

ANALYTICAL REPORT

Job Number: 180-48181-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation
2601 Market Place Street, Suite 310
Harrisburg, PA 17110-9307

Attention: Allan Miller



Approved for release.
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11/20/2015 4:08 PM

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11/20/2015
Revision: 1

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Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--|
| U | Indicates the analyte was analyzed for but not detected. |
| ^c | CCV Recovery is outside acceptance limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| E | Result exceeded calibration range. |

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-48181-1 REVISED

NOTE: This report has been revised to update the report formatting.

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

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

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

RECEIPT

The samples were received on 9/26/2015 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

VOLATILES

The following samples were diluted to bring the concentration of target analytes within the calibration range: HD-MW-93S-0/1-0 (180-48181-3), HD-MW-93D-0/1-0 (180-48181-4), HD-MW-75S-0/1-0 (180-48181-5), HD-MW-75D-0/1-0 (180-48181-6), HD-MW-37D-0/1-0 (180-48181-7) and HD-QC3-0/1-1 (180-48181-8). Elevated reporting limits (RLs) are provided.

cis-1,2-Dichloroethene and Trichloroethene failed the recovery criteria low for the MS/MSD of sample HD-MW-147A-0/1-0 (180-48181-2) in batch 180-155766.

The following analyte was outside the %D criteria but within the method criteria of the number of analytes allowed out: Chloroethane. An low level CCV was analyzed and all compounds were found. (CCVIS 180-156037/2).

The following analyte was outside the %D criteria but within the method criteria of number of analytes allowed out: Chloroethane. An low level CCV was analyzed and all compounds were found. (CCVIS 180-155884/2)

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Client Sample ID: HD-MW-18S-0/1-0

Lab Sample ID: 180-48181-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Chloromethane | 0.28 | J | 1.0 | 0.28 | ug/L | 1 | | 8260C | Total/NA |
| Vinyl chloride | 0.57 | J | 1.0 | 0.23 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 11 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |

Client Sample ID: HD-MW-147A-0/1-0

Lab Sample ID: 180-48181-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 0.53 | J | 1.0 | 0.30 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 0.14 | J | 1.0 | 0.12 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 11 | F1 | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| Chloroform | 0.24 | J | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 0.46 | J | 1.0 | 0.29 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 11 | F1 | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Tetrachloroethene | 6.3 | | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |

Client Sample ID: HD-MW-93S-0/1-0

Lab Sample ID: 180-48181-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 0.95 | J | 1.0 | 0.30 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 23 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 6.8 | | 1.0 | 0.29 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 31 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Tetrachloroethene | 110 | E | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane - DL | 1.1 | J | 5.0 | 0.58 | ug/L | 5 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene - DL | 20 | | 5.0 | 1.2 | ug/L | 5 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane - DL | 5.5 | | 5.0 | 1.4 | ug/L | 5 | | 8260C | Total/NA |
| Trichloroethene - DL | 27 | | 5.0 | 0.72 | ug/L | 5 | | 8260C | Total/NA |
| Tetrachloroethene - DL | 90 | | 5.0 | 0.74 | ug/L | 5 | | 8260C | Total/NA |

Client Sample ID: HD-MW-93D-0/1-0

Lab Sample ID: 180-48181-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Vinyl chloride | 0.54 | J | 1.0 | 0.23 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethene | 4.3 | | 1.0 | 0.30 | ug/L | 1 | | 8260C | Total/NA |
| trans-1,2-Dichloroethene | 0.26 | J | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 2.9 | | 1.0 | 0.12 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 44 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 8.2 | | 1.0 | 0.29 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 140 | E | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Tetrachloroethene | 180 | E | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane - DL | 2.7 | J | 10 | 1.2 | ug/L | 10 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene - DL | 37 | | 10 | 2.4 | ug/L | 10 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane - DL | 6.2 | J | 10 | 2.9 | ug/L | 10 | | 8260C | Total/NA |
| Trichloroethene - DL | 120 | | 10 | 1.4 | ug/L | 10 | | 8260C | Total/NA |
| Tetrachloroethene - DL | 160 | | 10 | 1.5 | ug/L | 10 | | 8260C | Total/NA |

Client Sample ID: HD-MW-75S-0/1-0

Lab Sample ID: 180-48181-5

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Client Sample ID: HD-MW-75S-0/1-0 (Continued)

Lab Sample ID: 180-48181-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|-----|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 53 | | 50 | 15 | ug/L | 50 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 6.8 | J | 50 | 5.8 | ug/L | 50 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 130 | | 50 | 12 | ug/L | 50 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 250 | | 50 | 14 | ug/L | 50 | | 8260C | Total/NA |
| Trichloroethene | 2900 | E | 50 | 7.2 | ug/L | 50 | | 8260C | Total/NA |
| 1,1,2-Trichloroethane | 120 | | 50 | 10 | ug/L | 50 | | 8260C | Total/NA |
| Tetrachloroethene | 14000 | E | 50 | 7.4 | ug/L | 50 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene - DL | 160 | J | 500 | 120 | ug/L | 500 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane - DL | 240 | J | 500 | 140 | ug/L | 500 | | 8260C | Total/NA |
| Trichloroethene - DL | 2800 | | 500 | 72 | ug/L | 500 | | 8260C | Total/NA |
| Tetrachloroethene - DL | 16000 | | 500 | 74 | ug/L | 500 | | 8260C | Total/NA |

Client Sample ID: HD-MW-75D-0/1-0

Lab Sample ID: 180-48181-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|-----|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 54 | | 50 | 15 | ug/L | 50 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 34 | J | 50 | 5.8 | ug/L | 50 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 550 | | 50 | 12 | ug/L | 50 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 240 | | 50 | 14 | ug/L | 50 | | 8260C | Total/NA |
| Trichloroethene | 3100 | E | 50 | 7.2 | ug/L | 50 | | 8260C | Total/NA |
| Tetrachloroethene | 12000 | E | 50 | 7.4 | ug/L | 50 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene - DL | 560 | | 500 | 120 | ug/L | 500 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane - DL | 220 | J | 500 | 140 | ug/L | 500 | | 8260C | Total/NA |
| Trichloroethene - DL | 3200 | | 500 | 72 | ug/L | 500 | | 8260C | Total/NA |
| Tetrachloroethene - DL | 15000 | | 500 | 74 | ug/L | 500 | | 8260C | Total/NA |

Client Sample ID: HD-MW-37D-0/1-0

Lab Sample ID: 180-48181-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|----|-----|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 17 | J | 40 | 12 | ug/L | 40 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 77 | | 40 | 9.5 | ug/L | 40 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 97 | | 40 | 11 | ug/L | 40 | | 8260C | Total/NA |
| Trichloroethene | 460 | | 40 | 5.7 | ug/L | 40 | | 8260C | Total/NA |
| Tetrachloroethene | 1100 | | 40 | 5.9 | ug/L | 40 | | 8260C | Total/NA |

Client Sample ID: HD-QC3-0/1-1

Lab Sample ID: 180-48181-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 0.77 | J | 1.0 | 0.30 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane | 6.0 | | 1.0 | 0.29 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 31 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Tetrachloroethene | 87 | E | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |
| 1,1-Dichloroethane - DL | 1.0 | J | 5.0 | 0.58 | ug/L | 5 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene - DL | 21 | | 5.0 | 1.2 | ug/L | 5 | | 8260C | Total/NA |
| 1,1,1-Trichloroethane - DL | 5.2 | | 5.0 | 1.4 | ug/L | 5 | | 8260C | Total/NA |
| Trichloroethene - DL | 26 | | 5.0 | 0.72 | ug/L | 5 | | 8260C | Total/NA |
| Tetrachloroethene - DL | 82 | | 5.0 | 0.74 | ug/L | 5 | | 8260C | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Client Sample ID: HD-QC9-0/1-2

Lab Sample ID: 180-48181-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

Client Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-18S-0/1-0

Date Collected: 09/25/15 08:20

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-1

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 0.28 | J | 1.0 | 0.28 | ug/L | | | 10/06/15 17:08 | 1 |
| Vinyl chloride | 0.57 | J | 1.0 | 0.23 | ug/L | | | 10/06/15 17:08 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/06/15 17:08 | 1 |
| Chloroethane | 1.0 | U ^c | 1.0 | 0.21 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/06/15 17:08 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/06/15 17:08 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 17:08 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 17:08 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 17:08 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/06/15 17:08 | 1 |
| cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 | ug/L | | | 10/06/15 17:08 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 17:08 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/06/15 17:08 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/06/15 17:08 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 17:08 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 17:08 | 1 |
| Trichloroethene | 11 | | 1.0 | 0.14 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/06/15 17:08 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 17:08 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 17:08 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 17:08 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 17:08 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 17:08 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 17:08 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/06/15 17:08 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 17:08 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 17:08 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 17:08 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/06/15 17:08 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/06/15 17:08 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 17:08 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/06/15 17:08 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/06/15 17:08 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|----------|----------------|---------|
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 94 | | 64 - 135 | | 10/06/15 17:08 | 1 |
| <i>Toluene-d8 (Surr)</i> | 92 | | 71 - 118 | | 10/06/15 17:08 | 1 |
| <i>4-Bromofluorobenzene (Surr)</i> | 88 | | 70 - 118 | | 10/06/15 17:08 | 1 |
| <i>Dibromofluoromethane (Surr)</i> | 104 | | 70 - 128 | | 10/06/15 17:08 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-147A-0/1-0

Date Collected: 09/25/15 10:05

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-2

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 13:50 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 13:50 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/03/15 13:50 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1-Dichloroethene | 0.53 | J | 1.0 | 0.30 | ug/L | | | 10/03/15 13:50 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/03/15 13:50 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:50 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 13:50 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/03/15 13:50 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1-Dichloroethane | 0.14 | J | 1.0 | 0.12 | ug/L | | | 10/03/15 13:50 | 1 |
| cis-1,2-Dichloroethene | 11 | F1 | 1.0 | 0.24 | ug/L | | | 10/03/15 13:50 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:50 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/03/15 13:50 | 1 |
| Chloroform | 0.24 | J | 1.0 | 0.17 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1,1-Trichloroethane | 0.46 | J | 1.0 | 0.29 | ug/L | | | 10/03/15 13:50 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:50 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:50 | 1 |
| Trichloroethene | 11 | F1 | 1.0 | 0.14 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/03/15 13:50 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 13:50 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 13:50 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/03/15 13:50 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 13:50 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 13:50 | 1 |
| Tetrachloroethene | 6.3 | | 1.0 | 0.15 | ug/L | | | 10/03/15 13:50 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/03/15 13:50 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:50 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 13:50 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 13:50 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/03/15 13:50 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/03/15 13:50 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 13:50 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/03/15 13:50 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/03/15 13:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 64 - 135 | | 10/03/15 13:50 | 1 |
| Toluene-d8 (Surr) | 93 | | 71 - 118 | | 10/03/15 13:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 86 | | 70 - 118 | | 10/03/15 13:50 | 1 |
| Dibromofluoromethane (Surr) | 108 | | 70 - 128 | | 10/03/15 13:50 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-93S-0/1-0

Date Collected: 09/25/15 12:25

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-3

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 20:21 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 20:21 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/06/15 20:21 | 1 |
| Chloroethane | 1.0 | U ^c | 1.0 | 0.21 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1-Dichloroethene | 0.95 | J | 1.0 | 0.30 | ug/L | | | 10/06/15 20:21 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/06/15 20:21 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 20:21 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 20:21 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 20:21 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 | ug/L | | | 10/06/15 20:21 | 1 |
| cis-1,2-Dichloroethene | 23 | | 1.0 | 0.24 | ug/L | | | 10/06/15 20:21 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 20:21 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/06/15 20:21 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1,1-Trichloroethane | 6.8 | | 1.0 | 0.29 | ug/L | | | 10/06/15 20:21 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 20:21 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 20:21 | 1 |
| Trichloroethene | 31 | | 1.0 | 0.14 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/06/15 20:21 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 20:21 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 20:21 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 20:21 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 20:21 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 20:21 | 1 |
| Tetrachloroethene | 110 | E | 1.0 | 0.15 | ug/L | | | 10/06/15 20:21 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/06/15 20:21 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 20:21 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 20:21 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 20:21 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/06/15 20:21 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/06/15 20:21 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 20:21 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/06/15 20:21 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/06/15 20:21 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 94 | | 64 - 135 | | 10/06/15 20:21 | 1 |
| Toluene-d8 (Surr) | 93 | | 71 - 118 | | 10/06/15 20:21 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/06/15 20:21 | 1 |
| Dibromofluoromethane (Surr) | 109 | | 70 - 128 | | 10/06/15 20:21 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-93D-0/1-0

Date Collected: 09/25/15 13:10

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-4

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 21:09 | 1 |
| Vinyl chloride | 0.54 | J | 1.0 | 0.23 | ug/L | | | 10/06/15 21:09 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/06/15 21:09 | 1 |
| Chloroethane | 1.0 | U ^c | 1.0 | 0.21 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1-Dichloroethene | 4.3 | | 1.0 | 0.30 | ug/L | | | 10/06/15 21:09 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/06/15 21:09 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 21:09 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 21:09 | 1 |
| trans-1,2-Dichloroethene | 0.26 | J | 1.0 | 0.17 | ug/L | | | 10/06/15 21:09 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1-Dichloroethane | 2.9 | | 1.0 | 0.12 | ug/L | | | 10/06/15 21:09 | 1 |
| cis-1,2-Dichloroethene | 44 | | 1.0 | 0.24 | ug/L | | | 10/06/15 21:09 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 21:09 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/06/15 21:09 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1,1-Trichloroethane | 8.2 | | 1.0 | 0.29 | ug/L | | | 10/06/15 21:09 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 21:09 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 21:09 | 1 |
| Trichloroethene | 140 | E | 1.0 | 0.14 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/06/15 21:09 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 21:09 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 21:09 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 21:09 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 21:09 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 21:09 | 1 |
| Tetrachloroethene | 180 | E | 1.0 | 0.15 | ug/L | | | 10/06/15 21:09 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/06/15 21:09 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 21:09 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 21:09 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 21:09 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/06/15 21:09 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/06/15 21:09 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 21:09 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/06/15 21:09 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/06/15 21:09 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|----------|----------------|---------|
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 95 | | 64 - 135 | | 10/06/15 21:09 | 1 |
| <i>Toluene-d8 (Surr)</i> | 89 | | 71 - 118 | | 10/06/15 21:09 | 1 |
| <i>4-Bromofluorobenzene (Surr)</i> | 85 | | 70 - 118 | | 10/06/15 21:09 | 1 |
| <i>Dibromofluoromethane (Surr)</i> | 108 | | 70 - 128 | | 10/06/15 21:09 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-75S-0/1-0

Date Collected: 09/25/15 13:47

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-5

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|-------|------|------|---|----------|----------------|---------|
| Chloromethane | 50 | U | 50 | 14 | ug/L | | | 10/05/15 17:59 | 50 |
| Vinyl chloride | 50 | U | 50 | 11 | ug/L | | | 10/05/15 17:59 | 50 |
| Bromomethane | 50 | U | 50 | 16 | ug/L | | | 10/05/15 17:59 | 50 |
| Chloroethane | 50 | U ^c | 50 | 11 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1-Dichloroethene | 53 | | 50 | 15 | ug/L | | | 10/05/15 17:59 | 50 |
| Acetone | 250 | U | 250 | 130 | ug/L | | | 10/05/15 17:59 | 50 |
| Carbon disulfide | 50 | U | 50 | 11 | ug/L | | | 10/05/15 17:59 | 50 |
| Methylene Chloride | 50 | U | 50 | 6.3 | ug/L | | | 10/05/15 17:59 | 50 |
| trans-1,2-Dichloroethene | 50 | U | 50 | 8.5 | ug/L | | | 10/05/15 17:59 | 50 |
| Methyl tert-butyl ether | 50 | U | 50 | 9.2 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1-Dichloroethane | 6.8 | J | 50 | 5.8 | ug/L | | | 10/05/15 17:59 | 50 |
| cis-1,2-Dichloroethene | 130 | | 50 | 12 | ug/L | | | 10/05/15 17:59 | 50 |
| Bromochloromethane | 50 | U | 50 | 9.0 | ug/L | | | 10/05/15 17:59 | 50 |
| 2-Butanone (MEK) | 250 | U | 250 | 27 | ug/L | | | 10/05/15 17:59 | 50 |
| Chloroform | 50 | U | 50 | 8.5 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1,1-Trichloroethane | 250 | | 50 | 14 | ug/L | | | 10/05/15 17:59 | 50 |
| Carbon tetrachloride | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 17:59 | 50 |
| Benzene | 50 | U | 50 | 5.3 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,2-Dichloroethane | 50 | U | 50 | 11 | ug/L | | | 10/05/15 17:59 | 50 |
| Trichloroethene | 2900 | E | 50 | 7.2 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,2-Dichloropropane | 50 | U | 50 | 4.7 | ug/L | | | 10/05/15 17:59 | 50 |
| Bromodichloromethane | 50 | U | 50 | 6.5 | ug/L | | | 10/05/15 17:59 | 50 |
| cis-1,3-Dichloropropene | 50 | U | 50 | 9.3 | ug/L | | | 10/05/15 17:59 | 50 |
| 4-Methyl-2-pentanone (MIBK) | 250 | U | 250 | 26 | ug/L | | | 10/05/15 17:59 | 50 |
| Toluene | 50 | U | 50 | 7.5 | ug/L | | | 10/05/15 17:59 | 50 |
| trans-1,3-Dichloropropene | 50 | U | 50 | 7.4 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1,2-Trichloroethane | 120 | | 50 | 10 | ug/L | | | 10/05/15 17:59 | 50 |
| Tetrachloroethene | 14000 | E | 50 | 7.4 | ug/L | | | 10/05/15 17:59 | 50 |
| 2-Hexanone | 250 | U | 250 | 8.0 | ug/L | | | 10/05/15 17:59 | 50 |
| Dibromochloromethane | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,2-Dibromoethane (EDB) | 50 | U | 50 | 9.0 | ug/L | | | 10/05/15 17:59 | 50 |
| Chlorobenzene | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1,1,2-Tetrachloroethane | 50 | U | 50 | 14 | ug/L | | | 10/05/15 17:59 | 50 |
| Ethylbenzene | 50 | U | 50 | 11 | ug/L | | | 10/05/15 17:59 | 50 |
| Xylenes, Total | 150 | U | 150 | 24 | ug/L | | | 10/05/15 17:59 | 50 |
| Styrene | 50 | U | 50 | 4.8 | ug/L | | | 10/05/15 17:59 | 50 |
| Bromoform | 50 | U | 50 | 9.6 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,1,2,2-Tetrachloroethane | 50 | U | 50 | 10 | ug/L | | | 10/05/15 17:59 | 50 |
| Acrylonitrile | 1000 | U | 1000 | 27 | ug/L | | | 10/05/15 17:59 | 50 |
| 1,4-Dioxane | 10000 | U | 10000 | 1700 | ug/L | | | 10/05/15 17:59 | 50 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|----------|----------------|---------|
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 100 | | 64 - 135 | | 10/05/15 17:59 | 50 |
| <i>Toluene-d8 (Surr)</i> | 88 | | 71 - 118 | | 10/05/15 17:59 | 50 |
| <i>4-Bromofluorobenzene (Surr)</i> | 84 | | 70 - 118 | | 10/05/15 17:59 | 50 |
| <i>Dibromofluoromethane (Surr)</i> | 110 | | 70 - 128 | | 10/05/15 17:59 | 50 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-75D-0/1-0

Date Collected: 09/25/15 11:12

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-6

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|-------|------|------|---|----------|----------------|---------|
| Chloromethane | 50 | U | 50 | 14 | ug/L | | | 10/05/15 18:23 | 50 |
| Vinyl chloride | 50 | U | 50 | 11 | ug/L | | | 10/05/15 18:23 | 50 |
| Bromomethane | 50 | U | 50 | 16 | ug/L | | | 10/05/15 18:23 | 50 |
| Chloroethane | 50 | U ^c | 50 | 11 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1-Dichloroethene | 54 | | 50 | 15 | ug/L | | | 10/05/15 18:23 | 50 |
| Acetone | 250 | U | 250 | 130 | ug/L | | | 10/05/15 18:23 | 50 |
| Carbon disulfide | 50 | U | 50 | 11 | ug/L | | | 10/05/15 18:23 | 50 |
| Methylene Chloride | 50 | U | 50 | 6.3 | ug/L | | | 10/05/15 18:23 | 50 |
| trans-1,2-Dichloroethene | 50 | U | 50 | 8.5 | ug/L | | | 10/05/15 18:23 | 50 |
| Methyl tert-butyl ether | 50 | U | 50 | 9.2 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1-Dichloroethane | 34 | J | 50 | 5.8 | ug/L | | | 10/05/15 18:23 | 50 |
| cis-1,2-Dichloroethene | 550 | | 50 | 12 | ug/L | | | 10/05/15 18:23 | 50 |
| Bromochloromethane | 50 | U | 50 | 9.0 | ug/L | | | 10/05/15 18:23 | 50 |
| 2-Butanone (MEK) | 250 | U | 250 | 27 | ug/L | | | 10/05/15 18:23 | 50 |
| Chloroform | 50 | U | 50 | 8.5 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1,1-Trichloroethane | 240 | | 50 | 14 | ug/L | | | 10/05/15 18:23 | 50 |
| Carbon tetrachloride | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 18:23 | 50 |
| Benzene | 50 | U | 50 | 5.3 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,2-Dichloroethane | 50 | U | 50 | 11 | ug/L | | | 10/05/15 18:23 | 50 |
| Trichloroethene | 3100 | E | 50 | 7.2 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,2-Dichloropropane | 50 | U | 50 | 4.7 | ug/L | | | 10/05/15 18:23 | 50 |
| Bromodichloromethane | 50 | U | 50 | 6.5 | ug/L | | | 10/05/15 18:23 | 50 |
| cis-1,3-Dichloropropene | 50 | U | 50 | 9.3 | ug/L | | | 10/05/15 18:23 | 50 |
| 4-Methyl-2-pentanone (MIBK) | 250 | U | 250 | 26 | ug/L | | | 10/05/15 18:23 | 50 |
| Toluene | 50 | U | 50 | 7.5 | ug/L | | | 10/05/15 18:23 | 50 |
| trans-1,3-Dichloropropene | 50 | U | 50 | 7.4 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1,2-Trichloroethane | 50 | U | 50 | 10 | ug/L | | | 10/05/15 18:23 | 50 |
| Tetrachloroethene | 12000 | E | 50 | 7.4 | ug/L | | | 10/05/15 18:23 | 50 |
| 2-Hexanone | 250 | U | 250 | 8.0 | ug/L | | | 10/05/15 18:23 | 50 |
| Dibromochloromethane | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,2-Dibromoethane (EDB) | 50 | U | 50 | 9.0 | ug/L | | | 10/05/15 18:23 | 50 |
| Chlorobenzene | 50 | U | 50 | 6.8 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1,1,2-Tetrachloroethane | 50 | U | 50 | 14 | ug/L | | | 10/05/15 18:23 | 50 |
| Ethylbenzene | 50 | U | 50 | 11 | ug/L | | | 10/05/15 18:23 | 50 |
| Xylenes, Total | 150 | U | 150 | 24 | ug/L | | | 10/05/15 18:23 | 50 |
| Styrene | 50 | U | 50 | 4.8 | ug/L | | | 10/05/15 18:23 | 50 |
| Bromoform | 50 | U | 50 | 9.6 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,1,2,2-Tetrachloroethane | 50 | U | 50 | 10 | ug/L | | | 10/05/15 18:23 | 50 |
| Acrylonitrile | 1000 | U | 1000 | 27 | ug/L | | | 10/05/15 18:23 | 50 |
| 1,4-Dioxane | 10000 | U | 10000 | 1700 | ug/L | | | 10/05/15 18:23 | 50 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|----------|----------------|---------|
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 97 | | 64 - 135 | | 10/05/15 18:23 | 50 |
| <i>Toluene-d8 (Surr)</i> | 90 | | 71 - 118 | | 10/05/15 18:23 | 50 |
| <i>4-Bromofluorobenzene (Surr)</i> | 86 | | 70 - 118 | | 10/05/15 18:23 | 50 |
| <i>Dibromofluoromethane (Surr)</i> | 113 | | 70 - 128 | | 10/05/15 18:23 | 50 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-MW-37D-0/1-0

Date Collected: 09/25/15 12:37

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-7

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|------|------|------|---|----------|----------------|---------|
| Chloromethane | 40 | U | 40 | 11 | ug/L | | | 10/05/15 17:46 | 40 |
| Vinyl chloride | 40 | U | 40 | 9.1 | ug/L | | | 10/05/15 17:46 | 40 |
| Bromomethane | 40 | U | 40 | 13 | ug/L | | | 10/05/15 17:46 | 40 |
| Chloroethane | 40 | U | 40 | 8.6 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1-Dichloroethene | 17 | J | 40 | 12 | ug/L | | | 10/05/15 17:46 | 40 |
| Acetone | 200 | U | 200 | 100 | ug/L | | | 10/05/15 17:46 | 40 |
| Carbon disulfide | 40 | U | 40 | 8.5 | ug/L | | | 10/05/15 17:46 | 40 |
| Methylene Chloride | 40 | U | 40 | 5.0 | ug/L | | | 10/05/15 17:46 | 40 |
| trans-1,2-Dichloroethene | 40 | U | 40 | 6.8 | ug/L | | | 10/05/15 17:46 | 40 |
| Methyl tert-butyl ether | 40 | U | 40 | 7.3 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1-Dichloroethane | 40 | U | 40 | 4.7 | ug/L | | | 10/05/15 17:46 | 40 |
| cis-1,2-Dichloroethene | 77 | | 40 | 9.5 | ug/L | | | 10/05/15 17:46 | 40 |
| Bromochloromethane | 40 | U | 40 | 7.2 | ug/L | | | 10/05/15 17:46 | 40 |
| 2-Butanone (MEK) | 200 | U | 200 | 22 | ug/L | | | 10/05/15 17:46 | 40 |
| Chloroform | 40 | U | 40 | 6.8 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1,1-Trichloroethane | 97 | | 40 | 11 | ug/L | | | 10/05/15 17:46 | 40 |
| Carbon tetrachloride | 40 | U | 40 | 5.5 | ug/L | | | 10/05/15 17:46 | 40 |
| Benzene | 40 | U | 40 | 4.2 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,2-Dichloroethane | 40 | U | 40 | 8.5 | ug/L | | | 10/05/15 17:46 | 40 |
| Trichloroethene | 460 | | 40 | 5.7 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,2-Dichloropropane | 40 | U | 40 | 3.8 | ug/L | | | 10/05/15 17:46 | 40 |
| Bromodichloromethane | 40 | U | 40 | 5.2 | ug/L | | | 10/05/15 17:46 | 40 |
| cis-1,3-Dichloropropene | 40 | U | 40 | 7.5 | ug/L | | | 10/05/15 17:46 | 40 |
| 4-Methyl-2-pentanone (MIBK) | 200 | U | 200 | 21 | ug/L | | | 10/05/15 17:46 | 40 |
| Toluene | 40 | U | 40 | 6.0 | ug/L | | | 10/05/15 17:46 | 40 |
| trans-1,3-Dichloropropene | 40 | U | 40 | 5.9 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1,2-Trichloroethane | 40 | U | 40 | 8.1 | ug/L | | | 10/05/15 17:46 | 40 |
| Tetrachloroethene | 1100 | | 40 | 5.9 | ug/L | | | 10/05/15 17:46 | 40 |
| 2-Hexanone | 200 | U | 200 | 6.4 | ug/L | | | 10/05/15 17:46 | 40 |
| Dibromochloromethane | 40 | U | 40 | 5.5 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,2-Dibromoethane (EDB) | 40 | U | 40 | 7.2 | ug/L | | | 10/05/15 17:46 | 40 |
| Chlorobenzene | 40 | U | 40 | 5.4 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1,1,2-Tetrachloroethane | 40 | U | 40 | 11 | ug/L | | | 10/05/15 17:46 | 40 |
| Ethylbenzene | 40 | U | 40 | 9.1 | ug/L | | | 10/05/15 17:46 | 40 |
| Xylenes, Total | 120 | U | 120 | 20 | ug/L | | | 10/05/15 17:46 | 40 |
| Styrene | 40 | U | 40 | 3.9 | ug/L | | | 10/05/15 17:46 | 40 |
| Bromoform | 40 | U | 40 | 7.7 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,1,2,2-Tetrachloroethane | 40 | U | 40 | 8.0 | ug/L | | | 10/05/15 17:46 | 40 |
| Acrylonitrile | 800 | U | 800 | 22 | ug/L | | | 10/05/15 17:46 | 40 |
| 1,4-Dioxane | 8000 | U | 8000 | 1400 | ug/L | | | 10/05/15 17:46 | 40 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------------------------|-----------|-----------|----------|----------|----------------|---------|
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 110 | | 64 - 135 | | 10/05/15 17:46 | 40 |
| <i>Toluene-d8 (Surr)</i> | 96 | | 71 - 118 | | 10/05/15 17:46 | 40 |
| <i>4-Bromofluorobenzene (Surr)</i> | 90 | | 70 - 118 | | 10/05/15 17:46 | 40 |
| <i>Dibromofluoromethane (Surr)</i> | 110 | | 70 - 128 | | 10/05/15 17:46 | 40 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-QC3-0/1-1

Date Collected: 09/25/15 08:00

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-8

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|-------------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 18:10 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 18:10 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/05/15 18:10 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1-Dichloroethene | 0.77 | J | 1.0 | 0.30 | ug/L | | | 10/05/15 18:10 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/05/15 18:10 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 18:10 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 18:10 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 18:10 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 | ug/L | | | 10/05/15 18:10 | 1 |
| cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 | ug/L | | | 10/05/15 18:10 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 18:10 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/05/15 18:10 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1,1-Trichloroethane | 6.0 | | 1.0 | 0.29 | ug/L | | | 10/05/15 18:10 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 18:10 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 18:10 | 1 |
| Trichloroethene | 31 | | 1.0 | 0.14 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/05/15 18:10 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 18:10 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 18:10 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/05/15 18:10 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 18:10 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 18:10 | 1 |
| Tetrachloroethene | 87 | E | 1.0 | 0.15 | ug/L | | | 10/05/15 18:10 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/05/15 18:10 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 18:10 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 18:10 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 18:10 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/05/15 18:10 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/05/15 18:10 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 18:10 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/05/15 18:10 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/05/15 18:10 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 106 | | 64 - 135 | | 10/05/15 18:10 | 1 |
| Toluene-d8 (Surr) | 95 | | 71 - 118 | | 10/05/15 18:10 | 1 |
| 4-Bromofluorobenzene (Surr) | 83 | | 70 - 118 | | 10/05/15 18:10 | 1 |
| Dibromofluoromethane (Surr) | 109 | | 70 - 128 | | 10/05/15 18:10 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: HD-QC9-0/1-2

Date Collected: 09/25/15 12:00

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-9

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------|-----------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 14:14 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 14:14 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/03/15 14:14 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/03/15 14:14 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/03/15 14:14 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 14:14 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 14:14 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/03/15 14:14 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/03/15 14:14 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 10/03/15 14:14 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 14:14 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/03/15 14:14 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/03/15 14:14 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 14:14 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 14:14 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/03/15 14:14 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 14:14 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 14:14 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/03/15 14:14 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 14:14 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 14:14 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 14:14 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/03/15 14:14 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 14:14 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 14:14 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 14:14 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/03/15 14:14 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/03/15 14:14 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 14:14 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/03/15 14:14 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/03/15 14:14 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 64 - 135 | | 10/03/15 14:14 | 1 |
| Toluene-d8 (Surr) | 92 | | 71 - 118 | | 10/03/15 14:14 | 1 |
| 4-Bromofluorobenzene (Surr) | 85 | | 70 - 118 | | 10/03/15 14:14 | 1 |
| Dibromofluoromethane (Surr) | 107 | | 70 - 128 | | 10/03/15 14:14 | 1 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: HD-MW-93S-0/1-0

Date Collected: 09/25/15 12:25

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-3

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Chloromethane | 5.0 | U | 5.0 | 1.4 | ug/L | | | 10/06/15 17:32 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 17:32 | 5 |
| Bromomethane | 5.0 | U | 5.0 | 1.6 | ug/L | | | 10/06/15 17:32 | 5 |
| Chloroethane | 5.0 | U ^c | 5.0 | 1.1 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 1.5 | ug/L | | | 10/06/15 17:32 | 5 |
| Acetone | 25 | U | 25 | 13 | ug/L | | | 10/06/15 17:32 | 5 |
| Carbon disulfide | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 17:32 | 5 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.63 | ug/L | | | 10/06/15 17:32 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 0.85 | ug/L | | | 10/06/15 17:32 | 5 |
| Methyl tert-butyl ether | 5.0 | U | 5.0 | 0.92 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1-Dichloroethane | 1.1 | J | 5.0 | 0.58 | ug/L | | | 10/06/15 17:32 | 5 |
| cis-1,2-Dichloroethene | 20 | | 5.0 | 1.2 | ug/L | | | 10/06/15 17:32 | 5 |
| Bromochloromethane | 5.0 | U | 5.0 | 0.90 | ug/L | | | 10/06/15 17:32 | 5 |
| 2-Butanone (MEK) | 25 | U | 25 | 2.7 | ug/L | | | 10/06/15 17:32 | 5 |
| Chloroform | 5.0 | U | 5.0 | 0.85 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1,1-Trichloroethane | 5.5 | | 5.0 | 1.4 | ug/L | | | 10/06/15 17:32 | 5 |
| Carbon tetrachloride | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 17:32 | 5 |
| Benzene | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,2-Dichloroethane | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 17:32 | 5 |
| Trichloroethene | 27 | | 5.0 | 0.72 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,2-Dichloropropane | 5.0 | U | 5.0 | 0.47 | ug/L | | | 10/06/15 17:32 | 5 |
| Bromodichloromethane | 5.0 | U | 5.0 | 0.65 | ug/L | | | 10/06/15 17:32 | 5 |
| cis-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.93 | ug/L | | | 10/06/15 17:32 | 5 |
| 4-Methyl-2-pentanone (MIBK) | 25 | U | 25 | 2.6 | ug/L | | | 10/06/15 17:32 | 5 |
| Toluene | 5.0 | U | 5.0 | 0.75 | ug/L | | | 10/06/15 17:32 | 5 |
| trans-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.74 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1,2-Trichloroethane | 5.0 | U | 5.0 | 1.0 | ug/L | | | 10/06/15 17:32 | 5 |
| Tetrachloroethene | 90 | | 5.0 | 0.74 | ug/L | | | 10/06/15 17:32 | 5 |
| 2-Hexanone | 25 | U | 25 | 0.80 | ug/L | | | 10/06/15 17:32 | 5 |
| Dibromochloromethane | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,2-Dibromoethane (EDB) | 5.0 | U | 5.0 | 0.90 | ug/L | | | 10/06/15 17:32 | 5 |
| Chlorobenzene | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1,1,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.4 | ug/L | | | 10/06/15 17:32 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 17:32 | 5 |
| Xylenes, Total | 15 | U | 15 | 2.4 | ug/L | | | 10/06/15 17:32 | 5 |
| Styrene | 5.0 | U | 5.0 | 0.48 | ug/L | | | 10/06/15 17:32 | 5 |
| Bromoform | 5.0 | U | 5.0 | 0.96 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,1,2,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.0 | ug/L | | | 10/06/15 17:32 | 5 |
| Acrylonitrile | 100 | U | 100 | 2.7 | ug/L | | | 10/06/15 17:32 | 5 |
| 1,4-Dioxane | 1000 | U | 1000 | 170 | ug/L | | | 10/06/15 17:32 | 5 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 91 | | 64 - 135 | | 10/06/15 17:32 | 5 |
| Toluene-d8 (Surr) | 91 | | 71 - 118 | | 10/06/15 17:32 | 5 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/06/15 17:32 | 5 |
| Dibromofluoromethane (Surr) | 106 | | 70 - 128 | | 10/06/15 17:32 | 5 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: HD-MW-93D-0/1-0

Date Collected: 09/25/15 13:10

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-4

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Chloromethane | 10 | U | 10 | 2.8 | ug/L | | | 10/05/15 17:35 | 10 |
| Vinyl chloride | 10 | U | 10 | 2.3 | ug/L | | | 10/05/15 17:35 | 10 |
| Bromomethane | 10 | U | 10 | 3.1 | ug/L | | | 10/05/15 17:35 | 10 |
| Chloroethane | 10 | U ^c | 10 | 2.1 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1-Dichloroethene | 10 | U | 10 | 3.0 | ug/L | | | 10/05/15 17:35 | 10 |
| Acetone | 50 | U | 50 | 25 | ug/L | | | 10/05/15 17:35 | 10 |
| Carbon disulfide | 10 | U | 10 | 2.1 | ug/L | | | 10/05/15 17:35 | 10 |
| Methylene Chloride | 10 | U | 10 | 1.3 | ug/L | | | 10/05/15 17:35 | 10 |
| trans-1,2-Dichloroethene | 10 | U | 10 | 1.7 | ug/L | | | 10/05/15 17:35 | 10 |
| Methyl tert-butyl ether | 10 | U | 10 | 1.8 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1-Dichloroethane | 2.7 | J | 10 | 1.2 | ug/L | | | 10/05/15 17:35 | 10 |
| cis-1,2-Dichloroethene | 37 | | 10 | 2.4 | ug/L | | | 10/05/15 17:35 | 10 |
| Bromochloromethane | 10 | U | 10 | 1.8 | ug/L | | | 10/05/15 17:35 | 10 |
| 2-Butanone (MEK) | 50 | U | 50 | 5.5 | ug/L | | | 10/05/15 17:35 | 10 |
| Chloroform | 10 | U | 10 | 1.7 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1,1-Trichloroethane | 6.2 | J | 10 | 2.9 | ug/L | | | 10/05/15 17:35 | 10 |
| Carbon tetrachloride | 10 | U | 10 | 1.4 | ug/L | | | 10/05/15 17:35 | 10 |
| Benzene | 10 | U | 10 | 1.1 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,2-Dichloroethane | 10 | U | 10 | 2.1 | ug/L | | | 10/05/15 17:35 | 10 |
| Trichloroethene | 120 | | 10 | 1.4 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,2-Dichloropropane | 10 | U | 10 | 0.95 | ug/L | | | 10/05/15 17:35 | 10 |
| Bromodichloromethane | 10 | U | 10 | 1.3 | ug/L | | | 10/05/15 17:35 | 10 |
| cis-1,3-Dichloropropene | 10 | U | 10 | 1.9 | ug/L | | | 10/05/15 17:35 | 10 |
| 4-Methyl-2-pentanone (MIBK) | 50 | U | 50 | 5.3 | ug/L | | | 10/05/15 17:35 | 10 |
| Toluene | 10 | U | 10 | 1.5 | ug/L | | | 10/05/15 17:35 | 10 |
| trans-1,3-Dichloropropene | 10 | U | 10 | 1.5 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1,2-Trichloroethane | 10 | U | 10 | 2.0 | ug/L | | | 10/05/15 17:35 | 10 |
| Tetrachloroethene | 160 | | 10 | 1.5 | ug/L | | | 10/05/15 17:35 | 10 |
| 2-Hexanone | 50 | U | 50 | 1.6 | ug/L | | | 10/05/15 17:35 | 10 |
| Dibromochloromethane | 10 | U | 10 | 1.4 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,2-Dibromoethane (EDB) | 10 | U | 10 | 1.8 | ug/L | | | 10/05/15 17:35 | 10 |
| Chlorobenzene | 10 | U | 10 | 1.4 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1,1,2-Tetrachloroethane | 10 | U | 10 | 2.8 | ug/L | | | 10/05/15 17:35 | 10 |
| Ethylbenzene | 10 | U | 10 | 2.3 | ug/L | | | 10/05/15 17:35 | 10 |
| Xylenes, Total | 30 | U | 30 | 4.9 | ug/L | | | 10/05/15 17:35 | 10 |
| Styrene | 10 | U | 10 | 0.97 | ug/L | | | 10/05/15 17:35 | 10 |
| Bromoform | 10 | U | 10 | 1.9 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,1,2,2-Tetrachloroethane | 10 | U | 10 | 2.0 | ug/L | | | 10/05/15 17:35 | 10 |
| Acrylonitrile | 200 | U | 200 | 5.5 | ug/L | | | 10/05/15 17:35 | 10 |
| 1,4-Dioxane | 2000 | U | 2000 | 340 | ug/L | | | 10/05/15 17:35 | 10 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 64 - 135 | | 10/05/15 17:35 | 10 |
| Toluene-d8 (Surr) | 92 | | 71 - 118 | | 10/05/15 17:35 | 10 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/05/15 17:35 | 10 |
| Dibromofluoromethane (Surr) | 108 | | 70 - 128 | | 10/05/15 17:35 | 10 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 09/25/15 13:47
Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-5
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|--------|-------|------|---|----------|----------------|---------|
| Chloromethane | 500 | U | 500 | 140 | ug/L | | | 10/06/15 17:56 | 500 |
| Vinyl chloride | 500 | U | 500 | 110 | ug/L | | | 10/06/15 17:56 | 500 |
| Bromomethane | 500 | U | 500 | 160 | ug/L | | | 10/06/15 17:56 | 500 |
| Chloroethane | 500 | U ^c | 500 | 110 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1-Dichloroethene | 500 | U | 500 | 150 | ug/L | | | 10/06/15 17:56 | 500 |
| Acetone | 2500 | U | 2500 | 1300 | ug/L | | | 10/06/15 17:56 | 500 |
| Carbon disulfide | 500 | U | 500 | 110 | ug/L | | | 10/06/15 17:56 | 500 |
| Methylene Chloride | 500 | U | 500 | 63 | ug/L | | | 10/06/15 17:56 | 500 |
| trans-1,2-Dichloroethene | 500 | U | 500 | 85 | ug/L | | | 10/06/15 17:56 | 500 |
| Methyl tert-butyl ether | 500 | U | 500 | 92 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1-Dichloroethane | 500 | U | 500 | 58 | ug/L | | | 10/06/15 17:56 | 500 |
| cis-1,2-Dichloroethene | 160 | J | 500 | 120 | ug/L | | | 10/06/15 17:56 | 500 |
| Bromochloromethane | 500 | U | 500 | 90 | ug/L | | | 10/06/15 17:56 | 500 |
| 2-Butanone (MEK) | 2500 | U | 2500 | 270 | ug/L | | | 10/06/15 17:56 | 500 |
| Chloroform | 500 | U | 500 | 85 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1,1-Trichloroethane | 240 | J | 500 | 140 | ug/L | | | 10/06/15 17:56 | 500 |
| Carbon tetrachloride | 500 | U | 500 | 68 | ug/L | | | 10/06/15 17:56 | 500 |
| Benzene | 500 | U | 500 | 53 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,2-Dichloroethane | 500 | U | 500 | 110 | ug/L | | | 10/06/15 17:56 | 500 |
| Trichloroethene | 2800 | | 500 | 72 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,2-Dichloropropane | 500 | U | 500 | 47 | ug/L | | | 10/06/15 17:56 | 500 |
| Bromodichloromethane | 500 | U | 500 | 65 | ug/L | | | 10/06/15 17:56 | 500 |
| cis-1,3-Dichloropropene | 500 | U | 500 | 93 | ug/L | | | 10/06/15 17:56 | 500 |
| 4-Methyl-2-pentanone (MIBK) | 2500 | U | 2500 | 260 | ug/L | | | 10/06/15 17:56 | 500 |
| Toluene | 500 | U | 500 | 75 | ug/L | | | 10/06/15 17:56 | 500 |
| trans-1,3-Dichloropropene | 500 | U | 500 | 74 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1,2-Trichloroethane | 500 | U | 500 | 100 | ug/L | | | 10/06/15 17:56 | 500 |
| Tetrachloroethene | 16000 | | 500 | 74 | ug/L | | | 10/06/15 17:56 | 500 |
| 2-Hexanone | 2500 | U | 2500 | 80 | ug/L | | | 10/06/15 17:56 | 500 |
| Dibromochloromethane | 500 | U | 500 | 68 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,2-Dibromoethane (EDB) | 500 | U | 500 | 90 | ug/L | | | 10/06/15 17:56 | 500 |
| Chlorobenzene | 500 | U | 500 | 68 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1,1,2-Tetrachloroethane | 500 | U | 500 | 140 | ug/L | | | 10/06/15 17:56 | 500 |
| Ethylbenzene | 500 | U | 500 | 110 | ug/L | | | 10/06/15 17:56 | 500 |
| Xylenes, Total | 1500 | U | 1500 | 240 | ug/L | | | 10/06/15 17:56 | 500 |
| Styrene | 500 | U | 500 | 48 | ug/L | | | 10/06/15 17:56 | 500 |
| Bromoform | 500 | U | 500 | 96 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,1,2,2-Tetrachloroethane | 500 | U | 500 | 100 | ug/L | | | 10/06/15 17:56 | 500 |
| Acrylonitrile | 10000 | U | 10000 | 270 | ug/L | | | 10/06/15 17:56 | 500 |
| 1,4-Dioxane | 100000 | U | 100000 | 17000 | ug/L | | | 10/06/15 17:56 | 500 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 92 | | 64 - 135 | | 10/06/15 17:56 | 500 |
| Toluene-d8 (Surr) | 88 | | 71 - 118 | | 10/06/15 17:56 | 500 |
| 4-Bromofluorobenzene (Surr) | 85 | | 70 - 118 | | 10/06/15 17:56 | 500 |
| Dibromofluoromethane (Surr) | 107 | | 70 - 128 | | 10/06/15 17:56 | 500 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: HD-MW-75D-0/1-0

Date Collected: 09/25/15 11:12

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-6

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------------|-----------|--------|-------|------|---|----------|----------------|---------|
| Chloromethane | 500 | U | 500 | 140 | ug/L | | | 10/06/15 18:44 | 500 |
| Vinyl chloride | 500 | U | 500 | 110 | ug/L | | | 10/06/15 18:44 | 500 |
| Bromomethane | 500 | U | 500 | 160 | ug/L | | | 10/06/15 18:44 | 500 |
| Chloroethane | 500 | U ^c | 500 | 110 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1-Dichloroethene | 500 | U | 500 | 150 | ug/L | | | 10/06/15 18:44 | 500 |
| Acetone | 2500 | U | 2500 | 1300 | ug/L | | | 10/06/15 18:44 | 500 |
| Carbon disulfide | 500 | U | 500 | 110 | ug/L | | | 10/06/15 18:44 | 500 |
| Methylene Chloride | 500 | U | 500 | 63 | ug/L | | | 10/06/15 18:44 | 500 |
| trans-1,2-Dichloroethene | 500 | U | 500 | 85 | ug/L | | | 10/06/15 18:44 | 500 |
| Methyl tert-butyl ether | 500 | U | 500 | 92 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1-Dichloroethane | 500 | U | 500 | 58 | ug/L | | | 10/06/15 18:44 | 500 |
| cis-1,2-Dichloroethene | 560 | | 500 | 120 | ug/L | | | 10/06/15 18:44 | 500 |
| Bromochloromethane | 500 | U | 500 | 90 | ug/L | | | 10/06/15 18:44 | 500 |
| 2-Butanone (MEK) | 2500 | U | 2500 | 270 | ug/L | | | 10/06/15 18:44 | 500 |
| Chloroform | 500 | U | 500 | 85 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1,1-Trichloroethane | 220 | J | 500 | 140 | ug/L | | | 10/06/15 18:44 | 500 |
| Carbon tetrachloride | 500 | U | 500 | 68 | ug/L | | | 10/06/15 18:44 | 500 |
| Benzene | 500 | U | 500 | 53 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,2-Dichloroethane | 500 | U | 500 | 110 | ug/L | | | 10/06/15 18:44 | 500 |
| Trichloroethene | 3200 | | 500 | 72 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,2-Dichloropropane | 500 | U | 500 | 47 | ug/L | | | 10/06/15 18:44 | 500 |
| Bromodichloromethane | 500 | U | 500 | 65 | ug/L | | | 10/06/15 18:44 | 500 |
| cis-1,3-Dichloropropene | 500 | U | 500 | 93 | ug/L | | | 10/06/15 18:44 | 500 |
| 4-Methyl-2-pentanone (MIBK) | 2500 | U | 2500 | 260 | ug/L | | | 10/06/15 18:44 | 500 |
| Toluene | 500 | U | 500 | 75 | ug/L | | | 10/06/15 18:44 | 500 |
| trans-1,3-Dichloropropene | 500 | U | 500 | 74 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1,2-Trichloroethane | 500 | U | 500 | 100 | ug/L | | | 10/06/15 18:44 | 500 |
| Tetrachloroethene | 15000 | | 500 | 74 | ug/L | | | 10/06/15 18:44 | 500 |
| 2-Hexanone | 2500 | U | 2500 | 80 | ug/L | | | 10/06/15 18:44 | 500 |
| Dibromochloromethane | 500 | U | 500 | 68 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,2-Dibromoethane (EDB) | 500 | U | 500 | 90 | ug/L | | | 10/06/15 18:44 | 500 |
| Chlorobenzene | 500 | U | 500 | 68 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1,1,2-Tetrachloroethane | 500 | U | 500 | 140 | ug/L | | | 10/06/15 18:44 | 500 |
| Ethylbenzene | 500 | U | 500 | 110 | ug/L | | | 10/06/15 18:44 | 500 |
| Xylenes, Total | 1500 | U | 1500 | 240 | ug/L | | | 10/06/15 18:44 | 500 |
| Styrene | 500 | U | 500 | 48 | ug/L | | | 10/06/15 18:44 | 500 |
| Bromoform | 500 | U | 500 | 96 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,1,2,2-Tetrachloroethane | 500 | U | 500 | 100 | ug/L | | | 10/06/15 18:44 | 500 |
| Acrylonitrile | 10000 | U | 10000 | 270 | ug/L | | | 10/06/15 18:44 | 500 |
| 1,4-Dioxane | 100000 | U | 100000 | 17000 | ug/L | | | 10/06/15 18:44 | 500 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 64 - 135 | | 10/06/15 18:44 | 500 |
| Toluene-d8 (Surr) | 90 | | 71 - 118 | | 10/06/15 18:44 | 500 |
| 4-Bromofluorobenzene (Surr) | 85 | | 70 - 118 | | 10/06/15 18:44 | 500 |
| Dibromofluoromethane (Surr) | 107 | | 70 - 128 | | 10/06/15 18:44 | 500 |

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: HD-QC3-0/1-1

Date Collected: 09/25/15 08:00

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-8

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Chloromethane | 5.0 | U | 5.0 | 1.4 | ug/L | | | 10/06/15 19:08 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 19:08 | 5 |
| Bromomethane | 5.0 | U | 5.0 | 1.6 | ug/L | | | 10/06/15 19:08 | 5 |
| Chloroethane | 5.0 | U ^c | 5.0 | 1.1 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 1.5 | ug/L | | | 10/06/15 19:08 | 5 |
| Acetone | 25 | U | 25 | 13 | ug/L | | | 10/06/15 19:08 | 5 |
| Carbon disulfide | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 19:08 | 5 |
| Methylene Chloride | 5.0 | U | 5.0 | 0.63 | ug/L | | | 10/06/15 19:08 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 0.85 | ug/L | | | 10/06/15 19:08 | 5 |
| Methyl tert-butyl ether | 5.0 | U | 5.0 | 0.92 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1-Dichloroethane | 1.0 | J | 5.0 | 0.58 | ug/L | | | 10/06/15 19:08 | 5 |
| cis-1,2-Dichloroethene | 21 | | 5.0 | 1.2 | ug/L | | | 10/06/15 19:08 | 5 |
| Bromochloromethane | 5.0 | U | 5.0 | 0.90 | ug/L | | | 10/06/15 19:08 | 5 |
| 2-Butanone (MEK) | 25 | U | 25 | 2.7 | ug/L | | | 10/06/15 19:08 | 5 |
| Chloroform | 5.0 | U | 5.0 | 0.85 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1,1-Trichloroethane | 5.2 | | 5.0 | 1.4 | ug/L | | | 10/06/15 19:08 | 5 |
| Carbon tetrachloride | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 19:08 | 5 |
| Benzene | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,2-Dichloroethane | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 19:08 | 5 |
| Trichloroethene | 26 | | 5.0 | 0.72 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,2-Dichloropropane | 5.0 | U | 5.0 | 0.47 | ug/L | | | 10/06/15 19:08 | 5 |
| Bromodichloromethane | 5.0 | U | 5.0 | 0.65 | ug/L | | | 10/06/15 19:08 | 5 |
| cis-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.93 | ug/L | | | 10/06/15 19:08 | 5 |
| 4-Methyl-2-pentanone (MIBK) | 25 | U | 25 | 2.6 | ug/L | | | 10/06/15 19:08 | 5 |
| Toluene | 5.0 | U | 5.0 | 0.75 | ug/L | | | 10/06/15 19:08 | 5 |
| trans-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.74 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1,2-Trichloroethane | 5.0 | U | 5.0 | 1.0 | ug/L | | | 10/06/15 19:08 | 5 |
| Tetrachloroethene | 82 | | 5.0 | 0.74 | ug/L | | | 10/06/15 19:08 | 5 |
| 2-Hexanone | 25 | U | 25 | 0.80 | ug/L | | | 10/06/15 19:08 | 5 |
| Dibromochloromethane | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,2-Dibromoethane (EDB) | 5.0 | U | 5.0 | 0.90 | ug/L | | | 10/06/15 19:08 | 5 |
| Chlorobenzene | 5.0 | U | 5.0 | 0.68 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1,1,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.4 | ug/L | | | 10/06/15 19:08 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 1.1 | ug/L | | | 10/06/15 19:08 | 5 |
| Xylenes, Total | 15 | U | 15 | 2.4 | ug/L | | | 10/06/15 19:08 | 5 |
| Styrene | 5.0 | U | 5.0 | 0.48 | ug/L | | | 10/06/15 19:08 | 5 |
| Bromoform | 5.0 | U | 5.0 | 0.96 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,1,1,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.0 | ug/L | | | 10/06/15 19:08 | 5 |
| Acrylonitrile | 100 | U | 100 | 2.7 | ug/L | | | 10/06/15 19:08 | 5 |
| 1,4-Dioxane | 1000 | U | 1000 | 170 | ug/L | | | 10/06/15 19:08 | 5 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 64 - 135 | | 10/06/15 19:08 | 5 |
| Toluene-d8 (Surr) | 90 | | 71 - 118 | | 10/06/15 19:08 | 5 |
| 4-Bromofluorobenzene (Surr) | 86 | | 70 - 118 | | 10/06/15 19:08 | 5 |
| Dibromofluoromethane (Surr) | 104 | | 70 - 128 | | 10/06/15 19:08 | 5 |

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|-----------------------------|-----|-------|-------|--------|
| 1,1,1,2-Tetrachloroethane | 1.0 | 0.28 | ug/L | 8260C |
| 1,1,1-Trichloroethane | 1.0 | 0.29 | ug/L | 8260C |
| 1,1,2,2-Tetrachloroethane | 1.0 | 0.20 | ug/L | 8260C |
| 1,1,2-Trichloroethane | 1.0 | 0.20 | ug/L | 8260C |
| 1,1-Dichloroethane | 1.0 | 0.12 | ug/L | 8260C |
| 1,1-Dichloroethene | 1.0 | 0.30 | ug/L | 8260C |
| 1,2-Dibromoethane (EDB) | 1.0 | 0.18 | ug/L | 8260C |
| 1,2-Dichloroethane | 1.0 | 0.21 | ug/L | 8260C |
| 1,2-Dichloropropane | 1.0 | 0.095 | ug/L | 8260C |
| 1,4-Dioxane | 200 | 34 | ug/L | 8260C |
| 2-Butanone (MEK) | 5.0 | 0.55 | ug/L | 8260C |
| 2-Hexanone | 5.0 | 0.16 | ug/L | 8260C |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 0.53 | ug/L | 8260C |
| Acetone | 5.0 | 2.5 | ug/L | 8260C |
| Acrylonitrile | 20 | 0.55 | ug/L | 8260C |
| Benzene | 1.0 | 0.11 | ug/L | 8260C |
| Bromochloromethane | 1.0 | 0.18 | ug/L | 8260C |
| Bromodichloromethane | 1.0 | 0.13 | ug/L | 8260C |
| Bromoform | 1.0 | 0.19 | ug/L | 8260C |
| Bromomethane | 1.0 | 0.31 | ug/L | 8260C |
| Carbon disulfide | 1.0 | 0.21 | ug/L | 8260C |
| Carbon tetrachloride | 1.0 | 0.14 | ug/L | 8260C |
| Chlorobenzene | 1.0 | 0.14 | ug/L | 8260C |
| Chloroethane | 1.0 | 0.21 | ug/L | 8260C |
| Chloroform | 1.0 | 0.17 | ug/L | 8260C |
| Chloromethane | 1.0 | 0.28 | ug/L | 8260C |
| cis-1,2-Dichloroethene | 1.0 | 0.24 | ug/L | 8260C |
| cis-1,3-Dichloropropene | 1.0 | 0.19 | ug/L | 8260C |
| Dibromochloromethane | 1.0 | 0.14 | ug/L | 8260C |
| Ethylbenzene | 1.0 | 0.23 | ug/L | 8260C |
| Methyl tert-butyl ether | 1.0 | 0.18 | ug/L | 8260C |
| Methylene Chloride | 1.0 | 0.13 | ug/L | 8260C |
| Styrene | 1.0 | 0.097 | ug/L | 8260C |
| Tetrachloroethene | 1.0 | 0.15 | ug/L | 8260C |
| Toluene | 1.0 | 0.15 | ug/L | 8260C |
| trans-1,2-Dichloroethene | 1.0 | 0.17 | ug/L | 8260C |
| trans-1,3-Dichloropropene | 1.0 | 0.15 | ug/L | 8260C |
| Trichloroethene | 1.0 | 0.14 | ug/L | 8260C |
| Vinyl chloride | 1.0 | 0.23 | ug/L | 8260C |
| Xylenes, Total | 3.0 | 0.49 | ug/L | 8260C |

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|-------------------|--------------------|--|-----------------|-----------------|------------------|
| | | 12DCE (64-135) | TOL (71-118) | BFB (70-118) | DBFM (70-128) |
| 180-48181-1 | HD-MW-18S-0/1-0 | 94 | 92 | 88 | 104 |
| 180-48181-2 | HD-MW-147A-0/1-0 | 98 | 93 | 86 | 108 |
| 180-48181-2 MS | HD-MW-147A-0/1-0 | 83 | 97 | 93 | 92 |
| 180-48181-2 MSD | HD-MW-147A-0/1-0 | 85 | 98 | 93 | 93 |
| 180-48181-3 - DL | HD-MW-93S-0/1-0 | 91 | 91 | 88 | 106 |
| 180-48181-3 | HD-MW-93S-0/1-0 | 94 | 93 | 88 | 109 |
| 180-48181-4 - DL | HD-MW-93D-0/1-0 | 97 | 92 | 88 | 108 |
| 180-48181-4 | HD-MW-93D-0/1-0 | 95 | 89 | 85 | 108 |
| 180-48181-5 | HD-MW-75S-0/1-0 | 100 | 88 | 84 | 110 |
| 180-48181-5 - DL | HD-MW-75S-0/1-0 | 92 | 88 | 85 | 107 |
| 180-48181-6 | HD-MW-75D-0/1-0 | 97 | 90 | 86 | 113 |
| 180-48181-6 - DL | HD-MW-75D-0/1-0 | 95 | 90 | 85 | 107 |
| 180-48181-7 | HD-MW-37D-0/1-0 | 110 | 96 | 90 | 110 |
| 180-48181-8 | HD-QC3-0/1-1 | 106 | 95 | 83 | 109 |
| 180-48181-8 - DL | HD-QC3-0/1-1 | 96 | 90 | 86 | 104 |
| 180-48181-9 | HD-QC9-0/1-2 | 98 | 92 | 85 | 107 |
| LCS 180-155766/8 | Lab Control Sample | 88 | 95 | 88 | 92 |
| LCS 180-155869/7 | Lab Control Sample | 105 | 111 | 101 | 106 |
| LCS 180-155884/7 | Lab Control Sample | 82 | 99 | 90 | 91 |
| LCS 180-156037/11 | Lab Control Sample | 84 | 100 | 96 | 91 |
| MB 180-155766/5 | Method Blank | 97 | 94 | 87 | 102 |
| MB 180-155869/5 | Method Blank | 103 | 99 | 88 | 105 |
| MB 180-155884/4 | Method Blank | 93 | 91 | 88 | 105 |
| MB 180-156037/6 | Method Blank | 95 | 93 | 88 | 105 |

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-155766/5

Matrix: Water

Analysis Batch: 155766

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 13:16 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 13:16 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/03/15 13:16 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/03/15 13:16 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/03/15 13:16 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:16 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 13:16 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/03/15 13:16 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/03/15 13:16 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 10/03/15 13:16 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:16 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/03/15 13:16 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/03/15 13:16 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:16 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/03/15 13:16 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/03/15 13:16 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/03/15 13:16 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 13:16 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/03/15 13:16 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 13:16 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 13:16 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/03/15 13:16 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/03/15 13:16 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/03/15 13:16 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/03/15 13:16 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/03/15 13:16 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/03/15 13:16 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/03/15 13:16 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/03/15 13:16 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/03/15 13:16 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/03/15 13:16 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 64 - 135 | | 10/03/15 13:16 | 1 |
| Toluene-d8 (Surr) | 94 | | 71 - 118 | | 10/03/15 13:16 | 1 |
| 4-Bromofluorobenzene (Surr) | 87 | | 70 - 118 | | 10/03/15 13:16 | 1 |
| Dibromofluoromethane (Surr) | 102 | | 70 - 128 | | 10/03/15 13:16 | 1 |

TestAmerica Pittsburgh

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-155766/8

Matrix: Water

Analysis Batch: 155766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Chloromethane | 10.0 | 11.1 | | ug/L | | 111 | 50 - 139 |
| Vinyl chloride | 10.0 | 10.1 | | ug/L | | 101 | 53 - 138 |
| Bromomethane | 10.0 | 11.0 | | ug/L | | 110 | 33 - 150 |
| Chloroethane | 10.0 | 9.10 | | ug/L | | 91 | 36 - 142 |
| 1,1-Dichloroethene | 10.0 | 9.39 | | ug/L | | 94 | 65 - 136 |
| Acetone | 20.0 | 18.5 | | ug/L | | 92 | 22 - 150 |
| Carbon disulfide | 10.0 | 8.56 | | ug/L | | 86 | 54 - 132 |
| Methylene Chloride | 10.0 | 9.86 | | ug/L | | 99 | 63 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 9.72 | | ug/L | | 97 | 73 - 126 |
| Methyl tert-butyl ether | 10.0 | 9.38 | | ug/L | | 94 | 64 - 123 |
| 1,1-Dichloroethane | 10.0 | 8.94 | | ug/L | | 89 | 73 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.55 | | ug/L | | 96 | 70 - 120 |
| Bromochloromethane | 10.0 | 10.4 | | ug/L | | 104 | 70 - 127 |
| 2-Butanone (MEK) | 20.0 | 21.6 | | ug/L | | 108 | 39 - 138 |
| Chloroform | 10.0 | 9.29 | | ug/L | | 93 | 72 - 127 |
| 1,1,1-Trichloroethane | 10.0 | 9.23 | | ug/L | | 92 | 63 - 133 |
| Carbon tetrachloride | 10.0 | 9.88 | | ug/L | | 99 | 55 - 150 |
| Benzene | 10.0 | 9.60 | | ug/L | | 96 | 80 - 120 |
| 1,2-Dichloroethane | 10.0 | 9.16 | | ug/L | | 92 | 68 - 132 |
| Trichloroethene | 10.0 | 10.2 | | ug/L | | 102 | 73 - 120 |
| 1,2-Dichloropropane | 10.0 | 9.55 | | ug/L | | 95 | 76 - 124 |
| Bromodichloromethane | 10.0 | 9.03 | | ug/L | | 90 | 66 - 130 |
| cis-1,3-Dichloropropene | 10.0 | 8.34 | | ug/L | | 83 | 66 - 120 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 18.4 | | ug/L | | 92 | 45 - 145 |
| Toluene | 10.0 | 10.2 | | ug/L | | 102 | 80 - 123 |
| trans-1,3-Dichloropropene | 10.0 | 8.65 | | ug/L | | 86 | 65 - 125 |
| 1,1,2-Trichloroethane | 10.0 | 10.4 | | ug/L | | 104 | 77 - 127 |
| Tetrachloroethene | 10.0 | 10.8 | | ug/L | | 108 | 70 - 135 |
| 2-Hexanone | 20.0 | 18.5 | | ug/L | | 93 | 25 - 132 |
| Dibromochloromethane | 10.0 | 9.76 | | ug/L | | 98 | 60 - 140 |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.2 | | ug/L | | 102 | 74 - 123 |
| Chlorobenzene | 10.0 | 10.2 | | ug/L | | 102 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 10.0 | 10.3 | | ug/L | | 103 | 63 - 140 |
| Ethylbenzene | 10.0 | 10.2 | | ug/L | | 102 | 72 - 126 |
| Xylenes, Total | 20.0 | 20.9 | | ug/L | | 105 | 76 - 128 |
| Styrene | 10.0 | 10.9 | | ug/L | | 109 | 71 - 127 |
| Bromoform | 10.0 | 9.91 | | ug/L | | 99 | 46 - 150 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.6 | | ug/L | | 106 | 62 - 125 |
| Acrylonitrile | 100 | 104 | | ug/L | | 104 | 30 - 140 |
| 1,4-Dioxane | 200 | 248 | | ug/L | | 124 | 10 - 160 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 88 | | 64 - 135 |
| Toluene-d8 (Surr) | 95 | | 71 - 118 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 |
| Dibromofluoromethane (Surr) | 92 | | 70 - 128 |

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 180-48181-2 MS

Matrix: Water

Analysis Batch: 155766

Client Sample ID: HD-MW-147A-0/1-0

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec. Limits |
|------------------------------|------------------|------------------|---------------|--------|-----------|------|---|------|-----------------|
| | Result | Qualifier | Added | Result | Qualifier | | | | |
| Chloromethane | 1.0 | U | 10.0 | 10.3 | | ug/L | | 103 | 50 - 139 |
| Vinyl chloride | 1.0 | U | 10.0 | 9.47 | | ug/L | | 95 | 53 - 138 |
| Bromomethane | 1.0 | U | 10.0 | 10.1 | | ug/L | | 101 | 33 - 150 |
| Chloroethane | 1.0 | U | 10.0 | 8.27 | | ug/L | | 83 | 36 - 142 |
| 1,1-Dichloroethene | 0.53 | J | 10.0 | 9.39 | | ug/L | | 89 | 65 - 136 |
| Acetone | 5.0 | U | 20.0 | 17.9 | | ug/L | | 89 | 22 - 150 |
| Carbon disulfide | 1.0 | U | 10.0 | 8.15 | | ug/L | | 81 | 54 - 132 |
| Methylene Chloride | 1.0 | U | 10.0 | 8.53 | | ug/L | | 85 | 63 - 129 |
| trans-1,2-Dichloroethene | 1.0 | U | 10.0 | 8.99 | | ug/L | | 90 | 73 - 126 |
| Methyl tert-butyl ether | 1.0 | U | 10.0 | 8.71 | | ug/L | | 87 | 64 - 123 |
| 1,1-Dichloroethane | 0.14 | J | 10.0 | 8.57 | | ug/L | | 84 | 73 - 126 |
| cis-1,2-Dichloroethene | 11 | F1 | 10.0 | 16.9 | F1 | ug/L | | 64 | 70 - 120 |
| Bromochloromethane | 1.0 | U | 10.0 | 9.25 | | ug/L | | 92 | 70 - 127 |
| 2-Butanone (MEK) | 5.0 | U | 20.0 | 18.9 | | ug/L | | 95 | 39 - 138 |
| Chloroform | 0.24 | J | 10.0 | 8.78 | | ug/L | | 85 | 72 - 127 |
| 1,1,1-Trichloroethane | 0.46 | J | 10.0 | 8.87 | | ug/L | | 84 | 63 - 133 |
| Carbon tetrachloride | 1.0 | U | 10.0 | 9.14 | | ug/L | | 91 | 55 - 150 |
| Benzene | 1.0 | U | 10.0 | 8.88 | | ug/L | | 89 | 80 - 120 |
| 1,2-Dichloroethane | 1.0 | U | 10.0 | 8.16 | | ug/L | | 82 | 68 - 132 |
| Trichloroethene | 11 | F1 | 10.0 | 17.7 | F1 | ug/L | | 68 | 73 - 120 |
| 1,2-Dichloropropane | 1.0 | U | 10.0 | 8.66 | | ug/L | | 87 | 76 - 124 |
| Bromodichloromethane | 1.0 | U | 10.0 | 8.43 | | ug/L | | 84 | 66 - 130 |
| cis-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.08 | | ug/L | | 81 | 66 - 120 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 20.0 | 17.5 | | ug/L | | 88 | 45 - 145 |
| Toluene | 1.0 | U | 10.0 | 9.72 | | ug/L | | 97 | 80 - 123 |
| trans-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.31 | | ug/L | | 83 | 65 - 125 |
| 1,1,2-Trichloroethane | 1.0 | U | 10.0 | 9.75 | | ug/L | | 97 | 77 - 127 |
| Tetrachloroethene | 6.3 | | 10.0 | 15.7 | | ug/L | | 94 | 70 - 135 |
| 2-Hexanone | 5.0 | U | 20.0 | 16.3 | | ug/L | | 82 | 25 - 132 |
| Dibromochloromethane | 1.0 | U | 10.0 | 9.29 | | ug/L | | 93 | 60 - 140 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 10.0 | 9.85 | | ug/L | | 98 | 74 - 123 |
| Chlorobenzene | 1.0 | U | 10.0 | 9.70 | | ug/L | | 97 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 10.0 | 9.94 | | ug/L | | 99 | 63 - 140 |
| Ethylbenzene | 1.0 | U | 10.0 | 9.63 | | ug/L | | 96 | 72 - 126 |
| Xylenes, Total | 3.0 | U | 20.0 | 19.6 | | ug/L | | 98 | 76 - 128 |
| Styrene | 1.0 | U | 10.0 | 10.2 | | ug/L | | 102 | 71 - 127 |
| Bromoform | 1.0 | U | 10.0 | 8.83 | | ug/L | | 88 | 46 - 150 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 10.0 | 9.96 | | ug/L | | 100 | 62 - 125 |
| Acrylonitrile | 20 | U | 100 | 91.4 | | ug/L | | 91 | 30 - 140 |
| 1,4-Dioxane | 200 | U | 200 | 231 | | ug/L | | 116 | 10 - 160 |
| | | MS | MS | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 83 | | 64 - 135 | | | | | | |
| Toluene-d8 (Surr) | 97 | | 71 - 118 | | | | | | |
| 4-Bromofluorobenzene (Surr) | 93 | | 70 - 118 | | | | | | |
| Dibromofluoromethane (Surr) | 92 | | 70 - 128 | | | | | | |

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 180-48181-2 MSD

Matrix: Water

Analysis Batch: 155766

Client Sample ID: HD-MW-147A-0/1-0

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec. | RPD | RPD |
|------------------------------|------------------|------------------|---------------|--------|-----------|------|---|------|----------|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | | Limit |
| Chloromethane | 1.0 | U | 10.0 | 10.4 | | ug/L | | 104 | 50 - 139 | 1 | 35 |
| Vinyl chloride | 1.0 | U | 10.0 | 9.13 | | ug/L | | 91 | 53 - 138 | 4 | 35 |
| Bromomethane | 1.0 | U | 10.0 | 10.4 | | ug/L | | 104 | 33 - 150 | 3 | 35 |
| Chloroethane | 1.0 | U | 10.0 | 8.27 | | ug/L | | 83 | 36 - 142 | 0 | 35 |
| 1,1-Dichloroethene | 0.53 | J | 10.0 | 8.89 | | ug/L | | 84 | 65 - 136 | 5 | 35 |
| Acetone | 5.0 | U | 20.0 | 20.6 | | ug/L | | 103 | 22 - 150 | 14 | 35 |
| Carbon disulfide | 1.0 | U | 10.0 | 7.61 | | ug/L | | 76 | 54 - 132 | 7 | 35 |
| Methylene Chloride | 1.0 | U | 10.0 | 8.98 | | ug/L | | 90 | 63 - 129 | 5 | 35 |
| trans-1,2-Dichloroethene | 1.0 | U | 10.0 | 8.78 | | ug/L | | 88 | 73 - 126 | 2 | 35 |
| Methyl tert-butyl ether | 1.0 | U | 10.0 | 9.07 | | ug/L | | 91 | 64 - 123 | 4 | 35 |
| 1,1-Dichloroethane | 0.14 | J | 10.0 | 8.56 | | ug/L | | 84 | 73 - 126 | 0 | 35 |
| cis-1,2-Dichloroethene | 11 | F1 | 10.0 | 17.2 | F1 | ug/L | | 66 | 70 - 120 | 2 | 35 |
| Bromochloromethane | 1.0 | U | 10.0 | 10.3 | | ug/L | | 103 | 70 - 127 | 10 | 35 |
| 2-Butanone (MEK) | 5.0 | U | 20.0 | 20.2 | | ug/L | | 101 | 39 - 138 | 6 | 35 |
| Chloroform | 0.24 | J | 10.0 | 8.93 | | ug/L | | 87 | 72 - 127 | 2 | 35 |
| 1,1,1-Trichloroethane | 0.46 | J | 10.0 | 8.73 | | ug/L | | 83 | 63 - 133 | 2 | 35 |
| Carbon tetrachloride | 1.0 | U | 10.0 | 8.74 | | ug/L | | 87 | 55 - 150 | 4 | 35 |
| Benzene | 1.0 | U | 10.0 | 9.12 | | ug/L | | 91 | 80 - 120 | 3 | 32 |
| 1,2-Dichloroethane | 1.0 | U | 10.0 | 8.55 | | ug/L | | 85 | 68 - 132 | 5 | 32 |
| Trichloroethene | 11 | F1 | 10.0 | 17.6 | F1 | ug/L | | 67 | 73 - 120 | 0 | 35 |
| 1,2-Dichloropropane | 1.0 | U | 10.0 | 9.06 | | ug/L | | 91 | 76 - 124 | 4 | 34 |
| Bromodichloromethane | 1.0 | U | 10.0 | 8.39 | | ug/L | | 84 | 66 - 130 | 1 | 35 |
| cis-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.65 | | ug/L | | 87 | 66 - 120 | 7 | 35 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 20.0 | 18.1 | | ug/L | | 90 | 45 - 145 | 3 | 35 |
| Toluene | 1.0 | U | 10.0 | 9.70 | | ug/L | | 97 | 80 - 123 | 0 | 35 |
| trans-1,3-Dichloropropene | 1.0 | U | 10.0 | 8.65 | | ug/L | | 87 | 65 - 125 | 4 | 35 |
| 1,1,2-Trichloroethane | 1.0 | U | 10.0 | 9.88 | | ug/L | | 99 | 77 - 127 | 1 | 35 |
| Tetrachloroethene | 6.3 | | 10.0 | 15.4 | | ug/L | | 91 | 70 - 135 | 2 | 35 |
| 2-Hexanone | 5.0 | U | 20.0 | 17.9 | | ug/L | | 90 | 25 - 132 | 9 | 35 |
| Dibromochloromethane | 1.0 | U | 10.0 | 9.32 | | ug/L | | 93 | 60 - 140 | 0 | 35 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 10.0 | 10.1 | | ug/L | | 101 | 74 - 123 | 2 | 35 |
| Chlorobenzene | 1.0 | U | 10.0 | 9.85 | | ug/L | | 99 | 80 - 120 | 2 | 29 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 10.0 | 9.72 | | ug/L | | 97 | 63 - 140 | 2 | 34 |
| Ethylbenzene | 1.0 | U | 10.0 | 9.59 | | ug/L | | 96 | 72 - 126 | 0 | 33 |
| Xylenes, Total | 3.0 | U | 20.0 | 19.4 | | ug/L | | 97 | 76 - 128 | 1 | 32 |
| Styrene | 1.0 | U | 10.0 | 10.3 | | ug/L | | 103 | 71 - 127 | 1 | 34 |
| Bromoform | 1.0 | U | 10.0 | 9.28 | | ug/L | | 93 | 46 - 150 | 5 | 35 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 10.0 | 9.80 | | ug/L | | 98 | 62 - 125 | 2 | 35 |
| Acrylonitrile | 20 | U | 100 | 93.3 | | ug/L | | 93 | 30 - 140 | 2 | 35 |
| 1,4-Dioxane | 200 | U | 200 | 247 | | ug/L | | 123 | 10 - 160 | 6 | 35 |
| | MSD | MSD | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 85 | | 64 - 135 | | | | | | | | |
| Toluene-d8 (Surr) | 98 | | 71 - 118 | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 93 | | 70 - 118 | | | | | | | | |
| Dibromofluoromethane (Surr) | 93 | | 70 - 128 | | | | | | | | |

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-155869/5
Matrix: Water
Analysis Batch: 155869

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 11:25 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 11:25 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/05/15 11:25 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/05/15 11:25 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/05/15 11:25 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:25 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 11:25 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 11:25 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/05/15 11:25 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 10/05/15 11:25 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:25 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/05/15 11:25 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/05/15 11:25 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:25 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:25 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/05/15 11:25 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 11:25 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 11:25 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/05/15 11:25 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:25 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 11:25 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:25 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/05/15 11:25 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:25 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 11:25 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 11:25 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/05/15 11:25 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/05/15 11:25 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 11:25 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/05/15 11:25 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/05/15 11:25 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 64 - 135 | | 10/05/15 11:25 | 1 |
| Toluene-d8 (Surr) | 99 | | 71 - 118 | | 10/05/15 11:25 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/05/15 11:25 | 1 |
| Dibromofluoromethane (Surr) | 105 | | 70 - 128 | | 10/05/15 11:25 | 1 |

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-155869/7

Matrix: Water

Analysis Batch: 155869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Chloromethane | 10.0 | 12.9 | | ug/L | | 129 | 50 - 139 |
| Vinyl chloride | 10.0 | 10.9 | | ug/L | | 109 | 53 - 138 |
| Bromomethane | 10.0 | 8.96 | | ug/L | | 90 | 33 - 150 |
| Chloroethane | 10.0 | 10.8 | | ug/L | | 108 | 36 - 142 |
| 1,1-Dichloroethene | 10.0 | 9.60 | | ug/L | | 96 | 65 - 136 |
| Acetone | 20.0 | 23.0 | | ug/L | | 115 | 22 - 150 |
| Carbon disulfide | 10.0 | 9.74 | | ug/L | | 97 | 54 - 132 |
| Methylene Chloride | 10.0 | 9.67 | | ug/L | | 97 | 63 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 9.82 | | ug/L | | 98 | 73 - 126 |
| Methyl tert-butyl ether | 10.0 | 9.56 | | ug/L | | 96 | 64 - 123 |
| 1,1-Dichloroethane | 10.0 | 10.7 | | ug/L | | 107 | 73 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.33 | | ug/L | | 93 | 70 - 120 |
| Bromochloromethane | 10.0 | 11.1 | | ug/L | | 111 | 70 - 127 |
| 2-Butanone (MEK) | 20.0 | 22.5 | | ug/L | | 113 | 39 - 138 |
| Chloroform | 10.0 | 9.92 | | ug/L | | 99 | 72 - 127 |
| 1,1,1-Trichloroethane | 10.0 | 9.71 | | ug/L | | 97 | 63 - 133 |
| Carbon tetrachloride | 10.0 | 11.2 | | ug/L | | 112 | 55 - 150 |
| Benzene | 10.0 | 10.9 | | ug/L | | 109 | 80 - 120 |
| 1,2-Dichloroethane | 10.0 | 10.6 | | ug/L | | 106 | 68 - 132 |
| Trichloroethene | 10.0 | 11.7 | | ug/L | | 117 | 73 - 120 |
| 1,2-Dichloropropane | 10.0 | 11.3 | | ug/L | | 113 | 76 - 124 |
| Bromodichloromethane | 10.0 | 9.91 | | ug/L | | 99 | 66 - 130 |
| cis-1,3-Dichloropropene | 10.0 | 10.6 | | ug/L | | 106 | 66 - 120 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 23.0 | | ug/L | | 115 | 45 - 145 |
| Toluene | 10.0 | 10.7 | | ug/L | | 107 | 80 - 123 |
| trans-1,3-Dichloropropene | 10.0 | 10.3 | | ug/L | | 103 | 65 - 125 |
| 1,1,2-Trichloroethane | 10.0 | 10.8 | | ug/L | | 108 | 77 - 127 |
| Tetrachloroethene | 10.0 | 11.8 | | ug/L | | 118 | 70 - 135 |
| 2-Hexanone | 20.0 | 25.9 | | ug/L | | 130 | 25 - 132 |
| Dibromochloromethane | 10.0 | 11.6 | | ug/L | | 116 | 60 - 140 |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.8 | | ug/L | | 108 | 74 - 123 |
| Chlorobenzene | 10.0 | 10.9 | | ug/L | | 109 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 10.0 | 11.7 | | ug/L | | 117 | 63 - 140 |
| Ethylbenzene | 10.0 | 10.7 | | ug/L | | 107 | 72 - 126 |
| Xylenes, Total | 20.0 | 21.3 | | ug/L | | 107 | 76 - 128 |
| Styrene | 10.0 | 11.4 | | ug/L | | 114 | 71 - 127 |
| Bromoform | 10.0 | 12.6 | | ug/L | | 126 | 46 - 150 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.5 | | ug/L | | 105 | 62 - 125 |
| Acrylonitrile | 100 | 128 | | ug/L | | 128 | 30 - 140 |
| 1,4-Dioxane | 200 | 207 | | ug/L | | 103 | 10 - 160 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 105 | | 64 - 135 |
| Toluene-d8 (Surr) | 111 | | 71 - 118 |
| 4-Bromofluorobenzene (Surr) | 101 | | 70 - 118 |
| Dibromofluoromethane (Surr) | 106 | | 70 - 128 |

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-155884/4
Matrix: Water
Analysis Batch: 155884

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 11:57 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 11:57 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/05/15 11:57 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/05/15 11:57 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/05/15 11:57 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:57 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 11:57 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 11:57 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/05/15 11:57 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 10/05/15 11:57 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:57 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/05/15 11:57 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/05/15 11:57 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:57 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/05/15 11:57 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/05/15 11:57 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/05/15 11:57 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 11:57 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/05/15 11:57 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:57 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 11:57 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/05/15 11:57 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/05/15 11:57 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/05/15 11:57 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/05/15 11:57 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/05/15 11:57 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/05/15 11:57 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/05/15 11:57 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/05/15 11:57 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/05/15 11:57 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/05/15 11:57 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 93 | | 64 - 135 | | 10/05/15 11:57 | 1 |
| Toluene-d8 (Surr) | 91 | | 71 - 118 | | 10/05/15 11:57 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/05/15 11:57 | 1 |
| Dibromofluoromethane (Surr) | 105 | | 70 - 128 | | 10/05/15 11:57 | 1 |

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-155884/7

Matrix: Water

Analysis Batch: 155884

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Chloromethane | 10.0 | 10.3 | | ug/L | | 103 | 50 - 139 |
| Vinyl chloride | 10.0 | 9.58 | | ug/L | | 96 | 53 - 138 |
| Bromomethane | 10.0 | 9.95 | | ug/L | | 100 | 33 - 150 |
| Chloroethane | 10.0 | 8.88 | | ug/L | | 89 | 36 - 142 |
| 1,1-Dichloroethene | 10.0 | 8.87 | | ug/L | | 89 | 65 - 136 |
| Acetone | 20.0 | 17.7 | | ug/L | | 88 | 22 - 150 |
| Carbon disulfide | 10.0 | 8.59 | | ug/L | | 86 | 54 - 132 |
| Methylene Chloride | 10.0 | 8.64 | | ug/L | | 86 | 63 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 8.88 | | ug/L | | 89 | 73 - 126 |
| Methyl tert-butyl ether | 10.0 | 8.16 | | ug/L | | 82 | 64 - 123 |
| 1,1-Dichloroethane | 10.0 | 8.25 | | ug/L | | 83 | 73 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 8.60 | | ug/L | | 86 | 70 - 120 |
| Bromochloromethane | 10.0 | 9.33 | | ug/L | | 93 | 70 - 127 |
| 2-Butanone (MEK) | 20.0 | 17.9 | | ug/L | | 89 | 39 - 138 |
| Chloroform | 10.0 | 8.43 | | ug/L | | 84 | 72 - 127 |
| 1,1,1-Trichloroethane | 10.0 | 8.58 | | ug/L | | 86 | 63 - 133 |
| Carbon tetrachloride | 10.0 | 9.51 | | ug/L | | 95 | 55 - 150 |
| Benzene | 10.0 | 8.97 | | ug/L | | 90 | 80 - 120 |
| 1,2-Dichloroethane | 10.0 | 8.12 | | ug/L | | 81 | 68 - 132 |
| Trichloroethene | 10.0 | 9.53 | | ug/L | | 95 | 73 - 120 |
| 1,2-Dichloropropane | 10.0 | 8.90 | | ug/L | | 89 | 76 - 124 |
| Bromodichloromethane | 10.0 | 8.82 | | ug/L | | 88 | 66 - 130 |
| cis-1,3-Dichloropropene | 10.0 | 8.07 | | ug/L | | 81 | 66 - 120 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 16.0 | | ug/L | | 80 | 45 - 145 |
| Toluene | 10.0 | 9.74 | | ug/L | | 97 | 80 - 123 |
| trans-1,3-Dichloropropene | 10.0 | 8.30 | | ug/L | | 83 | 65 - 125 |
| 1,1,2-Trichloroethane | 10.0 | 9.41 | | ug/L | | 94 | 77 - 127 |
| Tetrachloroethene | 10.0 | 10.3 | | ug/L | | 103 | 70 - 135 |
| 2-Hexanone | 20.0 | 15.4 | | ug/L | | 77 | 25 - 132 |
| Dibromochloromethane | 10.0 | 9.52 | | ug/L | | 95 | 60 - 140 |
| 1,2-Dibromoethane (EDB) | 10.0 | 9.34 | | ug/L | | 93 | 74 - 123 |
| Chlorobenzene | 10.0 | 9.61 | | ug/L | | 96 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 10.0 | 9.60 | | ug/L | | 96 | 63 - 140 |
| Ethylbenzene | 10.0 | 9.77 | | ug/L | | 98 | 72 - 126 |
| Xylenes, Total | 20.0 | 19.6 | | ug/L | | 98 | 76 - 128 |
| Styrene | 10.0 | 10.1 | | ug/L | | 101 | 71 - 127 |
| Bromoform | 10.0 | 9.47 | | ug/L | | 95 | 46 - 150 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.54 | | ug/L | | 95 | 62 - 125 |
| Acrylonitrile | 100 | 90.6 | | ug/L | | 91 | 30 - 140 |
| 1,4-Dioxane | 200 | 213 | | ug/L | | 107 | 10 - 160 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 82 | | 64 - 135 |
| Toluene-d8 (Surr) | 99 | | 71 - 118 |
| 4-Bromofluorobenzene (Surr) | 90 | | 70 - 118 |
| Dibromofluoromethane (Surr) | 91 | | 70 - 128 |

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-156037/6
Matrix: Water
Analysis Batch: 156037

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|-----|-------|------|---|----------|----------------|---------|
| Chloromethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 13:50 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 13:50 | 1 |
| Bromomethane | 1.0 | U | 1.0 | 0.31 | ug/L | | | 10/06/15 13:50 | 1 |
| Chloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 | ug/L | | | 10/06/15 13:50 | 1 |
| Acetone | 5.0 | U | 5.0 | 2.5 | ug/L | | | 10/06/15 13:50 | 1 |
| Carbon disulfide | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 13:50 | 1 |
| Methylene Chloride | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 13:50 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 13:50 | 1 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 | ug/L | | | 10/06/15 13:50 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 10/06/15 13:50 | 1 |
| Bromochloromethane | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 13:50 | 1 |
| 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 | ug/L | | | 10/06/15 13:50 | 1 |
| Chloroform | 1.0 | U | 1.0 | 0.17 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 | ug/L | | | 10/06/15 13:50 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 13:50 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.11 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 | ug/L | | | 10/06/15 13:50 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 | ug/L | | | 10/06/15 13:50 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | 0.13 | ug/L | | | 10/06/15 13:50 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 13:50 | 1 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 | ug/L | | | 10/06/15 13:50 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 13:50 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 13:50 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.15 | ug/L | | | 10/06/15 13:50 | 1 |
| 2-Hexanone | 5.0 | U | 5.0 | 0.16 | ug/L | | | 10/06/15 13:50 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 | ug/L | | | 10/06/15 13:50 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | 0.14 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 | ug/L | | | 10/06/15 13:50 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.23 | ug/L | | | 10/06/15 13:50 | 1 |
| Xylenes, Total | 3.0 | U | 3.0 | 0.49 | ug/L | | | 10/06/15 13:50 | 1 |
| Styrene | 1.0 | U | 1.0 | 0.097 | ug/L | | | 10/06/15 13:50 | 1 |
| Bromoform | 1.0 | U | 1.0 | 0.19 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 | ug/L | | | 10/06/15 13:50 | 1 |
| Acrylonitrile | 20 | U | 20 | 0.55 | ug/L | | | 10/06/15 13:50 | 1 |
| 1,4-Dioxane | 200 | U | 200 | 34 | ug/L | | | 10/06/15 13:50 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 64 - 135 | | 10/06/15 13:50 | 1 |
| Toluene-d8 (Surr) | 93 | | 71 - 118 | | 10/06/15 13:50 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 70 - 118 | | 10/06/15 13:50 | 1 |
| Dibromofluoromethane (Surr) | 105 | | 70 - 128 | | 10/06/15 13:50 | 1 |

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 180-156037/11

Matrix: Water

Analysis Batch: 156037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| | | | | | | | |
| Chloromethane | 10.0 | 9.24 | | ug/L | | 92 | 50 - 139 |
| Vinyl chloride | 10.0 | 8.06 | | ug/L | | 81 | 53 - 138 |
| Bromomethane | 10.0 | 8.51 | | ug/L | | 85 | 33 - 150 |
| Chloroethane | 10.0 | 6.73 | | ug/L | | 67 | 36 - 142 |
| 1,1-Dichloroethene | 10.0 | 9.30 | | ug/L | | 93 | 65 - 136 |
| Acetone | 20.0 | 18.6 | | ug/L | | 93 | 22 - 150 |
| Carbon disulfide | 10.0 | 9.90 | | ug/L | | 99 | 54 - 132 |
| Methylene Chloride | 10.0 | 9.89 | | ug/L | | 99 | 63 - 129 |
| trans-1,2-Dichloroethene | 10.0 | 9.43 | | ug/L | | 94 | 73 - 126 |
| Methyl tert-butyl ether | 10.0 | 9.32 | | ug/L | | 93 | 64 - 123 |
| 1,1-Dichloroethane | 10.0 | 8.69 | | ug/L | | 87 | 73 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.50 | | ug/L | | 95 | 70 - 120 |
| Bromochloromethane | 10.0 | 10.5 | | ug/L | | 105 | 70 - 127 |
| 2-Butanone (MEK) | 20.0 | 20.7 | | ug/L | | 103 | 39 - 138 |
| Chloroform | 10.0 | 8.86 | | ug/L | | 89 | 72 - 127 |
| 1,1,1-Trichloroethane | 10.0 | 8.97 | | ug/L | | 90 | 63 - 133 |
| Carbon tetrachloride | 10.0 | 9.48 | | ug/L | | 95 | 55 - 150 |
| Benzene | 10.0 | 9.28 | | ug/L | | 93 | 80 - 120 |
| 1,2-Dichloroethane | 10.0 | 8.53 | | ug/L | | 85 | 68 - 132 |
| Trichloroethene | 10.0 | 10.1 | | ug/L | | 101 | 73 - 120 |
| 1,2-Dichloropropane | 10.0 | 9.17 | | ug/L | | 92 | 76 - 124 |
| Bromodichloromethane | 10.0 | 9.23 | | ug/L | | 92 | 66 - 130 |
| cis-1,3-Dichloropropene | 10.0 | 8.67 | | ug/L | | 87 | 66 - 120 |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 20.7 | | ug/L | | 103 | 45 - 145 |
| Toluene | 10.0 | 10.3 | | ug/L | | 103 | 80 - 123 |
| trans-1,3-Dichloropropene | 10.0 | 9.13 | | ug/L | | 91 | 65 - 125 |
| 1,1,2-Trichloroethane | 10.0 | 10.4 | | ug/L | | 104 | 77 - 127 |
| Tetrachloroethene | 10.0 | 10.8 | | ug/L | | 108 | 70 - 135 |
| 2-Hexanone | 20.0 | 21.2 | | ug/L | | 106 | 25 - 132 |
| Dibromochloromethane | 10.0 | 10.9 | | ug/L | | 109 | 60 - 140 |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.6 | | ug/L | | 106 | 74 - 123 |
| Chlorobenzene | 10.0 | 10.6 | | ug/L | | 106 | 80 - 120 |
| 1,1,1,2-Tetrachloroethane | 10.0 | 10.6 | | ug/L | | 106 | 63 - 140 |
| Ethylbenzene | 10.0 | 10.7 | | ug/L | | 107 | 72 - 126 |
| Xylenes, Total | 20.0 | 21.6 | | ug/L | | 108 | 76 - 128 |
| Styrene | 10.0 | 11.2 | | ug/L | | 112 | 71 - 127 |
| Bromoform | 10.0 | 11.0 | | ug/L | | 110 | 46 - 150 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.7 | | ug/L | | 107 | 62 - 125 |
| Acrylonitrile | 100 | 99.4 | | ug/L | | 99 | 30 - 140 |
| 1,4-Dioxane | 200 | 234 | | ug/L | | 117 | 10 - 160 |

| Surrogate | LCS | | Limits |
|------------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 64 - 135 |
| Toluene-d8 (Surr) | 100 | | 71 - 118 |
| 4-Bromofluorobenzene (Surr) | 96 | | 70 - 118 |
| Dibromofluoromethane (Surr) | 91 | | 70 - 128 |

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

GC/MS VOA

Analysis Batch: 155766

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 180-48181-2 | HD-MW-147A-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-2 MS | HD-MW-147A-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-2 MSD | HD-MW-147A-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-9 | HD-QC9-0/1-2 | Total/NA | Water | 8260C | |
| LCS 180-155766/8 | Lab Control Sample | Total/NA | Water | 8260C | |
| MB 180-155766/5 | Method Blank | Total/NA | Water | 8260C | |

Analysis Batch: 155869

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 180-48181-7 | HD-MW-37D-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-8 | HD-QC3-0/1-1 | Total/NA | Water | 8260C | |
| LCS 180-155869/7 | Lab Control Sample | Total/NA | Water | 8260C | |
| MB 180-155869/5 | Method Blank | Total/NA | Water | 8260C | |

Analysis Batch: 155884

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 180-48181-4 - DL | HD-MW-93D-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-5 | HD-MW-75S-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-6 | HD-MW-75D-0/1-0 | Total/NA | Water | 8260C | |
| LCS 180-155884/7 | Lab Control Sample | Total/NA | Water | 8260C | |
| MB 180-155884/4 | Method Blank | Total/NA | Water | 8260C | |

Analysis Batch: 156037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 180-48181-1 | HD-MW-18S-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-3 - DL | HD-MW-93S-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-3 | HD-MW-93S-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-4 | HD-MW-93D-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-5 - DL | HD-MW-75S-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-6 - DL | HD-MW-75D-0/1-0 | Total/NA | Water | 8260C | |
| 180-48181-8 - DL | HD-QC3-0/1-1 | Total/NA | Water | 8260C | |
| LCS 180-156037/11 | Lab Control Sample | Total/NA | Water | 8260C | |
| MB 180-156037/6 | Method Blank | Total/NA | Water | 8260C | |

Lab Chronicle

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Client Sample ID: HD-MW-18S-0/1-0

Lab Sample ID: 180-48181-1

Date Collected: 09/25/15 08:20

Matrix: Water

Date Received: 09/26/15 09:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 156037 | 10/06/15 17:08 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Client Sample ID: HD-MW-147A-0/1-0

Lab Sample ID: 180-48181-2

Date Collected: 09/25/15 10:05

Matrix: Water

Date Received: 09/26/15 09:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 155766 | 10/03/15 13:50 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Client Sample ID: HD-MW-93S-0/1-0

Lab Sample ID: 180-48181-3

Date Collected: 09/25/15 12:25

Matrix: Water

Date Received: 09/26/15 09:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | DL | 5 | 5 mL | 5 mL | 156037 | 10/06/15 17:32 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 156037 | 10/06/15 20:21 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Client Sample ID: HD-MW-93D-0/1-0

Lab Sample ID: 180-48181-4

Date Collected: 09/25/15 13:10

Matrix: Water

Date Received: 09/26/15 09:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | DL | 10 | 5 mL | 5 mL | 155884 | 10/05/15 17:35 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 156037 | 10/06/15 21:09 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Client Sample ID: HD-MW-75S-0/1-0

Lab Sample ID: 180-48181-5

Date Collected: 09/25/15 13:47

Matrix: Water

Date Received: 09/26/15 09:00

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 50 | 5 mL | 5 mL | 155884 | 10/05/15 17:59 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |
| Total/NA | Analysis | 8260C | DL | 500 | 5 mL | 5 mL | 156037 | 10/06/15 17:56 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Lab Chronicle

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Client Sample ID: HD-MW-75D-0/1-0

Date Collected: 09/25/15 11:12

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-6

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 50 | 5 mL | 5 mL | 155884 | 10/05/15 18:23 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |
| Total/NA | Analysis | 8260C | DL | 500 | 5 mL | 5 mL | 156037 | 10/06/15 18:44 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Client Sample ID: HD-MW-37D-0/1-0

Date Collected: 09/25/15 12:37

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-7

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 40 | 5 mL | 5 mL | 155869 | 10/05/15 17:46 | DLF | TAL PIT |
| Instrument ID: CHHP6 | | | | | | | | | | |

Client Sample ID: HD-QC3-0/1-1

Date Collected: 09/25/15 08:00

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-8

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | DL | 5 | 5 mL | 5 mL | 156037 | 10/06/15 19:08 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 155869 | 10/05/15 18:10 | DLF | TAL PIT |
| Instrument ID: CHHP6 | | | | | | | | | | |

Client Sample ID: HD-QC9-0/1-2

Date Collected: 09/25/15 12:00

Date Received: 09/26/15 09:00

Lab Sample ID: 180-48181-9

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 155766 | 10/03/15 14:14 | DLF | TAL PIT |
| Instrument ID: CHHP5 | | | | | | | | | | |

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

DLF = Donald Ferguson

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|--------------|---------|------------|------------------|-----------------|
| Pennsylvania | NELAP | 3 | 02-00416 | 04-30-16 |

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

| Method | Method Description | Protocol | Laboratory |
|---------------|------------------------------------|-----------------|-------------------|
| 8260C | Volatile Organic Compounds (GC/MS) | SW846 | TAL PIT |

Protocol References:

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

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48181-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 180-48181-1 | HD-MW-18S-0/1-0 | Water | 09/25/15 08:20 | 09/26/15 09:00 |
| 180-48181-2 | HD-MW-147A-0/1-0 | Water | 09/25/15 10:05 | 09/26/15 09:00 |
| 180-48181-3 | HD-MW-93S-0/1-0 | Water | 09/25/15 12:25 | 09/26/15 09:00 |
| 180-48181-4 | HD-MW-93D-0/1-0 | Water | 09/25/15 13:10 | 09/26/15 09:00 |
| 180-48181-5 | HD-MW-75S-0/1-0 | Water | 09/25/15 13:47 | 09/26/15 09:00 |
| 180-48181-6 | HD-MW-75D-0/1-0 | Water | 09/25/15 11:12 | 09/26/15 09:00 |
| 180-48181-7 | HD-MW-37D-0/1-0 | Water | 09/25/15 12:37 | 09/26/15 09:00 |
| 180-48181-8 | HD-QC3-0/1-1 | Water | 09/25/15 08:00 | 09/26/15 09:00 |
| 180-48181-9 | HD-QC9-0/1-2 | Water | 09/25/15 12:00 | 09/26/15 09:00 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 151868Lab Sample ID: IC 180-151868/6 Client Sample ID: _____Date Analyzed: 08/26/15 15:04 Lab File ID: 50826006.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|------------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Trichlorofluoromethane | 2.65 | Incomplete Integration | fergusond | 08/27/15 10:07 |
| Acetone | 3.45 | Peak Tail | fergusond | 08/27/15 10:07 |

Lab Sample ID: IC 180-151868/12 Client Sample ID: _____Date Analyzed: 08/26/15 17:04 Lab File ID: 50826012.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Incomplete Integration | fergusond | 08/27/15 10:34 |

Lab Sample ID: IC 180-151868/14 Client Sample ID: _____Date Analyzed: 08/26/15 17:52 Lab File ID: 50826014.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|------------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Trichlorofluoromethane | 2.70 | Incomplete Integration | fergusond | 08/27/15 10:43 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 155766Lab Sample ID: CCVIS 180-155766/2 Client Sample ID: _____Date Analyzed: 10/03/15 12:18 Lab File ID: 51003002.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.04 | Incomplete Integration | fergusond | 10/03/15 12:35 |

Lab Sample ID: 180-48181-2 Client Sample ID: HD-MW-147A-0/1-0Date Analyzed: 10/03/15 13:50 Lab File ID: 51003006.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,1-Dichloroethane | 5.21 | Missed Peak | fergusond | 10/03/15 14:42 |

Lab Sample ID: 180-48181-9 Client Sample ID: HD-QC9-0/1-2Date Analyzed: 10/03/15 14:14 Lab File ID: 51003007.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Acetone | 3.46 | Missed Peak | fergusond | 10/03/15 14:43 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 155884Lab Sample ID: LCS 180-155884/7 Client Sample ID: _____Date Analyzed: 10/05/15 13:34 Lab File ID: 51005007.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.04 | Incomplete Integration | fergusond | 10/05/15 13:53 |

Lab Sample ID: 180-48181-4 DL Client Sample ID: HD-MW-93D-0/1-0 DLDate Analyzed: 10/05/15 17:35 Lab File ID: 51005017.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,1-Dichloroethene | 3.36 | Incomplete Integration | fergusond | 10/06/15 08:06 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 156037Lab Sample ID: CCVIS 180-156037/2 Client Sample ID: _____Date Analyzed: 10/06/15 12:41 Lab File ID: 51006002.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|------------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Trichlorofluoromethane | 2.70 | Incomplete Integration | fergusond | 10/06/15 13:21 |

Lab Sample ID: 180-48181-1 Client Sample ID: HD-MW-18S-0/1-0Date Analyzed: 10/06/15 17:08 Lab File ID: 51006013.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|-------------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Chloromethane | 1.77 | Incomplete Integration | fergusond | 10/07/15 07:48 |
| Methyl tert-butyl ether | 4.57 | Incomplete Integration | fergusond | 10/07/15 07:48 |

Lab Sample ID: 180-48181-3 DL Client Sample ID: HD-MW-93S-0/1-0 DLDate Analyzed: 10/06/15 17:32 Lab File ID: 51006014.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,1-Dichloroethene | 3.34 | Missed Peak | fergusond | 10/07/15 07:52 |

Lab Sample ID: 180-48181-8 DL Client Sample ID: HD-QC3-0/1-1 DLDate Analyzed: 10/06/15 19:08 Lab File ID: 51006018.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,1-Dichloroethene | 3.40 | Missed Peak | fergusond | 10/07/15 07:56 |

Lab Sample ID: 180-48181-3 Client Sample ID: HD-MW-93S-0/1-0Date Analyzed: 10/06/15 20:21 Lab File ID: 51006021.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| trans-1,2-Dichloroethene | 4.56 | Incomplete Integration | fergusond | 10/07/15 08:06 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 156037

Lab Sample ID: 180-48181-4 Client Sample ID: HD-MW-93D-0/1-0

Date Analyzed: 10/06/15 21:09 Lab File ID: 51006023.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Chloroform | 6.39 | Incomplete Integration | fergusond | 10/07/15 08:10 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/4 Client Sample ID: _____Date Analyzed: 07/31/15 14:00 Lab File ID: 60731004.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Bromomethane | 2.23 | Incomplete Integration | fergusond | 08/03/15 10:46 |
| 1,4-Dioxane | 8.03 | Incomplete Integration | fergusond | 08/03/15 10:46 |

Lab Sample ID: ICIS 180-149469/5 Client Sample ID: _____Date Analyzed: 07/31/15 14:24 Lab File ID: 60731005.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Peak Tail | fergusond | 08/03/15 10:47 |

Lab Sample ID: IC 180-149469/7 Client Sample ID: _____Date Analyzed: 07/31/15 15:13 Lab File ID: 60731007.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Peak Tail | fergusond | 08/03/15 10:27 |

Lab Sample ID: IC 180-149469/8 Client Sample ID: _____Date Analyzed: 07/31/15 15:37 Lab File ID: 60731008.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Peak Tail | fergusond | 08/03/15 10:13 |

Lab Sample ID: IC 180-149469/9 Client Sample ID: _____Date Analyzed: 07/31/15 16:01 Lab File ID: 60731009.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Peak Tail | fergusond | 08/03/15 10:06 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/10 Client Sample ID: _____Date Analyzed: 07/31/15 16:25 Lab File ID: 60731010.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|--------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.03 | Peak Tail | fergusond | 08/03/15 10:08 |

Lab Sample ID: IC 180-149469/14 Client Sample ID: _____Date Analyzed: 07/31/15 18:02 Lab File ID: 60731014.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|------------------------|----------------|---------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| Trichlorofluoromethane | 2.68 | Poor chromatography | fergusond | 08/03/15 11:05 |
| Acetone | 3.42 | Poor chromatography | fergusond | 08/03/15 11:05 |
| Acrylonitrile | 4.51 | Poor chromatography | fergusond | 08/03/15 11:05 |
| 1,1,1-Trichloroethane | 6.55 | Poor chromatography | fergusond | 08/03/15 11:05 |
| Isobutyl alcohol | 6.90 | Poor chromatography | fergusond | 08/03/15 11:05 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 155869Lab Sample ID: CCVIS 180-155869/2 Client Sample ID: _____Date Analyzed: 10/05/15 10:05 Lab File ID: 61005002.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.02 | Incomplete Integration | fergusond | 10/05/15 10:27 |

Lab Sample ID: 180-48181-8 Client Sample ID: HD-QC3-0/1-1Date Analyzed: 10/05/15 18:10 Lab File ID: 61005021.D GC Column: DB-624 ID: 0.18 (mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|--------------------|----------------|------------------------|-----------|----------------|
| | | REASON | ANALYST | DATE |
| 1,1-Dichloroethane | 5.21 | Incomplete Integration | fergusond | 10/06/15 09:21 |
| Chlorobenzene | 10.43 | Incomplete Integration | fergusond | 10/06/15 09:21 |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|--------------------------|----------|-----------|----------------------|----------------------|---------------------|--------------|------------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| VOA8260INT_00039 | 08/02/15 | 07/02/15 | Methanol, Lot 85233 | 10 mL | VOA8260INTRES_00067 | 1 mL | 1,4-Dichlorobenzene-d4 | 25 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 25 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 25 ug/mL |
| | | | | | | | TBA-d9 (IS) | 500 ug/mL |
| .VOA8260INTRES_00067 | 02/01/18 | | Restek, Lot A093504 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 250 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 250 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 250 ug/mL |
| | | | | | | | TBA-d9 (IS) | 5000 ug/mL |
| VOA8260INT_00040 | 09/03/15 | 08/03/15 | Methanol, Lot 85233 | 10 mL | VOA8260INTRES_00088 | 1 mL | 1,4-Dichlorobenzene-d4 | 25 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 25 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 25 ug/mL |
| | | | | | | | TBA-d9 (IS) | 500 ug/mL |
| .VOA8260INTRES_00088 | 07/31/19 | | Restek, Lot A0104742 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 250 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 250 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 250 ug/mL |
| | | | | | | | TBA-d9 (IS) | 5000 ug/mL |
| VOA8260INT_00042 | 10/11/15 | 09/11/15 | Methanol, Lot 99494 | 10 mL | VOA8260INTRES_00068 | 1 mL | 1,4-Dichlorobenzene-d4 | 25 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 25 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 25 ug/mL |
| | | | | | | | TBA-d9 (IS) | 500 ug/mL |
| .VOA8260INTRES_00068 | 02/01/18 | | Restek, Lot A093504 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 250 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 250 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 250 ug/mL |
| | | | | | | | TBA-d9 (IS) | 5000 ug/mL |
| VOA8260SURR_00039 | 08/02/15 | 07/02/15 | Methanol, Lot 85233 | 100 mL | VOA8260SURRES_00066 | 1 mL | 1,2-Dichloroethane-d4 (Surr) | 25 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 25 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 25 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 25 ug/mL |
| .VOA8260SURRES_00066 | 01/31/19 | | Restek, Lot A0100424 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| VOA8260SURR_00040 | 09/03/15 | 08/03/15 | Methanol, Lot 85233 | 100 mL | VOA8260SURRES_00067 | 1 mL | 1,2-Dichloroethane-d4 (Surr) | 25 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 25 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 25 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 25 ug/mL |
| .VOA8260SURRES_00067 | 01/31/19 | | Restek, Lot A0100424 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| VOA8260SURR_00042 | 10/11/15 | 09/11/15 | Methanol, Lot 99494 | 100 mL | VOA8260SURRES_00077 | 1 mL | 1,2-Dichloroethane-d4 (Surr) | 25 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 25 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 25 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 25 ug/mL |
| .VOA8260SURRES_00077 | 01/31/19 | | Restek, Lot A0101000 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------|----------|-----------|----------------------|----------------------|---------------------|--------------|-----------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| VOA8260VOA2ND_00146 | 10/09/15 | 10/02/15 | Methanol, Lot 99494 | 10 mL | VOA8260GAS2ND_00115 | 0.1 mL | Bromomethane | 25 ug/mL |
| | | | | | | | Chloroethane | 25 ug/mL |
| | | | | | | | Chloromethane | 25 ug/mL |
| | | | | | | | Vinyl chloride | 25 ug/mL |
| | | | | | VOA8260VOA2ND_00145 | 1 mL | 1,1,1,2-Tetrachloroethane | 25 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 25 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 25 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 25 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 25 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 25 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 25 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 25 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 25 ug/mL |
| | | | | | | | 1,4-Dioxane | 500 ug/mL |
| | | | | | | | Acrylonitrile | 250 ug/mL |
| | | | | | | | Benzene | 25 ug/mL |
| | | | | | | | Bromochloromethane | 25 ug/mL |
| | | | | | | | Bromodichloromethane | 25 ug/mL |
| | | | | | | | Bromoform | 25 ug/mL |
| | | | | | | | Carbon disulfide | 25 ug/mL |
| | | | | | | | Carbon tetrachloride | 25 ug/mL |
| | | | | | | | Chlorobenzene | 25 ug/mL |
| | | | | | | | Chloroform | 25 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 25 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | Dibromochloromethane | 25 ug/mL |
| | | | | | | | Ethylbenzene | 25 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 25 ug/mL |
| | | | | | | | Methylene Chloride | 25 ug/mL |
| | | | | | | | Styrene | 25 ug/mL |
| | | | | | | | Tetrachloroethene | 25 ug/mL |
| | | | | | | | Toluene | 25 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 25 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | Trichloroethene | 25 ug/mL |
| | | | | | | | Xylenes, Total | 50 ug/mL |
| .VOA8260GAS2ND_00115 | 04/30/18 | | Restek, Lot A0111273 | | | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VOA8260VOA2ND_00145 | 10/25/15 | 09/25/15 | Methanol, Lot 99494 | 10 mL | VOA8260MEGA2_00037 | 1 mL | 1,1,1,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 250 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------|----------|-----------|----------------------|----------------------|----------------|---------------------|---------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethene | 250 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 250 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 250 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 250 ug/mL |
| | | | | | | | 1,4-Dioxane | 5000 ug/mL |
| | | | | | | | Acrylonitrile | 2500 ug/mL |
| | | | | | | | Benzene | 250 ug/mL |
| | | | | | | | Bromochloromethane | 250 ug/mL |
| | | | | | | | Bromodichloromethane | 250 ug/mL |
| | | | | | | | Bromoform | 250 ug/mL |
| | | | | | | | Carbon disulfide | 250 ug/mL |
| | | | | | | | Carbon tetrachloride | 250 ug/mL |
| | | | | | | | Chlorobenzene | 250 ug/mL |
| | | | | | | | Chloroform | 250 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Dibromochloromethane | 250 ug/mL |
| | | | | | | | Ethylbenzene | 250 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 250 ug/mL |
| | | | | | | | Methylene Chloride | 250 ug/mL |
| | | | | | | | Styrene | 250 ug/mL |
| | | | | | | | Tetrachloroethene | 250 ug/mL |
| | | | | | | | Toluene | 250 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Trichloroethene | 250 ug/mL |
| | | | | | | | Xylenes, Total | 500 ug/mL |
| ..VOA8260MEGA2_00037 | 01/31/17 | | Restek, Lot A0108163 | | | (Purchased Reagent) | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration | | |
|---------------------|-----------|-----------|---------------------|---------------------------------------|---------------------|--------------|---------------------------|---------------|-----------------------------|----------|
| | | | | | Reagent ID | Volume Added | | | | |
| | | | | | | | Dibromochloromethane | 2500 ug/mL | | |
| | | | | | | | Ethylbenzene | 2500 ug/mL | | |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL | | |
| | | | | | | | Methylene Chloride | 2500 ug/mL | | |
| | | | | | | | Styrene | 2500 ug/mL | | |
| | | | | | | | Tetrachloroethene | 2500 ug/mL | | |
| | | | | | | | Toluene | 2500 ug/mL | | |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL | | |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL | | |
| | | | | | | | Trichloroethene | 2500 ug/mL | | |
| | | | | | | | Xylenes, Total | 5000 ug/mL | | |
| VOA8260VOAPRI_00134 | 08/03/15 | 07/27/15 | Methanol, Lot 85233 | 10 mL | VOA8260GAS1ST_00110 | 0.1 mL | Bromomethane | 25 ug/mL | | |
| | | | | | | | Butadiene | 25 ug/mL | | |
| | | | | | | | Chloroethane | 25 ug/mL | | |
| | | | | | | | Chloromethane | 25 ug/mL | | |
| | | | | | | | Dichlorodifluoromethane | 25 ug/mL | | |
| | | | | | | | Dichlorofluoromethane | 25 ug/mL | | |
| | | | | | | | Trichlorofluoromethane | 25 ug/mL | | |
| | | | | | | | Vinyl chloride | 25 ug/mL | | |
| | | | | | | | VOA8260VOAPRI_00129 | 1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL |
| | | | | | | | | | Acetone | 25 ug/mL |
| | | | | | | | | | 1,1,1,2-Tetrachloroethane | 25 ug/mL |
| | | | | | | | | | 1,1,1-Trichloroethane | 25 ug/mL |
| | | | | | | | | | 1,1,2,2-Tetrachloroethane | 25 ug/mL |
| | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 25 ug/mL | | | | | |
| | | | | 1,1,2-Trichloroethane | 25 ug/mL | | | | | |
| | | | | 1,1-Dichloroethane | 25 ug/mL | | | | | |
| | | | | 1,1-Dichloroethene | 25 ug/mL | | | | | |
| | | | | 1,1-Dichloropropene | 25 ug/mL | | | | | |
| | | | | 1,2,3-Trichlorobenzene | 25 ug/mL | | | | | |
| | | | | 1,2,3-Trichloropropane | 25 ug/mL | | | | | |
| | | | | 1,2,4-Trichlorobenzene | 25 ug/mL | | | | | |
| | | | | 1,2,4-Trimethylbenzene | 25 ug/mL | | | | | |
| | | | | 1,2-Dibromo-3-Chloropropane | 25 ug/mL | | | | | |
| | | | | 1,2-Dibromoethane (EDB) | 25 ug/mL | | | | | |
| | | | | 1,2-Dichlorobenzene | 25 ug/mL | | | | | |
| | | | | 1,2-Dichloroethane | 25 ug/mL | | | | | |
| | | | | 1,2-Dichloropropane | 25 ug/mL | | | | | |
| | | | | 1,3,5-Trimethylbenzene | 25 ug/mL | | | | | |
| | | | | 1,3-Dichlorobenzene | 25 ug/mL | | | | | |
| | | | | 1,3-Dichloropropane | 25 ug/mL | | | | | |
| | | | | 1,4-Dichlorobenzene | 25 ug/mL | | | | | |
| 1,4-Dioxane | 500 ug/mL | | | | | | | | | |
| 2,2-Dichloropropane | 25 ug/mL | | | | | | | | | |
| 2-Chlorotoluene | 25 ug/mL | | | | | | | | | |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|-----------------------------|----------|-----------|---------------------|----------------------|----------------|---------------------|-------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Methyl-2-propanol | 250 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 25 ug/mL |
| | | | | | | | 4-Chlorotoluene | 25 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 25 ug/mL |
| | | | | | | | Acrylonitrile | 250 ug/mL |
| | | | | | | | Benzene | 25 ug/mL |
| | | | | | | | Bromobenzene | 25 ug/mL |
| | | | | | | | Bromochloromethane | 25 ug/mL |
| | | | | | | | Bromodichloromethane | 25 ug/mL |
| | | | | | | | Bromoform | 25 ug/mL |
| | | | | | | | Carbon disulfide | 25 ug/mL |
| | | | | | | | Carbon tetrachloride | 25 ug/mL |
| | | | | | | | Chlorobenzene | 25 ug/mL |
| | | | | | | | Chloroform | 25 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 25 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | Cyclohexane | 25 ug/mL |
| | | | | | | | Dibromochloromethane | 25 ug/mL |
| | | | | | | | Dibromomethane | 25 ug/mL |
| | | | | | | | Ethyl ether | 25 ug/mL |
| | | | | | | | Ethyl methacrylate | 25 ug/mL |
| | | | | | | | Ethylbenzene | 25 ug/mL |
| | | | | | | | Hexachlorobutadiene | 25 ug/mL |
| | | | | | | | Hexane | 25 ug/mL |
| | | | | | | | Iodomethane | 25 ug/mL |
| | | | | | | | Isobutyl alcohol | 625 ug/mL |
| | | | | | | | Isopropylbenzene | 25 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 25 ug/mL |
| | | | | | | | Methyl acetate | 125 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 25 ug/mL |
| | | | | | | | Methylcyclohexane | 25 ug/mL |
| | | | | | | | Methylene Chloride | 25 ug/mL |
| | | | | | | | n-Butylbenzene | 25 ug/mL |
| | | | | | | | n-Heptane | 25 ug/mL |
| | | | | | | | N-Propylbenzene | 25 ug/mL |
| | | | | | | | Naphthalene | 25 ug/mL |
| | | | | | | | o-Xylene | 25 ug/mL |
| | | | | | | | sec-Butylbenzene | 25 ug/mL |
| | | | | | | | Styrene | 25 ug/mL |
| | | | | | | | tert-Butylbenzene | 25 ug/mL |
| Tetrachloroethene | 25 ug/mL | | | | | | | |
| Tetrahydrofuran | 50 ug/mL | | | | | | | |
| Toluene | 25 ug/mL | | | | | | | |
| trans-1,2-Dichloroethene | 25 ug/mL | | | | | | | |
| trans-1,3-Dichloropropene | 25 ug/mL | | | | | | | |
| trans-1,4-Dichloro-2-butene | 25 ug/mL | | | | | | | |
| Trichloroethene | 25 ug/mL | | | | | | | |
| .VOA8260GAS1ST_00110 | 04/30/18 | | Restek, Lot A011070 | | | (Purchased Reagent) | Bromomethane | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------|-----------|-----------|---------------------|----------------------|---------------------------------------|--------------|-----------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VOA8260VOAPRI_00129 | 08/07/15 | 07/07/15 | Methanol, Lot 85233 | 10 mL | VOA8260KET1ST_00047 | 0.2 mL | 2-Butanone (MEK) | 250 ug/mL |
| | | | | | | | 2-Hexanone | 250 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 250 ug/mL |
| | | | | | | | Acetone | 250 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 250 ug/mL |
| | | | | | VOA8260MEGA1_00030 | 1 mL | 1,1,2,2-Tetrachloroethane | 250 ug/mL |
| | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | | 250 ug/mL | |
| | | | | | 1,1,2-Trichloroethane | | 250 ug/mL | |
| | | | | | 1,1-Dichloroethane | | 250 ug/mL | |
| | | | | | 1,1-Dichloroethene | | 250 ug/mL | |
| | | | | | 1,1-Dichloropropene | | 250 ug/mL | |
| | | | | | 1,2,3-Trichlorobenzene | | 250 ug/mL | |
| | | | | | 1,2,3-Trichloropropane | | 250 ug/mL | |
| | | | | | 1,2,4-Trichlorobenzene | | 250 ug/mL | |
| | | | | | 1,2,4-Trimethylbenzene | | 250 ug/mL | |
| | | | | | 1,2-Dibromo-3-Chloropropane | | 250 ug/mL | |
| | | | | | 1,2-Dibromoethane (EDB) | | 250 ug/mL | |
| | | | | | 1,2-Dichlorobenzene | | 250 ug/mL | |
| | | | | | 1,2-Dichloroethane | | 250 ug/mL | |
| | | | | | 1,2-Dichloropropane | | 250 ug/mL | |
| | | | | | 1,3,5-Trimethylbenzene | | 250 ug/mL | |
| | | | | | 1,3-Dichlorobenzene | | 250 ug/mL | |
| | | | | | 1,3-Dichloropropane | | 250 ug/mL | |
| | | | | | 1,4-Dichlorobenzene | | 250 ug/mL | |
| | | | | | 1,4-Dioxane | | 5000 ug/mL | |
| | | | | | 2,2-Dichloropropane | | 250 ug/mL | |
| | | | | | 2-Chlorotoluene | | 250 ug/mL | |
| | | | | | 2-Methyl-2-propanol | | 2500 ug/mL | |
| | | | | | 3-Chloro-1-propene | | 250 ug/mL | |
| | | | | | 4-Chlorotoluene | | 250 ug/mL | |
| | | | | | 4-Isopropyltoluene | | 250 ug/mL | |
| | | | | | Acrylonitrile | | 2500 ug/mL | |
| Benzene | 250 ug/mL | | | | | | | |
| Bromobenzene | 250 ug/mL | | | | | | | |
| Bromochloromethane | 250 ug/mL | | | | | | | |
| Bromodichloromethane | 250 ug/mL | | | | | | | |
| Bromoform | 250 ug/mL | | | | | | | |
| Carbon disulfide | 250 ug/mL | | | | | | | |
| Carbon tetrachloride | 250 ug/mL | | | | | | | |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|-----------------------|----------|-----------|----------------------|----------------------|----------------|---------------------|---------------------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chlorobenzene | 250 ug/mL |
| | | | | | | | Chloroform | 250 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Cyclohexane | 250 ug/mL |
| | | | | | | | Dibromochloromethane | 250 ug/mL |
| | | | | | | | Dibromomethane | 250 ug/mL |
| | | | | | | | Ethyl ether | 250 ug/mL |
| | | | | | | | Ethyl methacrylate | 250 ug/mL |
| | | | | | | | Ethylbenzene | 250 ug/mL |
| | | | | | | | Hexachlorobutadiene | 250 ug/mL |
| | | | | | | | Hexane | 250 ug/mL |
| | | | | | | | Iodomethane | 250 ug/mL |
| | | | | | | | Isobutyl alcohol | 6250 ug/mL |
| | | | | | | | Isopropylbenzene | 250 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 250 ug/mL |
| | | | | | | | Methyl acetate | 1250 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 250 ug/mL |
| | | | | | | | Methylcyclohexane | 250 ug/mL |
| | | | | | | | Methylene Chloride | 250 ug/mL |
| | | | | | | | n-Butylbenzene | 250 ug/mL |
| | | | | | | | n-Heptane | 250 ug/mL |
| | | | | | | | N-Propylbenzene | 250 ug/mL |
| | | | | | | | Naphthalene | 250 ug/mL |
| | | | | | | | o-Xylene | 250 ug/mL |
| | | | | | | | sec-Butylbenzene | 250 ug/mL |
| | | | | | | | Styrene | 250 ug/mL |
| | | | | | | | tert-Butylbenzene | 250 ug/mL |
| | | | | | | | Tetrachloroethene | 250 ug/mL |
| | | | | | | | Tetrahydrofuran | 500 ug/mL |
| | | | | | | | Toluene | 250 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 250 ug/mL |
| | | | | | | | Trichloroethene | 250 ug/mL |
| ..VOA8260KET1ST_00047 | 04/30/18 | | Restek, Lot A0110400 | | | (Purchased Reagent) | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VOA8260MEGA1_00030 | 02/28/16 | | Restek, Lot A0108166 | | | (Purchased Reagent) | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|------------|----------|-----------|---------------|----------------------|----------------|--------------|-----------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration | | |
|------------------------|----------|-----------|---------------------|----------------------|---------------------------------------|--------------|-----------------------------|---------------|------------------|----------|
| | | | | | Reagent ID | Volume Added | | | | |
| | | | | | | | n-Butylbenzene | 2500 ug/mL | | |
| | | | | | | | n-Heptane | 2500 ug/mL | | |
| | | | | | | | N-Propylbenzene | 2500 ug/mL | | |
| | | | | | | | Naphthalene | 2500 ug/mL | | |
| | | | | | | | o-Xylene | 2500 ug/mL | | |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL | | |
| | | | | | | | Styrene | 2500 ug/mL | | |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL | | |
| | | | | | | | Tetrachloroethene | 2500 ug/mL | | |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL | | |
| | | | | | | | Toluene | 2500 ug/mL | | |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL | | |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL | | |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL | | |
| | | | | | | | Trichloroethene | 2500 ug/mL | | |
| VOA8260VOAPRI_00139 | 09/01/15 | 08/25/15 | Methanol, Lot 85233 | 10 mL | VOA8260GAS1ST_00113 | 0.1 mL | Bromomethane | 25 ug/mL | | |
| | | | | | | | Butadiene | 25 ug/mL | | |
| | | | | | | | Chloroethane | 25 ug/mL | | |
| | | | | | | | Chloromethane | 25 ug/mL | | |
| | | | | | | | Dichlorodifluoromethane | 25 ug/mL | | |
| | | | | | | | Dichlorofluoromethane | 25 ug/mL | | |
| | | | | | | | Trichlorofluoromethane | 25 ug/mL | | |
| | | | | | | | Vinyl chloride | 25 ug/mL | | |
| | | | | | | | VOA8260VOAPRI_00136 | 1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL | | | | |
| | | | | | Acetone | 25 ug/mL | | | | |
| | | | | | 1,1,1,2-Tetrachloroethane | 25 ug/mL | | | | |
| | | | | | 1,1,1-Trichloroethane | 25 ug/mL | | | | |
| | | | | | 1,1,2,2-Tetrachloroethane | 25 ug/mL | | | | |
| | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 25 ug/mL | | | | |
| | | | | | 1,1,2-Trichloroethane | 25 ug/mL | | | | |
| | | | | | 1,1-Dichloroethane | 25 ug/mL | | | | |
| | | | | | 1,1-Dichloroethene | 25 ug/mL | | | | |
| | | | | | 1,1-Dichloropropene | 25 ug/mL | | | | |
| | | | | | 1,2,3-Trichlorobenzene | 25 ug/mL | | | | |
| | | | | | 1,2,3-Trichloropropane | 25 ug/mL | | | | |
| | | | | | 1,2,4-Trichlorobenzene | 25 ug/mL | | | | |
| | | | | | 1,2,4-Trimethylbenzene | 25 ug/mL | | | | |
| | | | | | 1,2-Dibromo-3-Chloropropane | 25 ug/mL | | | | |
| | | | | | 1,2-Dibromoethane (EDB) | 25 ug/mL | | | | |
| 1,2-Dichlorobenzene | 25 ug/mL | | | | | | | | | |
| 1,2-Dichloroethane | 25 ug/mL | | | | | | | | | |
| 1,2-Dichloropropane | 25 ug/mL | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 25 ug/mL | | | | | | | | | |
| 1,3-Dichlorobenzene | 25 ug/mL | | | | | | | | | |
| 1,3-Dichloropropane | 25 ug/mL | | | | | | | | | |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|------------|----------|-----------|---------------|----------------------|----------------|--------------|--------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,4-Dichlorobenzene | 25 ug/mL |
| | | | | | | | 1,4-Dioxane | 500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 25 ug/mL |
| | | | | | | | 2-Chlorotoluene | 25 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 250 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 25 ug/mL |
| | | | | | | | 4-Chlorotoluene | 25 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 25 ug/mL |
| | | | | | | | Acrylonitrile | 250 ug/mL |
| | | | | | | | Benzene | 25 ug/mL |
| | | | | | | | Bromobenzene | 25 ug/mL |
| | | | | | | | Bromochloromethane | 25 ug/mL |
| | | | | | | | Bromodichloromethane | 25 ug/mL |
| | | | | | | | Bromoform | 25 ug/mL |
| | | | | | | | Carbon disulfide | 25 ug/mL |
| | | | | | | | Carbon tetrachloride | 25 ug/mL |
| | | | | | | | Chlorobenzene | 25 ug/mL |
| | | | | | | | Chloroform | 25 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 25 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | Cyclohexane | 25 ug/mL |
| | | | | | | | Dibromochloromethane | 25 ug/mL |
| | | | | | | | Dibromomethane | 25 ug/mL |
| | | | | | | | Ethyl ether | 25 ug/mL |
| | | | | | | | Ethyl methacrylate | 25 ug/mL |
| | | | | | | | Ethylbenzene | 25 ug/mL |
| | | | | | | | Hexachlorobutadiene | 25 ug/mL |
| | | | | | | | Hexane | 25 ug/mL |
| | | | | | | | Iodomethane | 25 ug/mL |
| | | | | | | | Isobutyl alcohol | 625 ug/mL |
| | | | | | | | Isopropylbenzene | 25 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 25 ug/mL |
| | | | | | | | Methyl acetate | 125 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 25 ug/mL |
| | | | | | | | Methylcyclohexane | 25 ug/mL |
| | | | | | | | Methylene Chloride | 25 ug/mL |
| | | | | | | | n-Butylbenzene | 25 ug/mL |
| | | | | | | | n-Heptane | 25 ug/mL |
| | | | | | | | N-Propylbenzene | 25 ug/mL |
| | | | | | | | Naphthalene | 25 ug/mL |
| | | | | | | | o-Xylene | 25 ug/mL |
| | | | | | | | sec-Butylbenzene | 25 ug/mL |
| | | | | | | | Styrene | 25 ug/mL |
| | | | | | | | tert-Butylbenzene | 25 ug/mL |
| | | | | | | | Tetrachloroethene | 25 ug/mL |
| | | | | | | | Tetrahydrofuran | 50 ug/mL |
| | | | | | | | Toluene | 25 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 25 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------|----------|-----------|----------------------|----------------------|---------------------|--------------|---------------------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | trans-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 25 ug/mL |
| | | | | | | | Trichloroethene | 25 ug/mL |
| .VOA8260GAS1ST_00113 | 04/30/18 | | Restek, Lot A0110070 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VOA8260VOAPRI_00136 | 09/06/15 | 08/06/15 | Methanol, Lot 85233 | 10 mL | VOA8260KET1ST_00048 | 0.2 mL | 2-Butanone (MEK) | 250 ug/mL |
| | | | | | | | 2-Hexanone | 250 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 250 ug/mL |
| | | | | | | | Acetone | 250 ug/mL |
| | | | | | VOA8260MEGA1_00032 | 1 mL | 1,1,1,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 250 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 250 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 250 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 250 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 250 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 250 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 250 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 250 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 250 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 250 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 250 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 250 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 250 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 250 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 250 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 250 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 250 ug/mL |
| | | | | | | | 1,4-Dioxane | 5000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 250 ug/mL |
| | | | | | | | 2-Chlorotoluene | 250 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 250 ug/mL |
| | | | | | | | 4-Chlorotoluene | 250 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 250 ug/mL |
| | | | | | | | Acrylonitrile | 2500 ug/mL |
| | | | | | | | Benzene | 250 ug/mL |
| | | | | | | | Bromobenzene | 250 ug/mL |
| | | | | | | | Bromochloromethane | 250 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|-----------------------|----------|-----------|----------------------|----------------------|----------------|---------------------|---|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromodichloromethane | 250 ug/mL |
| | | | | | | | Bromoform | 250 ug/mL |
| | | | | | | | Carbon disulfide | 250 ug/mL |
| | | | | | | | Carbon tetrachloride | 250 ug/mL |
| | | | | | | | Chlorobenzene | 250 ug/mL |
| | | | | | | | Chloroform | 250 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Cyclohexane | 250 ug/mL |
| | | | | | | | Dibromochloromethane | 250 ug/mL |
| | | | | | | | Dibromomethane | 250 ug/mL |
| | | | | | | | Ethyl ether | 250 ug/mL |
| | | | | | | | Ethyl methacrylate | 250 ug/mL |
| | | | | | | | Ethylbenzene | 250 ug/mL |
| | | | | | | | Hexachlorobutadiene | 250 ug/mL |
| | | | | | | | Hexane | 250 ug/mL |
| | | | | | | | Iodomethane | 250 ug/mL |
| | | | | | | | Isobutyl alcohol | 6250 ug/mL |
| | | | | | | | Isopropylbenzene | 250 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 250 ug/mL |
| | | | | | | | Methyl acetate | 1250 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 250 ug/mL |
| | | | | | | | Methylcyclohexane | 250 ug/mL |
| | | | | | | | Methylene Chloride | 250 ug/mL |
| | | | | | | | n-Butylbenzene | 250 ug/mL |
| | | | | | | | n-Heptane | 250 ug/mL |
| | | | | | | | N-Propylbenzene | 250 ug/mL |
| | | | | | | | Naphthalene | 250 ug/mL |
| | | | | | | | o-Xylene | 250 ug/mL |
| | | | | | | | sec-Butylbenzene | 250 ug/mL |
| | | | | | | | Styrene | 250 ug/mL |
| | | | | | | | tert-Butylbenzene | 250 ug/mL |
| | | | | | | | Tetrachloroethene | 250 ug/mL |
| | | | | | | | Tetrahydrofuran | 500 ug/mL |
| | | | | | | | Toluene | 250 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 250 ug/mL |
| | | | | | | | Trichloroethene | 250 ug/mL |
| ..VOA8260KET1ST_00048 | 04/30/18 | | Restek, Lot A0110400 | | | (Purchased Reagent) | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VOA8260MEGA1_00032 | 02/28/16 | | Restek, Lot A0108166 | | | (Purchased Reagent) | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluor oethane | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|------------|----------|-----------|---------------|----------------------|----------------|--------------|-----------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration | | | | | |
|---------------------|----------|-----------|---------------------|-------------------------|---------------------|--------------|-----------------------------|---------------|---------------------------|---------------------|------|---------------------------|----------|
| | | | | | Reagent ID | Volume Added | | | | | | | |
| | | | | | | | Methyl acetate | 12500 ug/mL | | | | | |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL | | | | | |
| | | | | | | | Methylcyclohexane | 2500 ug/mL | | | | | |
| | | | | | | | Methylene Chloride | 2500 ug/mL | | | | | |
| | | | | | | | n-Butylbenzene | 2500 ug/mL | | | | | |
| | | | | | | | n-Heptane | 2500 ug/mL | | | | | |
| | | | | | | | N-Propylbenzene | 2500 ug/mL | | | | | |
| | | | | | | | Naphthalene | 2500 ug/mL | | | | | |
| | | | | | | | o-Xylene | 2500 ug/mL | | | | | |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL | | | | | |
| | | | | | | | Styrene | 2500 ug/mL | | | | | |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL | | | | | |
| | | | | | | | Tetrachloroethene | 2500 ug/mL | | | | | |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL | | | | | |
| | | | | | | | Toluene | 2500 ug/mL | | | | | |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL | | | | | |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL | | | | | |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL | | | | | |
| | | | | | | | Trichloroethene | 2500 ug/mL | | | | | |
| VOA8260VOAPRI_00147 | 10/09/15 | 10/02/15 | Methanol, Lot 99494 | 10 mL | VOA8260GAS1ST_00118 | 0.1 mL | Bromomethane | 25 ug/mL | | | | | |
| | | | | | | | Chloroethane | 25 ug/mL | | | | | |
| | | | | | | | Chloromethane | 25 ug/mL | | | | | |
| | | | | | | | | | | | | Vinyl chloride | 25 ug/mL |
| | | | | | | | | | | VOA8260VOAPRI_00146 | 1 mL | 1,1,1,2-Tetrachloroethane | 25 ug/mL |
| | | | | | | | | | 1,1,1-Trichloroethane | | | 25 ug/mL | |
| | | | | | | | | | 1,1,2,2-Tetrachloroethane | | | 25 ug/mL | |
| | | | | | | | | | 1,1,2-Trichloroethane | | | 25 ug/mL | |
| | | | | | | | | | 1,1-Dichloroethane | | | 25 ug/mL | |
| | | | | | | | | | 1,1-Dichloroethene | | | 25 ug/mL | |
| | | | | | | | | | 1,2-Dibromoethane (EDB) | | | 25 ug/mL | |
| | | | | | | | | | 1,2-Dichloroethane | | | 25 ug/mL | |
| | | | | | | | | | 1,2-Dichloropropane | | | 25 ug/mL | |
| | | | | | | | | | 1,4-Dioxane | | | 500 ug/mL | |
| | | | | | | | | | Acrylonitrile | | | 250 ug/mL | |
| | | | | | | | | | Benzene | | | 25 ug/mL | |
| | | | | | | | | | Bromochloromethane | | | 25 ug/mL | |
| | | | | | | | | | Bromodichloromethane | | | 25 ug/mL | |
| | | | | | | | | | Bromoform | | | 25 ug/mL | |
| | | | | | | | | | Carbon disulfide | | | 25 ug/mL | |
| | | | | | | | | | Carbon tetrachloride | | | 25 ug/mL | |
| | | | | | | | | | Chlorobenzene | | | 25 ug/mL | |
| | | | | | | | | | Chloroform | | | 25 ug/mL | |
| | | | | | | | | | cis-1,2-Dichloroethene | | | 25 ug/mL | |
| | | | | | | | | | cis-1,3-Dichloropropene | | | 25 ug/mL | |
| | | | | | | | | | Dibromochloromethane | | | 25 ug/mL | |
| | | | | Ethylbenzene | 25 ug/mL | | | | | | | | |
| | | | | Methyl tert-butyl ether | 25 ug/mL | | | | | | | | |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------|----------|-----------|----------------------|----------------------|--------------------|---------------------|---------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methylene Chloride | 25 ug/mL |
| | | | | | | | Styrene | 25 ug/mL |
| | | | | | | | Tetrachloroethene | 25 ug/mL |
| | | | | | | | Toluene | 25 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 25 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 25 ug/mL |
| | | | | | | | Trichloroethene | 25 ug/mL |
| | | | | | | | Xylenes, Total | 50 ug/mL |
| .VOA8260GAS1ST_00118 | 04/30/18 | | Restek, Lot A0110070 | | | (Purchased Reagent) | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VOA8260VOAPRI_00146 | 10/25/15 | 09/25/15 | Methanol, Lot 99494 | 10 mL | VOA8260MEGA1_00034 | 1 mL | 1,1,1,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 250 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 250 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 250 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 250 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 250 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 250 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 250 ug/mL |
| | | | | | | | 1,4-Dioxane | 5000 ug/mL |
| | | | | | | | Acrylonitrile | 2500 ug/mL |
| | | | | | | | Benzene | 250 ug/mL |
| | | | | | | | Bromochloromethane | 250 ug/mL |
| | | | | | | | Bromodichloromethane | 250 ug/mL |
| | | | | | | | Bromoform | 250 ug/mL |
| | | | | | | | Carbon disulfide | 250 ug/mL |
| | | | | | | | Carbon tetrachloride | 250 ug/mL |
| | | | | | | | Chlorobenzene | 250 ug/mL |
| | | | | | | | Chloroform | 250 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Dibromochloromethane | 250 ug/mL |
| | | | | | | | Ethylbenzene | 250 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 250 ug/mL |
| | | | | | | | Methylene Chloride | 250 ug/mL |
| | | | | | | | Styrene | 250 ug/mL |
| | | | | | | | Tetrachloroethene | 250 ug/mL |
| | | | | | | | Toluene | 250 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 250 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 250 ug/mL |
| | | | | | | | Trichloroethene | 250 ug/mL |
| | | | | | | | Xylenes, Total | 500 ug/mL |
| ..VOA8260MEGA1_00034 | 02/28/16 | | Restek, Lot A0108166 | | | (Purchased Reagent) | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------------|----------|-----------|----------------------|----------------------|---------------------|--------------|--|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |
| VOAACROLEINPR_00006 | 09/11/15 | 08/11/15 | Methanol, Lot 85233 | 100 mL | VOAACRORES_00077 | 0.125 mL | Acrolein | 25 ug/mL |
| .VOAACRORES_00077 | 09/30/15 | | Restek, Lot A0111006 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| VOAVAPRI_00006 | 08/31/15 | 08/25/15 | Methanol, Lot 85233 | 50 mL | VOA8260VARES_00054 | 0.25 mL | Vinyl acetate | 25 ug/mL |
| .VOA8260VARES_00054 | 08/31/15 | | Restek, Lot A0109190 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| voaWAcro2nd_R_00006 | 08/07/15 | 07/07/15 | Methanol, Lot 85233 | 100 mL | VOAACRRES2ND_00065 | 0.125 mL | Acrolein | 25 ug/mL |
| .VOAACRRES2ND_00065 | 09/30/15 | | Restek, Lot A0111005 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| voaWEE1stRest_00001 | 09/21/15 | 08/21/15 | Methanol, Lot 85233 | 25 mL | VOARESEE1ST_00021 | 0.125 mL | 1,2-dichloro-4-(trifluoromethyl)benzene | 25 ug/mL |
| | | | | | | | 2,3,6-Trichlorotoluene | 25 ug/mL |
| | | | | | | | 2,3- & 3,4- Dichlorotoluene | 50 ug/mL |
| | | | | | | | 2,4,5-Trichlorotoluene | 25 ug/mL |
| | | | | | | | 2,4- & 2,5- & 2,6-Dichlorotoluene | 75 ug/mL |
| | | | | | | | 2,4-Dichloro-1-(triflouromethyl)-benzene | 25 ug/mL |
| | | | | | | | 2,5-Dichlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | 2-Chlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | 3-Chlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | 3-Chlorotoluene | 25 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration | |
|--------------------------|------------|-----------|----------------------|----------------------|----------------|---------------------|--|--|----------|
| | | | | | Reagent ID | Volume Added | | | |
| .VOARESEE1ST_00021 | 09/30/16 | | Restek, Lot A0109701 | | | (Purchased Reagent) | 4-Chlorobenzotrifluoride | 25 ug/mL | |
| | | | | | | | 1,2-dichloro-4-(trifluoromethyl)benzene | 5000 ug/mL | |
| | | | | | | | 2,3,6-Trichlorotoluene | 5000 ug/mL | |
| | | | | | | | 2,3- & 3,4- Dichlorotoluene | 10000 ug/mL | |
| | | | | | | | 2,4,5-Trichlorotoluene | 5000 ug/mL | |
| | | | | | | | 2,4- & 2,5- & 2,6-Dichlorotoluene | 15000 ug/mL | |
| | | | | | | | 2,4-Dichloro-1-(trifluoromethyl)-benzene | 5000 ug/mL | |
| | | | | | | | 2,5-Dichlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 2-Chlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 3-Chlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 3-Chlorotoluene | 5000 ug/mL | |
| 4-Chlorobenzotrifluoride | 5000 ug/mL | | | | | | | | |
| voaWeemix1Res_00001 | 08/20/15 | 07/20/15 | Methanol, Lot 85233 | 25 mL | | VOARESEE1ST_00025 | 0.125 mL | 1,2-dichloro-4-(trifluoromethyl)benzene | 25 ug/mL |
| | | | | | | | | 2,3,6-Trichlorotoluene | 25 ug/mL |
| | | | | | | | | 2,3- & 3,4- Dichlorotoluene | 50 ug/mL |
| | | | | | | | | 2,4,5-Trichlorotoluene | 25 ug/mL |
| | | | | | | | | 2,4- & 2,5- & 2,6-Dichlorotoluene | 75 ug/mL |
| | | | | | | | | 2,4-Dichloro-1-(trifluoromethyl)-benzene | 25 ug/mL |
| | | | | | | | | 2,5-Dichlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | | 2-Chlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | | 3-Chlorobenzotrifluoride | 25 ug/mL |
| | | | | | | | | 3-Chlorotoluene | 25 ug/mL |
| | | | | | | | | 4-Chlorobenzotrifluoride | 25 ug/mL |
| .VOARESEE1ST_00025 | 09/30/16 | | Restek, Lot A0109701 | | | (Purchased Reagent) | 1,2-dichloro-4-(trifluoromethyl)benzene | 5000 ug/mL | |
| | | | | | | | 2,3,6-Trichlorotoluene | 5000 ug/mL | |
| | | | | | | | 2,3- & 3,4- Dichlorotoluene | 10000 ug/mL | |
| | | | | | | | 2,4,5-Trichlorotoluene | 5000 ug/mL | |
| | | | | | | | 2,4- & 2,5- & 2,6-Dichlorotoluene | 15000 ug/mL | |
| | | | | | | | 2,4-Dichloro-1-(trifluoromethyl)-benzene | 5000 ug/mL | |
| | | | | | | | 2,5-Dichlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 2-Chlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 3-Chlorobenzotrifluoride | 5000 ug/mL | |
| | | | | | | | 3-Chlorotoluene | 5000 ug/mL | |
| | | | | | | | 4-Chlorobenzotrifluoride | 5000 ug/mL | |
| voaWKet1 Rest_00001 | 09/11/15 | 08/11/15 | Methanol, Lot 85233 | 50 mL | | VOA8260KET1ST_00049 | 0.1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL |
| | | | | | | | | Acetone | 25 ug/mL |
| .VOA8260KET1ST_00049 | 04/30/18 | | Restek, Lot A0110400 | | | (Purchased Reagent) | 2-Butanone (MEK) | 12500 ug/mL | |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|----------------------------|----------|-----------|----------------------|----------------------|---------------------|--------------|-----------------------------|---------------|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| voaWket1Reste_00001 | 08/02/15 | 07/02/15 | Methanol, Lot 85233 | 50 mL | VOA8260KET1ST_00046 | 0.1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL |
| | | | | | | | Acetone | 25 ug/mL |
| .VOA8260KET1ST_00046 | 04/30/18 | | Restek, Lot A0110400 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| voaWket1stRes_00001 | 10/14/15 | 09/14/15 | Methanol, Lot 99494 | 50 mL | VOA8260KET1ST_00051 | 0.1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL |
| | | | | | | | Acetone | 25 ug/mL |
| .VOA8260KET1ST_00051 | 04/30/18 | | Restek, Lot A0110400 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| voaWketmix2nd_00002 | 10/22/15 | 09/22/15 | Methanol, Lot 99494 | 50 mL | VOA8260KET2ND_00054 | 0.1 mL | 2-Butanone (MEK) | 25 ug/mL |
| | | | | | | | 2-Hexanone | 25 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 25 ug/mL |
| | | | | | | | Acetone | 25 ug/mL |
| .VOA8260KET2ND_00054 | 05/31/18 | | Restek, Lot A0110970 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| voaWVA1st Res 00003 | 08/23/15 | 07/23/15 | Methanol, Lot 85233 | 25 mL | VOA8260VARES_00055 | 0.125 mL | Vinyl acetate | 25 ug/mL |
| .VOA8260VARES_00055 | 08/31/15 | | Restek, Lot A0109190 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |

Reagent

VOA8260GAS1ST_00110



CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070

Description : 8260 List 1 / Std #3 Gases (2015)
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|----------------------------------|-----------------------------|--------------------------------------|---------|-------------------|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,499.9 µg/mL | +/- | 17.9502 | µg/mL Gravimetric |
| | CAS # 75-71-8 (Lot Q167-08) | | +/- | 30.0934 | µg/mL Unstressed |
| | Purity 99% | | +/- | 34.1055 | µg/mL Stressed |
| 2 | Chloromethane (methyl chloride) | 2,500.1 µg/mL | +/- | 17.2963 | µg/mL Gravimetric |
| | CAS # 74-87-3 (Lot SHBC8470V) | | +/- | 29.7101 | µg/mL Unstressed |
| | Purity 99% | | +/- | 33.7686 | µg/mL Stressed |
| 3 | Vinyl chloride | 2,500.2 µg/mL | +/- | 16.5642 | µg/mL Gravimetric |
| | CAS # 75-01-4 (Lot 17542) | | +/- | 29.2906 | µg/mL Unstressed |
| | Purity 99% | | +/- | 33.4004 | µg/mL Stressed |
| 4 | 1,3-Butadiene | 2,500.0 µg/mL | +/- | 17.0072 | µg/mL Gravimetric |
| | CAS # 106-99-0 (Lot SHBF3387V) | | +/- | 29.5416 | µg/mL Unstressed |
| | Purity 99% | | +/- | 33.6200 | µg/mL Stressed |
| 5 | Bromomethane (methyl bromide) | 2,499.8 µg/mL | +/- | 18.9451 | µg/mL Gravimetric |
| | CAS # 74-83-9 (Lot 101604) | | +/- | 30.6969 | µg/mL Unstressed |
| | Purity 99% | | +/- | 34.6391 | µg/mL Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,500.3 µg/mL | +/- | 17.6395 | µg/mL Gravimetric |
| | CAS # 75-00-3 (Lot SHBD1717V) | | +/- | 29.9122 | µg/mL Unstressed |
| | Purity 99% | | +/- | 33.9470 | µg/mL Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,500.2 µg/mL | +/- | 16.7318 | µg/mL Gravimetric |
| | CAS # 75-43-4 (Lot Q9B-58) | | +/- | 29.3854 | µg/mL Unstressed |
| | Purity 99% | | +/- | 33.4835 | µg/mL Stressed |

| | | | | | |
|---|---------------------------------|---------------|-------------|-------|-------------|
| 8 | Trichlorofluoromethane (CFC-11) | 2,500.3 µg/mL | +/- 16.5866 | µg/mL | Gravimetric |
| | CAS # 75-69-4 (Lot SHBD5121V) | | +/- 29.3037 | µg/mL | Unstressed |
| | Purity 99% | | +/- 33.4120 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

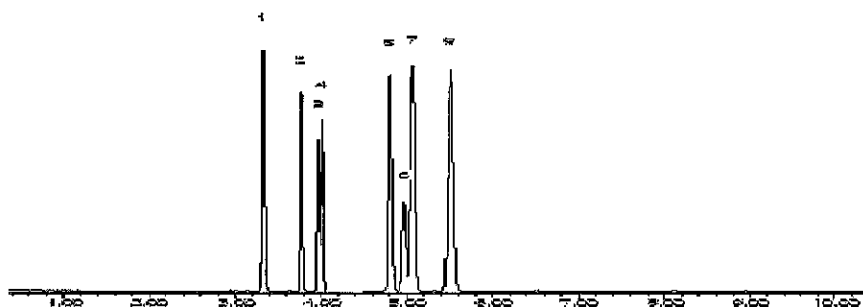
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

[Signature]
F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

[Signature]
Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

| |
|--|
| <p>Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397</p> |
|--|

Reagent

VOA8260GAS1ST_00113



CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070

Description : 8260 List 1 / Std #3 Gases (2015)
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|----------------------------------|-----------------------------|--------------------------------------|---------|-------|-------------|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,499.9 µg/mL | +/- | 17.9502 | µg/mL | Gravimetric |
| | CAS # 75-71-8 (Lot Q167-08) | | +/- | 30.0934 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.1055 | µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,500.1 µg/mL | +/- | 17.2963 | µg/mL | Gravimetric |
| | CAS # 74-87-3 (Lot SHBC8470V) | | +/- | 29.7101 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.7686 | µg/mL | Stressed |
| 3 | Vinyl chloride | 2,500.2 µg/mL | +/- | 16.5642 | µg/mL | Gravimetric |
| | CAS # 75-01-4 (Lot 17542) | | +/- | 29.2906 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.4004 | µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,500.0 µg/mL | +/- | 17.0072 | µg/mL | Gravimetric |
| | CAS # 106-99-0 (Lot SHBF3387V) | | +/- | 29.5416 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.6200 | µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,499.8 µg/mL | +/- | 18.9451 | µg/mL | Gravimetric |
| | CAS # 74-83-9 (Lot 101604) | | +/- | 30.6969 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.6391 | µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,500.3 µg/mL | +/- | 17.6395 | µg/mL | Gravimetric |
| | CAS # 75-00-3 (Lot SHBD1717V) | | +/- | 29.9122 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.9470 | µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,500.2 µg/mL | +/- | 16.7318 | µg/mL | Gravimetric |
| | CAS # 75-43-4 (Lot Q9B-58) | | +/- | 29.3854 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.4835 | µg/mL | Stressed |

| | | | | | |
|---|---------------------------------|---------------|-------------|-------|-------------|
| 8 | Trichlorofluoromethane (CFC-11) | 2,500.3 µg/mL | +/- 16.5866 | µg/mL | Gravimetric |
| | CAS # 75-69-4 (Lot SHBD5121V) | | +/- 29.3037 | µg/mL | Unstressed |
| | Purity 99% | | +/- 33.4120 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

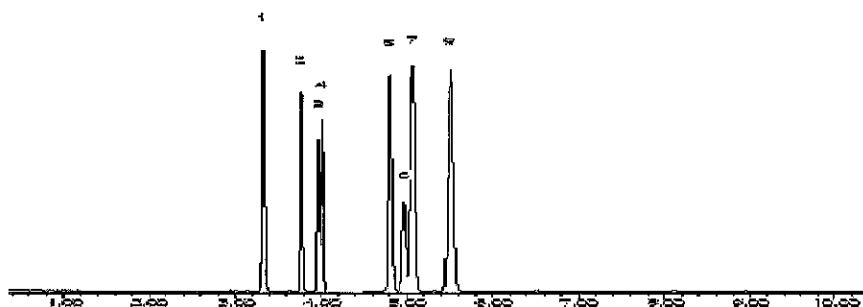
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

[Signature]
F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

[Signature]
Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

| |
|--|
| <p>Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397</p> |
|--|

Reagent

VOA8260GAS1ST_00118



CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070
Description : 8260 List 1 / Std #3 Gases (2015)
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|----------------------------------|-----------------------------|--------------------------------------|---------|-------|-------------|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,499.9 µg/mL | +/- | 17.9502 | µg/mL | Gravimetric |
| | CAS # 75-71-8 (Lot Q167-08) | | +/- | 30.0934 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.1055 | µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,500.1 µg/mL | +/- | 17.2963 | µg/mL | Gravimetric |
| | CAS # 74-87-3 (Lot SHBC8470V) | | +/- | 29.7101 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.7686 | µg/mL | Stressed |
| 3 | Vinyl chloride | 2,500.2 µg/mL | +/- | 16.5642 | µg/mL | Gravimetric |
| | CAS # 75-01-4 (Lot 17542) | | +/- | 29.2906 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.4004 | µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,500.0 µg/mL | +/- | 17.0072 | µg/mL | Gravimetric |
| | CAS # 106-99-0 (Lot SHBF3387V) | | +/- | 29.5416 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.6200 | µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,499.8 µg/mL | +/- | 18.9451 | µg/mL | Gravimetric |
| | CAS # 74-83-9 (Lot 101604) | | +/- | 30.6969 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.6391 | µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,500.3 µg/mL | +/- | 17.6395 | µg/mL | Gravimetric |
| | CAS # 75-00-3 (Lot SHBD1717V) | | +/- | 29.9122 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.9470 | µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,500.2 µg/mL | +/- | 16.7318 | µg/mL | Gravimetric |
| | CAS # 75-43-4 (Lot Q9B-58) | | +/- | 29.3854 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 33.4835 | µg/mL | Stressed |

| | | | | | |
|---|---------------------------------|---------------|-------------|-------|-------------|
| 8 | Trichlorofluoromethane (CFC-11) | 2,500.3 µg/mL | +/- 16.5866 | µg/mL | Gravimetric |
| | CAS # 75-69-4 (Lot SHBD5121V) | | +/- 29.3037 | µg/mL | Unstressed |
| | Purity 99% | | +/- 33.4120 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

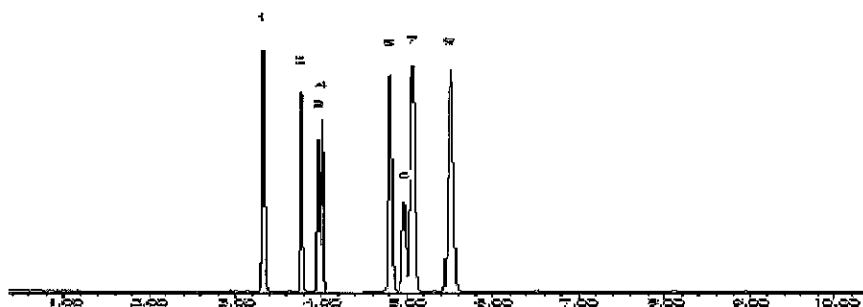
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

[Signature]
F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

[Signature]
Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

VOA8260GAS2ND_00115



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722.SEC **Lot No.:** A0111273

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : May 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L., K=2) | | | |
|---------------|-----------------------------------|-----------------------------|--------------------------------------|---------|-------|-------------|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,497.6 µg/mL | +/- | 24.0984 | µg/mL | Gravimetric |
| | CAS # 75-71-8.SEC (Lot 21773) | | +/- | 34.1039 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 37.6853 | µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,503.8 µg/mL | +/- | 21.5368 | µg/mL | Gravimetric |
| | CAS # 74-87-3.SEC (Lot 18343) | | +/- | 32.3897 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 36.1592 | µg/mL | Stressed |
| 3 | Vinyl chloride | 2,492.0 µg/mL | +/- | 23.1023 | µg/mL | Gravimetric |
| | CAS # 75-01-4.SEC (Lot MKBK6872V) | | +/- | 33.3685 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 37.0056 | µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,488.6 µg/mL | +/- | 19.2643 | µg/mL | Gravimetric |
| | CAS # 106-99-0.SEC (Lot 18349) | | +/- | 30.8102 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.7063 | µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,491.9 µg/mL | +/- | 20.7776 | µg/mL | Gravimetric |
| | CAS # 74-83-9.SEC (Lot Q119-46) | | +/- | 31.8022 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 35.5993 | µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,516.0 µg/mL | +/- | 19.4764 | µg/mL | Gravimetric |
| | CAS # 75-00-3.SEC (Lot 00004202) | | +/- | 31.1495 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 35.0885 | µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,503.3 µg/mL | +/- | 18.8823 | µg/mL | Gravimetric |
| | CAS # 75-43-4.SEC (Lot SHBC0858V) | | +/- | 30.6846 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 34.6386 | µg/mL | Stressed |

Reagent

VOA8260INTRES_00067



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

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Certificate of Analysis

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

| | |
|---|--------------------------------------|
| Catalog No. : <u>567649</u> | Lot No.: <u>A093504</u> |
| Description : <u>8260 Internal Standard</u> | |
| <u>8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul</u> | |
| Container Size : <u>5 mL</u> | Pkg Amt: <u>> 5 mL</u> |
| Expiration Date : <u>February 2018</u> | Storage: <u>0°C or colder</u> |

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|---|--------------------------------|---|----------|-------|-------------|
| 1 | tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% | 5,000.0 µg/mL | +/- | 29.0689 | µg/mL | Gravimetric |
| | | | +/- | 110.6323 | µg/mL | Unstressed |
| | | | +/- | 111.0833 | µg/mL | Stressed |
| 2 | Fluorobenzene CAS # 462-06-6 Purity 99% | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | | | +/- | 5.5316 | µg/mL | Unstressed |
| | | | +/- | 5.5542 | µg/mL | Stressed |
| 3 | 1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% | 5,000.0 µg/mL | +/- | 29.0689 | µg/mL | Gravimetric |
| | | | +/- | 110.6323 | µg/mL | Unstressed |
| | | | +/- | 111.0833 | µg/mL | Stressed |
| 4 | Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | | | +/- | 5.5316 | µg/mL | Unstressed |
| | | | +/- | 5.5542 | µg/mL | Stressed |
| 5 | 1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | | | +/- | 5.5316 | µg/mL | Unstressed |
| | | | +/- | 5.5542 | µg/mL | Stressed |

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260INTRES_00068



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Catalog No. : 567649 **Lot No.:** A093504
Description : 8260 Internal Standard
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : February 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | tert-Butyl-d9-alcohol | 5,000.0 µg/mL | +/- | 29.0689 | µg/mL | Gravimetric |
| | CAS # 25725-11-5 | | +/- | 110.6323 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 111.0833 | µg/mL | Stressed |
| 2 | Fluorobenzene | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | CAS # 462-06-6 | | +/- | 5.5316 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 5.5542 | µg/mL | Stressed |
| 3 | 1,4-Dioxane-d8 | 5,000.0 µg/mL | +/- | 29.0689 | µg/mL | Gravimetric |
| | CAS # 17647-74-4 | | +/- | 110.6323 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 111.0833 | µg/mL | Stressed |
| 4 | Chlorobenzene-d5 | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | CAS # 3114-55-4 | | +/- | 5.5316 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 5.5542 | µg/mL | Stressed |
| 5 | 1,4-Dichlorobenzene-d4 | 250.0 µg/mL | +/- | 1.4535 | µg/mL | Gravimetric |
| | CAS # 3855-82-1 | | +/- | 5.5316 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 5.5542 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VOA8260INTRES_00088



CERTIFIED REFERENCE MATERIAL

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

Catalog No. : 567649 **Lot No.:** A0104742
Description : 8260 Internal Standard
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : July 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|---|-----------------------------|--------------------------------------|--------------------|--------------------|---------------------------------------|
| 1 | tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I201P5) | 5,003.0 µg/mL | +/- 29.0879 µg/mL | +/- 106.1005 µg/mL | +/- 106.5713 µg/mL | Gravimetric Unstressed Stressed |
| 2 | Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033) | 250.8 µg/mL | +/- 1.4795 µg/mL | +/- 5.3247 µg/mL | +/- 5.3483 µg/mL | Gravimetric Unstressed Stressed |
| 3 | 1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 11C-596) | 5,009.6 µg/mL | +/- 29.1262 µg/mL | +/- 106.2405 µg/mL | +/- 106.7119 µg/mL | Gravimetric Unstressed Stressed |
| 4 | Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-22736) | 250.8 µg/mL | +/- 1.4795 µg/mL | +/- 5.3247 µg/mL | +/- 5.3483 µg/mL | Gravimetric Unstressed Stressed |
| 5 | 1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488) | 250.8 µg/mL | +/- 1.4795 µg/mL | +/- 5.3247 µg/mL | +/- 5.3483 µg/mL | Gravimetric Unstressed Stressed |

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260KET1ST_00046

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

Catalog No. : 569721 **Lot No.:** A0110400
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,506.8 µg/mL | +/- | 73.2301 | µg/mL | Gravimetric |
| | CAS # 67-64-1 (Lot 07196AK) | | +/- | 665.6407 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.3747 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,504.8 µg/mL | +/- | 73.2184 | µg/mL | Gravimetric |
| | CAS # 78-93-3 (Lot BCBH7802V) | | +/- | 665.5343 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.2681 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,509.2 µg/mL | +/- | 73.2441 | µg/mL | Gravimetric |
| | CAS # 108-10-1 (Lot SHBF5332V) | | +/- | 665.7684 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.5025 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,501.6 µg/mL | +/- | 73.1996 | µg/mL | Gravimetric |
| | CAS # 591-78-6 (Lot MKBN7380V) | | +/- | 665.3640 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.0976 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260KET1ST_00047

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

Catalog No. : 569721 **Lot No.:** A0110400
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,506.8 µg/mL | +/- | 73.2301 | µg/mL | Gravimetric |
| | CAS # 67-64-1 (Lot 07196AK) | | +/- | 665.6407 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.3747 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,504.8 µg/mL | +/- | 73.2184 | µg/mL | Gravimetric |
| | CAS # 78-93-3 (Lot BCBH7802V) | | +/- | 665.5343 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.2681 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,509.2 µg/mL | +/- | 73.2441 | µg/mL | Gravimetric |
| | CAS # 108-10-1 (Lot SHBF5332V) | | +/- | 665.7684 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.5025 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,501.6 µg/mL | +/- | 73.1996 | µg/mL | Gravimetric |
| | CAS # 591-78-6 (Lot MKBN7380V) | | +/- | 665.3640 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.0976 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260KET1ST_00048

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

Catalog No. : 569721 **Lot No.:** A0110400
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,506.8 µg/mL | +/- | 73.2301 | µg/mL | Gravimetric |
| | CAS # 67-64-1 (Lot 07196AK) | | +/- | 665.6407 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.3747 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,504.8 µg/mL | +/- | 73.2184 | µg/mL | Gravimetric |
| | CAS # 78-93-3 (Lot BCBH7802V) | | +/- | 665.5343 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.2681 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,509.2 µg/mL | +/- | 73.2441 | µg/mL | Gravimetric |
| | CAS # 108-10-1 (Lot SHBF5332V) | | +/- | 665.7684 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.5025 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,501.6 µg/mL | +/- | 73.1996 | µg/mL | Gravimetric |
| | CAS # 591-78-6 (Lot MKBN7380V) | | +/- | 665.3640 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.0976 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260KET1ST_00049

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Catalog No. : 569721 **Lot No.:** A0110400
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,506.8 µg/mL | +/- | 73.2301 | µg/mL | Gravimetric |
| | CAS # 67-64-1 (Lot 07196AK) | | +/- | 665.6407 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.3747 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,504.8 µg/mL | +/- | 73.2184 | µg/mL | Gravimetric |
| | CAS # 78-93-3 (Lot BCBH7802V) | | +/- | 665.5343 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.2681 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,509.2 µg/mL | +/- | 73.2441 | µg/mL | Gravimetric |
| | CAS # 108-10-1 (Lot SHBF5332V) | | +/- | 665.7684 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.5025 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,501.6 µg/mL | +/- | 73.1996 | µg/mL | Gravimetric |
| | CAS # 591-78-6 (Lot MKBN7380V) | | +/- | 665.3640 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.0976 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260KET1ST_00051

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Catalog No. : 569721 **Lot No.:** A0110400
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,506.8 µg/mL | +/- | 73.2301 | µg/mL | Gravimetric |
| | CAS # 67-64-1 (Lot 07196AK) | | +/- | 665.6407 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.3747 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,504.8 µg/mL | +/- | 73.2184 | µg/mL | Gravimetric |
| | CAS # 78-93-3 (Lot BCBH7802V) | | +/- | 665.5343 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.2681 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,509.2 µg/mL | +/- | 73.2441 | µg/mL | Gravimetric |
| | CAS # 108-10-1 (Lot SHBF5332V) | | +/- | 665.7684 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.5025 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,501.6 µg/mL | +/- | 73.1996 | µg/mL | Gravimetric |
| | CAS # 591-78-6 (Lot MKBN7380V) | | +/- | 665.3640 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.0976 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260KET2ND_00054



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

Catalog No. : 569721.sec **Lot No.:** A0110970
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L., K=2) | | | |
|---------------|-----------------------------------|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acetone | 12,528.0 µg/mL | +/- | 73.3542 | µg/mL | Gravimetric |
| | CAS # 67-64-1.SEC (Lot P14A572) | | +/- | 666.7690 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 667.5042 | µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,530.0 µg/mL | +/- | 73.3659 | µg/mL | Gravimetric |
| | CAS # 78-93-3.SEC (Lot RA58J) | | +/- | 666.8755 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 667.6108 | µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,585.0 µg/mL | +/- | 73.6879 | µg/mL | Gravimetric |
| | CAS # 108-10-1.SEC (Lot E29T040) | | +/- | 669.8027 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 670.5412 | µg/mL | Stressed |
| 4 | 2-Hexanone | 12,516.0 µg/mL | +/- | 73.2839 | µg/mL | Gravimetric |
| | CAS # 591-78-6.SEC (Lot ZSVCD-FF) | | +/- | 666.1304 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 666.8648 | µg/mL | Stressed |

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%

Reagent

VOA8260MEGA1_00030



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

Catalog No. : 569720 **Lot No.:** A0108166
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--|-----------------------------|--------------------------------------|------------|-------|-------------|
| 1 | Diethyl ether (ethyl ether) | 2,521.3 µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 60-29-7 (Lot SHBF3466V) | | +/- | 134.1754 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3233 | µg/mL | Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 2,522.5 µg/mL | +/- | 14.6660 | µg/mL | Gravimetric |
| | CAS # 76-13-1 (Lot 00001135) | | +/- | 134.2419 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3899 | µg/mL | Stressed |
| 3 | 1,1-Dichloroethane | 2,499.5 µg/mL | +/- | 14.5323 | µg/mL | Gravimetric |
| | CAS # 75-34-3 (Lot Q179-33) | | +/- | 133.0173 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 133.1640 | µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 25,002.4 µg/mL | +/- | 145.3584 | µg/mL | Gravimetric |
| | CAS # 75-65-0 (Lot SHBC6893V) | | +/- | 1,330.5704 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 1,332.0378 | µg/mL | Stressed |
| 5 | Iodomethane (methyl iodide) | 2,510.0 µg/mL | +/- | 14.5934 | µg/mL | Gravimetric |
| | CAS # 74-88-4 (Lot SHBC7288V) | | +/- | 133.5767 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7240 | µg/mL | Stressed |
| 6 | Methyl acetate | 12,505.4 µg/mL | +/- | 72.7037 | µg/mL | Gravimetric |
| | CAS # 79-20-9 (Lot SHBD7134V) | | +/- | 665.5101 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 666.2440 | µg/mL | Stressed |
| 7 | Allyl chloride (3-chloropropene) | 2,500.0 µg/mL | +/- | 19.2743 | µg/mL | Gravimetric |
| | CAS # 107-05-1 (Lot MKBG5777V) | | +/- | 133.6453 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7914 | µg/mL | Stressed |

| | | | | | | | | |
|----|--------------------------------------|------------------|----------|-------|-----|------------|-------|-------------|
| 8 | Methylene chloride (dichloromethane) | | 2,511.3 | µg/mL | +/- | 14.6006 | µg/mL | Gravimetric |
| | CAS # 75-09-2 | (Lot SHBD4974V) | | | +/- | 133.6432 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.7906 | µg/mL | Stressed |
| 9 | Carbon disulfide | | 2,511.7 | µg/mL | +/- | 14.6035 | µg/mL | Gravimetric |
| | CAS # 75-15-0 | (Lot C30Y997) | | | +/- | 133.6693 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.8167 | µg/mL | Stressed |
| 10 | Acrylonitrile | | 25,017.1 | µg/mL | +/- | 145.4441 | µg/mL | Gravimetric |
| | CAS # 107-13-1 | (Lot 10172706) | | | +/- | 1,331.3554 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 1,332.8236 | µg/mL | Stressed |
| 11 | cis-1,2-Dichloroethene | | 2,503.9 | µg/mL | +/- | 14.5577 | µg/mL | Gravimetric |
| | CAS # 156-59-2 | (Lot MKBG8424V) | | | +/- | 133.2507 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.3977 | µg/mL | Stressed |
| 12 | n-Hexane (C6) | | 2,511.9 | µg/mL | +/- | 14.6043 | µg/mL | Gravimetric |
| | CAS # 110-54-3 | (Lot SHBF0293V) | | | +/- | 133.6764 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.8239 | µg/mL | Stressed |
| 13 | 1,1-dichloroethene | | 2,521.3 | µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 75-35-4 | (Lot SHBD6170V) | | | +/- | 134.1754 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 134.3233 | µg/mL | Stressed |
| 14 | 2,2-Dichloropropane | | 2,500.0 | µg/mL | +/- | 14.5351 | µg/mL | Gravimetric |
| | CAS # 594-20-7 | (Lot BCBH9246V) | | | +/- | 133.0434 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.1901 | µg/mL | Stressed |
| 15 | trans-1,2-Dichloroethene | | 2,505.0 | µg/mL | +/- | 14.5643 | µg/mL | Gravimetric |
| | CAS # 156-60-5 | (Lot MKBH9850V) | | | +/- | 133.3106 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4576 | µg/mL | Stressed |
| 16 | Isobutanol (2-Methyl-1-propanol) | | 62,553.8 | µg/mL | +/- | 363.6739 | µg/mL | Gravimetric |
| | CAS # 78-83-1 | (Lot SHBF2852V) | | | +/- | 3,328.9705 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 3,332.6417 | µg/mL | Stressed |
| 17 | Methyl-tert-butyl ether (MTBE) | | 2,504.6 | µg/mL | +/- | 14.5621 | µg/mL | Gravimetric |
| | CAS # 1634-04-4 | (Lot SHBF1193V) | | | +/- | 133.2906 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4376 | µg/mL | Stressed |
| 18 | Bromochloromethane | | 2,505.1 | µg/mL | +/- | 14.5650 | µg/mL | Gravimetric |
| | CAS # 74-97-5 | (Lot 00004559) | | | +/- | 133.3172 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4642 | µg/mL | Stressed |
| 19 | Tetrahydrofuran | | 5,000.7 | µg/mL | +/- | 29.0746 | µg/mL | Gravimetric |
| | CAS # 109-99-9 | (Lot SHBF2660V) | | | +/- | 266.1270 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 266.4204 | µg/mL | Stressed |
| 20 | 1,1,1-trichloroethane | | 2,508.1 | µg/mL | +/- | 14.5825 | µg/mL | Gravimetric |
| | CAS # 71-55-6 | (Lot B14Z1114) | | | +/- | 133.4769 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.6241 | µg/mL | Stressed |
| 21 | Cyclohexane | | 2,504.0 | µg/mL | +/- | 14.5585 | µg/mL | Gravimetric |
| | CAS # 110-82-7 | (Lot SHBD7873V) | | | +/- | 133.2574 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4043 | µg/mL | Stressed |
| 22 | 1,1-Dichloropropene | | 2,502.4 | µg/mL | +/- | 14.5493 | µg/mL | Gravimetric |
| | CAS # 563-58-6 | (Lot PR09161302) | | | +/- | 133.1738 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.3207 | µg/mL | Stressed |
| 23 | carbon tetrachloride | | 2,505.3 | µg/mL | +/- | 14.5657 | µg/mL | Gravimetric |
| | CAS # 56-23-5 | (Lot SHBC1410V) | | | +/- | 133.3239 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4709 | µg/mL | Stressed |

| | | | | | | |
|----|---|-----------------|----------------|--|-------------------------|---------------------------------------|
| 24 | n-Heptane (C7) CAS # 142-82-5 Purity 99% | (Lot SHBF2321V) | 2,501.4 µg/mL | +/- 14.5432 +/- 133.1177 +/- 133.2645 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 25 | 1,2-Dichloroethane CAS # 107-06-2 Purity 99% | (Lot SHBC6595V) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 26 | Benzene CAS # 71-43-2 Purity 99% | (Lot SHBD4617V) | 2,509.1 µg/mL | +/- 14.5883 +/- 133.5301 +/- 133.6774 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 27 | Trichloroethene CAS # 79-01-6 Purity 99% | (Lot SHBF0943V) | 2,504.8 µg/mL | +/- 14.5628 +/- 133.2973 +/- 133.4443 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 28 | Methylcyclohexane CAS # 108-87-2 Purity 99% | (Lot 50996APV) | 2,502.5 µg/mL | +/- 14.5498 +/- 133.1775 +/- 133.3244 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 29 | 1,2-Dichloropropane CAS # 78-87-5 Purity 99% | (Lot 01113D0V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 30 | bromodichloromethane CAS # 75-27-4 Purity 98% | (Lot MKBL1617V) | 2,507.9 µg/mL | +/- 14.5814 +/- 133.4672 +/- 133.6144 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 31 | 1,4-Dioxane CAS # 123-91-1 Purity 99% | (Lot SHBF2002V) | 50,001.4 µg/mL | +/- 290.6971 +/- 2,660.9612 +/- 2,663.8957 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 32 | Dibromomethane CAS # 74-95-3 Purity 99% | (Lot 10169264) | 2,508.1 µg/mL | +/- 14.5825 +/- 133.4769 +/- 133.6241 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 33 | cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99% | (Lot 20936) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 34 | Toluene CAS # 108-88-3 Purity 99% | (Lot SHBF2730V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 35 | Ethyl methacrylate CAS # 97-63-2 Purity 99% | (Lot 69796APV) | 2,500.9 µg/mL | +/- 14.5403 +/- 133.0911 +/- 133.2378 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 36 | trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99% | (Lot C363110) | 2,502.1 µg/mL | +/- 14.5476 +/- 133.1576 +/- 133.3044 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 37 | 1,1,2-Trichloroethane CAS # 79-00-5 Purity 99% | (Lot FGB01) | 2,507.5 µg/mL | +/- 14.5788 +/- 133.4436 +/- 133.5908 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 38 | 1,3-Dichloropropane CAS # 142-28-9 Purity 99% | (Lot BCBG2162V) | 2,505.3 µg/mL | +/- 14.5657 +/- 133.3239 +/- 133.4709 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 39 | Tetrachloroethene CAS # 127-18-4 Purity 99% | (Lot SHBD2073V) | 2,506.5 µg/mL | +/- 14.5730 +/- 133.3904 +/- 133.5375 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|---|-----------------|---------------|-----|---|---------------------------------------|
| 40 | dibromochloromethane CAS # 124-48-1 Purity 98% | (Lot MKBP0459V) | 2,503.2 µg/mL | +/- | 14.5536 µg/mL 133.2129 µg/mL 133.3598 µg/mL | Gravimetric Unstressed Stressed |
| 41 | 1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99% | (Lot BCBH3877V) | 2,504.3 µg/mL | +/- | 14.5599 µg/mL 133.2707 µg/mL 133.4176 µg/mL | Gravimetric Unstressed Stressed |
| 42 | Chlorobenzene CAS # 108-90-7 Purity 99% | (Lot SHBD3200V) | 2,510.8 µg/mL | +/- | 14.5977 µg/mL 133.6166 µg/mL 133.7639 µg/mL | Gravimetric Unstressed Stressed |
| 43 | 1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99% | (Lot CFA4D) | 2,502.9 µg/mL | +/- | 14.5519 µg/mL 133.1975 µg/mL 133.3444 µg/mL | Gravimetric Unstressed Stressed |
| 44 | Ethylbenzene CAS # 100-41-4 Purity 99% | (Lot SHBC9001V) | 2,509.6 µg/mL | +/- | 14.5912 µg/mL 133.5567 µg/mL 133.7040 µg/mL | Gravimetric Unstressed Stressed |
| 45 | m-Xylene CAS # 108-38-3 Purity 99% | (Lot SHBF1720V) | 1,252.6 µg/mL | +/- | 7.2829 µg/mL 66.6619 µg/mL 66.7355 µg/mL | Gravimetric Unstressed Stressed |
| 46 | o-Xylene CAS # 95-47-6 Purity 98% | (Lot SHBC8668V) | 2,503.7 µg/mL | +/- | 14.5565 µg/mL 133.2390 µg/mL 133.3859 µg/mL | Gravimetric Unstressed Stressed |
| 47 | p-Xylene CAS # 106-42-3 Purity 99% | (Lot SHBF3427V) | 1,253.3 µg/mL | +/- | 7.2865 µg/mL 66.6952 µg/mL 66.7688 µg/mL | Gravimetric Unstressed Stressed |
| 48 | Styrene CAS # 100-42-5 Purity 99% | (Lot 10182421) | 2,503.5 µg/mL | +/- | 14.5556 µg/mL 133.2307 µg/mL 133.3777 µg/mL | Gravimetric Unstressed Stressed |
| 49 | Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99% | (Lot 10169400) | 2,502.5 µg/mL | +/- | 14.5498 µg/mL 133.1775 µg/mL 133.3244 µg/mL | Gravimetric Unstressed Stressed |
| 50 | bromoform CAS # 75-25-2 Purity 99% | (Lot SHBC3410V) | 2,507.8 µg/mL | +/- | 14.5803 µg/mL 133.4569 µg/mL 133.6041 µg/mL | Gravimetric Unstressed Stressed |
| 51 | 1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99% | (Lot MKBS3769V) | 2,510.3 µg/mL | +/- | 14.5948 µg/mL 133.5900 µg/mL 133.7373 µg/mL | Gravimetric Unstressed Stressed |
| 52 | chloroform CAS # 67-66-3 Purity 99% | (Lot SHBB7498V) | 2,501.3 µg/mL | +/- | 14.5425 µg/mL 133.1110 µg/mL 133.2578 µg/mL | Gravimetric Unstressed Stressed |
| 53 | 1,2,3-Trichloropropane CAS # 96-18-4 Purity 99% | (Lot 1428739V) | 2,502.5 µg/mL | +/- | 14.5498 µg/mL 133.1775 µg/mL 133.3244 µg/mL | Gravimetric Unstressed Stressed |
| 54 | trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96% | (Lot MKBP5371V) | 2,499.5 µg/mL | +/- | 14.5322 µg/mL 133.0168 µg/mL 133.1635 µg/mL | Gravimetric Unstressed Stressed |
| 55 | n-Propylbenzene CAS # 103-65-1 Purity 99% | (Lot MKBQ8049V) | 2,500.3 µg/mL | +/- | 14.5367 µg/mL 133.0578 µg/mL 133.2045 µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|--|-----------------|---------------|---|-------------------------|---------------------------------------|
| 56 | Bromobenzene CAS # 108-86-1 Purity 99% | (Lot MKBD4032V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 57 | 1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98% | (Lot MKBJ1732V) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 58 | 2-Chlorotoluene CAS # 95-49-8 Purity 99% | (Lot MKBH8892V) | 2,500.3 µg/mL | +/- 14.5367 +/- 133.0578 +/- 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 59 | 4-Chlorotoluene CAS # 106-43-4 Purity 99% | (Lot MKBB7205V) | 2,506.4 µg/mL | +/- 14.5723 +/- 133.3837 +/- 133.5308 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 60 | tert-Butylbenzene CAS # 98-06-6 Purity 99% | (Lot S52237V) | 2,500.1 µg/mL | +/- 14.5359 +/- 133.0511 +/- 133.1979 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 61 | 1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99% | (Lot BCBJ3305V) | 2,503.1 µg/mL | +/- 14.5534 +/- 133.2108 +/- 133.3577 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 62 | sec-Butylbenzene CAS # 135-98-8 Purity 99% | (Lot MKBK3151V) | 2,504.0 µg/mL | +/- 14.5585 +/- 133.2574 +/- 133.4043 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 63 | p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99% | (Lot MKBK4439V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 64 | 1,3-Dichlorobenzene CAS # 541-73-1 Purity 99% | (Lot BCBC1891V) | 2,506.1 µg/mL | +/- 14.5708 +/- 133.3704 +/- 133.5175 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 65 | 1,4-Dichlorobenzene CAS # 106-46-7 Purity 99% | (Lot MKBL3891V) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 66 | n-Butylbenzene CAS # 104-51-8 Purity 99% | (Lot 09418JIV) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 67 | 1,2-Dichlorobenzene CAS # 95-50-1 Purity 99% | (Lot 68996CMV) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 68 | 1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99% | (Lot FBL01) | 2,505.9 µg/mL | +/- 14.5694 +/- 133.3571 +/- 133.5042 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 69 | 1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99% | (Lot 26896BM) | 2,501.5 µg/mL | +/- 14.5439 +/- 133.1243 +/- 133.2711 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 70 | Hexachlorobutadiene CAS # 87-68-3 Purity 98% | (Lot K22W009) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 71 | Naphthalene CAS # 91-20-3 Purity 99% | (Lot MKBH4351V) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|------------------------|----------------|---------------|--------------|-------|-------------|
| 72 | 1,2,3-Trichlorobenzene | | 2,503.4 µg/mL | +/- 14.5548 | µg/mL | Gravimetric |
| | CAS # 87-61-6 | (Lot 12912PFV) | | +/- 133.2241 | µg/mL | Unstressed |
| | Purity 99% | | | +/- 133.3710 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

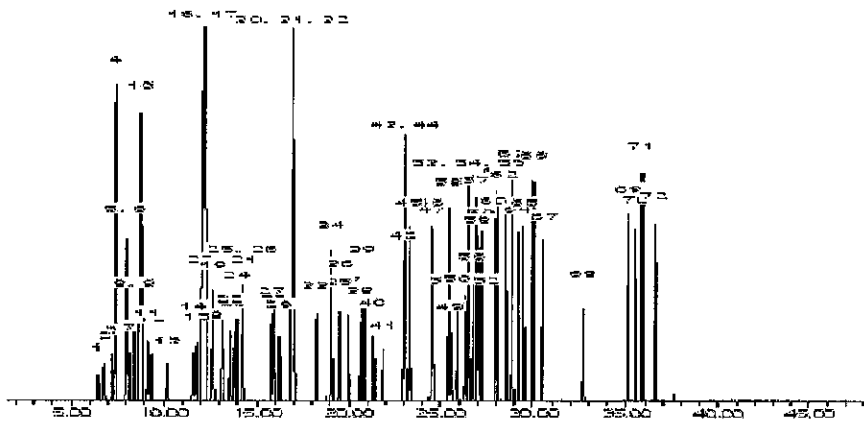
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
MSD



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


Kendra Swope - Mix Technician

Date Mixed: 07-Jan-2015 **Balance:** 1125113331


Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260MEGA1_00032



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720 **Lot No.:** A0108166
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--|-----------------------------|--------------------------------------|------------|-------|-------------|
| 1 | Diethyl ether (ethyl ether) | 2,521.3 µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 60-29-7 (Lot SHBF3466V) | | +/- | 134.1754 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3233 | µg/mL | Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 2,522.5 µg/mL | +/- | 14.6660 | µg/mL | Gravimetric |
| | CAS # 76-13-1 (Lot 00001135) | | +/- | 134.2419 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3899 | µg/mL | Stressed |
| 3 | 1,1-Dichloroethane | 2,499.5 µg/mL | +/- | 14.5323 | µg/mL | Gravimetric |
| | CAS # 75-34-3 (Lot Q179-33) | | +/- | 133.0173 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 133.1640 | µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 25,002.4 µg/mL | +/- | 145.3584 | µg/mL | Gravimetric |
| | CAS # 75-65-0 (Lot SHBC6893V) | | +/- | 1,330.5704 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 1,332.0378 | µg/mL | Stressed |
| 5 | Iodomethane (methyl iodide) | 2,510.0 µg/mL | +/- | 14.5934 | µg/mL | Gravimetric |
| | CAS # 74-88-4 (Lot SHBC7288V) | | +/- | 133.5767 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7240 | µg/mL | Stressed |
| 6 | Methyl acetate | 12,505.4 µg/mL | +/- | 72.7037 | µg/mL | Gravimetric |
| | CAS # 79-20-9 (Lot SHBD7134V) | | +/- | 665.5101 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 666.2440 | µg/mL | Stressed |
| 7 | Allyl chloride (3-chloropropene) | 2,500.0 µg/mL | +/- | 19.2743 | µg/mL | Gravimetric |
| | CAS # 107-05-1 (Lot MKBG5777V) | | +/- | 133.6453 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7914 | µg/mL | Stressed |

| | | | | | | | | |
|----|--------------------------------------|------------------|----------|-------|-----|----------|------------|-------------|
| 8 | Methylene chloride (dichloromethane) | | 2,511.3 | µg/mL | +/- | 14.6006 | µg/mL | Gravimetric |
| | CAS # 75-09-2 | (Lot SHBD4974V) | | | | +/- | 133.6432 | µg/mL |
| | Purity 99% | | | | | +/- | 133.7906 | µg/mL |
| 9 | Carbon disulfide | | 2,511.7 | µg/mL | +/- | 14.6035 | µg/mL | Gravimetric |
| | CAS # 75-15-0 | (Lot C30Y997) | | | | +/- | 133.6693 | µg/mL |
| | Purity 98% | | | | | +/- | 133.8167 | µg/mL |
| 10 | Acrylonitrile | | 25,017.1 | µg/mL | +/- | 145.4441 | µg/mL | Gravimetric |
| | CAS # 107-13-1 | (Lot 10172706) | | | | +/- | 1,331.3554 | µg/mL |
| | Purity 99% | | | | | +/- | 1,332.8236 | µg/mL |
| 11 | cis-1,2-Dichloroethene | | 2,503.9 | µg/mL | +/- | 14.5577 | µg/mL | Gravimetric |
| | CAS # 156-59-2 | (Lot MKBG8424V) | | | | +/- | 133.2507 | µg/mL |
| | Purity 99% | | | | | +/- | 133.3977 | µg/mL |
| 12 | n-Hexane (C6) | | 2,511.9 | µg/mL | +/- | 14.6043 | µg/mL | Gravimetric |
| | CAS # 110-54-3 | (Lot SHBF0293V) | | | | +/- | 133.6764 | µg/mL |
| | Purity 99% | | | | | +/- | 133.8239 | µg/mL |
| 13 | 1,1-dichloroethene | | 2,521.3 | µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 75-35-4 | (Lot SHBD6170V) | | | | +/- | 134.1754 | µg/mL |
| | Purity 99% | | | | | +/- | 134.3233 | µg/mL |
| 14 | 2,2-Dichloropropane | | 2,500.0 | µg/mL | +/- | 14.5351 | µg/mL | Gravimetric |
| | CAS # 594-20-7 | (Lot BCBH9246V) | | | | +/- | 133.0434 | µg/mL |
| | Purity 98% | | | | | +/- | 133.1901 | µg/mL |
| 15 | trans-1,2-Dichloroethene | | 2,505.0 | µg/mL | +/- | 14.5643 | µg/mL | Gravimetric |
| | CAS # 156-60-5 | (Lot MKBH9850V) | | | | +/- | 133.3106 | µg/mL |
| | Purity 99% | | | | | +/- | 133.4576 | µg/mL |
| 16 | Isobutanol (2-Methyl-1-propanol) | | 62,553.8 | µg/mL | +/- | 363.6739 | µg/mL | Gravimetric |
| | CAS # 78-83-1 | (Lot SHBF2852V) | | | | +/- | 3,328.9705 | µg/mL |
| | Purity 99% | | | | | +/- | 3,332.6417 | µg/mL |
| 17 | Methyl-tert-butyl ether (MTBE) | | 2,504.6 | µg/mL | +/- | 14.5621 | µg/mL | Gravimetric |
| | CAS # 1634-04-4 | (Lot SHBF1193V) | | | | +/- | 133.2906 | µg/mL |
| | Purity 99% | | | | | +/- | 133.4376 | µg/mL |
| 18 | Bromochloromethane | | 2,505.1 | µg/mL | +/- | 14.5650 | µg/mL | Gravimetric |
| | CAS # 74-97-5 | (Lot 00004559) | | | | +/- | 133.3172 | µg/mL |
| | Purity 99% | | | | | +/- | 133.4642 | µg/mL |
| 19 | Tetrahydrofuran | | 5,000.7 | µg/mL | +/- | 29.0746 | µg/mL | Gravimetric |
| | CAS # 109-99-9 | (Lot SHBF2660V) | | | | +/- | 266.1270 | µg/mL |
| | Purity 97% | | | | | +/- | 266.4204 | µg/mL |
| 20 | 1,1,1-trichloroethane | | 2,508.1 | µg/mL | +/- | 14.5825 | µg/mL | Gravimetric |
| | CAS # 71-55-6 | (Lot B14Z1114) | | | | +/- | 133.4769 | µg/mL |
| | Purity 99% | | | | | +/- | 133.6241 | µg/mL |
| 21 | Cyclohexane | | 2,504.0 | µg/mL | +/- | 14.5585 | µg/mL | Gravimetric |
| | CAS # 110-82-7 | (Lot SHBD7873V) | | | | +/- | 133.2574 | µg/mL |
| | Purity 99% | | | | | +/- | 133.4043 | µg/mL |
| 22 | 1,1-Dichloropropene | | 2,502.4 | µg/mL | +/- | 14.5493 | µg/mL | Gravimetric |
| | CAS # 563-58-6 | (Lot PR09161302) | | | | +/- | 133.1738 | µg/mL |
| | Purity 98% | | | | | +/- | 133.3207 | µg/mL |
| 23 | carbon tetrachloride | | 2,505.3 | µg/mL | +/- | 14.5657 | µg/mL | Gravimetric |
| | CAS # 56-23-5 | (Lot SHBC1410V) | | | | +/- | 133.3239 | µg/mL |
| | Purity 99% | | | | | +/- | 133.4709 | µg/mL |

| | | | | | | |
|----|---|-----------------|----------------|--|-------------------------|---------------------------------------|
| 24 | n-Heptane (C7) CAS # 142-82-5 Purity 99% | (Lot SHBF2321V) | 2,501.4 µg/mL | +/- 14.5432 +/- 133.1177 +/- 133.2645 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 25 | 1,2-Dichloroethane CAS # 107-06-2 Purity 99% | (Lot SHBC6595V) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 26 | Benzene CAS # 71-43-2 Purity 99% | (Lot SHBD4617V) | 2,509.1 µg/mL | +/- 14.5883 +/- 133.5301 +/- 133.6774 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 27 | Trichloroethene CAS # 79-01-6 Purity 99% | (Lot SHBF0943V) | 2,504.8 µg/mL | +/- 14.5628 +/- 133.2973 +/- 133.4443 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 28 | Methylcyclohexane CAS # 108-87-2 Purity 99% | (Lot 50996APV) | 2,502.5 µg/mL | +/- 14.5498 +/- 133.1775 +/- 133.3244 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 29 | 1,2-Dichloropropane CAS # 78-87-5 Purity 99% | (Lot 01113D0V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 30 | bromodichloromethane CAS # 75-27-4 Purity 98% | (Lot MKBL1617V) | 2,507.9 µg/mL | +/- 14.5814 +/- 133.4672 +/- 133.6144 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 31 | 1,4-Dioxane CAS # 123-91-1 Purity 99% | (Lot SHBF2002V) | 50,001.4 µg/mL | +/- 290.6971 +/- 2,660.9612 +/- 2,663.8957 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 32 | Dibromomethane CAS # 74-95-3 Purity 99% | (Lot 10169264) | 2,508.1 µg/mL | +/- 14.5825 +/- 133.4769 +/- 133.6241 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 33 | cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99% | (Lot 20936) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 34 | Toluene CAS # 108-88-3 Purity 99% | (Lot SHBF2730V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 35 | Ethyl methacrylate CAS # 97-63-2 Purity 99% | (Lot 69796APV) | 2,500.9 µg/mL | +/- 14.5403 +/- 133.0911 +/- 133.2378 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 36 | trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99% | (Lot C363110) | 2,502.1 µg/mL | +/- 14.5476 +/- 133.1576 +/- 133.3044 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 37 | 1,1,2-Trichloroethane CAS # 79-00-5 Purity 99% | (Lot FGB01) | 2,507.5 µg/mL | +/- 14.5788 +/- 133.4436 +/- 133.5908 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 38 | 1,3-Dichloropropane CAS # 142-28-9 Purity 99% | (Lot BCBG2162V) | 2,505.3 µg/mL | +/- 14.5657 +/- 133.3239 +/- 133.4709 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 39 | Tetrachloroethene CAS # 127-18-4 Purity 99% | (Lot SHBD2073V) | 2,506.5 µg/mL | +/- 14.5730 +/- 133.3904 +/- 133.5375 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|---|-----------------|---------------|---|-------------------------|---------------------------------------|
| 40 | dibromochloromethane CAS # 124-48-1 Purity 98% | (Lot MKBP0459V) | 2,503.2 µg/mL | +/- 14.5536 +/- 133.2129 +/- 133.3598 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 41 | 1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99% | (Lot BCBH3877V) | 2,504.3 µg/mL | +/- 14.5599 +/- 133.2707 +/- 133.4176 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 42 | Chlorobenzene CAS # 108-90-7 Purity 99% | (Lot SHBD3200V) | 2,510.8 µg/mL | +/- 14.5977 +/- 133.6166 +/- 133.7639 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 43 | 1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99% | (Lot CFA4D) | 2,502.9 µg/mL | +/- 14.5519 +/- 133.1975 +/- 133.3444 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 44 | Ethylbenzene CAS # 100-41-4 Purity 99% | (Lot SHBC9001V) | 2,509.6 µg/mL | +/- 14.5912 +/- 133.5567 +/- 133.7040 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 45 | m-Xylene CAS # 108-38-3 Purity 99% | (Lot SHBF1720V) | 1,252.6 µg/mL | +/- 7.2829 +/- 66.6619 +/- 66.7355 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 46 | o-Xylene CAS # 95-47-6 Purity 98% | (Lot SHBC8668V) | 2,503.7 µg/mL | +/- 14.5565 +/- 133.2390 +/- 133.3859 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 47 | p-Xylene CAS # 106-42-3 Purity 99% | (Lot SHBF3427V) | 1,253.3 µg/mL | +/- 7.2865 +/- 66.6952 +/- 66.7688 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 48 | Styrene CAS # 100-42-5 Purity 99% | (Lot 10182421) | 2,503.5 µg/mL | +/- 14.5556 +/- 133.2307 +/- 133.3777 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 49 | Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99% | (Lot 10169400) | 2,502.5 µg/mL | +/- 14.5498 +/- 133.1775 +/- 133.3244 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 50 | bromoform CAS # 75-25-2 Purity 99% | (Lot SHBC3410V) | 2,507.8 µg/mL | +/- 14.5803 +/- 133.4569 +/- 133.6041 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 51 | 1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99% | (Lot MKBS3769V) | 2,510.3 µg/mL | +/- 14.5948 +/- 133.5900 +/- 133.7373 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 52 | chloroform CAS # 67-66-3 Purity 99% | (Lot SHBB7498V) | 2,501.3 µg/mL | +/- 14.5425 +/- 133.1110 +/- 133.2578 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 53 | 1,2,3-Trichloropropane CAS # 96-18-4 Purity 99% | (Lot 1428739V) | 2,502.5 µg/mL | +/- 14.5498 +/- 133.1775 +/- 133.3244 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 54 | trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96% | (Lot MKBP5371V) | 2,499.5 µg/mL | +/- 14.5322 +/- 133.0168 +/- 133.1635 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 55 | n-Propylbenzene CAS # 103-65-1 Purity 99% | (Lot MKBQ8049V) | 2,500.3 µg/mL | +/- 14.5367 +/- 133.0578 +/- 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|--|-----------------|---------------|---|-------------------------|---------------------------------------|
| 56 | Bromobenzene CAS # 108-86-1 Purity 99% | (Lot MKBD4032V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 57 | 1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98% | (Lot MKBJ1732V) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 58 | 2-Chlorotoluene CAS # 95-49-8 Purity 99% | (Lot MKBH8892V) | 2,500.3 µg/mL | +/- 14.5367 +/- 133.0578 +/- 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 59 | 4-Chlorotoluene CAS # 106-43-4 Purity 99% | (Lot MKBB7205V) | 2,506.4 µg/mL | +/- 14.5723 +/- 133.3837 +/- 133.5308 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 60 | tert-Butylbenzene CAS # 98-06-6 Purity 99% | (Lot S52237V) | 2,500.1 µg/mL | +/- 14.5359 +/- 133.0511 +/- 133.1979 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 61 | 1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99% | (Lot BCBJ3305V) | 2,503.1 µg/mL | +/- 14.5534 +/- 133.2108 +/- 133.3577 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 62 | sec-Butylbenzene CAS # 135-98-8 Purity 99% | (Lot MKBK3151V) | 2,504.0 µg/mL | +/- 14.5585 +/- 133.2574 +/- 133.4043 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 63 | p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99% | (Lot MKBK4439V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 64 | 1,3-Dichlorobenzene CAS # 541-73-1 Purity 99% | (Lot BCBC1891V) | 2,506.1 µg/mL | +/- 14.5708 +/- 133.3704 +/- 133.5175 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 65 | 1,4-Dichlorobenzene CAS # 106-46-7 Purity 99% | (Lot MKBL3891V) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 66 | n-Butylbenzene CAS # 104-51-8 Purity 99% | (Lot 09418JIV) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 67 | 1,2-Dichlorobenzene CAS # 95-50-1 Purity 99% | (Lot 68996CMV) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 68 | 1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99% | (Lot FBL01) | 2,505.9 µg/mL | +/- 14.5694 +/- 133.3571 +/- 133.5042 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 69 | 1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99% | (Lot 26896BM) | 2,501.5 µg/mL | +/- 14.5439 +/- 133.1243 +/- 133.2711 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 70 | Hexachlorobutadiene CAS # 87-68-3 Purity 98% | (Lot K22W009) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 71 | Naphthalene CAS # 91-20-3 Purity 99% | (Lot MKBH4351V) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | |
|----|------------------------|----------------|---------------|--------------|-------|-------------|
| 72 | 1,2,3-Trichlorobenzene | | 2,503.4 µg/mL | +/- 14.5548 | µg/mL | Gravimetric |
| | CAS # 87-61-6 | (Lot 12912PFV) | | +/- 133.2241 | µg/mL | Unstressed |
| | Purity 99% | | | +/- 133.3710 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

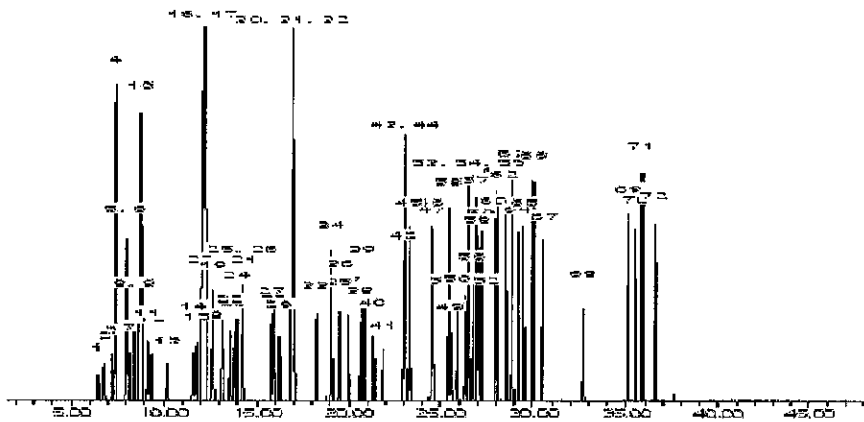
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

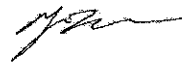
Det. Type:
MSD



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


Kendra Swope - Mix Technician

Date Mixed: 07-Jan-2015 **Balance:** 1125113331


Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

| |
|--|
| <p>Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397</p> |
|--|

Reagent

VOA8260MEGA1_00034



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720 **Lot No.:** A0108166
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--|-----------------------------|--------------------------------------|------------|-------|-------------|
| 1 | Diethyl ether (ethyl ether) | 2,521.3 µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 60-29-7 (Lot SHBF3466V) | | +/- | 134.1754 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3233 | µg/mL | Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 2,522.5 µg/mL | +/- | 14.6660 | µg/mL | Gravimetric |
| | CAS # 76-13-1 (Lot 00001135) | | +/- | 134.2419 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 134.3899 | µg/mL | Stressed |
| 3 | 1,1-Dichloroethane | 2,499.5 µg/mL | +/- | 14.5323 | µg/mL | Gravimetric |
| | CAS # 75-34-3 (Lot Q179-33) | | +/- | 133.0173 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 133.1640 | µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 25,002.4 µg/mL | +/- | 145.3584 | µg/mL | Gravimetric |
| | CAS # 75-65-0 (Lot SHBC6893V) | | +/- | 1,330.5704 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 1,332.0378 | µg/mL | Stressed |
| 5 | Iodomethane (methyl iodide) | 2,510.0 µg/mL | +/- | 14.5934 | µg/mL | Gravimetric |
| | CAS # 74-88-4 (Lot SHBC7288V) | | +/- | 133.5767 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7240 | µg/mL | Stressed |
| 6 | Methyl acetate | 12,505.4 µg/mL | +/- | 72.7037 | µg/mL | Gravimetric |
| | CAS # 79-20-9 (Lot SHBD7134V) | | +/- | 665.5101 | µg/mL | Unstressed |
| | Purity 98% | | +/- | 666.2440 | µg/mL | Stressed |
| 7 | Allyl chloride (3-chloropropene) | 2,500.0 µg/mL | +/- | 19.2743 | µg/mL | Gravimetric |
| | CAS # 107-05-1 (Lot MKBG5777V) | | +/- | 133.6453 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 133.7914 | µg/mL | Stressed |

| | | | | | | | | |
|----|--------------------------------------|------------------|----------|-------|-----|------------|-------|-------------|
| 8 | Methylene chloride (dichloromethane) | | 2,511.3 | µg/mL | +/- | 14.6006 | µg/mL | Gravimetric |
| | CAS # 75-09-2 | (Lot SHBD4974V) | | | +/- | 133.6432 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.7906 | µg/mL | Stressed |
| 9 | Carbon disulfide | | 2,511.7 | µg/mL | +/- | 14.6035 | µg/mL | Gravimetric |
| | CAS # 75-15-0 | (Lot C30Y997) | | | +/- | 133.6693 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.8167 | µg/mL | Stressed |
| 10 | Acrylonitrile | | 25,017.1 | µg/mL | +/- | 145.4441 | µg/mL | Gravimetric |
| | CAS # 107-13-1 | (Lot 10172706) | | | +/- | 1,331.3554 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 1,332.8236 | µg/mL | Stressed |
| 11 | cis-1,2-Dichloroethene | | 2,503.9 | µg/mL | +/- | 14.5577 | µg/mL | Gravimetric |
| | CAS # 156-59-2 | (Lot MKBG8424V) | | | +/- | 133.2507 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.3977 | µg/mL | Stressed |
| 12 | n-Hexane (C6) | | 2,511.9 | µg/mL | +/- | 14.6043 | µg/mL | Gravimetric |
| | CAS # 110-54-3 | (Lot SHBF0293V) | | | +/- | 133.6764 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.8239 | µg/mL | Stressed |
| 13 | 1,1-dichloroethene | | 2,521.3 | µg/mL | +/- | 14.6588 | µg/mL | Gravimetric |
| | CAS # 75-35-4 | (Lot SHBD6170V) | | | +/- | 134.1754 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 134.3233 | µg/mL | Stressed |
| 14 | 2,2-Dichloropropane | | 2,500.0 | µg/mL | +/- | 14.5351 | µg/mL | Gravimetric |
| | CAS # 594-20-7 | (Lot BCBH9246V) | | | +/- | 133.0434 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.1901 | µg/mL | Stressed |
| 15 | trans-1,2-Dichloroethene | | 2,505.0 | µg/mL | +/- | 14.5643 | µg/mL | Gravimetric |
| | CAS # 156-60-5 | (Lot MKBH9850V) | | | +/- | 133.3106 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4576 | µg/mL | Stressed |
| 16 | Isobutanol (2-Methyl-1-propanol) | | 62,553.8 | µg/mL | +/- | 363.6739 | µg/mL | Gravimetric |
| | CAS # 78-83-1 | (Lot SHBF2852V) | | | +/- | 3,328.9705 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 3,332.6417 | µg/mL | Stressed |
| 17 | Methyl-tert-butyl ether (MTBE) | | 2,504.6 | µg/mL | +/- | 14.5621 | µg/mL | Gravimetric |
| | CAS # 1634-04-4 | (Lot SHBF1193V) | | | +/- | 133.2906 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4376 | µg/mL | Stressed |
| 18 | Bromochloromethane | | 2,505.1 | µg/mL | +/- | 14.5650 | µg/mL | Gravimetric |
| | CAS # 74-97-5 | (Lot 00004559) | | | +/- | 133.3172 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4642 | µg/mL | Stressed |
| 19 | Tetrahydrofuran | | 5,000.7 | µg/mL | +/- | 29.0746 | µg/mL | Gravimetric |
| | CAS # 109-99-9 | (Lot SHBF2660V) | | | +/- | 266.1270 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 266.4204 | µg/mL | Stressed |
| 20 | 1,1,1-trichloroethane | | 2,508.1 | µg/mL | +/- | 14.5825 | µg/mL | Gravimetric |
| | CAS # 71-55-6 | (Lot B14Z1114) | | | +/- | 133.4769 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.6241 | µg/mL | Stressed |
| 21 | Cyclohexane | | 2,504.0 | µg/mL | +/- | 14.5585 | µg/mL | Gravimetric |
| | CAS # 110-82-7 | (Lot SHBD7873V) | | | +/- | 133.2574 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4043 | µg/mL | Stressed |
| 22 | 1,1-Dichloropropene | | 2,502.4 | µg/mL | +/- | 14.5493 | µg/mL | Gravimetric |
| | CAS # 563-58-6 | (Lot PR09161302) | | | +/- | 133.1738 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.3207 | µg/mL | Stressed |
| 23 | carbon tetrachloride | | 2,505.3 | µg/mL | +/- | 14.5657 | µg/mL | Gravimetric |
| | CAS # 56-23-5 | (Lot SHBC1410V) | | | +/- | 133.3239 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.4709 | µg/mL | Stressed |

| | | | | | | |
|----|---|-----------------|----------------|--|-------------------------|---------------------------------------|
| 24 | n-Heptane (C7) CAS # 142-82-5 Purity 99% | (Lot SHBF2321V) | 2,501.4 µg/mL | +/- 14.5432 +/- 133.1177 +/- 133.2645 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 25 | 1,2-Dichloroethane CAS # 107-06-2 Purity 99% | (Lot SHBC6595V) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 26 | Benzene CAS # 71-43-2 Purity 99% | (Lot SHBD4617V) | 2,509.1 µg/mL | +/- 14.5883 +/- 133.5301 +/- 133.6774 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 27 | Trichloroethene CAS # 79-01-6 Purity 99% | (Lot SHBF0943V) | 2,504.8 µg/mL | +/- 14.5628 +/- 133.2973 +/- 133.4443 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 28 | Methylcyclohexane CAS # 108-87-2 Purity 99% | (Lot 50996APV) | 2,502.5 µg/mL | +/- 14.5498 +/- 133.1775 +/- 133.3244 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 29 | 1,2-Dichloropropane CAS # 78-87-5 Purity 99% | (Lot 01113D0V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 30 | bromodichloromethane CAS # 75-27-4 Purity 98% | (Lot MKBL1617V) | 2,507.9 µg/mL | +/- 14.5814 +/- 133.4672 +/- 133.6144 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 31 | 1,4-Dioxane CAS # 123-91-1 Purity 99% | (Lot SHBF2002V) | 50,001.4 µg/mL | +/- 290.6971 +/- 2,660.9612 +/- 2,663.8957 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 32 | Dibromomethane CAS # 74-95-3 Purity 99% | (Lot 10169264) | 2,508.1 µg/mL | +/- 14.5825 +/- 133.4769 +/- 133.6241 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 33 | cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99% | (Lot 20936) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 34 | Toluene CAS # 108-88-3 Purity 99% | (Lot SHBF2730V) | 2,502.4 µg/mL | +/- 14.5490 +/- 133.1709 +/- 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 35 | Ethyl methacrylate CAS # 97-63-2 Purity 99% | (Lot 69796APV) | 2,500.9 µg/mL | +/- 14.5403 +/- 133.0911 +/- 133.2378 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 36 | trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99% | (Lot C363110) | 2,502.1 µg/mL | +/- 14.5476 +/- 133.1576 +/- 133.3044 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 37 | 1,1,2-Trichloroethane CAS # 79-00-5 Purity 99% | (Lot FGB01) | 2,507.5 µg/mL | +/- 14.5788 +/- 133.4436 +/- 133.5908 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 38 | 1,3-Dichloropropane CAS # 142-28-9 Purity 99% | (Lot BCBG2162V) | 2,505.3 µg/mL | +/- 14.5657 +/- 133.3239 +/- 133.4709 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 39 | Tetrachloroethene CAS # 127-18-4 Purity 99% | (Lot SHBD2073V) | 2,506.5 µg/mL | +/- 14.5730 +/- 133.3904 +/- 133.5375 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | | | |
|----|---|-----------------|---------|-------|-----|----------|-------|-------------|
| 40 | dibromochloromethane CAS # 124-48-1 Purity 98% | (Lot MKBP0459V) | 2,503.2 | µg/mL | +/- | 14.5536 | µg/mL | Gravimetric |
| | | | | | +/- | 133.2129 | µg/mL | Unstressed |
| | | | | | +/- | 133.3598 | µg/mL | Stressed |
| 41 | 1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99% | (Lot BCBH3877V) | 2,504.3 | µg/mL | +/- | 14.5599 | µg/mL | Gravimetric |
| | | | | | +/- | 133.2707 | µg/mL | Unstressed |
| | | | | | +/- | 133.4176 | µg/mL | Stressed |
| 42 | Chlorobenzene CAS # 108-90-7 Purity 99% | (Lot SHBD3200V) | 2,510.8 | µg/mL | +/- | 14.5977 | µg/mL | Gravimetric |
| | | | | | +/- | 133.6166 | µg/mL | Unstressed |
| | | | | | +/- | 133.7639 | µg/mL | Stressed |
| 43 | 1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99% | (Lot CFA4D) | 2,502.9 | µg/mL | +/- | 14.5519 | µg/mL | Gravimetric |
| | | | | | +/- | 133.1975 | µg/mL | Unstressed |
| | | | | | +/- | 133.3444 | µg/mL | Stressed |
| 44 | Ethylbenzene CAS # 100-41-4 Purity 99% | (Lot SHBC9001V) | 2,509.6 | µg/mL | +/- | 14.5912 | µg/mL | Gravimetric |
| | | | | | +/- | 133.5567 | µg/mL | Unstressed |
| | | | | | +/- | 133.7040 | µg/mL | Stressed |
| 45 | m-Xylene CAS # 108-38-3 Purity 99% | (Lot SHBF1720V) | 1,252.6 | µg/mL | +/- | 7.2829 | µg/mL | Gravimetric |
| | | | | | +/- | 66.6619 | µg/mL | Unstressed |
| | | | | | +/- | 66.7355 | µg/mL | Stressed |
| 46 | o-Xylene CAS # 95-47-6 Purity 98% | (Lot SHBC8668V) | 2,503.7 | µg/mL | +/- | 14.5565 | µg/mL | Gravimetric |
| | | | | | +/- | 133.2390 | µg/mL | Unstressed |
| | | | | | +/- | 133.3859 | µg/mL | Stressed |
| 47 | p-Xylene CAS # 106-42-3 Purity 99% | (Lot SHBF3427V) | 1,253.3 | µg/mL | +/- | 7.2865 | µg/mL | Gravimetric |
| | | | | | +/- | 66.6952 | µg/mL | Unstressed |
| | | | | | +/- | 66.7688 | µg/mL | Stressed |
| 48 | Styrene CAS # 100-42-5 Purity 99% | (Lot 10182421) | 2,503.5 | µg/mL | +/- | 14.5556 | µg/mL | Gravimetric |
| | | | | | +/- | 133.2307 | µg/mL | Unstressed |
| | | | | | +/- | 133.3777 | µg/mL | Stressed |
| 49 | Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99% | (Lot 10169400) | 2,502.5 | µg/mL | +/- | 14.5498 | µg/mL | Gravimetric |
| | | | | | +/- | 133.1775 | µg/mL | Unstressed |
| | | | | | +/- | 133.3244 | µg/mL | Stressed |
| 50 | bromoform CAS # 75-25-2 Purity 99% | (Lot SHBC3410V) | 2,507.8 | µg/mL | +/- | 14.5803 | µg/mL | Gravimetric |
| | | | | | +/- | 133.4569 | µg/mL | Unstressed |
| | | | | | +/- | 133.6041 | µg/mL | Stressed |
| 51 | 1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99% | (Lot MKBS3769V) | 2,510.3 | µg/mL | +/- | 14.5948 | µg/mL | Gravimetric |
| | | | | | +/- | 133.5900 | µg/mL | Unstressed |
| | | | | | +/- | 133.7373 | µg/mL | Stressed |
| 52 | chloroform CAS # 67-66-3 Purity 99% | (Lot SHBB7498V) | 2,501.3 | µg/mL | +/- | 14.5425 | µg/mL | Gravimetric |
| | | | | | +/- | 133.1110 | µg/mL | Unstressed |
| | | | | | +/- | 133.2578 | µg/mL | Stressed |
| 53 | 1,2,3-Trichloropropane CAS # 96-18-4 Purity 99% | (Lot 1428739V) | 2,502.5 | µg/mL | +/- | 14.5498 | µg/mL | Gravimetric |
| | | | | | +/- | 133.1775 | µg/mL | Unstressed |
| | | | | | +/- | 133.3244 | µg/mL | Stressed |
| 54 | trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96% | (Lot MKBP5371V) | 2,499.5 | µg/mL | +/- | 14.5322 | µg/mL | Gravimetric |
| | | | | | +/- | 133.0168 | µg/mL | Unstressed |
| | | | | | +/- | 133.1635 | µg/mL | Stressed |
| 55 | n-Propylbenzene CAS # 103-65-1 Purity 99% | (Lot MKBQ8049V) | 2,500.3 | µg/mL | +/- | 14.5367 | µg/mL | Gravimetric |
| | | | | | +/- | 133.0578 | µg/mL | Unstressed |
| | | | | | +/- | 133.2045 | µg/mL | Stressed |

| | | | | | | |
|----|--|-----------------|---------------|---|-------------------------|---------------------------------------|
| 56 | Bromobenzene CAS # 108-86-1 Purity 99% | (Lot MKBD4032V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 57 | 1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98% | (Lot MKBJ1732V) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 58 | 2-Chlorotoluene CAS # 95-49-8 Purity 99% | (Lot MKBH8892V) | 2,500.3 µg/mL | +/- 14.5367 +/- 133.0578 +/- 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 59 | 4-Chlorotoluene CAS # 106-43-4 Purity 99% | (Lot MKBB7205V) | 2,506.4 µg/mL | +/- 14.5723 +/- 133.3837 +/- 133.5308 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 60 | tert-Butylbenzene CAS # 98-06-6 Purity 99% | (Lot S52237V) | 2,500.1 µg/mL | +/- 14.5359 +/- 133.0511 +/- 133.1979 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 61 | 1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99% | (Lot BCBJ3305V) | 2,503.1 µg/mL | +/- 14.5534 +/- 133.2108 +/- 133.3577 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 62 | sec-Butylbenzene CAS # 135-98-8 Purity 99% | (Lot MKBK3151V) | 2,504.0 µg/mL | +/- 14.5585 +/- 133.2574 +/- 133.4043 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 63 | p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99% | (Lot MKBK4439V) | 2,501.1 µg/mL | +/- 14.5418 +/- 133.1044 +/- 133.2511 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 64 | 1,3-Dichlorobenzene CAS # 541-73-1 Purity 99% | (Lot BCBC1891V) | 2,506.1 µg/mL | +/- 14.5708 +/- 133.3704 +/- 133.5175 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 65 | 1,4-Dichlorobenzene CAS # 106-46-7 Purity 99% | (Lot MKBL3891V) | 2,507.0 µg/mL | +/- 14.5759 +/- 133.4170 +/- 133.5641 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 66 | n-Butylbenzene CAS # 104-51-8 Purity 99% | (Lot 09418JIV) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 67 | 1,2-Dichlorobenzene CAS # 95-50-1 Purity 99% | (Lot 68996CMV) | 2,501.6 µg/mL | +/- 14.5447 +/- 133.1310 +/- 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 68 | 1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99% | (Lot FBL01) | 2,505.9 µg/mL | +/- 14.5694 +/- 133.3571 +/- 133.5042 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 69 | 1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99% | (Lot 26896BM) | 2,501.5 µg/mL | +/- 14.5439 +/- 133.1243 +/- 133.2711 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 70 | Hexachlorobutadiene CAS # 87-68-3 Purity 98% | (Lot K22W009) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 71 | Naphthalene CAS # 91-20-3 Purity 99% | (Lot MKBH4351V) | 2,502.6 µg/mL | +/- 14.5505 +/- 133.1842 +/- 133.3311 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | | |
|----|------------------------|----------------|---------------|-----|----------|-------|-------------|
| 72 | 1,2,3-Trichlorobenzene | | 2,503.4 µg/mL | +/- | 14.5548 | µg/mL | Gravimetric |
| | CAS # 87-61-6 | (Lot 12912PFV) | | +/- | 133.2241 | µg/mL | Unstressed |
| | Purity 99% | | | +/- | 133.3710 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

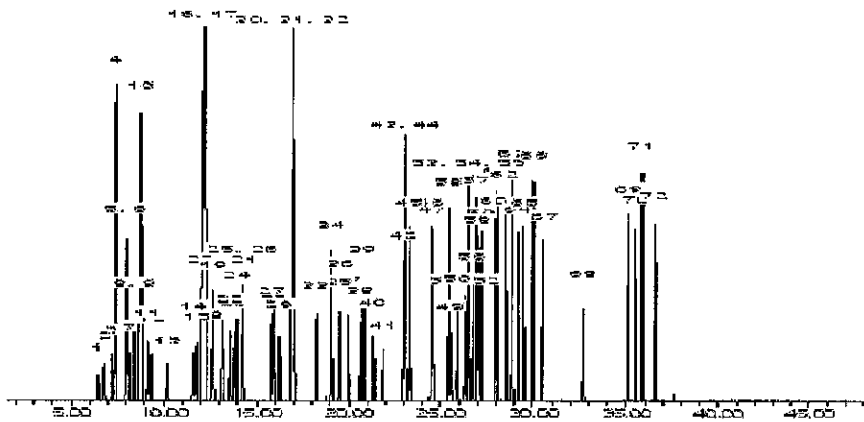
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

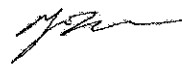
Det. Type:
MSD



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


Kendra Swope - Mix Technician

Date Mixed: 07-Jan-2015 **Balance:** 1125113331


Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260MEGA2_00037

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720.sec **Lot No.:** A0108163
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L., K=2) | | |
|---------------|---|-----------------------------|--------------------------------------|------------|-------------------|
| 1 | Diethyl ether (ethyl ether) CAS # 60-29-7.SEC (Lot F23X068) Purity 99% | 2,501.1 µg/mL | +/- | 14.5418 | µg/mL Gravimetric |
| | | | +/- | 133.1044 | µg/mL Unstressed |
| | | | +/- | 133.2511 | µg/mL Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC (Lot 18342) Purity 99% | 2,501.1 µg/mL | +/- | 14.5418 | µg/mL Gravimetric |
| | | | +/- | 133.1044 | µg/mL Unstressed |
| | | | +/- | 133.2511 | µg/mL Stressed |
| 3 | 1,1-Dichloroethene CAS # 75-35-4.SEC (Lot 903000) Purity 99% | 2,502.8 µg/mL | +/- | 14.5512 | µg/mL Gravimetric |
| | | | +/- | 133.1908 | µg/mL Unstressed |
| | | | +/- | 133.3377 | µg/mL Stressed |
| 4 | tert-Butanol (TBA) CAS # 75-65-0.SEC (Lot XYXDO) Purity 98% | 25,000.5 µg/mL | +/- | 145.3477 | µg/mL Gravimetric |
| | | | +/- | 1,330.4725 | µg/mL Unstressed |
| | | | +/- | 1,331.9397 | µg/mL Stressed |
| 5 | Iodomethane (methyl iodide) CAS # 74-88-4.SEC (Lot A13Y016) Purity 97% | 2,500.5 µg/mL | +/- | 14.5383 | µg/mL Gravimetric |
| | | | +/- | 133.0732 | µg/mL Unstressed |
| | | | +/- | 133.2199 | µg/mL Stressed |
| 6 | Methyl acetate CAS # 79-20-9.SEC (Lot YDQVD) Purity 99% | 12,500.6 µg/mL | +/- | 72.6759 | µg/mL Gravimetric |
| | | | +/- | 665.2553 | µg/mL Unstressed |
| | | | +/- | 665.9889 | µg/mL Stressed |
| 7 | Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC (Lot 5MNOA-DQ) Purity 99% | 2,501.3 µg/mL | +/- | 14.5425 | µg/mL Gravimetric |
| | | | +/- | 133.1110 | µg/mL Unstressed |
| | | | +/- | 133.2578 | µg/mL Stressed |

| | | | | | | | | |
|----|--------------------------------------|------------------|----------|-------|-----|------------|-------|-------------|
| 8 | Methylene chloride (dichloromethane) | | 2,501.4 | µg/mL | +/- | 14.5432 | µg/mL | Gravimetric |
| | CAS # 75-09-2.SEC | (Lot FGM02) | | | +/- | 133.1177 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2645 | µg/mL | Stressed |
| 9 | Carbon disulfide | | 2,501.2 | µg/mL | +/- | 14.5422 | µg/mL | Gravimetric |
| | CAS # 75-15-0.SEC | (Lot MKBL1376V) | | | +/- | 133.1086 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.2554 | µg/mL | Stressed |
| 10 | Acrylonitrile | | 25,002.1 | µg/mL | +/- | 145.3569 | µg/mL | Gravimetric |
| | CAS # 107-13-1.SEC | (Lot CCFKL) | | | +/- | 1,330.5571 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 1,332.0244 | µg/mL | Stressed |
| 11 | cis-1,2-Dichloroethene | | 2,500.3 | µg/mL | +/- | 14.5367 | µg/mL | Gravimetric |
| | CAS # 156-59-2.SEC | (Lot HGC01-BLKT) | | | +/- | 133.0578 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2045 | µg/mL | Stressed |
| 12 | n-Hexane (C6) | | 2,500.1 | µg/mL | +/- | 14.5358 | µg/mL | Gravimetric |
| | CAS # 110-54-3.SEC | (Lot K24W001) | | | +/- | 133.0499 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.1967 | µg/mL | Stressed |
| 13 | 1,1-Dichloroethane | | 2,503.0 | µg/mL | +/- | 14.5527 | µg/mL | Gravimetric |
| | CAS # 75-34-3.SEC | (Lot 2663100) | | | +/- | 133.2041 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.3510 | µg/mL | Stressed |
| 14 | 2,2-Dichloropropane | | 2,500.8 | µg/mL | +/- | 14.5396 | µg/mL | Gravimetric |
| | CAS # 594-20-7.SEC | (Lot GI01) | | | +/- | 133.0844 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2312 | µg/mL | Stressed |
| 15 | trans-1,2-Dichloroethene | | 2,500.2 | µg/mL | +/- | 14.5362 | µg/mL | Gravimetric |
| | CAS # 156-60-5.SEC | (Lot TS5UB) | | | +/- | 133.0538 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 133.2005 | µg/mL | Stressed |
| 16 | Isobutanol (2-Methyl-1-propanol) | | 62,501.3 | µg/mL | +/- | 363.3687 | µg/mL | Gravimetric |
| | CAS # 78-83-1.SEC | (Lot PH2XK) | | | +/- | 3,326.1766 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 3,329.8447 | µg/mL | Stressed |
| 17 | Methyl-tert-butyl ether (MTBE) | | 2,500.5 | µg/mL | +/- | 14.5381 | µg/mL | Gravimetric |
| | CAS # 1634-04-4.SEC | (Lot ZAQTA-MS) | | | +/- | 133.0711 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2178 | µg/mL | Stressed |
| 18 | Bromochloromethane | | 2,500.6 | µg/mL | +/- | 14.5388 | µg/mL | Gravimetric |
| | CAS # 74-97-5.SEC | (Lot 345600) | | | +/- | 133.0777 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2245 | µg/mL | Stressed |
| 19 | Tetrahydrofuran | | 5,002.3 | µg/mL | +/- | 29.0835 | µg/mL | Gravimetric |
| | CAS # 109-99-9.SEC | (Lot XWFLA) | | | +/- | 266.2087 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 266.5023 | µg/mL | Stressed |
| 20 | 1,1,1-Trichloroethane | | 2,501.9 | µg/mL | +/- | 14.5461 | µg/mL | Gravimetric |
| | CAS # 71-55-6.SEC | (Lot 1103200) | | | +/- | 133.1443 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2911 | µg/mL | Stressed |
| 21 | Cyclohexane | | 2,501.5 | µg/mL | +/- | 14.5439 | µg/mL | Gravimetric |
| | CAS # 110-82-7.SEC | (Lot YADRA) | | | +/- | 133.1243 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2711 | µg/mL | Stressed |
| 22 | 1,1-Dichloropropene | | 2,501.1 | µg/mL | +/- | 14.5419 | µg/mL | Gravimetric |
| | CAS # 563-58-6.SEC | (Lot 2028500) | | | +/- | 133.1054 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 133.2522 | µg/mL | Stressed |
| 23 | Carbon tetrachloride | | 2,501.9 | µg/mL | +/- | 14.5465 | µg/mL | Gravimetric |
| | CAS # 56-23-5.SEC | (Lot 11466) | | | +/- | 133.1477 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.2946 | µg/mL | Stressed |

| | | | | | | |
|----|---|------------------|----------------|--|-------------------------|---------------------------------------|
| 24 | n-Heptane (C7) CAS # 142-82-5.SEC Purity 99% | (Lot OGM01) | 2,500.4 µg/mL | +/- 14.5374 +/- 133.0644 +/- 133.2112 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 25 | 1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99% | (Lot FO6PK) | 2,501.9 µg/mL | +/- 14.5461 +/- 133.1443 +/- 133.2911 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 26 | Benzene CAS # 71-43-2.SEC Purity 99% | (Lot B28Y008) | 2,500.9 µg/mL | +/- 14.5403 +/- 133.0911 +/- 133.2378 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 27 | Trichloroethene CAS # 79-01-6.SEC Purity 98% | (Lot H04X050) | 2,500.6 µg/mL | +/- 14.5387 +/- 133.0760 +/- 133.2228 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 28 | Methylcyclohexane CAS # 108-87-2.SEC Purity 99% | (Lot 24MSD-CD) | 2,500.5 µg/mL | +/- 14.5381 +/- 133.0711 +/- 133.2178 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 29 | 1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99% | (Lot OGG01) | 2,500.0 µg/mL | +/- 14.5352 +/- 133.0445 +/- 133.1912 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 30 | Bromodichloromethane CAS # 75-27-4.SEC Purity 99% | (Lot 10171168) | 2,501.5 µg/mL | +/- 14.5439 +/- 133.1243 +/- 133.2711 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 31 | 1,4-Dioxane CAS # 123-91-1.SEC Purity 99% | (Lot CHA4A) | 50,000.8 µg/mL | +/- 290.6935 +/- 2,660.9280 +/- 2,663.8624 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 32 | Dibromomethane CAS # 74-95-3.SEC Purity 99% | (Lot FGI01-OICH) | 2,500.6 µg/mL | +/- 14.5388 +/- 133.0777 +/- 133.2245 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 33 | cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99% | (Lot 7ZLXI-TJ) | 2,501.0 µg/mL | +/- 14.5410 +/- 133.0977 +/- 133.2445 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 34 | Toluene CAS # 108-88-3.SEC Purity 99% | (Lot YND2B-BD) | 2,500.1 µg/mL | +/- 14.5359 +/- 133.0511 +/- 133.1979 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 35 | Ethyl methacrylate CAS # 97-63-2.SEC Purity 99% | (Lot MLWYK-LS) | 2,500.8 µg/mL | +/- 14.5396 +/- 133.0844 +/- 133.2312 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 36 | trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 98% | (Lot 2ECIC-NM) | 2,501.6 µg/mL | +/- 14.5444 +/- 133.1282 +/- 133.2750 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 37 | 1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99% | (Lot 732700) | 2,501.0 µg/mL | +/- 14.5410 +/- 133.0977 +/- 133.2445 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 38 | 1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99% | (Lot AGN01-EFPC) | 2,500.8 µg/mL | +/- 14.5396 +/- 133.0844 +/- 133.2312 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 39 | Tetrachloroethene CAS # 127-18-4.SEC Purity 99% | (Lot F09W014) | 2,500.0 µg/mL | +/- 14.5352 +/- 133.0445 +/- 133.1912 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | | | |
|----|-----------------------------|------------------|---------|-------|-----|----------|-------|-------------|
| 40 | Dibromochloromethane | | 2,501.8 | µg/mL | +/- | 14.5454 | µg/mL | Gravimetric |
| | CAS # 124-48-1.SEC | (Lot I13W021) | | | +/- | 133.1377 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 133.2845 | µg/mL | Stressed |
| 41 | 1,2-Dibromoethane (EDB) | | 2,502.1 | µg/mL | +/- | 14.5472 | µg/mL | Gravimetric |
| | CAS # 106-93-4.SEC | (Lot 1368400) | | | +/- | 133.1542 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.3011 | µg/mL | Stressed |
| 42 | Chlorobenzene | | 2,501.6 | µg/mL | +/- | 14.5447 | µg/mL | Gravimetric |
| | CAS # 108-90-7.SEC | (Lot H161936) | | | +/- | 133.1310 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2778 | µg/mL | Stressed |
| 43 | 1,1,1,2-Tetrachloroethane | | 2,500.8 | µg/mL | +/- | 14.5396 | µg/mL | Gravimetric |
| | CAS # 630-20-6.SEC | (Lot GC01-QSHR) | | | +/- | 133.0844 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2312 | µg/mL | Stressed |
| 44 | Ethylbenzene | | 2,500.3 | µg/mL | +/- | 14.5367 | µg/mL | Gravimetric |
| | CAS # 100-41-4.SEC | (Lot PI4SE-GR) | | | +/- | 133.0578 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2045 | µg/mL | Stressed |
| 45 | m-Xylene | | 1,250.4 | µg/mL | +/- | 7.2698 | µg/mL | Gravimetric |
| | CAS # 108-38-3.SEC | (Lot OUKMG-GB) | | | +/- | 66.5422 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 66.6156 | µg/mL | Stressed |
| 46 | o-Xylene | | 2,501.3 | µg/mL | +/- | 14.5425 | µg/mL | Gravimetric |
| | CAS # 95-47-6.SEC | (Lot FGL01-KTPK) | | | +/- | 133.1110 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2578 | µg/mL | Stressed |
| 47 | p-Xylene | | 1,251.6 | µg/mL | +/- | 7.2771 | µg/mL | Gravimetric |
| | CAS # 106-42-3.SEC | (Lot GM01) | | | +/- | 66.6087 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 66.6822 | µg/mL | Stressed |
| 48 | Styrene | | 2,500.9 | µg/mL | +/- | 14.5403 | µg/mL | Gravimetric |
| | CAS # 100-42-5.SEC | (Lot OFIOL-IA) | | | +/- | 133.0911 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2378 | µg/mL | Stressed |
| 49 | Isopropylbenzene (cumene) | | 2,501.3 | µg/mL | +/- | 14.5425 | µg/mL | Gravimetric |
| | CAS # 98-82-8.SEC | (Lot 2PHXG-IH) | | | +/- | 133.1110 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2578 | µg/mL | Stressed |
| 50 | Bromoform | | 2,501.5 | µg/mL | +/- | 14.5439 | µg/mL | Gravimetric |
| | CAS # 75-25-2.SEC | (Lot 1039300) | | | +/- | 133.1243 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2711 | µg/mL | Stressed |
| 51 | 1,1,2,2-Tetrachloroethane | | 2,502.9 | µg/mL | +/- | 14.5519 | µg/mL | Gravimetric |
| | CAS # 79-34-5.SEC | (Lot CFA4D-AQ) | | | +/- | 133.1975 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.3444 | µg/mL | Stressed |
| 52 | Chloroform | | 2,501.6 | µg/mL | +/- | 14.5447 | µg/mL | Gravimetric |
| | CAS # 67-66-3.SEC | (Lot 1297547) | | | +/- | 133.1310 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.2778 | µg/mL | Stressed |
| 53 | 1,2,3-Trichloropropane | | 2,501.9 | µg/mL | +/- | 14.5465 | µg/mL | Gravimetric |
| | CAS # 96-18-4.SEC | (Lot OGI01) | | | +/- | 133.1477 | µg/mL | Unstressed |
| | Purity 98% | | | | +/- | 133.2946 | µg/mL | Stressed |
| 54 | trans-1,4-Dichloro-2-butene | | 2,502.7 | µg/mL | +/- | 14.5510 | µg/mL | Gravimetric |
| | CAS # 110-57-6.SEC | (Lot 100700-2) | | | +/- | 133.1893 | µg/mL | Unstressed |
| | Purity 97% | | | | +/- | 133.3362 | µg/mL | Stressed |
| 55 | n-Propylbenzene | | 2,500.0 | µg/mL | +/- | 14.5352 | µg/mL | Gravimetric |
| | CAS # 103-65-1.SEC | (Lot T2HFC-IT) | | | +/- | 133.0445 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.1912 | µg/mL | Stressed |

| | | | | | | | |
|----|--|------------------|---------------|-------------------|---------------------------------|-------------------------|---------------------------------------|
| 56 | Bromobenzene CAS # 108-86-1.SEC Purity 99% | (Lot 2FUHG-EM) | 2,501.6 µg/mL | +/- +/- +/- | 14.5447 133.1310 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 57 | 1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99% | (Lot SC7LO-QA) | 2,502.4 µg/mL | +/- +/- +/- | 14.5490 133.1709 133.3177 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 58 | 2-Chlorotoluene CAS # 95-49-8.SEC Purity 99% | (Lot SW8QG-AO) | 2,500.5 µg/mL | +/- +/- +/- | 14.5381 133.0711 133.2178 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 59 | 4-Chlorotoluene CAS # 106-43-4.SEC Purity 99% | (Lot P4XHJ-AO) | 2,500.3 µg/mL | +/- +/- +/- | 14.5367 133.0578 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 60 | tert-Butylbenzene CAS # 98-06-6.SEC Purity 99% | (Lot OGN01) | 2,501.6 µg/mL | +/- +/- +/- | 14.5447 133.1310 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 61 | 1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99% | (Lot FGH02-CMLN) | 2,500.3 µg/mL | +/- +/- +/- | 14.5367 133.0578 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 62 | sec-Butylbenzene CAS # 135-98-8.SEC Purity 99% | (Lot OGN01) | 2,500.1 µg/mL | +/- +/- +/- | 14.5359 133.0511 133.1979 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 63 | 4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99% | (Lot 1721700) | 2,501.6 µg/mL | +/- +/- +/- | 14.5447 133.1310 133.2778 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 64 | 1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99% | (Lot FMDFD-KA) | 2,501.5 µg/mL | +/- +/- +/- | 14.5439 133.1243 133.2711 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 65 | 1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99% | (Lot YWKDC-MK) | 2,500.3 µg/mL | +/- +/- +/- | 14.5367 133.0578 133.2045 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 66 | n-Butylbenzene CAS # 104-51-8.SEC Purity 99% | (Lot OGN01) | 2,500.6 µg/mL | +/- +/- +/- | 14.5388 133.0777 133.2245 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 67 | 1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99% | (Lot 4NRGF-OT) | 2,500.0 µg/mL | +/- +/- +/- | 14.5352 133.0445 133.1912 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 68 | 1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97% | (Lot LC00408V) | 2,500.5 µg/mL | +/- +/- +/- | 14.5383 133.0732 133.2199 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 69 | 1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99% | (Lot OGO01) | 2,501.0 µg/mL | +/- +/- +/- | 14.5410 133.0977 133.2445 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 70 | Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97% | (Lot 2009400) | 2,501.0 µg/mL | +/- +/- +/- | 14.5412 133.0990 133.2458 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 71 | Naphthalene CAS # 91-20-3.SEC Purity 99% | (Lot 4KW3H-OO) | 2,500.5 µg/mL | +/- +/- +/- | 14.5381 133.0711 133.2178 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

| | | | | | | | | |
|----|------------------------|----------------|---------|-------|-----|----------|-------|-------------|
| 72 | 1,2,3-Trichlorobenzene | | 2,502.4 | µg/mL | +/- | 14.5490 | µg/mL | Gravimetric |
| | CAS # 87-61-6.SEC | (Lot A0043055) | | | +/- | 133.1709 | µg/mL | Unstressed |
| | Purity 99% | | | | +/- | 133.3177 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

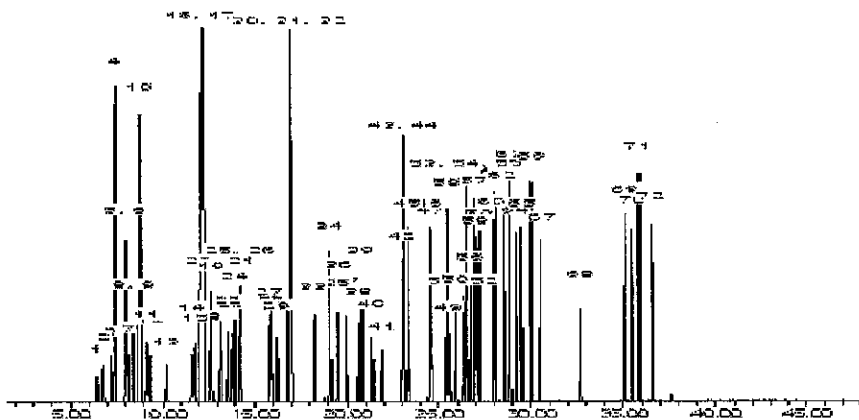
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael Mage

Date Mixed: 07-Jan-2015 **Balance:** 1127510105

Tyler Brown

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

| |
|--|
| <p>Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397</p> |
|--|

Reagent

VOA8260SURRES_00066

RESTEK CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0100424
Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|---|-----------------------------|--------------------------------------|---------|-------------------|
| 1 | Dibromofluoromethane CAS # 1868-53-7 Purity 99% (Lot 022012) | 2,502.2 µg/mL | +/- | 14.5480 | µg/mL Gravimetric |
| | | | +/- | 28.2159 | µg/mL Unstressed |
| | | | +/- | 32.4683 | µg/mL Stressed |
| 2 | 1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99% (Lot 12K-027) | 2,501.2 µg/mL | +/- | 14.5422 | µg/mL Gravimetric |
| | | | +/- | 28.2046 | µg/mL Unstressed |
| | | | +/- | 32.4554 | µg/mL Stressed |
| 3 | Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot 13I-050) | 2,500.8 µg/mL | +/- | 14.5399 | µg/mL Gravimetric |
| | | | +/- | 28.2001 | µg/mL Unstressed |
| | | | +/- | 32.4502 | µg/mL Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 01127COV) | 2,501.4 µg/mL | +/- | 14.5434 | µg/mL Gravimetric |
| | | | +/- | 28.2069 | µg/mL Unstressed |
| | | | +/- | 32.4580 | µg/mL Stressed |

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260SURRES_00067

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

Catalog No. : 567650 **Lot No.:** A0100424
Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|---|-----------------------------|--------------------------------------|---------|-------------------|
| 1 | Dibromofluoromethane CAS # 1868-53-7 Purity 99% (Lot 022012) | 2,502.2 µg/mL | +/- | 14.5480 | µg/mL Gravimetric |
| | | | +/- | 28.2159 | µg/mL Unstressed |
| | | | +/- | 32.4683 | µg/mL Stressed |
| 2 | 1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99% (Lot 12K-027) | 2,501.2 µg/mL | +/- | 14.5422 | µg/mL Gravimetric |
| | | | +/- | 28.2046 | µg/mL Unstressed |
| | | | +/- | 32.4554 | µg/mL Stressed |
| 3 | Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot 13I-050) | 2,500.8 µg/mL | +/- | 14.5399 | µg/mL Gravimetric |
| | | | +/- | 28.2001 | µg/mL Unstressed |
| | | | +/- | 32.4502 | µg/mL Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 01127COV) | 2,501.4 µg/mL | +/- | 14.5434 | µg/mL Gravimetric |
| | | | +/- | 28.2069 | µg/mL Unstressed |
| | | | +/- | 32.4580 | µg/mL Stressed |

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260SURRES_00077



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0101000

Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|---------|-------|-------------|
| 1 | Dibromofluoromethane | 2,509.6 µg/mL | +/- | 14.5910 | µg/mL | Gravimetric |
| | CAS # 1868-53-7 (Lot 022012) | | +/- | 28.2993 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 32.5644 | µg/mL | Stressed |
| 2 | 1,2-Dichloroethane-d4 | 2,508.2 µg/mL | +/- | 14.5829 | µg/mL | Gravimetric |
| | CAS # 17060-07-0 (Lot 12K-027) | | +/- | 28.2836 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 32.5462 | µg/mL | Stressed |
| 3 | Toluene-d8 | 2,508.8 µg/mL | +/- | 14.5864 | µg/mL | Gravimetric |
| | CAS # 2037-26-5 (Lot 13I-050) | | +/- | 28.2903 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 32.5540 | µg/mL | Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB) | 2,509.8 µg/mL | +/- | 14.5922 | µg/mL | Gravimetric |
| | CAS # 460-00-4 (Lot 01127COV) | | +/- | 28.3016 | µg/mL | Unstressed |
| | Purity 99% | | +/- | 32.5670 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VOA8260VARES_00054



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** A0109190

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : August 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|---|----------------------------------|--------------------------------------|-------|-------------|
| 1 | Vinyl acetate CAS # 108-05-4 Purity 99% | 5,023.0 µg/mL (Lot STBC8935V) | +/- 29.4778 | µg/mL | Gravimetric |
| | | | +/- 267.3430 | µg/mL | Unstressed |
| | | | +/- 267.6378 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VOA8260VARES_00055



CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** A0109190

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : August 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|---|----------------------------------|--------------------------------------|-------|-------------|
| 1 | Vinyl acetate CAS # 108-05-4 Purity 99% | 5,023.0 µg/mL (Lot STBC8935V) | +/- 29.4778 | µg/mL | Gravimetric |
| | | | +/- 267.3430 | µg/mL | Unstressed |
| | | | +/- 267.6378 | µg/mL | Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VOAACRORES_00077



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 Lot No.: A0111006

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 2015 Storage: 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|---|-----------------------------|--------------------------------------|----------|-------|-------------|
| 1 | Acrolein CAS # 107-02-8 Purity 99% (Lot 150115JLM) | 19,748.0 µg/mL | +/- | 115.8923 | µg/mL | Gravimetric |
| | | | +/- | 633.2311 | µg/mL | Unstressed |
| | | | +/- | 736.0474 | µg/mL | Stressed |

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VOAACRRES2ND_00065



CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720.sec **Lot No.:** A0111005

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/ml, Water, 1 ml/ampul

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

Expiration Date : September 30, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|--|-----------------------------|--------------------------------------|-------|-------------|
| I | Acrolein CAS # 107-02-8.SEC (Lot 3593700) Purity 97% | 19,749.2 µg/mL | +/- 115.6359 | µg/mL | Gravimetric |
| | | | +/- 633.2214 | µg/mL | Unstressed |
| | | | +/- 736.0506 | µg/mL | Stressed |

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VOARESEE1ST_00021



CERTIFIED REFERENCE MATERIAL



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

Certificate of Analysis



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL Lot No.: A0109701

Description : Custom EE Standard
Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 2016 Storage: 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|-------|-------------|
| | | | µg/mL | µg/mL | µg/mL |
| 1 | 3-Chlorobenzotrifluoride | 5,000.0 µg/mL | +/- 29.3428 | µg/mL | Gravimetric |
| | CAS # 98-15-7 (Lot 21324DO) | | +/- 56.5231 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.0021 | µg/mL | Stressed |
| 2 | 4-Chlorobenzotrifluoride | 5,003.0 µg/mL | +/- 29.3604 | µg/mL | Gravimetric |
| | CAS # 98-56-6 (Lot 08507BO) | | +/- 56.5570 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.0411 | µg/mL | Stressed |
| 3 | 2-Chlorobenzotrifluoride | 5,009.0 µg/mL | +/- 29.3956 | µg/mL | Gravimetric |
| | CAS # 88-16-4 (Lot I0316DQ) | | +/- 56.6248 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.1191 | µg/mL | Stressed |
| 4 | 3-Chlorotoluene | 5,012.0 µg/mL | +/- 29.4132 | µg/mL | Gravimetric |
| | CAS # 108-41-8 (Lot 13528LX) | | +/- 56.6587 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.1581 | µg/mL | Stressed |
| 5 | 2,4-Dichlorobenzotrifluoride | 5,013.0 µg/mL | +/- 29.4191 | µg/mL | Gravimetric |
| | CAS # 320-60-5 (Lot MKBL3552V) | | +/- 56.6701 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.1711 | µg/mL | Stressed |
| 6 | 3,4-Dichlorobenzotrifluoride | 5,018.0 µg/mL | +/- 29.4484 | µg/mL | Gravimetric |
| | CAS # 328-84-7 (Lot 11105EJV) | | +/- 56.7266 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.2361 | µg/mL | Stressed |
| 7 | 2,5-Dichlorobenzotrifluoride | 5,015.0 µg/mL | +/- 29.4308 | µg/mL | Gravimetric |
| | CAS # 320-50-3 (Lot 04415DSV) | | +/- 56.6927 | µg/mL | Unstressed |
| | Purity 99% | | +/- 65.1971 | µg/mL | Stressed |

| | | | | | | |
|----|---|----------------|---------------|---|-------------------------|---------------------------------------|
| 8 | 2,4-Dichlorotoluene CAS # 95-73-8 Purity 99% | (Lot 07715JS) | 5,021.0 µg/mL | +/- 29.4660 +/- 56.7605 +/- 65.2751 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 9 | 2,5-Dichlorotoluene CAS # 19398-61-9 Purity 99% | (Lot 1381346V) | 5,005.0 µg/mL | +/- 29.3721 +/- 56.5796 +/- 65.0671 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 10 | 2,6-Dichlorotoluene CAS # 118-69-4 Purity 99% | (Lot 16921JS) | 5,014.0 µg/mL | +/- 29.4250 +/- 56.6814 +/- 65.1841 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 11 | 3,4-Dichlorotoluene CAS # 95-75-0 Purity 99% | (Lot 09419AS) | 5,011.0 µg/mL | +/- 29.4074 +/- 56.6474 +/- 65.1451 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 12 | 2,3-Dichlorotoluene CAS # 32768-54-0 Purity 99% | (Lot 00317) | 5,016.0 µg/mL | +/- 29.4367 +/- 56.7040 +/- 65.2101 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 13 | 2,4,5-Trichlorotoluene CAS # 6639-30-1 Purity 99% | (Lot 2490300) | 5,000.0 µg/mL | +/- 29.3428 +/- 56.5231 +/- 65.0021 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |
| 14 | 2,3,6-Trichlorotoluene CAS # 2077-46-5 Purity 99% | (Lot NT050444) | 5,005.0 µg/mL | +/- 29.3721 +/- 56.5796 +/- 65.0671 | µg/mL µg/mL µg/mL | Gravimetric Unstressed Stressed |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VOARESEE1ST_00025



CERTIFIED REFERENCE MATERIAL



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

Certificate of Analysis



www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL Lot No.: A0109701

Description : Custom EE Standard
Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 2016 Storage: 0°C or colder

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | | |
|---------------|--------------------------------|-----------------------------|--------------------------------------|-------------|-------------|-------------|
| | | | µg/mL | µg/mL | µg/mL | |
| 1 | 3-Chlorobenzotrifluoride | 5,000.0 µg/mL | --- | +/- 29.3428 | µg/mL | Gravimetric |
| | CAS # 98-15-7 (Lot 21324DO) | | +/- 56.5231 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.0021 | µg/mL | Stressed | |
| 2 | 4-Chlorobenzotrifluoride | 5,003.0 µg/mL | +/- 29.3604 | µg/mL | Gravimetric | |
| | CAS # 98-56-6 (Lot 08507BO) | | +/- 56.5570 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.0411 | µg/mL | Stressed | |
| 3 | 2-Chlorobenzotrifluoride | 5,009.0 µg/mL | +/- 29.3956 | µg/mL | Gravimetric | |
| | CAS # 88-16-4 (Lot I0316DQ) | | +/- 56.6248 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.1191 | µg/mL | Stressed | |
| 4 | 3-Chlorotoluene | 5,012.0 µg/mL | +/- 29.4132 | µg/mL | Gravimetric | |
| | CAS # 108-41-8 (Lot 13528LX) | | +/- 56.6587 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.1581 | µg/mL | Stressed | |
| 5 | 2,4-Dichlorobenzotrifluoride | 5,013.0 µg/mL | +/- 29.4191 | µg/mL | Gravimetric | |
| | CAS # 320-60-5 (Lot MKBL3552V) | | +/- 56.6701 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.1711 | µg/mL | Stressed | |
| 6 | 3,4-Dichlorobenzotrifluoride | 5,018.0 µg/mL | +/- 29.4484 | µg/mL | Gravimetric | |
| | CAS # 328-84-7 (Lot 11105EJV) | | +/- 56.7266 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.2361 | µg/mL | Stressed | |
| 7 | 2,5-Dichlorobenzotrifluoride | 5,015.0 µg/mL | +/- 29.4308 | µg/mL | Gravimetric | |
| | CAS # 320-50-3 (Lot 04415DSV) | | +/- 56.6927 | µg/mL | Unstressed | |
| | Purity 99% | | +/- 65.1971 | µg/mL | Stressed | |

| | | | | | | | | | |
|----|------------------------|----------------|---------|------------------|-----|---------|------------------|-------------|------------|
| 8 | 2,4-Dichlorotoluene | (Lot 07715JS) | 5,021.0 | $\mu\text{g/mL}$ | +/- | 29.4660 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 95-73-8 | | | | | 56.7605 | | | Unstressed |
| | Purity 99% | | | | | 65.2751 | | | |
| 9 | 2,5-Dichlorotoluene | (Lot 1381346V) | 5,005.0 | $\mu\text{g/mL}$ | +/- | 29.3721 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 19398-61-9 | | | | | 56.5796 | | | Unstressed |
| | Purity 99% | | | | | 65.0671 | | | |
| 10 | 2,6-Dichlorotoluene | (Lot 16921JS) | 5,014.0 | $\mu\text{g/mL}$ | +/- | 29.4250 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 118-69-4 | | | | | 56.6814 | | | Unstressed |
| | Purity 99% | | | | | 65.1841 | | | |
| 11 | 3,4-Dichlorotoluene | (Lot 09419AS) | 5,011.0 | $\mu\text{g/mL}$ | +/- | 29.4074 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 95-75-0 | | | | | 56.6474 | | | Unstressed |
| | Purity 99% | | | | | 65.1451 | | | |
| 12 | 2,3-Dichlorotoluene | (Lot 00317) | 5,016.0 | $\mu\text{g/mL}$ | +/- | 29.4367 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 32768-54-0 | | | | | 56.7040 | | | Unstressed |
| | Purity 99% | | | | | 65.2101 | | | |
| 13 | 2,4,5-Trichlorotoluene | (Lot 2490300) | 5,000.0 | $\mu\text{g/mL}$ | +/- | 29.3428 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 6639-30-1 | | | | | 56.5231 | | | Unstressed |
| | Purity 99% | | | | | 65.0021 | | | |
| 14 | 2,3,6-Trichlorotoluene | (Lot NT050444) | 5,005.0 | $\mu\text{g/mL}$ | +/- | 29.3721 | $\mu\text{g/mL}$ | Gravimetric | |
| | CAS # 2077-46-5 | | | | | 56.5796 | | | Unstressed |
| | Purity 99% | | | | | 65.0671 | | | |

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Method 8260C Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

| Client Sample ID | Lab Sample ID | DBFM # | DCA # | TOL # | BFB # |
|-------------------------|----------------------|--------|-------|-------|-------|
| HD-MW-18S-0/1-0 | 180-48181-1 | 104 | 94 | 92 | 88 |
| HD-MW-147A-0/1-0 | 180-48181-2 | 108 | 98 | 93 | 86 |
| HD-MW-93S-0/1-0 | 180-48181-3 | 109 | 94 | 93 | 88 |
| HD-MW-93S-0/1-0 DL | 180-48181-3 DL | 106 | 91 | 91 | 88 |
| HD-MW-93D-0/1-0 | 180-48181-4 | 108 | 95 | 89 | 85 |
| HD-MW-93D-0/1-0 DL | 180-48181-4 DL | 108 | 97 | 92 | 88 |
| HD-MW-75S-0/1-0 | 180-48181-5 | 110 | 100 | 88 | 84 |
| HD-MW-75S-0/1-0 DL | 180-48181-5 DL | 107 | 92 | 88 | 85 |
| HD-MW-75D-0/1-0 | 180-48181-6 | 113 | 97 | 90 | 86 |
| HD-MW-75D-0/1-0 DL | 180-48181-6 DL | 107 | 95 | 90 | 85 |
| HD-MW-37D-0/1-0 | 180-48181-7 | 110 | 110 | 96 | 90 |
| HD-QC3-0/1-1 | 180-48181-8 | 109 | 106 | 95 | 83 |
| HD-QC3-0/1-1 DL | 180-48181-8 DL | 104 | 96 | 90 | 86 |
| HD-QC9-0/1-2 | 180-48181-9 | 107 | 98 | 92 | 85 |
| | MB 180-155766/5 | 102 | 97 | 94 | 87 |
| | MB 180-155869/5 | 105 | 103 | 99 | 88 |
| | MB 180-155884/4 | 105 | 93 | 91 | 88 |
| | MB 180-156037/6 | 105 | 95 | 93 | 88 |
| | LCS 180-155766/8 | 92 | 88 | 95 | 88 |
| | LCS 180-155869/7 | 106 | 105 | 111 | 101 |
| | LCS 180-155884/7 | 91 | 82 | 99 | 90 |
| | LCS 180-156037/11 | 91 | 84 | 100 | 96 |
| HD-MW-147A-0/1-0 MS | 180-48181-2 MS | 92 | 83 | 97 | 93 |
| HD-MW-147A-0/1-0 MSD | 180-48181-2 MSD | 93 | 85 | 98 | 93 |

QC LIMITS

DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

70-128
64-135
71-118
70-118

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51003008.D

Lab ID: LCS 180-155766/8

Client ID: _____

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|-----------------------------|--------------------------|--------------------------------|-----------------|---------------------|---|
| Chloromethane | 10.0 | 11.1 | 111 | 50-139 | |
| Vinyl chloride | 10.0 | 10.1 | 101 | 53-138 | |
| Bromomethane | 10.0 | 11.0 | 110 | 33-150 | |
| Chloroethane | 10.0 | 9.10 | 91 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 9.39 | 94 | 65-136 | |
| Acetone | 20.0 | 18.5 | 92 | 22-150 | |
| Carbon disulfide | 10.0 | 8.56 | 86 | 54-132 | |
| Methylene Chloride | 10.0 | 9.86 | 99 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 9.72 | 97 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 9.38 | 94 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 8.94 | 89 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 9.55 | 96 | 70-120 | |
| Bromochloromethane | 10.0 | 10.4 | 104 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 21.6 | 108 | 39-138 | |
| Chloroform | 10.0 | 9.29 | 93 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 9.23 | 92 | 63-133 | |
| Carbon tetrachloride | 10.0 | 9.88 | 99 | 55-150 | |
| Benzene | 10.0 | 9.60 | 96 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 9.16 | 92 | 68-132 | |
| Trichloroethene | 10.0 | 10.2 | 102 | 73-120 | |
| 1,2-Dichloropropane | 10.0 | 9.55 | 95 | 76-124 | |
| Bromodichloromethane | 10.0 | 9.03 | 90 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 8.34 | 83 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 18.4 | 92 | 45-145 | |
| Toluene | 10.0 | 10.2 | 102 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 8.65 | 86 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 10.4 | 104 | 77-127 | |
| Tetrachloroethene | 10.0 | 10.8 | 108 | 70-135 | |
| 2-Hexanone | 20.0 | 18.5 | 93 | 25-132 | |
| Dibromochloromethane | 10.0 | 9.76 | 98 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.2 | 102 | 74-123 | |
| Chlorobenzene | 10.0 | 10.2 | 102 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 10.3 | 103 | 63-140 | |
| Ethylbenzene | 10.0 | 10.2 | 102 | 72-126 | |
| Xylenes, Total | 20.0 | 20.9 | 105 | 76-128 | |
| Styrene | 10.0 | 10.9 | 109 | 71-127 | |
| Bromoform | 10.0 | 9.91 | 99 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.6 | 106 | 62-125 | |
| Acrylonitrile | 100 | 104 | 104 | 30-140 | |
| 1,4-Dioxane | 200 | 248 | 124 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 61005007.D

Lab ID: LCS 180-155869/7

Client ID: _____

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|-----------------------------|--------------------------|--------------------------------|-----------------|---------------------|---|
| Chloromethane | 10.0 | 12.9 | 129 | 50-139 | |
| Vinyl chloride | 10.0 | 10.9 | 109 | 53-138 | |
| Bromomethane | 10.0 | 8.96 | 90 | 33-150 | |
| Chloroethane | 10.0 | 10.8 | 108 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 9.60 | 96 | 65-136 | |
| Acetone | 20.0 | 23.0 | 115 | 22-150 | |
| Carbon disulfide | 10.0 | 9.74 | 97 | 54-132 | |
| Methylene Chloride | 10.0 | 9.67 | 97 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 9.82 | 98 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 9.56 | 96 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 10.7 | 107 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 9.33 | 93 | 70-120 | |
| Bromochloromethane | 10.0 | 11.1 | 111 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 22.5 | 113 | 39-138 | |
| Chloroform | 10.0 | 9.92 | 99 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 9.71 | 97 | 63-133 | |
| Carbon tetrachloride | 10.0 | 11.2 | 112 | 55-150 | |
| Benzene | 10.0 | 10.9 | 109 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 10.6 | 106 | 68-132 | |
| Trichloroethene | 10.0 | 11.7 | 117 | 73-120 | |
| 1,2-Dichloropropane | 10.0 | 11.3 | 113 | 76-124 | |
| Bromodichloromethane | 10.0 | 9.91 | 99 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 10.6 | 106 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 23.0 | 115 | 45-145 | |
| Toluene | 10.0 | 10.7 | 107 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 10.3 | 103 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 10.8 | 108 | 77-127 | |
| Tetrachloroethene | 10.0 | 11.8 | 118 | 70-135 | |
| 2-Hexanone | 20.0 | 25.9 | 130 | 25-132 | |
| Dibromochloromethane | 10.0 | 11.6 | 116 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.8 | 108 | 74-123 | |
| Chlorobenzene | 10.0 | 10.9 | 109 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 11.7 | 117 | 63-140 | |
| Ethylbenzene | 10.0 | 10.7 | 107 | 72-126 | |
| Xylenes, Total | 20.0 | 21.3 | 107 | 76-128 | |
| Styrene | 10.0 | 11.4 | 114 | 71-127 | |
| Bromoform | 10.0 | 12.6 | 126 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.5 | 105 | 62-125 | |
| Acrylonitrile | 100 | 128 | 128 | 30-140 | |
| 1,4-Dioxane | 200 | 207 | 103 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51005007.D

Lab ID: LCS 180-155884/7

Client ID: _____

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|-----------------------------|--------------------------|--------------------------------|-----------------|---------------------|---|
| Chloromethane | 10.0 | 10.3 | 103 | 50-139 | |
| Vinyl chloride | 10.0 | 9.58 | 96 | 53-138 | |
| Bromomethane | 10.0 | 9.95 | 100 | 33-150 | |
| Chloroethane | 10.0 | 8.88 | 89 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 8.87 | 89 | 65-136 | |
| Acetone | 20.0 | 17.7 | 88 | 22-150 | |
| Carbon disulfide | 10.0 | 8.59 | 86 | 54-132 | |
| Methylene Chloride | 10.0 | 8.64 | 86 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 8.88 | 89 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 8.16 | 82 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 8.25 | 83 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 8.60 | 86 | 70-120 | |
| Bromochloromethane | 10.0 | 9.33 | 93 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 17.9 | 89 | 39-138 | |
| Chloroform | 10.0 | 8.43 | 84 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 8.58 | 86 | 63-133 | |
| Carbon tetrachloride | 10.0 | 9.51 | 95 | 55-150 | |
| Benzene | 10.0 | 8.97 | 90 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 8.12 | 81 | 68-132 | |
| Trichloroethene | 10.0 | 9.53 | 95 | 73-120 | |
| 1,2-Dichloropropane | 10.0 | 8.90 | 89 | 76-124 | |
| Bromodichloromethane | 10.0 | 8.82 | 88 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 8.07 | 81 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 16.0 | 80 | 45-145 | |
| Toluene | 10.0 | 9.74 | 97 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 8.30 | 83 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 9.41 | 94 | 77-127 | |
| Tetrachloroethene | 10.0 | 10.3 | 103 | 70-135 | |
| 2-Hexanone | 20.0 | 15.4 | 77 | 25-132 | |
| Dibromochloromethane | 10.0 | 9.52 | 95 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 9.34 | 93 | 74-123 | |
| Chlorobenzene | 10.0 | 9.61 | 96 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 9.60 | 96 | 63-140 | |
| Ethylbenzene | 10.0 | 9.77 | 98 | 72-126 | |
| Xylenes, Total | 20.0 | 19.6 | 98 | 76-128 | |
| Styrene | 10.0 | 10.1 | 101 | 71-127 | |
| Bromoform | 10.0 | 9.47 | 95 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.54 | 95 | 62-125 | |
| Acrylonitrile | 100 | 90.6 | 91 | 30-140 | |
| 1,4-Dioxane | 200 | 213 | 107 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51006011.D

Lab ID: LCS 180-156037/11

Client ID: _____

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|-----------------------------|--------------------------|--------------------------------|-----------------|---------------------|---|
| Chloromethane | 10.0 | 9.24 | 92 | 50-139 | |
| Vinyl chloride | 10.0 | 8.06 | 81 | 53-138 | |
| Bromomethane | 10.0 | 8.51 | 85 | 33-150 | |
| Chloroethane | 10.0 | 6.73 | 67 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 9.30 | 93 | 65-136 | |
| Acetone | 20.0 | 18.6 | 93 | 22-150 | |
| Carbon disulfide | 10.0 | 9.90 | 99 | 54-132 | |
| Methylene Chloride | 10.0 | 9.89 | 99 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 9.43 | 94 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 9.32 | 93 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 8.69 | 87 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 9.50 | 95 | 70-120 | |
| Bromochloromethane | 10.0 | 10.5 | 105 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 20.7 | 103 | 39-138 | |
| Chloroform | 10.0 | 8.86 | 89 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 8.97 | 90 | 63-133 | |
| Carbon tetrachloride | 10.0 | 9.48 | 95 | 55-150 | |
| Benzene | 10.0 | 9.28 | 93 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 8.53 | 85 | 68-132 | |
| Trichloroethene | 10.0 | 10.1 | 101 | 73-120 | |
| 1,2-Dichloropropane | 10.0 | 9.17 | 92 | 76-124 | |
| Bromodichloromethane | 10.0 | 9.23 | 92 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 8.67 | 87 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 20.7 | 103 | 45-145 | |
| Toluene | 10.0 | 10.3 | 103 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 9.13 | 91 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 10.4 | 104 | 77-127 | |
| Tetrachloroethene | 10.0 | 10.8 | 108 | 70-135 | |
| 2-Hexanone | 20.0 | 21.2 | 106 | 25-132 | |
| Dibromochloromethane | 10.0 | 10.9 | 109 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.6 | 106 | 74-123 | |
| Chlorobenzene | 10.0 | 10.6 | 106 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 10.6 | 106 | 63-140 | |
| Ethylbenzene | 10.0 | 10.7 | 107 | 72-126 | |
| Xylenes, Total | 20.0 | 21.6 | 108 | 76-128 | |
| Styrene | 10.0 | 11.2 | 112 | 71-127 | |
| Bromoform | 10.0 | 11.0 | 110 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.7 | 107 | 62-125 | |
| Acrylonitrile | 100 | 99.4 | 99 | 30-140 | |
| 1,4-Dioxane | 200 | 234 | 117 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51003009.D

Lab ID: 180-48181-2 MS

Client ID: HD-MW-147A-0/1-0 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|-----------------------------|--------------------------|-----------------------------------|-------------------------------|----------------|---------------------|----|
| Chloromethane | 10.0 | 1.0 U | 10.3 | 103 | 50-139 | |
| Vinyl chloride | 10.0 | 1.0 U | 9.47 | 95 | 53-138 | |
| Bromomethane | 10.0 | 1.0 U | 10.1 | 101 | 33-150 | |
| Chloroethane | 10.0 | 1.0 U | 8.27 | 83 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 0.53 J | 9.39 | 89 | 65-136 | |
| Acetone | 20.0 | 5.0 U | 17.9 | 89 | 22-150 | |
| Carbon disulfide | 10.0 | 1.0 U | 8.15 | 81 | 54-132 | |
| Methylene Chloride | 10.0 | 1.0 U | 8.53 | 85 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 1.0 U | 8.99 | 90 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 1.0 U | 8.71 | 87 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 0.14 J | 8.57 | 84 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 11 | 16.9 | 64 | 70-120 | F1 |
| Bromochloromethane | 10.0 | 1.0 U | 9.25 | 92 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 5.0 U | 18.9 | 95 | 39-138 | |
| Chloroform | 10.0 | 0.24 J | 8.78 | 85 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 0.46 J | 8.87 | 84 | 63-133 | |
| Carbon tetrachloride | 10.0 | 1.0 U | 9.14 | 91 | 55-150 | |
| Benzene | 10.0 | 1.0 U | 8.88 | 89 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 1.0 U | 8.16 | 82 | 68-132 | |
| Trichloroethene | 10.0 | 11 | 17.7 | 68 | 73-120 | F1 |
| 1,2-Dichloropropane | 10.0 | 1.0 U | 8.66 | 87 | 76-124 | |
| Bromodichloromethane | 10.0 | 1.0 U | 8.43 | 84 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 1.0 U | 8.08 | 81 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 5.0 U | 17.5 | 88 | 45-145 | |
| Toluene | 10.0 | 1.0 U | 9.72 | 97 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 1.0 U | 8.31 | 83 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 1.0 U | 9.75 | 97 | 77-127 | |
| Tetrachloroethene | 10.0 | 6.3 | 15.7 | 94 | 70-135 | |
| 2-Hexanone | 20.0 | 5.0 U | 16.3 | 82 | 25-132 | |
| Dibromochloromethane | 10.0 | 1.0 U | 9.29 | 93 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 1.0 U | 9.85 | 98 | 74-123 | |
| Chlorobenzene | 10.0 | 1.0 U | 9.70 | 97 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 1.0 U | 9.94 | 99 | 63-140 | |
| Ethylbenzene | 10.0 | 1.0 U | 9.63 | 96 | 72-126 | |
| Xylenes, Total | 20.0 | 3.0 U | 19.6 | 98 | 76-128 | |
| Styrene | 10.0 | 1.0 U | 10.2 | 102 | 71-127 | |
| Bromoform | 10.0 | 1.0 U | 8.83 | 88 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 1.0 U | 9.96 | 100 | 62-125 | |
| Acrylonitrile | 100 | 20 U | 91.4 | 91 | 30-140 | |
| 1,4-Dioxane | 200 | 200 U | 231 | 116 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51003010.D

Lab ID: 180-48181-2 MSD

Client ID: HD-MW-147A-0/1-0 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS | | # |
|-----------------------------|--------------------------|--------------------------------|-----------------|----------|-----------|--------|----|
| | | | | | RPD | REC | |
| Chloromethane | 10.0 | 10.4 | 104 | 1 | 35 | 50-139 | |
| Vinyl chloride | 10.0 | 9.13 | 91 | 4 | 35 | 53-138 | |
| Bromomethane | 10.0 | 10.4 | 104 | 3 | 35 | 33-150 | |
| Chloroethane | 10.0 | 8.27 | 83 | 0 | 35 | 36-142 | |
| 1,1-Dichloroethene | 10.0 | 8.89 | 84 | 5 | 35 | 65-136 | |
| Acetone | 20.0 | 20.6 | 103 | 14 | 35 | 22-150 | |
| Carbon disulfide | 10.0 | 7.61 | 76 | 7 | 35 | 54-132 | |
| Methylene Chloride | 10.0 | 8.98 | 90 | 5 | 35 | 63-129 | |
| trans-1,2-Dichloroethene | 10.0 | 8.78 | 88 | 2 | 35 | 73-126 | |
| Methyl tert-butyl ether | 10.0 | 9.07 | 91 | 4 | 35 | 64-123 | |
| 1,1-Dichloroethane | 10.0 | 8.56 | 84 | 0 | 35 | 73-126 | |
| cis-1,2-Dichloroethene | 10.0 | 17.2 | 66 | 2 | 35 | 70-120 | F1 |
| Bromochloromethane | 10.0 | 10.3 | 103 | 10 | 35 | 70-127 | |
| 2-Butanone (MEK) | 20.0 | 20.2 | 101 | 6 | 35 | 39-138 | |
| Chloroform | 10.0 | 8.93 | 87 | 2 | 35 | 72-127 | |
| 1,1,1-Trichloroethane | 10.0 | 8.73 | 83 | 2 | 35 | 63-133 | |
| Carbon tetrachloride | 10.0 | 8.74 | 87 | 4 | 35 | 55-150 | |
| Benzene | 10.0 | 9.12 | 91 | 3 | 32 | 80-120 | |
| 1,2-Dichloroethane | 10.0 | 8.55 | 85 | 5 | 32 | 68-132 | |
| Trichloroethene | 10.0 | 17.6 | 67 | 0 | 35 | 73-120 | F1 |
| 1,2-Dichloropropane | 10.0 | 9.06 | 91 | 4 | 34 | 76-124 | |
| Bromodichloromethane | 10.0 | 8.39 | 84 | 1 | 35 | 66-130 | |
| cis-1,3-Dichloropropene | 10.0 | 8.65 | 87 | 7 | 35 | 66-120 | |
| 4-Methyl-2-pentanone (MIBK) | 20.0 | 18.1 | 90 | 3 | 35 | 45-145 | |
| Toluene | 10.0 | 9.70 | 97 | 0 | 35 | 80-123 | |
| trans-1,3-Dichloropropene | 10.0 | 8.65 | 87 | 4 | 35 | 65-125 | |
| 1,1,2-Trichloroethane | 10.0 | 9.88 | 99 | 1 | 35 | 77-127 | |
| Tetrachloroethene | 10.0 | 15.4 | 91 | 2 | 35 | 70-135 | |
| 2-Hexanone | 20.0 | 17.9 | 90 | 9 | 35 | 25-132 | |
| Dibromochloromethane | 10.0 | 9.32 | 93 | 0 | 35 | 60-140 | |
| 1,2-Dibromoethane (EDB) | 10.0 | 10.1 | 101 | 2 | 35 | 74-123 | |
| Chlorobenzene | 10.0 | 9.85 | 99 | 2 | 29 | 80-120 | |
| 1,1,1,2-Tetrachloroethane | 10.0 | 9.72 | 97 | 2 | 34 | 63-140 | |
| Ethylbenzene | 10.0 | 9.59 | 96 | 0 | 33 | 72-126 | |
| Xylenes, Total | 20.0 | 19.4 | 97 | 1 | 32 | 76-128 | |
| Styrene | 10.0 | 10.3 | 103 | 1 | 34 | 71-127 | |
| Bromoform | 10.0 | 9.28 | 93 | 5 | 35 | 46-150 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.80 | 98 | 2 | 35 | 62-125 | |
| Acrylonitrile | 100 | 93.3 | 93 | 2 | 35 | 30-140 | |
| 1,4-Dioxane | 200 | 247 | 123 | 6 | 35 | 10-160 | |

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51003005.D Lab Sample ID: MB 180-155766/5
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 10/03/2015 13:16
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|----------------------|------------------|-------------|------------------|
| HD-MW-147A-0/1-0 | 180-48181-2 | 51003006.D | 10/03/2015 13:50 |
| HD-QC9-0/1-2 | 180-48181-9 | 51003007.D | 10/03/2015 14:14 |
| | LCS 180-155766/8 | 51003008.D | 10/03/2015 14:38 |
| HD-MW-147A-0/1-0 MS | 180-48181-2 MS | 51003009.D | 10/03/2015 15:02 |
| HD-MW-147A-0/1-0 MSD | 180-48181-2 MSD | 51003010.D | 10/03/2015 15:27 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
SDG No.: _____
Lab File ID: 61005005.D Lab Sample ID: MB 180-155869/5
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: CHHP6 Date Analyzed: 10/05/2015 11:25
GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|------------------|------------------|----------------|------------------|
| | LCS 180-155869/7 | 61005007.D | 10/05/2015 12:29 |
| HD-MW-37D-0/1-0 | 180-48181-7 | 61005020.D | 10/05/2015 17:46 |
| HD-QC3-0/1-1 | 180-48181-8 | 61005021.D | 10/05/2015 18:10 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51005004.D Lab Sample ID: MB 180-155884/4
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 10/05/2015 11:57
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|--------------------|------------------|-------------|------------------|
| | LCS 180-155884/7 | 51005007.D | 10/05/2015 13:34 |
| HD-MW-93D-0/1-0 DL | 180-48181-4 DL | 51005017.D | 10/05/2015 17:35 |
| HD-MW-75S-0/1-0 | 180-48181-5 | 51005018.D | 10/05/2015 17:59 |
| HD-MW-75D-0/1-0 | 180-48181-6 | 51005019.D | 10/05/2015 18:23 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51006006.D Lab Sample ID: MB 180-156037/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 10/06/2015 13:50
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|--------------------|-------------------|-------------|------------------|
| | LCS 180-156037/11 | 51006011.D | 10/06/2015 16:08 |
| HD-MW-18S-0/1-0 | 180-48181-1 | 51006013.D | 10/06/2015 17:08 |
| HD-MW-93S-0/1-0 DL | 180-48181-3 DL | 51006014.D | 10/06/2015 17:32 |
| HD-MW-75S-0/1-0 DL | 180-48181-5 DL | 51006015.D | 10/06/2015 17:56 |
| HD-MW-75D-0/1-0 DL | 180-48181-6 DL | 51006017.D | 10/06/2015 18:44 |
| HD-QC3-0/1-1 DL | 180-48181-8 DL | 51006018.D | 10/06/2015 19:08 |
| HD-MW-93S-0/1-0 | 180-48181-3 | 51006021.D | 10/06/2015 20:21 |
| HD-MW-93D-0/1-0 | 180-48181-4 | 51006023.D | 10/06/2015 21:09 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 50826007.D BFB Injection Date: 08/26/2015
 Instrument ID: CHHP5 BFB Injection Time: 14:01
 Analysis Batch No.: 151868

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 23.5 |
| 75 | 30.0 - 60.0 % of mass 95 | 49.7 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 |
| 173 | Less than 2.0 % of mass 174 | 0.4 (0.5)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 77.9 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.1 (7.9)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 75.2 (96.6)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 4.9 (6.6)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|------------------|-------------------|-------------|---------------|---------------|
| | IC 180-151868/6 | 50826006.D | 08/26/2015 | 15:04 |
| | IC 180-151868/8 | 50826008.D | 08/26/2015 | 15:28 |
| | ICIS 180-151868/9 | 50826009.D | 08/26/2015 | 15:52 |
| | IC 180-151868/10 | 50826010.D | 08/26/2015 | 16:16 |
| | IC 180-151868/11 | 50826011.D | 08/26/2015 | 16:40 |
| | IC 180-151868/12 | 50826012.D | 08/26/2015 | 17:04 |
| | IC 180-151868/13 | 50826013.D | 08/26/2015 | 17:28 |
| | IC 180-151868/14 | 50826014.D | 08/26/2015 | 17:52 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51003004.D BFB Injection Date: 10/03/2015
 Instrument ID: CHHP5 BFB Injection Time: 11:41
 Analysis Batch No.: 155766

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 21.2 |
| 75 | 30.0 - 60.0 % of mass 95 | 45.5 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.8 |
| 173 | Less than 2.0 % of mass 174 | 0.5 (0.5)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 89.6 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.7 (7.5)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 87.5 (97.7)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.4 (6.2)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----------------------|--------------------|-------------|---------------|---------------|
| | CCVIS 180-155766/2 | 51003002.D | 10/03/2015 | 12:18 |
| | MB 180-155766/5 | 51003005.D | 10/03/2015 | 13:16 |
| HD-MW-147A-0/1-0 | 180-48181-2 | 51003006.D | 10/03/2015 | 13:50 |
| HD-QC9-0/1-2 | 180-48181-9 | 51003007.D | 10/03/2015 | 14:14 |
| | LCS 180-155766/8 | 51003008.D | 10/03/2015 | 14:38 |
| HD-MW-147A-0/1-0 MS | 180-48181-2 MS | 51003009.D | 10/03/2015 | 15:02 |
| HD-MW-147A-0/1-0 MSD | 180-48181-2 MSD | 51003010.D | 10/03/2015 | 15:27 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51005001.D BFB Injection Date: 10/05/2015
 Instrument ID: CHHP5 BFB Injection Time: 10:17
 Analysis Batch No.: 155884

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 20.1 |
| 75 | 30.0 - 60.0 % of mass 95 | 47.7 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.0 |
| 173 | Less than 2.0 % of mass 174 | 0.8 (0.9)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 83.8 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.5 (7.8)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 79.8 (95.3)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.6 (7.0)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|--------------------|--------------------|-------------|---------------|---------------|
| | CCVIS 180-155884/2 | 51005002.D | 10/05/2015 | 10:56 |
| | MB 180-155884/4 | 51005004.D | 10/05/2015 | 11:57 |
| | LCS 180-155884/7 | 51005007.D | 10/05/2015 | 13:34 |
| HD-MW-93D-0/1-0 DL | 180-48181-4 DL | 51005017.D | 10/05/2015 | 17:35 |
| HD-MW-75S-0/1-0 | 180-48181-5 | 51005018.D | 10/05/2015 | 17:59 |
| HD-MW-75D-0/1-0 | 180-48181-6 | 51005019.D | 10/05/2015 | 18:23 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 51006005.D BFB Injection Date: 10/06/2015
 Instrument ID: CHHP5 BFB Injection Time: 12:01
 Analysis Batch No.: 156037

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 21.1 |
| 75 | 30.0 - 60.0 % of mass 95 | 43.6 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 |
| 173 | Less than 2.0 % of mass 174 | 1.2 (1.5)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 81.2 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.5 (8.0)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 78.1 (96.2)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.5 (7.1)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|--------------------|--------------------|-------------|---------------|---------------|
| | CCVIS 180-156037/2 | 51006002.D | 10/06/2015 | 12:41 |
| | MB 180-156037/6 | 51006006.D | 10/06/2015 | 13:50 |
| | LCS 180-156037/11 | 51006011.D | 10/06/2015 | 16:08 |
| HD-MW-18S-0/1-0 | 180-48181-1 | 51006013.D | 10/06/2015 | 17:08 |
| HD-MW-93S-0/1-0 DL | 180-48181-3 DL | 51006014.D | 10/06/2015 | 17:32 |
| HD-MW-75S-0/1-0 DL | 180-48181-5 DL | 51006015.D | 10/06/2015 | 17:56 |
| HD-MW-75D-0/1-0 DL | 180-48181-6 DL | 51006017.D | 10/06/2015 | 18:44 |
| HD-QC3-0/1-1 DL | 180-48181-8 DL | 51006018.D | 10/06/2015 | 19:08 |
| HD-MW-93S-0/1-0 | 180-48181-3 | 51006021.D | 10/06/2015 | 20:21 |
| HD-MW-93D-0/1-0 | 180-48181-4 | 51006023.D | 10/06/2015 | 21:09 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 60731001.D BFB Injection Date: 07/31/2015
 Instrument ID: CHHP6 BFB Injection Time: 12:10
 Analysis Batch No.: 149469

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 21.4 |
| 75 | 30.0 - 60.0 % of mass 95 | 56.4 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 7.8 |
| 173 | Less than 2.0 % of mass 174 | 0.2 (0.3)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 62.3 |
| 175 | 5.0 - 9.0 % of mass 174 | 4.7 (7.5)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 62.6 (100.6)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 4.2 (6.7)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|------------------|-------------------|-------------|---------------|---------------|
| | IC 180-149469/4 | 60731004.D | 07/31/2015 | 14:00 |
| | ICIS 180-149469/5 | 60731005.D | 07/31/2015 | 14:24 |
| | IC 180-149469/6 | 60731006.D | 07/31/2015 | 14:49 |
| | IC 180-149469/7 | 60731007.D | 07/31/2015 | 15:13 |
| | IC 180-149469/8 | 60731008.D | 07/31/2015 | 15:37 |
| | IC 180-149469/9 | 60731009.D | 07/31/2015 | 16:01 |
| | IC 180-149469/10 | 60731010.D | 07/31/2015 | 16:25 |
| | IC 180-149469/14 | 60731014.D | 07/31/2015 | 18:02 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab File ID: 61005001.D BFB Injection Date: 10/05/2015
 Instrument ID: CHHP6 BFB Injection Time: 09:22
 Analysis Batch No.: 155869

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50 | 15.0 - 40.0 % of mass 95 | 19.8 |
| 75 | 30.0 - 60.0 % of mass 95 | 53.4 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.9 |
| 173 | Less than 2.0 % of mass 174 | 0.4 (0.6)1 |
| 174 | 50.0 - 120.00 % of mass 95 | 77.0 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.2 (8.0)1 |
| 176 | 95.0 - 101.0 % of mass 174 | 77.6 (100.7)1 |
| 177 | 5.0 - 9.0 % of mass 176 | 3.9 (5.1)2 |

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|------------------|--------------------|-------------|---------------|---------------|
| | CCVIS 180-155869/2 | 61005002.D | 10/05/2015 | 10:05 |
| | CCV 180-155869/3 | 61005003.D | 10/05/2015 | 10:29 |
| | MB 180-155869/5 | 61005005.D | 10/05/2015 | 11:25 |
| | LCS 180-155869/7 | 61005007.D | 10/05/2015 | 12:29 |
| HD-MW-37D-0/1-0 | 180-48181-7 | 61005020.D | 10/05/2015 | 17:46 |
| HD-QC3-0/1-1 | 180-48181-8 | 61005021.D | 10/05/2015 | 18:10 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155766/2 Date Analyzed: 10/03/2015 12:18
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51003002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | TBA | | FB | | CBZ | | |
|------------------|----------------------|--------|--------|--------|--------|-------|-------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # | |
| 12/24 HOUR STD | 130763 | 4.28 | 372851 | 7.29 | 90914 | 10.39 | |
| UPPER LIMIT | 261526 | 4.78 | 745702 | 7.79 | 181828 | 10.89 | |
| LOWER LIMIT | 65382 | 3.78 | 186426 | 6.79 | 45457 | 9.89 | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 180-155766/5 | | 147960 | 4.26 | 342184 | 7.30 | 87845 | 10.39 |
| 180-48181-2 | HD-MW-147A-0/1-0 | 140720 | 4.26 | 329167 | 7.29 | 86874 | 10.39 |
| 180-48181-9 | HD-QC9-0/1-2 | 135615 | 4.26 | 324396 | 7.29 | 84641 | 10.39 |
| LCS 180-155766/8 | | 119352 | 4.29 | 368008 | 7.29 | 88784 | 10.39 |
| 180-48181-2 MS | HD-MW-147A-0/1-0 MS | 136911 | 4.28 | 408628 | 7.29 | 97033 | 10.39 |
| 180-48181-2 MSD | HD-MW-147A-0/1-0 MSD | 141804 | 4.29 | 408732 | 7.29 | 98256 | 10.39 |

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155766/2 Date Analyzed: 10/03/2015 12:18
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51003002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | DCB | | AREA # | RT # | AREA # | RT # |
|------------------|----------------------|--------|--------|------|--------|------|
| | AREA # | RT # | | | | |
| 12/24 HOUR STD | 139552 | 12.73 | | | | |
| UPPER LIMIT | 279104 | 13.23 | | | | |
| LOWER LIMIT | 69776 | 12.23 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | |
| MB 180-155766/5 | | 123643 | 12.73 | | | |
| 180-48181-2 | HD-MW-147A-0/1-0 | 122150 | 12.73 | | | |
| 180-48181-9 | HD-QC9-0/1-2 | 117836 | 12.73 | | | |
| LCS 180-155766/8 | | 140068 | 12.73 | | | |
| 180-48181-2 MS | HD-MW-147A-0/1-0 MS | 145300 | 12.73 | | | |
| 180-48181-2 MSD | HD-MW-147A-0/1-0 MSD | 147512 | 12.73 | | | |

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155884/2 Date Analyzed: 10/05/2015 10:56
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51005002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | TBA | | FB | | CBZ | | |
|------------------|--------------------|--------|--------|--------|--------|--------|-------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # | |
| 12/24 HOUR STD | 125348 | 4.28 | 389208 | 7.29 | 92325 | 10.39 | |
| UPPER LIMIT | 250696 | 4.78 | 778416 | 7.79 | 184650 | 10.89 | |
| LOWER LIMIT | 62674 | 3.78 | 194604 | 6.79 | 46163 | 9.89 | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 180-155884/4 | | 159358 | 4.27 | 345349 | 7.29 | 89221 | 10.39 |
| LCS 180-155884/7 | | 119053 | 4.28 | 418221 | 7.29 | 101020 | 10.39 |
| 180-48181-4 DL | HD-MW-93D-0/1-0 DL | 146084 | 4.27 | 329329 | 7.29 | 84752 | 10.39 |
| 180-48181-5 | HD-MW-75S-0/1-0 | 134738 | 4.27 | 312864 | 7.29 | 88426 | 10.39 |
| 180-48181-6 | HD-MW-75D-0/1-0 | 120544 | 4.27 | 312294 | 7.30 | 86516 | 10.39 |

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155884/2 Date Analyzed: 10/05/2015 10:56
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51005002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | DCB | | | | | |
|------------------|--------------------|--------|--------|------|--------|------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | 138714 | 12.73 | | | | |
| UPPER LIMIT | 277428 | 13.23 | | | | |
| LOWER LIMIT | 69357 | 12.23 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | |
| MB 180-155884/4 | | 130925 | 12.74 | | | |
| LCS 180-155884/7 | | 143991 | 12.73 | | | |
| 180-48181-4 DL | HD-MW-93D-0/1-0 DL | 124229 | 12.73 | | | |
| 180-48181-5 | HD-MW-75S-0/1-0 | 115476 | 12.73 | | | |
| 180-48181-6 | HD-MW-75D-0/1-0 | 116984 | 12.73 | | | |

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-156037/2 Date Analyzed: 10/06/2015 12:41
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51006002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | TBA | | FB | | CBZ | | |
|-------------------|--------------------|--------|--------|--------|--------|-------|-------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # | |
| 12/24 HOUR STD | 119717 | 4.28 | 353123 | 7.29 | 84941 | 10.39 | |
| UPPER LIMIT | 239434 | 4.78 | 706246 | 7.79 | 169882 | 10.89 | |
| LOWER LIMIT | 59859 | 3.78 | 176562 | 6.79 | 42471 | 9.89 | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 180-156037/6 | | 137828 | 4.27 | 302565 | 7.29 | 79543 | 10.39 |
| LCS 180-156037/11 | | 131161 | 4.28 | 352965 | 7.29 | 80867 | 10.39 |
| 180-48181-1 | HD-MW-18S-0/1-0 | 155703 | 4.27 | 302798 | 7.29 | 78760 | 10.39 |
| 180-48181-3 DL | HD-MW-93S-0/1-0 DL | 125244 | 4.27 | 291731 | 7.29 | 74641 | 10.39 |
| 180-48181-5 DL | HD-MW-75S-0/1-0 DL | 134212 | 4.27 | 297232 | 7.29 | 79617 | 10.39 |
| 180-48181-6 DL | HD-MW-75D-0/1-0 DL | 129312 | 4.27 | 279092 | 7.30 | 72002 | 10.39 |
| 180-48181-8 DL | HD-QC3-0/1-1 DL | 133712 | 4.26 | 278190 | 7.30 | 75395 | 10.39 |
| 180-48181-3 | HD-MW-93S-0/1-0 | 118735 | 4.27 | 275532 | 7.30 | 71803 | 10.39 |
| 180-48181-4 | HD-MW-93D-0/1-0 | 134499 | 4.27 | 278811 | 7.30 | 76162 | 10.39 |

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-156037/2 Date Analyzed: 10/06/2015 12:41
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51006002.D Heated Purge: (Y/N) N
 Calibration ID: 25113

| | | DCB | | | | | |
|-------------------|--------------------|--------|-------|--------|------|--------|------|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 132831 | 12.73 | | | | |
| UPPER LIMIT | | 265662 | 13.23 | | | | |
| LOWER LIMIT | | 66416 | 12.23 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 180-156037/6 | | 115658 | 12.73 | | | | |
| LCS 180-156037/11 | | 132044 | 12.73 | | | | |
| 180-48181-1 | HD-MW-18S-0/1-0 | 118157 | 12.73 | | | | |
| 180-48181-3 DL | HD-MW-93S-0/1-0 DL | 109330 | 12.73 | | | | |
| 180-48181-5 DL | HD-MW-75S-0/1-0 DL | 108903 | 12.73 | | | | |
| 180-48181-6 DL | HD-MW-75D-0/1-0 DL | 102041 | 12.73 | | | | |
| 180-48181-8 DL | HD-QC3-0/1-1 DL | 108160 | 12.73 | | | | |
| 180-48181-3 | HD-MW-93S-0/1-0 | 105955 | 12.73 | | | | |
| 180-48181-4 | HD-MW-93D-0/1-0 | 110395 | 12.73 | | | | |

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155869/2 Date Analyzed: 10/05/2015 10:05
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 61005002.D Heated Purge: (Y/N) N
 Calibration ID: 25315

| | TBA | | FB | | CBZ | | |
|------------------|------------------|--------|--------|--------|--------|--------|-------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # | |
| 12/24 HOUR STD | 149860 | 4.24 | 445228 | 7.29 | 102974 | 10.40 | |
| UPPER LIMIT | 299720 | 4.74 | 890456 | 7.79 | 205948 | 10.90 | |
| LOWER LIMIT | 74930 | 3.74 | 222614 | 6.79 | 51487 | 9.90 | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| CCV 180-155869/3 | | 167523 | 4.23 | 410675 | 7.29 | 91258 | 10.40 |
| MB 180-155869/5 | | 183859 | 4.24 | 425468 | 7.29 | 103279 | 10.40 |
| LCS 180-155869/7 | | 175396 | 4.24 | 416212 | 7.28 | 93412 | 10.40 |
| 180-48181-7 | HD-MW-37D-0/1-0 | 186034 | 4.24 | 408980 | 7.29 | 107815 | 10.40 |
| 180-48181-8 | HD-QC3-0/1-1 | 178621 | 4.23 | 412104 | 7.29 | 107887 | 10.39 |

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Sample No.: CCVIS 180-155869/2 Date Analyzed: 10/05/2015 10:05
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 61005002.D Heated Purge: (Y/N) N
 Calibration ID: 25315

| | DCB | | | | | |
|------------------|------------------|--------|--------|------|--------|------|
| | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | 183514 | 12.75 | | | | |
| UPPER LIMIT | 367028 | 13.25 | | | | |
| LOWER LIMIT | 91757 | 12.25 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | |
| CCV 180-155869/3 | | 143774 | 12.75 | | | |
| MB 180-155869/5 | | 169357 | 12.75 | | | |
| LCS 180-155869/7 | | 168494 | 12.75 | | | |
| 180-48181-7 | HD-MW-37D-0/1-0 | 175358 | 12.75 | | | |
| 180-48181-8 | HD-QC3-0/1-1 | 176422 | 12.75 | | | |

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-18S-0/1-0 Lab Sample ID: 180-48181-1
 Matrix: Water Lab File ID: 51006013.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:20
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|-------|
| 74-87-3 | Chloromethane | 0.28 | J | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 0.57 | J | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U ^c | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 11 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-18S-0/1-0 Lab Sample ID: 180-48181-1
 Matrix: Water Lab File ID: 51006013.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:20
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 94 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D
 Lims ID: 180-48181-A-1 Lab Sample ID: 180-48181-1
 Client ID: HD-MW-18S-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 17:08:30 ALS Bottle#: 11 Worklist Smp#: 13
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-1
 Misc. Info.: 180-0008850-013
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 07:48:10 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 07:48:10

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.272 | 4.279 | -0.007 | 0 | 155703 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 302798 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.392 | 10.387 | 0.005 | 87 | 78760 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.734 | 12.729 | 0.005 | 95 | 118157 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.560 | 0.005 | 93 | 77553 | 52.2 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.937 | -0.001 | 0 | 96076 | 47.0 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 94 | 278591 | 45.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 92 | 100716 | 43.9 | |
| 12 Chloromethane | 50 | 1.765 | 1.779 | -0.014 | 84 | 3512 | 1.40 | M |
| 13 Vinyl chloride | 62 | 1.917 | 1.912 | 0.005 | 87 | 6341 | 2.85 | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.348 | | | | ND | |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | 4.570 | 4.583 | -0.013 | 1 | 1332 | 0.3143 | M |
| 37 1,1-Dichloroethane | 63 | | 5.204 | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.958 | -0.007 | 81 | 210592 | 107.6 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | | 6.542 | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 94 | 97709 | 53.5 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | | 9.517 | | | | ND | |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D

Injection Date: 06-Oct-2015 17:08:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-1

Lab Sample ID: 180-48181-1

Worklist Smp#: 13

Client ID: HD-MW-18S-0/1-0

Purge Vol: 5.000 mL

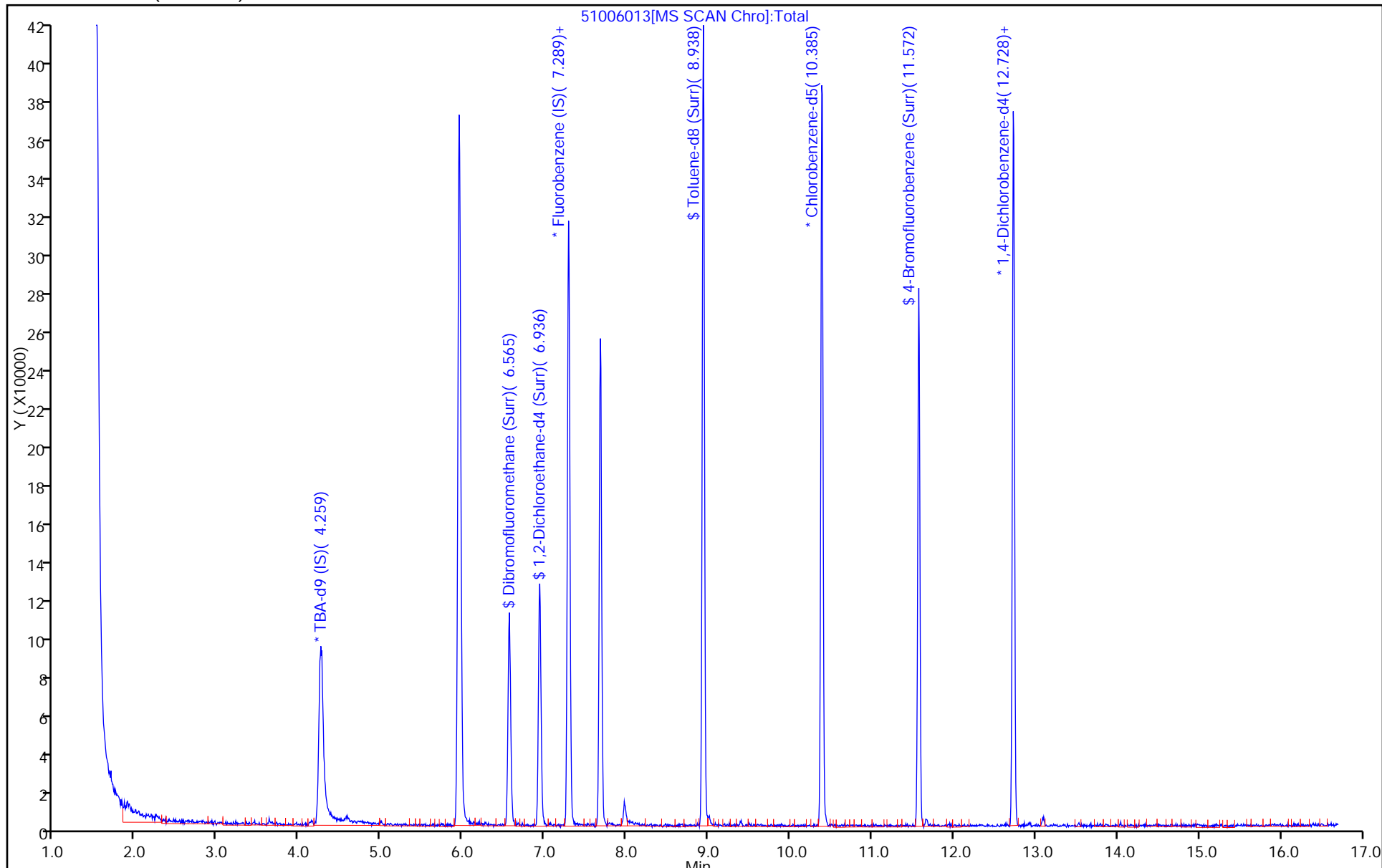
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D

Injection Date: 06-Oct-2015 17:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-1

Lab Sample ID: 180-48181-1

Client ID: HD-MW-18S-0/1-0

Operator ID: 001562

ALS Bottle#: 11 Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

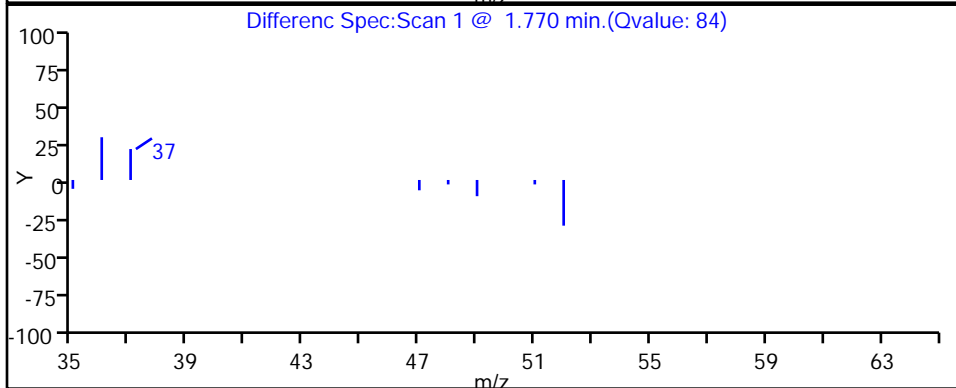
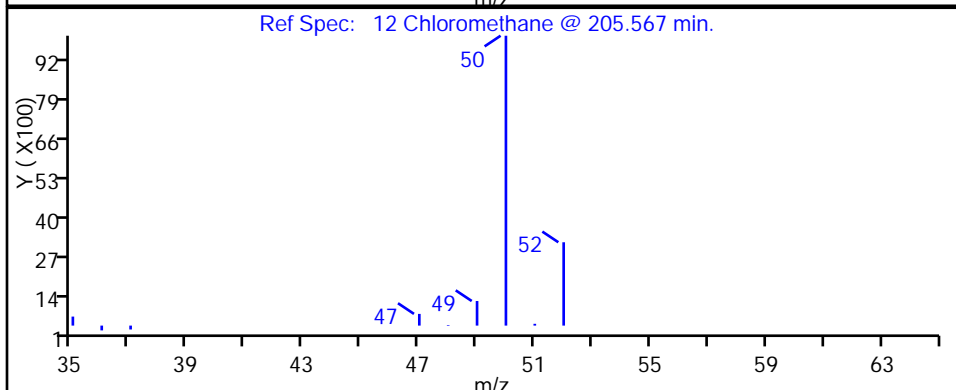
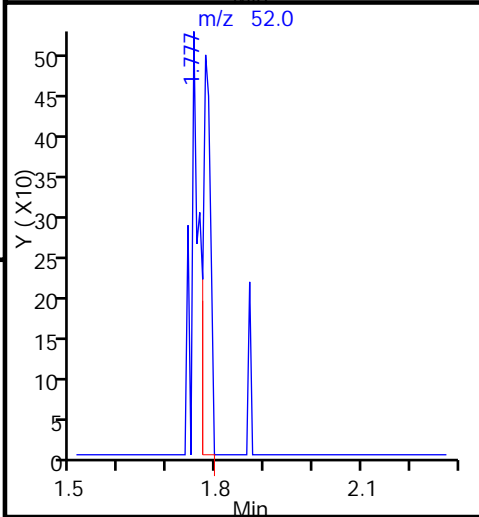
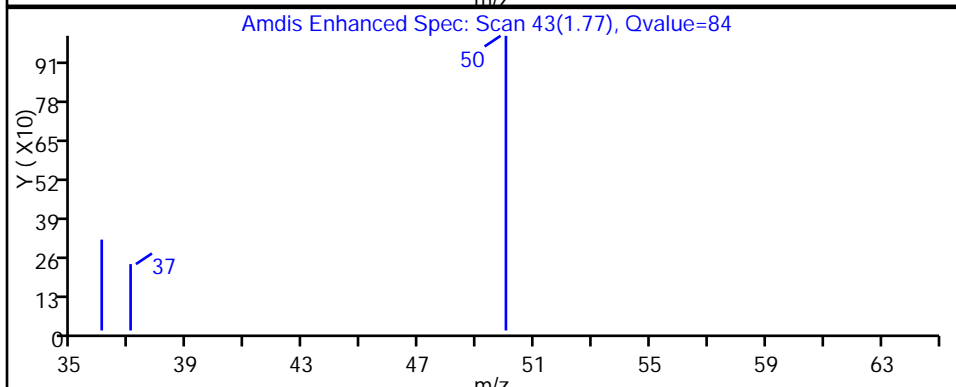
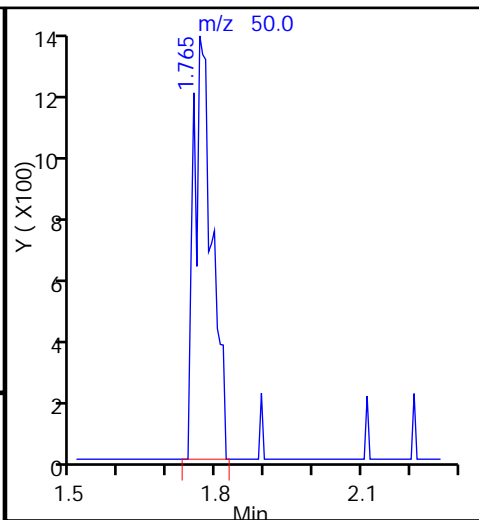
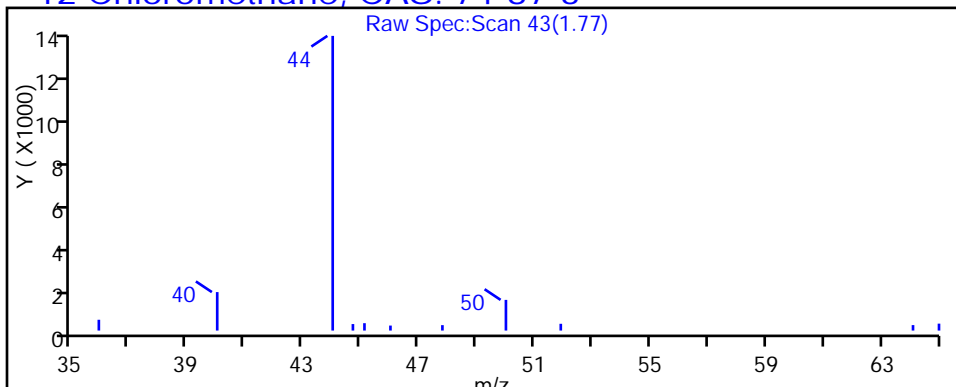
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D

Injection Date: 06-Oct-2015 17:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-1

Lab Sample ID: 180-48181-1

Client ID: HD-MW-18S-0/1-0

Operator ID: 001562

ALS Bottle#: 11 Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

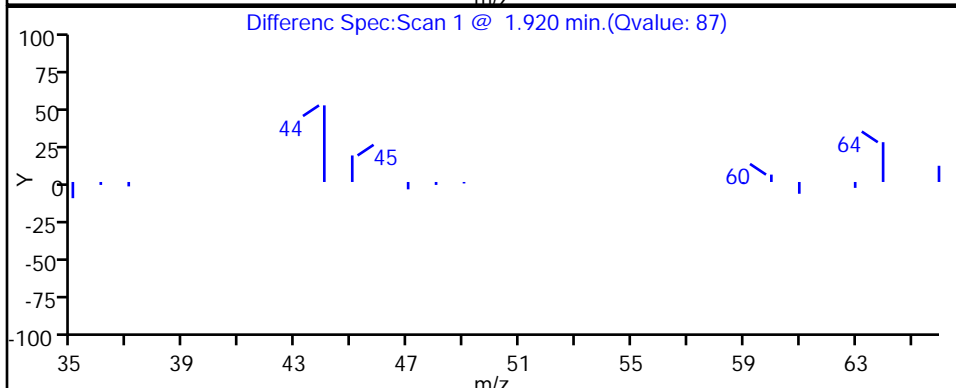
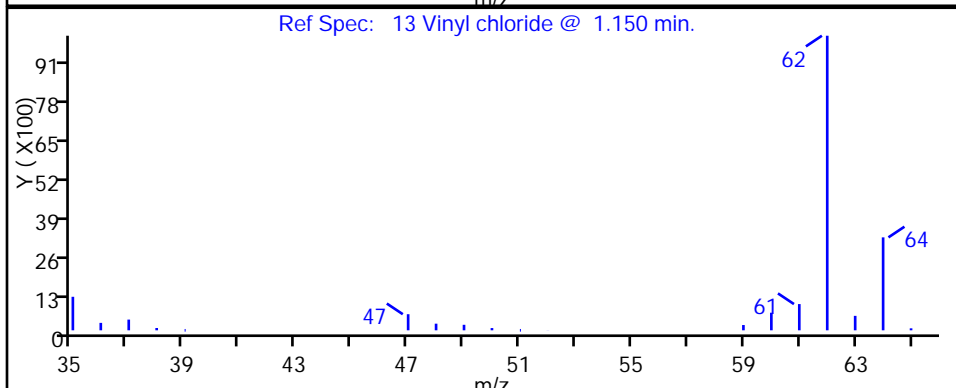
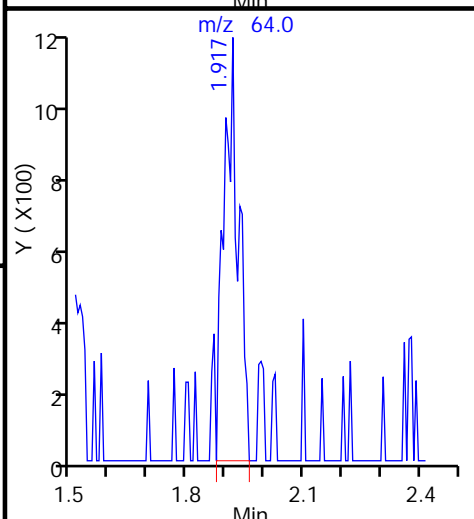
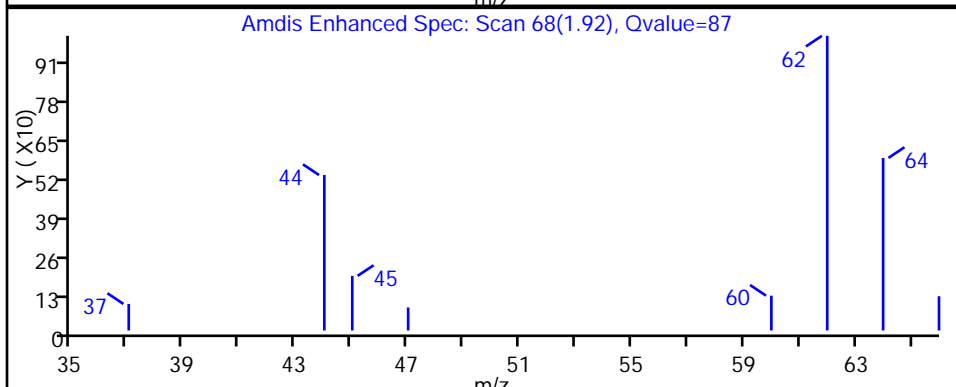
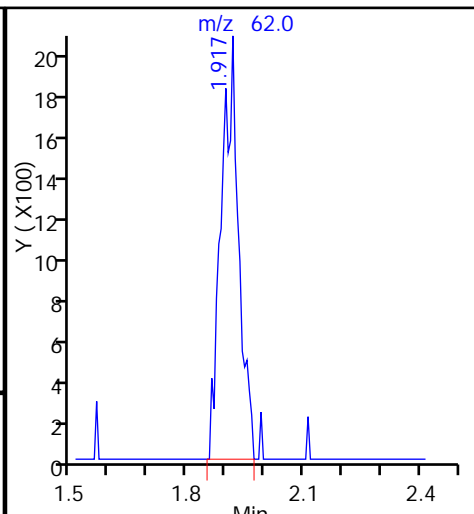
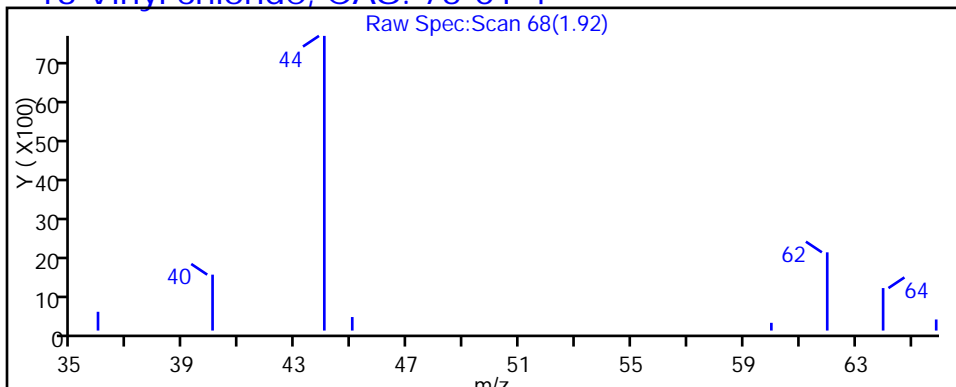
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D

Injection Date: 06-Oct-2015 17:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-1

Lab Sample ID: 180-48181-1

Client ID: HD-MW-18S-0/1-0

Operator ID: 001562

ALS Bottle#: 11

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

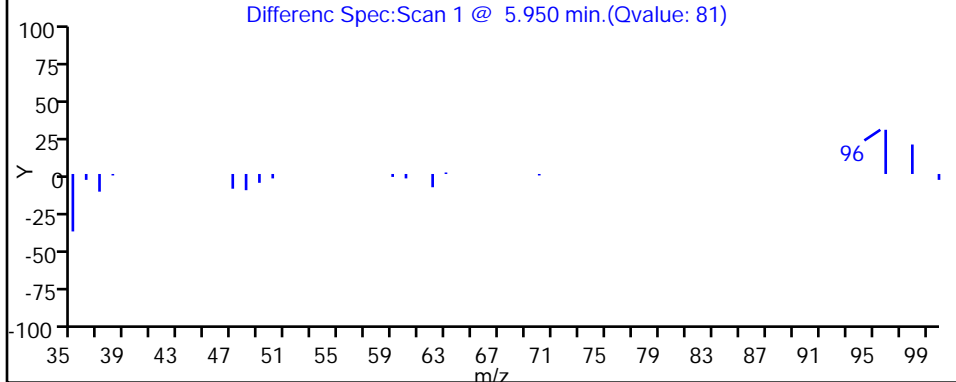
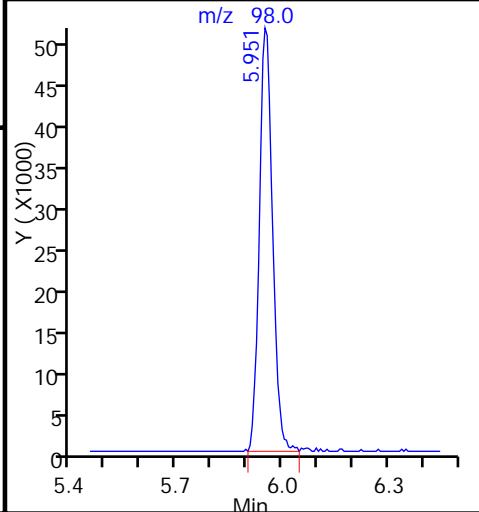
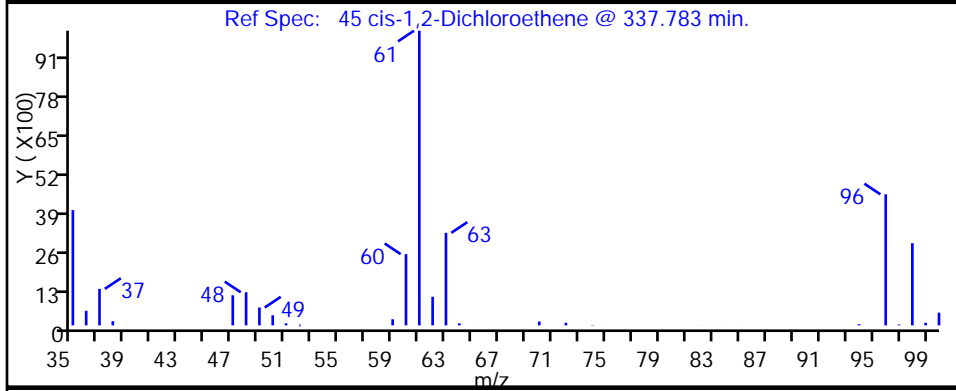
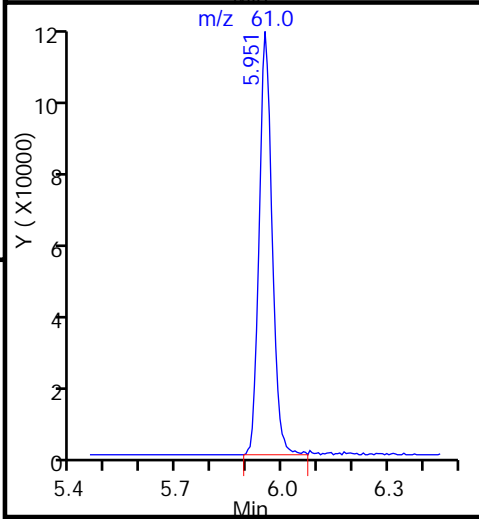
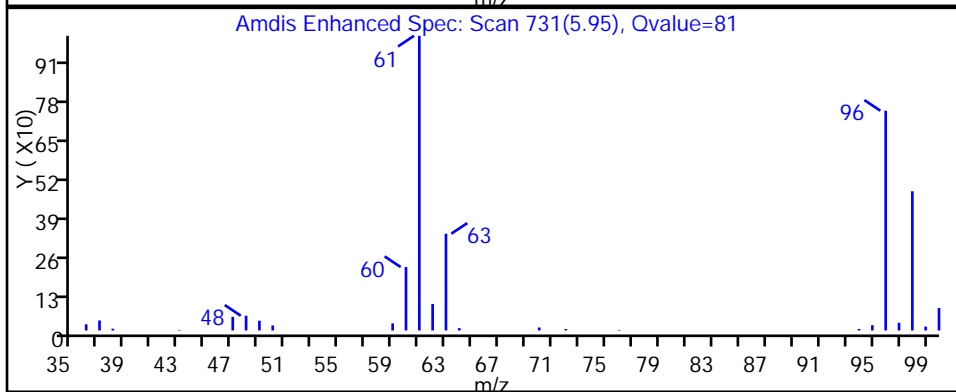
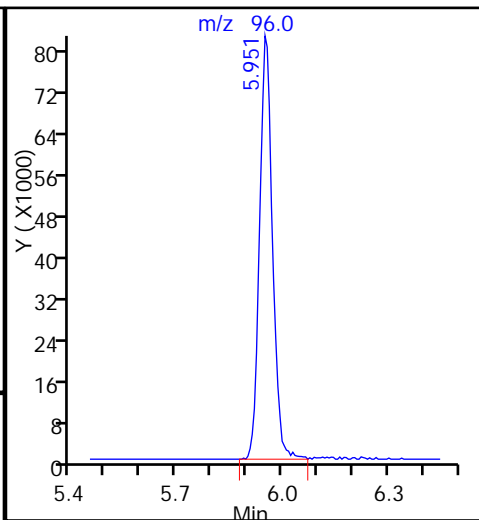
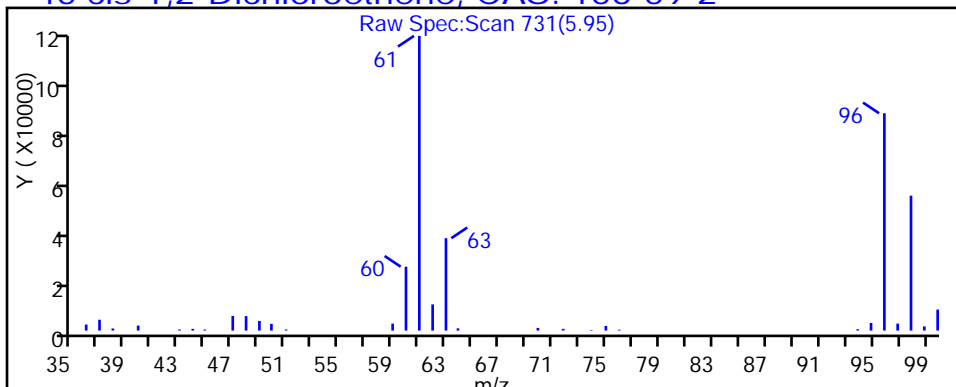
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D

Injection Date: 06-Oct-2015 17:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-1

Lab Sample ID: 180-48181-1

Client ID: HD-MW-18S-0/1-0

Operator ID: 001562

ALS Bottle#: 11 Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

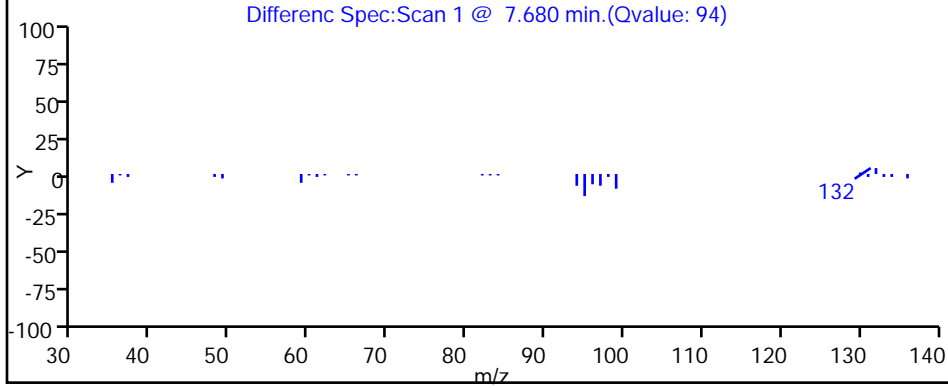
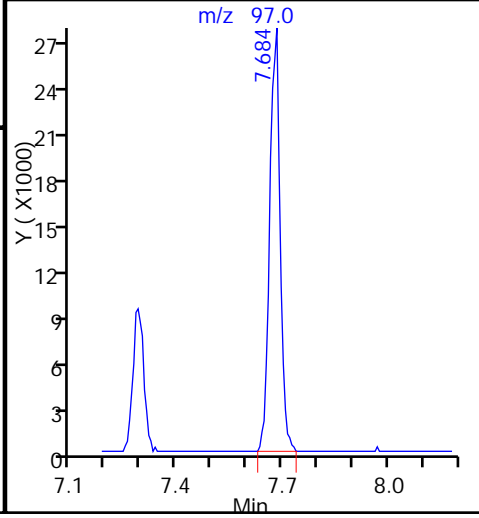
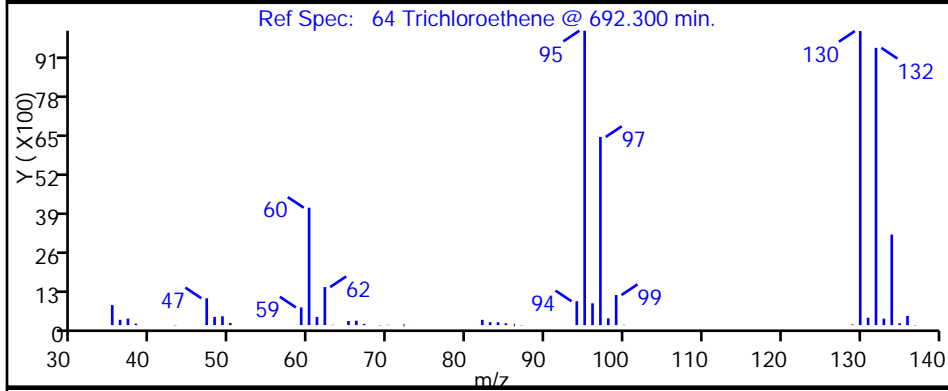
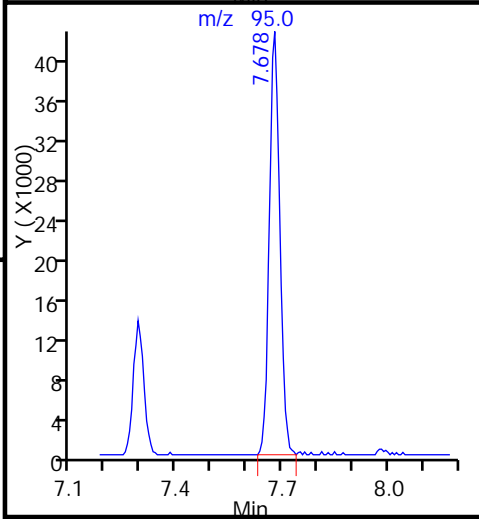
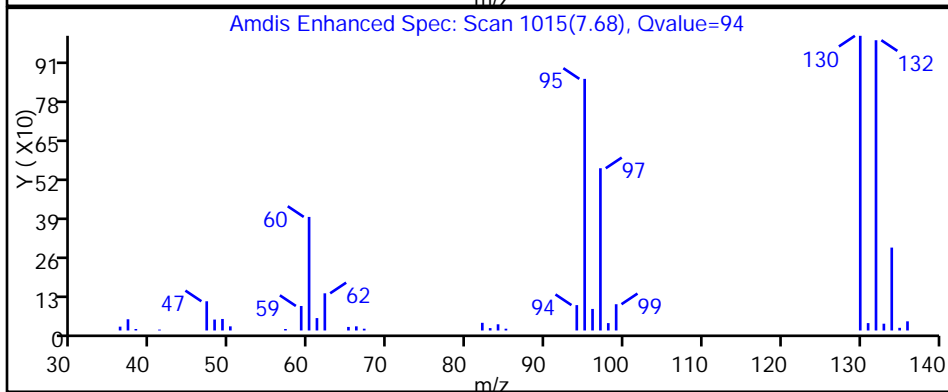
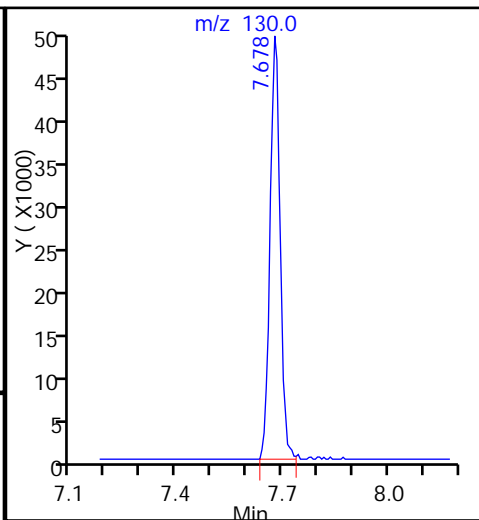
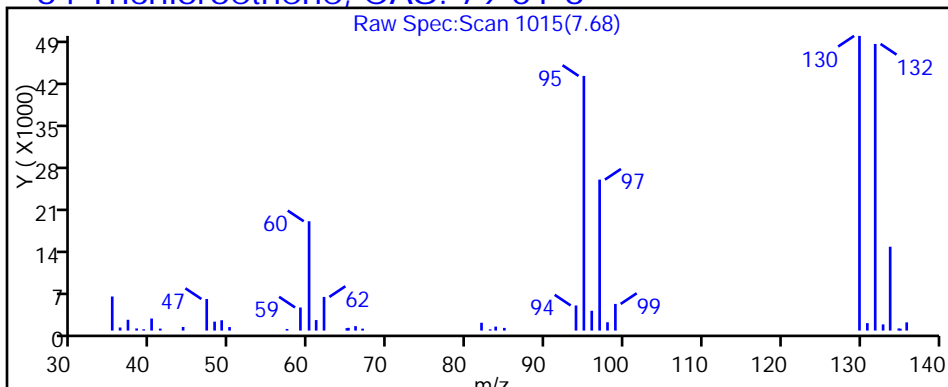
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



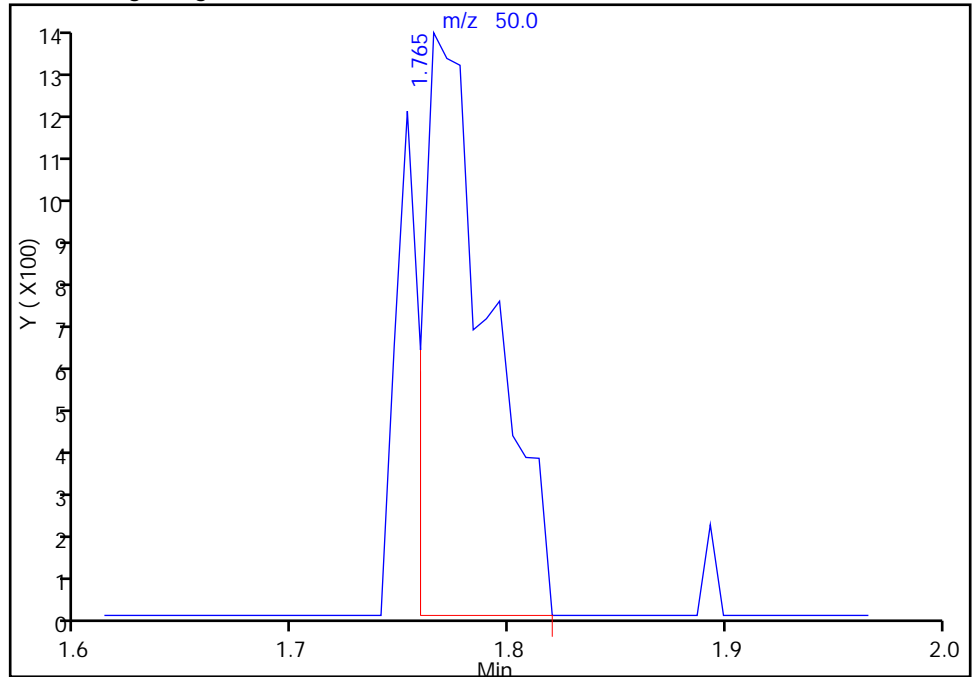
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D
Injection Date: 06-Oct-2015 17:08:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-1 Lab Sample ID: 180-48181-1
Client ID: HD-MW-18S-0/1-0
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3

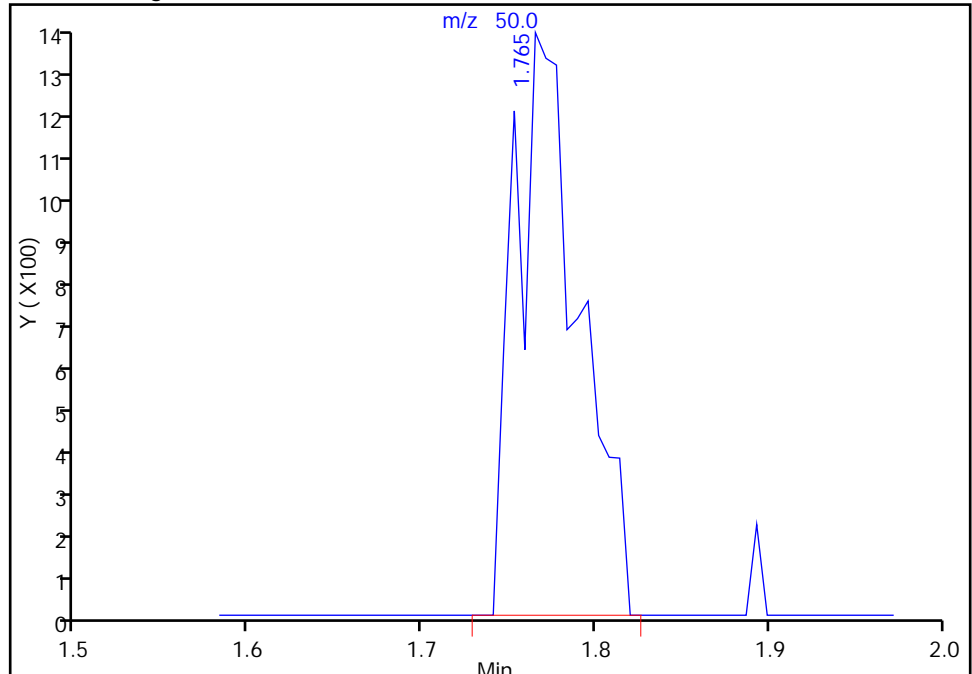
RT: 1.77
Area: 2853
Amount: 1.135847
Amount Units: ng

Processing Integration Results



RT: 1.77
Area: 3512
Amount: 1.398211
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 07:48:10
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

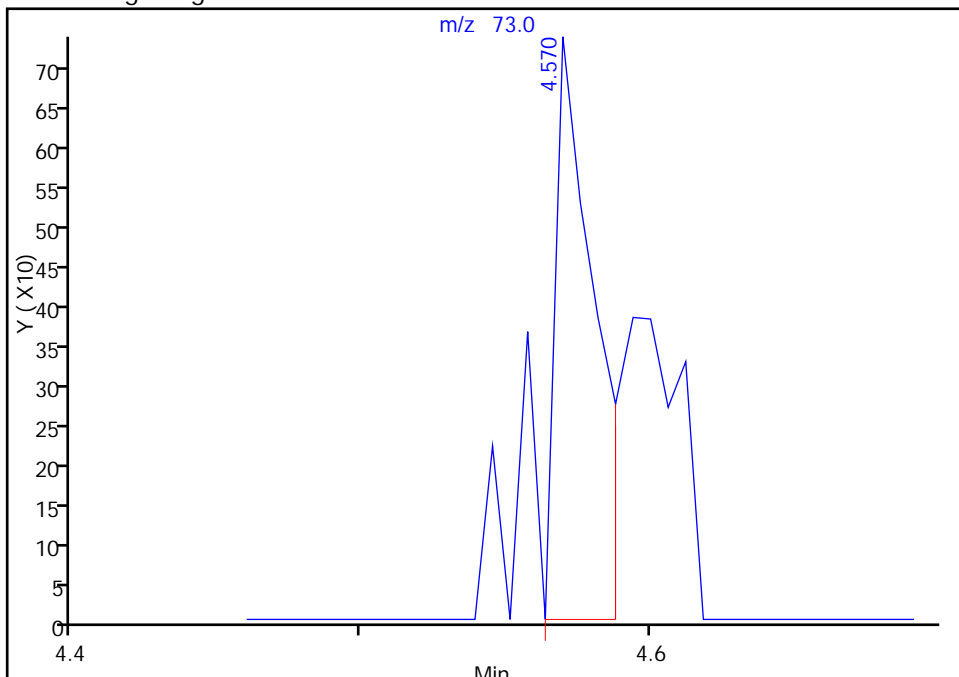
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006013.D
Injection Date: 06-Oct-2015 17:08:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-1 Lab Sample ID: 180-48181-1
Client ID: HD-MW-18S-0/1-0
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

35 Methyl tert-butyl ether, CAS: 1634-04-4

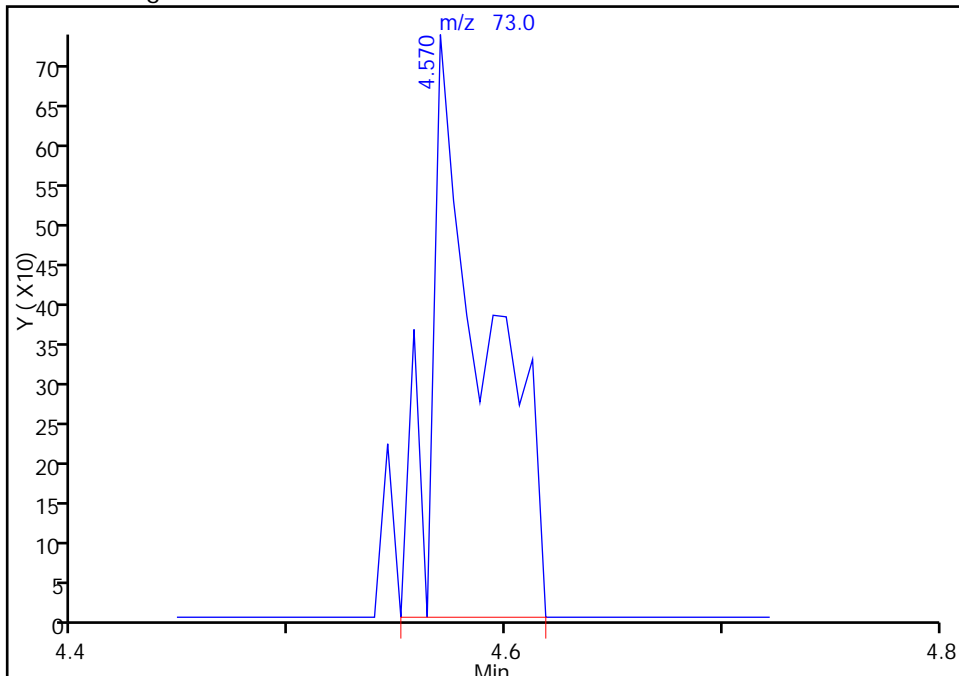
RT: 4.57
Area: 702
Amount: 0.165631
Amount Units: ng

Processing Integration Results



RT: 4.57
Area: 1332
Amount: 0.314273
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 07:48:10
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-48181-2
 Matrix: Water Lab File ID: 51003006.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 13:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|----|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 0.53 | J | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 0.14 | J | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 11 | F1 | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 0.24 | J | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.46 | J | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 11 | F1 | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 6.3 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-48181-2
 Matrix: Water Lab File ID: 51003006.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 13:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 98 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 93 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D
 Lims ID: 180-48181-A-2 Lab Sample ID: 180-48181-2
 Client ID: HD-MW-147A-0/1-0
 Sample Type: Client
 Inject. Date: 03-Oct-2015 13:50:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-2
 Misc. Info.: 180-0008807-006
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 14:43:24 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 14:42:20

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.259 | 4.283 | -0.024 | 0 | 140720 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.289 | 0.000 | 98 | 329167 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.385 | 10.385 | 0.000 | 87 | 86874 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.727 | 0.001 | 96 | 122150 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.565 | 0.000 | 93 | 87059 | 53.9 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.936 | 0.000 | 0 | 108631 | 48.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.937 | 0.001 | 94 | 313000 | 46.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.571 | 0.001 | 89 | 108788 | 43.0 | |
| 11 Dichlorodifluoromethane | 85 | | 1.607 | | | | ND | |
| 12 Chloromethane | 50 | | 1.771 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.905 | | | | ND | |
| 14 Butadiene | 39 | | 1.941 | | | | ND | |
| 15 Bromomethane | 94 | | 2.239 | | | | ND | |
| 16 Chloroethane | 64 | | 2.391 | | | | ND | |
| 17 Dichlorofluoromethane | 67 | | 2.665 | | | | ND | |
| 18 Trichlorofluoromethane | 101 | | 2.702 | | | | ND | |
| 19 Ethanol | 45 | | 2.957 | | | | ND | |
| 20 Ethyl ether | 59 | | 3.048 | | | | ND | |
| 21 Acrolein | 56 | | 3.231 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.359 | 3.346 | 0.013 | 94 | 4874 | 2.66 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | | 3.407 | | | | ND | |
| 24 Acetone | 43 | | 3.444 | | | | ND | |
| 25 Iodomethane | 142 | | 3.553 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.638 | | | | ND | |
| 27 Isopropyl alcohol | 45 | | 3.706 | | | | ND | |
| 29 Acetonitrile | 40 | | 3.870 | | | | ND | |
| 28 3-Chloro-1-propene | 76 | | 3.918 | | | | ND | |
| 30 Methyl acetate | 43 | | 3.937 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.137 | | | | ND | |
| 32 2-Methyl-2-propanol | 59 | | 4.405 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.527 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|-------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 34 trans-1,2-Dichloroethene | 96 | | 4.563 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.581 | | | | ND | |
| 36 Hexane | 57 | 4.996 | 4.989 | 0.007 | 54 | 1243 | 0.3720 | |
| 37 1,1-Dichloroethane | 63 | 5.208 | 5.202 | 0.006 | 0 | 2720 | 0.6936 | M |
| 38 Vinyl acetate | 43 | | 5.251 | | | | ND | |
| 41 Isopropyl ether | 45 | | 5.299 | | | | ND | |
| 39 2-Chloro-1,3-butadiene | 53 | | 5.299 | | | | ND | |
| 40 Isopropyl ether TIC | 45 | | 5.409 | | | | ND | |
| 42 Tert-butyl ethyl ether | 59 | | 5.780 | | | | ND | |
| 44 2,2-Dichloropropane | 77 | | 5.944 | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.950 | 0.001 | 82 | 112491 | 52.9 | |
| 43 Tert-butyl ethyl ether (TI | 59 | | 5.961 | | | | ND | |
| 46 2-Butanone (MEK) | 43 | | 5.962 | | | | ND | |
| 48 Ethyl acetate | 43 | | 6.036 | | | | ND | |
| 47 Propionitrile | 54 | | 6.036 | | | | ND | |
| 50 Methacrylonitrile | 41 | | 6.212 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.236 | | | | ND | |
| 51 Tetrahydrofuran | 42 | | 6.248 | | | | ND | |
| 52 Chloroform | 83 | 6.389 | 6.382 | 0.007 | 85 | 4031 | 1.19 | |
| 53 1,1,1-Trichloroethane | 97 | 6.547 | 6.540 | 0.007 | 35 | 5700 | 2.28 | |
| 54 Cyclohexane | 56 | | 6.613 | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.717 | | | | ND | |
| 55 1,1-Dichloropropene | 75 | | 6.735 | | | | ND | |
| 57 Isobutyl alcohol | 41 | | 6.924 | | | | ND | |
| 58 Benzene | 78 | | 6.942 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.021 | | | | ND | |
| 61 Tert-amyl methyl ether | 73 | | 7.125 | | | | ND | |
| 60 Tert-amyl methyl ether (TI | 73 | | 7.262 | | | | ND | |
| 62 n-Heptane | 43 | | 7.307 | | | | ND | |
| 63 n-Butanol | 56 | | 7.629 | | | | ND | |
| 64 Trichloroethene | 130 | 7.678 | 7.678 | 0.000 | 96 | 108173 | 54.5 | |
| 65 Ethyl acrylate | 55 | | 7.800 | | | | ND | |
| 66 Methylcyclohexane | 83 | | 7.915 | | | | ND | |
| 67 1,2-Dichloropropane | 63 | | 7.946 | | | | ND | |
| 69 Methyl methacrylate | 69 | | 8.031 | | | | ND | |
| 68 Dibromomethane | 93 | | 8.037 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.037 | | | | ND | |
| 71 Dichlorobromomethane | 83 | | 8.232 | | | | ND | |
| 72 2-Nitropropane | 41 | | 8.451 | | | | ND | |
| 73 2-Chloroethyl vinyl ether | 63 | | 8.526 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.676 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK | 43 | | 8.828 | | | | ND | |
| 76 Toluene | 91 | | 9.004 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.254 | | | | ND | |
| 78 Ethyl methacrylate | 69 | | 9.308 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.442 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.515 | 0.001 | 96 | 52798 | 31.6 | |
| 81 1,3-Dichloropropane | 76 | | 9.600 | | | | ND | |
| 82 2-Hexanone | 43 | | 9.655 | | | | ND | |
| 83 n-Butyl acetate | 43 | | 9.783 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.819 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.929 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|--------------|-------|
| 86 3-Chlorobenzotrifluoride | 180 | | 10.391 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.415 | | | | ND | |
| 88 4-Chlorobenzotrifluoride | 180 | | 10.476 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.513 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.519 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.647 | | | | ND | |
| 92 o-Xylene | 106 | | 11.030 | | | | ND | |
| 93 Styrene | 104 | | 11.048 | | | | ND | |
| 94 Bromoform | 173 | | 11.231 | | | | ND | |
| 95 Cyclohexanol | 57 | | 11.245 | | | | ND | |
| 96 2-Chlorobenzotrifluoride | 180 | | 11.298 | | | | ND | |
| 97 Isopropylbenzene | 105 | | 11.395 | | | | ND | |
| 98 Cyclohexanone | 55 | | 11.480 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.705 | | | | ND | |
| 100 Bromobenzene | 156 | | 11.711 | | | | ND | |
| 102 trans-1,4-Dichloro-2-buten | 53 | | 11.742 | | | | ND | |
| 101 1,2,3-Trichloropropane | 110 | | 11.766 | | | | ND | |
| 103 N-Propylbenzene | 120 | | 11.815 | | | | ND | |
| 104 2-Chlorotoluene | 126 | | 11.900 | | | | ND | |
| 105 3-Chlorotoluene | 126 | | 11.967 | | | | ND | |
| 106 1,3,5-Trimethylbenzene | 105 | | 11.997 | | | | ND | |
| 107 4-Chlorotoluene | 126 | | 12.022 | | | | ND | |
| 108 tert-Butylbenzene | 119 | | 12.307 | | | | ND | |
| 109 Pentachloroethane | 167 | | 12.338 | | | | ND | |
| 110 1,2,4-Trimethylbenzene | 105 | | 12.368 | | | | ND | |
| 111 1,2-dichloro-4-(trifluorom | 214 | | 12.411 | | | | ND | |
| 112 sec-Butylbenzene | 105 | | 12.533 | | | | ND | |
| 113 1,3-Dichlorobenzene | 146 | | 12.648 | | | | ND | |
| 114 4-Isopropyltoluene | 119 | | 12.691 | | | | ND | |
| 115 1,4-Dichlorobenzene | 146 | | 12.752 | | | | ND | |
| 117 1,2,3-Trimethylbenzene | 105 | | 12.776 | | | | ND | |
| 116 2,4-Dichloro-1-(triflourom | 214 | | 12.782 | | | | ND | |
| 118 2,5-Dichlorobenzotrifluori | 214 | | 12.818 | | | | ND | |
| 119 Benzyl chloride | 91 | | 12.867 | | | | ND | |
| 120 n-Butylbenzene | 91 | | 13.098 | | | | ND | |
| 121 1,2-Dichlorobenzene | 146 | | 13.110 | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | | 13.907 | | | | ND | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | | 14.047 | | | | ND | |
| 124 1,3,5-Trichlorobenzene | 180 | | 14.087 | | | | ND | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | | 14.461 | | | | ND | |
| 126 1,2,4-Trichlorobenzene | 180 | | 14.729 | | | | ND | |
| 127 Hexachlorobutadiene | 225 | | 14.869 | | | | ND | |
| 128 Naphthalene | 128 | | 14.990 | | | | ND | |
| 129 1,2,3-Trichlorobenzene | 180 | | 15.215 | | | | ND | |
| 131 2,4,5-Trichlorotoluene | 159 | | 15.994 | | | | ND | |
| 130 2,3,6-Trichlorotoluene | 159 | | 16.091 | | | | ND | |
| 132 2-Methylnaphthalene | 142 | | 16.134 | | | | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | |
| 151 Isooctane | 57 | | 0.000 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|---|----------|--------------|-------|
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | |
| 152 Formaldehyde TIC | 1 | | 0.000 | | | | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 52.9 | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |
| S 135 1,3-Dichloropropene, Total | 1 | | 0.000 | | | | ND | |
| T 138 Methyl n-amyl ketone TIC | 43 | | 0.000 | | | | ND | |
| T 136 Mesityl oxide TIC | 83 | | 0.000 | | | | ND | |
| T 153 1,2 Epoxybutane TIC | 42 | | 6.253 | | | | ND | |
| T 137 Tetrahydrofuran TIC | 42 | | 6.253 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Worklist Smp#: 6

Client ID: HD-MW-147A-0/1-0

Purge Vol: 5.000 mL

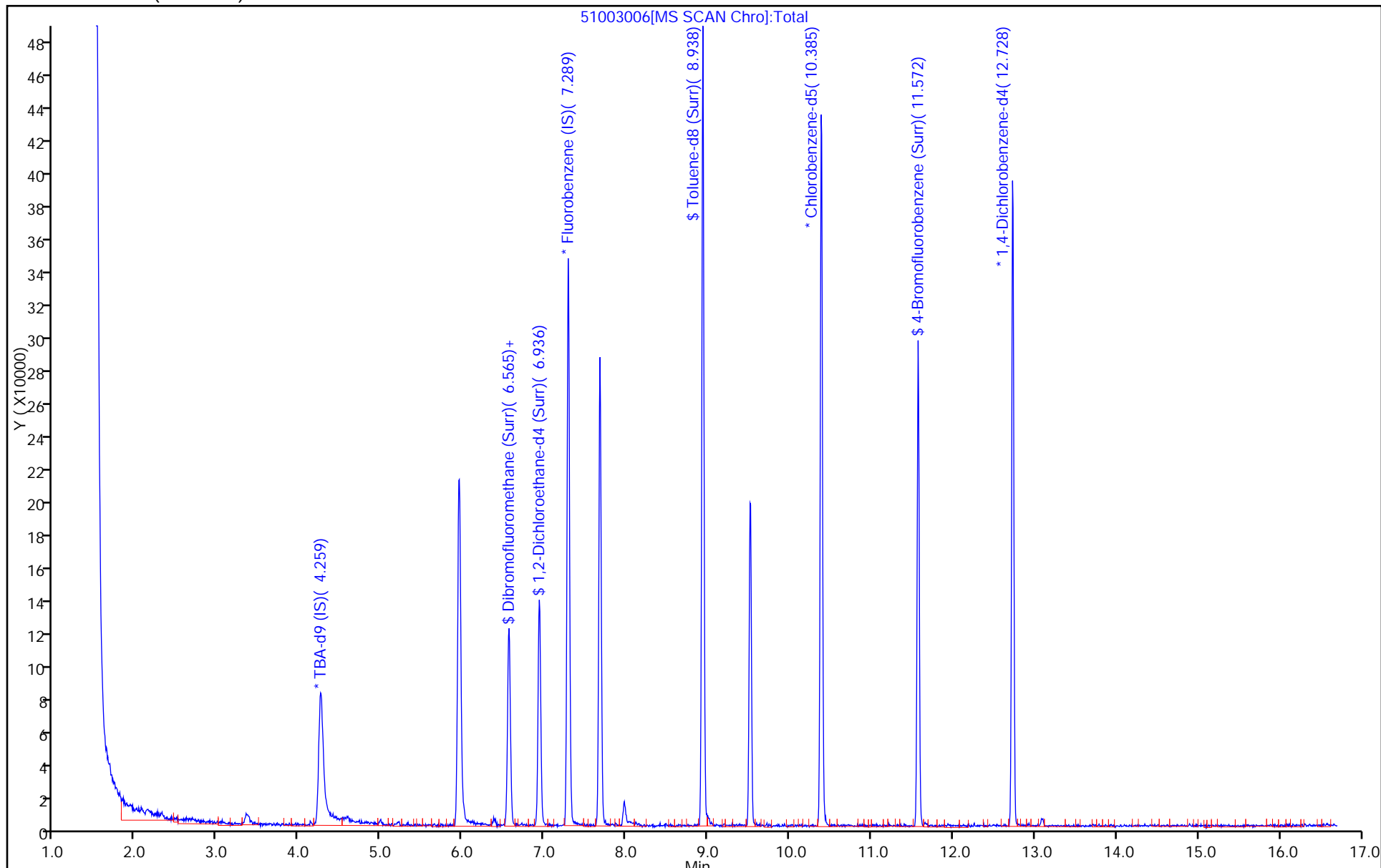
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

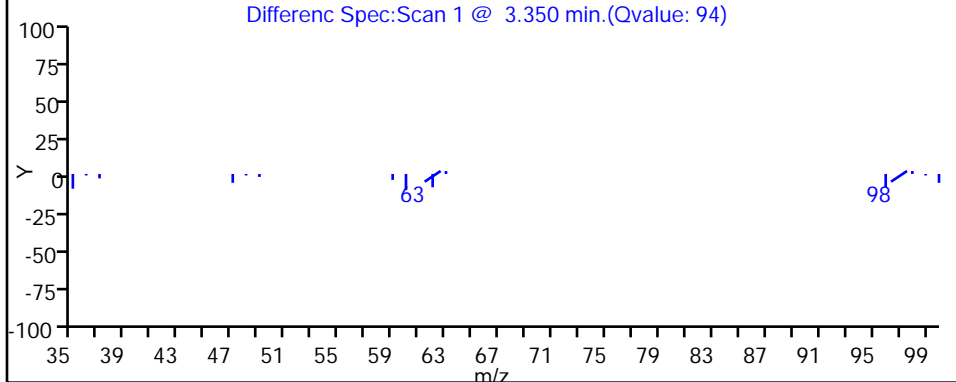
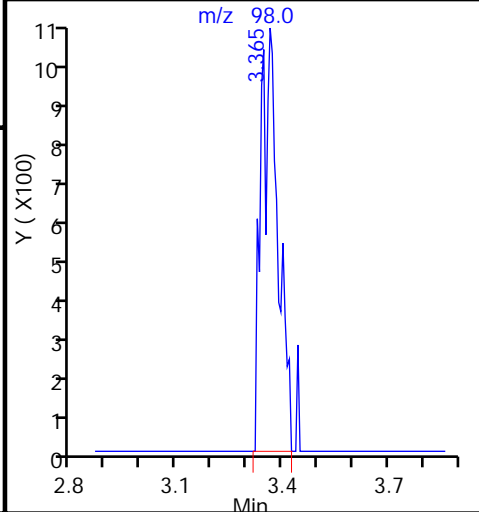
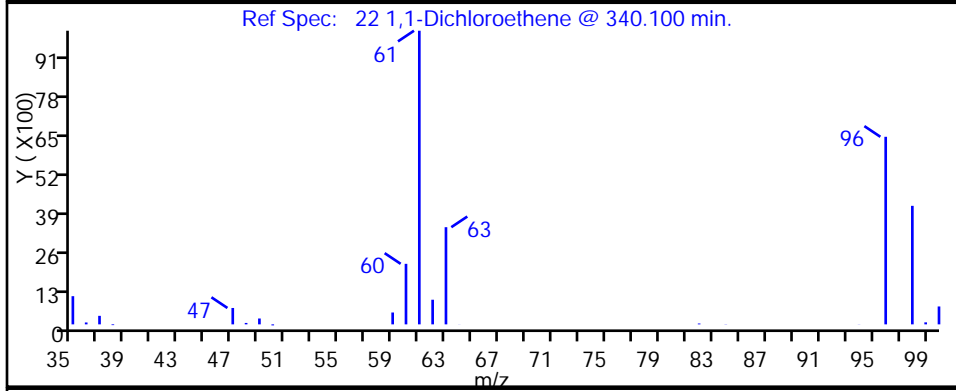
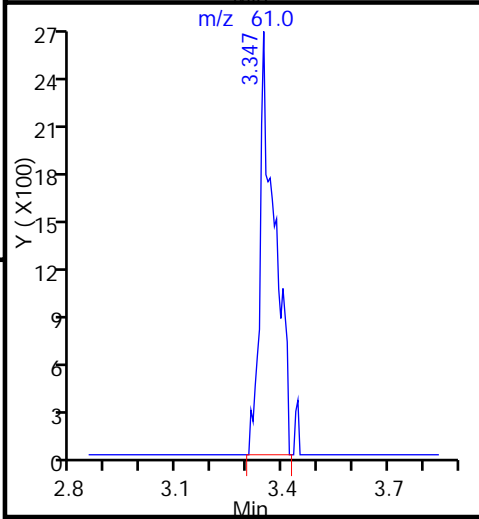
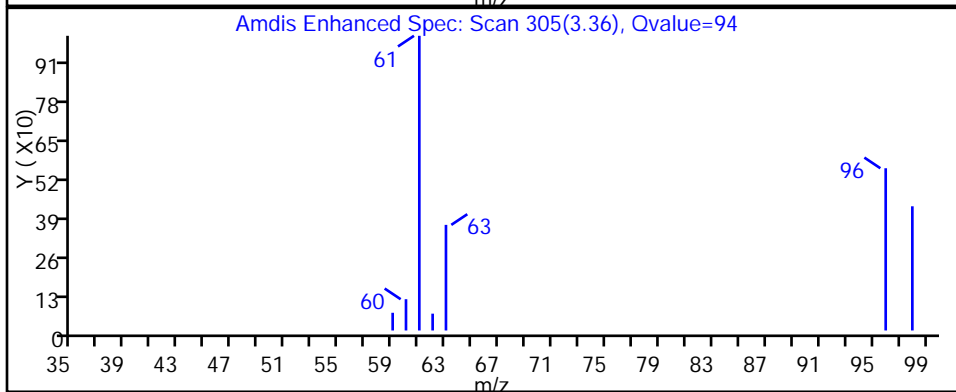
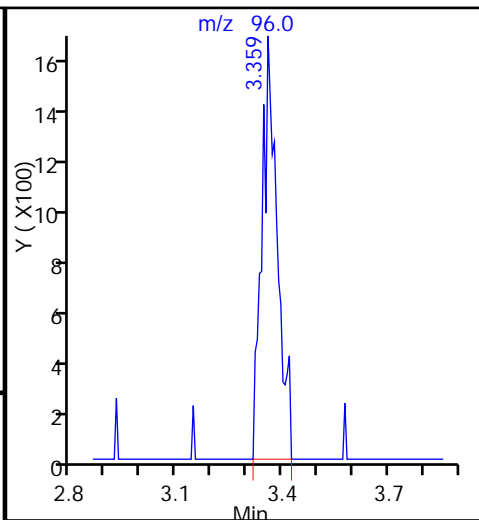
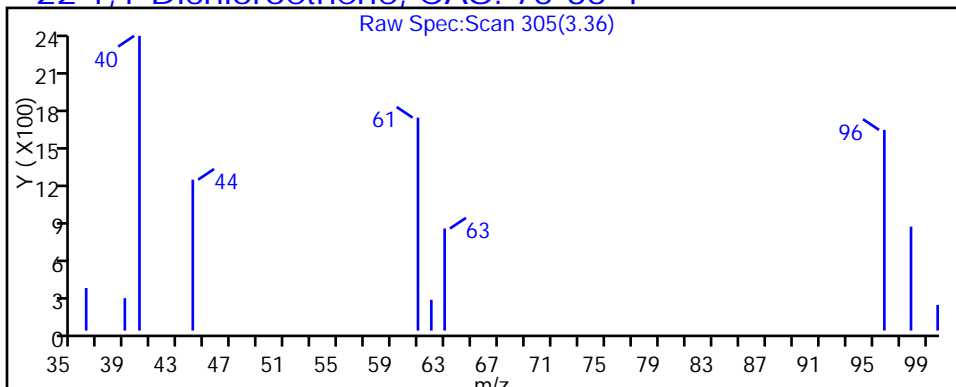
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

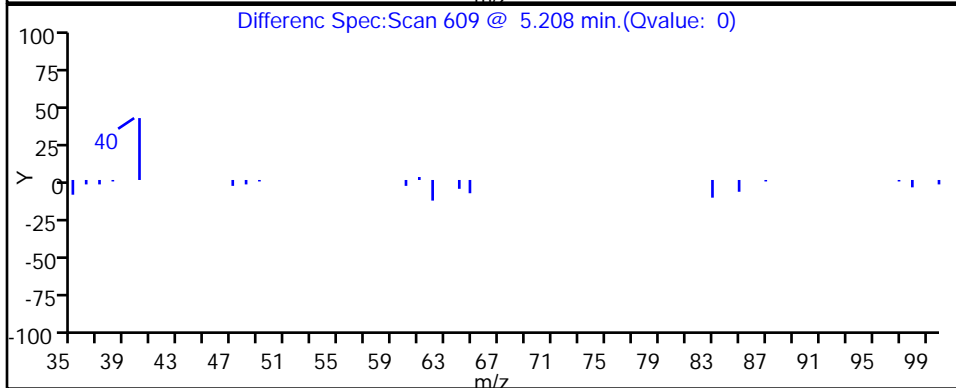
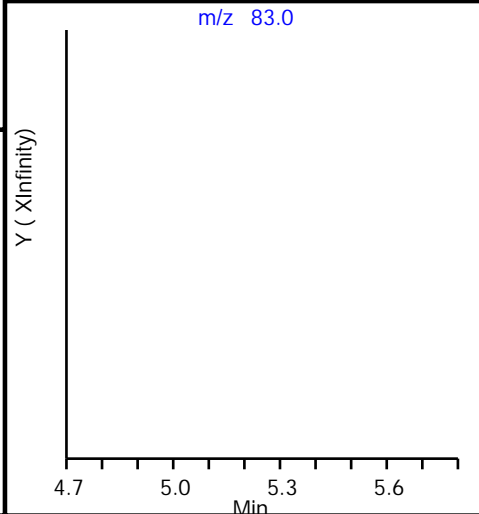
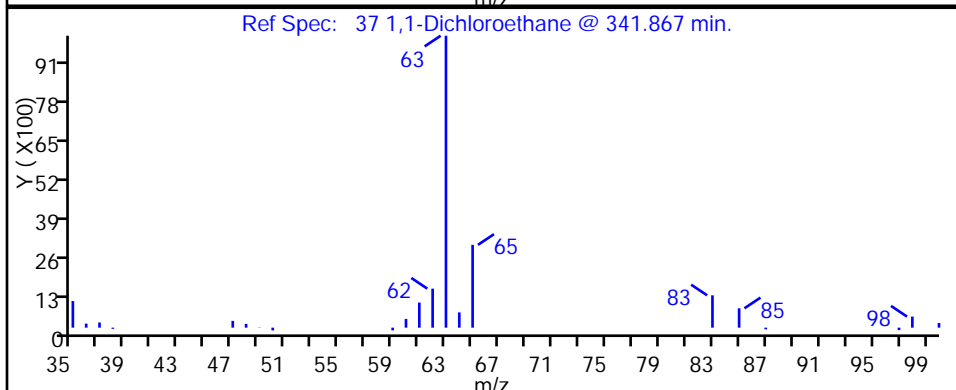
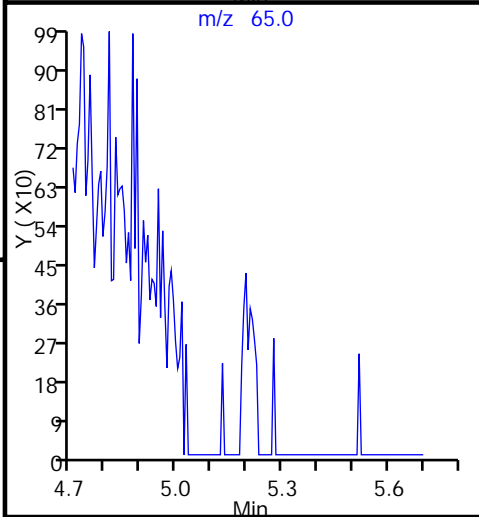
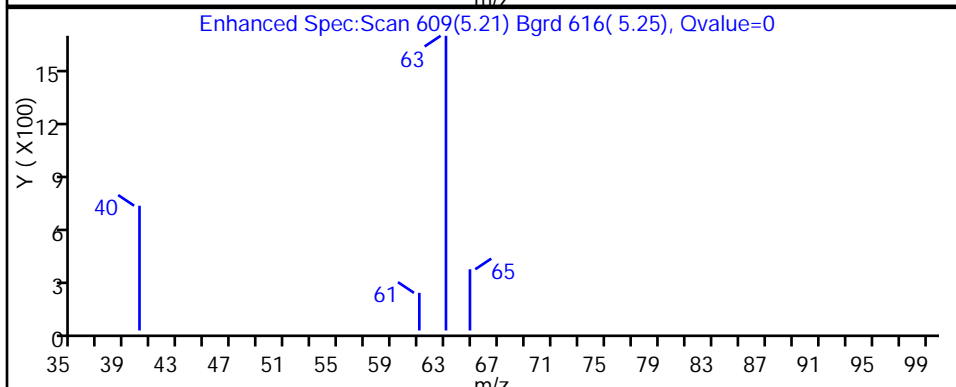
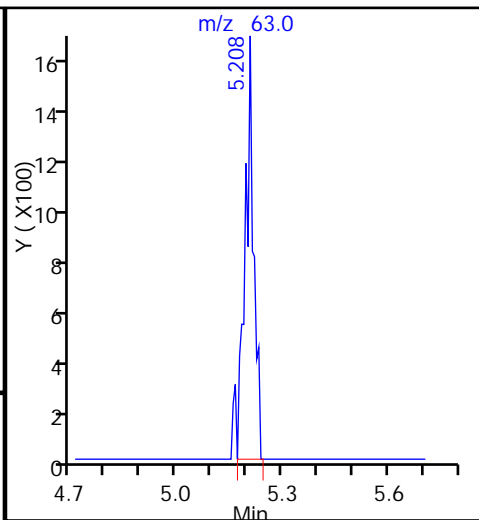
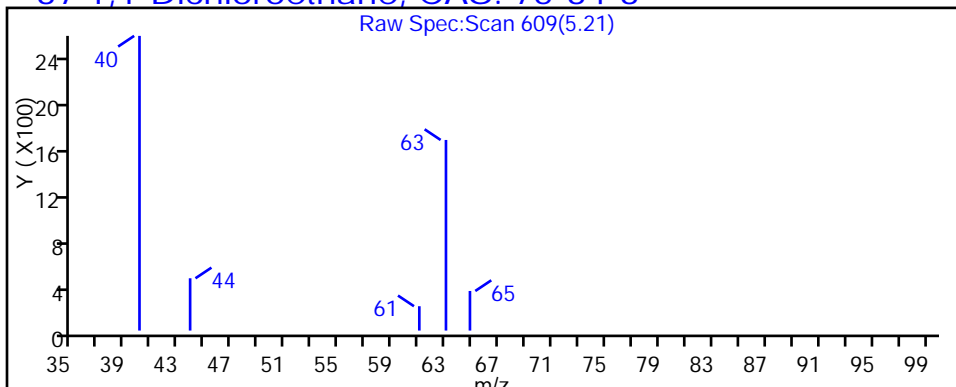
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

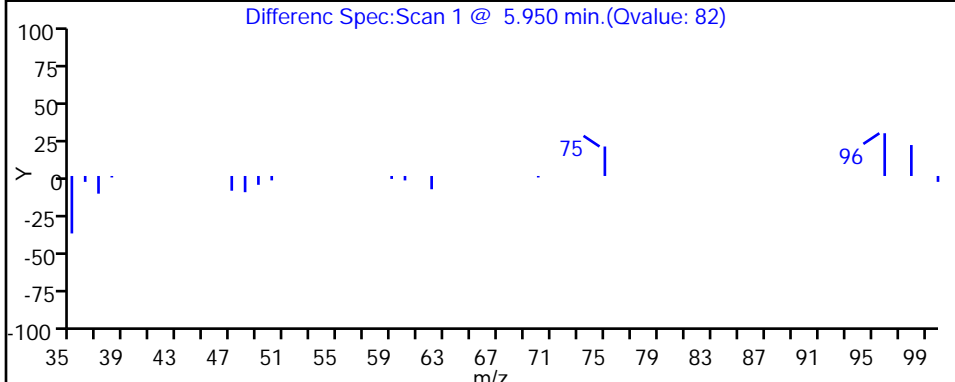
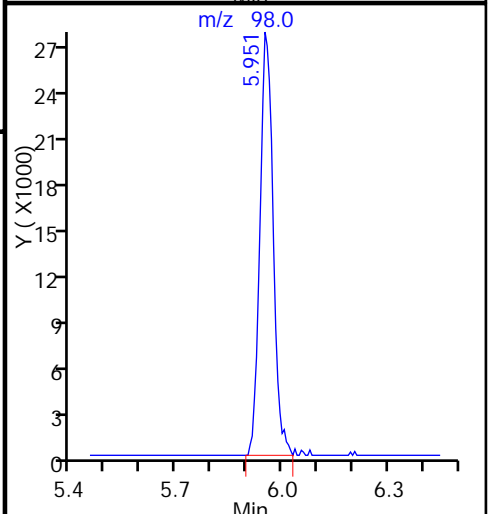
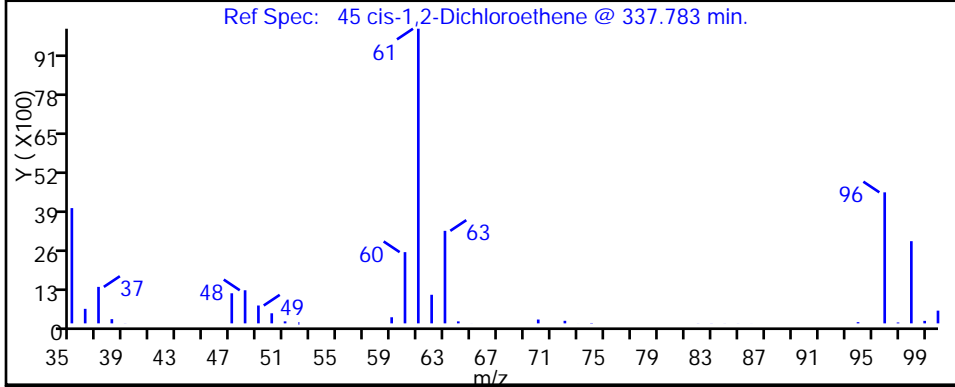
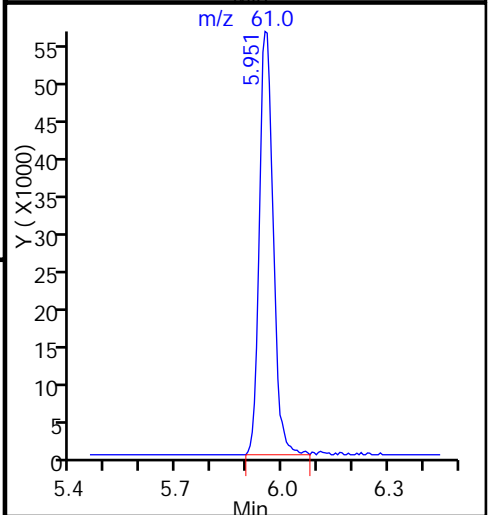
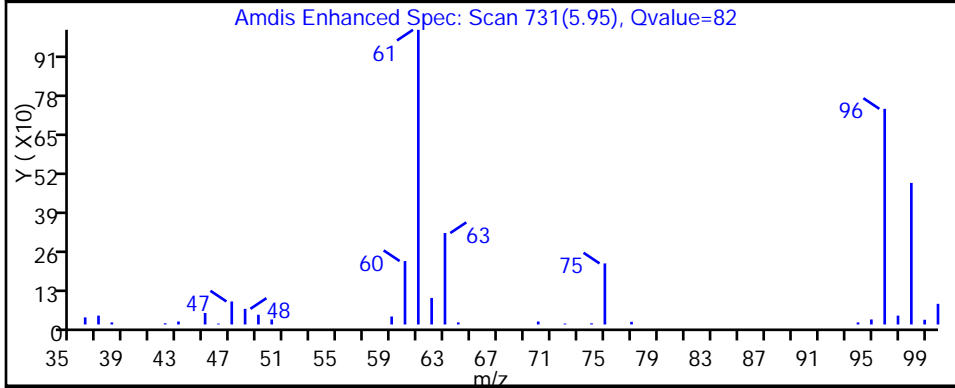
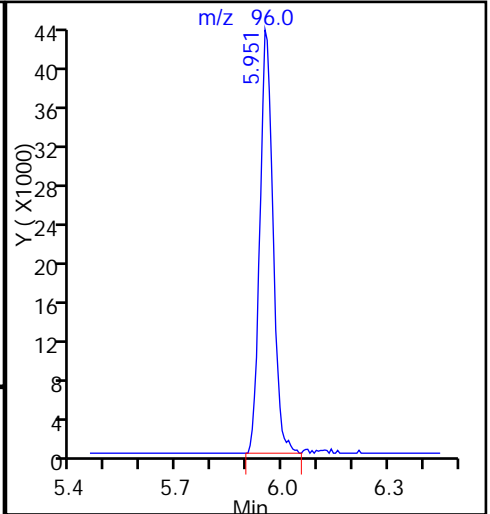
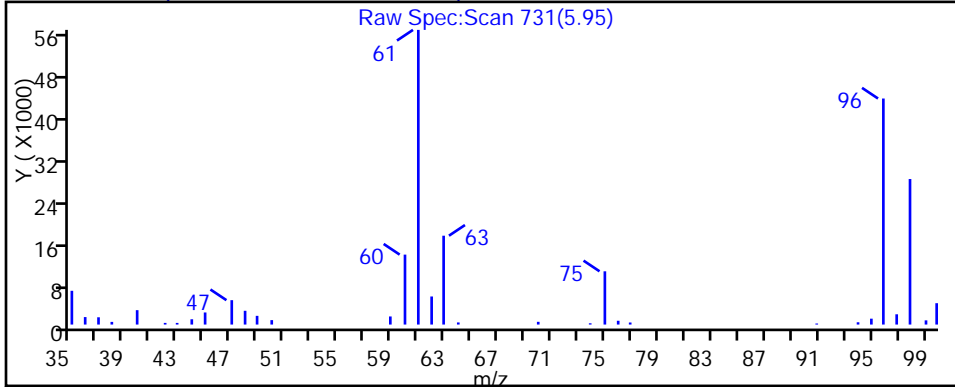
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

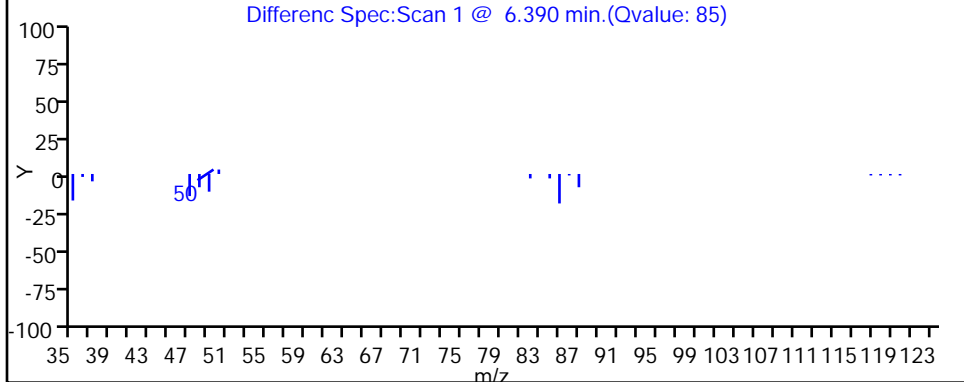
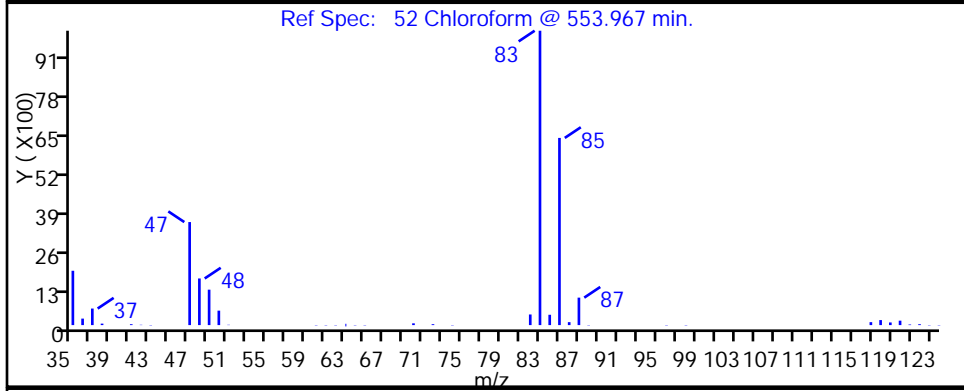
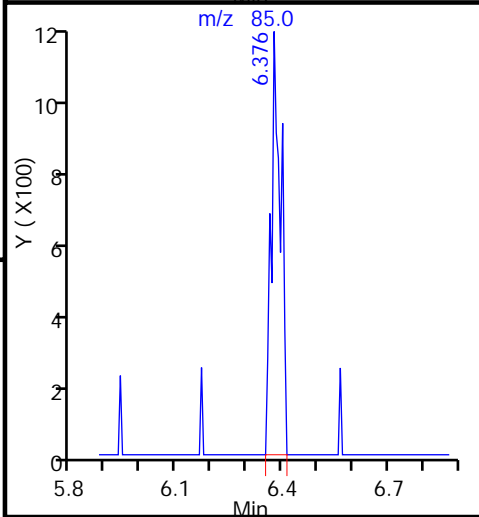
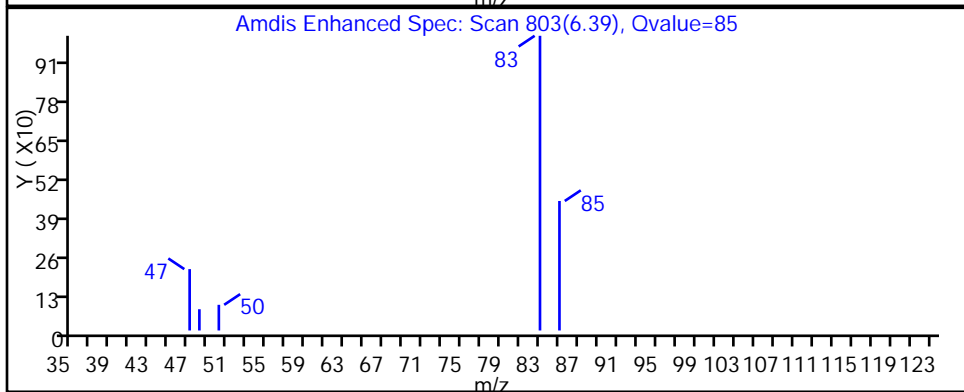
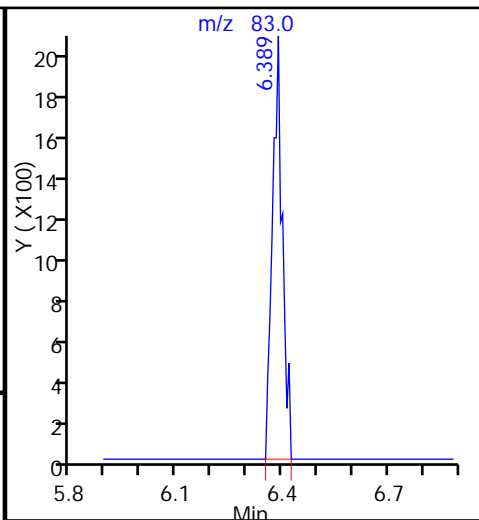
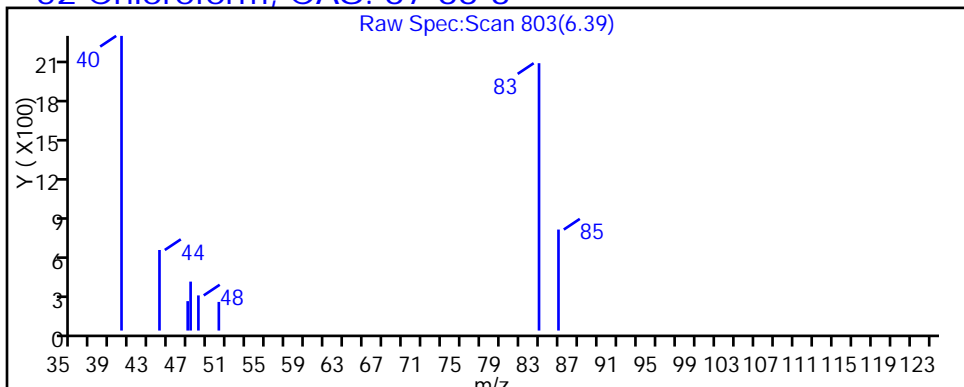
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

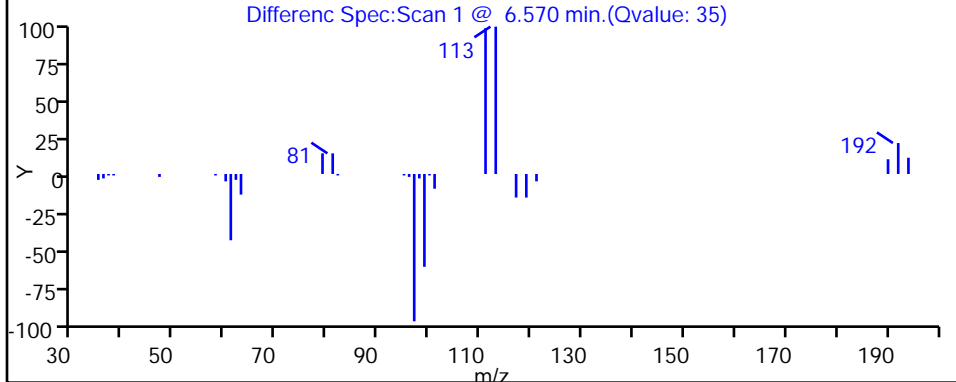
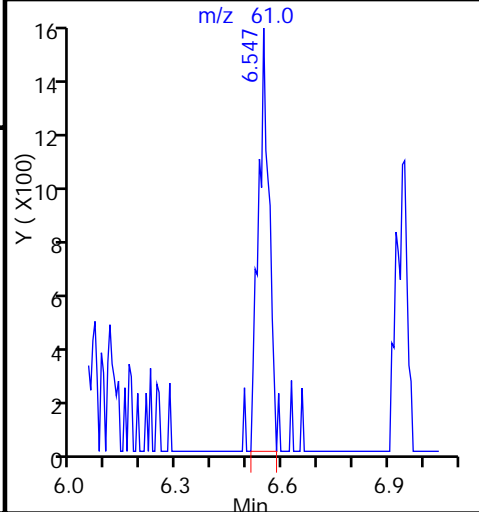
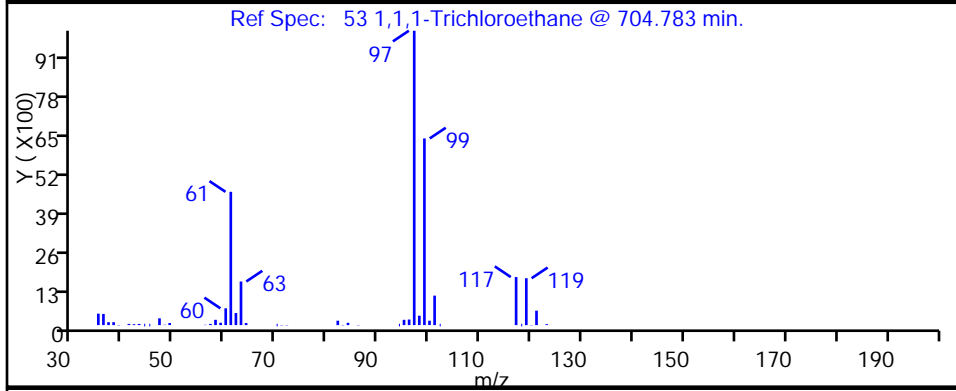
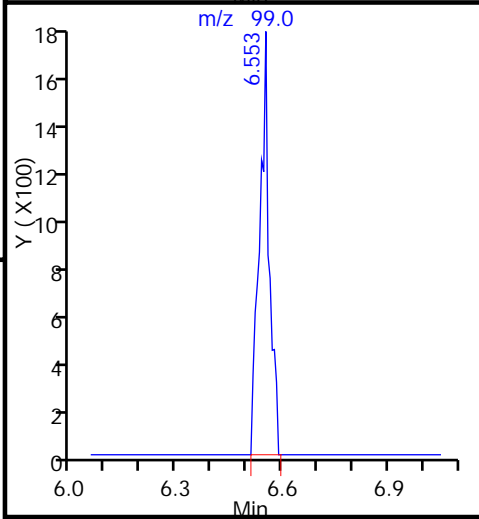
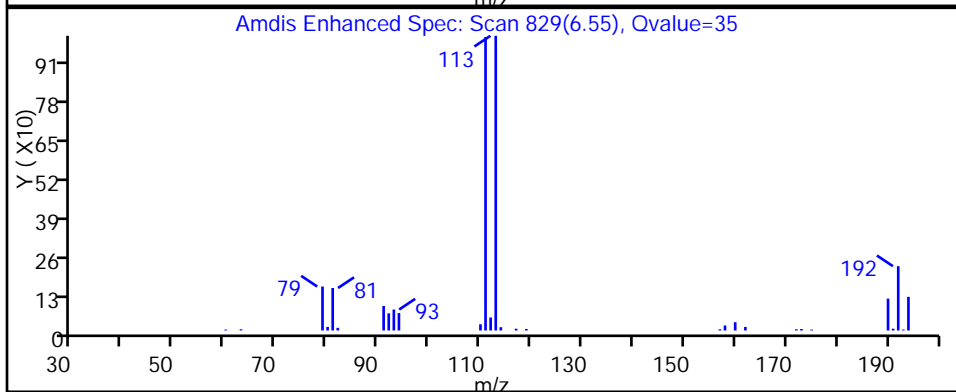
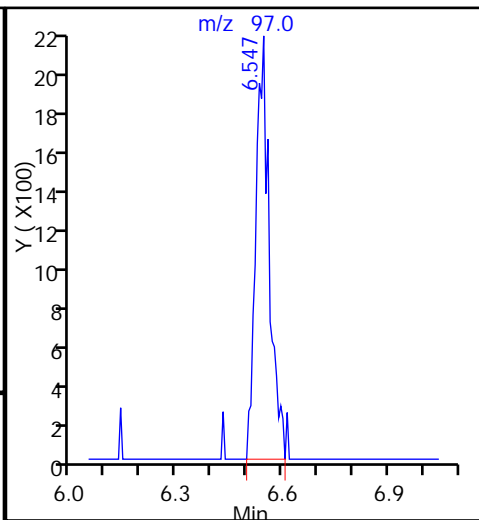
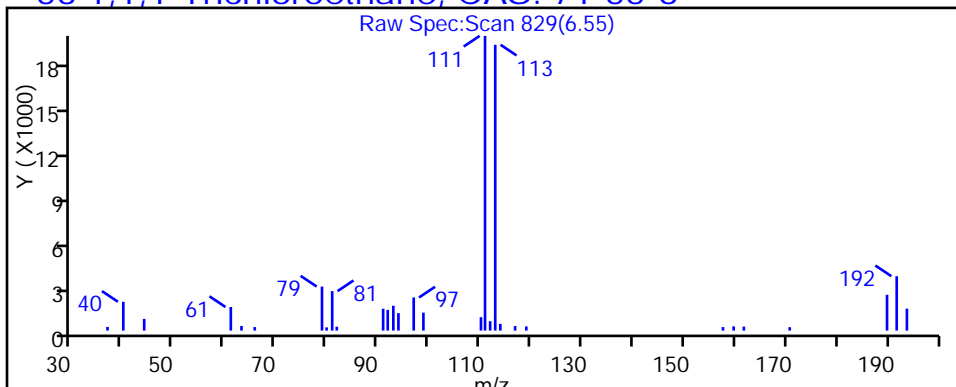
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

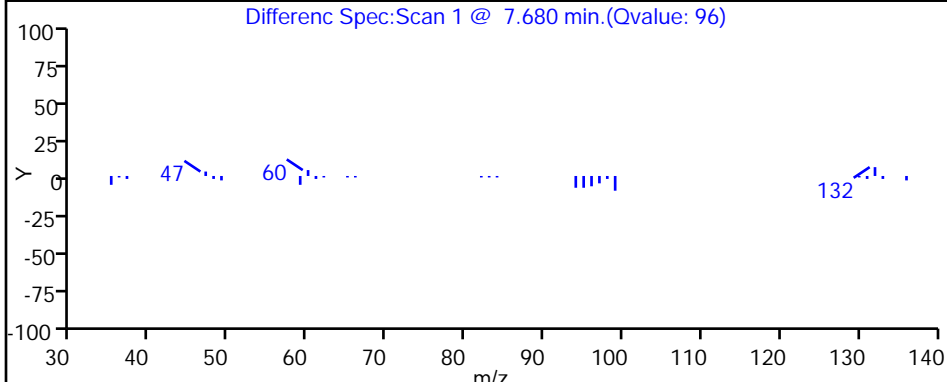
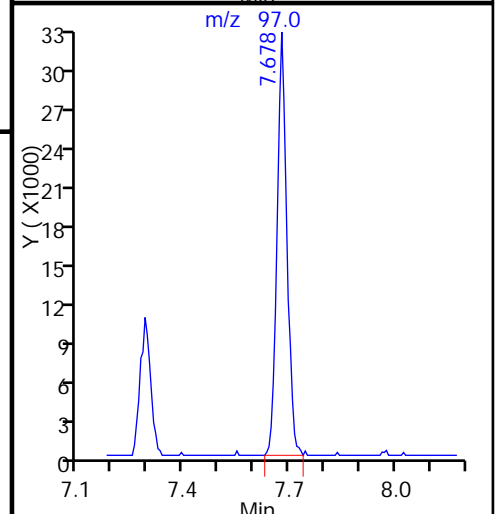
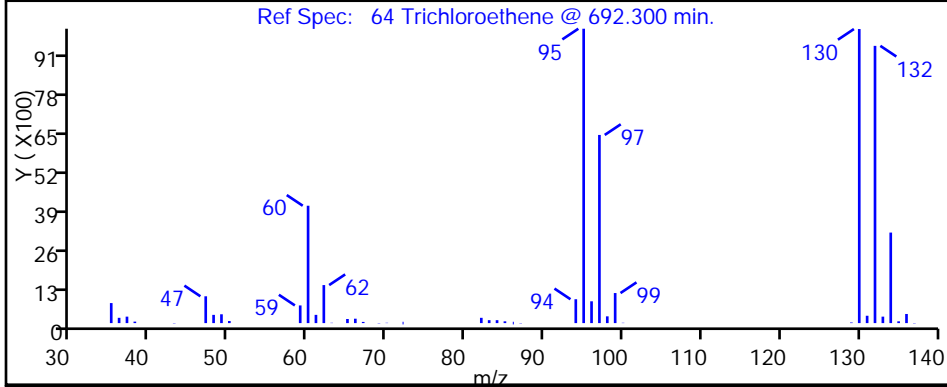
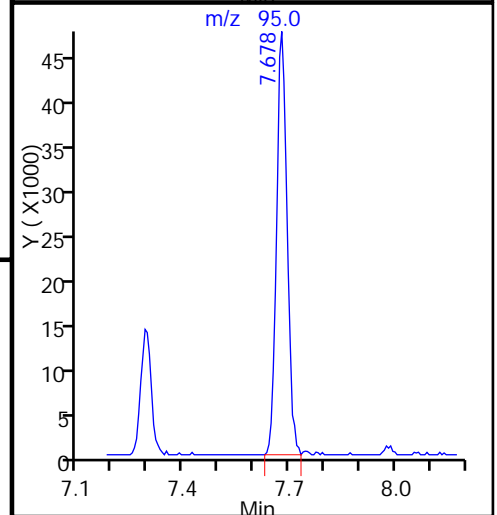
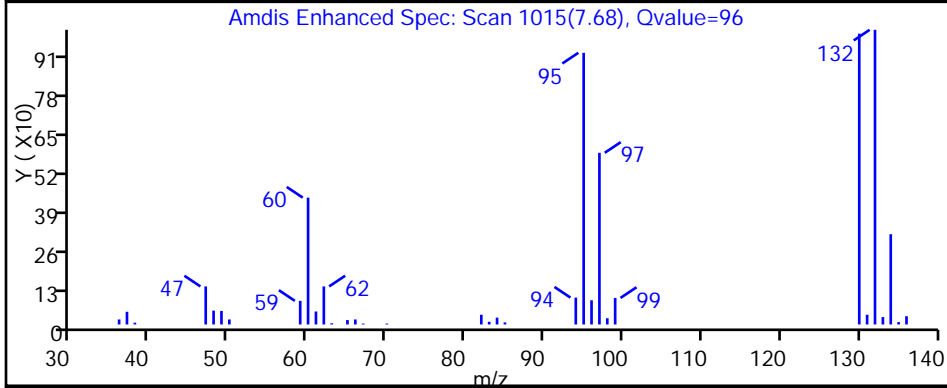
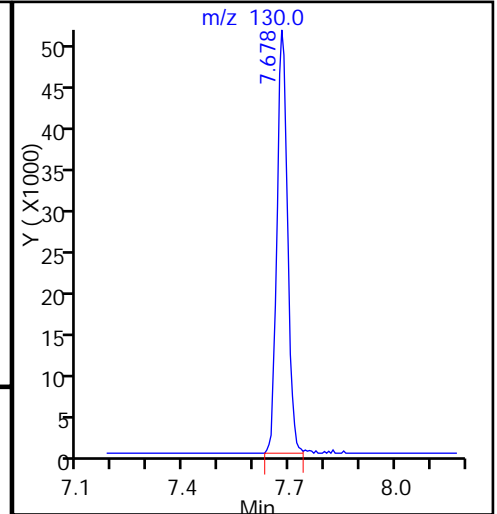
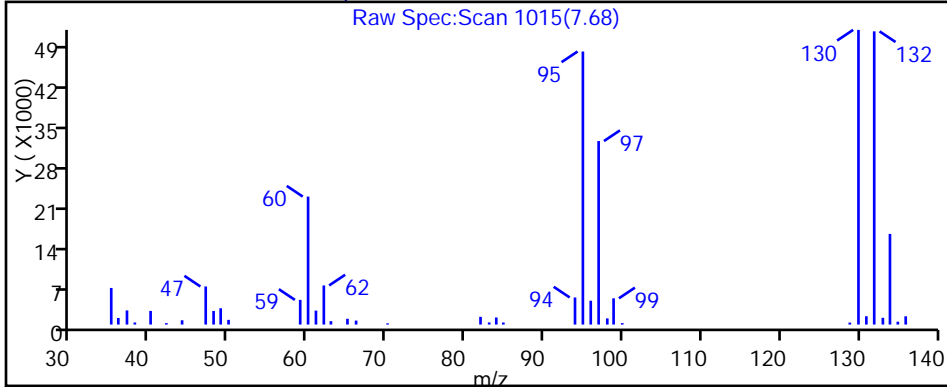
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D

Injection Date: 03-Oct-2015 13:50:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-2

Lab Sample ID: 180-48181-2

Client ID: HD-MW-147A-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

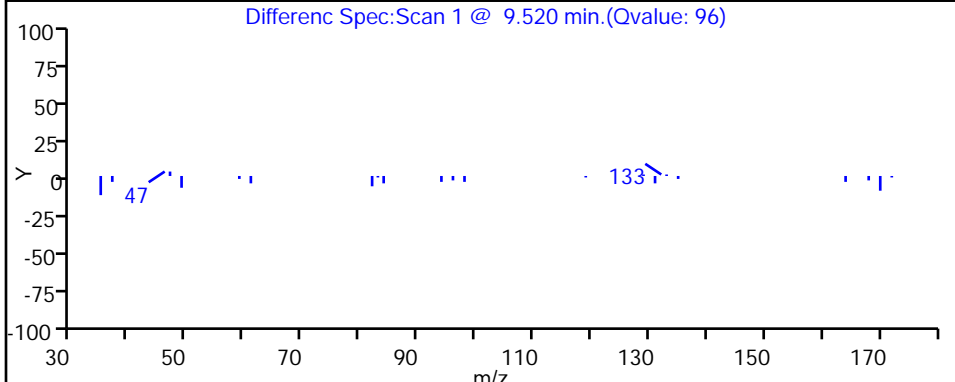
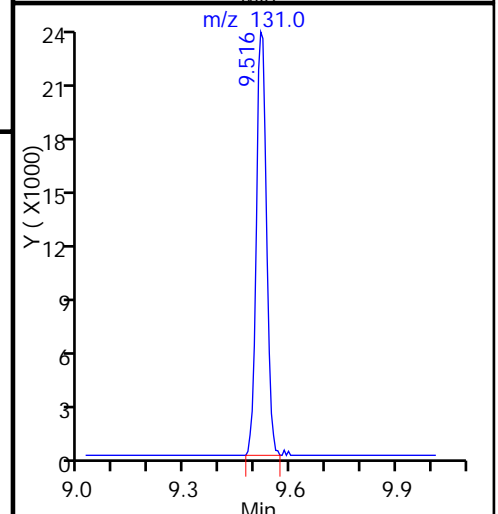
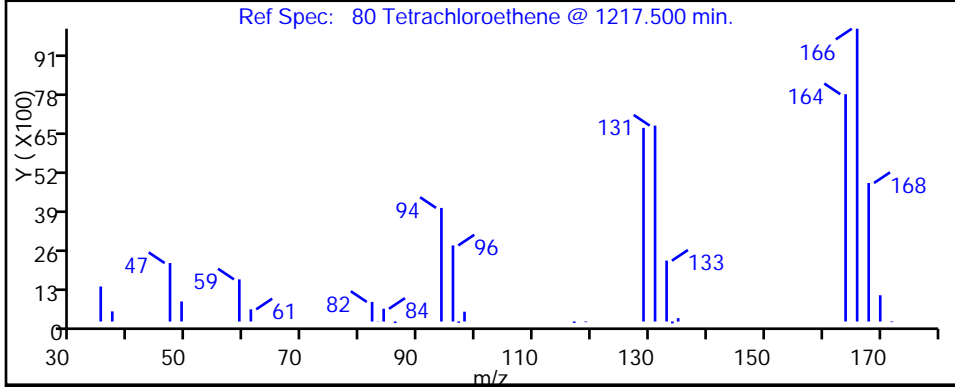
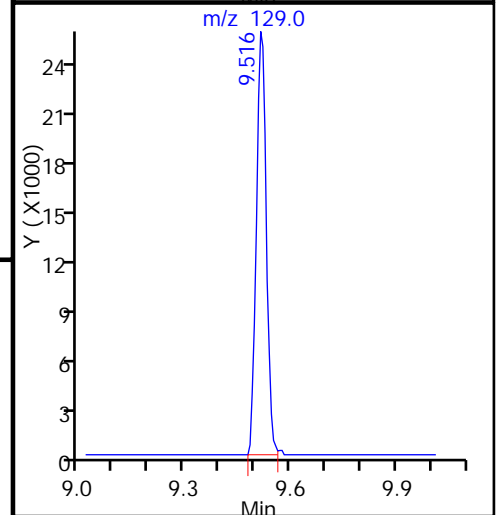
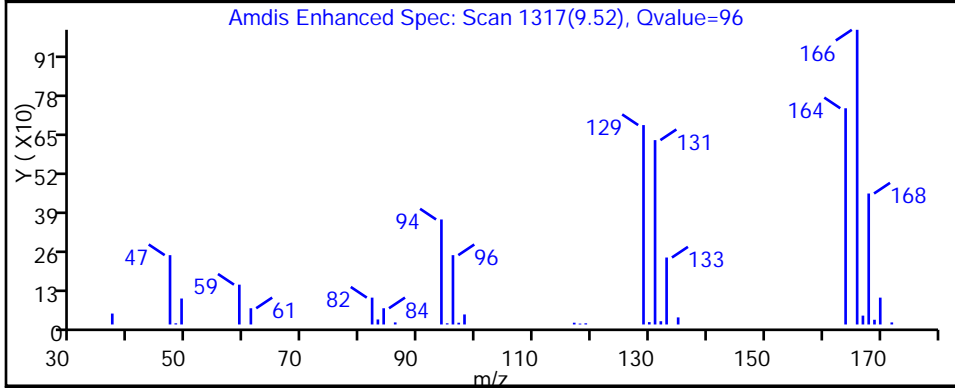
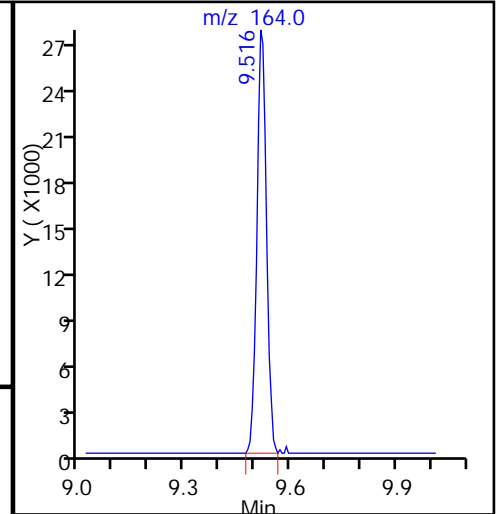
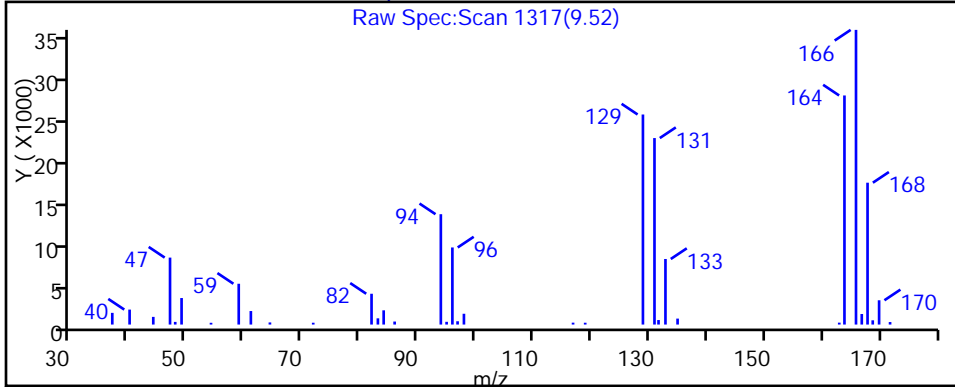
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



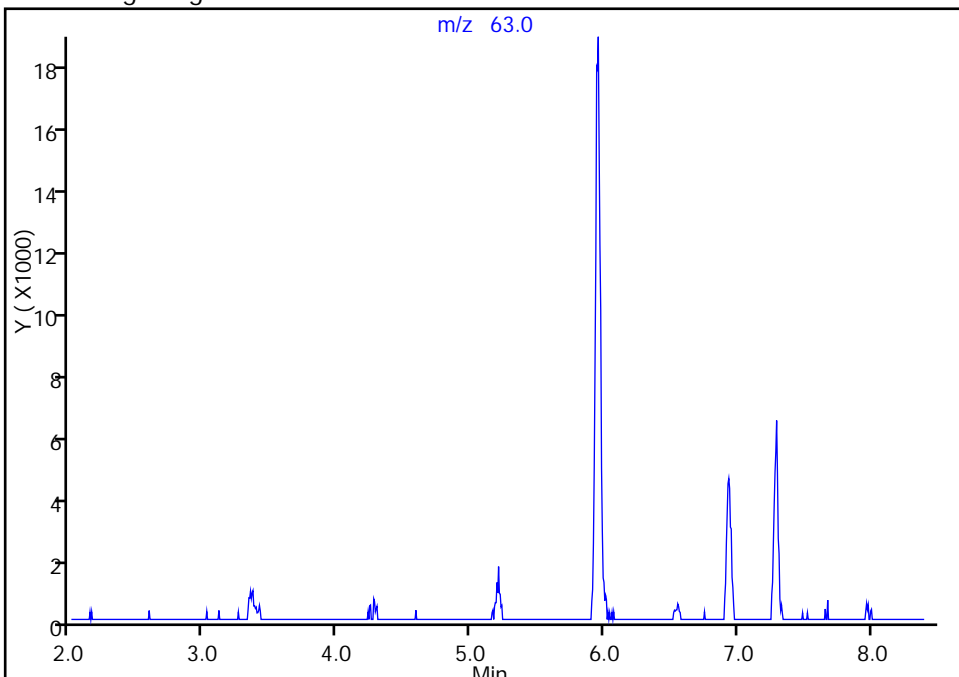
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003006.D
Injection Date: 03-Oct-2015 13:50:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-2 Lab Sample ID: 180-48181-2
Client ID: HD-MW-147A-0/1-0
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

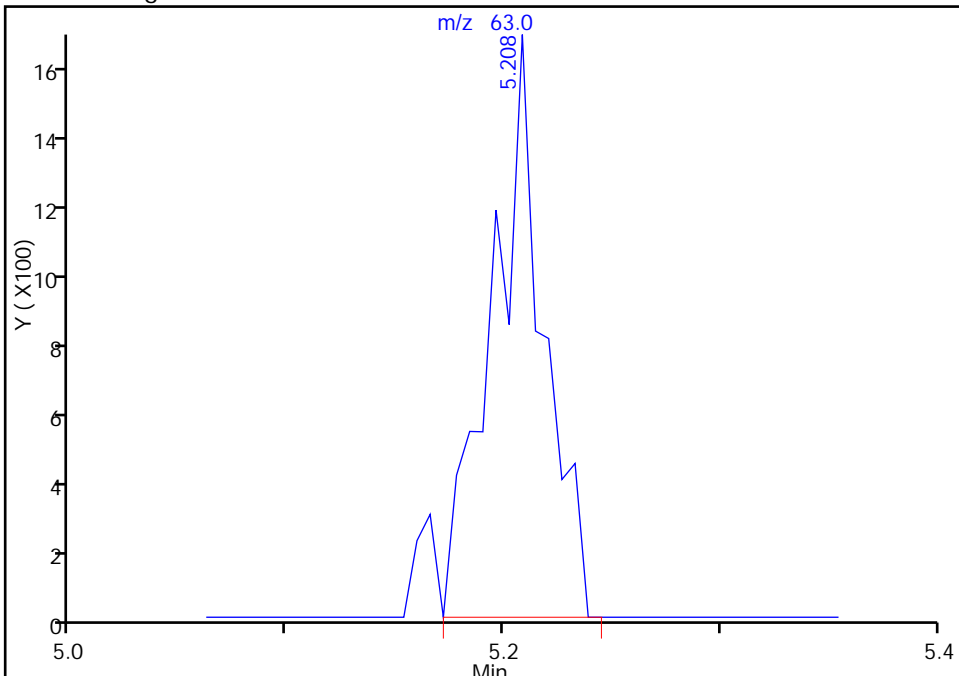
Not Detected
Expected RT: 5.20

Processing Integration Results



RT: 5.21
Area: 2720
Amount: 0.693628
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Oct-2015 14:42:20
Audit Action: Manually Integrated
Audit Reason: Missed Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-48181-3
 Matrix: Water Lab File ID: 51006021.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 20:21
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U ^c | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 0.95 | J | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 23 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 6.8 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 31 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 110 | E | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-48181-3
 Matrix: Water Lab File ID: 51006021.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 20:21
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 94 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 93 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 109 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D
 Lims ID: 180-48181-B-3 Lab Sample ID: 180-48181-3
 Client ID: HD-MW-93S-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 20:21:30 ALS Bottle#: 19 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-B-3
 Misc. Info.: 180-0008850-021
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 08:06:14 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 08:06:14

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.265 | 4.279 | -0.014 | 0 | 118735 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.295 | 7.290 | 0.005 | 99 | 275532 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.391 | 10.387 | 0.004 | 87 | 71803 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.727 | 12.729 | -0.002 | 95 | 105955 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.571 | 6.560 | 0.011 | 94 | 73595 | 54.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.942 | 6.937 | 0.005 | 0 | 87252 | 46.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.937 | 8.939 | -0.002 | 94 | 258050 | 46.6 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.571 | 11.573 | -0.002 | 91 | 91607 | 43.8 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.401 | 3.348 | 0.053 | 43 | 7308 | 4.76 | |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | 4.563 | 4.565 | -0.002 | 1 | 654 | 0.3925 | M |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.202 | 5.204 | -0.002 | 97 | 18530 | 5.65 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.956 | 5.958 | -0.002 | 82 | 200940 | 112.9 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | 6.388 | 6.384 | 0.004 | 38 | 1144 | 0.4034 | |
| 53 1,1,1-Trichloroethane | 97 | 6.546 | 6.542 | 0.004 | 96 | 71179 | 33.9 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 96 | 256326 | 154.2 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.515 | 9.517 | -0.002 | 98 | 745322 | 540.1 | E |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | 10.422 | 10.417 | 0.005 | 1 | 1283 | 0.2803 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Worklist Smp#: 21

Client ID: HD-MW-93S-0/1-0

Purge Vol: 5.000 mL

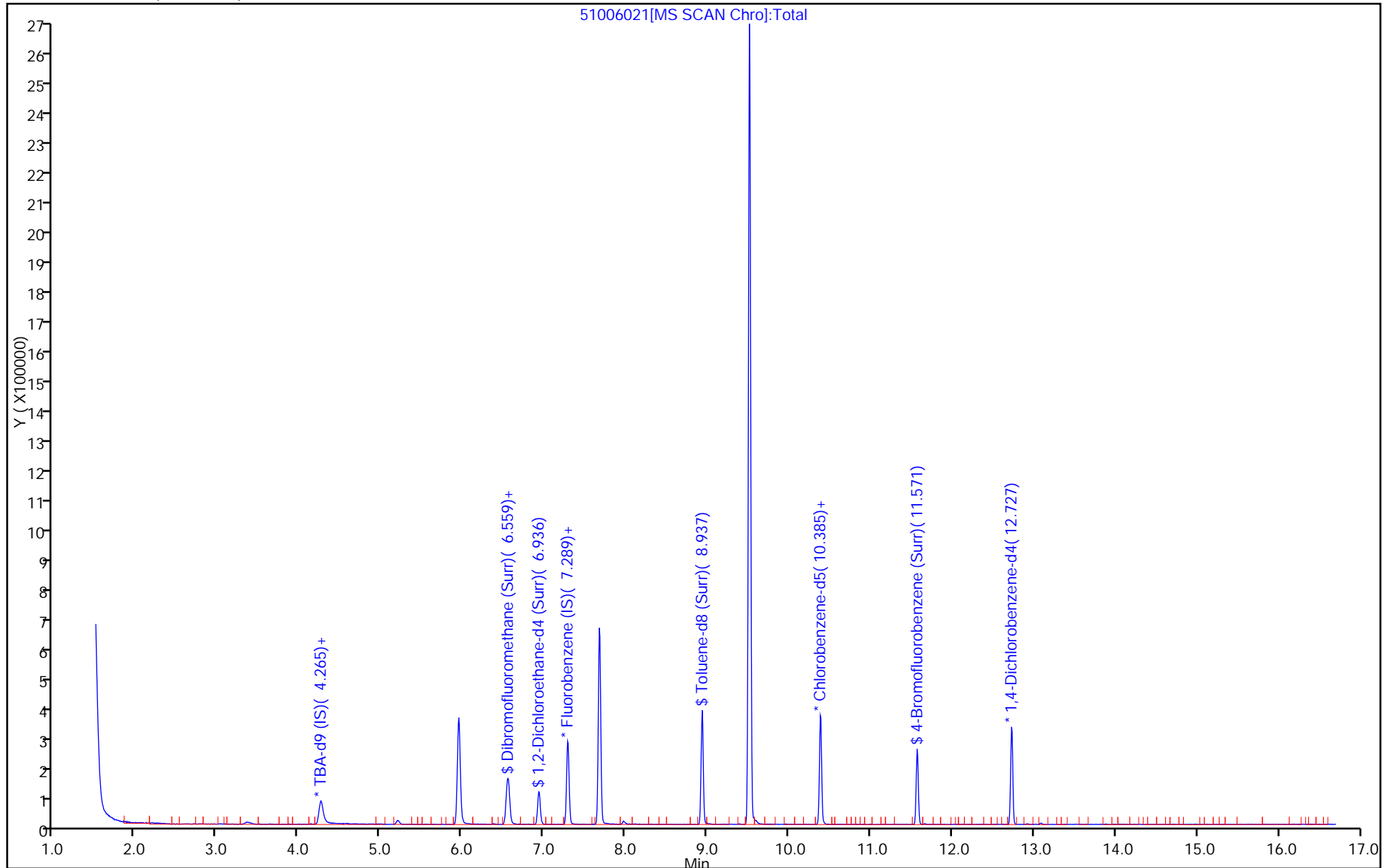
Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

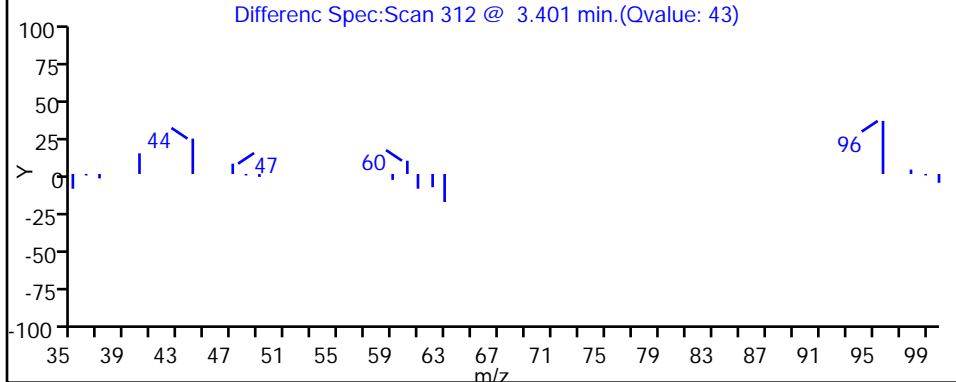
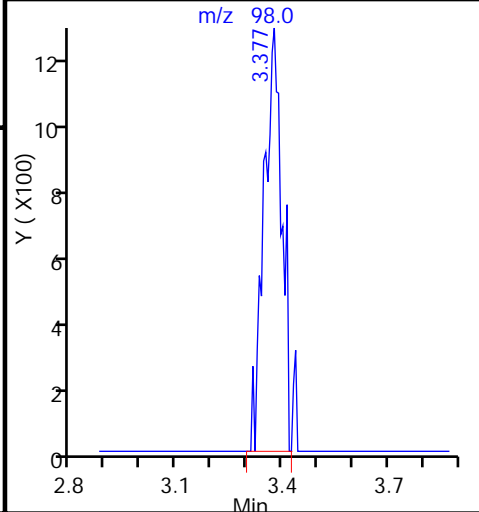
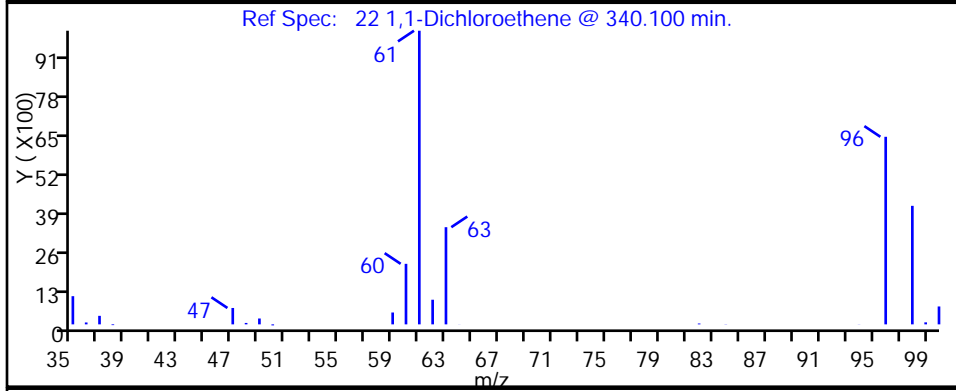
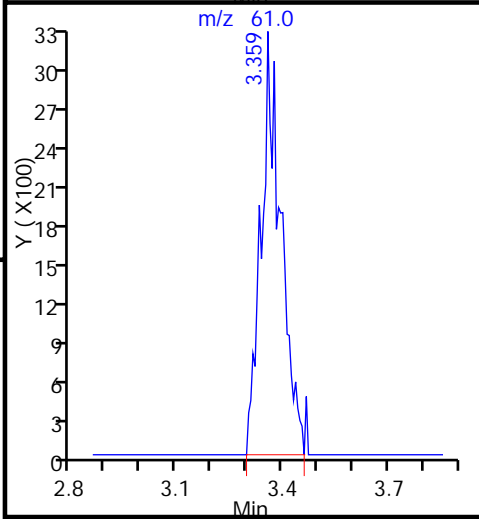
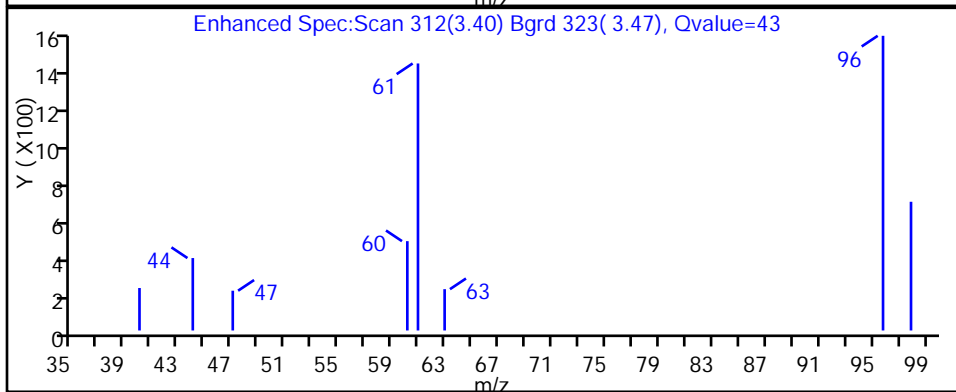
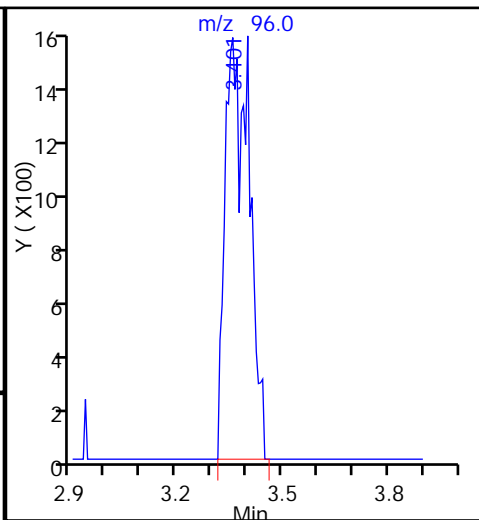
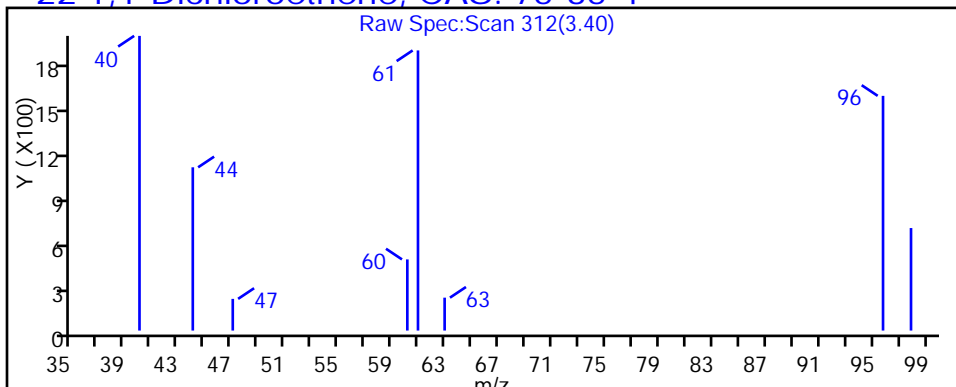
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

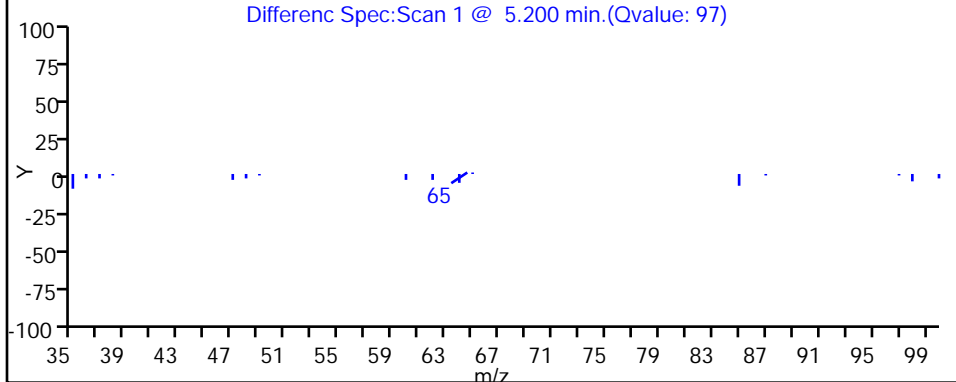
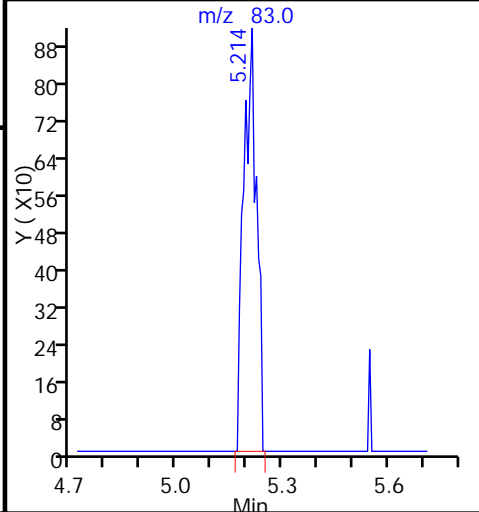
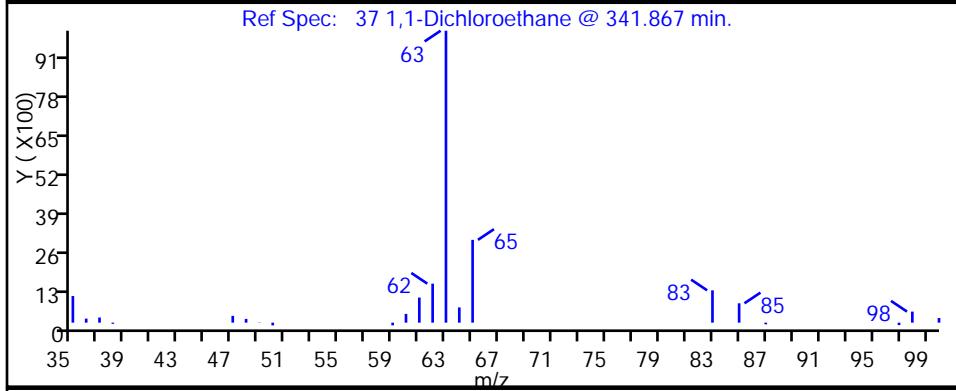
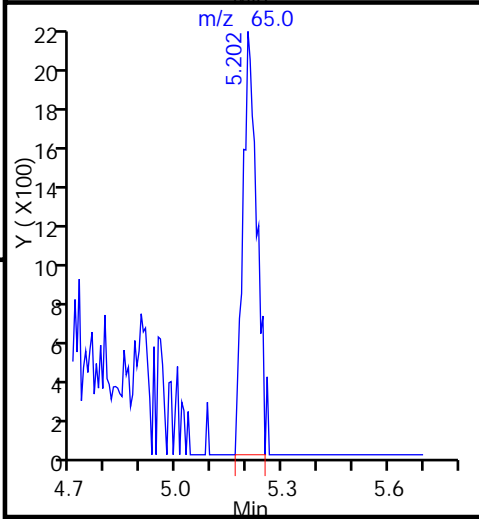
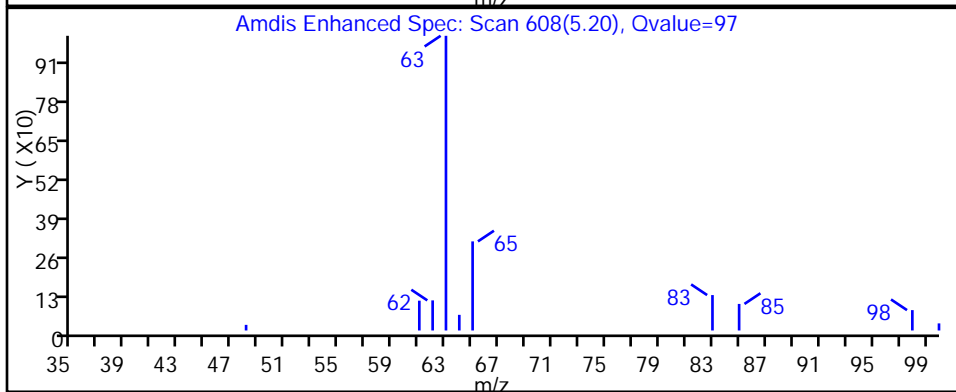
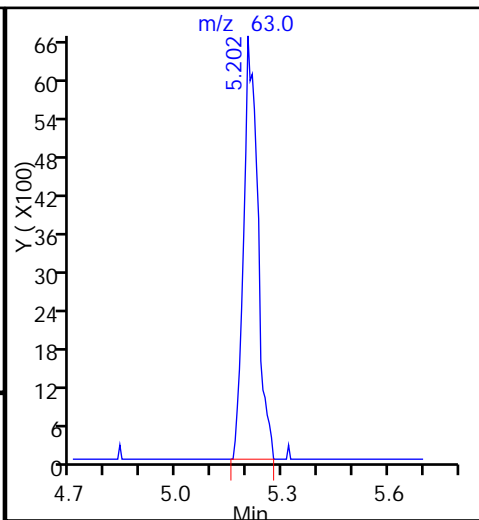
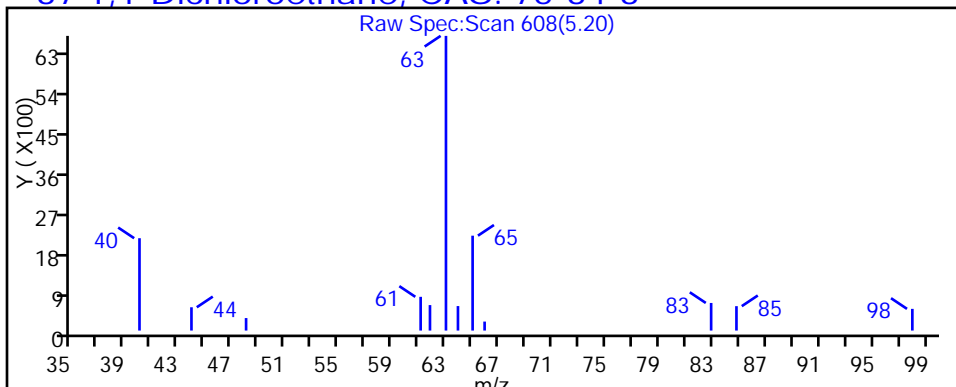
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

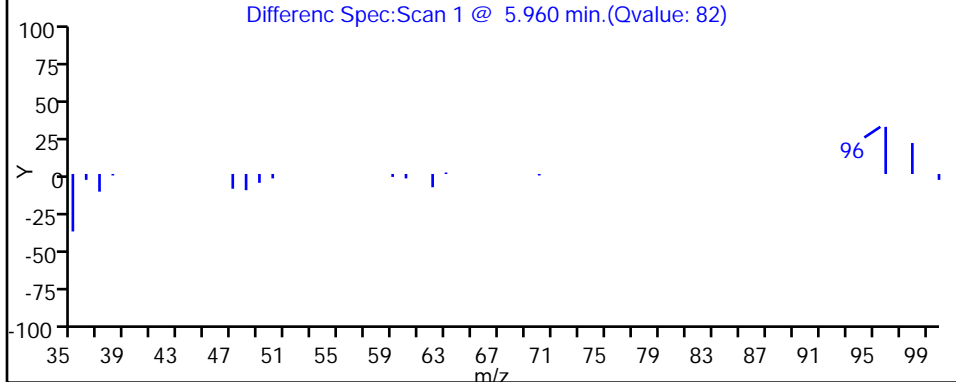
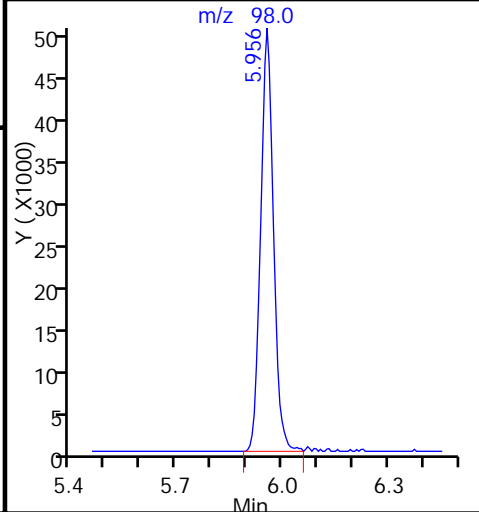
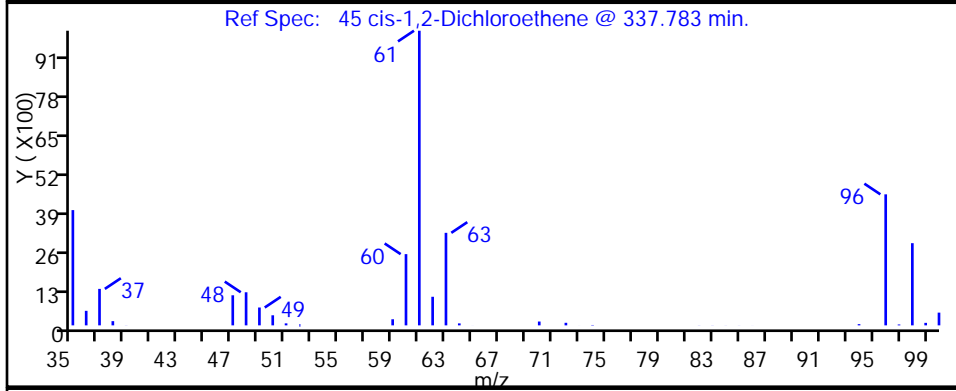
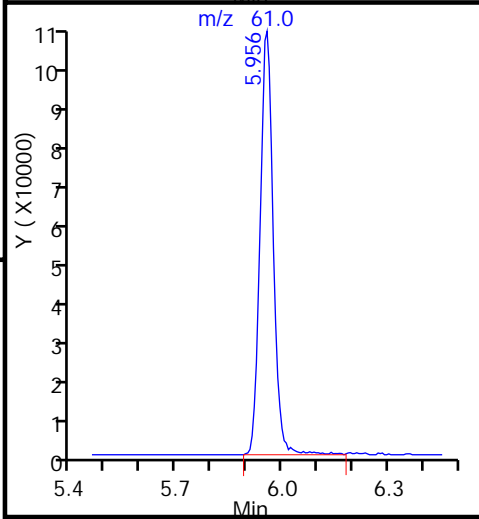
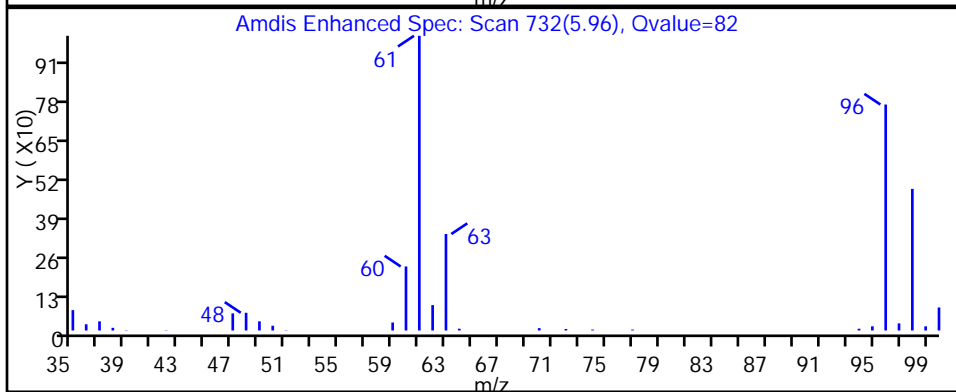
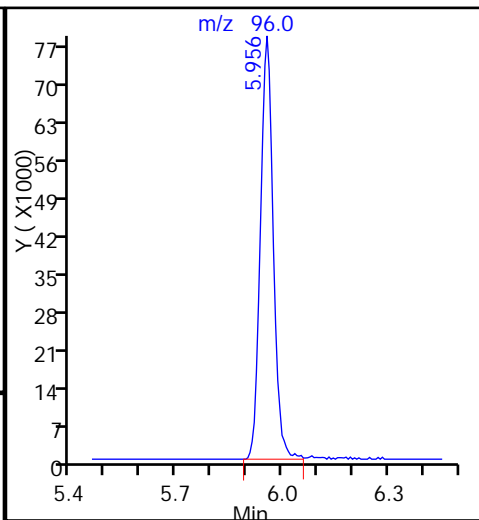
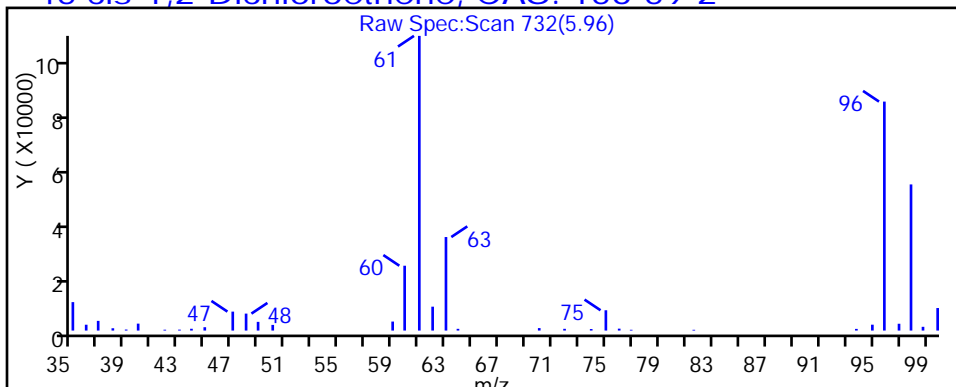
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

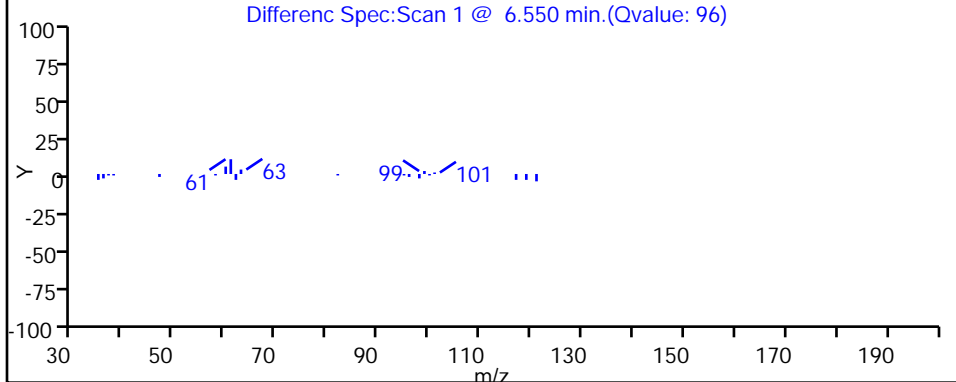
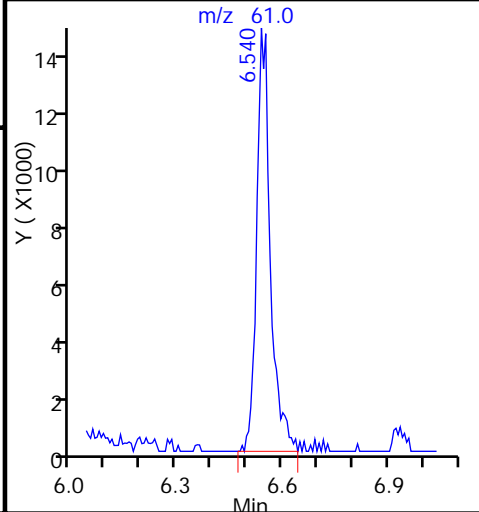
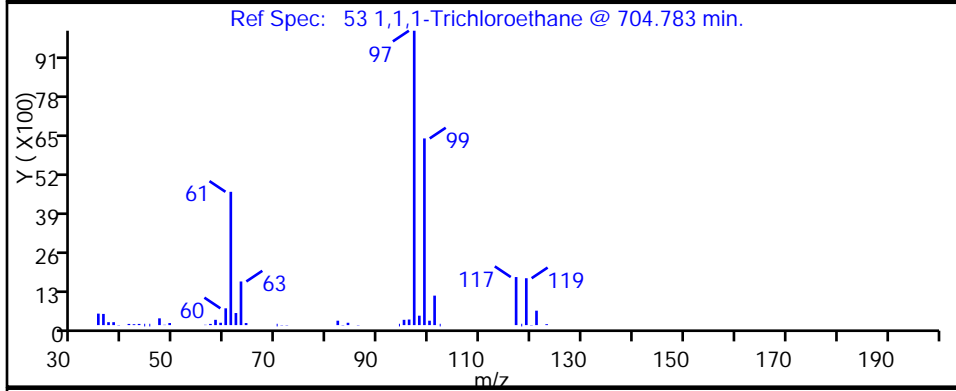
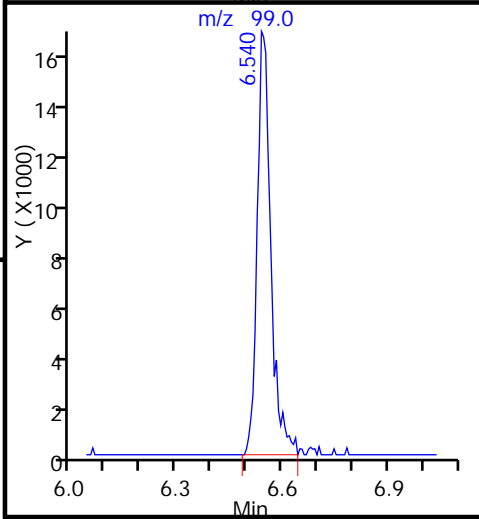
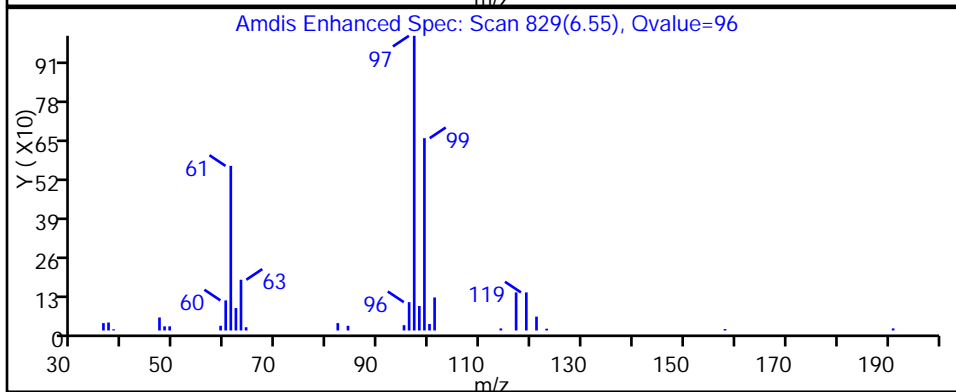
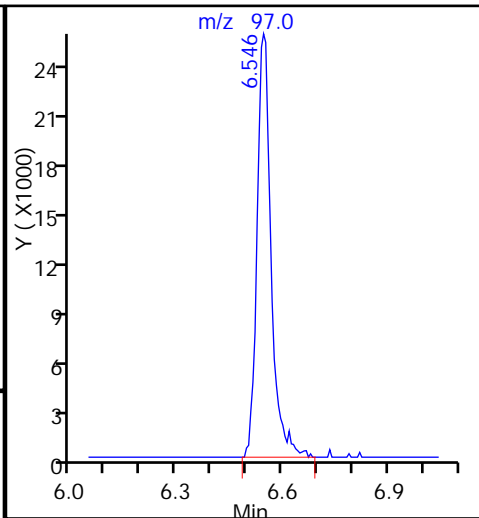
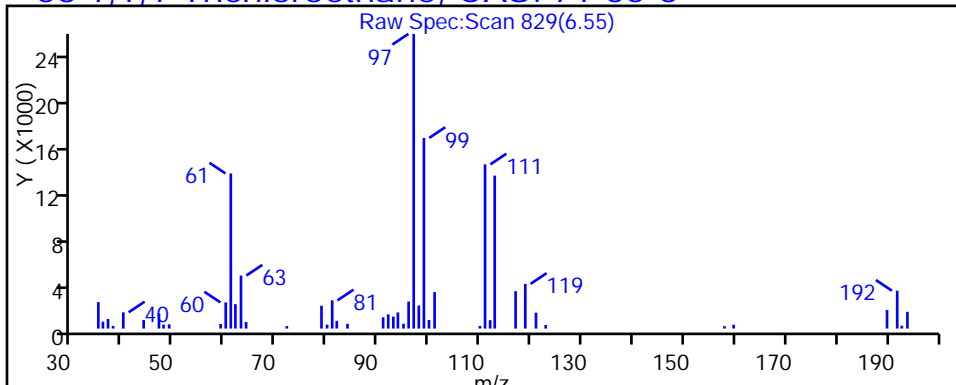
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

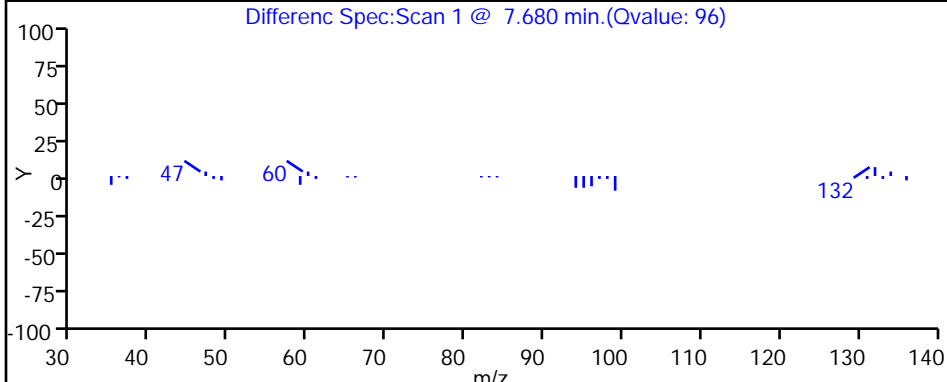
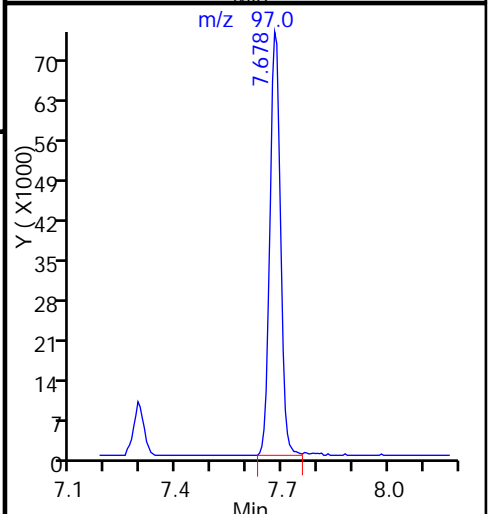
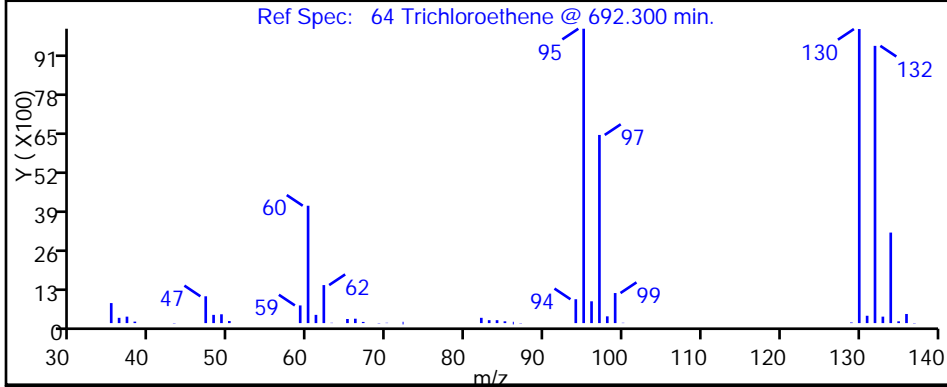
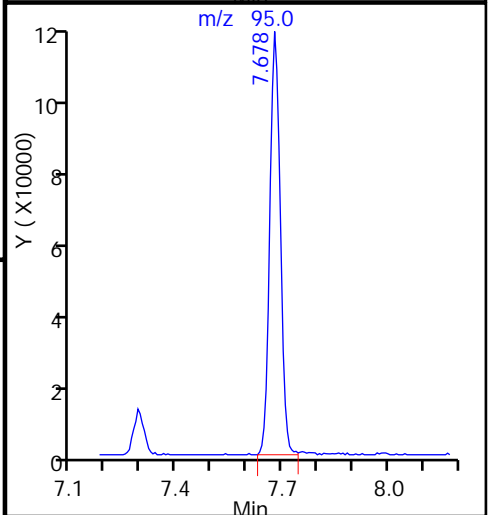
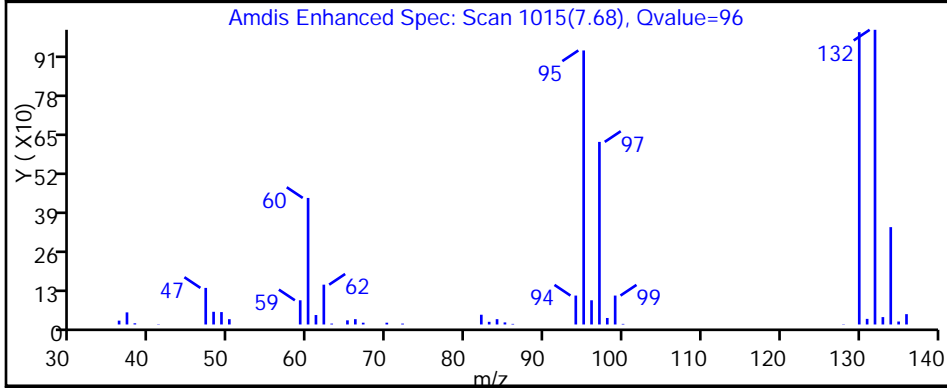
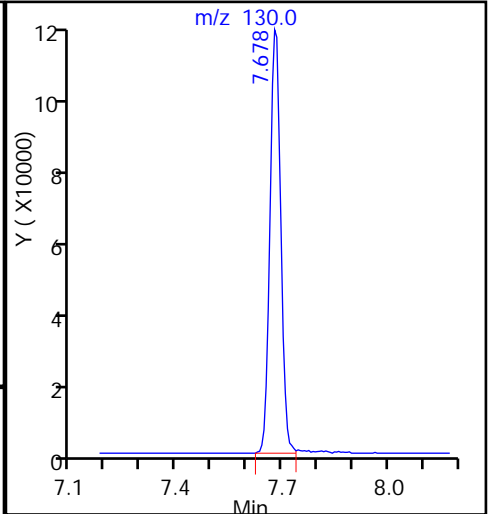
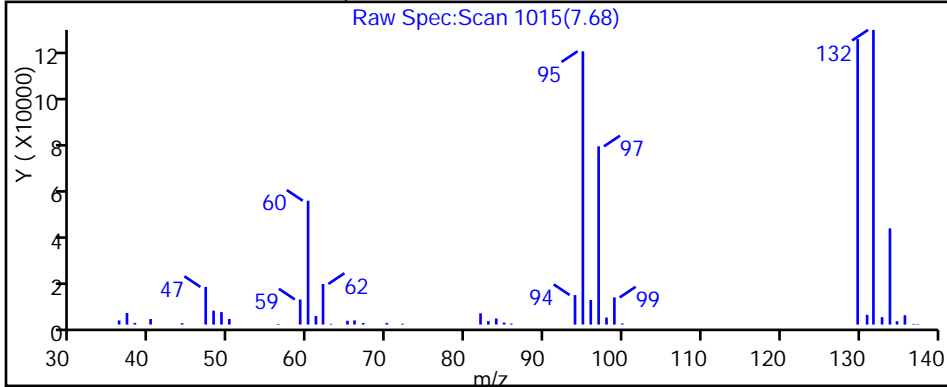
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D

Injection Date: 06-Oct-2015 20:21:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

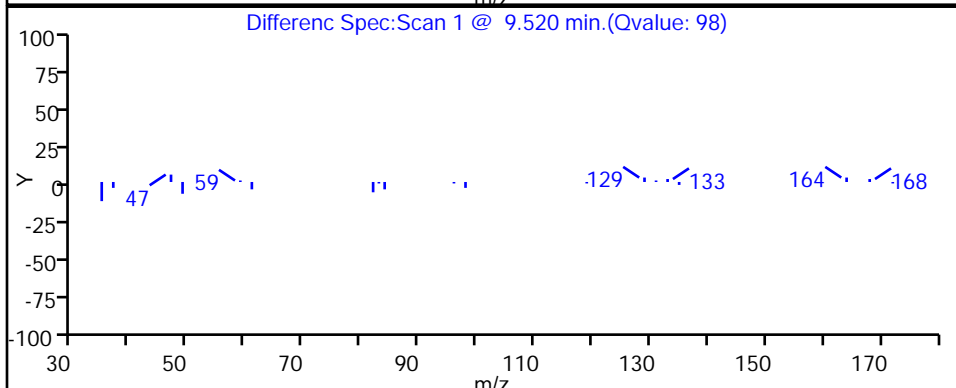
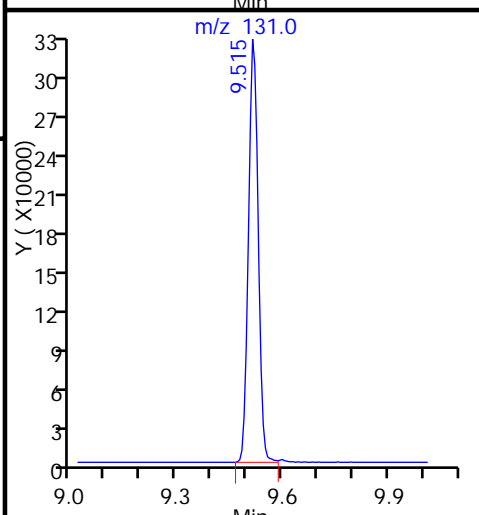
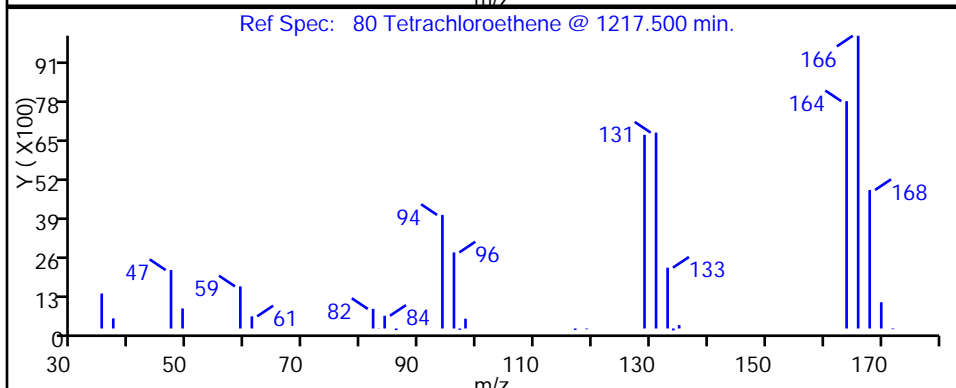
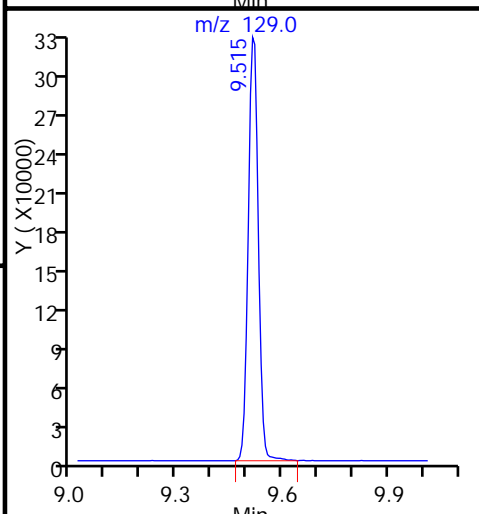
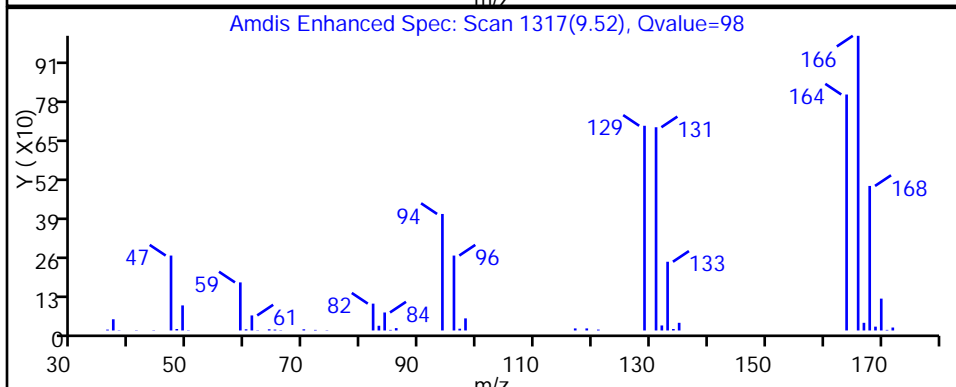
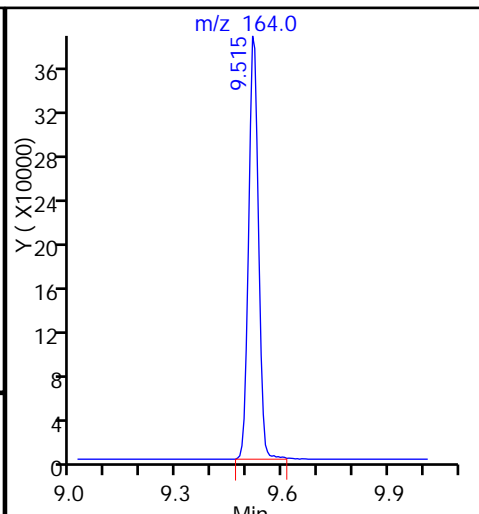
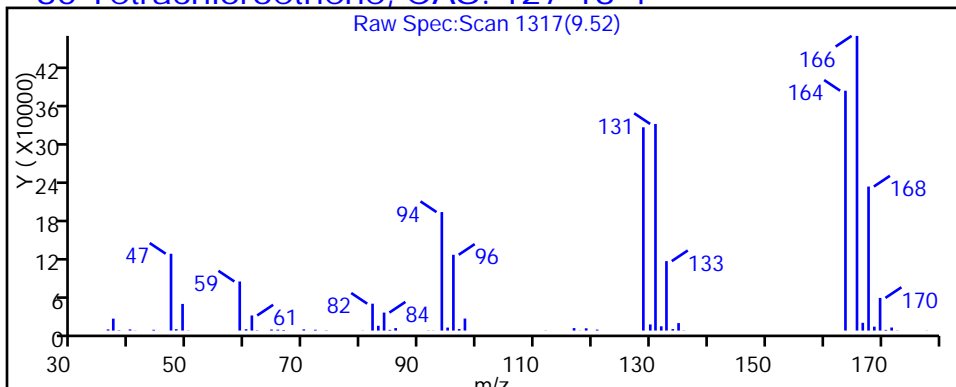
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



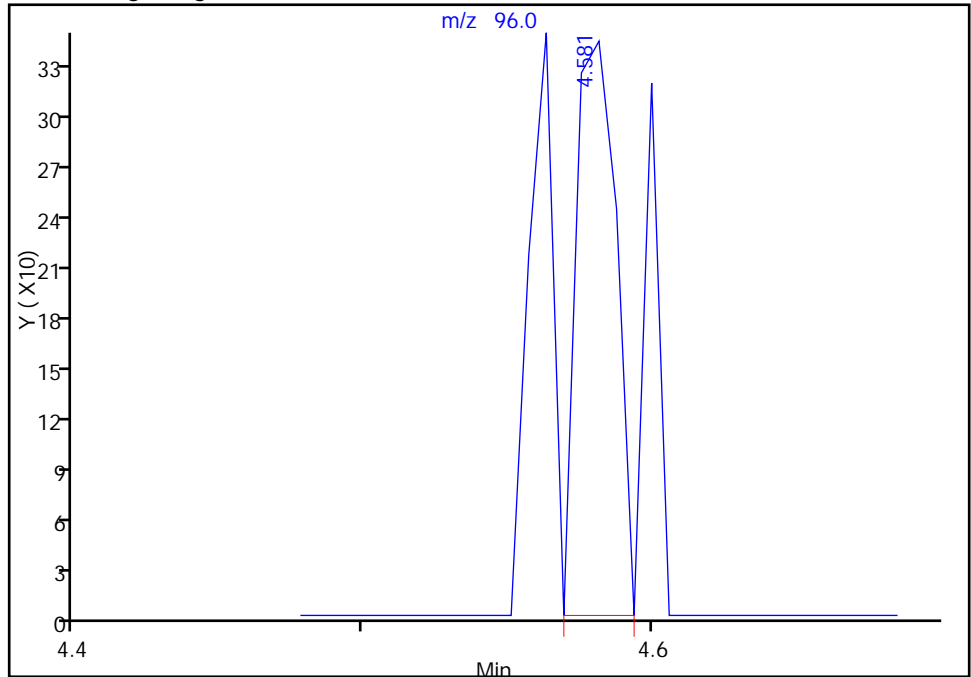
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006021.D
Injection Date: 06-Oct-2015 20:21:30 Instrument ID: CHHP5
Lims ID: 180-48181-B-3 Lab Sample ID: 180-48181-3
Client ID: HD-MW-93S-0/1-0
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5

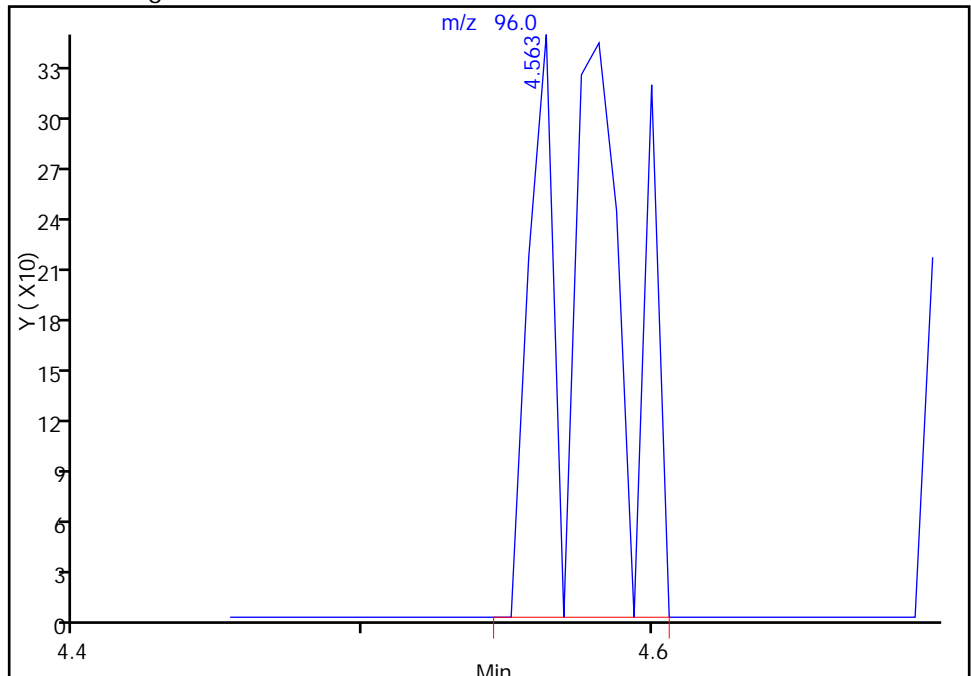
RT: 4.58
Area: 332
Amount: 0.199258
Amount Units: ng

Processing Integration Results



RT: 4.56
Area: 654
Amount: 0.392514
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 08:06:14
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93S-0/1-0 DL Lab Sample ID: 180-48181-3 DL
 Matrix: Water Lab File ID: 51006014.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:32
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|------|
| 74-87-3 | Chloromethane | 5.0 | U | 5.0 | 1.4 |
| 75-01-4 | Vinyl chloride | 5.0 | U | 5.0 | 1.1 |
| 74-83-9 | Bromomethane | 5.0 | U | 5.0 | 1.6 |
| 75-00-3 | Chloroethane | 5.0 | U ^c | 5.0 | 1.1 |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U | 5.0 | 1.5 |
| 67-64-1 | Acetone | 25 | U | 25 | 13 |
| 75-15-0 | Carbon disulfide | 5.0 | U | 5.0 | 1.1 |
| 75-09-2 | Methylene Chloride | 5.0 | U | 5.0 | 0.63 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 0.85 |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | U | 5.0 | 0.92 |
| 75-34-3 | 1,1-Dichloroethane | 1.1 | J | 5.0 | 0.58 |
| 156-59-2 | cis-1,2-Dichloroethene | 20 | | 5.0 | 1.2 |
| 74-97-5 | Bromochloromethane | 5.0 | U | 5.0 | 0.90 |
| 78-93-3 | 2-Butanone (MEK) | 25 | U | 25 | 2.7 |
| 67-66-3 | Chloroform | 5.0 | U | 5.0 | 0.85 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.5 | | 5.0 | 1.4 |
| 56-23-5 | Carbon tetrachloride | 5.0 | U | 5.0 | 0.68 |
| 71-43-2 | Benzene | 5.0 | U | 5.0 | 0.53 |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | U | 5.0 | 1.1 |
| 79-01-6 | Trichloroethene | 27 | | 5.0 | 0.72 |
| 78-87-5 | 1,2-Dichloropropane | 5.0 | U | 5.0 | 0.47 |
| 75-27-4 | Bromodichloromethane | 5.0 | U | 5.0 | 0.65 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.93 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 25 | U | 25 | 2.6 |
| 108-88-3 | Toluene | 5.0 | U | 5.0 | 0.75 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.74 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | U | 5.0 | 1.0 |
| 127-18-4 | Tetrachloroethene | 90 | | 5.0 | 0.74 |
| 591-78-6 | 2-Hexanone | 25 | U | 25 | 0.80 |
| 124-48-1 | Dibromochloromethane | 5.0 | U | 5.0 | 0.68 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 5.0 | U | 5.0 | 0.90 |
| 108-90-7 | Chlorobenzene | 5.0 | U | 5.0 | 0.68 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.4 |
| 100-41-4 | Ethylbenzene | 5.0 | U | 5.0 | 1.1 |
| 1330-20-7 | Xylenes, Total | 15 | U | 15 | 2.4 |
| 100-42-5 | Styrene | 5.0 | U | 5.0 | 0.48 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93S-0/1-0 DL Lab Sample ID: 180-48181-3 DL
 Matrix: Water Lab File ID: 51006014.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:32
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|----------------------------------|--------|---|------|------|
| 75-25-2 | <i>Bromoform</i> | 5.0 | U | 5.0 | 0.96 |
| 79-34-5 | <i>1,1,2,2-Tetrachloroethane</i> | 5.0 | U | 5.0 | 1.0 |
| 107-13-1 | <i>Acrylonitrile</i> | 100 | U | 100 | 2.7 |
| 123-91-1 | <i>1,4-Dioxane</i> | 1000 | U | 1000 | 170 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 91 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 91 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 106 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D
 Lims ID: 180-48181-C-3 Lab Sample ID: 180-48181-3
 Client ID: HD-MW-93S-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 17:32:30 ALS Bottle#: 12 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-48181-C-3, 5x
 Misc. Info.: 180-0008850-014
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 07:52:21 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 07:52:21

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.266 | 4.279 | -0.013 | 0 | 125244 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.290 | 0.000 | 98 | 291731 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 86 | 74641 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 95 | 109330 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.560 | 0.006 | 94 | 76057 | 53.1 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.937 | 0.000 | 0 | 89497 | 45.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 94 | 260957 | 45.3 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 92 | 95305 | 43.9 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.341 | 3.348 | -0.007 | 0 | 717 | 0.4413 | M |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.215 | 5.204 | 0.011 | 83 | 3716 | 1.07 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.957 | 5.958 | -0.001 | 81 | 37498 | 19.9 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.547 | 6.542 | 0.005 | 94 | 12225 | 5.51 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 97 | 46751 | 26.6 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.517 | -0.001 | 98 | 129572 | 90.3 | |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Worklist Smp#: 14

Client ID: HD-MW-93S-0/1-0

Purge Vol: 5.000 mL

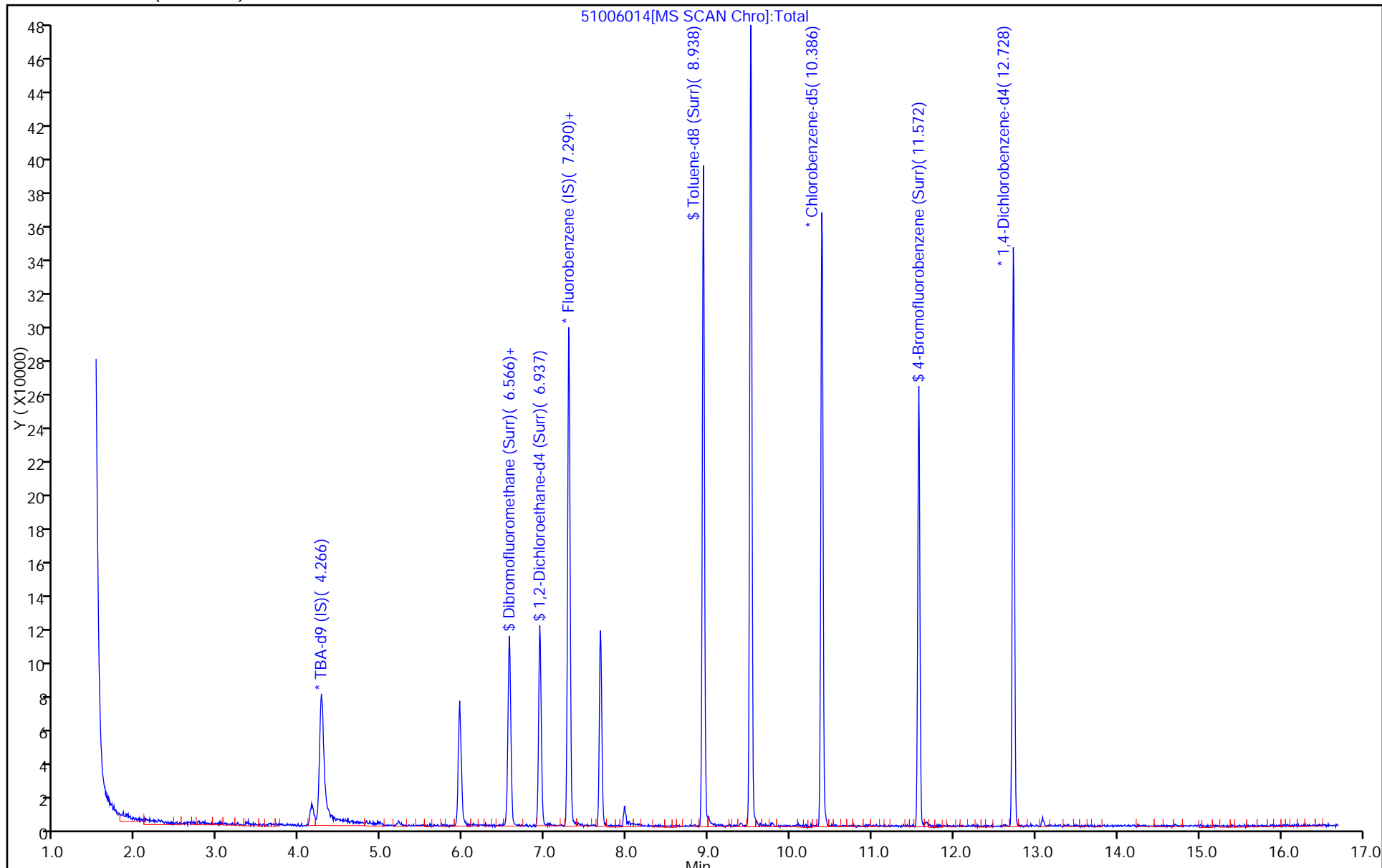
Dil. Factor: 5.0000

ALS Bottle#: 12

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

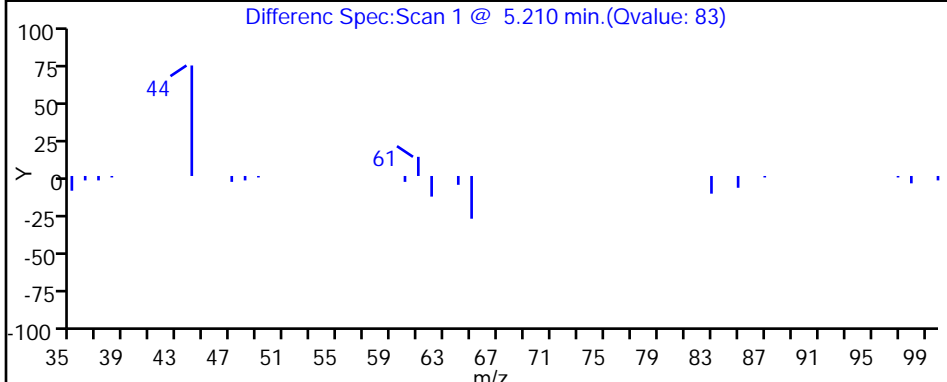
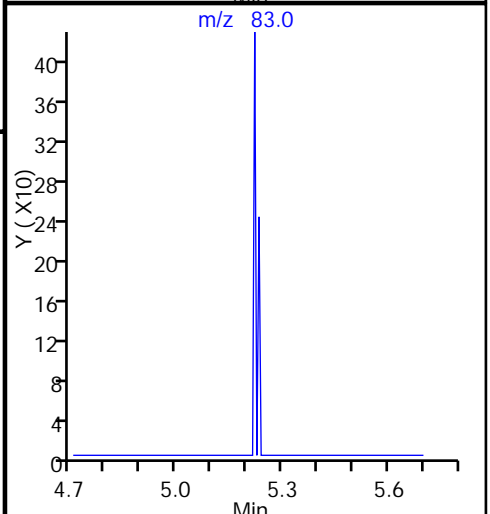
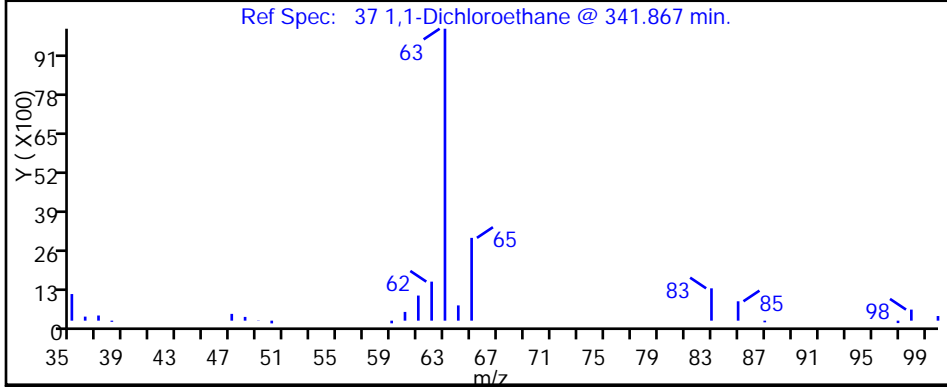
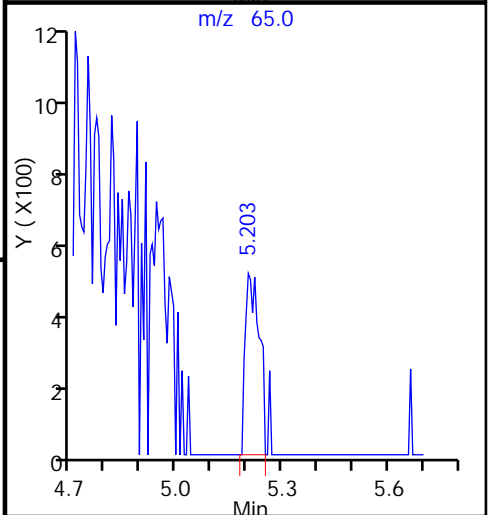
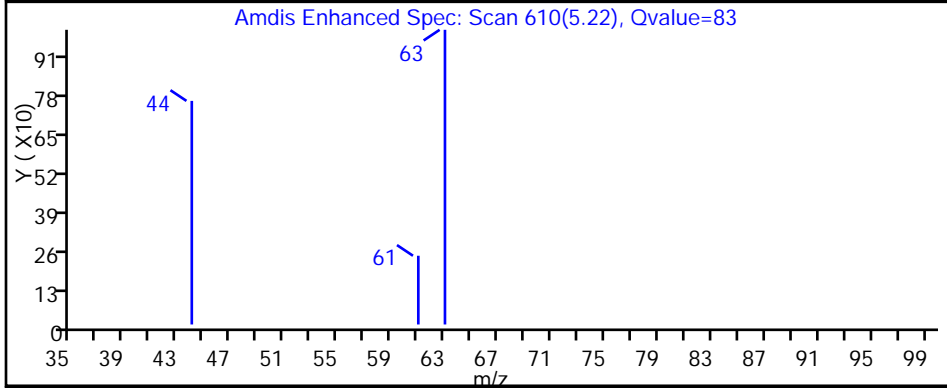
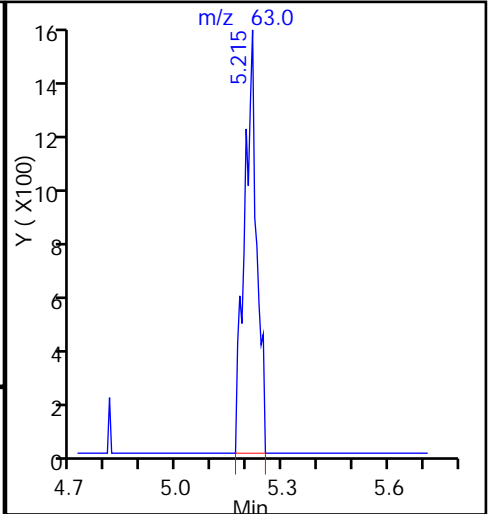
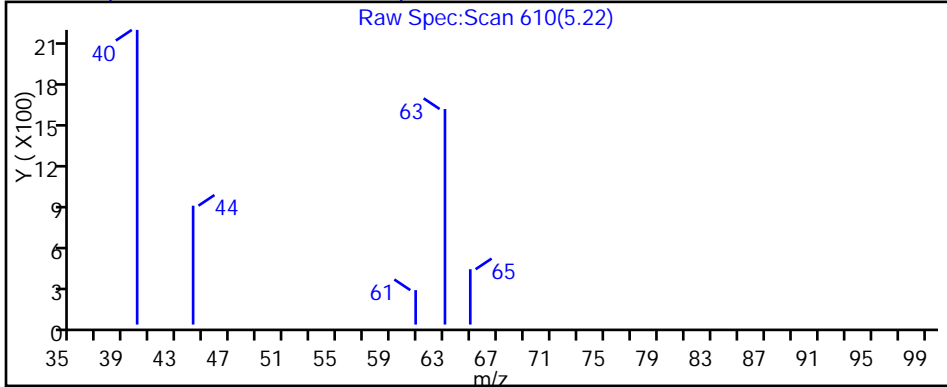
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

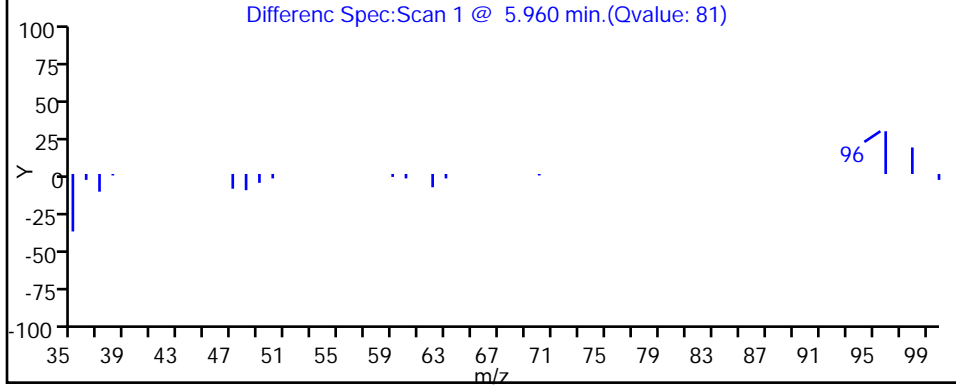
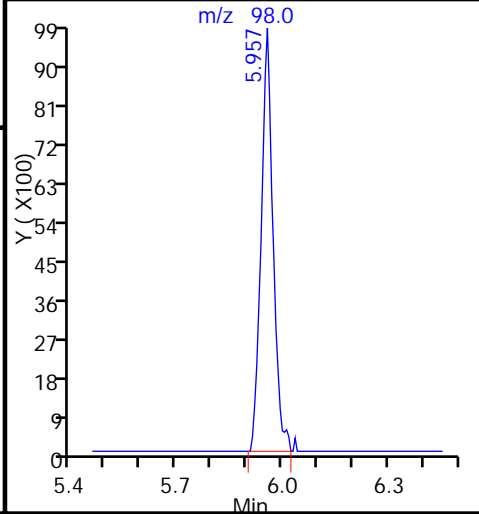
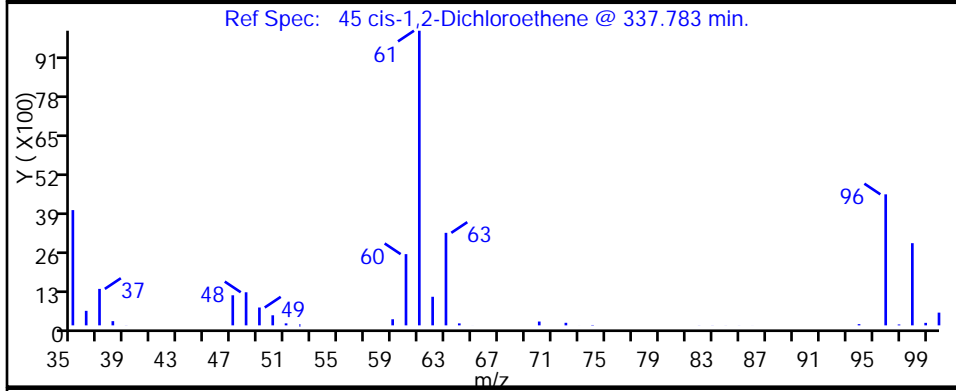
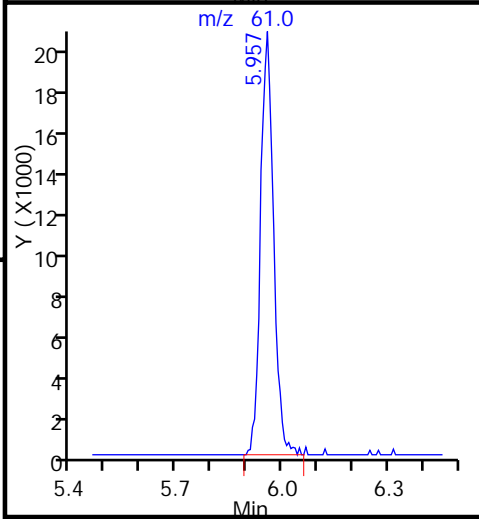
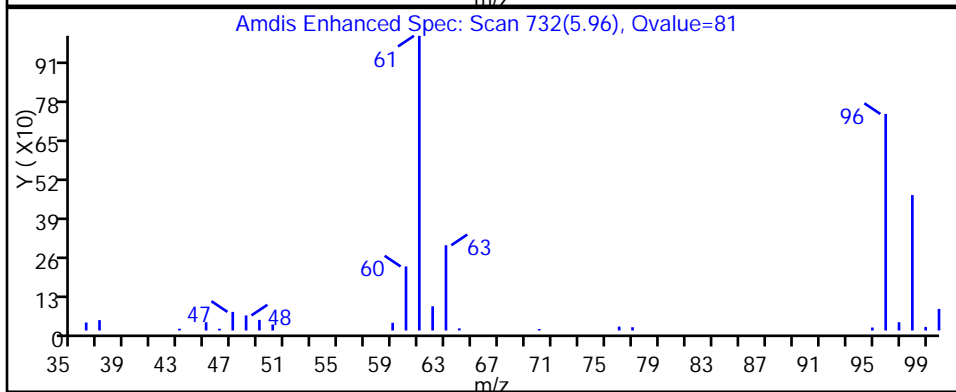
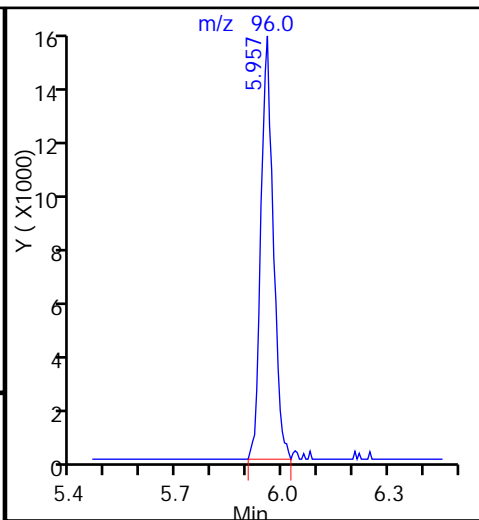
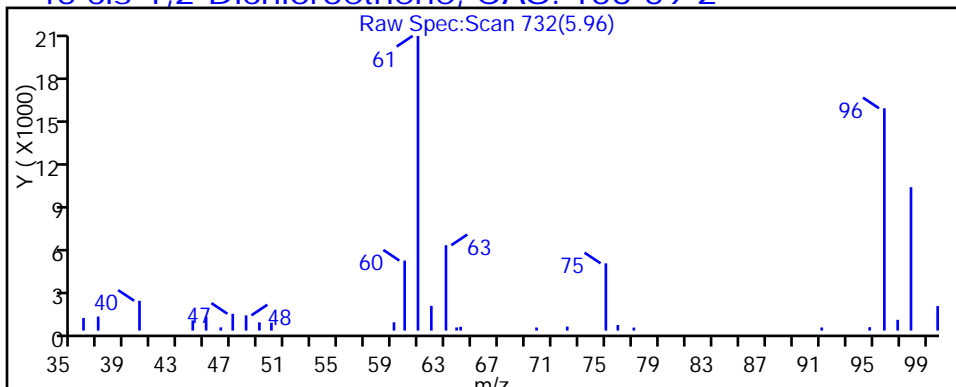
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

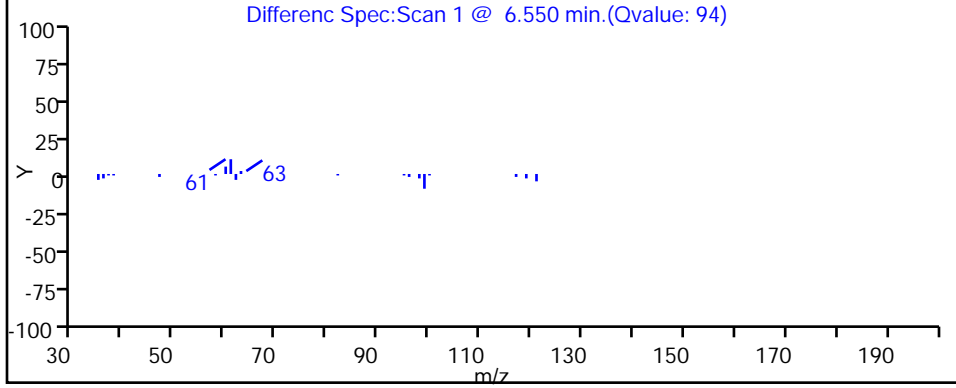
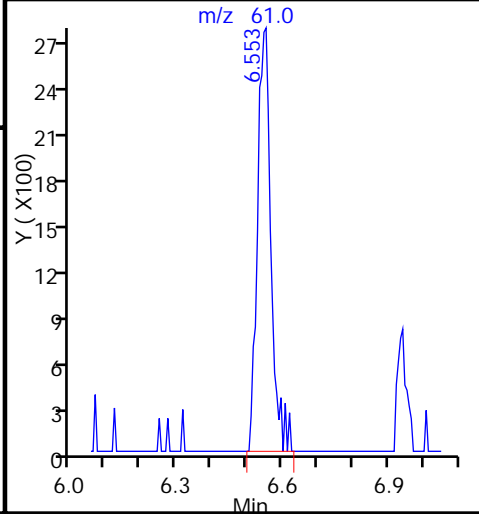
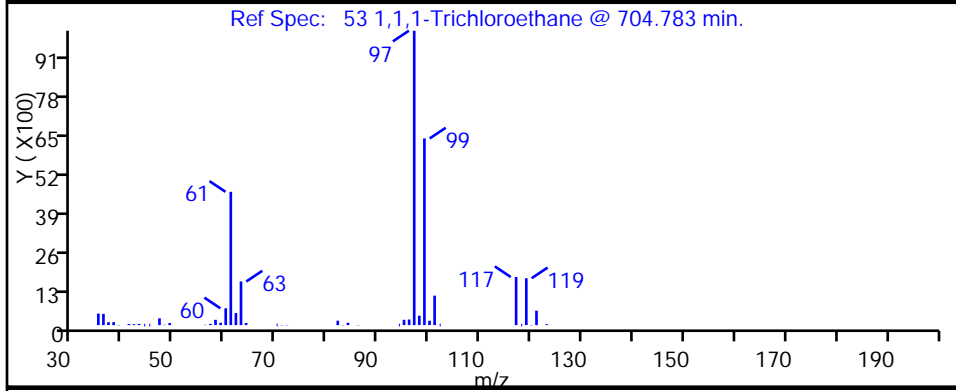
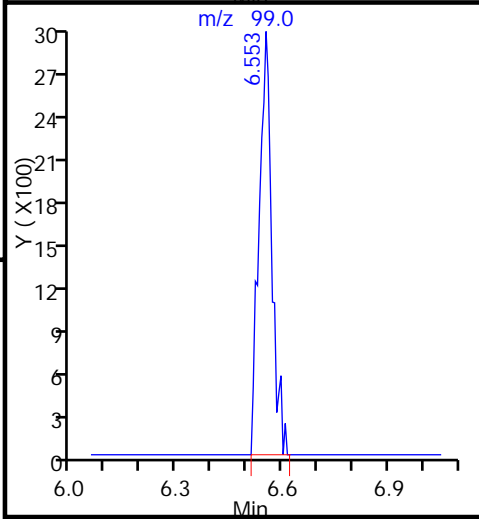
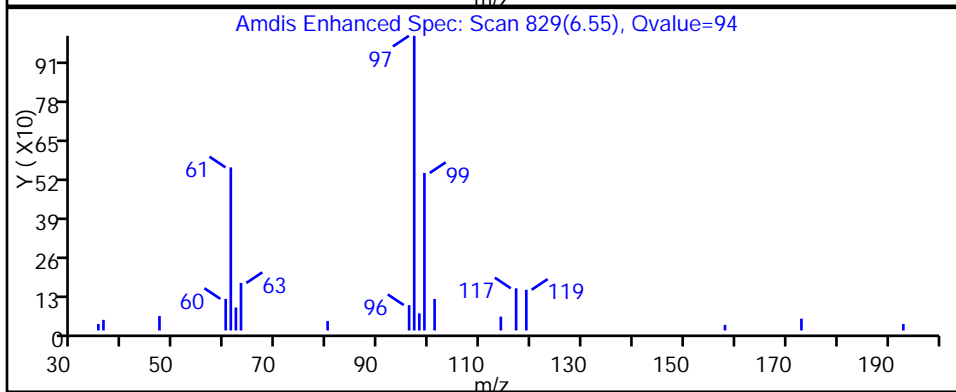
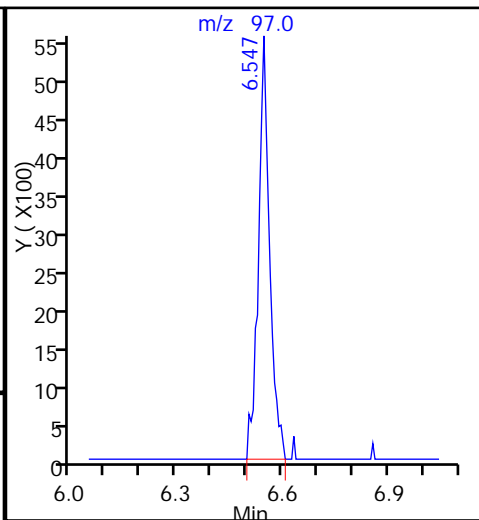
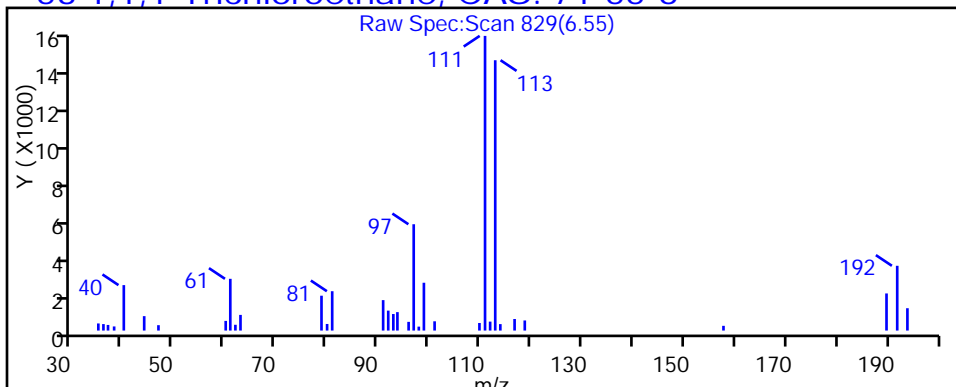
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

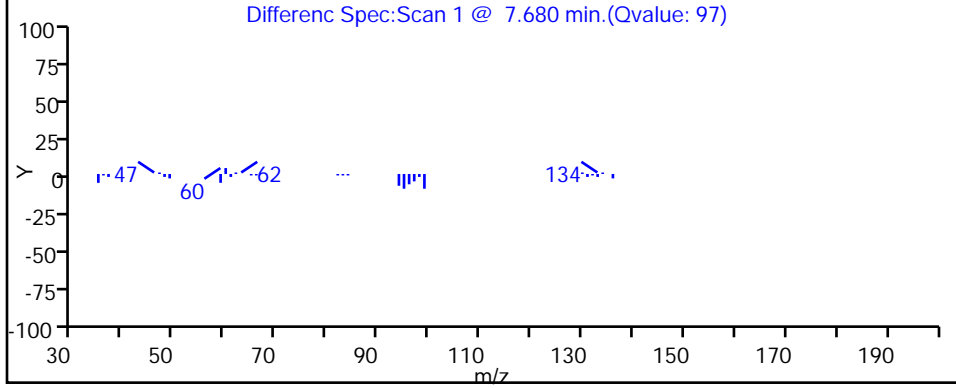
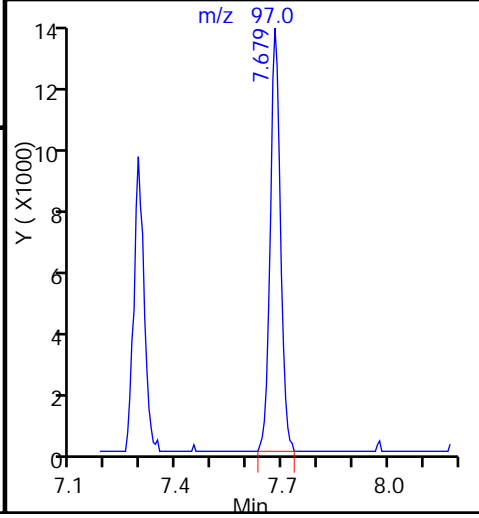
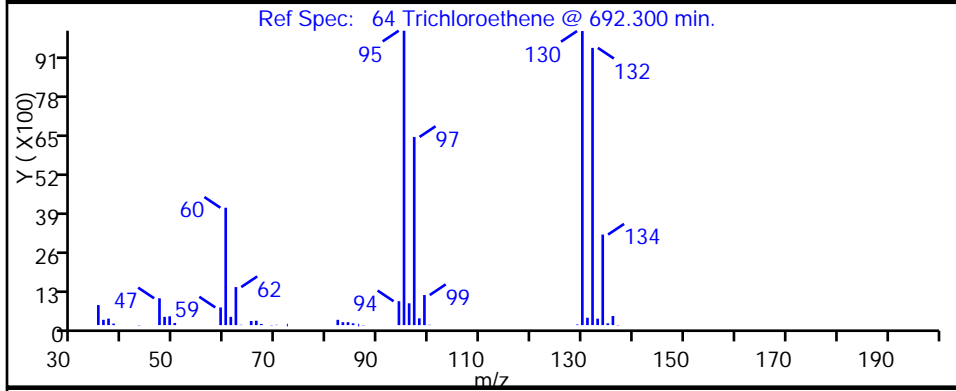
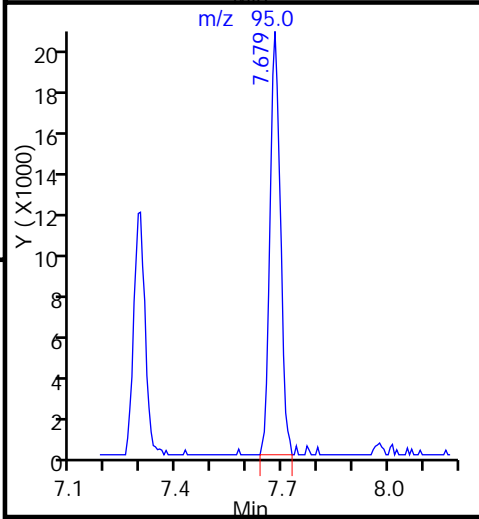
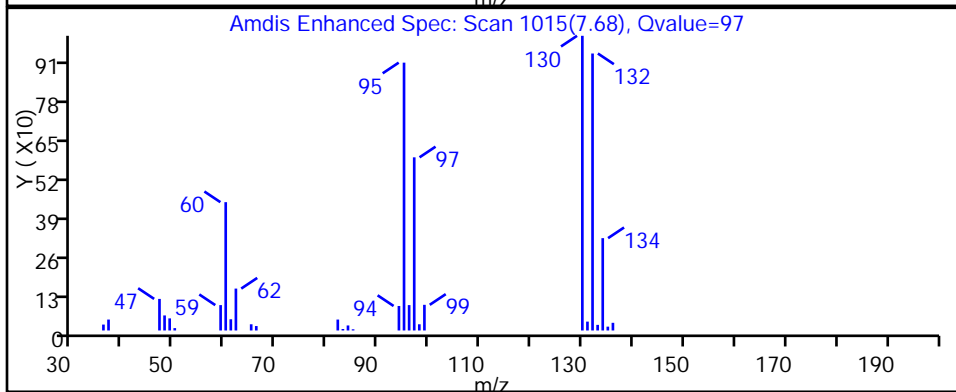
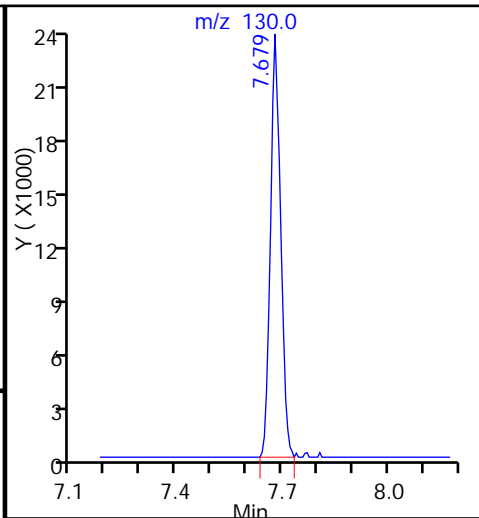
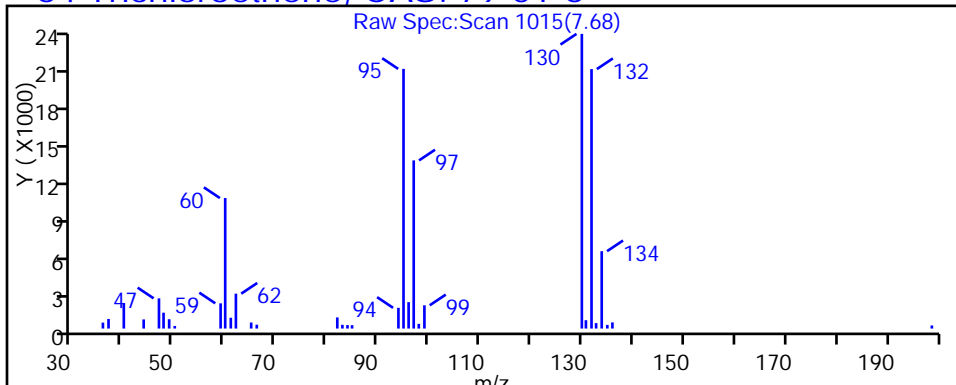
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D

Injection Date: 06-Oct-2015 17:32:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-3

Lab Sample ID: 180-48181-3

Client ID: HD-MW-93S-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

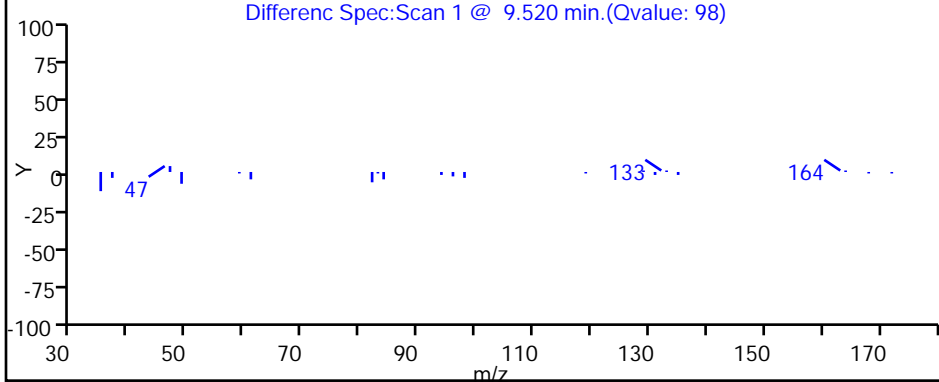
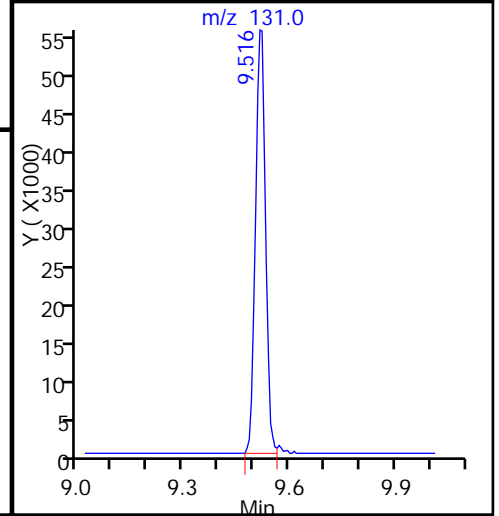
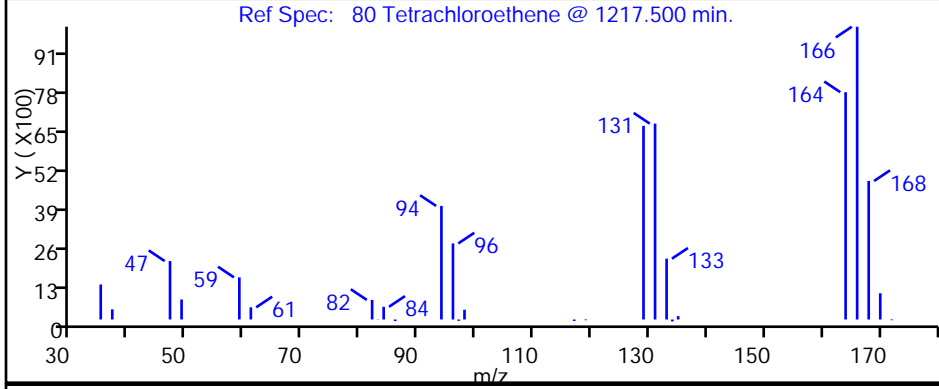
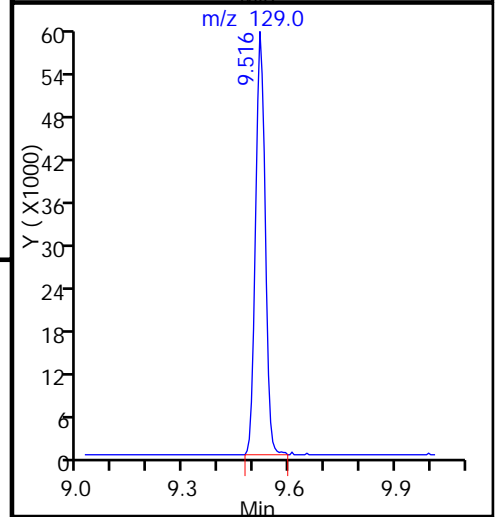
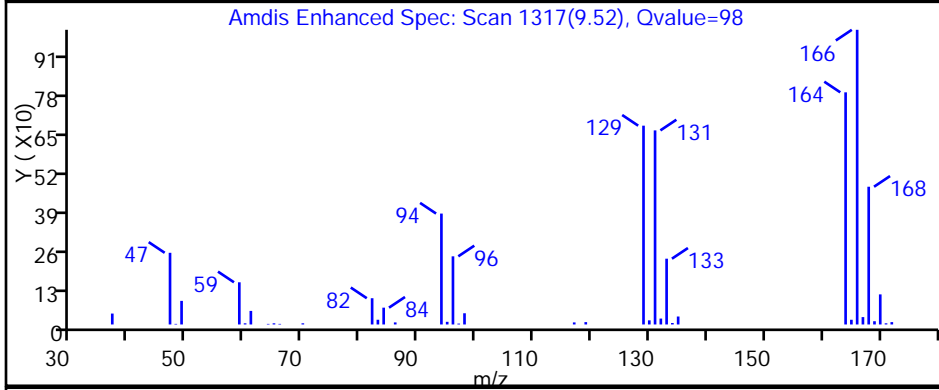
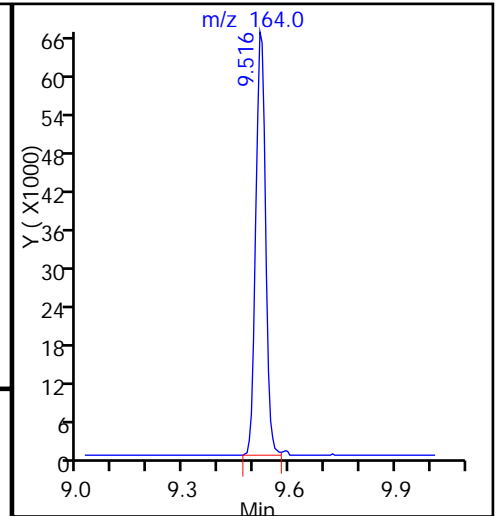
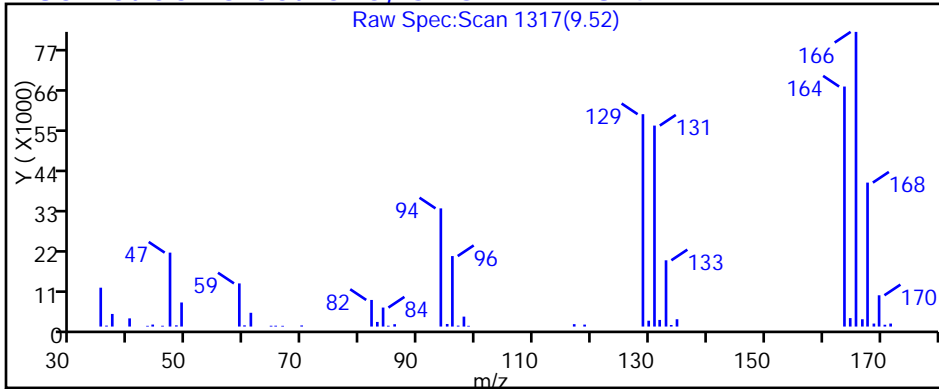
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



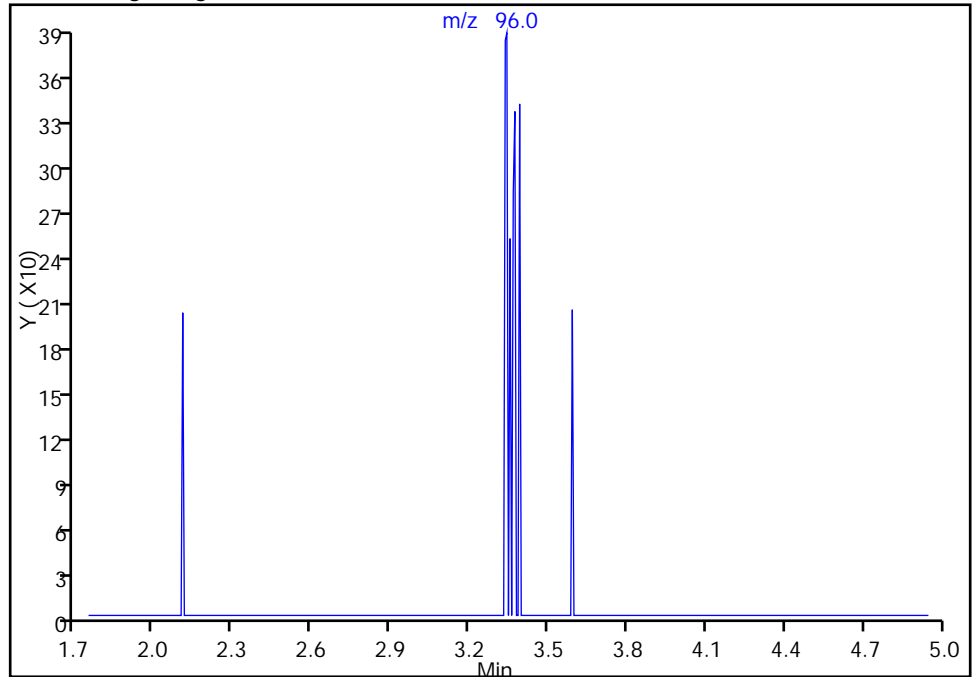
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006014.D
Injection Date: 06-Oct-2015 17:32:30 Instrument ID: CHHP5
Lims ID: 180-48181-C-3 Lab Sample ID: 180-48181-3
Client ID: HD-MW-93S-0/1-0
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4

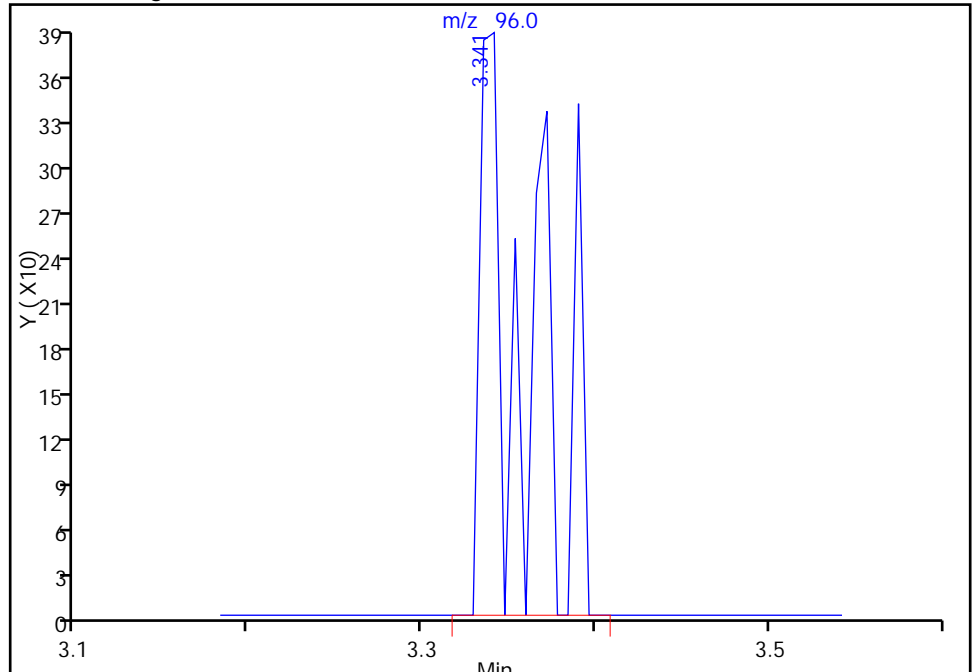
Not Detected
Expected RT: 3.35

Processing Integration Results



RT: 3.34
Area: 717
Amount: 0.441285
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 07:52:21
Audit Action: Manually Integrated
Audit Reason: Missed Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-48181-4
 Matrix: Water Lab File ID: 51006023.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:10
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 21:09
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 0.54 | J | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U ^c | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 4.3 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.26 | J | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 2.9 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 44 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 8.2 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 140 | E | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 180 | E | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-48181-4
 Matrix: Water Lab File ID: 51006023.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:10
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 21:09
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 89 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 85 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D
 Lims ID: 180-48181-C-4 Lab Sample ID: 180-48181-4
 Client ID: HD-MW-93D-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 21:09:30 ALS Bottle#: 21 Worklist Smp#: 23
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-C-4
 Misc. Info.: 180-0008850-023
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 08:10:02 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 08:10:02

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.265 | 4.279 | -0.014 | 0 | 134499 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.295 | 7.290 | 0.005 | 98 | 278811 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.391 | 10.387 | 0.004 | 87 | 76162 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.734 | 12.729 | 0.005 | 95 | 110395 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.560 | 0.005 | 94 | 73770 | 53.9 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.942 | 6.937 | 0.005 | 0 | 89175 | 47.4 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.937 | 8.939 | -0.002 | 94 | 262646 | 44.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 92 | 94446 | 42.6 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | 1.911 | 1.912 | -0.001 | 96 | 5532 | 2.70 | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.359 | 3.348 | 0.011 | 95 | 33703 | 21.7 | |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | 4.563 | 4.565 | -0.002 | 28 | 2163 | 1.28 | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.202 | 5.204 | -0.002 | 97 | 47426 | 14.3 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.957 | 5.958 | -0.001 | 81 | 396888 | 220.3 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | 6.389 | 6.384 | 0.004 | 20 | 2126 | 0.7409 | M |
| 53 1,1,1-Trichloroethane | 97 | 6.541 | 6.542 | -0.001 | 96 | 87469 | 41.2 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 96 | 1208244 | 718.4 | E |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.522 | 9.517 | 0.005 | 96 | 1296929 | 886.1 | E |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Worklist Smp#: 23

Client ID: HD-MW-93D-0/1-0

Purge Vol: 5.000 mL

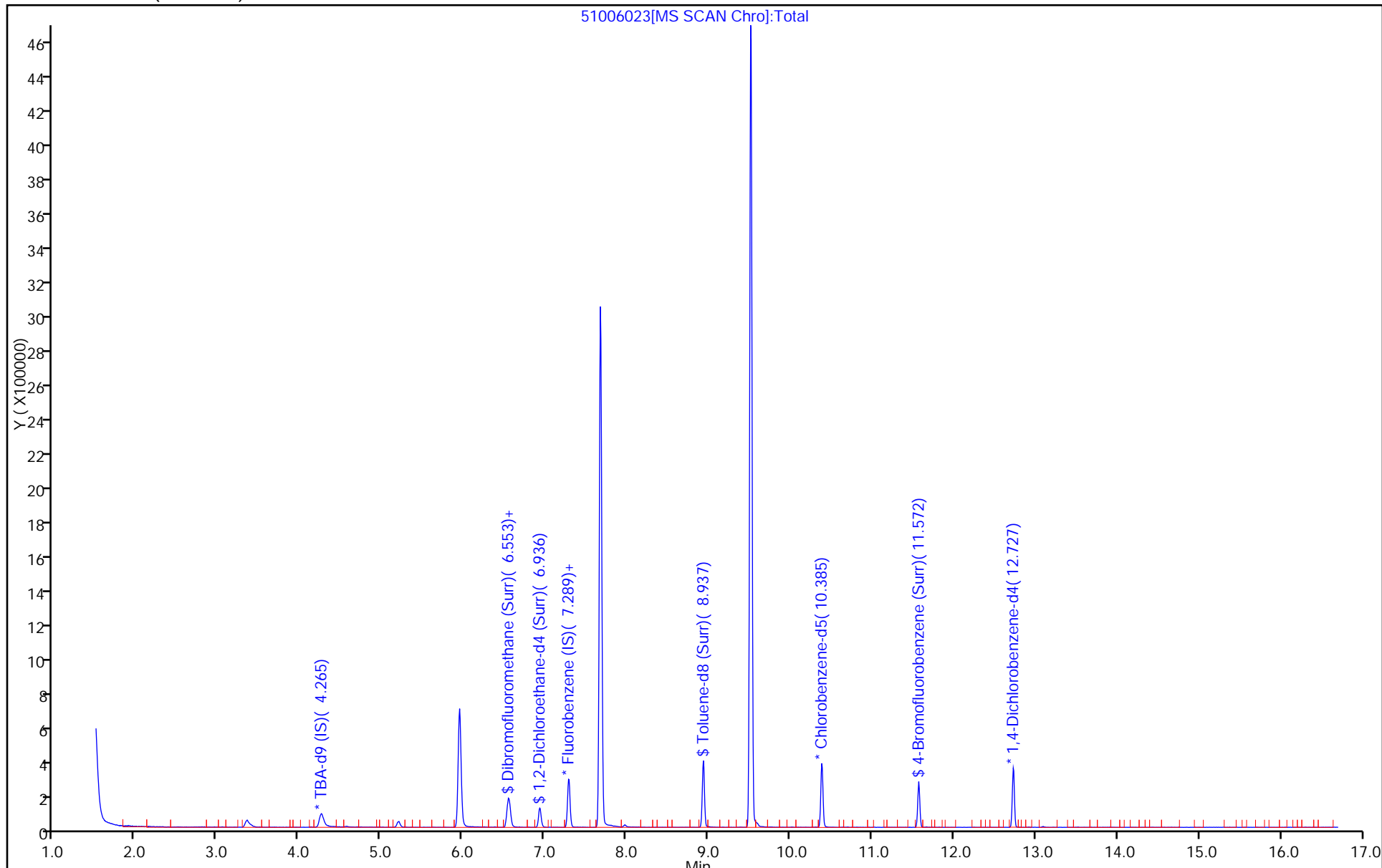
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

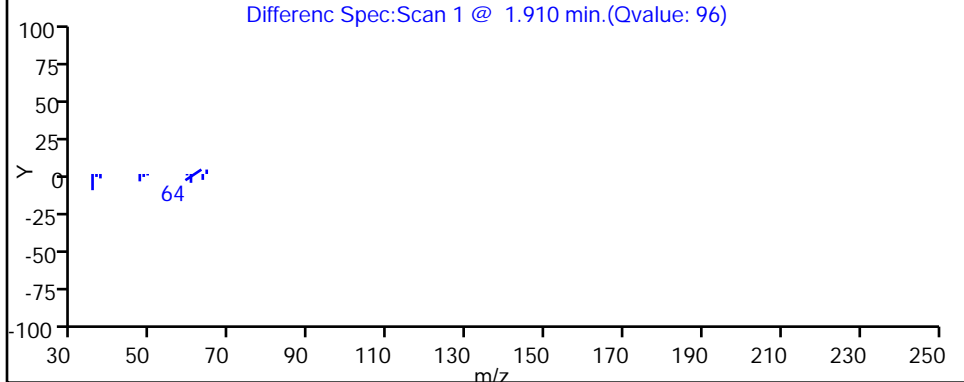
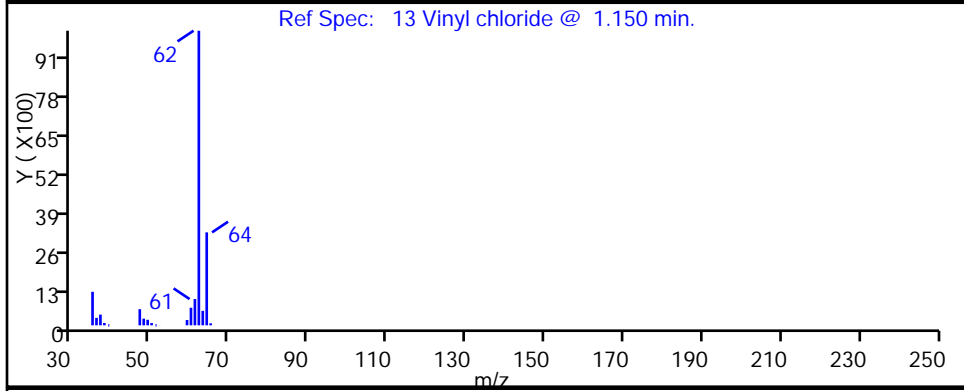
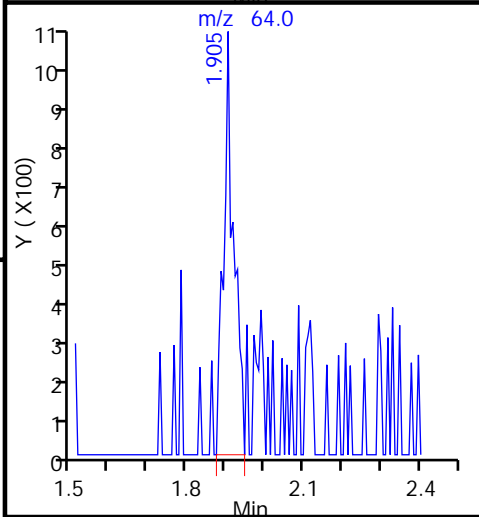
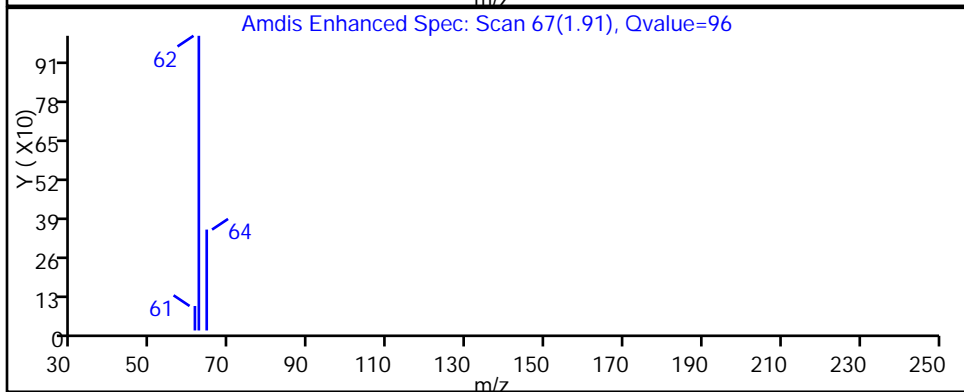
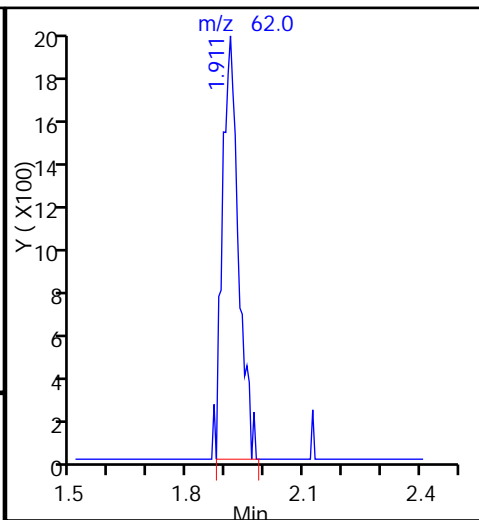
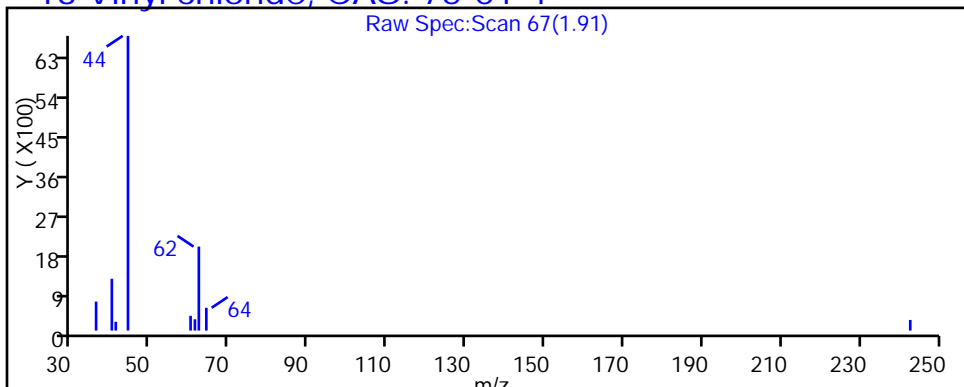
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

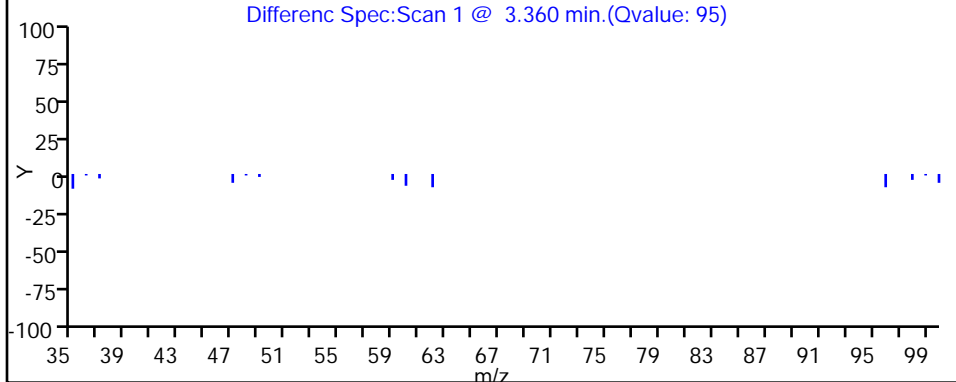
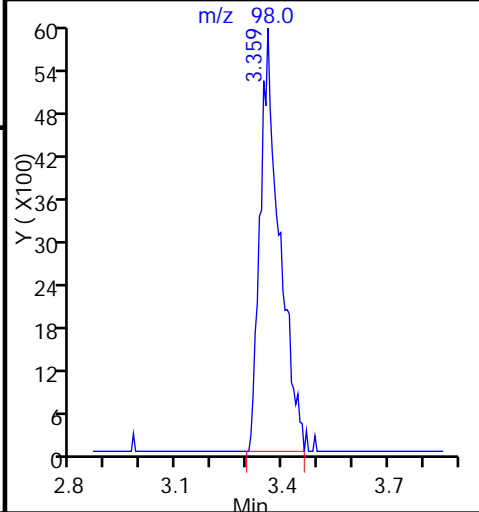
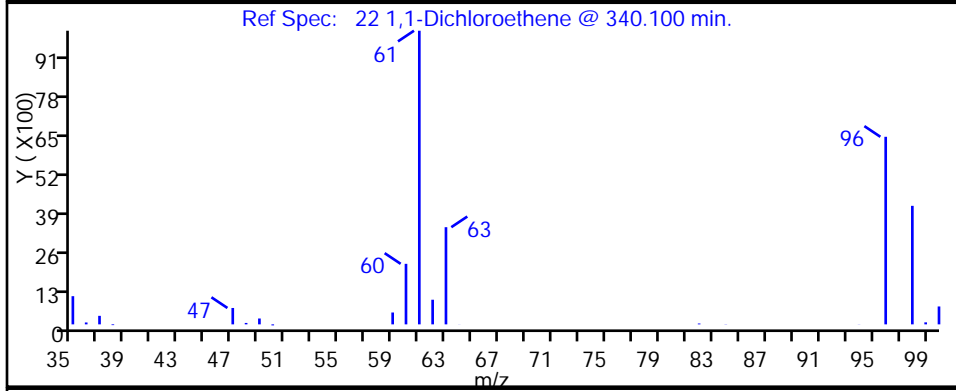
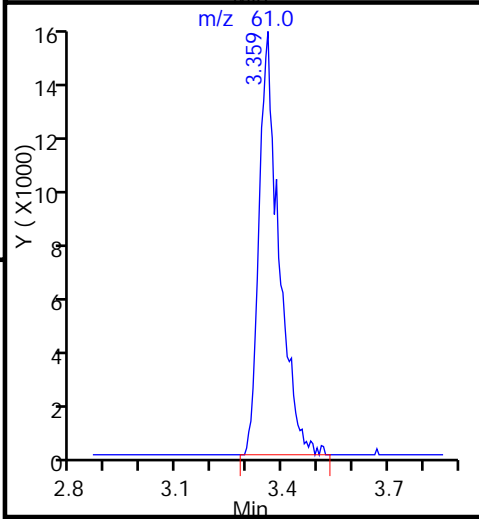
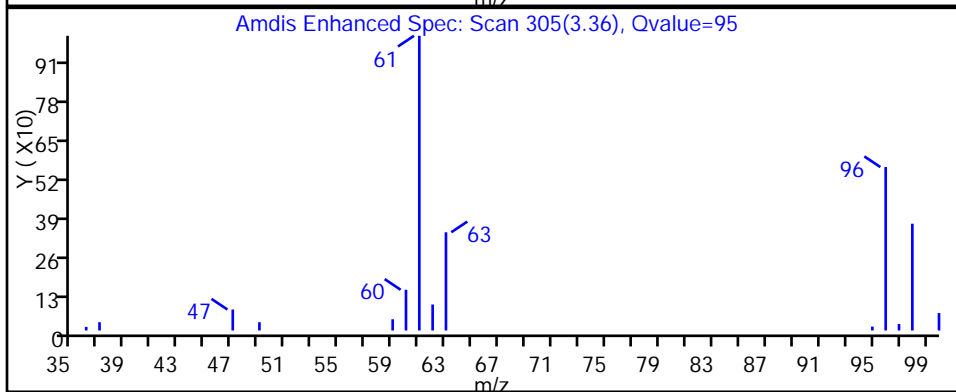
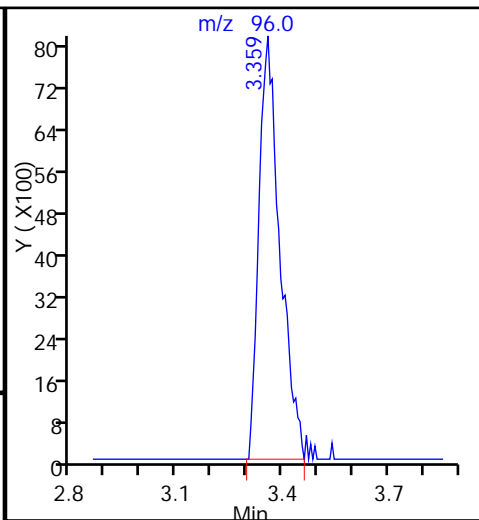
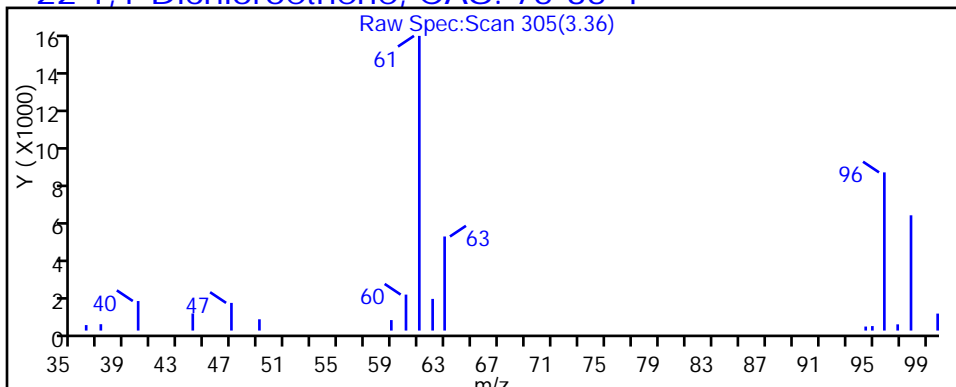
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

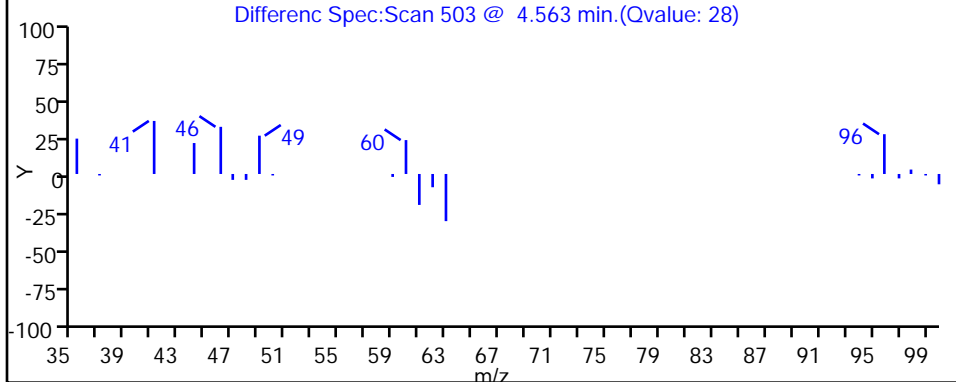
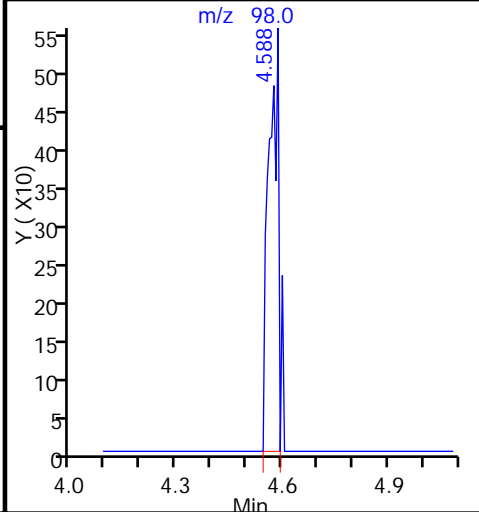
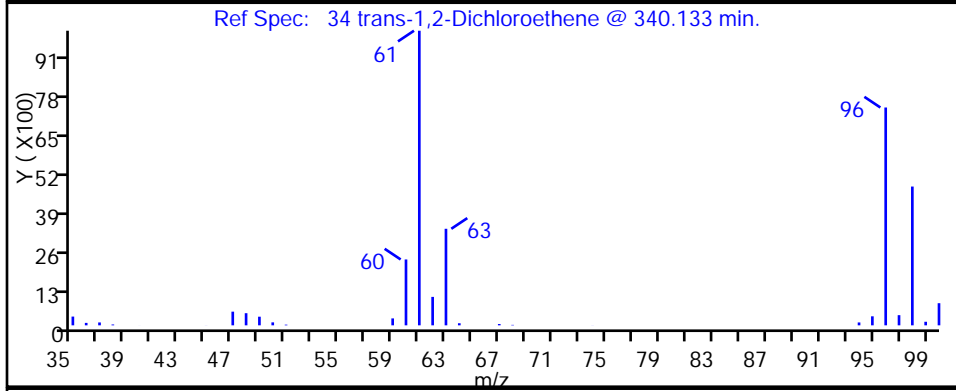
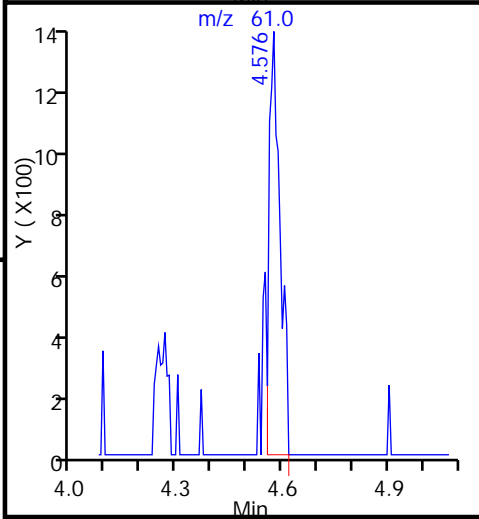
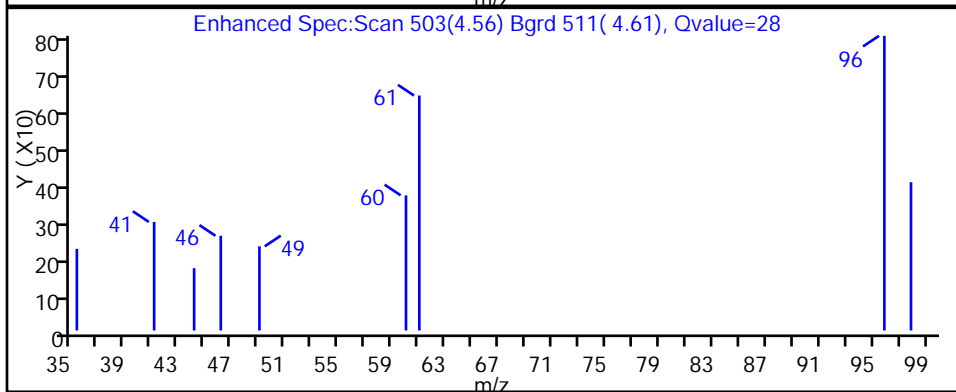
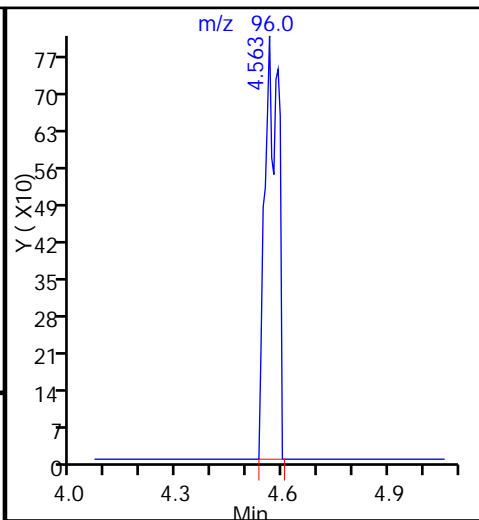
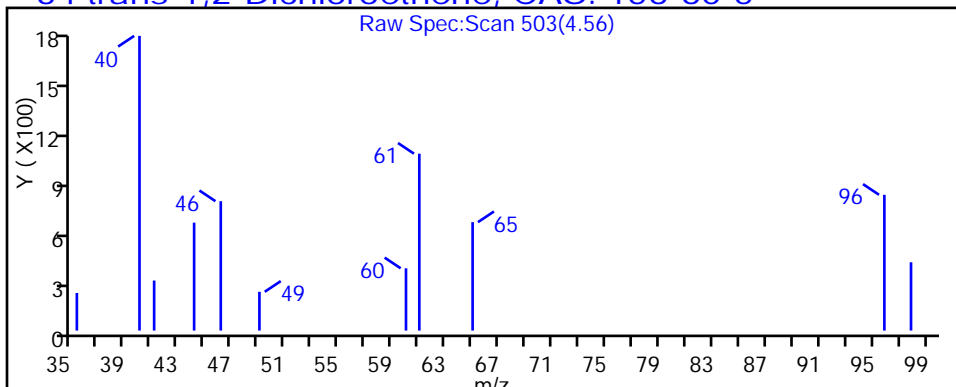
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

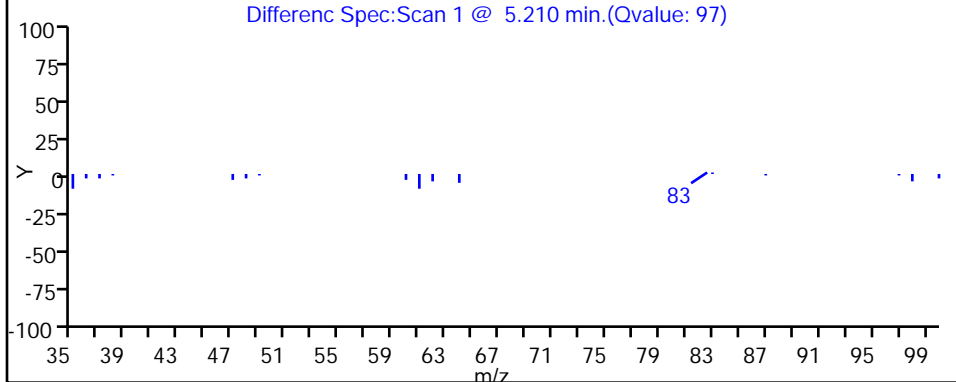
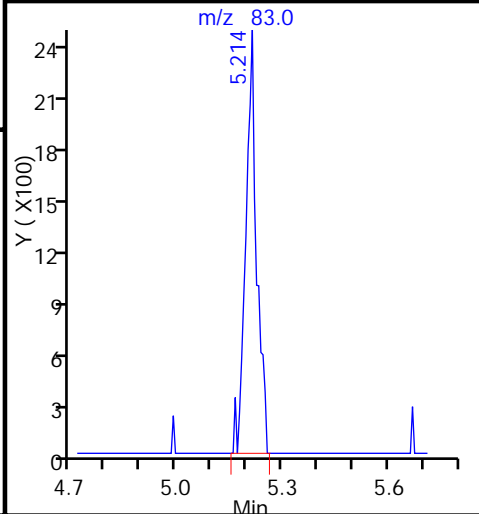
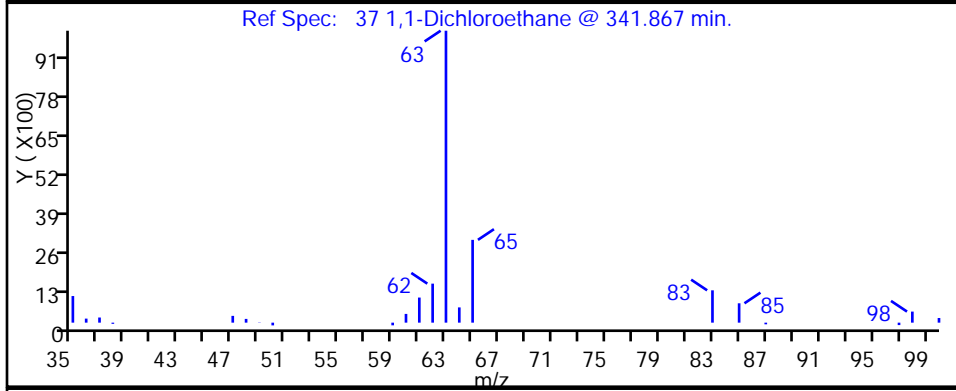
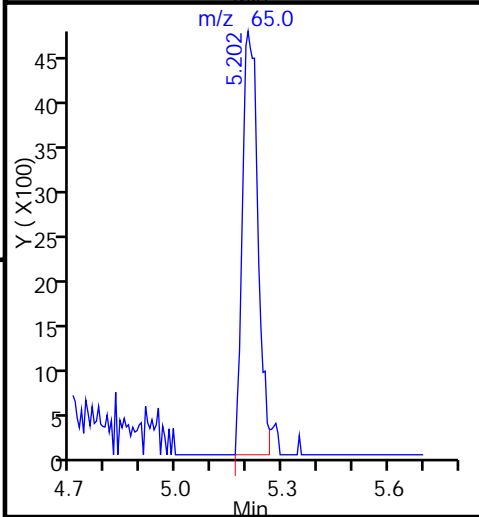
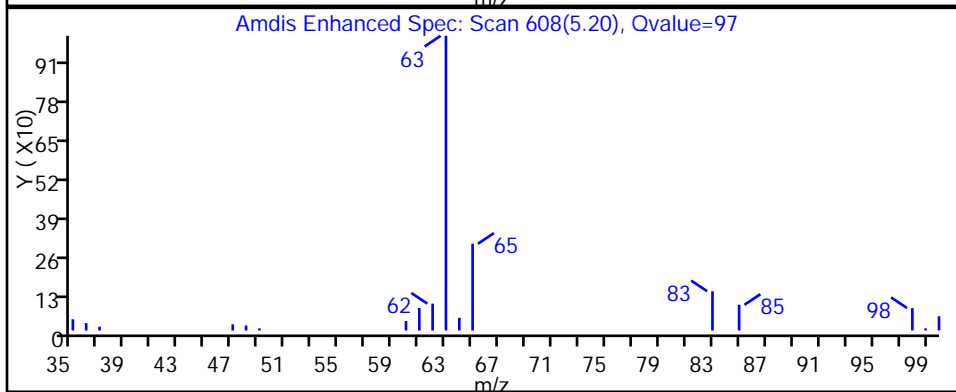
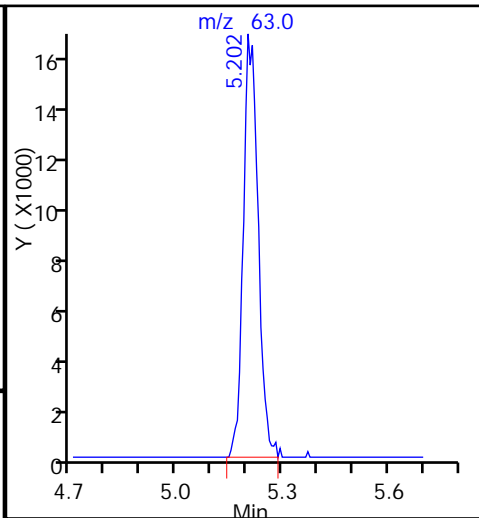
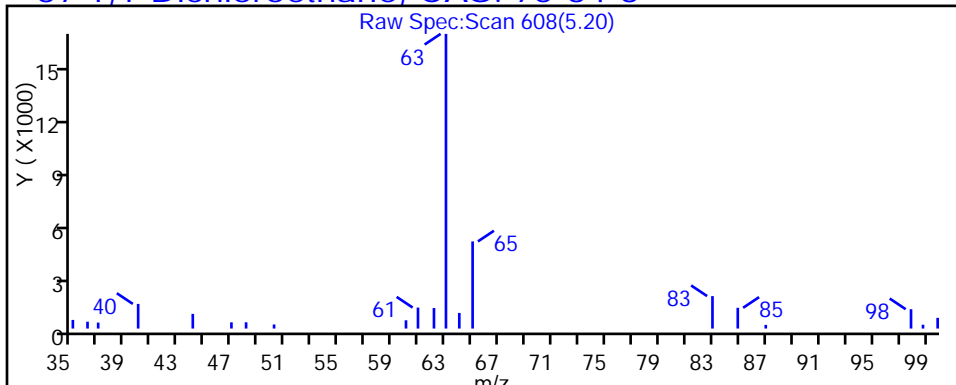
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

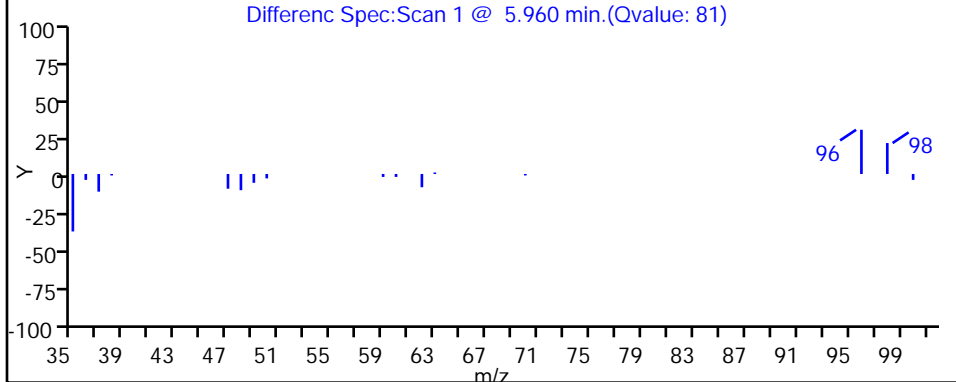
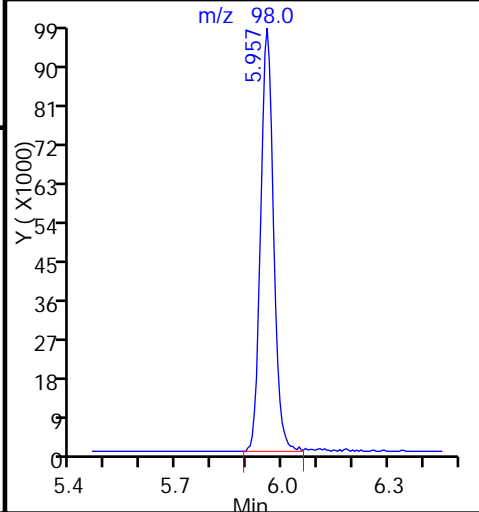
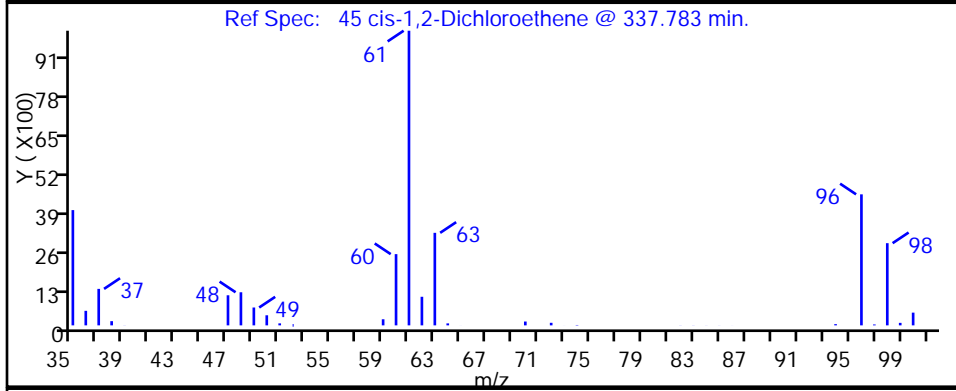
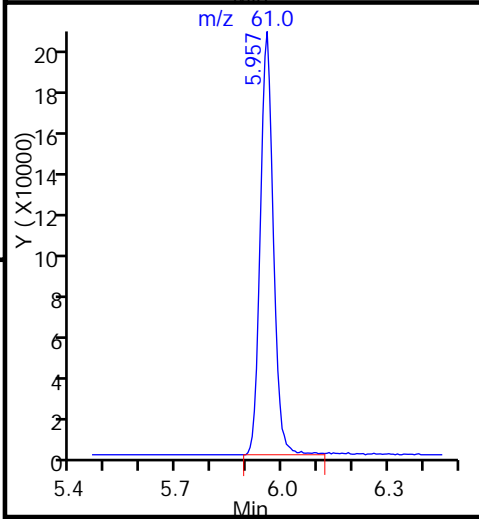
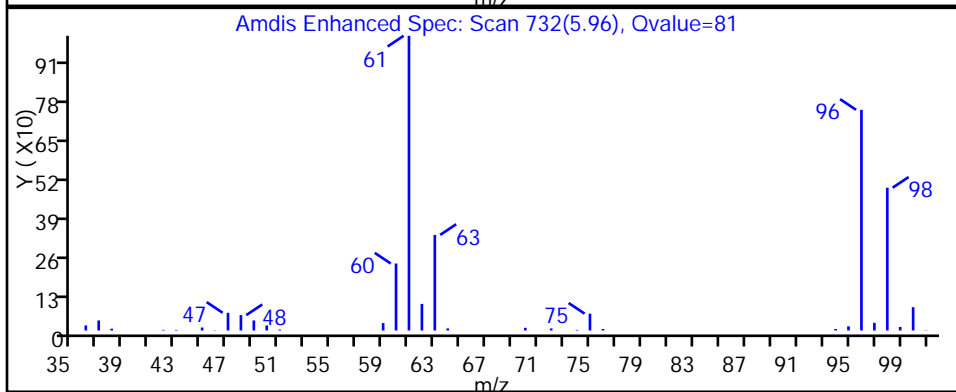
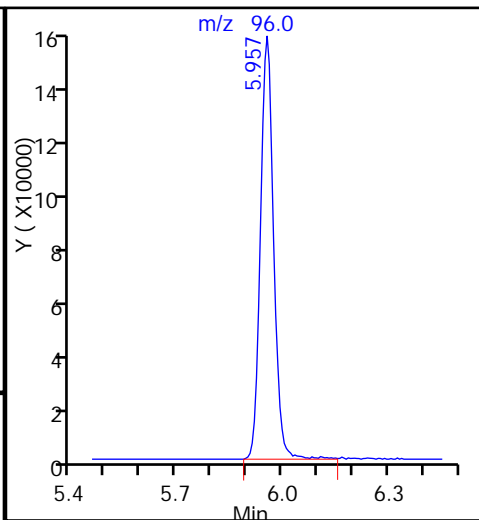
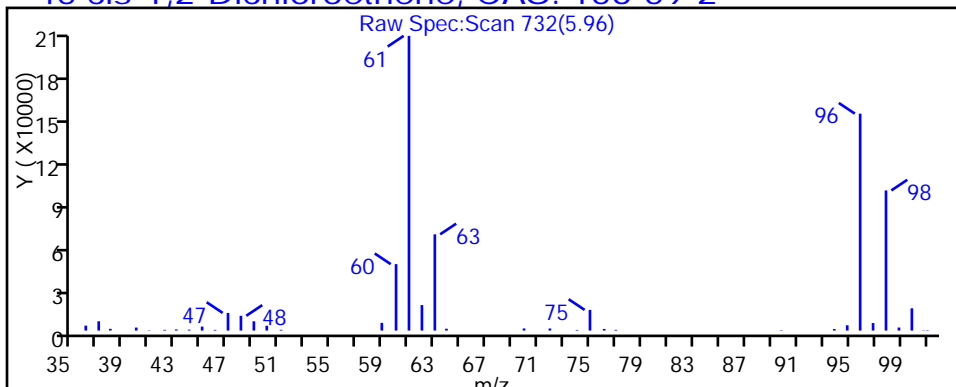
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

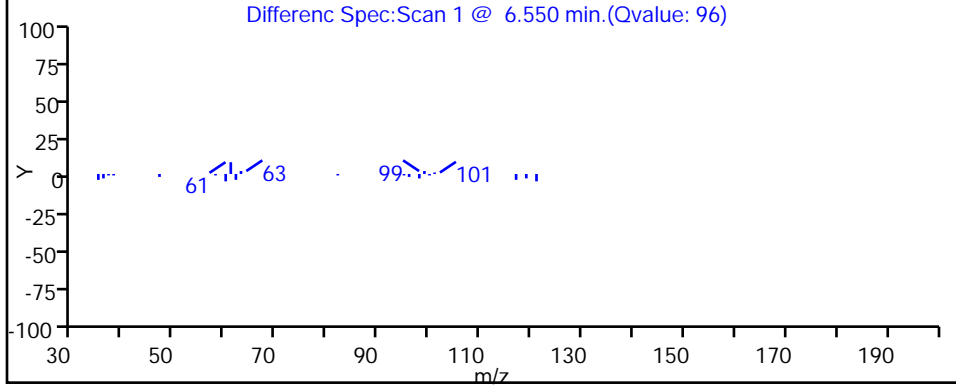
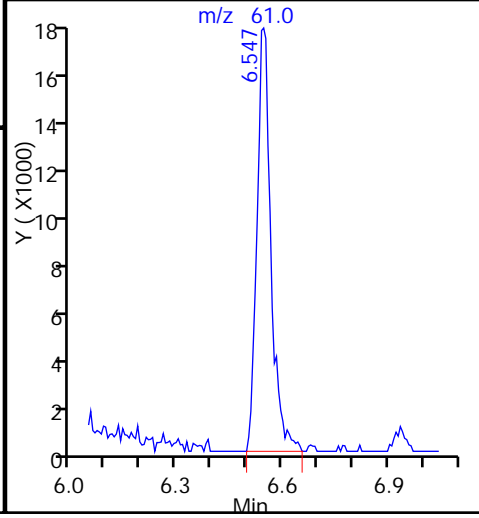
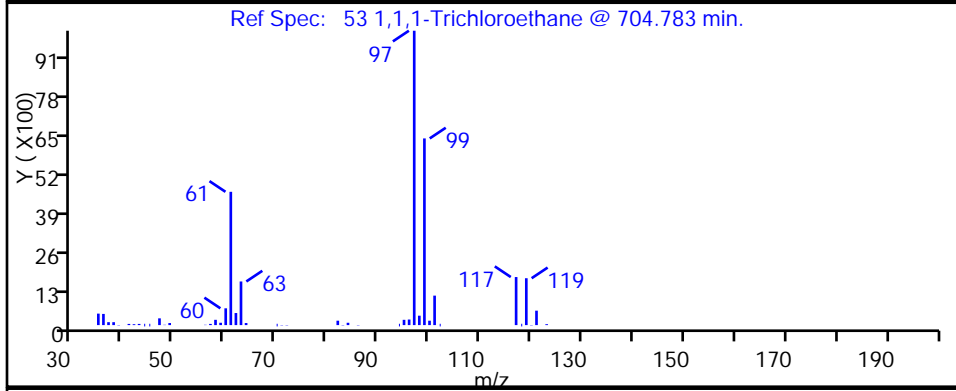
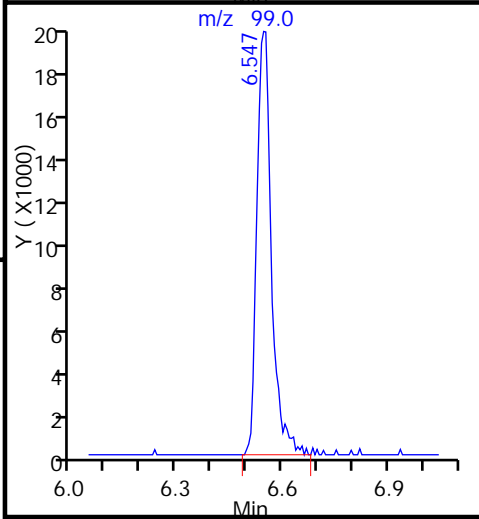
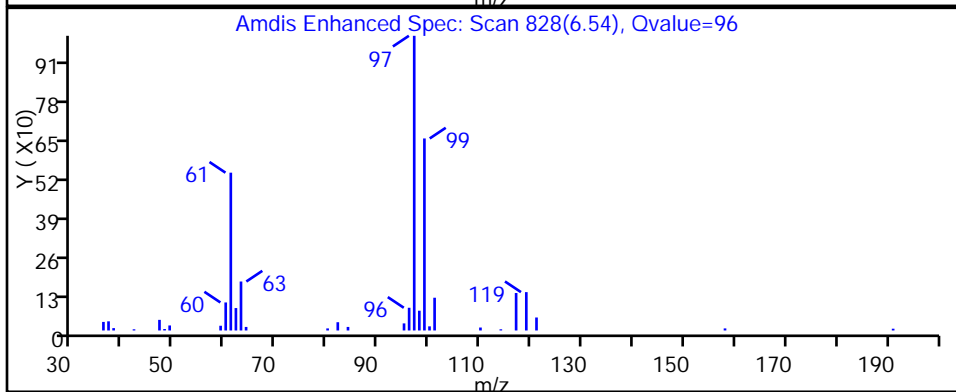
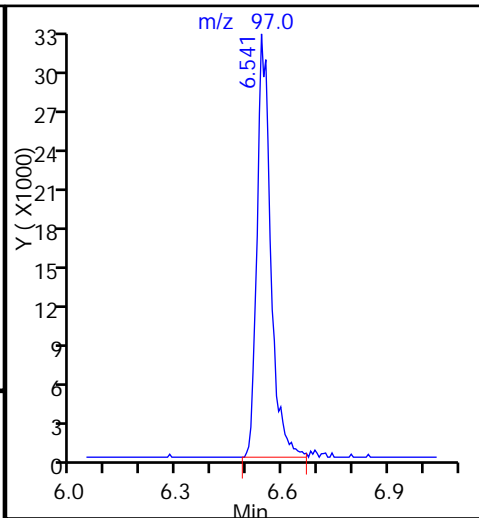
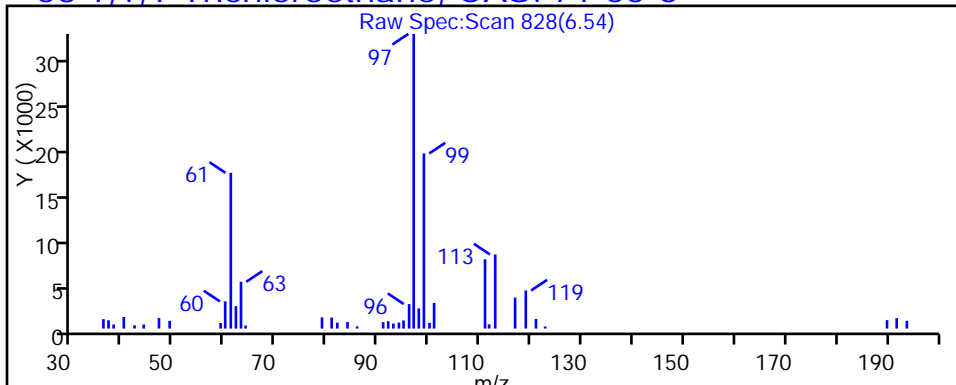
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

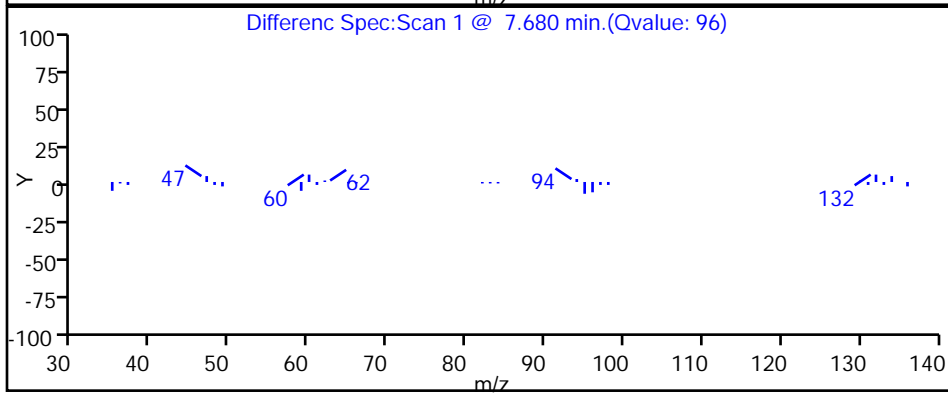
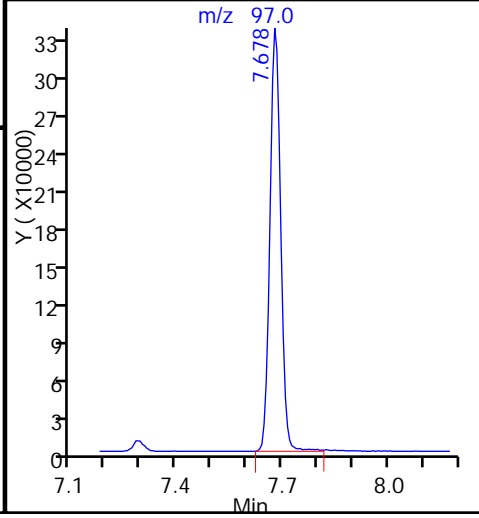
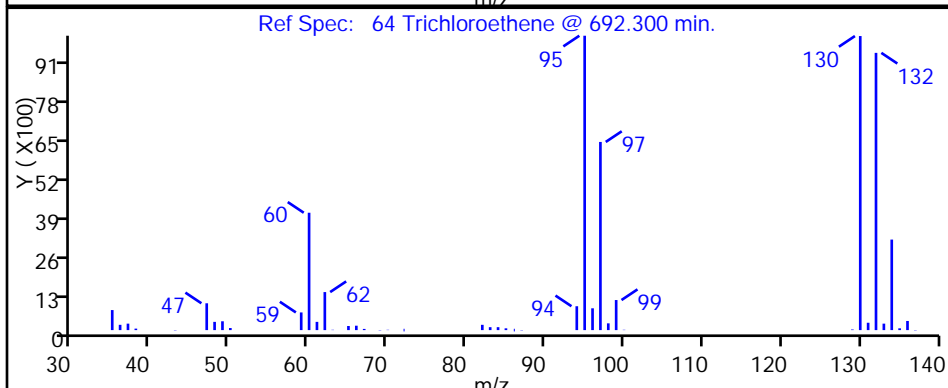
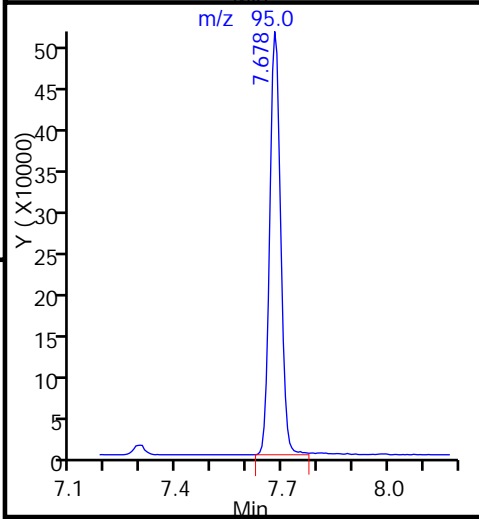
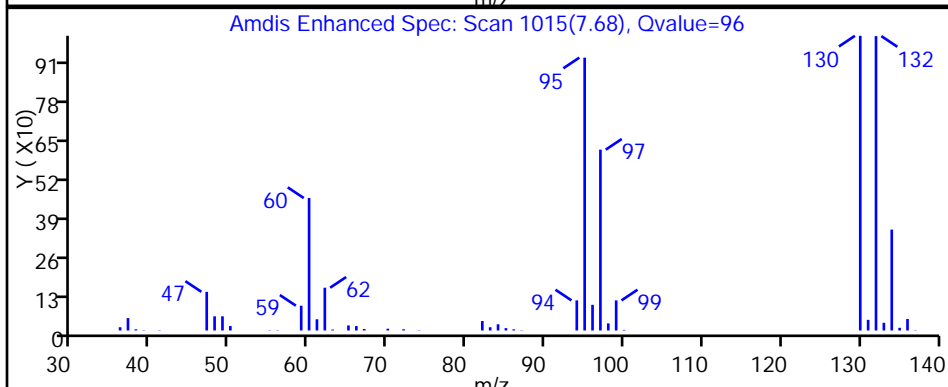
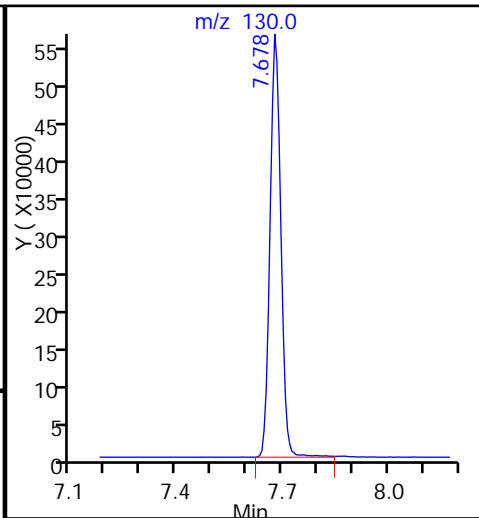
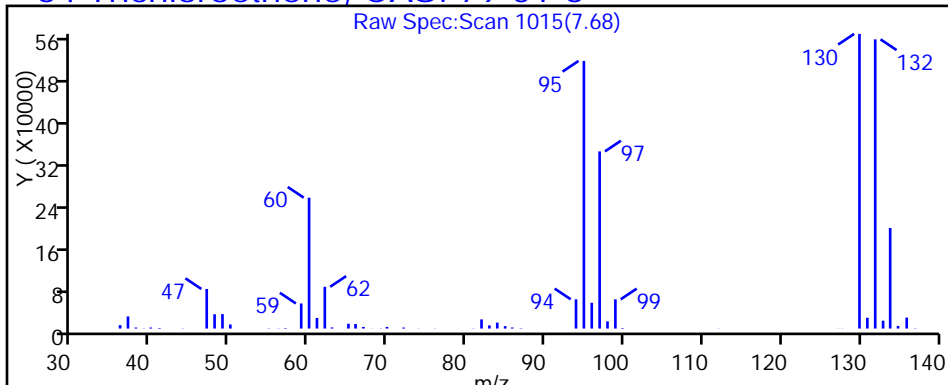
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D

Injection Date: 06-Oct-2015 21:09:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

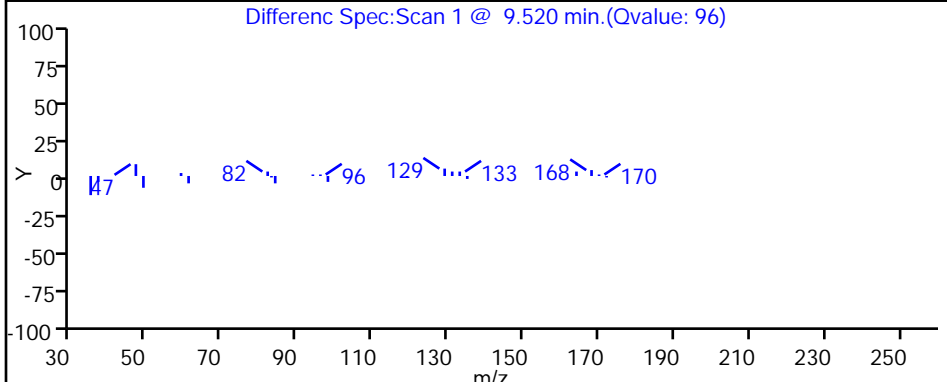
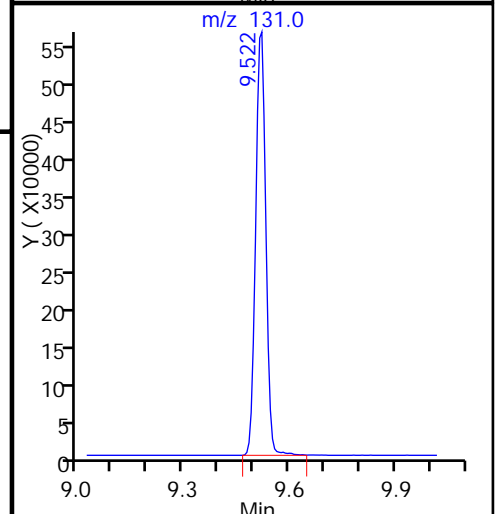
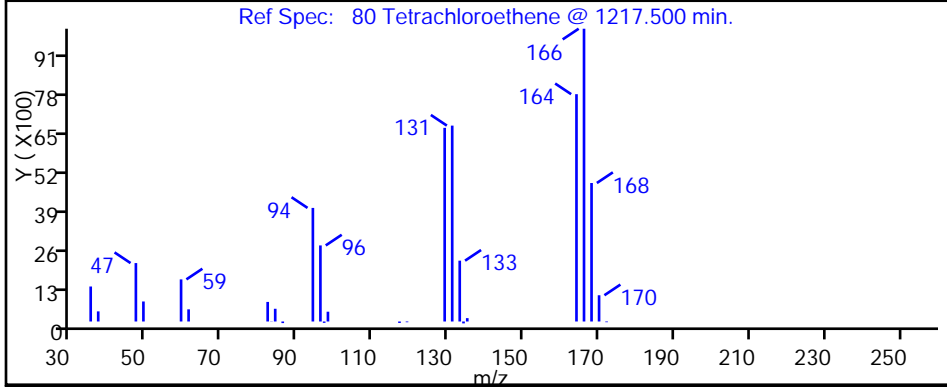
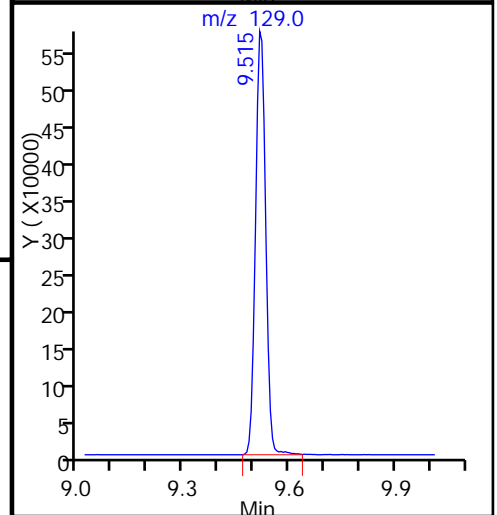
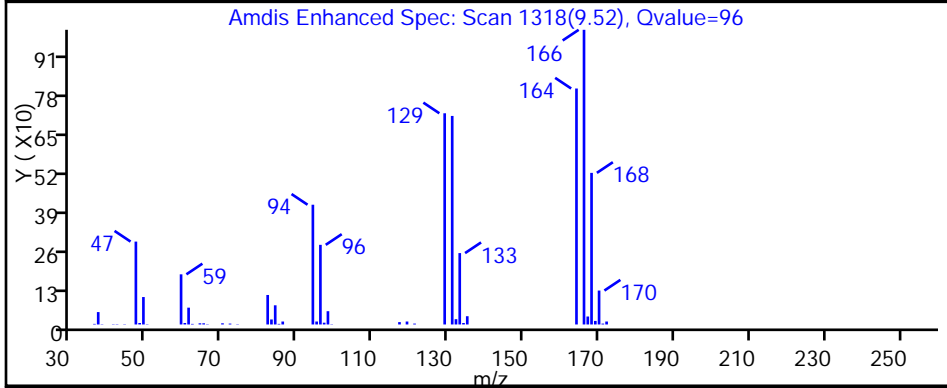
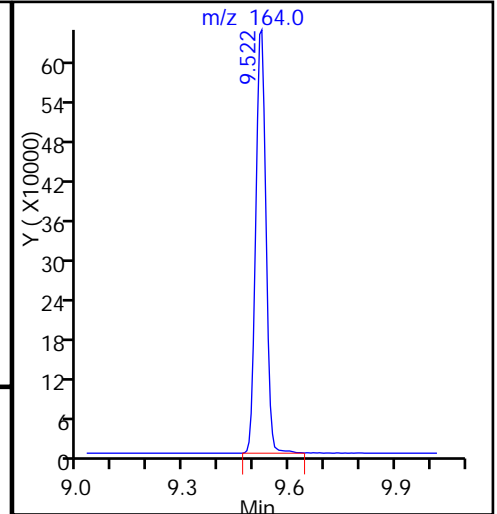
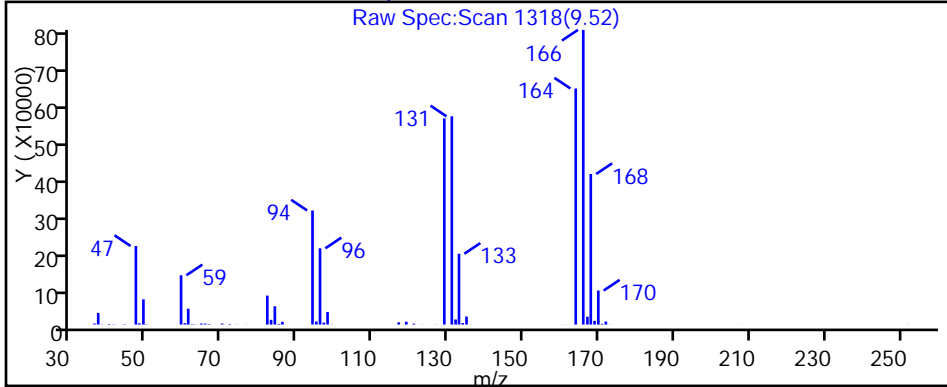
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



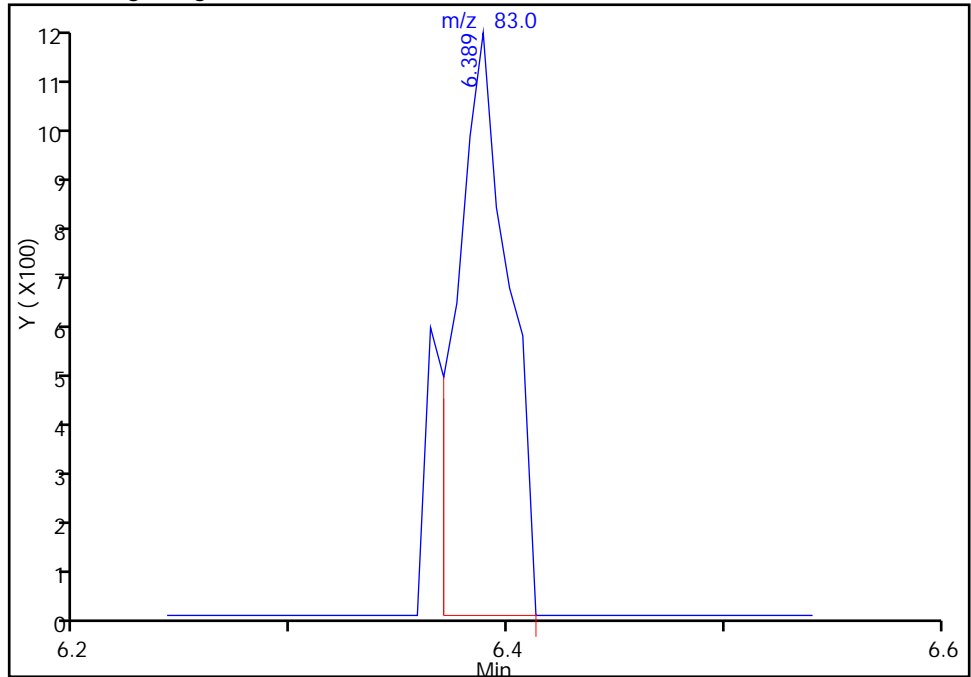
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006023.D
Injection Date: 06-Oct-2015 21:09:30 Instrument ID: CHHP5
Lims ID: 180-48181-C-4 Lab Sample ID: 180-48181-4
Client ID: HD-MW-93D-0/1-0
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

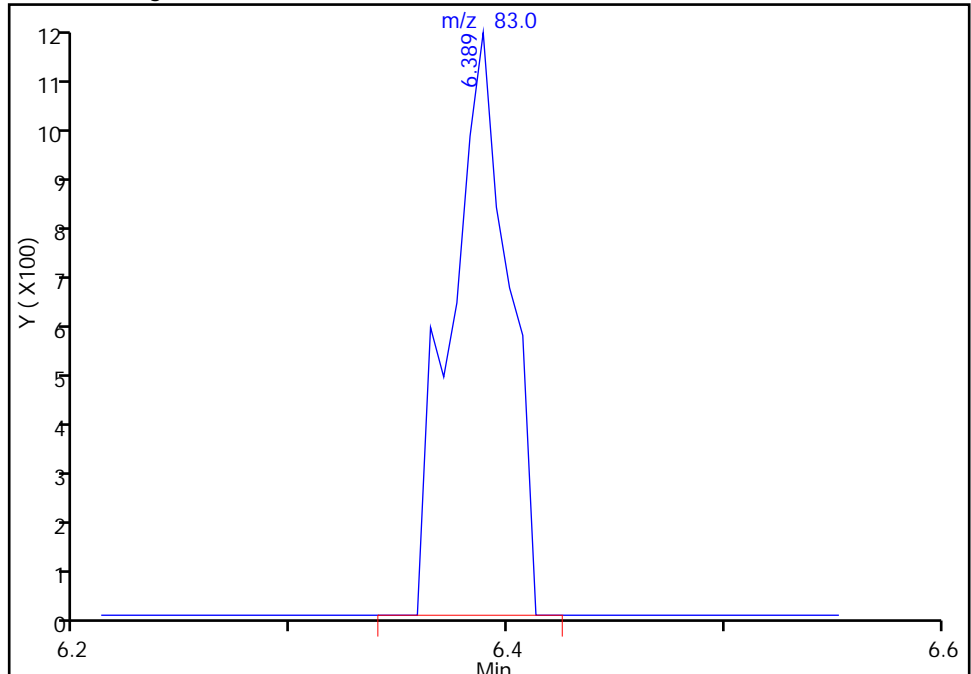
RT: 6.39
Area: 1917
Amount: 0.668028
Amount Units: ng

Processing Integration Results



RT: 6.39
Area: 2126
Amount: 0.740859
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 08:10:02
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93D-0/1-0 DL Lab Sample ID: 180-48181-4 DL
 Matrix: Water Lab File ID: 51005017.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:10
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 17:35
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|----|------|
| 74-87-3 | Chloromethane | 10 | U | 10 | 2.8 |
| 75-01-4 | Vinyl chloride | 10 | U | 10 | 2.3 |
| 74-83-9 | Bromomethane | 10 | U | 10 | 3.1 |
| 75-00-3 | Chloroethane | 10 | U ^c | 10 | 2.1 |
| 75-35-4 | 1,1-Dichloroethene | 10 | U | 10 | 3.0 |
| 67-64-1 | Acetone | 50 | U | 50 | 25 |
| 75-15-0 | Carbon disulfide | 10 | U | 10 | 2.1 |
| 75-09-2 | Methylene Chloride | 10 | U | 10 | 1.3 |
| 156-60-5 | trans-1,2-Dichloroethene | 10 | U | 10 | 1.7 |
| 1634-04-4 | Methyl tert-butyl ether | 10 | U | 10 | 1.8 |
| 75-34-3 | 1,1-Dichloroethane | 2.7 | J | 10 | 1.2 |
| 156-59-2 | cis-1,2-Dichloroethene | 37 | | 10 | 2.4 |
| 74-97-5 | Bromochloromethane | 10 | U | 10 | 1.8 |
| 78-93-3 | 2-Butanone (MEK) | 50 | U | 50 | 5.5 |
| 67-66-3 | Chloroform | 10 | U | 10 | 1.7 |
| 71-55-6 | 1,1,1-Trichloroethane | 6.2 | J | 10 | 2.9 |
| 56-23-5 | Carbon tetrachloride | 10 | U | 10 | 1.4 |
| 71-43-2 | Benzene | 10 | U | 10 | 1.1 |
| 107-06-2 | 1,2-Dichloroethane | 10 | U | 10 | 2.1 |
| 79-01-6 | Trichloroethene | 120 | | 10 | 1.4 |
| 78-87-5 | 1,2-Dichloropropane | 10 | U | 10 | 0.95 |
| 75-27-4 | Bromodichloromethane | 10 | U | 10 | 1.3 |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U | 10 | 1.9 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50 | U | 50 | 5.3 |
| 108-88-3 | Toluene | 10 | U | 10 | 1.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U | 10 | 1.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U | 10 | 2.0 |
| 127-18-4 | Tetrachloroethene | 160 | | 10 | 1.5 |
| 591-78-6 | 2-Hexanone | 50 | U | 50 | 1.6 |
| 124-48-1 | Dibromochloromethane | 10 | U | 10 | 1.4 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 10 | U | 10 | 1.8 |
| 108-90-7 | Chlorobenzene | 10 | U | 10 | 1.4 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 10 | U | 10 | 2.8 |
| 100-41-4 | Ethylbenzene | 10 | U | 10 | 2.3 |
| 1330-20-7 | Xylenes, Total | 30 | U | 30 | 4.9 |
| 100-42-5 | Styrene | 10 | U | 10 | 0.97 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-93D-0/1-0 DL Lab Sample ID: 180-48181-4 DL
 Matrix: Water Lab File ID: 51005017.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:10
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 17:35
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|------|-----|
| 75-25-2 | Bromoform | 10 | U | 10 | 1.9 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U | 10 | 2.0 |
| 107-13-1 | Acrylonitrile | 200 | U | 200 | 5.5 |
| 123-91-1 | 1,4-Dioxane | 2000 | U | 2000 | 340 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 97 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D
 Lims ID: 180-48181-A-4 Lab Sample ID: 180-48181-4
 Client ID: HD-MW-93D-0/1-0
 Sample Type: Client
 Inject. Date: 05-Oct-2015 17:35:30 ALS Bottle#: 17 Worklist Smp#: 17
 Purge Vol: 5.000 mL Dil. Factor: 10.0000
 Sample Info: 180-48181-A-4, 10x
 Misc. Info.: 180-0008828-017
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 08:06:01 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 08:06:01

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.267 | 4.281 | -0.014 | 0 | 146084 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.292 | -0.002 | 98 | 329329 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.388 | -0.001 | 87 | 84752 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.729 | 12.730 | -0.001 | 96 | 124229 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.568 | -0.002 | 94 | 86972 | 53.8 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.933 | 0.004 | 0 | 107831 | 48.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.940 | -0.001 | 94 | 301106 | 46.1 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.575 | -0.002 | 92 | 108619 | 44.0 | |
| 12 Chloromethane | 50 | | 1.774 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.908 | | | | ND | |
| 15 Bromomethane | 94 | | 2.249 | | | | ND | |
| 16 Chloroethane | 64 | | 2.413 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.360 | 3.344 | 0.016 | 42 | 2629 | 1.43 | M |
| 24 Acetone | 43 | | 3.441 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.636 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.141 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.524 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.566 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.579 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.216 | 5.199 | 0.017 | 14 | 5271 | 1.34 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.958 | 5.954 | 0.004 | 81 | 39354 | 18.5 | |
| 46 2-Butanone (MEK) | 43 | | 5.966 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.233 | | | | ND | |
| 52 Chloroform | 83 | | 6.379 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.542 | 6.550 | -0.008 | 75 | 7708 | 3.08 | |
| 56 Carbon tetrachloride | 117 | | 6.720 | | | | ND | |
| 58 Benzene | 78 | | 6.945 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.024 | | | | ND | |
| 64 Trichloroethene | 130 | 7.680 | 7.675 | 0.005 | 96 | 118547 | 59.7 | |
| 67 1,2-Dichloropropane | 63 | | 7.949 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.034 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.235 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.679 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.825 | | | | ND | |
| 76 Toluene | 91 | | 9.007 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.445 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.523 | 9.518 | 0.005 | 98 | 127350 | 78.2 | |
| 82 2-Hexanone | 43 | | 9.658 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.823 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.932 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.419 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.510 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.522 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.650 | | | | ND | |
| 92 o-Xylene | 106 | | 11.033 | | | | ND | |
| 93 Styrene | 104 | | 11.051 | | | | ND | |
| 94 Bromoform | 173 | | 11.228 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.708 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Worklist Smp#: 17

Client ID: HD-MW-93D-0/1-0

Purge Vol: 5.000 mL

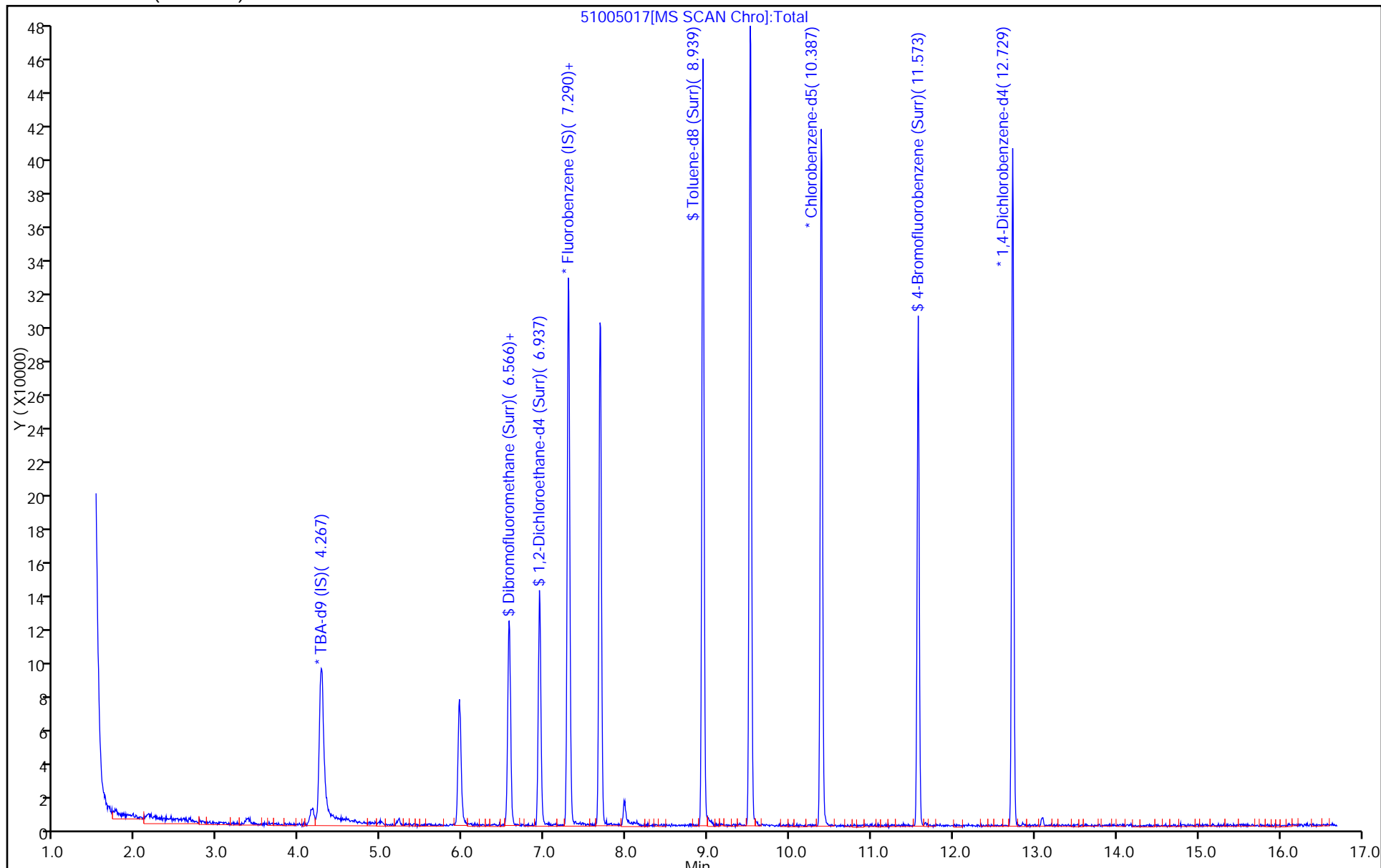
Dil. Factor: 10.0000

ALS Bottle#: 17

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

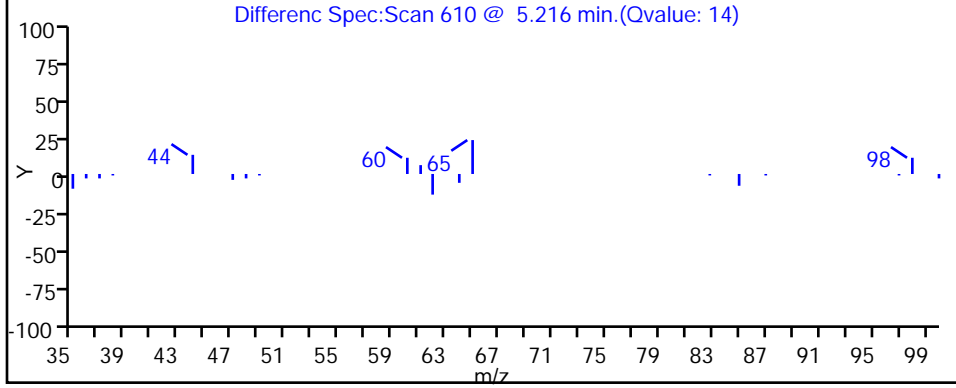
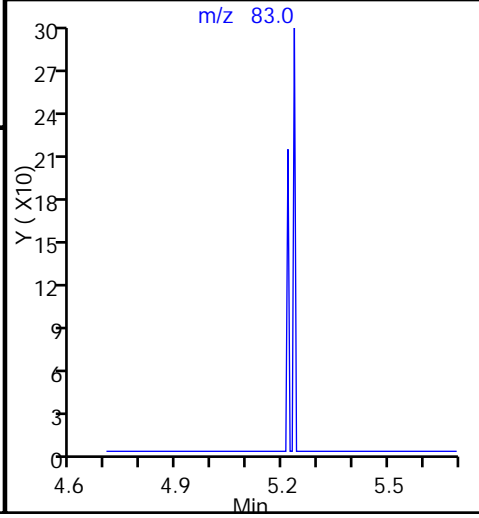
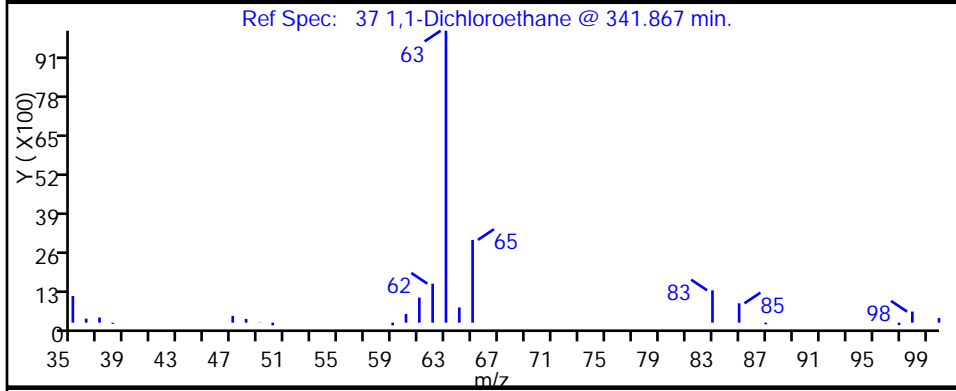
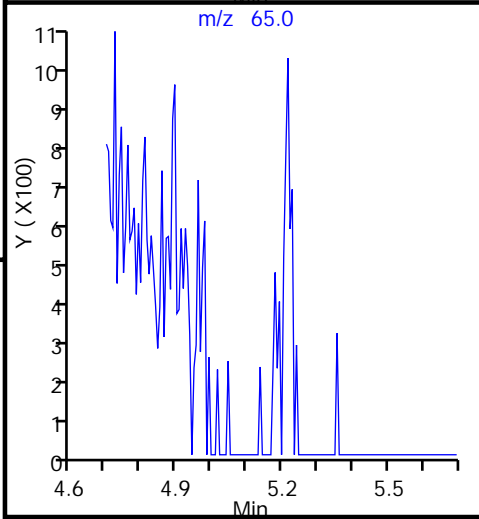
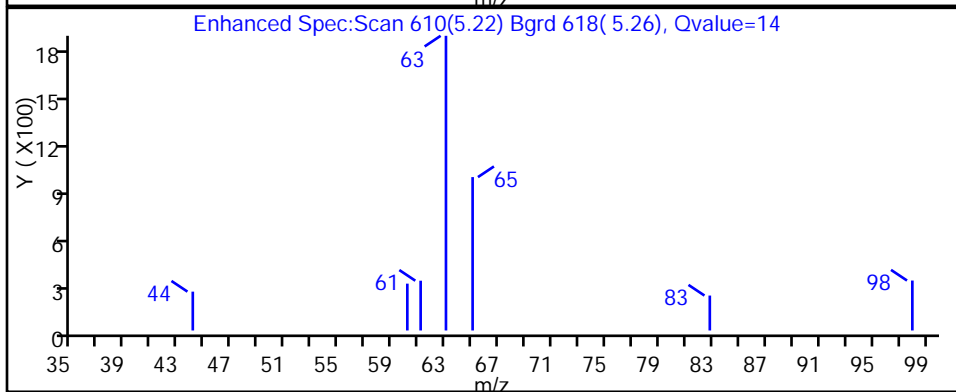
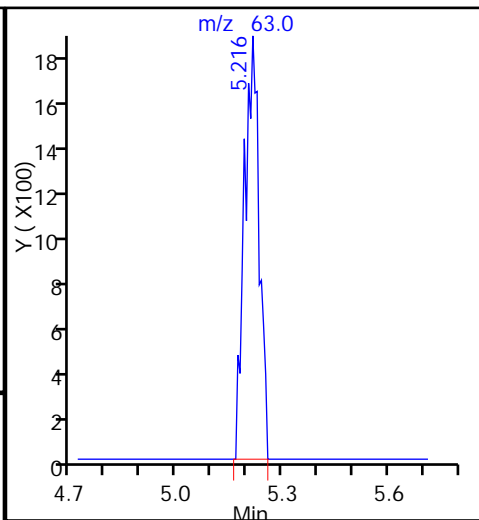
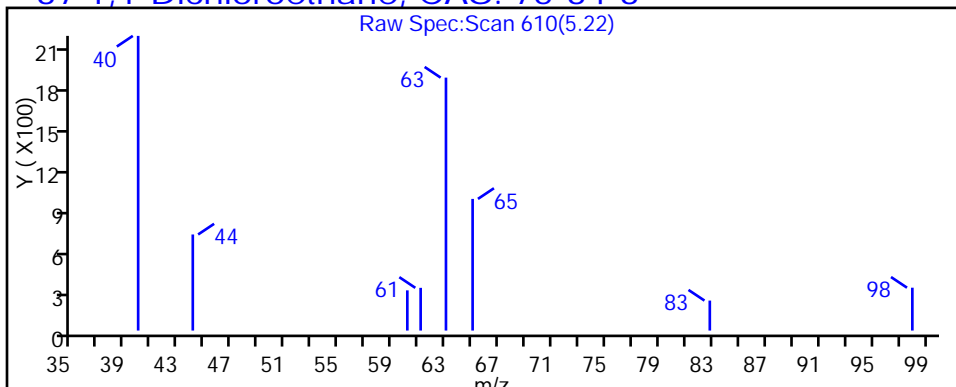
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

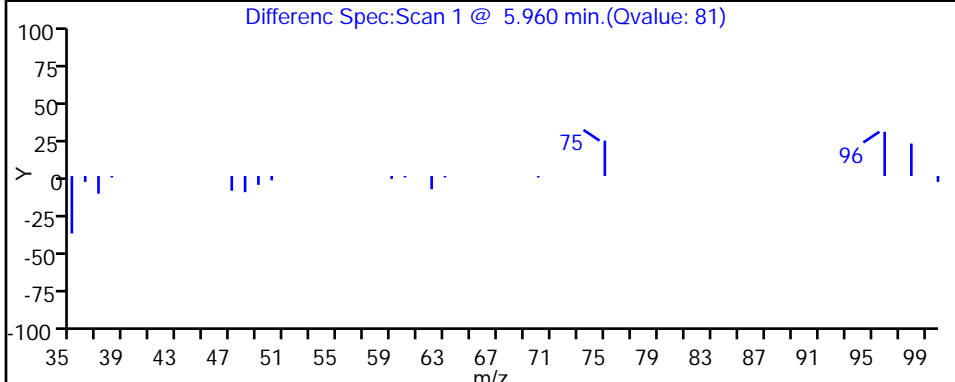
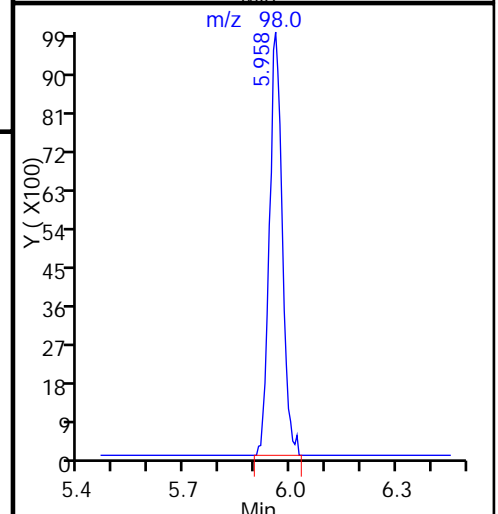
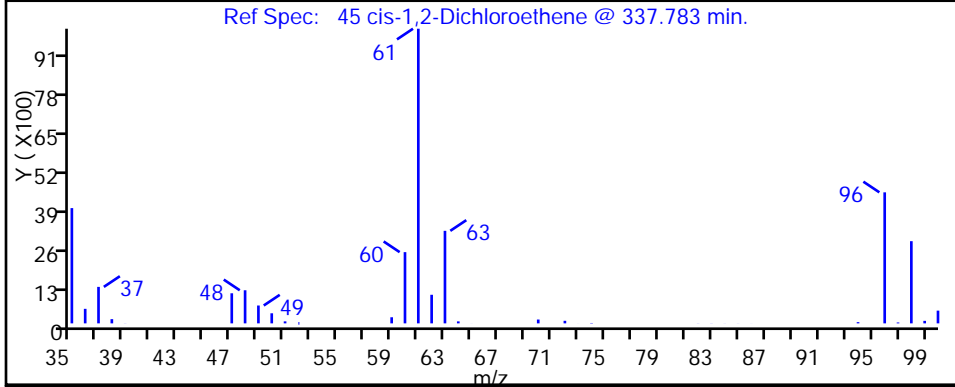
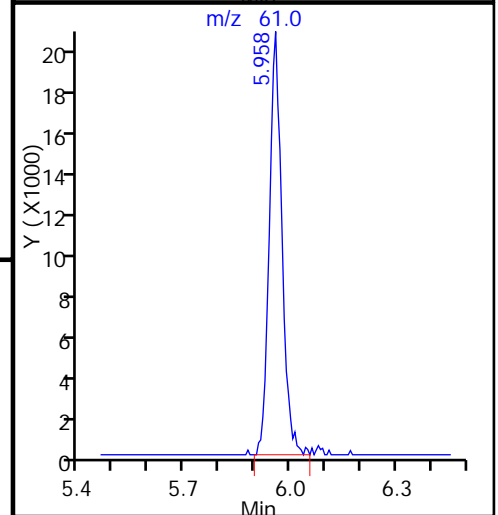
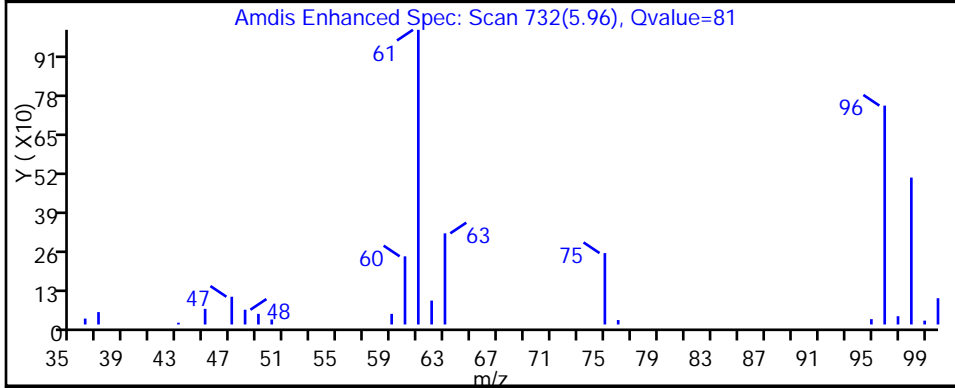
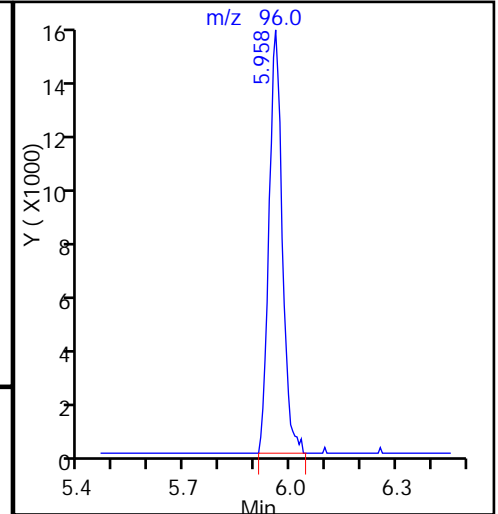
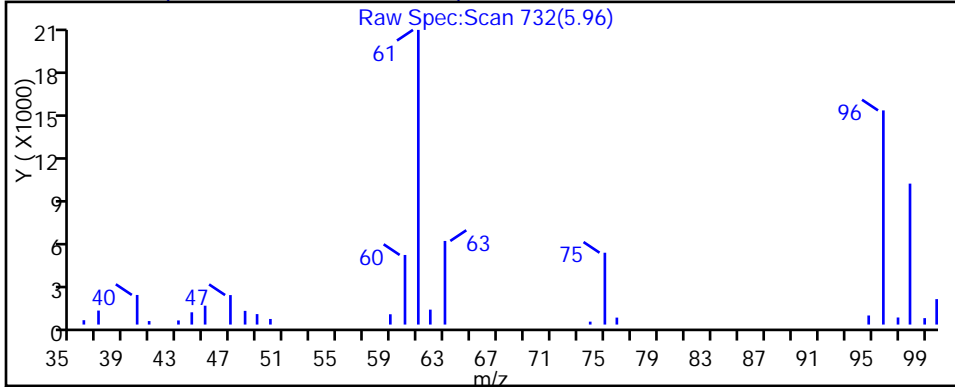
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

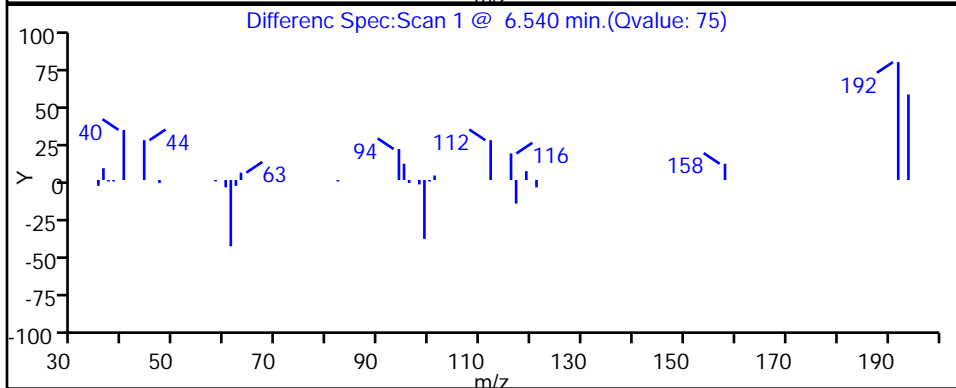
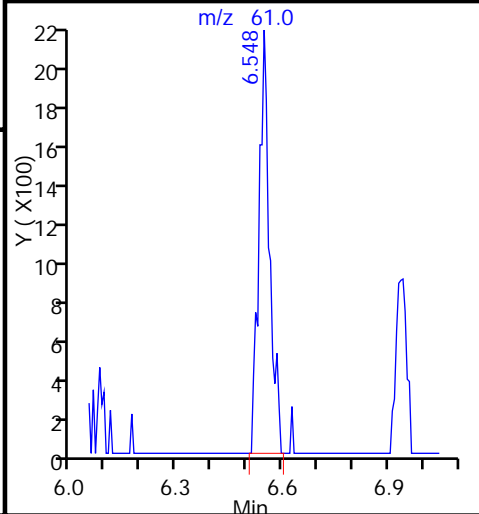
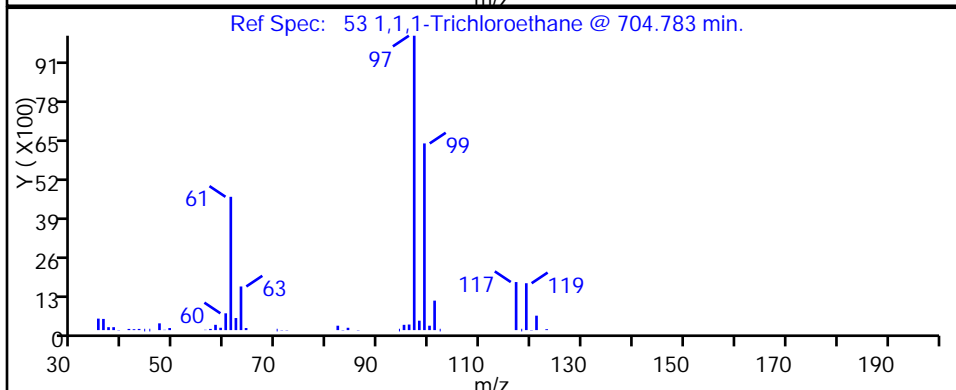
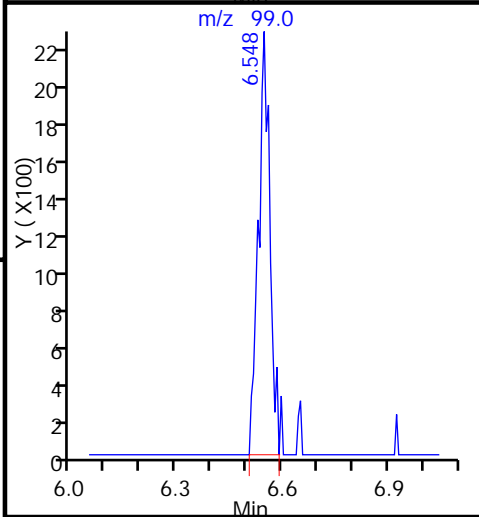
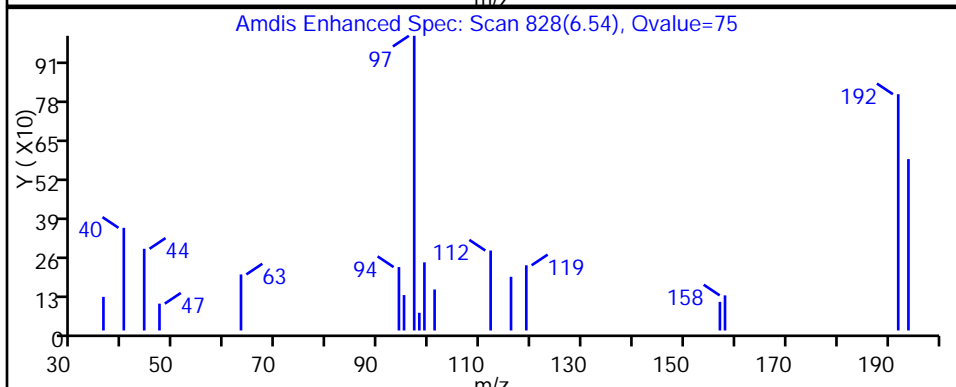
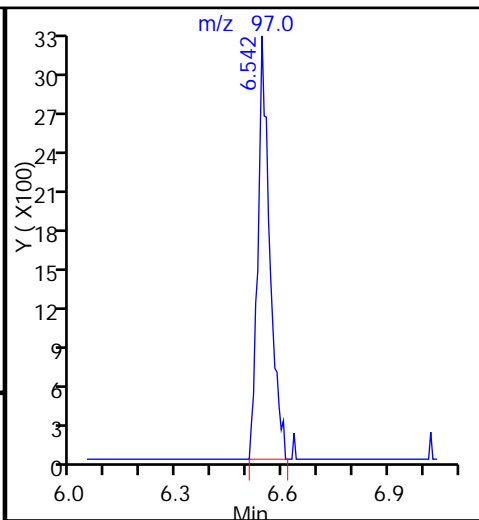
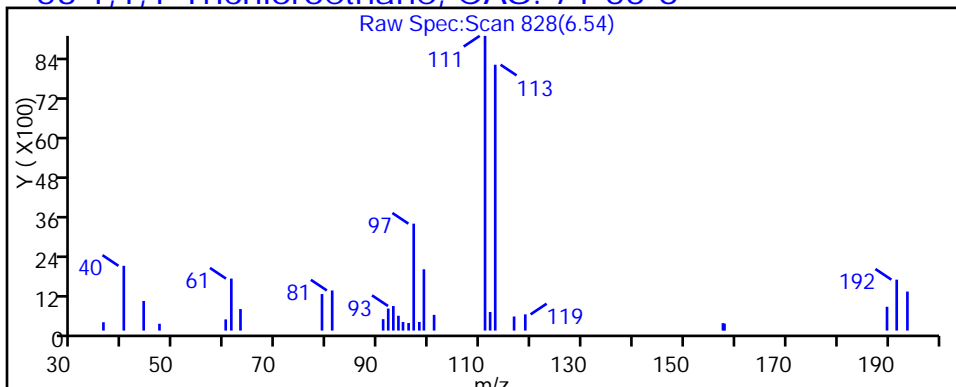
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

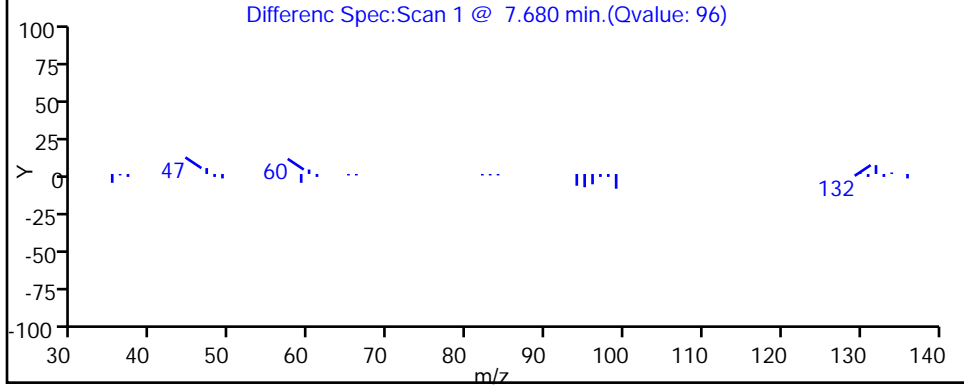
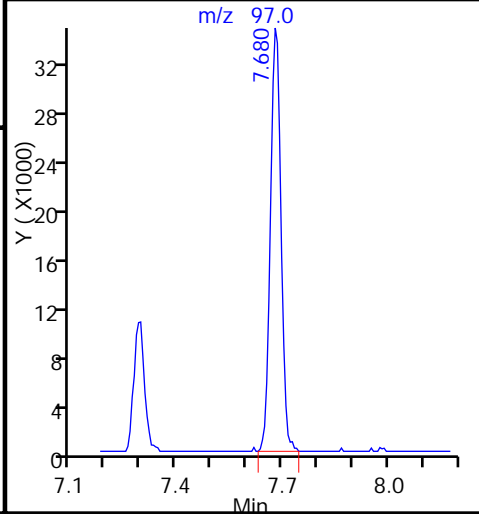
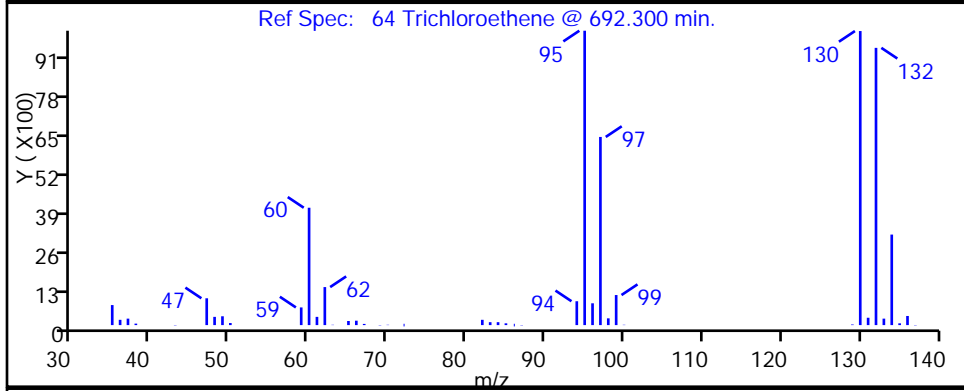
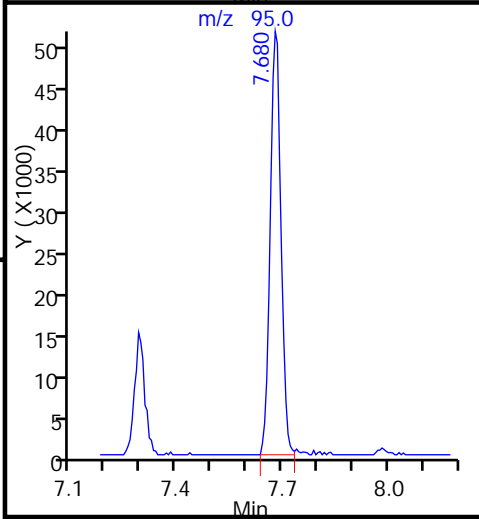
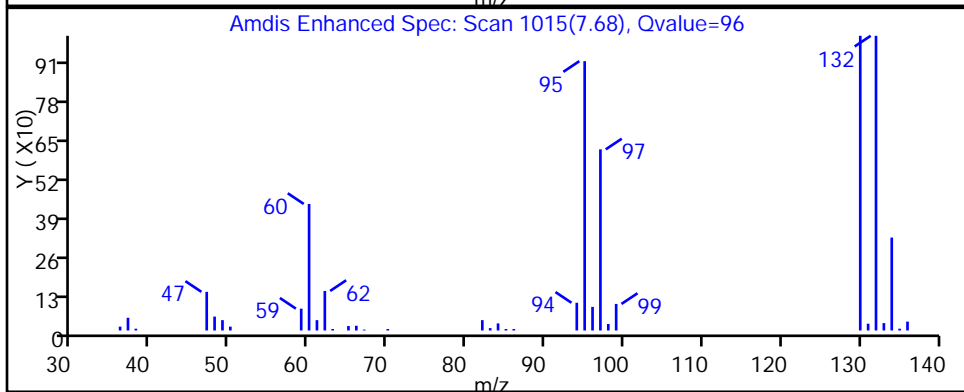
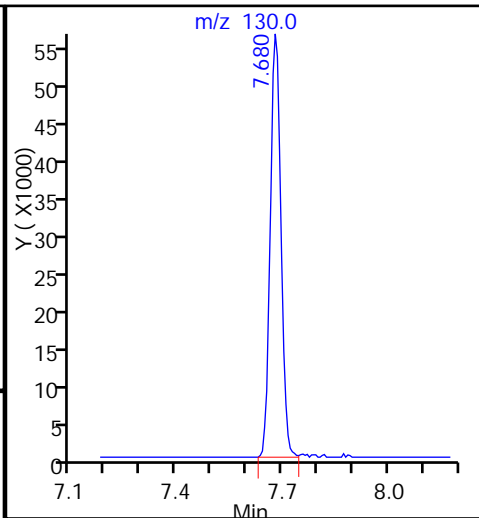
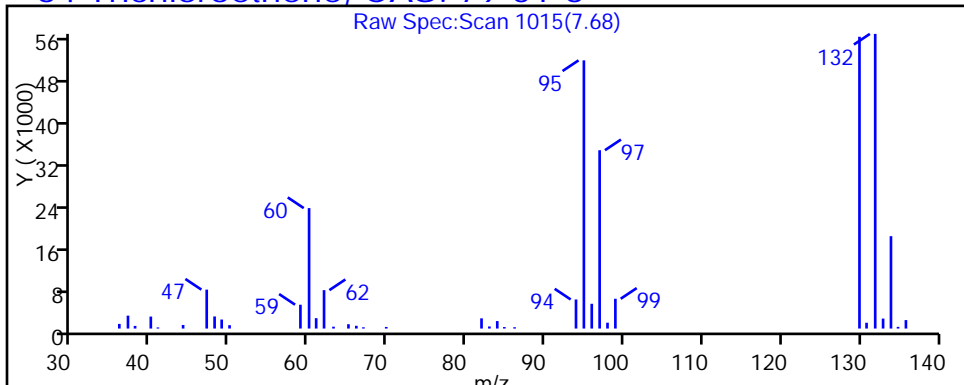
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D

Injection Date: 05-Oct-2015 17:35:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-4

Lab Sample ID: 180-48181-4

Client ID: HD-MW-93D-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

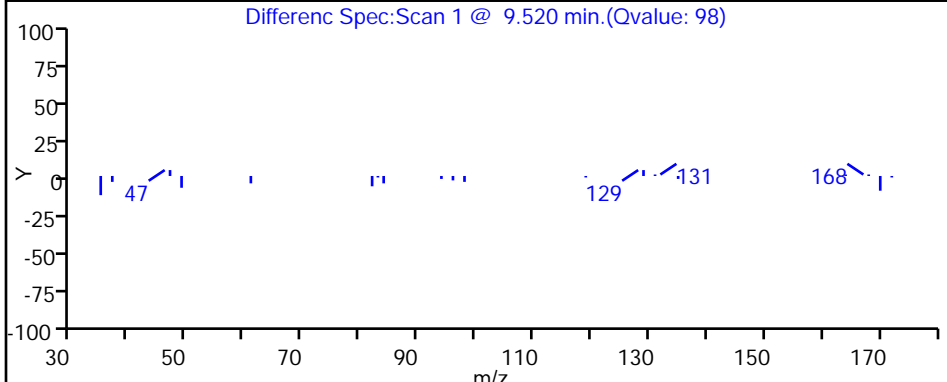
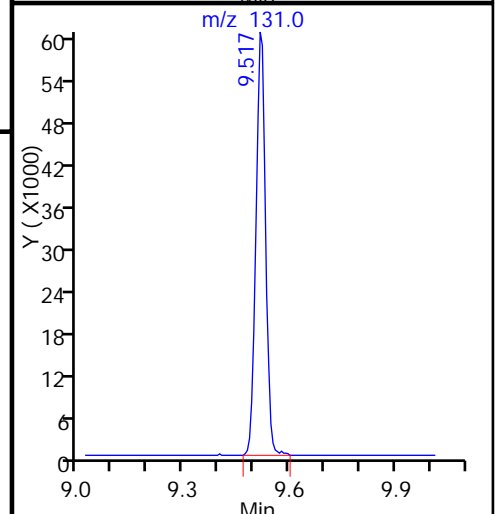
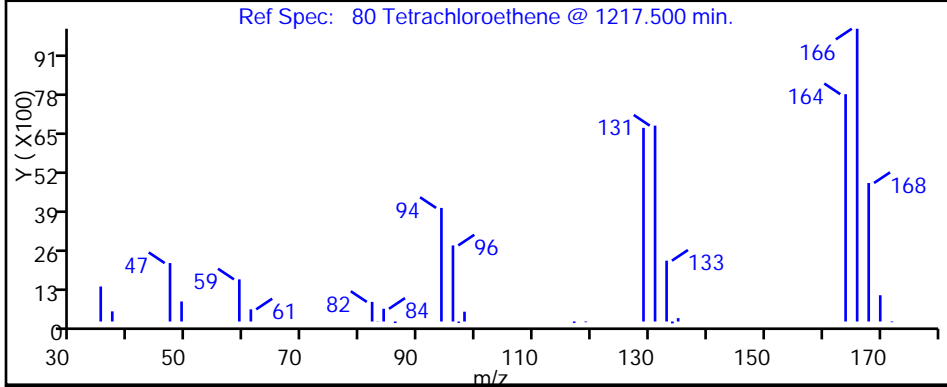
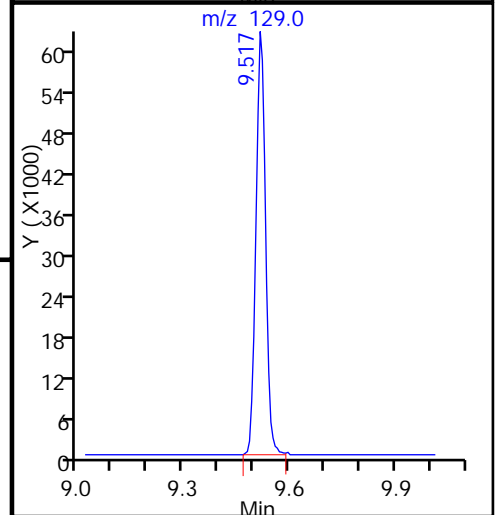
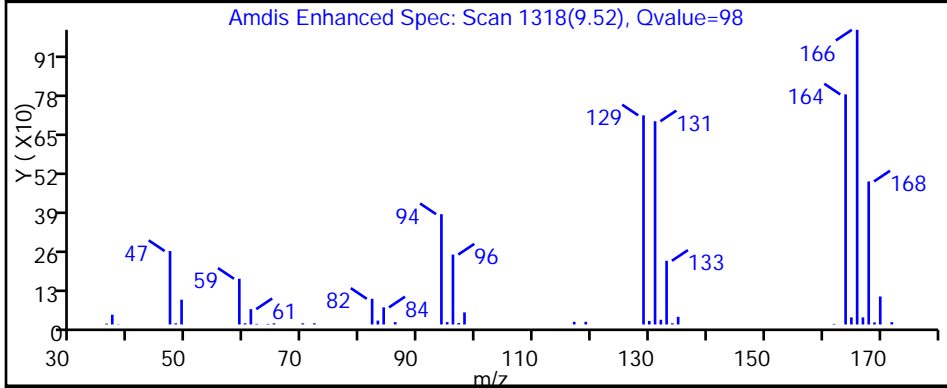
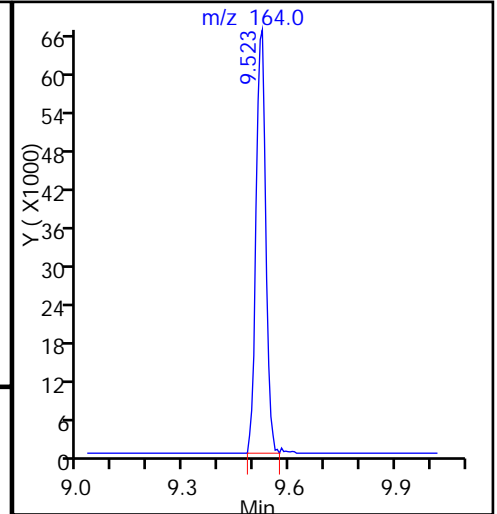
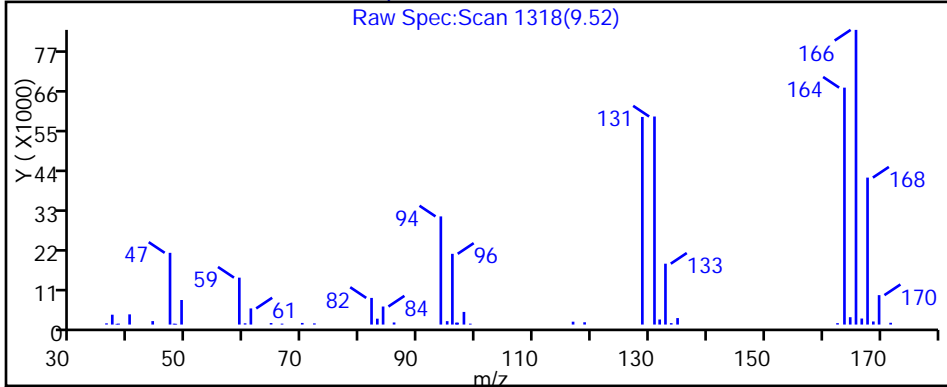
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



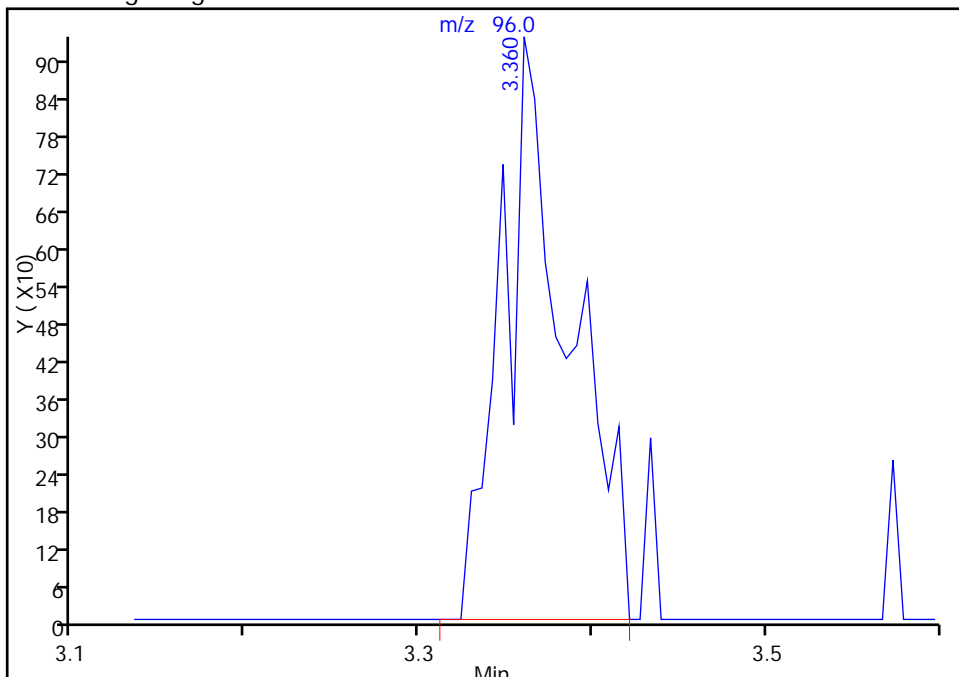
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005017.D
Injection Date: 05-Oct-2015 17:35:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-4 Lab Sample ID: 180-48181-4
Client ID: HD-MW-93D-0/1-0
Operator ID: 001562 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4

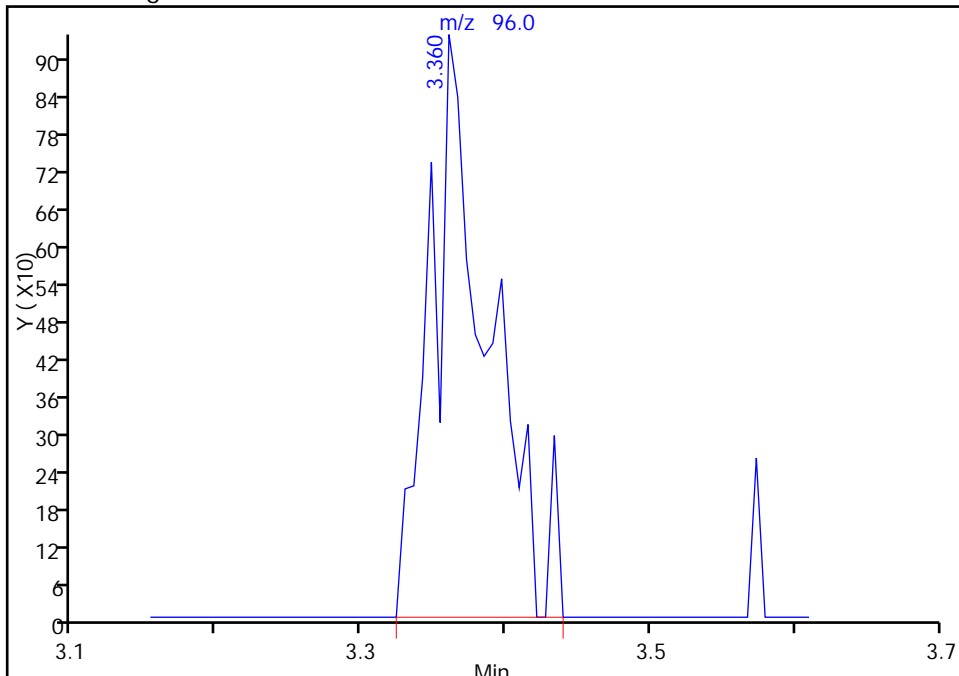
RT: 3.36
Area: 2523
Amount: 1.375530
Amount Units: ng

Processing Integration Results



RT: 3.36
Area: 2629
Amount: 1.433321
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 06-Oct-2015 08:06:01
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-48181-5
 Matrix: Water Lab File ID: 51005018.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:47
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 17:59
 Soil Aliquot Vol: _____ Dilution Factor: 50
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|-----|
| 74-87-3 | Chloromethane | 50 | U | 50 | 14 |
| 75-01-4 | Vinyl chloride | 50 | U | 50 | 11 |
| 74-83-9 | Bromomethane | 50 | U | 50 | 16 |
| 75-00-3 | Chloroethane | 50 | U ^c | 50 | 11 |
| 75-35-4 | 1,1-Dichloroethene | 53 | | 50 | 15 |
| 67-64-1 | Acetone | 250 | U | 250 | 130 |
| 75-15-0 | Carbon disulfide | 50 | U | 50 | 11 |
| 75-09-2 | Methylene Chloride | 50 | U | 50 | 6.3 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | U | 50 | 8.5 |
| 1634-04-4 | Methyl tert-butyl ether | 50 | U | 50 | 9.2 |
| 75-34-3 | 1,1-Dichloroethane | 6.8 | J | 50 | 5.8 |
| 156-59-2 | cis-1,2-Dichloroethene | 130 | | 50 | 12 |
| 74-97-5 | Bromochloromethane | 50 | U | 50 | 9.0 |
| 78-93-3 | 2-Butanone (MEK) | 250 | U | 250 | 27 |
| 67-66-3 | Chloroform | 50 | U | 50 | 8.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 250 | | 50 | 14 |
| 56-23-5 | Carbon tetrachloride | 50 | U | 50 | 6.8 |
| 71-43-2 | Benzene | 50 | U | 50 | 5.3 |
| 107-06-2 | 1,2-Dichloroethane | 50 | U | 50 | 11 |
| 79-01-6 | Trichloroethene | 2900 | E | 50 | 7.2 |
| 78-87-5 | 1,2-Dichloropropane | 50 | U | 50 | 4.7 |
| 75-27-4 | Bromodichloromethane | 50 | U | 50 | 6.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | U | 50 | 9.3 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 250 | U | 250 | 26 |
| 108-88-3 | Toluene | 50 | U | 50 | 7.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | U | 50 | 7.4 |
| 79-00-5 | 1,1,2-Trichloroethane | 120 | | 50 | 10 |
| 127-18-4 | Tetrachloroethene | 14000 | E | 50 | 7.4 |
| 591-78-6 | 2-Hexanone | 250 | U | 250 | 8.0 |
| 124-48-1 | Dibromochloromethane | 50 | U | 50 | 6.8 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 50 | U | 50 | 9.0 |
| 108-90-7 | Chlorobenzene | 50 | U | 50 | 6.8 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | U | 50 | 14 |
| 100-41-4 | Ethylbenzene | 50 | U | 50 | 11 |
| 1330-20-7 | Xylenes, Total | 150 | U | 150 | 24 |
| 100-42-5 | Styrene | 50 | U | 50 | 4.8 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-48181-5
 Matrix: Water Lab File ID: 51005018.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:47
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 17:59
 Soil Aliquot Vol: _____ Dilution Factor: 50
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-------|------|
| 75-25-2 | Bromoform | 50 | U | 50 | 9.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | U | 50 | 10 |
| 107-13-1 | Acrylonitrile | 1000 | U | 1000 | 27 |
| 123-91-1 | 1,4-Dioxane | 10000 | U | 10000 | 1700 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 100 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 88 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 110 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D
 Lims ID: 180-48181-A-5 Lab Sample ID: 180-48181-5
 Client ID: HD-MW-75S-0/1-0
 Sample Type: Client
 Inject. Date: 05-Oct-2015 17:59:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 50.0000
 Sample Info: 180-48181-A-5, 50x
 Misc. Info.: 180-0008828-018
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 08:10:26 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 08:10:26

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.269 | 4.281 | -0.012 | 0 | 134738 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.292 | 7.292 | 0.000 | 98 | 312864 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.389 | 10.388 | 0.001 | 87 | 88426 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.731 | 12.730 | 0.001 | 96 | 115476 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.568 | 6.568 | 0.000 | 94 | 84546 | 55.0 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.939 | 6.933 | 0.006 | 0 | 105985 | 50.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.941 | 8.940 | 0.001 | 93 | 299803 | 43.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.569 | 11.575 | -0.006 | 91 | 107729 | 41.9 | |
| 12 Chloromethane | 50 | | 1.774 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.908 | | | | ND | |
| 15 Bromomethane | 94 | | 2.249 | | | | ND | |
| 16 Chloroethane | 64 | | 2.413 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.356 | 3.344 | 0.012 | 96 | 9315 | 5.35 | |
| 24 Acetone | 43 | | 3.441 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.636 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.141 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.524 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.566 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.579 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.206 | 5.199 | 0.007 | 1 | 2534 | 0.6799 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.954 | 5.954 | 0.000 | 80 | 27059 | 13.4 | |
| 46 2-Butanone (MEK) | 43 | | 5.966 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.233 | | | | ND | |
| 52 Chloroform | 83 | | 6.379 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.544 | 6.550 | -0.006 | 95 | 59764 | 25.1 | |
| 56 Carbon tetrachloride | 117 | | 6.720 | | | | ND | |
| 58 Benzene | 78 | | 6.945 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.024 | | | | ND | |
| 64 Trichloroethene | 130 | 7.682 | 7.675 | 0.007 | 96 | 546888 | 289.8 | E |
| 67 1,2-Dichloropropane | 63 | | 7.949 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.034 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.235 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.679 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.825 | | | | ND | |
| 76 Toluene | 91 | | 9.007 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | 9.519 | 9.445 | 0.074 | 36 | 20487 | 12.3 | |
| 80 Tetrachloroethene | 164 | 9.519 | 9.518 | 0.001 | 92 | 2417293 | 1422.5 | E |
| 82 2-Hexanone | 43 | | 9.658 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.823 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.932 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.419 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.510 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.522 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.650 | | | | ND | |
| 92 o-Xylene | 106 | | 11.033 | | | | ND | |
| 93 Styrene | 104 | | 11.051 | | | | ND | |
| 94 Bromoform | 173 | | 11.228 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.708 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Worklist Smp#: 18

Client ID: HD-MW-75S-0/1-0

Purge Vol: 5.000 mL

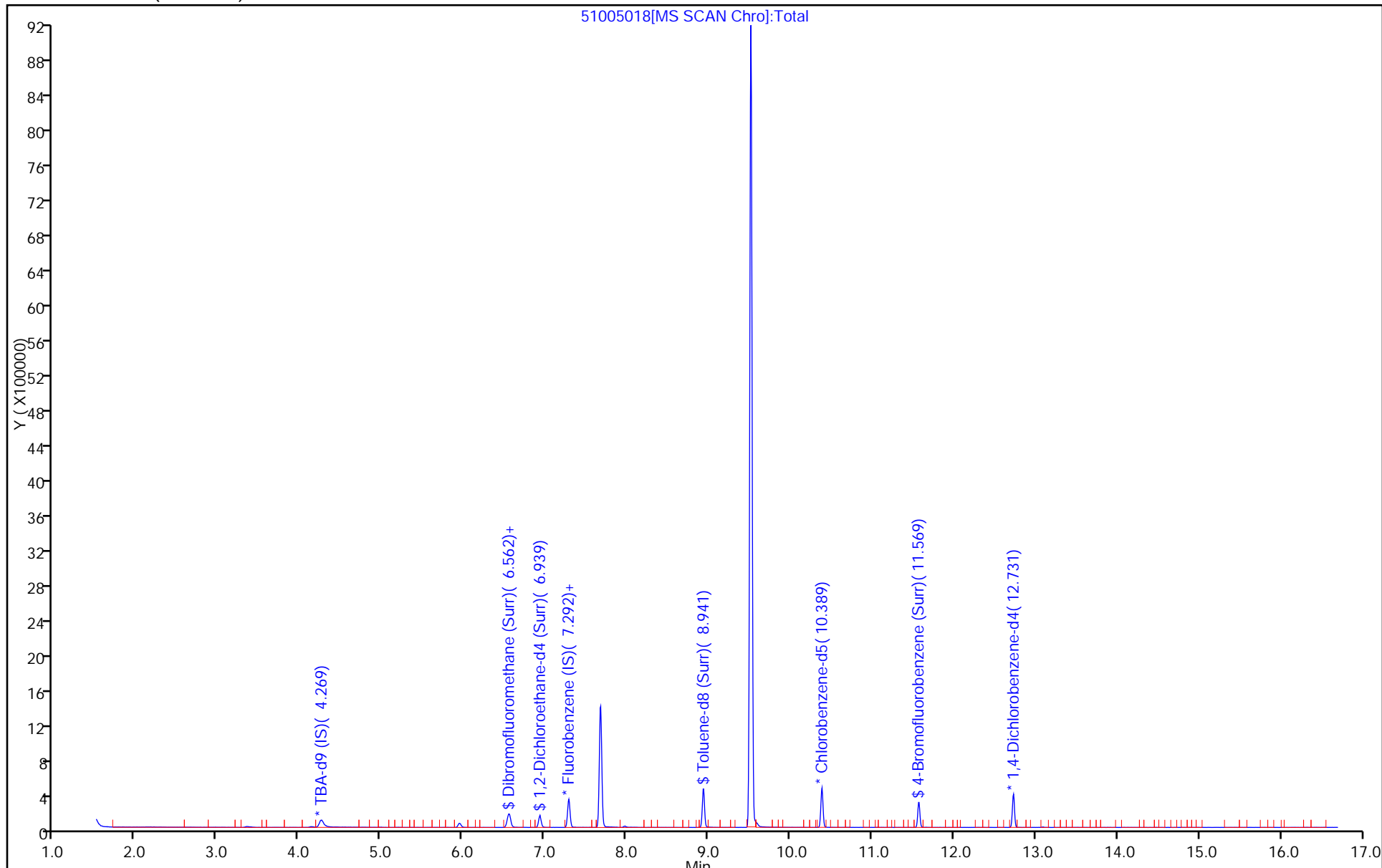
Dil. Factor: 50.0000

ALS Bottle#: 18

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

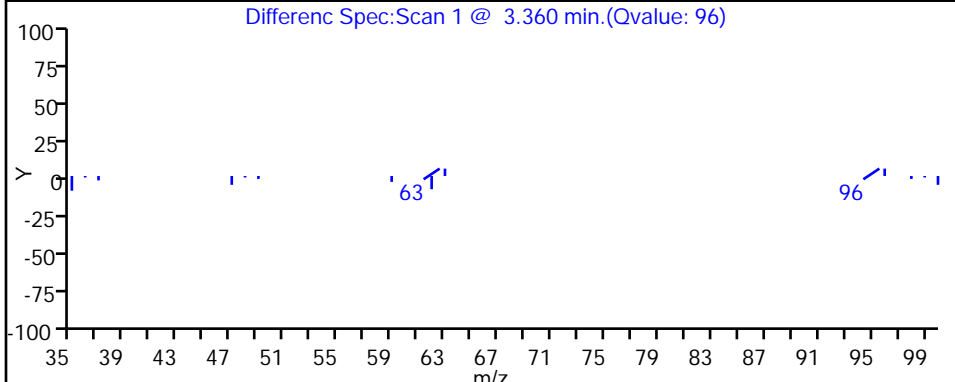
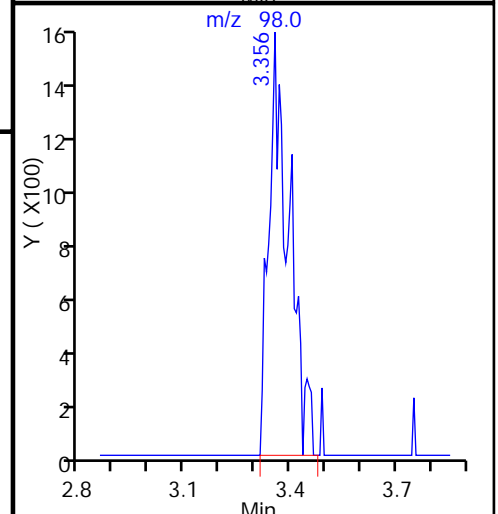
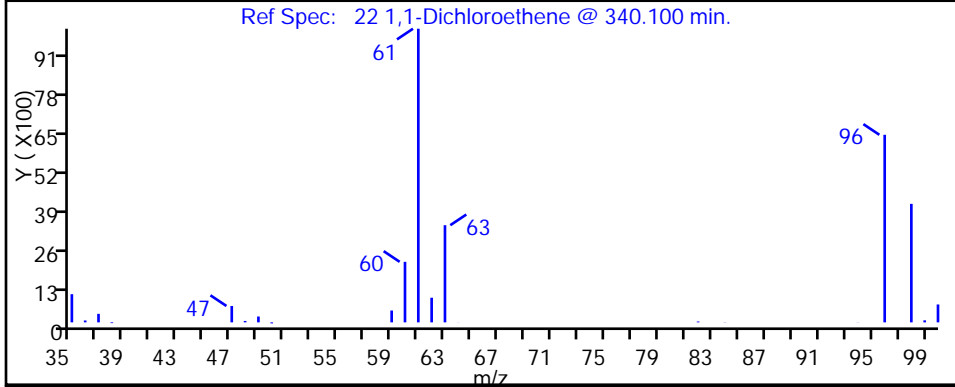
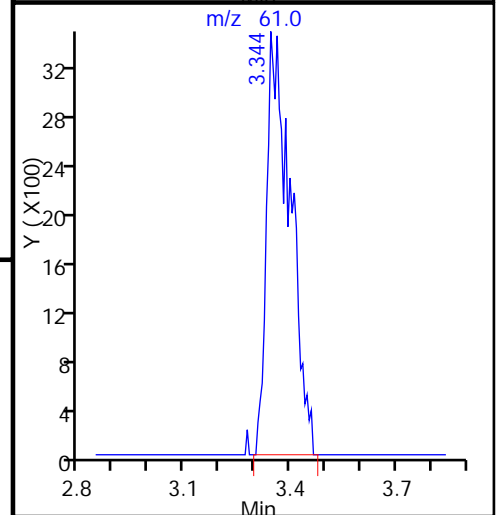
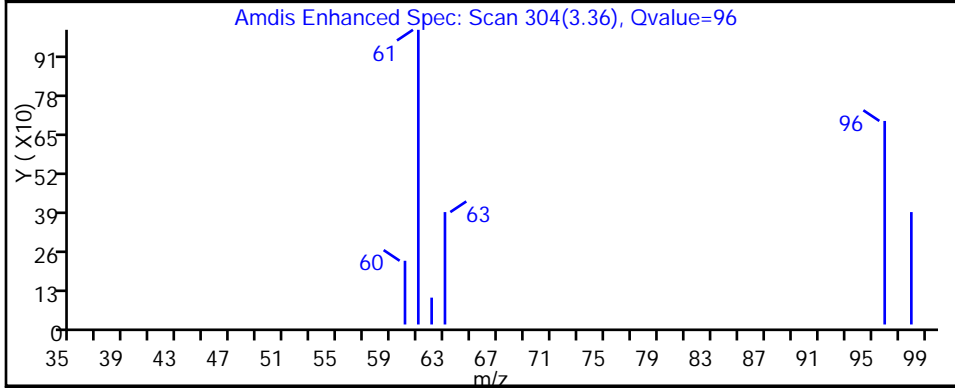
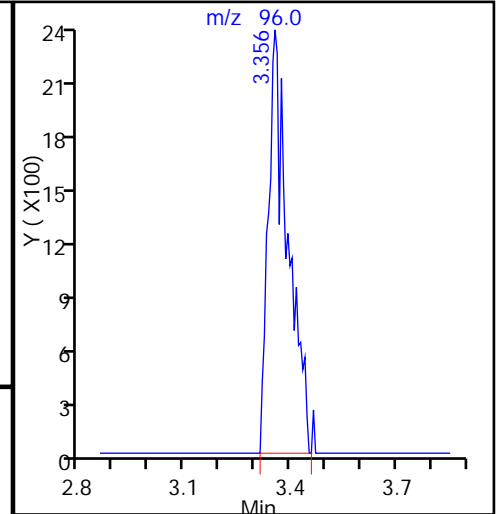
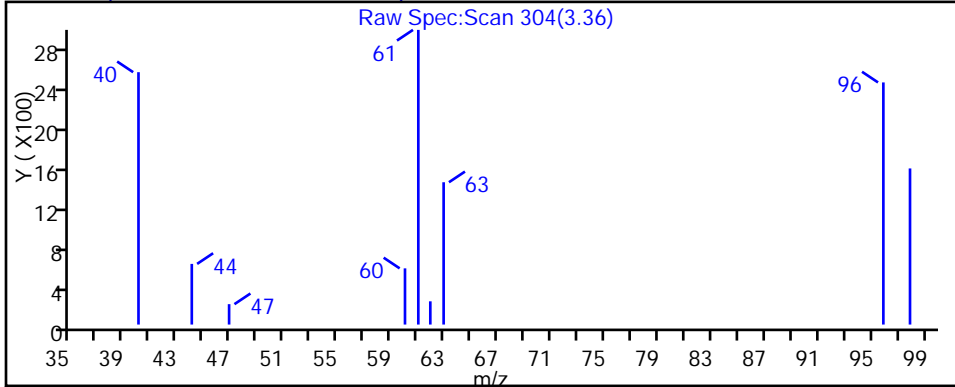
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

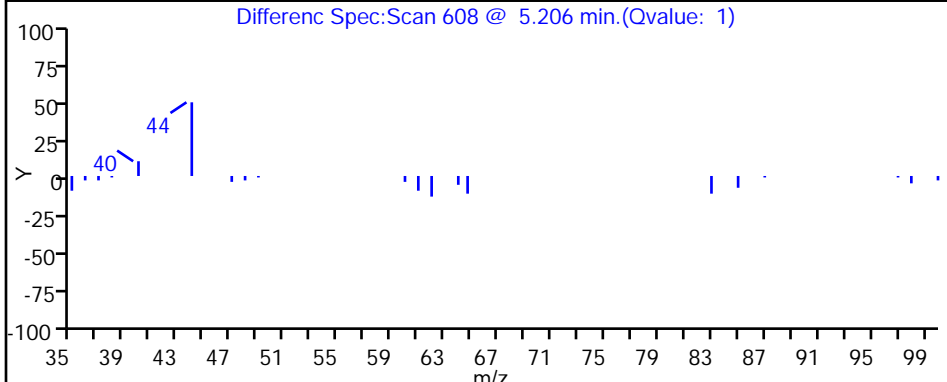
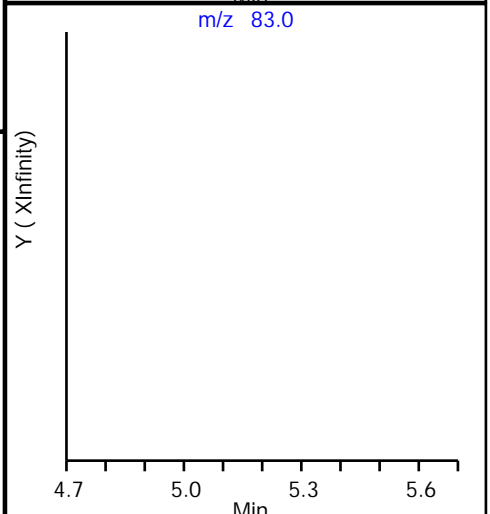
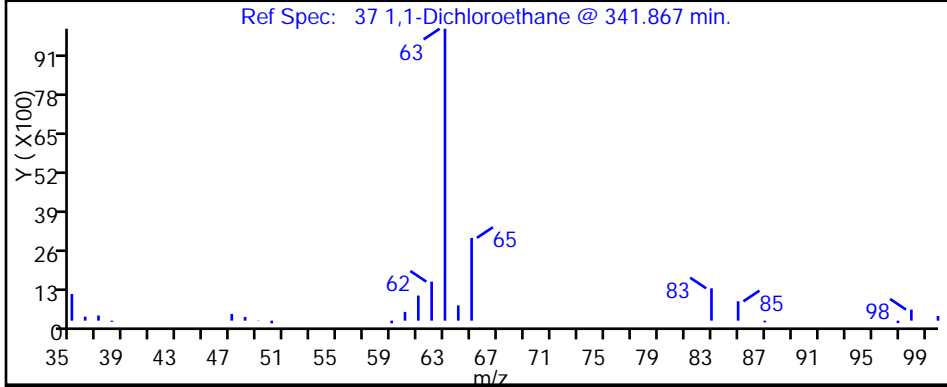
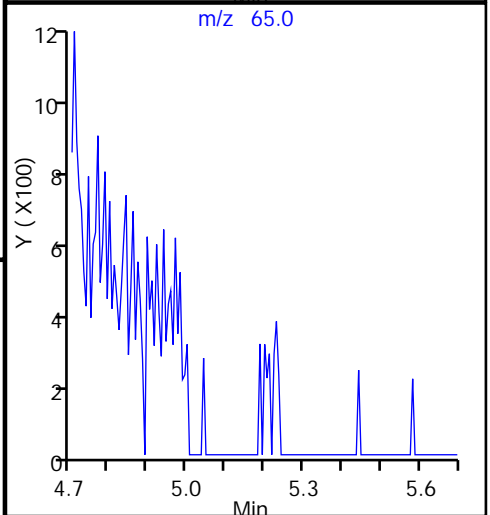
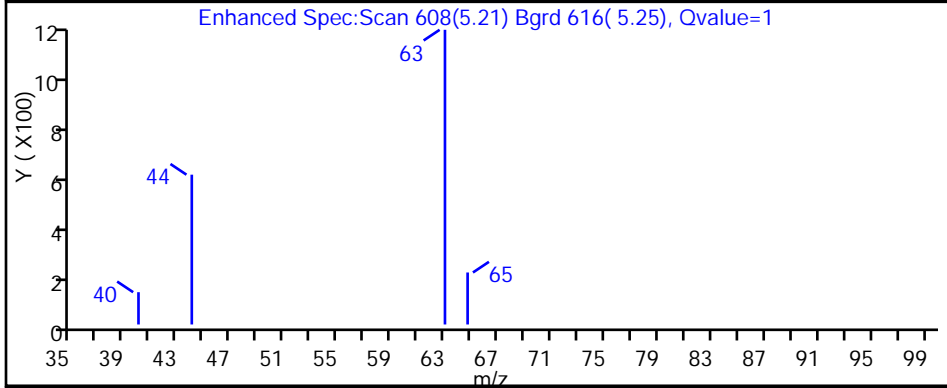
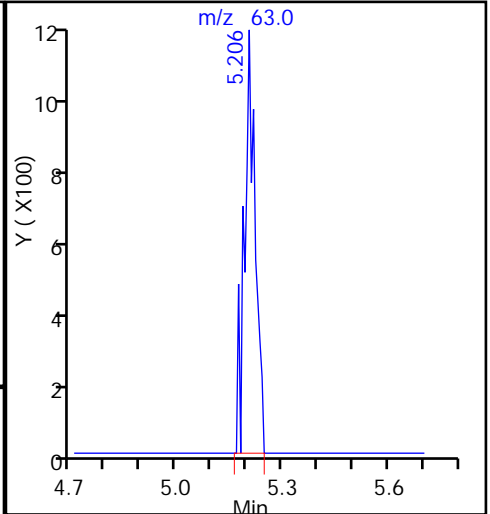
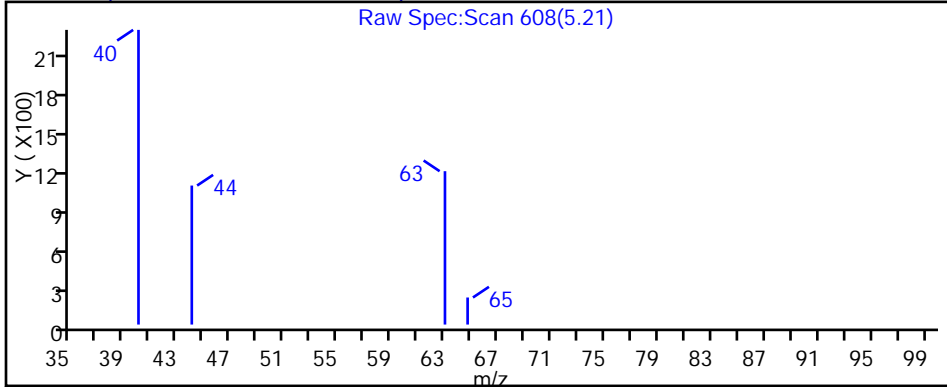
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

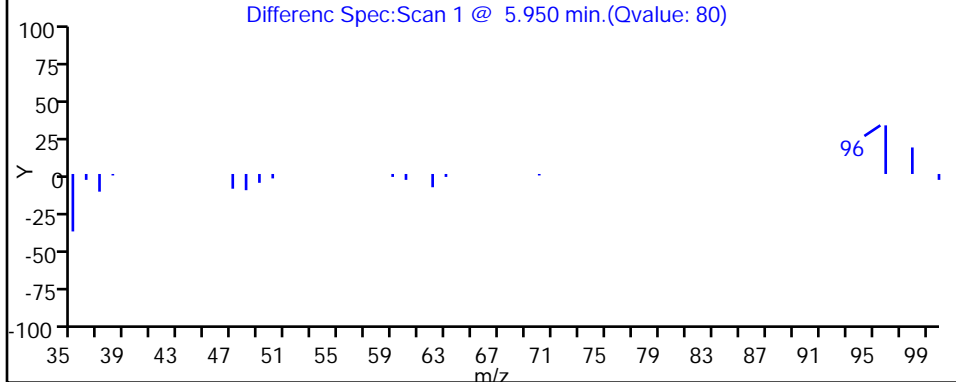
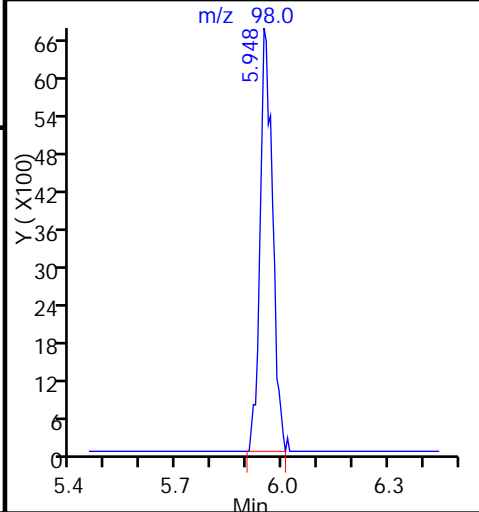
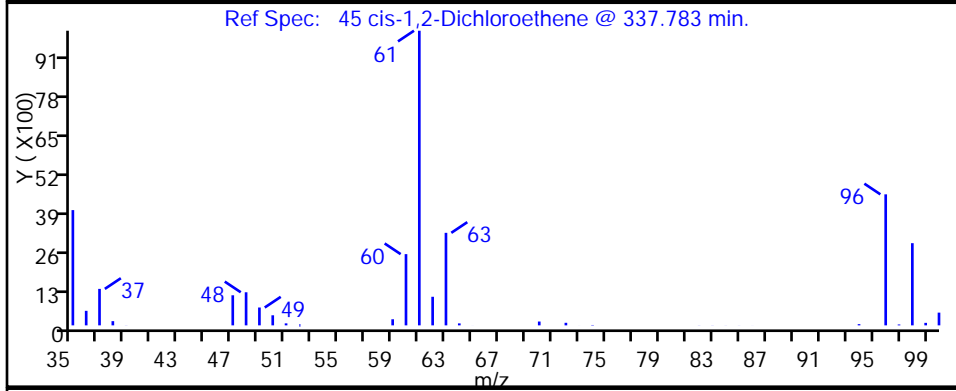
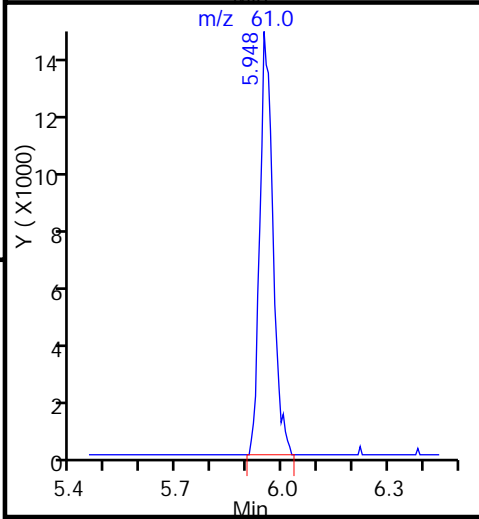
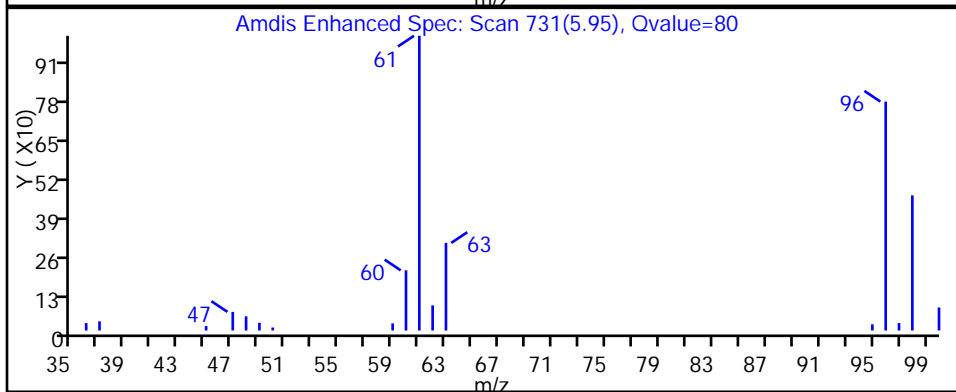
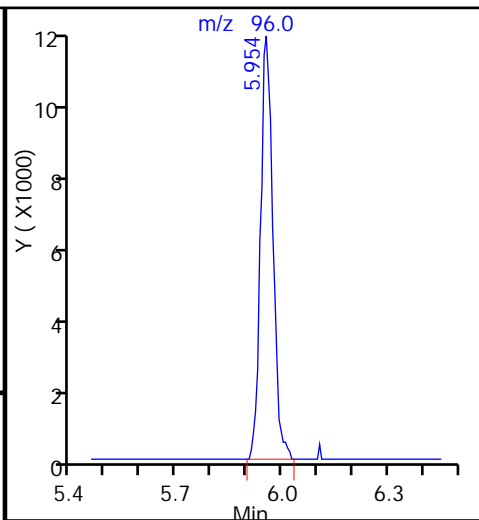
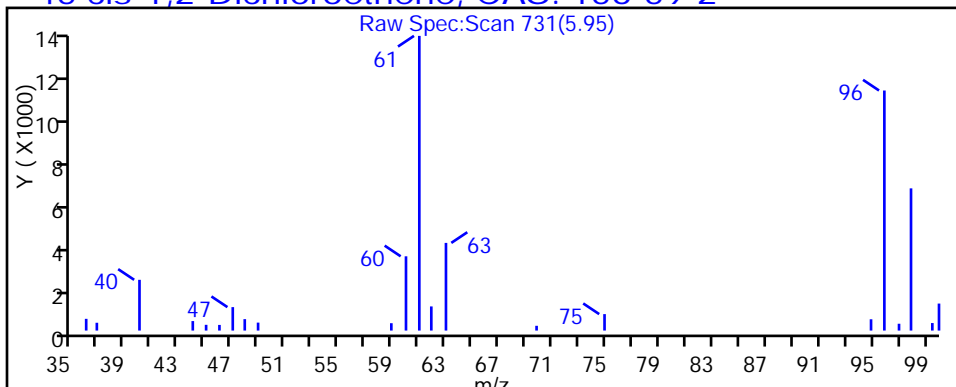
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

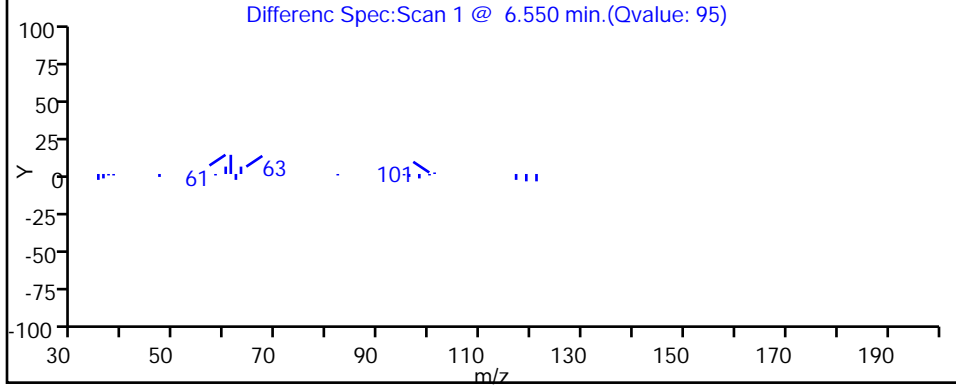
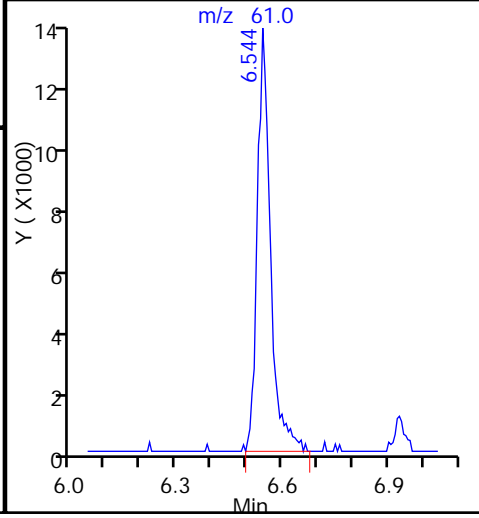
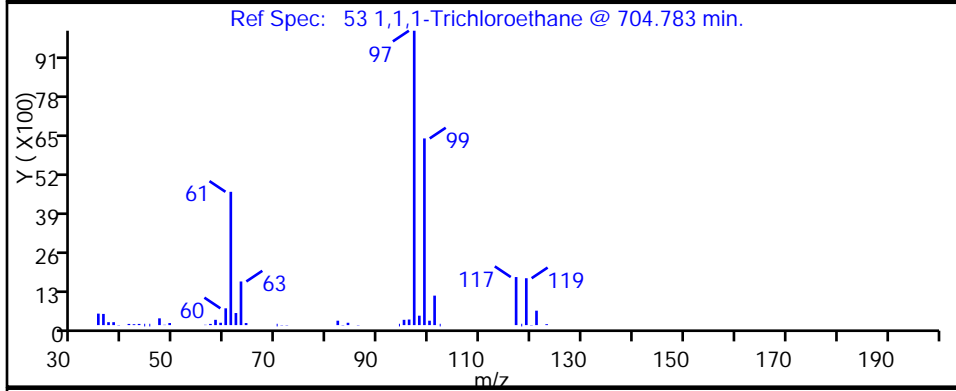
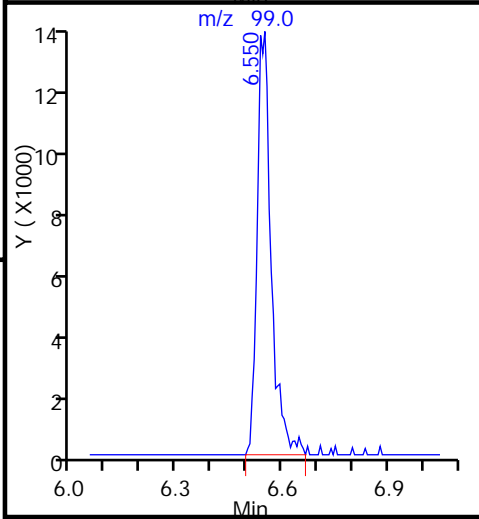
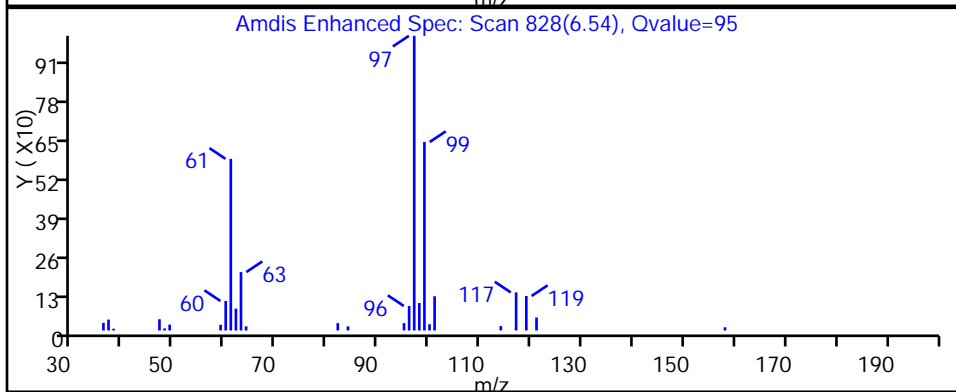
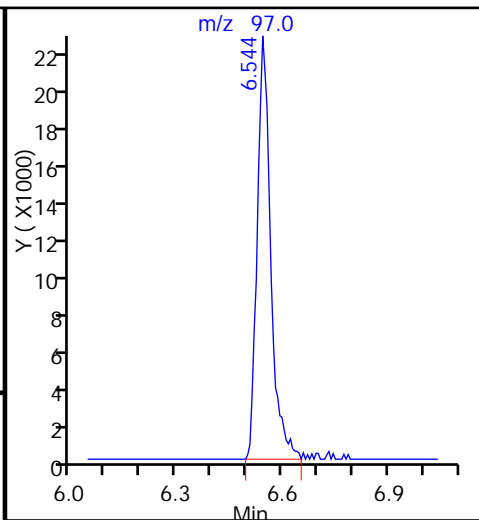
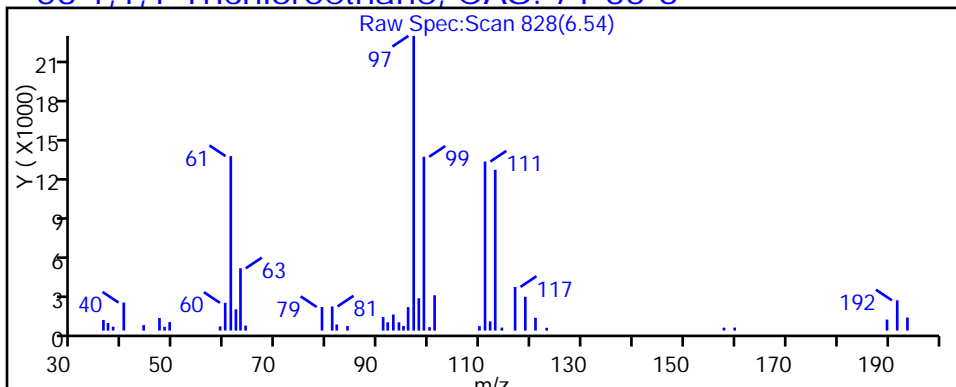
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

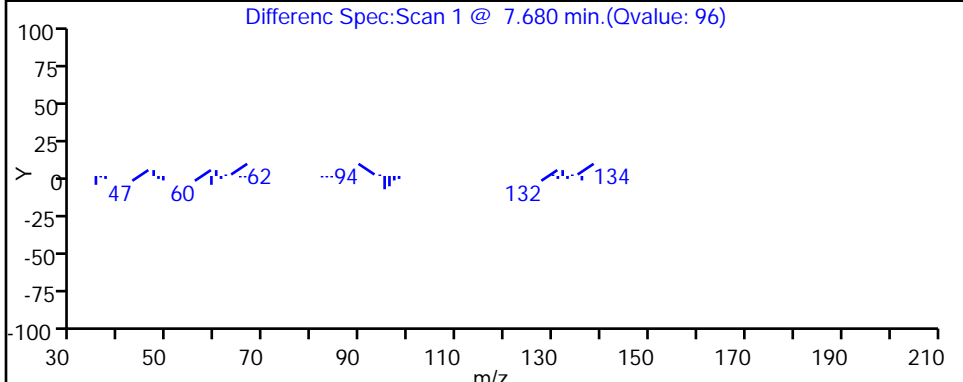
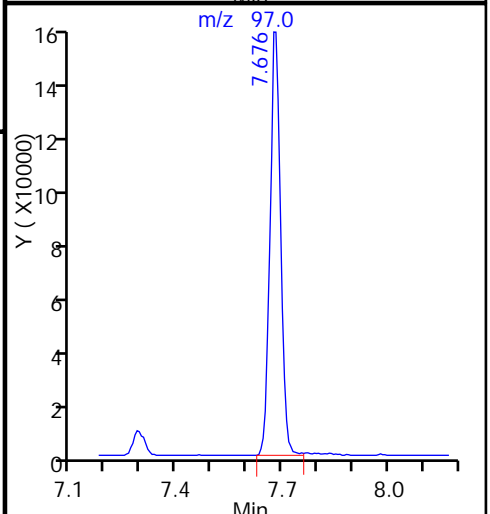
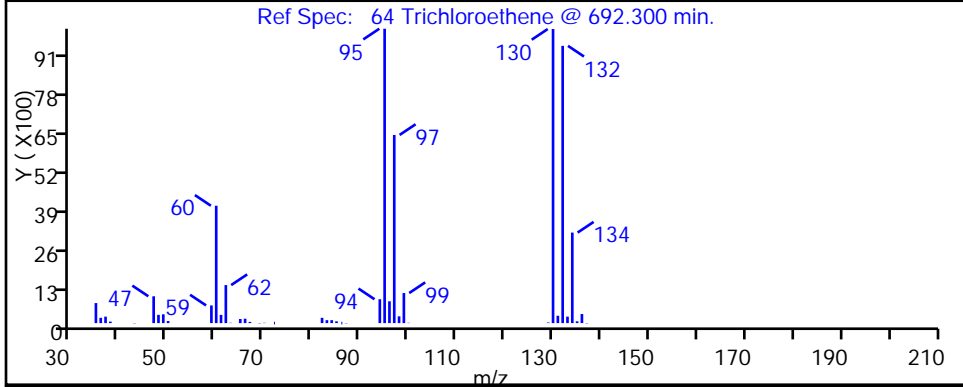
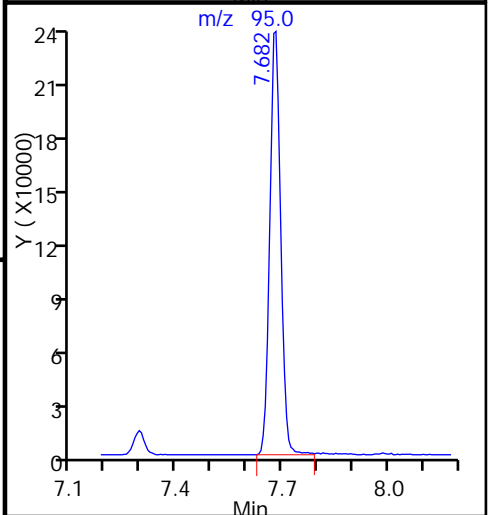
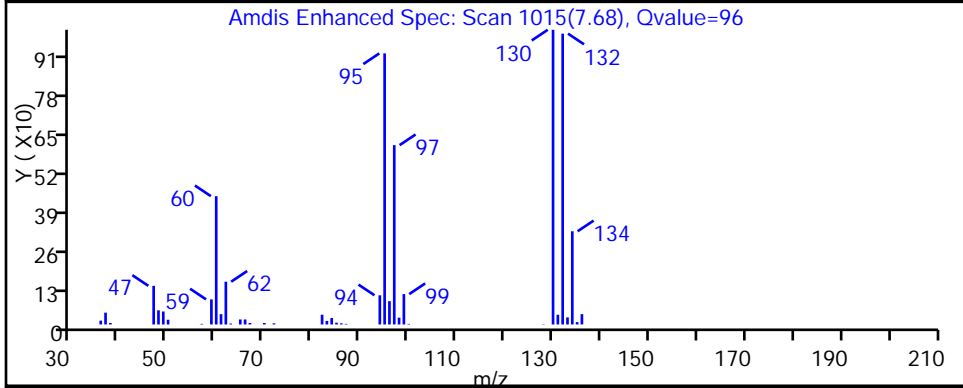
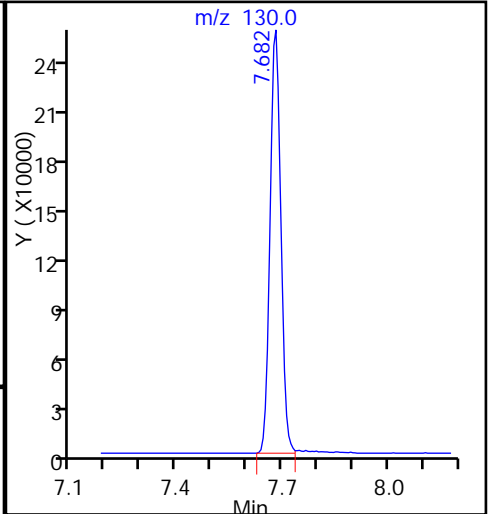
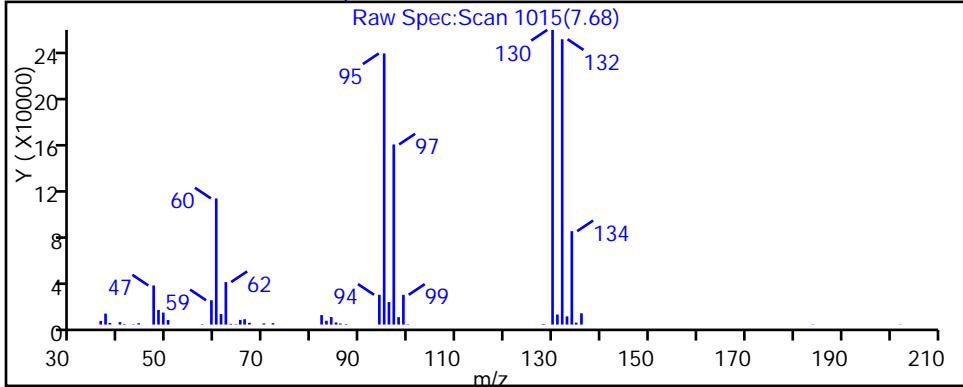
53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D
Injection Date: 05-Oct-2015 17:59:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-5 Lab Sample ID: 180-48181-5
Client ID: HD-MW-75S-0/1-0
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

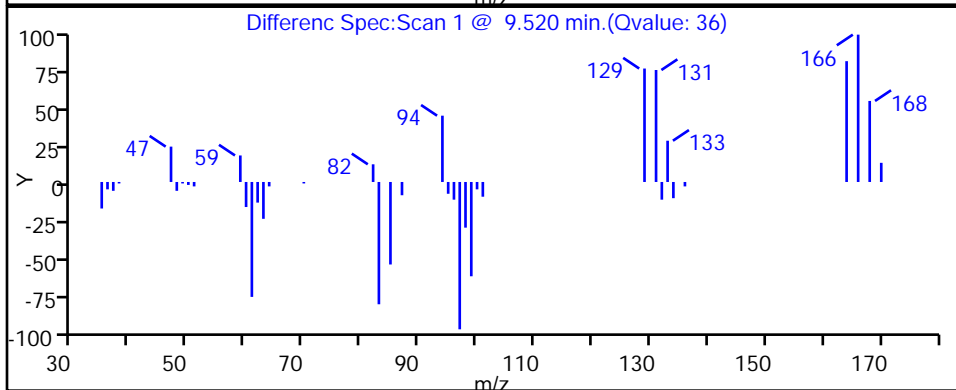
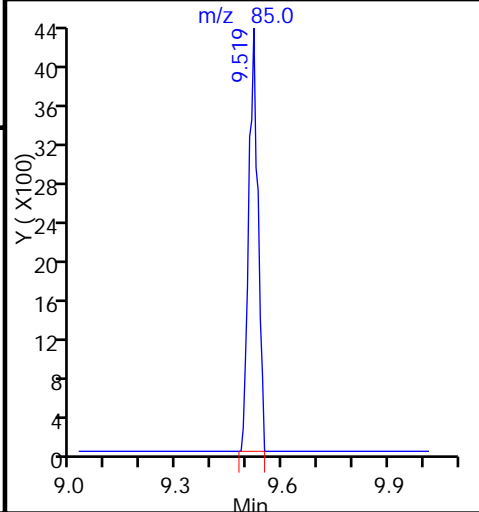
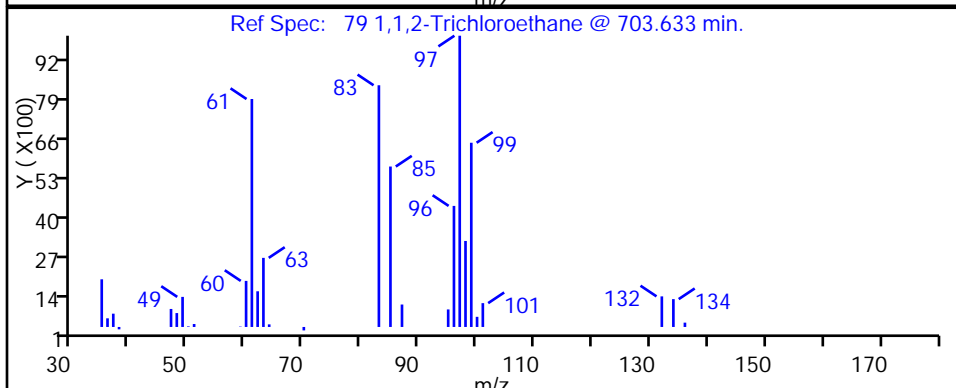
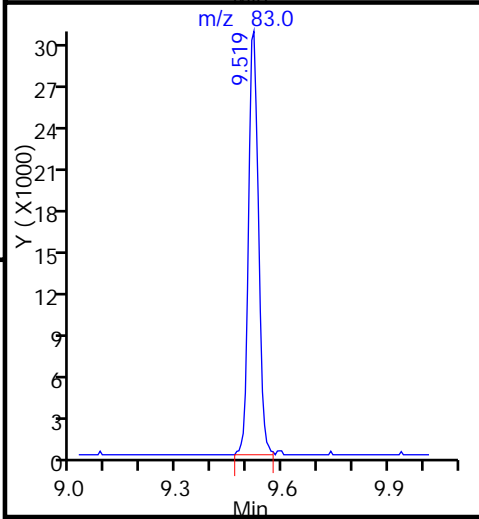
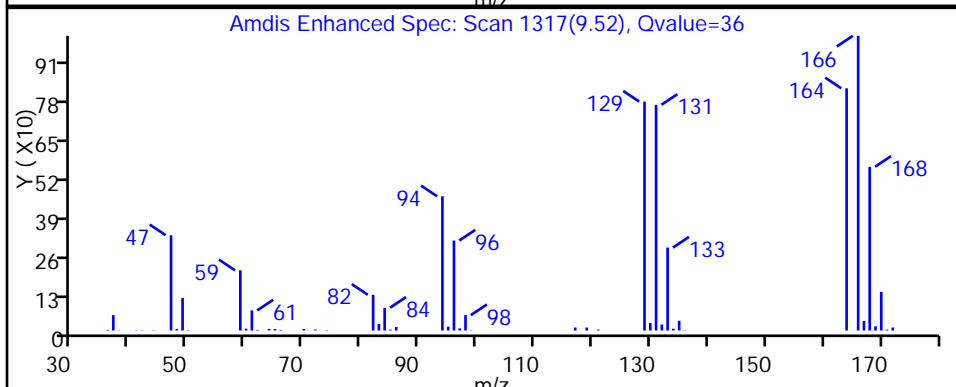
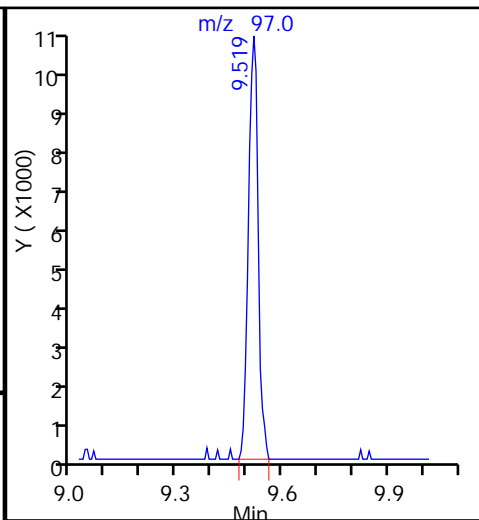
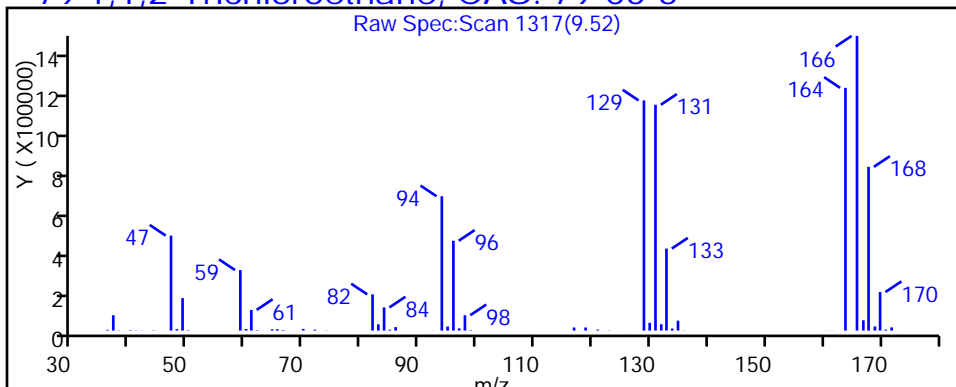
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

79 1,1,2-Trichloroethane, CAS: 79-00-5



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005018.D

Injection Date: 05-Oct-2015 17:59:30

Instrument ID: CHHP5

Lims ID: 180-48181-A-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

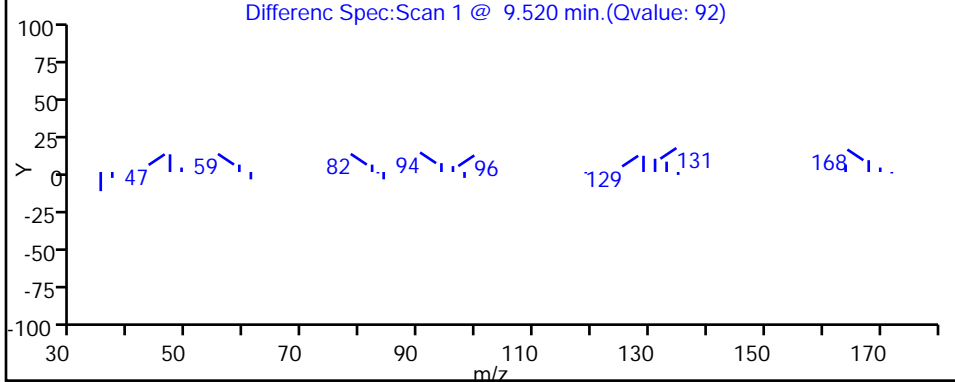
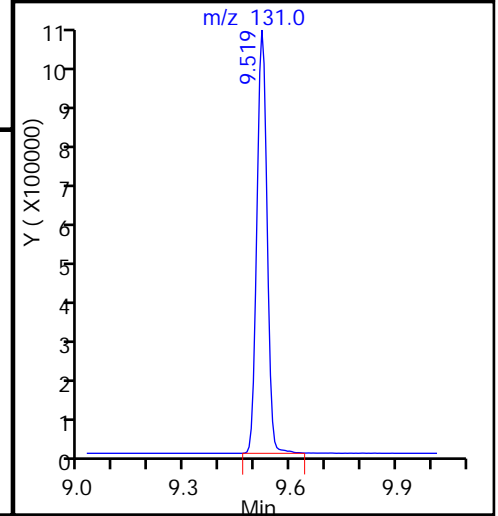
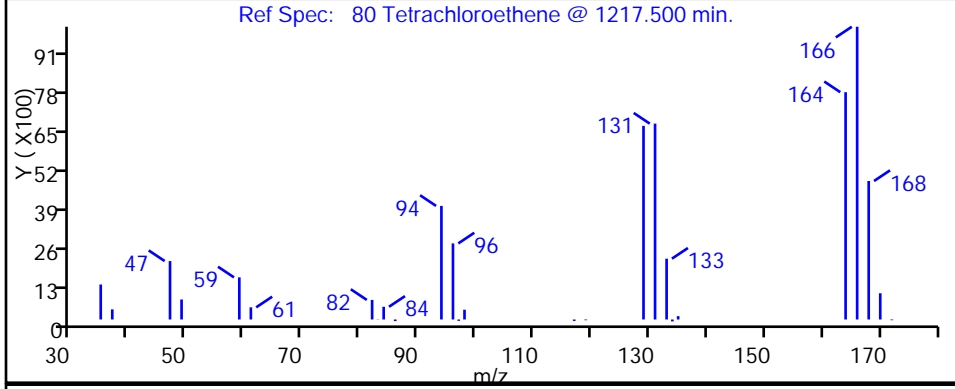
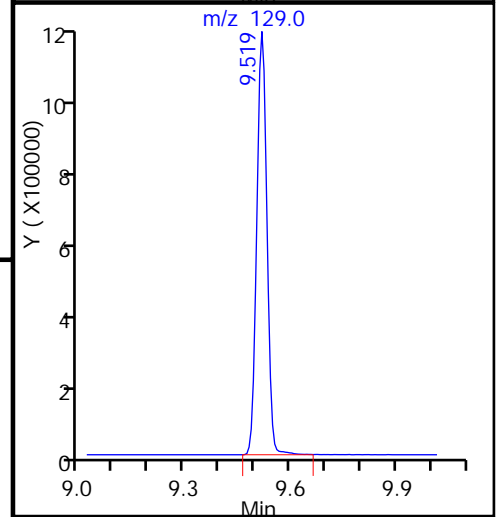
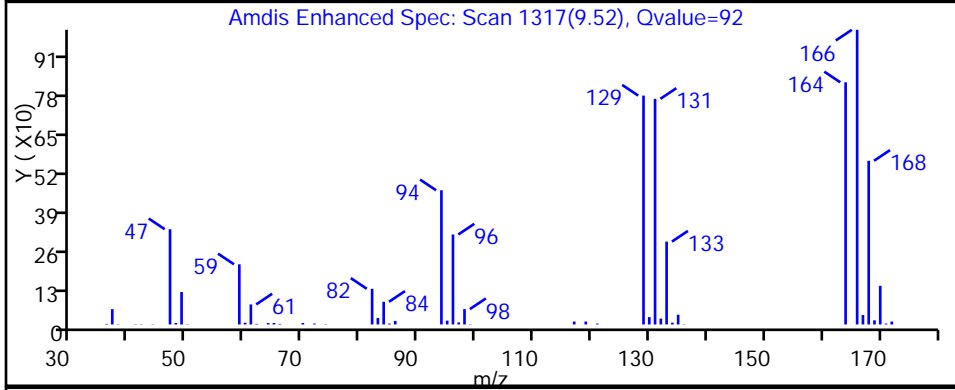
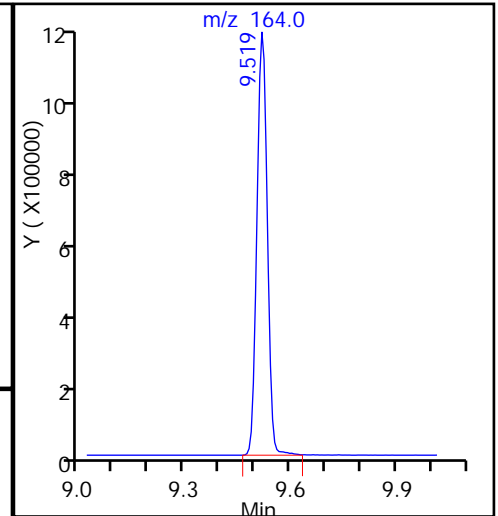
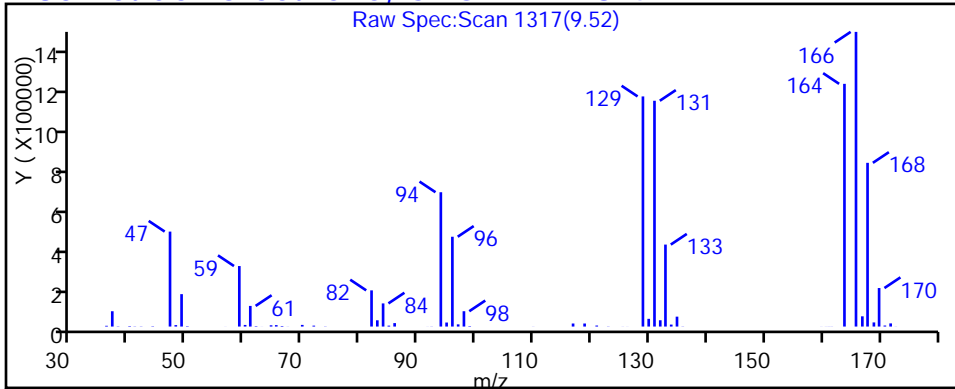
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75S-0/1-0 DL Lab Sample ID: 180-48181-5 DL
 Matrix: Water Lab File ID: 51006015.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:47
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:56
 Soil Aliquot Vol: _____ Dilution Factor: 500
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|------|------|
| 74-87-3 | Chloromethane | 500 | U | 500 | 140 |
| 75-01-4 | Vinyl chloride | 500 | U | 500 | 110 |
| 74-83-9 | Bromomethane | 500 | U | 500 | 160 |
| 75-00-3 | Chloroethane | 500 | U ^c | 500 | 110 |
| 75-35-4 | 1,1-Dichloroethene | 500 | U | 500 | 150 |
| 67-64-1 | Acetone | 2500 | U | 2500 | 1300 |
| 75-15-0 | Carbon disulfide | 500 | U | 500 | 110 |
| 75-09-2 | Methylene Chloride | 500 | U | 500 | 63 |
| 156-60-5 | trans-1,2-Dichloroethene | 500 | U | 500 | 85 |
| 1634-04-4 | Methyl tert-butyl ether | 500 | U | 500 | 92 |
| 75-34-3 | 1,1-Dichloroethane | 500 | U | 500 | 58 |
| 156-59-2 | cis-1,2-Dichloroethene | 160 | J | 500 | 120 |
| 74-97-5 | Bromochloromethane | 500 | U | 500 | 90 |
| 78-93-3 | 2-Butanone (MEK) | 2500 | U | 2500 | 270 |
| 67-66-3 | Chloroform | 500 | U | 500 | 85 |
| 71-55-6 | 1,1,1-Trichloroethane | 240 | J | 500 | 140 |
| 56-23-5 | Carbon tetrachloride | 500 | U | 500 | 68 |
| 71-43-2 | Benzene | 500 | U | 500 | 53 |
| 107-06-2 | 1,2-Dichloroethane | 500 | U | 500 | 110 |
| 79-01-6 | Trichloroethene | 2800 | | 500 | 72 |
| 78-87-5 | 1,2-Dichloropropane | 500 | U | 500 | 47 |
| 75-27-4 | Bromodichloromethane | 500 | U | 500 | 65 |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U | 500 | 93 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 2500 | U | 2500 | 260 |
| 108-88-3 | Toluene | 500 | U | 500 | 75 |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U | 500 | 74 |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U | 500 | 100 |
| 127-18-4 | Tetrachloroethene | 16000 | | 500 | 74 |
| 591-78-6 | 2-Hexanone | 2500 | U | 2500 | 80 |
| 124-48-1 | Dibromochloromethane | 500 | U | 500 | 68 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 500 | U | 500 | 90 |
| 108-90-7 | Chlorobenzene | 500 | U | 500 | 68 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 500 | U | 500 | 140 |
| 100-41-4 | Ethylbenzene | 500 | U | 500 | 110 |
| 1330-20-7 | Xylenes, Total | 1500 | U | 1500 | 240 |
| 100-42-5 | Styrene | 500 | U | 500 | 48 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75S-0/1-0 DL Lab Sample ID: 180-48181-5 DL
 Matrix: Water Lab File ID: 51006015.D
 Analysis Method: 8260C Date Collected: 09/25/2015 13:47
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 17:56
 Soil Aliquot Vol: _____ Dilution Factor: 500
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|--------|-------|
| 75-25-2 | Bromoform | 500 | U | 500 | 96 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 | U | 500 | 100 |
| 107-13-1 | Acrylonitrile | 10000 | U | 10000 | 270 |
| 123-91-1 | 1,4-Dioxane | 100000 | U | 100000 | 17000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 92 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 88 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 85 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D
 Lims ID: 180-48181-B-5 Lab Sample ID: 180-48181-5
 Client ID: HD-MW-75S-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 17:56:30 ALS Bottle#: 13 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 500.0000
 Sample Info: 180-48181-B-5, 500x
 Misc. Info.: 180-0008850-015
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 07:53:23 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 07:53:23

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.268 | 4.279 | -0.011 | 0 | 134212 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.291 | 7.290 | 0.001 | 99 | 297232 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.388 | 10.387 | 0.001 | 86 | 79617 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.730 | 12.729 | 0.001 | 95 | 108903 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.567 | 6.560 | 0.007 | 94 | 77929 | 53.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.938 | 6.937 | 0.001 | 0 | 91989 | 45.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.934 | 8.939 | -0.005 | 94 | 271388 | 44.2 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.574 | 11.573 | 0.001 | 90 | 98250 | 42.4 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.348 | | | | ND | |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.204 | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | 5.959 | 5.958 | 0.001 | 82 | 3128 | 1.63 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.549 | 6.542 | 0.007 | 88 | 5407 | 2.39 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.681 | 7.679 | 0.002 | 97 | 50332 | 28.1 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.518 | 9.517 | 0.001 | 98 | 249519 | 163.1 | |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D

Injection Date: 06-Oct-2015 17:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-B-5

Lab Sample ID: 180-48181-5

Worklist Smp#: 15

Client ID: HD-MW-75S-0/1-0

Purge Vol: 5.000 mL

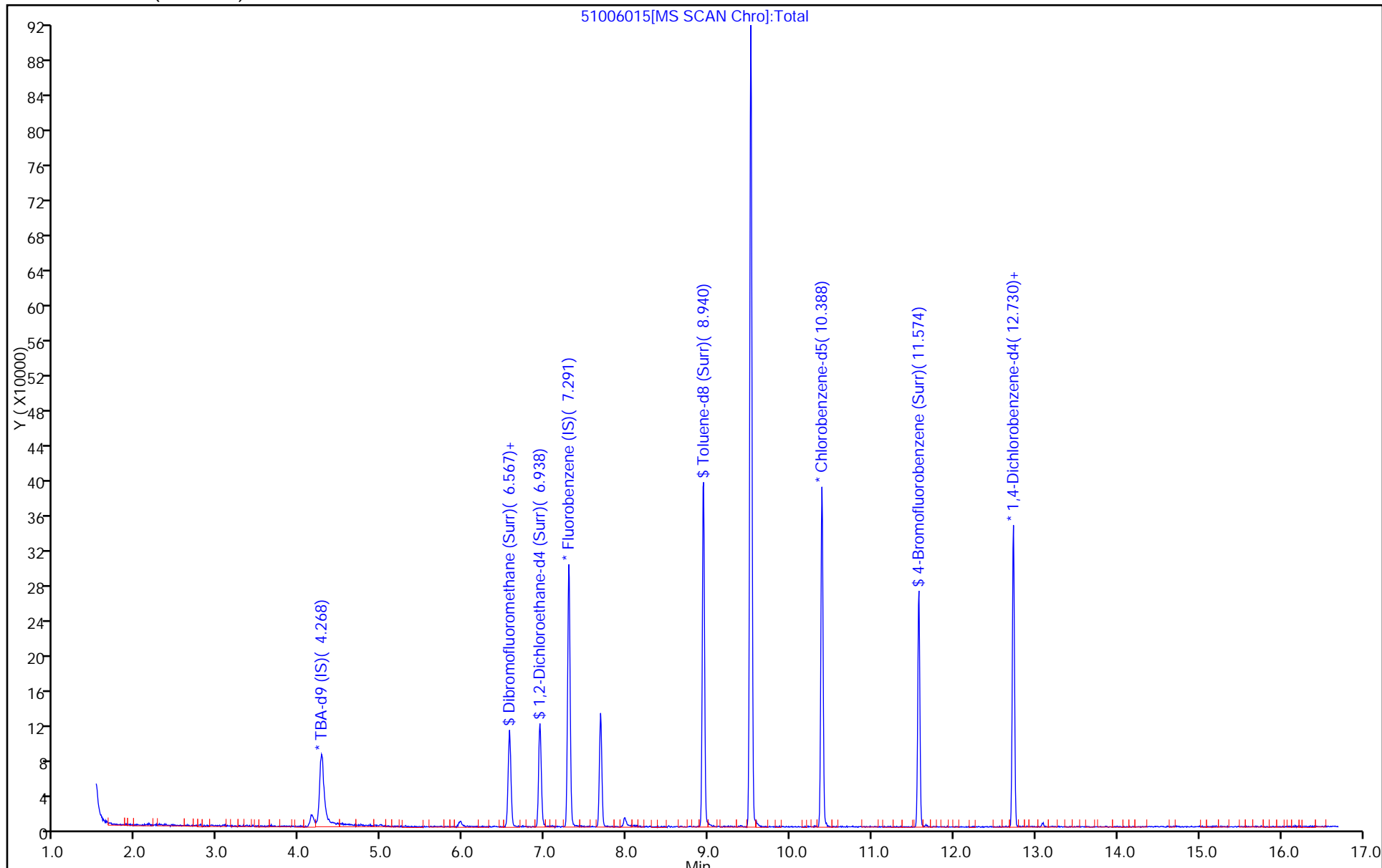
Dil. Factor: 500.0000

ALS Bottle#: 13

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D

Injection Date: 06-Oct-2015 17:56:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

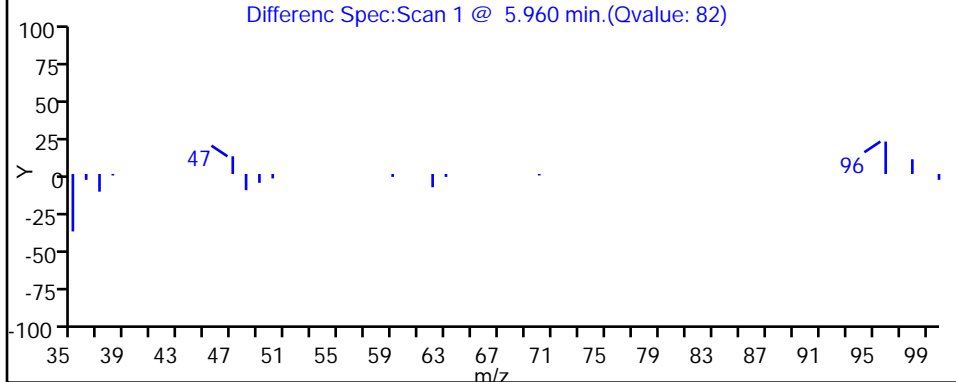
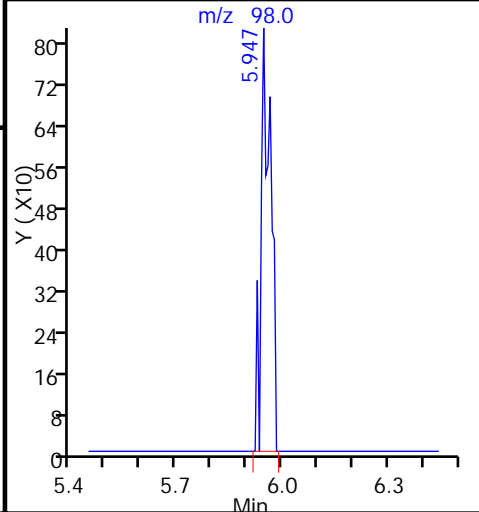
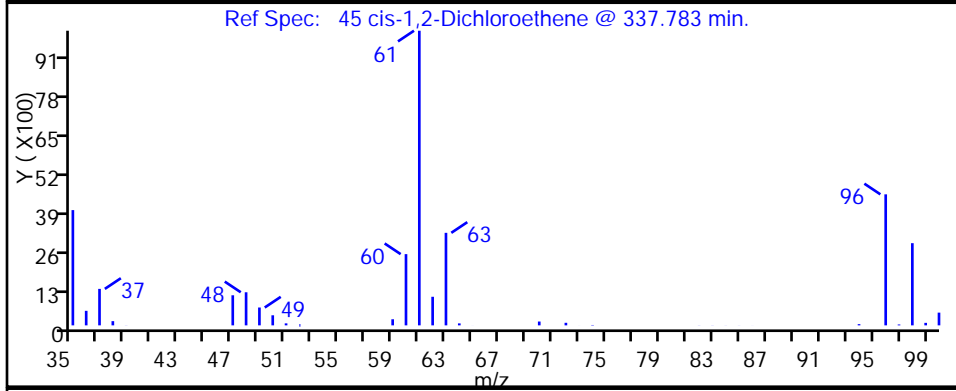
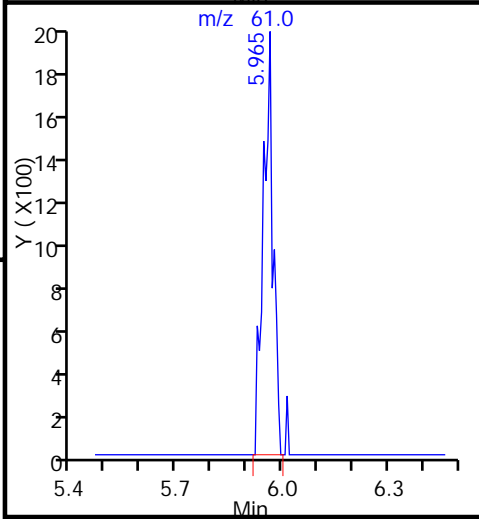
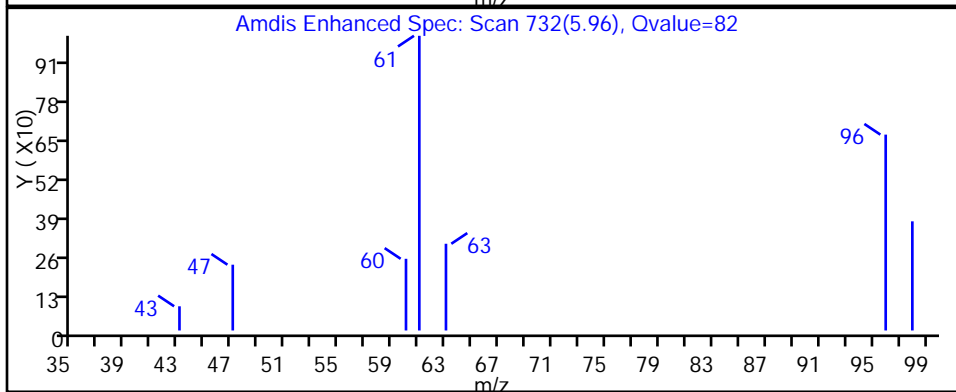
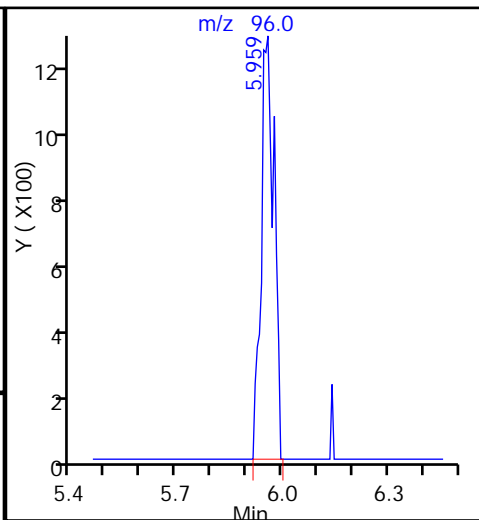
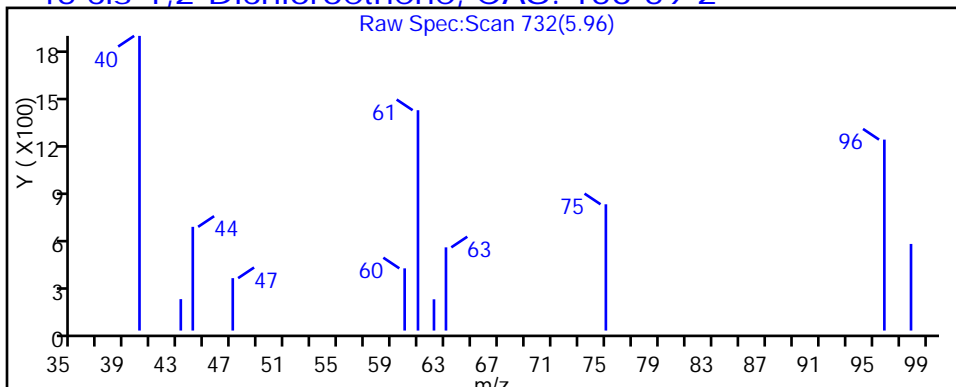
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D

Injection Date: 06-Oct-2015 17:56:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

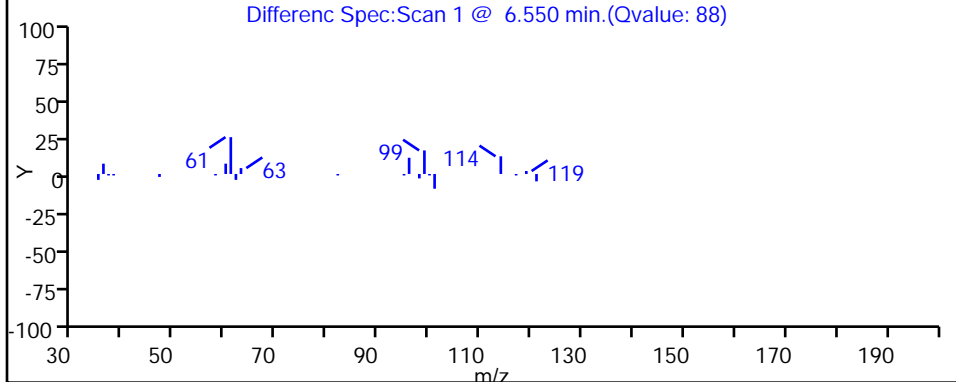
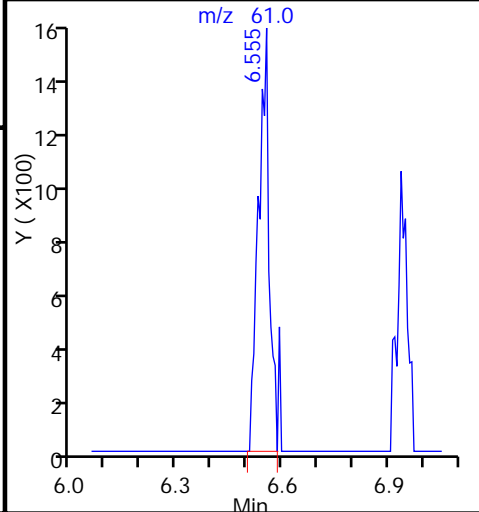
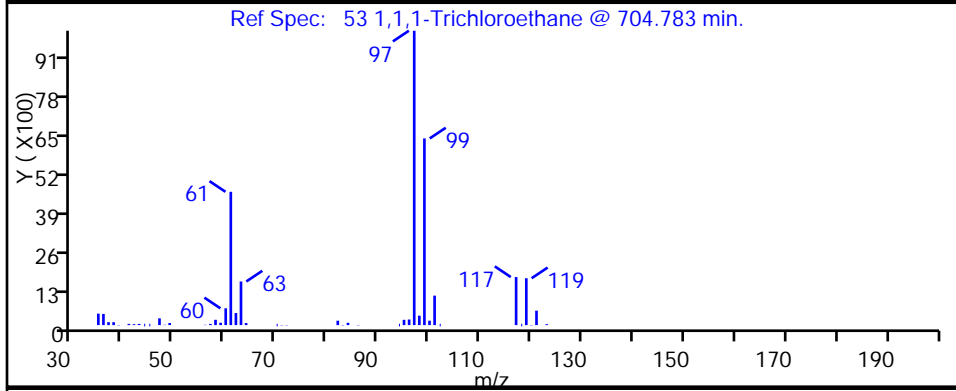
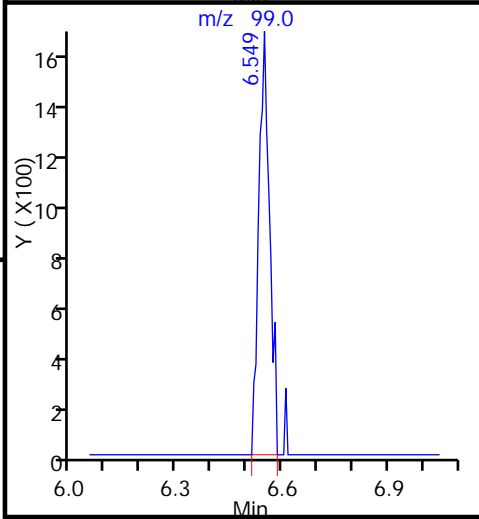
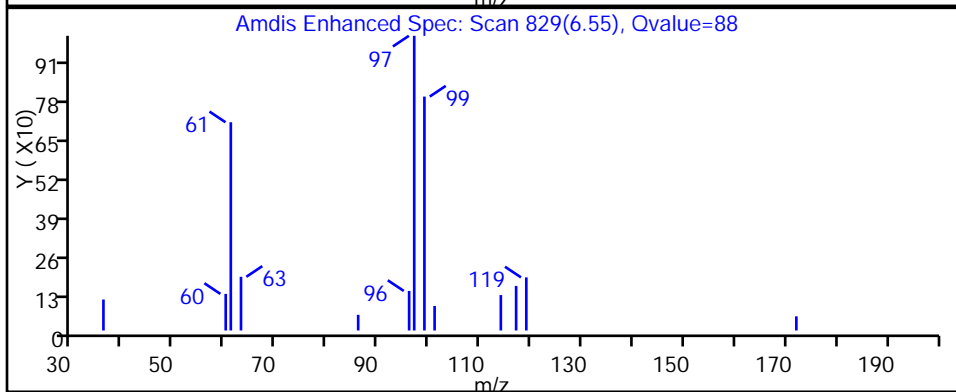
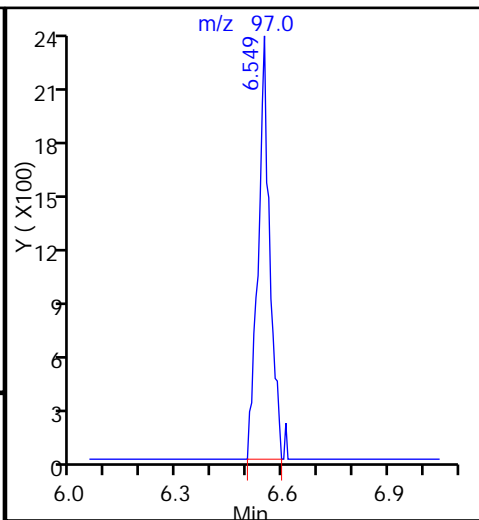
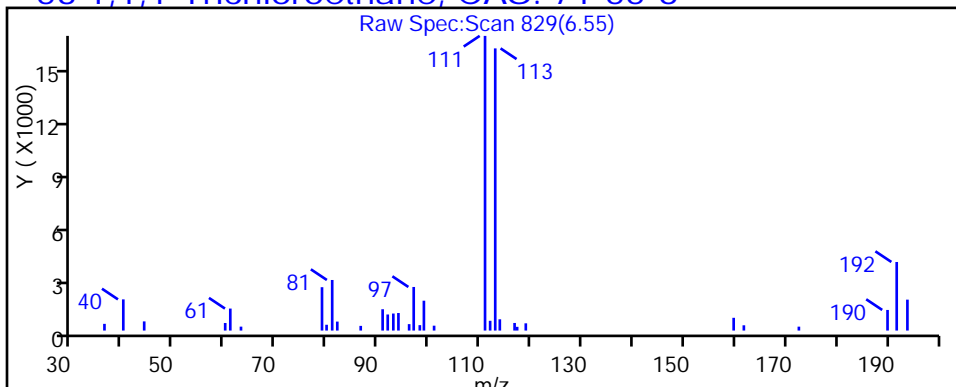
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D

Injection Date: 06-Oct-2015 17:56:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

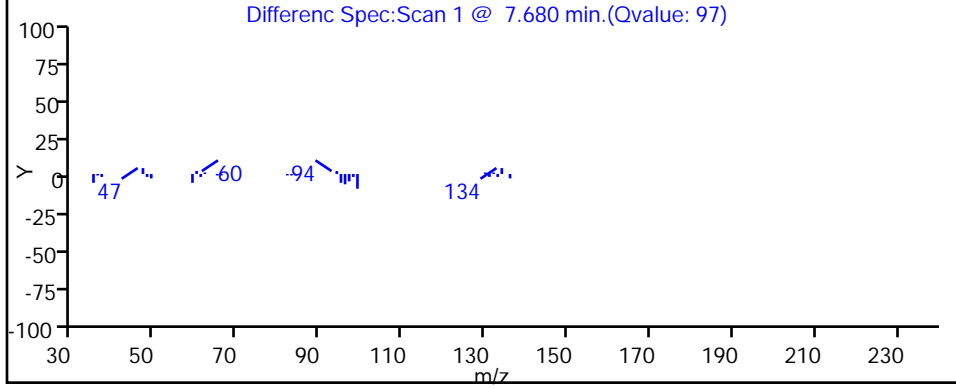
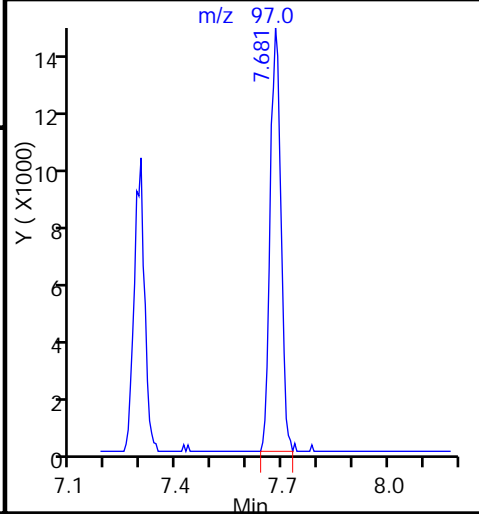
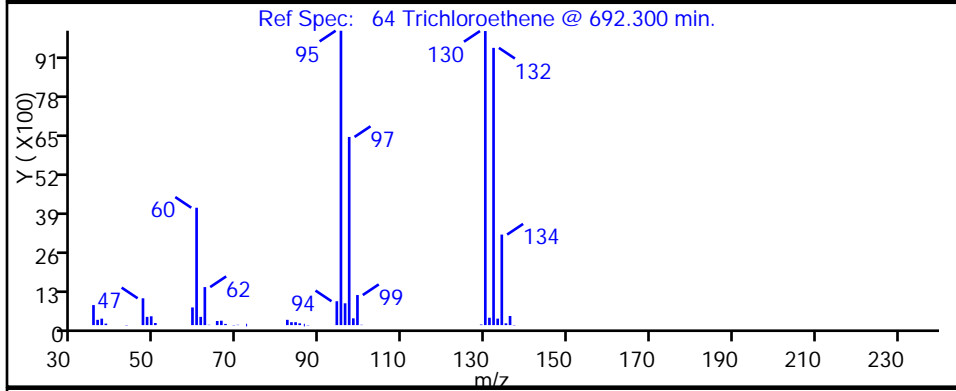
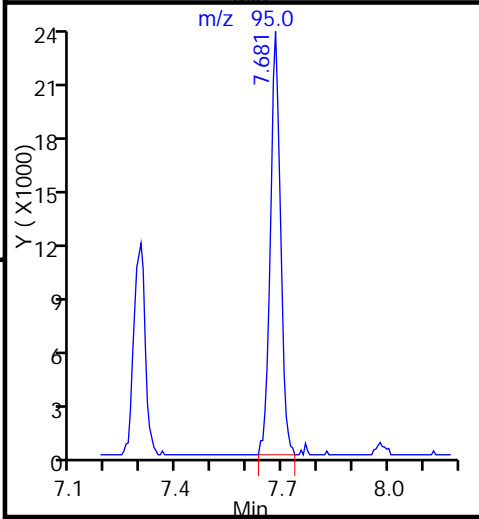
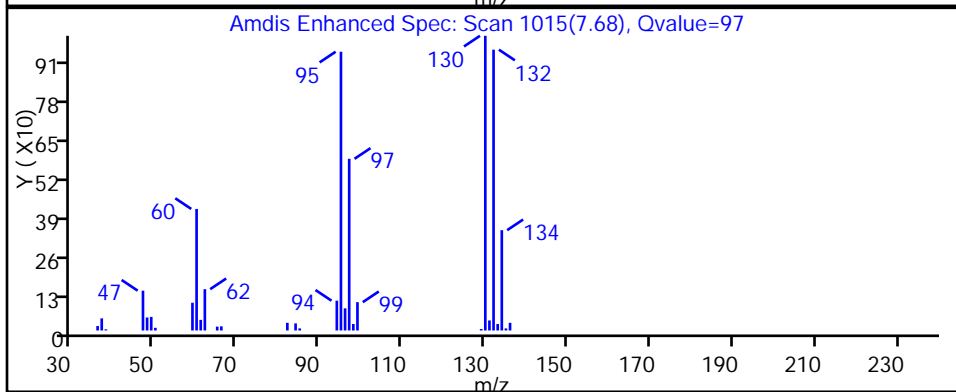
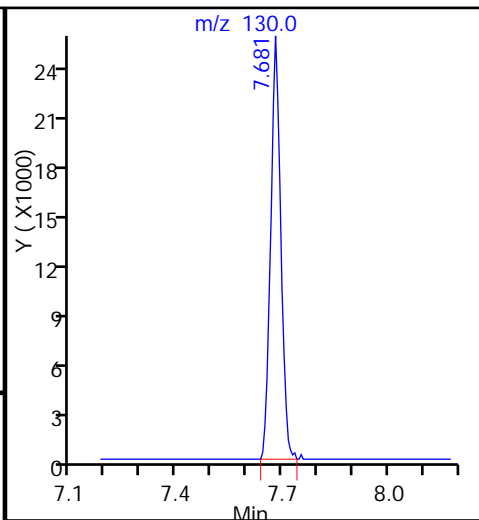
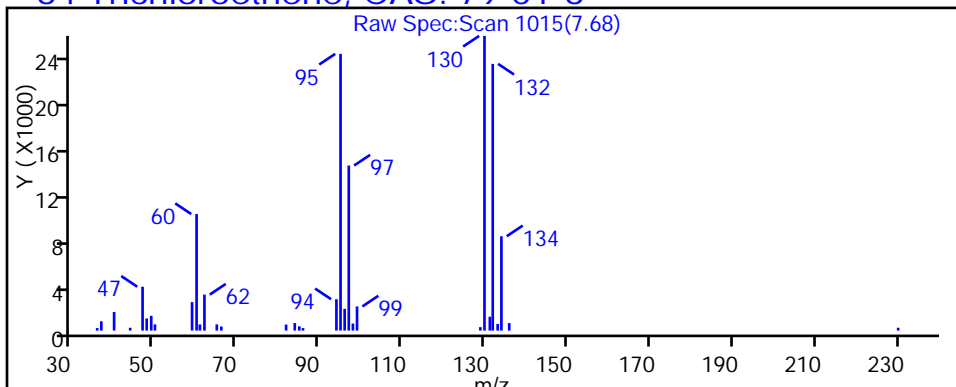
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006015.D

Injection Date: 06-Oct-2015 17:56:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-5

Lab Sample ID: 180-48181-5

Client ID: HD-MW-75S-0/1-0

Operator ID: 001562

ALS Bottle#: 13 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

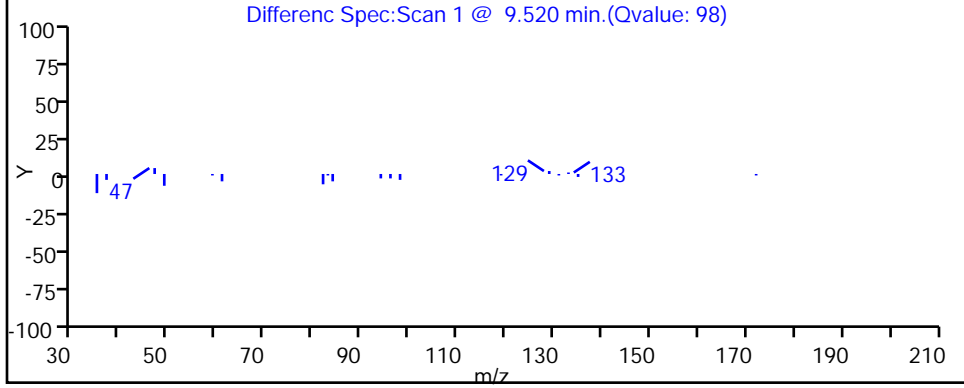
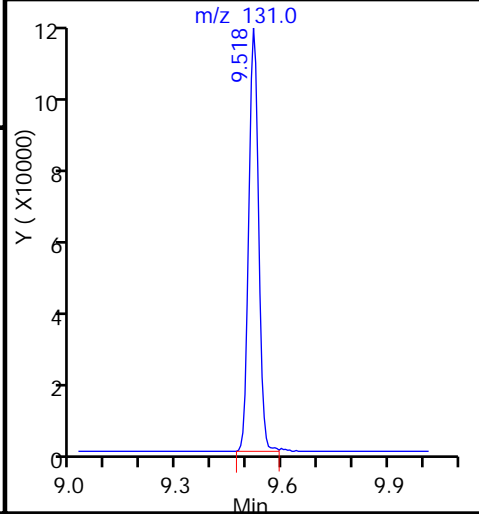
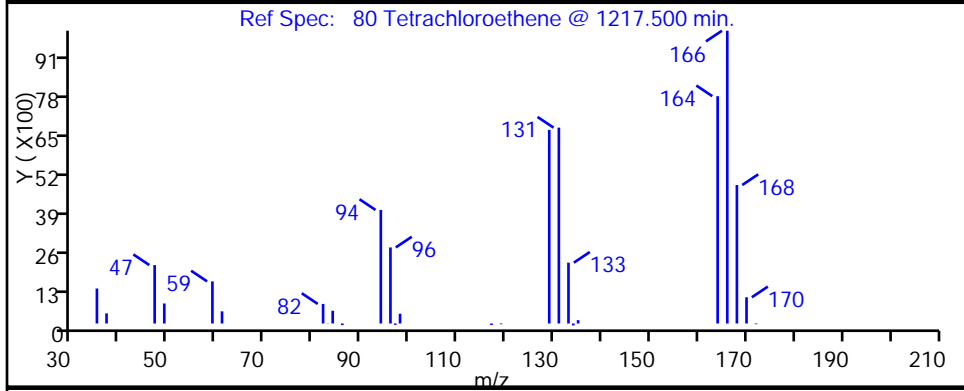
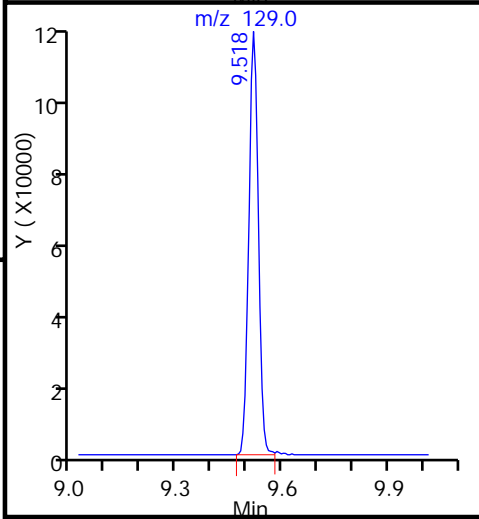
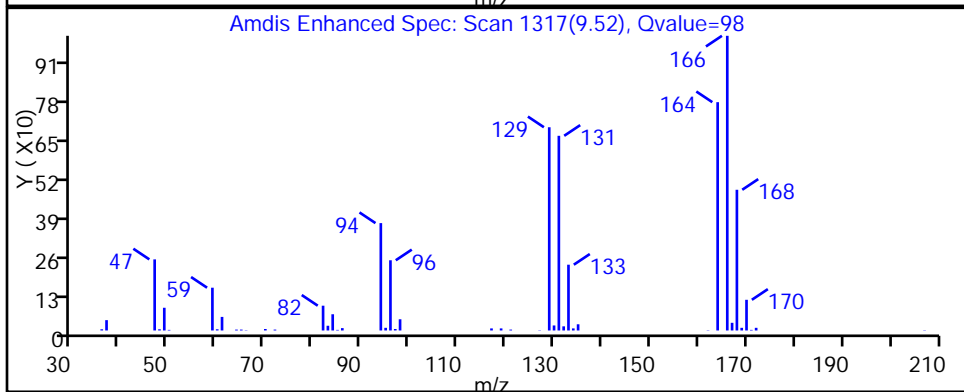
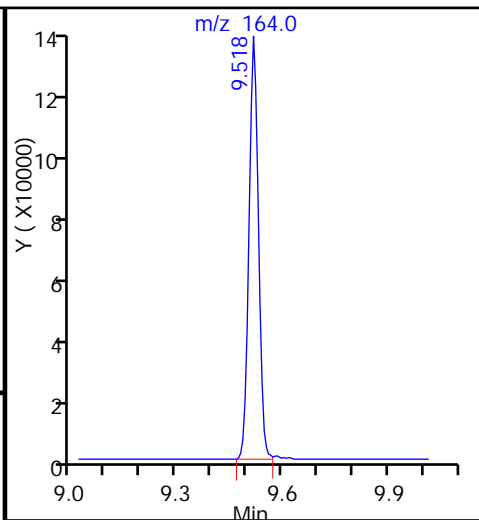
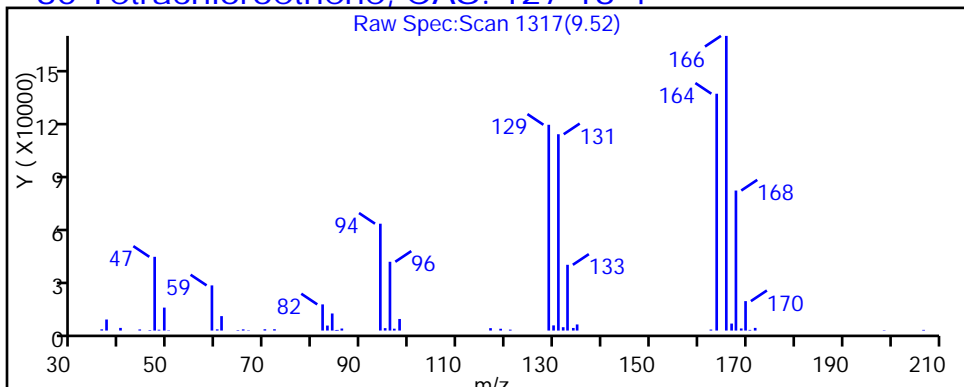
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75D-0/1-0 Lab Sample ID: 180-48181-6
 Matrix: Water Lab File ID: 51005019.D
 Analysis Method: 8260C Date Collected: 09/25/2015 11:12
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 18:23
 Soil Aliquot Vol: _____ Dilution Factor: 50
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|-----|
| 74-87-3 | Chloromethane | 50 | U | 50 | 14 |
| 75-01-4 | Vinyl chloride | 50 | U | 50 | 11 |
| 74-83-9 | Bromomethane | 50 | U | 50 | 16 |
| 75-00-3 | Chloroethane | 50 | U ^c | 50 | 11 |
| 75-35-4 | 1,1-Dichloroethene | 54 | | 50 | 15 |
| 67-64-1 | Acetone | 250 | U | 250 | 130 |
| 75-15-0 | Carbon disulfide | 50 | U | 50 | 11 |
| 75-09-2 | Methylene Chloride | 50 | U | 50 | 6.3 |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | U | 50 | 8.5 |
| 1634-04-4 | Methyl tert-butyl ether | 50 | U | 50 | 9.2 |
| 75-34-3 | 1,1-Dichloroethane | 34 | J | 50 | 5.8 |
| 156-59-2 | cis-1,2-Dichloroethene | 550 | | 50 | 12 |
| 74-97-5 | Bromochloromethane | 50 | U | 50 | 9.0 |
| 78-93-3 | 2-Butanone (MEK) | 250 | U | 250 | 27 |
| 67-66-3 | Chloroform | 50 | U | 50 | 8.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 240 | | 50 | 14 |
| 56-23-5 | Carbon tetrachloride | 50 | U | 50 | 6.8 |
| 71-43-2 | Benzene | 50 | U | 50 | 5.3 |
| 107-06-2 | 1,2-Dichloroethane | 50 | U | 50 | 11 |
| 79-01-6 | Trichloroethene | 3100 | E | 50 | 7.2 |
| 78-87-5 | 1,2-Dichloropropane | 50 | U | 50 | 4.7 |
| 75-27-4 | Bromodichloromethane | 50 | U | 50 | 6.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | U | 50 | 9.3 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 250 | U | 250 | 26 |
| 108-88-3 | Toluene | 50 | U | 50 | 7.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | U | 50 | 7.4 |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | U | 50 | 10 |
| 127-18-4 | Tetrachloroethene | 12000 | E | 50 | 7.4 |
| 591-78-6 | 2-Hexanone | 250 | U | 250 | 8.0 |
| 124-48-1 | Dibromochloromethane | 50 | U | 50 | 6.8 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 50 | U | 50 | 9.0 |
| 108-90-7 | Chlorobenzene | 50 | U | 50 | 6.8 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 50 | U | 50 | 14 |
| 100-41-4 | Ethylbenzene | 50 | U | 50 | 11 |
| 1330-20-7 | Xylenes, Total | 150 | U | 150 | 24 |
| 100-42-5 | Styrene | 50 | U | 50 | 4.8 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75D-0/1-0 Lab Sample ID: 180-48181-6
 Matrix: Water Lab File ID: 51005019.D
 Analysis Method: 8260C Date Collected: 09/25/2015 11:12
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 18:23
 Soil Aliquot Vol: _____ Dilution Factor: 50
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-------|------|
| 75-25-2 | Bromoform | 50 | U | 50 | 9.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | U | 50 | 10 |
| 107-13-1 | Acrylonitrile | 1000 | U | 1000 | 27 |
| 123-91-1 | 1,4-Dioxane | 10000 | U | 10000 | 1700 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 97 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 90 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 113 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D
 Lims ID: 180-48181-B-6 Lab Sample ID: 180-48181-6
 Client ID: HD-MW-75D-0/1-0
 Sample Type: Client
 Inject. Date: 05-Oct-2015 18:23:30 ALS Bottle#: 19 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 50.0000
 Sample Info: 180-48181-B-6, 50x
 Misc. Info.: 180-0008828-019
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 08:12:27 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 08:12:27

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.266 | 4.281 | -0.015 | 0 | 120544 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.295 | 7.292 | 0.003 | 98 | 312294 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.392 | 10.388 | 0.004 | 87 | 86516 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.730 | -0.002 | 95 | 116984 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.568 | -0.003 | 94 | 86437 | 56.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.933 | 0.003 | 0 | 102155 | 48.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.940 | -0.002 | 93 | 299781 | 44.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.575 | -0.003 | 89 | 108284 | 43.0 | |
| 12 Chloromethane | 50 | | 1.774 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.908 | | | | ND | |
| 15 Bromomethane | 94 | | 2.249 | | | | ND | |
| 16 Chloroethane | 64 | | 2.413 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.365 | 3.344 | 0.021 | 93 | 9411 | 5.41 | |
| 24 Acetone | 43 | | 3.441 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.636 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.141 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.524 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.566 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.579 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.203 | 5.199 | 0.004 | 94 | 12590 | 3.38 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.957 | 5.954 | 0.003 | 84 | 110602 | 54.8 | |
| 46 2-Butanone (MEK) | 43 | | 5.966 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.233 | | | | ND | |
| 52 Chloroform | 83 | | 6.379 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.547 | 6.550 | -0.003 | 95 | 56823 | 23.9 | |
| 56 Carbon tetrachloride | 117 | | 6.720 | | | | ND | |
| 58 Benzene | 78 | | 6.945 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.024 | | | | ND | |
| 64 Trichloroethene | 130 | 7.678 | 7.675 | 0.003 | 96 | 586867 | 311.5 | E |
| 67 1,2-Dichloropropane | 63 | | 7.949 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.034 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.235 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.679 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.825 | | | | ND | |
| 76 Toluene | 91 | | 9.007 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.445 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.522 | 9.518 | 0.004 | 94 | 2027477 | 1219.5 | E |
| 82 2-Hexanone | 43 | | 9.658 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.823 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.932 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.419 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.510 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.522 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.650 | | | | ND | |
| 92 o-Xylene | 106 | | 11.033 | | | | ND | |
| 93 Styrene | 104 | | 11.051 | | | | ND | |
| 94 Bromoform | 173 | | 11.228 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.708 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Worklist Smp#: 19

Client ID: HD-MW-75D-0/1-0

Purge Vol: 5.000 mL

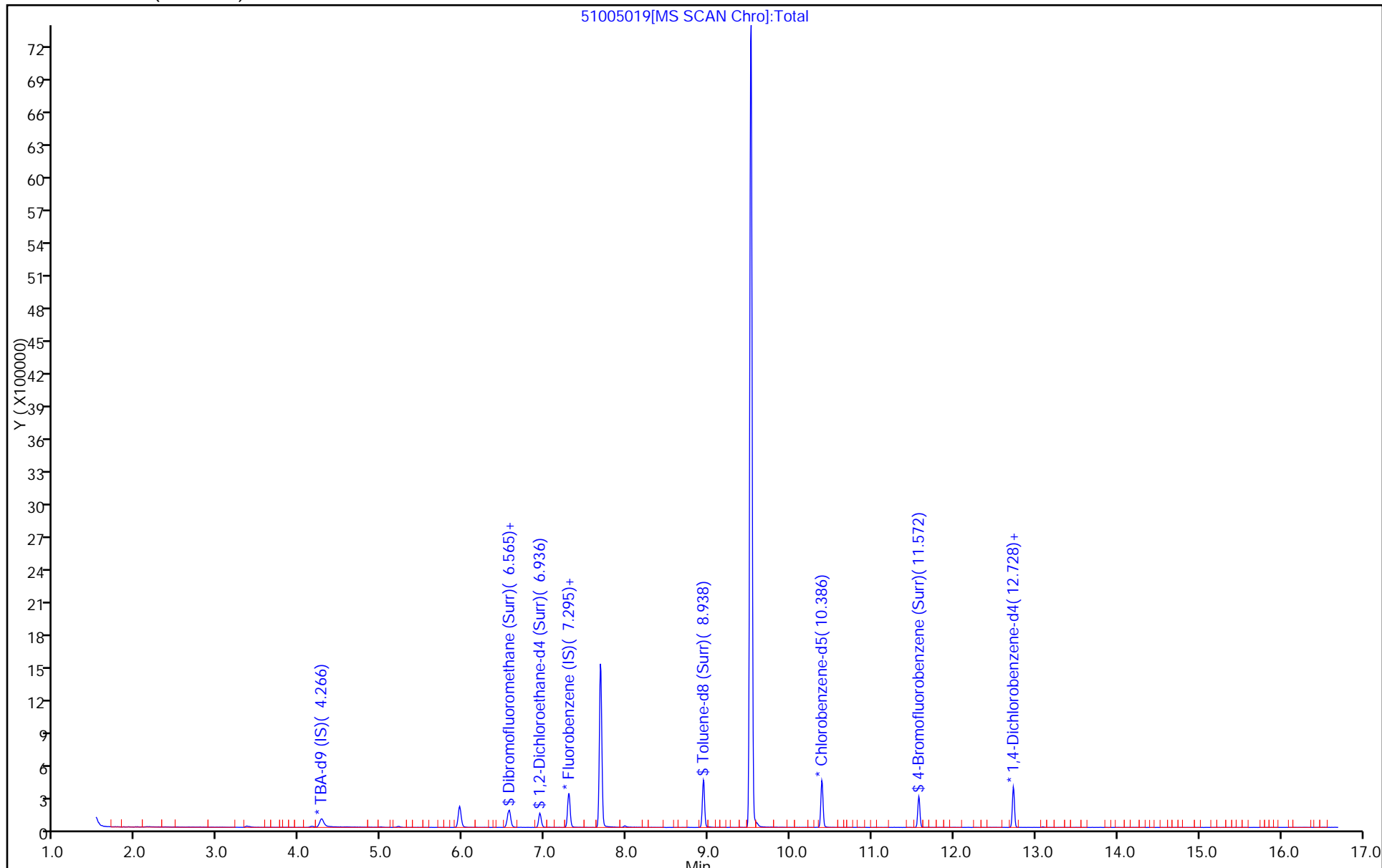
Dil. Factor: 50.0000

ALS Bottle#: 19

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

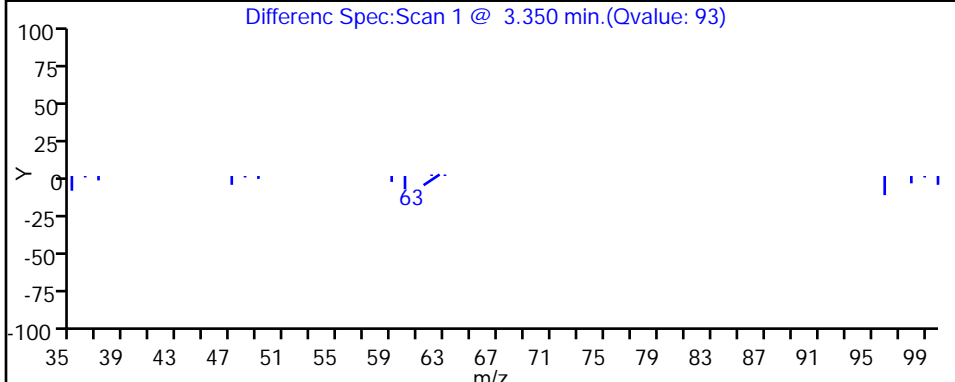
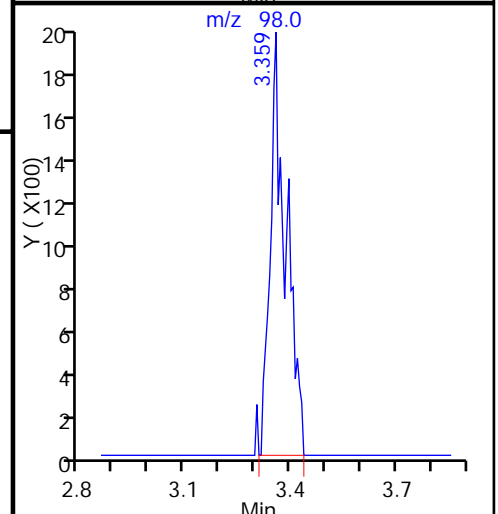
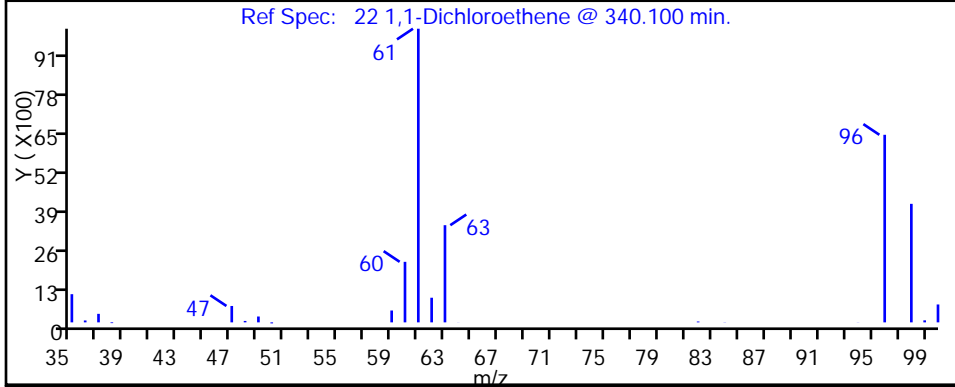
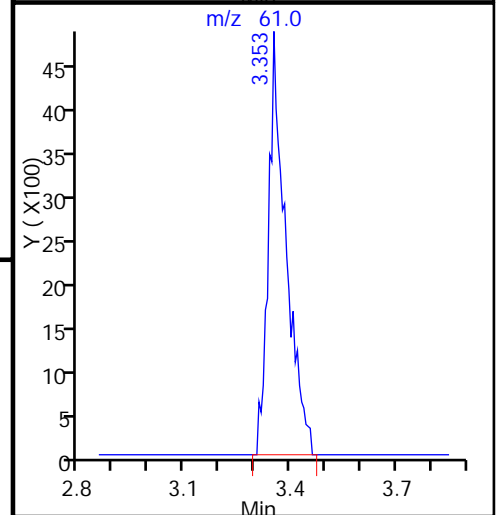
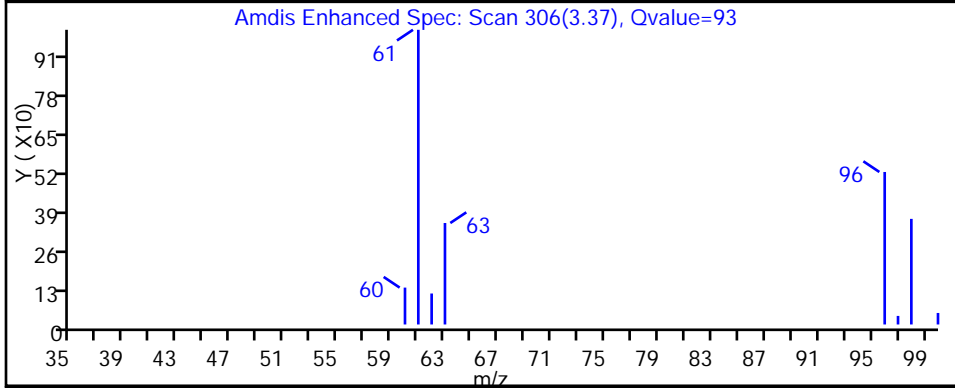
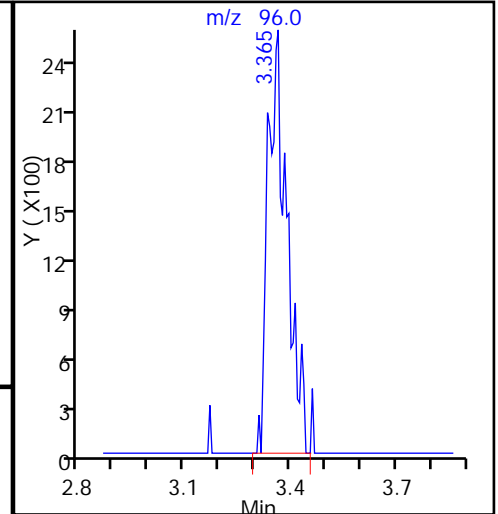
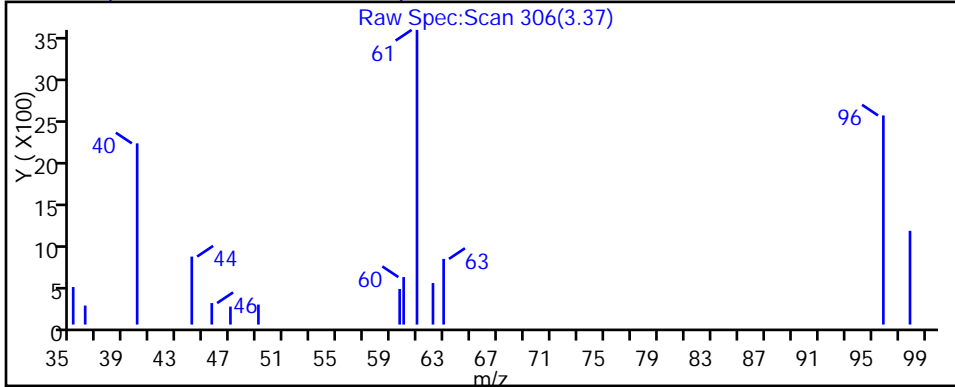
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

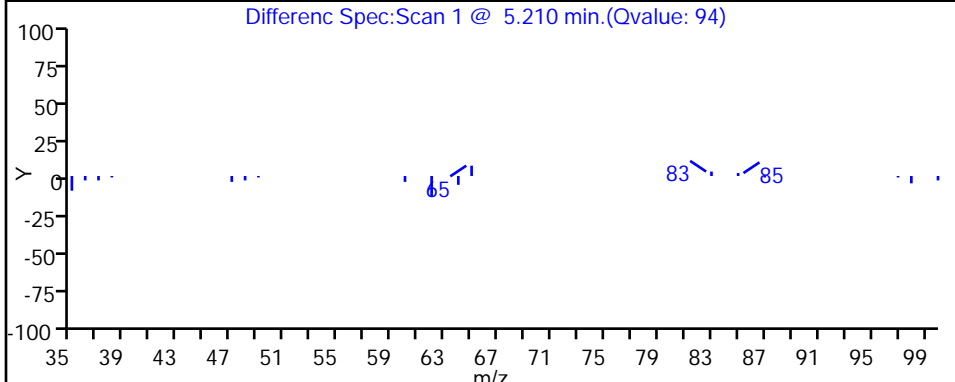
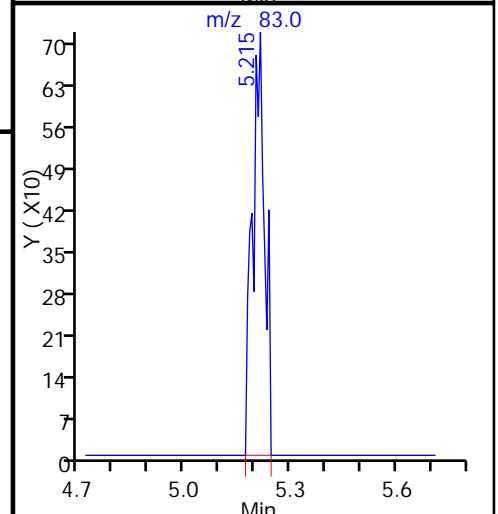
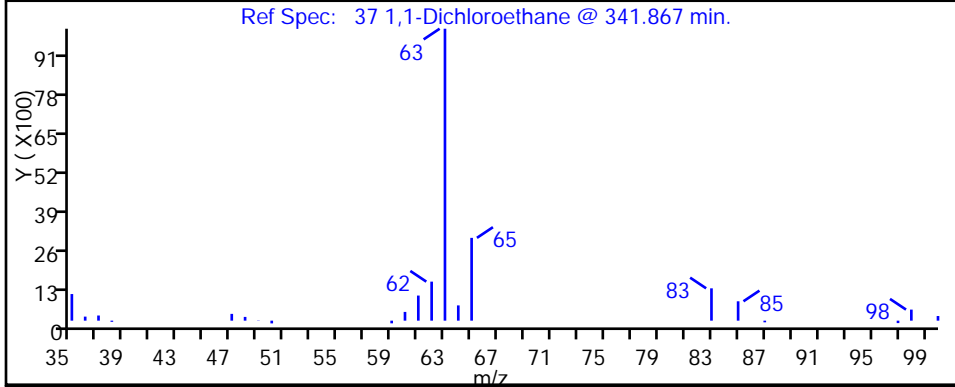
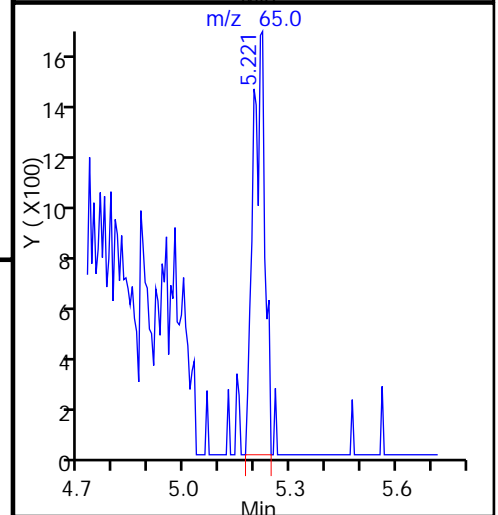
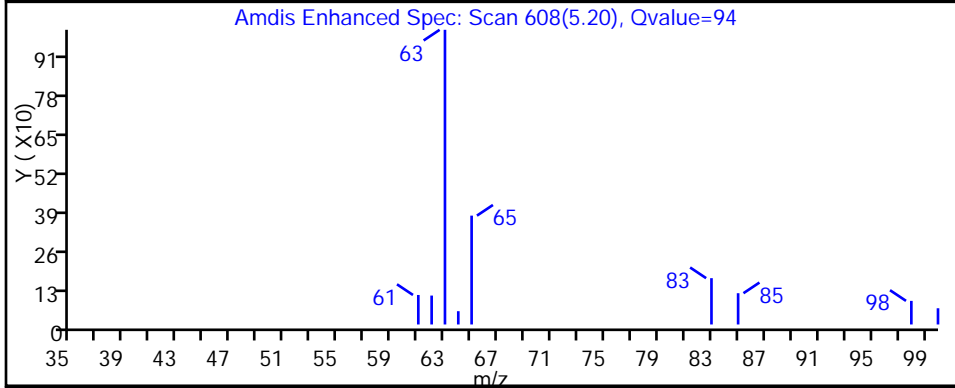
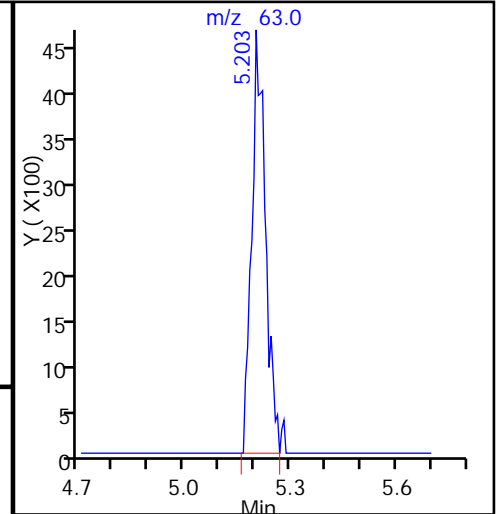
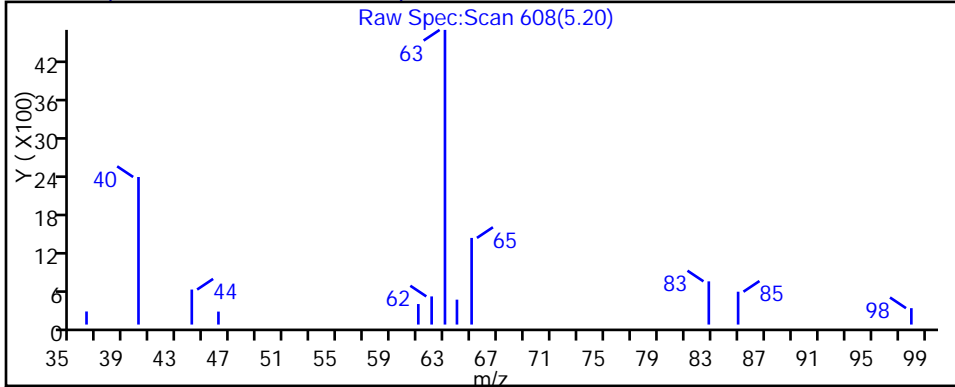
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

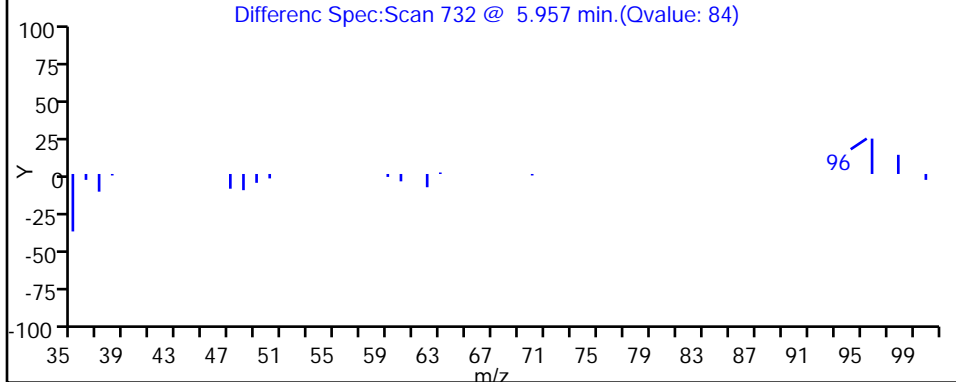
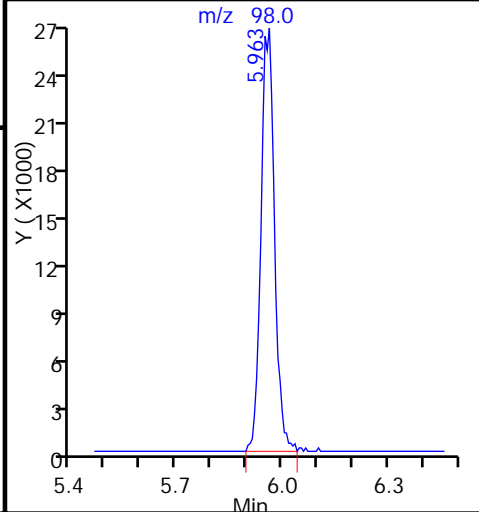
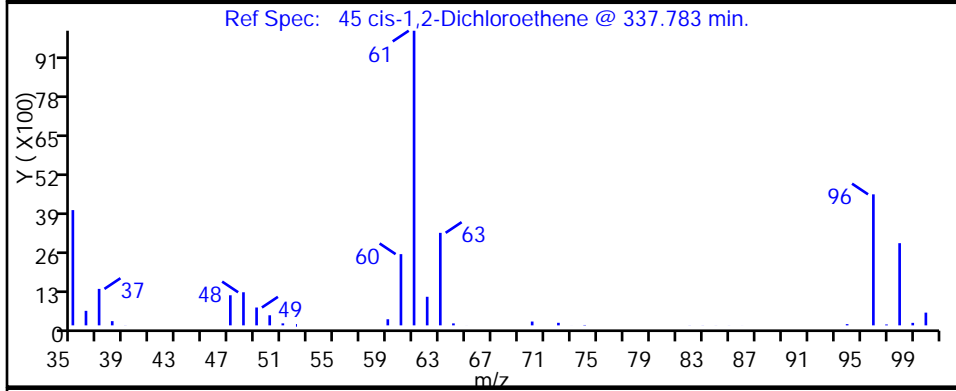
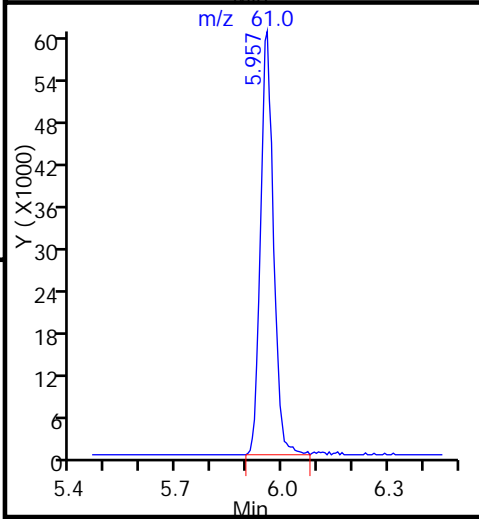
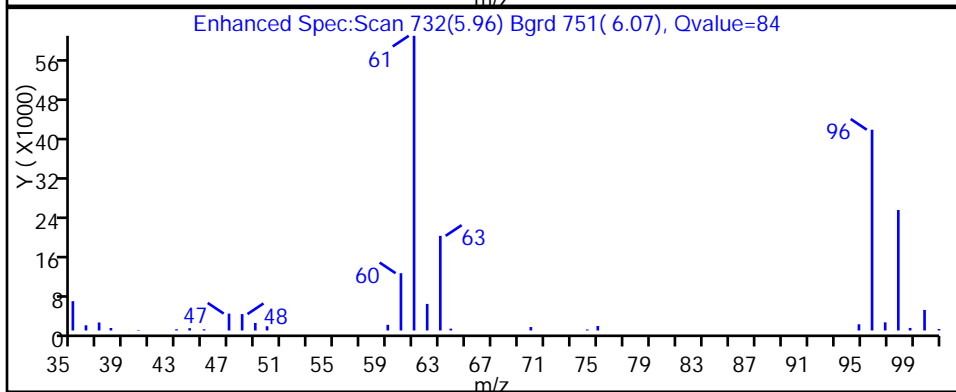
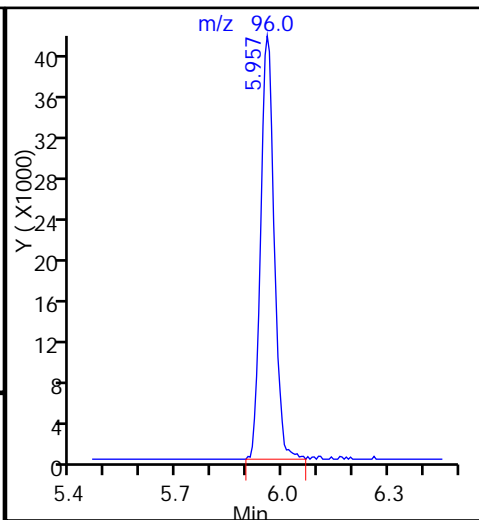
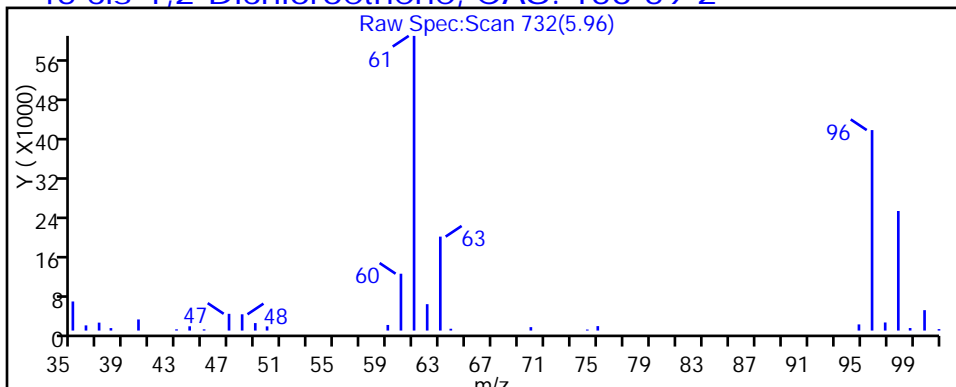
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

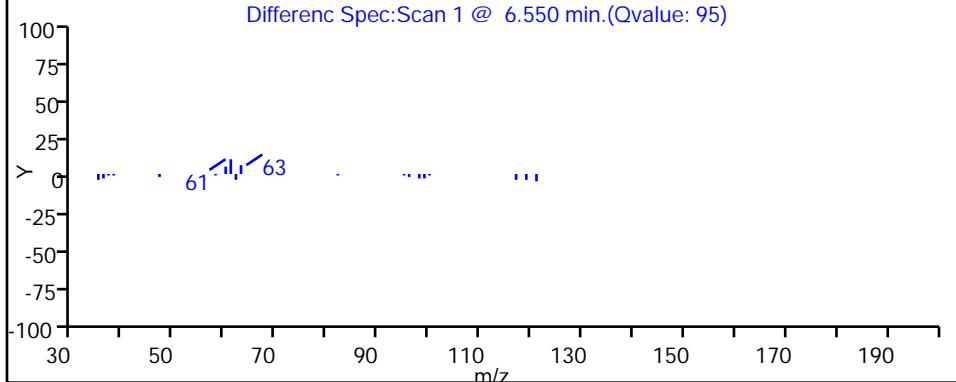
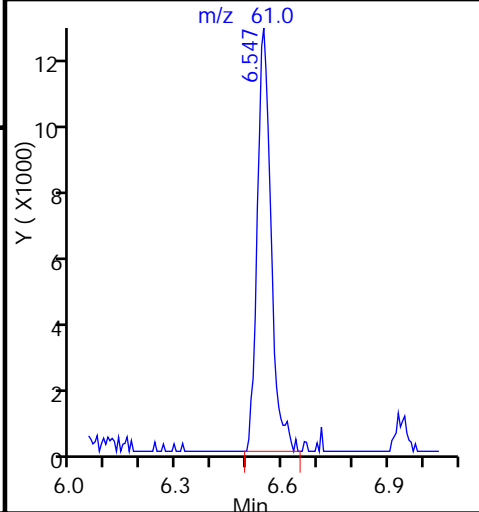
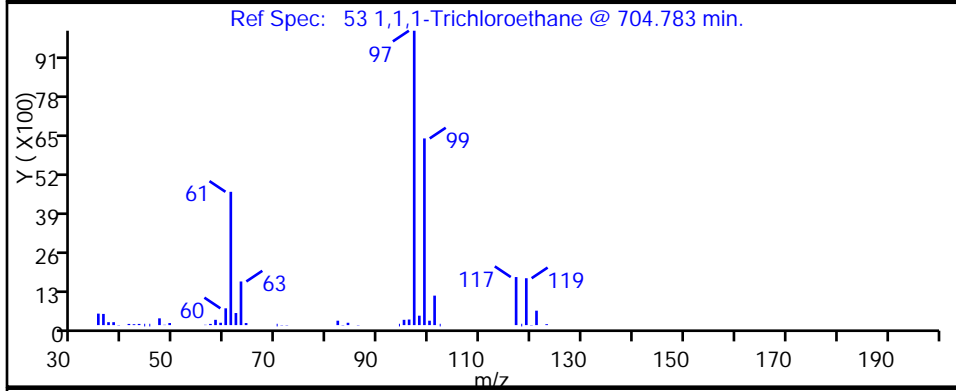
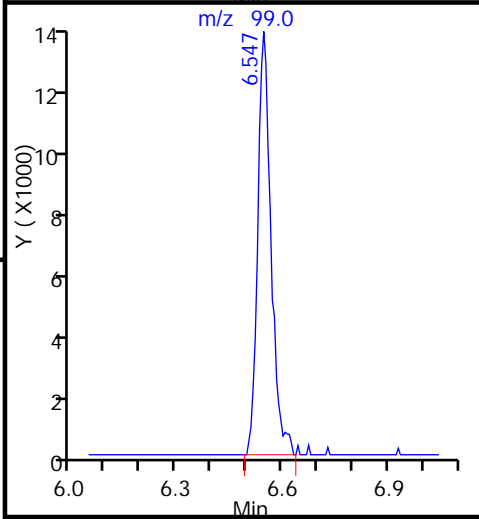
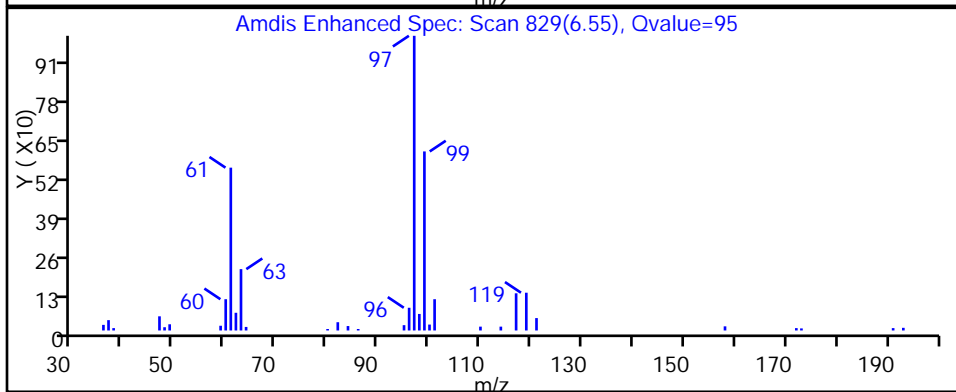
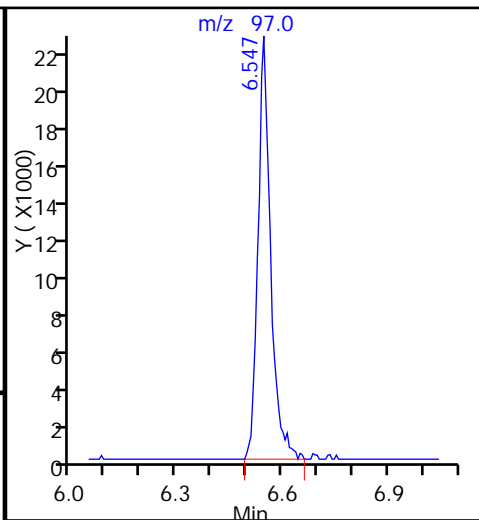
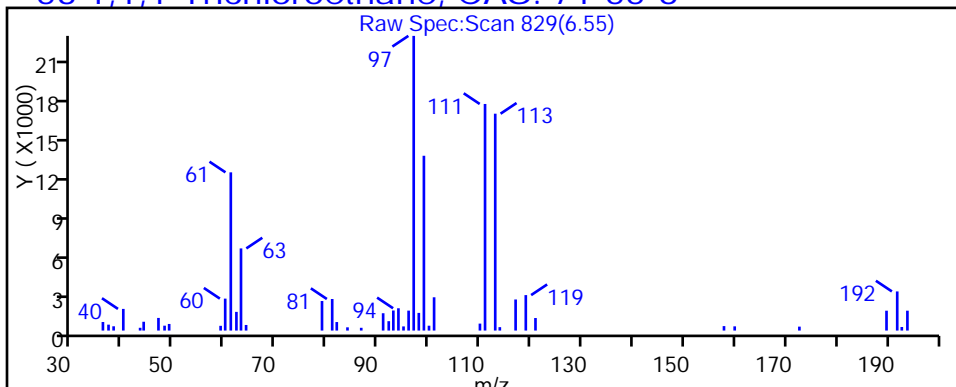
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

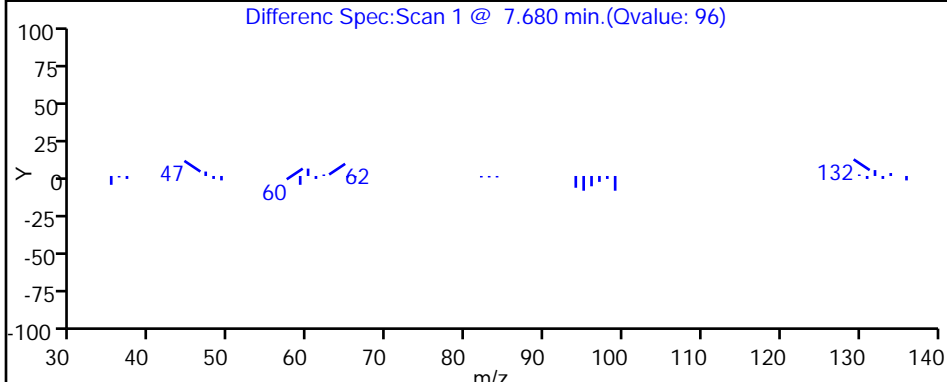
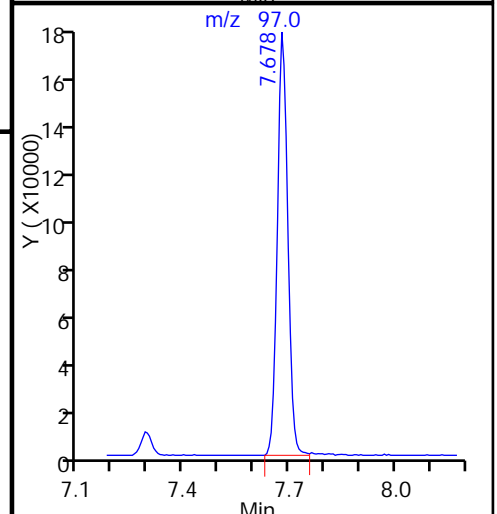
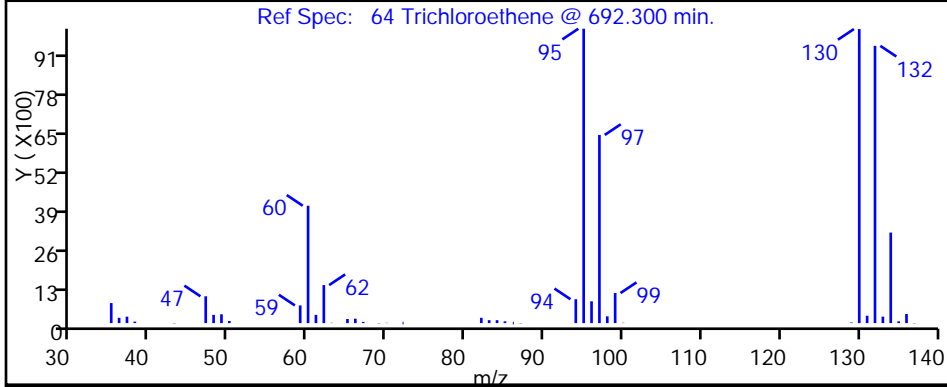
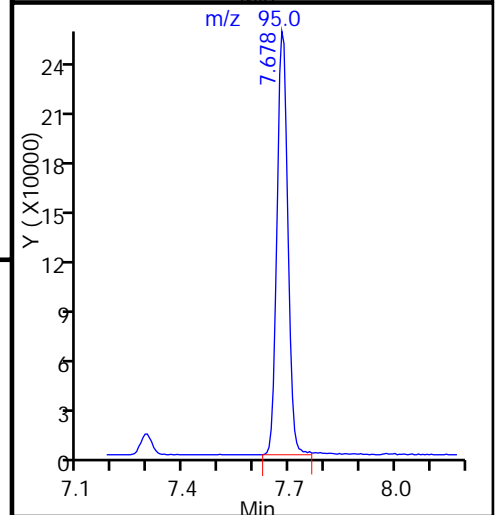
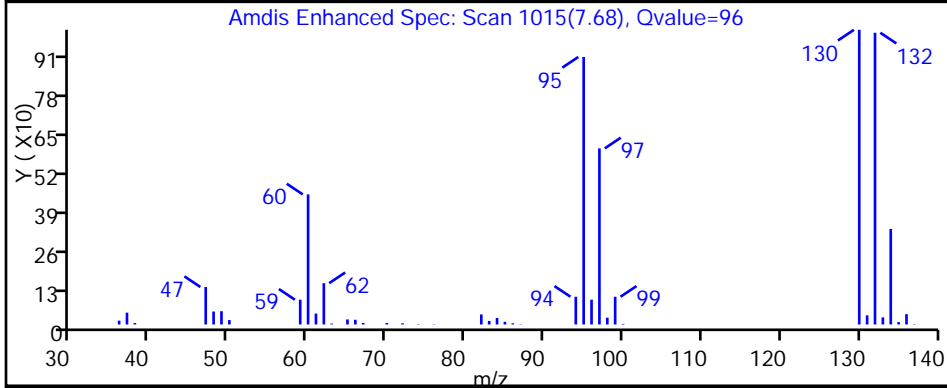
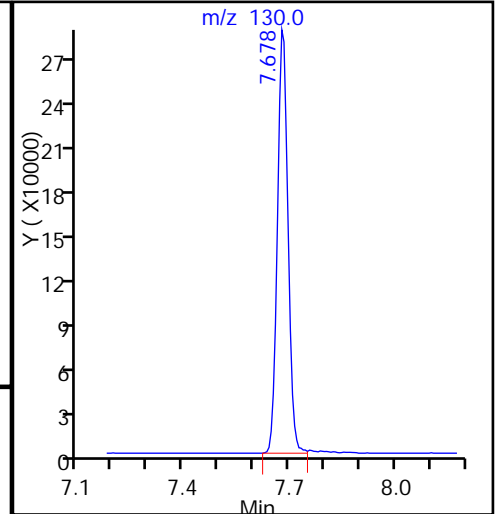
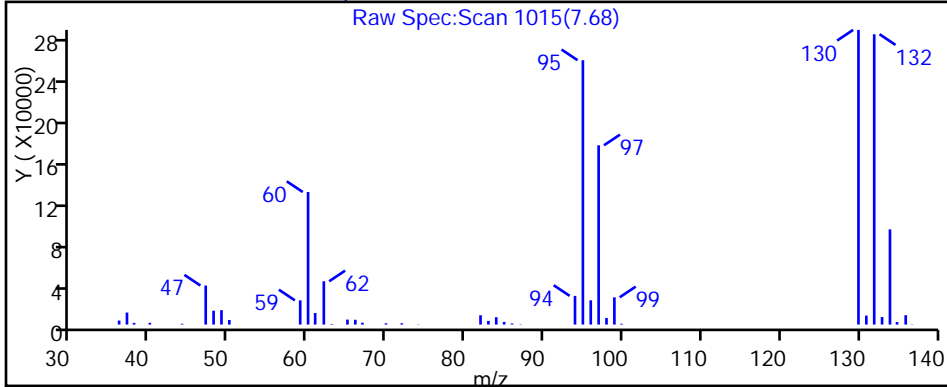
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005019.D

Injection Date: 05-Oct-2015 18:23:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

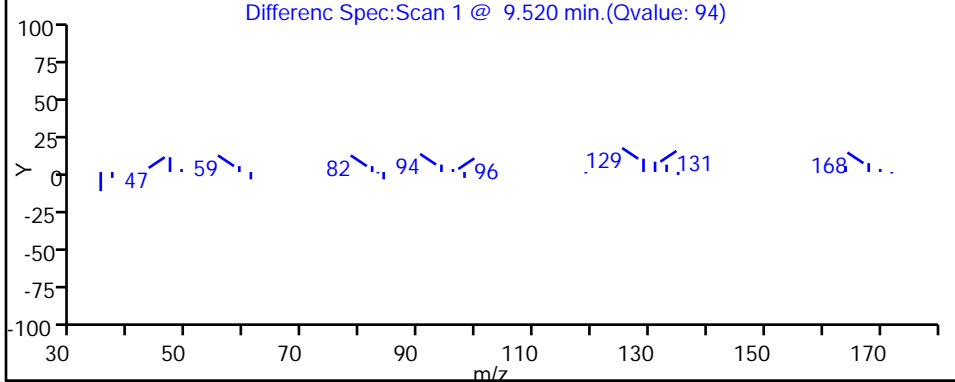
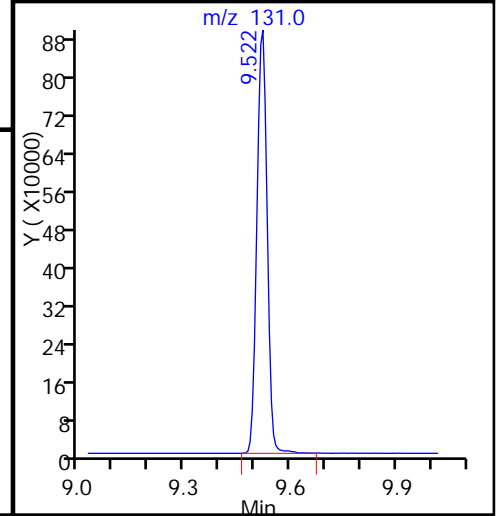
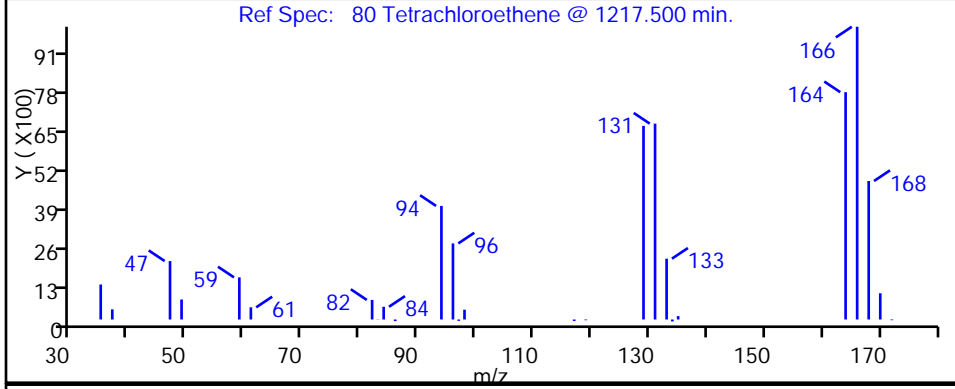
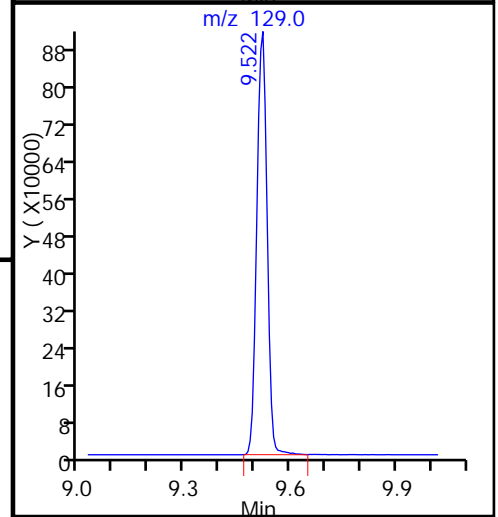
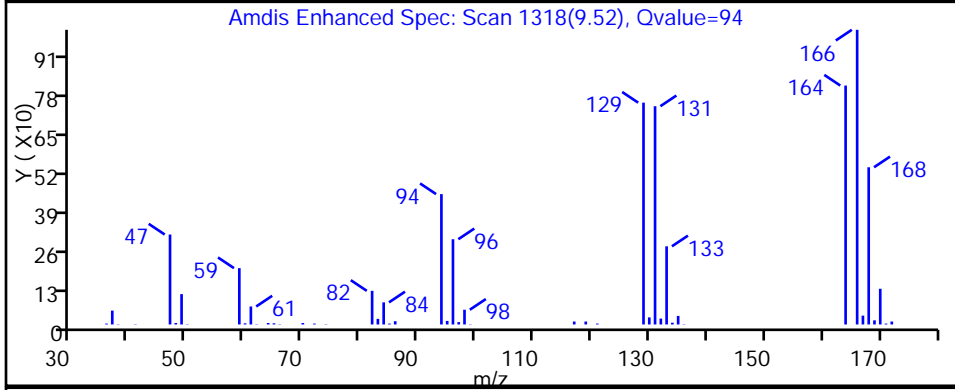
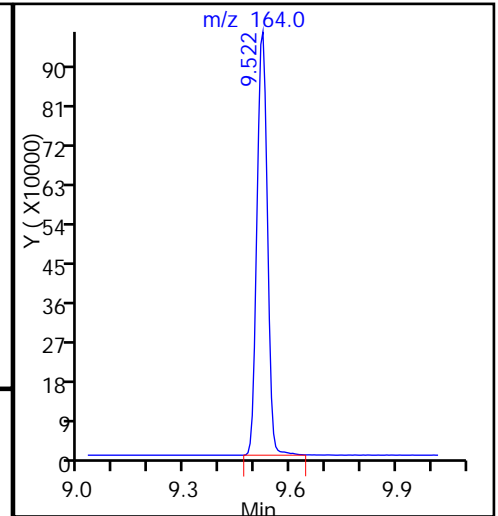
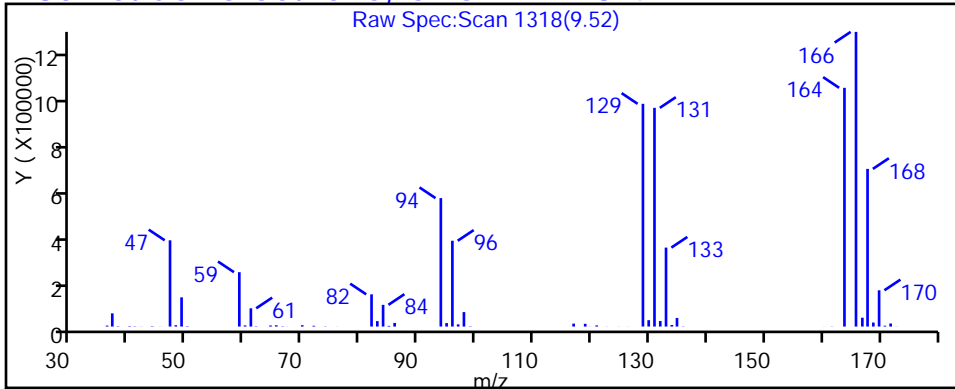
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75D-0/1-0 DL Lab Sample ID: 180-48181-6 DL
 Matrix: Water Lab File ID: 51006017.D
 Analysis Method: 8260C Date Collected: 09/25/2015 11:12
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 18:44
 Soil Aliquot Vol: _____ Dilution Factor: 500
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|------|------|
| 74-87-3 | Chloromethane | 500 | U | 500 | 140 |
| 75-01-4 | Vinyl chloride | 500 | U | 500 | 110 |
| 74-83-9 | Bromomethane | 500 | U | 500 | 160 |
| 75-00-3 | Chloroethane | 500 | U ^c | 500 | 110 |
| 75-35-4 | 1,1-Dichloroethene | 500 | U | 500 | 150 |
| 67-64-1 | Acetone | 2500 | U | 2500 | 1300 |
| 75-15-0 | Carbon disulfide | 500 | U | 500 | 110 |
| 75-09-2 | Methylene Chloride | 500 | U | 500 | 63 |
| 156-60-5 | trans-1,2-Dichloroethene | 500 | U | 500 | 85 |
| 1634-04-4 | Methyl tert-butyl ether | 500 | U | 500 | 92 |
| 75-34-3 | 1,1-Dichloroethane | 500 | U | 500 | 58 |
| 156-59-2 | cis-1,2-Dichloroethene | 560 | | 500 | 120 |
| 74-97-5 | Bromochloromethane | 500 | U | 500 | 90 |
| 78-93-3 | 2-Butanone (MEK) | 2500 | U | 2500 | 270 |
| 67-66-3 | Chloroform | 500 | U | 500 | 85 |
| 71-55-6 | 1,1,1-Trichloroethane | 220 | J | 500 | 140 |
| 56-23-5 | Carbon tetrachloride | 500 | U | 500 | 68 |
| 71-43-2 | Benzene | 500 | U | 500 | 53 |
| 107-06-2 | 1,2-Dichloroethane | 500 | U | 500 | 110 |
| 79-01-6 | Trichloroethene | 3200 | | 500 | 72 |
| 78-87-5 | 1,2-Dichloropropane | 500 | U | 500 | 47 |
| 75-27-4 | Bromodichloromethane | 500 | U | 500 | 65 |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U | 500 | 93 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 2500 | U | 2500 | 260 |
| 108-88-3 | Toluene | 500 | U | 500 | 75 |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U | 500 | 74 |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U | 500 | 100 |
| 127-18-4 | Tetrachloroethene | 15000 | | 500 | 74 |
| 591-78-6 | 2-Hexanone | 2500 | U | 2500 | 80 |
| 124-48-1 | Dibromochloromethane | 500 | U | 500 | 68 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 500 | U | 500 | 90 |
| 108-90-7 | Chlorobenzene | 500 | U | 500 | 68 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 500 | U | 500 | 140 |
| 100-41-4 | Ethylbenzene | 500 | U | 500 | 110 |
| 1330-20-7 | Xylenes, Total | 1500 | U | 1500 | 240 |
| 100-42-5 | Styrene | 500 | U | 500 | 48 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-75D-0/1-0 DL Lab Sample ID: 180-48181-6 DL
 Matrix: Water Lab File ID: 51006017.D
 Analysis Method: 8260C Date Collected: 09/25/2015 11:12
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 18:44
 Soil Aliquot Vol: _____ Dilution Factor: 500
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|----------------------------------|--------|---|--------|-------|
| 75-25-2 | <i>Bromoform</i> | 500 | U | 500 | 96 |
| 79-34-5 | <i>1,1,2,2-Tetrachloroethane</i> | 500 | U | 500 | 100 |
| 107-13-1 | <i>Acrylonitrile</i> | 10000 | U | 10000 | 270 |
| 123-91-1 | <i>1,4-Dioxane</i> | 100000 | U | 100000 | 17000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 90 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 85 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D
 Lims ID: 180-48181-C-6 Lab Sample ID: 180-48181-6
 Client ID: HD-MW-75D-0/1-0
 Sample Type: Client
 Inject. Date: 06-Oct-2015 18:44:30 ALS Bottle#: 15 Worklist Smp#: 17
 Purge Vol: 5.000 mL Dil. Factor: 500.0000
 Sample Info: 180-48181-C-6, 500x
 Misc. Info.: 180-0008850-017
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 07:54:43 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 07:54:43

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.267 | 4.279 | -0.012 | 0 | 129312 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.296 | 7.290 | 0.006 | 98 | 279092 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.387 | 0.000 | 87 | 72002 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.729 | 12.729 | 0.000 | 94 | 102041 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.572 | 6.560 | 0.012 | 93 | 73242 | 53.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.937 | 0.000 | 0 | 88970 | 47.3 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.939 | 0.000 | 93 | 251224 | 45.2 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.573 | 0.000 | 90 | 88843 | 42.4 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.348 | | | | ND | |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.204 | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | 5.964 | 5.958 | 0.006 | 83 | 10017 | 5.56 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.548 | 6.542 | 0.006 | 35 | 4587 | 2.16 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.686 | 7.679 | 0.007 | 95 | 54628 | 32.4 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.517 | 9.517 | 0.000 | 98 | 200857 | 145.2 | |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D

Injection Date: 06-Oct-2015 18:44:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-C-6

Lab Sample ID: 180-48181-6

Worklist Smp#: 17

Client ID: HD-MW-75D-0/1-0

Purge Vol: 5.000 mL

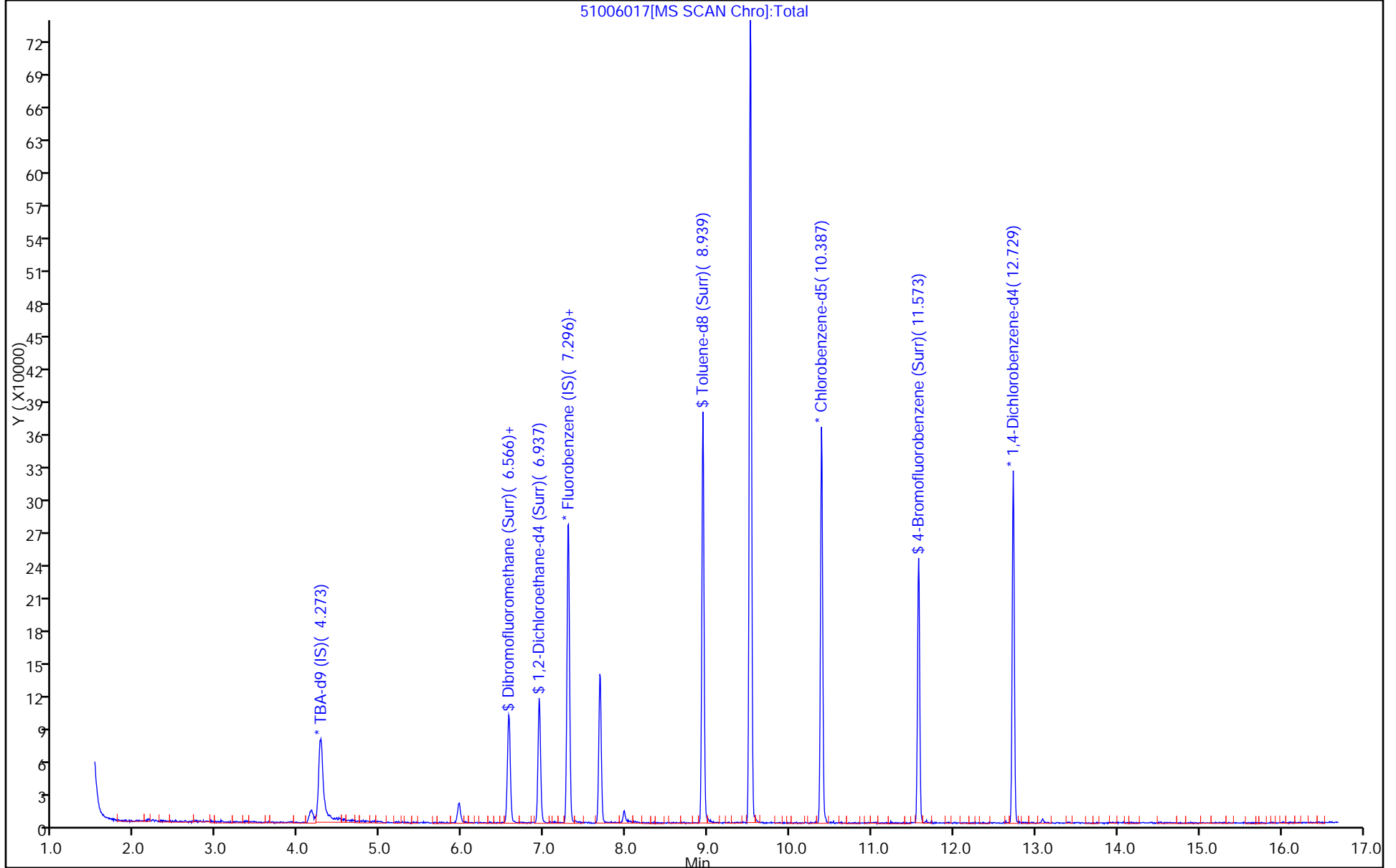
Dil. Factor: 500.0000

ALS Bottle#: 15

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D

Injection Date: 06-Oct-2015 18:44:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

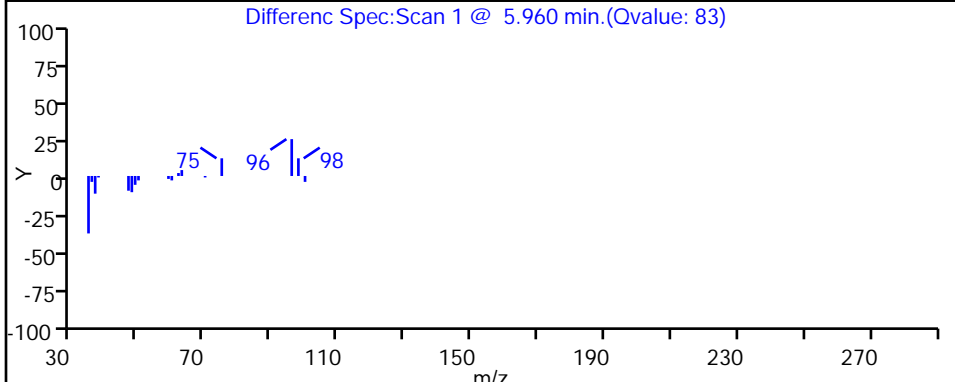
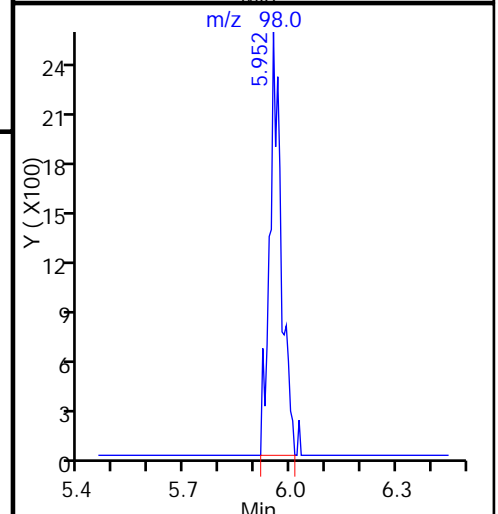
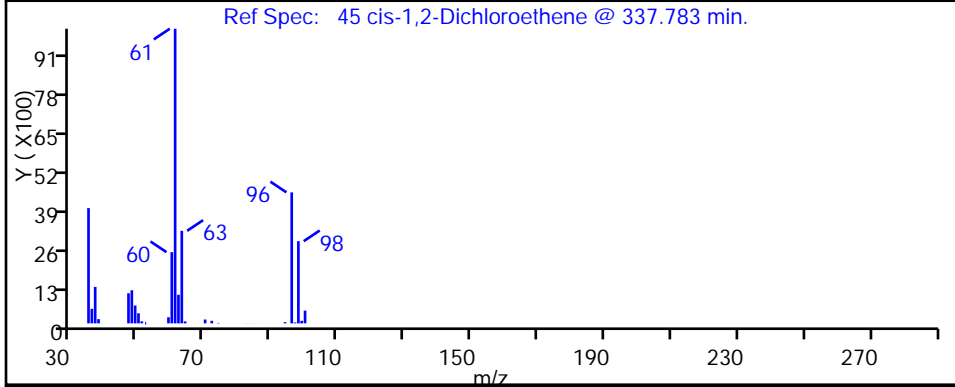
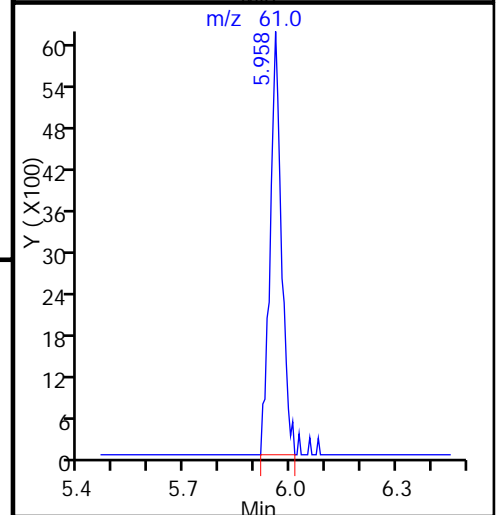
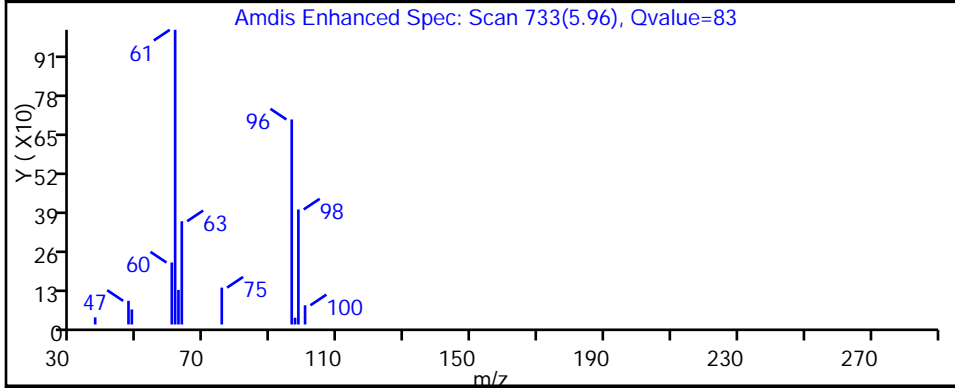
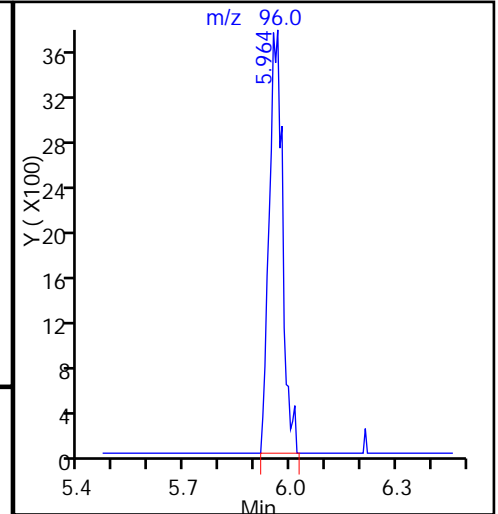
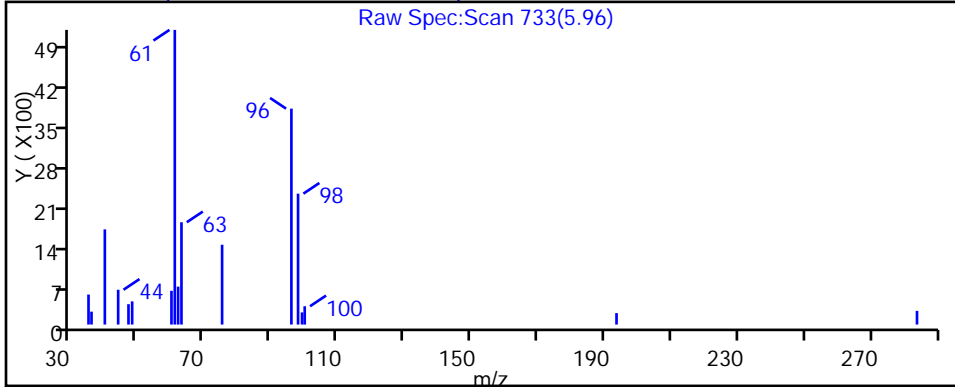
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D

Injection Date: 06-Oct-2015 18:44:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

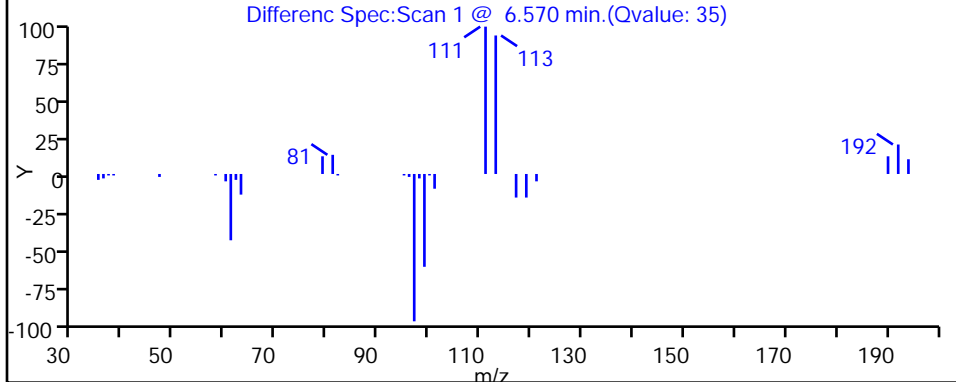
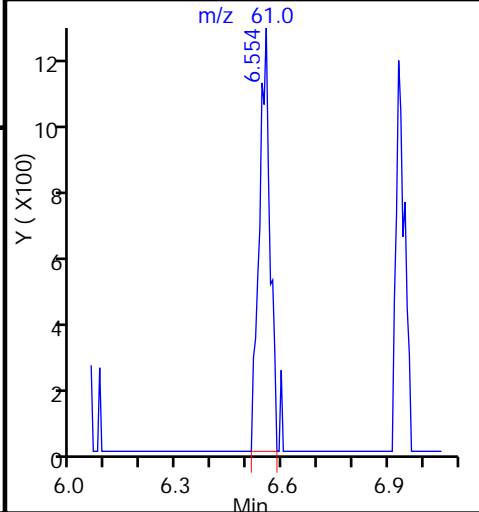
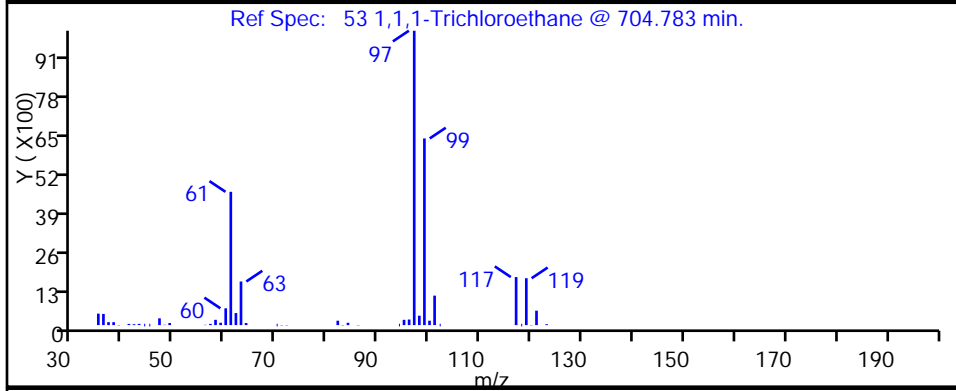
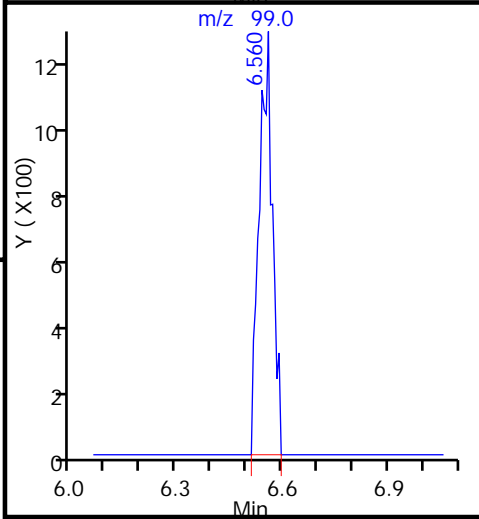
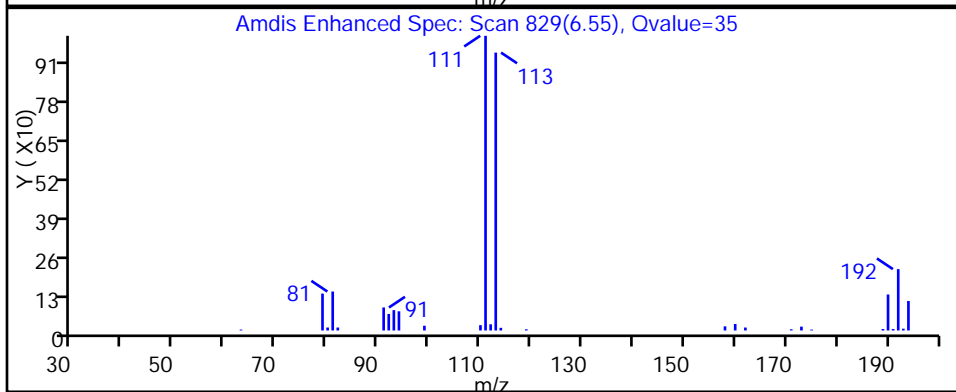
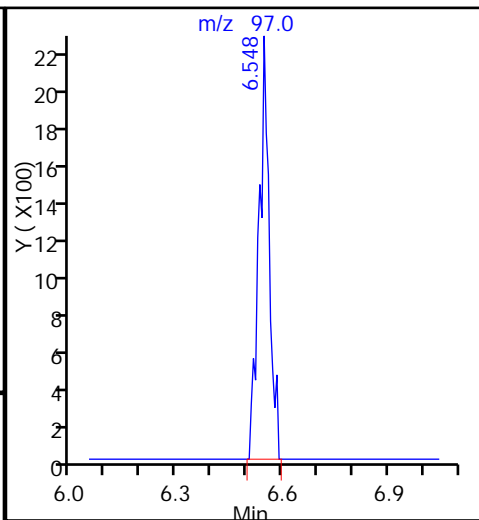
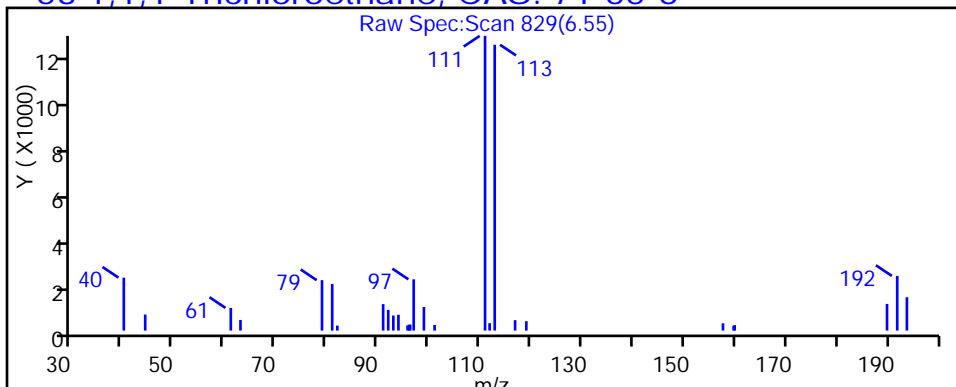
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D

Injection Date: 06-Oct-2015 18:44:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

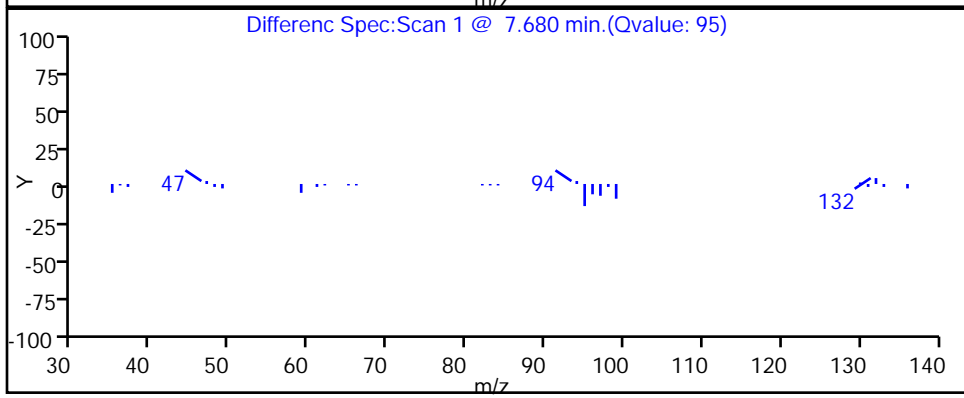
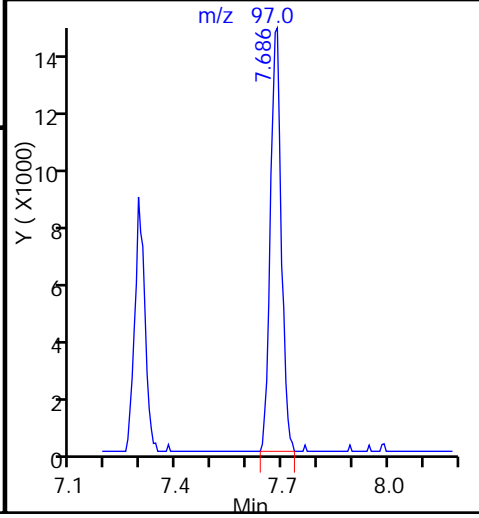
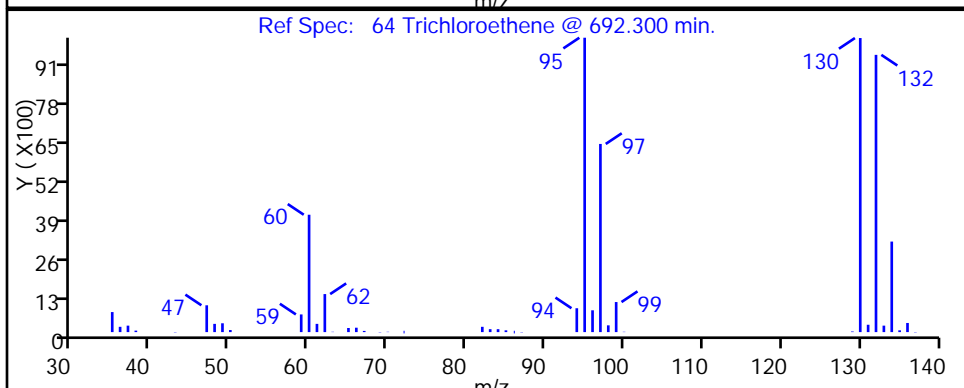
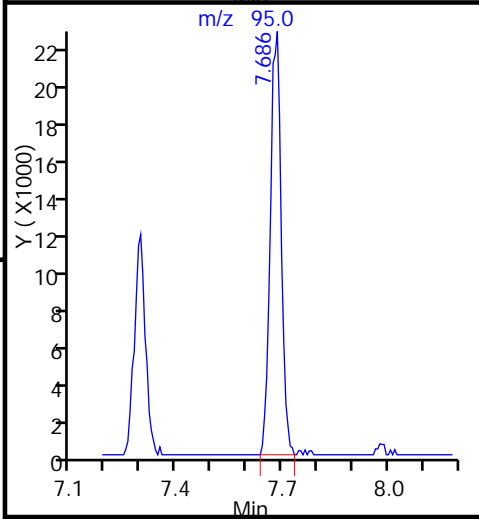
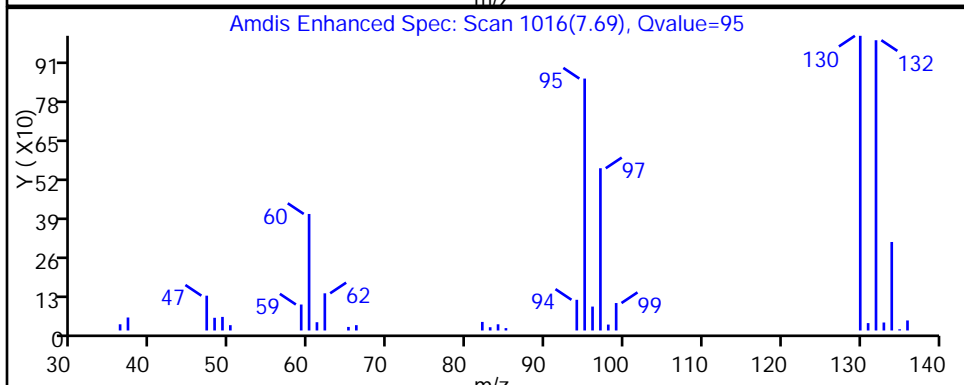
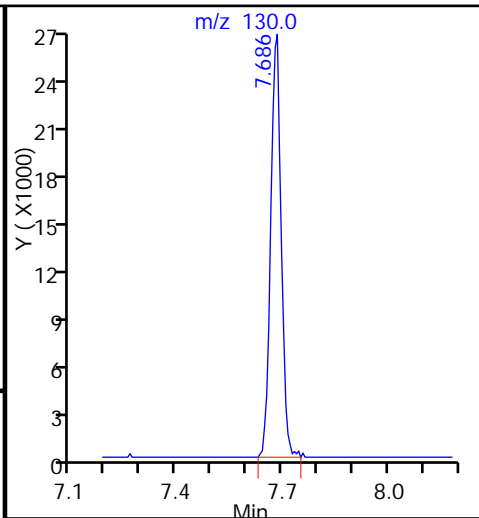
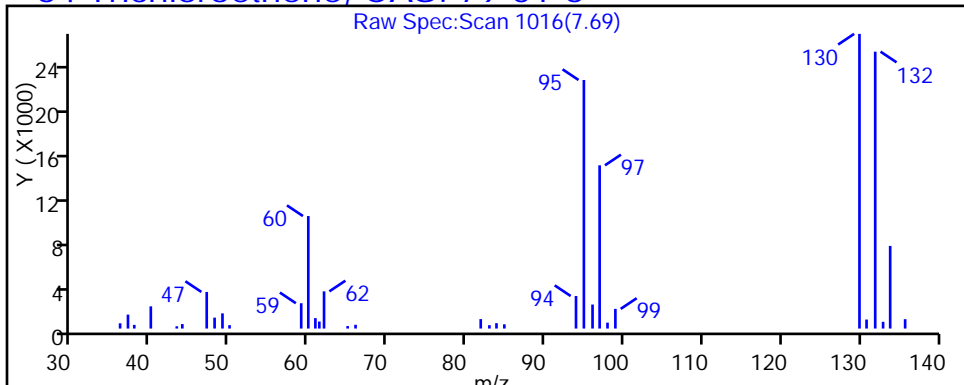
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006017.D

Injection Date: 06-Oct-2015 18:44:30

Instrument ID: CHHP5

Lims ID: 180-48181-C-6

Lab Sample ID: 180-48181-6

Client ID: HD-MW-75D-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 500.0000

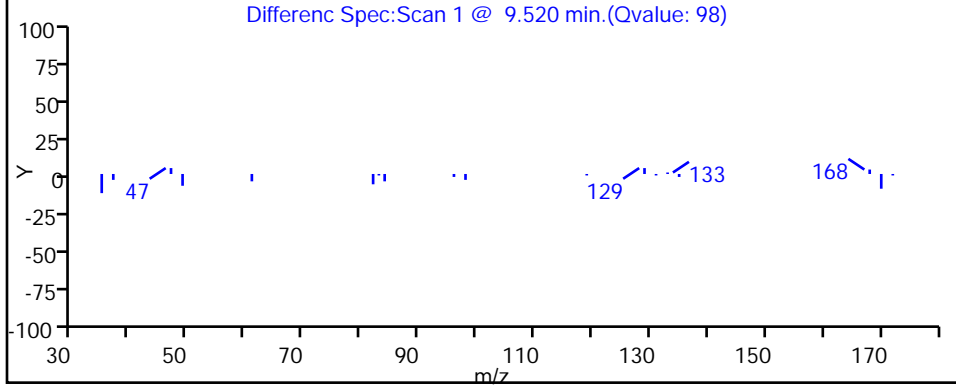
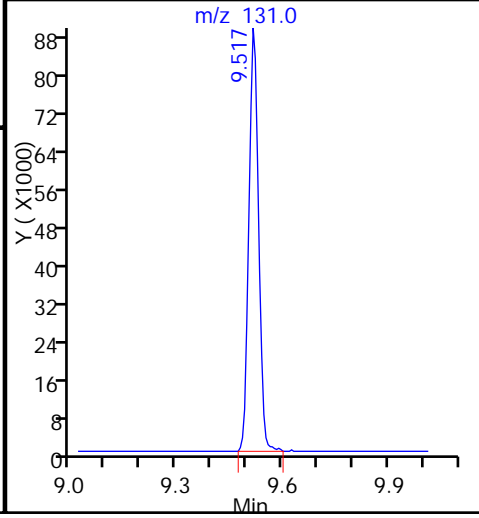
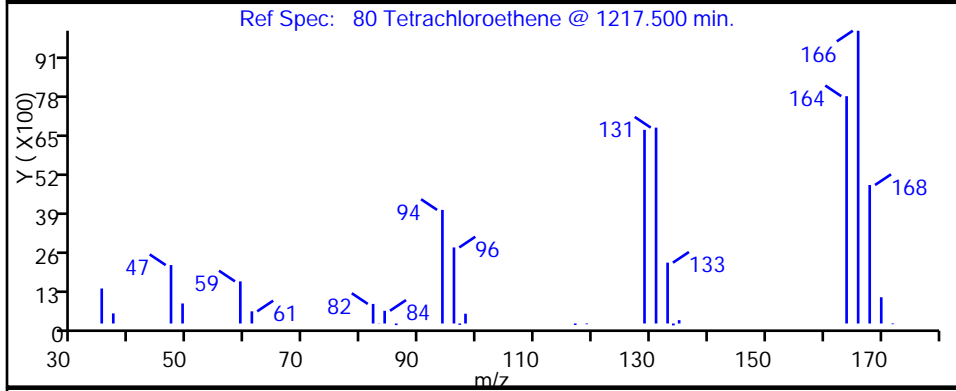
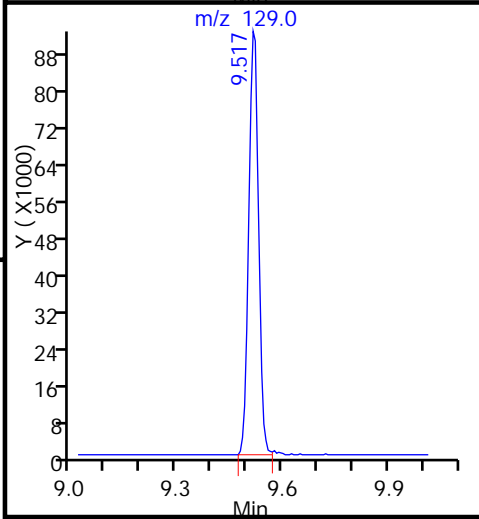
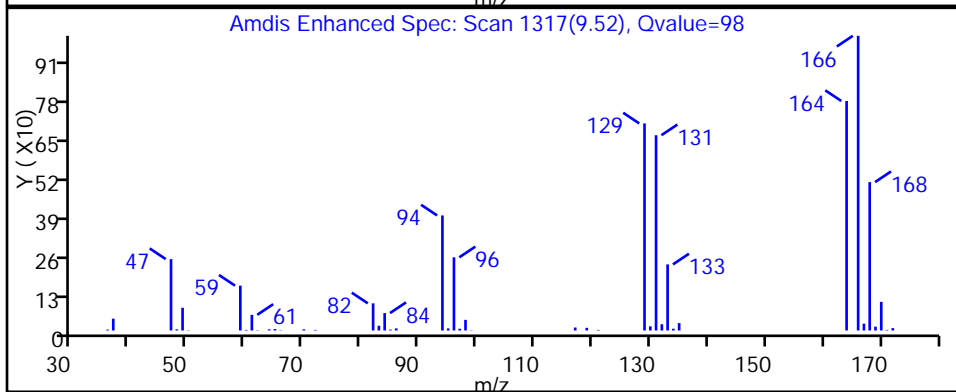
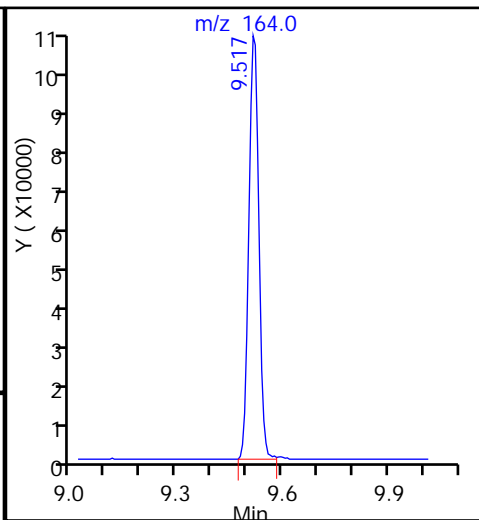
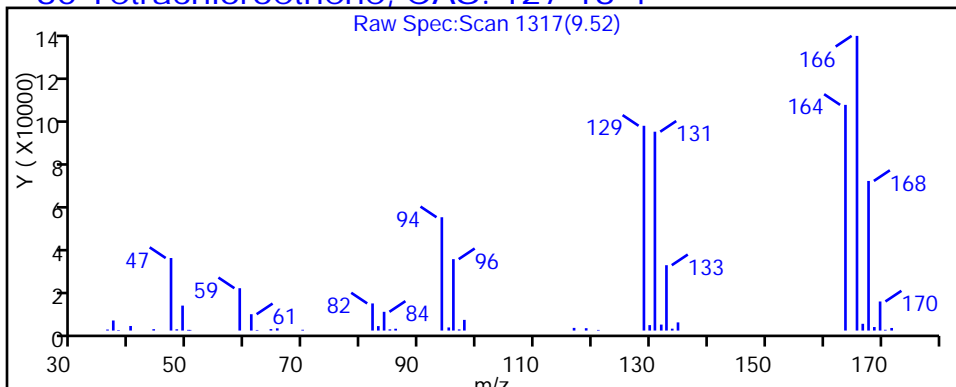
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-48181-7
 Matrix: Water Lab File ID: 61005020.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:37
 Sample wt/vol: 5(mL) Date Analyzed: 10/05/2015 17:46
 Soil Aliquot Vol: _____ Dilution Factor: 40
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-----|
| 74-87-3 | Chloromethane | 40 | U | 40 | 11 |
| 75-01-4 | Vinyl chloride | 40 | U | 40 | 9.1 |
| 74-83-9 | Bromomethane | 40 | U | 40 | 13 |
| 75-00-3 | Chloroethane | 40 | U | 40 | 8.6 |
| 75-35-4 | 1,1-Dichloroethene | 17 | J | 40 | 12 |
| 67-64-1 | Acetone | 200 | U | 200 | 100 |
| 75-15-0 | Carbon disulfide | 40 | U | 40 | 8.5 |
| 75-09-2 | Methylene Chloride | 40 | U | 40 | 5.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 40 | U | 40 | 6.8 |
| 1634-04-4 | Methyl tert-butyl ether | 40 | U | 40 | 7.3 |
| 75-34-3 | 1,1-Dichloroethane | 40 | U | 40 | 4.7 |
| 156-59-2 | cis-1,2-Dichloroethene | 77 | | 40 | 9.5 |
| 74-97-5 | Bromochloromethane | 40 | U | 40 | 7.2 |
| 78-93-3 | 2-Butanone (MEK) | 200 | U | 200 | 22 |
| 67-66-3 | Chloroform | 40 | U | 40 | 6.8 |
| 71-55-6 | 1,1,1-Trichloroethane | 97 | | 40 | 11 |
| 56-23-5 | Carbon tetrachloride | 40 | U | 40 | 5.5 |
| 71-43-2 | Benzene | 40 | U | 40 | 4.2 |
| 107-06-2 | 1,2-Dichloroethane | 40 | U | 40 | 8.5 |
| 79-01-6 | Trichloroethene | 460 | | 40 | 5.7 |
| 78-87-5 | 1,2-Dichloropropane | 40 | U | 40 | 3.8 |
| 75-27-4 | Bromodichloromethane | 40 | U | 40 | 5.2 |
| 10061-01-5 | cis-1,3-Dichloropropene | 40 | U | 40 | 7.5 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 200 | U | 200 | 21 |
| 108-88-3 | Toluene | 40 | U | 40 | 6.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 40 | U | 40 | 5.9 |
| 79-00-5 | 1,1,2-Trichloroethane | 40 | U | 40 | 8.1 |
| 127-18-4 | Tetrachloroethene | 1100 | | 40 | 5.9 |
| 591-78-6 | 2-Hexanone | 200 | U | 200 | 6.4 |
| 124-48-1 | Dibromochloromethane | 40 | U | 40 | 5.5 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 40 | U | 40 | 7.2 |
| 108-90-7 | Chlorobenzene | 40 | U | 40 | 5.4 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 40 | U | 40 | 11 |
| 100-41-4 | Ethylbenzene | 40 | U | 40 | 9.1 |
| 1330-20-7 | Xylenes, Total | 120 | U | 120 | 20 |
| 100-42-5 | Styrene | 40 | U | 40 | 3.9 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-48181-7
 Matrix: Water Lab File ID: 61005020.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:37
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 17:46
 Soil Aliquot Vol: _____ Dilution Factor: 40
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|------|------|
| 75-25-2 | Bromoform | 40 | U | 40 | 7.7 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 40 | U | 40 | 8.0 |
| 107-13-1 | Acrylonitrile | 800 | U | 800 | 22 |
| 123-91-1 | 1,4-Dioxane | 8000 | U | 8000 | 1400 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 110 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 90 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 110 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D
 Lims ID: 180-48181-C-7 Lab Sample ID: 180-48181-7
 Client ID: HD-MW-37D-0/1-0
 Sample Type: Client
 Inject. Date: 05-Oct-2015 17:46:30 ALS Bottle#: 20 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 40.0000
 Sample Info: 180-48181-C-7, 40x
 Misc. Info.: 180-0008826-020
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 09:16:49 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 09:16:49

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.239 | 4.230 | 0.009 | 88 | 186034 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.287 | 7.290 | -0.003 | 97 | 408980 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.401 | 10.399 | 0.002 | 91 | 107815 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.750 | 12.747 | 0.003 | 98 | 175358 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.557 | 6.550 | 0.007 | 93 | 103963 | 55.2 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.934 | 6.928 | 0.006 | 70 | 167055 | 55.0 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.941 | 8.941 | 0.000 | 93 | 407345 | 47.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.588 | 11.587 | 0.001 | 84 | 169921 | 45.0 | |
| 12 Chloromethane | 50 | | 1.769 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.903 | | | | ND | |
| 15 Bromomethane | 94 | | 2.243 | | | | ND | |
| 16 Chloroethane | 64 | | 2.377 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.338 | 3.326 | 0.012 | 42 | 4299 | 2.09 | |
| 24 Acetone | 43 | | 3.430 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.630 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.117 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.500 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.555 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.573 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.194 | | | | ND | |
| 43 cis-1,2-Dichloroethene | 96 | 5.942 | 5.942 | 0.000 | 83 | 24733 | 9.57 | |
| 44 2-Butanone (MEK) | 43 | | 5.948 | | | | ND | |
| 48 Chlorobromomethane | 128 | | 6.228 | | | | ND | |
| 50 Chloroform | 83 | | 6.368 | | | | ND | |
| 51 1,1,1-Trichloroethane | 97 | 6.538 | 6.532 | 0.006 | 94 | 37693 | 12.1 | |
| 53 Carbon tetrachloride | 117 | | 6.715 | | | | ND | |
| 56 Benzene | 78 | | 6.940 | | | | ND | |
| 57 1,2-Dichloroethane | 62 | | 7.013 | | | | ND | |
| 61 Trichloroethene | 130 | 7.676 | 7.676 | 0.000 | 95 | 113204 | 56.9 | |
| 64 1,2-Dichloropropane | 63 | | 7.950 | | | | ND | |
| 65 1,4-Dioxane | 88 | | 8.023 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| 68 Dichlorobromomethane | 83 | | 8.229 | | | | ND | |
| 71 cis-1,3-Dichloropropene | 75 | | 8.680 | | | | ND | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | | 8.826 | | | | ND | |
| 73 Toluene | 91 | | 9.008 | | | | ND | |
| 74 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | ND | |
| 76 1,1,2-Trichloroethane | 97 | | 9.452 | | | | ND | |
| 77 Tetrachloroethene | 164 | 9.525 | 9.525 | 0.000 | 96 | 262677 | 138.4 | |
| 79 2-Hexanone | 43 | | 9.659 | | | | ND | |
| 81 Chlorodibromomethane | 129 | | 9.823 | | | | ND | |
| 82 Ethylene Dibromide | 107 | | 9.939 | | | | ND | |
| 84 Chlorobenzene | 112 | | 10.426 | | | | ND | |
| 86 1,1,1,2-Tetrachloroethane | 131 | | 10.523 | | | | ND | |
| 87 Ethylbenzene | 106 | | 10.529 | | | | ND | |
| 88 m-Xylene & p-Xylene | 106 | | 10.657 | | | | ND | |
| 89 o-Xylene | 106 | | 11.040 | | | | ND | |
| 90 Styrene | 104 | | 11.058 | | | | ND | |
| 91 Bromoform | 173 | | 11.247 | | | | ND | |
| 96 1,1,2,2-Tetrachloroethane | 83 | | 11.715 | | | | ND | |
| S 131 Xylenes, Total | 106 | | 1.000 | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Worklist Smp#: 20

Client ID: HD-MW-37D-0/1-0

Purge Vol: 5.000 mL

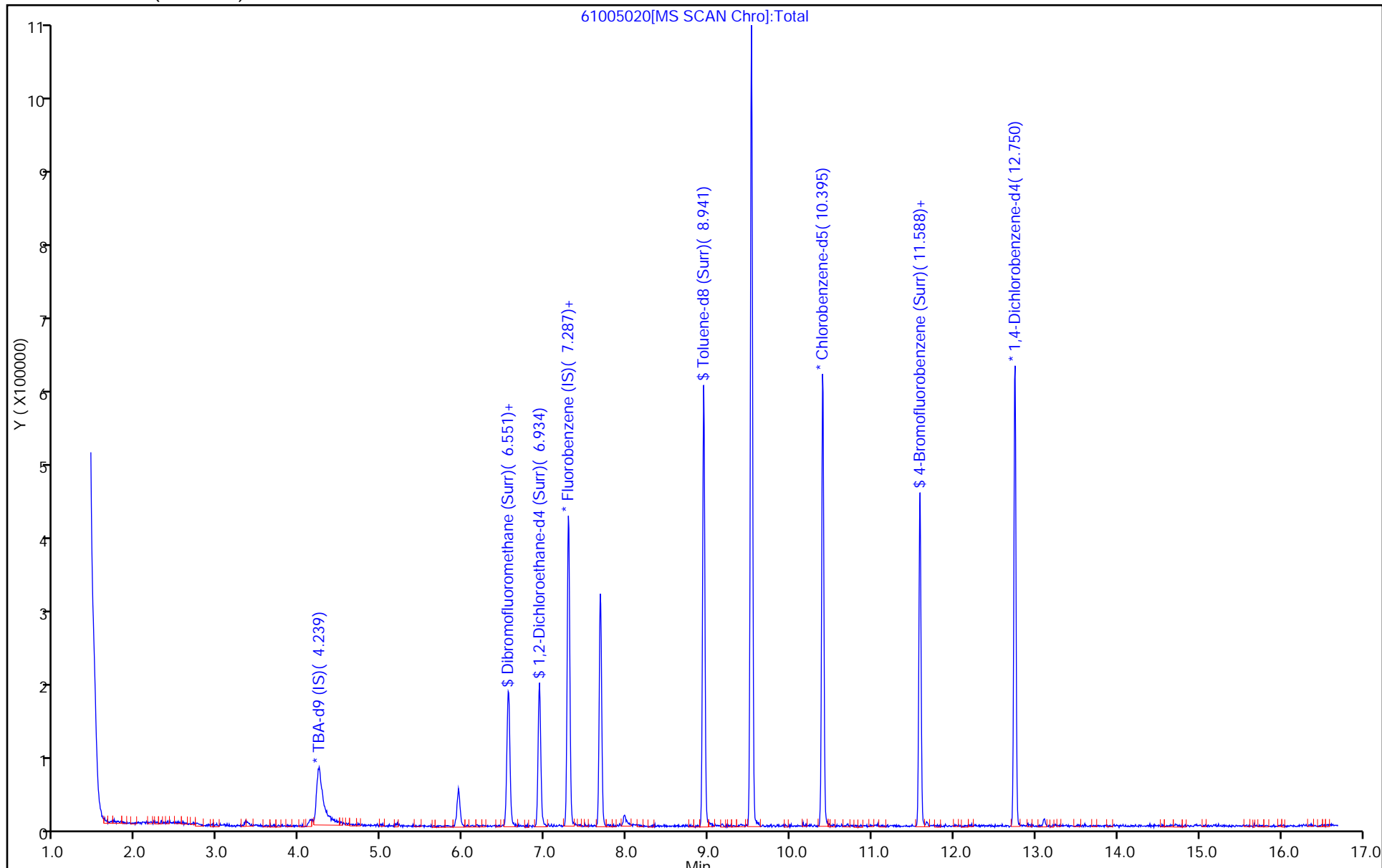
Dil. Factor: 40.0000

ALS Bottle#: 20

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Client ID: HD-MW-37D-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 40.0000

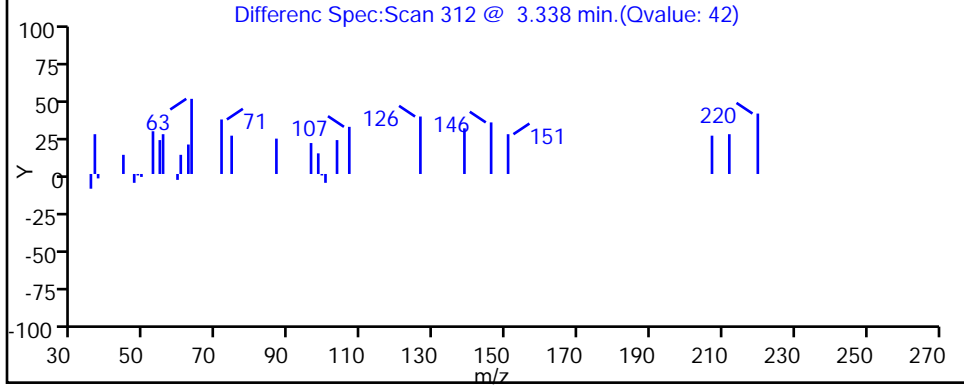
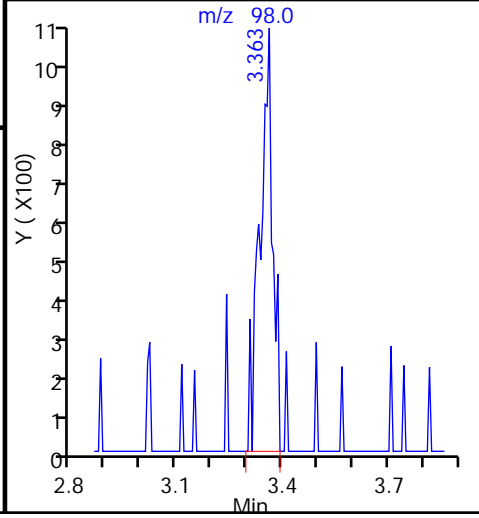
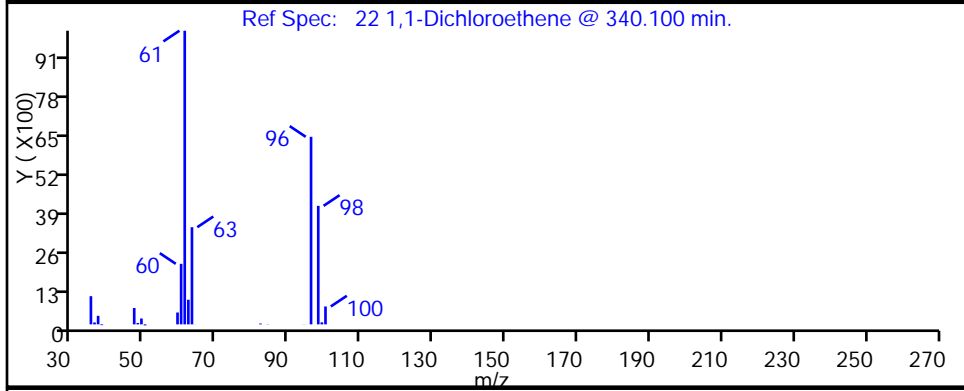
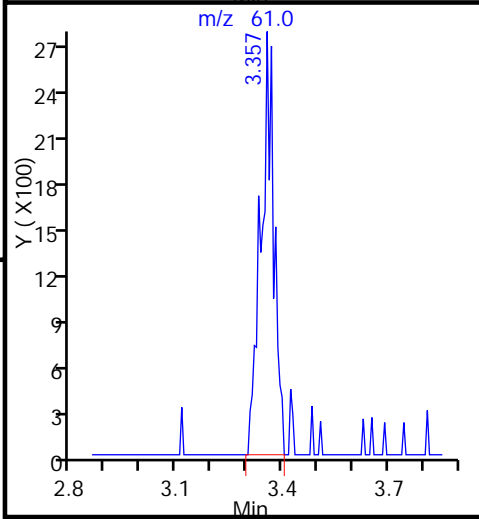
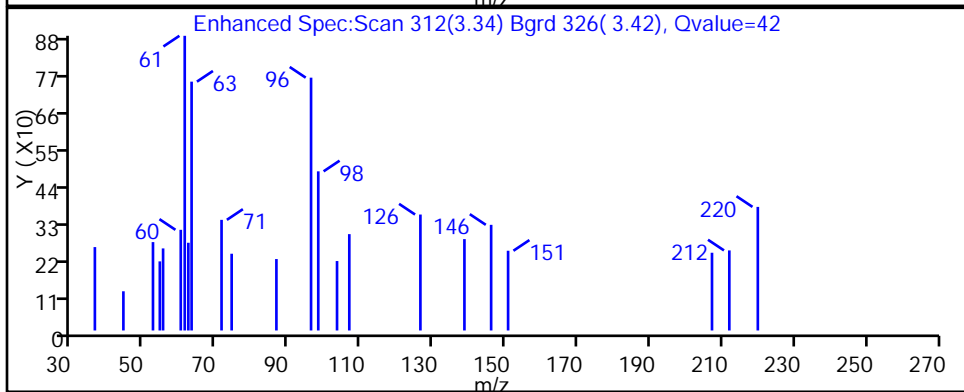
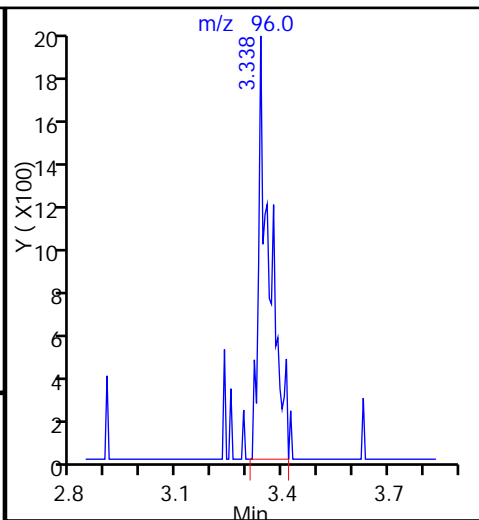
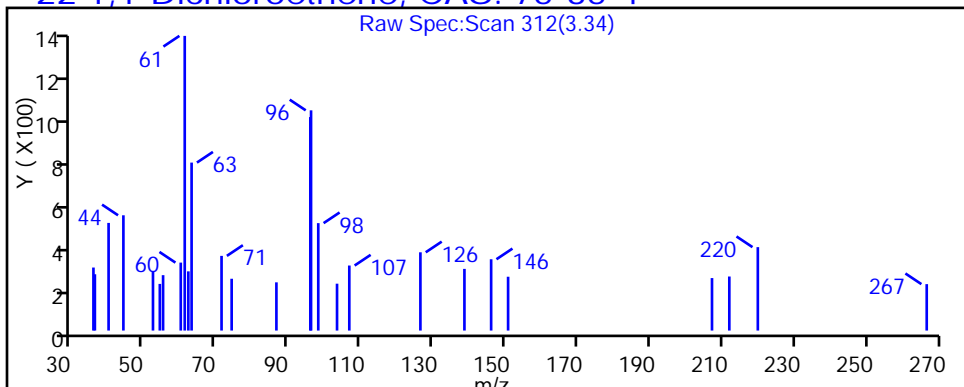
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Client ID: HD-MW-37D-0/1-0

Operator ID: 001562

ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 40.0000

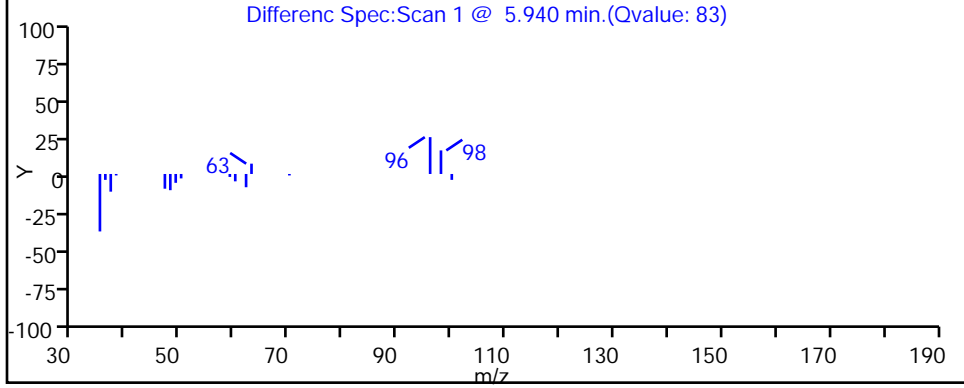
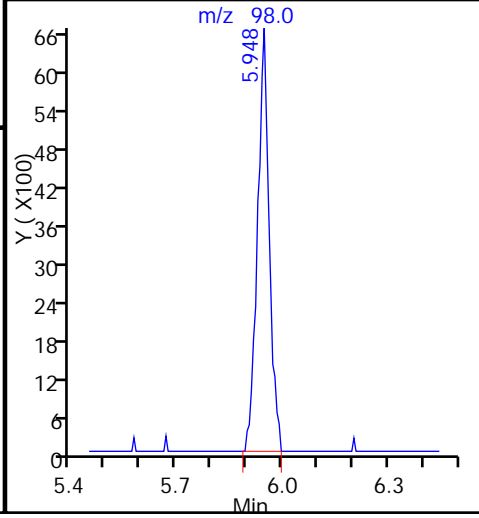
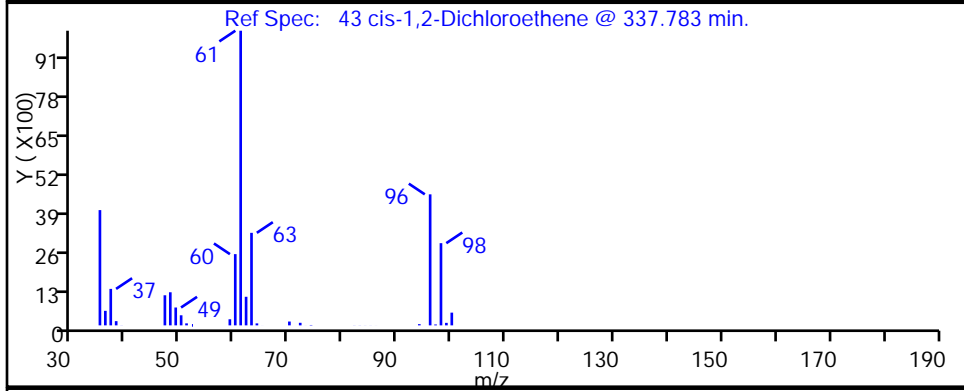
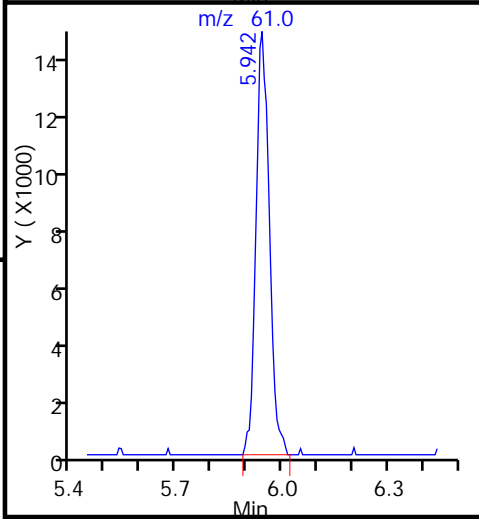
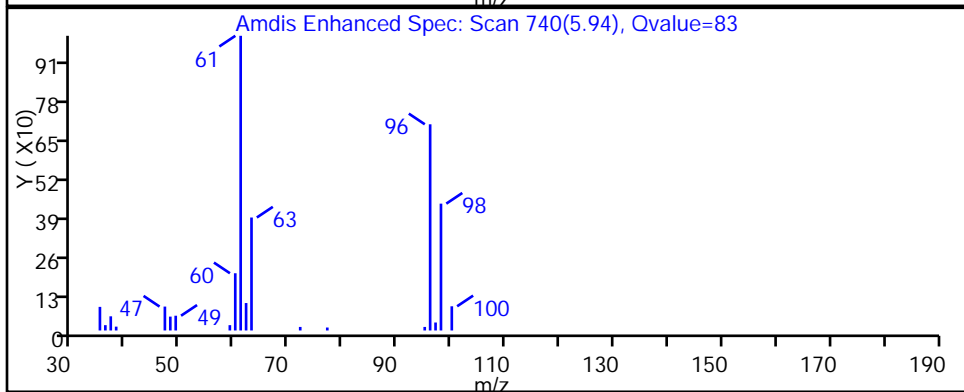
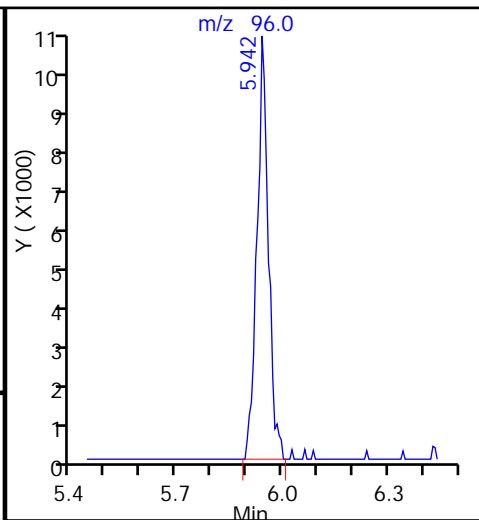
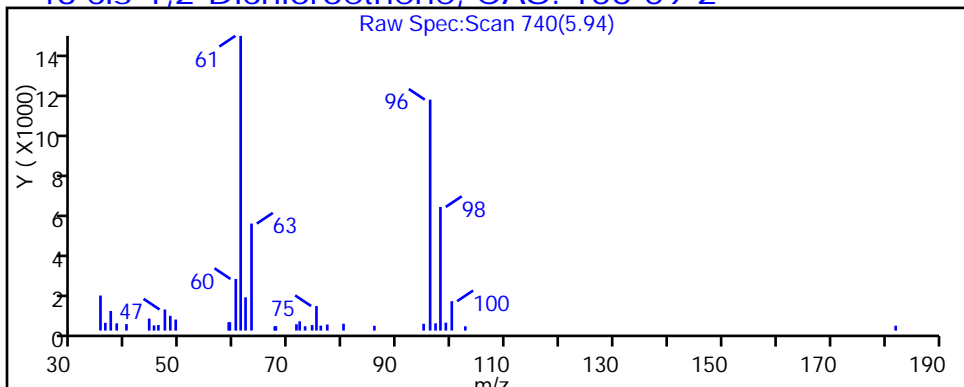
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Client ID: HD-MW-37D-0/1-0

Operator ID: 001562

ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 40.0000

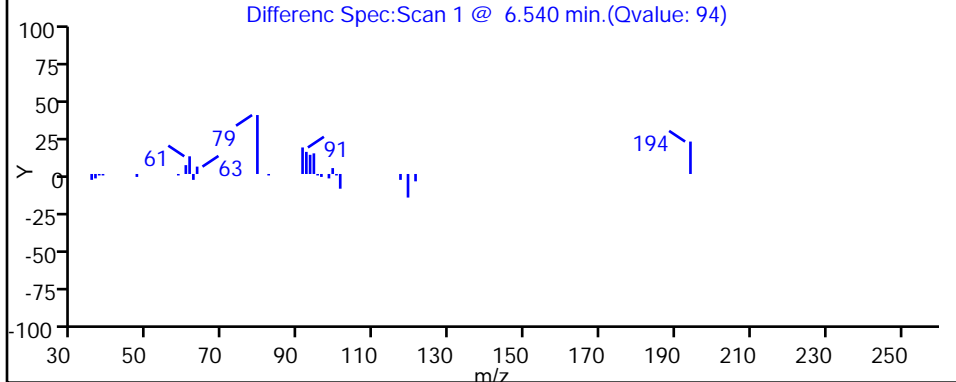
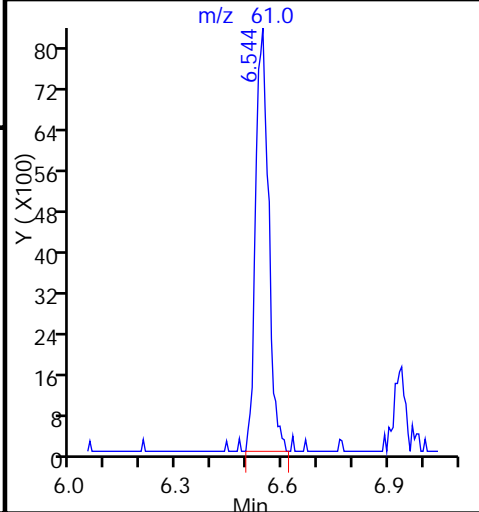
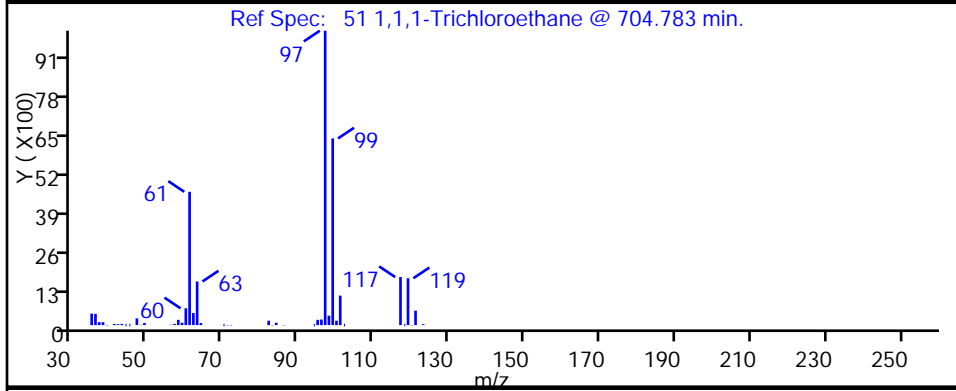
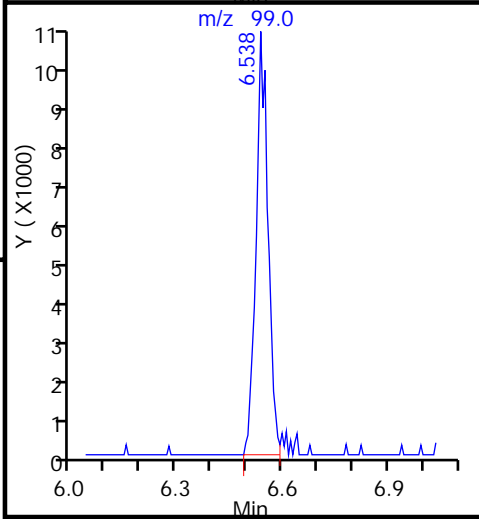
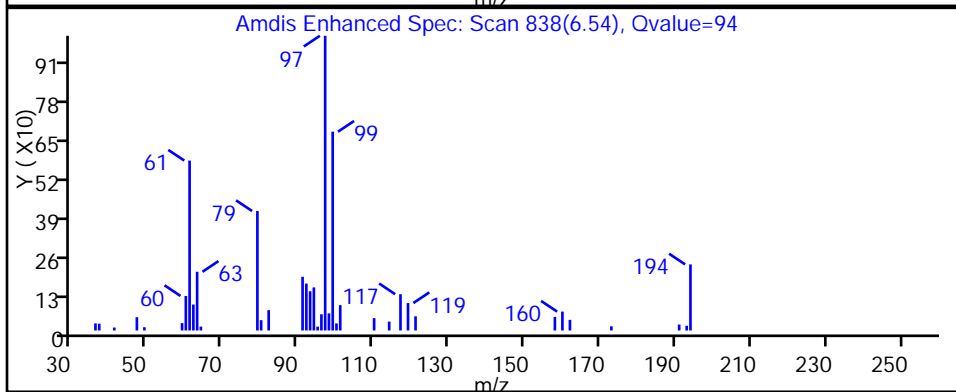
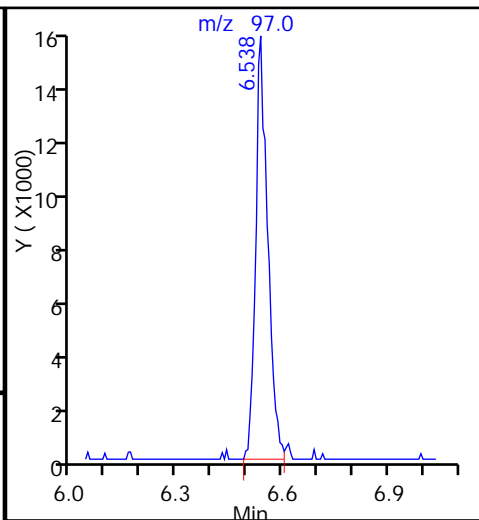
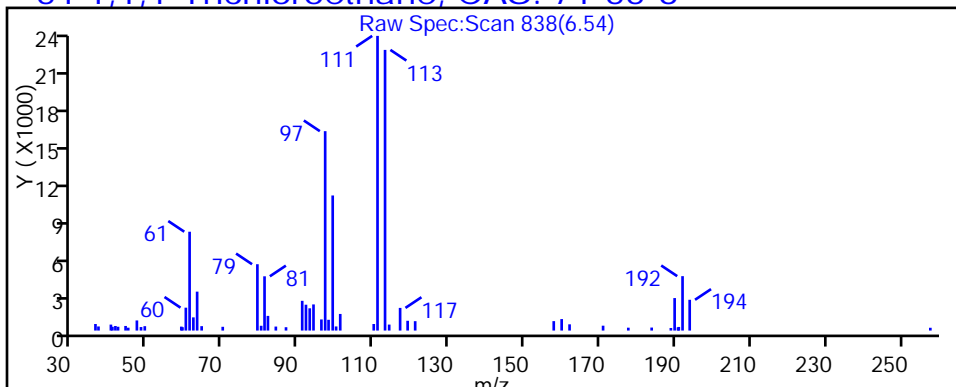
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Client ID: HD-MW-37D-0/1-0

Operator ID: 001562

ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 40.0000

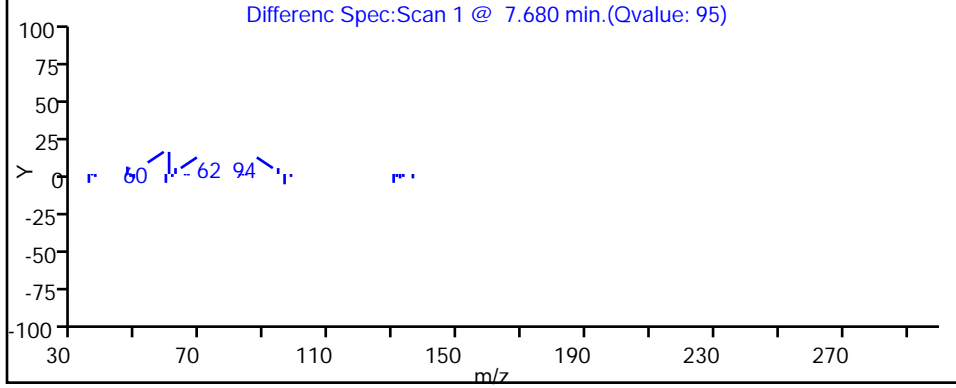
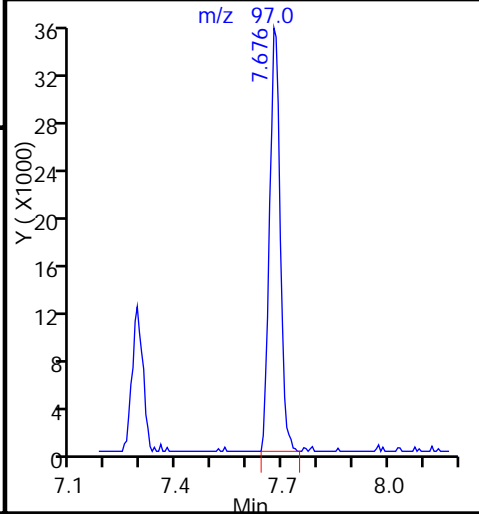
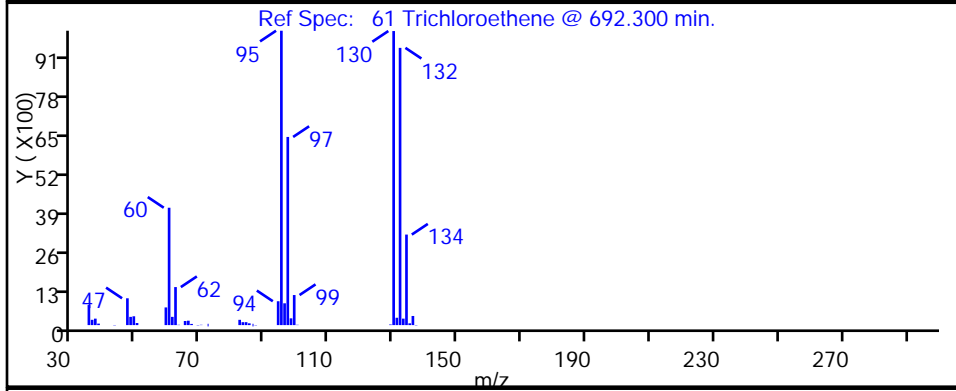
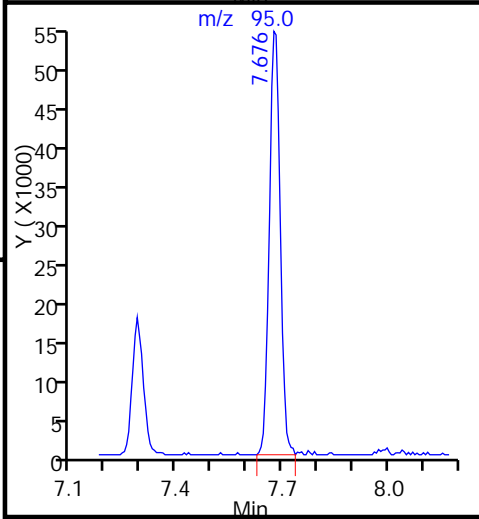
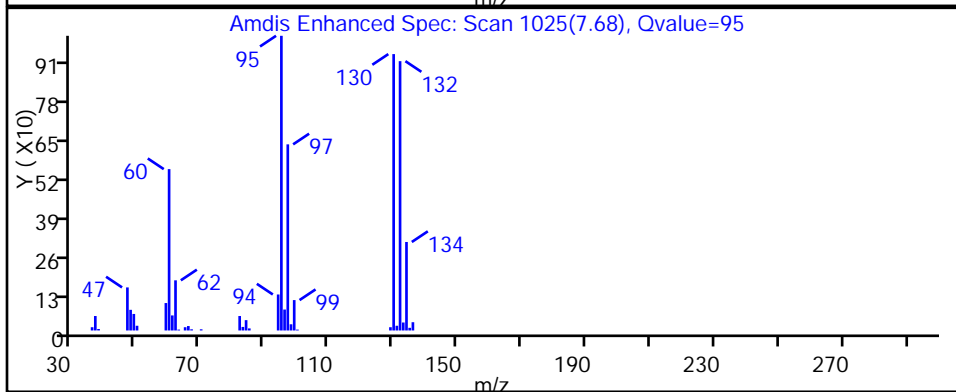
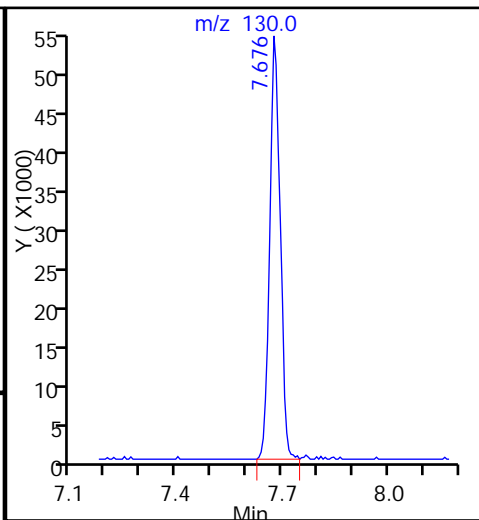
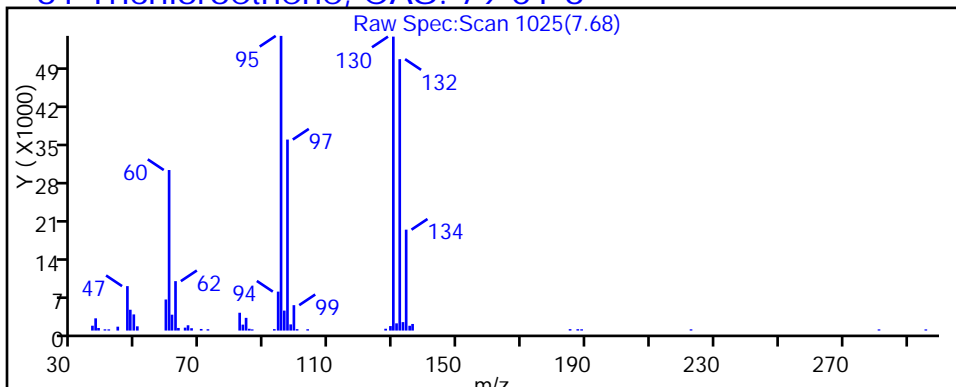
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005020.D

Injection Date: 05-Oct-2015 17:46:30

Instrument ID: CHHP6

Lims ID: 180-48181-C-7

Lab Sample ID: 180-48181-7

Client ID: HD-MW-37D-0/1-0

Operator ID: 001562

ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 40.0000

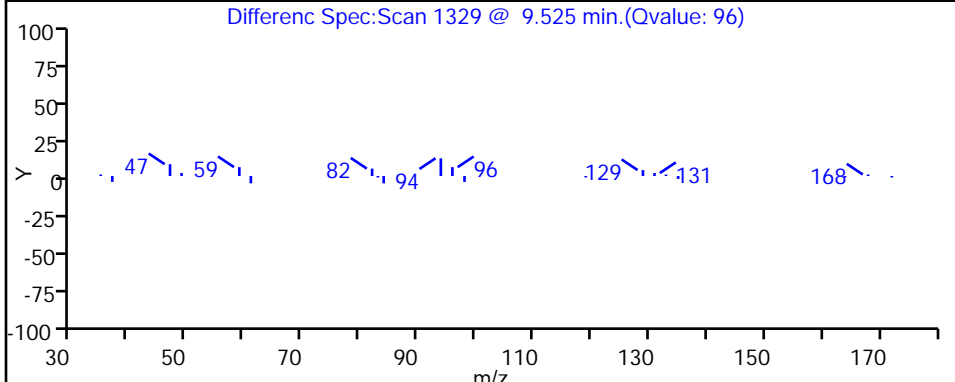
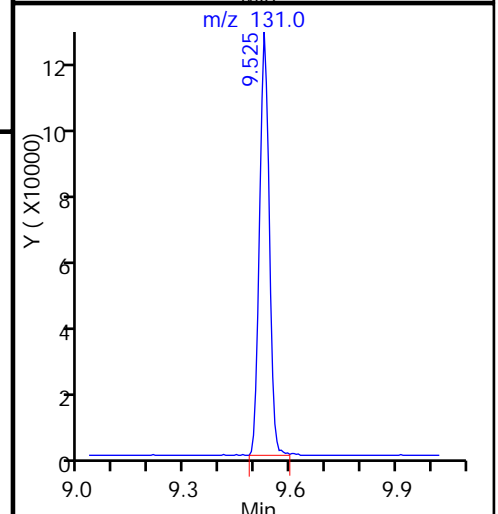
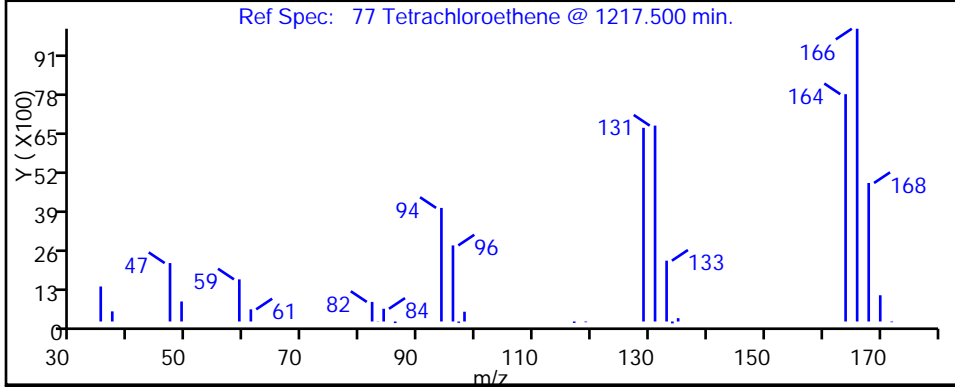
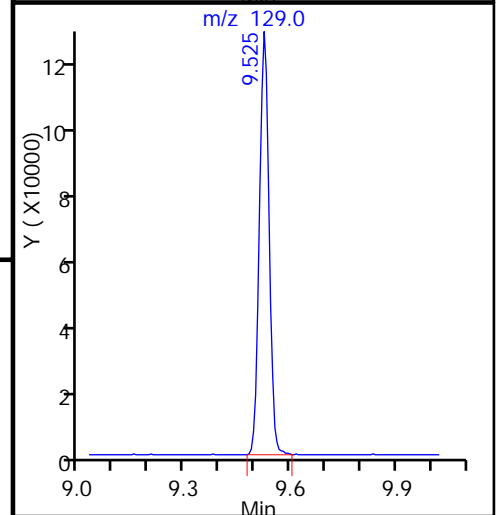
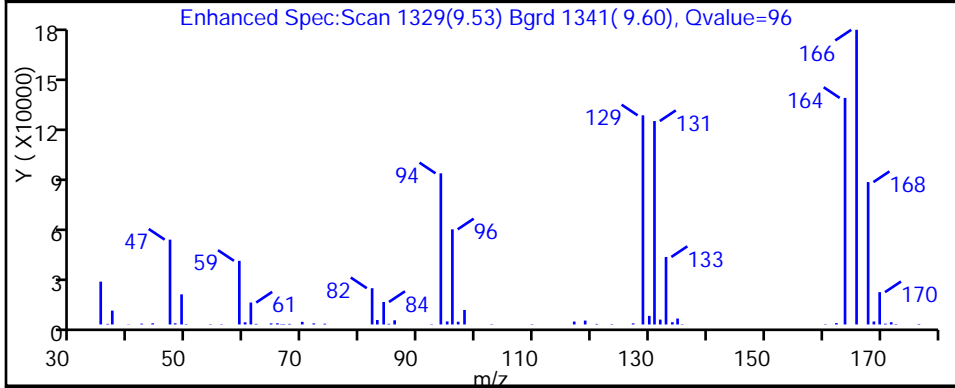
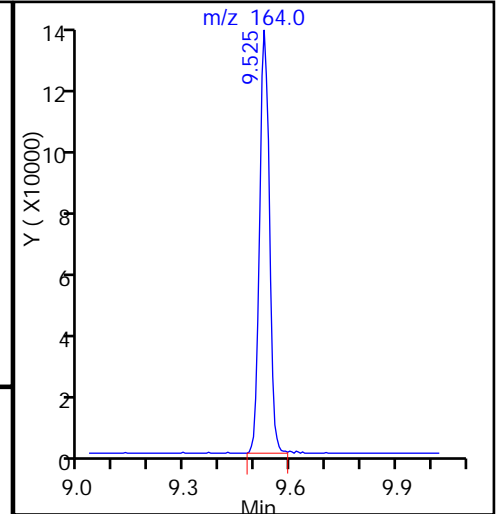
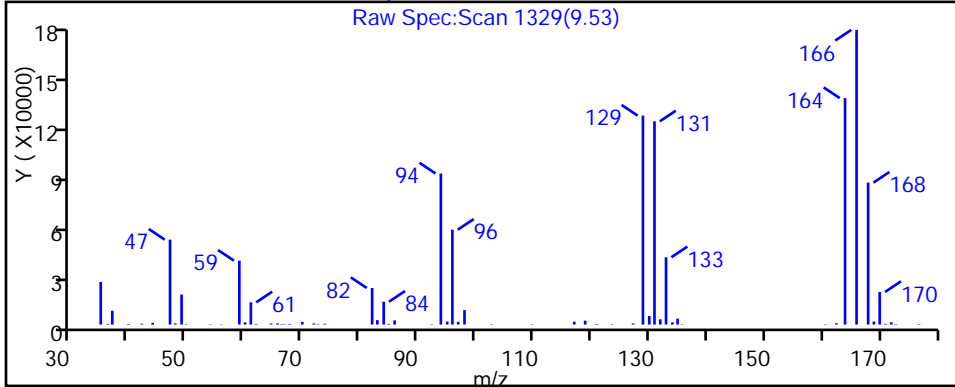
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-1 Lab Sample ID: 180-48181-8
 Matrix: Water Lab File ID: 61005021.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 18:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 0.77 | J | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.1 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 22 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 6.0 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 31 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 87 | E | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-1 Lab Sample ID: 180-48181-8
 Matrix: Water Lab File ID: 61005021.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 18:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 106 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 83 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 109 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D
 Lims ID: 180-48181-A-8 Lab Sample ID: 180-48181-8
 Client ID: HD-QC3-0/1-1
 Sample Type: Client
 Inject. Date: 05-Oct-2015 18:10:30 ALS Bottle#: 21 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-8
 Misc. Info.: 180-0008826-021
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 09:21:02 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 09:21:02

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.232 | 4.230 | 0.002 | 93 | 178621 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.292 | 7.290 | 0.002 | 97 | 412104 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.394 | 10.399 | -0.005 | 92 | 107887 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.748 | 12.747 | 0.001 | 98 | 176422 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.555 | 6.550 | 0.005 | 92 | 103125 | 54.3 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.933 | 6.928 | 0.005 | 70 | 161883 | 52.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.940 | 8.941 | -0.001 | 94 | 402104 | 47.3 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.586 | 11.587 | -0.001 | 87 | 156042 | 41.3 | |
| 12 Chloromethane | 50 | | 1.769 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.903 | | | | ND | |
| 15 Bromomethane | 94 | | 2.243 | | | | ND | |
| 16 Chloroethane | 64 | | 2.377 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.343 | 3.326 | 0.017 | 96 | 7945 | 3.83 | |
| 24 Acetone | 43 | | 3.430 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.630 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.117 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.500 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | 4.572 | 4.555 | 0.017 | 19 | 1620 | 0.6767 | |
| 35 Methyl tert-butyl ether | 73 | | 4.573 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.205 | 5.194 | 0.011 | 1 | 24580 | 5.74 | M |
| 43 cis-1,2-Dichloroethene | 96 | 5.947 | 5.942 | 0.005 | 82 | 281611 | 108.2 | |
| 44 2-Butanone (MEK) | 43 | | 5.948 | | | | ND | |
| 48 Chlorobromomethane | 128 | | 6.228 | | | | ND | |
| 50 Chloroform | 83 | 6.379 | 6.368 | 0.011 | 21 | 1725 | 0.4055 | |
| 51 1,1,1-Trichloroethane | 97 | 6.543 | 6.532 | 0.011 | 95 | 94691 | 30.1 | |
| 53 Carbon tetrachloride | 117 | | 6.715 | | | | ND | |
| 56 Benzene | 78 | | 6.940 | | | | ND | |
| 57 1,2-Dichloroethane | 62 | | 7.013 | | | | ND | |
| 61 Trichloroethene | 130 | 7.681 | 7.676 | 0.005 | 96 | 313589 | 156.6 | |
| 64 1,2-Dichloropropane | 63 | | 7.950 | | | | ND | |
| 65 1,4-Dioxane | 88 | | 8.023 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| 68 Dichlorobromomethane | 83 | | 8.229 | | | | ND | |
| 71 cis-1,3-Dichloropropene | 75 | | 8.680 | | | | ND | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | | 8.826 | | | | ND | |
| 73 Toluene | 91 | | 9.008 | | | | ND | |
| 74 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | ND | |
| 76 1,1,2-Trichloroethane | 97 | | 9.452 | | | | ND | |
| 77 Tetrachloroethene | 164 | 9.524 | 9.525 | -0.001 | 94 | 821524 | 432.7 | E |
| 79 2-Hexanone | 43 | | 9.659 | | | | ND | |
| 81 Chlorodibromomethane | 129 | | 9.823 | | | | ND | |
| 82 Ethylene Dibromide | 107 | | 9.939 | | | | ND | |
| 84 Chlorobenzene | 112 | 10.431 | 10.426 | 0.005 | 33 | 2418 | 0.3534 | M |
| 86 1,1,1,2-Tetrachloroethane | 131 | | 10.523 | | | | ND | |
| 87 Ethylbenzene | 106 | | 10.529 | | | | ND | |
| 88 m-Xylene & p-Xylene | 106 | | 10.657 | | | | ND | |
| 89 o-Xylene | 106 | | 11.040 | | | | ND | |
| 90 Styrene | 104 | | 11.058 | | | | ND | |
| 91 Bromoform | 173 | | 11.247 | | | | ND | |
| 96 1,1,2,2-Tetrachloroethane | 83 | | 11.715 | | | | ND | |
| S 131 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Worklist Smp#: 21

Client ID: HD-QC3-0/1-1

Purge Vol: 5.000 mL

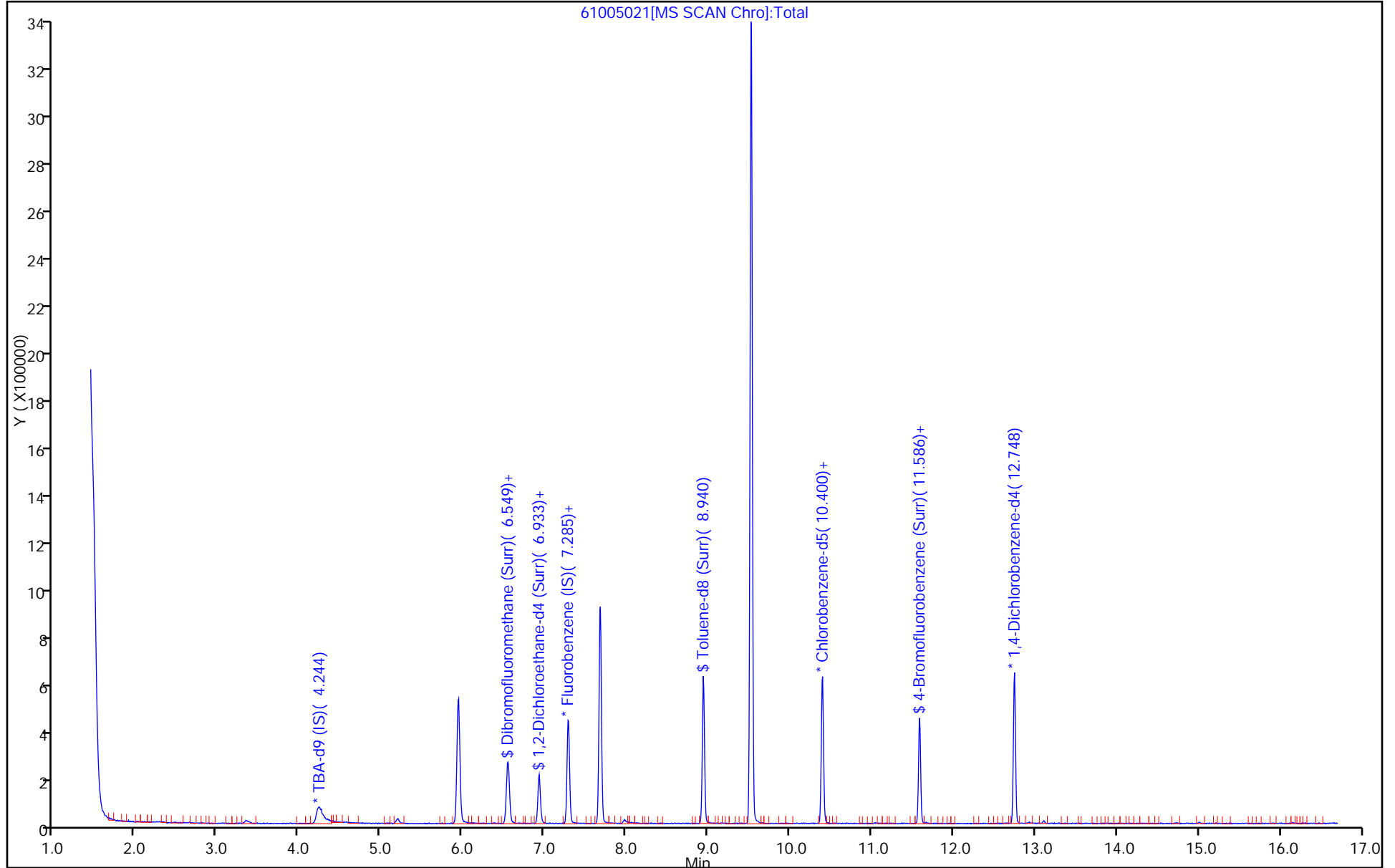
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

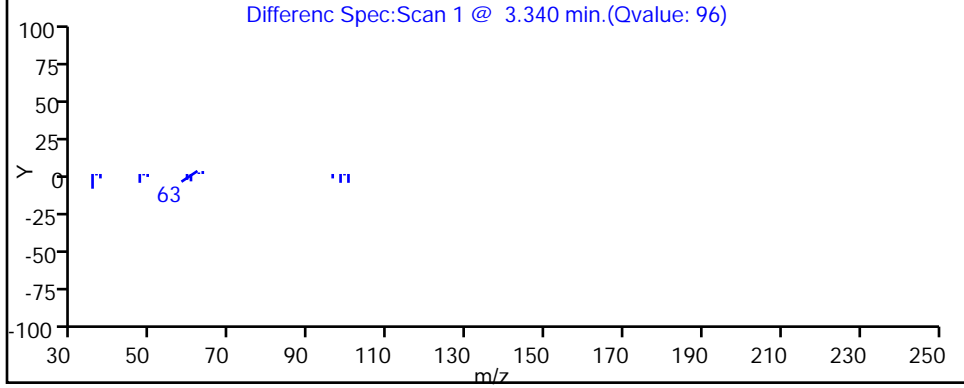
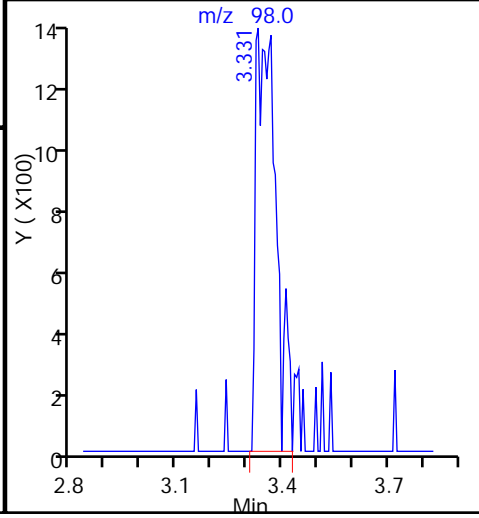
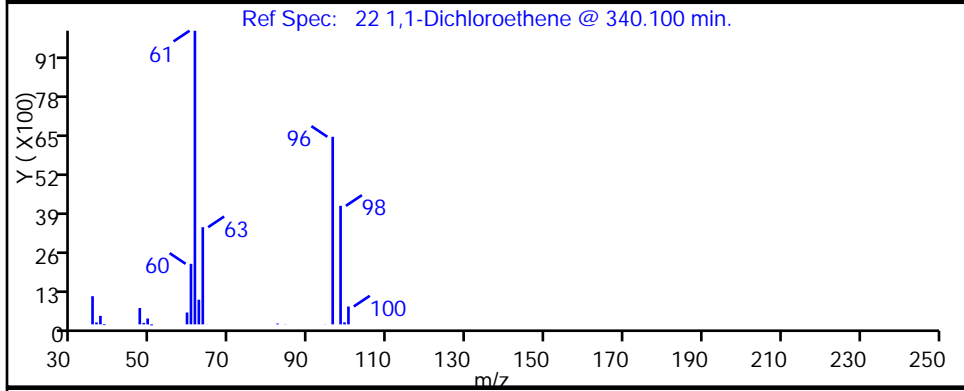
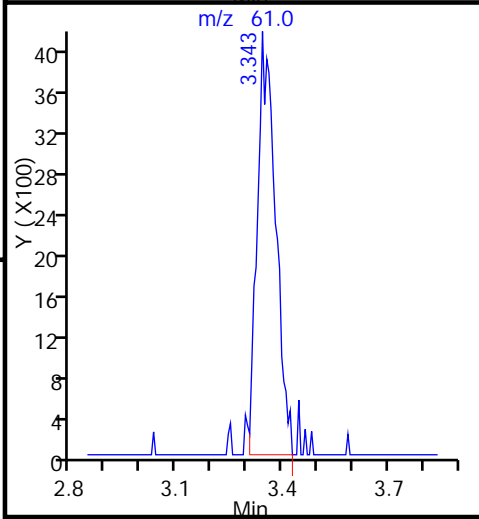
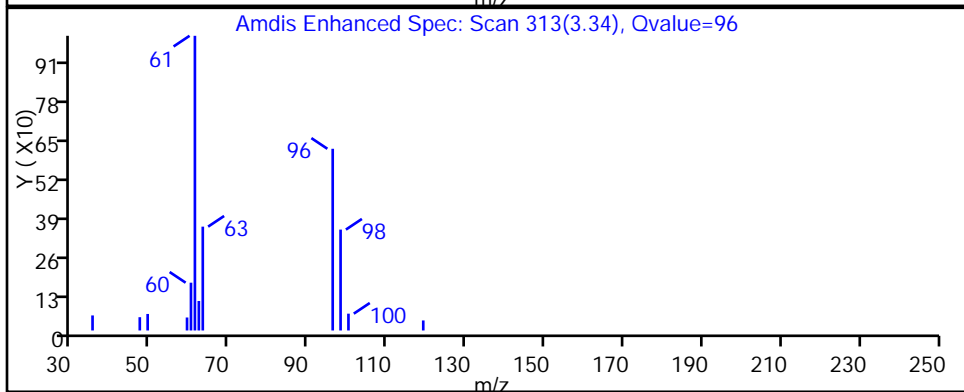
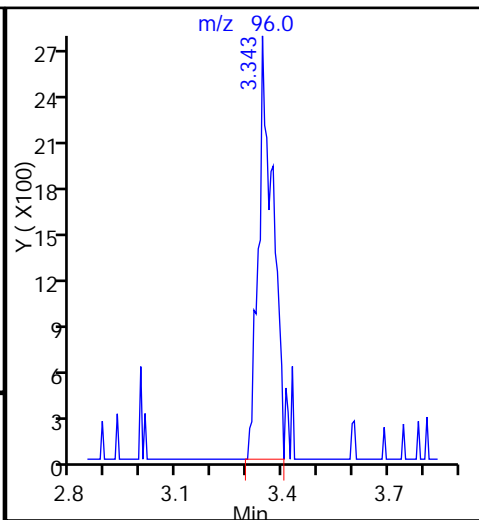
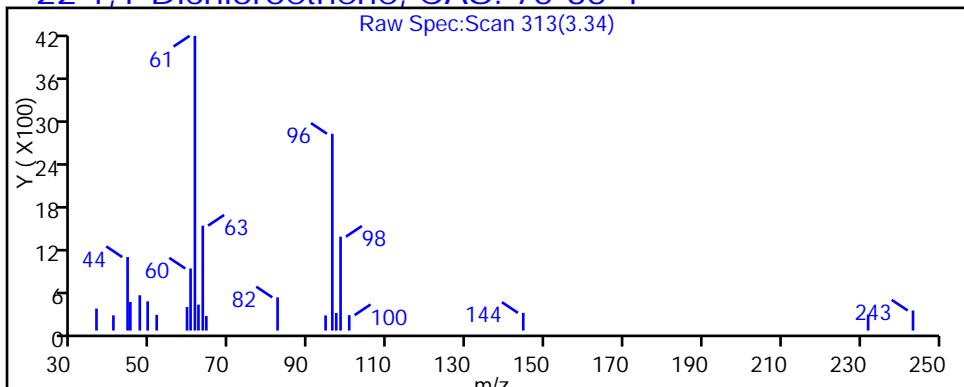
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

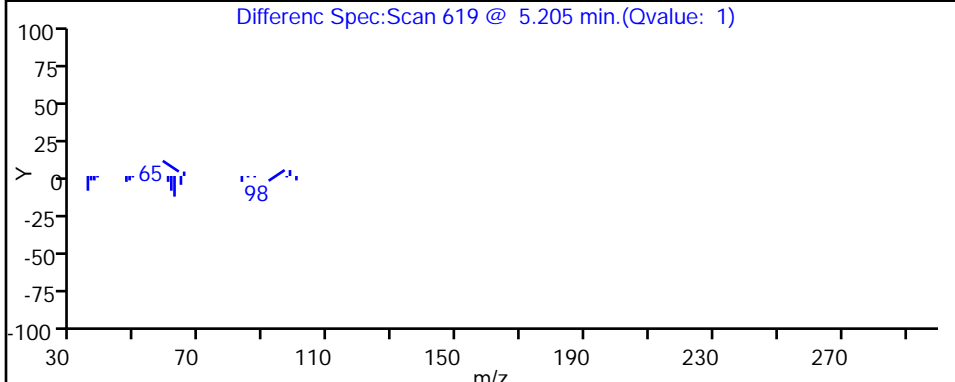
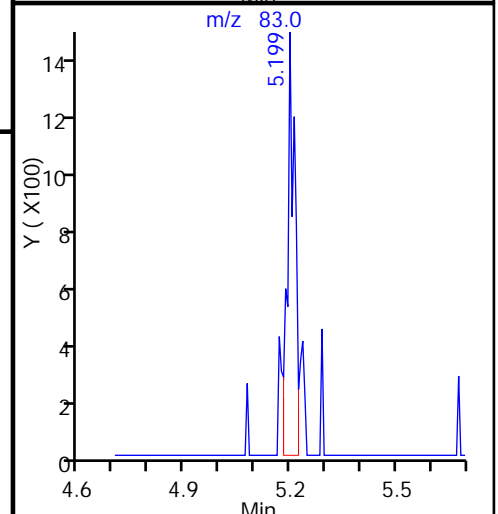
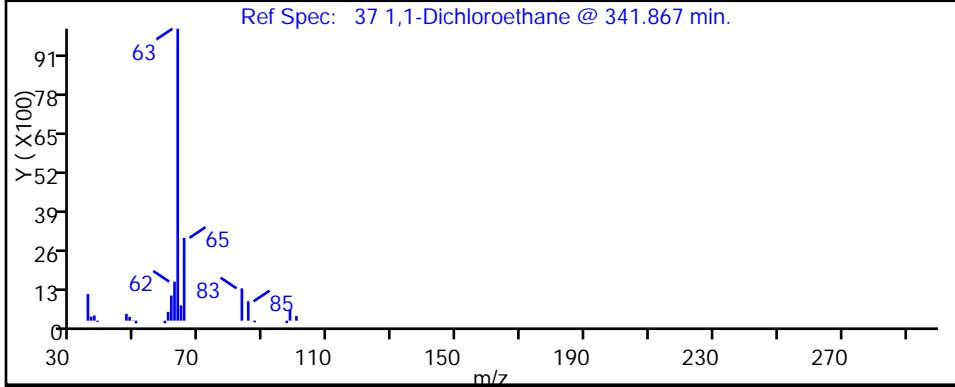
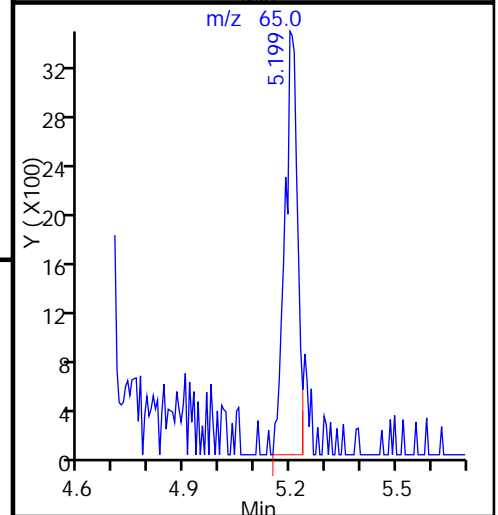
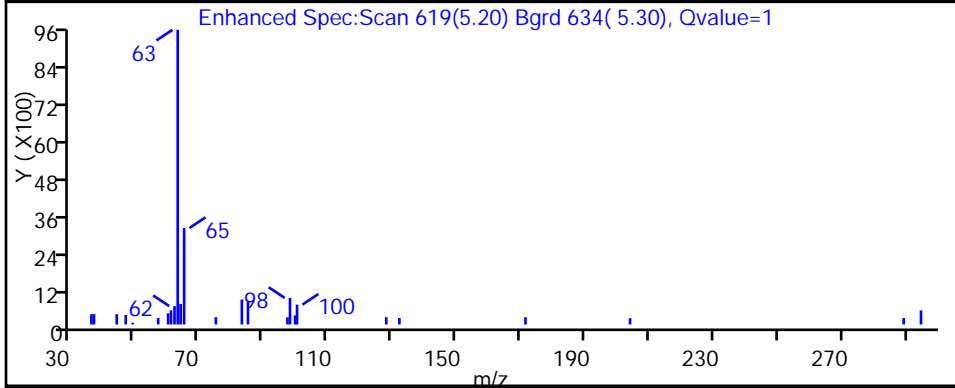
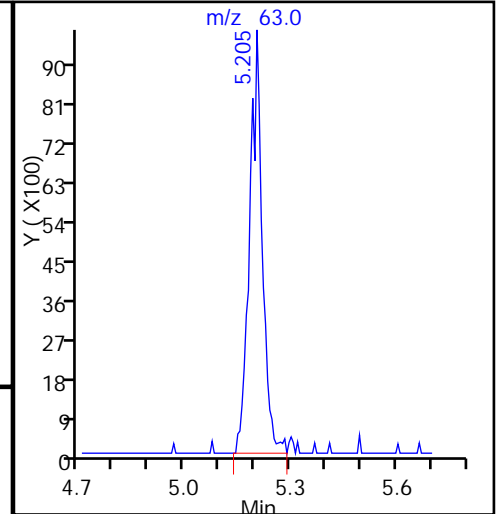
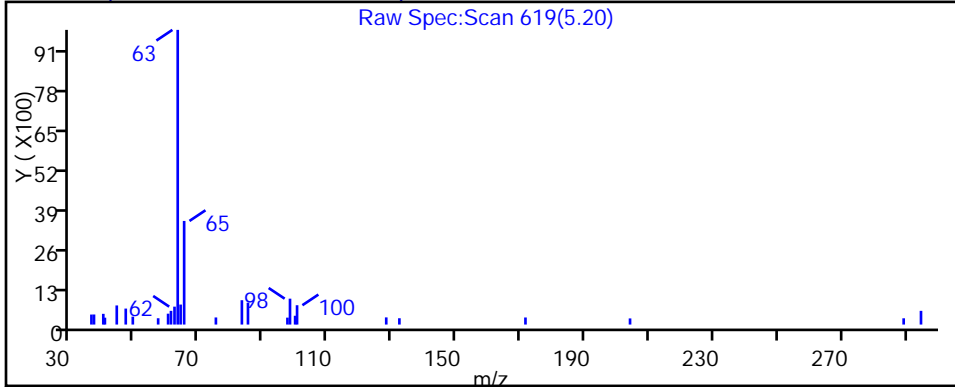
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

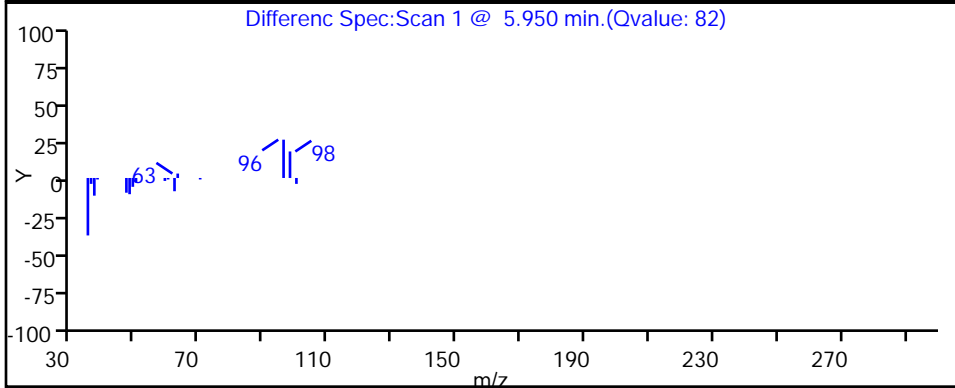
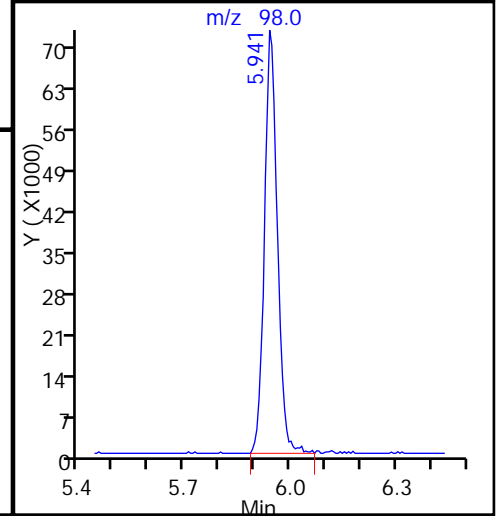
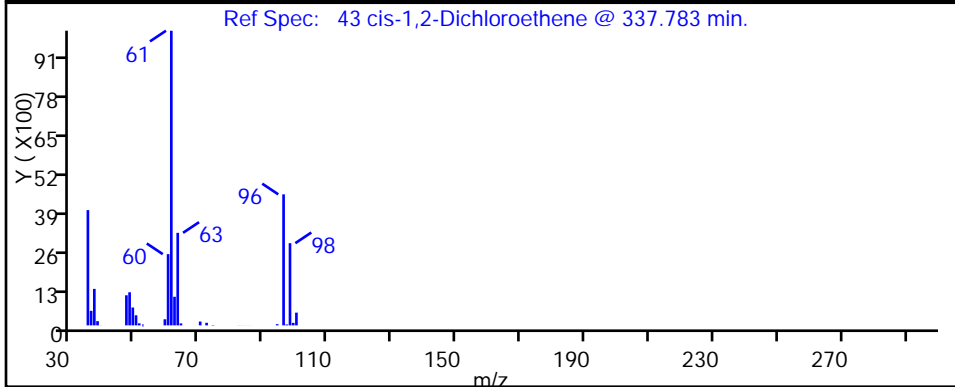
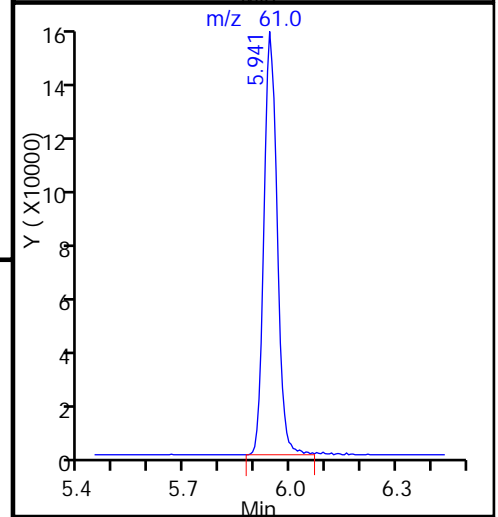
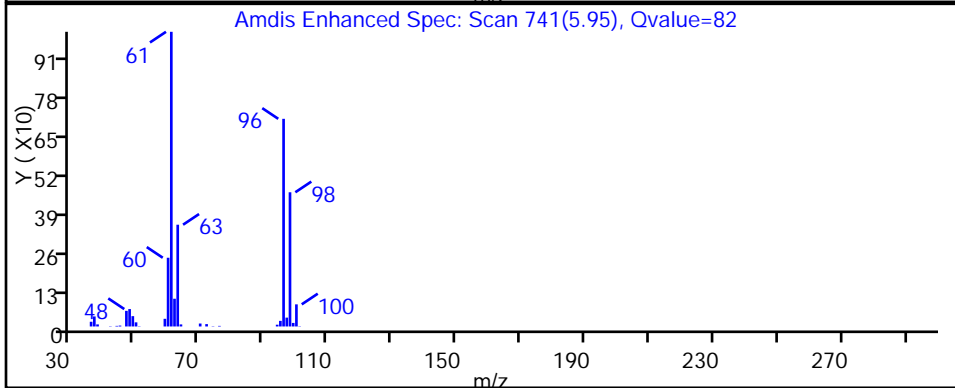
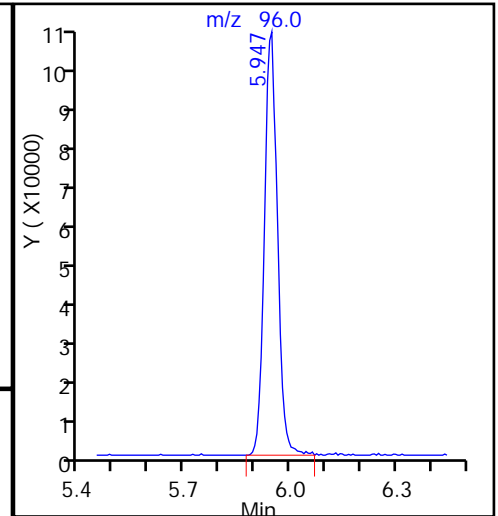
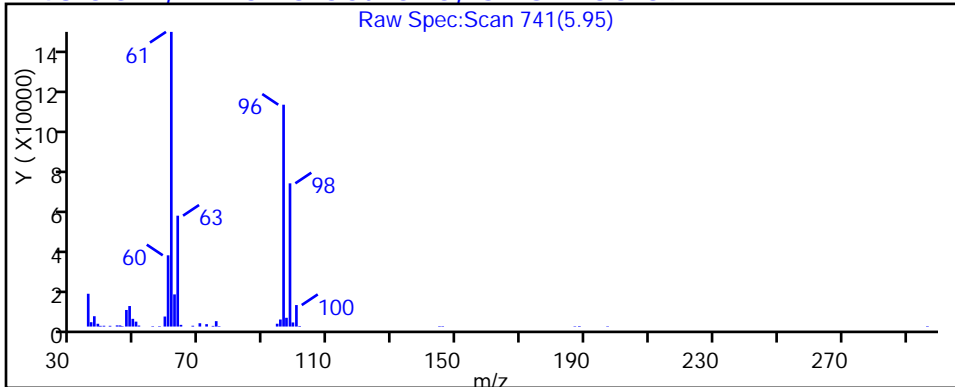
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

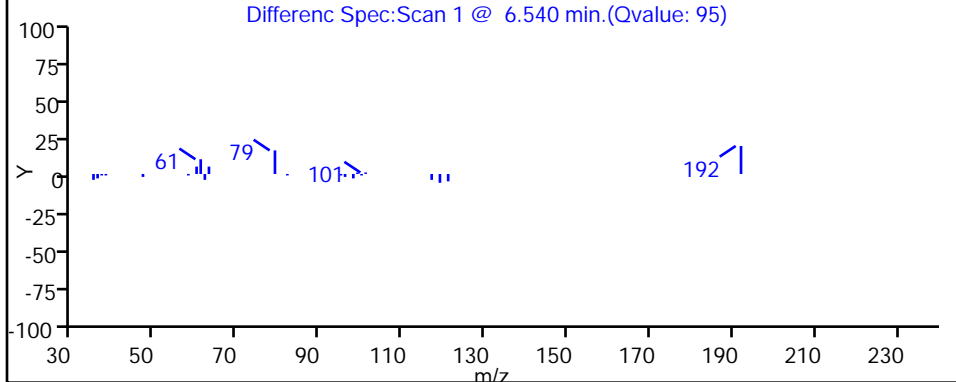
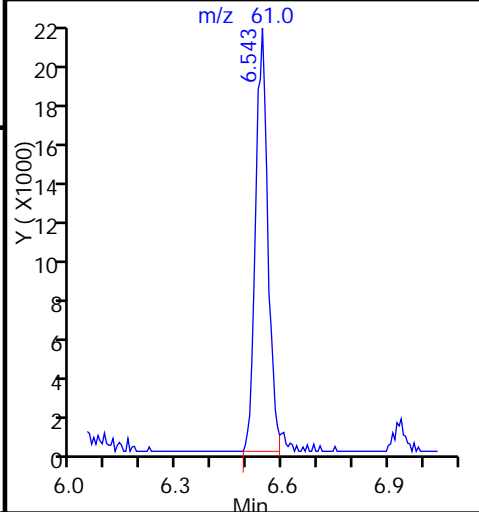
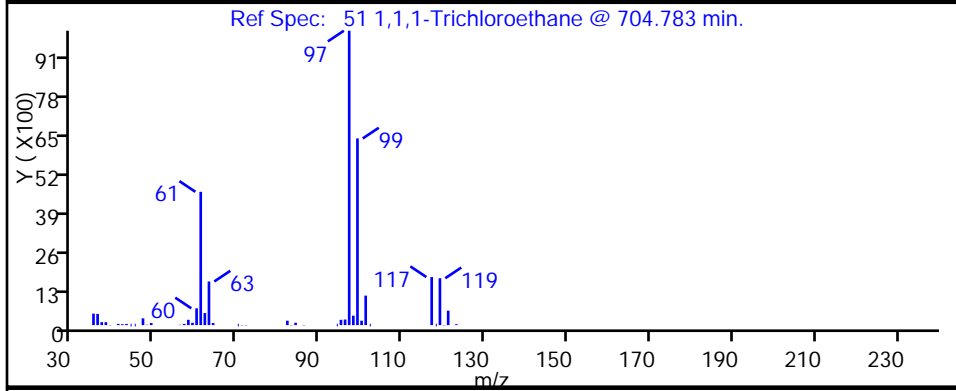
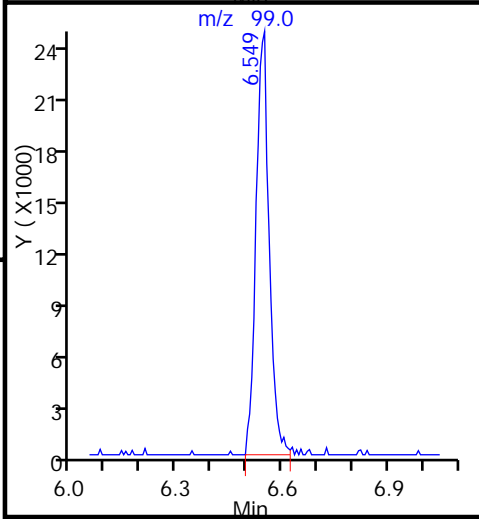
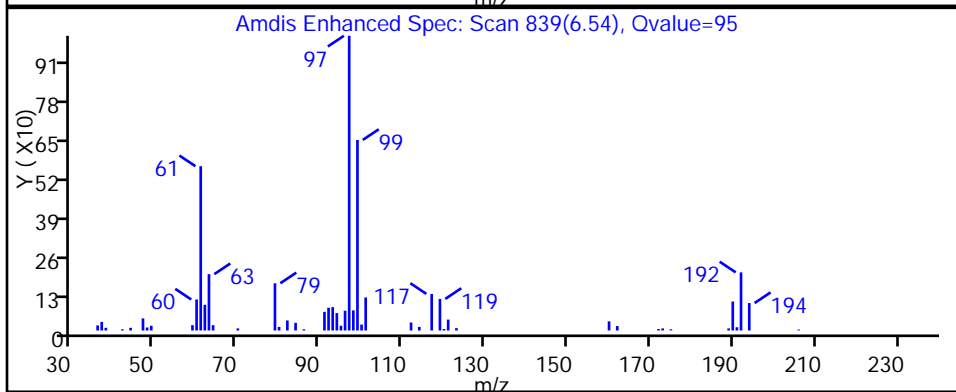
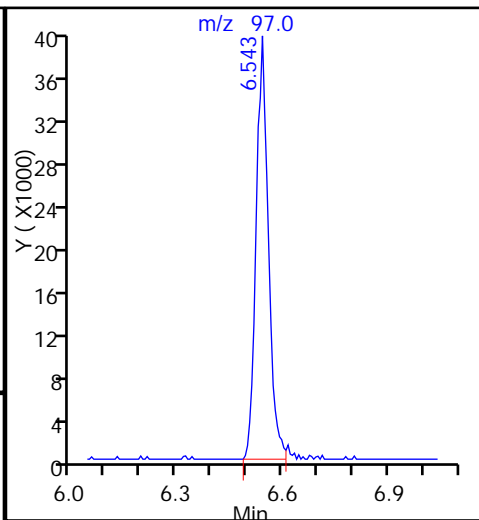
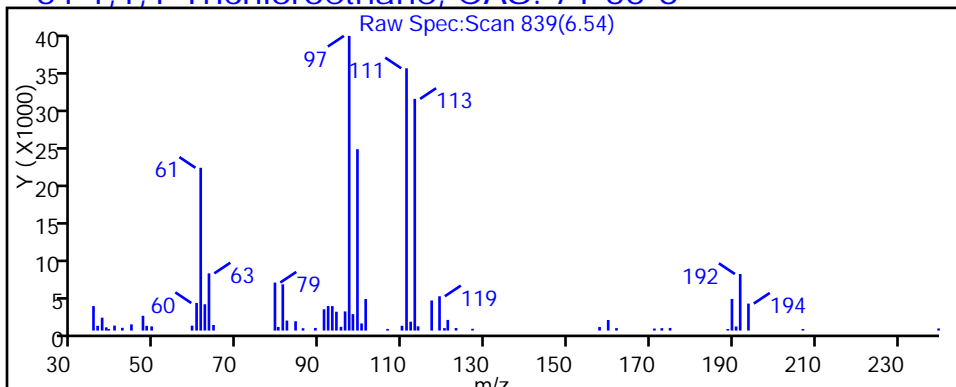
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

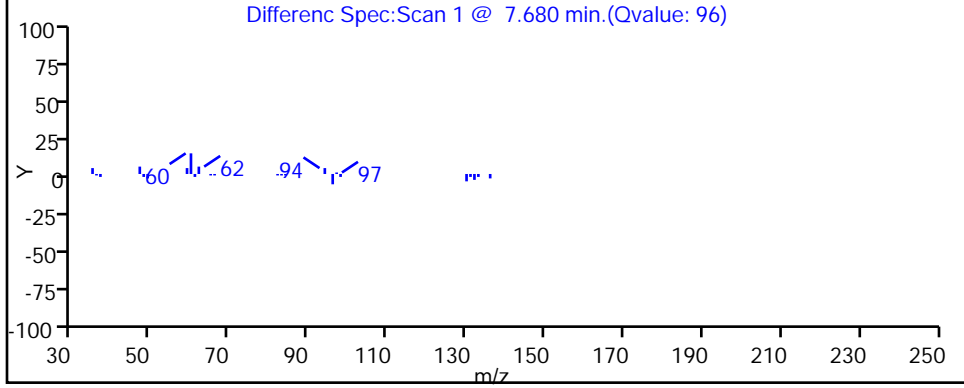
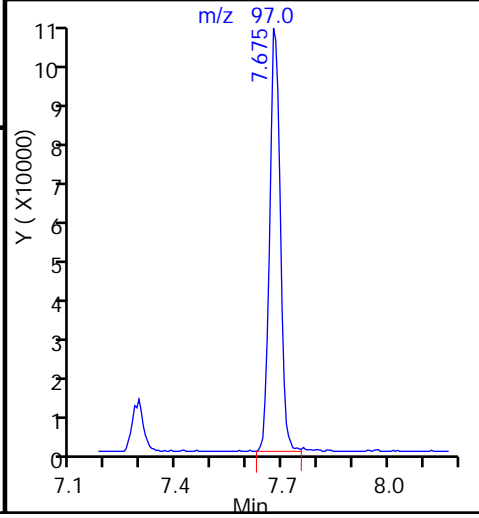
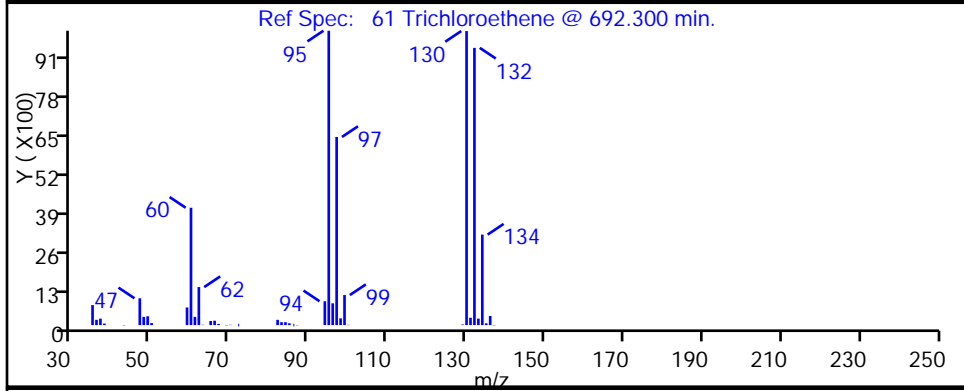
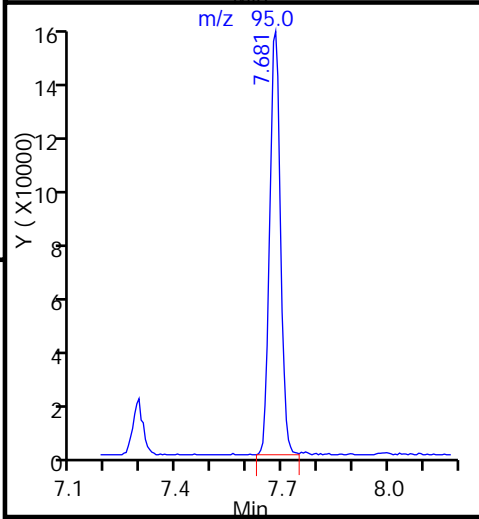
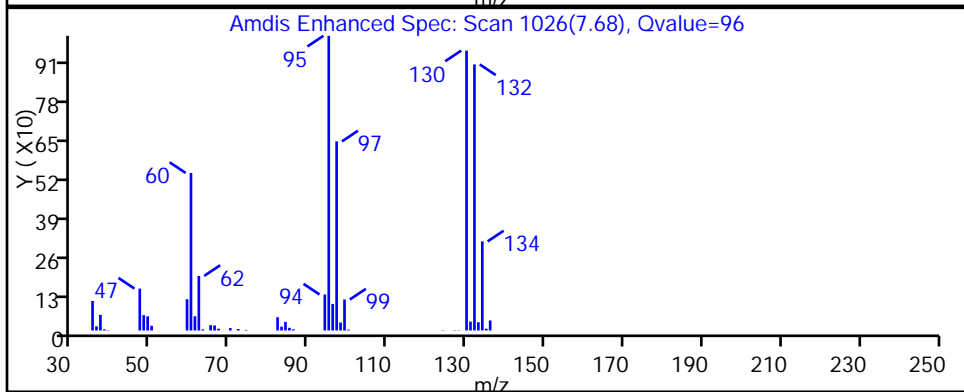
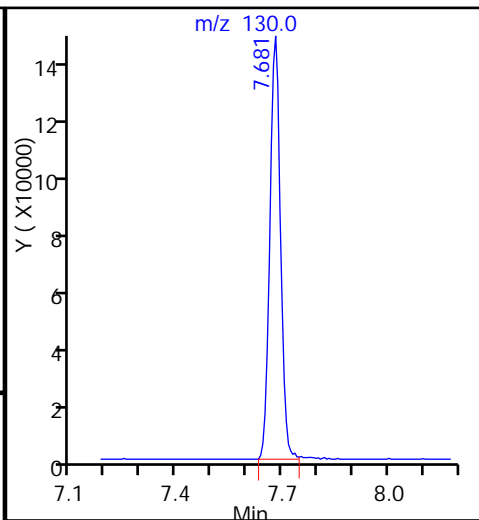
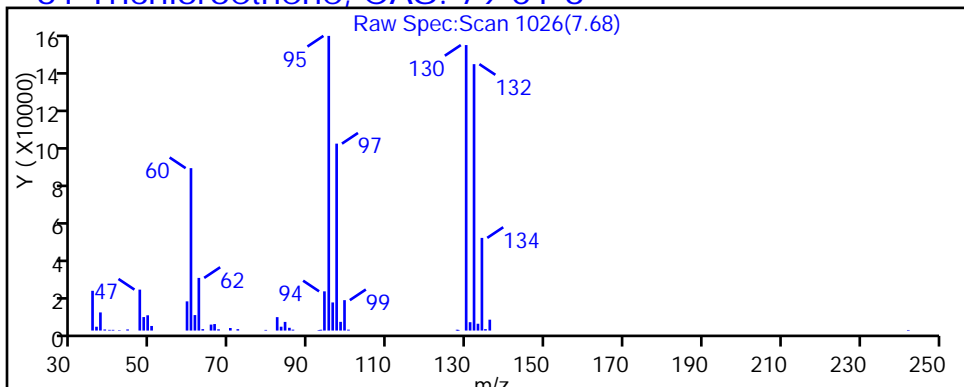
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D

Injection Date: 05-Oct-2015 18:10:30

Instrument ID: CHHP6

Lims ID: 180-48181-A-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

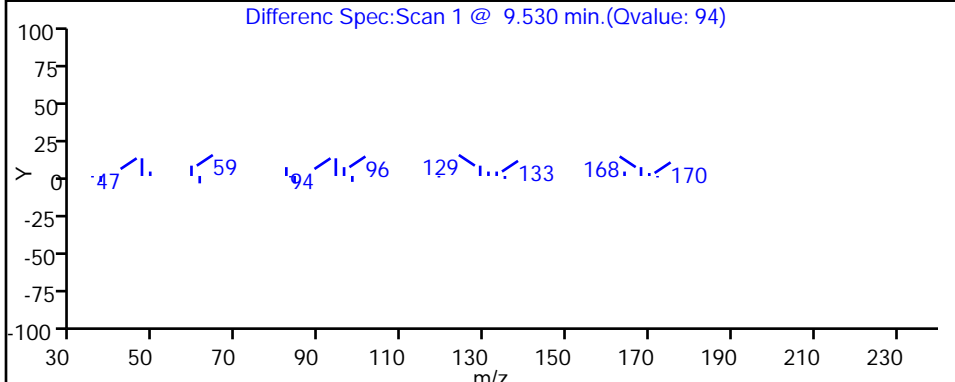
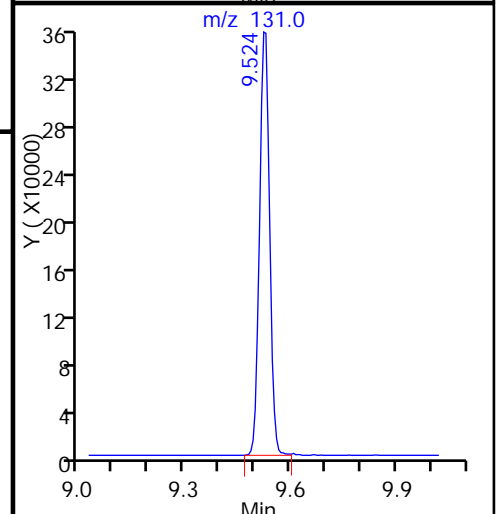
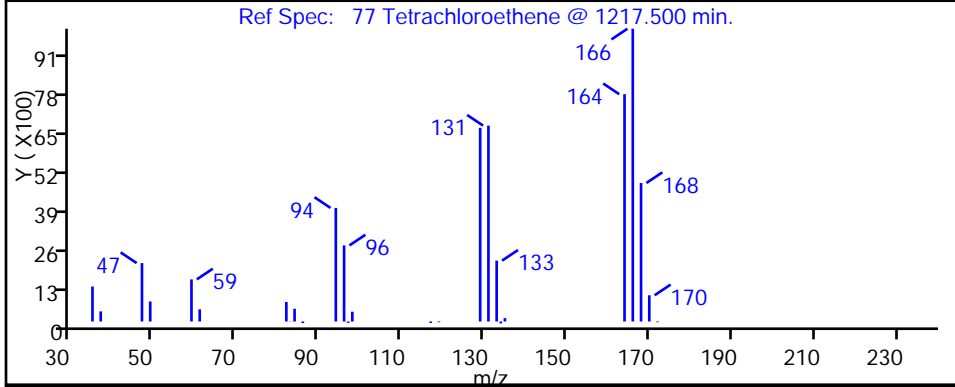
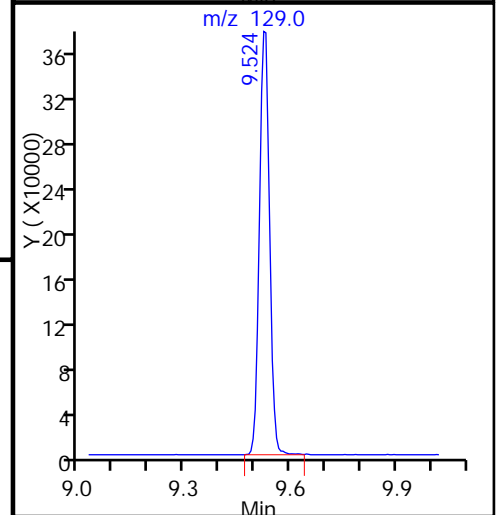
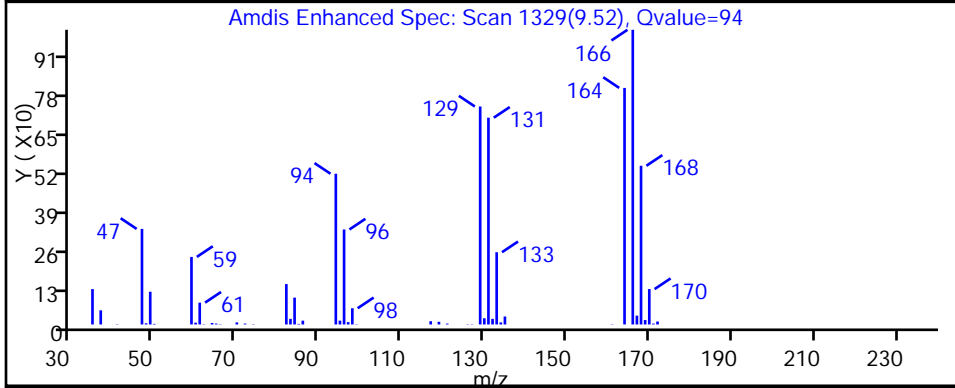
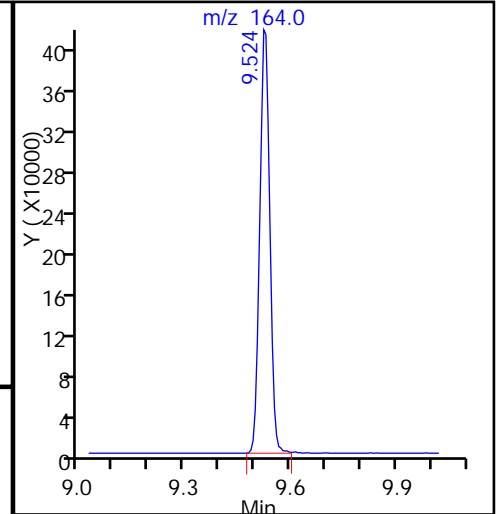
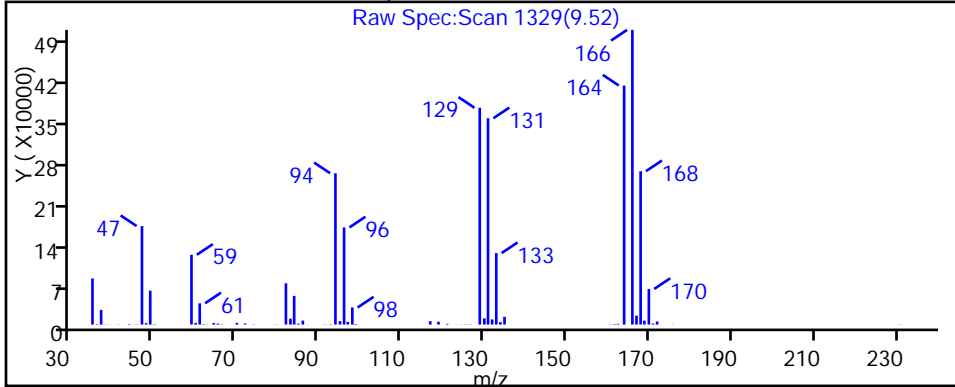
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



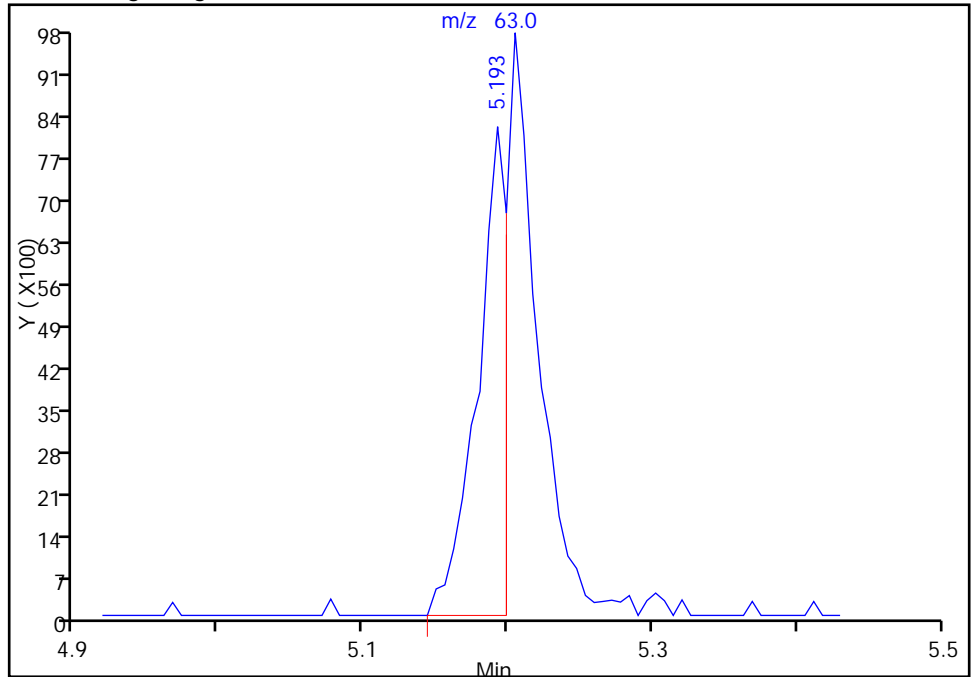
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D
Injection Date: 05-Oct-2015 18:10:30 Instrument ID: CHHP6
Lims ID: 180-48181-A-8 Lab Sample ID: 180-48181-8
Client ID: HD-QC3-0/1-1
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

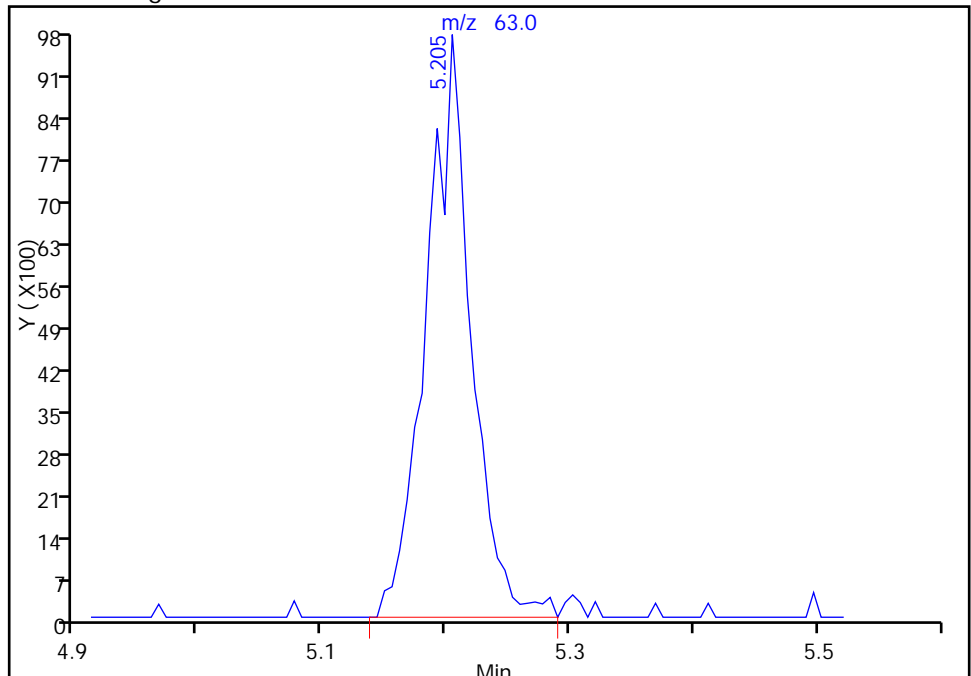
RT: 5.19
Area: 11801
Amount: 2.753510
Amount Units: ng

Processing Integration Results



RT: 5.20
Area: 24580
Amount: 5.735216
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 06-Oct-2015 09:21:02
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

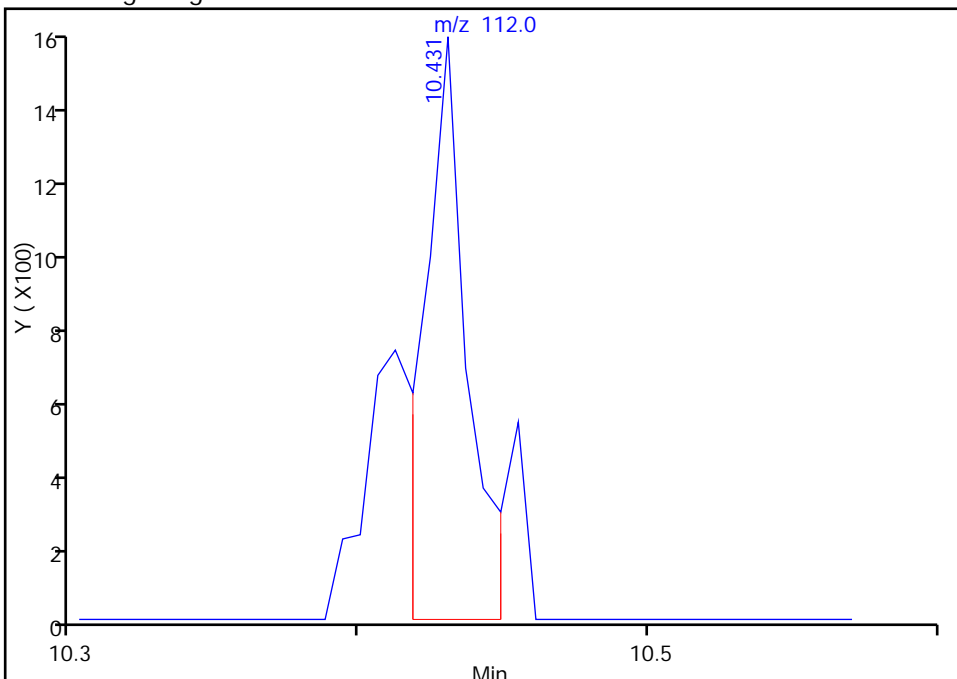
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005021.D
Injection Date: 05-Oct-2015 18:10:30 Instrument ID: CHHP6
Lims ID: 180-48181-A-8 Lab Sample ID: 180-48181-8
Client ID: HD-QC3-0/1-1
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

84 Chlorobenzene, CAS: 108-90-7

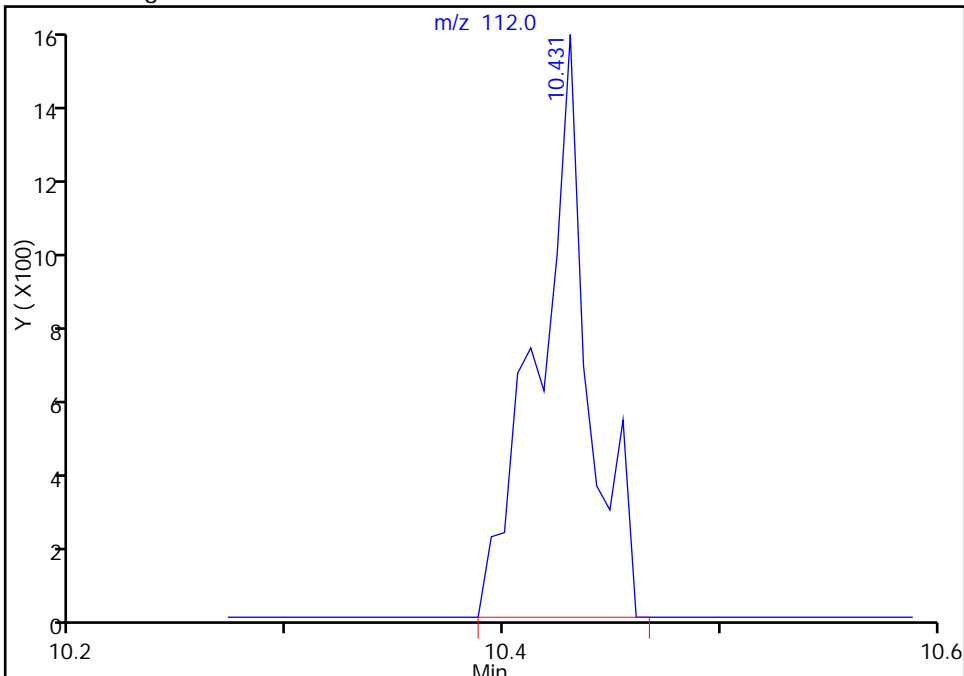
RT: 10.43
Area: 1584
Amount: 0.231496
Amount Units: ng

Processing Integration Results



RT: 10.43
Area: 2418
Amount: 0.353382
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 06-Oct-2015 09:21:02
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-1 DL Lab Sample ID: 180-48181-8 DL
 Matrix: Water Lab File ID: 51006018.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 19:08
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|------|-----|------|
| 74-87-3 | Chloromethane | 5.0 | U | 5.0 | 1.4 |
| 75-01-4 | Vinyl chloride | 5.0 | U | 5.0 | 1.1 |
| 74-83-9 | Bromomethane | 5.0 | U | 5.0 | 1.6 |
| 75-00-3 | Chloroethane | 5.0 | U ^c | 5.0 | 1.1 |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U | 5.0 | 1.5 |
| 67-64-1 | Acetone | 25 | U | 25 | 13 |
| 75-15-0 | Carbon disulfide | 5.0 | U | 5.0 | 1.1 |
| 75-09-2 | Methylene Chloride | 5.0 | U | 5.0 | 0.63 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 0.85 |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | U | 5.0 | 0.92 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | J | 5.0 | 0.58 |
| 156-59-2 | cis-1,2-Dichloroethene | 21 | | 5.0 | 1.2 |
| 74-97-5 | Bromochloromethane | 5.0 | U | 5.0 | 0.90 |
| 78-93-3 | 2-Butanone (MEK) | 25 | U | 25 | 2.7 |
| 67-66-3 | Chloroform | 5.0 | U | 5.0 | 0.85 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.2 | | 5.0 | 1.4 |
| 56-23-5 | Carbon tetrachloride | 5.0 | U | 5.0 | 0.68 |
| 71-43-2 | Benzene | 5.0 | U | 5.0 | 0.53 |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | U | 5.0 | 1.1 |
| 79-01-6 | Trichloroethene | 26 | | 5.0 | 0.72 |
| 78-87-5 | 1,2-Dichloropropane | 5.0 | U | 5.0 | 0.47 |
| 75-27-4 | Bromodichloromethane | 5.0 | U | 5.0 | 0.65 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.93 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 25 | U | 25 | 2.6 |
| 108-88-3 | Toluene | 5.0 | U | 5.0 | 0.75 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | U | 5.0 | 0.74 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | U | 5.0 | 1.0 |
| 127-18-4 | Tetrachloroethene | 82 | | 5.0 | 0.74 |
| 591-78-6 | 2-Hexanone | 25 | U | 25 | 0.80 |
| 124-48-1 | Dibromochloromethane | 5.0 | U | 5.0 | 0.68 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 5.0 | U | 5.0 | 0.90 |
| 108-90-7 | Chlorobenzene | 5.0 | U | 5.0 | 0.68 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.0 | U | 5.0 | 1.4 |
| 100-41-4 | Ethylbenzene | 5.0 | U | 5.0 | 1.1 |
| 1330-20-7 | Xylenes, Total | 15 | U | 15 | 2.4 |
| 100-42-5 | Styrene | 5.0 | U | 5.0 | 0.48 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-1 DL Lab Sample ID: 180-48181-8 DL
 Matrix: Water Lab File ID: 51006018.D
 Analysis Method: 8260C Date Collected: 09/25/2015 08:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 19:08
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|----------------------------------|--------|---|------|------|
| 75-25-2 | <i>Bromoform</i> | 5.0 | U | 5.0 | 0.96 |
| 79-34-5 | <i>1,1,2,2-Tetrachloroethane</i> | 5.0 | U | 5.0 | 1.0 |
| 107-13-1 | <i>Acrylonitrile</i> | 100 | U | 100 | 2.7 |
| 123-91-1 | <i>1,4-Dioxane</i> | 1000 | U | 1000 | 170 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 96 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 90 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D
 Lims ID: 180-48181-B-8 Lab Sample ID: 180-48181-8
 Client ID: HD-QC3-0/1-1
 Sample Type: Client
 Inject. Date: 06-Oct-2015 19:08:30 ALS Bottle#: 16 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-48181-B-8, 5x
 Misc. Info.: 180-0008850-018
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 07-Oct-2015 07:56:24 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 07-Oct-2015 07:56:24

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.260 | 4.279 | -0.019 | 0 | 133712 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.296 | 7.290 | 0.006 | 99 | 278190 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 87 | 75395 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 94 | 108160 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.560 | 0.006 | 94 | 71350 | 52.2 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.937 | 0.000 | 0 | 89605 | 47.8 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 94 | 261503 | 45.0 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.573 | 0.000 | 91 | 93805 | 42.8 | |
| 12 Chloromethane | 50 | | 1.779 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | 3.403 | 3.348 | 0.055 | 0 | 883 | 0.5699 | M |
| 24 Acetone | 43 | | 3.451 | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | 5.197 | 5.204 | -0.007 | 1 | 3369 | 1.02 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.958 | 5.958 | 0.000 | 81 | 37662 | 21.0 | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | 6.554 | 6.542 | 0.012 | 89 | 10993 | 5.19 | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | ND | |
| 64 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 94 | 43331 | 25.8 | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.829 | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | ND | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.517 | -0.001 | 98 | 119138 | 82.2 | |
| 82 2-Hexanone | 43 | | 9.663 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Worklist Smp#: 18

Client ID: HD-QC3-0/1-1

Purge Vol: 5.000 mL

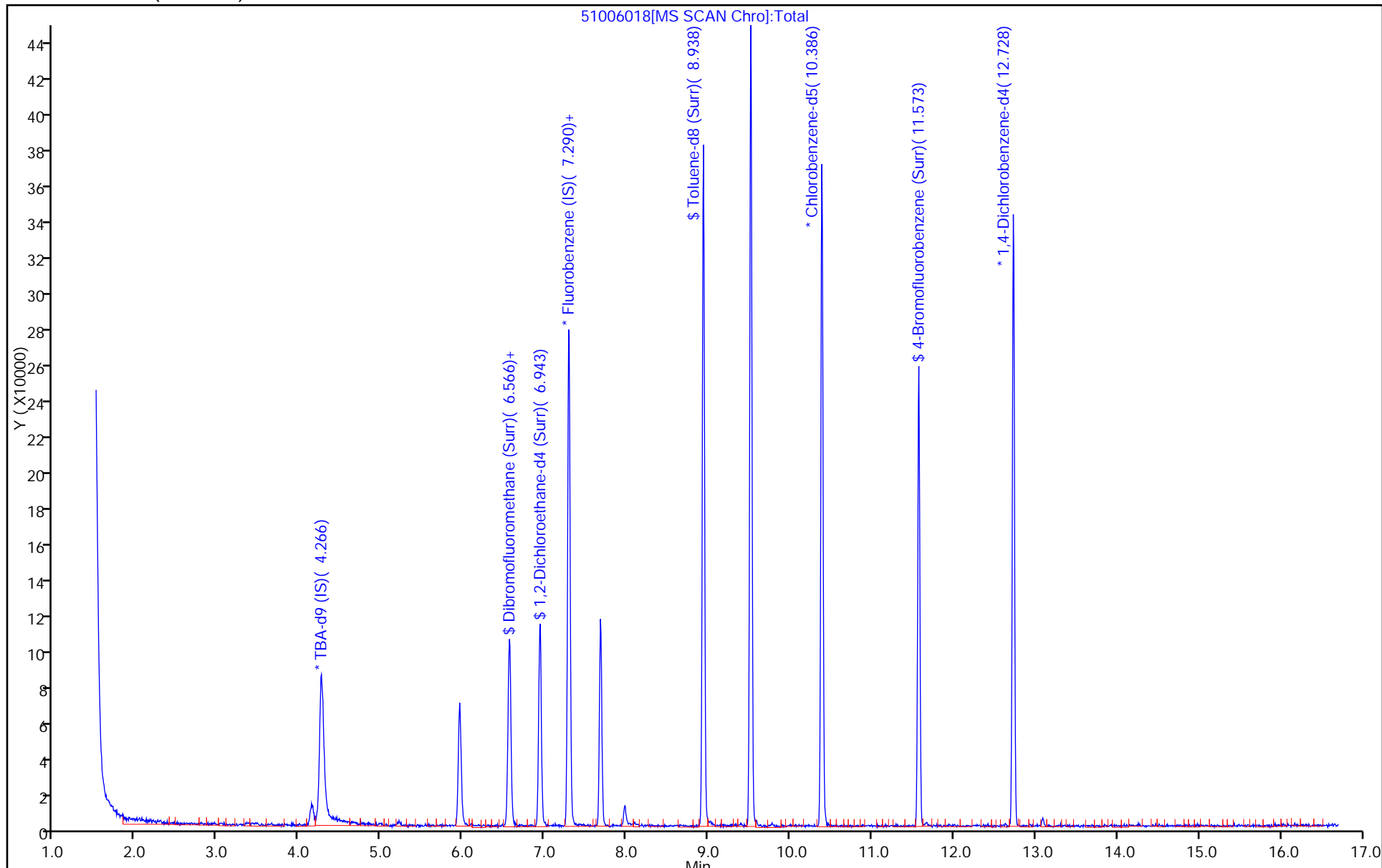
Dil. Factor: 5.0000

ALS Bottle#: 16

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

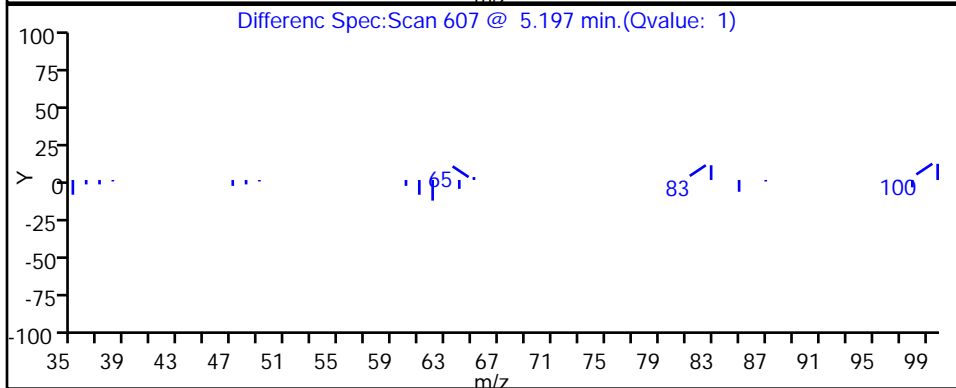
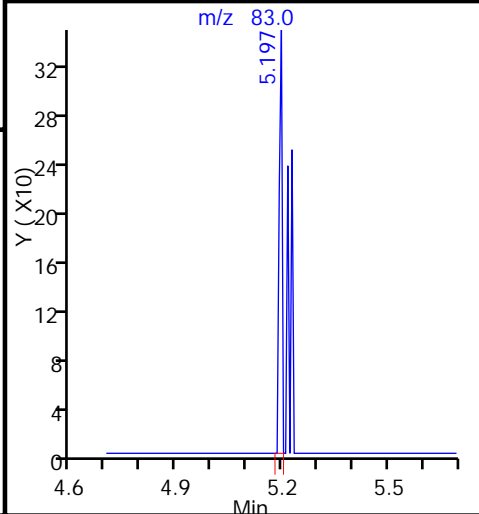
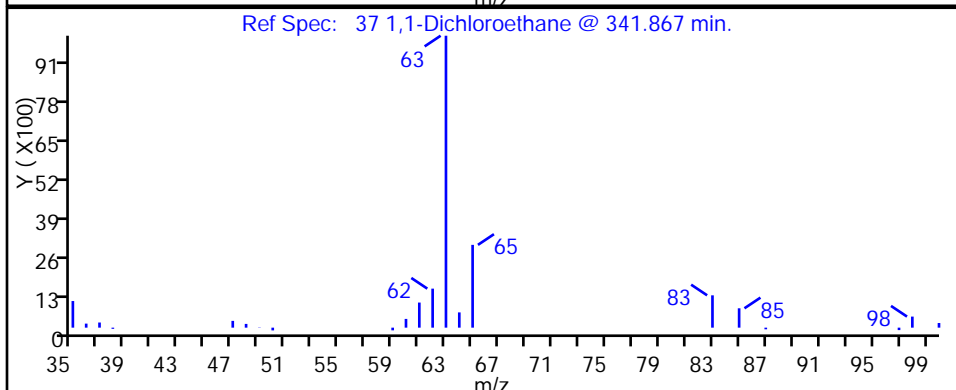
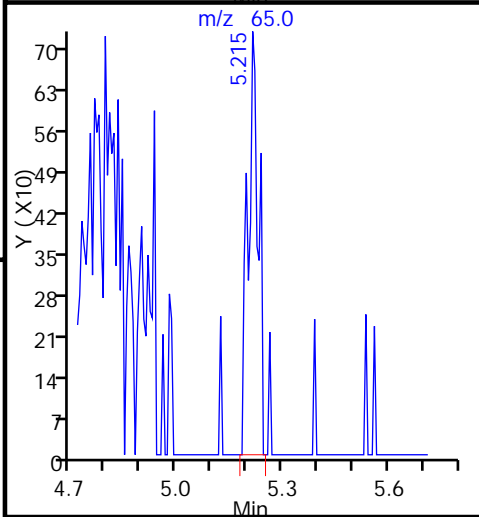
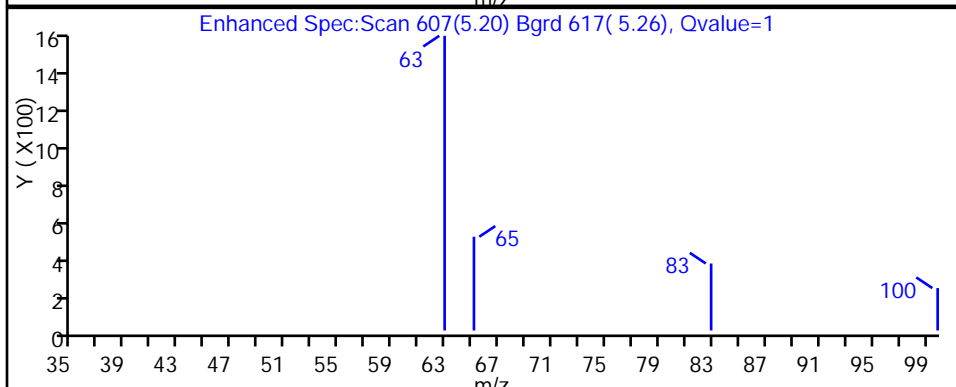
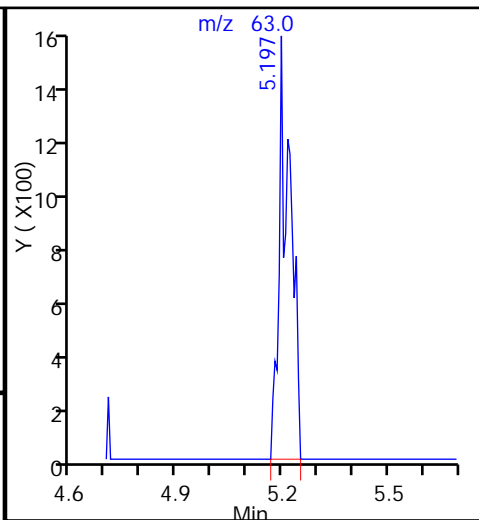
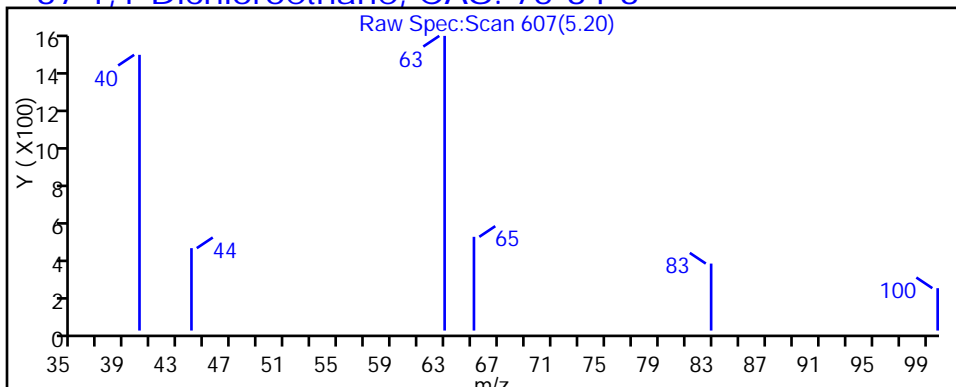
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

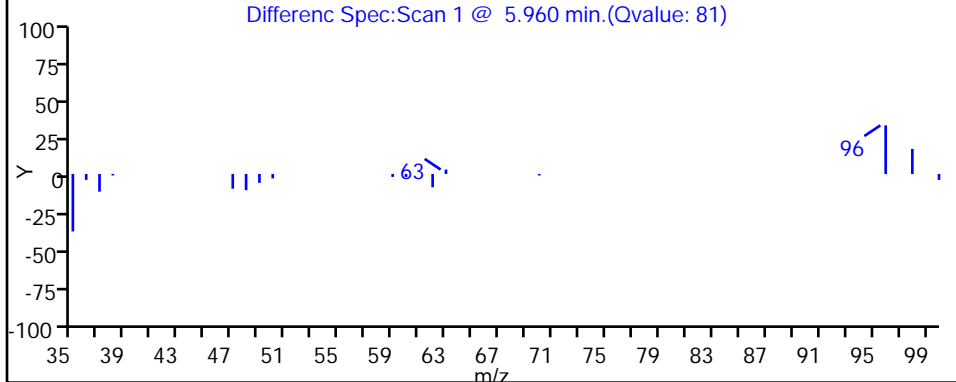
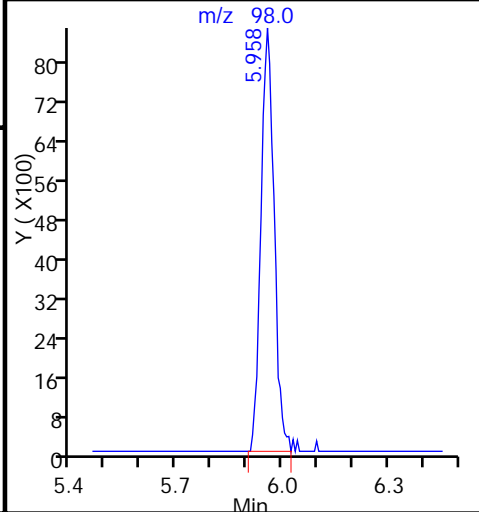
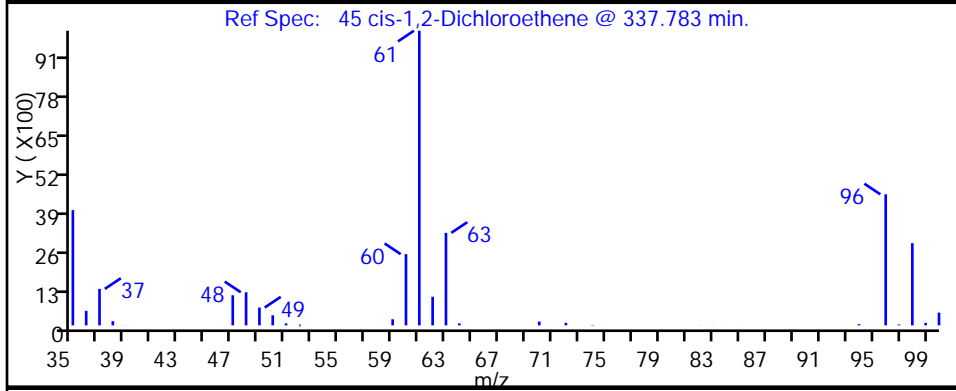
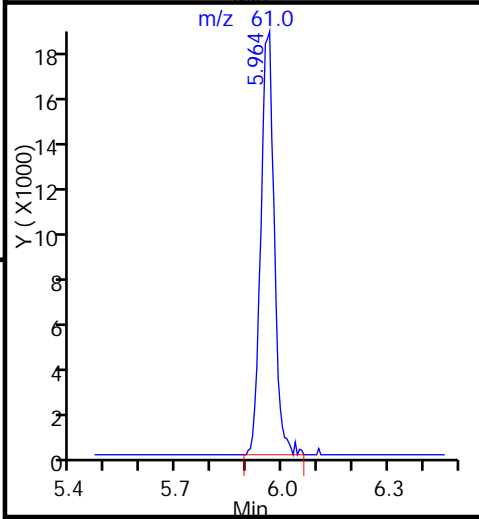
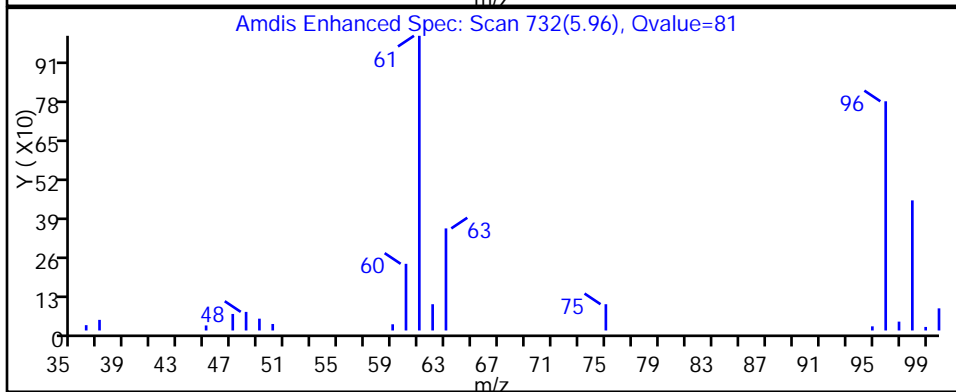
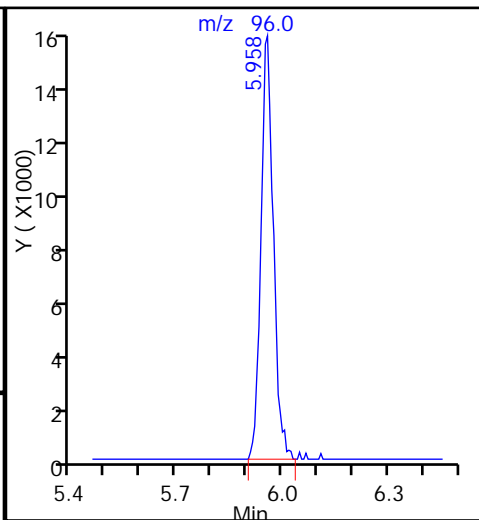
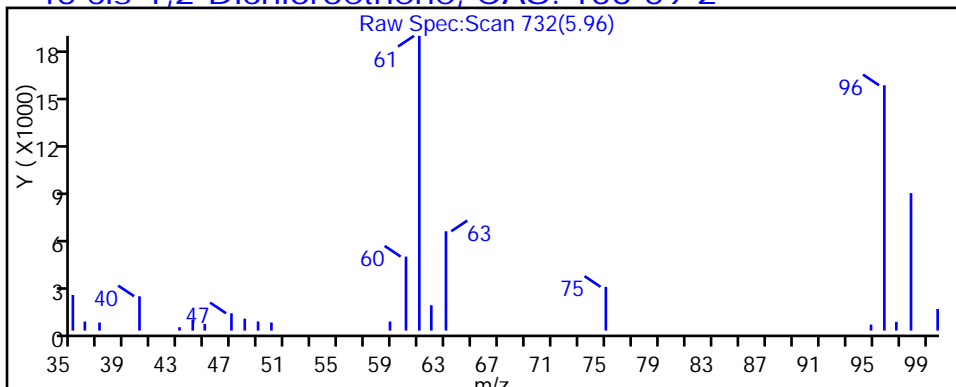
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

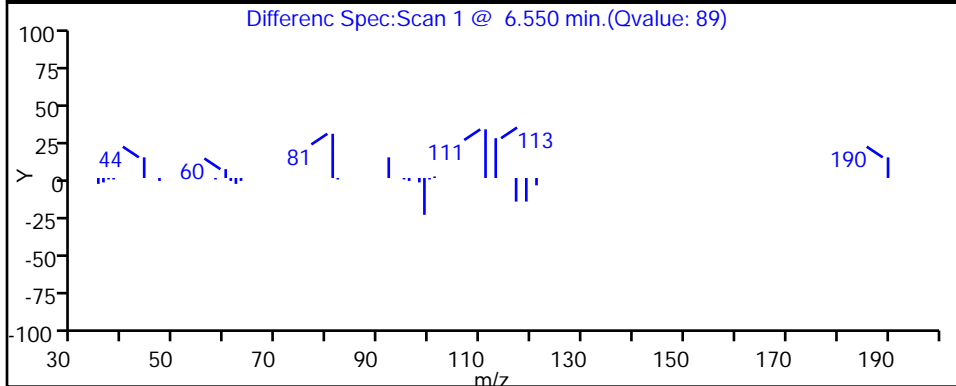
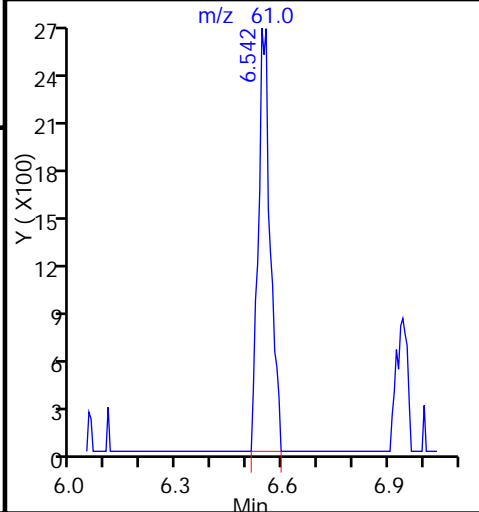
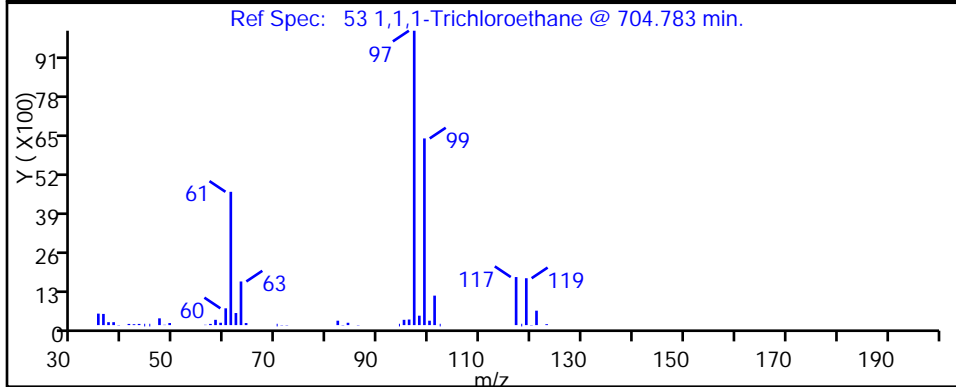
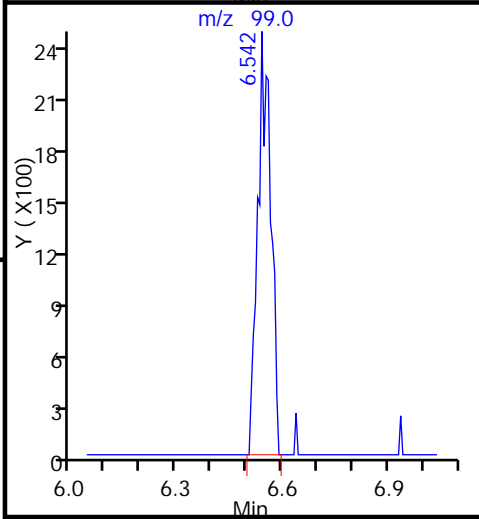
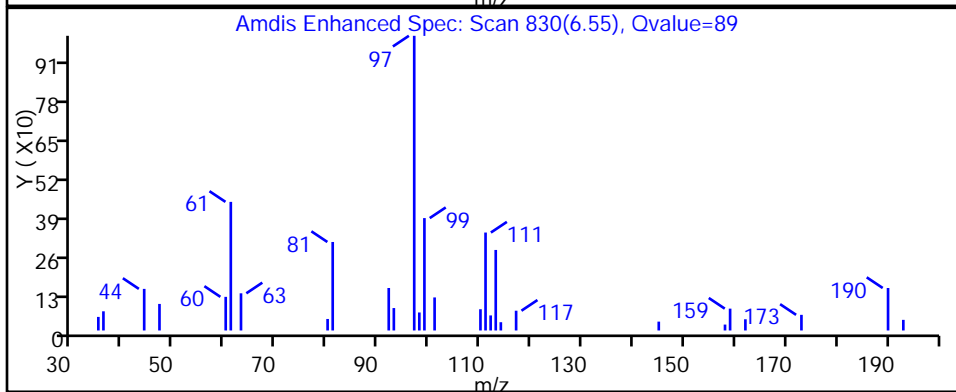
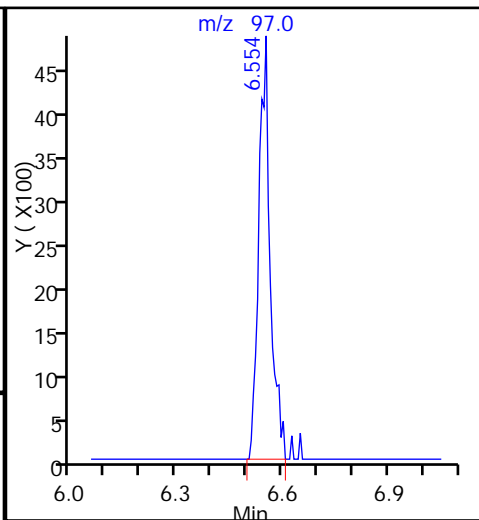
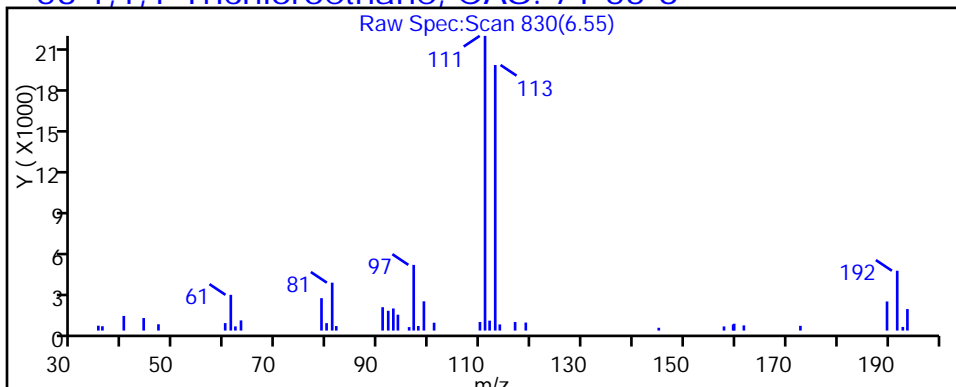
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

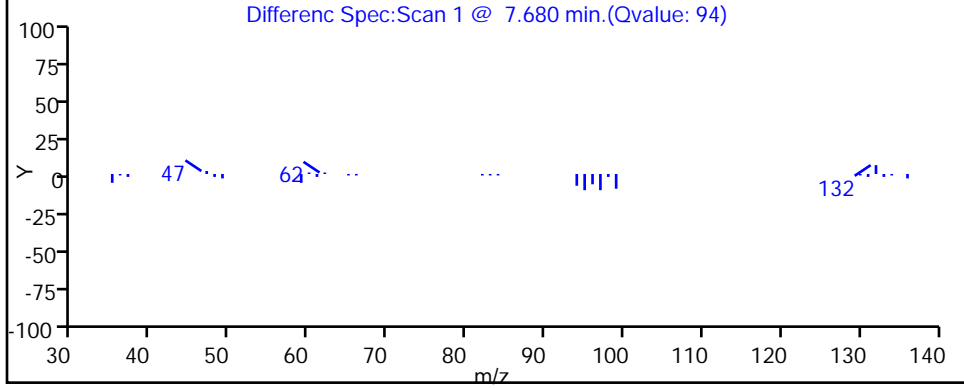
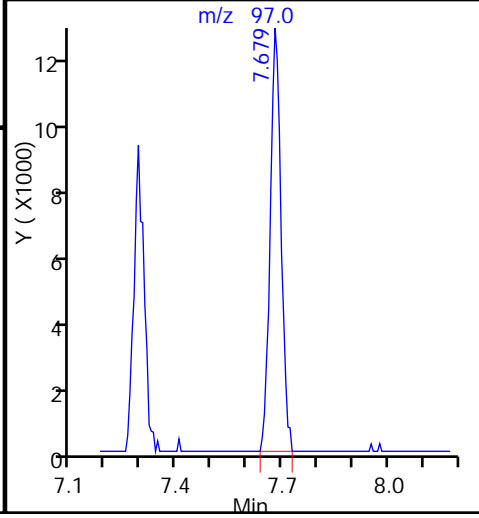
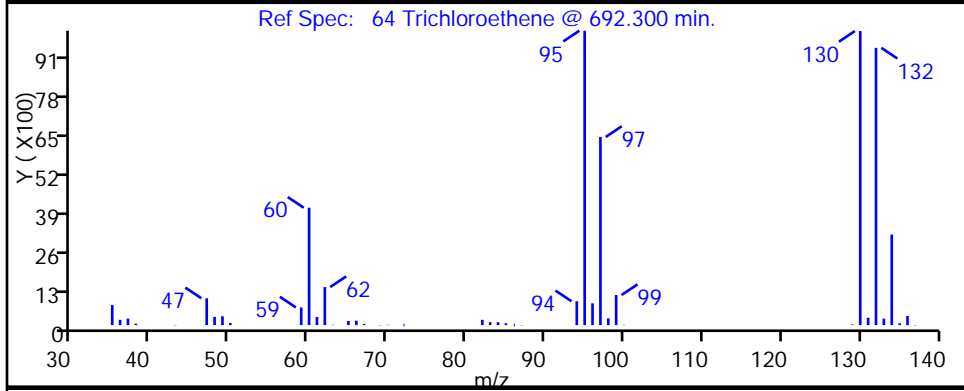
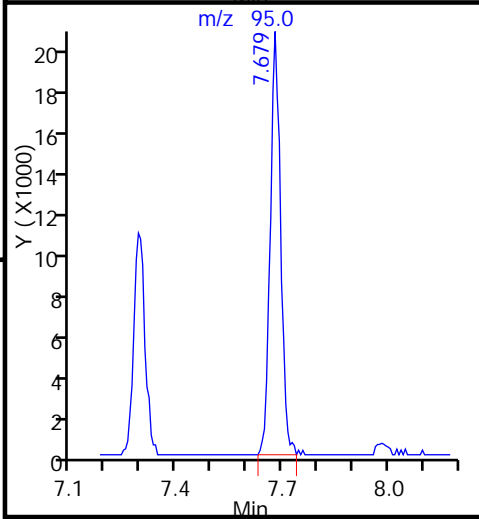
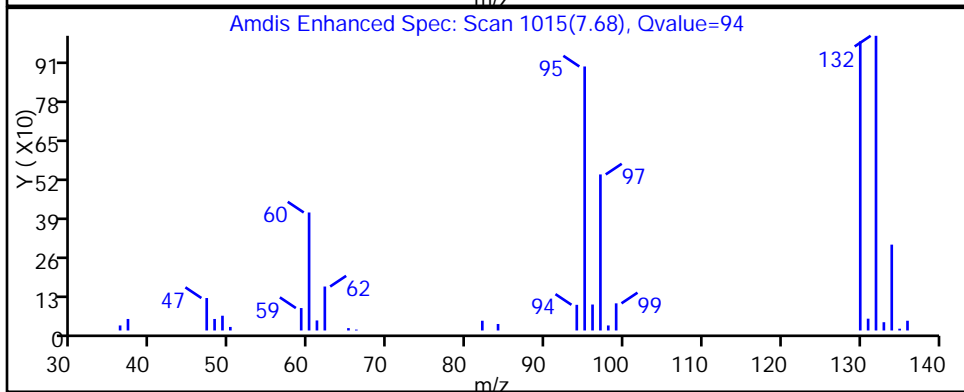
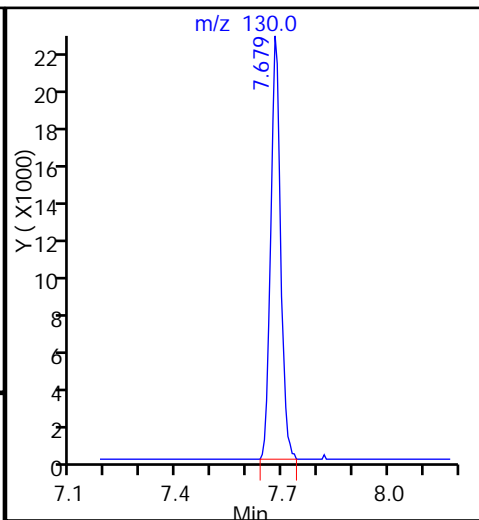
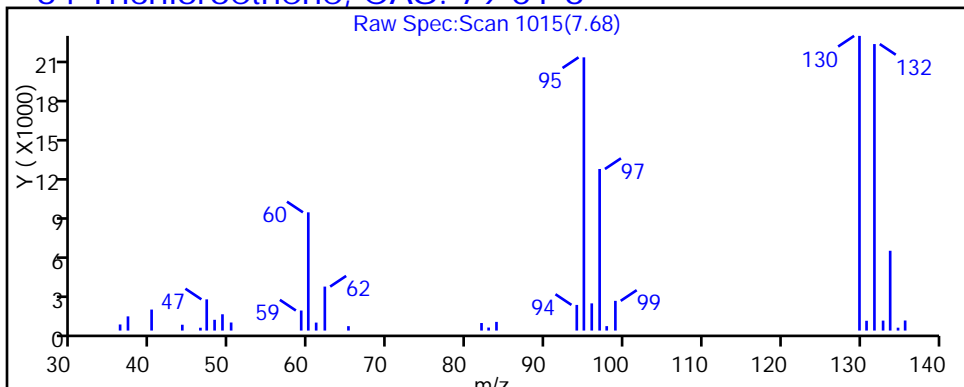
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D

Injection Date: 06-Oct-2015 19:08:30

Instrument ID: CHHP5

Lims ID: 180-48181-B-8

Lab Sample ID: 180-48181-8

Client ID: HD-QC3-0/1-1

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

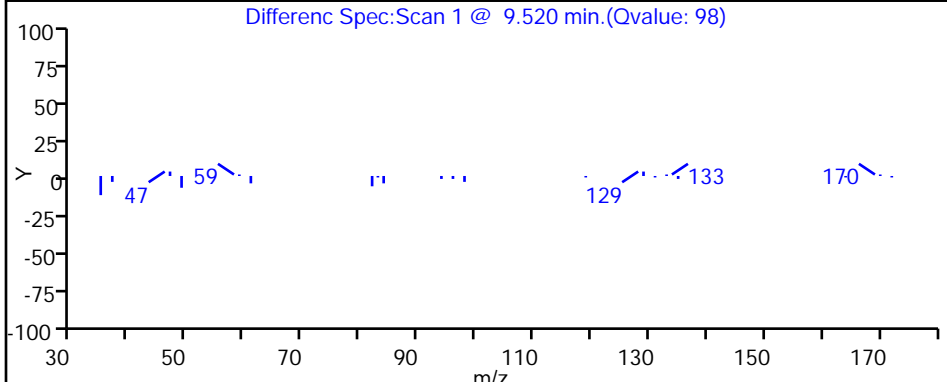
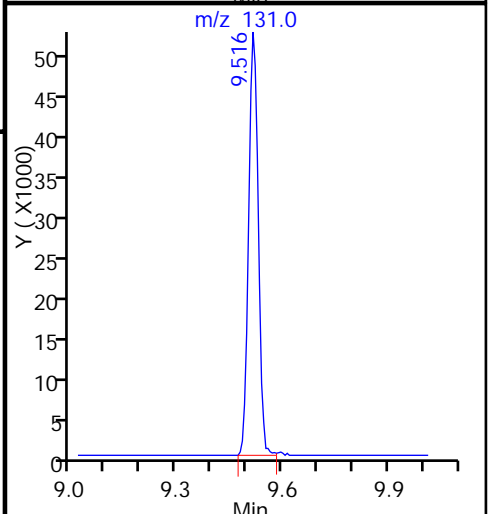
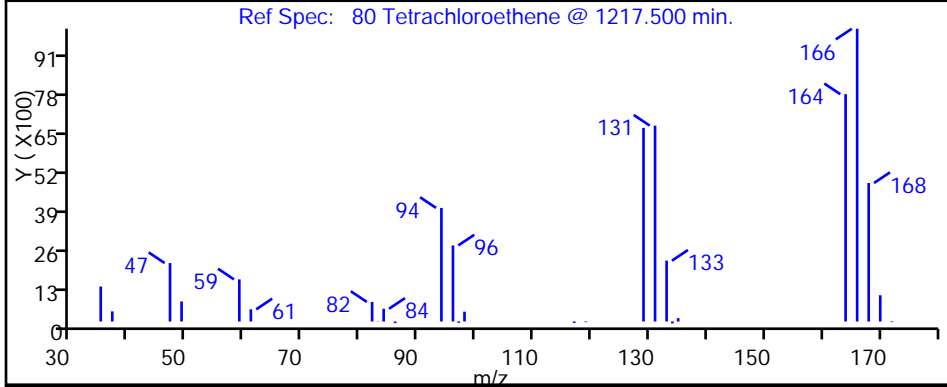
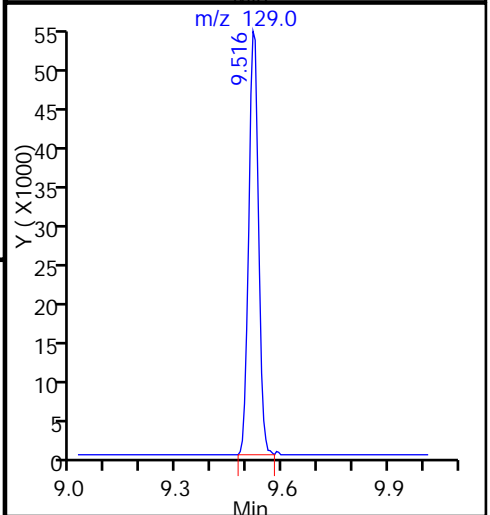
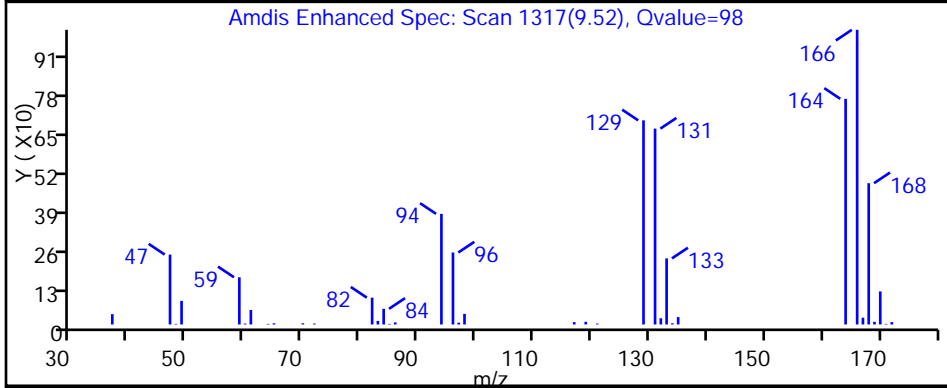
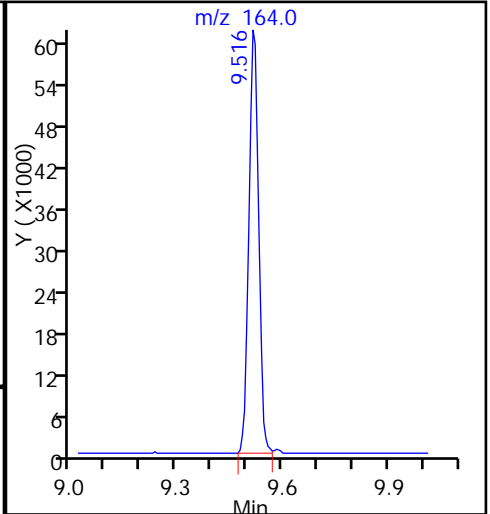
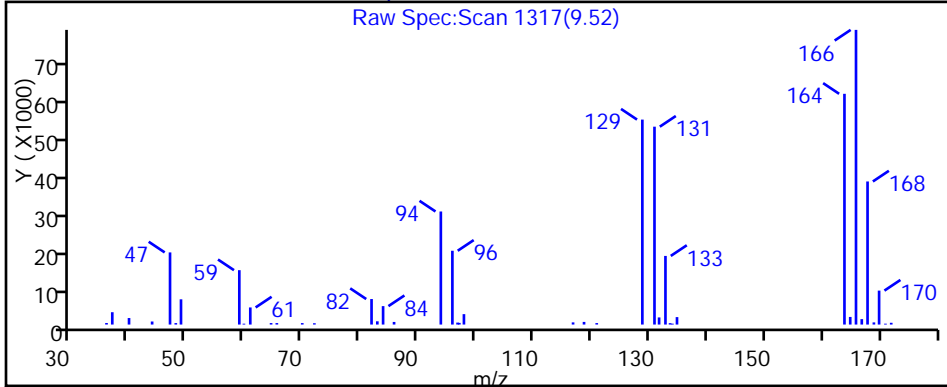
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



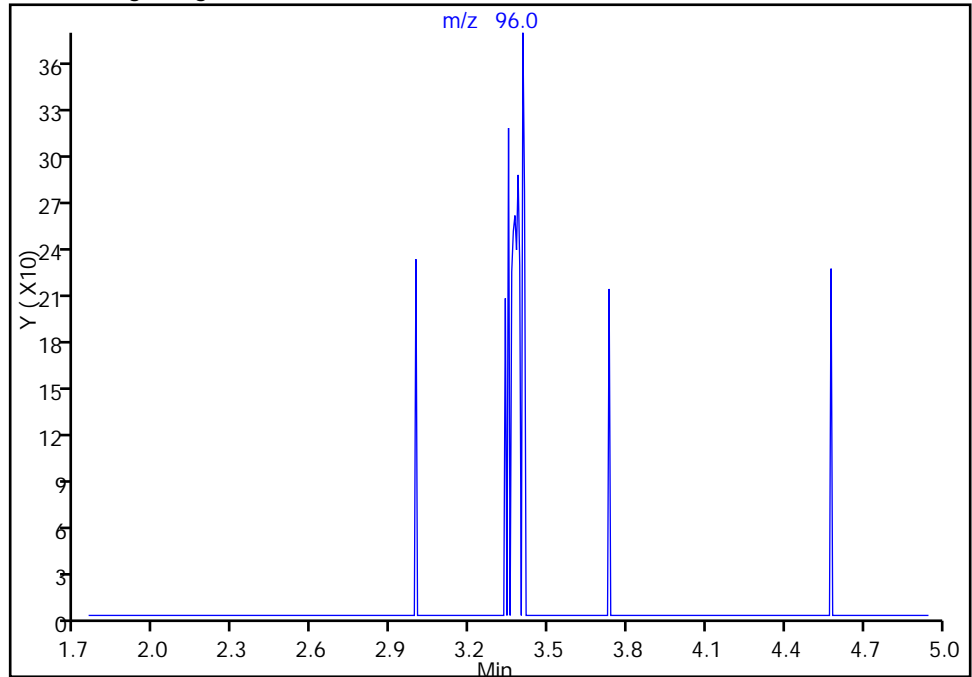
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006018.D
Injection Date: 06-Oct-2015 19:08:30 Instrument ID: CHHP5
Lims ID: 180-48181-B-8 Lab Sample ID: 180-48181-8
Client ID: HD-QC3-0/1-1
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4

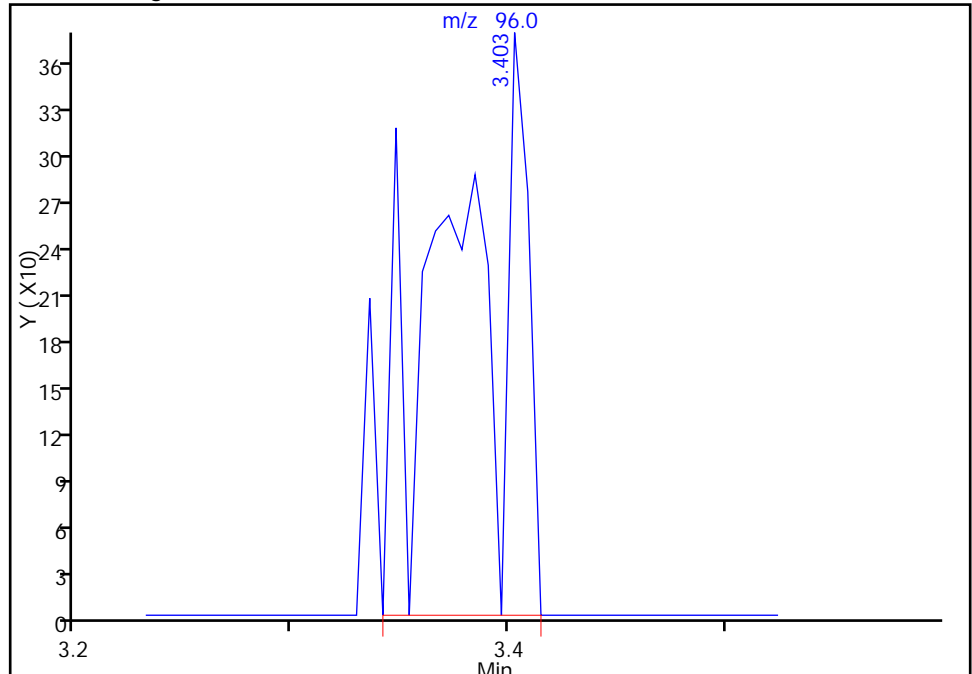
Not Detected
Expected RT: 3.35

Processing Integration Results



RT: 3.40
Area: 883
Amount: 0.569904
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 07-Oct-2015 07:56:24
Audit Action: Manually Integrated
Audit Reason: Missed Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC9-0/1-2 Lab Sample ID: 180-48181-9
 Matrix: Water Lab File ID: 51003007.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 14:14
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-QC9-0/1-2 Lab Sample ID: 180-48181-9
 Matrix: Water Lab File ID: 51003007.D
 Analysis Method: 8260C Date Collected: 09/25/2015 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 14:14
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 98 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 85 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003007.D
 Lims ID: 180-48181-A-9 Lab Sample ID: 180-48181-9
 Client ID: HD-QC9-0/1-2
 Sample Type: Client
 Inject. Date: 03-Oct-2015 14:14:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-9
 Misc. Info.: 180-0008807-007
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 14:43:24 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 14:43:24

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|----|----------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.260 | 4.283 | -0.023 | 0 | 135615 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.289 | 0.000 | 98 | 324396 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.392 | 10.385 | 0.007 | 87 | 84641 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.734 | 12.727 | 0.007 | 95 | 117836 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.565 | 0.000 | 94 | 85048 | 53.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.936 | 0.000 | 0 | 107593 | 49.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.937 | 0.001 | 94 | 301294 | 46.1 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.571 | 0.001 | 90 | 104415 | 42.4 | |
| 12 Chloromethane | 50 | | 1.771 | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.905 | | | | ND | |
| 15 Bromomethane | 94 | | 2.239 | | | | ND | |
| 16 Chloroethane | 64 | | 2.391 | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.346 | | | | ND | |
| 24 Acetone | 43 | 3.457 | 3.444 | 0.013 | 0 | 2198 | 3.36 | M |
| 26 Carbon disulfide | 76 | | 3.638 | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.137 | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.527 | | | | ND | |
| 34 trans-1,2-Dichloroethene | 96 | | 4.563 | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.581 | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.202 | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | | 5.950 | | | | ND | |
| 46 2-Butanone (MEK) | 43 | | 5.962 | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.236 | | | | ND | |
| 52 Chloroform | 83 | | 6.382 | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | | 6.540 | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.717 | | | | ND | |
| 58 Benzene | 78 | | 6.942 | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.021 | | | | ND | |
| 64 Trichloroethene | 130 | | 7.678 | | | | ND | |
| 67 1,2-Dichloropropane | 63 | | 7.946 | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.037 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|--------------|-------|
| 71 Dichlorobromomethane | 83 | | 8.232 | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.676 | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | | 8.828 | | | | ND | |
| 76 Toluene | 91 | | 9.004 | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.254 | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.442 | | | | ND | |
| 80 Tetrachloroethene | 164 | | 9.515 | | | | ND | |
| 82 2-Hexanone | 43 | | 9.655 | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.819 | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.929 | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.415 | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.513 | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.519 | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.647 | | | | ND | |
| 92 o-Xylene | 106 | | 11.030 | | | | ND | |
| 93 Styrene | 104 | | 11.048 | | | | ND | |
| 94 Bromoform | 173 | | 11.231 | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.705 | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | ND | |

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003007.D

Injection Date: 03-Oct-2015 14:14:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-9

Lab Sample ID: 180-48181-9

Worklist Smp#: 7

Client ID: HD-QC9-0/1-2

Purge Vol: 5.000 mL

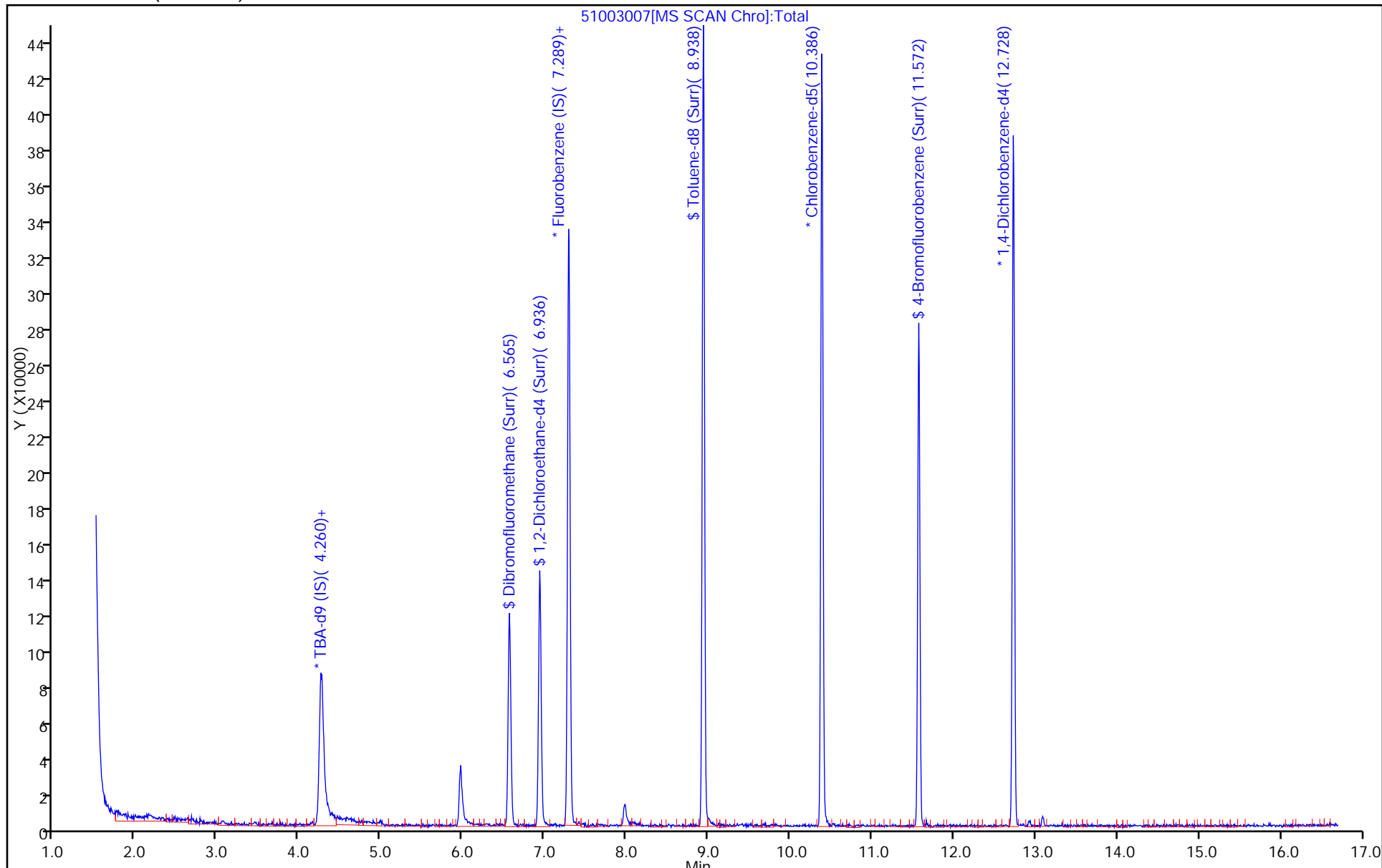
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



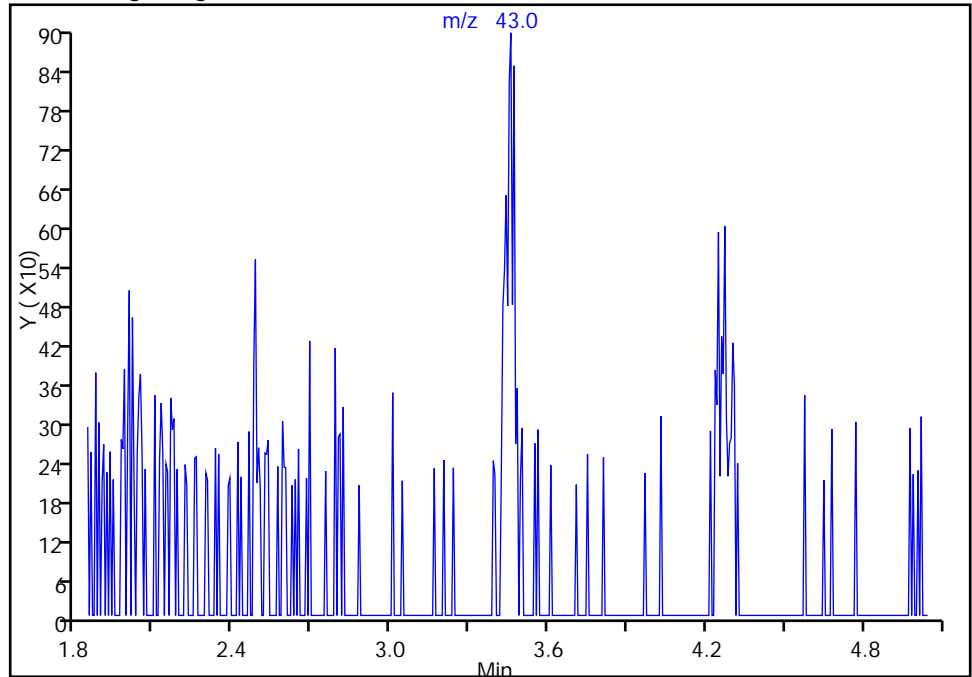
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003007.D
Injection Date: 03-Oct-2015 14:14:30 Instrument ID: CHHP5
Lims ID: 180-48181-A-9 Lab Sample ID: 180-48181-9
Client ID: HD-QC9-0/1-2
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

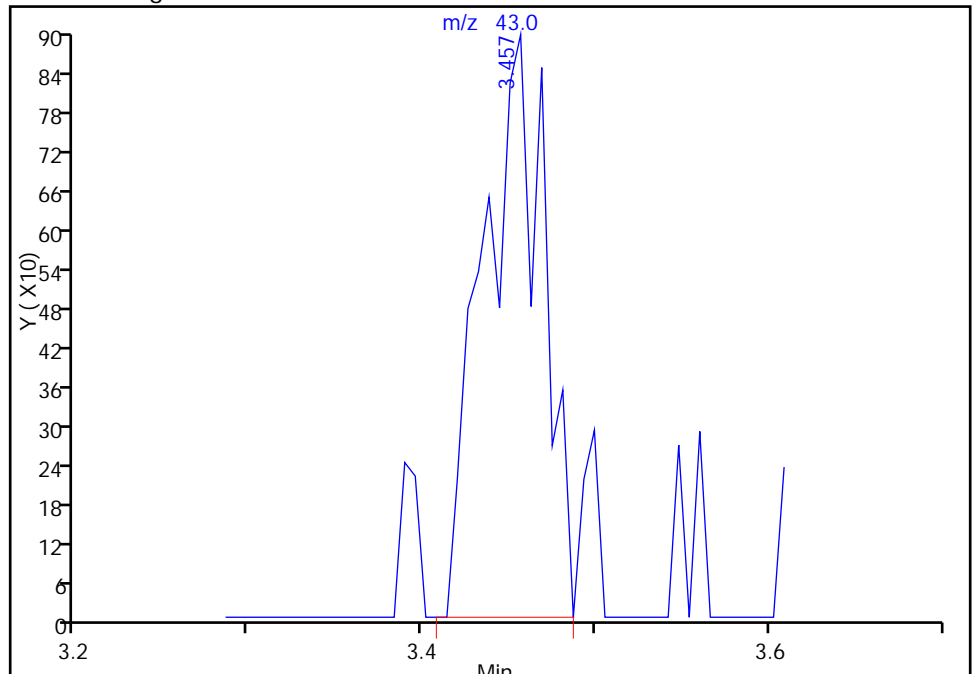
24 Acetone, CAS: 67-64-1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.46
Area: 2198
Amount: 3.358006
Amount Units: ng

Reviewer: fergusond, 03-Oct-2015 14:43:24
Audit Action: Manually Integrated
Audit Reason: Missed Peak

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-151868/6 | 50826006.D |
| Level 2 | IC 180-151868/8 | 50826008.D |
| Level 3 | ICIS 180-151868/9 | 50826009.D |
| Level 4 | IC 180-151868/10 | 50826010.D |
| Level 5 | IC 180-151868/11 | 50826011.D |
| Level 6 | IC 180-151868/12 | 50826012.D |
| Level 7 | IC 180-151868/13 | 50826013.D |
| Level 8 | IC 180-151868/14 | 50826014.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|---------------------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|-----------------------|---|---------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | 0.3287 0.2623 | 0.2973 0.2575 | 0.3036 0.2768 | 0.2652 | 0.2686 | Ave | | 0.2825 | | | 0.1000 | 8.8 | 20.0 | | | | |
| Chloromethane | 0.5129 0.3809 | 0.4550 0.3728 | 0.4119 0.4194 | 0.3793 | 0.3858 | Ave | | 0.4148 | | | 0.1000 | 11.6 | 20.0 | | | | |
| Vinyl chloride | 0.4001 0.3434 | 0.3977 0.3372 | 0.3943 0.3699 | 0.3444 | 0.3565 | Ave | | 0.3679 | | | 0.1000 | 7.2 | 20.0 | | | | |
| 1,3-Butadiene | 0.5239 0.3986 | 0.4751 0.3875 | 0.4623 0.4226 | 0.3955 | 0.4108 | Ave | | 0.4345 | | | 0.0100 | 11.0 | 20.0 | | | | |
| Bromomethane | 0.1691 0.1521 | 0.1576 0.1241 | 0.1270 0.1576 | 0.1608 | 0.1494 | Ave | | 0.1497 | | | 0.0500 | 10.7 | 20.0 | | | | |
| Chloroethane | 0.2791 0.2041 | 0.2380 0.2011 | 0.2154 0.2199 | 0.2110 | 0.2070 | Ave | | 0.2220 | | | 0.0500 | 11.6 | 20.0 | | | | |
| Dichlorofluoromethane | 0.5546 0.4260 | 0.5213 0.4285 | 0.5031 0.4664 | 0.4321 | 0.4354 | Ave | | 0.4709 | | | 0.0100 | 10.5 | 20.0 | | | | |
| Trichlorofluoromethane | 0.3948 0.3299 | 0.3814 0.3233 | 0.3774 0.3496 | 0.3273 | 0.3345 | Ave | | 0.3523 | | | 0.1000 | 8.0 | 20.0 | | | | |
| Ethyl ether | 0.4234 0.2964 | 0.3324 0.2960 | 0.3164 0.3549 | 0.2973 | 0.2952 | Ave | | 0.3265 | | | 0.0100 | 13.7 | 20.0 | | | | |
| Acrolein | 0.0512 0.0479 | 0.0489 0.0478 | 0.0480 0.0550 | 0.0441 | 0.0462 | Ave | | 0.0486 | | | 0.0100 | 6.7 | 20.0 | | | | |
| 1,1-Dichloroethene | 0.2946 0.2694 | 0.2816 0.2624 | 0.2875 0.2968 | 0.2618 | 0.2736 | Ave | | 0.2785 | | | 0.1000 | 5.0 | 20.0 | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.3300 0.2776 | 0.3157 0.2707 | 0.3079 0.2975 | 0.2771 | 0.2839 | Ave | | 0.2951 | | | 0.1000 | 7.2 | 20.0 | | | | |
| Acetone | 0.1264 0.0944 | 0.1213 0.0888 | 0.0958 0.1083 | 0.0854 | 0.0868 | Ave | | 0.1009 | | | 0.0500 | 15.8 | 20.0 | | | | |
| Iodomethane | 0.4682 0.3963 | 0.4179 0.3889 | 0.4130 0.4559 | 0.3863 | 0.3938 | Ave | | 0.4150 | | | 0.0100 | 7.5 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|--------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|------------|--------|----------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Carbon disulfide | 0.6362 0.6697 | 0.5938 0.6592 | 0.6262 0.7601 | 0.5915 | 0.6365 | Ave | | 0.6466 | | | 0.1000 | 8.3 | 20.0 | | | | |
| Allyl chloride | 0.1392 0.1626 | 0.1500 0.1654 | 0.1522 0.1887 | 0.1471 | 0.1566 | Ave | | 0.1577 | | | 0.0100 | 9.6 | 20.0 | | | | |
| Methyl acetate | 0.3337 0.2890 | 0.3263 0.2857 | 0.2882 0.3263 | 0.2787 | 0.2836 | Ave | | 0.3015 | | | 0.1000 | 7.6 | 20.0 | | | | |
| Methylene Chloride | 0.6517 0.2904 | 0.3723 0.2913 | 0.3258 0.3382 | 0.3056 | 0.2911 | Lin2 | 1.8054 | 0.2910 | | | 0.1000 | | | 0.9950 | | 0.9900 | |
| tert-Butyl alcohol | 1.3524 1.1479 | 1.0348 1.0778 | 1.0400 1.1523 | 1.0913 | 1.1079 | Ave | | 1.1255 | | | 0.0100 | 9.0 | 20.0 | | | | |
| Acrylonitrile | 0.1618 0.1395 | 0.1545 0.1388 | 0.1504 0.1578 | 0.1327 | 0.1347 | Ave | | 0.1463 | | | 0.0100 | 7.7 | 20.0 | | | | |
| trans-1,2-Dichloroethene | 0.3383 0.2905 | 0.3111 0.2805 | 0.3070 0.3253 | 0.2770 | 0.2891 | Ave | | 0.3024 | | | 0.1000 | 7.2 | 20.0 | | | | |
| Methyl tert-butyl ether | 0.7340 0.6851 | 0.6905 0.6950 | 0.6558 0.8276 | 0.6473 | 0.6637 | Ave | | 0.6999 | | | 0.1000 | 8.3 | 20.0 | | | | |
| Hexane | 0.5487 0.5062 | 0.5124 0.4822 | 0.5150 0.5325 | 0.4707 | 0.4929 | Ave | | 0.5076 | | | 0.0100 | 5.1 | 20.0 | | | | |
| 1,1-Dichloroethane | 0.6731 0.5678 | 0.6009 0.5615 | 0.5929 0.6517 | 0.5533 | 0.5641 | Ave | | 0.5957 | | | 0.2000 | 7.5 | 20.0 | | | | |
| Vinyl acetate | 0.4658 0.4559 | 0.4321 0.4509 | 0.4142 0.5072 | 0.4114 | 0.4375 | Ave | | 0.4469 | | | 0.0100 | 6.9 | 20.0 | | | | |
| 2,2-Dichloropropane | 0.2543 0.2353 | 0.2294 0.2294 | 0.2373 0.2670 | 0.2227 | 0.2344 | Ave | | 0.2387 | | | 0.0100 | 6.1 | 20.0 | | | | |
| cis-1,2-Dichloroethene | 0.3560 0.3133 | 0.3276 0.3052 | 0.3171 0.3596 | 0.3029 | 0.3027 | Ave | | 0.3230 | | | 0.1000 | 7.1 | 20.0 | | | | |
| 2-Butanone (MEK) | 0.1700 0.1465 | 0.1604 0.1446 | 0.1482 0.1652 | 0.1430 | 0.1348 | Ave | | 0.1516 | | | 0.0500 | 8.1 | 20.0 | | | | |
| Bromochloromethane | 0.1549 0.1331 | 0.1498 0.1336 | 0.1364 0.1592 | 0.1347 | 0.1330 | Ave | | 0.1418 | | | 0.0100 | 7.7 | 20.0 | | | | |
| Tetrahydrofuran | 0.1584 0.1188 | 0.1210 0.1173 | 0.1165 0.1328 | 0.1044 | 0.1035 | Ave | | 0.1216 | | | 0.0100 | 14.4 | 20.0 | | | | |
| Chloroform | 0.6121 0.4769 | 0.5334 0.4687 | 0.5043 0.5518 | 0.4874 | 0.4825 | Ave | | 0.5146 | | | 0.2000 | 9.5 | 20.0 | | | | |
| 1,1,1-Trichloroethane | 0.3907 0.3764 | 0.3802 0.3610 | 0.3863 0.4248 | 0.3588 | 0.3661 | Ave | | 0.3805 | | | 0.1000 | 5.6 | 20.0 | | | | |
| Cyclohexane | 0.6174 0.6347 | 0.6332 0.6154 | 0.6564 0.6862 | 0.6129 | 0.6374 | Ave | | 0.6367 | | | 0.1000 | 3.9 | 20.0 | | | | |
| Carbon tetrachloride | 0.3208 0.3222 | 0.3255 0.3130 | 0.3231 0.3616 | 0.3071 | 0.3191 | Ave | | 0.3240 | | | 0.1000 | 5.0 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|-----------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|--------|---------|------|------|----------|------------|---|----------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 1,1-Dichloropropene | 0.4109 0.4177 | 0.4291 0.3991 | 0.4295 0.4615 | 0.4010 | 0.4176 | Ave | | 0.4208 | | | 0.0100 | 4.7 | 20.0 | | | | |
| Isobutyl alcohol | 0.0095 0.0095 | 0.0091 0.0100 | 0.0099 0.0111 | 0.0081 | 0.0090 | Ave | | 0.0095 | * | 0.0100 | 9.4 | 20.0 | | | | | |
| Benzene | 1.3619 1.1379 | 1.3471 1.1166 | 1.2583 1.2803 | 1.1865 | 1.1745 | Ave | | 1.2329 | | 0.5000 | 7.6 | 20.0 | | | | | |
| 1,2-Dichloroethane | 0.4741 0.4037 | 0.4480 0.4008 | 0.4163 0.4668 | 0.4018 | 0.3996 | Ave | | 0.4264 | | 0.1000 | 7.4 | 20.0 | | | | | |
| n-Heptane | 0.4905 0.4664 | 0.4584 0.4370 | 0.4667 0.4920 | 0.4330 | 0.4446 | Ave | | 0.4611 | | 0.0100 | 4.9 | 20.0 | | | | | |
| Trichloroethene | 0.3438 0.2884 | 0.3023 0.2830 | 0.3001 0.3282 | 0.2819 | 0.2852 | Ave | | 0.3016 | | 0.2000 | 7.6 | 20.0 | | | | | |
| Methylcyclohexane | 0.4249 0.4931 | 0.4566 0.4767 | 0.4833 0.5272 | 0.4569 | 0.4841 | Ave | | 0.4753 | | 0.1000 | 6.4 | 20.0 | | | | | |
| 1,2-Dichloropropane | 0.3806 0.3114 | 0.3166 0.3023 | 0.3142 0.3619 | 0.2970 | 0.3041 | Ave | | 0.3235 | | 0.1000 | 9.5 | 20.0 | | | | | |
| 1,4-Dioxane | 0.0018 0.0024 | 0.0022 0.0023 | 0.0022 0.0026 | 0.0021 | 0.0022 | Ave | | 0.0022 | * | 0.0100 | 11.0 | 20.0 | | | | | |
| Dibromomethane | 0.1726 0.1580 | 0.1745 0.1564 | 0.1618 0.1826 | 0.1547 | 0.1528 | Ave | | 0.1642 | | 0.0100 | 6.7 | 20.0 | | | | | |
| Bromodichloromethane | 0.3187 0.3277 | 0.3165 0.3275 | 0.3067 0.3841 | 0.3076 | 0.3105 | Ave | | 0.3249 | | 0.2000 | 7.8 | 20.0 | | | | | |
| cis-1,3-Dichloropropene | 0.3262 0.4065 | 0.3324 0.4128 | 0.3462 0.4886 | 0.3587 | 0.3740 | Ave | | 0.3807 | | 0.2000 | 14.2 | 20.0 | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 1.0903 1.2759 | 1.2109 1.2196 | 1.2320 1.3578 | 1.2204 | 1.2490 | Ave | | 1.2320 | | 0.1000 | 6.0 | 20.0 | | | | | |
| Toluene | 5.5703 4.5203 | 5.5571 4.1167 | 5.4822 4.5535 | 4.9121 | 4.8891 | Ave | | 4.9502 | | 0.4000 | 11.0 | 20.0 | | | | | |
| trans-1,3-Dichloropropene | 1.1012 1.3656 | 1.2222 1.3022 | 1.2566 1.5136 | 1.2587 | 1.3145 | Ave | | 1.2918 | | 0.1000 | 9.2 | 20.0 | | | | | |
| Ethyl methacrylate | 1.0084 1.3290 | 1.1451 1.2693 | 1.2245 1.4637 | 1.2645 | 1.2889 | Ave | | 1.2492 | | 0.0100 | 10.7 | 20.0 | | | | | |
| 1,1,2-Trichloroethane | 0.9854 0.8899 | 1.0921 0.8150 | 0.9726 0.9474 | 0.9168 | 0.9135 | Ave | | 0.9416 | | 0.1000 | 8.6 | 20.0 | | | | | |
| Tetrachloroethene | 1.1379 0.8860 | 1.0568 0.8108 | 1.0252 0.9003 | 0.9316 | 0.9384 | Ave | | 0.9609 | | 0.2000 | 11.0 | 20.0 | | | | | |
| 1,3-Dichloropropane | 1.9919 1.6394 | 1.8881 1.5526 | 1.7977 1.7492 | 1.7044 | 1.6621 | Ave | | 1.7482 | | 0.0100 | 8.1 | 20.0 | | | | | |
| 2-Hexanone | 0.8243 0.9047 | 0.9086 0.8711 | 0.9027 0.9534 | 0.8729 | 0.8767 | Ave | | 0.8893 | | 0.1000 | 4.2 | 20.0 | | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|-----------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|-----------------------|---|---------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.7656 0.8311 | 0.7604 0.7903 | 0.8248 0.9219 | 0.8043 | 0.8232 | Ave | | 0.8152 | | | 0.1000 | 6.2 | 20.0 | | | | |
| 1,2-Dibromoethane (EDB) | 0.9759 0.8616 | 0.9872 0.8306 | 0.9279 0.9400 | 0.8704 | 0.8651 | Ave | | 0.9073 | | | 0.1000 | 6.4 | 20.0 | | | | |
| 3-Chlorobenzotrifluoride | 1.9141 1.5139 | 1.7300 1.3853 | 1.7441 1.3810 | 1.5596 | 1.4979 | Ave | | 1.5907 | | | 0.0100 | 11.9 | 20.0 | | | | |
| Chlorobenzene | 3.7359 2.9360 | 3.5057 2.7547 | 3.3592 3.0452 | 3.0983 | 3.0632 | Ave | | 3.1873 | | | 0.5000 | 10.1 | 20.0 | | | | |
| 4-Chlorobenzotrifluoride | 1.7602 1.4166 | 1.6482 1.3106 | 1.6401 1.3278 | 1.5024 | 1.4249 | Ave | | 1.5038 | | | 0.0100 | 10.9 | 20.0 | | | | |
| 1,1,1,2-Tetrachloroethane | 1.1225 0.9996 | 1.0966 0.9489 | 1.0413 1.0904 | 1.0057 | 1.0062 | Ave | | 1.0389 | | | 0.0100 | 5.7 | 20.0 | | | | |
| Ethylbenzene | 1.6196 1.6672 | 1.7534 1.5472 | 1.8359 1.7000 | 1.6962 | 1.6973 | Ave | | 1.6896 | | | 0.1000 | 5.1 | 20.0 | | | | |
| m-Xylene & p-Xylene | 1.9469 2.0590 | 2.1320 1.8861 | 2.2561 2.1036 | 2.0873 | 2.1024 | Ave | | 2.0717 | | | 0.1000 | 5.5 | 20.0 | | | | |
| o-Xylene | 1.7875 1.9631 | 1.9618 1.8192 | 2.1700 2.0438 | 2.0181 | 1.9885 | Ave | | 1.9690 | | | 0.3000 | 6.2 | 20.0 | | | | |
| Styrene | 2.9089 3.2190 | 3.4288 3.0069 | 3.5226 3.3091 | 3.3907 | 3.3066 | Ave | | 3.2616 | | | 0.3000 | 6.4 | 20.0 | | | | |
| Bromoform | 0.4690 0.4795 | 0.4313 0.4703 | 0.4499 0.5395 | 0.4346 | 0.4474 | Ave | | 0.4652 | | | 0.1000 | 7.4 | 20.0 | | | | |
| 2-Chlorobenzotrifluoride | 1.7885 1.4787 | 1.7489 1.3827 | 1.7033 1.3749 | 1.5707 | 1.4741 | Ave | | 1.5652 | | | 0.0100 | 10.5 | 20.0 | | | | |
| Isopropylbenzene | 4.3653 4.6596 | 5.1113 4.2808 | 5.5491 4.6316 | 4.9755 | 5.0001 | Ave | | 4.8217 | | | 0.1000 | 8.7 | 20.0 | | | | |
| 1,1,2,2-Tetrachloroethane | 1.4661 1.1699 | 1.3993 1.1182 | 1.3725 1.2326 | 1.2215 | 1.1808 | Ave | | 1.2701 | | | 0.3000 | 9.9 | 20.0 | | | | |
| Bromobenzene | 0.9000 0.8558 | 0.8314 0.8194 | 0.8380 0.9507 | 0.8287 | 0.8423 | Ave | | 0.8583 | | | 0.0100 | 5.2 | 20.0 | | | | |
| trans-1,4-Dichloro-2-butene | 0.2917 0.3299 | 0.2806 0.3207 | 0.2875 0.3711 | 0.2997 | 0.3010 | Ave | | 0.3103 | | | 0.0100 | 9.5 | 20.0 | | | | |
| 1,2,3-Trichloropropane | 0.3063 0.2797 | 0.2926 0.2700 | 0.2690 0.3158 | 0.2674 | 0.2639 | Ave | | 0.2831 | | | 0.0100 | 6.9 | 20.0 | | | | |
| N-Propylbenzene | 0.8996 1.0031 | 0.9330 0.9647 | 1.0104 1.0875 | 0.9757 | 0.9863 | Ave | | 0.9825 | | | 0.0100 | 5.7 | 20.0 | | | | |
| 2-Chlorotoluene | 0.7422 0.8347 | 0.8275 0.8182 | 0.8534 0.9287 | 0.8318 | 0.8446 | Ave | | 0.8351 | | | 0.0100 | 6.1 | 20.0 | | | | |
| 3-Chlorotoluene | 0.8266 0.8699 | 0.8669 0.8353 | 0.8759 0.8984 | 0.8585 | 0.8348 | Ave | | 0.8583 | | | 0.0100 | 2.9 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|------------------------------------|--------|--------|--------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|------------|---|----------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 2.3645 | 2.8908 | 2.9957 | 2.8185 | 2.8452 | Ave | | 2.7760 | | | 0.0100 | 7.1 | 20.0 | | | | |
| | 2.7734 | 2.6232 | 2.8967 | | | | | | | | | | | | | | |
| 4-Chlorotoluene | 0.8633 | 0.9746 | 0.9234 | 0.8946 | 0.9096 | Ave | | 0.9190 | | | 0.0100 | 5.0 | 20.0 | | | | |
| | 0.9172 | 0.8728 | 0.9963 | | | | | | | | | | | | | | |
| tert-Butylbenzene | 1.8741 | 2.1778 | 2.3521 | 2.2754 | 2.3463 | Ave | | 2.2569 | | | 0.0100 | 8.0 | 20.0 | | | | |
| | 2.3430 | 2.2068 | 2.4799 | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 2.3075 | 2.8627 | 2.9863 | 2.8624 | 2.8401 | Ave | | 2.7812 | | | 0.0100 | 7.8 | 20.0 | | | | |
| | 2.7925 | 2.6520 | 2.9459 | | | | | | | | | | | | | | |
| 3,4-Dichlorobenzotrifluoride | 0.9332 | 0.7706 | 0.8114 | 0.7469 | 0.7246 | Ave | | 0.7754 | | | 0.0100 | 9.1 | 20.0 | | | | |
| | 0.7629 | 0.7120 | 0.7421 | | | | | | | | | | | | | | |
| sec-Butylbenzene | 2.7780 | 3.2532 | 3.5024 | 3.1902 | 3.2760 | Ave | | 3.1865 | | | 0.0100 | 6.7 | 20.0 | | | | |
| | 3.1978 | 3.0155 | 3.2789 | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | 1.5731 | 1.6002 | 1.5858 | 1.4673 | 1.4672 | Ave | | 1.5284 | | | 0.6000 | 4.7 | 20.0 | | | | |
| | 1.4773 | 1.4395 | 1.6167 | | | | | | | | | | | | | | |
| 4-Isopropyltoluene | 2.1994 | 2.7068 | 2.9233 | 2.7523 | 2.7684 | Ave | | 2.6959 | | | 0.0100 | 8.2 | 20.0 | | | | |
| | 2.7400 | 2.6136 | 2.8630 | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1.8395 | 1.6730 | 1.6062 | 1.5057 | 1.4918 | Ave | | 1.5895 | | | 0.5000 | 8.1 | 20.0 | | | | |
| | 1.4959 | 1.4568 | 1.6474 | | | | | | | | | | | | | | |
| 2,4-Dichlorobenzotrifluoride | 0.8167 | 0.7458 | 0.7804 | 0.6991 | 0.6616 | Ave | | 0.7185 | | | 0.0100 | 8.2 | 20.0 | | | | |
| | 0.7142 | 0.6499 | 0.6801 | | | | | | | | | | | | | | |
| 2,5-Dichlorobenzotrifluoride | 0.8953 | 0.7731 | 0.8004 | 0.7462 | 0.7137 | Ave | | 0.7765 | | | 0.0100 | 7.0 | 20.0 | | | | |
| | 0.7661 | 0.7682 | 0.7491 | | | | | | | | | | | | | | |
| n-Butylbenzene | 1.9548 | 2.2758 | 2.5056 | 2.2735 | 2.3594 | Ave | | 2.3069 | | | 0.0100 | 7.2 | 20.0 | | | | |
| | 2.3709 | 2.2727 | 2.4426 | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1.6347 | 1.5012 | 1.4944 | 1.3452 | 1.3303 | Ave | | 1.4282 | | | 0.4000 | 7.8 | 20.0 | | | | |
| | 1.3388 | 1.3288 | 1.4525 | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-Chloropropane | 0.1072 | 0.1212 | 0.1194 | 0.1034 | 0.1102 | Ave | | 0.1173 | | | 0.0500 | 8.6 | 20.0 | | | | |
| | 0.1191 | 0.1226 | 0.1351 | | | | | | | | | | | | | | |
| 2,4- & 2,5- & 2,6- Dichlorotoluene | 0.7554 | 0.7846 | 0.9569 | 0.7811 | 0.7733 | Ave | | 0.8157 | | | 0.0100 | 7.8 | 20.0 | | | | |
| | 0.8278 | 0.8399 | 0.8065 | | | | | | | | | | | | | | |
| 2,3- & 3,4- Dichlorotoluene | 0.7045 | 0.7591 | 0.9510 | 0.7194 | 0.7151 | Ave | | 0.7778 | | | 0.0100 | 10.2 | 20.0 | | | | |
| | 0.7833 | 0.8096 | 0.7804 | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.5337 | 0.5713 | 0.6897 | 0.4840 | 0.4928 | Ave | | 0.5557 | | | 0.2000 | 11.5 | 20.0 | | | | |
| | 0.5349 | 0.5698 | 0.5692 | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.2789 | 0.2957 | 0.3393 | 0.2366 | 0.2338 | Ave | | 0.2677 | | | 0.0100 | 13.3 | 20.0 | | | | |
| | 0.2527 | 0.2535 | 0.2508 | | | | | | | | | | | | | | |
| Naphthalene | 1.2233 | 1.2705 | 1.7478 | 1.2452 | 1.2988 | Ave | | 1.4282 | | | 0.0100 | 13.7 | 20.0 | | | | |
| | 1.4724 | 1.5865 | 1.5810 | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | 0.4915 | 0.4501 | 0.5796 | 0.3828 | 0.3844 | Ave | | 0.4498 | | | 0.0100 | 14.2 | 20.0 | | | | |
| | 0.4124 | 0.4480 | 0.4500 | | | | | | | | | | | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|------------------------------|------------------|------------------|------------------|--------|--------|---------------|-------------|--------|----|---|---------|------|---|-------------|---------------|---|-------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 2,4,5-Trichlorotoluene | 0.1695 0.1581 | 0.1451 0.1827 | 0.2185 0.1750 | 0.1232 | 0.1263 | Ave | | 0.1623 | | | 0.0100 | 19.4 | | 20.0 | | | |
| 2,3,6-Trichlorotoluene | 0.1057 +++++ | 0.1323 +++++ | 0.2120 +++++ | 0.1162 | 0.1265 | Ave | | 0.1496 | | | 0.0100 | 24.0 | * | 20.0 | | | |
| Dibromofluoromethane (Surr) | 0.2897 0.2274 | 0.2548 0.2230 | 0.2447 0.2662 | 0.2287 | 0.2299 | Ave | | 0.2455 | | | | 9.5 | | 20.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.4203 0.3099 | 0.3560 0.3035 | 0.3369 0.3556 | 0.3100 | 0.3058 | Ave | | 0.3373 | | | | 11.9 | | 20.0 | | | |
| Toluene-d8 (Surr) | 4.5689 3.4832 | 4.1450 3.1902 | 4.3481 3.5716 | 3.8169 | 3.7347 | Ave | | 3.8573 | | | | 12.1 | | 20.0 | | | |
| 4-Bromofluorobenzene (Surr) | 1.6296 1.3602 | 1.5022 1.2884 | 1.5824 1.4505 | 1.4462 | 1.3812 | Ave | | 1.4551 | | | | 7.8 | | 20.0 | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-151868/6 | 50826006.D |
| Level 2 | IC 180-151868/8 | 50826008.D |
| Level 3 | ICIS 180-151868/9 | 50826009.D |
| Level 4 | IC 180-151868/10 | 50826010.D |
| Level 5 | IC 180-151868/11 | 50826011.D |
| Level 6 | IC 180-151868/12 | 50826012.D |
| Level 7 | IC 180-151868/13 | 50826013.D |
| Level 8 | IC 180-151868/14 | 50826014.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|---------------------------------------|--------|------------|------------------|-------------------|-------------------|--------|--------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Dichlorodifluoromethane | FB | Ave | 13335 461015 | 63359 506611 | 139988 585297 | 195493 | 268740 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Chloromethane | FB | Ave | 20806 669660 | 96975 733518 | 189967 886889 | 279657 | 386017 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Vinyl chloride | FB | Ave | 16232 603655 | 84746 663498 | 181809 782206 | 253941 | 356745 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Butadiene | FB | Ave | 21253 700624 | 101243 762590 | 213171 893578 | 291582 | 411077 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromomethane | FB | Ave | 6860 267454 | 33586 244127 | 58568 333317 | 118541 | 149495 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Chloroethane | FB | Ave | 11321 358728 | 50718 395735 | 99329 465079 | 155578 | 207155 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Dichlorofluoromethane | FB | Ave | 22499 748877 | 111107 843233 | 232009 986298 | 318608 | 435665 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Trichlorofluoromethane | FB | Ave | 16013 579992 | 81291 636269 | 174036 739174 | 241309 | 334740 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethyl ether | FB | Ave | 17175 521056 | 70836 582513 | 145899 750491 | 219194 | 295395 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Acrolein | FB | Ave | 41531 108307 | 52087 117496 | 66358 127965 | 75936 | 92519 | 100 225 | 125 250 | 150 275 | 175 | 200 |
| 1,1-Dichloroethene | FB | Ave | 11952 473565 | 60024 516257 | 132602 627614 | 192998 | 273818 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | 13388 488054 | 67283 532678 | 141996 629046 | 204297 | 284081 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Acetone | FB | Ave | 25628 332039 | 51703 349354 | 88342 457819 | 125942 | 173687 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Iodomethane | FB | Ave | 18992 696716 | 89056 765249 | 190440 963985 | 284793 | 394076 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Carbon disulfide | FB | Ave | 25807 1177201 | 126552 1297173 | 288788 1607306 | 436105 | 636866 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|--------------------------|--------|------------|----------------|----------------|----------------|---------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Allyl chloride | FB | Ave | 5646 | 31974 | 70192 | 108440 | 156677 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 285911 | 325399 | 399041 | | | 175 | 200 | 250 | | |
| Methyl acetate | FB | Ave | 67684 | 347746 | 664608 | 1027560 | 1419018 | 25.0 | 125 | 250 | 375 | 500 |
| | | | 2539904 | 2811173 | 3450277 | | | 875 | 1000 | 1250 | | |
| Methylene Chloride | FB | Lin2 | 26437 | 79338 | 150258 | 225319 | 291271 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 510471 | 573290 | 715184 | | | 175 | 200 | 250 | | |
| tert-Butyl alcohol | TBA | Ave | 9257 | 39038 | 81932 | 122262 | 185374 | 50.0 | 250 | 500 | 750 | 1000 |
| | | | 352268 | 410928 | 514360 | | | 1750 | 2000 | 2500 | | |
| Acrylonitrile | FB | Ave | 65631 | 329204 | 693478 | 978697 | 1347643 | 50.0 | 250 | 500 | 750 | 1000 |
| | | | 2452551 | 2730347 | 3337347 | | | 1750 | 2000 | 2500 | | |
| trans-1,2-Dichloroethene | FB | Ave | 13723 | 66301 | 141577 | 204201 | 289331 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 510637 | 552053 | 687878 | | | 175 | 200 | 250 | | |
| Methyl tert-butyl ether | FB | Ave | 29774 | 147150 | 302403 | 477236 | 664089 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 1204325 | 1367672 | 1750025 | | | 175 | 200 | 250 | | |
| Hexane | FB | Ave | 22257 | 109198 | 237492 | 347025 | 493203 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 889892 | 948868 | 1125958 | | | 175 | 200 | 250 | | |
| 1,1-Dichloroethane | FB | Ave | 27303 | 128072 | 273423 | 407919 | 564450 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 998105 | 1104940 | 1377944 | | | 175 | 200 | 250 | | |
| Vinyl acetate | FB | Ave | 18896 | 92081 | 191017 | 303320 | 437799 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 801339 | 887283 | 1072494 | | | 175 | 200 | 250 | | |
| 2,2-Dichloropropane | FB | Ave | 10315 | 48880 | 109416 | 164171 | 234514 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 413686 | 451339 | 564524 | | | 175 | 200 | 250 | | |
| cis-1,2-Dichloroethene | FB | Ave | 14442 | 69819 | 146208 | 223289 | 302874 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 550789 | 600559 | 760457 | | | 175 | 200 | 250 | | |
| 2-Butanone (MEK) | FB | Ave | 34471 | 68384 | 136667 | 210830 | 269779 | 25.0 | 50.0 | 100 | 150 | 200 |
| | | | 514894 | 569128 | 698551 | | | 350 | 400 | 500 | | |
| Bromochloromethane | FB | Ave | 6284 | 31931 | 62915 | 99282 | 133128 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 234034 | 262832 | 336595 | | | 175 | 200 | 250 | | |
| Tetrahydrofuran | FB | Ave | 12850 | 51589 | 107444 | 153971 | 207145 | 10.0 | 50.0 | 100 | 150 | 200 |
| | | | 417684 | 461621 | 561739 | | | 350 | 400 | 500 | | |
| Chloroform | FB | Ave | 24828 | 113670 | 232542 | 359318 | 482795 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 838419 | 922240 | 1166838 | | | 175 | 200 | 250 | | |
| 1,1,1-Trichloroethane | FB | Ave | 15850 | 81030 | 178131 | 264507 | 366328 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 661680 | 710348 | 898258 | | | 175 | 200 | 250 | | |
| Cyclohexane | FB | Ave | 25044 | 134937 | 302702 | 451893 | 637776 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 1115710 | 1210903 | 1451032 | | | 175 | 200 | 250 | | |
| Carbon tetrachloride | FB | Ave | 13013 | 69375 | 148991 | 226405 | 319309 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 566329 | 616016 | 764597 | | | 175 | 200 | 250 | | |
| 1,1-Dichloropropene | FB | Ave | 16668 | 91438 | 198075 | 295676 | 417880 | 5.00 | 25.0 | 50.0 | 75.0 | 100 |
| | | | 734207 | 785333 | 975802 | | | 175 | 200 | 250 | | |
| Isobutyl alcohol | FB | Ave | 9663 | 48239 | 113924 | 149085 | 224262 | 125 | 625 | 1250 | 1875 | 2500 |
| | | | 417725 | 492768 | 588608 | | | 4375 | 5000 | 6250 | | |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|------------------|-------------------|-------------------|--------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Benzene | FB | Ave | 55246 2000326 | 287091 2197241 | 580241 2707324 | 874781 | 1175215 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloroethane | FB | Ave | 19231 709743 | 95482 788760 | 191991 987010 | 296218 | 399895 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| n-Heptane | FB | Ave | 19899 819932 | 97699 859948 | 215218 1040377 | 319252 | 444901 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Trichloroethene | FB | Ave | 13948 506964 | 64418 556980 | 138404 693909 | 207852 | 285365 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Methylcyclohexane | FB | Ave | 17237 866758 | 97305 937977 | 222858 1114866 | 336831 | 484430 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloropropane | FB | Ave | 15440 547361 | 67479 594824 | 144895 765352 | 218947 | 304322 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,4-Dioxane | FB | Ave | 1429 82622 | 9374 91547 | 20164 111802 | 31691 | 44562 | 100 3500 | 500 4000 | 1000 5000 | 1500 | 2000 |
| Dibromomethane | FB | Ave | 7003 277699 | 37187 307857 | 74626 386058 | 114083 | 152946 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromodichloromethane | FB | Ave | 12926 576102 | 67441 644471 | 141423 812136 | 226806 | 310676 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| cis-1,3-Dichloropropene | FB | Ave | 13234 714562 | 70847 812298 | 159644 1033255 | 264451 | 374197 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Methyl-2-pentanone (MIBK) | CBZ | Ave | 52387 1157588 | 122590 1320471 | 267134 1599371 | 434749 | 614019 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Toluene | CBZ | Ave | 53527 2050607 | 281285 2228576 | 594334 2681762 | 874948 | 1201786 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| trans-1,3-Dichloropropene | CBZ | Ave | 10582 619485 | 61867 704918 | 136231 891401 | 224205 | 323125 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethyl methacrylate | CBZ | Ave | 9690 602921 | 57962 687101 | 132749 862044 | 225233 | 316812 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2-Trichloroethane | CBZ | Ave | 9469 403722 | 55277 441190 | 105440 557982 | 163298 | 224541 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Tetrachloroethene | CBZ | Ave | 10935 401915 | 53495 438898 | 111146 530215 | 165929 | 230665 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Dichloropropane | CBZ | Ave | 19141 743698 | 95569 840507 | 194887 1030200 | 303582 | 408560 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Hexanone | CBZ | Ave | 39604 820858 | 91984 943138 | 195734 1123041 | 310969 | 430988 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Dibromochloromethane | CBZ | Ave | 7357 377032 | 38492 427847 | 89414 542940 | 143257 | 202349 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dibromoethane (EDB) | CBZ | Ave | 9378 390862 | 49971 449617 | 100600 553588 | 155041 | 212653 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 3-Chlorobenzotrifluoride | CBZ | Ave | 18393 686777 | 87568 749898 | 189078 813323 | 277802 | 368187 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|------------------|-------------------|-------------------|--------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Chlorobenzene | CBZ | Ave | 35900 1331912 | 177451 1491257 | 364174 1793475 | 551865 | 752971 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Chlorobenzotrifluoride | CBZ | Ave | 16914 642626 | 83430 709487 | 177807 781989 | 267607 | 350243 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,1,2-Tetrachloroethane | CBZ | Ave | 10787 453483 | 55507 513686 | 112884 642159 | 179137 | 247335 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethylbenzene | CBZ | Ave | 15563 756322 | 88753 837593 | 199030 1001210 | 302122 | 417206 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| m-Xylene & p-Xylene | CBZ | Ave | 18709 934055 | 107918 1021032 | 244588 1238884 | 371799 | 516778 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| o-Xylene | CBZ | Ave | 17177 890574 | 99302 984811 | 235252 1203666 | 359461 | 488783 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Styrene | CBZ | Ave | 27953 1460286 | 173558 1627751 | 381888 1948876 | 603962 | 812783 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromoform | CBZ | Ave | 4507 217546 | 21829 254607 | 48771 317730 | 77411 | 109983 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Chlorobenzotrifluoride | CBZ | Ave | 17186 670799 | 88525 748529 | 184654 809757 | 279773 | 362334 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Isopropylbenzene | CBZ | Ave | 41948 2113845 | 258721 2317406 | 601591 2727755 | 886244 | 1229067 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2,2-Tetrachloroethane | CBZ | Ave | 14088 530728 | 70831 605346 | 148796 725938 | 217578 | 290248 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromobenzene | DCB | Ave | 12648 543146 | 66130 609774 | 144660 743219 | 218069 | 300450 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| trans-1,4-Dichloro-2-butene | DCB | Ave | 4099 209384 | 22318 238659 | 49630 290130 | 78865 | 107372 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,3-Trichloropropane | DCB | Ave | 4305 177490 | 23273 200908 | 46443 246872 | 70373 | 94129 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| N-Propylbenzene | DCB | Ave | 12643 636587 | 74204 717909 | 174426 850210 | 256762 | 351814 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Chlorotoluene | DCB | Ave | 10430 529736 | 65813 608876 | 147328 726063 | 218909 | 301246 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 3-Chlorotoluene | DCB | Ave | 11617 552058 | 68954 621607 | 151211 702342 | 225916 | 297767 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3,5-Trimethylbenzene | DCB | Ave | 33229 1760059 | 229921 1952122 | 517168 2264532 | 741712 | 1014826 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Chlorotoluene | DCB | Ave | 12133 582109 | 77519 649501 | 159410 778860 | 235437 | 324433 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| tert-Butylbenzene | DCB | Ave | 26338 1486960 | 173217 1642231 | 406052 1938716 | 598804 | 836893 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,4-Trimethylbenzene | DCB | Ave | 32428 1772230 | 227690 1973541 | 515539 2303042 | 753282 | 1013032 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|------------------------------------|--------|------------|------------------|-------------------|-------------------|--------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| 3,4-Dichlorobenzotrifluoride | DCB | Ave | 13115 484133 | 61289 529814 | 140073 580120 | 196559 | 258438 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| sec-Butylbenzene | DCB | Ave | 39041 2029430 | 258745 2244027 | 604638 2563359 | 839536 | 1168492 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Dichlorobenzene | DCB | Ave | 22108 937539 | 127273 1071203 | 273757 1263925 | 386149 | 523315 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Isopropyltoluene | DCB | Ave | 30909 1738859 | 215293 1944911 | 504672 2238219 | 724310 | 987448 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,4-Dichlorobenzene | DCB | Ave | 25851 949324 | 133066 1084086 | 277292 1287906 | 396239 | 532103 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4-Dichlorobenzotrifluoride | DCB | Ave | 11477 453275 | 59316 483618 | 134729 531698 | 183967 | 235991 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,5-Dichlorobenzotrifluoride | DCB | Ave | 12582 486163 | 61489 571654 | 138171 585601 | 196358 | 254571 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| n-Butylbenzene | DCB | Ave | 27472 1504673 | 181007 1691227 | 432555 1909580 | 598297 | 841574 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichlorobenzene | DCB | Ave | 22973 849612 | 119403 988861 | 257985 1135542 | 354012 | 474503 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dibromo-3-Chloropropane | DCB | Ave | 1507 75555 | 9637 91242 | 20608 105625 | 27203 | 39315 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4- & 2,5- & 2,6- Dichlorotoluene | DCB | Ave | 31847 1576122 | 187206 1875036 | 495585 1891413 | 616649 | 827426 | 15.0 525 | 75.0 600 | 150 750 | 225 | 300 |
| 2,3- & 3,4- Dichlorotoluene | DCB | Ave | 19801 994231 | 120746 1204899 | 328345 1220209 | 378630 | 510138 | 10.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| 1,2,4-Trichlorobenzene | DCB | Ave | 7500 339446 | 45439 424061 | 119069 445017 | 127381 | 175776 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Hexachlorobutadiene | DCB | Ave | 3919 160392 | 23516 188644 | 58574 196056 | 62268 | 83392 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Naphthalene | DCB | Ave | 17192 934428 | 101055 1180622 | 301738 1235965 | 327683 | 463258 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,3-Trichlorobenzene | DCB | Ave | 6907 261711 | 35802 333363 | 100055 351787 | 100749 | 137103 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4,5-Trichlorotoluene | DCB | Ave | 2382 100325 | 11540 135933 | 37716 136778 | 32434 | 45065 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,3,6-Trichlorotoluene | DCB | Ave | 1485 +++++ | 10524 +++++ | 36592 +++++ | 30574 | 45128 | 5.00 +++++ | 25.0 +++++ | 50.0 +++++ | 75.0 | 100 |
| Dibromofluoromethane (Surr) | FB | Ave | 11752 399678 | 54310 438908 | 112824 562879 | 168602 | 230039 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 17051 544829 | 75876 597233 | 155346 751925 | 228530 | 306020 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Toluene-d8 (Surr) | CBZ | Ave | 43904 1580158 | 209810 1727014 | 471382 2103482 | 679876 | 918031 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|-----------------|-----------------|------------------|--------|--------|--------------------|-------------|-------------|-------|-------|
| | | | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| | | | LVL 6 | LVL 7 | LVL 8 | | | LVL 6 | LVL 7 | LVL 8 | | |
| 4-Bromofluorobenzene (Surr) | CBZ | Ave | 15659 617045 | 76038 697446 | 171548 854277 | 257596 | 339508 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 151868

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-151868/6 | 50826006.D |
| Level 2 | IC 180-151868/8 | 50826008.D |
| Level 3 | ICIS 180-151868/9 | 50826009.D |
| Level 4 | IC 180-151868/10 | 50826010.D |
| Level 5 | IC 180-151868/11 | 50826011.D |
| Level 6 | IC 180-151868/12 | 50826012.D |
| Level 7 | IC 180-151868/13 | 50826013.D |
| Level 8 | IC 180-151868/14 | 50826014.D |

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|--------------------|---------------|---------|---------|---------|---------|---------|---------------------|-------|-------|-------|-------|-------|
| | LVL 1 # | LVL 2 # | LVL 3 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 |
| | LVL 7 # | LVL 8 # | | | | | LVL 7 | LVL 8 | | | | |
| Methylene Chloride | -0.1 | 3.1 | -0.5 | -3.3 | -6.2 | -3.8 | 40 | 40 | 40 | 40 | 40 | 40 |
| | -3.0 | 13.7 | | | | | 40 | 40 | | | | |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 26-Aug-2015 15:04:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD1
 Misc. Info.: 180-0008300-006
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 12:16:48 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 12:16:48

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.266 | 4.274 | -0.008 | 0 | 136898 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.291 | -0.001 | 98 | 405648 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 88 | 96094 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.730 | -0.002 | 97 | 140534 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.567 | -0.001 | 89 | 11752 | 5.00 | 5.90 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.938 | -0.001 | 0 | 17051 | 5.00 | 6.23 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.933 | 0.005 | 95 | 43904 | 5.00 | 5.92 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.574 | -0.002 | 84 | 15659 | 5.00 | 5.60 | |
| 11 Dichlorodifluoromethane | 85 | 1.608 | 1.627 | -0.019 | 94 | 13335 | 5.00 | 5.82 | |
| 12 Chloromethane | 50 | 1.760 | 1.761 | -0.001 | 98 | 20806 | 5.00 | 6.18 | |
| 13 Vinyl chloride | 62 | 1.906 | 1.901 | 0.005 | 72 | 16232 | 5.00 | 5.44 | |
| 14 Butadiene | 39 | 1.930 | 1.931 | -0.001 | 96 | 21253 | 5.00 | 6.03 | |
| 15 Bromomethane | 94 | 2.228 | 2.236 | -0.008 | 92 | 6860 | 5.00 | 5.65 | |
| 16 Chloroethane | 64 | 2.386 | 2.376 | 0.010 | 96 | 11321 | 5.00 | 6.29 | |
| 17 Dichlorofluoromethane | 67 | 2.660 | 2.661 | -0.001 | 95 | 22499 | 5.00 | 5.89 | |
| 18 Trichlorofluoromethane | 101 | 2.648 | 2.661 | -0.013 | 71 | 16013 | 5.00 | 5.60 | M |
| 20 Ethyl ether | 59 | 3.049 | 3.051 | -0.002 | 97 | 17175 | 5.00 | 6.48 | |
| 21 Acrolein | 56 | 3.220 | 3.233 | -0.013 | 99 | 41531 | 100.0 | 105.2 | |
| 22 1,1-Dichloroethene | 96 | 3.335 | 3.355 | -0.020 | 78 | 11952 | 5.00 | 5.29 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.402 | 3.416 | -0.014 | 66 | 13388 | 5.00 | 5.59 | |
| 24 Acetone | 43 | 3.451 | 3.452 | -0.001 | 99 | 25628 | 25.0 | 31.3 | M |
| 25 Iodomethane | 142 | 3.536 | 3.556 | -0.020 | 100 | 18992 | 5.00 | 5.64 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.635 | -0.008 | 99 | 25807 | 5.00 | 4.92 | |
| 28 3-Chloro-1-propene | 76 | 3.913 | 3.921 | -0.008 | 88 | 5646 | 5.00 | 4.41 | |
| 30 Methyl acetate | 43 | 3.938 | 3.945 | -0.007 | 100 | 67684 | 25.0 | 27.7 | |
| 31 Methylene Chloride | 84 | 4.126 | 4.152 | -0.026 | 96 | 26437 | 5.00 | 4.99 | |
| 32 2-Methyl-2-propanol | 59 | 4.406 | 4.413 | -0.007 | 90 | 9257 | 50.0 | 60.1 | |
| 33 Acrylonitrile | 53 | 4.515 | 4.517 | -0.002 | 99 | 65631 | 50.0 | 55.3 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.558 | 4.566 | -0.008 | 90 | 13723 | 5.00 | 5.59 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.584 | -0.008 | 92 | 29774 | 5.00 | 5.24 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.990 | 4.991 | -0.001 | 93 | 22257 | 5.00 | 5.40 | |
| 37 1,1-Dichloroethane | 63 | 5.203 | 5.198 | 0.005 | 96 | 27303 | 5.00 | 5.65 | |
| 38 Vinyl acetate | 43 | 5.252 | 5.253 | -0.001 | 98 | 18896 | 5.00 | 5.21 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.953 | -0.002 | 85 | 14442 | 5.00 | 5.51 | |
| 44 2,2-Dichloropropane | 77 | 5.939 | 5.946 | -0.007 | 60 | 10315 | 5.00 | 5.33 | |
| 46 2-Butanone (MEK) | 43 | 5.963 | 5.959 | 0.004 | 97 | 34471 | 25.0 | 28.0 | |
| 49 Chlorobromomethane | 128 | 6.237 | 6.238 | -0.001 | 92 | 6284 | 5.00 | 5.46 | |
| 51 Tetrahydrofuran | 42 | 6.249 | 6.257 | -0.008 | 93 | 12850 | 10.0 | 13.0 | |
| 52 Chloroform | 83 | 6.389 | 6.385 | 0.005 | 74 | 24828 | 5.00 | 5.95 | |
| 53 1,1,1-Trichloroethane | 97 | 6.535 | 6.549 | -0.014 | 91 | 15850 | 5.00 | 5.13 | |
| 54 Cyclohexane | 56 | 6.614 | 6.616 | -0.002 | 96 | 25044 | 5.00 | 4.85 | |
| 56 Carbon tetrachloride | 117 | 6.718 | 6.719 | -0.001 | 94 | 13013 | 5.00 | 4.95 | |
| 55 1,1-Dichloropropene | 75 | 6.724 | 6.731 | -0.007 | 91 | 16668 | 5.00 | 4.88 | |
| 57 Isobutyl alcohol | 41 | 6.918 | 6.926 | -0.008 | 70 | 9663 | 125.0 | 125.1 | |
| 58 Benzene | 78 | 6.943 | 6.944 | -0.001 | 97 | 55246 | 5.00 | 5.52 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.023 | -0.001 | 95 | 19231 | 5.00 | 5.56 | |
| 62 n-Heptane | 43 | 7.314 | 7.309 | 0.005 | 93 | 19899 | 5.00 | 5.32 | |
| 64 Trichloroethene | 130 | 7.679 | 7.674 | 0.005 | 92 | 13948 | 5.00 | 5.70 | |
| 66 Methylcyclohexane | 83 | 7.916 | 7.918 | -0.002 | 93 | 17237 | 5.00 | 4.47 | |
| 67 1,2-Dichloropropane | 63 | 7.947 | 7.954 | -0.007 | 90 | 15440 | 5.00 | 5.88 | |
| 70 1,4-Dioxane | 88 | 8.026 | 8.027 | -0.001 | 42 | 1429 | 100.0 | 79.0 | |
| 68 Dibromomethane | 93 | 8.026 | 8.039 | -0.013 | 95 | 7003 | 5.00 | 5.26 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.234 | -0.002 | 93 | 12926 | 5.00 | 4.90 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.664 | 8.678 | -0.014 | 65 | 13234 | 5.00 | 4.29 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.823 | 8.830 | -0.007 | 97 | 52387 | 25.0 | 22.1 | |
| 76 Toluene | 91 | 9.005 | 9.006 | -0.001 | 97 | 53527 | 5.00 | 5.63 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.248 | 9.250 | -0.002 | 96 | 10582 | 5.00 | 4.26 | |
| 78 Ethyl methacrylate | 69 | 9.315 | 9.311 | 0.004 | 94 | 9690 | 5.00 | 4.04 | |
| 79 1,1,2-Trichloroethane | 97 | 9.449 | 9.444 | 0.005 | 93 | 9469 | 5.00 | 5.23 | |
| 80 Tetrachloroethene | 164 | 9.522 | 9.517 | 0.005 | 93 | 10935 | 5.00 | 5.92 | |
| 81 1,3-Dichloropropane | 76 | 9.607 | 9.603 | 0.004 | 99 | 19141 | 5.00 | 5.70 | |
| 82 2-Hexanone | 43 | 9.662 | 9.657 | 0.005 | 97 | 39604 | 25.0 | 23.2 | |
| 84 Chlorodibromomethane | 129 | 9.814 | 9.816 | -0.002 | 89 | 7357 | 5.00 | 4.70 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.931 | -0.001 | 99 | 9378 | 5.00 | 5.38 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.387 | 0.005 | 56 | 18393 | 5.00 | 6.02 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.418 | -0.002 | 94 | 35900 | 5.00 | 5.86 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.479 | -0.002 | 96 | 16914 | 5.00 | 5.85 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.508 | 10.509 | -0.001 | 87 | 10787 | 5.00 | 5.40 | |
| 90 Ethylbenzene | 106 | 10.514 | 10.515 | -0.001 | 98 | 15563 | 5.00 | 4.79 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.649 | -0.001 | 0 | 18709 | 5.00 | 4.70 | |
| 92 o-Xylene | 106 | 11.025 | 11.026 | -0.001 | 97 | 17177 | 5.00 | 4.54 | |
| 93 Styrene | 104 | 11.049 | 11.051 | -0.002 | 93 | 27953 | 5.00 | 4.46 | |
| 94 Bromoform | 173 | 11.226 | 11.233 | -0.007 | 96 | 4507 | 5.00 | 5.04 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.305 | 11.294 | 0.011 | 92 | 17186 | 5.00 | 5.71 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.397 | -0.001 | 96 | 41948 | 5.00 | 4.53 | |
| 100 Bromobenzene | 156 | 11.712 | 11.708 | 0.004 | 96 | 12648 | 5.00 | 5.24 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.708 | 0.004 | 82 | 14088 | 5.00 | 5.77 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.749 | 11.744 | 0.005 | 58 | 4099 | 5.00 | 4.70 | |
| 101 1,2,3-Trichloropropane | 110 | 11.761 | 11.762 | -0.001 | 85 | 4305 | 5.00 | 5.41 | |
| 103 N-Propylbenzene | 120 | 11.810 | 11.811 | -0.001 | 99 | 12643 | 5.00 | 4.58 | |
| 104 2-Chlorotoluene | 126 | 11.895 | 11.902 | -0.007 | 95 | 10430 | 5.00 | 4.44 | |
| 105 3-Chlorotoluene | 126 | 11.968 | 11.963 | 0.005 | 96 | 11617 | 5.00 | 4.82 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.992 | 11.993 | -0.001 | 95 | 33229 | 5.00 | 4.26 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.024 | -0.002 | 98 | 12133 | 5.00 | 4.70 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.310 | -0.002 | 96 | 26338 | 5.00 | 4.15 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.371 | -0.002 | 96 | 32428 | 5.00 | 4.15 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.406 | 12.413 | -0.007 | 95 | 13115 | 5.00 | 6.02 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.535 | -0.002 | 96 | 39041 | 5.00 | 4.36 | |
| 113 1,3-Dichlorobenzene | 146 | 12.655 | 12.650 | 0.005 | 94 | 22108 | 5.00 | 5.15 | |
| 114 4-Isopropyltoluene | 119 | 12.692 | 12.687 | 0.005 | 94 | 30909 | 5.00 | 4.08 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.754 | -0.002 | 94 | 25851 | 5.00 | 5.79 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.783 | 12.778 | 0.005 | 92 | 11477 | 5.00 | 5.68 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.825 | 12.821 | 0.004 | 0 | 12582 | 5.00 | 5.77 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.101 | -0.002 | 98 | 27472 | 5.00 | 4.24 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.113 | -0.002 | 97 | 22973 | 5.00 | 5.72 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.920 | 13.904 | 0.016 | 1 | 1507 | 5.00 | 4.57 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.048 | 14.044 | 0.004 | 0 | 31847 | 15.0 | 13.9 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.462 | 14.463 | -0.001 | 0 | 19801 | 10.0 | 9.06 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.723 | 14.725 | -0.002 | 94 | 7500 | 5.00 | 4.80 | |
| 127 Hexachlorobutadiene | 225 | 14.876 | 14.871 | 0.005 | 90 | 3919 | 5.00 | 5.21 | |
| 128 Naphthalene | 128 | 14.991 | 14.993 | -0.002 | 96 | 17192 | 5.00 | 4.28 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.216 | 15.218 | -0.002 | 92 | 6907 | 5.00 | 5.46 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.989 | 15.990 | -0.001 | 0 | 2382 | 5.00 | 5.22 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.094 | -0.002 | 87 | 1485 | 5.00 | 3.53 | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 10.0 | 9.24 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 10.0 | 11.1 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 10.0 | 8.55 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260VOAPRI_00139 | Amount Added: 0.20 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 0.20 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 0.20 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 0.80 | Units: uL | |
| VOAACROLEINPR_00006 | Amount Added: 4.00 | Units: uL | |
| VOA8260SURRE_00040 | Amount Added: 0.20 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D

Injection Date: 26-Aug-2015 15:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

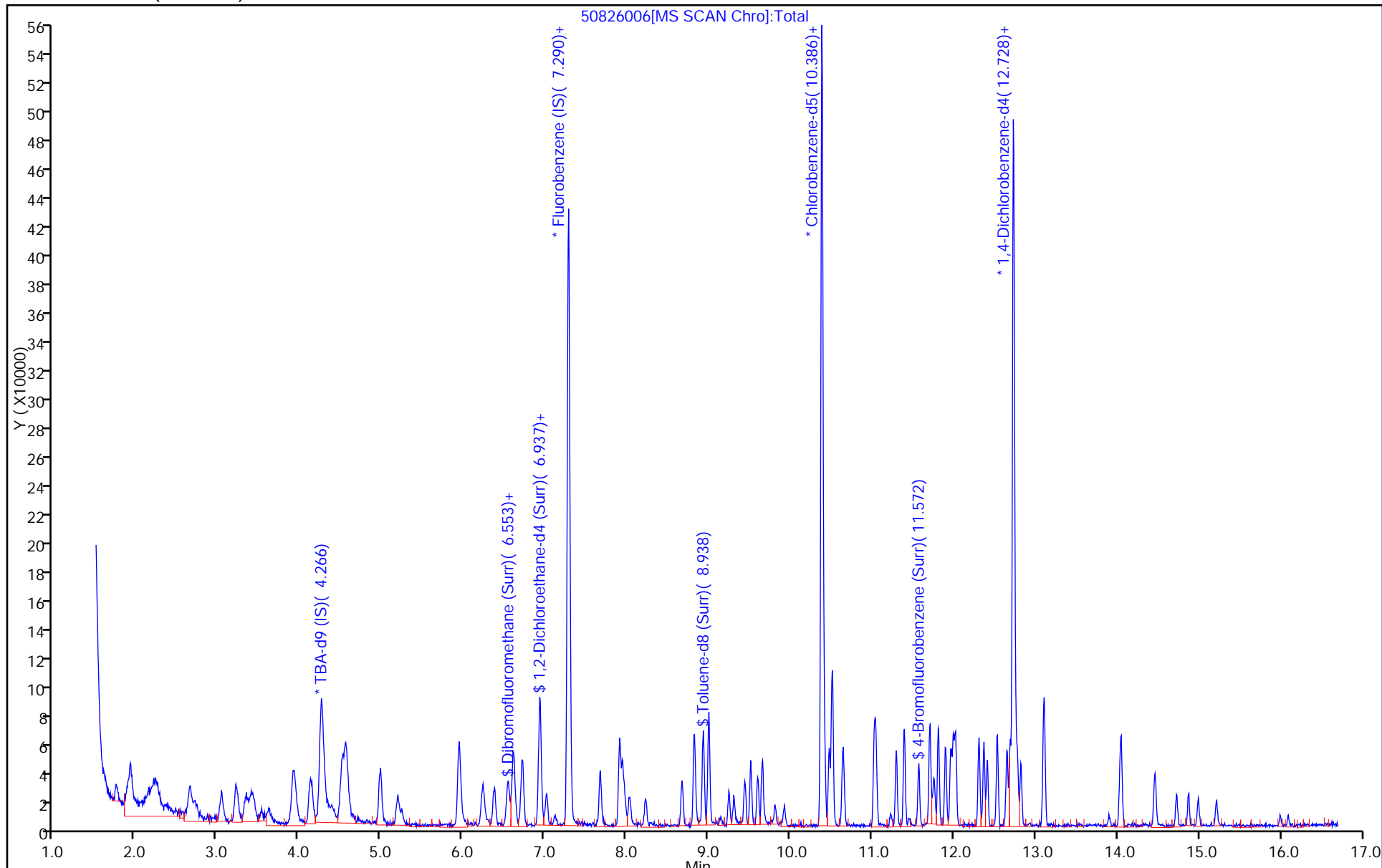
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



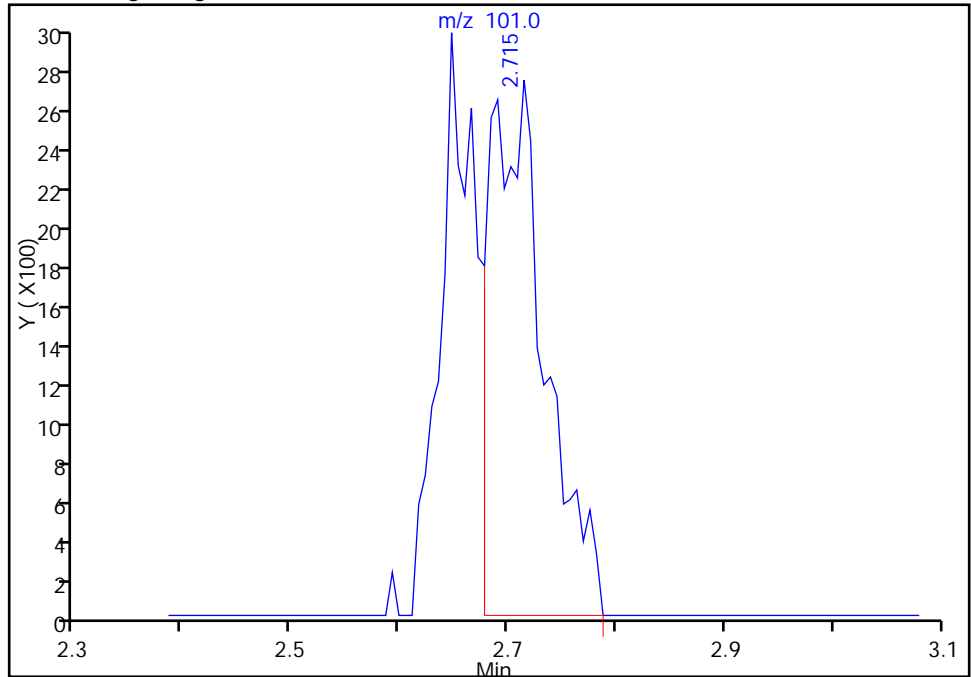
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D
Injection Date: 26-Aug-2015 15:04:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

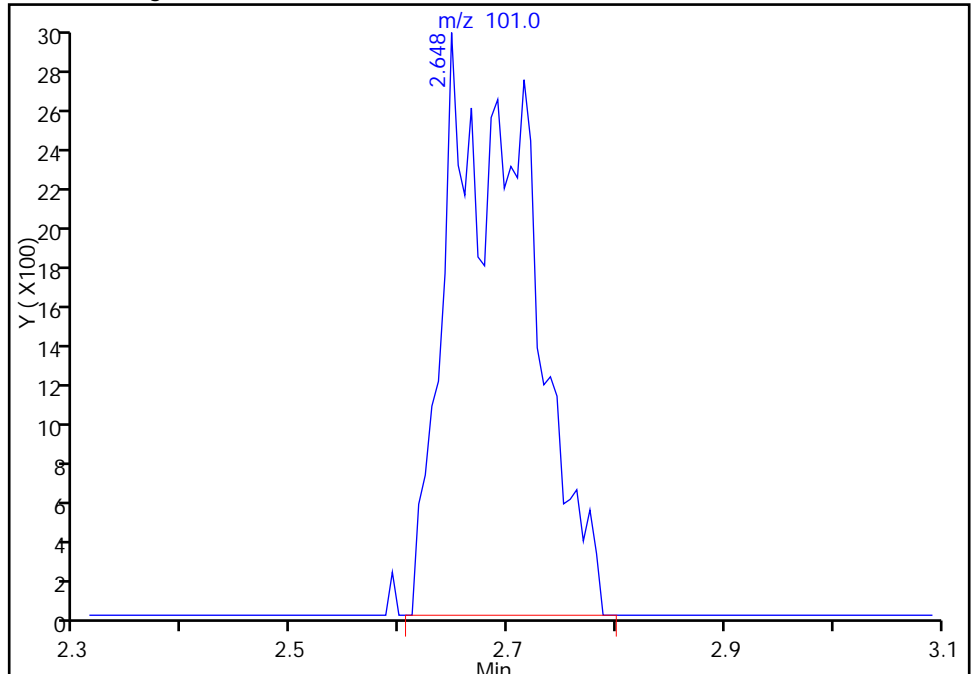
RT: 2.71
Area: 9760
Amount: 4.111403
Amount Units: ng

Processing Integration Results



RT: 2.65
Area: 16013
Amount: 5.602773
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:07:27
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

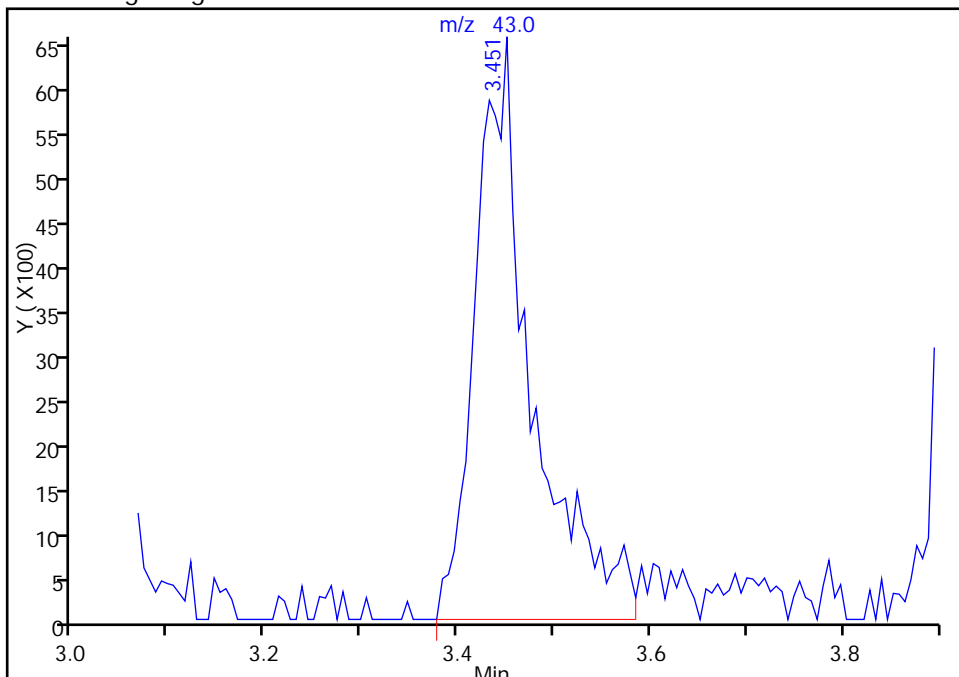
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D
Injection Date: 26-Aug-2015 15:04:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

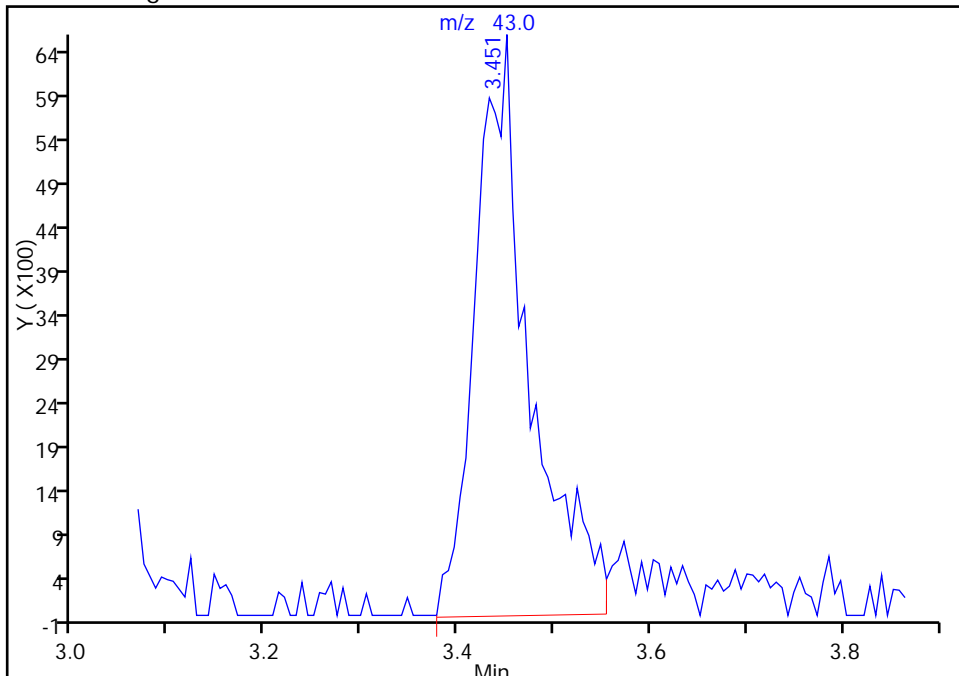
RT: 3.45
Area: 26617
Amount: 32.323853
Amount Units: ng

Processing Integration Results



RT: 3.45
Area: 25628
Amount: 31.310834
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:07:27
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826008.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 26-Aug-2015 15:28:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD5
 Misc. Info.: 180-0008300-008
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:47:16 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond Date: 27-Aug-2015 10:07:55

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.260 | 4.267 | -0.007 | 0 | 150907 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.290 | 0.000 | 97 | 426232 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 89 | 101235 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 96 | 159073 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.560 | 0.006 | 92 | 54310 | 25.0 | 25.9 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.931 | 0.000 | 0 | 75876 | 25.0 | 26.4 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 95 | 209810 | 25.0 | 26.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 85 | 76038 | 25.0 | 25.8 | |
| 11 Dichlorodifluoromethane | 85 | 1.608 | 1.614 | -0.006 | 99 | 63359 | 25.0 | 26.3 | |
| 12 Chloromethane | 50 | 1.760 | 1.766 | -0.006 | 99 | 96975 | 25.0 | 27.4 | |
| 13 Vinyl chloride | 62 | 1.893 | 1.894 | -0.001 | 97 | 84746 | 25.0 | 27.0 | |
| 14 Butadiene | 39 | 1.930 | 1.937 | -0.007 | 97 | 101243 | 25.0 | 27.3 | |
| 15 Bromomethane | 94 | 2.234 | 2.247 | -0.013 | 88 | 33586 | 25.0 | 26.3 | |
| 16 Chloroethane | 64 | 2.386 | 2.387 | -0.001 | 99 | 50718 | 25.0 | 26.8 | |
| 17 Dichlorofluoromethane | 67 | 2.660 | 2.661 | -0.001 | 97 | 111107 | 25.0 | 27.7 | |
| 18 Trichlorofluoromethane | 101 | 2.690 | 2.667 | 0.023 | 87 | 81291 | 25.0 | 27.1 | |
| 20 Ethyl ether | 59 | 3.043 | 3.050 | -0.007 | 93 | 70836 | 25.0 | 25.5 | |
| 21 Acrolein | 56 | 3.226 | 3.232 | -0.006 | 99 | 52087 | 125.0 | 125.6 | |
| 22 1,1-Dichloroethene | 96 | 3.347 | 3.348 | -0.001 | 93 | 60024 | 25.0 | 25.3 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.414 | 3.403 | 0.011 | 94 | 67283 | 25.0 | 26.7 | |
| 24 Acetone | 43 | 3.451 | 3.445 | 0.006 | 100 | 51703 | 50.0 | 60.1 | |
| 25 Iodomethane | 142 | 3.536 | 3.543 | -0.007 | 98 | 89056 | 25.0 | 25.2 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.628 | -0.001 | 100 | 126552 | 25.0 | 23.0 | |
| 28 3-Chloro-1-propene | 76 | 3.913 | 3.920 | -0.007 | 86 | 31974 | 25.0 | 23.8 | |
| 30 Methyl acetate | 43 | 3.938 | 3.938 | 0.000 | 99 | 347746 | 125.0 | 135.3 | |
| 31 Methylene Chloride | 84 | 4.144 | 4.139 | 0.005 | 97 | 79338 | 25.0 | 25.8 | |
| 32 2-Methyl-2-propanol | 59 | 4.400 | 4.407 | -0.007 | 87 | 39038 | 250.0 | 229.8 | |
| 33 Acrylonitrile | 53 | 4.522 | 4.522 | 0.000 | 100 | 329204 | 250.0 | 264.0 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.565 | -0.001 | 97 | 66301 | 25.0 | 25.7 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.577 | -0.001 | 95 | 147150 | 25.0 | 24.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.990 | 4.997 | -0.007 | 95 | 109198 | 25.0 | 25.2 | |
| 37 1,1-Dichloroethane | 63 | 5.203 | 5.204 | -0.001 | 96 | 128072 | 25.0 | 25.2 | |
| 38 Vinyl acetate | 43 | 5.252 | 5.252 | 0.000 | 97 | 92081 | 25.0 | 24.2 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.952 | -0.001 | 86 | 69819 | 25.0 | 25.4 | |
| 44 2,2-Dichloropropane | 77 | 5.945 | 5.952 | -0.007 | 58 | 48880 | 25.0 | 24.0 | |
| 46 2-Butanone (MEK) | 43 | 5.957 | 5.964 | -0.007 | 66 | 68384 | 50.0 | 52.9 | |
| 49 Chlorobromomethane | 128 | 6.237 | 6.238 | -0.001 | 91 | 31931 | 25.0 | 26.4 | |
| 51 Tetrahydrofuran | 42 | 6.255 | 6.250 | 0.005 | 91 | 51589 | 50.0 | 49.8 | |
| 52 Chloroform | 83 | 6.377 | 6.384 | -0.007 | 96 | 113670 | 25.0 | 25.9 | |
| 53 1,1,1-Trichloroethane | 97 | 6.541 | 6.542 | -0.001 | 95 | 81030 | 25.0 | 25.0 | |
| 54 Cyclohexane | 56 | 6.614 | 6.615 | -0.001 | 96 | 134937 | 25.0 | 24.9 | |
| 56 Carbon tetrachloride | 117 | 6.712 | 6.718 | -0.006 | 95 | 69375 | 25.0 | 25.1 | |
| 55 1,1-Dichloropropene | 75 | 6.730 | 6.730 | 0.000 | 91 | 91438 | 25.0 | 25.5 | |
| 57 Isobutyl alcohol | 41 | 6.925 | 6.925 | -0.001 | 78 | 48239 | 625.0 | 594.3 | |
| 58 Benzene | 78 | 6.943 | 6.943 | 0.000 | 98 | 287091 | 25.0 | 27.3 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.022 | 0.000 | 96 | 95482 | 25.0 | 26.3 | |
| 62 n-Heptane | 43 | 7.308 | 7.308 | 0.000 | 93 | 97699 | 25.0 | 24.9 | |
| 64 Trichloroethene | 130 | 7.673 | 7.679 | -0.006 | 96 | 64418 | 25.0 | 25.1 | |
| 66 Methylcyclohexane | 83 | 7.916 | 7.917 | -0.001 | 96 | 97305 | 25.0 | 24.0 | |
| 67 1,2-Dichloropropane | 63 | 7.953 | 7.947 | 0.006 | 94 | 67479 | 25.0 | 24.5 | |
| 70 1,4-Dioxane | 88 | 8.032 | 8.026 | 0.006 | 40 | 9374 | 500.0 | 493.0 | |
| 68 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 94 | 37187 | 25.0 | 26.6 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.233 | -0.001 | 97 | 67441 | 25.0 | 24.4 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.677 | 8.677 | 0.000 | 88 | 70847 | 25.0 | 21.8 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.829 | 0.000 | 99 | 122590 | 50.0 | 49.1 | |
| 76 Toluene | 91 | 9.005 | 9.006 | -0.001 | 98 | 281285 | 25.0 | 28.1 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.248 | 9.249 | -0.001 | 99 | 61867 | 25.0 | 23.7 | |
| 78 Ethyl methacrylate | 69 | 9.309 | 9.310 | -0.001 | 91 | 57962 | 25.0 | 22.9 | |
| 79 1,1,2-Trichloroethane | 97 | 9.443 | 9.444 | -0.001 | 94 | 55277 | 25.0 | 29.0 | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.517 | -0.001 | 96 | 53495 | 25.0 | 27.5 | |
| 81 1,3-Dichloropropane | 76 | 9.601 | 9.602 | -0.001 | 98 | 95569 | 25.0 | 27.0 | |
| 82 2-Hexanone | 43 | 9.656 | 9.657 | -0.001 | 98 | 91984 | 50.0 | 51.1 | |
| 84 Chlorodibromomethane | 129 | 9.814 | 9.815 | -0.001 | 91 | 38492 | 25.0 | 23.3 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.930 | 0.000 | 95 | 49971 | 25.0 | 27.2 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.386 | 10.387 | -0.001 | 69 | 87568 | 25.0 | 27.2 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.417 | -0.001 | 94 | 177451 | 25.0 | 27.5 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.478 | -0.001 | 96 | 83430 | 25.0 | 27.4 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.508 | 10.508 | 0.000 | 89 | 55507 | 25.0 | 26.4 | |
| 90 Ethylbenzene | 106 | 10.514 | 10.514 | 0.000 | 99 | 88753 | 25.0 | 25.9 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.648 | 0.000 | 0 | 107918 | 25.0 | 25.7 | |
| 92 o-Xylene | 106 | 11.031 | 11.025 | 0.006 | 98 | 99302 | 25.0 | 24.9 | |
| 93 Styrene | 104 | 11.049 | 11.050 | -0.001 | 94 | 173558 | 25.0 | 26.3 | |
| 94 Bromoform | 173 | 11.232 | 11.232 | 0.000 | 95 | 21829 | 25.0 | 23.2 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.299 | 11.299 | 0.000 | 97 | 88525 | 25.0 | 27.9 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.396 | 0.000 | 97 | 258721 | 25.0 | 26.5 | |
| 100 Bromobenzene | 156 | 11.712 | 11.707 | 0.005 | 96 | 66130 | 25.0 | 24.2 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.706 | 11.707 | -0.001 | 78 | 70831 | 25.0 | 27.5 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.743 | 11.743 | 0.000 | 69 | 22318 | 25.0 | 22.6 | |
| 101 1,2,3-Trichloropropane | 110 | 11.761 | 11.762 | -0.001 | 87 | 23273 | 25.0 | 25.8 | |
| 103 N-Propylbenzene | 120 | 11.810 | 11.810 | 0.000 | 99 | 74204 | 25.0 | 23.7 | |
| 104 2-Chlorotoluene | 126 | 11.895 | 11.901 | -0.006 | 95 | 65813 | 25.0 | 24.8 | |
| 105 3-Chlorotoluene | 126 | 11.962 | 11.968 | -0.006 | 95 | 68954 | 25.0 | 25.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.992 | 11.993 | -0.001 | 95 | 229921 | 25.0 | 26.0 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.023 | -0.001 | 98 | 77519 | 25.0 | 26.5 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.309 | -0.001 | 95 | 173217 | 25.0 | 24.1 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.370 | -0.001 | 98 | 227690 | 25.0 | 25.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.412 | 12.412 | 0.000 | 98 | 61289 | 25.0 | 24.8 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.534 | -0.001 | 95 | 258745 | 25.0 | 25.5 | |
| 113 1,3-Dichlorobenzene | 146 | 12.649 | 12.650 | -0.001 | 96 | 127273 | 25.0 | 26.2 | |
| 114 4-Isopropyltoluene | 119 | 12.692 | 12.692 | 0.000 | 97 | 215293 | 25.0 | 25.1 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.753 | -0.001 | 95 | 133066 | 25.0 | 26.3 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.777 | 12.777 | 0.000 | 93 | 59316 | 25.0 | 25.9 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.820 | -0.001 | 0 | 61489 | 25.0 | 24.9 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.100 | -0.001 | 98 | 181007 | 25.0 | 24.7 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.112 | -0.001 | 95 | 119403 | 25.0 | 26.3 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.902 | 13.897 | 0.005 | 70 | 9637 | 25.0 | 25.8 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.042 | 14.049 | -0.007 | 0 | 187206 | 75.0 | 72.1 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.462 | 14.463 | -0.001 | 0 | 120746 | 50.0 | 48.8 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.730 | 14.724 | 0.006 | 92 | 45439 | 25.0 | 25.7 | |
| 127 Hexachlorobutadiene | 225 | 14.870 | 14.870 | 0.000 | 95 | 23516 | 25.0 | 27.6 | |
| 128 Naphthalene | 128 | 14.991 | 14.992 | -0.001 | 98 | 101055 | 25.0 | 22.2 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.210 | 15.217 | -0.007 | 93 | 35802 | 25.0 | 25.0 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.995 | 15.990 | 0.005 | 0 | 11540 | 25.0 | 22.3 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.093 | -0.001 | 92 | 10524 | 25.0 | 22.1 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 50.0 | 50.6 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 50.0 | 51.1 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 50.0 | 45.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00040 | Amount Added: 1.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 1.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 1.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 1.00 | Units: uL | |
| VOAACROLEINPR_00006 | Amount Added: 5.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 1.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826008.D

Injection Date: 26-Aug-2015 15:28:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

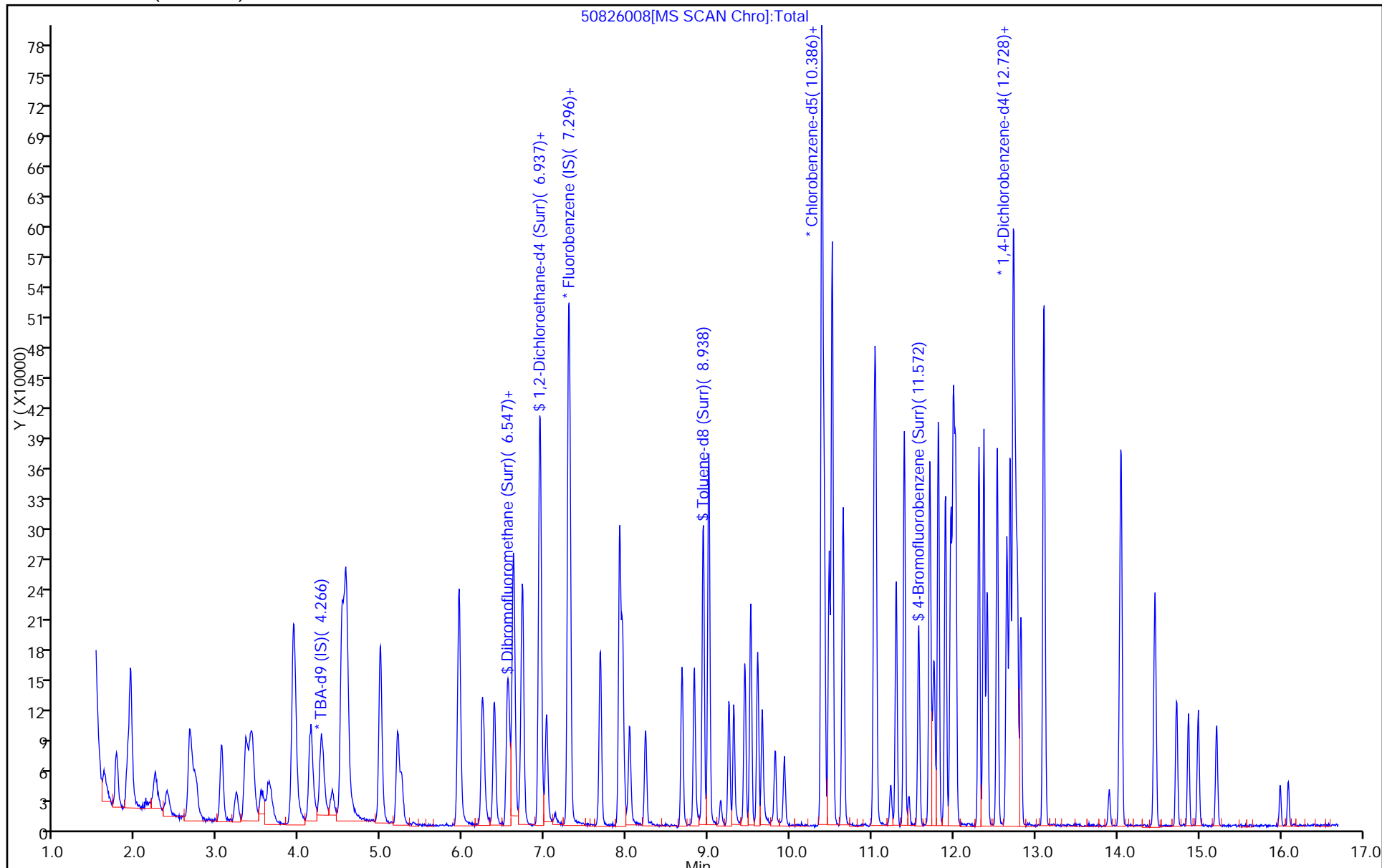
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826009.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 26-Aug-2015 15:52:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: ICIS VSTD10
 Misc. Info.: 180-0008300-009
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 12:15:57 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 08:52:40

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.274 | 4.274 | 0.000 | 0 | 157569 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.291 | 7.291 | 0.000 | 98 | 461146 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.387 | 0.000 | 88 | 108412 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.730 | 12.730 | 0.000 | 96 | 172635 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.567 | 6.567 | 0.000 | 94 | 112824 | 50.0 | 49.8 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.938 | 6.938 | 0.000 | 0 | 155346 | 50.0 | 49.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.933 | 8.933 | 0.000 | 94 | 471382 | 50.0 | 56.4 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.574 | 11.574 | 0.000 | 86 | 171548 | 50.0 | 54.4 | |
| 11 Dichlorodifluoromethane | 85 | 1.627 | 1.627 | 0.000 | 99 | 139988 | 50.0 | 53.7 | |
| 12 Chloromethane | 50 | 1.761 | 1.761 | 0.000 | 100 | 189967 | 50.0 | 49.7 | |
| 13 Vinyl chloride | 62 | 1.901 | 1.901 | 0.000 | 97 | 181809 | 50.0 | 53.6 | |
| 14 Butadiene | 39 | 1.931 | 1.931 | 0.000 | 97 | 213171 | 50.0 | 53.2 | |
| 15 Bromomethane | 94 | 2.236 | 2.236 | 0.000 | 92 | 58568 | 50.0 | 42.4 | |
| 16 Chloroethane | 64 | 2.376 | 2.376 | 0.000 | 99 | 99329 | 50.0 | 48.5 | |
| 17 Dichlorofluoromethane | 67 | 2.661 | 2.661 | 0.000 | 97 | 232009 | 50.0 | 53.4 | |
| 18 Trichlorofluoromethane | 101 | 2.661 | 2.661 | 0.000 | 43 | 174036 | 50.0 | 53.6 | |
| 20 Ethyl ether | 59 | 3.051 | 3.051 | 0.000 | 97 | 145899 | 50.0 | 48.5 | |
| 21 Acrolein | 56 | 3.233 | 3.233 | 0.000 | 98 | 66358 | 150.0 | 147.9 | |
| 22 1,1-Dichloroethene | 96 | 3.355 | 3.355 | 0.000 | 95 | 132602 | 50.0 | 51.6 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.416 | 3.416 | 0.000 | 94 | 141996 | 50.0 | 52.2 | |
| 24 Acetone | 43 | 3.452 | 3.452 | 0.000 | 99 | 88342 | 100.0 | 94.9 | |
| 25 Iodomethane | 142 | 3.556 | 3.556 | 0.000 | 98 | 190440 | 50.0 | 49.8 | |
| 26 Carbon disulfide | 76 | 3.635 | 3.635 | 0.000 | 100 | 288788 | 50.0 | 48.4 | |
| 28 3-Chloro-1-propene | 76 | 3.921 | 3.921 | 0.000 | 88 | 70192 | 50.0 | 48.3 | |
| 30 Methyl acetate | 43 | 3.945 | 3.945 | 0.000 | 99 | 664608 | 250.0 | 239.0 | |
| 31 Methylene Chloride | 84 | 4.152 | 4.152 | 0.000 | 97 | 150258 | 50.0 | 49.8 | |
| 32 2-Methyl-2-propanol | 59 | 4.413 | 4.413 | 0.000 | 87 | 81932 | 500.0 | 462.0 | |
| 33 Acrylonitrile | 53 | 4.517 | 4.517 | 0.000 | 99 | 693478 | 500.0 | 514.1 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.566 | 4.566 | 0.000 | 96 | 141577 | 50.0 | 50.8 | |
| 35 Methyl tert-butyl ether | 73 | 4.584 | 4.584 | 0.000 | 95 | 302403 | 50.0 | 46.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.991 | 4.991 | 0.000 | 95 | 237492 | 50.0 | 50.7 | |
| 37 1,1-Dichloroethane | 63 | 5.198 | 5.198 | 0.000 | 96 | 273423 | 50.0 | 49.8 | |
| 38 Vinyl acetate | 43 | 5.253 | 5.253 | 0.000 | 97 | 191017 | 50.0 | 46.3 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.953 | 5.953 | 0.000 | 86 | 146208 | 50.0 | 49.1 | |
| 44 2,2-Dichloropropane | 77 | 5.946 | 5.946 | 0.000 | 60 | 109416 | 50.0 | 49.7 | |
| 46 2-Butanone (MEK) | 43 | 5.959 | 5.959 | 0.000 | 73 | 136667 | 100.0 | 97.8 | |
| 49 Chlorobromomethane | 128 | 6.238 | 6.238 | 0.000 | 91 | 62915 | 50.0 | 48.1 | |
| 51 Tetrahydrofuran | 42 | 6.257 | 6.257 | 0.000 | 94 | 107444 | 100.0 | 95.8 | |
| 52 Chloroform | 83 | 6.385 | 6.385 | 0.000 | 96 | 232542 | 50.0 | 49.0 | |
| 53 1,1,1-Trichloroethane | 97 | 6.549 | 6.549 | 0.000 | 96 | 178131 | 50.0 | 50.8 | |
| 54 Cyclohexane | 56 | 6.616 | 6.616 | 0.000 | 96 | 302702 | 50.0 | 51.5 | |
| 56 Carbon tetrachloride | 117 | 6.719 | 6.719 | 0.000 | 95 | 148991 | 50.0 | 49.9 | |
| 55 1,1-Dichloropropene | 75 | 6.731 | 6.731 | 0.000 | 91 | 198075 | 50.0 | 51.0 | |
| 57 Isobutyl alcohol | 41 | 6.926 | 6.926 | 0.000 | 79 | 113924 | 1250.0 | 1297.3 | |
| 58 Benzene | 78 | 6.944 | 6.944 | 0.000 | 98 | 580241 | 50.0 | 51.0 | |
| 59 1,2-Dichloroethane | 62 | 7.023 | 7.023 | 0.000 | 96 | 191991 | 50.0 | 48.8 | |
| 62 n-Heptane | 43 | 7.309 | 7.309 | 0.000 | 96 | 215218 | 50.0 | 50.6 | |
| 64 Trichloroethene | 130 | 7.674 | 7.674 | 0.000 | 97 | 138404 | 50.0 | 49.8 | |
| 66 Methylcyclohexane | 83 | 7.918 | 7.918 | 0.000 | 96 | 222858 | 50.0 | 50.8 | |
| 67 1,2-Dichloropropane | 63 | 7.954 | 7.954 | 0.000 | 95 | 144895 | 50.0 | 48.6 | |
| 70 1,4-Dioxane | 88 | 8.027 | 8.027 | 0.000 | 48 | 20164 | 1000.0 | 980.3 | |
| 68 Dibromomethane | 93 | 8.039 | 8.039 | 0.000 | 96 | 74626 | 50.0 | 49.3 | |
| 71 Dichlorobromomethane | 83 | 8.234 | 8.234 | 0.000 | 98 | 141423 | 50.0 | 47.2 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.678 | 8.678 | 0.000 | 90 | 159644 | 50.0 | 45.5 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.830 | 8.830 | 0.000 | 99 | 267134 | 100.0 | 100.0 | |
| 76 Toluene | 91 | 9.006 | 9.006 | 0.000 | 98 | 594334 | 50.0 | 55.4 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.250 | 9.250 | 0.000 | 98 | 136231 | 50.0 | 48.6 | |
| 78 Ethyl methacrylate | 69 | 9.311 | 9.311 | 0.000 | 94 | 132749 | 50.0 | 49.0 | |
| 79 1,1,2-Trichloroethane | 97 | 9.444 | 9.444 | 0.000 | 94 | 105440 | 50.0 | 51.6 | |
| 80 Tetrachloroethene | 164 | 9.517 | 9.517 | 0.000 | 95 | 111146 | 50.0 | 53.3 | |
| 81 1,3-Dichloropropane | 76 | 9.603 | 9.603 | 0.000 | 98 | 194887 | 50.0 | 51.4 | |
| 82 2-Hexanone | 43 | 9.657 | 9.657 | 0.000 | 99 | 195734 | 100.0 | 101.5 | |
| 84 Chlorodibromomethane | 129 | 9.816 | 9.816 | 0.000 | 89 | 89414 | 50.0 | 50.6 | |
| 85 Ethylene Dibromide | 107 | 9.931 | 9.931 | 0.000 | 100 | 100600 | 50.0 | 51.1 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.387 | 10.387 | 0.000 | 86 | 189078 | 50.0 | 54.8 | |
| 87 Chlorobenzene | 112 | 10.418 | 10.418 | 0.000 | 93 | 364174 | 50.0 | 52.7 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.479 | 10.479 | 0.000 | 96 | 177807 | 50.0 | 54.5 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.509 | 10.509 | 0.000 | 91 | 112884 | 50.0 | 50.1 | |
| 90 Ethylbenzene | 106 | 10.515 | 10.515 | 0.000 | 99 | 199030 | 50.0 | 54.3 | |
| 91 m-Xylene & p-Xylene | 106 | 10.649 | 10.649 | 0.000 | 0 | 244588 | 50.0 | 54.5 | |
| 92 o-Xylene | 106 | 11.026 | 11.026 | 0.000 | 97 | 235252 | 50.0 | 55.1 | |
| 93 Styrene | 104 | 11.051 | 11.051 | 0.000 | 95 | 381888 | 50.0 | 54.0 | |
| 94 Bromoform | 173 | 11.233 | 11.233 | 0.000 | 96 | 48771 | 50.0 | 48.4 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.294 | 11.294 | 0.000 | 96 | 184654 | 50.0 | 54.4 | |
| 97 Isopropylbenzene | 105 | 11.397 | 11.397 | 0.000 | 97 | 601591 | 50.0 | 57.5 | |
| 100 Bromobenzene | 156 | 11.708 | 11.708 | 0.000 | 94 | 144660 | 50.0 | 48.8 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.708 | 11.708 | 0.000 | 77 | 148796 | 50.0 | 54.0 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.744 | 11.744 | 0.000 | 79 | 49630 | 50.0 | 46.3 | |
| 101 1,2,3-Trichloropropane | 110 | 11.762 | 11.762 | 0.000 | 88 | 46443 | 50.0 | 47.5 | |
| 103 N-Propylbenzene | 120 | 11.811 | 11.811 | 0.000 | 99 | 174426 | 50.0 | 51.4 | |
| 104 2-Chlorotoluene | 126 | 11.902 | 11.902 | 0.000 | 96 | 147328 | 50.0 | 51.1 | |
| 105 3-Chlorotoluene | 126 | 11.963 | 11.963 | 0.000 | 96 | 151211 | 50.0 | 51.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.993 | 11.993 | 0.000 | 95 | 517168 | 50.0 | 54.0 | |
| 107 4-Chlorotoluene | 126 | 12.024 | 12.024 | 0.000 | 98 | 159410 | 50.0 | 50.2 | |
| 108 tert-Butylbenzene | 119 | 12.310 | 12.310 | 0.000 | 95 | 406052 | 50.0 | 52.1 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.371 | 12.371 | 0.000 | 98 | 515539 | 50.0 | 53.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.413 | 12.413 | 0.000 | 98 | 140073 | 50.0 | 52.3 | |
| 112 sec-Butylbenzene | 105 | 12.535 | 12.535 | 0.000 | 95 | 604638 | 50.0 | 55.0 | |
| 113 1,3-Dichlorobenzene | 146 | 12.650 | 12.650 | 0.000 | 98 | 273757 | 50.0 | 51.9 | |
| 114 4-Isopropyltoluene | 119 | 12.687 | 12.687 | 0.000 | 97 | 504672 | 50.0 | 54.2 | |
| 115 1,4-Dichlorobenzene | 146 | 12.754 | 12.754 | 0.000 | 93 | 277292 | 50.0 | 50.5 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.778 | 12.778 | 0.000 | 96 | 134729 | 50.0 | 54.3 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.821 | 12.821 | 0.000 | 0 | 138171 | 50.0 | 51.5 | |
| 120 n-Butylbenzene | 91 | 13.101 | 13.101 | 0.000 | 98 | 432555 | 50.0 | 54.3 | |
| 121 1,2-Dichlorobenzene | 146 | 13.113 | 13.113 | 0.000 | 95 | 257985 | 50.0 | 52.3 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.904 | 13.904 | 0.000 | 76 | 20608 | 50.0 | 50.9 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.044 | 14.044 | 0.000 | 0 | 495585 | 150.0 | 176.0 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.463 | 14.463 | 0.000 | 0 | 328345 | 100.0 | 122.3 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.725 | 14.725 | 0.000 | 93 | 119069 | 50.0 | 62.1 | |
| 127 Hexachlorobutadiene | 225 | 14.871 | 14.871 | 0.000 | 97 | 58574 | 50.0 | 63.4 | |
| 128 Naphthalene | 128 | 14.993 | 14.993 | 0.000 | 97 | 301738 | 50.0 | 61.2 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.218 | 15.218 | 0.000 | 95 | 100055 | 50.0 | 64.4 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.990 | 15.990 | 0.000 | 0 | 37716 | 50.0 | 67.3 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.094 | 16.094 | 0.000 | 94 | 36592 | 50.0 | 70.8 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 109.6 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 99.8 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 94.1 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOAACROLEINPR_00006 | Amount Added: 6.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 2.00 | Units: uL | |
| VOA8260SURR_00040 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 2.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 2.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826009.D

Injection Date: 26-Aug-2015 15:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

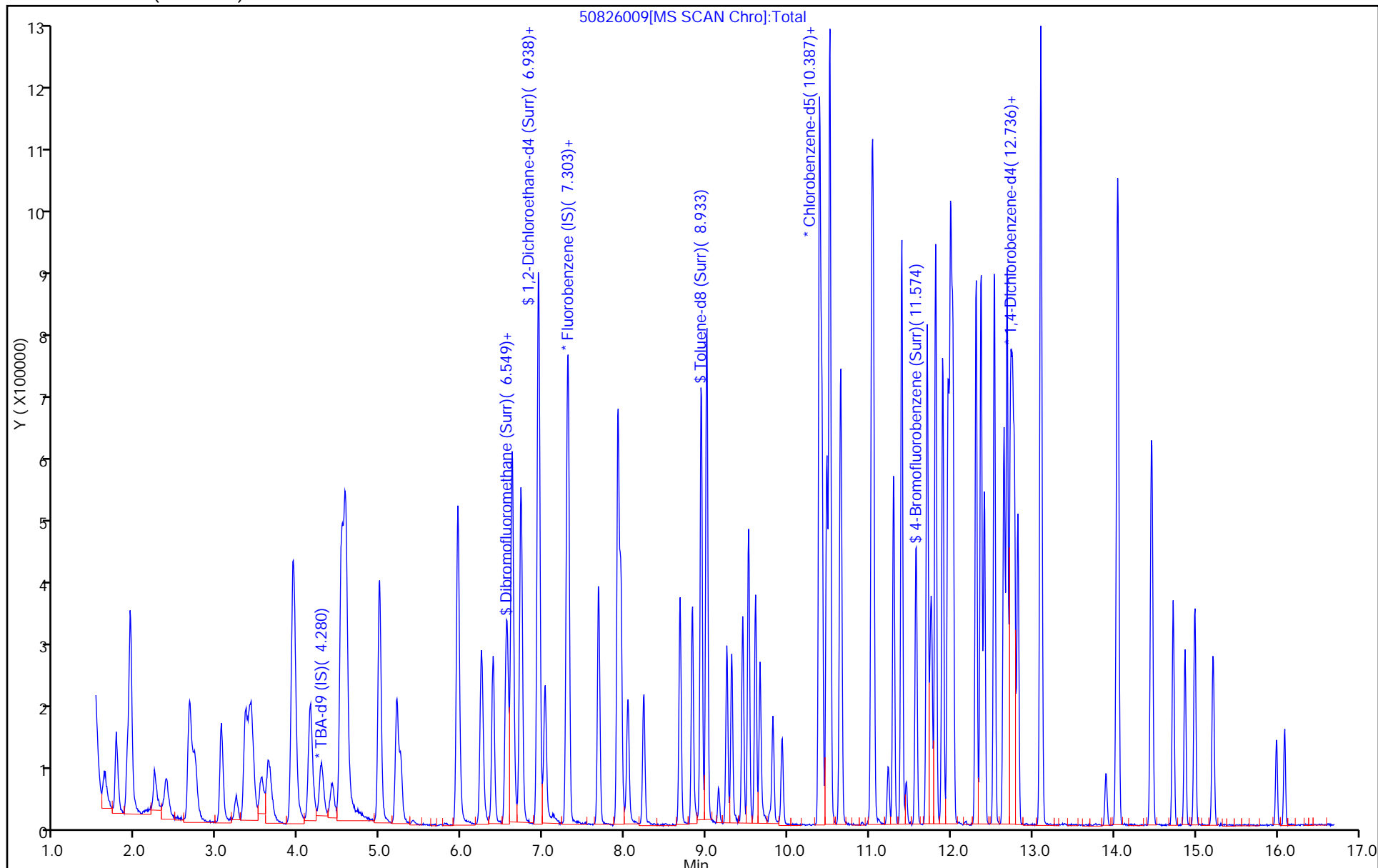
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826010.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 26-Aug-2015 16:16:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD15
 Misc. Info.: 180-0008300-010
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:49:37 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:26:59

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.267 | 4.267 | 0.000 | 0 | 149384 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.290 | 0.000 | 98 | 491519 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.387 | 0.000 | 87 | 118747 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.729 | 12.729 | 0.000 | 96 | 175441 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.560 | 6.560 | 0.000 | 93 | 168602 | 75.0 | 69.8 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.931 | 0.000 | 0 | 228530 | 75.0 | 68.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.939 | 0.000 | 95 | 679876 | 75.0 | 74.2 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.573 | 0.000 | 87 | 257596 | 75.0 | 74.5 | |
| 11 Dichlorodifluoromethane | 85 | 1.614 | 1.614 | 0.000 | 99 | 195493 | 75.0 | 70.4 | |
| 12 Chloromethane | 50 | 1.766 | 1.766 | 0.000 | 99 | 279657 | 75.0 | 68.6 | |
| 13 Vinyl chloride | 62 | 1.894 | 1.894 | 0.000 | 98 | 253941 | 75.0 | 70.2 | |
| 14 Butadiene | 39 | 1.937 | 1.937 | 0.000 | 95 | 291582 | 75.0 | 68.3 | |
| 15 Bromomethane | 94 | 2.247 | 2.247 | 0.000 | 90 | 118541 | 75.0 | 80.5 | |
| 16 Chloroethane | 64 | 2.387 | 2.387 | 0.000 | 99 | 155578 | 75.0 | 71.3 | |
| 17 Dichlorofluoromethane | 67 | 2.661 | 2.661 | 0.000 | 99 | 318608 | 75.0 | 68.8 | |
| 18 Trichlorofluoromethane | 101 | 2.667 | 2.667 | 0.000 | 59 | 241309 | 75.0 | 69.7 | |
| 20 Ethyl ether | 59 | 3.050 | 3.050 | 0.000 | 98 | 219194 | 75.0 | 68.3 | |
| 21 Acrolein | 56 | 3.232 | 3.232 | 0.000 | 99 | 75936 | 175.0 | 158.8 | |
| 22 1,1-Dichloroethene | 96 | 3.348 | 3.348 | 0.000 | 94 | 192998 | 75.0 | 70.5 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.403 | 3.403 | 0.000 | 94 | 204297 | 75.0 | 70.4 | |
| 24 Acetone | 43 | 3.445 | 3.445 | 0.000 | 98 | 125942 | 150.0 | 127.0 | |
| 25 Iodomethane | 142 | 3.543 | 3.543 | 0.000 | 99 | 284793 | 75.0 | 69.8 | |
| 26 Carbon disulfide | 76 | 3.628 | 3.628 | 0.000 | 100 | 436105 | 75.0 | 68.6 | |
| 28 3-Chloro-1-propene | 76 | 3.920 | 3.920 | 0.000 | 88 | 108440 | 75.0 | 69.9 | |
| 30 Methyl acetate | 43 | 3.938 | 3.938 | 0.000 | 99 | 1027560 | 375.0 | 346.7 | |
| 31 Methylene Chloride | 84 | 4.139 | 4.139 | 0.000 | 97 | 225319 | 75.0 | 72.5 | |
| 32 2-Methyl-2-propanol | 59 | 4.407 | 4.407 | 0.000 | 87 | 122262 | 750.0 | 727.2 | |
| 33 Acrylonitrile | 53 | 4.522 | 4.522 | 0.000 | 98 | 978697 | 750.0 | 680.6 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.565 | 4.565 | 0.000 | 95 | 204201 | 75.0 | 68.7 | |
| 35 Methyl tert-butyl ether | 73 | 4.577 | 4.577 | 0.000 | 96 | 477236 | 75.0 | 69.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.997 | 4.997 | 0.000 | 96 | 347025 | 75.0 | 69.5 | |
| 37 1,1-Dichloroethane | 63 | 5.204 | 5.204 | 0.000 | 97 | 407919 | 75.0 | 69.7 | |
| 38 Vinyl acetate | 43 | 5.252 | 5.252 | 0.000 | 97 | 303320 | 75.0 | 69.0 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.952 | 5.952 | 0.000 | 84 | 223289 | 75.0 | 70.3 | |
| 44 2,2-Dichloropropane | 77 | 5.952 | 5.952 | 0.000 | 58 | 164171 | 75.0 | 70.0 | |
| 46 2-Butanone (MEK) | 43 | 5.964 | 5.964 | 0.000 | 78 | 210830 | 150.0 | 141.5 | |
| 49 Chlorobromomethane | 128 | 6.238 | 6.238 | 0.000 | 92 | 99282 | 75.0 | 71.2 | |
| 51 Tetrahydrofuran | 42 | 6.250 | 6.250 | 0.000 | 91 | 153971 | 150.0 | 128.8 | |
| 52 Chloroform | 83 | 6.384 | 6.384 | 0.000 | 97 | 359318 | 75.0 | 71.0 | |
| 53 1,1,1-Trichloroethane | 97 | 6.542 | 6.542 | 0.000 | 96 | 264507 | 75.0 | 70.7 | |
| 54 Cyclohexane | 56 | 6.615 | 6.615 | 0.000 | 97 | 451893 | 75.0 | 72.2 | |
| 56 Carbon tetrachloride | 117 | 6.718 | 6.718 | 0.000 | 96 | 226405 | 75.0 | 71.1 | |
| 55 1,1-Dichloropropene | 75 | 6.730 | 6.730 | 0.000 | 92 | 295676 | 75.0 | 71.5 | |
| 57 Isobutyl alcohol | 41 | 6.925 | 6.925 | 0.000 | 92 | 149085 | 1875.0 | 1592.8 | |
| 58 Benzene | 78 | 6.943 | 6.943 | 0.000 | 98 | 874781 | 75.0 | 72.2 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.022 | 0.000 | 97 | 296218 | 75.0 | 70.7 | |
| 62 n-Heptane | 43 | 7.308 | 7.308 | 0.000 | 96 | 319252 | 75.0 | 70.4 | |
| 64 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 97 | 207852 | 75.0 | 70.1 | |
| 66 Methylcyclohexane | 83 | 7.917 | 7.917 | 0.000 | 96 | 336831 | 75.0 | 72.1 | |
| 67 1,2-Dichloropropane | 63 | 7.947 | 7.947 | 0.000 | 94 | 218947 | 75.0 | 68.8 | |
| 70 1,4-Dioxane | 88 | 8.026 | 8.026 | 0.000 | 39 | 31691 | 1500.0 | 1445.4 | |
| 68 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 96 | 114083 | 75.0 | 70.7 | |
| 71 Dichlorobromomethane | 83 | 8.233 | 8.233 | 0.000 | 98 | 226806 | 75.0 | 71.0 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.677 | 8.677 | 0.000 | 91 | 264451 | 75.0 | 70.7 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.829 | 0.000 | 99 | 434749 | 150.0 | 148.6 | |
| 76 Toluene | 91 | 9.006 | 9.006 | 0.000 | 98 | 874948 | 75.0 | 74.4 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.249 | 9.249 | 0.000 | 99 | 224205 | 75.0 | 73.1 | |
| 78 Ethyl methacrylate | 69 | 9.310 | 9.310 | 0.000 | 93 | 225233 | 75.0 | 75.9 | |
| 79 1,1,2-Trichloroethane | 97 | 9.444 | 9.444 | 0.000 | 94 | 163298 | 75.0 | 73.0 | |
| 80 Tetrachloroethene | 164 | 9.517 | 9.517 | 0.000 | 95 | 165929 | 75.0 | 72.7 | |
| 81 1,3-Dichloropropane | 76 | 9.602 | 9.602 | 0.000 | 98 | 303582 | 75.0 | 73.1 | |
| 82 2-Hexanone | 43 | 9.657 | 9.657 | 0.000 | 99 | 310969 | 150.0 | 147.2 | |
| 84 Chlorodibromomethane | 129 | 9.815 | 9.815 | 0.000 | 91 | 143257 | 75.0 | 74.0 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.930 | 0.000 | 99 | 155041 | 75.0 | 71.9 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.387 | 10.387 | 0.000 | 91 | 277802 | 75.0 | 73.5 | |
| 87 Chlorobenzene | 112 | 10.417 | 10.417 | 0.000 | 93 | 551865 | 75.0 | 72.9 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.478 | 10.478 | 0.000 | 95 | 267607 | 75.0 | 74.9 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.508 | 10.508 | 0.000 | 92 | 179137 | 75.0 | 72.6 | |
| 90 Ethylbenzene | 106 | 10.514 | 10.514 | 0.000 | 99 | 302122 | 75.0 | 75.3 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.648 | 0.000 | 0 | 371799 | 75.0 | 75.6 | |
| 92 o-Xylene | 106 | 11.025 | 11.025 | 0.000 | 97 | 359461 | 75.0 | 76.9 | |
| 93 Styrene | 104 | 11.050 | 11.050 | 0.000 | 95 | 603962 | 75.0 | 78.0 | |
| 94 Bromoform | 173 | 11.232 | 11.232 | 0.000 | 96 | 77411 | 75.0 | 70.1 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.299 | 11.299 | 0.000 | 96 | 279773 | 75.0 | 75.3 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.396 | 0.000 | 97 | 886244 | 75.0 | 77.4 | |
| 100 Bromobenzene | 156 | 11.707 | 11.707 | 0.000 | 95 | 218069 | 75.0 | 72.4 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.707 | 11.707 | 0.000 | 76 | 217578 | 75.0 | 72.1 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.743 | 11.743 | 0.000 | 72 | 78865 | 75.0 | 72.4 | |
| 101 1,2,3-Trichloropropane | 110 | 11.762 | 11.762 | 0.000 | 88 | 70373 | 75.0 | 70.8 | |
| 103 N-Propylbenzene | 120 | 11.810 | 11.810 | 0.000 | 99 | 256762 | 75.0 | 74.5 | |
| 104 2-Chlorotoluene | 126 | 11.901 | 11.901 | 0.000 | 96 | 218909 | 75.0 | 74.7 | |
| 105 3-Chlorotoluene | 126 | 11.968 | 11.968 | 0.000 | 96 | 225916 | 75.0 | 75.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.993 | 11.993 | 0.000 | 94 | 741712 | 75.0 | 76.1 | |
| 107 4-Chlorotoluene | 126 | 12.023 | 12.023 | 0.000 | 98 | 235437 | 75.0 | 73.0 | |
| 108 tert-Butylbenzene | 119 | 12.309 | 12.309 | 0.000 | 94 | 598804 | 75.0 | 75.6 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.370 | 12.370 | 0.000 | 98 | 753282 | 75.0 | 77.2 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.412 | 12.412 | 0.000 | 98 | 196559 | 75.0 | 72.2 | |
| 112 sec-Butylbenzene | 105 | 12.534 | 12.534 | 0.000 | 95 | 839536 | 75.0 | 75.1 | |
| 113 1,3-Dichlorobenzene | 146 | 12.650 | 12.650 | 0.000 | 97 | 386149 | 75.0 | 72.0 | |
| 114 4-Isopropyltoluene | 119 | 12.692 | 12.692 | 0.000 | 97 | 724310 | 75.0 | 76.6 | |
| 115 1,4-Dichlorobenzene | 146 | 12.753 | 12.753 | 0.000 | 93 | 396239 | 75.0 | 71.0 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.777 | 12.777 | 0.000 | 96 | 183967 | 75.0 | 73.0 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.820 | 12.820 | 0.000 | 0 | 196358 | 75.0 | 72.1 | |
| 120 n-Butylbenzene | 91 | 13.100 | 13.100 | 0.000 | 98 | 598297 | 75.0 | 73.9 | |
| 121 1,2-Dichlorobenzene | 146 | 13.112 | 13.112 | 0.000 | 95 | 354012 | 75.0 | 70.6 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.897 | 13.897 | 0.000 | 77 | 27203 | 75.0 | 66.1 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.049 | 14.049 | 0.000 | 0 | 616649 | 225.0 | 215.5 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.463 | 14.463 | 0.000 | 0 | 378630 | 150.0 | 138.7 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.724 | 14.724 | 0.000 | 95 | 127381 | 75.0 | 65.3 | |
| 127 Hexachlorobutadiene | 225 | 14.870 | 14.870 | 0.000 | 96 | 62268 | 75.0 | 66.3 | |
| 128 Naphthalene | 128 | 14.992 | 14.992 | 0.000 | 98 | 327683 | 75.0 | 65.4 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.217 | 15.217 | 0.000 | 94 | 100749 | 75.0 | 63.8 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.990 | 15.990 | 0.000 | 0 | 32434 | 75.0 | 57.0 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.093 | 16.093 | 0.000 | 92 | 30574 | 75.0 | 58.2 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 150.0 | 139.0 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 150.0 | 152.4 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 150.0 | 143.7 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOAVAPRI_00006 | Amount Added: 3.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 3.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 3.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 3.00 | Units: uL | |
| VOA8260SURR_00040 | Amount Added: 3.00 | Units: uL | |
| VOAACROLEINPR_00006 | Amount Added: 7.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826010.D

Injection Date: 26-Aug-2015 16:16:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

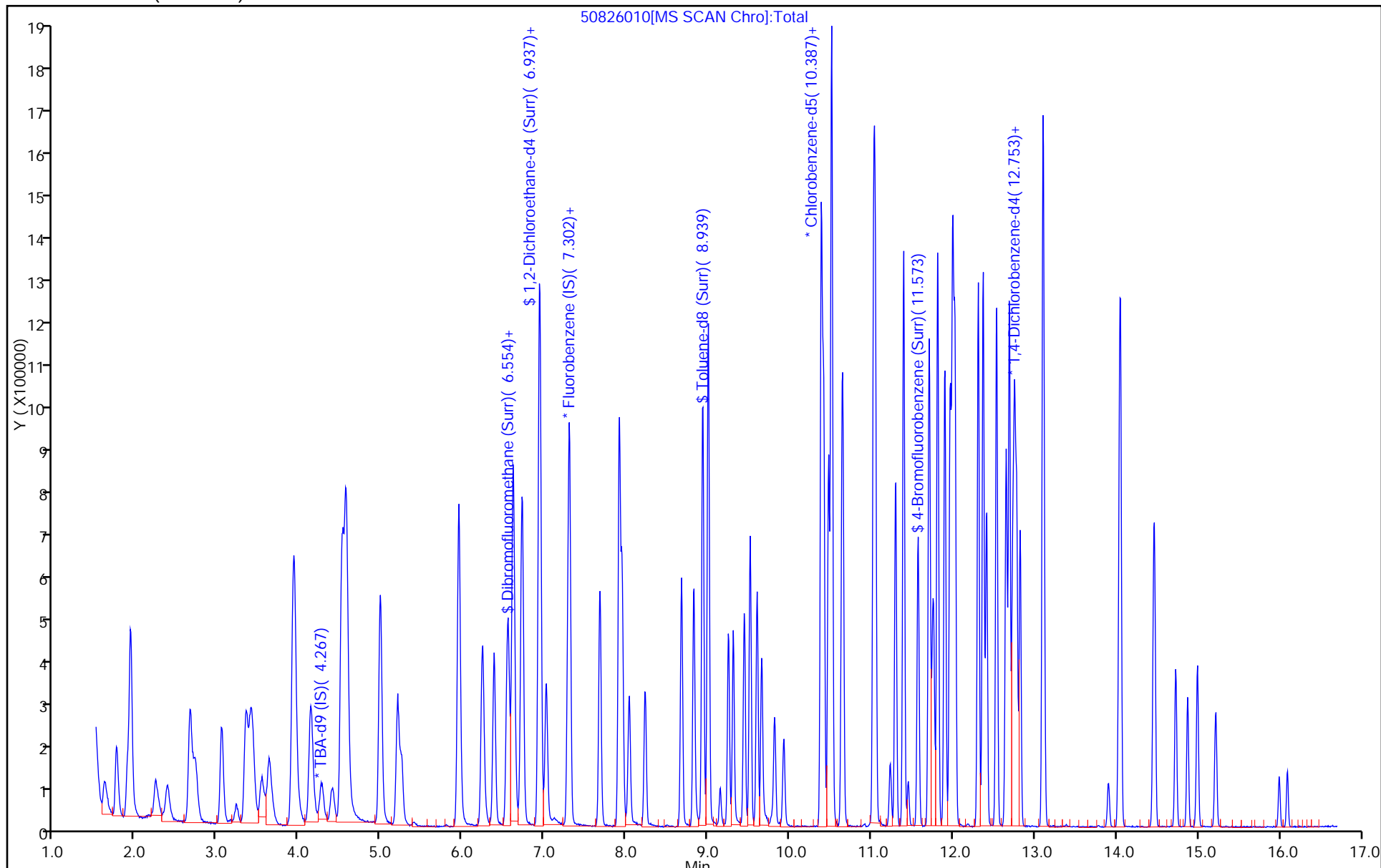
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826011.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 26-Aug-2015 16:40:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD20
 Misc. Info.: 180-0008300-011
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:44:05 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:30:53

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.272 | 4.267 | 0.005 | 0 | 167321 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 500323 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 85 | 122904 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 95 | 178343 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.560 | 0.006 | 94 | 230039 | 100.0 | 93.6 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.931 | 0.006 | 0 | 306020 | 100.0 | 90.7 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 95 | 918031 | 100.0 | 96.8 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 86 | 339508 | 100.0 | 94.9 | |
| 11 Dichlorodifluoromethane | 85 | 1.614 | 1.614 | 0.000 | 99 | 268740 | 100.0 | 95.1 | |
| 12 Chloromethane | 50 | 1.766 | 1.766 | 0.000 | 99 | 386017 | 100.0 | 93.0 | |
| 13 Vinyl chloride | 62 | 1.900 | 1.894 | 0.006 | 98 | 356745 | 100.0 | 96.9 | |
| 14 Butadiene | 39 | 1.936 | 1.937 | -0.001 | 97 | 411077 | 100.0 | 94.5 | |
| 15 Bromomethane | 94 | 2.240 | 2.247 | -0.007 | 90 | 149495 | 100.0 | 99.8 | |
| 16 Chloroethane | 64 | 2.386 | 2.387 | -0.001 | 99 | 207155 | 100.0 | 93.3 | |
| 17 Dichlorofluoromethane | 67 | 2.666 | 2.661 | 0.005 | 97 | 435665 | 100.0 | 92.4 | |
| 18 Trichlorofluoromethane | 101 | 2.715 | 2.667 | 0.048 | 97 | 334740 | 100.0 | 95.0 | |
| 20 Ethyl ether | 59 | 3.049 | 3.050 | -0.001 | 97 | 295395 | 100.0 | 90.4 | |
| 21 Acrolein | 56 | 3.226 | 3.232 | -0.006 | 98 | 92519 | 200.0 | 190.1 | |
| 22 1,1-Dichloroethene | 96 | 3.353 | 3.348 | 0.005 | 95 | 273818 | 100.0 | 98.3 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.414 | 3.403 | 0.011 | 93 | 284081 | 100.0 | 96.2 | |
| 24 Acetone | 43 | 3.439 | 3.445 | -0.006 | 99 | 173687 | 200.0 | 172.0 | |
| 25 Iodomethane | 142 | 3.536 | 3.543 | -0.007 | 98 | 394076 | 100.0 | 94.9 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.628 | -0.001 | 100 | 636866 | 100.0 | 98.4 | |
| 28 3-Chloro-1-propene | 76 | 3.925 | 3.920 | 0.005 | 88 | 156677 | 100.0 | 99.3 | |
| 30 Methyl acetate | 43 | 3.938 | 3.938 | 0.000 | 99 | 1419018 | 500.0 | 470.4 | |
| 31 Methylene Chloride | 84 | 4.138 | 4.139 | -0.001 | 97 | 291271 | 100.0 | 93.8 | |
| 32 2-Methyl-2-propanol | 59 | 4.406 | 4.407 | -0.001 | 90 | 185374 | 1000.0 | 984.3 | |
| 33 Acrylonitrile | 53 | 4.522 | 4.522 | 0.000 | 99 | 1347643 | 1000.0 | 920.7 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.565 | -0.001 | 95 | 289331 | 100.0 | 95.6 | |
| 35 Methyl tert-butyl ether | 73 | 4.582 | 4.577 | 0.005 | 96 | 664089 | 100.0 | 94.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.990 | 4.997 | -0.007 | 97 | 493203 | 100.0 | 97.1 | |
| 37 1,1-Dichloroethane | 63 | 5.203 | 5.204 | -0.001 | 96 | 564450 | 100.0 | 94.7 | |
| 38 Vinyl acetate | 43 | 5.252 | 5.252 | 0.000 | 97 | 437799 | 100.0 | 97.9 | |
| 44 2,2-Dichloropropane | 77 | 5.945 | 5.952 | -0.007 | 78 | 234514 | 100.0 | 98.2 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.952 | -0.001 | 85 | 302874 | 100.0 | 93.7 | |
| 46 2-Butanone (MEK) | 43 | 5.957 | 5.964 | -0.007 | 62 | 269779 | 200.0 | 177.9 | |
| 49 Chlorobromomethane | 128 | 6.237 | 6.238 | -0.001 | 92 | 133128 | 100.0 | 93.8 | |
| 51 Tetrahydrofuran | 42 | 6.249 | 6.250 | -0.001 | 91 | 207145 | 200.0 | 170.2 | |
| 52 Chloroform | 83 | 6.383 | 6.384 | -0.001 | 96 | 482795 | 100.0 | 93.8 | |
| 53 1,1,1-Trichloroethane | 97 | 6.541 | 6.542 | -0.001 | 97 | 366328 | 100.0 | 96.2 | |
| 54 Cyclohexane | 56 | 6.614 | 6.615 | -0.001 | 96 | 637776 | 100.0 | 100.1 | |
| 56 Carbon tetrachloride | 117 | 6.718 | 6.718 | 0.000 | 94 | 319309 | 100.0 | 98.5 | |
| 55 1,1-Dichloropropene | 75 | 6.730 | 6.730 | 0.000 | 91 | 417880 | 100.0 | 99.2 | |
| 57 Isobutyl alcohol | 41 | 6.924 | 6.925 | -0.001 | 92 | 224262 | 2500.0 | 2353.8 | |
| 58 Benzene | 78 | 6.943 | 6.943 | 0.000 | 98 | 1175215 | 100.0 | 95.3 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.022 | 0.000 | 96 | 399895 | 100.0 | 93.7 | |
| 62 n-Heptane | 43 | 7.308 | 7.308 | 0.000 | 97 | 444901 | 100.0 | 96.4 | |
| 64 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 96 | 285365 | 100.0 | 94.6 | |
| 66 Methylcyclohexane | 83 | 7.916 | 7.917 | -0.001 | 96 | 484430 | 100.0 | 101.8 | |
| 67 1,2-Dichloropropane | 63 | 7.947 | 7.947 | -0.001 | 94 | 304322 | 100.0 | 94.0 | |
| 70 1,4-Dioxane | 88 | 8.026 | 8.026 | 0.000 | 40 | 44562 | 2000.0 | 1996.7 | |
| 68 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 97 | 152946 | 100.0 | 93.1 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.233 | -0.001 | 97 | 310676 | 100.0 | 95.6 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.677 | 8.677 | 0.000 | 90 | 374197 | 100.0 | 98.2 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.829 | 0.000 | 99 | 614019 | 200.0 | 202.8 | |
| 76 Toluene | 91 | 9.005 | 9.006 | -0.001 | 98 | 1201786 | 100.0 | 98.8 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.254 | 9.249 | 0.005 | 99 | 323125 | 100.0 | 101.8 | |
| 78 Ethyl methacrylate | 69 | 9.309 | 9.310 | -0.001 | 94 | 316812 | 100.0 | 103.2 | |
| 79 1,1,2-Trichloroethane | 97 | 9.443 | 9.444 | -0.001 | 94 | 224541 | 100.0 | 97.0 | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.517 | -0.001 | 95 | 230665 | 100.0 | 97.7 | |
| 81 1,3-Dichloropropane | 76 | 9.601 | 9.602 | -0.001 | 98 | 408560 | 100.0 | 95.1 | |
| 82 2-Hexanone | 43 | 9.656 | 9.657 | -0.001 | 99 | 430988 | 200.0 | 197.2 | |
| 84 Chlorodibromomethane | 129 | 9.820 | 9.815 | 0.005 | 89 | 202349 | 100.0 | 101.0 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.930 | 0.000 | 100 | 212653 | 100.0 | 95.3 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.386 | 10.387 | -0.001 | 91 | 368187 | 100.0 | 94.2 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.417 | -0.001 | 93 | 752971 | 100.0 | 96.1 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.478 | -0.001 | 96 | 350243 | 100.0 | 94.7 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.508 | 10.508 | 0.000 | 91 | 247335 | 100.0 | 96.9 | |
| 90 Ethylbenzene | 106 | 10.520 | 10.514 | 0.006 | 99 | 417206 | 100.0 | 100.5 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.648 | 0.000 | 0 | 516778 | 100.0 | 101.5 | |
| 92 o-Xylene | 106 | 11.031 | 11.025 | 0.006 | 97 | 488783 | 100.0 | 101.0 | |
| 93 Styrene | 104 | 11.049 | 11.050 | -0.001 | 95 | 812783 | 100.0 | 101.4 | |
| 94 Bromoform | 173 | 11.232 | 11.232 | 0.000 | 96 | 109983 | 100.0 | 96.2 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.299 | 11.299 | -0.001 | 95 | 362334 | 100.0 | 94.2 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.396 | 0.000 | 97 | 1229067 | 100.0 | 103.7 | |
| 100 Bromobenzene | 156 | 11.706 | 11.707 | -0.001 | 95 | 300450 | 100.0 | 98.1 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.706 | 11.707 | -0.001 | 76 | 290248 | 100.0 | 93.0 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.743 | 11.743 | 0.000 | 75 | 107372 | 100.0 | 97.0 | |
| 101 1,2,3-Trichloropropane | 110 | 11.767 | 11.762 | 0.005 | 84 | 94129 | 100.0 | 93.2 | |
| 103 N-Propylbenzene | 120 | 11.816 | 11.810 | 0.006 | 99 | 351814 | 100.0 | 100.4 | |
| 104 2-Chlorotoluene | 126 | 11.901 | 11.901 | 0.000 | 96 | 301246 | 100.0 | 101.1 | |
| 105 3-Chlorotoluene | 126 | 11.968 | 11.968 | 0.000 | 95 | 297767 | 100.0 | 97.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.992 | 11.993 | -0.001 | 94 | 1014826 | 100.0 | 102.5 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.023 | -0.001 | 98 | 324433 | 100.0 | 99.0 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.309 | -0.001 | 94 | 836893 | 100.0 | 104.0 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.370 | -0.001 | 98 | 1013032 | 100.0 | 102.1 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.412 | 12.412 | 0.000 | 98 | 258438 | 100.0 | 93.4 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.534 | -0.001 | 95 | 1168492 | 100.0 | 102.8 | |
| 113 1,3-Dichlorobenzene | 146 | 12.649 | 12.650 | -0.001 | 97 | 523315 | 100.0 | 96.0 | |
| 114 4-Isopropyltoluene | 119 | 12.692 | 12.692 | 0.000 | 96 | 987448 | 100.0 | 102.7 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.753 | -0.001 | 94 | 532103 | 100.0 | 93.9 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.777 | 12.777 | 0.000 | 95 | 235991 | 100.0 | 92.1 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.820 | -0.001 | 0 | 254571 | 100.0 | 91.9 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.100 | -0.001 | 98 | 841574 | 100.0 | 102.3 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.112 | -0.001 | 94 | 474503 | 100.0 | 93.1 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.902 | 13.897 | 0.005 | 77 | 39315 | 100.0 | 94.0 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.042 | 14.049 | -0.007 | 0 | 827426 | 300.0 | 284.4 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.462 | 14.463 | -0.001 | 0 | 510138 | 200.0 | 183.9 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.723 | 14.724 | -0.001 | 94 | 175776 | 100.0 | 88.7 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.870 | -0.001 | 97 | 83392 | 100.0 | 87.3 | |
| 128 Naphthalene | 128 | 14.991 | 14.992 | -0.001 | 98 | 463258 | 100.0 | 90.9 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.210 | 15.217 | -0.007 | 96 | 137103 | 100.0 | 85.4 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.995 | 15.990 | 0.005 | 0 | 45065 | 100.0 | 77.8 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.093 | -0.001 | 97 | 45128 | 100.0 | 84.5 | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 200.0 | 189.3 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 200.0 | 202.5 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 200.0 | 200.0 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOAACROLEINPR_00006 | Amount Added: 8.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 4.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 4.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 4.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 4.00 | Units: uL | |
| VOA8260SURR_00040 | Amount Added: 4.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826011.D

Injection Date: 26-Aug-2015 16:40:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

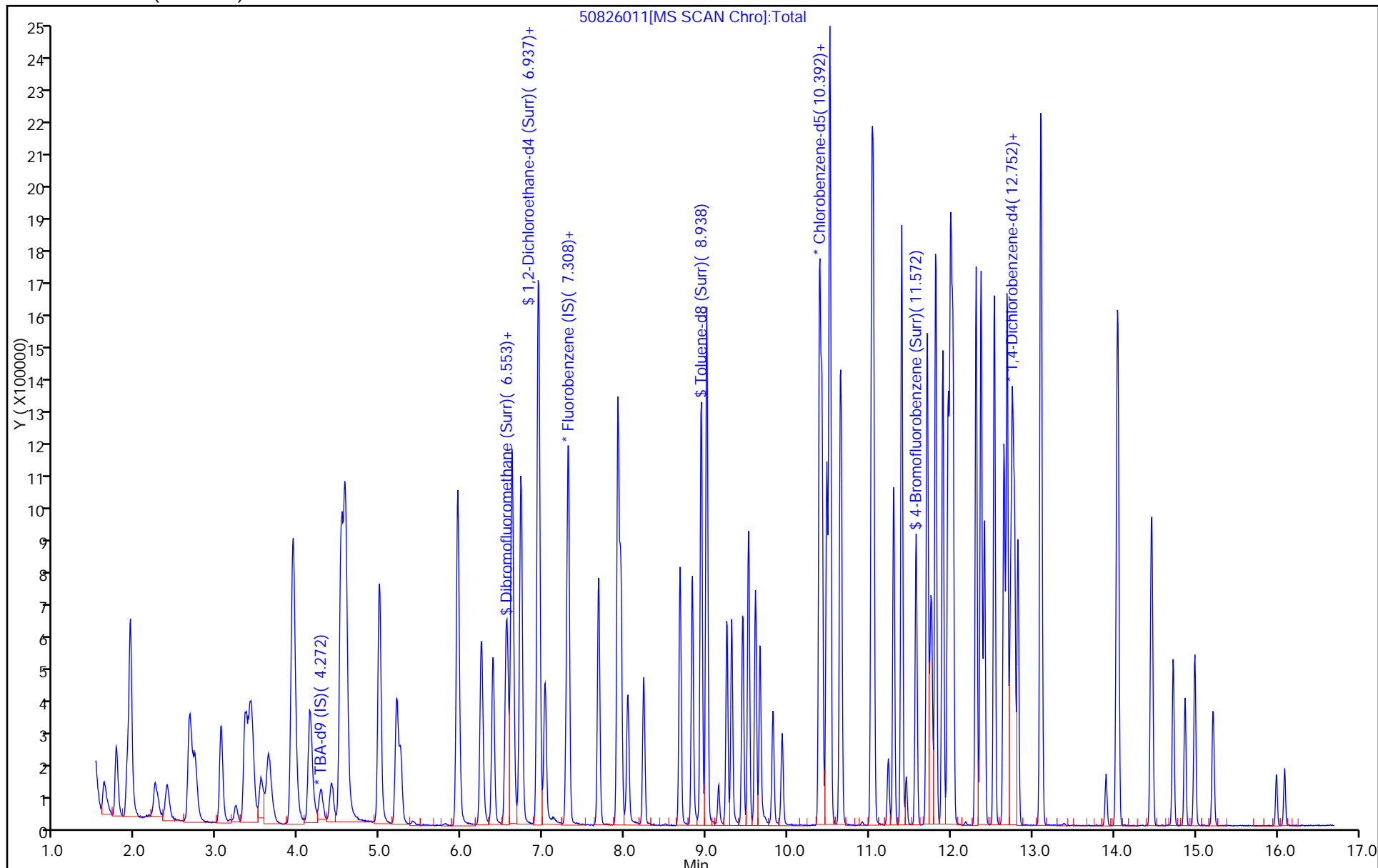
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 26-Aug-2015 17:04:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD35
 Misc. Info.: 180-0008300-012
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:50:05 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 11:50:05

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.278 | 4.267 | 0.011 | 0 | 175358 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 502256 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.385 | 10.387 | -0.002 | 63 | 129614 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.727 | 12.729 | -0.002 | 95 | 181323 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.559 | 6.560 | -0.001 | 93 | 399678 | 175.0 | 162.0 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.931 | -0.001 | 0 | 544829 | 175.0 | 160.8 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.937 | 8.939 | -0.002 | 94 | 1580158 | 175.0 | 158.0 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 87 | 617045 | 175.0 | 163.6 | |
| 11 Dichlorodifluoromethane | 85 | 1.619 | 1.614 | 0.005 | 99 | 461015 | 175.0 | 162.5 | |
| 12 Chloromethane | 50 | 1.765 | 1.766 | -0.001 | 99 | 669660 | 175.0 | 160.7 | |
| 13 Vinyl chloride | 62 | 1.905 | 1.894 | 0.011 | 98 | 603655 | 175.0 | 163.3 | |
| 14 Butadiene | 39 | 1.935 | 1.937 | -0.002 | 94 | 700624 | 175.0 | 160.5 | |
| 15 Bromomethane | 94 | 2.233 | 2.247 | -0.014 | 90 | 267454 | 175.0 | 177.8 | |
| 16 Chloroethane | 64 | 2.379 | 2.387 | -0.008 | 99 | 358728 | 175.0 | 160.9 | |
| 17 Dichlorofluoromethane | 67 | 2.659 | 2.661 | -0.002 | 98 | 748877 | 175.0 | 158.3 | |
| 18 Trichlorofluoromethane | 101 | 2.708 | 2.667 | 0.041 | 98 | 579992 | 175.0 | 163.9 | |
| 20 Ethyl ether | 59 | 3.049 | 3.050 | -0.001 | 97 | 521056 | 175.0 | 158.9 | |
| 21 Acrolein | 56 | 3.231 | 3.232 | -0.001 | 99 | 108307 | 225.0 | 221.7 | |
| 22 1,1-Dichloroethene | 96 | 3.347 | 3.348 | -0.001 | 95 | 473565 | 175.0 | 169.3 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.408 | 3.403 | 0.005 | 94 | 488054 | 175.0 | 164.7 | |
| 24 Acetone | 43 | 3.438 | 3.445 | -0.007 | 98 | 332039 | 350.0 | 327.6 | |
| 25 Iodomethane | 142 | 3.547 | 3.543 | 0.004 | 98 | 696716 | 175.0 | 167.1 | |
| 26 Carbon disulfide | 76 | 3.633 | 3.628 | 0.005 | 100 | 1177201 | 175.0 | 181.2 | |
| 28 3-Chloro-1-propene | 76 | 3.919 | 3.920 | -0.001 | 89 | 285911 | 175.0 | 180.5 | |
| 30 Methyl acetate | 43 | 3.937 | 3.938 | -0.001 | 99 | 2539904 | 875.0 | 838.7 | |
| 31 Methylene Chloride | 84 | 4.138 | 4.139 | -0.001 | 97 | 510471 | 175.0 | 168.4 | |
| 32 2-Methyl-2-propanol | 59 | 4.411 | 4.407 | 0.004 | 90 | 352268 | 1750.0 | 1784.8 | |
| 33 Acrylonitrile | 53 | 4.521 | 4.522 | -0.001 | 99 | 2452551 | 1750.0 | 1669.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.570 | 4.565 | 0.005 | 95 | 510637 | 175.0 | 168.1 | |
| 35 Methyl tert-butyl ether | 73 | 4.582 | 4.577 | 0.005 | 97 | 1204325 | 175.0 | 171.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.989 | 4.997 | -0.008 | 96 | 889892 | 175.0 | 174.5 | |
| 37 1,1-Dichloroethane | 63 | 5.202 | 5.204 | -0.002 | 96 | 998105 | 175.0 | 166.8 | |
| 38 Vinyl acetate | 43 | 5.251 | 5.252 | -0.001 | 97 | 801339 | 175.0 | 178.5 | |
| 44 2,2-Dichloropropane | 77 | 5.944 | 5.952 | -0.008 | 79 | 413686 | 175.0 | 172.5 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.950 | 5.952 | -0.002 | 86 | 550789 | 175.0 | 169.7 | |
| 46 2-Butanone (MEK) | 43 | 5.957 | 5.964 | -0.007 | 98 | 514894 | 350.0 | 338.2 | |
| 49 Chlorobromomethane | 128 | 6.236 | 6.238 | -0.002 | 92 | 234034 | 175.0 | 164.3 | |
| 51 Tetrahydrofuran | 42 | 6.249 | 6.250 | -0.001 | 91 | 417684 | 350.0 | 342.0 | |
| 52 Chloroform | 83 | 6.382 | 6.384 | -0.002 | 96 | 838419 | 175.0 | 162.2 | |
| 53 1,1,1-Trichloroethane | 97 | 6.541 | 6.542 | -0.001 | 97 | 661680 | 175.0 | 173.1 | |
| 54 Cyclohexane | 56 | 6.614 | 6.615 | -0.001 | 96 | 1115710 | 175.0 | 174.4 | |
| 56 Carbon tetrachloride | 117 | 6.717 | 6.718 | -0.001 | 96 | 566329 | 175.0 | 174.0 | |
| 55 1,1-Dichloropropene | 75 | 6.729 | 6.730 | -0.001 | 91 | 734207 | 175.0 | 173.7 | |
| 57 Isobutyl alcohol | 41 | 6.924 | 6.925 | -0.001 | 94 | 417725 | 4375.0 | 4367.4 | |
| 58 Benzene | 78 | 6.942 | 6.943 | -0.001 | 98 | 2000326 | 175.0 | 161.5 | |
| 59 1,2-Dichloroethane | 62 | 7.021 | 7.022 | -0.001 | 97 | 709743 | 175.0 | 165.7 | |
| 62 n-Heptane | 43 | 7.307 | 7.308 | -0.001 | 96 | 819932 | 175.0 | 177.0 | |
| 64 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 97 | 506964 | 175.0 | 167.3 | |
| 66 Methylcyclohexane | 83 | 7.915 | 7.917 | -0.002 | 96 | 866758 | 175.0 | 181.5 | |
| 67 1,2-Dichloropropane | 63 | 7.946 | 7.947 | -0.001 | 94 | 547361 | 175.0 | 168.4 | |
| 70 1,4-Dioxane | 88 | 8.025 | 8.026 | -0.001 | 46 | 82622 | 3500.0 | 3687.8 | M |
| 68 Dibromomethane | 93 | 8.037 | 8.038 | -0.001 | 96 | 277699 | 175.0 | 168.4 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.233 | -0.001 | 98 | 576102 | 175.0 | 176.5 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.676 | 8.677 | -0.001 | 90 | 714562 | 175.0 | 186.9 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.828 | 8.829 | -0.001 | 98 | 1157588 | 350.0 | 362.5 | |
| 76 Toluene | 91 | 9.004 | 9.006 | -0.002 | 97 | 2050607 | 175.0 | 159.8 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.248 | 9.249 | -0.001 | 98 | 619485 | 175.0 | 185.0 | |
| 78 Ethyl methacrylate | 69 | 9.309 | 9.310 | -0.001 | 94 | 602921 | 175.0 | 186.2 | |
| 79 1,1,2-Trichloroethane | 97 | 9.442 | 9.444 | -0.002 | 93 | 403722 | 175.0 | 165.4 | |
| 80 Tetrachloroethene | 164 | 9.515 | 9.517 | -0.002 | 95 | 401915 | 175.0 | 161.4 | |
| 81 1,3-Dichloropropane | 76 | 9.601 | 9.602 | -0.001 | 98 | 743698 | 175.0 | 164.1 | |
| 82 2-Hexanone | 43 | 9.655 | 9.657 | -0.002 | 99 | 820858 | 350.0 | 356.1 | |
| 84 Chlorodibromomethane | 129 | 9.813 | 9.815 | -0.002 | 91 | 377032 | 175.0 | 178.4 | |
| 85 Ethylene Dibromide | 107 | 9.929 | 9.930 | -0.001 | 99 | 390862 | 175.0 | 166.2 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.385 | 10.387 | -0.002 | 92 | 686777 | 175.0 | 166.5 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.417 | -0.001 | 91 | 1331912 | 175.0 | 161.2 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.478 | -0.001 | 96 | 642626 | 175.0 | 164.8 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.507 | 10.508 | -0.001 | 93 | 453483 | 175.0 | 168.4 | |
| 90 Ethylbenzene | 106 | 10.513 | 10.514 | -0.001 | 98 | 756322 | 175.0 | 172.7 | |
| 91 m-Xylene & p-Xylene | 106 | 10.647 | 10.648 | -0.001 | 0 | 934055 | 175.0 | 173.9 | |
| 92 o-Xylene | 106 | 11.030 | 11.025 | 0.005 | 95 | 890574 | 175.0 | 174.5 | |
| 93 Styrene | 104 | 11.048 | 11.050 | -0.002 | 95 | 1460286 | 175.0 | 172.7 | |
| 94 Bromoform | 173 | 11.231 | 11.232 | -0.001 | 96 | 217546 | 175.0 | 180.4 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.298 | 11.299 | -0.001 | 95 | 670799 | 175.0 | 165.3 | |
| 97 Isopropylbenzene | 105 | 11.395 | 11.396 | -0.001 | 97 | 2113845 | 175.0 | 169.1 | |
| 100 Bromobenzene | 156 | 11.712 | 11.707 | 0.005 | 95 | 543146 | 175.0 | 174.5 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.705 | 11.707 | -0.002 | 77 | 530728 | 175.0 | 161.2 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.742 | 11.743 | -0.001 | 78 | 209384 | 175.0 | 186.1 | |
| 101 1,2,3-Trichloropropane | 110 | 11.760 | 11.762 | -0.002 | 87 | 177490 | 175.0 | 172.9 | |
| 103 N-Propylbenzene | 120 | 11.815 | 11.810 | 0.005 | 97 | 636587 | 175.0 | 178.7 | |
| 104 2-Chlorotoluene | 126 | 11.900 | 11.901 | -0.001 | 95 | 529736 | 175.0 | 174.9 | |
| 105 3-Chlorotoluene | 126 | 11.967 | 11.968 | -0.001 | 95 | 552058 | 175.0 | 177.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.997 | 11.993 | 0.004 | 95 | 1760059 | 175.0 | 174.8 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.023 | -0.001 | 98 | 582109 | 175.0 | 174.7 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.309 | -0.001 | 94 | 1486960 | 175.0 | 181.7 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.370 | -0.001 | 98 | 1772230 | 175.0 | 175.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.411 | 12.412 | -0.001 | 98 | 484133 | 175.0 | 172.2 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.534 | -0.001 | 96 | 2029430 | 175.0 | 175.6 | |
| 113 1,3-Dichlorobenzene | 146 | 12.648 | 12.650 | -0.002 | 97 | 937539 | 175.0 | 169.2 | |
| 114 4-Isopropyltoluene | 119 | 12.691 | 12.692 | -0.001 | 96 | 1738859 | 175.0 | 177.9 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.753 | -0.001 | 93 | 949324 | 175.0 | 164.7 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.782 | 12.777 | 0.005 | 95 | 453275 | 175.0 | 174.0 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.820 | -0.001 | 0 | 486163 | 175.0 | 172.6 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.100 | -0.001 | 97 | 1504673 | 175.0 | 179.9 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.112 | -0.001 | 96 | 849612 | 175.0 | 164.0 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.902 | 13.897 | 0.005 | 79 | 75555 | 175.0 | 177.7 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.048 | 14.049 | -0.001 | 0 | 1576122 | 525.0 | 532.8 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.461 | 14.463 | -0.002 | 0 | 994231 | 350.0 | 352.5 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.723 | 14.724 | -0.001 | 94 | 339446 | 175.0 | 168.4 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.870 | -0.001 | 97 | 160392 | 175.0 | 165.2 | |
| 128 Naphthalene | 128 | 14.990 | 14.992 | -0.002 | 98 | 934428 | 175.0 | 180.4 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.216 | 15.217 | -0.001 | 94 | 261711 | 175.0 | 160.4 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.988 | 15.990 | -0.002 | 0 | 100325 | 175.0 | 170.5 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.093 | -0.001 | 94 | 99793 | 175.0 | 185.2 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 350.0 | 348.4 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 350.0 | 337.9 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 350.0 | 371.9 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00040 | Amount Added: 7.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 7.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 7.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 7.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 7.00 | Units: uL | |
| VOAACROLEINPR_00006 | Amount Added: 9.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D

Injection Date: 26-Aug-2015 17:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

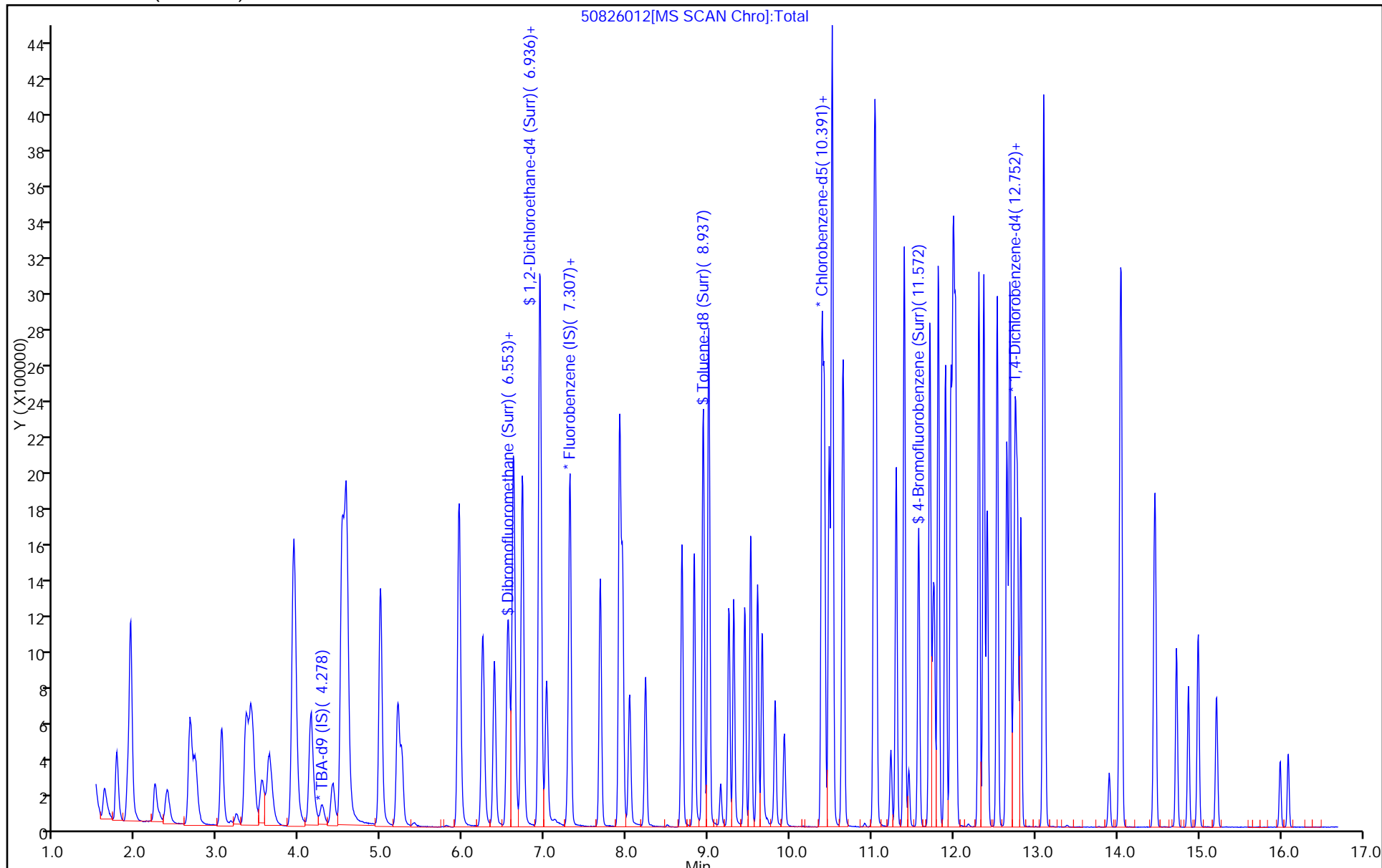
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



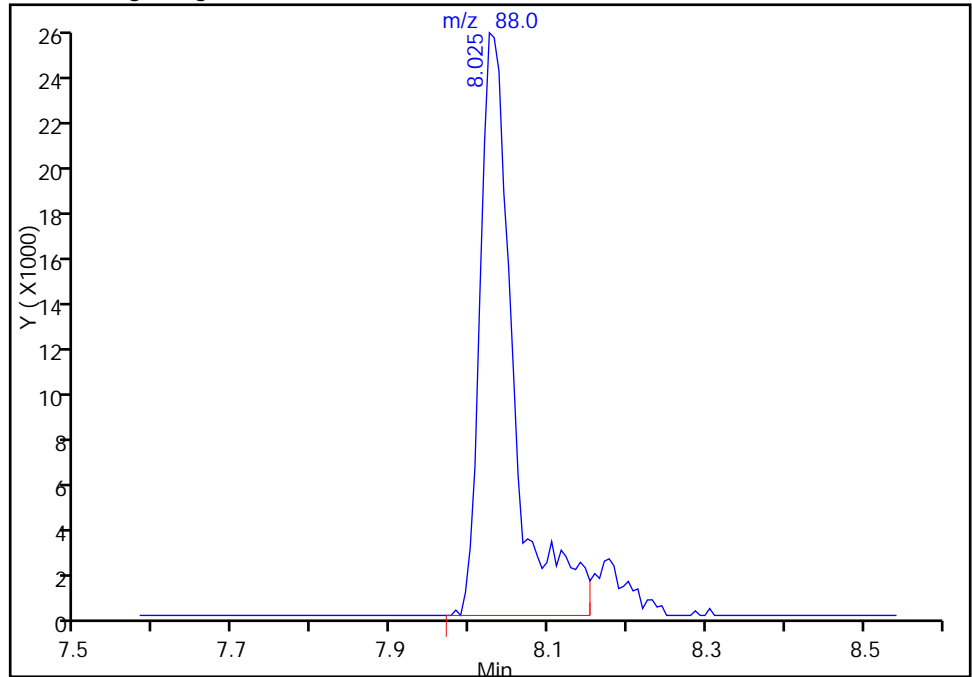
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D
Injection Date: 26-Aug-2015 17:04:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

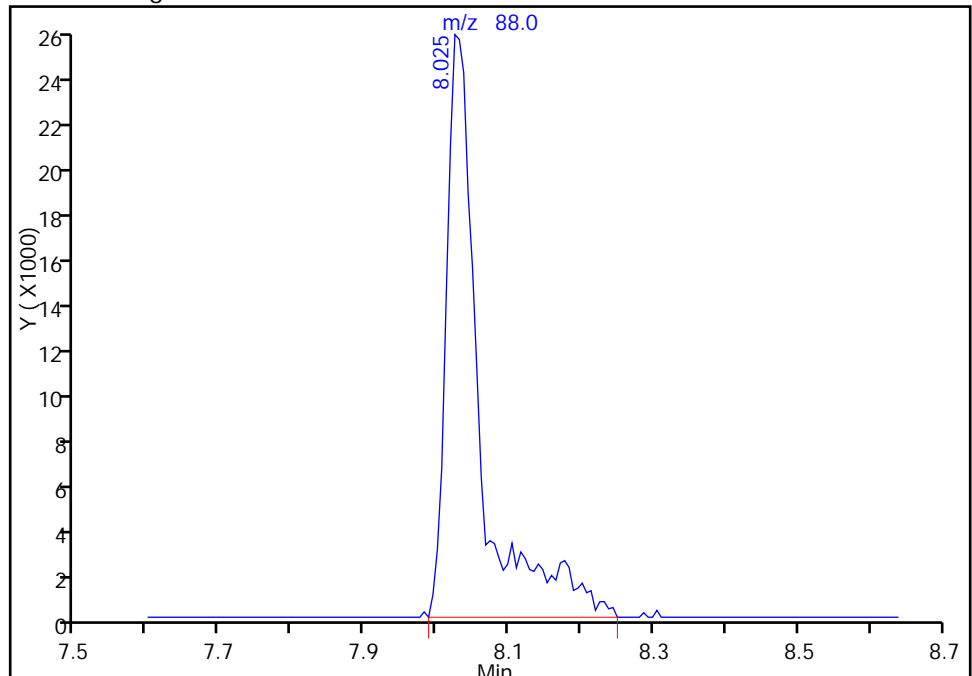
RT: 8.02
Area: 75762
Amount: 3419.0350
Amount Units: ng

Processing Integration Results



RT: 8.02
Area: 82622
Amount: 3687.8427
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:34:42
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826013.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 26-Aug-2015 17:28:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD40
 Misc. Info.: 180-0008300-013
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:50:23 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:38:36

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.274 | 4.267 | 0.007 | 0 | 190633 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.285 | 7.290 | -0.005 | 98 | 491948 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.388 | 10.387 | 0.001 | 59 | 135336 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.730 | 12.729 | 0.001 | 94 | 186041 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.562 | 6.560 | 0.002 | 94 | 438908 | 200.0 | 181.7 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.933 | 6.931 | 0.002 | 0 | 597233 | 200.0 | 180.0 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.934 | 8.939 | -0.005 | 94 | 1727014 | 200.0 | 165.4 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.568 | 11.573 | -0.005 | 86 | 697446 | 200.0 | 177.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.616 | 1.614 | 0.002 | 98 | 506611 | 200.0 | 182.3 | |
| 12 Chloromethane | 50 | 1.762 | 1.766 | -0.004 | 99 | 733518 | 200.0 | 179.7 | |
| 13 Vinyl chloride | 62 | 1.902 | 1.894 | 0.008 | 98 | 663498 | 200.0 | 183.3 | |
| 14 Butadiene | 39 | 1.938 | 1.937 | 0.001 | 95 | 762590 | 200.0 | 178.4 | |
| 15 Bromomethane | 94 | 2.230 | 2.247 | -0.017 | 91 | 244127 | 200.0 | 165.7 | |
| 16 Chloroethane | 64 | 2.382 | 2.387 | -0.005 | 99 | 395735 | 200.0 | 181.2 | |
| 17 Dichlorofluoromethane | 67 | 2.662 | 2.661 | 0.001 | 98 | 843233 | 200.0 | 182.0 | |
| 18 Trichlorofluoromethane | 101 | 2.711 | 2.667 | 0.044 | 98 | 636269 | 200.0 | 183.6 | |
| 20 Ethyl ether | 59 | 3.045 | 3.050 | -0.005 | 97 | 582513 | 200.0 | 181.3 | |
| 21 Acrolein | 56 | 3.228 | 3.232 | -0.004 | 99 | 117496 | 250.0 | 245.5 | |
| 22 1,1-Dichloroethene | 96 | 3.343 | 3.348 | -0.005 | 94 | 516257 | 200.0 | 188.4 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.410 | 3.403 | 0.007 | 93 | 532678 | 200.0 | 183.5 | |
| 24 Acetone | 43 | 3.435 | 3.445 | -0.010 | 99 | 349354 | 400.0 | 351.9 | |
| 25 Iodomethane | 142 | 3.538 | 3.543 | -0.005 | 98 | 765249 | 200.0 | 187.4 | |
| 26 Carbon disulfide | 76 | 3.629 | 3.628 | 0.001 | 100 | 1297173 | 200.0 | 203.9 | |
| 28 3-Chloro-1-propene | 76 | 3.921 | 3.920 | 0.001 | 89 | 325399 | 200.0 | 209.7 | |
| 30 Methyl acetate | 43 | 3.940 | 3.938 | 0.002 | 99 | 2811173 | 1000.0 | 947.8 | |
| 31 Methylene Chloride | 84 | 4.134 | 4.139 | -0.005 | 97 | 573290 | 200.0 | 194.0 | |
| 32 2-Methyl-2-propanol | 59 | 4.408 | 4.407 | 0.001 | 90 | 410928 | 2000.0 | 1915.2 | |
| 33 Acrylonitrile | 53 | 4.517 | 4.522 | -0.005 | 98 | 2730347 | 2000.0 | 1897.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.560 | 4.565 | -0.005 | 95 | 552053 | 200.0 | 185.6 | |
| 35 Methyl tert-butyl ether | 73 | 4.578 | 4.577 | 0.001 | 97 | 1367672 | 200.0 | 198.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.986 | 4.997 | -0.011 | 97 | 948868 | 200.0 | 190.0 | |
| 37 1,1-Dichloroethane | 63 | 5.199 | 5.204 | -0.005 | 97 | 1104940 | 200.0 | 188.5 | |
| 38 Vinyl acetate | 43 | 5.247 | 5.252 | -0.005 | 97 | 887283 | 200.0 | 201.8 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.947 | 5.952 | -0.005 | 84 | 600559 | 200.0 | 188.9 | |
| 44 2,2-Dichloropropane | 77 | 5.947 | 5.952 | -0.005 | 84 | 451339 | 200.0 | 192.2 | |
| 46 2-Butanone (MEK) | 43 | 5.953 | 5.964 | -0.011 | 90 | 569128 | 400.0 | 381.6 | |
| 49 Chlorobromomethane | 128 | 6.239 | 6.238 | 0.001 | 92 | 262832 | 200.0 | 188.3 | |
| 51 Tetrahydrofuran | 42 | 6.245 | 6.250 | -0.005 | 95 | 461621 | 400.0 | 385.8 | |
| 52 Chloroform | 83 | 6.379 | 6.384 | -0.005 | 95 | 922240 | 200.0 | 182.1 | |
| 53 1,1,1-Trichloroethane | 97 | 6.543 | 6.542 | 0.001 | 96 | 710348 | 200.0 | 189.7 | |
| 54 Cyclohexane | 56 | 6.610 | 6.615 | -0.005 | 96 | 1210903 | 200.0 | 193.3 | |
| 56 Carbon tetrachloride | 117 | 6.714 | 6.718 | -0.004 | 95 | 616016 | 200.0 | 193.2 | |
| 55 1,1-Dichloropropene | 75 | 6.726 | 6.730 | -0.004 | 93 | 785333 | 200.0 | 189.7 | |
| 57 Isobutyl alcohol | 41 | 6.927 | 6.925 | 0.002 | 94 | 492768 | 5000.0 | 5259.9 | |
| 58 Benzene | 78 | 6.939 | 6.943 | -0.004 | 98 | 2197241 | 200.0 | 181.1 | |
| 59 1,2-Dichloroethane | 62 | 7.018 | 7.022 | -0.004 | 96 | 788760 | 200.0 | 188.0 | |
| 62 n-Heptane | 43 | 7.310 | 7.308 | 0.002 | 96 | 859948 | 200.0 | 189.6 | |
| 64 Trichloroethene | 130 | 7.675 | 7.679 | -0.004 | 96 | 556980 | 200.0 | 187.7 | |
| 66 Methylcyclohexane | 83 | 7.912 | 7.917 | -0.005 | 96 | 937977 | 200.0 | 200.6 | |
| 67 1,2-Dichloropropane | 63 | 7.949 | 7.947 | 0.002 | 94 | 594824 | 200.0 | 186.9 | |
| 70 1,4-Dioxane | 88 | 8.034 | 8.026 | 0.008 | 41 | 91547 | 4000.0 | 4171.8 | |
| 68 Dibromomethane | 93 | 8.034 | 8.038 | -0.004 | 97 | 307857 | 200.0 | 190.6 | |
| 71 Dichlorobromomethane | 83 | 8.228 | 8.233 | -0.005 | 98 | 644471 | 200.0 | 201.6 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.672 | 8.677 | -0.005 | 91 | 812298 | 200.0 | 216.9 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.825 | 8.829 | -0.004 | 98 | 1320471 | 400.0 | 396.0 | |
| 76 Toluene | 91 | 9.001 | 9.006 | -0.005 | 97 | 2228576 | 200.0 | 166.3 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.250 | 9.249 | 0.001 | 98 | 704918 | 200.0 | 201.6 | |
| 78 Ethyl methacrylate | 69 | 9.311 | 9.310 | 0.001 | 94 | 687101 | 200.0 | 203.2 | |
| 79 1,1,2-Trichloroethane | 97 | 9.445 | 9.444 | 0.001 | 94 | 441190 | 200.0 | 173.1 | |
| 80 Tetrachloroethene | 164 | 9.518 | 9.517 | 0.001 | 95 | 438898 | 200.0 | 168.8 | |
| 81 1,3-Dichloropropane | 76 | 9.603 | 9.602 | 0.001 | 98 | 840507 | 200.0 | 177.6 | |
| 82 2-Hexanone | 43 | 9.658 | 9.657 | 0.001 | 98 | 943138 | 400.0 | 391.8 | |
| 84 Chlorodibromomethane | 129 | 9.816 | 9.815 | 0.001 | 91 | 427847 | 200.0 | 193.9 | |
| 85 Ethylene Dibromide | 107 | 9.926 | 9.930 | -0.004 | 98 | 449617 | 200.0 | 183.1 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.388 | 10.387 | 0.001 | 93 | 749898 | 200.0 | 174.2 | |
| 87 Chlorobenzene | 112 | 10.412 | 10.417 | -0.005 | 92 | 1491257 | 200.0 | 172.9 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.473 | 10.478 | -0.005 | 96 | 709487 | 200.0 | 174.3 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.510 | 10.508 | 0.002 | 94 | 513686 | 200.0 | 182.7 | |
| 90 Ethylbenzene | 106 | 10.516 | 10.514 | 0.002 | 98 | 837593 | 200.0 | 183.2 | |
| 91 m-Xylene & p-Xylene | 106 | 10.650 | 10.648 | 0.002 | 0 | 1021032 | 200.0 | 182.1 | |
| 92 o-Xylene | 106 | 11.027 | 11.025 | 0.002 | 97 | 984811 | 200.0 | 184.8 | |
| 93 Styrene | 104 | 11.051 | 11.050 | 0.001 | 94 | 1627751 | 200.0 | 184.4 | |
| 94 Bromoform | 173 | 11.234 | 11.232 | 0.002 | 96 | 254607 | 200.0 | 202.2 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.294 | 11.299 | -0.005 | 95 | 748529 | 200.0 | 176.7 | |
| 97 Isopropylbenzene | 105 | 11.392 | 11.396 | -0.004 | 97 | 2317406 | 200.0 | 177.6 | |
| 100 Bromobenzene | 156 | 11.708 | 11.707 | 0.001 | 95 | 609774 | 200.0 | 190.9 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.708 | 11.707 | 0.001 | 78 | 605346 | 200.0 | 176.1 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.745 | 11.743 | 0.002 | 43 | 238659 | 200.0 | 206.7 | |
| 101 1,2,3-Trichloropropane | 110 | 11.763 | 11.762 | 0.001 | 86 | 200908 | 200.0 | 190.7 | |
| 103 N-Propylbenzene | 120 | 11.812 | 11.810 | 0.002 | 97 | 717909 | 200.0 | 196.4 | |
| 104 2-Chlorotoluene | 126 | 11.897 | 11.901 | -0.004 | 96 | 608876 | 200.0 | 195.9 | |
| 105 3-Chlorotoluene | 126 | 11.964 | 11.968 | -0.004 | 95 | 621607 | 200.0 | 194.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.994 | 11.993 | 0.001 | 95 | 1952122 | 200.0 | 189.0 | |
| 107 4-Chlorotoluene | 126 | 12.024 | 12.023 | 0.001 | 98 | 649501 | 200.0 | 189.9 | |
| 108 tert-Butylbenzene | 119 | 12.310 | 12.309 | 0.001 | 94 | 1642231 | 200.0 | 195.6 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.365 | 12.370 | -0.005 | 98 | 1973541 | 200.0 | 190.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.408 | 12.412 | -0.004 | 97 | 529814 | 200.0 | 183.6 | |
| 112 sec-Butylbenzene | 105 | 12.529 | 12.534 | -0.005 | 96 | 2244027 | 200.0 | 189.3 | |
| 113 1,3-Dichlorobenzene | 146 | 12.651 | 12.650 | 0.001 | 96 | 1071203 | 200.0 | 188.4 | |
| 114 4-Isopropyltoluene | 119 | 12.688 | 12.692 | -0.004 | 97 | 1944911 | 200.0 | 193.9 | |
| 115 1,4-Dichlorobenzene | 146 | 12.754 | 12.753 | 0.001 | 94 | 1084086 | 200.0 | 183.3 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.779 | 12.777 | 0.002 | 95 | 483618 | 200.0 | 180.9 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.821 | 12.820 | 0.001 | 0 | 571654 | 200.0 | 197.9 | |
| 120 n-Butylbenzene | 91 | 13.095 | 13.100 | -0.005 | 98 | 1691227 | 200.0 | 197.0 | |
| 121 1,2-Dichlorobenzene | 146 | 13.107 | 13.112 | -0.005 | 94 | 988861 | 200.0 | 186.1 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.904 | 13.897 | 0.007 | 78 | 91242 | 200.0 | 209.1 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.044 | 14.049 | -0.005 | 0 | 1875036 | 600.0 | 617.8 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.458 | 14.463 | -0.005 | 0 | 1204899 | 400.0 | 416.3 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.726 | 14.724 | 0.002 | 94 | 424061 | 200.0 | 205.1 | |
| 127 Hexachlorobutadiene | 225 | 14.872 | 14.870 | 0.002 | 97 | 188644 | 200.0 | 189.4 | |
| 128 Naphthalene | 128 | 14.987 | 14.992 | -0.005 | 98 | 1180622 | 200.0 | 222.2 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.212 | 15.217 | -0.005 | 95 | 333363 | 200.0 | 199.2 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.991 | 15.990 | 0.001 | 0 | 135933 | 200.0 | 225.1 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.088 | 16.093 | -0.005 | 95 | 131306 | 200.0 | 242.0 | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 400.0 | 374.5 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 400.0 | 366.9 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 400.0 | 418.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|---------------------|-----------|-------------|
| VOAACROLEINPR_00006 | Amount Added: 10.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 8.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 8.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 8.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 8.00 | Units: uL | |
| VOA8260SURR_00040 | Amount Added: 8.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826013.D

Injection Date: 26-Aug-2015 17:28:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 13

Client ID:

Purge Vol: 5.000 mL

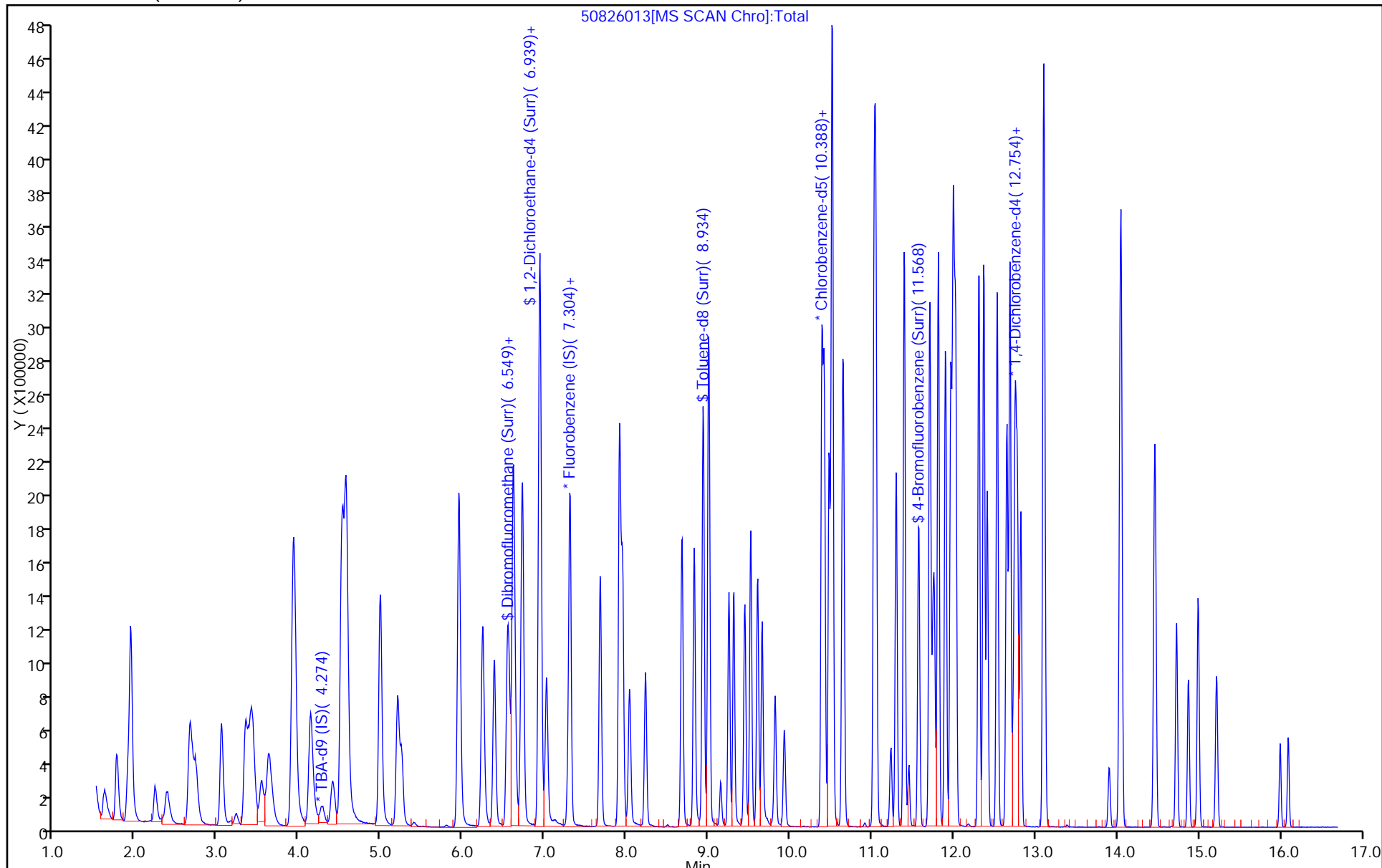
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 26-Aug-2015 17:52:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD50
 Misc. Info.: 180-0008300-014
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:50:43 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

First Level Reviewer: fergusond Date: 27-Aug-2015 10:43:05

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.271 | 4.267 | 0.004 | 0 | 178553 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 422908 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.385 | 10.387 | -0.002 | 56 | 117789 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 92 | 156354 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.559 | 6.560 | -0.001 | 93 | 562879 | 250.0 | 271.0 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.931 | 0.005 | 0 | 751925 | 250.0 | 263.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 94 | 2103482 | 250.0 | 231.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 86 | 854277 | 250.0 | 249.2 | |
| 11 Dichlorodifluoromethane | 85 | 1.619 | 1.614 | 0.005 | 99 | 585297 | 250.0 | 245.0 | |
| 12 Chloromethane | 50 | 1.765 | 1.766 | -0.001 | 99 | 886889 | 250.0 | 252.8 | |
| 13 Vinyl chloride | 62 | 1.905 | 1.894 | 0.011 | 99 | 782206 | 250.0 | 251.3 | |
| 14 Butadiene | 39 | 1.935 | 1.937 | -0.002 | 96 | 893578 | 250.0 | 243.1 | |
| 15 Bromomethane | 94 | 2.234 | 2.247 | -0.013 | 90 | 333317 | 250.0 | 263.2 | |
| 16 Chloroethane | 64 | 2.380 | 2.387 | -0.007 | 99 | 465079 | 250.0 | 247.7 | |
| 17 Dichlorofluoromethane | 67 | 2.665 | 2.661 | 0.004 | 98 | 986298 | 250.0 | 247.6 | |
| 18 Trichlorofluoromethane | 101 | 2.702 | 2.667 | 0.035 | 96 | 739174 | 250.0 | 248.1 | M |
| 20 Ethyl ether | 59 | 3.043 | 3.050 | -0.007 | 97 | 750491 | 250.0 | 271.8 | |
| 21 Acrolein | 56 | 3.225 | 3.232 | -0.007 | 99 | 127965 | 275.0 | 311.1 | |
| 22 1,1-Dichloroethene | 96 | 3.341 | 3.348 | -0.007 | 95 | 627614 | 250.0 | 266.5 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.408 | 3.403 | 0.005 | 93 | 629046 | 250.0 | 252.1 | |
| 24 Acetone | 43 | 3.438 | 3.445 | -0.007 | 99 | 457819 | 500.0 | 536.5 | |
| 25 Iodomethane | 142 | 3.535 | 3.543 | -0.008 | 99 | 963985 | 250.0 | 274.6 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.628 | -0.001 | 100 | 1607306 | 250.0 | 293.9 | |
| 28 3-Chloro-1-propene | 76 | 3.913 | 3.920 | -0.007 | 89 | 399041 | 250.0 | 299.1 | |
| 30 Methyl acetate | 43 | 3.937 | 3.938 | -0.001 | 98 | 3450277 | 1250.0 | 1353.2 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.139 | -0.007 | 98 | 715184 | 250.0 | 284.3 | |
| 32 2-Methyl-2-propanol | 59 | 4.405 | 4.407 | -0.002 | 91 | 514360 | 2500.0 | 2559.4 | |
| 33 Acrylonitrile | 53 | 4.521 | 4.522 | -0.001 | 97 | 3337347 | 2500.0 | 2697.5 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.563 | 4.565 | -0.002 | 95 | 687878 | 250.0 | 269.0 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.577 | -0.001 | 98 | 1750025 | 250.0 | 295.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.989 | 4.997 | -0.008 | 97 | 1125958 | 250.0 | 262.3 | |
| 37 1,1-Dichloroethane | 63 | 5.202 | 5.204 | -0.002 | 96 | 1377944 | 250.0 | 273.5 | |
| 38 Vinyl acetate | 43 | 5.245 | 5.252 | -0.007 | 97 | 1072494 | 250.0 | 283.7 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.951 | 5.952 | -0.001 | 85 | 760457 | 250.0 | 278.3 | |
| 44 2,2-Dichloropropane | 77 | 5.944 | 5.952 | -0.008 | 84 | 564524 | 250.0 | 279.6 | |
| 46 2-Butanone (MEK) | 43 | 5.957 | 5.964 | -0.007 | 99 | 698551 | 500.0 | 544.9 | |
| 49 Chlorobromomethane | 128 | 6.236 | 6.238 | -0.002 | 92 | 336595 | 250.0 | 280.6 | |
| 51 Tetrahydrofuran | 42 | 6.249 | 6.250 | -0.001 | 93 | 561739 | 500.0 | 546.2 | |
| 52 Chloroform | 83 | 6.382 | 6.384 | -0.002 | 96 | 1166838 | 250.0 | 268.1 | |
| 53 1,1,1-Trichloroethane | 97 | 6.541 | 6.542 | -0.001 | 97 | 898258 | 250.0 | 279.1 | |
| 54 Cyclohexane | 56 | 6.614 | 6.615 | -0.001 | 96 | 1451032 | 250.0 | 269.4 | |
| 56 Carbon tetrachloride | 117 | 6.711 | 6.718 | -0.007 | 95 | 764597 | 250.0 | 279.0 | |
| 55 1,1-Dichloropropene | 75 | 6.729 | 6.730 | -0.001 | 91 | 975802 | 250.0 | 274.2 | |
| 57 Isobutyl alcohol | 41 | 6.924 | 6.925 | -0.001 | 94 | 588608 | 6250.0 | 7308.6 | |
| 58 Benzene | 78 | 6.942 | 6.943 | -0.001 | 99 | 2707324 | 250.0 | 259.6 | |
| 59 1,2-Dichloroethane | 62 | 7.021 | 7.022 | -0.001 | 96 | 987010 | 250.0 | 273.7 | |
| 62 n-Heptane | 43 | 7.307 | 7.308 | -0.001 | 96 | 1040377 | 250.0 | 266.8 | |
| 64 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 97 | 693909 | 250.0 | 272.0 | |
| 66 Methylcyclohexane | 83 | 7.915 | 7.917 | -0.002 | 95 | 1114866 | 250.0 | 277.3 | |
| 67 1,2-Dichloropropane | 63 | 7.946 | 7.947 | -0.001 | 94 | 765352 | 250.0 | 279.7 | |
| 70 1,4-Dioxane | 88 | 8.031 | 8.026 | 0.005 | 42 | 111802 | 5000.0 | 5926.6 | |
| 68 Dibromomethane | 93 | 8.037 | 8.038 | -0.001 | 97 | 386058 | 250.0 | 278.0 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.233 | -0.001 | 98 | 812136 | 250.0 | 295.5 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.676 | 8.677 | -0.001 | 91 | 1033255 | 250.0 | 320.9 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.828 | 8.829 | -0.001 | 98 | 1599371 | 500.0 | 551.1 | |
| 76 Toluene | 91 | 9.004 | 9.006 | -0.002 | 96 | 2681762 | 250.0 | 230.0 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.248 | 9.249 | -0.001 | 99 | 891401 | 250.0 | 292.9 | |
| 78 Ethyl methacrylate | 69 | 9.309 | 9.310 | -0.001 | 94 | 862044 | 250.0 | 292.9 | |
| 79 1,1,2-Trichloroethane | 97 | 9.442 | 9.444 | -0.002 | 94 | 557982 | 250.0 | 251.6 | |
| 80 Tetrachloroethene | 164 | 9.515 | 9.517 | -0.002 | 94 | 530215 | 250.0 | 234.2 | |
| 81 1,3-Dichloropropane | 76 | 9.601 | 9.602 | -0.001 | 98 | 1030200 | 250.0 | 250.2 | |
| 82 2-Hexanone | 43 | 9.655 | 9.657 | -0.002 | 98 | 1123041 | 500.0 | 536.1 | |
| 84 Chlorodibromomethane | 129 | 9.814 | 9.815 | -0.001 | 91 | 542940 | 250.0 | 282.7 | |
| 85 Ethylene Dibromide | 107 | 9.929 | 9.930 | -0.001 | 98 | 553588 | 250.0 | 259.0 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.391 | 10.387 | 0.004 | 92 | 813323 | 250.0 | 217.0 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.417 | -0.001 | 91 | 1793475 | 250.0 | 238.9 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.478 | -0.001 | 96 | 781989 | 250.0 | 220.7 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.507 | 10.508 | -0.001 | 93 | 642159 | 250.0 | 262.4 | |
| 90 Ethylbenzene | 106 | 10.519 | 10.514 | 0.005 | 97 | 1001210 | 250.0 | 251.5 | |
| 91 m-Xylene & p-Xylene | 106 | 10.647 | 10.648 | -0.001 | 0 | 1238884 | 250.0 | 253.8 | |
| 92 o-Xylene | 106 | 11.030 | 11.025 | 0.005 | 97 | 1203666 | 250.0 | 259.5 | |
| 93 Styrene | 104 | 11.048 | 11.050 | -0.002 | 94 | 1948876 | 250.0 | 253.6 | |
| 94 Bromoform | 173 | 11.231 | 11.232 | -0.001 | 95 | 317730 | 250.0 | 289.9 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.298 | 11.299 | -0.001 | 94 | 809757 | 250.0 | 219.6 | |
| 97 Isopropylbenzene | 105 | 11.395 | 11.396 | -0.001 | 98 | 2727755 | 250.0 | 240.1 | |
| 100 Bromobenzene | 156 | 11.705 | 11.707 | -0.002 | 95 | 743219 | 250.0 | 276.9 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.705 | 11.707 | -0.002 | 77 | 725938 | 250.0 | 242.6 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.742 | 11.743 | -0.001 | 77 | 290130 | 250.0 | 299.0 | |
| 101 1,2,3-Trichloropropane | 110 | 11.766 | 11.762 | 0.004 | 87 | 246872 | 250.0 | 278.9 | |
| 103 N-Propylbenzene | 120 | 11.809 | 11.810 | -0.001 | 97 | 850210 | 250.0 | 276.7 | |
| 104 2-Chlorotoluene | 126 | 11.900 | 11.901 | -0.001 | 95 | 726063 | 250.0 | 278.0 | |
| 105 3-Chlorotoluene | 126 | 11.967 | 11.968 | -0.001 | 95 | 702342 | 250.0 | 261.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.997 | 11.993 | 0.004 | 95 | 2264532 | 250.0 | 260.9 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.023 | -0.001 | 98 | 778860 | 250.0 | 271.0 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.309 | -0.001 | 94 | 1938716 | 250.0 | 274.7 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.370 | -0.001 | 98 | 2303042 | 250.0 | 264.8 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.411 | 12.412 | -0.001 | 97 | 580120 | 250.0 | 239.2 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.534 | -0.001 | 96 | 2563359 | 250.0 | 257.3 | |
| 113 1,3-Dichlorobenzene | 146 | 12.648 | 12.650 | -0.002 | 96 | 1263925 | 250.0 | 264.5 | |
| 114 4-Isopropyltoluene | 119 | 12.691 | 12.692 | -0.001 | 95 | 2238219 | 250.0 | 265.5 | |
| 115 1,4-Dichlorobenzene | 146 | 12.758 | 12.753 | 0.005 | 91 | 1287906 | 250.0 | 259.1 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.782 | 12.777 | 0.005 | 96 | 531698 | 250.0 | 236.7 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.820 | -0.001 | 0 | 585601 | 250.0 | 241.2 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.100 | -0.001 | 96 | 1909580 | 250.0 | 264.7 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.112 | -0.001 | 94 | 1135542 | 250.0 | 254.3 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.902 | 13.897 | 0.005 | 92 | 105625 | 250.0 | 288.0 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.048 | 14.049 | -0.001 | 0 | 1891413 | 750.0 | 741.5 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.461 | 14.463 | -0.002 | 0 | 1220209 | 500.0 | 501.7 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.723 | 14.724 | -0.001 | 94 | 445017 | 250.0 | 256.1 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.870 | -0.001 | 98 | 196056 | 250.0 | 234.2 | |
| 128 Naphthalene | 128 | 14.991 | 14.992 | -0.001 | 98 | 1235965 | 250.0 | 276.7 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.216 | 15.217 | -0.001 | 94 | 351787 | 250.0 | 250.1 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.994 | 15.990 | 0.004 | 0 | 136778 | 250.0 | 269.5 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.093 | -0.001 | 96 | 133555 | 250.0 | 291.3 | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 500.0 | 513.3 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 500.0 | 547.3 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 500.0 | 613.8 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|---------------------|-----------|-------------|
| VOA8260SURR_00040 | Amount Added: 10.00 | Units: uL | |
| VOA8260VOAPRI_00139 | Amount Added: 10.00 | Units: uL | |
| voaWEE1stRest_00001 | Amount Added: 10.00 | Units: uL | |
| voaWKet1 Rest_00001 | Amount Added: 10.00 | Units: uL | |
| VOAVAPRI_00006 | Amount Added: 10.00 | Units: uL | |
| VOAACROLEINPR_00006 | Amount Added: 11.00 | Units: uL | |
| VOA8260INT_00040 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D

Injection Date: 26-Aug-2015 17:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

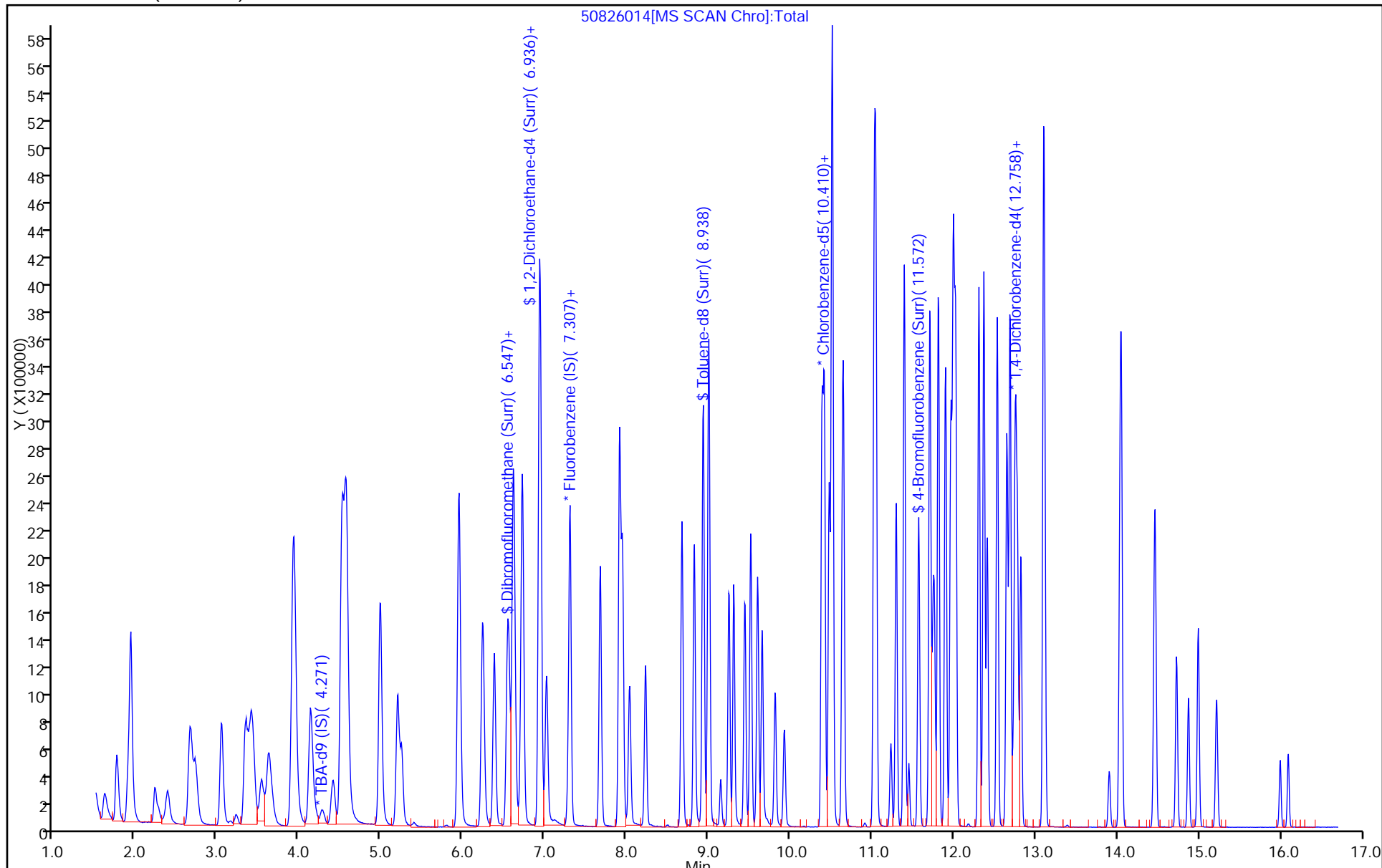
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



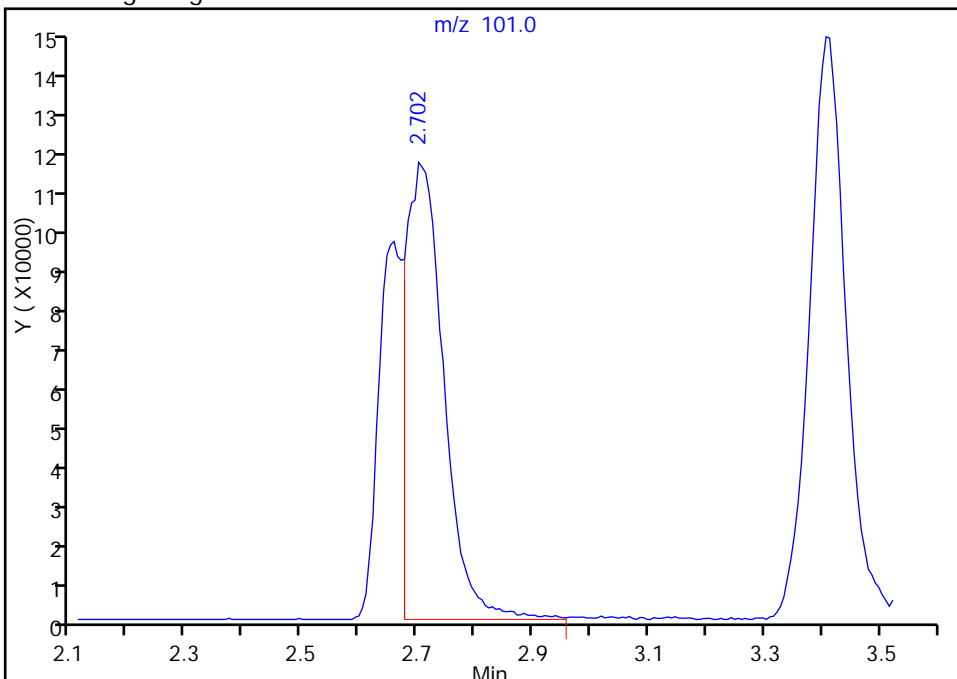
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
Injection Date: 26-Aug-2015 17:52:30 Instrument ID: CHHP5
Lims ID: IC VSTD50
Client ID:
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

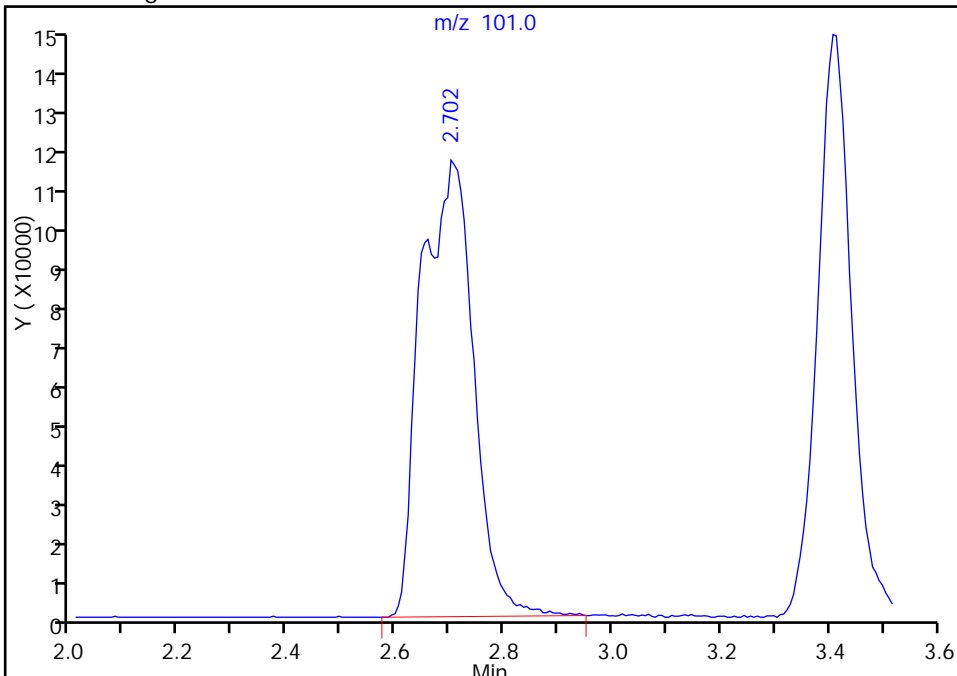
RT: 2.70
Area: 496107
Amount: 173.5779
Amount Units: ng

Processing Integration Results



RT: 2.70
Area: 739174
Amount: 248.0735
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:43:05
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-149469/14 | 60731014.D |
| Level 2 | IC 180-149469/4 | 60731004.D |
| Level 3 | ICIS 180-149469/5 | 60731005.D |
| Level 4 | IC 180-149469/6 | 60731006.D |
| Level 5 | IC 180-149469/7 | 60731007.D |
| Level 6 | IC 180-149469/8 | 60731008.D |
| Level 7 | IC 180-149469/9 | 60731009.D |
| Level 8 | IC 180-149469/10 | 60731010.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|---------------------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|-----------------------|---|---------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | 0.3784 0.3460 | 0.3285 0.3562 | 0.3421 0.3286 | 0.3615 | 0.3285 | Ave | | 0.3462 | | | 0.1000 | 5.3 | 20.0 | | | | |
| Chloromethane | 0.3392 0.2834 | 0.3040 0.2926 | 0.3038 0.2799 | 0.2953 | 0.2891 | Ave | | 0.2984 | | | 0.1000 | 6.2 | 20.0 | | | | |
| Vinyl chloride | 0.3459 0.3113 | 0.3263 0.3277 | 0.3180 0.3087 | 0.3307 | 0.3028 | Ave | | 0.3214 | | | 0.1000 | 4.4 | 20.0 | | | | |
| 1,3-Butadiene | 0.3349 0.2908 | 0.3110 0.3014 | 0.3020 0.2828 | 0.3029 | 0.2847 | Ave | | 0.3013 | | | 0.0100 | 5.5 | 20.0 | | | | |
| Bromomethane | 0.2086 0.1495 | 0.1854 0.1475 | 0.1846 ++++ | 0.1749 | 0.1644 | Ave | | 0.1735 | | | 0.0500 | 12.5 | 20.0 | | | | |
| Chloroethane | 0.2173 0.2164 | 0.2251 0.2256 | 0.2291 0.2095 | 0.2259 | 0.2061 | Ave | | 0.2194 | | | 0.0500 | 3.8 | 20.0 | | | | |
| Dichlorofluoromethane | 0.5463 0.4931 | 0.5444 0.5038 | 0.5165 0.4737 | 0.5267 | 0.4802 | Ave | | 0.5106 | | | 0.0100 | 5.4 | 20.0 | | | | |
| Trichlorofluoromethane | 0.4247 0.4001 | 0.4150 0.4067 | 0.4245 0.3867 | 0.4197 | 0.3805 | Ave | | 0.4072 | | | 0.1000 | 4.2 | 20.0 | | | | |
| Ethyl ether | 0.3195 0.2756 | 0.2914 0.2931 | 0.2819 0.2818 | 0.2864 | 0.2793 | Ave | | 0.2886 | | | 0.0100 | 4.8 | 20.0 | | | | |
| Acrolein | 0.0310 0.0318 | 0.0309 0.0342 | 0.0297 0.0340 | 0.0320 | 0.0281 | Ave | | 0.0315 | | | 0.0100 | 6.5 | 20.0 | | | | |
| 1,1-Dichloroethene | 0.2600 0.2474 | 0.2411 0.2670 | 0.2447 0.2555 | 0.2551 | 0.2426 | Ave | | 0.2517 | | | 0.1000 | 3.7 | 20.0 | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2893 0.2688 | 0.2611 0.2694 | 0.2602 0.2595 | 0.2670 | 0.2502 | Ave | | 0.2657 | | | 0.1000 | 4.3 | 20.0 | | | | |
| Acetone | 0.0973 0.0856 | 0.0931 0.0888 | 0.0785 0.0945 | 0.0834 | 0.0864 | Ave | | 0.0885 | | | 0.0500 | 7.1 | 20.0 | | | | |
| Iodomethane | 0.3086 0.3409 | 0.3325 0.3671 | 0.3285 0.3511 | 0.3438 | 0.3304 | Ave | | 0.3379 | | | 0.0100 | 5.1 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|--------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|------------|--------|----------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Carbon disulfide | 0.5727 0.6930 | 0.5928 0.7451 | 0.6074 0.7142 | 0.6519 | 0.6407 | Ave | | 0.6522 | | | 0.1000 | 9.4 | 20.0 | | | | |
| Allyl chloride | 0.1218 0.1547 | 0.1181 0.1646 | 0.1364 0.1606 | 0.1388 | 0.1402 | Ave | | 0.1419 | | | 0.0100 | 12.0 | 20.0 | | | | |
| Methyl acetate | 0.2192 0.2022 | 0.2017 0.2144 | 0.2047 0.2065 | 0.2072 | 0.2036 | Ave | | 0.2074 | | | 0.1000 | 3.0 | 20.0 | | | | |
| Methylene Chloride | 0.6631 0.3174 | 0.3874 0.3424 | 0.3361 0.3218 | 0.3366 | 0.3254 | Lin2 | 1.7443 | 0.3138 | | | 0.1000 | | | 0.9990 | | 0.9900 | |
| tert-Butyl alcohol | 1.2140 1.0554 | 1.0995 1.1213 | 1.1428 1.0861 | 1.1107 | 1.1728 | Ave | | 1.1253 | | | 0.0100 | 4.5 | 20.0 | | | | |
| Acrylonitrile | 0.1067 0.1050 | 0.1002 0.1099 | 0.1033 0.1041 | 0.1042 | 0.1030 | Ave | | 0.1046 | | | 0.0100 | 2.7 | 20.0 | | | | |
| trans-1,2-Dichloroethene | 0.2889 0.2884 | 0.2883 0.3069 | 0.2879 0.2909 | 0.2950 | 0.2774 | Ave | | 0.2905 | | | 0.1000 | 2.9 | 20.0 | | | | |
| Methyl tert-butyl ether | 0.8998 0.8761 | 0.8047 0.9451 | 0.8127 0.8903 | 0.8782 | 0.8559 | Ave | | 0.8703 | | | 0.1000 | 5.3 | 20.0 | | | | |
| Hexane | 0.4211 0.4030 | 0.3676 0.4125 | 0.3850 0.3998 | 0.3938 | 0.3659 | Ave | | 0.3936 | | | 0.0100 | 5.0 | 20.0 | | | | |
| 1,1-Dichloroethane | 0.5075 0.5187 | 0.5138 0.5491 | 0.5187 0.5191 | 0.5246 | 0.5085 | Ave | | 0.5200 | | | 0.2000 | 2.5 | 20.0 | | | | |
| Vinyl acetate | 0.3814 0.4481 | 0.3469 0.4857 | 0.3831 0.4671 | 0.4180 | 0.4276 | Ave | | 0.4197 | | | 0.0100 | 11.2 | 20.0 | | | | |
| 2,2-Dichloropropane | 0.2106 0.2916 | 0.2324 0.2998 | 0.2516 0.2938 | 0.2636 | 0.2601 | Ave | | 0.2629 | | | 0.0100 | 12.0 | 20.0 | | | | |
| cis-1,2-Dichloroethene | 0.3288 0.3134 | 0.2997 0.3336 | 0.3121 0.3178 | 0.3154 | 0.3061 | Ave | | 0.3158 | | | 0.1000 | 3.5 | 20.0 | | | | |
| 2-Butanone (MEK) | 0.1157 0.1241 | 0.1112 0.1317 | 0.1112 0.1244 | 0.1274 | 0.1201 | Ave | | 0.1207 | | | 0.0500 | 6.2 | 20.0 | | | | |
| Bromochloromethane | 0.1341 0.1264 | 0.1227 0.1349 | 0.1194 0.1303 | 0.1248 | 0.1226 | Ave | | 0.1269 | | | 0.0100 | 4.5 | 20.0 | | | | |
| Tetrahydrofuran | 0.0899 0.0835 | 0.0679 0.0856 | 0.0729 0.0875 | 0.0830 | 0.0802 | Ave | | 0.0813 | | | 0.0100 | 9.2 | 20.0 | | | | |
| Chloroform | 0.5240 0.5101 | 0.5110 0.5372 | 0.5156 0.5057 | 0.5231 | 0.5023 | Ave | | 0.5161 | | | 0.2000 | 2.2 | 20.0 | | | | |
| 1,1,1-Trichloroethane | 0.3298 0.3969 | 0.3454 0.4238 | 0.3768 0.4049 | 0.3936 | 0.3797 | Ave | | 0.3814 | | | 0.1000 | 8.1 | 20.0 | | | | |
| Cyclohexane | 0.4970 0.5019 | 0.4468 0.5151 | 0.4891 0.4904 | 0.5075 | 0.4613 | Ave | | 0.4886 | | | 0.1000 | 4.8 | 20.0 | | | | |
| Carbon tetrachloride | 0.2286 0.2886 | 0.2478 0.3002 | 0.2596 0.2920 | 0.2763 | 0.2618 | Ave | | 0.2694 | | | 0.1000 | 9.1 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|-----------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|------------|---|----------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 1,1-Dichloropropene | 0.3926 0.4066 | 0.3932 0.4288 | 0.4179 0.4097 | 0.4260 | 0.4065 | Ave | | 0.4102 | | | 0.0100 | 3.3 | 20.0 | | | | |
| Isobutyl alcohol | 0.0064 0.0079 | 0.0060 0.0084 | 0.0067 0.0082 | 0.0069 | 0.0074 | Ave | | 0.0072 | | * | 0.0100 | 12.0 | 20.0 | | | | |
| Benzene | 1.3108 1.1051 | 1.1747 1.1573 | 1.1838 1.0686 | 1.1862 | 1.1360 | Ave | | 1.1653 | | | 0.5000 | 6.1 | 20.0 | | | | |
| 1,2-Dichloroethane | 0.5170 0.4491 | 0.4680 0.4788 | 0.4635 0.4465 | 0.4749 | 0.4571 | Ave | | 0.4694 | | | 0.1000 | 4.8 | 20.0 | | | | |
| n-Heptane | 0.3283 0.3166 | 0.2930 0.3296 | 0.3187 0.3201 | 0.3273 | 0.3009 | Ave | | 0.3168 | | | 0.0100 | 4.2 | 20.0 | | | | |
| Trichloroethene | 0.2495 0.2439 | 0.2242 0.2580 | 0.2340 0.2443 | 0.2514 | 0.2390 | Ave | | 0.2430 | | | 0.2000 | 4.4 | 20.0 | | | | |
| Methylcyclohexane | 0.4988 0.5022 | 0.4670 0.5125 | 0.4962 0.4944 | 0.5026 | 0.4718 | Ave | | 0.4932 | | | 0.1000 | 3.2 | 20.0 | | | | |
| 1,2-Dichloropropane | 0.3004 0.2740 | 0.2605 0.2918 | 0.2603 0.2810 | 0.2821 | 0.2771 | Ave | | 0.2784 | | | 0.1000 | 5.0 | 20.0 | | | | |
| 1,4-Dioxane | 0.0025 0.0030 | 0.0022 0.0032 | 0.0027 0.0030 | 0.0026 | 0.0028 | Ave | | 0.0027 | | * | 0.0100 | 11.1 | 20.0 | | | | |
| Dibromomethane | 0.1697 0.1704 | 0.1570 0.1809 | 0.1594 0.1730 | 0.1722 | 0.1697 | Ave | | 0.1690 | | | 0.0100 | 4.5 | 20.0 | | | | |
| Bromodichloromethane | 0.2616 0.3321 | 0.2926 0.3618 | 0.2967 0.3476 | 0.3256 | 0.3231 | Ave | | 0.3176 | | | 0.2000 | 10.2 | 20.0 | | | | |
| cis-1,3-Dichloropropene | 0.2584 0.3913 | 0.2782 0.4177 | 0.3074 0.4064 | 0.3604 | 0.3717 | Ave | | 0.3489 | | | 0.2000 | 17.3 | 20.0 | | | | |
| 4-Methyl-2-pentanone (MIBK) | 0.8987 1.0658 | 0.9802 1.1445 | 0.9985 1.0527 | 1.0544 | 1.0284 | Ave | | 1.0279 | | | 0.1000 | 7.0 | 20.0 | | | | |
| Toluene | 5.9056 4.7537 | 5.5995 4.8374 | 5.4167 4.3396 | 5.4012 | 5.0191 | Ave | | 5.1591 | | | 0.4000 | 9.9 | 20.0 | | | | |
| trans-1,3-Dichloropropene | 0.8702 1.4914 | 1.1099 1.5454 | 1.1917 1.4764 | 1.4148 | 1.3777 | Ave | | 1.3097 | | | 0.1000 | 17.8 | 20.0 | | | | |
| Ethyl methacrylate | 1.0584 1.5306 | 1.1597 1.6211 | 1.2934 1.5074 | 1.4730 | 1.4851 | Ave | | 1.3911 | | | 0.0100 | 14.3 | 20.0 | | | | |
| 1,1,2-Trichloroethane | 1.1649 1.0331 | 1.0986 1.0808 | 1.0395 0.9995 | 1.0976 | 1.0221 | Ave | | 1.0670 | | | 0.1000 | 5.0 | 20.0 | | | | |
| Tetrachloroethene | 0.9697 0.8437 | 0.9092 0.8645 | 0.8932 0.8142 | 0.9113 | 0.8341 | Ave | | 0.8800 | | | 0.2000 | 5.8 | 20.0 | | | | |
| 1,3-Dichloropropane | 2.1051 1.8922 | 2.0770 1.9466 | 1.9733 1.8014 | 2.0412 | 1.9340 | Ave | | 1.9713 | | | 0.0100 | 5.1 | 20.0 | | | | |
| 2-Hexanone | 0.5961 0.7048 | 0.6359 0.7303 | 0.6480 0.6962 | 0.7009 | 0.6879 | Ave | | 0.6750 | | | 0.1000 | 6.6 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|-----------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|-----------------------|---|---------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.4970 0.7956 | 0.6594 0.8501 | 0.6992 0.7965 | 0.7868 | 0.7414 | Ave | | 0.7283 | | | 0.1000 | 15.3 | 20.0 | | | | |
| 1,2-Dibromoethane (EDB) | 0.9377 0.9584 | 0.9062 1.0009 | 0.8845 0.9279 | 0.9777 | 0.9601 | Ave | | 0.9442 | | | 0.1000 | 4.0 | 20.0 | | | | |
| 3-Chlorobenzotrifluoride | 1.9346 1.5843 | 1.7960 1.5900 | 1.7022 1.3868 | 1.6742 | 1.5483 | Ave | | 1.6520 | | | 0.0100 | 10.1 | 20.0 | | | | |
| Chlorobenzene | 3.5287 3.0123 | 3.3662 3.0694 | 3.2495 2.7949 | 3.2738 | 3.0742 | Ave | | 3.1711 | | | 0.5000 | 7.2 | 20.0 | | | | |
| 4-Chlorobenzotrifluoride | 1.6752 1.5041 | 1.6791 1.5135 | 1.5757 1.3040 | 1.5621 | 1.4356 | Ave | | 1.5312 | | | 0.0100 | 8.1 | 20.0 | | | | |
| 1,1,1,2-Tetrachloroethane | 0.6900 0.9213 | 0.8149 0.9909 | 0.8845 0.9158 | 0.8859 | 0.8746 | Ave | | 0.8691 | | | 0.0100 | 10.2 | 20.0 | | | | |
| Ethylbenzene | 1.8948 1.7498 | 1.7825 1.8007 | 1.8382 1.6637 | 1.8404 | 1.7406 | Ave | | 1.7888 | | | 0.1000 | 4.0 | 20.0 | | | | |
| m-Xylene & p-Xylene | 2.2690 2.1710 | 2.2783 2.2282 | 2.2514 2.0794 | 2.2987 | 2.1836 | Ave | | 2.2200 | | | 0.1000 | 3.3 | 20.0 | | | | |
| o-Xylene | 2.1401 2.1982 | 2.2838 2.2768 | 2.2497 2.0945 | 2.3260 | 2.1995 | Ave | | 2.2211 | | | 0.3000 | 3.5 | 20.0 | | | | |
| Styrene | 3.0262 3.3999 | 3.5063 3.5053 | 3.5865 3.2169 | 3.6244 | 3.4204 | Ave | | 3.4107 | | | 0.3000 | 5.9 | 20.0 | | | | |
| Bromoform | 0.2774 0.4245 | 0.3854 0.4551 | 0.3553 0.4390 | 0.3847 | 0.3885 | Ave | | 0.3887 | | | 0.1000 | 14.3 | 20.0 | | | | |
| 2-Chlorobenzotrifluoride | 1.7789 1.6566 | 1.8882 1.6800 | 1.7229 1.4654 | 1.7518 | 1.5913 | Ave | | 1.6919 | | | 0.0100 | 7.5 | 20.0 | | | | |
| Isopropylbenzene | 5.2778 5.0660 | 5.7181 5.1776 | 5.7365 4.6086 | 5.7208 | 5.2098 | Ave | | 5.3144 | | | 0.1000 | 7.4 | 20.0 | | | | |
| 1,1,2,2-Tetrachloroethane | 1.4524 1.4044 | 1.5283 1.4375 | 1.4123 1.3480 | 1.4533 | 1.3845 | Ave | | 1.4276 | | | 0.3000 | 3.8 | 20.0 | | | | |
| Bromobenzene | 0.8149 0.7981 | 0.7780 0.8354 | 0.7958 0.7913 | 0.8100 | 0.8070 | Ave | | 0.8038 | | | 0.0100 | 2.1 | 20.0 | | | | |
| trans-1,4-Dichloro-2-butene | 0.2183 0.2782 | 0.2316 0.2872 | 0.2398 0.2842 | 0.2451 | 0.2549 | Ave | | 0.2549 | | | 0.0100 | 10.1 | 20.0 | | | | |
| 1,2,3-Trichloropropane | 0.3115 0.3095 | 0.3103 0.3168 | 0.2929 0.3057 | 0.3005 | 0.2983 | Ave | | 0.3057 | | | 0.0100 | 2.6 | 20.0 | | | | |
| N-Propylbenzene | 0.8326 0.9631 | 0.8814 0.9609 | 0.9454 0.9440 | 0.9506 | 0.9278 | Ave | | 0.9257 | | | 0.0100 | 4.9 | 20.0 | | | | |
| 2-Chlorotoluene | 0.7094 0.7751 | 0.7465 0.7992 | 0.7798 0.7755 | 0.7871 | 0.7761 | Ave | | 0.7686 | | | 0.0100 | 3.7 | 20.0 | | | | |
| 3-Chlorotoluene | 0.7543 0.8420 | 0.8134 0.8337 | 0.8056 0.7727 | 0.8118 | 0.8241 | Ave | | 0.8072 | | | 0.0100 | 3.7 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|------------------------------------|------------------|------------------|------------------|--------|--------|------------|-------------|--------|----|---|---------|------|------|----------|-----------------------|---|---------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 2.7736 3.0025 | 3.0962 3.0472 | 3.1690 2.8036 | 3.1761 | 3.0091 | Ave | | 3.0097 | | | 0.0100 | 5.0 | 20.0 | | | | |
| 4-Chlorotoluene | 0.7667 0.8064 | 0.7905 0.8463 | 0.8267 0.8136 | 0.8328 | 0.8125 | Ave | | 0.8119 | | | 0.0100 | 3.1 | 20.0 | | | | |
| tert-Butylbenzene | 2.1654 2.4390 | 2.2766 2.4763 | 2.4320 2.3179 | 2.5249 | 2.3935 | Ave | | 2.3782 | | | 0.0100 | 5.0 | 20.0 | | | | |
| 1,2,4-Trimethylbenzene | 2.6641 3.0999 | 3.1580 3.1389 | 3.2410 2.8935 | 3.2855 | 3.1393 | Ave | | 3.0775 | | | 0.0100 | 6.6 | 20.0 | | | | |
| 3,4-Dichlorobenzotrifluoride | 0.9506 0.8837 | 0.9051 0.8812 | 0.8433 0.8086 | 0.8848 | 0.8177 | Ave | | 0.8719 | | | 0.0100 | 5.4 | 20.0 | | | | |
| sec-Butylbenzene | 3.1858 3.5384 | 3.7184 3.5357 | 3.7627 3.2573 | 3.8203 | 3.5793 | Ave | | 3.5497 | | | 0.0100 | 6.4 | 20.0 | | | | |
| 1,3-Dichlorobenzene | 1.6112 1.5388 | 1.6196 1.5936 | 1.5650 1.5066 | 1.5844 | 1.5419 | Ave | | 1.5701 | | | 0.6000 | 2.5 | 20.0 | | | | |
| 4-Isopropyltoluene | 2.5478 3.0138 | 2.9539 3.0592 | 3.1574 2.8450 | 3.2053 | 3.0463 | Ave | | 2.9786 | | | 0.0100 | 6.9 | 20.0 | | | | |
| 1,4-Dichlorobenzene | 1.6477 1.5662 | 1.6451 1.6298 | 1.6095 1.5306 | 1.6252 | 1.5856 | Ave | | 1.6050 | | | 0.5000 | 2.6 | 20.0 | | | | |
| 2,4-Dichlorobenzotrifluoride | 0.8809 0.9283 | 0.9010 0.9168 | 0.8399 0.7625 | 0.8415 | 0.8683 | Ave | | 0.8674 | | | 0.0100 | 6.1 | 20.0 | | | | |
| 2,5-Dichlorobenzotrifluoride | 1.1148 0.9323 | 0.9613 0.9470 | 0.9883 0.9297 | 0.9952 | 0.8812 | Ave | | 0.9687 | | | 0.0100 | 7.1 | 20.0 | | | | |
| n-Butylbenzene | 2.7413 3.0098 | 2.9731 3.0263 | 3.1192 2.7966 | 3.1553 | 2.9714 | Ave | | 2.9741 | | | 0.0100 | 4.8 | 20.0 | | | | |
| 1,2-Dichlorobenzene | 1.7344 1.5614 | 1.6042 1.5872 | 1.5781 1.4856 | 1.5970 | 1.5347 | Ave | | 1.5853 | | | 0.4000 | 4.5 | 20.0 | | | | |
| 1,2-Dibromo-3-Chloropropane | 0.1041 0.1673 | 0.1254 0.1741 | 0.1287 0.1752 | 0.1449 | 0.1432 | Ave | | 0.1454 | | | 0.0500 | 17.6 | 20.0 | | | | |
| 2,4- & 2,5- & 2,6- Dichlorotoluene | 1.3659 1.3828 | 1.4490 1.3691 | 1.4643 1.2123 | 1.4309 | 1.3634 | Ave | | 1.3797 | | | 0.0100 | 5.7 | 20.0 | | | | |
| 2,3- & 3,4- Dichlorotoluene | 1.4220 1.5594 | 1.5913 1.5578 | 1.5507 1.4014 | 1.5802 | 1.5161 | Ave | | 1.5224 | | | 0.0100 | 4.7 | 20.0 | | | | |
| 1,2,4-Trichlorobenzene | 1.1743 1.2613 | 1.2132 1.2999 | 1.2170 1.2151 | 1.2351 | 1.2123 | Ave | | 1.2285 | | | 0.2000 | 3.1 | 20.0 | | | | |
| Hexachlorobutadiene | 0.4483 0.5040 | 0.4710 0.5079 | 0.4894 0.4926 | 0.4879 | 0.4705 | Ave | | 0.4839 | | | 0.0100 | 4.1 | 20.0 | | | | |
| Naphthalene | 1.9638 2.6901 | 2.2408 2.7319 | 2.4855 2.5560 | 2.6099 | 2.5577 | Ave | | 2.4795 | | | 0.0100 | 10.3 | 20.0 | | | | |
| 1,2,3-Trichlorobenzene | 1.1813 1.1689 | 1.1348 1.2045 | 1.1056 1.1331 | 1.1438 | 1.1242 | Ave | | 1.1495 | | | 0.0100 | 2.8 | 20.0 | | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R ² OR COD | # | MIN R ² OR COD |
|------------------------------|------------------|------------------|------------------|--------|--------|---------------|-------------|--------|----|---|---------|------|---|-------------|--------------------------|---|------------------------------|
| | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| | LVL 6 | LVL 7 | LVL 8 | | | | | | | | | | | | | | |
| 2,4,5-Trichlorotoluene | 0.6523 0.8517 | 0.6908 0.8911 | 0.7114 0.8098 | 0.7914 | 0.7765 | Ave | | 0.7719 | | | 0.0100 | 10.6 | | 20.0 | | | |
| 2,3,6-Trichlorotoluene | 0.6747 0.7987 | 0.6373 0.8256 | 0.7048 0.7502 | 0.7418 | 0.7252 | Ave | | 0.7323 | | | 0.0100 | 8.4 | | 20.0 | | | |
| Dibromofluoromethane (Surr) | 0.2580 0.2278 | 0.2120 0.2401 | 0.2284 0.2160 | 0.2307 | 0.2293 | Ave | | 0.2303 | | | | 6.2 | | 20.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.4370 0.3580 | 0.3544 0.3741 | 0.3729 0.3410 | 0.3684 | 0.3665 | Ave | | 0.3715 | | | | 7.7 | | 20.0 | | | |
| Toluene-d8 (Surr) | 4.4422 3.7317 | 4.0733 3.7760 | 4.2664 3.2298 | 4.1020 | 3.9291 | Ave | | 3.9438 | | | | 9.5 | | 20.0 | | | |
| 4-Bromofluorobenzene (Surr) | 2.0841 1.7019 | 1.7074 1.7446 | 1.7653 1.5225 | 1.7965 | 1.6857 | Ave | | 1.7510 | | | | 9.0 | | 20.0 | | | |

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-149469/14 | 60731014.D |
| Level 2 | IC 180-149469/4 | 60731004.D |
| Level 3 | ICIS 180-149469/5 | 60731005.D |
| Level 4 | IC 180-149469/6 | 60731006.D |
| Level 5 | IC 180-149469/7 | 60731007.D |
| Level 6 | IC 180-149469/8 | 60731008.D |
| Level 7 | IC 180-149469/9 | 60731009.D |
| Level 8 | IC 180-149469/10 | 60731010.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|---------------------------------------|--------|------------|------------------|-------------------|-------------------|--------|--------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Dichlorodifluoromethane | FB | Ave | 17276 575043 | 76046 636192 | 166146 776950 | 255750 | 316945 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Chloromethane | FB | Ave | 15485 470953 | 70391 522516 | 147560 661756 | 208858 | 278884 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Vinyl chloride | FB | Ave | 15792 517410 | 75541 585198 | 154423 729853 | 233901 | 292173 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Butadiene | FB | Ave | 15290 483297 | 72002 538199 | 146675 668636 | 214248 | 274693 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromomethane | FB | Ave | 9521 248522 | 42916 263364 | 89628 +++++ | 123705 | 158589 | 5.00 175 | 25.0 200 | 50.0 +++++ | 75.0 | 100 |
| Chloroethane | FB | Ave | 9922 359701 | 52119 402907 | 111283 495382 | 159781 | 198857 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Dichlorofluoromethane | FB | Ave | 24941 819476 | 126043 899692 | 250823 1120159 | 372545 | 463283 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Trichlorofluoromethane | FB | Ave | 19389 664854 | 96092 726249 | 206141 914267 | 296881 | 367084 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethyl ether | FB | Ave | 14586 458021 | 67458 523507 | 136903 666334 | 202583 | 269465 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Acrolein | FB | Ave | 28320 68050 | 35802 76429 | 43327 88331 | 52894 | 54177 | 100 225 | 125 250 | 150 275 | 175 | 200 |
| 1,1-Dichloroethene | FB | Ave | 11872 411177 | 55817 476887 | 118856 604031 | 180424 | 234083 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | 13209 446711 | 60462 481169 | 126375 613669 | 188852 | 241359 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Acetone | FB | Ave | 22203 284563 | 43121 317270 | 76252 446823 | 117975 | 166807 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Iodomethane | FB | Ave | 14090 566533 | 76980 655616 | 159542 830188 | 243211 | 318736 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Carbon disulfide | FB | Ave | 26146 1151644 | 137245 1330649 | 294989 1688724 | 461167 | 618168 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48181-1

Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|--------------------------|--------|------------|------------------|-------------------|-------------------|--------|--------|--------------------|-------------|--------------|-------|-------|
| | | | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| | | | LVL 6 | LVL 7 | LVL 8 | | | LVL 6 | LVL 7 | LVL 8 | | |
| Allyl chloride | FB | Ave | 5562 257112 | 27346 293887 | 66228 379717 | 98190 | 135273 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Methyl acetate | FB | Ave | 50033 1680300 | 233460 1914014 | 497011 2441128 | 732698 | 982363 | 25.0 875 | 125 1000 | 250 1250 | 375 | 500 |
| Methylene Chloride | FB | Lin2 | 30274 527474 | 89699 611401 | 163213 760977 | 238130 | 313904 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| tert-Butyl alcohol | TBA | Ave | 9874 354063 | 43837 426462 | 91997 559063 | 141735 | 198055 | 50.0 1750 | 250 2000 | 500 2500 | 750 | 1000 |
| Acrylonitrile | FB | Ave | 48723 1745686 | 231943 1961872 | 501701 2461613 | 737397 | 994141 | 50.0 1750 | 250 2000 | 500 2500 | 750 | 1000 |
| trans-1,2-Dichloroethene | FB | Ave | 13191 479327 | 66744 548086 | 139824 687783 | 208665 | 267617 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Methyl tert-butyl ether | FB | Ave | 41079 1455878 | 186303 1687770 | 394698 2105039 | 621185 | 825760 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Hexane | FB | Ave | 19223 669795 | 85113 736641 | 186977 945322 | 278592 | 352983 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1-Dichloroethane | FB | Ave | 23168 861981 | 118950 980644 | 251887 1227440 | 371113 | 490563 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Vinyl acetate | FB | Ave | 17413 744628 | 80307 867464 | 186047 1104555 | 295714 | 412541 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,2-Dichloropropane | FB | Ave | 9613 484574 | 53806 535345 | 122189 694588 | 186450 | 250901 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| cis-1,2-Dichloroethene | FB | Ave | 15010 520777 | 69383 595718 | 151575 751398 | 223081 | 295290 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Butanone (MEK) | FB | Ave | 26408 412307 | 51510 470276 | 108037 588377 | 180292 | 231667 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Bromochloromethane | FB | Ave | 6120 209995 | 28403 240962 | 58005 308059 | 88252 | 118290 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Tetrahydrofuran | FB | Ave | 8204 277489 | 31436 305718 | 70787 413888 | 117489 | 154776 | 10.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Chloroform | FB | Ave | 23924 847765 | 118313 959266 | 250393 1195678 | 370042 | 484585 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,1-Trichloroethane | FB | Ave | 15055 659562 | 79977 756837 | 182973 957300 | 278390 | 366376 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Cyclohexane | FB | Ave | 22688 834057 | 103455 919827 | 237539 1159567 | 359010 | 445084 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Carbon tetrachloride | FB | Ave | 10435 479558 | 57375 536127 | 126096 690480 | 195436 | 252588 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1-Dichloropropene | FB | Ave | 17924 675711 | 91039 765806 | 202951 968671 | 301319 | 392146 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Isobutyl alcohol | FB | Ave | 7317 326401 | 34707 375937 | 81470 482886 | 122452 | 178080 | 125 4375 | 625 5000 | 1250 6250 | 1875 | 2500 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|------------------|-------------------|-------------------|--------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Benzene | FB | Ave | 59844 1836424 | 271972 2066671 | 574901 2526807 | 839117 | 1096030 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloroethane | FB | Ave | 23604 746328 | 108353 855052 | 225116 1055651 | 335915 | 440984 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| n-Heptane | FB | Ave | 14990 526126 | 67835 588643 | 154761 756814 | 231524 | 290327 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Trichloroethene | FB | Ave | 11389 405251 | 51907 460676 | 113666 577638 | 177868 | 230554 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Methylcyclohexane | FB | Ave | 22772 834543 | 108113 915285 | 240977 1169092 | 355558 | 455180 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloropropane | FB | Ave | 13712 455391 | 60301 521174 | 126414 664355 | 199527 | 267345 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,4-Dioxane | FB | Ave | 2321 98136 | 10219 114196 | 26388 139772 | 36545 | 54577 | 100 3500 | 500 4000 | 1000 5000 | 1500 | 2000 |
| Dibromomethane | FB | Ave | 7749 283101 | 36346 323060 | 77394 409028 | 121844 | 163719 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromodichloromethane | FB | Ave | 11941 551929 | 67754 646107 | 144075 821950 | 230314 | 311750 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| cis-1,3-Dichloropropene | FB | Ave | 11797 650196 | 64404 745866 | 149301 960857 | 254907 | 358605 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Methyl-2-pentanone (MIBK) | CBZ | Ave | 42150 808342 | 90891 947711 | 208546 1194590 | 330779 | 452681 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Toluene | CBZ | Ave | 55394 1802740 | 259618 2002822 | 565645 2462377 | 847209 | 1104648 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| trans-1,3-Dichloropropene | CBZ | Ave | 8162 565592 | 51458 639831 | 124444 837722 | 221914 | 303226 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethyl methacrylate | CBZ | Ave | 9928 580427 | 53768 671187 | 135064 855316 | 231048 | 326852 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2-Trichloroethane | CBZ | Ave | 10927 391776 | 50938 447467 | 108552 567107 | 172158 | 224945 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Tetrachloroethene | CBZ | Ave | 9096 319955 | 42156 357911 | 93269 461983 | 142949 | 183568 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Dichloropropane | CBZ | Ave | 19746 717566 | 96298 805963 | 206060 1022129 | 320167 | 425660 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Hexanone | CBZ | Ave | 27957 534519 | 58962 604727 | 135329 790089 | 219895 | 302805 | 25.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| Dibromochloromethane | CBZ | Ave | 4662 301710 | 30573 351983 | 73014 451973 | 123420 | 163175 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dibromoethane (EDB) | CBZ | Ave | 8796 363449 | 42016 414395 | 92363 526477 | 153351 | 211303 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 3-Chlorobenzotrifluoride | CBZ | Ave | 18146 600793 | 83271 658293 | 177755 786880 | 262608 | 340769 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|------------------|-------------------|-------------------|--------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| Chlorobenzene | CBZ | Ave | 33099 1142353 | 156070 1270819 | 339330 1585885 | 513514 | 676590 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Chlorobenzotrifluoride | CBZ | Ave | 15713 570403 | 77852 626628 | 164547 739908 | 245021 | 315960 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,1,2-Tetrachloroethane | CBZ | Ave | 6472 349368 | 37781 410261 | 89710 519653 | 138964 | 192497 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Ethylbenzene | CBZ | Ave | 17773 663577 | 82647 745552 | 191951 943999 | 288675 | 383099 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| m-Xylene & p-Xylene | CBZ | Ave | 21283 823294 | 105633 922542 | 235109 1179895 | 360561 | 480587 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| o-Xylene | CBZ | Ave | 20074 833629 | 105888 942660 | 234926 1188451 | 364838 | 484093 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Styrene | CBZ | Ave | 28385 1289309 | 162570 1451301 | 374525 1825312 | 568513 | 752806 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromoform | CBZ | Ave | 2602 160966 | 17870 188413 | 37102 249108 | 60348 | 85498 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Chlorobenzotrifluoride | CBZ | Ave | 16686 628216 | 87545 695569 | 179913 831476 | 274773 | 350232 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Isopropylbenzene | CBZ | Ave | 49505 1921153 | 265117 2143689 | 599038 2614965 | 897341 | 1146617 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,1,2,2-Tetrachloroethane | CBZ | Ave | 13623 532593 | 70858 595171 | 147479 764885 | 227964 | 304710 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Bromobenzene | DCB | Ave | 12814 459843 | 61847 533334 | 136094 665597 | 203181 | 276525 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| trans-1,4-Dichloro-2-butene | DCB | Ave | 3433 160304 | 18413 183338 | 41001 239026 | 61474 | 87362 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,3-Trichloropropane | DCB | Ave | 4898 178317 | 24668 202262 | 50085 257089 | 75371 | 102213 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| N-Propylbenzene | DCB | Ave | 13092 554932 | 70063 613443 | 161671 793964 | 238465 | 317924 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2-Chlorotoluene | DCB | Ave | 11155 446590 | 59338 510216 | 133354 652311 | 197431 | 265955 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 3-Chlorotoluene | DCB | Ave | 11861 485130 | 64658 532252 | 137766 649907 | 203636 | 282386 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3,5-Trimethylbenzene | DCB | Ave | 43612 1730016 | 246129 1945327 | 541915 2358116 | 796704 | 1031152 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Chlorotoluene | DCB | Ave | 12056 464650 | 62837 540303 | 141377 684319 | 208897 | 278435 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| tert-Butylbenzene | DCB | Ave | 34048 1405341 | 180978 1580824 | 415895 1949627 | 633351 | 820194 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,4-Trimethylbenzene | DCB | Ave | 41890 1786151 | 251042 2003823 | 554224 2433681 | 824147 | 1075766 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|------------------------------------|--------|------------|------------------|-------------------|-------------------|---------|---------|--------------------|----------------|----------------|-------|-------|
| | | | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 | LVL 5 |
| 3,4-Dichlorobenzotrifluoride | DCB | Ave | 14947 509173 | 71946 562570 | 144215 680073 | 221955 | 280215 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| sec-Butylbenzene | DCB | Ave | 50094 2038837 | 295586 2257148 | 643438 2739728 | 958306 | 1226548 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,3-Dichlorobenzene | DCB | Ave | 25334 886632 | 128745 1017363 | 267626 1267194 | 397446 | 528372 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 4-Isopropyltoluene | DCB | Ave | 40061 1736569 | 234813 1952987 | 539941 2392925 | 804039 | 1043904 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,4-Dichlorobenzene | DCB | Ave | 25908 902441 | 130776 1040432 | 275229 1287354 | 407678 | 543357 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4-Dichlorobenzotrifluoride | DCB | Ave | 13852 534909 | 71623 585295 | 143623 641375 | 211084 | 297534 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,5-Dichlorobenzotrifluoride | DCB | Ave | 17529 537191 | 76420 604585 | 169006 781945 | 249633 | 301973 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| n-Butylbenzene | DCB | Ave | 43104 1734264 | 236342 1931969 | 533401 2352259 | 791496 | 1018212 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichlorobenzene | DCB | Ave | 27271 899668 | 127520 1013269 | 269873 1249514 | 400593 | 525918 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dibromo-3-Chloropropane | DCB | Ave | 1637 96376 | 9971 111156 | 22010 147337 | 36339 | 49062 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4- & 2,5- & 2,6- Dichlorotoluene | DCB | Ave | 64430 2390336 | 345570 2621988 | 751227 3058923 | 1076776 | 1401616 | 15.0 525 | 75.0 600 | 150 750 | 225 | 300 |
| 2,3- & 3,4- Dichlorotoluene | DCB | Ave | 44720 1797097 | 252992 1989024 | 530353 2357462 | 792789 | 1039069 | 10.0 350 | 50.0 400 | 100 500 | 150 | 200 |
| 1,2,4-Trichlorobenzene | DCB | Ave | 18465 726756 | 96442 829845 | 208112 1022001 | 309817 | 415442 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Hexachlorobutadiene | DCB | Ave | 7049 290426 | 37440 324236 | 83692 414314 | 122376 | 161228 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Naphthalene | DCB | Ave | 30879 1550041 | 178131 1744010 | 425036 2149836 | 654694 | 876449 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2,3-Trichlorobenzene | DCB | Ave | 18575 673533 | 90206 768952 | 189066 953082 | 286920 | 385220 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,4,5-Trichlorotoluene | DCB | Ave | 10257 490754 | 54916 568870 | 121646 681135 | 198517 | 266093 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 2,3,6-Trichlorotoluene | DCB | Ave | 10609 460224 | 50658 527070 | 120523 630961 | 186087 | 248497 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Dibromofluoromethane (Surr) | FB | Ave | 11777 378487 | 49079 428779 | 110929 510673 | 163209 | 221245 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 19952 595019 | 82044 668015 | 181120 806396 | 260570 | 353626 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |
| Toluene-d8 (Surr) | CBZ | Ave | 41667 1415164 | 188855 1563368 | 445521 1832665 | 643420 | 864751 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (NG) | | | | |
|-----------------------------|--------|------------|-----------------|-----------------|------------------|--------|--------|--------------------|-------------|-------------|-------|-------|
| | | | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| | | | LVL 6 | LVL 7 | LVL 8 | | | LVL 6 | LVL 7 | LVL 8 | | |
| 4-Bromofluorobenzene (Surr) | CBZ | Ave | 19549 645419 | 79163 722308 | 184340 863895 | 281797 | 371000 | 5.00 175 | 25.0 200 | 50.0 250 | 75.0 | 100 |

Curve Type Legend:

| |
|-----------------------------|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1 Analy Batch No.: 149469

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---------|-------------------|--------------|
| Level 1 | IC 180-149469/14 | 60731014.D |
| Level 2 | IC 180-149469/4 | 60731004.D |
| Level 3 | ICIS 180-149469/5 | 60731005.D |
| Level 4 | IC 180-149469/6 | 60731006.D |
| Level 5 | IC 180-149469/7 | 60731007.D |
| Level 6 | IC 180-149469/8 | 60731008.D |
| Level 7 | IC 180-149469/9 | 60731009.D |
| Level 8 | IC 180-149469/10 | 60731010.D |

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|--------------------|---------------|---------|---------|---------|---------|---------|---------------------|-------|-------|-------|-------|-------|
| | LVL 1 # | LVL 2 # | LVL 3 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 |
| | LVL 7 # | LVL 8 # | | | | | LVL 7 | LVL 8 | | | | |
| Methylene Chloride | 0.2 | 1.2 | -4.0 | -0.1 | -1.9 | -2.0 | 40 | 40 | 40 | 40 | 40 | 40 |
| | 6.3 | 0.3 | | | | | 40 | 40 | | | | |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 31-Jul-2015 14:00:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD5
 Misc. Info.: 180-0007999-004
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:15:33 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond Date: 31-Jul-2015 16:26:45

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.245 | 4.248 | -0.003 | 91 | 159479 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.286 | 7.284 | 0.002 | 98 | 463046 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.395 | 10.398 | -0.003 | 92 | 92729 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.743 | 12.747 | -0.004 | 97 | 158987 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.556 | 6.554 | 0.002 | 68 | 49079 | 25.0 | 23.0 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.934 | 6.931 | 0.003 | 54 | 82044 | 25.0 | 23.8 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.941 | 8.938 | 0.003 | 93 | 188855 | 25.0 | 25.8 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.587 | 11.585 | 0.002 | 81 | 79163 | 25.0 | 24.4 | |
| 11 Dichlorodifluoromethane | 85 | 1.611 | 1.608 | 0.002 | 99 | 76046 | 25.0 | 23.7 | |
| 12 Chloromethane | 50 | 1.757 | 1.754 | 0.003 | 100 | 70391 | 25.0 | 25.5 | |
| 13 Vinyl chloride | 62 | 1.884 | 1.888 | -0.004 | 98 | 75541 | 25.0 | 25.4 | |
| 14 Butadiene | 39 | 1.933 | 1.930 | 0.003 | 92 | 72002 | 25.0 | 25.8 | |
| 15 Bromomethane | 94 | 2.231 | 2.228 | 0.003 | 91 | 42916 | 25.0 | 26.7 | M |
| 16 Chloroethane | 64 | 2.377 | 2.368 | 0.009 | 98 | 52119 | 25.0 | 25.7 | |
| 17 Dichlorofluoromethane | 67 | 2.651 | 2.648 | 0.003 | 97 | 126043 | 25.0 | 26.7 | |
| 18 Trichlorofluoromethane | 101 | 2.669 | 2.660 | 0.009 | 85 | 96092 | 25.0 | 25.5 | |
| 20 Ethyl ether | 59 | 3.046 | 3.049 | -0.003 | 88 | 67458 | 25.0 | 25.2 | |
| 21 Acrolein | 56 | 3.223 | 3.220 | 0.003 | 97 | 35802 | 125.0 | 122.8 | |
| 22 1,1-Dichloroethene | 96 | 3.338 | 3.341 | -0.003 | 95 | 55817 | 25.0 | 23.9 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.393 | 3.390 | 0.003 | 94 | 60462 | 25.0 | 24.6 | |
| 24 Acetone | 43 | 3.429 | 3.421 | 0.008 | 99 | 43121 | 50.0 | 52.6 | |
| 25 Iodomethane | 142 | 3.539 | 3.536 | 0.003 | 97 | 76980 | 25.0 | 24.6 | |
| 26 Carbon disulfide | 76 | 3.636 | 3.627 | 0.009 | 100 | 137245 | 25.0 | 22.7 | |
| 29 3-Chloro-1-propene | 76 | 3.922 | 3.919 | 0.003 | 61 | 27346 | 25.0 | 20.8 | |
| 30 Methyl acetate | 43 | 3.934 | 3.926 | 0.008 | 97 | 233460 | 125.0 | 121.5 | |
| 31 Methylene Chloride | 84 | 4.135 | 4.132 | 0.003 | 92 | 89699 | 25.0 | 25.3 | |
| 32 2-Methyl-2-propanol | 59 | 4.366 | 4.370 | -0.004 | 93 | 43837 | 250.0 | 244.3 | |
| 33 Acrylonitrile | 53 | 4.500 | 4.503 | -0.003 | 100 | 231943 | 250.0 | 239.5 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.555 | 4.564 | -0.009 | 95 | 66744 | 25.0 | 24.8 | |
| 35 Methyl tert-butyl ether | 73 | 4.573 | 4.576 | -0.003 | 97 | 186303 | 25.0 | 23.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.987 | 4.990 | -0.003 | 94 | 85113 | 25.0 | 23.4 | |
| 37 1,1-Dichloroethane | 63 | 5.206 | 5.197 | 0.009 | 97 | 118950 | 25.0 | 24.7 | |
| 38 Vinyl acetate | 43 | 5.236 | 5.240 | -0.004 | 97 | 80307 | 25.0 | 20.7 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.948 | 5.939 | 0.009 | 84 | 69383 | 25.0 | 23.7 | |
| 44 2-Butanone (MEK) | 43 | 5.948 | 5.945 | 0.003 | 56 | 51510 | 50.0 | 46.1 | |
| 42 2,2-Dichloropropane | 77 | 5.942 | 5.945 | -0.003 | 59 | 53806 | 25.0 | 22.1 | |
| 48 Chlorobromomethane | 128 | 6.228 | 6.231 | -0.003 | 94 | 28403 | 25.0 | 24.2 | |
| 49 Tetrahydrofuran | 42 | 6.240 | 6.249 | -0.009 | 81 | 31436 | 50.0 | 41.7 | |
| 50 Chloroform | 83 | 6.368 | 6.371 | -0.003 | 93 | 118313 | 25.0 | 24.8 | |
| 51 1,1,1-Trichloroethane | 97 | 6.538 | 6.541 | -0.003 | 96 | 79977 | 25.0 | 22.6 | |
| 52 Cyclohexane | 56 | 6.611 | 6.620 | -0.009 | 93 | 103455 | 25.0 | 22.9 | |
| 53 Carbon tetrachloride | 117 | 6.708 | 6.718 | -0.010 | 98 | 57375 | 25.0 | 23.0 | |
| 54 1,1-Dichloropropene | 75 | 6.727 | 6.724 | 0.003 | 94 | 91039 | 25.0 | 24.0 | |
| 55 Isobutyl alcohol | 41 | 6.903 | 6.900 | 0.003 | 95 | 34707 | 625.0 | 518.1 | |
| 56 Benzene | 78 | 6.940 | 6.943 | -0.003 | 97 | 271972 | 25.0 | 25.2 | |
| 57 1,2-Dichloroethane | 62 | 7.019 | 7.016 | 0.003 | 98 | 108353 | 25.0 | 24.9 | |
| 59 n-Heptane | 43 | 7.311 | 7.308 | 0.003 | 89 | 67835 | 25.0 | 23.1 | |
| 61 Trichloroethene | 130 | 7.676 | 7.679 | -0.003 | 92 | 51907 | 25.0 | 23.1 | |
| 63 Methylcyclohexane | 83 | 7.925 | 7.922 | 0.003 | 91 | 108113 | 25.0 | 23.7 | |
| 64 1,2-Dichloropropane | 63 | 7.949 | 7.953 | -0.004 | 95 | 60301 | 25.0 | 23.4 | |
| 65 1,4-Dioxane | 88 | 8.029 | 8.032 | -0.003 | 40 | 10219 | 500.0 | 401.6 | M |
| 67 Dibromomethane | 93 | 8.035 | 8.038 | -0.003 | 91 | 36346 | 25.0 | 23.2 | |
| 68 Dichlorobromomethane | 83 | 8.235 | 8.227 | 0.008 | 98 | 67754 | 25.0 | 23.0 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.673 | 8.677 | -0.004 | 92 | 64404 | 25.0 | 19.9 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.826 | 8.823 | 0.003 | 95 | 90891 | 50.0 | 47.7 | |
| 73 Toluene | 91 | 9.008 | 9.011 | -0.003 | 97 | 259618 | 25.0 | 27.1 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.257 | 9.255 | 0.002 | 97 | 51458 | 25.0 | 21.2 | |
| 75 Ethyl methacrylate | 69 | 9.312 | 9.315 | -0.003 | 86 | 53768 | 25.0 | 20.8 | |
| 76 1,1,2-Trichloroethane | 97 | 9.446 | 9.449 | -0.003 | 96 | 50938 | 25.0 | 25.7 | |
| 77 Tetrachloroethene | 164 | 9.525 | 9.522 | 0.003 | 92 | 42156 | 25.0 | 25.8 | |
| 78 1,3-Dichloropropane | 76 | 9.604 | 9.607 | -0.003 | 92 | 96298 | 25.0 | 26.3 | |
| 79 2-Hexanone | 43 | 9.659 | 9.656 | 0.003 | 97 | 58962 | 50.0 | 47.1 | |
| 81 Chlorodibromomethane | 129 | 9.817 | 9.826 | -0.009 | 92 | 30573 | 25.0 | 22.6 | |
| 82 Ethylene Dibromide | 107 | 9.939 | 9.942 | -0.003 | 97 | 42016 | 25.0 | 24.0 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.395 | 10.392 | 0.003 | 89 | 83271 | 25.0 | 27.2 | |
| 84 Chlorobenzene | 112 | 10.425 | 10.429 | -0.004 | 91 | 156070 | 25.0 | 26.5 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.480 | 10.483 | -0.003 | 95 | 77852 | 25.0 | 27.4 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.523 | 10.520 | 0.003 | 87 | 37781 | 25.0 | 23.4 | |
| 87 Ethylbenzene | 106 | 10.529 | 10.526 | 0.003 | 99 | 82647 | 25.0 | 24.9 | |
| 88 m-Xylene & p-Xylene | 106 | 10.657 | 10.660 | -0.003 | 99 | 105633 | 25.0 | 25.7 | |
| 89 o-Xylene | 106 | 11.040 | 11.043 | -0.003 | 98 | 105888 | 25.0 | 25.7 | |
| 90 Styrene | 104 | 11.058 | 11.061 | -0.003 | 94 | 162570 | 25.0 | 25.7 | |
| 91 Bromoform | 173 | 11.241 | 11.244 | -0.003 | 94 | 17870 | 25.0 | 24.8 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.308 | 11.305 | 0.003 | 95 | 87545 | 25.0 | 27.9 | |
| 93 Isopropylbenzene | 105 | 11.405 | 11.408 | -0.003 | 97 | 265117 | 25.0 | 26.9 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.715 | 11.712 | 0.003 | 94 | 70858 | 25.0 | 26.8 | |
| 95 Bromobenzene | 156 | 11.721 | 11.725 | -0.004 | 97 | 61847 | 25.0 | 24.2 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.752 | 11.749 | 0.003 | 66 | 18413 | 25.0 | 22.7 | |
| 98 1,2,3-Trichloropropane | 110 | 11.770 | 11.767 | 0.003 | 86 | 24668 | 25.0 | 25.4 | |
| 99 N-Propylbenzene | 120 | 11.825 | 11.828 | -0.003 | 99 | 70063 | 25.0 | 23.8 | |
| 100 2-Chlorotoluene | 126 | 11.916 | 11.913 | 0.003 | 94 | 59338 | 25.0 | 24.3 | |
| 101 3-Chlorotoluene | 126 | 11.977 | 11.980 | -0.003 | 97 | 64658 | 25.0 | 25.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.007 | 12.010 | -0.003 | 92 | 246129 | 25.0 | 25.7 | |
| 103 4-Chlorotoluene | 126 | 12.038 | 12.041 | -0.003 | 98 | 62837 | 25.0 | 24.3 | |
| 104 tert-Butylbenzene | 119 | 12.323 | 12.321 | 0.002 | 90 | 180978 | 25.0 | 23.9 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.384 | 12.382 | 0.002 | 97 | 251042 | 25.0 | 25.7 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.421 | 12.418 | 0.003 | 95 | 71946 | 25.0 | 26.0 | |
| 108 sec-Butylbenzene | 105 | 12.549 | 12.546 | 0.003 | 96 | 295586 | 25.0 | 26.2 | |
| 109 1,3-Dichlorobenzene | 146 | 12.664 | 12.667 | -0.003 | 93 | 128745 | 25.0 | 25.8 | |
| 110 4-Isopropyltoluene | 119 | 12.707 | 12.704 | 0.003 | 96 | 234813 | 25.0 | 24.8 | |
| 111 1,4-Dichlorobenzene | 146 | 12.768 | 12.771 | -0.003 | 89 | 130776 | 25.0 | 25.6 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.792 | 12.789 | 0.003 | 94 | 71623 | 25.0 | 26.0 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.828 | 12.832 | -0.004 | 96 | 76420 | 25.0 | 24.8 | |
| 116 n-Butylbenzene | 91 | 13.114 | 13.112 | 0.002 | 98 | 236342 | 25.0 | 25.0 | |
| 117 1,2-Dichlorobenzene | 146 | 13.120 | 13.124 | -0.004 | 91 | 127520 | 25.0 | 25.3 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.911 | 13.921 | -0.010 | 62 | 9971 | 25.0 | 21.6 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.063 | 14.061 | 0.002 | 98 | 345570 | 75.0 | 78.8 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.471 | 14.474 | -0.003 | 99 | 252992 | 50.0 | 52.3 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.745 | 14.736 | 0.009 | 92 | 96442 | 25.0 | 24.7 | |
| 123 Hexachlorobutadiene | 225 | 14.891 | 14.888 | 0.003 | 96 | 37440 | 25.0 | 24.3 | |
| 124 Naphthalene | 128 | 15.006 | 15.004 | 0.002 | 98 | 178131 | 25.0 | 22.6 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.231 | 15.229 | 0.002 | 95 | 90206 | 25.0 | 24.7 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.004 | 16.007 | -0.003 | 0 | 54916 | 25.0 | 22.4 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.107 | 16.111 | -0.004 | 91 | 50658 | 25.0 | 21.8 | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 50.0 | 48.5 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 50.0 | 51.4 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 50.0 | 41.1 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 1.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 1.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 1.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 1.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 1.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 5.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D

Injection Date: 31-Jul-2015 14:00:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

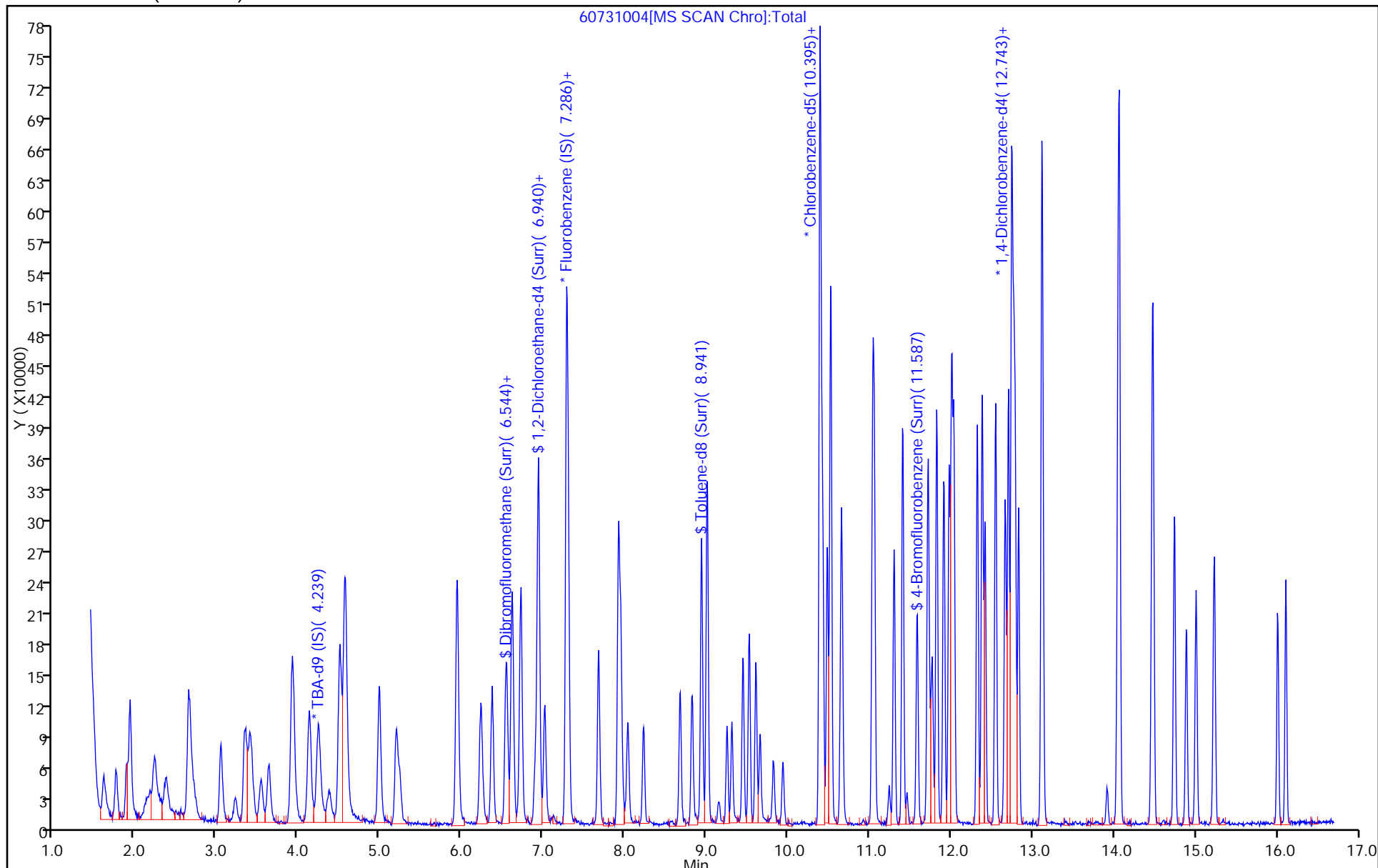
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



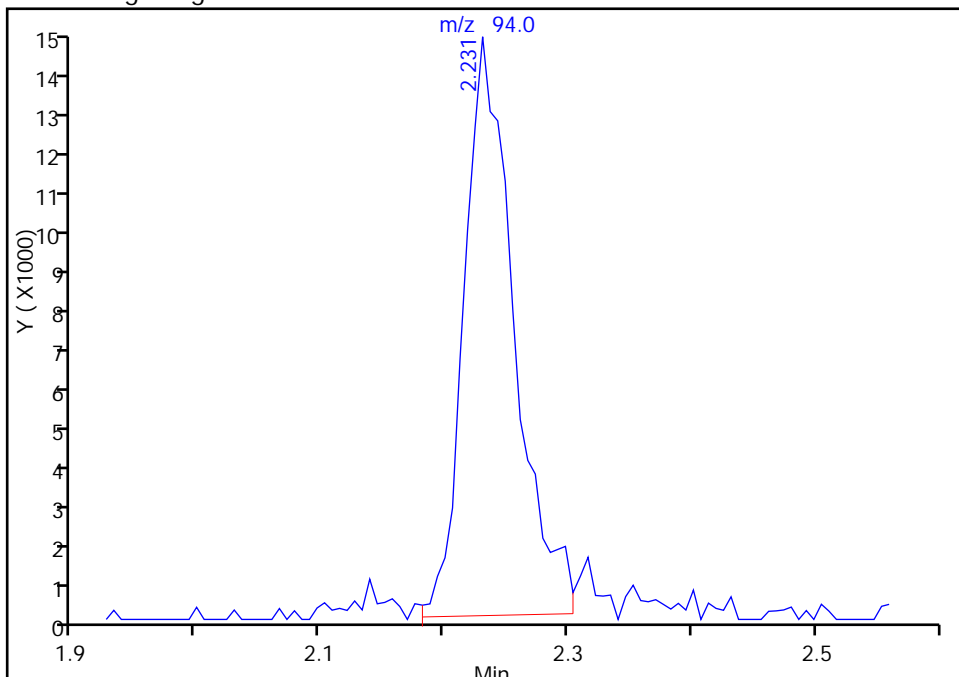
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

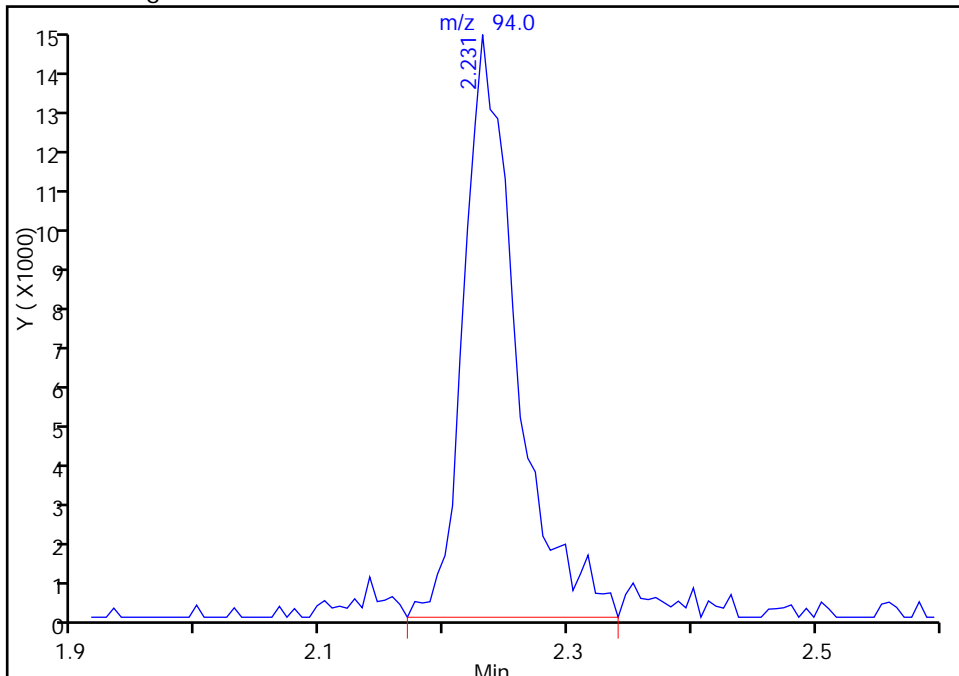
RT: 2.23
Area: 40394
Amount: 23.319863
Amount Units: ng

Processing Integration Results



RT: 2.23
Area: 42916
Amount: 26.704234
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

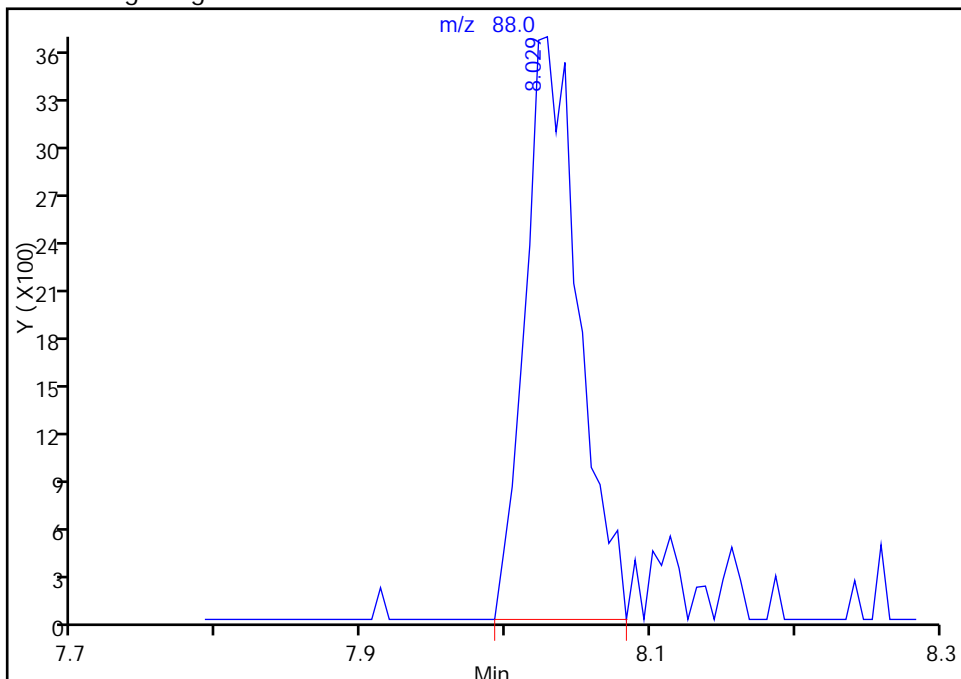
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

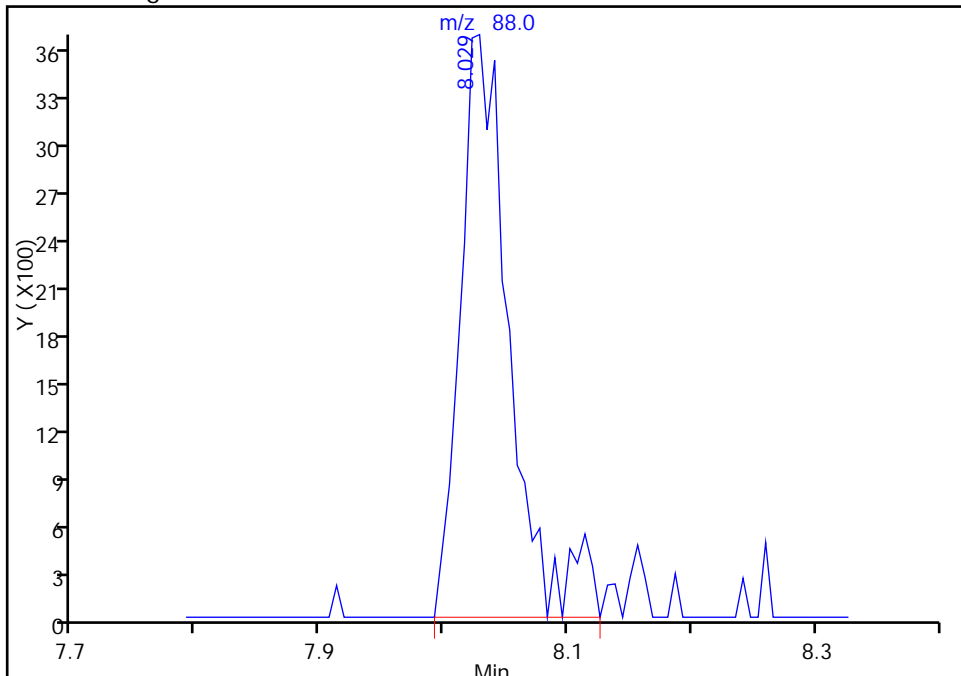
RT: 8.03
Area: 9488
Amount: 365.3313
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 10219
Amount: 401.5715
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 31-Jul-2015 14:24:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: ICIS VSTD10
 Misc. Info.: 180-0007999-005
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:56:50 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 12:15:08

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.248 | 4.248 | 0.000 | 92 | 161009 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.284 | 7.284 | 0.000 | 98 | 485657 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 91 | 104426 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.747 | 12.747 | 0.000 | 94 | 171006 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.554 | 6.554 | 0.000 | 92 | 110929 | 50.0 | 49.6 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.931 | 0.000 | 71 | 181120 | 50.0 | 50.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 94 | 445521 | 50.0 | 54.1 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.585 | 11.585 | 0.000 | 80 | 184340 | 50.0 | 50.4 | |
| 11 Dichlorodifluoromethane | 85 | 1.608 | 1.608 | 0.000 | 99 | 166146 | 50.0 | 49.4 | |
| 12 Chloromethane | 50 | 1.754 | 1.754 | 0.000 | 100 | 147560 | 50.0 | 50.9 | |
| 13 Vinyl chloride | 62 | 1.888 | 1.888 | 0.000 | 99 | 154423 | 50.0 | 49.5 | |
| 14 Butadiene | 39 | 1.930 | 1.930 | 0.000 | 90 | 146675 | 50.0 | 50.1 | |
| 15 Bromomethane | 94 | 2.228 | 2.228 | 0.000 | 90 | 89628 | 50.0 | 53.2 | |
| 16 Chloroethane | 64 | 2.368 | 2.368 | 0.000 | 99 | 111283 | 50.0 | 52.2 | |
| 17 Dichlorofluoromethane | 67 | 2.648 | 2.648 | 0.000 | 96 | 250823 | 50.0 | 50.6 | |
| 18 Trichlorofluoromethane | 101 | 2.660 | 2.660 | 0.000 | 73 | 206141 | 50.0 | 52.1 | |
| 20 Ethyl ether | 59 | 3.049 | 3.049 | 0.000 | 90 | 136903 | 50.0 | 48.8 | |
| 21 Acrolein | 56 | 3.220 | 3.220 | 0.000 | 97 | 43327 | 150.0 | 141.7 | |
| 22 1,1-Dichloroethene | 96 | 3.341 | 3.341 | 0.000 | 96 | 118856 | 50.0 | 48.6 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.390 | 3.390 | 0.000 | 95 | 126375 | 50.0 | 49.0 | |
| 24 Acetone | 43 | 3.421 | 3.421 | 0.000 | 98 | 76252 | 100.0 | 88.7 | |
| 25 Iodomethane | 142 | 3.536 | 3.536 | 0.000 | 98 | 159542 | 50.0 | 48.6 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.627 | 0.000 | 100 | 294989 | 50.0 | 46.6 | |
| 29 3-Chloro-1-propene | 76 | 3.919 | 3.919 | 0.000 | 61 | 66228 | 50.0 | 48.1 | |
| 30 Methyl acetate | 43 | 3.926 | 3.926 | 0.000 | 96 | 497011 | 250.0 | 246.7 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.132 | 0.000 | 93 | 163213 | 50.0 | 48.0 | |
| 32 2-Methyl-2-propanol | 59 | 4.370 | 4.370 | 0.000 | 93 | 91997 | 500.0 | 507.7 | |
| 33 Acrylonitrile | 53 | 4.503 | 4.503 | 0.000 | 98 | 501701 | 500.0 | 494.0 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.564 | 0.000 | 96 | 139824 | 50.0 | 49.6 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.576 | 0.000 | 97 | 394698 | 50.0 | 46.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.990 | 4.990 | 0.000 | 93 | 186977 | 50.0 | 48.9 | |
| 37 1,1-Dichloroethane | 63 | 5.197 | 5.197 | 0.000 | 97 | 251887 | 50.0 | 49.9 | |
| 38 Vinyl acetate | 43 | 5.240 | 5.240 | 0.000 | 98 | 186047 | 50.0 | 45.6 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.939 | 5.939 | 0.000 | 85 | 151575 | 50.0 | 49.4 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 60 | 108037 | 100.0 | 92.1 | |
| 42 2,2-Dichloropropane | 77 | 5.945 | 5.945 | 0.000 | 61 | 122189 | 50.0 | 47.8 | |
| 48 Chlorobromomethane | 128 | 6.231 | 6.231 | 0.000 | 96 | 58005 | 50.0 | 47.1 | |
| 49 Tetrahydrofuran | 42 | 6.249 | 6.249 | 0.000 | 87 | 70787 | 100.0 | 89.6 | |
| 50 Chloroform | 83 | 6.371 | 6.371 | 0.000 | 94 | 250393 | 50.0 | 49.9 | |
| 51 1,1,1-Trichloroethane | 97 | 6.541 | 6.541 | 0.000 | 97 | 182973 | 50.0 | 49.4 | |
| 52 Cyclohexane | 56 | 6.620 | 6.620 | 0.000 | 93 | 237539 | 50.0 | 50.0 | |
| 53 Carbon tetrachloride | 117 | 6.718 | 6.718 | 0.000 | 95 | 126096 | 50.0 | 48.2 | |
| 54 1,1-Dichloropropene | 75 | 6.724 | 6.724 | 0.000 | 95 | 202951 | 50.0 | 50.9 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 88 | 81470 | 1250.0 | 1159.5 | |
| 56 Benzene | 78 | 6.943 | 6.943 | 0.000 | 97 | 574901 | 50.0 | 50.8 | |
| 57 1,2-Dichloroethane | 62 | 7.016 | 7.016 | 0.000 | 99 | 225116 | 50.0 | 49.4 | |
| 59 n-Heptane | 43 | 7.308 | 7.308 | 0.000 | 88 | 154761 | 50.0 | 50.3 | |
| 61 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 92 | 113666 | 50.0 | 48.2 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 92 | 240977 | 50.0 | 50.3 | |
| 64 1,2-Dichloropropane | 63 | 7.953 | 7.953 | 0.000 | 87 | 126414 | 50.0 | 46.8 | |
| 65 1,4-Dioxane | 88 | 8.032 | 8.032 | 0.000 | 44 | 26388 | 1000.0 | 988.7 | M |
| 67 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 94 | 77394 | 50.0 | 47.1 | |
| 68 Dichlorobromomethane | 83 | 8.227 | 8.227 | 0.000 | 98 | 144075 | 50.0 | 46.7 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.677 | 8.677 | 0.000 | 92 | 149301 | 50.0 | 44.1 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.823 | 8.823 | 0.000 | 96 | 208546 | 100.0 | 97.1 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 98 | 565645 | 50.0 | 52.5 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.255 | 9.255 | 0.000 | 95 | 124444 | 50.0 | 45.5 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 88 | 135064 | 50.0 | 46.5 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 94 | 108552 | 50.0 | 48.7 | |
| 77 Tetrachloroethene | 164 | 9.522 | 9.522 | 0.000 | 93 | 93269 | 50.0 | 50.7 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 91 | 206060 | 50.0 | 50.0 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 95 | 135329 | 100.0 | 96.0 | |
| 81 Chlorodibromomethane | 129 | 9.826 | 9.826 | 0.000 | 91 | 73014 | 50.0 | 48.0 | |
| 82 Ethylene Dibromide | 107 | 9.942 | 9.942 | 0.000 | 97 | 92363 | 50.0 | 46.8 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 87 | 177755 | 50.0 | 51.5 | |
| 84 Chlorobenzene | 112 | 10.429 | 10.429 | 0.000 | 91 | 339330 | 50.0 | 51.2 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 164547 | 50.0 | 51.5 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.520 | 10.520 | 0.000 | 85 | 89710 | 50.0 | 49.4 | |
| 87 Ethylbenzene | 106 | 10.526 | 10.526 | 0.000 | 99 | 191951 | 50.0 | 51.4 | |
| 88 m-Xylene & p-Xylene | 106 | 10.660 | 10.660 | 0.000 | 99 | 235109 | 50.0 | 50.7 | |
| 89 o-Xylene | 106 | 11.043 | 11.043 | 0.000 | 98 | 234926 | 50.0 | 50.6 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 94 | 374525 | 50.0 | 52.6 | |
| 91 Bromoform | 173 | 11.244 | 11.244 | 0.000 | 92 | 37102 | 50.0 | 45.7 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.305 | 11.305 | 0.000 | 94 | 179913 | 50.0 | 50.9 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 98 | 599038 | 50.0 | 54.0 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 95 | 147479 | 50.0 | 49.5 | |
| 95 Bromobenzene | 156 | 11.725 | 11.725 | 0.000 | 96 | 136094 | 50.0 | 49.5 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.749 | 11.749 | 0.000 | 77 | 41001 | 50.0 | 47.0 | |
| 98 1,2,3-Trichloropropane | 110 | 11.767 | 11.767 | 0.000 | 87 | 50085 | 50.0 | 47.9 | |
| 99 N-Propylbenzene | 120 | 11.828 | 11.828 | 0.000 | 99 | 161671 | 50.0 | 51.1 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.913 | 0.000 | 93 | 133354 | 50.0 | 50.7 | |
| 101 3-Chlorotoluene | 126 | 11.980 | 11.980 | 0.000 | 97 | 137766 | 50.0 | 49.9 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 95 | 541915 | 50.0 | 52.6 | |
| 103 4-Chlorotoluene | 126 | 12.041 | 12.041 | 0.000 | 98 | 141377 | 50.0 | 50.9 | |
| 104 tert-Butylbenzene | 119 | 12.321 | 12.321 | 0.000 | 91 | 415895 | 50.0 | 51.1 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.382 | 12.382 | 0.000 | 99 | 554224 | 50.0 | 52.7 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.418 | 12.418 | 0.000 | 96 | 144215 | 50.0 | 48.4 | |
| 108 sec-Butylbenzene | 105 | 12.546 | 12.546 | 0.000 | 96 | 643438 | 50.0 | 53.0 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 93 | 267626 | 50.0 | 49.8 | |
| 110 4-Isopropyltoluene | 119 | 12.704 | 12.704 | 0.000 | 96 | 539941 | 50.0 | 53.0 | |
| 111 1,4-Dichlorobenzene | 146 | 12.771 | 12.771 | 0.000 | 88 | 275229 | 50.0 | 50.1 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 95 | 143623 | 50.0 | 48.4 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.832 | 12.832 | 0.000 | 98 | 169006 | 50.0 | 51.0 | |
| 116 n-Butylbenzene | 91 | 13.112 | 13.112 | 0.000 | 99 | 533401 | 50.0 | 52.4 | |
| 117 1,2-Dichlorobenzene | 146 | 13.124 | 13.124 | 0.000 | 91 | 269873 | 50.0 | 49.8 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.915 | 13.921 | -0.006 | 68 | 22010 | 50.0 | 44.3 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.061 | 14.061 | 0.000 | 98 | 751227 | 150.0 | 159.2 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.474 | 14.474 | 0.000 | 99 | 530353 | 100.0 | 101.9 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.736 | 14.736 | 0.000 | 92 | 208112 | 50.0 | 49.5 | |
| 123 Hexachlorobutadiene | 225 | 14.888 | 14.888 | 0.000 | 95 | 83692 | 50.0 | 50.6 | |
| 124 Naphthalene | 128 | 15.004 | 15.004 | 0.000 | 99 | 425036 | 50.0 | 50.1 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.229 | 15.229 | 0.000 | 91 | 189066 | 50.0 | 48.1 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.007 | 16.007 | 0.000 | 0 | 121646 | 50.0 | 46.1 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.111 | 16.111 | 0.000 | 92 | 120523 | 50.0 | 48.1 | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 99.0 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 100.0 | 101.4 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 89.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 2.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 2.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 2.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 2.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D

Injection Date: 31-Jul-2015 14:24:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

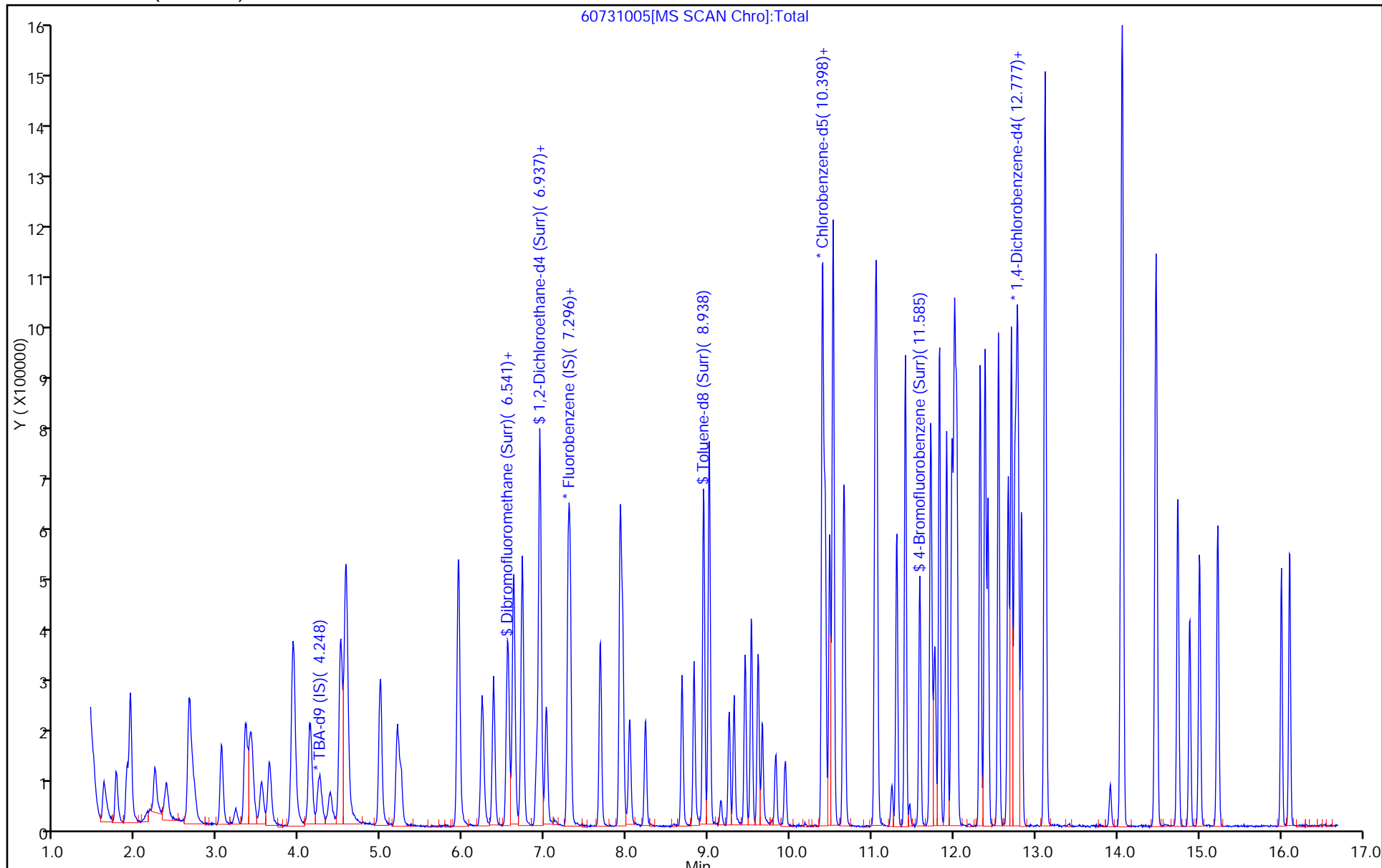
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



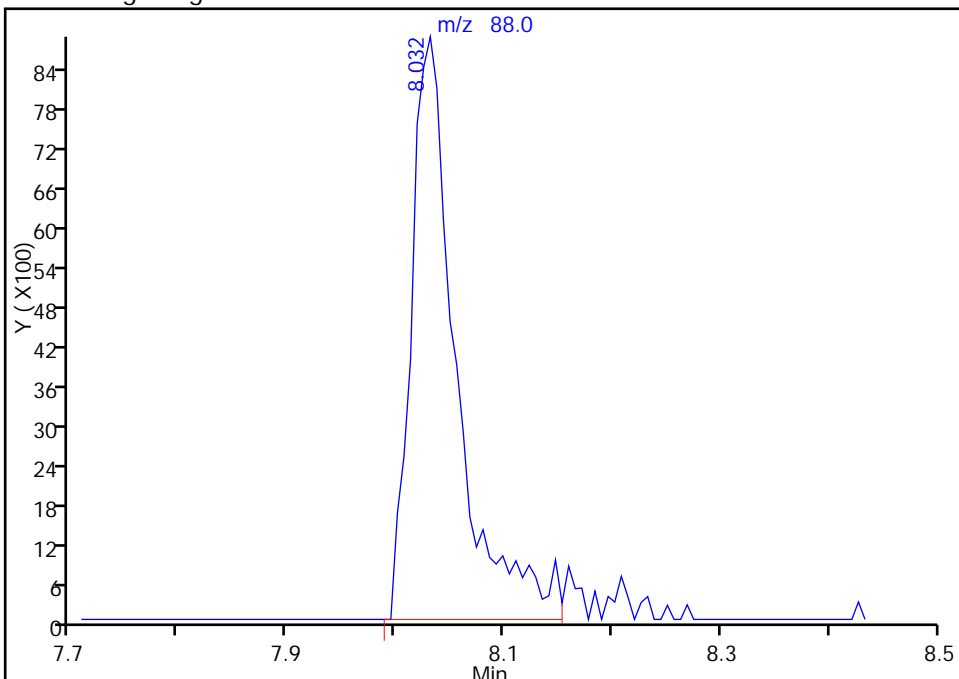
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D
Injection Date: 31-Jul-2015 14:24:30 Instrument ID: CHHP6
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

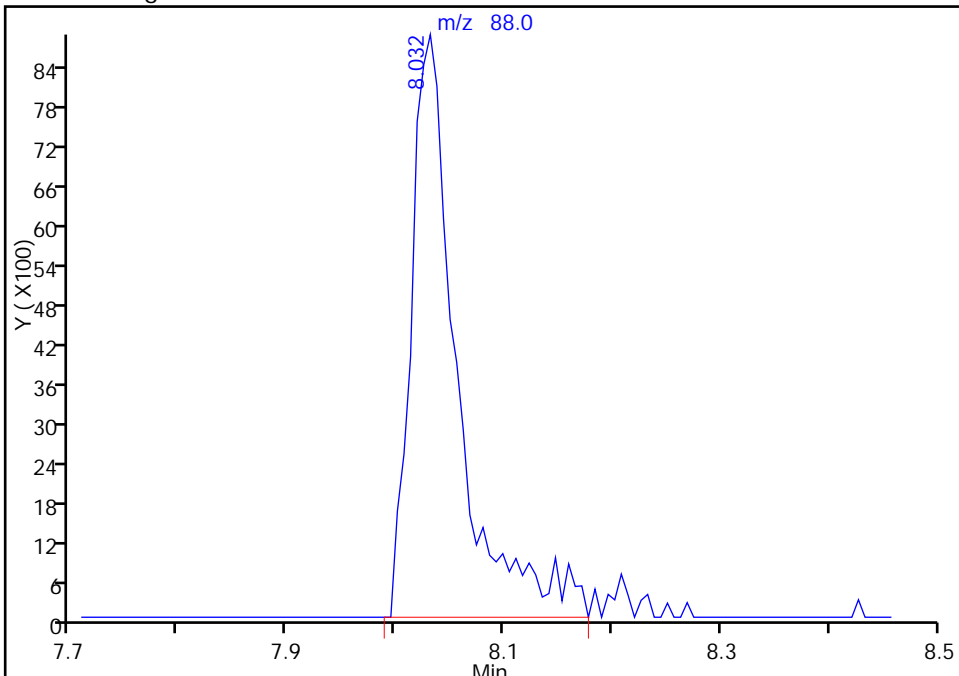
RT: 8.03
Area: 25747
Amount: 938.6160
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 26388
Amount: 988.6792
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:47:28
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 31-Jul-2015 14:49:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD15
 Misc. Info.: 180-0007999-006
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:15:42 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:29:25

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.247 | 4.247 | 0.000 | 90 | 170149 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.289 | 0.000 | 98 | 471581 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 92 | 104570 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.746 | 0.000 | 95 | 167231 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.553 | 0.000 | 92 | 163209 | 75.0 | 75.1 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.930 | 0.000 | 71 | 260570 | 75.0 | 74.4 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 94 | 643420 | 75.0 | 78.0 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.584 | 0.000 | 80 | 281797 | 75.0 | 77.0 | |
| 11 Dichlorodifluoromethane | 85 | 1.607 | 1.607 | 0.000 | 98 | 255750 | 75.0 | 78.3 | |
| 12 Chloromethane | 50 | 1.759 | 1.759 | 0.000 | 99 | 208858 | 75.0 | 74.2 | |
| 13 Vinyl chloride | 62 | 1.893 | 1.893 | 0.000 | 84 | 233901 | 75.0 | 77.2 | |
| 14 Butadiene | 39 | 1.930 | 1.930 | 0.000 | 90 | 214248 | 75.0 | 75.4 | |
| 15 Bromomethane | 94 | 2.228 | 2.228 | 0.000 | 89 | 123705 | 75.0 | 75.6 | |
| 16 Chloroethane | 64 | 2.374 | 2.374 | 0.000 | 99 | 159781 | 75.0 | 77.2 | |
| 17 Dichlorofluoromethane | 67 | 2.654 | 2.654 | 0.000 | 99 | 372545 | 75.0 | 77.4 | |
| 18 Trichlorofluoromethane | 101 | 2.678 | 2.678 | 0.000 | 84 | 296881 | 75.0 | 77.3 | |
| 20 Ethyl ether | 59 | 3.043 | 3.043 | 0.000 | 89 | 202583 | 75.0 | 74.4 | |
| 21 Acrolein | 56 | 3.213 | 3.213 | 0.000 | 99 | 52894 | 175.0 | 178.1 | |
| 22 1,1-Dichloroethene | 96 | 3.341 | 3.341 | 0.000 | 96 | 180424 | 75.0 | 76.0 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.402 | 3.402 | 0.000 | 96 | 188852 | 75.0 | 75.4 | |
| 24 Acetone | 43 | 3.432 | 3.432 | 0.000 | 99 | 117975 | 150.0 | 141.4 | |
| 25 Iodomethane | 142 | 3.530 | 3.530 | 0.000 | 99 | 243211 | 75.0 | 76.3 | |
| 26 Carbon disulfide | 76 | 3.633 | 3.633 | 0.000 | 100 | 461167 | 75.0 | 75.0 | |
| 29 3-Chloro-1-propene | 76 | 3.913 | 3.913 | 0.000 | 89 | 98190 | 75.0 | 73.4 | |
| 30 Methyl acetate | 43 | 3.925 | 3.925 | 0.000 | 97 | 732698 | 375.0 | 374.5 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.132 | 0.000 | 93 | 238130 | 75.0 | 74.9 | |
| 32 2-Methyl-2-propanol | 59 | 4.369 | 4.369 | 0.000 | 92 | 141735 | 750.0 | 740.2 | |
| 33 Acrylonitrile | 53 | 4.497 | 4.497 | 0.000 | 99 | 737397 | 750.0 | 747.7 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.564 | 0.000 | 71 | 208665 | 75.0 | 76.2 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.576 | 0.000 | 97 | 621185 | 75.0 | 75.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.990 | 4.990 | 0.000 | 94 | 278592 | 75.0 | 75.0 | |
| 37 1,1-Dichloroethane | 63 | 5.196 | 5.196 | 0.000 | 97 | 371113 | 75.0 | 75.7 | |
| 38 Vinyl acetate | 43 | 5.239 | 5.239 | 0.000 | 98 | 295714 | 75.0 | 74.7 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.939 | 5.939 | 0.000 | 85 | 223081 | 75.0 | 74.9 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 61 | 180292 | 150.0 | 158.3 | |
| 42 2,2-Dichloropropane | 77 | 5.945 | 5.945 | 0.000 | 61 | 186450 | 75.0 | 75.2 | |
| 48 Chlorobromomethane | 128 | 6.225 | 6.225 | 0.000 | 97 | 88252 | 75.0 | 73.7 | |
| 49 Tetrahydrofuran | 42 | 6.237 | 6.237 | 0.000 | 85 | 117489 | 150.0 | 153.2 | |
| 50 Chloroform | 83 | 6.371 | 6.371 | 0.000 | 96 | 370042 | 75.0 | 76.0 | |
| 51 1,1,1-Trichloroethane | 97 | 6.541 | 6.541 | 0.000 | 97 | 278390 | 75.0 | 77.4 | |
| 52 Cyclohexane | 56 | 6.620 | 6.620 | 0.000 | 91 | 359010 | 75.0 | 77.9 | |
| 53 Carbon tetrachloride | 117 | 6.717 | 6.717 | 0.000 | 97 | 195436 | 75.0 | 76.9 | |
| 54 1,1-Dichloropropene | 75 | 6.730 | 6.730 | 0.000 | 95 | 301319 | 75.0 | 77.9 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 90 | 122452 | 1875.0 | 1794.8 | |
| 56 Benzene | 78 | 6.942 | 6.942 | 0.000 | 97 | 839117 | 75.0 | 76.3 | |
| 57 1,2-Dichloroethane | 62 | 7.015 | 7.015 | 0.000 | 99 | 335915 | 75.0 | 75.9 | |
| 59 n-Heptane | 43 | 7.307 | 7.307 | 0.000 | 88 | 231524 | 75.0 | 77.5 | |
| 61 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 92 | 177868 | 75.0 | 77.6 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 91 | 355558 | 75.0 | 76.4 | |
| 64 1,2-Dichloropropane | 63 | 7.952 | 7.952 | 0.000 | 94 | 199527 | 75.0 | 76.0 | |
| 65 1,4-Dioxane | 88 | 8.031 | 8.031 | 0.000 | 40 | 36545 | 1500.0 | 1410.1 | |
| 67 Dibromomethane | 93 | 8.037 | 8.037 | 0.000 | 90 | 121844 | 75.0 | 76.4 | |
| 68 Dichlorobromomethane | 83 | 8.226 | 8.226 | 0.000 | 98 | 230314 | 75.0 | 76.9 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.676 | 8.676 | 0.000 | 93 | 254907 | 75.0 | 77.5 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.822 | 8.822 | 0.000 | 94 | 330779 | 150.0 | 153.9 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 98 | 847209 | 75.0 | 78.5 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 97 | 221914 | 75.0 | 81.0 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 88 | 231048 | 75.0 | 79.4 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 95 | 172158 | 75.0 | 77.1 | |
| 77 Tetrachloroethene | 164 | 9.528 | 9.528 | 0.000 | 94 | 142949 | 75.0 | 77.7 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 92 | 320167 | 75.0 | 77.7 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 96 | 219895 | 150.0 | 155.8 | |
| 81 Chlorodibromomethane | 129 | 9.826 | 9.826 | 0.000 | 89 | 123420 | 75.0 | 81.0 | |
| 82 Ethylene Dibromide | 107 | 9.936 | 9.936 | 0.000 | 97 | 153351 | 75.0 | 77.7 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 91 | 262608 | 75.0 | 76.0 | |
| 84 Chlorobenzene | 112 | 10.428 | 10.428 | 0.000 | 91 | 513514 | 75.0 | 77.4 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 245021 | 75.0 | 76.5 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.520 | 10.520 | 0.000 | 87 | 138964 | 75.0 | 76.5 | |
| 87 Ethylbenzene | 106 | 10.526 | 10.526 | 0.000 | 99 | 288675 | 75.0 | 77.2 | |
| 88 m-Xylene & p-Xylene | 106 | 10.659 | 10.659 | 0.000 | 99 | 360561 | 75.0 | 77.7 | |
| 89 o-Xylene | 106 | 11.037 | 11.037 | 0.000 | 98 | 364838 | 75.0 | 78.5 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 94 | 568513 | 75.0 | 79.7 | |
| 91 Bromoform | 173 | 11.243 | 11.243 | 0.000 | 93 | 60348 | 75.0 | 74.2 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.304 | 11.304 | 0.000 | 96 | 274773 | 75.0 | 77.7 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 98 | 897341 | 75.0 | 80.7 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 97 | 227964 | 75.0 | 76.4 | |
| 95 Bromobenzene | 156 | 11.724 | 11.724 | 0.000 | 97 | 203181 | 75.0 | 75.6 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.748 | 11.748 | 0.000 | 68 | 61474 | 75.0 | 72.1 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.773 | 0.000 | 86 | 75371 | 75.0 | 73.7 | |
| 99 N-Propylbenzene | 120 | 11.827 | 11.827 | 0.000 | 99 | 238465 | 75.0 | 77.0 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.913 | 0.000 | 93 | 197431 | 75.0 | 76.8 | |
| 101 3-Chlorotoluene | 126 | 11.980 | 11.980 | 0.000 | 97 | 203636 | 75.0 | 75.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 92 | 796704 | 75.0 | 79.1 | |
| 103 4-Chlorotoluene | 126 | 12.034 | 12.034 | 0.000 | 99 | 208897 | 75.0 | 76.9 | |
| 104 tert-Butylbenzene | 119 | 12.320 | 12.320 | 0.000 | 91 | 633351 | 75.0 | 79.6 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.381 | 0.000 | 99 | 824147 | 75.0 | 80.1 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.418 | 12.418 | 0.000 | 96 | 221955 | 75.0 | 76.1 | |
| 108 sec-Butylbenzene | 105 | 12.545 | 12.545 | 0.000 | 96 | 958306 | 75.0 | 80.7 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 93 | 397446 | 75.0 | 75.7 | |
| 110 4-Isopropyltoluene | 119 | 12.703 | 12.703 | 0.000 | 96 | 804039 | 75.0 | 80.7 | |
| 111 1,4-Dichlorobenzene | 146 | 12.770 | 12.770 | 0.000 | 92 | 407678 | 75.0 | 75.9 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 95 | 211084 | 75.0 | 72.8 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.831 | 12.831 | 0.000 | 99 | 249633 | 75.0 | 77.0 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.111 | 0.000 | 98 | 791496 | 75.0 | 79.6 | |
| 117 1,2-Dichlorobenzene | 146 | 13.123 | 13.123 | 0.000 | 90 | 400593 | 75.0 | 75.6 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.914 | 13.920 | -0.006 | 70 | 36339 | 75.0 | 74.7 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.060 | 14.060 | 0.000 | 98 | 1076776 | 225.0 | 233.3 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.474 | 14.474 | 0.000 | 98 | 792789 | 150.0 | 155.7 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.741 | 14.741 | 0.000 | 92 | 309817 | 75.0 | 75.4 | |
| 123 Hexachlorobutadiene | 225 | 14.887 | 14.887 | 0.000 | 96 | 122376 | 75.0 | 75.6 | |
| 124 Naphthalene | 128 | 15.003 | 15.003 | 0.000 | 99 | 654694 | 75.0 | 78.9 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.228 | 15.228 | 0.000 | 93 | 286920 | 75.0 | 74.6 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.007 | 16.007 | 0.000 | 0 | 198517 | 75.0 | 76.9 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.110 | 16.110 | 0.000 | 93 | 186087 | 75.0 | 76.0 | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 150.0 | 151.1 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 150.0 | 156.2 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 150.0 | 158.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 3.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 3.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 3.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 3.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 3.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 7.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D

Injection Date: 31-Jul-2015 14:49:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

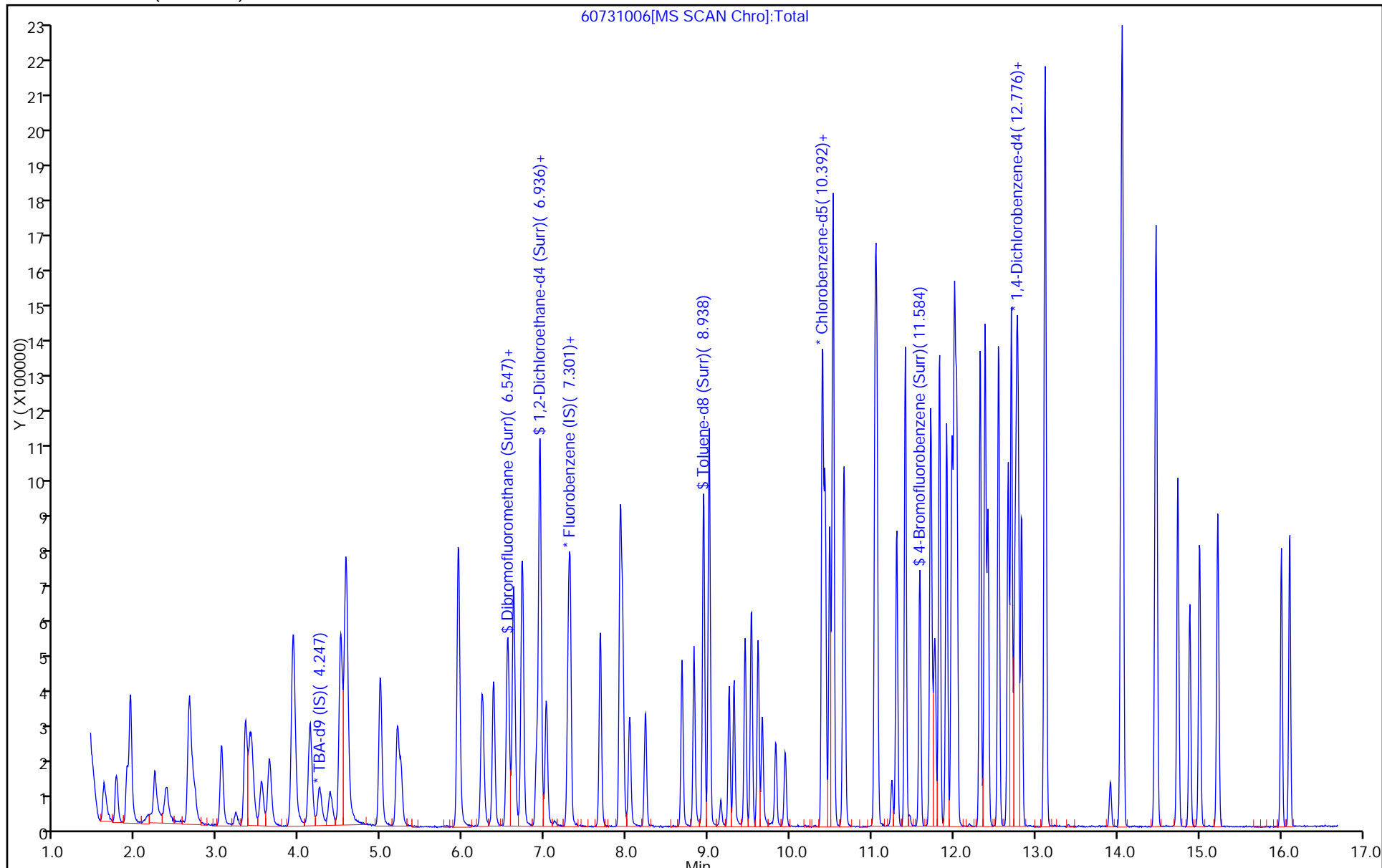
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 31-Jul-2015 15:13:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD20
 Misc. Info.: 180-0007999-007
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:15:51 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:27:52

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.241 | 4.247 | -0.006 | 92 | 168874 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.283 | 7.289 | -0.006 | 98 | 482403 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 91 | 110045 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.746 | 0.000 | 94 | 171338 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.553 | 0.000 | 93 | 221245 | 100.0 | 99.6 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.930 | 0.000 | 70 | 353626 | 100.0 | 98.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 95 | 864751 | 100.0 | 99.6 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.584 | 0.000 | 81 | 371000 | 100.0 | 96.3 | |
| 11 Dichlorodifluoromethane | 85 | 1.607 | 1.607 | 0.000 | 100 | 316945 | 100.0 | 94.9 | |
| 12 Chloromethane | 50 | 1.759 | 1.759 | 0.000 | 99 | 278884 | 100.0 | 96.9 | |
| 13 Vinyl chloride | 62 | 1.887 | 1.893 | -0.006 | 99 | 292173 | 100.0 | 94.2 | |
| 14 Butadiene | 39 | 1.930 | 1.930 | 0.000 | 90 | 274693 | 100.0 | 94.5 | |
| 15 Bromomethane | 94 | 2.234 | 2.228 | 0.006 | 91 | 158589 | 100.0 | 94.7 | |
| 16 Chloroethane | 64 | 2.368 | 2.374 | -0.006 | 99 | 198857 | 100.0 | 93.9 | |
| 17 Dichlorofluoromethane | 67 | 2.647 | 2.654 | -0.007 | 98 | 463283 | 100.0 | 94.0 | |
| 18 Trichlorofluoromethane | 101 | 2.672 | 2.678 | -0.006 | 99 | 367084 | 100.0 | 93.4 | |
| 20 Ethyl ether | 59 | 3.043 | 3.043 | 0.000 | 90 | 269465 | 100.0 | 96.8 | |
| 21 Acrolein | 56 | 3.219 | 3.213 | 0.006 | 98 | 54177 | 200.0 | 178.4 | |
| 22 1,1-Dichloroethene | 96 | 3.335 | 3.341 | -0.006 | 96 | 234083 | 100.0 | 96.4 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.396 | 3.402 | -0.006 | 96 | 241359 | 100.0 | 94.2 | |
| 24 Acetone | 43 | 3.426 | 3.432 | -0.006 | 99 | 166807 | 200.0 | 195.5 | |
| 25 Iodomethane | 142 | 3.536 | 3.530 | 0.006 | 98 | 318736 | 100.0 | 97.8 | |
| 26 Carbon disulfide | 76 | 3.633 | 3.633 | 0.000 | 100 | 618168 | 100.0 | 98.2 | |
| 29 3-Chloro-1-propene | 76 | 3.907 | 3.913 | -0.006 | 88 | 135273 | 100.0 | 98.8 | |
| 30 Methyl acetate | 43 | 3.925 | 3.925 | 0.000 | 97 | 982363 | 500.0 | 490.9 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.132 | 0.000 | 92 | 313904 | 100.0 | 98.1 | |
| 32 2-Methyl-2-propanol | 59 | 4.369 | 4.369 | 0.000 | 92 | 198055 | 1000.0 | 1042.2 | |
| 33 Acrylonitrile | 53 | 4.503 | 4.497 | 0.006 | 99 | 994141 | 1000.0 | 985.4 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.564 | 0.000 | 97 | 267617 | 100.0 | 95.5 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.576 | 0.000 | 97 | 825760 | 100.0 | 98.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.983 | 4.990 | -0.007 | 93 | 352983 | 100.0 | 93.0 | |
| 37 1,1-Dichloroethane | 63 | 5.196 | 5.196 | 0.000 | 97 | 490563 | 100.0 | 97.8 | |
| 38 Vinyl acetate | 43 | 5.239 | 5.239 | 0.000 | 97 | 412541 | 100.0 | 101.9 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.945 | 5.939 | 0.006 | 85 | 295290 | 100.0 | 96.9 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 60 | 231667 | 200.0 | 198.9 | |
| 42 2,2-Dichloropropane | 77 | 5.945 | 5.945 | 0.000 | 62 | 250901 | 100.0 | 98.9 | |
| 48 Chlorobromomethane | 128 | 6.231 | 6.225 | 0.006 | 97 | 118290 | 100.0 | 96.6 | |
| 49 Tetrahydrofuran | 42 | 6.249 | 6.237 | 0.012 | 85 | 154776 | 200.0 | 197.3 | |
| 50 Chloroform | 83 | 6.370 | 6.371 | -0.001 | 96 | 484585 | 100.0 | 97.3 | |
| 51 1,1,1-Trichloroethane | 97 | 6.535 | 6.541 | -0.006 | 98 | 366376 | 100.0 | 99.6 | |
| 52 Cyclohexane | 56 | 6.614 | 6.620 | -0.006 | 92 | 445084 | 100.0 | 94.4 | |
| 53 Carbon tetrachloride | 117 | 6.717 | 6.717 | 0.000 | 98 | 252588 | 100.0 | 97.2 | |
| 54 1,1-Dichloropropene | 75 | 6.729 | 6.730 | -0.001 | 94 | 392146 | 100.0 | 99.1 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 92 | 178080 | 2500.0 | 2551.6 | |
| 56 Benzene | 78 | 6.942 | 6.942 | 0.000 | 98 | 1096030 | 100.0 | 97.5 | |
| 57 1,2-Dichloroethane | 62 | 7.015 | 7.015 | 0.000 | 99 | 440984 | 100.0 | 97.4 | |
| 59 n-Heptane | 43 | 7.307 | 7.307 | 0.000 | 85 | 290327 | 100.0 | 95.0 | |
| 61 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 93 | 230554 | 100.0 | 98.3 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 91 | 455180 | 100.0 | 95.7 | |
| 64 1,2-Dichloropropane | 63 | 7.952 | 7.952 | 0.000 | 94 | 267345 | 100.0 | 99.5 | |
| 65 1,4-Dioxane | 88 | 8.031 | 8.031 | 0.000 | 41 | 54577 | 2000.0 | 2058.6 | M |
| 67 Dibromomethane | 93 | 8.037 | 8.037 | 0.000 | 92 | 163719 | 100.0 | 100.4 | |
| 68 Dichlorobromomethane | 83 | 8.232 | 8.226 | 0.006 | 99 | 311750 | 100.0 | 101.7 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.676 | 8.676 | 0.000 | 93 | 358605 | 100.0 | 106.5 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.822 | 8.822 | 0.000 | 95 | 452681 | 200.0 | 200.1 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 98 | 1104648 | 100.0 | 97.3 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 97 | 303226 | 100.0 | 105.2 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 88 | 326852 | 100.0 | 106.8 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 95 | 224945 | 100.0 | 95.8 | |
| 77 Tetrachloroethene | 164 | 9.528 | 9.528 | 0.000 | 94 | 183568 | 100.0 | 94.8 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 92 | 425660 | 100.0 | 98.1 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 95 | 302805 | 200.0 | 203.8 | |
| 81 Chlorodibromomethane | 129 | 9.826 | 9.826 | 0.000 | 90 | 163175 | 100.0 | 101.8 | |
| 82 Ethylene Dibromide | 107 | 9.941 | 9.936 | 0.005 | 96 | 211303 | 100.0 | 101.7 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 91 | 340769 | 100.0 | 93.7 | |
| 84 Chlorobenzene | 112 | 10.428 | 10.428 | 0.000 | 91 | 676590 | 100.0 | 96.9 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 315960 | 100.0 | 93.8 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.525 | 10.520 | 0.005 | 88 | 192497 | 100.0 | 100.6 | |
| 87 Ethylbenzene | 106 | 10.525 | 10.526 | -0.001 | 99 | 383099 | 100.0 | 97.3 | |
| 88 m-Xylene & p-Xylene | 106 | 10.659 | 10.659 | 0.000 | 100 | 480587 | 100.0 | 98.4 | |
| 89 o-Xylene | 106 | 11.036 | 11.037 | -0.001 | 98 | 484093 | 100.0 | 99.0 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 94 | 752806 | 100.0 | 100.3 | |
| 91 Bromoform | 173 | 11.243 | 11.243 | 0.000 | 93 | 85498 | 100.0 | 99.9 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.304 | 11.304 | 0.000 | 93 | 350232 | 100.0 | 94.1 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 98 | 1146617 | 100.0 | 98.0 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.718 | 11.712 | 0.006 | 96 | 304710 | 100.0 | 97.0 | |
| 95 Bromobenzene | 156 | 11.724 | 11.724 | 0.000 | 97 | 276525 | 100.0 | 100.4 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.748 | 11.748 | 0.000 | 80 | 87362 | 100.0 | 100.0 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.773 | 0.000 | 86 | 102213 | 100.0 | 97.6 | |
| 99 N-Propylbenzene | 120 | 11.827 | 11.827 | 0.000 | 98 | 317924 | 100.0 | 100.2 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.913 | -0.001 | 93 | 265955 | 100.0 | 101.0 | |
| 101 3-Chlorotoluene | 126 | 11.979 | 11.980 | -0.001 | 97 | 282386 | 100.0 | 102.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 94 | 1031152 | 100.0 | 100.0 | |
| 103 4-Chlorotoluene | 126 | 12.034 | 12.034 | 0.000 | 100 | 278435 | 100.0 | 100.1 | |
| 104 tert-Butylbenzene | 119 | 12.326 | 12.320 | 0.006 | 91 | 820194 | 100.0 | 100.6 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.381 | 0.000 | 99 | 1075766 | 100.0 | 102.0 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.417 | 12.418 | -0.001 | 95 | 280215 | 100.0 | 93.8 | |
| 108 sec-Butylbenzene | 105 | 12.545 | 12.545 | 0.000 | 97 | 1226548 | 100.0 | 100.8 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 93 | 528372 | 100.0 | 98.2 | |
| 110 4-Isopropyltoluene | 119 | 12.703 | 12.703 | 0.000 | 95 | 1043904 | 100.0 | 102.3 | |
| 111 1,4-Dichlorobenzene | 146 | 12.770 | 12.770 | 0.000 | 90 | 543357 | 100.0 | 98.8 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 97 | 297534 | 100.0 | 100.1 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.831 | 12.831 | 0.000 | 98 | 301973 | 100.0 | 91.0 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.111 | 0.000 | 97 | 1018212 | 100.0 | 99.9 | |
| 117 1,2-Dichlorobenzene | 146 | 13.123 | 13.123 | 0.000 | 92 | 525918 | 100.0 | 96.8 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.914 | 13.920 | -0.006 | 68 | 49062 | 100.0 | 98.5 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.060 | 14.060 | 0.000 | 98 | 1401616 | 300.0 | 296.5 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.474 | 14.474 | 0.000 | 98 | 1039069 | 200.0 | 199.2 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.741 | 14.741 | 0.000 | 92 | 415442 | 100.0 | 98.7 | |
| 123 Hexachlorobutadiene | 225 | 14.887 | 14.887 | 0.000 | 97 | 161228 | 100.0 | 97.2 | |
| 124 Naphthalene | 128 | 15.003 | 15.003 | 0.000 | 99 | 876449 | 100.0 | 103.2 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.228 | 15.228 | 0.000 | 92 | 385220 | 100.0 | 97.8 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.007 | 16.007 | 0.000 | 0 | 266093 | 100.0 | 100.6 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.110 | 16.110 | 0.000 | 93 | 248497 | 100.0 | 99.0 | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 200.0 | 192.4 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 200.0 | 197.4 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 200.0 | 211.7 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 4.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 4.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 4.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 4.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 4.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 8.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D

Injection Date: 31-Jul-2015 15:13:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

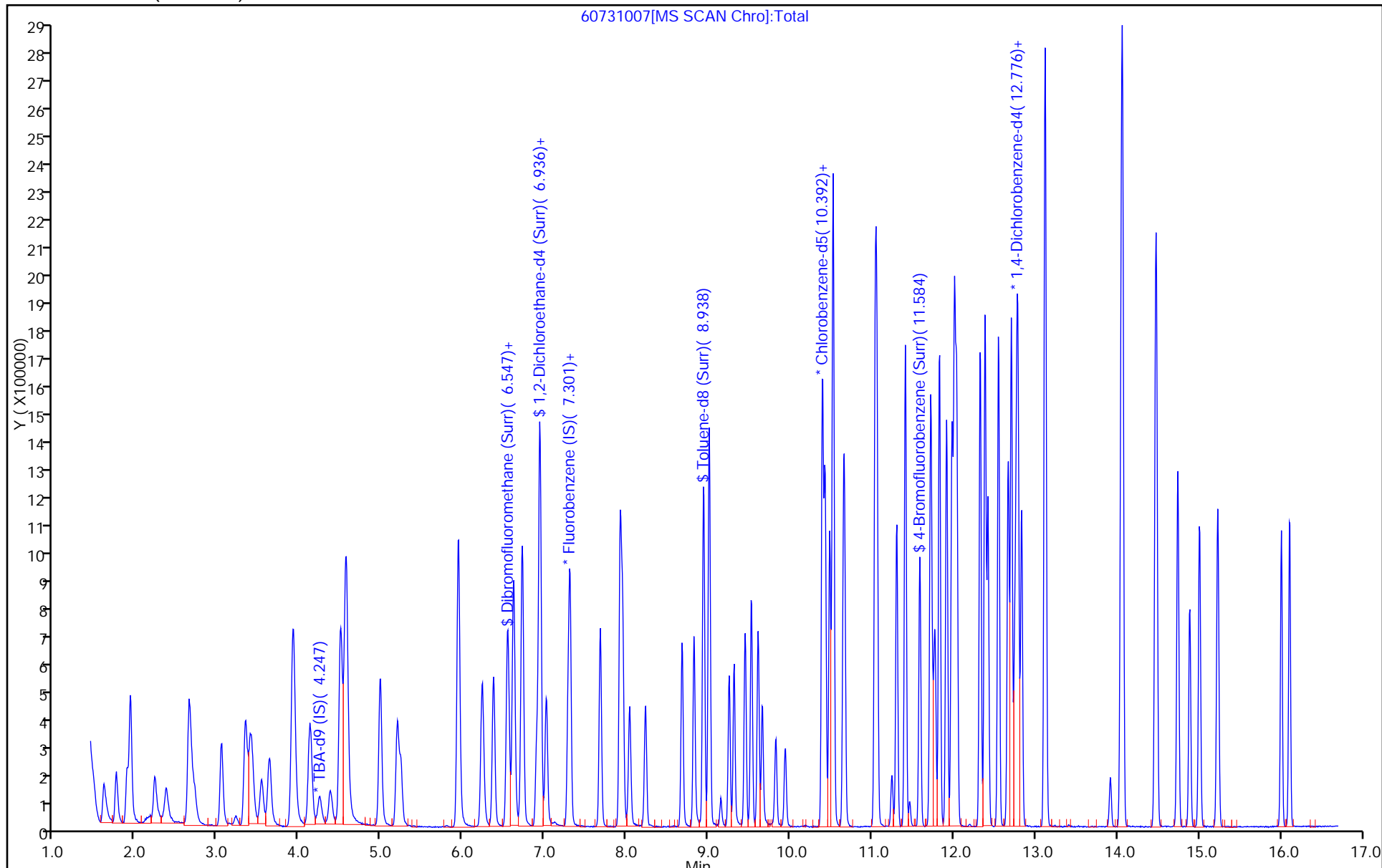
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



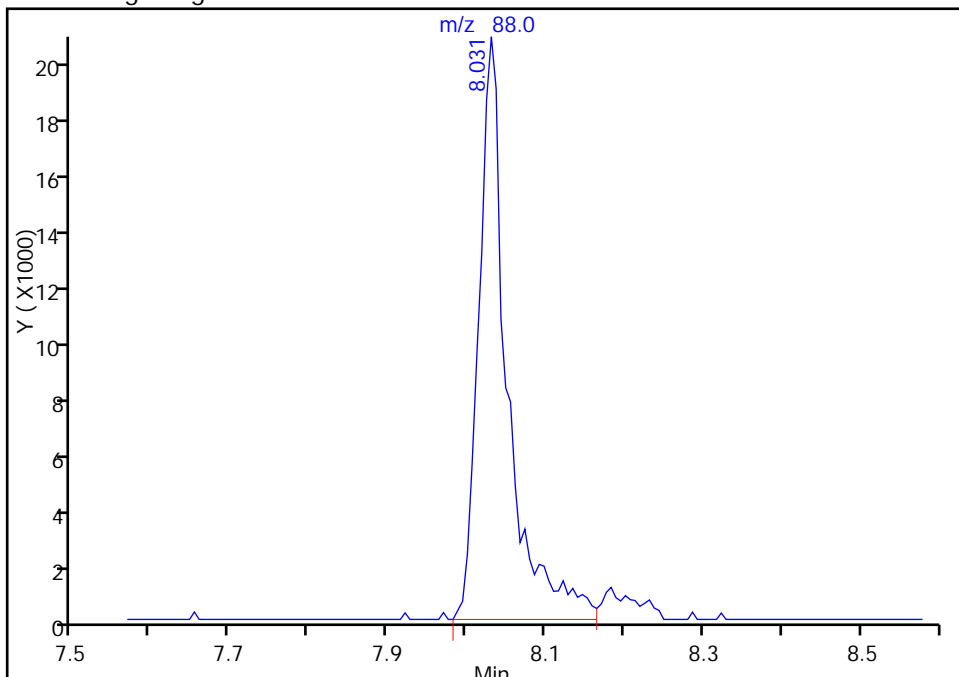
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D
Injection Date: 31-Jul-2015 15:13:30 Instrument ID: CHHP6
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

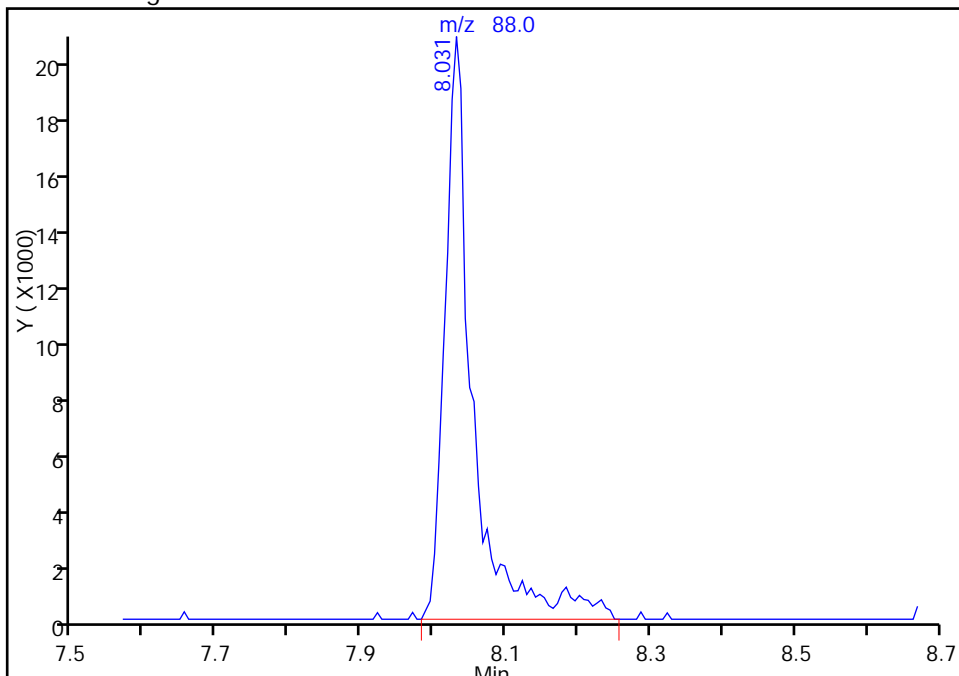
RT: 8.03
Area: 51451
Amount: 1915.4354
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 54577
Amount: 2058.6297
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:27:52
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 31-Jul-2015 15:37:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD35
 Misc. Info.: 180-0007999-008
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:16:01 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 31-Jul-2015 16:23:22

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.254 | 4.247 | 0.007 | 92 | 191694 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.283 | 7.289 | -0.006 | 98 | 474812 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 91 | 108350 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.746 | 0.000 | 96 | 164628 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.553 | 0.000 | 92 | 378487 | 175.0 | 173.1 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.930 | 0.001 | 71 | 595019 | 175.0 | 168.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 94 | 1415164 | 175.0 | 165.6 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.584 | 0.000 | 80 | 645419 | 175.0 | 170.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.601 | 1.607 | -0.006 | 99 | 575043 | 175.0 | 174.9 | |
| 12 Chloromethane | 50 | 1.754 | 1.759 | -0.005 | 99 | 470953 | 175.0 | 166.2 | |
| 13 Vinyl chloride | 62 | 1.887 | 1.893 | -0.006 | 99 | 517410 | 175.0 | 169.5 | |
| 14 Butadiene | 39 | 1.924 | 1.930 | -0.006 | 90 | 483297 | 175.0 | 168.9 | |
| 15 Bromomethane | 94 | 2.222 | 2.228 | -0.006 | 90 | 248522 | 175.0 | 150.8 | |
| 16 Chloroethane | 64 | 2.356 | 2.374 | -0.018 | 99 | 359701 | 175.0 | 172.7 | |
| 17 Dichlorofluoromethane | 67 | 2.642 | 2.654 | -0.012 | 97 | 819476 | 175.0 | 169.0 | |
| 18 Trichlorofluoromethane | 101 | 2.654 | 2.678 | -0.024 | 76 | 664854 | 175.0 | 171.9 | |
| 20 Ethyl ether | 59 | 3.043 | 3.043 | 0.000 | 89 | 458021 | 175.0 | 167.1 | |
| 21 Acrolein | 56 | 3.220 | 3.213 | 0.007 | 99 | 68050 | 225.0 | 227.6 | |
| 22 1,1-Dichloroethene | 96 | 3.335 | 3.341 | -0.006 | 96 | 411177 | 175.0 | 172.0 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.390 | 3.402 | -0.012 | 95 | 446711 | 175.0 | 177.0 | |
| 24 Acetone | 43 | 3.426 | 3.432 | -0.006 | 100 | 284563 | 350.0 | 338.8 | |
| 25 Iodomethane | 142 | 3.536 | 3.530 | 0.006 | 99 | 566533 | 175.0 | 176.6 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.633 | -0.006 | 100 | 1151644 | 175.0 | 185.9 | |
| 29 3-Chloro-1-propene | 76 | 3.913 | 3.913 | 0.000 | 89 | 257112 | 175.0 | 190.8 | |
| 30 Methyl acetate | 43 | 3.925 | 3.925 | 0.000 | 96 | 1680300 | 875.0 | 853.1 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.132 | 0.000 | 91 | 527474 | 175.0 | 171.5 | |
| 32 2-Methyl-2-propanol | 59 | 4.382 | 4.369 | 0.013 | 93 | 354063 | 1750.0 | 1641.3 | |
| 33 Acrylonitrile | 53 | 4.503 | 4.497 | 0.006 | 98 | 1745686 | 1750.0 | 1758.1 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.558 | 4.564 | -0.006 | 98 | 479327 | 175.0 | 173.8 | |
| 35 Methyl tert-butyl ether | 73 | 4.570 | 4.576 | -0.006 | 97 | 1455878 | 175.0 | 176.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.984 | 4.990 | -0.006 | 92 | 669795 | 175.0 | 179.2 | |
| 37 1,1-Dichloroethane | 63 | 5.191 | 5.196 | -0.005 | 97 | 861981 | 175.0 | 174.6 | |
| 38 Vinyl acetate | 43 | 5.239 | 5.239 | 0.000 | 97 | 744628 | 175.0 | 186.8 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.939 | 5.939 | 0.000 | 87 | 520777 | 175.0 | 173.6 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 87 | 412307 | 350.0 | 359.6 | |
| 42 2,2-Dichloropropane | 77 | 5.945 | 5.945 | 0.000 | 79 | 484574 | 175.0 | 194.1 | |
| 48 Chlorobromomethane | 128 | 6.231 | 6.225 | 0.006 | 97 | 209995 | 175.0 | 174.3 | |
| 49 Tetrahydrofuran | 42 | 6.249 | 6.237 | 0.012 | 86 | 277489 | 350.0 | 359.4 | |
| 50 Chloroform | 83 | 6.371 | 6.371 | 0.000 | 94 | 847765 | 175.0 | 173.0 | |
| 51 1,1,1-Trichloroethane | 97 | 6.535 | 6.541 | -0.006 | 97 | 659562 | 175.0 | 182.1 | |
| 52 Cyclohexane | 56 | 6.614 | 6.620 | -0.006 | 92 | 834057 | 175.0 | 179.7 | |
| 53 Carbon tetrachloride | 117 | 6.718 | 6.717 | 0.001 | 97 | 479558 | 175.0 | 187.5 | |
| 54 1,1-Dichloropropene | 75 | 6.724 | 6.730 | -0.006 | 95 | 675711 | 175.0 | 173.5 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 89 | 326401 | 4375.0 | 4751.5 | |
| 56 Benzene | 78 | 6.943 | 6.942 | 0.001 | 98 | 1836424 | 175.0 | 166.0 | |
| 57 1,2-Dichloroethane | 62 | 7.016 | 7.015 | 0.001 | 98 | 746328 | 175.0 | 167.4 | |
| 59 n-Heptane | 43 | 7.308 | 7.307 | 0.001 | 86 | 526126 | 175.0 | 174.9 | |
| 61 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 93 | 405251 | 175.0 | 175.6 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 91 | 834543 | 175.0 | 178.2 | |
| 64 1,2-Dichloropropane | 63 | 7.953 | 7.952 | 0.001 | 86 | 455391 | 175.0 | 172.3 | |
| 65 1,4-Dioxane | 88 | 8.032 | 8.031 | 0.001 | 47 | 98136 | 3500.0 | 3760.8 | M |
| 67 Dibromomethane | 93 | 8.038 | 8.037 | 0.001 | 92 | 283101 | 175.0 | 176.4 | |
| 68 Dichlorobromomethane | 83 | 8.226 | 8.226 | 0.000 | 98 | 551929 | 175.0 | 183.0 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.677 | 8.676 | 0.001 | 93 | 650196 | 175.0 | 196.2 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.823 | 8.822 | 0.001 | 93 | 808342 | 350.0 | 362.9 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 98 | 1802740 | 175.0 | 161.2 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 96 | 565592 | 175.0 | 199.3 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 87 | 580427 | 175.0 | 192.5 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 94 | 391776 | 175.0 | 169.4 | |
| 77 Tetrachloroethene | 164 | 9.528 | 9.528 | 0.000 | 95 | 319955 | 175.0 | 167.8 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 93 | 717566 | 175.0 | 168.0 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 94 | 534519 | 350.0 | 365.4 | |
| 81 Chlorodibromomethane | 129 | 9.820 | 9.826 | -0.006 | 90 | 301710 | 175.0 | 191.2 | |
| 82 Ethylene Dibromide | 107 | 9.936 | 9.936 | 0.000 | 97 | 363449 | 175.0 | 177.6 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 92 | 600793 | 175.0 | 167.8 | |
| 84 Chlorobenzene | 112 | 10.429 | 10.428 | 0.001 | 89 | 1142353 | 175.0 | 166.2 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 570403 | 175.0 | 171.9 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.520 | 10.520 | 0.000 | 89 | 349368 | 175.0 | 185.5 | |
| 87 Ethylbenzene | 106 | 10.526 | 10.526 | 0.000 | 98 | 663577 | 175.0 | 171.2 | |
| 88 m-Xylene & p-Xylene | 106 | 10.660 | 10.659 | 0.001 | 99 | 823294 | 175.0 | 171.1 | |
| 89 o-Xylene | 106 | 11.037 | 11.037 | 0.000 | 96 | 833629 | 175.0 | 173.2 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 92 | 1289309 | 175.0 | 174.4 | |
| 91 Bromoform | 173 | 11.244 | 11.243 | 0.001 | 93 | 160966 | 175.0 | 191.1 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.305 | 11.304 | 0.001 | 94 | 628216 | 175.0 | 171.3 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 99 | 1921153 | 175.0 | 166.8 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 96 | 532593 | 175.0 | 172.2 | |
| 95 Bromobenzene | 156 | 11.724 | 11.724 | 0.000 | 98 | 459843 | 175.0 | 173.7 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.749 | 11.748 | 0.001 | 80 | 160304 | 175.0 | 191.0 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.773 | 0.000 | 84 | 178317 | 175.0 | 177.2 | |
| 99 N-Propylbenzene | 120 | 11.828 | 11.827 | 0.001 | 98 | 554932 | 175.0 | 182.1 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.913 | 0.000 | 93 | 446590 | 175.0 | 176.5 | |
| 101 3-Chlorotoluene | 126 | 11.980 | 11.980 | 0.000 | 96 | 485130 | 175.0 | 182.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 93 | 1730016 | 175.0 | 174.6 | |
| 103 4-Chlorotoluene | 126 | 12.041 | 12.034 | 0.007 | 100 | 464650 | 175.0 | 173.8 | |
| 104 tert-Butylbenzene | 119 | 12.327 | 12.320 | 0.007 | 90 | 1405341 | 175.0 | 179.5 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.381 | 0.000 | 98 | 1786151 | 175.0 | 176.3 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.418 | 12.418 | 0.000 | 95 | 509173 | 175.0 | 177.4 | |
| 108 sec-Butylbenzene | 105 | 12.546 | 12.545 | 0.001 | 97 | 2038837 | 175.0 | 174.4 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 92 | 886632 | 175.0 | 171.5 | |
| 110 4-Isopropyltoluene | 119 | 12.704 | 12.703 | 0.001 | 94 | 1736569 | 175.0 | 177.1 | |
| 111 1,4-Dichlorobenzene | 146 | 12.771 | 12.770 | 0.001 | 92 | 902441 | 175.0 | 170.8 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 94 | 534909 | 175.0 | 187.3 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.832 | 12.831 | 0.001 | 96 | 537191 | 175.0 | 168.4 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.111 | 0.000 | 97 | 1734264 | 175.0 | 177.1 | |
| 117 1,2-Dichlorobenzene | 146 | 13.124 | 13.123 | 0.001 | 89 | 899668 | 175.0 | 172.4 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.914 | 13.920 | -0.006 | 71 | 96376 | 175.0 | 201.4 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.060 | 14.060 | 0.000 | 95 | 2390336 | 525.0 | 526.2 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.474 | 14.474 | 0.000 | 97 | 1797097 | 350.0 | 358.5 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.742 | 14.741 | 0.001 | 92 | 726756 | 175.0 | 179.7 | |
| 123 Hexachlorobutadiene | 225 | 14.888 | 14.887 | 0.001 | 97 | 290426 | 175.0 | 182.3 | |
| 124 Naphthalene | 128 | 15.003 | 15.003 | 0.000 | 99 | 1550041 | 175.0 | 189.9 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.228 | 15.228 | 0.000 | 93 | 673533 | 175.0 | 178.0 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.007 | 16.007 | 0.000 | 0 | 490754 | 175.0 | 193.1 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.111 | 16.110 | 0.000 | 94 | 460224 | 175.0 | 190.9 | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 350.0 | 347.4 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 350.0 | 344.3 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 350.0 | 395.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 7.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 7.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 7.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 7.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 7.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 9.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D

Injection Date: 31-Jul-2015 15:37:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

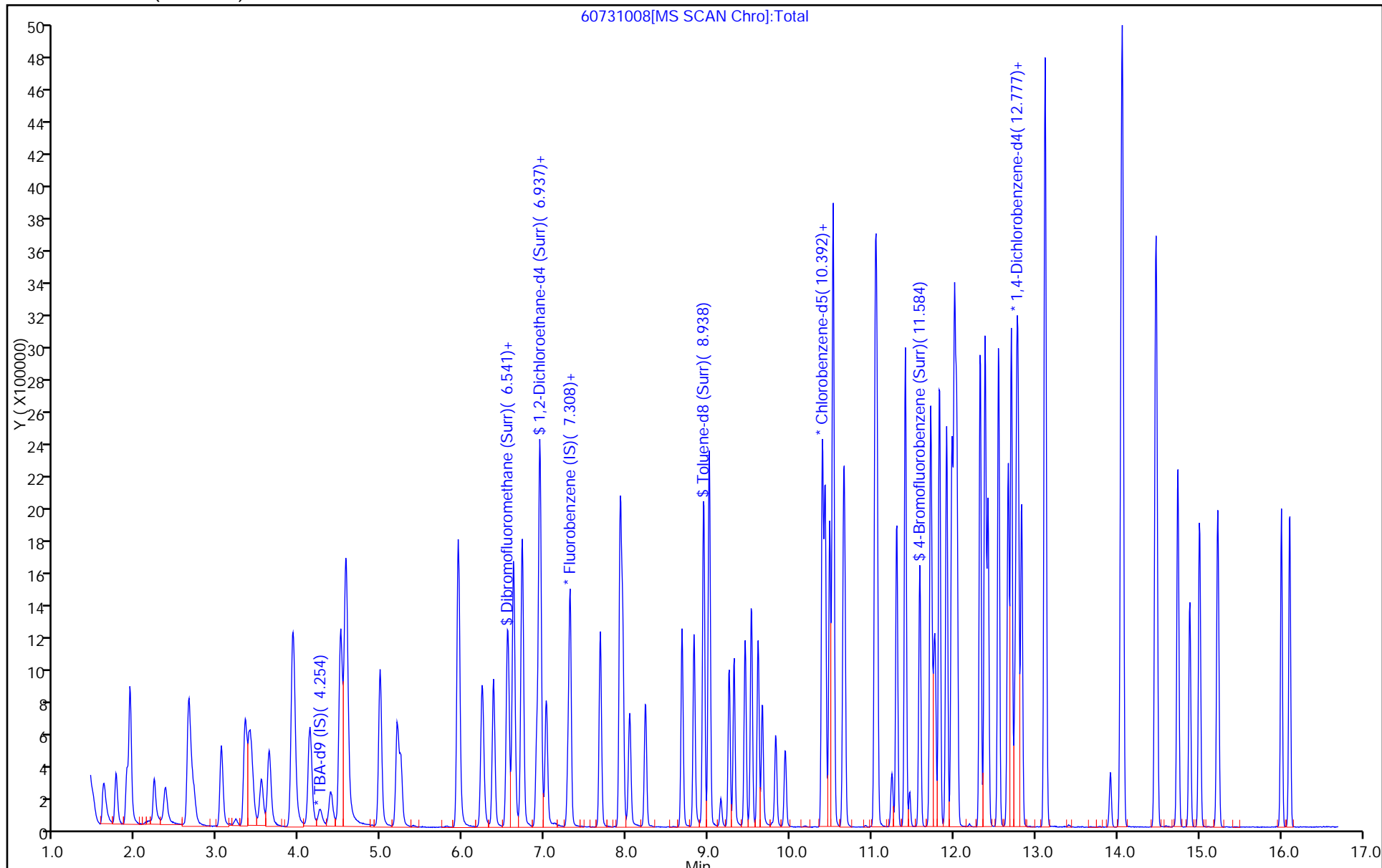
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



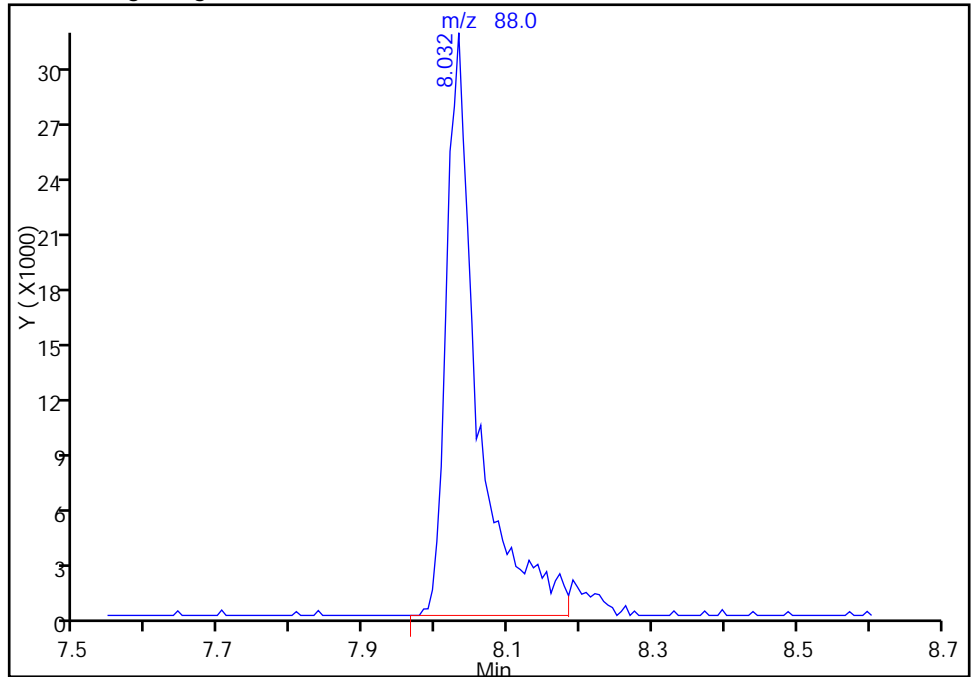
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D
Injection Date: 31-Jul-2015 15:37:30 Instrument ID: CHHP6
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

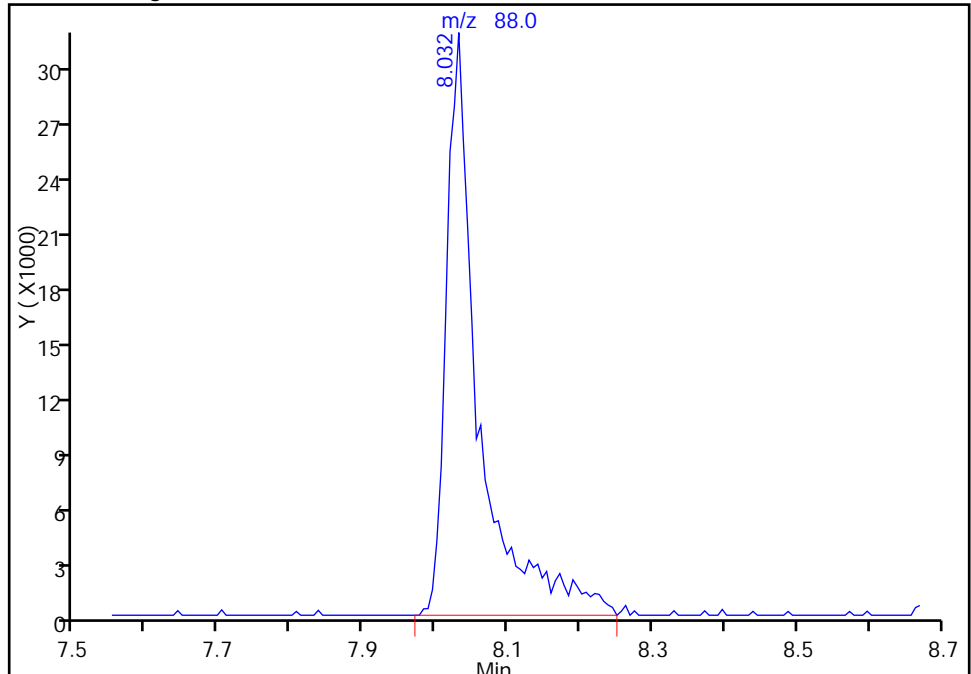
RT: 8.03
Area: 94184
Amount: 3581.4908
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 98136
Amount: 3760.8433
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:13:21
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 31-Jul-2015 16:01:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD40
 Misc. Info.: 180-0007999-009
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:16:10 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond Date: 03-Aug-2015 10:06:32

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.253 | 4.247 | 0.006 | 92 | 190170 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.289 | 0.000 | 98 | 446456 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 89 | 103508 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.746 | 0.000 | 95 | 159598 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.553 | 0.000 | 92 | 428779 | 200.0 | 208.5 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.930 | 0.000 | 72 | 668015 | 200.0 | 201.4 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.944 | 8.938 | 0.006 | 94 | 1563368 | 200.0 | 191.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.584 | 0.000 | 81 | 722308 | 200.0 | 199.3 | |
| 11 Dichlorodifluoromethane | 85 | 1.613 | 1.607 | 0.006 | 99 | 636192 | 200.0 | 205.8 | |
| 12 Chloromethane | 50 | 1.759 | 1.759 | 0.000 | 99 | 522516 | 200.0 | 196.1 | |
| 13 Vinyl chloride | 62 | 1.893 | 1.893 | 0.000 | 98 | 585198 | 200.0 | 203.9 | |
| 14 Butadiene | 39 | 1.935 | 1.930 | 0.005 | 92 | 538199 | 200.0 | 200.0 | |
| 15 Bromomethane | 94 | 2.233 | 2.228 | 0.005 | 91 | 263364 | 200.0 | 170.0 | |
| 16 Chloroethane | 64 | 2.373 | 2.374 | -0.001 | 99 | 402907 | 200.0 | 205.7 | |
| 17 Dichlorofluoromethane | 67 | 2.647 | 2.654 | -0.007 | 98 | 899692 | 200.0 | 197.3 | |
| 18 Trichlorofluoromethane | 101 | 2.672 | 2.678 | -0.006 | 99 | 726249 | 200.0 | 199.7 | |
| 20 Ethyl ether | 59 | 3.049 | 3.043 | 0.006 | 89 | 523507 | 200.0 | 203.1 | |
| 21 Acrolein | 56 | 3.225 | 3.213 | 0.012 | 96 | 76429 | 250.0 | 271.9 | |
| 22 1,1-Dichloroethene | 96 | 3.341 | 3.341 | 0.000 | 99 | 476887 | 200.0 | 212.2 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.395 | 3.402 | -0.007 | 95 | 481169 | 200.0 | 202.8 | |
| 24 Acetone | 43 | 3.432 | 3.432 | 0.000 | 100 | 317270 | 400.0 | 401.7 | |
| 25 Iodomethane | 142 | 3.529 | 3.530 | -0.001 | 99 | 655616 | 200.0 | 217.3 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.633 | -0.006 | 100 | 1330649 | 200.0 | 228.5 | |
| 29 3-Chloro-1-propene | 76 | 3.906 | 3.913 | -0.007 | 88 | 293887 | 200.0 | 231.9 | |
| 30 Methyl acetate | 43 | 3.925 | 3.925 | 0.000 | 96 | 1914014 | 1000.0 | 1033.4 | |
| 31 Methylene Chloride | 84 | 4.125 | 4.132 | -0.007 | 91 | 611401 | 200.0 | 212.7 | |
| 32 2-Methyl-2-propanol | 59 | 4.381 | 4.369 | 0.012 | 93 | 426462 | 2000.0 | 1992.8 | |
| 33 Acrylonitrile | 53 | 4.503 | 4.497 | 0.006 | 97 | 1961872 | 2000.0 | 2101.3 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.563 | 4.564 | -0.001 | 97 | 548086 | 200.0 | 211.3 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.576 | 0.000 | 98 | 1687770 | 200.0 | 217.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.989 | 4.990 | -0.001 | 91 | 736641 | 200.0 | 209.6 | |
| 37 1,1-Dichloroethane | 63 | 5.196 | 5.196 | 0.000 | 97 | 980644 | 200.0 | 211.2 | |
| 38 Vinyl acetate | 43 | 5.239 | 5.239 | 0.000 | 97 | 867464 | 200.0 | 231.4 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.944 | 5.939 | 0.005 | 85 | 595718 | 200.0 | 211.2 | |
| 44 2-Butanone (MEK) | 43 | 5.944 | 5.945 | -0.001 | 98 | 470276 | 400.0 | 436.3 | |
| 42 2,2-Dichloropropane | 77 | 5.944 | 5.945 | -0.001 | 66 | 535345 | 200.0 | 228.0 | |
| 48 Chlorobromomethane | 128 | 6.230 | 6.225 | 0.005 | 97 | 240962 | 200.0 | 212.7 | |
| 49 Tetrahydrofuran | 42 | 6.243 | 6.237 | 0.005 | 83 | 305718 | 400.0 | 421.1 | |
| 50 Chloroform | 83 | 6.376 | 6.371 | 0.005 | 94 | 959266 | 200.0 | 208.2 | |
| 51 1,1,1-Trichloroethane | 97 | 6.541 | 6.541 | 0.000 | 98 | 756837 | 200.0 | 222.3 | |
| 52 Cyclohexane | 56 | 6.620 | 6.620 | 0.000 | 92 | 919827 | 200.0 | 210.8 | |
| 53 Carbon tetrachloride | 117 | 6.717 | 6.717 | 0.000 | 97 | 536127 | 200.0 | 222.9 | |
| 54 1,1-Dichloropropene | 75 | 6.729 | 6.730 | -0.001 | 94 | 765806 | 200.0 | 209.1 | |
| 55 Isobutyl alcohol | 41 | 6.906 | 6.900 | 0.006 | 92 | 375937 | 5000.0 | 5820.2 | |
| 56 Benzene | 78 | 6.942 | 6.942 | 0.000 | 99 | 2066671 | 200.0 | 198.6 | |
| 57 1,2-Dichloroethane | 62 | 7.015 | 7.015 | 0.000 | 98 | 855052 | 200.0 | 204.0 | |
| 59 n-Heptane | 43 | 7.307 | 7.307 | 0.000 | 87 | 588643 | 200.0 | 208.1 | |
| 61 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 92 | 460676 | 200.0 | 212.3 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 91 | 915285 | 200.0 | 207.8 | |
| 64 1,2-Dichloropropane | 63 | 7.952 | 7.952 | 0.000 | 84 | 521174 | 200.0 | 209.7 | |
| 65 1,4-Dioxane | 88 | 8.031 | 8.031 | 0.000 | 44 | 114196 | 4000.0 | 4654.3 | M |
| 67 Dibromomethane | 93 | 8.037 | 8.037 | 0.000 | 92 | 323060 | 200.0 | 214.0 | |
| 68 Dichlorobromomethane | 83 | 8.232 | 8.226 | 0.006 | 99 | 646107 | 200.0 | 227.8 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.676 | 8.676 | 0.000 | 94 | 745866 | 200.0 | 239.4 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.822 | 8.822 | 0.000 | 93 | 947711 | 400.0 | 445.4 | |
| 73 Toluene | 91 | 9.010 | 9.011 | -0.001 | 97 | 2002822 | 200.0 | 187.5 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 96 | 639831 | 200.0 | 236.0 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 88 | 671187 | 200.0 | 233.1 | |
| 76 1,1,2-Trichloroethane | 97 | 9.448 | 9.449 | -0.001 | 94 | 447467 | 200.0 | 202.6 | |
| 77 Tetrachloroethene | 164 | 9.528 | 9.528 | 0.000 | 93 | 357911 | 200.0 | 196.5 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 93 | 805963 | 200.0 | 197.5 | |
| 79 2-Hexanone | 43 | 9.655 | 9.656 | -0.001 | 95 | 604727 | 400.0 | 432.8 | |
| 81 Chlorodibromomethane | 129 | 9.826 | 9.826 | 0.000 | 91 | 351983 | 200.0 | 233.5 | |
| 82 Ethylene Dibromide | 107 | 9.941 | 9.936 | 0.005 | 98 | 414395 | 200.0 | 212.0 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.398 | 10.392 | 0.006 | 93 | 658293 | 200.0 | 192.5 | |
| 84 Chlorobenzene | 112 | 10.428 | 10.428 | 0.000 | 90 | 1270819 | 200.0 | 193.6 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 626628 | 200.0 | 197.7 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.519 | 10.520 | -0.001 | 90 | 410261 | 200.0 | 228.0 | |
| 87 Ethylbenzene | 106 | 10.525 | 10.526 | -0.001 | 98 | 745552 | 200.0 | 201.3 | |
| 88 m-Xylene & p-Xylene | 106 | 10.659 | 10.659 | 0.000 | 99 | 922542 | 200.0 | 200.7 | |
| 89 o-Xylene | 106 | 11.042 | 11.037 | 0.005 | 96 | 942660 | 200.0 | 205.0 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 91 | 1451301 | 200.0 | 205.5 | |
| 91 Bromoform | 173 | 11.243 | 11.243 | 0.000 | 93 | 188413 | 200.0 | 234.1 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.304 | 11.304 | 0.000 | 94 | 695569 | 200.0 | 198.6 | |
| 93 Isopropylbenzene | 105 | 11.407 | 11.408 | -0.001 | 99 | 2143689 | 200.0 | 194.9 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 97 | 595171 | 200.0 | 201.4 | |
| 95 Bromobenzene | 156 | 11.724 | 11.724 | 0.000 | 98 | 533334 | 200.0 | 207.9 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.754 | 11.748 | 0.006 | 78 | 183338 | 200.0 | 225.3 | |
| 98 1,2,3-Trichloropropane | 110 | 11.772 | 11.773 | -0.001 | 84 | 202262 | 200.0 | 207.3 | |
| 99 N-Propylbenzene | 120 | 11.827 | 11.827 | 0.000 | 98 | 613443 | 200.0 | 207.6 | |
| 100 2-Chlorotoluene | 126 | 11.912 | 11.913 | -0.001 | 93 | 510216 | 200.0 | 208.0 | |
| 101 3-Chlorotoluene | 126 | 11.979 | 11.980 | -0.001 | 97 | 532252 | 200.0 | 206.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 94 | 1945327 | 200.0 | 202.5 | |
| 103 4-Chlorotoluene | 126 | 12.040 | 12.034 | 0.006 | 100 | 540303 | 200.0 | 208.5 | |
| 104 tert-Butylbenzene | 119 | 12.326 | 12.320 | 0.006 | 90 | 1580824 | 200.0 | 208.2 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.381 | 0.000 | 98 | 2003823 | 200.0 | 204.0 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.423 | 12.418 | 0.005 | 96 | 562570 | 200.0 | 202.1 | |
| 108 sec-Butylbenzene | 105 | 12.551 | 12.545 | 0.006 | 97 | 2257148 | 200.0 | 199.2 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 92 | 1017363 | 200.0 | 203.0 | |
| 110 4-Isopropyltoluene | 119 | 12.703 | 12.703 | 0.000 | 94 | 1952987 | 200.0 | 205.4 | |
| 111 1,4-Dichlorobenzene | 146 | 12.770 | 12.770 | 0.000 | 91 | 1040432 | 200.0 | 203.1 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.788 | 12.789 | -0.001 | 93 | 585295 | 200.0 | 211.4 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.831 | 12.831 | 0.000 | 97 | 604585 | 200.0 | 195.5 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.111 | 0.000 | 96 | 1931969 | 200.0 | 203.5 | |
| 117 1,2-Dichlorobenzene | 146 | 13.123 | 13.123 | 0.000 | 93 | 1013269 | 200.0 | 200.2 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.914 | 13.920 | -0.006 | 74 | 111156 | 200.0 | 239.6 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.060 | 14.060 | 0.000 | 95 | 2621988 | 600.0 | 595.4 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.473 | 14.474 | -0.001 | 96 | 1989024 | 400.0 | 409.3 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.741 | 14.741 | 0.000 | 92 | 829845 | 200.0 | 211.6 | |
| 123 Hexachlorobutadiene | 225 | 14.887 | 14.887 | 0.000 | 97 | 324236 | 200.0 | 209.9 | |
| 124 Naphthalene | 128 | 15.009 | 15.003 | 0.006 | 99 | 1744010 | 200.0 | 220.4 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.228 | 15.228 | 0.000 | 92 | 768952 | 200.0 | 209.6 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.006 | 16.007 | -0.001 | 0 | 568870 | 200.0 | 230.9 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.110 | 16.110 | 0.000 | 94 | 527070 | 200.0 | 225.5 | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 400.0 | 422.6 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 400.0 | 405.8 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 400.0 | 475.4 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|---------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 8.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 10.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 8.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 8.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 8.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 8.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D

Injection Date: 31-Jul-2015 16:01:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

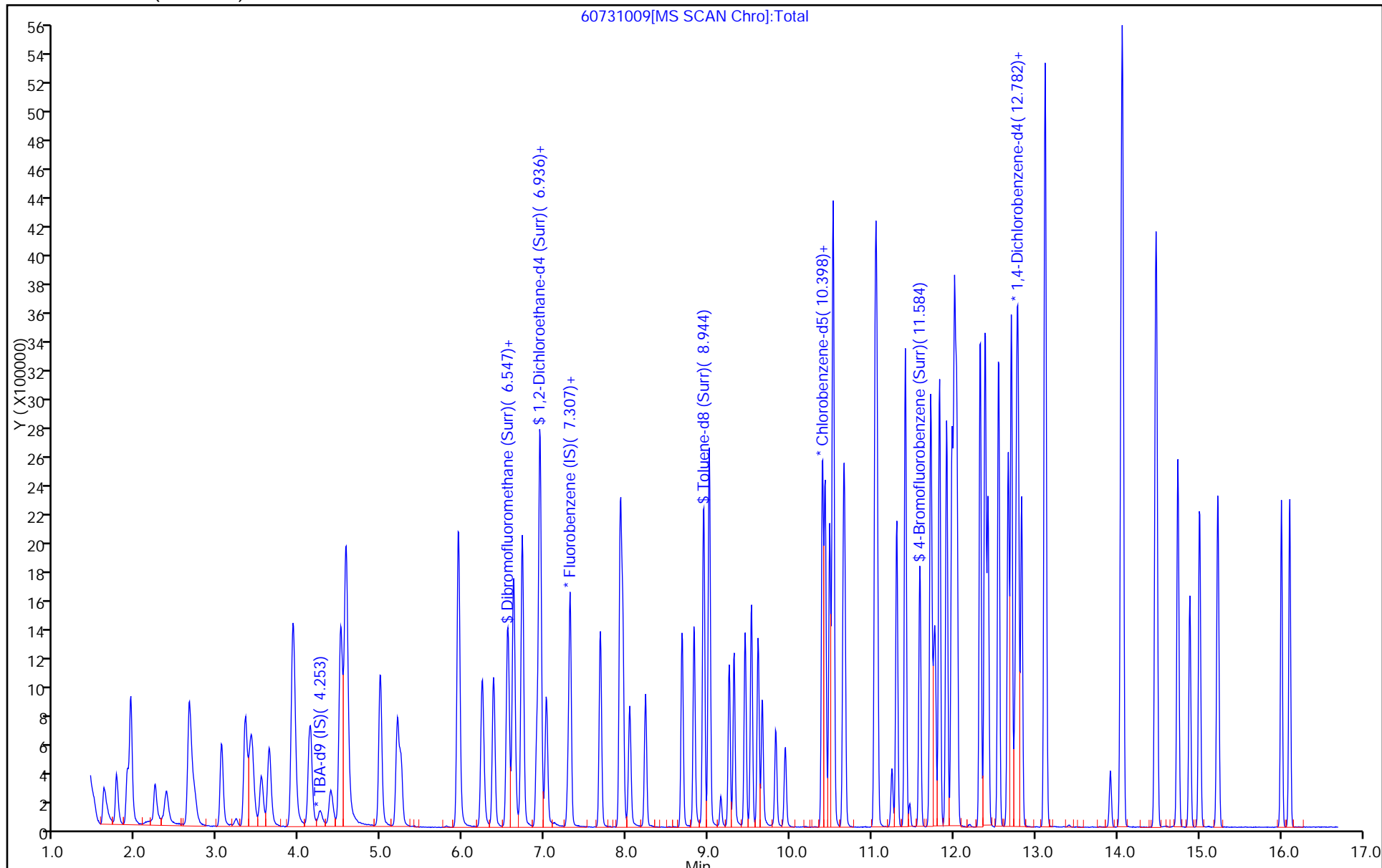
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



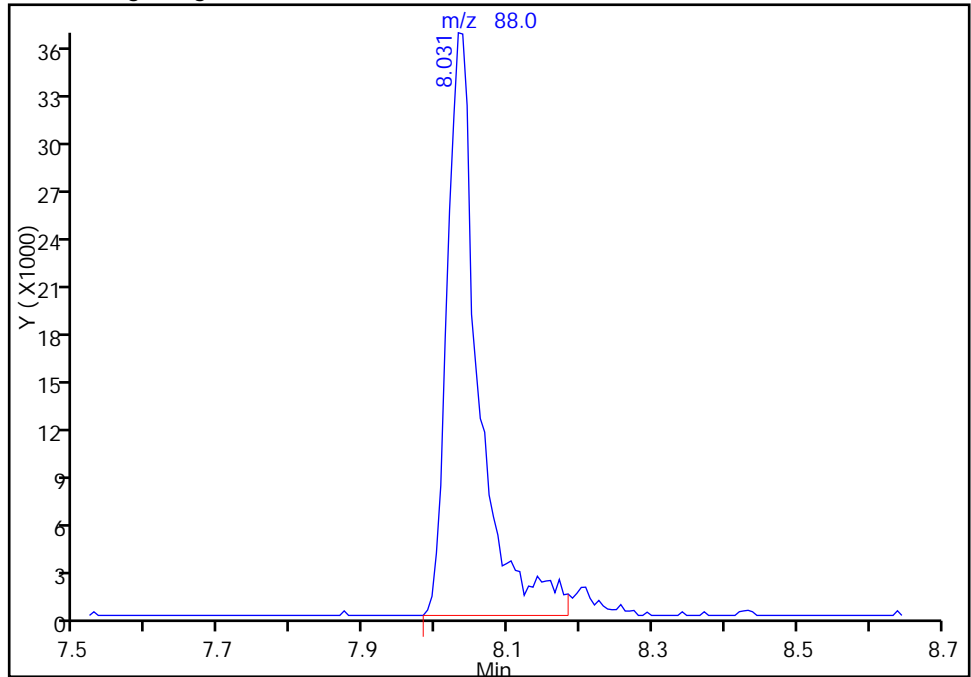
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D
Injection Date: 31-Jul-2015 16:01:30 Instrument ID: CHHP6
Lims ID: IC VSTD40
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

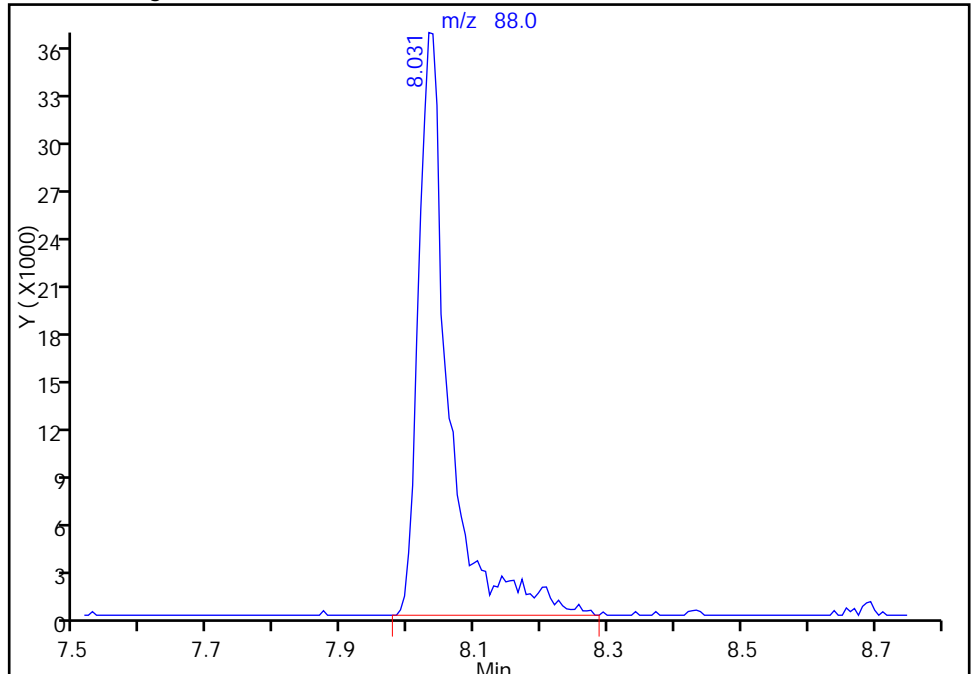
RT: 8.03
Area: 109899
Amount: 4509.0182
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 114196
Amount: 4654.2617
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:06:32
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 31-Jul-2015 16:25:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD50
 Misc. Info.: 180-0007999-010
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:16:19 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:08:16

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.266 | 4.247 | 0.019 | 94 | 205888 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.283 | 7.289 | -0.006 | 98 | 472902 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 91 | 113483 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.746 | 0.000 | 92 | 168220 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.553 | 0.000 | 92 | 510673 | 250.0 | 234.5 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.930 | 0.000 | 73 | 806396 | 250.0 | 229.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 94 | 1832665 | 250.0 | 204.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.584 | 0.000 | 80 | 863895 | 250.0 | 217.4 | |
| 11 Dichlorodifluoromethane | 85 | 1.607 | 1.607 | 0.000 | 100 | 776950 | 250.0 | 237.3 | |
| 12 Chloromethane | 50 | 1.759 | 1.759 | 0.000 | 99 | 661756 | 250.0 | 234.5 | |
| 13 Vinyl chloride | 62 | 1.893 | 1.893 | 0.000 | 99 | 729853 | 250.0 | 240.1 | |
| 14 Butadiene | 39 | 1.936 | 1.930 | 0.006 | 90 | 668636 | 250.0 | 234.6 | |
| 15 Bromomethane | 94 | 2.228 | 2.228 | 0.000 | 91 | 301175 | 250.0 | 183.5 | |
| 16 Chloroethane | 64 | 2.362 | 2.374 | -0.012 | 98 | 495382 | 250.0 | 238.7 | |
| 17 Dichlorofluoromethane | 67 | 2.647 | 2.654 | -0.007 | 97 | 1120159 | 250.0 | 232.0 | |
| 18 Trichlorofluoromethane | 101 | 2.660 | 2.678 | -0.018 | 74 | 914267 | 250.0 | 237.4 | |
| 20 Ethyl ether | 59 | 3.043 | 3.043 | 0.000 | 89 | 666334 | 250.0 | 244.1 | |
| 21 Acrolein | 56 | 3.225 | 3.213 | 0.012 | 98 | 88331 | 275.0 | 296.7 | |
| 22 1,1-Dichloroethene | 96 | 3.335 | 3.341 | -0.006 | 98 | 604031 | 250.0 | 253.7 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.396 | 3.402 | -0.006 | 95 | 613669 | 250.0 | 244.2 | |
| 24 Acetone | 43 | 3.432 | 3.432 | 0.000 | 100 | 446823 | 500.0 | 534.1 | |
| 25 Iodomethane | 142 | 3.530 | 3.530 | 0.000 | 99 | 830188 | 250.0 | 259.8 | |
| 26 Carbon disulfide | 76 | 3.627 | 3.633 | -0.006 | 100 | 1688724 | 250.0 | 273.8 | |
| 29 3-Chloro-1-propene | 76 | 3.913 | 3.913 | 0.000 | 87 | 379717 | 250.0 | 282.9 | |
| 30 Methyl acetate | 43 | 3.925 | 3.925 | 0.000 | 96 | 2441128 | 1250.0 | 1244.3 | |
| 31 Methylene Chloride | 84 | 4.126 | 4.132 | -0.006 | 90 | 760977 | 250.0 | 250.8 | |
| 32 2-Methyl-2-propanol | 59 | 4.387 | 4.369 | 0.018 | 93 | 559063 | 2500.0 | 2413.0 | |
| 33 Acrylonitrile | 53 | 4.503 | 4.497 | 0.006 | 97 | 2461613 | 2500.0 | 2489.1 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.564 | 4.564 | 0.000 | 97 | 687783 | 250.0 | 250.4 | |
| 35 Methyl tert-butyl ether | 73 | 4.576 | 4.576 | 0.000 | 98 | 2105039 | 250.0 | 255.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.984 | 4.990 | -0.006 | 92 | 945322 | 250.0 | 253.9 | |
| 37 1,1-Dichloroethane | 63 | 5.196 | 5.196 | 0.000 | 96 | 1227440 | 250.0 | 249.6 | |
| 38 Vinyl acetate | 43 | 5.239 | 5.239 | 0.000 | 97 | 1104555 | 250.0 | 278.2 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.945 | 5.939 | 0.006 | 83 | 751398 | 250.0 | 251.5 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 98 | 588377 | 500.0 | 515.3 | |
| 42 2,2-Dichloropropane | 77 | 5.939 | 5.945 | -0.006 | 66 | 694588 | 250.0 | 279.3 | |
| 48 Chlorobromomethane | 128 | 6.225 | 6.225 | 0.000 | 97 | 308059 | 250.0 | 256.7 | |
| 49 Tetrahydrofuran | 42 | 6.243 | 6.237 | 0.006 | 83 | 413888 | 500.0 | 538.2 | |
| 50 Chloroform | 83 | 6.371 | 6.371 | 0.000 | 95 | 1195678 | 250.0 | 244.9 | |
| 51 1,1,1-Trichloroethane | 97 | 6.535 | 6.541 | -0.006 | 98 | 957300 | 250.0 | 265.4 | |
| 52 Cyclohexane | 56 | 6.614 | 6.620 | -0.006 | 91 | 1159567 | 250.0 | 250.9 | |
| 53 Carbon tetrachloride | 117 | 6.717 | 6.717 | 0.000 | 89 | 690480 | 250.0 | 271.0 | |
| 54 1,1-Dichloropropene | 75 | 6.729 | 6.730 | -0.001 | 93 | 968671 | 250.0 | 249.7 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 91 | 482886 | 6250.0 | 7057.9 | |
| 56 Benzene | 78 | 6.942 | 6.942 | 0.000 | 99 | 2526807 | 250.0 | 229.3 | |
| 57 1,2-Dichloroethane | 62 | 7.015 | 7.015 | 0.000 | 98 | 1055651 | 250.0 | 237.8 | |
| 59 n-Heptane | 43 | 7.307 | 7.307 | 0.000 | 87 | 756814 | 250.0 | 252.6 | |
| 61 Trichloroethene | 130 | 7.678 | 7.679 | -0.001 | 93 | 577638 | 250.0 | 251.3 | |
| 63 Methylcyclohexane | 83 | 7.922 | 7.922 | 0.000 | 91 | 1169092 | 250.0 | 250.6 | |
| 64 1,2-Dichloropropane | 63 | 7.952 | 7.952 | 0.000 | 86 | 664355 | 250.0 | 252.3 | |
| 65 1,4-Dioxane | 88 | 8.031 | 8.031 | 0.000 | 44 | 139772 | 5000.0 | 5378.1 | M |
| 67 Dibromomethane | 93 | 8.037 | 8.037 | 0.000 | 93 | 409028 | 250.0 | 255.8 | |
| 68 Dichlorobromomethane | 83 | 8.232 | 8.226 | 0.006 | 99 | 821950 | 250.0 | 273.6 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.676 | 8.676 | 0.000 | 93 | 960857 | 250.0 | 291.2 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.822 | 8.822 | 0.000 | 93 | 1194590 | 500.0 | 512.0 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 97 | 2462377 | 250.0 | 210.3 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 96 | 837722 | 250.0 | 281.8 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 88 | 855316 | 250.0 | 270.9 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 93 | 567107 | 250.0 | 234.2 | |
| 77 Tetrachloroethene | 164 | 9.522 | 9.528 | -0.006 | 92 | 461983 | 250.0 | 231.3 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 92 | 1022129 | 250.0 | 228.4 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 93 | 790089 | 500.0 | 515.7 | |
| 81 Chlorodibromomethane | 129 | 9.820 | 9.826 | -0.006 | 90 | 451973 | 250.0 | 273.4 | |
| 82 Ethylene Dibromide | 107 | 9.942 | 9.936 | 0.006 | 98 | 526477 | 250.0 | 245.7 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 92 | 786880 | 250.0 | 209.9 | |
| 84 Chlorobenzene | 112 | 10.428 | 10.428 | 0.000 | 89 | 1585885 | 250.0 | 220.3 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.483 | 10.483 | 0.000 | 96 | 739908 | 250.0 | 212.9 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.519 | 10.520 | -0.001 | 49 | 519653 | 250.0 | 263.5 | |
| 87 Ethylbenzene | 106 | 10.526 | 10.526 | 0.000 | 97 | 943999 | 250.0 | 232.5 | |
| 88 m-Xylene & p-Xylene | 106 | 10.659 | 10.659 | 0.000 | 97 | 1179895 | 250.0 | 234.2 | |
| 89 o-Xylene | 106 | 11.043 | 11.037 | 0.006 | 96 | 1188451 | 250.0 | 235.8 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 93 | 1825312 | 250.0 | 235.8 | |
| 91 Bromoform | 173 | 11.243 | 11.243 | 0.000 | 93 | 249108 | 250.0 | 282.3 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.304 | 11.304 | 0.000 | 94 | 831476 | 250.0 | 216.5 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 99 | 2614965 | 250.0 | 216.8 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 97 | 764885 | 250.0 | 236.1 | |
| 95 Bromobenzene | 156 | 11.724 | 11.724 | 0.000 | 98 | 665597 | 250.0 | 246.1 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.754 | 11.748 | 0.006 | 83 | 239026 | 250.0 | 278.7 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.773 | 0.000 | 85 | 257089 | 250.0 | 250.0 | |
| 99 N-Propylbenzene | 120 | 11.827 | 11.827 | 0.000 | 96 | 793964 | 250.0 | 254.9 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.913 | 0.000 | 93 | 652311 | 250.0 | 252.3 | |
| 101 3-Chlorotoluene | 126 | 11.979 | 11.980 | -0.001 | 96 | 649907 | 250.0 | 239.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 96 | 2358116 | 250.0 | 232.9 | |
| 103 4-Chlorotoluene | 126 | 12.034 | 12.034 | 0.000 | 99 | 684319 | 250.0 | 250.5 | |
| 104 tert-Butylbenzene | 119 | 12.326 | 12.320 | 0.006 | 90 | 1949627 | 250.0 | 243.7 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.381 | 0.000 | 97 | 2433681 | 250.0 | 235.0 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.418 | 12.418 | 0.000 | 95 | 680073 | 250.0 | 231.8 | |
| 108 sec-Butylbenzene | 105 | 12.545 | 12.545 | 0.000 | 96 | 2739728 | 250.0 | 229.4 | |
| 109 1,3-Dichlorobenzene | 146 | 12.667 | 12.667 | 0.000 | 92 | 1267194 | 250.0 | 239.9 | |
| 110 4-Isopropyltoluene | 119 | 12.703 | 12.703 | 0.000 | 93 | 2392925 | 250.0 | 238.8 | |
| 111 1,4-Dichlorobenzene | 146 | 12.770 | 12.770 | 0.000 | 92 | 1287354 | 250.0 | 238.4 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 96 | 641375 | 250.0 | 219.8 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.831 | 12.831 | 0.000 | 97 | 781945 | 250.0 | 239.9 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.111 | 0.000 | 95 | 2352259 | 250.0 | 235.1 | |
| 117 1,2-Dichlorobenzene | 146 | 13.123 | 13.123 | 0.000 | 95 | 1249514 | 250.0 | 234.3 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.914 | 13.920 | -0.006 | 73 | 147337 | 250.0 | 301.3 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.060 | 14.060 | 0.000 | 93 | 3058923 | 750.0 | 659.0 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.474 | 14.474 | 0.000 | 95 | 2357462 | 500.0 | 460.3 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.741 | 14.741 | 0.000 | 92 | 1022001 | 250.0 | 247.3 | |
| 123 Hexachlorobutadiene | 225 | 14.887 | 14.887 | 0.000 | 97 | 414314 | 250.0 | 254.5 | |
| 124 Naphthalene | 128 | 15.003 | 15.003 | 0.000 | 98 | 2149836 | 250.0 | 257.7 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.228 | 15.228 | 0.000 | 92 | 953082 | 250.0 | 246.4 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.007 | 16.007 | 0.000 | 0 | 681135 | 250.0 | 262.3 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.110 | 16.110 | 0.000 | 93 | 630961 | 250.0 | 256.1 | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 500.0 | 501.9 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 500.0 | 469.9 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 500.0 | 573.0 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|---------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 10.00 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 10.00 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 10.00 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 10.00 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 10.00 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 11.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D

Injection Date: 31-Jul-2015 16:25:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

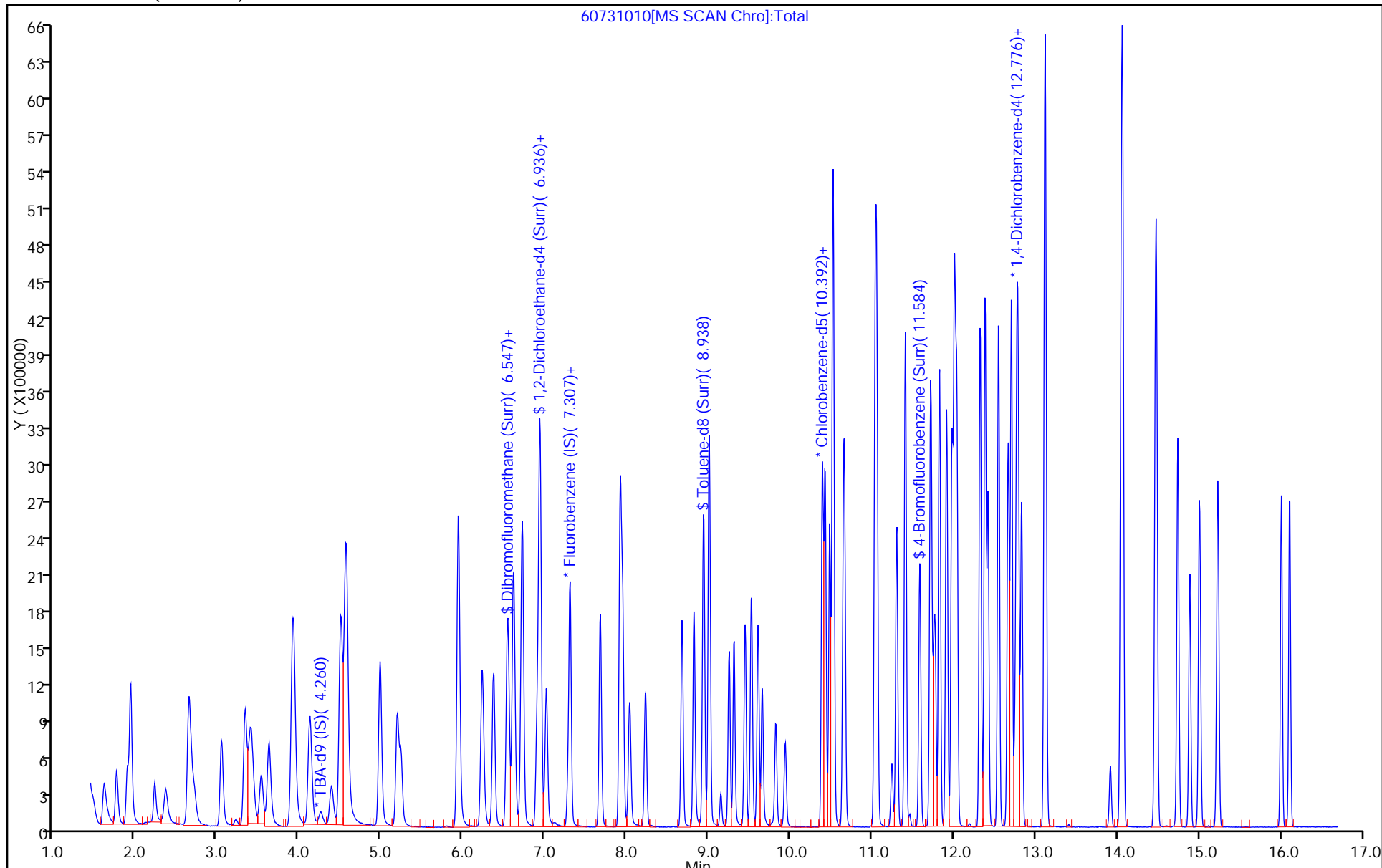
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



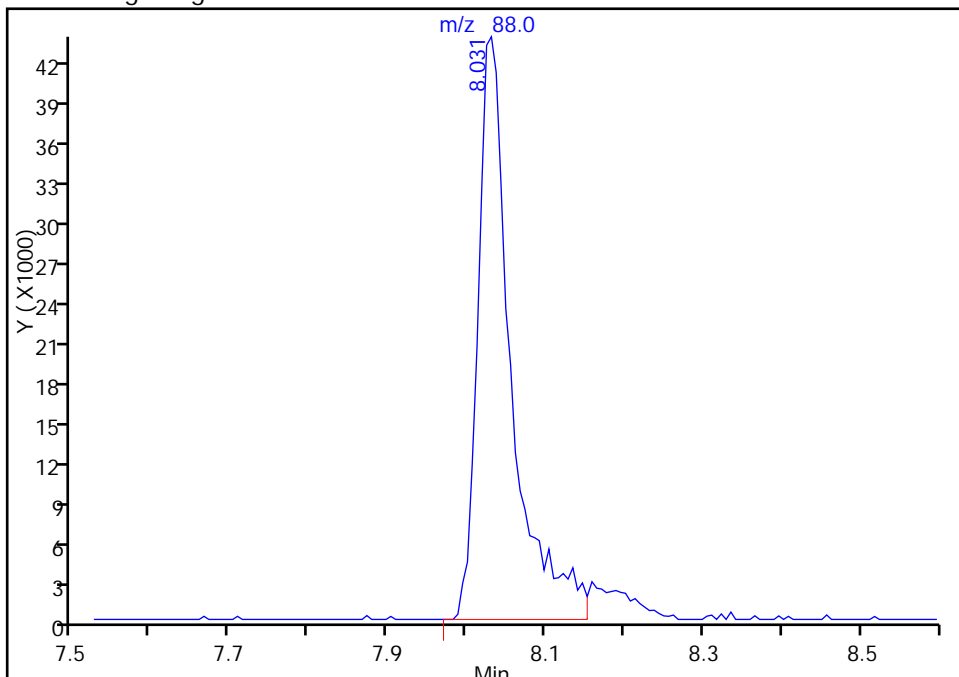
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D
Injection Date: 31-Jul-2015 16:25:30 Instrument ID: CHHP6
Lims ID: IC VSTD50
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

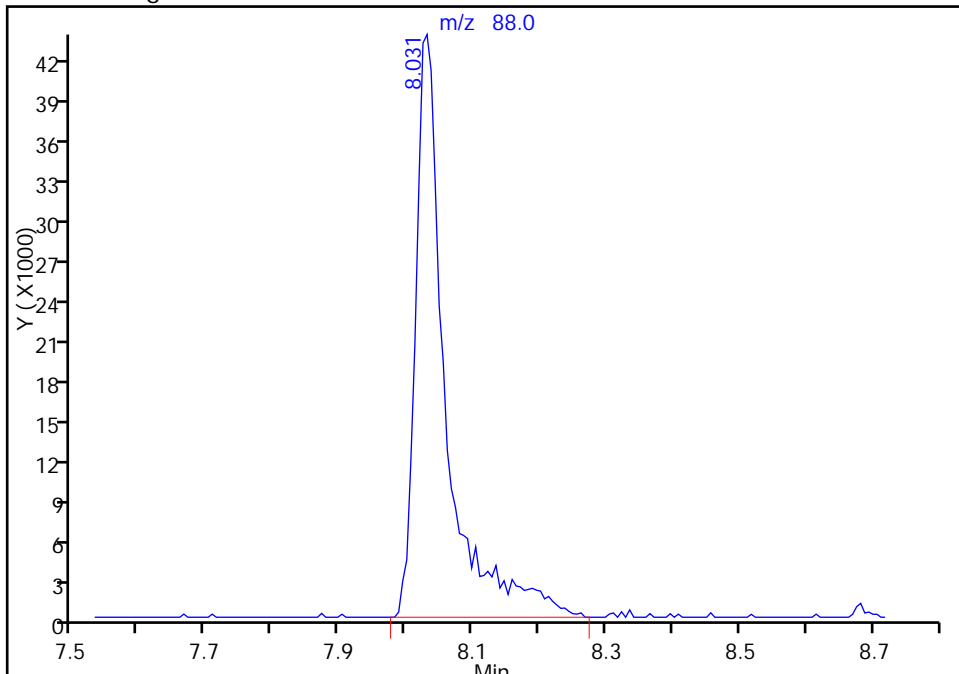
RT: 8.03
Area: 130472
Amount: 5026.0517
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 139772
Amount: 5378.0842
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:08:16
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 31-Jul-2015 18:02:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: IC VSTD1
 Misc. Info.: 180-0007999-014
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:57:05 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 11:05:58

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.242 | 4.248 | -0.006 | 92 | 162667 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.284 | 7.284 | 0.000 | 98 | 456532 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.398 | 10.398 | 0.000 | 92 | 93799 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.746 | 12.747 | -0.001 | 97 | 157240 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.554 | -0.001 | 89 | 11777 | 5.00 | 5.60 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.931 | 0.000 | 54 | 19952 | 5.00 | 5.88 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.938 | 0.000 | 94 | 41667 | 5.00 | 5.63 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.585 | 11.585 | 0.000 | 77 | 19549 | 5.00 | 5.95 | |
| 11 Dichlorodifluoromethane | 85 | 1.614 | 1.608 | 0.006 | 97 | 17276 | 5.00 | 5.46 | |
| 12 Chloromethane | 50 | 1.754 | 1.754 | 0.000 | 99 | 15485 | 5.00 | 5.68 | |
| 13 Vinyl chloride | 62 | 1.887 | 1.888 | -0.001 | 62 | 15792 | 5.00 | 5.38 | |
| 14 Butadiene | 39 | 1.930 | 1.930 | 0.000 | 93 | 15290 | 5.00 | 5.56 | |
| 15 Bromomethane | 94 | 2.234 | 2.228 | 0.006 | 96 | 9521 | 5.00 | 6.01 | |
| 16 Chloroethane | 64 | 2.356 | 2.368 | -0.012 | 92 | 9922 | 5.00 | 4.95 | |
| 17 Dichlorofluoromethane | 67 | 2.648 | 2.648 | 0.000 | 96 | 24941 | 5.00 | 5.35 | |
| 18 Trichlorofluoromethane | 101 | 2.684 | 2.660 | 0.024 | 51 | 19389 | 5.00 | 5.21 | M |
| 20 Ethyl ether | 59 | 3.037 | 3.049 | -0.012 | 90 | 14586 | 5.00 | 5.53 | |
| 21 Acrolein | 56 | 3.220 | 3.220 | 0.000 | 99 | 28320 | 100.0 | 98.5 | |
| 22 1,1-Dichloroethene | 96 | 3.335 | 3.341 | -0.006 | 95 | 11872 | 5.00 | 5.17 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.396 | 3.390 | 0.006 | 53 | 13209 | 5.00 | 5.44 | |
| 24 Acetone | 43 | 3.421 | 3.421 | -0.001 | 99 | 22203 | 25.0 | 27.5 | M |
| 25 Iodomethane | 142 | 3.542 | 3.536 | 0.006 | 81 | 14090 | 5.00 | 4.57 | |
| 26 Carbon disulfide | 76 | 3.633 | 3.627 | 0.006 | 99 | 26146 | 5.00 | 4.39 | |
| 29 3-Chloro-1-propene | 76 | 3.919 | 3.919 | 0.000 | 86 | 5562 | 5.00 | 4.29 | |
| 30 Methyl acetate | 43 | 3.932 | 3.926 | 0.006 | 98 | 50033 | 25.0 | 26.4 | |
| 31 Methylene Chloride | 84 | 4.132 | 4.132 | 0.000 | 94 | 30274 | 5.00 | 5.01 | |
| 32 2-Methyl-2-propanol | 59 | 4.363 | 4.370 | -0.007 | 86 | 9874 | 50.0 | 53.9 | |
| 33 Acrylonitrile | 53 | 4.509 | 4.503 | 0.006 | 99 | 48723 | 50.0 | 51.0 | M |
| 34 trans-1,2-Dichloroethene | 96 | 4.558 | 4.564 | -0.006 | 70 | 13191 | 5.00 | 4.97 | |
| 35 Methyl tert-butyl ether | 73 | 4.564 | 4.576 | -0.012 | 98 | 41079 | 5.00 | 5.17 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.984 | 4.990 | -0.006 | 91 | 19223 | 5.00 | 5.35 | |
| 37 1,1-Dichloroethane | 63 | 5.197 | 5.197 | 0.000 | 89 | 23168 | 5.00 | 4.88 | |
| 38 Vinyl acetate | 43 | 5.246 | 5.240 | 0.006 | 96 | 17413 | 5.00 | 4.54 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.951 | 5.939 | 0.012 | 83 | 15010 | 5.00 | 5.20 | |
| 44 2-Butanone (MEK) | 43 | 5.945 | 5.945 | 0.000 | 97 | 26408 | 25.0 | 24.0 | |
| 42 2,2-Dichloropropane | 77 | 5.939 | 5.945 | -0.006 | 57 | 9613 | 5.00 | 4.00 | |
| 48 Chlorobromomethane | 128 | 6.231 | 6.231 | 0.000 | 95 | 6120 | 5.00 | 5.28 | |
| 49 Tetrahydrofuran | 42 | 6.249 | 6.249 | 0.000 | 82 | 8204 | 10.0 | 11.1 | |
| 50 Chloroform | 83 | 6.371 | 6.371 | 0.000 | 94 | 23924 | 5.00 | 5.08 | |
| 51 1,1,1-Trichloroethane | 97 | 6.547 | 6.541 | 0.006 | 96 | 15055 | 5.00 | 4.32 | M |
| 52 Cyclohexane | 56 | 6.608 | 6.620 | -0.012 | 88 | 22688 | 5.00 | 5.09 | |
| 53 Carbon tetrachloride | 117 | 6.712 | 6.718 | -0.006 | 92 | 10435 | 5.00 | 4.24 | |
| 54 1,1-Dichloropropene | 75 | 6.724 | 6.724 | 0.000 | 90 | 17924 | 5.00 | 4.79 | |
| 55 Isobutyl alcohol | 41 | 6.900 | 6.900 | 0.000 | 80 | 7317 | 125.0 | 110.8 | M |
| 56 Benzene | 78 | 6.943 | 6.943 | 0.000 | 96 | 59844 | 5.00 | 5.62 | |
| 57 1,2-Dichloroethane | 62 | 7.016 | 7.016 | 0.000 | 98 | 23604 | 5.00 | 5.51 | |
| 59 n-Heptane | 43 | 7.302 | 7.308 | -0.006 | 86 | 14990 | 5.00 | 5.18 | |
| 61 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 89 | 11389 | 5.00 | 5.13 | |
| 63 Methylcyclohexane | 83 | 7.916 | 7.922 | -0.006 | 88 | 22772 | 5.00 | 5.06 | |
| 64 1,2-Dichloropropane | 63 | 7.947 | 7.953 | -0.006 | 86 | 13712 | 5.00 | 5.39 | |
| 65 1,4-Dioxane | 88 | 8.026 | 8.032 | -0.006 | 39 | 2321 | 100.0 | 92.5 | |
| 67 Dibromomethane | 93 | 8.032 | 8.038 | -0.006 | 92 | 7749 | 5.00 | 5.02 | |
| 68 Dichlorobromomethane | 83 | 8.226 | 8.227 | -0.001 | 96 | 11941 | 5.00 | 4.12 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.683 | 8.677 | 0.006 | 90 | 11797 | 5.00 | 3.70 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.823 | 0.006 | 96 | 42150 | 25.0 | 21.9 | |
| 73 Toluene | 91 | 9.011 | 9.011 | 0.000 | 98 | 55394 | 5.00 | 5.72 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.255 | 9.255 | 0.000 | 97 | 8162 | 5.00 | 3.32 | |
| 75 Ethyl methacrylate | 69 | 9.315 | 9.315 | 0.000 | 87 | 9928 | 5.00 | 3.80 | |
| 76 1,1,2-Trichloroethane | 97 | 9.449 | 9.449 | 0.000 | 91 | 10927 | 5.00 | 5.46 | |
| 77 Tetrachloroethene | 164 | 9.528 | 9.522 | 0.006 | 90 | 9096 | 5.00 | 5.51 | |
| 78 1,3-Dichloropropane | 76 | 9.607 | 9.607 | 0.000 | 91 | 19746 | 5.00 | 5.34 | |
| 79 2-Hexanone | 43 | 9.656 | 9.656 | 0.000 | 96 | 27957 | 25.0 | 22.1 | |
| 81 Chlorodibromomethane | 129 | 9.826 | 9.826 | 0.000 | 88 | 4662 | 5.00 | 3.41 | |
| 82 Ethylene Dibromide | 107 | 9.942 | 9.942 | 0.000 | 93 | 8796 | 5.00 | 4.97 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.392 | 0.000 | 56 | 18146 | 5.00 | 5.86 | |
| 84 Chlorobenzene | 112 | 10.429 | 10.429 | 0.000 | 93 | 33099 | 5.00 | 5.56 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.490 | 10.483 | 0.007 | 96 | 15713 | 5.00 | 5.47 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.514 | 10.520 | -0.006 | 40 | 6472 | 5.00 | 3.97 | |
| 87 Ethylbenzene | 106 | 10.532 | 10.526 | 0.006 | 98 | 17773 | 5.00 | 5.30 | |
| 88 m-Xylene & p-Xylene | 106 | 10.654 | 10.660 | -0.006 | 97 | 21283 | 5.00 | 5.11 | |
| 89 o-Xylene | 106 | 11.037 | 11.043 | -0.006 | 96 | 20074 | 5.00 | 4.82 | |
| 90 Styrene | 104 | 11.061 | 11.061 | 0.000 | 93 | 28385 | 5.00 | 4.44 | |
| 91 Bromoform | 173 | 11.244 | 11.244 | 0.000 | 35 | 2602 | 5.00 | 3.57 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.305 | 11.305 | 0.000 | 92 | 16686 | 5.00 | 5.26 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.408 | 0.000 | 96 | 49505 | 5.00 | 4.97 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.712 | 11.712 | 0.000 | 73 | 13623 | 5.00 | 5.09 | |
| 95 Bromobenzene | 156 | 11.724 | 11.725 | -0.001 | 96 | 12814 | 5.00 | 5.07 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.749 | 11.749 | 0.000 | 51 | 3433 | 5.00 | 4.28 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.767 | 0.006 | 83 | 4898 | 5.00 | 5.10 | |
| 99 N-Propylbenzene | 120 | 11.822 | 11.828 | -0.006 | 99 | 13092 | 5.00 | 4.50 | |
| 100 2-Chlorotoluene | 126 | 11.919 | 11.913 | 0.006 | 93 | 11155 | 5.00 | 4.62 | |
| 101 3-Chlorotoluene | 126 | 11.980 | 11.980 | 0.000 | 97 | 11861 | 5.00 | 4.67 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.010 | 12.010 | 0.000 | 93 | 43612 | 5.00 | 4.61 | |
| 103 4-Chlorotoluene | 126 | 12.035 | 12.041 | -0.006 | 98 | 12056 | 5.00 | 4.72 | |
| 104 tert-Butylbenzene | 119 | 12.321 | 12.321 | 0.000 | 92 | 34048 | 5.00 | 4.55 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.381 | 12.382 | -0.001 | 98 | 41890 | 5.00 | 4.33 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.418 | 12.418 | 0.000 | 96 | 14947 | 5.00 | 5.45 | |
| 108 sec-Butylbenzene | 105 | 12.546 | 12.546 | 0.000 | 96 | 50094 | 5.00 | 4.49 | |
| 109 1,3-Dichlorobenzene | 146 | 12.661 | 12.667 | -0.006 | 88 | 25334 | 5.00 | 5.13 | |
| 110 4-Isopropyltoluene | 119 | 12.704 | 12.704 | 0.000 | 95 | 40061 | 5.00 | 4.28 | |
| 111 1,4-Dichlorobenzene | 146 | 12.771 | 12.771 | 0.000 | 88 | 25908 | 5.00 | 5.13 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.789 | 12.789 | 0.000 | 92 | 13852 | 5.00 | 5.08 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.832 | 12.832 | 0.000 | 94 | 17529 | 5.00 | 5.75 | |
| 116 n-Butylbenzene | 91 | 13.111 | 13.112 | -0.001 | 98 | 43104 | 5.00 | 4.61 | |
| 117 1,2-Dichlorobenzene | 146 | 13.130 | 13.124 | 0.006 | 93 | 27271 | 5.00 | 5.47 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.921 | 13.921 | 0.000 | 62 | 1637 | 5.00 | 3.58 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.054 | 14.061 | -0.007 | 98 | 64430 | 15.0 | 14.8 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.480 | 14.474 | 0.006 | 97 | 44720 | 10.0 | 9.34 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.742 | 14.736 | 0.006 | 88 | 18465 | 5.00 | 4.78 | |
| 123 Hexachlorobutadiene | 225 | 14.888 | 14.888 | 0.000 | 91 | 7049 | 5.00 | 4.63 | |
| 124 Naphthalene | 128 | 15.010 | 15.004 | 0.006 | 97 | 30879 | 5.00 | 3.96 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.229 | 15.229 | 0.000 | 92 | 18575 | 5.00 | 5.14 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.013 | 16.007 | 0.006 | 0 | 10257 | 5.00 | 4.23 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.111 | 16.111 | 0.000 | 93 | 10609 | 5.00 | 4.61 | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 10.0 | 10.2 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 10.0 | 9.93 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 10.0 | 7.03 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260SURR_00039 | Amount Added: 0.20 | Units: uL | |
| VOA8260VOAPRI_00134 | Amount Added: 0.20 | Units: uL | |
| voaWVA1st Res_00003 | Amount Added: 0.20 | Units: uL | |
| voaWeemix1Res_00001 | Amount Added: 0.20 | Units: uL | |
| voaWket1Reste_00001 | Amount Added: 0.80 | Units: uL | |
| voaWAcro2nd R_00006 | Amount Added: 4.00 | Units: uL | |
| VOA8260INT_00039 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D

Injection Date: 31-Jul-2015 18:02:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

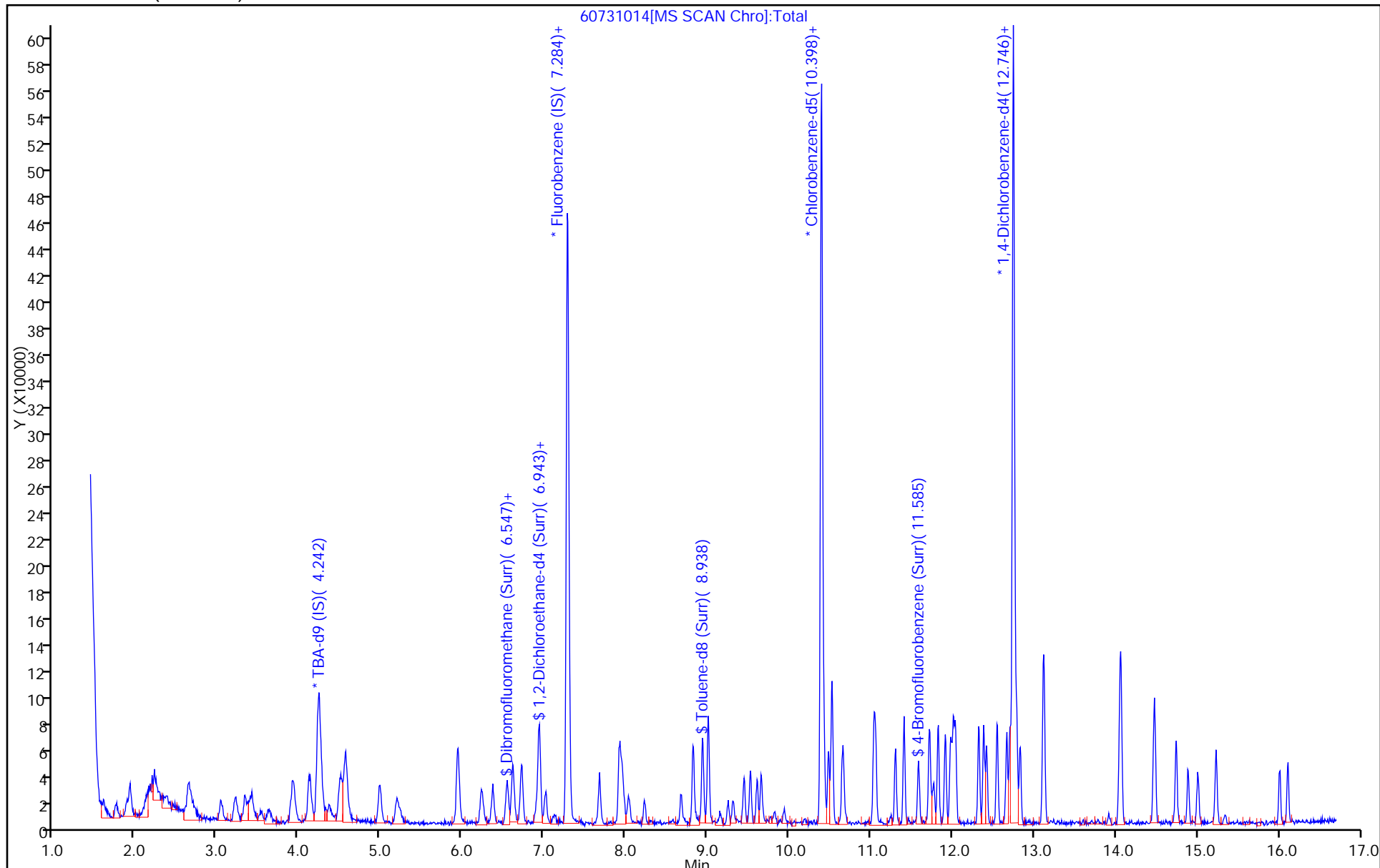
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



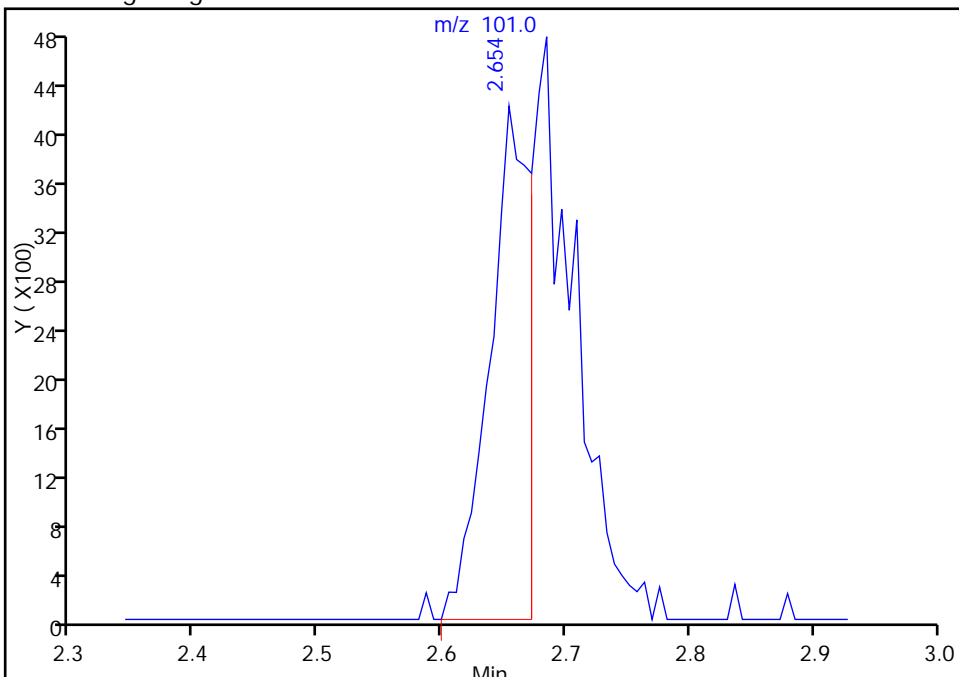
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

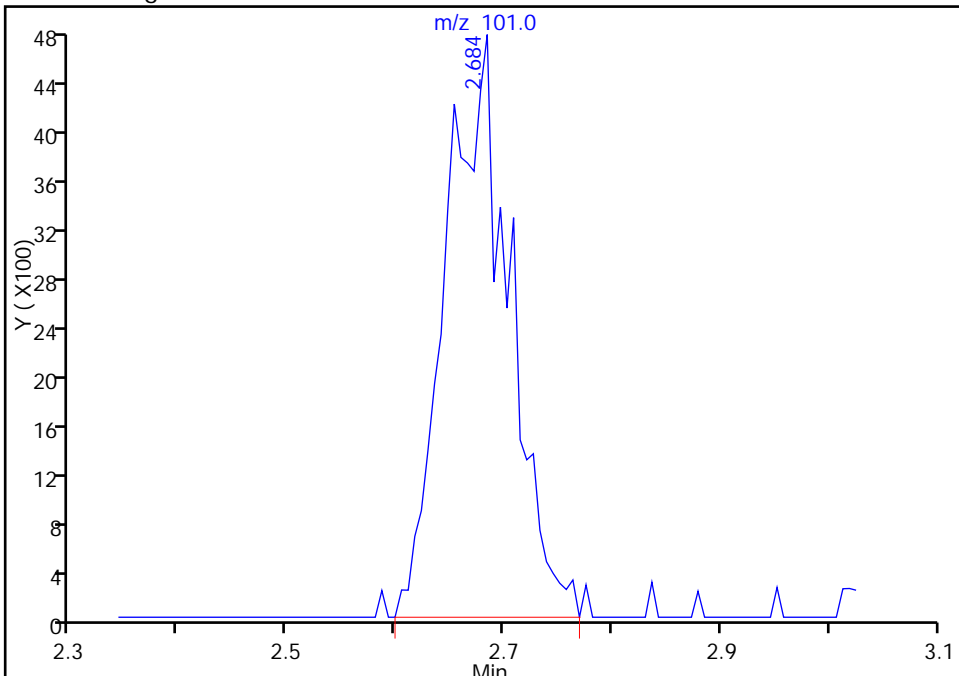
RT: 2.65
Area: 9483
Amount: 2.504798
Amount Units: ng

Processing Integration Results



RT: 2.68
Area: 19389
Amount: 5.214616
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

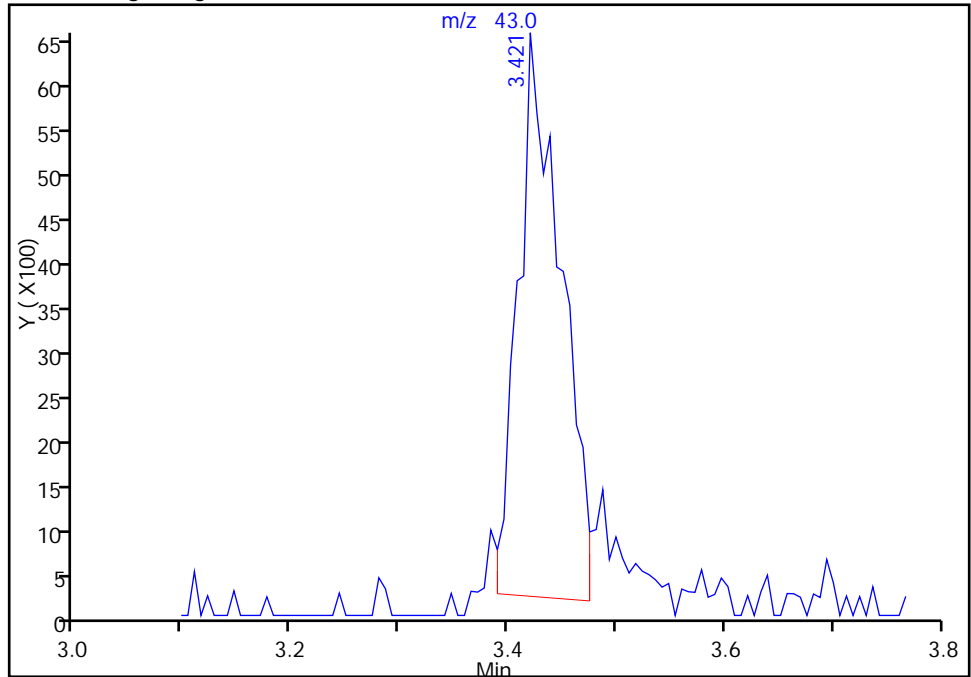
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

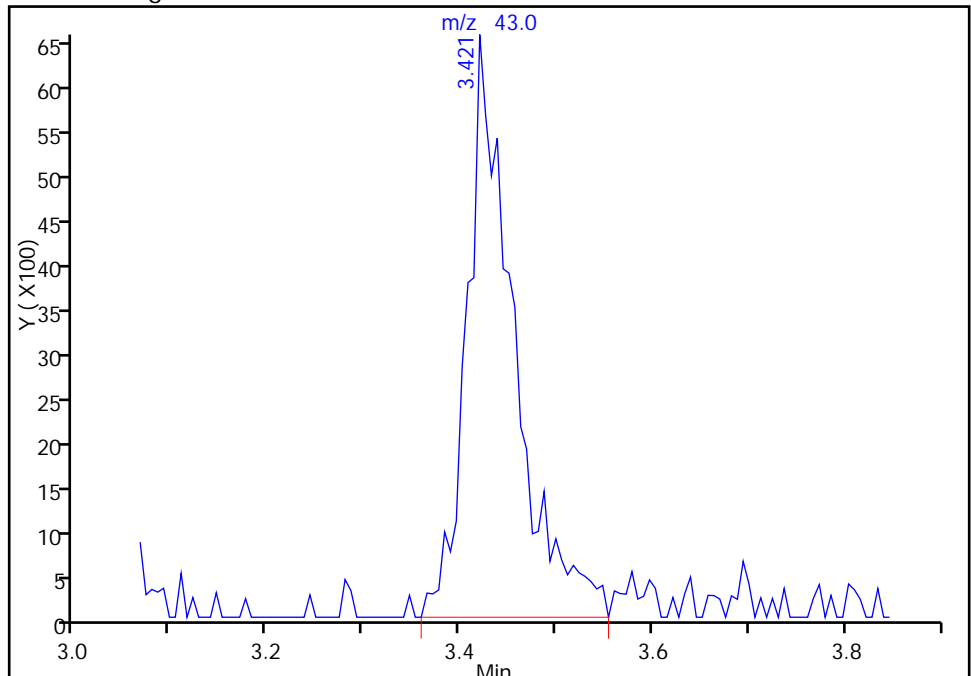
RT: 3.42
Area: 17621
Amount: 21.931508
Amount Units: ng

Processing Integration Results



RT: 3.42
Area: 22203
Amount: 27.489890
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

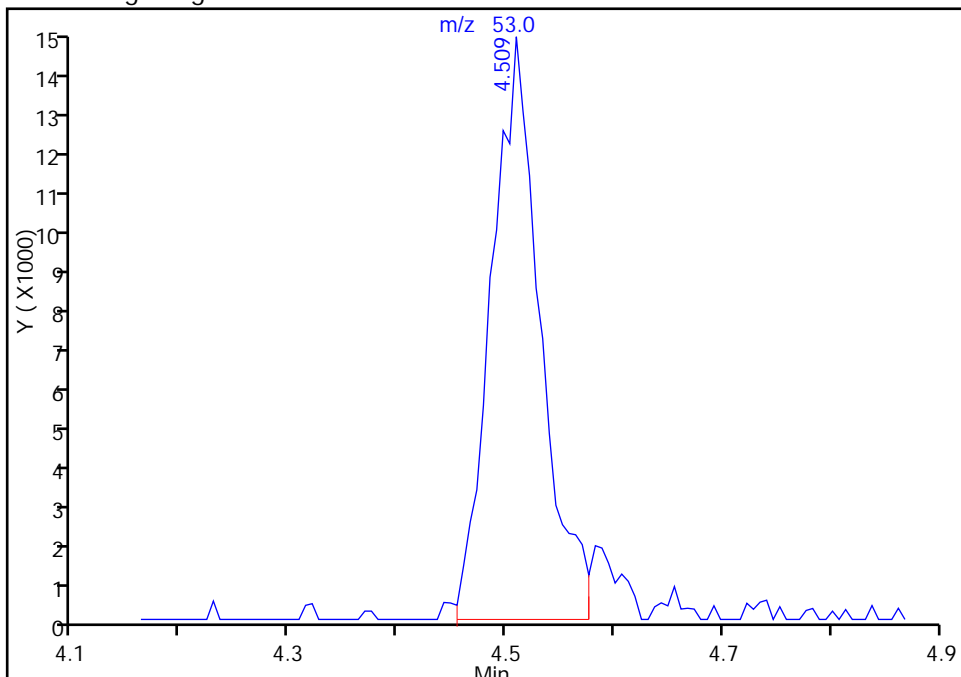
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1

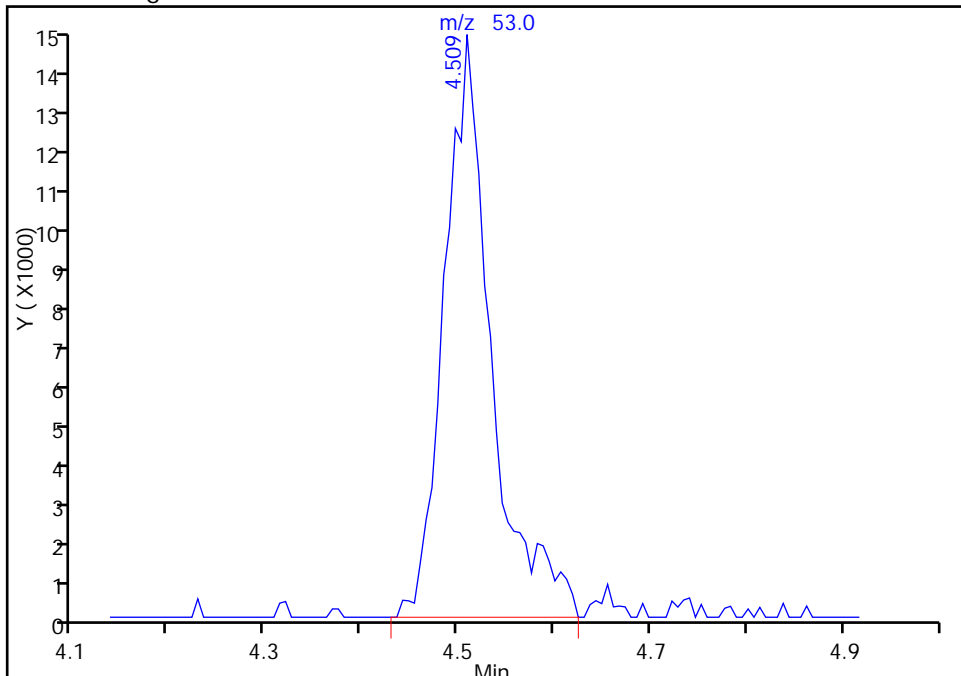
RT: 4.51
Area: 45326
Amount: 48.323975
Amount Units: ng

Processing Integration Results



RT: 4.51
Area: 48723
Amount: 51.033411
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

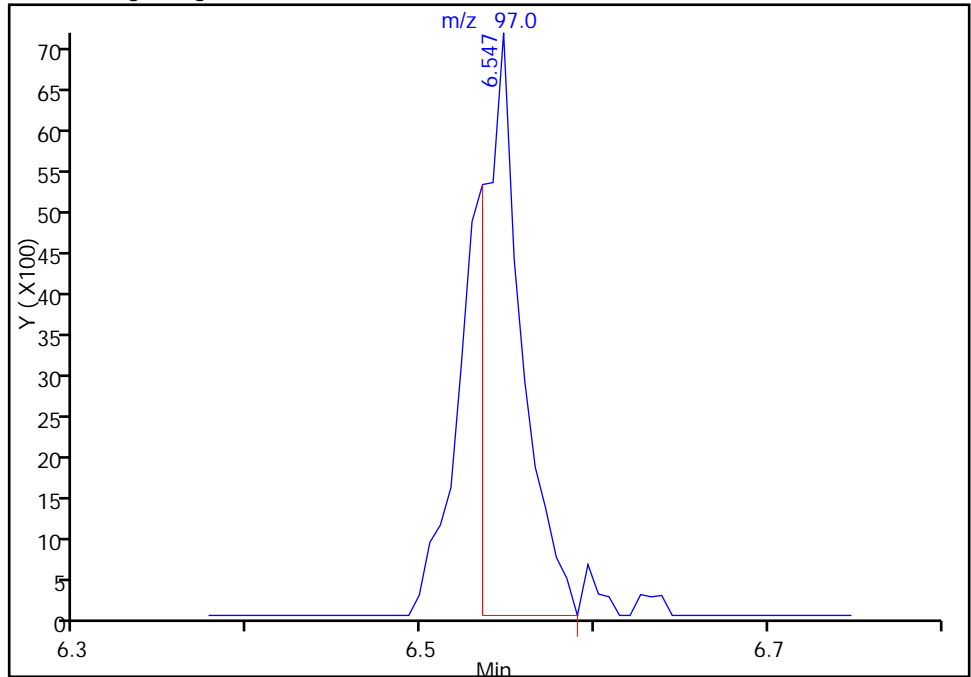
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6

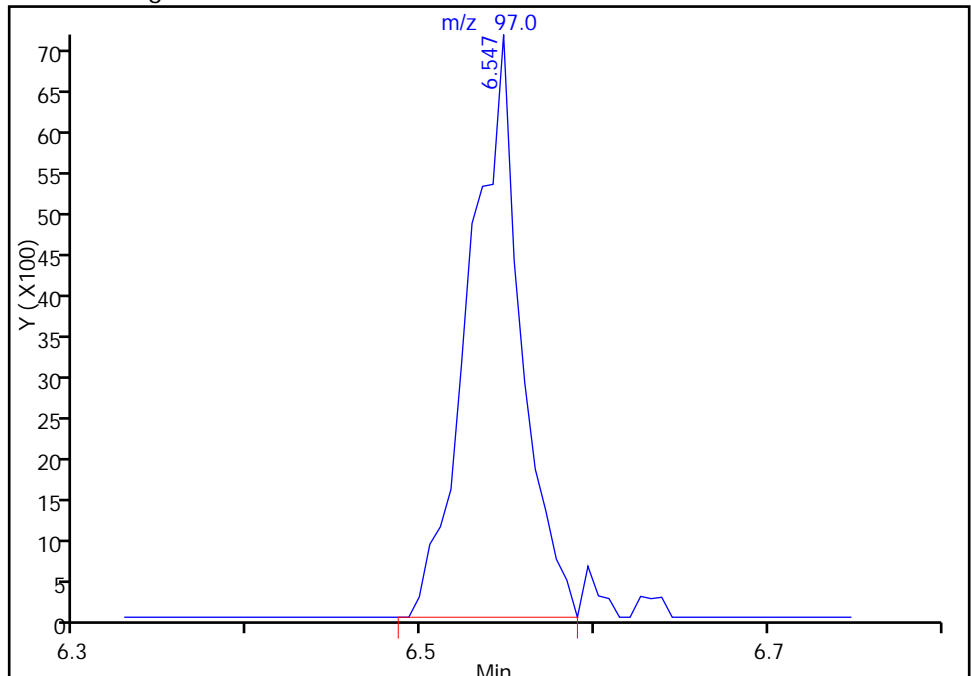
RT: 6.55
Area: 10745
Amount: 3.045023
Amount Units: ng

Processing Integration Results



RT: 6.55
Area: 15055
Amount: 4.323691
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

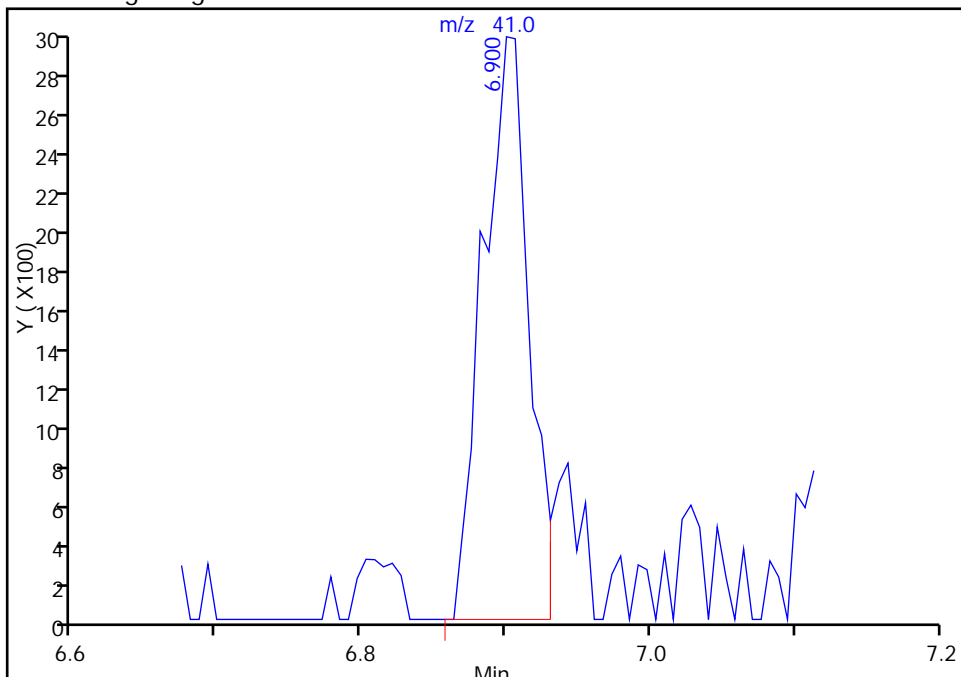
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

55 Isobutyl alcohol, CAS: 78-83-1

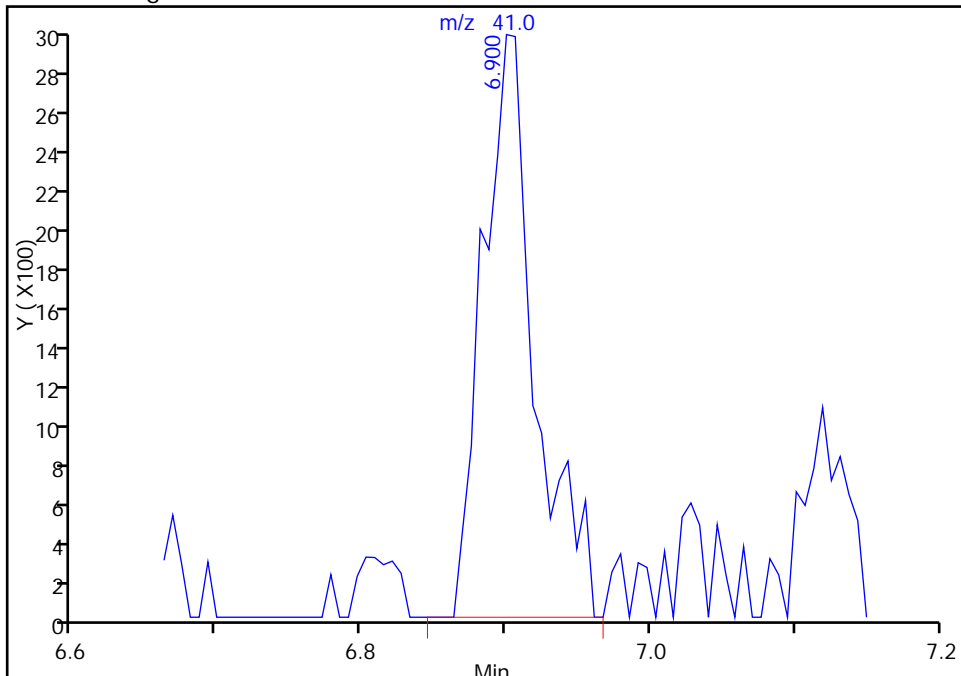
RT: 6.90
Area: 6443
Amount: 97.511814
Amount Units: ng

Processing Integration Results



RT: 6.90
Area: 7317
Amount: 110.7809
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155766/2 Calibration Date: 10/03/2015 12:18
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51003002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---------------------------------------|------------|---------|--------|---------|-------------|--------------|-------|--------|
| Dichlorodifluoromethane | Ave | 0.2825 | 0.3394 | 0.1000 | 12.0 | 10.0 | 20.1* | 20.0 |
| Chloromethane | Ave | 0.4148 | 0.4712 | 0.1000 | 11.4 | 10.0 | 13.6 | 20.0 |
| Vinyl chloride | Ave | 0.3679 | 0.3779 | 0.1000 | 10.3 | 10.0 | 2.7 | 20.0 |
| 1,3-Butadiene | Ave | 0.4345 | 0.5022 | 0.0100 | 11.6 | 10.0 | 15.6 | 20.0 |
| Bromomethane | Ave | 0.1497 | 0.1661 | 0.0500 | 11.1 | 10.0 | 10.9 | 20.0 |
| Chloroethane | Ave | 0.2220 | 0.2042 | 0.0500 | 9.20 | 10.0 | -8.0 | 20.0 |
| Dichlorofluoromethane | Ave | 0.4709 | 0.4515 | 0.0100 | 9.59 | 10.0 | -4.1 | 20.0 |
| Trichlorofluoromethane | Ave | 0.3523 | 0.3757 | 0.1000 | 10.7 | 10.0 | 6.6 | 20.0 |
| Ethyl ether | Ave | 0.3265 | 0.2995 | 0.0100 | 9.17 | 10.0 | -8.3 | 20.0 |
| Acrolein | Ave | 0.0486 | 0.0431 | 0.0100 | 26.6 | 30.0 | -11.4 | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2785 | 0.2860 | 0.1000 | 10.3 | 10.0 | 2.7 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2951 | 0.3049 | 0.1000 | 10.3 | 10.0 | 3.3 | 20.0 |
| Acetone | Ave | 0.1009 | 0.1031 | 0.0500 | 20.4 | 20.0 | 2.2 | 20.0 |
| Iodomethane | Ave | 0.4150 | 0.4277 | 0.0100 | 10.3 | 10.0 | 3.1 | 20.0 |
| Carbon disulfide | Ave | 0.6466 | 0.5790 | 0.1000 | 8.95 | 10.0 | -10.5 | 20.0 |
| Allyl chloride | Ave | 0.1577 | 0.1442 | 0.0100 | 9.15 | 10.0 | -8.5 | 20.0 |
| Methyl acetate | Ave | 0.3015 | 0.3018 | 0.1000 | 50.1 | 50.0 | 0.1 | 20.0 |
| Methylene Chloride | Lin2 | | 0.3205 | 0.1000 | 9.77 | 10.0 | -2.3 | 20.0 |
| tert-Butyl alcohol | Ave | 1.126 | 1.027 | 0.0100 | 91.3 | 100 | -8.7 | 20.0 |
| Acrylonitrile | Ave | 0.1463 | 0.1449 | 0.0100 | 99.0 | 100 | -1.0 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.3024 | 0.2924 | 0.1000 | 9.67 | 10.0 | -3.3 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.6999 | 0.6238 | 0.1000 | 8.91 | 10.0 | -10.9 | 20.0 |
| Hexane | Ave | 0.5076 | 0.5218 | 0.0100 | 10.3 | 10.0 | 2.8 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.5957 | 0.5582 | 0.2000 | 9.37 | 10.0 | -6.3 | 20.0 |
| Vinyl acetate | Ave | 0.4469 | 0.5944 | 0.0100 | 13.3 | 10.0 | 33.0* | 20.0 |
| 2,2-Dichloropropane | Ave | 0.2387 | 0.1998 | 0.0100 | 8.37 | 10.0 | -16.3 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.3230 | 0.3035 | 0.1000 | 9.39 | 10.0 | -6.1 | 20.0 |
| 2-Butanone (MEK) | Ave | 0.1516 | 0.1457 | 0.0500 | 19.2 | 20.0 | -3.9 | 20.0 |
| Bromochloromethane | Ave | 0.1418 | 0.1422 | 0.0100 | 10.0 | 10.0 | 0.2 | 20.0 |
| Tetrahydrofuran | Ave | 0.1216 | 0.1100 | 0.0100 | 18.1 | 20.0 | -9.6 | 20.0 |
| Chloroform | Ave | 0.5146 | 0.4760 | 0.2000 | 9.25 | 10.0 | -7.5 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.3805 | 0.3584 | 0.1000 | 9.42 | 10.0 | -5.8 | 20.0 |
| Cyclohexane | Ave | 0.6367 | 0.6092 | 0.1000 | 9.57 | 10.0 | -4.3 | 20.0 |
| Carbon tetrachloride | Ave | 0.3240 | 0.3072 | 0.1000 | 9.48 | 10.0 | -5.2 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.4208 | 0.4035 | 0.0100 | 9.59 | 10.0 | -4.1 | 20.0 |
| Isobutyl alcohol | Ave | 0.0095 | 0.0101 | 0.0100 | 265 | 250 | 6.1 | 20.0 |
| Benzene | Ave | 1.233 | 1.222 | 0.5000 | 9.91 | 10.0 | -0.9 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.4264 | 0.3871 | 0.1000 | 9.08 | 10.0 | -9.2 | 20.0 |
| n-Heptane | Ave | 0.4611 | 0.5005 | 0.0100 | 10.9 | 10.0 | 8.5 | 20.0 |
| Trichloroethene | Ave | 0.3016 | 0.3113 | 0.2000 | 10.3 | 10.0 | 3.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155766/2 Calibration Date: 10/03/2015 12:18
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51003002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|------------------------------|------------|---------|---------|---------|-------------|--------------|--------|--------|
| Methylcyclohexane | Ave | 0.4753 | 0.4687 | 0.1000 | 9.86 | 10.0 | -1.4 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.3235 | 0.3130 | 0.1000 | 9.67 | 10.0 | -3.3 | 20.0 |
| 1,4-Dioxane | Ave | 0.0022 | 0.0027* | 0.0100 | 238 | 200 | 19.0 | 20.0 |
| Dibromomethane | Ave | 0.1642 | 0.1560 | 0.0100 | 9.50 | 10.0 | -5.0 | 20.0 |
| Bromodichloromethane | Ave | 0.3249 | 0.2876 | 0.2000 | 8.85 | 10.0 | -11.5 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.3807 | 0.3252 | 0.2000 | 8.54 | 10.0 | -14.6 | 20.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 1.232 | 1.135 | 0.1000 | 18.4 | 20.0 | -7.9 | 20.0 |
| Toluene | Ave | 4.950 | 5.268 | 0.4000 | 10.6 | 10.0 | 6.4 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 1.292 | 1.193 | 0.1000 | 9.23 | 10.0 | -7.7 | 20.0 |
| Ethyl methacrylate | Ave | 1.249 | 1.138 | 0.0100 | 9.11 | 10.0 | -8.9 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.9416 | 0.9758 | 0.1000 | 10.4 | 10.0 | 3.6 | 20.0 |
| Tetrachloroethene | Ave | 0.9609 | 1.080 | 0.2000 | 11.2 | 10.0 | 12.4 | 20.0 |
| 1,3-Dichloropropane | Ave | 1.748 | 1.686 | 0.0100 | 9.64 | 10.0 | -3.6 | 20.0 |
| 2-Hexanone | Ave | 0.8893 | 0.8267 | 0.1000 | 18.6 | 20.0 | -7.0 | 20.0 |
| Dibromochloromethane | Ave | 0.8152 | 0.8137 | 0.1000 | 9.98 | 10.0 | -0.2 | 20.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.9073 | 0.9255 | 0.1000 | 10.2 | 10.0 | 2.0 | 20.0 |
| 3-Chlorobenzotrifluoride | Ave | 1.591 | 1.813 | 0.0100 | 11.4 | 10.0 | 14.0 | 20.0 |
| Chlorobenzene | Ave | 3.187 | 3.360 | 0.5000 | 10.5 | 10.0 | 5.4 | 20.0 |
| 4-Chlorobenzotrifluoride | Ave | 1.504 | 1.706 | 0.0100 | 11.3 | 10.0 | 13.4 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 1.039 | 1.031 | 0.0100 | 9.92 | 10.0 | -0.8 | 20.0 |
| Ethylbenzene | Ave | 1.690 | 1.801 | 0.1000 | 10.7 | 10.0 | 6.6 | 20.0 |
| m-Xylene & p-Xylene | Ave | 2.072 | 2.237 | 0.1000 | 10.8 | 10.0 | 8.0 | 20.0 |
| o-Xylene | Ave | 1.969 | 2.084 | 0.3000 | 10.6 | 10.0 | 5.8 | 20.0 |
| Styrene | Ave | 3.262 | 3.514 | 0.3000 | 10.8 | 10.0 | 7.7 | 20.0 |
| Bromoform | Ave | 0.4652 | 0.4402 | 0.1000 | 9.46 | 10.0 | -5.4 | 20.0 |
| 2-Chlorobenzotrifluoride | Ave | 1.565 | 1.686 | 0.0100 | 10.8 | 10.0 | 7.7 | 20.0 |
| Isopropylbenzene | Ave | 4.822 | 5.174 | 0.1000 | 10.7 | 10.0 | 7.3 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 1.270 | 1.305 | 0.3000 | 10.3 | 10.0 | 2.8 | 20.0 |
| Bromobenzene | Ave | 0.8583 | 0.8994 | 0.0100 | 10.5 | 10.0 | 4.8 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.3103 | 0.2050 | 0.0100 | 6.61 | 10.0 | -33.9* | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.2831 | 0.2894 | 0.0100 | 10.2 | 10.0 | 2.2 | 20.0 |
| N-Propylbenzene | Ave | 0.9825 | 0.9931 | 0.0100 | 10.1 | 10.0 | 1.1 | 20.0 |
| 2-Chlorotoluene | Ave | 0.8351 | 0.8711 | 0.0100 | 10.4 | 10.0 | 4.3 | 20.0 |
| 3-Chlorotoluene | Ave | 0.8583 | 0.9243 | 0.0100 | 10.8 | 10.0 | 7.7 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.776 | 2.913 | 0.0100 | 10.5 | 10.0 | 4.9 | 20.0 |
| 4-Chlorotoluene | Ave | 0.9190 | 0.9304 | 0.0100 | 10.1 | 10.0 | 1.2 | 20.0 |
| tert-Butylbenzene | Ave | 2.257 | 2.311 | 0.0100 | 10.2 | 10.0 | 2.4 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.781 | 2.878 | 0.0100 | 10.3 | 10.0 | 3.5 | 20.0 |
| 3,4-Dichlorobenzotrifluoride | Ave | 0.7754 | 0.8040 | 0.0100 | 10.4 | 10.0 | 3.7 | 20.0 |
| sec-Butylbenzene | Ave | 3.187 | 3.352 | 0.0100 | 10.5 | 10.0 | 5.2 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.528 | 1.668 | 0.6000 | 10.9 | 10.0 | 9.1 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155766/2 Calibration Date: 10/03/2015 12:18
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51003002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|-----------------------------------|------------|---------|--------|---------|-------------|--------------|-------|--------|
| 4-Isopropyltoluene | Ave | 2.696 | 2.886 | 0.0100 | 10.7 | 10.0 | 7.0 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.590 | 1.691 | 0.5000 | 10.6 | 10.0 | 6.4 | 20.0 |
| 2,4-Dichlorobenzotrifluoride | Ave | 0.7185 | 0.7235 | 0.0100 | 10.1 | 10.0 | 0.7 | 20.0 |
| 2,5-Dichlorobenzotrifluoride | Ave | 0.7765 | 0.7957 | 0.0100 | 10.2 | 10.0 | 2.5 | 20.0 |
| n-Butylbenzene | Ave | 2.307 | 2.259 | 0.0100 | 9.79 | 10.0 | -2.1 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.428 | 1.521 | 0.4000 | 10.7 | 10.0 | 6.5 | 20.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1173 | 0.1125 | 0.0500 | 9.59 | 10.0 | -4.1 | 20.0 |
| 2,4- & 2,5- & 2,6-Dichlorotoluene | Ave | 0.8157 | 0.9200 | 0.0100 | 33.8 | 30.0 | 12.8 | 20.0 |
| 2,3- & 3,4- Dichlorotoluene | Ave | 0.7778 | 0.8686 | 0.0100 | 22.3 | 20.0 | 11.7 | 20.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.5557 | 0.6213 | 0.2000 | 11.2 | 10.0 | 11.8 | 20.0 |
| Hexachlorobutadiene | Ave | 0.2677 | 0.3033 | 0.0100 | 11.3 | 10.0 | 13.3 | 20.0 |
| Naphthalene | Ave | 1.428 | 1.578 | 0.0100 | 11.1 | 10.0 | 10.5 | 20.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.4498 | 0.5034 | 0.0100 | 11.2 | 10.0 | 11.9 | 20.0 |
| 2,4,5-Trichlorotoluene | Ave | 0.1623 | 0.1580 | 0.0100 | 9.74 | 10.0 | -2.6 | 20.0 |
| 2,3,6-Trichlorotoluene | Ave | 0.1496 | 0.1766 | 0.0100 | 11.8 | 10.0 | 18.0 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2455 | 0.2343 | | 9.54 | 10.0 | -4.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3373 | 0.2995 | | 8.88 | 10.0 | -11.2 | 20.0 |
| Toluene-d8 (Surr) | Ave | 3.857 | 4.095 | | 10.6 | 10.0 | 6.2 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 1.455 | 1.399 | | 9.61 | 10.0 | -3.9 | 20.0 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003002.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 03-Oct-2015 12:18:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 180-0008807-002
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 13:06:39 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 12:35:34

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.283 | 4.283 | 0.000 | 0 | 130763 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.289 | 0.000 | 98 | 372851 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.385 | 10.385 | 0.000 | 87 | 90914 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.727 | 12.727 | 0.000 | 92 | 139552 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.565 | 0.000 | 93 | 87355 | 50.0 | 47.7 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.936 | 6.936 | 0.000 | 0 | 111678 | 50.0 | 44.4 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.937 | 8.937 | 0.000 | 94 | 372315 | 50.0 | 53.1 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.571 | 11.571 | 0.000 | 90 | 127162 | 50.0 | 48.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.607 | 1.607 | 0.000 | 99 | 126526 | 50.0 | 60.1 | |
| 12 Chloromethane | 50 | 1.771 | 1.771 | 0.000 | 100 | 175685 | 50.0 | 56.8 | |
| 13 Vinyl chloride | 62 | 1.905 | 1.905 | 0.000 | 98 | 140915 | 50.0 | 51.4 | |
| 14 Butadiene | 39 | 1.941 | 1.941 | 0.000 | 97 | 187247 | 50.0 | 57.8 | |
| 15 Bromomethane | 94 | 2.239 | 2.239 | 0.000 | 90 | 61912 | 50.0 | 55.5 | |
| 16 Chloroethane | 64 | 2.391 | 2.391 | 0.000 | 98 | 76127 | 50.0 | 46.0 | |
| 17 Dichlorofluoromethane | 67 | 2.665 | 2.665 | 0.000 | 97 | 168337 | 50.0 | 47.9 | |
| 18 Trichlorofluoromethane | 101 | 2.702 | 2.702 | 0.000 | 95 | 140062 | 50.0 | 53.3 | |
| 20 Ethyl ether | 59 | 3.048 | 3.048 | 0.000 | 98 | 111656 | 50.0 | 45.9 | |
| 21 Acrolein | 56 | 3.231 | 3.231 | 0.000 | 97 | 48183 | 150.0 | 132.8 | |
| 22 1,1-Dichloroethene | 96 | 3.346 | 3.346 | 0.000 | 96 | 106648 | 50.0 | 51.4 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.407 | 3.407 | 0.000 | 92 | 113672 | 50.0 | 51.7 | |
| 24 Acetone | 43 | 3.444 | 3.444 | 0.000 | 92 | 76879 | 100.0 | 102.2 | |
| 25 Iodomethane | 142 | 3.553 | 3.553 | 0.000 | 96 | 159480 | 50.0 | 51.5 | |
| 26 Carbon disulfide | 76 | 3.638 | 3.638 | 0.000 | 100 | 215883 | 50.0 | 44.8 | |
| 28 3-Chloro-1-propene | 76 | 3.918 | 3.918 | 0.000 | 88 | 53781 | 50.0 | 45.7 | |
| 30 Methyl acetate | 43 | 3.937 | 3.937 | 0.000 | 99 | 562676 | 250.0 | 250.3 | |
| 31 Methylene Chloride | 84 | 4.137 | 4.137 | 0.000 | 98 | 119482 | 50.0 | 48.8 | |
| 32 2-Methyl-2-propanol | 59 | 4.405 | 4.405 | 0.000 | 86 | 67169 | 500.0 | 456.4 | |
| 33 Acrylonitrile | 53 | 4.527 | 4.527 | 0.000 | 98 | 540164 | 500.0 | 495.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.563 | 4.563 | 0.000 | 97 | 109021 | 50.0 | 48.4 | |
| 35 Methyl tert-butyl ether | 73 | 4.581 | 4.581 | 0.000 | 95 | 232588 | 50.0 | 44.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.989 | 4.989 | 0.000 | 95 | 194548 | 50.0 | 51.4 | |
| 37 1,1-Dichloroethane | 63 | 5.202 | 5.202 | 0.000 | 96 | 208111 | 50.0 | 46.9 | |
| 38 Vinyl acetate | 43 | 5.251 | 5.251 | 0.000 | 97 | 221625 | 50.0 | 66.5 | |
| 44 2,2-Dichloropropane | 77 | 5.944 | 5.944 | 0.000 | 59 | 74483 | 50.0 | 41.8 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.950 | 5.950 | 0.000 | 85 | 113151 | 50.0 | 47.0 | |
| 46 2-Butanone (MEK) | 43 | 5.962 | 5.962 | 0.000 | 98 | 108636 | 100.0 | 96.1 | |
| 49 Chlorobromomethane | 128 | 6.236 | 6.236 | 0.000 | 93 | 53018 | 50.0 | 50.1 | |
| 51 Tetrahydrofuran | 42 | 6.248 | 6.248 | 0.000 | 90 | 81995 | 100.0 | 90.4 | |
| 52 Chloroform | 83 | 6.382 | 6.382 | 0.000 | 96 | 177462 | 50.0 | 46.2 | |
| 53 1,1,1-Trichloroethane | 97 | 6.540 | 6.540 | 0.000 | 96 | 133639 | 50.0 | 47.1 | |
| 54 Cyclohexane | 56 | 6.613 | 6.613 | 0.000 | 95 | 227142 | 50.0 | 47.8 | |
| 56 Carbon tetrachloride | 117 | 6.717 | 6.717 | 0.000 | 97 | 114547 | 50.0 | 47.4 | |
| 55 1,1-Dichloropropene | 75 | 6.735 | 6.735 | 0.000 | 90 | 150448 | 50.0 | 47.9 | |
| 57 Isobutyl alcohol | 41 | 6.924 | 6.924 | 0.000 | 88 | 94125 | 1250.0 | 1325.6 | |
| 58 Benzene | 78 | 6.942 | 6.942 | 0.000 | 97 | 455562 | 50.0 | 49.6 | |
| 59 1,2-Dichloroethane | 62 | 7.021 | 7.021 | 0.000 | 96 | 144314 | 50.0 | 45.4 | |
| 62 n-Heptane | 43 | 7.307 | 7.307 | 0.000 | 97 | 186615 | 50.0 | 54.3 | |
| 64 Trichloroethene | 130 | 7.678 | 7.678 | 0.000 | 95 | 116079 | 50.0 | 51.6 | |
| 66 Methylcyclohexane | 83 | 7.915 | 7.915 | 0.000 | 95 | 174741 | 50.0 | 49.3 | |
| 67 1,2-Dichloropropane | 63 | 7.946 | 7.946 | 0.000 | 95 | 116692 | 50.0 | 48.4 | |
| 68 Dibromomethane | 93 | 8.037 | 8.037 | 0.000 | 93 | 58166 | 50.0 | 47.5 | |
| 70 1,4-Dioxane | 88 | 8.037 | 8.037 | 0.000 | 38 | 19795 | 1000.0 | 1190.2 | M |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.232 | 0.000 | 97 | 107244 | 50.0 | 44.3 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.676 | 8.676 | 0.000 | 90 | 121261 | 50.0 | 42.7 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.828 | 8.828 | 0.000 | 99 | 206329 | 100.0 | 92.1 | |
| 76 Toluene | 91 | 9.004 | 9.004 | 0.000 | 98 | 478935 | 50.0 | 53.2 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.254 | 9.254 | 0.000 | 98 | 108446 | 50.0 | 46.2 | |
| 78 Ethyl methacrylate | 69 | 9.308 | 9.308 | 0.000 | 95 | 103484 | 50.0 | 45.6 | |
| 79 1,1,2-Trichloroethane | 97 | 9.442 | 9.442 | 0.000 | 92 | 88712 | 50.0 | 51.8 | |
| 80 Tetrachloroethene | 164 | 9.515 | 9.515 | 0.000 | 98 | 98159 | 50.0 | 56.2 | |
| 81 1,3-Dichloropropane | 76 | 9.600 | 9.600 | 0.000 | 98 | 153269 | 50.0 | 48.2 | |
| 82 2-Hexanone | 43 | 9.655 | 9.655 | 0.000 | 98 | 150323 | 100.0 | 93.0 | |
| 84 Chlorodibromomethane | 129 | 9.819 | 9.819 | 0.000 | 90 | 73972 | 50.0 | 49.9 | |
| 85 Ethylene Dibromide | 107 | 9.929 | 9.929 | 0.000 | 96 | 84137 | 50.0 | 51.0 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.391 | 10.391 | 0.000 | 86 | 164796 | 50.0 | 57.0 | |
| 87 Chlorobenzene | 112 | 10.415 | 10.415 | 0.000 | 96 | 305467 | 50.0 | 52.7 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.476 | 10.476 | 0.000 | 95 | 155069 | 50.0 | 56.7 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.513 | 10.513 | 0.000 | 91 | 93700 | 50.0 | 49.6 | |
| 90 Ethylbenzene | 106 | 10.519 | 10.519 | 0.000 | 99 | 163716 | 50.0 | 53.3 | |
| 91 m-Xylene & p-Xylene | 106 | 10.647 | 10.647 | 0.000 | 0 | 203403 | 50.0 | 54.0 | |
| 92 o-Xylene | 106 | 11.030 | 11.030 | 0.000 | 96 | 189480 | 50.0 | 52.9 | |
| 93 Styrene | 104 | 11.048 | 11.048 | 0.000 | 95 | 319433 | 50.0 | 53.9 | |
| 94 Bromoform | 173 | 11.231 | 11.231 | 0.000 | 95 | 40020 | 50.0 | 47.3 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.298 | 11.298 | 0.000 | 97 | 153268 | 50.0 | 53.9 | |
| 97 Isopropylbenzene | 105 | 11.395 | 11.395 | 0.000 | 96 | 470374 | 50.0 | 53.7 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.705 | 11.705 | 0.000 | 78 | 118669 | 50.0 | 51.4 | |
| 100 Bromobenzene | 156 | 11.711 | 11.711 | 0.000 | 92 | 125513 | 50.0 | 52.4 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.742 | 11.742 | 0.000 | 76 | 28611 | 50.0 | 33.0 | |
| 101 1,2,3-Trichloropropane | 110 | 11.766 | 11.766 | 0.000 | 87 | 40383 | 50.0 | 51.1 | |
| 103 N-Propylbenzene | 120 | 11.815 | 11.815 | 0.000 | 99 | 138593 | 50.0 | 50.5 | |
| 104 2-Chlorotoluene | 126 | 11.900 | 11.900 | 0.000 | 96 | 121567 | 50.0 | 52.2 | |
| 105 3-Chlorotoluene | 126 | 11.967 | 11.967 | 0.000 | 95 | 128992 | 50.0 | 53.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.997 | 11.997 | 0.000 | 94 | 406522 | 50.0 | 52.5 | |
| 107 4-Chlorotoluene | 126 | 12.022 | 12.022 | 0.000 | 97 | 129843 | 50.0 | 50.6 | |
| 108 tert-Butylbenzene | 119 | 12.307 | 12.307 | 0.000 | 95 | 322515 | 50.0 | 51.2 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.368 | 12.368 | 0.000 | 98 | 401602 | 50.0 | 51.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.411 | 12.411 | 0.000 | 97 | 112200 | 50.0 | 51.8 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.533 | 0.000 | 95 | 467835 | 50.0 | 52.6 | |
| 113 1,3-Dichlorobenzene | 146 | 12.648 | 12.648 | 0.000 | 99 | 232711 | 50.0 | 54.6 | |
| 114 4-Isopropyltoluene | 119 | 12.691 | 12.691 | 0.000 | 97 | 402717 | 50.0 | 53.5 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.752 | 0.000 | 95 | 236045 | 50.0 | 53.2 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.782 | 12.782 | 0.000 | 95 | 100969 | 50.0 | 50.4 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.818 | 12.818 | 0.000 | 0 | 111042 | 50.0 | 51.2 | |
| 120 n-Butylbenzene | 91 | 13.098 | 13.098 | 0.000 | 98 | 315245 | 50.0 | 49.0 | |
| 121 1,2-Dichlorobenzene | 146 | 13.110 | 13.110 | 0.000 | 97 | 212279 | 50.0 | 53.3 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.907 | 13.907 | 0.000 | 82 | 15700 | 50.0 | 48.0 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.047 | 14.047 | 0.000 | 0 | 385144 | 150.0 | 169.2 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.461 | 14.461 | 0.000 | 0 | 242437 | 100.0 | 111.7 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.729 | 14.729 | 0.000 | 94 | 86706 | 50.0 | 55.9 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.869 | 0.000 | 97 | 42319 | 50.0 | 56.6 | |
| 128 Naphthalene | 128 | 14.990 | 14.990 | 0.000 | 97 | 220264 | 50.0 | 55.3 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.215 | 15.215 | 0.000 | 97 | 70254 | 50.0 | 56.0 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.994 | 15.994 | 0.000 | 0 | 22051 | 50.0 | 48.7 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.091 | 16.091 | 0.000 | 97 | 24642 | 50.0 | 59.0 | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 106.9 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 95.3 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 88.9 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| voaWKet1stRes_00001 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOAPRI_00147 | Amount Added: 2.00 | Units: uL | |
| VOAVAPRI_00007 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003002.D

Injection Date: 03-Oct-2015 12:18:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

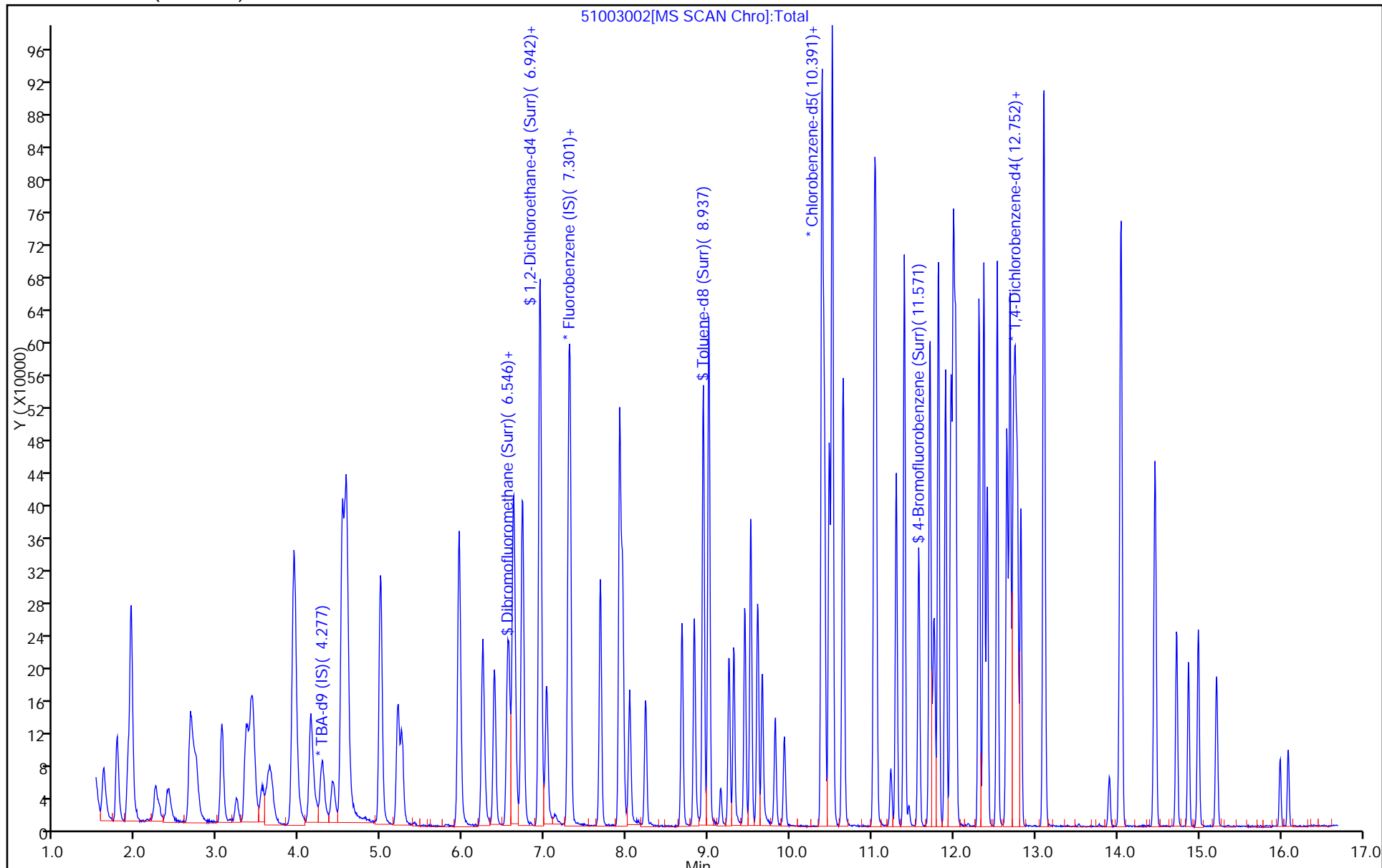
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



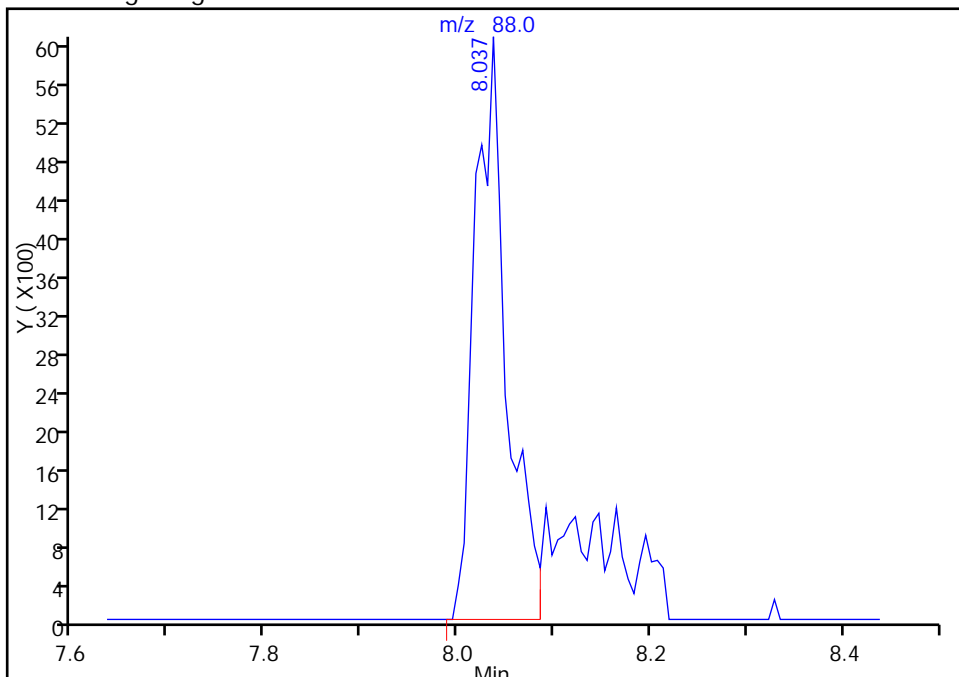
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003002.D
Injection Date: 03-Oct-2015 12:18:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

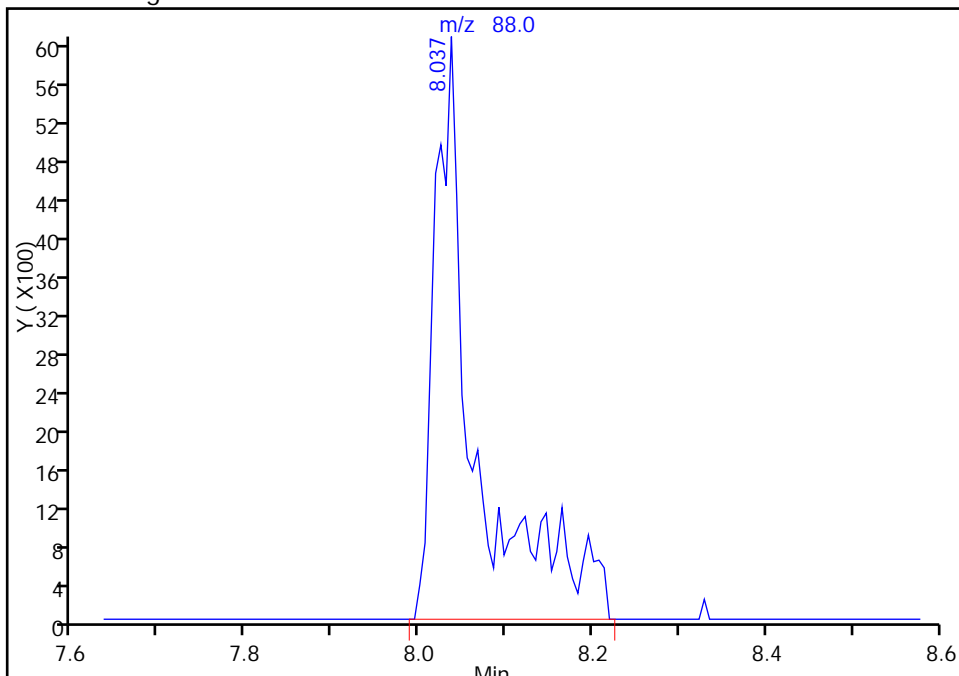
RT: 8.04
Area: 13965
Amount: 839.6677
Amount Units: ng

Processing Integration Results



RT: 8.04
Area: 19795
Amount: 1190.2057
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Oct-2015 12:35:34
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155884/2 Calibration Date: 10/05/2015 10:56
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---------------------------------------|------------|---------|---------|---------|-------------|--------------|--------|--------|
| Dichlorodifluoromethane | Ave | 0.2825 | 0.2953 | 0.1000 | 10.5 | 10.0 | 4.5 | 20.0 |
| Chloromethane | Ave | 0.4148 | 0.4057 | 0.1000 | 9.78 | 10.0 | -2.2 | 20.0 |
| Vinyl chloride | Ave | 0.3679 | 0.3401 | 0.1000 | 9.24 | 10.0 | -7.6 | 20.0 |
| 1,3-Butadiene | Ave | 0.4345 | 0.4422 | 0.0100 | 10.2 | 10.0 | 1.8 | 20.0 |
| Bromomethane | Ave | 0.1497 | 0.1481 | 0.0500 | 9.89 | 10.0 | -1.1 | 20.0 |
| Chloroethane | Ave | 0.2220 | 0.1749 | 0.0500 | 7.88 | 10.0 | -21.2* | 20.0 |
| Dichlorofluoromethane | Ave | 0.4709 | 0.3982 | 0.0100 | 8.45 | 10.0 | -15.5 | 20.0 |
| Trichlorofluoromethane | Ave | 0.3523 | 0.3423 | 0.1000 | 9.72 | 10.0 | -2.8 | 20.0 |
| Ethyl ether | Ave | 0.3265 | 0.2724 | 0.0100 | 8.34 | 10.0 | -16.6 | 20.0 |
| Acrolein | Ave | 0.0486 | 0.0393 | 0.0100 | 24.2 | 30.0 | -19.2 | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2785 | 0.2607 | 0.1000 | 9.36 | 10.0 | -6.4 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2951 | 0.2813 | 0.1000 | 9.53 | 10.0 | -4.7 | 20.0 |
| Acetone | Ave | 0.1009 | 0.0974 | 0.0500 | 19.3 | 20.0 | -3.5 | 20.0 |
| Iodomethane | Ave | 0.4150 | 0.3940 | 0.0100 | 9.49 | 10.0 | -5.1 | 20.0 |
| Carbon disulfide | Ave | 0.6466 | 0.6056 | 0.1000 | 9.36 | 10.0 | -6.4 | 20.0 |
| Allyl chloride | Ave | 0.1577 | 0.1335 | 0.0100 | 8.46 | 10.0 | -15.4 | 20.0 |
| Methyl acetate | Ave | 0.3015 | 0.2915 | 0.1000 | 48.4 | 50.0 | -3.3 | 20.0 |
| Methylene Chloride | Lin2 | | 0.2939 | 0.1000 | 8.86 | 10.0 | -11.4 | 20.0 |
| tert-Butyl alcohol | Ave | 1.126 | 1.180 | 0.0100 | 105 | 100 | 4.9 | 20.0 |
| Acrylonitrile | Ave | 0.1463 | 0.1372 | 0.0100 | 93.8 | 100 | -6.2 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.3024 | 0.2740 | 0.1000 | 9.06 | 10.0 | -9.4 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.6999 | 0.5847 | 0.1000 | 8.35 | 10.0 | -16.5 | 20.0 |
| Hexane | Ave | 0.5076 | 0.4487 | 0.0100 | 8.84 | 10.0 | -11.6 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.5957 | 0.5087 | 0.2000 | 8.54 | 10.0 | -14.6 | 20.0 |
| Vinyl acetate | Ave | 0.4469 | 0.4517 | 0.0100 | 10.1 | 10.0 | 1.1 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.2387 | 0.1941 | 0.0100 | 8.13 | 10.0 | -18.7 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.3230 | 0.2850 | 0.1000 | 8.82 | 10.0 | -11.8 | 20.0 |
| 2-Butanone (MEK) | Ave | 0.1516 | 0.1393 | 0.0500 | 18.4 | 20.0 | -8.1 | 20.0 |
| Bromochloromethane | Ave | 0.1418 | 0.1353 | 0.0100 | 9.54 | 10.0 | -4.6 | 20.0 |
| Tetrahydrofuran | Ave | 0.1216 | 0.1036 | 0.0100 | 17.0 | 20.0 | -14.8 | 20.0 |
| Chloroform | Ave | 0.5146 | 0.4380 | 0.2000 | 8.51 | 10.0 | -14.9 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.3805 | 0.3347 | 0.1000 | 8.80 | 10.0 | -12.0 | 20.0 |
| Cyclohexane | Ave | 0.6367 | 0.5517 | 0.1000 | 8.66 | 10.0 | -13.4 | 20.0 |
| Carbon tetrachloride | Ave | 0.3240 | 0.3088 | 0.1000 | 9.53 | 10.0 | -4.7 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.4208 | 0.3611 | 0.0100 | 8.58 | 10.0 | -14.2 | 20.0 |
| Isobutyl alcohol | Ave | 0.0095 | 0.0093* | 0.0100 | 244 | 250 | -2.3 | 20.0 |
| Benzene | Ave | 1.233 | 1.121 | 0.5000 | 9.09 | 10.0 | -9.1 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.4264 | 0.3541 | 0.1000 | 8.30 | 10.0 | -17.0 | 20.0 |
| n-Heptane | Ave | 0.4611 | 0.4393 | 0.0100 | 9.53 | 10.0 | -4.7 | 20.0 |
| Trichloroethene | Ave | 0.3016 | 0.2864 | 0.2000 | 9.50 | 10.0 | -5.0 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155884/2 Calibration Date: 10/05/2015 10:56
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|------------------------------|------------|---------|---------|---------|-------------|--------------|--------|--------|
| Methylcyclohexane | Ave | 0.4753 | 0.4224 | 0.1000 | 8.89 | 10.0 | -11.1 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.3235 | 0.2920 | 0.1000 | 9.03 | 10.0 | -9.7 | 20.0 |
| 1,4-Dioxane | Ave | 0.0022 | 0.0025* | 0.0100 | 223 | 200 | 11.6 | 20.0 |
| Dibromomethane | Ave | 0.1642 | 0.1413 | 0.0100 | 8.61 | 10.0 | -13.9 | 20.0 |
| Bromodichloromethane | Ave | 0.3249 | 0.2855 | 0.2000 | 8.79 | 10.0 | -12.1 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.3807 | 0.3101 | 0.2000 | 8.15 | 10.0 | -18.5 | 20.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 1.232 | 1.097 | 0.1000 | 17.8 | 20.0 | -11.0 | 20.0 |
| Toluene | Ave | 4.950 | 4.943 | 0.4000 | 9.99 | 10.0 | -0.1 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 1.292 | 1.180 | 0.1000 | 9.13 | 10.0 | -8.7 | 20.0 |
| Ethyl methacrylate | Ave | 1.249 | 1.125 | 0.0100 | 9.01 | 10.0 | -9.9 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.9416 | 0.9255 | 0.1000 | 9.83 | 10.0 | -1.7 | 20.0 |
| Tetrachloroethene | Ave | 0.9609 | 1.020 | 0.2000 | 10.6 | 10.0 | 6.1 | 20.0 |
| 1,3-Dichloropropane | Ave | 1.748 | 1.626 | 0.0100 | 9.30 | 10.0 | -7.0 | 20.0 |
| 2-Hexanone | Ave | 0.8893 | 0.8315 | 0.1000 | 18.7 | 20.0 | -6.5 | 20.0 |
| Dibromochloromethane | Ave | 0.8152 | 0.8893 | 0.1000 | 10.9 | 10.0 | 9.1 | 20.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.9073 | 0.8939 | 0.1000 | 9.85 | 10.0 | -1.5 | 20.0 |
| 3-Chlorobenzotrifluoride | Ave | 1.591 | 1.609 | 0.0100 | 10.1 | 10.0 | 1.2 | 20.0 |
| Chlorobenzene | Ave | 3.187 | 3.128 | 0.5000 | 9.81 | 10.0 | -1.9 | 20.0 |
| 4-Chlorobenzotrifluoride | Ave | 1.504 | 1.570 | 0.0100 | 10.4 | 10.0 | 4.4 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 1.039 | 1.039 | 0.0100 | 10.0 | 10.0 | 0.0 | 20.0 |
| Ethylbenzene | Ave | 1.690 | 1.689 | 0.1000 | 10.0 | 10.0 | -0.0 | 20.0 |
| m-Xylene & p-Xylene | Ave | 2.072 | 2.084 | 0.1000 | 10.1 | 10.0 | 0.6 | 20.0 |
| o-Xylene | Ave | 1.969 | 1.926 | 0.3000 | 9.78 | 10.0 | -2.2 | 20.0 |
| Styrene | Ave | 3.262 | 3.367 | 0.3000 | 10.3 | 10.0 | 3.2 | 20.0 |
| Bromoform | Ave | 0.4652 | 0.4754 | 0.1000 | 10.2 | 10.0 | 2.2 | 20.0 |
| 2-Chlorobenzotrifluoride | Ave | 1.565 | 1.645 | 0.0100 | 10.5 | 10.0 | 5.1 | 20.0 |
| Isopropylbenzene | Ave | 4.822 | 4.842 | 0.1000 | 10.0 | 10.0 | 0.4 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 1.270 | 1.213 | 0.3000 | 9.55 | 10.0 | -4.5 | 20.0 |
| Bromobenzene | Ave | 0.8583 | 0.8418 | 0.0100 | 9.81 | 10.0 | -1.9 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.3103 | 0.1871 | 0.0100 | 6.03 | 10.0 | -39.7* | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.2831 | 0.2651 | 0.0100 | 9.36 | 10.0 | -6.4 | 20.0 |
| N-Propylbenzene | Ave | 0.9825 | 0.9278 | 0.0100 | 9.44 | 10.0 | -5.6 | 20.0 |
| 2-Chlorotoluene | Ave | 0.8351 | 0.8198 | 0.0100 | 9.82 | 10.0 | -1.8 | 20.0 |
| 3-Chlorotoluene | Ave | 0.8583 | 0.8361 | 0.0100 | 9.74 | 10.0 | -2.6 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.776 | 2.720 | 0.0100 | 9.80 | 10.0 | -2.0 | 20.0 |
| 4-Chlorotoluene | Ave | 0.9190 | 0.8995 | 0.0100 | 9.79 | 10.0 | -2.1 | 20.0 |
| tert-Butylbenzene | Ave | 2.257 | 2.175 | 0.0100 | 9.64 | 10.0 | -3.6 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.781 | 2.754 | 0.0100 | 9.90 | 10.0 | -1.0 | 20.0 |
| 3,4-Dichlorobenzotrifluoride | Ave | 0.7754 | 0.7579 | 0.0100 | 9.77 | 10.0 | -2.3 | 20.0 |
| sec-Butylbenzene | Ave | 3.187 | 3.162 | 0.0100 | 9.92 | 10.0 | -0.8 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.528 | 1.602 | 0.6000 | 10.5 | 10.0 | 4.8 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155884/2 Calibration Date: 10/05/2015 10:56
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|-----------------------------------|------------|---------|--------|---------|-------------|--------------|-------|--------|
| 4-Isopropyltoluene | Ave | 2.696 | 2.708 | 0.0100 | 10.0 | 10.0 | 0.5 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.590 | 1.637 | 0.5000 | 10.3 | 10.0 | 3.0 | 20.0 |
| 2,4-Dichlorobenzotrifluoride | Ave | 0.7185 | 0.7165 | 0.0100 | 9.97 | 10.0 | -0.3 | 20.0 |
| 2,5-Dichlorobenzotrifluoride | Ave | 0.7765 | 0.7699 | 0.0100 | 9.92 | 10.0 | -0.8 | 20.0 |
| n-Butylbenzene | Ave | 2.307 | 2.191 | 0.0100 | 9.50 | 10.0 | -5.0 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.428 | 1.504 | 0.4000 | 10.5 | 10.0 | 5.3 | 20.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1173 | 0.1186 | 0.0500 | 10.1 | 10.0 | 1.1 | 20.0 |
| 2,4- & 2,5- & 2,6-Dichlorotoluene | Ave | 0.8157 | 0.8789 | 0.0100 | 32.3 | 30.0 | 7.7 | 20.0 |
| 2,3- & 3,4- Dichlorotoluene | Ave | 0.7778 | 0.8424 | 0.0100 | 21.7 | 20.0 | 8.3 | 20.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.5557 | 0.6224 | 0.2000 | 11.2 | 10.0 | 12.0 | 20.0 |
| Hexachlorobutadiene | Ave | 0.2677 | 0.2987 | 0.0100 | 11.2 | 10.0 | 11.6 | 20.0 |
| Naphthalene | Ave | 1.428 | 1.550 | 0.0100 | 10.9 | 10.0 | 8.5 | 20.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.4498 | 0.5206 | 0.0100 | 11.6 | 10.0 | 15.7 | 20.0 |
| 2,4,5-Trichlorotoluene | Ave | 0.1623 | 0.1597 | 0.0100 | 9.84 | 10.0 | -1.6 | 20.0 |
| 2,3,6-Trichlorotoluene | Ave | 0.1496 | 0.1606 | 0.0100 | 10.7 | 10.0 | 7.3 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2455 | 0.2193 | | 8.93 | 10.0 | -10.7 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3373 | 0.2797 | | 8.29 | 10.0 | -17.1 | 20.0 |
| Toluene-d8 (Surr) | Ave | 3.857 | 3.757 | | 9.74 | 10.0 | -2.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 1.455 | 1.225 | | 8.42 | 10.0 | -15.8 | 20.0 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005002.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-Oct-2015 10:56:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 180-0008828-002
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 12:09:15 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 11:11:23

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.281 | 4.281 | 0.000 | 0 | 125348 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.292 | 7.292 | 0.000 | 98 | 389208 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.388 | 10.388 | 0.000 | 87 | 92325 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.730 | 12.730 | 0.000 | 94 | 138714 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.568 | 6.568 | 0.000 | 94 | 85361 | 50.0 | 44.7 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.933 | 6.933 | 0.000 | 0 | 108875 | 50.0 | 41.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.940 | 8.940 | 0.000 | 94 | 346854 | 50.0 | 48.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.575 | 11.575 | 0.000 | 92 | 113113 | 50.0 | 42.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.604 | 1.604 | 0.000 | 99 | 114928 | 50.0 | 52.3 | |
| 12 Chloromethane | 50 | 1.774 | 1.774 | 0.000 | 99 | 157900 | 50.0 | 48.9 | |
| 13 Vinyl chloride | 62 | 1.908 | 1.908 | 0.000 | 98 | 132359 | 50.0 | 46.2 | |
| 14 Butadiene | 39 | 1.951 | 1.951 | 0.000 | 99 | 172094 | 50.0 | 50.9 | |
| 15 Bromomethane | 94 | 2.249 | 2.249 | 0.000 | 91 | 57638 | 50.0 | 49.5 | |
| 16 Chloroethane | 64 | 2.413 | 2.413 | 0.000 | 98 | 68055 | 50.0 | 39.4 | |
| 17 Dichlorofluoromethane | 67 | 2.675 | 2.675 | 0.000 | 98 | 154963 | 50.0 | 42.3 | |
| 18 Trichlorofluoromethane | 101 | 2.699 | 2.699 | 0.000 | 95 | 133231 | 50.0 | 48.6 | |
| 20 Ethyl ether | 59 | 3.046 | 3.046 | 0.000 | 96 | 106015 | 50.0 | 41.7 | |
| 21 Acrolein | 56 | 3.222 | 3.222 | 0.000 | 99 | 45877 | 150.0 | 121.2 | |
| 22 1,1-Dichloroethene | 96 | 3.344 | 3.344 | 0.000 | 95 | 101461 | 50.0 | 46.8 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.423 | 3.423 | 0.000 | 92 | 109482 | 50.0 | 47.7 | |
| 24 Acetone | 43 | 3.441 | 3.441 | 0.000 | 99 | 75779 | 100.0 | 96.5 | |
| 25 Iodomethane | 142 | 3.538 | 3.538 | 0.000 | 99 | 153346 | 50.0 | 47.5 | |
| 26 Carbon disulfide | 76 | 3.636 | 3.636 | 0.000 | 100 | 235692 | 50.0 | 46.8 | |
| 28 3-Chloro-1-propene | 76 | 3.922 | 3.922 | 0.000 | 89 | 51964 | 50.0 | 42.3 | |
| 30 Methyl acetate | 43 | 3.940 | 3.940 | 0.000 | 99 | 567330 | 250.0 | 241.8 | |
| 31 Methylene Chloride | 84 | 4.141 | 4.141 | 0.000 | 98 | 114392 | 50.0 | 44.3 | |
| 32 2-Methyl-2-propanol | 59 | 4.402 | 4.402 | 0.000 | 87 | 73968 | 500.0 | 524.3 | |
| 33 Acrylonitrile | 53 | 4.524 | 4.524 | 0.000 | 97 | 533822 | 500.0 | 468.8 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.566 | 4.566 | 0.000 | 96 | 106640 | 50.0 | 45.3 | |
| 35 Methyl tert-butyl ether | 73 | 4.579 | 4.579 | 0.000 | 94 | 227553 | 50.0 | 41.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.992 | 4.992 | 0.000 | 95 | 174620 | 50.0 | 44.2 | |
| 37 1,1-Dichloroethane | 63 | 5.199 | 5.199 | 0.000 | 97 | 197976 | 50.0 | 42.7 | |
| 38 Vinyl acetate | 43 | 5.254 | 5.254 | 0.000 | 98 | 175817 | 50.0 | 50.5 | |
| 44 2,2-Dichloropropane | 77 | 5.947 | 5.947 | 0.000 | 82 | 75559 | 50.0 | 40.7 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.954 | 5.954 | 0.000 | 84 | 110941 | 50.0 | 44.1 | |
| 46 2-Butanone (MEK) | 43 | 5.966 | 5.966 | 0.000 | 90 | 108402 | 100.0 | 91.9 | |
| 49 Chlorobromomethane | 128 | 6.233 | 6.233 | 0.000 | 95 | 52647 | 50.0 | 47.7 | |
| 51 Tetrahydrofuran | 42 | 6.252 | 6.252 | 0.000 | 93 | 80651 | 100.0 | 85.2 | |
| 52 Chloroform | 83 | 6.379 | 6.379 | 0.000 | 96 | 170473 | 50.0 | 42.6 | |
| 53 1,1,1-Trichloroethane | 97 | 6.550 | 6.550 | 0.000 | 96 | 130271 | 50.0 | 44.0 | |
| 54 Cyclohexane | 56 | 6.617 | 6.617 | 0.000 | 95 | 214719 | 50.0 | 43.3 | |
| 56 Carbon tetrachloride | 117 | 6.720 | 6.720 | 0.000 | 96 | 120167 | 50.0 | 47.6 | |
| 55 1,1-Dichloropropene | 75 | 6.732 | 6.732 | 0.000 | 91 | 140552 | 50.0 | 42.9 | |
| 57 Isobutyl alcohol | 41 | 6.927 | 6.927 | 0.000 | 90 | 90495 | 1250.0 | 1221.0 | |
| 58 Benzene | 78 | 6.945 | 6.945 | 0.000 | 98 | 436137 | 50.0 | 45.4 | |
| 59 1,2-Dichloroethane | 62 | 7.024 | 7.024 | 0.000 | 95 | 137816 | 50.0 | 41.5 | |
| 62 n-Heptane | 43 | 7.310 | 7.310 | 0.000 | 96 | 170962 | 50.0 | 47.6 | |
| 64 Trichloroethene | 130 | 7.675 | 7.675 | 0.000 | 96 | 111479 | 50.0 | 47.5 | |
| 66 Methylcyclohexane | 83 | 7.912 | 7.912 | 0.000 | 94 | 164418 | 50.0 | 44.4 | |
| 67 1,2-Dichloropropane | 63 | 7.949 | 7.949 | 0.000 | 96 | 113656 | 50.0 | 45.1 | |
| 68 Dibromomethane | 93 | 8.034 | 8.034 | 0.000 | 95 | 55002 | 50.0 | 43.0 | |
| 70 1,4-Dioxane | 88 | 8.034 | 8.034 | 0.000 | 40 | 19375 | 1000.0 | 1116.0 | |
| 71 Dichlorobromomethane | 83 | 8.235 | 8.235 | 0.000 | 98 | 111112 | 50.0 | 43.9 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.679 | 8.679 | 0.000 | 90 | 120696 | 50.0 | 40.7 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.825 | 8.825 | 0.000 | 99 | 202528 | 100.0 | 89.0 | |
| 76 Toluene | 91 | 9.007 | 9.007 | 0.000 | 98 | 456382 | 50.0 | 49.9 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.257 | 9.257 | 0.000 | 98 | 108950 | 50.0 | 45.7 | |
| 78 Ethyl methacrylate | 69 | 9.312 | 9.312 | 0.000 | 93 | 103890 | 50.0 | 45.0 | |
| 79 1,1,2-Trichloroethane | 97 | 9.445 | 9.445 | 0.000 | 93 | 85442 | 50.0 | 49.1 | |
| 80 Tetrachloroethene | 164 | 9.518 | 9.518 | 0.000 | 97 | 94129 | 50.0 | 53.1 | |
| 81 1,3-Dichloropropane | 76 | 9.604 | 9.604 | 0.000 | 98 | 150139 | 50.0 | 46.5 | |
| 82 2-Hexanone | 43 | 9.658 | 9.658 | 0.000 | 99 | 153528 | 100.0 | 93.5 | |
| 84 Chlorodibromomethane | 129 | 9.823 | 9.823 | 0.000 | 91 | 82106 | 50.0 | 54.5 | |
| 85 Ethylene Dibromide | 107 | 9.932 | 9.932 | 0.000 | 98 | 82532 | 50.0 | 49.3 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.394 | 10.394 | 0.000 | 85 | 148557 | 50.0 | 50.6 | |
| 87 Chlorobenzene | 112 | 10.419 | 10.419 | 0.000 | 95 | 288768 | 50.0 | 49.1 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.480 | 10.480 | 0.000 | 95 | 144928 | 50.0 | 52.2 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.510 | 10.510 | 0.000 | 94 | 95914 | 50.0 | 50.0 | |
| 90 Ethylbenzene | 106 | 10.522 | 10.522 | 0.000 | 98 | 155928 | 50.0 | 50.0 | |
| 91 m-Xylene & p-Xylene | 106 | 10.650 | 10.650 | 0.000 | 0 | 192369 | 50.0 | 50.3 | |
| 92 o-Xylene | 106 | 11.033 | 11.033 | 0.000 | 97 | 177820 | 50.0 | 48.9 | |
| 93 Styrene | 104 | 11.051 | 11.051 | 0.000 | 96 | 310895 | 50.0 | 51.6 | |
| 94 Bromoform | 173 | 11.228 | 11.228 | 0.000 | 96 | 43893 | 50.0 | 51.1 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.301 | 11.301 | 0.000 | 98 | 151852 | 50.0 | 52.5 | |
| 97 Isopropylbenzene | 105 | 11.398 | 11.398 | 0.000 | 96 | 447072 | 50.0 | 50.2 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.708 | 11.708 | 0.000 | 94 | 111956 | 50.0 | 47.7 | |
| 100 Bromobenzene | 156 | 11.708 | 11.708 | 0.000 | 92 | 116765 | 50.0 | 49.0 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.745 | 11.745 | 0.000 | 79 | 25951 | 50.0 | 30.1 | |
| 101 1,2,3-Trichloropropane | 110 | 11.769 | 11.769 | 0.000 | 85 | 36770 | 50.0 | 46.8 | |
| 103 N-Propylbenzene | 120 | 11.812 | 11.812 | 0.000 | 99 | 128698 | 50.0 | 47.2 | |
| 104 2-Chlorotoluene | 126 | 11.903 | 11.903 | 0.000 | 97 | 113711 | 50.0 | 49.1 | |
| 105 3-Chlorotoluene | 126 | 11.970 | 11.970 | 0.000 | 94 | 115983 | 50.0 | 48.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.994 | 11.994 | 0.000 | 94 | 377283 | 50.0 | 49.0 | |
| 107 4-Chlorotoluene | 126 | 12.025 | 12.025 | 0.000 | 97 | 124770 | 50.0 | 48.9 | |
| 108 tert-Butylbenzene | 119 | 12.311 | 12.311 | 0.000 | 95 | 301705 | 50.0 | 48.2 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.372 | 12.372 | 0.000 | 97 | 381966 | 50.0 | 49.5 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.408 | 12.408 | 0.000 | 98 | 105124 | 50.0 | 48.9 | |
| 112 sec-Butylbenzene | 105 | 12.536 | 12.536 | 0.000 | 94 | 438588 | 50.0 | 49.6 | |
| 113 1,3-Dichlorobenzene | 146 | 12.651 | 12.651 | 0.000 | 99 | 222204 | 50.0 | 52.4 | |
| 114 4-Isopropyltoluene | 119 | 12.688 | 12.688 | 0.000 | 97 | 375696 | 50.0 | 50.2 | |
| 115 1,4-Dichlorobenzene | 146 | 12.755 | 12.755 | 0.000 | 97 | 227059 | 50.0 | 51.5 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.779 | 12.779 | 0.000 | 96 | 99394 | 50.0 | 49.9 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.822 | 12.822 | 0.000 | 0 | 106797 | 50.0 | 49.6 | |
| 120 n-Butylbenzene | 91 | 13.102 | 13.102 | 0.000 | 98 | 303982 | 50.0 | 47.5 | |
| 121 1,2-Dichlorobenzene | 146 | 13.108 | 13.108 | 0.000 | 99 | 208633 | 50.0 | 52.7 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.905 | 13.905 | 0.000 | 80 | 16451 | 50.0 | 50.6 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.045 | 14.045 | 0.000 | 0 | 365735 | 150.0 | 161.6 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.464 | 14.464 | 0.000 | 0 | 233695 | 100.0 | 108.3 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.726 | 14.726 | 0.000 | 93 | 86338 | 50.0 | 56.0 | |
| 127 Hexachlorobutadiene | 225 | 14.872 | 14.872 | 0.000 | 97 | 41438 | 50.0 | 55.8 | |
| 128 Naphthalene | 128 | 14.994 | 14.994 | 0.000 | 97 | 214965 | 50.0 | 54.3 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.219 | 15.219 | 0.000 | 96 | 72208 | 50.0 | 57.9 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.991 | 15.991 | 0.000 | 0 | 22149 | 50.0 | 49.2 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.095 | 16.095 | 0.000 | 96 | 22279 | 50.0 | 53.7 | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 89.4 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 99.2 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 86.4 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| voaWKet1stRes_00001 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOAPRI_00147 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005002.D

Injection Date: 05-Oct-2015 10:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

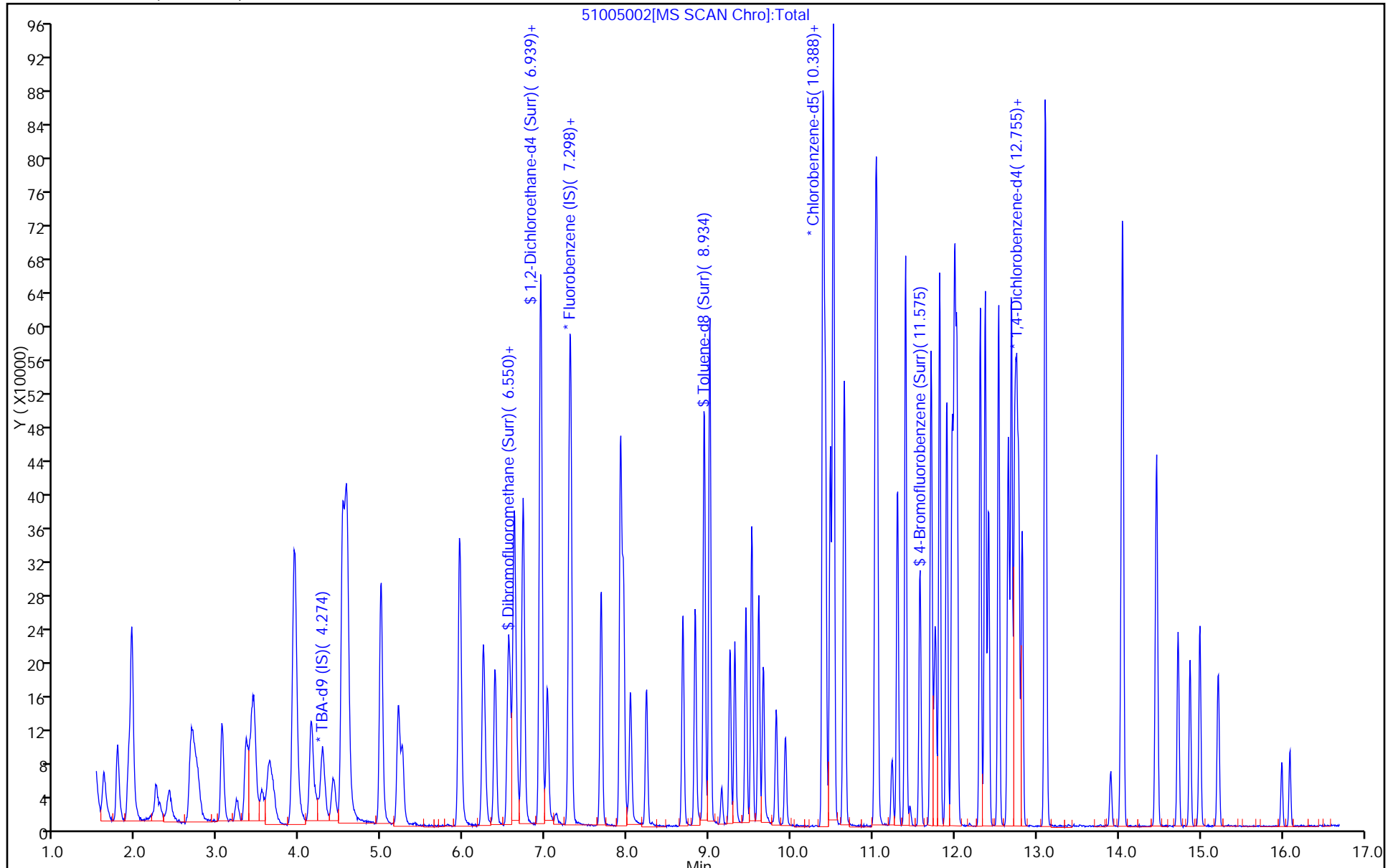
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-156037/2 Calibration Date: 10/06/2015 12:41
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51006002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---------------------------------------|------------|---------|---------|---------|-------------|--------------|--------|--------|
| Dichlorodifluoromethane | Ave | 0.2825 | 0.2938 | 0.1000 | 10.4 | 10.0 | 4.0 | 20.0 |
| Chloromethane | Ave | 0.4148 | 0.3761 | 0.1000 | 9.07 | 10.0 | -9.3 | 20.0 |
| Vinyl chloride | Ave | 0.3679 | 0.3022 | 0.1000 | 8.21 | 10.0 | -17.9 | 20.0 |
| 1,3-Butadiene | Ave | 0.4345 | 0.4123 | 0.0100 | 9.49 | 10.0 | -5.1 | 20.0 |
| Bromomethane | Ave | 0.1497 | 0.1271 | 0.0500 | 8.49 | 10.0 | -15.1 | 20.0 |
| Chloroethane | Ave | 0.2220 | 0.1516 | 0.0500 | 6.83 | 10.0 | -31.7* | 20.0 |
| Dichlorofluoromethane | Ave | 0.4709 | 0.3811 | 0.0100 | 8.09 | 10.0 | -19.1 | 20.0 |
| Trichlorofluoromethane | Ave | 0.3523 | 0.3513 | 0.1000 | 9.97 | 10.0 | -0.3 | 20.0 |
| Ethyl ether | Ave | 0.3265 | 0.2849 | 0.0100 | 8.73 | 10.0 | -12.7 | 20.0 |
| Acrolein | Ave | 0.0486 | 0.0413 | 0.0100 | 25.5 | 30.0 | -15.2 | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2785 | 0.2709 | 0.1000 | 9.73 | 10.0 | -2.7 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2951 | 0.2949 | 0.1000 | 9.99 | 10.0 | -0.0 | 20.0 |
| Acetone | Ave | 0.1009 | 0.1108 | 0.0500 | 22.0 | 20.0 | 9.8 | 20.0 |
| Iodomethane | Ave | 0.4150 | 0.4178 | 0.0100 | 10.1 | 10.0 | 0.7 | 20.0 |
| Carbon disulfide | Ave | 0.6466 | 0.6918 | 0.1000 | 10.7 | 10.0 | 7.0 | 20.0 |
| Allyl chloride | Ave | 0.1577 | 0.1480 | 0.0100 | 9.38 | 10.0 | -6.2 | 20.0 |
| Methyl acetate | Ave | 0.3015 | 0.3038 | 0.1000 | 50.4 | 50.0 | 0.8 | 20.0 |
| Methylene Chloride | Lin2 | | 0.3073 | 0.1000 | 9.32 | 10.0 | -6.8 | 20.0 |
| tert-Butyl alcohol | Ave | 1.126 | 1.203 | 0.0100 | 107 | 100 | 6.9 | 20.0 |
| Acrylonitrile | Ave | 0.1463 | 0.1390 | 0.0100 | 95.0 | 100 | -5.0 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.3024 | 0.2879 | 0.1000 | 9.52 | 10.0 | -4.8 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.6999 | 0.6180 | 0.1000 | 8.83 | 10.0 | -11.7 | 20.0 |
| Hexane | Ave | 0.5076 | 0.4954 | 0.0100 | 9.76 | 10.0 | -2.4 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.5957 | 0.5431 | 0.2000 | 9.12 | 10.0 | -8.8 | 20.0 |
| Vinyl acetate | Ave | 0.4469 | 0.4821 | 0.0100 | 10.8 | 10.0 | 7.9 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.2387 | 0.2041 | 0.0100 | 8.55 | 10.0 | -14.5 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.3230 | 0.3002 | 0.1000 | 9.29 | 10.0 | -7.1 | 20.0 |
| 2-Butanone (MEK) | Ave | 0.1516 | 0.1619 | 0.0500 | 21.4 | 20.0 | 6.8 | 20.0 |
| Bromochloromethane | Ave | 0.1418 | 0.1480 | 0.0100 | 10.4 | 10.0 | 4.3 | 20.0 |
| Tetrahydrofuran | Ave | 0.1216 | 0.1104 | 0.0100 | 18.2 | 20.0 | -9.2 | 20.0 |
| Chloroform | Ave | 0.5146 | 0.4514 | 0.2000 | 8.77 | 10.0 | -12.3 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.3805 | 0.3494 | 0.1000 | 9.18 | 10.0 | -8.2 | 20.0 |
| Cyclohexane | Ave | 0.6367 | 0.5849 | 0.1000 | 9.19 | 10.0 | -8.1 | 20.0 |
| Carbon tetrachloride | Ave | 0.3240 | 0.3160 | 0.1000 | 9.75 | 10.0 | -2.5 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.4208 | 0.3790 | 0.0100 | 9.01 | 10.0 | -9.9 | 20.0 |
| Isobutyl alcohol | Ave | 0.0095 | 0.0097* | 0.0100 | 256 | 250 | 2.2 | 20.0 |
| Benzene | Ave | 1.233 | 1.189 | 0.5000 | 9.65 | 10.0 | -3.5 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.4264 | 0.3665 | 0.1000 | 8.59 | 10.0 | -14.1 | 20.0 |
| n-Heptane | Ave | 0.4611 | 0.4778 | 0.0100 | 10.4 | 10.0 | 3.6 | 20.0 |
| Trichloroethene | Ave | 0.3016 | 0.3085 | 0.2000 | 10.2 | 10.0 | 2.3 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-156037/2 Calibration Date: 10/06/2015 12:41
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51006002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|------------------------------|------------|---------|---------|---------|-------------|--------------|--------|--------|
| Methylcyclohexane | Ave | 0.4753 | 0.4590 | 0.1000 | 9.66 | 10.0 | -3.4 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.3235 | 0.2999 | 0.1000 | 9.27 | 10.0 | -7.3 | 20.0 |
| 1,4-Dioxane | Ave | 0.0022 | 0.0025* | 0.0100 | 221 | 200 | 10.5 | 20.0 |
| Dibromomethane | Ave | 0.1642 | 0.1530 | 0.0100 | 9.32 | 10.0 | -6.8 | 20.0 |
| Bromodichloromethane | Ave | 0.3249 | 0.2950 | 0.2000 | 9.08 | 10.0 | -9.2 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.3807 | 0.3250 | 0.2000 | 8.54 | 10.0 | -14.6 | 20.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 1.232 | 1.133 | 0.1000 | 18.4 | 20.0 | -8.0 | 20.0 |
| Toluene | Ave | 4.950 | 5.177 | 0.4000 | 10.5 | 10.0 | 4.6 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 1.292 | 1.149 | 0.1000 | 8.90 | 10.0 | -11.0 | 20.0 |
| Ethyl methacrylate | Ave | 1.249 | 1.133 | 0.0100 | 9.07 | 10.0 | -9.3 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.9416 | 0.9509 | 0.1000 | 10.1 | 10.0 | 1.0 | 20.0 |
| Tetrachloroethene | Ave | 0.9609 | 1.084 | 0.2000 | 11.3 | 10.0 | 12.8 | 20.0 |
| 1,3-Dichloropropane | Ave | 1.748 | 1.612 | 0.0100 | 9.22 | 10.0 | -7.8 | 20.0 |
| 2-Hexanone | Ave | 0.8893 | 0.9198 | 0.1000 | 20.7 | 20.0 | 3.4 | 20.0 |
| Dibromochloromethane | Ave | 0.8152 | 0.8815 | 0.1000 | 10.8 | 10.0 | 8.1 | 20.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.9073 | 0.8925 | 0.1000 | 9.84 | 10.0 | -1.6 | 20.0 |
| 3-Chlorobenzotrifluoride | Ave | 1.591 | 1.829 | 0.0100 | 11.5 | 10.0 | 15.0 | 20.0 |
| Chlorobenzene | Ave | 3.187 | 3.221 | 0.5000 | 10.1 | 10.0 | 1.1 | 20.0 |
| 4-Chlorobenzotrifluoride | Ave | 1.504 | 1.727 | 0.0100 | 11.5 | 10.0 | 14.9 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 1.039 | 1.068 | 0.0100 | 10.3 | 10.0 | 2.8 | 20.0 |
| Ethylbenzene | Ave | 1.690 | 1.766 | 0.1000 | 10.4 | 10.0 | 4.5 | 20.0 |
| m-Xylene & p-Xylene | Ave | 2.072 | 2.191 | 0.1000 | 10.6 | 10.0 | 5.7 | 20.0 |
| o-Xylene | Ave | 1.969 | 2.101 | 0.3000 | 10.7 | 10.0 | 6.7 | 20.0 |
| Styrene | Ave | 3.262 | 3.485 | 0.3000 | 10.7 | 10.0 | 6.8 | 20.0 |
| Bromoform | Ave | 0.4652 | 0.4552 | 0.1000 | 9.78 | 10.0 | -2.2 | 20.0 |
| 2-Chlorobenzotrifluoride | Ave | 1.565 | 1.766 | 0.0100 | 11.3 | 10.0 | 12.9 | 20.0 |
| Isopropylbenzene | Ave | 4.822 | 5.179 | 0.1000 | 10.7 | 10.0 | 7.4 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 1.270 | 1.274 | 0.3000 | 10.0 | 10.0 | 0.3 | 20.0 |
| Bromobenzene | Ave | 0.8583 | 0.8587 | 0.0100 | 10.0 | 10.0 | 0.0 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.3103 | 0.1121 | 0.0100 | 3.61 | 10.0 | -63.9* | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.2831 | 0.2627 | 0.0100 | 9.28 | 10.0 | -7.2 | 20.0 |
| N-Propylbenzene | Ave | 0.9825 | 0.9385 | 0.0100 | 9.55 | 10.0 | -4.5 | 20.0 |
| 2-Chlorotoluene | Ave | 0.8351 | 0.8299 | 0.0100 | 9.94 | 10.0 | -0.6 | 20.0 |
| 3-Chlorotoluene | Ave | 0.8583 | 0.8722 | 0.0100 | 10.2 | 10.0 | 1.6 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.776 | 2.795 | 0.0100 | 10.1 | 10.0 | 0.7 | 20.0 |
| 4-Chlorotoluene | Ave | 0.9190 | 0.9231 | 0.0100 | 10.0 | 10.0 | 0.4 | 20.0 |
| tert-Butylbenzene | Ave | 2.257 | 2.267 | 0.0100 | 10.0 | 10.0 | 0.5 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.781 | 2.809 | 0.0100 | 10.1 | 10.0 | 1.0 | 20.0 |
| 3,4-Dichlorobenzotrifluoride | Ave | 0.7754 | 0.8087 | 0.0100 | 10.4 | 10.0 | 4.3 | 20.0 |
| sec-Butylbenzene | Ave | 3.187 | 3.241 | 0.0100 | 10.2 | 10.0 | 1.7 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.528 | 1.608 | 0.6000 | 10.5 | 10.0 | 5.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-156037/2 Calibration Date: 10/06/2015 12:41
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52
 Lab File ID: 51006002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|-----------------------------------|------------|---------|--------|---------|-------------|--------------|-------|--------|
| 4-Isopropyltoluene | Ave | 2.696 | 2.773 | 0.0100 | 10.3 | 10.0 | 2.9 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.590 | 1.625 | 0.5000 | 10.2 | 10.0 | 2.2 | 20.0 |
| 2,4-Dichlorobenzotrifluoride | Ave | 0.7185 | 0.7559 | 0.0100 | 10.5 | 10.0 | 5.2 | 20.0 |
| 2,5-Dichlorobenzotrifluoride | Ave | 0.7765 | 0.8068 | 0.0100 | 10.4 | 10.0 | 3.9 | 20.0 |
| n-Butylbenzene | Ave | 2.307 | 2.219 | 0.0100 | 9.62 | 10.0 | -3.8 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.428 | 1.482 | 0.4000 | 10.4 | 10.0 | 3.8 | 20.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1173 | 0.1096 | 0.0500 | 9.35 | 10.0 | -6.5 | 20.0 |
| 2,4- & 2,5- & 2,6-Dichlorotoluene | Ave | 0.8157 | 0.9203 | 0.0100 | 33.8 | 30.0 | 12.8 | 20.0 |
| 2,3- & 3,4- Dichlorotoluene | Ave | 0.7778 | 0.8734 | 0.0100 | 22.5 | 20.0 | 12.3 | 20.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.5557 | 0.6160 | 0.2000 | 11.1 | 10.0 | 10.9 | 20.0 |
| Hexachlorobutadiene | Ave | 0.2677 | 0.3075 | 0.0100 | 11.5 | 10.0 | 14.9 | 20.0 |
| Naphthalene | Ave | 1.428 | 1.640 | 0.0100 | 11.5 | 10.0 | 14.8 | 20.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.4498 | 0.5246 | 0.0100 | 11.7 | 10.0 | 16.6 | 20.0 |
| 2,4,5-Trichlorotoluene | Ave | 0.1623 | 0.1672 | 0.0100 | 10.3 | 10.0 | 3.0 | 20.0 |
| 2,3,6-Trichlorotoluene | Ave | 0.1496 | 0.1907 | 0.0100 | 12.7 | 10.0 | 27.4* | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2455 | 0.2384 | | 9.71 | 10.0 | -2.9 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3373 | 0.2876 | | 8.53 | 10.0 | -14.7 | 20.0 |
| Toluene-d8 (Surr) | Ave | 3.857 | 3.950 | | 10.2 | 10.0 | 2.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 1.455 | 1.327 | | 9.12 | 10.0 | -8.8 | 20.0 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006002.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 06-Oct-2015 12:41:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 180-0008850-002
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub4
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 13:34:58 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 13:21:54

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.279 | 4.279 | 0.000 | 0 | 119717 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.290 | 0.000 | 98 | 353123 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.387 | 0.000 | 87 | 84941 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.729 | 12.729 | 0.000 | 92 | 132831 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.560 | 6.560 | 0.000 | 94 | 84166 | 50.0 | 48.5 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.937 | 0.000 | 0 | 101557 | 50.0 | 42.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.939 | 0.000 | 93 | 335485 | 50.0 | 51.2 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.573 | 0.000 | 93 | 112678 | 50.0 | 45.6 | |
| 11 Dichlorodifluoromethane | 85 | 1.608 | 1.608 | 0.000 | 99 | 103733 | 50.0 | 52.0 | |
| 12 Chloromethane | 50 | 1.779 | 1.779 | 0.000 | 100 | 132803 | 50.0 | 45.3 | |
| 13 Vinyl chloride | 62 | 1.912 | 1.912 | 0.000 | 98 | 106723 | 50.0 | 41.1 | |
| 14 Butadiene | 39 | 1.949 | 1.949 | 0.000 | 97 | 145596 | 50.0 | 47.4 | |
| 15 Bromomethane | 94 | 2.247 | 2.247 | 0.000 | 92 | 44867 | 50.0 | 42.4 | |
| 16 Chloroethane | 64 | 2.399 | 2.399 | 0.000 | 99 | 53535 | 50.0 | 34.2 | |
| 17 Dichlorofluoromethane | 67 | 2.679 | 2.679 | 0.000 | 98 | 134568 | 50.0 | 40.5 | |
| 18 Trichlorofluoromethane | 101 | 2.703 | 2.703 | 0.000 | 94 | 124067 | 50.0 | 49.9 | M |
| 20 Ethyl ether | 59 | 3.056 | 3.056 | 0.000 | 98 | 100600 | 50.0 | 43.6 | |
| 21 Acrolein | 56 | 3.232 | 3.232 | 0.000 | 96 | 43712 | 150.0 | 127.3 | |
| 22 1,1-Dichloroethene | 96 | 3.348 | 3.348 | 0.000 | 96 | 95650 | 50.0 | 48.6 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.433 | 3.433 | 0.000 | 91 | 104126 | 50.0 | 50.0 | |
| 24 Acetone | 43 | 3.451 | 3.451 | 0.000 | 99 | 78232 | 100.0 | 109.8 | |
| 25 Iodomethane | 142 | 3.537 | 3.537 | 0.000 | 97 | 147517 | 50.0 | 50.3 | |
| 26 Carbon disulfide | 76 | 3.652 | 3.652 | 0.000 | 100 | 244304 | 50.0 | 53.5 | |
| 28 3-Chloro-1-propene | 76 | 3.926 | 3.926 | 0.000 | 89 | 52244 | 50.0 | 46.9 | |
| 30 Methyl acetate | 43 | 3.944 | 3.944 | 0.000 | 99 | 536316 | 250.0 | 251.9 | |
| 31 Methylene Chloride | 84 | 4.133 | 4.133 | 0.000 | 97 | 108514 | 50.0 | 46.6 | |
| 32 2-Methyl-2-propanol | 59 | 4.407 | 4.407 | 0.000 | 90 | 72012 | 500.0 | 534.4 | |
| 33 Acrylonitrile | 53 | 4.528 | 4.528 | 0.000 | 99 | 490763 | 500.0 | 475.1 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.565 | 4.565 | 0.000 | 96 | 101646 | 50.0 | 47.6 | |
| 35 Methyl tert-butyl ether | 73 | 4.583 | 4.583 | 0.000 | 95 | 218234 | 50.0 | 44.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.985 | 4.985 | 0.000 | 96 | 174926 | 50.0 | 48.8 | |
| 37 1,1-Dichloroethane | 63 | 5.204 | 5.204 | 0.000 | 97 | 191782 | 50.0 | 45.6 | |
| 38 Vinyl acetate | 43 | 5.252 | 5.252 | 0.000 | 97 | 170243 | 50.0 | 53.9 | |
| 44 2,2-Dichloropropane | 77 | 5.946 | 5.946 | 0.000 | 57 | 72070 | 50.0 | 42.8 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.958 | 5.958 | 0.000 | 84 | 106011 | 50.0 | 46.5 | |
| 46 2-Butanone (MEK) | 43 | 5.964 | 5.964 | 0.000 | 89 | 114368 | 100.0 | 106.8 | |
| 49 Chlorobromomethane | 128 | 6.238 | 6.238 | 0.000 | 94 | 52247 | 50.0 | 52.2 | |
| 51 Tetrahydrofuran | 42 | 6.250 | 6.250 | 0.000 | 94 | 77946 | 100.0 | 90.8 | |
| 52 Chloroform | 83 | 6.384 | 6.384 | 0.000 | 95 | 159397 | 50.0 | 43.9 | |
| 53 1,1,1-Trichloroethane | 97 | 6.542 | 6.542 | 0.000 | 96 | 123381 | 50.0 | 45.9 | |
| 54 Cyclohexane | 56 | 6.615 | 6.615 | 0.000 | 97 | 206528 | 50.0 | 45.9 | |
| 56 Carbon tetrachloride | 117 | 6.718 | 6.718 | 0.000 | 95 | 111576 | 50.0 | 48.8 | |
| 55 1,1-Dichloropropene | 75 | 6.730 | 6.730 | 0.000 | 90 | 133839 | 50.0 | 45.0 | |
| 57 Isobutyl alcohol | 41 | 6.925 | 6.925 | 0.000 | 95 | 85908 | 1250.0 | 1277.5 | |
| 58 Benzene | 78 | 6.943 | 6.943 | 0.000 | 98 | 419997 | 50.0 | 48.2 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.022 | 0.000 | 96 | 129406 | 50.0 | 43.0 | |
| 62 n-Heptane | 43 | 7.308 | 7.308 | 0.000 | 97 | 168708 | 50.0 | 51.8 | |
| 64 Trichloroethene | 130 | 7.679 | 7.679 | 0.000 | 96 | 108946 | 50.0 | 51.1 | |
| 66 Methylcyclohexane | 83 | 7.917 | 7.917 | 0.000 | 96 | 162091 | 50.0 | 48.3 | |
| 67 1,2-Dichloropropane | 63 | 7.947 | 7.947 | 0.000 | 94 | 105888 | 50.0 | 46.3 | |
| 70 1,4-Dioxane | 88 | 8.032 | 8.032 | 0.000 | 38 | 17404 | 1000.0 | 1104.9 | |
| 68 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 93 | 54020 | 50.0 | 46.6 | |
| 71 Dichlorobromomethane | 83 | 8.233 | 8.233 | 0.000 | 98 | 104172 | 50.0 | 45.4 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.677 | 8.677 | 0.000 | 91 | 114770 | 50.0 | 42.7 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.829 | 0.000 | 99 | 192508 | 100.0 | 92.0 | |
| 76 Toluene | 91 | 9.006 | 9.006 | 0.000 | 98 | 439711 | 50.0 | 52.3 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.255 | 9.255 | 0.000 | 98 | 97628 | 50.0 | 44.5 | |
| 78 Ethyl methacrylate | 69 | 9.310 | 9.310 | 0.000 | 94 | 96210 | 50.0 | 45.3 | |
| 79 1,1,2-Trichloroethane | 97 | 9.450 | 9.450 | 0.000 | 90 | 80770 | 50.0 | 50.5 | |
| 80 Tetrachloroethene | 164 | 9.517 | 9.517 | 0.000 | 97 | 92045 | 50.0 | 56.4 | |
| 81 1,3-Dichloropropane | 76 | 9.602 | 9.602 | 0.000 | 98 | 136934 | 50.0 | 46.1 | |
| 82 2-Hexanone | 43 | 9.663 | 9.663 | 0.000 | 99 | 156252 | 100.0 | 103.4 | |
| 84 Chlorodibromomethane | 129 | 9.815 | 9.815 | 0.000 | 89 | 74874 | 50.0 | 54.1 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.930 | 0.000 | 100 | 75807 | 50.0 | 49.2 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.387 | 10.387 | 0.000 | 87 | 155321 | 50.0 | 57.5 | |
| 87 Chlorobenzene | 112 | 10.417 | 10.417 | 0.000 | 95 | 273613 | 50.0 | 50.5 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.478 | 10.478 | 0.000 | 95 | 146715 | 50.0 | 57.4 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.514 | 10.514 | 0.000 | 90 | 90694 | 50.0 | 51.4 | |
| 90 Ethylbenzene | 106 | 10.514 | 10.514 | 0.000 | 99 | 149966 | 50.0 | 52.2 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.648 | 0.000 | 0 | 186067 | 50.0 | 52.9 | |
| 92 o-Xylene | 106 | 11.031 | 11.031 | 0.000 | 96 | 178421 | 50.0 | 53.3 | |
| 93 Styrene | 104 | 11.050 | 11.050 | 0.000 | 95 | 295996 | 50.0 | 53.4 | |
| 94 Bromoform | 173 | 11.232 | 11.232 | 0.000 | 97 | 38663 | 50.0 | 48.9 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.299 | 11.299 | 0.000 | 97 | 150039 | 50.0 | 56.4 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.396 | 0.000 | 96 | 439879 | 50.0 | 53.7 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.707 | 11.707 | 0.000 | 88 | 108184 | 50.0 | 50.1 | |
| 100 Bromobenzene | 156 | 11.713 | 11.713 | 0.000 | 92 | 114058 | 50.0 | 50.0 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.743 | 11.743 | 0.000 | 70 | 14890 | 50.0 | 18.1 | |
| 101 1,2,3-Trichloropropane | 110 | 11.761 | 11.761 | 0.000 | 87 | 34889 | 50.0 | 46.4 | |
| 103 N-Propylbenzene | 120 | 11.810 | 11.810 | 0.000 | 99 | 124661 | 50.0 | 47.8 | |
| 104 2-Chlorotoluene | 126 | 11.901 | 11.901 | 0.000 | 97 | 110230 | 50.0 | 49.7 | |
| 105 3-Chlorotoluene | 126 | 11.968 | 11.968 | 0.000 | 94 | 115859 | 50.0 | 50.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 106 1,3,5-Trimethylbenzene | 105 | 11.999 | 11.999 | 0.000 | 94 | 371208 | 50.0 | 50.3 | |
| 107 4-Chlorotoluene | 126 | 12.023 | 12.023 | 0.000 | 97 | 122614 | 50.0 | 50.2 | |
| 108 tert-Butylbenzene | 119 | 12.309 | 12.309 | 0.000 | 94 | 301161 | 50.0 | 50.2 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.370 | 12.370 | 0.000 | 97 | 373182 | 50.0 | 50.5 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.412 | 12.412 | 0.000 | 98 | 107416 | 50.0 | 52.1 | |
| 112 sec-Butylbenzene | 105 | 12.534 | 12.534 | 0.000 | 94 | 430439 | 50.0 | 50.8 | |
| 113 1,3-Dichlorobenzene | 146 | 12.650 | 12.650 | 0.000 | 98 | 213591 | 50.0 | 52.6 | |
| 114 4-Isopropyltoluene | 119 | 12.692 | 12.692 | 0.000 | 97 | 368400 | 50.0 | 51.4 | |
| 115 1,4-Dichlorobenzene | 146 | 12.753 | 12.753 | 0.000 | 97 | 215806 | 50.0 | 51.1 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.777 | 12.777 | 0.000 | 95 | 100404 | 50.0 | 52.6 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.820 | 12.820 | 0.000 | 0 | 107162 | 50.0 | 51.9 | |
| 120 n-Butylbenzene | 91 | 13.100 | 13.100 | 0.000 | 97 | 294748 | 50.0 | 48.1 | |
| 121 1,2-Dichlorobenzene | 146 | 13.112 | 13.112 | 0.000 | 98 | 196904 | 50.0 | 51.9 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.903 | 13.903 | 0.000 | 83 | 14564 | 50.0 | 46.7 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.043 | 14.043 | 0.000 | 0 | 366729 | 150.0 | 169.2 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.463 | 14.463 | 0.000 | 0 | 232025 | 100.0 | 112.3 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.724 | 14.724 | 0.000 | 94 | 81828 | 50.0 | 55.4 | |
| 127 Hexachlorobutadiene | 225 | 14.870 | 14.870 | 0.000 | 95 | 40848 | 50.0 | 57.4 | |
| 128 Naphthalene | 128 | 14.992 | 14.992 | 0.000 | 97 | 217812 | 50.0 | 57.4 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.217 | 15.217 | 0.000 | 97 | 69680 | 50.0 | 58.3 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.996 | 15.996 | 0.000 | 0 | 22210 | 50.0 | 51.5 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.087 | 16.087 | 0.000 | 97 | 25331 | 50.0 | 63.7 | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 94.1 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 106.2 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 87.2 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| voaWKet1stRes_00001 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOAPRI_00147 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006002.D

Injection Date: 06-Oct-2015 12:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

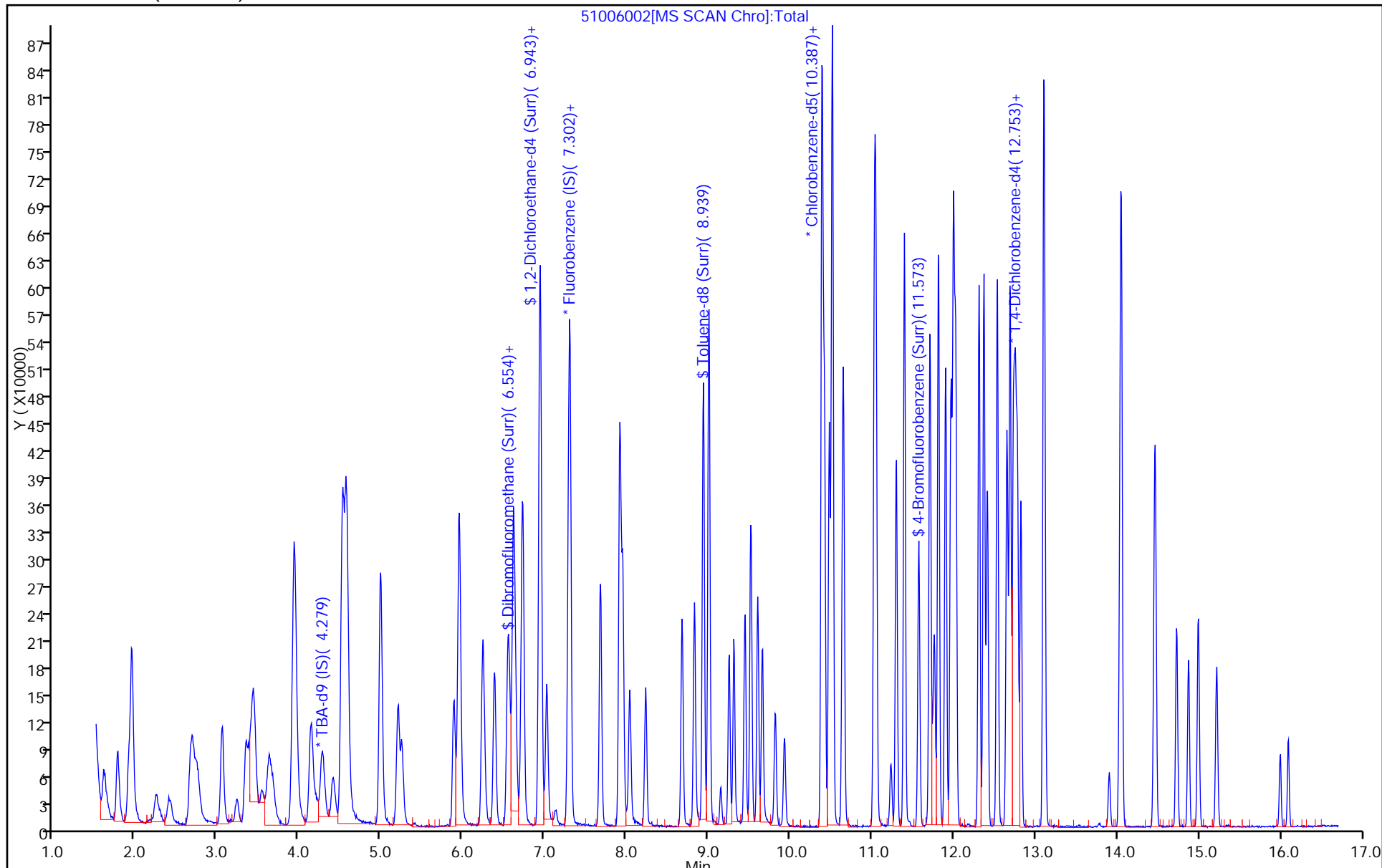
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



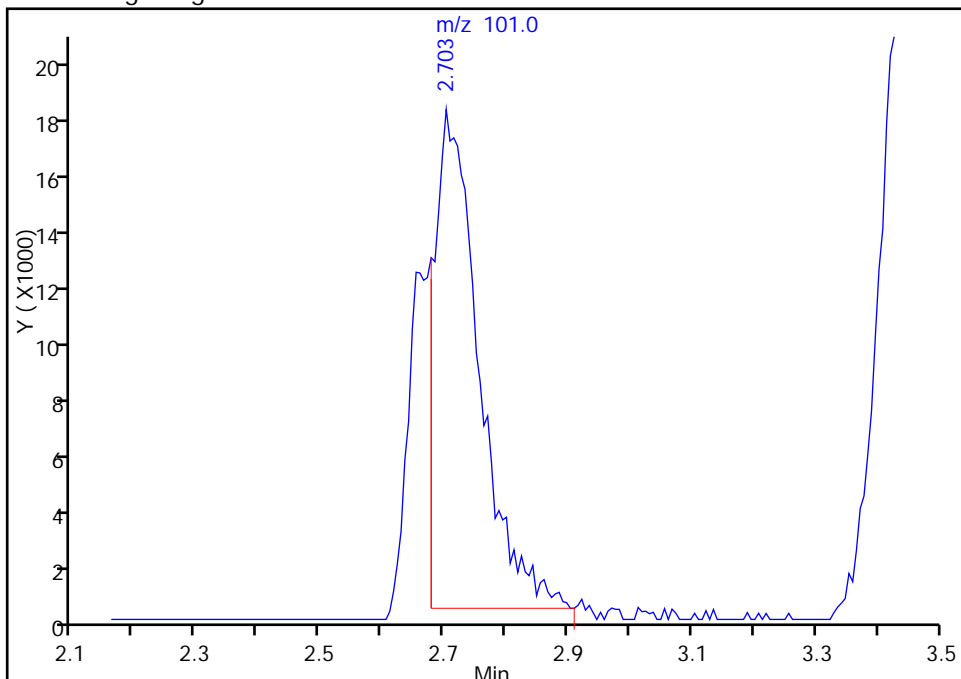
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006002.D
Injection Date: 06-Oct-2015 12:41:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

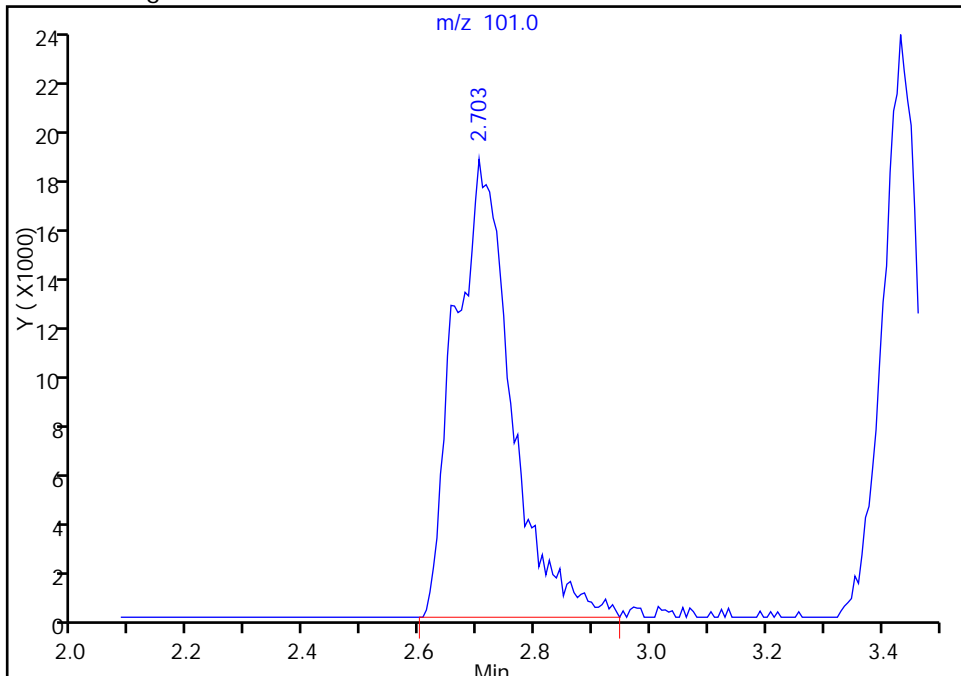
RT: 2.70
Area: 88801
Amount: 35.692052
Amount Units: ng

Processing Integration Results



RT: 2.70
Area: 124067
Amount: 49.866621
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 06-Oct-2015 13:21:54
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155869/2 Calibration Date: 10/05/2015 10:05
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02
 Lab File ID: 61005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---------------------------------------|------------|---------|---------|---------|-------------|--------------|-------|--------|
| Dichlorodifluoromethane | Ave | 0.3462 | 0.3266 | 0.1000 | 9.43 | 10.0 | -5.7 | 20.0 |
| Chloromethane | Ave | 0.2984 | 0.3193 | 0.1000 | 10.7 | 10.0 | 7.0 | 20.0 |
| Vinyl chloride | Ave | 0.3214 | 0.3218 | 0.1000 | 10.0 | 10.0 | 0.1 | 20.0 |
| 1,3-Butadiene | Ave | 0.3013 | 0.3380 | 0.0100 | 11.2 | 10.0 | 12.2 | 20.0 |
| Bromomethane | Ave | 0.1735 | 0.1520 | 0.0500 | 8.76 | 10.0 | -12.4 | 20.0 |
| Chloroethane | Ave | 0.2194 | 0.2119 | 0.0500 | 9.66 | 10.0 | -3.4 | 20.0 |
| Dichlorofluoromethane | Ave | 0.5106 | 0.4702 | 0.0100 | 9.21 | 10.0 | -7.9 | 20.0 |
| Trichlorofluoromethane | Ave | 0.4072 | 0.3773 | 0.1000 | 9.27 | 10.0 | -7.3 | 20.0 |
| Ethyl ether | Ave | 0.2886 | 0.2966 | 0.0100 | 10.3 | 10.0 | 2.8 | 20.0 |
| Acrolein | Ave | 0.0315 | 0.0307 | 0.0100 | 29.2 | 30.0 | -2.6 | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2517 | 0.2418 | 0.1000 | 9.61 | 10.0 | -3.9 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2657 | 0.2714 | 0.1000 | 10.2 | 10.0 | 2.1 | 20.0 |
| Acetone | Ave | 0.0885 | 0.0922 | 0.0500 | 20.8 | 20.0 | 4.2 | 20.0 |
| Iodomethane | Ave | 0.3379 | 0.3500 | 0.0100 | 10.4 | 10.0 | 3.6 | 20.0 |
| Carbon disulfide | Ave | 0.6522 | 0.6465 | 0.1000 | 9.91 | 10.0 | -0.9 | 20.0 |
| Allyl chloride | Ave | 0.1419 | 0.1343 | 0.0100 | 9.47 | 10.0 | -5.3 | 20.0 |
| Methyl acetate | Ave | 0.2074 | 0.2402 | 0.1000 | 57.9 | 50.0 | 15.8 | 20.0 |
| Methylene Chloride | Lin2 | | 0.3168 | 0.1000 | 8.98 | 10.0 | -10.2 | 20.0 |
| tert-Butyl alcohol | Ave | 1.125 | 1.204 | 0.0100 | 107 | 100 | 7.0 | 20.0 |
| Acrylonitrile | Ave | 0.1046 | 0.1183 | 0.0100 | 113 | 100 | 13.1 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.2905 | 0.2695 | 0.1000 | 9.28 | 10.0 | -7.2 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.8703 | 0.7631 | 0.1000 | 8.77 | 10.0 | -12.3 | 20.0 |
| Hexane | Ave | 0.3936 | 0.4392 | 0.0100 | 11.2 | 10.0 | 11.6 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.5200 | 0.5196 | 0.2000 | 9.99 | 10.0 | -0.0 | 20.0 |
| Vinyl acetate | Ave | 0.4197 | 0.3914 | 0.0100 | 9.33 | 10.0 | -6.7 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.2629 | 0.2436 | 0.0100 | 9.26 | 10.0 | -7.4 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.3158 | 0.2836 | 0.1000 | 8.98 | 10.0 | -10.2 | 20.0 |
| 2-Butanone (MEK) | Ave | 0.1207 | 0.1254 | 0.0500 | 20.8 | 20.0 | 3.9 | 20.0 |
| Bromochloromethane | Ave | 0.1269 | 0.1335 | 0.0100 | 10.5 | 10.0 | 5.2 | 20.0 |
| Tetrahydrofuran | Ave | 0.0813 | 0.0900 | 0.0100 | 22.1 | 20.0 | 10.7 | 20.0 |
| Chloroform | Ave | 0.5161 | 0.4936 | 0.2000 | 9.56 | 10.0 | -4.4 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.3814 | 0.3771 | 0.1000 | 9.89 | 10.0 | -1.1 | 20.0 |
| Cyclohexane | Ave | 0.4886 | 0.5280 | 0.1000 | 10.8 | 10.0 | 8.1 | 20.0 |
| Carbon tetrachloride | Ave | 0.2694 | 0.3063 | 0.1000 | 11.4 | 10.0 | 13.7 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.4102 | 0.4098 | 0.0100 | 9.99 | 10.0 | -0.0 | 20.0 |
| Isobutyl alcohol | Ave | 0.0072 | 0.0079* | 0.0100 | 271 | 250 | 8.6 | 20.0 |
| Benzene | Ave | 1.165 | 1.227 | 0.5000 | 10.5 | 10.0 | 5.3 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.4694 | 0.4609 | 0.1000 | 9.82 | 10.0 | -1.8 | 20.0 |
| n-Heptane | Ave | 0.3168 | 0.4363 | 0.0100 | 13.8 | 10.0 | 37.7* | 20.0 |
| Trichloroethene | Ave | 0.2430 | 0.2608 | 0.2000 | 10.7 | 10.0 | 7.3 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155869/2 Calibration Date: 10/05/2015 10:05
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02
 Lab File ID: 61005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|------------------------------|------------|---------|---------|---------|-------------|--------------|-------|--------|
| Methylcyclohexane | Ave | 0.4932 | 0.4861 | 0.1000 | 9.86 | 10.0 | -1.4 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.2784 | 0.3050 | 0.1000 | 11.0 | 10.0 | 9.6 | 20.0 |
| 1,4-Dioxane | Ave | 0.0027 | 0.0027* | 0.0100 | 193 | 200 | -3.5 | 20.0 |
| Dibromomethane | Ave | 0.1690 | 0.1665 | 0.0100 | 9.85 | 10.0 | -1.5 | 20.0 |
| Bromodichloromethane | Ave | 0.3176 | 0.3221 | 0.2000 | 10.1 | 10.0 | 1.4 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.3489 | 0.3644 | 0.2000 | 10.4 | 10.0 | 4.4 | 20.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 1.028 | 0.9635 | 0.1000 | 18.7 | 20.0 | -6.3 | 20.0 |
| Toluene | Ave | 5.159 | 5.289 | 0.4000 | 10.3 | 10.0 | 2.5 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 1.310 | 1.415 | 0.1000 | 10.8 | 10.0 | 8.1 | 20.0 |
| Ethyl methacrylate | Ave | 1.391 | 1.315 | 0.0100 | 9.46 | 10.0 | -5.4 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 1.067 | 1.074 | 0.1000 | 10.1 | 10.0 | 0.6 | 20.0 |
| Tetrachloroethene | Ave | 0.8800 | 1.002 | 0.2000 | 11.4 | 10.0 | 13.8 | 20.0 |
| 1,3-Dichloropropane | Ave | 1.971 | 1.995 | 0.0100 | 10.1 | 10.0 | 1.2 | 20.0 |
| 2-Hexanone | Ave | 0.6750 | 0.7595 | 0.1000 | 22.5 | 20.0 | 12.5 | 20.0 |
| Dibromochloromethane | Ave | 0.7283 | 0.8638 | 0.1000 | 11.9 | 10.0 | 18.6 | 20.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.9442 | 0.9672 | 0.1000 | 10.2 | 10.0 | 2.4 | 20.0 |
| 3-Chlorobenzotrifluoride | Ave | 1.652 | 1.814 | 0.0100 | 11.0 | 10.0 | 9.8 | 20.0 |
| Chlorobenzene | Ave | 3.171 | 3.259 | 0.5000 | 10.3 | 10.0 | 2.8 | 20.0 |
| 4-Chlorobenzotrifluoride | Ave | 1.531 | 1.698 | 0.0100 | 11.1 | 10.0 | 10.9 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.8691 | 1.005 | 0.0100 | 11.6 | 10.0 | 15.6 | 20.0 |
| Ethylbenzene | Ave | 1.789 | 1.874 | 0.1000 | 10.5 | 10.0 | 4.7 | 20.0 |
| m-Xylene & p-Xylene | Ave | 2.220 | 2.337 | 0.1000 | 10.5 | 10.0 | 5.3 | 20.0 |
| o-Xylene | Ave | 2.221 | 2.222 | 0.3000 | 10.0 | 10.0 | 0.0 | 20.0 |
| Styrene | Ave | 3.411 | 3.676 | 0.3000 | 10.8 | 10.0 | 7.8 | 20.0 |
| Bromoform | Ave | 0.3887 | 0.4487 | 0.1000 | 11.5 | 10.0 | 15.4 | 20.0 |
| 2-Chlorobenzotrifluoride | Ave | 1.692 | 1.843 | 0.0100 | 10.9 | 10.0 | 8.9 | 20.0 |
| Isopropylbenzene | Ave | 5.314 | 5.484 | 0.1000 | 10.3 | 10.0 | 3.2 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 1.428 | 1.350 | 0.3000 | 9.46 | 10.0 | -5.4 | 20.0 |
| Bromobenzene | Ave | 0.8038 | 0.7889 | 0.0100 | 9.81 | 10.0 | -1.9 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2549 | 0.2336 | 0.0100 | 9.16 | 10.0 | -8.4 | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.3057 | 0.2506 | 0.0100 | 8.20 | 10.0 | -18.0 | 20.0 |
| N-Propylbenzene | Ave | 0.9257 | 0.8458 | 0.0100 | 9.14 | 10.0 | -8.6 | 20.0 |
| 2-Chlorotoluene | Ave | 0.7686 | 0.7312 | 0.0100 | 9.51 | 10.0 | -4.9 | 20.0 |
| 3-Chlorotoluene | Ave | 0.8072 | 0.7841 | 0.0100 | 9.71 | 10.0 | -2.9 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 3.010 | 2.792 | 0.0100 | 9.28 | 10.0 | -7.2 | 20.0 |
| 4-Chlorotoluene | Ave | 0.8119 | 0.8035 | 0.0100 | 9.90 | 10.0 | -1.0 | 20.0 |
| tert-Butylbenzene | Ave | 2.378 | 2.080 | 0.0100 | 8.75 | 10.0 | -12.5 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 3.078 | 2.819 | 0.0100 | 9.16 | 10.0 | -8.4 | 20.0 |
| 3,4-Dichlorobenzotrifluoride | Ave | 0.8719 | 0.9023 | 0.0100 | 10.3 | 10.0 | 3.5 | 20.0 |
| sec-Butylbenzene | Ave | 3.550 | 3.301 | 0.0100 | 9.30 | 10.0 | -7.0 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.570 | 1.489 | 0.6000 | 9.48 | 10.0 | -5.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-155869/2 Calibration Date: 10/05/2015 10:05
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02
 Lab File ID: 61005002.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|-----------------------------------|------------|---------|--------|---------|-------------|--------------|--------|--------|
| 4-Isopropyltoluene | Ave | 2.979 | 2.678 | 0.0100 | 8.99 | 10.0 | -10.1 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.507 | 0.5000 | 9.39 | 10.0 | -6.1 | 20.0 |
| 2,4-Dichlorobenzotrifluoride | Ave | 0.8674 | 0.8648 | 0.0100 | 9.97 | 10.0 | -0.3 | 20.0 |
| 2,5-Dichlorobenzotrifluoride | Ave | 0.9687 | 0.9676 | 0.0100 | 9.99 | 10.0 | -0.1 | 20.0 |
| n-Butylbenzene | Ave | 2.974 | 2.531 | 0.0100 | 8.51 | 10.0 | -14.9 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.585 | 1.469 | 0.4000 | 9.27 | 10.0 | -7.3 | 20.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1454 | 0.1114 | 0.0500 | 7.66 | 10.0 | -23.4* | 20.0 |
| 2,4- & 2,5- & 2,6-Dichlorotoluene | Ave | 1.380 | 1.223 | 0.0100 | 26.6 | 30.0 | -11.4 | 20.0 |
| 2,3- & 3,4- Dichlorotoluene | Ave | 1.522 | 1.320 | 0.0100 | 17.3 | 20.0 | -13.3 | 20.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.229 | 1.048 | 0.2000 | 8.53 | 10.0 | -14.7 | 20.0 |
| Hexachlorobutadiene | Ave | 0.4839 | 0.4797 | 0.0100 | 9.91 | 10.0 | -0.9 | 20.0 |
| Naphthalene | Ave | 2.479 | 2.057 | 0.0100 | 8.30 | 10.0 | -17.0 | 20.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.150 | 0.9717 | 0.0100 | 8.45 | 10.0 | -15.5 | 20.0 |
| 2,4,5-Trichlorotoluene | Ave | 0.7719 | 0.5927 | 0.0100 | 7.68 | 10.0 | -23.2* | 20.0 |
| 2,3,6-Trichlorotoluene | Ave | 0.7323 | 0.6544 | 0.0100 | 8.94 | 10.0 | -10.6 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2303 | 0.2123 | | 9.22 | 10.0 | -7.8 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3715 | 0.3434 | | 9.24 | 10.0 | -7.6 | 20.0 |
| Toluene-d8 (Surr) | Ave | 3.944 | 3.998 | | 10.1 | 10.0 | 1.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 1.751 | 1.580 | | 9.02 | 10.0 | -9.8 | 20.0 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005002.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-Oct-2015 10:05:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 180-0008826-002
 Operator ID: 001562 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 10:57:51 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 10:27:02

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.239 | 4.239 | 0.000 | 87 | 149860 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.286 | 7.286 | 0.000 | 97 | 445228 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.395 | 10.395 | 0.000 | 90 | 102974 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.749 | 12.749 | 0.000 | 94 | 183514 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.550 | 6.550 | 0.000 | 93 | 94520 | 50.0 | 46.1 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.928 | 6.928 | 0.000 | 72 | 152894 | 50.0 | 46.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.941 | 8.941 | 0.000 | 94 | 411639 | 50.0 | 50.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.587 | 11.587 | 0.000 | 86 | 162726 | 50.0 | 45.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.604 | 1.604 | 0.000 | 99 | 145387 | 50.0 | 47.2 | |
| 12 Chloromethane | 50 | 1.769 | 1.769 | 0.000 | 100 | 142139 | 50.0 | 53.5 | |
| 13 Vinyl chloride | 62 | 1.903 | 1.903 | 0.000 | 98 | 143274 | 50.0 | 50.1 | |
| 14 Butadiene | 39 | 1.939 | 1.939 | 0.000 | 96 | 150499 | 50.0 | 56.1 | |
| 15 Bromomethane | 94 | 2.243 | 2.243 | 0.000 | 90 | 67660 | 50.0 | 43.8 | |
| 16 Chloroethane | 64 | 2.377 | 2.377 | 0.000 | 98 | 94344 | 50.0 | 48.3 | |
| 17 Dichlorofluoromethane | 67 | 2.651 | 2.651 | 0.000 | 97 | 209329 | 50.0 | 46.0 | |
| 18 Trichlorofluoromethane | 101 | 2.681 | 2.681 | 0.000 | 83 | 167984 | 50.0 | 46.3 | |
| 20 Ethyl ether | 59 | 3.046 | 3.046 | 0.000 | 94 | 132067 | 50.0 | 51.4 | |
| 21 Acrolein | 56 | 3.211 | 3.211 | 0.000 | 98 | 40943 | 150.0 | 146.1 | |
| 22 1,1-Dichloroethene | 96 | 3.326 | 3.326 | 0.000 | 95 | 107642 | 50.0 | 48.0 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.405 | 3.405 | 0.000 | 93 | 120825 | 50.0 | 51.1 | |
| 24 Acetone | 43 | 3.430 | 3.430 | 0.000 | 96 | 82076 | 100.0 | 104.2 | |
| 25 Iodomethane | 142 | 3.533 | 3.533 | 0.000 | 99 | 155817 | 50.0 | 51.8 | |
| 26 Carbon disulfide | 76 | 3.630 | 3.630 | 0.000 | 100 | 287823 | 50.0 | 49.6 | |
| 29 3-Chloro-1-propene | 76 | 3.910 | 3.910 | 0.000 | 61 | 59804 | 50.0 | 47.3 | |
| 30 Methyl acetate | 43 | 3.922 | 3.922 | 0.000 | 97 | 534678 | 250.0 | 289.5 | |
| 31 Methylene Chloride | 84 | 4.117 | 4.117 | 0.000 | 97 | 141037 | 50.0 | 44.9 | |
| 32 2-Methyl-2-propanol | 59 | 4.366 | 4.366 | 0.000 | 88 | 90205 | 500.0 | 534.9 | |
| 33 Acrylonitrile | 53 | 4.500 | 4.500 | 0.000 | 99 | 526520 | 500.0 | 565.5 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.555 | 4.555 | 0.000 | 93 | 119992 | 50.0 | 46.4 | |
| 35 Methyl tert-butyl ether | 73 | 4.573 | 4.573 | 0.000 | 97 | 339729 | 50.0 | 43.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 36 Hexane | 57 | 4.987 | 4.987 | 0.000 | 95 | 195562 | 50.0 | 55.8 | |
| 37 1,1-Dichloroethane | 63 | 5.194 | 5.194 | 0.000 | 97 | 231319 | 50.0 | 50.0 | |
| 38 Vinyl acetate | 43 | 5.236 | 5.236 | 0.000 | 98 | 174274 | 50.0 | 46.6 | |
| 42 2,2-Dichloropropane | 77 | 5.936 | 5.936 | 0.000 | 59 | 108442 | 50.0 | 46.3 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.942 | 5.942 | 0.000 | 85 | 126254 | 50.0 | 44.9 | |
| 44 2-Butanone (MEK) | 43 | 5.948 | 5.948 | 0.000 | 65 | 111673 | 100.0 | 103.9 | |
| 48 Chlorobromomethane | 128 | 6.228 | 6.228 | 0.000 | 96 | 59417 | 50.0 | 52.6 | |
| 49 Tetrahydrofuran | 42 | 6.246 | 6.246 | 0.000 | 88 | 80122 | 100.0 | 110.7 | |
| 50 Chloroform | 83 | 6.368 | 6.368 | 0.000 | 96 | 219773 | 50.0 | 47.8 | |
| 51 1,1,1-Trichloroethane | 97 | 6.532 | 6.532 | 0.000 | 98 | 167890 | 50.0 | 49.4 | |
| 52 Cyclohexane | 56 | 6.617 | 6.617 | 0.000 | 94 | 235075 | 50.0 | 54.0 | |
| 53 Carbon tetrachloride | 117 | 6.715 | 6.715 | 0.000 | 97 | 136353 | 50.0 | 56.8 | |
| 54 1,1-Dichloropropene | 75 | 6.727 | 6.727 | 0.000 | 92 | 182462 | 50.0 | 50.0 | |
| 55 Isobutyl alcohol | 41 | 6.897 | 6.897 | 0.000 | 90 | 87408 | 1250.0 | 1357.0 | |
| 56 Benzene | 78 | 6.940 | 6.940 | 0.000 | 97 | 546342 | 50.0 | 52.7 | |
| 57 1,2-Dichloroethane | 62 | 7.013 | 7.013 | 0.000 | 98 | 205218 | 50.0 | 49.1 | |
| 59 n-Heptane | 43 | 7.305 | 7.305 | 0.000 | 93 | 194249 | 50.0 | 68.9 | |
| 61 Trichloroethene | 130 | 7.676 | 7.676 | 0.000 | 96 | 116121 | 50.0 | 53.7 | |
| 63 Methylcyclohexane | 83 | 7.925 | 7.925 | 0.000 | 94 | 216407 | 50.0 | 49.3 | |
| 64 1,2-Dichloropropane | 63 | 7.950 | 7.950 | 0.000 | 95 | 135796 | 50.0 | 54.8 | |
| 65 1,4-Dioxane | 88 | 8.023 | 8.023 | 0.000 | 41 | 23617 | 1000.0 | 965.2 | M |
| 67 Dibromomethane | 93 | 8.035 | 8.035 | 0.000 | 95 | 74144 | 50.0 | 49.3 | |
| 68 Dichlorobromomethane | 83 | 8.229 | 8.229 | 0.000 | 97 | 143403 | 50.0 | 50.7 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.680 | 8.680 | 0.000 | 91 | 162231 | 50.0 | 52.2 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.826 | 8.826 | 0.000 | 97 | 198428 | 100.0 | 93.7 | |
| 73 Toluene | 91 | 9.008 | 9.008 | 0.000 | 98 | 544645 | 50.0 | 51.3 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.257 | 9.257 | 0.000 | 96 | 145751 | 50.0 | 54.0 | |
| 75 Ethyl methacrylate | 69 | 9.312 | 9.312 | 0.000 | 91 | 135458 | 50.0 | 47.3 | |
| 76 1,1,2-Trichloroethane | 97 | 9.452 | 9.452 | 0.000 | 93 | 110566 | 50.0 | 50.3 | |
| 77 Tetrachloroethene | 164 | 9.525 | 9.525 | 0.000 | 96 | 103128 | 50.0 | 56.9 | |
| 78 1,3-Dichloropropane | 76 | 9.610 | 9.610 | 0.000 | 95 | 205404 | 50.0 | 50.6 | |
| 79 2-Hexanone | 43 | 9.659 | 9.659 | 0.000 | 97 | 156415 | 100.0 | 112.5 | |
| 81 Chlorodibromomethane | 129 | 9.823 | 9.823 | 0.000 | 90 | 88947 | 50.0 | 59.3 | |
| 82 Ethylene Dibromide | 107 | 9.939 | 9.939 | 0.000 | 96 | 99591 | 50.0 | 51.2 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.395 | 10.395 | 0.000 | 94 | 186813 | 50.0 | 54.9 | |
| 84 Chlorobenzene | 112 | 10.426 | 10.426 | 0.000 | 92 | 335591 | 50.0 | 51.4 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.486 | 10.486 | 0.000 | 96 | 174827 | 50.0 | 55.4 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.523 | 10.523 | 0.000 | 89 | 103492 | 50.0 | 57.8 | |
| 87 Ethylbenzene | 106 | 10.529 | 10.529 | 0.000 | 99 | 192925 | 50.0 | 52.4 | |
| 88 m-Xylene & p-Xylene | 106 | 10.657 | 10.657 | 0.000 | 99 | 240680 | 50.0 | 52.6 | |
| 89 o-Xylene | 106 | 11.040 | 11.040 | 0.000 | 96 | 228827 | 50.0 | 50.0 | |
| 90 Styrene | 104 | 11.058 | 11.058 | 0.000 | 94 | 378546 | 50.0 | 53.9 | |
| 91 Bromoform | 173 | 11.247 | 11.247 | 0.000 | 95 | 46207 | 50.0 | 57.7 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.302 | 11.302 | 0.000 | 96 | 189760 | 50.0 | 54.5 | |
| 93 Isopropylbenzene | 105 | 11.411 | 11.411 | 0.000 | 97 | 564732 | 50.0 | 51.6 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.715 | 11.715 | 0.000 | 97 | 139023 | 50.0 | 47.3 | |
| 95 Bromobenzene | 156 | 11.727 | 11.727 | 0.000 | 98 | 144768 | 50.0 | 49.1 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.758 | 11.758 | 0.000 | 73 | 42869 | 50.0 | 45.8 | |
| 98 1,2,3-Trichloropropane | 110 | 11.776 | 11.776 | 0.000 | 83 | 45984 | 50.0 | 41.0 | |
| 99 N-Propylbenzene | 120 | 11.825 | 11.825 | 0.000 | 99 | 155216 | 50.0 | 45.7 | |
| 100 2-Chlorotoluene | 126 | 11.916 | 11.916 | 0.000 | 96 | 134189 | 50.0 | 47.6 | |
| 101 3-Chlorotoluene | 126 | 11.977 | 11.977 | 0.000 | 96 | 143898 | 50.0 | 48.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 102 1,3,5-Trimethylbenzene | 105 | 12.007 | 12.007 | 0.000 | 93 | 512352 | 50.0 | 46.4 | |
| 103 4-Chlorotoluene | 126 | 12.038 | 12.038 | 0.000 | 99 | 147458 | 50.0 | 49.5 | |
| 104 tert-Butylbenzene | 119 | 12.324 | 12.324 | 0.000 | 92 | 381792 | 50.0 | 43.7 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.384 | 12.384 | 0.000 | 98 | 517242 | 50.0 | 45.8 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.421 | 12.421 | 0.000 | 97 | 165580 | 50.0 | 51.7 | |
| 108 sec-Butylbenzene | 105 | 12.549 | 12.549 | 0.000 | 96 | 605807 | 50.0 | 46.5 | |
| 109 1,3-Dichlorobenzene | 146 | 12.670 | 12.670 | 0.000 | 96 | 273225 | 50.0 | 47.4 | |
| 110 4-Isopropyltoluene | 119 | 12.707 | 12.707 | 0.000 | 96 | 491498 | 50.0 | 45.0 | |
| 111 1,4-Dichlorobenzene | 146 | 12.774 | 12.774 | 0.000 | 91 | 276633 | 50.0 | 47.0 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.786 | 12.786 | 0.000 | 96 | 158707 | 50.0 | 49.9 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.828 | 12.828 | 0.000 | 98 | 177573 | 50.0 | 49.9 | |
| 116 n-Butylbenzene | 91 | 13.114 | 13.114 | 0.000 | 99 | 464471 | 50.0 | 42.6 | |
| 117 1,2-Dichlorobenzene | 146 | 13.127 | 13.127 | 0.000 | 93 | 269602 | 50.0 | 46.3 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.917 | 13.911 | 0.006 | 72 | 20439 | 50.0 | 38.3 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.057 | 14.057 | 0.000 | 99 | 673332 | 150.0 | 133.0 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.477 | 14.477 | 0.000 | 99 | 484599 | 100.0 | 86.7 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.745 | 14.745 | 0.000 | 94 | 192313 | 50.0 | 42.7 | |
| 123 Hexachlorobutadiene | 225 | 14.891 | 14.891 | 0.000 | 96 | 88024 | 50.0 | 49.6 | |
| 124 Naphthalene | 128 | 15.006 | 15.006 | 0.000 | 98 | 377525 | 50.0 | 41.5 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.225 | 15.225 | 0.000 | 94 | 178316 | 50.0 | 42.3 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.010 | 16.010 | 0.000 | 0 | 108776 | 50.0 | 38.4 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.107 | 16.107 | 0.000 | 96 | 120098 | 50.0 | 44.7 | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 100.0 | 102.7 | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 91.3 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 106.3 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260VOAPRI_00147 | Amount Added: 2.00 | Units: uL | |
| voaWKet1stRes_00001 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005002.D

Injection Date: 05-Oct-2015 10:05:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

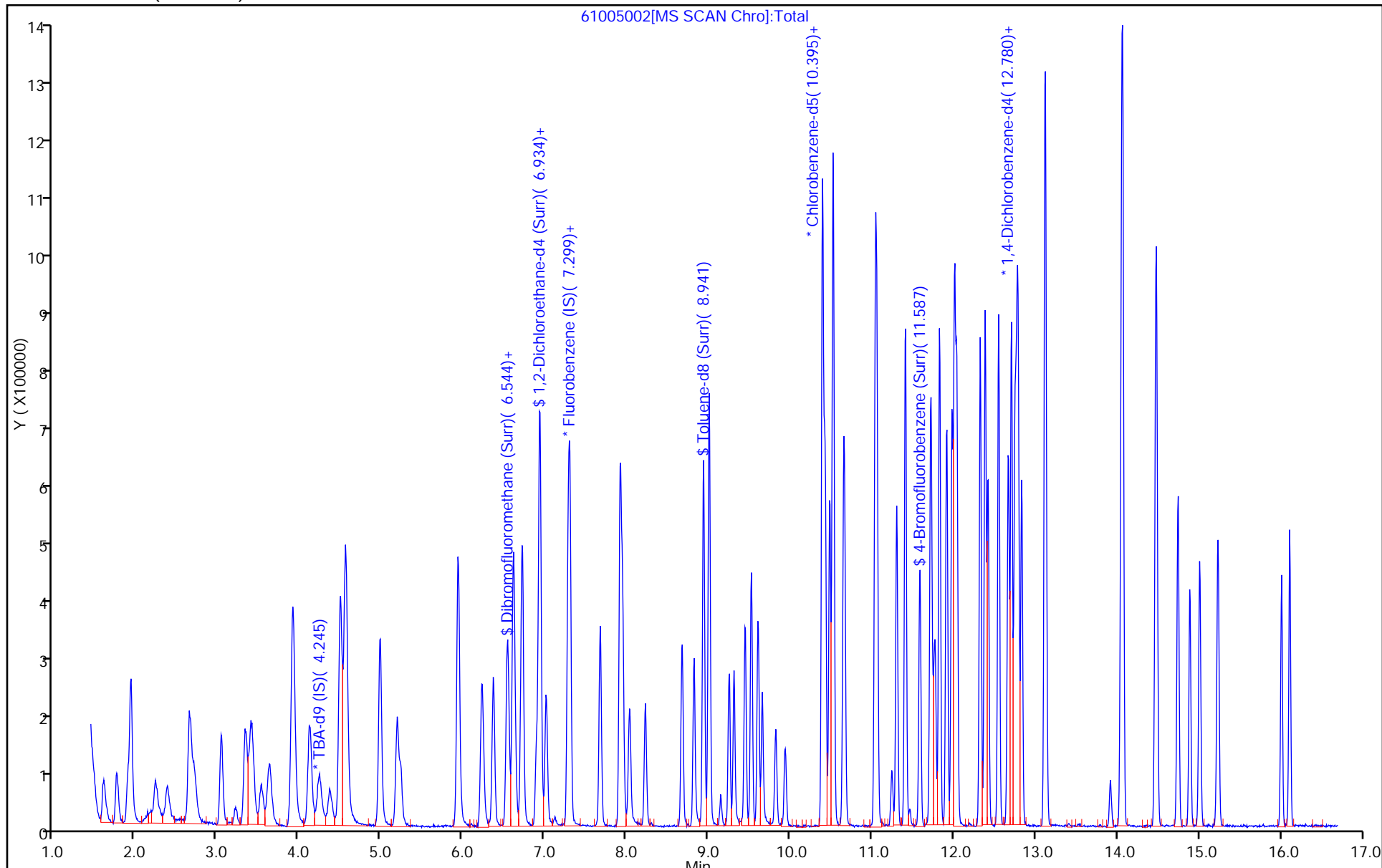
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



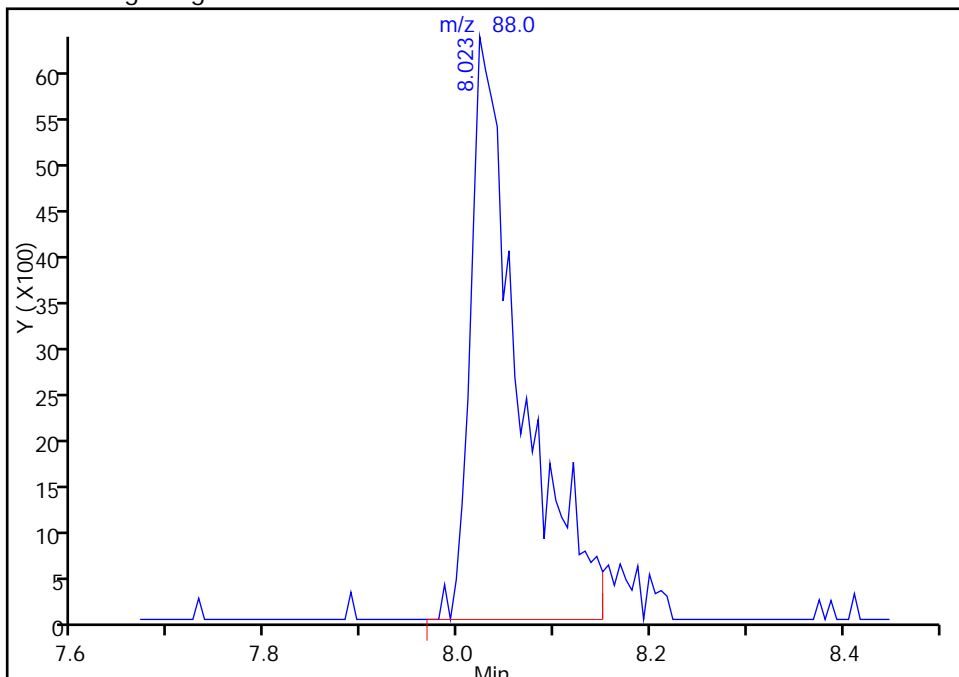
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005002.D
Injection Date: 05-Oct-2015 10:05:30 Instrument ID: CHHP6
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

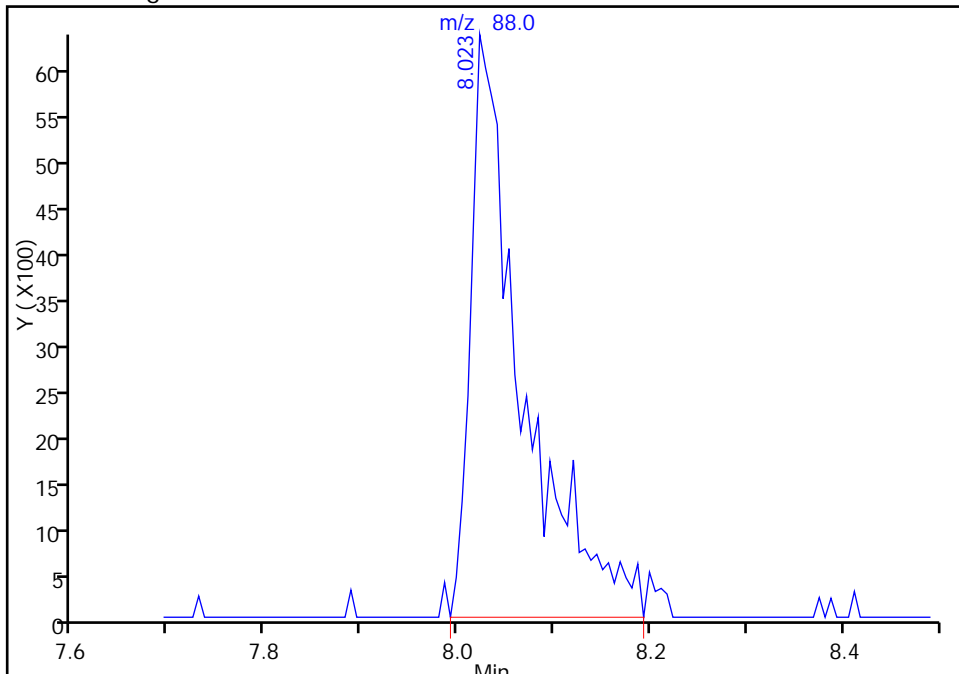
RT: 8.02
Area: 22692
Amount: 927.4038
Amount Units: ng

Processing Integration Results



RT: 8.02
Area: 23617
Amount: 965.2078
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 05-Oct-2015 10:27:02
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 26-Aug-2015 14:01:30 ALS Bottle#: 4 Worklist Smp#: 7
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0008300-007
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 27-Aug-2015 11:26:53 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK048

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|-----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| \$ 10 BFB | 95 | 8.366 | 8.366 | 0.000 | 0 | 128431 | NR | NR | |

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

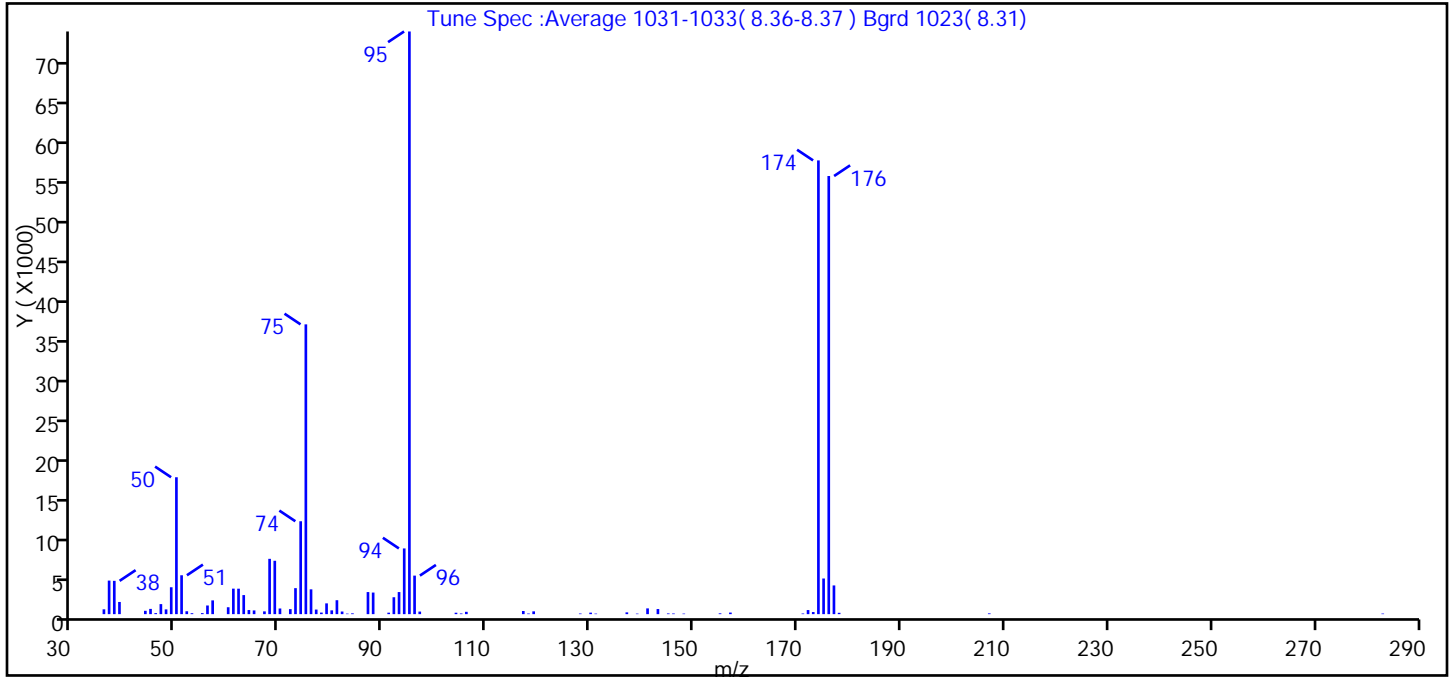
Reagents:

VOABFB25_00065 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D
 Injection Date: 26-Aug-2015 14:01:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 7
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 23.5 |
| 75 | 30 to 60% of m/z 95 | 49.7 |
| 96 | 5 to 9% of m/z 95 | 6.6 |
| 173 | Less than 2% of m/z 174 | 0.4 (0.5) |
| 174 | 50 to 120% of m/z 95 | 77.9 |
| 175 | 5 to 9% of m/z 174 | 6.1 (7.9) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 75.2 (96.6) |
| 177 | 5 to 9% of m/z 176 | 4.9 (6.6) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D\MSVOA_LL_CHHP5.rsl\spectr
Injection Date: 26-Aug-2015 14:01:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1023(8.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 77

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|-------|-------|-------|--------|-------|--------|-------|
| 36.00 | 611 | 63.00 | 2411 | 87.00 | 2793 | 141.00 | 728 |
| 37.00 | 4245 | 64.00 | 518 | 88.00 | 2731 | 143.00 | 645 |
| 38.00 | 4214 | 65.00 | 470 | 91.00 | 185 | 145.00 | 90 |
| 39.00 | 1541 | 67.00 | 350 | 92.00 | 2139 | 146.00 | 83 |
| 44.00 | 422 | 68.00 | 6998 | 93.00 | 2793 | 148.00 | 69 |
| 45.00 | 664 | 69.00 | 6752 | 94.00 | 8313 | 155.00 | 103 |
| 46.00 | 131 | 70.00 | 715 | 95.00 | 73720 | 157.00 | 200 |
| 47.00 | 1270 | 72.00 | 635 | 96.00 | 4875 | 171.00 | 82 |
| 48.00 | 602 | 73.00 | 3289 | 97.00 | 325 | 172.00 | 516 |
| 49.00 | 3402 | 74.00 | 11753 | 104.00 | 180 | 173.00 | 266 |
| 50.00 | 17320 | 75.00 | 36664 | 105.00 | 86 | 174.00 | 57408 |
| 51.00 | 4919 | 76.00 | 3139 | 106.00 | 295 | 175.00 | 4509 |
| 52.00 | 366 | 77.00 | 580 | 117.00 | 395 | 176.00 | 55432 |
| 53.00 | 119 | 78.00 | 199 | 118.00 | 78 | 177.00 | 3632 |
| 55.00 | 129 | 79.00 | 1363 | 119.00 | 354 | 178.00 | 170 |
| 56.00 | 1095 | 80.00 | 480 | 128.00 | 80 | 207.00 | 97 |
| 57.00 | 1741 | 81.00 | 1763 | 130.00 | 191 | 283.00 | 74 |
| 60.00 | 873 | 82.00 | 333 | 131.00 | 68 | | |
| 61.00 | 3226 | 83.00 | 66 | 137.00 | 226 | | |
| 62.00 | 3220 | 84.00 | 102 | 139.00 | 67 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D

Injection Date: 26-Aug-2015 14:01:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 7

Client ID:

Injection Vol: 5.0 mL

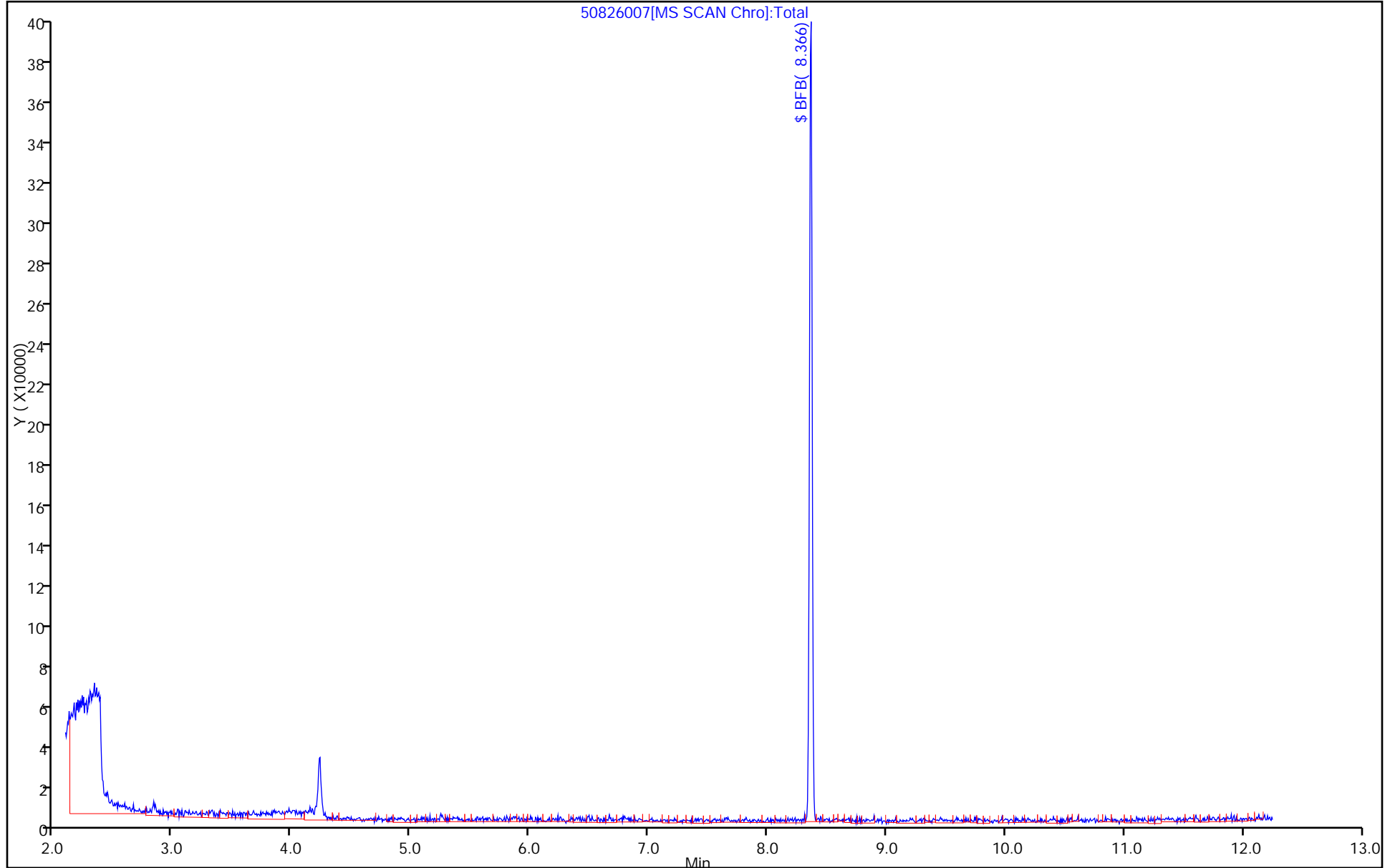
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003004.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 03-Oct-2015 11:41:30 ALS Bottle#: 1 Worklist Smp#: 4
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0008807-004
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 13:06:37 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond Date: 03-Oct-2015 11:47:06

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|

| | | | | | | | | | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|
| \$ 10 BFB | 95 | 8.368 | 8.368 | 0.000 | 0 | 80512 | NR | NR | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

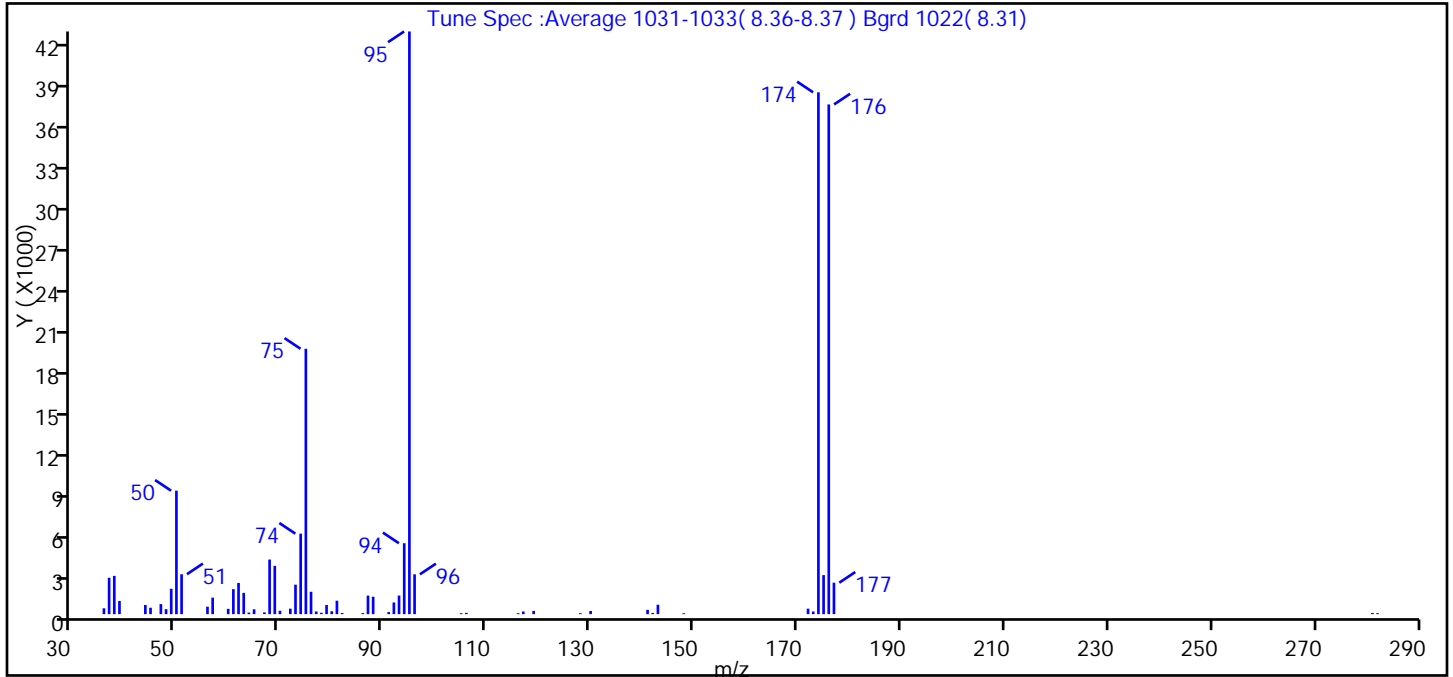
Reagents:

VOABFB25_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003004.D
 Injection Date: 03-Oct-2015 11:41:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 21.2 |
| 75 | 30 to 60% of m/z 95 | 45.5 |
| 96 | 5 to 9% of m/z 95 | 6.8 |
| 173 | Less than 2% of m/z 174 | 0.5 (0.5) |
| 174 | 50 to 120% of m/z 95 | 89.6 |
| 175 | 5 to 9% of m/z 174 | 6.7 (7.5) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 87.5 (97.7) |
| 177 | 5 to 9% of m/z 176 | 5.4 (6.2) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003004.D\MSVOA_LL_CHHP5.rsl\spectr
 Injection Date: 03-Oct-2015 11:41:30
 Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1022(8.31)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 62

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|------|-------|-------|--------|-------|--------|-------|
| 36.00 | 430 | 63.00 | 1557 | 81.00 | 983 | 128.00 | 71 |
| 37.00 | 2663 | 64.00 | 114 | 82.00 | 88 | 130.00 | 233 |
| 38.00 | 2798 | 65.00 | 354 | 86.00 | 79 | 141.00 | 312 |
| 39.00 | 966 | 67.00 | 129 | 87.00 | 1356 | 142.00 | 89 |
| 44.00 | 668 | 68.00 | 3993 | 88.00 | 1274 | 143.00 | 689 |
| 45.00 | 468 | 69.00 | 3531 | 91.00 | 151 | 148.00 | 68 |
| 47.00 | 736 | 70.00 | 249 | 92.00 | 853 | 172.00 | 400 |
| 48.00 | 363 | 72.00 | 401 | 93.00 | 1359 | 173.00 | 194 |
| 49.00 | 1856 | 73.00 | 2156 | 94.00 | 5187 | 174.00 | 38168 |
| 50.00 | 9030 | 74.00 | 5886 | 95.00 | 42616 | 175.00 | 2857 |
| 51.00 | 2920 | 75.00 | 19408 | 96.00 | 2913 | 176.00 | 37280 |
| 56.00 | 546 | 76.00 | 1638 | 105.00 | 69 | 177.00 | 2301 |
| 57.00 | 1206 | 77.00 | 195 | 106.00 | 95 | 281.00 | 88 |
| 60.00 | 387 | 78.00 | 101 | 116.00 | 72 | 282.00 | 72 |
| 61.00 | 1830 | 79.00 | 668 | 117.00 | 193 | | |
| 62.00 | 2281 | 80.00 | 211 | 119.00 | 238 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003004.D

Injection Date: 03-Oct-2015 11:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 mL

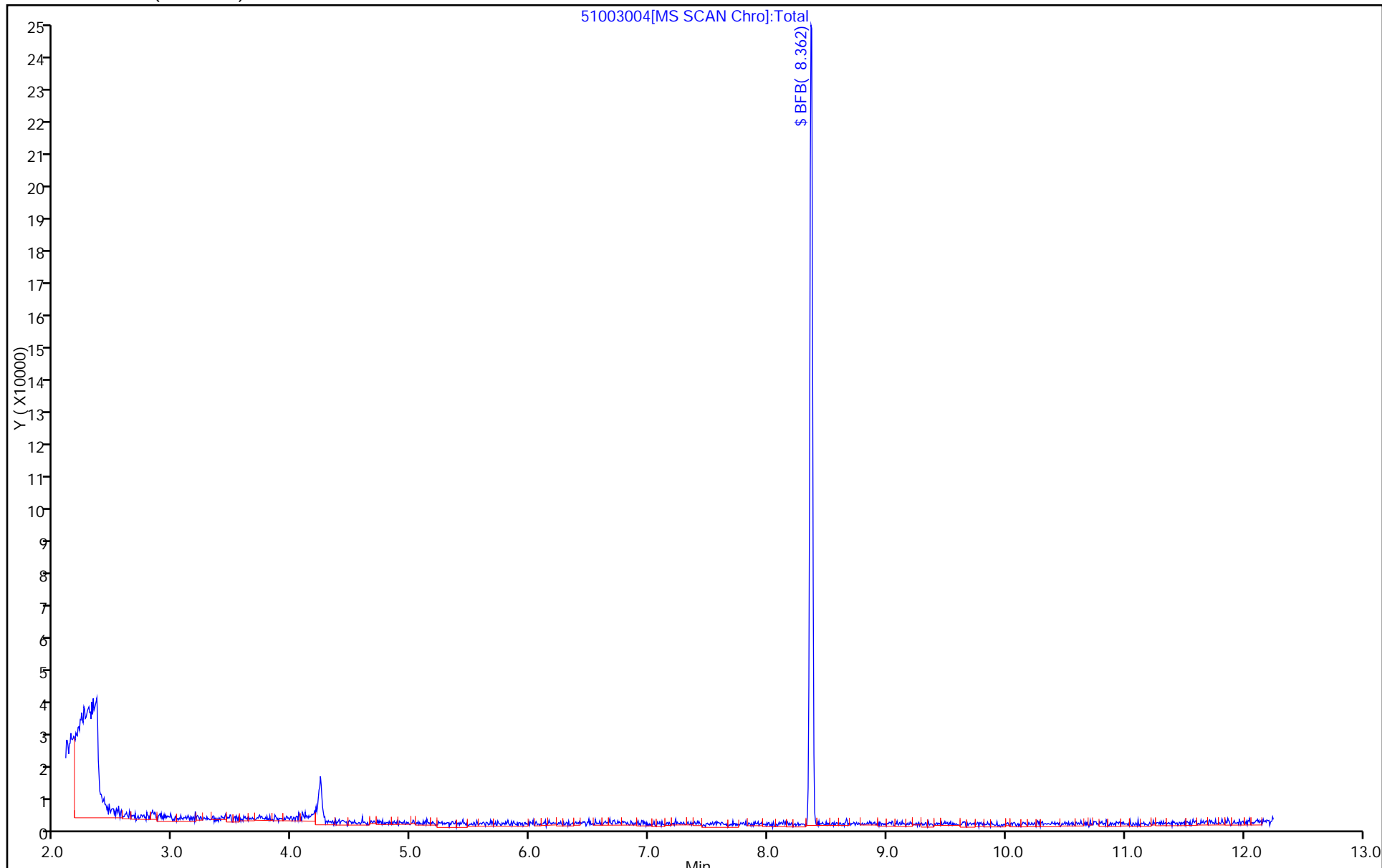
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005001.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 05-Oct-2015 10:17:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0008828-001
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 12:09:10 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond Date: 05-Oct-2015 10:27:34

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|

| | | | | | | | | | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|
| \$ 10 BFB | 95 | 8.371 | 8.371 | 0.000 | 0 | 49373 | NR | NR | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

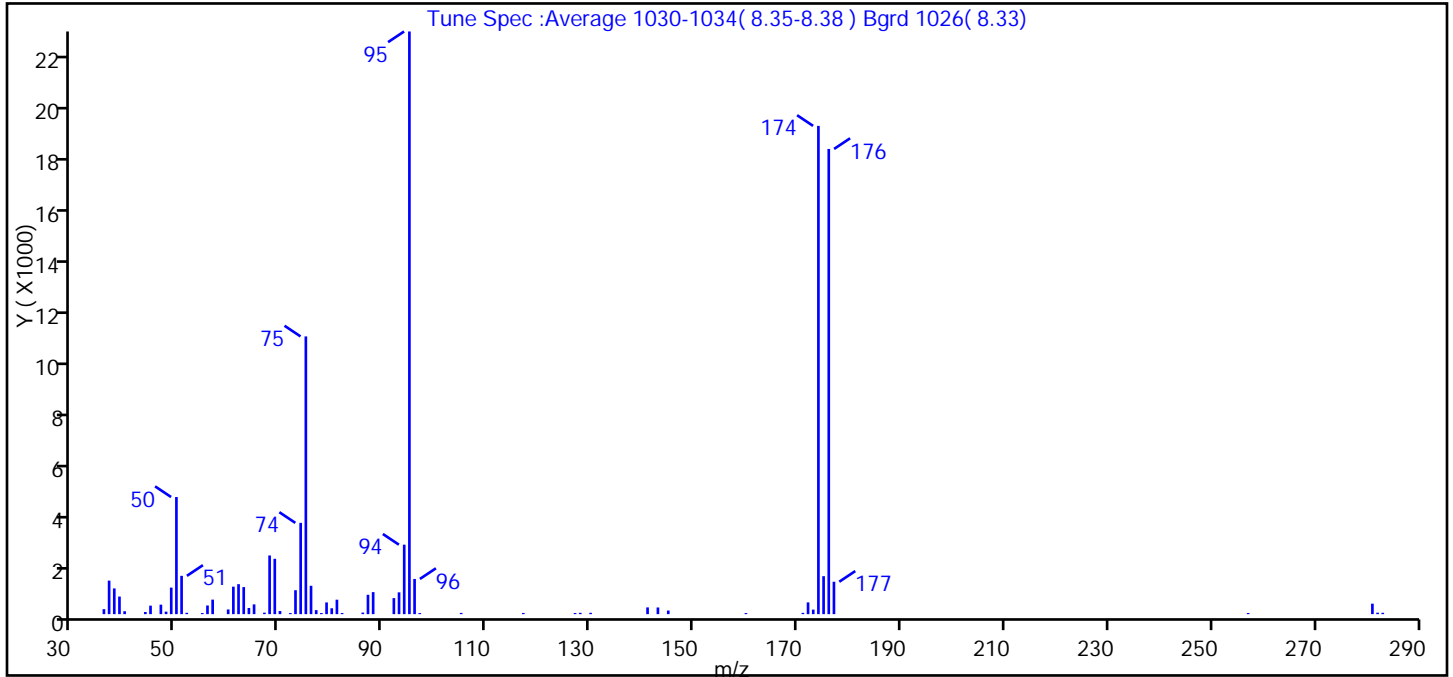
Reagents:

VOABFB25_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005001.D
 Injection Date: 05-Oct-2015 10:17:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 20.1 |
| 75 | 30 to 60% of m/z 95 | 47.7 |
| 96 | 5 to 9% of m/z 95 | 6.0 |
| 173 | Less than 2% of m/z 174 | 0.8 (0.9) |
| 174 | 50 to 120% of m/z 95 | 83.8 |
| 175 | 5 to 9% of m/z 174 | 6.5 (7.8) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 79.8 (95.3) |
| 177 | 5 to 9% of m/z 176 | 5.6 (7.0) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005001.D\MSVOA_LL_CHHP5.rsl\spectr
 Injection Date: 05-Oct-2015 10:17:30
 Spectrum: Tune Spec :Average 1030-1034(8.35-8.38) Bgrd 1026(8.33)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 66

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|------|-------|-------|--------|-------|--------|-------|
| 36.00 | 189 | 61.00 | 1038 | 80.00 | 222 | 141.00 | 255 |
| 37.00 | 1267 | 62.00 | 1133 | 81.00 | 546 | 143.00 | 252 |
| 38.00 | 972 | 63.00 | 1023 | 82.00 | 42 | 145.00 | 136 |
| 39.00 | 665 | 64.00 | 233 | 86.00 | 59 | 160.00 | 41 |
| 40.00 | 109 | 65.00 | 369 | 87.00 | 732 | 171.00 | 49 |
| 44.00 | 80 | 67.00 | 57 | 88.00 | 833 | 172.00 | 444 |
| 45.00 | 321 | 68.00 | 2218 | 92.00 | 606 | 173.00 | 172 |
| 47.00 | 359 | 69.00 | 2092 | 93.00 | 824 | 174.00 | 18456 |
| 48.00 | 95 | 70.00 | 118 | 94.00 | 2626 | 175.00 | 1435 |
| 49.00 | 1003 | 72.00 | 40 | 95.00 | 22024 | 176.00 | 17584 |
| 50.00 | 4427 | 73.00 | 905 | 96.00 | 1330 | 177.00 | 1225 |
| 51.00 | 1448 | 74.00 | 3450 | 97.00 | 40 | 257.00 | 43 |
| 52.00 | 51 | 75.00 | 10498 | 105.00 | 47 | 281.00 | 396 |
| 55.00 | 41 | 76.00 | 1072 | 117.00 | 45 | 282.00 | 55 |
| 56.00 | 327 | 77.00 | 152 | 127.00 | 42 | 283.00 | 51 |
| 57.00 | 549 | 78.00 | 42 | 128.00 | 50 | | |
| 60.00 | 177 | 79.00 | 443 | 130.00 | 50 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005001.D

Injection Date: 05-Oct-2015 10:17:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006005.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 06-Oct-2015 12:01:30 ALS Bottle#: 1 Worklist Smp#: 5
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0008850-005
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 13:34:49 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond Date: 06-Oct-2015 12:12:55

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|

| | | | | | | | | | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|
| \$ 10 BFB | 95 | 8.362 | 8.362 | 0.000 | 0 | 42998 | NR | NR | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

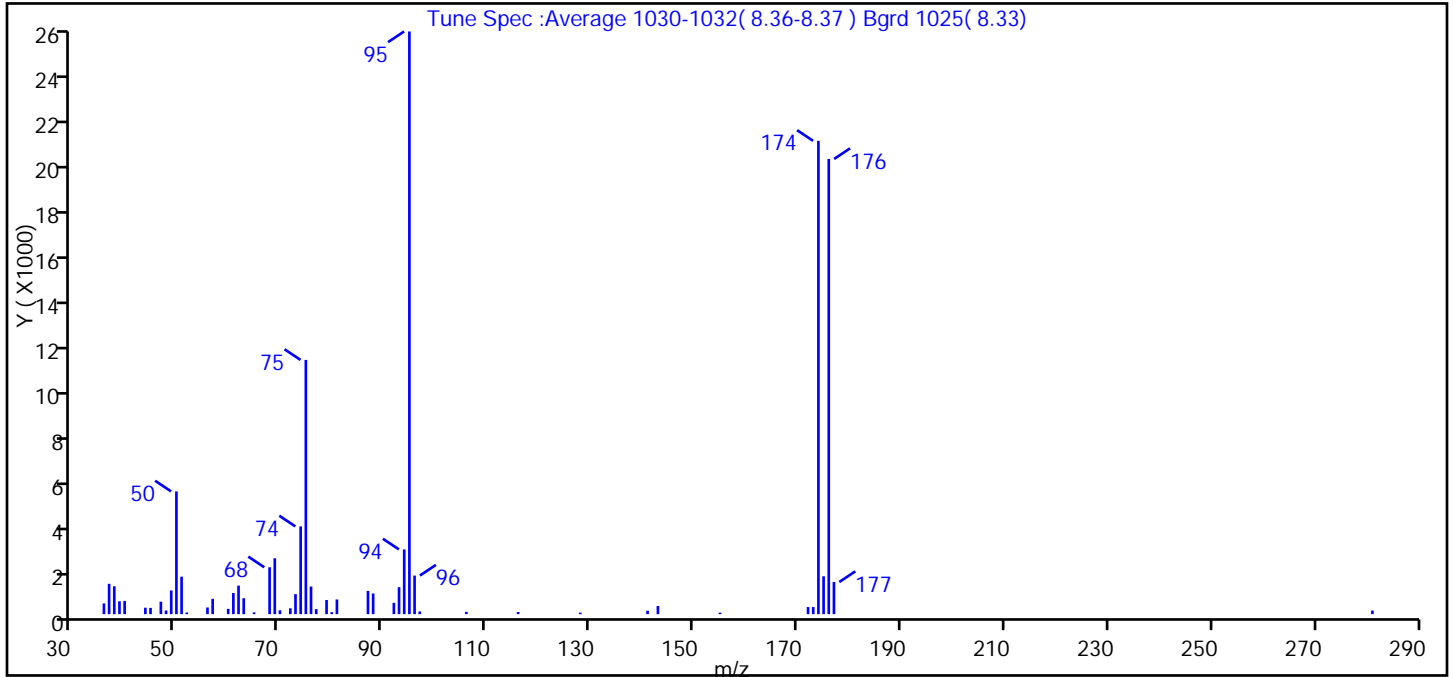
Reagents:

VOABFB25_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006005.D
 Injection Date: 06-Oct-2015 12:01:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 5
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 21.1 |
| 75 | 30 to 60% of m/z 95 | 43.6 |
| 96 | 5 to 9% of m/z 95 | 6.6 |
| 173 | Less than 2% of m/z 174 | 1.2 (1.5) |
| 174 | 50 to 120% of m/z 95 | 81.2 |
| 175 | 5 to 9% of m/z 174 | 6.5 (8.0) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 78.1 (96.2) |
| 177 | 5 to 9% of m/z 176 | 5.5 (7.1) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006005.D\MSVOA_LL_CHHP5.rsl\spectr
 Injection Date: 06-Oct-2015 12:01:30
 Spectrum: Tune Spec :Average 1030-1032(8.36-8.37) Bgrd 1025(8.33)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 53

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|------|-------|-------|--------|-------|--------|-------|
| 36.00 | 478 | 57.00 | 680 | 77.00 | 223 | 128.00 | 68 |
| 37.00 | 1350 | 60.00 | 236 | 79.00 | 628 | 141.00 | 151 |
| 38.00 | 1241 | 61.00 | 939 | 80.00 | 87 | 143.00 | 363 |
| 39.00 | 572 | 62.00 | 1270 | 81.00 | 653 | 155.00 | 68 |
| 40.00 | 589 | 63.00 | 709 | 87.00 | 1034 | 172.00 | 316 |
| 44.00 | 287 | 65.00 | 78 | 88.00 | 920 | 173.00 | 315 |
| 45.00 | 277 | 68.00 | 2085 | 92.00 | 503 | 174.00 | 21056 |
| 47.00 | 554 | 69.00 | 2485 | 93.00 | 1199 | 175.00 | 1683 |
| 48.00 | 161 | 70.00 | 171 | 94.00 | 2880 | 176.00 | 20248 |
| 49.00 | 1055 | 72.00 | 260 | 95.00 | 25920 | 177.00 | 1429 |
| 50.00 | 5461 | 73.00 | 890 | 96.00 | 1716 | 281.00 | 160 |
| 51.00 | 1667 | 74.00 | 3903 | 97.00 | 119 | | |
| 52.00 | 73 | 75.00 | 11309 | 106.00 | 100 | | |
| 56.00 | 297 | 76.00 | 1229 | 116.00 | 95 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006005.D

Injection Date: 06-Oct-2015 12:01:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 mL

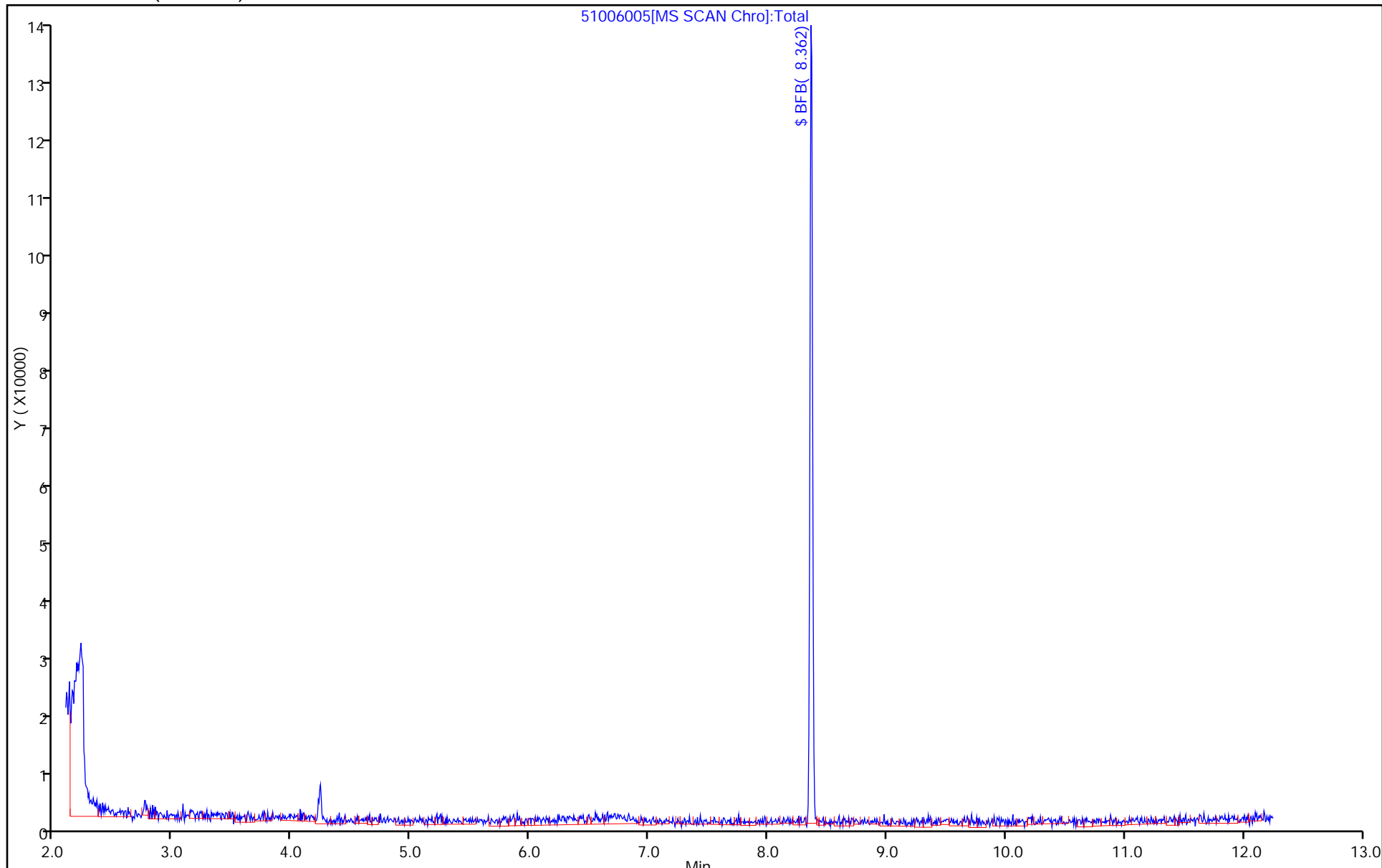
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 31-Jul-2015 12:10:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0007999-001
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Aug-2015 12:15:22 Calib Date: 31-Jul-2015 18:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK049

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|-----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| \$ 10 BFB | 95 | 8.381 | 8.381 | 0.000 | 0 | 114672 | NR | NR | |

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

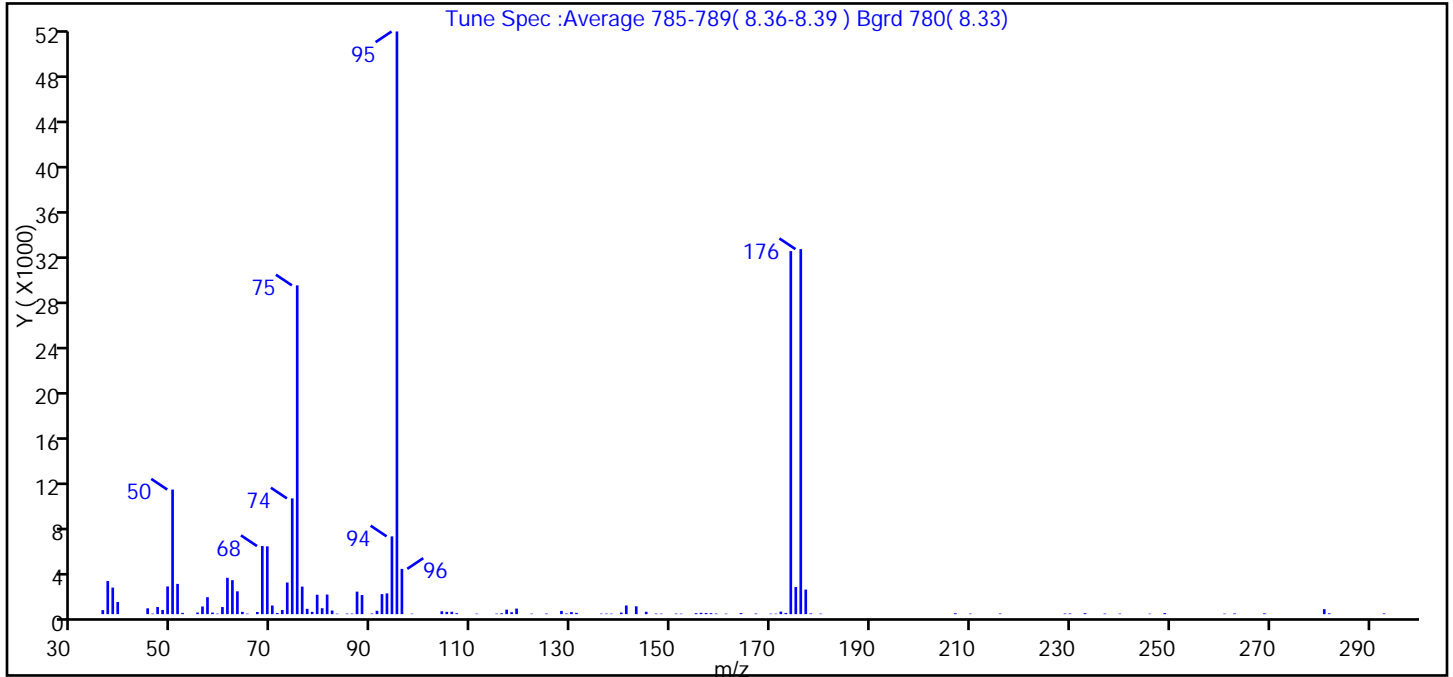
Reagents:

VOABFB25_00064 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D
 Injection Date: 31-Jul-2015 12:10:30 Instrument ID: CHHP6
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 21.4 |
| 75 | 30 to 60% of m/z 95 | 56.4 |
| 96 | 5 to 9% of m/z 95 | 7.8 |
| 173 | Less than 2% of m/z 174 | 0.2 (0.3) |
| 174 | 50 to 120% of m/z 95 | 62.3 |
| 175 | 5 to 9% of m/z 174 | 4.7 (7.5) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 62.6 (100.6) |
| 177 | 5 to 9% of m/z 176 | 4.2 (6.7) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D\MSVOA_LL_CHHP6.rsl\spectr
Injection Date: 31-Jul-2015 12:10:30
Spectrum: Tune Spec :Average 785-789(8.36-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|-------|--------|-------|--------|-----|--------|-------|
| 36.00 | 357 | 73.00 | 2786 | 116.00 | 79 | 170.00 | 42 |
| 37.00 | 2914 | 74.00 | 10190 | 117.00 | 397 | 171.00 | 42 |
| 38.00 | 2336 | 75.00 | 28944 | 118.00 | 172 | 172.00 | 223 |
| 39.00 | 1071 | 76.00 | 2425 | 119.00 | 489 | 173.00 | 107 |
| 45.00 | 513 | 77.00 | 467 | 122.00 | 43 | 174.00 | 31960 |
| 46.00 | 47 | 78.00 | 201 | 125.00 | 52 | 175.00 | 2388 |
| 47.00 | 630 | 79.00 | 1709 | 128.00 | 283 | 176.00 | 32136 |
| 48.00 | 370 | 80.00 | 524 | 129.00 | 57 | 177.00 | 2165 |
| 49.00 | 2439 | 81.00 | 1723 | 130.00 | 180 | 178.00 | 64 |
| 50.00 | 10968 | 82.00 | 318 | 131.00 | 115 | 180.00 | 45 |
| 51.00 | 2663 | 83.00 | 42 | 136.00 | 43 | 207.00 | 82 |
| 52.00 | 110 | 85.00 | 51 | 137.00 | 46 | 210.00 | 48 |
| 55.00 | 140 | 86.00 | 45 | 138.00 | 43 | 216.00 | 52 |
| 56.00 | 674 | 87.00 | 1982 | 140.00 | 137 | 229.00 | 53 |
| 57.00 | 1491 | 88.00 | 1683 | 141.00 | 763 | 230.00 | 56 |
| 58.00 | 144 | 90.00 | 51 | 143.00 | 689 | 233.00 | 85 |
| 59.00 | 42 | 91.00 | 295 | 145.00 | 209 | 237.00 | 52 |
| 60.00 | 626 | 92.00 | 1761 | 147.00 | 52 | 240.00 | 44 |
| 61.00 | 3200 | 93.00 | 1826 | 148.00 | 43 | 246.00 | 42 |
| 62.00 | 2990 | 94.00 | 6848 | 151.00 | 49 | 249.00 | 90 |
| 63.00 | 2009 | 95.00 | 51296 | 152.00 | 43 | 261.00 | 42 |
| 64.00 | 201 | 96.00 | 3987 | 155.00 | 87 | 263.00 | 61 |
| 65.00 | 44 | 98.00 | 42 | 156.00 | 116 | 269.00 | 68 |
| 67.00 | 191 | 104.00 | 251 | 157.00 | 98 | 281.00 | 438 |
| 68.00 | 5995 | 105.00 | 201 | 158.00 | 87 | 282.00 | 71 |
| 69.00 | 5969 | 106.00 | 210 | 159.00 | 54 | 293.00 | 62 |
| 70.00 | 760 | 107.00 | 82 | 161.00 | 42 | | |
| 71.00 | 96 | 111.00 | 42 | 164.00 | 89 | | |
| 72.00 | 366 | 115.00 | 42 | 167.00 | 53 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D

Injection Date: 31-Jul-2015 12:10:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005001.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 05-Oct-2015 09:22:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 180-0008826-001
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 10:57:49 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond Date: 05-Oct-2015 09:34:23

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|

| | | | | | | | | | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|
| \$ 10 BFB | 95 | 8.380 | 8.380 | 0.000 | 0 | 79857 | NR | NR | |
|-----------|----|-------|-------|-------|---|-------|----|----|--|

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

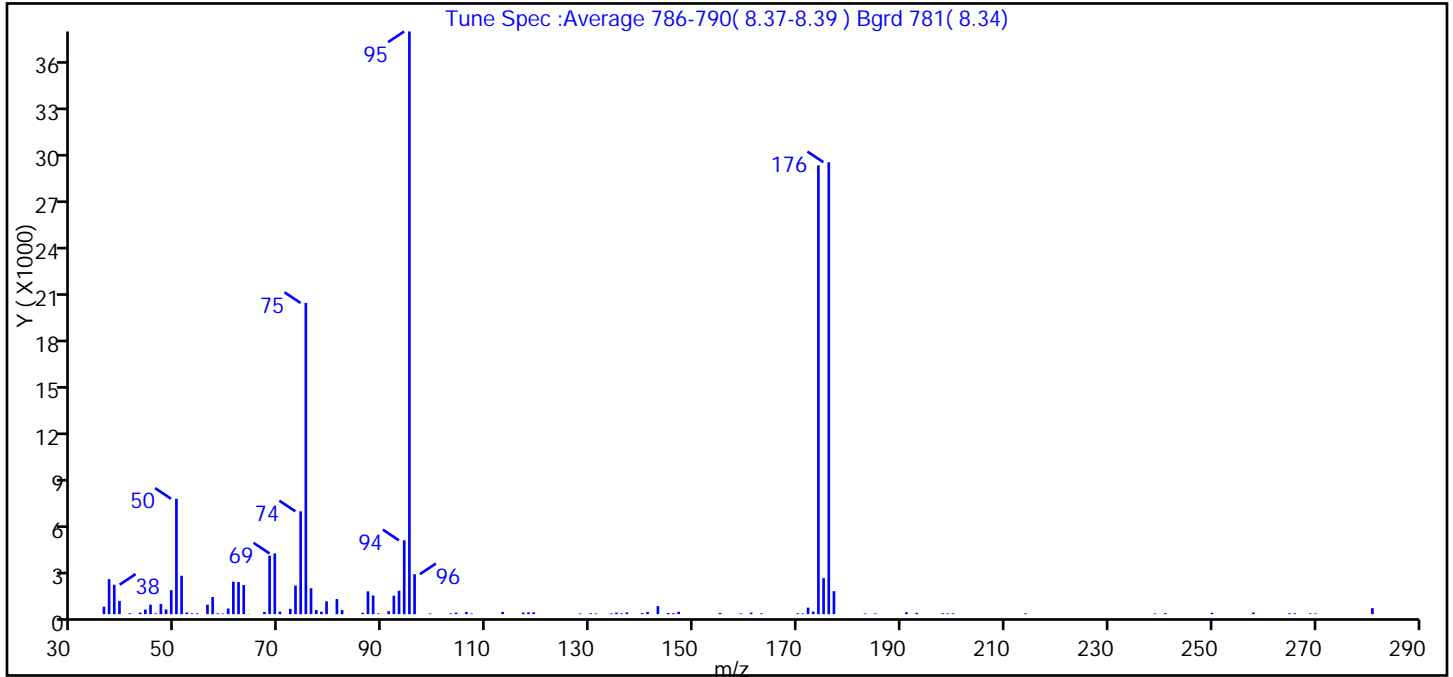
Reagents:

VOABFB25_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005001.D
 Injection Date: 05-Oct-2015 09:22:30 Instrument ID: CHHP6
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



| m/z | Ion Abundance Criteria | % Relative Abundance |
|-----|--|----------------------|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 19.8 |
| 75 | 30 to 60% of m/z 95 | 53.4 |
| 96 | 5 to 9% of m/z 95 | 6.9 |
| 173 | Less than 2% of m/z 174 | 0.4 (0.6) |
| 174 | 50 to 120% of m/z 95 | 77.0 |
| 175 | 5 to 9% of m/z 174 | 6.2 (8.0) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 77.6 (100.7) |
| 177 | 5 to 9% of m/z 176 | 3.9 (5.1) |

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005001.D\MSVOA_LL_CHHP6.rsl\spectr
 Injection Date: 05-Oct-2015 09:22:30
 Spectrum: Tune Spec :Average 786-790(8.37-8.39) Bgrd 781(8.34)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 101

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|-------|------|--------|-------|--------|-----|--------|-------|
| 36.00 | 484 | 67.00 | 146 | 104.00 | 95 | 172.00 | 418 |
| 37.00 | 2249 | 68.00 | 3759 | 106.00 | 141 | 173.00 | 168 |
| 38.00 | 1891 | 69.00 | 3903 | 107.00 | 40 | 174.00 | 28856 |
| 39.00 | 850 | 70.00 | 165 | 113.00 | 145 | 175.00 | 2313 |
| 41.00 | 52 | 72.00 | 339 | 117.00 | 102 | 176.00 | 29056 |
| 43.00 | 95 | 73.00 | 1837 | 118.00 | 119 | 177.00 | 1478 |
| 44.00 | 295 | 74.00 | 6610 | 119.00 | 121 | 183.00 | 42 |
| 45.00 | 608 | 75.00 | 20008 | 128.00 | 44 | 185.00 | 43 |
| 46.00 | 48 | 76.00 | 1663 | 130.00 | 55 | 191.00 | 123 |
| 47.00 | 659 | 77.00 | 265 | 131.00 | 45 | 193.00 | 88 |
| 48.00 | 303 | 78.00 | 157 | 134.00 | 43 | 198.00 | 51 |
| 49.00 | 1542 | 79.00 | 825 | 135.00 | 101 | 199.00 | 44 |
| 50.00 | 7418 | 81.00 | 971 | 136.00 | 50 | 200.00 | 50 |
| 51.00 | 2468 | 82.00 | 261 | 137.00 | 109 | 214.00 | 50 |
| 52.00 | 105 | 86.00 | 92 | 140.00 | 61 | 239.00 | 41 |
| 53.00 | 50 | 87.00 | 1466 | 141.00 | 135 | 241.00 | 62 |
| 54.00 | 51 | 88.00 | 1198 | 143.00 | 514 | 250.00 | 85 |
| 56.00 | 608 | 89.00 | 47 | 145.00 | 78 | 258.00 | 104 |
| 57.00 | 1098 | 91.00 | 189 | 146.00 | 59 | 265.00 | 53 |
| 58.00 | 53 | 92.00 | 1191 | 147.00 | 154 | 266.00 | 56 |
| 59.00 | 40 | 93.00 | 1503 | 155.00 | 86 | 269.00 | 49 |
| 60.00 | 362 | 94.00 | 4748 | 159.00 | 48 | 270.00 | 42 |
| 61.00 | 2087 | 95.00 | 37464 | 161.00 | 101 | 281.00 | 389 |
| 62.00 | 2062 | 96.00 | 2570 | 163.00 | 49 | | |
| 63.00 | 1870 | 99.00 | 43 | 170.00 | 53 | | |
| 64.00 | 13 | 103.00 | 51 | 171.00 | 45 | | |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005001.D

Injection Date: 05-Oct-2015 09:22:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

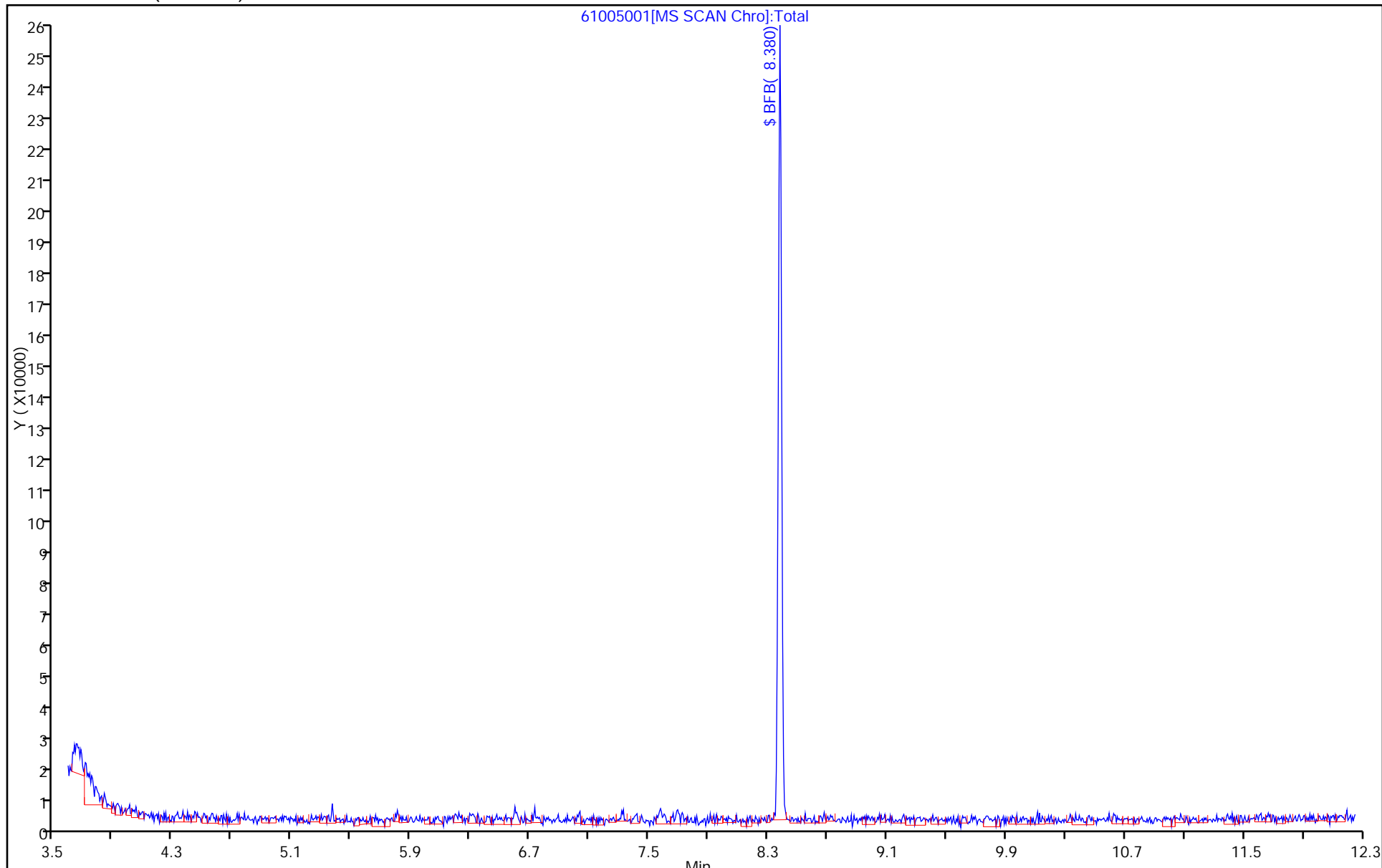
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155766/5
 Matrix: Water Lab File ID: 51003005.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 13:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155766/5
 Matrix: Water Lab File ID: 51003005.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 13:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 97 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003005.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 03-Oct-2015 13:16:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 180-0008807-005
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 13:30:55 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 13:30:55

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.259 | 4.283 | -0.024 | 0 | 147960 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.295 | 7.289 | 0.006 | 98 | 342184 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.385 | 10.385 | 0.000 | 88 | 87845 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.733 | 12.727 | 0.006 | 96 | 123643 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.565 | 6.565 | 0.000 | 93 | 85587 | 50.0 | 50.9 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.942 | 6.936 | 0.006 | 0 | 112457 | 50.0 | 48.7 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.937 | 8.937 | 0.000 | 94 | 318334 | 50.0 | 47.0 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.571 | 11.571 | 0.000 | 90 | 111308 | 50.0 | 43.5 | |
| 11 Dichlorodifluoromethane | 85 | | 1.607 | | | | | ND | |
| 12 Chloromethane | 50 | | 1.771 | | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.905 | | | | | ND | |
| 14 Butadiene | 39 | | 1.941 | | | | | ND | |
| 15 Bromomethane | 94 | | 2.239 | | | | | ND | |
| 16 Chloroethane | 64 | | 2.391 | | | | | ND | |
| 17 Dichlorofluoromethane | 67 | | 2.665 | | | | | ND | |
| 18 Trichlorofluoromethane | 101 | | 2.702 | | | | | ND | |
| 19 Ethanol | 45 | | 2.957 | | | | | ND | |
| 20 Ethyl ether | 59 | | 3.048 | | | | | ND | |
| 21 Acrolein | 56 | | 3.231 | | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.346 | | | | | ND | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | | 3.407 | | | | | ND | |
| 24 Acetone | 43 | | 3.444 | | | | | ND | |
| 25 Iodomethane | 142 | | 3.553 | | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.638 | | | | | ND | |
| 27 Isopropyl alcohol | 45 | | 3.706 | | | | | ND | |
| 29 Acetonitrile | 40 | | 3.870 | | | | | ND | |
| 28 3-Chloro-1-propene | 76 | | 3.918 | | | | | ND | |
| 30 Methyl acetate | 43 | | 3.937 | | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.137 | | | | | ND | |
| 32 2-Methyl-2-propanol | 59 | | 4.405 | | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.527 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|-------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 34 trans-1,2-Dichloroethene | 96 | | 4.563 | | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.581 | | | | | ND | |
| 36 Hexane | 57 | | 4.989 | | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.202 | | | | | ND | |
| 38 Vinyl acetate | 43 | | 5.251 | | | | | ND | |
| 41 Isopropyl ether | 45 | | 5.299 | | | | | ND | |
| 39 2-Chloro-1,3-butadiene | 53 | | 5.299 | | | | | ND | |
| 40 Isopropyl ether TIC | 45 | | 5.409 | | | | | ND | |
| 42 Tert-butyl ethyl ether | 59 | | 5.780 | | | | | ND | |
| 44 2,2-Dichloropropane | 77 | | 5.944 | | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | | 5.950 | | | | | ND | |
| 43 Tert-butyl ethyl ether (TI | 59 | | 5.961 | | | | | ND | |
| 46 2-Butanone (MEK) | 43 | | 5.962 | | | | | ND | |
| 48 Ethyl acetate | 43 | | 6.036 | | | | | ND | |
| 47 Propionitrile | 54 | | 6.036 | | | | | ND | |
| 50 Methacrylonitrile | 41 | | 6.212 | | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.236 | | | | | ND | |
| 51 Tetrahydrofuran | 42 | | 6.248 | | | | | ND | |
| 52 Chloroform | 83 | | 6.382 | | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | | 6.540 | | | | | ND | |
| 54 Cyclohexane | 56 | | 6.613 | | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.717 | | | | | ND | |
| 55 1,1-Dichloropropene | 75 | | 6.735 | | | | | ND | |
| 57 Isobutyl alcohol | 41 | | 6.924 | | | | | ND | |
| 58 Benzene | 78 | | 6.942 | | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.021 | | | | | ND | |
| 61 Tert-amyl methyl ether | 73 | | 7.125 | | | | | ND | |
| 60 Tert-amyl methyl ether (TI | 73 | | 7.262 | | | | | ND | |
| 62 n-Heptane | 43 | | 7.307 | | | | | ND | |
| 63 n-Butanol | 56 | | 7.629 | | | | | ND | |
| 64 Trichloroethene | 130 | | 7.678 | | | | | ND | |
| 65 Ethyl acrylate | 55 | | 7.800 | | | | | ND | |
| 66 Methylcyclohexane | 83 | | 7.915 | | | | | ND | |
| 67 1,2-Dichloropropane | 63 | | 7.946 | | | | | ND | |
| 69 Methyl methacrylate | 69 | | 8.031 | | | | | ND | |
| 68 Dibromomethane | 93 | | 8.037 | | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.037 | | | | | ND | |
| 71 Dichlorobromomethane | 83 | | 8.232 | | | | | ND | |
| 72 2-Nitropropane | 41 | | 8.451 | | | | | ND | |
| 73 2-Chloroethyl vinyl ether | 63 | | 8.526 | | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.676 | | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK | 43 | | 8.828 | | | | | ND | |
| 76 Toluene | 91 | | 9.004 | | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.254 | | | | | ND | |
| 78 Ethyl methacrylate | 69 | | 9.308 | | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.442 | | | | | ND | |
| 80 Tetrachloroethene | 164 | | 9.515 | | | | | ND | |
| 81 1,3-Dichloropropane | 76 | | 9.600 | | | | | ND | |
| 82 2-Hexanone | 43 | | 9.655 | | | | | ND | |
| 83 n-Butyl acetate | 43 | | 9.783 | | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.819 | | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.929 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 86 3-Chlorobenzotrifluoride | 180 | | 10.391 | | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.415 | | | | | ND | |
| 88 4-Chlorobenzotrifluoride | 180 | | 10.476 | | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.513 | | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.519 | | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.647 | | | | | ND | |
| 92 o-Xylene | 106 | | 11.030 | | | | | ND | |
| 93 Styrene | 104 | | 11.048 | | | | | ND | |
| 94 Bromoform | 173 | | 11.231 | | | | | ND | |
| 95 Cyclohexanol | 57 | | 11.245 | | | | | ND | |
| 96 2-Chlorobenzotrifluoride | 180 | | 11.298 | | | | | ND | |
| 97 Isopropylbenzene | 105 | | 11.395 | | | | | ND | |
| 98 Cyclohexanone | 55 | | 11.480 | | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.705 | | | | | ND | |
| 100 Bromobenzene | 156 | | 11.711 | | | | | ND | |
| 102 trans-1,4-Dichloro-2-buten | 53 | | 11.742 | | | | | ND | |
| 101 1,2,3-Trichloropropane | 110 | | 11.766 | | | | | ND | |
| 103 N-Propylbenzene | 120 | | 11.815 | | | | | ND | |
| 104 2-Chlorotoluene | 126 | | 11.900 | | | | | ND | |
| 105 3-Chlorotoluene | 126 | | 11.967 | | | | | ND | |
| 106 1,3,5-Trimethylbenzene | 105 | | 11.997 | | | | | ND | |
| 107 4-Chlorotoluene | 126 | | 12.022 | | | | | ND | |
| 108 tert-Butylbenzene | 119 | | 12.307 | | | | | ND | |
| 109 Pentachloroethane | 167 | | 12.338 | | | | | ND | |
| 110 1,2,4-Trimethylbenzene | 105 | | 12.368 | | | | | ND | |
| 111 1,2-dichloro-4-(trifluorom | 214 | | 12.411 | | | | | ND | |
| 112 sec-Butylbenzene | 105 | | 12.533 | | | | | ND | |
| 113 1,3-Dichlorobenzene | 146 | | 12.648 | | | | | ND | |
| 114 4-Isopropyltoluene | 119 | | 12.691 | | | | | ND | |
| 115 1,4-Dichlorobenzene | 146 | | 12.752 | | | | | ND | |
| 117 1,2,3-Trimethylbenzene | 105 | | 12.776 | | | | | ND | |
| 116 2,4-Dichloro-1-(triflourom | 214 | | 12.782 | | | | | ND | |
| 118 2,5-Dichlorobenzotrifluori | 214 | | 12.818 | | | | | ND | |
| 119 Benzyl chloride | 91 | | 12.867 | | | | | ND | |
| 120 n-Butylbenzene | 91 | | 13.098 | | | | | ND | |
| 121 1,2-Dichlorobenzene | 146 | | 13.110 | | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | | 13.907 | | | | | ND | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | | 14.047 | | | | | ND | |
| 124 1,3,5-Trichlorobenzene | 180 | | 14.087 | | | | | ND | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | | 14.461 | | | | | ND | |
| 126 1,2,4-Trichlorobenzene | 180 | | 14.729 | | | | | ND | |
| 127 Hexachlorobutadiene | 225 | | 14.869 | | | | | ND | |
| 128 Naphthalene | 128 | | 14.990 | | | | | ND | |
| 129 1,2,3-Trichlorobenzene | 180 | | 15.215 | | | | | ND | |
| 131 2,4,5-Trichlorotoluene | 159 | | 15.994 | | | | | ND | |
| 130 2,3,6-Trichlorotoluene | 159 | | 16.091 | | | | | ND | |
| 132 2-Methylnaphthalene | 142 | | 16.134 | | | | | ND | |
| 151 Isooctane | 57 | | 0.000 | | | | | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 152 Formaldehyde TIC | 1 | | 0.000 | | | | | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | 1.000 | | | | | ND | |
| S 135 1,3-Dichloropropene, Total | 1 | | 0.000 | | | | | ND | |
| T 136 Mesityl oxide TIC | 83 | | 0.000 | | | | | ND | |
| T 138 Methyl n-amyl ketone TIC | 43 | | 0.000 | | | | | ND | |
| T 137 Tetrahydrofuran TIC | 42 | | 6.253 | | | | | ND | |
| T 153 1,2 Epoxybutane TIC | 42 | | 6.253 | | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003005.D

Injection Date: 03-Oct-2015 13:16:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

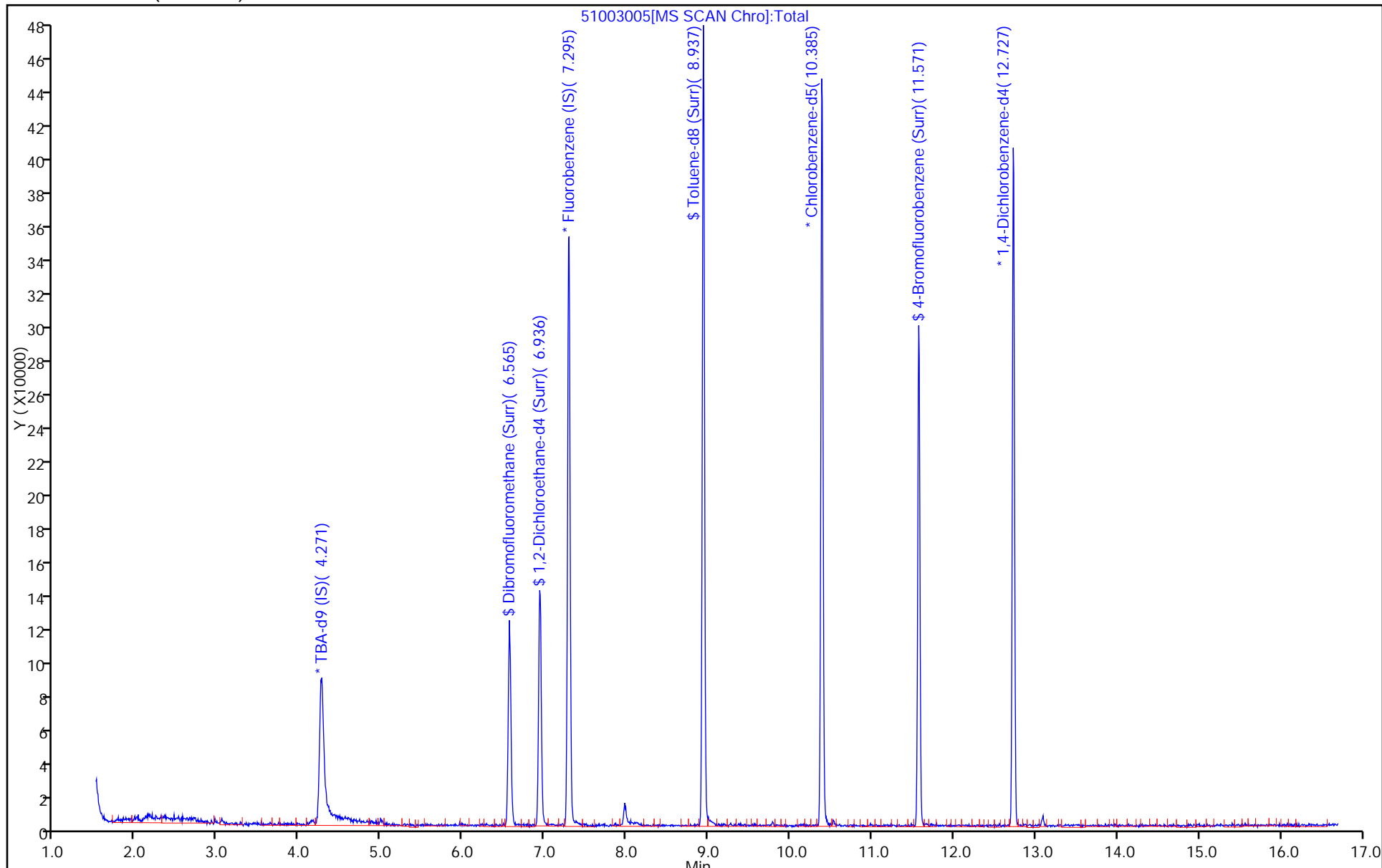
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155869/5
 Matrix: Water Lab File ID: 61005005.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 11:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155869/5
 Matrix: Water Lab File ID: 61005005.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 11:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 103 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005005.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Oct-2015 11:25:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 180-0008826-005
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 12:51:43 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 12:51:43

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.235 | 4.230 | 0.005 | 93 | 183859 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 425468 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.397 | 10.399 | -0.002 | 90 | 103279 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.752 | 12.747 | 0.005 | 98 | 169357 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.553 | 6.550 | 0.003 | 93 | 102465 | 50.0 | 52.3 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.930 | 6.928 | 0.002 | 70 | 162047 | 50.0 | 51.3 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.943 | 8.941 | 0.002 | 94 | 403252 | 50.0 | 49.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.584 | 11.587 | -0.003 | 86 | 159385 | 50.0 | 44.1 | |
| 11 Dichlorodifluoromethane | 85 | | 1.604 | | | | | ND | |
| 12 Chloromethane | 50 | | 1.769 | | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.903 | | | | | ND | |
| 14 Butadiene | 39 | | 1.939 | | | | | ND | |
| 15 Bromomethane | 94 | | 2.243 | | | | | ND | |
| 16 Chloroethane | 64 | | 2.377 | | | | | ND | |
| 17 Dichlorofluoromethane | 67 | | 2.651 | | | | | ND | |
| 18 Trichlorofluoromethane | 101 | | 2.681 | | | | | ND | |
| 19 Ethanol | 45 | | 2.941 | | | | | ND | |
| 20 Ethyl ether | 59 | | 3.046 | | | | | ND | |
| 21 Acrolein | 56 | | 3.211 | | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.326 | | | | | ND | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | | 3.405 | | | | | ND | |
| 24 Acetone | 43 | | 3.430 | | | | | ND | |
| 25 Iodomethane | 142 | | 3.533 | | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.630 | | | | | ND | |
| 27 Isopropyl alcohol | 45 | | 3.677 | | | | | ND | |
| 28 Acetonitrile | 40 | | 3.847 | | | | | ND | |
| 29 3-Chloro-1-propene | 76 | | 3.910 | | | | | ND | |
| 30 Methyl acetate | 43 | | 3.922 | | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.117 | | | | | ND | |
| 32 2-Methyl-2-propanol | 59 | | 4.366 | | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.500 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 34 trans-1,2-Dichloroethene | 96 | | 4.555 | | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.573 | | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.194 | | | | | ND | |
| 40 Isopropyl ether | 45 | | 5.295 | | | | | ND | |
| 39 2-Chloro-1,3-butadiene | 53 | | 5.295 | | | | | ND | |
| 41 Tert-butyl ethyl ether | 59 | | 5.769 | | | | | ND | |
| 42 2,2-Dichloropropane | 77 | | 5.936 | | | | | ND | |
| 43 cis-1,2-Dichloroethene | 96 | | 5.942 | | | | | ND | |
| 44 2-Butanone (MEK) | 43 | | 5.948 | | | | | ND | |
| 45 Propionitrile | 54 | | 6.013 | | | | | ND | |
| 46 Ethyl acetate | 43 | | 6.025 | | | | | ND | |
| 47 Methacrylonitrile | 41 | | 6.195 | | | | | ND | |
| 48 Chlorobromomethane | 128 | | 6.228 | | | | | ND | |
| 49 Tetrahydrofuran | 42 | | 6.246 | | | | | ND | |
| 50 Chloroform | 83 | | 6.368 | | | | | ND | |
| 51 1,1,1-Trichloroethane | 97 | | 6.532 | | | | | ND | |
| 52 Cyclohexane | 56 | | 6.617 | | | | | ND | |
| 53 Carbon tetrachloride | 117 | | 6.715 | | | | | ND | |
| 54 1,1-Dichloropropene | 75 | | 6.727 | | | | | ND | |
| 55 Isobutyl alcohol | 41 | | 6.897 | | | | | ND | |
| 56 Benzene | 78 | | 6.940 | | | | | ND | |
| 57 1,2-Dichloroethane | 62 | | 7.013 | | | | | ND | |
| 148 Isooctane | 57 | | 7.102 | | | | | ND | |
| 58 Tert-amyl methyl ether | 73 | | 7.120 | | | | | ND | |
| 59 n-Heptane | 43 | | 7.305 | | | | | ND | |
| 60 n-Butanol | 56 | | 7.613 | | | | | ND | |
| 61 Trichloroethene | 130 | | 7.676 | | | | | ND | |
| 62 Ethyl acrylate | 55 | | 7.795 | | | | | ND | |
| 63 Methylcyclohexane | 83 | | 7.925 | | | | | ND | |
| 64 1,2-Dichloropropane | 63 | | 7.950 | | | | | ND | |
| 65 1,4-Dioxane | 88 | | 8.023 | | | | | ND | |
| 66 Methyl methacrylate | 69 | | 8.032 | | | | | ND | |
| 67 Dibromomethane | 93 | | 8.035 | | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.229 | | | | | ND | |
| 69 2-Nitropropane | 41 | | 8.446 | | | | | ND | |
| 70 2-Chloroethyl vinyl ether | 63 | | 8.530 | | | | | ND | |
| 71 cis-1,3-Dichloropropene | 75 | | 8.680 | | | | | ND | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | | 8.826 | | | | | ND | |
| 73 Toluene | 91 | | 9.008 | | | | | ND | |
| 74 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | | ND | |
| 75 Ethyl methacrylate | 69 | | 9.312 | | | | | ND | |
| 77 Tetrachloroethene | 164 | | 9.525 | | | | | ND | |
| 79 2-Hexanone | 43 | | 9.659 | | | | | ND | |
| 81 Chlorodibromomethane | 129 | | 9.823 | | | | | ND | |
| 82 Ethylene Dibromide | 107 | | 9.939 | | | | | ND | |
| 83 3-Chlorobenzotrifluoride | 180 | | 10.395 | | | | | ND | |
| 84 Chlorobenzene | 112 | | 10.426 | | | | | ND | |
| 85 4-Chlorobenzotrifluoride | 180 | | 10.486 | | | | | ND | |
| 86 1,1,1,2-Tetrachloroethane | 131 | | 10.523 | | | | | ND | |
| 87 Ethylbenzene | 106 | | 10.529 | | | | | ND | |
| 88 m-Xylene & p-Xylene | 106 | | 10.657 | | | | | ND | |
| 89 o-Xylene | 106 | | 11.040 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 90 Styrene | 104 | | 11.058 | | | | | ND | |
| 129 Cyclohexanol | 57 | | 11.246 | | | | | ND | |
| 91 Bromoform | 173 | | 11.247 | | | | | ND | |
| 92 2-Chlorobenzotrifluoride | 180 | | 11.302 | | | | | ND | |
| 93 Isopropylbenzene | 105 | | 11.411 | | | | | ND | |
| 94 Cyclohexanone | 55 | | 11.494 | | | | | ND | |
| 96 1,1,2,2-Tetrachloroethane | 83 | | 11.715 | | | | | ND | |
| 95 Bromobenzene | 156 | | 11.727 | | | | | ND | |
| 97 trans-1,4-Dichloro-2-buten | 53 | | 11.758 | | | | | ND | |
| 98 1,2,3-Trichloropropane | 110 | | 11.776 | | | | | ND | |
| 99 N-Propylbenzene | 120 | | 11.825 | | | | | ND | |
| 100 2-Chlorotoluene | 126 | | 11.916 | | | | | ND | |
| 101 3-Chlorotoluene | 126 | | 11.977 | | | | | ND | |
| 102 1,3,5-Trimethylbenzene | 105 | | 12.007 | | | | | ND | |
| 103 4-Chlorotoluene | 126 | | 12.038 | | | | | ND | |
| 104 tert-Butylbenzene | 119 | | 12.324 | | | | | ND | |
| 105 Pentachloroethane | 167 | | 12.358 | | | | | ND | |
| 106 1,2,4-Trimethylbenzene | 105 | | 12.384 | | | | | ND | |
| 107 1,2-dichloro-4-(trifluorom | 214 | | 12.421 | | | | | ND | |
| 108 sec-Butylbenzene | 105 | | 12.549 | | | | | ND | |
| 110 4-Isopropyltoluene | 119 | | 12.707 | | | | | ND | |
| 113 2,4-Dichloro-1-(triflourom | 214 | | 12.786 | | | | | ND | |
| 112 1,2,3-Trimethylbenzene | 105 | | 12.796 | | | | | ND | |
| 114 2,5-Dichlorobenzotrifluori | 214 | | 12.828 | | | | | ND | |
| 115 Benzyl chloride | 91 | | 12.881 | | | | | ND | |
| 116 n-Butylbenzene | 91 | | 13.114 | | | | | ND | |
| 117 1,2-Dichlorobenzene | 146 | | 13.127 | | | | | ND | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | | 13.911 | | | | | ND | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | | 14.057 | | | | | ND | |
| 120 1,3,5-Trichlorobenzene | 180 | | 14.110 | | | | | ND | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | | 14.477 | | | | | ND | |
| 122 1,2,4-Trichlorobenzene | 180 | | 14.745 | | | | | ND | |
| 123 Hexachlorobutadiene | 225 | | 14.891 | | | | | ND | |
| 125 1,2,3-Trichlorobenzene | 180 | | 15.225 | | | | | ND | |
| 126 2,4,5-Trichlorotoluene | 159 | | 16.010 | | | | | ND | |
| 127 2,3,6-Trichlorotoluene | 159 | | 16.107 | | | | | ND | |
| 128 2-Methylnaphthalene | 142 | | 16.154 | | | | | ND | |
| 153 1,2 Epoxybutane TIC | 1 | | 0.000 | | | | | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 152 Formaldehyde TIC | 1 | | 0.000 | | | | | ND | |
| 150 Tert-butyl ethyl ether (TI | 1 | | 0.000 | | | | | ND | |
| 151 Tert-amyl methyl ether (TI | 1 | | 0.000 | | | | | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 149 Isopropyl ether TIC | 1 | | 0.000 | | | | | ND | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | 1.000 | | | | | ND | |
| S 131 Xylenes, Total | 106 | | 1.000 | | | | | ND | |
| S 132 1,3-Dichloropropene, Total | 1 | | 0.000 | | | | | ND | |
| T 133 Tetrahydrofuran TIC | 42 | | 0.000 | | | | | ND | |
| T 134 Methyl n-amyl ketone TIC | 43 | | 0.000 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
|----------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|

T 135 Mesityl oxide TIC

83

0.000

ND

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005005.D

Injection Date: 05-Oct-2015 11:25:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

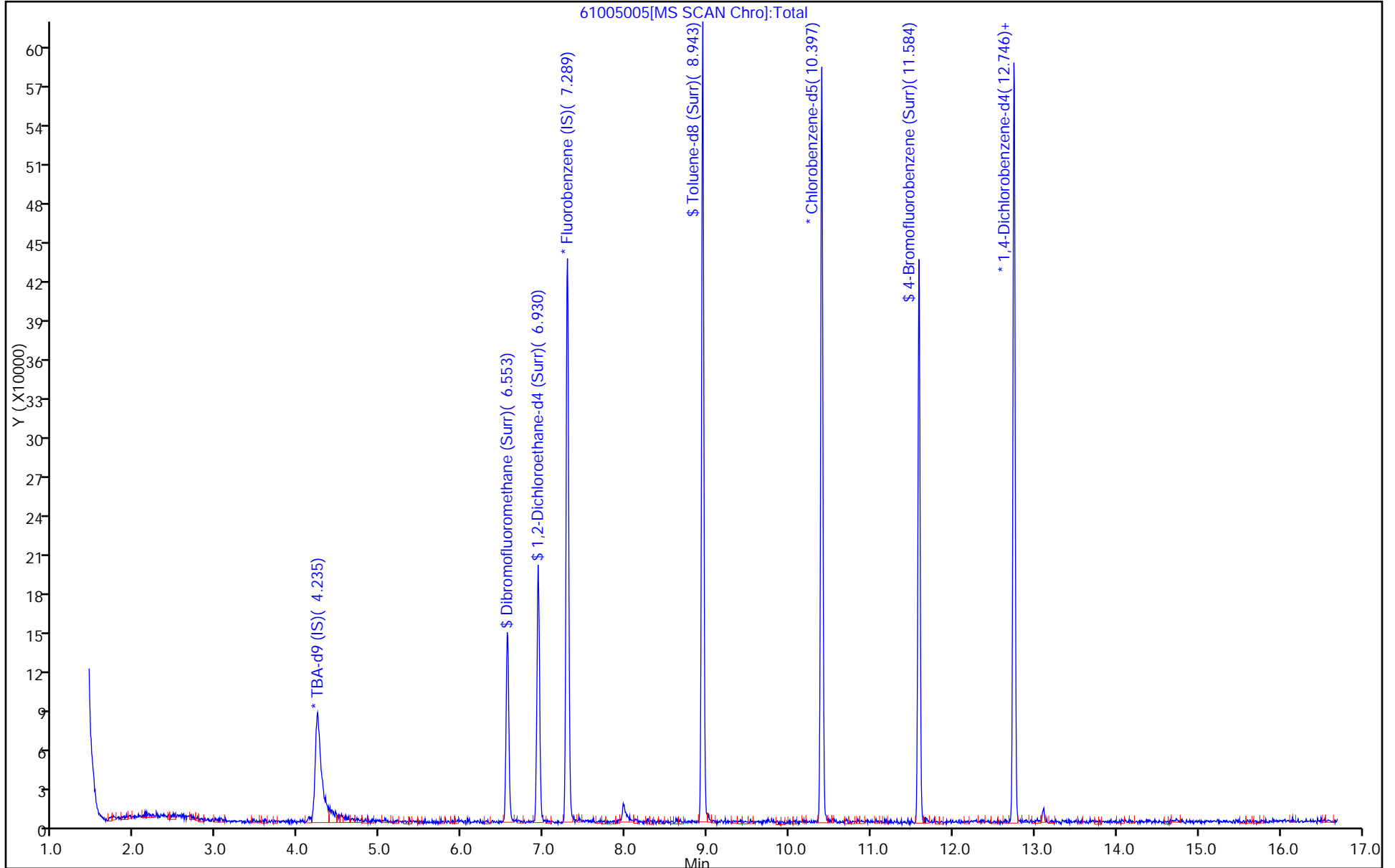
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155884/4
 Matrix: Water Lab File ID: 51005004.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 11:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-155884/4
 Matrix: Water Lab File ID: 51005004.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 11:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 91 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005004.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Oct-2015 11:57:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 180-0008828-004
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 12:28:25 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 12:28:25

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.273 | 4.281 | -0.008 | 0 | 159358 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.292 | -0.002 | 98 | 345349 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.387 | 10.388 | -0.001 | 87 | 89221 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.735 | 12.730 | 0.005 | 95 | 130925 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.568 | -0.002 | 93 | 89075 | 50.0 | 52.5 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.933 | 0.004 | 0 | 108531 | 50.0 | 46.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.940 | -0.001 | 94 | 312999 | 50.0 | 45.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.573 | 11.575 | -0.002 | 91 | 113703 | 50.0 | 43.8 | |
| 11 Dichlorodifluoromethane | 85 | | 1.604 | | | | | ND | |
| 12 Chloromethane | 50 | | 1.774 | | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.908 | | | | | ND | |
| 14 Butadiene | 39 | | 1.951 | | | | | ND | |
| 15 Bromomethane | 94 | | 2.249 | | | | | ND | |
| 16 Chloroethane | 64 | | 2.413 | | | | | ND | |
| 17 Dichlorofluoromethane | 67 | | 2.675 | | | | | ND | |
| 18 Trichlorofluoromethane | 101 | | 2.699 | | | | | ND | |
| 19 Ethanol | 45 | | 2.957 | | | | | ND | |
| 20 Ethyl ether | 59 | | 3.046 | | | | | ND | |
| 21 Acrolein | 56 | | 3.222 | | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.344 | | | | | ND | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | | 3.423 | | | | | ND | |
| 24 Acetone | 43 | | 3.441 | | | | | ND | |
| 25 Iodomethane | 142 | | 3.538 | | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.636 | | | | | ND | |
| 27 Isopropyl alcohol | 45 | | 3.706 | | | | | ND | |
| 29 Acetonitrile | 40 | | 3.870 | | | | | ND | |
| 28 3-Chloro-1-propene | 76 | | 3.922 | | | | | ND | |
| 30 Methyl acetate | 43 | | 3.940 | | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.141 | | | | | ND | |
| 32 2-Methyl-2-propanol | 59 | | 4.402 | | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.524 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|-------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 34 trans-1,2-Dichloroethene | 96 | | 4.566 | | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.579 | | | | | ND | |
| 36 Hexane | 57 | | 4.992 | | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.199 | | | | | ND | |
| 38 Vinyl acetate | 43 | | 5.254 | | | | | ND | |
| 41 Isopropyl ether | 45 | | 5.299 | | | | | ND | |
| 39 2-Chloro-1,3-butadiene | 53 | | 5.299 | | | | | ND | |
| 40 Isopropyl ether TIC | 45 | | 5.409 | | | | | ND | |
| 42 Tert-butyl ethyl ether | 59 | | 5.780 | | | | | ND | |
| 44 2,2-Dichloropropane | 77 | | 5.947 | | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | | 5.954 | | | | | ND | |
| 43 Tert-butyl ethyl ether (TI | 59 | | 5.961 | | | | | ND | |
| 46 2-Butanone (MEK) | 43 | | 5.966 | | | | | ND | |
| 48 Ethyl acetate | 43 | | 6.036 | | | | | ND | |
| 47 Propionitrile | 54 | | 6.036 | | | | | ND | |
| 50 Methacrylonitrile | 41 | | 6.212 | | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.233 | | | | | ND | |
| 51 Tetrahydrofuran | 42 | | 6.252 | | | | | ND | |
| 52 Chloroform | 83 | | 6.379 | | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | | 6.550 | | | | | ND | |
| 54 Cyclohexane | 56 | | 6.617 | | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.720 | | | | | ND | |
| 55 1,1-Dichloropropene | 75 | | 6.732 | | | | | ND | |
| 57 Isobutyl alcohol | 41 | | 6.927 | | | | | ND | |
| 58 Benzene | 78 | | 6.945 | | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.024 | | | | | ND | |
| 61 Tert-amyl methyl ether | 73 | | 7.125 | | | | | ND | |
| 60 Tert-amyl methyl ether (TI | 73 | | 7.262 | | | | | ND | |
| 62 n-Heptane | 43 | | 7.310 | | | | | ND | |
| 63 n-Butanol | 56 | | 7.629 | | | | | ND | |
| 64 Trichloroethene | 130 | | 7.675 | | | | | ND | |
| 65 Ethyl acrylate | 55 | | 7.800 | | | | | ND | |
| 66 Methylcyclohexane | 83 | | 7.912 | | | | | ND | |
| 67 1,2-Dichloropropane | 63 | | 7.949 | | | | | ND | |
| 69 Methyl methacrylate | 69 | | 8.031 | | | | | ND | |
| 68 Dibromomethane | 93 | | 8.034 | | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.034 | | | | | ND | |
| 71 Dichlorobromomethane | 83 | | 8.235 | | | | | ND | |
| 72 2-Nitropropane | 41 | | 8.451 | | | | | ND | |
| 73 2-Chloroethyl vinyl ether | 63 | | 8.526 | | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.679 | | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK | 43 | | 8.825 | | | | | ND | |
| 76 Toluene | 91 | | 9.007 | | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.257 | | | | | ND | |
| 78 Ethyl methacrylate | 69 | | 9.312 | | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.445 | | | | | ND | |
| 80 Tetrachloroethene | 164 | | 9.518 | | | | | ND | |
| 81 1,3-Dichloropropane | 76 | | 9.604 | | | | | ND | |
| 82 2-Hexanone | 43 | | 9.658 | | | | | ND | |
| 83 n-Butyl acetate | 43 | | 9.783 | | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.823 | | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.932 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 86 3-Chlorobenzotrifluoride | 180 | | 10.394 | | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.419 | | | | | ND | |
| 88 4-Chlorobenzotrifluoride | 180 | | 10.480 | | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.510 | | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.522 | | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.650 | | | | | ND | |
| 92 o-Xylene | 106 | | 11.033 | | | | | ND | |
| 93 Styrene | 104 | | 11.051 | | | | | ND | |
| 94 Bromoform | 173 | | 11.228 | | | | | ND | |
| 95 Cyclohexanol | 57 | | 11.245 | | | | | ND | |
| 96 2-Chlorobenzotrifluoride | 180 | | 11.301 | | | | | ND | |
| 97 Isopropylbenzene | 105 | | 11.398 | | | | | ND | |
| 98 Cyclohexanone | 55 | | 11.480 | | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.708 | | | | | ND | |
| 100 Bromobenzene | 156 | | 11.708 | | | | | ND | |
| 102 trans-1,4-Dichloro-2-buten | 53 | | 11.745 | | | | | ND | |
| 101 1,2,3-Trichloropropane | 110 | | 11.769 | | | | | ND | |
| 103 N-Propylbenzene | 120 | | 11.812 | | | | | ND | |
| 104 2-Chlorotoluene | 126 | | 11.903 | | | | | ND | |
| 105 3-Chlorotoluene | 126 | | 11.970 | | | | | ND | |
| 106 1,3,5-Trimethylbenzene | 105 | | 11.994 | | | | | ND | |
| 107 4-Chlorotoluene | 126 | | 12.025 | | | | | ND | |
| 108 tert-Butylbenzene | 119 | | 12.311 | | | | | ND | |
| 109 Pentachloroethane | 167 | | 12.338 | | | | | ND | |
| 110 1,2,4-Trimethylbenzene | 105 | | 12.372 | | | | | ND | |
| 111 1,2-dichloro-4-(trifluorom | 214 | | 12.408 | | | | | ND | |
| 112 sec-Butylbenzene | 105 | | 12.536 | | | | | ND | |
| 113 1,3-Dichlorobenzene | 146 | | 12.651 | | | | | ND | |
| 114 4-Isopropyltoluene | 119 | | 12.688 | | | | | ND | |
| 115 1,4-Dichlorobenzene | 146 | | 12.755 | | | | | ND | |
| 117 1,2,3-Trimethylbenzene | 105 | | 12.776 | | | | | ND | |
| 116 2,4-Dichloro-1-(triflourom | 214 | | 12.779 | | | | | ND | |
| 118 2,5-Dichlorobenzotrifluori | 214 | | 12.822 | | | | | ND | |
| 119 Benzyl chloride | 91 | | 12.867 | | | | | ND | |
| 120 n-Butylbenzene | 91 | | 13.102 | | | | | ND | |
| 121 1,2-Dichlorobenzene | 146 | | 13.108 | | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | | 13.905 | | | | | ND | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | | 14.045 | | | | | ND | |
| 124 1,3,5-Trichlorobenzene | 180 | | 14.087 | | | | | ND | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | | 14.464 | | | | | ND | |
| 126 1,2,4-Trichlorobenzene | 180 | | 14.726 | | | | | ND | |
| 127 Hexachlorobutadiene | 225 | | 14.872 | | | | | ND | |
| 128 Naphthalene | 128 | | 14.994 | | | | | ND | |
| 129 1,2,3-Trichlorobenzene | 180 | | 15.219 | | | | | ND | |
| 131 2,4,5-Trichlorotoluene | 159 | | 15.991 | | | | | ND | |
| 130 2,3,6-Trichlorotoluene | 159 | | 16.095 | | | | | ND | |
| 132 2-Methylnaphthalene | 142 | | 16.134 | | | | | ND | |
| 152 Formaldehyde TIC | 1 | | 0.000 | | | | | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 151 Isooctane | 57 | | 0.000 | | | | | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|----------------|---|----------|------------|--------------|-------|
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | 1.000 | | | | | ND | |
| S 135 1,3-Dichloropropene, Total | 1 | | 0.000 | | | | | ND | |
| T 136 Mesityl oxide TIC | 83 | | 0.000 | | | | | ND | |
| T 138 Methyl n-amyl ketone TIC | 43 | | 0.000 | | | | | ND | |
| T 137 Tetrahydrofuran TIC | 42 | | 6.253 | | | | | ND | |
| T 153 1,2 Epoxybutane TIC | 42 | | 6.253 | | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005004.D

Injection Date: 05-Oct-2015 11:57:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

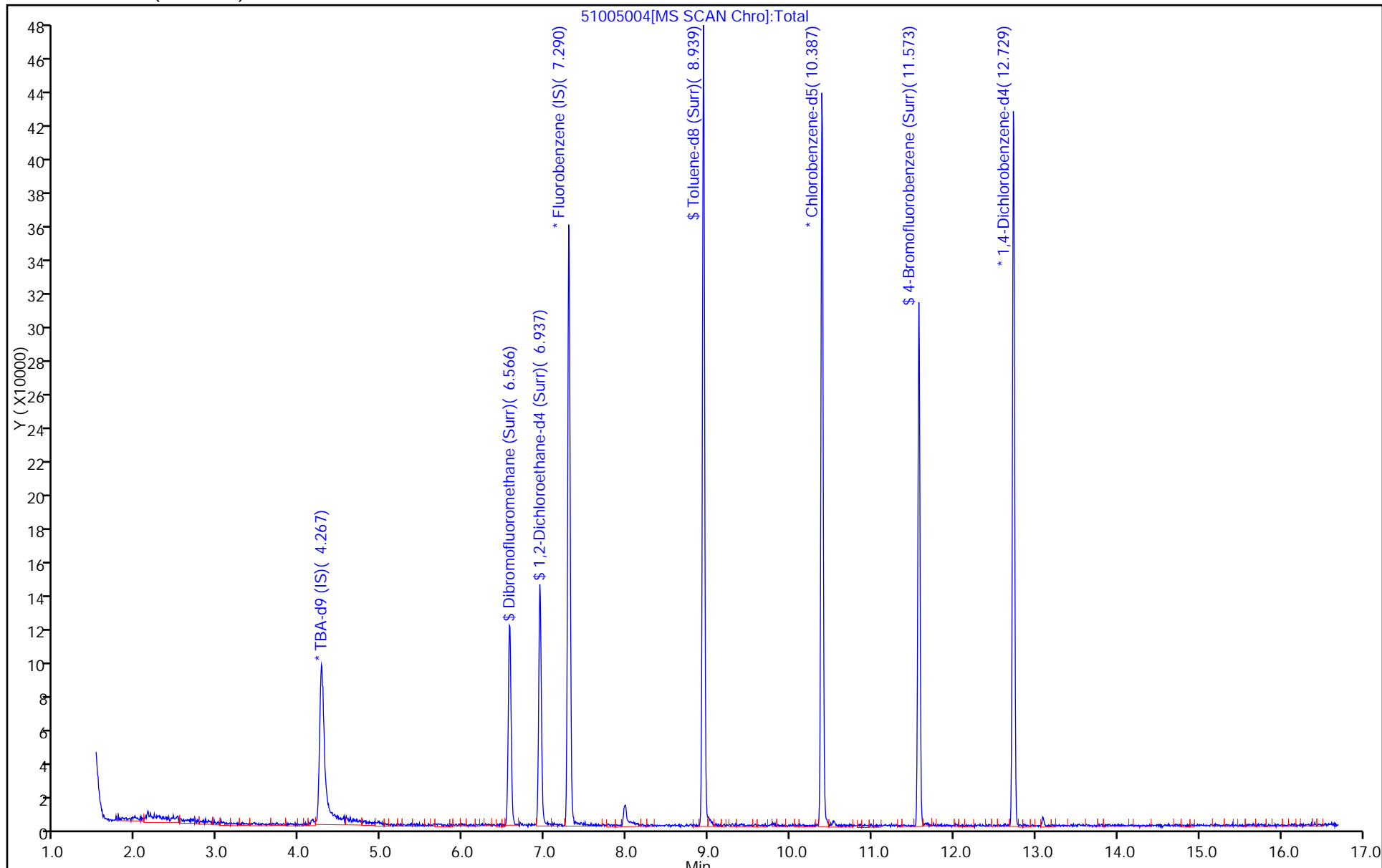
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-156037/6
 Matrix: Water Lab File ID: 51006006.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 13:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 1.0 | U | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 1.0 | U | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 1.0 | U | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.30 |
| 67-64-1 | Acetone | 5.0 | U | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 1.0 | U | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 | U | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 5.0 | U | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 1.0 | U | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 1.0 | 0.14 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 5.0 | 0.53 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 | U | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 5.0 | U | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1.0 | U | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 3.0 | U | 3.0 | 0.49 |
| 100-42-5 | Styrene | 1.0 | U | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-156037/6
 Matrix: Water Lab File ID: 51006006.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 13:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 1.0 | U | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 20 | U | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 200 | U | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 93 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006006.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 06-Oct-2015 13:50:30 ALS Bottle#: 4 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 180-0008850-006
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 15:36:29 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 15:36:28

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.266 | 4.279 | -0.013 | 0 | 137828 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.290 | 7.290 | 0.000 | 98 | 302565 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 86 | 79543 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 95 | 115658 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.572 | 6.560 | 0.012 | 93 | 77888 | 50.0 | 52.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.937 | 6.937 | 0.000 | 0 | 96472 | 50.0 | 47.3 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 94 | 285561 | 50.0 | 46.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 92 | 101951 | 50.0 | 44.0 | |
| 11 Dichlorodifluoromethane | 85 | | 1.608 | | | | | ND | |
| 12 Chloromethane | 50 | | 1.779 | | | | | ND | |
| 13 Vinyl chloride | 62 | | 1.912 | | | | | ND | |
| 14 Butadiene | 39 | | 1.949 | | | | | ND | |
| 15 Bromomethane | 94 | | 2.247 | | | | | ND | |
| 16 Chloroethane | 64 | | 2.399 | | | | | ND | |
| 17 Dichlorofluoromethane | 67 | | 2.679 | | | | | ND | |
| 18 Trichlorofluoromethane | 101 | | 2.703 | | | | | ND | |
| 19 Ethanol | 45 | | 2.957 | | | | | ND | |
| 20 Ethyl ether | 59 | | 3.056 | | | | | ND | |
| 21 Acrolein | 56 | | 3.232 | | | | | ND | |
| 22 1,1-Dichloroethene | 96 | | 3.348 | | | | | ND | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | | 3.433 | | | | | ND | |
| 24 Acetone | 43 | | 3.451 | | | | | ND | |
| 25 Iodomethane | 142 | | 3.537 | | | | | ND | |
| 26 Carbon disulfide | 76 | | 3.652 | | | | | ND | |
| 27 Isopropyl alcohol | 45 | | 3.706 | | | | | ND | |
| 29 Acetonitrile | 40 | | 3.870 | | | | | ND | |
| 28 3-Chloro-1-propene | 76 | | 3.926 | | | | | ND | |
| 30 Methyl acetate | 43 | | 3.944 | | | | | ND | |
| 31 Methylene Chloride | 84 | | 4.133 | | | | | ND | |
| 32 2-Methyl-2-propanol | 59 | | 4.407 | | | | | ND | |
| 33 Acrylonitrile | 53 | | 4.528 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|-------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 34 trans-1,2-Dichloroethene | 96 | | 4.565 | | | | | ND | |
| 35 Methyl tert-butyl ether | 73 | | 4.583 | | | | | ND | |
| 36 Hexane | 57 | | 4.985 | | | | | ND | |
| 37 1,1-Dichloroethane | 63 | | 5.204 | | | | | ND | |
| 38 Vinyl acetate | 43 | | 5.252 | | | | | ND | |
| 41 Isopropyl ether | 45 | | 5.299 | | | | | ND | |
| 39 2-Chloro-1,3-butadiene | 53 | | 5.299 | | | | | ND | |
| 40 Isopropyl ether TIC | 45 | | 5.409 | | | | | ND | |
| 42 Tert-butyl ethyl ether | 59 | | 5.780 | | | | | ND | |
| 44 2,2-Dichloropropane | 77 | | 5.946 | | | | | ND | |
| 45 cis-1,2-Dichloroethene | 96 | | 5.958 | | | | | ND | |
| 43 Tert-butyl ethyl ether (TI | 59 | | 5.961 | | | | | ND | |
| 46 2-Butanone (MEK) | 43 | | 5.964 | | | | | ND | |
| 48 Ethyl acetate | 43 | | 6.036 | | | | | ND | |
| 47 Propionitrile | 54 | | 6.036 | | | | | ND | |
| 50 Methacrylonitrile | 41 | | 6.212 | | | | | ND | |
| 49 Chlorobromomethane | 128 | | 6.238 | | | | | ND | |
| 51 Tetrahydrofuran | 42 | | 6.250 | | | | | ND | |
| 52 Chloroform | 83 | | 6.384 | | | | | ND | |
| 53 1,1,1-Trichloroethane | 97 | | 6.542 | | | | | ND | |
| 54 Cyclohexane | 56 | | 6.615 | | | | | ND | |
| 56 Carbon tetrachloride | 117 | | 6.718 | | | | | ND | |
| 55 1,1-Dichloropropene | 75 | | 6.730 | | | | | ND | |
| 57 Isobutyl alcohol | 41 | | 6.925 | | | | | ND | |
| 58 Benzene | 78 | | 6.943 | | | | | ND | |
| 59 1,2-Dichloroethane | 62 | | 7.022 | | | | | ND | |
| 61 Tert-amyl methyl ether | 73 | | 7.125 | | | | | ND | |
| 60 Tert-amyl methyl ether (TI | 73 | | 7.262 | | | | | ND | |
| 62 n-Heptane | 43 | | 7.308 | | | | | ND | |
| 63 n-Butanol | 56 | | 7.629 | | | | | ND | |
| 64 Trichloroethene | 130 | | 7.679 | | | | | ND | |
| 65 Ethyl acrylate | 55 | | 7.800 | | | | | ND | |
| 66 Methylcyclohexane | 83 | | 7.917 | | | | | ND | |
| 67 1,2-Dichloropropane | 63 | | 7.947 | | | | | ND | |
| 69 Methyl methacrylate | 69 | | 8.031 | | | | | ND | |
| 70 1,4-Dioxane | 88 | | 8.032 | | | | | ND | |
| 68 Dibromomethane | 93 | | 8.038 | | | | | ND | |
| 71 Dichlorobromomethane | 83 | | 8.233 | | | | | ND | |
| 72 2-Nitropropane | 41 | | 8.451 | | | | | ND | |
| 73 2-Chloroethyl vinyl ether | 63 | | 8.526 | | | | | ND | |
| 74 cis-1,3-Dichloropropene | 75 | | 8.677 | | | | | ND | |
| 75 4-Methyl-2-pentanone (MIBK | 43 | | 8.829 | | | | | ND | |
| 76 Toluene | 91 | | 9.006 | | | | | ND | |
| 77 trans-1,3-Dichloropropene | 75 | | 9.255 | | | | | ND | |
| 78 Ethyl methacrylate | 69 | | 9.310 | | | | | ND | |
| 79 1,1,2-Trichloroethane | 97 | | 9.450 | | | | | ND | |
| 80 Tetrachloroethene | 164 | | 9.517 | | | | | ND | |
| 81 1,3-Dichloropropane | 76 | | 9.602 | | | | | ND | |
| 82 2-Hexanone | 43 | | 9.663 | | | | | ND | |
| 83 n-Butyl acetate | 43 | | 9.783 | | | | | ND | |
| 84 Chlorodibromomethane | 129 | | 9.815 | | | | | ND | |
| 85 Ethylene Dibromide | 107 | | 9.930 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 86 3-Chlorobenzotrifluoride | 180 | | 10.387 | | | | | ND | |
| 87 Chlorobenzene | 112 | | 10.417 | | | | | ND | |
| 88 4-Chlorobenzotrifluoride | 180 | | 10.478 | | | | | ND | |
| 89 1,1,1,2-Tetrachloroethane | 131 | | 10.514 | | | | | ND | |
| 90 Ethylbenzene | 106 | | 10.514 | | | | | ND | |
| 91 m-Xylene & p-Xylene | 106 | | 10.648 | | | | | ND | |
| 92 o-Xylene | 106 | | 11.031 | | | | | ND | |
| 93 Styrene | 104 | | 11.050 | | | | | ND | |
| 94 Bromoform | 173 | | 11.232 | | | | | ND | |
| 95 Cyclohexanol | 57 | | 11.245 | | | | | ND | |
| 96 2-Chlorobenzotrifluoride | 180 | | 11.299 | | | | | ND | |
| 97 Isopropylbenzene | 105 | | 11.396 | | | | | ND | |
| 98 Cyclohexanone | 55 | | 11.480 | | | | | ND | |
| 99 1,1,2,2-Tetrachloroethane | 83 | | 11.707 | | | | | ND | |
| 100 Bromobenzene | 156 | | 11.713 | | | | | ND | |
| 102 trans-1,4-Dichloro-2-buten | 53 | | 11.743 | | | | | ND | |
| 101 1,2,3-Trichloropropane | 110 | | 11.761 | | | | | ND | |
| 103 N-Propylbenzene | 120 | | 11.810 | | | | | ND | |
| 104 2-Chlorotoluene | 126 | | 11.901 | | | | | ND | |
| 105 3-Chlorotoluene | 126 | | 11.968 | | | | | ND | |
| 106 1,3,5-Trimethylbenzene | 105 | | 11.999 | | | | | ND | |
| 107 4-Chlorotoluene | 126 | | 12.023 | | | | | ND | |
| 108 tert-Butylbenzene | 119 | | 12.309 | | | | | ND | |
| 109 Pentachloroethane | 167 | | 12.338 | | | | | ND | |
| 110 1,2,4-Trimethylbenzene | 105 | | 12.370 | | | | | ND | |
| 111 1,2-dichloro-4-(trifluorom | 214 | | 12.412 | | | | | ND | |
| 112 sec-Butylbenzene | 105 | | 12.534 | | | | | ND | |
| 113 1,3-Dichlorobenzene | 146 | | 12.650 | | | | | ND | |
| 114 4-Isopropyltoluene | 119 | | 12.692 | | | | | ND | |
| 115 1,4-Dichlorobenzene | 146 | | 12.753 | | | | | ND | |
| 117 1,2,3-Trimethylbenzene | 105 | | 12.776 | | | | | ND | |
| 116 2,4-Dichloro-1-(triflourom | 214 | | 12.777 | | | | | ND | |
| 118 2,5-Dichlorobenzotrifluori | 214 | | 12.820 | | | | | ND | |
| 119 Benzyl chloride | 91 | | 12.867 | | | | | ND | |
| 120 n-Butylbenzene | 91 | | 13.100 | | | | | ND | |
| 121 1,2-Dichlorobenzene | 146 | | 13.112 | | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | | 13.903 | | | | | ND | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | | 14.043 | | | | | ND | |
| 124 1,3,5-Trichlorobenzene | 180 | | 14.087 | | | | | ND | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | | 14.463 | | | | | ND | |
| 126 1,2,4-Trichlorobenzene | 180 | | 14.724 | | | | | ND | |
| 127 Hexachlorobutadiene | 225 | | 14.870 | | | | | ND | |
| 128 Naphthalene | 128 | | 14.992 | | | | | ND | |
| 129 1,2,3-Trichlorobenzene | 180 | | 15.217 | | | | | ND | |
| 131 2,4,5-Trichlorotoluene | 159 | | 15.996 | | | | | ND | |
| 130 2,3,6-Trichlorotoluene | 159 | | 16.087 | | | | | ND | |
| 132 2-Methylnaphthalene | 142 | | 16.134 | | | | | ND | |
| 152 Formaldehyde TIC | 1 | | 0.000 | | | | | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 151 Isooctane | 57 | | 0.000 | | | | | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|---|----------|------------|--------------|-------|
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | 1.000 | | | | | ND | |
| S 133 Xylenes, Total | 106 | | 1.000 | | | | | ND | |
| S 135 1,3-Dichloropropene, Total | 1 | | 0.000 | | | | | ND | |
| T 138 Methyl n-amyl ketone TIC | 43 | | 0.000 | | | | | ND | |
| T 136 Mesityl oxide TIC | 83 | | 0.000 | | | | | ND | |
| T 153 1,2 Epoxybutane TIC | 42 | | 6.253 | | | | | ND | |
| T 137 Tetrahydrofuran TIC | 42 | | 6.253 | | | | | ND | |

Reagents:

VOA8260INT_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURRE_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006006.D

Injection Date: 06-Oct-2015 13:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

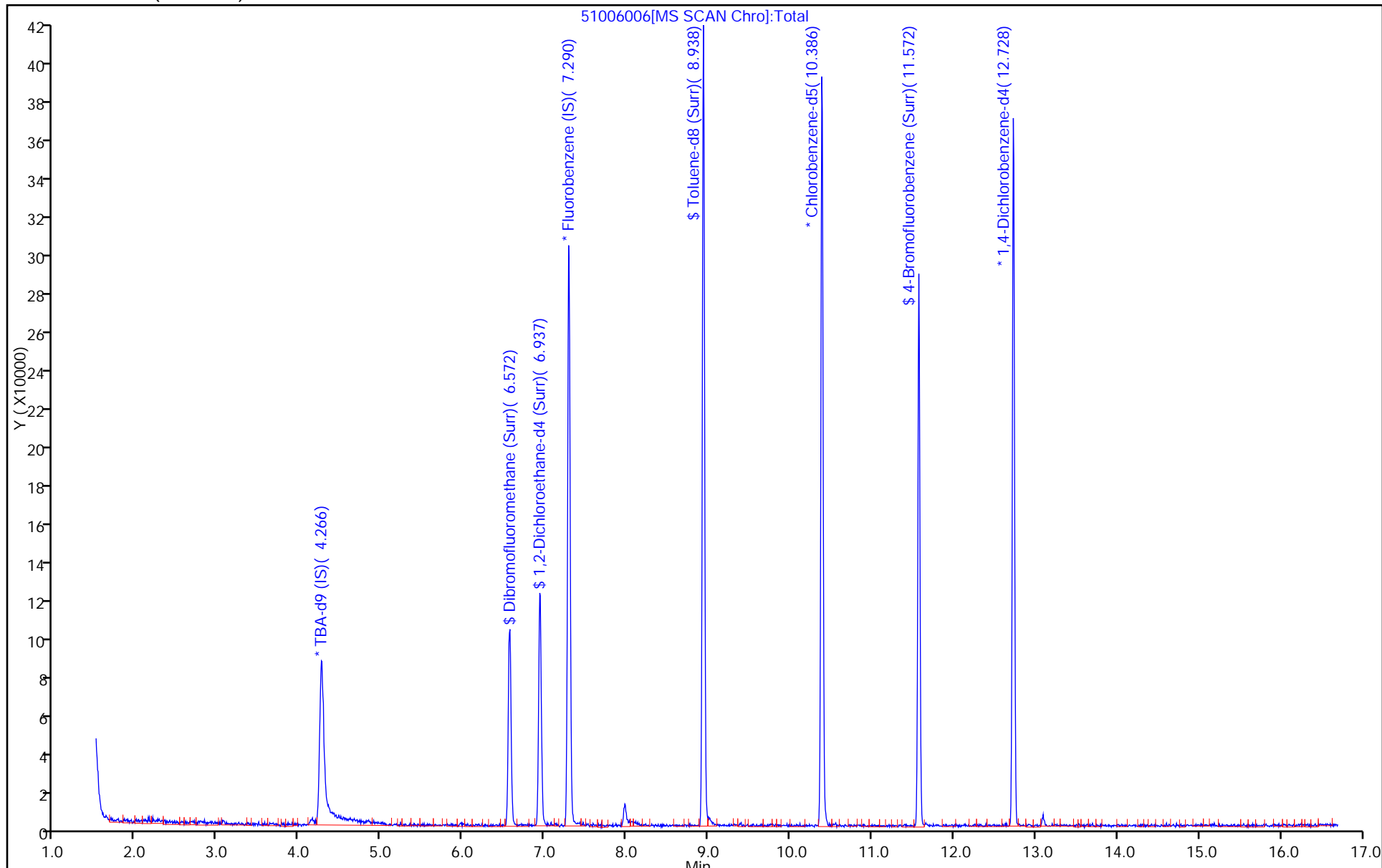
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155766/8
 Matrix: Water Lab File ID: 51003008.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 14:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 11.1 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 10.1 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 11.0 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 9.10 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 9.39 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 18.5 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 8.56 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 9.86 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 9.72 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 9.38 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 8.94 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 9.55 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 10.4 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 21.6 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 9.29 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 9.23 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 9.88 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 9.60 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 9.16 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 10.2 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 9.55 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 9.03 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 8.34 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 18.4 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 10.2 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 8.65 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 10.4 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 10.8 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 18.5 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 9.76 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 10.2 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 10.2 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 10.3 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 10.2 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 20.9 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 10.9 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155766/8
 Matrix: Water Lab File ID: 51003008.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 14:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 9.91 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10.6 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 104 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 248 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 88 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 92 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003008.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 03-Oct-2015 14:38:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 180-0008807-008
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 14:49:59 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 14:49:59

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.287 | 4.283 | 0.004 | 0 | 119352 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.292 | 7.289 | 0.003 | 98 | 368008 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.389 | 10.385 | 0.004 | 87 | 88784 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.731 | 12.727 | 0.004 | 92 | 140068 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.562 | 6.565 | -0.003 | 94 | 83196 | 50.0 | 46.0 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.934 | 6.936 | -0.002 | 0 | 109015 | 50.0 | 43.9 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.935 | 8.937 | -0.002 | 94 | 325596 | 50.0 | 47.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.569 | 11.571 | -0.002 | 91 | 114200 | 50.0 | 44.2 | |
| 11 Dichlorodifluoromethane | 85 | 1.610 | 1.607 | 0.003 | 99 | 114104 | 50.0 | 54.9 | |
| 12 Chloromethane | 50 | 1.769 | 1.771 | -0.002 | 98 | 169517 | 50.0 | 55.5 | |
| 13 Vinyl chloride | 62 | 1.909 | 1.905 | 0.004 | 98 | 136854 | 50.0 | 50.5 | |
| 14 Butadiene | 39 | 1.945 | 1.941 | 0.004 | 98 | 173329 | 50.0 | 54.2 | |
| 15 Bromomethane | 94 | 2.249 | 2.239 | 0.010 | 92 | 60523 | 50.0 | 54.9 | |
| 16 Chloroethane | 64 | 2.401 | 2.391 | 0.010 | 98 | 74333 | 50.0 | 45.5 | |
| 17 Dichlorofluoromethane | 67 | 2.675 | 2.665 | 0.010 | 98 | 156763 | 50.0 | 45.2 | |
| 18 Trichlorofluoromethane | 101 | 2.706 | 2.702 | 0.004 | 84 | 133273 | 50.0 | 51.4 | |
| 20 Ethyl ether | 59 | 3.052 | 3.048 | 0.004 | 98 | 110335 | 50.0 | 45.9 | |
| 21 Acrolein | 56 | 3.229 | 3.231 | -0.002 | 99 | 45162 | 150.0 | 126.2 | |
| 22 1,1-Dichloroethene | 96 | 3.350 | 3.346 | 0.004 | 96 | 96238 | 50.0 | 47.0 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.417 | 3.407 | 0.010 | 94 | 102934 | 50.0 | 47.4 | |
| 24 Acetone | 43 | 3.448 | 3.444 | 0.004 | 96 | 68598 | 100.0 | 92.4 | |
| 25 Iodomethane | 142 | 3.539 | 3.553 | -0.014 | 97 | 161963 | 50.0 | 53.0 | |
| 26 Carbon disulfide | 76 | 3.636 | 3.638 | -0.002 | 100 | 203671 | 50.0 | 42.8 | |
| 28 3-Chloro-1-propene | 76 | 3.916 | 3.918 | -0.002 | 89 | 50798 | 50.0 | 43.8 | |
| 30 Methyl acetate | 43 | 3.947 | 3.937 | 0.010 | 99 | 579455 | 250.0 | 261.2 | |
| 31 Methylene Chloride | 84 | 4.141 | 4.137 | 0.004 | 97 | 118919 | 50.0 | 49.3 | |
| 32 2-Methyl-2-propanol | 59 | 4.409 | 4.405 | 0.004 | 91 | 65132 | 500.0 | 484.8 | |
| 33 Acrylonitrile | 53 | 4.531 | 4.527 | 0.004 | 98 | 558795 | 500.0 | 519.0 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.561 | 4.563 | -0.002 | 97 | 108140 | 50.0 | 48.6 | |
| 35 Methyl tert-butyl ether | 73 | 4.579 | 4.581 | -0.002 | 95 | 241463 | 50.0 | 46.9 | |
| 36 Hexane | 57 | 4.987 | 4.989 | -0.002 | 95 | 175706 | 50.0 | 47.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.200 | 5.202 | -0.002 | 96 | 196073 | 50.0 | 44.7 | |
| 38 Vinyl acetate | 43 | 5.248 | 5.251 | -0.003 | 97 | 191913 | 50.0 | 58.3 | |
| 44 2,2-Dichloropropane | 77 | 5.954 | 5.944 | 0.010 | 58 | 73586 | 50.0 | 41.9 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.954 | 5.950 | 0.004 | 83 | 113548 | 50.0 | 47.8 | |
| 46 2-Butanone (MEK) | 43 | 5.966 | 5.962 | 0.004 | 98 | 120219 | 100.0 | 107.8 | |
| 49 Chlorobromomethane | 128 | 6.240 | 6.236 | 0.004 | 92 | 54204 | 50.0 | 51.9 | |
| 51 Tetrahydrofuran | 42 | 6.252 | 6.248 | 0.004 | 93 | 80214 | 100.0 | 89.6 | |
| 52 Chloroform | 83 | 6.386 | 6.382 | 0.004 | 96 | 175969 | 50.0 | 46.5 | |
| 53 1,1,1-Trichloroethane | 97 | 6.544 | 6.540 | 0.004 | 97 | 129326 | 50.0 | 46.2 | |
| 54 Cyclohexane | 56 | 6.617 | 6.613 | 0.004 | 97 | 213905 | 50.0 | 45.6 | |
| 56 Carbon tetrachloride | 117 | 6.715 | 6.717 | -0.002 | 94 | 117833 | 50.0 | 49.4 | |
| 55 1,1-Dichloropropene | 75 | 6.733 | 6.735 | -0.002 | 90 | 140539 | 50.0 | 45.4 | |
| 57 Isobutyl alcohol | 41 | 6.927 | 6.924 | 0.003 | 90 | 81807 | 1250.0 | 1167.3 | |
| 58 Benzene | 78 | 6.946 | 6.942 | 0.004 | 98 | 435475 | 50.0 | 48.0 | |
| 59 1,2-Dichloroethane | 62 | 7.025 | 7.021 | 0.004 | 95 | 143738 | 50.0 | 45.8 | |
| 62 n-Heptane | 43 | 7.311 | 7.307 | 0.004 | 98 | 161666 | 50.0 | 47.6 | |
| 64 Trichloroethene | 130 | 7.682 | 7.678 | 0.004 | 96 | 113241 | 50.0 | 51.0 | |
| 66 Methylcyclohexane | 83 | 7.919 | 7.915 | 0.004 | 97 | 163612 | 50.0 | 46.8 | |
| 67 1,2-Dichloropropane | 63 | 7.949 | 7.946 | 0.003 | 94 | 113675 | 50.0 | 47.7 | |
| 68 Dibromomethane | 93 | 8.035 | 8.037 | -0.002 | 93 | 57812 | 50.0 | 47.8 | |
| 70 1,4-Dioxane | 88 | 8.029 | 8.037 | -0.008 | 37 | 20348 | 1000.0 | 1239.6 | |
| 71 Dichlorobromomethane | 83 | 8.235 | 8.232 | 0.003 | 97 | 107968 | 50.0 | 45.2 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.679 | 8.676 | 0.003 | 90 | 116895 | 50.0 | 41.7 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.825 | 8.828 | -0.003 | 99 | 201677 | 100.0 | 92.2 | |
| 76 Toluene | 91 | 9.002 | 9.004 | -0.002 | 98 | 446737 | 50.0 | 50.8 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.251 | 9.254 | -0.003 | 98 | 99184 | 50.0 | 43.2 | |
| 78 Ethyl methacrylate | 69 | 9.312 | 9.308 | 0.004 | 94 | 104866 | 50.0 | 47.3 | |
| 79 1,1,2-Trichloroethane | 97 | 9.440 | 9.442 | -0.002 | 92 | 86560 | 50.0 | 51.8 | |
| 80 Tetrachloroethene | 164 | 9.519 | 9.515 | 0.004 | 97 | 92473 | 50.0 | 54.2 | |
| 81 1,3-Dichloropropane | 76 | 9.598 | 9.600 | -0.002 | 99 | 145217 | 50.0 | 46.8 | |
| 82 2-Hexanone | 43 | 9.659 | 9.655 | 0.004 | 99 | 146306 | 100.0 | 92.6 | |
| 84 Chlorodibromomethane | 129 | 9.817 | 9.819 | -0.002 | 91 | 70644 | 50.0 | 48.8 | |
| 85 Ethylene Dibromide | 107 | 9.927 | 9.929 | -0.002 | 100 | 82477 | 50.0 | 51.2 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.389 | 10.391 | -0.002 | 84 | 145388 | 50.0 | 51.5 | |
| 87 Chlorobenzene | 112 | 10.419 | 10.415 | 0.004 | 95 | 289888 | 50.0 | 51.2 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.474 | 10.476 | -0.002 | 95 | 139239 | 50.0 | 52.1 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.511 | 10.513 | -0.002 | 90 | 95451 | 50.0 | 51.7 | |
| 90 Ethylbenzene | 106 | 10.517 | 10.519 | -0.002 | 98 | 153251 | 50.0 | 51.1 | |
| 91 m-Xylene & p-Xylene | 106 | 10.651 | 10.647 | 0.004 | 0 | 192685 | 50.0 | 52.4 | |
| 92 o-Xylene | 106 | 11.028 | 11.030 | -0.002 | 96 | 181624 | 50.0 | 51.9 | |
| 93 Styrene | 104 | 11.046 | 11.048 | -0.002 | 96 | 314756 | 50.0 | 54.3 | |
| 94 Bromoform | 173 | 11.235 | 11.231 | 0.004 | 97 | 40947 | 50.0 | 49.6 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.295 | 11.298 | -0.003 | 97 | 144102 | 50.0 | 51.8 | |
| 97 Isopropylbenzene | 105 | 11.393 | 11.395 | -0.002 | 96 | 452318 | 50.0 | 52.8 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.703 | 11.705 | -0.002 | 84 | 119531 | 50.0 | 53.0 | |
| 100 Bromobenzene | 156 | 11.709 | 11.711 | -0.002 | 93 | 120998 | 50.0 | 50.3 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.739 | 11.742 | -0.003 | 71 | 18740 | 50.0 | 21.6 | |
| 101 1,2,3-Trichloropropane | 110 | 11.764 | 11.766 | -0.002 | 87 | 38883 | 50.0 | 49.0 | |
| 103 N-Propylbenzene | 120 | 11.812 | 11.815 | -0.003 | 99 | 132662 | 50.0 | 48.2 | |
| 104 2-Chlorotoluene | 126 | 11.898 | 11.900 | -0.002 | 96 | 119117 | 50.0 | 50.9 | |
| 105 3-Chlorotoluene | 126 | 11.965 | 11.967 | -0.002 | 95 | 120031 | 50.0 | 49.9 | |
| 106 1,3,5-Trimethylbenzene | 105 | 11.995 | 11.997 | -0.002 | 94 | 388153 | 50.0 | 49.9 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 107 4-Chlorotoluene | 126 | 12.025 | 12.022 | 0.003 | 97 | 132752 | 50.0 | 51.6 | |
| 108 tert-Butylbenzene | 119 | 12.311 | 12.307 | 0.004 | 95 | 308880 | 50.0 | 48.9 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.366 | 12.368 | -0.002 | 98 | 390208 | 50.0 | 50.1 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.409 | 12.411 | -0.002 | 97 | 100377 | 50.0 | 46.2 | |
| 112 sec-Butylbenzene | 105 | 12.530 | 12.533 | -0.003 | 95 | 443881 | 50.0 | 49.7 | |
| 113 1,3-Dichlorobenzene | 146 | 12.652 | 12.648 | 0.004 | 98 | 231325 | 50.0 | 54.0 | |
| 114 4-Isopropyltoluene | 119 | 12.688 | 12.691 | -0.003 | 97 | 385875 | 50.0 | 51.1 | |
| 115 1,4-Dichlorobenzene | 146 | 12.755 | 12.752 | 0.003 | 96 | 240077 | 50.0 | 53.9 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.780 | 12.782 | -0.002 | 94 | 91715 | 50.0 | 45.6 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.822 | 12.818 | 0.004 | 0 | 109830 | 50.0 | 50.5 | |
| 120 n-Butylbenzene | 91 | 13.096 | 13.098 | -0.002 | 98 | 299071 | 50.0 | 46.3 | |
| 121 1,2-Dichlorobenzene | 146 | 13.108 | 13.110 | -0.002 | 98 | 219949 | 50.0 | 55.0 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.905 | 13.907 | -0.002 | 78 | 15839 | 50.0 | 48.2 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.045 | 14.047 | -0.002 | 0 | 353022 | 150.0 | 154.5 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.459 | 14.461 | -0.002 | 0 | 227216 | 100.0 | 104.3 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.726 | 14.729 | -0.003 | 94 | 84960 | 50.0 | 54.6 | |
| 127 Hexachlorobutadiene | 225 | 14.872 | 14.869 | 0.003 | 97 | 40422 | 50.0 | 53.9 | |
| 128 Naphthalene | 128 | 14.988 | 14.990 | -0.002 | 97 | 229235 | 50.0 | 57.3 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.213 | 15.215 | -0.002 | 96 | 69109 | 50.0 | 54.8 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.992 | 15.994 | -0.002 | 0 | 20579 | 50.0 | 45.3 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.089 | 16.091 | -0.002 | 96 | 21765 | 50.0 | 51.9 | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 96.3 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 104.3 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 85.0 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003008.D

Injection Date: 03-Oct-2015 14:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

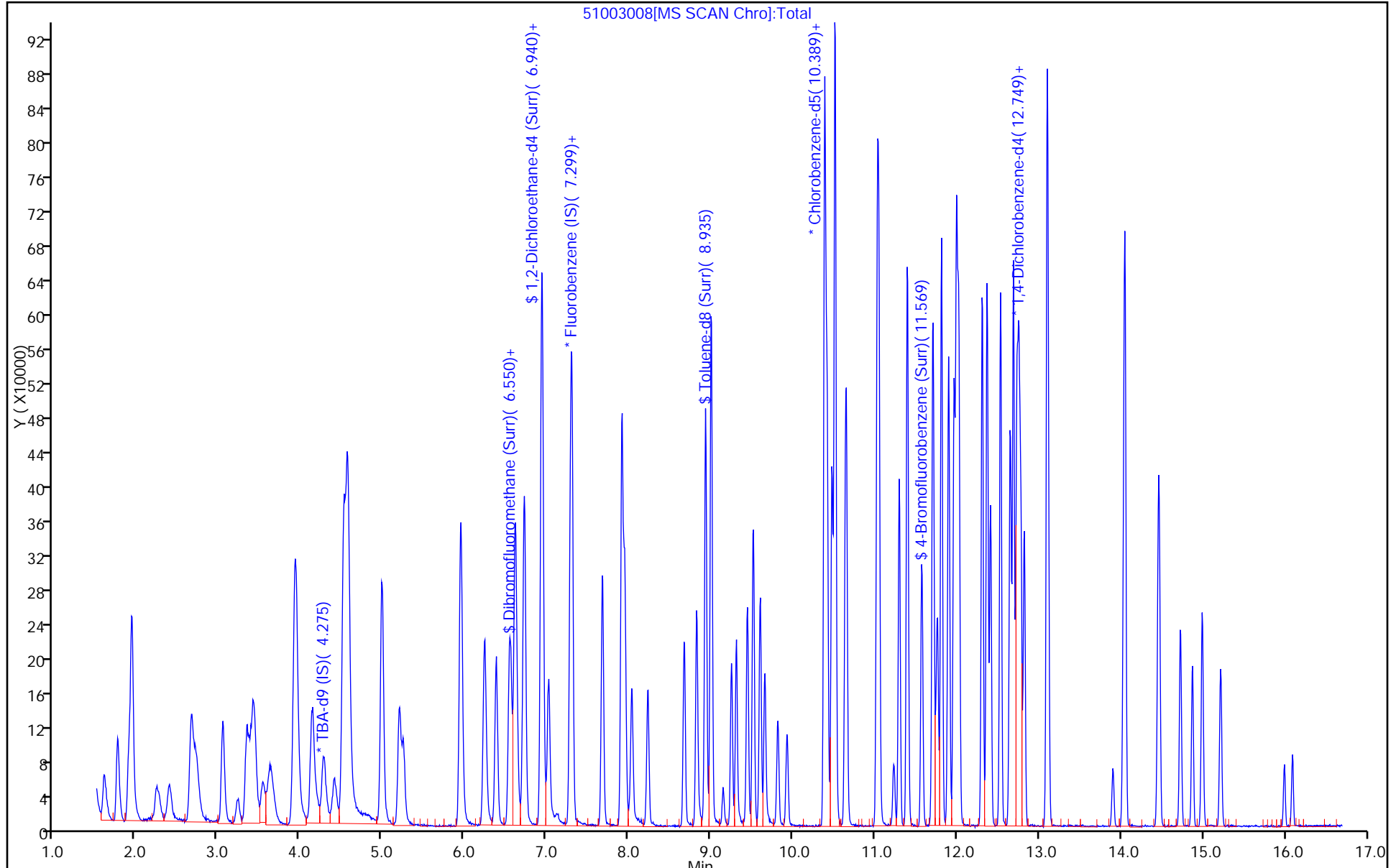
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155869/7
 Matrix: Water Lab File ID: 61005007.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 12:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 12.9 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 10.9 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 8.96 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 10.8 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 9.60 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 23.0 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 9.74 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 9.67 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 9.82 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 9.56 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 10.7 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 9.33 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 11.1 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 22.5 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 9.92 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 9.71 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 11.2 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 10.9 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 10.6 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 11.7 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 11.3 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 9.91 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 10.6 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 23.0 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 10.7 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 10.3 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 10.8 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 11.8 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 25.9 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 11.6 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 10.8 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 10.9 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 11.7 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 10.7 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 21.3 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 11.4 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155869/7
 Matrix: Water Lab File ID: 61005007.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 12:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155869 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 12.6 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10.5 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 128 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 207 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 105 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 111 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 106 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005007.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Oct-2015 12:29:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 180-0008826-007
 Operator ID: 001562 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 09:37:33 Calib Date: 14-Sep-2015 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 05-Oct-2015 12:59:01

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.242 | 4.230 | 0.012 | 86 | 175396 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.284 | 7.290 | -0.006 | 98 | 416212 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.399 | 10.399 | 0.000 | 90 | 93412 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.747 | 12.747 | 0.000 | 95 | 168494 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.554 | 6.550 | 0.004 | 93 | 101236 | 50.0 | 52.8 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.931 | 6.928 | 0.003 | 70 | 162602 | 50.0 | 52.6 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.939 | 8.941 | -0.002 | 94 | 410320 | 50.0 | 55.7 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.585 | 11.587 | -0.002 | 86 | 165225 | 50.0 | 50.5 | |
| 11 Dichlorodifluoromethane | 85 | 1.602 | 1.604 | -0.002 | 99 | 139921 | 50.0 | 48.5 | |
| 12 Chloromethane | 50 | 1.760 | 1.769 | -0.009 | 100 | 160104 | 50.0 | 64.5 | |
| 13 Vinyl chloride | 62 | 1.894 | 1.903 | -0.009 | 98 | 145276 | 50.0 | 54.3 | |
| 14 Butadiene | 39 | 1.937 | 1.939 | -0.003 | 92 | 145920 | 50.0 | 58.2 | |
| 15 Bromomethane | 94 | 2.235 | 2.243 | -0.008 | 90 | 64727 | 50.0 | 44.8 | |
| 16 Chloroethane | 64 | 2.381 | 2.377 | 0.004 | 100 | 98564 | 50.0 | 54.0 | |
| 17 Dichlorofluoromethane | 67 | 2.654 | 2.651 | 0.003 | 99 | 216238 | 50.0 | 50.9 | |
| 18 Trichlorofluoromethane | 101 | 2.679 | 2.681 | -0.002 | 98 | 178188 | 50.0 | 52.6 | |
| 20 Ethyl ether | 59 | 3.038 | 3.046 | -0.008 | 96 | 136367 | 50.0 | 56.8 | |
| 21 Acrolein | 56 | 3.220 | 3.211 | 0.009 | 99 | 36244 | 150.0 | 138.3 | |
| 22 1,1-Dichloroethene | 96 | 3.342 | 3.326 | 0.016 | 96 | 100523 | 50.0 | 48.0 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.421 | 3.405 | 0.016 | 94 | 115343 | 50.0 | 52.1 | |
| 24 Acetone | 43 | 3.427 | 3.430 | -0.003 | 81 | 84789 | 100.0 | 115.1 | |
| 25 Iodomethane | 142 | 3.543 | 3.533 | 0.010 | 99 | 151743 | 50.0 | 54.0 | |
| 26 Carbon disulfide | 76 | 3.634 | 3.630 | 0.004 | 100 | 264440 | 50.0 | 48.7 | |
| 29 3-Chloro-1-propene | 76 | 3.920 | 3.910 | 0.010 | 87 | 55552 | 50.0 | 47.0 | |
| 30 Methyl acetate | 43 | 3.926 | 3.922 | 0.004 | 99 | 571348 | 250.0 | 330.9 | |
| 31 Methylene Chloride | 84 | 4.127 | 4.117 | 0.010 | 97 | 140801 | 50.0 | 48.3 | |
| 32 2-Methyl-2-propanol | 59 | 4.376 | 4.366 | 0.010 | 90 | 104463 | 500.0 | 529.3 | |
| 33 Acrylonitrile | 53 | 4.498 | 4.500 | -0.002 | 100 | 555489 | 500.0 | 638.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.565 | 4.555 | 0.010 | 91 | 118755 | 50.0 | 49.1 | |
| 35 Methyl tert-butyl ether | 73 | 4.571 | 4.573 | -0.002 | 97 | 346142 | 50.0 | 47.8 | |
| 36 Hexane | 57 | 4.984 | 4.987 | -0.003 | 94 | 184999 | 50.0 | 56.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.197 | 5.194 | 0.003 | 98 | 231931 | 50.0 | 53.6 | |
| 38 Vinyl acetate | 43 | 5.240 | 5.236 | 0.004 | 98 | 180373 | 50.0 | 51.6 | |
| 42 2,2-Dichloropropane | 77 | 5.939 | 5.936 | 0.003 | 59 | 99957 | 50.0 | 45.7 | |
| 43 cis-1,2-Dichloroethene | 96 | 5.939 | 5.942 | -0.003 | 87 | 122675 | 50.0 | 46.7 | |
| 44 2-Butanone (MEK) | 43 | 5.946 | 5.948 | -0.002 | 65 | 113283 | 100.0 | 112.7 | |
| 48 Chlorobromomethane | 128 | 6.231 | 6.228 | 0.003 | 94 | 58695 | 50.0 | 55.6 | |
| 49 Tetrahydrofuran | 42 | 6.238 | 6.246 | -0.008 | 86 | 79619 | 100.0 | 117.6 | |
| 50 Chloroform | 83 | 6.371 | 6.368 | 0.003 | 94 | 213042 | 50.0 | 49.6 | |
| 51 1,1,1-Trichloroethane | 97 | 6.536 | 6.532 | 0.004 | 96 | 154155 | 50.0 | 48.6 | |
| 52 Cyclohexane | 56 | 6.615 | 6.617 | -0.002 | 94 | 225777 | 50.0 | 55.5 | |
| 53 Carbon tetrachloride | 117 | 6.712 | 6.715 | -0.003 | 95 | 125278 | 50.0 | 55.9 | |
| 54 1,1-Dichloropropene | 75 | 6.724 | 6.727 | -0.003 | 93 | 172892 | 50.0 | 50.6 | |
| 55 Isobutyl alcohol | 41 | 6.901 | 6.897 | 0.004 | 88 | 98138 | 1250.0 | 1629.8 | |
| 56 Benzene | 78 | 6.943 | 6.940 | 0.003 | 97 | 530067 | 50.0 | 54.6 | |
| 57 1,2-Dichloroethane | 62 | 7.016 | 7.013 | 0.003 | 98 | 207189 | 50.0 | 53.0 | |
| 59 n-Heptane | 43 | 7.308 | 7.305 | 0.003 | 93 | 174338 | 50.0 | 66.1 | |
| 61 Trichloroethene | 130 | 7.679 | 7.676 | 0.003 | 96 | 118137 | 50.0 | 58.4 | |
| 63 Methylcyclohexane | 83 | 7.923 | 7.925 | -0.002 | 94 | 198329 | 50.0 | 48.3 | |
| 64 1,2-Dichloropropane | 63 | 7.953 | 7.950 | 0.003 | 94 | 131087 | 50.0 | 56.6 | |
| 65 1,4-Dioxane | 88 | 8.032 | 8.023 | 0.009 | 37 | 23647 | 1000.0 | 1033.8 | |
| 67 Dibromomethane | 93 | 8.038 | 8.035 | 0.003 | 96 | 75809 | 50.0 | 53.9 | |
| 68 Dichlorobromomethane | 83 | 8.227 | 8.229 | -0.002 | 98 | 130970 | 50.0 | 49.5 | |
| 71 cis-1,3-Dichloropropene | 75 | 8.677 | 8.680 | -0.003 | 91 | 153612 | 50.0 | 52.9 | |
| 72 4-Methyl-2-pentanone (MIBK) | 43 | 8.823 | 8.826 | -0.003 | 98 | 221267 | 100.0 | 115.2 | |
| 73 Toluene | 91 | 9.012 | 9.008 | 0.004 | 98 | 516509 | 50.0 | 53.6 | |
| 74 trans-1,3-Dichloropropene | 75 | 9.249 | 9.257 | -0.008 | 97 | 126239 | 50.0 | 51.6 | |
| 75 Ethyl methacrylate | 69 | 9.316 | 9.312 | 0.004 | 92 | 138062 | 50.0 | 53.1 | |
| 76 1,1,2-Trichloroethane | 97 | 9.450 | 9.452 | -0.002 | 95 | 107341 | 50.0 | 53.8 | |
| 77 Tetrachloroethene | 164 | 9.529 | 9.525 | 0.004 | 96 | 97284 | 50.0 | 59.2 | |
| 78 1,3-Dichloropropane | 76 | 9.608 | 9.610 | -0.002 | 95 | 199915 | 50.0 | 54.3 | |
| 79 2-Hexanone | 43 | 9.656 | 9.659 | -0.003 | 98 | 163550 | 100.0 | 129.7 | |
| 81 Chlorodibromomethane | 129 | 9.821 | 9.823 | -0.002 | 91 | 79136 | 50.0 | 58.2 | |
| 82 Ethylene Dibromide | 107 | 9.936 | 9.939 | -0.003 | 100 | 94815 | 50.0 | 53.8 | |
| 83 3-Chlorobenzotrifluoride | 180 | 10.393 | 10.395 | -0.002 | 92 | 173676 | 50.0 | 56.3 | |
| 84 Chlorobenzene | 112 | 10.423 | 10.426 | -0.003 | 91 | 321711 | 50.0 | 54.3 | |
| 85 4-Chlorobenzotrifluoride | 180 | 10.484 | 10.486 | -0.002 | 95 | 171651 | 50.0 | 60.0 | |
| 86 1,1,1,2-Tetrachloroethane | 131 | 10.520 | 10.523 | -0.003 | 88 | 94684 | 50.0 | 58.3 | |
| 87 Ethylbenzene | 106 | 10.526 | 10.529 | -0.003 | 99 | 179231 | 50.0 | 53.6 | |
| 88 m-Xylene & p-Xylene | 106 | 10.660 | 10.657 | 0.003 | 100 | 225064 | 50.0 | 54.3 | |
| 89 o-Xylene | 106 | 11.037 | 11.040 | -0.003 | 98 | 215370 | 50.0 | 51.9 | |
| 90 Styrene | 104 | 11.062 | 11.058 | 0.004 | 95 | 363812 | 50.0 | 57.1 | |
| 91 Bromoform | 173 | 11.244 | 11.247 | -0.003 | 95 | 45680 | 50.0 | 62.9 | |
| 92 2-Chlorobenzotrifluoride | 180 | 11.305 | 11.302 | 0.003 | 97 | 182053 | 50.0 | 57.6 | |
| 93 Isopropylbenzene | 105 | 11.408 | 11.411 | -0.003 | 97 | 532139 | 50.0 | 53.6 | |
| 96 1,1,2,2-Tetrachloroethane | 83 | 11.713 | 11.715 | -0.002 | 96 | 140611 | 50.0 | 52.7 | |
| 95 Bromobenzene | 156 | 11.725 | 11.727 | -0.002 | 97 | 136104 | 50.0 | 50.2 | |
| 97 trans-1,4-Dichloro-2-buten | 53 | 11.749 | 11.758 | -0.009 | 78 | 41580 | 50.0 | 48.4 | |
| 98 1,2,3-Trichloropropane | 110 | 11.773 | 11.776 | -0.003 | 86 | 48349 | 50.0 | 46.9 | |
| 99 N-Propylbenzene | 120 | 11.828 | 11.825 | 0.003 | 99 | 144330 | 50.0 | 46.3 | |
| 100 2-Chlorotoluene | 126 | 11.913 | 11.916 | -0.003 | 94 | 127931 | 50.0 | 49.4 | |
| 101 3-Chlorotoluene | 126 | 11.980 | 11.977 | 0.003 | 97 | 139011 | 50.0 | 51.1 | |
| 102 1,3,5-Trimethylbenzene | 105 | 12.011 | 12.007 | 0.004 | 95 | 480518 | 50.0 | 47.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 103 4-Chlorotoluene | 126 | 12.035 | 12.038 | -0.003 | 99 | 138228 | 50.0 | 50.5 | |
| 104 tert-Butylbenzene | 119 | 12.327 | 12.324 | 0.003 | 93 | 359954 | 50.0 | 44.9 | |
| 106 1,2,4-Trimethylbenzene | 105 | 12.382 | 12.384 | -0.002 | 98 | 491863 | 50.0 | 47.4 | |
| 107 1,2-dichloro-4-(trifluorom | 214 | 12.424 | 12.421 | 0.003 | 98 | 158620 | 50.0 | 54.0 | |
| 108 sec-Butylbenzene | 105 | 12.546 | 12.549 | -0.003 | 96 | 563201 | 50.0 | 47.1 | |
| 109 1,3-Dichlorobenzene | 146 | 12.668 | 12.670 | -0.002 | 95 | 261446 | 50.0 | 49.4 | |
| 110 4-Isopropyltoluene | 119 | 12.704 | 12.707 | -0.003 | 96 | 467581 | 50.0 | 46.6 | |
| 111 1,4-Dichlorobenzene | 146 | 12.771 | 12.774 | -0.003 | 91 | 272649 | 50.0 | 50.4 | |
| 113 2,4-Dichloro-1-(trifluorom | 214 | 12.795 | 12.786 | 0.009 | 96 | 158853 | 50.0 | 54.3 | |
| 114 2,5-Dichlorobenzotrifluori | 214 | 12.832 | 12.828 | 0.004 | 97 | 162158 | 50.0 | 49.7 | |
| 116 n-Butylbenzene | 91 | 13.112 | 13.114 | -0.002 | 98 | 442189 | 50.0 | 44.1 | |
| 117 1,2-Dichlorobenzene | 146 | 13.124 | 13.127 | -0.003 | 93 | 258170 | 50.0 | 48.3 | |
| 118 1,2-Dibromo-3-Chloropropan | 75 | 13.915 | 13.911 | 0.004 | 74 | 21407 | 50.0 | 43.7 | |
| 119 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.061 | 14.057 | 0.004 | 99 | 663586 | 150.0 | 142.7 | |
| 121 2,3- & 3,4- Dichlorotoluen | 125 | 14.475 | 14.477 | -0.002 | 99 | 481629 | 100.0 | 93.9 | |
| 122 1,2,4-Trichlorobenzene | 180 | 14.742 | 14.745 | -0.003 | 94 | 189220 | 50.0 | 45.7 | |
| 123 Hexachlorobutadiene | 225 | 14.888 | 14.891 | -0.003 | 96 | 79379 | 50.0 | 48.7 | |
| 124 Naphthalene | 128 | 15.010 | 15.006 | 0.004 | 98 | 399830 | 50.0 | 47.9 | |
| 125 1,2,3-Trichlorobenzene | 180 | 15.229 | 15.225 | 0.004 | 95 | 178343 | 50.0 | 46.0 | |
| 126 2,4,5-Trichlorotoluene | 159 | 16.008 | 16.010 | -0.002 | 0 | 106923 | 50.0 | 41.1 | |
| 127 2,3,6-Trichlorotoluene | 159 | 16.111 | 16.107 | 0.004 | 95 | 106580 | 50.0 | 43.2 | |
| 143 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 144 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 145 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 130 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 95.8 | |
| S 131 Xylenes, Total | 106 | | | | 0 | | 100.0 | 106.2 | |
| S 132 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 104.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151005-8826.b\61005007.D

Injection Date: 05-Oct-2015 12:29:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

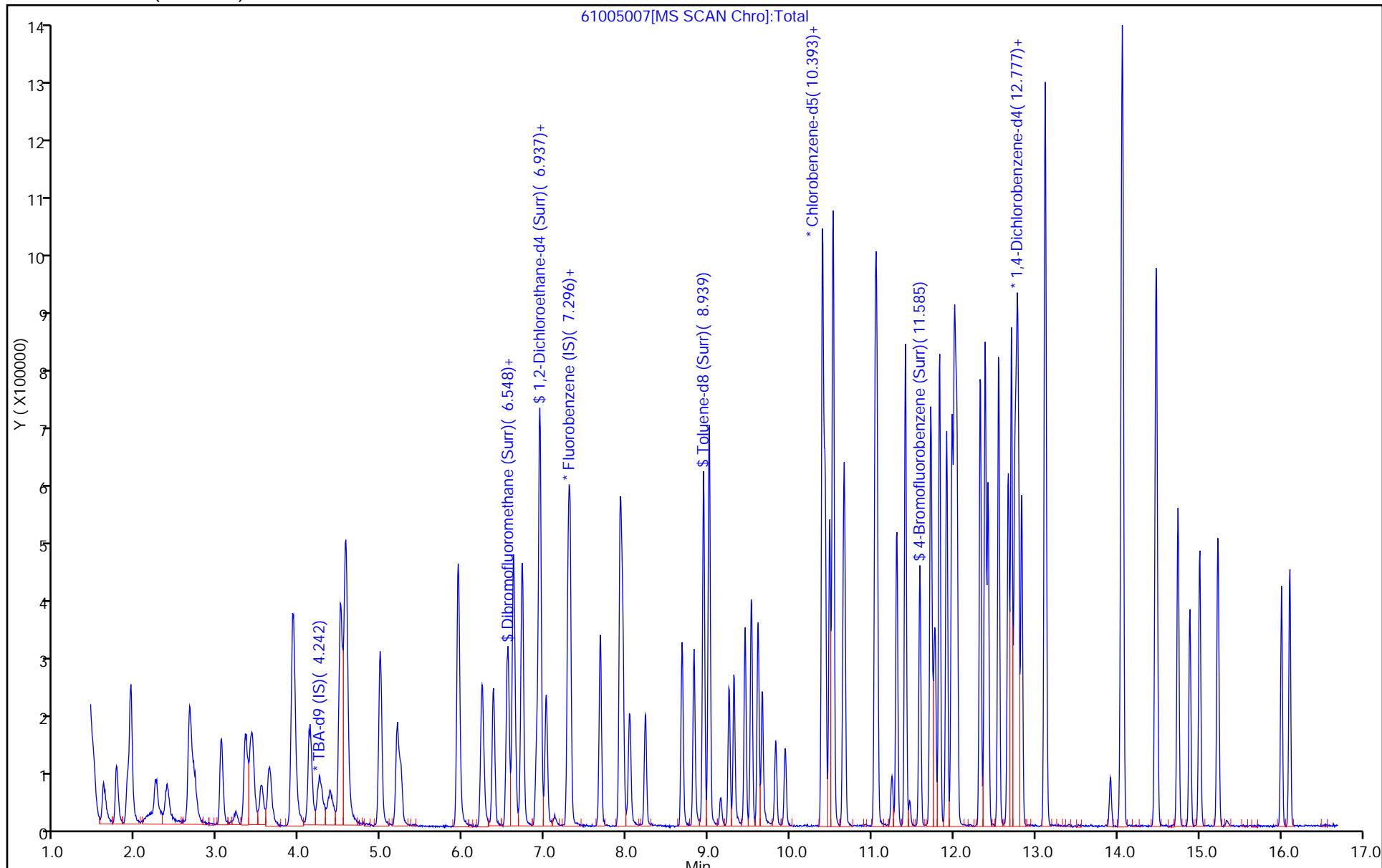
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155884/7
 Matrix: Water Lab File ID: 51005007.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 13:34
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 10.3 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 9.58 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 9.95 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 8.88 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 8.87 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 17.7 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 8.59 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 8.64 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 8.88 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 8.16 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 8.25 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 8.60 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 9.33 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 17.9 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 8.43 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 8.58 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 9.51 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 8.97 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 8.12 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 9.53 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 8.90 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 8.82 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 8.07 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 16.0 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 9.74 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 8.30 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 9.41 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 10.3 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 15.4 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 9.52 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 9.34 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 9.61 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 9.60 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 9.77 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 19.6 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 10.1 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-155884/7
 Matrix: Water Lab File ID: 51005007.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/05/2015 13:34
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155884 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 9.47 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 9.54 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 90.6 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 213 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 82 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 90 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 91 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005007.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Oct-2015 13:34:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 180-0008828-007
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Oct-2015 13:53:57 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 13:53:57

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.284 | 4.281 | 0.003 | 0 | 119053 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.292 | -0.003 | 98 | 418221 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.388 | -0.002 | 87 | 101020 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.734 | 12.730 | 0.004 | 93 | 143991 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.571 | 6.568 | 0.003 | 93 | 93297 | 50.0 | 45.4 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.942 | 6.933 | 0.009 | 0 | 116342 | 50.0 | 41.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.940 | -0.002 | 94 | 385978 | 50.0 | 49.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.575 | -0.003 | 89 | 132537 | 50.0 | 45.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.613 | 1.604 | 0.009 | 99 | 117806 | 50.0 | 49.9 | |
| 12 Chloromethane | 50 | 1.771 | 1.774 | -0.003 | 99 | 178255 | 50.0 | 51.4 | |
| 13 Vinyl chloride | 62 | 1.911 | 1.908 | 0.003 | 98 | 147354 | 50.0 | 47.9 | |
| 14 Butadiene | 39 | 1.948 | 1.951 | -0.003 | 97 | 183016 | 50.0 | 50.4 | |
| 15 Bromomethane | 94 | 2.246 | 2.249 | -0.003 | 91 | 62303 | 50.0 | 49.8 | |
| 16 Chloroethane | 64 | 2.404 | 2.413 | -0.009 | 98 | 82442 | 50.0 | 44.4 | |
| 17 Dichlorofluoromethane | 67 | 2.672 | 2.675 | -0.003 | 98 | 162741 | 50.0 | 41.3 | |
| 18 Trichlorofluoromethane | 101 | 2.714 | 2.699 | 0.015 | 98 | 141647 | 50.0 | 48.1 | |
| 20 Ethyl ether | 59 | 3.061 | 3.046 | 0.015 | 97 | 108409 | 50.0 | 39.7 | |
| 21 Acrolein | 56 | 3.237 | 3.222 | 0.015 | 99 | 46661 | 150.0 | 114.7 | |
| 22 1,1-Dichloroethene | 96 | 3.353 | 3.344 | 0.009 | 94 | 103320 | 50.0 | 44.4 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.432 | 3.423 | 0.009 | 93 | 113333 | 50.0 | 45.9 | |
| 24 Acetone | 43 | 3.450 | 3.441 | 0.009 | 97 | 74588 | 100.0 | 88.4 | |
| 25 Iodomethane | 142 | 3.542 | 3.538 | 0.004 | 98 | 171176 | 50.0 | 49.3 | |
| 26 Carbon disulfide | 76 | 3.663 | 3.636 | 0.027 | 100 | 232323 | 50.0 | 43.0 | |
| 28 3-Chloro-1-propene | 76 | 3.931 | 3.922 | 0.009 | 89 | 55328 | 50.0 | 41.9 | |
| 30 Methyl acetate | 43 | 3.949 | 3.940 | 0.009 | 100 | 576915 | 250.0 | 228.8 | |
| 31 Methylene Chloride | 84 | 4.144 | 4.141 | 0.003 | 97 | 120329 | 50.0 | 43.2 | |
| 32 2-Methyl-2-propanol | 59 | 4.418 | 4.402 | 0.016 | 87 | 74478 | 500.0 | 555.8 | |
| 33 Acrylonitrile | 53 | 4.527 | 4.524 | 0.003 | 98 | 554463 | 500.0 | 453.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.576 | 4.566 | 0.010 | 96 | 112265 | 50.0 | 44.4 | |
| 35 Methyl tert-butyl ether | 73 | 4.588 | 4.579 | 0.009 | 95 | 238697 | 50.0 | 40.8 | |
| 36 Hexane | 57 | 4.996 | 4.992 | 0.004 | 95 | 191832 | 50.0 | 45.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.209 | 5.199 | 0.009 | 96 | 205598 | 50.0 | 41.3 | |
| 38 Vinyl acetate | 43 | 5.257 | 5.254 | 0.003 | 97 | 193785 | 50.0 | 51.8 | |
| 44 2,2-Dichloropropane | 77 | 5.951 | 5.947 | 0.004 | 56 | 77308 | 50.0 | 38.7 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.957 | 5.954 | 0.003 | 83 | 116187 | 50.0 | 43.0 | |
| 46 2-Butanone (MEK) | 43 | 5.963 | 5.966 | -0.003 | 71 | 113349 | 100.0 | 89.4 | |
| 49 Chlorobromomethane | 128 | 6.243 | 6.233 | 0.010 | 93 | 55371 | 50.0 | 46.7 | |
| 51 Tetrahydrofuran | 42 | 6.261 | 6.252 | 0.009 | 93 | 81577 | 100.0 | 80.2 | |
| 52 Chloroform | 83 | 6.383 | 6.379 | 0.004 | 95 | 181422 | 50.0 | 42.1 | |
| 53 1,1,1-Trichloroethane | 97 | 6.547 | 6.550 | -0.003 | 96 | 136578 | 50.0 | 42.9 | |
| 54 Cyclohexane | 56 | 6.620 | 6.617 | 0.003 | 96 | 229493 | 50.0 | 43.1 | |
| 56 Carbon tetrachloride | 117 | 6.717 | 6.720 | -0.003 | 92 | 128822 | 50.0 | 47.5 | |
| 55 1,1-Dichloropropene | 75 | 6.735 | 6.732 | 0.003 | 90 | 148621 | 50.0 | 42.2 | |
| 57 Isobutyl alcohol | 41 | 6.930 | 6.927 | 0.003 | 91 | 94662 | 1250.0 | 1188.6 | |
| 58 Benzene | 78 | 6.948 | 6.945 | 0.003 | 97 | 462743 | 50.0 | 44.9 | |
| 59 1,2-Dichloroethane | 62 | 7.021 | 7.024 | -0.003 | 96 | 144874 | 50.0 | 40.6 | |
| 62 n-Heptane | 43 | 7.313 | 7.310 | 0.003 | 96 | 179603 | 50.0 | 46.6 | |
| 64 Trichloroethene | 130 | 7.678 | 7.675 | 0.003 | 96 | 120243 | 50.0 | 47.7 | |
| 66 Methylcyclohexane | 83 | 7.922 | 7.912 | 0.010 | 95 | 178786 | 50.0 | 45.0 | |
| 67 1,2-Dichloropropane | 63 | 7.952 | 7.949 | 0.003 | 96 | 120428 | 50.0 | 44.5 | |
| 68 Dibromomethane | 93 | 8.037 | 8.034 | 0.003 | 93 | 59734 | 50.0 | 43.5 | |
| 70 1,4-Dioxane | 88 | 8.037 | 8.034 | 0.003 | 39 | 19894 | 1000.0 | 1066.4 | M |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.235 | -0.003 | 97 | 119896 | 50.0 | 44.1 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.676 | 8.679 | -0.003 | 91 | 128453 | 50.0 | 40.3 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.828 | 8.825 | 0.003 | 99 | 199308 | 100.0 | 80.1 | |
| 76 Toluene | 91 | 9.005 | 9.007 | -0.002 | 98 | 487190 | 50.0 | 48.7 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.254 | 9.257 | -0.003 | 98 | 108264 | 50.0 | 41.5 | |
| 78 Ethyl methacrylate | 69 | 9.315 | 9.312 | 0.003 | 95 | 106357 | 50.0 | 42.1 | |
| 79 1,1,2-Trichloroethane | 97 | 9.449 | 9.445 | 0.004 | 93 | 89519 | 50.0 | 47.1 | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.518 | -0.002 | 97 | 100343 | 50.0 | 51.7 | |
| 81 1,3-Dichloropropane | 76 | 9.607 | 9.604 | 0.003 | 99 | 153736 | 50.0 | 43.5 | |
| 82 2-Hexanone | 43 | 9.662 | 9.658 | 0.004 | 99 | 137920 | 100.0 | 76.8 | |
| 84 Chlorodibromomethane | 129 | 9.820 | 9.823 | -0.003 | 90 | 78383 | 50.0 | 47.6 | |
| 85 Ethylene Dibromide | 107 | 9.929 | 9.932 | -0.003 | 98 | 85584 | 50.0 | 46.7 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.394 | -0.002 | 85 | 167479 | 50.0 | 52.1 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.419 | -0.003 | 96 | 309483 | 50.0 | 48.1 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.480 | -0.003 | 95 | 161773 | 50.0 | 53.2 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.513 | 10.510 | 0.003 | 93 | 100713 | 50.0 | 48.0 | |
| 90 Ethylbenzene | 106 | 10.519 | 10.522 | -0.003 | 99 | 166777 | 50.0 | 48.9 | |
| 91 m-Xylene & p-Xylene | 106 | 10.647 | 10.650 | -0.003 | 0 | 208771 | 50.0 | 49.9 | |
| 92 o-Xylene | 106 | 11.030 | 11.033 | -0.003 | 96 | 191252 | 50.0 | 48.1 | |
| 93 Styrene | 104 | 11.049 | 11.051 | -0.002 | 96 | 334388 | 50.0 | 50.7 | |
| 94 Bromoform | 173 | 11.231 | 11.228 | 0.003 | 97 | 44497 | 50.0 | 47.3 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.298 | 11.301 | -0.003 | 97 | 165615 | 50.0 | 52.4 | |
| 97 Isopropylbenzene | 105 | 11.395 | 11.398 | -0.003 | 96 | 486767 | 50.0 | 50.0 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.706 | 11.708 | -0.002 | 79 | 122418 | 50.0 | 47.7 | |
| 100 Bromobenzene | 156 | 11.712 | 11.708 | 0.004 | 93 | 125955 | 50.0 | 51.0 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.742 | 11.745 | -0.003 | 80 | 22629 | 50.0 | 25.3 | |
| 101 1,2,3-Trichloropropane | 110 | 11.766 | 11.769 | -0.003 | 88 | 41996 | 50.0 | 51.5 | |
| 103 N-Propylbenzene | 120 | 11.815 | 11.812 | 0.003 | 99 | 143838 | 50.0 | 50.8 | |
| 104 2-Chlorotoluene | 126 | 11.900 | 11.903 | -0.003 | 97 | 123608 | 50.0 | 51.4 | |
| 105 3-Chlorotoluene | 126 | 11.967 | 11.970 | -0.003 | 95 | 130477 | 50.0 | 52.8 | |
| 106 1,3,5-Trimethylbenzene | 105 | 11.998 | 11.994 | 0.004 | 97 | 413977 | 50.0 | 51.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 107 4-Chlorotoluene | 126 | 12.022 | 12.025 | -0.003 | 98 | 141145 | 50.0 | 53.3 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.311 | -0.003 | 94 | 317382 | 50.0 | 48.8 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.372 | -0.003 | 97 | 390207 | 50.0 | 48.7 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.411 | 12.408 | 0.003 | 98 | 112557 | 50.0 | 50.4 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.536 | -0.003 | 94 | 456247 | 50.0 | 49.7 | |
| 113 1,3-Dichlorobenzene | 146 | 12.649 | 12.651 | -0.002 | 99 | 226394 | 50.0 | 51.4 | |
| 114 4-Isopropyltoluene | 119 | 12.685 | 12.688 | -0.003 | 97 | 392773 | 50.0 | 50.6 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.755 | -0.003 | 96 | 229721 | 50.0 | 50.2 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.776 | 12.779 | -0.003 | 97 | 105558 | 50.0 | 51.0 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.822 | -0.003 | 0 | 113448 | 50.0 | 50.7 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.102 | -0.003 | 98 | 308800 | 50.0 | 46.5 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.108 | 0.003 | 98 | 214505 | 50.0 | 52.2 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.908 | 13.905 | 0.003 | 81 | 15767 | 50.0 | 46.7 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.048 | 14.045 | 0.003 | 0 | 374541 | 150.0 | 159.4 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.461 | 14.464 | -0.003 | 0 | 242034 | 100.0 | 108.1 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.729 | 14.726 | 0.003 | 95 | 83582 | 50.0 | 52.2 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.872 | -0.003 | 96 | 41753 | 50.0 | 54.2 | |
| 128 Naphthalene | 128 | 14.991 | 14.994 | -0.003 | 97 | 218454 | 50.0 | 53.1 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.216 | 15.219 | -0.003 | 96 | 67269 | 50.0 | 51.9 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.988 | 15.991 | -0.003 | 0 | 23181 | 50.0 | 49.6 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.095 | -0.003 | 96 | 23574 | 50.0 | 54.7 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 98.0 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 87.4 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 81.8 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005007.D

Injection Date: 05-Oct-2015 13:34:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

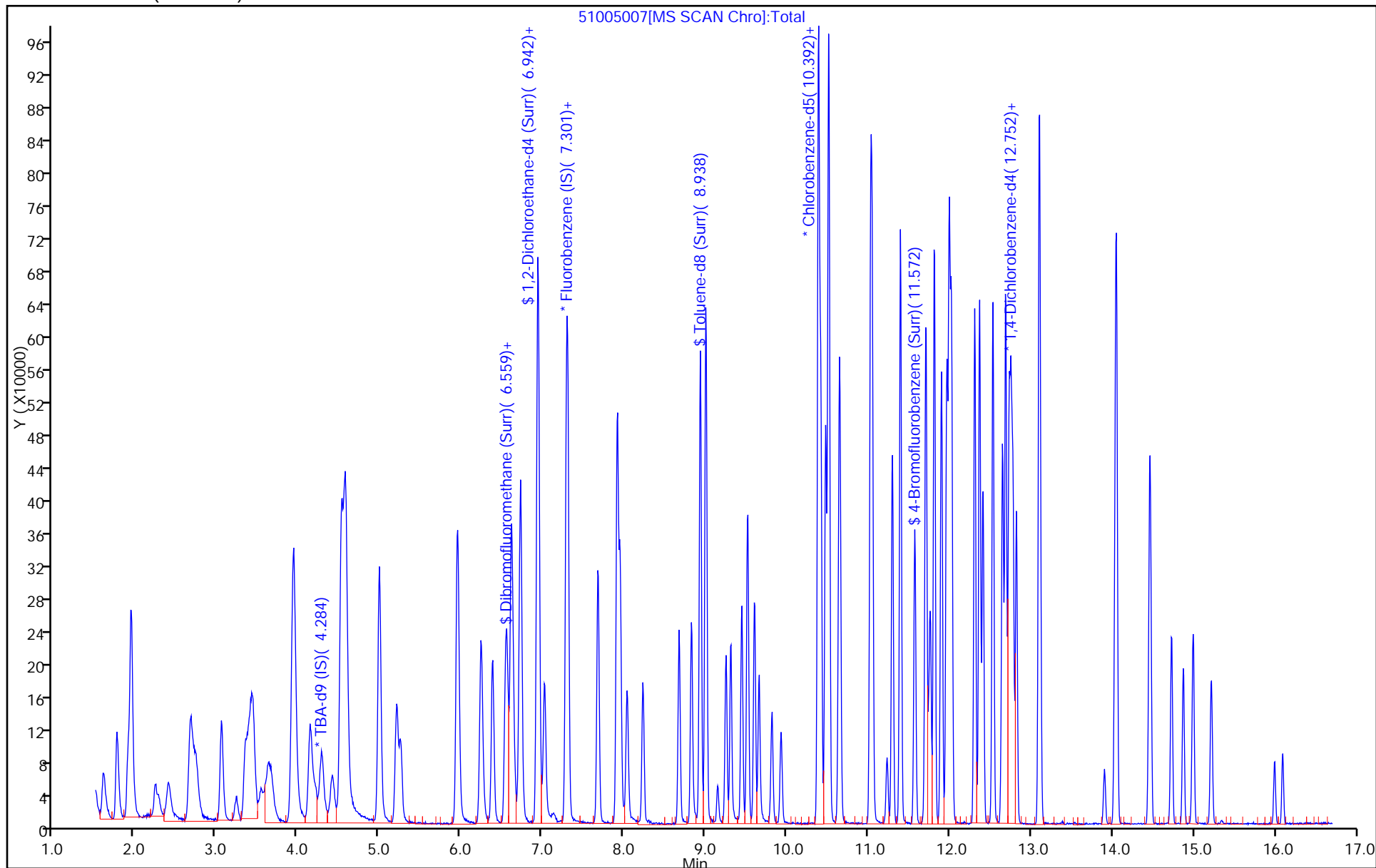
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



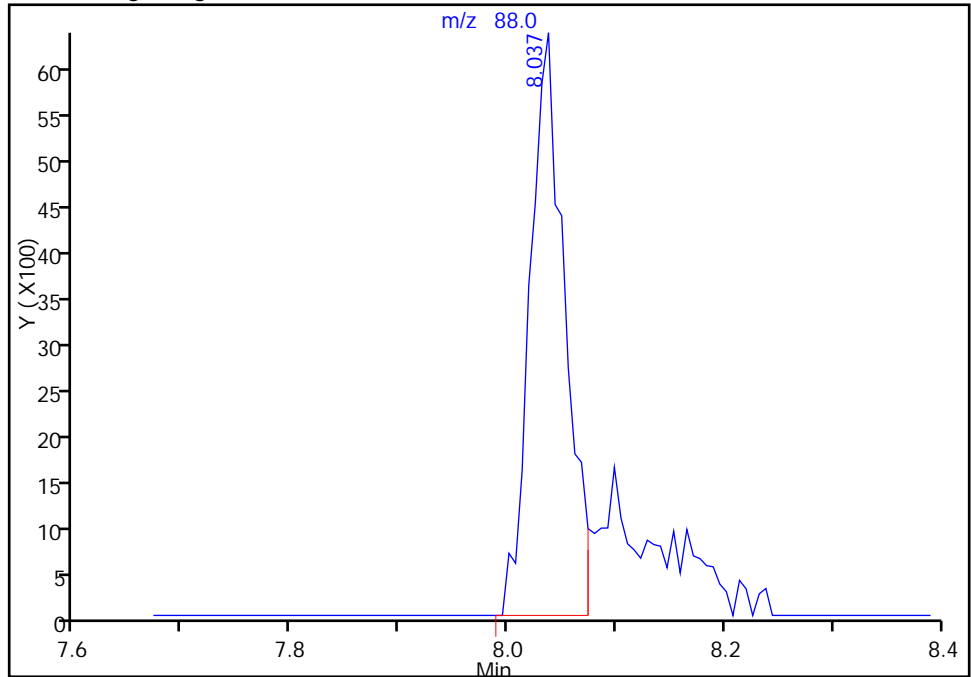
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151005-8828.b\51005007.D
Injection Date: 05-Oct-2015 13:34:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

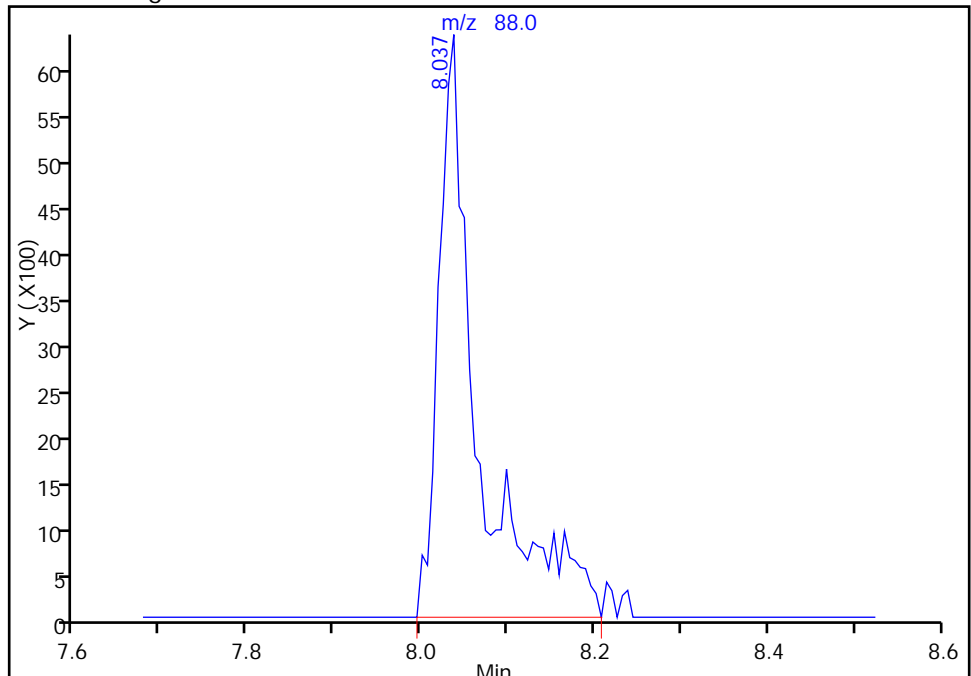
RT: 8.04
Area: 14179
Amount: 760.0490
Amount Units: ng

Processing Integration Results



RT: 8.04
Area: 19894
Amount: 1066.3950
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 05-Oct-2015 13:53:57
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-156037/11
 Matrix: Water Lab File ID: 51006011.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 16:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 9.24 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 8.06 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 8.51 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 6.73 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 9.30 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 18.6 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 9.90 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 9.89 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 9.43 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 9.32 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 8.69 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 9.50 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 10.5 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 20.7 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 8.86 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 8.97 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 9.48 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 9.28 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 8.53 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 10.1 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 9.17 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 9.23 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 8.67 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.7 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 10.3 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 9.13 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 10.4 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 10.8 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 21.2 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 10.9 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 10.6 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 10.6 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 10.6 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 10.7 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 21.6 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 11.2 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-156037/11
 Matrix: Water Lab File ID: 51006011.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/06/2015 16:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 156037 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 11.0 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10.7 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 99.4 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 234 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 84 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 100 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 96 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 91 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006011.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Oct-2015 16:08:30 ALS Bottle#: 9 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 180-0008850-011
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Oct-2015 16:29:30 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: fergusond

Date: 06-Oct-2015 16:29:29

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.278 | 4.279 | -0.001 | 0 | 131161 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.289 | 7.290 | -0.001 | 98 | 352965 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.386 | 10.387 | -0.001 | 87 | 80867 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.728 | 12.729 | -0.001 | 94 | 132044 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.566 | 6.560 | 0.006 | 93 | 78540 | 50.0 | 45.3 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.943 | 6.937 | 0.006 | 0 | 100499 | 50.0 | 42.2 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.938 | 8.939 | -0.001 | 93 | 312243 | 50.0 | 50.0 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.572 | 11.573 | -0.001 | 91 | 113080 | 50.0 | 48.1 | |
| 11 Dichlorodifluoromethane | 85 | 1.614 | 1.608 | 0.006 | 99 | 102099 | 50.0 | 51.2 | |
| 12 Chloromethane | 50 | 1.778 | 1.779 | -0.001 | 99 | 135312 | 50.0 | 46.2 | |
| 13 Vinyl chloride | 62 | 1.912 | 1.912 | 0.000 | 97 | 104650 | 50.0 | 40.3 | |
| 14 Butadiene | 39 | 1.954 | 1.949 | 0.005 | 97 | 147276 | 50.0 | 48.0 | |
| 15 Bromomethane | 94 | 2.264 | 2.247 | 0.017 | 88 | 44993 | 50.0 | 42.6 | |
| 16 Chloroethane | 64 | 2.404 | 2.399 | 0.005 | 97 | 52721 | 50.0 | 33.6 | |
| 17 Dichlorofluoromethane | 67 | 2.684 | 2.679 | 0.005 | 98 | 130611 | 50.0 | 39.3 | |
| 18 Trichlorofluoromethane | 101 | 2.715 | 2.703 | 0.012 | 95 | 117204 | 50.0 | 47.1 | |
| 20 Ethyl ether | 59 | 3.055 | 3.056 | -0.001 | 96 | 96273 | 50.0 | 41.8 | |
| 21 Acrolein | 56 | 3.244 | 3.232 | 0.012 | 98 | 44038 | 150.0 | 128.3 | |
| 22 1,1-Dichloroethene | 96 | 3.347 | 3.348 | -0.001 | 97 | 91460 | 50.0 | 46.5 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.439 | 3.433 | 0.006 | 93 | 99735 | 50.0 | 47.9 | |
| 24 Acetone | 43 | 3.457 | 3.451 | 0.006 | 96 | 66311 | 100.0 | 93.1 | |
| 25 Iodomethane | 142 | 3.536 | 3.537 | -0.001 | 95 | 152321 | 50.0 | 52.0 | |
| 26 Carbon disulfide | 76 | 3.645 | 3.652 | -0.007 | 100 | 226067 | 50.0 | 49.5 | |
| 28 3-Chloro-1-propene | 76 | 3.925 | 3.926 | -0.001 | 90 | 47305 | 50.0 | 42.5 | |
| 30 Methyl acetate | 43 | 3.950 | 3.944 | 0.006 | 99 | 550058 | 250.0 | 258.5 | |
| 31 Methylene Chloride | 84 | 4.150 | 4.133 | 0.017 | 99 | 114304 | 50.0 | 49.4 | |
| 32 2-Methyl-2-propanol | 59 | 4.424 | 4.407 | 0.017 | 92 | 73373 | 500.0 | 497.0 | |
| 33 Acrylonitrile | 53 | 4.534 | 4.528 | 0.006 | 99 | 513413 | 500.0 | 497.2 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.570 | 4.565 | 0.005 | 98 | 100678 | 50.0 | 47.2 | |
| 35 Methyl tert-butyl ether | 73 | 4.588 | 4.583 | 0.005 | 96 | 230328 | 50.0 | 46.6 | |
| 36 Hexane | 57 | 4.996 | 4.985 | 0.012 | 97 | 166718 | 50.0 | 46.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.209 | 5.204 | 0.005 | 96 | 182733 | 50.0 | 43.5 | |
| 38 Vinyl acetate | 43 | 5.251 | 5.252 | -0.001 | 97 | 167228 | 50.0 | 53.0 | |
| 44 2,2-Dichloropropane | 77 | 5.945 | 5.946 | -0.001 | 57 | 76386 | 50.0 | 45.3 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.957 | 5.958 | -0.001 | 82 | 108286 | 50.0 | 47.5 | |
| 46 2-Butanone (MEK) | 43 | 5.969 | 5.964 | 0.005 | 98 | 110677 | 100.0 | 103.4 | |
| 49 Chlorobromomethane | 128 | 6.237 | 6.238 | -0.001 | 94 | 52451 | 50.0 | 52.4 | |
| 51 Tetrahydrofuran | 42 | 6.255 | 6.250 | 0.005 | 92 | 77383 | 100.0 | 90.1 | |
| 52 Chloroform | 83 | 6.389 | 6.384 | 0.005 | 95 | 161012 | 50.0 | 44.3 | |
| 53 1,1,1-Trichloroethane | 97 | 6.547 | 6.542 | 0.005 | 97 | 120517 | 50.0 | 44.9 | |
| 54 Cyclohexane | 56 | 6.620 | 6.615 | 0.005 | 96 | 206658 | 50.0 | 46.0 | |
| 56 Carbon tetrachloride | 117 | 6.718 | 6.718 | 0.000 | 96 | 108418 | 50.0 | 47.4 | |
| 55 1,1-Dichloropropene | 75 | 6.736 | 6.730 | 0.006 | 91 | 131425 | 50.0 | 44.2 | |
| 57 Isobutyl alcohol | 41 | 6.931 | 6.925 | 0.005 | 60 | 94345 | 1250.0 | 1403.6 | |
| 58 Benzene | 78 | 6.949 | 6.943 | 0.006 | 97 | 403774 | 50.0 | 46.4 | |
| 59 1,2-Dichloroethane | 62 | 7.022 | 7.022 | 0.000 | 95 | 128369 | 50.0 | 42.6 | |
| 62 n-Heptane | 43 | 7.314 | 7.308 | 0.006 | 97 | 147756 | 50.0 | 45.4 | |
| 64 Trichloroethene | 130 | 7.685 | 7.679 | 0.006 | 96 | 107921 | 50.0 | 50.7 | |
| 66 Methylcyclohexane | 83 | 7.916 | 7.917 | -0.001 | 96 | 159204 | 50.0 | 47.4 | |
| 67 1,2-Dichloropropane | 63 | 7.953 | 7.947 | 0.006 | 95 | 104755 | 50.0 | 45.9 | |
| 70 1,4-Dioxane | 88 | 8.038 | 8.032 | 0.006 | 37 | 18406 | 1000.0 | 1169.0 | |
| 68 Dibromomethane | 93 | 8.038 | 8.038 | 0.000 | 93 | 54076 | 50.0 | 46.7 | |
| 71 Dichlorobromomethane | 83 | 8.232 | 8.233 | -0.001 | 97 | 105814 | 50.0 | 46.1 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.676 | 8.677 | -0.001 | 91 | 116432 | 50.0 | 43.3 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.829 | 8.829 | 0.000 | 99 | 206127 | 100.0 | 103.4 | |
| 76 Toluene | 91 | 9.005 | 9.006 | -0.001 | 98 | 413777 | 50.0 | 51.7 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.254 | 9.255 | -0.001 | 98 | 95334 | 50.0 | 45.6 | |
| 78 Ethyl methacrylate | 69 | 9.309 | 9.310 | -0.001 | 94 | 103570 | 50.0 | 51.3 | |
| 79 1,1,2-Trichloroethane | 97 | 9.443 | 9.450 | -0.007 | 92 | 79138 | 50.0 | 52.0 | |
| 80 Tetrachloroethene | 164 | 9.516 | 9.517 | -0.001 | 98 | 83613 | 50.0 | 53.8 | |
| 81 1,3-Dichloropropane | 76 | 9.601 | 9.602 | -0.001 | 99 | 132411 | 50.0 | 46.8 | |
| 82 2-Hexanone | 43 | 9.662 | 9.663 | -0.001 | 99 | 152736 | 100.0 | 106.2 | |
| 84 Chlorodibromomethane | 129 | 9.820 | 9.815 | 0.005 | 90 | 71782 | 50.0 | 54.4 | |
| 85 Ethylene Dibromide | 107 | 9.930 | 9.930 | 0.000 | 99 | 77709 | 50.0 | 53.0 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.392 | 10.387 | 0.005 | 86 | 151842 | 50.0 | 59.0 | |
| 87 Chlorobenzene | 112 | 10.416 | 10.417 | -0.001 | 95 | 272537 | 50.0 | 52.9 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.477 | 10.478 | -0.001 | 95 | 139564 | 50.0 | 57.4 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.514 | 10.514 | 0.000 | 90 | 89355 | 50.0 | 53.2 | |
| 90 Ethylbenzene | 106 | 10.520 | 10.514 | 0.006 | 98 | 146612 | 50.0 | 53.7 | |
| 91 m-Xylene & p-Xylene | 106 | 10.648 | 10.648 | 0.000 | 0 | 180155 | 50.0 | 53.8 | |
| 92 o-Xylene | 106 | 11.031 | 11.031 | 0.000 | 96 | 172138 | 50.0 | 54.1 | |
| 93 Styrene | 104 | 11.049 | 11.050 | -0.001 | 96 | 295472 | 50.0 | 56.0 | |
| 94 Bromoform | 173 | 11.232 | 11.232 | 0.000 | 98 | 41502 | 50.0 | 55.2 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.298 | 11.299 | -0.001 | 98 | 151075 | 50.0 | 59.7 | |
| 97 Isopropylbenzene | 105 | 11.396 | 11.396 | 0.000 | 96 | 435378 | 50.0 | 55.8 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.706 | 11.707 | -0.001 | 85 | 110334 | 50.0 | 53.7 | |
| 100 Bromobenzene | 156 | 11.706 | 11.713 | -0.007 | 93 | 114832 | 50.0 | 50.7 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.743 | 11.743 | 0.000 | 64 | 3175 | 50.0 | 3.87 | |
| 101 1,2,3-Trichloropropane | 110 | 11.761 | 11.761 | 0.000 | 86 | 38606 | 50.0 | 51.6 | |
| 103 N-Propylbenzene | 120 | 11.816 | 11.810 | 0.006 | 99 | 123121 | 50.0 | 47.4 | |
| 104 2-Chlorotoluene | 126 | 11.901 | 11.901 | 0.000 | 97 | 109120 | 50.0 | 49.5 | |
| 105 3-Chlorotoluene | 126 | 11.968 | 11.968 | 0.000 | 95 | 118429 | 50.0 | 52.2 | |
| 106 1,3,5-Trimethylbenzene | 105 | 11.992 | 11.999 | -0.007 | 95 | 360964 | 50.0 | 49.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 107 4-Chlorotoluene | 126 | 12.022 | 12.023 | -0.001 | 97 | 122846 | 50.0 | 50.6 | |
| 108 tert-Butylbenzene | 119 | 12.308 | 12.309 | -0.001 | 93 | 301289 | 50.0 | 50.5 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.369 | 12.370 | -0.001 | 97 | 362229 | 50.0 | 49.3 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.412 | 12.412 | 0.000 | 97 | 104145 | 50.0 | 50.9 | |
| 112 sec-Butylbenzene | 105 | 12.533 | 12.534 | -0.001 | 94 | 422741 | 50.0 | 50.2 | |
| 113 1,3-Dichlorobenzene | 146 | 12.649 | 12.650 | -0.001 | 99 | 217562 | 50.0 | 53.9 | |
| 114 4-Isopropyltoluene | 119 | 12.685 | 12.692 | -0.007 | 97 | 359674 | 50.0 | 50.5 | |
| 115 1,4-Dichlorobenzene | 146 | 12.752 | 12.753 | -0.001 | 95 | 220963 | 50.0 | 52.6 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.783 | 12.777 | 0.006 | 96 | 97687 | 50.0 | 51.5 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.819 | 12.820 | -0.001 | 0 | 104044 | 50.0 | 50.7 | |
| 120 n-Butylbenzene | 91 | 13.099 | 13.100 | -0.001 | 98 | 281006 | 50.0 | 46.1 | |
| 121 1,2-Dichlorobenzene | 146 | 13.111 | 13.112 | -0.001 | 97 | 201689 | 50.0 | 53.5 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.896 | 13.903 | -0.007 | 78 | 16771 | 50.0 | 54.2 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.042 | 14.043 | -0.001 | 0 | 367549 | 150.0 | 170.6 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.462 | 14.463 | -0.001 | 0 | 237477 | 100.0 | 115.6 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.723 | 14.724 | -0.001 | 95 | 84203 | 50.0 | 57.4 | |
| 127 Hexachlorobutadiene | 225 | 14.869 | 14.870 | -0.001 | 98 | 36947 | 50.0 | 52.3 | |
| 128 Naphthalene | 128 | 14.991 | 14.992 | -0.001 | 97 | 237137 | 50.0 | 62.9 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.216 | 15.217 | -0.001 | 92 | 68148 | 50.0 | 57.4 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.989 | 15.996 | -0.007 | 0 | 23419 | 50.0 | 54.6 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.092 | 16.087 | 0.005 | 98 | 24107 | 50.0 | 61.0 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 94.7 | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 107.8 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 89.0 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151006-8850.b\51006011.D

Injection Date: 06-Oct-2015 16:08:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

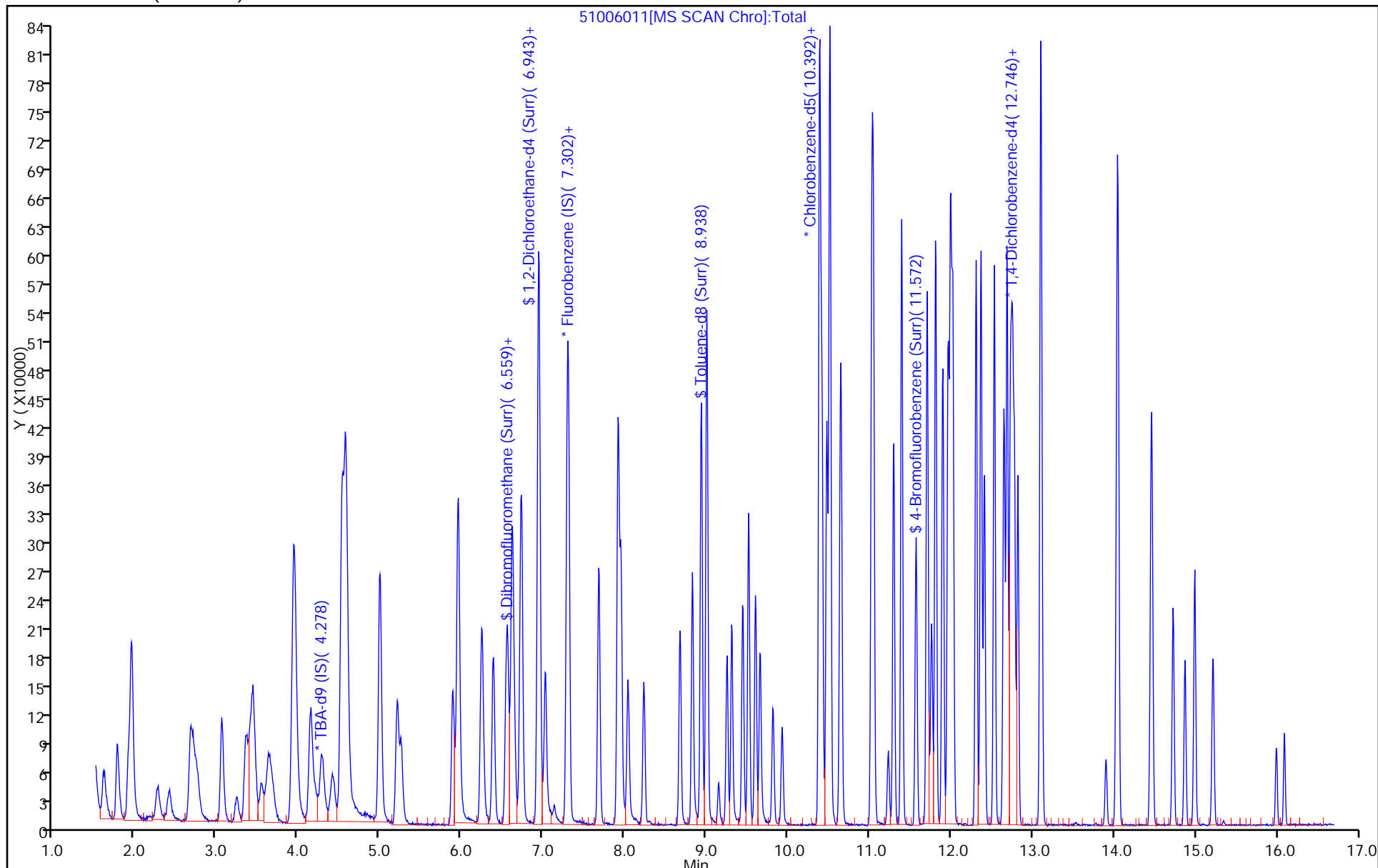
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 MS Lab Sample ID: 180-48181-2 MS
 Matrix: Water Lab File ID: 51003009.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 15:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 10.3 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 9.47 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 10.1 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 8.27 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 9.39 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 17.9 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 8.15 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 8.53 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 8.99 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 8.71 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 8.57 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 16.9 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 9.25 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 18.9 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 8.78 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 8.87 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 9.14 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 8.88 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 8.16 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 17.7 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 8.66 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 8.43 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 8.08 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 17.5 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 9.72 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 8.31 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 9.75 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 15.7 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 16.3 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 9.29 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 9.85 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 9.70 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 9.94 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 9.63 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 19.6 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 10.2 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 MS Lab Sample ID: 180-48181-2 MS
 Matrix: Water Lab File ID: 51003009.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 15:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 8.83 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 9.96 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 91.4 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 231 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 83 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 93 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 92 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003009.D
 Lims ID: 180-48181-A-2 MS
 Client ID: HD-MW-147A-0/1-0
 Sample Type: MS
 Inject. Date: 03-Oct-2015 15:02:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-2 MS
 Misc. Info.: 180-0008807-009
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 13:10:59 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK027

First Level Reviewer: fergusond

Date: 03-Oct-2015 15:14:08

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.275 | 4.283 | -0.008 | 0 | 136911 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.292 | 7.289 | 0.003 | 98 | 408628 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.389 | 10.385 | 0.004 | 87 | 97033 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.731 | 12.727 | 0.004 | 92 | 145300 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.562 | 6.565 | -0.003 | 93 | 92180 | 50.0 | 45.9 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.933 | 6.936 | -0.003 | 0 | 114327 | 50.0 | 41.5 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.941 | 8.937 | 0.004 | 94 | 362972 | 50.0 | 48.5 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.569 | 11.571 | -0.002 | 89 | 131498 | 50.0 | 46.6 | |
| 11 Dichlorodifluoromethane | 85 | 1.610 | 1.607 | 0.003 | 99 | 120777 | 50.0 | 52.3 | |
| 12 Chloromethane | 50 | 1.775 | 1.771 | 0.003 | 99 | 173921 | 50.0 | 51.3 | |
| 13 Vinyl chloride | 62 | 1.908 | 1.905 | 0.003 | 98 | 142445 | 50.0 | 47.4 | |
| 14 Butadiene | 39 | 1.945 | 1.941 | 0.004 | 98 | 186641 | 50.0 | 52.6 | |
| 15 Bromomethane | 94 | 2.261 | 2.239 | 0.022 | 90 | 61751 | 50.0 | 50.5 | |
| 16 Chloroethane | 64 | 2.395 | 2.391 | 0.004 | 97 | 74975 | 50.0 | 41.3 | |
| 17 Dichlorofluoromethane | 67 | 2.669 | 2.665 | 0.004 | 97 | 173887 | 50.0 | 45.2 | |
| 18 Trichlorofluoromethane | 101 | 2.705 | 2.702 | 0.003 | 83 | 152535 | 50.0 | 53.0 | |
| 20 Ethyl ether | 59 | 3.052 | 3.048 | 0.004 | 96 | 110253 | 50.0 | 41.3 | |
| 21 Acrolein | 56 | 3.228 | 3.231 | -0.003 | 97 | 49318 | 150.0 | 124.1 | |
| 22 1,1-Dichloroethene | 96 | 3.344 | 3.346 | -0.002 | 96 | 106826 | 50.0 | 46.9 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.429 | 3.407 | 0.022 | 91 | 110893 | 50.0 | 46.0 | |
| 24 Acetone | 43 | 3.447 | 3.444 | 0.003 | 97 | 73663 | 100.0 | 89.3 | |
| 25 Iodomethane | 142 | 3.539 | 3.553 | -0.014 | 97 | 163362 | 50.0 | 48.2 | |
| 26 Carbon disulfide | 76 | 3.642 | 3.638 | 0.004 | 100 | 215320 | 50.0 | 40.7 | |
| 28 3-Chloro-1-propene | 76 | 3.922 | 3.918 | 0.004 | 89 | 55218 | 50.0 | 42.8 | |
| 30 Methyl acetate | 43 | 3.940 | 3.937 | 0.003 | 100 | 582749 | 250.0 | 236.5 | |
| 31 Methylene Chloride | 84 | 4.141 | 4.137 | 0.004 | 97 | 116198 | 50.0 | 42.6 | |
| 32 2-Methyl-2-propanol | 59 | 4.409 | 4.405 | 0.004 | 88 | 72715 | 500.0 | 471.9 | |
| 33 Acrylonitrile | 53 | 4.530 | 4.527 | 0.003 | 99 | 546079 | 500.0 | 456.8 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.567 | 4.563 | 0.004 | 96 | 111028 | 50.0 | 44.9 | |
| 35 Methyl tert-butyl ether | 73 | 4.579 | 4.581 | -0.002 | 95 | 249001 | 50.0 | 43.5 | |
| 36 Hexane | 57 | 4.993 | 4.989 | 0.004 | 96 | 187548 | 50.0 | 45.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.200 | 5.202 | -0.002 | 97 | 208534 | 50.0 | 42.8 | |
| 38 Vinyl acetate | 43 | 5.254 | 5.251 | 0.003 | 97 | 204266 | 50.0 | 55.9 | |
| 44 2,2-Dichloropropane | 77 | 5.948 | 5.944 | 0.004 | 42 | 77174 | 50.0 | 39.6 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.954 | 5.950 | 0.004 | 82 | 223472 | 50.0 | 84.6 | |
| 46 2-Butanone (MEK) | 43 | 5.960 | 5.962 | -0.002 | 99 | 117327 | 100.0 | 94.7 | |
| 49 Chlorobromomethane | 128 | 6.234 | 6.236 | -0.002 | 94 | 53594 | 50.0 | 46.2 | |
| 51 Tetrahydrofuran | 42 | 6.258 | 6.248 | 0.010 | 94 | 86563 | 100.0 | 87.1 | |
| 52 Chloroform | 83 | 6.386 | 6.382 | 0.004 | 96 | 184529 | 50.0 | 43.9 | |
| 53 1,1,1-Trichloroethane | 97 | 6.544 | 6.540 | 0.004 | 96 | 137936 | 50.0 | 44.4 | |
| 54 Cyclohexane | 56 | 6.617 | 6.613 | 0.004 | 97 | 227131 | 50.0 | 43.7 | |
| 56 Carbon tetrachloride | 117 | 6.714 | 6.717 | -0.003 | 97 | 121008 | 50.0 | 45.7 | |
| 55 1,1-Dichloropropene | 75 | 6.733 | 6.735 | -0.002 | 91 | 147479 | 50.0 | 42.9 | |
| 57 Isobutyl alcohol | 41 | 6.927 | 6.924 | 0.003 | 84 | 99013 | 1250.0 | 1272.4 | |
| 58 Benzene | 78 | 6.945 | 6.942 | 0.003 | 98 | 447613 | 50.0 | 44.4 | |
| 59 1,2-Dichloroethane | 62 | 7.018 | 7.021 | -0.003 | 95 | 142213 | 50.0 | 40.8 | |
| 62 n-Heptane | 43 | 7.310 | 7.307 | 0.003 | 97 | 175719 | 50.0 | 46.6 | |
| 64 Trichloroethene | 130 | 7.682 | 7.678 | 0.004 | 96 | 217827 | 50.0 | 88.4 | |
| 66 Methylcyclohexane | 83 | 7.913 | 7.915 | -0.002 | 96 | 175470 | 50.0 | 45.2 | |
| 67 1,2-Dichloropropane | 63 | 7.949 | 7.946 | 0.003 | 94 | 114521 | 50.0 | 43.3 | |
| 68 Dibromomethane | 93 | 8.040 | 8.037 | 0.003 | 96 | 57078 | 50.0 | 42.5 | |
| 70 1,4-Dioxane | 88 | 8.034 | 8.037 | -0.003 | 58 | 21087 | 1000.0 | 1156.9 | |
| 71 Dichlorobromomethane | 83 | 8.229 | 8.232 | -0.003 | 98 | 111983 | 50.0 | 42.2 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.673 | 8.676 | -0.003 | 91 | 125656 | 50.0 | 40.4 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.825 | 8.828 | -0.003 | 99 | 209657 | 100.0 | 87.7 | |
| 76 Toluene | 91 | 9.002 | 9.004 | -0.002 | 98 | 466711 | 50.0 | 48.6 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.251 | 9.254 | -0.003 | 98 | 104189 | 50.0 | 41.6 | |
| 78 Ethyl methacrylate | 69 | 9.312 | 9.308 | 0.004 | 95 | 111573 | 50.0 | 46.0 | |
| 79 1,1,2-Trichloroethane | 97 | 9.446 | 9.442 | 0.004 | 92 | 89061 | 50.0 | 48.7 | |
| 80 Tetrachloroethene | 164 | 9.519 | 9.515 | 0.004 | 97 | 146149 | 50.0 | 78.4 | |
| 81 1,3-Dichloropropane | 76 | 9.604 | 9.600 | 0.004 | 98 | 155794 | 50.0 | 45.9 | |
| 82 2-Hexanone | 43 | 9.659 | 9.655 | 0.004 | 99 | 140904 | 100.0 | 81.6 | |
| 84 Chlorodibromomethane | 129 | 9.817 | 9.819 | -0.002 | 90 | 73447 | 50.0 | 46.4 | |
| 85 Ethylene Dibromide | 107 | 9.926 | 9.929 | -0.003 | 98 | 86686 | 50.0 | 49.2 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.389 | 10.391 | -0.002 | 86 | 161233 | 50.0 | 52.2 | |
| 87 Chlorobenzene | 112 | 10.413 | 10.415 | -0.002 | 95 | 299953 | 50.0 | 48.5 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.474 | 10.476 | -0.002 | 96 | 152552 | 50.0 | 52.3 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.510 | 10.513 | -0.003 | 90 | 100242 | 50.0 | 49.7 | |
| 90 Ethylbenzene | 106 | 10.516 | 10.519 | -0.003 | 99 | 157814 | 50.0 | 48.1 | |
| 91 m-Xylene & p-Xylene | 106 | 10.644 | 10.647 | -0.003 | 0 | 197389 | 50.0 | 49.1 | |
| 92 o-Xylene | 106 | 11.027 | 11.030 | -0.003 | 96 | 186486 | 50.0 | 48.8 | |
| 93 Styrene | 104 | 11.046 | 11.048 | -0.002 | 95 | 322216 | 50.0 | 50.9 | |
| 94 Bromoform | 173 | 11.234 | 11.231 | 0.003 | 94 | 39873 | 50.0 | 44.2 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.295 | 11.298 | -0.003 | 97 | 158608 | 50.0 | 52.2 | |
| 97 Isopropylbenzene | 105 | 11.399 | 11.395 | 0.004 | 96 | 473416 | 50.0 | 50.6 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.709 | 11.705 | 0.004 | 82 | 122694 | 50.0 | 49.8 | |
| 100 Bromobenzene | 156 | 11.709 | 11.711 | -0.002 | 92 | 125928 | 50.0 | 50.5 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.739 | 11.742 | -0.003 | 71 | 18544 | 50.0 | 20.6 | |
| 101 1,2,3-Trichloropropane | 110 | 11.764 | 11.766 | -0.002 | 87 | 41376 | 50.0 | 50.3 | |
| 103 N-Propylbenzene | 120 | 11.812 | 11.815 | -0.003 | 99 | 135259 | 50.0 | 47.4 | |
| 104 2-Chlorotoluene | 126 | 11.897 | 11.900 | -0.003 | 97 | 120880 | 50.0 | 49.8 | |
| 105 3-Chlorotoluene | 126 | 11.964 | 11.967 | -0.003 | 95 | 129112 | 50.0 | 51.8 | |
| 106 1,3,5-Trimethylbenzene | 105 | 11.995 | 11.997 | -0.002 | 95 | 398295 | 50.0 | 49.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 107 4-Chlorotoluene | 126 | 12.025 | 12.022 | 0.003 | 97 | 133969 | 50.0 | 50.2 | |
| 108 tert-Butylbenzene | 119 | 12.305 | 12.307 | -0.002 | 95 | 315228 | 50.0 | 48.1 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.366 | 12.368 | -0.002 | 98 | 395811 | 50.0 | 49.0 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.408 | 12.411 | -0.003 | 97 | 110367 | 50.0 | 49.0 | |
| 112 sec-Butylbenzene | 105 | 12.530 | 12.533 | -0.003 | 94 | 456334 | 50.0 | 49.3 | |
| 113 1,3-Dichlorobenzene | 146 | 12.652 | 12.648 | 0.004 | 99 | 228029 | 50.0 | 51.3 | |
| 114 4-Isopropyltoluene | 119 | 12.688 | 12.691 | -0.003 | 97 | 387617 | 50.0 | 49.5 | |
| 115 1,4-Dichlorobenzene | 146 | 12.755 | 12.752 | 0.003 | 96 | 240451 | 50.0 | 52.1 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.780 | 12.782 | -0.002 | 96 | 98902 | 50.0 | 47.4 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.822 | 12.818 | 0.004 | 0 | 112907 | 50.0 | 50.0 | |
| 120 n-Butylbenzene | 91 | 13.096 | 13.098 | -0.002 | 98 | 309063 | 50.0 | 46.1 | |
| 121 1,2-Dichlorobenzene | 146 | 13.108 | 13.110 | -0.002 | 98 | 218429 | 50.0 | 52.6 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.899 | 13.907 | -0.008 | 80 | 16600 | 50.0 | 48.7 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.045 | 14.047 | -0.002 | 0 | 372301 | 150.0 | 157.1 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.459 | 14.461 | -0.002 | 0 | 242267 | 100.0 | 107.2 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.726 | 14.729 | -0.003 | 95 | 86161 | 50.0 | 53.4 | |
| 127 Hexachlorobutadiene | 225 | 14.872 | 14.869 | 0.003 | 97 | 39884 | 50.0 | 51.3 | |
| 128 Naphthalene | 128 | 14.988 | 14.990 | -0.002 | 97 | 229521 | 50.0 | 55.3 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.213 | 15.215 | -0.002 | 95 | 70523 | 50.0 | 53.9 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.992 | 15.994 | -0.002 | 0 | 23444 | 50.0 | 49.7 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.089 | 16.091 | -0.002 | 96 | 23726 | 50.0 | 54.6 | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 97.9 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 129.6 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 81.9 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003009.D

Injection Date: 03-Oct-2015 15:02:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-2 MS

Worklist Smp#: 9

Client ID: HD-MW-147A-0/1-0

Purge Vol: 5.000 mL

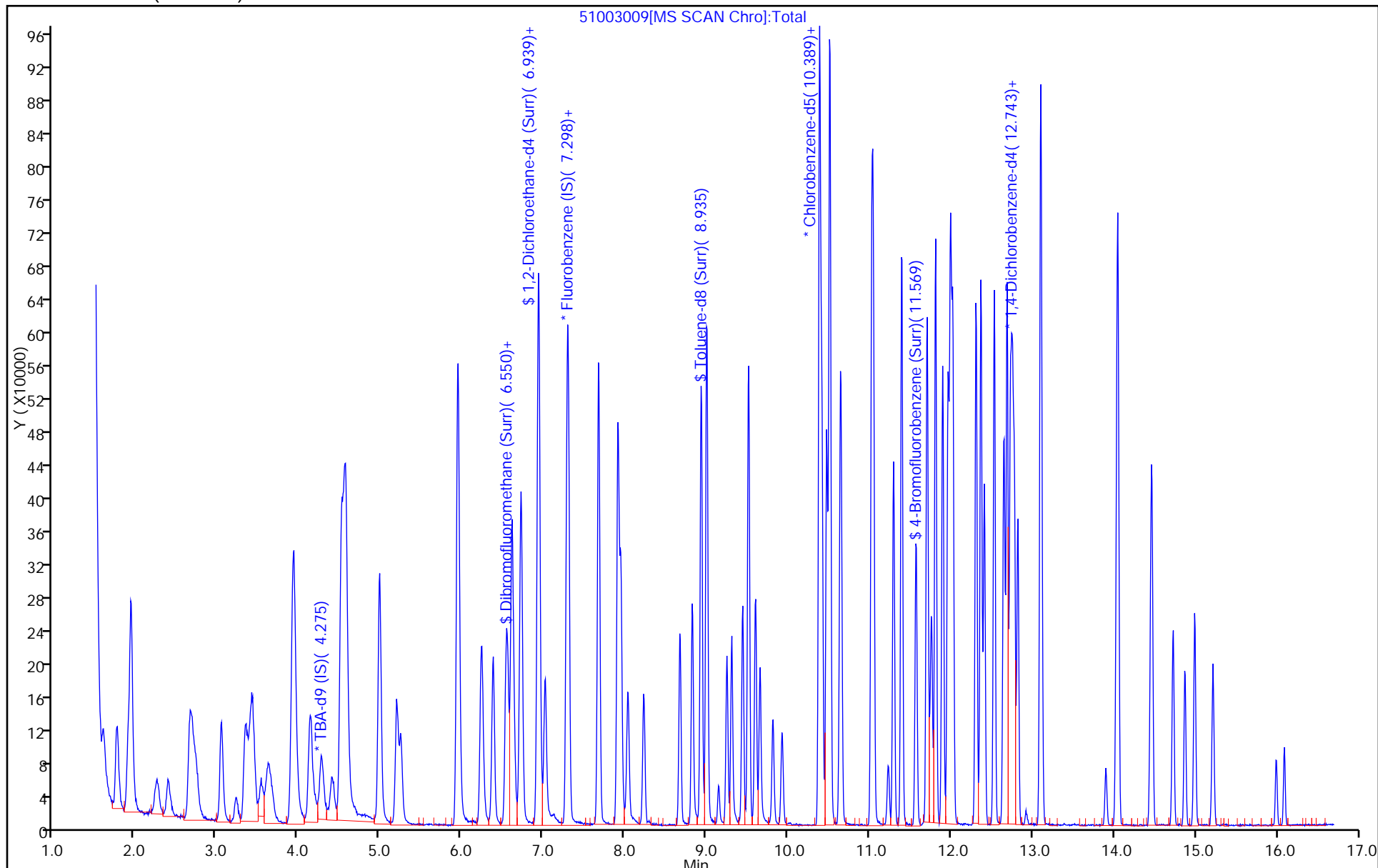
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 MSD Lab Sample ID: 180-48181-2 MSD
 Matrix: Water Lab File ID: 51003010.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 15:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|------------|-----------------------------|--------|---|-----|-------|
| 74-87-3 | Chloromethane | 10.4 | | 1.0 | 0.28 |
| 75-01-4 | Vinyl chloride | 9.13 | | 1.0 | 0.23 |
| 74-83-9 | Bromomethane | 10.4 | | 1.0 | 0.31 |
| 75-00-3 | Chloroethane | 8.27 | | 1.0 | 0.21 |
| 75-35-4 | 1,1-Dichloroethene | 8.89 | | 1.0 | 0.30 |
| 67-64-1 | Acetone | 20.6 | | 5.0 | 2.5 |
| 75-15-0 | Carbon disulfide | 7.61 | | 1.0 | 0.21 |
| 75-09-2 | Methylene Chloride | 8.98 | | 1.0 | 0.13 |
| 156-60-5 | trans-1,2-Dichloroethene | 8.78 | | 1.0 | 0.17 |
| 1634-04-4 | Methyl tert-butyl ether | 9.07 | | 1.0 | 0.18 |
| 75-34-3 | 1,1-Dichloroethane | 8.56 | | 1.0 | 0.12 |
| 156-59-2 | cis-1,2-Dichloroethene | 17.2 | | 1.0 | 0.24 |
| 74-97-5 | Bromochloromethane | 10.3 | | 1.0 | 0.18 |
| 78-93-3 | 2-Butanone (MEK) | 20.2 | | 5.0 | 0.55 |
| 67-66-3 | Chloroform | 8.93 | | 1.0 | 0.17 |
| 71-55-6 | 1,1,1-Trichloroethane | 8.73 | | 1.0 | 0.29 |
| 56-23-5 | Carbon tetrachloride | 8.74 | | 1.0 | 0.14 |
| 71-43-2 | Benzene | 9.12 | | 1.0 | 0.11 |
| 107-06-2 | 1,2-Dichloroethane | 8.55 | | 1.0 | 0.21 |
| 79-01-6 | Trichloroethene | 17.6 | | 1.0 | 0.14 |
| 78-87-5 | 1,2-Dichloropropane | 9.06 | | 1.0 | 0.095 |
| 75-27-4 | Bromodichloromethane | 8.39 | | 1.0 | 0.13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 8.65 | | 1.0 | 0.19 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 18.1 | | 5.0 | 0.53 |
| 108-88-3 | Toluene | 9.70 | | 1.0 | 0.15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 8.65 | | 1.0 | 0.15 |
| 79-00-5 | 1,1,2-Trichloroethane | 9.88 | | 1.0 | 0.20 |
| 127-18-4 | Tetrachloroethene | 15.4 | | 1.0 | 0.15 |
| 591-78-6 | 2-Hexanone | 17.9 | | 5.0 | 0.16 |
| 124-48-1 | Dibromochloromethane | 9.32 | | 1.0 | 0.14 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 10.1 | | 1.0 | 0.18 |
| 108-90-7 | Chlorobenzene | 9.85 | | 1.0 | 0.14 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 9.72 | | 1.0 | 0.28 |
| 100-41-4 | Ethylbenzene | 9.59 | | 1.0 | 0.23 |
| 1330-20-7 | Xylenes, Total | 19.4 | | 3.0 | 0.49 |
| 100-42-5 | Styrene | 10.3 | | 1.0 | 0.097 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1
 SDG No.: _____
 Client Sample ID: HD-MW-147A-0/1-0 MSD Lab Sample ID: 180-48181-2 MSD
 Matrix: Water Lab File ID: 51003010.D
 Analysis Method: 8260C Date Collected: 09/25/2015 10:05
 Sample wt/vol: 5 (mL) Date Analyzed: 10/03/2015 15:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155766 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|----------|---------------------------|--------|---|-----|------|
| 75-25-2 | Bromoform | 9.28 | | 1.0 | 0.19 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 9.80 | | 1.0 | 0.20 |
| 107-13-1 | Acrylonitrile | 93.3 | | 20 | 0.55 |
| 123-91-1 | 1,4-Dioxane | 247 | | 200 | 34 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|------------|------------------------------|------|---|--------|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 85 | | 64-135 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 71-118 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 93 | | 70-118 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 93 | | 70-128 |

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003010.D
 Lims ID: 180-48181-A-2 MSD
 Client ID: HD-MW-147A-0/1-0
 Sample Type: MSD
 Inject. Date: 03-Oct-2015 15:27:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-48181-A-2 MSD
 Misc. Info.: 180-0008807-010
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 03-Oct-2015 23:14:52 Calib Date: 26-Aug-2015 17:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: fergusond

Date: 05-Oct-2015 07:38:03

| Compound | Sig | RT (min.) | Exp RT (min.) | Diff RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|---------------------------------|-----|-----------|---------------|----------------|-----|----------|------------|--------------|-------|
| * 1 TBA-d9 (IS) | 65 | 4.287 | 4.283 | 0.004 | 0 | 141804 | 1000.0 | 1000.0 | |
| * 2 Fluorobenzene (IS) | 96 | 7.287 | 7.289 | -0.002 | 98 | 408732 | 50.0 | 50.0 | |
| * 3 Chlorobenzene-d5 | 119 | 10.389 | 10.385 | 0.004 | 87 | 98256 | 50.0 | 50.0 | |
| * 4 1,4-Dichlorobenzene-d4 | 152 | 12.725 | 12.727 | -0.002 | 92 | 147512 | 50.0 | 50.0 | |
| \$ 5 Dibromofluoromethane (Surr | 113 | 6.563 | 6.565 | -0.002 | 93 | 92944 | 50.0 | 46.3 | |
| \$ 6 1,2-Dichloroethane-d4 (Sur | 65 | 6.934 | 6.936 | -0.002 | 0 | 116679 | 50.0 | 42.3 | |
| \$ 7 Toluene-d8 (Surr) | 98 | 8.935 | 8.937 | -0.002 | 94 | 370867 | 50.0 | 48.9 | |
| \$ 8 4-Bromofluorobenzene (Surr | 95 | 11.569 | 11.571 | -0.002 | 89 | 133234 | 50.0 | 46.6 | |
| 11 Dichlorodifluoromethane | 85 | 1.599 | 1.607 | -0.008 | 98 | 107620 | 50.0 | 46.6 | |
| 12 Chloromethane | 50 | 1.769 | 1.771 | -0.002 | 99 | 176561 | 50.0 | 52.1 | |
| 13 Vinyl chloride | 62 | 1.903 | 1.905 | -0.002 | 98 | 137298 | 50.0 | 45.6 | |
| 14 Butadiene | 39 | 1.939 | 1.941 | -0.002 | 95 | 183305 | 50.0 | 51.6 | |
| 15 Bromomethane | 94 | 2.268 | 2.239 | 0.029 | 91 | 63890 | 50.0 | 52.2 | |
| 16 Chloroethane | 64 | 2.396 | 2.391 | 0.005 | 98 | 75025 | 50.0 | 41.4 | |
| 17 Dichlorofluoromethane | 67 | 2.675 | 2.665 | 0.010 | 97 | 161849 | 50.0 | 42.0 | |
| 18 Trichlorofluoromethane | 101 | 2.706 | 2.702 | 0.004 | 97 | 128807 | 50.0 | 44.7 | |
| 20 Ethyl ether | 59 | 3.053 | 3.048 | 0.005 | 97 | 115052 | 50.0 | 43.1 | |
| 21 Acrolein | 56 | 3.229 | 3.231 | -0.002 | 99 | 49728 | 150.0 | 125.1 | |
| 22 1,1-Dichloroethene | 96 | 3.345 | 3.346 | -0.001 | 96 | 101151 | 50.0 | 44.4 | |
| 23 1,1,2-Trichloro-1,2,2-trif | 101 | 3.424 | 3.407 | 0.017 | 91 | 105886 | 50.0 | 43.9 | |
| 24 Acetone | 43 | 3.454 | 3.444 | 0.010 | 99 | 84762 | 100.0 | 102.8 | |
| 25 Iodomethane | 142 | 3.533 | 3.553 | -0.020 | 98 | 167243 | 50.0 | 49.3 | |
| 26 Carbon disulfide | 76 | 3.649 | 3.638 | 0.011 | 100 | 201240 | 50.0 | 38.1 | |
| 28 3-Chloro-1-propene | 76 | 3.929 | 3.918 | 0.011 | 88 | 55088 | 50.0 | 42.7 | |
| 30 Methyl acetate | 43 | 3.947 | 3.937 | 0.010 | 100 | 595761 | 250.0 | 241.8 | |
| 31 Methylene Chloride | 84 | 4.141 | 4.137 | 0.004 | 98 | 121555 | 50.0 | 44.9 | |
| 32 2-Methyl-2-propanol | 59 | 4.409 | 4.405 | 0.004 | 88 | 81022 | 500.0 | 507.6 | |
| 33 Acrylonitrile | 53 | 4.525 | 4.527 | -0.002 | 98 | 557775 | 500.0 | 466.5 | |
| 34 trans-1,2-Dichloroethene | 96 | 4.561 | 4.563 | -0.002 | 96 | 108450 | 50.0 | 43.9 | |
| 35 Methyl tert-butyl ether | 73 | 4.586 | 4.581 | 0.005 | 95 | 259355 | 50.0 | 45.3 | |
| 36 Hexane | 57 | 4.987 | 4.989 | -0.002 | 96 | 181295 | 50.0 | 43.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|--------------------------------|-----|-----------|---------------|---------------|-----|----------|------------|--------------|-------|
| 37 1,1-Dichloroethane | 63 | 5.200 | 5.202 | -0.002 | 97 | 208518 | 50.0 | 42.8 | |
| 38 Vinyl acetate | 43 | 5.255 | 5.251 | 0.004 | 97 | 210627 | 50.0 | 57.7 | |
| 44 2,2-Dichloropropane | 77 | 5.948 | 5.944 | 0.004 | 41 | 73864 | 50.0 | 37.9 | |
| 45 cis-1,2-Dichloroethene | 96 | 5.954 | 5.950 | 0.004 | 84 | 227106 | 50.0 | 86.0 | |
| 46 2-Butanone (MEK) | 43 | 5.960 | 5.962 | -0.002 | 98 | 124869 | 100.0 | 100.8 | |
| 49 Chlorobromomethane | 128 | 6.240 | 6.236 | 0.004 | 95 | 59499 | 50.0 | 51.3 | |
| 51 Tetrahydrofuran | 42 | 6.259 | 6.248 | 0.011 | 92 | 85938 | 100.0 | 86.5 | |
| 52 Chloroform | 83 | 6.386 | 6.382 | 0.004 | 96 | 187874 | 50.0 | 44.7 | |
| 53 1,1,1-Trichloroethane | 97 | 6.544 | 6.540 | 0.004 | 96 | 135728 | 50.0 | 43.6 | |
| 54 Cyclohexane | 56 | 6.617 | 6.613 | 0.004 | 96 | 219745 | 50.0 | 42.2 | |
| 56 Carbon tetrachloride | 117 | 6.715 | 6.717 | -0.002 | 97 | 115733 | 50.0 | 43.7 | |
| 55 1,1-Dichloropropene | 75 | 6.727 | 6.735 | -0.008 | 90 | 143256 | 50.0 | 41.6 | |
| 57 Isobutyl alcohol | 41 | 6.928 | 6.924 | 0.004 | 91 | 109043 | 1250.0 | 1400.9 | |
| 58 Benzene | 78 | 6.946 | 6.942 | 0.004 | 98 | 459634 | 50.0 | 45.6 | |
| 59 1,2-Dichloroethane | 62 | 7.025 | 7.021 | 0.004 | 96 | 148948 | 50.0 | 42.7 | |
| 62 n-Heptane | 43 | 7.311 | 7.307 | 0.004 | 97 | 167699 | 50.0 | 44.5 | |
| 64 Trichloroethene | 130 | 7.676 | 7.678 | -0.002 | 96 | 217167 | 50.0 | 88.1 | |
| 66 Methylcyclohexane | 83 | 7.919 | 7.915 | 0.004 | 96 | 168369 | 50.0 | 43.3 | |
| 67 1,2-Dichloropropane | 63 | 7.950 | 7.946 | 0.004 | 95 | 119759 | 50.0 | 45.3 | |
| 68 Dibromomethane | 93 | 8.035 | 8.037 | -0.002 | 93 | 59239 | 50.0 | 44.1 | |
| 70 1,4-Dioxane | 88 | 8.035 | 8.037 | -0.002 | 38 | 22505 | 1000.0 | 1234.4 | |
| 71 Dichlorobromomethane | 83 | 8.236 | 8.232 | 0.004 | 98 | 111410 | 50.0 | 41.9 | |
| 74 cis-1,3-Dichloropropene | 75 | 8.674 | 8.676 | -0.002 | 91 | 134609 | 50.0 | 43.3 | |
| 75 4-Methyl-2-pentanone (MIBK) | 43 | 8.826 | 8.828 | -0.002 | 99 | 218690 | 100.0 | 90.3 | |
| 76 Toluene | 91 | 9.002 | 9.004 | -0.002 | 98 | 471821 | 50.0 | 48.5 | |
| 77 trans-1,3-Dichloropropene | 75 | 9.252 | 9.254 | -0.002 | 98 | 109832 | 50.0 | 43.3 | |
| 78 Ethyl methacrylate | 69 | 9.312 | 9.308 | 0.004 | 94 | 113582 | 50.0 | 46.3 | |
| 79 1,1,2-Trichloroethane | 97 | 9.446 | 9.442 | 0.004 | 93 | 91408 | 50.0 | 49.4 | |
| 80 Tetrachloroethene | 164 | 9.519 | 9.515 | 0.004 | 97 | 145323 | 50.0 | 77.0 | |
| 81 1,3-Dichloropropane | 76 | 9.598 | 9.600 | -0.002 | 99 | 159123 | 50.0 | 46.3 | |
| 82 2-Hexanone | 43 | 9.659 | 9.655 | 0.004 | 99 | 156727 | 100.0 | 89.7 | |
| 84 Chlorodibromomethane | 129 | 9.817 | 9.819 | -0.002 | 91 | 74657 | 50.0 | 46.6 | |
| 85 Ethylene Dibromide | 107 | 9.927 | 9.929 | -0.002 | 100 | 89628 | 50.0 | 50.3 | |
| 86 3-Chlorobenzotrifluoride | 180 | 10.389 | 10.391 | -0.002 | 84 | 164508 | 50.0 | 52.6 | |
| 87 Chlorobenzene | 112 | 10.414 | 10.415 | -0.001 | 95 | 308595 | 50.0 | 49.3 | |
| 88 4-Chlorobenzotrifluoride | 180 | 10.474 | 10.476 | -0.002 | 96 | 156458 | 50.0 | 52.9 | |
| 89 1,1,1,2-Tetrachloroethane | 131 | 10.511 | 10.513 | -0.002 | 91 | 99248 | 50.0 | 48.6 | |
| 90 Ethylbenzene | 106 | 10.517 | 10.519 | -0.002 | 99 | 159165 | 50.0 | 47.9 | |
| 91 m-Xylene & p-Xylene | 106 | 10.651 | 10.647 | 0.004 | 0 | 199383 | 50.0 | 49.0 | |
| 92 o-Xylene | 106 | 11.028 | 11.030 | -0.002 | 97 | 186385 | 50.0 | 48.2 | |
| 93 Styrene | 104 | 11.046 | 11.048 | -0.002 | 96 | 330554 | 50.0 | 51.6 | |
| 94 Bromoform | 173 | 11.229 | 11.231 | -0.002 | 96 | 42418 | 50.0 | 46.4 | |
| 96 2-Chlorobenzotrifluoride | 180 | 11.296 | 11.298 | -0.002 | 97 | 163628 | 50.0 | 53.2 | |
| 97 Isopropylbenzene | 105 | 11.393 | 11.395 | -0.002 | 96 | 476844 | 50.0 | 50.3 | |
| 99 1,1,2,2-Tetrachloroethane | 83 | 11.703 | 11.705 | -0.002 | 78 | 122339 | 50.0 | 49.0 | |
| 100 Bromobenzene | 156 | 11.709 | 11.711 | -0.002 | 92 | 130032 | 50.0 | 51.4 | |
| 102 trans-1,4-Dichloro-2-buten | 53 | 11.746 | 11.742 | 0.004 | 75 | 17997 | 50.0 | 19.7 | |
| 101 1,2,3-Trichloropropane | 110 | 11.764 | 11.766 | -0.002 | 86 | 41915 | 50.0 | 50.2 | |
| 103 N-Propylbenzene | 120 | 11.813 | 11.815 | -0.002 | 99 | 134520 | 50.0 | 46.4 | |
| 104 2-Chlorotoluene | 126 | 11.898 | 11.900 | -0.002 | 96 | 123683 | 50.0 | 50.2 | |
| 105 3-Chlorotoluene | 126 | 11.965 | 11.967 | -0.002 | 95 | 132649 | 50.0 | 52.4 | |
| 106 1,3,5-Trimethylbenzene | 105 | 11.995 | 11.997 | -0.002 | 94 | 405820 | 50.0 | 49.6 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ng | OnCol Amt ng | Flags |
|----------------------------------|-----|-----------|---------------|---------------|----|----------|------------|--------------|-------|
| 107 4-Chlorotoluene | 126 | 12.020 | 12.022 | -0.002 | 98 | 133556 | 50.0 | 49.3 | |
| 108 tert-Butylbenzene | 119 | 12.305 | 12.307 | -0.002 | 95 | 318723 | 50.0 | 47.9 | |
| 110 1,2,4-Trimethylbenzene | 105 | 12.366 | 12.368 | -0.002 | 98 | 397696 | 50.0 | 48.5 | |
| 111 1,2-dichloro-4-(trifluorom | 214 | 12.409 | 12.411 | -0.002 | 97 | 109550 | 50.0 | 47.9 | |
| 112 sec-Butylbenzene | 105 | 12.531 | 12.533 | -0.002 | 95 | 451378 | 50.0 | 48.0 | |
| 113 1,3-Dichlorobenzene | 146 | 12.652 | 12.648 | 0.004 | 99 | 234352 | 50.0 | 52.0 | |
| 114 4-Isopropyltoluene | 119 | 12.689 | 12.691 | -0.002 | 97 | 388499 | 50.0 | 48.8 | |
| 115 1,4-Dichlorobenzene | 146 | 12.750 | 12.752 | -0.002 | 95 | 242553 | 50.0 | 51.7 | |
| 116 2,4-Dichloro-1-(trifluorom | 214 | 12.780 | 12.782 | -0.002 | 95 | 103496 | 50.0 | 48.8 | |
| 118 2,5-Dichlorobenzotrifluori | 214 | 12.823 | 12.818 | 0.005 | 0 | 116990 | 50.0 | 51.1 | |
| 120 n-Butylbenzene | 91 | 13.096 | 13.098 | -0.002 | 98 | 303435 | 50.0 | 44.6 | |
| 121 1,2-Dichlorobenzene | 146 | 13.109 | 13.110 | -0.002 | 96 | 217432 | 50.0 | 51.6 | |
| 122 1,2-Dibromo-3-Chloropropan | 75 | 13.899 | 13.907 | -0.008 | 77 | 16537 | 50.0 | 47.8 | |
| 123 2,4- & 2,5- & 2,6- Dichlor | 125 | 14.039 | 14.047 | -0.008 | 0 | 391622 | 150.0 | 162.7 | |
| 125 2,3- & 3,4- Dichlorotoluen | 125 | 14.459 | 14.461 | -0.002 | 0 | 252544 | 100.0 | 110.1 | |
| 126 1,2,4-Trichlorobenzene | 180 | 14.727 | 14.729 | -0.002 | 94 | 85228 | 50.0 | 52.0 | |
| 127 Hexachlorobutadiene | 225 | 14.873 | 14.869 | 0.004 | 97 | 37932 | 50.0 | 48.0 | |
| 128 Naphthalene | 128 | 14.988 | 14.990 | -0.002 | 97 | 251742 | 50.0 | 59.7 | |
| 129 1,2,3-Trichlorobenzene | 180 | 15.213 | 15.215 | -0.002 | 95 | 72448 | 50.0 | 54.6 | |
| 131 2,4,5-Trichlorotoluene | 159 | 15.986 | 15.994 | -0.008 | 0 | 24382 | 50.0 | 50.9 | |
| 130 2,3,6-Trichlorotoluene | 159 | 16.083 | 16.091 | -0.008 | 95 | 23767 | 50.0 | 53.8 | |
| 148 2,3-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 146 2,5-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 150 2,6-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 149 3,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| 147 2,4-Dichlorotoluene | 1 | | 0.000 | | | | ND | ND | |
| S 133 Xylenes, Total | 106 | | | | 0 | | 100.0 | 97.1 | |
| S 134 1,2-Dichloroethene, Total | 96 | | | | 0 | | 100.0 | 129.9 | |
| S 135 1,3-Dichloropropene, Total | 1 | | | | 0 | | 100.0 | 86.5 | |

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

| | | | |
|---------------------|--------------------|-----------|-------------|
| voaWAcro1stRe_00001 | Amount Added: 6.00 | Units: uL | |
| voaWEEpri Res_00006 | Amount Added: 2.00 | Units: uL | |
| voaWKetmix2nd_00002 | Amount Added: 2.00 | Units: uL | |
| VOA8260VOA2ND_00146 | Amount Added: 2.00 | Units: uL | |
| voaWVA2nd Res_00010 | Amount Added: 2.00 | Units: uL | |
| VOA8260INT_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |
| VOA8260SURR_00042 | Amount Added: 2.00 | Units: uL | Run Reagent |

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151003-8807.b\51003010.D

Injection Date: 03-Oct-2015 15:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48181-A-2 MSD

Worklist Smp#: 10

Client ID: HD-MW-147A-0/1-0

Purge Vol: 5.000 mL

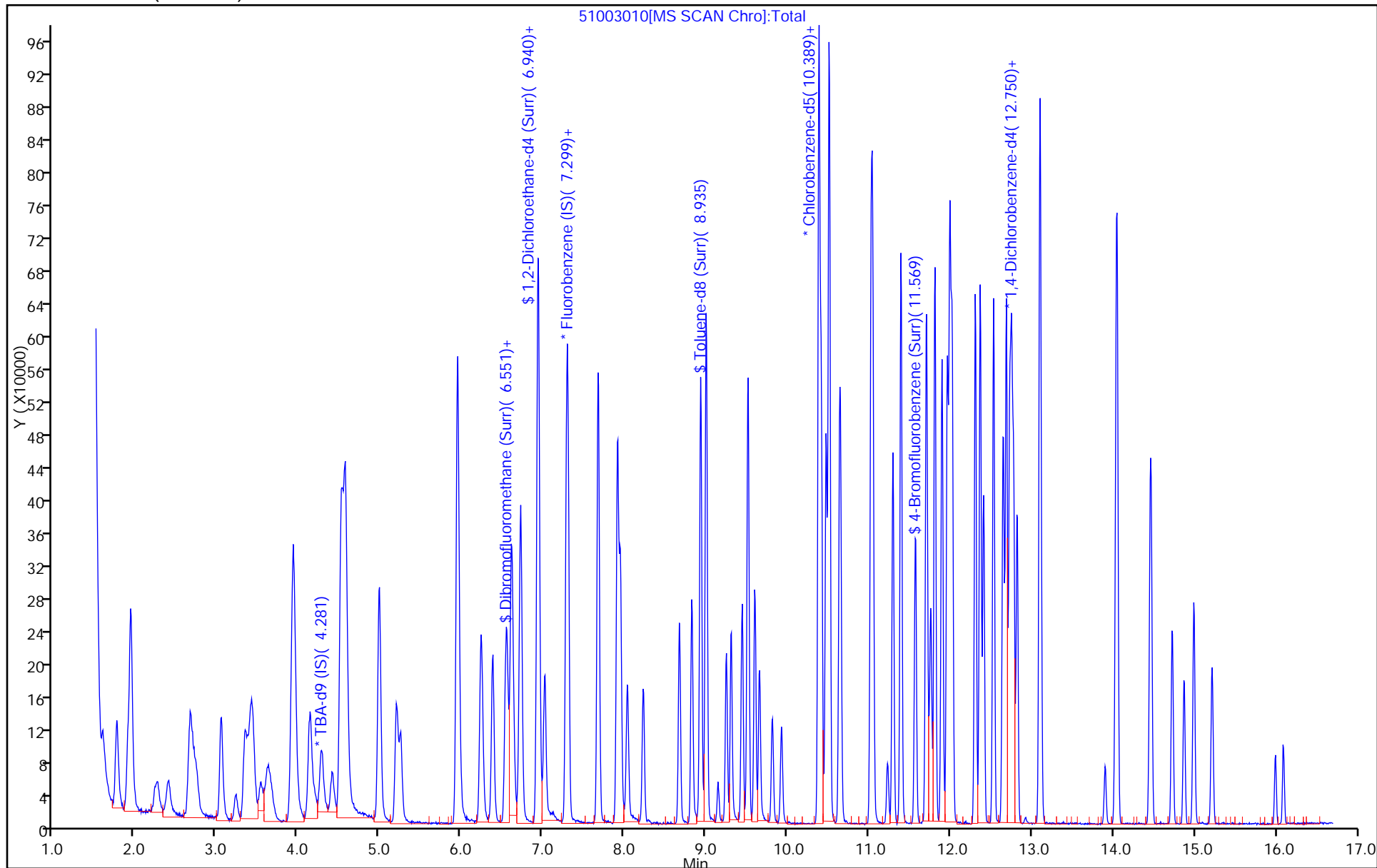
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP6 Start Date: 07/31/2015 12:10Analysis Batch Number: 149469 End Date: 07/31/2015 18:50

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|-------------------|------------------|------------------|--------------------|-------------|------------------|
| BFB 180-149469/1 | | 07/31/2015 12:10 | 1 | 60731001.D | DB-624 0.18 (mm) |
| IC 180-149469/4 | | 07/31/2015 14:00 | 1 | 60731004.D | DB-624 0.18 (mm) |
| ICIS 180-149469/5 | | 07/31/2015 14:24 | 1 | 60731005.D | DB-624 0.18 (mm) |
| IC 180-149469/6 | | 07/31/2015 14:49 | 1 | 60731006.D | DB-624 0.18 (mm) |
| IC 180-149469/7 | | 07/31/2015 15:13 | 1 | 60731007.D | DB-624 0.18 (mm) |
| IC 180-149469/8 | | 07/31/2015 15:37 | 1 | 60731008.D | DB-624 0.18 (mm) |
| IC 180-149469/9 | | 07/31/2015 16:01 | 1 | 60731009.D | DB-624 0.18 (mm) |
| IC 180-149469/10 | | 07/31/2015 16:25 | 1 | 60731010.D | DB-624 0.18 (mm) |
| IC 180-149469/14 | | 07/31/2015 18:02 | 1 | 60731014.D | DB-624 0.18 (mm) |
| ZZZZZ | | 07/31/2015 18:26 | 1 | | DB-624 0.18 (mm) |
| ICV 180-149469/16 | | 07/31/2015 18:50 | 1 | | DB-624 0.18 (mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 08/26/2015 14:01Analysis Batch Number: 151868 End Date: 08/26/2015 20:16

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|-------------------|------------------|------------------|-----------------|-------------|------------------|
| BFB 180-151868/7 | | 08/26/2015 14:01 | 1 | 50826007.D | DB-624 0.18 (mm) |
| IC 180-151868/6 | | 08/26/2015 15:04 | 1 | 50826006.D | DB-624 0.18 (mm) |
| IC 180-151868/8 | | 08/26/2015 15:28 | 1 | 50826008.D | DB-624 0.18 (mm) |
| ICIS 180-151868/9 | | 08/26/2015 15:52 | 1 | 50826009.D | DB-624 0.18 (mm) |
| IC 180-151868/10 | | 08/26/2015 16:16 | 1 | 50826010.D | DB-624 0.18 (mm) |
| IC 180-151868/11 | | 08/26/2015 16:40 | 1 | 50826011.D | DB-624 0.18 (mm) |
| IC 180-151868/12 | | 08/26/2015 17:04 | 1 | 50826012.D | DB-624 0.18 (mm) |
| IC 180-151868/13 | | 08/26/2015 17:28 | 1 | 50826013.D | DB-624 0.18 (mm) |
| IC 180-151868/14 | | 08/26/2015 17:52 | 1 | 50826014.D | DB-624 0.18 (mm) |
| ZZZZZ | | 08/26/2015 19:52 | 1 | | DB-624 0.18 (mm) |
| ICV 180-151868/20 | | 08/26/2015 20:16 | 1 | | DB-624 0.18 (mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 10/03/2015 11:41

Analysis Batch Number: 155766 End Date: 10/03/2015 23:29

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|--------------------|----------------------|------------------|-----------------|-------------|------------------|
| BFB 180-155766/4 | | 10/03/2015 11:41 | 1 | 51003004.D | DB-624 0.18 (mm) |
| CCVIS 180-155766/2 | | 10/03/2015 12:18 | 1 | 51003002.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 12:52 | 1 | | DB-624 0.18 (mm) |
| MB 180-155766/5 | | 10/03/2015 13:16 | 1 | 51003005.D | DB-624 0.18 (mm) |
| 180-48181-2 | HD-MW-147A-0/1-0 | 10/03/2015 13:50 | 1 | 51003006.D | DB-624 0.18 (mm) |
| 180-48181-9 | HD-QC9-0/1-2 | 10/03/2015 14:14 | 1 | 51003007.D | DB-624 0.18 (mm) |
| LCS 180-155766/8 | | 10/03/2015 14:38 | 1 | 51003008.D | DB-624 0.18 (mm) |
| 180-48181-2 MS | HD-MW-147A-0/1-0 MS | 10/03/2015 15:02 | 1 | 51003009.D | DB-624 0.18 (mm) |
| 180-48181-2 MSD | HD-MW-147A-0/1-0 MSD | 10/03/2015 15:27 | 1 | 51003010.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 16:15 | 12.5 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 16:39 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 17:03 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 17:27 | 250 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 17:51 | 5 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 18:15 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 18:39 | 10 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 19:04 | 10 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 19:28 | 40 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 19:52 | 50 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 21:28 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 21:52 | 10 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 23:05 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/03/2015 23:29 | 20 | | DB-624 0.18 (mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP6 Start Date: 10/05/2015 09:22

Analysis Batch Number: 155869 End Date: 10/05/2015 21:01

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|--------------------|------------------|------------------|-----------------|-------------|------------------|
| BFB 180-155869/1 | | 10/05/2015 09:22 | 1 | 61005001.D | DB-624 0.18 (mm) |
| CCVIS 180-155869/2 | | 10/05/2015 10:05 | 1 | 61005002.D | DB-624 0.18 (mm) |
| CCV 180-155869/3 | | 10/05/2015 10:29 | 1 | 61005003.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 10:58 | 1 | | DB-624 0.18 (mm) |
| MB 180-155869/5 | | 10/05/2015 11:25 | 1 | 61005005.D | DB-624 0.18 (mm) |
| LCS 180-155869/7 | | 10/05/2015 12:29 | 1 | 61005007.D | DB-624 0.18 (mm) |
| 180-48181-7 | HD-MW-37D-0/1-0 | 10/05/2015 17:46 | 40 | 61005020.D | DB-624 0.18 (mm) |
| 180-48181-8 | HD-QC3-0/1-1 | 10/05/2015 18:10 | 1 | 61005021.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 18:59 | 20 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 19:23 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 19:48 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 20:12 | 25 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 21:01 | 1 | | DB-624 0.18 (mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 10/05/2015 10:17

Analysis Batch Number: 155884 End Date: 10/05/2015 22:01

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|--------------------|--------------------|------------------|-----------------|-------------|------------------|
| BFB 180-155884/1 | | 10/05/2015 10:17 | 1 | 51005001.D | DB-624 0.18 (mm) |
| CCVIS 180-155884/2 | | 10/05/2015 10:56 | 1 | 51005002.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 11:33 | 1 | | DB-624 0.18 (mm) |
| MB 180-155884/4 | | 10/05/2015 11:57 | 1 | 51005004.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 12:46 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 13:10 | 1 | | DB-624 0.18 (mm) |
| LCS 180-155884/7 | | 10/05/2015 13:34 | 1 | 51005007.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 13:58 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 14:22 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 15:10 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 15:34 | 50 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 15:59 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 16:23 | 5 | | DB-624 0.18 (mm) |
| 180-48181-4 DL | HD-MW-93D-0/1-0 DL | 10/05/2015 17:35 | 10 | 51005017.D | DB-624 0.18 (mm) |
| 180-48181-5 | HD-MW-75S-0/1-0 | 10/05/2015 17:59 | 50 | 51005018.D | DB-624 0.18 (mm) |
| 180-48181-6 | HD-MW-75D-0/1-0 | 10/05/2015 18:23 | 50 | 51005019.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 18:48 | 5 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 19:12 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 19:36 | 2.5 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 20:24 | 100 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 21:12 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 21:36 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/05/2015 22:01 | 1 | | DB-624 0.18 (mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48181-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 10/06/2015 12:01Analysis Batch Number: 156037 End Date: 10/06/2015 21:09

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|--------------------|--------------------|------------------|-----------------|-------------|------------------|
| BFB 180-156037/5 | | 10/06/2015 12:01 | 1 | 51006005.D | DB-624 0.18 (mm) |
| CCVIS 180-156037/2 | | 10/06/2015 12:41 | 1 | 51006002.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/06/2015 12:41 | 1 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/06/2015 13:26 | 1 | | DB-624 0.18 (mm) |
| MB 180-156037/6 | | 10/06/2015 13:50 | 1 | 51006006.D | DB-624 0.18 (mm) |
| LCS 180-156037/11 | | 10/06/2015 16:08 | 1 | 51006011.D | DB-624 0.18 (mm) |
| 180-48181-1 | HD-MW-18S-0/1-0 | 10/06/2015 17:08 | 1 | 51006013.D | DB-624 0.18 (mm) |
| 180-48181-3 DL | HD-MW-93S-0/1-0 DL | 10/06/2015 17:32 | 5 | 51006014.D | DB-624 0.18 (mm) |
| 180-48181-5 DL | HD-MW-75S-0/1-0 DL | 10/06/2015 17:56 | 500 | 51006015.D | DB-624 0.18 (mm) |
| 180-48181-6 DL | HD-MW-75D-0/1-0 DL | 10/06/2015 18:44 | 500 | 51006017.D | DB-624 0.18 (mm) |
| 180-48181-8 DL | HD-QC3-0/1-1 DL | 10/06/2015 19:08 | 5 | 51006018.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/06/2015 19:32 | 10 | | DB-624 0.18 (mm) |
| ZZZZZ | | 10/06/2015 19:57 | 1 | | DB-624 0.18 (mm) |
| 180-48181-3 | HD-MW-93S-0/1-0 | 10/06/2015 20:21 | 1 | 51006021.D | DB-624 0.18 (mm) |
| ZZZZZ | | 10/06/2015 20:45 | 2 | | DB-624 0.18 (mm) |
| 180-48181-4 | HD-MW-93D-0/1-0 | 10/06/2015 21:09 | 1 | 51006023.D | DB-624 0.18 (mm) |

Shipping and Receiving Documents

TestAmerica Pittsburgh
 301 Alpha Drive
 Pittsburgh, PA 15238
 phone 412.963.7058 fax 412.963.2470

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Chain of Custody Record

Project Manager: Jennifer S. Reese
Tel/Fax: 717-901-8181 / (717) 657-1611

Client Contact:
 Groundwater Sciences Corporation
 2601 Market Place St. Suite 310
 Harrisburg, PA 17110
 (717) 901-8180 Phone
 (717) 657-1611 FAX

Project Name: 2015 Comprehensive Event
Site: Harley-Davidson, York PA
Quote # 18000557

Site Contact: Jennifer S. Reese
Lab Contact: Carrie Gamber

Date Submitted: 9/25/2015
Carrier: FEDEX

COC No.: TAP2015092501
Job No.: 1001227

Container No.:
SDG No.:

Sample Specific Notes:

Analysis Turnaround Time:
 Calendar (C) or Work Days (W)
 TAT if different from Below Standard
 2 weeks
 1 week
 5 days
 1 day

| Sample Date | Sample Time | Sample Type | Matrix | # of Cont. |
|-------------|-------------|-------------|--------|------------|
| 9/25/15 | 8:20 | Groundwater | Water | 3 |
| 9/25/15 | 10:05 | Groundwater | Water | 3 |
| 9/25/15 | 10:05 | Groundwater | Water | 3 |
| 9/25/15 | 10:05 | Groundwater | Water | 3 |
| 9/25/15 | 12:25 | Groundwater | Water | 3 |
| 9/25/15 | 13:10 | Groundwater | Water | 3 |
| 9/25/15 | 13:47 | Groundwater | Water | 3 |
| 9/25/15 | 11:12 | Groundwater | Water | 3 |
| 9/25/15 | 12:37 | Groundwater | Water | 3 |
| 9/25/15 | 8:00 | Groundwater | Water | 3 |
| 9/25/15 | 12:00 | Trip Blank | Water | 2 |

Sample Identification

HD-MW-18S-0/1-0
 HD-MW-147A-0/1-0
 HD-MW-147A-0/1-0 MS
 HD-MW-147A-0/1-0 MSD
 HD-MW-93S-0/1-0
 HD-MW-93D-0/1-0
 HD-MW-75S-0/1-0
 HD-MW-75D-0/1-0
 HD-MW-37D-0/1-0
 HD-QC3-0/1-1
 HD-QC9-0/1-2

Analysis:
 Total CR 6+ (SW846 7196A)
 Dissolved Cr 6+ (SW846 7196A)
 1,4-Dioxane (SW846 8270D LL)
 VOCs (8260C)

Chain of Custody:
 180-48181 Chain of Custody

Retention:
 Number of Containers: 3
 Date/Time: 9/25/15 1558
 Date/Time: 9/25/15 1800
 Date/Time: 9/26/15 1358
 Date/Time: 9/26/15 900

Relinquished by (Print and Sign):
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Received by:
 Received by: [Signature]
 Received by: [Signature]
 Received by: [Signature]

Company: GSC
Company: TAP
Company: TAP

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab

Possible Hazard Identification:
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Not Lift Using This

ORIGIN ID: KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE

SHIP DATE: 25SEP15
ACTWGT: 39.00 LB
CAD: 8490299/INET3670

KING OF PRUSSIA, PA 19406
UNITED STATES US

BILL RECIPIENT

TO **SAMPLE RECEIPT**
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

INV:

REF:

DEPT:



FedEx
Express



535372/CB000771
J1530150910810V

TRK# 7746 0219 9400
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 AGCA

15238
PA-US PIT

Uncorrected temp Thermometer ID °C

CF 0 Initials AB

PT-WI-SR-001 effective 7/26/13

207-435 RT12 07/15

TR 02

X

PA-US PIT

180-48181 Waybill

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-48181-1

Login Number: 48181
List Number: 1
Creator: Lonzo, Michael A

List Source: TestAmerica Pittsburgh

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is <=/ background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |