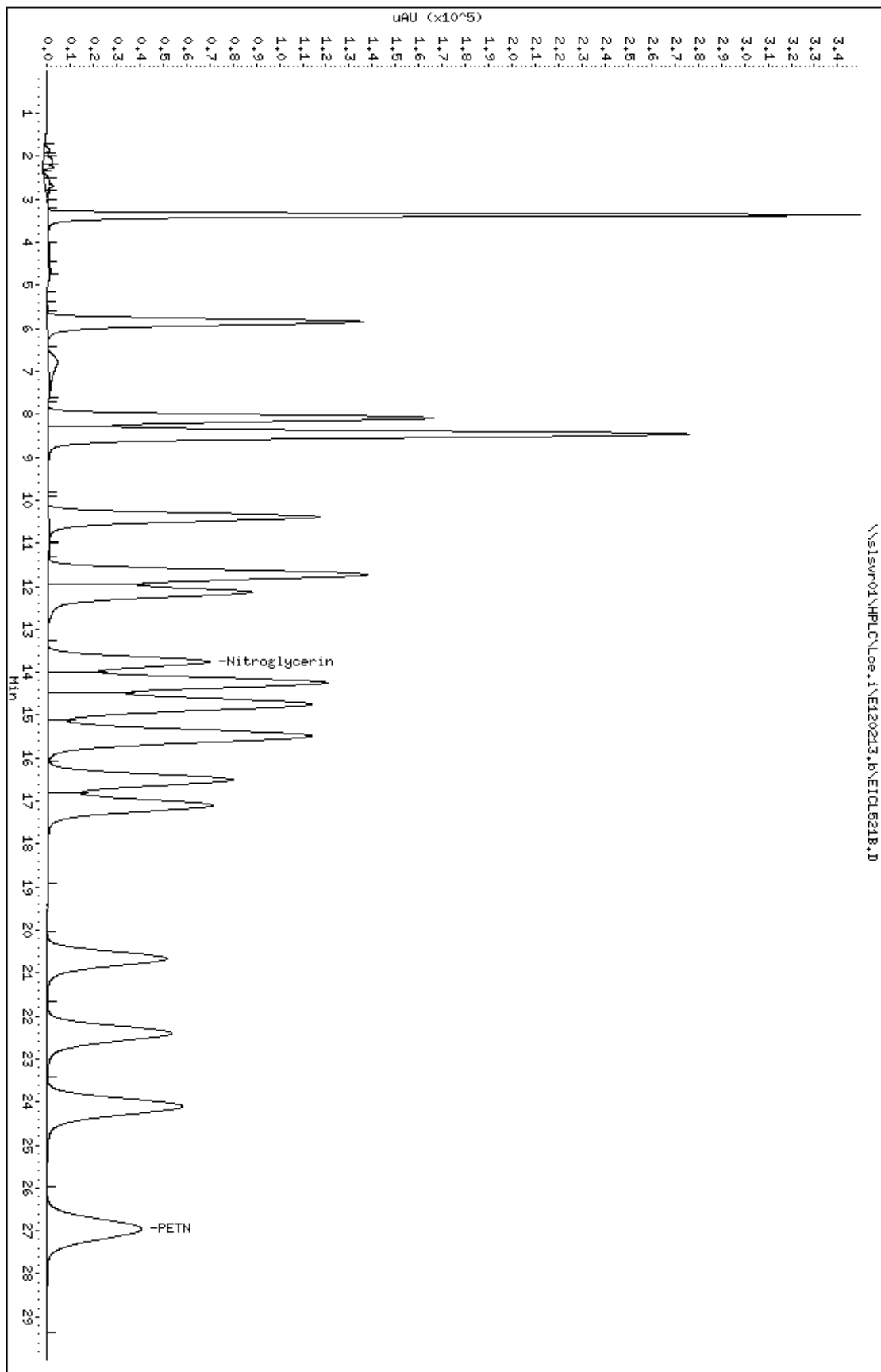
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.757 | 13.760 | -0.003 | 2985998  | 12500.0            | 11850             |
| 21 PETN          | 26.956 | 26.945 | 0.011  | 3437403  | 12500.0            | 13000             |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\NELC521B.D  
Date : 13-FEB-2012 17:13  
Client ID: 8330 ICAL-8  
Sample Info: 8330 ICAL-8  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL522.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL522.D  
 Lab Smp Id: 8330 ICAL-9 Client Smp ID: 8330 ICAL-9  
 Inj Date : 13-FEB-2012 17:48  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-9  
 Misc Info : 8330 ICAL-9  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

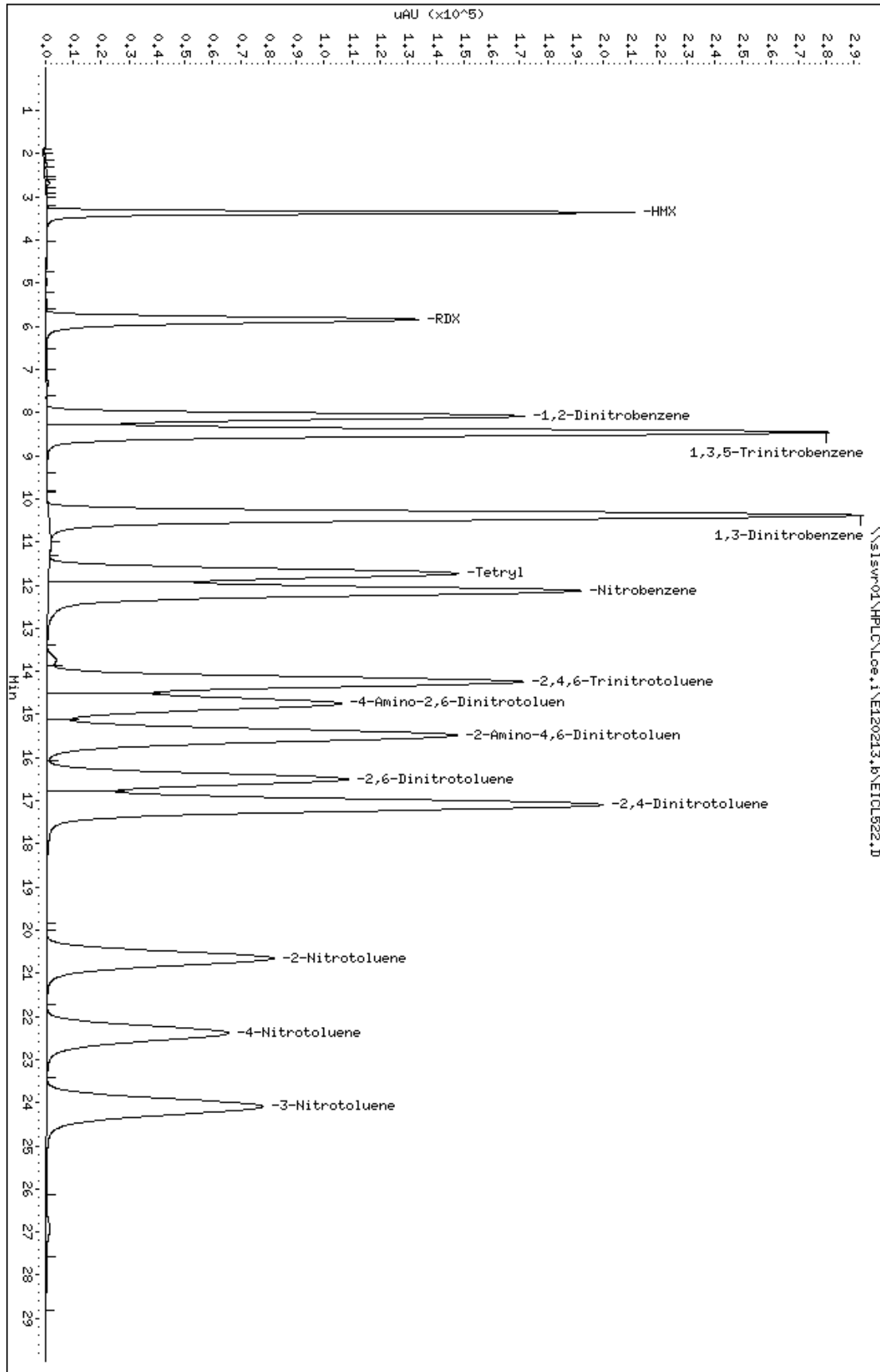
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.358  | 3.358  | 0.000  | 2959336  | 10000.0            | 9636              |
| 6 RDX                         | 5.843  | 5.842  | 0.001  | 3596084  | 10000.0            | 9512              |
| \$ 7 1,2-Dinitrobenzene       | 8.082  | 8.086  | -0.004 | 4800047  | 10000.0            | 10120             |
| 8 1,3,5-Trinitrobenzene       | 8.456  | 8.460  | -0.004 | 8468703  | 10000.0            | 9859              |
| 9 1,3-Dinitrobenzene          | 10.382 | 10.389 | -0.007 | 10271490 | 10000.0            | 9837              |
| 10 Tetryl                     | 11.729 | 11.729 | 0.000  | 5947354  | 10000.0            | 9544              |
| 11 Nitrobenzene               | 12.133 | 12.141 | -0.008 | 8012241  | 10000.0            | 9874              |
| 13 2,4,6-Trinitrotoluene      | 14.243 | 14.239 | 0.004  | 7553602  | 10000.0            | 9688              |
| 14 4-Amino-2,6-Dinitrotoluene | 14.744 | 14.740 | 0.004  | 5399495  | 10000.0            | 9727              |
| 15 2-Amino-4,6-Dinitrotoluene | 15.481 | 15.481 | 0.000  | 7925062  | 10000.0            | 9695              |
| 16 2,6-Dinitrotoluene         | 16.501 | 16.497 | 0.004  | 5259338  | 10000.0            | 9789              |
| 17 2,4-Dinitrotoluene         | 17.093 | 17.094 | -0.001 | 10461408 | 10000.0            | 9835              |
| 18 2-Nitrotoluene             | 20.654 | 20.655 | -0.001 | 4901034  | 10000.0            | 9684              |
| 19 4-Nitrotoluene             | 22.387 | 22.405 | -0.018 | 4241294  | 10000.0            | 9357              |
| 20 3-Nitrotoluene             | 24.089 | 24.097 | -0.008 | 5397987  | 10000.0            | 9565              |

Data File: \\sisvr01\HPLC\Loc.i\VE120213.b\EICL522.D  
Date : 13-FEB-2012 17:48  
Client ID: 8330 ICAL-9  
Sample Info: 8330 ICAL-9  
Purge Volume: 500.0  
Column Phase: Allure C-18

Instrument: Loe.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICL522B.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICL522B.D  
 Lab Smp Id: 8330 ICAL-9 Client Smp ID: 8330 ICAL-9  
 Inj Date : 13-FEB-2012 17:48  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICAL-9  
 Misc Info : 8330 ICAL-9  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:52 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN\_ICAL.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

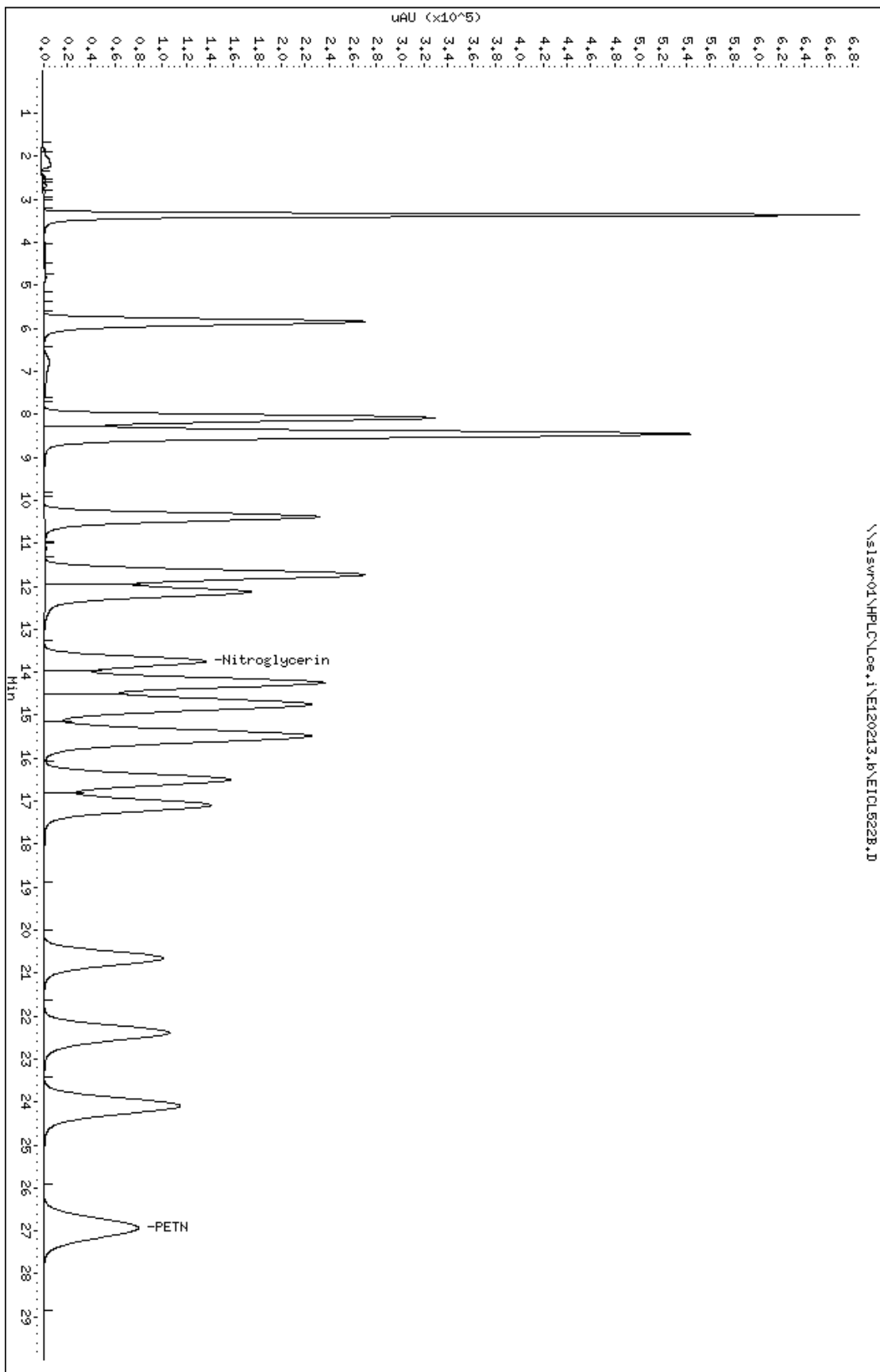
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        |        |        |        |          | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.746 | 13.760 | -0.014 | 5828595  | 25000.0            | 23140             |
| 21 PETN          | 26.929 | 26.945 | -0.016 | 6725480  | 25000.0            | 25430             |

Data File: \\slswr01\HPLC\Loc.i\120213.b\EICL522B.D  
 Date : 13-FEB-2012 17:48  
 Client ID: 8330 ICAL-9  
 Sample Info: 8330 ICAL-9  
 Purge Volume: 500.0  
 Column phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICV523.D

Report Date: 14-Feb-2012 12:54

TestAmerica St. Louis

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lce.i                      Injection Date: 13-FEB-2012 18:23  
 Lab File ID: EICV523.D                  Init. Cal. Date(s): 13-FEB-2012    13-FEB-2012  
 Analysis Type: WATER                    Init. Cal. Times:    13:06                  17:48  
 Lab Sample ID: 8330 ICV                  Quant Type:    ESTD  
 Method: \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m

| COMPOUND                      | RRF / AMOUNT | RF500 | MIN   | RRF      | %D / %DRIFT | MAX      | %D / %DRIFT | CURVE TYPE |
|-------------------------------|--------------|-------|-------|----------|-------------|----------|-------------|------------|
| 1 HMX                         | 307          | 277   | 0.010 | 9.92667  | 20.00000    | Averaged |             |            |
| 2 TNX                         | 680          | 701   | 0.010 | -3.08695 | 20.00000    | Averaged |             |            |
| 3 DNX                         | 545          | 587   | 0.010 | -7.73822 | 20.00000    | Averaged |             |            |
| 4 MNX                         | 435          | 475   | 0.010 | -9.24450 | 20.00000    | Averaged |             |            |
| 6 RDX                         | 378          | 370   | 0.010 | 2.24707  | 20.00000    | Averaged |             |            |
| \$ 7 1,2-Dinitrobenzene       | 474          | 479   | 0.010 | -1.05729 | 20.00000    | Averaged |             |            |
| 8 1,3,5-Trinitrobenzene       | 859          | 840   | 0.010 | 2.15794  | 20.00000    | Averaged |             |            |
| 9 1,3-Dinitrobenzene          | 1044         | 1148  | 0.010 | -9.98024 | 20.00000    | Averaged |             |            |
| 10 Tetryl                     | 623          | 606   | 0.010 | 2.72432  | 20.00000    | Averaged |             |            |
| 11 Nitrobenzene               | 811          | 791   | 0.010 | 2.54708  | 20.00000    | Averaged |             |            |
| 13 2,4,6-Trinitrotoluene      | 780          | 820   | 0.010 | -5.21251 | 20.00000    | Averaged |             |            |
| 14 4-Amino-2,6-Dinitrotoluene | 555          | 568   | 0.010 | -2.35718 | 20.00000    | Averaged |             |            |
| 15 2-Amino-4,6-Dinitrotoluene | 817          | 832   | 0.010 | -1.79211 | 20.00000    | Averaged |             |            |
| 16 2,6-Dinitrotoluene         | 537          | 546   | 0.010 | -1.62034 | 20.00000    | Averaged |             |            |
| 17 2,4-Dinitrotoluene         | 1064         | 1069  | 0.010 | -0.52930 | 20.00000    | Averaged |             |            |
| 18 2-Nitrotoluene             | 506          | 486   | 0.010 | 3.99816  | 20.00000    | Averaged |             |            |
| 19 4-Nitrotoluene             | 453          | 420   | 0.010 | 7.44312  | 20.00000    | Averaged |             |            |
| 20 3-Nitrotoluene             | 564          | 531   | 0.010 | 5.94619  | 20.00000    | Averaged |             |            |

Average %D / Drift Results.

Calculated Average %D/Drift = 4.42273

Maximun Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICV523.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICV523.D  
 Lab Smp Id: 8330 ICV Client Smp ID: 8330 ICV  
 Inj Date : 13-FEB-2012 18:23  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICV  
 Misc Info : 8330 ICV  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:54 Lce.i Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

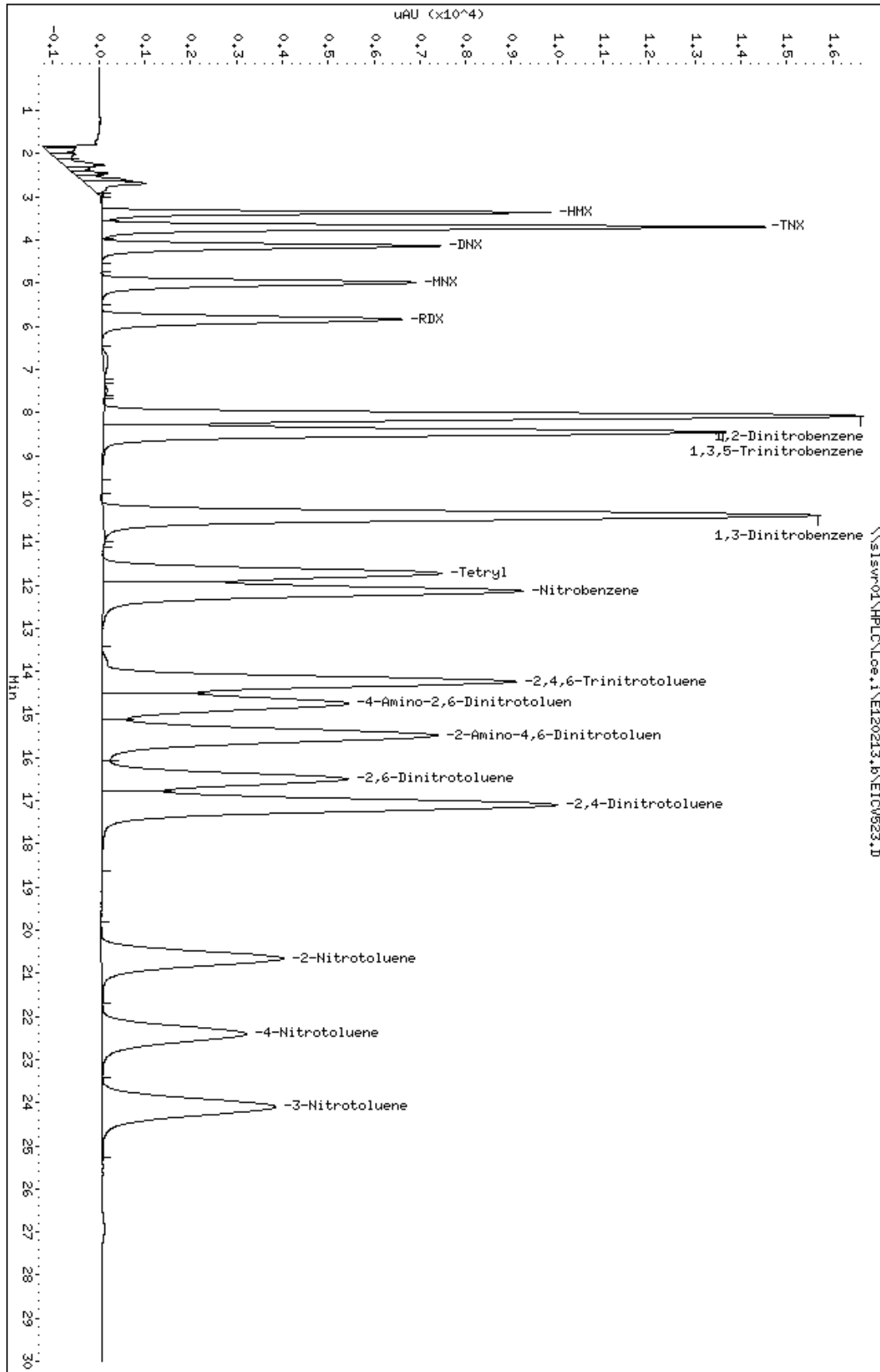
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     |        |        |        |          |  | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--|--------------------|-------------------|
|                               | RT     | EXP RT | DLT RT | RESPONSE |  | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.359  | 3.358  | 0.001  | 138317   |  | 500.000            | 450.4             |
| 2 TNX                         | 3.696  | 3.695  | 0.001  | 276773   |  | 395.000            | 407.2             |
| 3 DNX                         | 4.138  | 4.138  | 0.000  | 161525   |  | 275.000            | 296.3             |
| 4 MNX                         | 4.986  | 4.988  | -0.002 | 170959   |  | 360.000            | 393.3             |
| 6 RDX                         | 5.838  | 5.842  | -0.004 | 184772   |  | 500.000            | 488.8             |
| \$ 7 1,2-Dinitrobenzene       | 8.078  | 8.086  | -0.008 | 479338   |  | 1000.00            | 1010              |
| 8 1,3,5-Trinitrobenzene       | 8.453  | 8.460  | -0.007 | 420225   |  | 500.000            | 489.2             |
| 9 1,3-Dinitrobenzene          | 10.384 | 10.389 | -0.005 | 574165   |  | 500.000            | 549.9             |
| 10 Tetryl                     | 11.727 | 11.729 | -0.002 | 303084   |  | 500.000            | 486.4             |
| 11 Nitrobenzene               | 12.139 | 12.141 | -0.002 | 395380   |  | 500.000            | 487.3             |
| 13 2,4,6-Trinitrotoluene      | 14.239 | 14.239 | 0.000  | 410152   |  | 500.000            | 526.1             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.746 | 14.740 | 0.006  | 284084   |  | 500.000            | 511.8             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.485 | 15.481 | 0.004  | 416030   |  | 500.000            | 509.0             |
| 16 2,6-Dinitrotoluene         | 16.498 | 16.497 | 0.001  | 272978   |  | 500.000            | 508.1             |
| 17 2,4-Dinitrotoluene         | 17.097 | 17.094 | 0.003  | 534679   |  | 500.000            | 502.6             |
| 18 2-Nitrotoluene             | 20.657 | 20.655 | 0.002  | 242932   |  | 500.000            | 480.0             |
| 19 4-Nitrotoluene             | 22.407 | 22.405 | 0.002  | 209760   |  | 500.000            | 462.8             |
| 20 3-Nitrotoluene             | 24.098 | 24.097 | 0.001  | 265395   |  | 500.000            | 470.3             |

Data File: \\sisvr01\HPLC\Loc.i\120213.b\EICW523.D  
 Date : 13-FEB-2012 18:23  
 Client ID: 8330 ICV  
 Sample Info: 8330 ICV  
 Purge Volume: 500.0  
 Column Phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICV523B.D  
 Report Date: 14-Feb-2012 12:54

TestAmerica St. Louis

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lce.i                      Injection Date: 13-FEB-2012 18:23  
 Lab File ID: EICV523B.D                Init. Cal. Date(s): 13-FEB-2012    13-FEB-2012  
 Analysis Type: WATER                   Init. Cal. Times:    13:06                17:48  
 Lab Sample ID: 8330 ICV                Quant Type:    ESTD  
 Method: \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m

|                  | _____        |       | MIN   |             | MAX         |            |
|------------------|--------------|-------|-------|-------------|-------------|------------|
| COMPOUND         | RRF / AMOUNT | RF500 | RRF   | %D / %DRIFT | %D / %DRIFT | CURVE TYPE |
| =====            | =====        | ===== | ===== | =====       | =====       | =====      |
| 12 Nitroglycerin | 252          | 222   | 0.010 | 11.99726    | 20.00000    | Averaged   |
| 21 PETN          | 265          | 267   | 0.010 | -1.01233    | 20.00000    | Averaged   |
|                  |              |       |       |             |             |            |

Average %D / Drift Results.

Calculated Average %D/Drift = 6.50480

Maximun Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EICV523B.D  
 Report Date: 14-Feb-2012 12:54

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EICV523B.D  
 Lab Smp Id: 8330 ICV Client Smp ID: 8330 ICV  
 Inj Date : 13-FEB-2012 18:23  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 ICV  
 Misc Info : 8330 ICV  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:54 Lce.i Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: NGPETN.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

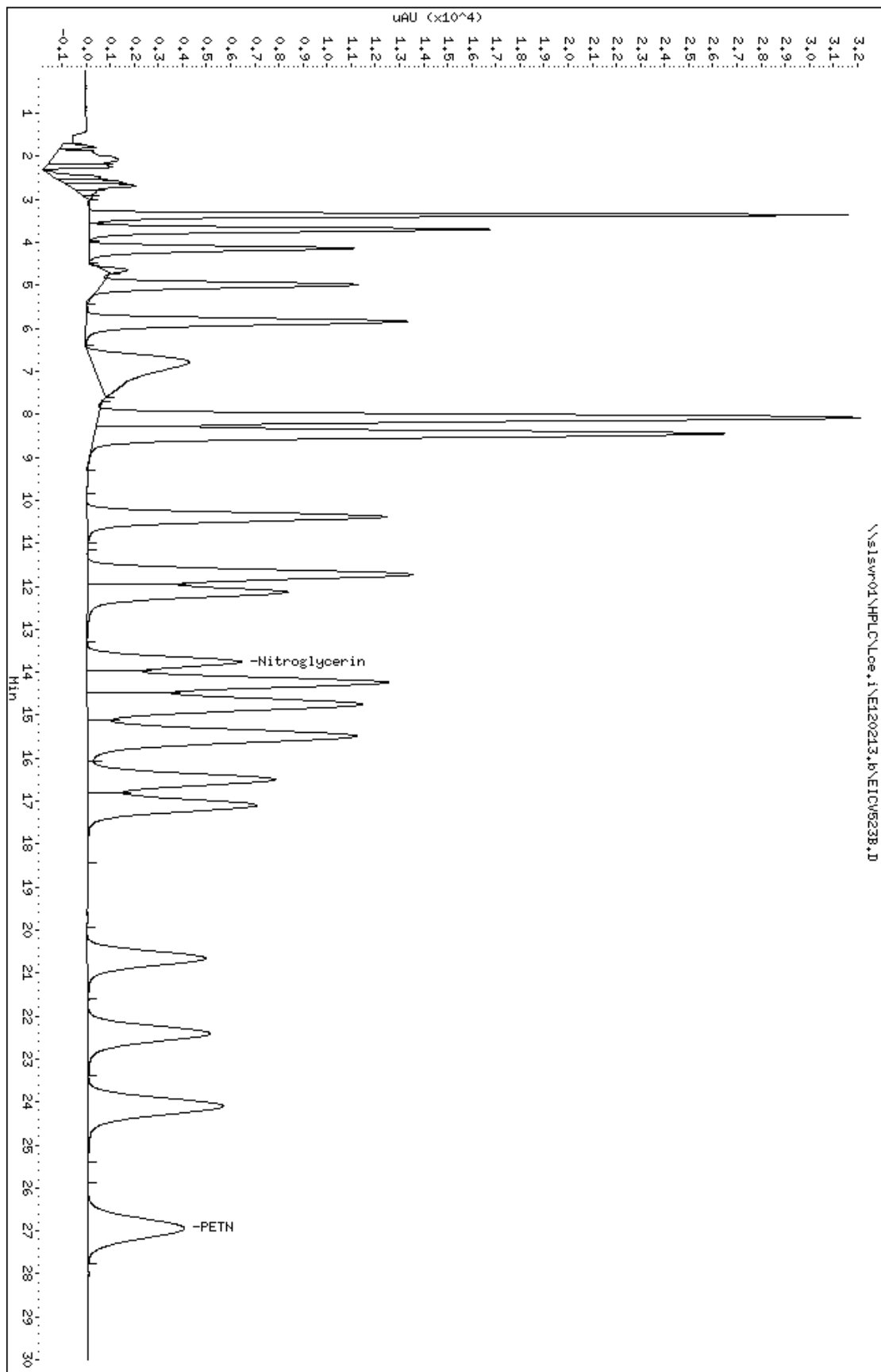
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds        | RT     | EXP RT | DLT RT | RESPONSE | AMOUNTS            |                   |
|------------------|--------|--------|--------|----------|--------------------|-------------------|
|                  |        |        |        |          | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 12 Nitroglycerin | 13.761 | 13.760 | 0.001  | 277094   | 1250.00            | 1100              |
| 21 PETN          | 26.942 | 26.945 | -0.003 | 333978   | 1250.00            | 1263              |

Data File: \\slswr01\HPLC\Loc.i\NEL20213.b\EICW523B.D  
Date : 13-FEB-2012 18:23  
Client ID: 8330 ICV  
Sample Info: 8330 ICV  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60




Logbook No. 3760

Date: 7/13/12  
2/13/12 - 2/14/12  
AF 2/14/12

Instrument ID# LCE

# TestAmerica HPLC Runlog

| Data File | Clock   | Lab ID       | Method | Lot Number     | Matrix | STD #                        | Dil. Fact. | Oper | Batch    | Comments                               |
|-----------|---------|--------------|--------|----------------|--------|------------------------------|------------|------|----------|----------------------------------------|
| ECND 511  | E120213 | CONDITIONING | 8330   |                |        | AF 2/13/12<br>GC0018/0026-12 | 4x         | AF   |          | AF 2/13/12<br>GC0017-12<br>DIX > 1.05% |
| ECUV 512  |         | 8330 CCV     |        |                |        | AF 2/13/12                   |            |      |          |                                        |
| ECND 513  |         | CONDITIONING |        |                |        | GC0018/0026-12               | 200x       |      |          |                                        |
| EICL 514  |         | 8330 ICAL-1  |        |                |        | GC0018/0026-12               | 100x       |      |          | 8330 ICAL 600D                         |
| 515       |         | -2           |        |                |        |                              | 40x        |      |          |                                        |
| 516       |         | -3           |        |                |        |                              | 10x        |      |          |                                        |
| 517       |         | -4           |        |                |        |                              | 4x         |      |          | "B" FILPS - NG & PETN                  |
| 518       |         | -5           |        |                |        | AF 2/13/12<br>GC0018/0026-12 | 20x        |      |          |                                        |
| 519       |         | -6           |        |                |        | GC0018/0026-12               | 8x         |      |          |                                        |
| 520       |         | -7           |        |                |        |                              | 4x         |      |          |                                        |
| 521       |         | -8           |        |                |        |                              | 2x         |      |          |                                        |
| 522       |         | -9           |        |                |        | GC0018/0026-12               |            |      |          | ICV 600D                               |
| EICV 523  |         | 8330 ICV     |        |                |        |                              |            |      | 204/029  |                                        |
| EBIK 524  |         | MQQTPIAA     |        | F2B100000-029B |        |                              |            |      |          |                                        |
| ELCS 525  |         | PIAC C       |        | -029C          |        |                              |            |      |          |                                        |
| ESMP 526  |         | MQMWFIAA     |        | F2B070408-001  |        |                              |            |      |          |                                        |
| 527       |         | WIAA         |        | F2B090405-001  |        |                              |            |      |          |                                        |
| 528       |         | WIACS        |        | -001S          |        |                              |            |      |          |                                        |
| 529       |         | WIADD        |        | -001D          |        |                              |            |      |          |                                        |
| ECUV 530  |         | 8330 CCV     |        |                |        | GC0027/0034-12               | 4x         |      |          |                                        |
| EBIK 531  |         | MQMAVIAA B   |        | F2B060000-080B |        |                              |            |      | 203 7080 | TBD                                    |
| ELCS 532  |         | VIAC C       |        | -080C          |        |                              |            |      |          |                                        |
| ESMP 533  |         | MLFRPIAA     |        | F2B030441-001  |        |                              |            |      |          |                                        |
| 534       |         | MLGPIAA      |        | -002           |        |                              |            |      |          |                                        |
| 535       |         | PIAC         |        | -002S          |        |                              |            |      |          |                                        |

Reviewed By: 

Form: SL-ORG-0009, Rev. 8/12/10

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike;  
D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.  
Reporting Flags: Y=Yes data reported; N=No data not reported; TBD=to be determined pending re-analysis; TBD Y = data reported; TBD N = data not reported

SOP References: ST-GC-0017, current revisions.

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ECCV530.D

Report Date: 14-Feb-2012 13:02

TestAmerica St. Louis

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lce.i                      Injection Date: 13-FEB-2012 22:27  
 Lab File ID: ECCV530.D                  Init. Cal. Date(s): 13-FEB-2012    13-FEB-2012  
 Analysis Type: WATER                    Init. Cal. Times:    13:06                  17:48  
 Lab Sample ID: 8330 CCV                Quant Type:    ESTD  
 Method: \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m

| COMPOUND                      | RRF / AMOUNT | RF500 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|-------------------------------|--------------|-------|---------|-------------|-----------------|------------|
| 1 HMX                         | 307          | 303   | 0.010   | 1.27665     | 20.00000        | Averaged   |
| 2 TNX                         | 680          | 684   | 0.010   | -0.63020    | 20.00000        | Averaged   |
| 3 DNX                         | 545          | 570   | 0.010   | -4.47789    | 20.00000        | Averaged   |
| 4 MNX                         | 435          | 463   | 0.010   | -6.52488    | 20.00000        | Averaged   |
| 6 RDX                         | 378          | 362   | 0.010   | 4.25056     | 20.00000        | Averaged   |
| \$ 7 1,2-Dinitrobenzene       | 474          | 483   | 0.010   | -1.76883    | 20.00000        | Averaged   |
| 8 1,3,5-Trinitrobenzene       | 859          | 863   | 0.010   | -0.43675    | 20.00000        | Averaged   |
| 9 1,3-Dinitrobenzene          | 1044         | 1043  | 0.010   | 0.09557     | 20.00000        | Averaged   |
| 10 Tetryl                     | 623          | 621   | 0.010   | 0.28219     | 20.00000        | Averaged   |
| 11 Nitrobenzene               | 811          | 801   | 0.010   | 1.22496     | 20.00000        | Averaged   |
| 13 2,4,6-Trinitrotoluene      | 780          | 779   | 0.010   | 0.14877     | 20.00000        | Averaged   |
| 14 4-Amino-2,6-Dinitrotoluene | 555          | 547   | 0.010   | 1.47791     | 20.00000        | Averaged   |
| 15 2-Amino-4,6-Dinitrotoluene | 817          | 803   | 0.010   | 1.74981     | 20.00000        | Averaged   |
| 16 2,6-Dinitrotoluene         | 537          | 534   | 0.010   | 0.67840     | 20.00000        | Averaged   |
| 17 2,4-Dinitrotoluene         | 1064         | 1054  | 0.010   | 0.92088     | 20.00000        | Averaged   |
| 18 2-Nitrotoluene             | 506          | 490   | 0.010   | 3.10229     | 20.00000        | Averaged   |
| 19 4-Nitrotoluene             | 453          | 421   | 0.010   | 7.13159     | 20.00000        | Averaged   |
| 20 3-Nitrotoluene             | 564          | 540   | 0.010   | 4.40175     | 20.00000        | Averaged   |

Average %D / Drift Results.

Calculated Average %D/Drift = 2.44520

Maximun Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ECCV530.D  
 Report Date: 14-Feb-2012 13:02

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ECCV530.D  
 Lab Smp Id: 8330 CCV Client Smp ID: 8330 CCV  
 Inj Date : 13-FEB-2012 22:27  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 CCV  
 Misc Info : 8330 CCV  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

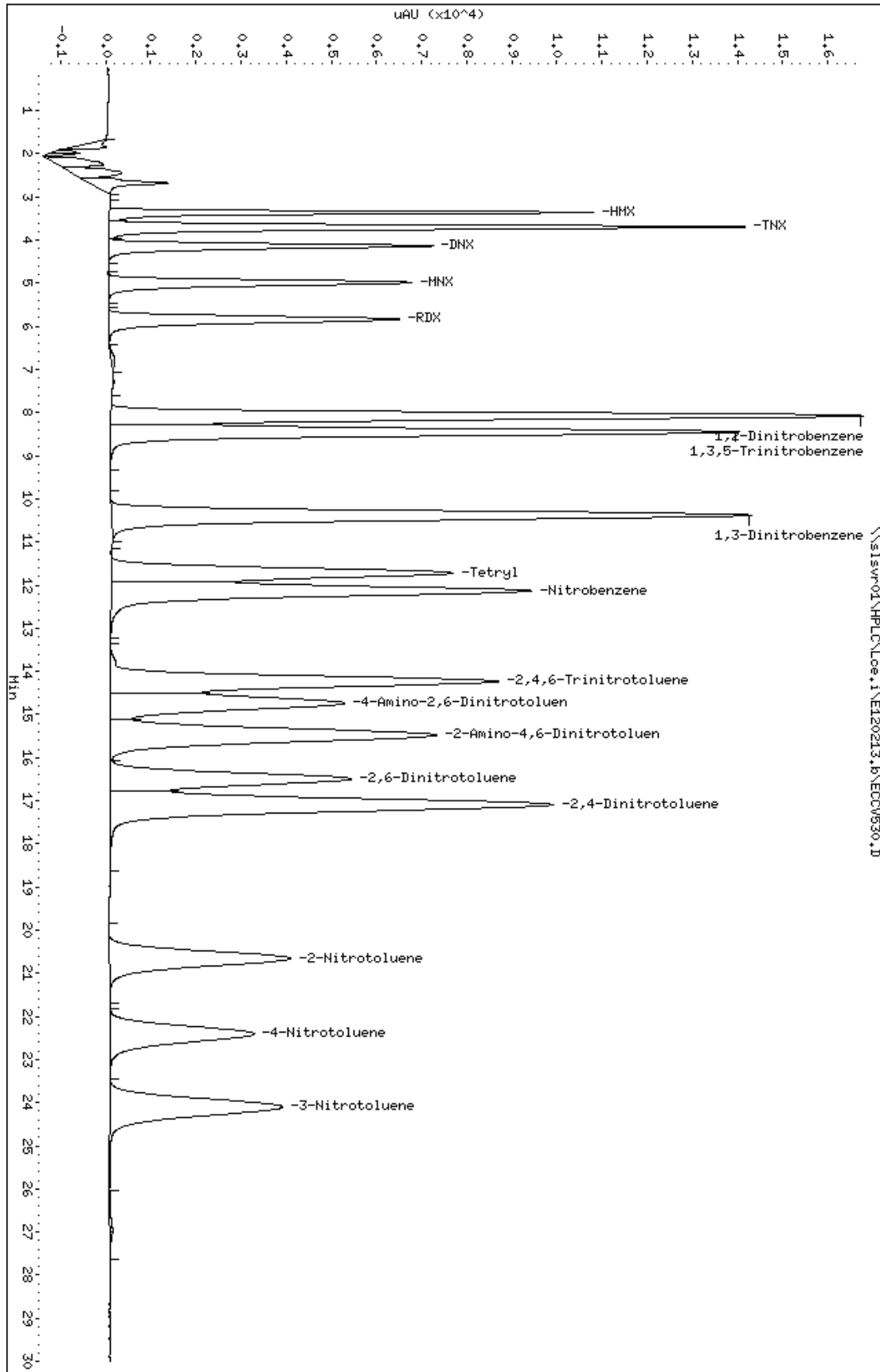
| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     |        |        |        |          | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.358  | 3.358  | 0.000  | 151600   | 500.000            | 493.6             |
| 2 TNX                         | 3.694  | 3.695  | -0.001 | 270177   | 395.000            | 397.5             |
| 3 DNX                         | 4.136  | 4.138  | -0.002 | 156637   | 275.000            | 287.3             |
| 4 MNX                         | 4.984  | 4.988  | -0.004 | 166703   | 360.000            | 383.5             |
| 6 RDX                         | 5.836  | 5.842  | -0.006 | 180985   | 500.000            | 478.7             |
| \$ 7 1,2-Dinitrobenzene       | 8.074  | 8.086  | -0.012 | 482713   | 1000.00            | 1018              |
| 8 1,3,5-Trinitrobenzene       | 8.448  | 8.460  | -0.012 | 431369   | 500.000            | 502.2             |
| 9 1,3-Dinitrobenzene          | 10.378 | 10.389 | -0.011 | 521563   | 500.000            | 499.5             |
| 10 Tetryl                     | 11.719 | 11.729 | -0.010 | 310693   | 500.000            | 498.6             |
| 11 Nitrobenzene               | 12.133 | 12.141 | -0.008 | 400744   | 500.000            | 493.9             |
| 13 2,4,6-Trinitrotoluene      | 14.233 | 14.239 | -0.006 | 389252   | 500.000            | 499.2             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.737 | 14.740 | -0.003 | 273440   | 500.000            | 492.6             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.477 | 15.481 | -0.004 | 401554   | 500.000            | 491.2             |
| 16 2,6-Dinitrotoluene         | 16.495 | 16.497 | -0.002 | 266803   | 500.000            | 496.6             |
| 17 2,4-Dinitrotoluene         | 17.092 | 17.094 | -0.002 | 526966   | 500.000            | 495.4             |
| 18 2-Nitrotoluene             | 20.656 | 20.655 | 0.001  | 245199   | 500.000            | 484.5             |
| 19 4-Nitrotoluene             | 22.407 | 22.405 | 0.002  | 210466   | 500.000            | 464.3             |
| 20 3-Nitrotoluene             | 24.100 | 24.097 | 0.003  | 269753   | 500.000            | 478.0             |



Data File: \\sisvr01\HPLC\Loc.i\120213.b\ECW530.D  
Date : 13-FEB-2012 22:27  
Client ID: 8330 CCV  
Sample Info: 8330 CCV  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ECCV541.D

Report Date: 14-Feb-2012 13:02

TestAmerica St. Louis

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lce.i                      Injection Date: 14-FEB-2012 04:50  
 Lab File ID: ECCV541.D                  Init. Cal. Date(s): 13-FEB-2012    13-FEB-2012  
 Analysis Type: WATER                    Init. Cal. Times:    13:06                  17:48  
 Lab Sample ID: 8330 CCV                Quant Type:    ESTD  
 Method: \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m

| COMPOUND                      | RRF / AMOUNT | RF500 | MIN   | MAX         | CURVE TYPE |
|-------------------------------|--------------|-------|-------|-------------|------------|
|                               |              |       | RRF   | %D / %DRIFT |            |
| 1 HMX                         | 307          | 302   | 0.010 | 1.67650     | Averaged   |
| 2 TNX                         | 680          | 683   | 0.010 | -0.55050    | Averaged   |
| 3 DNX                         | 545          | 567   | 0.010 | -3.98631    | Averaged   |
| 4 MNX                         | 435          | 463   | 0.010 | -6.52040    | Averaged   |
| 6 RDX                         | 378          | 363   | 0.010 | 4.02836     | Averaged   |
| 7 1,2-Dinitrobenzene          | 474          | 483   | 0.010 | -1.87488    | Averaged   |
| 8 1,3,5-Trinitrobenzene       | 859          | 866   | 0.010 | -0.81300    | Averaged   |
| 9 1,3-Dinitrobenzene          | 1044         | 1053  | 0.010 | -0.86044    | Averaged   |
| 10 Tetryl                     | 623          | 621   | 0.010 | 0.39806     | Averaged   |
| 11 Nitrobenzene               | 811          | 804   | 0.010 | 0.90306     | Averaged   |
| 13 2,4,6-Trinitrotoluene      | 780          | 772   | 0.010 | 0.96066     | Averaged   |
| 14 4-Amino-2,6-Dinitrotoluene | 555          | 547   | 0.010 | 1.53881     | Averaged   |
| 15 2-Amino-4,6-Dinitrotoluene | 817          | 804   | 0.010 | 1.61181     | Averaged   |
| 16 2,6-Dinitrotoluene         | 537          | 552   | 0.010 | -2.81270    | Averaged   |
| 17 2,4-Dinitrotoluene         | 1064         | 1067  | 0.010 | -0.33395    | Averaged   |
| 18 2-Nitrotoluene             | 506          | 492   | 0.010 | 2.87624     | Averaged   |
| 19 4-Nitrotoluene             | 453          | 419   | 0.010 | 7.53622     | Averaged   |
| 20 3-Nitrotoluene             | 564          | 538   | 0.010 | 4.73169     | Averaged   |

Average %D / Drift Results.

Calculated Average %D/Drift = 2.44520

Maximun Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ECCV541.D  
 Report Date: 14-Feb-2012 13:02

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ECCV541.D  
 Lab Smp Id: 8330 CCV Client Smp ID: 8330 CCV  
 Inj Date : 14-FEB-2012 04:50  
 Operator : AF Inst ID: Lce.i  
 Smp Info : 8330 CCV  
 Misc Info : 8330 CCV  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: FULL8330.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

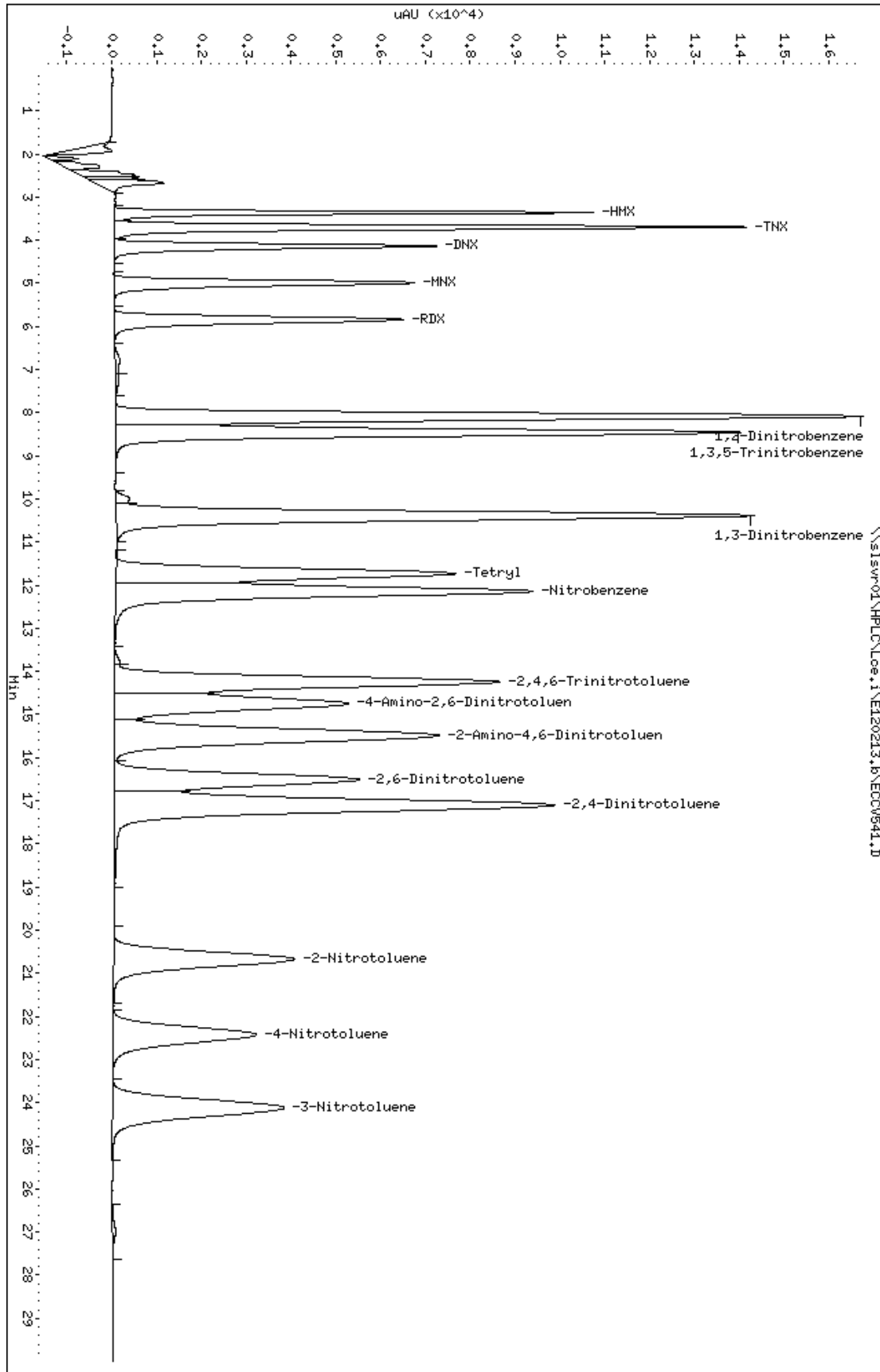
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds                     |        |        |        |          | AMOUNTS            |                   |
|-------------------------------|--------|--------|--------|----------|--------------------|-------------------|
|                               | RT     | EXP RT | DLT RT | RESPONSE | CAL-AMT<br>( ug/L) | ON-COL<br>( ug/L) |
| 1 HMX                         | 3.359  | 3.358  | 0.001  | 150986   | 500.000            | 491.6             |
| 2 TNX                         | 3.696  | 3.695  | 0.001  | 269963   | 395.000            | 397.2             |
| 3 DNX                         | 4.138  | 4.138  | 0.000  | 155900   | 275.000            | 286.0             |
| 4 MNX                         | 4.988  | 4.988  | 0.000  | 166696   | 360.000            | 383.5             |
| 6 RDX                         | 5.842  | 5.842  | 0.000  | 181405   | 500.000            | 479.8             |
| \$ 7 1,2-Dinitrobenzene       | 8.084  | 8.086  | -0.002 | 483216   | 1000.00            | 1019              |
| 8 1,3,5-Trinitrobenzene       | 8.457  | 8.460  | -0.003 | 432985   | 500.000            | 504.1             |
| 9 1,3-Dinitrobenzene          | 10.387 | 10.389 | -0.002 | 526554   | 500.000            | 504.3             |
| 10 Tetryl                     | 11.732 | 11.729 | 0.003  | 310332   | 500.000            | 498.0             |
| 11 Nitrobenzene               | 12.144 | 12.141 | 0.003  | 402050   | 500.000            | 495.5             |
| 13 2,4,6-Trinitrotoluene      | 14.244 | 14.239 | 0.005  | 386087   | 500.000            | 495.2             |
| 14 4-Amino-2,6-Dinitrotoluene | 14.746 | 14.740 | 0.006  | 273271   | 500.000            | 492.3             |
| 15 2-Amino-4,6-Dinitrotoluene | 15.485 | 15.481 | 0.004  | 402118   | 500.000            | 491.9             |
| 16 2,6-Dinitrotoluene         | 16.509 | 16.497 | 0.012  | 276181   | 500.000            | 514.1             |
| 17 2,4-Dinitrotoluene         | 17.101 | 17.094 | 0.007  | 533640   | 500.000            | 501.7             |
| 18 2-Nitrotoluene             | 20.672 | 20.655 | 0.017  | 245771   | 500.000            | 485.6             |
| 19 4-Nitrotoluene             | 22.424 | 22.405 | 0.019  | 209549   | 500.000            | 462.3             |
| 20 3-Nitrotoluene             | 24.120 | 24.097 | 0.023  | 268822   | 500.000            | 476.3             |

Data File: \\slswr01\HPLC\Loc.i\120213.b\ECV541.D  
Date : 14-FEB-2012 04:50  
Client ID: 8330 CCV  
Sample Info: 8330 CCV  
Purge Volume: 500.0  
Column phase: Allure C-18

Instrument: Loe.i  
Operator: AF  
Column diameter: 4.60



# **HPLC RAW SAMPLE DATA**

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ESMP534.D  
 Report Date: 20-Feb-2012 09:20

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ESMP534.D  
 Lab Smp Id: MQLGP1AA Client Smp ID: CAAN-12-2035  
 Inj Date : 14-FEB-2012 00:46  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQLGP1AA  
 Misc Info : F2B030441-002  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

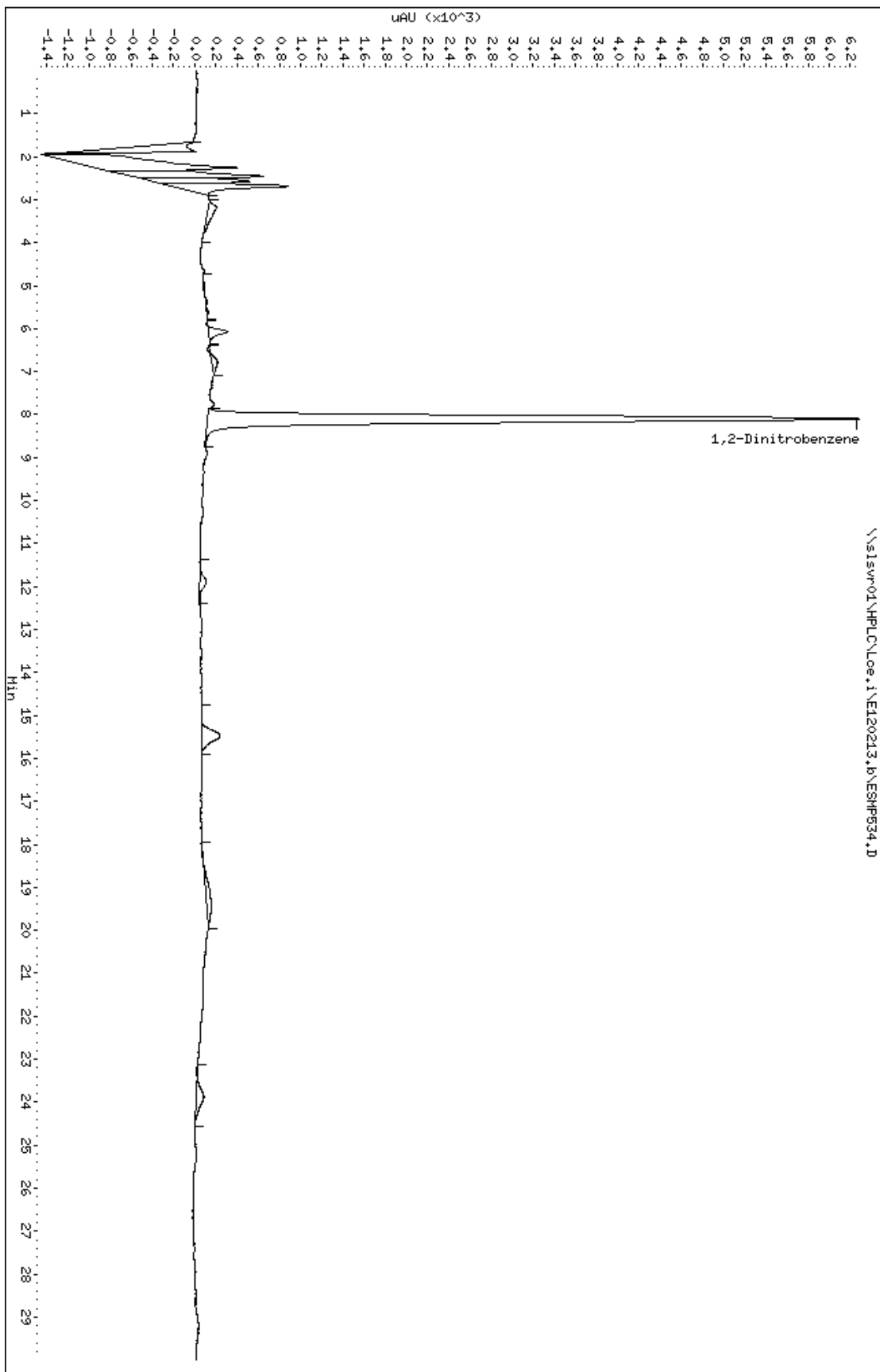
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.500  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               | RT    | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS       |                  |
|-------------------------|-------|--------|--------|----------|----------------------|------------------|
|                         |       |        |        |          | ON-COLUMN<br>( ug/L) | FINAL<br>( ug/L) |
| \$ 7 1,2-Dinitrobenzene | 8.099 | 8.086  | 0.013  | 163363   | 344.413              | 3.441            |

Data File: \\slswr01\\HPLC\\Loc.i\\E120213.b\\ESHP534.D  
Date : 14-FEB-2012 00:46  
Client ID: CAAH-12-2035  
Sample Info: HQLCP1A0  
Purge Volume: 500.5  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ESMP537.D  
 Report Date: 20-Feb-2012 09:21

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ESMP537.D  
 Lab Smp Id: MQLGV1AA Client Smp ID: CAAN-12-2031  
 Inj Date : 14-FEB-2012 02:31  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQLGV1AA  
 Misc Info : F2B040443-001  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

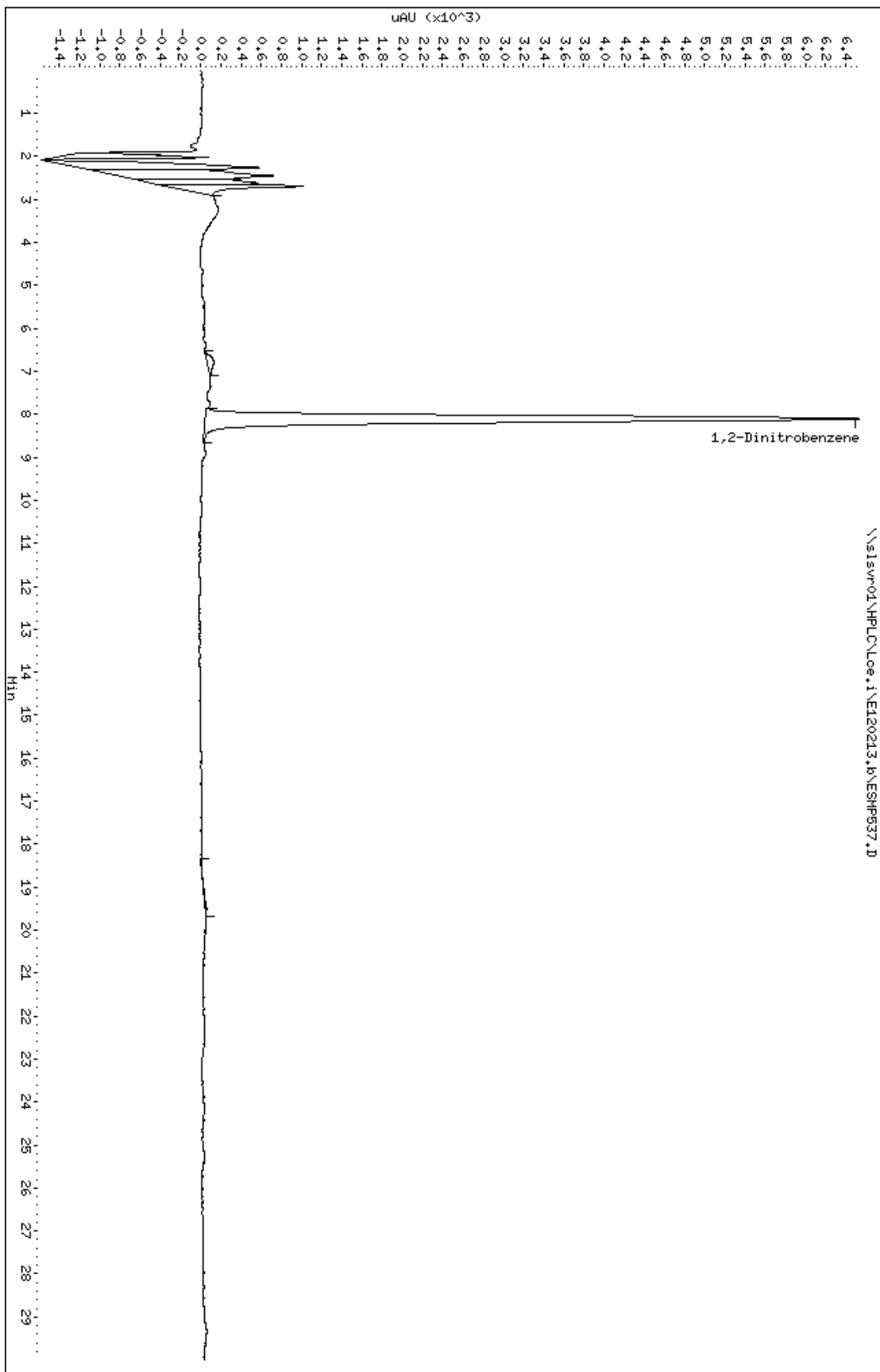
| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 501.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               | RT    | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS       |                  |
|-------------------------|-------|--------|--------|----------|----------------------|------------------|
|                         |       |        |        |          | ON-COLUMN<br>( ug/L) | FINAL<br>( ug/L) |
| \$ 7 1,2-Dinitrobenzene | 8.102 | 8.086  | 0.016  | 172841   | 364.395              | 3.637            |



Data File: \\slswr01\\HPLC\\Loc.i\\E120213.b\\ESHP537.D  
Date : 14-FEB-2012 02:31  
Client ID: CAAH-12-2031  
Sample Info: HPLC\\1A0  
Purge Volume: 501.0  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ESMP538.D  
 Report Date: 20-Feb-2012 09:20

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ESMP538.D  
 Lab Smp Id: MQLGX1AA Client Smp ID: CAAN-12-2199  
 Inj Date : 14-FEB-2012 03:06  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQLGX1AA  
 Misc Info : F2B040443-002  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

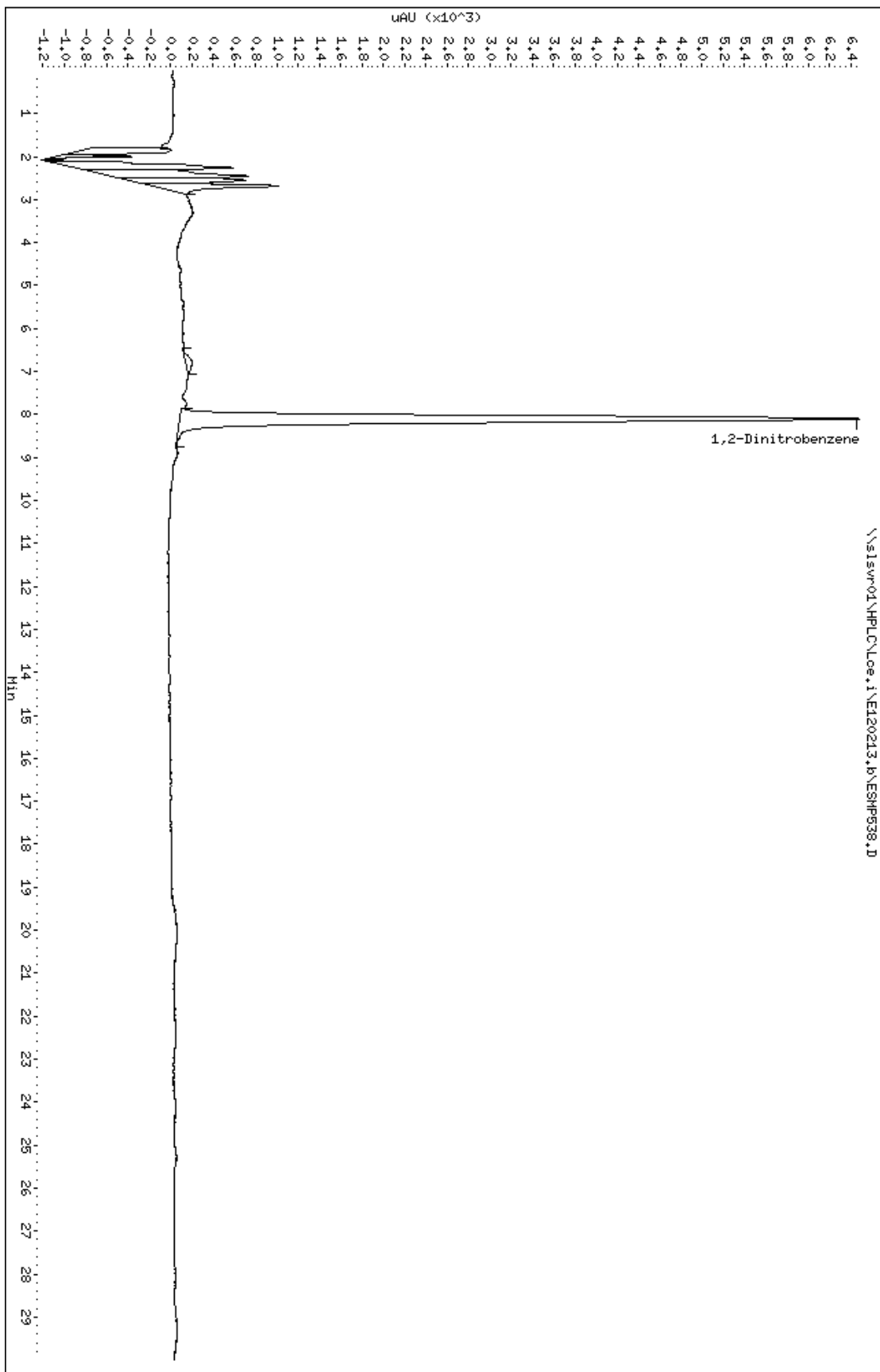
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 501.900  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               |       |        |        |          |  | CONCENTRATIONS       |                  |
|-------------------------|-------|--------|--------|----------|--|----------------------|------------------|
|                         | RT    | EXP RT | DLT RT | RESPONSE |  | ON-COLUMN<br>( ug/L) | FINAL<br>( ug/L) |
| \$ 7 1,2-Dinitrobenzene | 8.101 | 8.086  | 0.015  | 170243   |  | 358.918              | 3.576            |

Data File: \\slswr01\\HPLC\\Loc.i\\E120213.b\\ESMP538.D  
Date : 14-FEB-2012 03:06  
Client ID: CAAH-12-2199  
Sample Info: HCLGX1A0  
Purge Volume: 501.9  
Column Phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



# **HPLC RAW QC DATA**

Data File: \\slsvr01\HPLC\Lce.i\E120213.b\EBLK531.D  
 Report Date: 20-Feb-2012 09:19

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\EBLK531.D  
 Lab Smp Id: MQMAV1AA Client Smp ID: INTRA-LAB BLANK  
 Inj Date : 13-FEB-2012 23:02  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQMAV1AA  
 Misc Info : F2B060000-080B;2037080  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

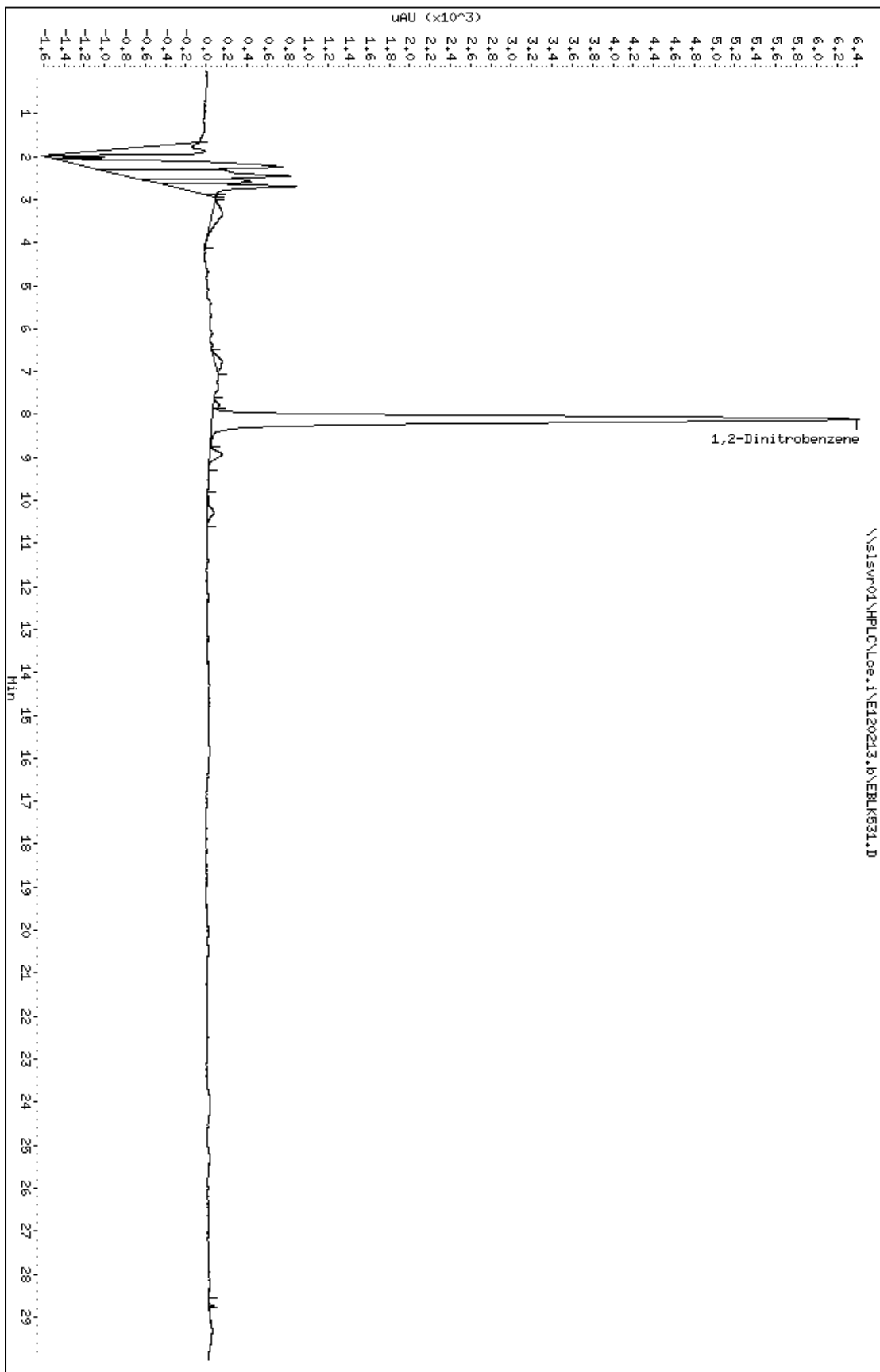
Concentration Formula: Amt \* DF \* (2\*Vt/UF)/Vo \* CpndVariable

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               |       |        |        |          | CONCENTRATIONS       |                  |
|-------------------------|-------|--------|--------|----------|----------------------|------------------|
|                         | RT    | EXP RT | DLT RT | RESPONSE | ON-COLUMN<br>( ug/L) | FINAL<br>( ug/L) |
| \$ 7 1,2-Dinitrobenzene | 8.109 | 8.086  | 0.023  | 169073   | 356.451              | 3.564            |

Data File: \\slswr01\HPLC\Loc.i\120213.b\EBLK531.D  
 Date : 13-FEB-2012 23:02  
 Client ID: INTRA-LAB BLANK  
 Sample Info: HQHAY1A0  
 Purge Volume: 500.0  
 Column Phase: Allure C-18

Instrument: Loc.i  
 Operator: AF  
 Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ELCS532.D  
 Report Date: 20-Feb-2012 09:19

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ELCS532.D  
 Lab Smp Id: MQMAV1AC Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 13-FEB-2012 23:37  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQMAV1AC  
 Misc Info : F2B060000-080C;2037080  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

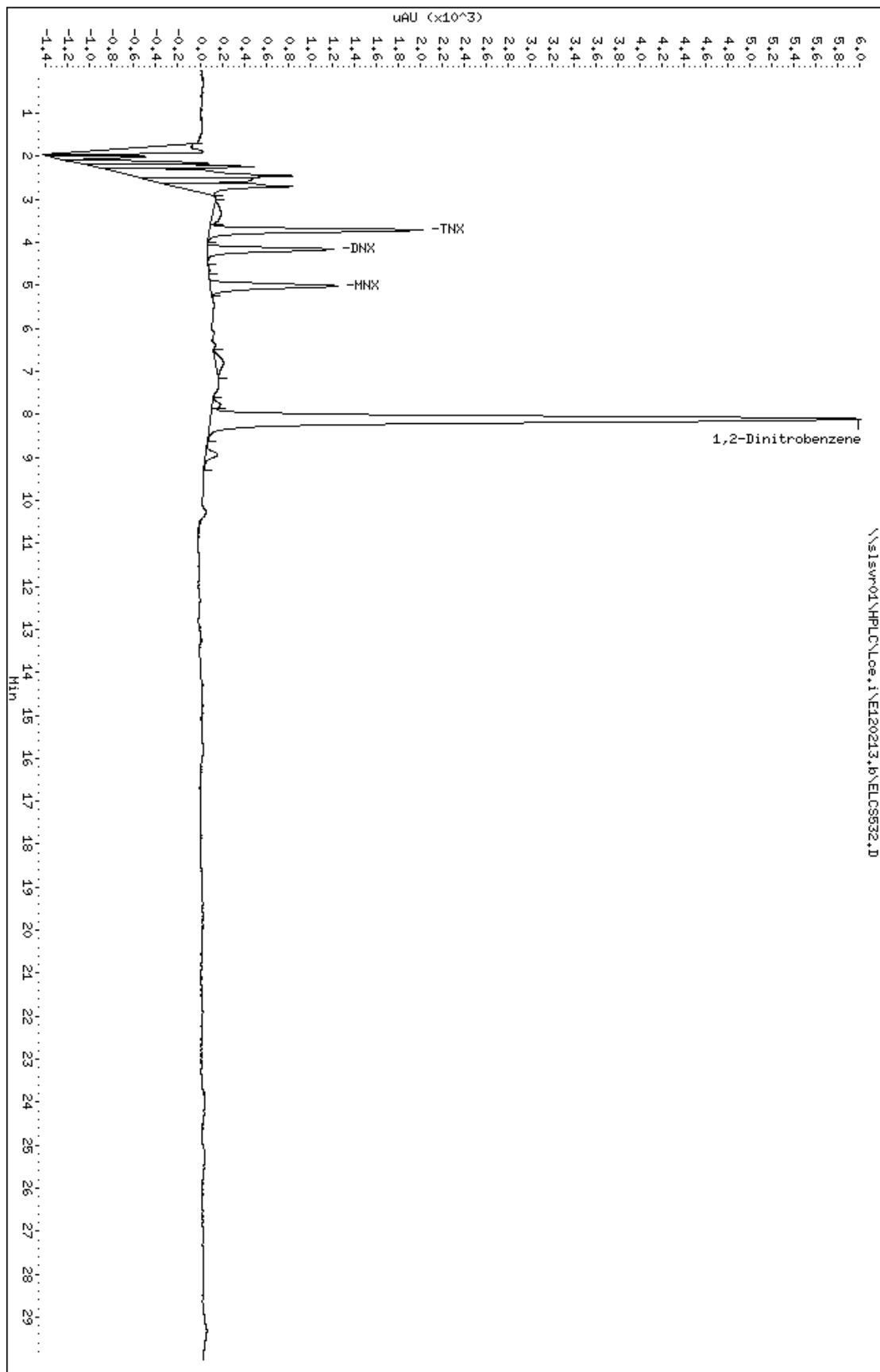
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.000  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               |       |        |        |          |           | CONCENTRATIONS |  |
|-------------------------|-------|--------|--------|----------|-----------|----------------|--|
|                         | RT    | EXP RT | DLT RT | RESPONSE | ON-COLUMN | FINAL          |  |
|                         |       |        |        |          | ( ug/L)   | ( ug/L)        |  |
| 2 TNX                   | 3.715 | 3.695  | 0.020  | 30490    | 44.8574   | 0.4486         |  |
| 3 DNX                   | 4.161 | 4.138  | 0.023  | 19847    | 36.4047   | 0.3640         |  |
| 4 MNX                   | 5.013 | 4.988  | 0.025  | 22942    | 52.7766   | 0.5278         |  |
| \$ 7 1,2-Dinitrobenzene | 8.110 | 8.086  | 0.024  | 155181   | 327.163   | 3.272          |  |

Data File: \\slswr01\HPLC\Loc.i\EL20213.b\ELCS532.D  
Date : 13-FEB-2012 23:37  
Client ID: INTRA-LAB CHECK  
Sample Info: HQHAYLAC  
Purge Volume: 500.0  
Column Phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60





Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ESMP535.D  
 Report Date: 20-Feb-2012 09:20

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ESMP535.D  
 Lab Smp Id: MQLGP1AC Client Smp ID: CAAN-12-2035  
 Inj Date : 14-FEB-2012 01:21  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQLGP1AC  
 Misc Info : F2B030441-002S;2037080  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

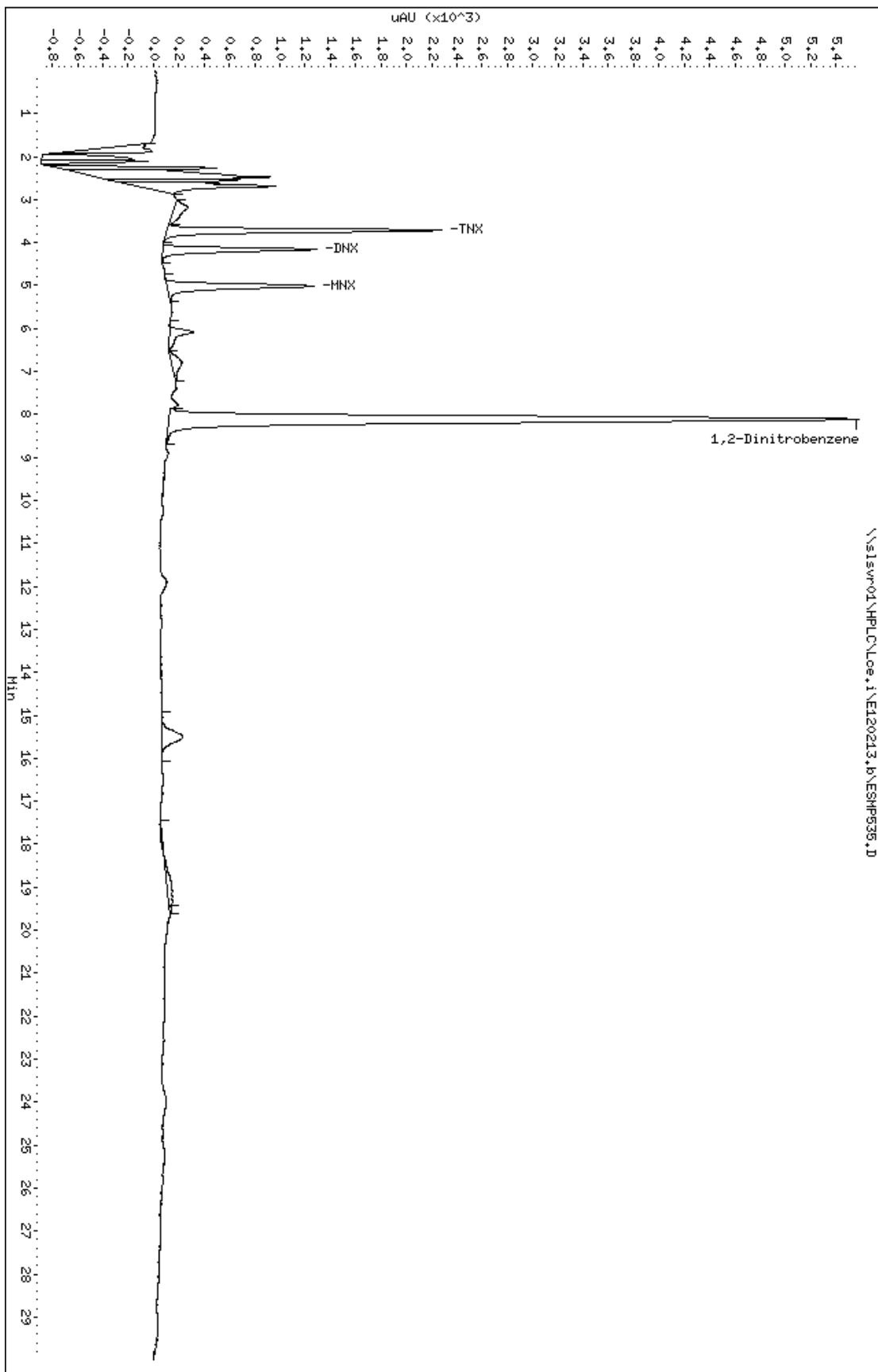
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.500  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               |       |        |        |          |           | CONCENTRATIONS |  |
|-------------------------|-------|--------|--------|----------|-----------|----------------|--|
|                         | RT    | EXP RT | DLT RT | RESPONSE | ON-COLUMN | FINAL          |  |
|                         |       |        |        |          | ( ug/L)   | ( ug/L)        |  |
| 2 TNX                   | 3.716 | 3.695  | 0.021  | 33438    | 49.1946   | 0.4914         |  |
| 3 DNX                   | 4.162 | 4.138  | 0.024  | 20574    | 37.7382   | 0.3770         |  |
| 4 MNX                   | 5.014 | 4.988  | 0.026  | 23189    | 53.3448   | 0.5329         |  |
| \$ 7 1,2-Dinitrobenzene | 8.111 | 8.086  | 0.025  | 142164   | 299.720   | 2.994          |  |

Data File: \\slswr01\HPLC\Loc.i\120213.b\ESHP535.D  
Date : 14-FEB-2012 01:21  
Client ID: C6AH-12-2035  
Sample Info: HQLCP1AC  
Purge Volume: 500.5  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



Data File: \\slsvr01\HPLC\Lce.i\E120213.b\ESMP536.D  
 Report Date: 20-Feb-2012 09:20

## TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lce.i\E120213.b\ESMP536.D  
 Lab Smp Id: MQLGP1AD Client Smp ID: CAAN-12-2035  
 Inj Date : 14-FEB-2012 01:56  
 Operator : AF Inst ID: Lce.i  
 Smp Info : MQLGP1AD  
 Misc Info : F2B030441-002D;2037080  
 Comment :  
 Method : \\slsvr01\HPLC\Lce.i\E120213.b\C18-8330.m  
 Meth Date : 14-Feb-2012 12:59 flakera Quant Type: ESTD  
 Cal Date : 13-FEB-2012 15:25 Cal File: EICL518B.D  
 Als bottle: 1 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: HP Genie Compound Sublist: XNX.sub  
 Target Version: 4.14  
 Processing Host: SLGC09

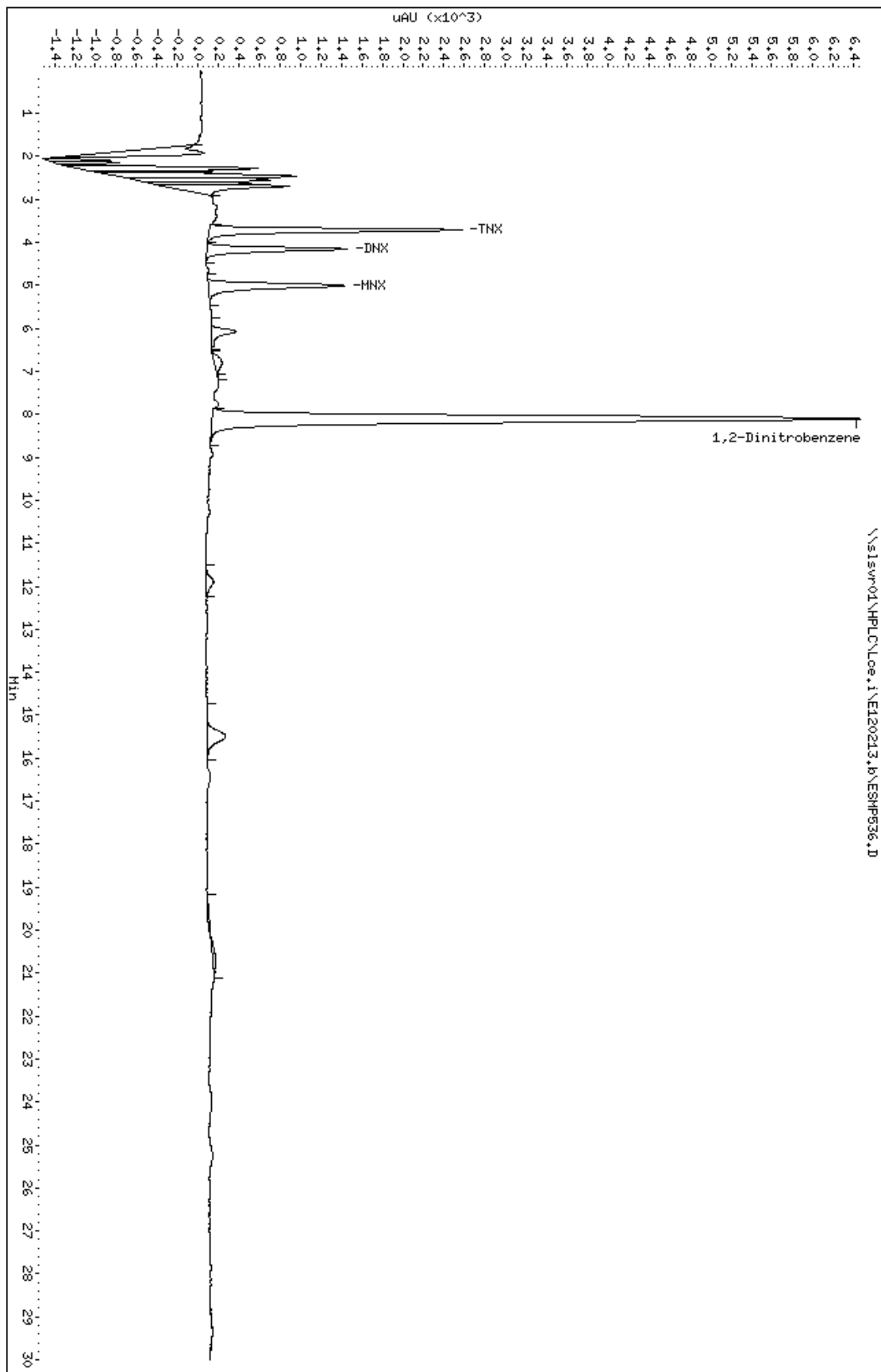
Concentration Formula:  $\text{Amt} * \text{DF} * (2 * \text{Vt} / \text{UF}) / \text{Vo} * \text{CpndVariable}$

| Name          | Value    | Description              |
|---------------|----------|--------------------------|
| DF            | 1.000    | Dilution Factor          |
| Vt            | 2500.000 | Final Volume of Extract  |
| UF            | 1000.000 | Unit Factor for uL to mL |
| Vo            | 500.500  | Volume extracted         |
| Cpnd Variable |          | Local Compound Variable  |

| Compounds               |       |        |        |          |  | CONCENTRATIONS       |                  |
|-------------------------|-------|--------|--------|----------|--|----------------------|------------------|
|                         | RT    | EXP RT | DLT RT | RESPONSE |  | ON-COLUMN<br>( ug/L) | FINAL<br>( ug/L) |
| 2 TNX                   | 3.710 | 3.695  | 0.015  | 40483    |  | 59.5593              | 0.5950           |
| 3 DNX                   | 4.155 | 4.138  | 0.017  | 24615    |  | 45.1505              | 0.4510           |
| 4 MNX                   | 5.006 | 4.988  | 0.018  | 28604    |  | 65.8017              | 0.6574           |
| \$ 7 1,2-Dinitrobenzene | 8.102 | 8.086  | 0.016  | 170162   |  | 358.747              | 3.584            |

Data File: \\slswr01\\HPLC\\Loc.i\\E120213.b\\ESHP536.D  
Date : 14-FEB-2012 01:56  
Client ID: C04H-12-2035  
Sample Info: HQLCP1AD  
Purge Volume: 500.5  
Column phase: Allure C-18

Instrument: Loc.i  
Operator: AF  
Column diameter: 4.60



# **HPLC MISCELLANEOUS DATA**

**Prep Method:** SW-846 3535

**Prep Description:** EXTRACTION, SOLID PHASE

**SOP Number:** ST-OP-0008

**Matrix:** WATER

**Extraction Date:** 2/6/2012

E 120213

| Lot Number       | WorkOrder No | AnalDueDate | Initials: AF |      |      |           | Initials: AF    |          | Initials: AF |      | Initials: AF |      | Initials: AF |  |
|------------------|--------------|-------------|--------------|------|------|-----------|-----------------|----------|--------------|------|--------------|------|--------------|--|
|                  |              |             | Wt/Vol       | pH 1 | pH 2 | Extr Unit | Concentration 1 |          | Cleanup 1    |      | Cleanup 2    |      |              |  |
|                  |              |             |              |      |      |           | Volume          | Date     | Method       | Date | Method       | Date |              |  |
| F2B030441 - 001  | MLFR1AA      | 02/24/2012  | 501.000 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B030441 - 002  | MLG1AA       | 02/24/2012  | 500.500 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B030441 - 002D | MLG1AD       | 02/24/2012  | 500.500 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B030441 - 002S | MLG1AC       | 02/24/2012  | 500.500 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B030443 - 001  | MLGV1AA      | 02/24/2012  | 501.000 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B030443 - 002  | MLGX1AA      | 02/24/2012  | 501.900 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B040401 - 001  | ML1P1AA      | 02/24/2012  | 500.900 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B040402 - 001  | ML1Q1AA      | 02/24/2012  | 500.900 mL   | 6    |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B060000 - 080B | MQMAV1AA     |             | 500.000 mL   |      |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |
| F2B060000 - 080C | MQMAV1AC     |             | 500.000 mL   |      |      |           | 2.500 mL        | 2/6/2012 |              |      |              |      |              |  |

**Chemical Lot Information**

**Chemical** Acetonitrile  
**Lot Number** H39809  
RDX Columns P3241

**Miscellaneous Information**

**Start:** 02/06/2012 10:00  
**Stop:** 02/06/2012 12:45

**Extr 1:** 02/06/2012 10:00

**Extr 2:**

**Balance ID Soil:** 1129114854 AF

**Balance ID Water:** 1126423545

**Spike Information**

**Name** XNX Prep Spike  
**Standard ID** GC0018-12  
**Exp Date** 2/29/2012  
**Vol Added** 250 uL  
8330 Prep Surrogat GC0034-12 3/6/2012  
**Vol Added** 50 uL

Spiking verified by: C

**Comments:**

**Custody Information**

**Relinquished By:** AF

**Review/Received By:** AF

**Date of Transfer:** 2/6/12

Logbook No. 3760

Instrument ID# LCE

## TestAmerica HPLC Runlog

Date: 2/13/12  
2/13/12 - 2/14/12  
AF 2/14/12

| Data File | Clock   | Lab ID       | Method | Lot Number | Matrix | STD #                   | Dil. Fact. | Oper | Batch | Comments                               |
|-----------|---------|--------------|--------|------------|--------|-------------------------|------------|------|-------|----------------------------------------|
| ECND 511  | E12D213 | CONDITIONING | 8330   |            |        | AF 2/13/12<br>GC0017-12 |            | AF   |       | AF 2/13/12<br>GC0017-12<br>DNX > 1.05' |
| ECNV 512  |         | 8330 CCV     |        |            |        | GC0018/0026-12          | 4X         |      |       |                                        |
| ECND 513  |         | CONDITIONING |        |            |        | AF 2/13/12              |            |      |       |                                        |
| EICL 514  |         | 8330 ICAL-1  |        |            |        | GC0018/0026-12          | 200X       |      |       |                                        |
| 515       |         | -2           |        |            |        |                         | 100X       |      |       |                                        |
| 516       |         | -3           |        |            |        |                         | 40X        |      |       |                                        |
| 517       |         | -4           |        |            |        |                         | 10X        |      |       |                                        |
| 518       |         | -5           |        |            |        |                         | 4X         |      |       |                                        |
| 519       |         | -6           |        |            |        |                         | 20X        |      |       |                                        |
| 520       |         | -7           |        |            |        |                         | 8X         |      |       |                                        |
| 521       |         | -8           |        |            |        |                         | 4X         |      |       |                                        |
| 522       |         | -9           |        |            |        |                         | 2X         |      |       |                                        |
| EICV 523  |         | 8330 ICV     |        |            |        |                         |            |      |       |                                        |
| EBIK 524  |         | MQQTPIAA     |        |            |        |                         |            |      |       |                                        |
| ELCS 525  |         | PIAC C       |        |            |        |                         |            |      |       |                                        |
| ESMP 526  |         | MQMWFIAA     |        |            |        |                         |            |      |       |                                        |
| 527       |         | WIAA         |        |            |        |                         |            |      |       |                                        |
| 528       |         | WIACS        |        |            |        |                         |            |      |       |                                        |
| 529       |         | WIADD        |        |            |        |                         |            |      |       |                                        |
| ECNV 530  |         | 8330 CCV     |        |            |        |                         |            |      |       |                                        |
| EBIK 531  |         | MQMAVIAA B   |        |            |        |                         |            |      |       |                                        |
| ELCS 532  |         | PIAC C       |        |            |        |                         |            |      |       |                                        |
| ESMP 533  |         | MQLFRIA A    |        |            |        |                         |            |      |       |                                        |
| 534       |         | MLGPIAA      |        |            |        |                         |            |      |       |                                        |
| 535       |         | PIAC         |        |            |        |                         |            |      |       |                                        |
| EICV 523  |         | 8330 ICV     |        |            |        |                         |            |      |       |                                        |
| EBIK 524  |         | MQQTPIAA     |        |            |        |                         |            |      |       |                                        |
| ELCS 525  |         | PIAC C       |        |            |        |                         |            |      |       |                                        |
| ESMP 526  |         | MQMWFIAA     |        |            |        |                         |            |      |       |                                        |
| 527       |         | WIAA         |        |            |        |                         |            |      |       |                                        |
| 528       |         | WIACS        |        |            |        |                         |            |      |       |                                        |
| 529       |         | WIADD        |        |            |        |                         |            |      |       |                                        |
| ECNV 530  |         | 8330 CCV     |        |            |        |                         |            |      |       |                                        |
| EBIK 531  |         | MQMAVIAA B   |        |            |        |                         |            |      |       |                                        |
| ELCS 532  |         | PIAC C       |        |            |        |                         |            |      |       |                                        |
| ESMP 533  |         | MQLFRIA A    |        |            |        |                         |            |      |       |                                        |
| 534       |         | MLGPIAA      |        |            |        |                         |            |      |       |                                        |
| 535       |         | PIAC         |        |            |        |                         |            |      |       |                                        |

Reviewed By:

2/13/12  
2/14/12

Form: SL-ORG-0009, Rev. 8/12/10

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QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike;

D = Matrix Spike Duplicate; SMP = Sample; Matrix Spike or Matrix Spike Duplicate; CAL = Calibration Standard or Continuing Calibration Standard.

Reporting Flags: Y = Yes data reported; N = No data not reported; TBD = to be determined pending re-analysis; TBD Y = data reported; TBD N = data not reported

SOP References: ST-GC-0017, current revisions.

Instrument ID# LCE

## TestAmerica HPLC Runlog

Logbook No. 3760

Date: 12/2/13 - 2/14/12 <sup>2/13/12</sup>

| Data File                                                                                                                                                                                                                                | Clock   | Lab ID   | Method | Lot Number     | Matrix | STD #         | Dil. Fact. | Oper | Batch   | Comments |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------|----------------|--------|---------------|------------|------|---------|----------|
| ESHP 536                                                                                                                                                                                                                                 | E120213 | MQLGPIAD | 8330   | F2B030441-002D | W      | —             | —          | AF   | 203708D | Y        |
| 537                                                                                                                                                                                                                                      | —       | VIAA     | —      | F2B030443-001  | —      | —             | —          | —    | —       | Y        |
| 538                                                                                                                                                                                                                                      | —       | XIAA     | —      | -002           | —      | —             | —          | —    | —       | Y        |
| 539                                                                                                                                                                                                                                      | —       | MQLIPIAA | —      | F2B040401-001  | —      | —             | —          | —    | —       | Y        |
| 540                                                                                                                                                                                                                                      | —       | QIAA     | —      | F2B040402-002  | —      | —             | —          | —    | —       | Y        |
| ECCV 541                                                                                                                                                                                                                                 | —       | 8330 CCV | —      | —              | —      | GC0017/202112 | 4X         | —    | —       | Y        |
| ESBK542                                                                                                                                                                                                                                  | —       | FLUSH    | —      | —              | —      | —             | —          | —    | —       | Y        |
| <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%); background-size: 100% 100%; pointer-events: none;"></div> |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        |               |            |      |         |          |
|                                                                                                                                                                                                                                          |         |          |        |                |        | AF            | 214112     |      |         |          |

Reviewed By:

2/20/12

Form: SL-ORG-0009, Rev. 8/12/10

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QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard. Reporting Flags: Y = Yes data reported; N = No data not reported; TBD = to be determined pending re-analysis; TBD Y = data reported; TBD N = data not reported

SOP References: SI-GC-0017, current revisions.



**TestAmerica St. Louis**  
**Data Review Check List**  
**HPLC**
Clock: E120213Method: 8330 Lot/Sample ID(s):F2B030441-001, 002, 002MS, 002MSD, F2B060000-080B, 080CF2B030443-001, 002F2B040401-001F2B040402-001Due Date: 2/24/12Batch #: 2037080
 ALK  
 2/21/11

| Review Item                                                                                                     | Yes | No | N/A | 2 <sup>nd</sup> Review |
|-----------------------------------------------------------------------------------------------------------------|-----|----|-----|------------------------|
| <b>A. Initial Calibration</b>                                                                                   |     |    |     |                        |
| 1. Initial Calibration data in this package?<br>If not, please specify Instrument / folder name: <u>E120213</u> |     | ✓  |     | ✓                      |
| 2. Initial Calibration meets method acceptance criteria?<br>If not, please reference NCM # _____                |     |    | ✓   |                        |
| <b>B. Calibration Check (ICV)</b>                                                                               |     |    |     |                        |
| 1. ICV performed and Form (IV) generated?                                                                       |     |    | ✓   |                        |
| 2. ICV meets method acceptance criteria?<br>If not, please reference NCM # _____                                |     |    | ✓   |                        |
| <b>C. Continuing Calibration</b>                                                                                |     |    |     |                        |
| 1. Number included in this package: <u>(2)</u>                                                                  | ✓   |    |     | ✓                      |
| 2. CCV Forms generated?                                                                                         | ✓   |    |     | ✓                      |
| 3. All CCVs meet method acceptance criteria?<br>If not, please reference NCM # _____                            | ✓   |    |     | ✓                      |
| <b>D. HPLC Confirmation</b>                                                                                     |     |    |     |                        |
| 1. Did samples require second column confirmation?                                                              |     | ✓  |     | ✓                      |
| 2. Did samples require Spectral Identification?                                                                 |     | ✓  |     | ✓                      |
| <b>E. Batch QC – Method Blanks</b>                                                                              |     |    |     |                        |
| 1. Is the method blank “ND” for target analytes?<br>If not, please reference NCM # _____                        | ✓   |    |     | ✓                      |
| <b>F. Batch QC – LCS (LCSD)</b>                                                                                 |     |    |     |                        |
| 1. LCS (LCSD) spike recoveries meet proper QC/client limits?<br>If not, please reference NCM # _____            | ✓   |    |     | ✓                      |
| 2. LCS surrogate recoveries acceptable?<br>If not, please reference NCM # <u>0195265</u>                        |     | ✓  |     | ✓                      |
| <b>G. Batch QC – MS/MSD</b>                                                                                     |     |    |     |                        |
| 1. MS/MSD performed? If not, please reference NCM # _____                                                       | ✓   |    |     | ✓                      |
| 2. Spike amounts correct?                                                                                       |     |    |     |                        |
| 2. MS/MSD spike recoveries meet proper QC/client limits?<br>If not, please reference NCM # _____                | ✓   |    |     | ✓                      |

**TestAmerica St. Louis**  
**Data Review Check List**  
**HPLC**

| Review Item                                                                                                                                                    | Yes | No | N/A | 2 <sup>nd</sup> Review |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|------------------------|
| 3. Surrogate recoveries acceptable for MS/MSD?<br>If not, please reference NCM # _____                                                                         | ✓   |    |     | ✓                      |
| <b>H. Batch QC – RPD</b><br>1. MS/MSD (LCS/LCSD) RPD within acceptance criteria?<br>If not, please reference NCM # <u>0195266</u>                              |     | ✓  |     | ✓                      |
| <b>I. Sample Results - Reports</b><br>1. Are primary/secondary Form 10s included?                                                                              |     |    | ✓   |                        |
| <b>J. Sample Results – Surrogate Recoveries</b><br>1. All sample surrogate recoveries meet QC criteria?<br>If not, please reference NCM # _____                | ✓   |    |     | ✓                      |
| <b>K. Sample Results – Dilutions</b><br>1. Did samples require dilution due to matrix interference?<br>If so, please reference NCM # _____                     |     | ✓  |     | ✓                      |
| 2. Did samples require dilution due to high target analyte concentrations?<br>If so, please reference NCM # _____                                              |     | ✓  |     | ✓                      |
| <b>L. Sample Results – Qualifiers</b><br>1. Did samples require any PG qualifiers for dual column comparison anomalies?<br>If so, please reference NCM # _____ |     |    | ✓   |                        |
| 2. Did samples require any S qualifiers for Spectral Identification anomalies?<br>If so, please reference NCM # _____                                          |     |    | ✓   |                        |
| <b>M. Miscellaneous Information</b><br>1. Have Batch/Prep sheets been included?                                                                                | ✓   |    |     | ✓                      |
| 2. Have copies of all Run Logs been included?                                                                                                                  | ✓   |    |     | ✓                      |
| 3. Client requirement sheets included?                                                                                                                         | ✓   |    |     | ✓                      |
| 4. Were calculations checked?                                                                                                                                  | ✓   |    |     | ✓                      |
| 5. Were manual integrations noted and signed?                                                                                                                  | ✓   |    |     | ✓                      |

Additional Comments:

|                                    |                      |
|------------------------------------|----------------------|
| Analyst: <u>Michelle Flahn</u>     | Date: <u>2/21/12</u> |
| Second-Level Review: <u>Ben S.</u> | Date: <u>2/21/12</u> |