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# United States Environmental Protection Agency
## Region 9 Laboratory

**1337 S. 46th Street Building 201**
**Richmond, CA 94804**

**Date:** **10/14/2020**

**Subject:** **Analytical Testing Results - Project R20S18**
**WorkOrder** **2009037**

**From:** **Peter Husby, Director**
**EPA Region 9 Laboratory**
**EMD-3-1**

**To:** **Alana Lee**
**California Site Cleanup Section 3**
**SFD-7-3**

Attached are the results from the analysis of samples from the **MEW OU1 FY2020 Vapor Intrusion Investigation** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Audrey Johnson at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

**Analyses included in this report:**

Volatile Organic Compounds by GC/MS

United States Environmental Protection Agency
# Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **WorkOrder: 2009037** |
| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID | Laboratory ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| Waverly-MH1-2ft-6d-R | 2009037-01 | Radiello 130 | 09/24/20 15:28 | 09/30/20 08:38 |
| Waverly-MH2-2ft-6d-R | 2009037-02 | Radiello 130 | 09/24/20 15:32 | 09/30/20 08:38 |
| Waverly-MH3-2ft-6d-R | 2009037-03 | Radiello 130 | 09/24/20 15:23 | 09/30/20 08:38 |
| Waverly-MH4-2ft-6d-R | 2009037-04 | Radiello 130 | 09/24/20 15:19 | 09/30/20 08:38 |
| Waverly-MH5-2ft-6d-R | 2009037-05 | Radiello 130 | 09/24/20 15:03 | 09/30/20 08:38 |
| 235 Fairchild-SC-1ft-3d | 2009037-06 | Radiello 130 | 09/24/20 15:24 | 09/30/20 08:38 |

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| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 2009037-01** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:28** |
| **Sample ID: Waverly-MH1-2ft-6d-R** | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** | | | |
| 1,1-Dichloroethene | | 4.1 | | 0.16 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | 8.6 | | 0.20 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | 4.2 | | 0.19 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | RE1 | 130 | | 2 | " | " | " | 10/07/20 | Radiello D1 |
| Chloroform | | 33 | | 0.16 | " | " | " | 10/07/20 | Radiello D1 |
| Trichloroethene | RE1 | 560 | | 1.8 | " | " | " | 10/07/20 | Radiello D1 |
| Tetrachloroethene | | 23 | | 0.21 | " | " | " | 10/07/20 | Radiello D1 |
| *Surrogate: Toluene-d8* | | | 87 % | *86-118%* | | " | " | " | |
| **Lab ID: 2009037-02** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:32** |
| **Sample ID: Waverly-MH2-2ft-6d-R** | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** | | | |
| 1,1-Dichloroethene | | 3.1 | | 0.16 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | 9.2 | | 0.20 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | 2.6 | | 0.19 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | RE1 | 120 | | 2 | " | " | " | 10/07/20 | Radiello D1 |
| Chloroform | | 30 | | 0.16 | " | " | " | 10/07/20 | Radiello D1 |
| Trichloroethene | RE1 | 750 | | 1.8 | " | " | " | 10/07/20 | Radiello D1 |
| Tetrachloroethene | | 41 | | 0.21 | " | " | " | 10/07/20 | Radiello D1 |
| *Surrogate: Toluene-d8* | | | 88 % | *86-118%* | | " | " | " | |
| **Lab ID: 2009037-03** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:23** |
| **Sample ID: Waverly-MH3-2ft-6d-R** | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** | | | |
| 1,1-Dichloroethene | | 3.1 | | 0.16 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | 5.1 | | 0.20 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | 3.4 | | 0.19 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | | 62 | | 0.20 | " | " | " | " | Radiello D1 |
| Chloroform | | 24 | | 0.16 | " | " | " | " | Radiello D1 |
| Trichloroethene | RE1 | 320 | | 1.8 | " | " | " | 10/07/20 | Radiello D1 |
| Tetrachloroethene | | 12 | | 0.21 | " | " | " | 10/07/20 | Radiello D1 |
| *Surrogate: Toluene-d8* | | | 87 % | *86-118%* | | " | " | " | |
| **Lab ID: 2009037-04** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:19** |
| **Sample ID: Waverly-MH4-2ft-6d-R** | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** | | | |
| 1,1-Dichloroethene | | ND | U | 0.16 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | ND | U | 0.20 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | ND | U | 0.19 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | | ND | U | 0.20 | " | " | " | " | Radiello D1 |
| Chloroform | | 0.34 | | 0.16 | " | " | " | " | Radiello D1 |
| Trichloroethene | | 0.16 | C1, J | 0.18 | " | " | " | " | Radiello D1 |
| Tetrachloroethene | | ND | U | 0.21 | " | " | " | " | Radiello D1 |

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|---|---|---|
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| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 2009037-04** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:19** |
| **Sample ID: Waverly-MH4-2ft-6d-R** | | | | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** |
| *Surrogate: Toluene-d8* | | | 89 % | *86-118%* | | *B20J006* | *10/07/20* | *10/07/20* | |
| **Lab ID: 2009037-05** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:03** |
| **Sample ID: Waverly-MH5-2ft-6d-R** | | | | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** |
| 1,1-Dichloroethene | | ND | U | 0.16 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | ND | U | 0.20 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | ND | U | 0.19 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | | ND | U | 0.20 | " | " | " | " | Radiello D1 |
| Chloroform | | 0.17 | | 0.16 | " | " | " | " | Radiello D1 |
| Trichloroethene | | ND | U | 0.18 | " | " | " | " | Radiello D1 |
| Tetrachloroethene | | ND | U | 0.21 | " | " | " | " | Radiello D1 |
| *Surrogate: Toluene-d8* | | | 89 % | *86-118%* | | " | " | " | |
| **Lab ID: 2009037-06** | | | | | | | | | **Radiello 130 - Sampled: 09/24/20 15:24** |
| **Sample ID: 235 Fairchild-SC-1ft-3d** | | | | | | | | | **Volatile Organic Compounds Collected on Passive Air Sampling Devices** |
| 1,1-Dichloroethene | | 1.2 | | 0.29 | ug/m³ Air | B20J006 | 10/07/20 | 10/07/20 | Radiello D1 |
| trans-1,2-Dichloroethene | | 1.4 | | 0.36 | " | " | " | " | Radiello D1 |
| 1,1-Dichloroethane | | 1.1 | | 0.35 | " | " | " | " | Radiello D1 |
| cis-1,2-Dichloroethene | | 16 | | 0.36 | " | " | " | " | Radiello D1 |
| Chloroform | | 18 | | 0.30 | " | " | " | " | Radiello D1 |
| Trichloroethene | | 47 | | 0.32 | " | " | " | " | Radiello D1 |
| Tetrachloroethene | | 2.4 | | 0.38 | " | " | " | " | Radiello D1 |
| *Surrogate: Toluene-d8* | | | 88 % | *86-118%* | | " | " | " | |

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| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

## Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

## EPA Region 9 Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B20J006 - Passive Air Sampler** | | | | | | | | | | |
| **Blank (B20J006-BLK1)** | | | | Prepared & Analyzed: 10/07/20 | | | | | | |
| 1,1-Dichloroethene | ND | 0.13 | ug/m³ Air | | | | | | | U |
| trans-1,2-Dichloroethene | ND | 0.16 | ug/m³ Air | | | | | | | U |
| 1,1-Dichloroethane | ND | 0.16 | ug/m³ Air | | | | | | | U |
| cis-1,2-Dichloroethene | ND | 0.16 | ug/m³ Air | | | | | | | U |
| Chloroform | ND | 0.13 | ug/m³ Air | | | | | | | U |
| Trichloroethene | ND | 0.14 | ug/m³ Air | | | | | | | U |
| Tetrachloroethene | ND | 0.17 | ug/m³ Air | | | | | | | U |
| *Surrogate: Toluene-d8* | *879* | | ug/m³ Air | *992* | | *89* | *86-118* | | | |
| **LCS (B20J006-BS1)** | | | | Prepared & Analyzed: 10/07/20 | | | | | | |
| 1,1-Dichloroethene | 9.91 | 0.13 | ug/m³ Air | 13.1 | | 76 | 22-143 | | | |
| trans-1,2-Dichloroethene | 12.7 | 0.16 | ug/m³ Air | 16.0 | | 79 | 35-133 | | | |
| 1,1-Dichloroethane | 12.9 | 0.16 | ug/m³ Air | 15.7 | | 82 | 43-140 | | | |
| cis-1,2-Dichloroethene | 13.3 | 0.16 | ug/m³ Air | 16.0 | | 83 | 49-134 | | | |
| Chloroform | 10.9 | 0.13 | ug/m³ Air | 13.2 | | 82 | 56-132 | | | |
| Trichloroethene | 11.6 | 0.14 | ug/m³ Air | 14.4 | | 81 | 69-124 | | | |
| Tetrachloroethene | 13.4 | 0.17 | ug/m³ Air | 16.8 | | 79 | 69-124 | | | |
| *Surrogate: Toluene-d8* | *896* | | ug/m³ Air | *992* | | *90* | *86-118* | | | |
| **LCS Dup (B20J006-BSD1)** | | | | Prepared & Analyzed: 10/07/20 | | | | | | |
| 1,1-Dichloroethene | 12.0 | 0.13 | ug/m³ Air | 13.1 | | 92 | 22-143 | 19 | 62 | |
| trans-1,2-Dichloroethene | 14.9 | 0.16 | ug/m³ Air | 16.0 | | 93 | 35-133 | 16 | 53 | |
| 1,1-Dichloroethane | 15.1 | 0.16 | ug/m³ Air | 15.7 | | 96 | 43-140 | 16 | 44 | |
| cis-1,2-Dichloroethene | 15.4 | 0.16 | ug/m³ Air | 16.0 | | 96 | 49-134 | 14 | 39 | |
| Chloroform | 12.3 | 0.13 | ug/m³ Air | 13.2 | | 93 | 56-132 | 12 | 41 | |
| Trichloroethene | 12.9 | 0.14 | ug/m³ Air | 14.4 | | 90 | 69-124 | 10 | 20 | |
| Tetrachloroethene | 14.4 | 0.17 | ug/m³ Air | 16.8 | | 86 | 69-124 | 7 | 20 | |
| *Surrogate: Toluene-d8* | *896* | | ug/m³ Air | *992* | | *90* | *86-118* | | | |

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|---|---|---|
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| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

## Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

## EPA Region 9 Laboratory

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch S20J011 - B20J006** | | | | | | | | | | |
| **Instrument Blank (S20J011-IBL1)** | | | | Prepared & Analyzed: 10/07/20 | | | | | | |
| 1,1-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| trans-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| 1,1-Dichloroethane | ND | 0.0 | ug/L | | | | | | | U |
| cis-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Chloroform | ND | 0.0 | ug/L | | | | | | | U |
| Trichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Tetrachloroethene | ND | 0.0 | ug/L | | | | | | | U |
| *Surrogate: Toluene-d8* | *4330* | | ug/L | *200000* | | *2* | *86-118* | | | |
| **Instrument Blank (S20J011-IBL2)** | | | | Prepared & Analyzed: 10/07/20 | | | | | | |
| 1,1-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| trans-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| 1,1-Dichloroethane | ND | 0.0 | ug/L | | | | | | | U |
| cis-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Chloroform | ND | 0.0 | ug/L | | | | | | | U |
| 1,2-Dichloroethane | ND | 0.0 | ug/L | | | | | | | U |
| Trichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Tetrachloroethene | ND | 0.0 | ug/L | | | | | | | U |
| *Surrogate: Toluene-d8* | *0.00* | | ug/L | | | | *86-118* | | | *U* |
| **Batch S20J013 - B20J006** | | | | | | | | | | |
| **Instrument Blank (S20J013-IBL1)** | | | | Prepared & Analyzed: 10/08/20 | | | | | | |
| 1,1-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| trans-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| 1,1-Dichloroethane | ND | 0.0 | ug/L | | | | | | | U |
| cis-1,2-Dichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Chloroform | ND | 0.0 | ug/L | | | | | | | U |
| Trichloroethene | ND | 0.0 | ug/L | | | | | | | U |
| Tetrachloroethene | ND | 0.0 | ug/L | | | | | | | U |
| *Surrogate: Toluene-d8* | *4320* | | ug/L | *200000* | | *2* | *86-118* | | | |

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| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

## Qualifiers and Comments

| | |
|---|---|
| J | The reported result for this analyte should be considered an estimated value. |
| C1 | The reported concentration for this analyte is below the quantitation limit. |
| U | Not Detected |
| NR | Not Reported |
| RE1, RE2, etc: | Result is from a sample re-analysis. |

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| **Project Number:** R20S18 | **75 Hawthorne Street** | **Reported:** 10/14/20 12:17 |
| **Project:** MEW OU1 FY2020 Vapor Intrusion Investigation | **San Francisco CA, 94105** | |

**WORK ORDER**

**Printed: 9/30/2020 2:16:47PM**

**2009037**

# EPA Region 9 Laboratory

**Client:** **California Site Cleanup Section 3**
**Project:** **MEW OU1 FY2020 Vapor Intrusion Investigation**
**Project Number:** **R20S18**

**Report To:**
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3141
Fax: (415) 947-3526

**Project Contact**
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone :(415) 972-3141
Fax: (415) 947-3526

| Shipping Containers | Description | Temp C | Custody Seals? | Containers Intact? | Labels COC Agree? | Preservation Confirmed? | Received on Ice? | Comments |
|---|---|---|---|---|---|---|---|---|
| Modified COVID-19 | Modified COVID-19 | 5 | No | Yes | Yes | No | No | |

| | | | |
|---|---|---|---|
| Date Due: | 10/14/20 17:00 (14 day TAT) | SDG: | 20274B |
| Received By: | Tatyana Dadiomov | Date Received: | 09/30/20 08:38 |
| Logged In By: | Holly Keuth | Date Logged In: | 09/30/20 14:07 |

| Analysis | Hold Time Expires | Comments |
|---|---|---|
| **2009037-01 Waverly-MH1-2ft-6d-R [Radiello 130] Sampled 09/24/20 15:28 (GMT-08:00) Pacific Time (US &** | | **L390A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |
| **2009037-02 Waverly-MH2-2ft-6d-R [Radiello 130] Sampled 09/24/20 15:32 (GMT-08:00) Pacific Time (US &** | | **L391A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |
| **2009037-03 Waverly-MH3-2ft-6d-R [Radiello 130] Sampled 09/24/20 15:23 (GMT-08:00) Pacific Time (US &** | | **L392A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |
| **2009037-04 Waverly-MH4-2ft-6d-R [Radiello 130] Sampled 09/24/20 15:19 (GMT-08:00) Pacific Time (US &** | | **L393A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |
| **2009037-05 Waverly-MH5-2ft-6d-R [Radiello 130] Sampled 09/24/20 15:03 (GMT-08:00) Pacific Time (US &** | | **L394A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |
| **2009037-06 235 Fairchild-SC-1ft-3d [Radiello 130] Sampled 09/24/20 15:24 (GMT-08:00) Pacific Time (US &** | | **L397A 12-day TAT** |
| VOCs, Passive Samplers | 03/23/21 | check COC for requested analytes |

Reviewed By

Date

WORK ORDER

Printed: 9/30/2020 2:16:47PM

2009037

EPA Region 9 Laboratory

| | | | |
|---|---|---|---|
| Client: | California Site Cleanup Section 3 | Project Number: | R20S18 |
| Project: | MEW OU1 FY2020 Vapor Intrusion Investigation | | |

Reviewed By

Date

U.S. Environmental Protection Agency

# CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

Project / Case Number: R20S18 MEW (M6) OU1

FY20 MEW OU1 Vapor Intrusion and Sewer Pathway

EPA Project Manager contact: Alana Lee, 415-972-3141 Lee.Alana@epa.gov

Laboratory: EPA R9 Richmond

Samplers: *Ray Chavira / Michael Schulman*

Analysis: TCE, cis & trans 1,2-DCE, PCE, 1,1-DCE, 1,1-DCA, chloroform **(12 d TAT requested)**

| Start Date End Date | Start Time/ End/Time | Matrix | Comp | Grab | EPA ID Number | Unique ID | RAD130 - # Containers | AVG (beg / end) Temp - F | AVG (beg / end) Temp - F | TCE Screen -µg/m³ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 09/18/2020<br>09/24/2020 | 17:19<br>15:28 | AIR | X | | Waverly-MH1-2ft-6d-R | L390A | 1 | 65 | 65 | 200-1200 | B-1094031 |
| 09/18/2020<br>09/24/2020 | 17:30<br>15:32 | AIR | X | | Waverly-MH2-2ft-6d-R | L391A | 1 | 65 | 65 | 100-1800 | B-1095373 |
| 09/18/2020<br>09/24/2020 | 17:40<br>15:23 | AIR | X | | Waverly-MH3-2ft-6d-R | L392A | 1 | 65 | 65 | 100-800 | B-1093389 |
| 09/18/2020<br>09/24/2020 | 17:50<br>15:19 | AIR | X | | Waverly-MH4-2ft-6d-R | L393A | 1 | 65 | 65 | 10- 500 | B-1094528 |
| 09/18/2020<br>09/24/2020 | 18:10<br>15:03 | AIR | X | | Waverly-MH5-2ft-6d-R | L394A | 1 | 65 | 65 | <50 | B-1094411-3d |
| 09/21/2020<br>09/24/2020 | 09:45<br>15:24 | AIR | X | | 235 Fairchild-SC-1ft- 3d | L397A | 1 | 65 | 65 | <11 | |

Relinquished by: *(Signature)* Date/Time

Received by: *(Signature)* Date/Time

Relinquished by: *(Signature)* Date/Time

Received for Laboratory by: *(Signature)* Date/Time

Hadlows 9-30-20 8:38

Temp

Seals Intact? (Y/N)

Conditions / Remarks



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Cooler/Box/Env 1 of 1

U.S. Environmental Protection Agency
Region 9 Richmond Laboratory

1337 South 46th Street
Richmond, CA 94804

# Sample Receipt Checklist

Note in WO memo any items outside acceptable limits.

Project No: R20518 Work Order No(s): 2009037 Date: 9/3/20 by HK

**CUSTODY SEALS Are Intact?** ☐ Yes ☐ No ☒ N/A-none

Check if applies: ☐ External Seals ☐ Internal Seals ☐ Hand Delivered

**TEMPERATURE** 5 °C

**Within Acceptable Range?** (If preservation is "store cool at 4°C," use 0-6°C for acceptable range.) ☒ Yes ☐ No ☐ Ambient OK

Measured by: ☒ IR thermometer ☐ Probe thermometer inserted in provided temp. blank

☐ Provided Temp Blank was not used because _____

Check if applies: ☐ No ice present ☐ Insufficient/Melted Ice ☐ Tissue Received Frozen

☐ Still cooling (sampled today & iced) ☐ Delivery Delay ☐ Previously Frozen

**SAMPLE CONTAINERS Are Intact?** ☒ Yes ☐ No

Check if applies and identify sample IDs in comments:

☐ Bottle/Jar/Vial broken ☐ Cap broken or loose ☐ Insufficient sample amount

☐ Other _____

**CHAIN OF CUSTODY**

**COC forms are present?** ☒ Yes ☐ No

**COC forms are consistent with sample labels?** ☒ Yes ☐ No ☐ N/A-no COC form

Check if applies: ☐ Missing "relinquished by" signature

**TAT and analyses match TDF or scheduling?** ☒ Yes ☐ No

Check if applies: ☐ Preliminary Results ☐ Rush Request ☐ 7-day TAT

**Samples are received within hold times?** ☒ Yes ☐ No ☐ N/A-no hold times

Check if applies: ☐ Expires soon; notify analyst ☐ Expired

**All shipping and sample containers are accounted for?** ☒ Yes ☐ No

**PRESERVATION / FILTRATION**

**Samples were filtered in field?** ☐ Yes ☐ No ☒ N/A

**Filtration is correctly identified on samples?** ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to filter

Check if applies: ☐ Notify analyst to check for methyl mercury analysis and low-level mercury analysis by 1631

**Samples were preserved in field?** ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to preserve ☐ Sample Receiving to preserve (see page 2)

**Preservation is correctly identified on samples?** ☐ Yes ☐ No ☒ N/A

**Field-preserved samples (excluding VOA vials for VOC analyses) have correct pH?** ☐ Yes ☐ No ☒ N/A

Check if verified:

☐ Sulfide: pH >9 NaOH/Zinc acetate

☐ Cyanide: pH >12 NaOH

☐ Metals: pH <2 $HNO_3$

☐ Ferrous Iron: pH <2 HCl

☐ TOC/DOC: pH <2 $H_2SO_4/H_3PO_4$ (not HCl)

☐ Ammonia / Nitrate/Nitrite / TKN / Phosphorus: pH <2 H2SO4

☐ Other: _____

**FOLLOW-UP / COMMENTS / UNUSUAL CHARACTERISTICS OBSERVED** (for example, sample is pink):

_____

_____

_____

_____

_____

_____



FORM #: Q016
REV #: 2
REV. DATE: 07/29/19

## Exposure Time in Minutes

| | Sample number | Retrieved Date (XX/XX/XXXX) | Retrieved Time | Deployed Date | Deployed Time | Minutes | Start temp C | End temp C | Avg temp K | Plate # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Waverly-MH1-2ft-6d-R | 9/24/2020 | 15:28 | 9/18/2020 | 17:19 | 8529 | 18.33 | 18.33 | 291.33 | L390A |
| 2 | Waverly-MH2-2ft-6d-R | 9/24/2020 | 15:32 | 9/18/2020 | 17:30 | 8522 | 18.33 | 18.33 | 291.33 | L391A |
| 3 | Waverly-MH3-2ft-6d-R | 9/24/2020 | 15:23 | 9/18/2020 | 17:40 | 8503 | 18.33 | 18.33 | 291.33 | L392A |
| 4 | Waverly-MH4-2ft-6d-R | 9/24/2020 | 15:19 | 9/18/2020 | 17:50 | 8489 | 18.33 | 18.33 | 291.33 | L393A |
| 5 | Waverly-MH5-2ft-6d-R | 9/24/2020 | 15:03 | 9/18/2020 | 18:10 | 8453 | 18.33 | 18.33 | 291.33 | L394A |
| 6 | 235 Fairchild-SC-1ft-3d | 9/24/2020 | 15:24 | 9/21/2020 | 9:45 | 4659 | 18.33 | 18.33 | 291.33 | L397A |



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# BATCH

## B20J006

Batch Date: 10/07/2020

Batch Matrix: Radiello 130

Batch Analyses:

VOCs, Passive Samplers

# PREPARATION BENCH SHEET

## B20J006

### EPA Region 9 Laboratory

**Project: R20S18**

**Printed: 10/8/2020 8:46:06AM**

**Matrix: Radiello 13** **Analysis: VOCs, Passive Sampler** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2030067**

| Lab Number | SampleName | Prepared | Initial (Tube) | Final (mL) | Source ID | Spike ID 1 | ul Spike 1 | ul Surrogate | Ext pH | Prepared by | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2009037-01 A | Waverly-MH1-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009037-01RE1 A | Waverly-MH1-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | Added 10/8/2020 by TD |
| 2009037-02 A | Waverly-MH2-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009037-02RE1 A | Waverly-MH2-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | Added 10/8/2020 by TD |
| 2009037-03 A | Waverly-MH3-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009037-03RE1 A | Waverly-MH3-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | Added 10/8/2020 by TD |
| 2009037-04 A | Waverly-MH4-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009037-04RE1 A | Waverly-MH4-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | Added 10/8/2020 by TD |
| 2009037-05 A | Waverly-MH5-2ft-6d-R | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009037-06 A | 235 Fairchild-SC-1ft-3d | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009038-01 A | Waverly-MH1-1ft-5hr | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009038-02 A | F6-010-6in-5 hr | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009038-03 A | F6-004-1ft-3 hr | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| 2009038-07 A | EPA-TB-104d | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | check COC for requested analytes |
| B20J006-BLK1 | Blank | 10/07/20 06:24 | 1 | 2 | | | | 50 | | TD | |
| B20J006-BS1 | LCS | 10/07/20 06:24 | 1 | 2 | | 1937062 | 5 | 50 | | TD | |
| B20J006-BSD1 | LCS Dup | 10/07/20 06:24 | 1 | 2 | | 1937062 | 5 | 50 | | TD | |





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**PREPARATION BENCH SHEET**

# B20J006

**EPA Region 9 Laboratory**

**Project: R20S18**

**Printed: 10/8/2020 8:46:06AM**

**Matrix: Radiello 13** **Analysis: QC** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2030067**

| Lab Number | SampleName | Prepared | Initial (Tube) | Final (mL) | Source ID | Spike ID 1 | ul Spike 1 | ul Surrogate | Ext pH | Prepared by | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B20J006-MRL1 | MRL Check | 10/07/20 06:24 | 1 | 2 | | 2020011 | 5 | 50 | | TD | |

## Batch Comments

## Reagents

| Reagent # | Description |
|---|---|
| 2026065 | passive air Radiello tubes |
| 2040027 | Carbon disulfide |



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# Calibration

## 2007003

Calibration Date: 07/06/2020

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 070620.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Mon Jul 06 15:14:02 2020
Response Via : Initial Calibration

Calibration Files
25 =07062003.D 10 =07062004.D 5 =07062005.D 1 =07062006.D .15 =07062007.D .05 =07062008.D

| | | Compound | 25 | 10 | 5 | 1 | .15 | .05 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | 2-Fluorotoluene | ----------ISTD---------- | | | | | | | |
| 2) | T | 1,1-Dichloroet... | 0.164 | 0.121 | 0.121 | 0.143 | 0.105 | 0.122 | 0.129 | 16.07 |
| 3) | T | trans-1,2-Dich... | 0.173 | 0.147 | 0.139 | 0.171 | 0.141 | 0.147 | 0.153 | 9.88 |
| 4) | T | 1,1-Dichloroet... | 0.214 | 0.184 | 0.177 | 0.218 | 0.182 | 0.199 | 0.195 | 8.90 |
| 5) | T | cis-1,2-Dichlo... | 0.209 | 0.187 | 0.179 | 0.217 | 0.184 | 0.201 | 0.196 | 7.66 |
| 6) | T | Chloroform | 0.245 | 0.224 | 0.214 | 0.257 | 0.229 | 0.240 | 0.235 | 6.60 |
| 7) | T | 1,1,1-Trichlor... | 0.256 | 0.245 | 0.233 | 0.278 | 0.258 | 0.261 | 0.255 | 5.91 |
| 8) | T | Carbon tetrach... | 0.244 | 0.237 | 0.227 | 0.259 | 0.245 | 0.244 | 0.243 | 4.39 |
| 9) | T | Benzene | 0.643 | 0.629 | 0.610 | 0.717 | 0.707 | | 0.661 | 7.28 |
| 10) | T | 1,2-Dichloroet... | 0.198 | 0.191 | 0.186 | 0.228 | 0.205 | 0.205 | 0.202 | 7.20 |
| 11) | T | Trichloroethene | 0.210 | 0.205 | 0.202 | 0.225 | 0.222 | 0.216 | 0.213 | 4.42 |
| 12) | S | Toluene-d8 | 0.822 | 0.826 | 0.841 | 0.842 | 0.860 | 0.866 | 0.843 | 2.08 |
| 13) | T | Toluene | 0.923 | 0.946 | 0.979 | 1.010 | 1.045 | 1.080 | 0.997 | 5.97 |
| 14) | T | 1,1,2-Trichlor... | 0.216 | 0.212 | 0.213 | 0.220 | 0.223 | 0.236 | 0.220 | 3.98 |
| 15) | T | Tetrachloroethene | 0.303 | 0.305 | 0.316 | 0.307 | 0.317 | 0.343 | 0.315 | 4.67 |
| 16) | T | Chlorobenzene | 0.776 | 0.801 | 0.833 | 0.773 | 0.821 | 0.874 | 0.813 | 4.72 |
| 17) | T | 1,1,1,2-Tetrac... | 0.265 | 0.271 | 0.281 | 0.263 | 0.280 | 0.287 | 0.275 | 3.52 |
| 18) | T | Ethylbenzene | 1.203 | 1.260 | 1.351 | 1.257 | 1.358 | 1.447 | 1.313 | 6.79 |
| 19) | T | m&p-Xylene | 0.919 | 0.965 | 1.040 | 0.973 | 1.069 | 1.129 | 1.016 | 7.66 |
| [illegible]) | T | o-Xylene | 1.035 | 1.070 | 1.147 | 1.039 | 1.209 | 1.350 | 1.142 | 10.75 |
| [illegible]) | T | 1,1,2,2-Tetrac... | 0.461 | 0.477 | 0.503 | 0.441 | 0.486 | 0.508 | 0.479 | 5.31 |
| [illegible]) | T | 1,3,5-Trimethy... | 1.178 | 1.251 | 1.358 | 1.180 | 1.481 | 1.878 | 1.388 | 19.22 |
| [illegible]) | T | 1,2,4-Trimethy... | 1.192 | 1.275 | 1.368 | 1.142 | 1.324 | 1.528 | 1.305 | 10.51 |
| [illegible]) | T | Naphthalene | 2.084 | 2.347 | 2.446 | 1.961 | 2.405 | 2.584 | 2.305 | 10.21 |
| [illegible]) | | 2-Fluorotoluen... | | | 0.631 | | | | 0.631 | 0.00 |
| [illegible]) | | 1,1-Dichloroet... | | | 0.079 | | | | 0.079 | 0.00 |
| [illegible]) | | trans-1,2-Dich... | | | 0.027 | | | | 0.027 | 0.00 |
| [illegible]) | | 1,1-Dichloroet... | | | 0.127 | | | | 0.127 | 0.00 |
| [illegible]) | | cis-1,2-Dichlo... | | | 0.144 | | | | 0.144 | 0.00 |
| [illegible]) | | Chloroform SCAN | | | 0.149 | | | | 0.149 | 0.00 |
| [illegible]) | | 1,1,1-Trichlor... | | | 0.153 | | | | 0.153 | 0.00 |
| [illegible]) | | Carbon tetrach... | | | 0.144 | | | | 0.144 | 0.00 |
| [illegible]) | | Benzene SCAN | | | 0.412 | | | | 0.412 | 0.00 |
| [illegible]) | | 1,2-Dichloroet... | | | 0.123 | | | | 0.123 | 0.00 |
| [illegible]) | | Trichloroethen... | | | 0.134 | | | | 0.134 | 0.00 |
| [illegible]) | | Toluene-d8 SCAN | | | 0.556 | | | | 0.556 | 0.00 |
| [illegible]) | | Toluene SCAN | | | 0.656 | | | | 0.656 | 0.00 |
| [illegible]) | | 1,1,2-Trichlor... | | | 0.148 | | | | 0.148 | 0.00 |
| [illegible]) | | Tetrachloroeth... | | | 0.214 | | | | 0.214 | 0.00 |
| [illegible]) | | Chlorobenzene ... | | | 0.546 | | | | 0.546 | 0.00 |
| [illegible]) | | 1,1,1,2-Tetrac... | | | 0.172 | | | | 0.172 | 0.00 |
| [illegible]) | | Ethylbenzene SCAN | | | 1.370 | | | | 1.370 | 0.00 |





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Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 070620.M

| | | | | |
|---|---|---|---|---|
| 43) | m&p-Xylene SCAN | 1.370 | 1.370 | 0.00 |
| 44) | o-Xylene SCAN | 0.741 | 0.741 | 0.00 |
| 45) | 1,1,2,2-Tetrac... | 0.346 | 0.346 | 0.00 |
| 46) | 1,3,5-Trimethy... | 0.828 | 0.828 | 0.00 |
| 47) | 1,2,4-Trimethy... | 0.846 | 0.846 | 0.00 |
| 48) | Naphthalene SCAN | 1.508 | 1.508 | 0.00 |

(#) = Out of Range



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Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 070620.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Mon Jul 06 15:55:07 2020
Response Via : Initial Calibration

Total Cpnds : 48

| PK# | | Compound Name | QIon | Exp_RT | Rel_RT | Cal | #Qual | A/H | ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | I | 2-Fluorotoluene | -109 | 10.991 | 1.000 | A | 1 | A | B |
| 2 | T | 1,1-Dichloroethene | -61 | 3.097 | 0.282 | A | 1 | A | B |
| 3 | T | trans-1,2-Dichloroethene | -61 | 4.283 | 0.390 | A | 1 | A | B |
| 4 | T | 1,1-Dichloroethane | -63 | 5.039 | 0.458 | A | 1 | A | B |
| 5 | T | cis-1,2-Dichloroethene | -61 | 6.061 | 0.551 | A | 1 | A | B |
| 6 | T | Chloroform | -83 | 6.639 | 0.604 | A | 1 | A | B |
| 7 | T | 1,1,1-Trichloroethane | -97 | 6.895 | 0.627 | A | 2 | A | B |
| 8 | T | Carbon tetrachloride | -117 | 7.175 | 0.653 | A | 1 | A | B |
| 9 | T | Benzene | -78 | 7.503 | 0.683 | A | 1 | A | B |
| 10 | T | 1,2-Dichloroethane | -62 | 7.540 | 0.686 | A | 1 | A | B |
| 11 | T | Trichloroethene | -130 | 8.575 | 0.780 | A | 3 | A | B |
| 12 | S | Toluene-d8 | -98 | 10.498 | 0.955 | A | 1 | A | B |
| 13 | T | Toluene | -91 | 10.592 | 0.964 | A | 1 | A | B |
| 14 | T | 1,1,2-Trichloroethane | -97 | 11.243 | 1.023 | A | 1 | A | B |
| 15 | T | Tetrachloroethene | -166 | 11.453 | 1.042 | A | 1 | A | B |
| 16 | T | Chlorobenzene | -112 | 12.781 | 1.163 | A | 1 | A | B |
| 17 | T | 1,1,1,2-Tetrachloroethane | -131 | 12.940 | 1.177 | A | 1 | A | B |
| 18 | T | Ethylbenzene | -91 | 12.996 | 1.182 | A | 2 | A | B |
| 19 | T | m&p-Xylene | -91 | 13.186 | 1.200 | A | 2 | A | B |
| 20 | T | o-Xylene | -91 | 13.798 | 1.255 | A | 1 | A | B |
| 21 | T | 1,1,2,2-Tetrachloroethane | -83 | 14.899 | 1.356 | A | 1 | A | B |
| 22 | T | 1,3,5-Trimethylbenzene | -105 | 15.369 | 1.398 | A | 1 | A | B |
| 23 | T | 1,2,4-Trimethylbenzene | -105 | 15.921 | 1.449 | A | 1 | A | B |
| 24 | T | Naphthalene | -128 | 17.914 | 1.630 | A | 1 | A | B |
| 25 | | 2-Fluorotoluene SCAN | 109 | 10.990 | 1.000 | A | 1 | A | B |
| 26 | | 1,1-Dichloroethene SCAN | 61 | 3.096 | 0.282 | A | 2 | A | B |
| 27 | | trans-1,2-Dichloroethene SCAN | 61 | 4.301 | 0.391 | A | 2 | A | B |
| 28 | | 1,1-Dichloroethane SCAN | 63 | 5.038 | 0.458 | A | 2 | A | B |
| 29 | | cis-1,2-Dichloroethene SCAN | 61 | 6.066 | 0.552 | A | 3 | A | B |
| 30 | | Chloroform SCAN | 83 | 6.638 | 0.604 | A | 2 | A | B |
| 31 | | 1,1,1-Trichloroethane SCAN | 97 | 6.906 | 0.628 | A | 2 | A | B |
| 32 | | Carbon tetrachloride SCAN | 117 | 7.173 | 0.653 | A | 3 | A | B |
| 33 | | Benzene SCAN | 78 | 7.502 | 0.683 | A | 3 | A | B |
| 34 | | 1,2-Dichloroethane SCAN | 62 | 7.550 | 0.687 | A | 2 | A | B |
| 35 | | Trichloroethene SCAN | 130 | 8.579 | 0.781 | A | 3 | A | B |
| 36 | | Toluene-d8 SCAN | 98 | 10.496 | 0.955 | A | 1 | A | B |
| 37 | | Toluene SCAN | 91 | 10.601 | 0.965 | A | 2 | A | B |
| 38 | | 1,1,2-Trichloroethane SCAN | 97 | 11.252 | 1.024 | A | 3 | A | B |
| 39 | | Tetrachloroethene SCAN | 166 | 11.451 | 1.042 | A | 3 | A | B |
| 40 | | Chlorobenzene SCAN | 112 | 12.788 | 1.163 | A | 3 | A | B |
| 41 | | 1,1,1,2-Tetrachloroethane SCAN | 131 | 12.939 | 1.177 | A | 3 | A | B |
| 42 | | Ethylbenzene SCAN | 91 | 13.193 | 1.200 | A | 2 | A | B |
| 43 | | m&p-Xylene SCAN | 91 | 13.193 | 1.200 | A | 3 | A | B |
| 44 | | o-Xylene SCAN | 91 | 13.805 | 1.256 | A | 2 | A | B |
| 45 | | 1,1,2,2-Tetrachloroethane SCAN | 83 | 14.901 | 1.356 | A | 2 | A | B |
| 46 | | 1,3,5-Trimethylbenzene SCAN | 105 | 15.368 | 1.398 | A | 2 | A | B |
| 47 | | 1,2,4-Trimethylbenzene SCAN | 105 | 15.919 | 1.448 | A | 3 | A | B |
| 48 | | Naphthalene SCAN | 128 | 17.916 | 1.630 | A | 2 | A | B |

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

070620.M Tue Jul 07 11:25:29 2020

# CHEMSTATION AREA COUNT REPORT

AG5975C
S20G004-SCV1
2004028 5 mg/L
7/6/2020
Mon Jul 06 15:14:02 2020
TD

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 162110 | 183409 | 197351 | 191470 | 222341 | 223213 |
| 2) | 1,1-Dichloroethene | 132651 | 44314 | 23936 | 5473 | 698 | 273 |
| 3) | trans-1,2-Dichloroethene | 140566 | 53916 | 27517 | 6548 | 938 | 329 |
| 4) | 1,1-Dichloroethane | 173186 | 67526 | 34880 | 8337 | 1211 | 444 |
| 5) | cis-1,2-Dichloroethene | 169532 | 68717 | 35362 | 8298 | 1227 | 449 |
| 6) | Chloroform | 198421 | 82199 | 42303 | 9851 | 1525 | 536 |
| 7) | 1,1,1-Trichloroethane | 207653 | 90017 | 46014 | 10641 | 1723 | 582 |
| 8) | Carbon tetrachloride | 197568 | 86838 | 44785 | 9930 | 1634 | 545 |
| 9) | Benzene | 520895 | 230626 | 120434 | 27466 | 4718 | 1630 |
| 10) | 1,2-Dichloroethane | 160783 | 69981 | 36785 | 8717 | 1369 | 458 |
| 11) | Trichloroethene | 170204 | 75121 | 39853 | 8621 | 1484 | 483 |
| 12) | Toluene-d8 | 665878 | 303097 | 165947 | 32242 | 5736 | 1932 |
| 13) | Toluene | 747871 | 347077 | 193174 | 38683 | 6970 | 2410 |
| 14) | 1,1,2-Trichloroethane | 175148 | 77666 | 42079 | 8421 | 1488 | 526 |
| 15) | Tetrachloroethene | 245551 | 111991 | 62352 | 11748 | 2116 | 765 |
| 16) | Chlorobenzene | 628976 | 293882 | 164469 | 29587 | 5479 | 1951 |
| 17) | 1,1,1,2-Tetrachloroethane | 214643 | 99302 | 55478 | 10085 | 1868 | 641 |
| 18) | Ethylbenzene | 974839 | 462068 | 266556 | 48130 | 9057 | 3231 |
| 19) | m&p-Xylene | 1489129 | 707889 | 410633 | 74516 | 14266 | 5042 |
| 20) | o-Xylene | 838771 | 392547 | 226344 | 39773 | 8066 | 3014 |
| 21) | 1,1,2,2-Tetrachloroethane | 373783 | 174920 | 99187 | 16877 | 3240 | 1134 |
| 22) | 1,3,5-Trimethylbenzene | 954508 | 458877 | 268024 | 45189 | 9880 | 4191 |
| 23) | 1,2,4-Trimethylbenzene | 966329 | 467778 | 269997 | 43747 | 8829 | 3410 |
| 24) | Naphthalene | 1689127 | 860839 | 482753 | 75107 | 16045 | 5768 |

# CHEMSTATION CONCENTRATION REPORT

AG5975C
S20G004-SCV1
2004028 5 mg/L
7/6/2020
Mon Jul 06 15:14:02 2020
TD

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 |
| 2) | 1,1-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 3) | trans-1,2-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 4) | 1,1-Dichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 5) | cis-1,2-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 6) | Chloroform | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 7) | 1,1,1-Trichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 8) | Carbon tetrachloride | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 9) | Benzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 1.00 |
| 10) | 1,2-Dichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 11) | Trichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 12) | Toluene-d8 | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 13) | Toluene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 14) | 1,1,2-Trichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 15) | Tetrachloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 16) | Chlorobenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 17) | 1,1,1,2-Tetrachloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 18) | Ethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 19) | m&p-Xylene | 50000.00 | 20000.00 | 10000.00 | 2000.00 | 300.00 | 100.00 |
| 20) | o-Xylene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 21) | 1,1,2,2-Tetrachloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 22) | 1,3,5-Trimethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 23) | 1,2,4-Trimethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 24) | Naphthalene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |

# SCV REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20G004-SCV1
**Misc Info:** 2004028 5 mg/L
**Date Acquired:** 7/6/2020
**QLast Update:** Mon Jul 06 15:14:02 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.991 | 5000 | 5000.00 | 100% | 70 | 130 | pass |
| 2) | 1,1-Dichloroethene | 3.097 | 5000 | 5635.30 | 113% | 70 | 130 | pass |
| 3) | trans-1,2-Dichloroethene | 4.283 | 5000 | 5236.03 | 105% | 70 | 130 | pass |
| 4) | 1,1-Dichloroethane | 5.039 | 5000 | 5051.53 | 101% | 70 | 130 | pass |
| 5) | cis-1,2-Dichloroethene | 6.061 | 5000 | 5085.65 | 102% | 70 | 130 | pass |
| 6) | Chloroform | 6.639 | 5000 | 5076.15 | 102% | 70 | 130 | pass |
| 7) | 1,1,1-Trichloroethane | 6.895 | 5000 | 5072.73 | 101% | 70 | 130 | pass |
| 8) | Carbon tetrachloride | 7.175 | 5000 | 5169.07 | 103% | 70 | 130 | pass |
| 9) | Benzene | 7.503 | 5000 | 5027.63 | 101% | 70 | 130 | pass |
| 10) | 1,2-Dichloroethane | 7.540 | 5000 | 5073.86 | 101% | 70 | 130 | pass |
| 11) | Trichloroethene | 8.575 | 5000 | 5167.82 | 103% | 70 | 130 | pass |
| 12) | Toluene-d8 | 10.498 | 5000 | 5033.76 | 101% | 70 | 130 | pass |
| 13) | Toluene | 10.592 | 5000 | 5069.84 | 101% | 70 | 130 | pass |
| 14) | 1,1,2-Trichloroethane | 11.243 | 5000 | 5061.77 | 101% | 70 | 130 | pass |
| 15) | Tetrachloroethene | 11.453 | 5000 | 5115.80 | 102% | 70 | 130 | pass |
| 16) | Chlorobenzene | 12.781 | 5000 | 5096.91 | 102% | 70 | 130 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.940 | 5000 | 5100.23 | 102% | 70 | 130 | pass |
| 18) | Ethylbenzene | 12.996 | 5000 | 4996.31 | 100% | 70 | 130 | pass |
| 19) | m&p-Xylene | 13.186 | 10000 | 9835.72 | 98% | 70 | 130 | pass |
| 20) | o-Xylene | 13.798 | 5000 | 4820.46 | 96% | 70 | 130 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.899 | 5000 | 4984.63 | 100% | 70 | 130 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.369 | 5000 | 4526.40 | 91% | 70 | 130 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.921 | 5000 | 4779.51 | 96% | 70 | 130 | pass |
| 24) | Naphthalene | 17.914 | 5000 | 4656.31 | 93% | 70 | 130 | pass |

# SEQUENCE

## S20H039

Sequence Date: 08/19/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | ICAL | SEQUENCE #: | S20H039 08/20/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| DOCUMENTATION | ANALYST: Bench sheet(s) attached?<br>REVIEWER: Bench sheet(s) reviewed? | ✔ | | | |
| | ANALYST: Sequence log(s) attached?<br>REVIEWER: Sequence log(s) reviewed? | | Y | Y | |
| | ANALYST: Every run has a PDF in LIMS?<br>REVIEWER: Every PDF reviewed? | | Y | Y | |
| INITIAL CALIBRATION | Date of Initial Calibration used:<br>If applicable, note date of "Last Update" in Comments. | Fri Aug 21 08:33:54 2020 | | | |
| | Initial Calibration ID (LIMS number): | 2008017 | | | |
| | ICAL within QC criteria? | | Y | Y | |
| | SCV within QC criteria? | | Y | Y | |
| INSTRUMENT / QC CHECKS | Tune or degradation checks within QC criteria? | | Y | Y | |
| | CCV(s) within QC criteria? | ✔ | | | |
| | QLS(s) within QC criteria? | ✔ | | | |
| | CB(s) or storage blank(s) within QC criteria? | ✔ | | | |
| | Other instrument checks within QC criteria?<br>Specify if applicable. | ✔ | | | |
| BATCH QCs | Method blanks < 1/2 QL? | ✔ | | | |
| | LCS(s) or SRM(s) within QC criteria? | ✔ | | | |
| | MSs/MSDs and/or DUPs within QC criteria? | ✔ | | | |
| | Other method-specific QCs within QC criteria?<br>Specify if applicable. | ✔ | | | |

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | ICAL | SEQUENCE #: | S20H039 08/20/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| IS / SS | Internal standards within QC criteria? | ☐ | Y | Y | |
| | Surrogates within QC criteria? | ☑ | | | |
| SAMPLE DATA | Were samples prepared & analyzed within holding time? | ☑ | | | |
| | If samples need to be re-run, were RE(s) made in LIMS? | ☑ | | | |
| | Do any samples need to be re-digested or re-extracted? | ☑ | | | |
| | Were all data qualifiers appropriately applied? | ☑ | | | |
| | Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable. | ☑ | | | |
| MANUAL INT | Were manual integrations performed and documented? Specify if applicable. | ☐ | Y | Y | |

| | | |
|---|---|---|
| APPROVALS | ANALYST INITIALS & DATE: | TD 08/21/20 |
| | REVIEWED BY: | Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2020.10.02 15:55:42 -07'00' SIGN HERE |

COMMENTS

Custom analyte list.

# Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\082020\

| Vial | File Name | Mult | Sample Info | Misc Info | Date Acquired |
|---|---|---|---|---|---|
| 1 | 08202001.D | 1 | S20H039-IBL1 | | 20 Aug 2020 14:53 |
| 2 | 08202002.D | 1 | S20H039-TUN1 | BFB 2016028 | 20 Aug 2020 15:15 |
| 3 | 08202003.D | 1 | S20H039-CAL1 | 2030068 25 mg/L | 20 Aug 2020 15:25 |
| 4 | 08202004.D | 1 | S20H039-CAL2 | 2030069 10 mg/L | 20 Aug 2020 15:49 |
| 5 | 08202005.D | 1 | S20H039-CAL3 | 2030070 5 mg/L | 20 Aug 2020 16:13 |
| 6 | 08202006.D | 1 | S20H039-CAL4 | 2030071 1 mg/L | 20 Aug 2020 16:37 |
| 7 | 08202007.D | 1 | S20H039-CAL5 | 2030072 0.15 mg/L | 20 Aug 2020 17:01 |
| 8 | 08202008.D | 1 | S20H039-CAL6 | 2030073 0.05 mg/L | 20 Aug 2020 17:25 |
| 9 | 08202009.D | 1 | S20H039-SCV1 | 2030074 5 mg/L | 20 Aug 2020 17:49 |

GC/MS QA-QC Check Report



Tune File : C:\msdchem\1\Ravioli Data\2020\082020\08202002.D
Tune Time : 20 Aug 2020 15:15

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\082020\08202005.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses |
|---|---|---|---|
| | | | 673233 |
| 08202003.D | | | |
| | S20H039-CA | 402* | 648237 |
| 08202004.D | | | |
| | S20H039-CA | 248* | 658265 |
| 08202005.D | | | |
| | S20H039-CA | 95 | 673233 |
| 08202006.D | | | |
| | S20H039-CA | 22* | 620555 |
| 08202007.D | | | |
| | S20H039-CA | 3* | 687675 |
| 08202008.D | | | |
| | S20H039-CA | 1* | 604968 |
| 08202009.D | | | |
| | S20H039-SC | 87 | 757040 |

(fails) - fails 12hr time check * - fails criteria

Created: Fri Aug 21 08:36:04 2020 AG5975C

# Analysis Sequence

**S20H039**

**Project:**
**Analysis:**

**Instrument:** AG5975CV **Calibration ID:** 2007003 Printed: 08/21/2020 9:17 am

| Lab Number | Sample Name | Order | Analyzed Date | STD ID | ISTD ID | Sequenced By | File ID | Comments |
|---|---|---|---|---|---|---|---|---|
| S20H039-IBL1 | Instrument Blank | 1 | 8/20/20 14:53 | | 2030067 | TD | 08202001.D | |
| S20H039-TUN1 | BFB | 2 | 8/20/20 15:15 | 2016028 | | TD | 08202002.D | |
| S20H039-CAL1 | Cal Standard | 3 | 8/20/20 15:25 | 2030068 | | TD | 08202003.D | |
| S20H039-CAL2 | Cal Standard | 4 | 8/20/20 15:49 | 2030069 | | TD | 08202004.D | |
| S20H039-CAL3 | Cal Standard | 5 | 8/20/20 16:13 | 2030070 | | TD | 08202005.D | |
| S20H039-CAL4 | Cal Standard | 6 | 8/20/20 16:37 | 2030071 | | TD | 08202006.D | |
| S20H039-CAL5 | Cal Standard | 7 | 8/20/20 17:01 | 2030072 | | TD | 08202007.D | |
| S20H039-CAL6 | Cal Standard | 8 | 8/20/20 17:25 | 2030073 | | TD | 08202008.D | |
| S20H039-SCV1 | Secondary Cal Check | 9 | 8/20/20 17:49 | 2030074 | | TD | 08202009.D | |

**Sequence Comments**

**Reagents**

| Reagent # | Description |
|---|---|





Table of Contents

# SEQUENCE DATA

## S20H039

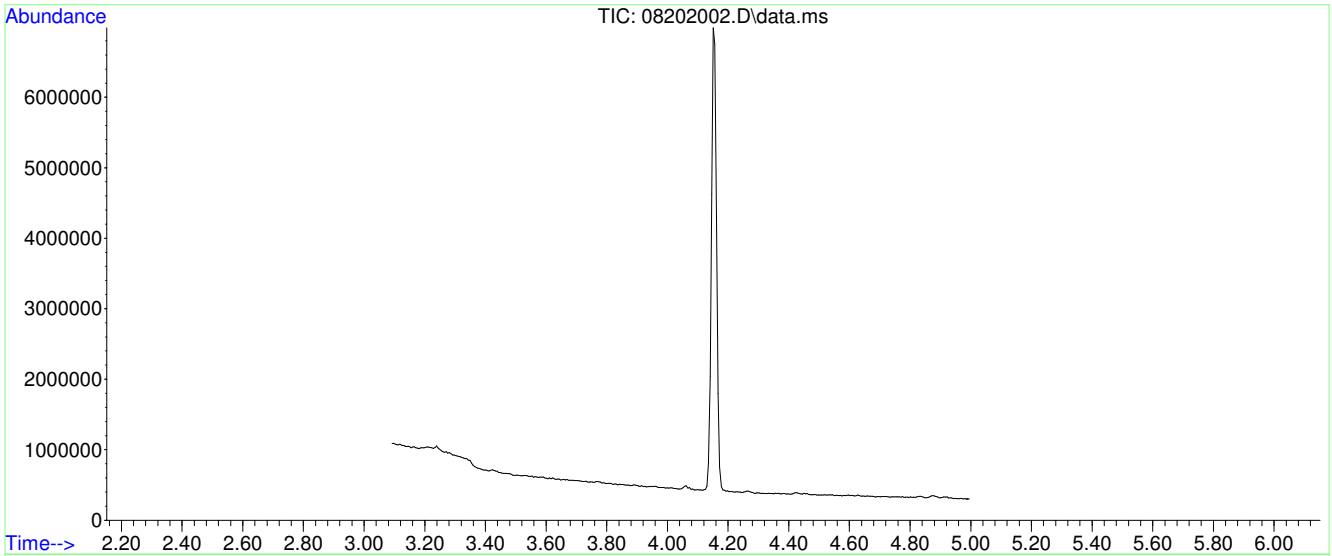
# S20H039-TUN1

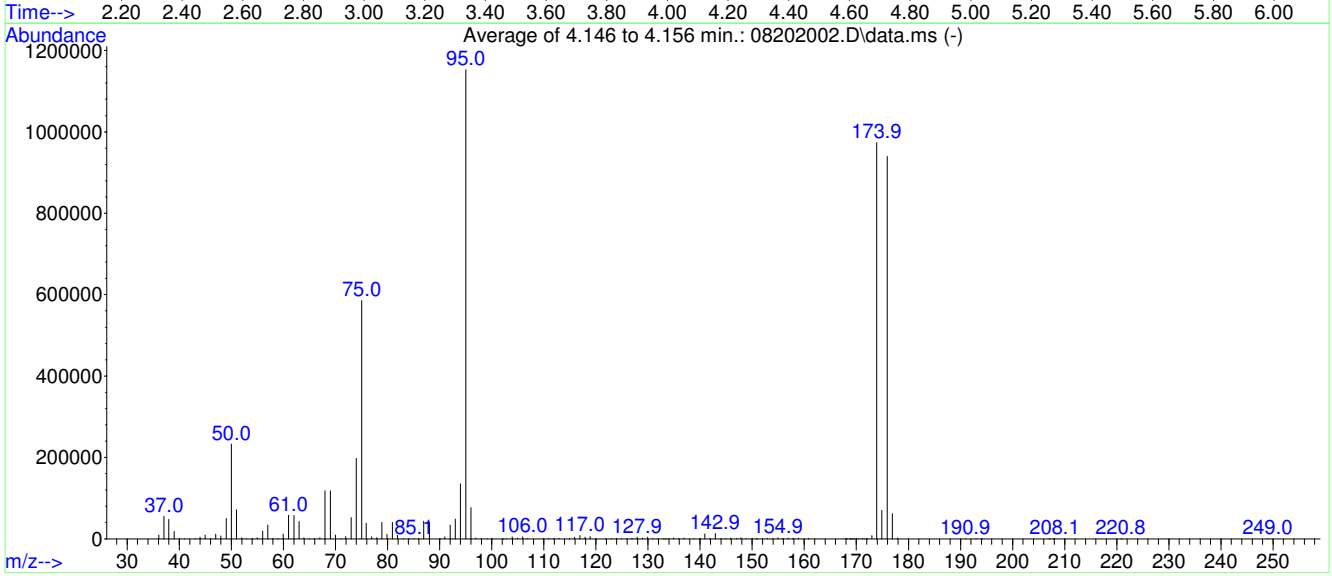
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202002.D
Acq On : 20 Aug 2020 15:15
Operator : TD
Sample : S20H039-TUN1
Misc : BFB 2016028
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Aug 21 08:33:54 2020




AutoFind: Scans 202, 203, 204; Background Corrected with Scan 195

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.2 | 232911 | PASS |
| 75 | 95 | 30 | 60 | 50.8 | 585813 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 1152511 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 76331 | PASS |
| 173 | 174 | 0.00 | 2 | 0.8 | 7673 | PASS |
| 174 | 95 | 50 | 120 | 84.5 | 973973 | PASS |
| 175 | 174 | 5 | 9 | 7.1 | 69584 | PASS |
| 176 | 174 | 95 | 101 | 96.5 | 939968 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 61843 | PASS |

Average of 4.146 to 4.156 min.: 08202002.D\data.ms
S20H039-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.05 | 9517 | 48.00 | 7027 | 58.95 | 258 | 70.00 | 9635 |
| 37.05 | 55357 | 49.00 | 49627 | 59.95 | 11406 | 71.05 | 479 |
| 38.00 | 47609 | 50.00 | 232911 | 61.00 | 58325 | 71.95 | 5719 |
| 39.00 | 17974 | 51.00 | 71652 | 62.00 | 57442 | 73.00 | 52114 |
| 40.05 | 890 | 52.00 | 2929 | 63.00 | 42288 | 74.00 | 197568 |
| 41.00 | 84 | 52.90 | 204 | 63.95 | 2952 | 75.00 | 585813 |
| 43.05 | 591 | 53.95 | 10 | 64.95 | 191 | 75.90 | 38507 |
| 44.00 | 4051 | 55.00 | 2848 | 65.90 | 492 | 76.95 | 4767 |
| 45.00 | 9535 | 56.00 | 18994 | 67.00 | 2390 | 77.90 | 2523 |
| 46.00 | 462 | 57.00 | 33861 | 68.00 | 117707 | 78.90 | 40464 |
| 47.00 | 11581 | 58.00 | 1082 | 69.00 | 118007 | 79.90 | 11132 |

Average of 4.146 to 4.156 min.: 08202002.D\data.ms
S20H039-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 80.90 | 40713 | 93.00 | 48144 | 104.95 | 1649 | 118.90 | 5720 |
| 81.90 | 8793 | 94.00 | 134819 | 105.95 | 4521 | 119.95 | 21 |
| 83.05 | 732 | 95.00 | 1.15251e+006 | 106.90 | 1216 | 121.85 | 370 |
| 84.15 | 72 | 96.00 | 76331 | 109.85 | 717 | 123.00 | 437 |
| 85.10 | 149 | 96.95 | 2145 | 110.95 | 1170 | 123.95 | 770 |
| 85.95 | 1075 | 97.95 | 88 | 111.90 | 907 | 124.90 | 464 |
| 86.95 | 43055 | 99.15 | 133 | 112.95 | 1255 | 125.95 | 523 |
| 88.00 | 40048 | 100.00 | 55 | 114.90 | 1351 | 126.85 | 416 |
| 90.10 | 85 | 102.10 | 50 | 115.90 | 4431 | 127.10 | 156 |
| 90.95 | 4717 | 102.85 | 287 | 116.95 | 7983 | 127.90 | 4060 |
| 92.00 | 33882 | 103.90 | 4876 | 117.90 | 4202 | 128.95 | 1897 |

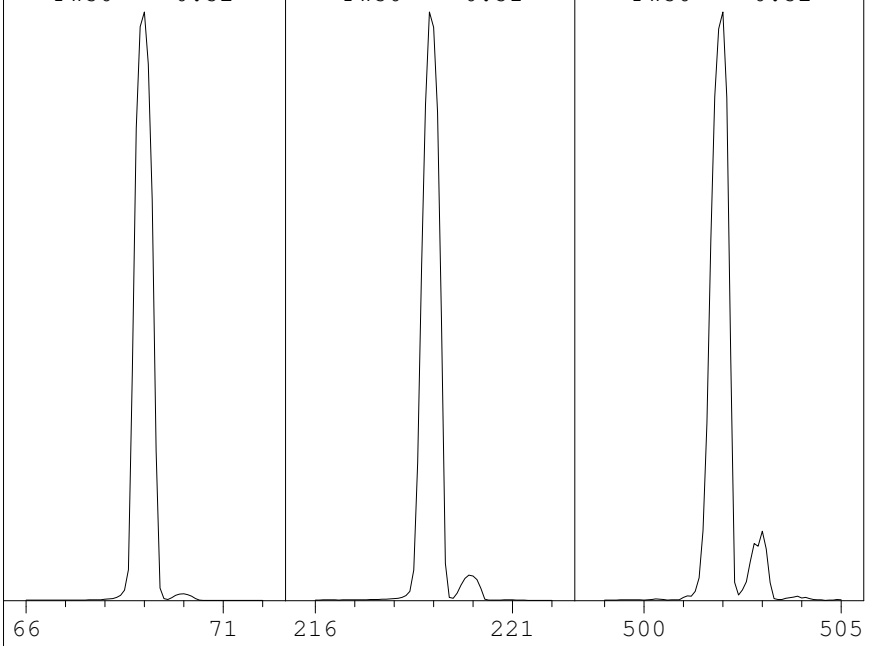
Average of 4.146 to 4.156 min.: 08202002.D\data.ms
S20H039-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 129.90 | 3885 | 140.90 | 12033 | 151.95 | 504 | 167.90 | 54 |
| 130.90 | 1497 | 141.90 | 1518 | 152.90 | 1027 | 168.30 | 122 |
| 131.90 | 167 | 142.90 | 12793 | 153.85 | 746 | 168.70 | 55 |
| 132.95 | 387 | 143.95 | 599 | 154.95 | 2637 | 169.00 | 53 |
| 133.30 | 58 | 144.95 | 1003 | 155.80 | 268 | 169.40 | 92 |
| 133.90 | 272 | 145.90 | 1611 | 156.00 | 223 | 169.65 | 299 |
| 134.90 | 2299 | 146.95 | 768 | 156.90 | 1924 | 170.00 | 126 |
| 135.85 | 523 | 147.85 | 2552 | 157.80 | 64 | 170.45 | 178 |
| 136.90 | 2136 | 148.85 | 764 | 157.95 | 190 | 171.15 | 456 |
| 138.85 | 513 | 149.95 | 1250 | 158.85 | 1548 | 171.50 | 129 |
| 139.90 | 1010 | 150.80 | 58 | 160.85 | 1010 | 171.90 | 508 |

Average of 4.146 to 4.156 min.: 08202002.D\data.ms
S20H039-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 172.10 | 525 | 207.80 | 62 | | | | |
| 173.00 | 7673 | 208.10 | 189 | | | | |
| 173.90 | 973973 | 220.80 | 62 | | | | |
| 174.90 | 69584 | 249.00 | 155 | | | | |
| 175.90 | 939968 | | | | | | |
| 176.90 | 61843 | | | | | | |
| 177.90 | 1588 | | | | | | |
| 190.95 | 360 | | | | | | |
| 192.95 | 216 | | | | | | |
| 194.00 | 56 | | | | | | |
| 207.00 | 38 | | | | | | |

| Mass | 69.00 | Mass | 218.90 | Mass | 502.00 |
|---|---|---|---|---|---|
| Ab | 575143 | Ab | 388856 | Ab | 13189 |
| Pw50 | 0.52 | Pw50 | 0.51 | Pw50 | 0.52 |

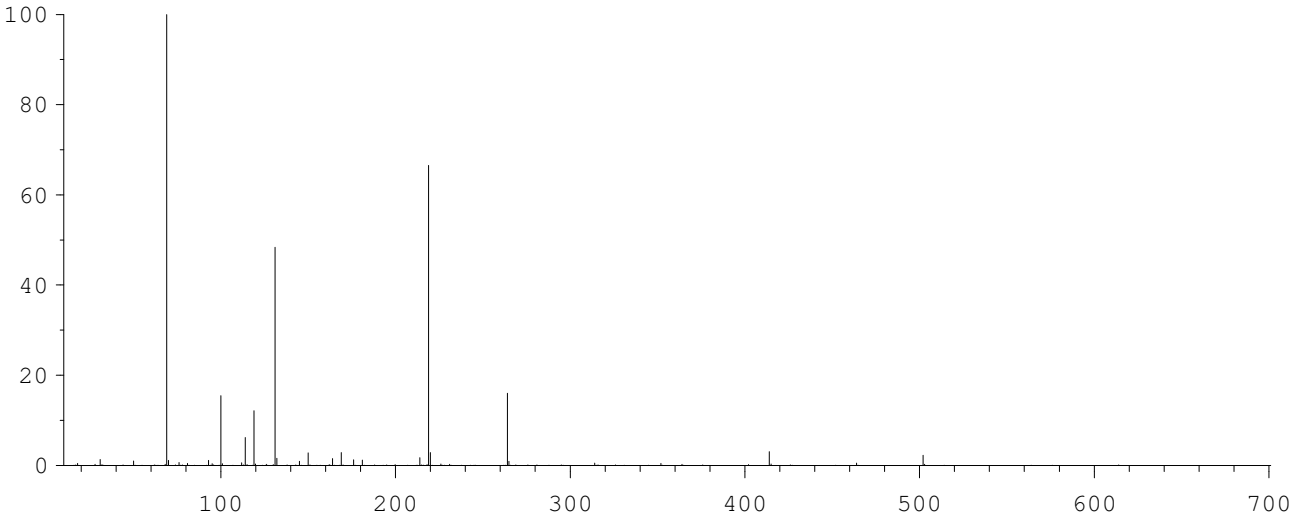



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | -1191 |
| | | MassOffs | -38 |
| Emission | 34.6 | AmuGain | 978 |
| EIEnrgy | 69.9 | AmuOffs | 127.94 |
| Filament | 1 | Wid219 | -0.003 |
| | | DC Pol | Pos |
| Repeller | 29.79 | | |
| IonFcus | 69.3 | HEDEnab | On |
| EntLens | 0.0 | EMVolts | 1329 |
| EntOffs | Var | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | Turbo Speed | 100 |
| MS Quad | 150 | HiVac | 0.00e00 |

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
125 peaks Base: 69.00 Abundance: 551040




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.00 | 551040 | 100.00 | 70.00 | 6195 | 1.12 |
| 219.00 | 366720 | 66.55 | 220.00 | 15616 | 4.26 |
| 502.00 | 12288 | 2.23 | 503.00 | 1319 | 10.73 |

Air/Water Check: H20~0.43% N2~0.28% O2~0.15% CO2~0.09% N2/H2O~64.78%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 51766
Repeller Maximum 30 volts using ion 219; Gain Factor 0.52

MassGain Values(Samples): -1179(3) -1177(2) -1157(1) -1126(0) -1040(FS)

| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 1050 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 |
| Entrance Lens Offset: | 16.8 | 14.1 | 14.3 | 15.6 | 16.1 | 16.8 | 16.8 |
| Target Abund(%): | 1.0 | 100.0 | 45.0 | 55.0 | 2.5 | 2.0 | |
| Actual Tune Abund(%): | 1.0 | 100.0 | 48.4 | 66.6 | 3.0 | 2.2 | |

# S20H039-CAL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202003.D
Acq On : 20 Aug 2020 15:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL1
Misc : 2030068 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 08:30:58 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

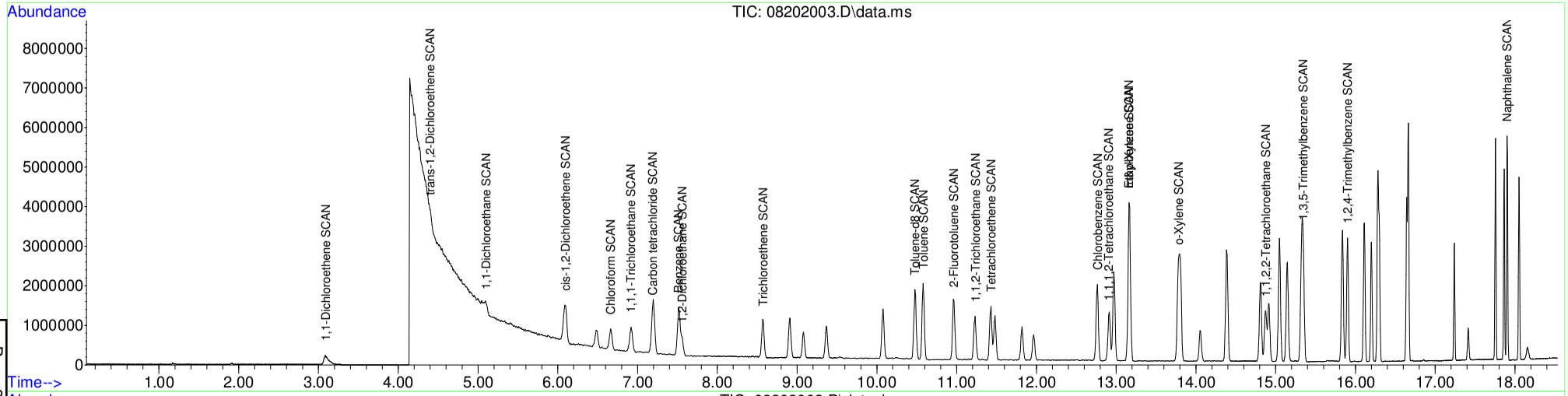
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 648237 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 2550057 | 20095.11 ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 401.90%# | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.086 | 61 | 574530 | 20159.30 ug/L | 84 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 656585 | 21954.29 ug/L | 99 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 803642 | 21586.82 ug/L | 99 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 844386 | 21487.23 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 899977 | 22375.19 ug/L | 99 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 968878 | 22180.47 ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 914170 | 22235.33 ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 2304166 | 20920.52 ug/L | 99 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 846849 | 21538.88 ug/L | 98 |
| 11] Trichloroethene | 8.569 | 130 | 695334 | 20968.15 ug/L | 93 |
| 13] Toluene | 10.571 | 91 | 3008786 | 18597.43 ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 733249 | 20799.65 ug/L | 97 |
| 15] Tetrachloroethene | 11.432 | 166 | 940662 | 20090.91 ug/L | 99 |
| 16] Chlorobenzene | 12.757 | 112 | 2268821 | 19585.13 ug/L | 93 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 836326 | 20147.92 ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 3692757 | 18751.96 ug/L | 98 |
| 19] m&p-Xylene | 13.162 | 91 | 5704874 | 37066.22 ug/L | 98 |
| 20] o-Xylene | 13.774 | 91 | 3130122 | 19035.81 ug/L | 97 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 1420481 | 19491.87 ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.345 | 105 | 3358352 | 19188.41 ug/L | 97 |
| 23] 1,2,4-Trimethylbenzene | 15.901 | 105 | 3395311 | 18676.82 ug/L | 97 |
| 24] Naphthalene | 17.903 | 128 | 5320470 | 18517.34 ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 312945 | 4952.35 ug/L | 87 |
| 26) 1,1-Dichloroethene SCAN | 3.085 | 61 | 311746 | 23230.08 ug/L | 87 |
| 27) trans-1,2-Dichloroethe... | 4.394 | 61 | 351983 | 21195.80 ug/L # | 62 |
| 28) 1,1-Dichloroethane SCAN | 5.104 | 63 | 450335 | 23432.33 ug/L | 97 |
| 29) cis-1,2-Dichloroethene... | 6.093 | 61 | 461049 | 22391.00 ug/L # | 77 |
| 30) Chloroform SCAN | 6.662 | 83 | 492825 | 22066.51 ug/L | 94 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 499412 | 24538.45 ug/L | 91 |
| 32) Carbon tetrachloride SCAN | 7.186 | 117 | 453188 | 21347.00 ug/L | 92 |
| 33) Benzene SCAN | 7.514 | 78 | 1250753 | 22320.05 ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 455179 | 21997.91 ug/L | 96 |
| 35) Trichloroethene SCAN | 8.574 | 130 | 336981 | 21882.74 ug/L | 86 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 1338484 | 21658.66 ug/L | 95 |
| 37) Toluene SCAN | 10.580 | 91 | 1546218 | 19537.05 ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 383748 | 21602.31 ug/L | 93 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 422055 | 22197.27 ug/L | 95 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 1101434 | 20366.73 ug/L | 92 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 399709 | 19971.60 ug/L | 95 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 2927134 | 20301.32 ug/L | 92 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 2927134 | 20301.32 ug/L | 92 |
| 44) o-Xylene SCAN | 13.781 | 91 | 1599160 | 20720.30 ug/L | 96 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.875 | 83 | 787765 | 20932.68 ug/L | 98 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 1669431 | 20524.56 ug/L | 98 |
| 47) 1,2,4-Trimethylbenzene... | 15.899 | 105 | 1675093 | 20126.80 ug/L | 96 |
| 48) Naphthalene SCAN | 17.901 | 128 | 2499778 | 19849.60 ug/L | 99 |

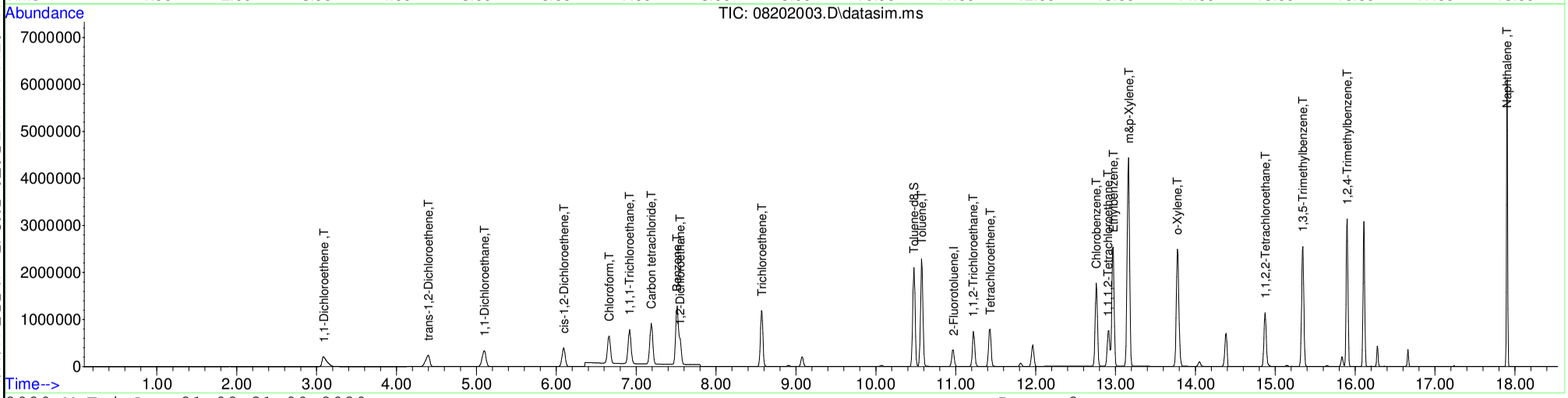
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202003.D
Acq On : 20 Aug 2020 15:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL1
Misc : 2030068 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 21 08:30:58 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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# S20H039-CAL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202004.D
Acq On : 20 Aug 2020 15:49
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL2
Misc : 2030069 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 21 08:31:02 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

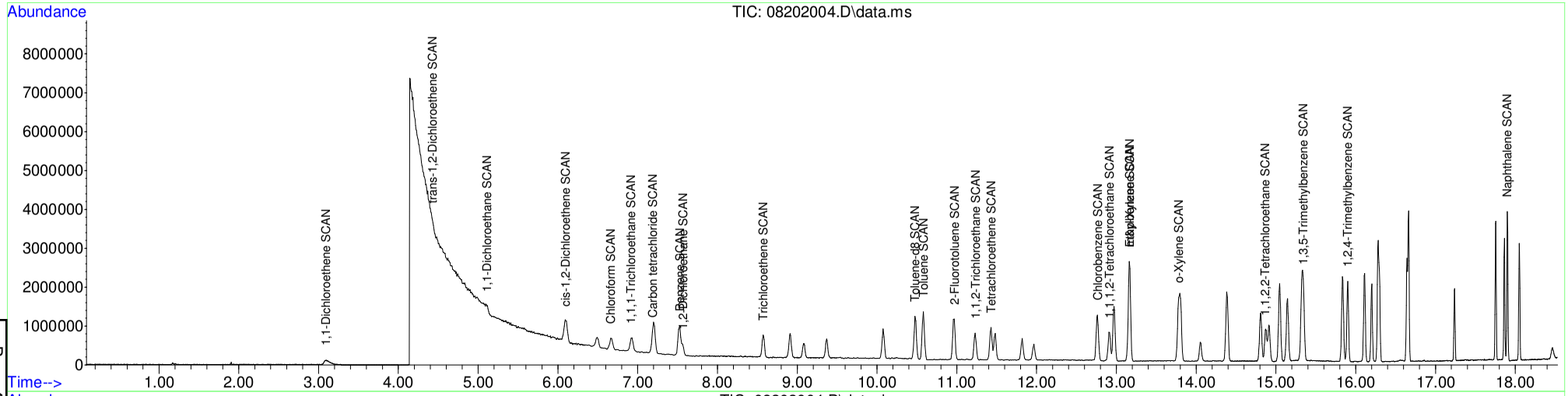
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 658265 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 1598935 | 12408.08 ug/L | 0.00 |
| Spiked Amount 5000.000 Range 86 - 118 Recovery = 248.16%# | | | | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.089 | 61 | 337762 | 11670.96 ug/L | 85 |
| 3] trans-1,2-Dichloroethene | 4.415 | 61 | 385140 | 12681.78 ug/L | 99 |
| 4] 1,1-Dichloroethane | 5.112 | 63 | 475966 | 12590.27 ug/L | 99 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 502402 | 12589.94 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 526532 | 12891.19 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 573090 | 12919.85 ug/L | 100 |
| 8] Carbon tetrachloride | 7.187 | 117 | 543134 | 13009.38 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 1390859 | 12435.83 ug/L | 100 |
| 10] 1,2-Dichloroethane | 7.551 | 62 | 505651 | 12664.88 ug/L | 98 |
| 11] Trichloroethene | 8.575 | 130 | 423697 | 12582.16 ug/L | 93 |
| 13] Toluene | 10.571 | 91 | 1898928 | 11558.54 ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 449618 | 12559.76 ug/L | 97 |
| 15] Tetrachloroethene | 11.432 | 166 | 593500 | 12483.03 ug/L | 99 |
| 16] Chlorobenzene | 12.757 | 112 | 1444139 | 12276.32 ug/L | 93 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 527138 | 12505.81 ug/L | 100 |
| 18] Ethylbenzene | 12.964 | 91 | 2370804 | 11855.63 ug/L | 98 |
| 19] m&p-Xylene | 13.162 | 91 | 3652536 | 23370.06 ug/L | 97 |
| 20] o-Xylene | 13.774 | 91 | 2010115 | 12038.27 ug/L | 97 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 905676 | 12238.38 ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.340 | 105 | 2186063 | 12300.10 ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.901 | 105 | 2217101 | 12009.97 ug/L | 97 |
| 24] Naphthalene | 17.902 | 128 | 3552389 | 12175.37 ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 328600 | 5120.88 ug/L | 93 |
| 26) 1,1-Dichloroethene SCAN | 3.095 | 61 | 187881 | 13786.87 ug/L | 86 |
| 27) trans-1,2-Dichloroethe... | 4.421 | 61 | 211940 | 12568.23 ug/L # | 60 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 259075 | 13275.12 ug/L | 97 |
| 29) cis-1,2-Dichloroethene... | 6.099 | 61 | 277801 | 13285.97 ug/L # | 78 |
| 30) Chloroform SCAN | 6.662 | 83 | 277868 | 12252.16 ug/L | 95 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 298757 | 14455.71 ug/L | 91 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 255165 | 11836.21 ug/L | 93 |
| 33) Benzene SCAN | 7.526 | 78 | 760706 | 13368.21 ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 279288 | 13291.82 ug/L | 97 |
| 35) Trichloroethene SCAN | 8.573 | 130 | 204333 | 13066.76 ug/L | 85 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 838595 | 13362.99 ug/L | 98 |
| 37) Toluene SCAN | 10.580 | 91 | 1003500 | 12486.44 ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 237513 | 13166.63 ug/L | 94 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 264331 | 13690.26 ug/L | 97 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 706230 | 12860.03 ug/L | 91 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 248709 | 12237.52 ug/L | 96 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 1857232 | 12684.72 ug/L | 91 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 1857232 | 12684.72 ug/L | 92 |
| 44) o-Xylene SCAN | 13.781 | 91 | 1011769 | 12909.77 ug/L | 96 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.868 | 83 | 500490 | 13096.54 ug/L | 98 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 1082480 | 13105.64 ug/L | 98 |
| 47) 1,2,4-Trimethylbenzene... | 15.899 | 105 | 1083179 | 12816.49 ug/L | 96 |
| 48) Naphthalene SCAN | 17.901 | 128 | 1640425 | 12827.44 ug/L | 99 |

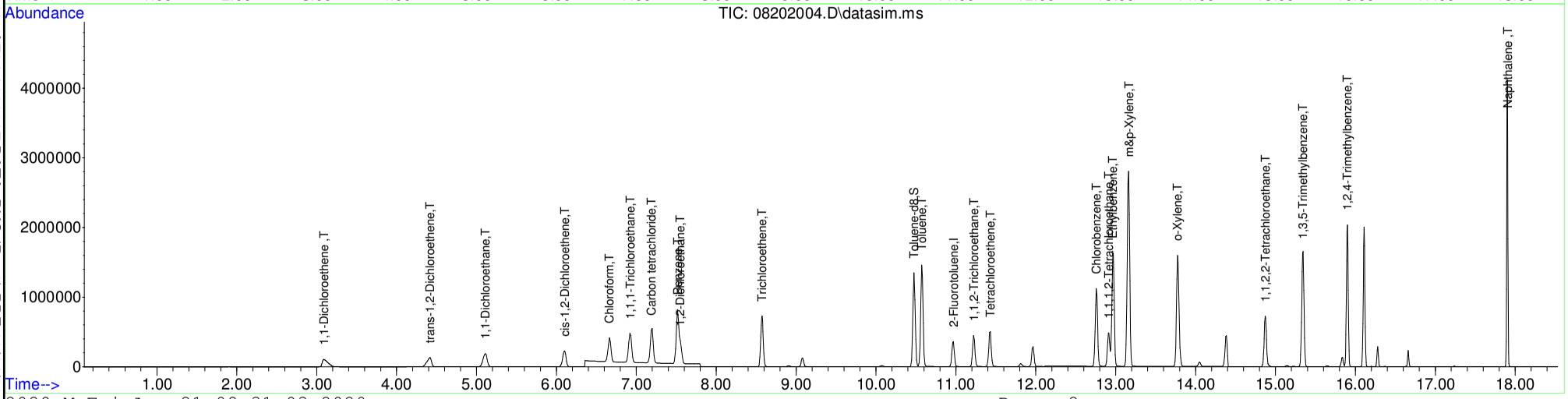
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202004.D
Acq On : 20 Aug 2020 15:49
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL2
Misc : 2030069 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 21 08:31:02 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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# S20H039-CAL3

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202005.D
Acq On : 20 Aug 2020 16:13
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL3
Misc : 2030070 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 08:31:05 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

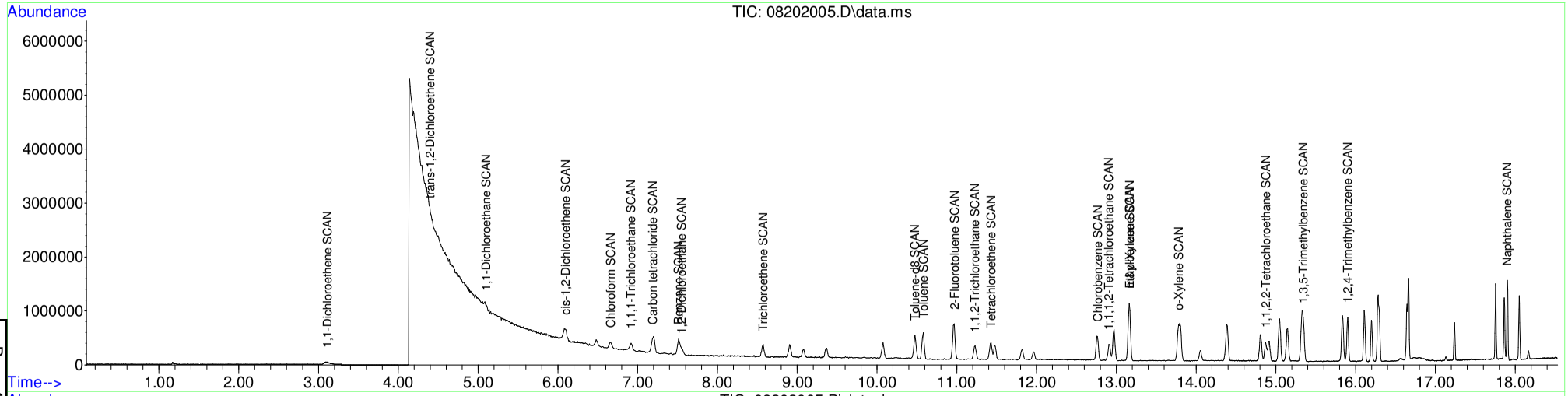
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 673233 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 629076 | 4773.23 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 95.46% | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 126761 | 4282.69 | ug/L | 84 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 145387 | 4680.82 | ug/L | 99 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 180029 | 4656.26 | ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 190553 | 4669.00 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 196458 | 4702.98 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 214003 | 4717.26 | ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 202678 | 4746.70 | ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 523170 | 4573.72 | ug/L | 99 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 191144 | 4681.08 | ug/L | 98 |
| 11] Trichloroethene | 8.569 | 130 | 161743 | 4696.35 | ug/L | 94 |
| 13] Toluene | 10.571 | 91 | 755646 | 4497.26 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 172328 | 4706.83 | ug/L | 98 |
| 15] Tetrachloroethene | 11.421 | 166 | 232804 | 4787.68 | ug/L | 100 |
| 16] Chlorobenzene | 12.757 | 112 | 577532 | 4800.33 | ug/L | 93 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 207134 | 4804.79 | ug/L | 100 |
| 18] Ethylbenzene | 12.964 | 91 | 957968 | 4683.98 | ug/L | 98 |
| 19] m&p-Xylene | 13.162 | 91 | 1468448 | 9186.69 | ug/L | 97 |
| 20] o-Xylene | 13.774 | 91 | 804751 | 4712.38 | ug/L | 97 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 361853 | 4781.00 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.345 | 105 | 875077 | 4814.24 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.896 | 105 | 885300 | 4689.02 | ug/L | 97 |
| 24] Naphthalene | 17.903 | 128 | 1447043 | 4849.29 | ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 328139 | 5000.00 | ug/L | 97 |
| 26) 1,1-Dichloroethene SCAN | 3.107 | 61 | 69687 | 5000.00 | ug/L # | 30 |
| 27) trans-1,2-Dichloroethe... | 4.401 | 61 | 86233 | 5000.00 | ug/L # | 58 |
| 28) 1,1-Dichloroethane SCAN | 5.104 | 63 | 99798 | 5000.00 | ug/L | 97 |
| 29) cis-1,2-Dichloroethene... | 6.093 | 61 | 106924 | 5000.00 | ug/L # | 75 |
| 30) Chloroform SCAN | 6.662 | 83 | 115974 | 5000.00 | ug/L | 93 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 105685 | 5000.00 | ug/L | 90 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 110241 | 5000.00 | ug/L | 87 |
| 33) Benzene SCAN | 7.514 | 78 | 290990 | 5000.00 | ug/L | 97 |
| 34) 1,2-Dichloroethane SCAN | 7.550 | 62 | 107449 | 5000.00 | ug/L | 97 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 79966 | 5000.00 | ug/L | 91 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 320910 | 5000.00 | ug/L | 95 |
| 37) Toluene SCAN | 10.580 | 91 | 410973 | 5000.00 | ug/L | 97 |
| 38) 1,1,2-Trichloroethane ... | 11.221 | 97 | 92246 | 5000.00 | ug/L | 92 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 98735 | 5000.00 | ug/L | 95 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 280827 | 5000.00 | ug/L | 92 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 103928 | 5000.00 | ug/L | 93 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 748721 | 5000.00 | ug/L | 91 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 748721 | 5000.00 | ug/L | 92 |
| 44) o-Xylene SCAN | 13.781 | 91 | 400772 | 5000.00 | ug/L | 98 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.872 | 83 | 195422 | 5000.00 | ug/L | 99 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 422373 | 5000.00 | ug/L | 98 |
| 47) 1,2,4-Trimethylbenzene... | 15.899 | 105 | 432181 | 5000.00 | ug/L | 96 |
| 48) Naphthalene SCAN | 17.901 | 128 | 653960 | 5000.00 | ug/L | 99 |

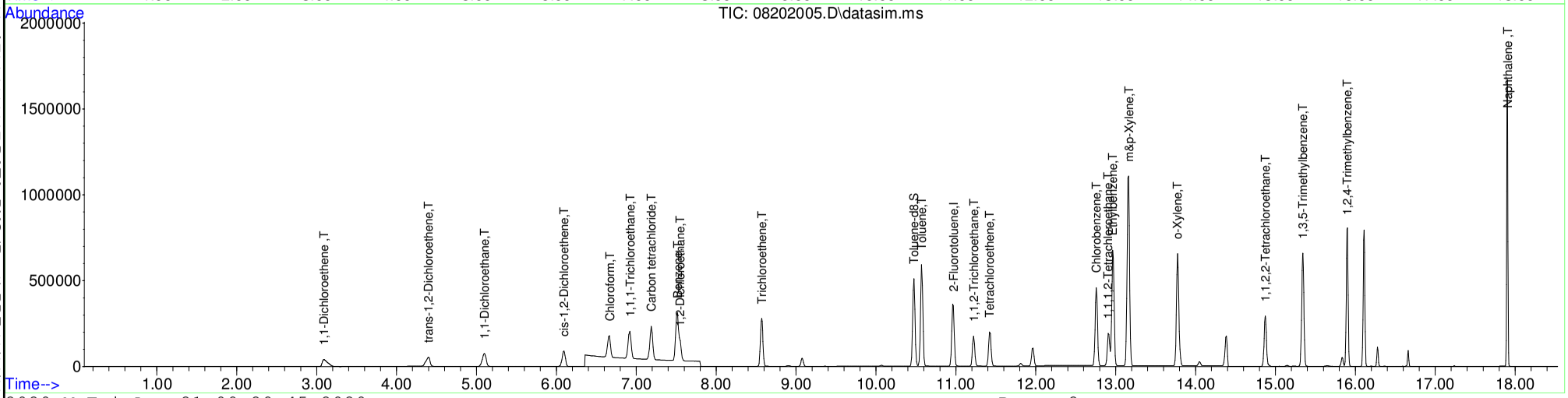
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202005.D
Acq On : 20 Aug 2020 16:13
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL3
Misc : 2030070 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 08:31:05 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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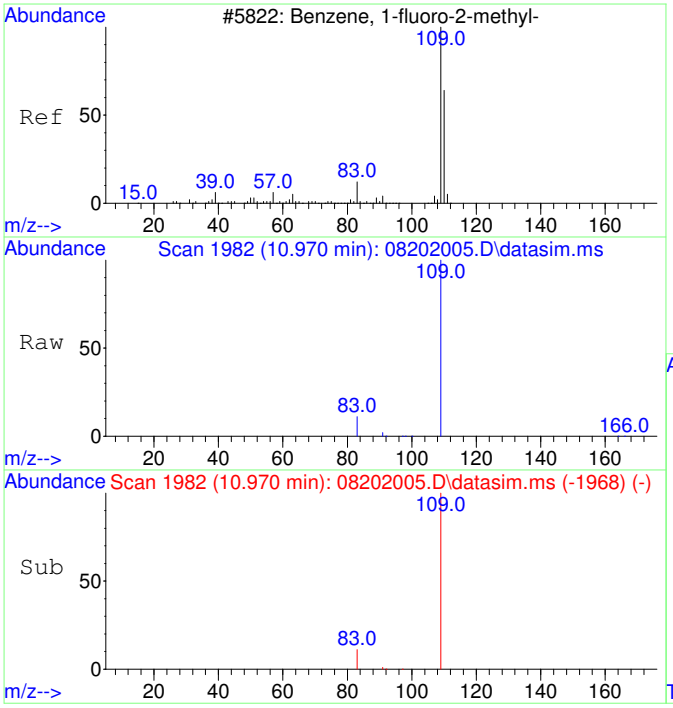
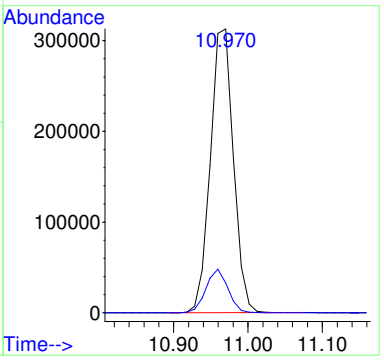
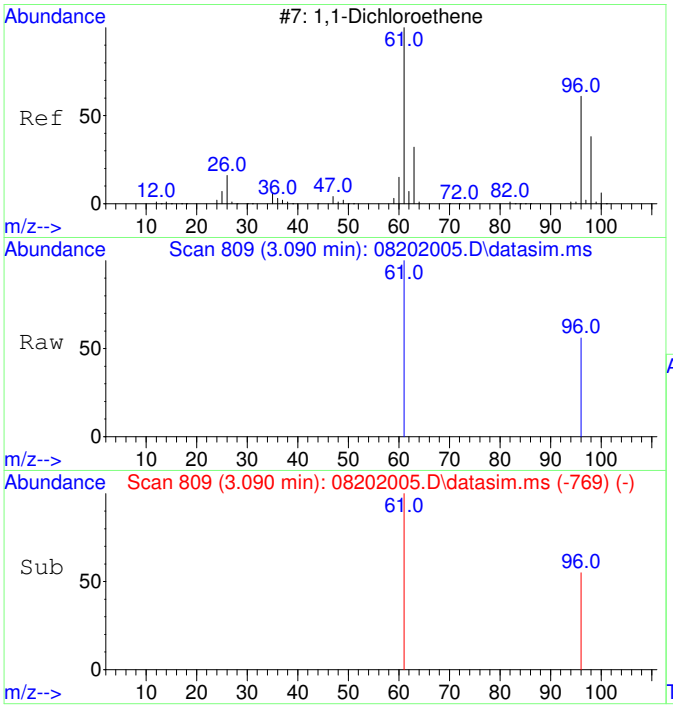



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:109 Resp: 673233

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.5 | 0.0 | 42.3 |

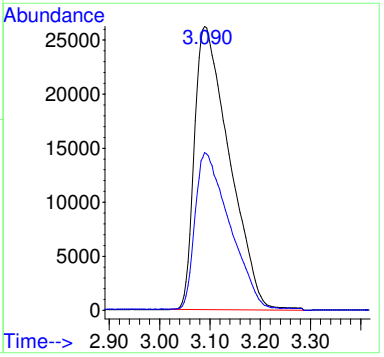


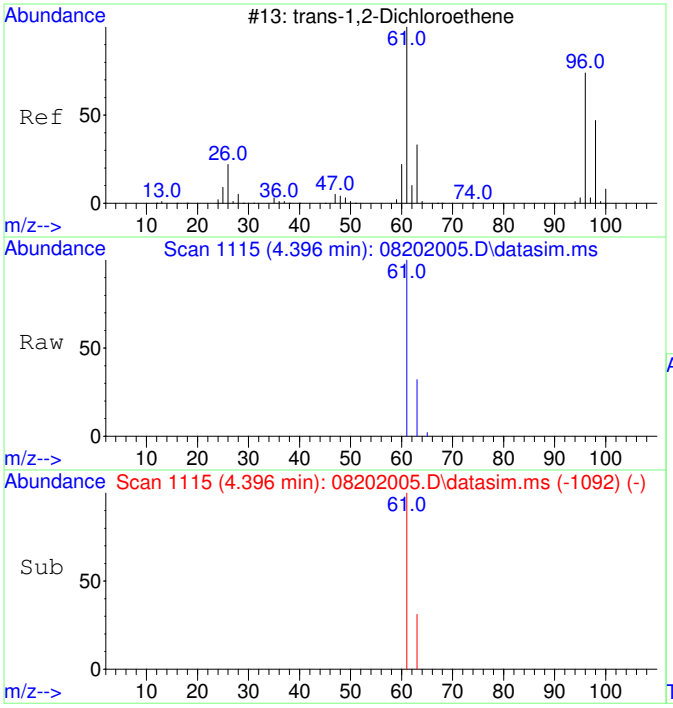




#2
1,1-Dichloroethene
Concen: 4282.69 ug/L
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 61 Resp: 126761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 37.2 | 97.2 |

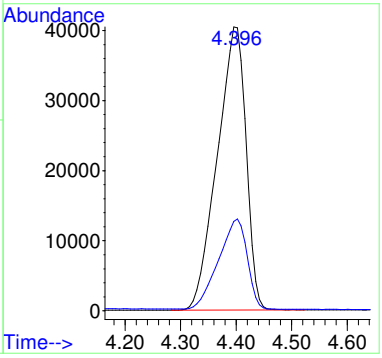


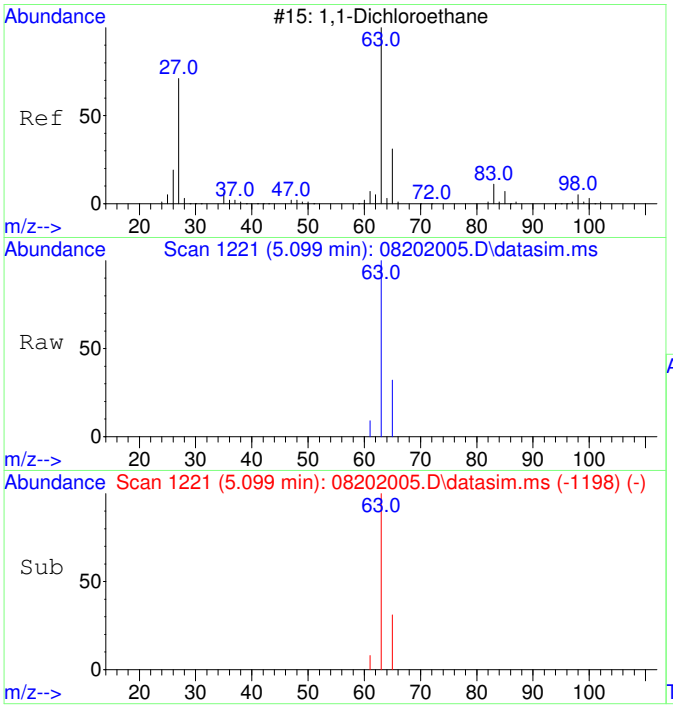



#3
trans-1,2-Dichloroethene
Concen: 4680.82 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 61 Resp: 145387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.6 | 2.4 | 62.4 |

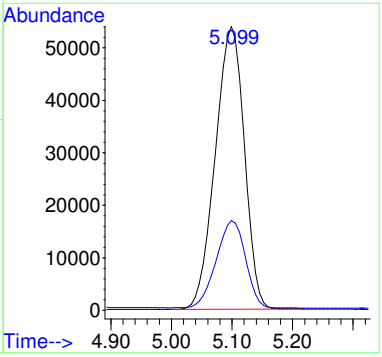


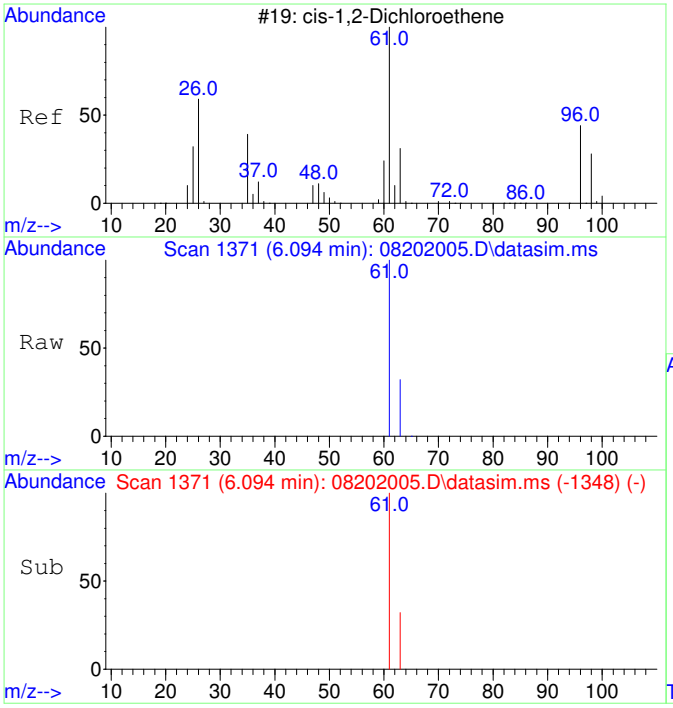




#4
1,1-Dichloroethane
Concen: 4656.26 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 63 Resp: 180029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.9 | 1.8 | 61.8 |

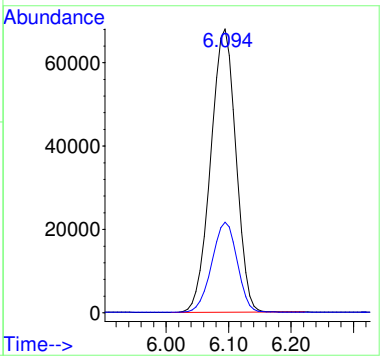


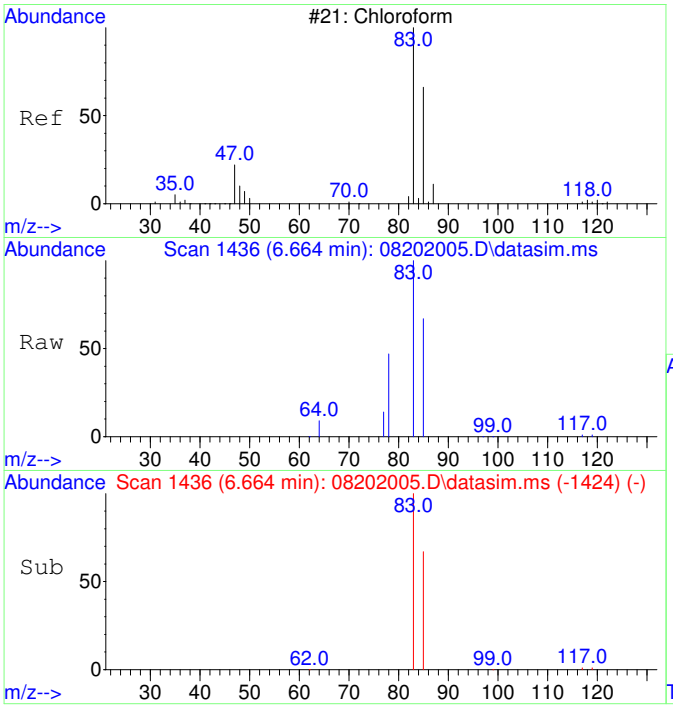



#5
cis-1,2-Dichloroethene
Concen: 4669.00 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 61 Resp: 190553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.9 | 2.5 | 62.5 |

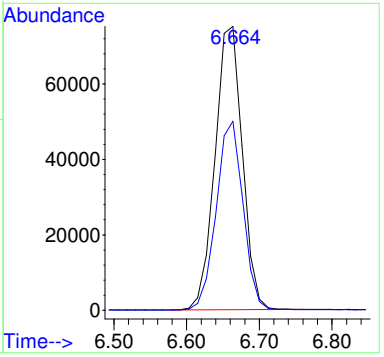


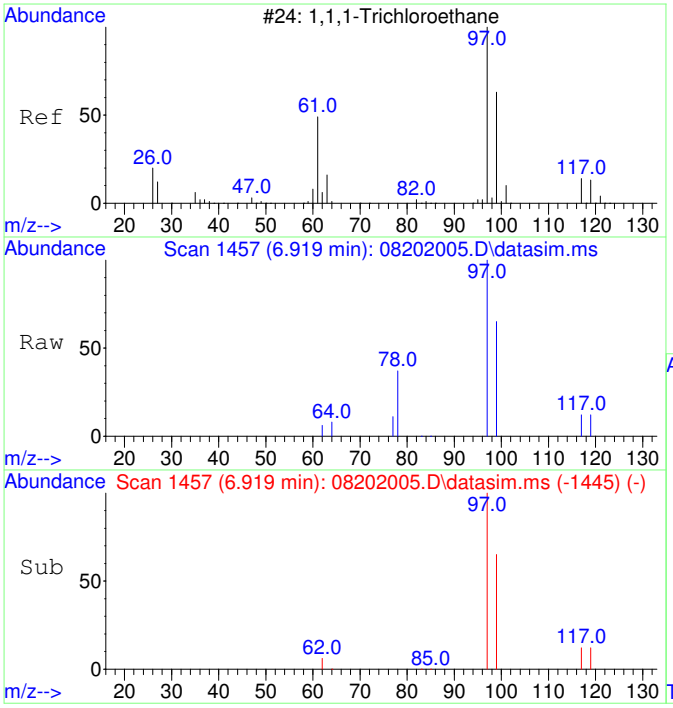




#6
Chloroform
Concen: 4702.98 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 83 Resp: 196458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 35.1 | 95.1 |

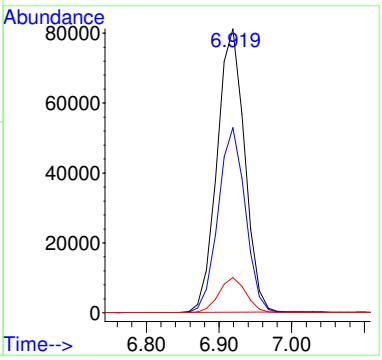


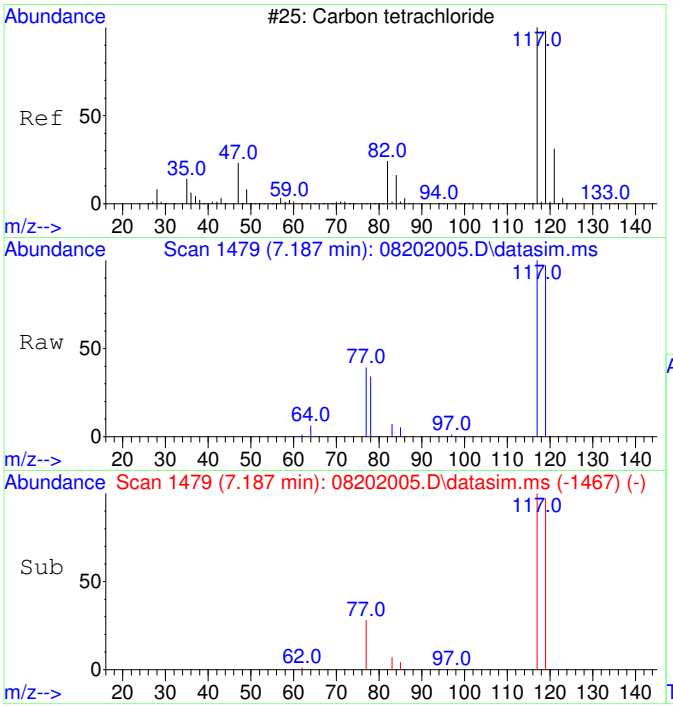



#7
1,1,1-Trichloroethane
Concen: 4717.26 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 97 Resp: 214003

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.3 | 34.6 | 94.6 |
| 117 | 12.1 | 0.0 | 43.2 |

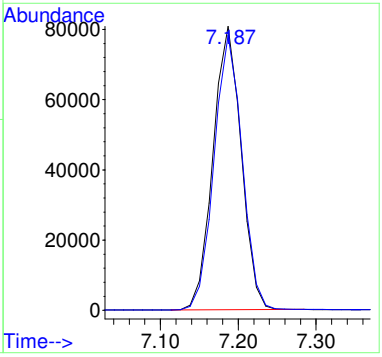


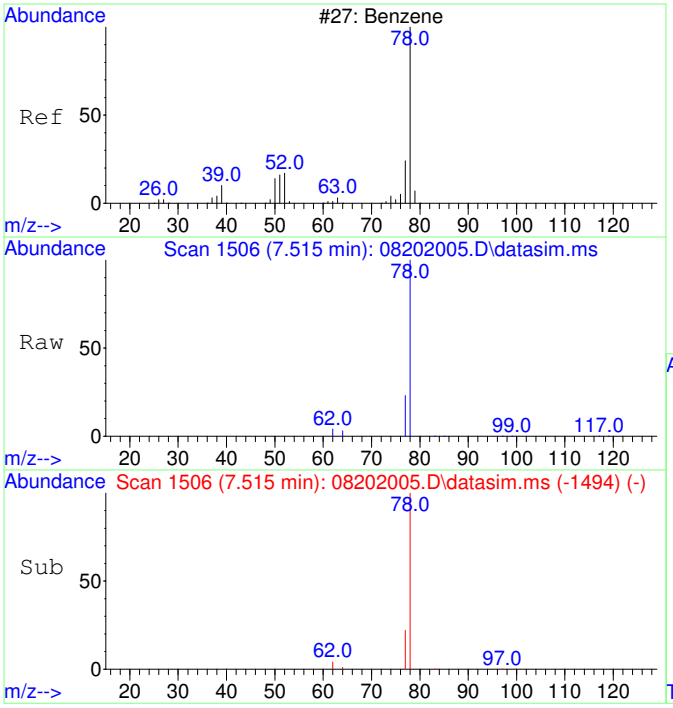




#8
Carbon tetrachloride
Concen: 4746.70 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:117 Resp: 202678

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.0 | 66.4 | 126.4 |

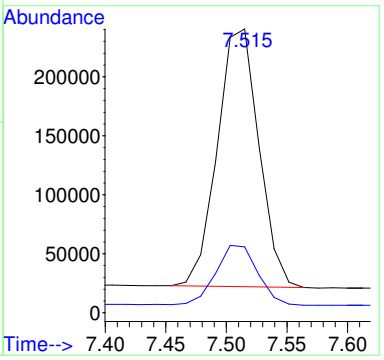


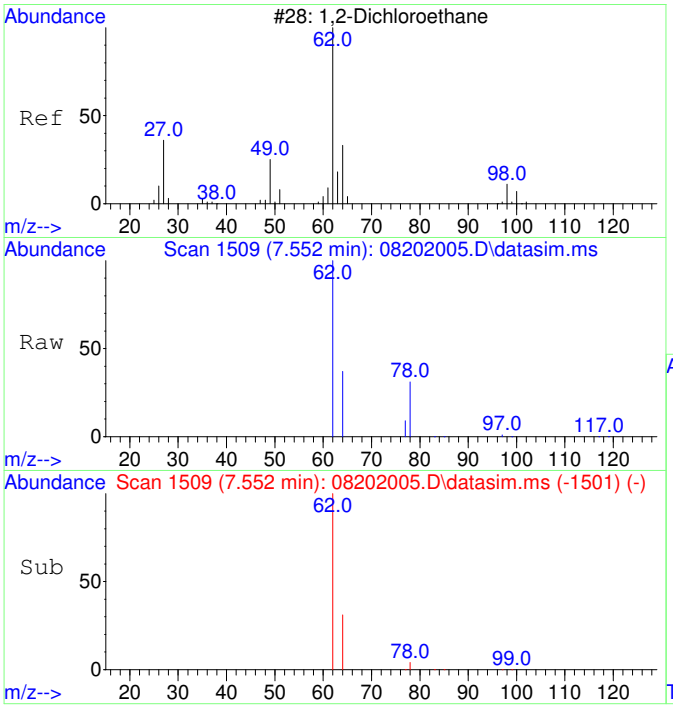



#9
Benzene
Concen: 4573.72 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 78 Resp: 523170

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.9 | 0.0 | 53.2 |

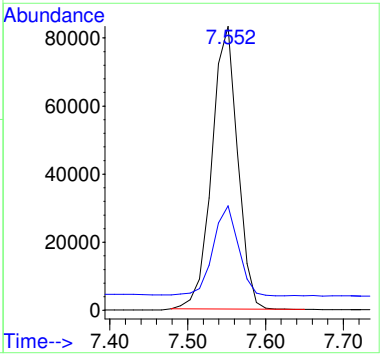


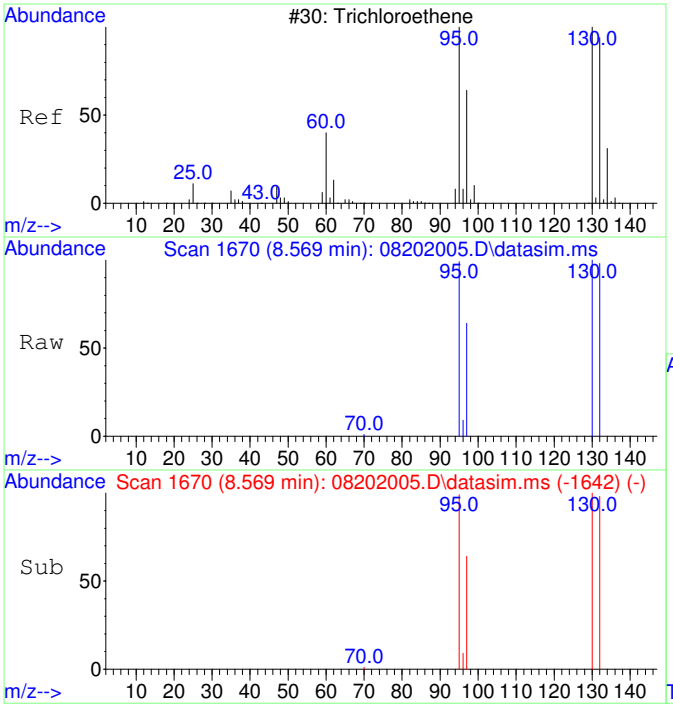




#10
1,2-Dichloroethane
Concen: 4681.08 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 62 Resp: 191144

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.3 | 2.3 | 62.3 |

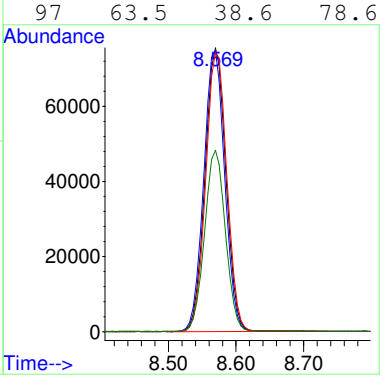


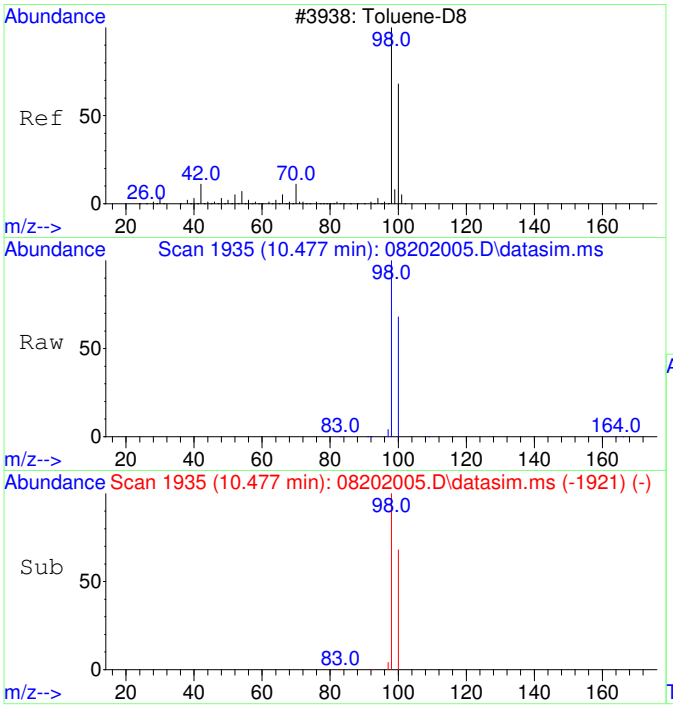



#11
Trichloroethene
Concen: 4696.35 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:130 Resp: 161743

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 99.3 | 60.7 | 120.7 |
| 132 | 99.4 | 76.0 | 116.0 |
| 97 | 63.5 | 38.6 | 78.6 |

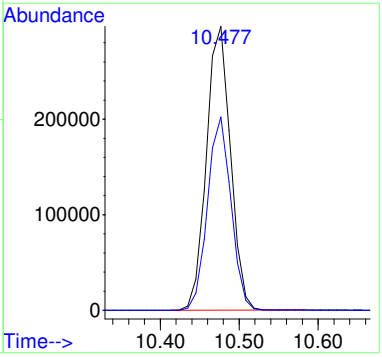


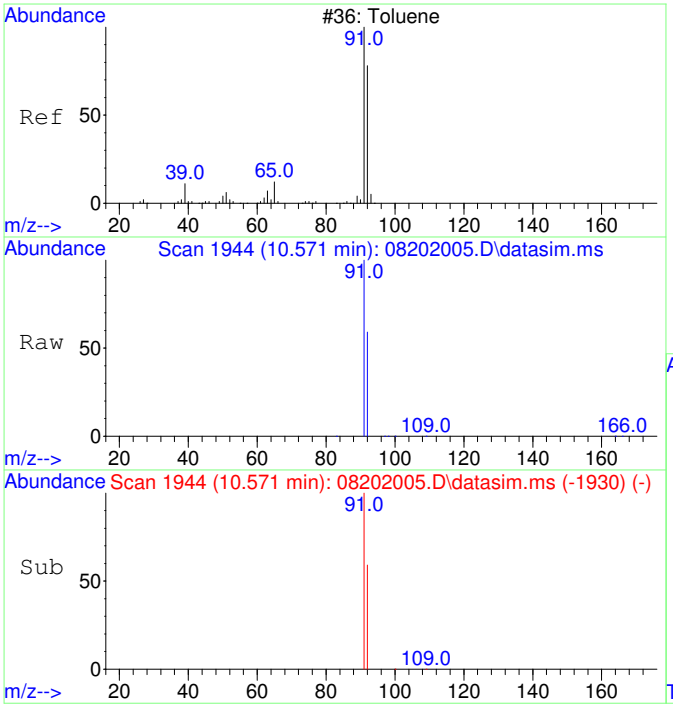




#12
Toluene-d8
Concen: 4773.23 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 98 Resp: 629076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.4 | 37.1 | 97.1 |

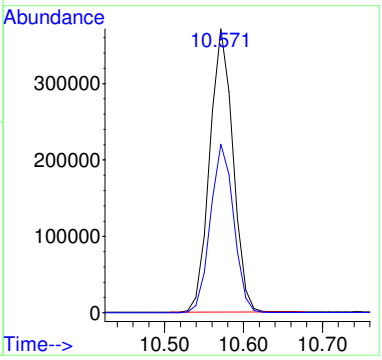


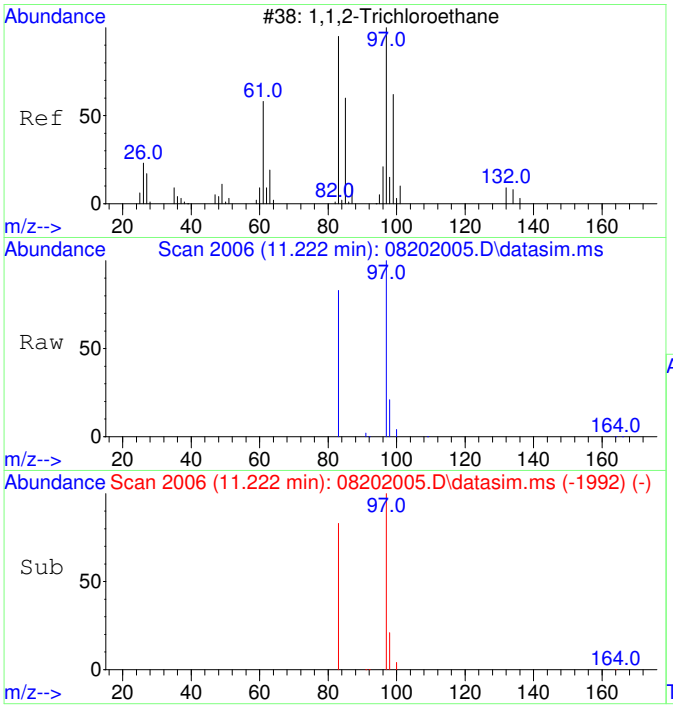



#13
Toluene
Concen: 4497.26 ug/L
RT: 10.571 min Scan# 1944
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 755646

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.7 | 29.9 | 89.9 |

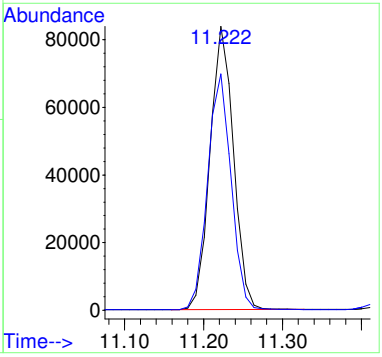


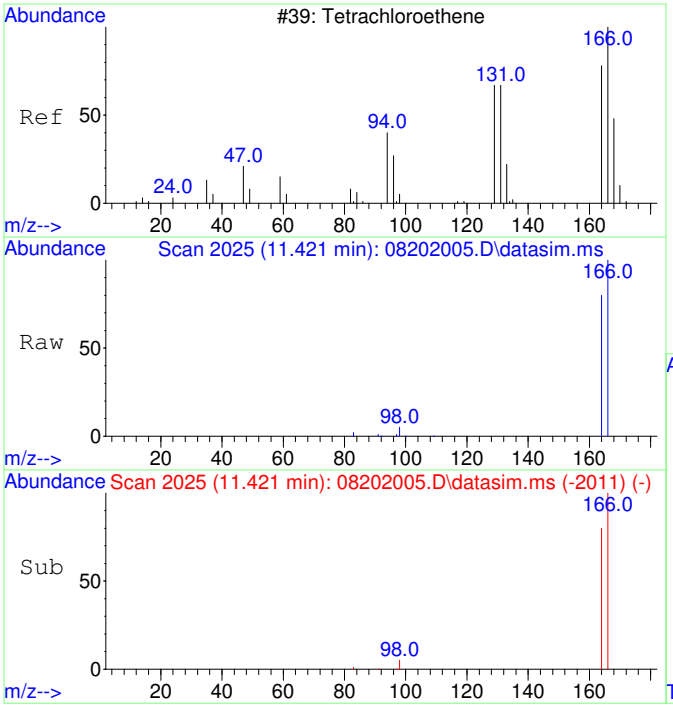




#14
1,1,2-Trichloroethane
Concen: 4706.83 ug/L
RT: 11.222 min Scan# 2006
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 97 Resp: 172328

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.4 | 51.2 | 111.2 |

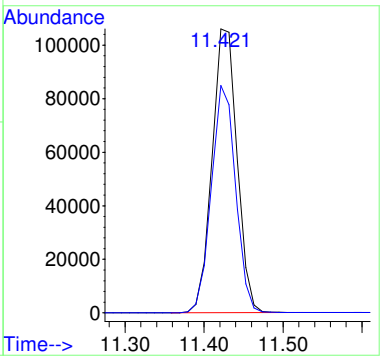


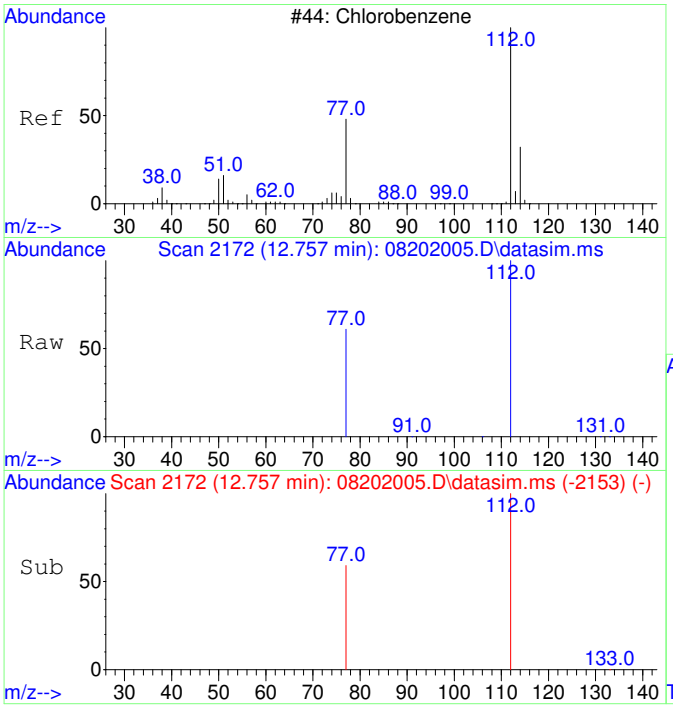



#15
Tetrachloroethene
Concen: 4787.68 ug/L
RT: 11.421 min Scan# 2025
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:166 Resp: 232804

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.7 | 47.8 | 107.8 |

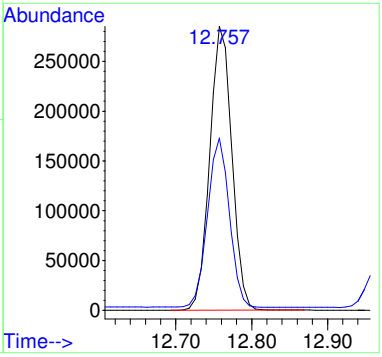


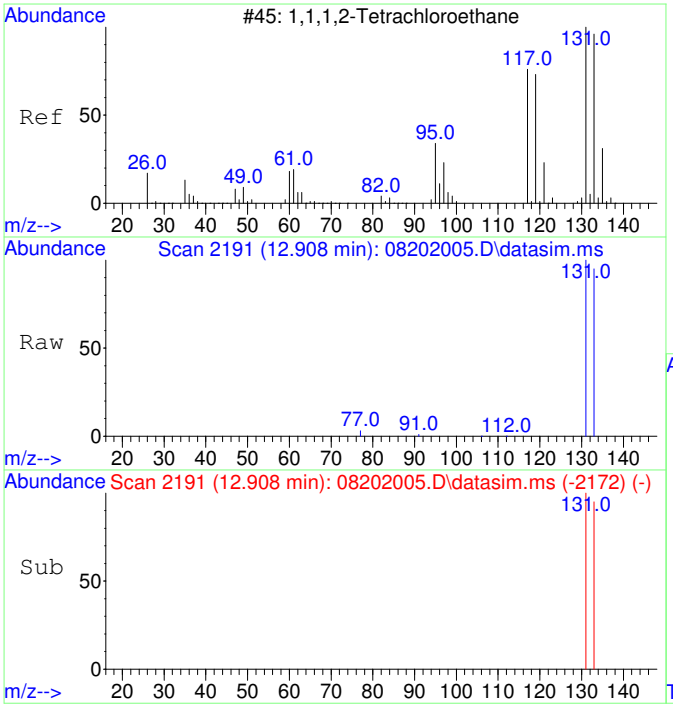




#16
Chlorobenzene
Concen: 4800.33 ug/L
RT: 12.757 min Scan# 2172
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:112 Resp: 577532

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 58.8 | 23.6 | 83.6 |

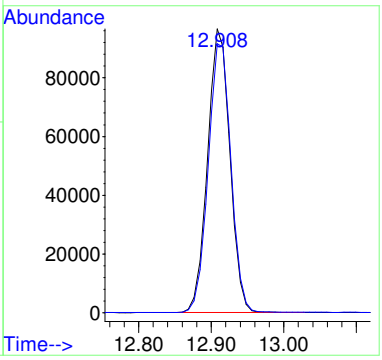


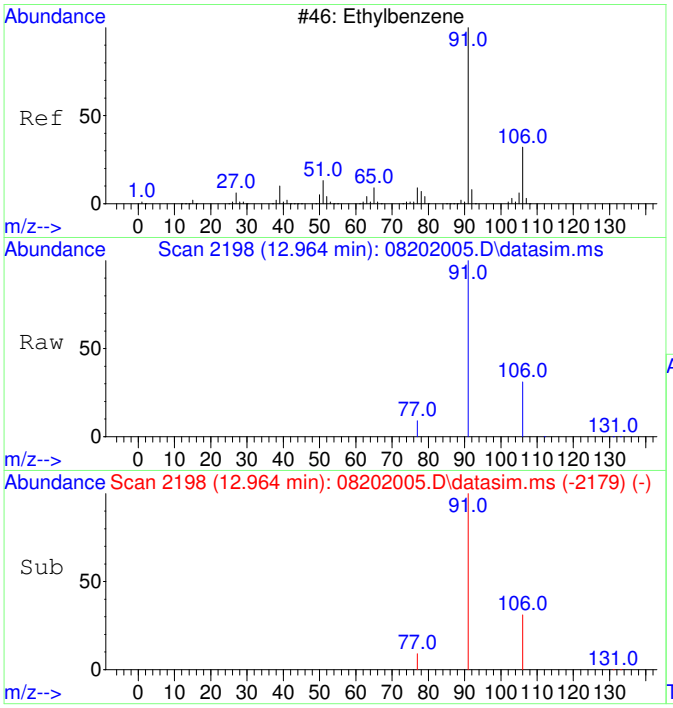



#17
1,1,1,2-Tetrachloroethane
Concen: 4804.79 ug/L
RT: 12.908 min Scan# 2191
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:131 Resp: 207134

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 96.4 | 66.3 | 126.3 |

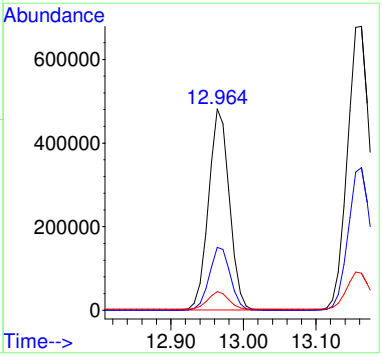


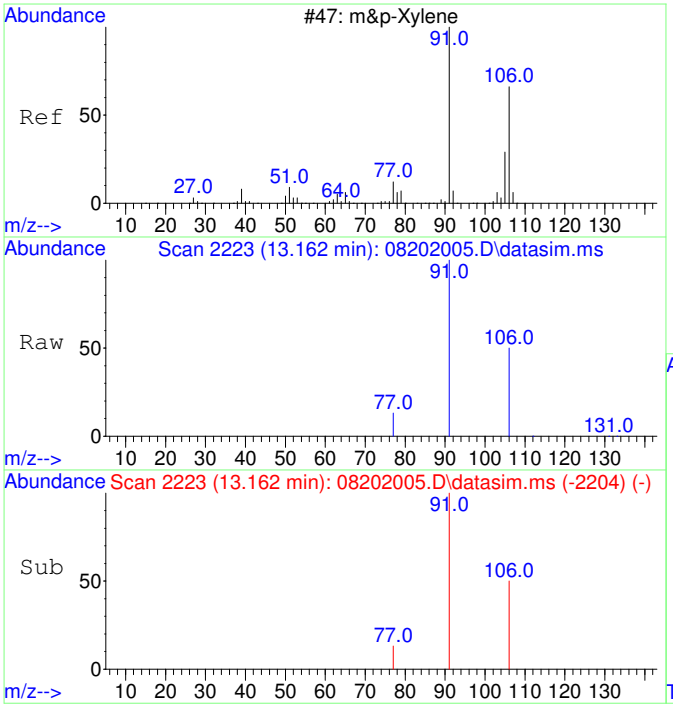




#18
Ethylbenzene
Concen: 4683.98 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 957968

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.6 | 3.0 | 63.0 |
| 77 | 8.6 | 0.0 | 38.2 |

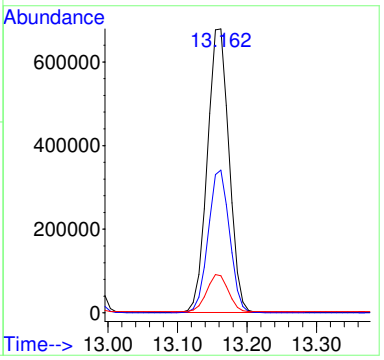


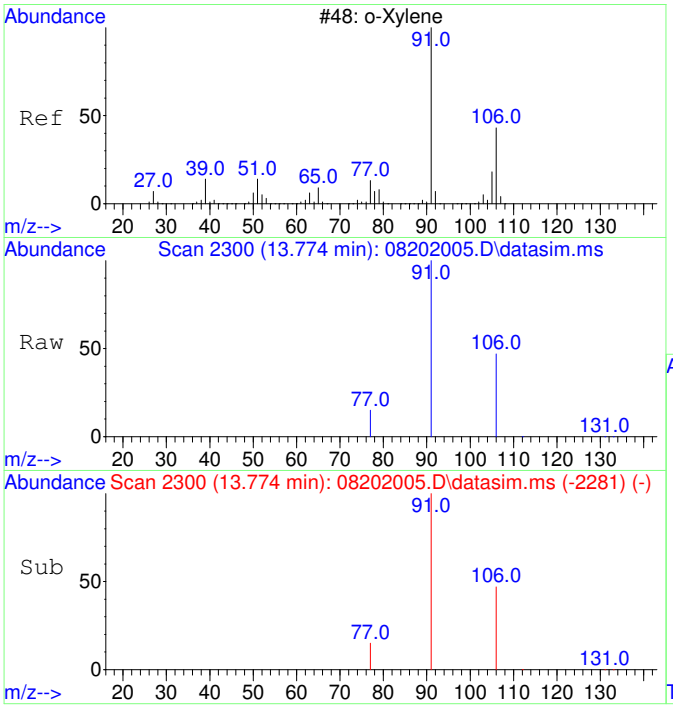



#19
m&p-Xylene
Concen: 9186.69 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 1468448

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.5 | 22.2 | 82.2 |
| 77 | 13.0 | 0.0 | 42.4 |

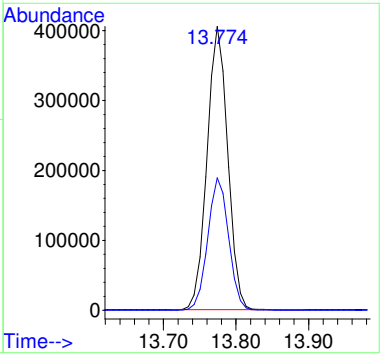


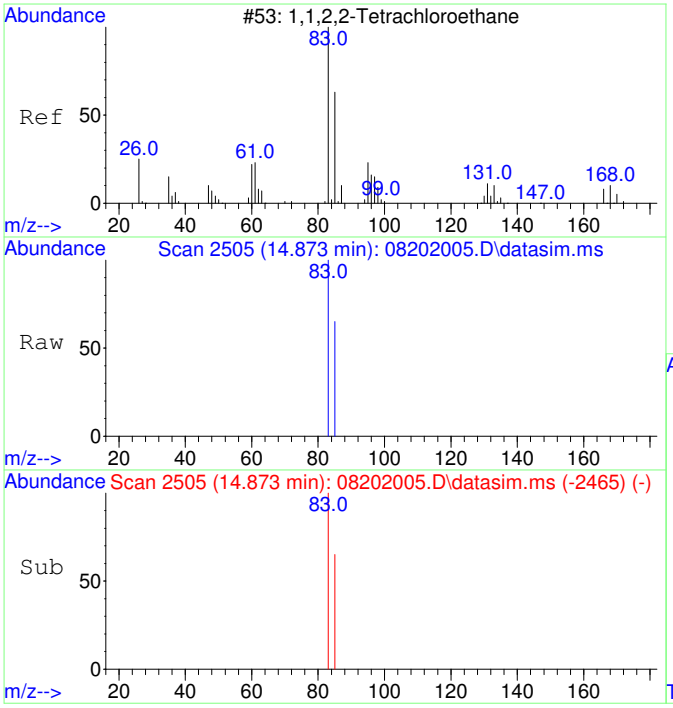




#20
o-Xylene
Concen: 4712.38 ug/L
RT: 13.774 min Scan# 2300
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 804751

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.0 | 19.2 | 79.2 |

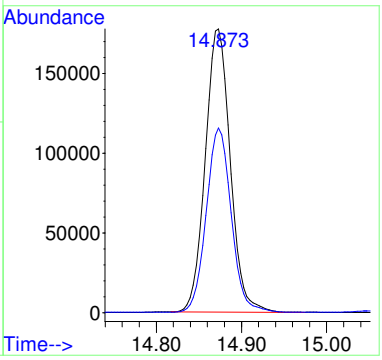


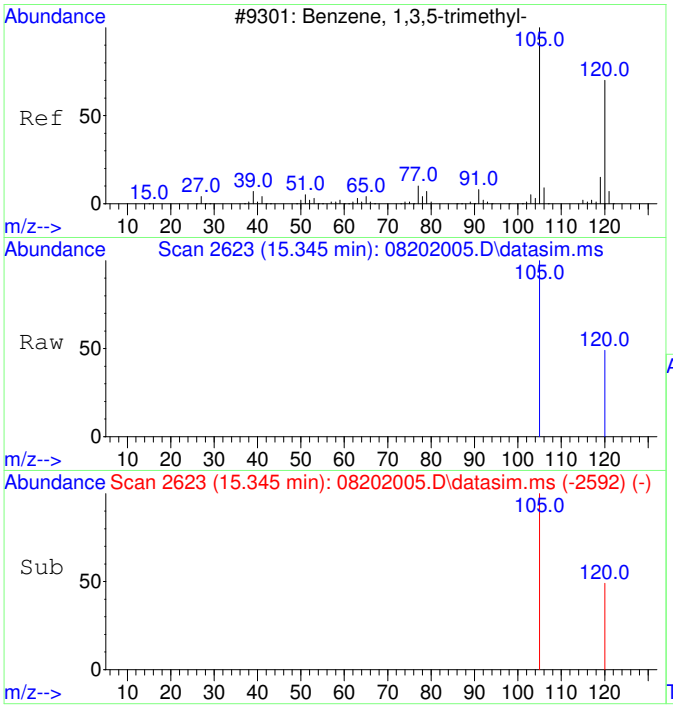



#21
1,1,2,2-Tetrachloroethane
Concen: 4781.00 ug/L
RT: 14.873 min Scan# 2505
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 83 Resp: 361853

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.8 | 34.8 | 94.8 |

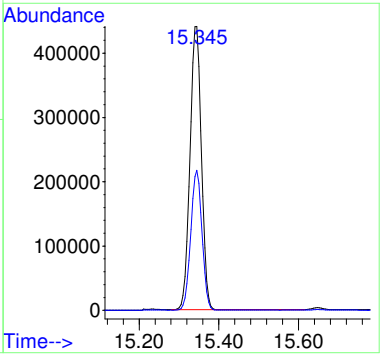


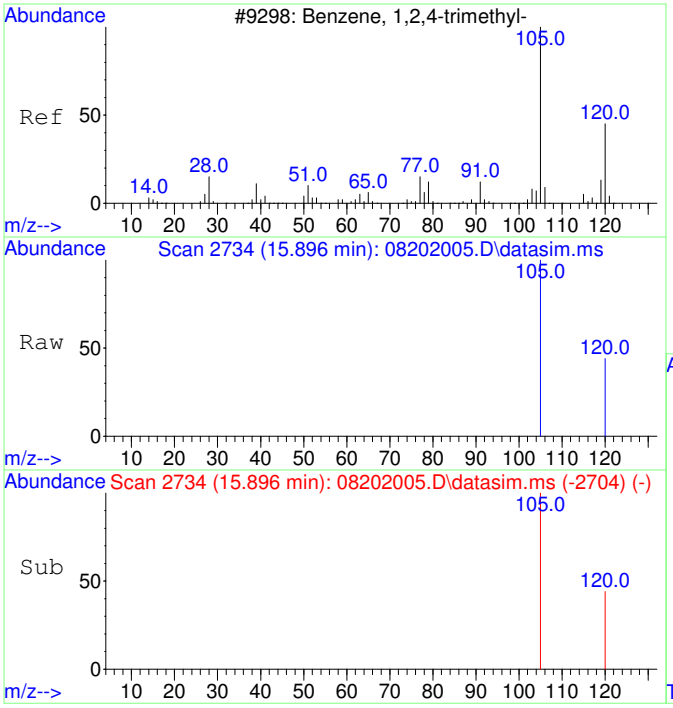




#22
1,3,5-Trimethylbenzene
Concen: 4814.24 ug/L
RT: 15.345 min Scan# 2623
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:105 Resp: 875077

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.6 | 21.1 | 81.1 |

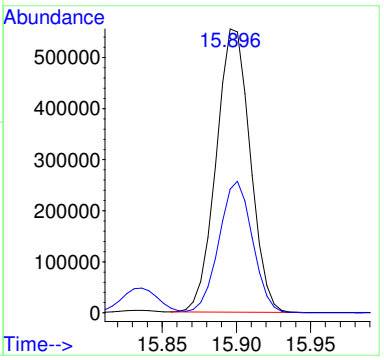


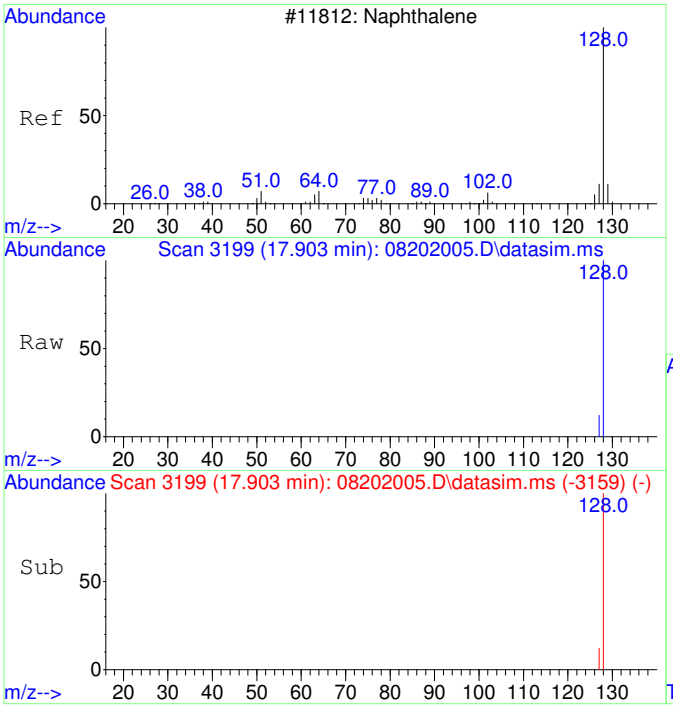



#23
1,2,4-Trimethylbenzene
Concen: 4689.02 ug/L
RT: 15.896 min Scan# 2734
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:105 Resp: 885300

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.9 | 17.2 | 77.2 |

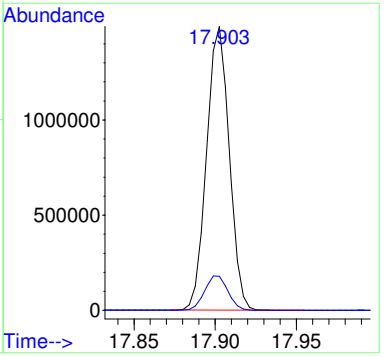


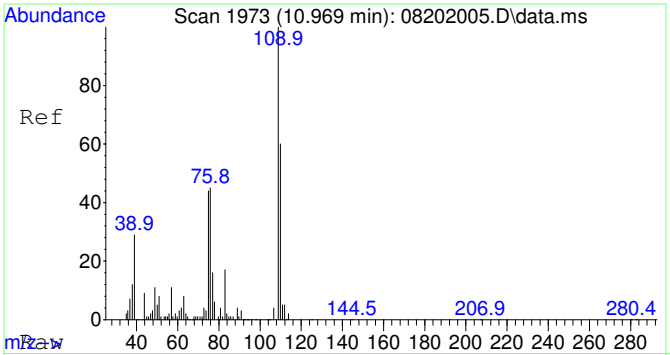




#24
Naphthalene
Concen: 4849.29 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:128 Resp: 1447043

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.4 | 0.0 | 42.5 |

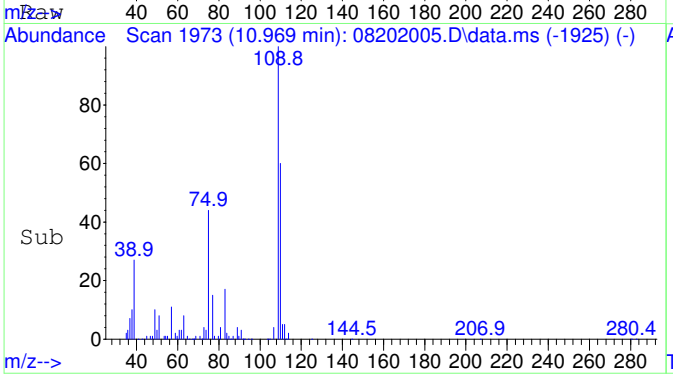


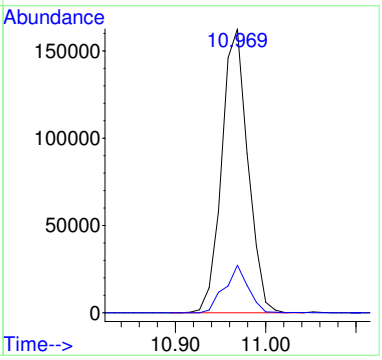


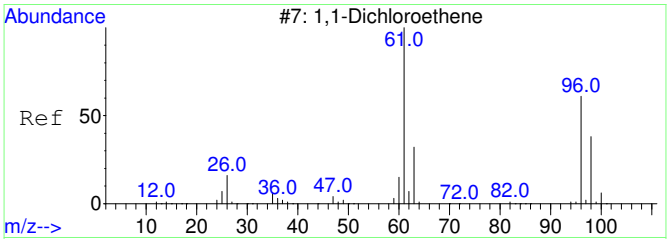

#25
2-Fluorotoluene SCAN
Concen: 5000.00 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:109 Resp: 328139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.1 | 0.0 | 43.8 |



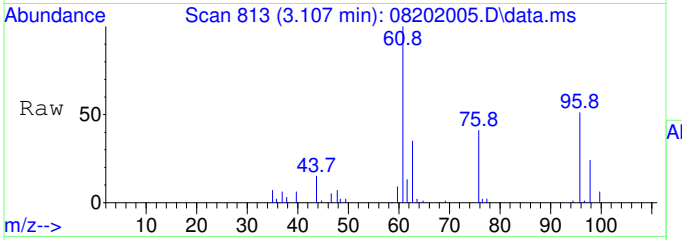



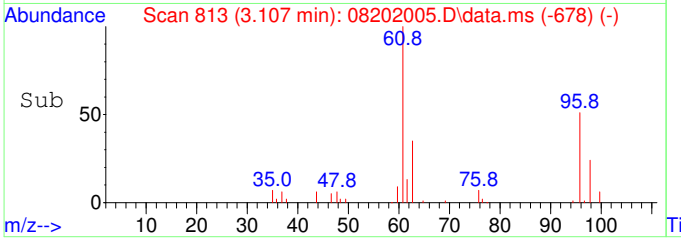



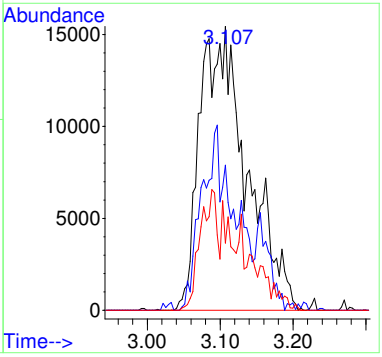

#26
1,1-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 3.107 min Scan# 813
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

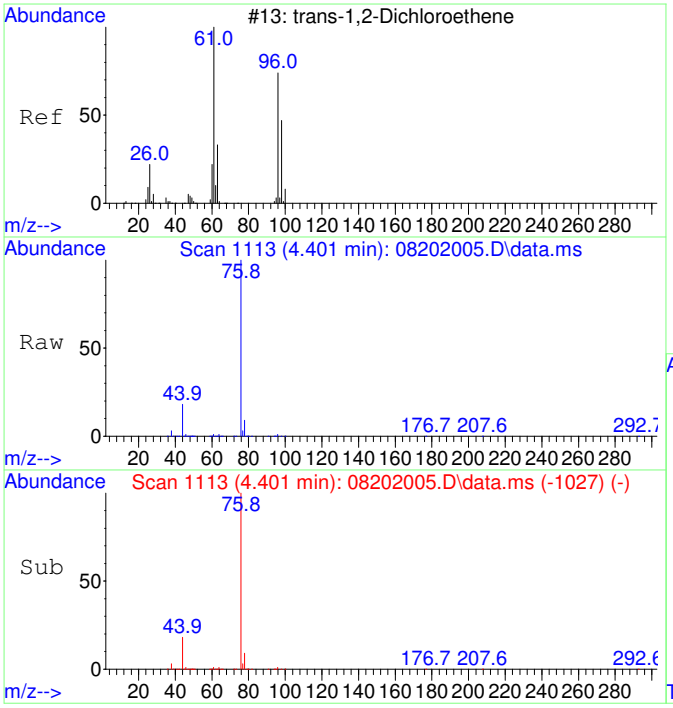
Tgt Ion: 61 Resp: 69687

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 8.0 | 11.2 | 71.2# |



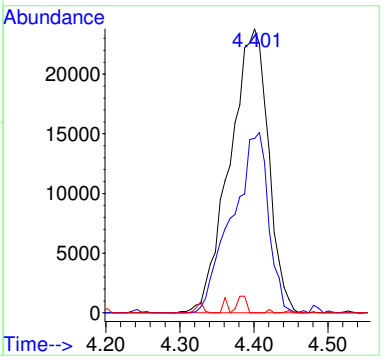



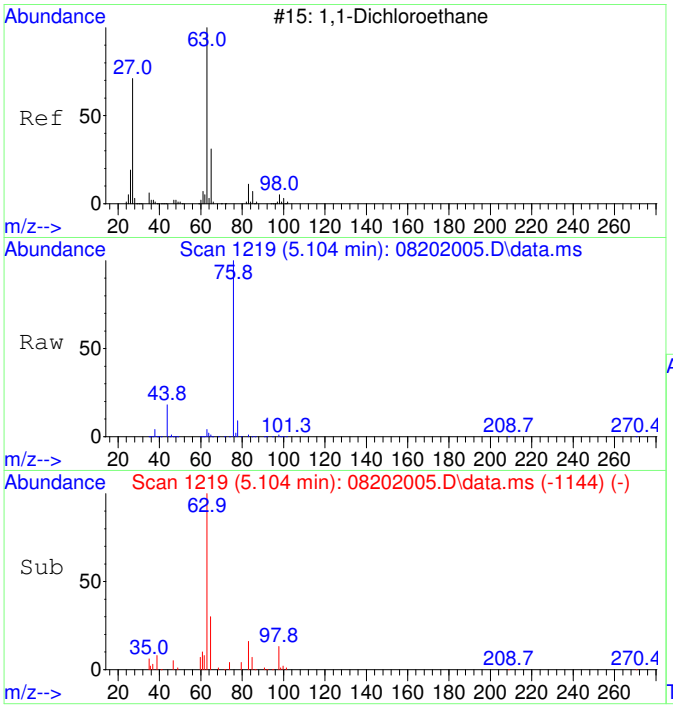



#27
trans-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 4.401 min Scan# 1113
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 61 Resp: 86233

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.5 | 49.0 | 109.0 |
| 97 | 0.1 | 20.5 | 80.5# |

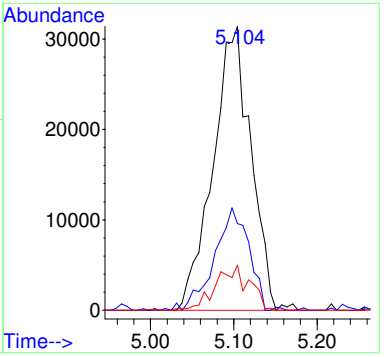


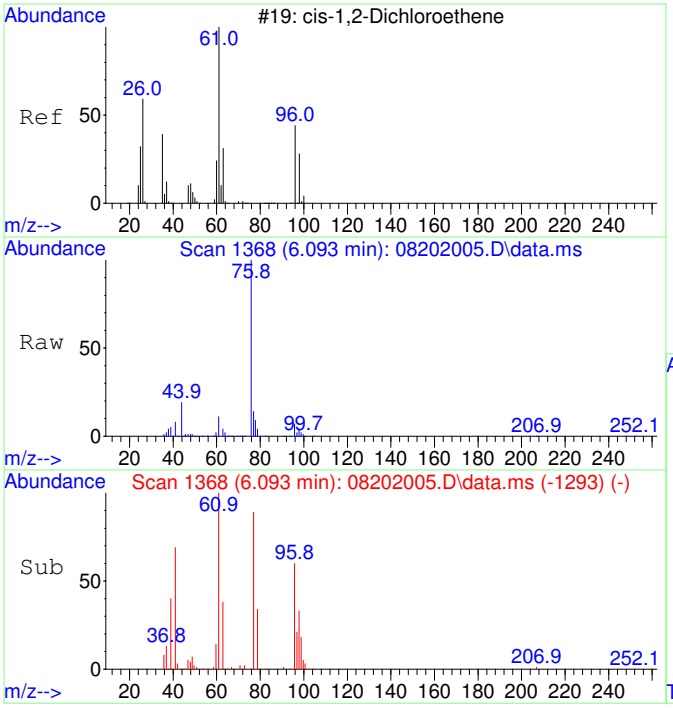




#28
1,1-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 5.104 min Scan# 1219
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 63 Resp: 99798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 32.7 | 1.3 | 61.3 |
| 83 | 14.0 | 0.0 | 45.9 |

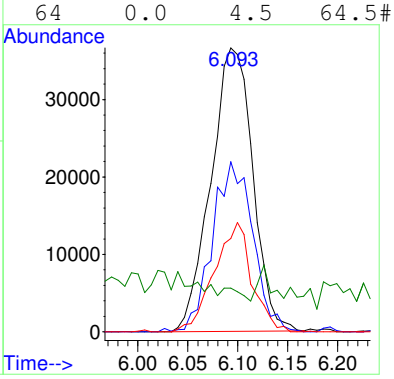


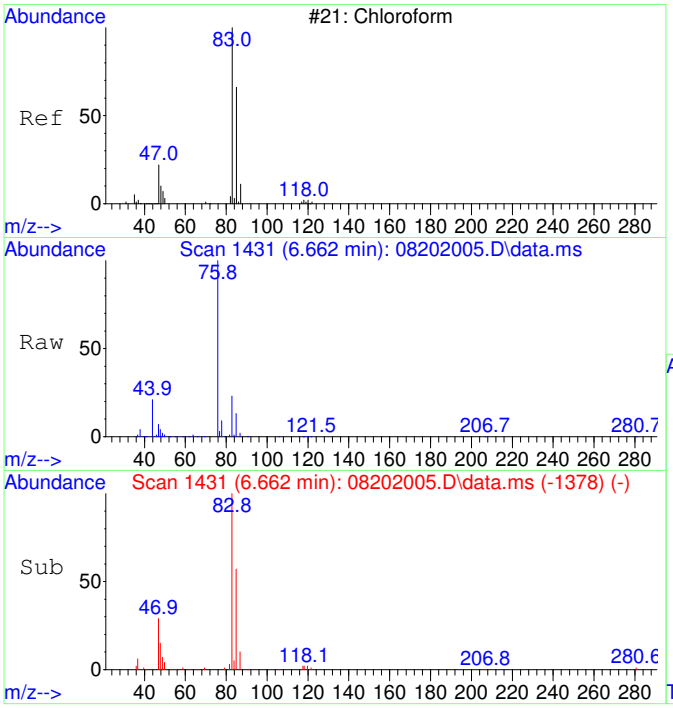



#29
cis-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 61 Resp: 106924

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.4 | 39.9 | 99.9 |
| 98 | 34.6 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

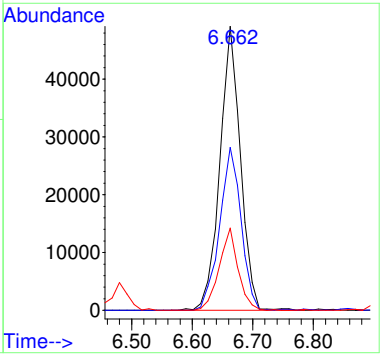


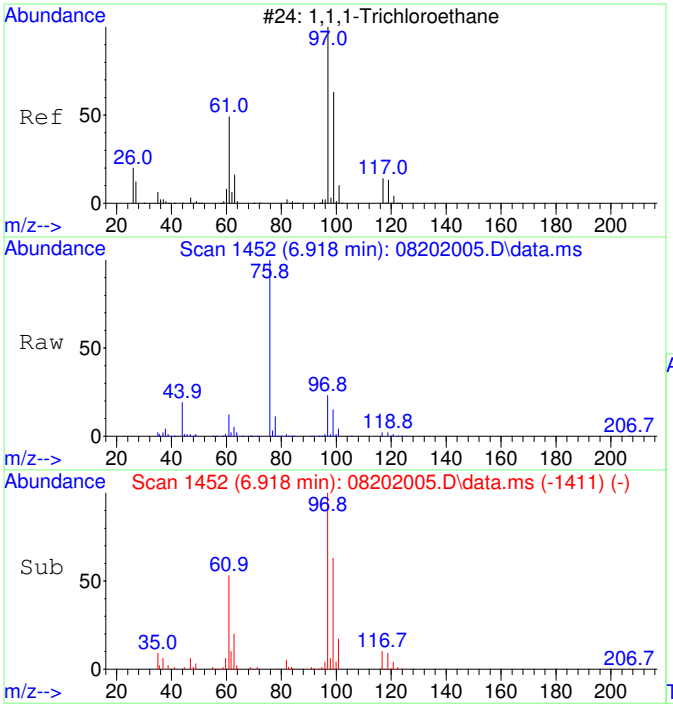




#30
Chloroform SCAN
Concen: 5000.00 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 83 Resp: 115974

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 59.6 | 34.6 | 94.6 |
| 47 | 26.8 | 0.0 | 53.4 |

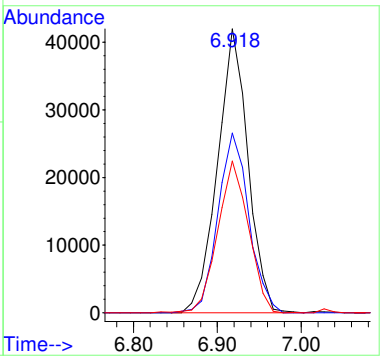


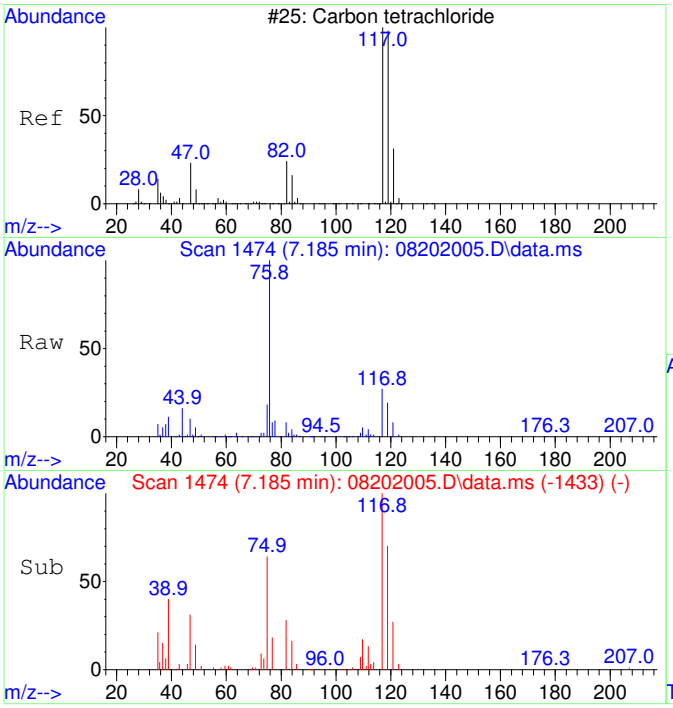



#31
1,1,1-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 97 Resp: 105685

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.5 | 43.6 | 103.6 |
| 61 | 54.2 | 18.0 | 78.0 |

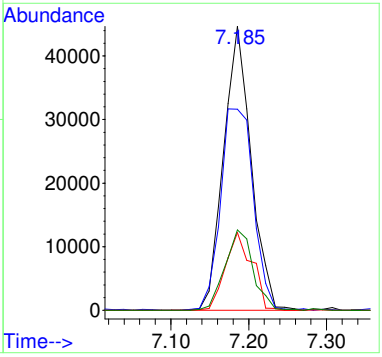


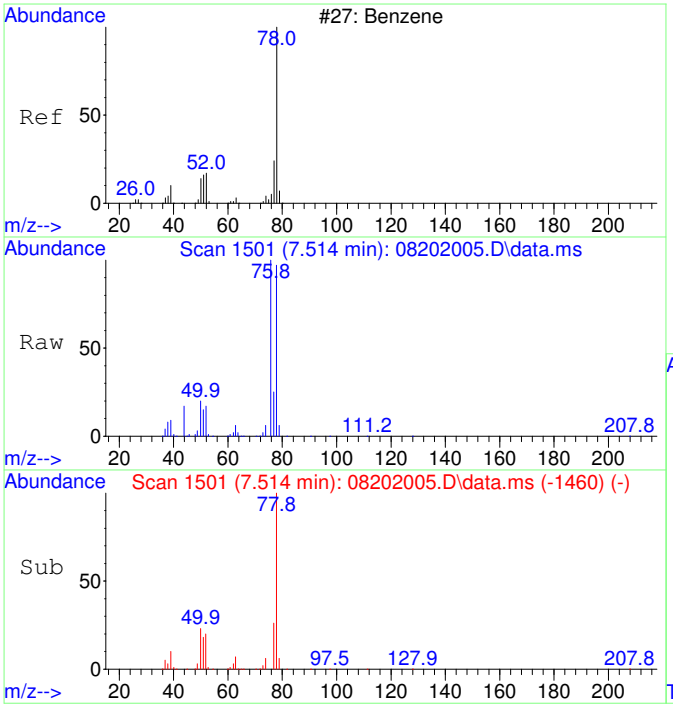




#32
Carbon tetrachloride SCAN
Concen: 5000.00 ug/L
RT: 7.185 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:117 Resp: 110241

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 85.3 | 75.5 | 135.5 |
| 121 | 26.6 | 0.0 | 58.8 |
| 82 | 29.0 | 0.0 | 59.2 |

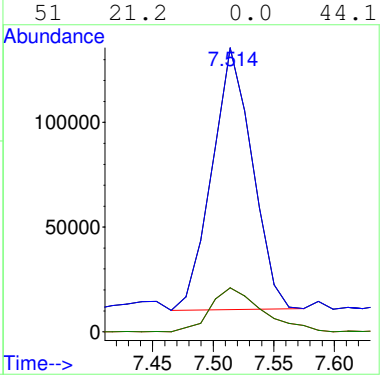


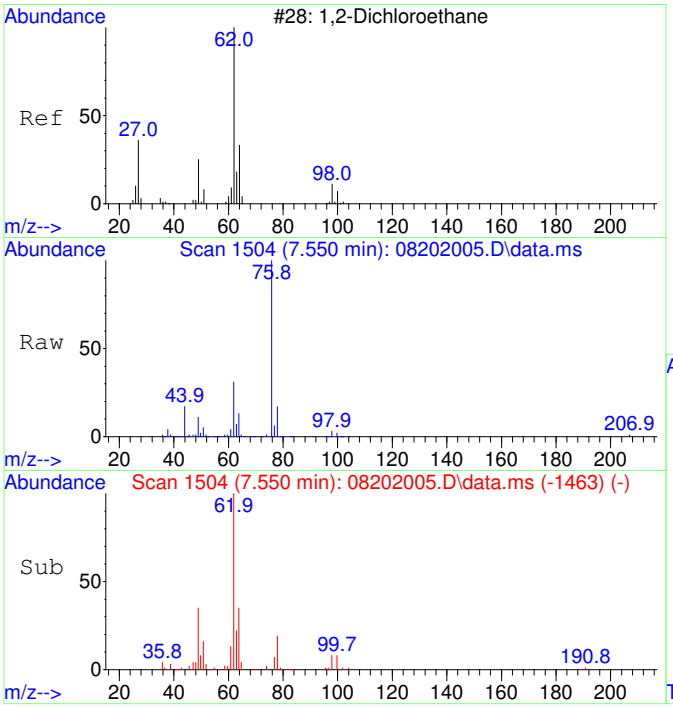



#33
Benzene SCAN
Concen: 5000.00 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 78 Resp: 290990

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 21.2 | 0.0 | 47.9 |
| 51 | 21.2 | 0.0 | 44.1 |

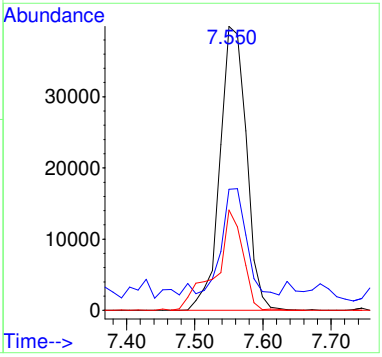


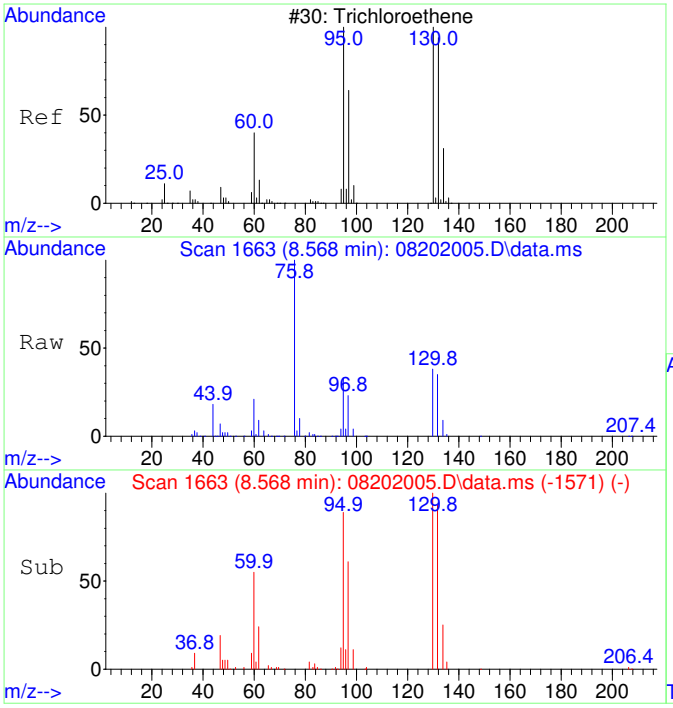




#34
1,2-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 62 Resp: 107449

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 33.6 | 5.2 | 65.2 |
| 49 | 36.2 | 3.9 | 63.9 |

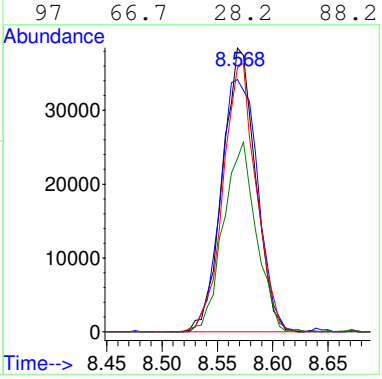


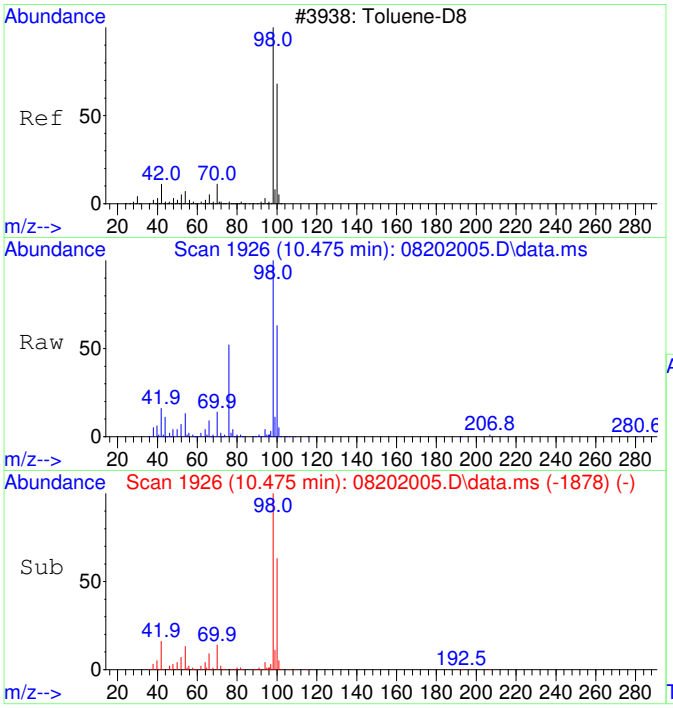



#35
Trichloroethene SCAN
Concen: 5000.00 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:130 Resp: 79966

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.5 | 60.5 | 120.5 |
| 132 | 94.5 | 59.6 | 119.6 |
| 97 | 66.7 | 28.2 | 88.2 |

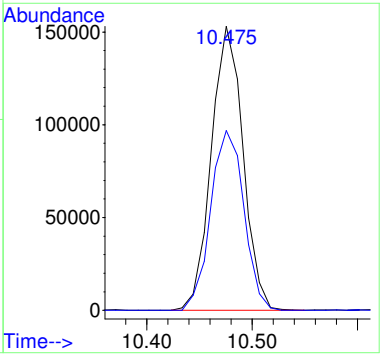


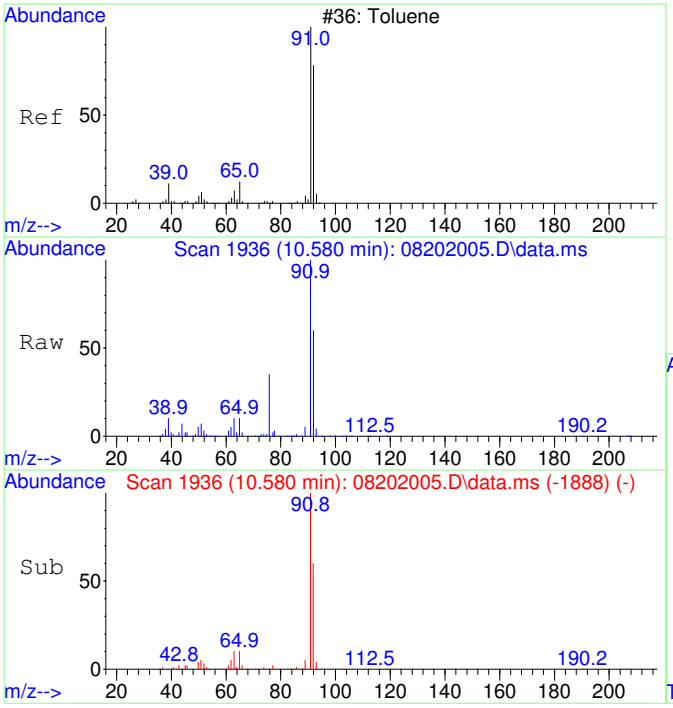




#36
Toluene-d8 SCAN
Concen: 5000.00 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 98 Resp: 320910

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.2 | 40.0 | 100.0 |

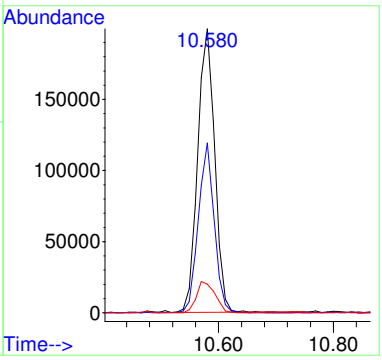


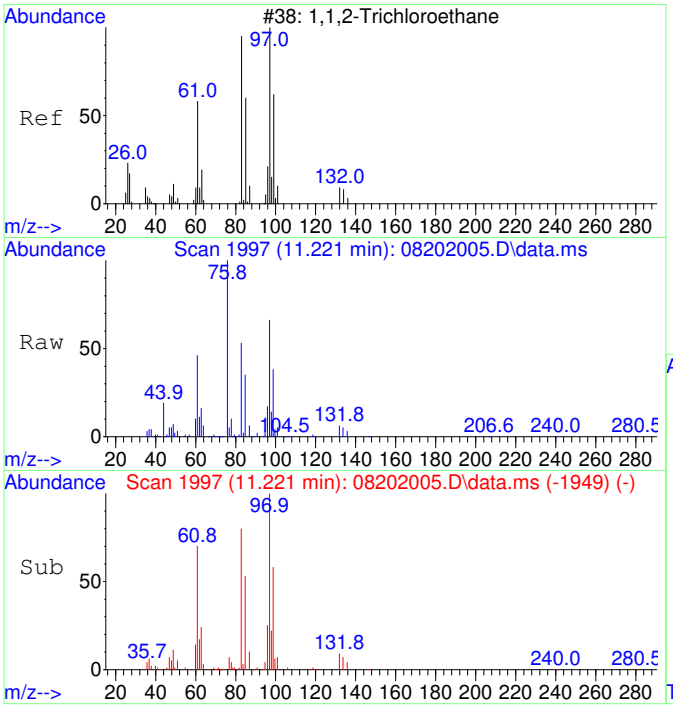



#37
Toluene SCAN
Concen: 5000.00 ug/L
RT: 10.580 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 410973

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.0 | 28.3 | 88.3 |
| 65 | 11.9 | 0.0 | 41.0 |

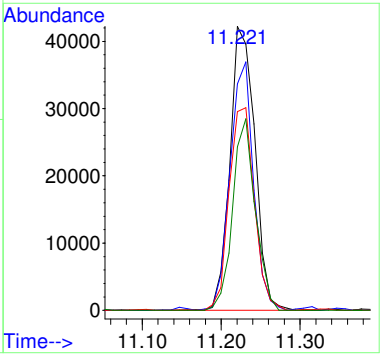


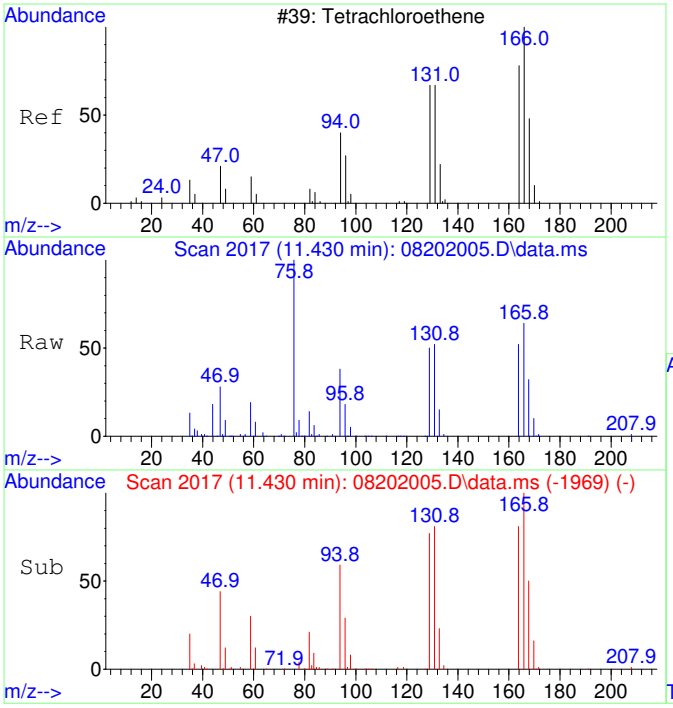




#38
1,1,2-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 97 Resp: 92246

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.6 | 57.7 | 117.7 |
| 61 | 72.3 | 32.1 | 92.1 |
| 99 | 61.4 | 36.7 | 96.7 |

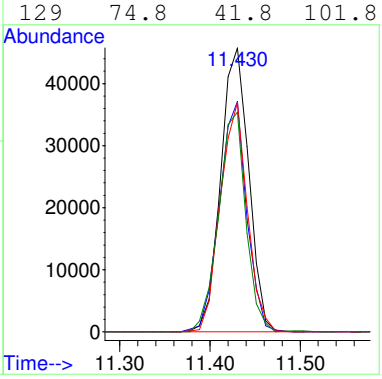


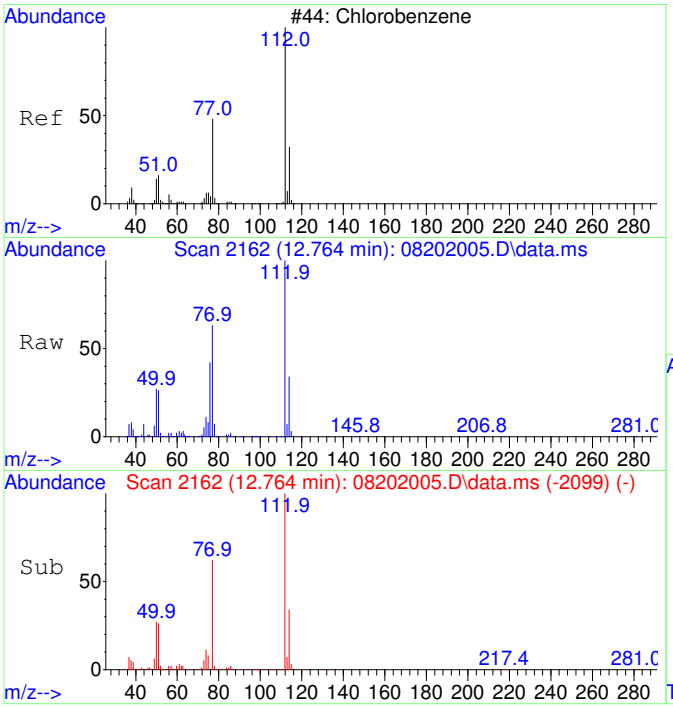



#39
Tetrachloroethene SCAN
Concen: 5000.00 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:166 Resp: 98735

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.1 | 50.9 | 110.9 |
| 131 | 78.0 | 38.7 | 98.7 |
| 129 | 74.8 | 41.8 | 101.8 |

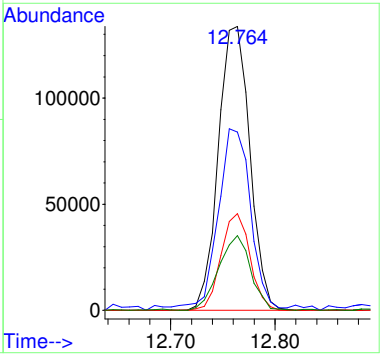


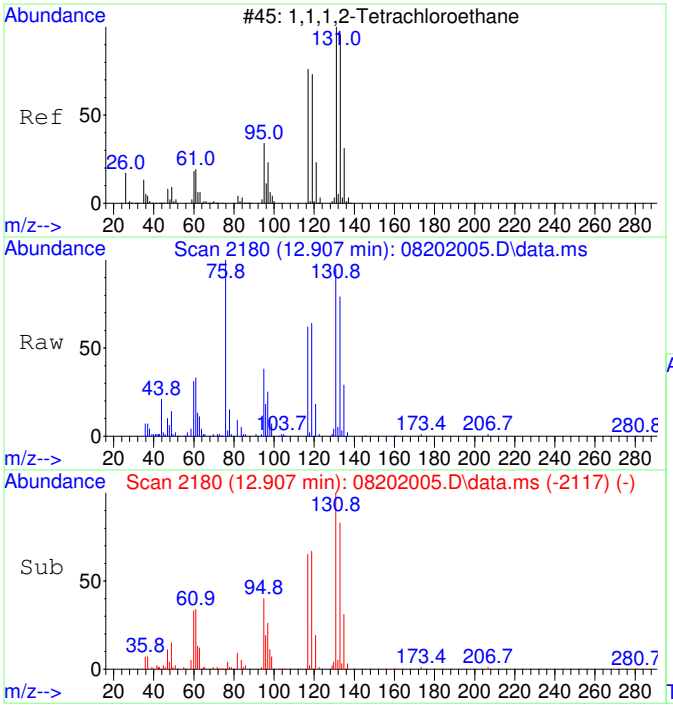




#40
Chlorobenzene SCAN
Concen: 5000.00 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:112 Resp: 280827

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 65.3 | 28.2 | 88.2 |
| 114 | 31.4 | 2.3 | 62.3 |
| 51 | 26.6 | 0.0 | 50.1 |

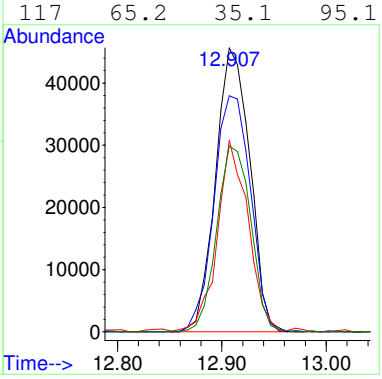


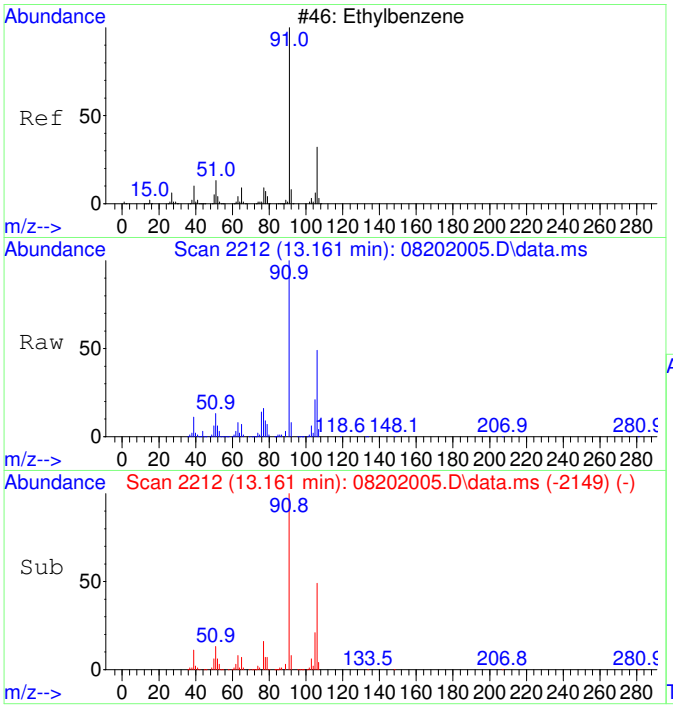



#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:131 Resp: 103928

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 88.7 | 66.9 | 126.9 |
| 119 | 59.8 | 40.4 | 100.4 |
| 117 | 65.2 | 35.1 | 95.1 |

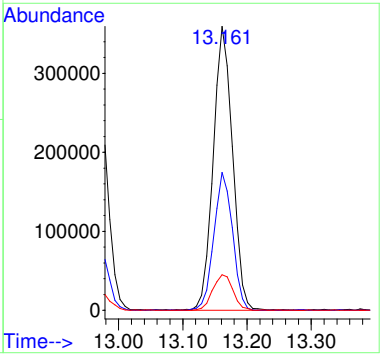


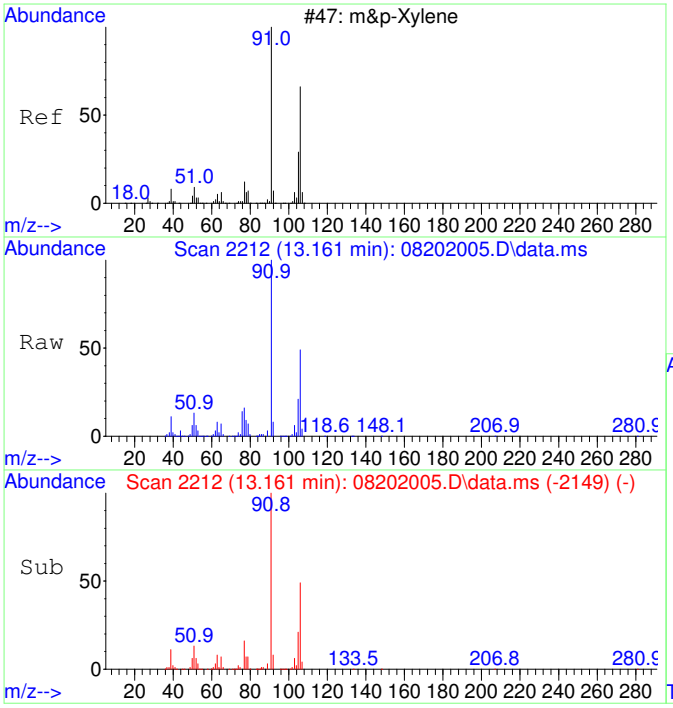




#42
Ethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 748721

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.7 | 23.1 | 83.1 |
| 51 | 13.1 | 0.0 | 40.1 |

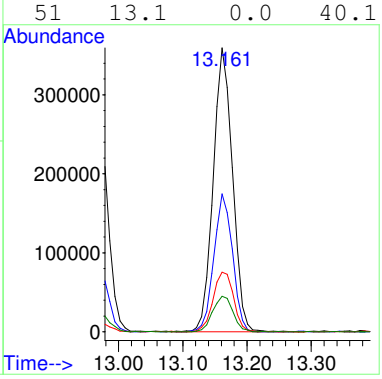


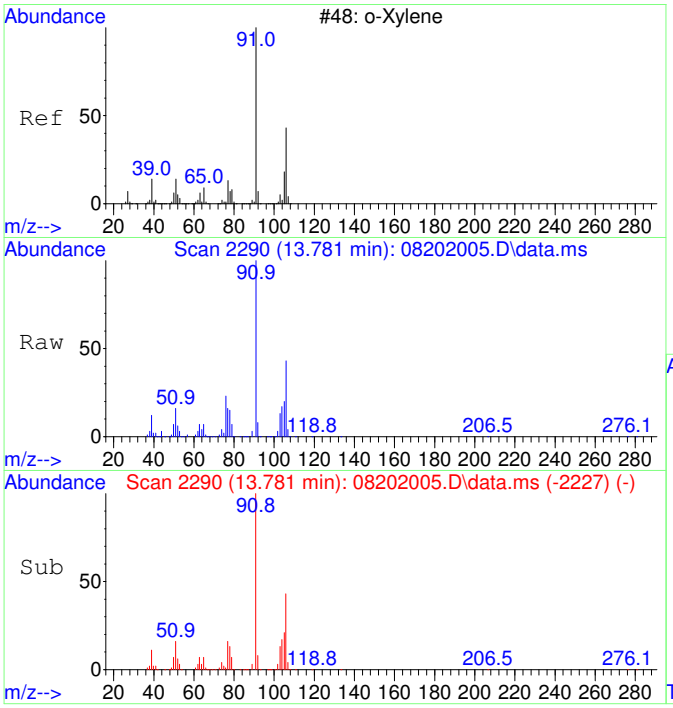



#43
m&p-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 748721

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.7 | 23.1 | 83.1 |
| 105 | 22.5 | 0.0 | 54.7 |
| 51 | 13.1 | 0.0 | 40.1 |

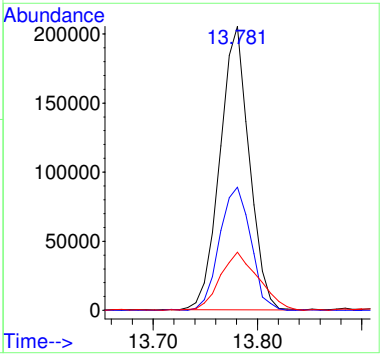


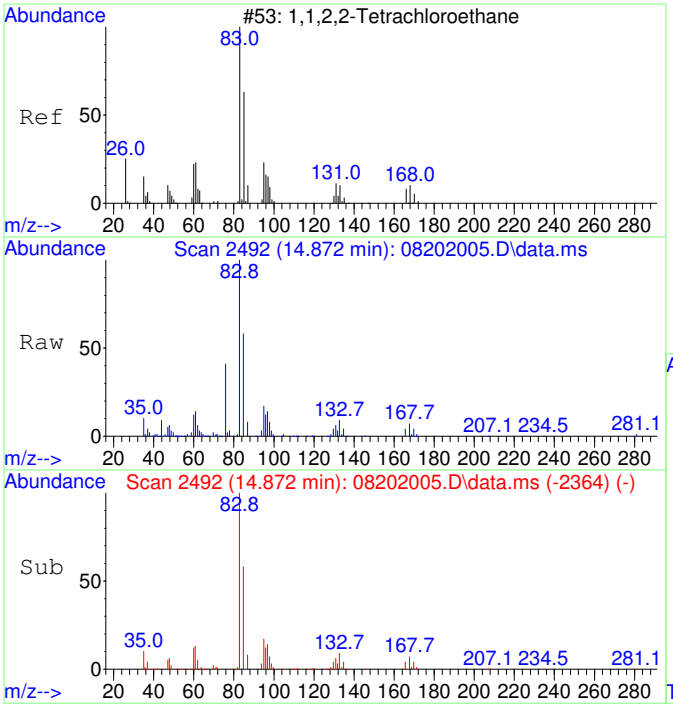




#44
o-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 91 Resp: 400772

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.3 | 18.0 | 78.0 |
| 105 | 26.7 | 0.0 | 56.6 |

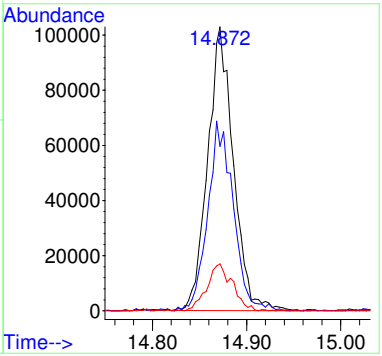


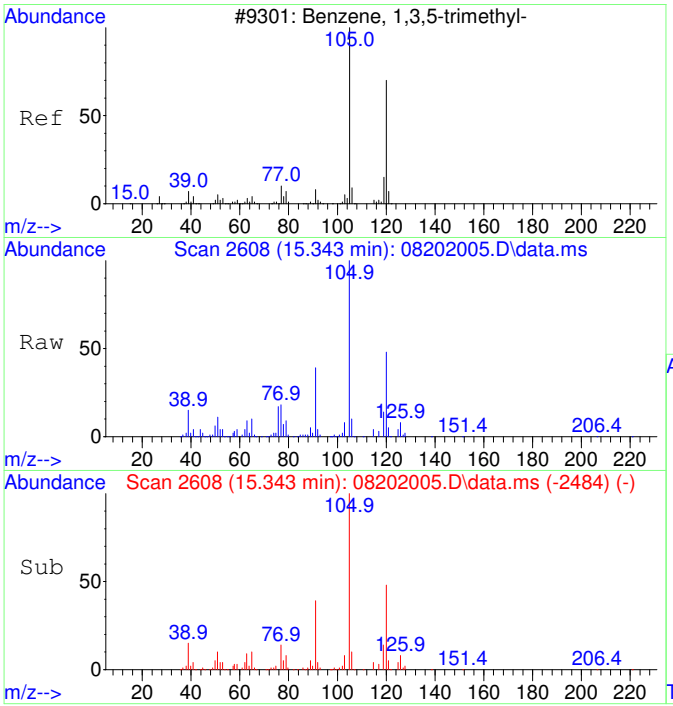



#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 14.872 min Scan# 2492
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion: 83 Resp: 195422

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 66.2 | 35.9 | 95.9 |
| 95 | 16.2 | 0.0 | 47.4 |

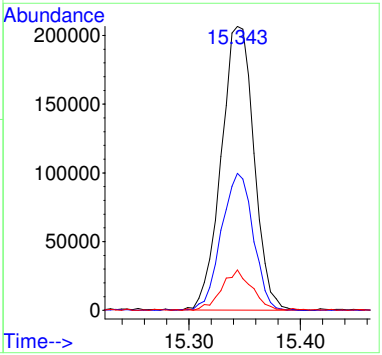


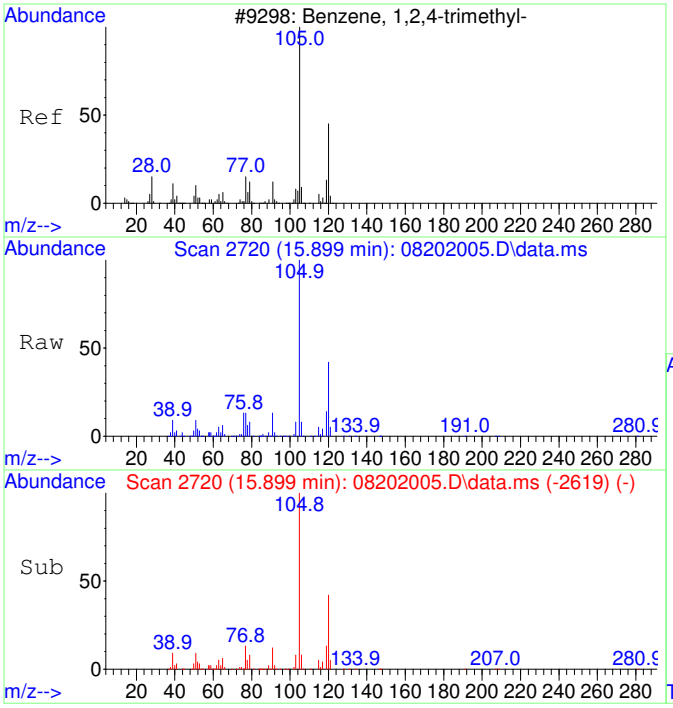




#46
1,3,5-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:105 Resp: 422373

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.9 | 18.3 | 78.3 |
| 119 | 12.9 | 0.0 | 43.1 |

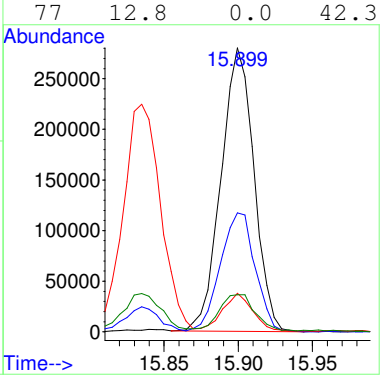


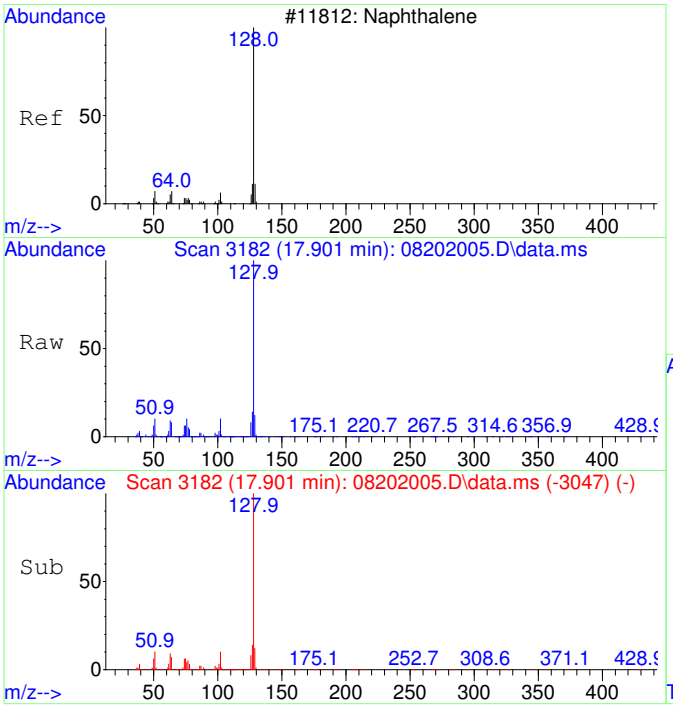



#47
1,2,4-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.899 min Scan# 2720
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:105 Resp: 432181

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.9 | 16.9 | 76.9 |
| 119 | 10.9 | 0.0 | 41.9 |
| 77 | 12.8 | 0.0 | 42.3 |

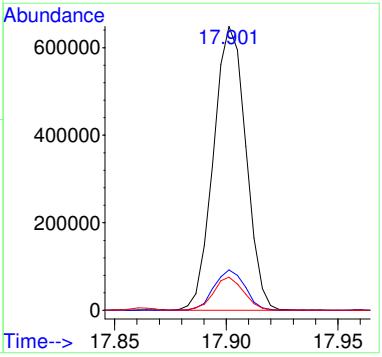



#48
Naphthalene SCAN
Concen: 5000.00 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 08202005.D
Acq: 20 Aug 2020 16:13

Tgt Ion:128 Resp: 653960

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.7 | 0.0 | 44.0 |
| 129 | 10.9 | 0.0 | 40.8 |



# S20H039-CAL4

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202006.D
Acq On : 20 Aug 2020 16:37
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 08:31:08 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

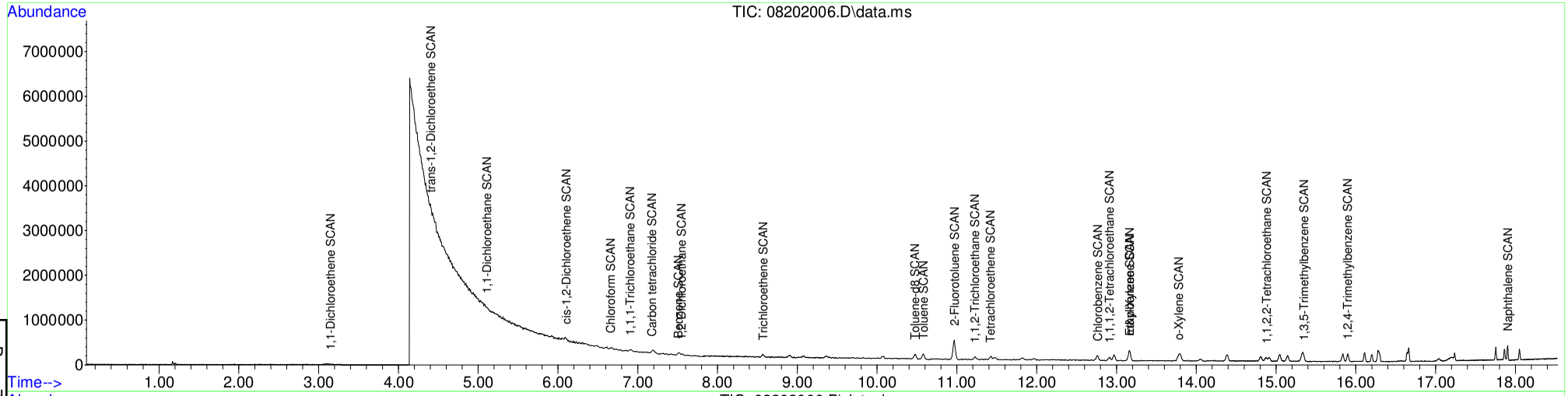
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.959 | 109 | 620555 | 5000.00 | ug/L | -0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 134499 | 1107.17 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 22.14%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.089 | 61 | 27036 | 990.97 | ug/L | 83 |
| 3] trans-1,2-Dichloroethene | 4.402 | 61 | 30539 | 1066.69 | ug/L | 99 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 38542 | 1081.47 | ug/L | 99 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 41004 | 1089.98 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 41060 | 1066.37 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 44677 | 1068.41 | ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 42146 | 1070.84 | ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 112745 | 1069.32 | ug/L | 95 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 41424 | 1100.58 | ug/L | 98 |
| 11] Trichloroethene | 8.569 | 130 | 34670 | 1092.13 | ug/L | 94 |
| 13] Toluene | 10.571 | 91 | 167580 | 1082.02 | ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 36313 | 1076.02 | ug/L | 97 |
| 15] Tetrachloroethene | 11.421 | 166 | 48775 | 1088.22 | ug/L | 100 |
| 16] Chlorobenzene | 12.757 | 112 | 121629 | 1096.77 | ug/L | 92 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 43449 | 1093.42 | ug/L | 99 |
| 18] Ethylbenzene | 12.964 | 91 | 207872 | 1102.67 | ug/L | 97 |
| 19] m&p-Xylene | 13.162 | 91 | 320098 | 2172.54 | ug/L | 96 |
| 20] o-Xylene | 13.774 | 91 | 169989 | 1079.90 | ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 76025 | 1089.75 | ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.340 | 105 | 182134 | 1087.07 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.896 | 105 | 184398 | 1059.58 | ug/L | 96 |
| 24] Naphthalene | 17.900 | 128 | 301171 | 1094.95 | ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 306378 | 5064.71 | ug/L | 99 |
| 26) 1,1-Dichloroethene SCAN | 3.148 | 61 | 1349 | 105.01 | ug/L | 73 |
| 27) trans-1,2-Dichloroethe... | 4.408 | 61 | 18304 | 1151.40 | ug/L # | 25 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 19854 | 1079.15 | ug/L | 85 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 25480 | 1292.65 | ug/L # | 35 |
| 30) Chloroform SCAN | 6.662 | 83 | 23662 | 1106.74 | ug/L | 91 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 25181 | 1292.45 | ug/L | 79 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 20098 | 988.93 | ug/L | 88 |
| 33) Benzene SCAN | 7.514 | 78 | 64447 | 1201.38 | ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.550 | 62 | 26922 | 1359.13 | ug/L # | 40 |
| 35) Trichloroethene SCAN | 8.573 | 130 | 17410 | 1181.00 | ug/L | 86 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 71562 | 1209.63 | ug/L | 99 |
| 37) Toluene SCAN | 10.580 | 91 | 96865 | 1278.52 | ug/L | 96 |
| 38) 1,1,2-Trichloroethane ... | 11.220 | 97 | 23045 | 1355.14 | ug/L | 87 |
| 39) Tetrachloroethene SCAN | 11.420 | 166 | 21523 | 1182.46 | ug/L | 95 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 61825 | 1194.21 | ug/L | 81 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 20506 | 1070.30 | ug/L | 93 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 169926 | 1231.10 | ug/L | 90 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 169926 | 1231.10 | ug/L | 91 |
| 44) o-Xylene SCAN | 13.781 | 91 | 84347 | 1141.64 | ug/L | 97 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.879 | 83 | 43868 | 1217.67 | ug/L # | 28 |
| 46) 1,3,5-Trimethylbenzene... | 15.348 | 105 | 88623 | 1138.17 | ug/L | 99 |
| 47) 1,2,4-Trimethylbenzene... | 15.899 | 105 | 89148 | 1118.93 | ug/L | 93 |
| 48) Naphthalene SCAN | 17.902 | 128 | 131675 | 1092.21 | ug/L | 96 |

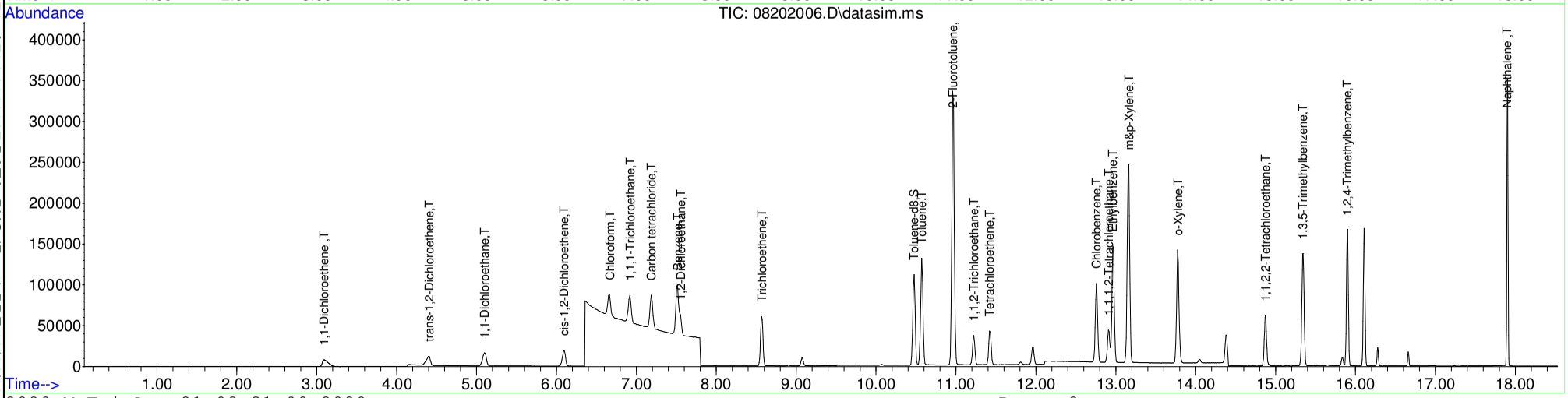
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202006.D
Acq On : 20 Aug 2020 16:37
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL4
Misc : 2030071 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 08:31:08 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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# S20H039-CAL5

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202007.D
Acq On : 20 Aug 2020 17:01
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Before Manual Integration

Quant Time: Aug 21 08:31:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

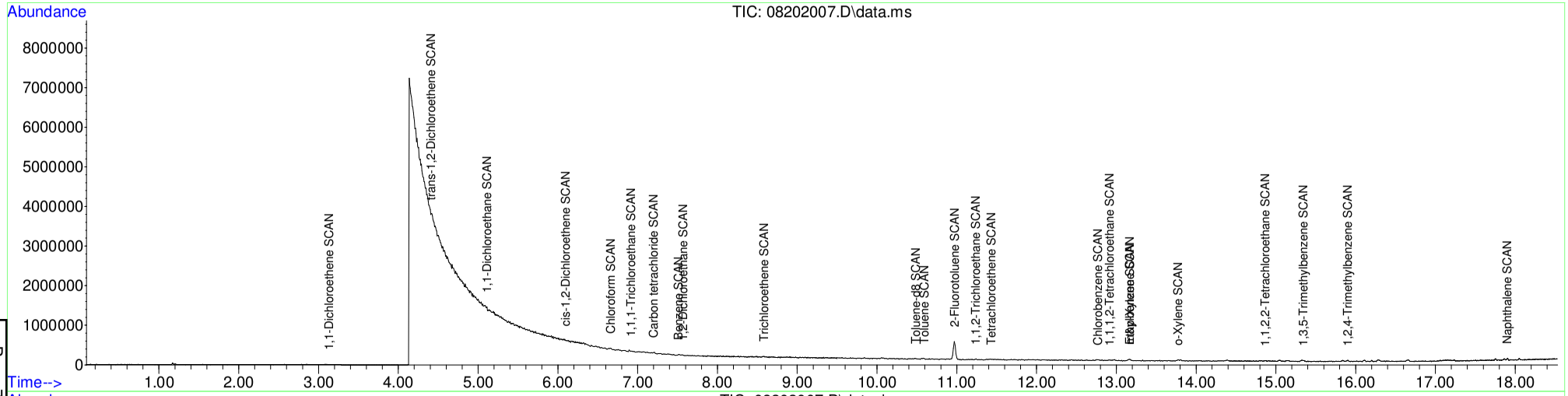
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 687675 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 18291 | 135.87 ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = | 2.72%# | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 4736 | 156.65 ug/L | 87 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 4743 | 149.50 ug/L | 88 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 6017 | 152.35 ug/L | 86 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 6181 | 148.27 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 6101 | 142.98 ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 6374 | 137.55 ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 5978 | 137.06 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 16396 | 140.33 ug/L | 75 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 6015 | 144.21 ug/L | 80 |
| 11] Trichloroethene | 8.575 | 130 | 4884 | 138.83 ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 24264 | 141.38 ug/L | 98 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 5063 | 135.38 ug/L | 97 |
| 15] Tetrachloroethene | 11.432 | 166 | 6650 | 133.89 ug/L | 99 |
| 16] Chlorobenzene | 12.765 | 112 | 16465 | 133.98 ug/L | 91 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 5876 | 133.44 ug/L | 98 |
| 18] Ethylbenzene | 12.972 | 91 | 29078 | 139.19 ug/L | 97 |
| 19] m&p-Xylene | 13.163 | 91 | 45947 | 281.41 ug/L | 95 |
| 20] o-Xylene | 13.774 | 91 | 23631 | 135.47 ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 10329 | 133.61 ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.344 | 105 | 24949 | 134.37 ug/L | 97 |
| 23] 1,2,4-Trimethylbenzene | 15.900 | 105 | 26485 | 137.33 ug/L | 94 |
| 24] Naphthalene | 17.903 | 128 | 41384 | 135.77 ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 332955 | 4966.84 ug/L | 95 |
| 26) 1,1-Dichloroethene SCAN | 3.126 | 61 | 434 | 30.49 ug/L | 72 |
| 27) trans-1,2-Dichloroethe... | 4.408 | 61 | 395 | 22.42 ug/L # | 55 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 2230 | 109.38 ug/L # | 53 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 1391 | 63.68 ug/L # | 33 |
| 30) Chloroform SCAN | 6.663 | 83 | 4055 | 171.15 ug/L # | 39 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 4929 | 228.30 ug/L | 78 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 2800 | 124.33 ug/L # | 65 |
| 33) Benzene SCAN | 7.514 | 78 | 18871 | 317.45 ug/L | 97 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 3207 | 146.10 ug/L # | 65 |
| 35) Trichloroethene SCAN | 8.584 | 130 | 3166 | 193.80 ug/L | 87 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 12748 | 194.45 ug/L | 64 |
| 37) Toluene SCAN | 10.591 | 91 | 14371 | 171.17 ug/L | 97 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 4083 | 216.66 ug/L # | 56 |
| 39) Tetrachloroethene SCAN | 11.431 | 166 | 2646 | 131.18 ug/L # | 67 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 9698 | 169.04 ug/L # | 35 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 3761 | 177.14 ug/L | 95 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 24198 | 158.20 ug/L | 91 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 24198 | 158.20 ug/L | 93 |
| 44) o-Xylene SCAN | 13.773 | 91 | 15595 | 190.48 ug/L | 94 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.864 | 83 | 7082 | 177.39 ug/L # | 39 |
| 46) 1,3,5-Trimethylbenzene... | 15.337 | 105 | 14674 | 170.06 ug/L | 95 |
| 47) 1,2,4-Trimethylbenzene... | 15.898 | 105 | 13939 | 157.88 ug/L | 82 |
| 48) Naphthalene SCAN | 17.901 | 128 | 18555 | 138.89 ug/L | 98 |

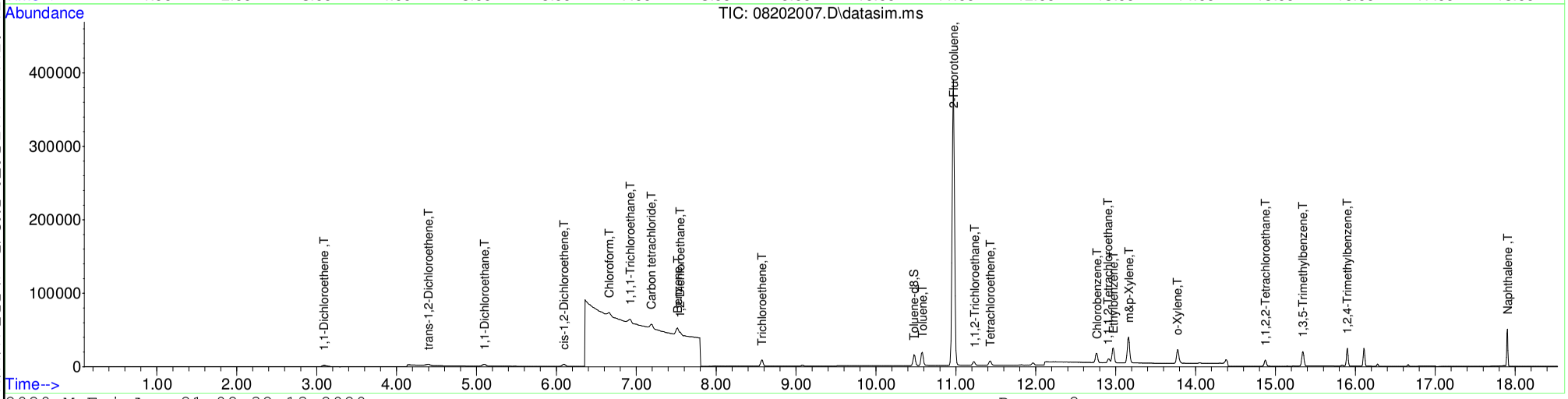
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202007.D
Acq On : 20 Aug 2020 17:01
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 21 08:31:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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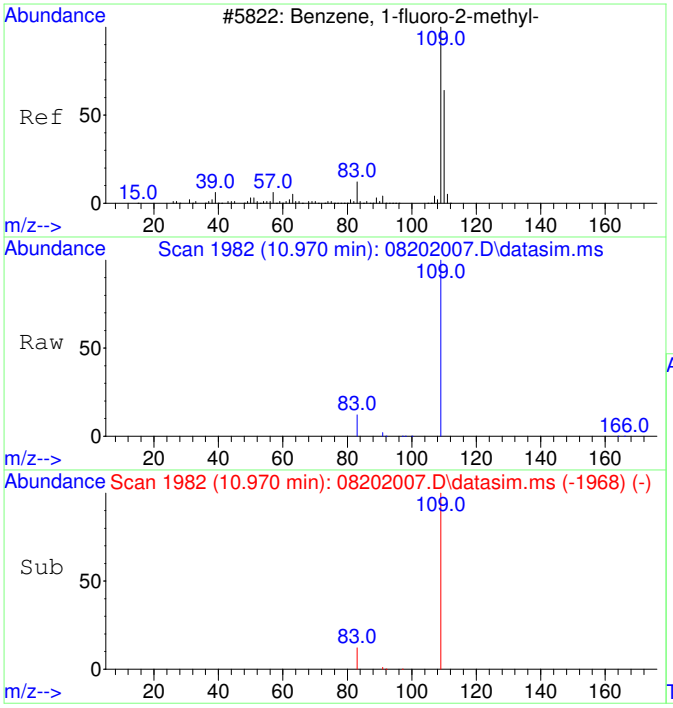
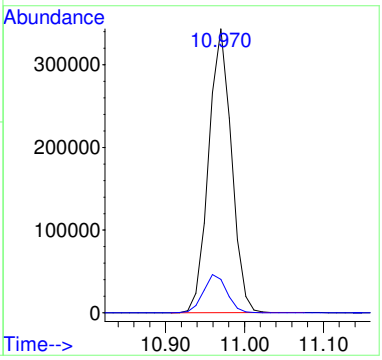
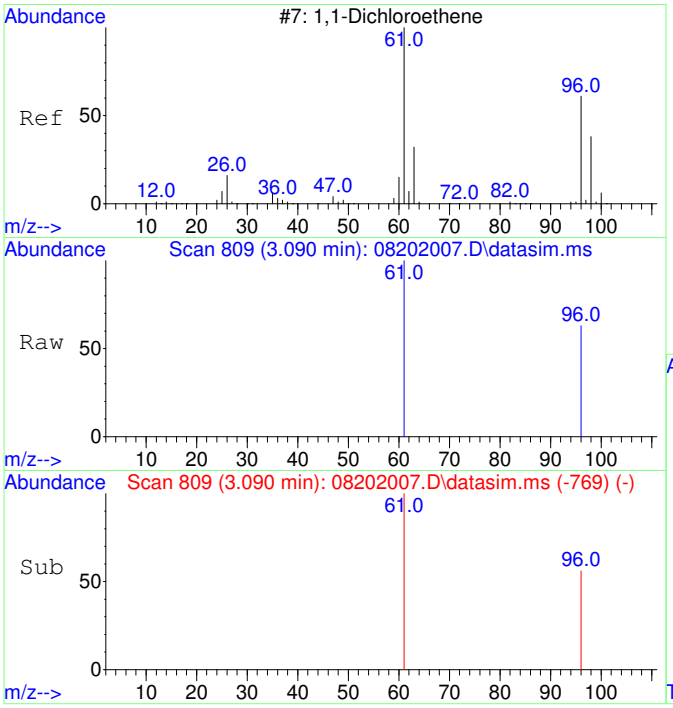



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:109 Resp: 687675

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 42.3 |

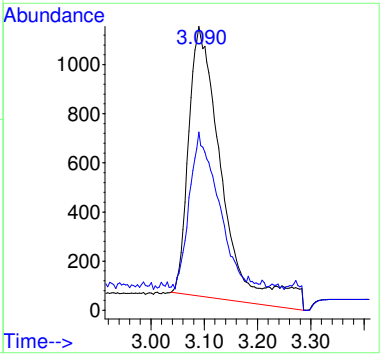


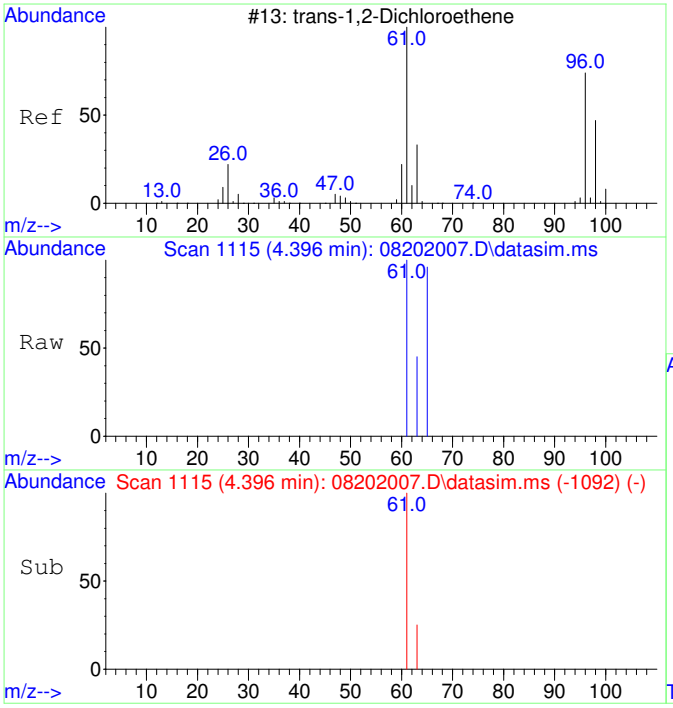

#2
1,1-Dichloroethene
Concen: 156.65 ug/L
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 4736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.8 | 37.2 | 97.2 |



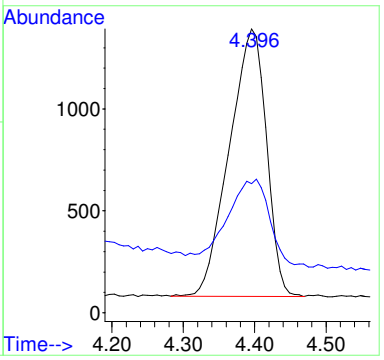

Before MI:
IMPROPER
BASELINE

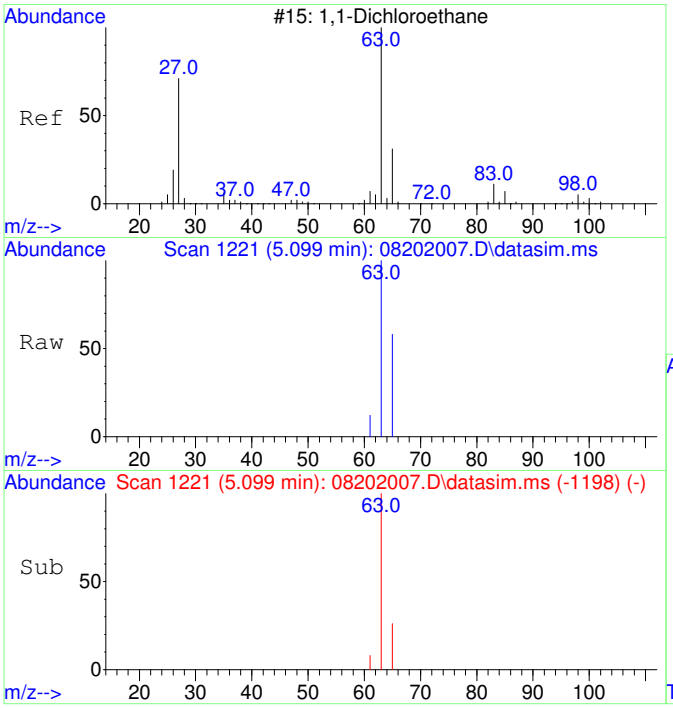



#3
trans-1,2-Dichloroethene
Concen: 149.50 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 4743

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 39.2 | 2.4 | 62.4 |

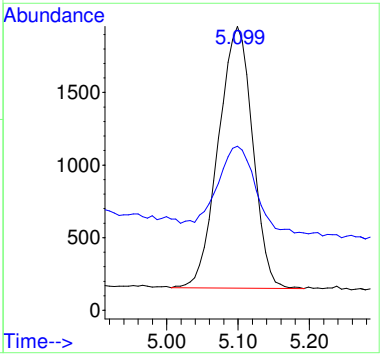


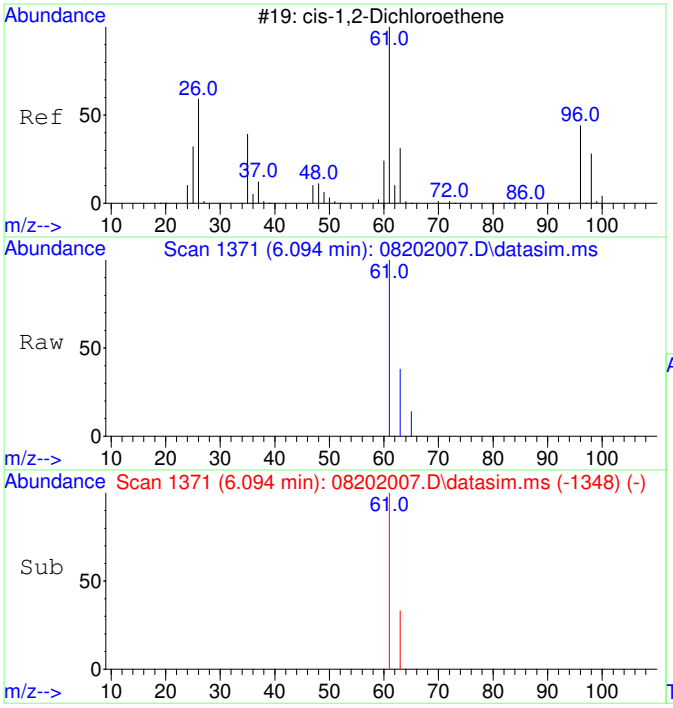




#4
1,1-Dichloroethane
Concen: 152.35 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 63 Resp: 6017

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 39.7 | 1.8 | 61.8 |

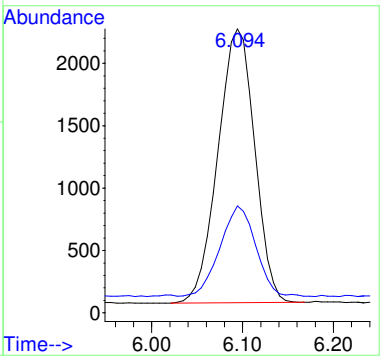


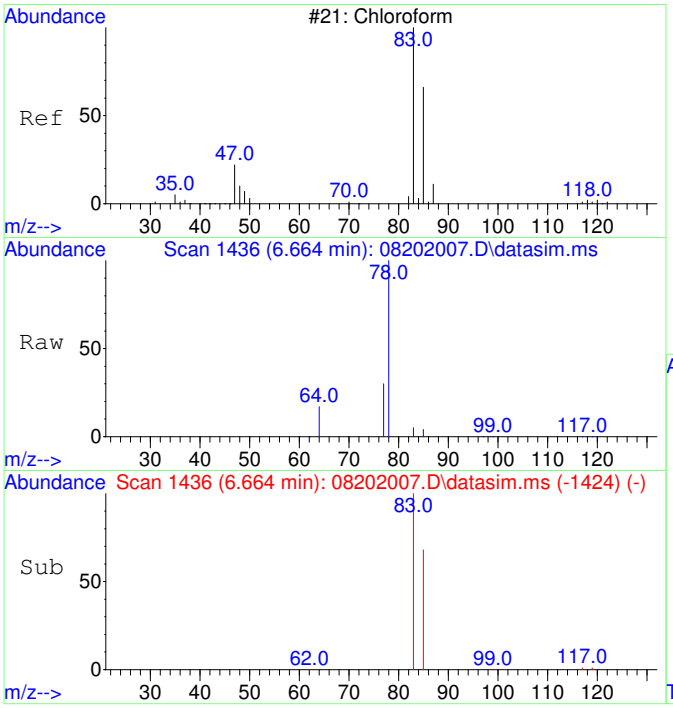



#5
cis-1,2-Dichloroethene
Concen: 148.27 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 6181

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 32.0 | 2.5 | 62.5 |

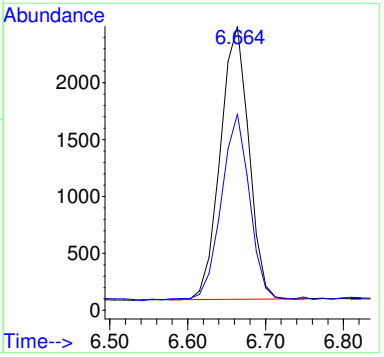


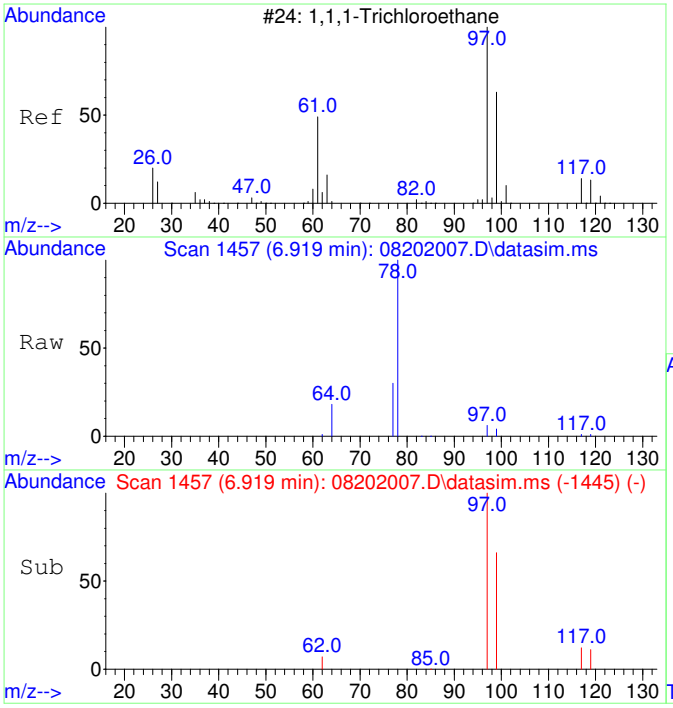




#6
Chloroform
Concen: 142.98 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 6101

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.0 | 35.1 | 95.1 |

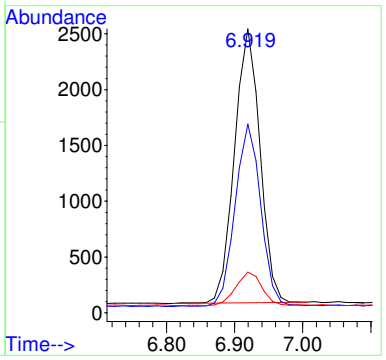


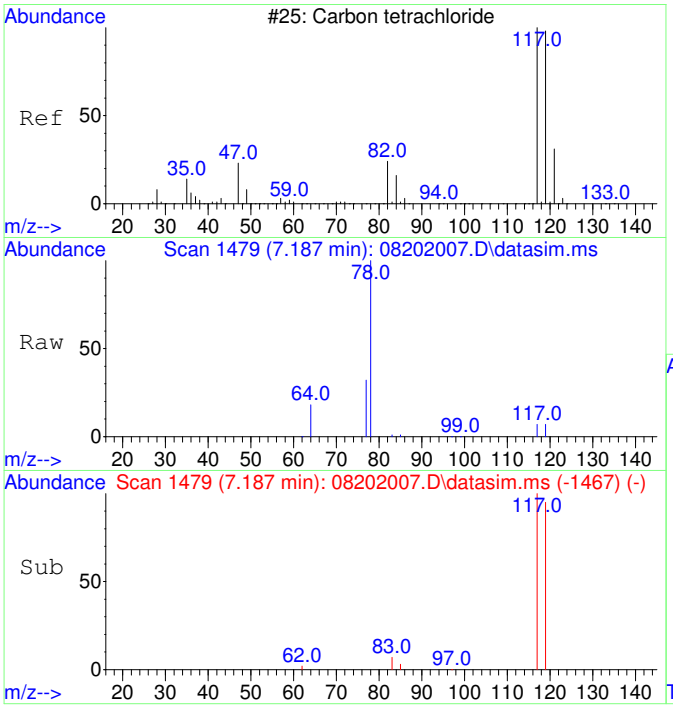



#7
1,1,1-Trichloroethane
Concen: 137.55 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 6374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.5 | 34.6 | 94.6 |
| 117 | 12.8 | 0.0 | 43.2 |

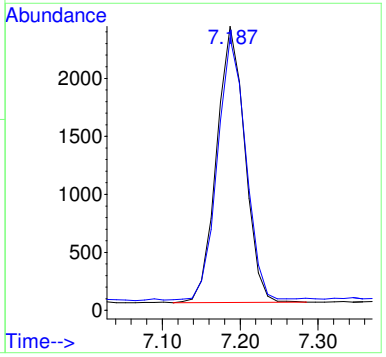


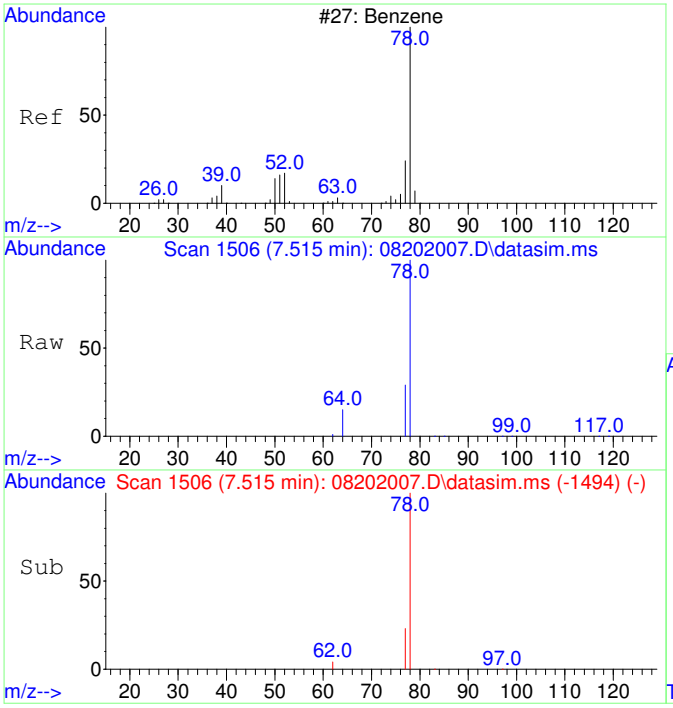




#8
Carbon tetrachloride
Concen: 137.06 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:117 Resp: 5978

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.6 | 66.4 | 126.4 |

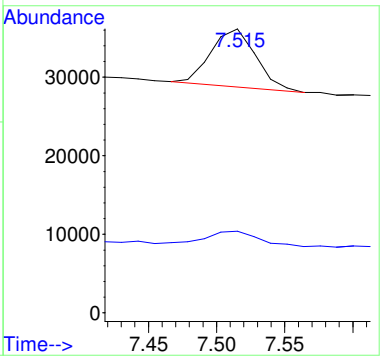


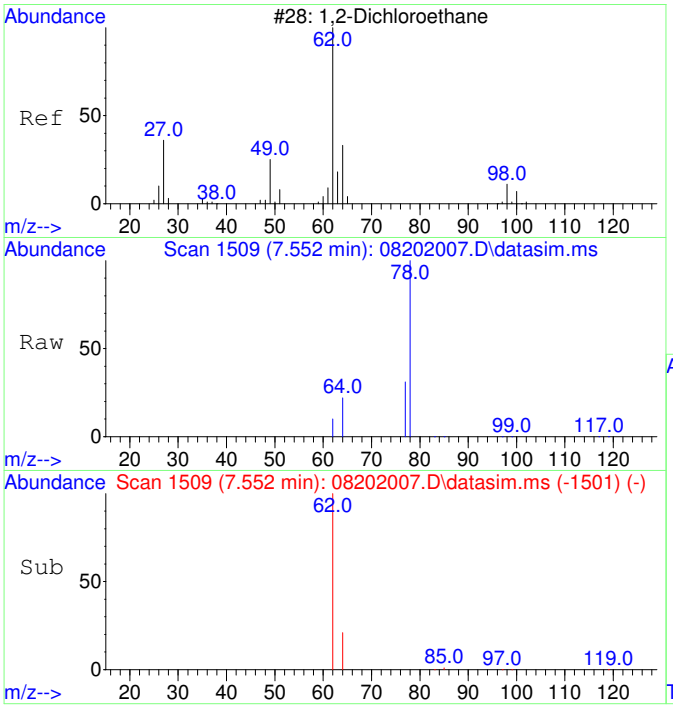



#9
Benzene
Concen: 140.33 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 78 Resp: 16396

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 35.6 | 0.0 | 53.2 |

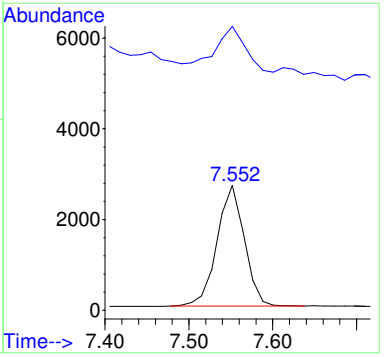


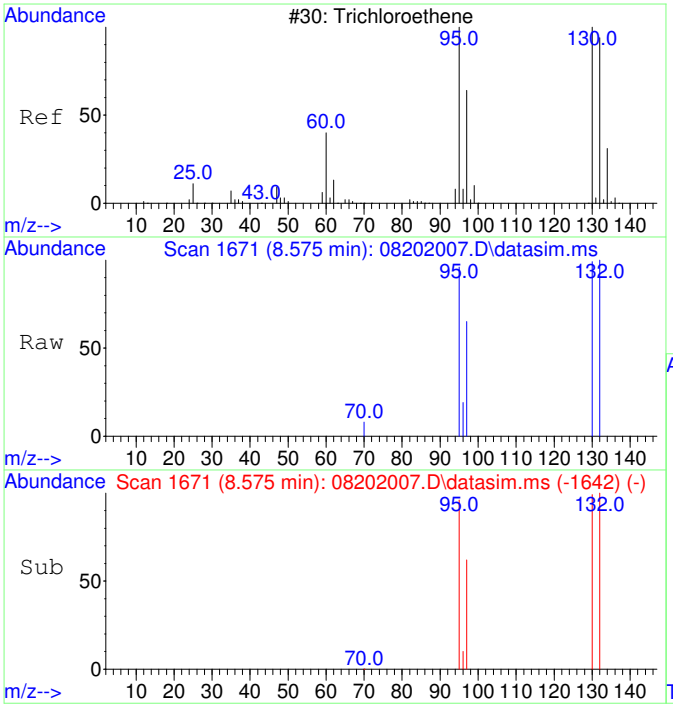




#10
1,2-Dichloroethane
Concen: 144.21 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 62 Resp: 6015

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 43.6 | 2.3 | 62.3 |

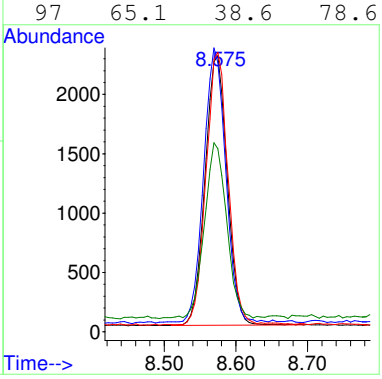


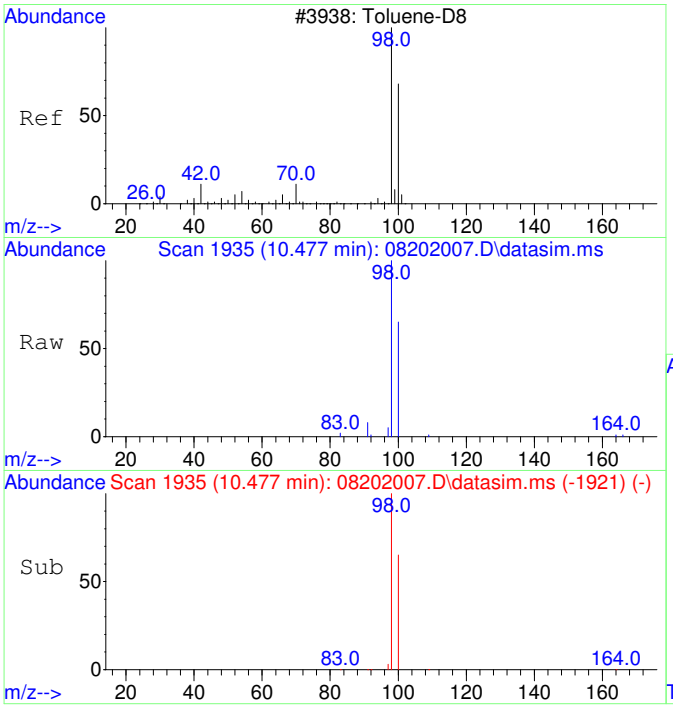



#11
Trichloroethene
Concen: 138.83 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:130 Resp: 4884

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.8 | 60.7 | 120.7 |
| 132 | 98.9 | 76.0 | 116.0 |
| 97 | 65.1 | 38.6 | 78.6 |

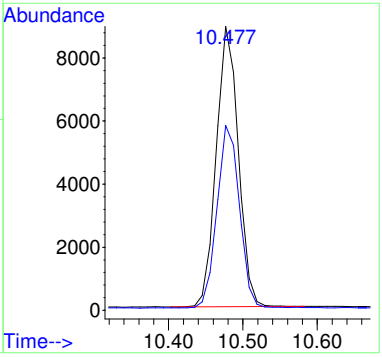


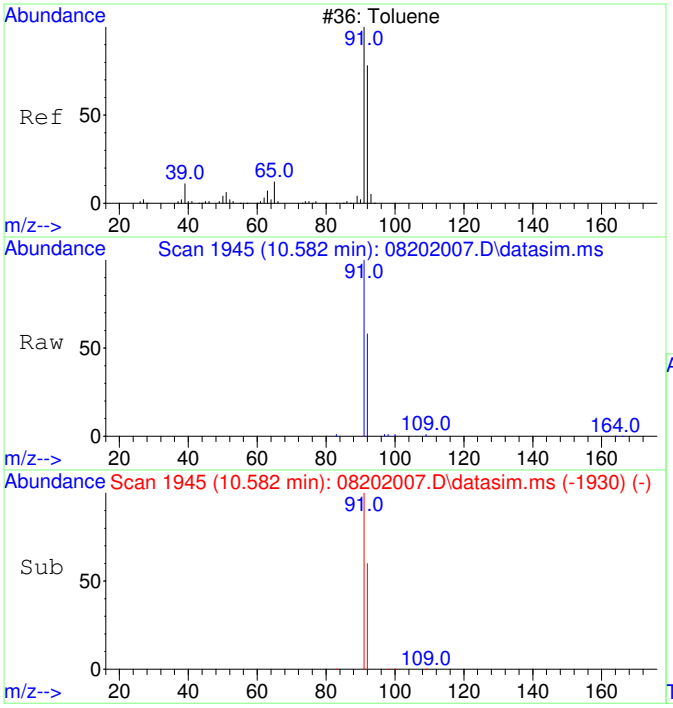




#12
Toluene-d8
Concen: 135.87 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 98 Resp: 18291

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.9 | 37.1 | 97.1 |

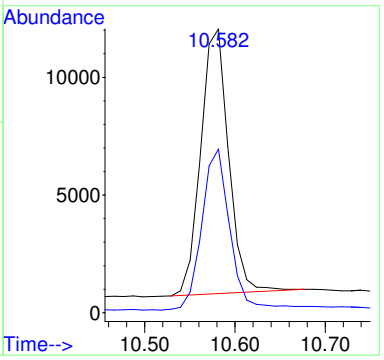


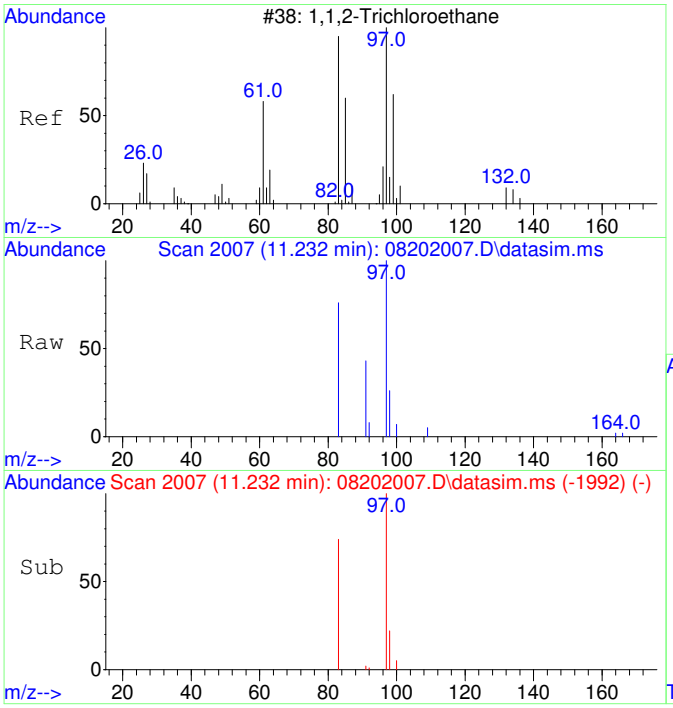



#13
Toluene
Concen: 141.38 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.5 | 29.9 | 89.9 |

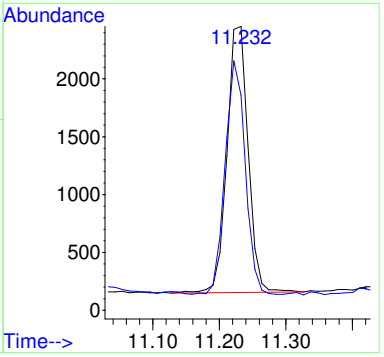


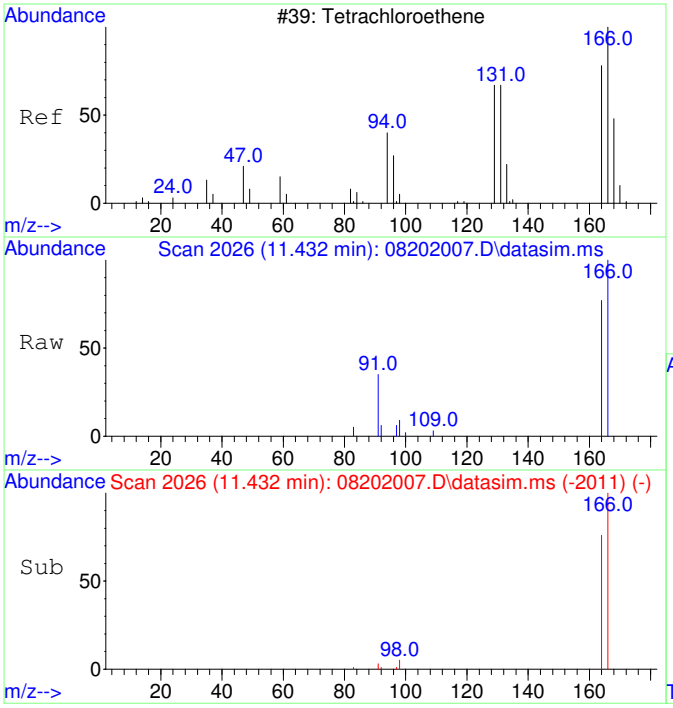




#14
1,1,2-Trichloroethane
Concen: 135.38 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 5063

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.5 | 51.2 | 111.2 |

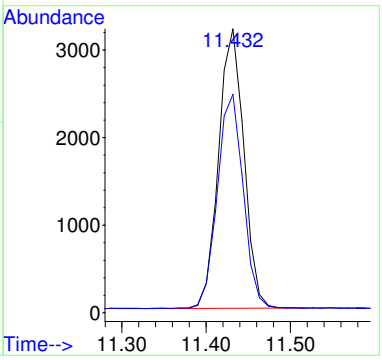


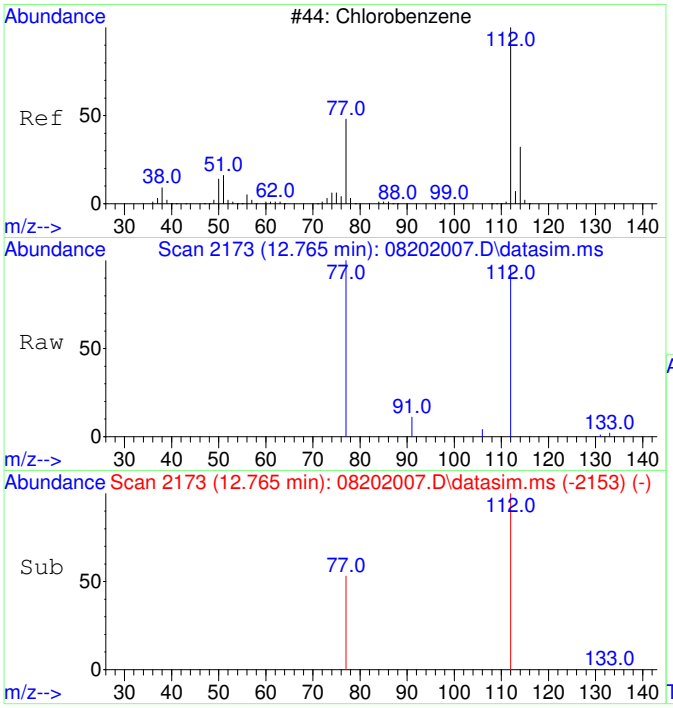



#15
Tetrachloroethene
Concen: 133.89 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:166 Resp: 6650

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.5 | 47.8 | 107.8 |

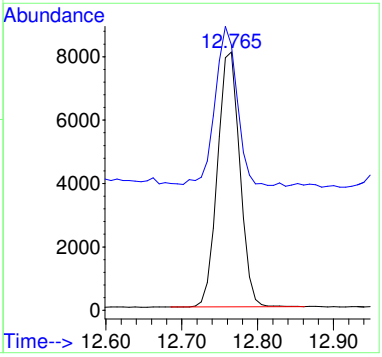


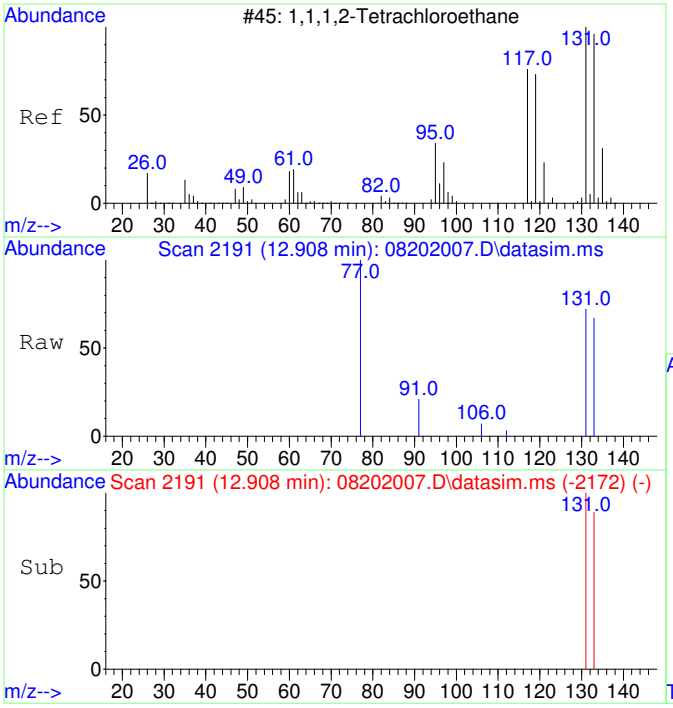




#16
Chlorobenzene
Concen: 133.98 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:112 Resp: 16465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 60.1 | 23.6 | 83.6 |

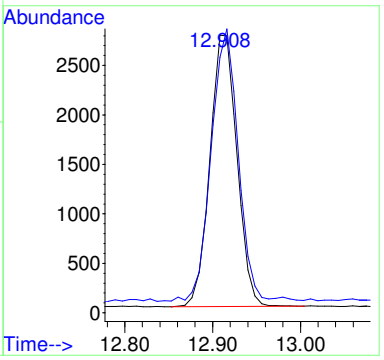


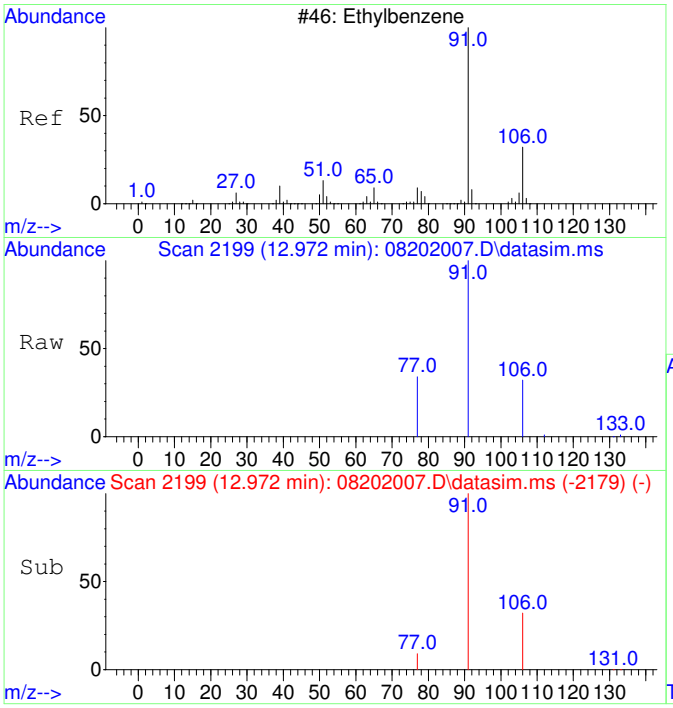



#17
1,1,1,2-Tetrachloroethane
Concen: 133.44 ug/L
RT: 12.908 min Scan# 2191
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:131 Resp: 5876

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 97.8 | 66.3 | 126.3 |

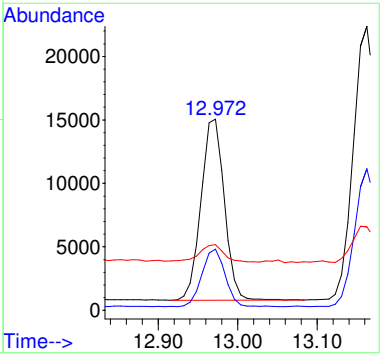


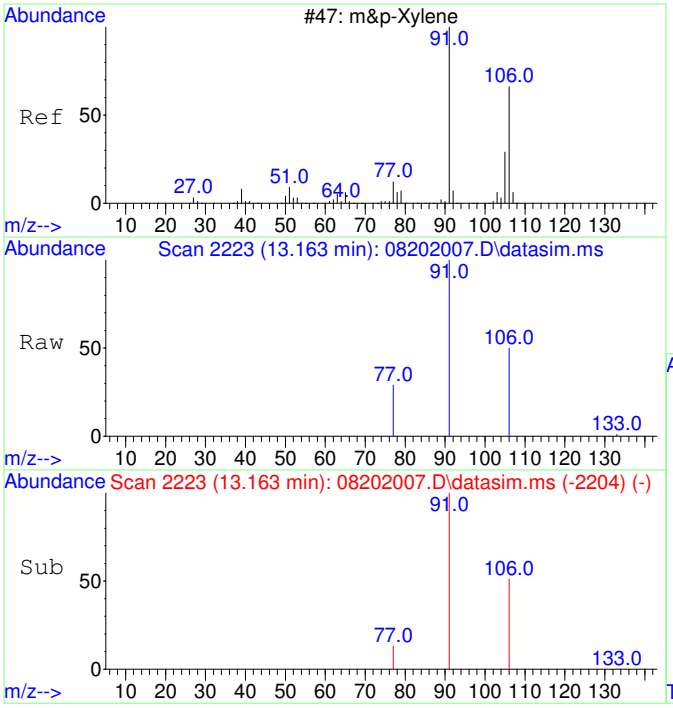




#18
Ethylbenzene
Concen: 139.19 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 29078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.6 | 3.0 | 63.0 |
| 77 | 10.1 | 0.0 | 38.2 |

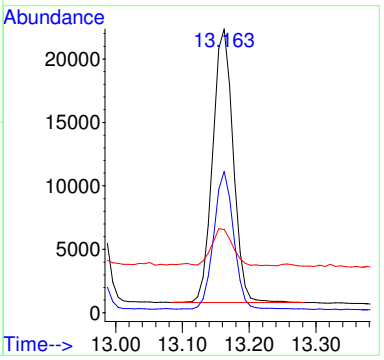


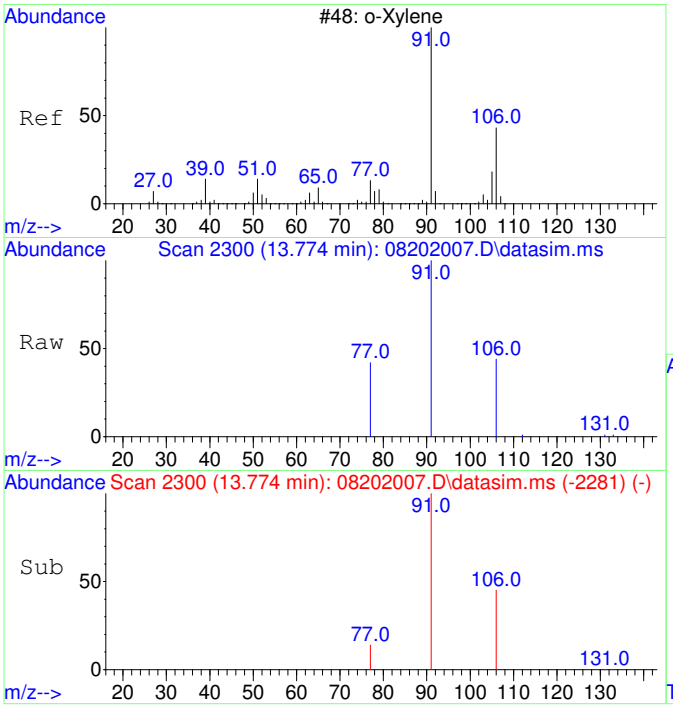



#19
m&p-Xylene
Concen: 281.41 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 45947

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.7 | 22.2 | 82.2 |
| 77 | 14.0 | 0.0 | 42.4 |

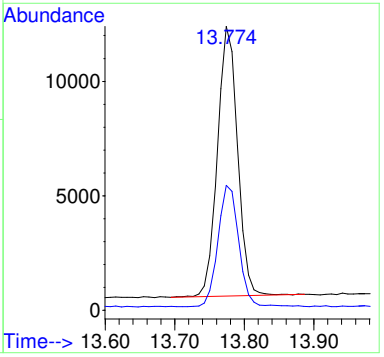


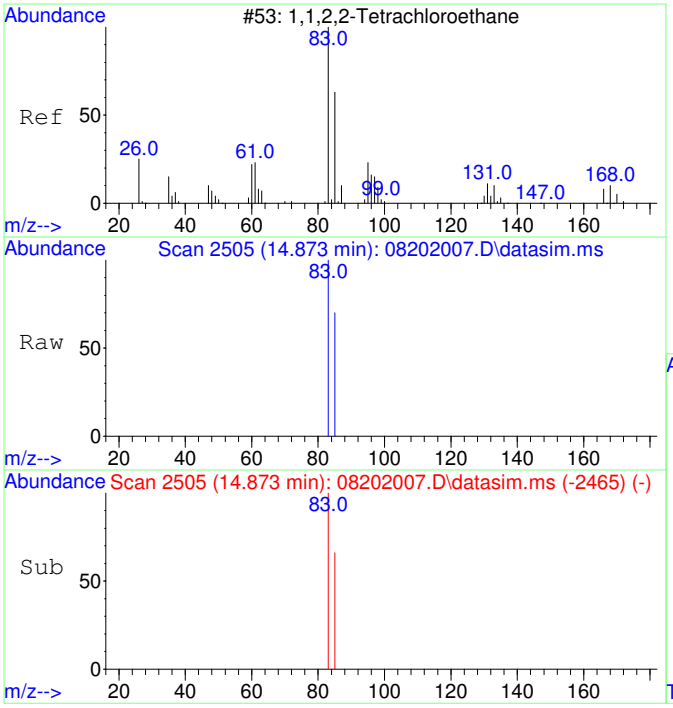




#20
o-Xylene
Concen: 135.47 ug/L
RT: 13.774 min Scan# 2300
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 23631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.7 | 19.2 | 79.2 |

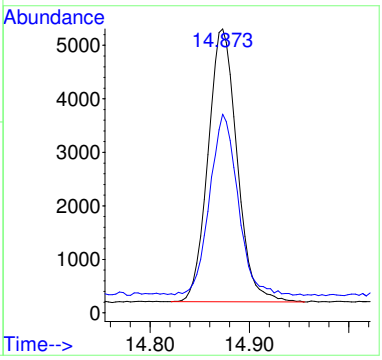


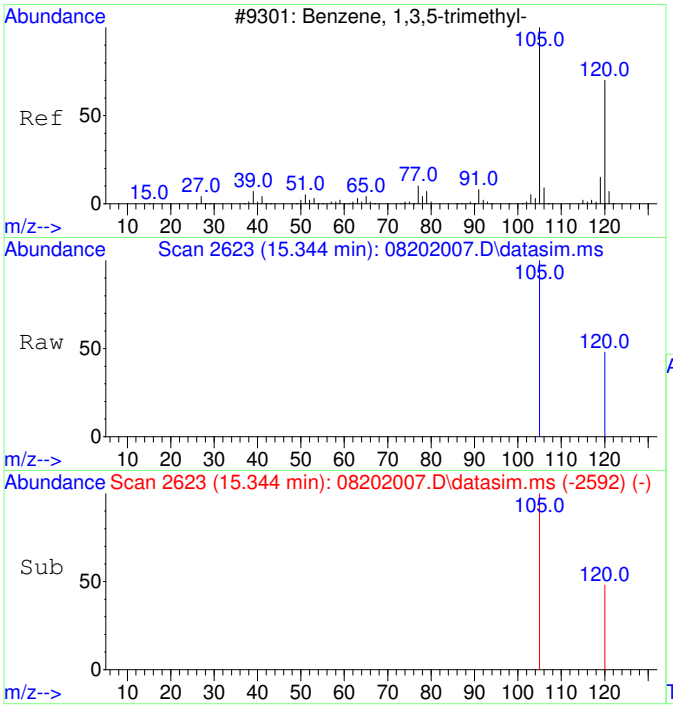



#21
1,1,2,2-Tetrachloroethane
Concen: 133.61 ug/L
RT: 14.873 min Scan# 2505
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 10329

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.3 | 34.8 | 94.8 |

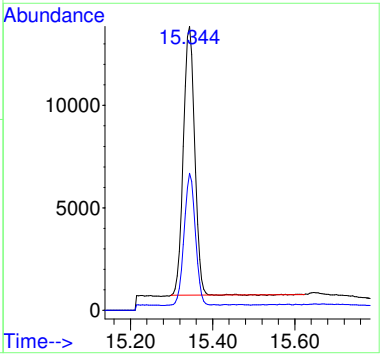


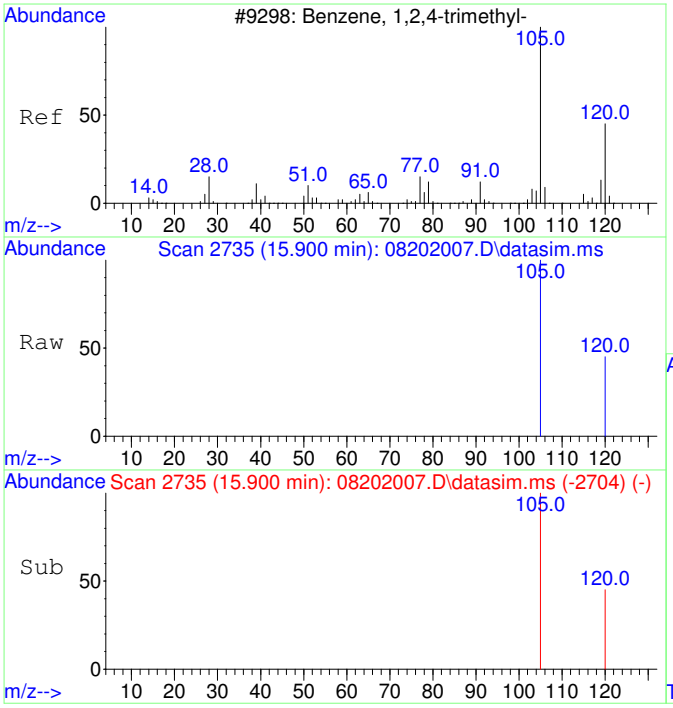




#22
1,3,5-Trimethylbenzene
Concen: 134.37 ug/L
RT: 15.344 min Scan# 2623
Delta R.T. -0.001 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 24949

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.8 | 21.1 | 81.1 |

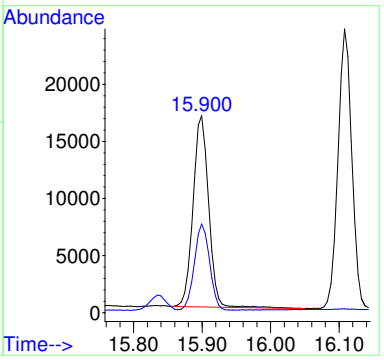


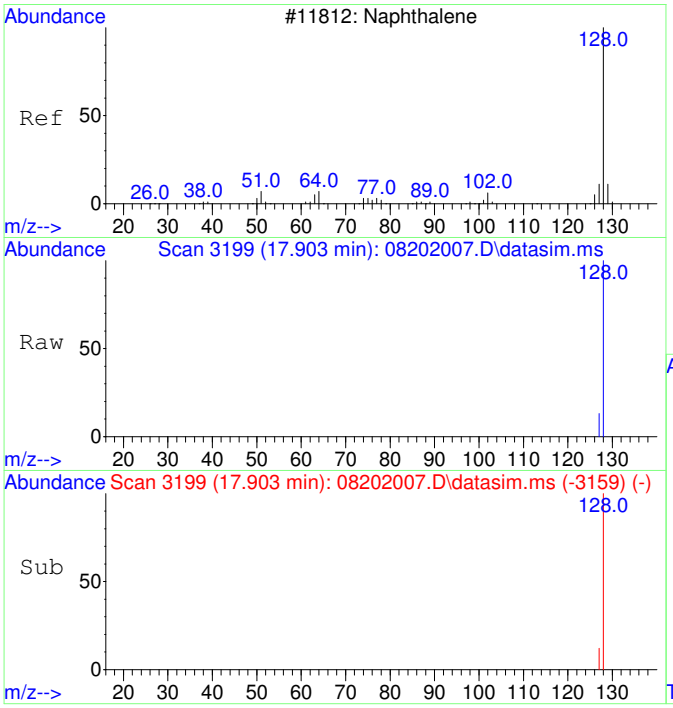



#23
1,2,4-Trimethylbenzene
Concen: 137.33 ug/L
RT: 15.900 min Scan# 2735
Delta R.T. 0.004 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 26485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.4 | 17.2 | 77.2 |

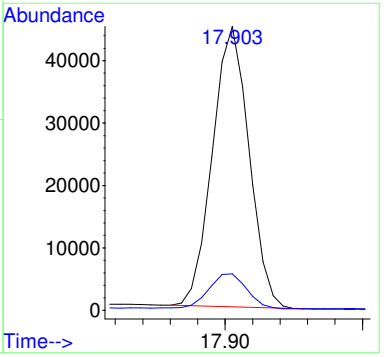


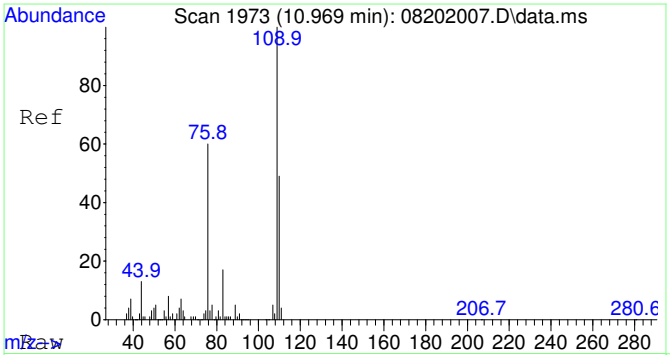




#24
Naphthalene
Concen: 135.77 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:128 Resp: 41384

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.6 | 0.0 | 42.5 |

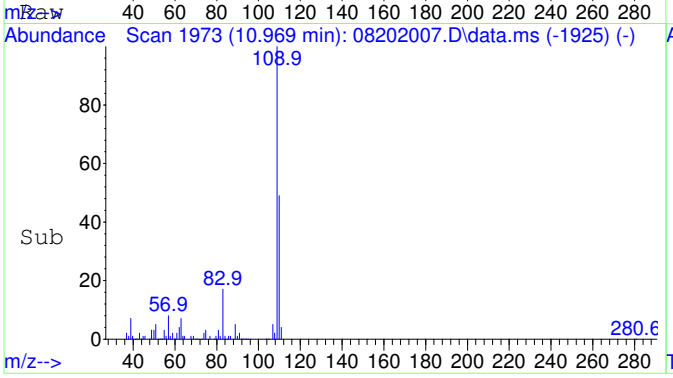


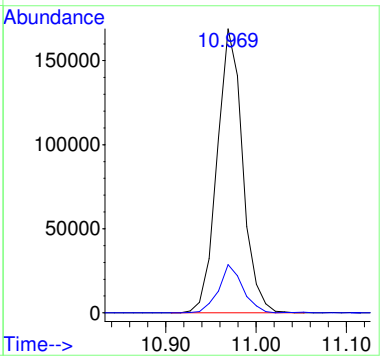


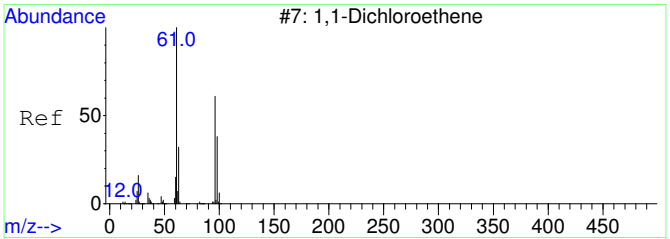

#25
2-Fluorotoluene SCAN
Concen: 4966.84 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:109 Resp: 332955

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.9 | 0.0 | 43.8 |



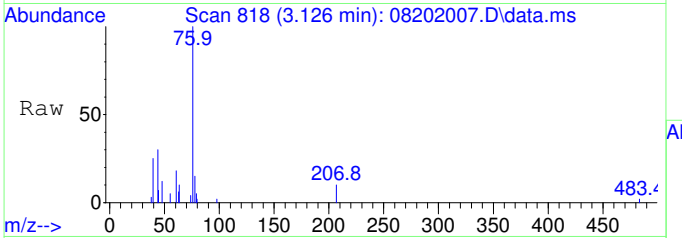



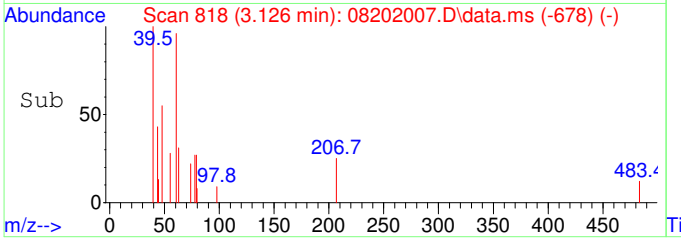



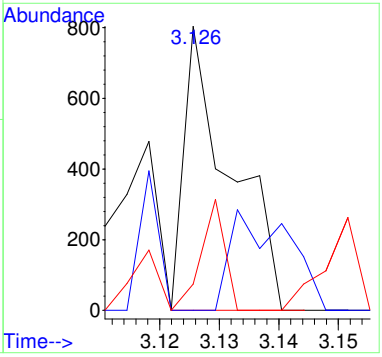

#26
1,1-Dichloroethene SCAN
Concen: 30.49 ug/L
RT: 3.126 min Scan# 818
Delta R.T. 0.019 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

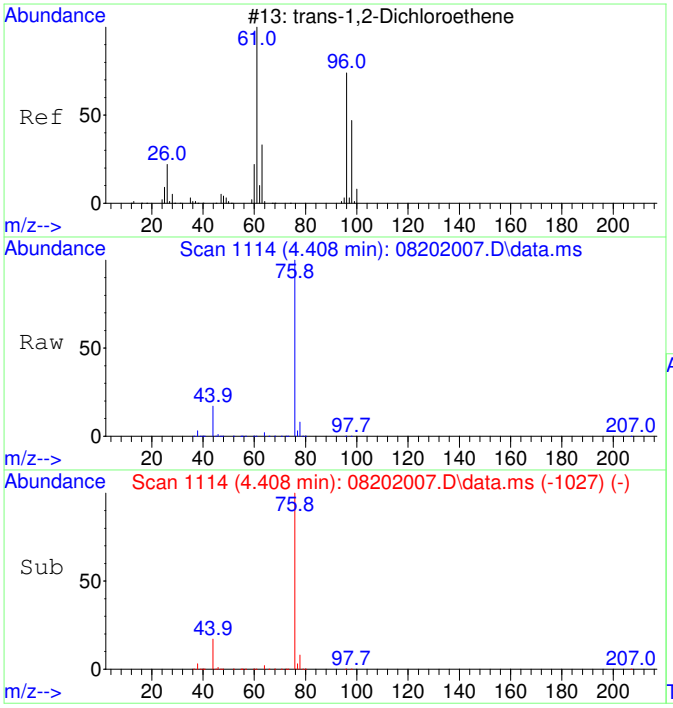
Tgt Ion: 61 Resp: 434

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 44.0 | 33.1 | 93.1 |
| 98 | 19.8 | 11.2 | 71.2 |



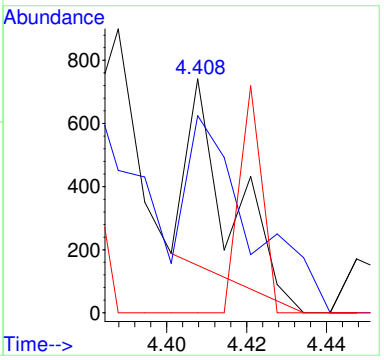



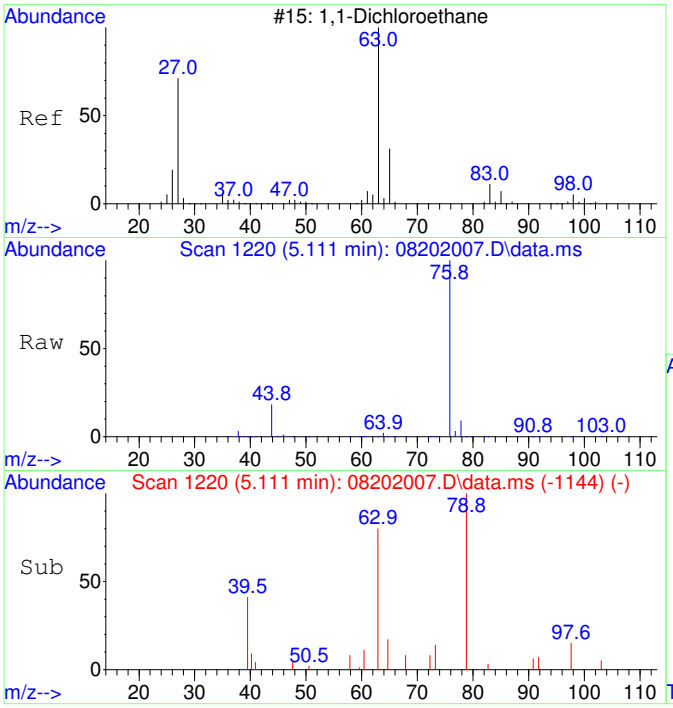



#27
trans-1,2-Dichloroethene SCAN
Concen: 22.42 ug/L
RT: 4.408 min Scan# 1114
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 126.6 | 49.0 | 109.0# |
| 97 | 72.4 | 20.5 | 80.5 |

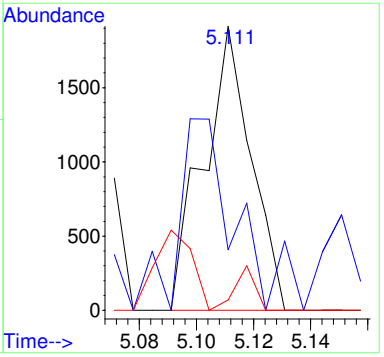


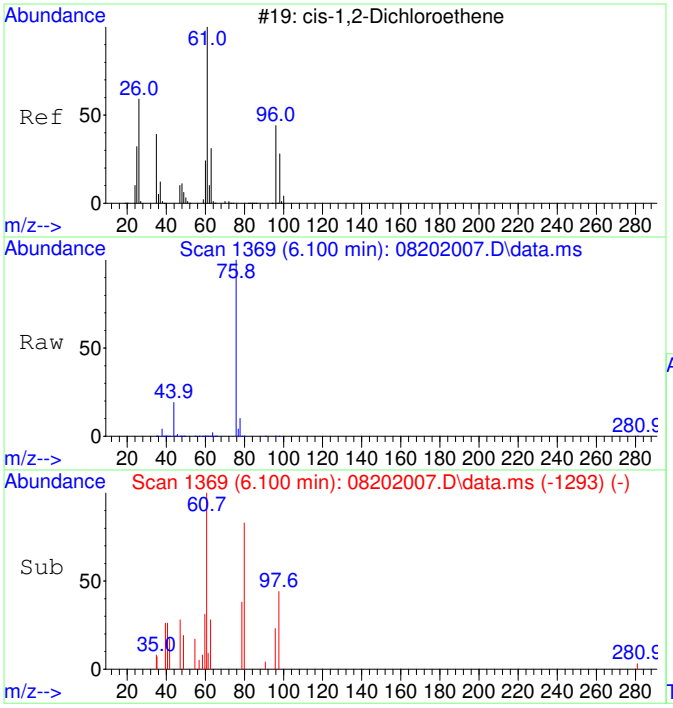




#28
1,1-Dichloroethane SCAN
Concen: 109.38 ug/L
RT: 5.111 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 63 Resp: 2230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 0.0 | 1.3 | 61.3# |
| 83 | 4.1 | 0.0 | 45.9 |

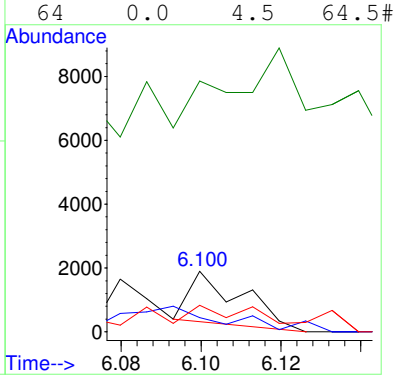


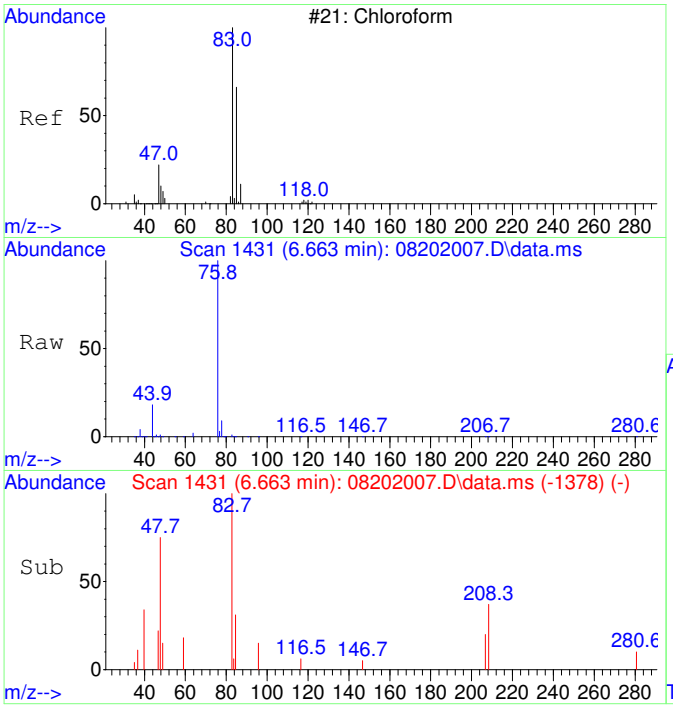



#29
cis-1,2-Dichloroethene SCAN
Concen: 63.68 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 1391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 143.3 | 39.9 | 99.9# |
| 98 | 66.9 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

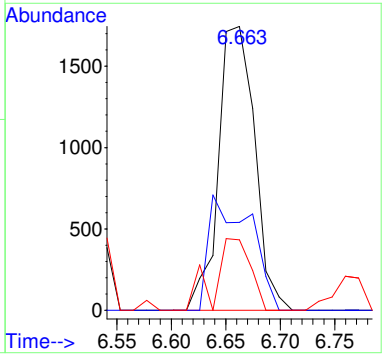


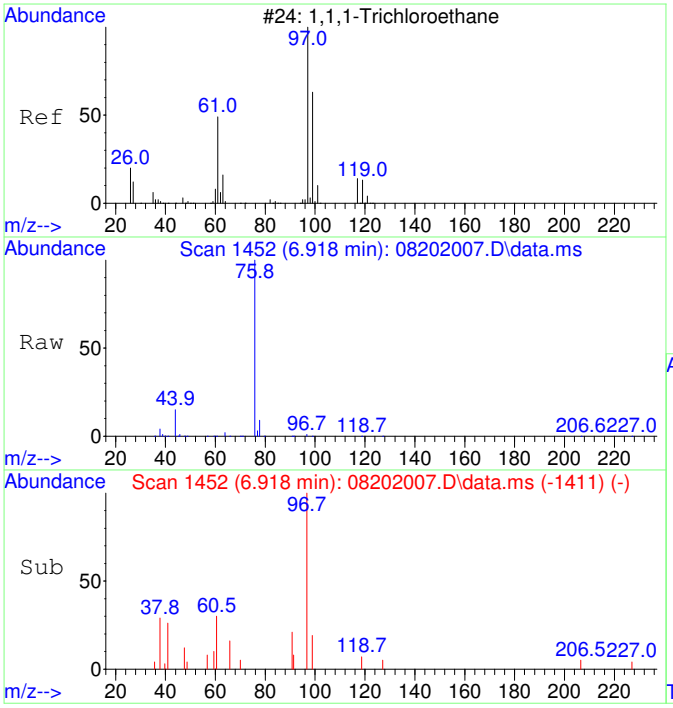




#30
Chloroform SCAN
Concen: 171.15 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 4055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 25.2 | 0.0 | 53.4 |

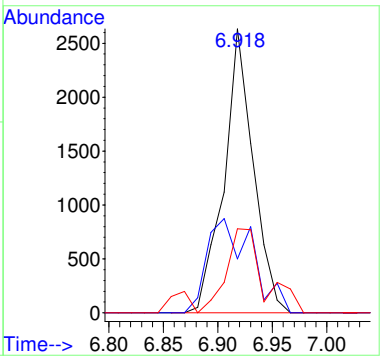


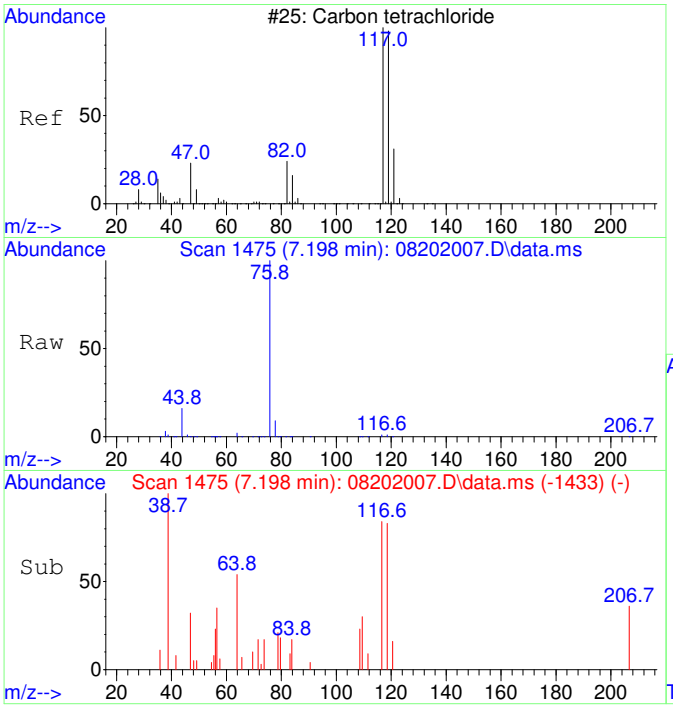



#31
1,1,1-Trichloroethane SCAN
Concen: 228.30 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 4929

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 51.1 | 43.6 | 103.6 |
| 61 | 37.8 | 18.0 | 78.0 |

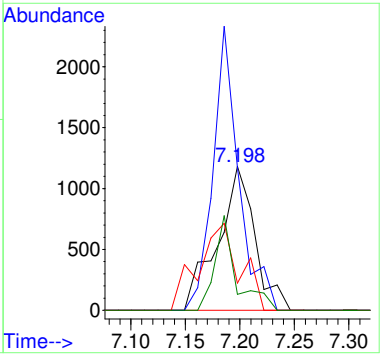


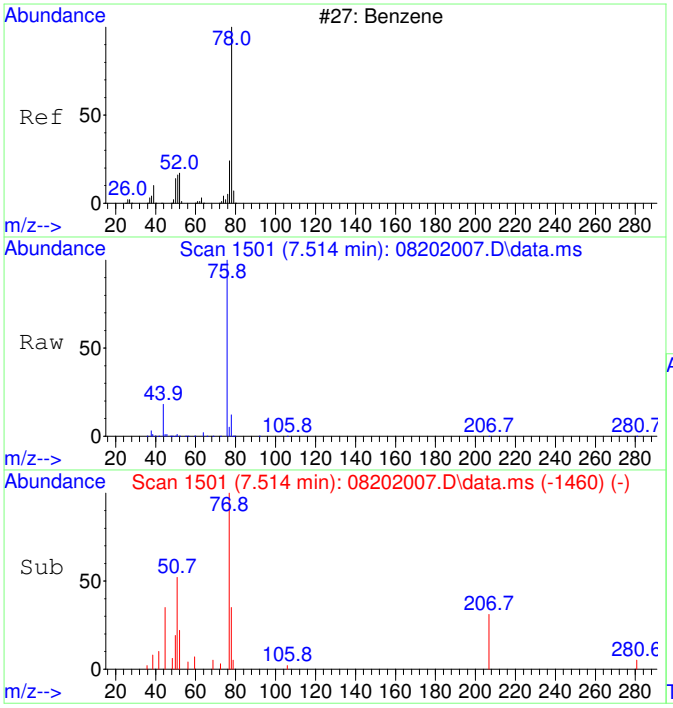




#32
Carbon tetrachloride SCAN
Concen: 124.33 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:117 Resp: 2800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 137.3 | 75.5 | 135.5# |
| 121 | 67.3 | 0.0 | 58.8# |
| 82 | 37.5 | 0.0 | 59.2 |

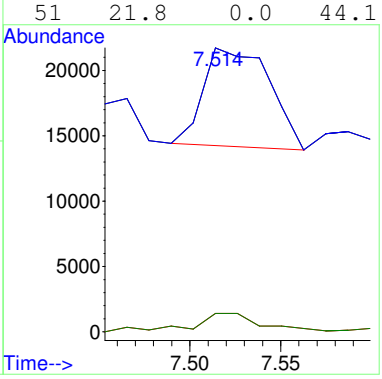


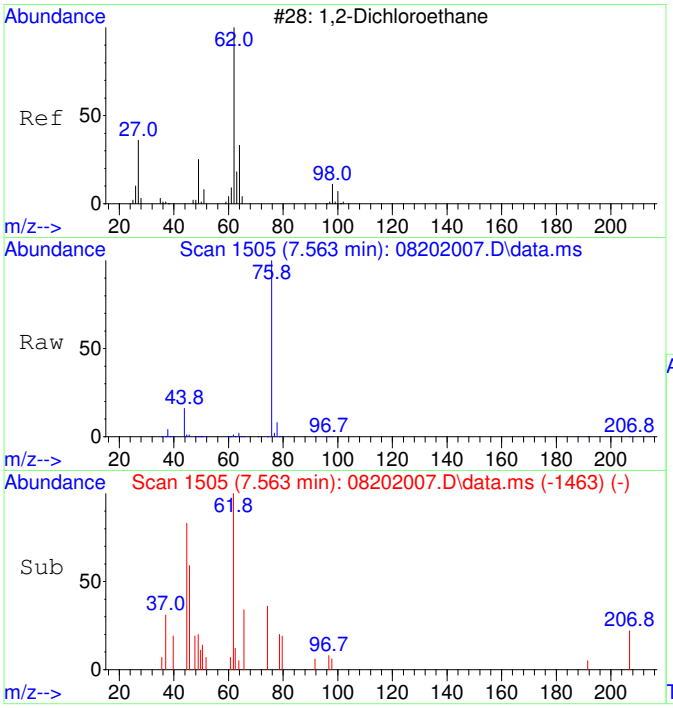



#33
Benzene SCAN
Concen: 317.45 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 78 Resp: 18871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 21.8 | 0.0 | 47.9 |
| 51 | 21.8 | 0.0 | 44.1 |

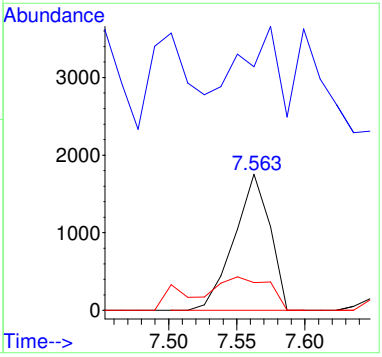


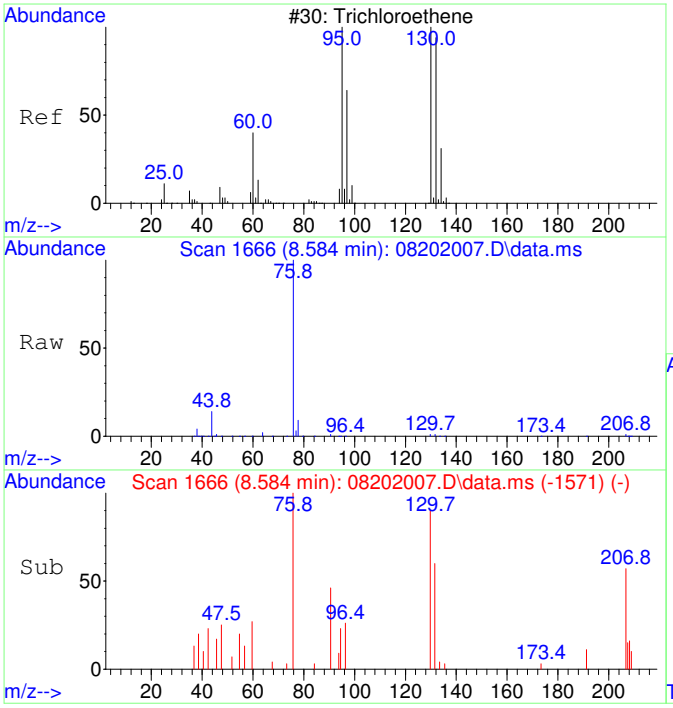




#34
1,2-Dichloroethane SCAN
Concen: 146.10 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 62 Resp: 3207

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 42.1 | 5.2 | 65.2 |
| 49 | 0.0 | 3.9 | 63.9# |

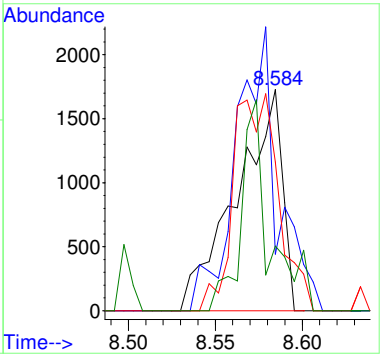


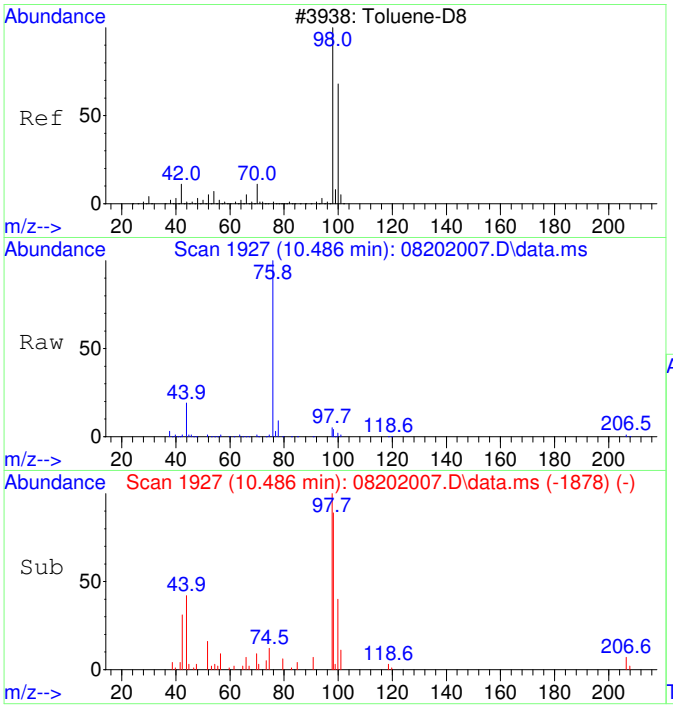



#35
Trichloroethene SCAN
Concen: 193.80 ug/L
RT: 8.584 min Scan# 1666
Delta R.T. 0.016 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:130 Resp: 3166

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 116.2 | 60.5 | 120.5 |
| 132 | 96.6 | 59.6 | 119.6 |
| 97 | 58.8 | 28.2 | 88.2 |

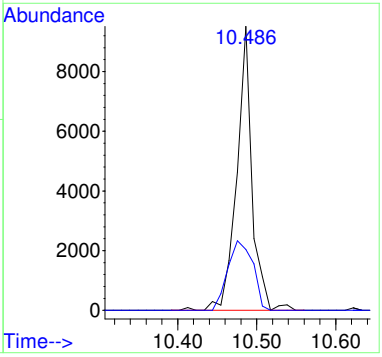


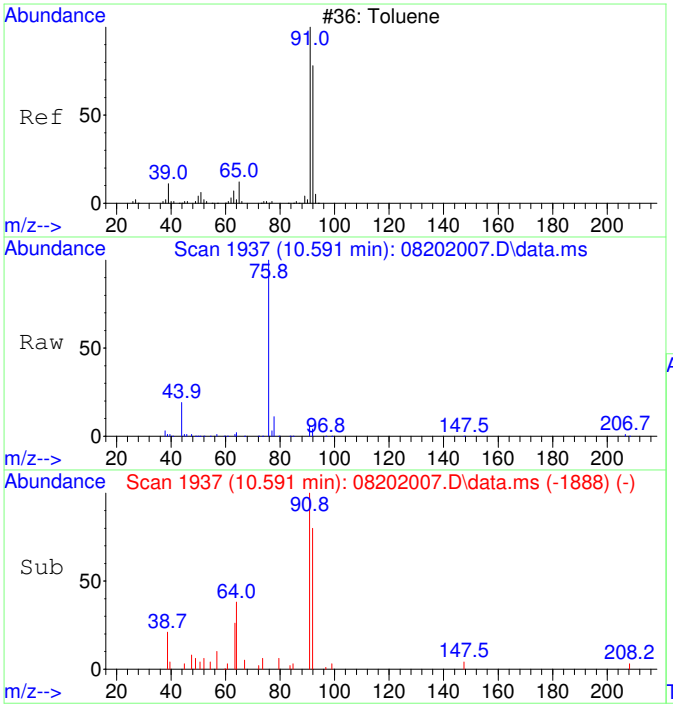




#36
Toluene-d8 SCAN
Concen: 194.45 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 98 Resp: 12748

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 40.3 | 40.0 | 100.0 |

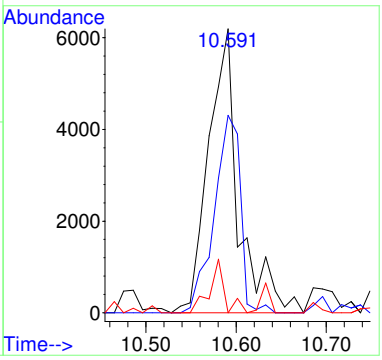


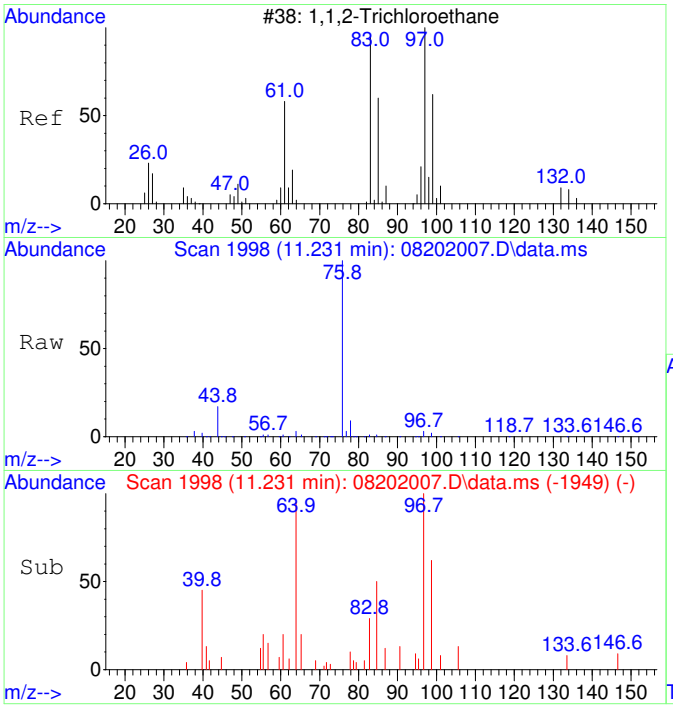



#37
Toluene SCAN
Concen: 171.17 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 14371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 60.5 | 28.3 | 88.3 |
| 65 | 9.4 | 0.0 | 41.0 |

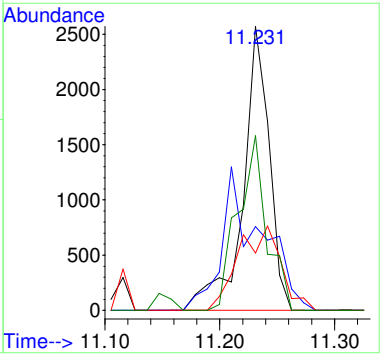


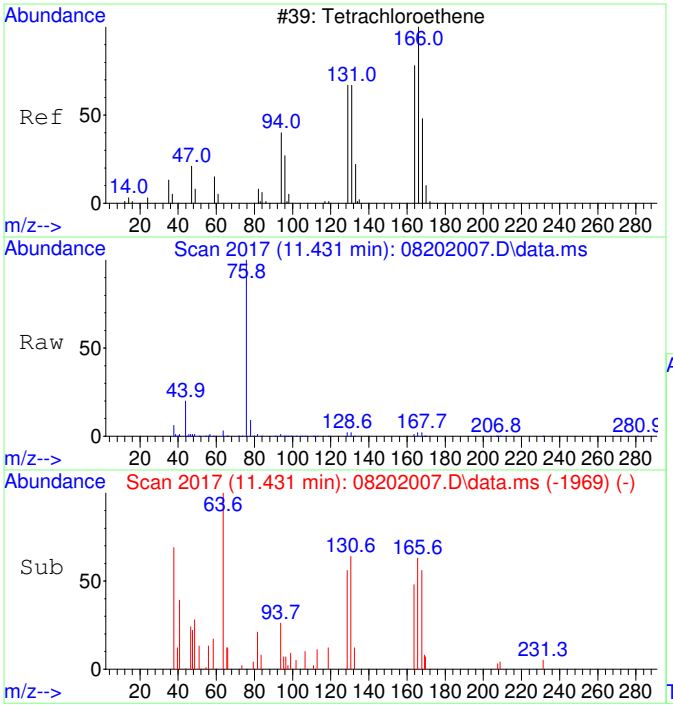




#38
1,1,2-Trichloroethane SCAN
Concen: 216.66 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 4083

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 48.2 | 32.1 | 92.1 |
| 99 | 67.8 | 36.7 | 96.7 |

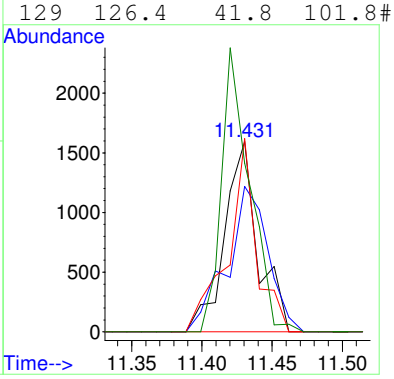


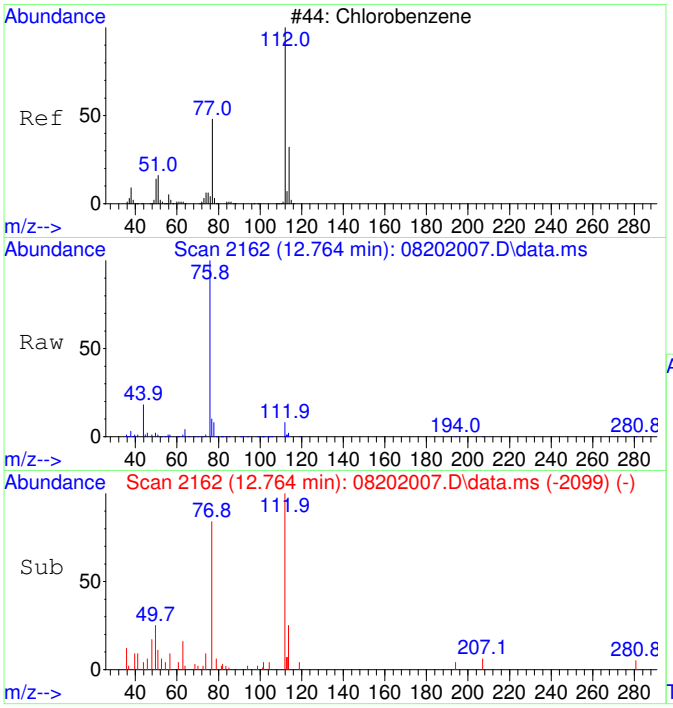



#39
Tetrachloroethene SCAN
Concen: 131.18 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:166 Resp: 2646

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 93.8 | 50.9 | 110.9 |
| 131 | 86.4 | 38.7 | 98.7 |
| 129 | 126.4 | 41.8 | 101.8# |

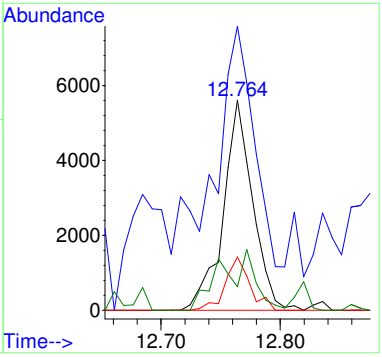


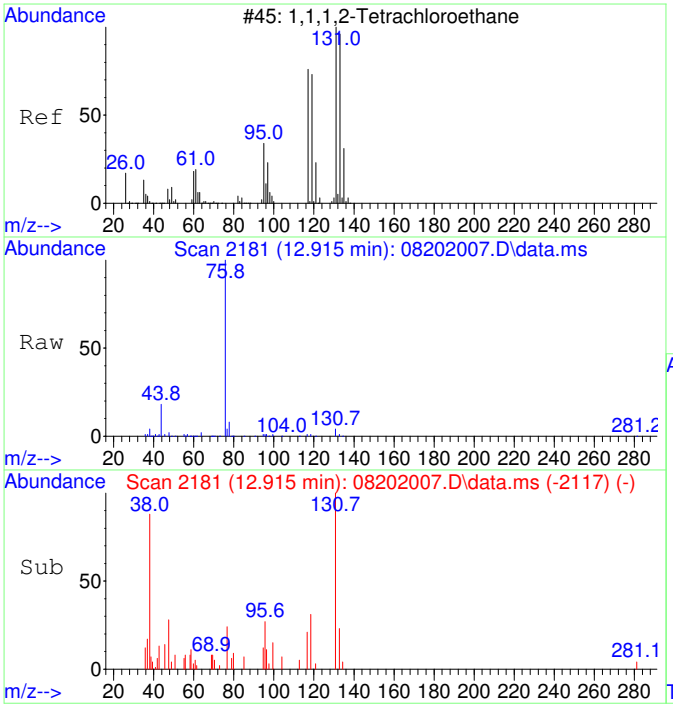




#40
Chlorobenzene SCAN
Concen: 169.04 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:112 Resp: 9698

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 136.8 | 28.2 | 88.2# |
| 114 | 21.1 | 2.3 | 62.3 |
| 51 | 12.2 | 0.0 | 50.1 |

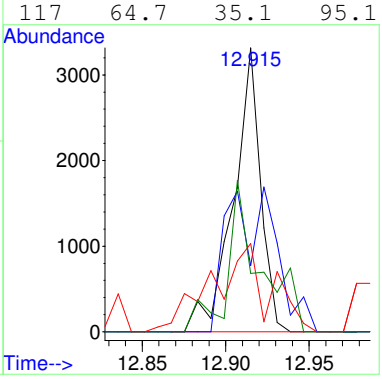


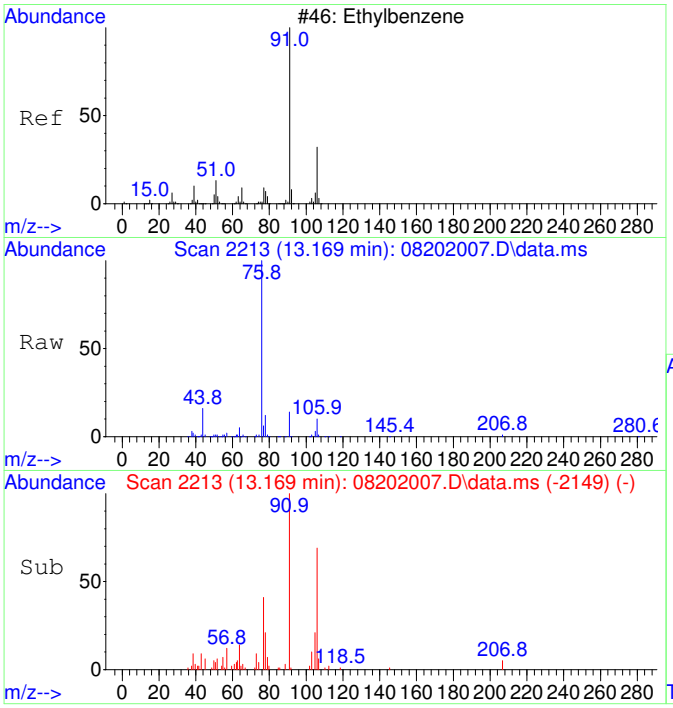



#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 177.14 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:131 Resp: 3761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 89.9 | 66.9 | 126.9 |
| 119 | 65.7 | 40.4 | 100.4 |
| 117 | 64.7 | 35.1 | 95.1 |

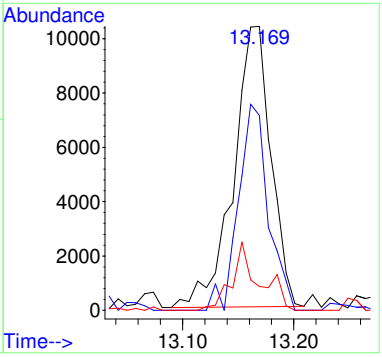


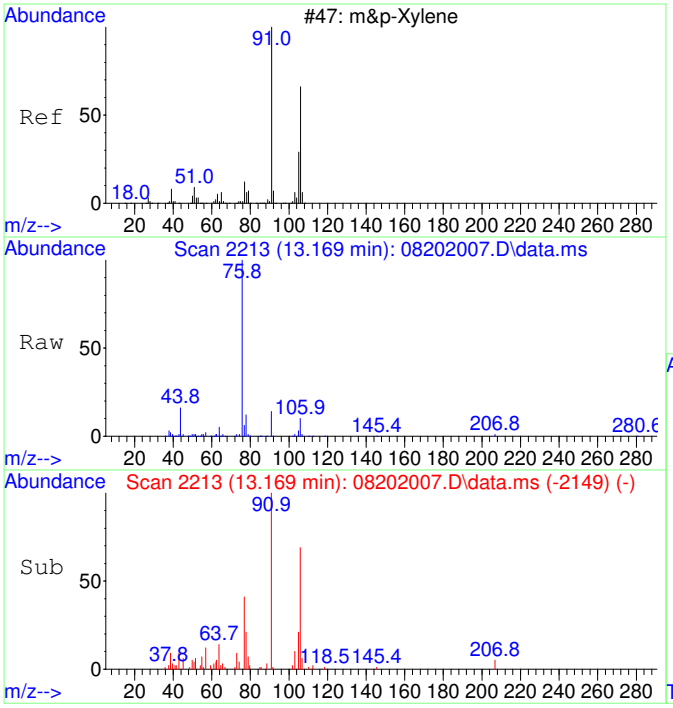




#42
Ethylbenzene SCAN
Concen: 158.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 58.4 | 23.1 | 83.1 |
| 51 | 17.6 | 0.0 | 40.1 |

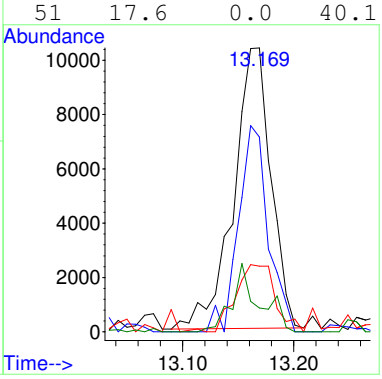


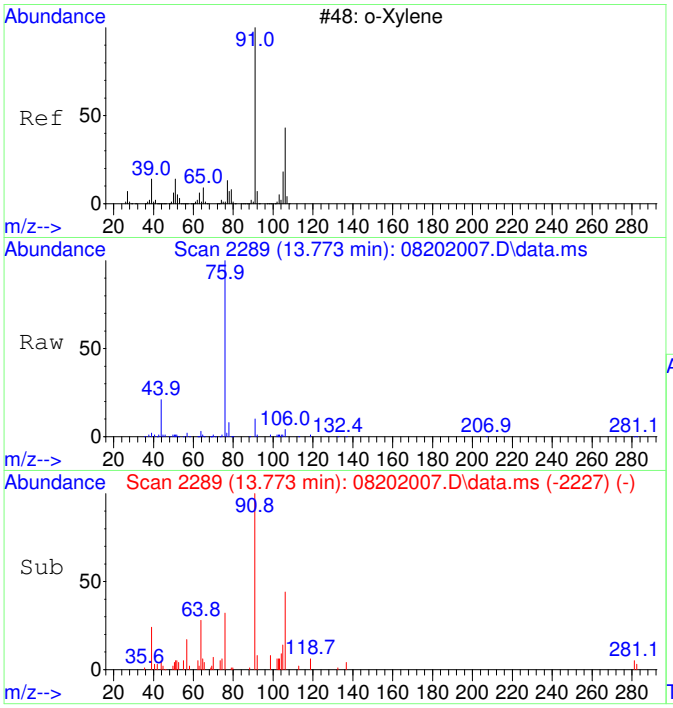



#43
m&p-Xylene SCAN
Concen: 158.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 58.4 | 23.1 | 83.1 |
| 105 | 25.1 | 0.0 | 54.7 |
| 51 | 17.6 | 0.0 | 40.1 |

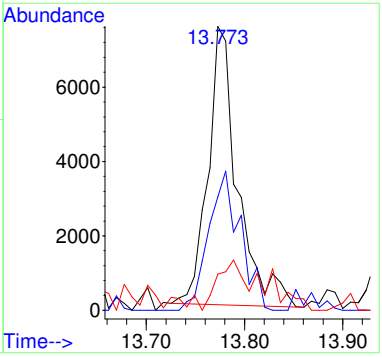


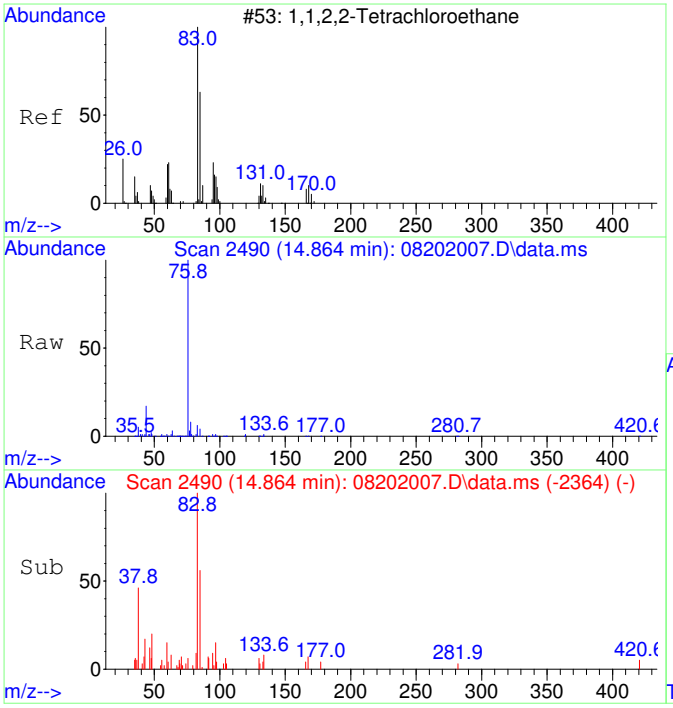




#44
o-Xylene SCAN
Concen: 190.48 ug/L
RT: 13.773 min Scan# 2289
Delta R.T. -0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 15595

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 53.8 | 18.0 | 78.0 |
| 105 | 27.5 | 0.0 | 56.6 |

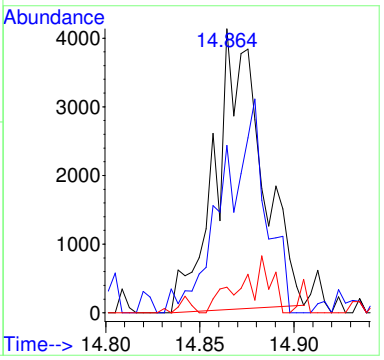


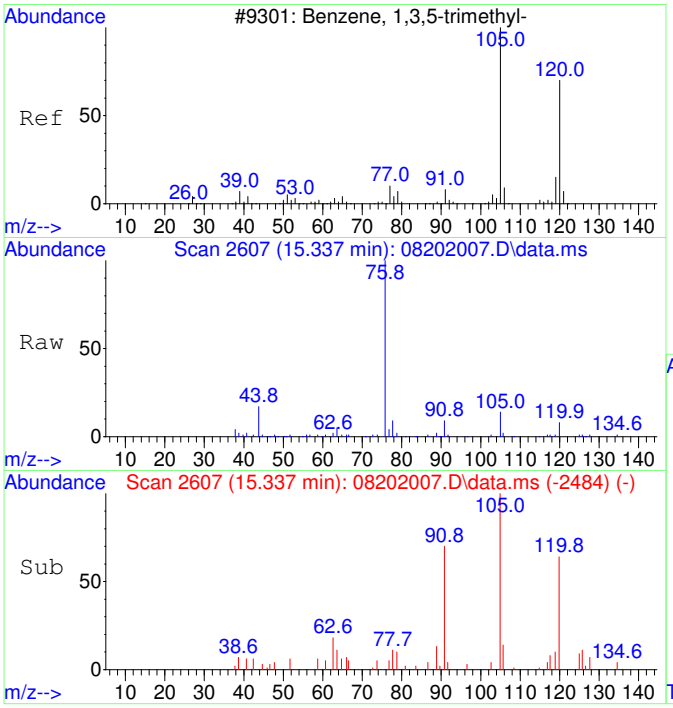



#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 177.39 ug/L
RT: 14.864 min Scan# 2490
Delta R.T. -0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 7082

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 10.5 | 35.9 | 95.9# |
| 95 | 5.2 | 0.0 | 47.4 |

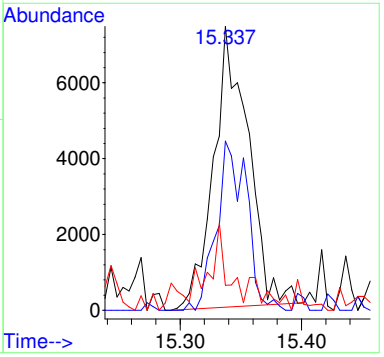


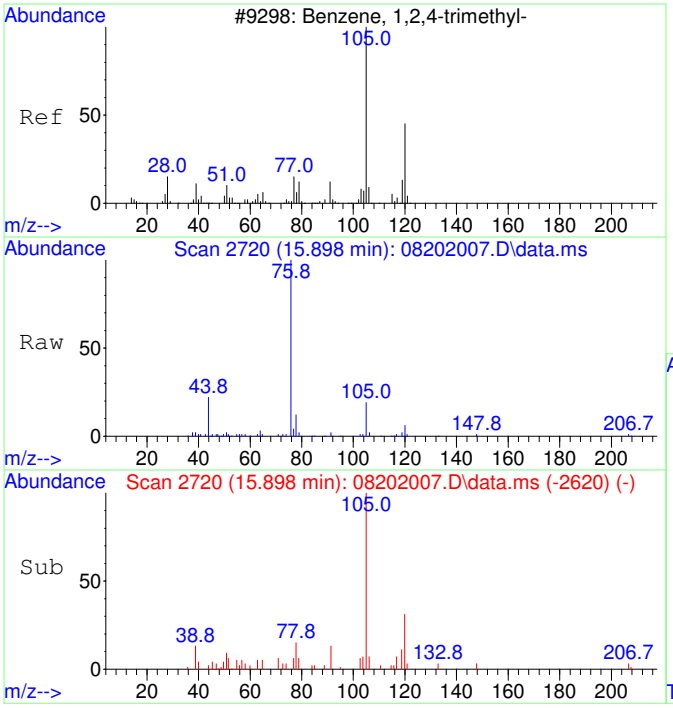




#46
1,3,5-Trimethylbenzene SCAN
Concen: 170.06 ug/L
RT: 15.337 min Scan# 2607
Delta R.T. -0.006 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 14674

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 52.5 | 18.3 | 78.3 |
| 119 | 12.8 | 0.0 | 43.1 |

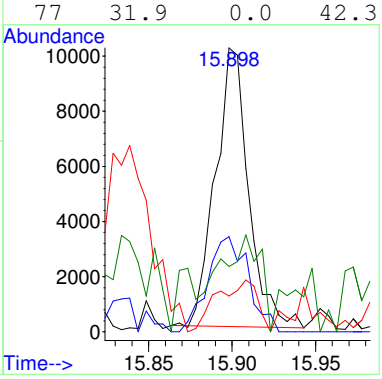


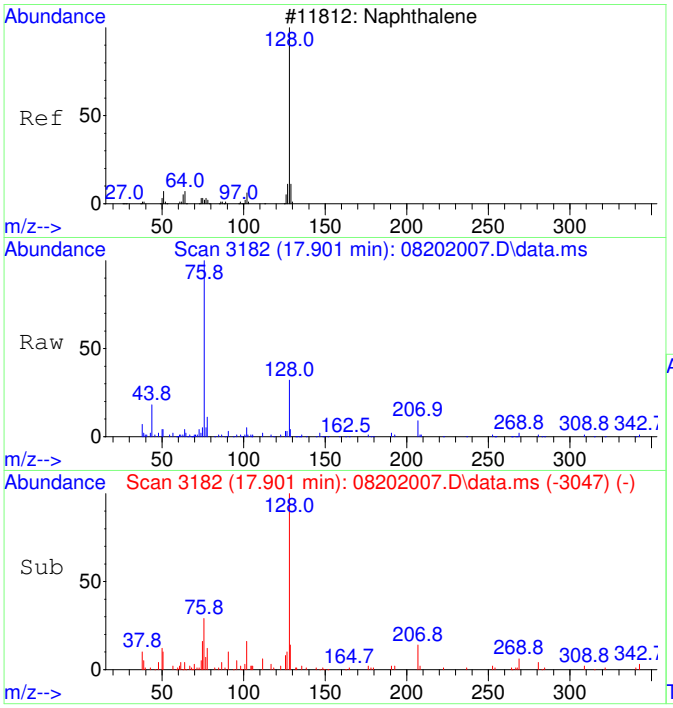



#47
1,2,4-Trimethylbenzene SCAN
Concen: 157.88 ug/L
RT: 15.898 min Scan# 2720
Delta R.T. -0.001 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 13939

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.8 | 16.9 | 76.9 |
| 119 | 22.6 | 0.0 | 41.9 |
| 77 | 31.9 | 0.0 | 42.3 |

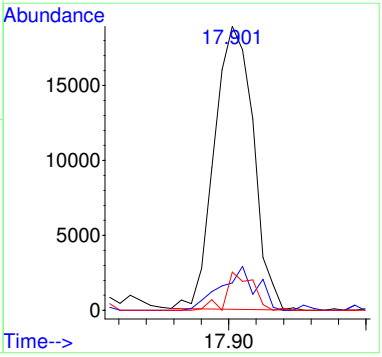



#48
Naphthalene SCAN
Concen: 138.89 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:128 Resp: 18555

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 44.0 |
| 129 | 9.5 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202007.D
Acq On : 20 Aug 2020 17:01
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
TD at 8:44 am, Aug 21, 2020

M.I. Approved By:
ZR at 3:53 pm, Oct 02, 2020

Quant Time: Aug 21 08:31:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

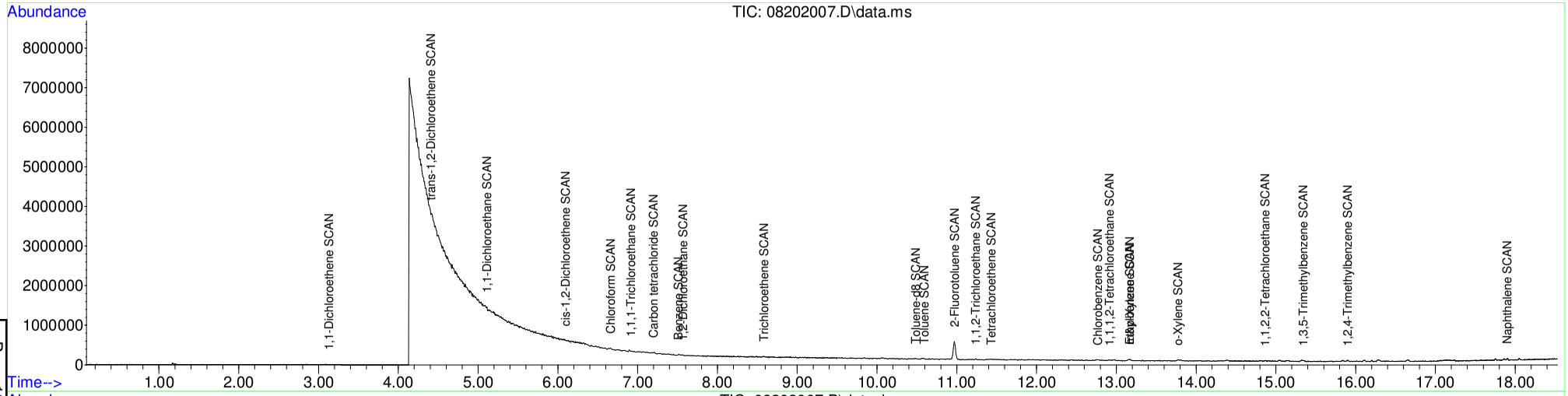
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 687675 | 5000.00 | ug/L | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 18291 | 135.87 | ug/L | | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 2.72%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 4078m | 134.88 | ug/L | | |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 4743 | 149.50 | ug/L | | 88 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 6017 | 152.35 | ug/L | | 86 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 6181 | 148.27 | ug/L | | 99 |
| 6] Chloroform | 6.664 | 83 | 6101 | 142.98 | ug/L | | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 6374 | 137.55 | ug/L | | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 5978 | 137.06 | ug/L | | 98 |
| 9] Benzene | 7.515 | 78 | 16396 | 140.33 | ug/L | | 75 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 6015 | 144.21 | ug/L | | 80 |
| 11] Trichloroethene | 8.575 | 130 | 4884 | 138.83 | ug/L | | 93 |
| 13] Toluene | 10.582 | 91 | 24264 | 141.38 | ug/L | | 98 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 5063 | 135.38 | ug/L | | 97 |
| 15] Tetrachloroethene | 11.432 | 166 | 6650 | 133.89 | ug/L | | 99 |
| 16] Chlorobenzene | 12.765 | 112 | 16465 | 133.98 | ug/L | | 91 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 5876 | 133.44 | ug/L | | 98 |
| 18] Ethylbenzene | 12.972 | 91 | 29078 | 139.19 | ug/L | | 97 |
| 19] m&p-Xylene | 13.163 | 91 | 45947 | 281.41 | ug/L | | 95 |
| 20] o-Xylene | 13.774 | 91 | 23631 | 135.47 | ug/L | | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 10329 | 133.61 | ug/L | | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.344 | 105 | 24949 | 134.37 | ug/L | | 97 |
| 23] 1,2,4-Trimethylbenzene | 15.900 | 105 | 26485 | 137.33 | ug/L | | 94 |
| 24] Naphthalene | 17.903 | 128 | 41384 | 135.77 | ug/L | | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 332955 | 4966.84 | ug/L | | 95 |
| 26) 1,1-Dichloroethene SCAN | 3.126 | 61 | 434 | 30.49 | ug/L | | 72 |
| 27) trans-1,2-Dichloroethe... | 4.408 | 61 | 395 | 22.42 | ug/L | # | 55 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 2230 | 109.38 | ug/L | # | 53 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 1391 | 63.68 | ug/L | # | 33 |
| 30) Chloroform SCAN | 6.663 | 83 | 4055 | 171.15 | ug/L | # | 39 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 4929 | 228.30 | ug/L | | 78 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 2800 | 124.33 | ug/L | # | 65 |
| 33) Benzene SCAN | 7.514 | 78 | 18871 | 317.45 | ug/L | | 97 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 3207 | 146.10 | ug/L | # | 65 |
| 35) Trichloroethene SCAN | 8.584 | 130 | 3166 | 193.80 | ug/L | | 87 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 12748 | 194.45 | ug/L | | 64 |
| 37) Toluene SCAN | 10.591 | 91 | 14371 | 171.17 | ug/L | | 97 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 4083 | 216.66 | ug/L | # | 56 |
| 39) Tetrachloroethene SCAN | 11.431 | 166 | 2646 | 131.18 | ug/L | # | 67 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 9698 | 169.04 | ug/L | # | 35 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 3761 | 177.14 | ug/L | | 95 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 24198 | 158.20 | ug/L | | 91 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 24198 | 158.20 | ug/L | | 93 |
| 44) o-Xylene SCAN | 13.773 | 91 | 15595 | 190.48 | ug/L | | 94 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.864 | 83 | 7082 | 177.39 | ug/L | # | 39 |
| 46) 1,3,5-Trimethylbenzene... | 15.337 | 105 | 14674 | 170.06 | ug/L | | 95 |
| 47) 1,2,4-Trimethylbenzene... | 15.898 | 105 | 13939 | 157.88 | ug/L | | 82 |
| 48) Naphthalene SCAN | 17.901 | 128 | 18555 | 138.89 | ug/L | | 98 |

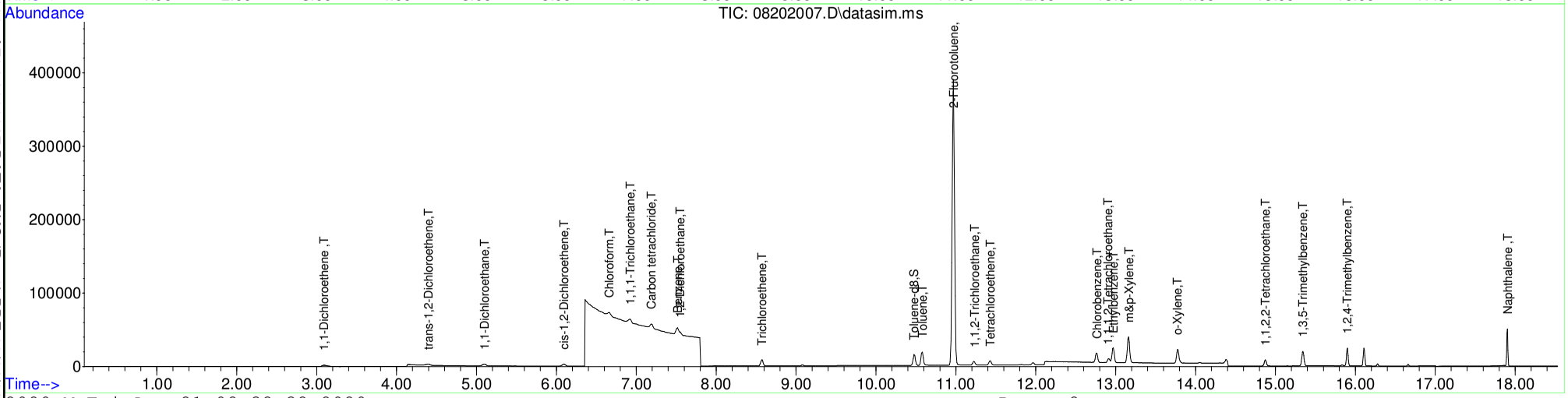
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202007.D
Acq On : 20 Aug 2020 17:01
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL5
Misc : 2030072 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 21 08:31:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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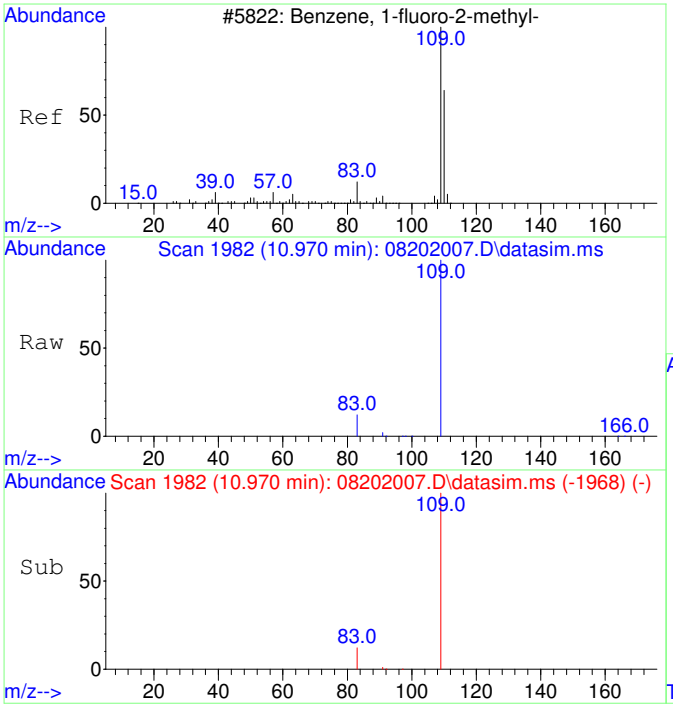
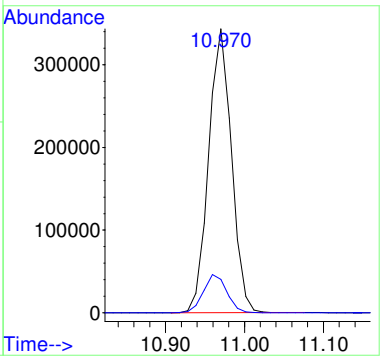
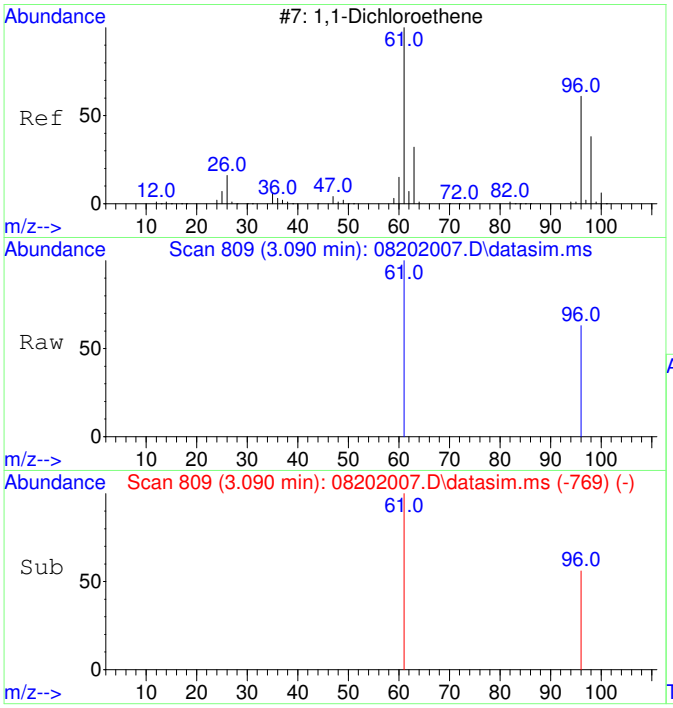



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:109 Resp: 687675

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 42.3 |

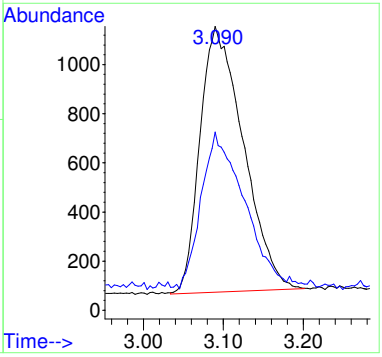


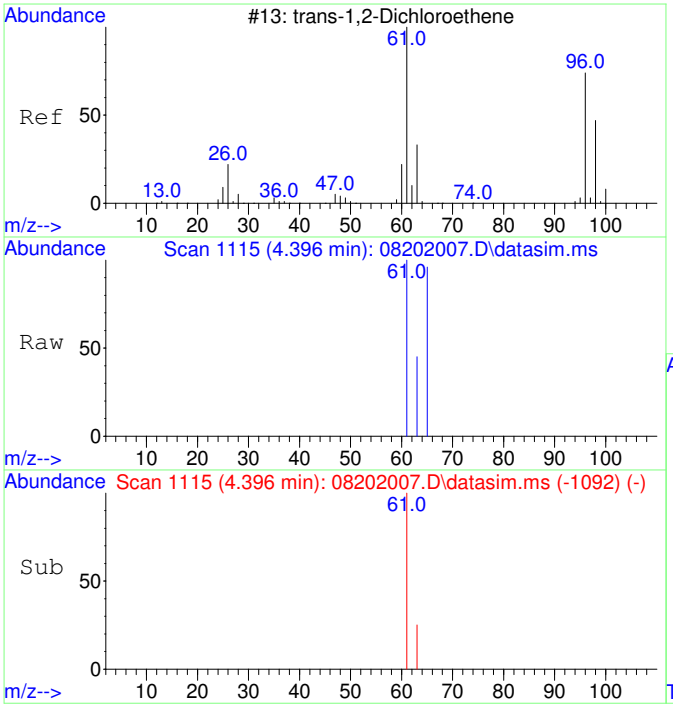




#2
1,1-Dichloroethene
Concen: 134.88 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 4078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 66.0 | 37.2 | 97.2 |

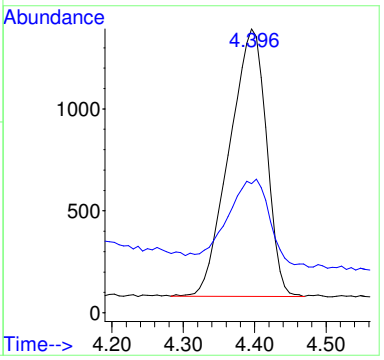


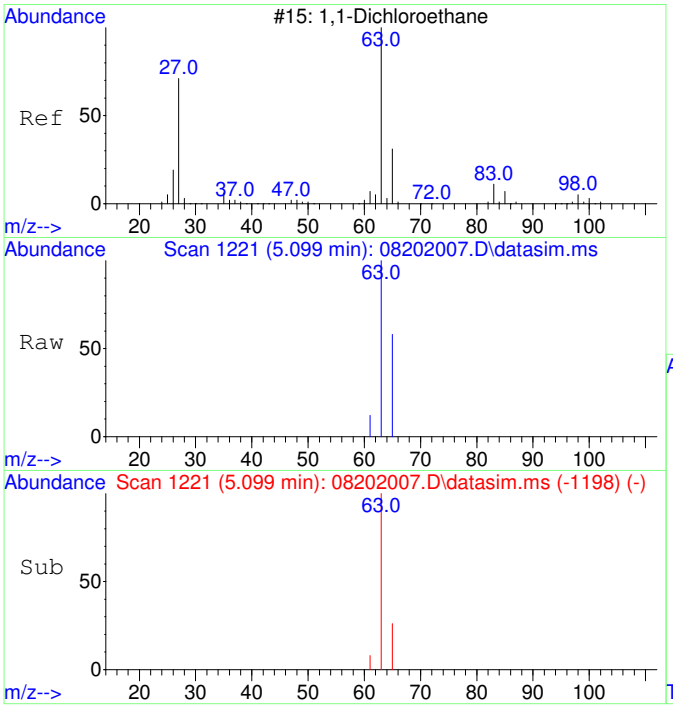



#3
trans-1,2-Dichloroethene
Concen: 149.50 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 4743

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 39.2 | 2.4 | 62.4 |

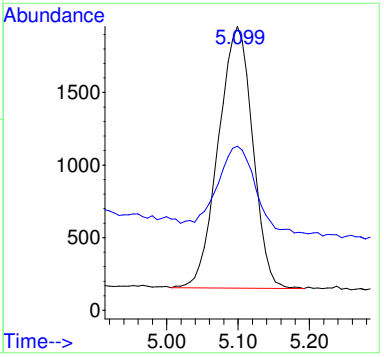


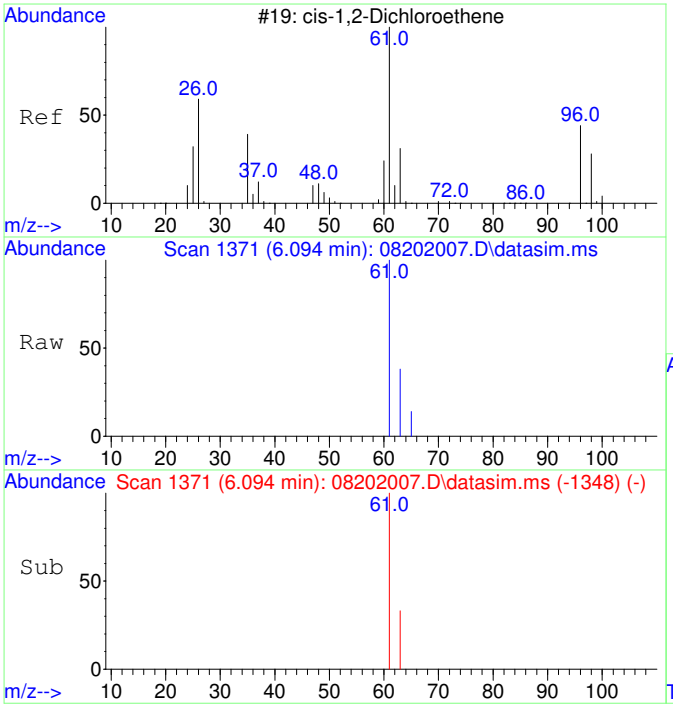




#4
1,1-Dichloroethane
Concen: 152.35 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 63 Resp: 6017

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 39.7 | 1.8 | 61.8 |

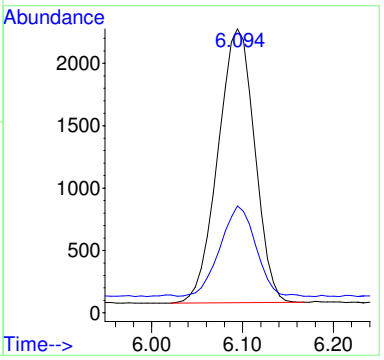


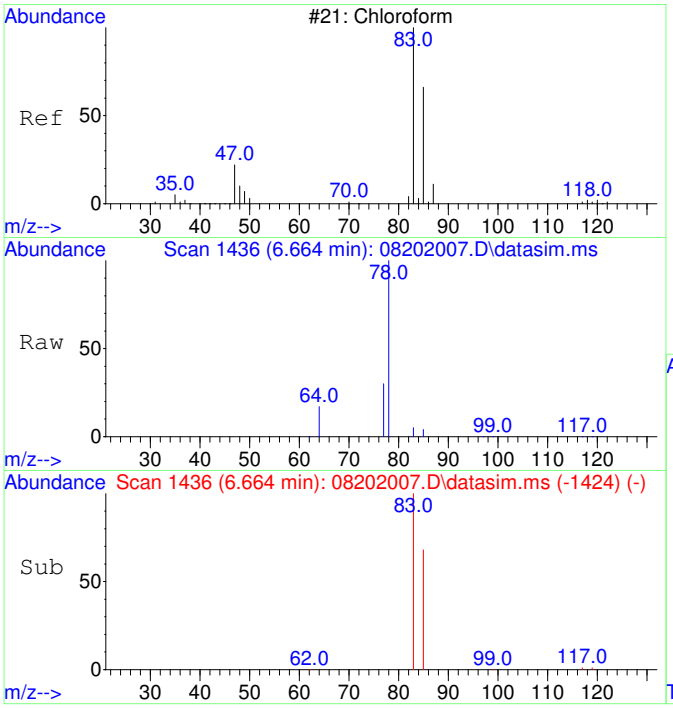



#5
cis-1,2-Dichloroethene
Concen: 148.27 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 6181

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 32.0 | 2.5 | 62.5 |

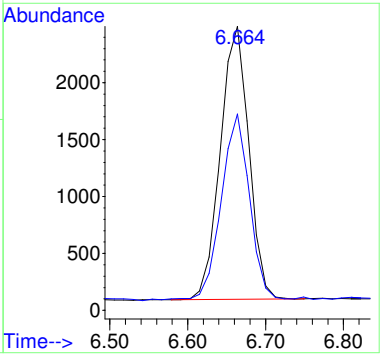


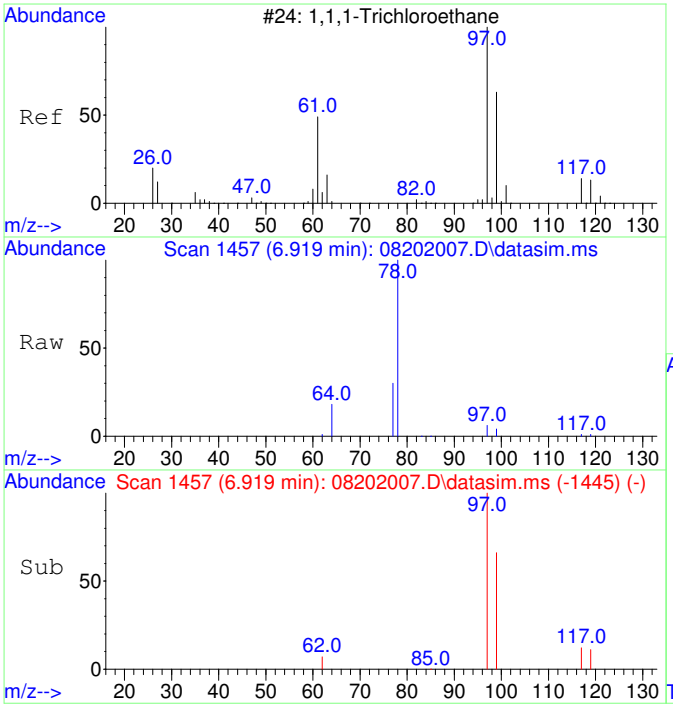




#6
Chloroform
Concen: 142.98 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 6101

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.0 | 35.1 | 95.1 |

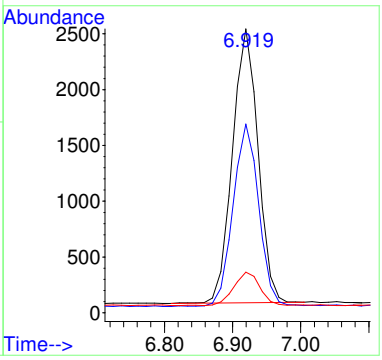


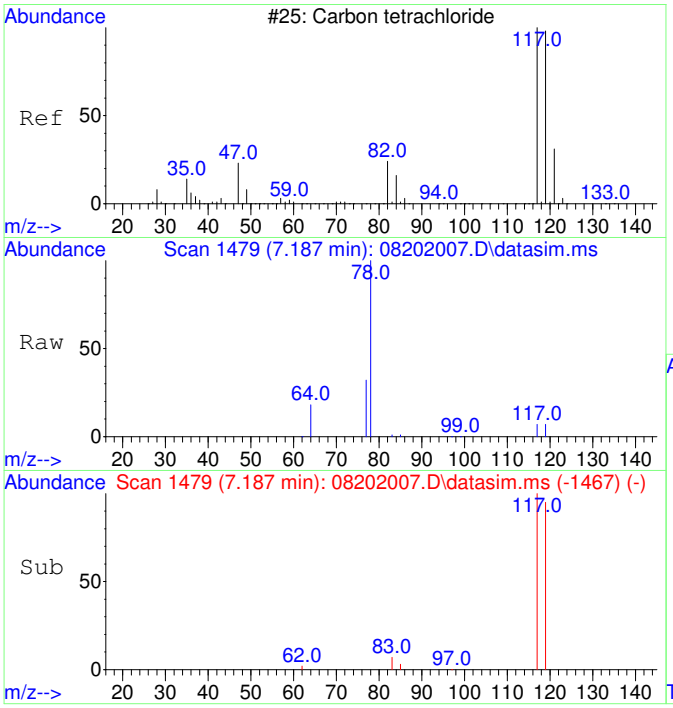



#7
1,1,1-Trichloroethane
Concen: 137.55 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 6374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.5 | 34.6 | 94.6 |
| 117 | 12.8 | 0.0 | 43.2 |

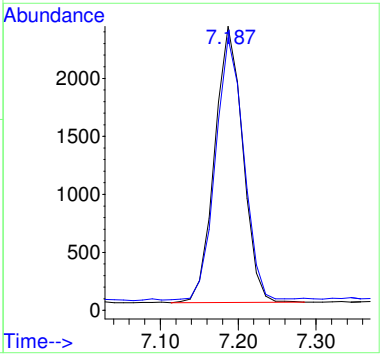


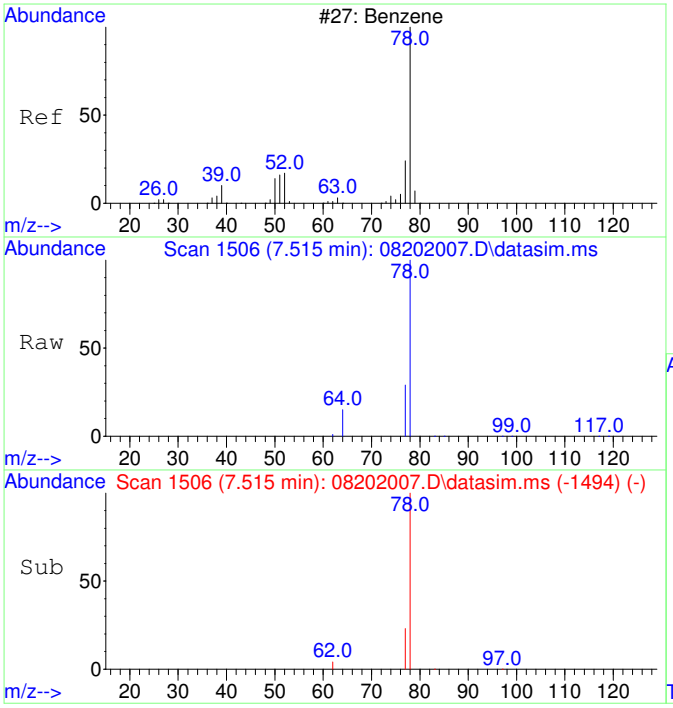




#8
Carbon tetrachloride
Concen: 137.06 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:117 Resp: 5978

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.6 | 66.4 | 126.4 |

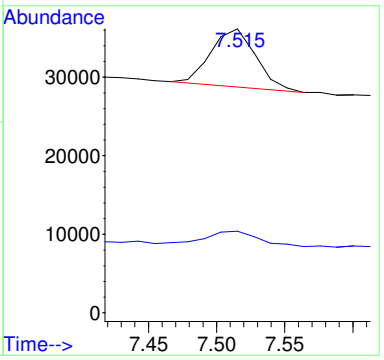


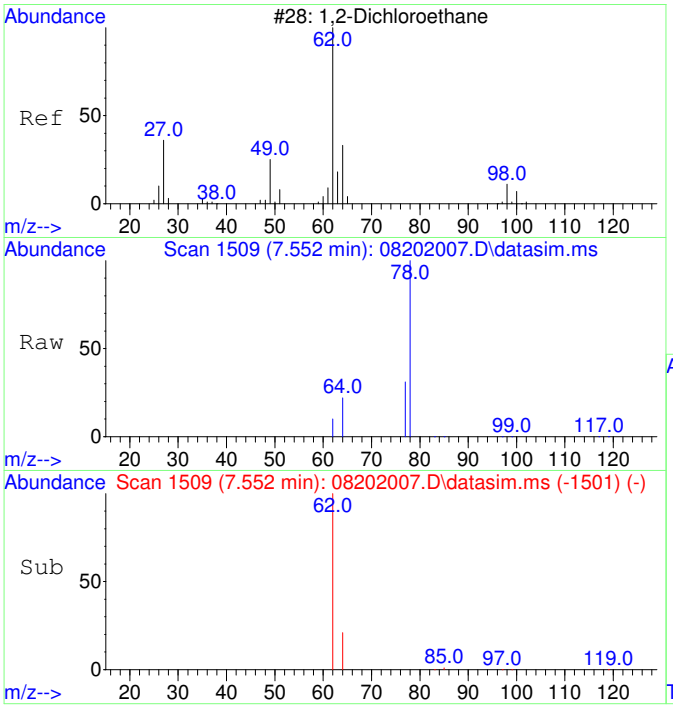



#9
Benzene
Concen: 140.33 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 78 Resp: 16396

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 35.6 | 0.0 | 53.2 |

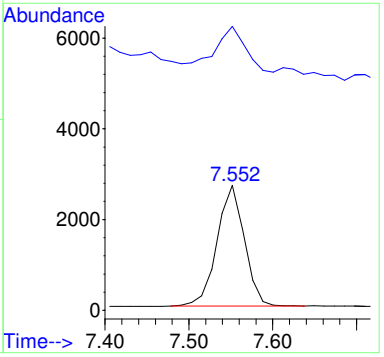


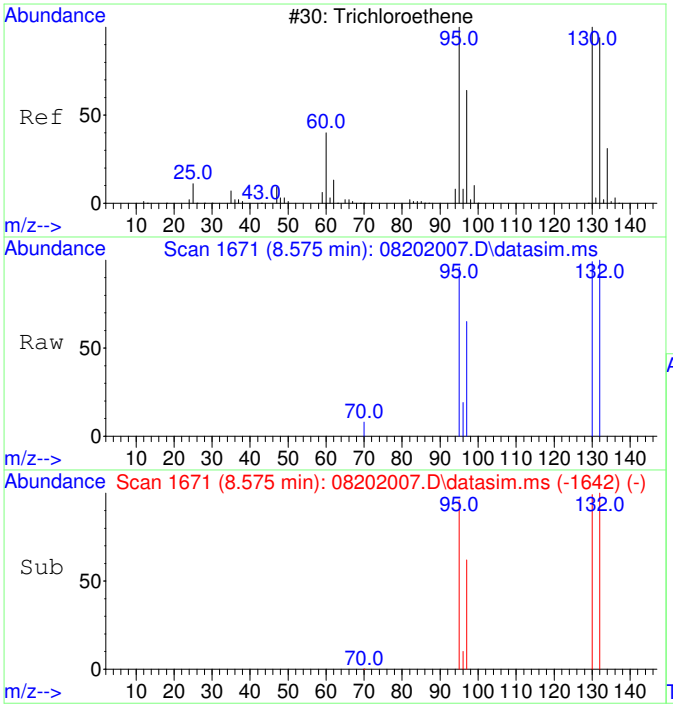




#10
1,2-Dichloroethane
Concen: 144.21 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 62 Resp: 6015

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 43.6 | 2.3 | 62.3 |

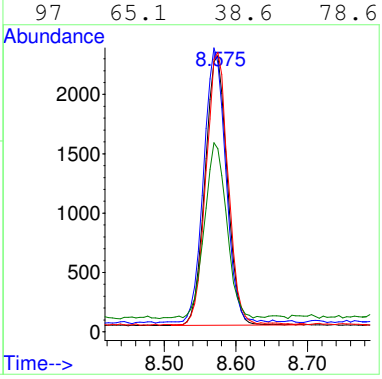


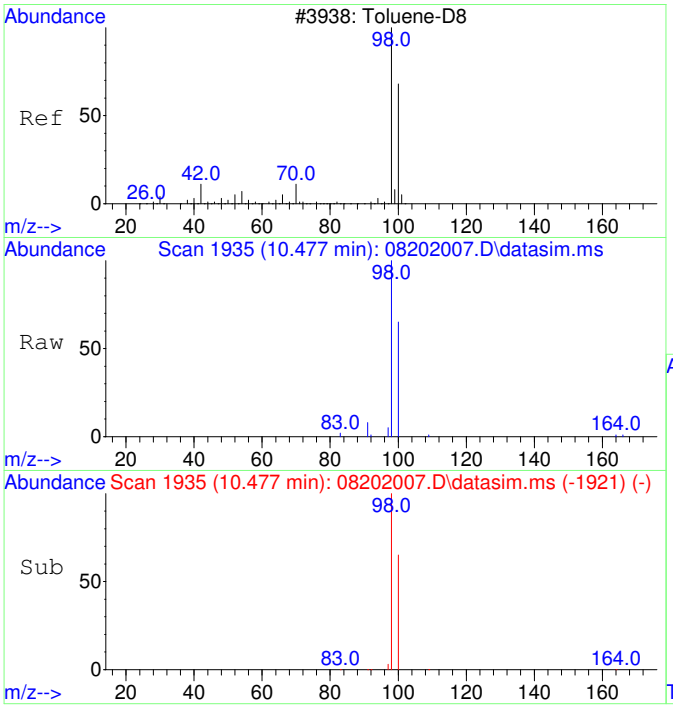



#11
Trichloroethene
Concen: 138.83 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:130 Resp: 4884

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.8 | 60.7 | 120.7 |
| 132 | 98.9 | 76.0 | 116.0 |
| 97 | 65.1 | 38.6 | 78.6 |

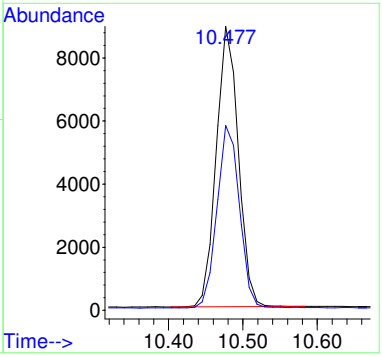


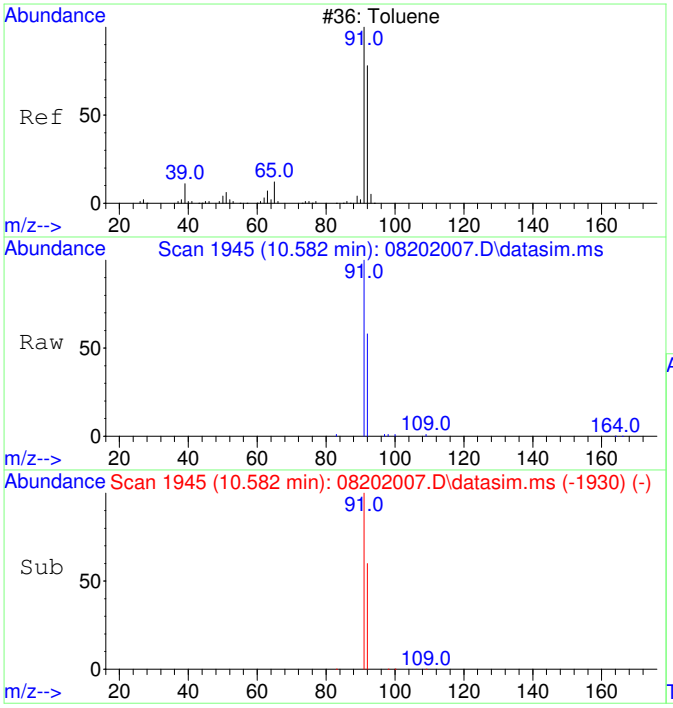




#12
Toluene-d8
Concen: 135.87 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 98 Resp: 18291

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.9 | 37.1 | 97.1 |

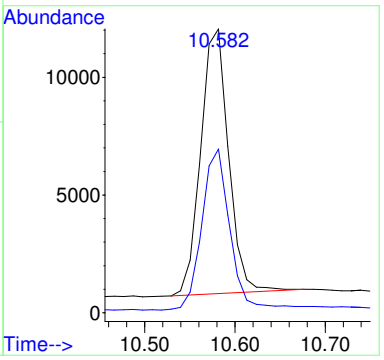


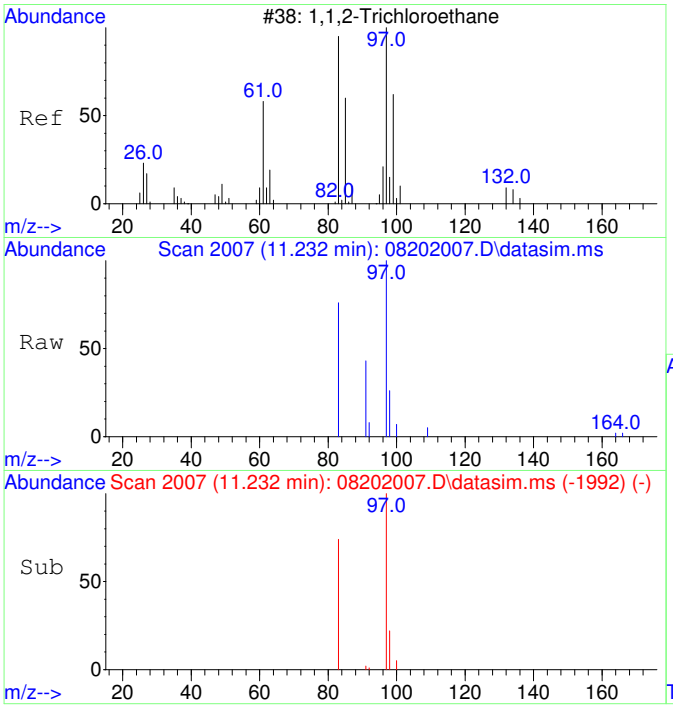



#13
Toluene
Concen: 141.38 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.5 | 29.9 | 89.9 |

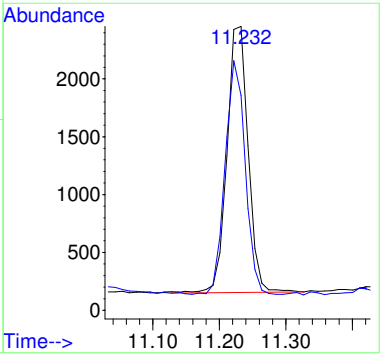


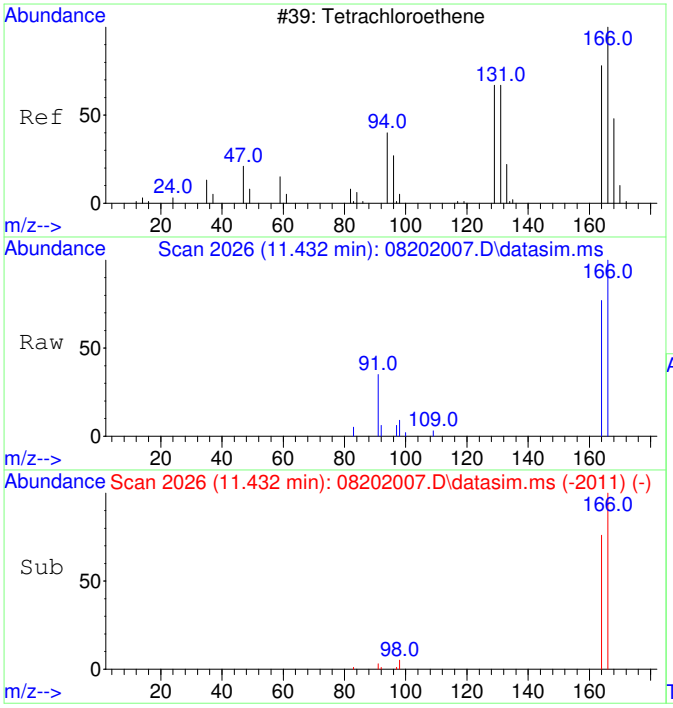




#14
1,1,2-Trichloroethane
Concen: 135.38 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 5063

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.5 | 51.2 | 111.2 |

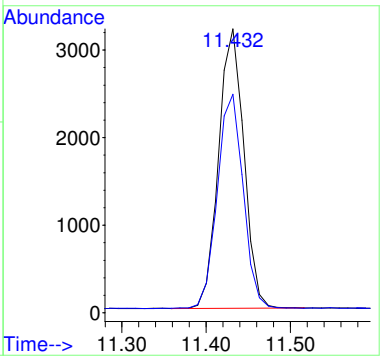


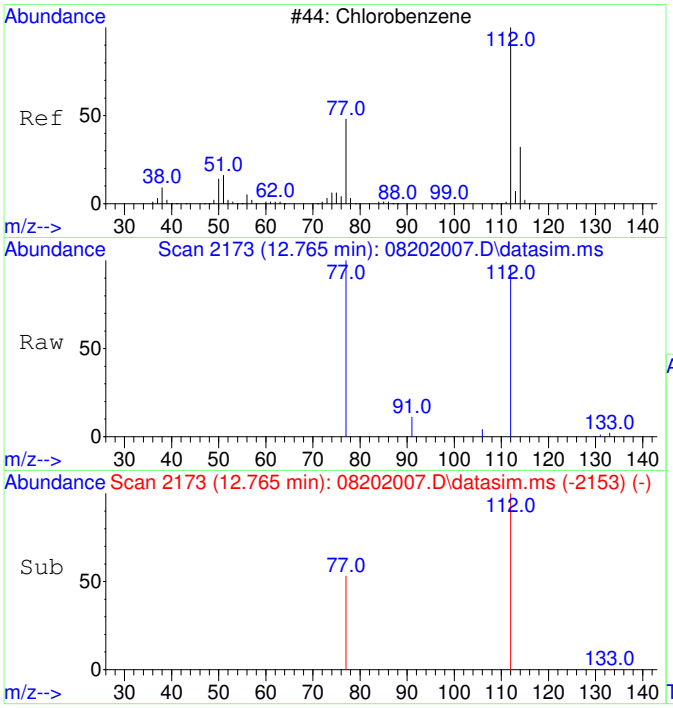



#15
Tetrachloroethene
Concen: 133.89 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:166 Resp: 6650

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.5 | 47.8 | 107.8 |

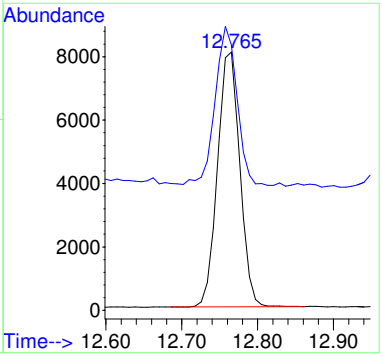


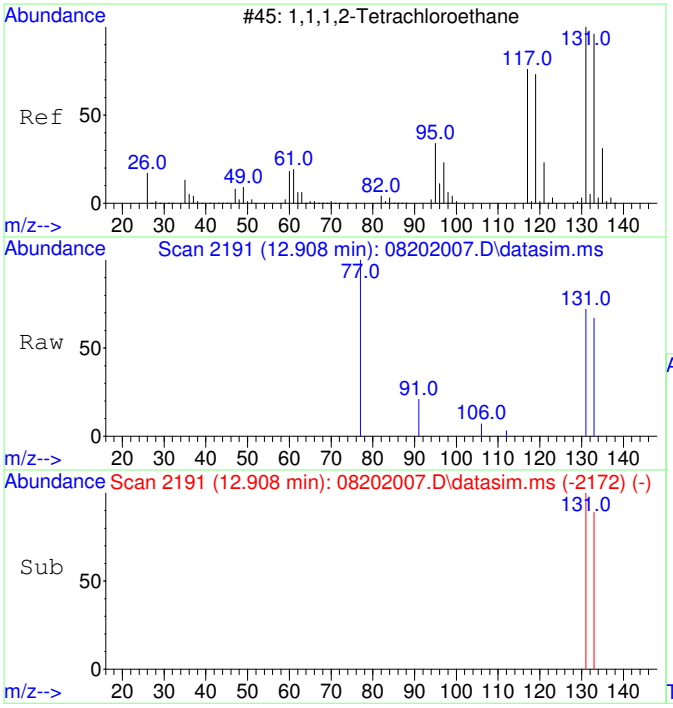




#16
Chlorobenzene
Concen: 133.98 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:112 Resp: 16465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 60.1 | 23.6 | 83.6 |

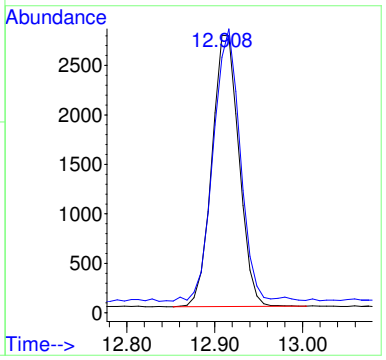


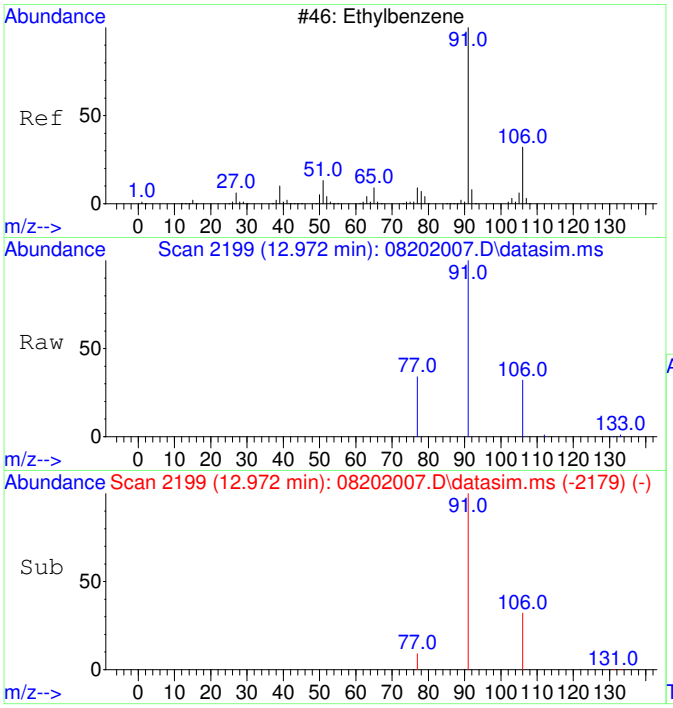



#17
1,1,1,2-Tetrachloroethane
Concen: 133.44 ug/L
RT: 12.908 min Scan# 2191
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:131 Resp: 5876

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 97.8 | 66.3 | 126.3 |

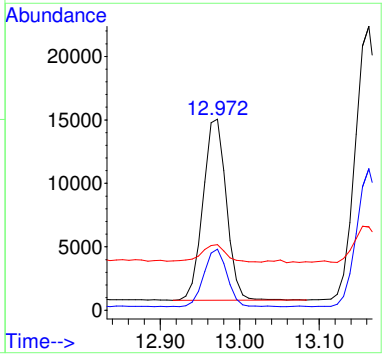


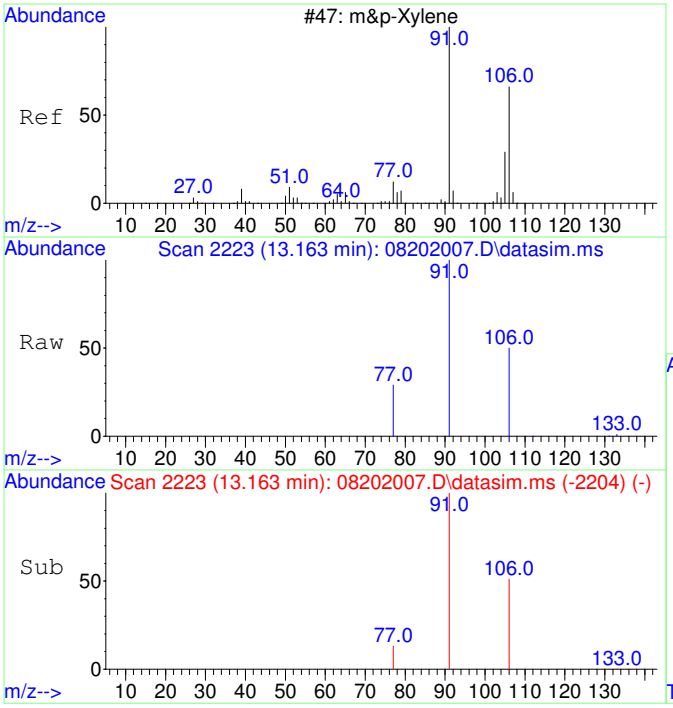




#18
Ethylbenzene
Concen: 139.19 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 29078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.6 | 3.0 | 63.0 |
| 77 | 10.1 | 0.0 | 38.2 |

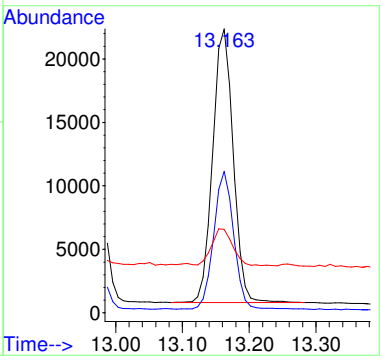


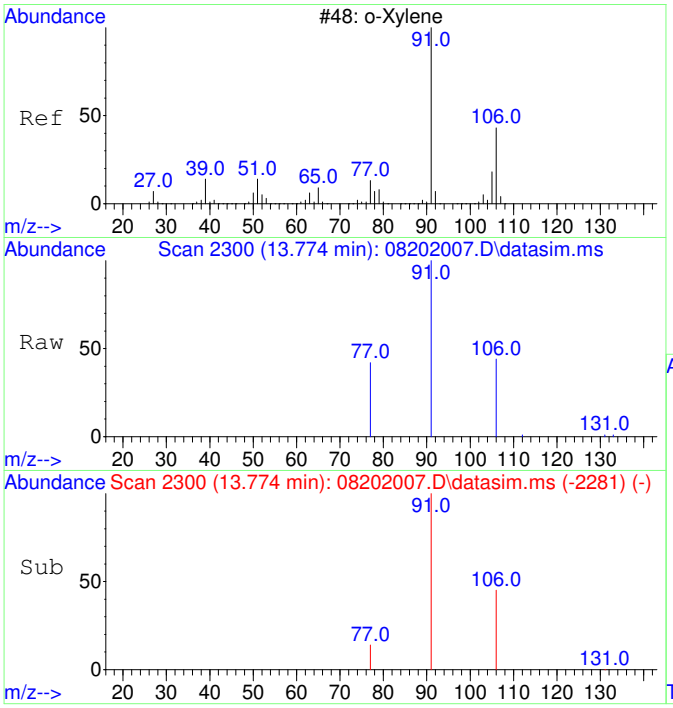



#19
m&p-Xylene
Concen: 281.41 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 45947

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.7 | 22.2 | 82.2 |
| 77 | 14.0 | 0.0 | 42.4 |

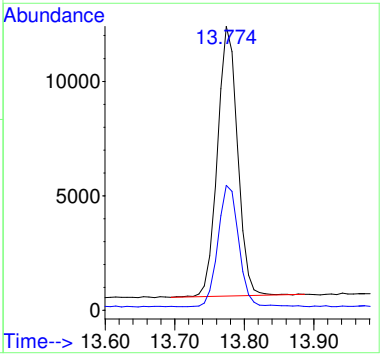


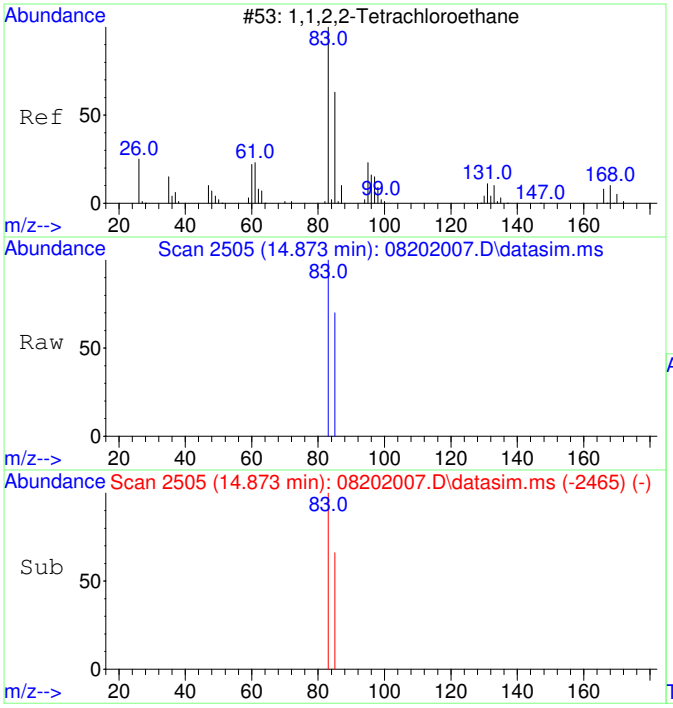




#20
o-Xylene
Concen: 135.47 ug/L
RT: 13.774 min Scan# 2300
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 23631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.7 | 19.2 | 79.2 |

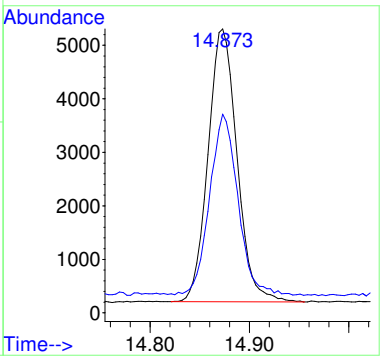


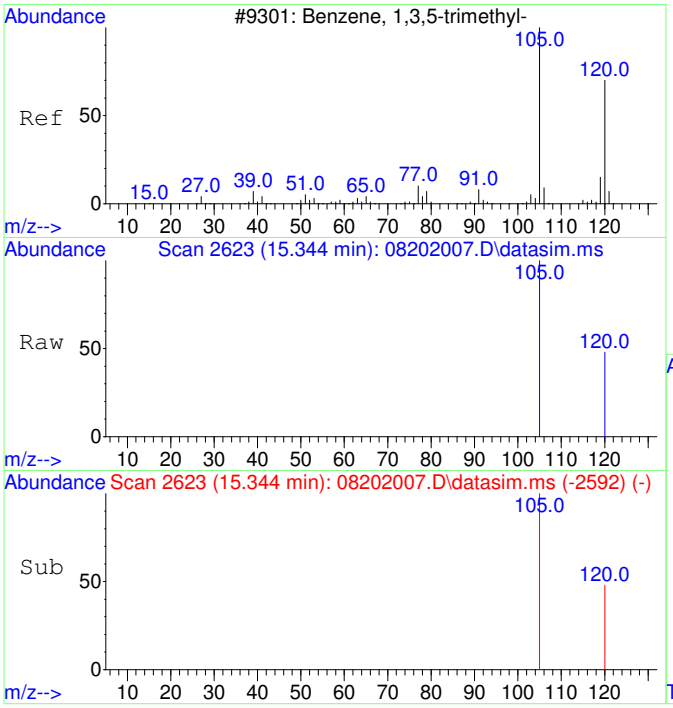



#21
1,1,2,2-Tetrachloroethane
Concen: 133.61 ug/L
RT: 14.873 min Scan# 2505
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 10329

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.3 | 34.8 | 94.8 |

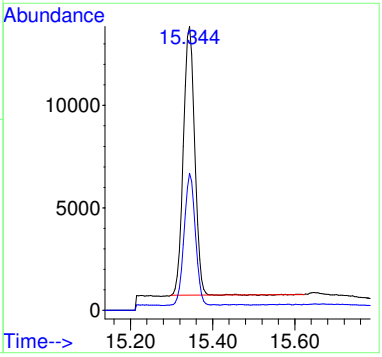


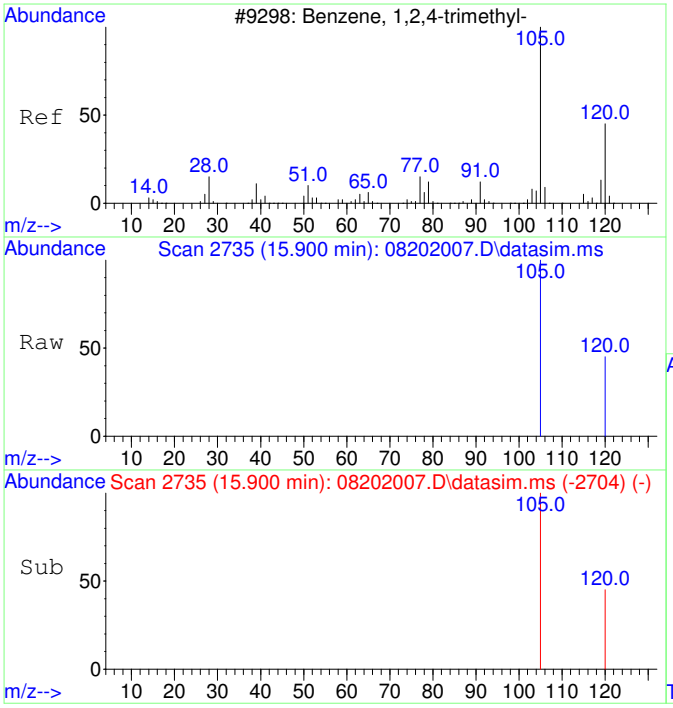




#22
1,3,5-Trimethylbenzene
Concen: 134.37 ug/L
RT: 15.344 min Scan# 2623
Delta R.T. -0.001 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 24949

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.8 | 21.1 | 81.1 |

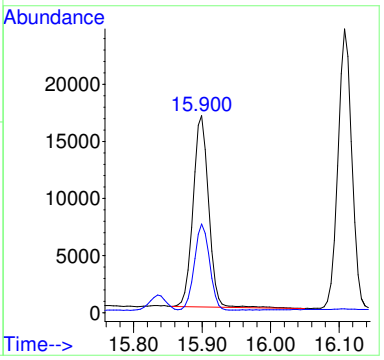


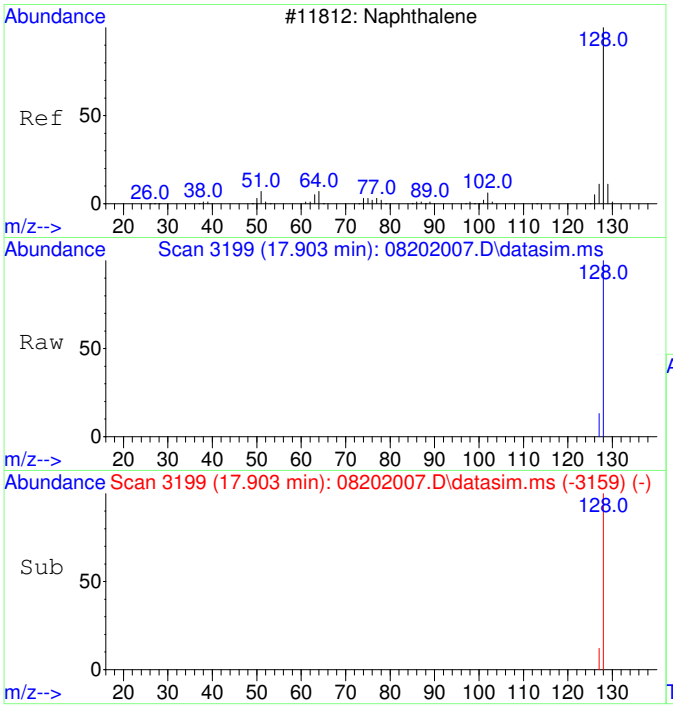



#23
1,2,4-Trimethylbenzene
Concen: 137.33 ug/L
RT: 15.900 min Scan# 2735
Delta R.T. 0.004 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 26485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.4 | 17.2 | 77.2 |

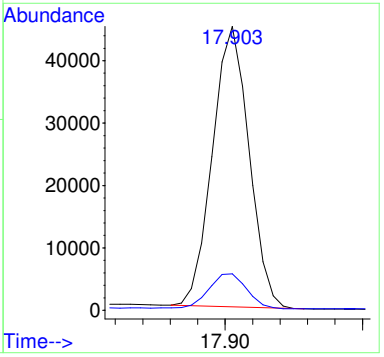


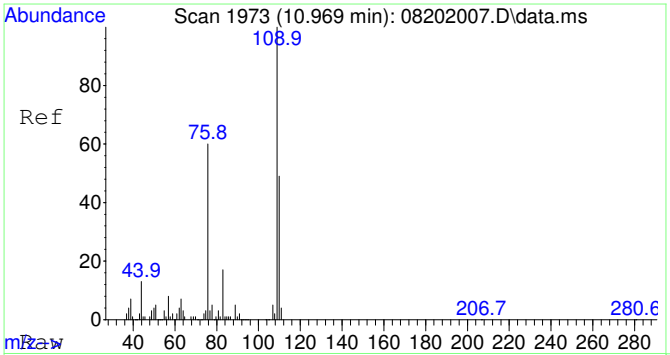




#24
Naphthalene
Concen: 135.77 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:128 Resp: 41384

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.6 | 0.0 | 42.5 |

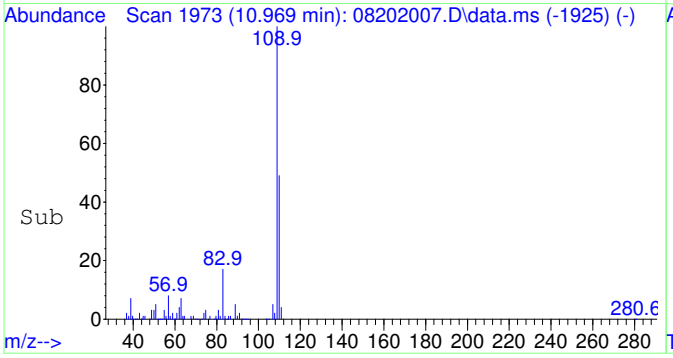


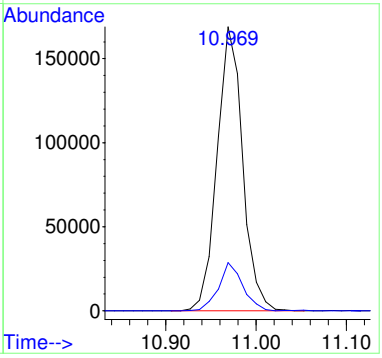


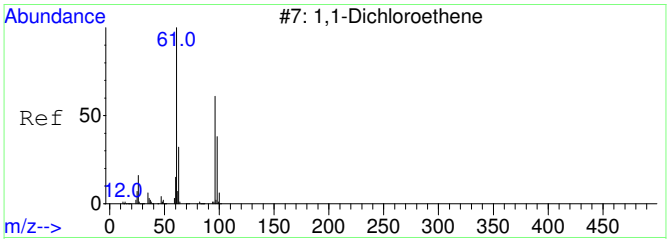

#25
2-Fluorotoluene SCAN
Concen: 4966.84 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:109 Resp: 332955

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.9 | 0.0 | 43.8 |



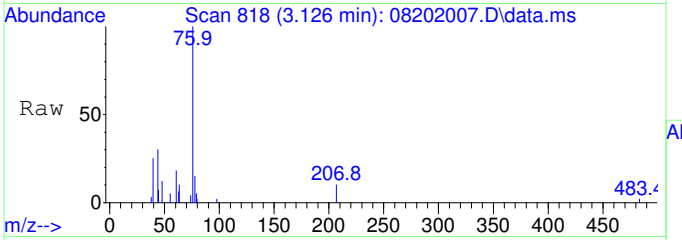



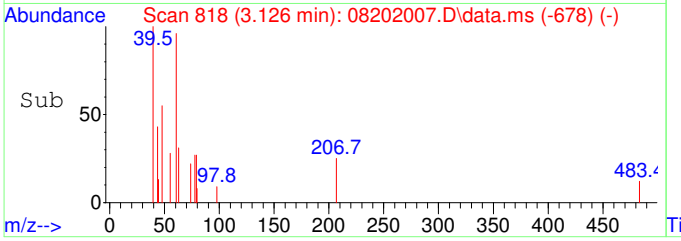



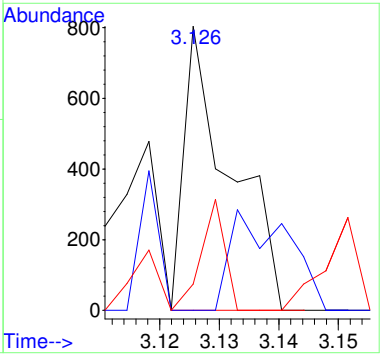

#26
1,1-Dichloroethene SCAN
Concen: 30.49 ug/L
RT: 3.126 min Scan# 818
Delta R.T. 0.019 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

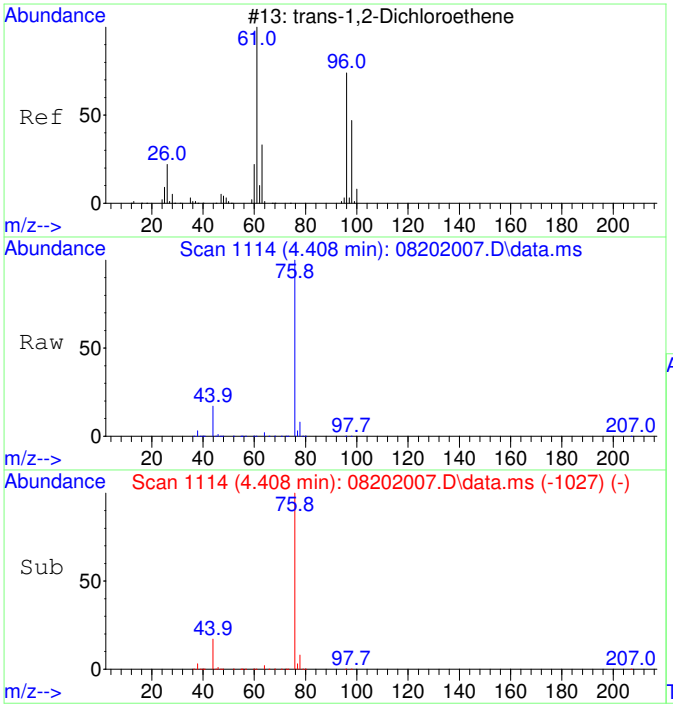
Tgt Ion: 61 Resp: 434

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 44.0 | 33.1 | 93.1 |
| 98 | 19.8 | 11.2 | 71.2 |



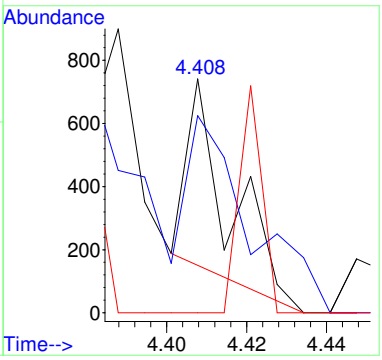



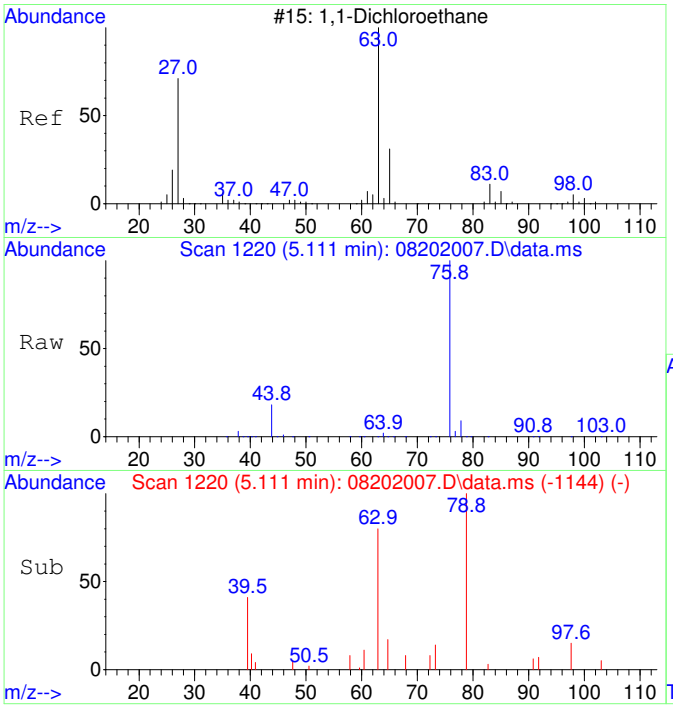



#27
trans-1,2-Dichloroethene SCAN
Concen: 22.42 ug/L
RT: 4.408 min Scan# 1114
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 126.6 | 49.0 | 109.0# |
| 97 | 72.4 | 20.5 | 80.5 |

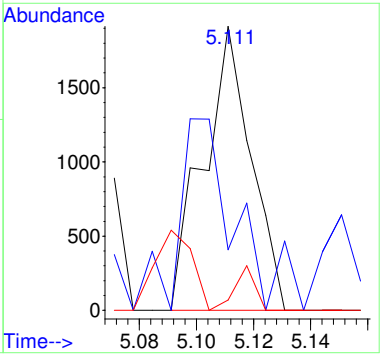


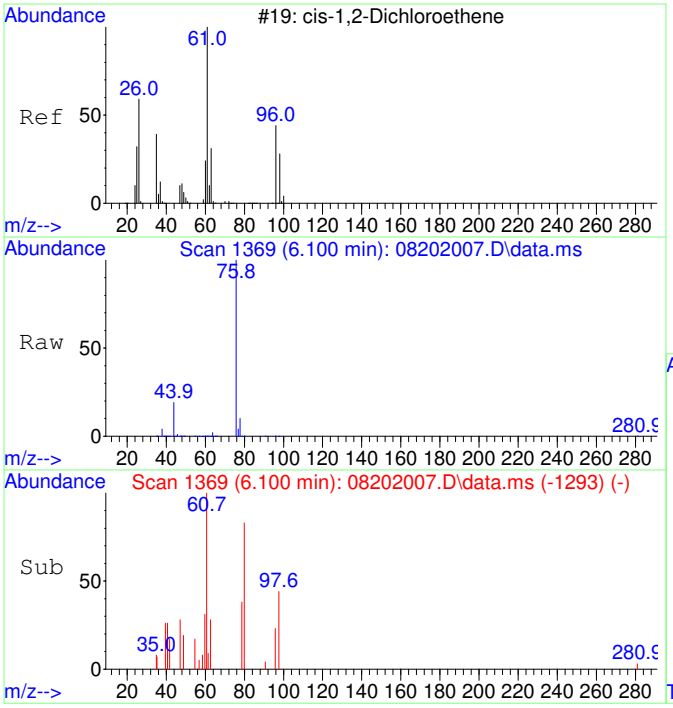




#28
1,1-Dichloroethane SCAN
Concen: 109.38 ug/L
RT: 5.111 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 63 Resp: 2230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 0.0 | 1.3 | 61.3# |
| 83 | 4.1 | 0.0 | 45.9 |

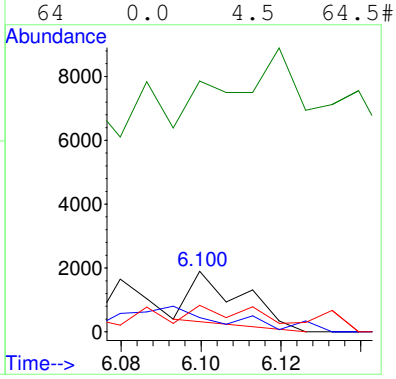


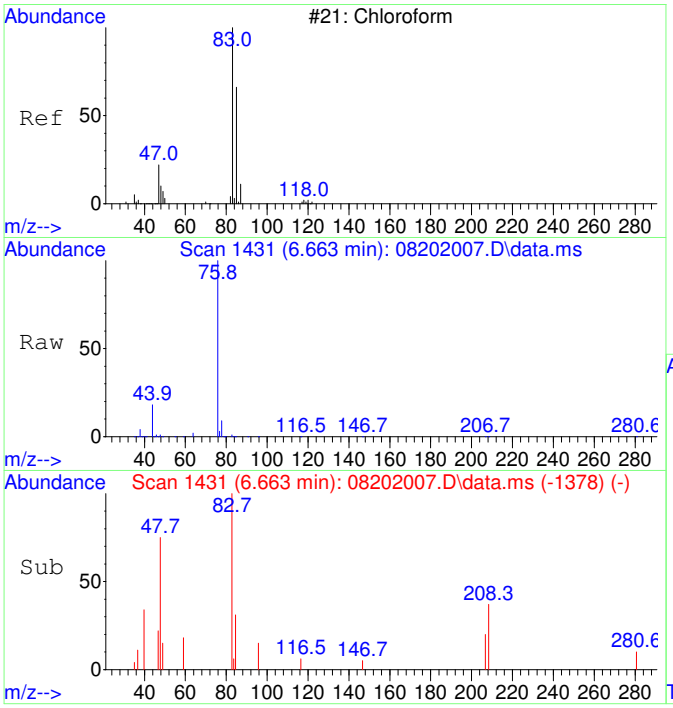



#29
cis-1,2-Dichloroethene SCAN
Concen: 63.68 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 61 Resp: 1391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 143.3 | 39.9 | 99.9# |
| 98 | 66.9 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

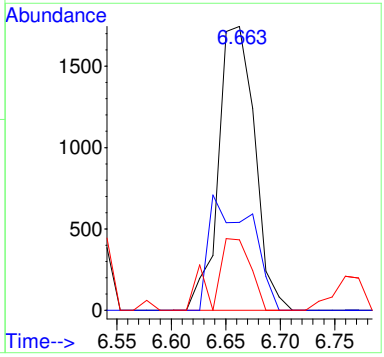


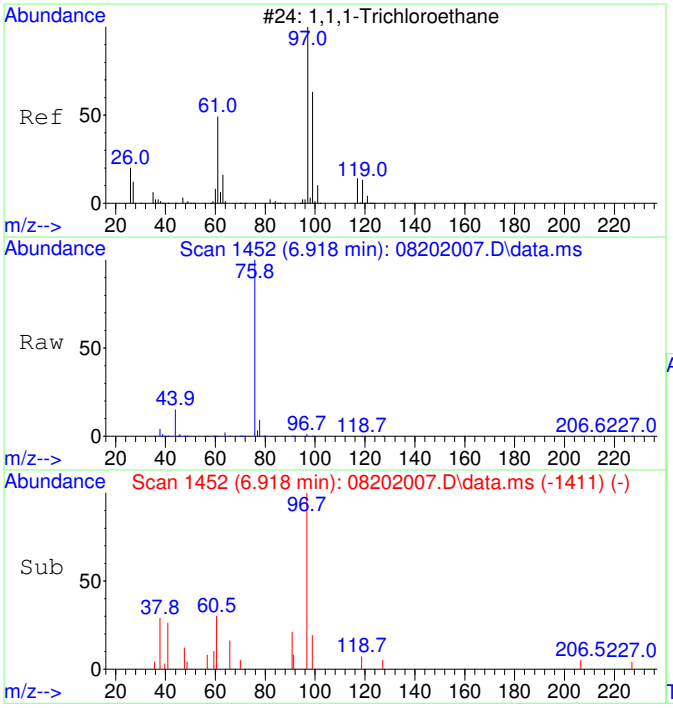




#30
Chloroform SCAN
Concen: 171.15 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 4055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 25.2 | 0.0 | 53.4 |

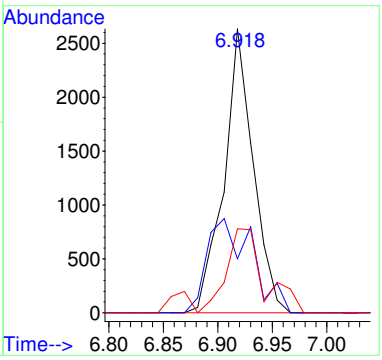


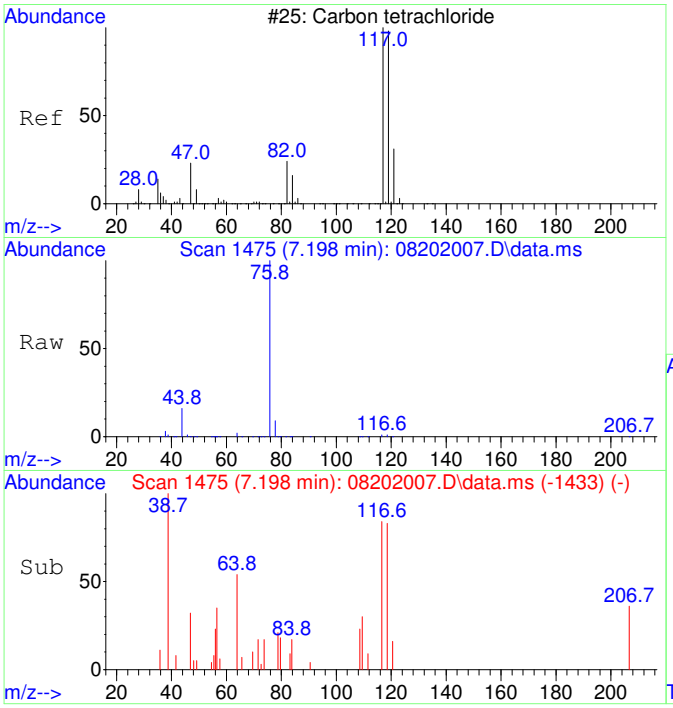



#31
1,1,1-Trichloroethane SCAN
Concen: 228.30 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 4929

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 51.1 | 43.6 | 103.6 |
| 61 | 37.8 | 18.0 | 78.0 |

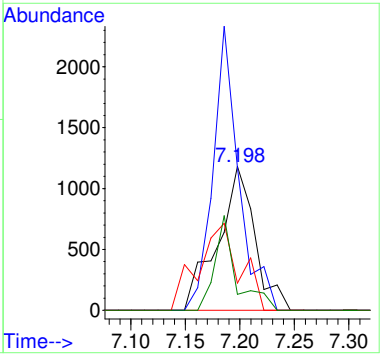


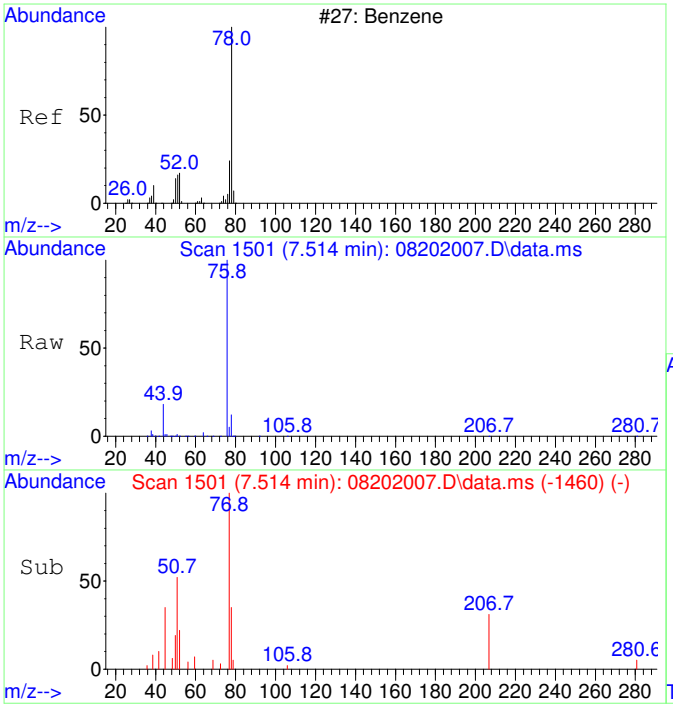




#32
Carbon tetrachloride SCAN
Concen: 124.33 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:117 Resp: 2800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 137.3 | 75.5 | 135.5# |
| 121 | 67.3 | 0.0 | 58.8# |
| 82 | 37.5 | 0.0 | 59.2 |

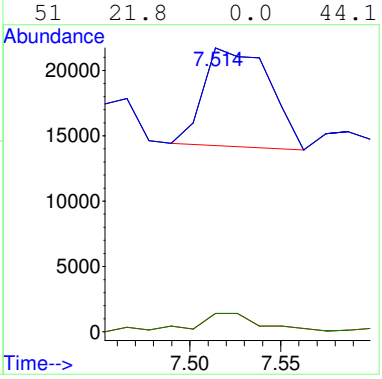


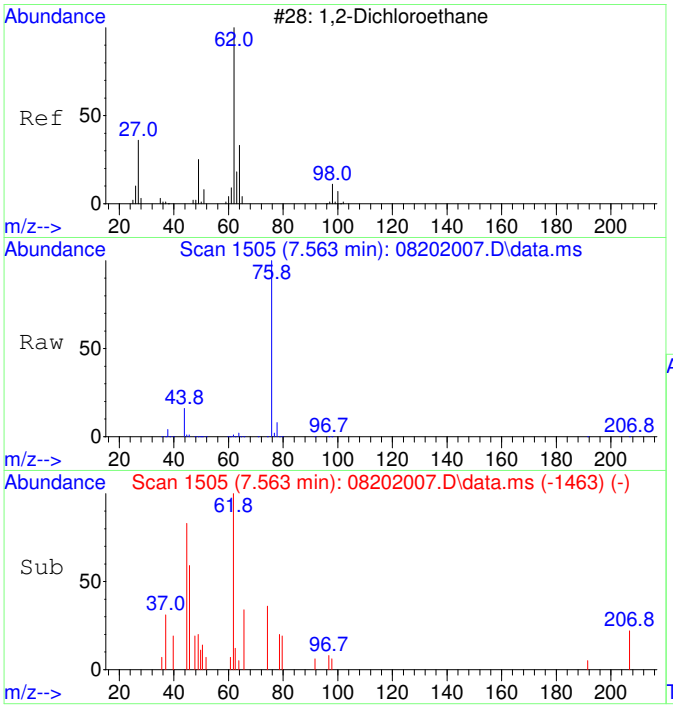



#33
Benzene SCAN
Concen: 317.45 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 78 Resp: 18871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 21.8 | 0.0 | 47.9 |
| 51 | 21.8 | 0.0 | 44.1 |

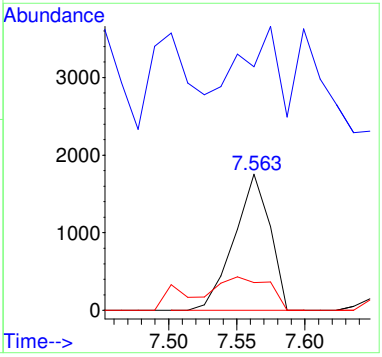


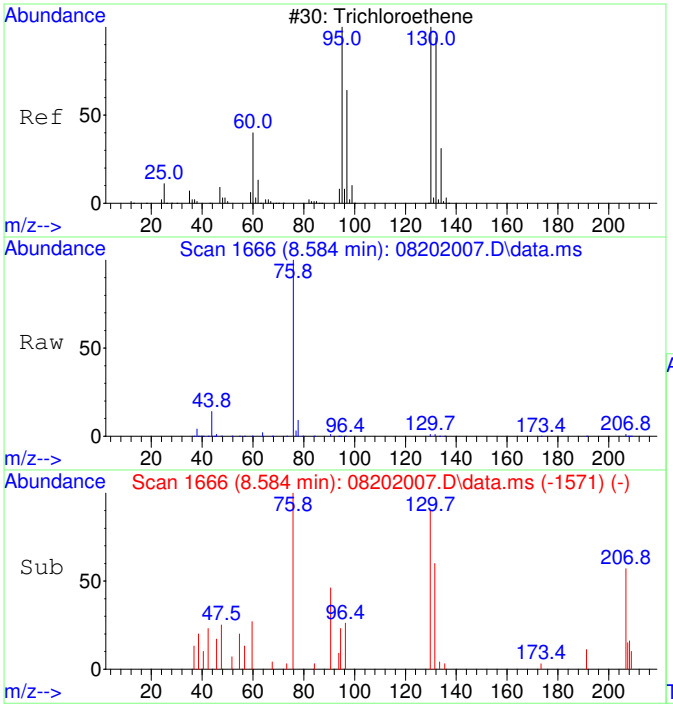




#34
1,2-Dichloroethane SCAN
Concen: 146.10 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 62 Resp: 3207

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 42.1 | 5.2 | 65.2 |
| 49 | 0.0 | 3.9 | 63.9# |

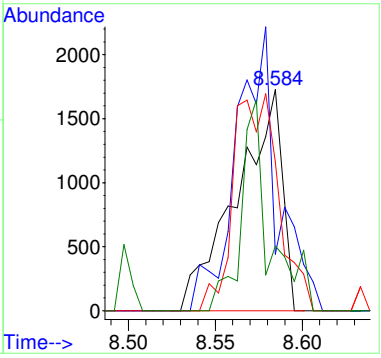


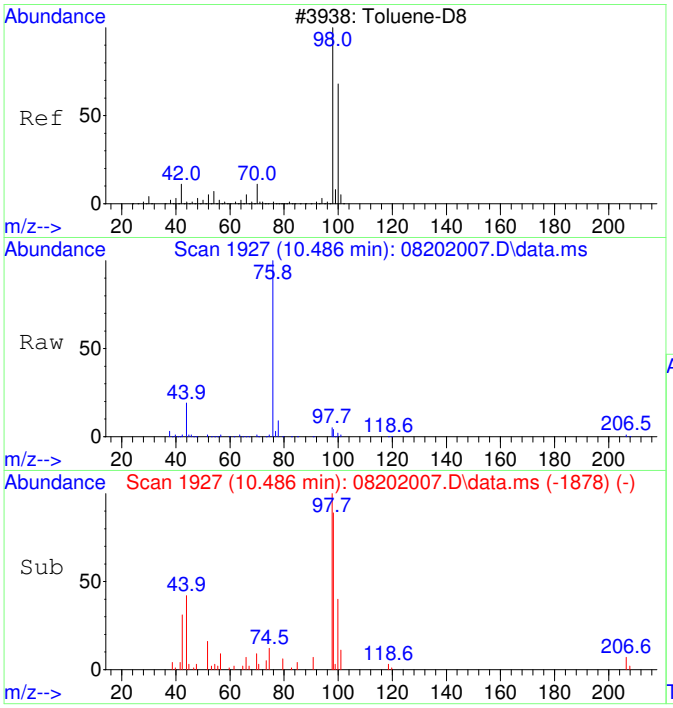



#35
Trichloroethene SCAN
Concen: 193.80 ug/L
RT: 8.584 min Scan# 1666
Delta R.T. 0.016 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:130 Resp: 3166

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 116.2 | 60.5 | 120.5 |
| 132 | 96.6 | 59.6 | 119.6 |
| 97 | 58.8 | 28.2 | 88.2 |

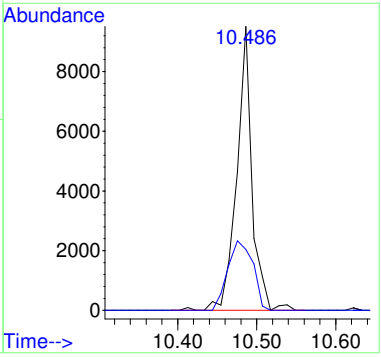


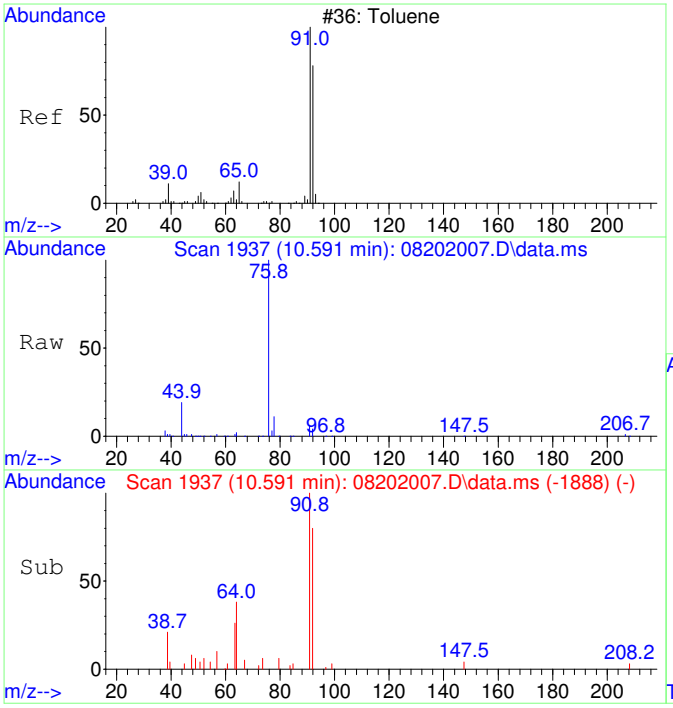




#36
Toluene-d8 SCAN
Concen: 194.45 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 98 Resp: 12748

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 40.3 | 40.0 | 100.0 |

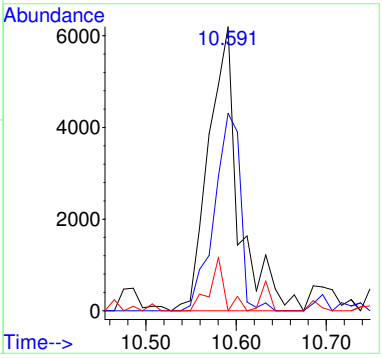


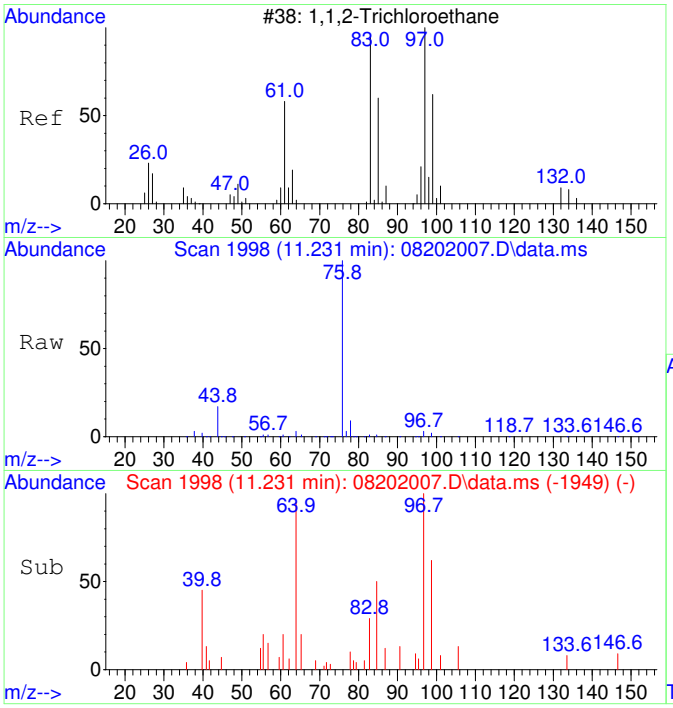



#37
Toluene SCAN
Concen: 171.17 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 14371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 60.5 | 28.3 | 88.3 |
| 65 | 9.4 | 0.0 | 41.0 |

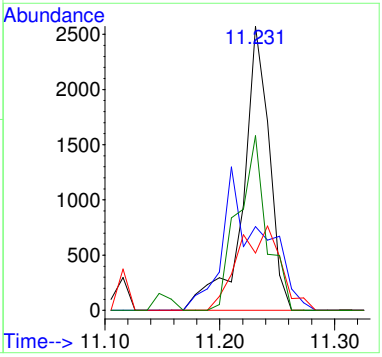


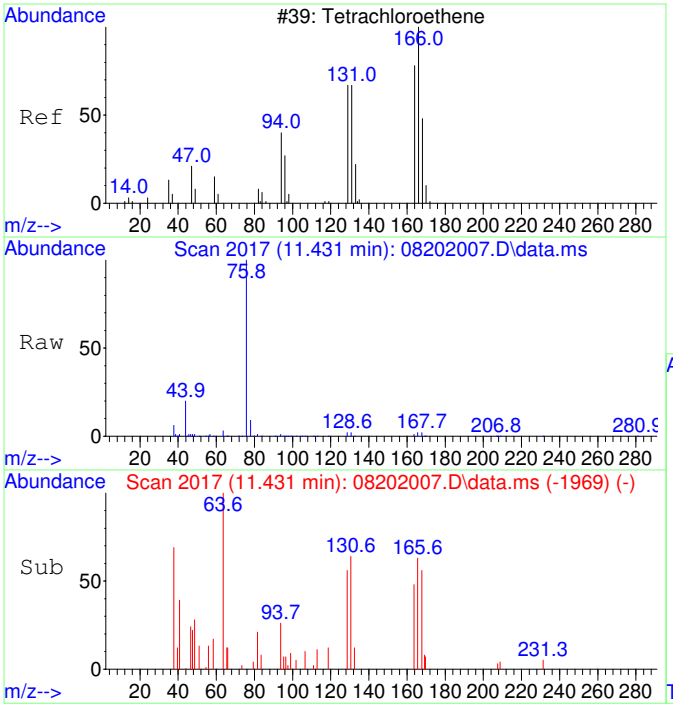




#38
1,1,2-Trichloroethane SCAN
Concen: 216.66 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.011 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 97 Resp: 4083

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 48.2 | 32.1 | 92.1 |
| 99 | 67.8 | 36.7 | 96.7 |

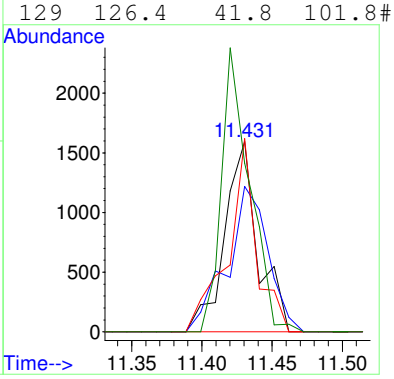


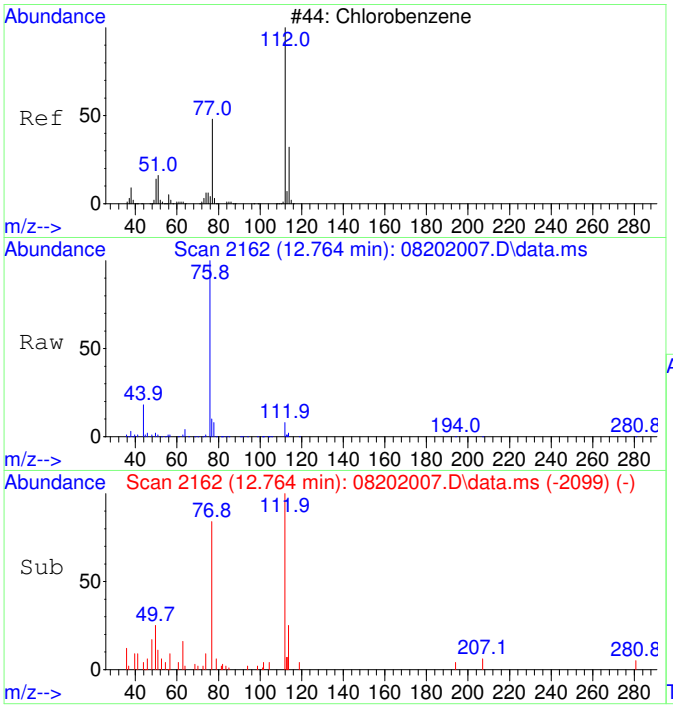



#39
Tetrachloroethene SCAN
Concen: 131.18 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:166 Resp: 2646

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 93.8 | 50.9 | 110.9 |
| 131 | 86.4 | 38.7 | 98.7 |
| 129 | 126.4 | 41.8 | 101.8# |

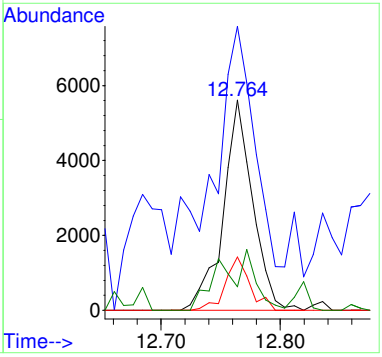


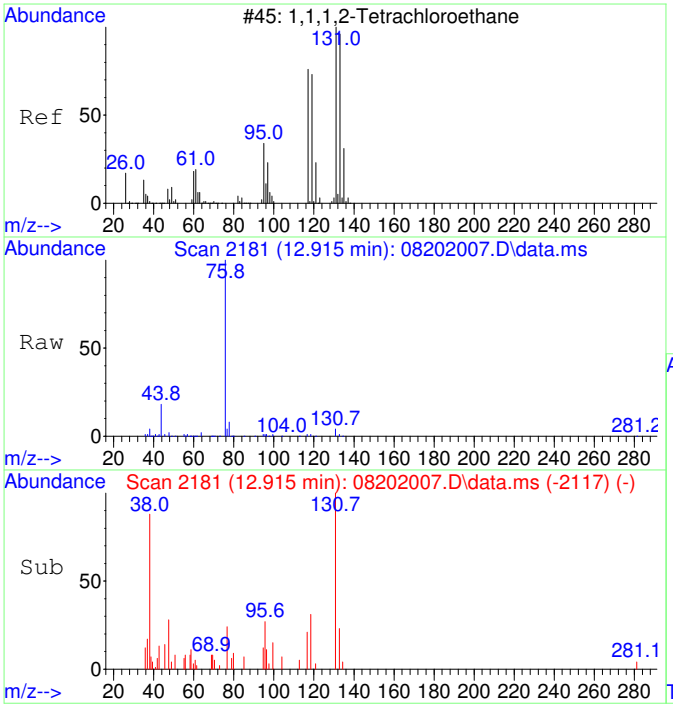




#40
Chlorobenzene SCAN
Concen: 169.04 ug/L
RT: 12.764 min Scan# 2162
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:112 Resp: 9698

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 136.8 | 28.2 | 88.2# |
| 114 | 21.1 | 2.3 | 62.3 |
| 51 | 12.2 | 0.0 | 50.1 |

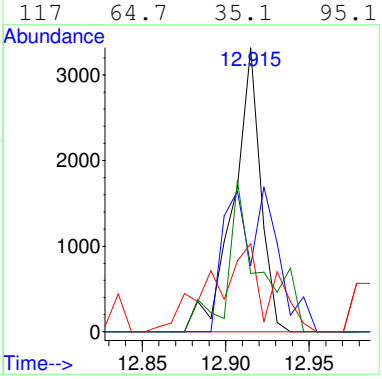


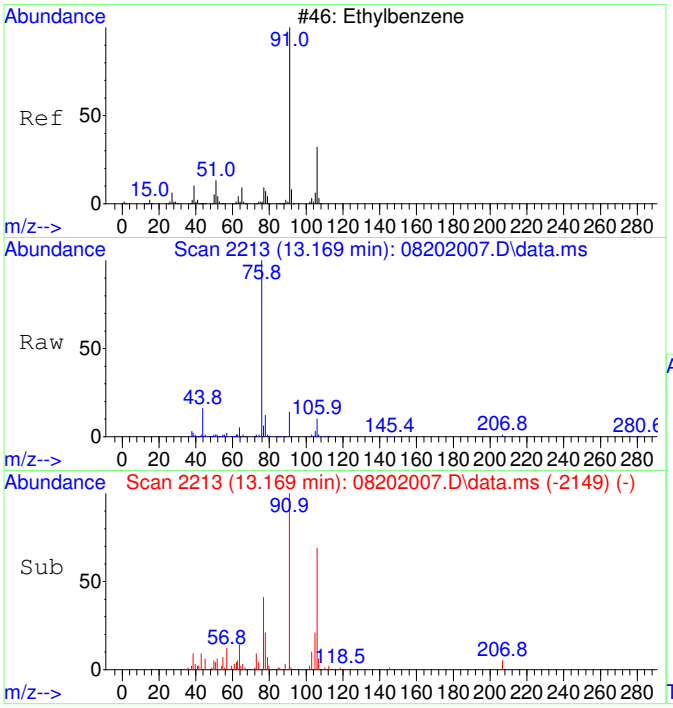



#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 177.14 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:131 Resp: 3761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 89.9 | 66.9 | 126.9 |
| 119 | 65.7 | 40.4 | 100.4 |
| 117 | 64.7 | 35.1 | 95.1 |

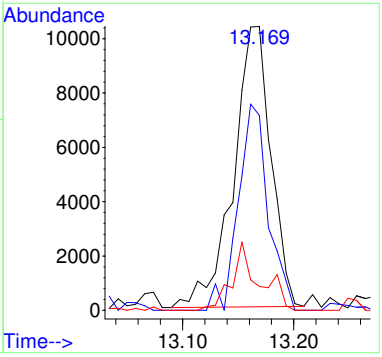


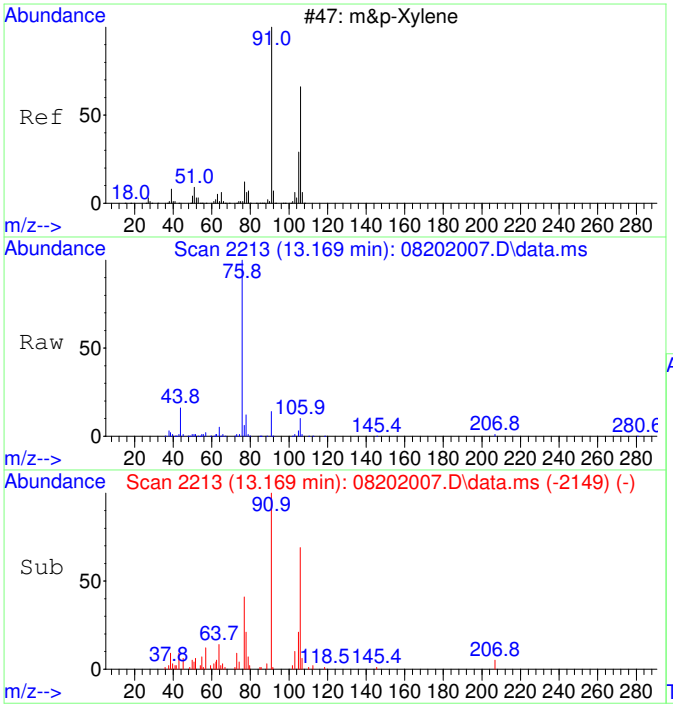




#42
Ethylbenzene SCAN
Concen: 158.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 58.4 | 23.1 | 83.1 |
| 51 | 17.6 | 0.0 | 40.1 |

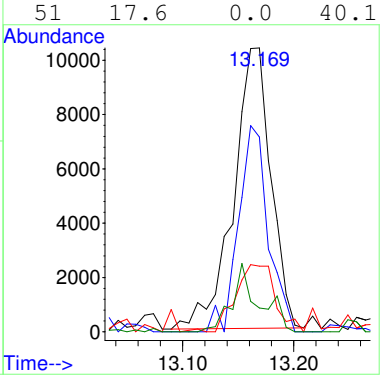


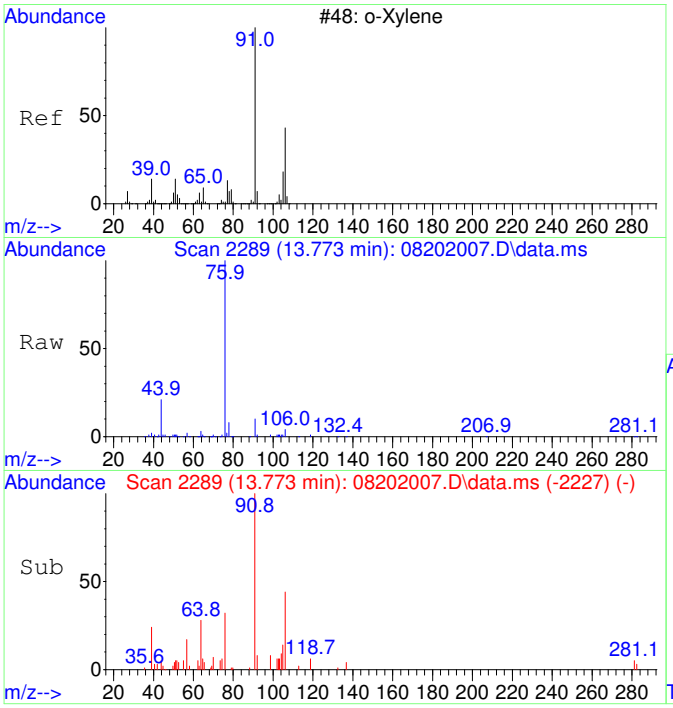



#43
m&p-Xylene SCAN
Concen: 158.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 24198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 58.4 | 23.1 | 83.1 |
| 105 | 25.1 | 0.0 | 54.7 |
| 51 | 17.6 | 0.0 | 40.1 |

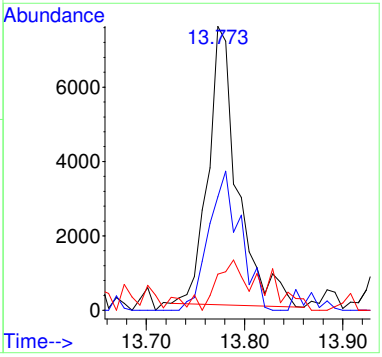


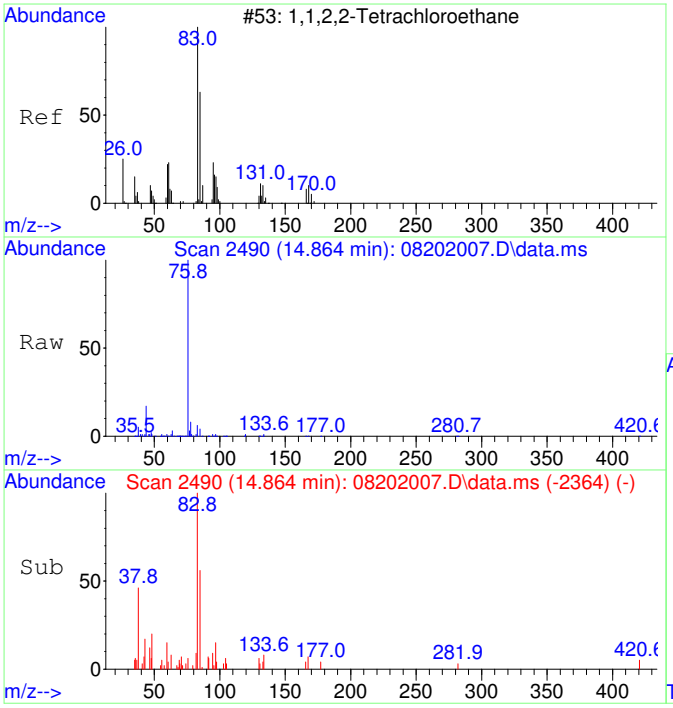




#44
o-Xylene SCAN
Concen: 190.48 ug/L
RT: 13.773 min Scan# 2289
Delta R.T. -0.008 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 91 Resp: 15595

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 53.8 | 18.0 | 78.0 |
| 105 | 27.5 | 0.0 | 56.6 |

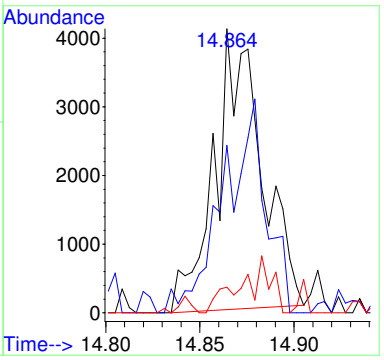


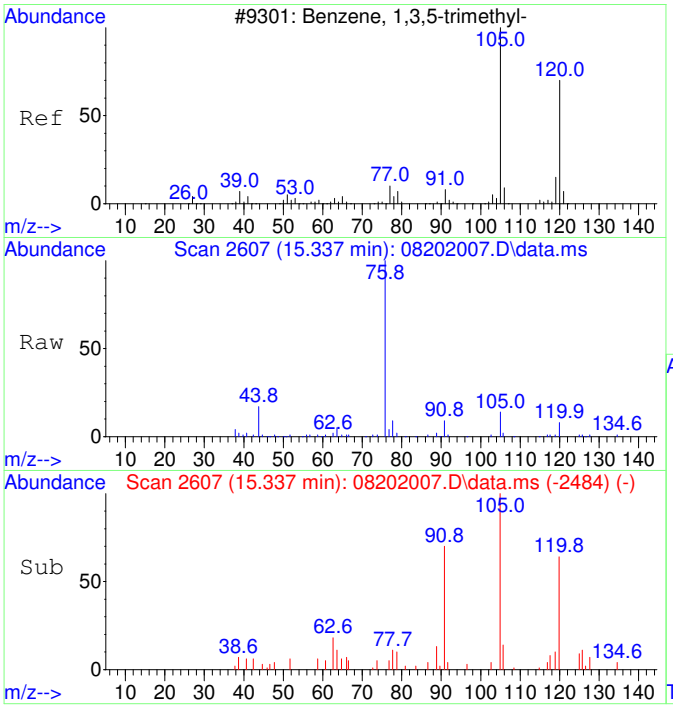



#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 177.39 ug/L
RT: 14.864 min Scan# 2490
Delta R.T. -0.007 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion: 83 Resp: 7082

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 10.5 | 35.9 | 95.9# |
| 95 | 5.2 | 0.0 | 47.4 |

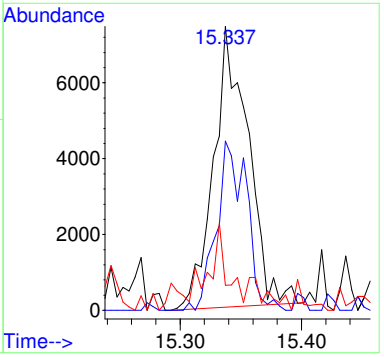


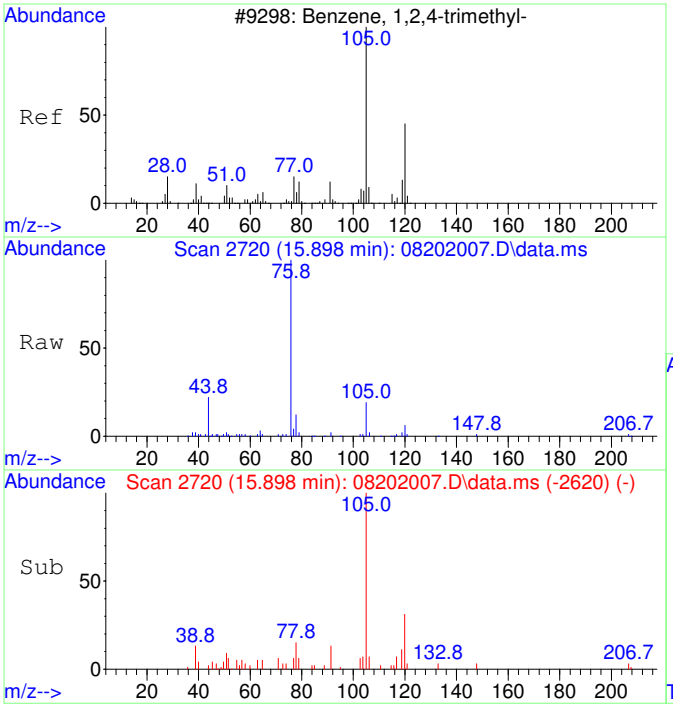




#46
1,3,5-Trimethylbenzene SCAN
Concen: 170.06 ug/L
RT: 15.337 min Scan# 2607
Delta R.T. -0.006 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 14674

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 52.5 | 18.3 | 78.3 |
| 119 | 12.8 | 0.0 | 43.1 |

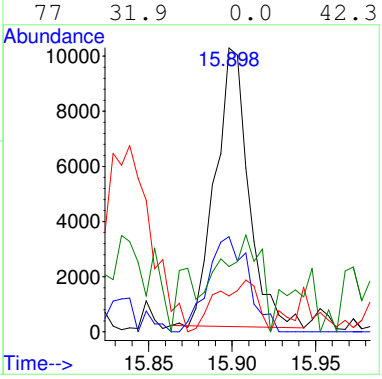


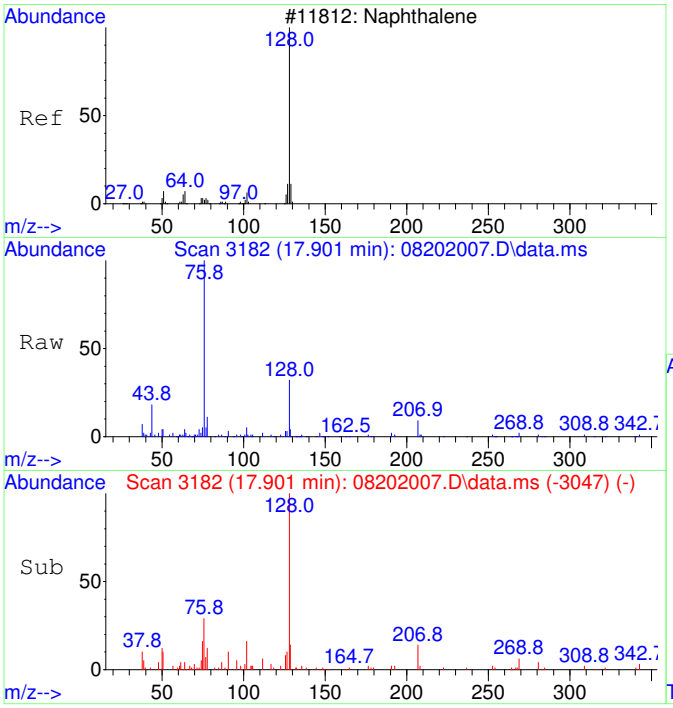



#47
1,2,4-Trimethylbenzene SCAN
Concen: 157.88 ug/L
RT: 15.898 min Scan# 2720
Delta R.T. -0.001 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:105 Resp: 13939

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.8 | 16.9 | 76.9 |
| 119 | 22.6 | 0.0 | 41.9 |
| 77 | 31.9 | 0.0 | 42.3 |

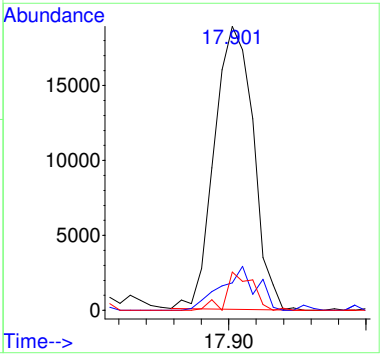



#48
Naphthalene SCAN
Concen: 138.89 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 08202007.D
Acq: 20 Aug 2020 17:01

Tgt Ion:128 Resp: 18555

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 44.0 |
| 129 | 9.5 | 0.0 | 40.8 |



# S20H039-CAL6

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202008.D
Acq On : 20 Aug 2020 17:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 21 08:31:14 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

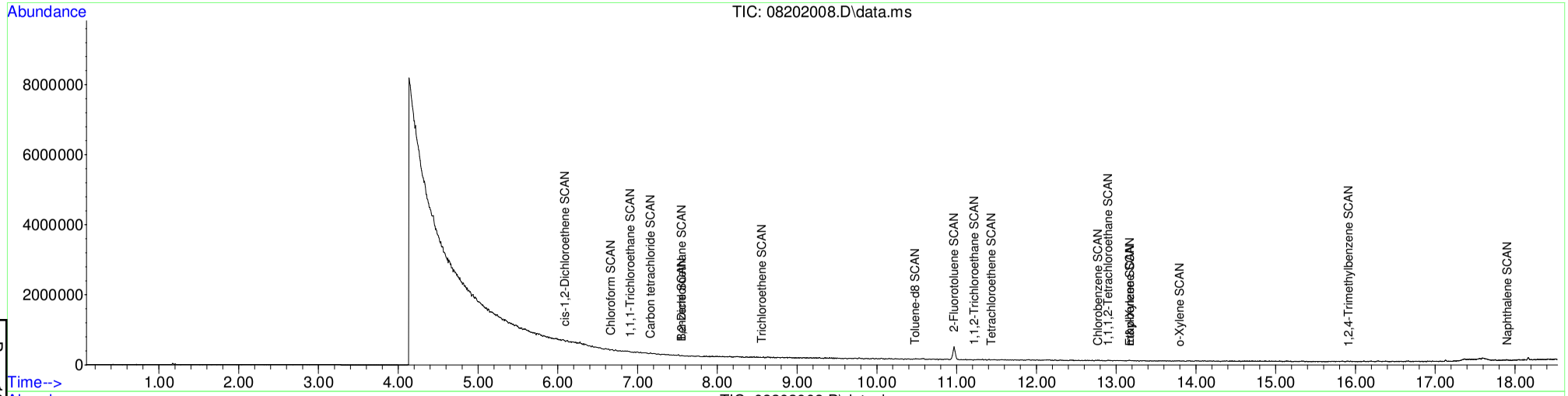
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 604968 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 5849 | 49.39 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 0.99%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.086 | 61 | 1509 | 56.74 | ug/L | 85 |
| 3] trans-1,2-Dichloroethene | 4.362 | 61 | 1192 | 42.71 | ug/L | 71 |
| 4] 1,1-Dichloroethane | 5.079 | 63 | 1475 | 42.45 | ug/L # | 20 |
| 5] cis-1,2-Dichloroethene | 6.081 | 61 | 1594 | 43.46 | ug/L | 95 |
| 6] Chloroform | 6.652 | 83 | 1606 | 42.78 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.907 | 97 | 1818 | 44.60 | ug/L | 97 |
| 8] Carbon tetrachloride | 7.175 | 117 | 1680 | 43.79 | ug/L | 90 |
| 9] Benzene | 7.503 | 78 | 3813 | 37.10 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.540 | 62 | 1603 | 43.69 | ug/L # | 1 |
| 11] Trichloroethene | 8.569 | 130 | 1464 | 47.31 | ug/L | 94 |
| 13] Toluene | 10.571 | 91 | 8880 | 58.81 | ug/L | 91 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 1632 | 49.61 | ug/L | 93 |
| 15] Tetrachloroethene | 11.432 | 166 | 2206 | 50.49 | ug/L | 99 |
| 16] Chlorobenzene | 12.757 | 112 | 5616 | 51.95 | ug/L | 87 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 1936 | 49.98 | ug/L | 97 |
| 18] Ethylbenzene | 12.964 | 91 | 10080 | 54.85 | ug/L | 96 |
| 19] m&p-Xylene | 13.162 | 91 | 16478 | 114.72 | ug/L | 94 |
| 20] o-Xylene | 13.774 | 91 | 8511 | 55.46 | ug/L | 98 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 3604 | 52.99 | ug/L | 98 |
| 22] 1,3,5-Trimethylbenzene | 15.340 | 105 | 8630 | 52.84 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.896 | 105 | 9662 | 56.95 | ug/L | 92 |
| 24] Naphthalene | 17.903 | 128 | 14370 | 53.59 | ug/L | 98 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 276390 | 4686.70 | ug/L | 97 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 446 | 23.21 | ug/L # | 77 |
| 30) Chloroform SCAN | 6.662 | 83 | 1146 | 54.98 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 1606 | 84.55 | ug/L # | 25 |
| 32) Carbon tetrachloride SCAN | 7.161 | 117 | 1077 | 54.36 | ug/L # | 15 |
| 33) Benzene SCAN | 7.550 | 78 | 16747 | 320.23 | ug/L | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.550 | 62 | 733 | 37.96 | ug/L # | 26 |
| 35) Trichloroethene SCAN | 8.557 | 130 | 438 | 30.48 | ug/L # | 11 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 3315 | 57.48 | ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.221 | 97 | 839 | 50.61 | ug/L # | 13 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 1089 | 61.37 | ug/L # | 37 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2260 | 44.78 | ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.891 | 131 | 1738 | 93.05 | ug/L # | 34 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 10146 | 75.40 | ug/L | 70 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 10146 | 75.40 | ug/L # | 65 |
| 44) o-Xylene SCAN | 13.797 | 91 | 6861 | 95.26 | ug/L # | 51 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 4918 | 63.32 | ug/L # | 42 |
| 48) Naphthalene SCAN | 17.901 | 128 | 6734 | 57.30 | ug/L | 67 |

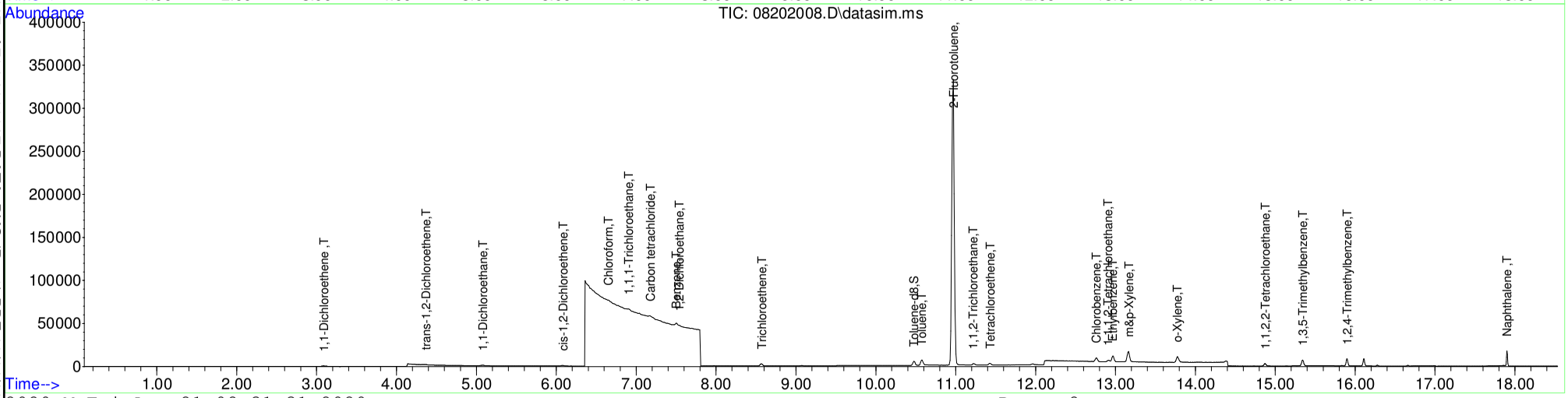
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202008.D
Acq On : 20 Aug 2020 17:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 21 08:31:14 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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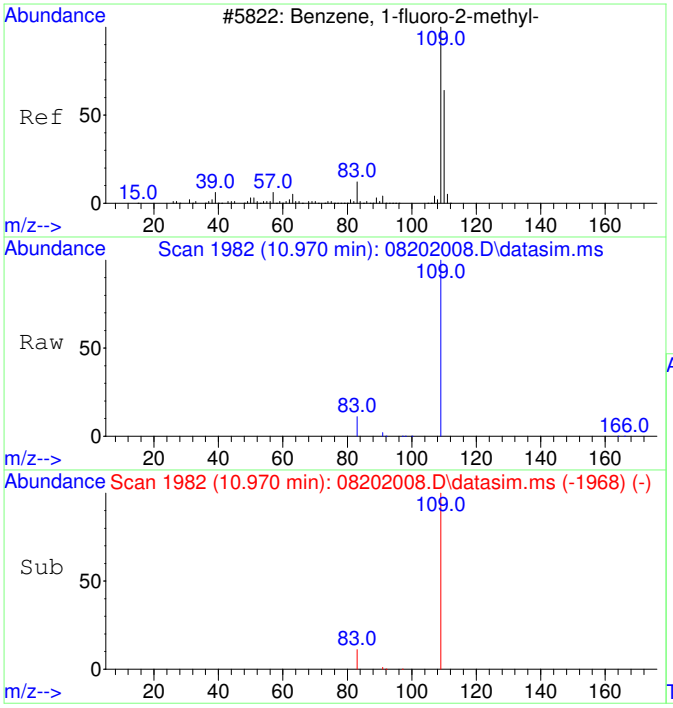
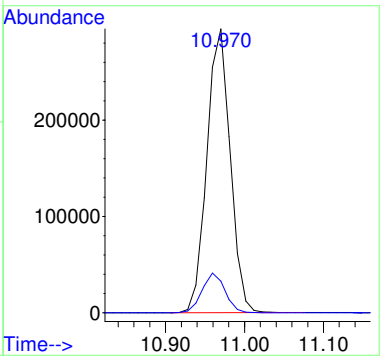
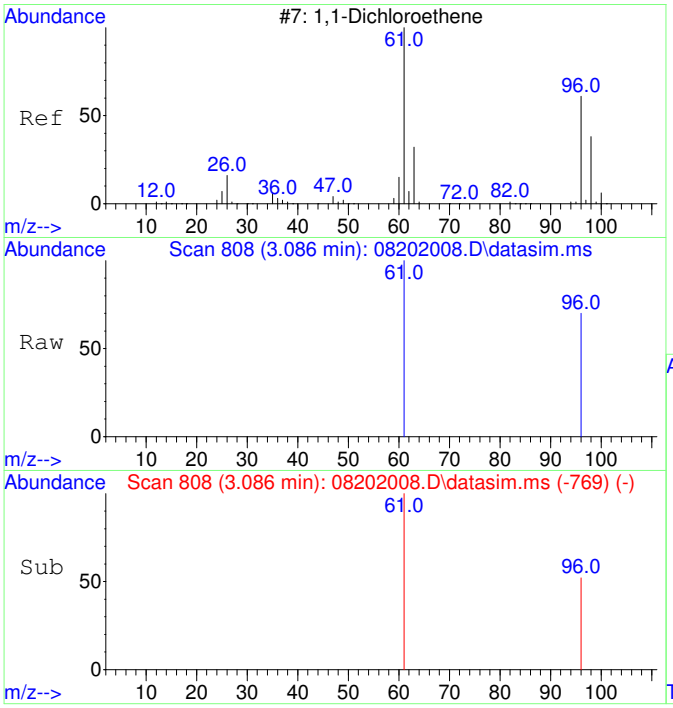



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:109 Resp: 604968

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 42.3 |

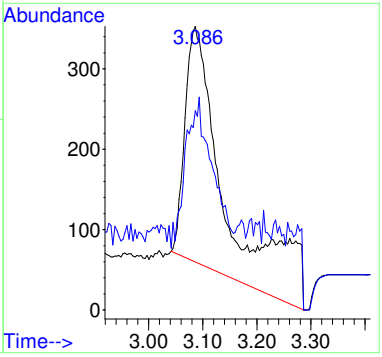


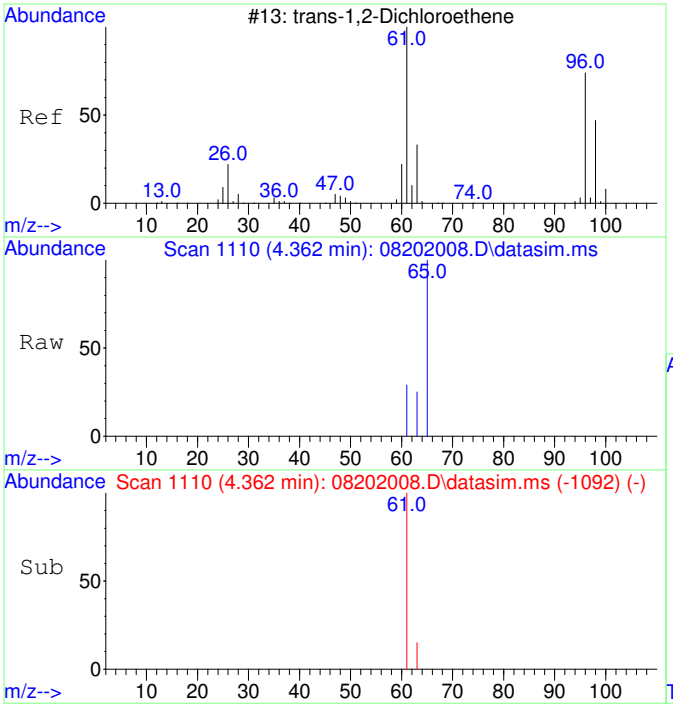

#2
1,1-Dichloroethene
Concen: 56.74 ug/L
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 1509

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.2 | 37.2 | 97.2 |



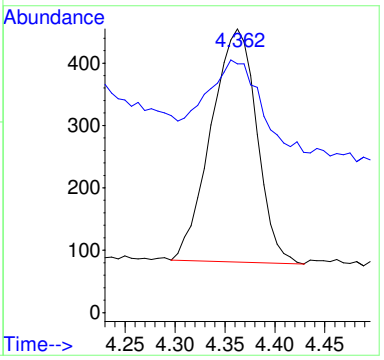

Before MI:
IMPROPER
BASELINE

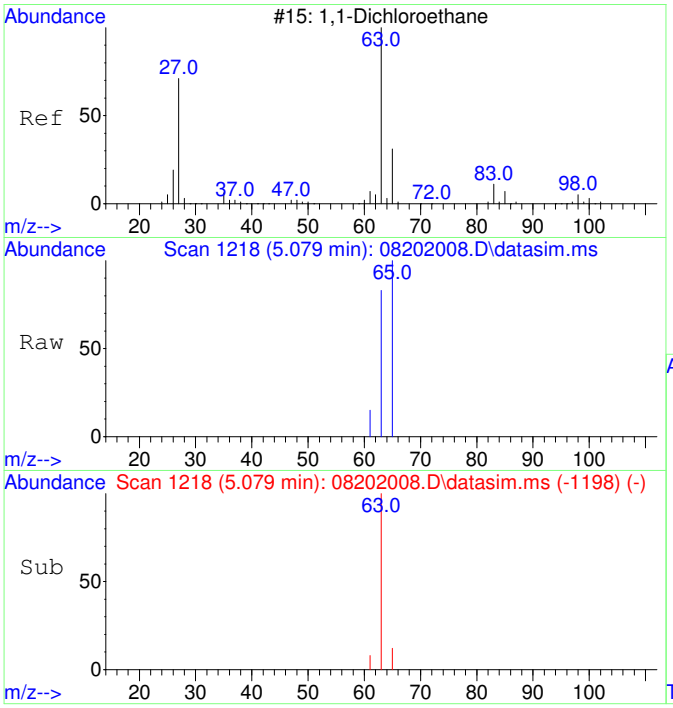



#3
trans-1,2-Dichloroethene
Concen: 42.71 ug/L
RT: 4.362 min Scan# 1110
Delta R.T. -0.033 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 1192

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 48.7 | 2.4 | 62.4 |

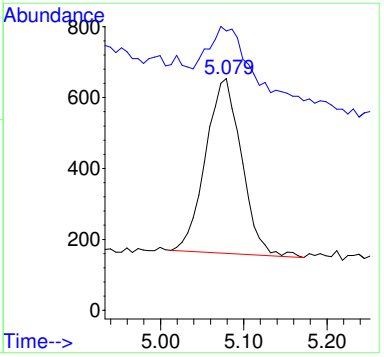


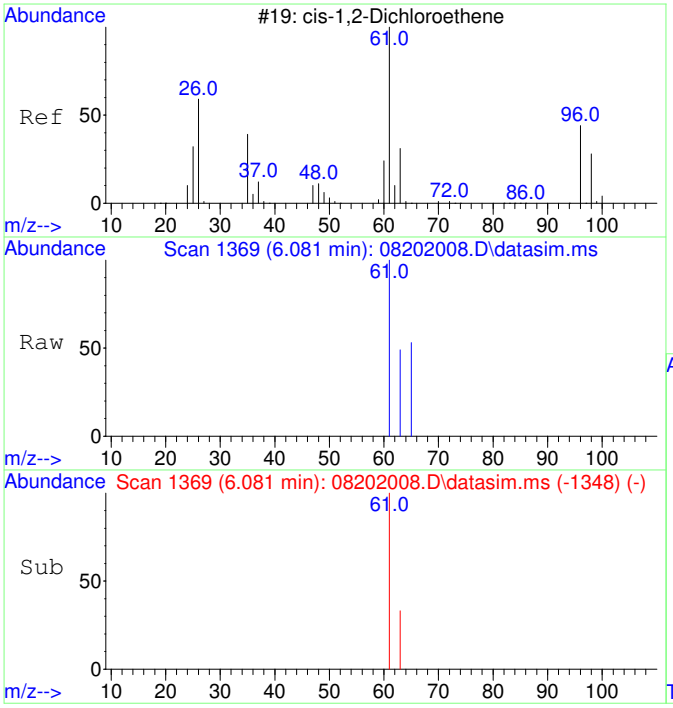




#4
1,1-Dichloroethane
Concen: 42.45 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.020 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 63 Resp: 1475

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 76.1 | 1.8 | 61.8# |

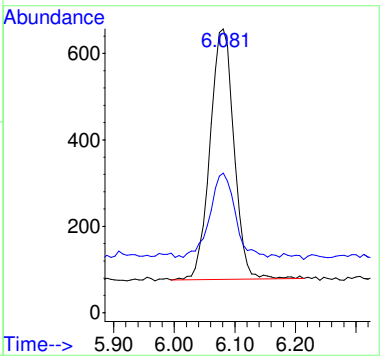


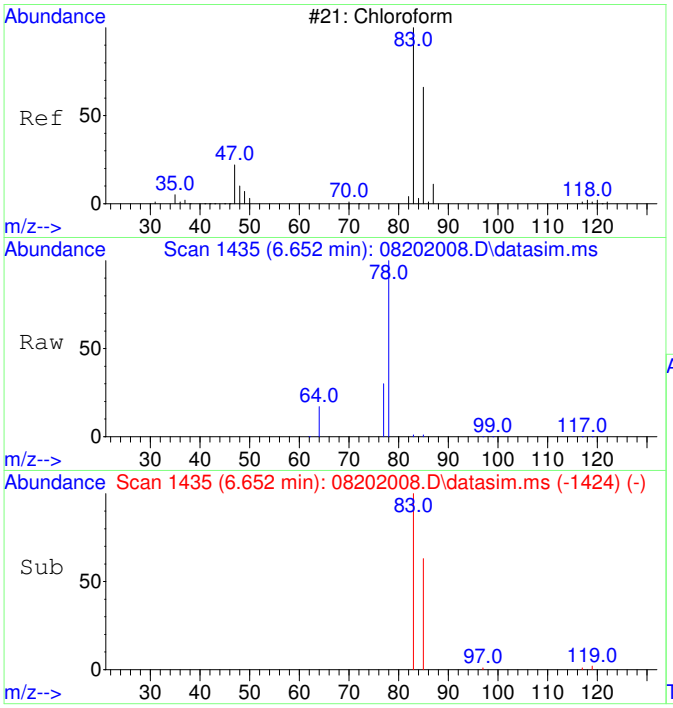



#5
cis-1,2-Dichloroethene
Concen: 43.46 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.013 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 1594

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 35.1 | 2.5 | 62.5 |

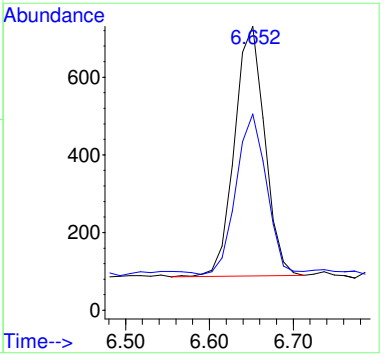


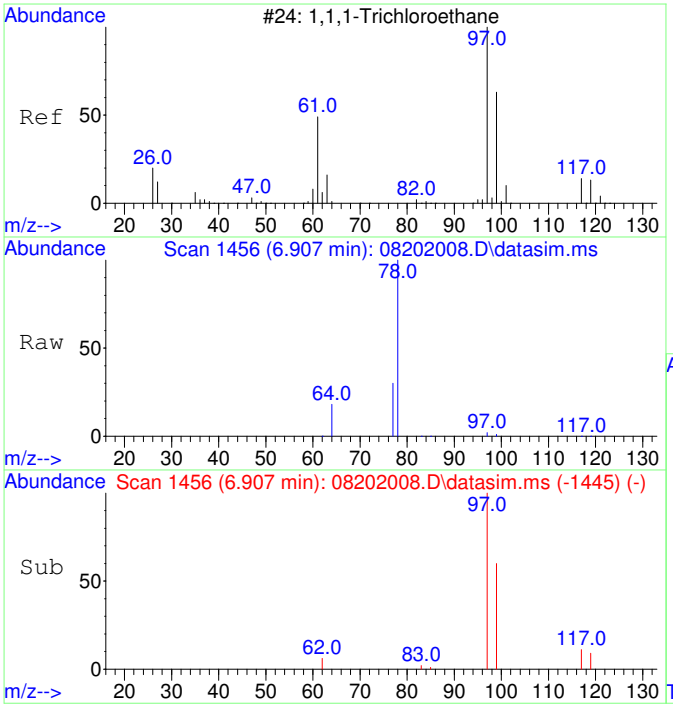




#6
Chloroform
Concen: 42.78 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 1606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.9 | 35.1 | 95.1 |

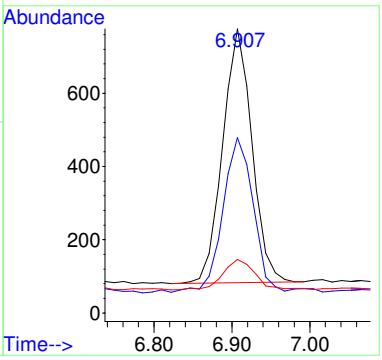


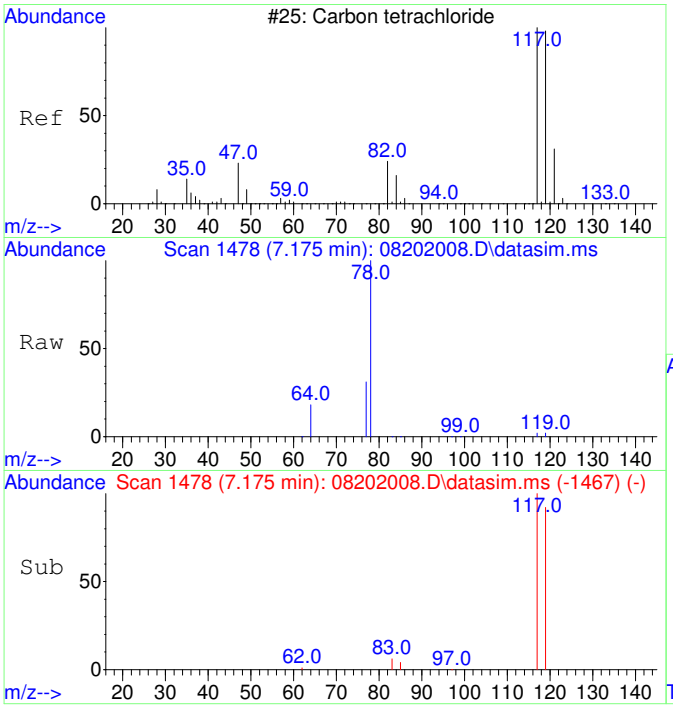



#7
1,1,1-Trichloroethane
Concen: 44.60 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1818

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 61.9 | 34.6 | 94.6 |
| 117 | 13.4 | 0.0 | 43.2 |

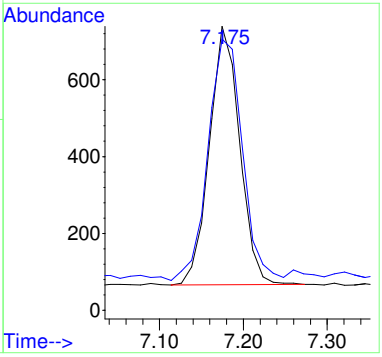


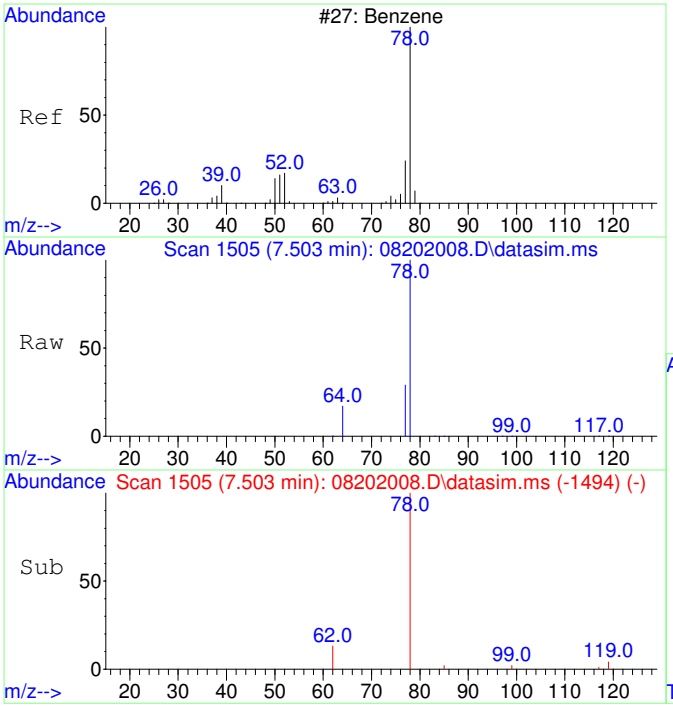




#8
Carbon tetrachloride
Concen: 43.79 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:117 Resp: 1680

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 105.9 | 66.4 | 126.4 |

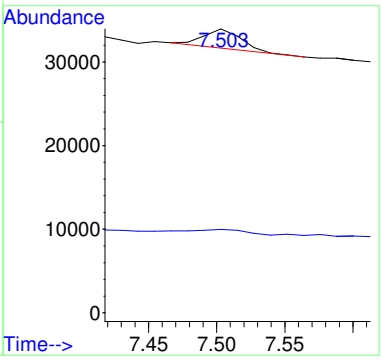


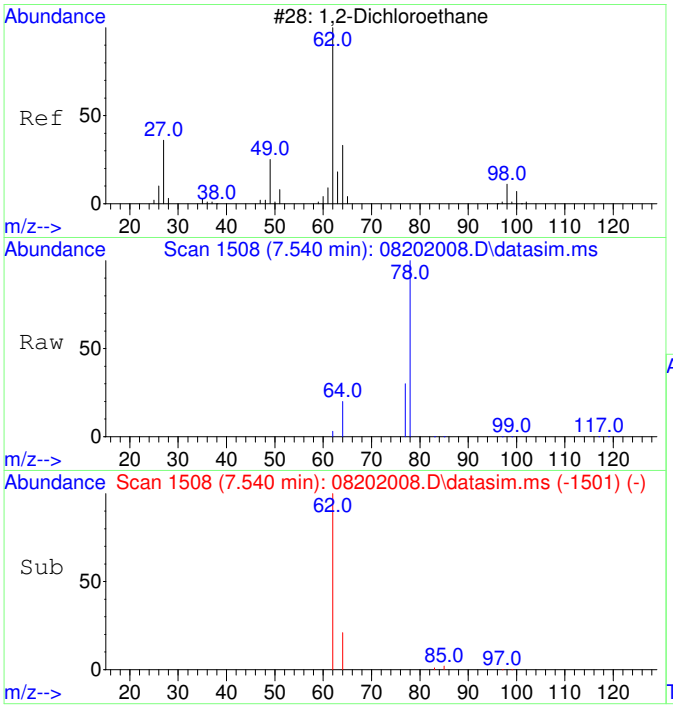



#9
Benzene
Concen: 37.10 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 78 Resp: 3813

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 99.1 | 0.0 | 53.2# |

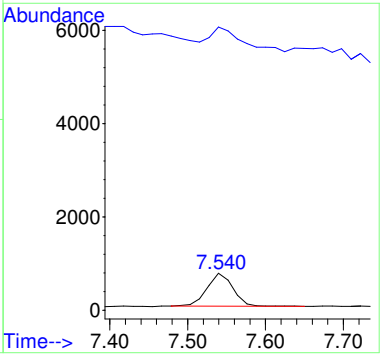


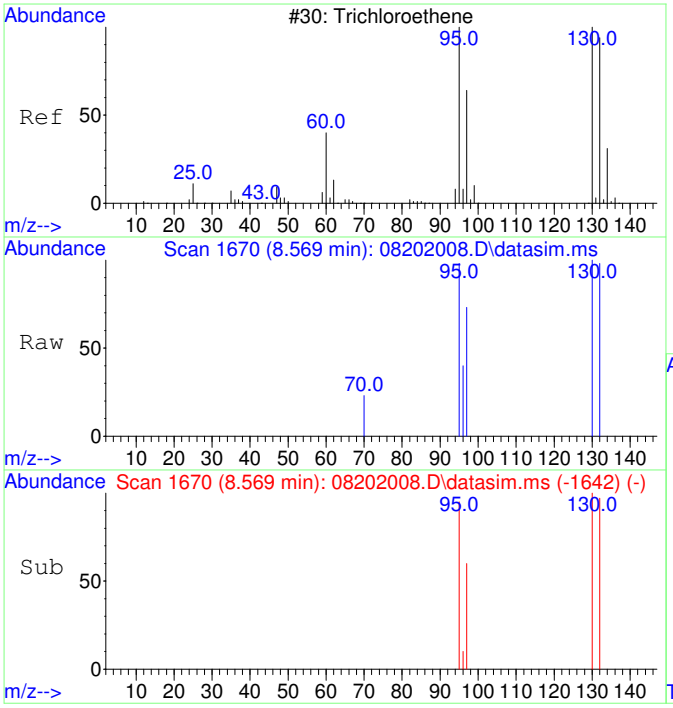




#10
1,2-Dichloroethane
Concen: 43.69 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 62 Resp: 1603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.9 | 2.3 | 62.3# |

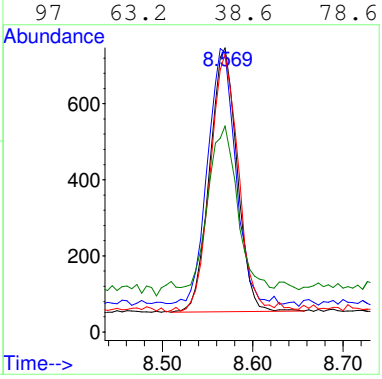


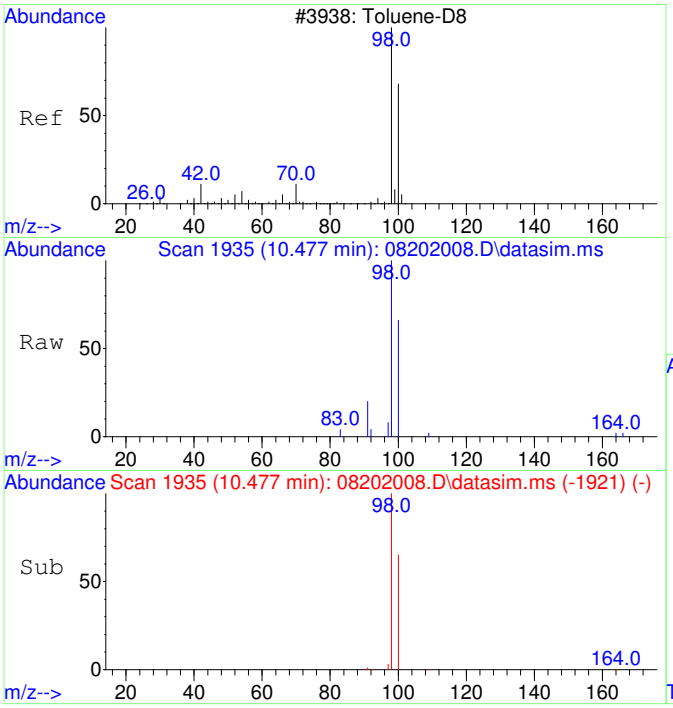



#11
Trichloroethene
Concen: 47.31 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:130 Resp: 1464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 98.6 | 60.7 | 120.7 |
| 132 | 100.6 | 76.0 | 116.0 |
| 97 | 63.2 | 38.6 | 78.6 |

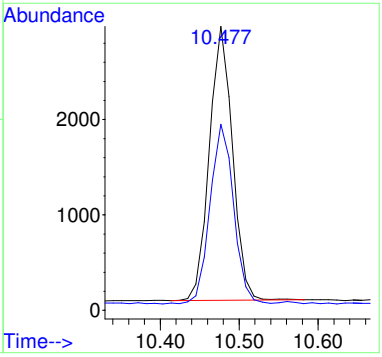


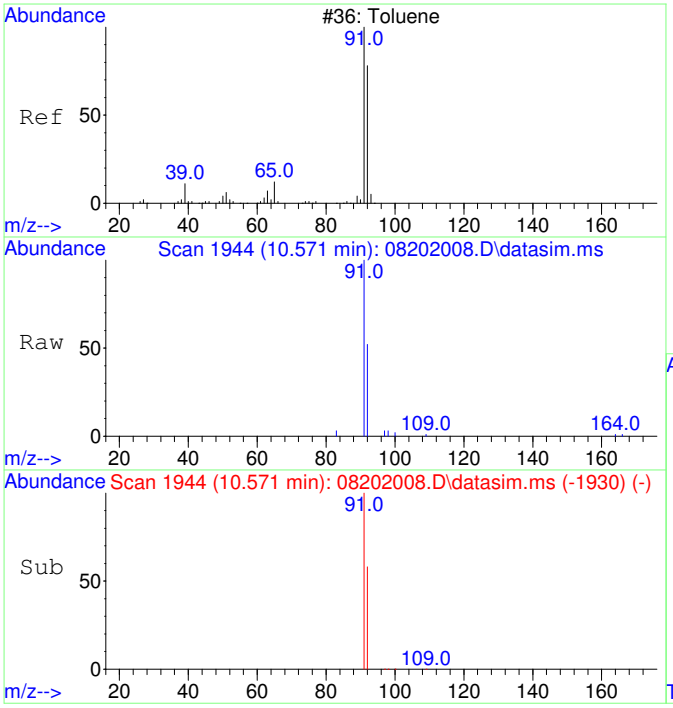




#12
Toluene-d8
Concen: 49.39 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 98 Resp: 5849

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.4 | 37.1 | 97.1 |

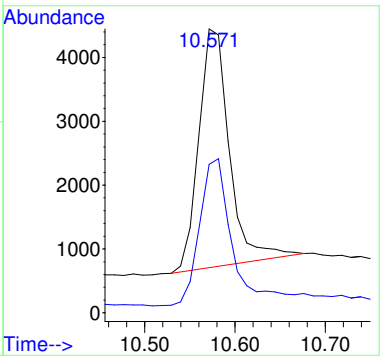


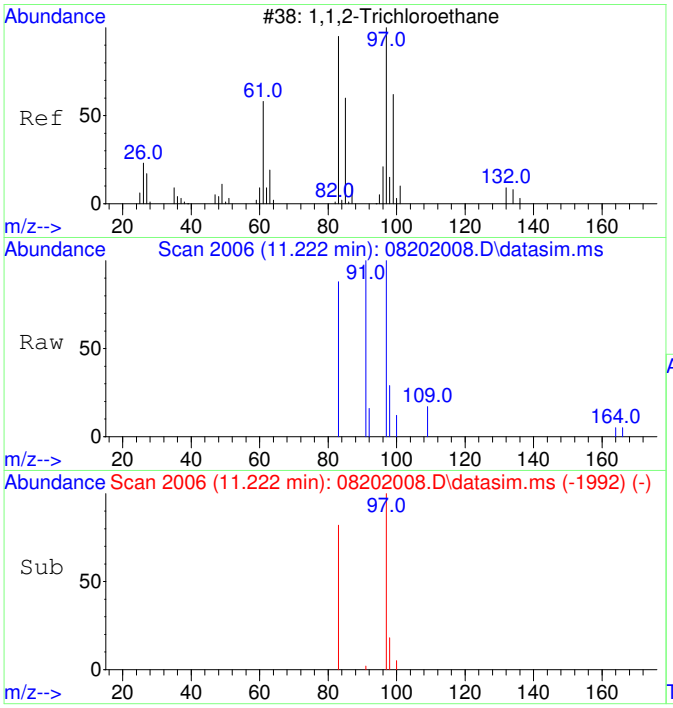



#13
Toluene
Concen: 58.81 ug/L
RT: 10.571 min Scan# 1944
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 8880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.5 | 29.9 | 89.9 |

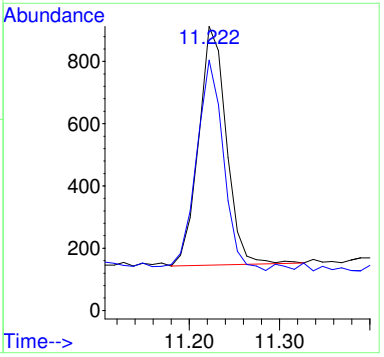


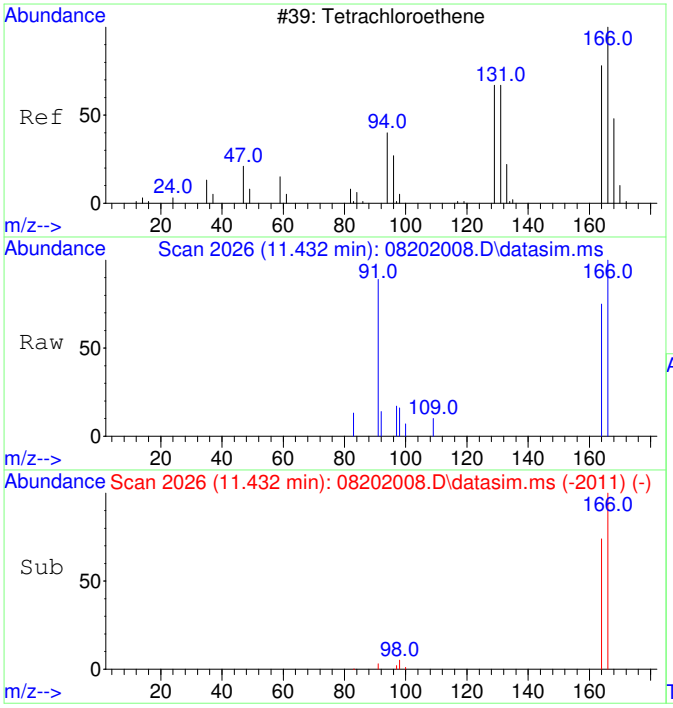




#14
1,1,2-Trichloroethane
Concen: 49.61 ug/L
RT: 11.222 min Scan# 2006
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 87.4 | 51.2 | 111.2 |

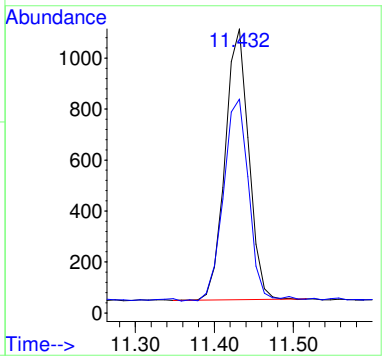


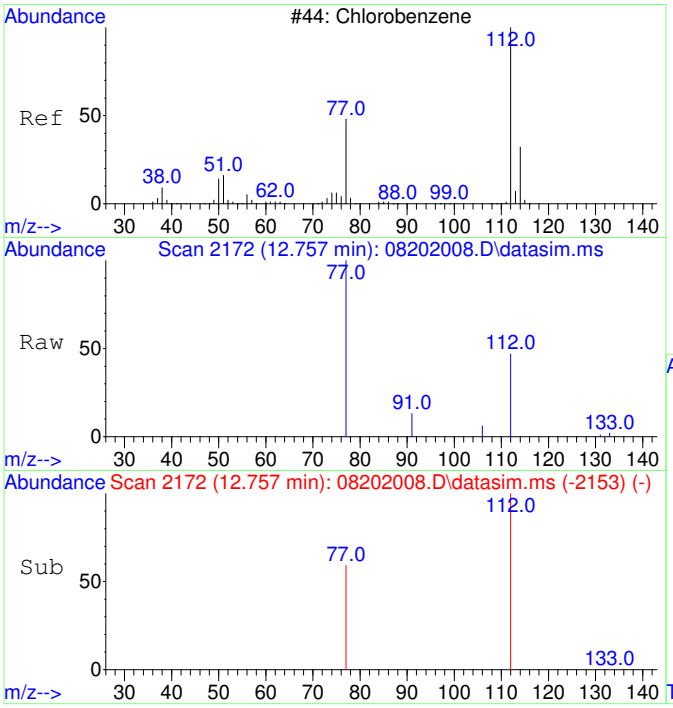



#15
Tetrachloroethene
Concen: 50.49 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:166 Resp: 2206

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.9 | 47.8 | 107.8 |

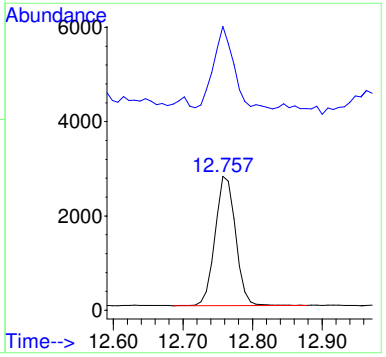


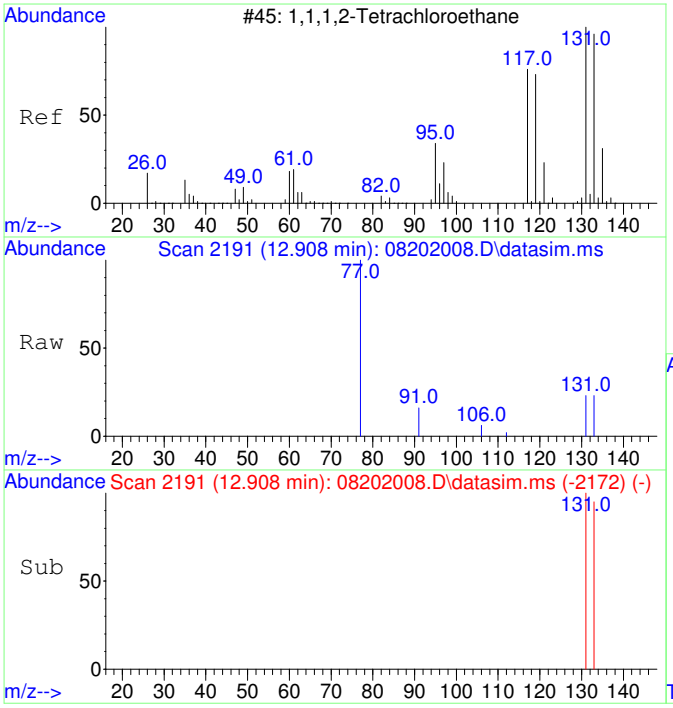




#16
Chlorobenzene
Concen: 51.95 ug/L
RT: 12.757 min Scan# 2172
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:112 Resp: 5616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 63.2 | 23.6 | 83.6 |

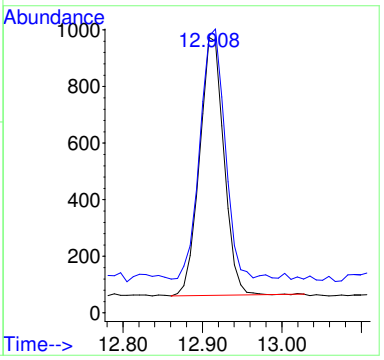


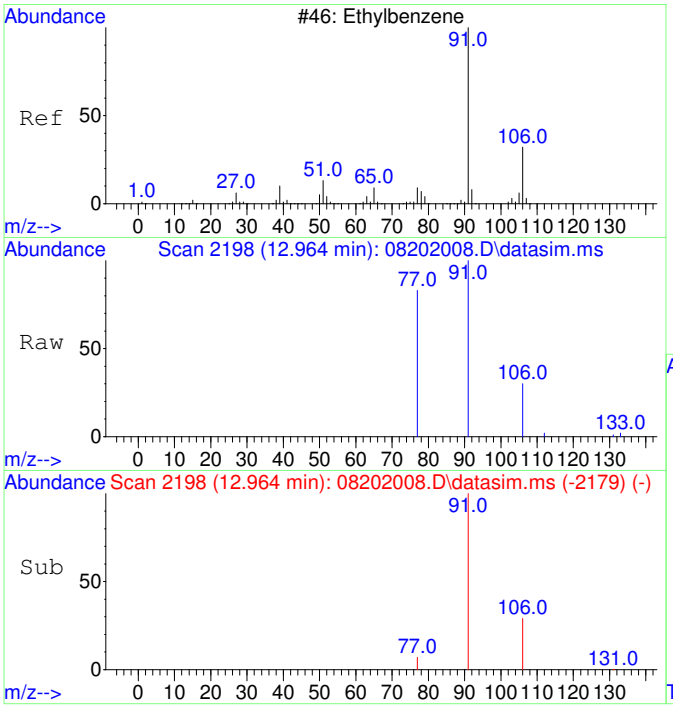



#17
1,1,1,2-Tetrachloroethane
Concen: 49.98 ug/L
RT: 12.908 min Scan# 2191
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:131 Resp: 1936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.2 | 66.3 | 126.3 |

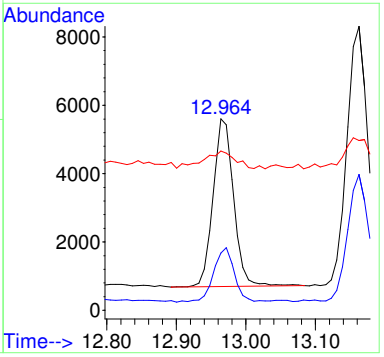


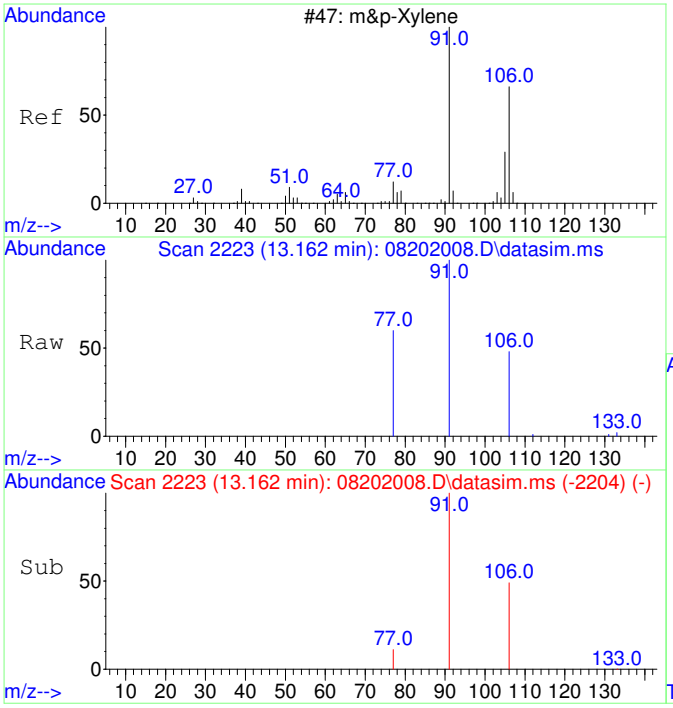




#18
Ethylbenzene
Concen: 54.85 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.7 | 3.0 | 63.0 |
| 77 | 15.3 | 0.0 | 38.2 |

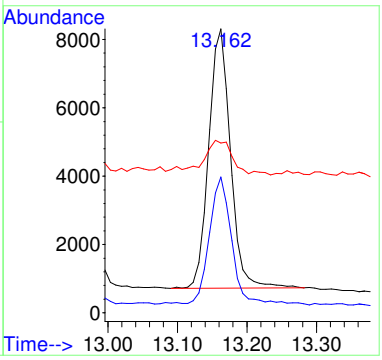


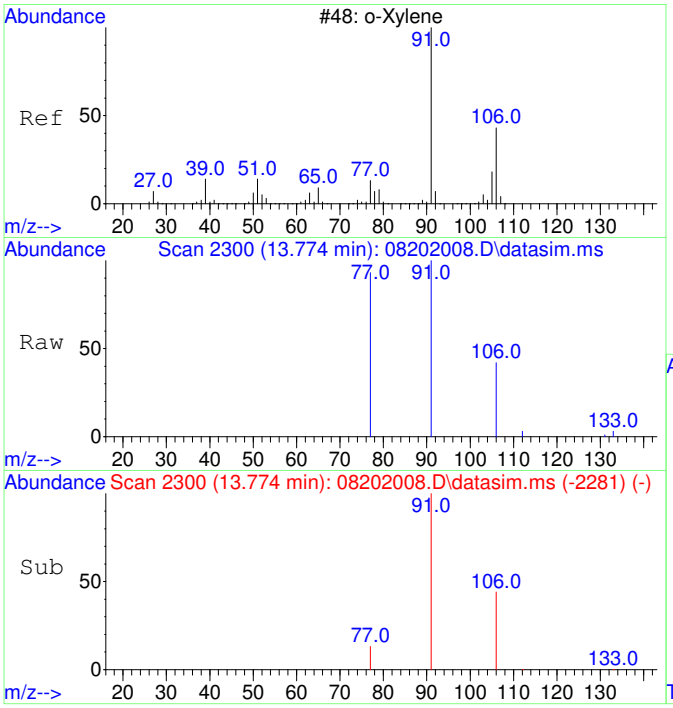



#19
m&p-Xylene
Concen: 114.72 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 16478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.8 | 22.2 | 82.2 |
| 77 | 17.4 | 0.0 | 42.4 |

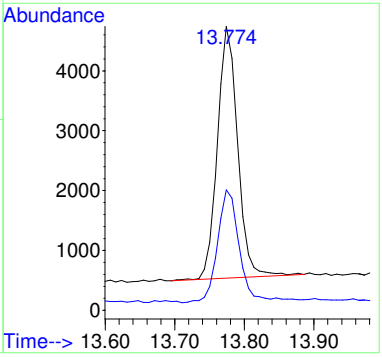


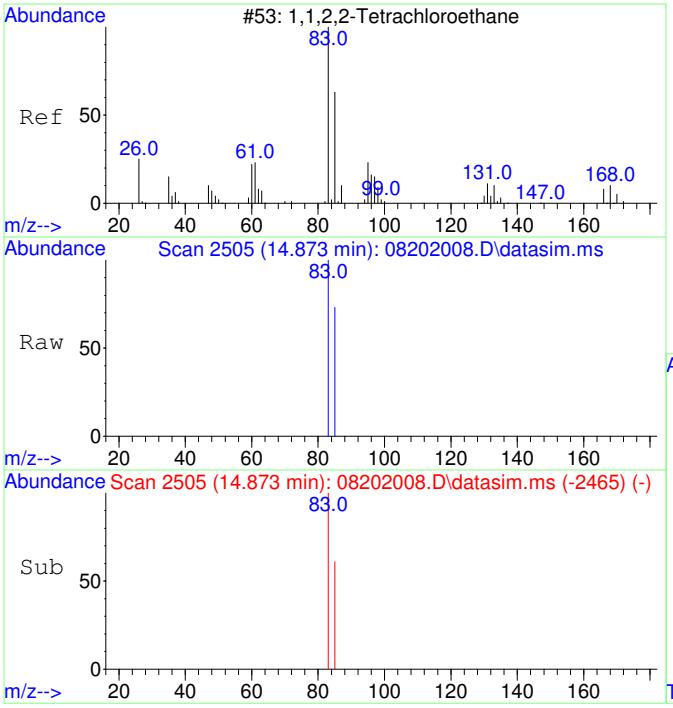




#20
o-Xylene
Concen: 55.46 ug/L
RT: 13.774 min Scan# 2300
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 8511

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.6 | 19.2 | 79.2 |

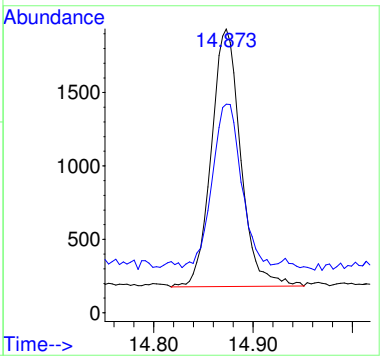


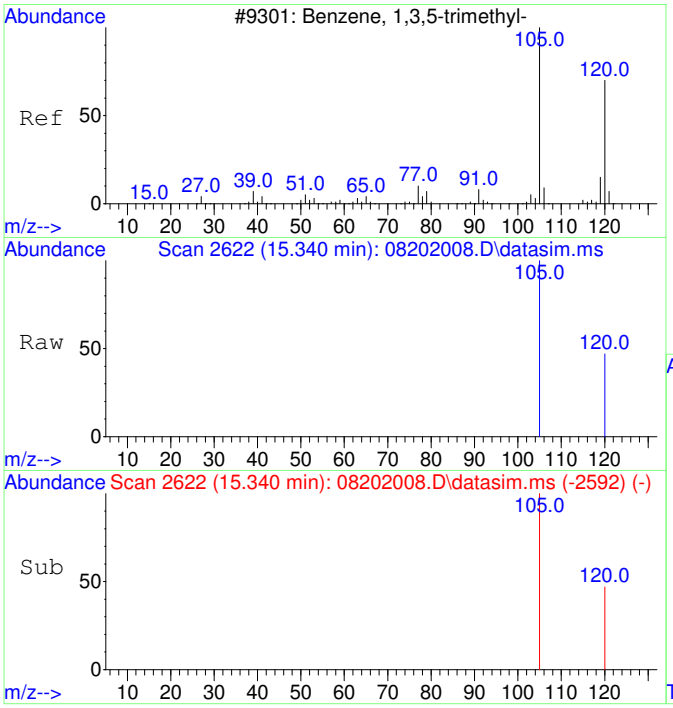



#21
1,1,2,2-Tetrachloroethane
Concen: 52.99 ug/L
RT: 14.873 min Scan# 2505
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 3604

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.3 | 34.8 | 94.8 |

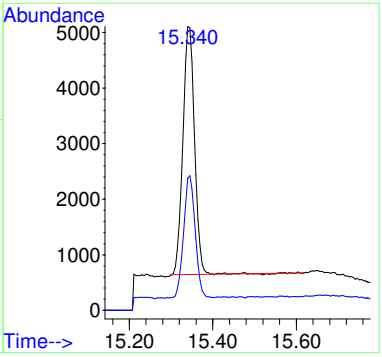


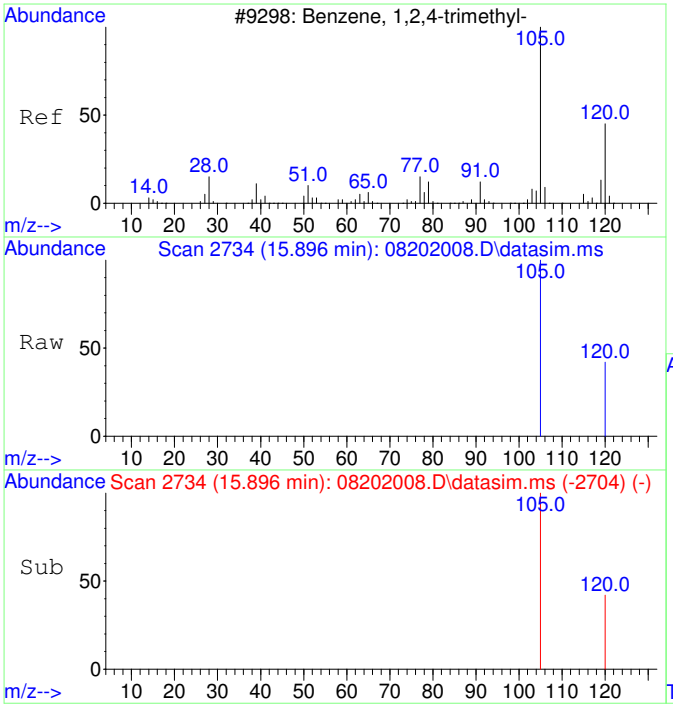




#22
1,3,5-Trimethylbenzene
Concen: 52.84 ug/L
RT: 15.340 min Scan# 2622
Delta R.T. -0.005 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 8630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.6 | 21.1 | 81.1 |

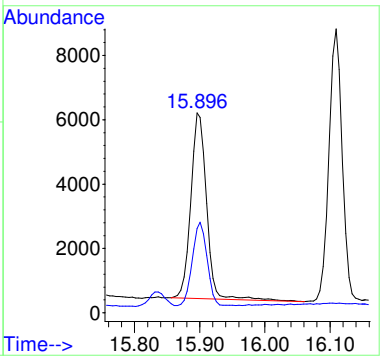


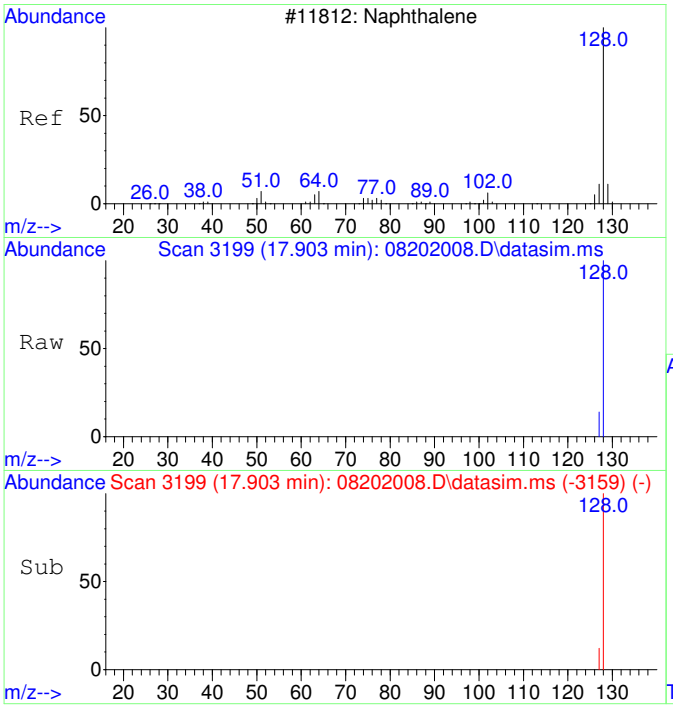



#23
1,2,4-Trimethylbenzene
Concen: 56.95 ug/L
RT: 15.896 min Scan# 2734
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 9662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.8 | 17.2 | 77.2 |

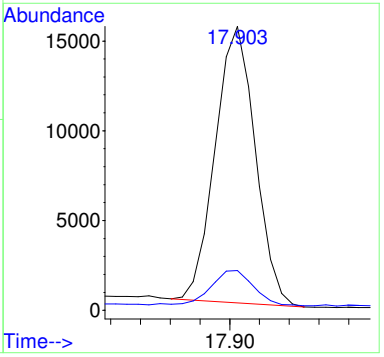


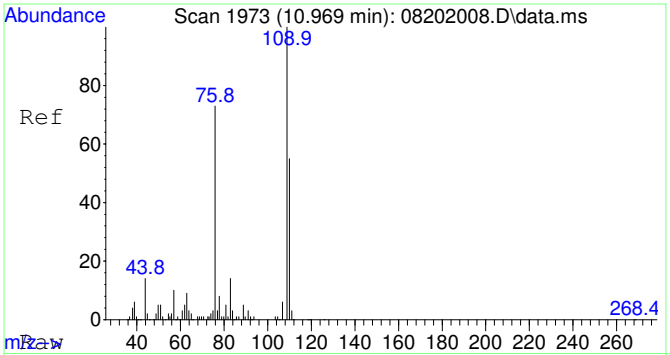




#24
Naphthalene
Concen: 53.59 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:128 Resp: 14370

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.4 | 0.0 | 42.5 |

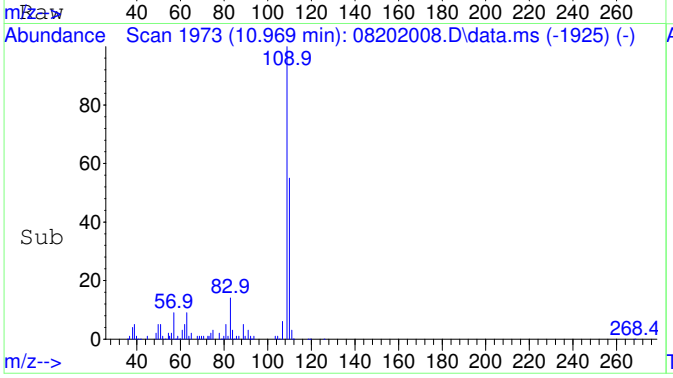


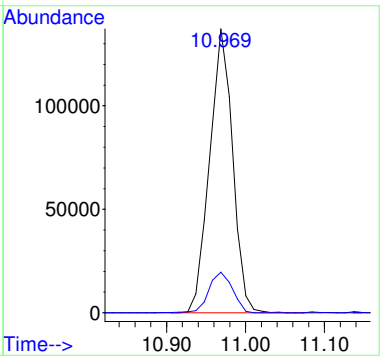


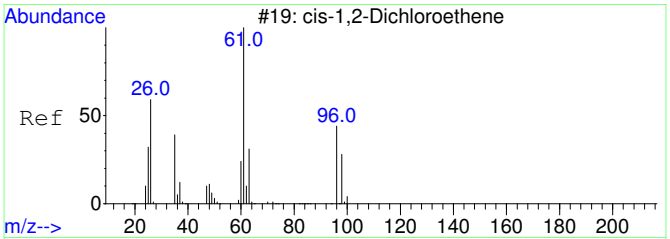

#25
2-Fluorotoluene SCAN
Concen: 4686.70 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:109 Resp: 276390

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.8 | 0.0 | 43.8 |



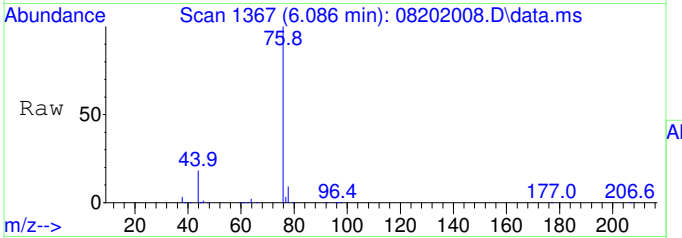



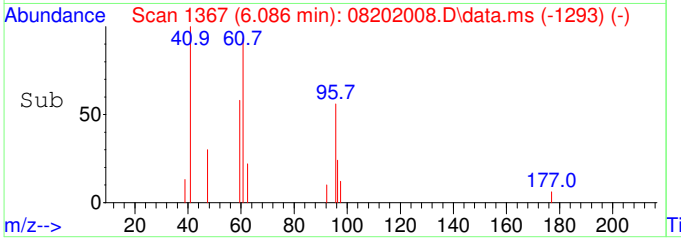



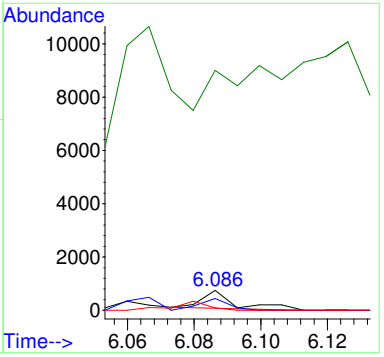

#29
cis-1,2-Dichloroethene SCAN
Concen: 23.21 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

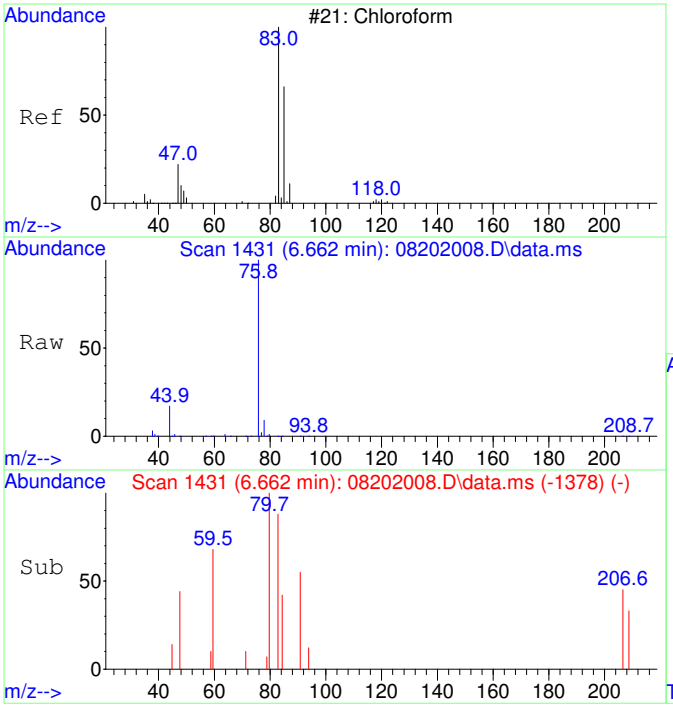
Tgt Ion: 61 Resp: 446

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 63.0 | 39.9 | 99.9 |
| 98 | 55.2 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |



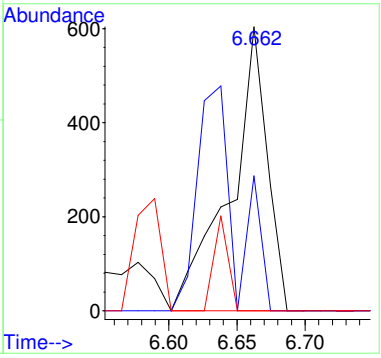



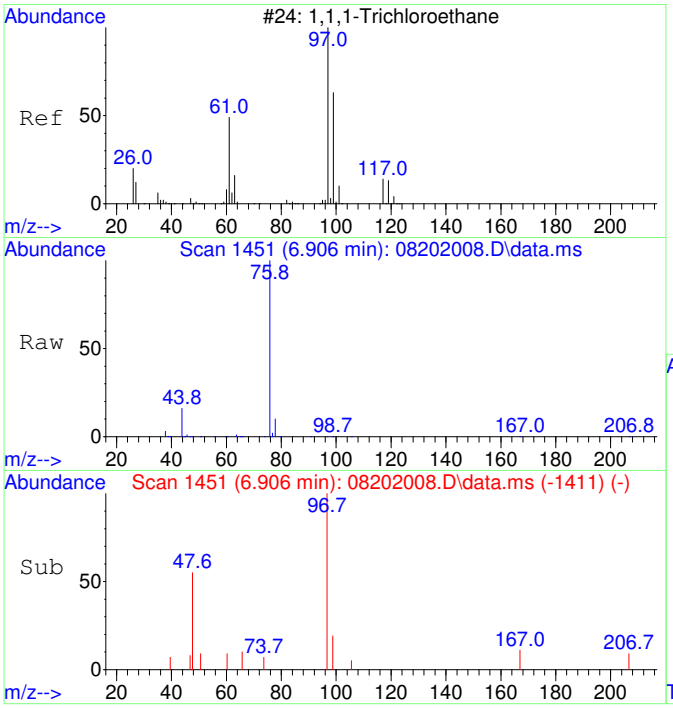



#30
Chloroform SCAN
Concen: 54.98 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 1146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

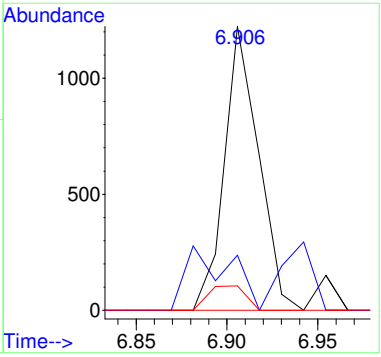


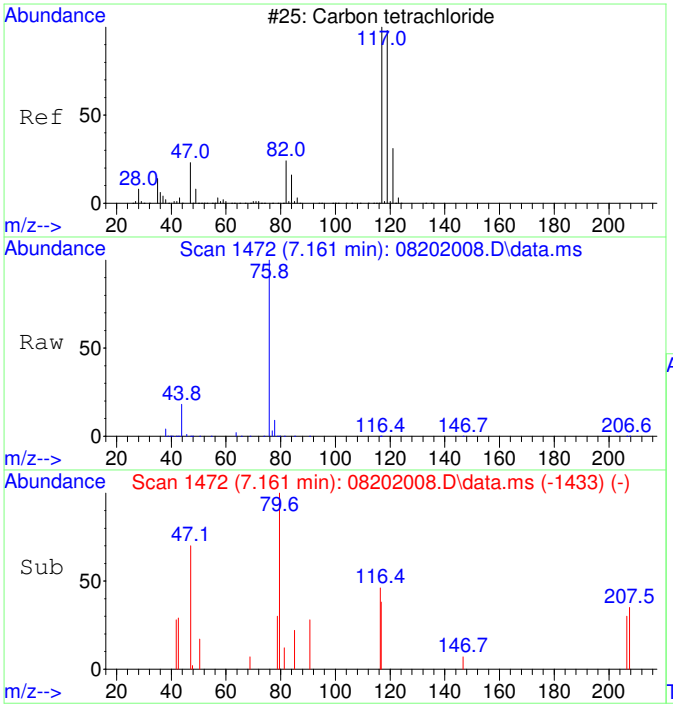




#31
1,1,1-Trichloroethane SCAN
Concen: 84.55 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 9.5 | 18.0 | 78.0# |

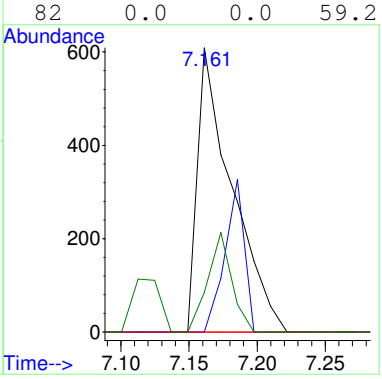


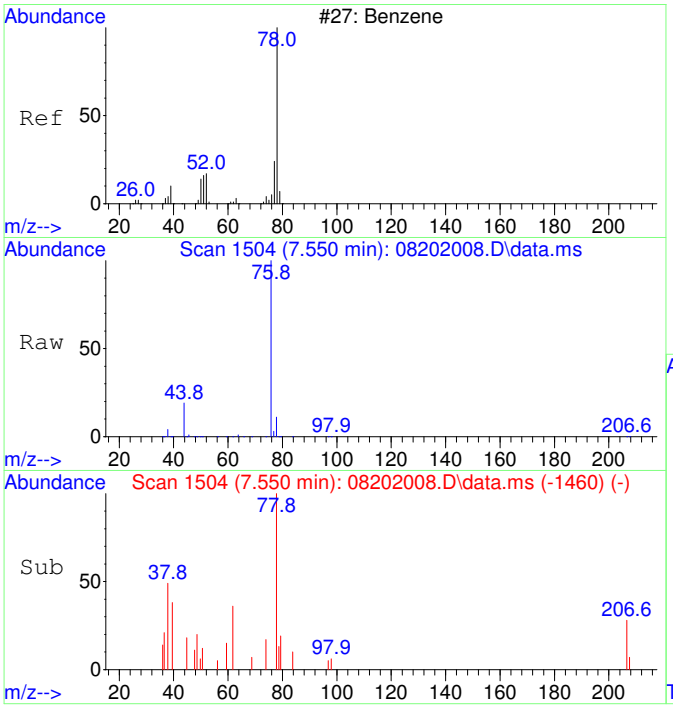



#32
Carbon tetrachloride SCAN
Concen: 54.36 ug/L
RT: 7.161 min Scan# 1472
Delta R.T. -0.024 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:117 Resp: 1077

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 0.0 | 75.5 | 135.5# |
| 121 | 0.0 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

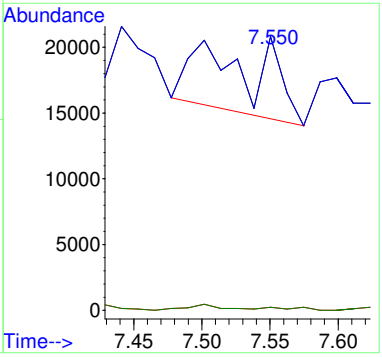


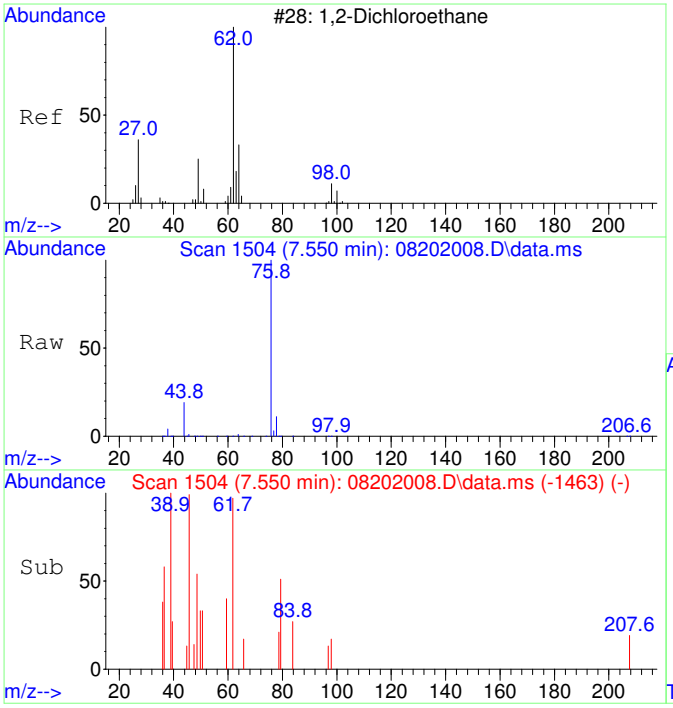




#33
Benzene SCAN
Concen: 320.23 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 78 Resp: 16747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 1.6 | 0.0 | 47.9 |
| 51 | 1.6 | 0.0 | 44.1 |

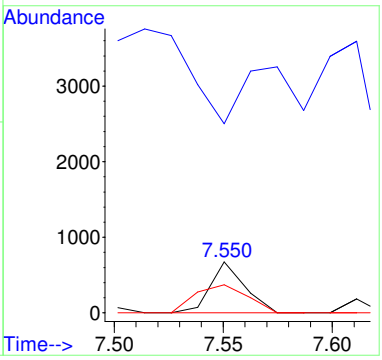


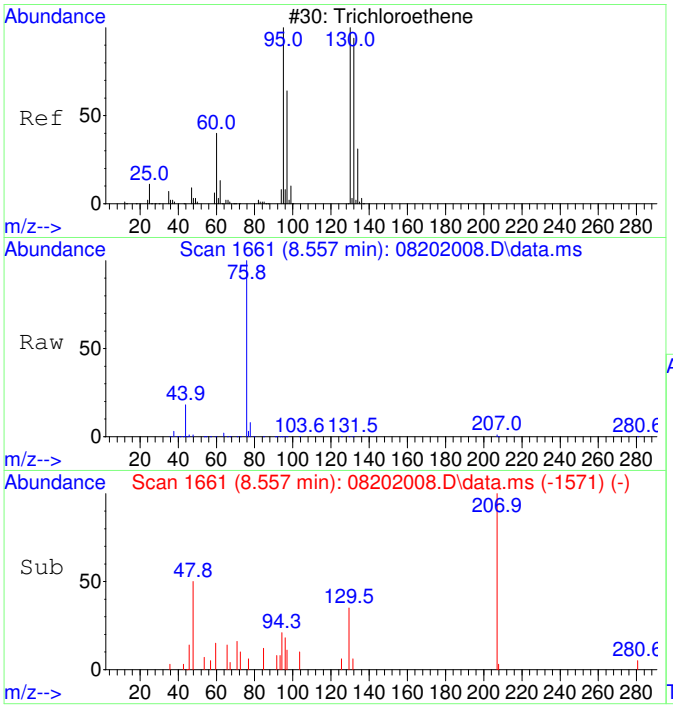



#34
1,2-Dichloroethane SCAN
Concen: 37.96 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 62 Resp: 733

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 84.6 | 3.9 | 63.9# |

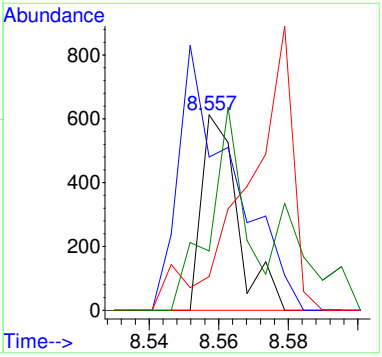


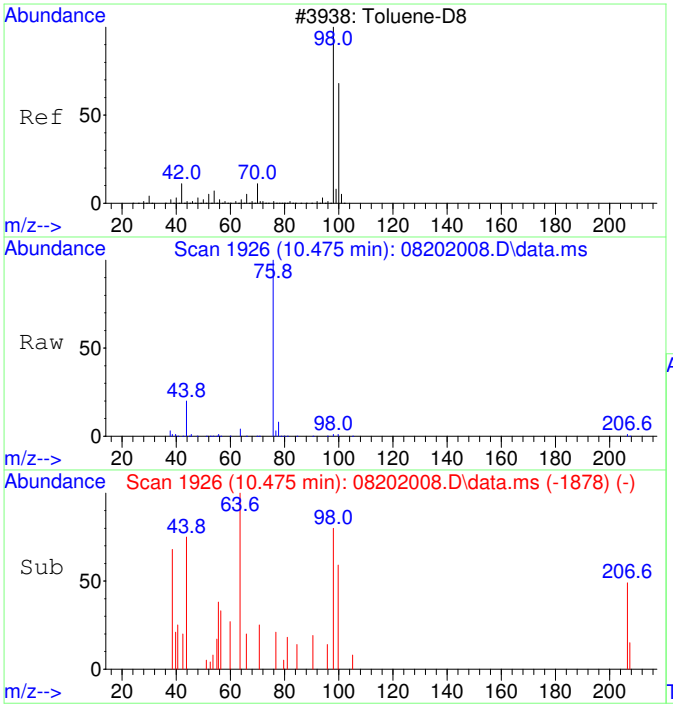




#35
Trichloroethene SCAN
Concen: 30.48 ug/L
RT: 8.557 min Scan# 1661
Delta R.T. -0.011 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:130 Resp: 438

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 204.1 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 81.1 | 28.2 | 88.2 |

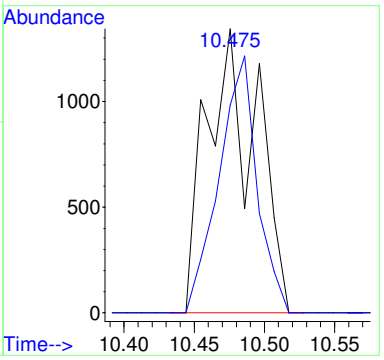


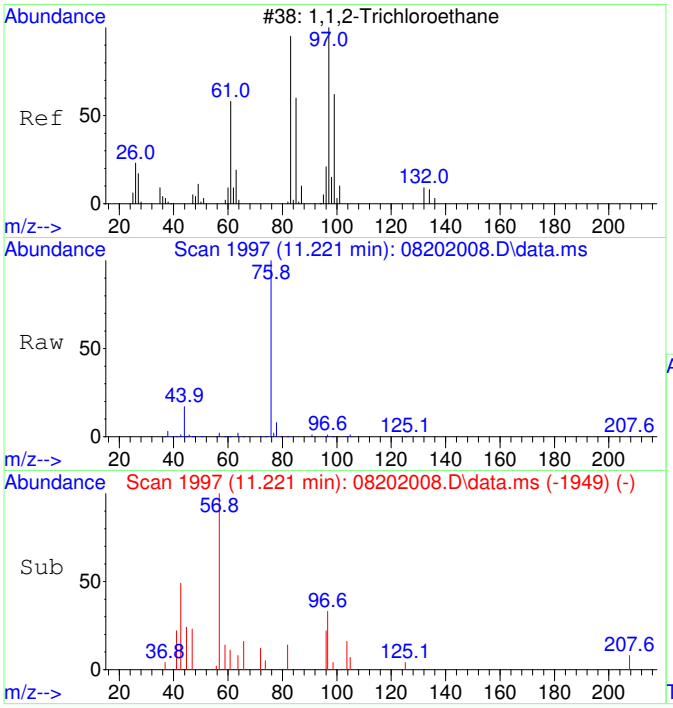



#36
Toluene-d8 SCAN
Concen: 57.48 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 98 Resp: 3315

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 69.2 | 40.0 | 100.0 |

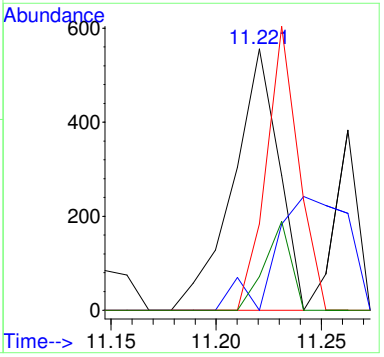


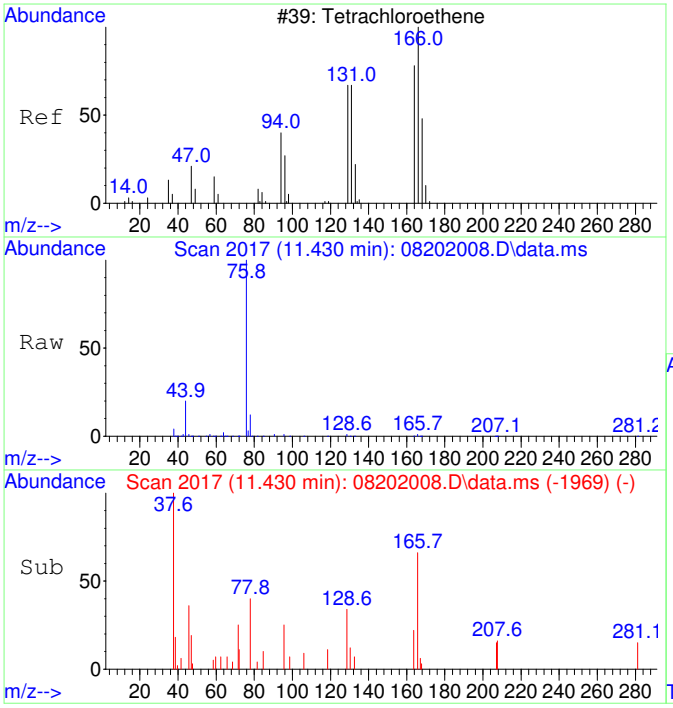




#38
1,1,2-Trichloroethane SCAN
Concen: 50.61 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 0.0 | 36.7 | 96.7# |

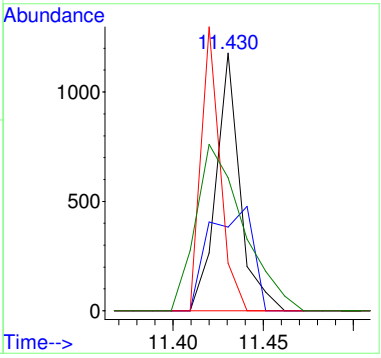


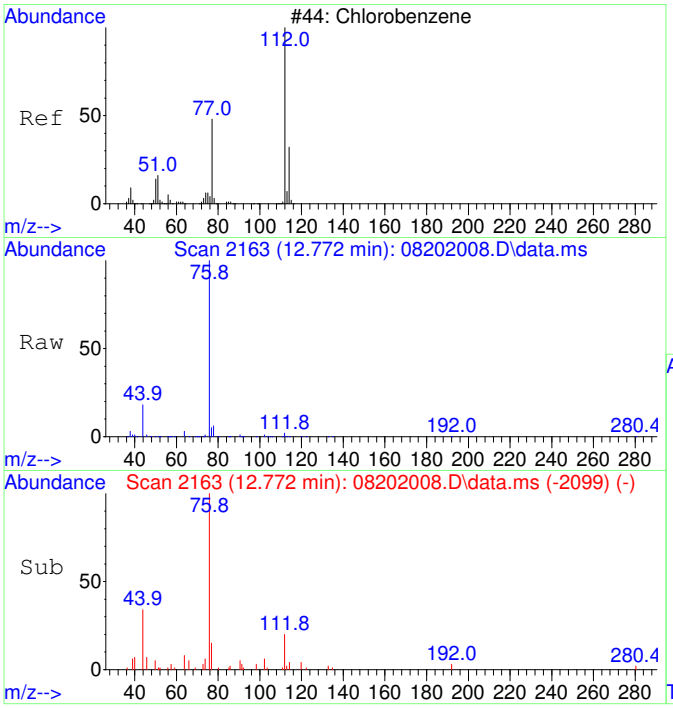



#39
Tetrachloroethene SCAN
Concen: 61.37 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:166 Resp: 1089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 0.0 | 50.9 | 110.9# |
| 131 | 87.6 | 38.7 | 98.7 |
| 129 | 128.4 | 41.8 | 101.8# |

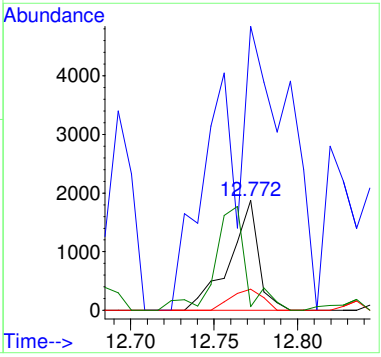


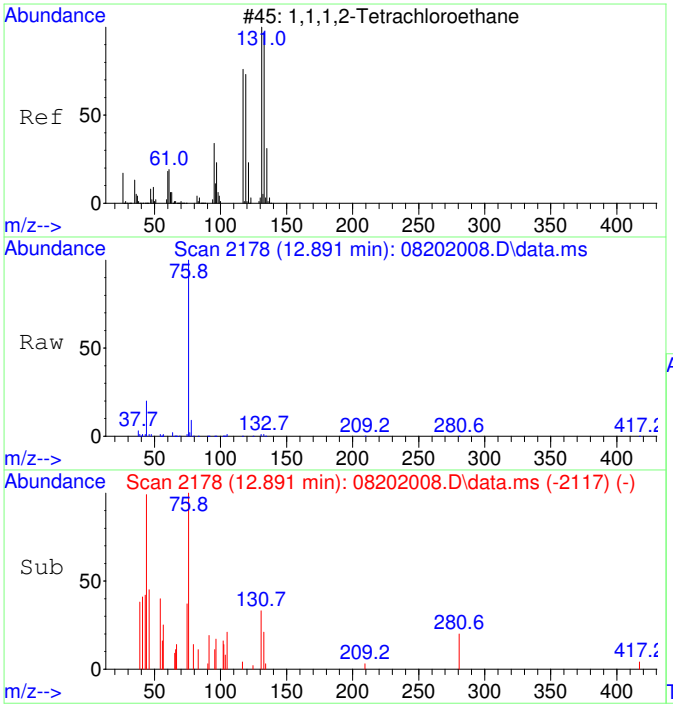




#40
Chlorobenzene SCAN
Concen: 44.78 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:112 Resp: 2260

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 292.5 | 28.2 | 88.2# |
| 114 | 21.3 | 2.3 | 62.3 |
| 51 | 101.9 | 0.0 | 50.1# |

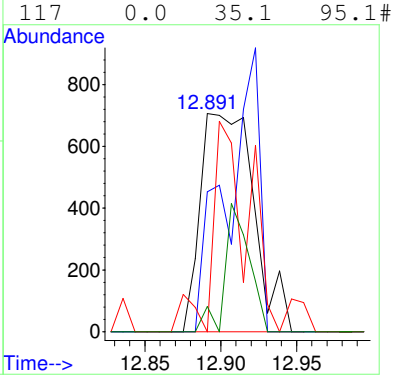


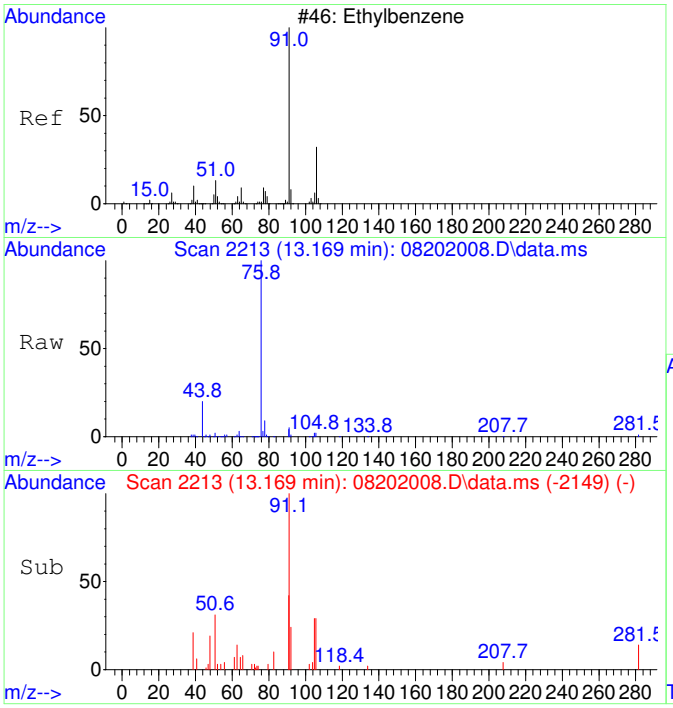



#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 93.05 ug/L
RT: 12.891 min Scan# 2178
Delta R.T. -0.016 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:131 Resp: 1738

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 64.3 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

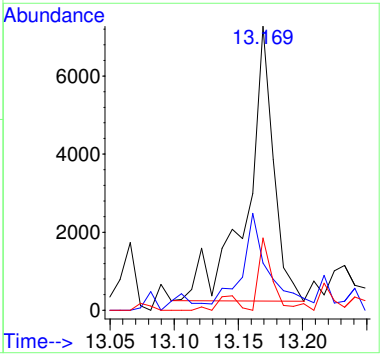


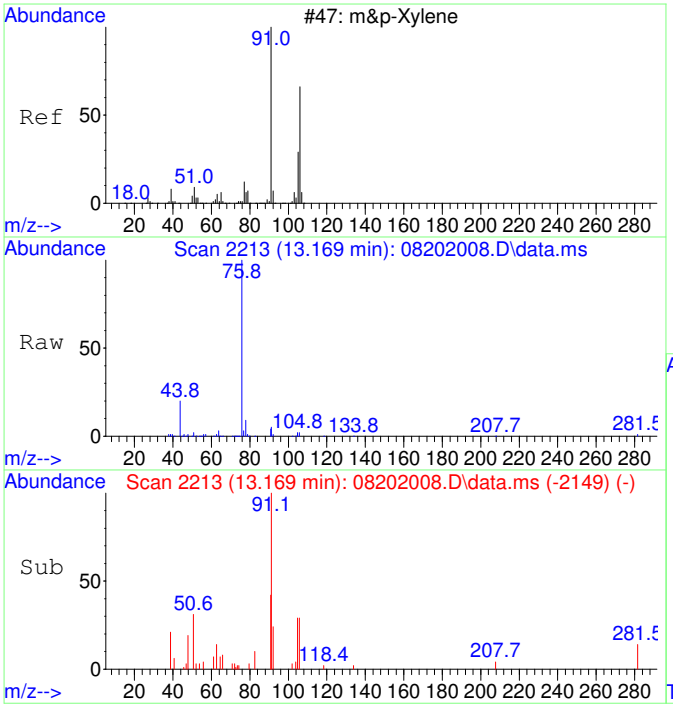




#42
Ethylbenzene SCAN
Concen: 75.40 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 28.8 | 23.1 | 83.1 |
| 51 | 12.0 | 0.0 | 40.1 |

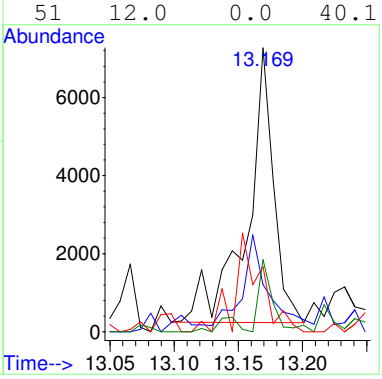


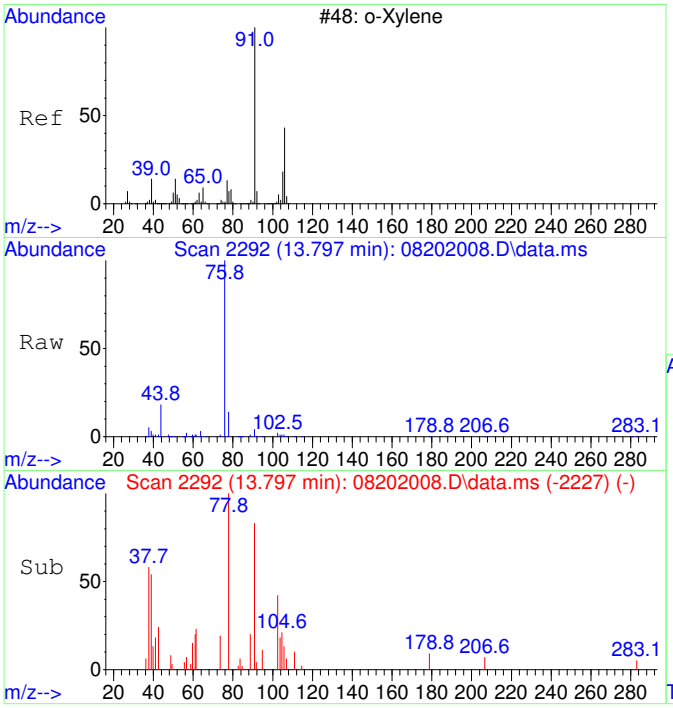



#43
m&p-Xylene SCAN
Concen: 75.40 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 28.8 | 23.1 | 83.1 |
| 105 | 0.0 | 0.0 | 54.7 |
| 51 | 12.0 | 0.0 | 40.1 |

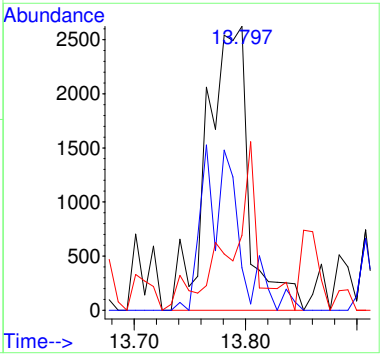


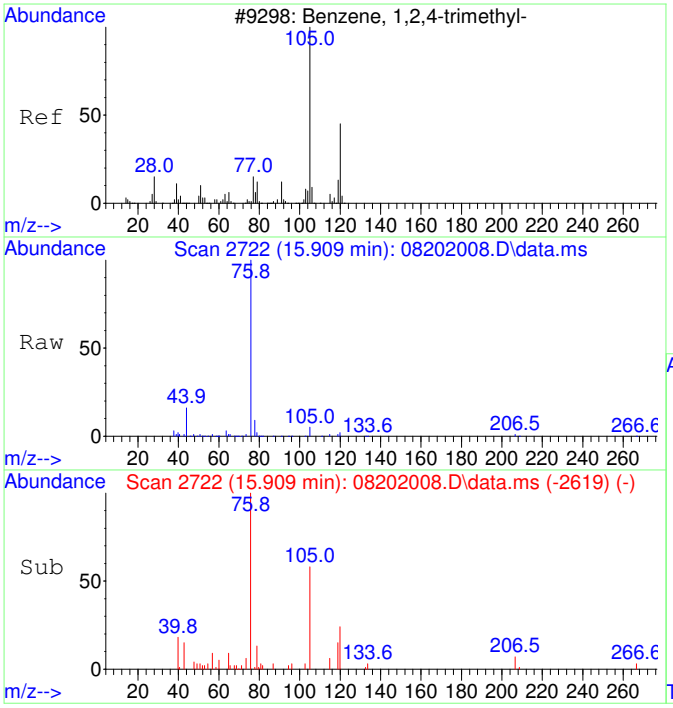




#44
o-Xylene SCAN
Concen: 95.26 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 6861

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 18.0 | 78.0# |
| 105 | 21.3 | 0.0 | 56.6 |

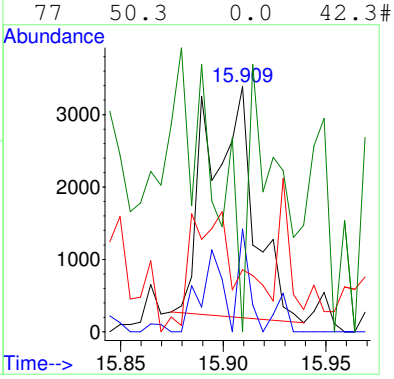


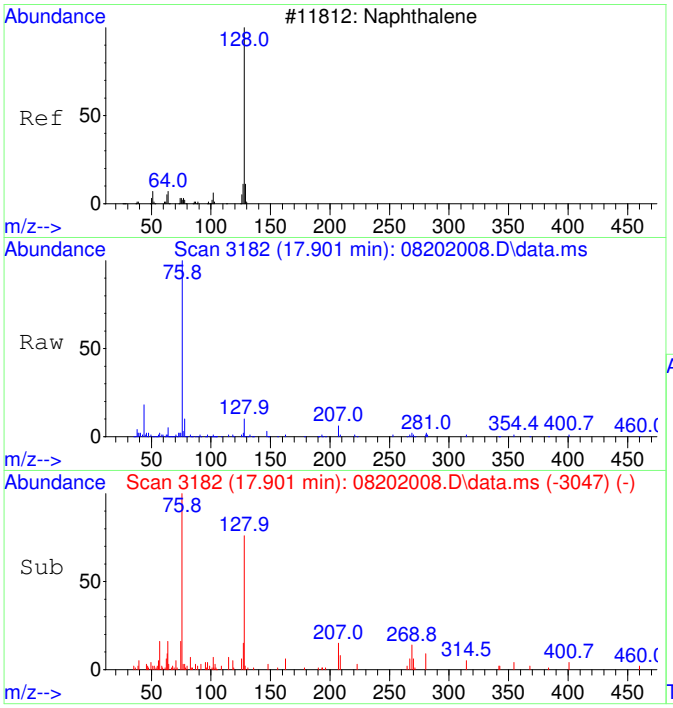



#47
1,2,4-Trimethylbenzene SCAN
Concen: 63.32 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 4918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 10.8 | 16.9 | 76.9# |
| 119 | 0.0 | 0.0 | 41.9 |
| 77 | 50.3 | 0.0 | 42.3# |

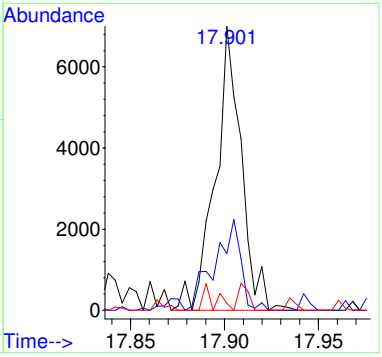



#48
Naphthalene SCAN
Concen: 57.30 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:128 Resp: 6734

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 32.0 | 0.0 | 44.0 |
| 129 | 3.8 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202008.D
Acq On : 20 Aug 2020 17:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
TD at 8:45 am, Aug 21, 2020

M.I. Approved By:
ZR at 3:53 pm, Oct 02, 2020

Quant Time: Aug 21 08:31:14 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration

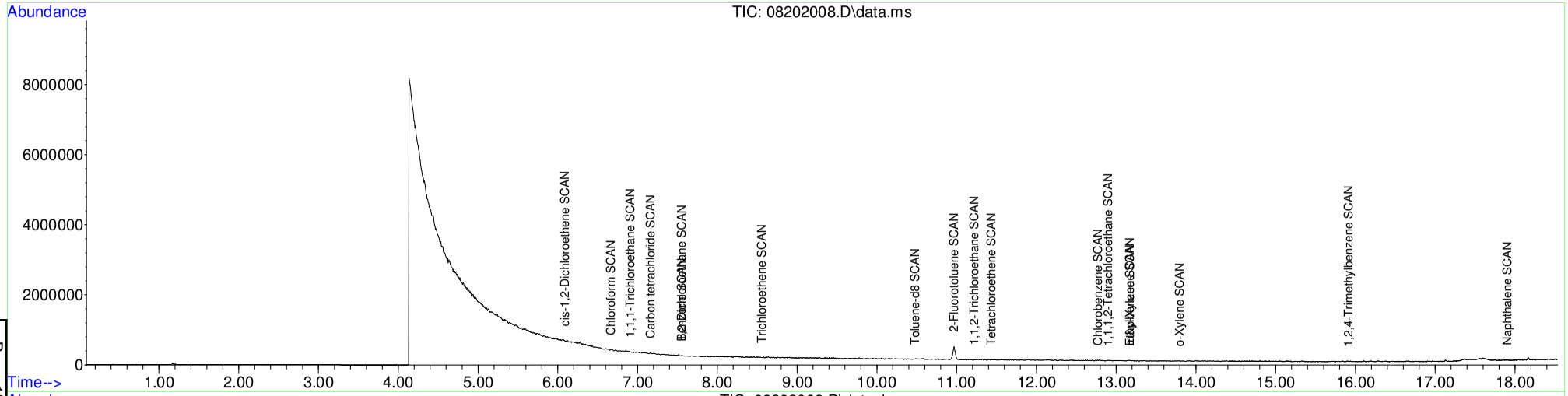
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 604968 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 5849 | 49.39 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 0.99%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.086 | 61 | 970m | 36.47 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.362 | 61 | 1192 | 42.71 | ug/L | 71 |
| 4] 1,1-Dichloroethane | 5.079 | 63 | 1475 | 42.45 | ug/L # | 20 |
| 5] cis-1,2-Dichloroethene | 6.081 | 61 | 1594 | 43.46 | ug/L | 95 |
| 6] Chloroform | 6.652 | 83 | 1606 | 42.78 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.907 | 97 | 1818 | 44.60 | ug/L | 97 |
| 8] Carbon tetrachloride | 7.175 | 117 | 1680 | 43.79 | ug/L | 90 |
| 9] Benzene | 7.503 | 78 | 3813 | 37.10 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.540 | 62 | 1603 | 43.69 | ug/L # | 1 |
| 11] Trichloroethene | 8.569 | 130 | 1464 | 47.31 | ug/L | 94 |
| 13] Toluene | 10.571 | 91 | 8880 | 58.81 | ug/L | 91 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 1632 | 49.61 | ug/L | 93 |
| 15] Tetrachloroethene | 11.432 | 166 | 2206 | 50.49 | ug/L | 99 |
| 16] Chlorobenzene | 12.757 | 112 | 5616 | 51.95 | ug/L | 87 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 1936 | 49.98 | ug/L | 97 |
| 18] Ethylbenzene | 12.964 | 91 | 10080 | 54.85 | ug/L | 96 |
| 19] m&p-Xylene | 13.162 | 91 | 16478 | 114.72 | ug/L | 94 |
| 20] o-Xylene | 13.774 | 91 | 8511 | 55.46 | ug/L | 98 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 3604 | 52.99 | ug/L | 98 |
| 22] 1,3,5-Trimethylbenzene | 15.340 | 105 | 8630 | 52.84 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.896 | 105 | 9662 | 56.95 | ug/L | 92 |
| 24] Naphthalene | 17.903 | 128 | 14370 | 53.59 | ug/L | 98 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 276390 | 4686.70 | ug/L | 97 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 446 | 23.21 | ug/L # | 77 |
| 30) Chloroform SCAN | 6.662 | 83 | 1146 | 54.98 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 1606 | 84.55 | ug/L # | 25 |
| 32) Carbon tetrachloride SCAN | 7.161 | 117 | 1077 | 54.36 | ug/L # | 15 |
| 33) Benzene SCAN | 7.550 | 78 | 16747 | 320.23 | ug/L | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.550 | 62 | 733 | 37.96 | ug/L # | 26 |
| 35) Trichloroethene SCAN | 8.557 | 130 | 438 | 30.48 | ug/L # | 11 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 3315 | 57.48 | ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.221 | 97 | 839 | 50.61 | ug/L # | 13 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 1089 | 61.37 | ug/L # | 37 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2260 | 44.78 | ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.891 | 131 | 1738 | 93.05 | ug/L # | 34 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 10146 | 75.40 | ug/L | 70 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 10146 | 75.40 | ug/L # | 65 |
| 44) o-Xylene SCAN | 13.797 | 91 | 6861 | 95.26 | ug/L # | 51 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 4918 | 63.32 | ug/L # | 42 |
| 48) Naphthalene SCAN | 17.901 | 128 | 6734 | 57.30 | ug/L | 67 |

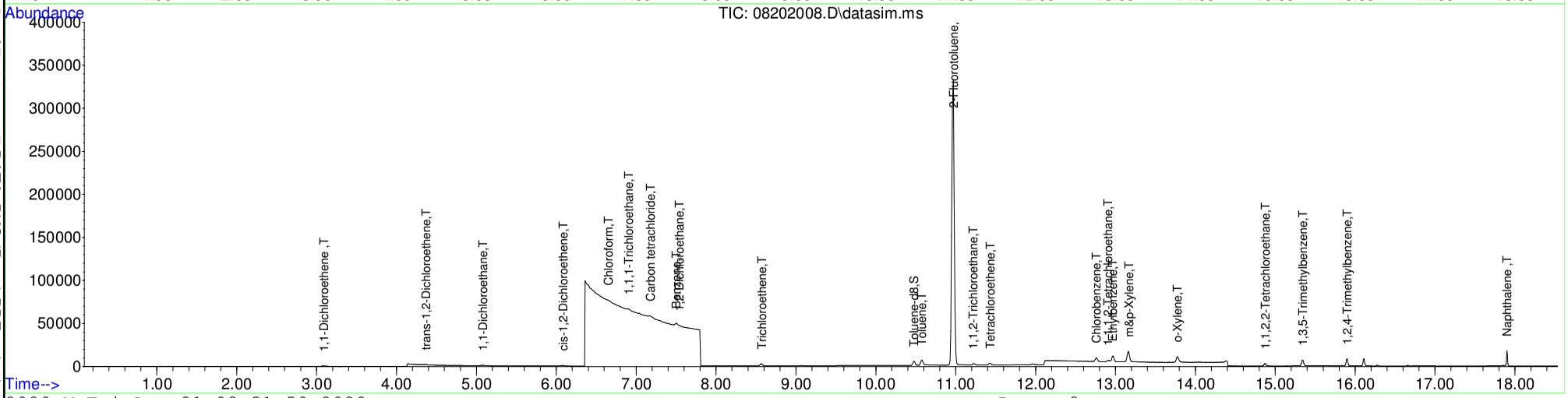
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202008.D
Acq On : 20 Aug 2020 17:25
InstName : AG5975C
Operator : TD
Sample : S20H039-CAL6
Misc : 2030073 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 21 08:31:14 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:30:13 2020
Response via : Initial Calibration





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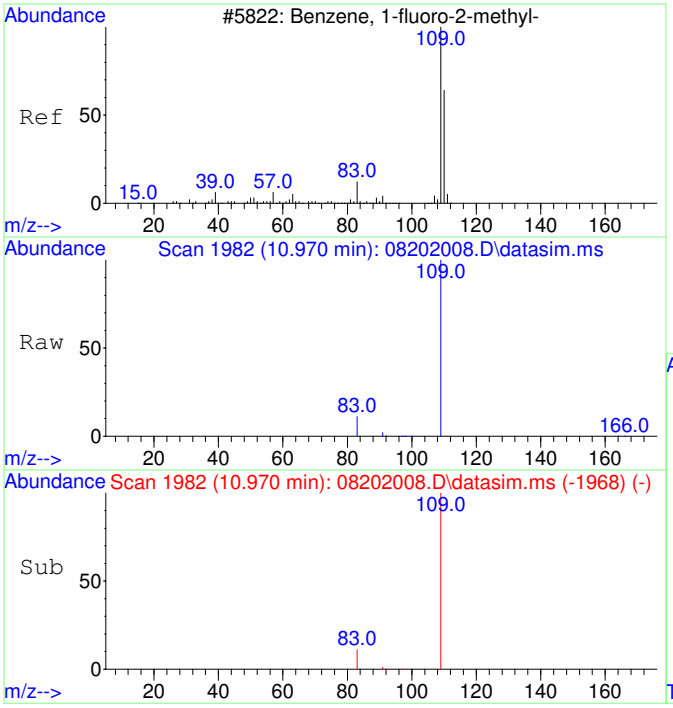
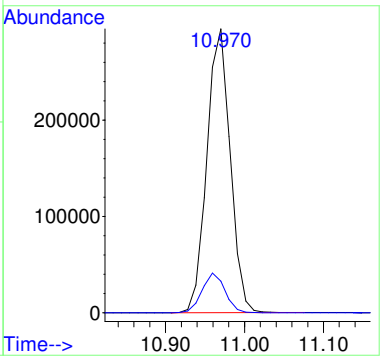
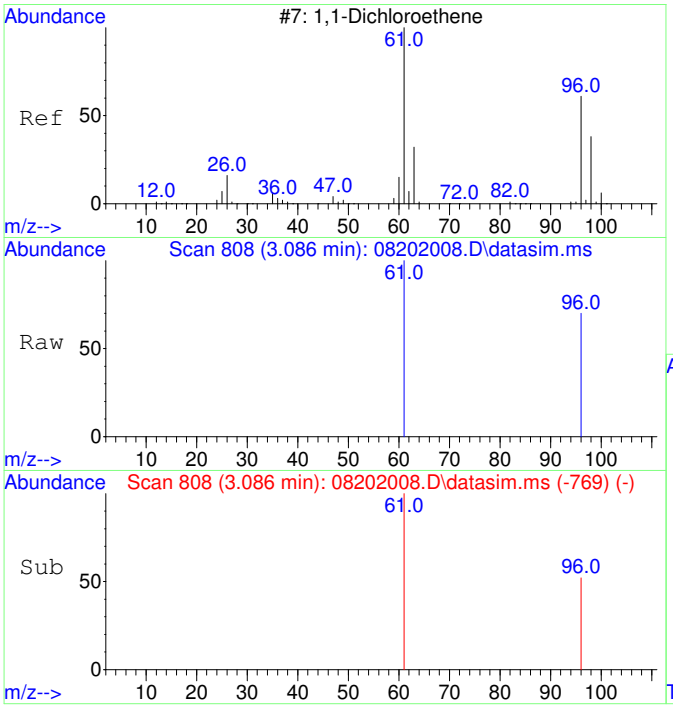



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:109 Resp: 604968

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 42.3 |

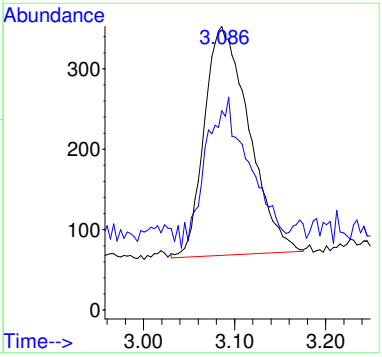


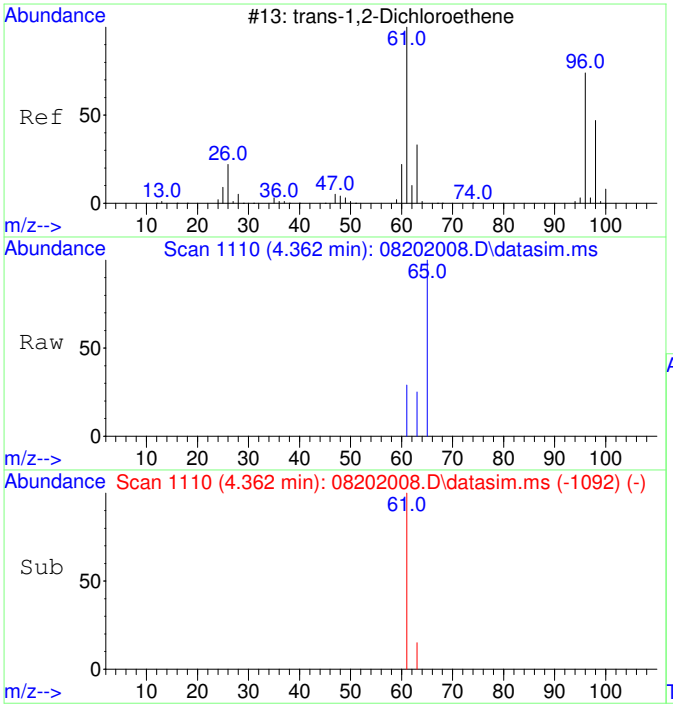




#2
1,1-Dichloroethene
Concen: 36.47 ug/L m
RT: 3.086 min Scan# 808
Delta R.T. -0.004 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 970

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 85.9 | 37.2 | 97.2 |

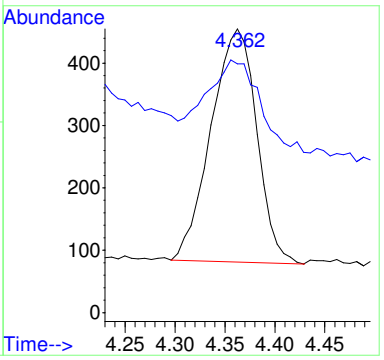


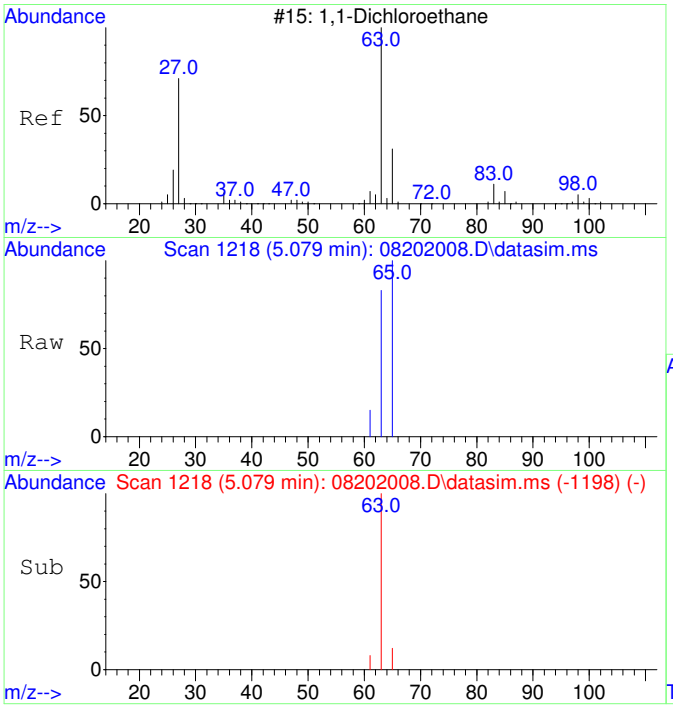



#3
trans-1,2-Dichloroethene
Concen: 42.71 ug/L
RT: 4.362 min Scan# 1110
Delta R.T. -0.033 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 1192

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 48.7 | 2.4 | 62.4 |

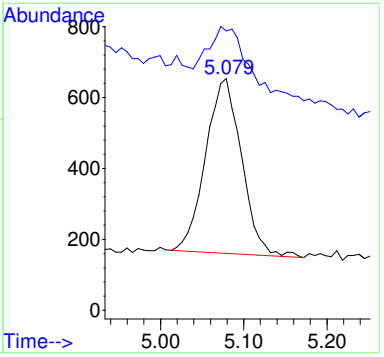


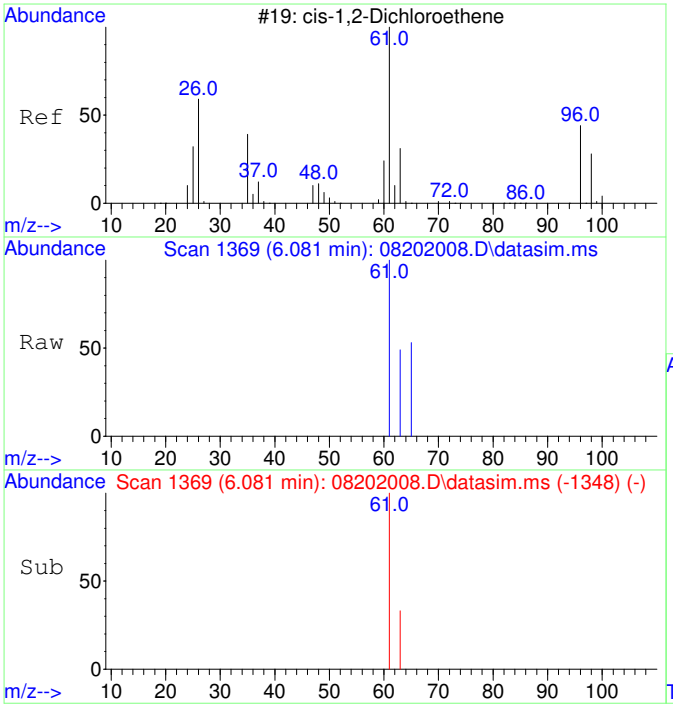




#4
1,1-Dichloroethane
Concen: 42.45 ug/L
RT: 5.079 min Scan# 1218
Delta R.T. -0.020 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 63 Resp: 1475

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 76.1 | 1.8 | 61.8# |

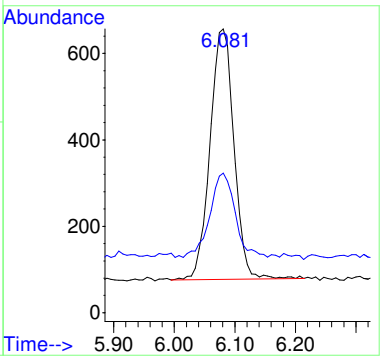


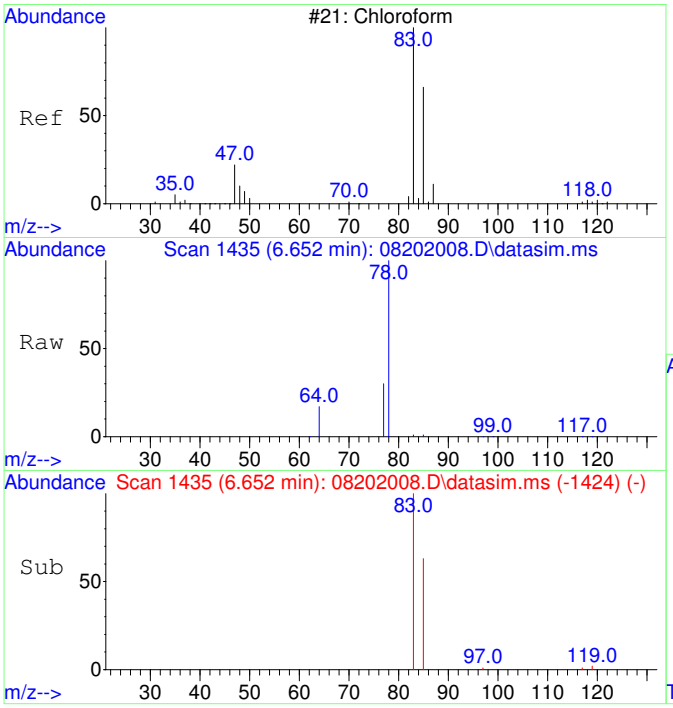



#5
cis-1,2-Dichloroethene
Concen: 43.46 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.013 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 61 Resp: 1594

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 35.1 | 2.5 | 62.5 |

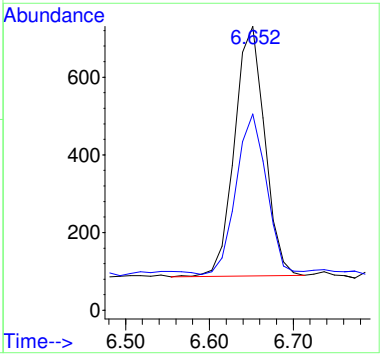


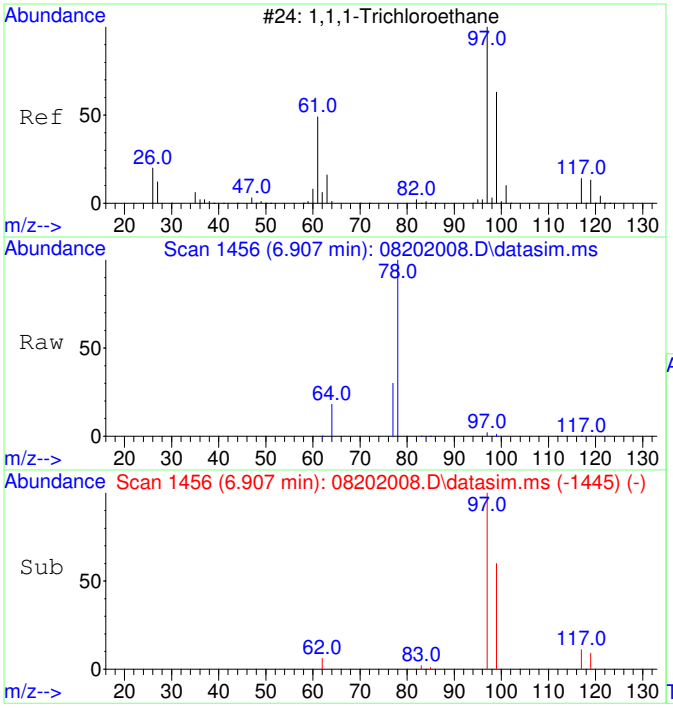




#6
Chloroform
Concen: 42.78 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 1606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.9 | 35.1 | 95.1 |

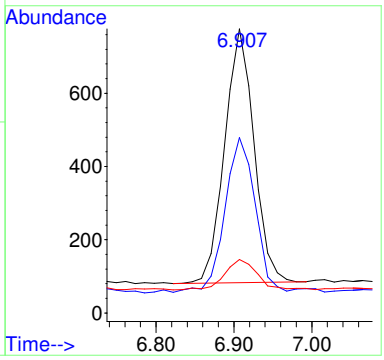


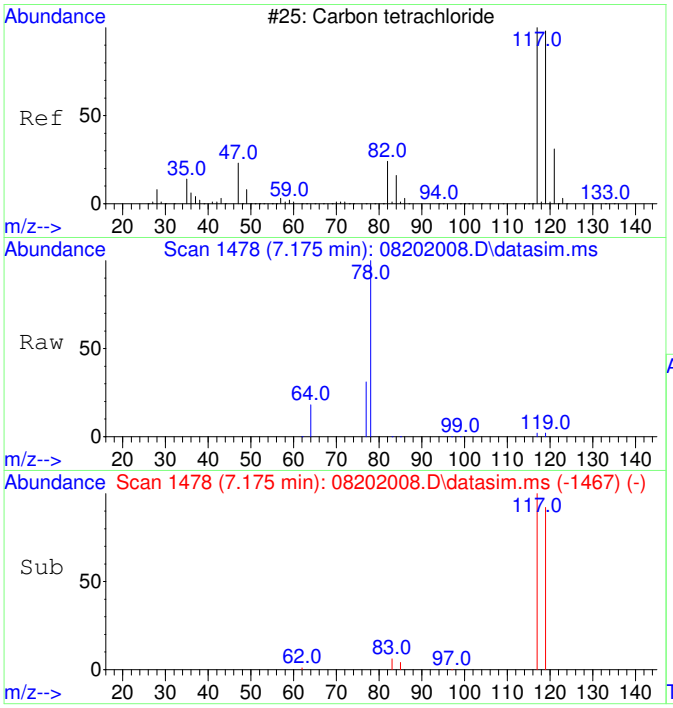



#7
1,1,1-Trichloroethane
Concen: 44.60 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1818

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 61.9 | 34.6 | 94.6 |
| 117 | 13.4 | 0.0 | 43.2 |

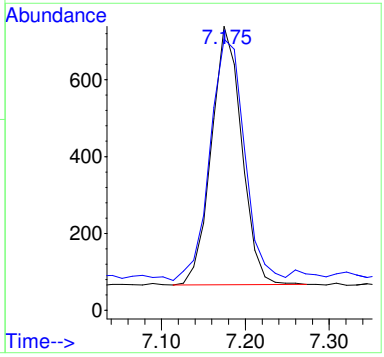


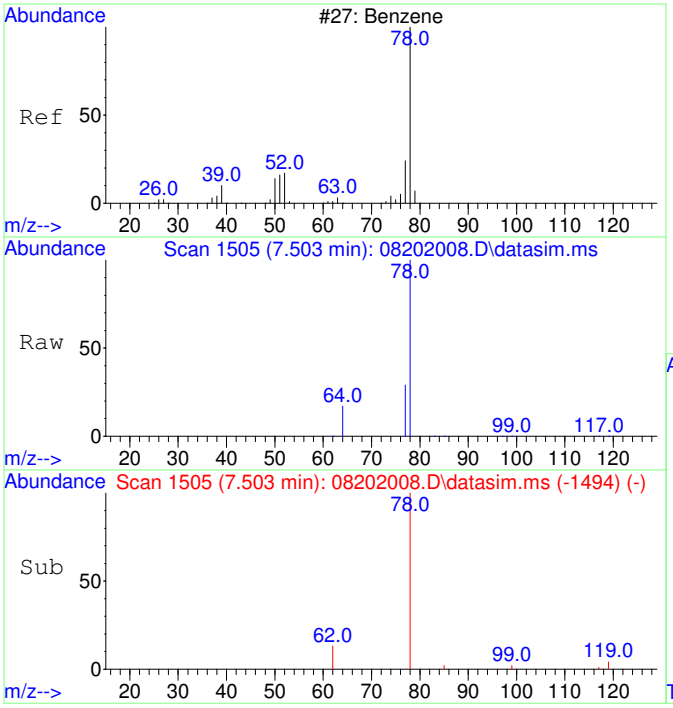




#8
Carbon tetrachloride
Concen: 43.79 ug/L
RT: 7.175 min Scan# 1478
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:117 Resp: 1680

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 105.9 | 66.4 | 126.4 |

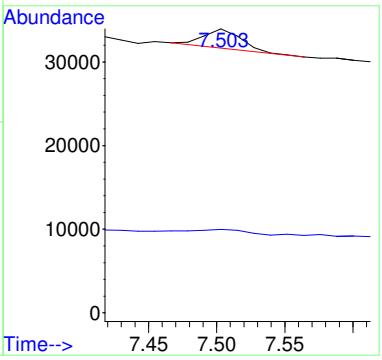


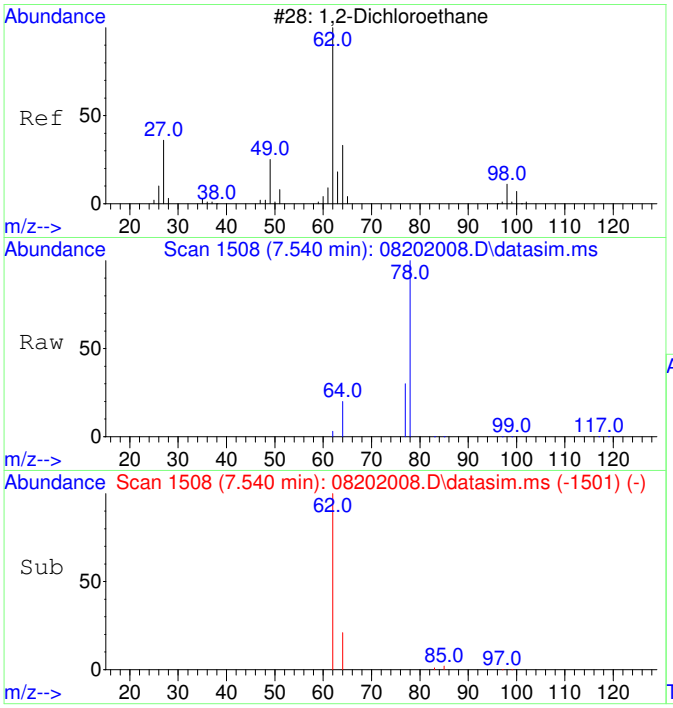



#9
Benzene
Concen: 37.10 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 78 Resp: 3813

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 99.1 | 0.0 | 53.2# |

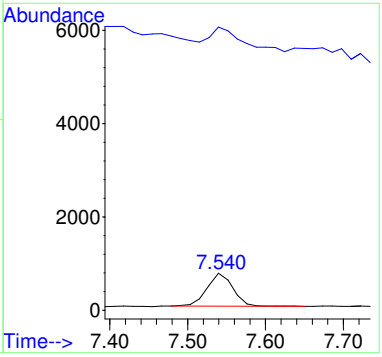


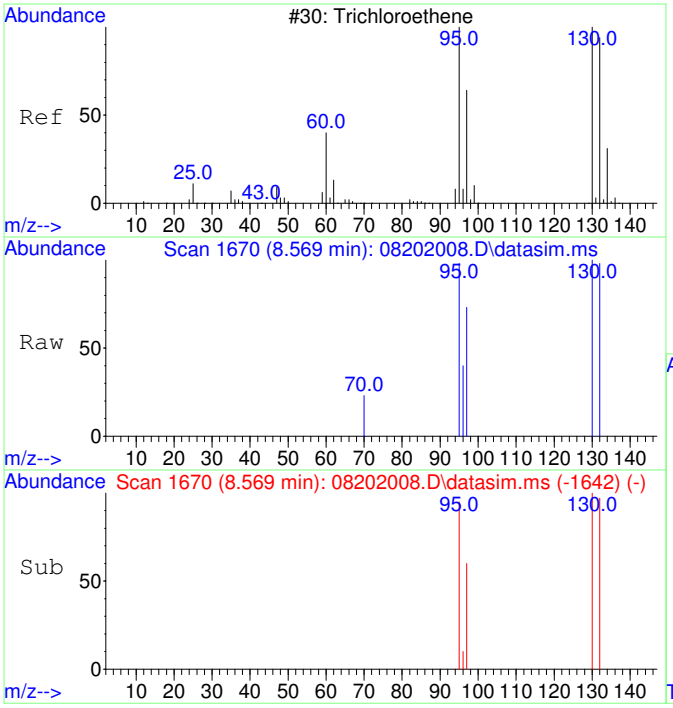




#10
1,2-Dichloroethane
Concen: 43.69 ug/L
RT: 7.540 min Scan# 1508
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 62 Resp: 1603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.9 | 2.3 | 62.3# |

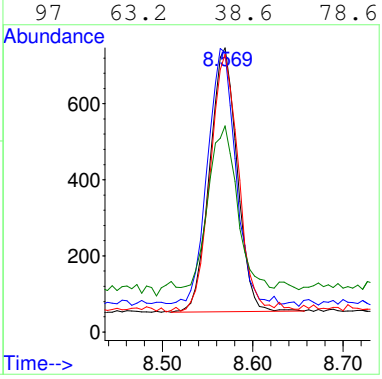


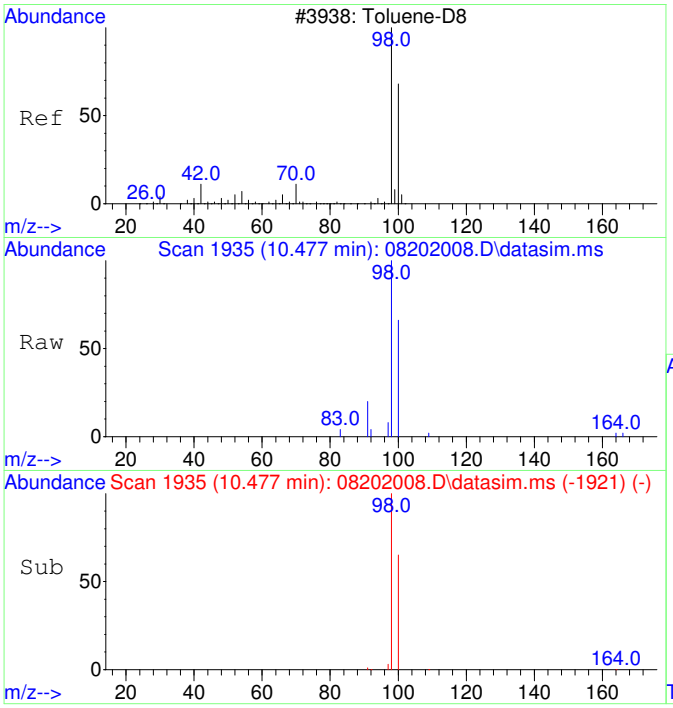



#11
Trichloroethene
Concen: 47.31 ug/L
RT: 8.569 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:130 Resp: 1464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 98.6 | 60.7 | 120.7 |
| 132 | 100.6 | 76.0 | 116.0 |
| 97 | 63.2 | 38.6 | 78.6 |

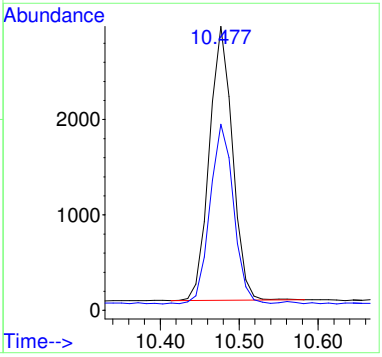


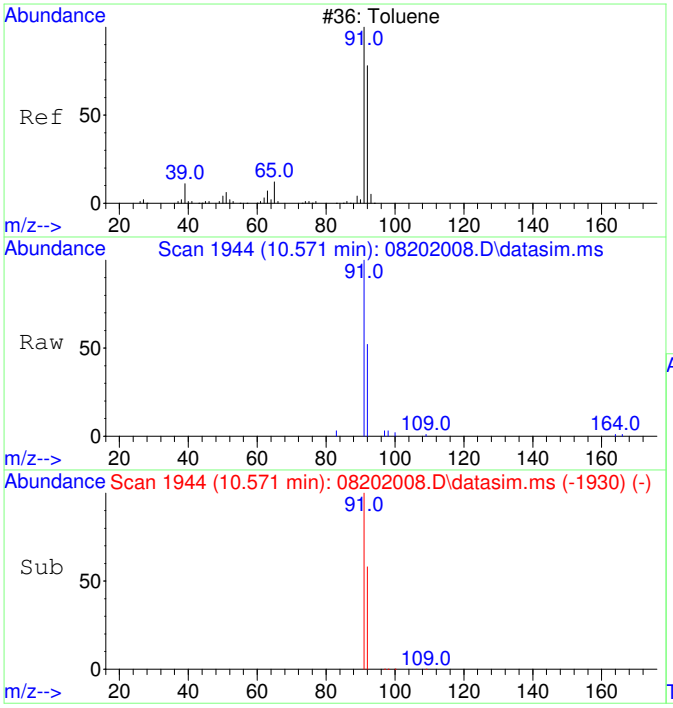




#12
Toluene-d8
Concen: 49.39 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 98 Resp: 5849

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.4 | 37.1 | 97.1 |

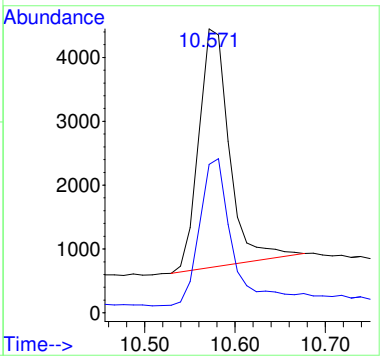


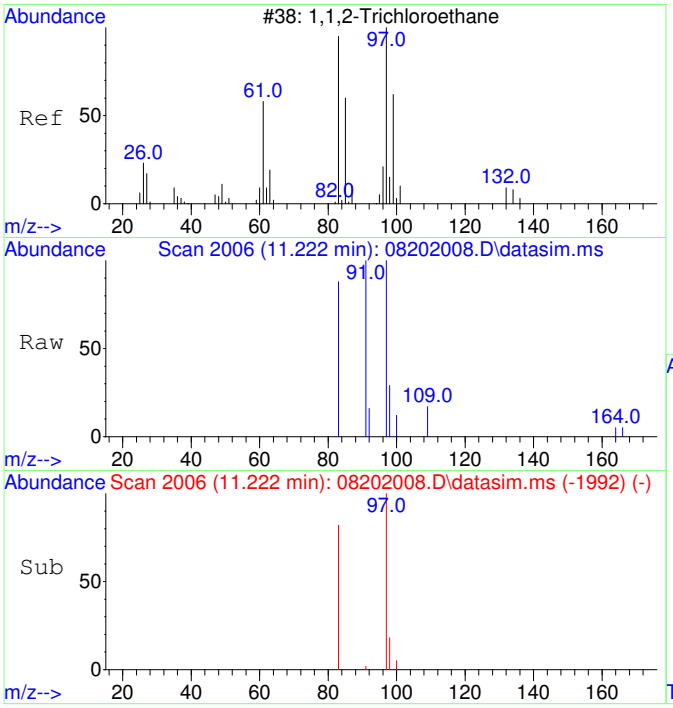



#13
Toluene
Concen: 58.81 ug/L
RT: 10.571 min Scan# 1944
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 8880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.5 | 29.9 | 89.9 |

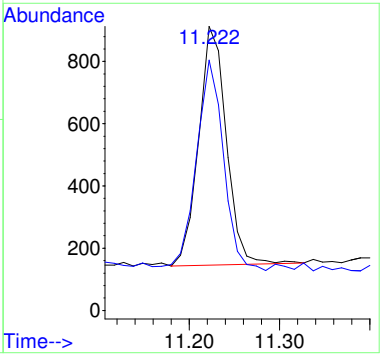


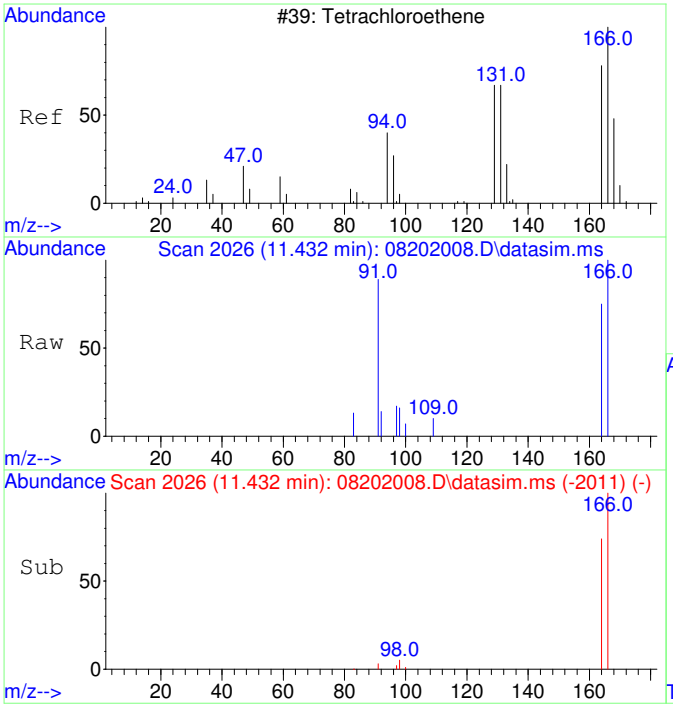




#14
1,1,2-Trichloroethane
Concen: 49.61 ug/L
RT: 11.222 min Scan# 2006
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 87.4 | 51.2 | 111.2 |

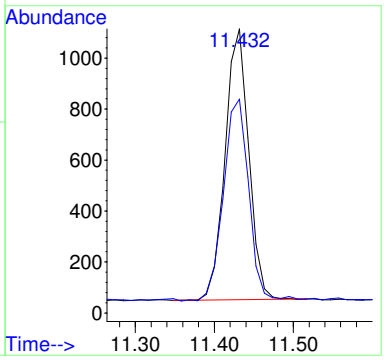


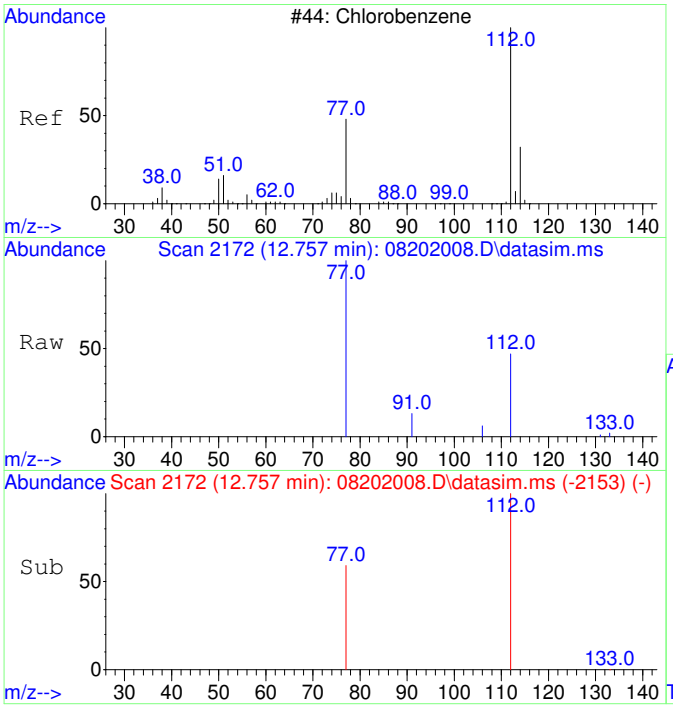



#15
Tetrachloroethene
Concen: 50.49 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:166 Resp: 2206

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.9 | 47.8 | 107.8 |

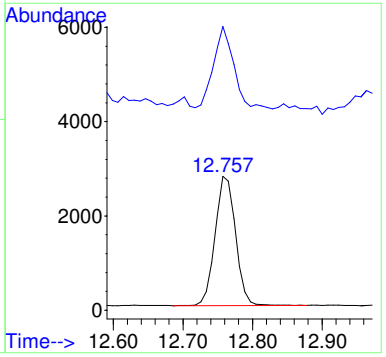


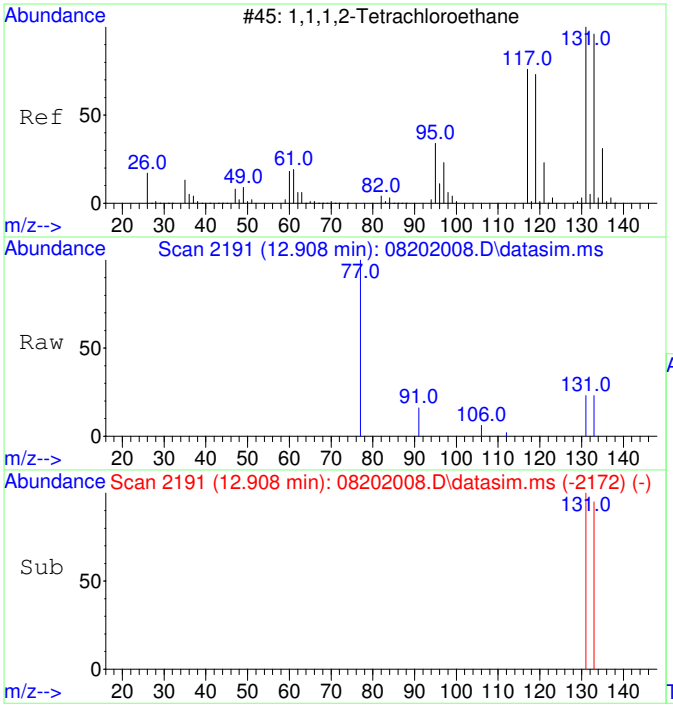




#16
Chlorobenzene
Concen: 51.95 ug/L
RT: 12.757 min Scan# 2172
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:112 Resp: 5616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 63.2 | 23.6 | 83.6 |

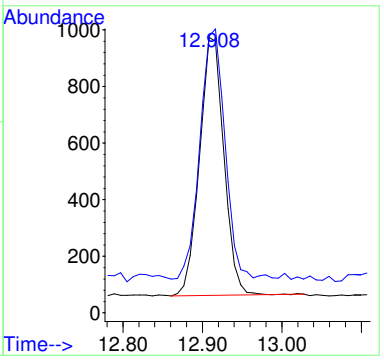


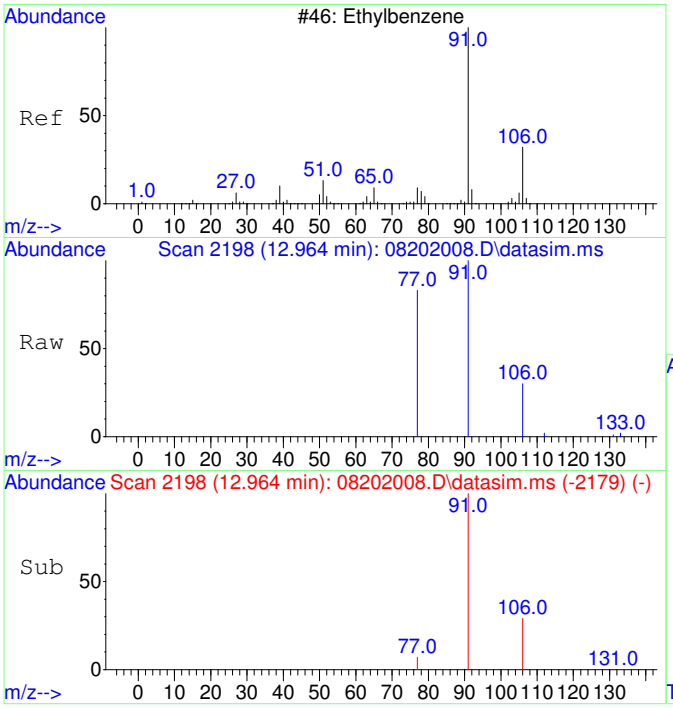



#17
1,1,1,2-Tetrachloroethane
Concen: 49.98 ug/L
RT: 12.908 min Scan# 2191
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:131 Resp: 1936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.2 | 66.3 | 126.3 |

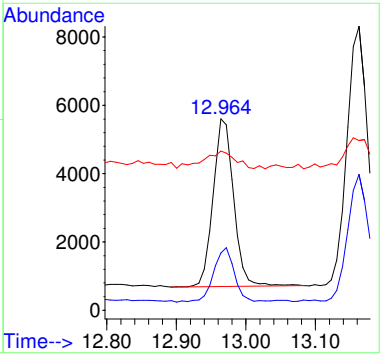


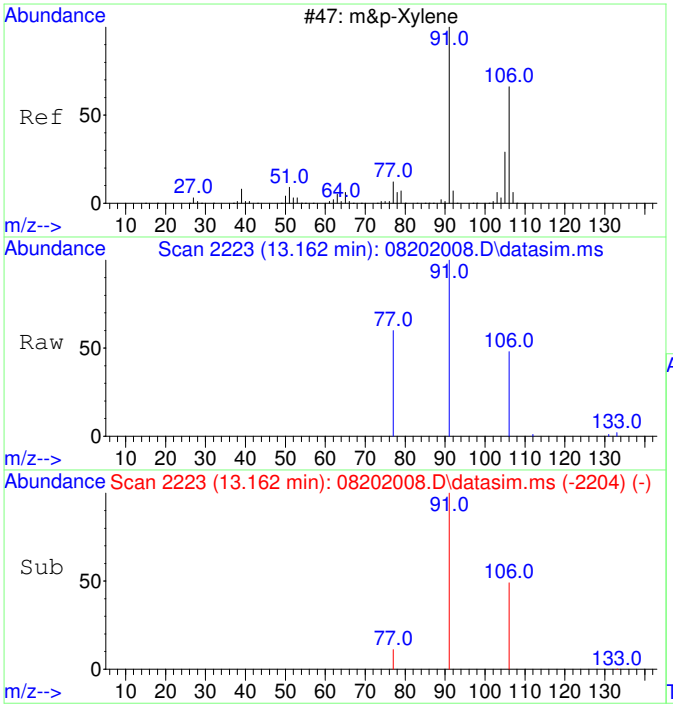




#18
Ethylbenzene
Concen: 54.85 ug/L
RT: 12.964 min Scan# 2198
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.7 | 3.0 | 63.0 |
| 77 | 15.3 | 0.0 | 38.2 |

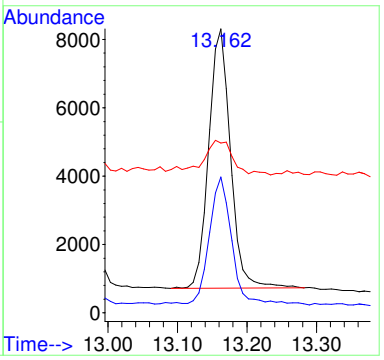


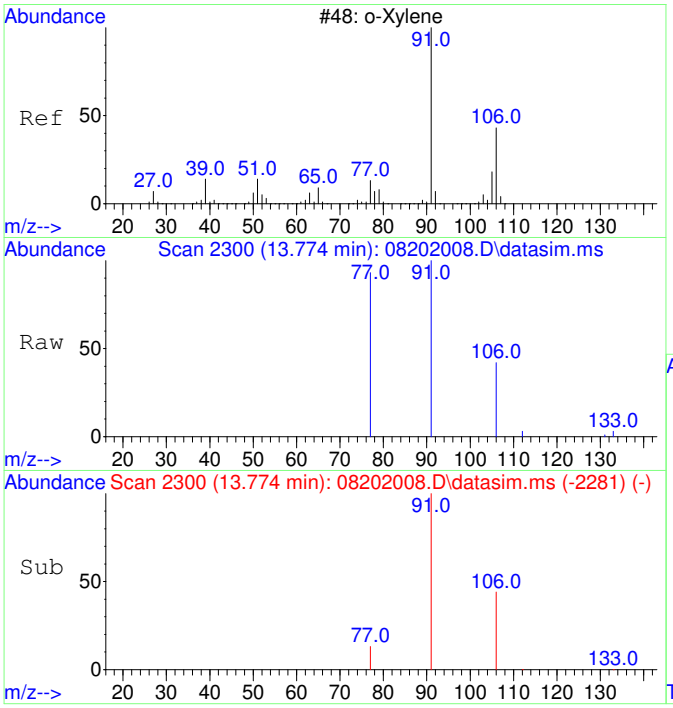



#19
m&p-Xylene
Concen: 114.72 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 16478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.8 | 22.2 | 82.2 |
| 77 | 17.4 | 0.0 | 42.4 |

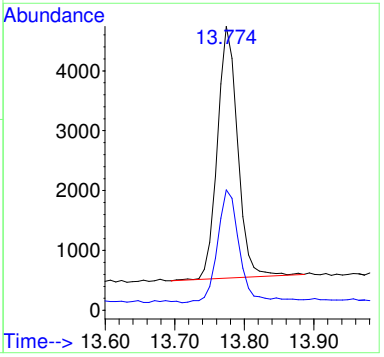


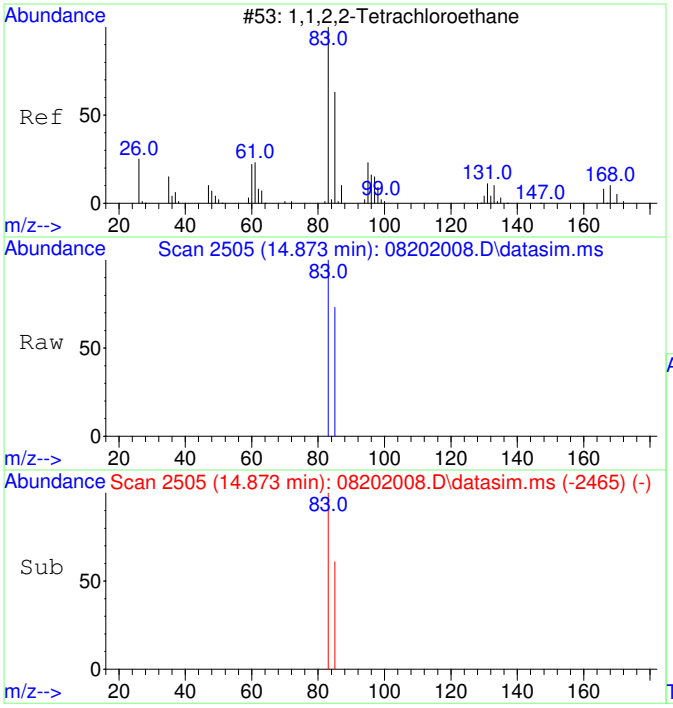




#20
o-Xylene
Concen: 55.46 ug/L
RT: 13.774 min Scan# 2300
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 8511

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.6 | 19.2 | 79.2 |

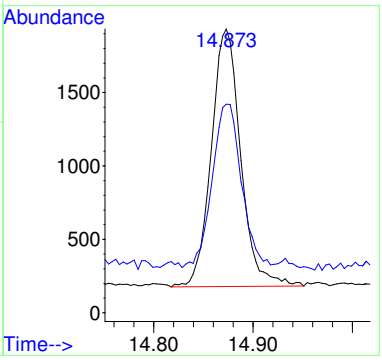


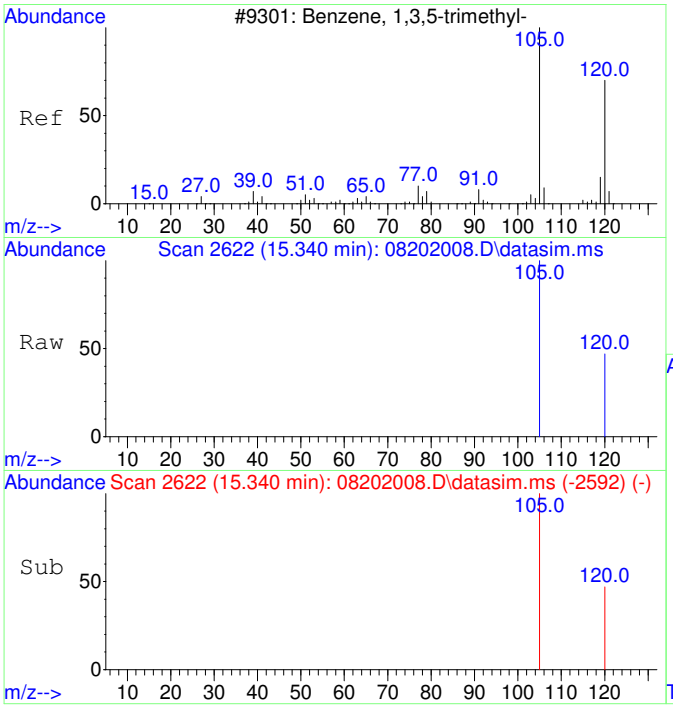



#21
1,1,2,2-Tetrachloroethane
Concen: 52.99 ug/L
RT: 14.873 min Scan# 2505
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 3604

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.3 | 34.8 | 94.8 |

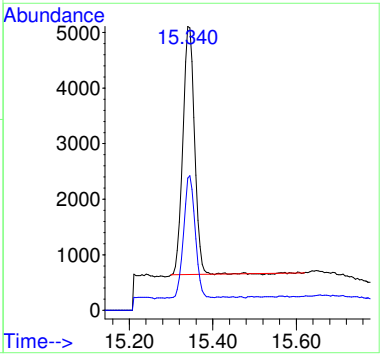


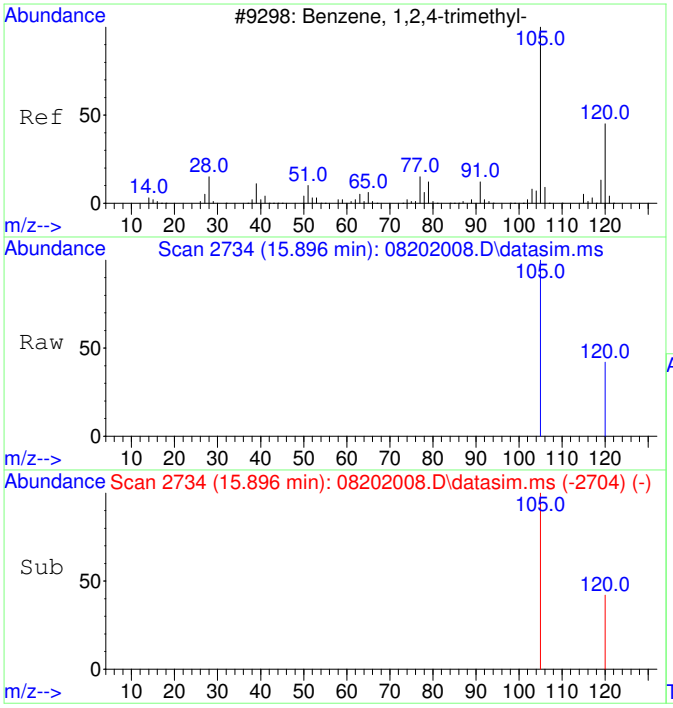




#22
1,3,5-Trimethylbenzene
Concen: 52.84 ug/L
RT: 15.340 min Scan# 2622
Delta R.T. -0.005 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 8630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.6 | 21.1 | 81.1 |

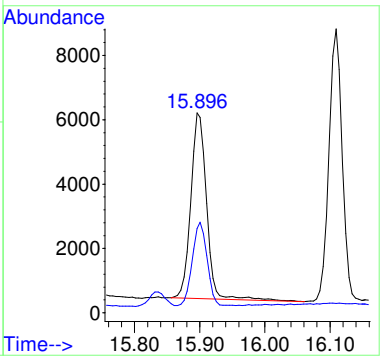


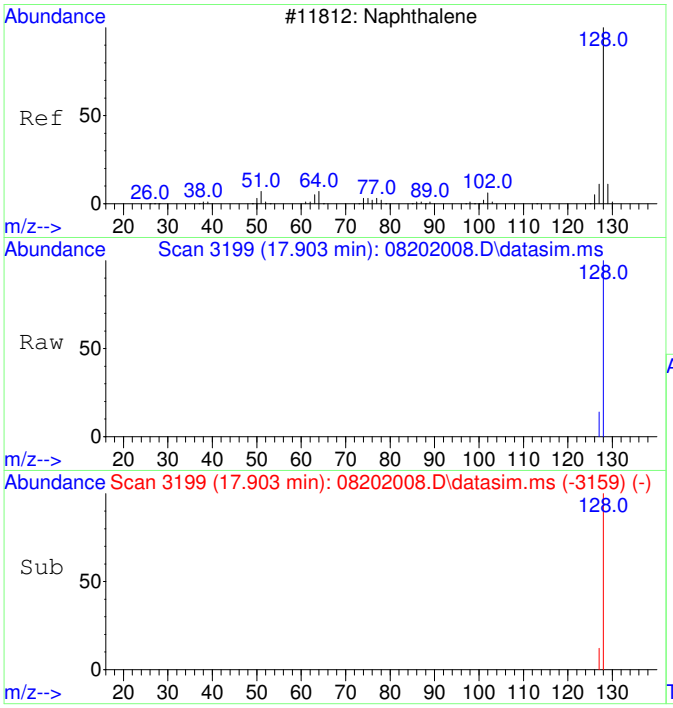



#23
1,2,4-Trimethylbenzene
Concen: 56.95 ug/L
RT: 15.896 min Scan# 2734
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 9662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.8 | 17.2 | 77.2 |

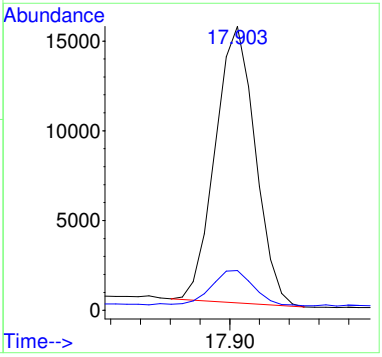


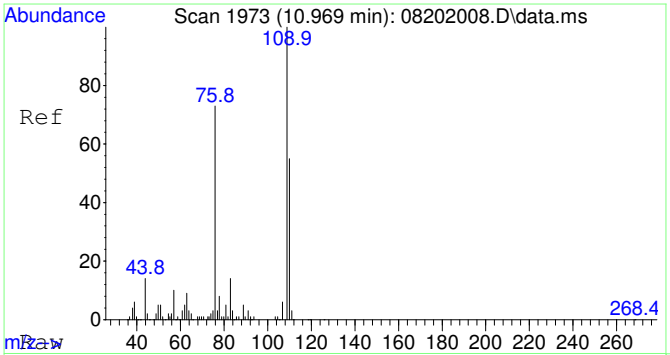




#24
Naphthalene
Concen: 53.59 ug/L
RT: 17.903 min Scan# 3199
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:128 Resp: 14370

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.4 | 0.0 | 42.5 |

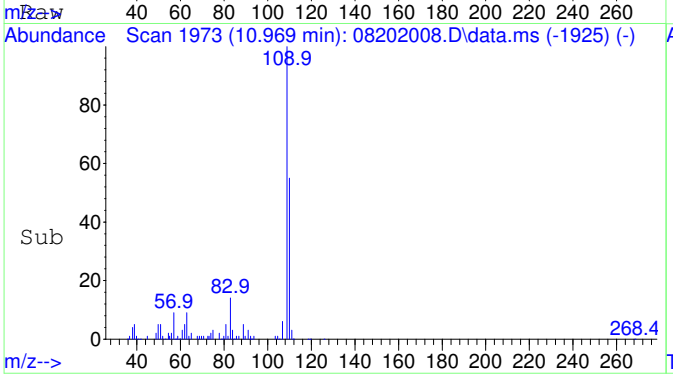


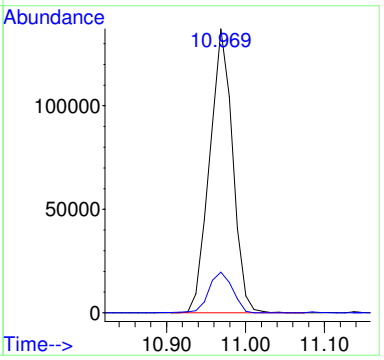


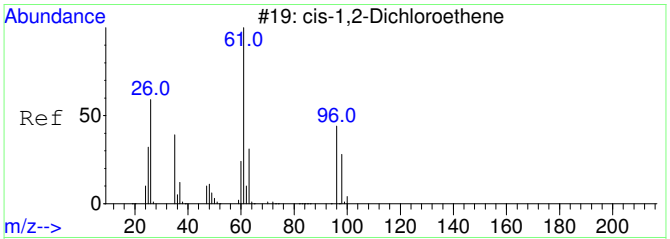

#25
2-Fluorotoluene SCAN
Concen: 4686.70 ug/L
RT: 10.969 min Scan# 1973
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:109 Resp: 276390

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.8 | 0.0 | 43.8 |



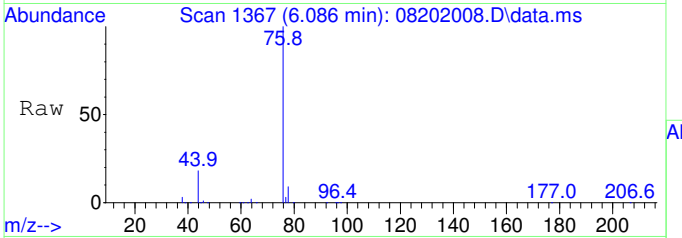



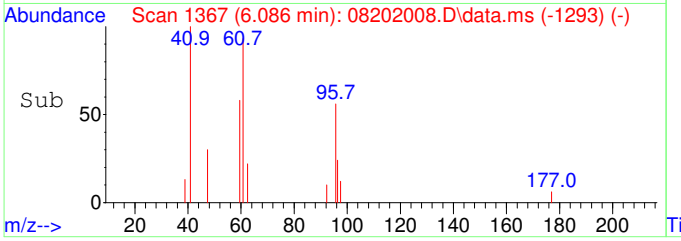



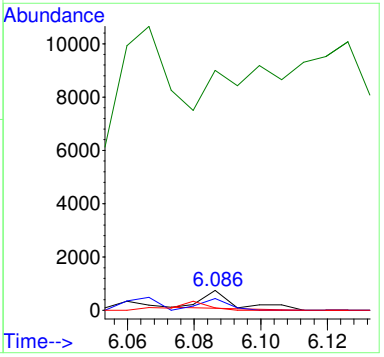

#29
cis-1,2-Dichloroethene SCAN
Concen: 23.21 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

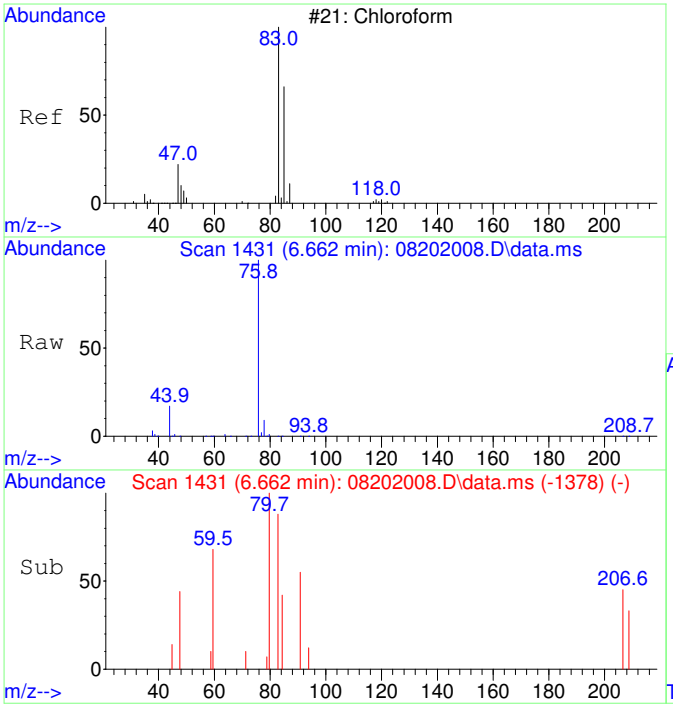
Tgt Ion: 61 Resp: 446

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 63.0 | 39.9 | 99.9 |
| 98 | 55.2 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |



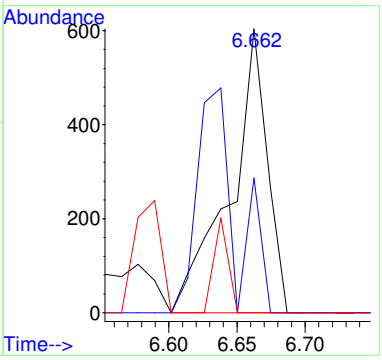



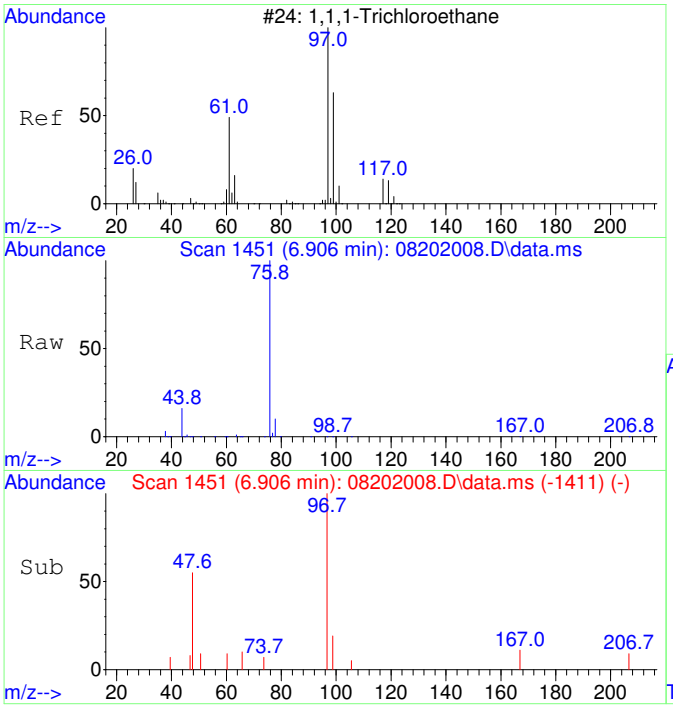



#30
Chloroform SCAN
Concen: 54.98 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 83 Resp: 1146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

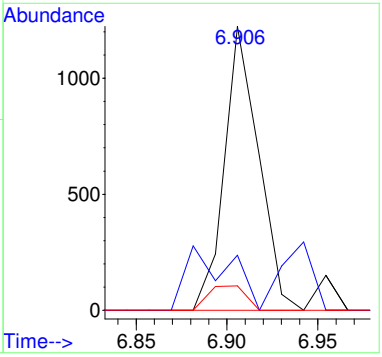


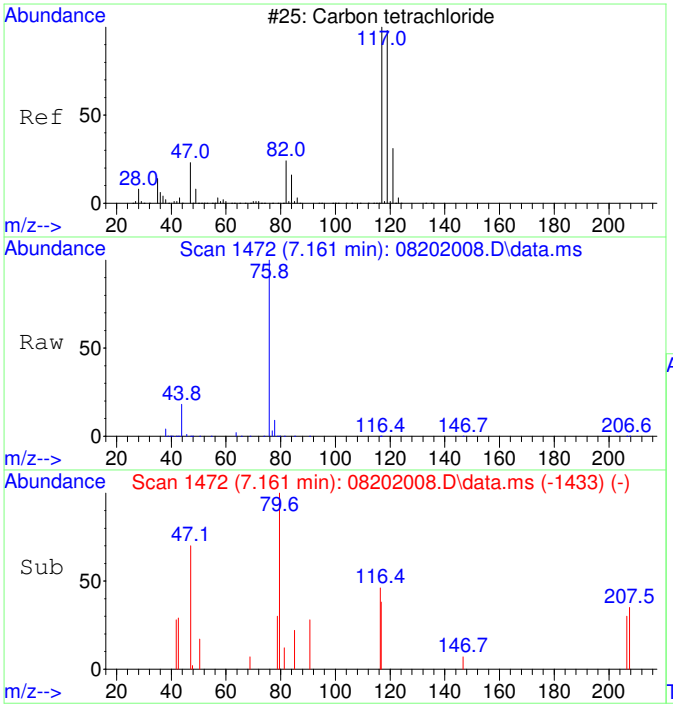




#31
1,1,1-Trichloroethane SCAN
Concen: 84.55 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 1606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 9.5 | 18.0 | 78.0# |

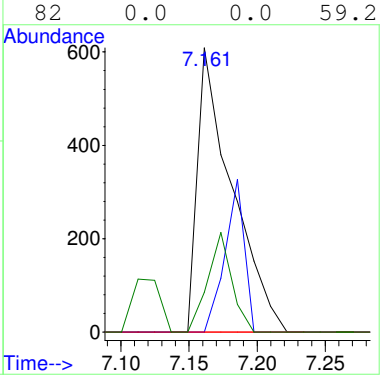


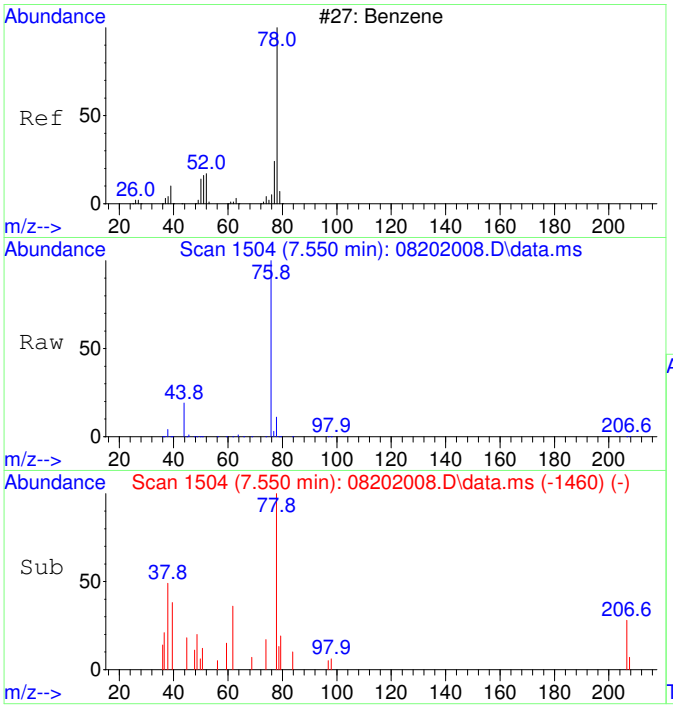



#32
Carbon tetrachloride SCAN
Concen: 54.36 ug/L
RT: 7.161 min Scan# 1472
Delta R.T. -0.024 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:117 Resp: 1077

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 0.0 | 75.5 | 135.5# |
| 121 | 0.0 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

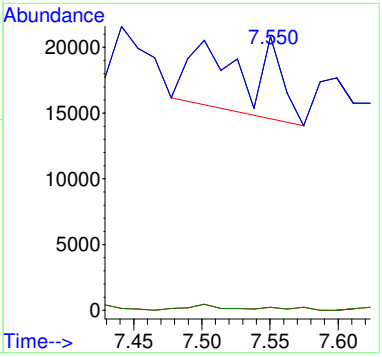


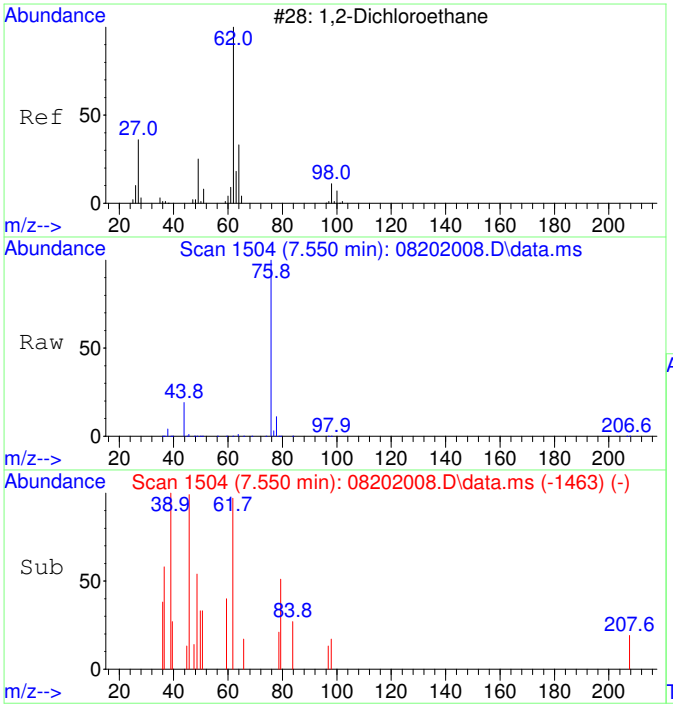




#33
Benzene SCAN
Concen: 320.23 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.037 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 78 Resp: 16747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 1.6 | 0.0 | 47.9 |
| 51 | 1.6 | 0.0 | 44.1 |

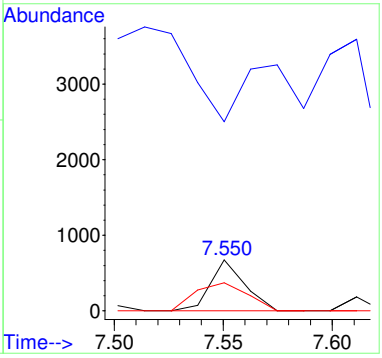


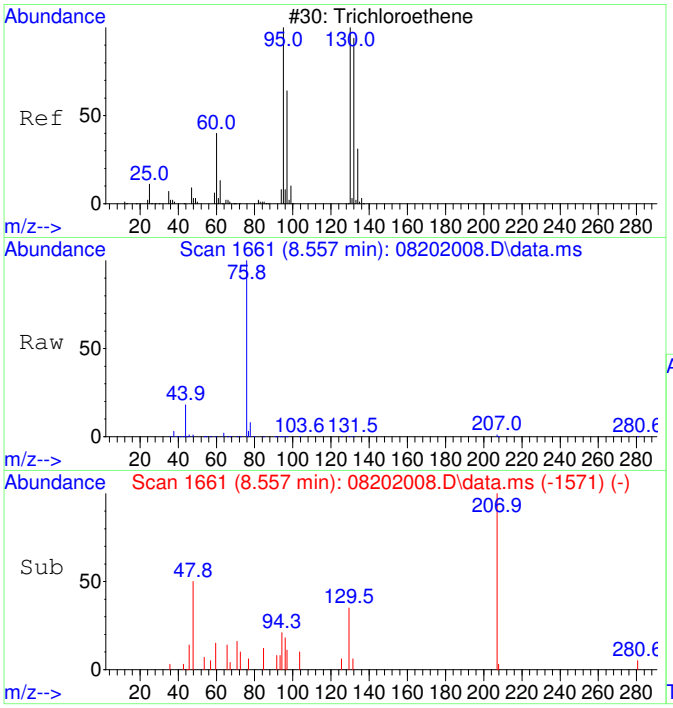



#34
1,2-Dichloroethane SCAN
Concen: 37.96 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 62 Resp: 733

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 84.6 | 3.9 | 63.9# |

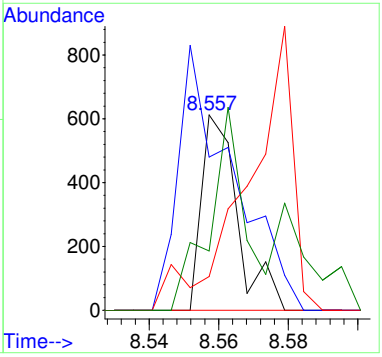


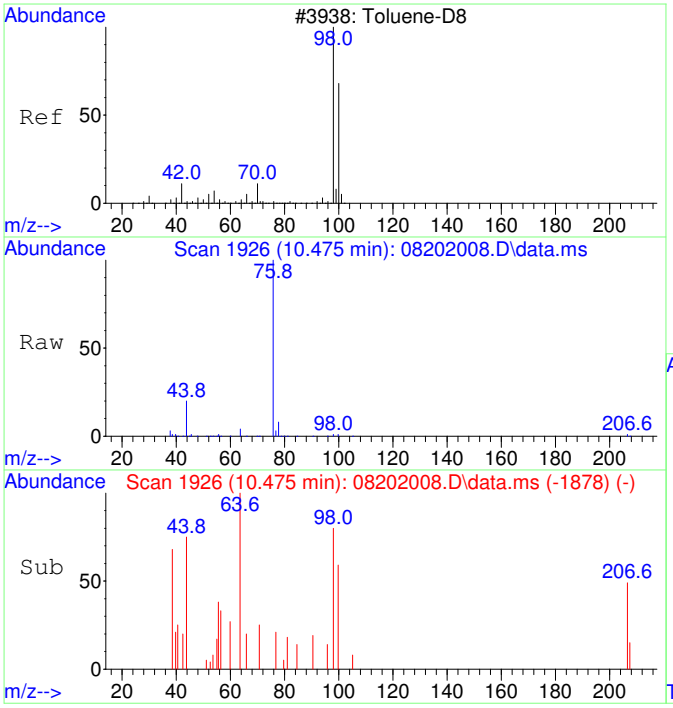




#35
Trichloroethene SCAN
Concen: 30.48 ug/L
RT: 8.557 min Scan# 1661
Delta R.T. -0.011 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:130 Resp: 438

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 204.1 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 81.1 | 28.2 | 88.2 |

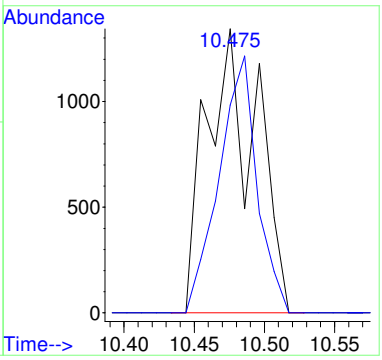


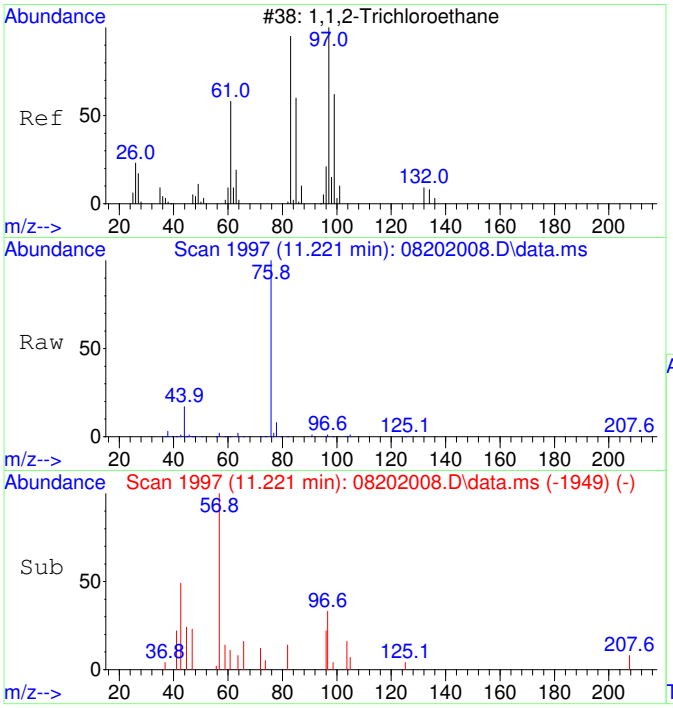



#36
Toluene-d8 SCAN
Concen: 57.48 ug/L
RT: 10.475 min Scan# 1926
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 98 Resp: 3315

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 69.2 | 40.0 | 100.0 |

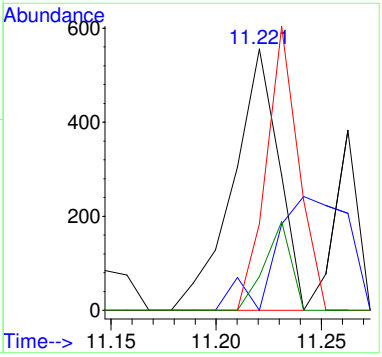


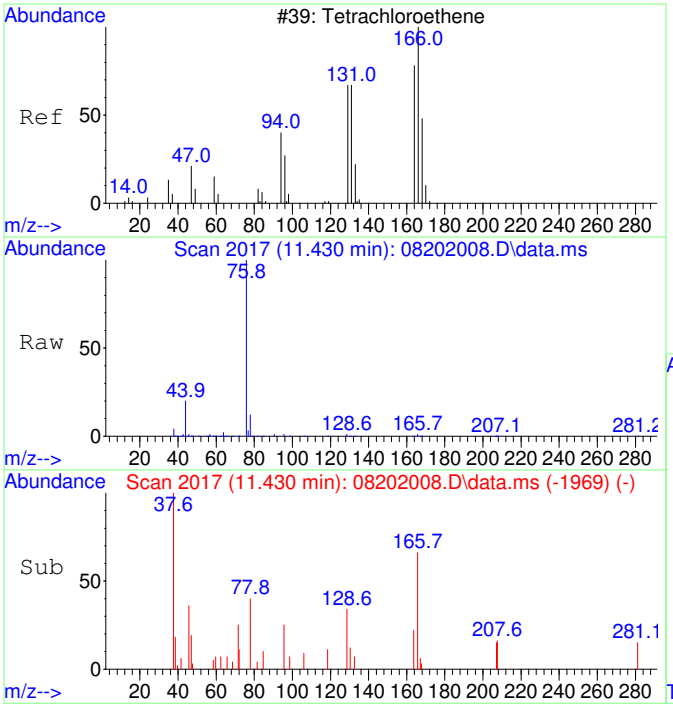




#38
1,1,2-Trichloroethane SCAN
Concen: 50.61 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 0.0 | 36.7 | 96.7# |

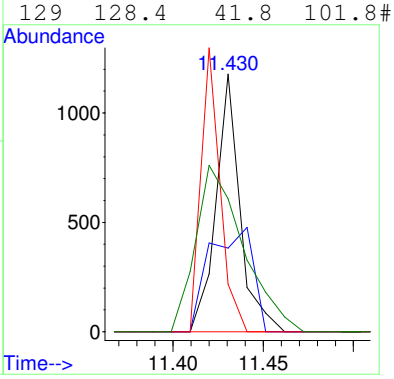


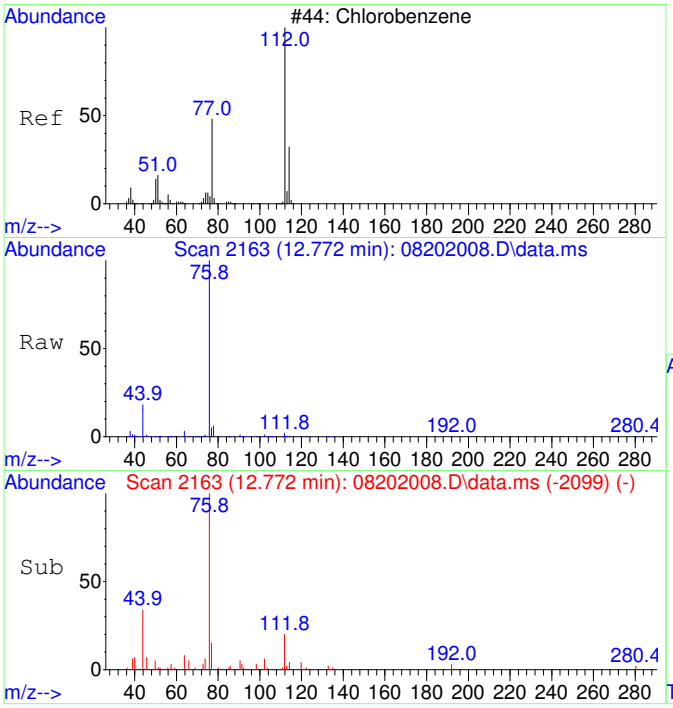



#39
Tetrachloroethene SCAN
Concen: 61.37 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:166 Resp: 1089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 0.0 | 50.9 | 110.9# |
| 131 | 87.6 | 38.7 | 98.7 |
| 129 | 128.4 | 41.8 | 101.8# |

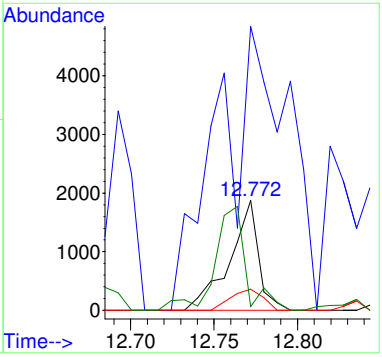


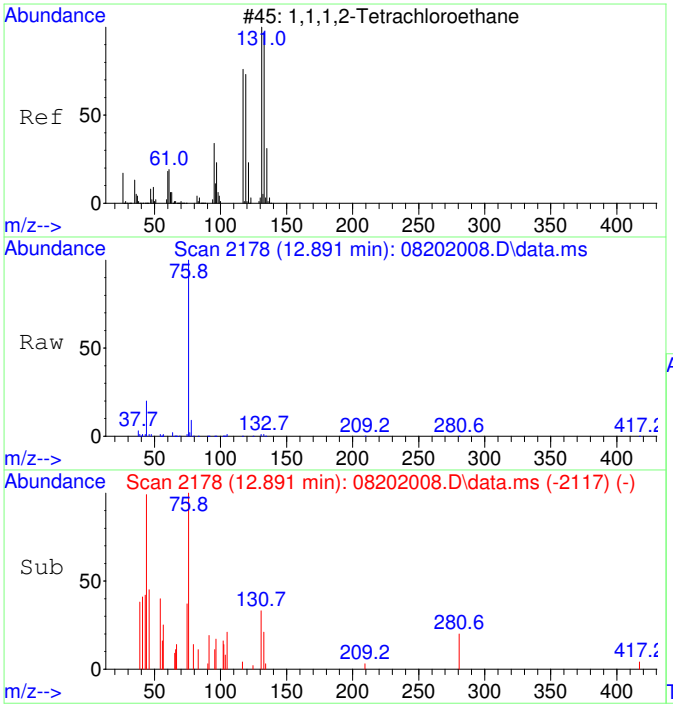




#40
Chlorobenzene SCAN
Concen: 44.78 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:112 Resp: 2260

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 292.5 | 28.2 | 88.2# |
| 114 | 21.3 | 2.3 | 62.3 |
| 51 | 101.9 | 0.0 | 50.1# |

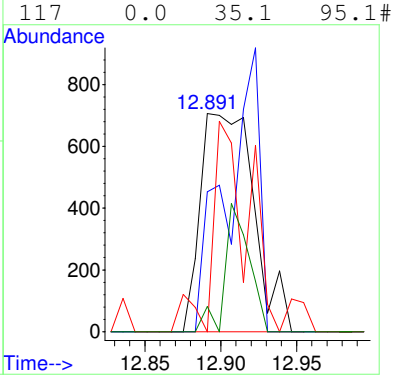


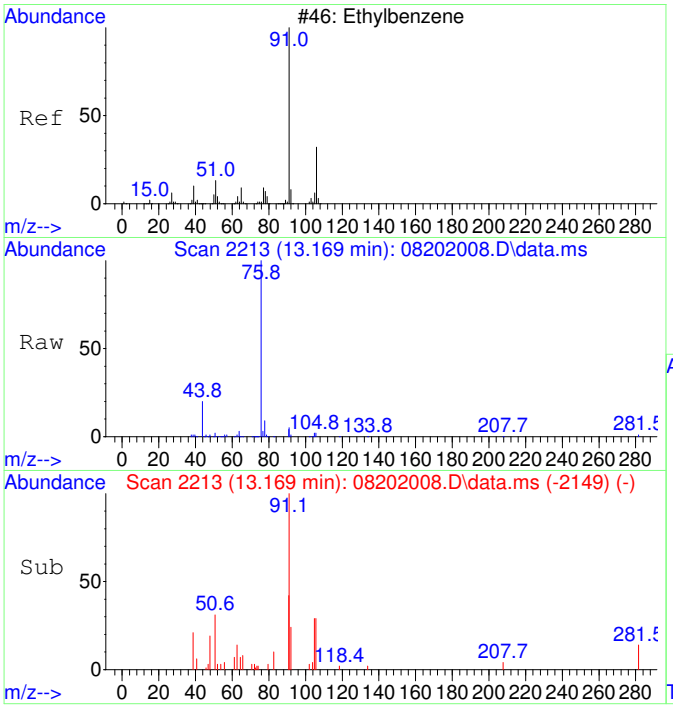



#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 93.05 ug/L
RT: 12.891 min Scan# 2178
Delta R.T. -0.016 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:131 Resp: 1738

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 64.3 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

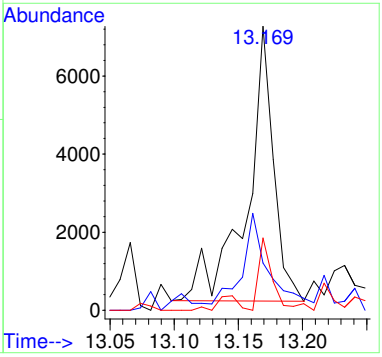


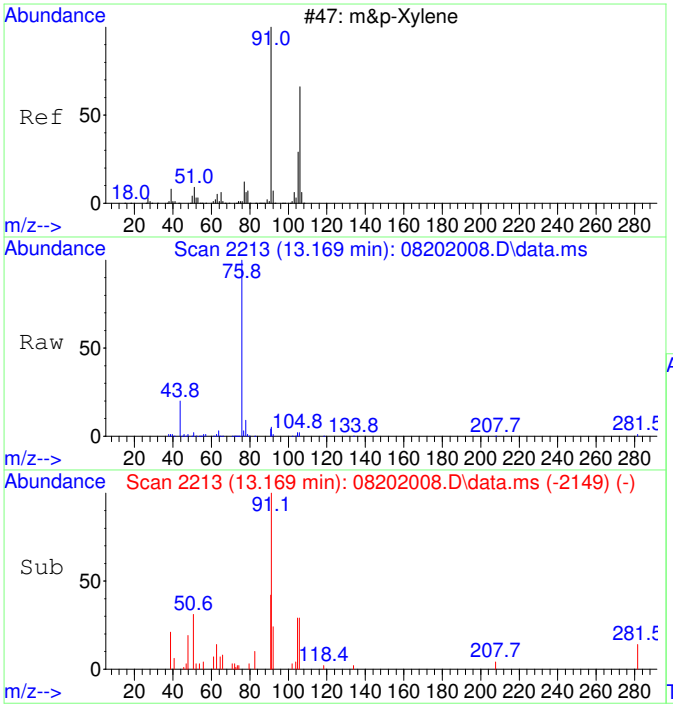




#42
Ethylbenzene SCAN
Concen: 75.40 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 28.8 | 23.1 | 83.1 |
| 51 | 12.0 | 0.0 | 40.1 |

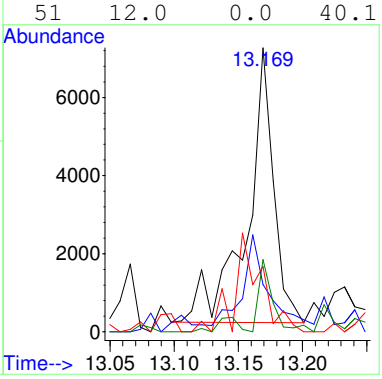


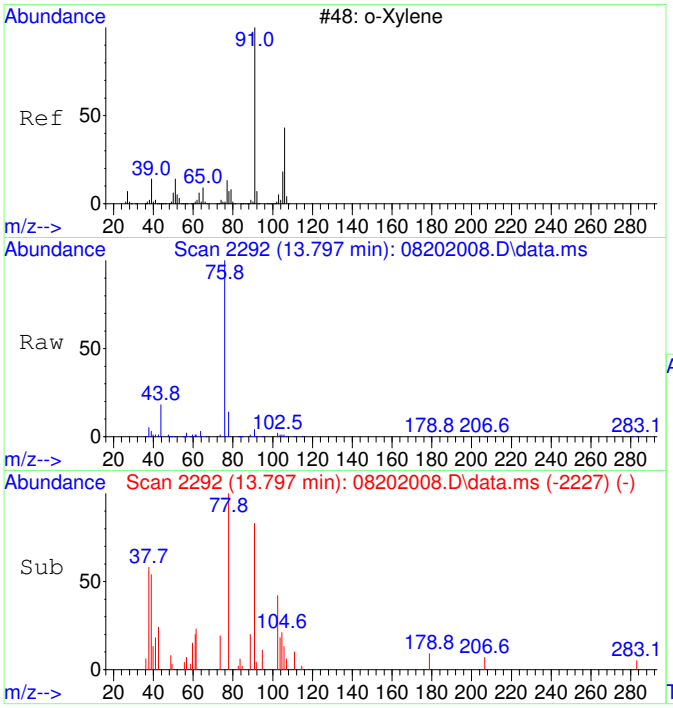



#43
m&p-Xylene SCAN
Concen: 75.40 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 10146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 28.8 | 23.1 | 83.1 |
| 105 | 0.0 | 0.0 | 54.7 |
| 51 | 12.0 | 0.0 | 40.1 |

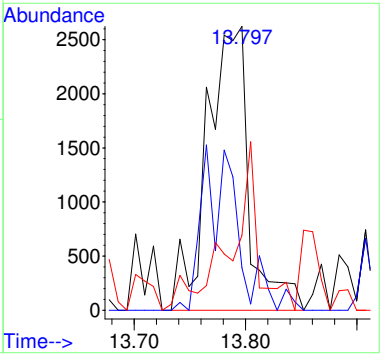


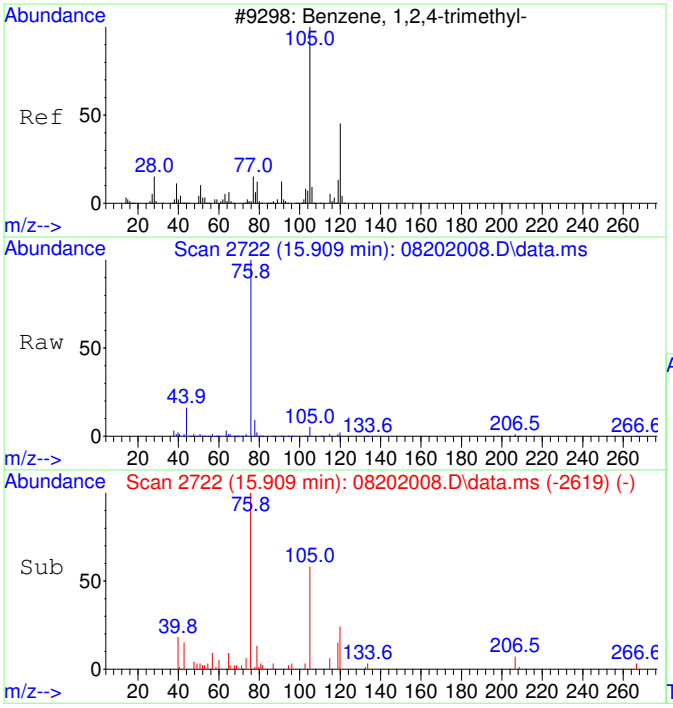




#44
o-Xylene SCAN
Concen: 95.26 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion: 91 Resp: 6861

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 18.0 | 78.0# |
| 105 | 21.3 | 0.0 | 56.6 |

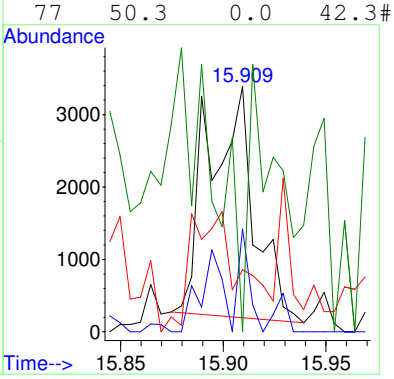


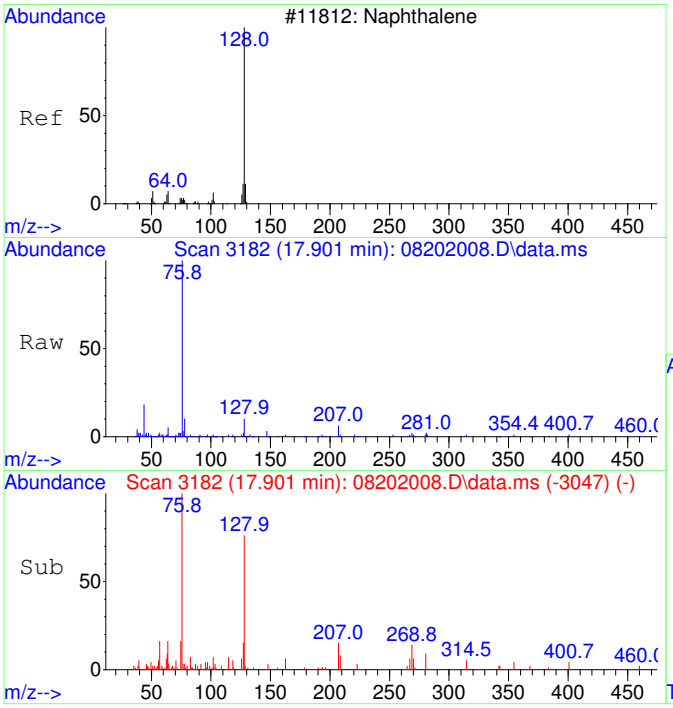



#47
1,2,4-Trimethylbenzene SCAN
Concen: 63.32 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:105 Resp: 4918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 10.8 | 16.9 | 76.9# |
| 119 | 0.0 | 0.0 | 41.9 |
| 77 | 50.3 | 0.0 | 42.3# |

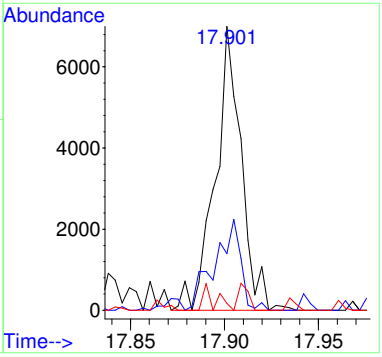



#48
Naphthalene SCAN
Concen: 57.30 ug/L
RT: 17.901 min Scan# 3182
Delta R.T. 0.000 min
Lab File: 08202008.D
Acq: 20 Aug 2020 17:25

Tgt Ion:128 Resp: 6734

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 32.0 | 0.0 | 44.0 |
| 129 | 3.8 | 0.0 | 40.8 |



# S20H039-SCV1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202009.D
Acq On : 20 Aug 2020 17:49
InstName : AG5975C
Operator : TD
Sample : S20H039-SCV1
Misc : 2030074 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 21 08:34:36 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

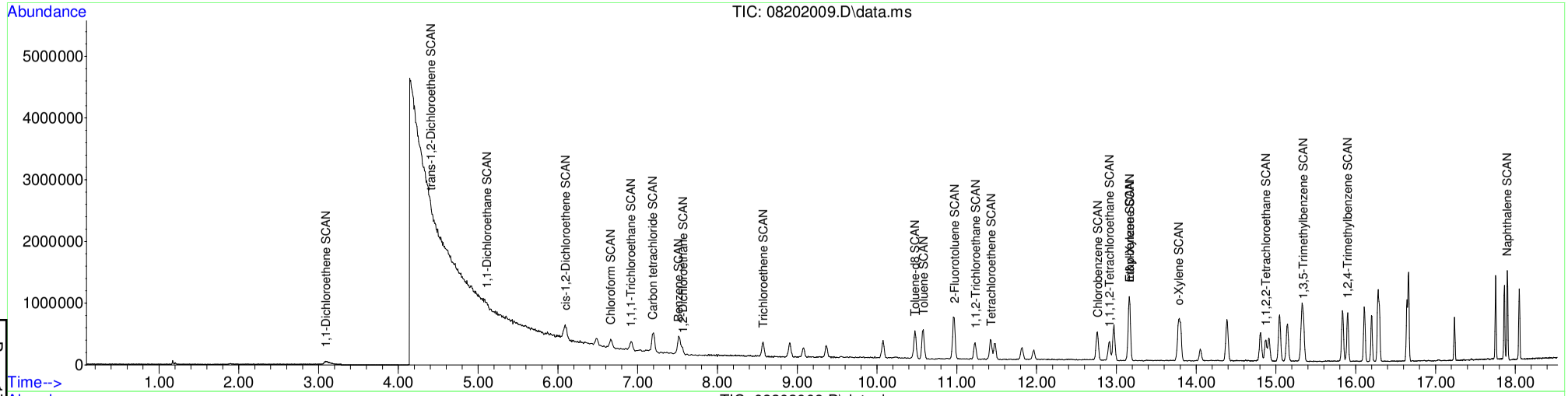
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.959 | 109 | 757040 | 5000.00 ug/L | -0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 641391 | 4327.91 ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.56% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.089 | 61 | 141995 | 4697.18 ug/L | 84 |
| 3] trans-1,2-Dichloroethene | 4.409 | 61 | 156435 | 4478.96 ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.105 | 63 | 188877 | 4344.30 ug/L | 99 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 200211 | 4362.57 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 206722 | 4400.85 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 222492 | 4361.45 ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 210347 | 4380.95 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 543380 | 4224.52 ug/L | 99 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 201688 | 4392.50 ug/L | 98 |
| 11] Trichloroethene | 8.569 | 130 | 168424 | 4348.96 ug/L | 93 |
| 13] Toluene | 10.571 | 91 | 766745 | 4058.14 ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.222 | 97 | 175664 | 4266.80 ug/L | 97 |
| 15] Tetrachloroethene | 11.421 | 166 | 233305 | 4266.83 ug/L | 100 |
| 16] Chlorobenzene | 12.757 | 112 | 577755 | 4270.56 ug/L | 93 |
| 17] 1,1,1,2-Tetrachloroethane | 12.908 | 131 | 208187 | 4294.60 ug/L | 100 |
| 18] Ethylbenzene | 12.964 | 91 | 952897 | 4143.40 ug/L | 98 |
| 19] m&p-Xylene | 13.162 | 91 | 1459415 | 8119.44 ug/L | 97 |
| 20] o-Xylene | 13.774 | 91 | 798994 | 4160.72 ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.873 | 83 | 358838 | 4216.30 ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.340 | 105 | 853826 | 4177.31 ug/L | 97 |
| 23] 1,2,4-Trimethylbenzene | 15.896 | 105 | 851500 | 4010.73 ug/L | 96 |
| 24] Naphthalene | 17.902 | 128 | 1385206 | 4128.17 ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 369181 | 5002.63 ug/L | 96 |
| 26) 1,1-Dichloroethene SCAN | 3.095 | 61 | 79153 | 5050.47 ug/L # | 26 |
| 27) trans-1,2-Dichloroethe... | 4.408 | 61 | 82682 | 4263.38 ug/L | 86 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 103619 | 4616.73 ug/L | 95 |
| 29) cis-1,2-Dichloroethene... | 6.093 | 61 | 108450 | 4509.94 ug/L # | 76 |
| 30) Chloroform SCAN | 6.662 | 83 | 116757 | 4476.50 ug/L | 95 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 110368 | 4643.51 ug/L | 93 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 106486 | 4295.03 ug/L | 86 |
| 33) Benzene SCAN | 7.514 | 78 | 297664 | 4548.46 ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 107394 | 4444.21 ug/L | 98 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 79510 | 4421.13 ug/L | 85 |
| 36) Toluene-d8 SCAN | 10.475 | 98 | 338745 | 4693.60 ug/L | 93 |
| 37) Toluene SCAN | 10.580 | 91 | 401544 | 4344.47 ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 88219 | 4252.37 ug/L | 89 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 104871 | 4722.81 ug/L | 94 |
| 40) Chlorobenzene SCAN | 12.764 | 112 | 279082 | 4418.85 ug/L | 91 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 96758 | 4139.72 ug/L | 95 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 746698 | 4434.47 ug/L | 90 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 746698 | 4434.47 ug/L | 91 |
| 44) o-Xylene SCAN | 13.781 | 91 | 405263 | 4496.31 ug/L | 96 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.875 | 83 | 198460 | 4515.61 ug/L | 95 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 412807 | 4345.78 ug/L | 99 |
| 47) 1,2,4-Trimethylbenzene... | 15.899 | 105 | 420213 | 4323.35 ug/L | 94 |
| 48) Naphthalene SCAN | 17.901 | 128 | 615008 | 4181.64 ug/L | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\082020\
Data File : 08202009.D
Acq On : 20 Aug 2020 17:49
InstName : AG5975C
Operator : TD
Sample : S20H039-SCV1
Misc : 2030074 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 21 08:34:36 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\082020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration



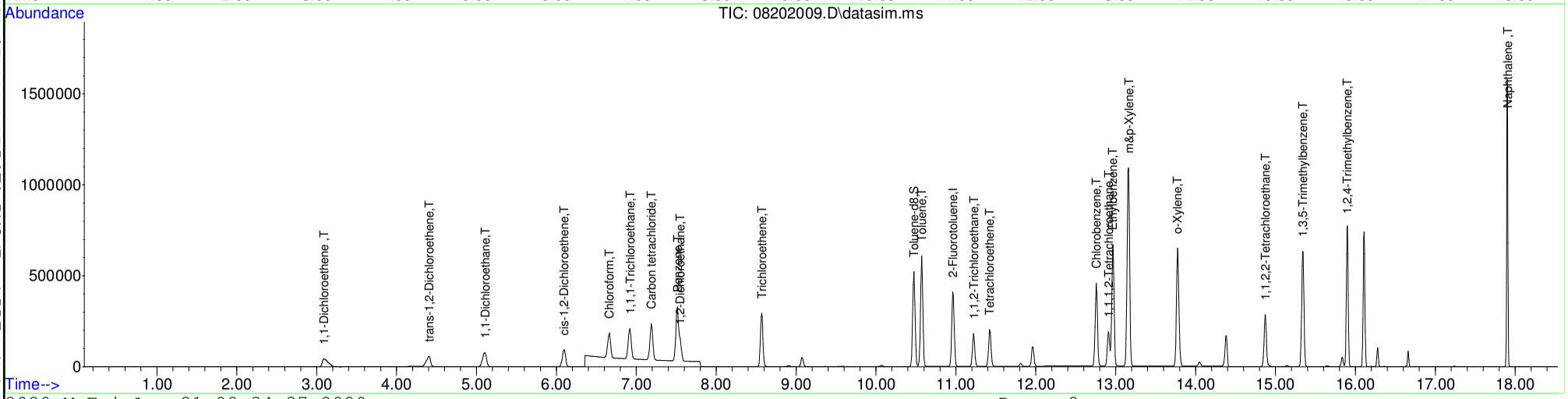








Table of Contents

# Calibration

## 2008017

Calibration Date: 08/20/2020

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 082020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Aug 21 08:33:54 2020
Response Via : Initial Calibration

Calibration Files
25 =08202003.D 10 =08202004.D 5 =08202005.D 1 =08202006.D .15 =08202007.D .05 =08202008.D

| | | Compound | 25 | 10 | 5 | 1 | .15 | .05 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | 2-Fluorotoluene | ----------ISTD---------- | | | | | | | |
| 2) | T | 1,1-Dichloroet... | 0.177 | 0.257 | 0.188 | 0.218 | 0.198 | 0.160 | 0.200 | 16.98 |
| 3) | T | trans-1,2-Dich... | 0.203 | 0.293 | 0.216 | 0.246 | 0.230 | 0.197 | 0.231 | 15.27 |
| 4) | T | 1,1-Dichloroet... | 0.248 | 0.362 | 0.267 | 0.311 | 0.292 | 0.244 | 0.287 | 15.50 |
| 5) | T | cis-1,2-Dichlo... | 0.261 | 0.382 | 0.283 | 0.330 | 0.300 | 0.263 | 0.303 | 15.27 |
| 6) | T | Chloroform | 0.278 | 0.400 | 0.292 | 0.331 | 0.296 | 0.265 | 0.310 | 15.85 |
| 7) | T | 1,1,1-Trichlor... | 0.299 | 0.435 | 0.318 | 0.360 | 0.309 | 0.301 | 0.337 | 15.77 |
| 8) | T | Carbon tetrach... | 0.282 | 0.413 | 0.301 | 0.340 | 0.290 | 0.278 | 0.317 | 16.33 |
| 9) | T | Benzene | 0.711 | 1.056 | 0.777 | 0.908 | 0.795 | | 0.850 | 15.98 |
| 10) | T | 1,2-Dichloroet... | 0.261 | 0.384 | 0.284 | 0.334 | 0.292 | 0.265 | 0.303 | 15.61 |
| 11) | T | Trichloroethene | 0.215 | 0.322 | 0.240 | 0.279 | 0.237 | 0.242 | 0.256 | 15.05 |
| 12) | S | Toluene-d8 | 0.787 | 1.215 | 0.934 | 1.084 | 0.887 | 0.967 | 0.979 | 15.43 |
| 13) | T | Toluene | 0.928 | 1.442 | 1.122 | 1.350 | 1.176 | 1.468 | 1.248 | 16.80 |
| 14) | T | 1,1,2-Trichlor... | 0.226 | 0.342 | 0.256 | 0.293 | 0.245 | 0.270 | 0.272 | 15.00 |
| 15) | T | Tetrachloroethene | 0.290 | 0.451 | 0.346 | 0.393 | 0.322 | 0.365 | 0.361 | 15.58 |
| 16) | T | Chlorobenzene | 0.700 | 1.097 | 0.858 | 0.980 | 0.798 | 0.928 | 0.894 | 15.66 |
| 17) | T | 1,1,1,2-Tetrac... | 0.258 | 0.400 | 0.308 | 0.350 | 0.285 | 0.320 | 0.320 | 15.68 |
| 18) | T | Ethylbenzene | 1.139 | 1.801 | 1.423 | 1.675 | 1.409 | 1.666 | 1.519 | 15.88 |
| 19) | T | m&p-Xylene | 0.880 | 1.387 | 1.091 | 1.290 | 1.114 | 1.362 | 1.187 | 16.42 |
| [illegible]) | T | o-Xylene | 0.966 | 1.527 | 1.195 | 1.370 | 1.145 | 1.407 | 1.268 | 16.09 |
| [illegible]) | T | 1,1,2,2-Tetrac... | 0.438 | 0.688 | 0.537 | 0.613 | 0.501 | 0.596 | 0.562 | 15.76 |
| [illegible]) | T | 1,3,5-Trimethy... | 1.036 | 1.660 | 1.300 | 1.468 | 1.209 | 1.427 | 1.350 | 16.12 |
| [illegible]) | T | 1,2,4-Trimethy... | 1.048 | 1.684 | 1.315 | 1.486 | 1.284 | 1.597 | 1.402 | 16.63 |
| [illegible]) | T | Naphthalene | 1.642 | 2.698 | 2.149 | 2.427 | 2.006 | 2.375 | 2.216 | 16.65 |
| [illegible]) | | 2-Fluorotoluen... | | | 0.487 | | | | 0.487 | 0.00 |
| [illegible]) | | 1,1-Dichloroet... | | | 0.104 | | | | 0.104 | 0.00 |
| [illegible]) | | trans-1,2-Dich... | | | 0.128 | | | | 0.128 | 0.00 |
| [illegible]) | | 1,1-Dichloroet... | | | 0.148 | | | | 0.148 | 0.00 |
| [illegible]) | | cis-1,2-Dichlo... | | | 0.159 | | | | 0.159 | 0.00 |
| [illegible]) | | Chloroform SCAN | | | 0.172 | | | | 0.172 | 0.00 |
| [illegible]) | | 1,1,1-Trichlor... | | | 0.157 | | | | 0.157 | 0.00 |
| [illegible]) | | Carbon tetrach... | | | 0.164 | | | | 0.164 | 0.00 |
| [illegible]) | | Benzene SCAN | | | 0.432 | | | | 0.432 | 0.00 |
| [illegible]) | | 1,2-Dichloroet... | | | 0.160 | | | | 0.160 | 0.00 |
| [illegible]) | | Trichloroethen... | | | 0.119 | | | | 0.119 | 0.00 |
| [illegible]) | | Toluene-d8 SCAN | | | 0.477 | | | | 0.477 | 0.00 |
| [illegible]) | | Toluene SCAN | | | 0.610 | | | | 0.610 | 0.00 |
| [illegible]) | | 1,1,2-Trichlor... | | | 0.137 | | | | 0.137 | 0.00 |
| [illegible]) | | Tetrachloroeth... | | | 0.147 | | | | 0.147 | 0.00 |
| [illegible]) | | Chlorobenzene ... | | | 0.417 | | | | 0.417 | 0.00 |
| [illegible]) | | 1,1,1,2-Tetrac... | | | 0.154 | | | | 0.154 | 0.00 |
| [illegible]) | | Ethylbenzene SCAN | | | 1.112 | | | | 1.112 | 0.00 |



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Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 082020.M

| | | | | |
|---|---|---|---|---|
| 43) | m&p-Xylene SCAN | 1.112 | 1.112 | 0.00 |
| 44) | o-Xylene SCAN | 0.595 | 0.595 | 0.00 |
| 45) | 1,1,2,2-Tetrac... | 0.290 | 0.290 | 0.00 |
| 46) | 1,3,5-Trimethy... | 0.627 | 0.627 | 0.00 |
| 47) | 1,2,4-Trimethy... | 0.642 | 0.642 | 0.00 |
| 48) | Naphthalene SCAN | 0.971 | 0.971 | 0.00 |

(#) = Out of Range



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Table of Contents

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 082020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Aug 21 08:33:54 2020
Response Via : Initial Calibration

Total Cpnds : 48

| PK# | | Compound Name | QIon | Exp_RT | Rel_RT | Cal | #Qual | A/H | ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | I | 2-Fluorotoluene | -109 | 10.970 | 1.000 | A | 1 | A | B |
| 2 | T | 1,1-Dichloroethene | -61 | 3.090 | 0.282 | A | 1 | A | B |
| 3 | T | trans-1,2-Dichloroethene | -61 | 4.396 | 0.401 | A | 1 | A | B |
| 4 | T | 1,1-Dichloroethane | -63 | 5.099 | 0.465 | A | 1 | A | B |
| 5 | T | cis-1,2-Dichloroethene | -61 | 6.094 | 0.556 | A | 1 | A | B |
| 6 | T | Chloroform | -83 | 6.664 | 0.607 | A | 1 | A | B |
| 7 | T | 1,1,1-Trichloroethane | -97 | 6.919 | 0.631 | A | 2 | A | B |
| 8 | T | Carbon tetrachloride | -117 | 7.187 | 0.655 | A | 1 | A | B |
| 9 | T | Benzene | -78 | 7.515 | 0.685 | A | 1 | A | B |
| 10 | T | 1,2-Dichloroethane | -62 | 7.552 | 0.688 | A | 1 | A | B |
| 11 | T | Trichloroethene | -130 | 8.569 | 0.781 | A | 3 | A | B |
| 12 | S | Toluene-d8 | -98 | 10.477 | 0.955 | A | 1 | A | B |
| 13 | T | Toluene | -91 | 10.571 | 0.964 | A | 1 | A | B |
| 14 | T | 1,1,2-Trichloroethane | -97 | 11.222 | 1.023 | A | 1 | A | B |
| 15 | T | Tetrachloroethene | -166 | 11.421 | 1.041 | A | 1 | A | B |
| 16 | T | Chlorobenzene | -112 | 12.757 | 1.163 | A | 1 | A | B |
| 17 | T | 1,1,1,2-Tetrachloroethane | -131 | 12.908 | 1.177 | A | 1 | A | B |
| 18 | T | Ethylbenzene | -91 | 12.964 | 1.182 | A | 2 | A | B |
| 19 | T | m&p-Xylene | -91 | 13.162 | 1.200 | A | 2 | A | B |
| 20 | T | o-Xylene | -91 | 13.774 | 1.256 | A | 1 | A | B |
| 21 | T | 1,1,2,2-Tetrachloroethane | -83 | 14.873 | 1.356 | A | 1 | A | B |
| 22 | T | 1,3,5-Trimethylbenzene | -105 | 15.345 | 1.399 | A | 1 | A | B |
| 23 | T | 1,2,4-Trimethylbenzene | -105 | 15.896 | 1.449 | A | 1 | A | B |
| 24 | T | Naphthalene | -128 | 17.903 | 1.632 | A | 1 | A | B |
| 25 | | 2-Fluorotoluene SCAN | 109 | 10.969 | 1.000 | A | 1 | A | B |
| 26 | | 1,1-Dichloroethene SCAN | 61 | 3.107 | 0.283 | A | 2 | A | B |
| 27 | | trans-1,2-Dichloroethene SCAN | 61 | 4.401 | 0.401 | A | 2 | A | B |
| 28 | | 1,1-Dichloroethane SCAN | 63 | 5.104 | 0.465 | A | 2 | A | B |
| 29 | | cis-1,2-Dichloroethene SCAN | 61 | 6.093 | 0.555 | A | 3 | A | B |
| 30 | | Chloroform SCAN | 83 | 6.662 | 0.607 | A | 2 | A | B |
| 31 | | 1,1,1-Trichloroethane SCAN | 97 | 6.918 | 0.631 | A | 2 | A | B |
| 32 | | Carbon tetrachloride SCAN | 117 | 7.185 | 0.655 | A | 3 | A | B |
| 33 | | Benzene SCAN | 78 | 7.514 | 0.685 | A | 3 | A | B |
| 34 | | 1,2-Dichloroethane SCAN | 62 | 7.550 | 0.688 | A | 2 | A | B |
| 35 | | Trichloroethene SCAN | 130 | 8.568 | 0.781 | A | 3 | A | B |
| 36 | | Toluene-d8 SCAN | 98 | 10.475 | 0.955 | A | 1 | A | B |
| 37 | | Toluene SCAN | 91 | 10.580 | 0.964 | A | 2 | A | B |
| 38 | | 1,1,2-Trichloroethane SCAN | 97 | 11.221 | 1.023 | A | 3 | A | B |
| 39 | | Tetrachloroethene SCAN | 166 | 11.430 | 1.042 | A | 3 | A | B |
| 40 | | Chlorobenzene SCAN | 112 | 12.764 | 1.164 | A | 3 | A | B |
| 41 | | 1,1,1,2-Tetrachloroethane SCAN | 131 | 12.907 | 1.177 | A | 3 | A | B |
| 42 | | Ethylbenzene SCAN | 91 | 13.161 | 1.200 | A | 2 | A | B |
| 43 | | m&p-Xylene SCAN | 91 | 13.161 | 1.200 | A | 3 | A | B |
| 44 | | o-Xylene SCAN | 91 | 13.781 | 1.256 | A | 2 | A | B |
| 45 | | 1,1,2,2-Tetrachloroethane SCAN | 83 | 14.872 | 1.356 | A | 2 | A | B |
| 46 | | 1,3,5-Trimethylbenzene SCAN | 105 | 15.343 | 1.399 | A | 2 | A | B |
| 47 | | 1,2,4-Trimethylbenzene SCAN | 105 | 15.899 | 1.449 | A | 3 | A | B |
| 48 | | Naphthalene SCAN | 128 | 17.901 | 1.632 | A | 2 | A | B |

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

082020.M Fri Aug 21 09:05:10 2020

# CHEMSTATION AREA COUNT REPORT

AG5975C
S20H039-SCV1
2030074 5 mg/L
8/20/2020
Fri Aug 21 08:33:54 2020
TD

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 648237 | 658265 | 673233 | 620555 | 687675 | 604968 |
| 2) | 1,1-Dichloroethene | 574530 | 337762 | 126761 | 27036 | 4078 | 970 |
| 3) | trans-1,2-Dichloroethene | 656585 | 385140 | 145387 | 30539 | 4743 | 1192 |
| 4) | 1,1-Dichloroethane | 803642 | 475966 | 180029 | 38542 | 6017 | 1475 |
| 5) | cis-1,2-Dichloroethene | 844386 | 502402 | 190553 | 41004 | 6181 | 1594 |
| 6) | Chloroform | 899977 | 526532 | 196458 | 41060 | 6101 | 1606 |
| 7) | 1,1,1-Trichloroethane | 968878 | 573090 | 214003 | 44677 | 6374 | 1818 |
| 8) | Carbon tetrachloride | 914170 | 543134 | 202678 | 42146 | 5978 | 1680 |
| 9) | Benzene | 2304166 | 1390859 | 523170 | 112745 | 16396 | 3813 |
| 10) | 1,2-Dichloroethane | 846849 | 505651 | 191144 | 41424 | 6015 | 1603 |
| 11) | Trichloroethene | 695334 | 423697 | 161743 | 34670 | 4884 | 1464 |
| 12) | Toluene-d8 | 2550057 | 1598935 | 629076 | 134499 | 18291 | 5849 |
| 13) | Toluene | 3008786 | 1898928 | 755646 | 167580 | 24264 | 8880 |
| 14) | 1,1,2-Trichloroethane | 733249 | 449618 | 172328 | 36313 | 5063 | 1632 |
| 15) | Tetrachloroethene | 940662 | 593500 | 232804 | 48775 | 6650 | 2206 |
| 16) | Chlorobenzene | 2268821 | 1444139 | 577532 | 121629 | 16465 | 5616 |
| 17) | 1,1,1,2-Tetrachloroethane | 836326 | 527138 | 207134 | 43449 | 5876 | 1936 |
| 18) | Ethylbenzene | 3692757 | 2370804 | 957968 | 207872 | 29078 | 10080 |
| 19) | m&p-Xylene | 5704874 | 3652536 | 1468448 | 320098 | 45947 | 16478 |
| 20) | o-Xylene | 3130122 | 2010115 | 804751 | 169989 | 23631 | 8511 |
| 21) | 1,1,2,2-Tetrachloroethane | 1420481 | 905676 | 361853 | 76025 | 10329 | 3604 |
| 22) | 1,3,5-Trimethylbenzene | 3358352 | 2186063 | 875077 | 182134 | 24949 | 8630 |
| 23) | 1,2,4-Trimethylbenzene | 3395311 | 2217101 | 885300 | 184398 | 26485 | 9662 |
| 24) | Naphthalene | 5320470 | 3552389 | 1447043 | 301171 | 41384 | 14370 |

# CHEMSTATION CONCENTRATION REPORT

AG5975C
S20H039-SCV1
2030074 5 mg/L
8/20/2020
Fri Aug 21 08:33:54 2020
TD

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 |
| 2) | 1,1-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 3) | trans-1,2-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 4) | 1,1-Dichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 5) | cis-1,2-Dichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 6) | Chloroform | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 7) | 1,1,1-Trichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 8) | Carbon tetrachloride | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 9) | Benzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 1.00 |
| 10) | 1,2-Dichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 11) | Trichloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 12) | Toluene-d8 | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 13) | Toluene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 14) | 1,1,2-Trichloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 15) | Tetrachloroethene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 16) | Chlorobenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 17) | 1,1,1,2-Tetrachloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 18) | Ethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 19) | m&p-Xylene | 50000.00 | 20000.00 | 10000.00 | 2000.00 | 300.00 | 100.00 |
| 20) | o-Xylene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 21) | 1,1,2,2-Tetrachloroethane | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 22) | 1,3,5-Trimethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 23) | 1,2,4-Trimethylbenzene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |
| 24) | Naphthalene | 25000.00 | 10000.00 | 5000.00 | 1000.00 | 150.00 | 50.00 |

# SCV REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20H039-SCV1
**Misc Info:** 2030074 5 mg/L
**Date Acquired:** 8/20/2020
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000 | 5000.00 | 100% | 70 | 130 | pass |
| 2) | 1,1-Dichloroethene | 3.090 | 5000 | 4697.18 | 94% | 70 | 130 | pass |
| 3) | trans-1,2-Dichloroethene | 4.396 | 5000 | 4478.96 | 90% | 70 | 130 | pass |
| 4) | 1,1-Dichloroethane | 5.099 | 5000 | 4344.30 | 87% | 70 | 130 | pass |
| 5) | cis-1,2-Dichloroethene | 6.094 | 5000 | 4362.57 | 87% | 70 | 130 | pass |
| 6) | Chloroform | 6.664 | 5000 | 4400.85 | 88% | 70 | 130 | pass |
| 7) | 1,1,1-Trichloroethane | 6.919 | 5000 | 4361.45 | 87% | 70 | 130 | pass |
| 8) | Carbon tetrachloride | 7.187 | 5000 | 4380.95 | 88% | 70 | 130 | pass |
| 9) | Benzene | 7.515 | 5000 | 4224.52 | 84% | 70 | 130 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 5000 | 4392.50 | 88% | 70 | 130 | pass |
| 11) | Trichloroethene | 8.569 | 5000 | 4348.96 | 87% | 70 | 130 | pass |
| 12) | Toluene-d8 | 10.477 | 5000 | 4327.91 | 87% | 70 | 130 | pass |
| 13) | Toluene | 10.571 | 5000 | 4058.14 | 81% | 70 | 130 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 5000 | 4266.80 | 85% | 70 | 130 | pass |
| 15) | Tetrachloroethene | 11.421 | 5000 | 4266.83 | 85% | 70 | 130 | pass |
| 16) | Chlorobenzene | 12.757 | 5000 | 4270.56 | 85% | 70 | 130 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 5000 | 4294.60 | 86% | 70 | 130 | pass |
| 18) | Ethylbenzene | 12.964 | 5000 | 4143.40 | 83% | 70 | 130 | pass |
| 19) | m&p-Xylene | 13.162 | 10000 | 8119.44 | 81% | 70 | 130 | pass |
| 20) | o-Xylene | 13.774 | 5000 | 4160.72 | 83% | 70 | 130 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 5000 | 4216.30 | 84% | 70 | 130 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 5000 | 4177.31 | 84% | 70 | 130 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 5000 | 4010.73 | 80% | 70 | 130 | pass |
| 24) | Naphthalene | 17.903 | 5000 | 4128.17 | 83% | 70 | 130 | pass |

# SEQUENCE

## S20J011

Sequence Date: 10/07/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | B20J006 | SEQUENCE #: | S20J011 10/07/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| DOCUMENTATION | ANALYST: Bench sheet(s) attached?<br>REVIEWER: Bench sheet(s) reviewed? | ☐ | Y | Y | |
| | ANALYST: Sequence log(s) attached?<br>REVIEWER: Sequence log(s) reviewed? | ☐ | Y | Y | |
| | ANALYST: Every run has a PDF in LIMS?<br>REVIEWER: Every PDF reviewed? | ☐ | Y | Y | |
| INITIAL CALIBRATION | Date of Initial Calibration used:<br>If applicable, note date of "Last Update" in Comments. | Fri Aug 21 08:33:54 2020 | | | |
| | Initial Calibration ID (LIMS number): | 2008017 | | | |
| | ICAL within QC criteria? | ✔ | | | |
| | SCV within QC criteria? | ✔ | | | |
| INSTRUMENT / QC CHECKS | Tune or degradation checks within QC criteria? | ☐ | Y | Y | |
| | CCV(s) within QC criteria? | ☐ | Y | Y | |
| | QLS(s) within QC criteria? | ☐ | Y | Y | |
| | CB(s) or storage blank(s) within QC criteria? | ✔ | | | |
| | Other instrument checks within QC criteria?<br>Specify if applicable. | ✔ | | | |
| BATCH QCs | Method blanks < 1/2 QL? | ☐ | Y | Y | |
| | LCS(s) or SRM(s) within QC criteria? | ☐ | Y | Y | |
| | MSs/MSDs and/or DUPs within QC criteria? | ✔ | | | |
| | Other method-specific QCs within QC criteria?<br>Specify if applicable. | ✔ | | | |

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | B20J006 | SEQUENCE #: | S20J011 10/07/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| IS / SS | Internal standards within QC criteria? | ☐ | Y | Y | |
| | Surrogates within QC criteria? | ☐ | Y | Y | |
| SAMPLE DATA | Were samples prepared & analyzed within holding time? | ☐ | Y | Y | |
| | If samples need to be re-run, were RE(s) made in LIMS? | ☐ | Y | Y | |
| | Do any samples need to be re-digested or re-extracted? | ✔ | | | |
| | Were all data qualifiers appropriately applied? | ☐ | Y | Y | |
| | Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable. | ✔ | | | |
| MANUAL INT | Were manual integrations performed and documented? Specify if applicable. | ☐ | Y | Y | |

| | | |
|---|---|---|
| APPROVALS | ANALYST INITIALS & DATE: | TD 10/08/20 |
| | REVIEWED BY: | Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2020.10.12 11:26:33 -07'00' SIGN HERE |

COMMENTS

Custom analyte list.

# Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\100720\

| Vial | File Name | Mult | Sample Info | Misc Info | Date Acquired |
|---|---|---|---|---|---|
| 1 | 10072001.D | 1 | S20J011-IBL1 | | 7 Oct 2020 8:35 |
| 2 | 10072002.D | 1 | S20J011-TUN1 | BFB 2040028 | 7 Oct 2020 8:58 |
| 3 | 10072003.D | 1 | S20J011-CCV1 | 2030070 5 mg/L | 7 Oct 2020 9:07 |
| 4 | 10072004.D | 1 | S20J011-CRL1 | 2030073 0.05 mg/L | 7 Oct 2020 9:31 |
| 5 | 10072005.D | 1 | B20J006-BLK1 | | 7 Oct 2020 9:55 |
| 6 | 10072006.D | 1 | B20J006-BS1 | | 7 Oct 2020 10:18 |
| 7 | 10072007.D | 1 | B20J006-BSD1 | | 7 Oct 2020 10:42 |
| 8 | 10072008.D | 1 | B20J006-MRL1 | | 7 Oct 2020 11:06 |
| 9 | 10072009.D | 1 | 2009037-01 | | 7 Oct 2020 11:29 |
| 10 | 10072010.D | 1 | 2009037-02 | | 7 Oct 2020 11:53 |
| 11 | 10072011.D | 1 | 2009037-03 | | 7 Oct 2020 12:16 |
| 12 | 10072012.D | 1 | 2009037-04 | | 7 Oct 2020 12:40 |
| 13 | 10072013.D | 1 | 2009037-05 | | 7 Oct 2020 13:04 |
| 14 | 10072014.D | 1 | 2009037-06 | | 7 Oct 2020 13:27 |
| 15 | 10072015.D | 1 | 2009038-01 | | 7 Oct 2020 13:51 |
| 16 | 10072016.D | 1 | 2009038-02 | | 7 Oct 2020 14:15 |
| 17 | 10072017.D | 1 | 2009038-03 | | 7 Oct 2020 14:38 |
| 18 | 10072018.D | 1 | 2009038-07 | | 7 Oct 2020 15:02 |
| 1 | 10072019.D | 1 | S20J011-IBL2 | | 7 Oct 2020 15:26 |
| 19 | 10072020.D | 1 | 2009037-04RE1 | RA for CO | 7 Oct 2020 15:49 |
| 20 | 10072021.D | 10 | 2009037-01RE1 | 10X DL (90-10) | 7 Oct 2020 16:13 |
| 21 | 10072022.D | 10 | 2009037-02RE1 | 10X DL (90-10) | 7 Oct 2020 16:37 |
| 22 | 10072023.D | 10 | 2009037-03RE1 | 10X DL (90-10) | 7 Oct 2020 17:00 |

GC/MS QA-QC Check Report

Table of Contents

Tune File : C:\msdchem\1\Ravioli Data\2020\100720\10072002.D
Tune Time : 7 Oct 2020 8:58

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\100720\10072003.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| | | | 491520 | |
| 10072003.D | S20J011-CC | 97 | 491520 | |
| 10072004.D | S20J011-CR | 1* | 505137 | |
| 10072005.D | B20J006-BL | 89 | 404846 | |
| 10072006.D | B20J006-BS | 90 | 505976 | |
| 10072007.D | B20J006-BSD | 90 | 498430 | |
| 10072008.D | B20J006-MR | 89 | 429055 | |
| 10072009.D | 2009037-01 | 87 | 584147 | |
| 10072010.D | 2009037-02 | 88 | 476301 | |
| 10072011.D | 2009037-03 | 87 | 596788 | |
| 10072012.D | 2009037-04 | 89 | 560012 | |
| 10072013.D | 2009037-05 | 89 | 554104 | |
| 10072014.D | 2009037-06 | 88 | 503609 | |
| 10072015.D | 2009038-01 | 88 | 524422 | |
| 10072016.D | 2009038-02 | 88 | 465847 | |
| 10072017.D | 2009038-03 | 89 | 517532 | |
| 10072018.D | 2009038-07 | 90 | 487678 | |
| 10072020.D | 2009037-04RE1 | 89 | 557462 | RA for CO |
| 10072021.D | 2009037-01RE1 | 85* | 497802 | 10X DL |
| 10072022.D | 2009037-02RE1 | 86 | 592133 | 10X DL |
| 10072023.D | 2009037-03RE1 | 86 | 558897 | 10X DL |

(fails) - fails 12hr time check * - fails criteria

# Analysis Sequence

**S20J011**

**Project:** R20S18
**Analysis:** VOCs, Passive Samplers

**Instrument:** AG5975CV **Calibration ID:** 2008017 Printed: 10/09/2020 8:08 am

| Lab Number | Sample Name | Order | Analyzed Date | STD ID | ISTD ID | Sequenced By | File ID | Comments |
|---|---|---|---|---|---|---|---|---|
| S20J011-IBL1 | Instrument Blank | 1 | 10/7/20 8:35 | | 2030067 | TD | 10072001.D | |
| S20J011-TUN1 | BFB | 2 | 10/7/20 8:58 | 2040028 | | TD | 10072002.D | |
| S20J011-CCV1 | Calibration Check | 3 | 10/7/20 9:07 | 2030070 | | TD | 10072003.D | |
| S20J011-CRL1 | Instrument RL Check | 4 | 10/7/20 9:31 | 2030073 | | TD | 10072004.D | |
| B20J006-BLK1 | Blank | 5 | 10/7/20 9:55 | | | TD | 10072005.D | |
| B20J006-BS1 | LCS | 6 | 10/7/20 10:18 | | | TD | 10072006.D | |
| B20J006-BSD1 | LCS Dup | 7 | 10/7/20 10:42 | | | TD | 10072007.D | |
| B20J006-MRL1 | MRL Check | 8 | 10/7/20 11:06 | | | TD | 10072008.D | |
| 2009037-01 A | Waverly-MH1-2ft-6d-R | 9 | 10/7/20 11:29 | | | TD | 10072009.D | |
| 2009037-02 A | Waverly-MH2-2ft-6d-R | 10 | 10/7/20 11:53 | | | TD | 10072010.D | |
| 2009037-03 A | Waverly-MH3-2ft-6d-R | 11 | 10/7/20 12:16 | | | TD | 10072011.D | |
| 2009037-04 A | Waverly-MH4-2ft-6d-R | 12 | 10/7/20 12:40 | | | TD | 10072012.D | |
| 2009037-05 A | Waverly-MH5-2ft-6d-R | 13 | 10/7/20 13:04 | | | TD | 10072013.D | |
| 2009037-06 A | 235 Fairchild-SC-1ft-3d | 14 | 10/7/20 13:27 | | | TD | 10072014.D | |
| 2009038-01 A | Waverly-MH1-1ft-5hr | 15 | 10/7/20 13:51 | | | TD | 10072015.D | |
| 2009038-02 A | F6-010-6in-5 hr | 16 | 10/7/20 14:15 | | | TD | 10072016.D | |
| 2009038-03 A | F6-004-1ft-3 hr | 17 | 10/7/20 14:38 | | | TD | 10072017.D | |
| 2009038-07 A | EPA-TB-104d | 18 | 10/7/20 15:02 | | | TD | 10072018.D | |
| S20J011-IBL2 | Instrument Blank | 19 | 10/7/20 15:26 | | | TD | 10072019.D | |
| 2009037-04RE1 A | Waverly-MH4-2ft-6d-R | 20 | 10/7/20 15:49 | | | TD | 10072020.D | |
| 2009037-01RE1 A | Waverly-MH1-2ft-6d-R | 21 | 10/7/20 16:13 | | | TD | 10072021.D | |
| 2009037-02RE1 A | Waverly-MH2-2ft-6d-R | 22 | 10/7/20 16:37 | | | TD | 10072022.D | |





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# Analysis Sequence

**S20J011**

**(Continued)**

**Project:** R20S18
**Analysis:** VOCs, Passive Samplers

**Instrument:** AG5975CV **Calibration ID:** 2008017 Printed: 10/09/2020 8:08 am

| Lab Number | Sample Name | Order | Analyzed Date | STD ID | ISTD ID | Sequenced By | File ID | Comments |
|---|---|---|---|---|---|---|---|---|
| 2009037-03RE1 A | Waverly-MH3-2ft-6d-R | 23 | 10/7/20 17:00 | | | TD | 10072023.D | |

**Sequence Comments**

**Reagents**

| Reagent # | Description |
|---|---|

# SEQUENCE DATA

## S20J011

# S20J011-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072001.D
Acq On : 7 Oct 2020 8:35
InstName : AG5975C
Operator : TD
Sample : S20J011-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 08:54:34 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

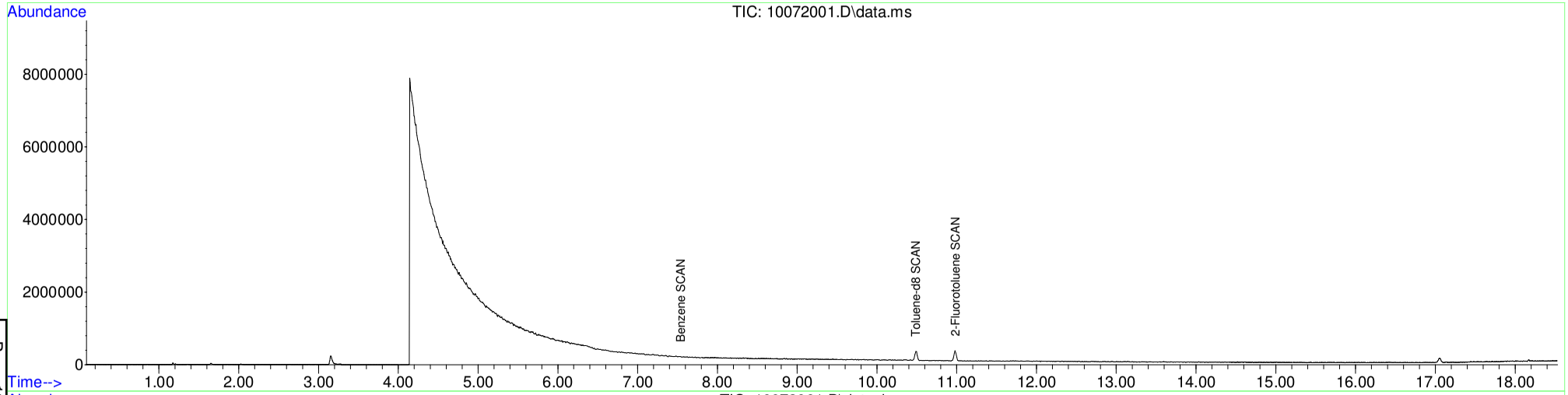
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 446052 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 378304 | 4332.41 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.65% | | | |
| Target Compounds | | | | | | Qvalue |
| 9] Benzene | 7.515 | 78 | 4005 | 52.85 | ug/L # | 1 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 222188 | 5109.90 | ug/L | 99 |
| 33) Benzene SCAN | 7.538 | 78 | 6020 | 156.12 | ug/L | 92 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 194666 | 4577.80 | ug/L | 94 |

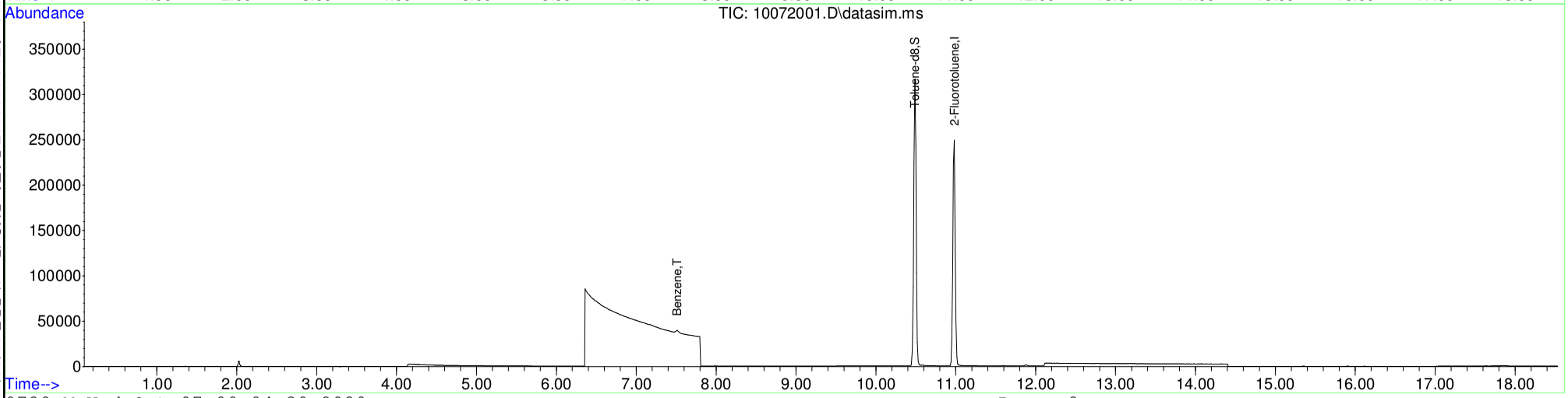
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072001.D
Acq On : 7 Oct 2020 8:35
InstName : AG5975C
Operator : TD
Sample : S20J011-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 08:54:34 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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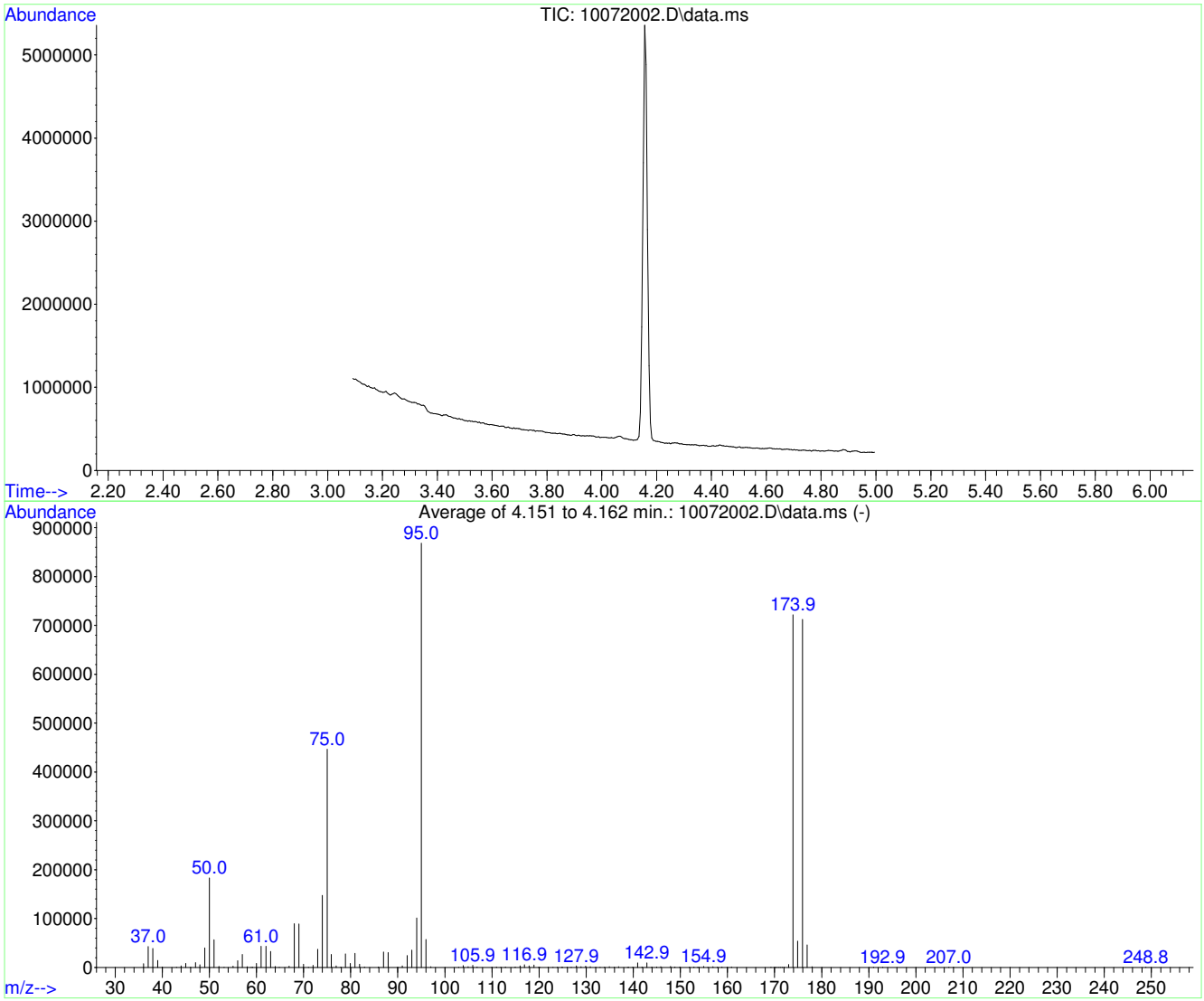
# S20J011-TUN1

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072002.D
Acq On : 7 Oct 2020 8:58
Operator : TD
Sample : S20J011-TUN1
Misc : BFB 2040028
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Aug 21 08:33:54 2020




AutoFind: Scans 203, 204, 205; Background Corrected with Scan 197

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 21.1 | 183275 | PASS |
| 75 | 95 | 30 | 60 | 51.5 | 446719 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 868224 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 57248 | PASS |
| 173 | 174 | 0.00 | 2 | 0.8 | 5809 | PASS |
| 174 | 95 | 50 | 120 | 83.2 | 722176 | PASS |
| 175 | 174 | 5 | 9 | 7.5 | 53821 | PASS |
| 176 | 174 | 95 | 101 | 98.6 | 712256 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 45893 | PASS |

Average of 4.151 to 4.162 min.: 10072002.D\data.ms
S20J011-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.00 | 7405 | 49.00 | 39771 | 60.00 | 8112 | 72.00 | 4151 |
| 37.00 | 42800 | 50.00 | 183275 | 61.00 | 43056 | 73.00 | 36905 |
| 38.00 | 38880 | 51.00 | 56357 | 62.00 | 43011 | 74.00 | 147539 |
| 39.00 | 14005 | 52.00 | 2213 | 63.00 | 32429 | 75.00 | 446719 |
| 40.00 | 634 | 53.10 | 54 | 63.95 | 2244 | 75.90 | 26517 |
| 43.00 | 208 | 55.05 | 2660 | 64.85 | 181 | 76.90 | 2992 |
| 44.00 | 3245 | 56.00 | 13431 | 66.95 | 2410 | 77.90 | 989 |
| 44.95 | 8008 | 57.00 | 26461 | 68.00 | 89360 | 78.90 | 27577 |
| 46.00 | 552 | 58.00 | 1278 | 69.00 | 88952 | 79.95 | 8136 |
| 47.05 | 9761 | 58.90 | 139 | 70.00 | 6594 | 80.90 | 28771 |
| 47.95 | 5100 | 59.20 | 51 | 71.00 | 354 | 81.90 | 6193 |

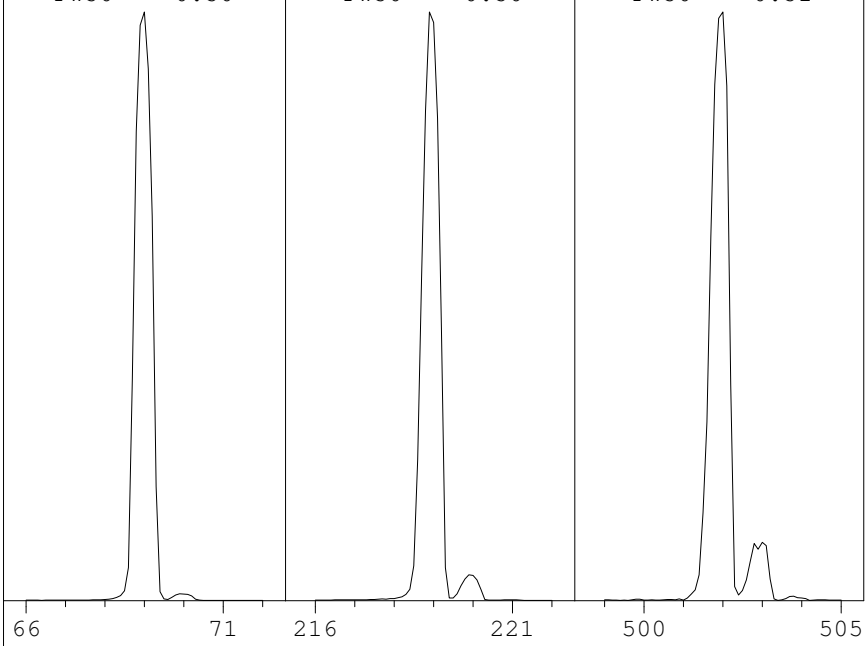
Average of 4.151 to 4.162 min.: 10072002.D\data.ms
S20J011-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 82.95 | 631 | 97.00 | 1553 | 115.95 | 3258 | 125.95 | 414 |
| 85.90 | 770 | 102.90 | 415 | 116.90 | 5306 | 126.85 | 180 |
| 86.95 | 31608 | 103.90 | 3905 | 117.90 | 3165 | 127.90 | 2908 |
| 87.95 | 30627 | 104.95 | 1387 | 118.90 | 4830 | 128.90 | 1447 |
| 90.00 | 50 | 105.90 | 4039 | 119.90 | 91 | 129.90 | 2807 |
| 90.95 | 3049 | 106.85 | 808 | 120.10 | 70 | 130.85 | 1332 |
| 92.00 | 24304 | 109.95 | 541 | 121.90 | 240 | 132.00 | 148 |
| 93.00 | 35272 | 110.95 | 773 | 122.95 | 319 | 132.95 | 340 |
| 94.00 | 101307 | 111.85 | 540 | 123.90 | 467 | 133.85 | 248 |
| 95.00 | 868224 | 112.85 | 748 | 124.80 | 145 | 134.90 | 1676 |
| 96.00 | 57248 | 114.90 | 824 | 125.00 | 79 | 135.95 | 317 |

Average of 4.151 to 4.162 min.: 10072002.D\data.ms
S20J011-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 136.90 | 1508 | 148.85 | 622 | 160.00 | 56 | 174.90 | 53821 |
| 138.80 | 104 | 149.90 | 916 | 160.85 | 916 | 175.90 | 712256 |
| 139.00 | 149 | 151.90 | 471 | 169.20 | 142 | 176.90 | 45893 |
| 139.90 | 491 | 152.85 | 619 | 170.00 | 151 | 177.95 | 1401 |
| 140.90 | 9031 | 153.70 | 135 | 170.30 | 69 | 191.00 | 94 |
| 141.85 | 976 | 153.90 | 426 | 170.80 | 86 | 192.95 | 312 |
| 142.90 | 9311 | 154.95 | 2084 | 171.20 | 157 | 207.00 | 152 |
| 143.90 | 588 | 155.85 | 287 | 171.60 | 127 | 208.00 | 151 |
| 144.95 | 765 | 156.90 | 1397 | 172.00 | 336 | 248.85 | 126 |
| 145.85 | 1226 | 157.85 | 145 | 173.00 | 5809 | | |
| 147.90 | 1884 | 158.85 | 935 | 173.90 | 722176 | | |

| Mass | 69.00 | Mass | 218.90 | Mass | 502.00 |
|---|---|---|---|---|---|
| Ab | 561471 | Ab | 349752 | Ab | 9661 |
| Pw50 | 0.50 | Pw50 | 0.50 | Pw50 | 0.51 |

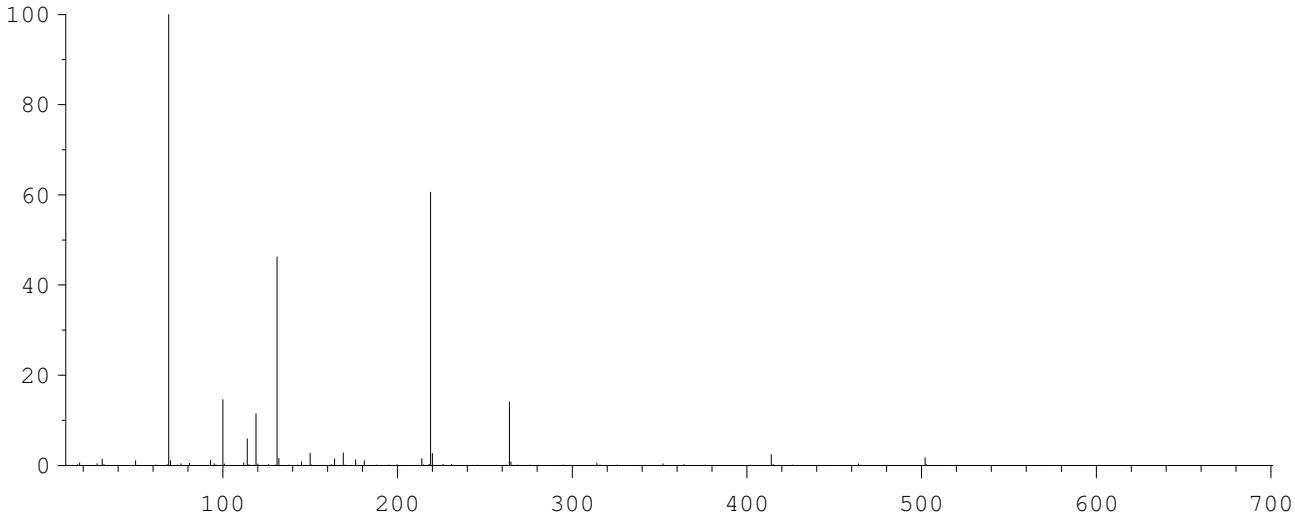



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | -1190 |
| | | MassOffs | -39 |
| Emission | 34.6 | AmuGain | 978 |
| EIEnrgy | 69.9 | AmuOffs | 127.94 |
| Filament | 1 | Wid219 | -0.003 |
| | | DC Pol | Pos |
| Repeller | 29.79 | | |
| IonFcus | 69.3 | HEDEnab | On |
| EntLens | 0.0 | EMVolts | 1329 |
| EntOffs | Var | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | Turbo Speed | 100 |
| MS Quad | 150 | HiVac | 0.00e00 |

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
119 peaks Base: 69.00 Abundance: 532928




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.00 | 532928 | 100.00 | 70.00 | 5692 | 1.07 |
| 219.00 | 322944 | 60.60 | 220.00 | 14257 | 4.41 |
| 502.00 | 9262 | 1.74 | 503.00 | 841 | 9.08 |

Air/Water Check: H20~0.60% N2~0.35% O2~0.22% CO2~0.04% N2/H2O~58.85%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 47794
Repeller Maximum 30 volts using ion 219; Gain Factor 0.48

MassGain Values(Samples): -1178(3) -1176(2) -1156(1) -1125(0) -1039(FS)

| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 1050 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 |
| Entrance Lens Offset: | 16.8 | 14.1 | 14.3 | 15.6 | 16.1 | 16.8 | 16.8 |
| Target Abund(%): | 1.0 | 100.0 | 45.0 | 55.0 | 2.5 | 2.0 | |
| Actual Tune Abund(%): | 1.0 | 100.0 | 46.2 | 60.6 | 2.4 | 1.7 | |

# S20J011-CCV1

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072003.D
Acq On : 7 Oct 2020 9:07
InstName : AG5975C
Operator : TD
Sample : S20J011-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 07 09:26:20 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.03min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 2-Fluorotoluene | 1.000 | 1.000 | 0.0 | 73 | 0.00 |
| 2 | T | 1,1-Dichloroethene | 0.200 | 0.195 | 2.5 | 76 | 0.00 |
| 3 | T | trans-1,2-Dichloroethene | 0.231 | 0.224 | 3.0 | 76 | 0.00 |
| 4 | T | 1,1-Dichloroethane | 0.287 | 0.279 | 2.8 | 76 | 0.00 |
| 5 | T | cis-1,2-Dichloroethene | 0.303 | 0.292 | 3.6 | 75 | 0.00 |
| 6 | T | Chloroform | 0.310 | 0.292 | 5.8 | 73 | 0.00 |
| 7 | T | 1,1,1-Trichloroethane | 0.337 | 0.321 | 4.7 | 74 | 0.00 |
| 8 | T | Carbon tetrachloride | 0.317 | 0.300 | 5.4 | 73 | 0.00 |
| 9 | T | Benzene | 0.850 | 0.802 | 5.6 | 75 | 0.00 |
| 10 | T | 1,2-Dichloroethane | 0.303 | 0.292 | 3.6 | 75 | 0.00 |
| 11 | T | Trichloroethene | 0.256 | 0.240 | 6.3 | 73 | 0.00 |
| 12 | S | Toluene-d8 | 0.979 | 0.951 | 2.9 | 74 | 0.00 |
| 13 | T | Toluene | 1.248 | 1.142 | 8.5 | 74 | 0.01 |
| 14 | T | 1,1,2-Trichloroethane | 0.272 | 0.258 | 5.1 | 74 | 0.01 |
| 15 | T | Tetrachloroethene | 0.361 | 0.334 | 7.5 | 70 | 0.01 |
| 16 | T | Chlorobenzene | 0.894 | 0.846 | 5.4 | 72 | 0.00 |
| 17 | T | 1,1,1,2-Tetrachloroethane | 0.320 | 0.299 | 6.6 | 71 | 0.00 |
| 18 | T | Ethylbenzene | 1.519 | 1.390 | 8.5 | 71 | 0.00 |
| 19 | T | m&p-Xylene | 1.187 | 1.060 | 10.7 | 71 | 0.00 |
| 20 | T | o-Xylene | 1.268 | 1.145 | 9.7 | 70 | 0.00 |
| 21 | T | 1,1,2,2-Tetrachloroethane | 0.562 | 0.519 | 7.7 | 70 | 0.00 |
| 22 | T | 1,3,5-Trimethylbenzene | 1.350 | 1.218 | 9.8 | 68 | 0.00 |
| 23 | T | 1,2,4-Trimethylbenzene | 1.402 | 1.220 | 13.0 | 68 | 0.00 |
| 24 | T | Naphthalene | 2.216 | 1.989 | 10.2 | 68 | 0.00 |
| 25 | | 2-Fluorotoluene SCAN | 0.487 | 0.500 | -2.7 | 75 | 0.00 |
| 26 | | 1,1-Dichloroethene SCAN | 0.104 | 0.122 | -17.3 | 86 | 0.00 |
| 27 | | trans-1,2-Dichloroethene SC | 0.128 | 0.141 | -10.2 | 80 | 0.00 |
| 28 | | 1,1-Dichloroethane SCAN | 0.148 | 0.166 | -12.2 | 82 | 0.00 |
| 29 | | cis-1,2-Dichloroethene SCAN | 0.159 | 0.178 | -11.9 | 82 | 0.00 |
| 30 | | Chloroform SCAN | 0.172 | 0.164 | 4.7 | 69 | 0.00 |
| 31 | | 1,1,1-Trichloroethane SCAN | 0.157 | 0.155 | 1.3 | 72 | 0.01 |
| 32 | | Carbon tetrachloride SCAN | 0.164 | 0.152 | 7.3 | 68 | 0.00 |
| 33 | | Benzene SCAN | 0.432 | 0.484 | -12.0 | 82 | 0.01 |
| 34 | | 1,2-Dichloroethane SCAN | 0.160 | 0.172 | -7.5 | 79 | 0.01 |
| 35 | | Trichloroethene SCAN | 0.119 | 0.122 | -2.5 | 75 | 0.00 |
| 36 | | Toluene-d8 SCAN | 0.477 | 0.511 | -7.1 | 78 | 0.01 |
| 37 | | Toluene SCAN | 0.610 | 0.632 | -3.6 | 76 | 0.01 |
| 38 | | 1,1,2-Trichloroethane SCAN | 0.137 | 0.135 | 1.5 | 72 | 0.01 |
| 39 | | Tetrachloroethene SCAN | 0.147 | 0.149 | -1.4 | 74 | 0.00 |
| 40 | | Chlorobenzene SCAN | 0.417 | 0.421 | -1.0 | 74 | 0.00 |
| 41 | | 1,1,1,2-Tetrachloroethane S | 0.154 | 0.146 | 5.2 | 69 | 0.00 |
| 42 | | Ethylbenzene SCAN | 1.112 | 1.114 | -0.2 | 73 | 0.00 |
| 43 | | m&p-Xylene SCAN | 1.112 | 1.114 | -0.2 | 73 | 0.00 |
| 44 | | o-Xylene SCAN | 0.595 | 0.597 | -0.3 | 73 | 0.00 |
| 45 | | 1,1,2,2-Tetrachloroethane S | 0.290 | 0.299 | -3.1 | 75 | 0.00 |
| 46 | | 1,3,5-Trimethylbenzene SCAN | 0.627 | 0.602 | 4.0 | 70 | 0.00 |
| 47 | | 1,2,4-Trimethylbenzene SCAN | 0.642 | 0.606 | 5.6 | 69 | 0.00 |
| 48 | | Naphthalene SCAN | 0.971 | 0.898 | 7.5 | 67 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072003.D
Acq On : 7 Oct 2020 9:07
InstName : AG5975C
Operator : TD
Sample : S20J011-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 07 09:26:20 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

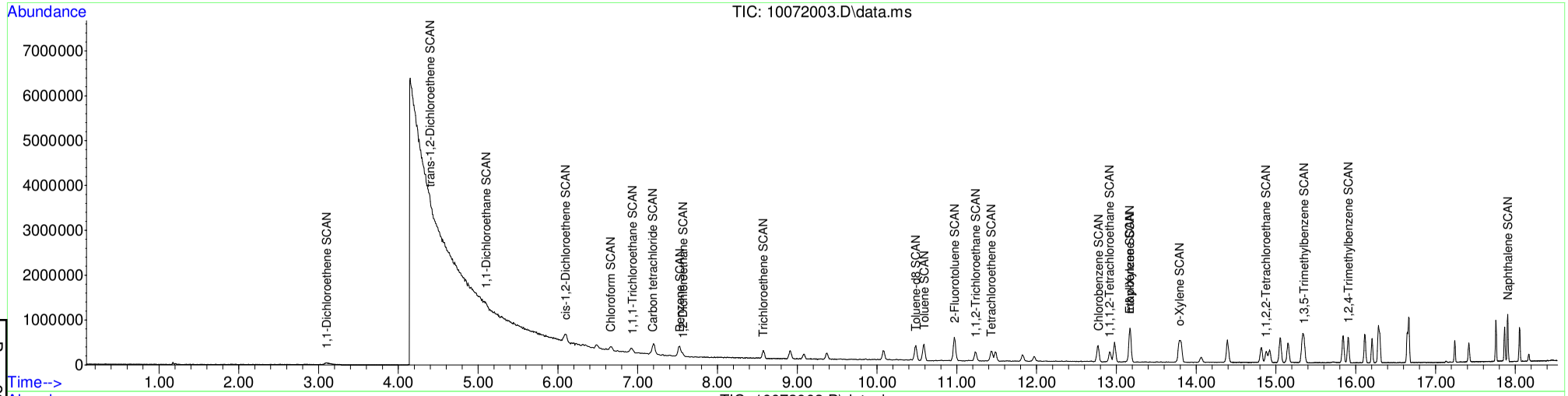
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 491520 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 467294 | 4856.50 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 97.13% | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 95922 | 4887.20 | ug/L | 82 |
| 3] trans-1,2-Dichloroethene | 4.395 | 61 | 109975 | 4849.70 | ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 136980 | 4852.61 | ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 143693 | 4822.45 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 143612 | 4708.89 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 157573 | 4757.47 | ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 147539 | 4732.78 | ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 394018 | 4718.10 | ug/L | 99 |
| 10] 1,2-Dichloroethane | 7.551 | 62 | 143410 | 4810.49 | ug/L | 99 |
| 11] Trichloroethene | 8.575 | 130 | 118018 | 4693.62 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 561357 | 4576.08 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 126758 | 4742.12 | ug/L | 96 |
| 15] Tetrachloroethene | 11.432 | 166 | 163978 | 4618.96 | ug/L | 100 |
| 16] Chlorobenzene | 12.765 | 112 | 415873 | 4734.56 | ug/L | 92 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 147049 | 4672.07 | ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 683177 | 4575.32 | ug/L | 98 |
| 19] m&p-Xylene | 13.170 | 91 | 1042082 | 8929.49 | ug/L | 96 |
| 20] o-Xylene | 13.782 | 91 | 562750 | 4513.55 | ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 254959 | 4614.04 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 598445 | 4509.51 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.905 | 105 | 599579 | 4349.73 | ug/L | 96 |
| 24] Naphthalene | 17.906 | 128 | 977519 | 4486.90 | ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 245622 | 5126.30 | ug/L | 95 |
| 26) 1,1-Dichloroethene SCAN | 3.099 | 61 | 59780 | 5874.87 | ug/L | 81 |
| 27) trans-1,2-Dichloroethe... | 4.401 | 61 | 69356 | 5508.14 | ug/L | 73 |
| 28) 1,1-Dichloroethane SCAN | 5.098 | 63 | 81607 | 5600.15 | ug/L | 95 |
| 29) cis-1,2-Dichloroethene... | 6.099 | 61 | 87429 | 5599.83 | ug/L | 75 |
| 30) Chloroform SCAN | 6.662 | 83 | 80513 | 4754.44 | ug/L | 95 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 76199 | 4937.76 | ug/L | 89 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 74674 | 4638.96 | ug/L | 87 |
| 33) Benzene SCAN | 7.526 | 78 | 237864 | 5598.15 | ug/L | 97 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 84439 | 5381.89 | ug/L | 86 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 59789 | 5120.47 | ug/L | 89 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 251002 | 5356.59 | ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 310749 | 5178.34 | ug/L | 98 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 66514 | 4938.10 | ug/L | 86 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 73124 | 5072.04 | ug/L | 96 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 206998 | 5048.02 | ug/L | 90 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 71672 | 4722.93 | ug/L | 93 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 547704 | 5009.80 | ug/L | 90 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 547704 | 5009.80 | ug/L | 91 |
| 44) o-Xylene SCAN | 13.789 | 91 | 293208 | 5010.40 | ug/L | 95 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.875 | 83 | 147013 | 5152.01 | ug/L | 98 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 295910 | 4797.97 | ug/L | 97 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 297858 | 4719.95 | ug/L | 95 |
| 48) Naphthalene SCAN | 17.905 | 128 | 441402 | 4622.50 | ug/L | 100 |

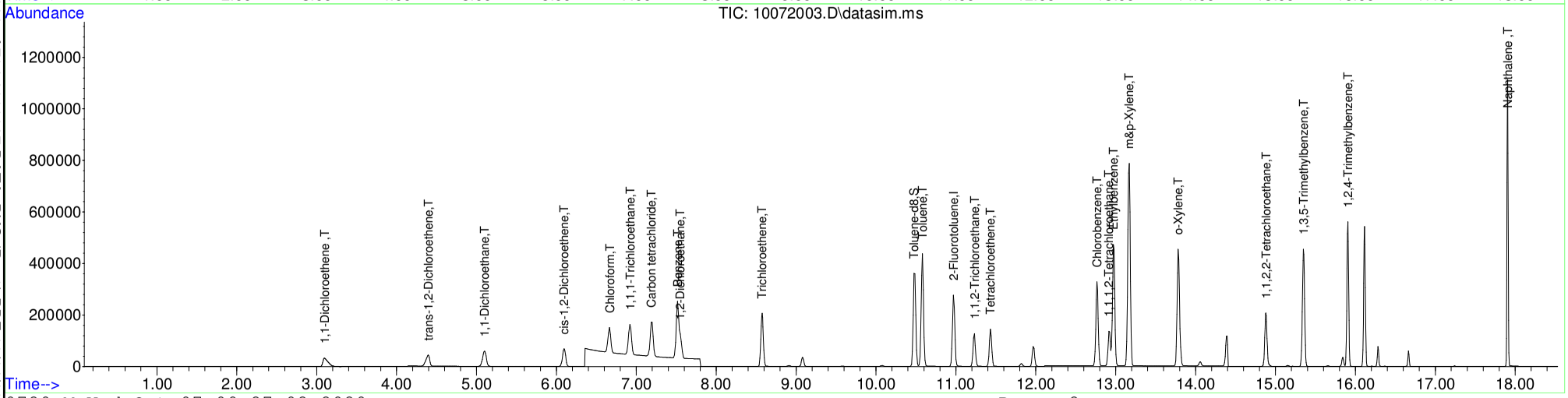
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072003.D
Acq On : 7 Oct 2020 9:07
InstName : AG5975C
Operator : TD
Sample : S20J011-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 07 09:26:20 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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# S20J011-CRL1

# QLS REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20J011-CRL1
**Misc Info:** 2030073 0.05 mg/L
**Date Acquired:** 10/7/20 9:31
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000.0 | 5000.00 | 100% | 60 | 140 | pass |
| 2) | 1,1-Dichloroethene | 3.090 | 50.0 | 50.87 | 102% | 60 | 140 | pass |
| 3) | trans-1,2-Dichloroethene | 4.396 | 50.0 | 51.83 | 104% | 60 | 140 | pass |
| 4) | 1,1-Dichloroethane | 5.099 | 50.0 | 53.26 | 107% | 60 | 140 | pass |
| 5) | cis-1,2-Dichloroethene | 6.094 | 50.0 | 51.27 | 103% | 60 | 140 | pass |
| 6) | Chloroform | 6.664 | 50.0 | 47.99 | 96% | 60 | 140 | pass |
| 7) | 1,1,1-Trichloroethane | 6.919 | 50.0 | 47.01 | 94% | 60 | 140 | pass |
| 8) | Carbon tetrachloride | 7.187 | 50.0 | 46.10 | 92% | 60 | 140 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 50.0 | 50.23 | 100% | 60 | 140 | pass |
| 11) | Trichloroethene | 8.569 | 50.0 | 48.18 | 96% | 60 | 140 | pass |
| 12) | Toluene-d8 | 10.477 | 50.0 | 49.83 | 100% | 60 | 140 | pass |
| 13) | Toluene | 10.571 | 50.0 | 51.23 | 102% | 60 | 140 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 50.0 | 49.65 | 99% | 60 | 140 | pass |
| 15) | Tetrachloroethene | 11.421 | 50.0 | 48.49 | 97% | 60 | 140 | pass |
| 16) | Chlorobenzene | 12.757 | 50.0 | 52.17 | 104% | 60 | 140 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 50.0 | 49.37 | 99% | 60 | 140 | pass |
| 18) | Ethylbenzene | 12.964 | 50.0 | 52.88 | 106% | 60 | 140 | pass |
| 19) | m&p-Xylene | 13.162 | 100.0 | 105.22 | 105% | 60 | 140 | pass |
| 20) | o-Xylene | 13.774 | 50.0 | 51.99 | 104% | 60 | 140 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 50.0 | 52.46 | 105% | 60 | 140 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 50.0 | 54.22 | 108% | 60 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 50.0 | 54.30 | 109% | 60 | 140 | pass |
| 24) | Naphthalene | 17.903 | 50.0 | 49.96 | 100% | 60 | 140 | pass |

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

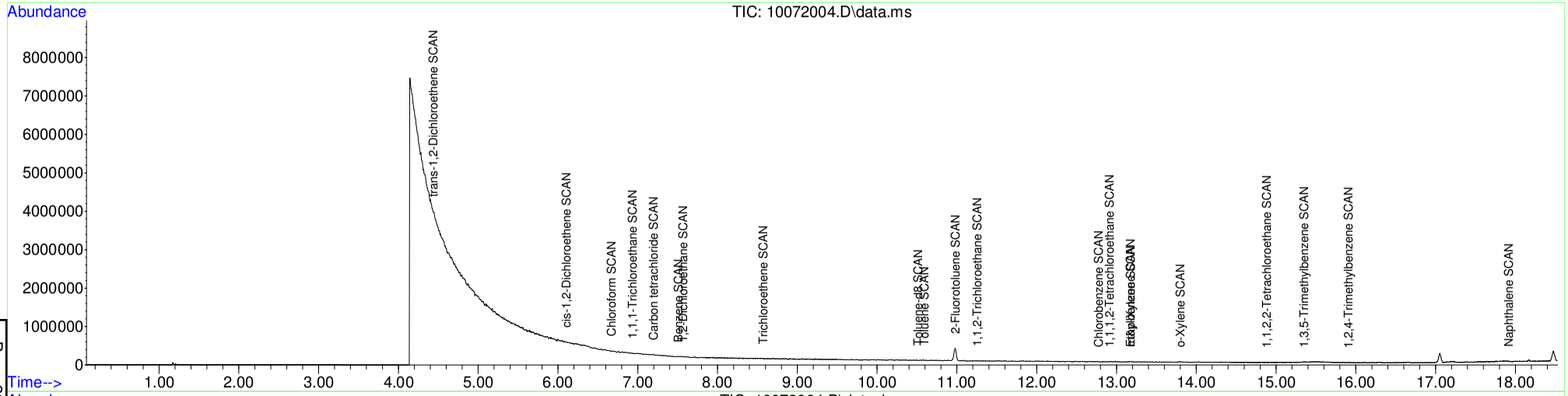
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 505137 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4927 | 49.83 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = | 1.00%# | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 1430 | 70.89 ug/L # | 38 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 1208 | 51.83 ug/L | 83 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 1545 | 53.26 ug/L | 64 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 1570 | 51.27 ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1504 | 47.99 ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1600 | 47.01 ug/L | 100 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1477 | 46.10 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 4219 | 49.16 ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1539 | 50.23 ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1245 | 48.18 ug/L | 91 |
| 13] Toluene | 10.582 | 91 | 6458 | 51.23 ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1364 | 49.65 ug/L | 98 |
| 15] Tetrachloroethene | 11.442 | 166 | 1769 | 48.49 ug/L | 99 |
| 16] Chlorobenzene | 12.773 | 112 | 4709 | 52.17 ug/L | 81 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1597 | 49.37 ug/L | 97 |
| 18] Ethylbenzene | 12.980 | 91 | 8115 | 52.88 ug/L | 90 |
| 19] m&p-Xylene | 13.170 | 91 | 12619 | 105.22 ug/L | 94 |
| 20] o-Xylene | 13.782 | 91 | 6662 | 51.99 ug/L | 93 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2979 | 52.46 ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7395 | 54.22 ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7692 | 54.30 ug/L | 93 |
| 24] Naphthalene | 17.904 | 128 | 11186 | 49.96 ug/L | 96 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 254255 | 5163.42 ug/L | 99 |
| 27) trans-1,2-Dichloroethe... | 4.434 | 61 | 747 | 57.73 ug/L # | 17 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 519 | 32.35 ug/L # | 1 |
| 30) Chloroform SCAN | 6.662 | 83 | 1256 | 72.17 ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 645 | 40.67 ug/L # | 42 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 431 | 26.05 ug/L # | 1 |
| 33) Benzene SCAN | 7.514 | 78 | 16561 | 379.26 ug/L | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 617 | 38.27 ug/L # | 40 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 552 | 46.00 ug/L # | 71 |
| 36) Toluene-d8 SCAN | 10.507 | 98 | 3299 | 68.51 ug/L # | 15 |
| 37) Toluene SCAN | 10.591 | 91 | 3480 | 56.43 ug/L | 87 |
| 38) 1,1,2-Trichloroethane ... | 11.252 | 97 | 1000 | 72.24 ug/L # | 26 |
| 40) Chlorobenzene SCAN | 12.780 | 112 | 2108 | 50.02 ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 682 | 43.73 ug/L # | 4 |
| 42) Ethylbenzene SCAN | 13.177 | 91 | 7193 | 64.02 ug/L | 80 |
| 43) m&p-Xylene SCAN | 13.177 | 91 | 7193 | 64.02 ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 5728 | 95.24 ug/L | 88 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.879 | 83 | 1787 | 60.94 ug/L # | 56 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 4051 | 63.91 ug/L # | 64 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3725 | 57.44 ug/L | 86 |
| 48) Naphthalene SCAN | 17.910 | 128 | 5282 | 53.82 ug/L # | 71 |

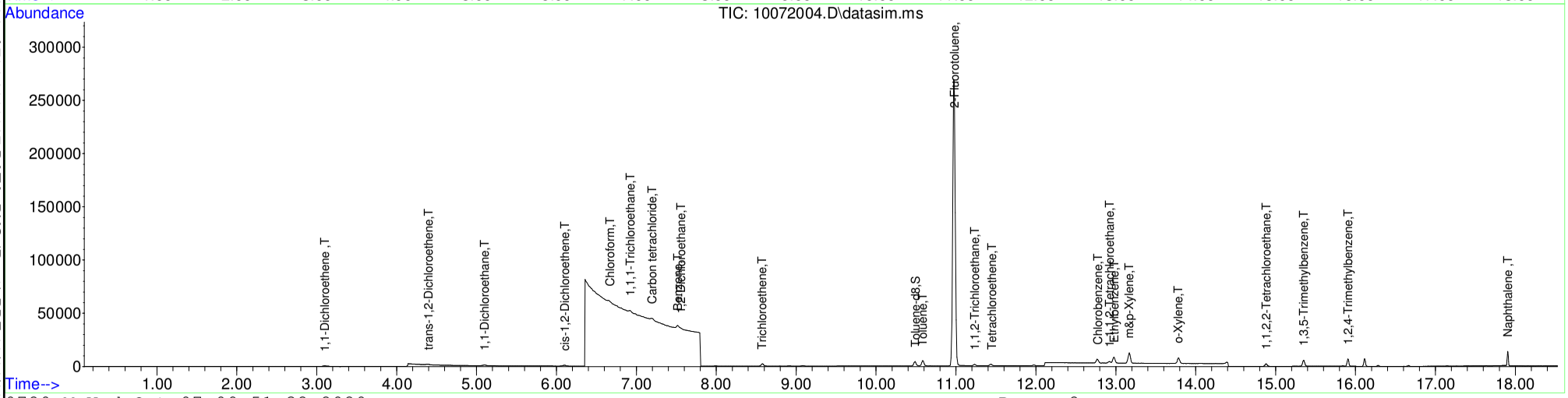
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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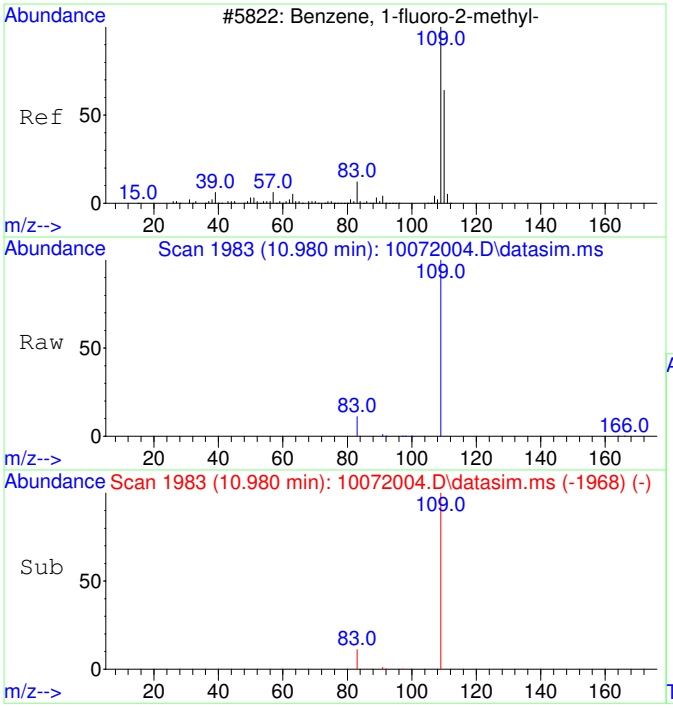
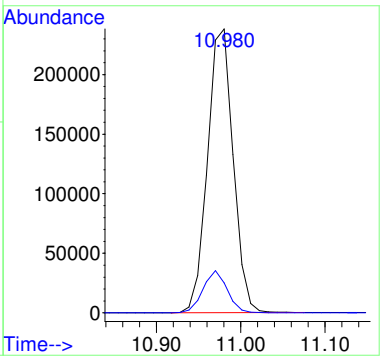
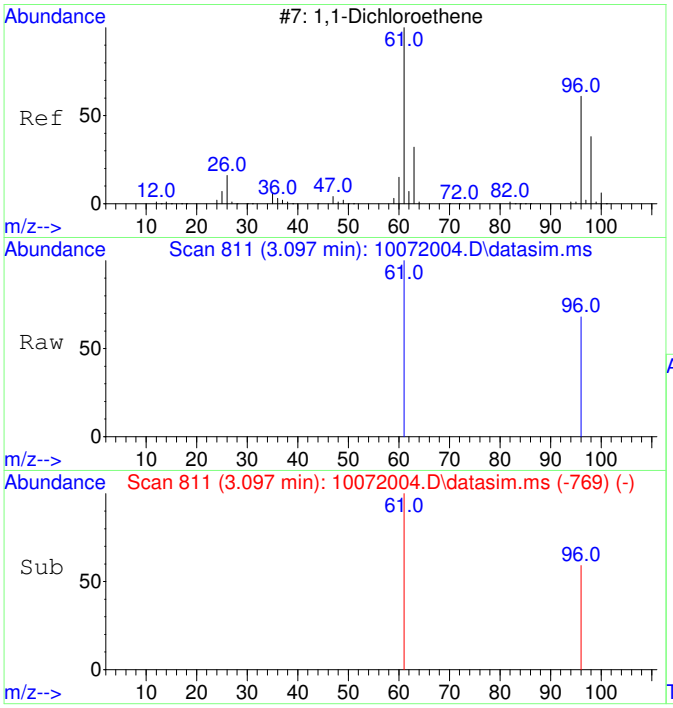



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 505137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

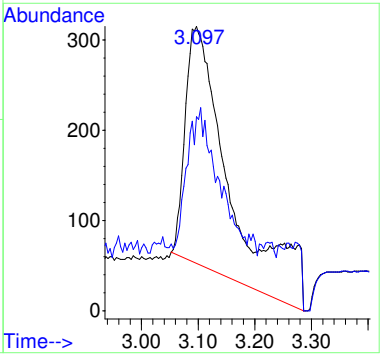


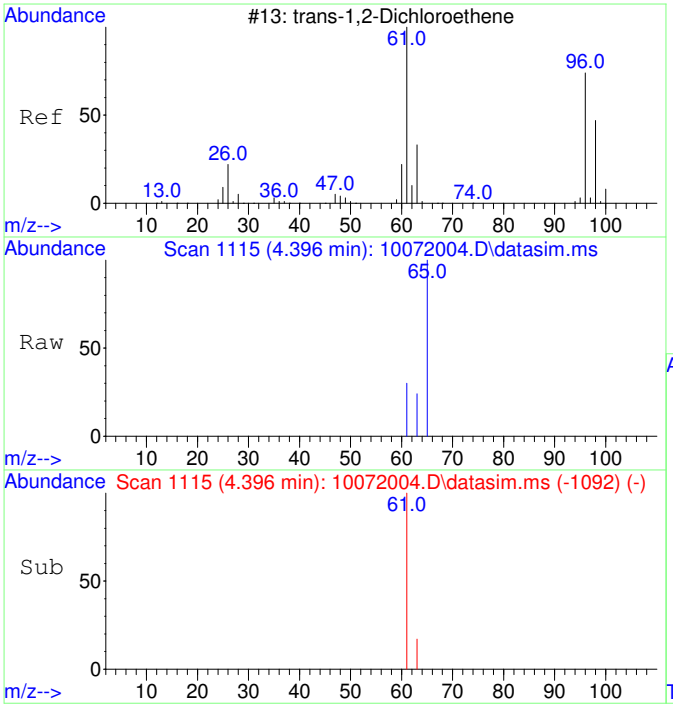

#2
1,1-Dichloroethene
Concen: 70.89 ug/L
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1430

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 17.3 | 37.2 | 97.2# |



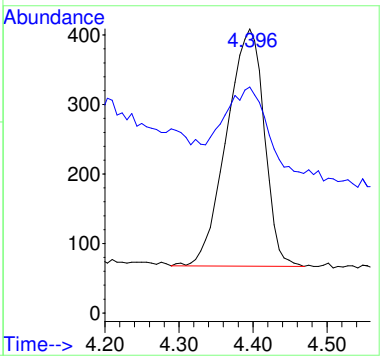

Before MI:
IMPROPER
BASELINE

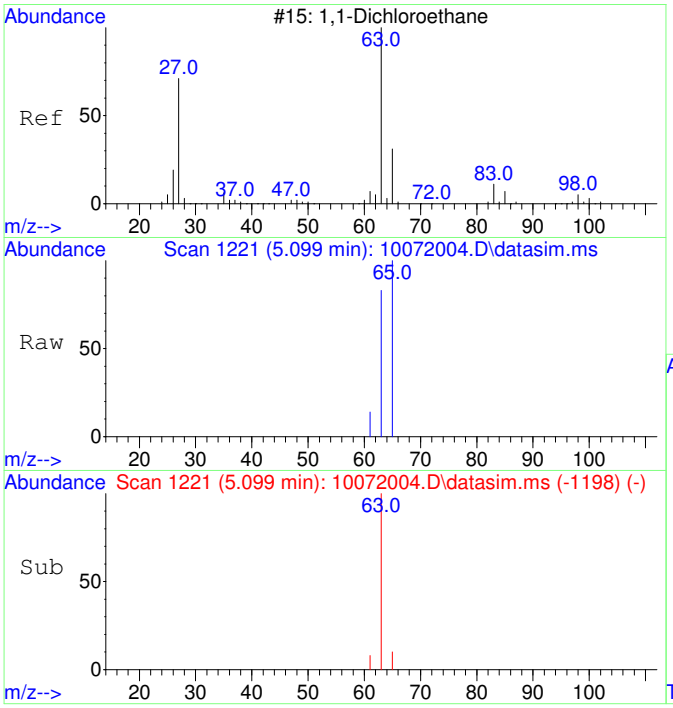



#3
trans-1,2-Dichloroethene
Concen: 51.83 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 41.8 | 2.4 | 62.4 |

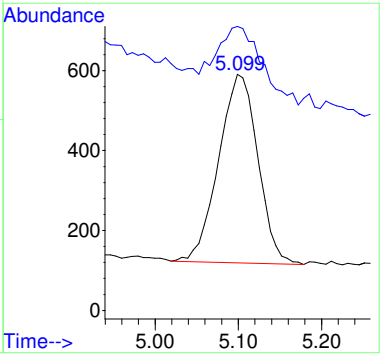


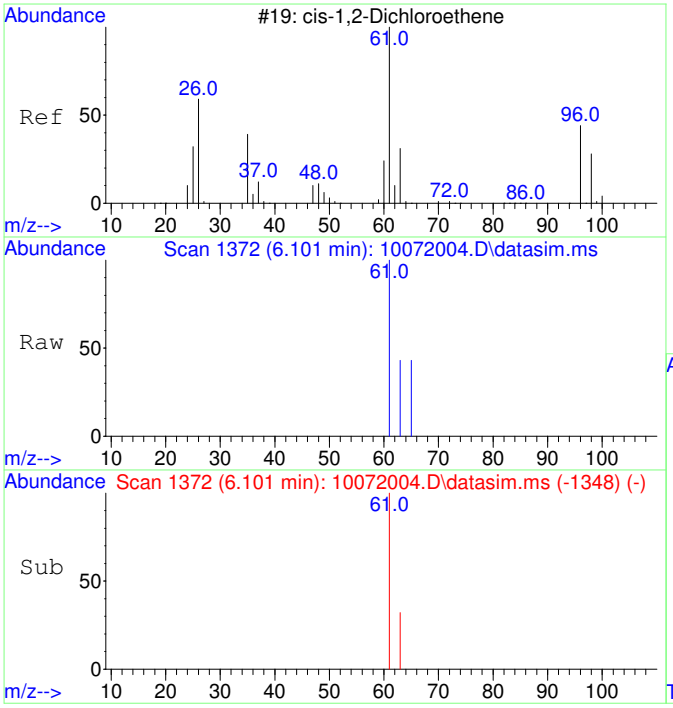




#4
1,1-Dichloroethane
Concen: 53.26 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 63 Resp: 1545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 52.0 | 1.8 | 61.8 |

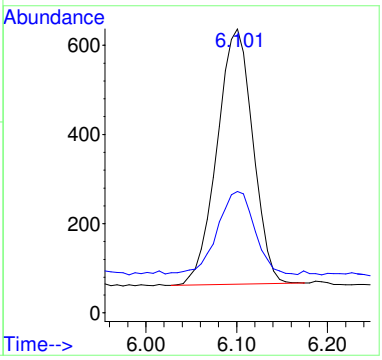


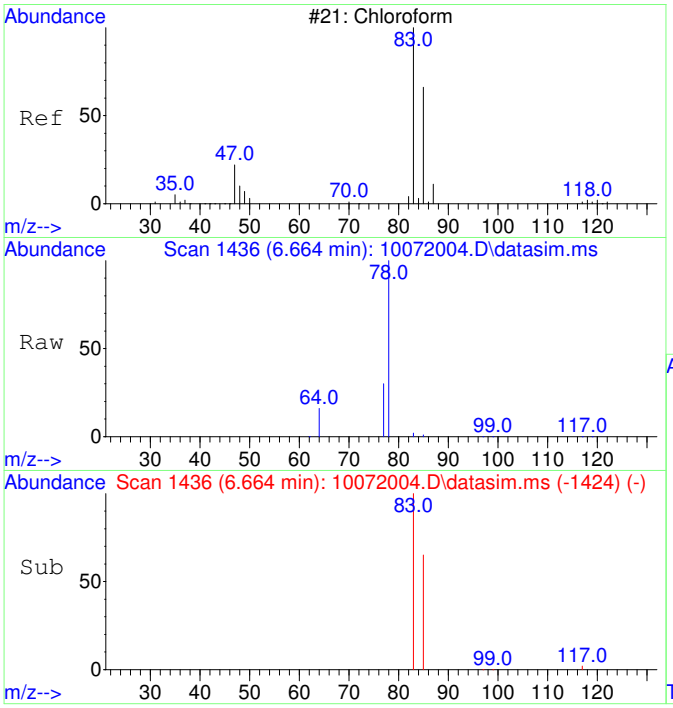



#5
cis-1,2-Dichloroethene
Concen: 51.27 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.7 | 2.5 | 62.5 |

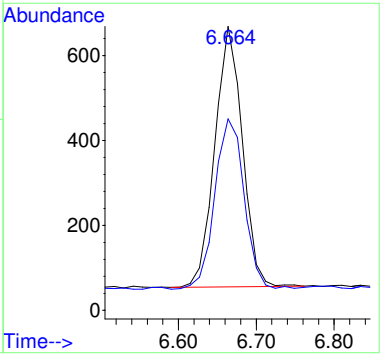


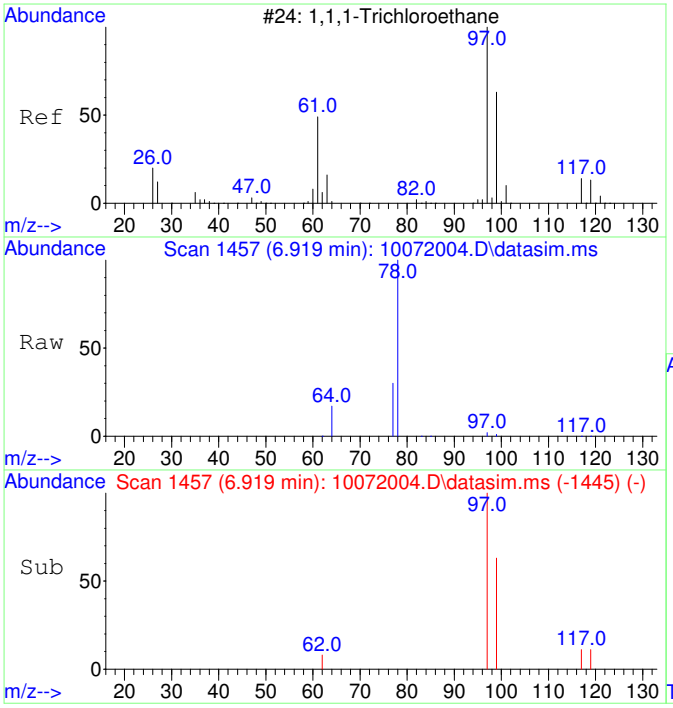




#6
Chloroform
Concen: 47.99 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1504

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.2 | 35.1 | 95.1 |

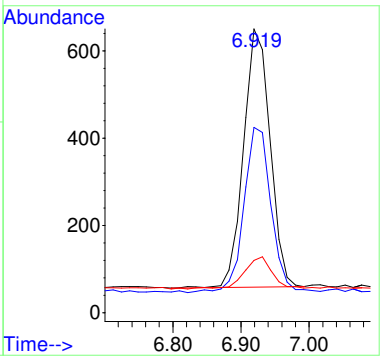


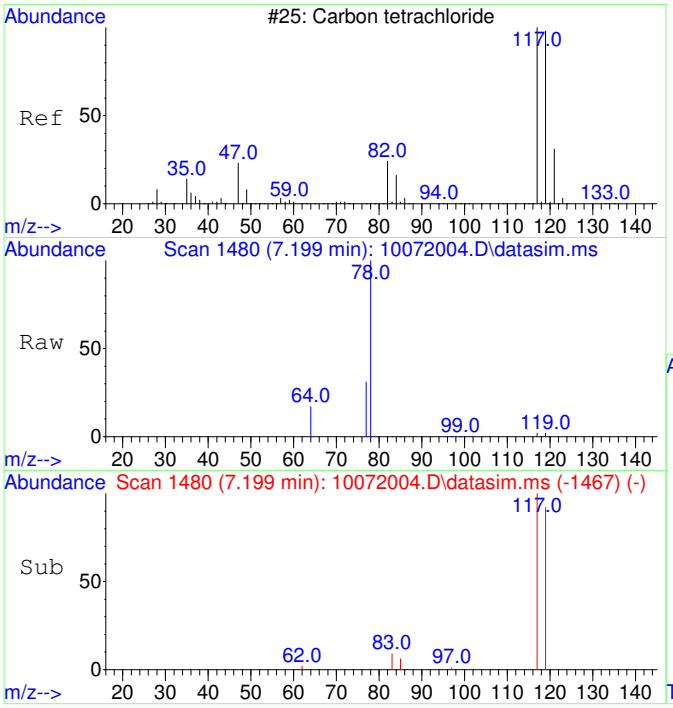



#7
1,1,1-Trichloroethane
Concen: 47.01 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.3 | 0.0 | 43.2 |

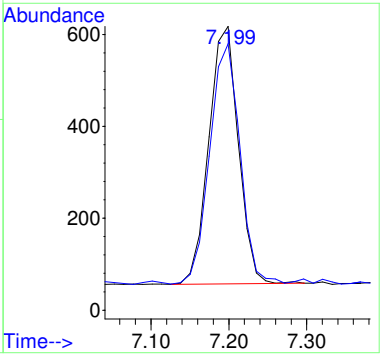


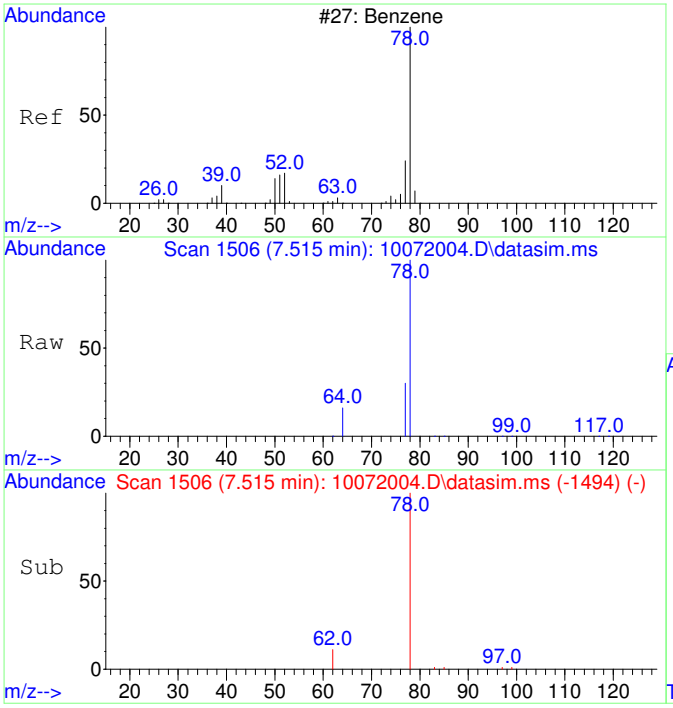




#8
Carbon tetrachloride
Concen: 46.10 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 1477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

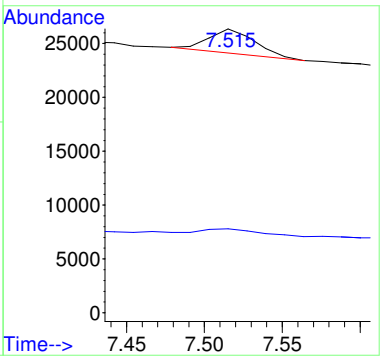


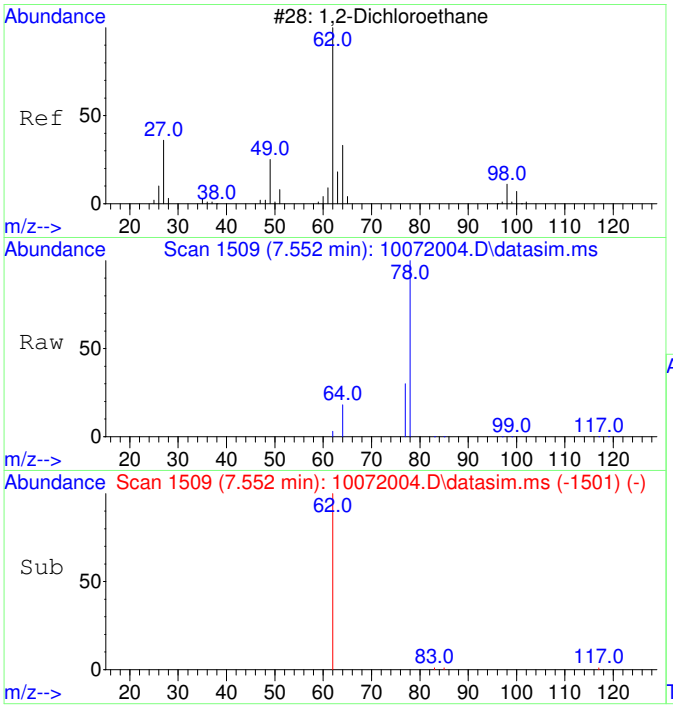



#9
Benzene
Concen: 49.16 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 4219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 84.0 | 0.0 | 53.2# |

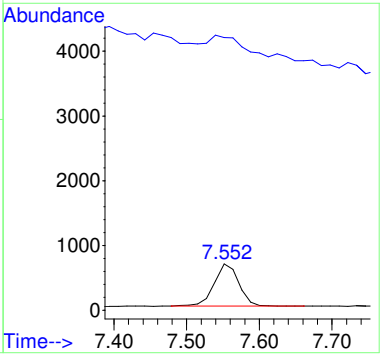


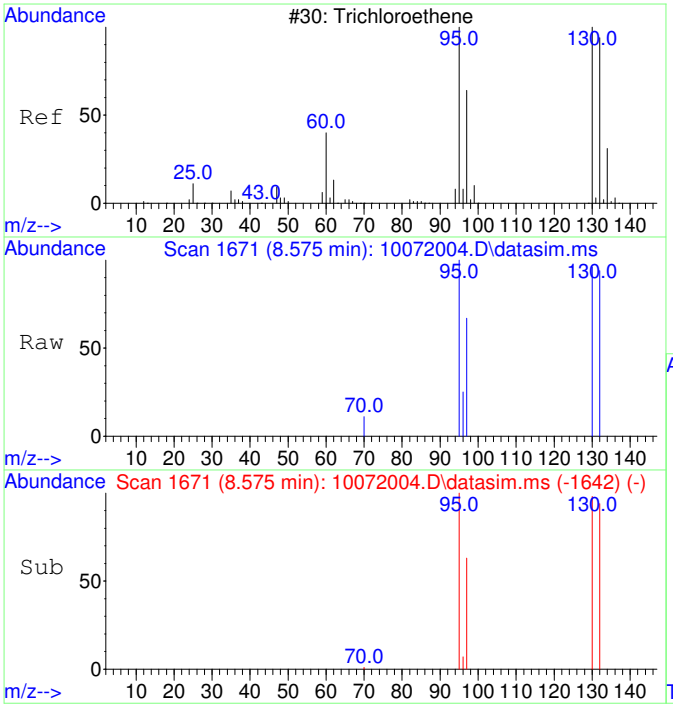




#10
1,2-Dichloroethane
Concen: 50.23 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 1539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 99.5 | 2.3 | 62.3# |

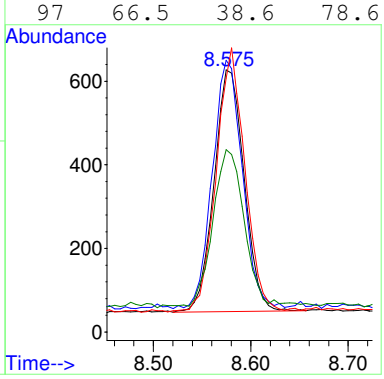


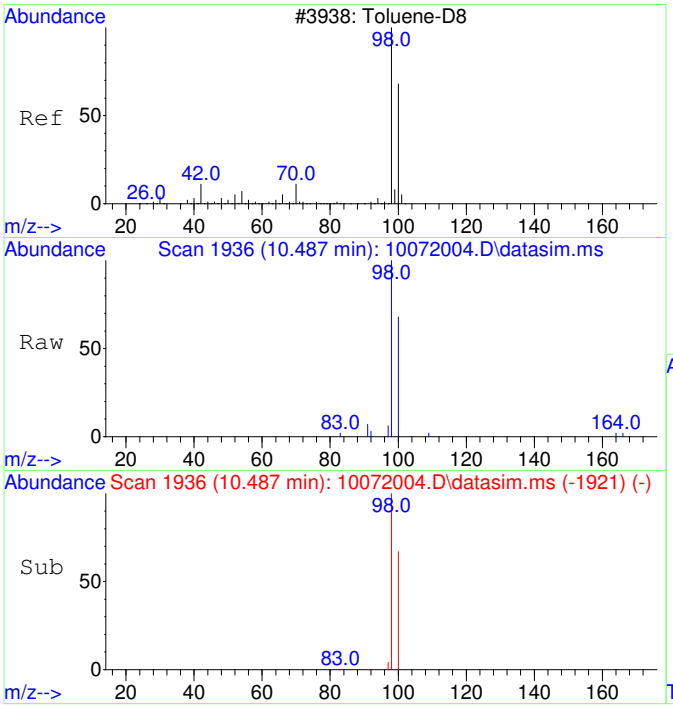



#11
Trichloroethene
Concen: 48.18 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 1245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.2 | 60.7 | 120.7 |
| 132 | 102.7 | 76.0 | 116.0 |
| 97 | 66.5 | 38.6 | 78.6 |

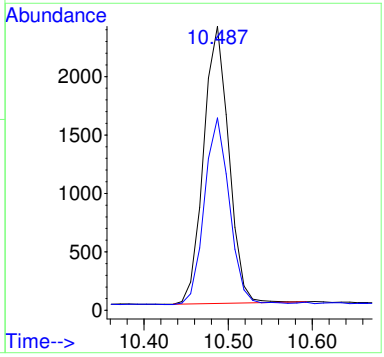


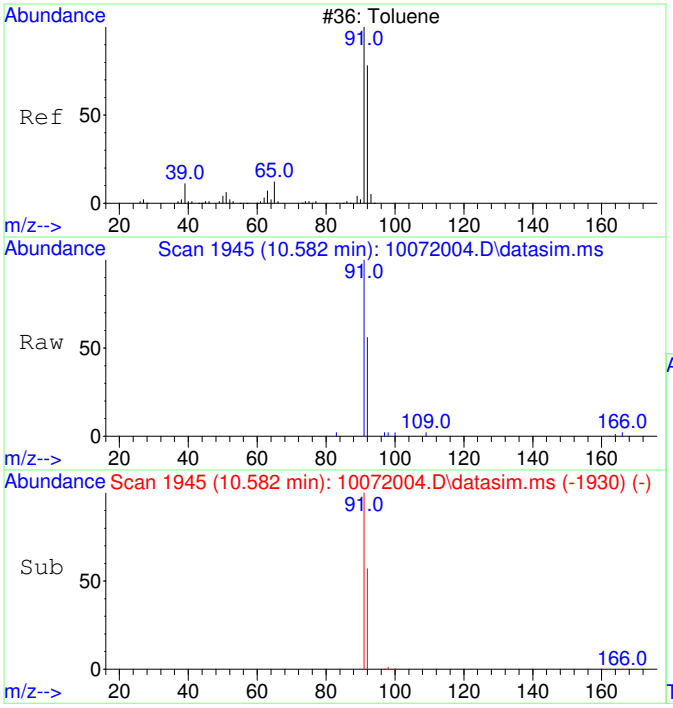




#12
Toluene-d8
Concen: 49.83 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 4927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.2 | 37.1 | 97.1 |

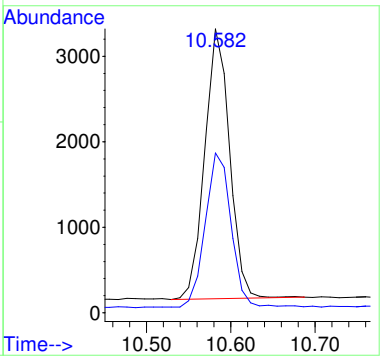


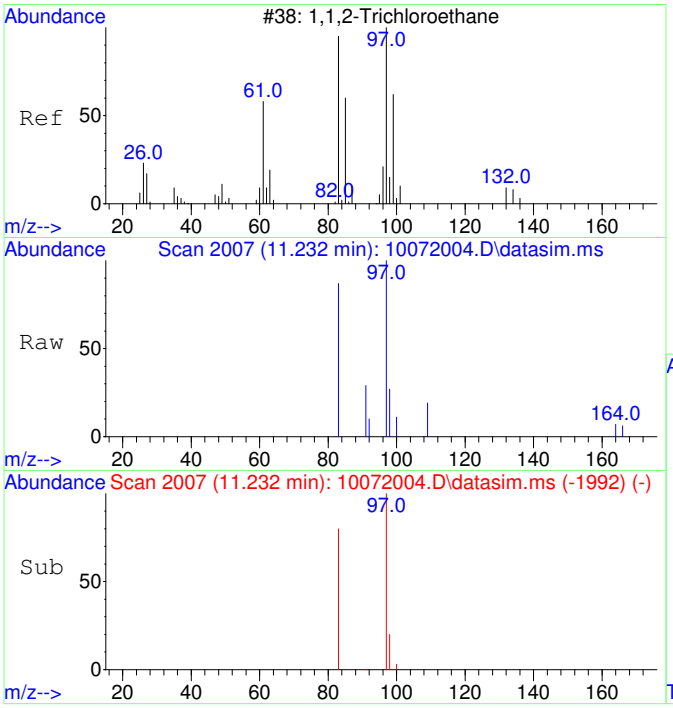



#13
Toluene
Concen: 51.23 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.4 | 29.9 | 89.9 |

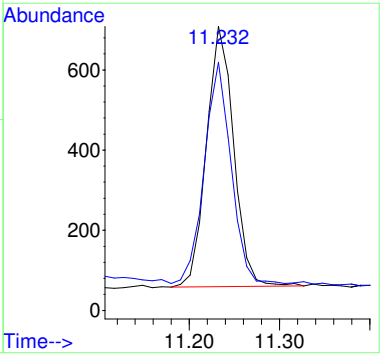


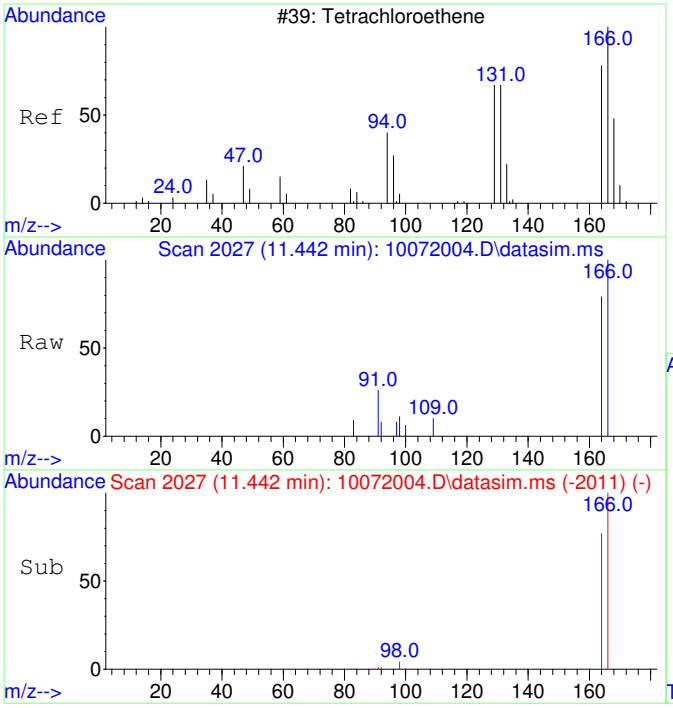




#14
1,1,2-Trichloroethane
Concen: 49.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.6 | 51.2 | 111.2 |

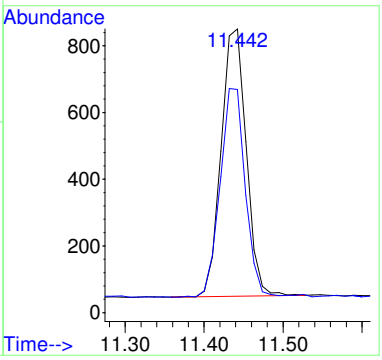


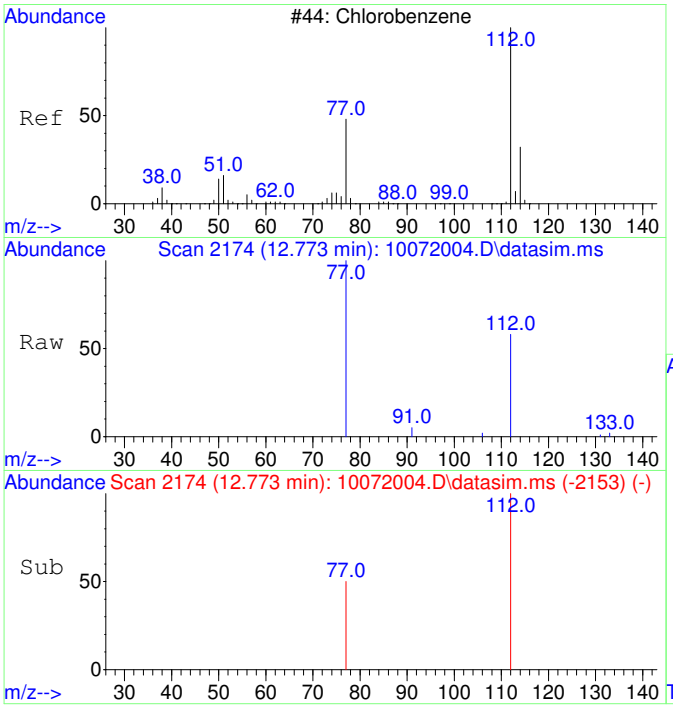



#15
Tetrachloroethene
Concen: 48.49 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:166 Resp: 1769

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.0 | 47.8 | 107.8 |

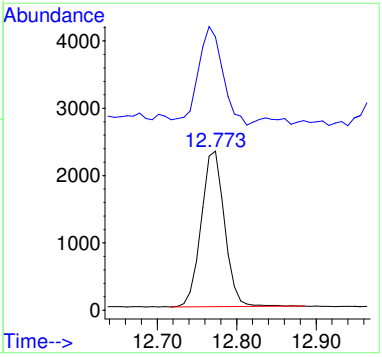


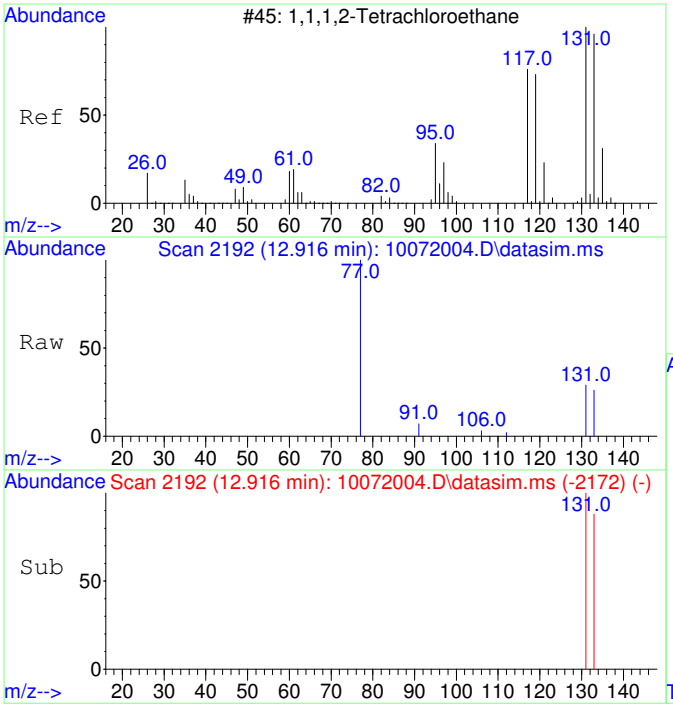




#16
Chlorobenzene
Concen: 52.17 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 4709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 66.9 | 23.6 | 83.6 |

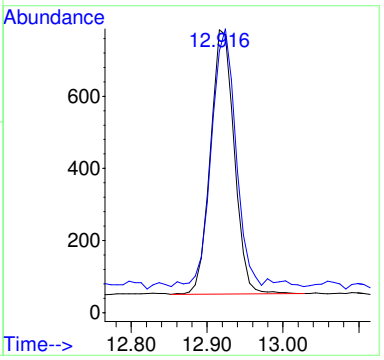


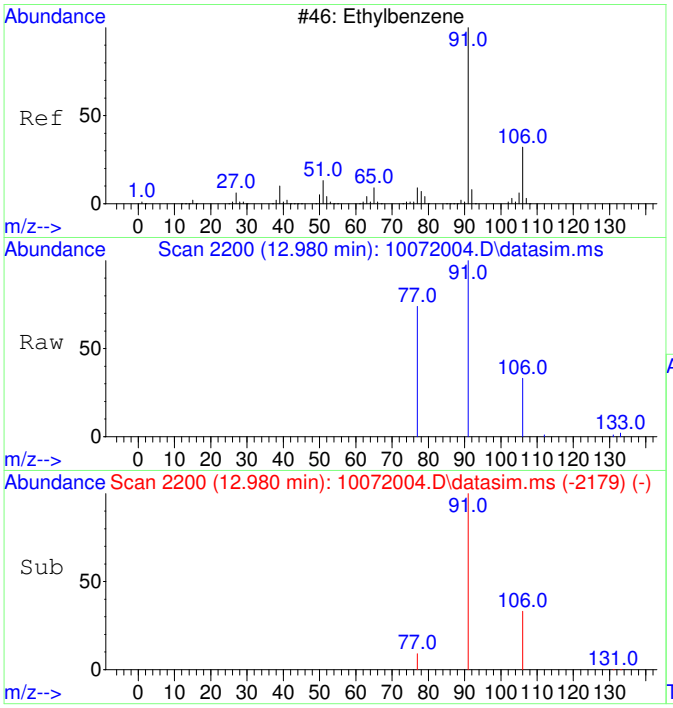



#17
1,1,1,2-Tetrachloroethane
Concen: 49.37 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 1597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.1 | 66.3 | 126.3 |

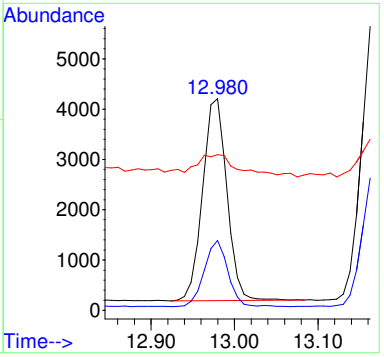


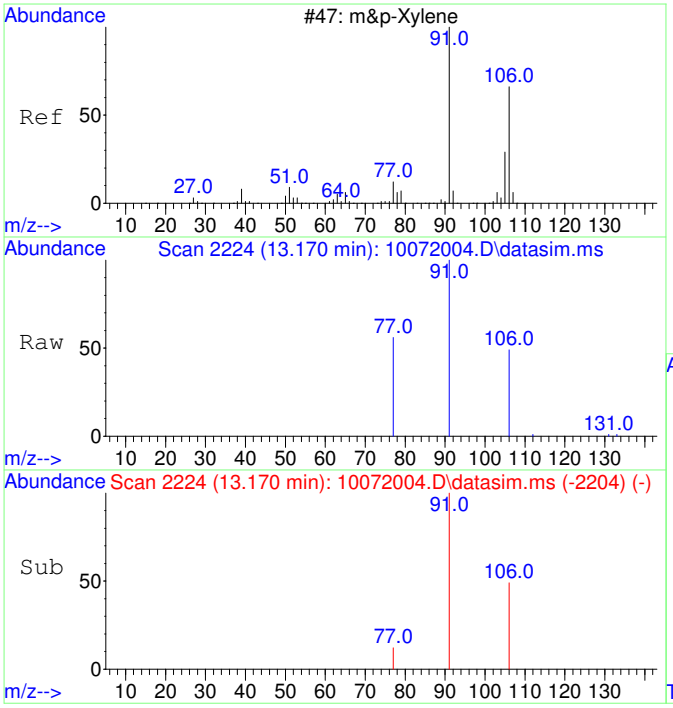




#18
Ethylbenzene
Concen: 52.88 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 8115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 21.2 | 0.0 | 38.2 |

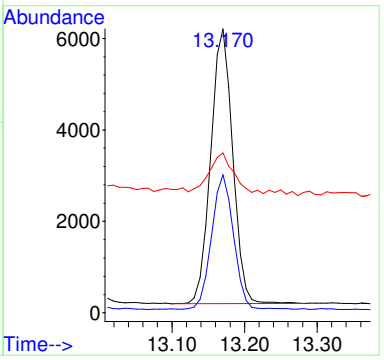


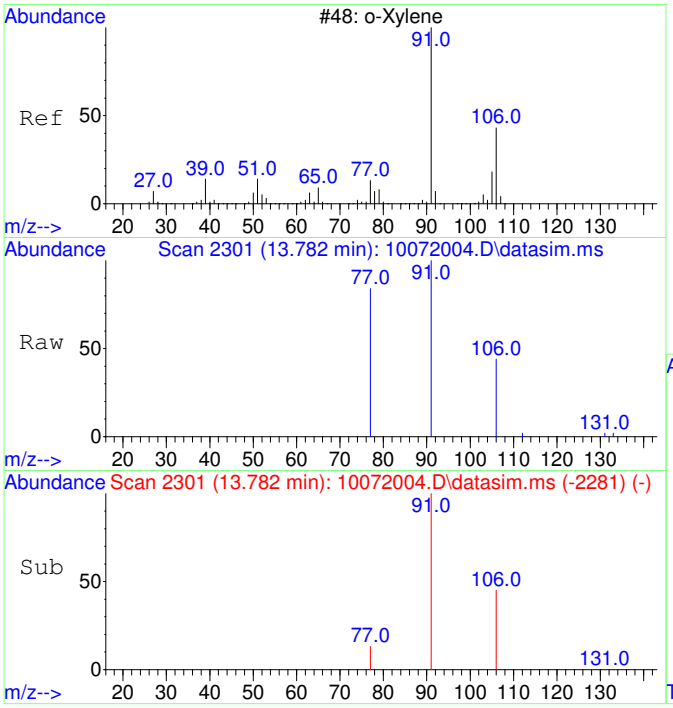



#19
m&p-Xylene
Concen: 105.22 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 12619

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 22.2 | 82.2 |
| 77 | 17.0 | 0.0 | 42.4 |

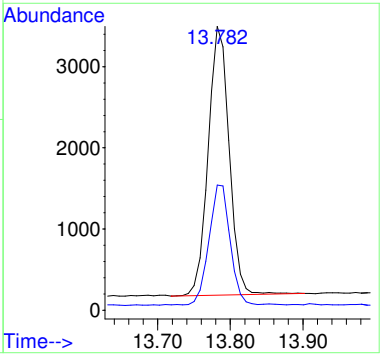


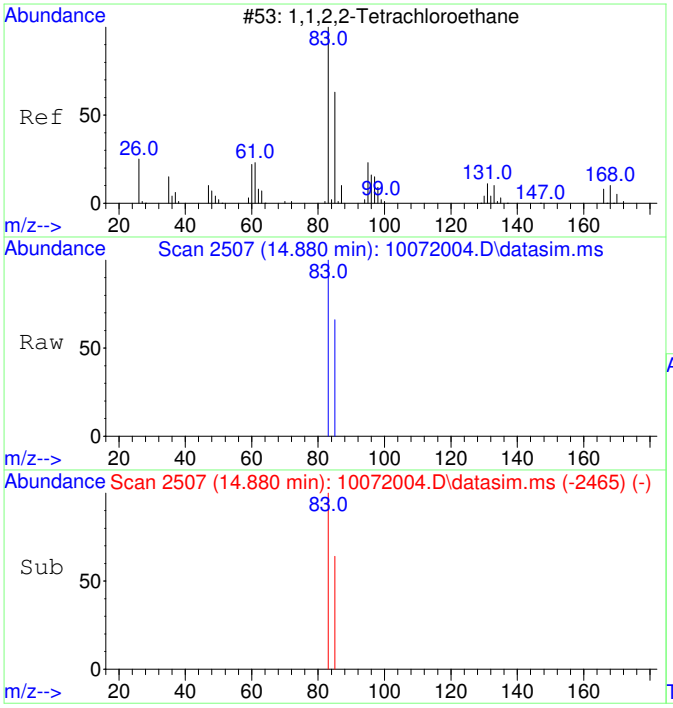




#20
o-Xylene
Concen: 51.99 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.7 | 19.2 | 79.2 |

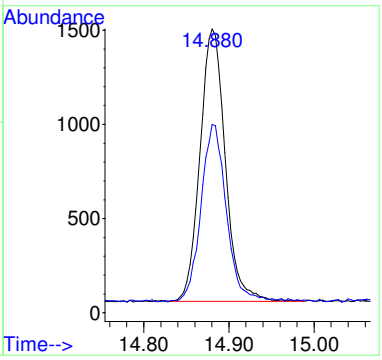


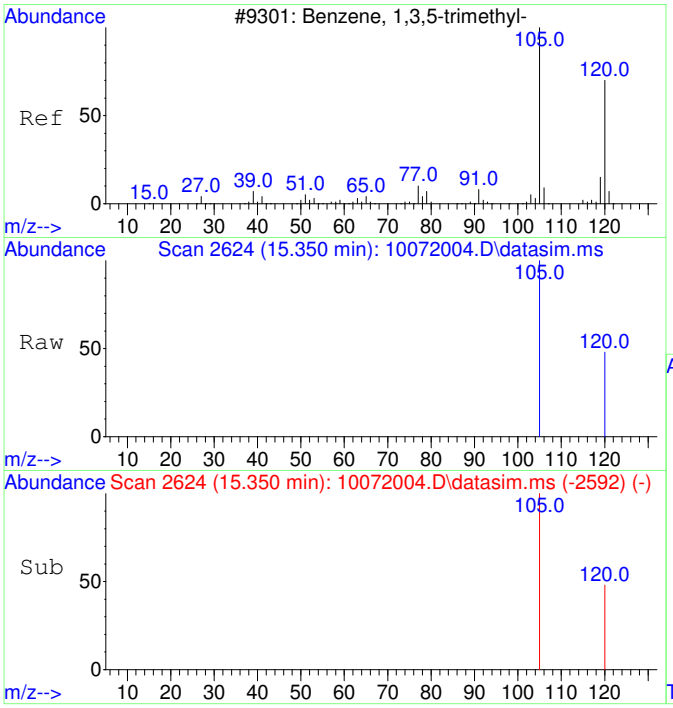



#21
1,1,2,2-Tetrachloroethane
Concen: 52.46 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 2979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.7 | 34.8 | 94.8 |

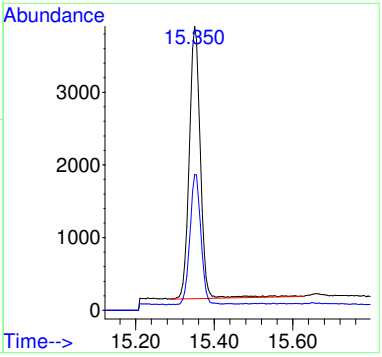


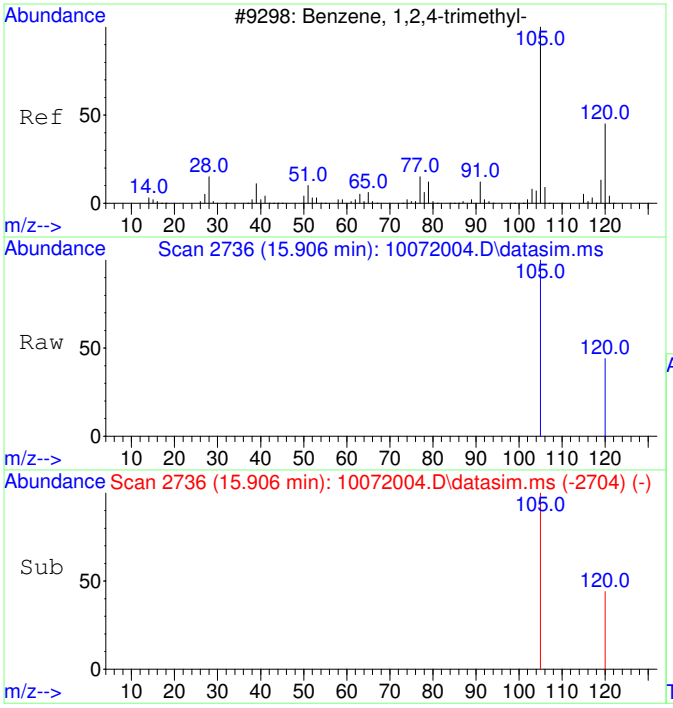




#22
1,3,5-Trimethylbenzene
Concen: 54.22 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.7 | 21.1 | 81.1 |

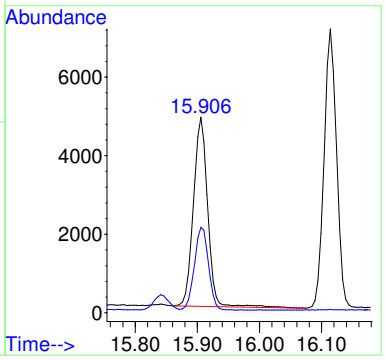


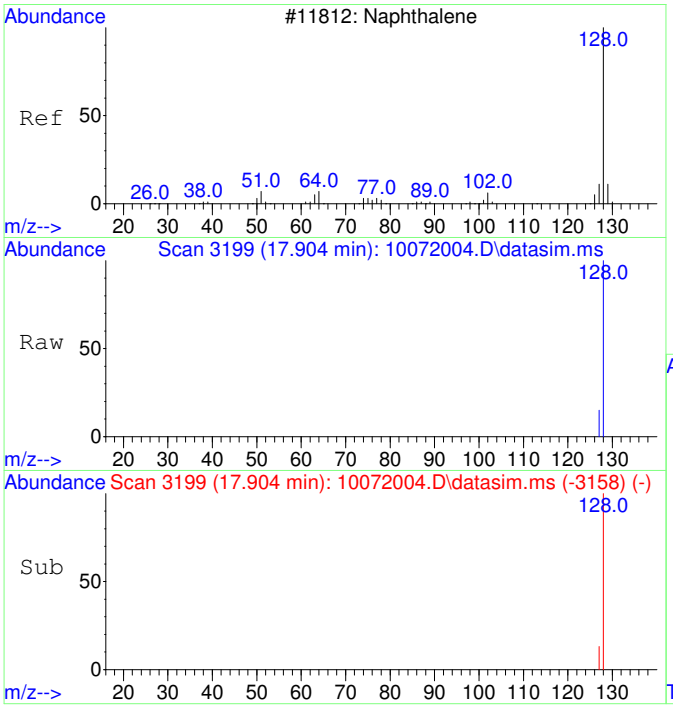



#23
1,2,4-Trimethylbenzene
Concen: 54.30 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.7 | 17.2 | 77.2 |

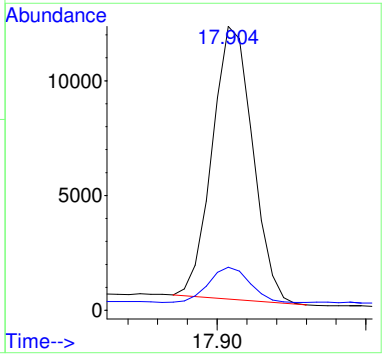


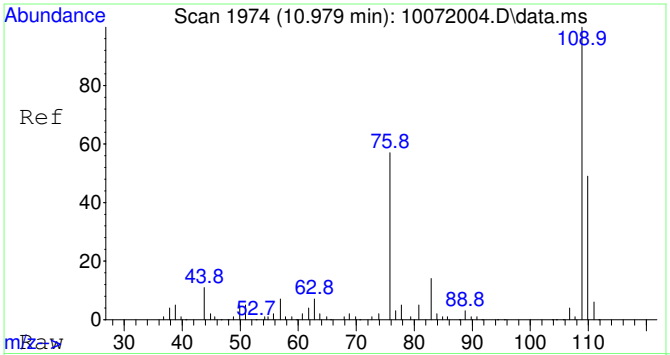




#24
Naphthalene
Concen: 49.96 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 11186

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 42.5 |

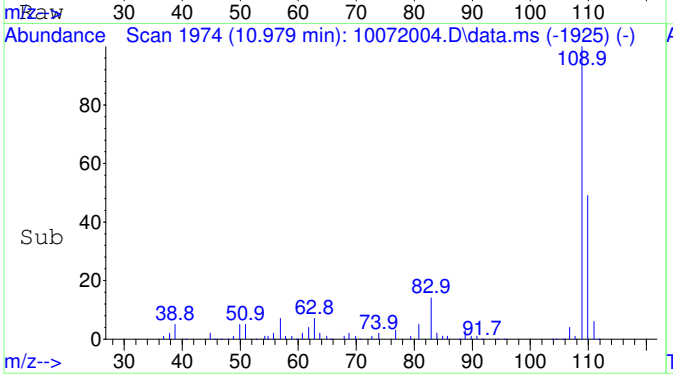


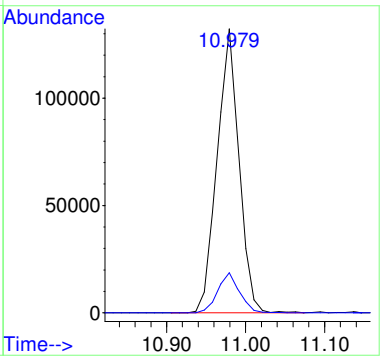


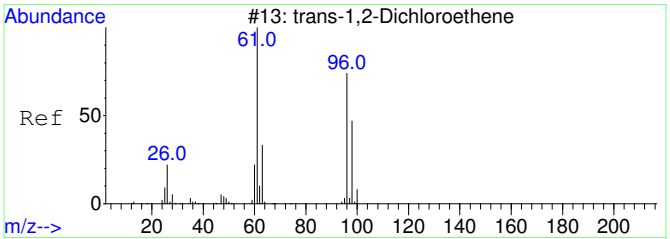

#25
2-Fluorotoluene SCAN
Concen: 5163.42 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

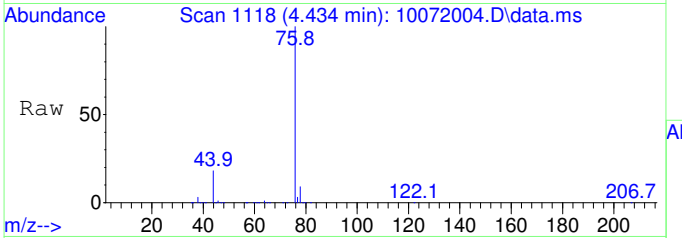
Tgt Ion:109 Resp: 254255

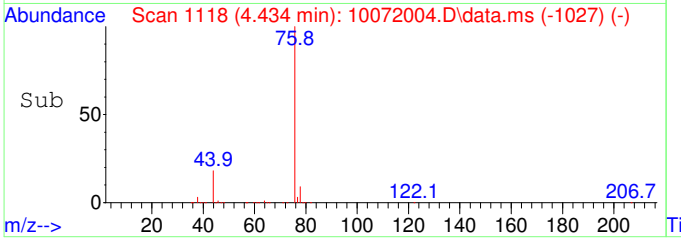
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.0 | 0.0 | 43.8 |



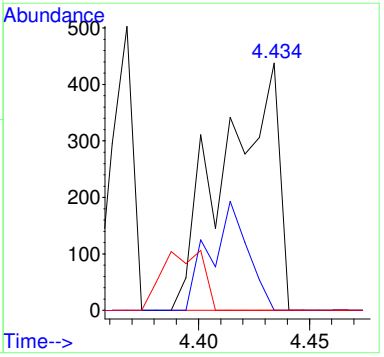



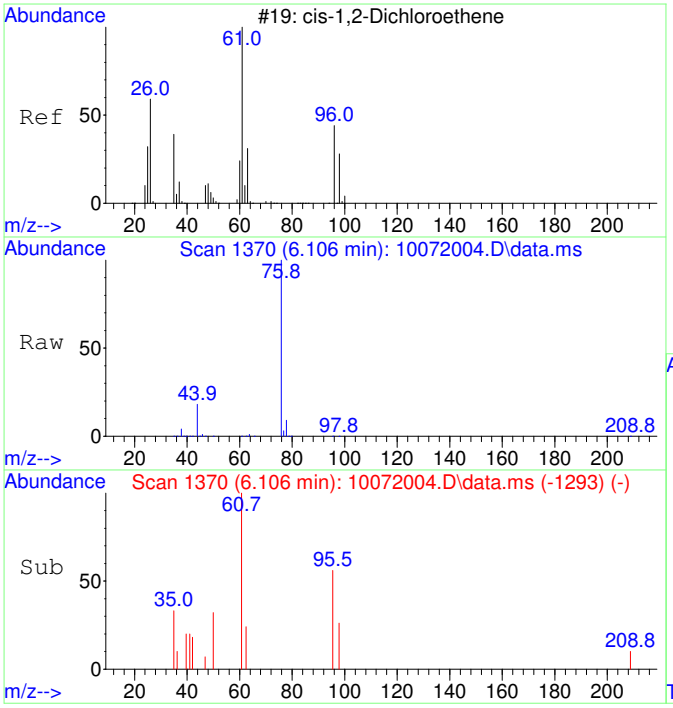




#27
trans-1,2-Dichloroethene SCAN
Concen: 57.73 ug/L
RT: 4.434 min Scan# 1118
Delta R.T. 0.033 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 0.0 | 20.5 | 80.5# |

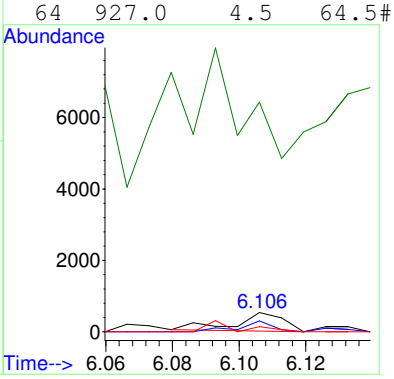


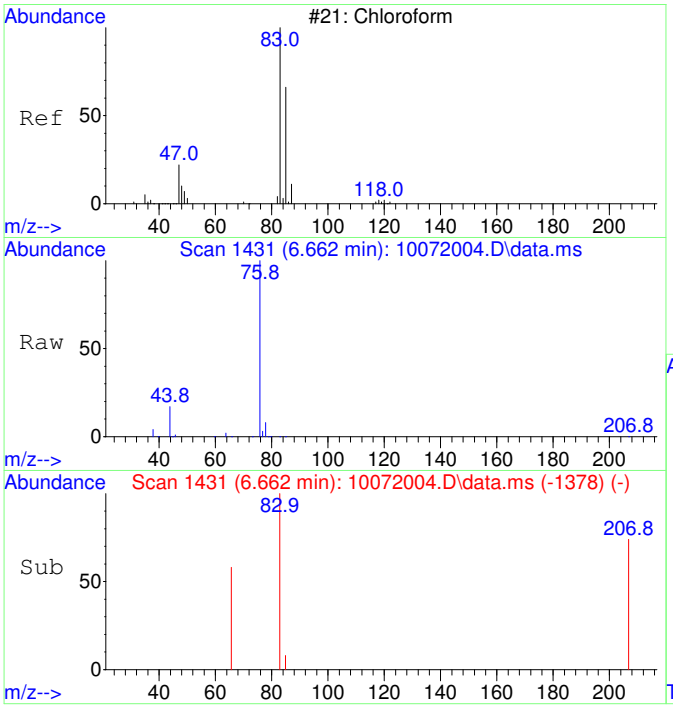



#29
cis-1,2-Dichloroethene SCAN
Concen: 32.35 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 41.4 | 39.9 | 99.9 |
| 98 | 39.7 | 13.5 | 73.5 |
| 64 | 927.0 | 4.5 | 64.5# |

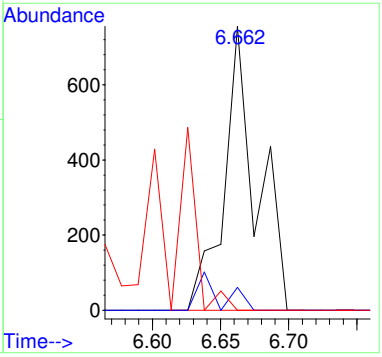


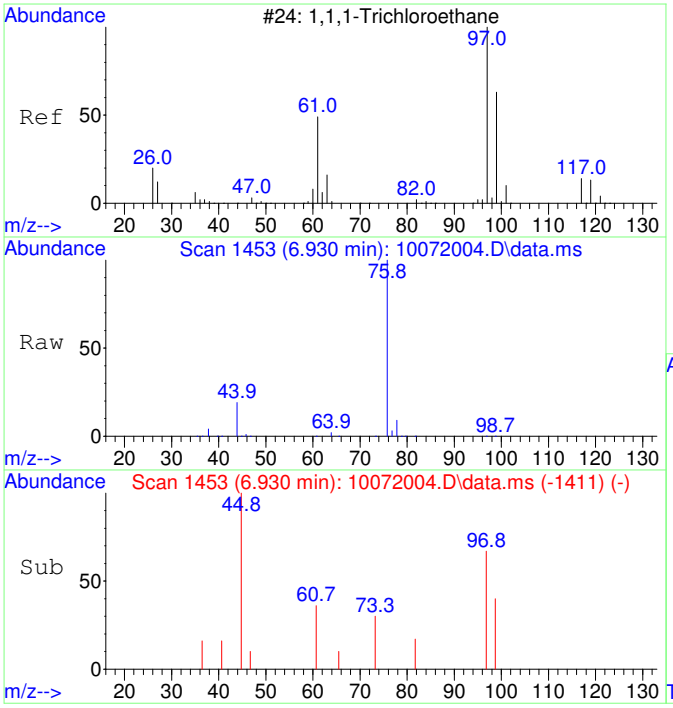




#30
Chloroform SCAN
Concen: 72.17 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1256

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

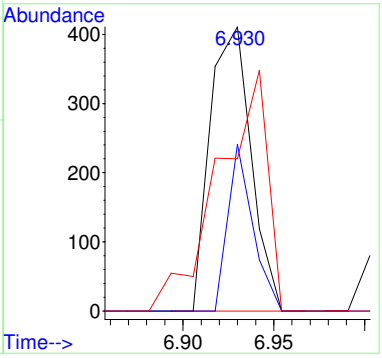


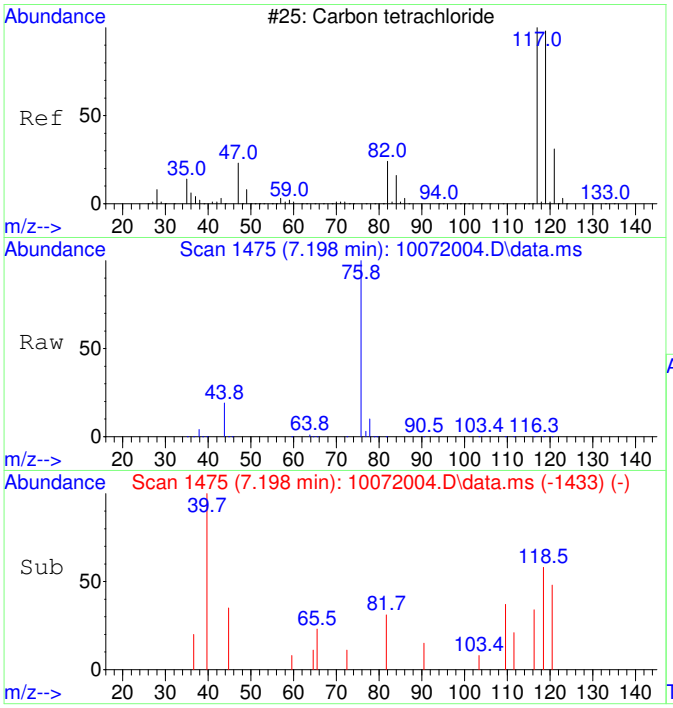



#31
1,1,1-Trichloroethane SCAN
Concen: 40.67 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 35.7 | 43.6 | 103.6# |
| 61 | 101.2 | 18.0 | 78.0# |

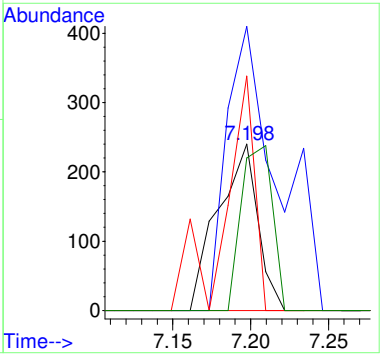


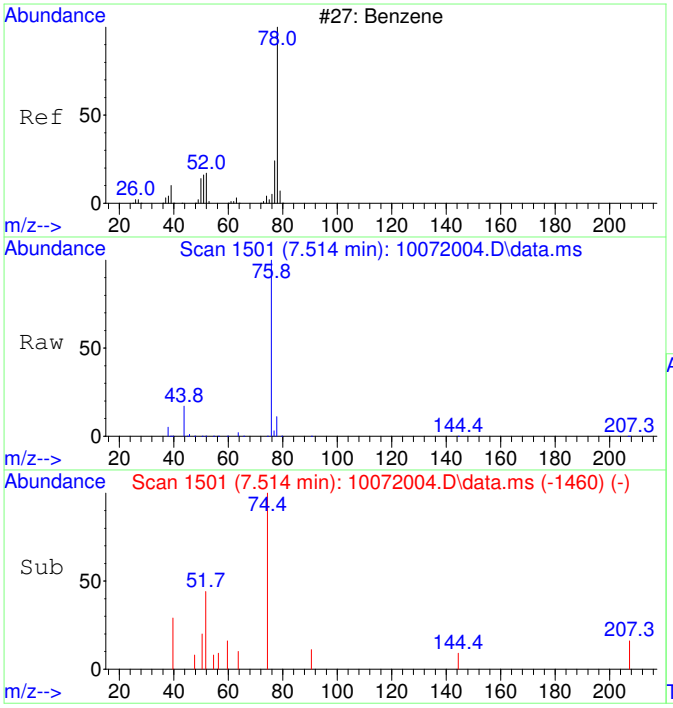




#32
Carbon tetrachloride SCAN
Concen: 26.05 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 219.3 | 75.5 | 135.5# |
| 121 | 105.3 | 0.0 | 58.8# |
| 82 | 77.5 | 0.0 | 59.2# |

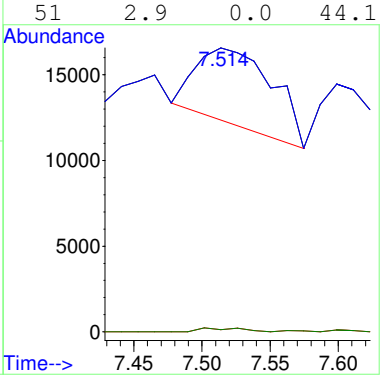


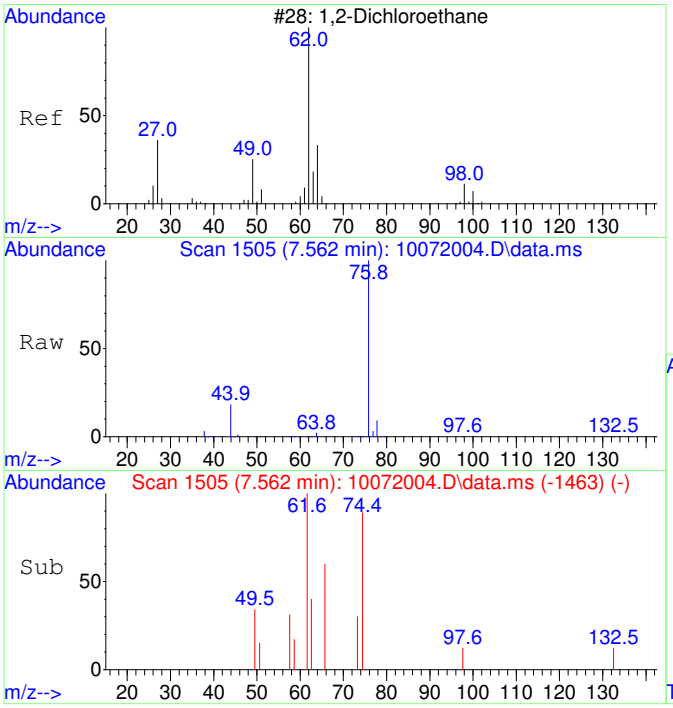



#33
Benzene SCAN
Concen: 379.26 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 16561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 2.9 | 0.0 | 47.9 |
| 51 | 2.9 | 0.0 | 44.1 |

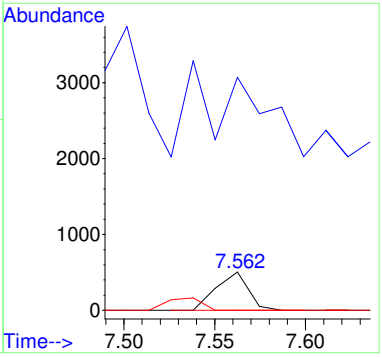


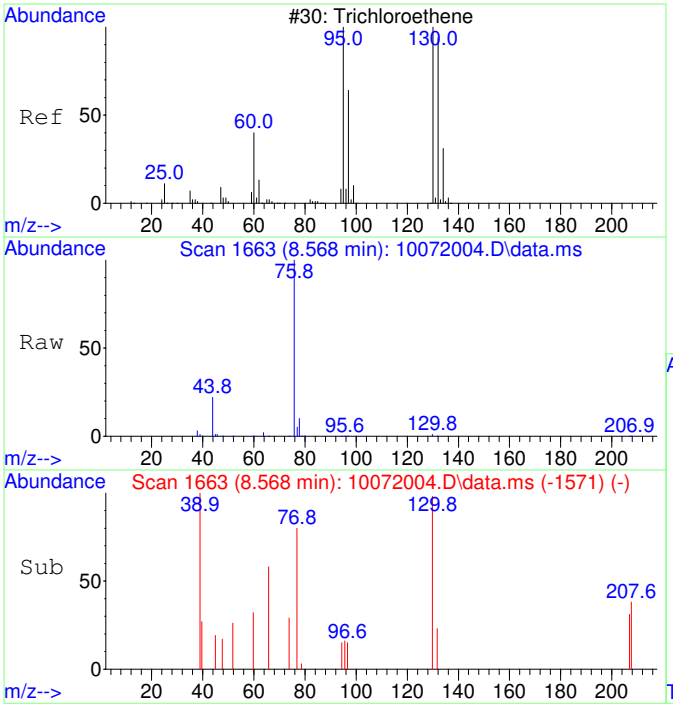




#34
1,2-Dichloroethane SCAN
Concen: 38.27 ug/L
RT: 7.562 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

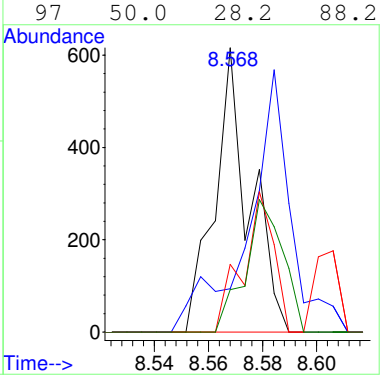


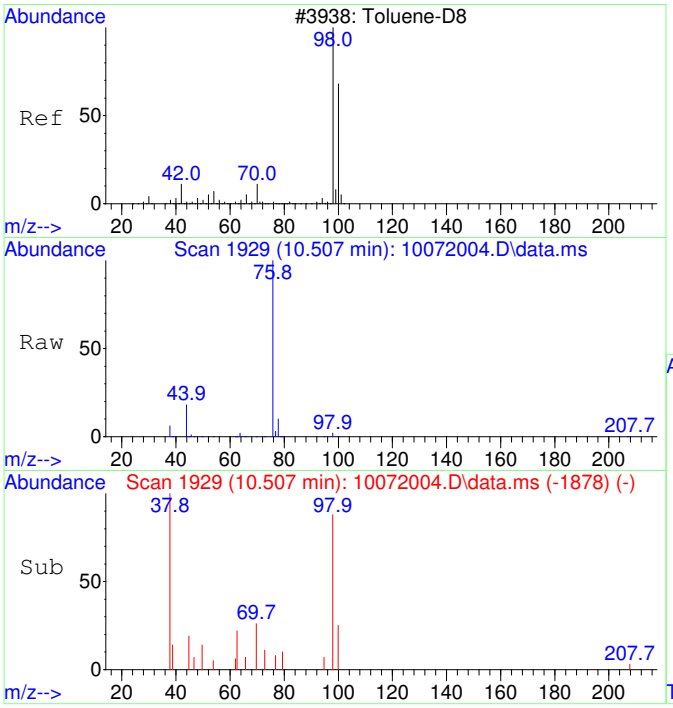



#35
Trichloroethene SCAN
Concen: 46.00 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.6 | 60.5 | 120.5 |
| 132 | 43.8 | 59.6 | 119.6# |
| 97 | 50.0 | 28.2 | 88.2 |

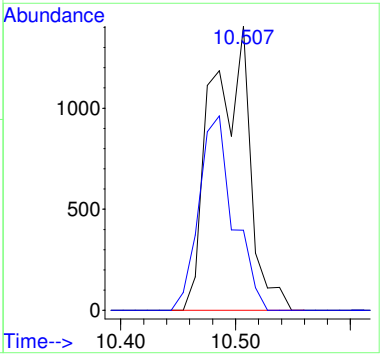


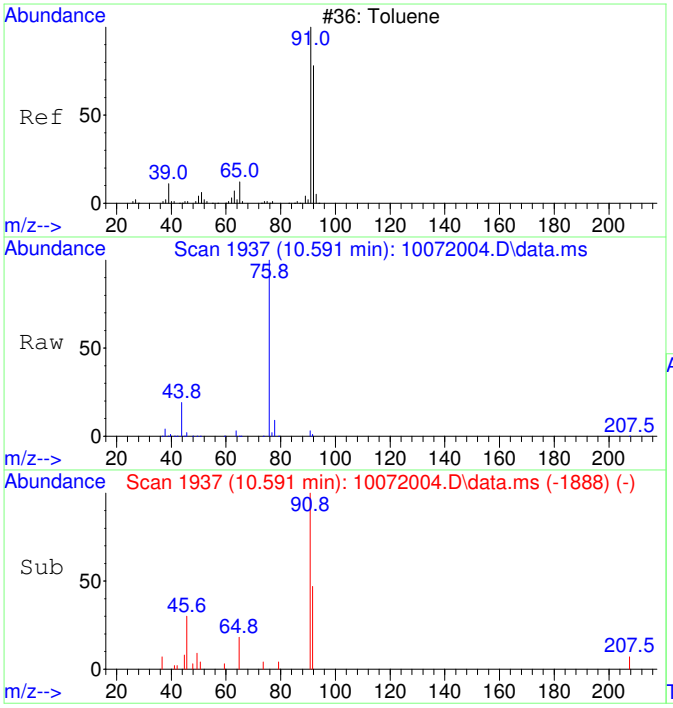




#36
Toluene-d8 SCAN
Concen: 68.51 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 3299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 0.0 | 40.0 | 100.0# |

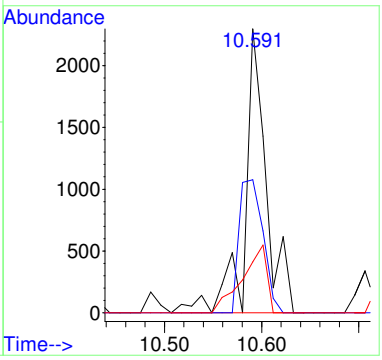


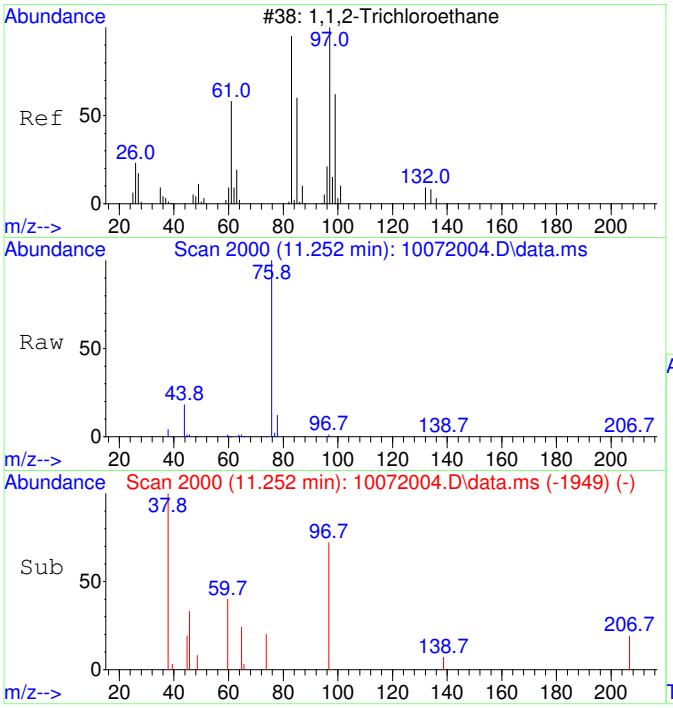



#37
Toluene SCAN
Concen: 56.43 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 3480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.7 | 28.3 | 88.3 |
| 65 | 27.5 | 0.0 | 41.0 |

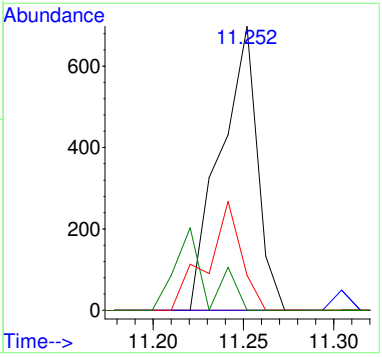


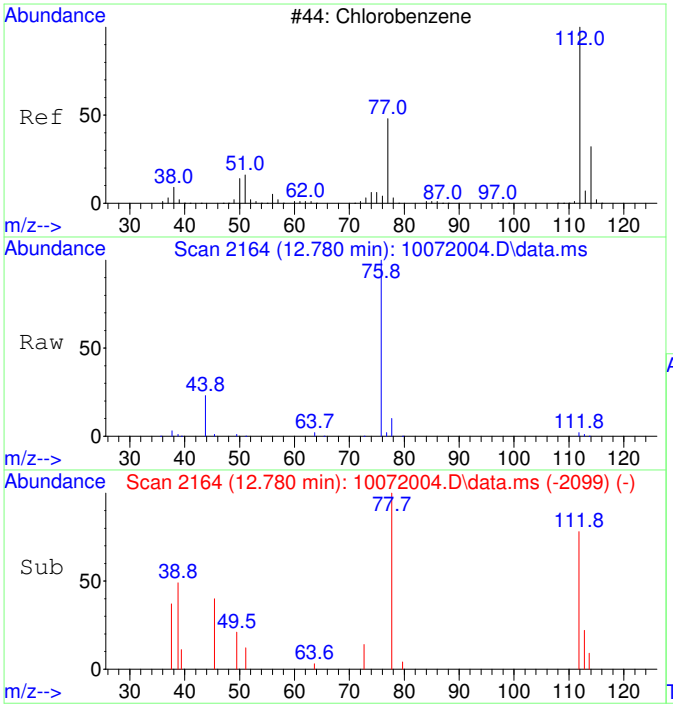




#38
1,1,2-Trichloroethane SCAN
Concen: 72.24 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 35.1 | 32.1 | 92.1 |
| 99 | 0.0 | 36.7 | 96.7# |

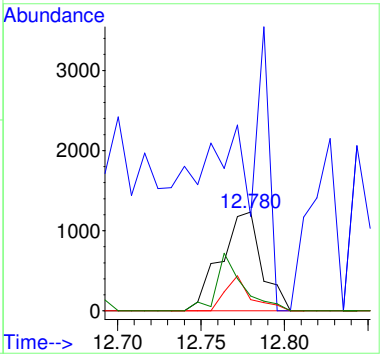


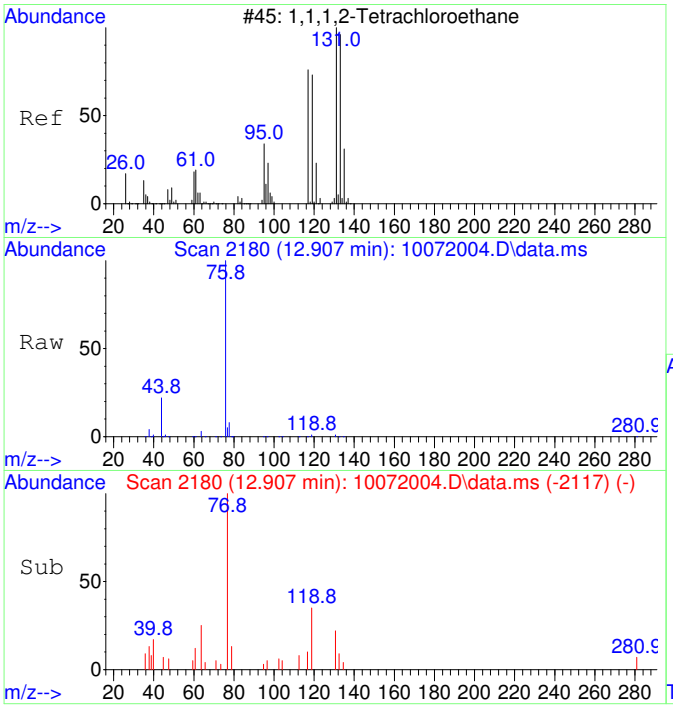



#40
Chlorobenzene SCAN
Concen: 50.02 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 2108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 873.2 | 28.2 | 88.2# |
| 114 | 0.0 | 2.3 | 62.3# |
| 51 | 0.0 | 0.0 | 50.1 |

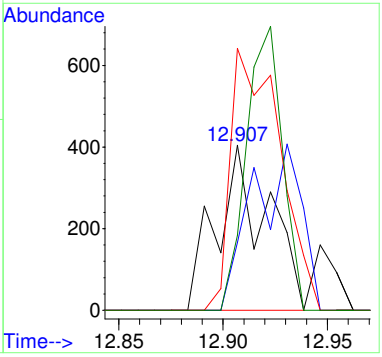


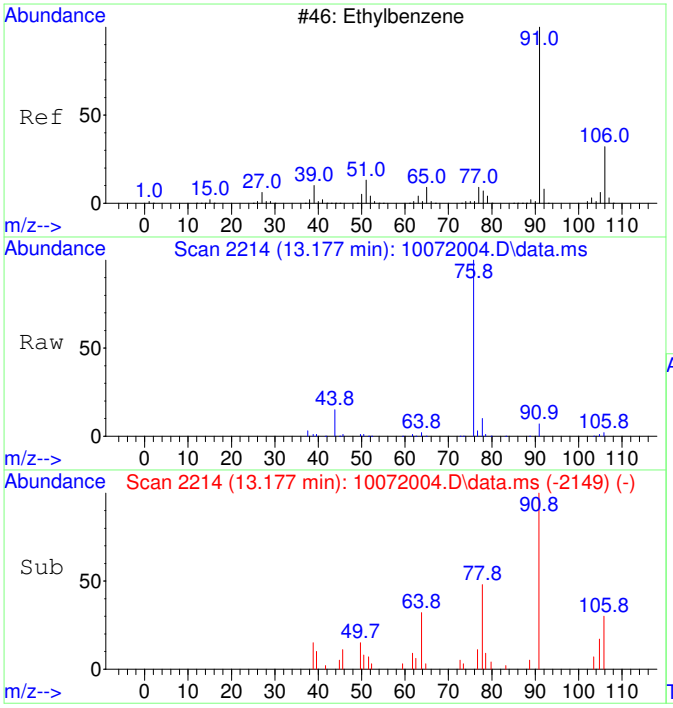




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 43.73 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 155.6 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

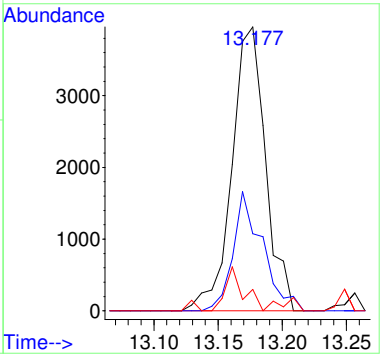


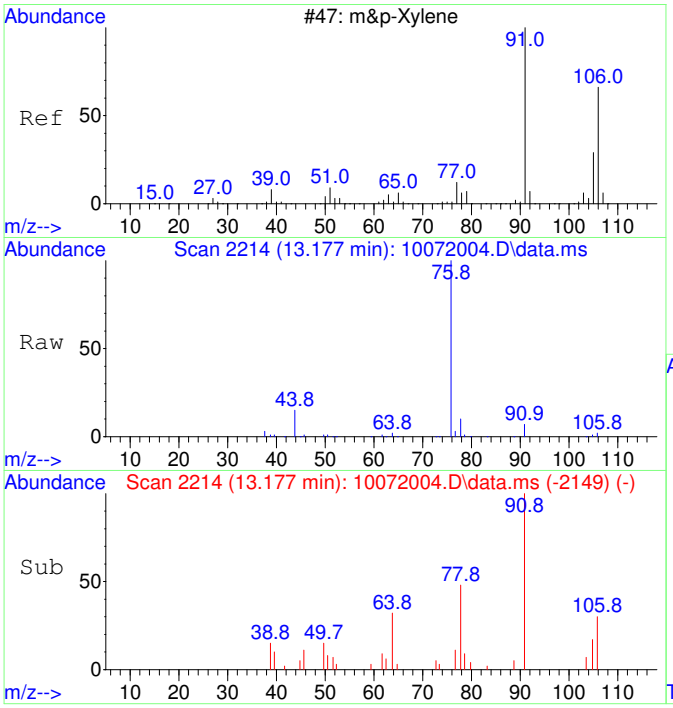



#42
Ethylbenzene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 51 | 10.7 | 0.0 | 40.1 |

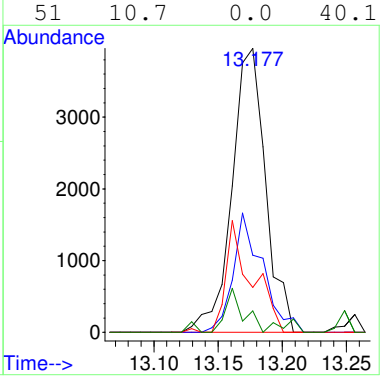


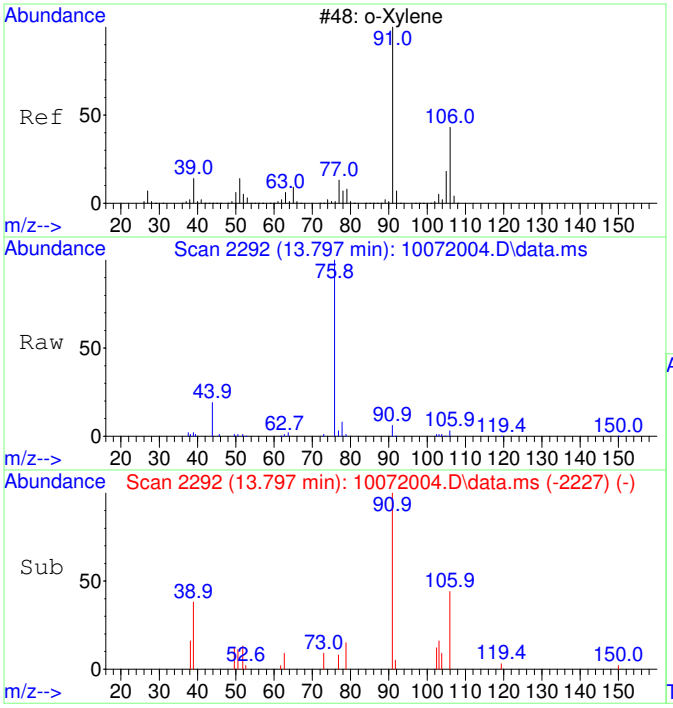




#43
m&p-Xylene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 105 | 30.4 | 0.0 | 54.7 |
| 51 | 10.7 | 0.0 | 40.1 |

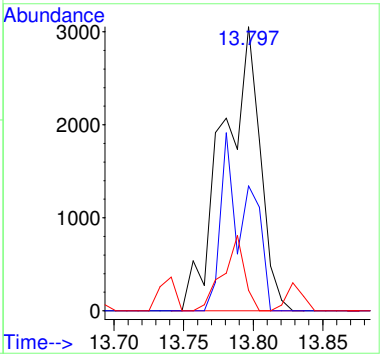


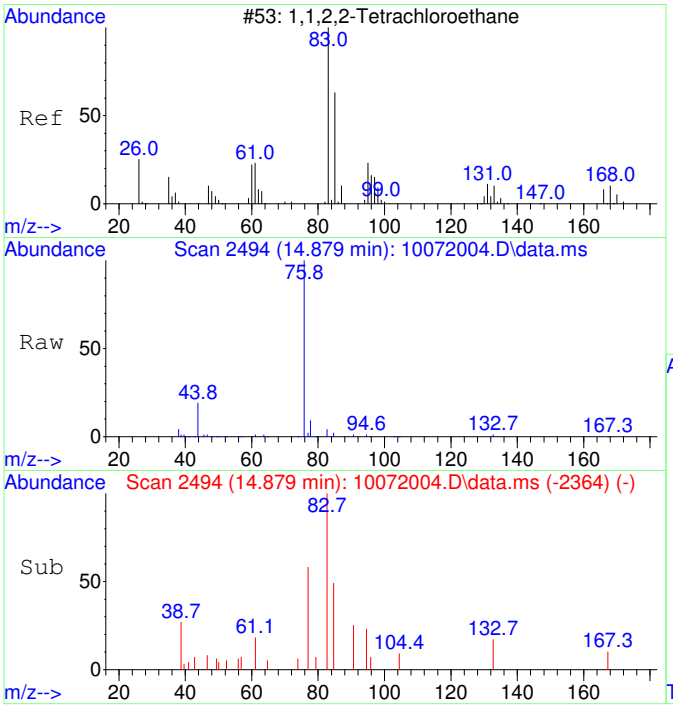



#44
o-Xylene SCAN
Concen: 95.24 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 5728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.0 | 18.0 | 78.0 |
| 105 | 15.3 | 0.0 | 56.6 |

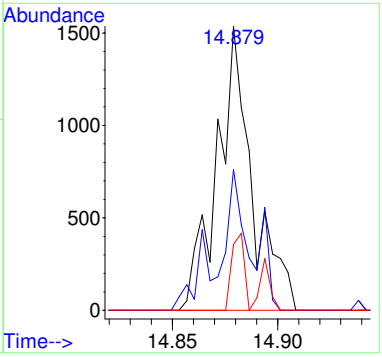


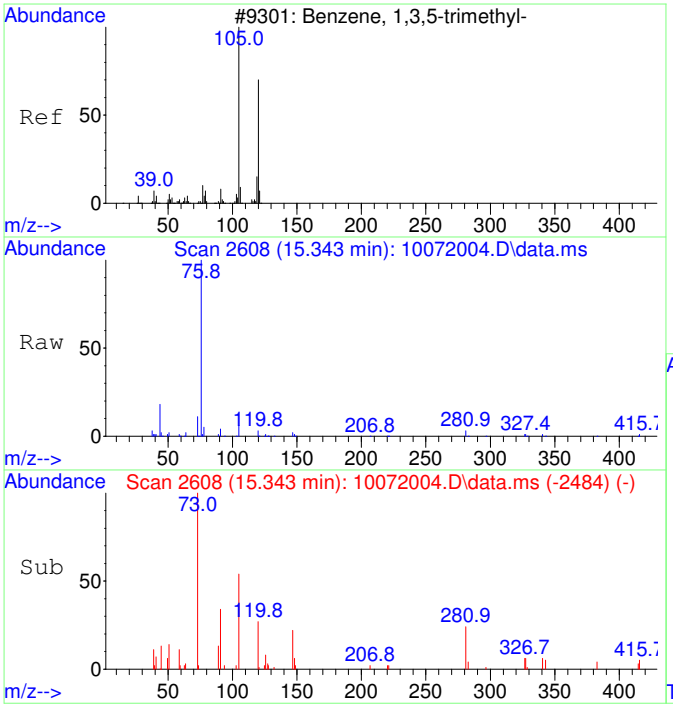




#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 60.94 ug/L
RT: 14.879 min Scan# 2494
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 26.2 | 35.9 | 95.9# |
| 95 | 8.8 | 0.0 | 47.4 |

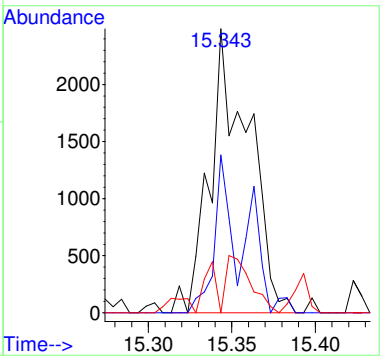


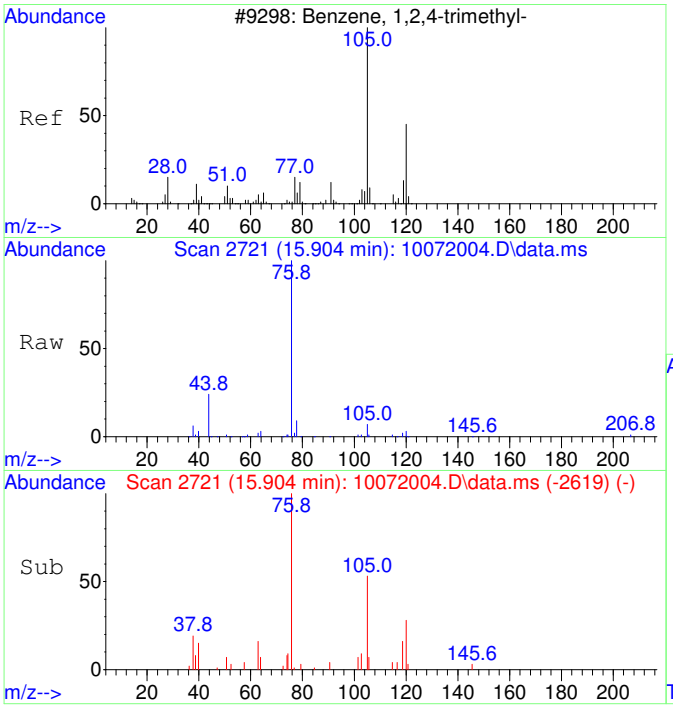



#46
1,3,5-Trimethylbenzene SCAN
Concen: 63.91 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 4051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 17.4 | 18.3 | 78.3# |
| 119 | 12.6 | 0.0 | 43.1 |

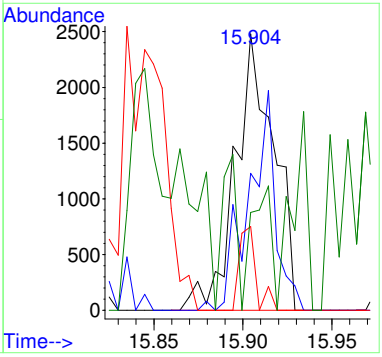


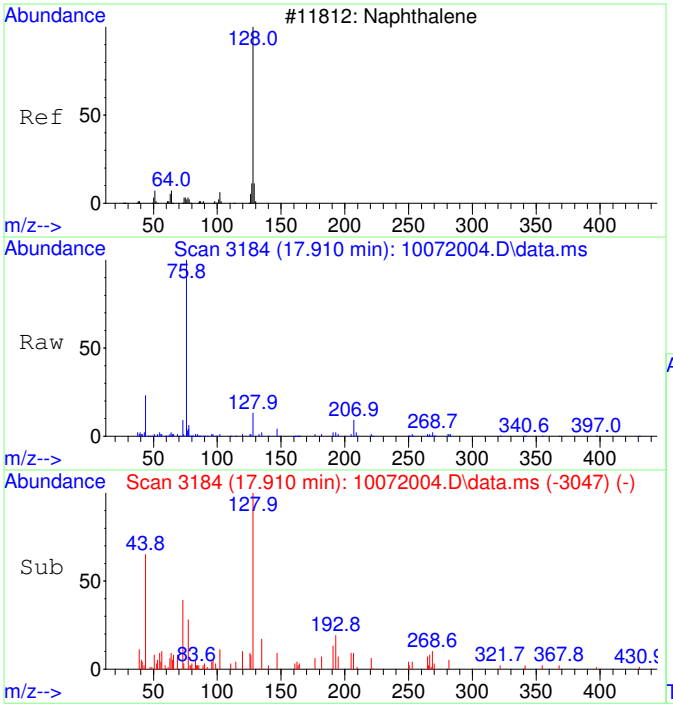




#47
1,2,4-Trimethylbenzene SCAN
Concen: 57.44 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 3725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 55.4 | 16.9 | 76.9 |
| 119 | 13.3 | 0.0 | 41.9 |
| 77 | 23.1 | 0.0 | 42.3 |

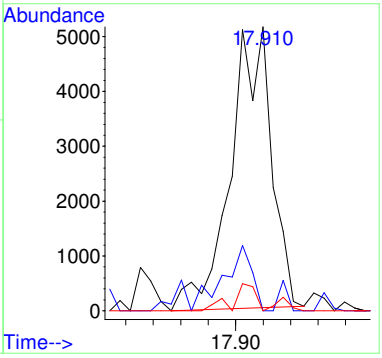





#48
Naphthalene SCAN
Concen: 53.82 ug/L
RT: 17.910 min Scan# 3184
Delta R.T. 0.009 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 5282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 2.3 | 0.0 | 44.0 |
| 129 | 0.0 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

Table of Contents

M.I. Performed By:

TD at 10:50 am, Oct 07, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

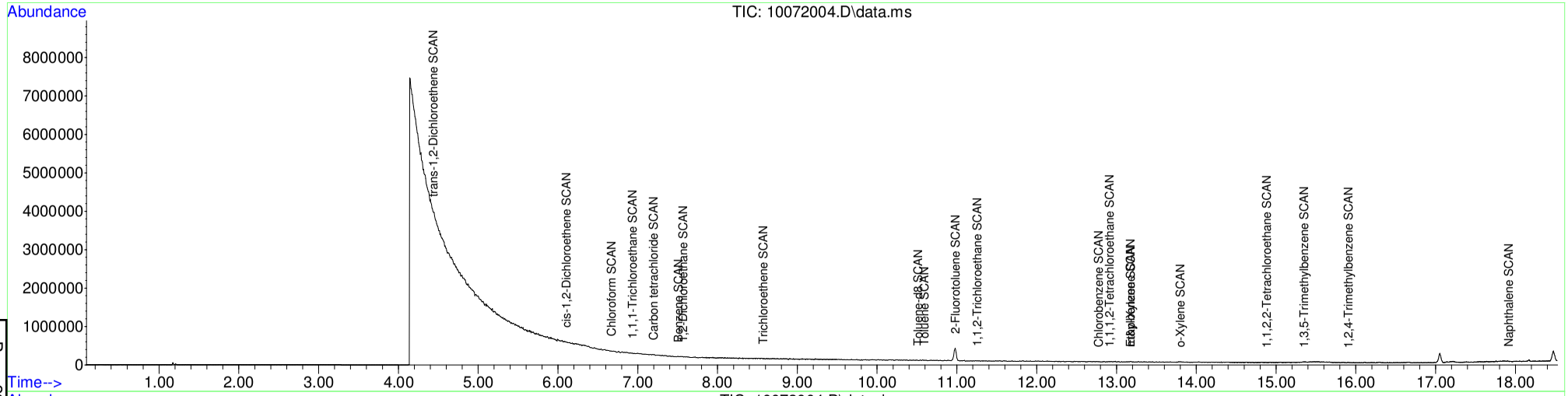
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 505137 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4927 | 49.83 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 1.00%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 1026m | 50.87 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 1208 | 51.83 | ug/L | 83 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 1545 | 53.26 | ug/L | 64 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 1570 | 51.27 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1504 | 47.99 | ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1600 | 47.01 | ug/L | 100 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1477 | 46.10 | ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 4219 | 49.16 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1539 | 50.23 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1245 | 48.18 | ug/L | 91 |
| 13] Toluene | 10.582 | 91 | 6458 | 51.23 | ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1364 | 49.65 | ug/L | 98 |
| 15] Tetrachloroethene | 11.442 | 166 | 1769 | 48.49 | ug/L | 99 |
| 16] Chlorobenzene | 12.773 | 112 | 4709 | 52.17 | ug/L | 81 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1597 | 49.37 | ug/L | 97 |
| 18] Ethylbenzene | 12.980 | 91 | 8115 | 52.88 | ug/L | 90 |
| 19] m&p-Xylene | 13.170 | 91 | 12619 | 105.22 | ug/L | 94 |
| 20] o-Xylene | 13.782 | 91 | 6662 | 51.99 | ug/L | 93 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2979 | 52.46 | ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7395 | 54.22 | ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7692 | 54.30 | ug/L | 93 |
| 24] Naphthalene | 17.904 | 128 | 11186 | 49.96 | ug/L | 96 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 254255 | 5163.42 | ug/L | 99 |
| 27) trans-1,2-Dichloroethe... | 4.434 | 61 | 747 | 57.73 | ug/L # | 17 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 519 | 32.35 | ug/L # | 1 |
| 30) Chloroform SCAN | 6.662 | 83 | 1256 | 72.17 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 645 | 40.67 | ug/L # | 42 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 431 | 26.05 | ug/L # | 1 |
| 33) Benzene SCAN | 7.514 | 78 | 16561 | 379.26 | ug/L | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 617 | 38.27 | ug/L # | 40 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 552 | 46.00 | ug/L # | 71 |
| 36) Toluene-d8 SCAN | 10.507 | 98 | 3299 | 68.51 | ug/L # | 15 |
| 37) Toluene SCAN | 10.591 | 91 | 3480 | 56.43 | ug/L | 87 |
| 38) 1,1,2-Trichloroethane ... | 11.252 | 97 | 1000 | 72.24 | ug/L # | 26 |
| 40) Chlorobenzene SCAN | 12.780 | 112 | 2108 | 50.02 | ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 682 | 43.73 | ug/L # | 4 |
| 42) Ethylbenzene SCAN | 13.177 | 91 | 7193 | 64.02 | ug/L | 80 |
| 43) m&p-Xylene SCAN | 13.177 | 91 | 7193 | 64.02 | ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 5728 | 95.24 | ug/L | 88 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.879 | 83 | 1787 | 60.94 | ug/L # | 56 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 4051 | 63.91 | ug/L # | 64 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3725 | 57.44 | ug/L | 86 |
| 48) Naphthalene SCAN | 17.910 | 128 | 5282 | 53.82 | ug/L # | 71 |

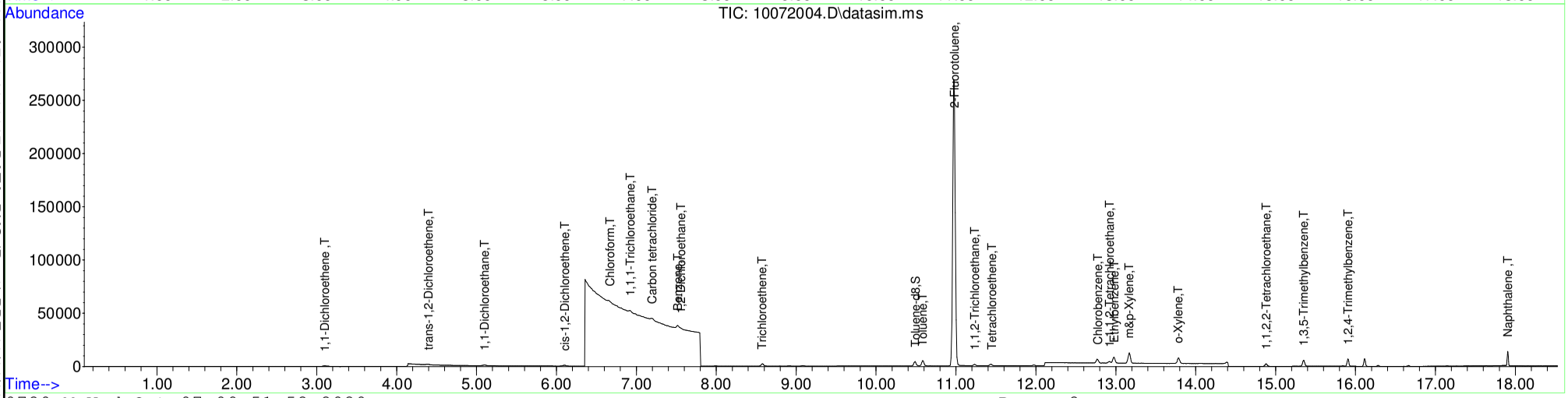
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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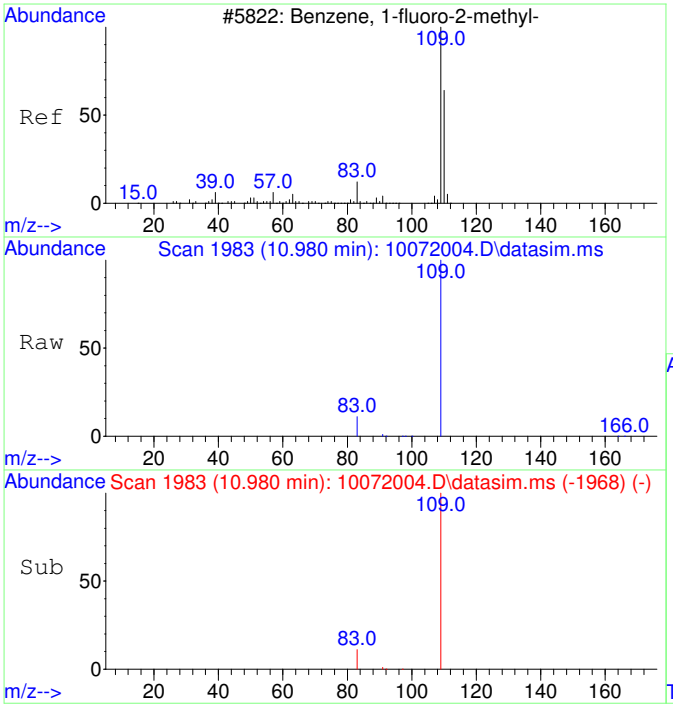
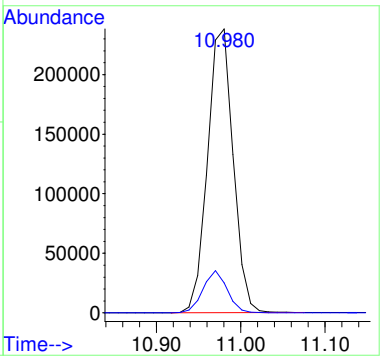
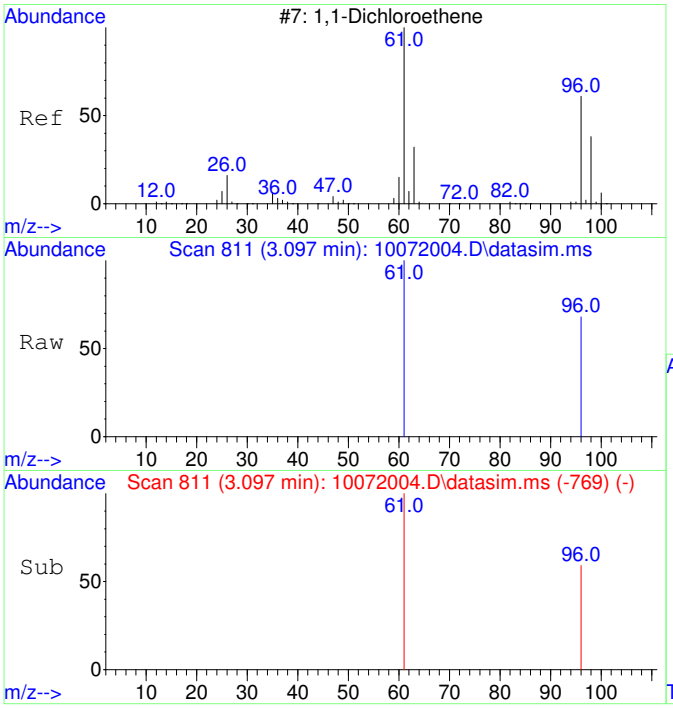



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 505137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

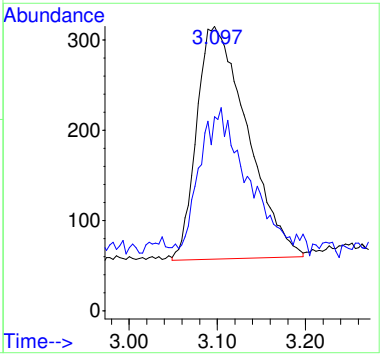


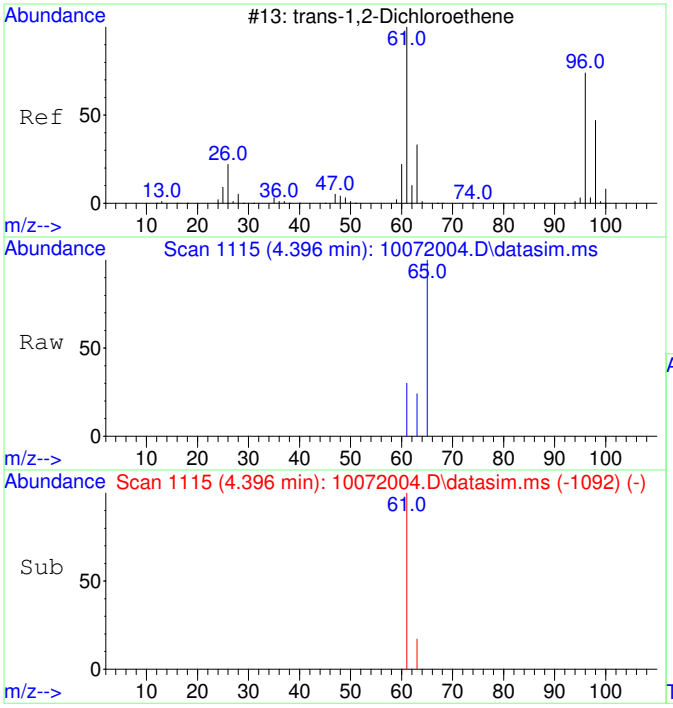




#2
1,1-Dichloroethene
Concen: 50.87 ug/L m
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1026

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 24.1 | 37.2 | 97.2# |

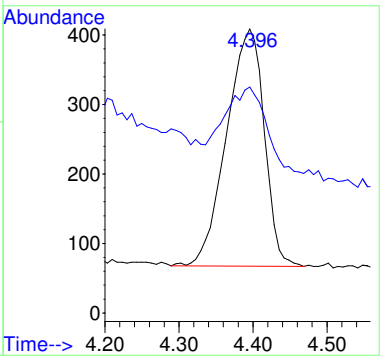


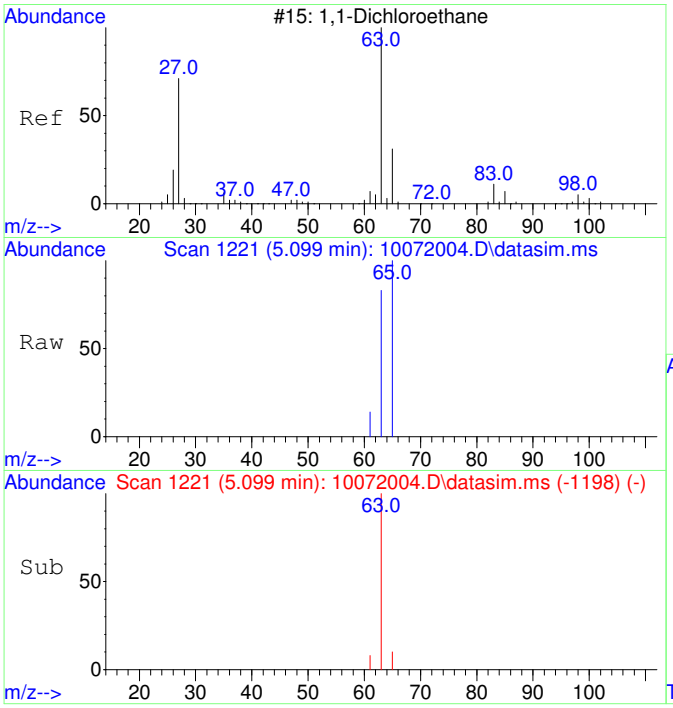



#3
trans-1,2-Dichloroethene
Concen: 51.83 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 41.8 | 2.4 | 62.4 |

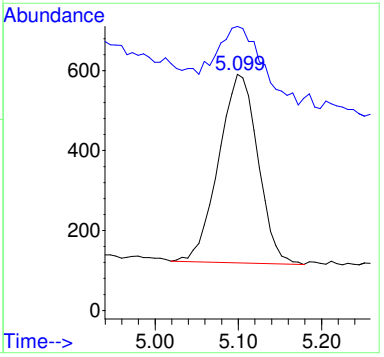


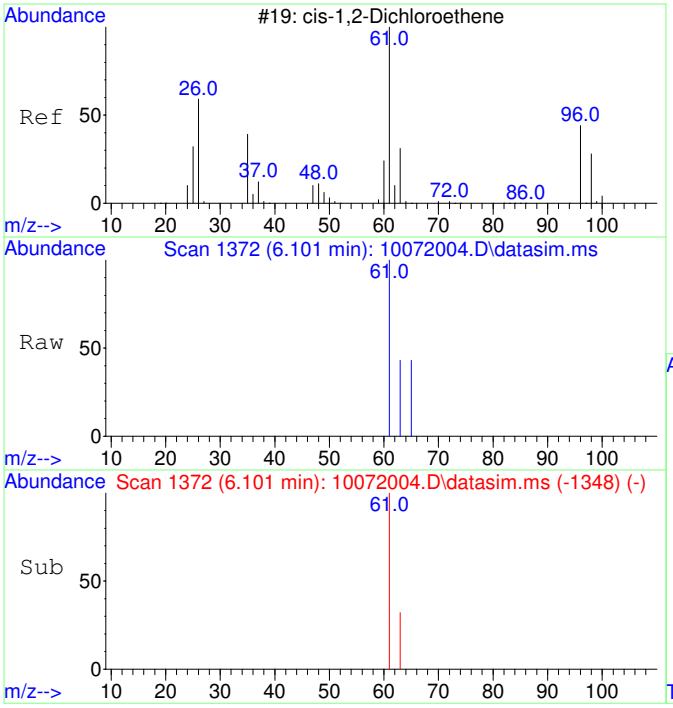




#4
1,1-Dichloroethane
Concen: 53.26 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 63 Resp: 1545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 52.0 | 1.8 | 61.8 |

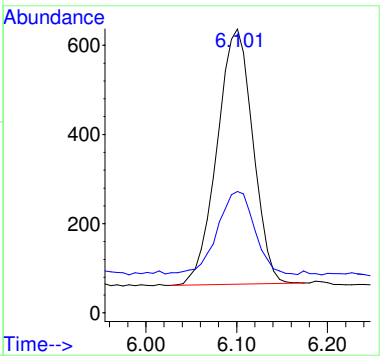


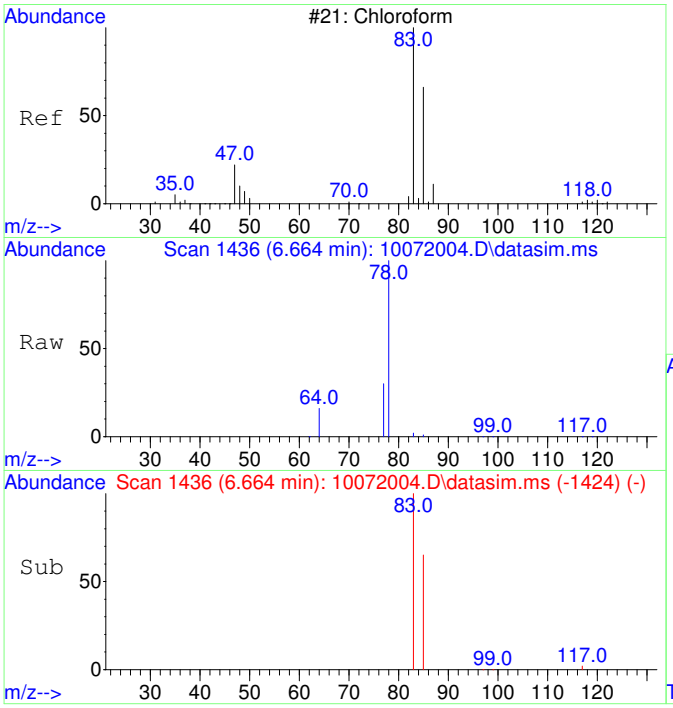



#5
cis-1,2-Dichloroethene
Concen: 51.27 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.7 | 2.5 | 62.5 |

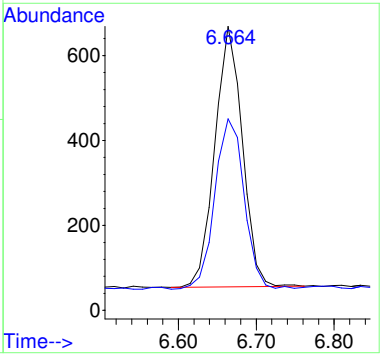


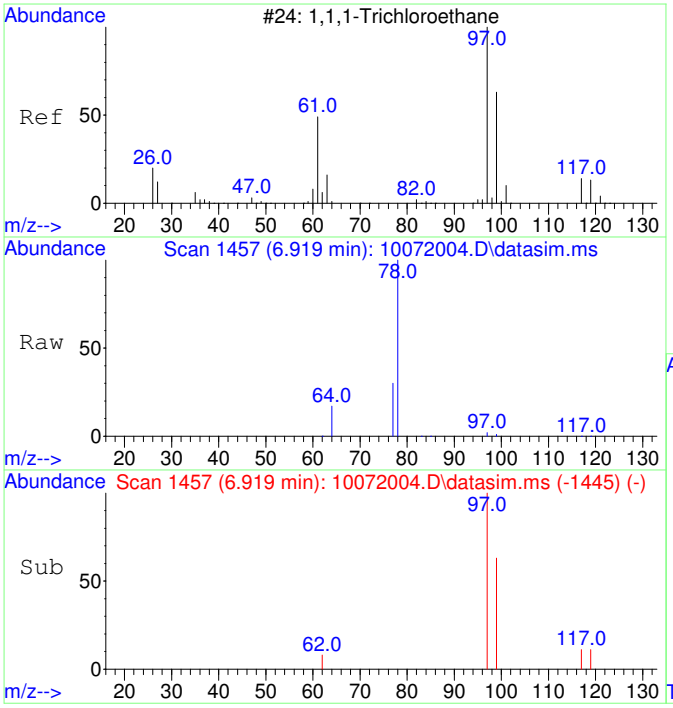




#6
Chloroform
Concen: 47.99 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1504

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.2 | 35.1 | 95.1 |

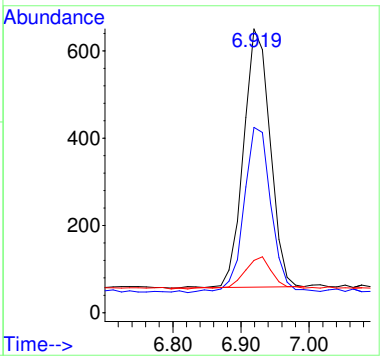


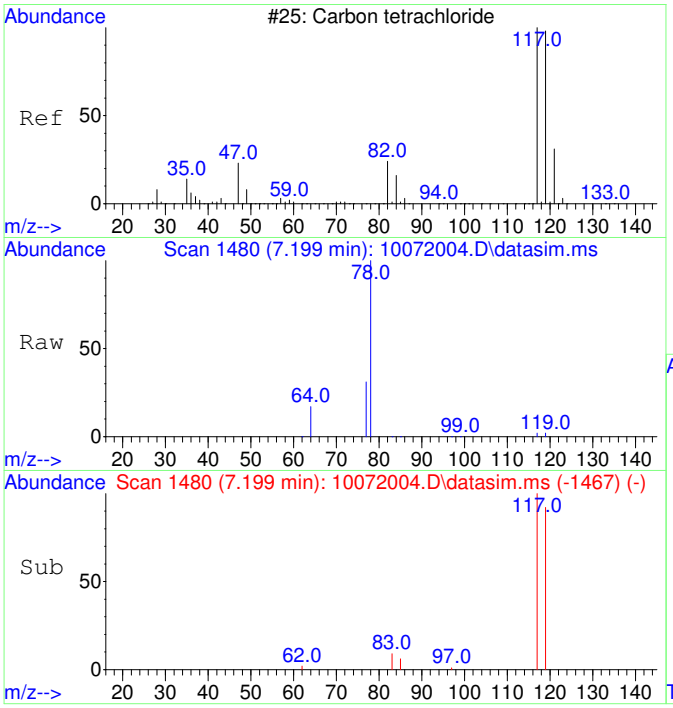



#7
1,1,1-Trichloroethane
Concen: 47.01 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.3 | 0.0 | 43.2 |

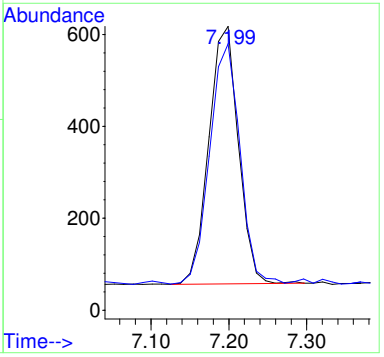


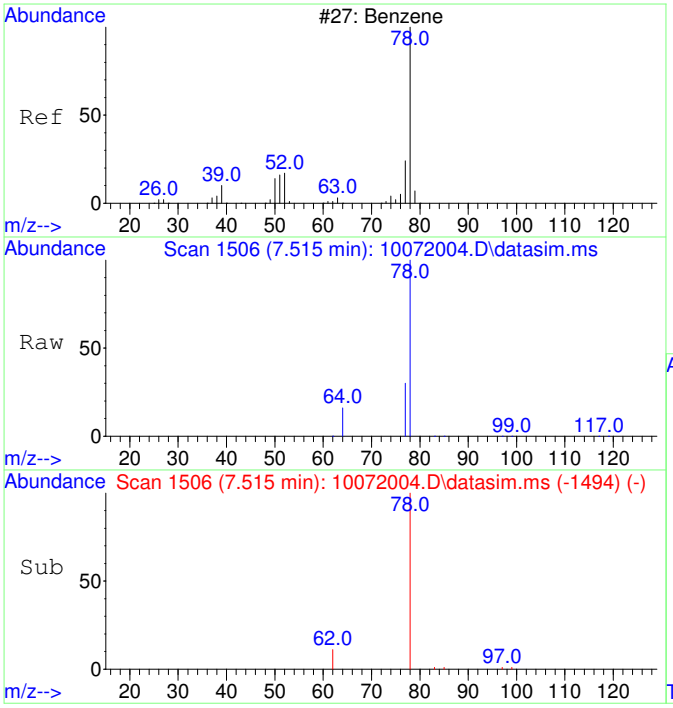




#8
Carbon tetrachloride
Concen: 46.10 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 1477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

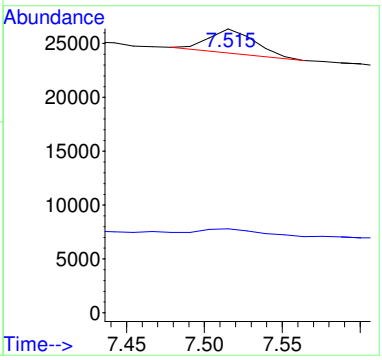


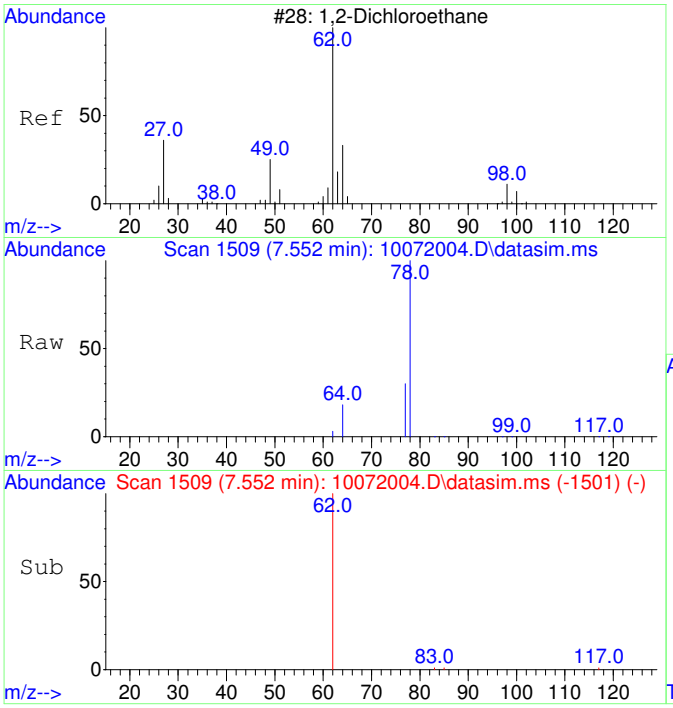



#9
Benzene
Concen: 49.16 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 4219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 84.0 | 0.0 | 53.2# |

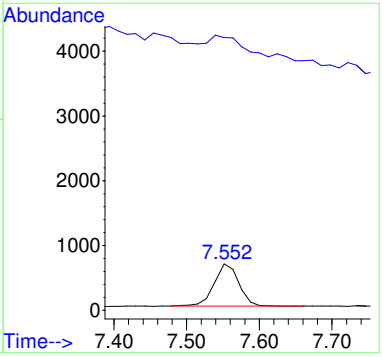


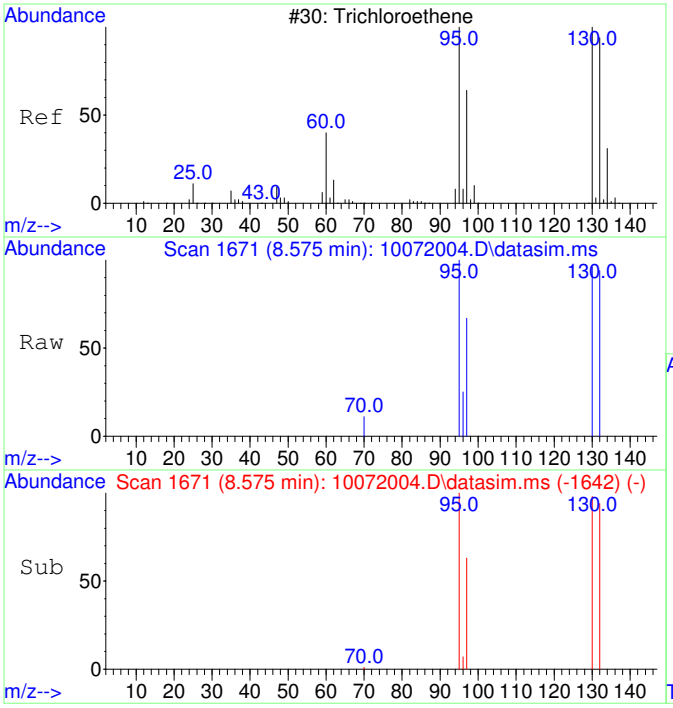




#10
1,2-Dichloroethane
Concen: 50.23 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 1539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 99.5 | 2.3 | 62.3# |

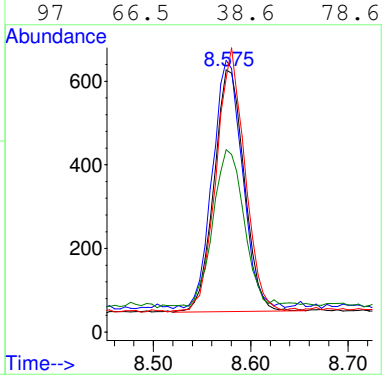


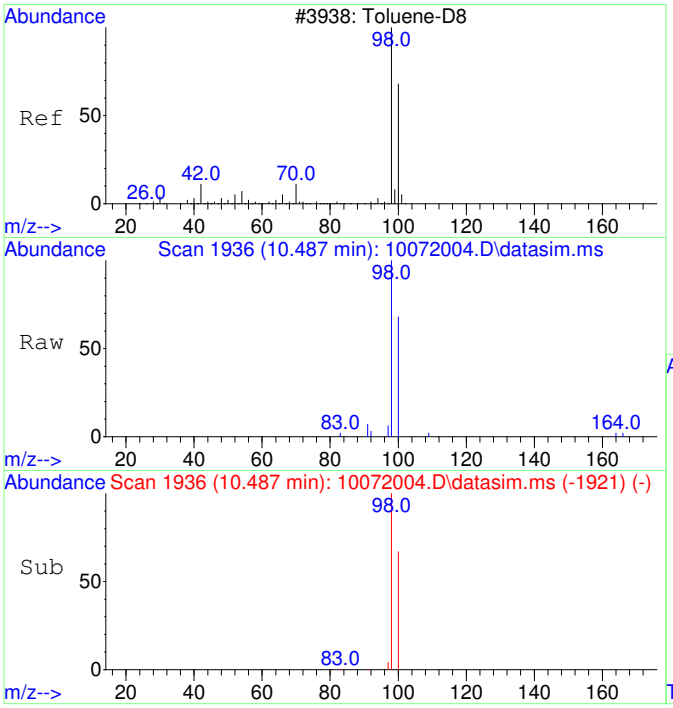



#11
Trichloroethene
Concen: 48.18 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 1245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.2 | 60.7 | 120.7 |
| 132 | 102.7 | 76.0 | 116.0 |
| 97 | 66.5 | 38.6 | 78.6 |

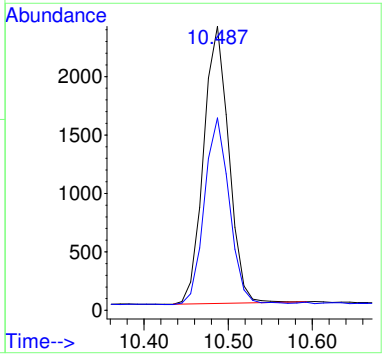


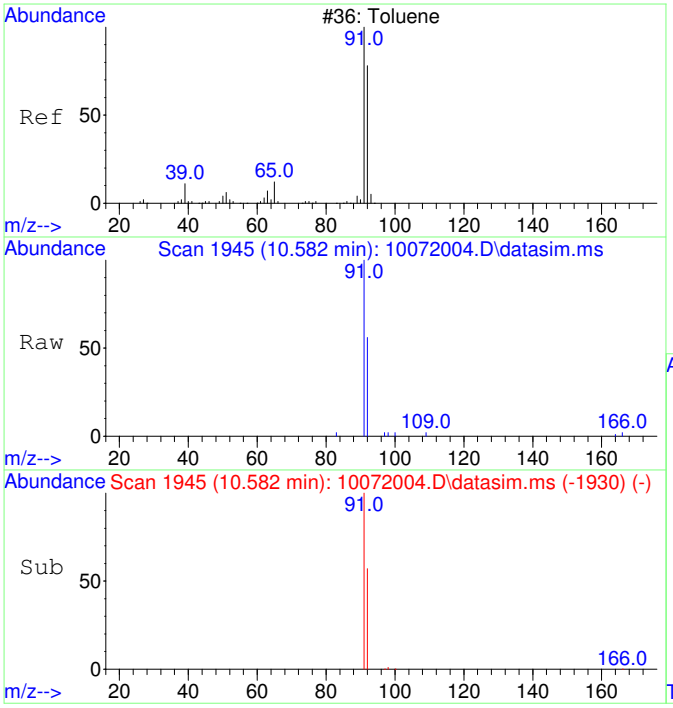




#12
Toluene-d8
Concen: 49.83 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 4927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.2 | 37.1 | 97.1 |

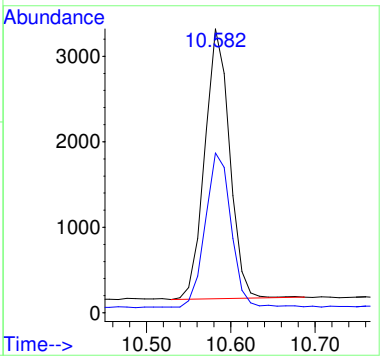


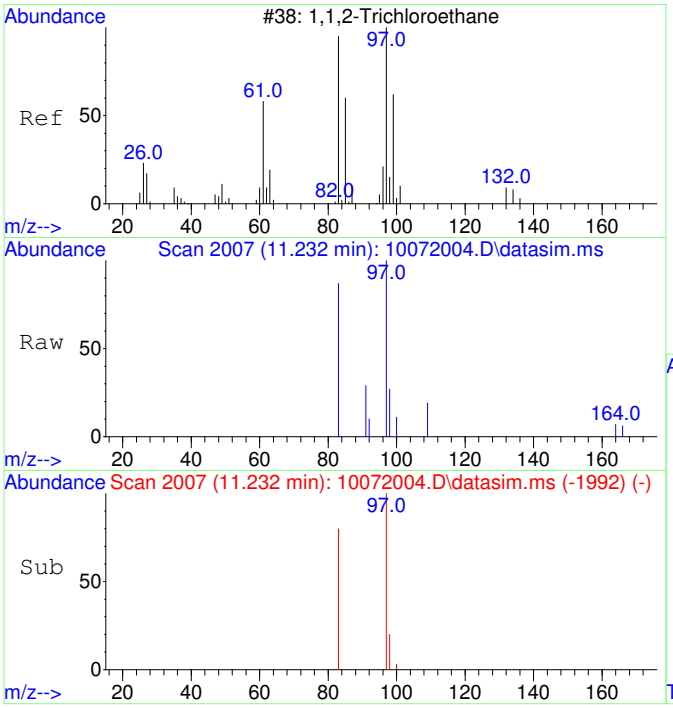



#13
Toluene
Concen: 51.23 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.4 | 29.9 | 89.9 |

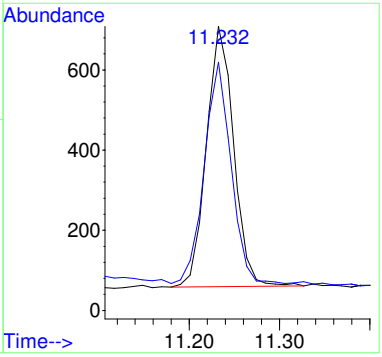


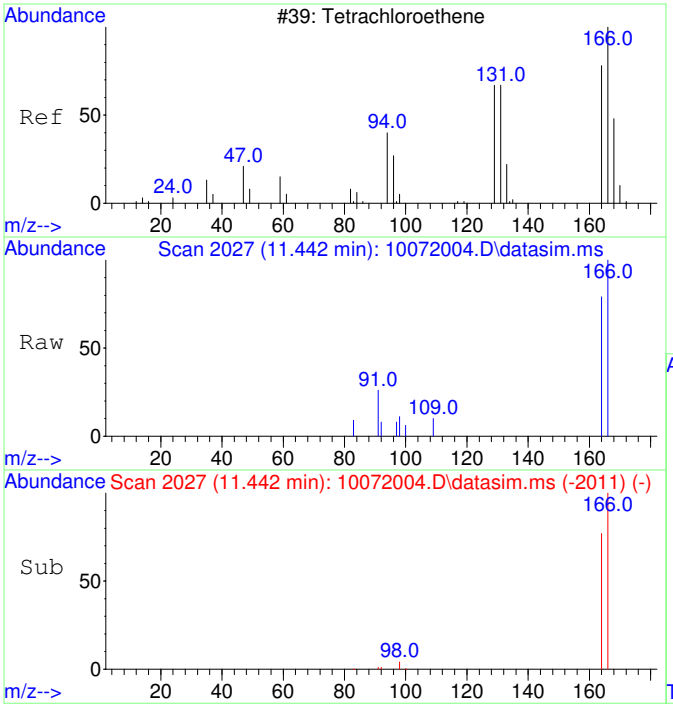




#14
1,1,2-Trichloroethane
Concen: 49.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.6 | 51.2 | 111.2 |

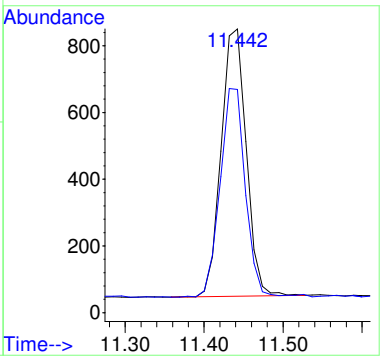


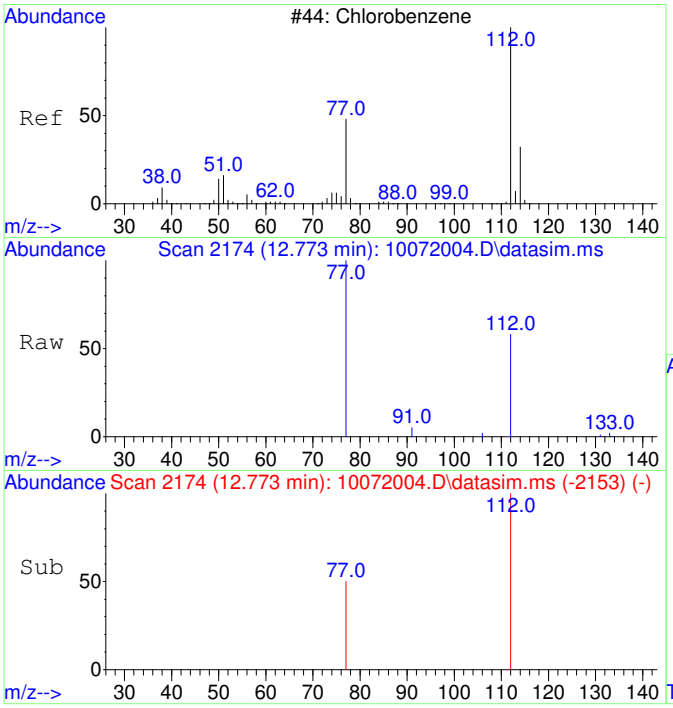



#15
Tetrachloroethene
Concen: 48.49 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:166 Resp: 1769

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.0 | 47.8 | 107.8 |

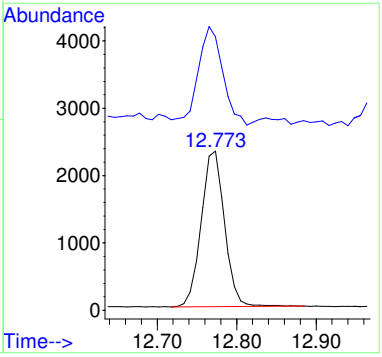


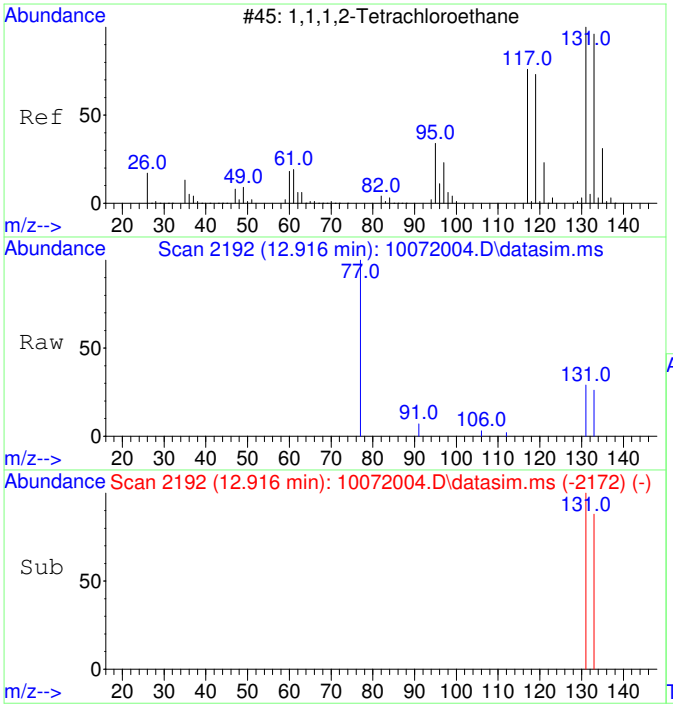




#16
Chlorobenzene
Concen: 52.17 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 4709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 66.9 | 23.6 | 83.6 |

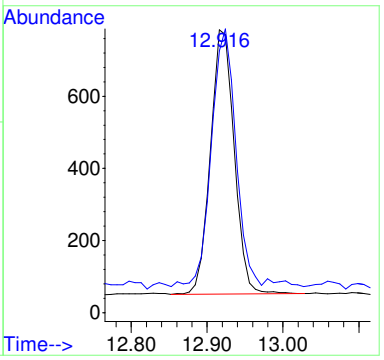


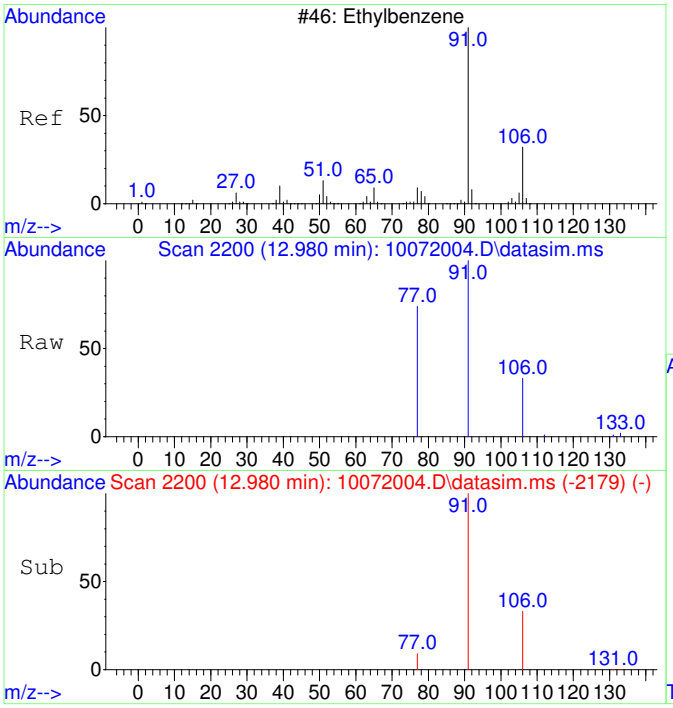



#17
1,1,1,2-Tetrachloroethane
Concen: 49.37 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 1597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.1 | 66.3 | 126.3 |

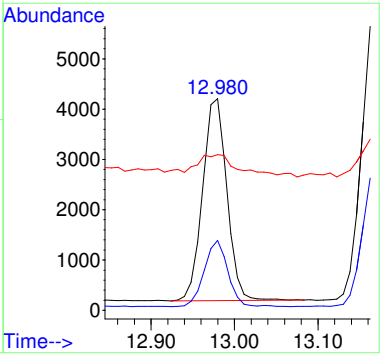


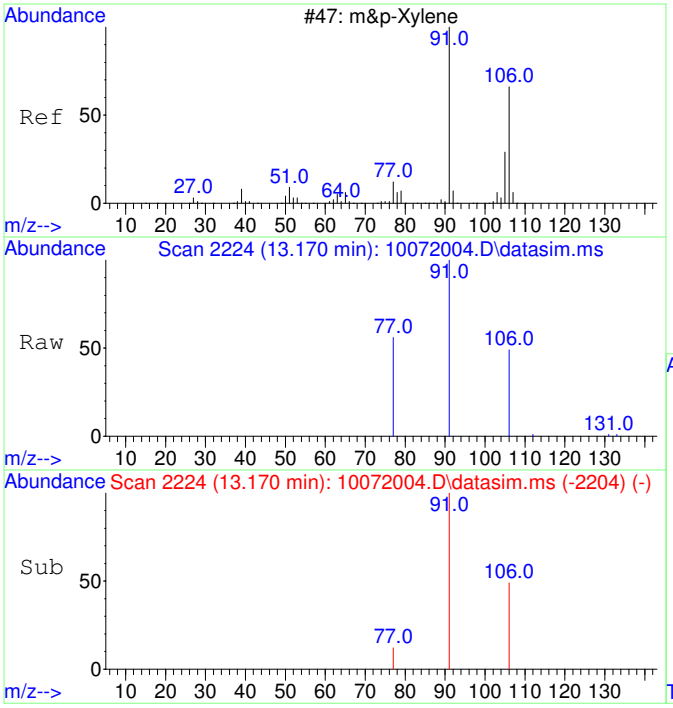




#18
Ethylbenzene
Concen: 52.88 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 8115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 21.2 | 0.0 | 38.2 |

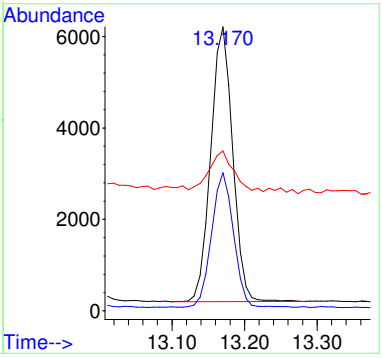


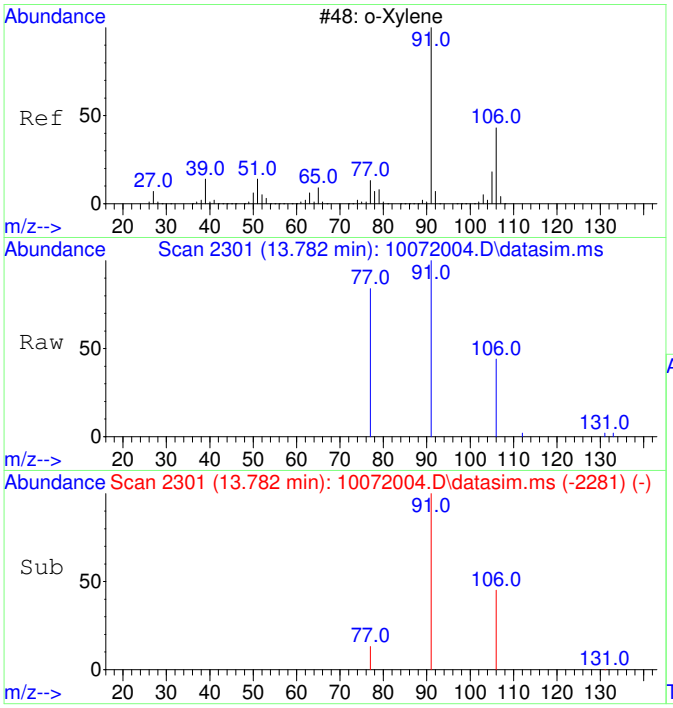



#19
m&p-Xylene
Concen: 105.22 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 12619

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 22.2 | 82.2 |
| 77 | 17.0 | 0.0 | 42.4 |

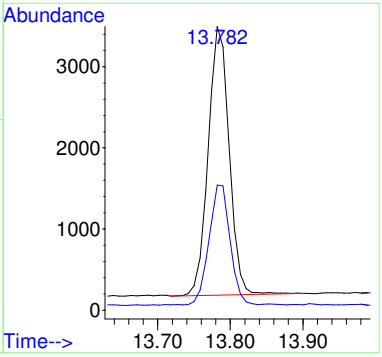


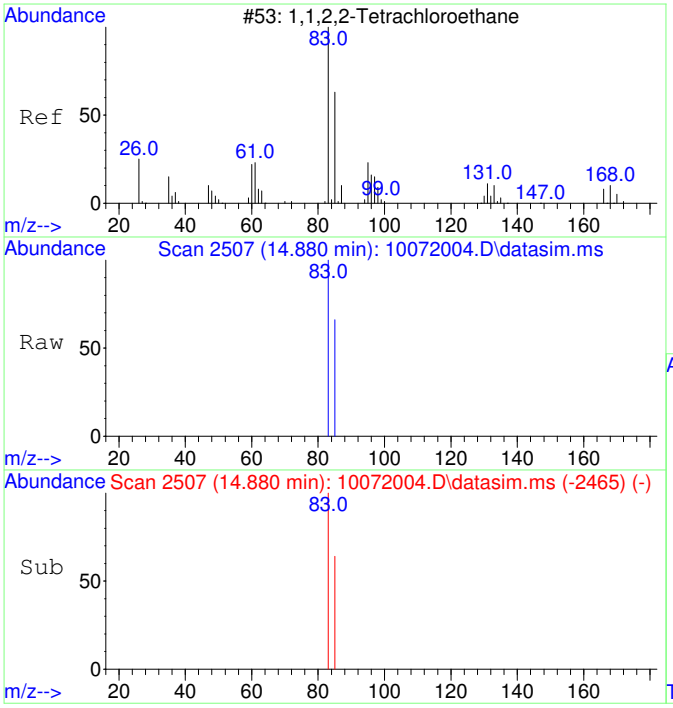




#20
o-Xylene
Concen: 51.99 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.7 | 19.2 | 79.2 |

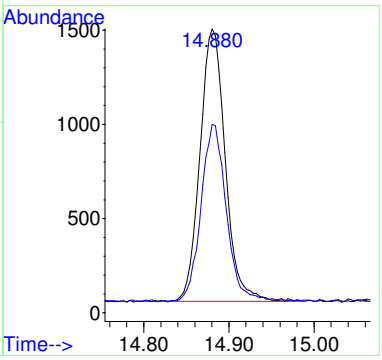


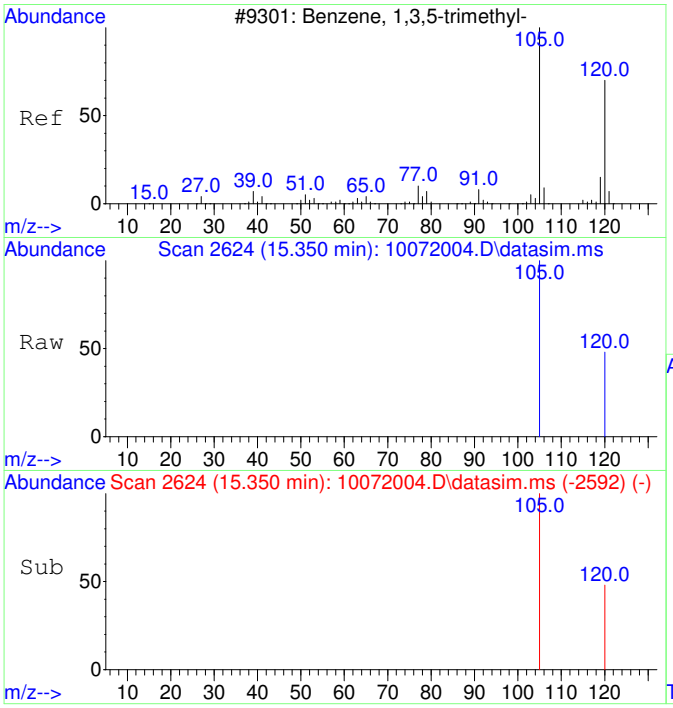



#21
1,1,2,2-Tetrachloroethane
Concen: 52.46 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 2979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.7 | 34.8 | 94.8 |

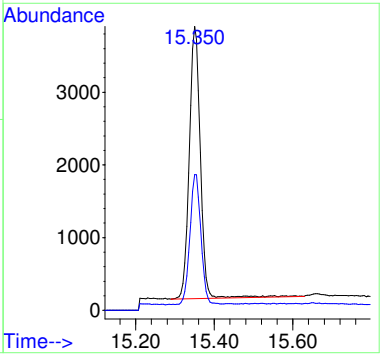


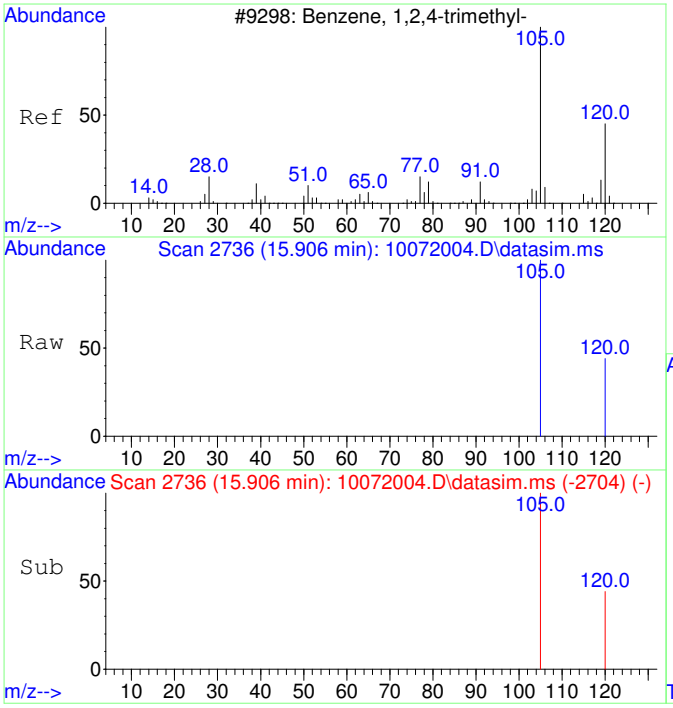




#22
1,3,5-Trimethylbenzene
Concen: 54.22 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.7 | 21.1 | 81.1 |

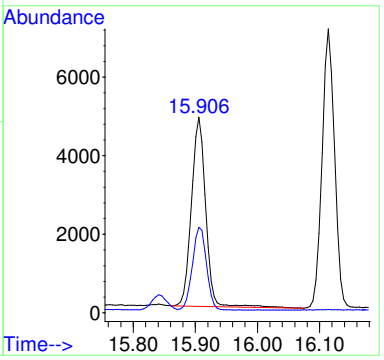


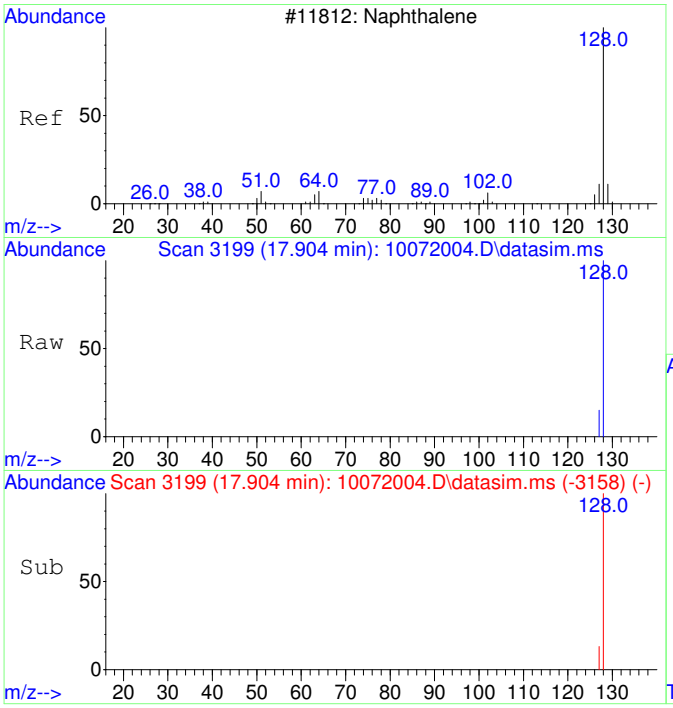



#23
1,2,4-Trimethylbenzene
Concen: 54.30 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.7 | 17.2 | 77.2 |

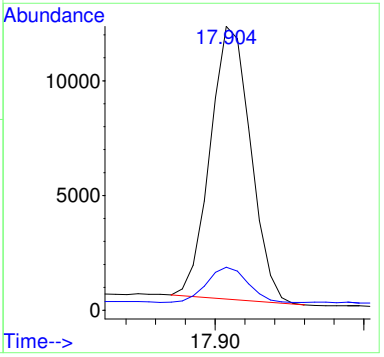


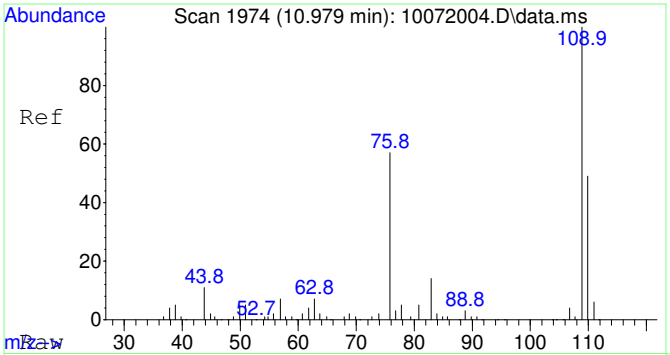




#24
Naphthalene
Concen: 49.96 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 11186

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 42.5 |

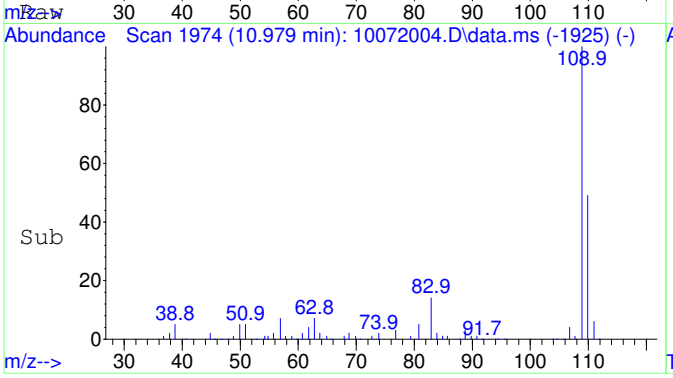


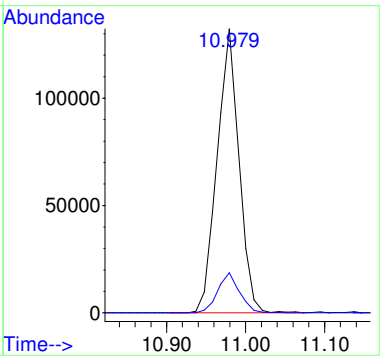


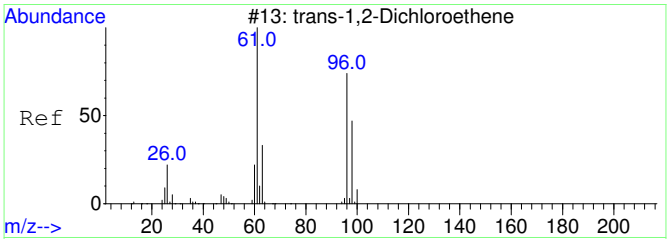

#25
2-Fluorotoluene SCAN
Concen: 5163.42 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 254255

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.0 | 0.0 | 43.8 |



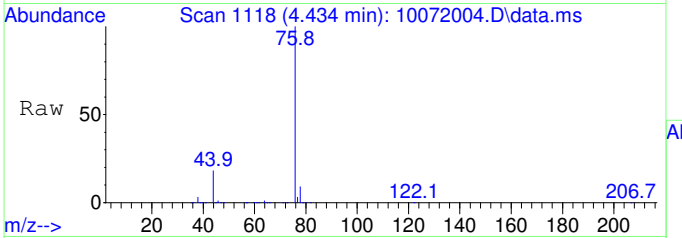



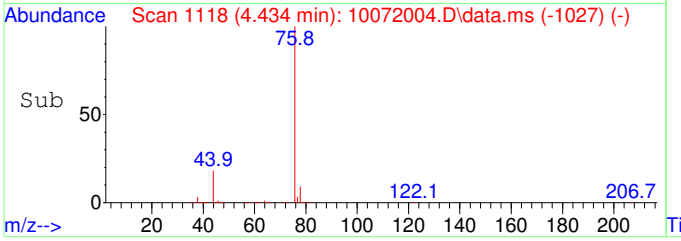



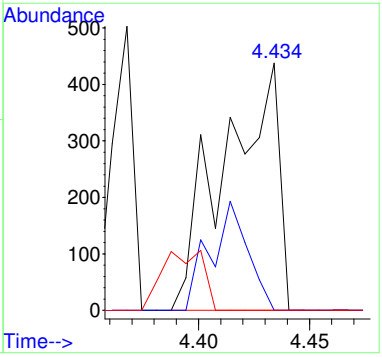

#27
trans-1,2-Dichloroethene SCAN
Concen: 57.73 ug/L
RT: 4.434 min Scan# 1118
Delta R.T. 0.033 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

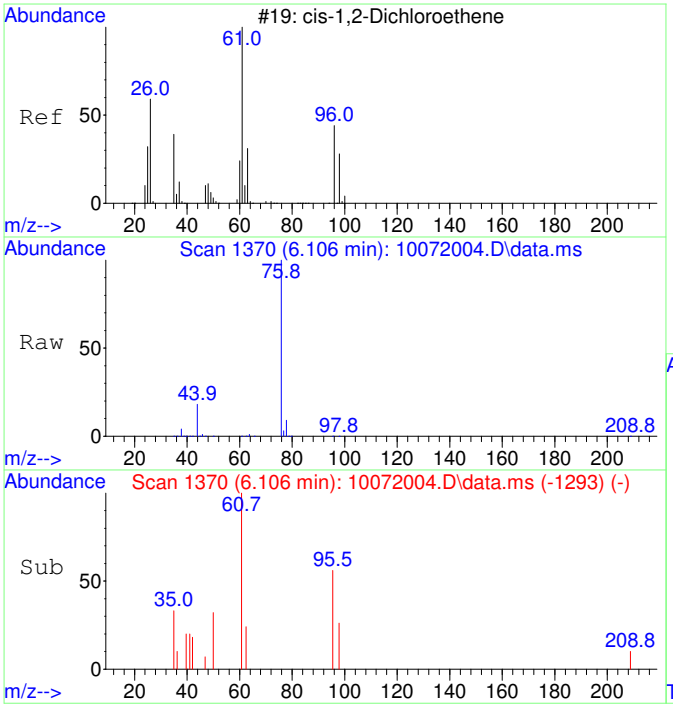
Tgt Ion: 61 Resp: 747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 0.0 | 20.5 | 80.5# |



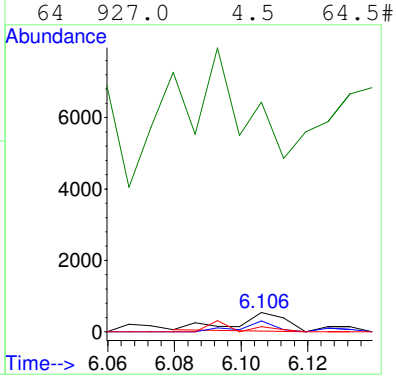



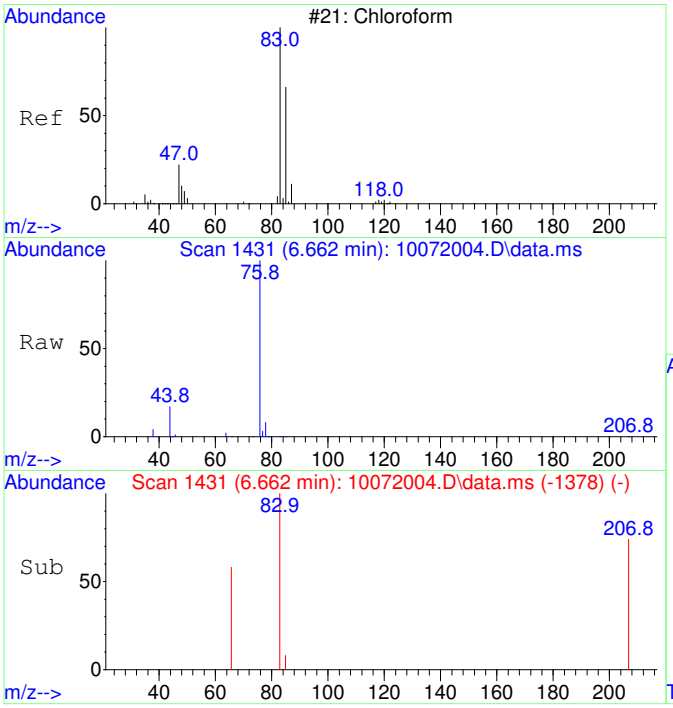



#29
cis-1,2-Dichloroethene SCAN
Concen: 32.35 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 41.4 | 39.9 | 99.9 |
| 98 | 39.7 | 13.5 | 73.5 |
| 64 | 927.0 | 4.5 | 64.5# |

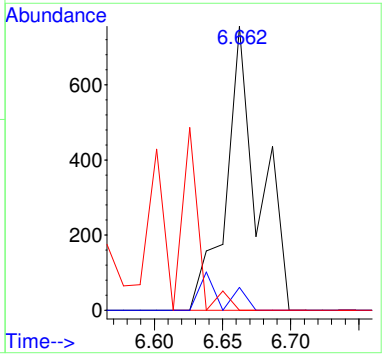


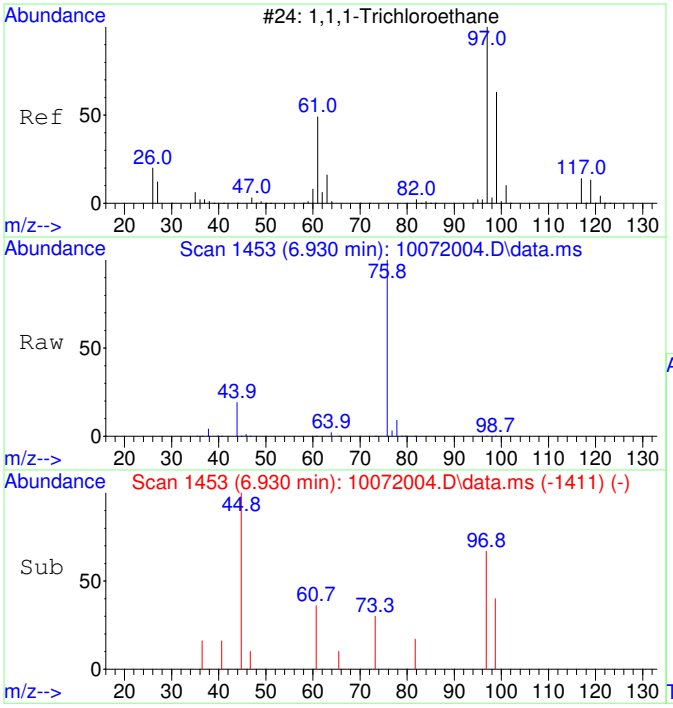




#30
Chloroform SCAN
Concen: 72.17 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1256

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

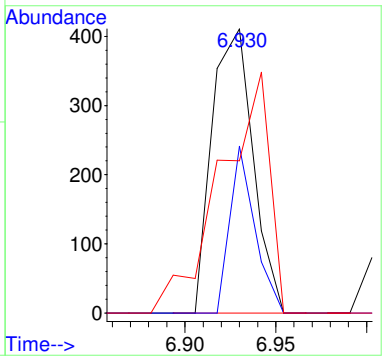


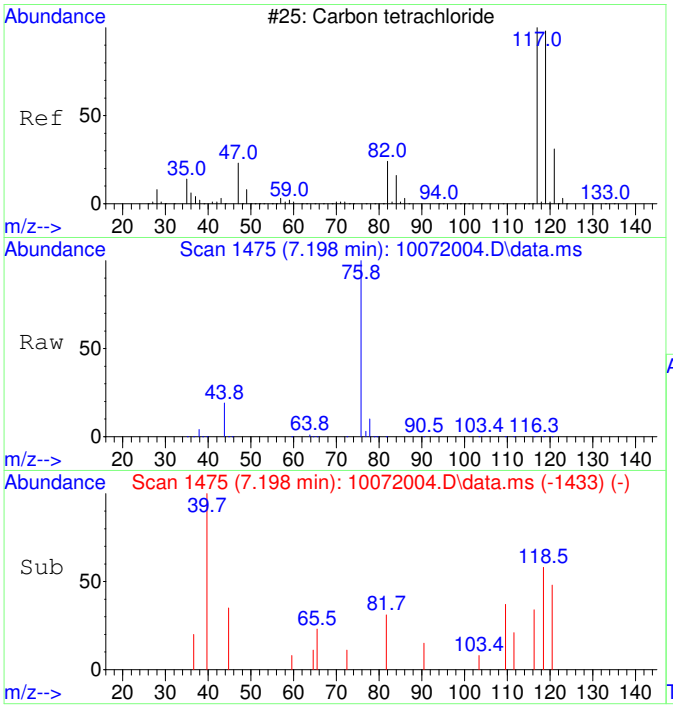



#31
1,1,1-Trichloroethane SCAN
Concen: 40.67 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 35.7 | 43.6 | 103.6# |
| 61 | 101.2 | 18.0 | 78.0# |

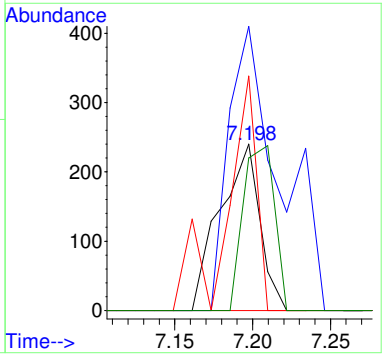


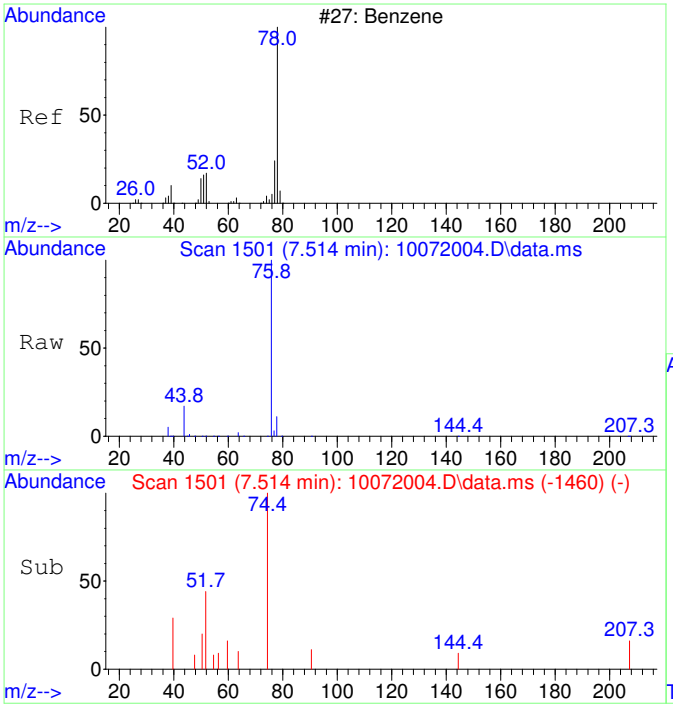




#32
Carbon tetrachloride SCAN
Concen: 26.05 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 219.3 | 75.5 | 135.5# |
| 121 | 105.3 | 0.0 | 58.8# |
| 82 | 77.5 | 0.0 | 59.2# |

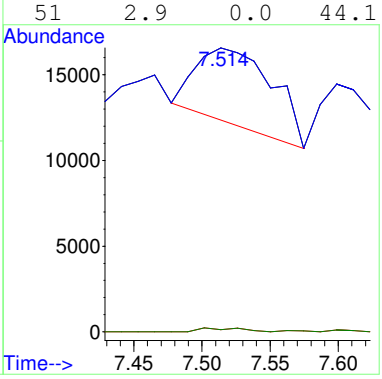


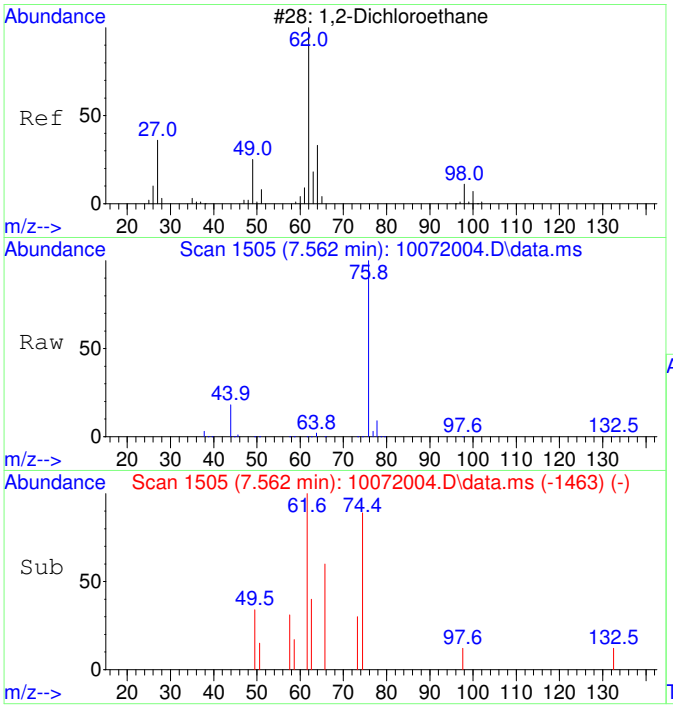



#33
Benzene SCAN
Concen: 379.26 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 16561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 2.9 | 0.0 | 47.9 |
| 51 | 2.9 | 0.0 | 44.1 |

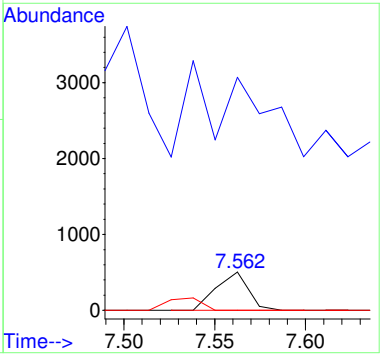


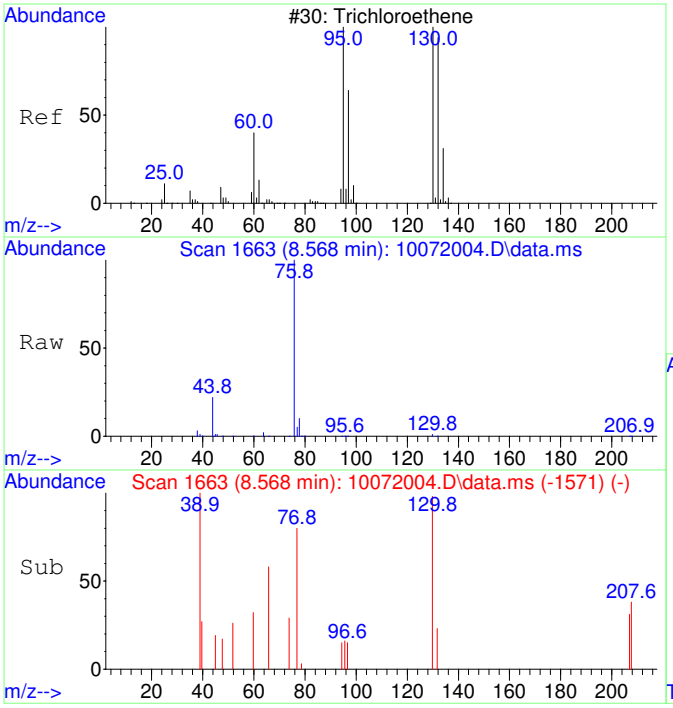




#34
1,2-Dichloroethane SCAN
Concen: 38.27 ug/L
RT: 7.562 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

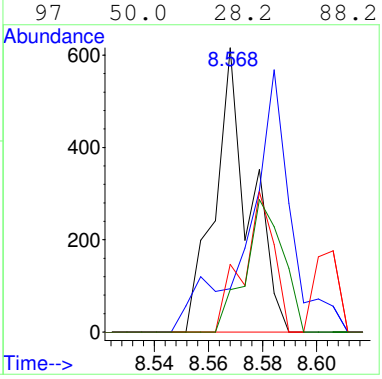


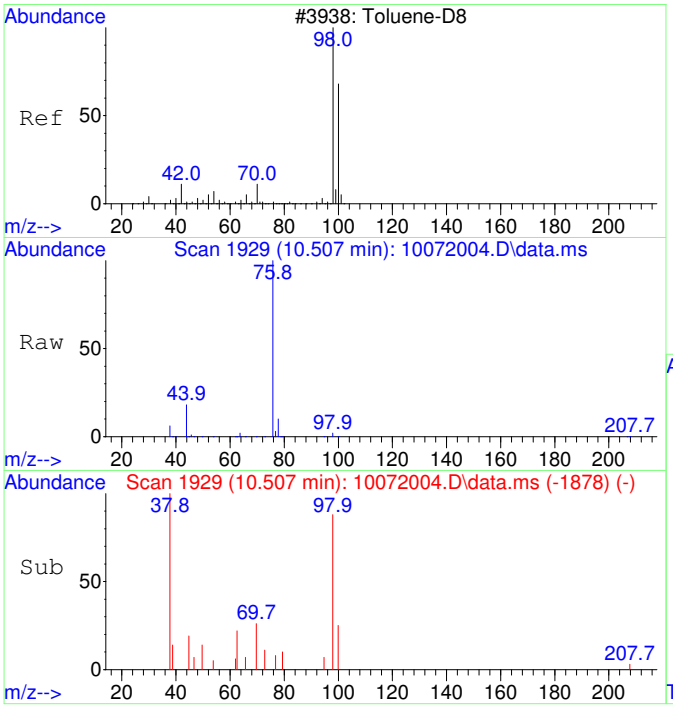



#35
Trichloroethene SCAN
Concen: 46.00 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.6 | 60.5 | 120.5 |
| 132 | 43.8 | 59.6 | 119.6# |
| 97 | 50.0 | 28.2 | 88.2 |

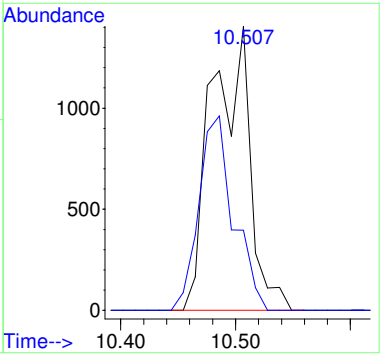


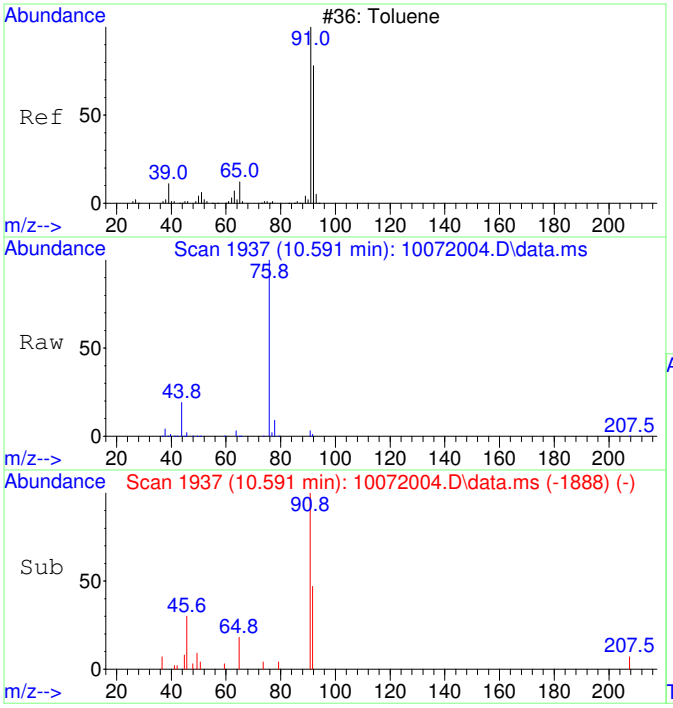




#36
Toluene-d8 SCAN
Concen: 68.51 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 3299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 0.0 | 40.0 | 100.0# |

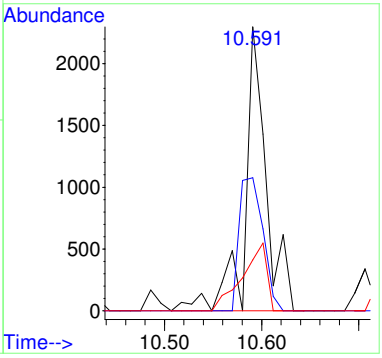


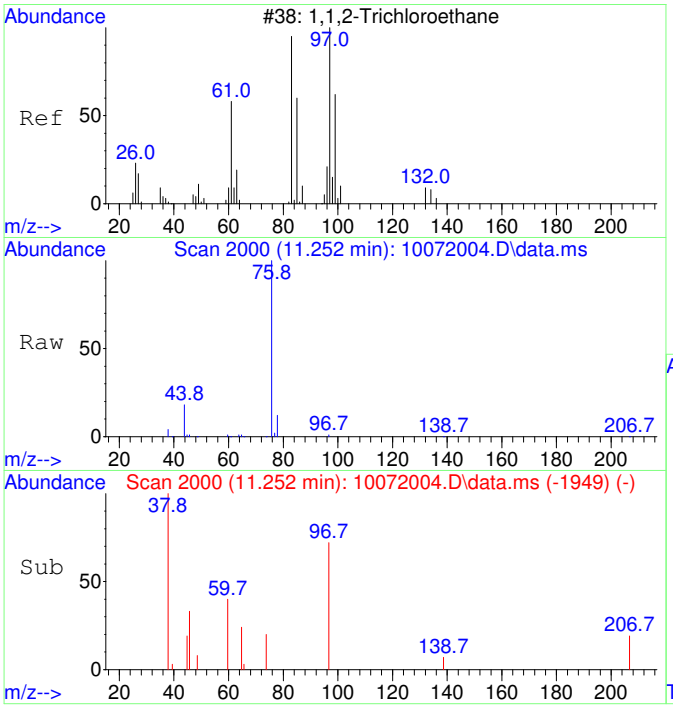



#37
Toluene SCAN
Concen: 56.43 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 3480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.7 | 28.3 | 88.3 |
| 65 | 27.5 | 0.0 | 41.0 |

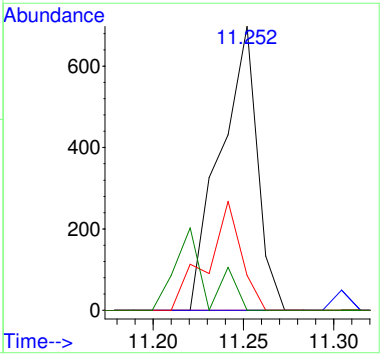


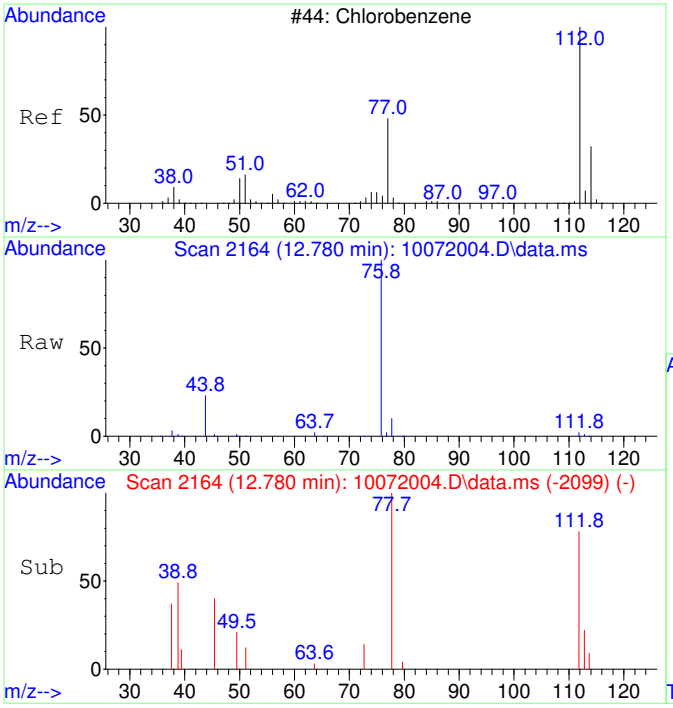




#38
1,1,2-Trichloroethane SCAN
Concen: 72.24 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 35.1 | 32.1 | 92.1 |
| 99 | 0.0 | 36.7 | 96.7# |

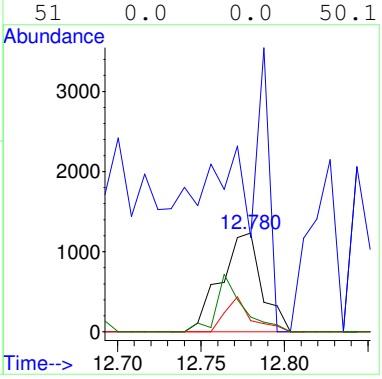


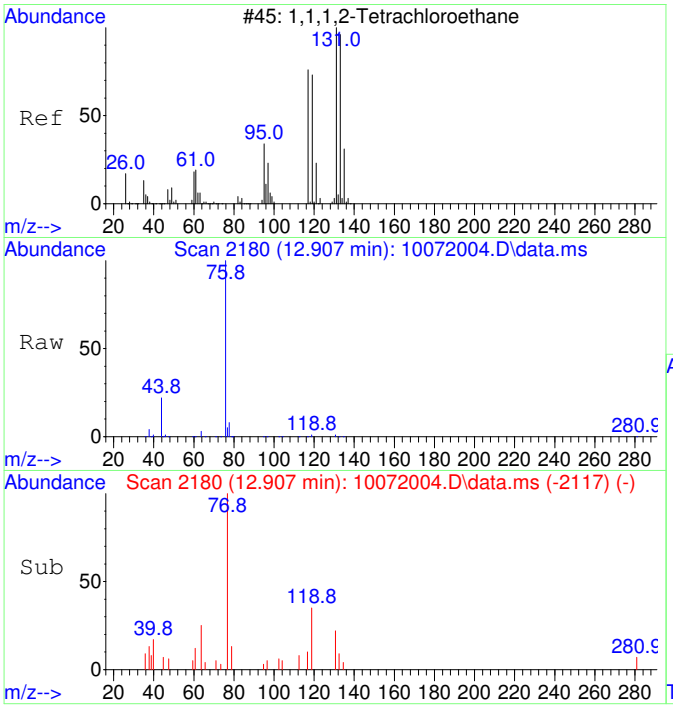



#40
Chlorobenzene SCAN
Concen: 50.02 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 2108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 873.2 | 28.2 | 88.2# |
| 114 | 0.0 | 2.3 | 62.3# |
| 51 | 0.0 | 0.0 | 50.1 |

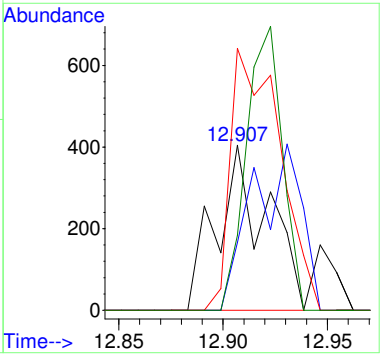


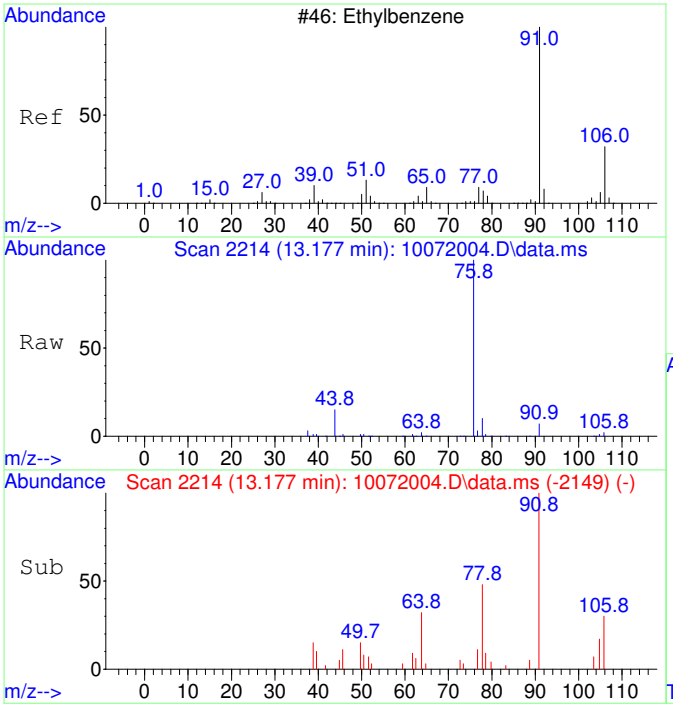




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 43.73 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 155.6 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

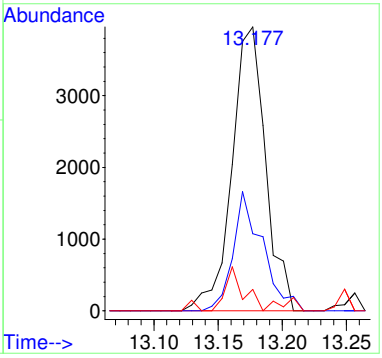


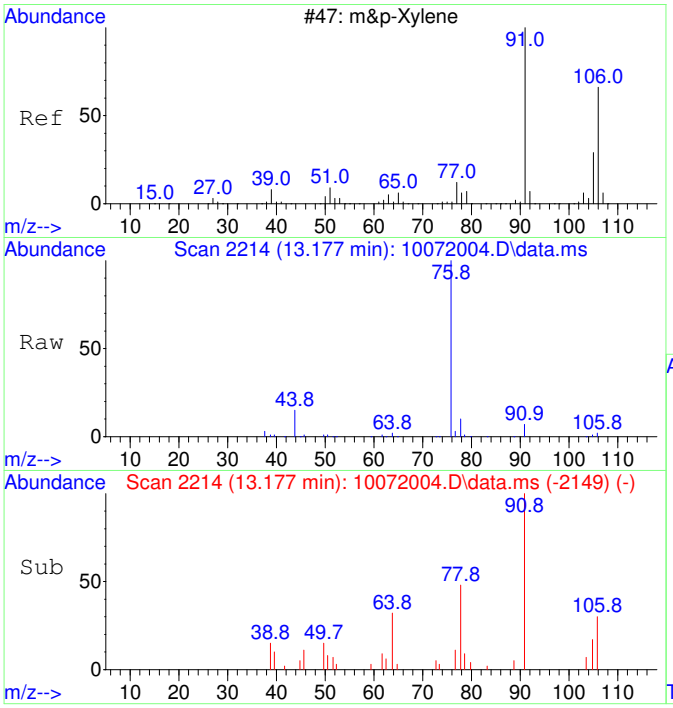



#42
Ethylbenzene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 51 | 10.7 | 0.0 | 40.1 |

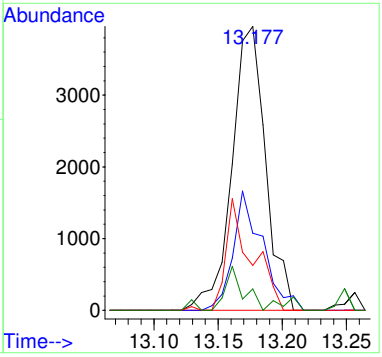


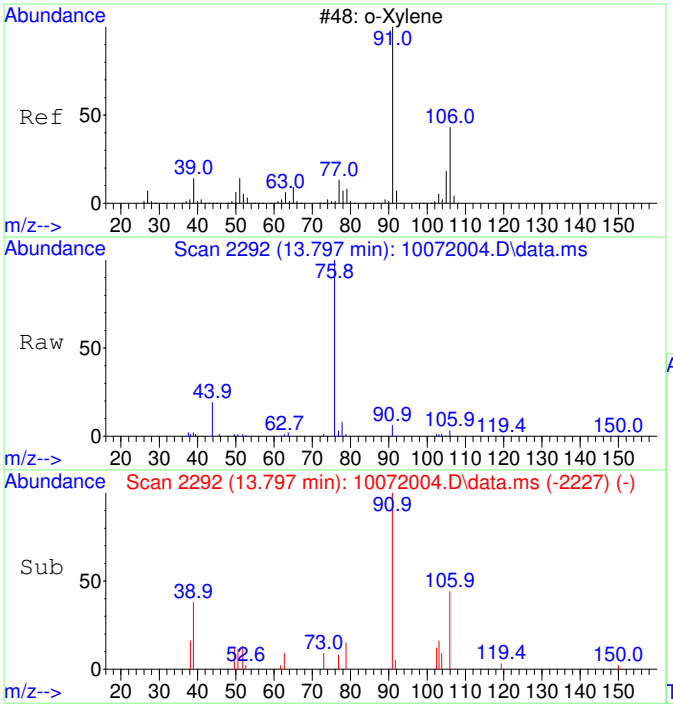




#43
m&p-Xylene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 105 | 30.4 | 0.0 | 54.7 |
| 51 | 10.7 | 0.0 | 40.1 |

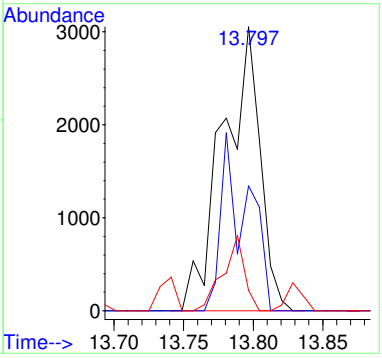


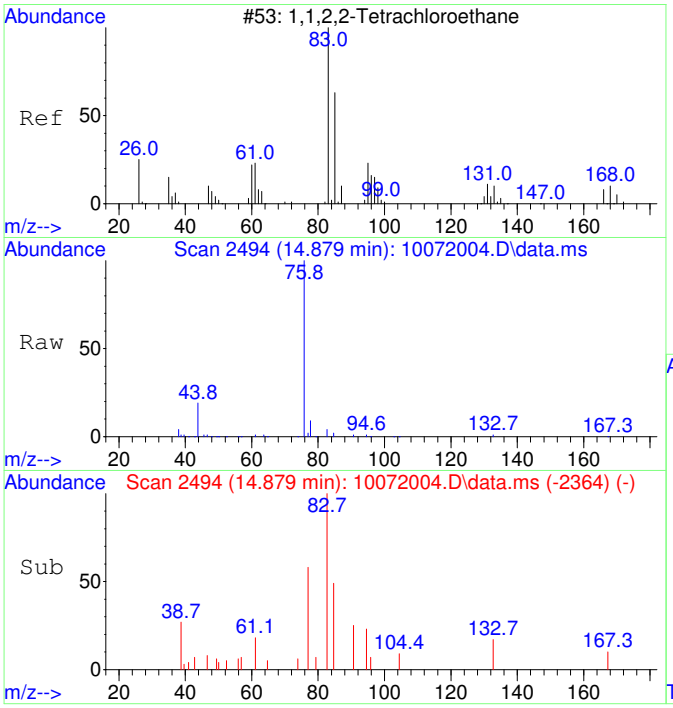



#44
o-Xylene SCAN
Concen: 95.24 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 5728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.0 | 18.0 | 78.0 |
| 105 | 15.3 | 0.0 | 56.6 |

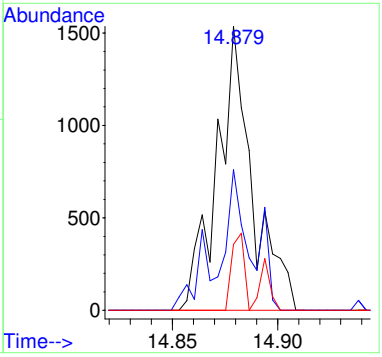


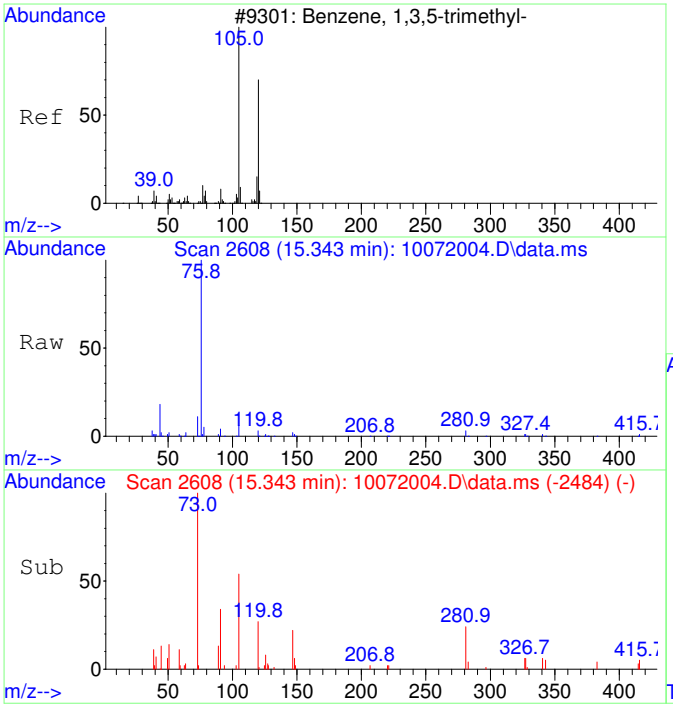




#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 60.94 ug/L
RT: 14.879 min Scan# 2494
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 26.2 | 35.9 | 95.9# |
| 95 | 8.8 | 0.0 | 47.4 |

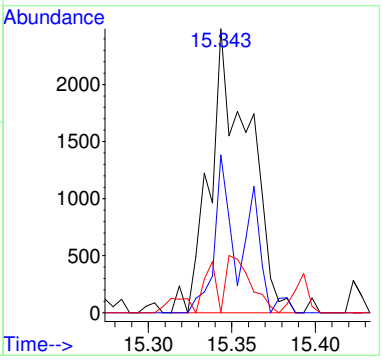


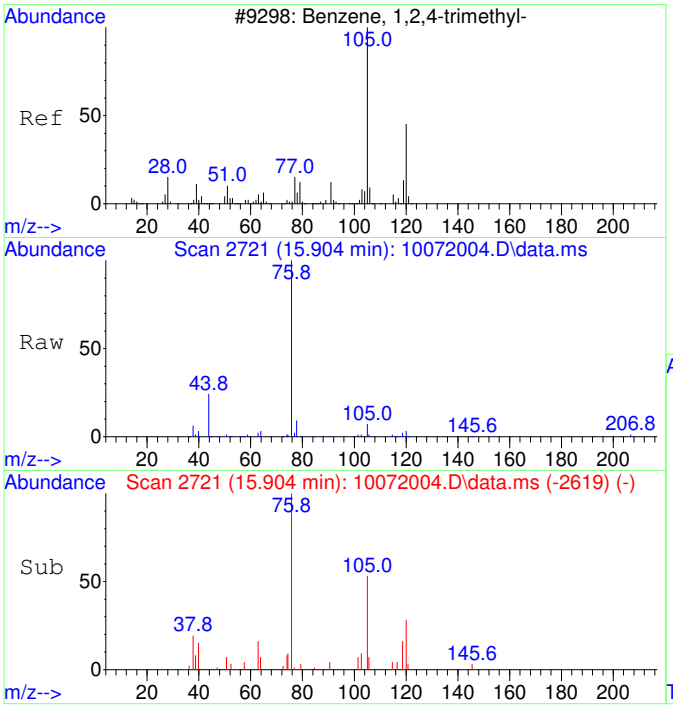



#46
1,3,5-Trimethylbenzene SCAN
Concen: 63.91 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 4051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 17.4 | 18.3 | 78.3# |
| 119 | 12.6 | 0.0 | 43.1 |

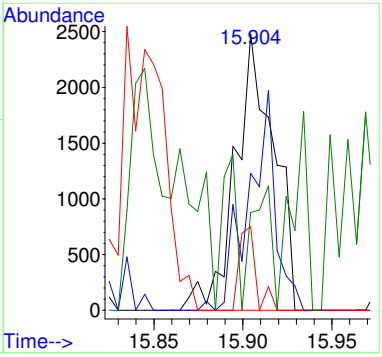


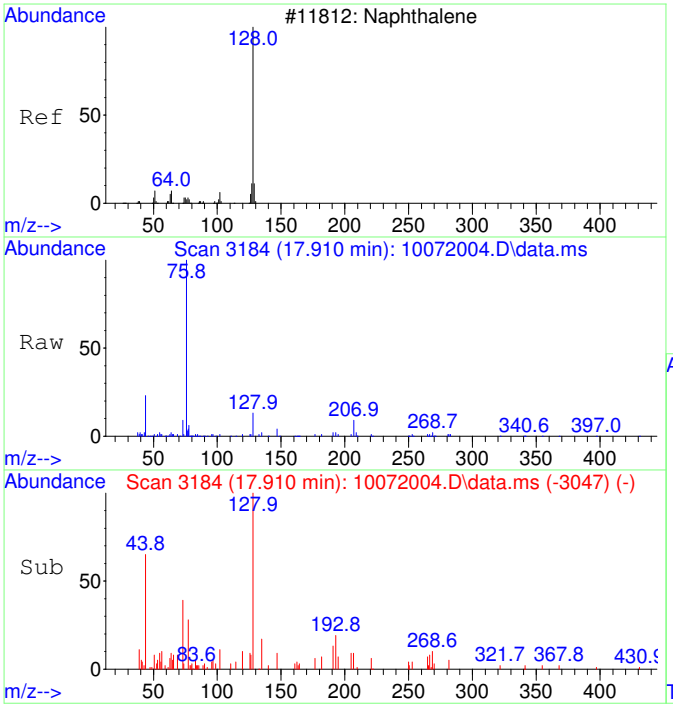




#47
1,2,4-Trimethylbenzene SCAN
Concen: 57.44 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 3725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 55.4 | 16.9 | 76.9 |
| 119 | 13.3 | 0.0 | 41.9 |
| 77 | 23.1 | 0.0 | 42.3 |

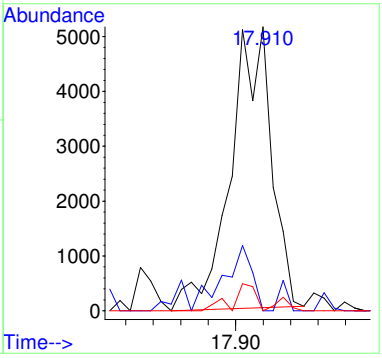





#48
Naphthalene SCAN
Concen: 53.82 ug/L
RT: 17.910 min Scan# 3184
Delta R.T. 0.009 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 5282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 2.3 | 0.0 | 44.0 |
| 129 | 0.0 | 0.0 | 40.8 |



# B20J006-BLK1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072005.D
Acq On : 7 Oct 2020 9:55
InstName : AG5975C
Operator : TD
Sample : B20J006-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 10:13:48 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

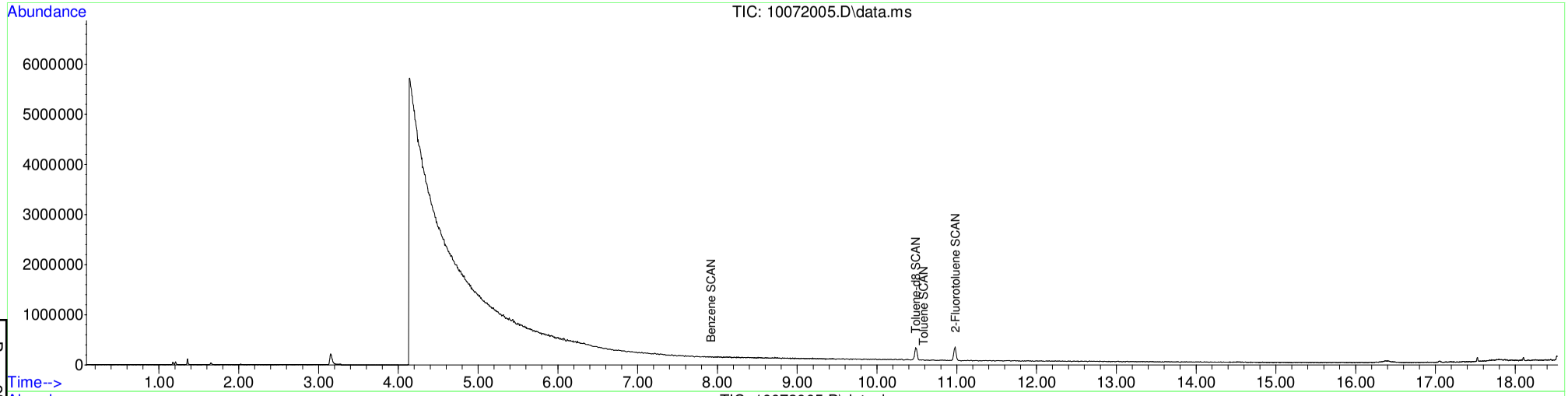
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 404846 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 351075 | 4429.80 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.60% | | | |
| Target Compounds | | | | | | Qvalue |
| 9] Benzene | 7.503 | 78 | 3953 | 57.47 | ug/L # | 1 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 210584 | 5335.97 | ug/L | 95 |
| 33) Benzene SCAN | 7.915 | 78 | 1983 | 56.66 | ug/L | 93 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 189432 | 4908.13 | ug/L | 92 |
| 37) Toluene SCAN | 10.580 | 91 | 998 | 20.19 | ug/L # | 45 |

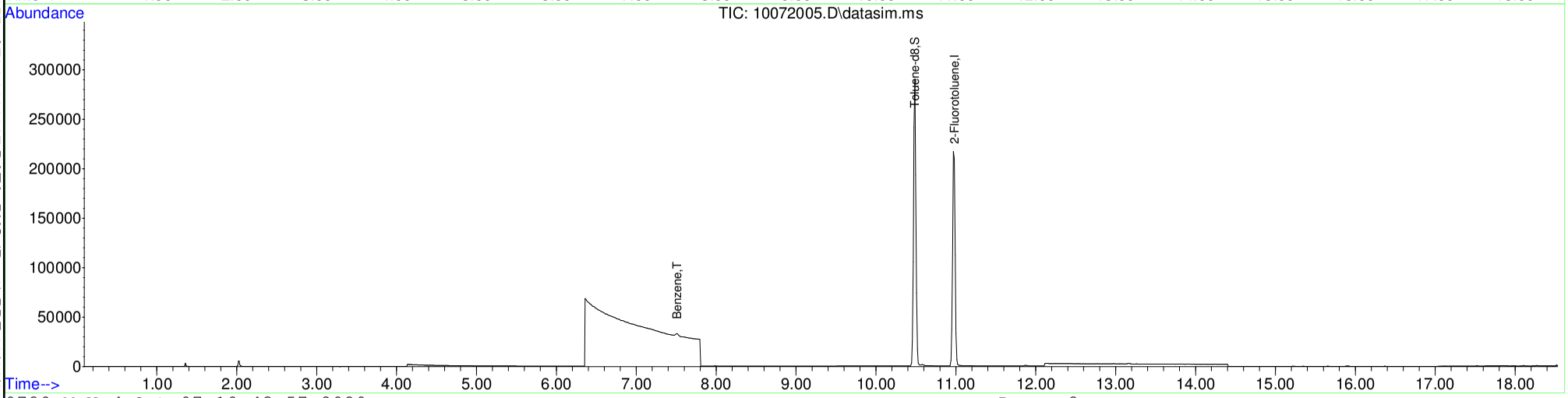
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072005.D
Acq On : 7 Oct 2020 9:55
InstName : AG5975C
Operator : TD
Sample : B20J006-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 10:13:48 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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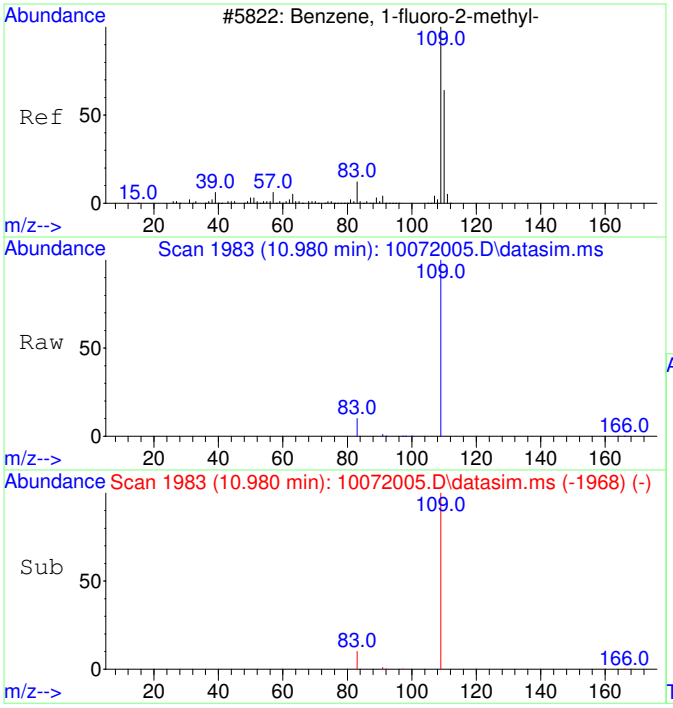
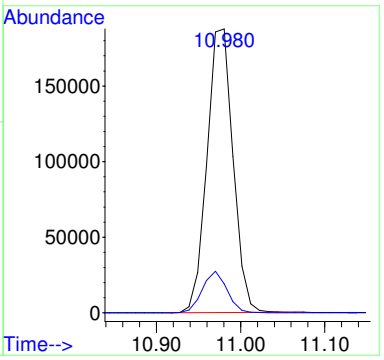
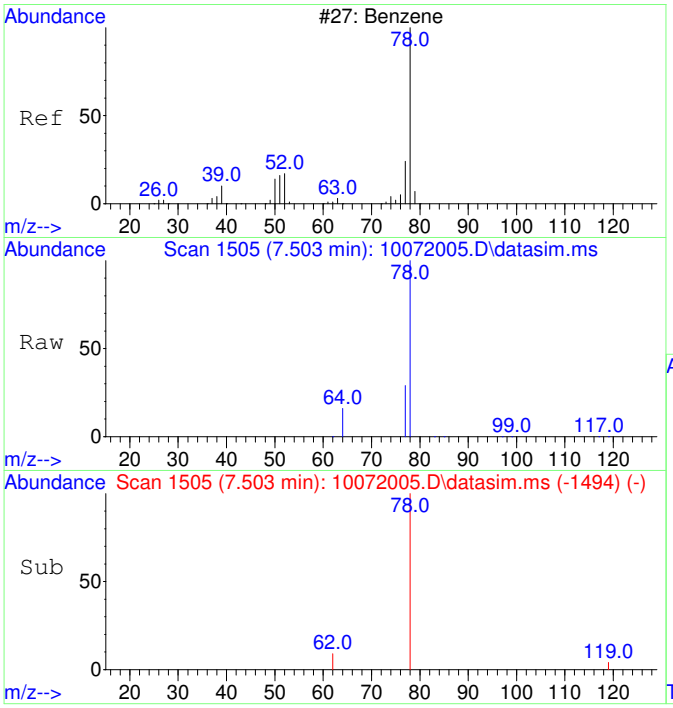



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion:109 Resp: 404846

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

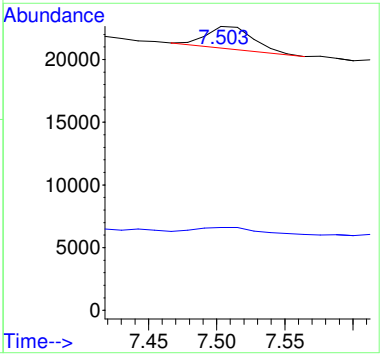


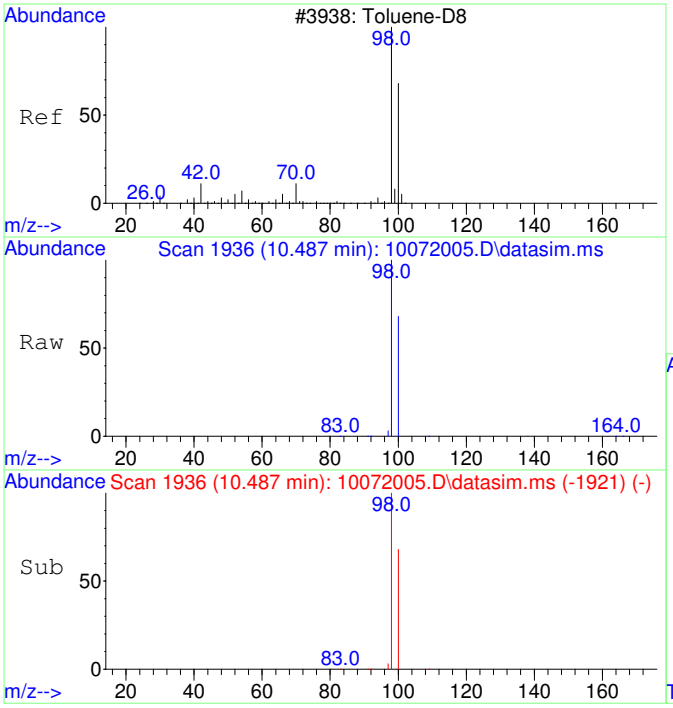




#9
Benzene
Concen: 57.47 ug/L
RT: 7.503 min Scan# 1505
Delta R.T. -0.012 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion: 78 Resp: 3953

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 92.2 | 0.0 | 53.2# |

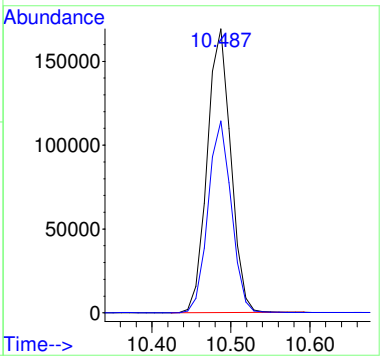


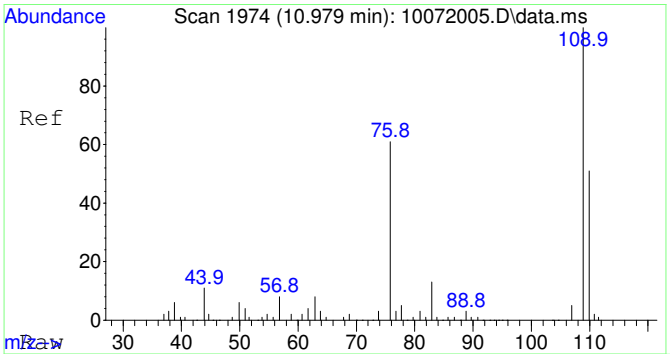



#12
Toluene-d8
Concen: 4429.80 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion: 98 Resp: 351075

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

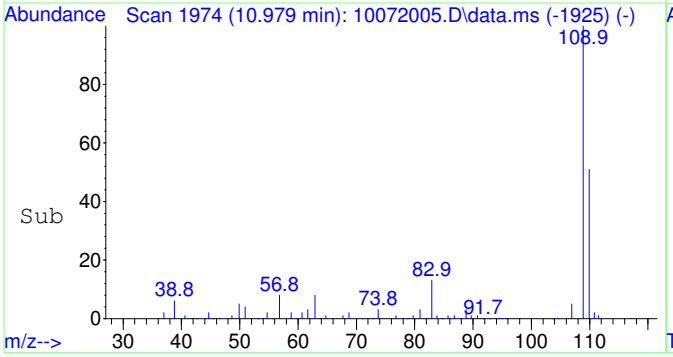


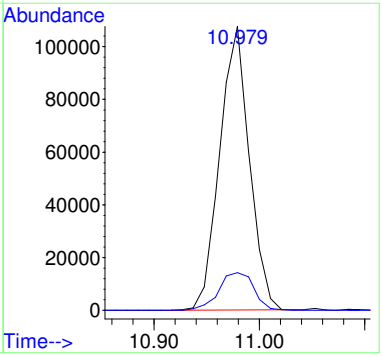



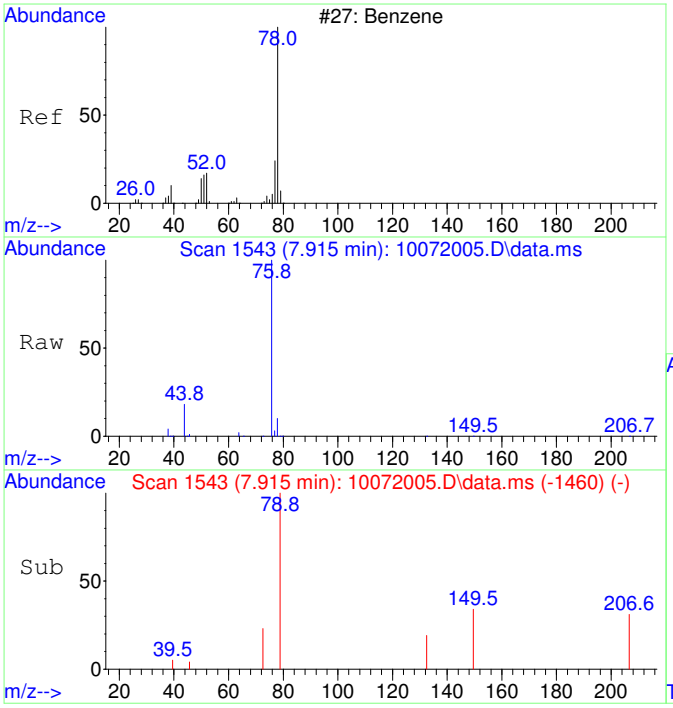

#25
2-Fluorotoluene SCAN
Concen: 5335.97 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion:109 Resp: 210584

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.7 | 0.0 | 43.8 |



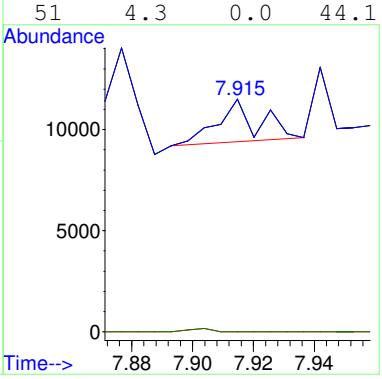



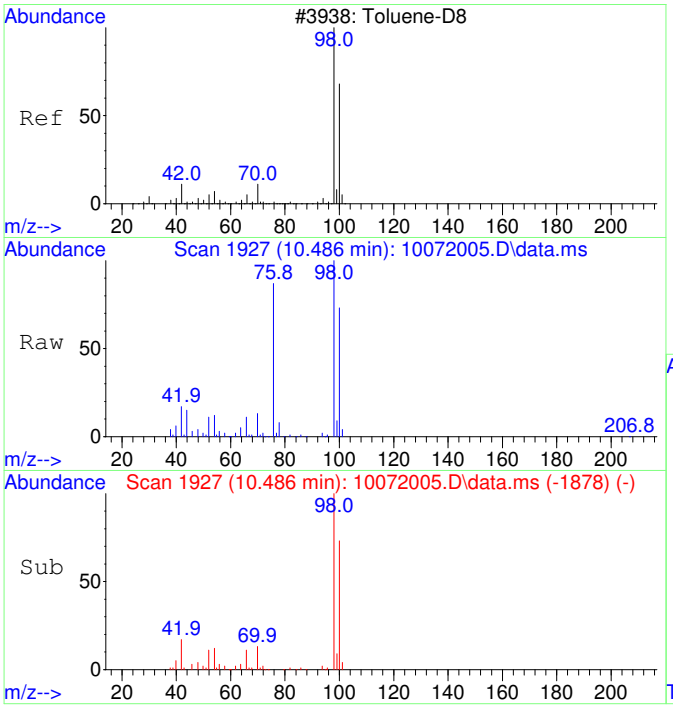



#33
Benzene SCAN
Concen: 56.66 ug/L
RT: 7.915 min Scan# 1543
Delta R.T. 0.401 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion: 78 Resp: 1983

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 4.3 | 0.0 | 47.9 |
| 51 | 4.3 | 0.0 | 44.1 |

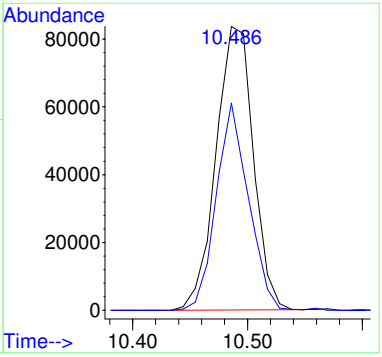


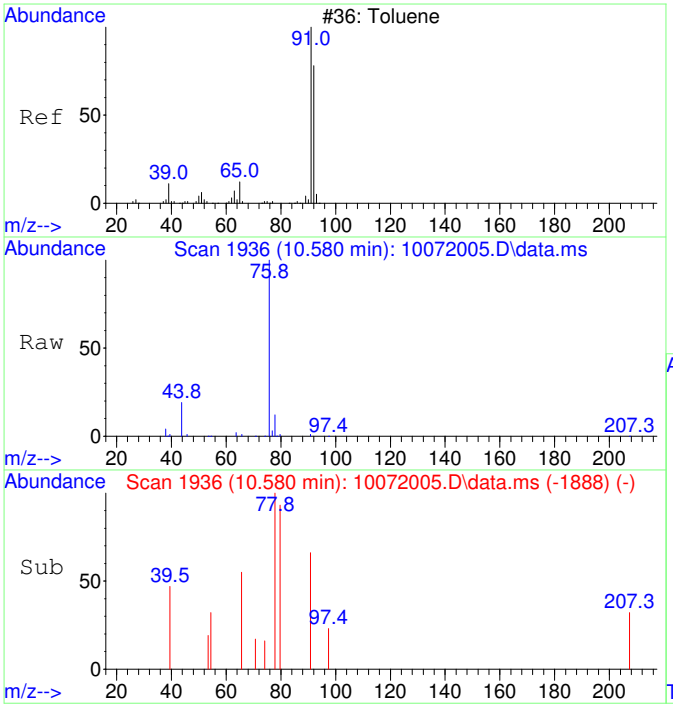




#36
Toluene-d8 SCAN
Concen: 4908.13 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion: 98 Resp: 189432

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 63.2 | 40.0 | 100.0 |

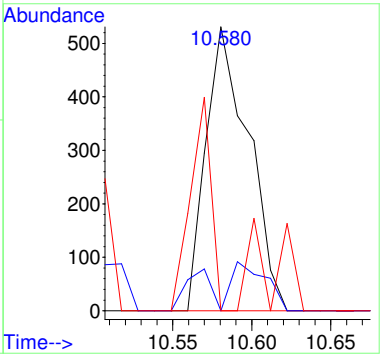





#37
Toluene SCAN
Concen: 20.19 ug/L
RT: 10.580 min Scan# 1936
Delta R.T. 0.000 min
Lab File: 10072005.D
Acq: 7 Oct 2020 9:55

Tgt Ion: 91 Resp: 998

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 13.9 | 28.3 | 88.3# |
| 65 | 0.0 | 0.0 | 41.0 |



# B20J006-BS1

## Blanks Spike or Blank Spike Duplicate

**Instrument Name:** AG5975C
**Sample Name:** B20J006-BS1
**Misc Info:** 0
**Date Acquired:** 10/7/2020
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000 | 5000.00 | 100% | 70 | 130 | pass |
| **2)** | **1,1-Dichloroethene** | **3.090** | **5000** | **3796.25** | **76%** | **22** | **143** | **pass** |
| **3)** | **trans-1,2-Dichloroethene** | **4.396** | **5000** | **3965.63** | **79%** | **35** | **133** | **pass** |
| **4)** | **1,1-Dichloroethane** | **5.099** | **5000** | **4105.78** | **82%** | **43** | **140** | **pass** |
| **5)** | **cis-1,2-Dichloroethene** | **6.094** | **5000** | **4161.11** | **83%** | **49** | **134** | **pass** |
| **6)** | **Chloroform** | **6.664** | **5000** | **4113.01** | **82%** | **56** | **132** | **pass** |
| 7) | **1,1,1-Trichloroethane** | **6.919** | **5000** | **4018.24** | **80%** | **58** | **131** | pass |
| 8) | Carbon tetrachloride | 7.187 | 5000 | 3947.96 | 79% | 60 | 126 | pass |
| 9) | Benzene | 7.515 | 5000 | 3934.65 | 79% | 63 | 121 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 5000 | 4210.11 | 84% | 57 | 128 | pass |
| **11)** | **Trichloroethene** | **8.569** | **5000** | **4049.86** | **81%** | **69** | **124** | **pass** |
| 12) | Toluene-d8 | 10.477 | 5000 | 4515.31 | 90% | 70 | 130 | pass |
| 13) | Toluene | 10.571 | 5000 | 3850.97 | 77% | 77 | 111 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 5000 | 4152.00 | 83% | 76 | 115 | pass |
| **15)** | **Tetrachloroethene** | **11.421** | **5000** | **3969.83** | **79%** | **69** | **124** | **pass** |
| 16) | Chlorobenzene | 12.757 | 5000 | 3765.37 | 75% | 64 | 122 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 5000 | 4172.13 | 83% | 68 | 130 | **pass** |
| 18) | Ethylbenzene | 12.964 | 5000 | 4123.09 | 82% | 70 | 130 | pass |
| 19) | m&p-Xylene | 13.162 | 10000 | 7766.12 | 78% | 66 | 129 | pass |
| 20) | o-Xylene | 13.774 | 5000 | 3665.32 | 73% | 63 | 121 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 5000 | 3890.06 | 78% | 55 | 132 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 5000 | 4028.64 | 81% | 61 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 5000 | 3645.94 | 73% | 54 | 143 | pass |
| 25) | 2-Fluorotoluene SCAN | 10.969 | 5000 | 5154.78 | 103% | 20 | 110 | pass |
| 27) | trans-1,2-Dichloroethene SCAN | 4.401 | 5000 | 4046.33 | 81% | 83 | 110 | FAIL |
| 29) | cis-1,2-Dichloroethene SCAN | 6.093 | 5000 | 4811.23 | 96% | 58 | 118 | pass |
| 31) | 1,1,1-Trichloroethane SCAN | 6.918 | 5000 | 4611.55 | 92% | 59 | 119 | pass |
| 33) | Benzene SCAN | 7.514 | 5000 | 4332.05 | 87% | 69 | 129 | pass |
| 35) | Trichloroethene SCAN | 8.568 | 5000 | 4191.06 | 84% | 69 | 129 | pass |
| 37) | Toluene SCAN | 10.580 | 5000 | 4234.72 | 85% | 66 | 126 | pass |
| 39) | Tetrachloroethene SCAN | 11.430 | 5000 | 4297.87 | 86% | 59 | 119 | pass |
| 41) | 1,1,1,2-Tetrachloroethane SCAN | 12.907 | 5000 | 4008.54 | 80% | 62 | 122 | pass |
| 43) | m&p-Xylene SCAN | 13.161 | 5000 | 4375.60 | 88% | 68 | 128 | pass |
| 45) | 1,1,2,2-Tetrachloroethane SCAN | 14.872 | 5000 | 4295.25 | 86% | 63 | 123 | pass |
| 47) | 1,2,4-Trimethylbenzene SCAN | 15.899 | 5000 | 3923.07 | 78% | 20 | 110 | pass |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072006.D
Acq On : 7 Oct 2020 10:18
InstName : AG5975C
Operator : TD
Sample : B20J006-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 10:37:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

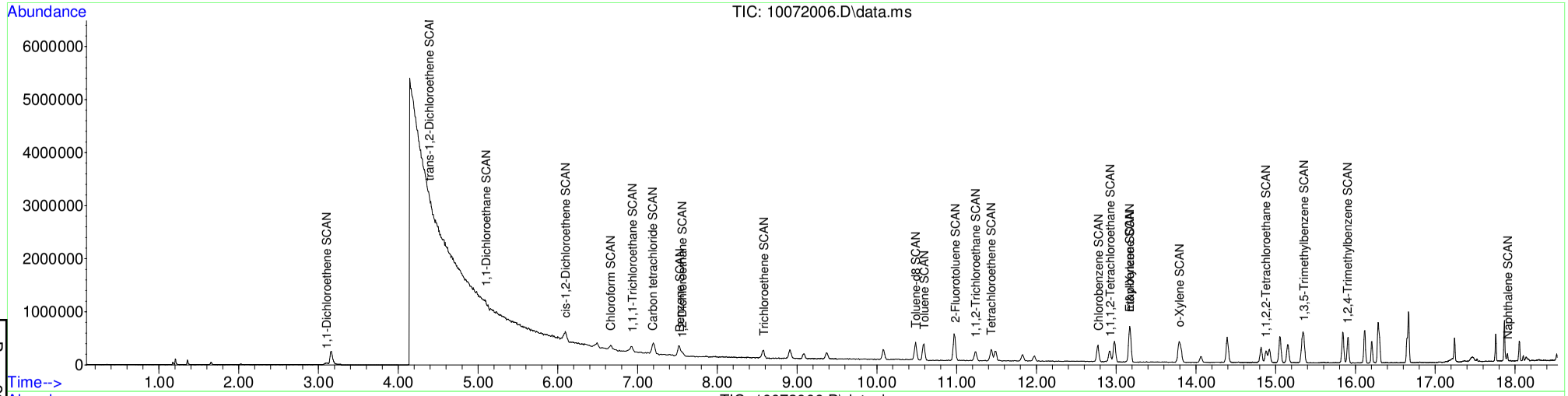
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 505976 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 447243 | 4515.31 | ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 90.31% | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 76701 | 3796.25 | ug/L | 82 |
| 3] trans-1,2-Dichloroethene | 4.389 | 61 | 92572 | 3965.63 | ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 119307 | 4105.78 | ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 127634 | 4161.11 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 129128 | 4113.01 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 137003 | 4018.24 | ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 126693 | 3947.96 | ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 338254 | 3934.65 | ug/L | 98 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 129203 | 4210.11 | ug/L | 99 |
| 11] Trichloroethene | 8.575 | 130 | 104826 | 4049.86 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 486301 | 3850.97 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 114248 | 4152.00 | ug/L | 96 |
| 15] Tetrachloroethene | 11.432 | 166 | 145078 | 3969.83 | ug/L | 100 |
| 16] Chlorobenzene | 12.765 | 112 | 340469 | 3765.37 | ug/L | 91 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 135176 | 4172.13 | ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 633758 | 4123.09 | ug/L | 98 |
| 19] m&p-Xylene | 13.170 | 91 | 932971 | 7766.12 | ug/L | 96 |
| 20] o-Xylene | 13.782 | 91 | 470433 | 3665.32 | ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 221276 | 3890.06 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 550354 | 4028.64 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 517347 | 3645.94 | ug/L | 96 |
| 24] Naphthalene | 17.906 | 128 | 122973 | 548.33 | ug/L | 98 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 254251 | 5154.78 | ug/L | 97 |
| 26) 1,1-Dichloroethene SCAN | 3.099 | 61 | 43594 | 4161.79 | ug/L # | 50 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 52448 | 4046.33 | ug/L | 77 |
| 28) 1,1-Dichloroethane SCAN | 5.098 | 63 | 65092 | 4339.22 | ug/L | 91 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 77326 | 4811.23 | ug/L # | 72 |
| 30) Chloroform SCAN | 6.662 | 83 | 67645 | 3880.44 | ug/L | 91 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 73258 | 4611.55 | ug/L | 91 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 63258 | 3817.49 | ug/L | 95 |
| 33) Benzene SCAN | 7.526 | 78 | 189481 | 4332.05 | ug/L | 95 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 72203 | 4470.52 | ug/L | 90 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 50376 | 4191.06 | ug/L | 80 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 243113 | 5040.00 | ug/L | 96 |
| 37) Toluene SCAN | 10.591 | 91 | 261597 | 4234.72 | ug/L | 98 |
| 38) 1,1,2-Trichloroethane ... | 11.242 | 97 | 59963 | 4324.55 | ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 63785 | 4297.87 | ug/L | 96 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 168102 | 3982.35 | ug/L | 87 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.923 | 131 | 62620 | 4008.54 | ug/L | 94 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 492439 | 4375.60 | ug/L | 91 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 492439 | 4375.60 | ug/L | 91 |
| 44) o-Xylene SCAN | 13.789 | 91 | 242675 | 4028.41 | ug/L | 95 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.875 | 83 | 126170 | 4295.25 | ug/L | 98 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 275003 | 4331.58 | ug/L | 96 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 254851 | 3923.07 | ug/L | 94 |
| 48) Naphthalene SCAN | 17.905 | 128 | 54159 | 550.97 | ug/L | 98 |

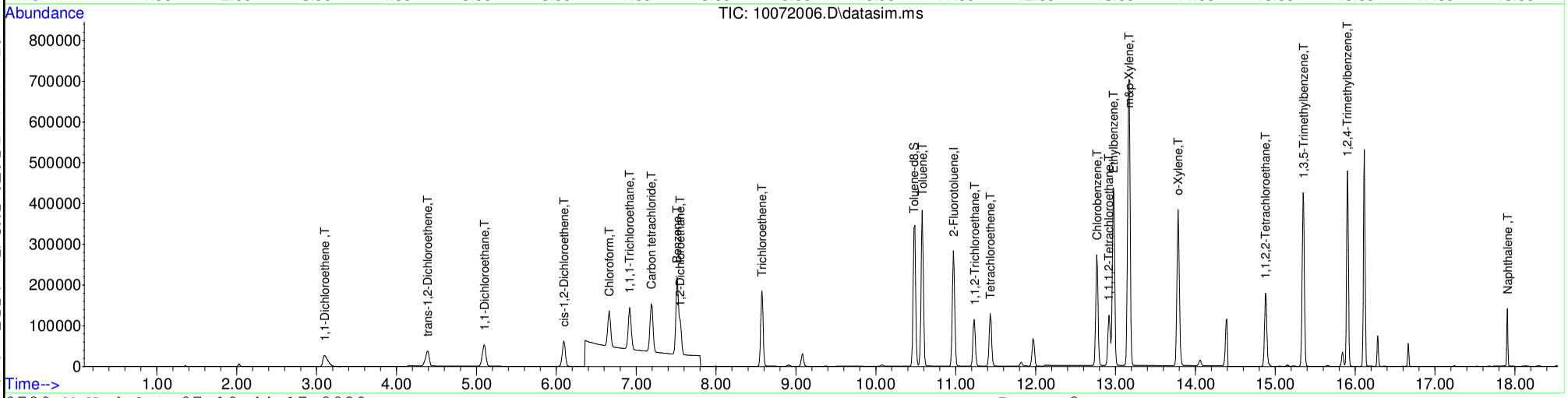
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072006.D
Acq On : 7 Oct 2020 10:18
InstName : AG5975C
Operator : TD
Sample : B20J006-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 10:37:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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# B20J006-BSD1

## Blanks Spike or Blank Spike Duplicate

**Instrument Name:** AG5975C
**Sample Name:** B20J006-BSD1
**Misc Info:** 0
**Date Acquired:** 10/7/2020
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000 | 5000.00 | 100% | 70 | 130 | pass |
| **2)** | **1,1-Dichloroethene** | **3.090** | **5000** | **4589.79** | **92%** | **22** | **143** | **pass** |
| **3)** | **trans-1,2-Dichloroethene** | **4.396** | **5000** | **4652.35** | **93%** | **35** | **133** | **pass** |
| **4)** | **1,1-Dichloroethane** | **5.099** | **5000** | **4809.30** | **96%** | **43** | **140** | **pass** |
| **5)** | **cis-1,2-Dichloroethene** | **6.094** | **5000** | **4797.89** | **96%** | **49** | **134** | **pass** |
| **6)** | **Chloroform** | **6.664** | **5000** | **4653.08** | **93%** | **56** | **132** | **pass** |
| 7) | **1,1,1-Trichloroethane** | **6.919** | **5000** | **4630.27** | **93%** | **58** | **131** | pass |
| 8) | Carbon tetrachloride | 7.187 | 5000 | 4545.15 | 91% | 60 | 126 | pass |
| 9) | Benzene | 7.515 | 5000 | 4445.63 | 89% | 63 | 121 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 5000 | 4762.79 | 95% | 57 | 128 | pass |
| **11)** | **Trichloroethene** | **8.569** | **5000** | **4489.99** | **90%** | **69** | **124** | **pass** |
| 12) | Toluene-d8 | 10.477 | 5000 | 4515.69 | 90% | 70 | 130 | pass |
| 13) | Toluene | 10.571 | 5000 | 4203.11 | 84% | 77 | 111 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 5000 | 4496.97 | 90% | 76 | 115 | pass |
| **15)** | **Tetrachloroethene** | **11.421** | **5000** | **4277.20** | **86%** | **69** | **124** | **pass** |
| 16) | Chlorobenzene | 12.757 | 5000 | 4031.49 | 81% | 64 | 122 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 5000 | 4448.32 | 89% | 68 | 130 | **pass** |
| 18) | Ethylbenzene | 12.964 | 5000 | 4361.55 | 87% | 70 | 130 | pass |
| 19) | m&p-Xylene | 13.162 | 10000 | 8207.76 | 82% | 66 | 129 | pass |
| 20) | o-Xylene | 13.774 | 5000 | 3896.43 | 78% | 63 | 121 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 5000 | 4147.14 | 83% | 55 | 132 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 5000 | 4203.60 | 84% | 61 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 5000 | 3837.96 | 77% | 54 | 143 | pass |
| 25) | 2-Fluorotoluene SCAN | 10.969 | 5000 | 4960.49 | 99% | 20 | 110 | pass |
| 27) | trans-1,2-Dichloroethene SCAN | 4.401 | 5000 | 5107.38 | 102% | 83 | 110 | pass |
| 29) | cis-1,2-Dichloroethene SCAN | 6.093 | 5000 | 5257.29 | 105% | 58 | 118 | pass |
| 31) | 1,1,1-Trichloroethane SCAN | 6.918 | 5000 | 5182.62 | 104% | 59 | 119 | pass |
| 33) | Benzene SCAN | 7.514 | 5000 | 5284.60 | 106% | 69 | 129 | pass |
| 35) | Trichloroethene SCAN | 8.568 | 5000 | 4964.27 | 99% | 69 | 129 | pass |
| 37) | Toluene SCAN | 10.580 | 5000 | 4516.93 | 90% | 66 | 126 | pass |
| 39) | Tetrachloroethene SCAN | 11.430 | 5000 | 4673.81 | 93% | 59 | 119 | pass |
| 41) | 1,1,1,2-Tetrachloroethane SCAN | 12.907 | 5000 | 4114.45 | 82% | 62 | 122 | pass |
| 43) | m&p-Xylene SCAN | 13.161 | 5000 | 4562.81 | 91% | 68 | 128 | pass |
| 45) | 1,1,2,2-Tetrachloroethane SCAN | 14.872 | 5000 | 4591.92 | 92% | 63 | 123 | pass |
| 47) | 1,2,4-Trimethylbenzene SCAN | 15.899 | 5000 | 4109.06 | 82% | 20 | 110 | pass |

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072007.D
Acq On : 7 Oct 2020 10:42
InstName : AG5975C
Operator : TD
Sample : B20J006-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 11:01:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

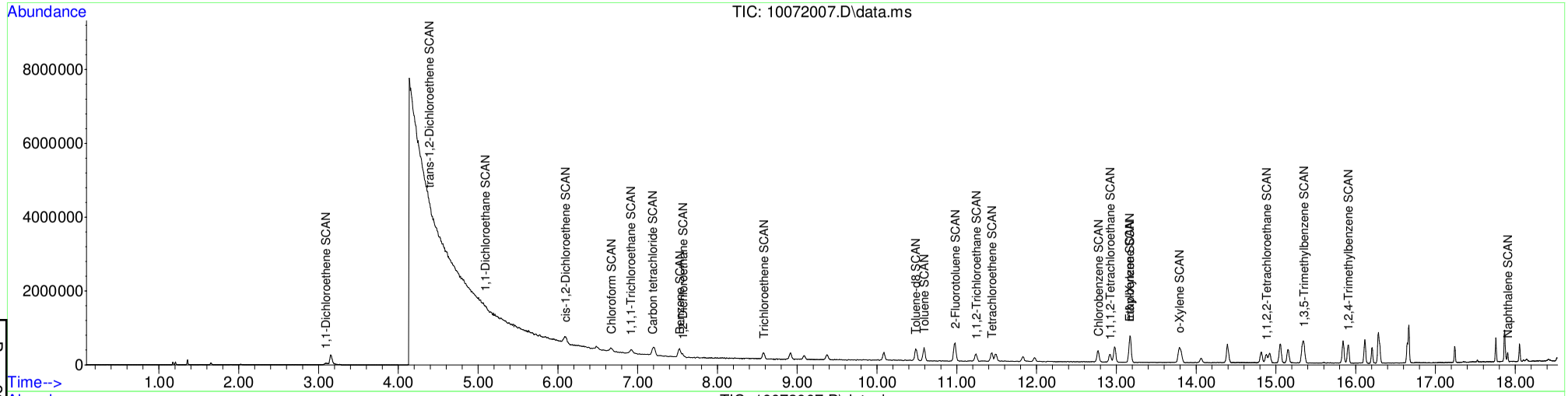
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 498430 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 440610 | 4515.69 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 90.31% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.093 | 61 | 91351 | 4589.79 ug/L | 81 |
| 3] trans-1,2-Dichloroethene | 4.389 | 61 | 106983 | 4652.35 ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 137666 | 4809.30 ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 144971 | 4797.89 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 143905 | 4653.08 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 155516 | 4630.27 ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 143682 | 4545.15 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 376483 | 4445.63 ug/L | 98 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 143984 | 4762.79 ug/L | 98 |
| 11] Trichloroethene | 8.580 | 130 | 114485 | 4489.99 ug/L | 92 |
| 13] Toluene | 10.582 | 91 | 522853 | 4203.11 ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 121895 | 4496.97 ug/L | 96 |
| 15] Tetrachloroethene | 11.442 | 166 | 153980 | 4277.20 ug/L | 100 |
| 16] Chlorobenzene | 12.773 | 112 | 359095 | 4031.49 ug/L | 91 |
| 17] 1,1,1,2-Tetrachloroethane | 12.924 | 131 | 141975 | 4448.32 ug/L | 99 |
| 18] Ethylbenzene | 12.980 | 91 | 660412 | 4361.55 ug/L | 98 |
| 19] m&p-Xylene | 13.170 | 91 | 971321 | 8207.76 ug/L | 96 |
| 20] o-Xylene | 13.782 | 91 | 492637 | 3896.43 ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 232381 | 4147.14 ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.348 | 105 | 565690 | 4203.60 ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.904 | 105 | 536473 | 3837.96 ug/L | 96 |
| 24] Naphthalene | 17.906 | 128 | 222596 | 1007.57 ug/L | 98 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 241019 | 4960.49 ug/L | 91 |
| 26) 1,1-Dichloroethene SCAN | 3.092 | 61 | 54054 | 5238.50 ug/L | 78 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 65214 | 5107.38 ug/L | 77 |
| 28) 1,1-Dichloroethane SCAN | 5.091 | 63 | 83521 | 5652.04 ug/L | 95 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 83235 | 5257.29 ug/L # | 77 |
| 30) Chloroform SCAN | 6.675 | 83 | 77169 | 4493.80 ug/L | 93 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 81102 | 5182.62 ug/L | 90 |
| 32) Carbon tetrachloride SCAN | 7.185 | 117 | 72699 | 4453.65 ug/L | 91 |
| 33) Benzene SCAN | 7.526 | 78 | 227698 | 5284.60 ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 78066 | 4906.71 ug/L | 94 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 58780 | 4964.27 ug/L | 87 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 232404 | 4890.93 ug/L | 96 |
| 37) Toluene SCAN | 10.591 | 91 | 274869 | 4516.93 ug/L | 99 |
| 38) 1,1,2-Trichloroethane ... | 11.242 | 97 | 65143 | 4769.26 ug/L | 92 |
| 39) Tetrachloroethene SCAN | 11.441 | 166 | 68330 | 4673.81 ug/L | 95 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 176178 | 4236.86 ug/L | 87 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.923 | 131 | 63316 | 4114.45 ug/L | 94 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 505849 | 4562.81 ug/L | 92 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 505849 | 4562.81 ug/L | 92 |
| 44) o-Xylene SCAN | 13.789 | 91 | 252696 | 4258.26 ug/L | 96 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.883 | 83 | 132873 | 4591.92 ug/L | 97 |
| 46) 1,3,5-Trimethylbenzene... | 15.347 | 105 | 279502 | 4469.10 ug/L | 98 |
| 47) 1,2,4-Trimethylbenzene... | 15.908 | 105 | 262952 | 4109.06 ug/L | 96 |
| 48) Naphthalene SCAN | 17.905 | 128 | 98149 | 1013.60 ug/L | 98 |

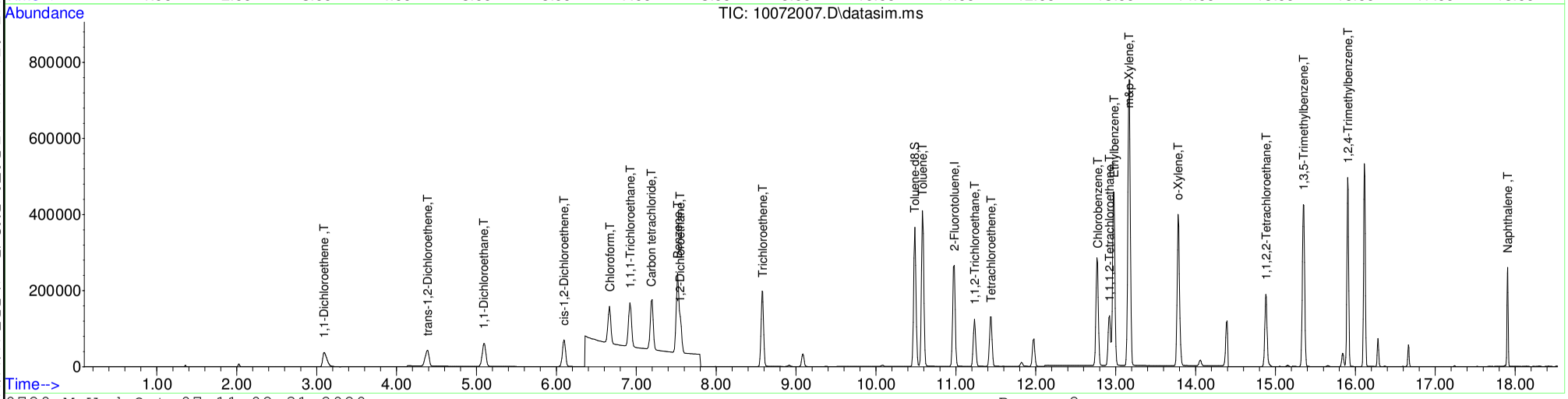
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072007.D
Acq On : 7 Oct 2020 10:42
InstName : AG5975C
Operator : TD
Sample : B20J006-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 11:01:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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# B20J006-MRL1

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

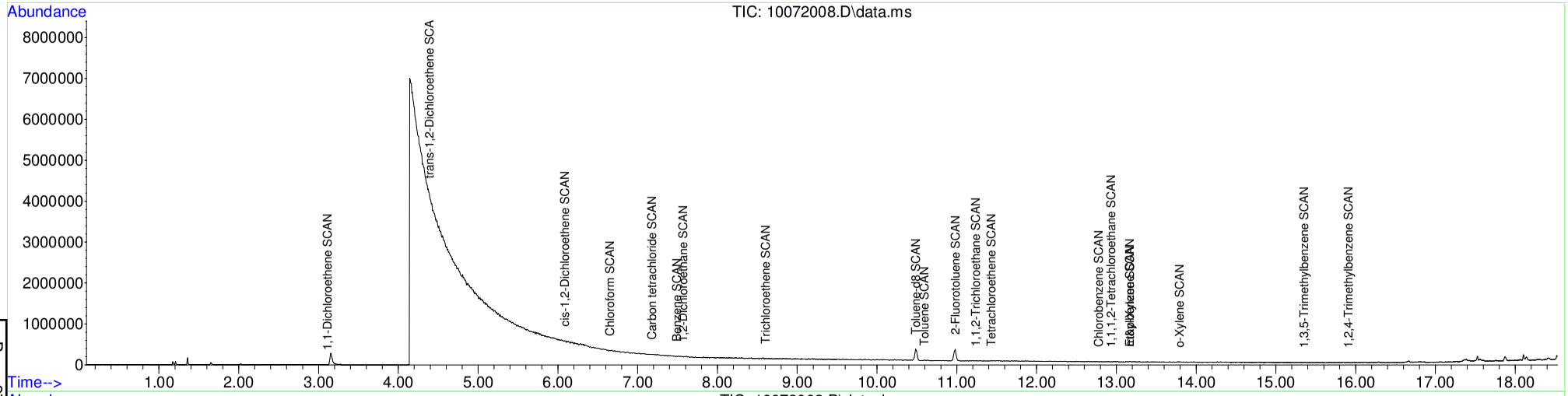
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 429055 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 373704 | 4449.27 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.99% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 1428 | 83.35 ug/L | 78 |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1076 | 54.36 ug/L | 63 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1362 | 55.27 ug/L | 57 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1404 | 53.98 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 1540 | 57.85 ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1440 | 49.81 ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1314 | 48.29 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 7041 | 96.59 ug/L # | 31 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1392 | 53.49 ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1099 | 50.07 ug/L | 90 |
| 13] Toluene | 10.582 | 91 | 6121 | 57.16 ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1140 | 48.86 ug/L | 88 |
| 15] Tetrachloroethene | 11.432 | 166 | 1493 | 48.18 ug/L | 97 |
| 16] Chlorobenzene | 12.773 | 112 | 3625 | 47.28 ug/L | 67 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1375 | 50.05 ug/L | 99 |
| 18] Ethylbenzene | 12.980 | 91 | 8921 | 68.44 ug/L | 96 |
| 19] m&p-Xylene | 13.170 | 91 | 12171 | 119.48 ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 5455 | 50.12 ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2339 | 48.49 ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 6196 | 53.49 ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 6487 | 53.91 ug/L | 92 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 219067 | 5237.71 ug/L | 100 |
| 26) 1,1-Dichloroethene SCAN | 3.111 | 61 | 195 | 21.95 ug/L # | 50 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 397 | 36.12 ug/L # | 26 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 935 | 68.61 ug/L # | 33 |
| 30) Chloroform SCAN | 6.650 | 83 | 1326 | 89.70 ug/L # | 27 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 474 | 33.73 ug/L # | 38 |
| 33) Benzene SCAN | 7.490 | 78 | 11713 | 315.80 ug/L | 99 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 1115 | 81.41 ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.595 | 130 | 303 | 29.73 ug/L # | 23 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 196309 | 4799.32 ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 3478 | 66.40 ug/L | 83 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 566 | 48.14 ug/L # | 29 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 380 | 30.19 ug/L # | 62 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 1952 | 54.53 ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.931 | 131 | 273 | 20.61 ug/L # | 1 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 6312 | 66.14 ug/L # | 35 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 6312 | 66.14 ug/L # | 51 |
| 44) o-Xylene SCAN | 13.789 | 91 | 2779 | 54.40 ug/L | 78 |
| 46) 1,3,5-Trimethylbenzene... | 15.348 | 105 | 3778 | 70.18 ug/L | 89 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 3105 | 56.37 ug/L | 94 |

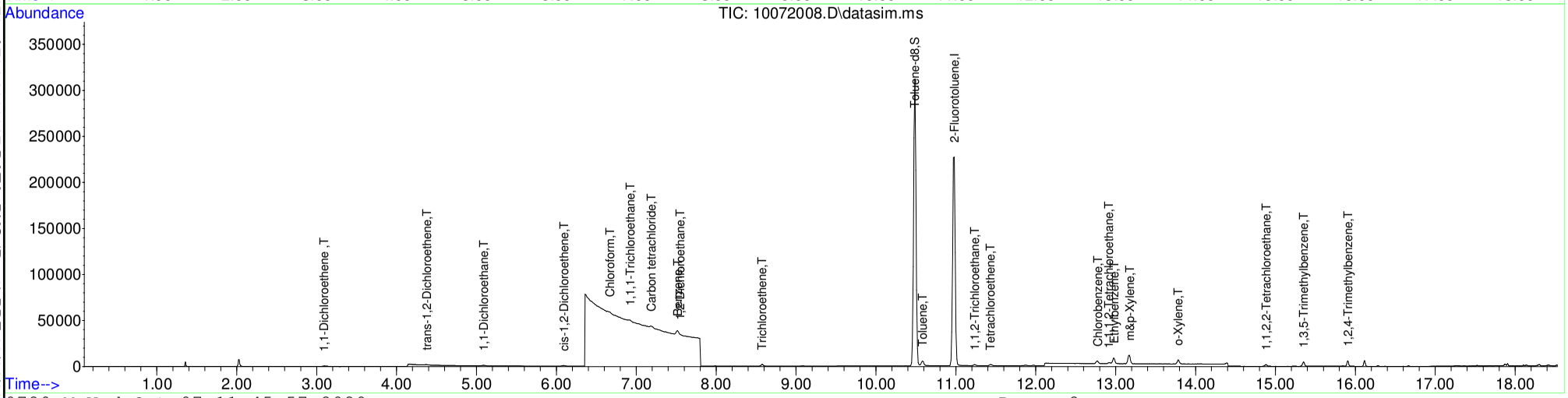
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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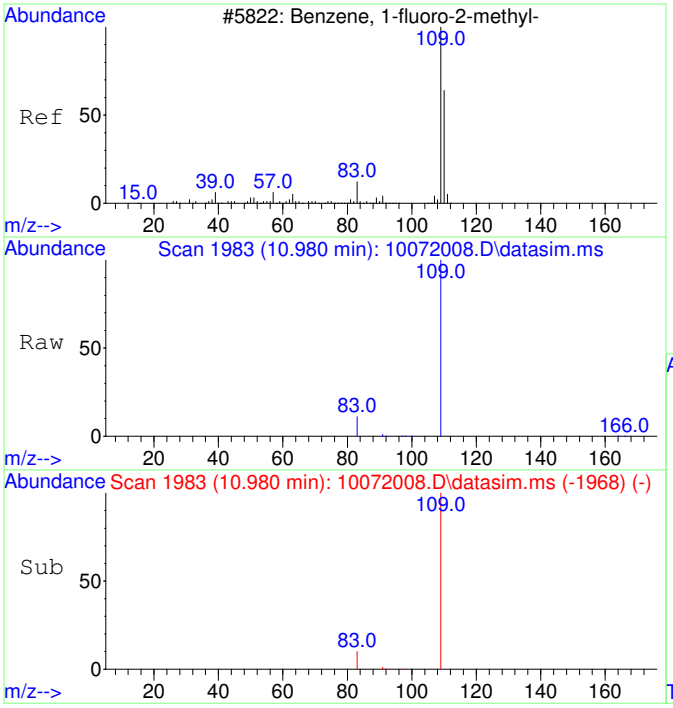
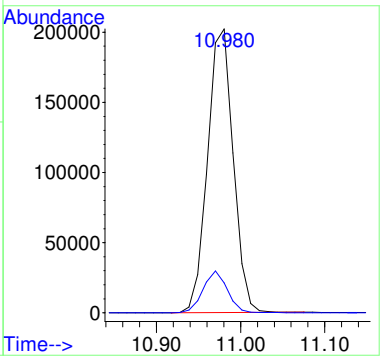
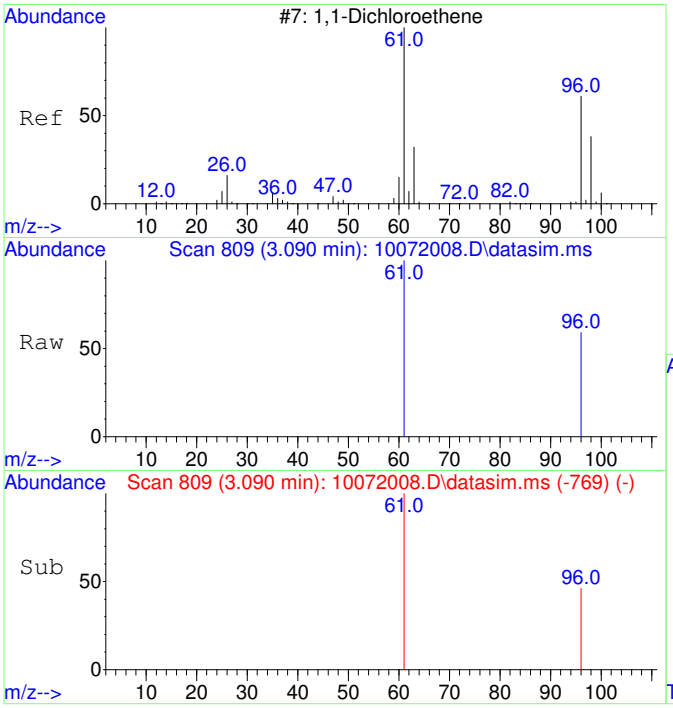



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 429055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

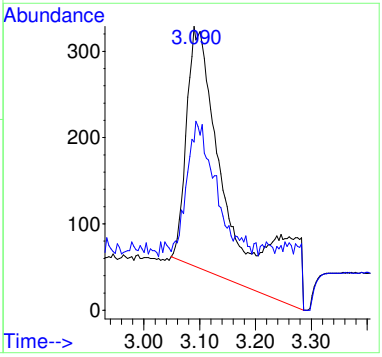


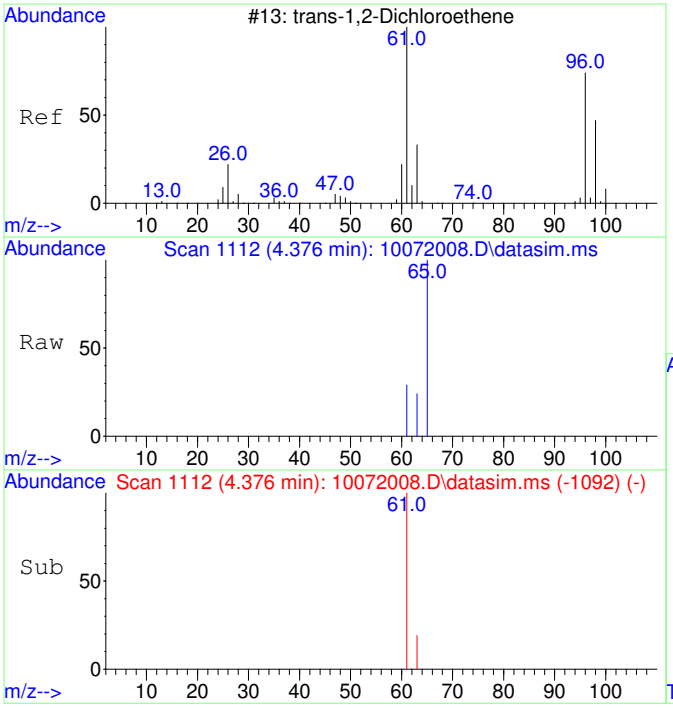

#2
1,1-Dichloroethene
Concen: 83.35 ug/L
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 49.3 | 37.2 | 97.2 |



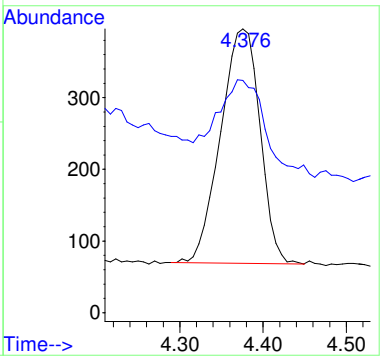

Before MI:
IMPROPER
BASELINE

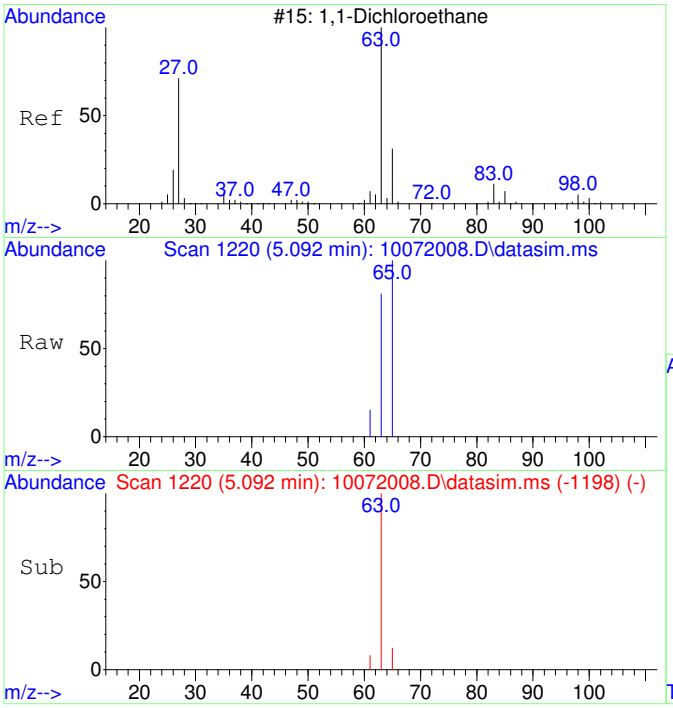



#3
trans-1,2-Dichloroethene
Concen: 54.36 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 53.3 | 2.4 | 62.4 |

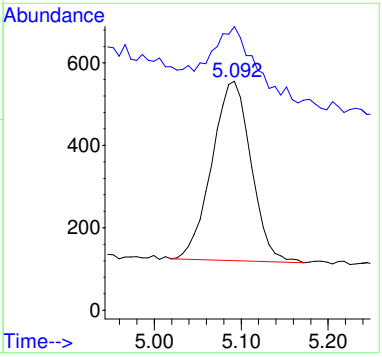


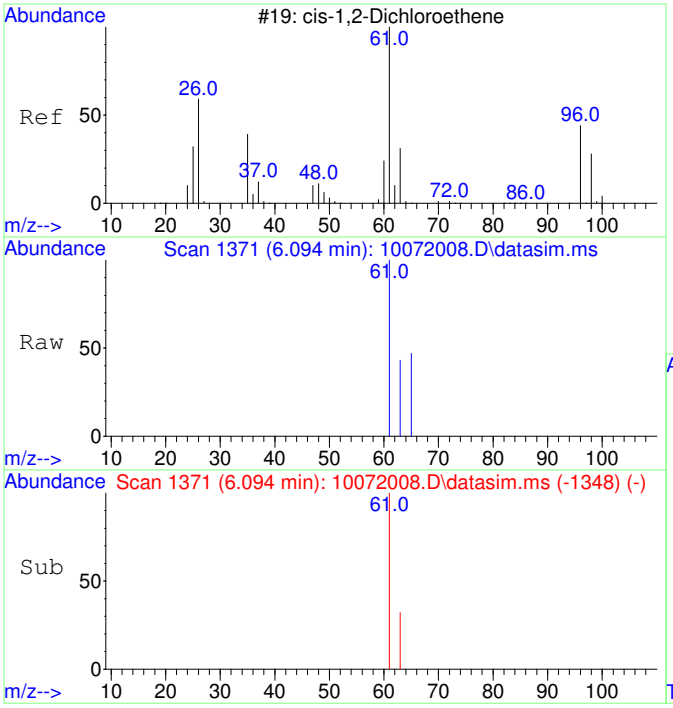




#4
1,1-Dichloroethane
Concen: 55.27 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 63 Resp: 1362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 55.7 | 1.8 | 61.8 |

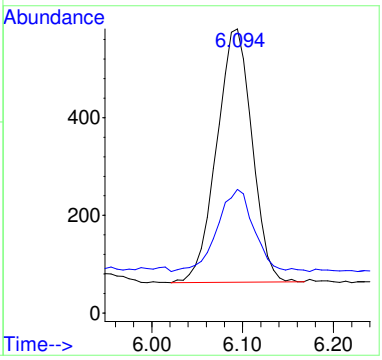


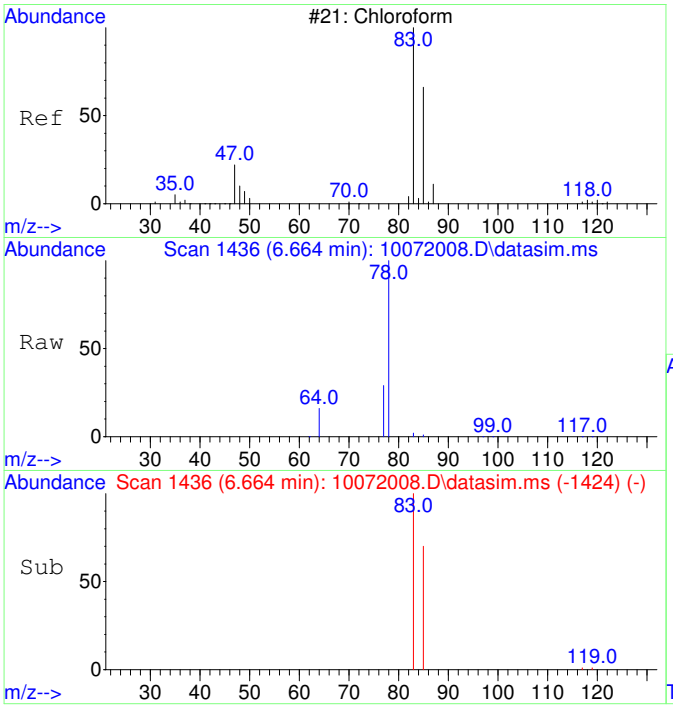



#5
cis-1,2-Dichloroethene
Concen: 53.98 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.2 | 2.5 | 62.5 |

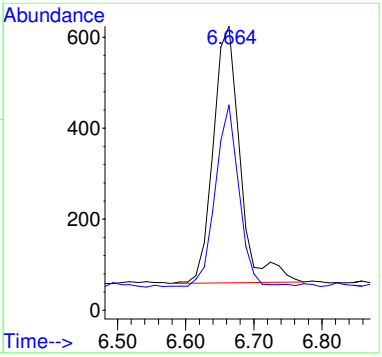


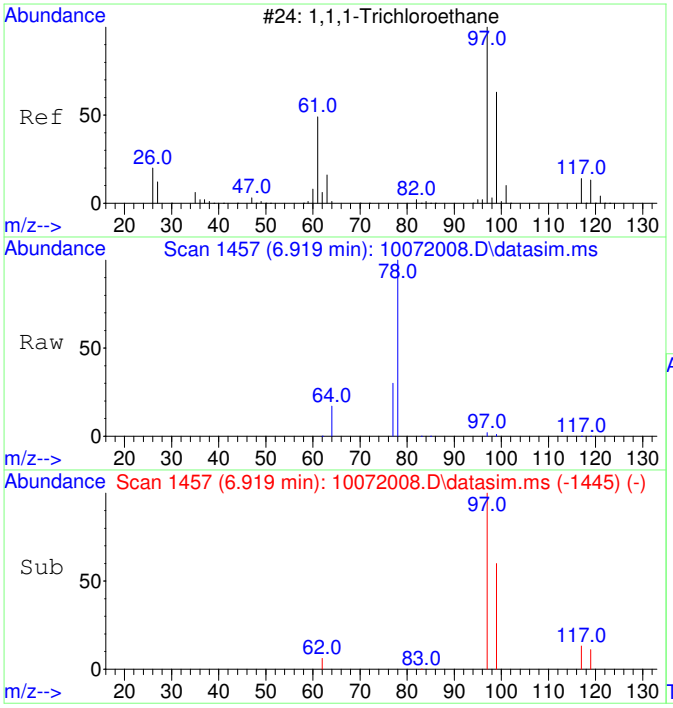




#6
Chloroform
Concen: 57.85 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 60.9 | 35.1 | 95.1 |

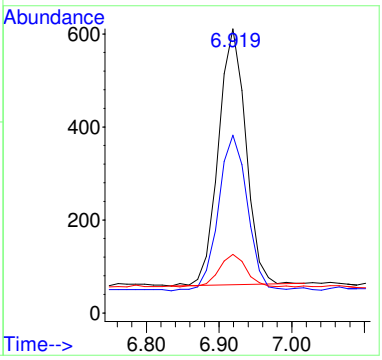


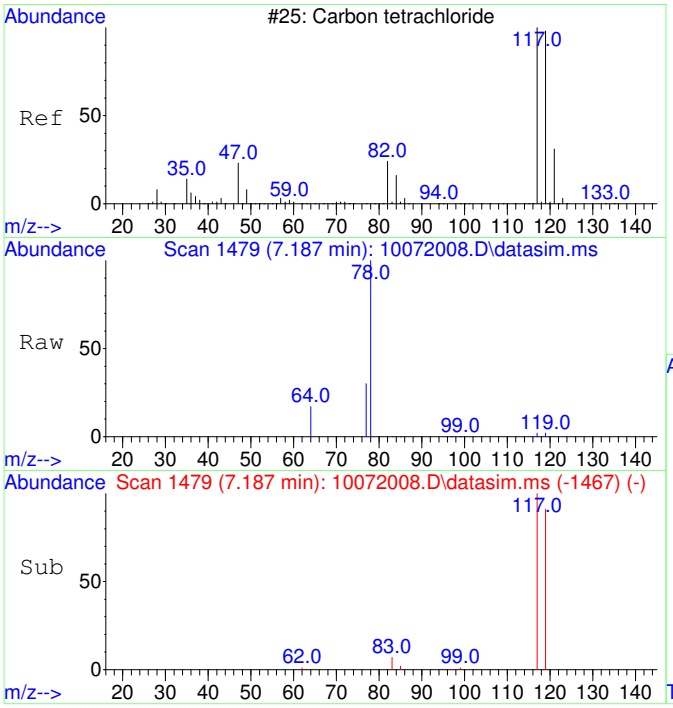



#7
1,1,1-Trichloroethane
Concen: 49.81 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.2 | 34.6 | 94.6 |
| 117 | 13.1 | 0.0 | 43.2 |

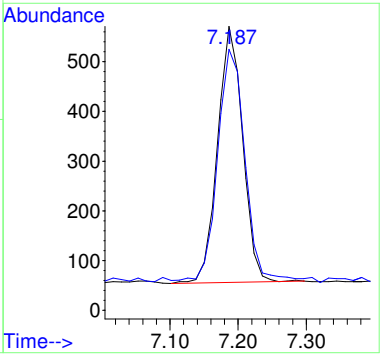


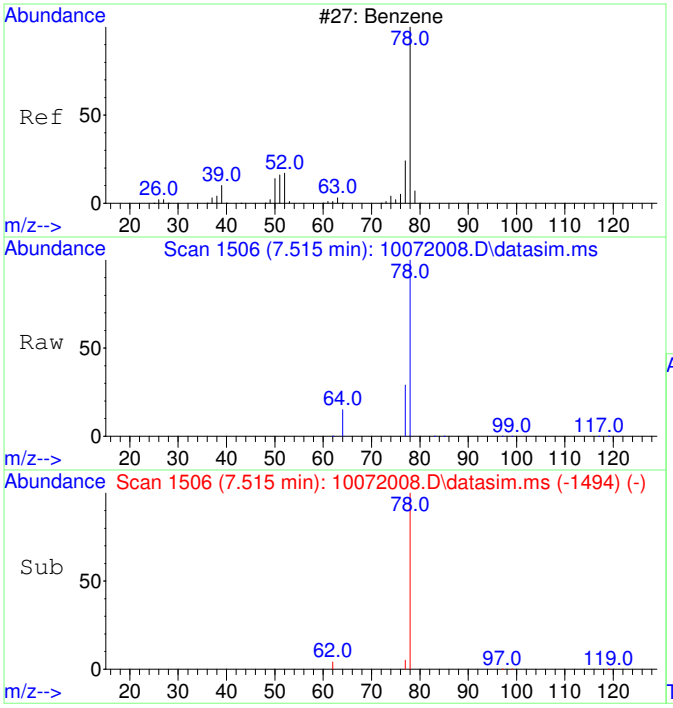




#8
Carbon tetrachloride
Concen: 48.29 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 1314

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

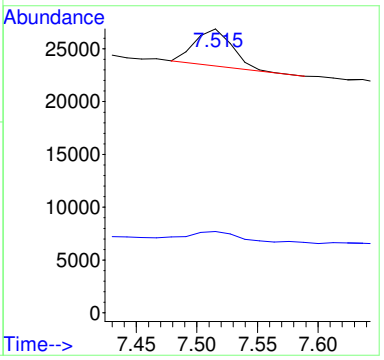


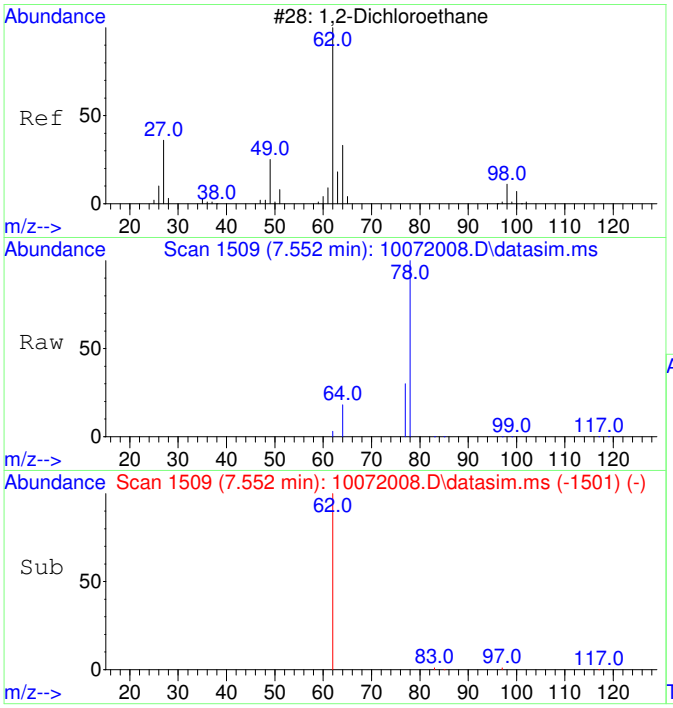



#9
Benzene
Concen: 96.59 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 7041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 56.6 | 0.0 | 53.2# |

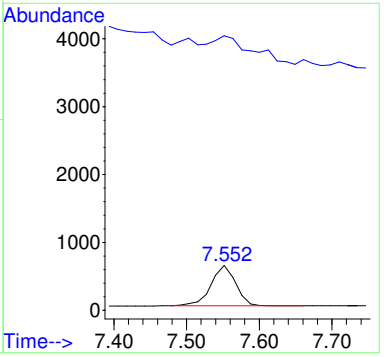


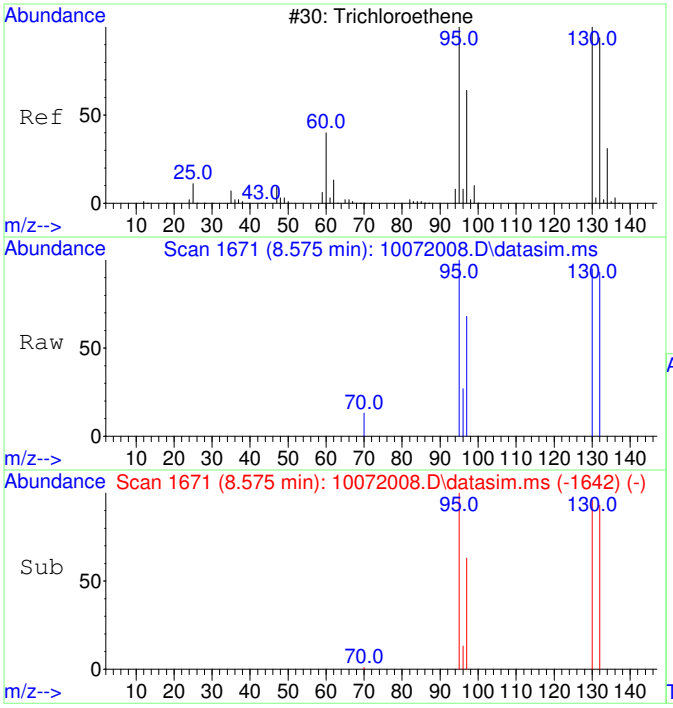




#10
1,2-Dichloroethane
Concen: 53.49 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1392

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 123.1 | 2.3 | 62.3# |

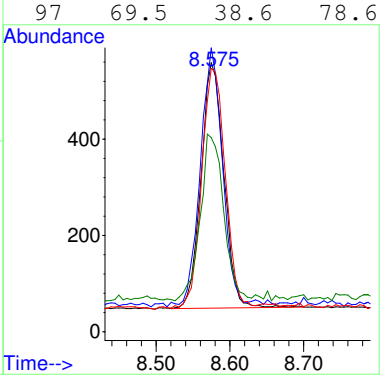


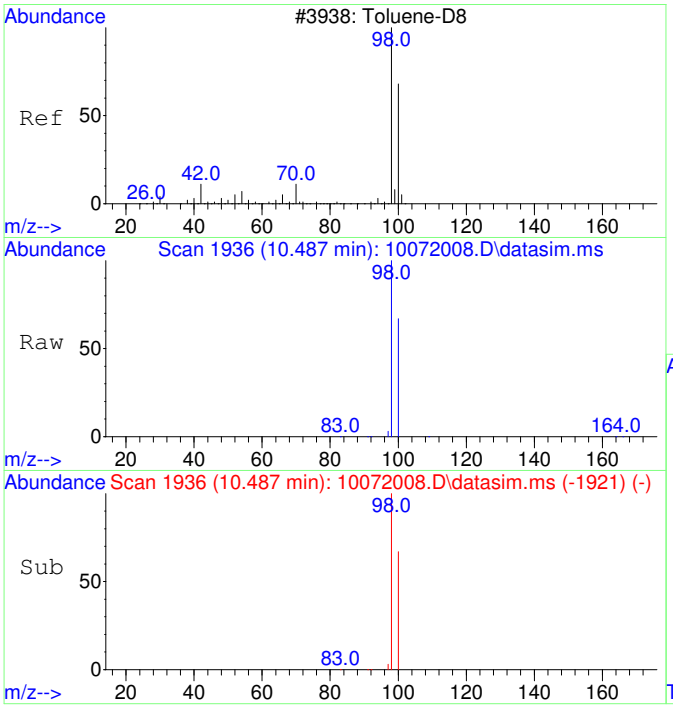



#11
Trichloroethene
Concen: 50.07 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 1099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.0 | 60.7 | 120.7 |
| 132 | 101.0 | 76.0 | 116.0 |
| 97 | 69.5 | 38.6 | 78.6 |

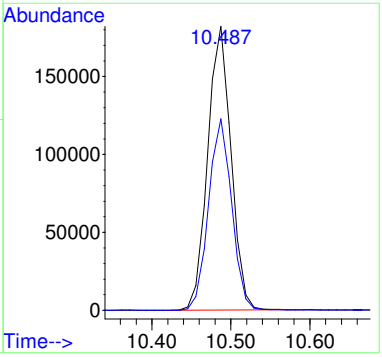


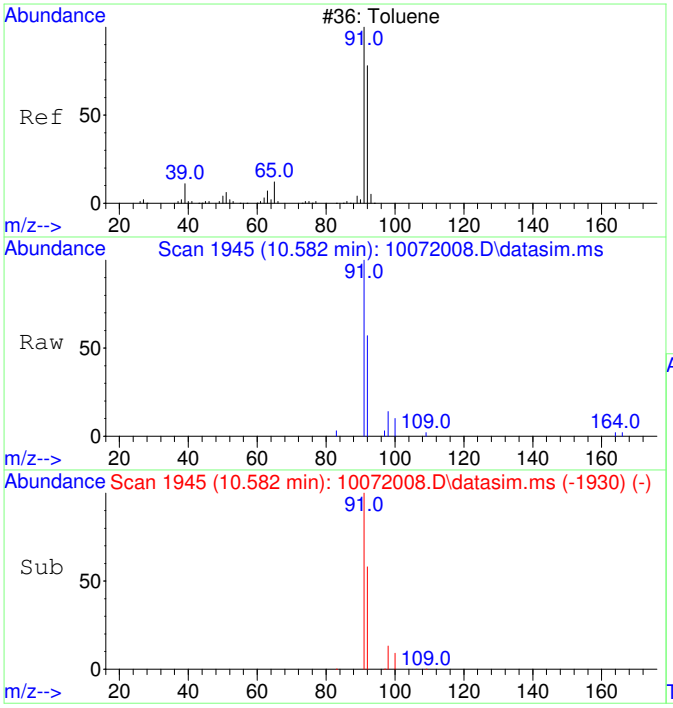




#12
Toluene-d8
Concen: 4449.27 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 373704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

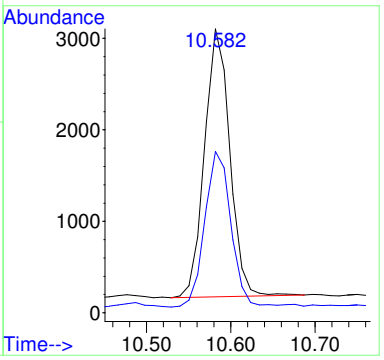


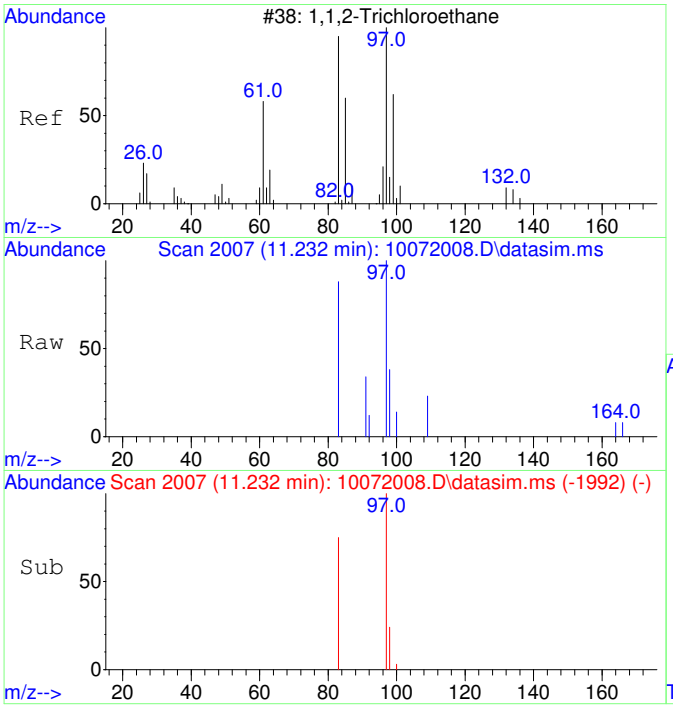



#13
Toluene
Concen: 57.16 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.9 | 29.9 | 89.9 |

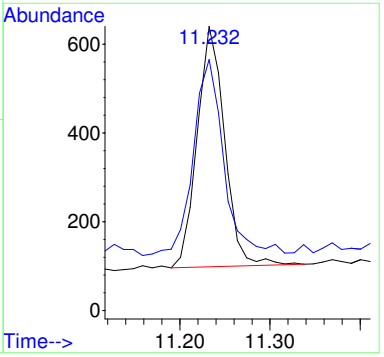


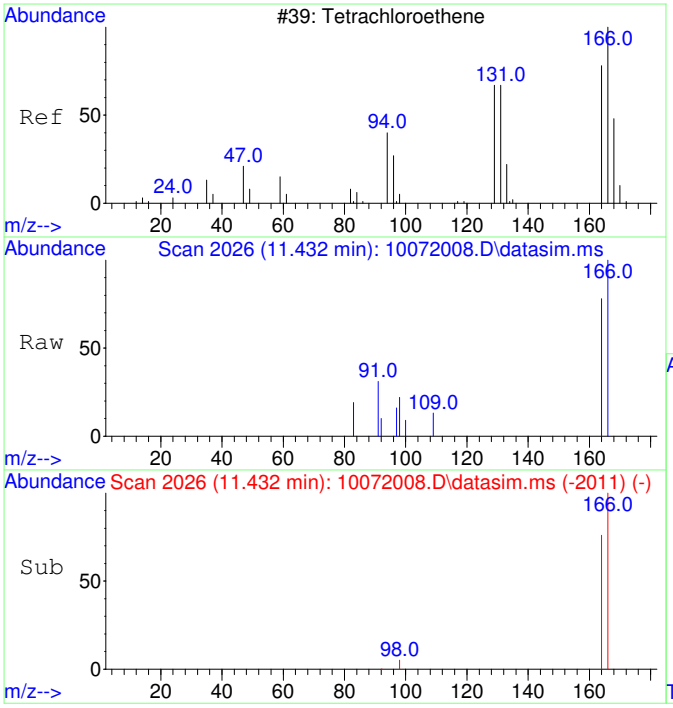




#14
1,1,2-Trichloroethane
Concen: 48.86 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 91.5 | 51.2 | 111.2 |

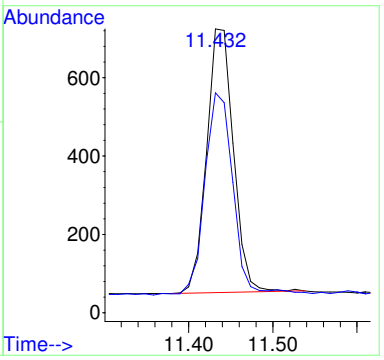


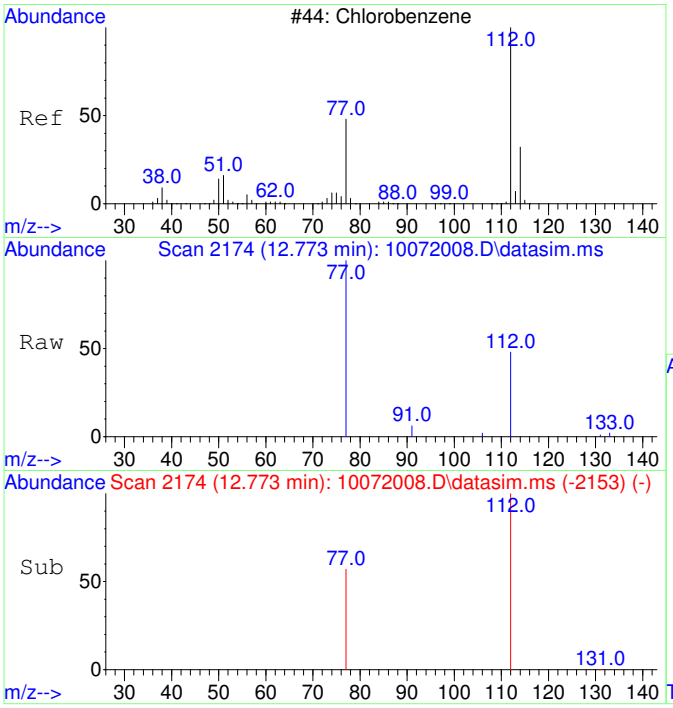



#15
Tetrachloroethene
Concen: 48.18 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 1493

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 47.8 | 107.8 |

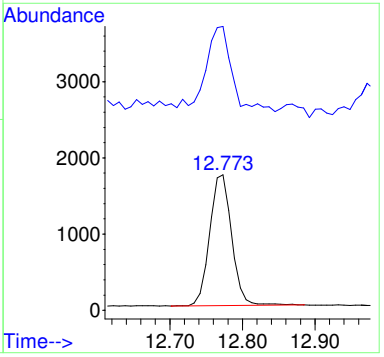


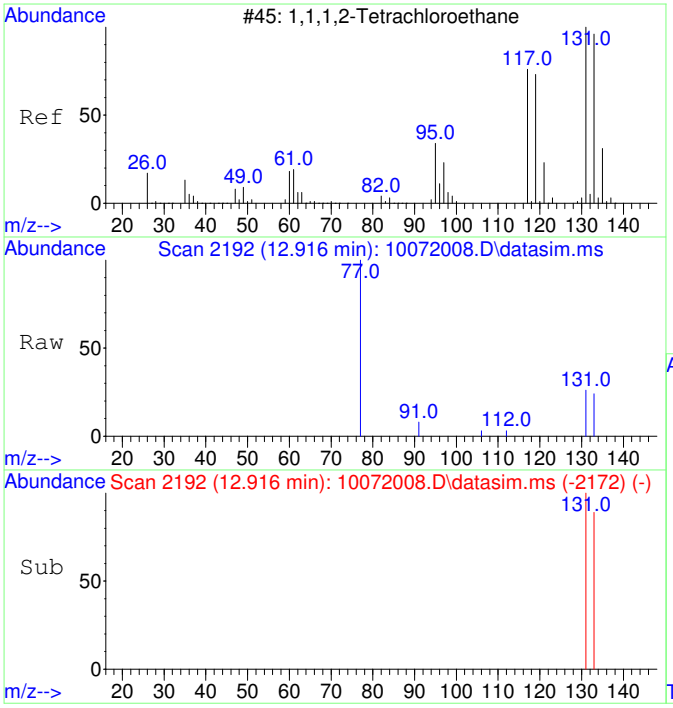




#16
Chlorobenzene
Concen: 47.28 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 3625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 77.2 | 23.6 | 83.6 |

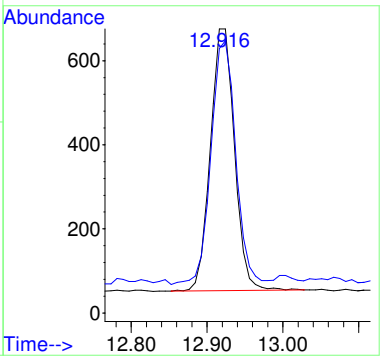


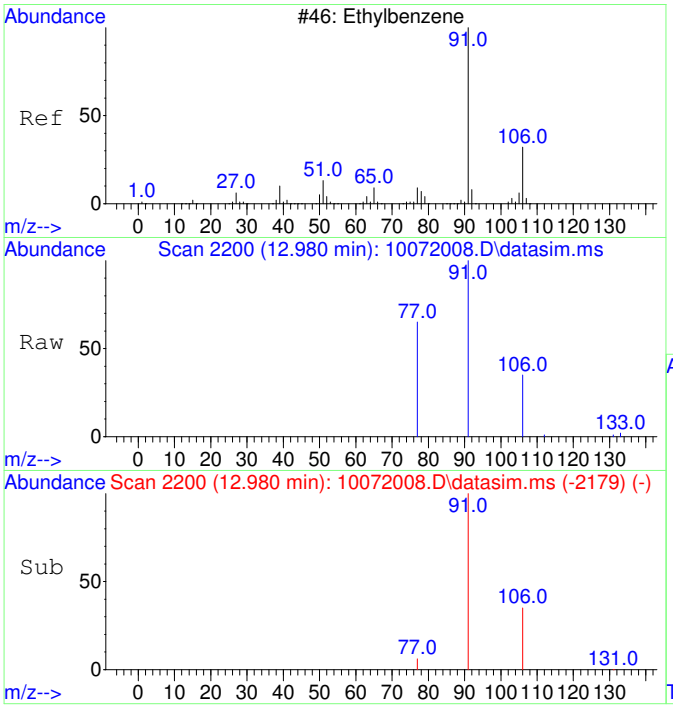



#17
1,1,1,2-Tetrachloroethane
Concen: 50.05 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 1375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.3 | 66.3 | 126.3 |

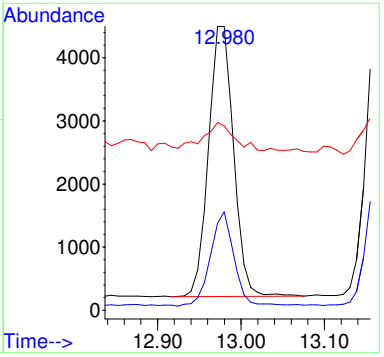


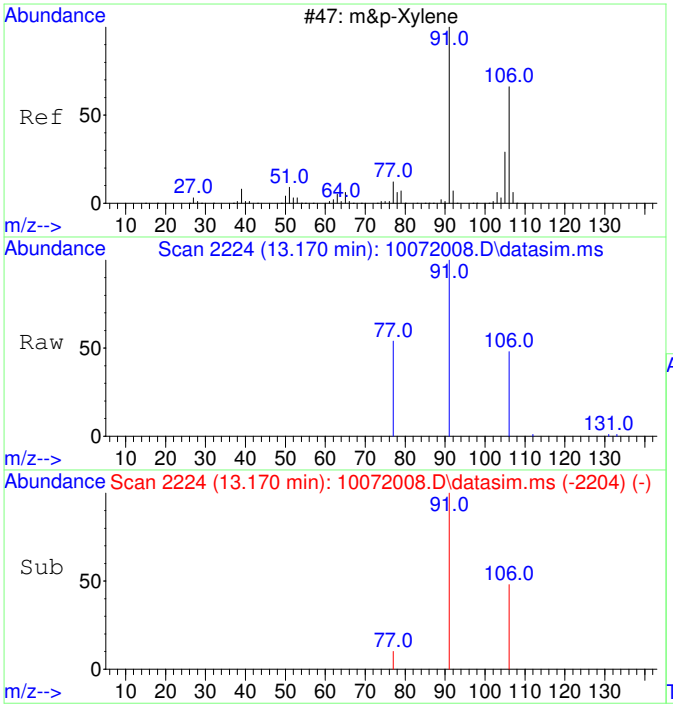




#18
Ethylbenzene
Concen: 68.44 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 8921

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.1 | 3.0 | 63.0 |
| 77 | 13.4 | 0.0 | 38.2 |

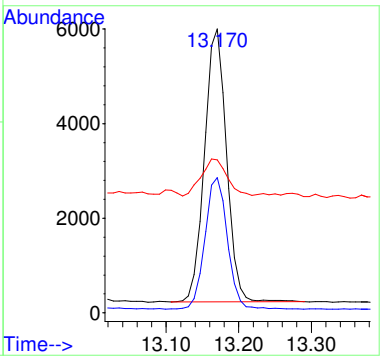


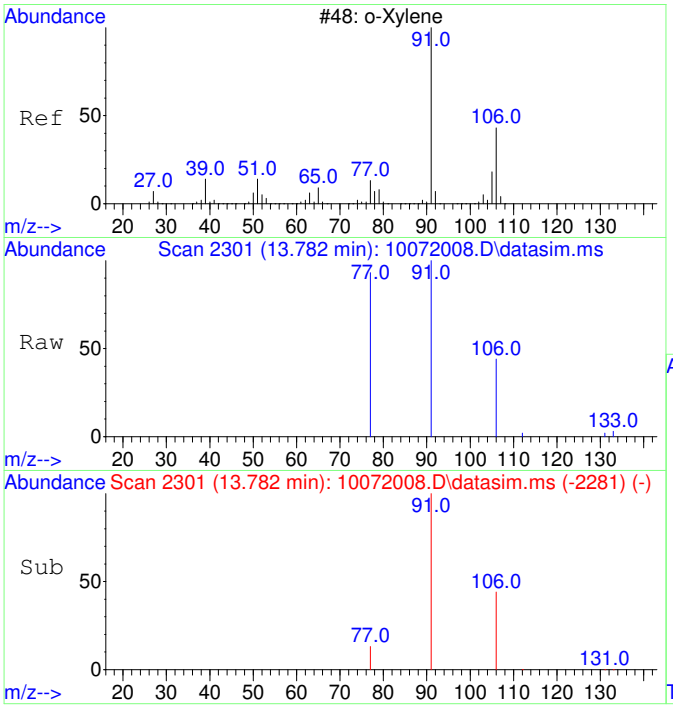



#19
m&p-Xylene
Concen: 119.48 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 12171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.3 | 22.2 | 82.2 |
| 77 | 15.8 | 0.0 | 42.4 |

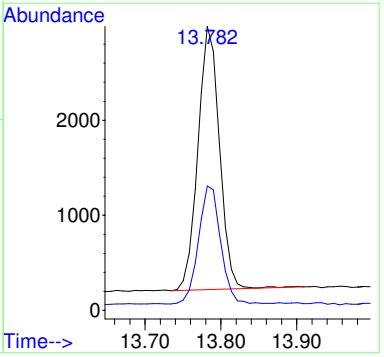


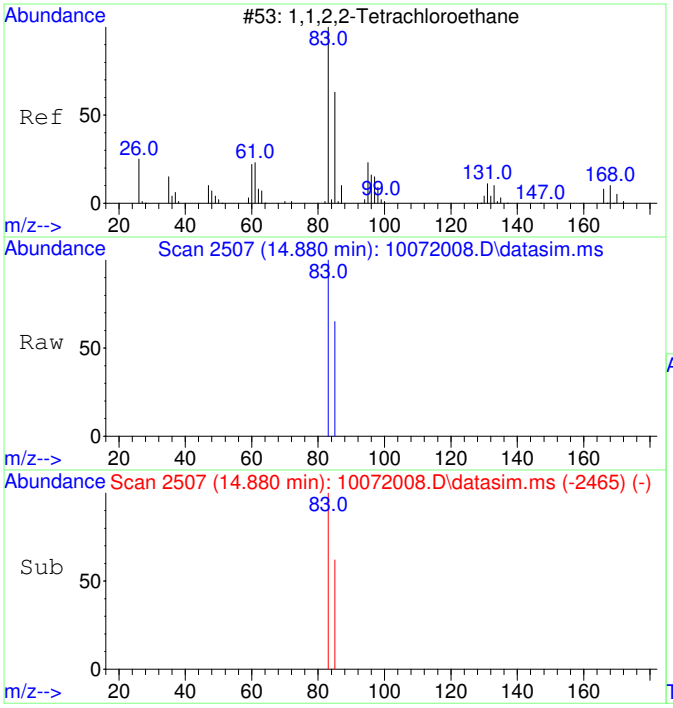




#20
o-Xylene
Concen: 50.12 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 5455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 19.2 | 79.2 |

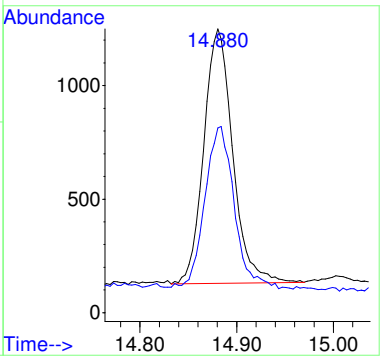


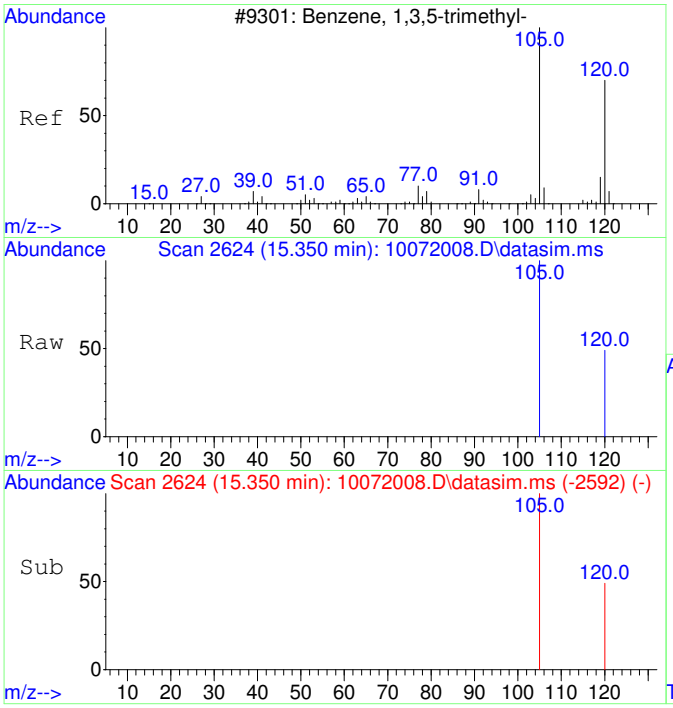



#21
1,1,2,2-Tetrachloroethane
Concen: 48.49 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 2339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.0 | 34.8 | 94.8 |

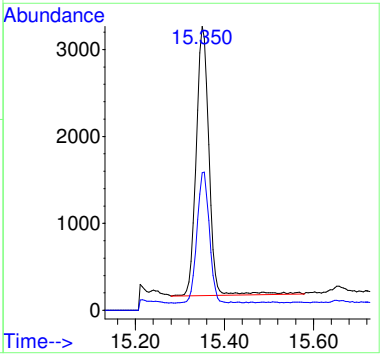


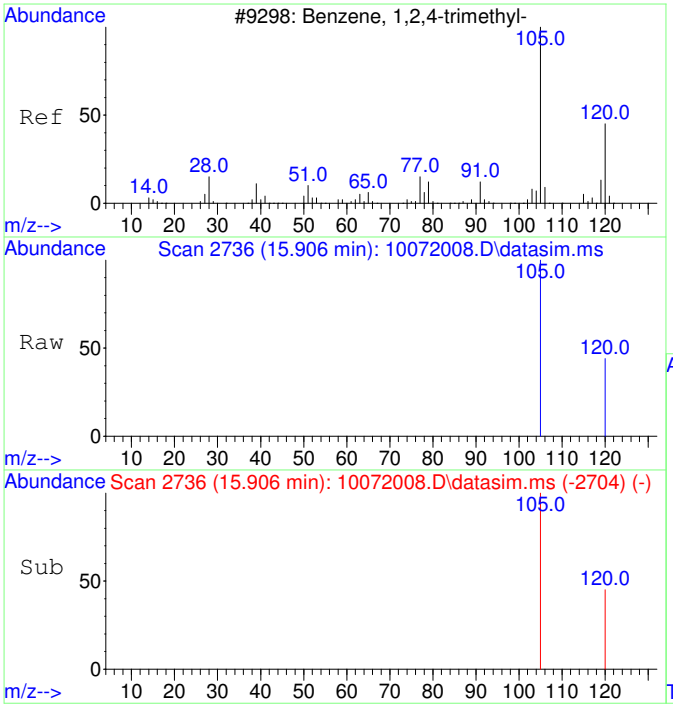




#22
1,3,5-Trimethylbenzene
Concen: 53.49 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.6 | 21.1 | 81.1 |

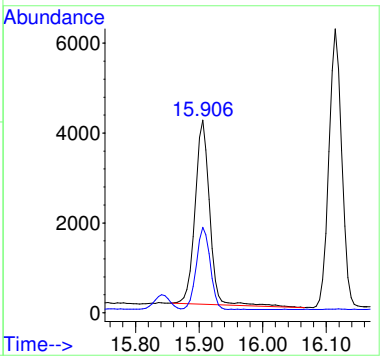


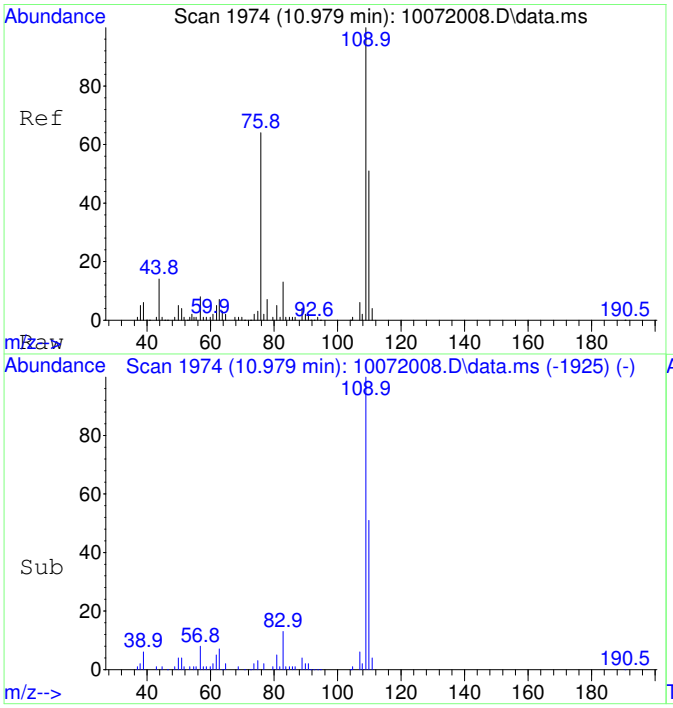



#23
1,2,4-Trimethylbenzene
Concen: 53.91 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6487

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.9 | 17.2 | 77.2 |

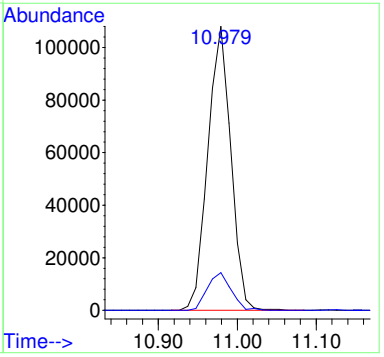


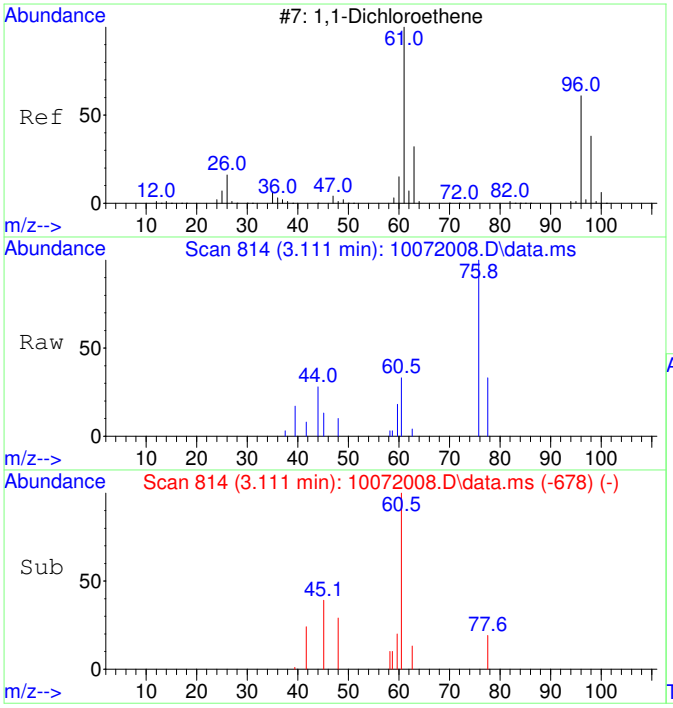




#25
2-Fluorotoluene SCAN
Concen: 5237.71 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 219067

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 43.8 |

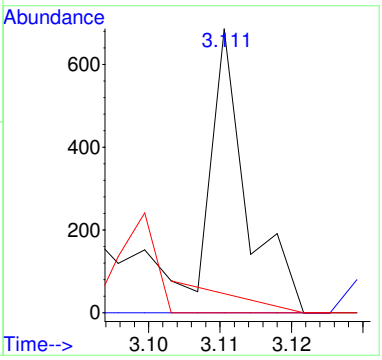


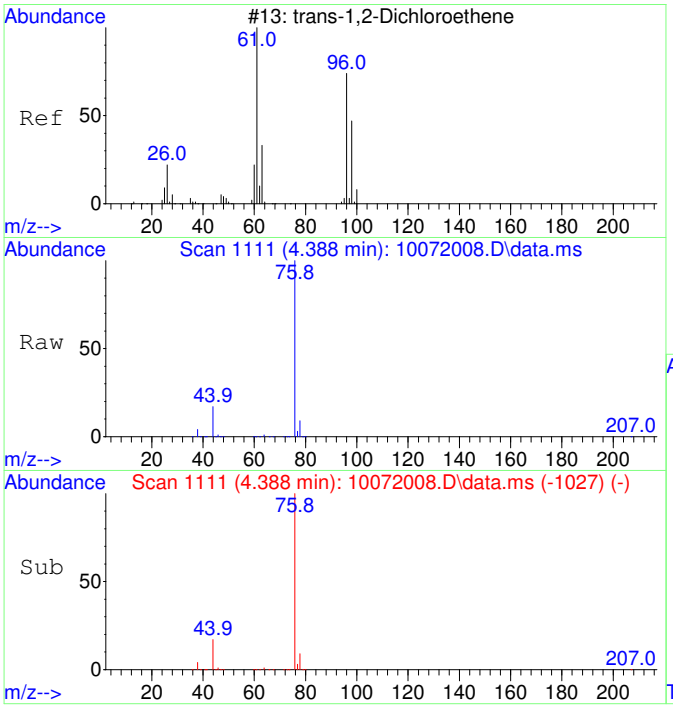



#26
1,1-Dichloroethene SCAN
Concen: 21.95 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 43.1 | 11.2 | 71.2 |

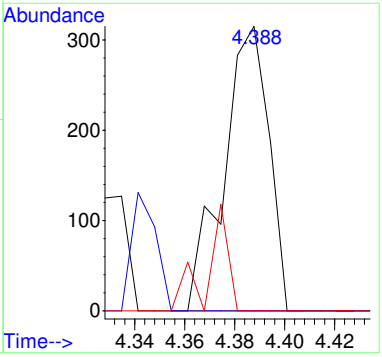


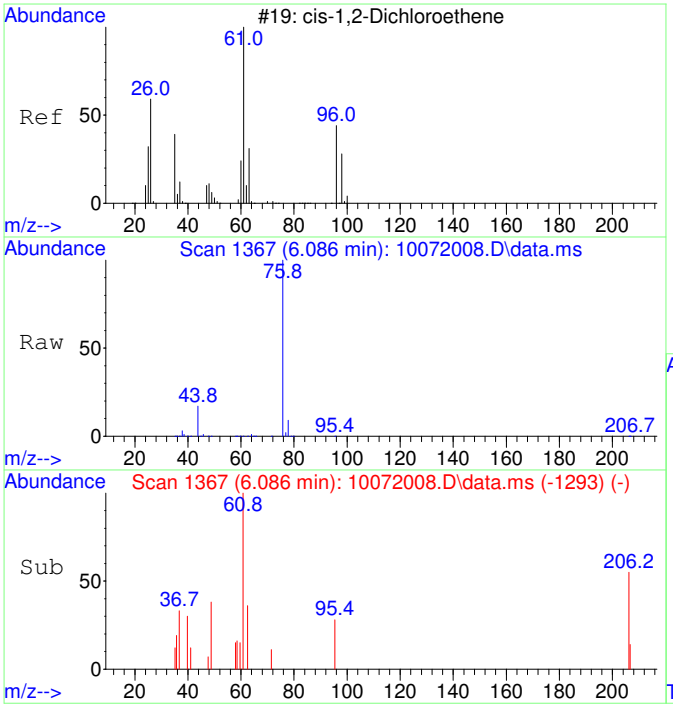




#27
trans-1,2-Dichloroethene SCAN
Concen: 36.12 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 17.1 | 20.5 | 80.5# |

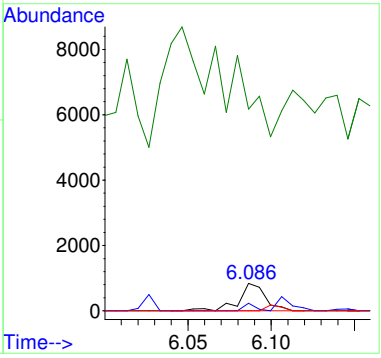


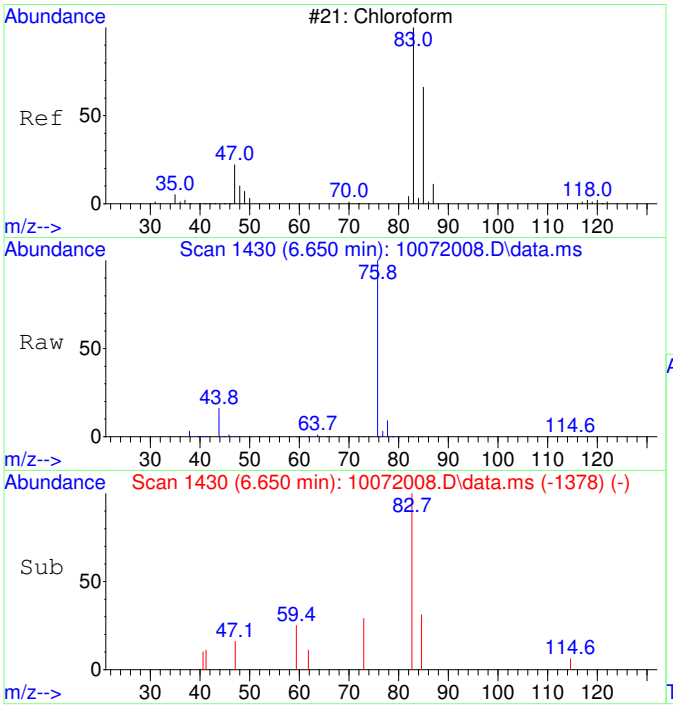



#29
cis-1,2-Dichloroethene SCAN
Concen: 68.61 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 12.1 | 39.9 | 99.9# |
| 98 | 0.0 | 13.5 | 73.5# |
| 64 | 0.0 | 4.5 | 64.5# |

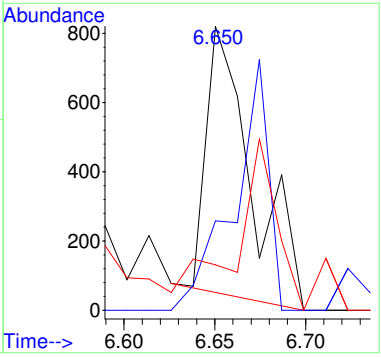


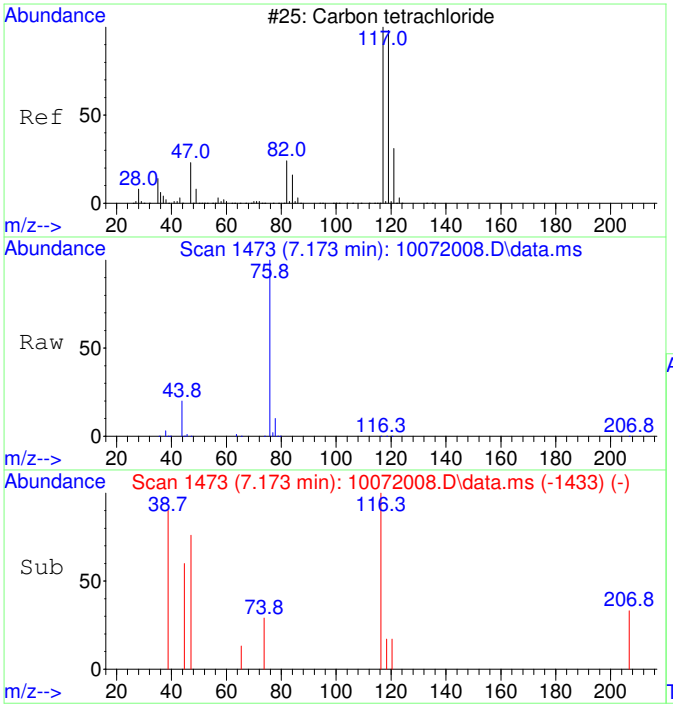




#30
Chloroform SCAN
Concen: 89.70 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1326

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

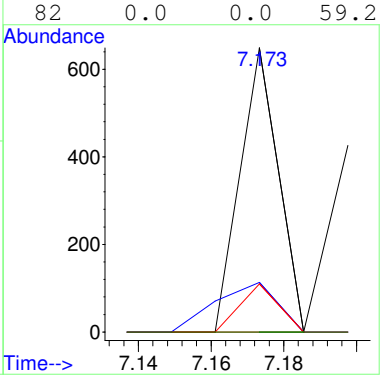


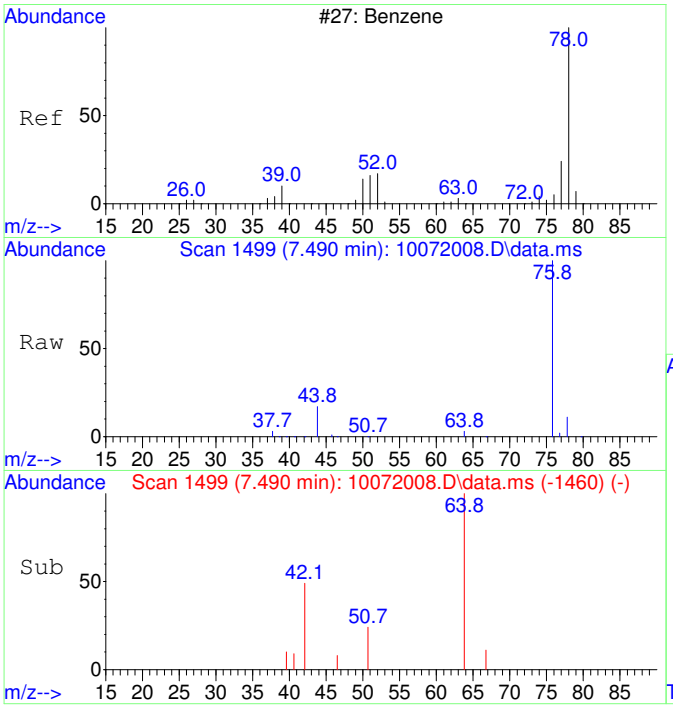



#32
Carbon tetrachloride SCAN
Concen: 33.73 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 28.3 | 75.5 | 135.5# |
| 121 | 16.9 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

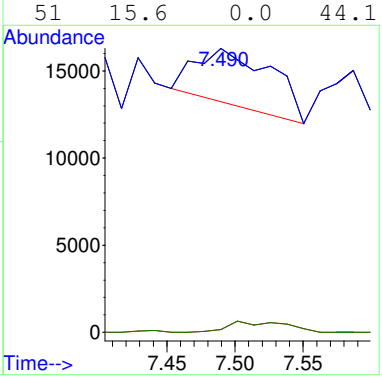


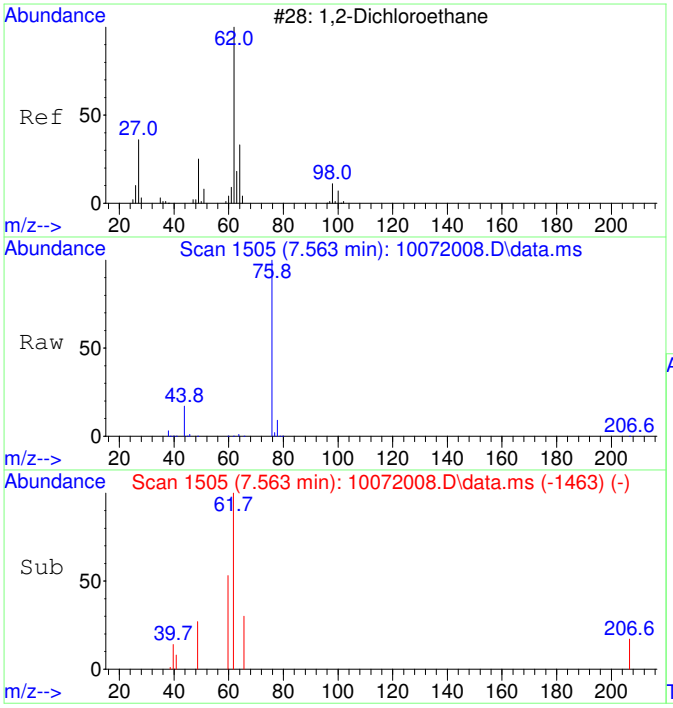




#33
Benzene SCAN
Concen: 315.80 ug/L
RT: 7.490 min Scan# 1499
Delta R.T. -0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 11713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 15.6 | 0.0 | 47.9 |
| 51 | 15.6 | 0.0 | 44.1 |

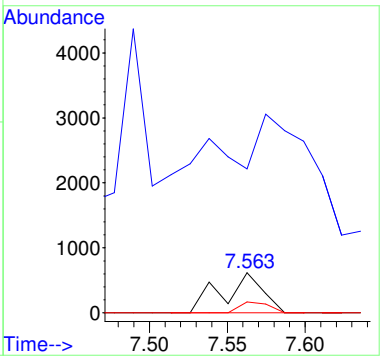


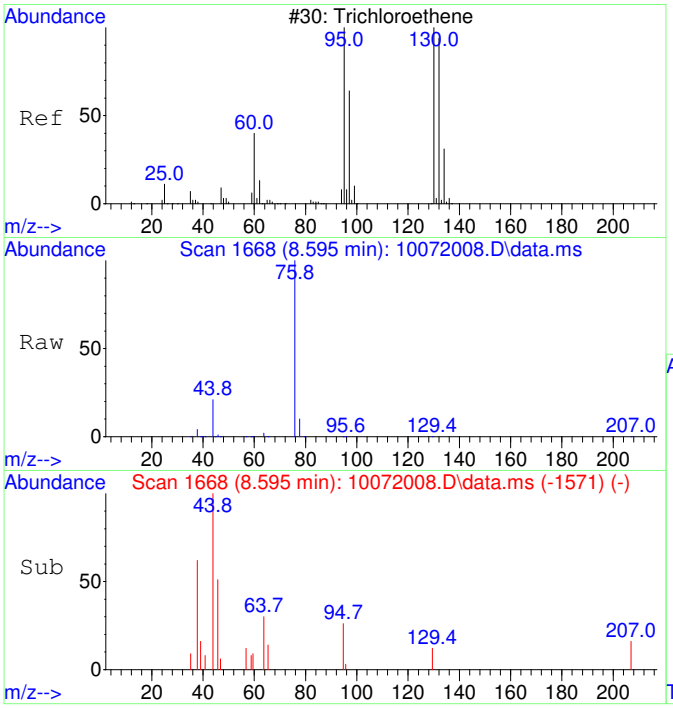



#34
1,2-Dichloroethane SCAN
Concen: 81.41 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 214.3 | 5.2 | 65.2# |
| 49 | 19.7 | 3.9 | 63.9 |

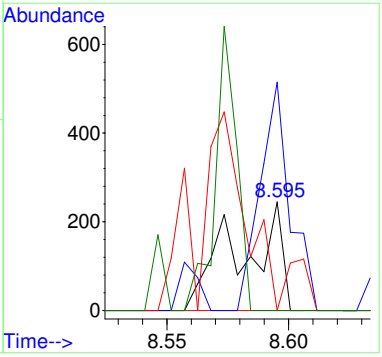


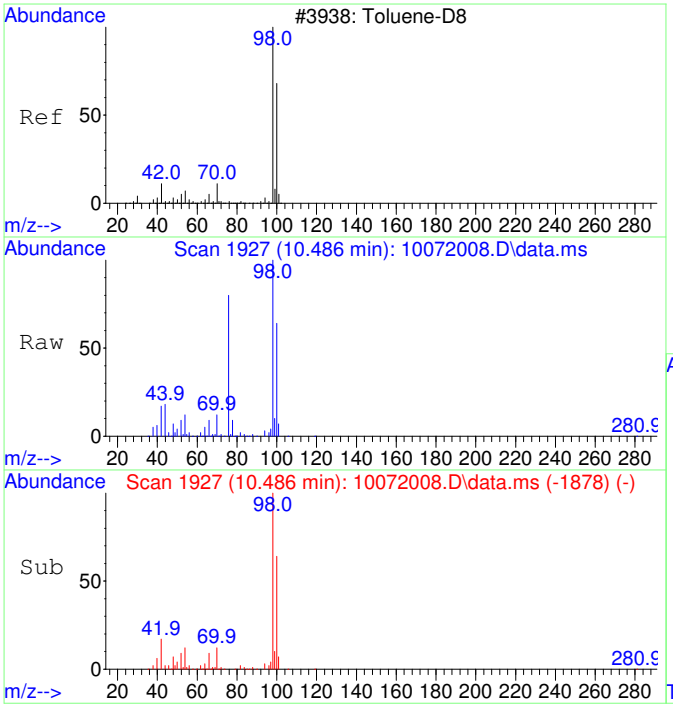




#35
Trichloroethene SCAN
Concen: 29.73 ug/L
RT: 8.595 min Scan# 1668
Delta R.T. 0.027 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 146.2 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 0.0 | 28.2 | 88.2# |

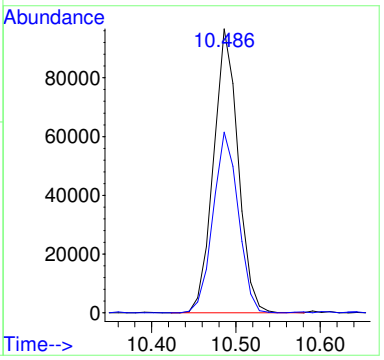


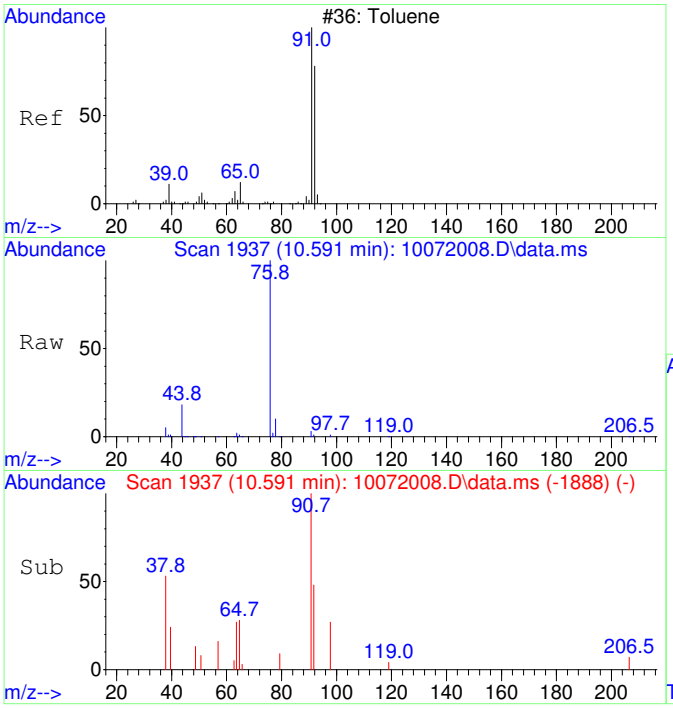



#36
Toluene-d8 SCAN
Concen: 4799.32 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 196309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.2 | 40.0 | 100.0 |

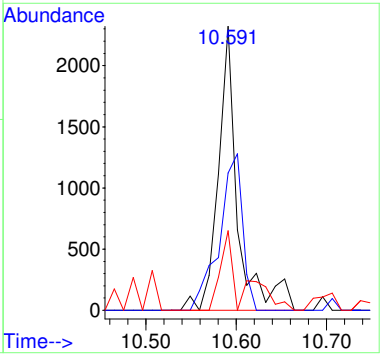


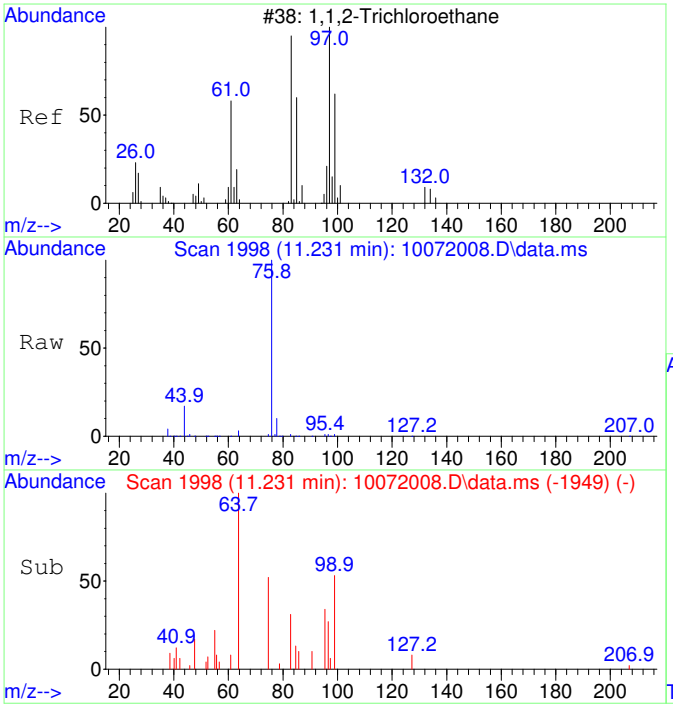




#37
Toluene SCAN
Concen: 66.40 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 3478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.1 | 28.3 | 88.3 |
| 65 | 30.9 | 0.0 | 41.0 |

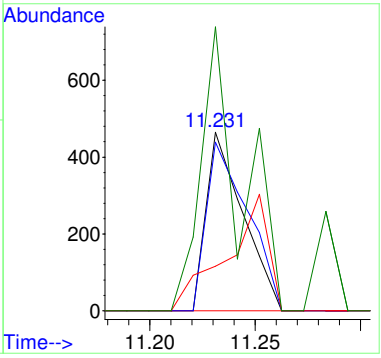


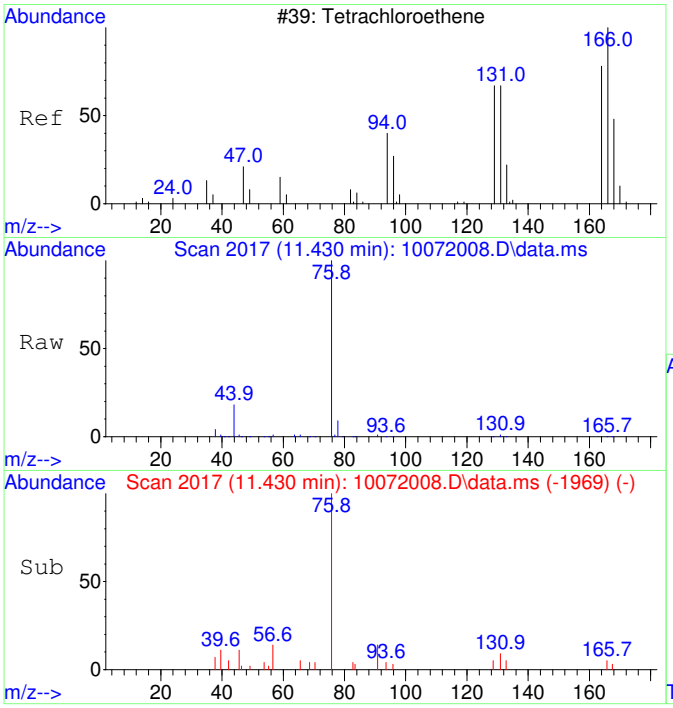



#38
1,1,2-Trichloroethane SCAN
Concen: 48.14 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 566

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 105.8 | 57.7 | 117.7 |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 171.4 | 36.7 | 96.7# |

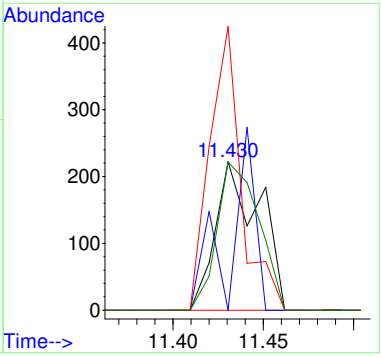


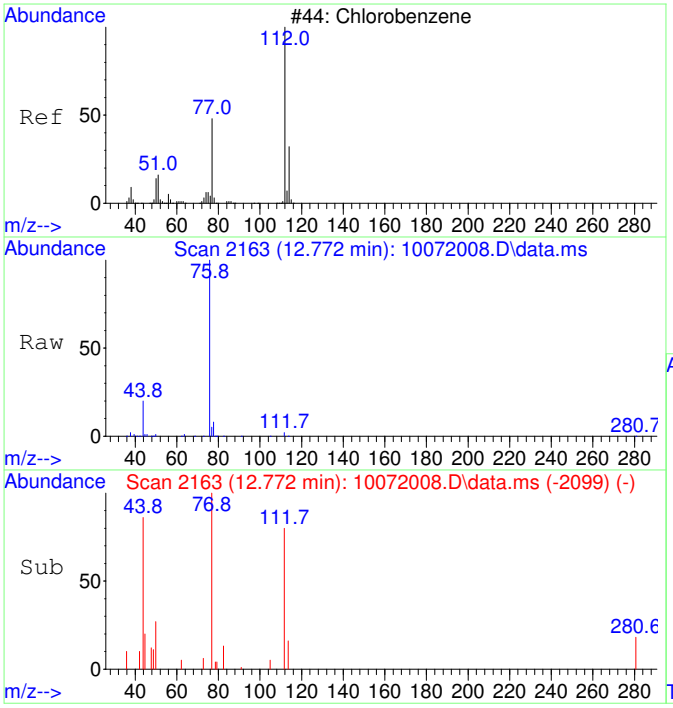




#39
Tetrachloroethene SCAN
Concen: 30.19 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 70.0 | 50.9 | 110.9 |
| 131 | 134.7 | 38.7 | 98.7# |
| 129 | 94.2 | 41.8 | 101.8 |

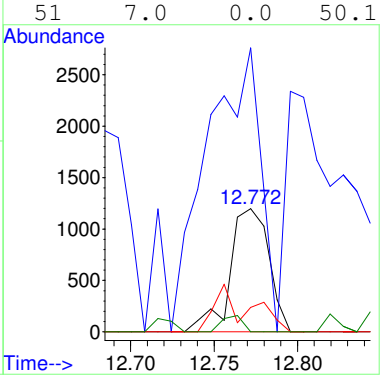


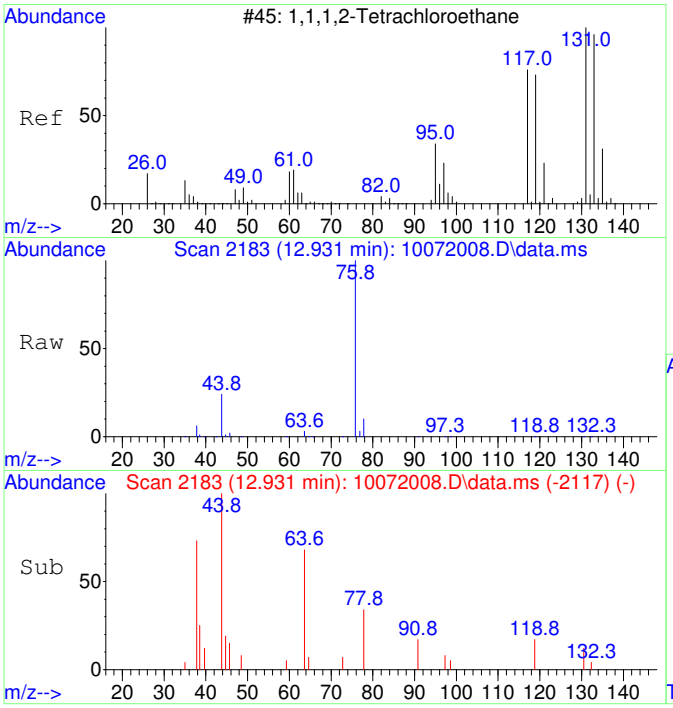



#40
Chlorobenzene SCAN
Concen: 54.53 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 1952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 346.4 | 28.2 | 88.2# |
| 114 | 33.8 | 2.3 | 62.3 |
| 51 | 7.0 | 0.0 | 50.1 |

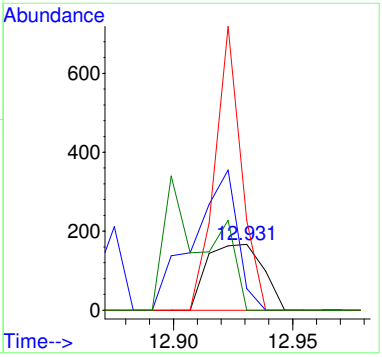


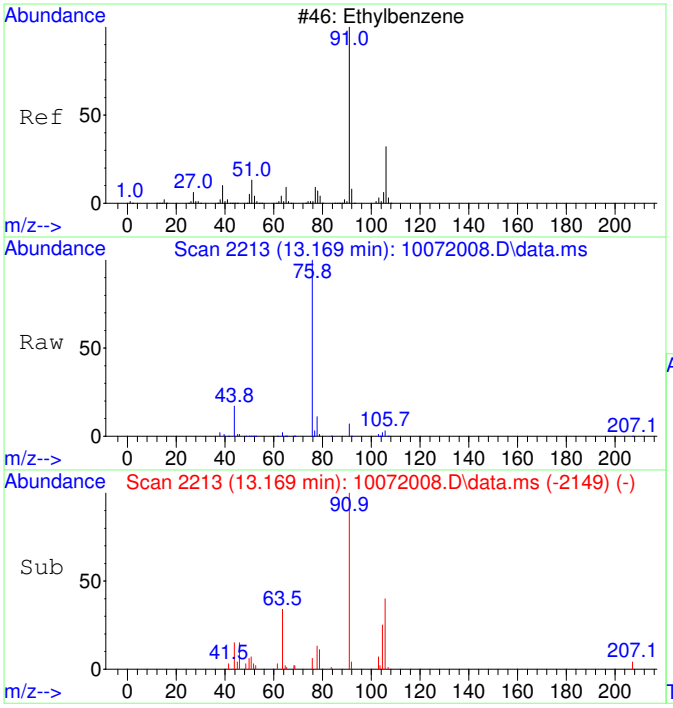




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.61 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 167.8 | 66.9 | 126.9# |
| 119 | 203.7 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

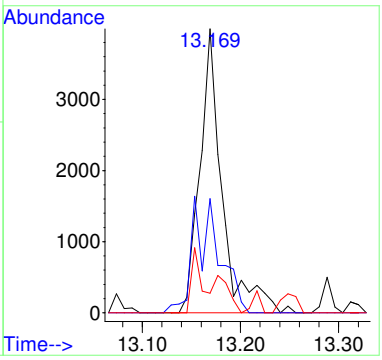


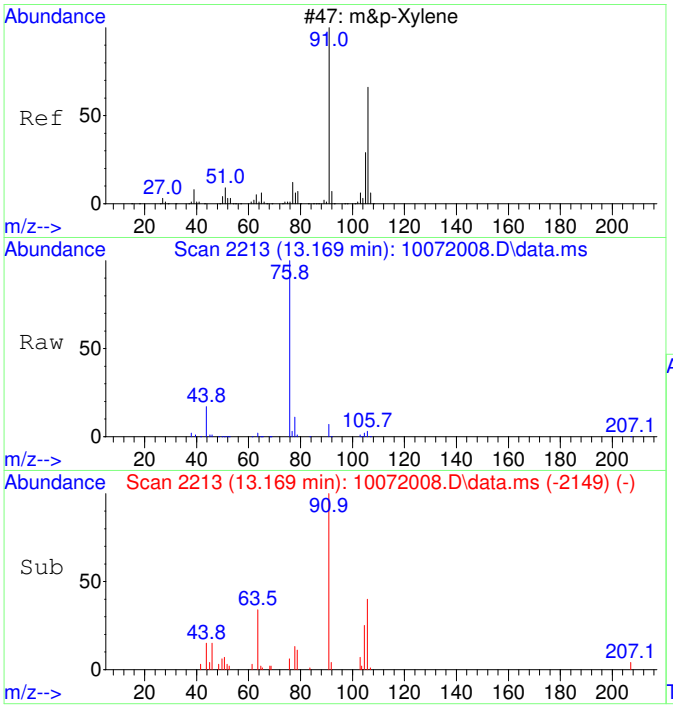



#42
Ethylbenzene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 51 | 4.3 | 0.0 | 40.1 |

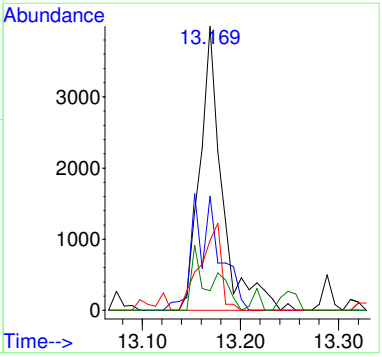


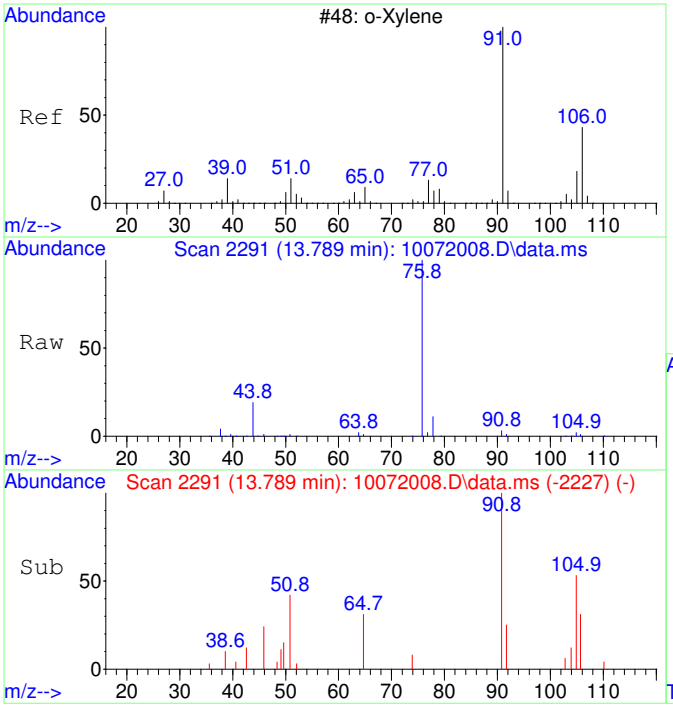




#43
m&p-Xylene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 105 | 29.0 | 0.0 | 54.7 |
| 51 | 4.3 | 0.0 | 40.1 |

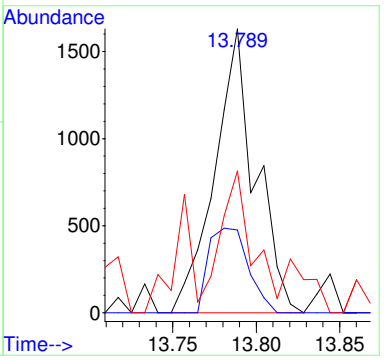


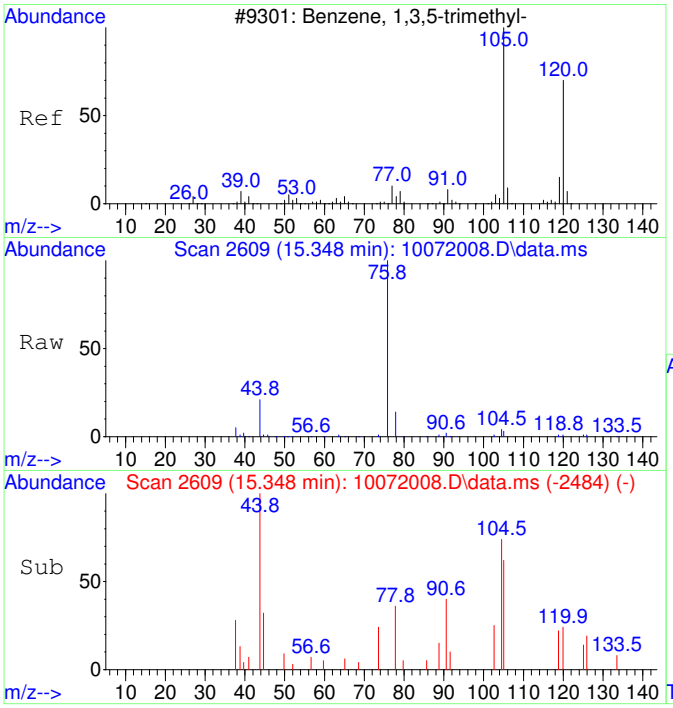



#44
o-Xylene SCAN
Concen: 54.40 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 2779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.1 | 18.0 | 78.0 |
| 105 | 32.0 | 0.0 | 56.6 |

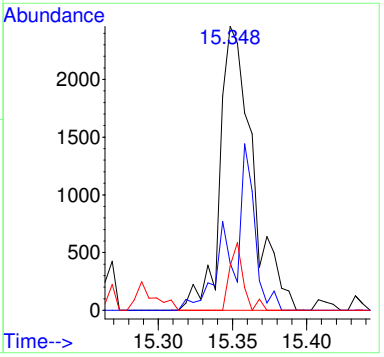


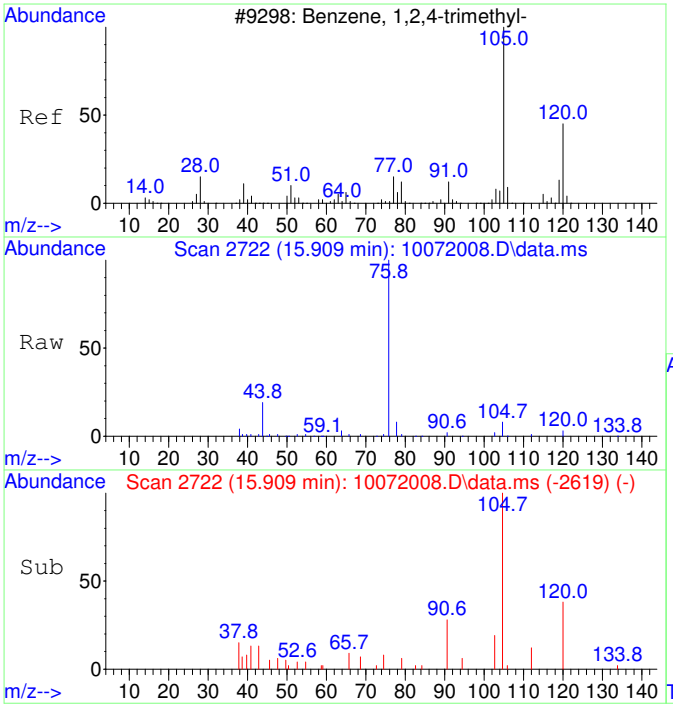




#46
1,3,5-Trimethylbenzene SCAN
Concen: 70.18 ug/L
RT: 15.348 min Scan# 2609
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3778

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.0 | 18.3 | 78.3 |
| 119 | 10.0 | 0.0 | 43.1 |

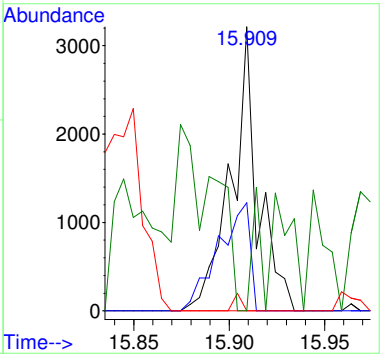





#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.37 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.5 | 16.9 | 76.9 |
| 119 | 1.9 | 0.0 | 41.9 |
| 77 | 13.4 | 0.0 | 42.3 |



Quantitation Report (QT Reviewed)

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M.I. Performed By:
TD at 12:58 pm, Oct 07, 2020

M.I. Approved By:
ZR at 11:12 am, Oct 12, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

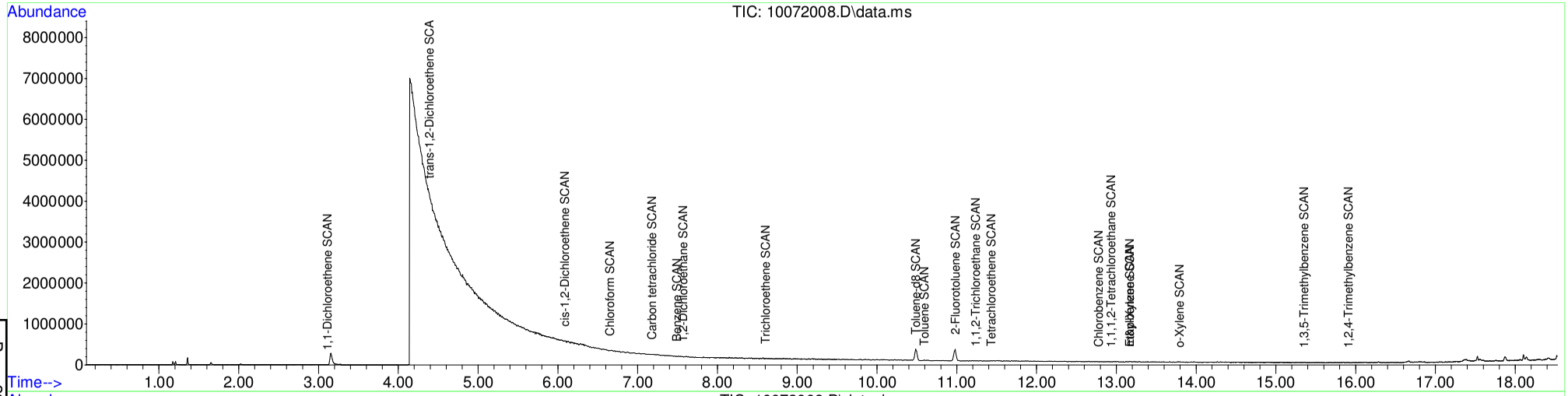
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 429055 | 5000.00 | ug/L | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 373704 | 4449.27 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.99% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 936m | 54.63 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1076 | 54.36 | ug/L | 63 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1362 | 55.27 | ug/L | 57 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1404 | 53.98 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 1540 | 57.85 | ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1440 | 49.81 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1314 | 48.29 | ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 7041 | 96.59 | ug/L # | 31 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1392 | 53.49 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1099 | 50.07 | ug/L | 90 |
| 13] Toluene | 10.582 | 91 | 6121 | 57.16 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1140 | 48.86 | ug/L | 88 |
| 15] Tetrachloroethene | 11.432 | 166 | 1493 | 48.18 | ug/L | 97 |
| 16] Chlorobenzene | 12.773 | 112 | 3625 | 47.28 | ug/L | 67 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1375 | 50.05 | ug/L | 99 |
| 18] Ethylbenzene | 12.980 | 91 | 8921 | 68.44 | ug/L | 96 |
| 19] m&p-Xylene | 13.170 | 91 | 12171 | 119.48 | ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 5455 | 50.12 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2339 | 48.49 | ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 6196 | 53.49 | ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 6487 | 53.91 | ug/L | 92 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 219067 | 5237.71 | ug/L | 100 |
| 26) 1,1-Dichloroethene SCAN | 3.111 | 61 | 195 | 21.95 | ug/L # | 50 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 397 | 36.12 | ug/L # | 26 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 935 | 68.61 | ug/L # | 33 |
| 30) Chloroform SCAN | 6.650 | 83 | 1326 | 89.70 | ug/L # | 27 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 474 | 33.73 | ug/L # | 38 |
| 33) Benzene SCAN | 7.490 | 78 | 11713 | 315.80 | ug/L | 99 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 1115 | 81.41 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.595 | 130 | 303 | 29.73 | ug/L # | 23 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 196309 | 4799.32 | ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 3478 | 66.40 | ug/L | 83 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 566 | 48.14 | ug/L # | 29 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 380 | 30.19 | ug/L # | 62 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 1952 | 54.53 | ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.931 | 131 | 273 | 20.61 | ug/L # | 1 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 6312 | 66.14 | ug/L # | 35 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 6312 | 66.14 | ug/L # | 51 |
| 44) o-Xylene SCAN | 13.789 | 91 | 2779 | 54.40 | ug/L | 78 |
| 46) 1,3,5-Trimethylbenzene... | 15.348 | 105 | 3778 | 70.18 | ug/L | 89 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 3105 | 56.37 | ug/L | 94 |

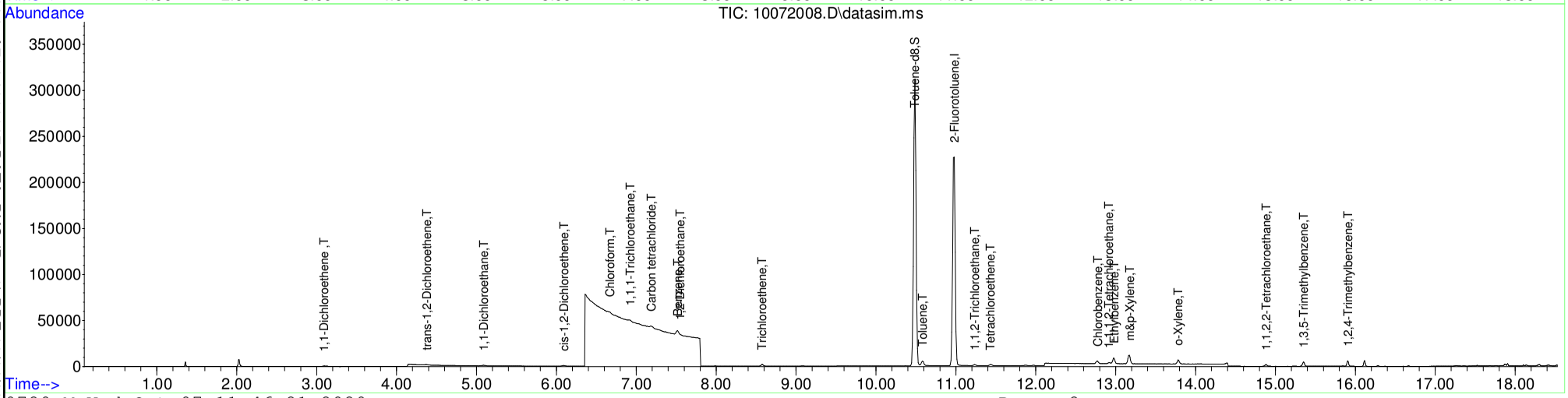
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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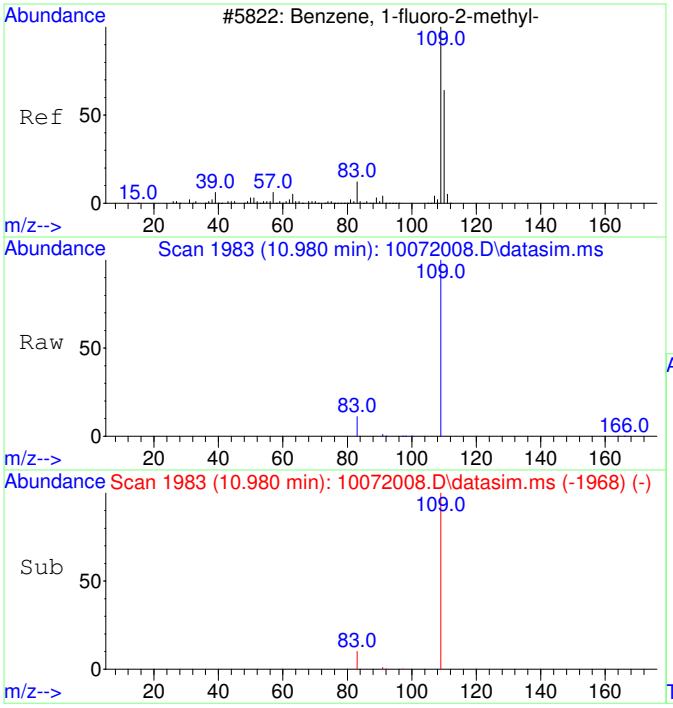
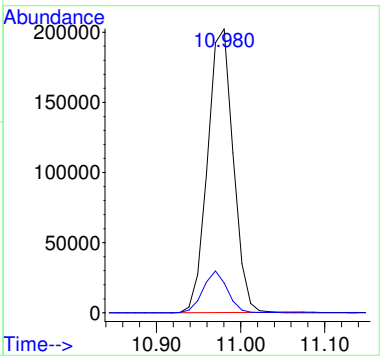
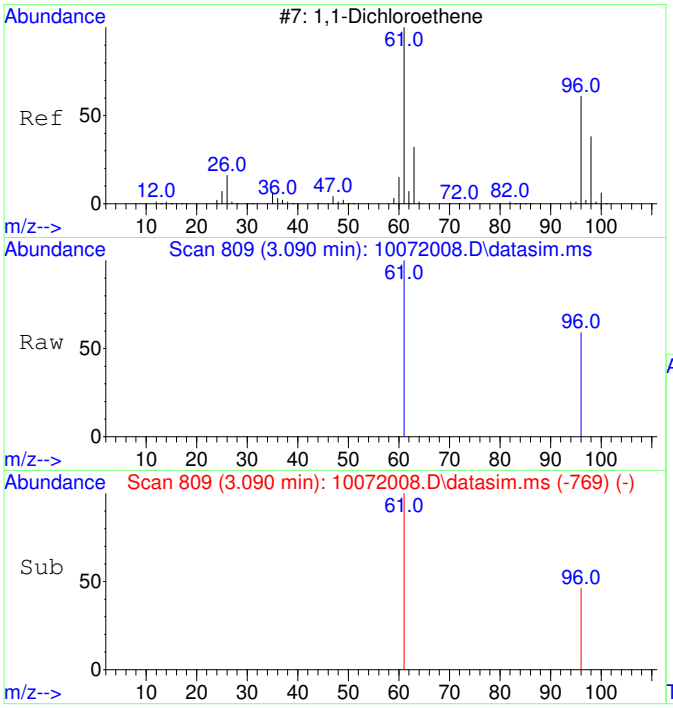



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 429055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

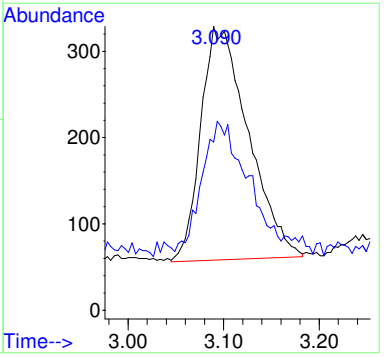


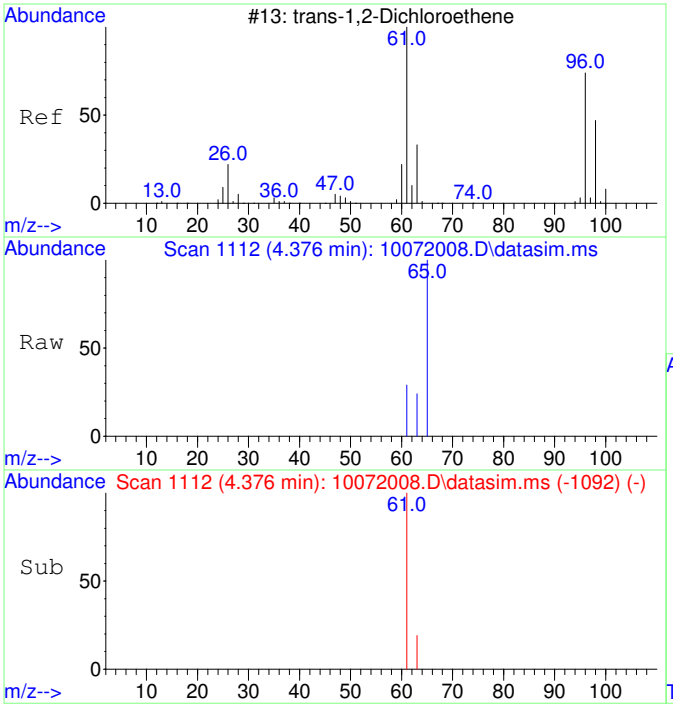




#2
1,1-Dichloroethene
Concen: 54.63 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 75.2 | 37.2 | 97.2 |

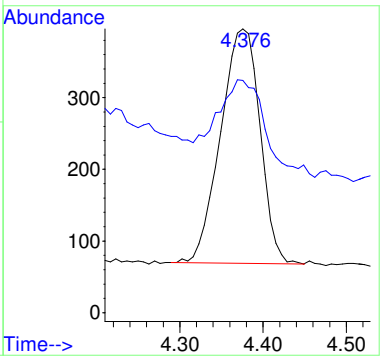


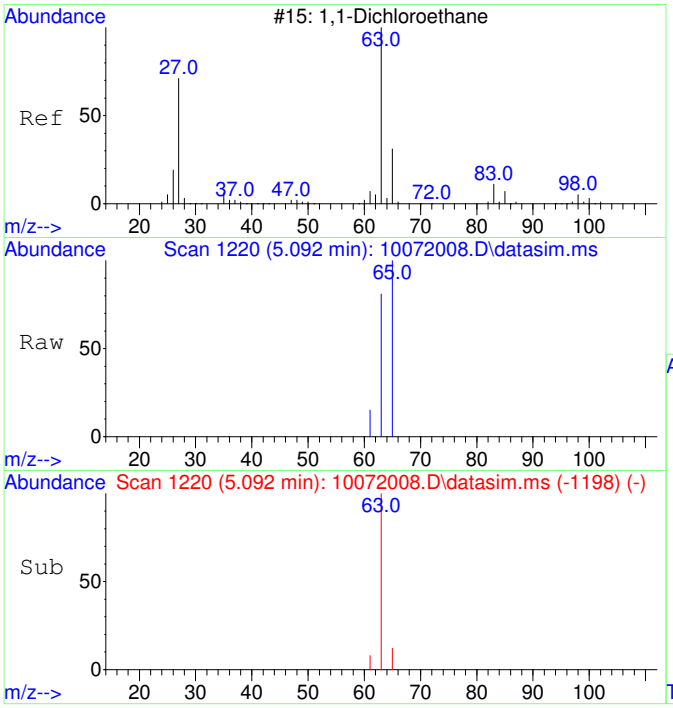



#3
trans-1,2-Dichloroethene
Concen: 54.36 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 53.3 | 2.4 | 62.4 |

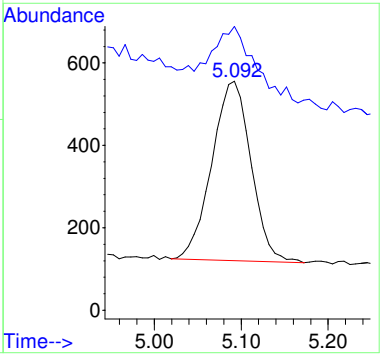


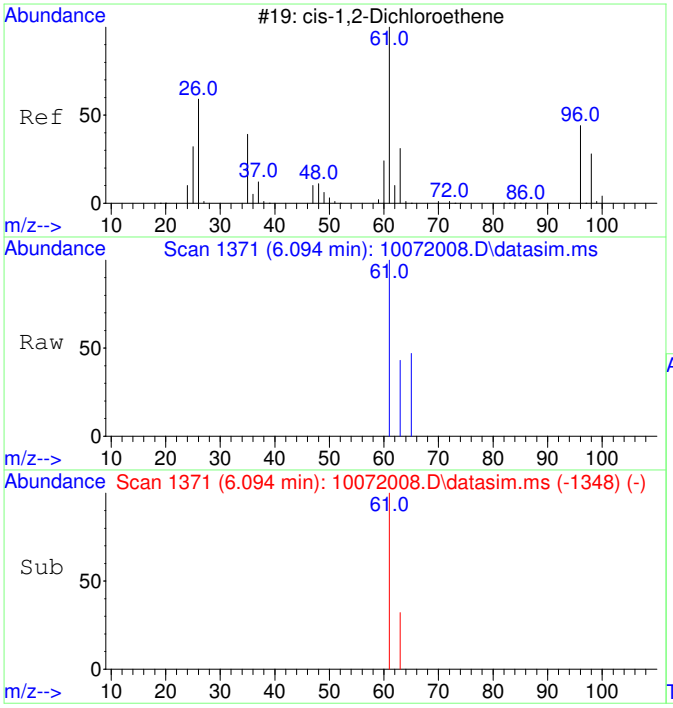




#4
1,1-Dichloroethane
Concen: 55.27 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 63 Resp: 1362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 55.7 | 1.8 | 61.8 |

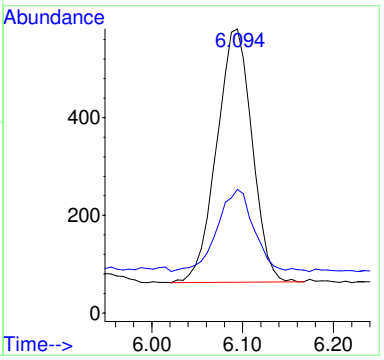


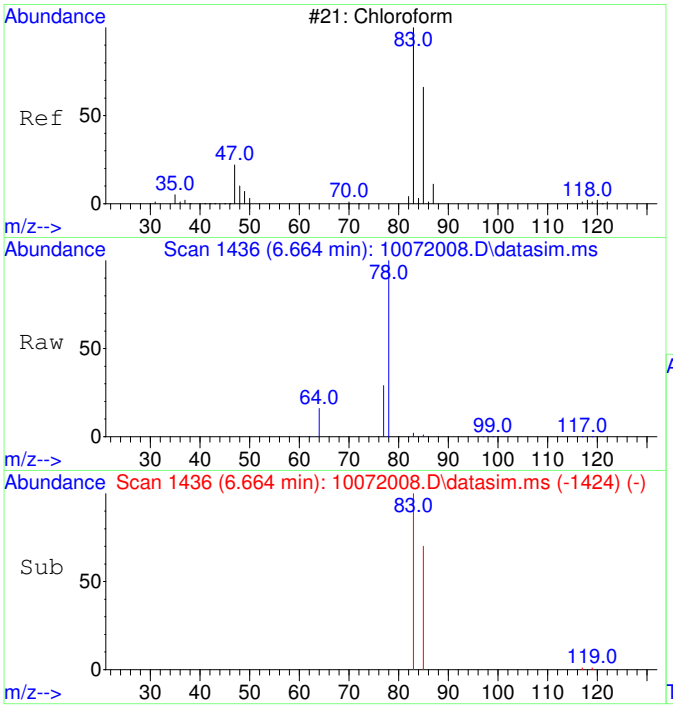



#5
cis-1,2-Dichloroethene
Concen: 53.98 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.2 | 2.5 | 62.5 |

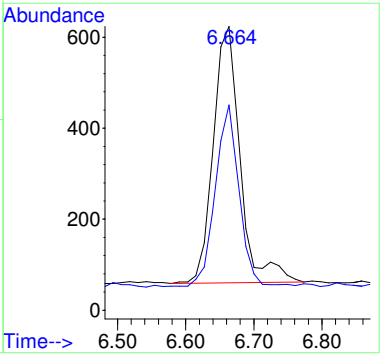


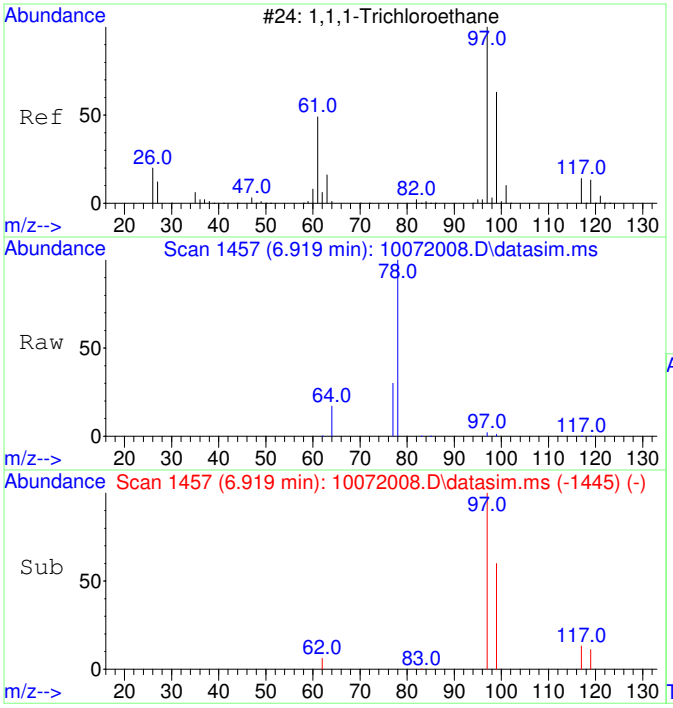




#6
Chloroform
Concen: 57.85 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 60.9 | 35.1 | 95.1 |

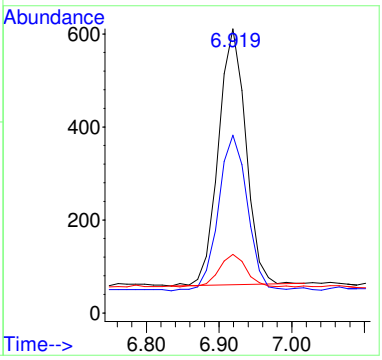


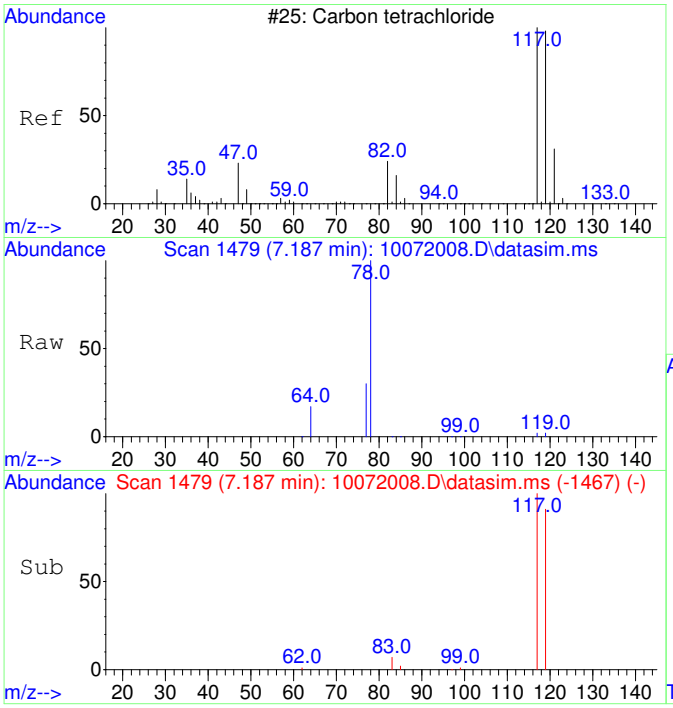



#7
1,1,1-Trichloroethane
Concen: 49.81 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.2 | 34.6 | 94.6 |
| 117 | 13.1 | 0.0 | 43.2 |

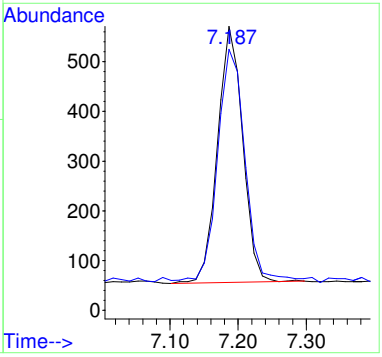


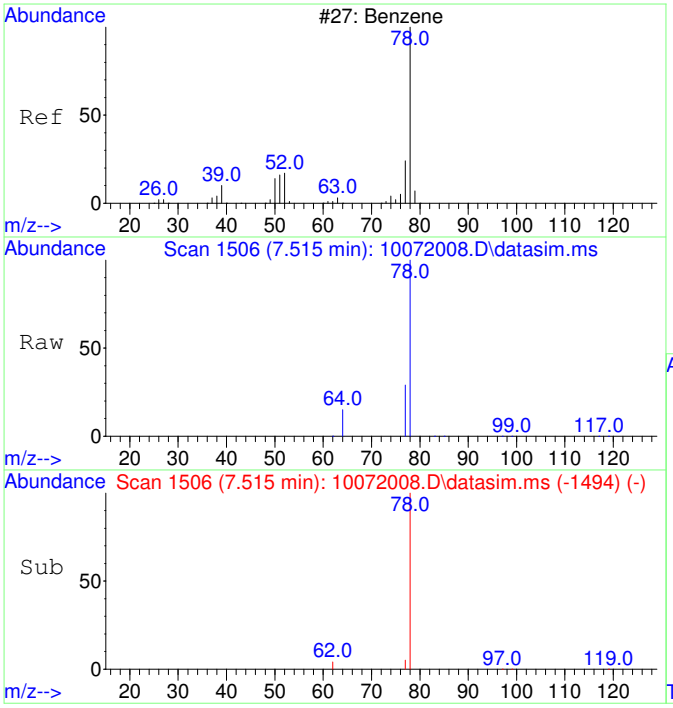




#8
Carbon tetrachloride
Concen: 48.29 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 1314

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

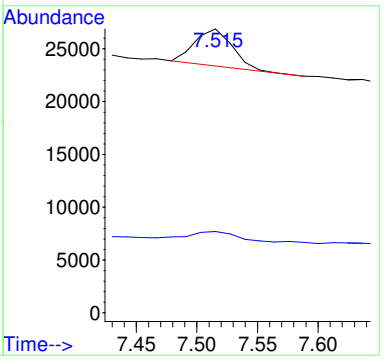


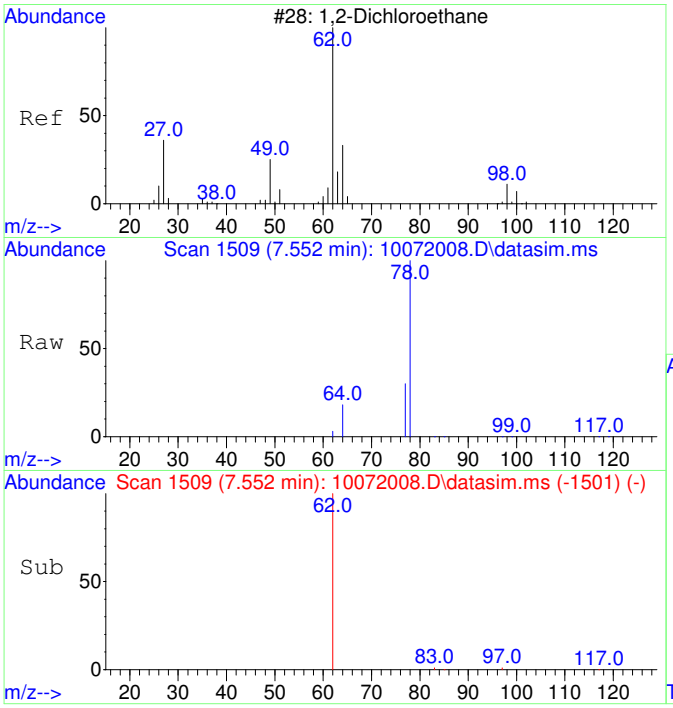



#9
Benzene
Concen: 96.59 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 7041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 56.6 | 0.0 | 53.2# |

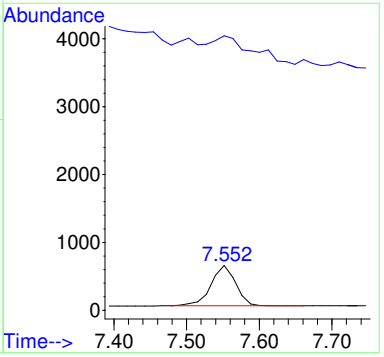


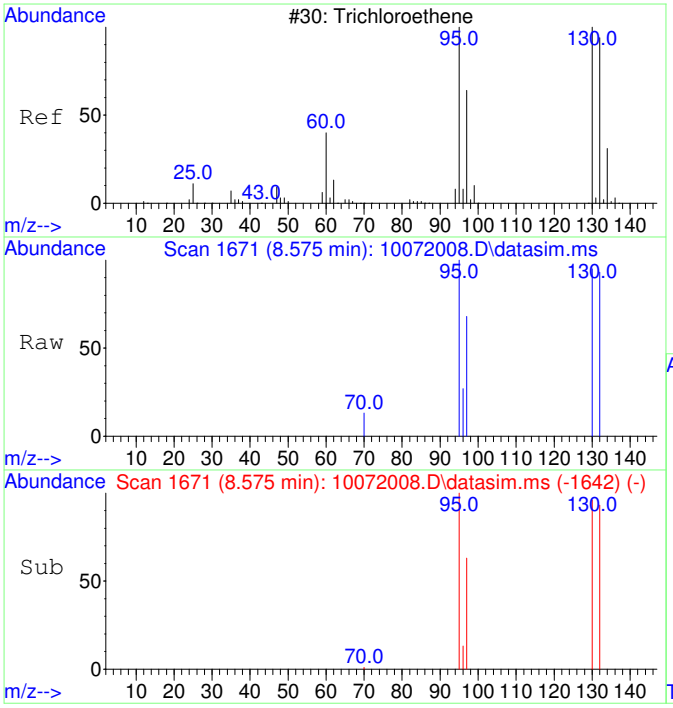




#10
1,2-Dichloroethane
Concen: 53.49 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1392

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 123.1 | 2.3 | 62.3# |

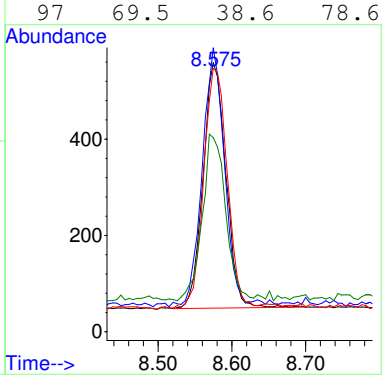


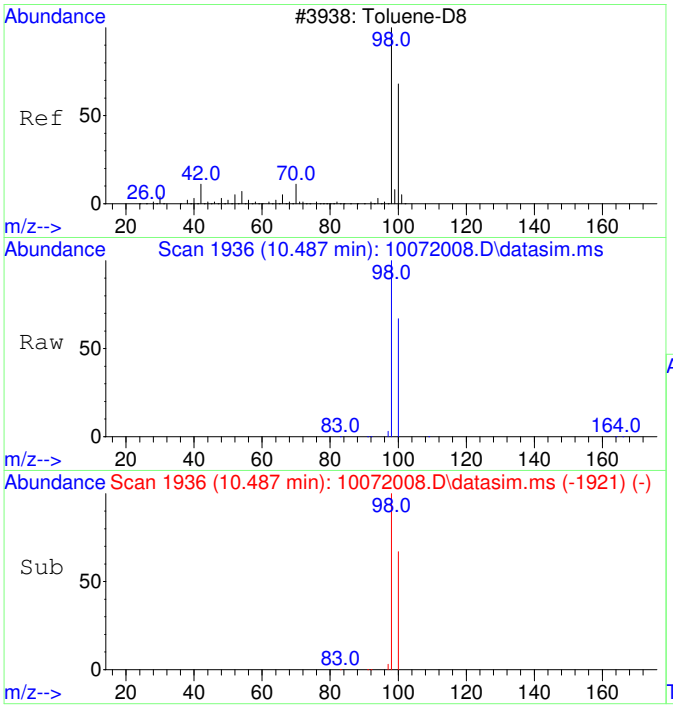



#11
Trichloroethene
Concen: 50.07 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 1099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.0 | 60.7 | 120.7 |
| 132 | 101.0 | 76.0 | 116.0 |
| 97 | 69.5 | 38.6 | 78.6 |

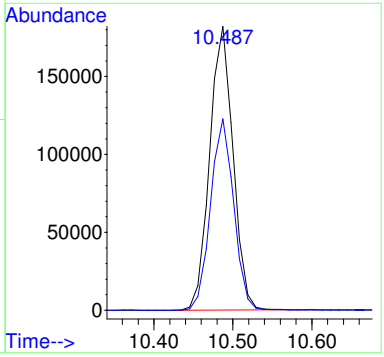


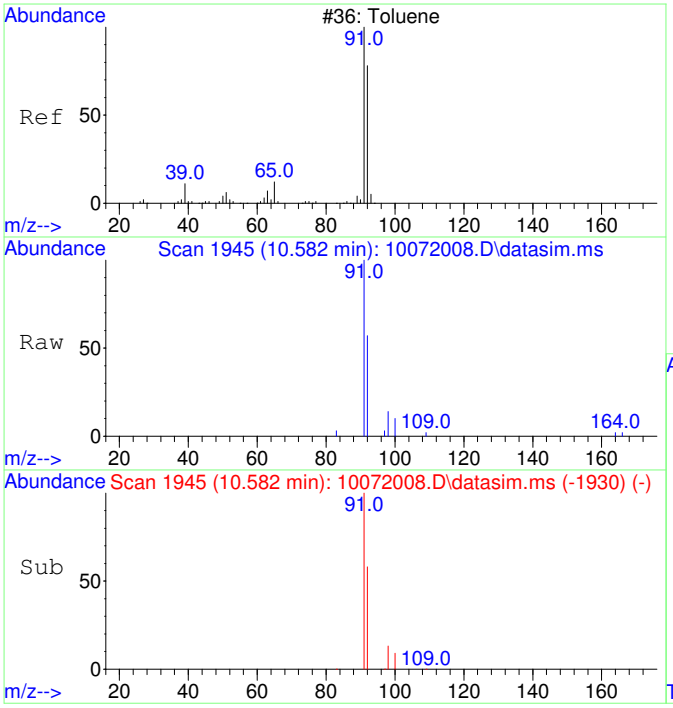




#12
Toluene-d8
Concen: 4449.27 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 373704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

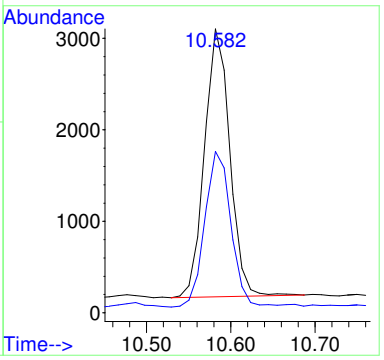


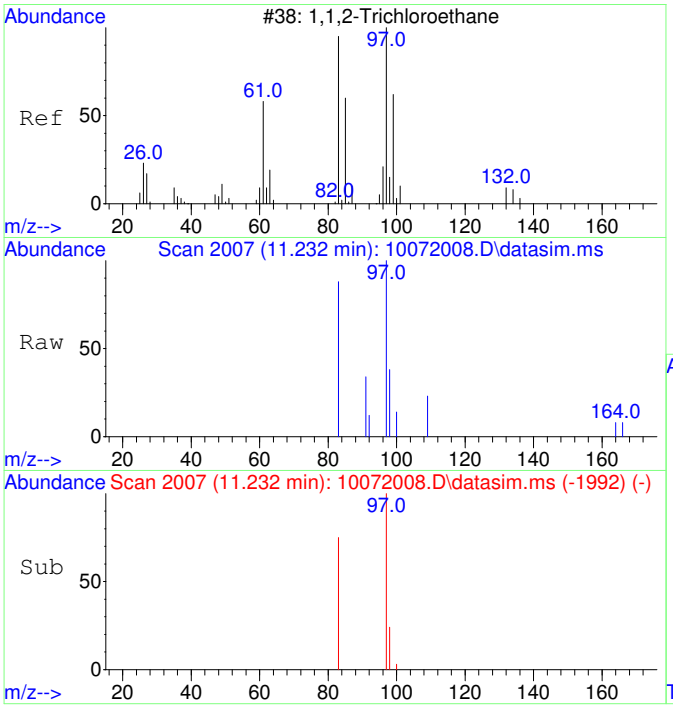



#13
Toluene
Concen: 57.16 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.9 | 29.9 | 89.9 |

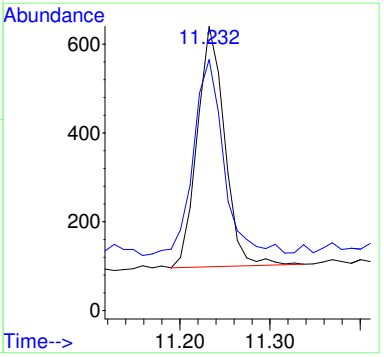


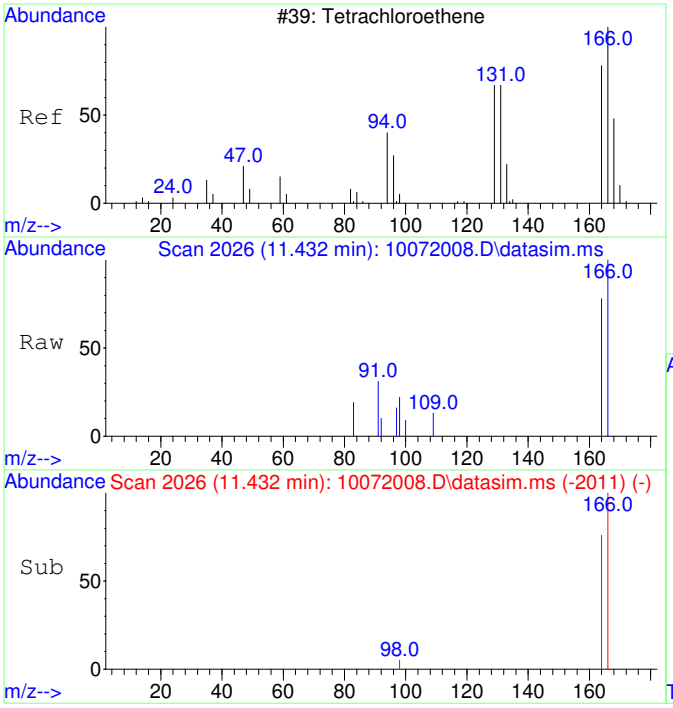




#14
1,1,2-Trichloroethane
Concen: 48.86 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 91.5 | 51.2 | 111.2 |

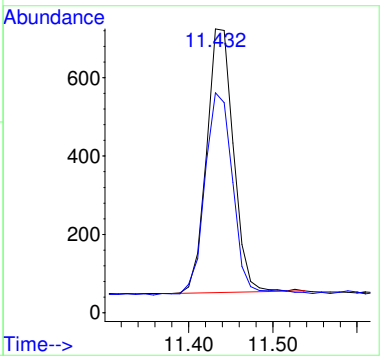


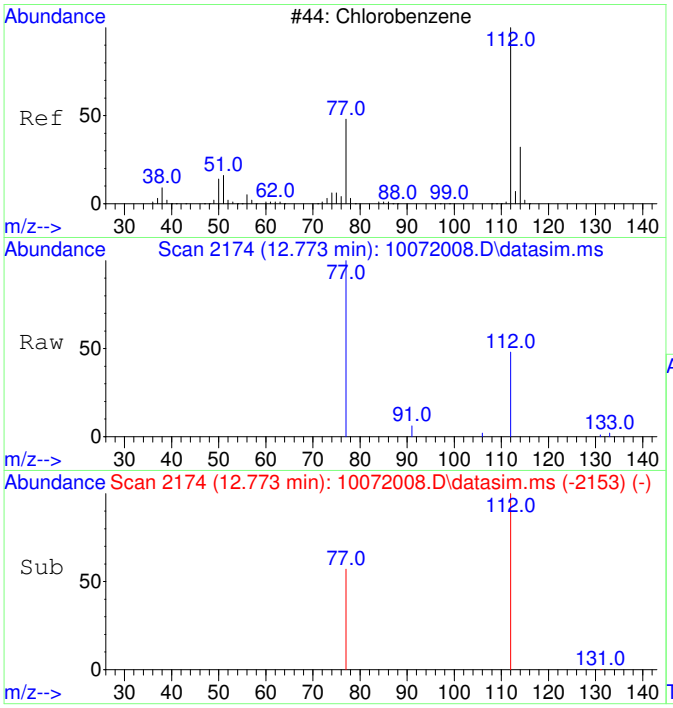



#15
Tetrachloroethene
Concen: 48.18 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 1493

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 47.8 | 107.8 |

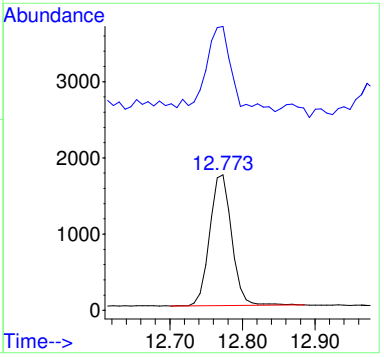


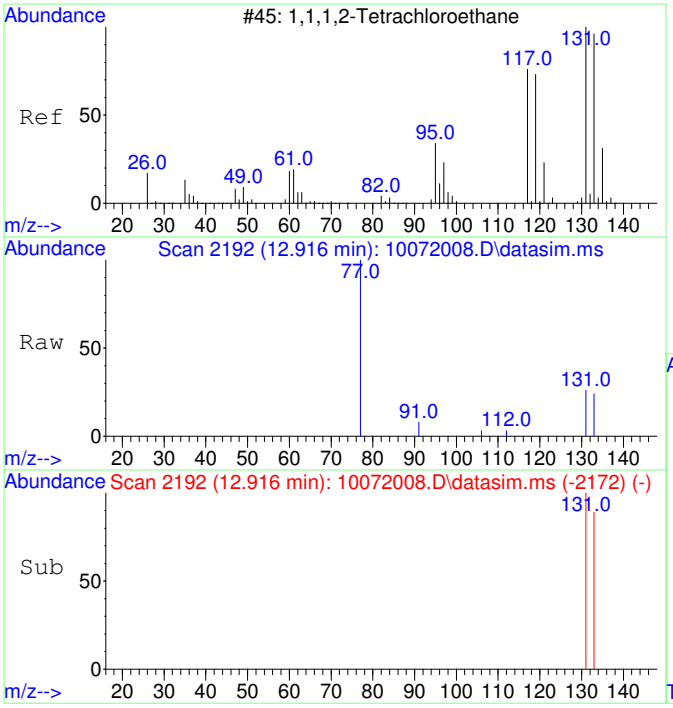




#16
Chlorobenzene
Concen: 47.28 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 3625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 77.2 | 23.6 | 83.6 |

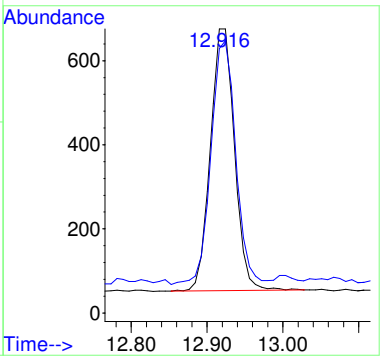


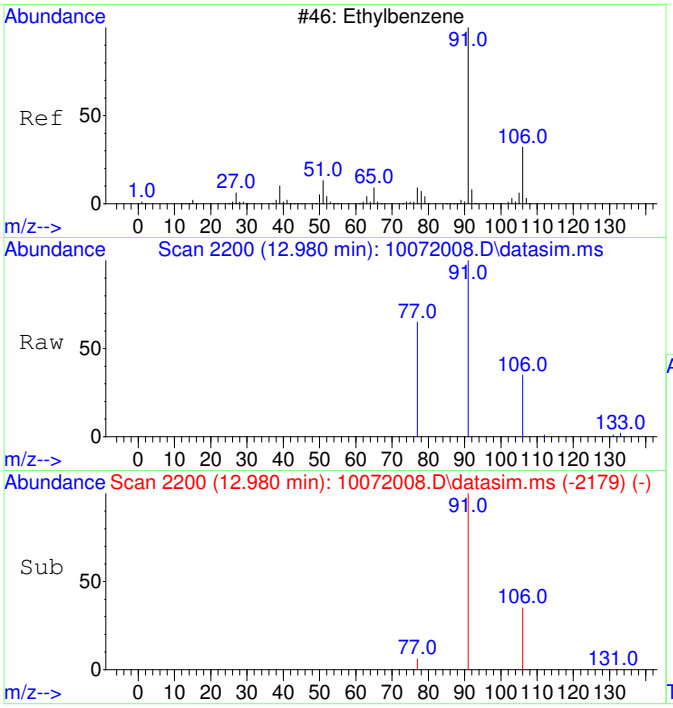



#17
1,1,1,2-Tetrachloroethane
Concen: 50.05 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 1375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.3 | 66.3 | 126.3 |

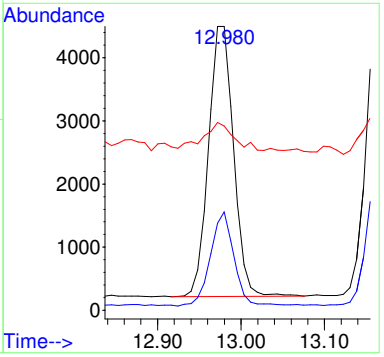


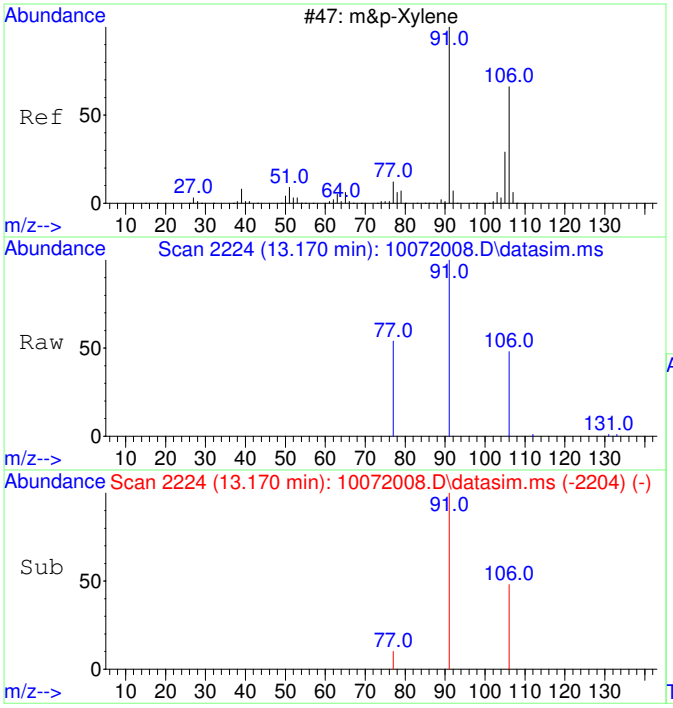




#18
Ethylbenzene
Concen: 68.44 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 8921

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.1 | 3.0 | 63.0 |
| 77 | 13.4 | 0.0 | 38.2 |

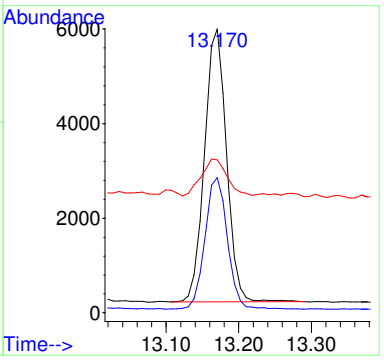


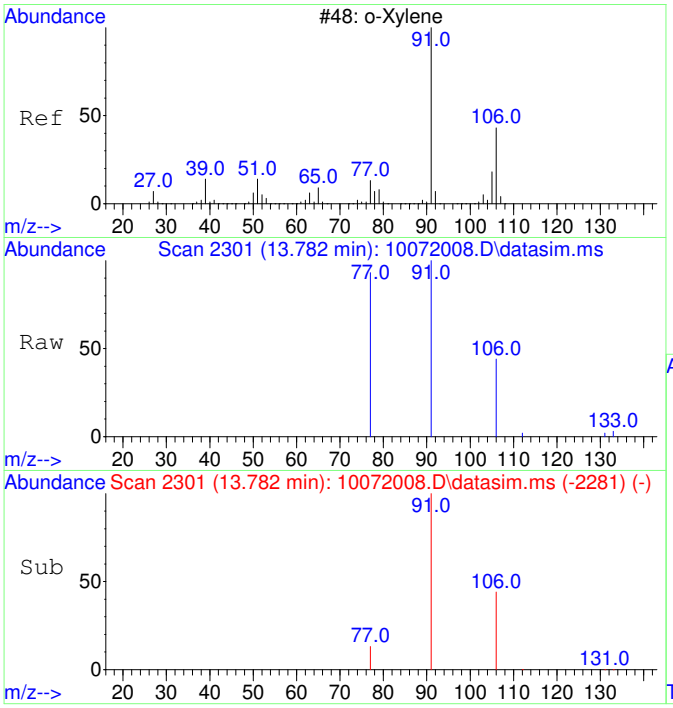



#19
m&p-Xylene
Concen: 119.48 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 12171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.3 | 22.2 | 82.2 |
| 77 | 15.8 | 0.0 | 42.4 |

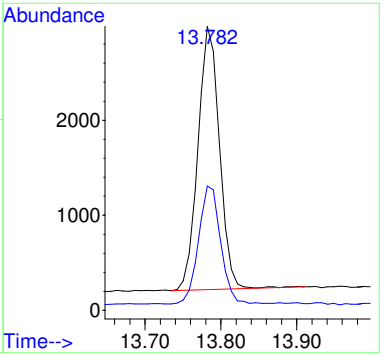


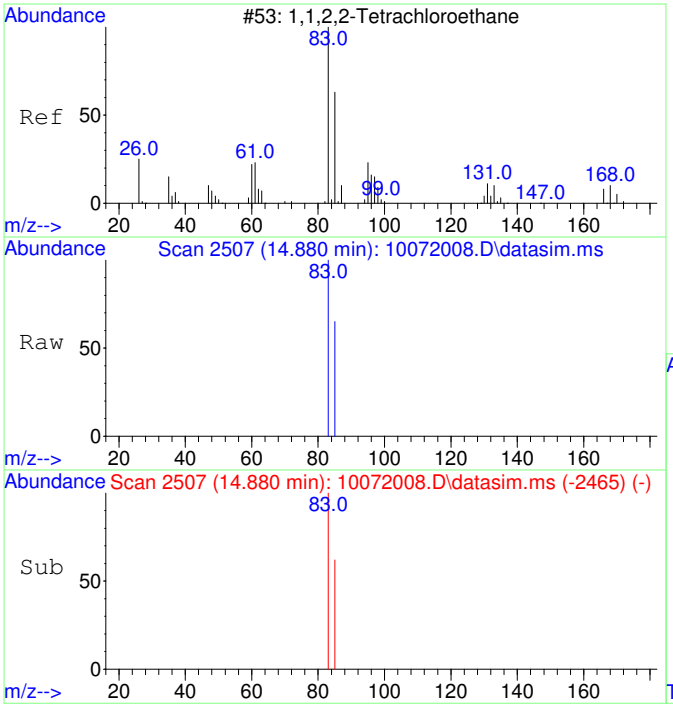




#20
o-Xylene
Concen: 50.12 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 5455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 19.2 | 79.2 |

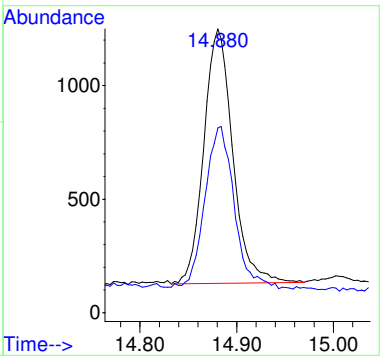


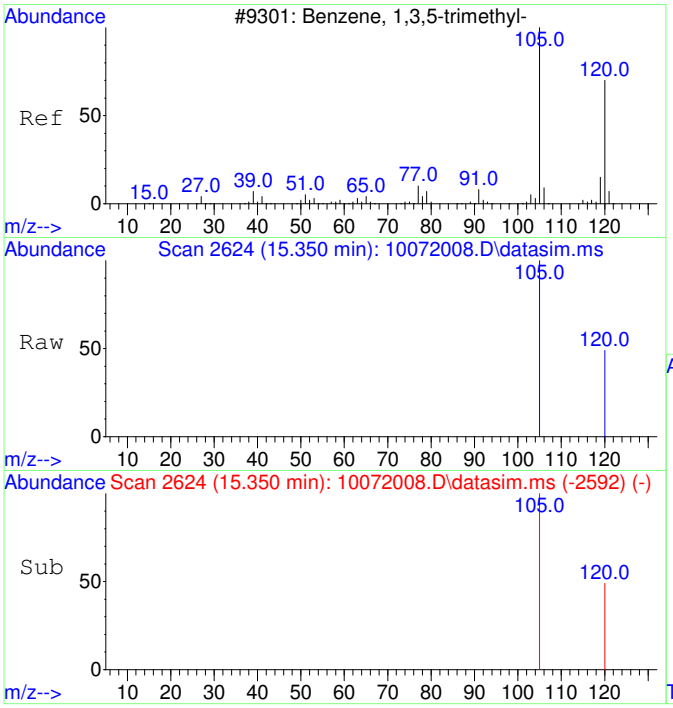



#21
1,1,2,2-Tetrachloroethane
Concen: 48.49 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 2339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.0 | 34.8 | 94.8 |

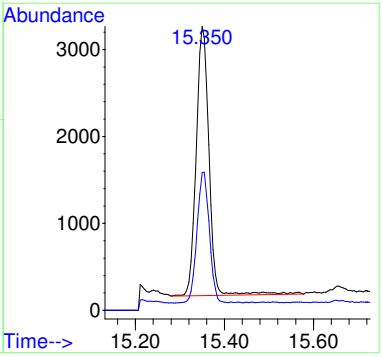


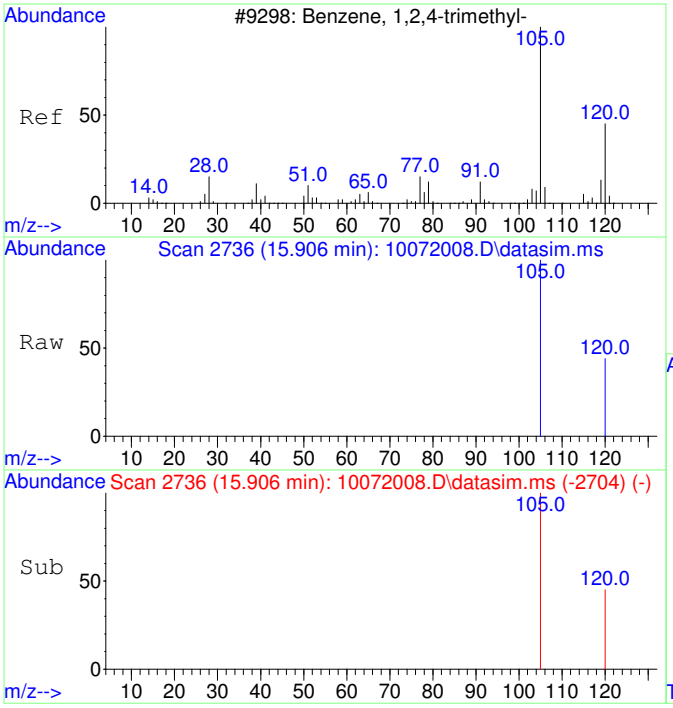




#22
1,3,5-Trimethylbenzene
Concen: 53.49 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.6 | 21.1 | 81.1 |

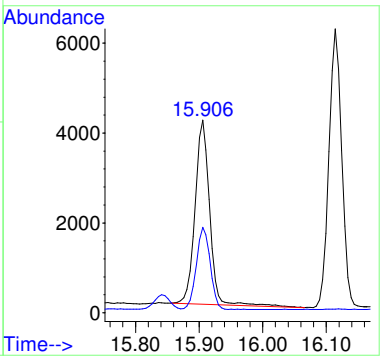


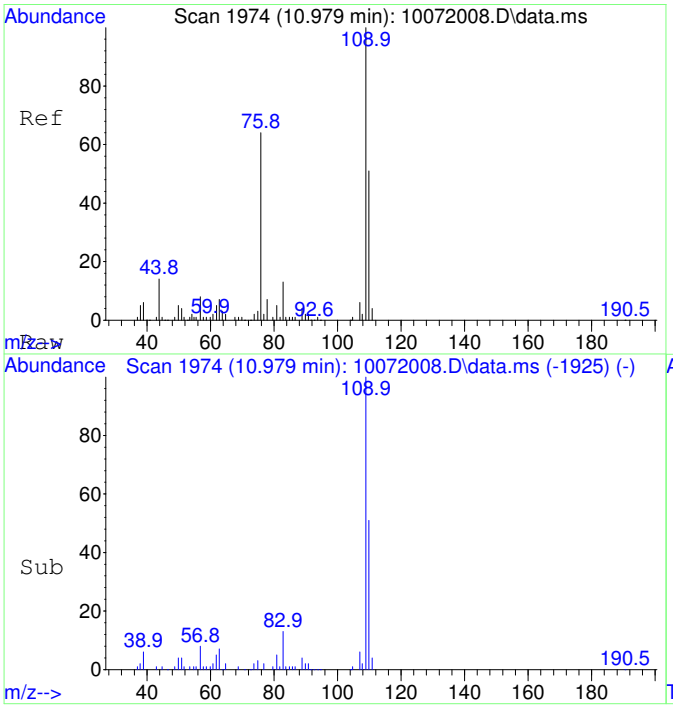



#23
1,2,4-Trimethylbenzene
Concen: 53.91 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6487

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.9 | 17.2 | 77.2 |

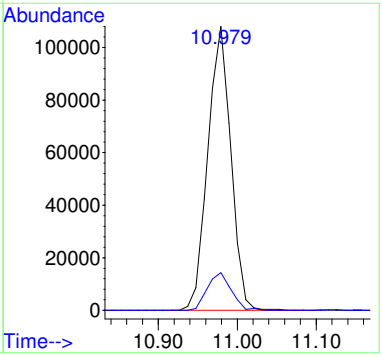


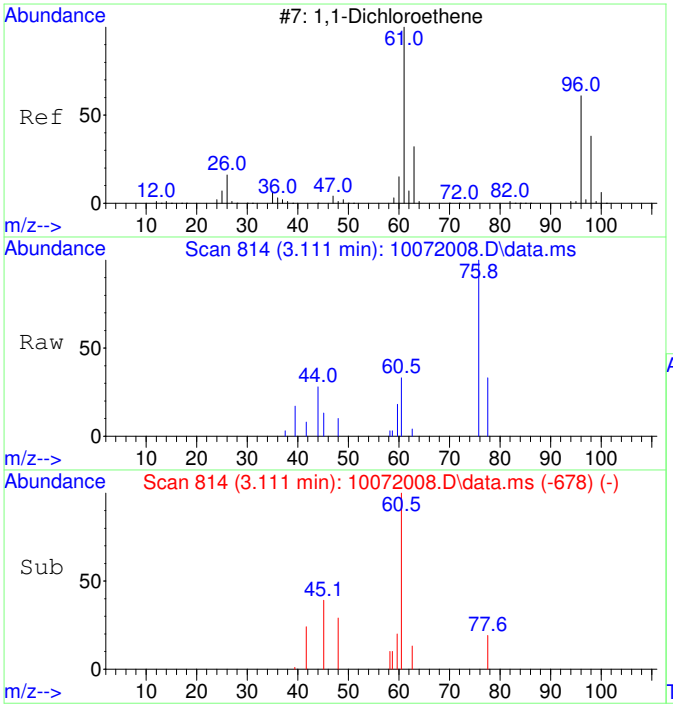




#25
2-Fluorotoluene SCAN
Concen: 5237.71 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 219067

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 43.8 |

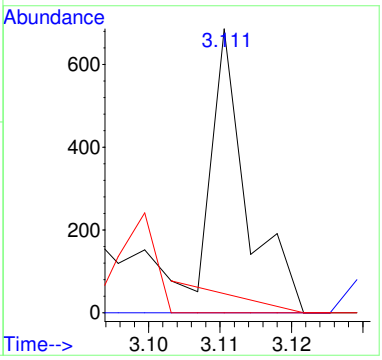


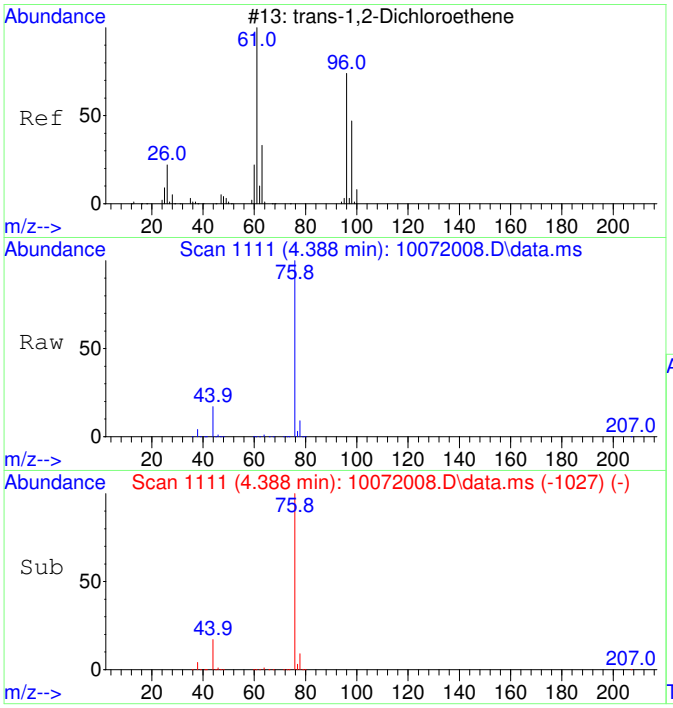



#26
1,1-Dichloroethene SCAN
Concen: 21.95 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 43.1 | 11.2 | 71.2 |

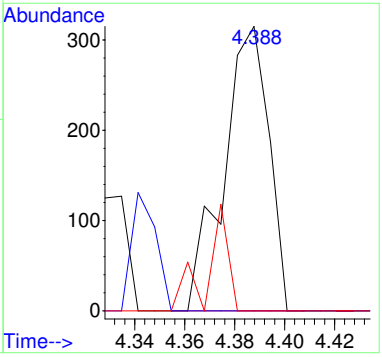


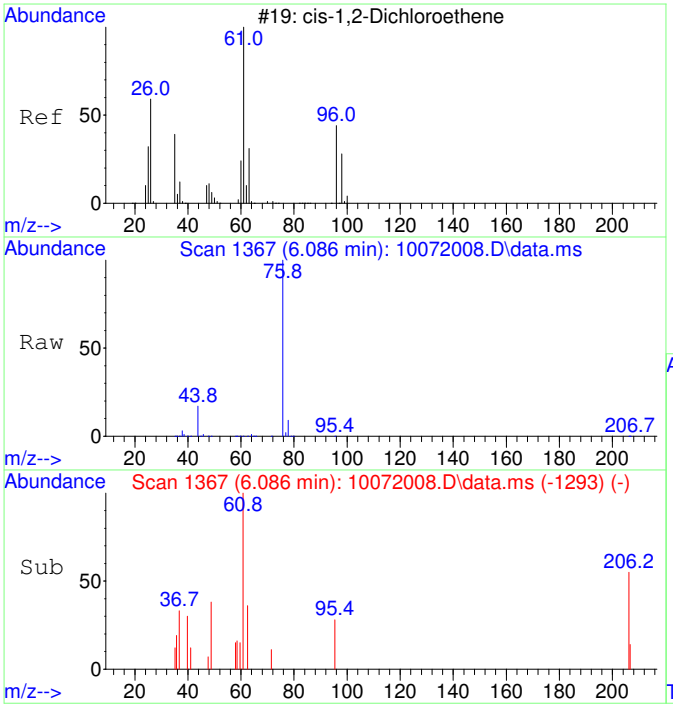




#27
trans-1,2-Dichloroethene SCAN
Concen: 36.12 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 17.1 | 20.5 | 80.5# |

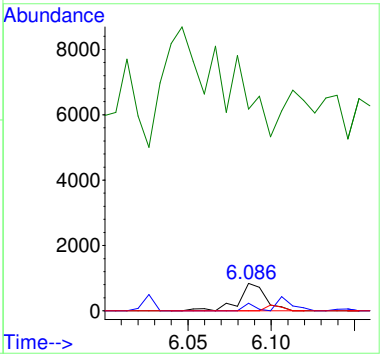


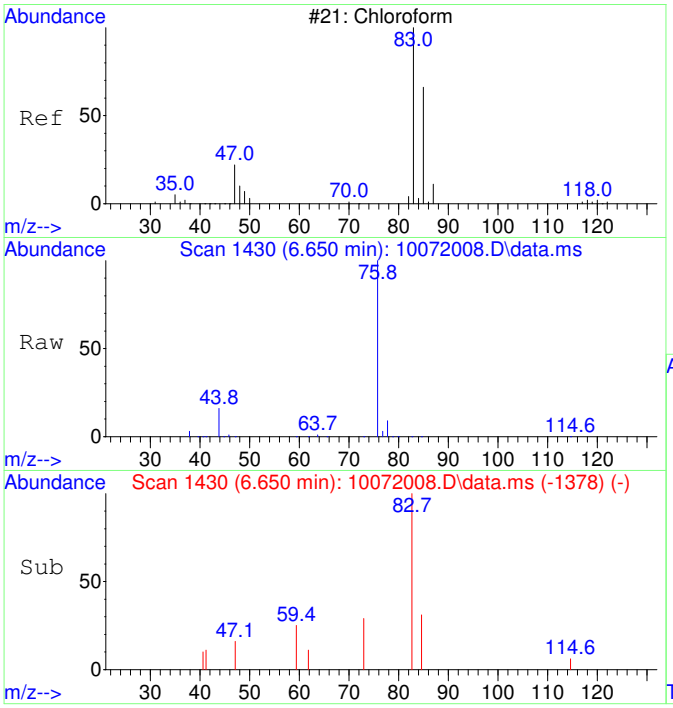



#29
cis-1,2-Dichloroethene SCAN
Concen: 68.61 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 12.1 | 39.9 | 99.9# |
| 98 | 0.0 | 13.5 | 73.5# |
| 64 | 0.0 | 4.5 | 64.5# |

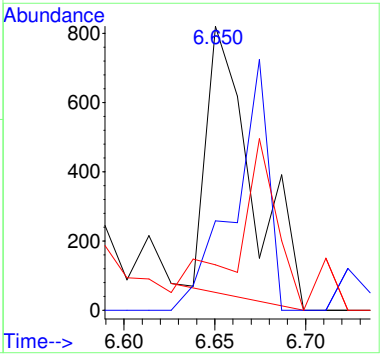


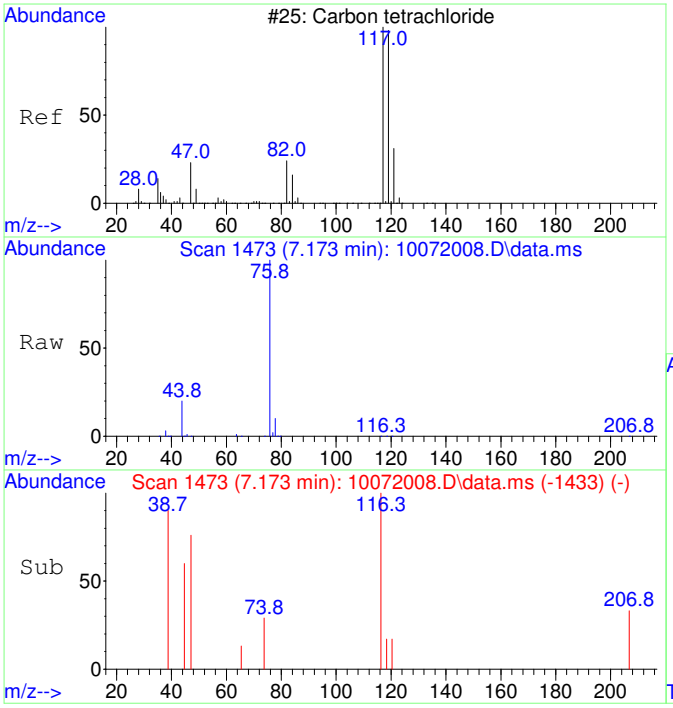




#30
Chloroform SCAN
Concen: 89.70 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1326

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

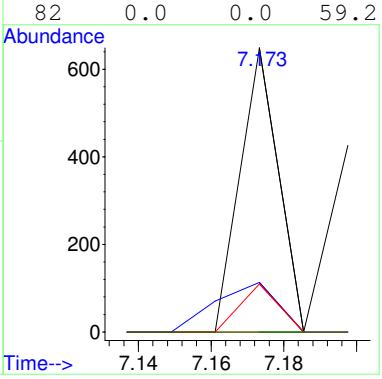


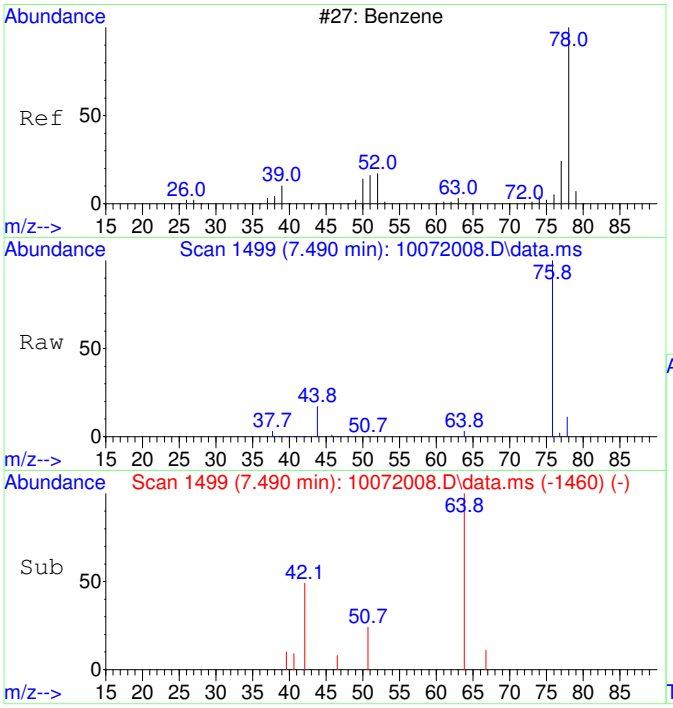



#32
Carbon tetrachloride SCAN
Concen: 33.73 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 28.3 | 75.5 | 135.5# |
| 121 | 16.9 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

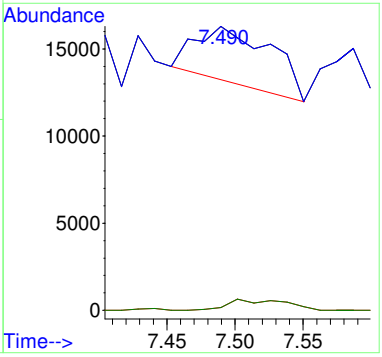


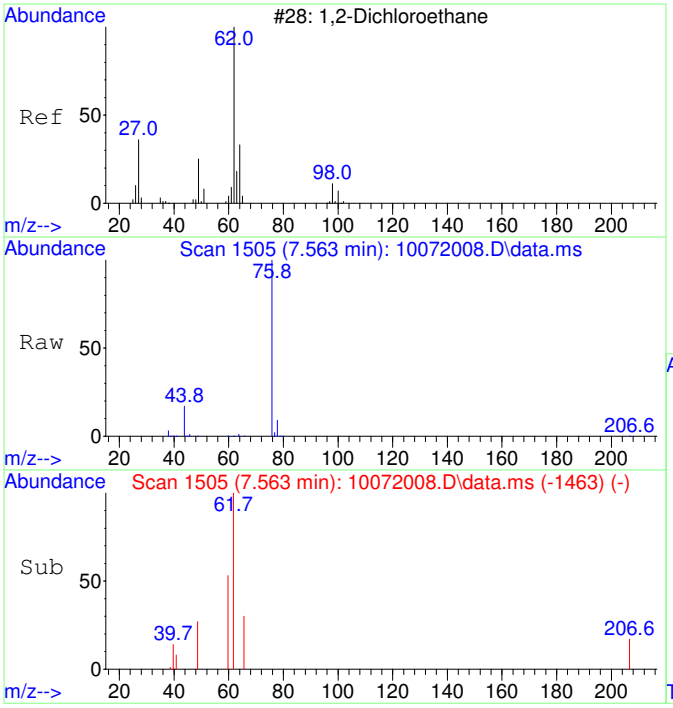




#33
Benzene SCAN
Concen: 315.80 ug/L
RT: 7.490 min Scan# 1499
Delta R.T. -0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 11713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 15.6 | 0.0 | 47.9 |
| 51 | 15.6 | 0.0 | 44.1 |

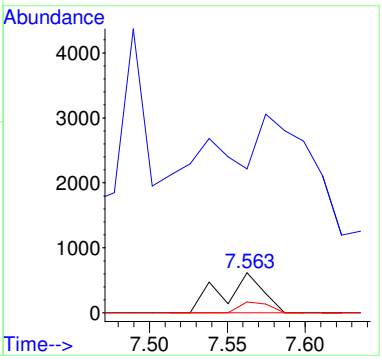


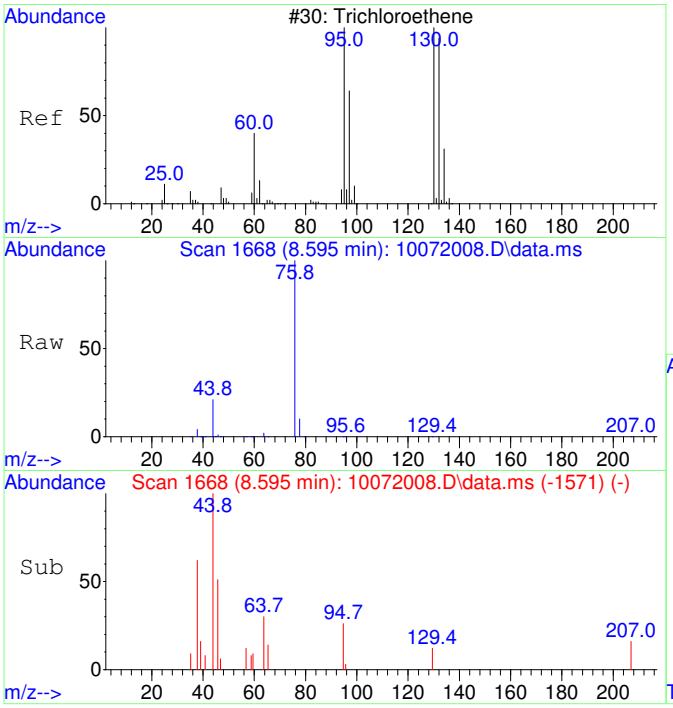



#34
1,2-Dichloroethane SCAN
Concen: 81.41 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 214.3 | 5.2 | 65.2# |
| 49 | 19.7 | 3.9 | 63.9 |

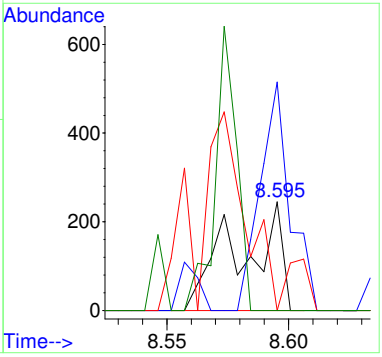


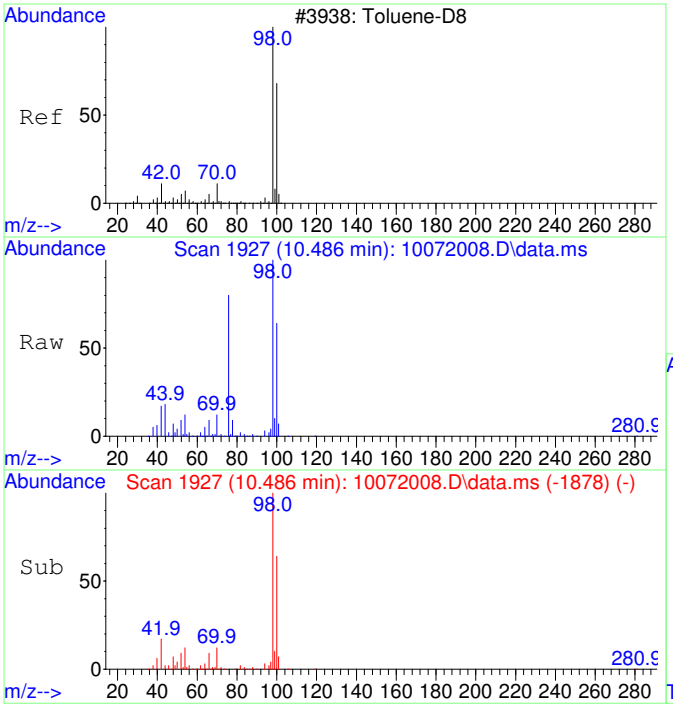




#35
Trichloroethene SCAN
Concen: 29.73 ug/L
RT: 8.595 min Scan# 1668
Delta R.T. 0.027 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 146.2 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 0.0 | 28.2 | 88.2# |

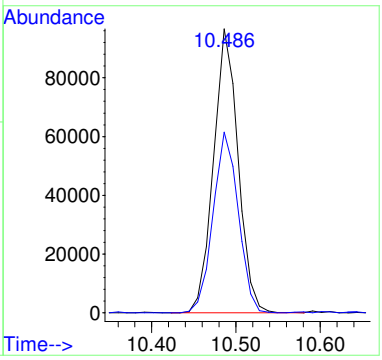


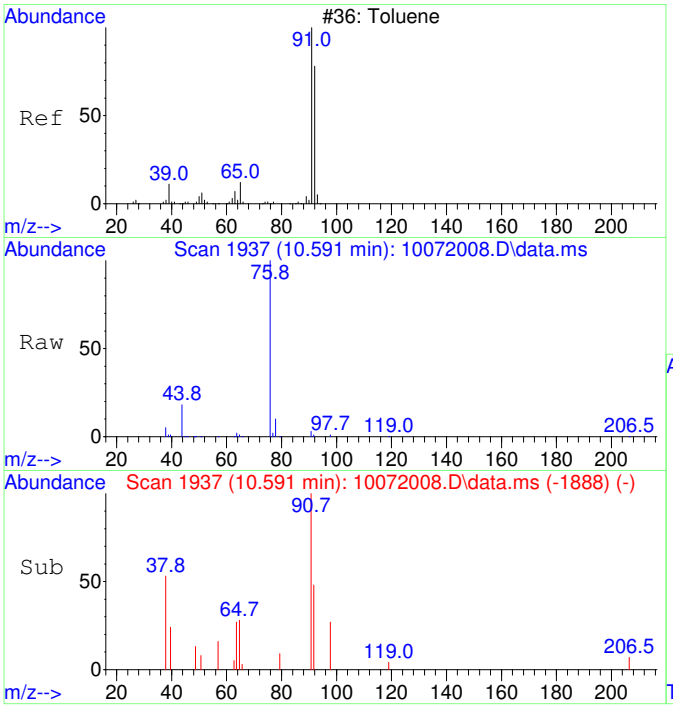



#36
Toluene-d8 SCAN
Concen: 4799.32 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 196309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.2 | 40.0 | 100.0 |

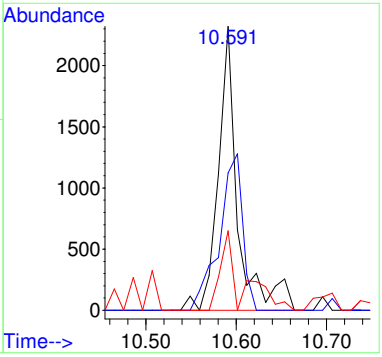


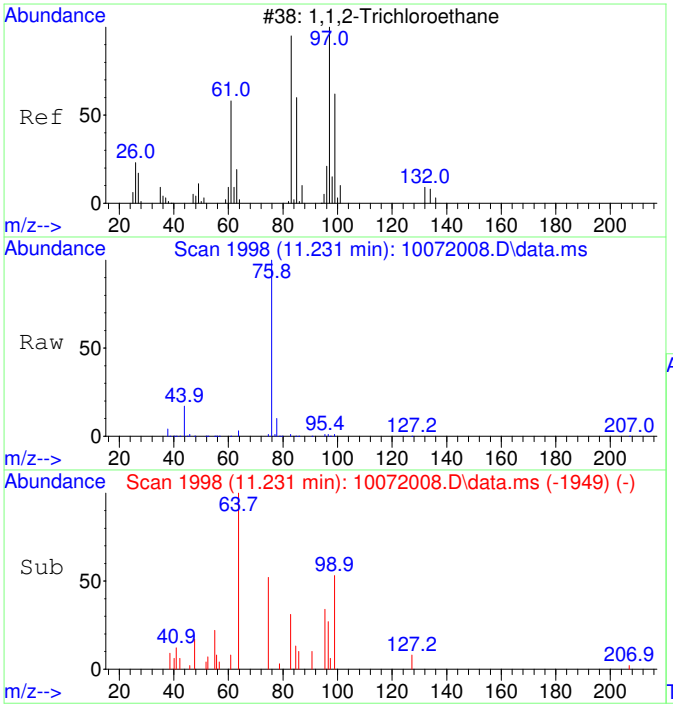




#37
Toluene SCAN
Concen: 66.40 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 3478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.1 | 28.3 | 88.3 |
| 65 | 30.9 | 0.0 | 41.0 |

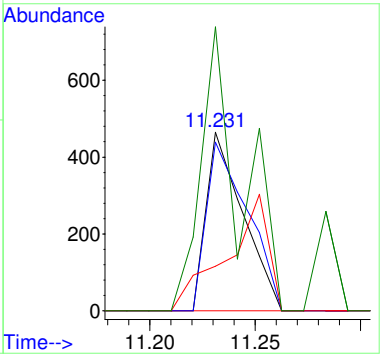


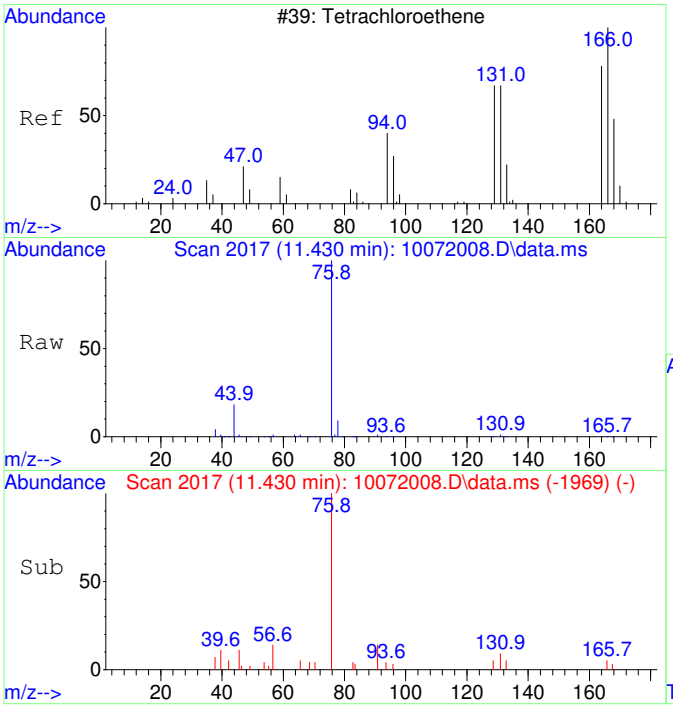



#38
1,1,2-Trichloroethane SCAN
Concen: 48.14 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 566

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 105.8 | 57.7 | 117.7 |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 171.4 | 36.7 | 96.7# |

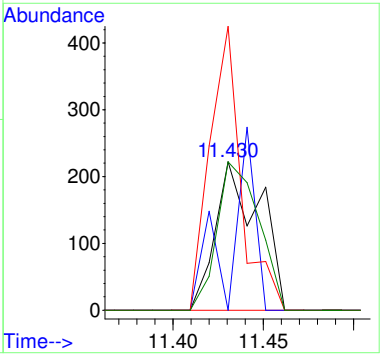


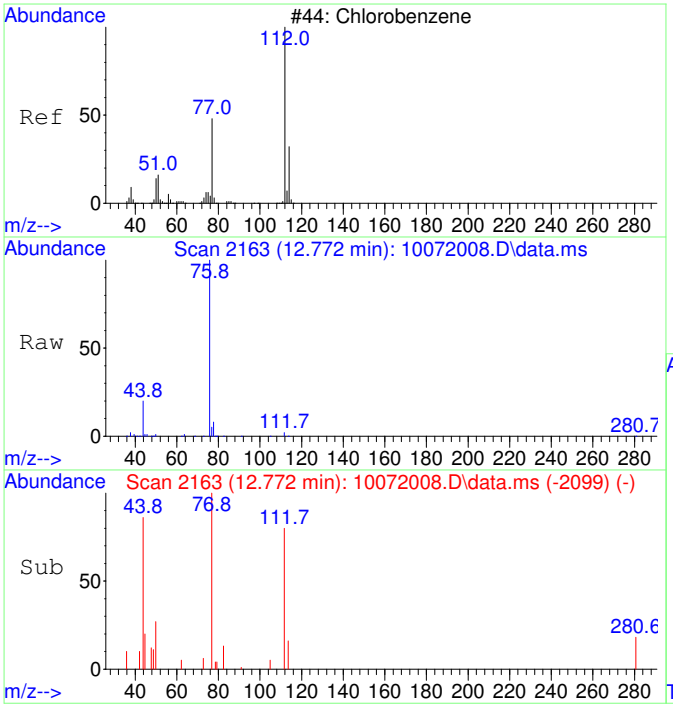




#39
Tetrachloroethene SCAN
Concen: 30.19 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 70.0 | 50.9 | 110.9 |
| 131 | 134.7 | 38.7 | 98.7# |
| 129 | 94.2 | 41.8 | 101.8 |

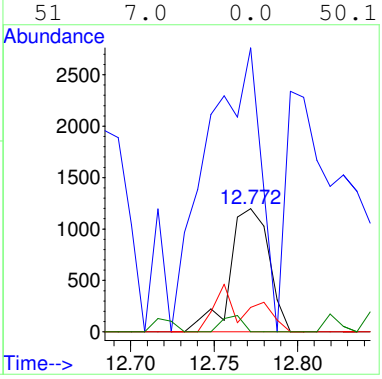


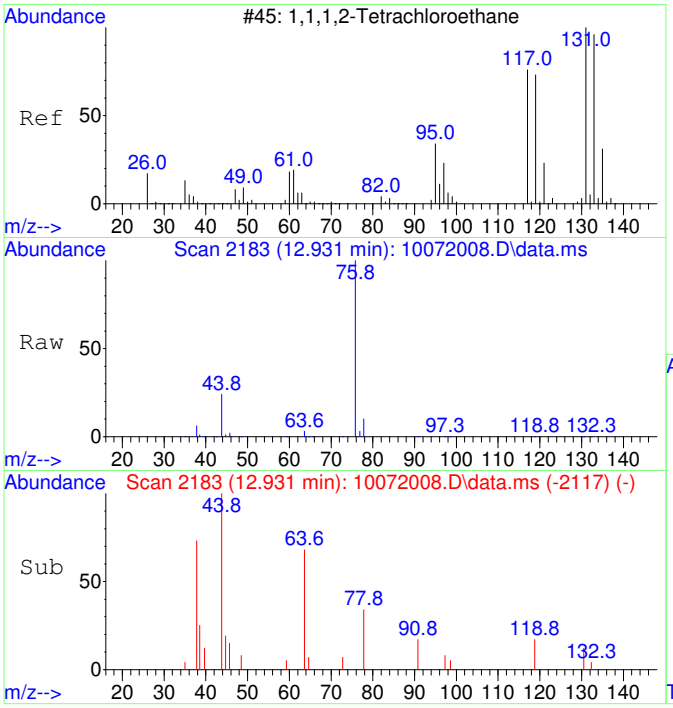



#40
Chlorobenzene SCAN
Concen: 54.53 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 1952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 346.4 | 28.2 | 88.2# |
| 114 | 33.8 | 2.3 | 62.3 |
| 51 | 7.0 | 0.0 | 50.1 |

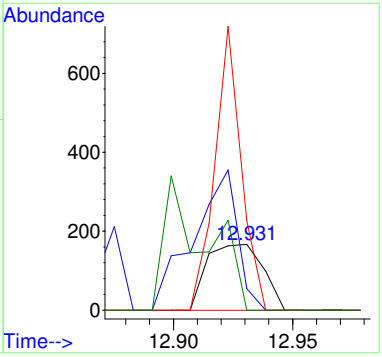


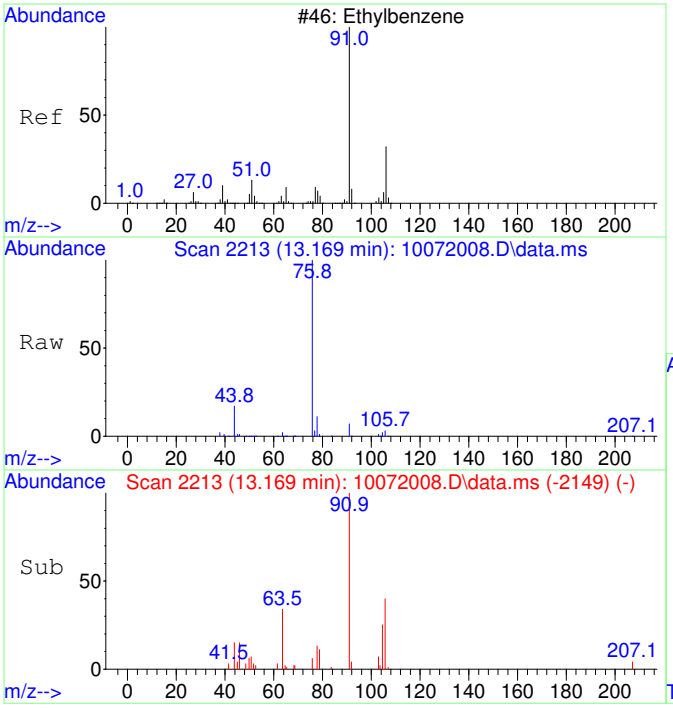




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.61 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 167.8 | 66.9 | 126.9# |
| 119 | 203.7 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

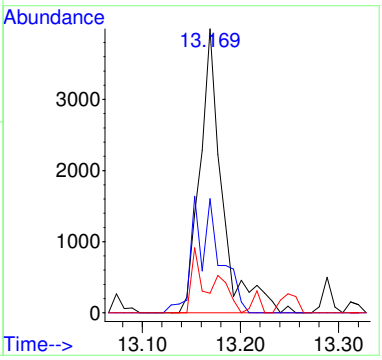


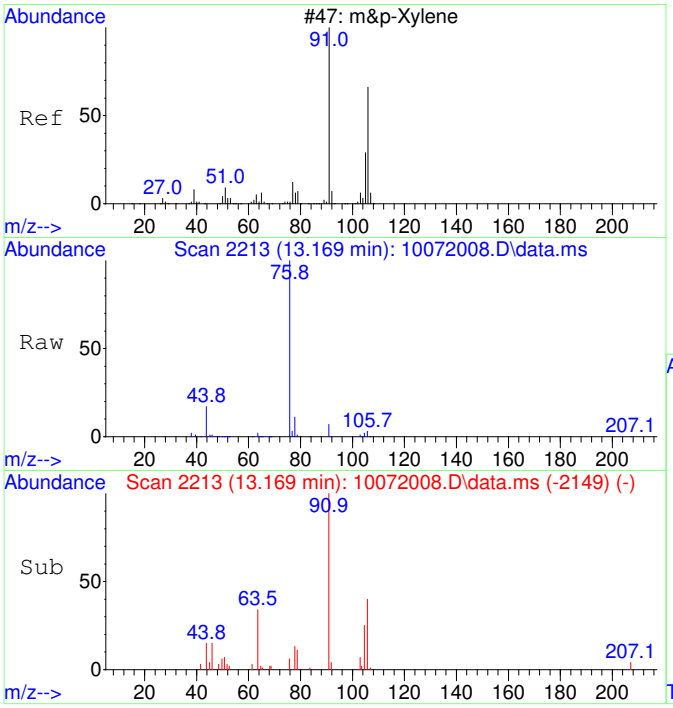



#42
Ethylbenzene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 51 | 4.3 | 0.0 | 40.1 |

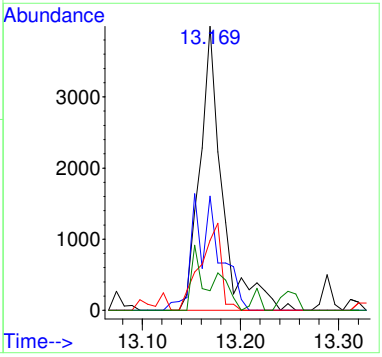


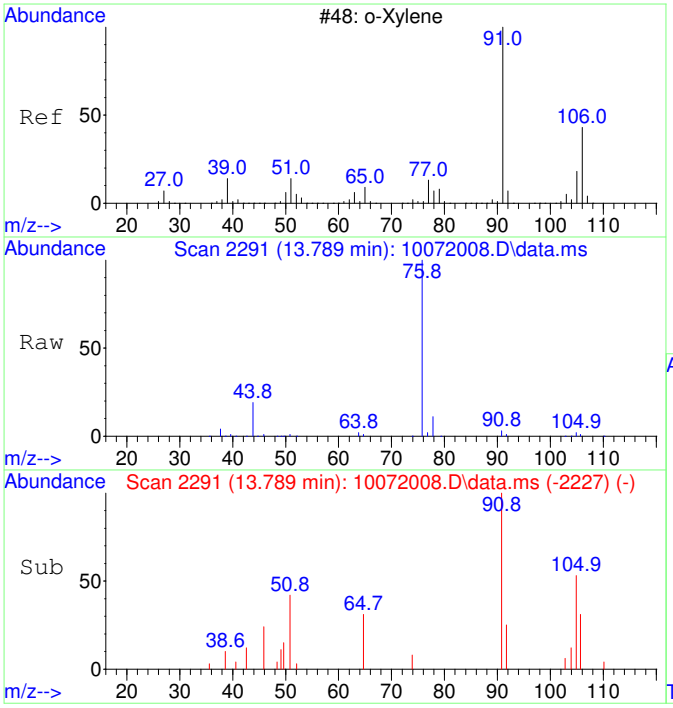




#43
m&p-Xylene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 105 | 29.0 | 0.0 | 54.7 |
| 51 | 4.3 | 0.0 | 40.1 |

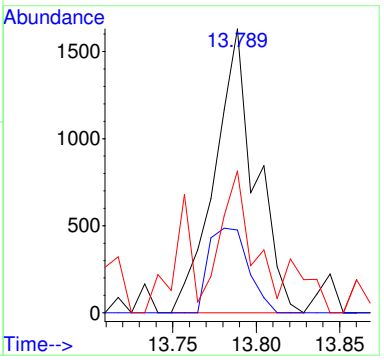


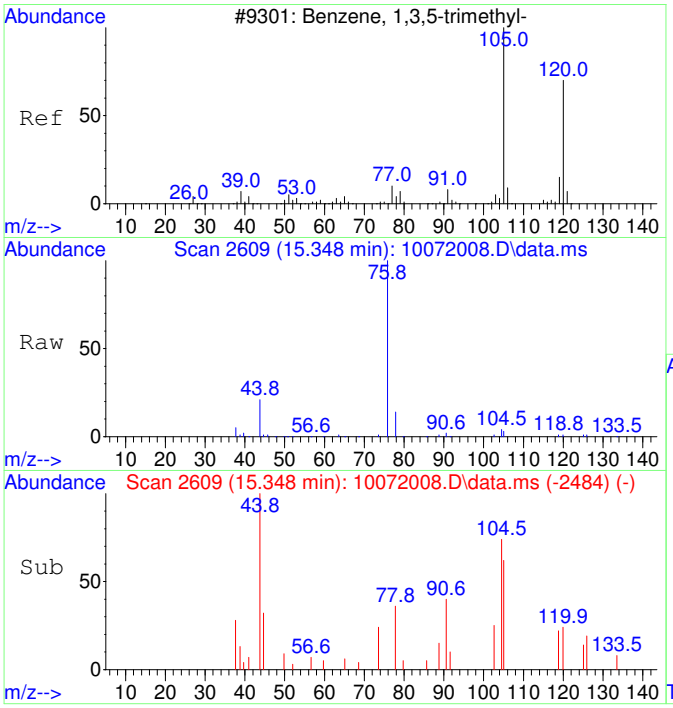



#44
o-Xylene SCAN
Concen: 54.40 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 2779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.1 | 18.0 | 78.0 |
| 105 | 32.0 | 0.0 | 56.6 |

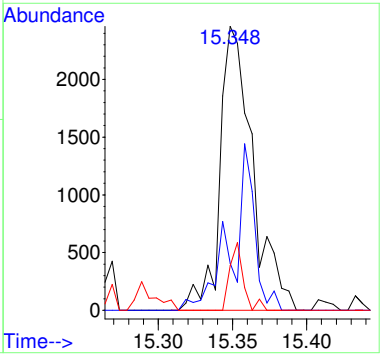


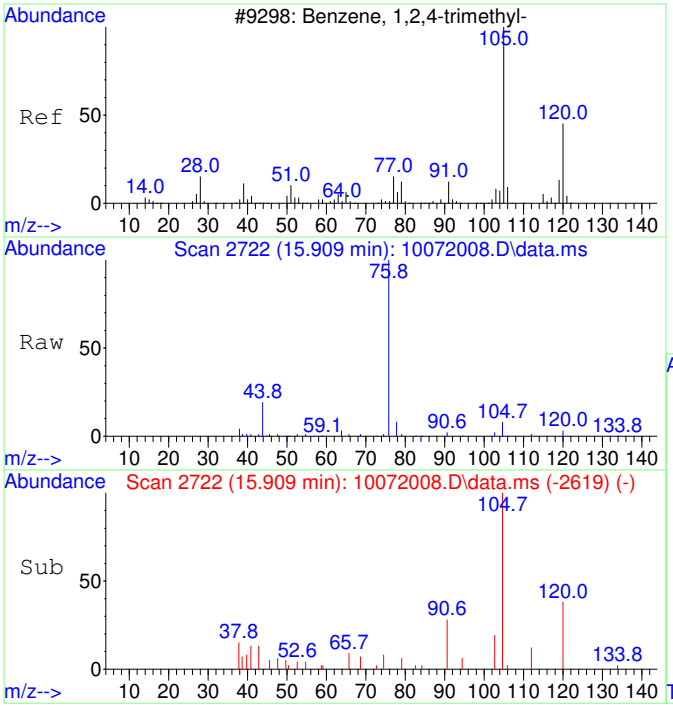




#46
1,3,5-Trimethylbenzene SCAN
Concen: 70.18 ug/L
RT: 15.348 min Scan# 2609
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3778

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.0 | 18.3 | 78.3 |
| 119 | 10.0 | 0.0 | 43.1 |

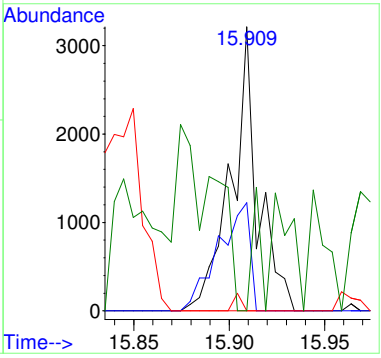





#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.37 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.5 | 16.9 | 76.9 |
| 119 | 1.9 | 0.0 | 41.9 |
| 77 | 13.4 | 0.0 | 42.3 |



# 2009037-01

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072009.D
Acq On : 7 Oct 2020 11:29
InstName : AG5975C
Operator : TD
Sample : 2009037-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 11:48:39 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

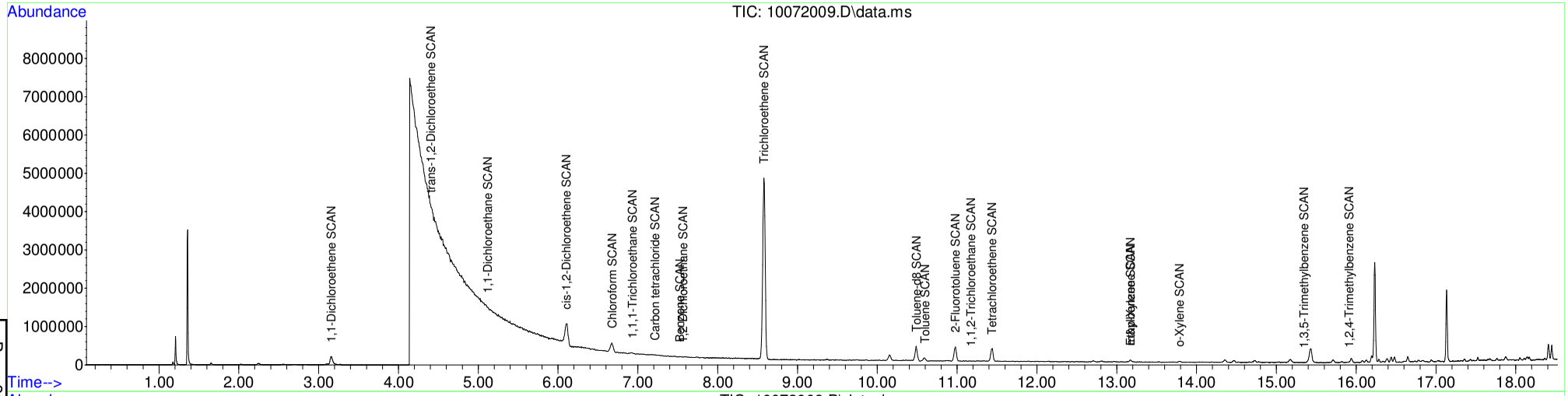
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 584147 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 499447 | 4367.59 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 87.35% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 29723 | 1274.25 ug/L | 81 |
| 3] trans-1,2-Dichloroethene | 4.409 | 61 | 59094 | 2192.72 ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.112 | 63 | 36782 | 1096.41 ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 888207 | 25082.18 ug/L OC | 99 |
| 6] Chloroform | 6.664 | 83 | 372035 | 10264.33 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.931 | 97 | 37650 | 956.49 ug/L | 99 |
| 8] Carbon tetrachloride | 7.199 | 117 | 11115 | 300.01 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 14175 | 142.82 ug/L | 76 |
| 10] 1,2-Dichloroethane | 7.564 | 62 | 947 | 26.73 ug/L # | 42 |
| 11] Trichloroethene | 8.580 | 130 | 3321054 | 111135.88 ug/L OC | 92 |
| 13] Toluene | 10.582 | 91 | 126793 | 869.70 ug/L | 99 |
| 15] Tetrachloroethene | 11.432 | 166 | 235494 | 5581.59 ug/L | 100 |
| 18] Ethylbenzene | 12.972 | 91 | 12842 | 72.37 ug/L | 95 |
| 19] m&p-Xylene | 13.162 | 91 | 53201 | 383.59 ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 29331 | 197.95 ug/L | 94 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 3753 | 23.80 ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 8614 | 52.58 ug/L | 98 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 295287 | 5185.61 ug/L | 97 |
| 26) 1,1-Dichloroethene SCAN | 3.151 | 61 | 1414 | 116.93 ug/L | 69 |
| 27) trans-1,2-Dichloroethe... | 4.408 | 61 | 34028 | 2273.93 ug/L | 76 |
| 28) 1,1-Dichloroethane SCAN | 5.118 | 63 | 22667 | 1308.84 ug/L # | 59 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 509130 | 27438.90 ug/L # | 82 |
| 30) Chloroform SCAN | 6.675 | 83 | 202746 | 10074.07 ug/L | 93 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 20353 | 1109.76 ug/L | 85 |
| 32) Carbon tetrachloride SCAN | 7.210 | 117 | 5693 | 297.59 ug/L # | 84 |
| 33) Benzene SCAN | 7.526 | 78 | 11680 | 231.30 ug/L | 99 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 544 | 29.17 ug/L # | 40 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 1651818 | 119033.74 ug/L | 83 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 257742 | 4628.23 ug/L | 97 |
| 37) Toluene SCAN | 10.591 | 91 | 70239 | 984.87 ug/L | 96 |
| 38) 1,1,2-Trichloroethane ... | 11.168 | 97 | 511 | 31.92 ug/L # | 13 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 112327 | 6555.81 ug/L | 94 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 30750 | 236.67 ug/L | 88 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 30750 | 236.67 ug/L | 91 |
| 44) o-Xylene SCAN | 13.789 | 91 | 14290 | 205.47 ug/L | 92 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 1969 | 26.86 ug/L | 85 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 4235 | 56.47 ug/L | 84 |

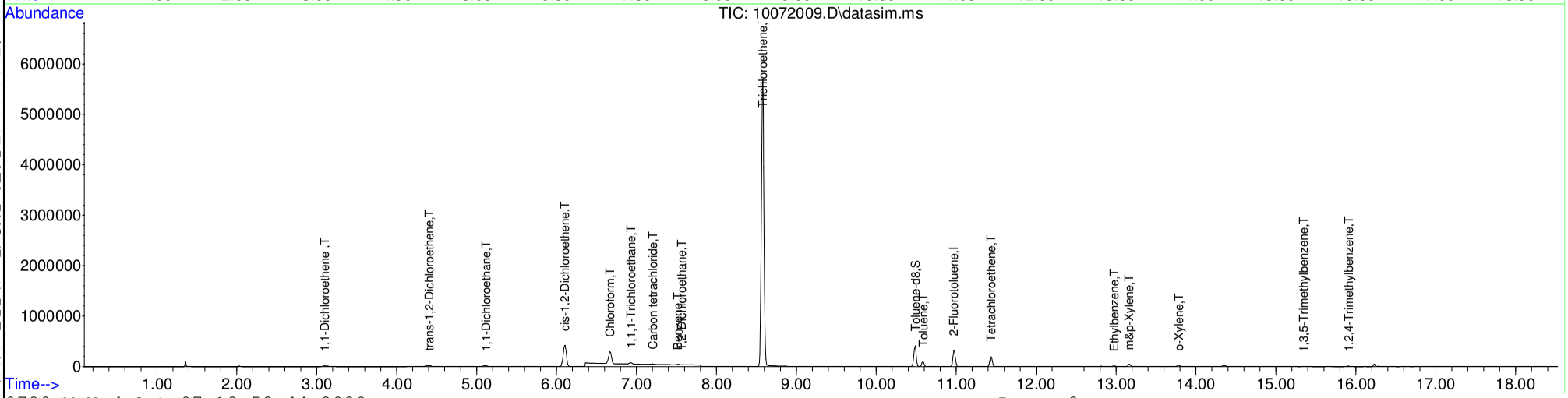
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072009.D
Acq On : 7 Oct 2020 11:29
InstName : AG5975C
Operator : TD
Sample : 2009037-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 11:48:39 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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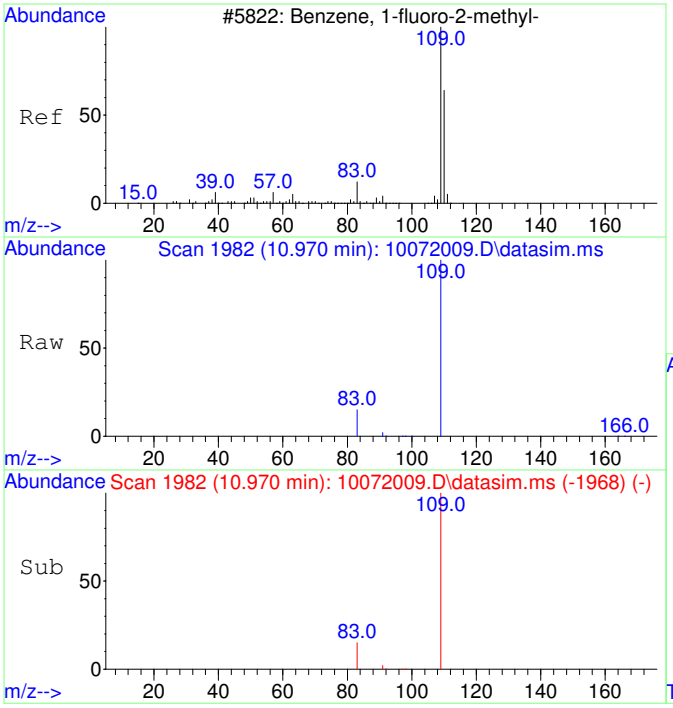
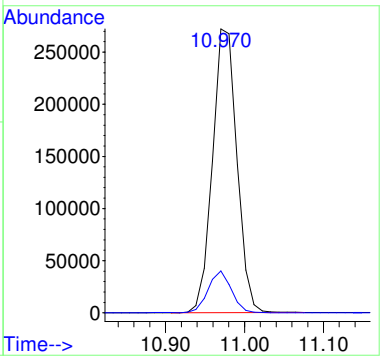
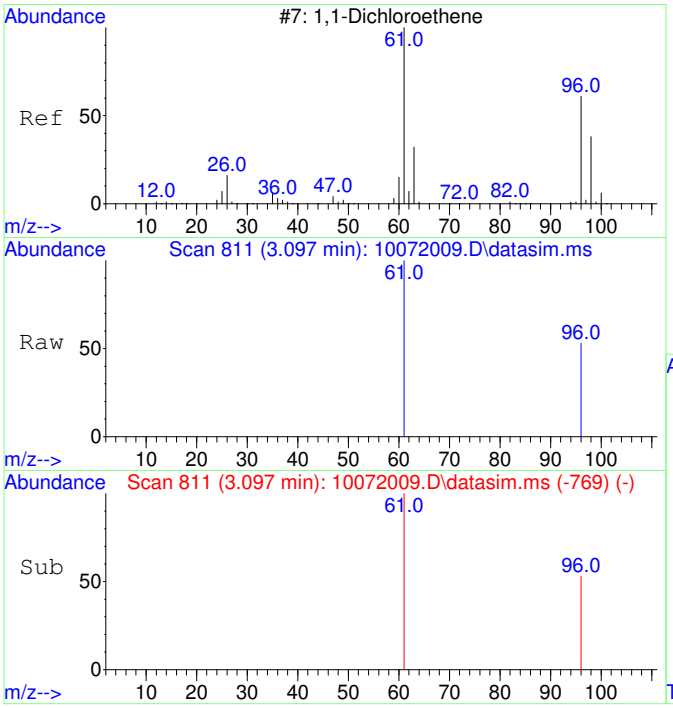



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:109 Resp: 584147

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

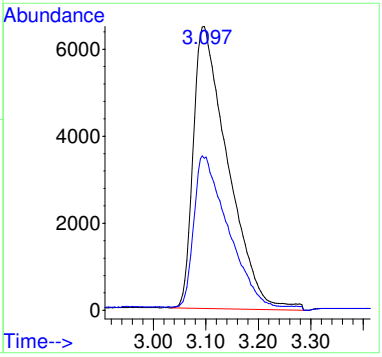


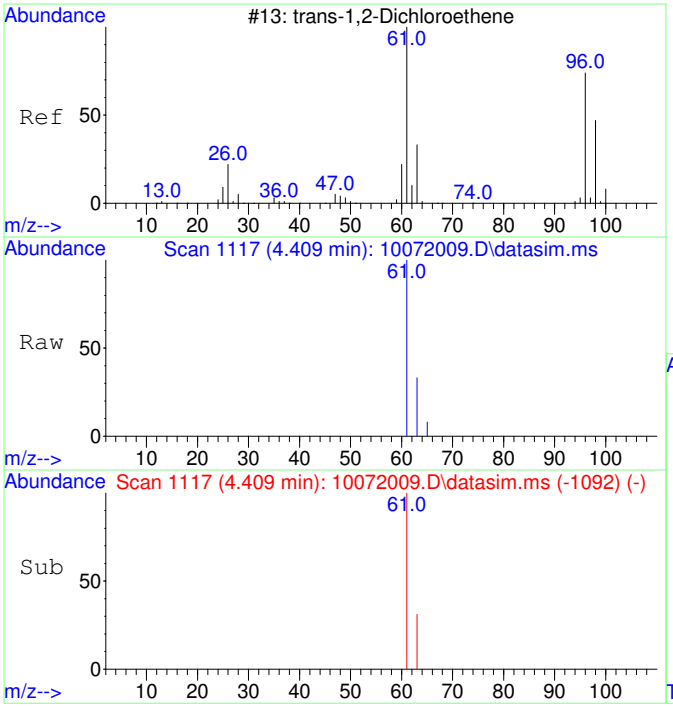




#2
1,1-Dichloroethene
Concen: 1274.25 ug/L
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 29723

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 51.9 | 37.2 | 97.2 |

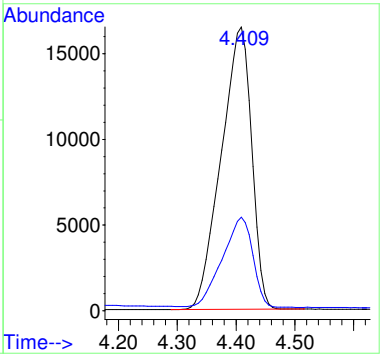


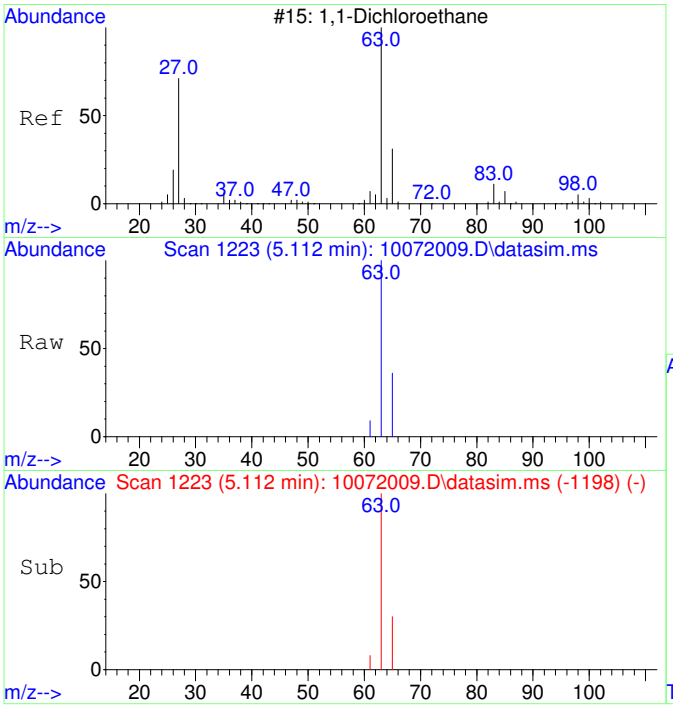



#3
trans-1,2-Dichloroethene
Concen: 2192.72 ug/L
RT: 4.409 min Scan# 1117
Delta R.T. 0.013 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 59094

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.5 | 2.4 | 62.4 |

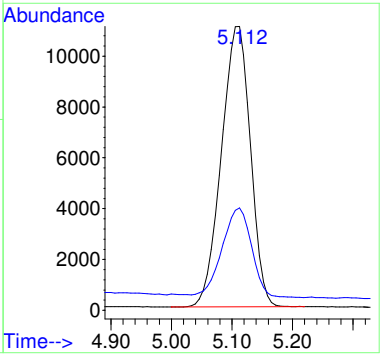


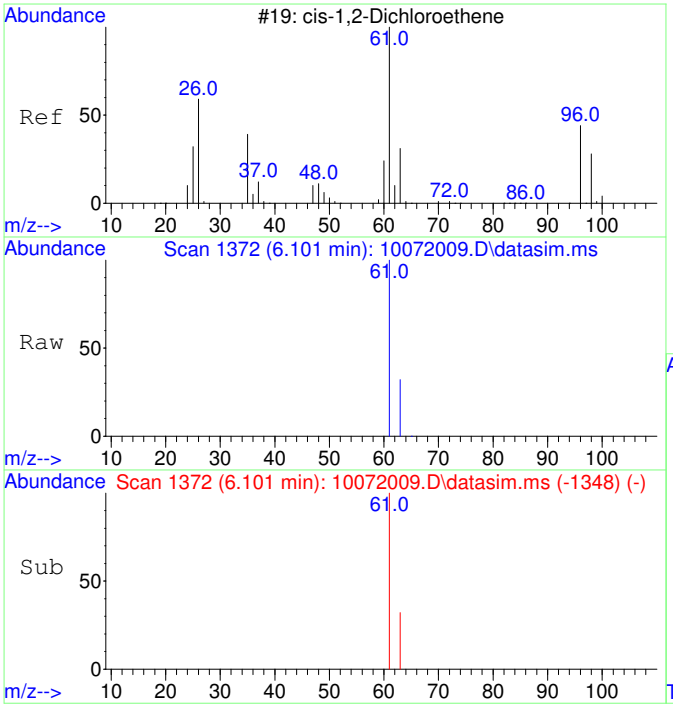




#4
1,1-Dichloroethane
Concen: 1096.41 ug/L
RT: 5.112 min Scan# 1223
Delta R.T. 0.013 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 63 Resp: 36782

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 32.9 | 1.8 | 61.8 |

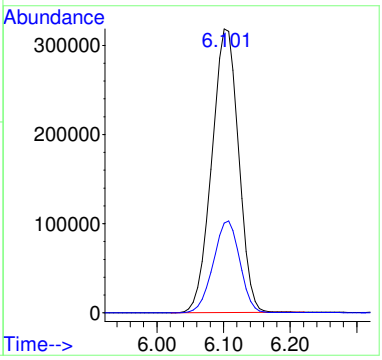


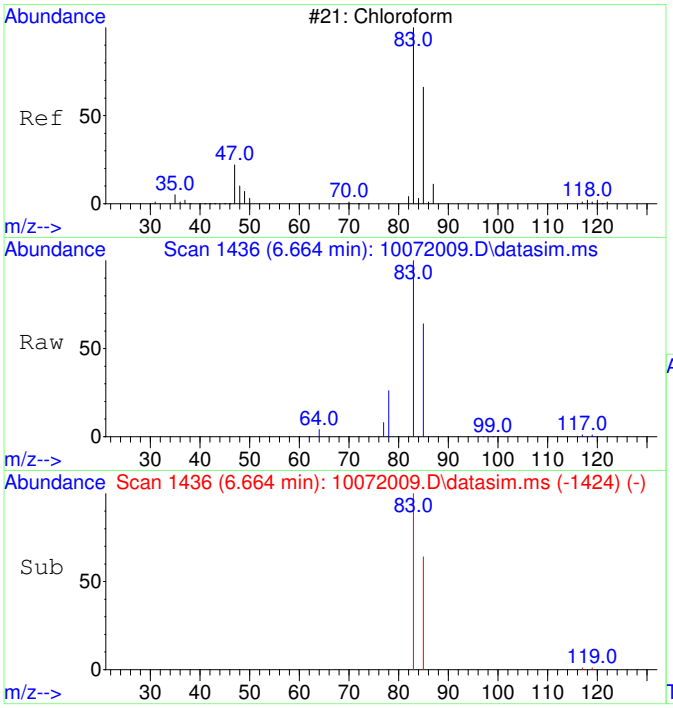



#5
cis-1,2-Dichloroethene
Concen: 25082.18 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 888207

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 32.0 | 2.5 | 62.5 |

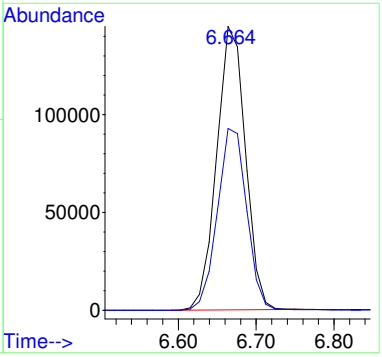


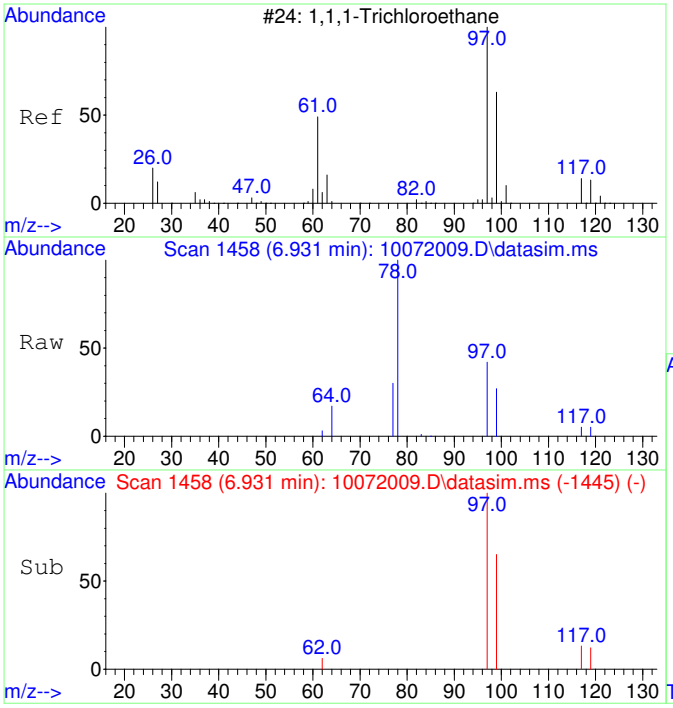




#6
Chloroform
Concen: 10264.33 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 83 Resp: 372035

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 35.1 | 95.1 |

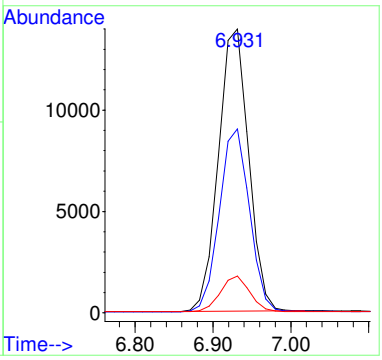


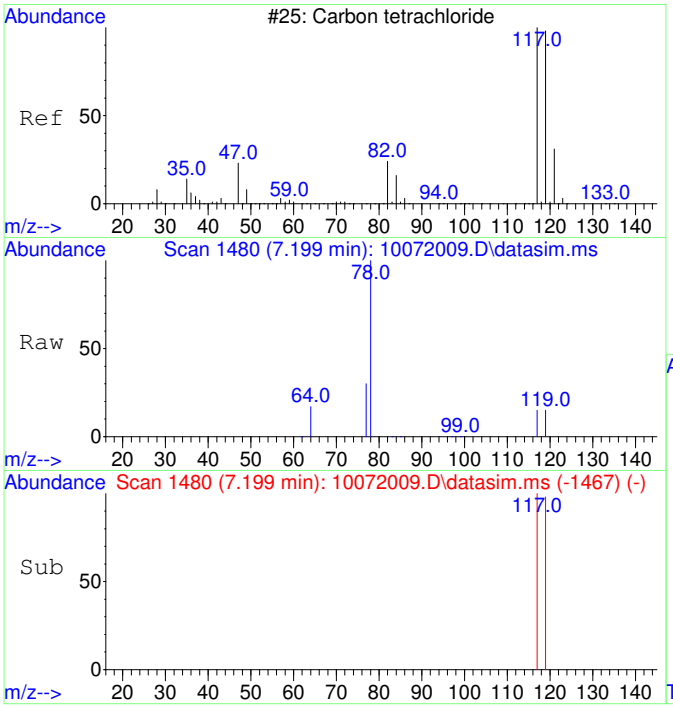



#7
1,1,1-Trichloroethane
Concen: 956.49 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 97 Resp: 37650

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.4 | 34.6 | 94.6 |
| 117 | 12.2 | 0.0 | 43.2 |

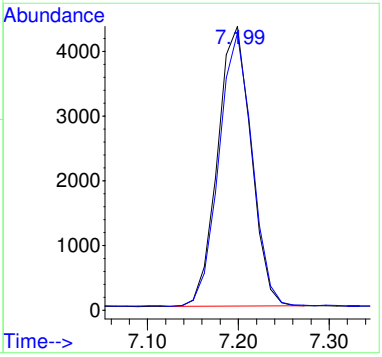


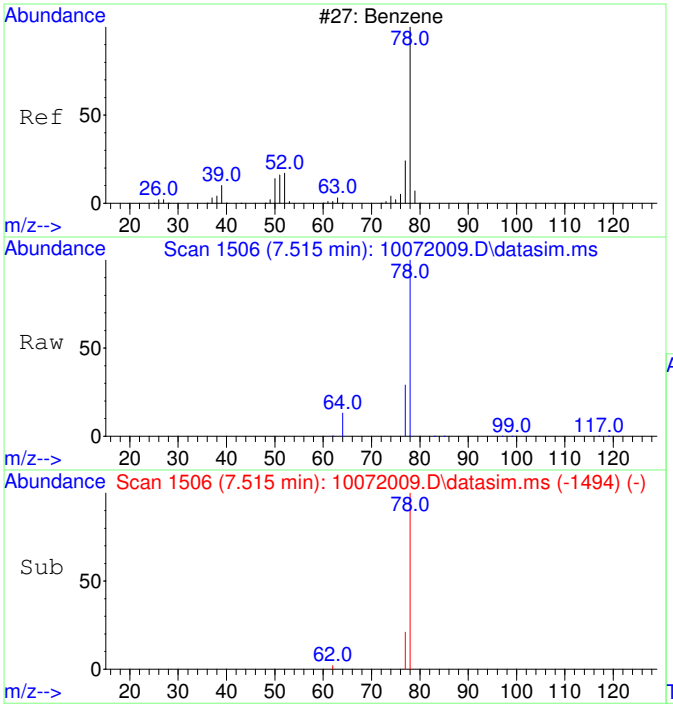




#8
Carbon tetrachloride
Concen: 300.01 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:117 Resp: 11115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.4 | 66.4 | 126.4 |

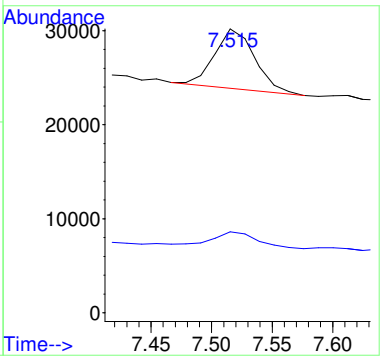


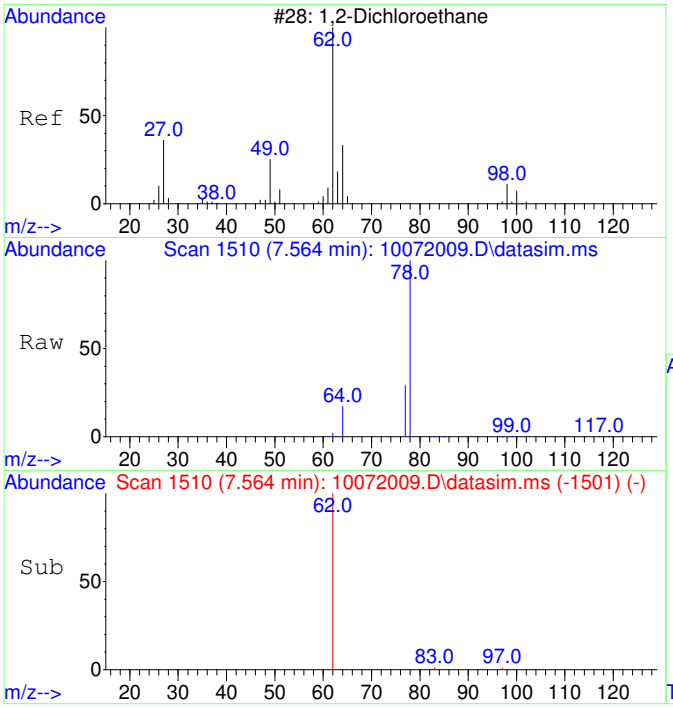



#9
Benzene
Concen: 142.82 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 78 Resp: 14175

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 35.1 | 0.0 | 53.2 |

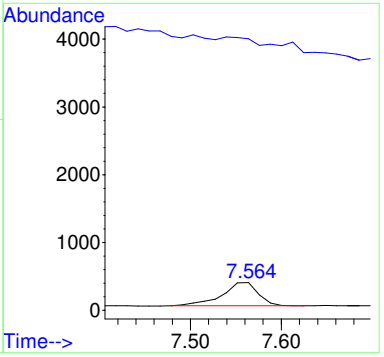


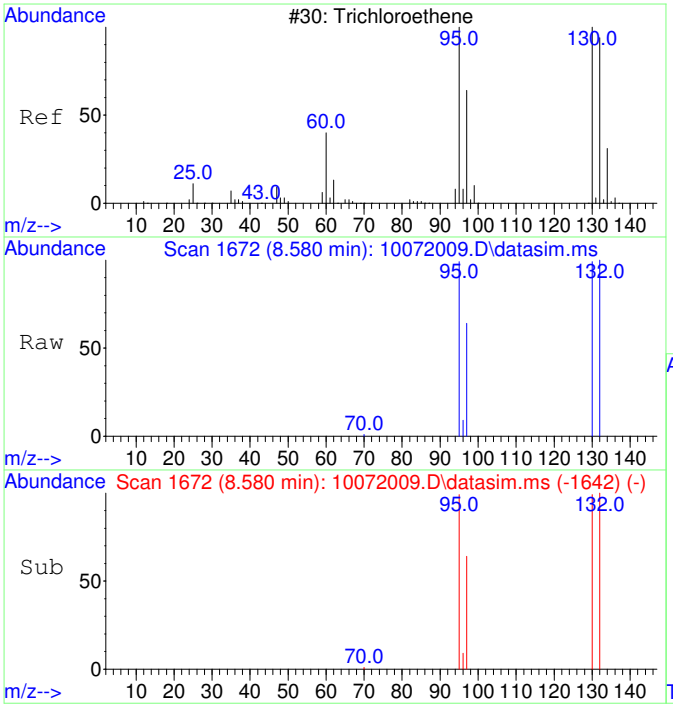




#10
1,2-Dichloroethane
Concen: 26.73 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 62 Resp: 947

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 2.3 | 62.3# |

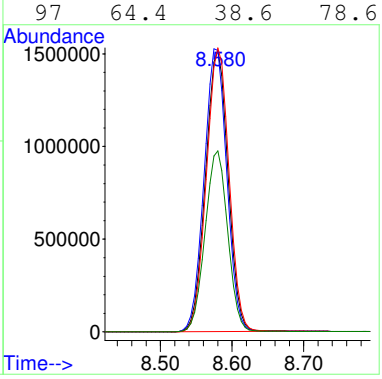


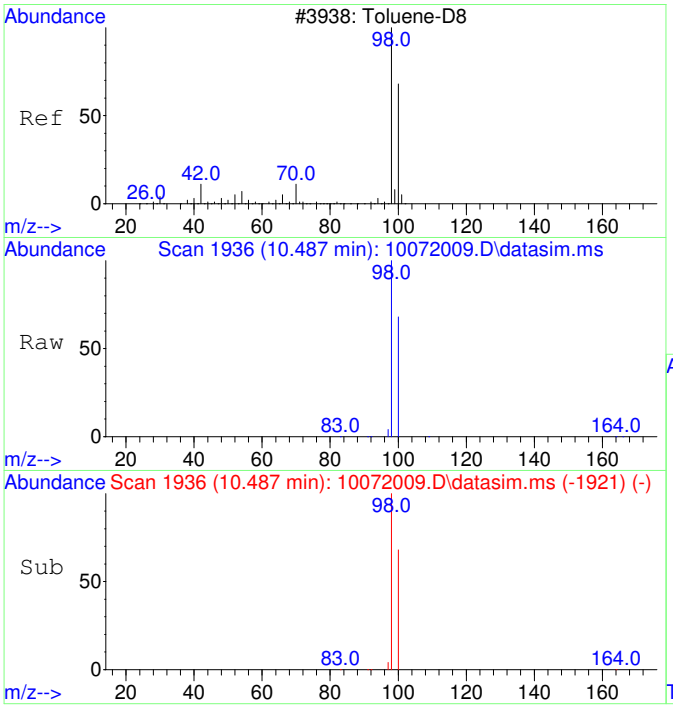



#11
Trichloroethene
Concen: 111135.88 ug/L
RT: 8.580 min Scan# 1672
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:130 Resp: 3321054

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.3 | 60.7 | 120.7 |
| 132 | 101.0 | 76.0 | 116.0 |
| 97 | 64.4 | 38.6 | 78.6 |

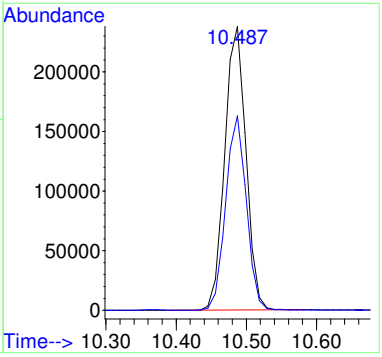


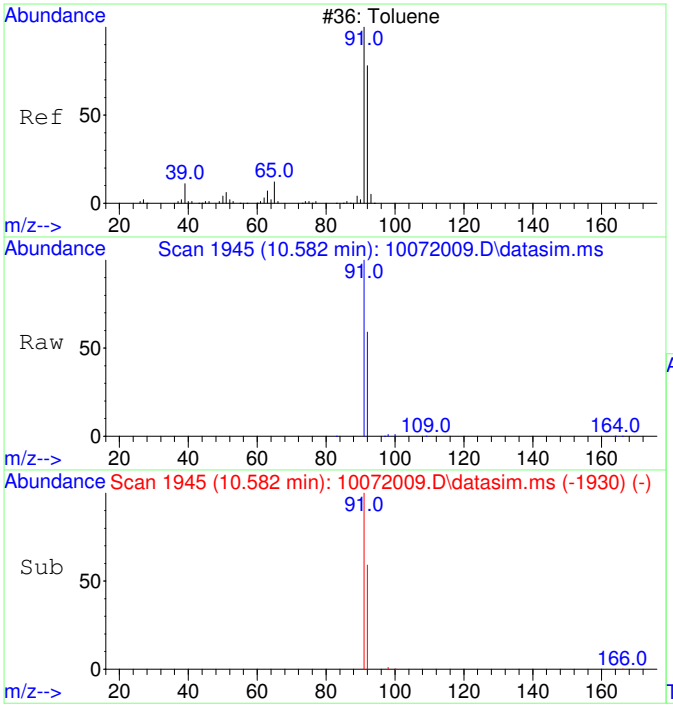




#12
Toluene-d8
Concen: 4367.59 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 98 Resp: 499447

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

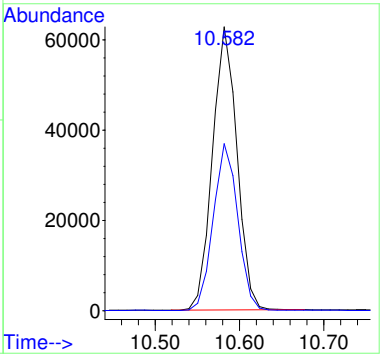


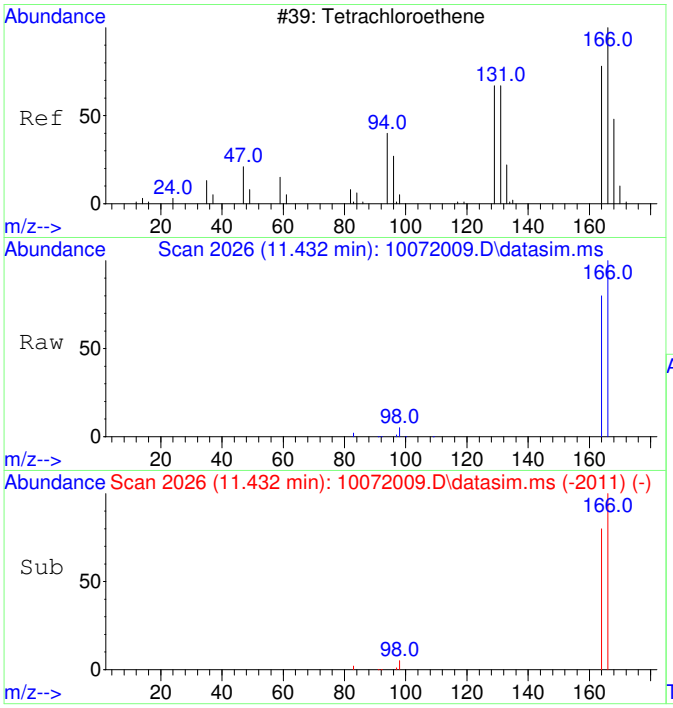



#13
Toluene
Concen: 869.70 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 126793

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.0 | 29.9 | 89.9 |

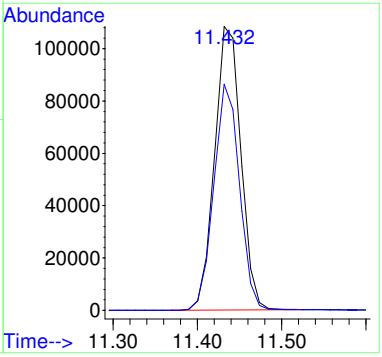


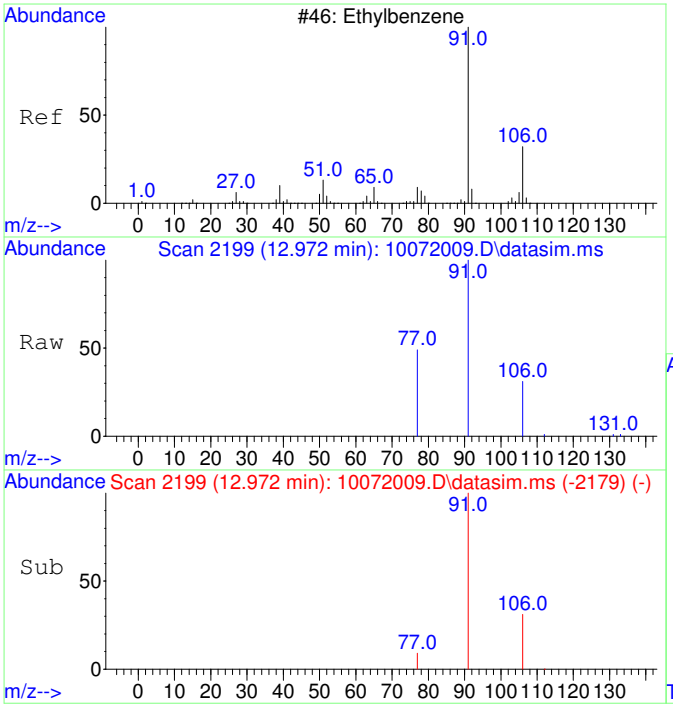




#15
Tetrachloroethene
Concen: 5581.59 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:166 Resp: 235494

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.6 | 47.8 | 107.8 |

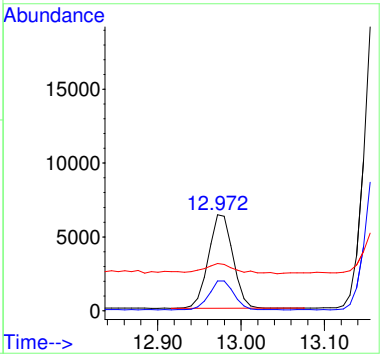


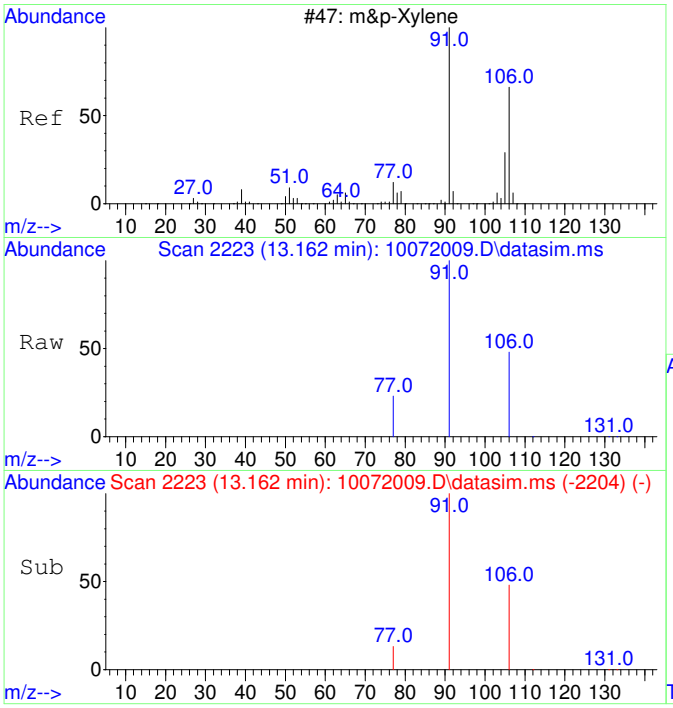



#18
Ethylbenzene
Concen: 72.37 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 12842

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.5 | 3.0 | 63.0 |
| 77 | 13.8 | 0.0 | 38.2 |

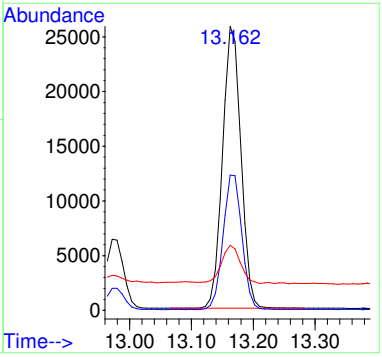


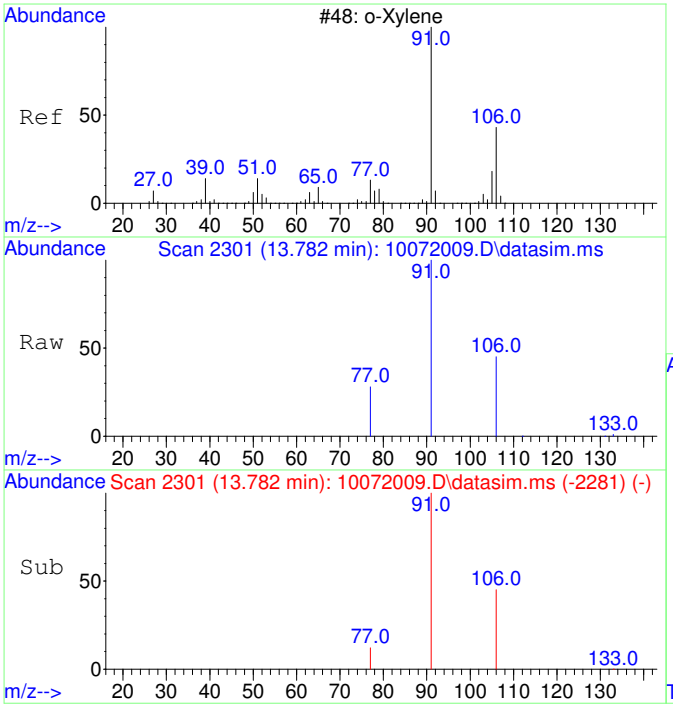




#19
m&p-Xylene
Concen: 383.59 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 53201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.7 | 22.2 | 82.2 |
| 77 | 13.7 | 0.0 | 42.4 |

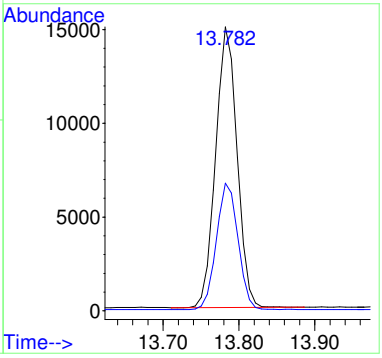


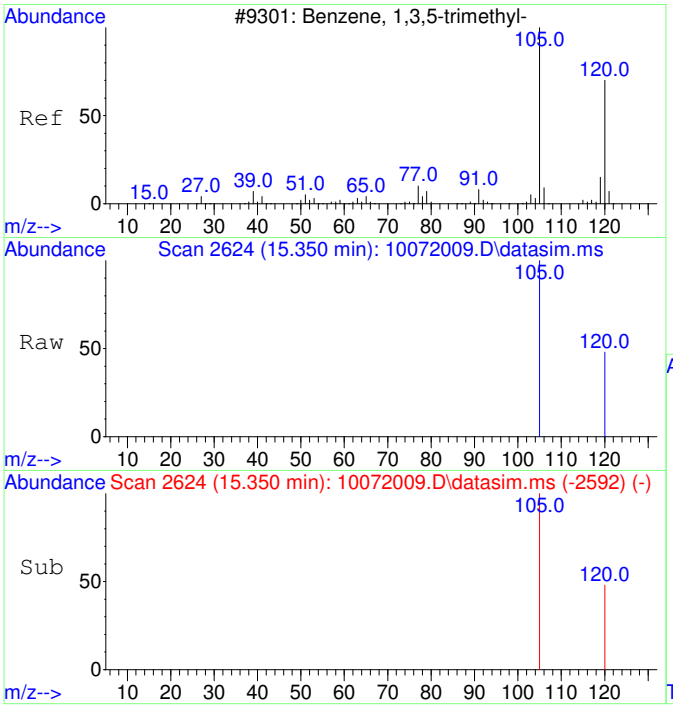



#20
o-Xylene
Concen: 197.95 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 29331

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.4 | 19.2 | 79.2 |

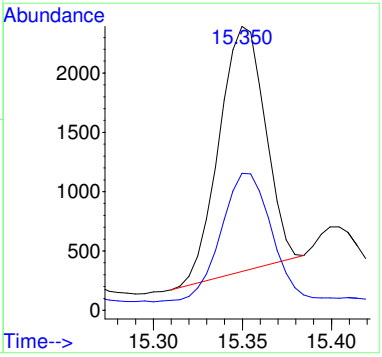


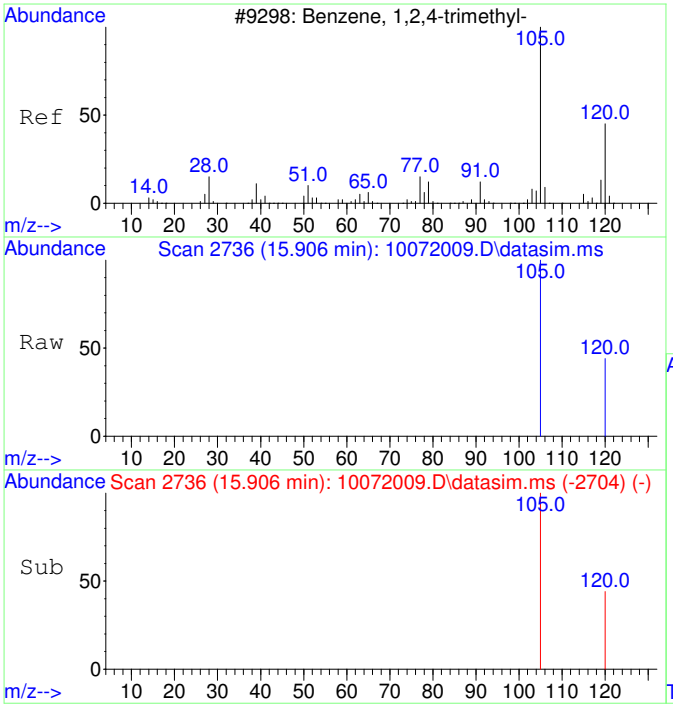




#22
1,3,5-Trimethylbenzene
Concen: 23.80 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:105 Resp: 3753

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 54.8 | 21.1 | 81.1 |

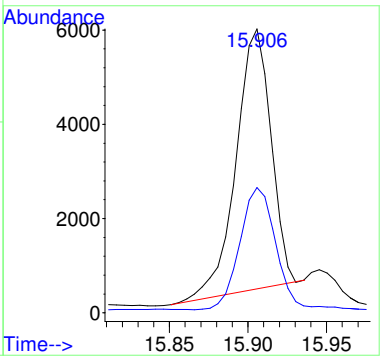


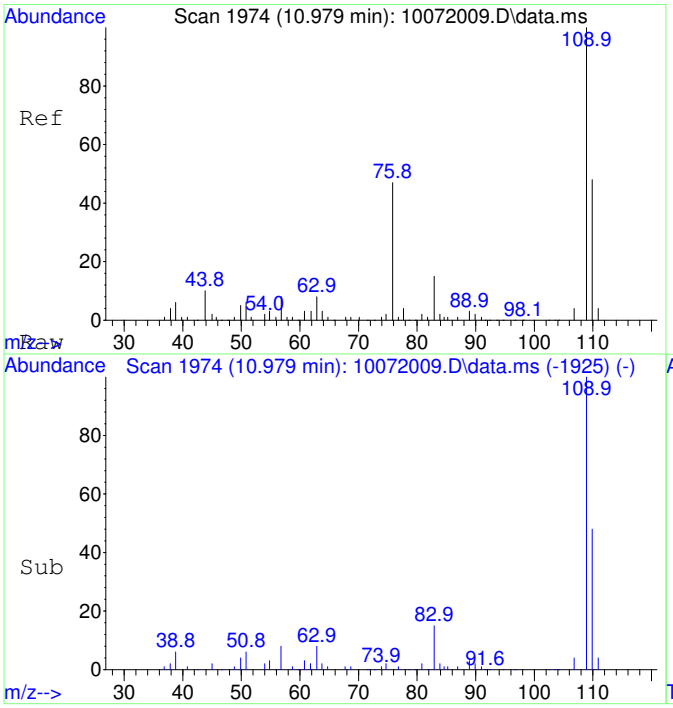



#23
1,2,4-Trimethylbenzene
Concen: 52.58 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:105 Resp: 8614

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.3 | 17.2 | 77.2 |

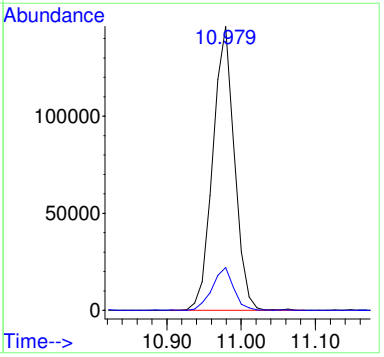


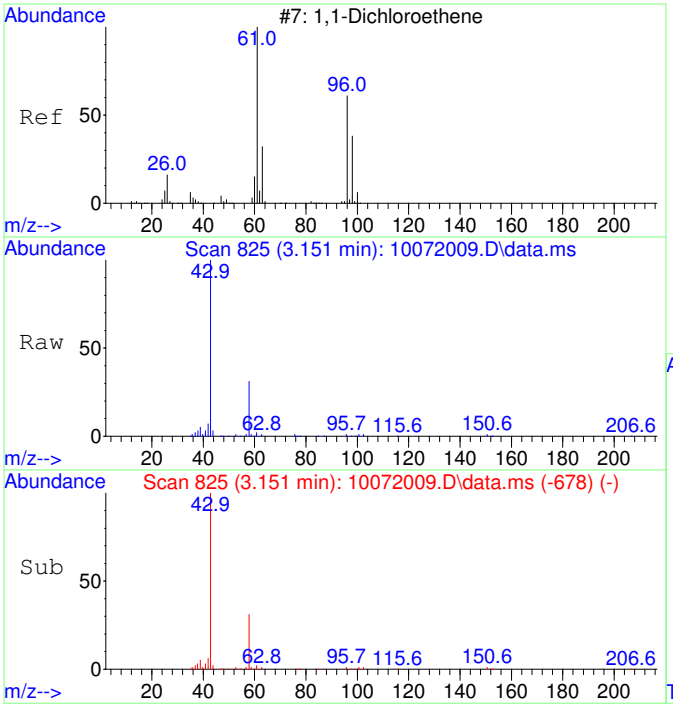




#25
2-Fluorotoluene SCAN
Concen: 5185.61 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:109 Resp: 295287

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.0 | 0.0 | 43.8 |

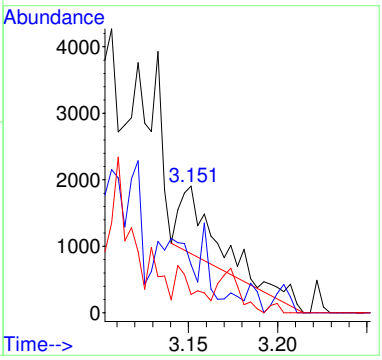


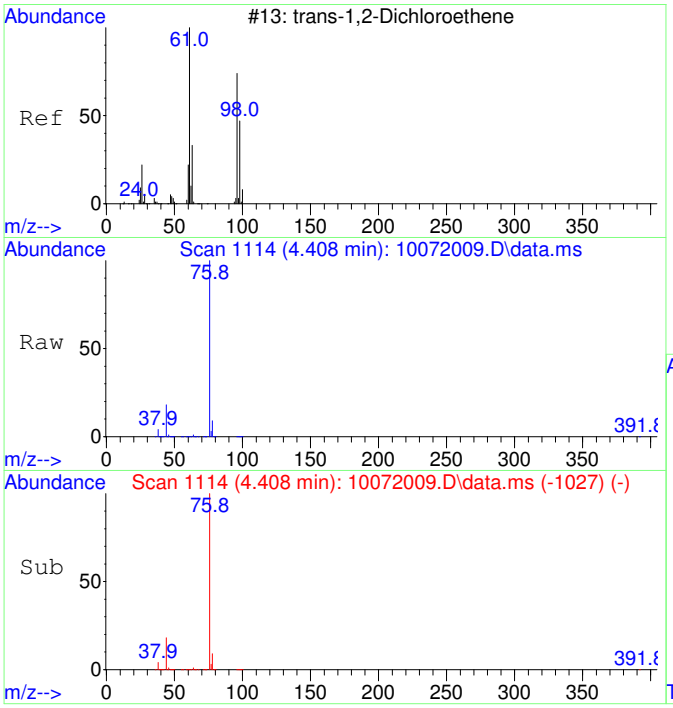



#26
1,1-Dichloroethene SCAN
Concen: 116.93 ug/L
RT: 3.151 min Scan# 825
Delta R.T. 0.044 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 1414

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 41.2 | 33.1 | 93.1 |
| 98 | 19.6 | 11.2 | 71.2 |

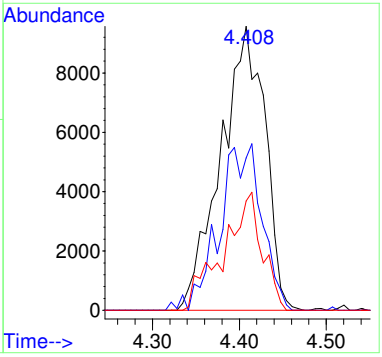


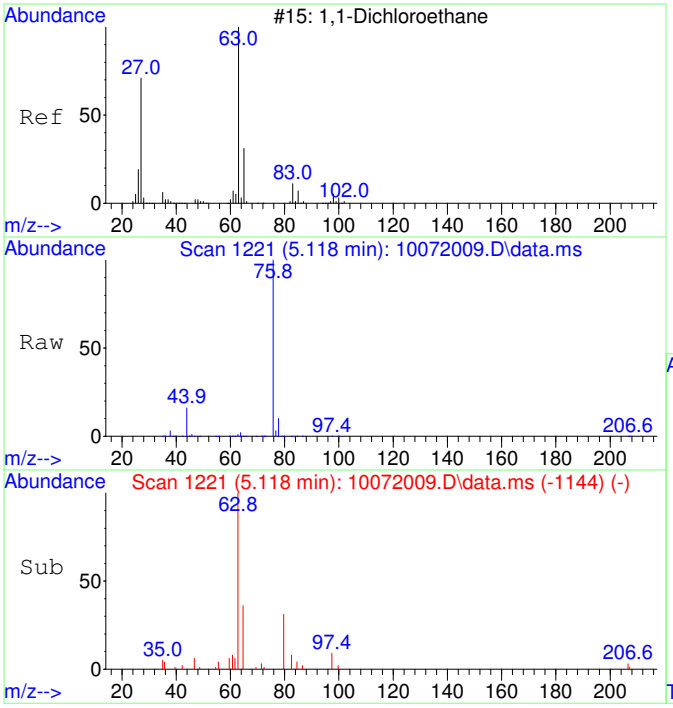




#27
trans-1,2-Dichloroethene SCAN
Concen: 2273.93 ug/L
RT: 4.408 min Scan# 1114
Delta R.T. 0.007 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 34028

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.2 | 49.0 | 109.0 |
| 98 | 36.4 | 20.5 | 80.5 |

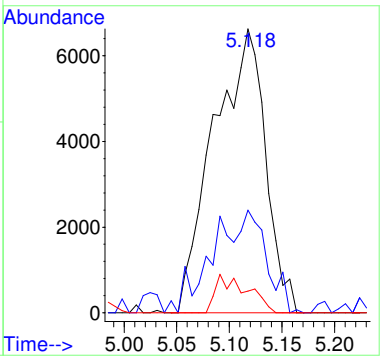


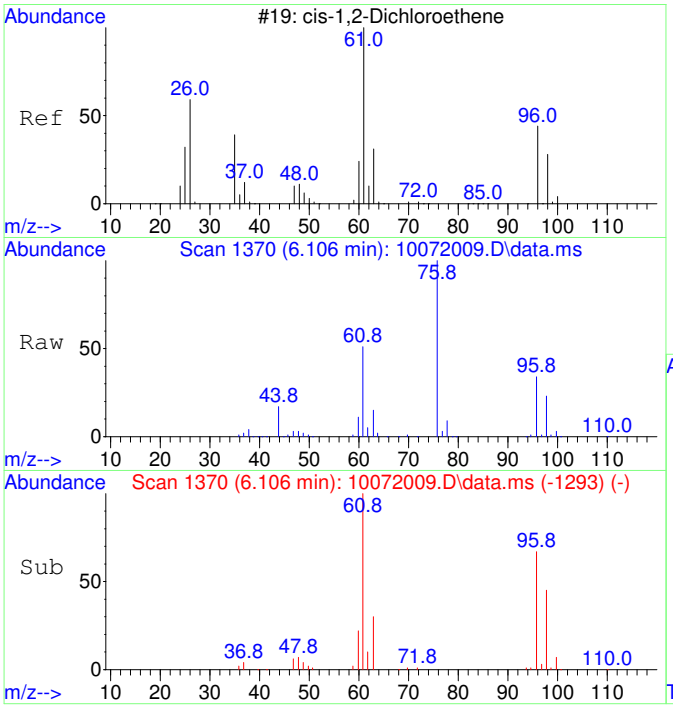



#28
1,1-Dichloroethane SCAN
Concen: 1308.84 ug/L
RT: 5.118 min Scan# 1221
Delta R.T. 0.013 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 63 Resp: 22667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 7.3 | 1.3 | 61.3 |
| 83 | 0.0 | 0.0 | 45.9 |

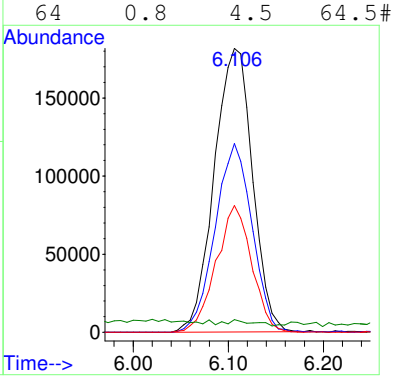


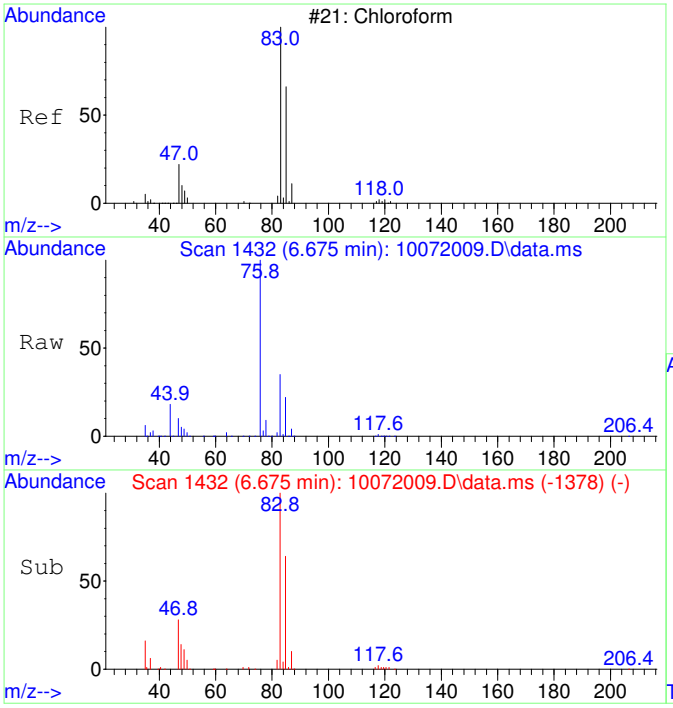




#29
cis-1,2-Dichloroethene SCAN
Concen: 27438.90 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 61 Resp: 509130

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 64.3 | 39.9 | 99.9 |
| 98 | 41.7 | 13.5 | 73.5 |
| 64 | 0.8 | 4.5 | 64.5# |

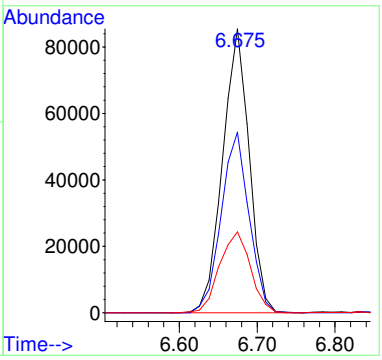


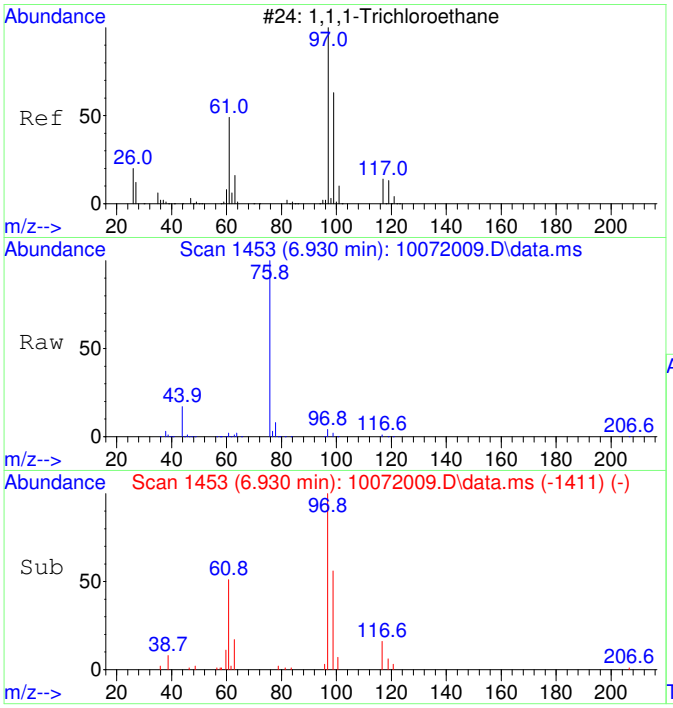



#30
Chloroform SCAN
Concen: 10074.07 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 83 Resp: 202746

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 66.5 | 34.6 | 94.6 |
| 47 | 33.1 | 0.0 | 53.4 |

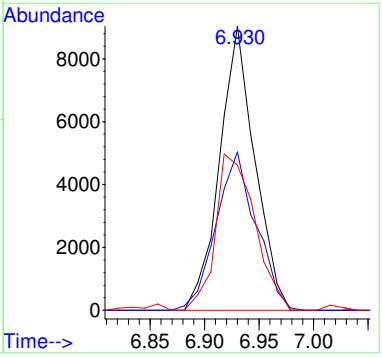


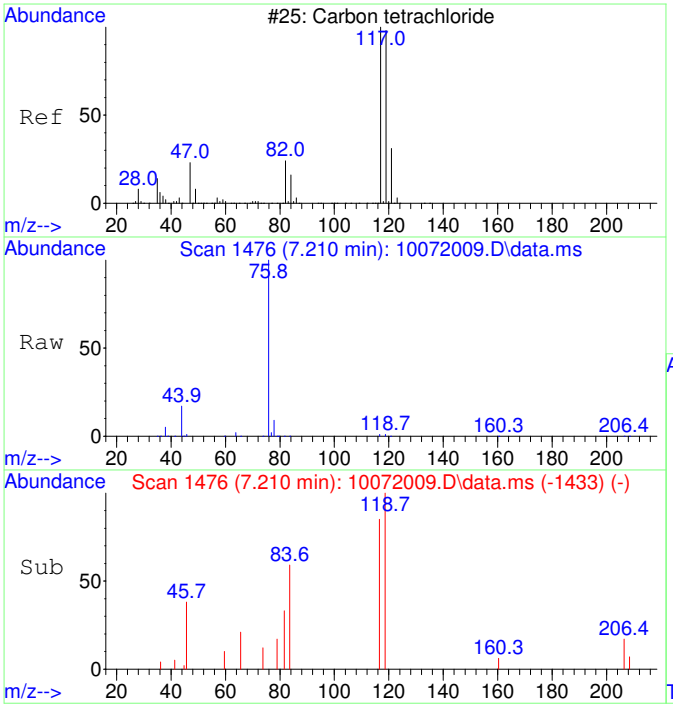




#31
1,1,1-Trichloroethane SCAN
Concen: 1109.76 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 97 Resp: 20353

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.3 | 43.6 | 103.6 |
| 61 | 61.2 | 18.0 | 78.0 |

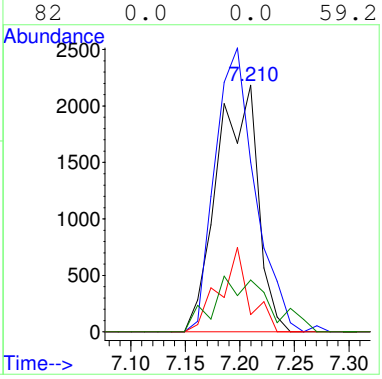


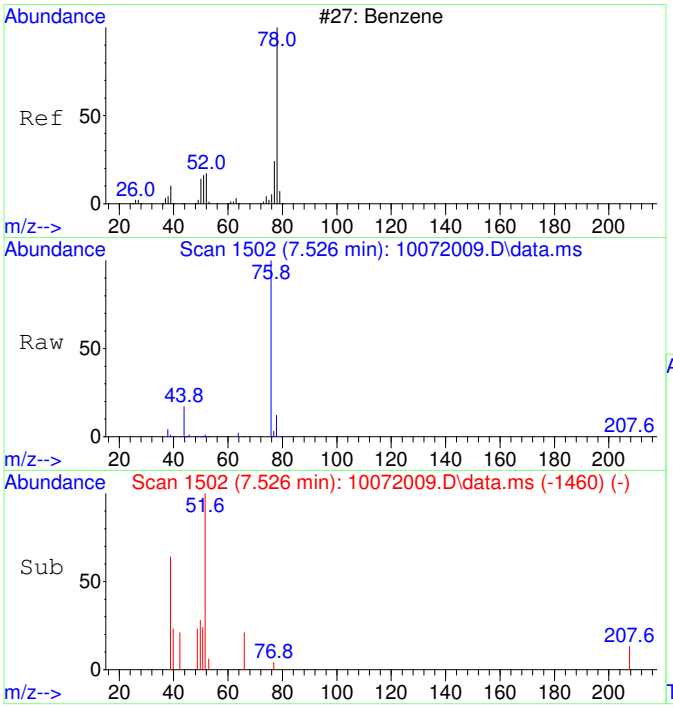



#32
Carbon tetrachloride SCAN
Concen: 297.59 ug/L
RT: 7.210 min Scan# 1476
Delta R.T. 0.024 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:117 Resp: 5693

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 113.3 | 75.5 | 135.5 |
| 121 | 24.7 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

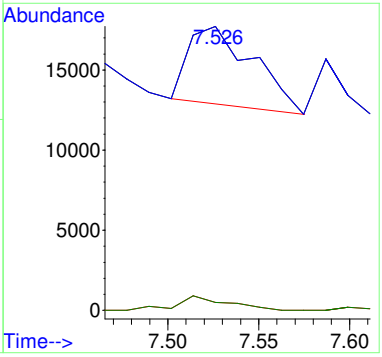


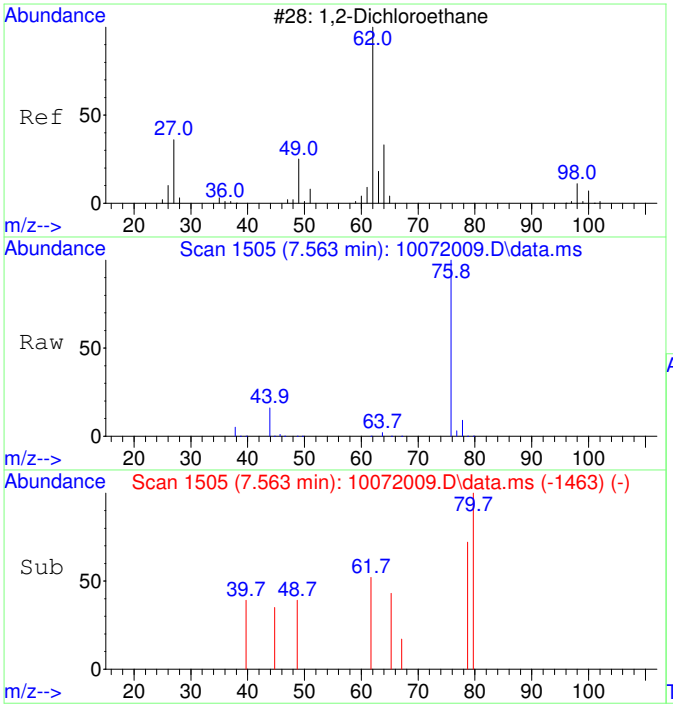




#33
Benzene SCAN
Concen: 231.30 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 78 Resp: 11680

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 14.9 | 0.0 | 47.9 |
| 51 | 14.9 | 0.0 | 44.1 |

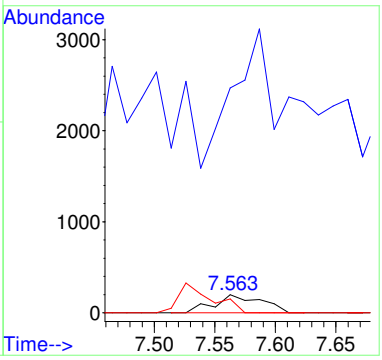


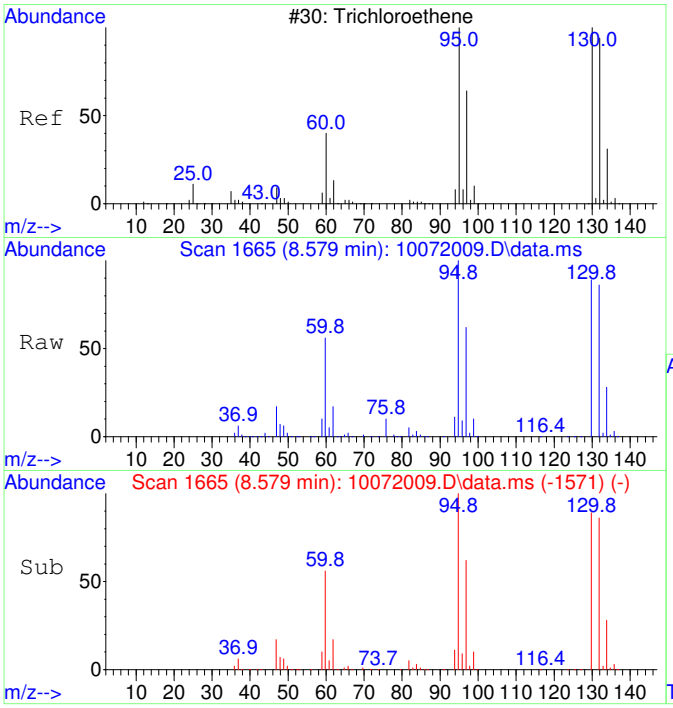



#34
1,2-Dichloroethane SCAN
Concen: 29.17 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 62 Resp: 544

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

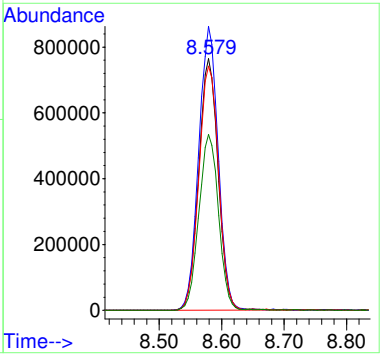


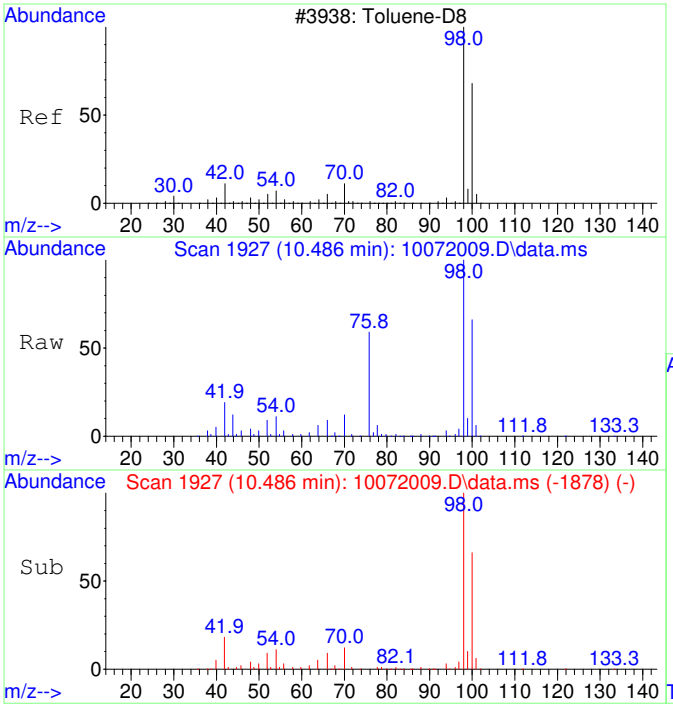




#35
Trichloroethene SCAN
Concen: 119033.74 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:130 Resp: 1651818

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 112.6 | 60.5 | 120.5 |
| 132 | 98.6 | 59.6 | 119.6 |
| 97 | 70.5 | 28.2 | 88.2 |

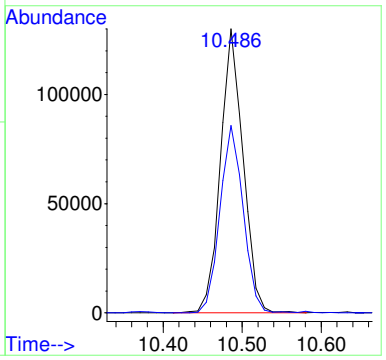


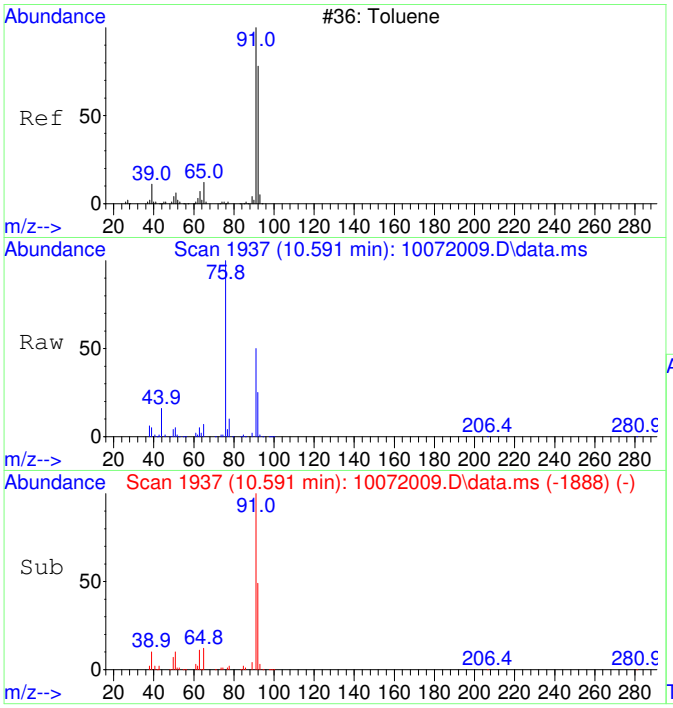



#36
Toluene-d8 SCAN
Concen: 4628.23 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 98 Resp: 257742

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.3 | 40.0 | 100.0 |

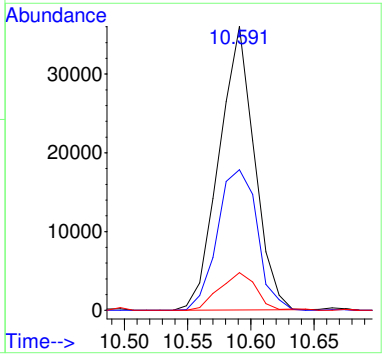


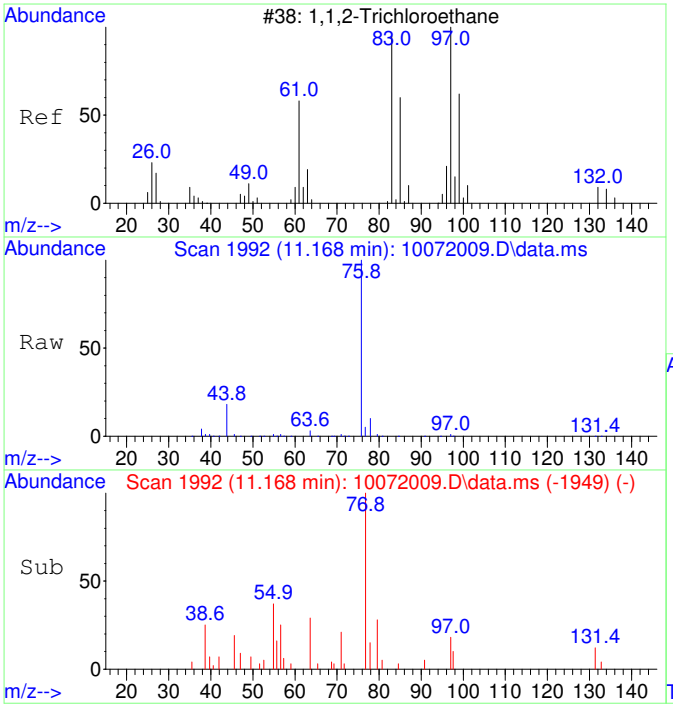




#37
Toluene SCAN
Concen: 984.87 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 70239

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 55.9 | 28.3 | 88.3 |
| 65 | 14.0 | 0.0 | 41.0 |

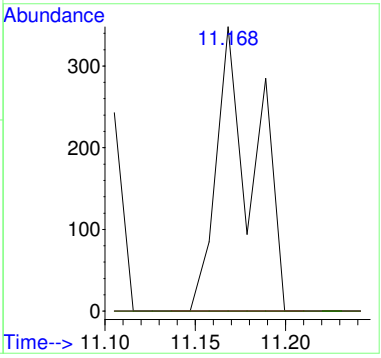


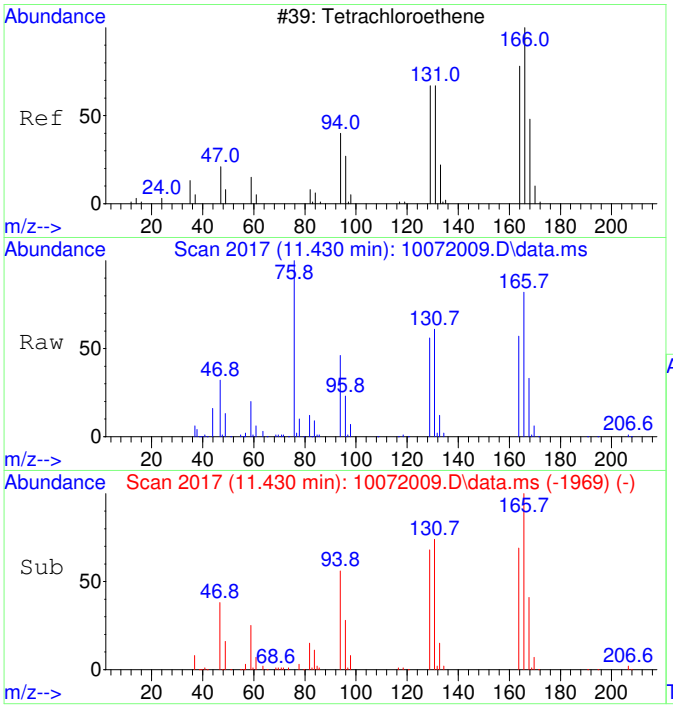



#38
1,1,2-Trichloroethane SCAN
Concen: 31.92 ug/L
RT: 11.168 min Scan# 1992
Delta R.T. -0.052 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 97 Resp: 511

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 0.0 | 36.7 | 96.7# |

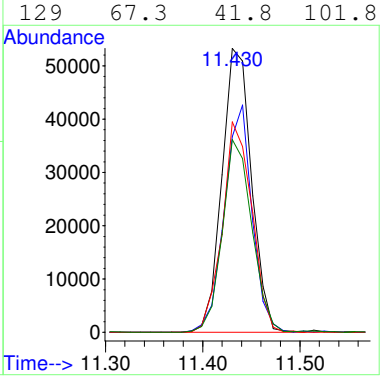


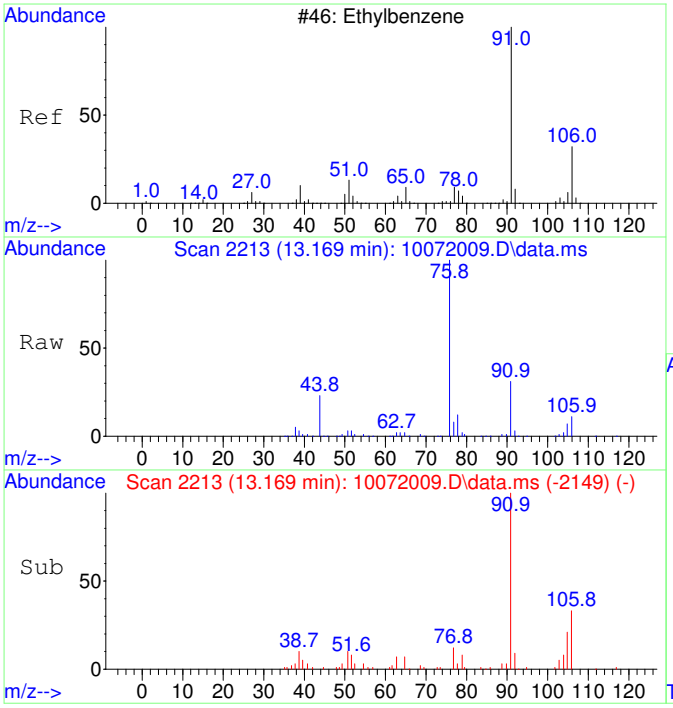




#39
Tetrachloroethene SCAN
Concen: 6555.81 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:166 Resp: 112327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 75.1 | 50.9 | 110.9 |
| 131 | 74.1 | 38.7 | 98.7 |
| 129 | 67.3 | 41.8 | 101.8 |

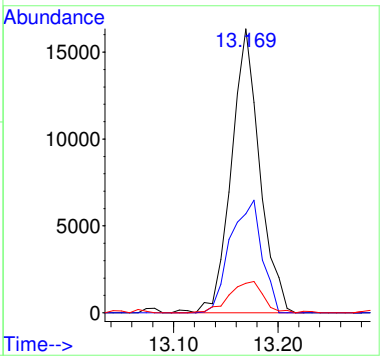


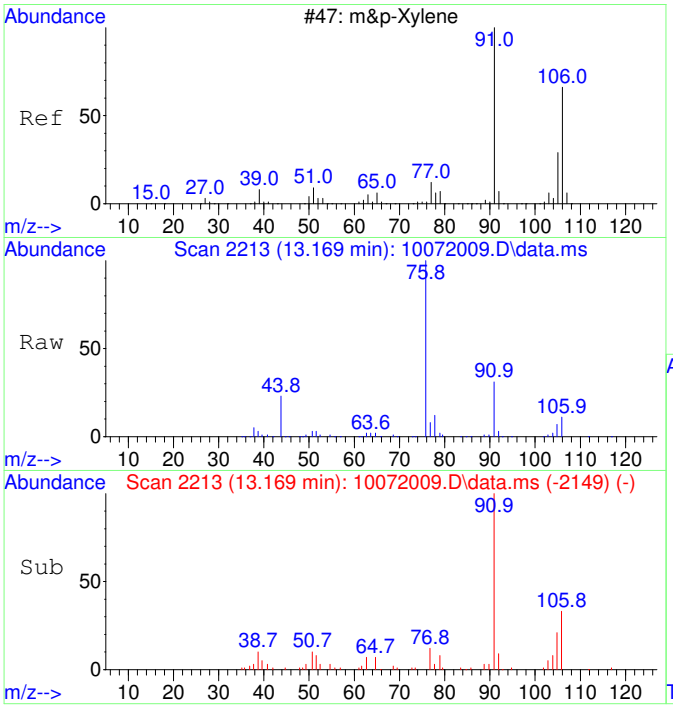



#42
Ethylbenzene SCAN
Concen: 236.67 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 30750

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.2 | 23.1 | 83.1 |
| 51 | 13.2 | 0.0 | 40.1 |

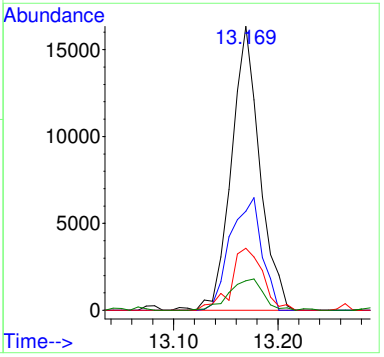


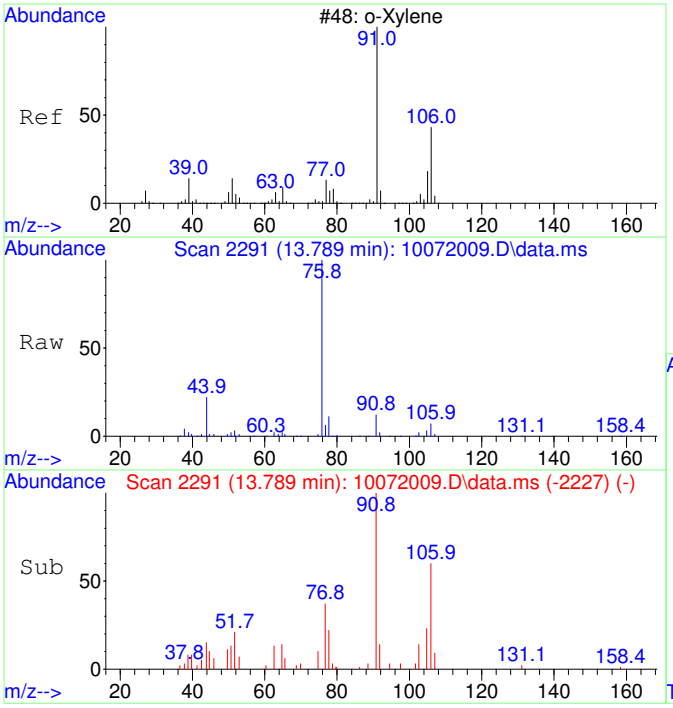




#43
m&p-Xylene SCAN
Concen: 236.67 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 30750

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.2 | 23.1 | 83.1 |
| 105 | 24.4 | 0.0 | 54.7 |
| 51 | 13.2 | 0.0 | 40.1 |

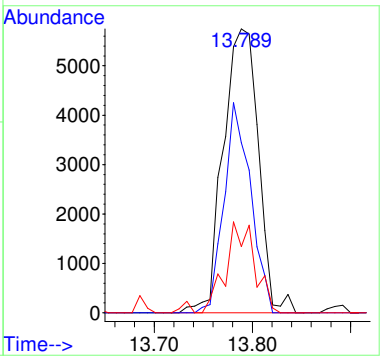


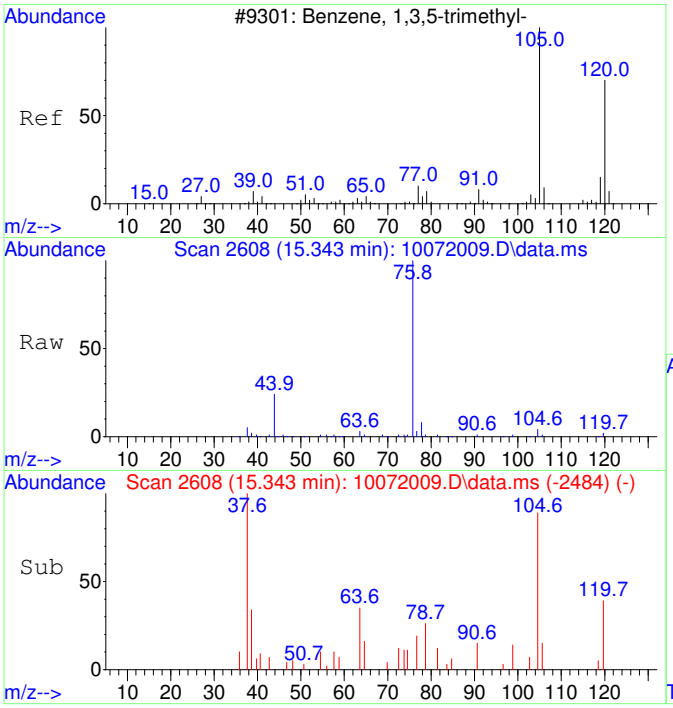



#44
o-Xylene SCAN
Concen: 205.47 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion: 91 Resp: 14290

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 56.0 | 18.0 | 78.0 |
| 105 | 26.5 | 0.0 | 56.6 |

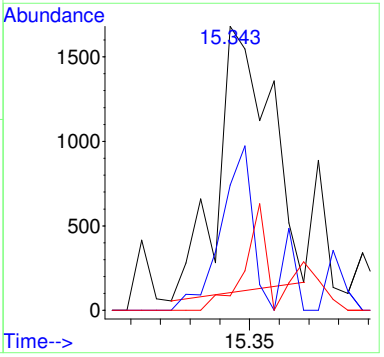


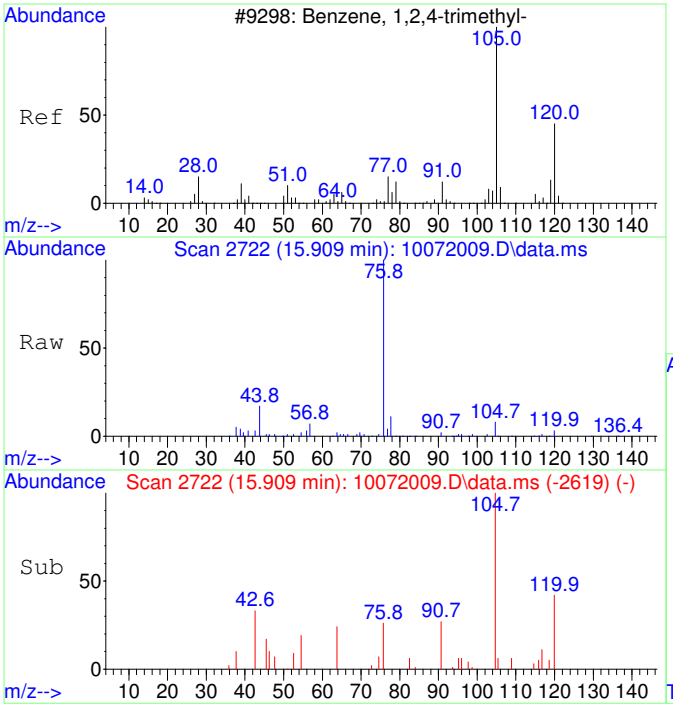




#46
1,3,5-Trimethylbenzene SCAN
Concen: 26.86 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. -0.000 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:105 Resp: 1969

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 36.3 | 18.3 | 78.3 |
| 119 | 10.9 | 0.0 | 43.1 |

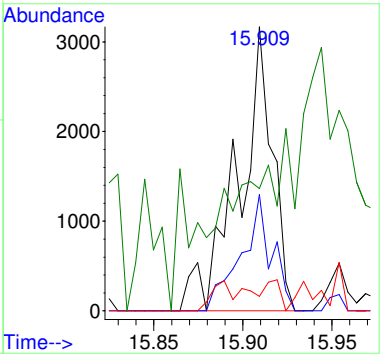





#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.47 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072009.D
Acq: 7 Oct 2020 11:29

Tgt Ion:105 Resp: 4235

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 36.4 | 16.9 | 76.9 |
| 119 | 3.0 | 0.0 | 41.9 |
| 77 | 17.4 | 0.0 | 42.3 |



# 2009037-02

# Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072010.D
Acq On : 7 Oct 2020 11:53
InstName : AG5975C
Operator : TD
Sample : 2009037-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 07 12:12:10 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

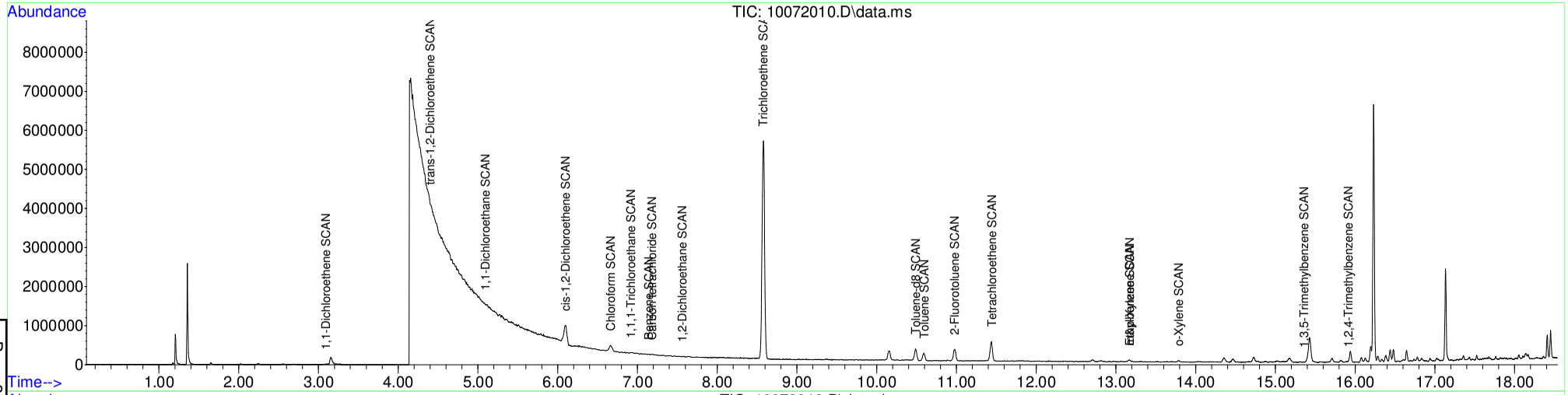
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) 2-Fluorotoluene | 10.981 | 109 | 476301 | 5000.00 ug/L | 0.01 |
| **System Monitoring Compounds** | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 408807 | 4384.41 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 87.69% | | |
| **Target Compounds** | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 18218 | 957.86 ug/L | 79 |
| 3] trans-1,2-Dichloroethene | 4.382 | 61 | 51725 | 2353.86 ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 18704 | 683.77 ug/L | 95 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 750391 | 25988.39 ug/L OC | 99 |
| 6] Chloroform | 6.664 | 83 | 272105 | 9207.13 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 31684 | 987.17 ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 10273 | 340.07 ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 10165 | 125.61 ug/L | 76 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 791 | 27.38 ug/L # | 1 |
| 11] Trichloroethene | 8.580 | 130 | 3908599 | 160413.21 ug/L OC | 92 |
| 13] Toluene | 10.582 | 91 | 288698 | 2428.61 ug/L | 99 |
| 15] Tetrachloroethene | 11.442 | 166 | 341309 | 9921.24 ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 9667 | 66.81 ug/L | 94 |
| 19] m&p-Xylene | 13.162 | 91 | 58001 | 512.88 ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 43667 | 361.42 ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.877 | 83 | 1725 | 32.22 ug/L # | 32 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 4012 | 31.20 ug/L | 85 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 8006 | 59.94 ug/L | 93 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 241883 | 5209.56 ug/L | 98 |
| 26) 1,1-Dichloroethene SCAN | 3.092 | 61 | 3221 | 326.66 ug/L | 96 |
| 27) trans-1,2-Dichloroethe... | 4.394 | 61 | 31386 | 2572.27 ug/L # | 60 |
| 28) 1,1-Dichloroethane SCAN | 5.091 | 63 | 11236 | 795.69 ug/L | 94 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 429174 | 28366.92 ug/L # | 82 |
| 30) Chloroform SCAN | 6.662 | 83 | 149381 | 9103.09 ug/L | 94 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 16172 | 1081.44 ug/L | 88 |
| 32) Carbon tetrachloride SCAN | 7.186 | 117 | 6205 | 397.79 ug/L # | 75 |
| 33) Benzene SCAN | 7.137 | 78 | 5168 | 125.52 ug/L | 93 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 396 | 26.05 ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 1950032 | 172341.66 ug/L | 82 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 214835 | 4731.25 ug/L | 96 |
| 37) Toluene SCAN | 10.591 | 91 | 156154 | 2685.31 ug/L | 96 |
| 39) Tetrachloroethene SCAN | 11.441 | 166 | 150684 | 10785.74 ug/L | 92 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 30817 | 290.89 ug/L | 87 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 30817 | 290.89 ug/L | 91 |
| 44) o-Xylene SCAN | 13.789 | 91 | 23740 | 418.64 ug/L | 92 |
| 46) 1,3,5-Trimethylbenzene... | 15.358 | 105 | 3023 | 50.58 ug/L | 69 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 5545 | 90.68 ug/L | 90 |

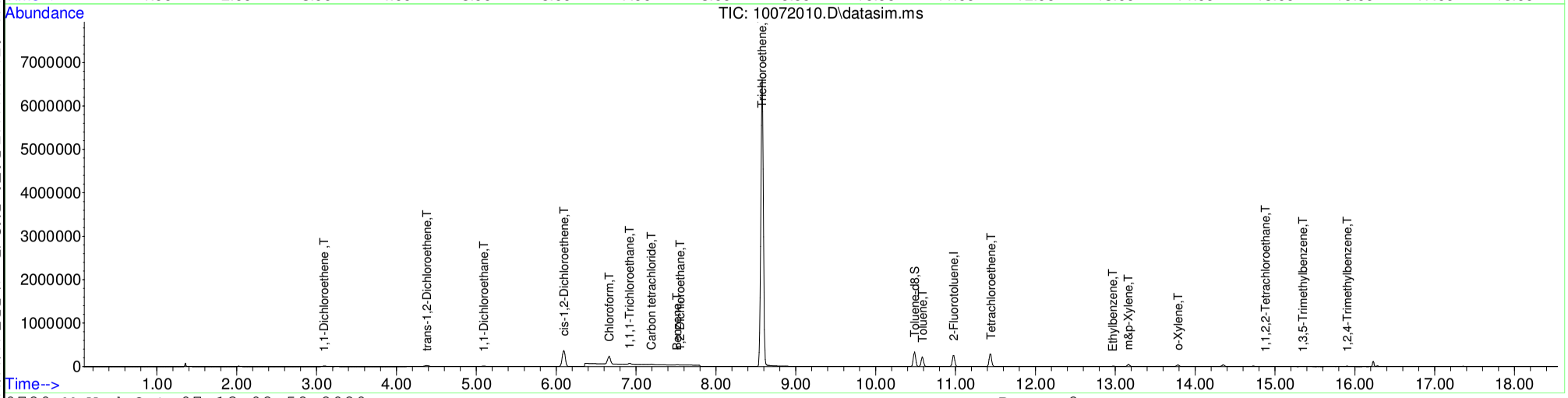
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072010.D
Acq On : 7 Oct 2020 11:53
InstName : AG5975C
Operator : TD
Sample : 2009037-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 07 12:12:10 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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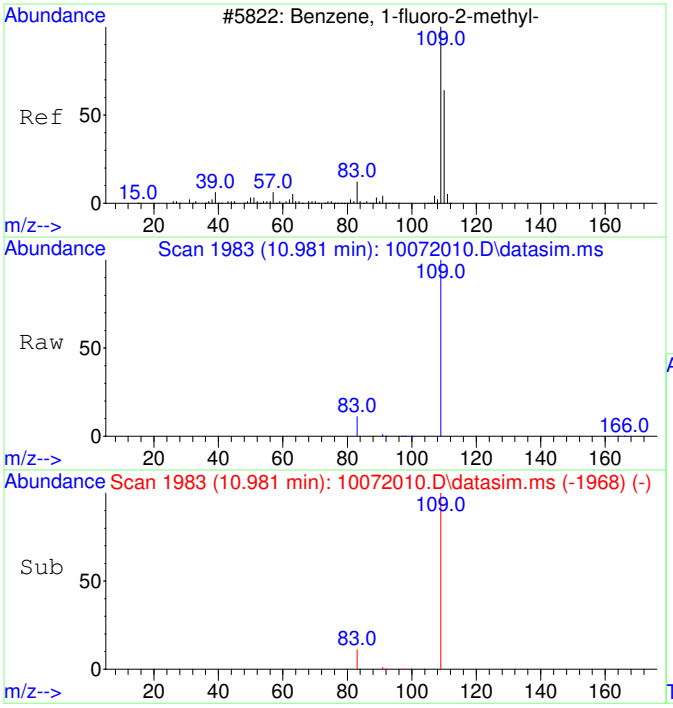
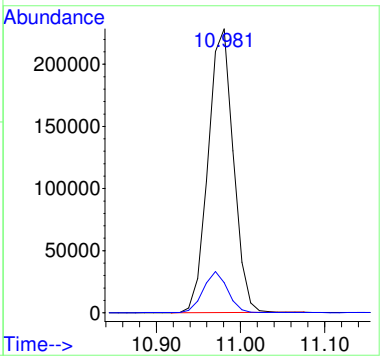
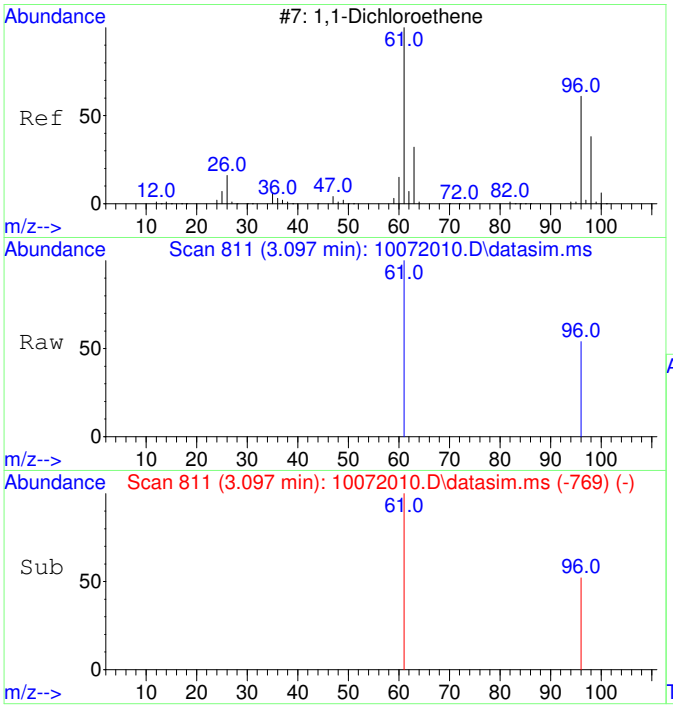



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.981 min Scan# 1983
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:109 Resp: 476301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

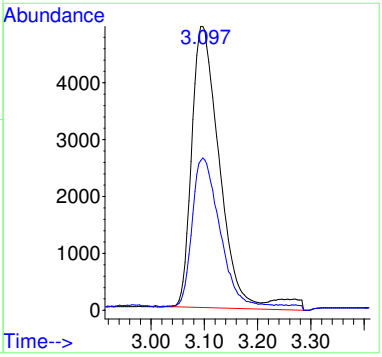


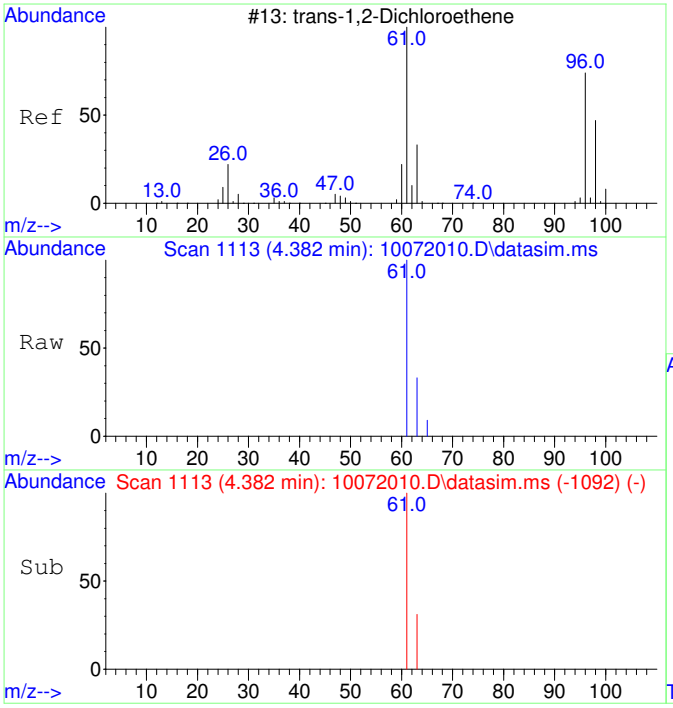




#2
1,1-Dichloroethene
Concen: 957.86 ug/L
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 61 Resp: 18218

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 50.6 | 37.2 | 97.2 |

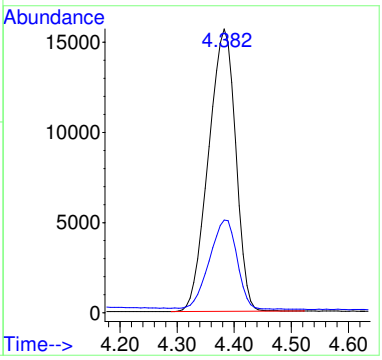


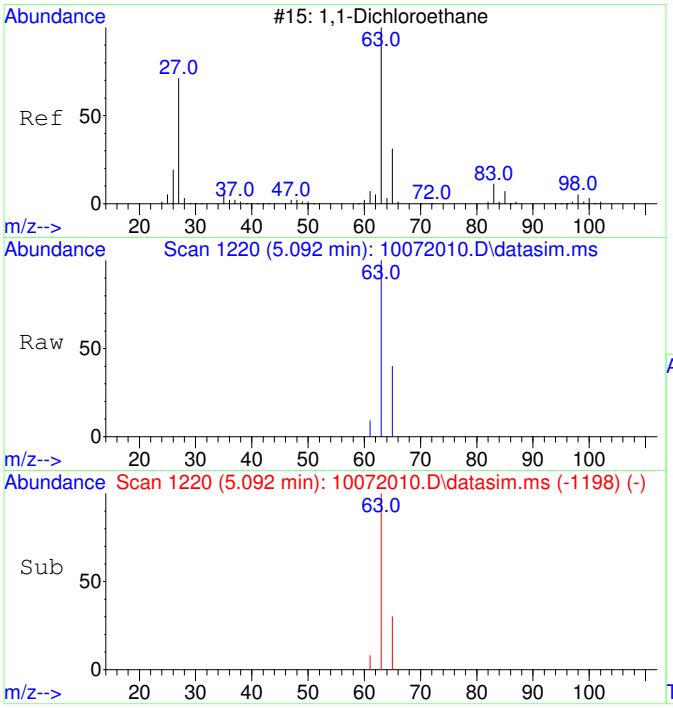



#3
trans-1,2-Dichloroethene
Concen: 2353.86 ug/L
RT: 4.382 min Scan# 1113
Delta R.T. -0.013 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 61 Resp: 51725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.4 | 2.4 | 62.4 |

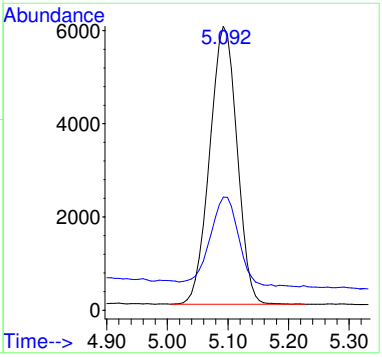


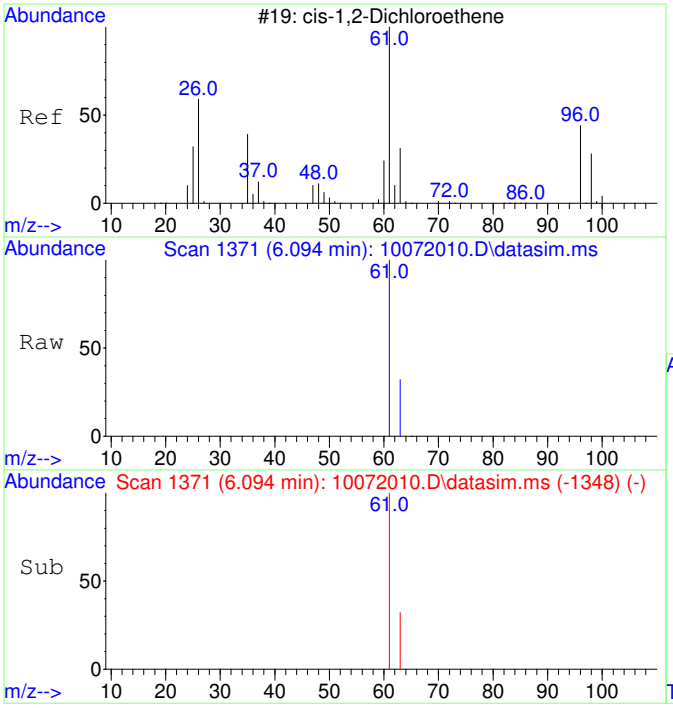




#4
1,1-Dichloroethane
Concen: 683.77 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 63 Resp: 18704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 34.8 | 1.8 | 61.8 |

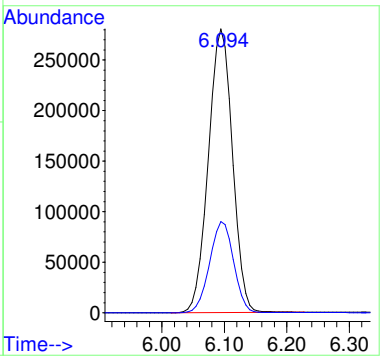


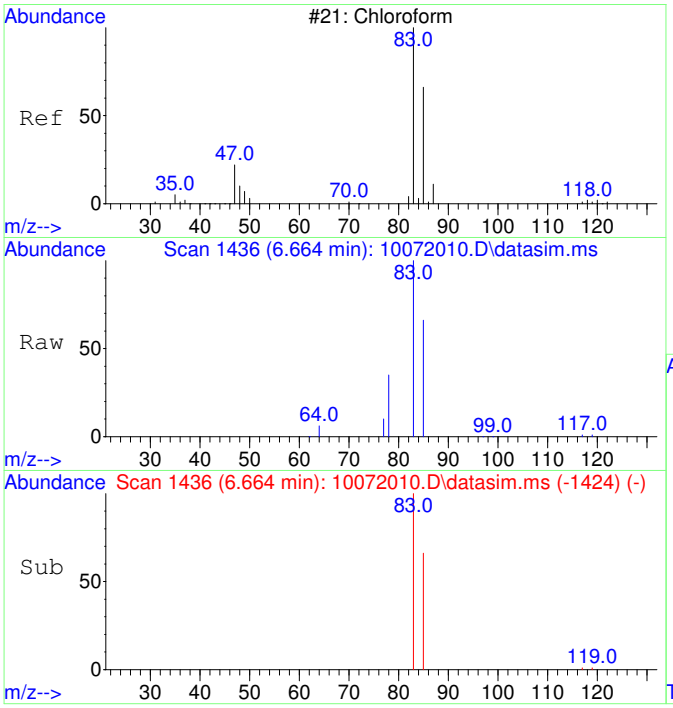



#5
cis-1,2-Dichloroethene
Concen: 25988.39 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 61 Resp: 750391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 32.0 | 2.5 | 62.5 |

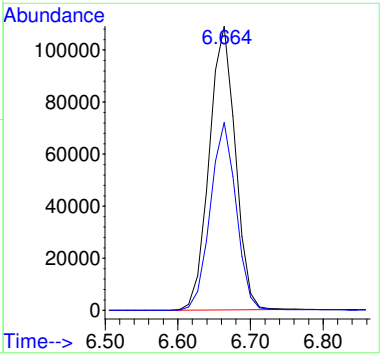


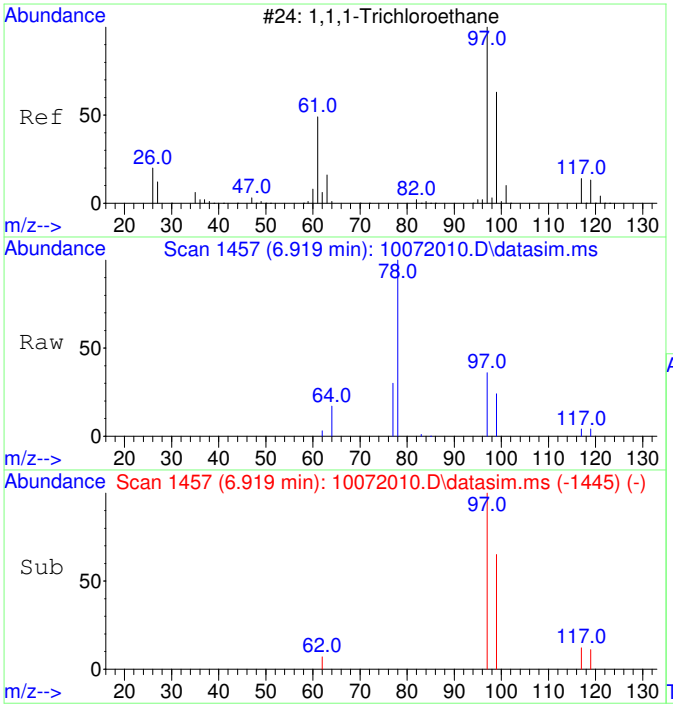




#6
Chloroform
Concen: 9207.13 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 83 Resp: 272105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 35.1 | 95.1 |

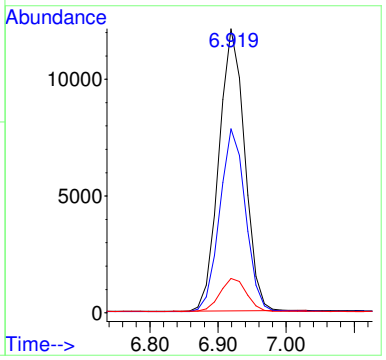


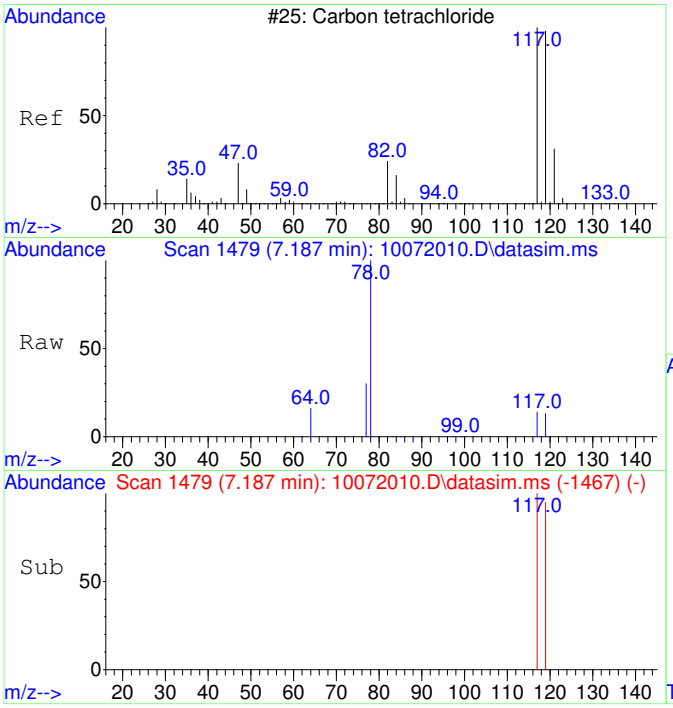



#7
1,1,1-Trichloroethane
Concen: 987.17 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 97 Resp: 31684

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.0 | 0.0 | 43.2 |

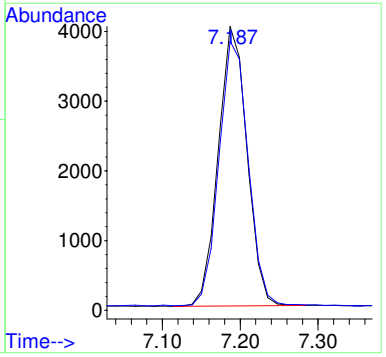


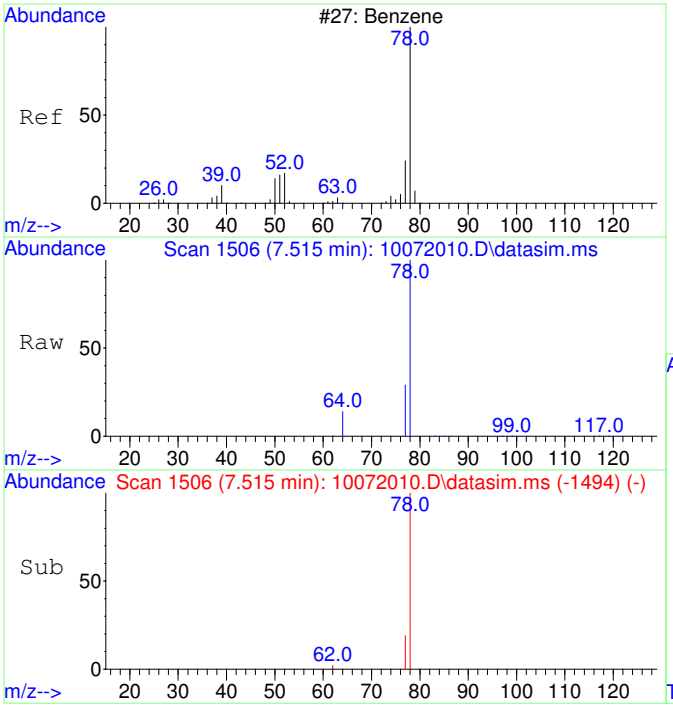




#8
Carbon tetrachloride
Concen: 340.07 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:117 Resp: 10273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 95.9 | 66.4 | 126.4 |

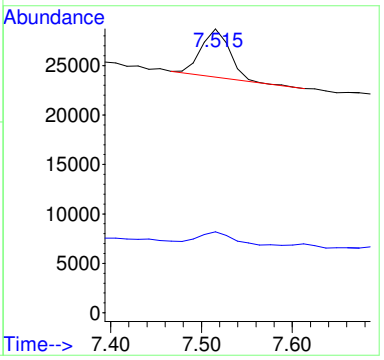


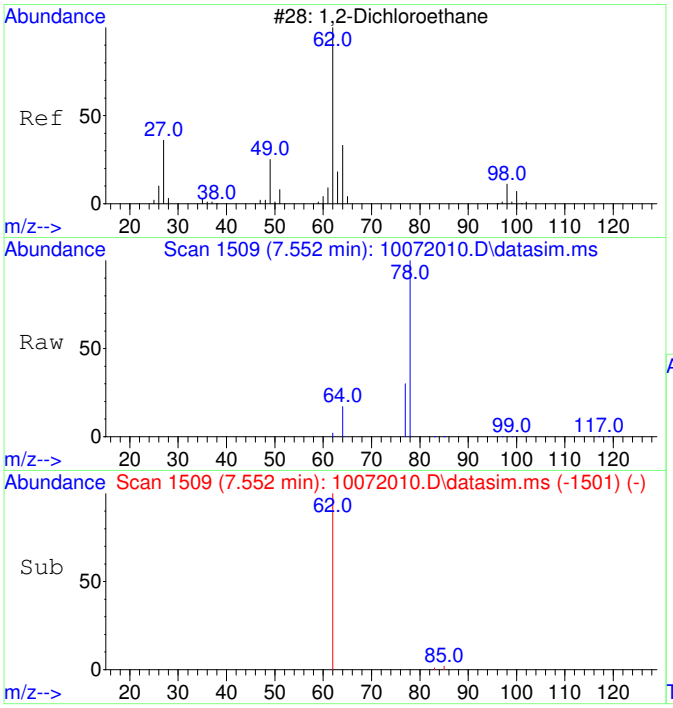



#9
Benzene
Concen: 125.61 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 78 Resp: 10165

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 35.0 | 0.0 | 53.2 |

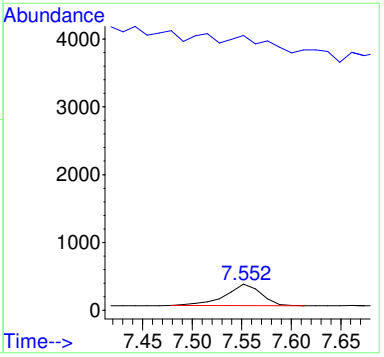


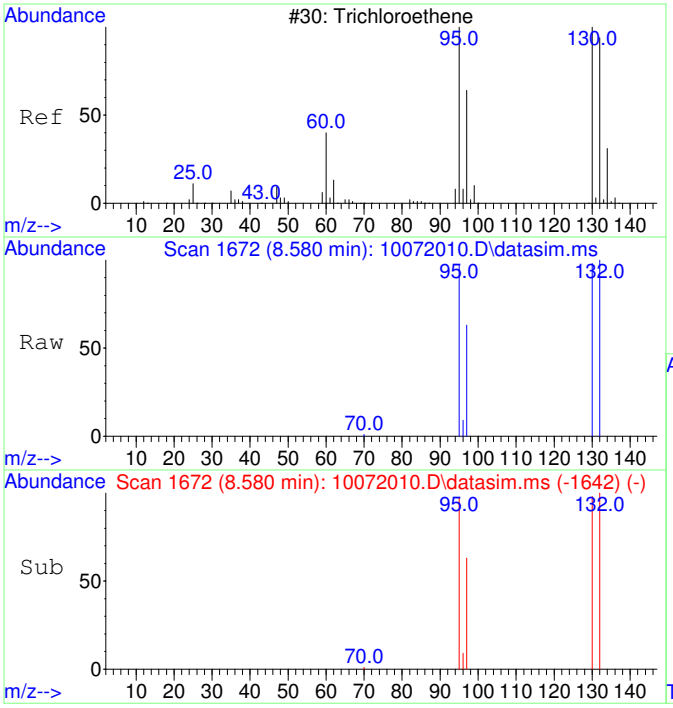




#10
1,2-Dichloroethane
Concen: 27.38 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 62 Resp: 791

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 93.2 | 2.3 | 62.3# |

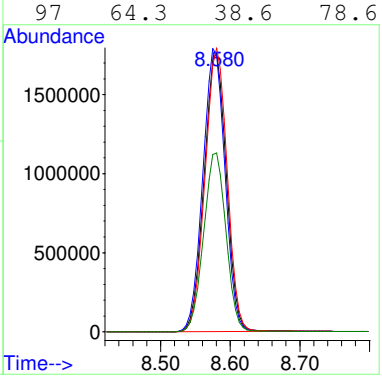


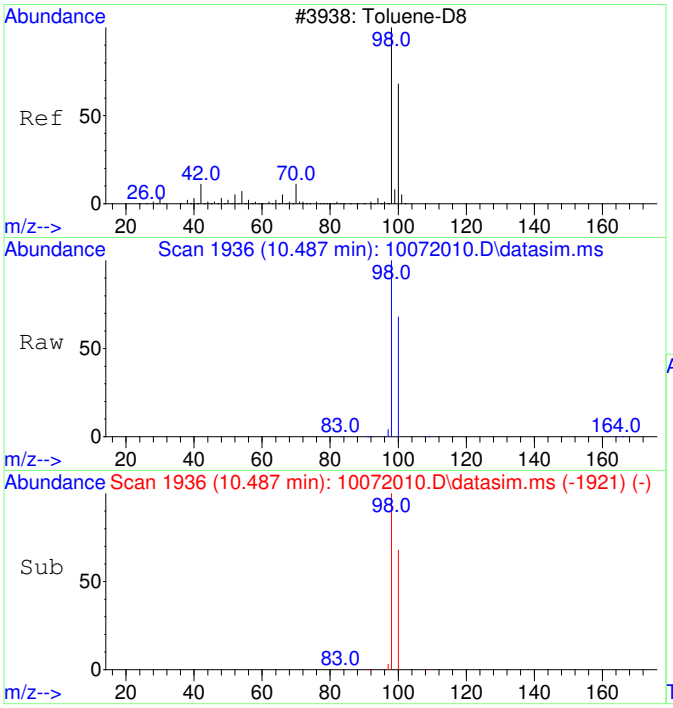



#11
Trichloroethene
Concen: 160413.21 ug/L
RT: 8.580 min Scan# 1672
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:130 Resp: 3908599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.4 | 60.7 | 120.7 |
| 132 | 101.2 | 76.0 | 116.0 |
| 97 | 64.3 | 38.6 | 78.6 |

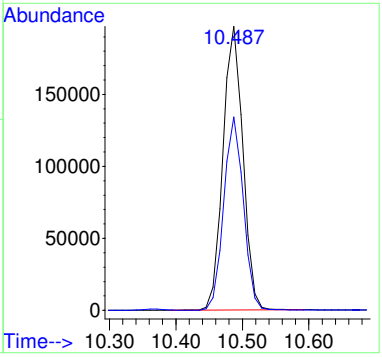


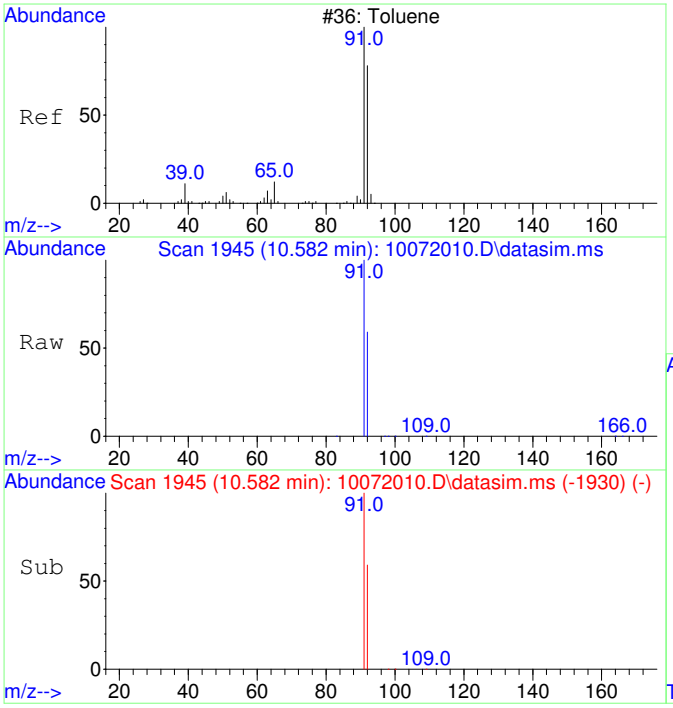




#12
Toluene-d8
Concen: 4384.41 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 98 Resp: 408807

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.9 | 37.1 | 97.1 |

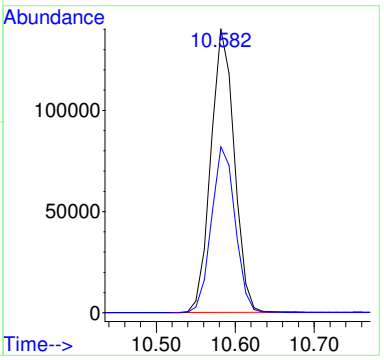


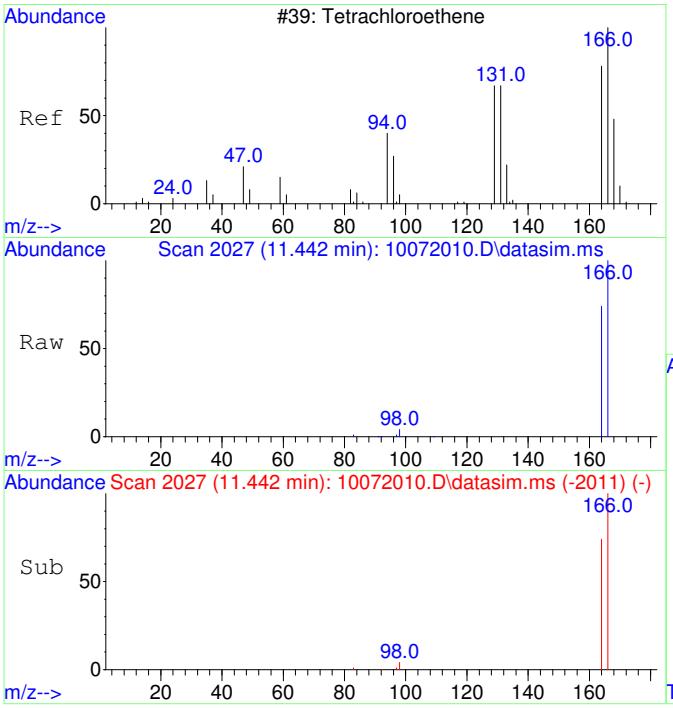



#13
Toluene
Concen: 2428.61 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 288698

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.2 | 29.9 | 89.9 |

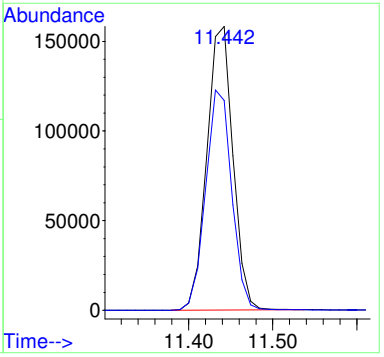


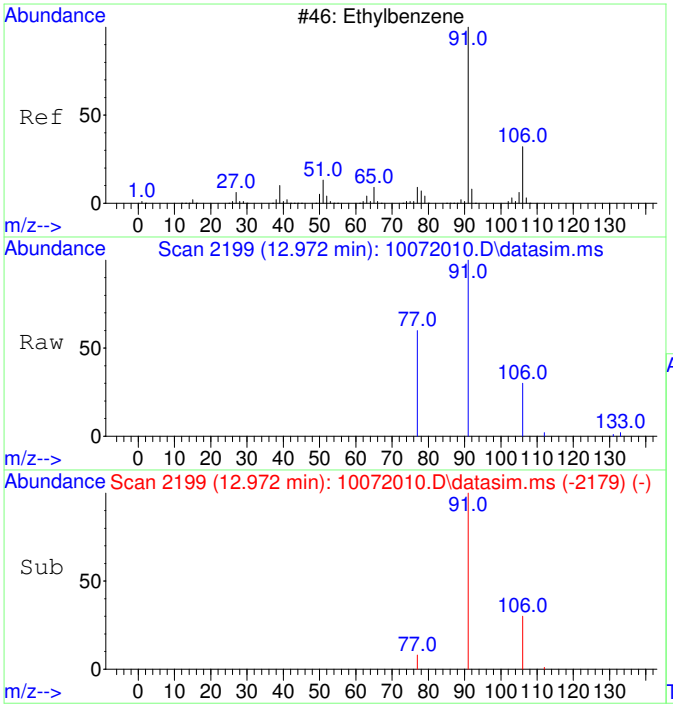




#15
Tetrachloroethene
Concen: 9921.24 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:166 Resp: 341309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.4 | 47.8 | 107.8 |

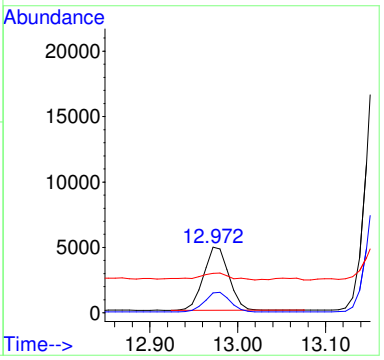


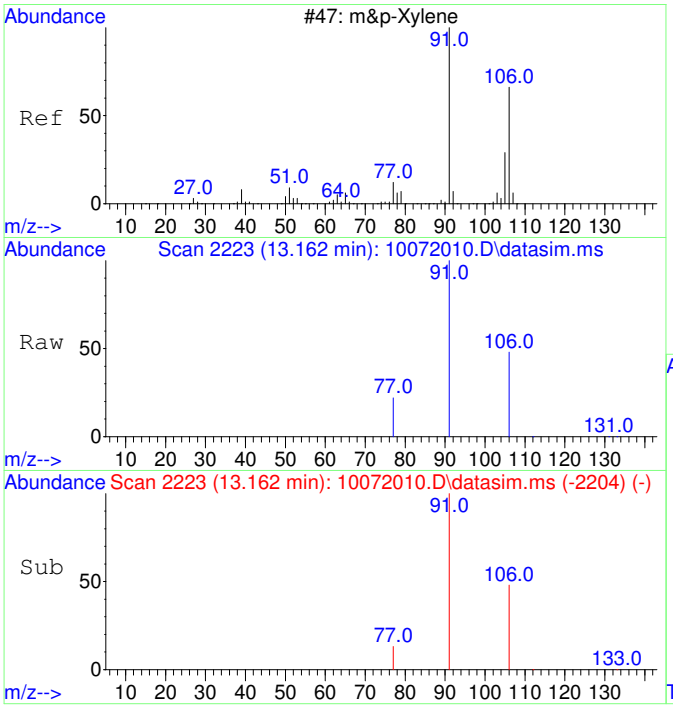



#18
Ethylbenzene
Concen: 66.81 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 9667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 13.9 | 0.0 | 38.2 |

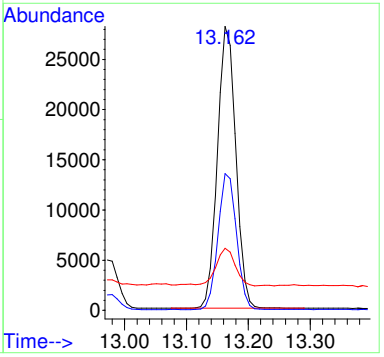


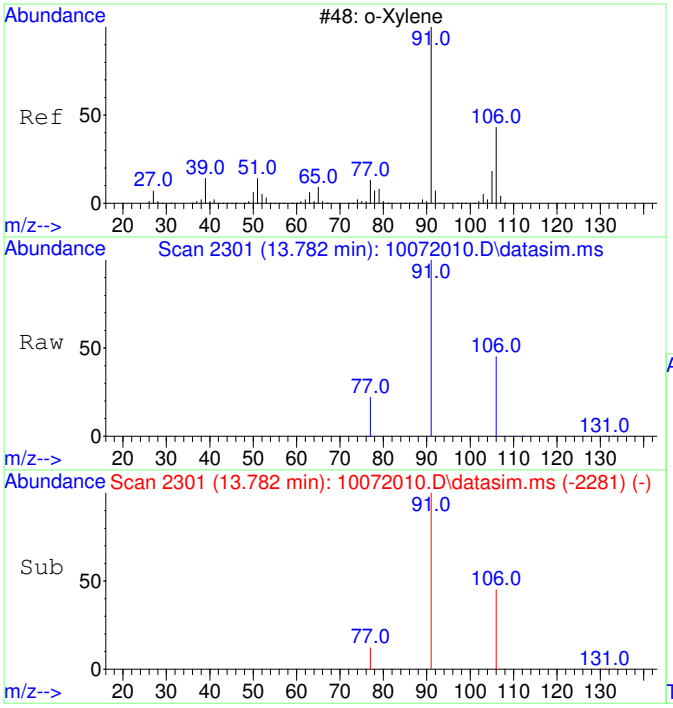




#19
m&p-Xylene
Concen: 512.88 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 58001

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.5 | 22.2 | 82.2 |
| 77 | 13.5 | 0.0 | 42.4 |

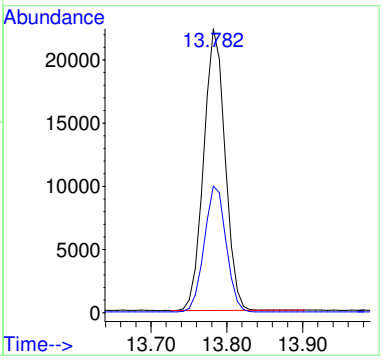


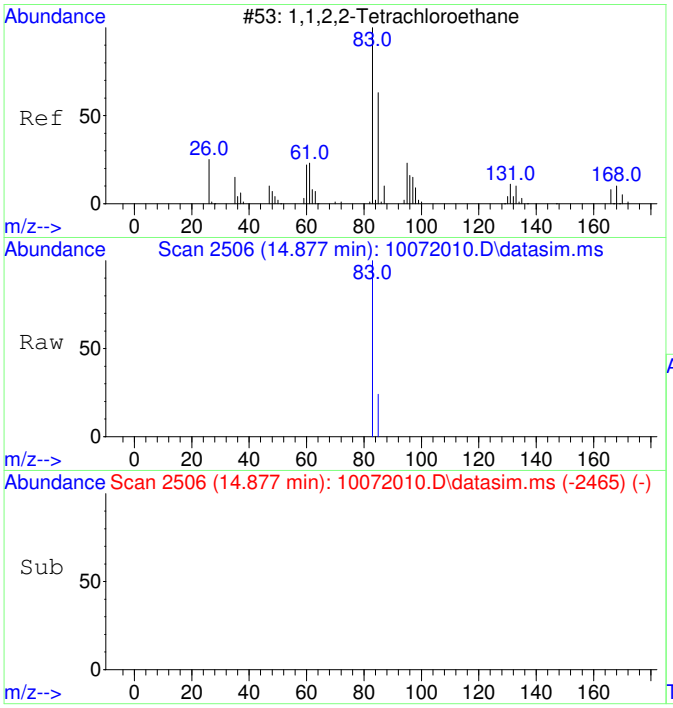



#20
o-Xylene
Concen: 361.42 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 43667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 19.2 | 79.2 |

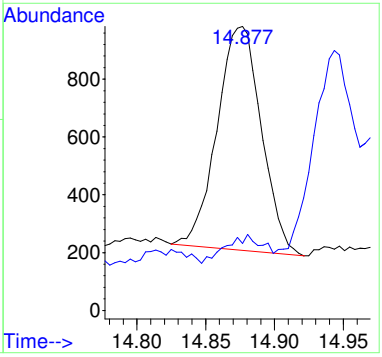


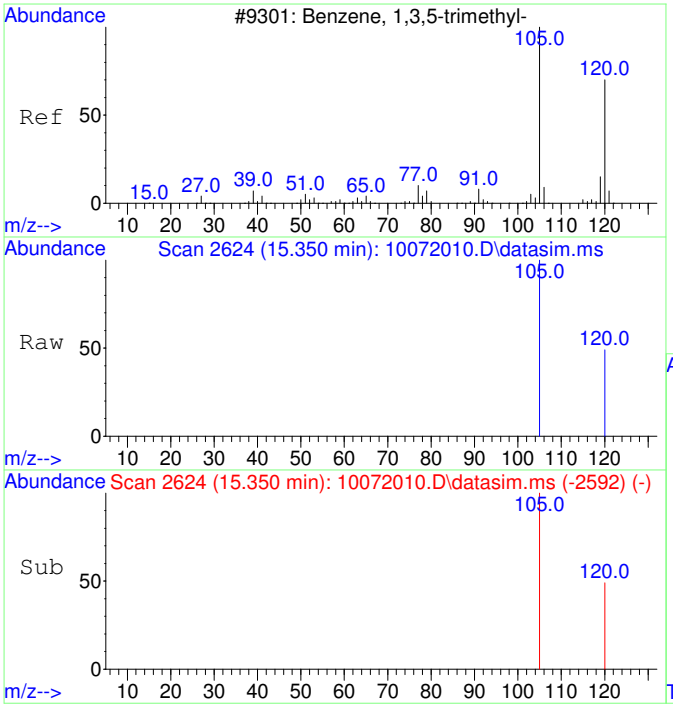




#21
1,1,2,2-Tetrachloroethane
Concen: 32.22 ug/L
RT: 14.877 min Scan# 2506
Delta R.T. 0.004 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 83 Resp: 1725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 11.2 | 34.8 | 94.8# |

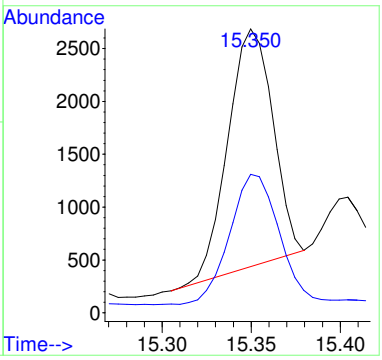


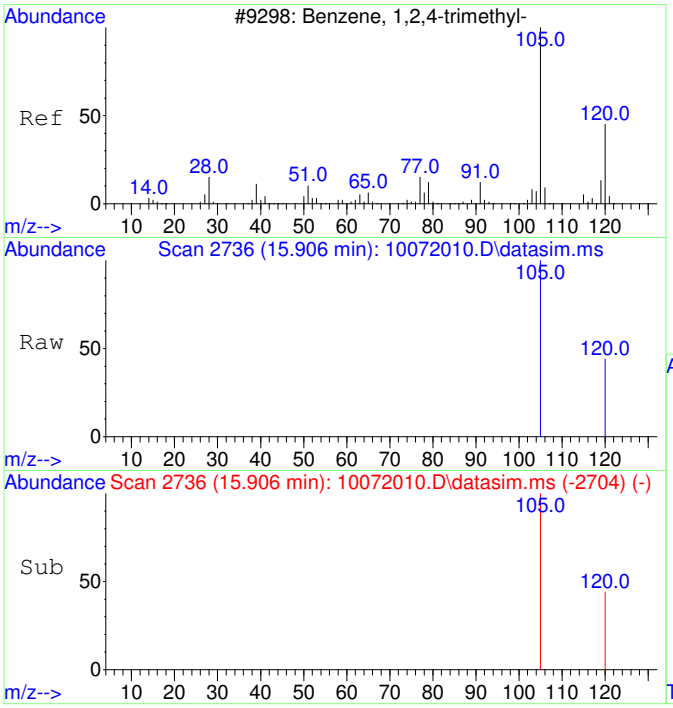



#22
1,3,5-Trimethylbenzene
Concen: 31.20 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:105 Resp: 4012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 61.4 | 21.1 | 81.1 |

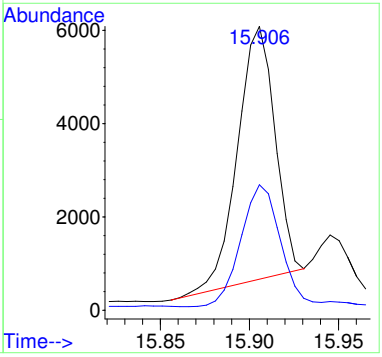


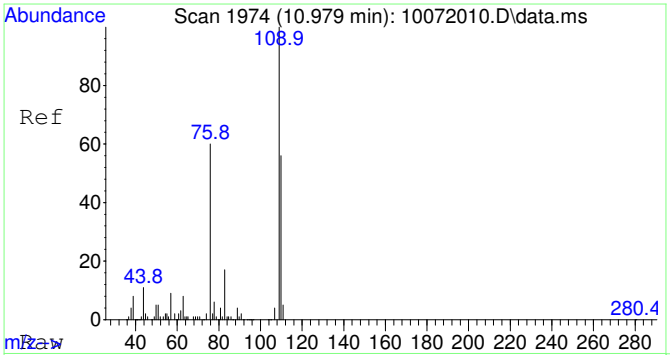




#23
1,2,4-Trimethylbenzene
Concen: 59.94 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:105 Resp: 8006

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 52.1 | 17.2 | 77.2 |

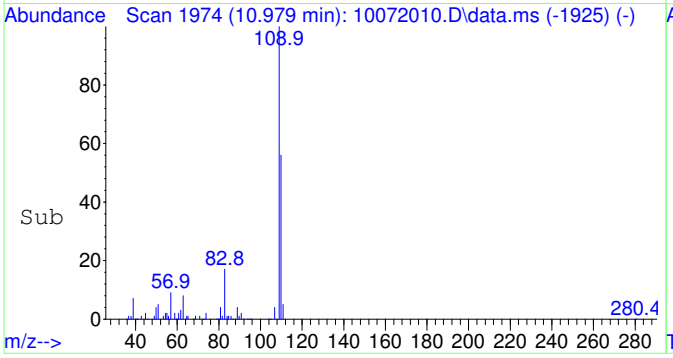


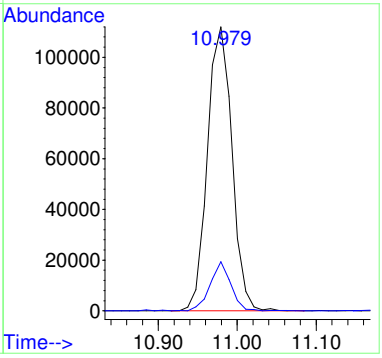


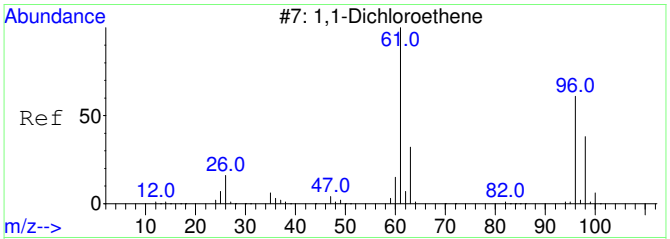

#25
2-Fluorotoluene SCAN
Concen: 5209.56 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:109 Resp: 241883

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.4 | 0.0 | 43.8 |



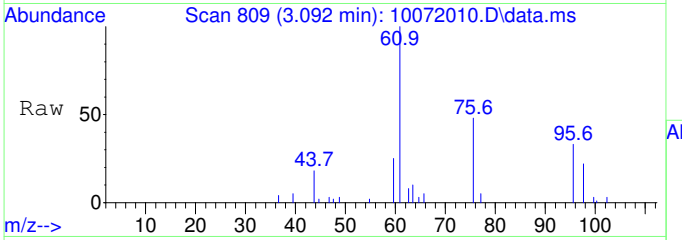



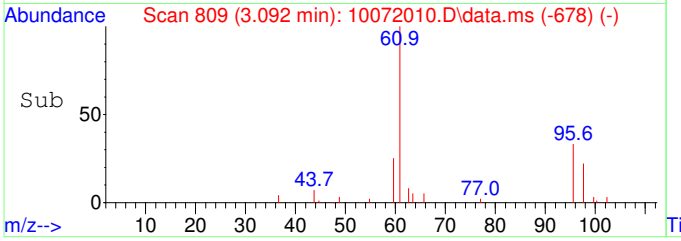



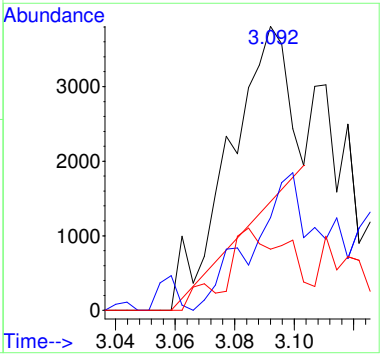

#26
1,1-Dichloroethene SCAN
Concen: 326.66 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.015 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

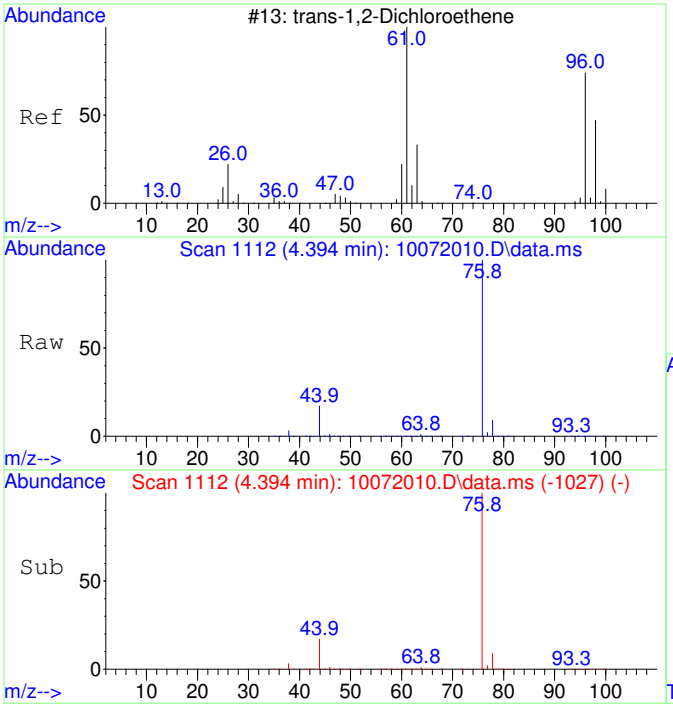
Tgt Ion: 61 Resp: 3221

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.6 | 33.1 | 93.1 |
| 98 | 38.4 | 11.2 | 71.2 |



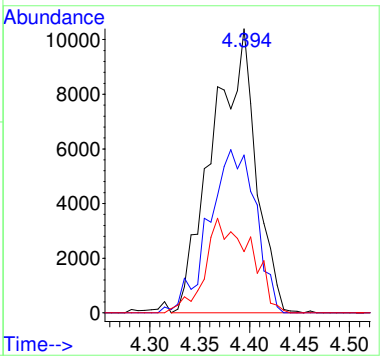



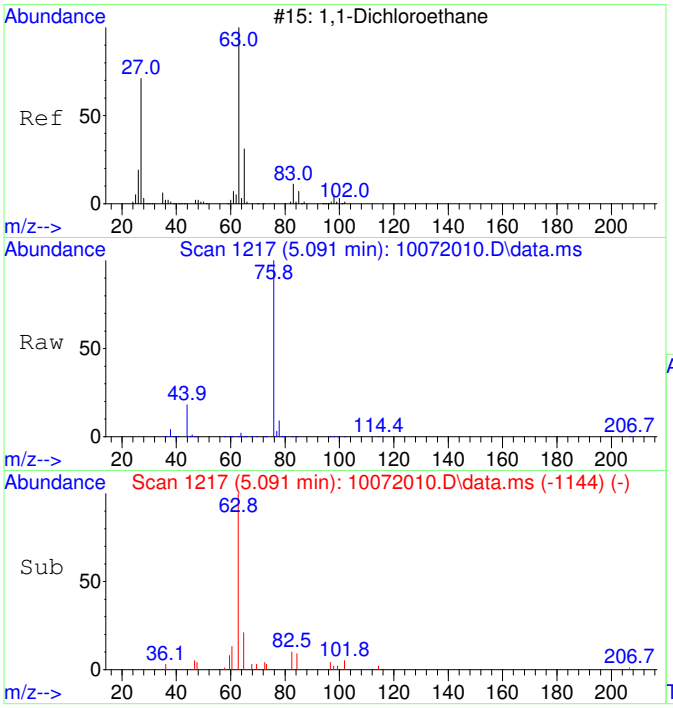



#27
trans-1,2-Dichloroethene SCAN
Concen: 2572.27 ug/L
RT: 4.394 min Scan# 1112
Delta R.T. -0.007 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 61 Resp: 31386

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 61.9 | 49.0 | 109.0 |
| 98 | 0.0 | 20.5 | 80.5# |

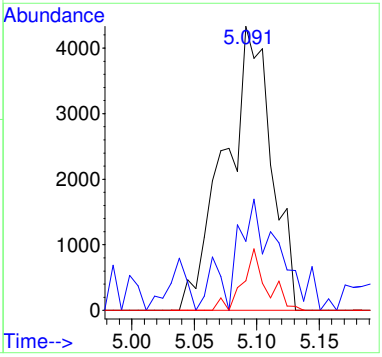


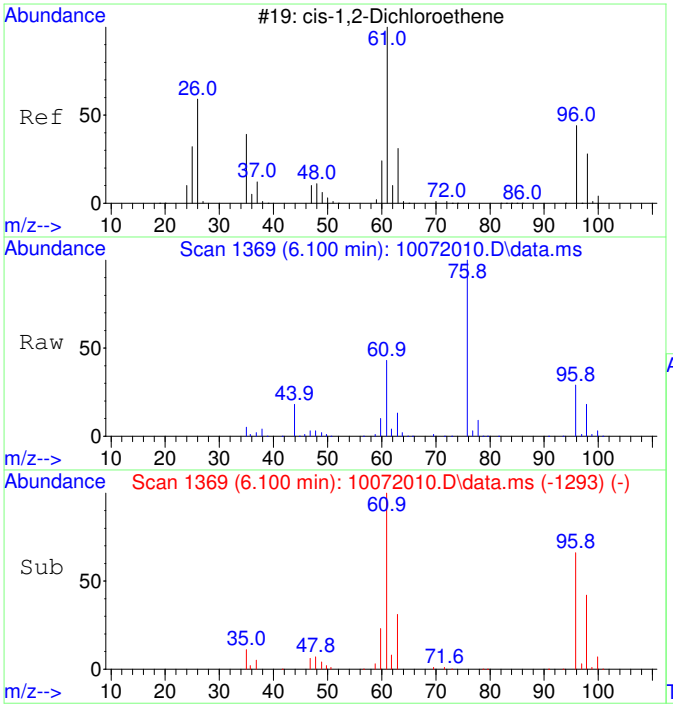




#28
1,1-Dichloroethane SCAN
Concen: 795.69 ug/L
RT: 5.091 min Scan# 1217
Delta R.T. -0.013 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 63 Resp: 11236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 33.1 | 1.3 | 61.3 |
| 83 | 11.0 | 0.0 | 45.9 |

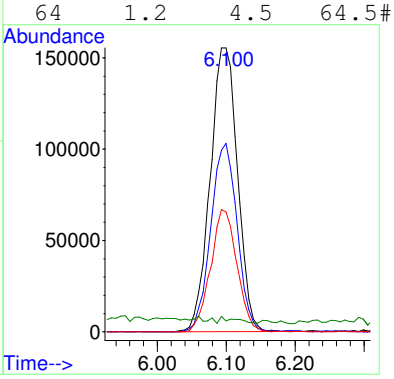


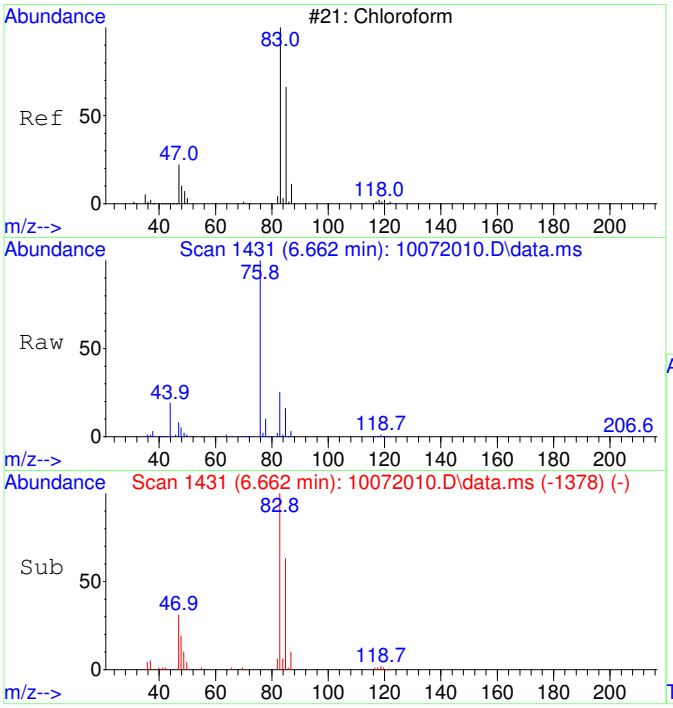



#29
cis-1,2-Dichloroethene SCAN
Concen: 28366.92 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 61 Resp: 429174

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 63.5 | 39.9 | 99.9 |
| 98 | 41.4 | 13.5 | 73.5 |
| 64 | 1.2 | 4.5 | 64.5# |

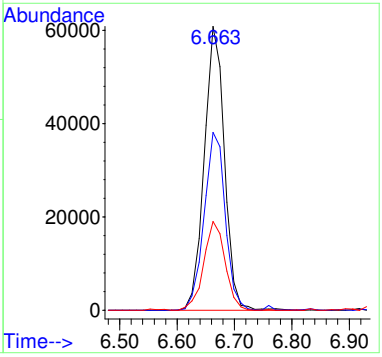


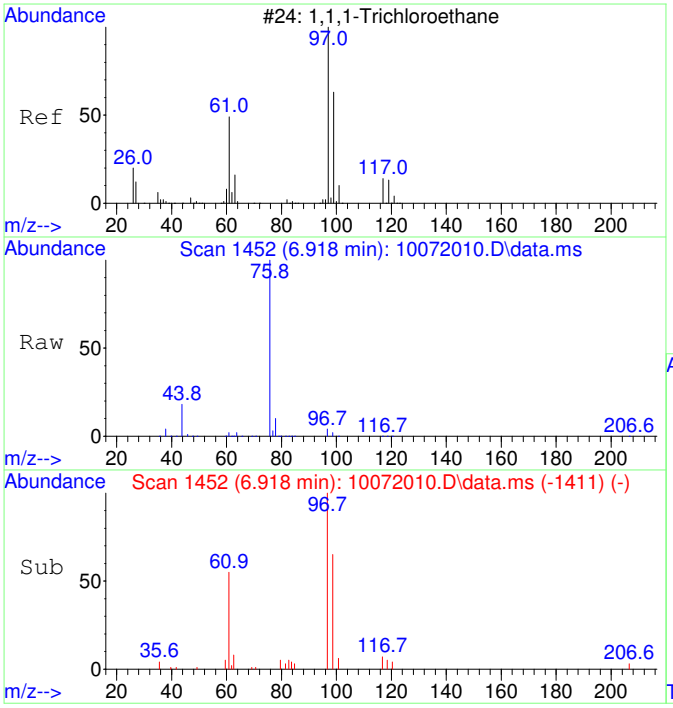




#30
Chloroform SCAN
Concen: 9103.09 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 83 Resp: 149381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.6 | 34.6 | 94.6 |
| 47 | 33.2 | 0.0 | 53.4 |

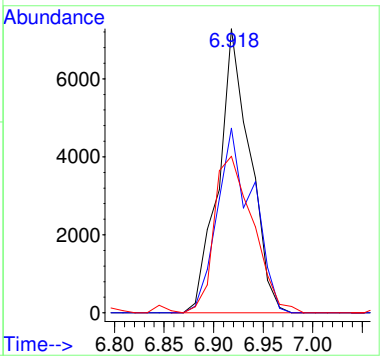


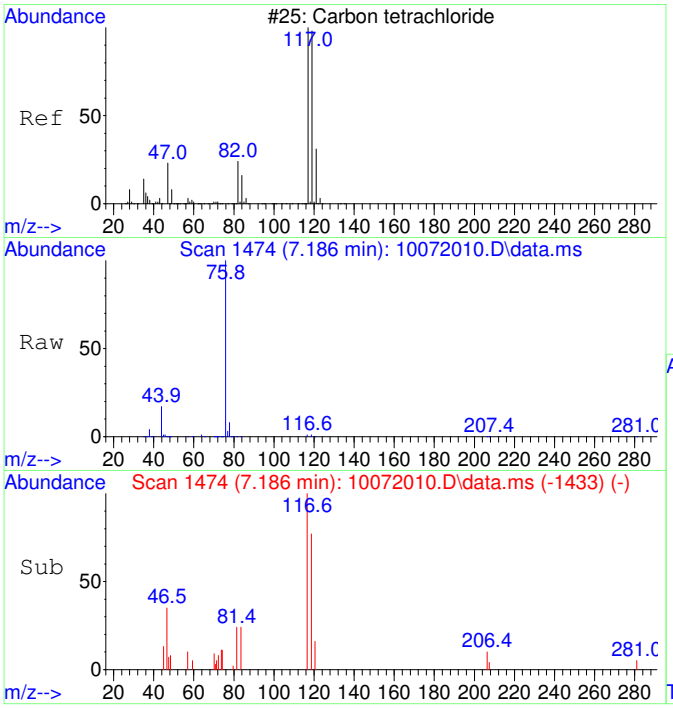



#31
1,1,1-Trichloroethane SCAN
Concen: 1081.44 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 97 Resp: 16172

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 73.5 | 43.6 | 103.6 |
| 61 | 68.0 | 18.0 | 78.0 |

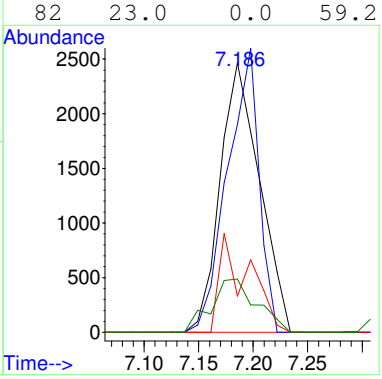


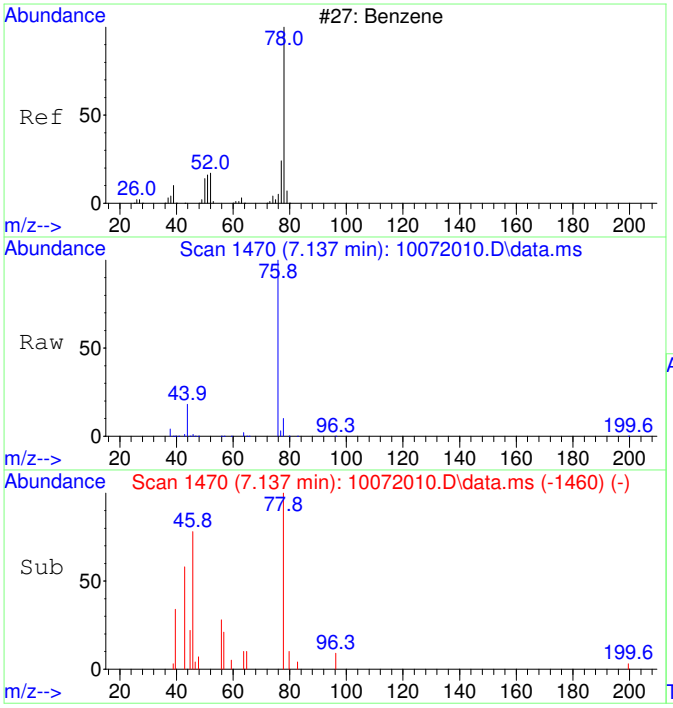




#32
Carbon tetrachloride SCAN
Concen: 397.79 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:117 Resp: 6205

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 84.2 | 75.5 | 135.5 |
| 121 | 0.0 | 0.0 | 58.8 |
| 82 | 23.0 | 0.0 | 59.2 |

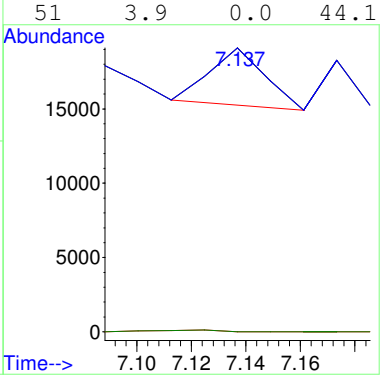


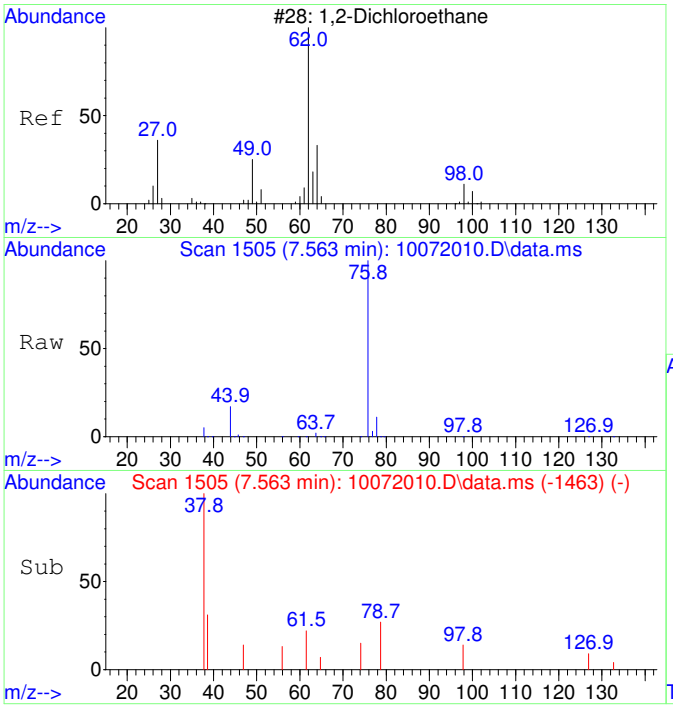



#33
Benzene SCAN
Concen: 125.52 ug/L
RT: 7.137 min Scan# 1470
Delta R.T. -0.377 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 78 Resp: 5168

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 3.9 | 0.0 | 47.9 |
| 51 | 3.9 | 0.0 | 44.1 |

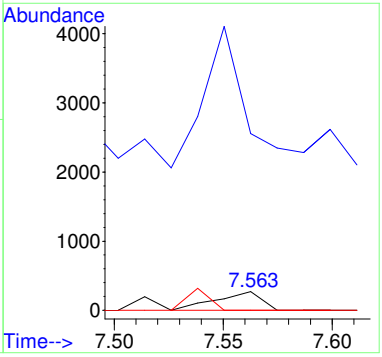


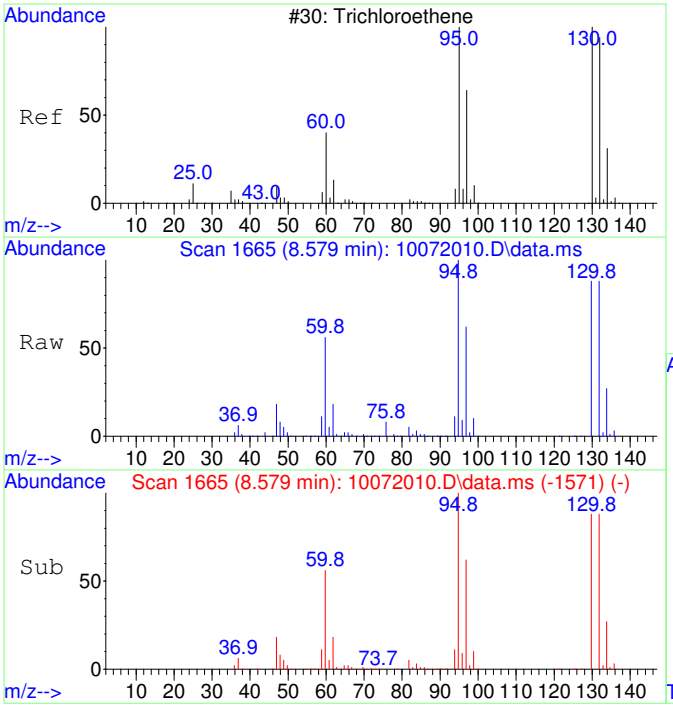




#34
1,2-Dichloroethane SCAN
Concen: 26.05 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 62 Resp: 396

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 781.8 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

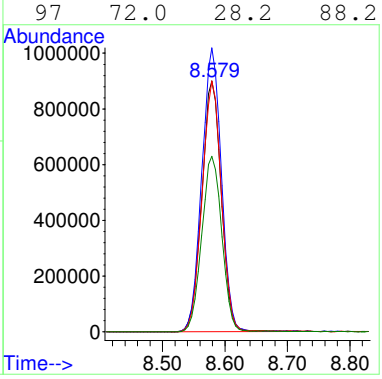


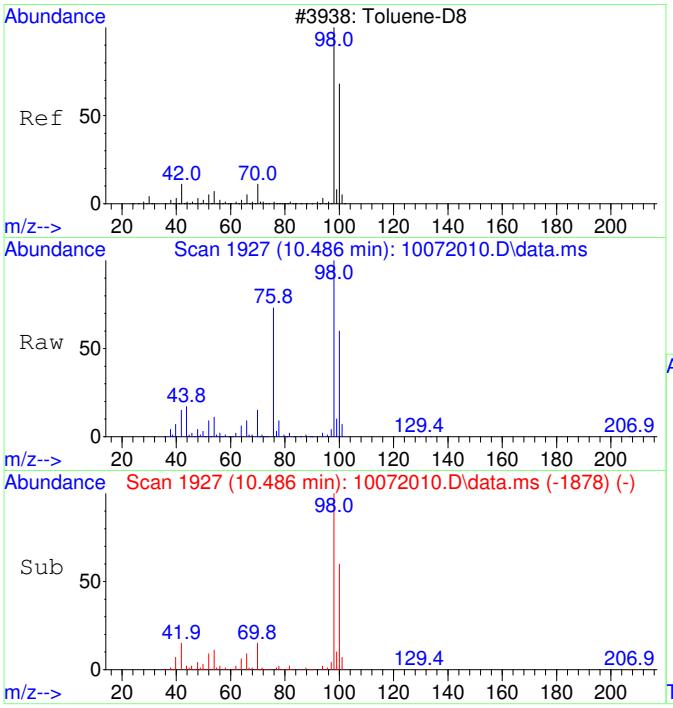



#35
Trichloroethene SCAN
Concen: 172341.66 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:130 Resp: 1950032

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 113.6 | 60.5 | 120.5 |
| 132 | 99.5 | 59.6 | 119.6 |
| 97 | 72.0 | 28.2 | 88.2 |

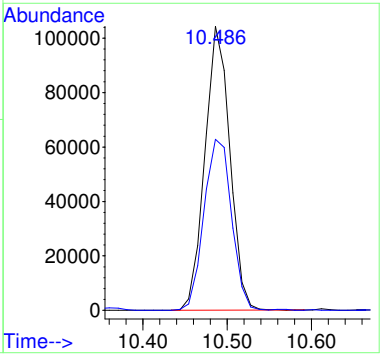


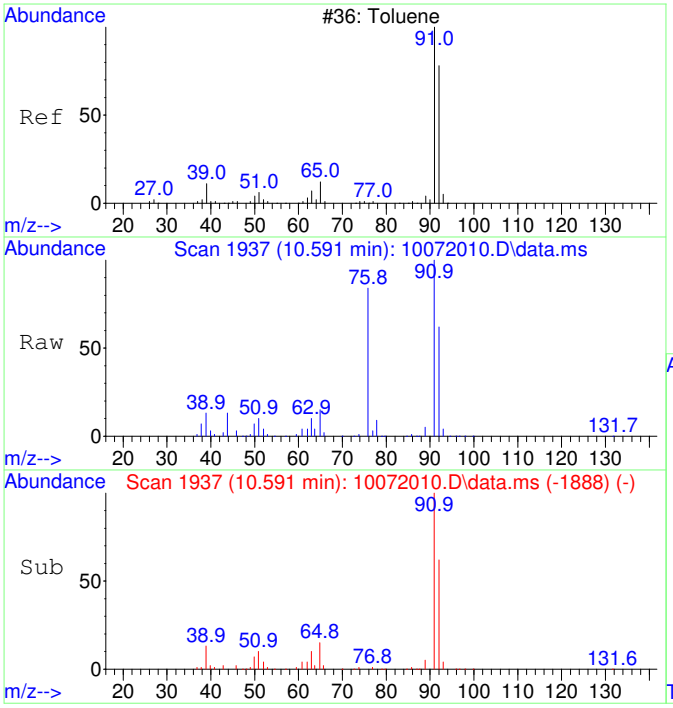




#36
Toluene-d8 SCAN
Concen: 4731.25 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 98 Resp: 214835

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.3 | 40.0 | 100.0 |

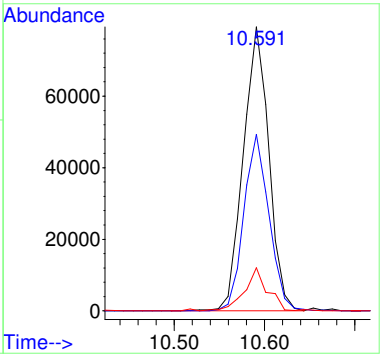


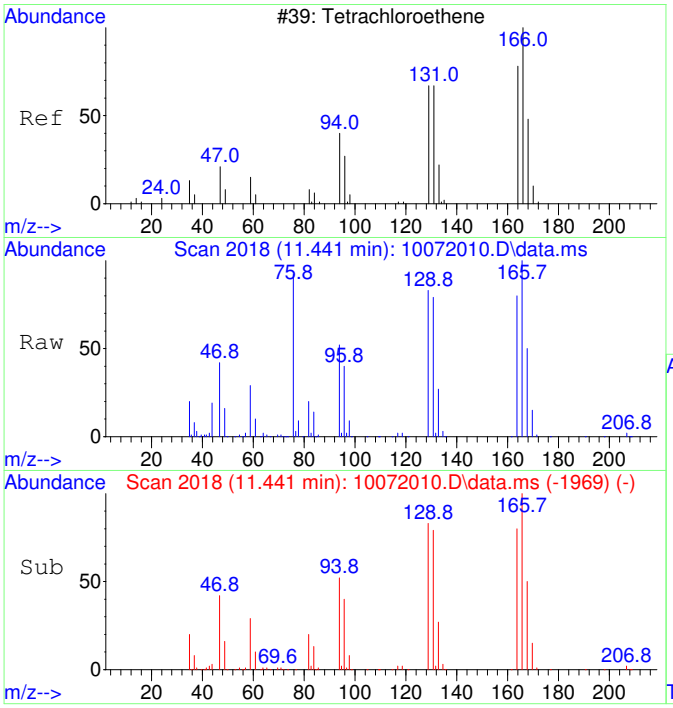



#37
Toluene SCAN
Concen: 2685.31 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 156154

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.1 | 28.3 | 88.3 |
| 65 | 13.3 | 0.0 | 41.0 |

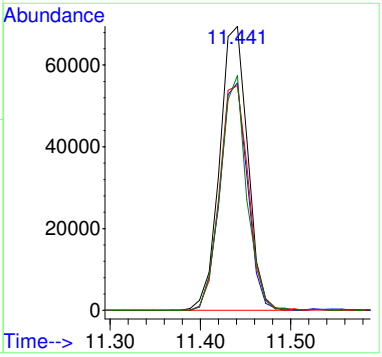


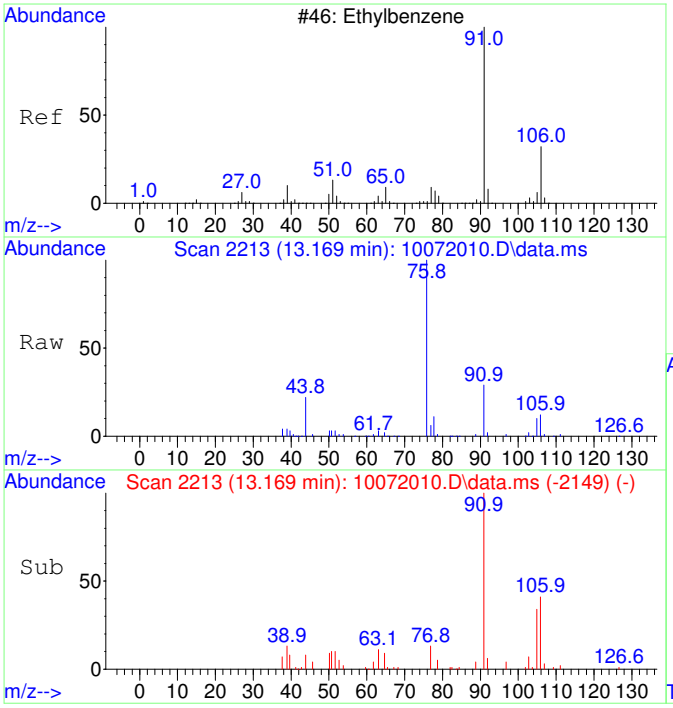




#39
Tetrachloroethene SCAN
Concen: 10785.74 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.011 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:166 Resp: 150684

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.4 | 50.9 | 110.9 |
| 131 | 81.3 | 38.7 | 98.7 |
| 129 | 78.0 | 41.8 | 101.8 |

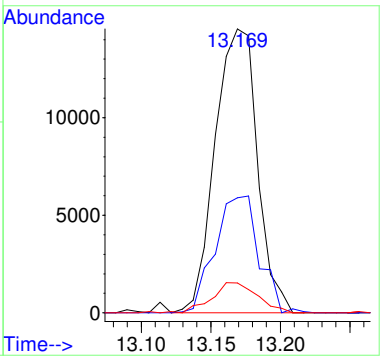


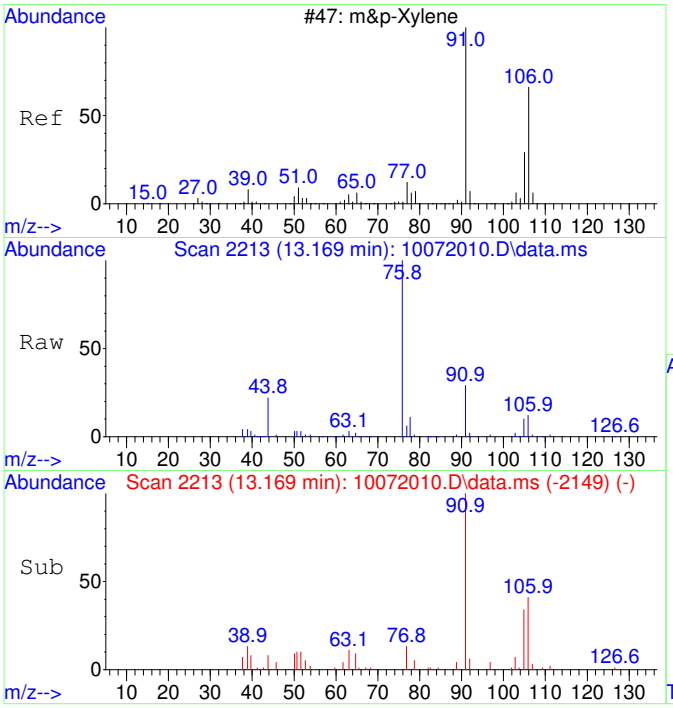



#42
Ethylbenzene SCAN
Concen: 290.89 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 30817

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.0 | 23.1 | 83.1 |
| 51 | 11.5 | 0.0 | 40.1 |

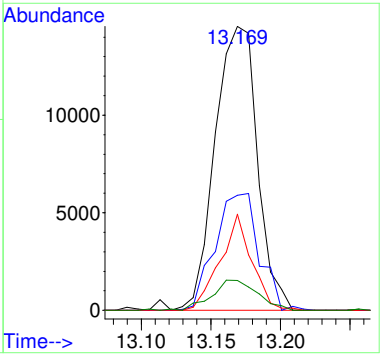


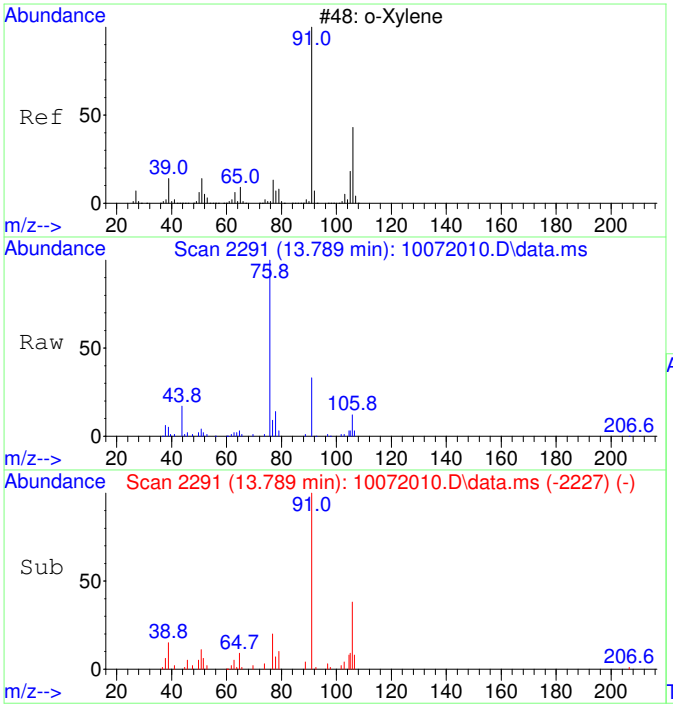




#43
m&p-Xylene SCAN
Concen: 290.89 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 30817

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.0 | 23.1 | 83.1 |
| 105 | 25.4 | 0.0 | 54.7 |
| 51 | 11.5 | 0.0 | 40.1 |

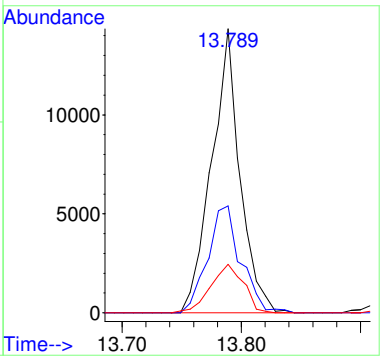


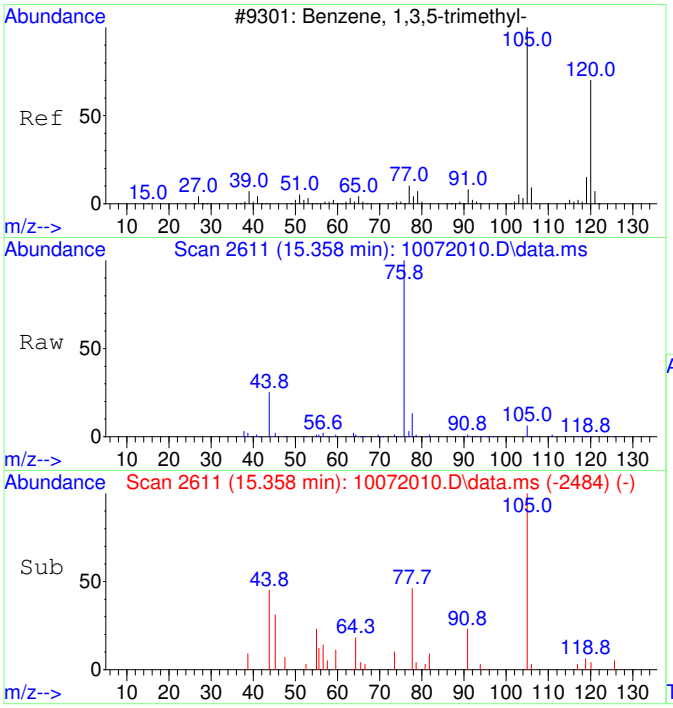



#44
o-Xylene SCAN
Concen: 418.64 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion: 91 Resp: 23740

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.1 | 18.0 | 78.0 |
| 105 | 19.8 | 0.0 | 56.6 |

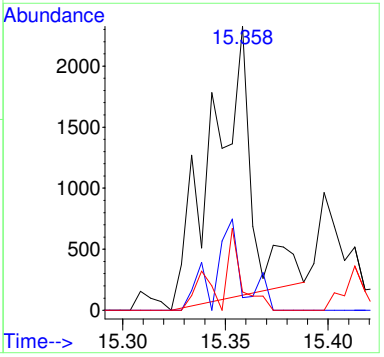


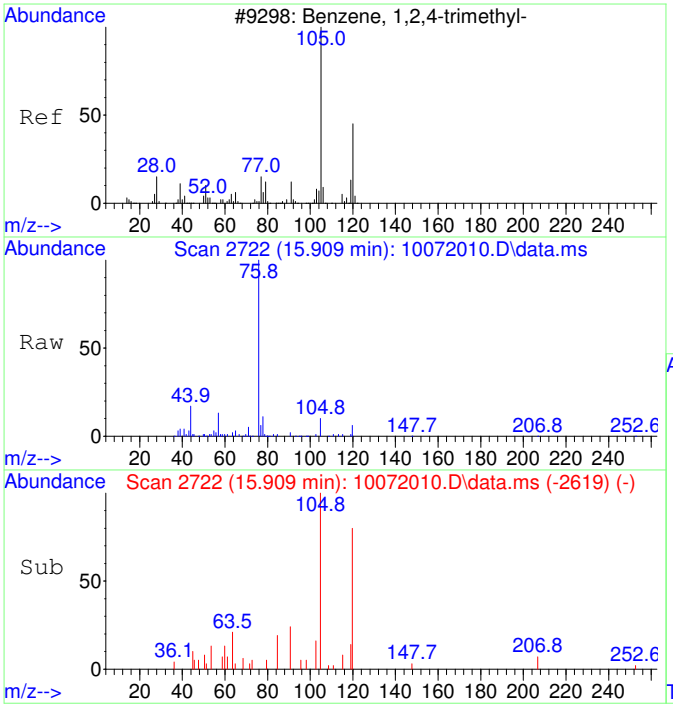




#46
1,3,5-Trimethylbenzene SCAN
Concen: 50.58 ug/L
RT: 15.358 min Scan# 2611
Delta R.T. 0.015 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:105 Resp: 3023

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 23.6 | 18.3 | 78.3 |
| 119 | 16.7 | 0.0 | 43.1 |

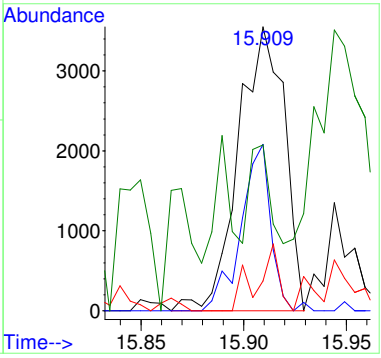





#47
1,2,4-Trimethylbenzene SCAN
Concen: 90.68 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072010.D
Acq: 7 Oct 2020 11:53

Tgt Ion:105 Resp: 5545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 38.1 | 16.9 | 76.9 |
| 119 | 11.4 | 0.0 | 41.9 |
| 77 | 14.2 | 0.0 | 42.3 |



# 2009037-03

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072011.D
Acq On : 7 Oct 2020 12:16
InstName : AG5975C
Operator : TD
Sample : 2009037-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 07 12:35:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

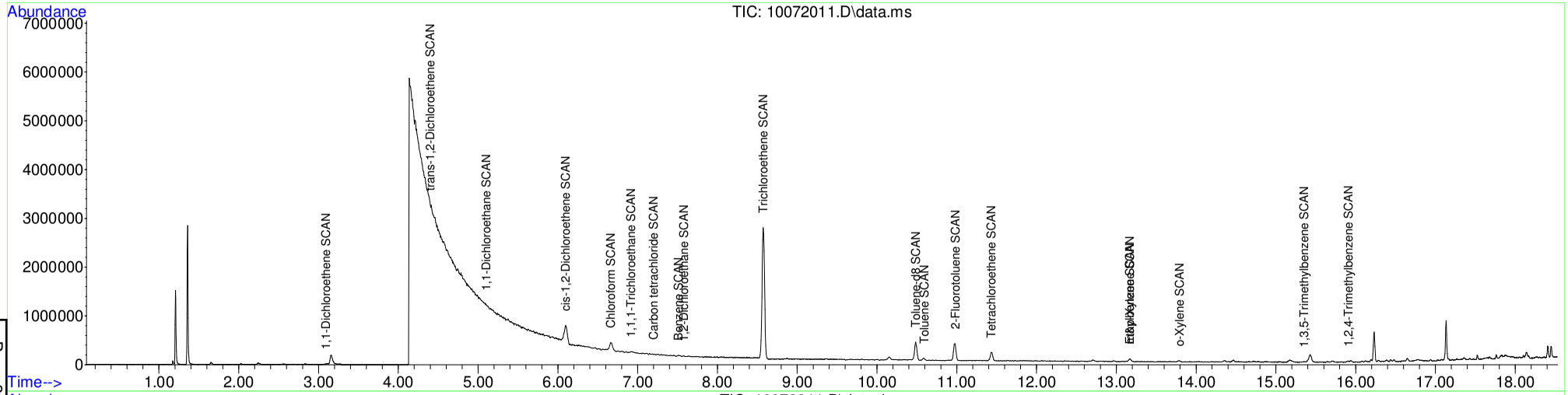
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 596788 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 507436 | 4343.46 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.87% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.093 | 61 | 22703 | 952.68 ug/L | 80 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 35872 | 1302.86 ug/L | 100 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 30499 | 889.87 ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 567210 | 15678.23 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 278892 | 7531.56 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 23712 | 589.64 ug/L | 100 |
| 8] Carbon tetrachloride | 7.187 | 117 | 3407 | 90.01 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 15478 | 152.65 ug/L | 87 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 755 | 20.86 ug/L | 54 |
| 11] Trichloroethene | 8.575 | 130 | 1898381 | 62181.87 ug/L **oc** | 92 |
| 13] Toluene | 10.582 | 91 | 68655 | 460.94 ug/L | 99 |
| 15] Tetrachloroethene | 11.432 | 166 | 122524 | 2842.50 ug/L | 100 |
| 18] Ethylbenzene | 12.972 | 91 | 21506 | 118.62 ug/L | 97 |
| 19] m&p-Xylene | 13.162 | 91 | 72407 | 511.01 ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 28658 | 189.31 ug/L | 94 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 10016 | 62.16 ug/L | 93 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 21387 | 127.79 ug/L | 92 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 292155 | 5021.93 ug/L | 100 |
| 26) 1,1-Dichloroethene SCAN | 3.088 | 61 | 5336 | 431.90 ug/L # | 35 |
| 27) trans-1,2-Dichloroethe... | 4.401 | 61 | 23584 | 1542.62 ug/L # | 57 |
| 28) 1,1-Dichloroethane SCAN | 5.104 | 63 | 15983 | 903.34 ug/L | 86 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 324465 | 17116.22 ug/L # | 83 |
| 30) Chloroform SCAN | 6.662 | 83 | 156219 | 7597.81 ug/L | 91 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 12151 | 648.51 ug/L | 87 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 1822 | 93.22 ug/L # | 27 |
| 33) Benzene SCAN | 7.514 | 78 | 14162 | 274.51 ug/L | 98 |
| 34) 1,2-Dichloroethane SCAN | 7.575 | 62 | 644 | 33.81 ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.574 | 130 | 937849 | 66151.98 ug/L | 84 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 272687 | 4792.88 ug/L | 97 |
| 37) Toluene SCAN | 10.591 | 91 | 38312 | 525.82 ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.431 | 166 | 61436 | 3509.68 ug/L | 90 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 36265 | 273.20 ug/L | 94 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 36265 | 273.20 ug/L | 94 |
| 44) o-Xylene SCAN | 13.789 | 91 | 16876 | 237.51 ug/L | 87 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 4593 | 61.34 ug/L | 84 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 10321 | 134.70 ug/L | 98 |

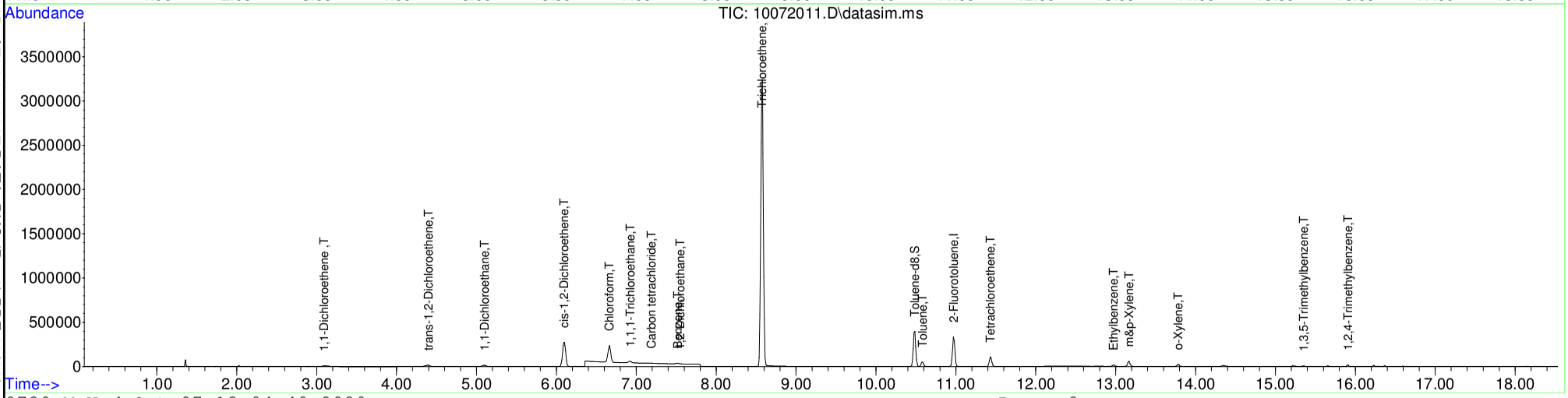
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072011.D
Acq On : 7 Oct 2020 12:16
InstName : AG5975C
Operator : TD
Sample : 2009037-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 07 12:35:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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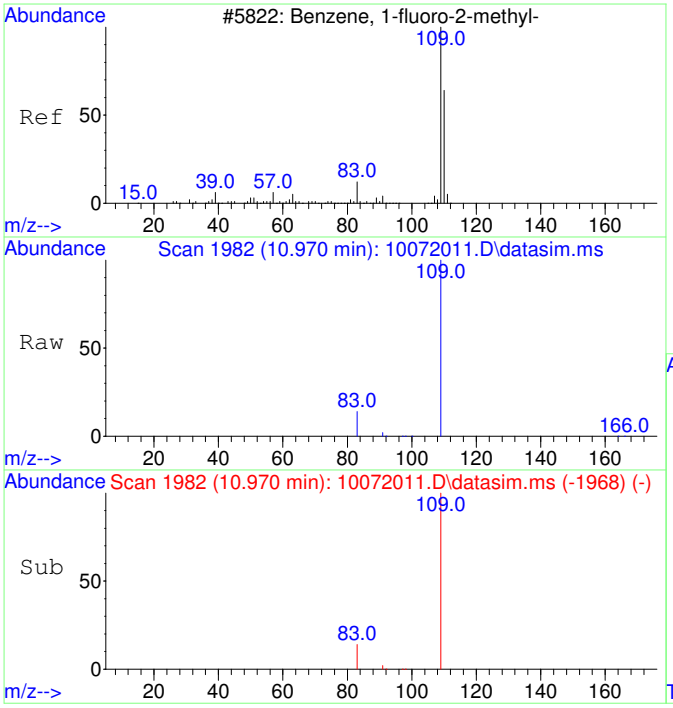
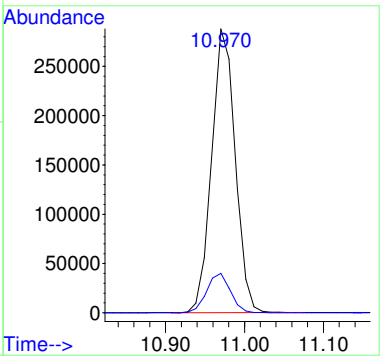
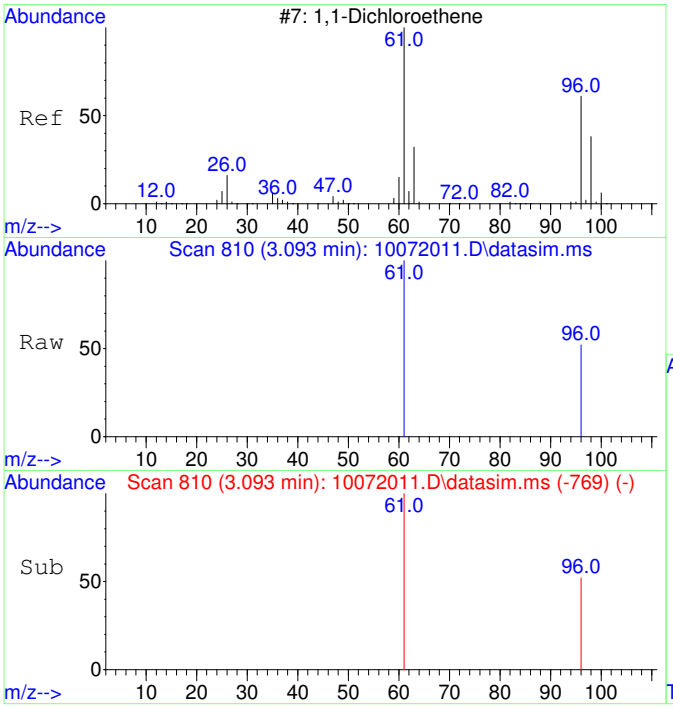



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:109 Resp: 596788

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

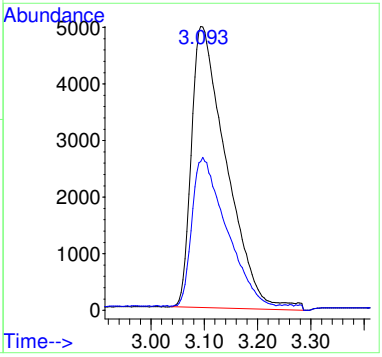


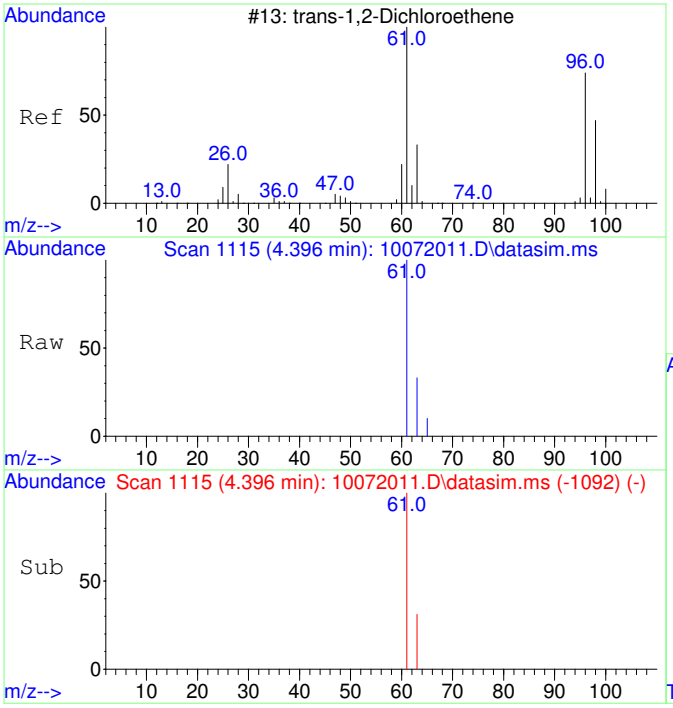




#2
1,1-Dichloroethene
Concen: 952.68 ug/L
RT: 3.093 min Scan# 810
Delta R.T. 0.004 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 22703

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 51.5 | 37.2 | 97.2 |

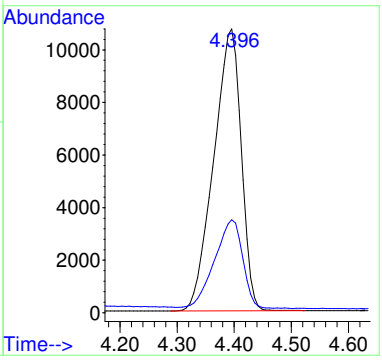


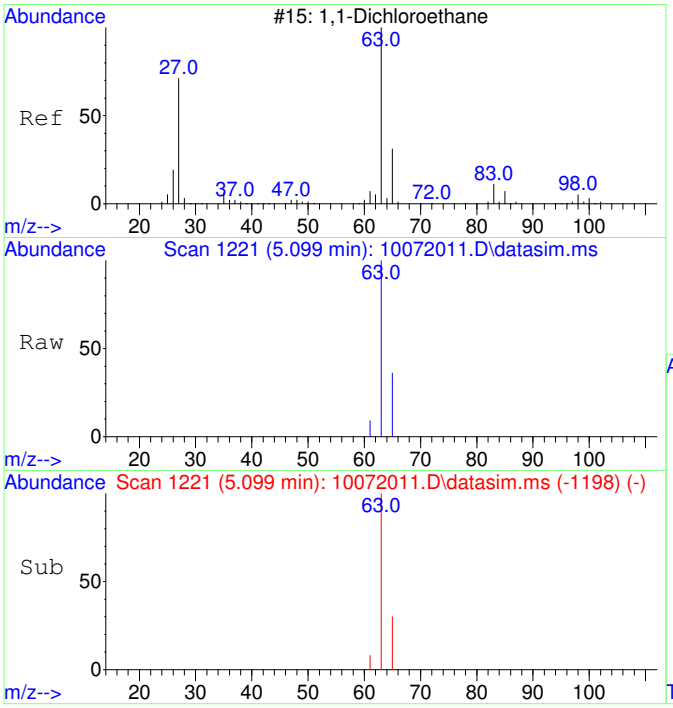



#3
trans-1,2-Dichloroethene
Concen: 1302.86 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 35872

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 32.2 | 2.4 | 62.4 |

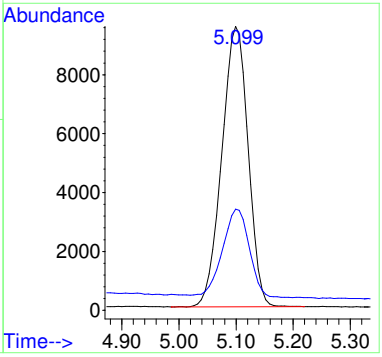


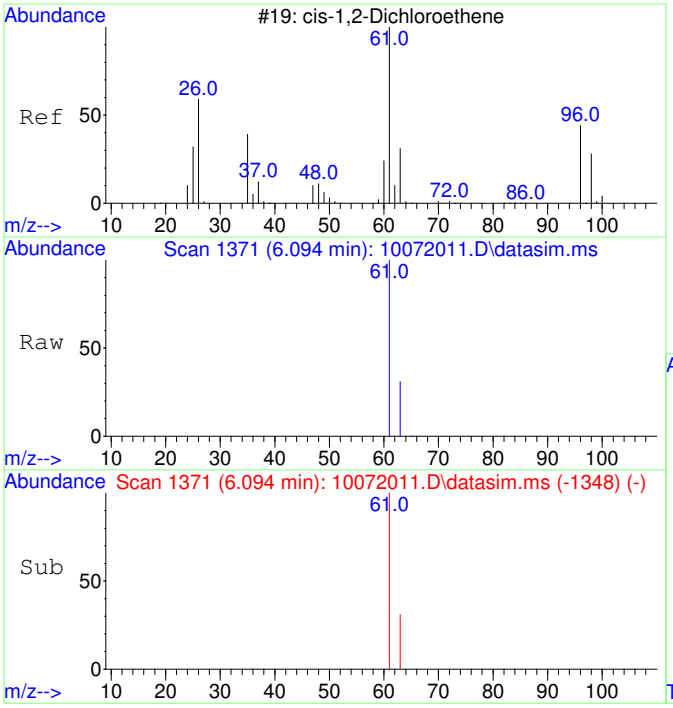




#4
1,1-Dichloroethane
Concen: 889.87 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 63 Resp: 30499

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 32.7 | 1.8 | 61.8 |

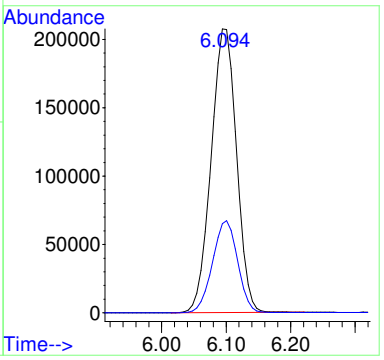


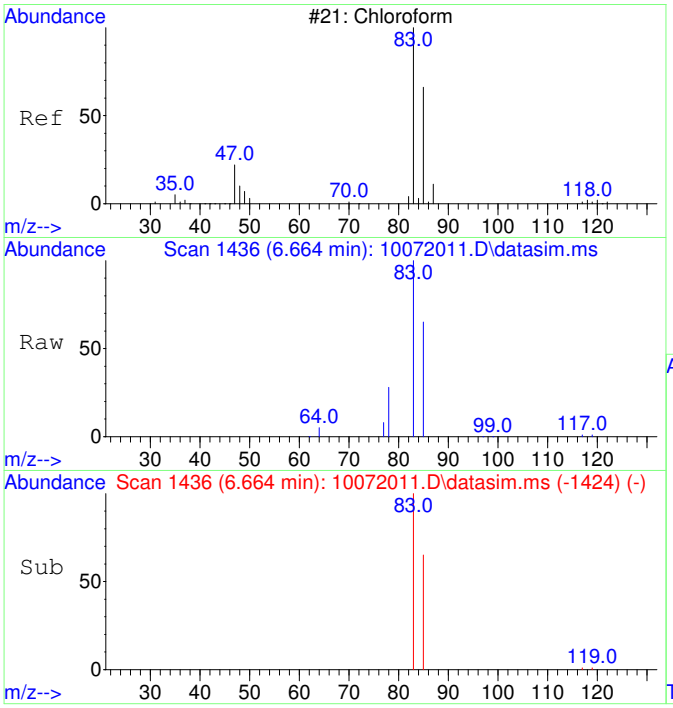



#5
cis-1,2-Dichloroethene
Concen: 15678.23 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 567210

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.9 | 2.5 | 62.5 |

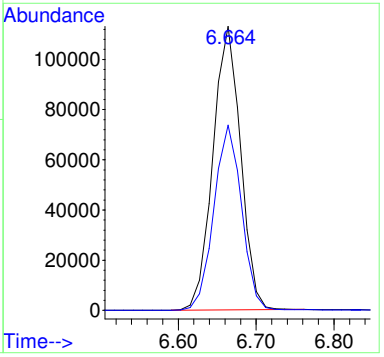


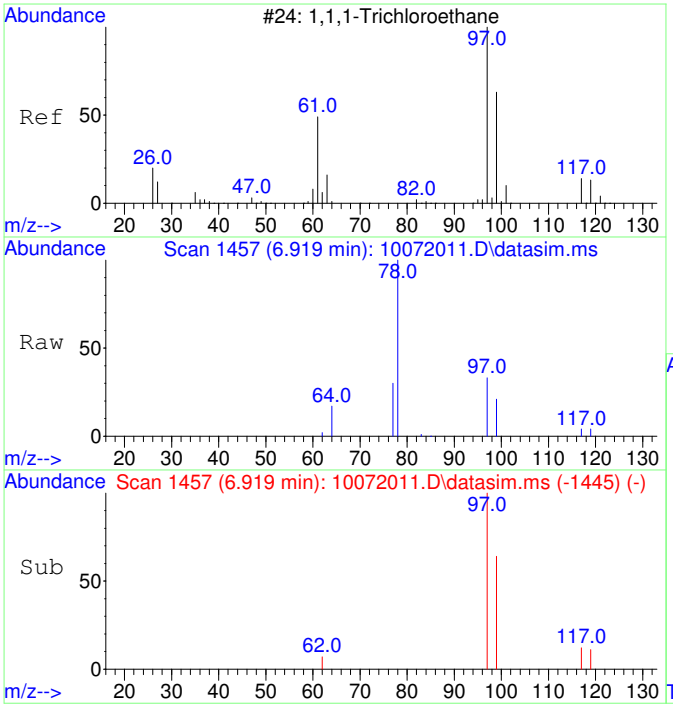




#6
Chloroform
Concen: 7531.56 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 83 Resp: 278892

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.9 | 35.1 | 95.1 |

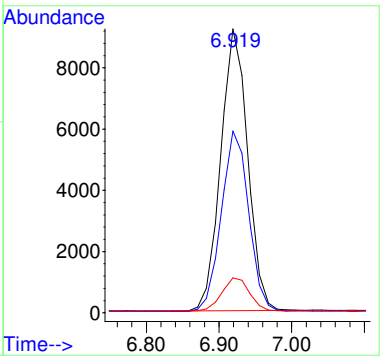


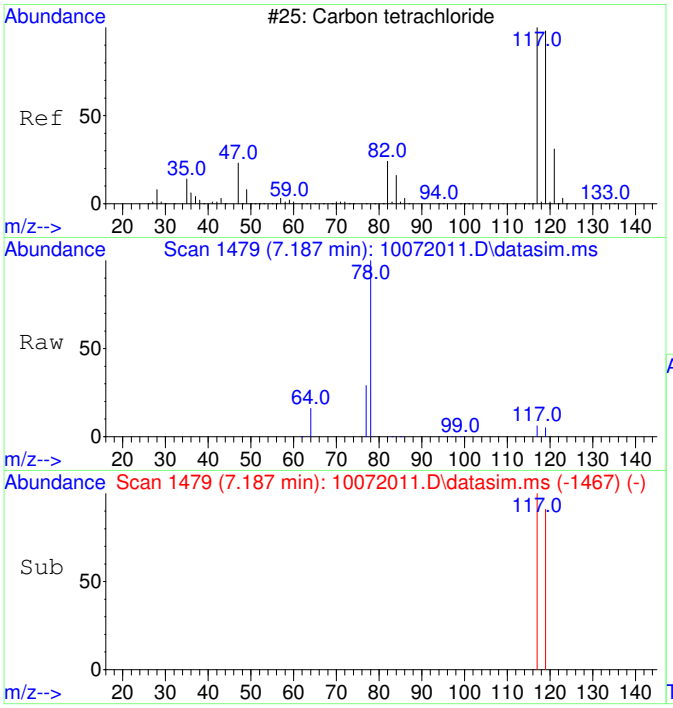



#7
1,1,1-Trichloroethane
Concen: 589.64 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 97 Resp: 23712

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.1 | 0.0 | 43.2 |

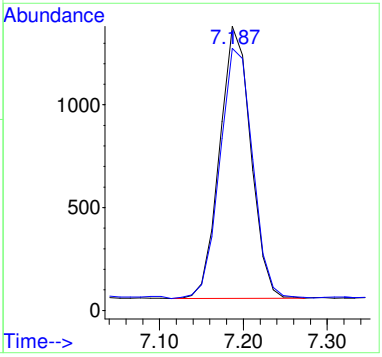


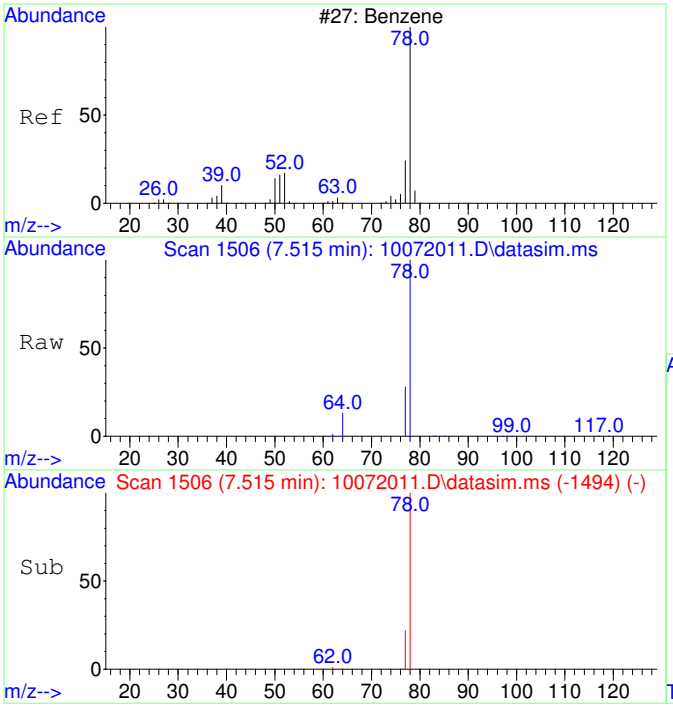




#8
Carbon tetrachloride
Concen: 90.01 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:117 Resp: 3407

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.5 | 66.4 | 126.4 |

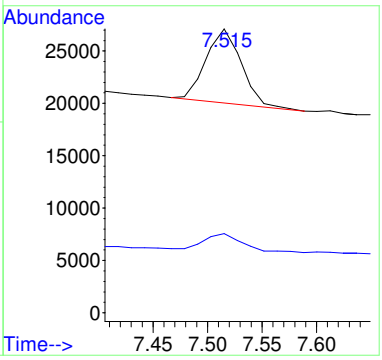


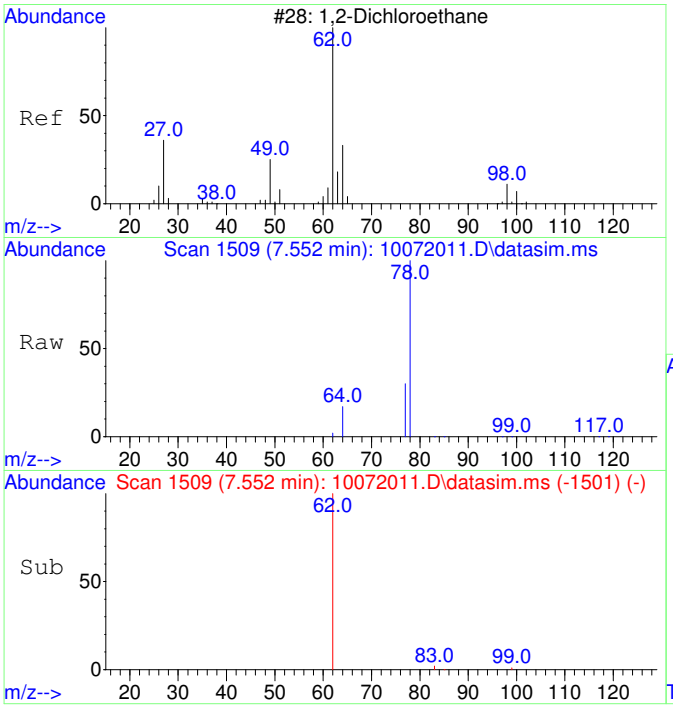



#9
Benzene
Concen: 152.65 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 78 Resp: 15478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 29.7 | 0.0 | 53.2 |

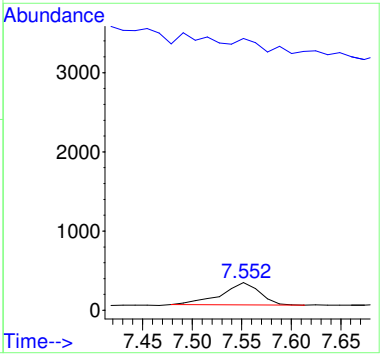


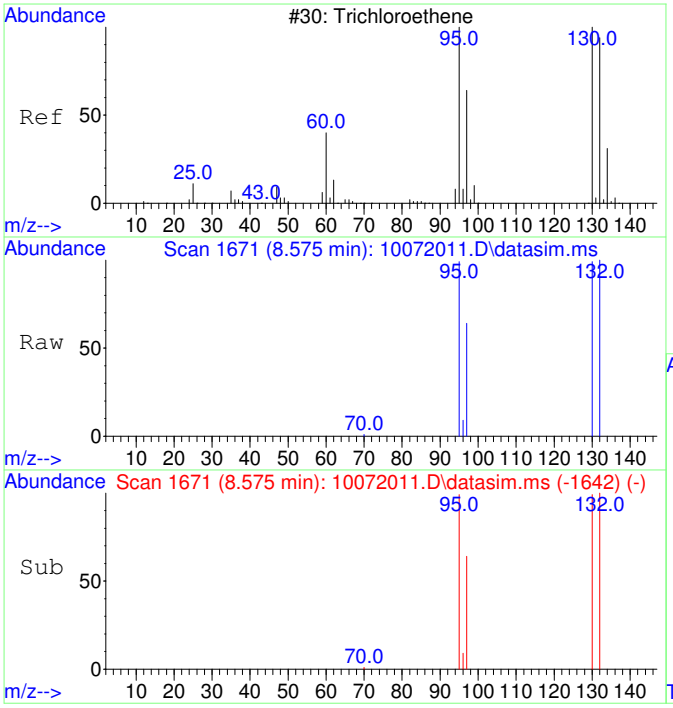




#10
1,2-Dichloroethane
Concen: 20.86 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 62 Resp: 755

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 58.1 | 2.3 | 62.3 |

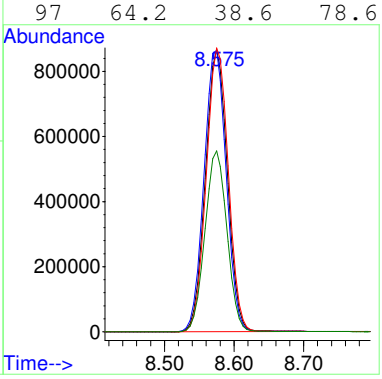


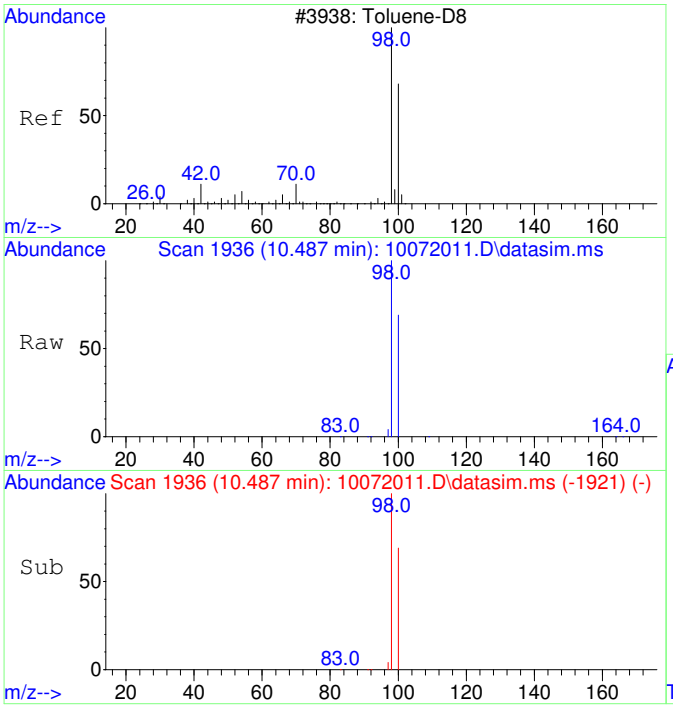



#11
Trichloroethene
Concen: 62181.87 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:130 Resp: 1898381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.9 | 60.7 | 120.7 |
| 132 | 100.9 | 76.0 | 116.0 |
| 97 | 64.2 | 38.6 | 78.6 |

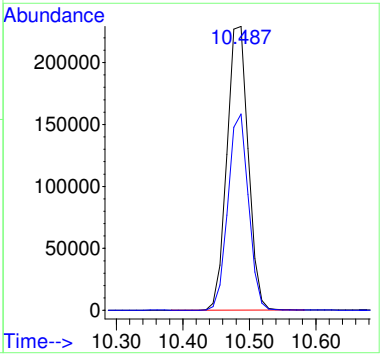


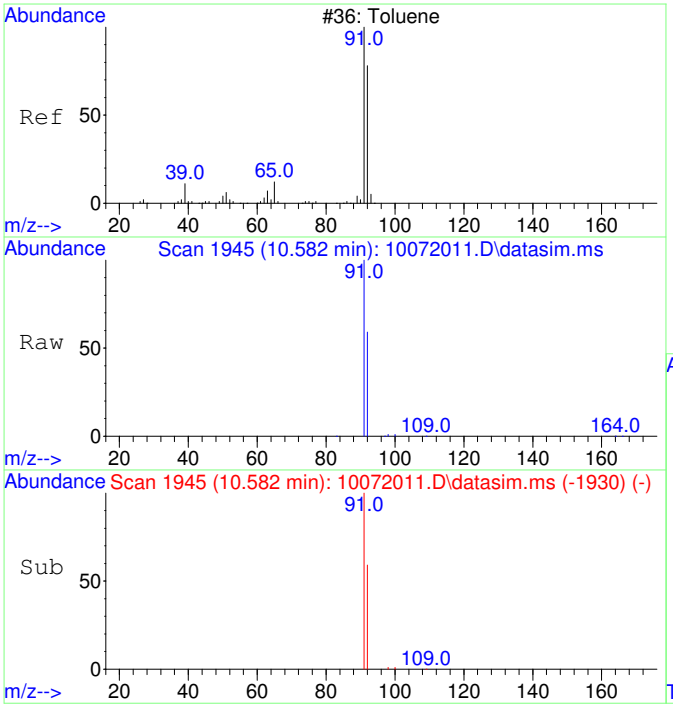




#12
Toluene-d8
Concen: 4343.46 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 98 Resp: 507436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.7 | 37.1 | 97.1 |

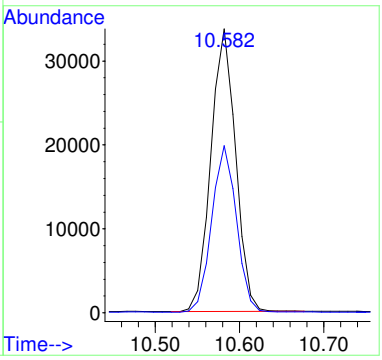


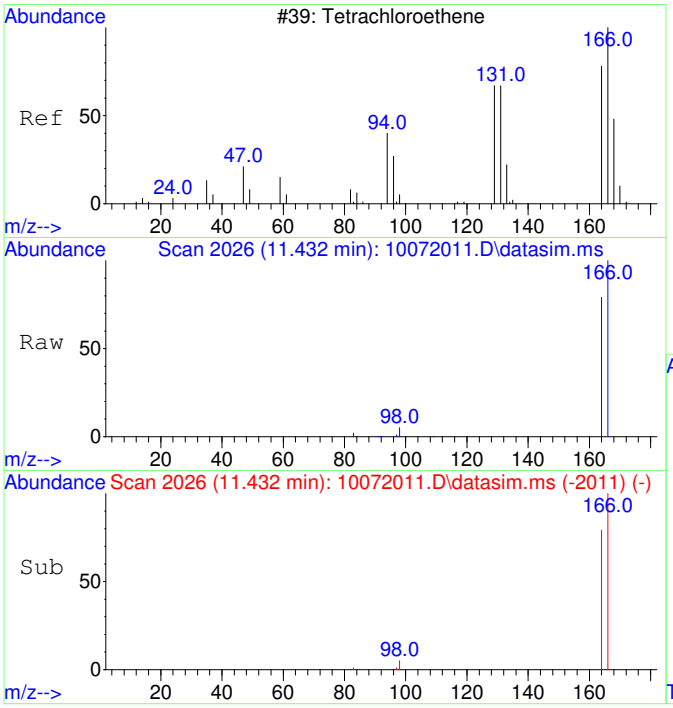



#13
Toluene
Concen: 460.94 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 68655

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.8 | 29.9 | 89.9 |

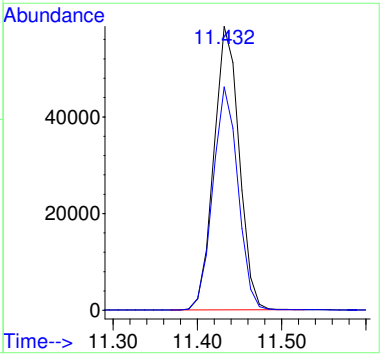


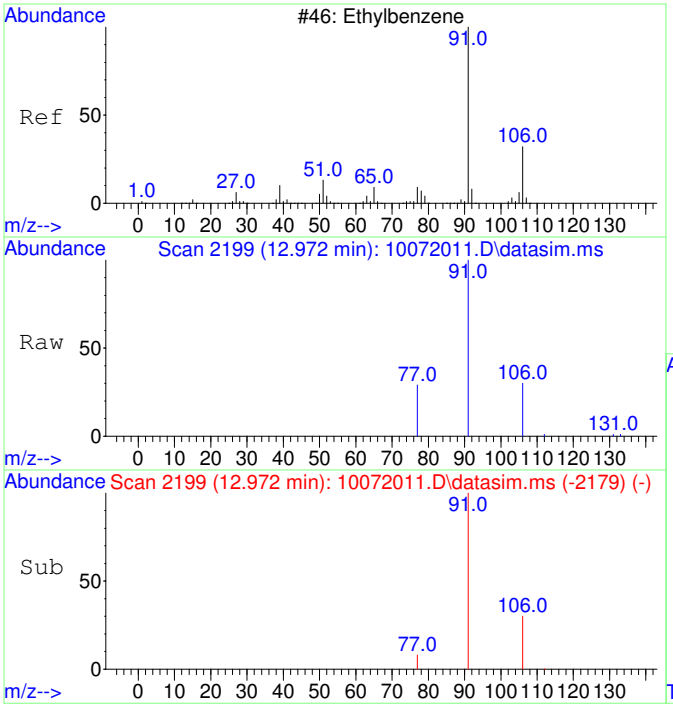




#15
Tetrachloroethene
Concen: 2842.50 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:166 Resp: 122524

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.9 | 47.8 | 107.8 |

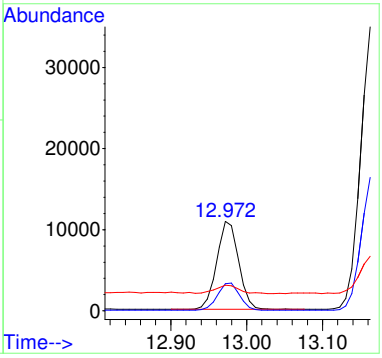


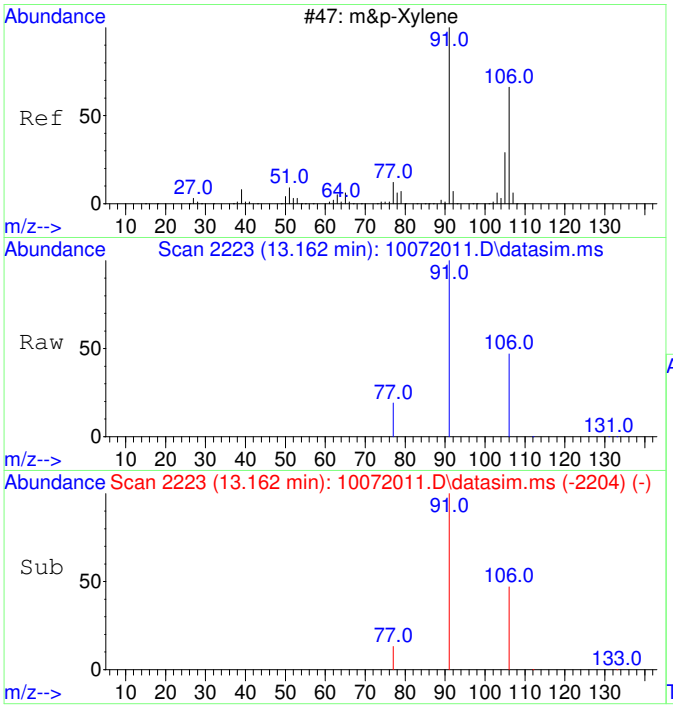



#18
Ethylbenzene
Concen: 118.62 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 21506

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.4 | 3.0 | 63.0 |
| 77 | 10.0 | 0.0 | 38.2 |

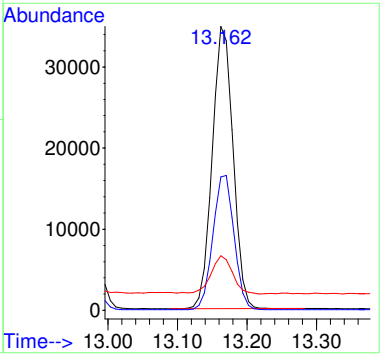


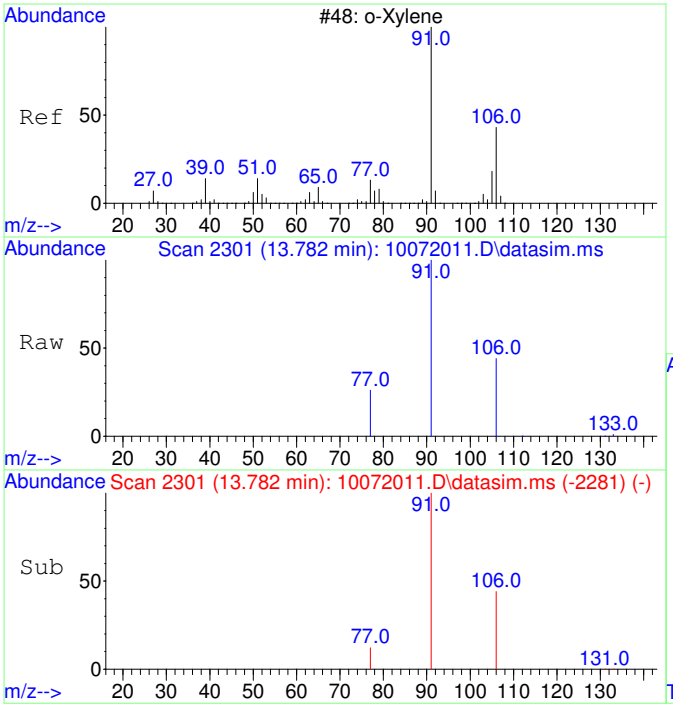




#19
m&p-Xylene
Concen: 511.01 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 72407

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 13.9 | 0.0 | 42.4 |

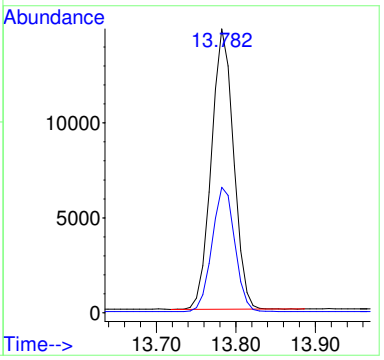


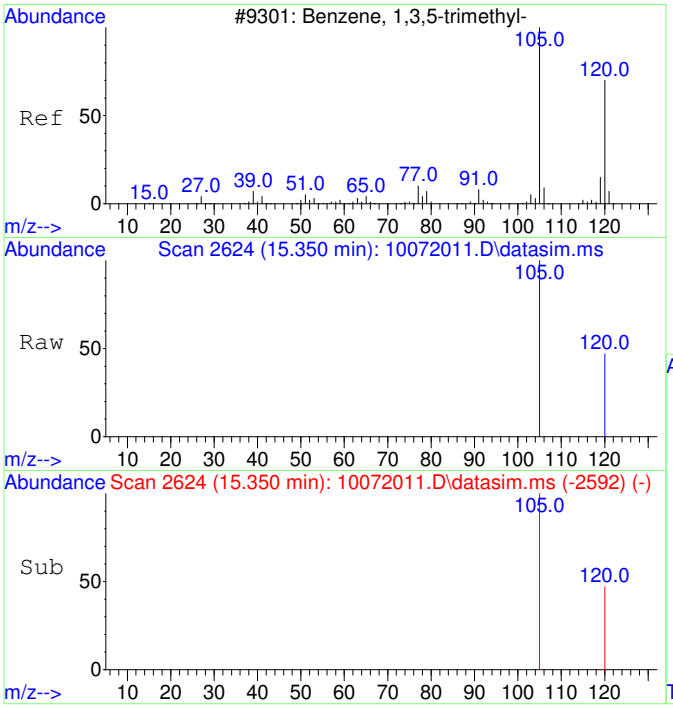



#20
o-Xylene
Concen: 189.31 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 28658

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.4 | 19.2 | 79.2 |

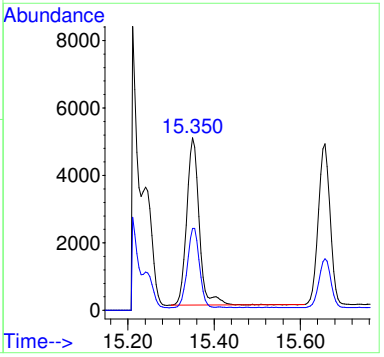


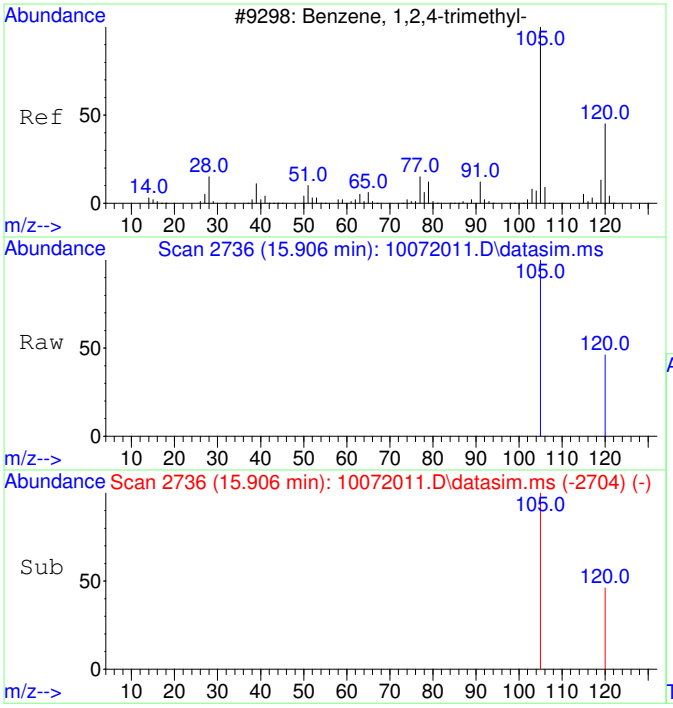




#22
1,3,5-Trimethylbenzene
Concen: 62.16 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:105 Resp: 10016

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.1 | 21.1 | 81.1 |

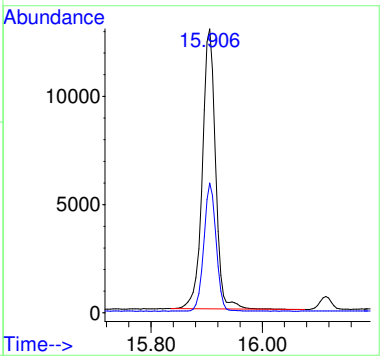


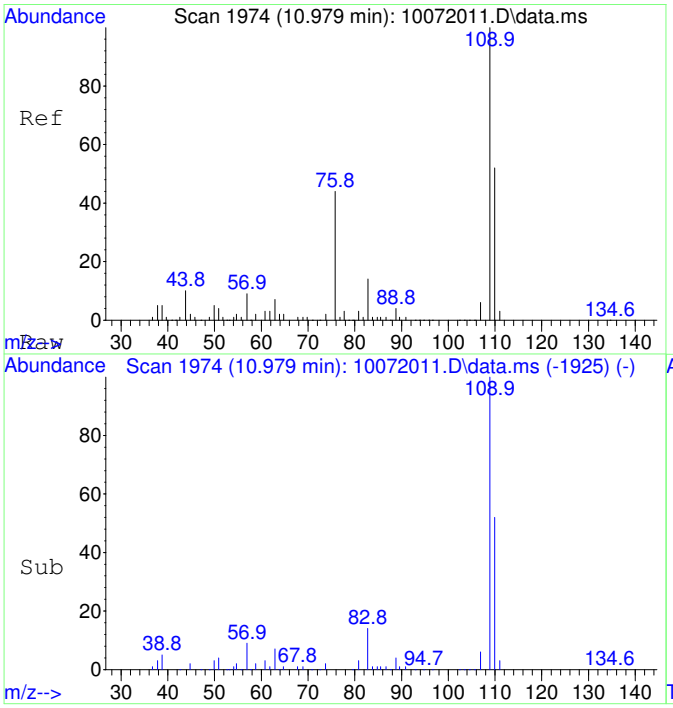



#23
1,2,4-Trimethylbenzene
Concen: 127.79 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:105 Resp: 21387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.1 | 17.2 | 77.2 |

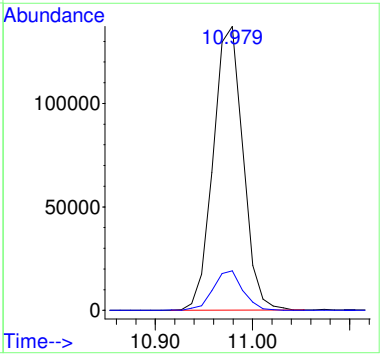


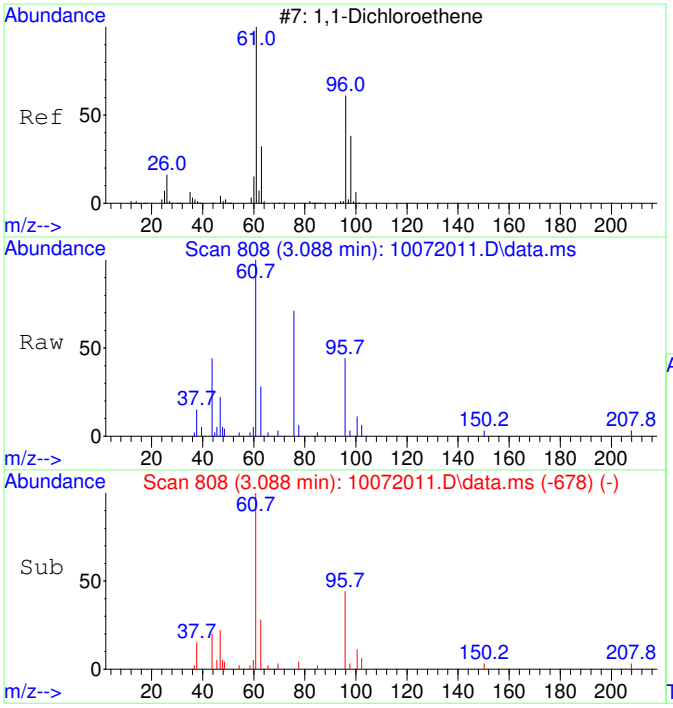




#25
2-Fluorotoluene SCAN
Concen: 5021.93 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:109 Resp: 292155

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 43.8 |

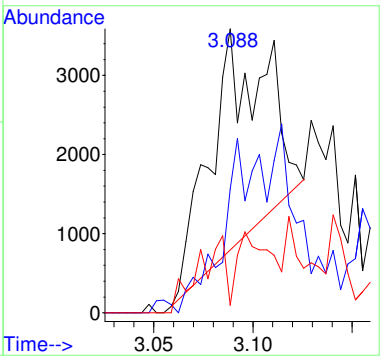


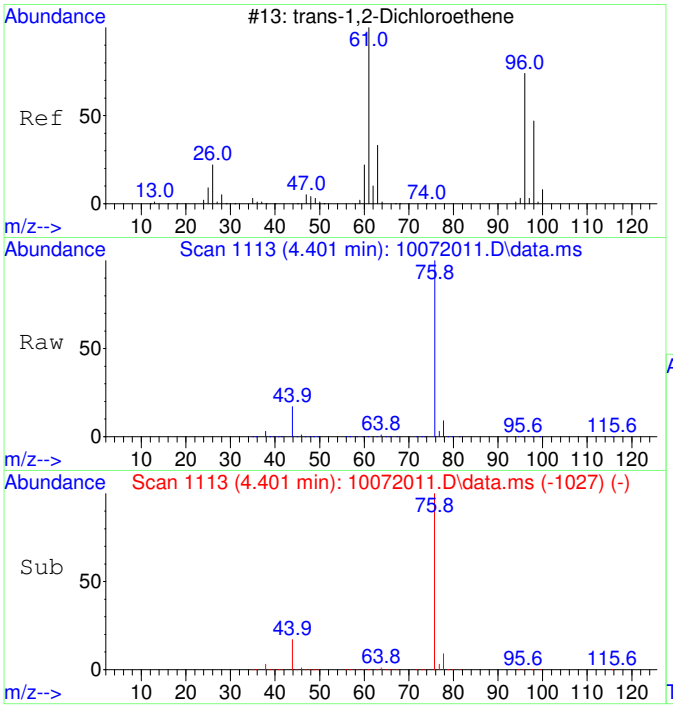



#26
1,1-Dichloroethene SCAN
Concen: 431.90 ug/L
RT: 3.088 min Scan# 808
Delta R.T. -0.019 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 5336

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 15.7 | 11.2 | 71.2 |

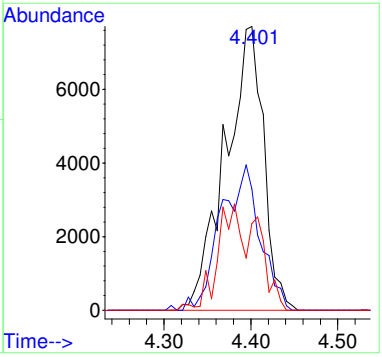


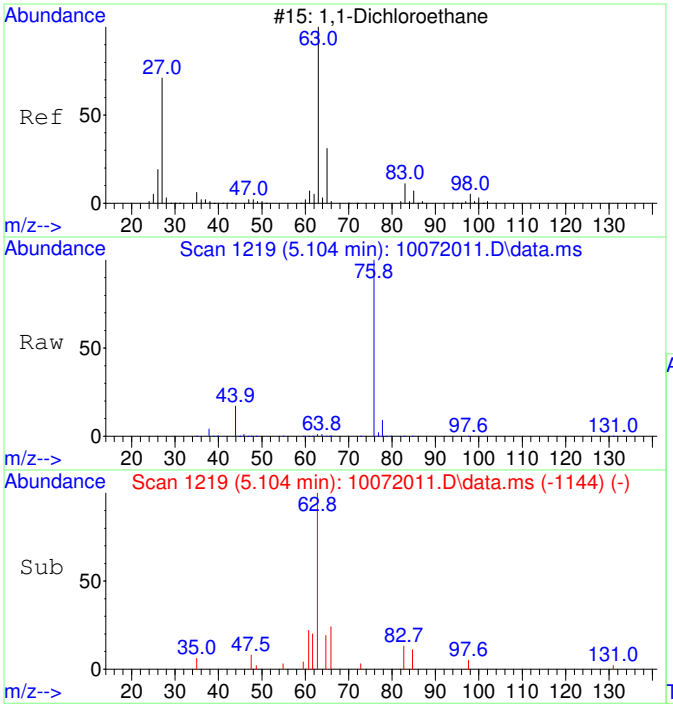




#27
trans-1,2-Dichloroethene SCAN
Concen: 1542.62 ug/L
RT: 4.401 min Scan# 1113
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 23584

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 52.9 | 49.0 | 109.0 |
| 98 | 5.8 | 20.5 | 80.5# |

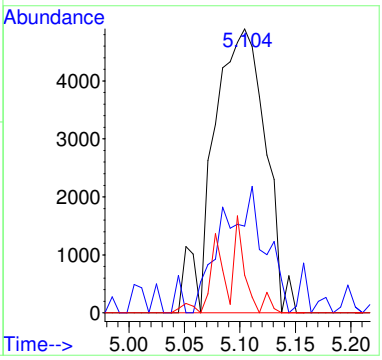


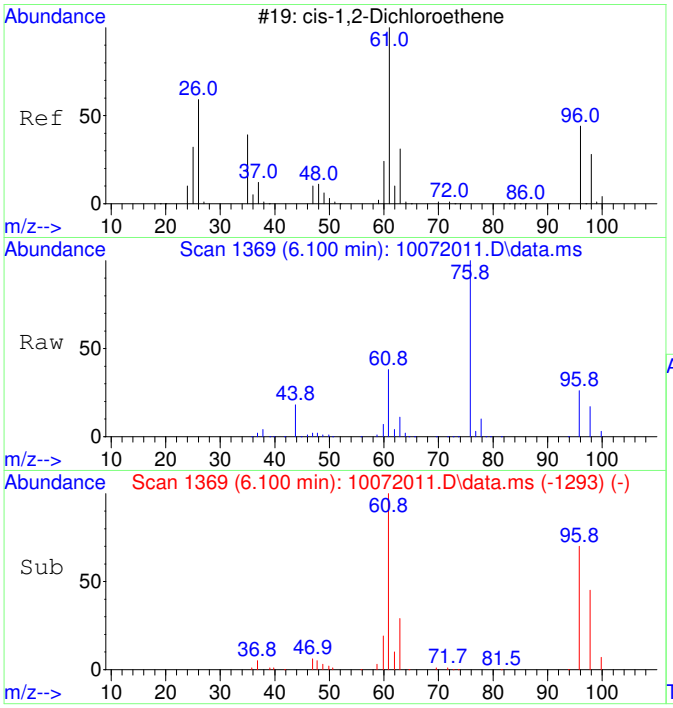



#28
1,1-Dichloroethane SCAN
Concen: 903.34 ug/L
RT: 5.104 min Scan# 1219
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 63 Resp: 15983

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 36.5 | 1.3 | 61.3 |
| 83 | 5.7 | 0.0 | 45.9 |

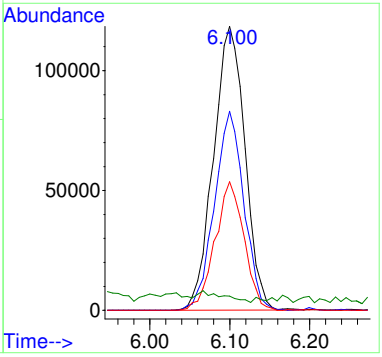


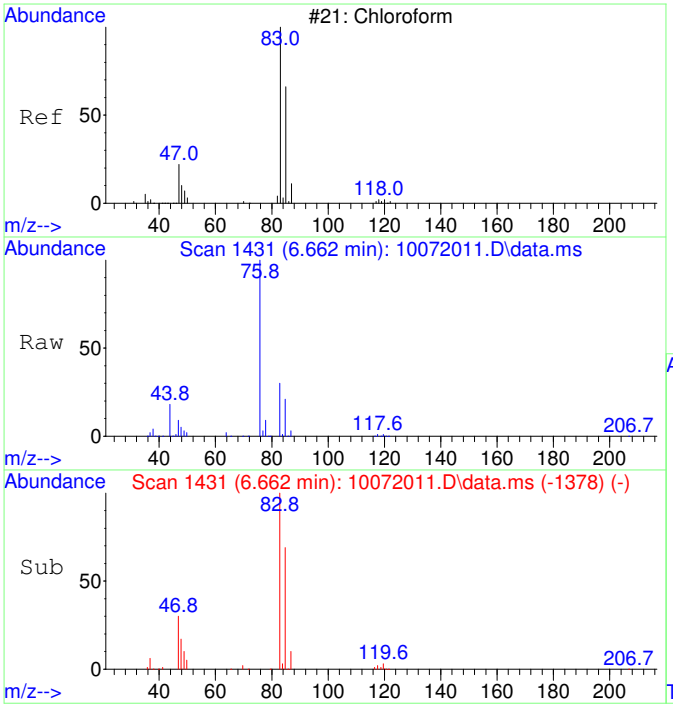




#29
cis-1,2-Dichloroethene SCAN
Concen: 17116.22 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 61 Resp: 324465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 65.6 | 39.9 | 99.9 |
| 98 | 41.8 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

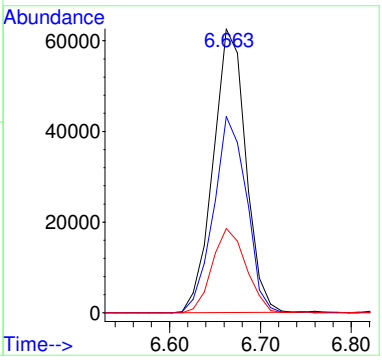


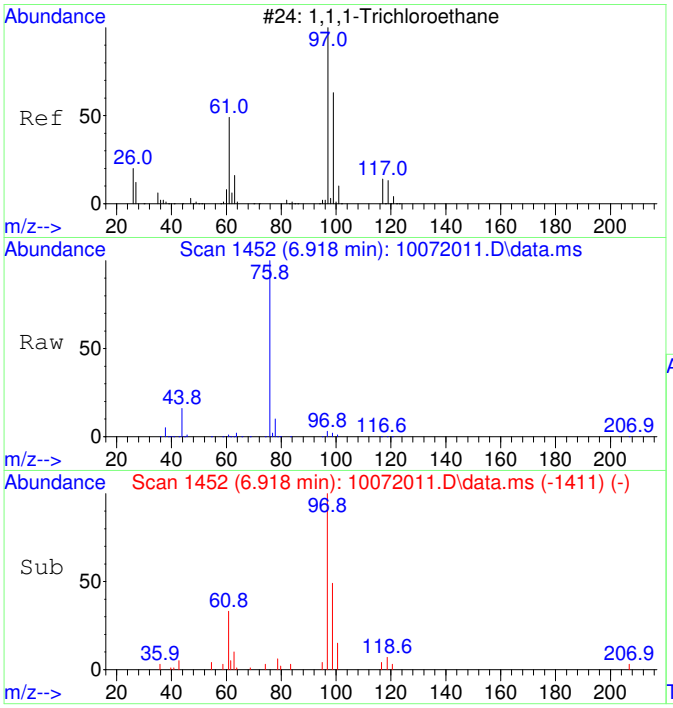



#30
Chloroform SCAN
Concen: 7597.81 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 83 Resp: 156219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 70.1 | 34.6 | 94.6 |
| 47 | 30.7 | 0.0 | 53.4 |

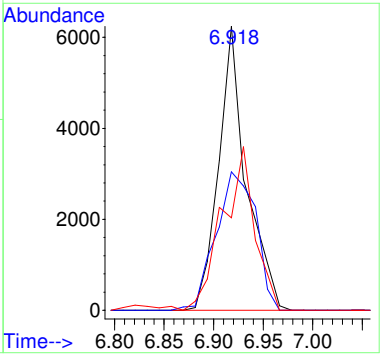


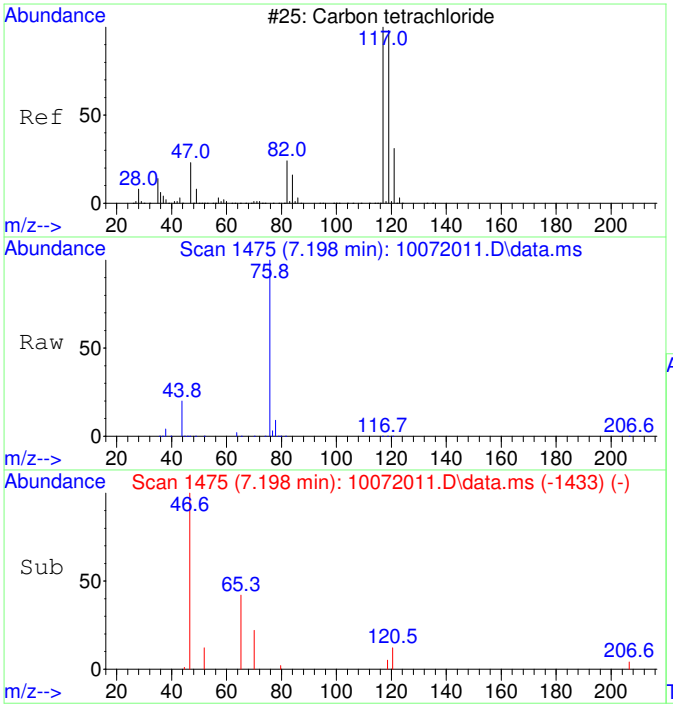




#31
1,1,1-Trichloroethane SCAN
Concen: 648.51 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 97 Resp: 12151

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 70.2 | 43.6 | 103.6 |
| 61 | 66.7 | 18.0 | 78.0 |

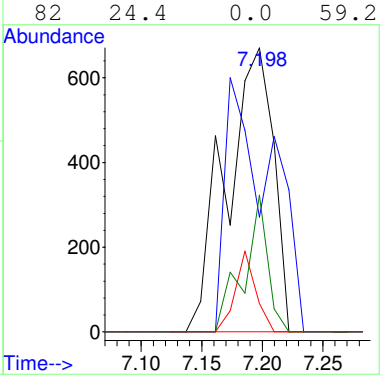


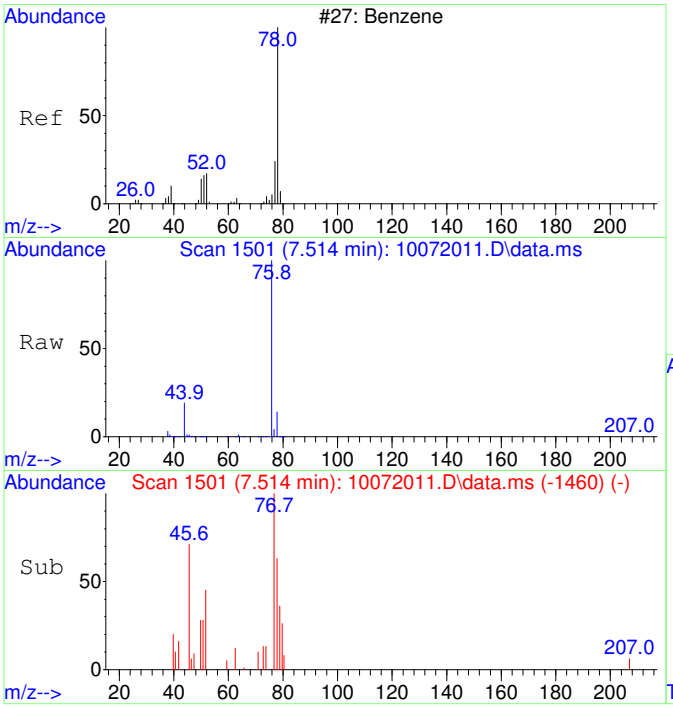



#32
Carbon tetrachloride SCAN
Concen: 93.22 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:117 Resp: 1822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 0.0 | 75.5 | 135.5# |
| 121 | 12.3 | 0.0 | 58.8 |
| 82 | 24.4 | 0.0 | 59.2 |

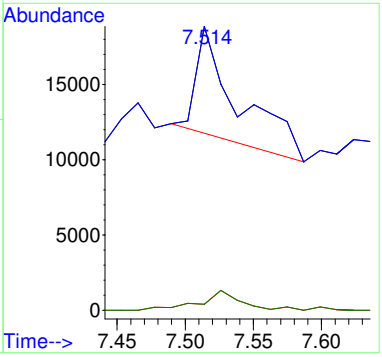


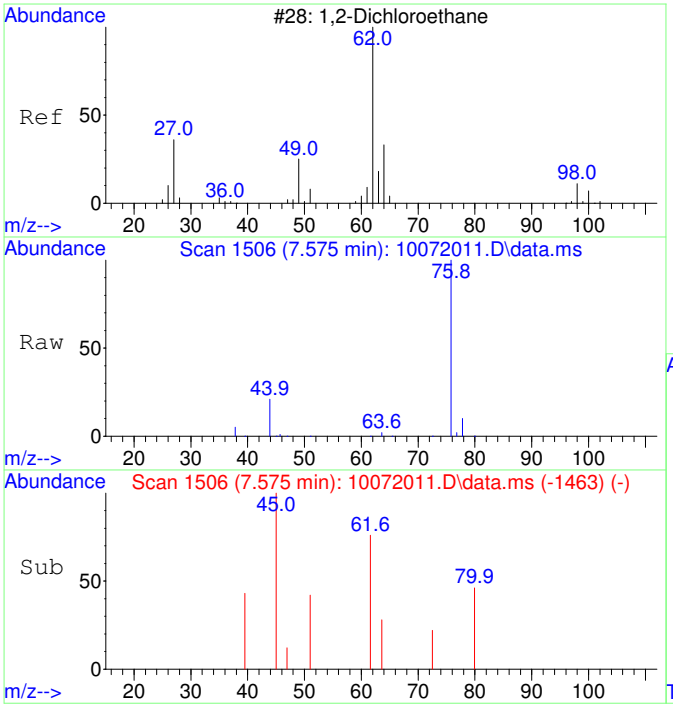




#33
Benzene SCAN
Concen: 274.51 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 78 Resp: 14162

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 19.8 | 0.0 | 47.9 |
| 51 | 19.8 | 0.0 | 44.1 |

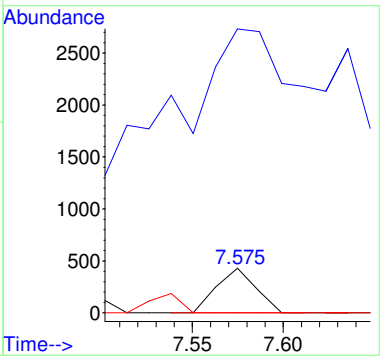


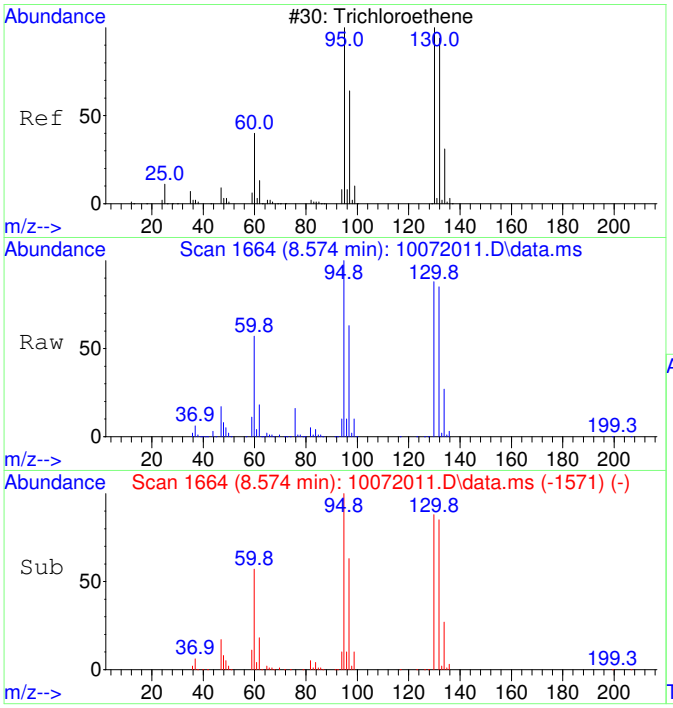



#34
1,2-Dichloroethane SCAN
Concen: 33.81 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.024 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 62 Resp: 644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 1364.4 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

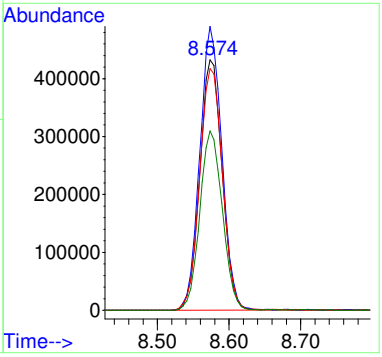


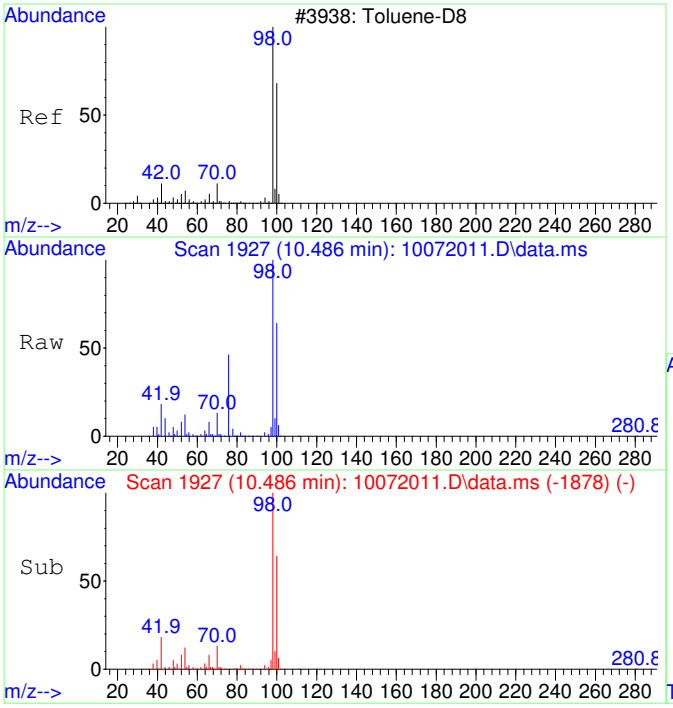




#35
Trichloroethene SCAN
Concen: 66151.98 ug/L
RT: 8.574 min Scan# 1664
Delta R.T. 0.005 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:130 Resp: 937849

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.7 | 60.5 | 120.5 |
| 132 | 97.9 | 59.6 | 119.6 |
| 97 | 71.9 | 28.2 | 88.2 |

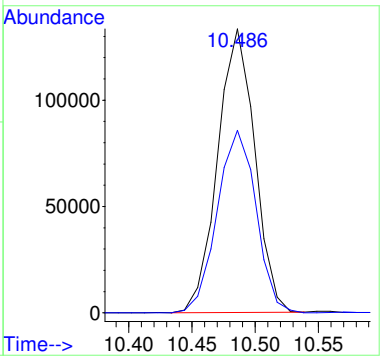


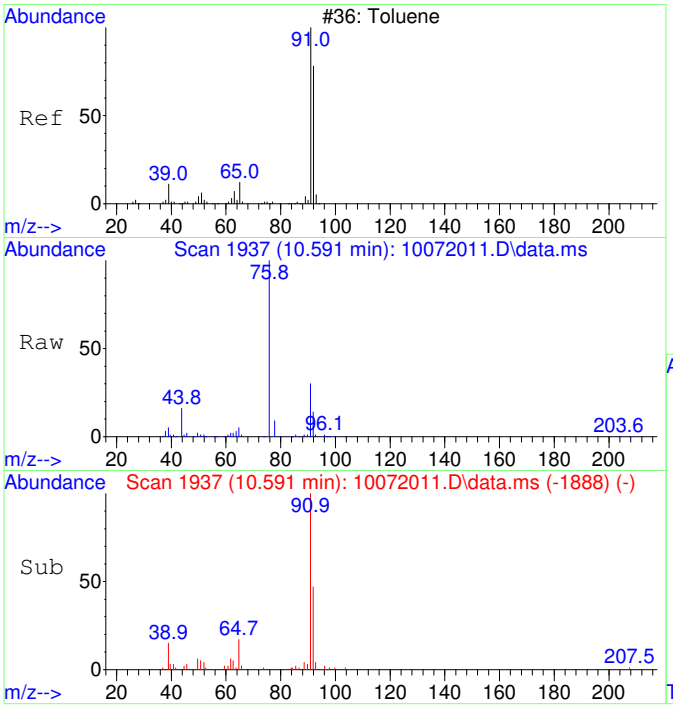



#36
Toluene-d8 SCAN
Concen: 4792.88 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 98 Resp: 272687

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.4 | 40.0 | 100.0 |

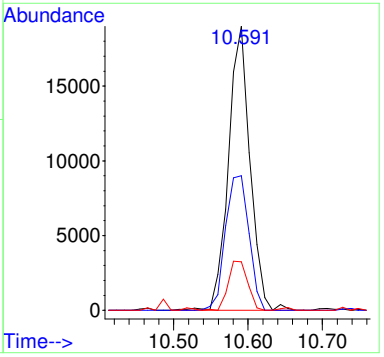


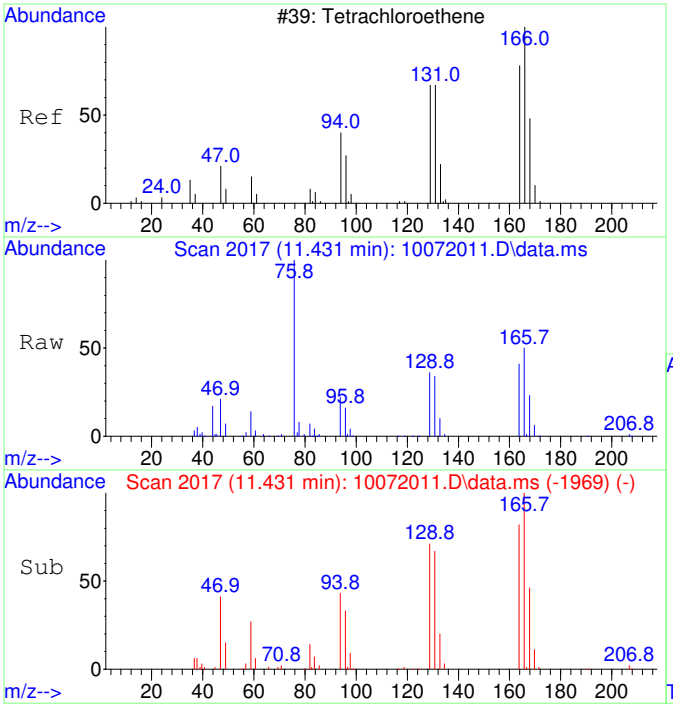




#37
Toluene SCAN
Concen: 525.82 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 38312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 51.5 | 28.3 | 88.3 |
| 65 | 15.6 | 0.0 | 41.0 |

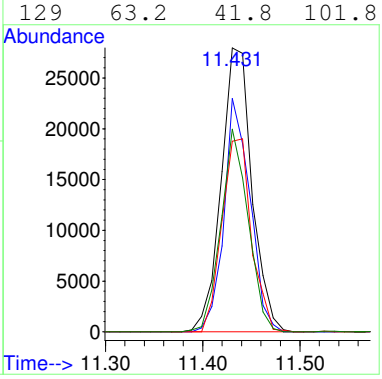


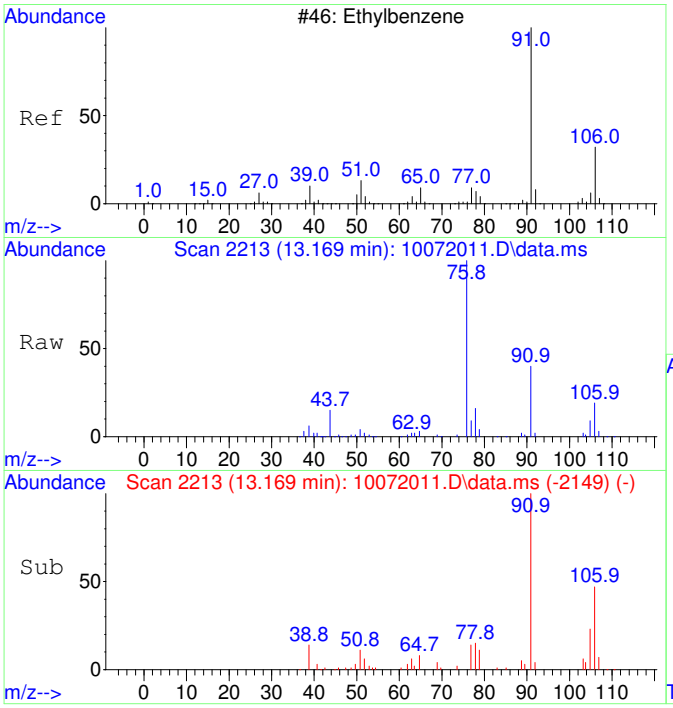



#39
Tetrachloroethene SCAN
Concen: 3509.68 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:166 Resp: 61436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 69.2 | 50.9 | 110.9 |
| 131 | 65.1 | 38.7 | 98.7 |
| 129 | 63.2 | 41.8 | 101.8 |

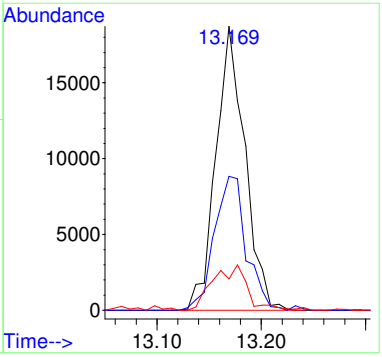


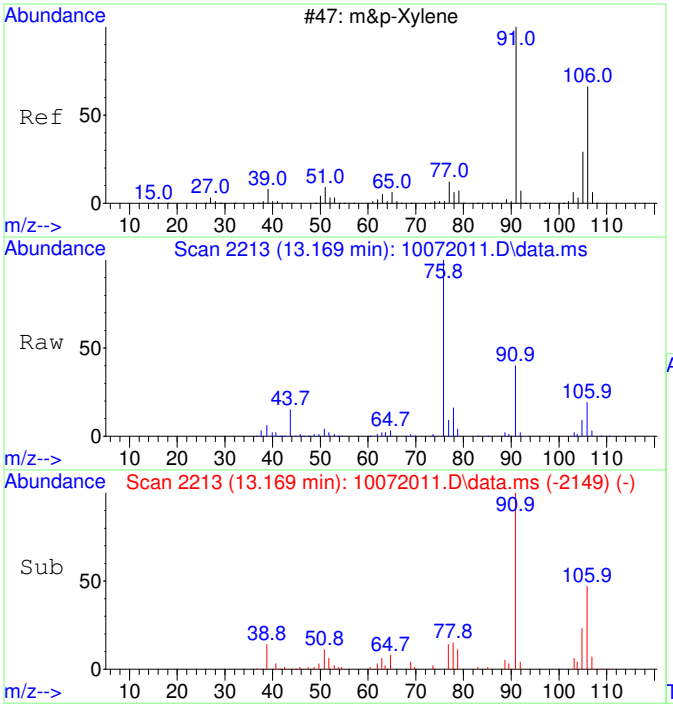




#42
Ethylbenzene SCAN
Concen: 273.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 36265

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 51.6 | 23.1 | 83.1 |
| 51 | 19.1 | 0.0 | 40.1 |

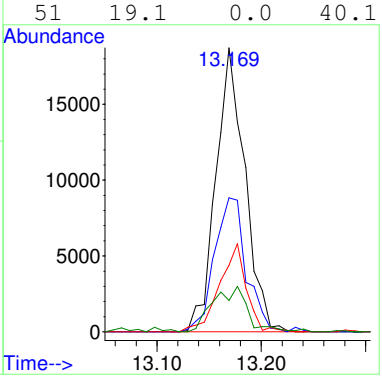


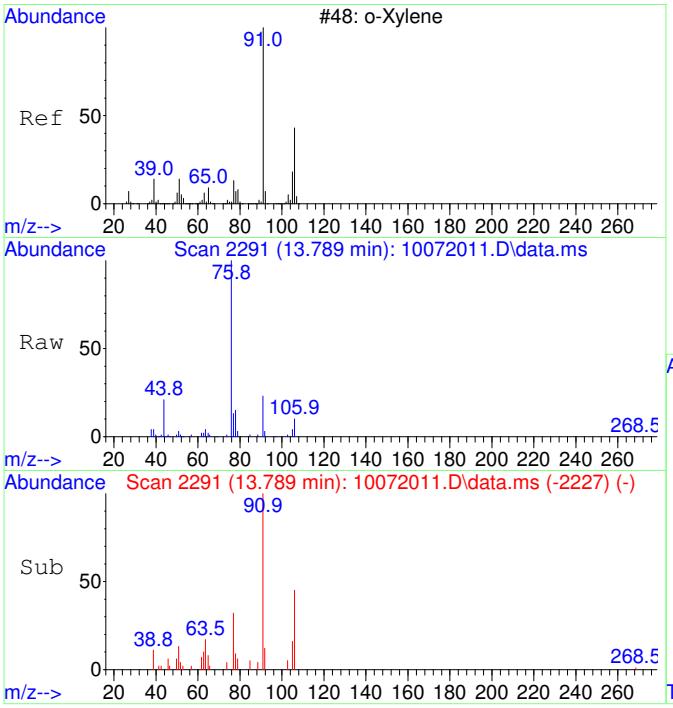



#43
m&p-Xylene SCAN
Concen: 273.20 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 36265

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 51.6 | 23.1 | 83.1 |
| 105 | 28.6 | 0.0 | 54.7 |
| 51 | 19.1 | 0.0 | 40.1 |

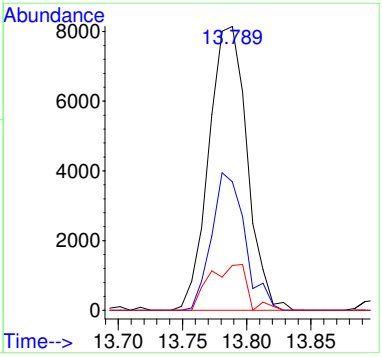


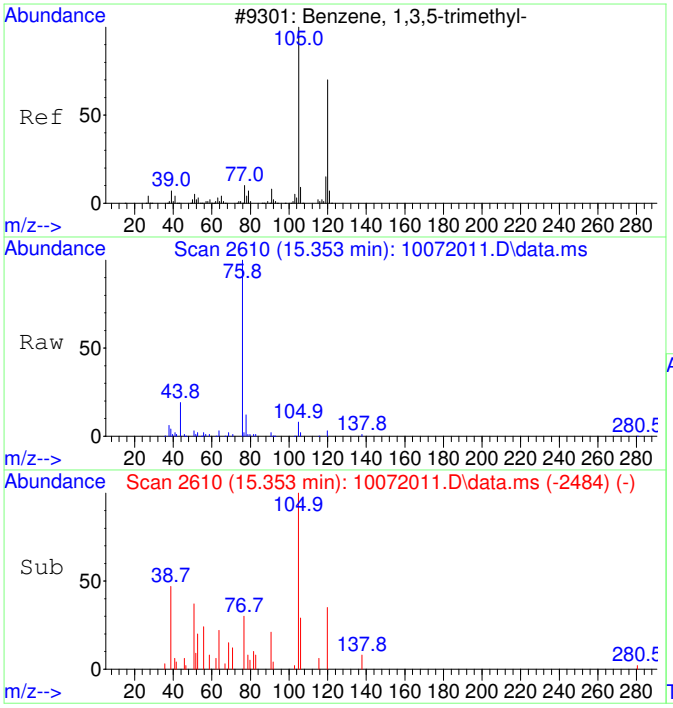




#44
o-Xylene SCAN
Concen: 237.51 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion: 91 Resp: 16876

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.2 | 18.0 | 78.0 |
| 105 | 16.1 | 0.0 | 56.6 |

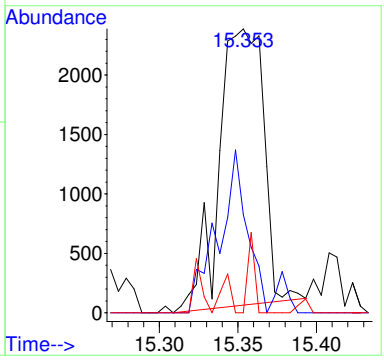


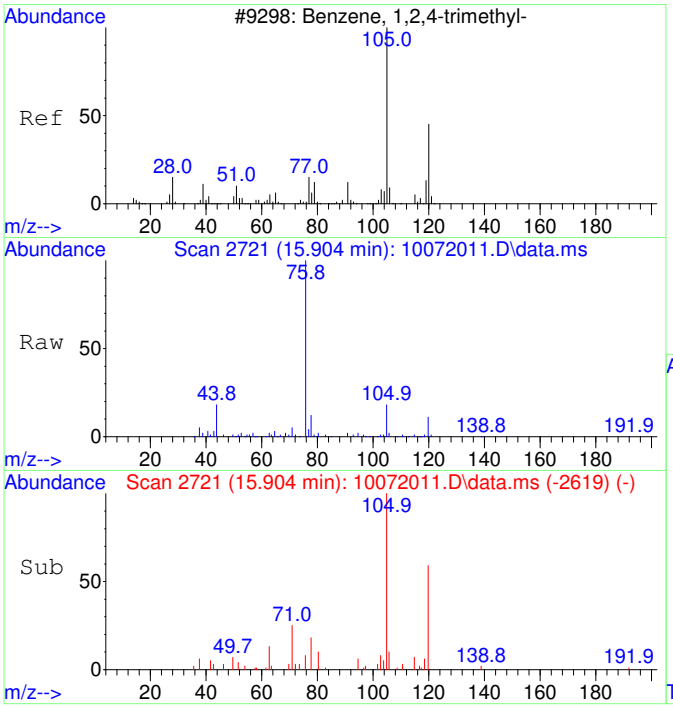



#46
1,3,5-Trimethylbenzene SCAN
Concen: 61.34 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.010 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:105 Resp: 4593

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 38.2 | 18.3 | 78.3 |
| 119 | 4.4 | 0.0 | 43.1 |

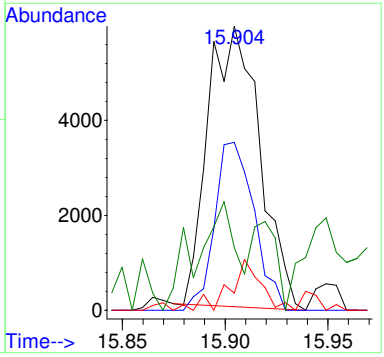



#47
1,2,4-Trimethylbenzene SCAN
Concen: 134.70 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10072011.D
Acq: 7 Oct 2020 12:16

Tgt Ion:105 Resp: 10321

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.7 | 16.9 | 76.9 |
| 119 | 11.1 | 0.0 | 41.9 |
| 77 | 11.1 | 0.0 | 42.3 |



# 2009037-04

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072012.D
Acq On : 7 Oct 2020 12:40
InstName : AG5975C
Operator : TD
Sample : 2009037-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

**REPORT**

Quant Time: Oct 07 12:59:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

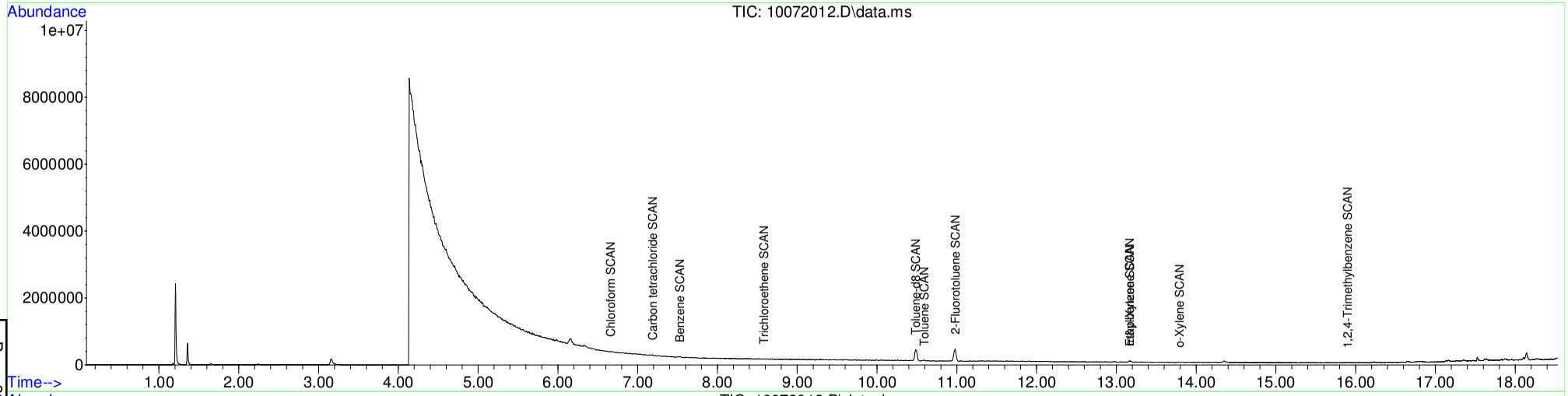
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.981 | 109 | 560012 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 487094 | 4443.14 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.86% | | | |
| Target Compounds | | | | | | Qvalue |
| 6] Chloroform | 6.664 | 83 | 3616 | 104.06 | ug/L | 99 |
| 8] Carbon tetrachloride | 7.187 | 117 | 2611 | 73.51 | ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 18104 | 190.27 | ug/L | 69 |
| 11] Trichloroethene | 8.580 | 130 | 1320 | 46.08 | ug/L | 82 |
| 13] Toluene | 10.582 | 91 | 35959 | 257.28 | ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 18973 | 111.52 | ug/L | 96 |
| 19] m&p-Xylene | 13.163 | 91 | 49121 | 369.43 | ug/L | 94 |
| 20] o-Xylene | 13.782 | 91 | 14672 | 103.28 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 9773 | 62.23 | ug/L | 85 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 280761 | 5143.01 | ug/L | 98 |
| 30) Chloroform SCAN | 6.662 | 83 | 1920 | 99.51 | ug/L | 88 |
| 32) Carbon tetrachloride SCAN | 7.186 | 117 | 837 | 45.64 | ug/L # | 72 |
| 33) Benzene SCAN | 7.526 | 78 | 18140 | 374.71 | ug/L | 99 |
| 35) Trichloroethene SCAN | 8.584 | 130 | 516 | 38.79 | ug/L # | 76 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 252377 | 4727.21 | ug/L | 97 |
| 37) Toluene SCAN | 10.591 | 91 | 19391 | 283.61 | ug/L | 94 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 28515 | 228.92 | ug/L | 86 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 28515 | 228.92 | ug/L | 89 |
| 44) o-Xylene SCAN | 13.789 | 91 | 8566 | 128.48 | ug/L | 88 |
| 47) 1,2,4-Trimethylbenzene... | 15.895 | 105 | 4495 | 62.52 | ug/L # | 47 |

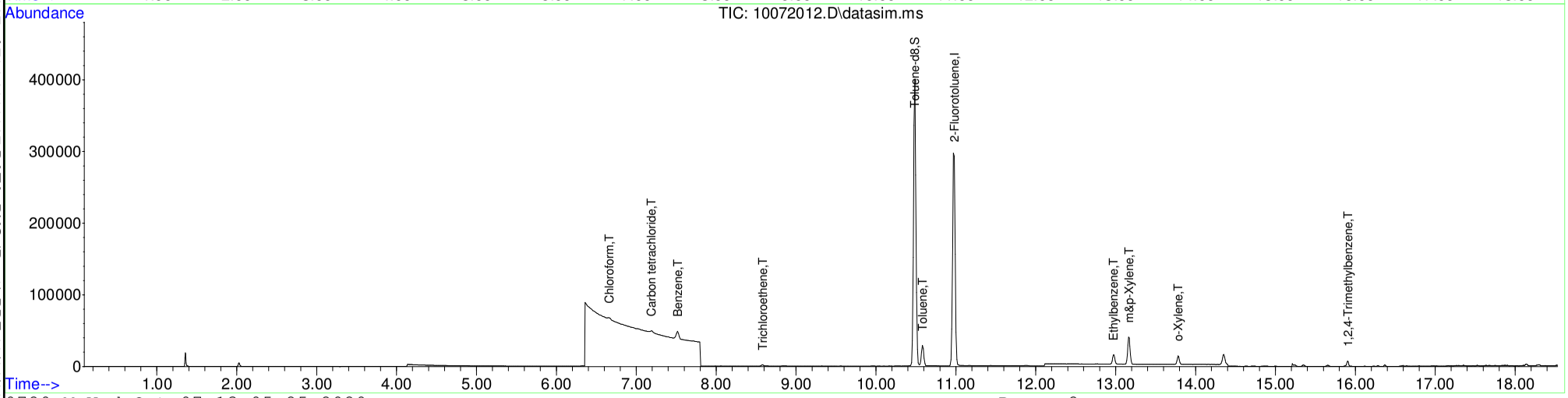
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072012.D
Acq On : 7 Oct 2020 12:40
InstName : AG5975C
Operator : TD
Sample : 2009037-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 07 12:59:30 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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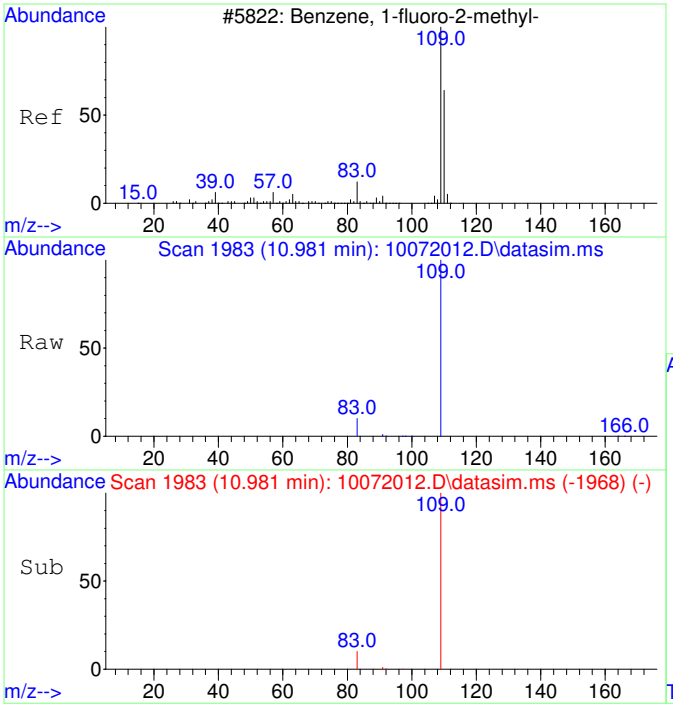
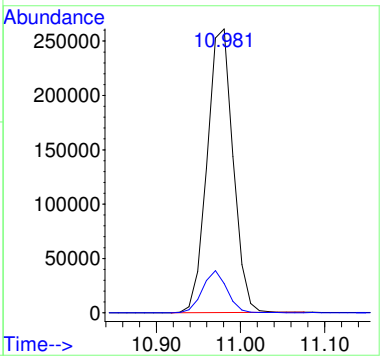
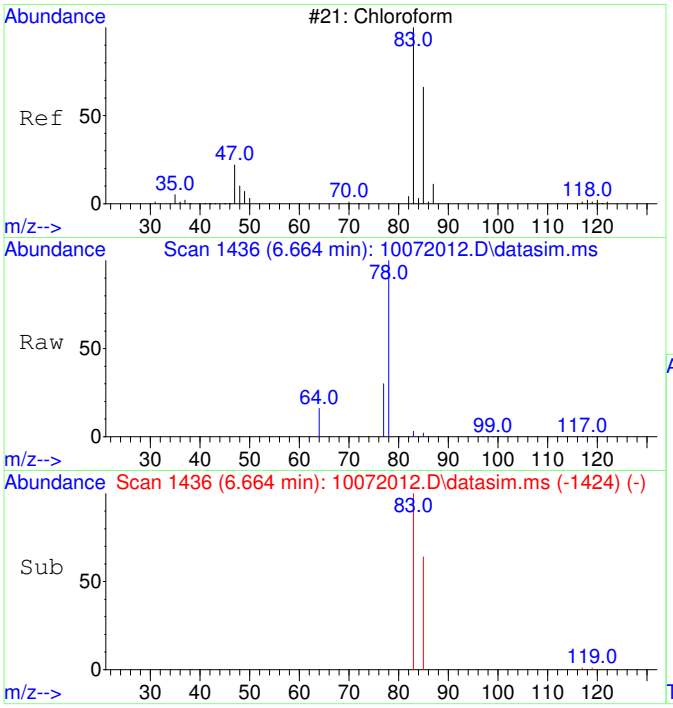



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.981 min Scan# 1983
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:109 Resp: 560012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

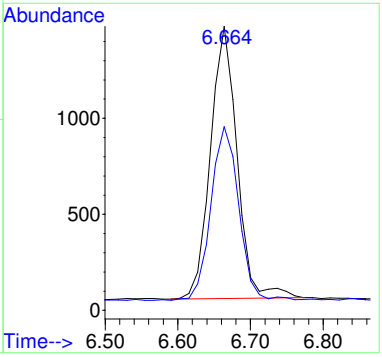


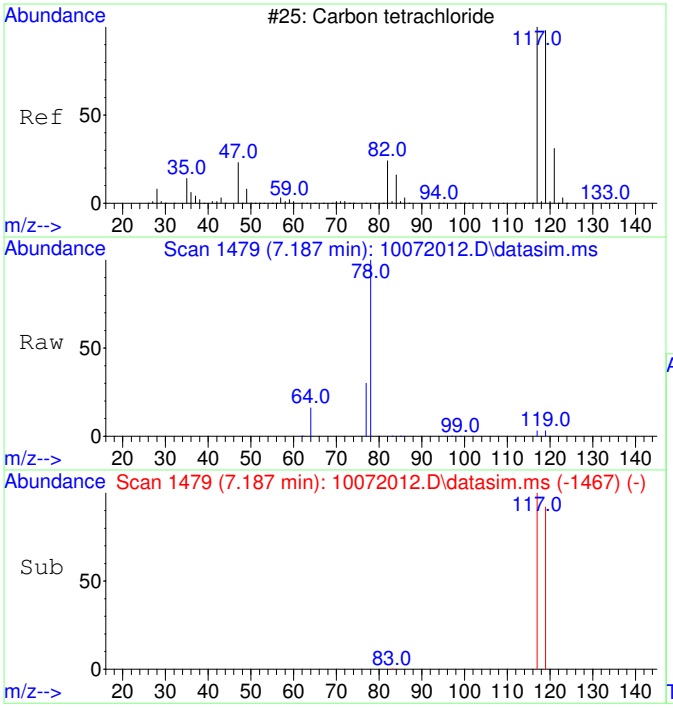




#6
Chloroform
Concen: 104.06 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 83 Resp: 3616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.8 | 35.1 | 95.1 |

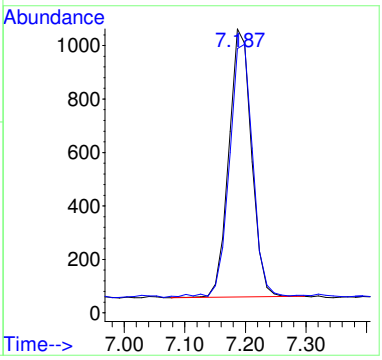


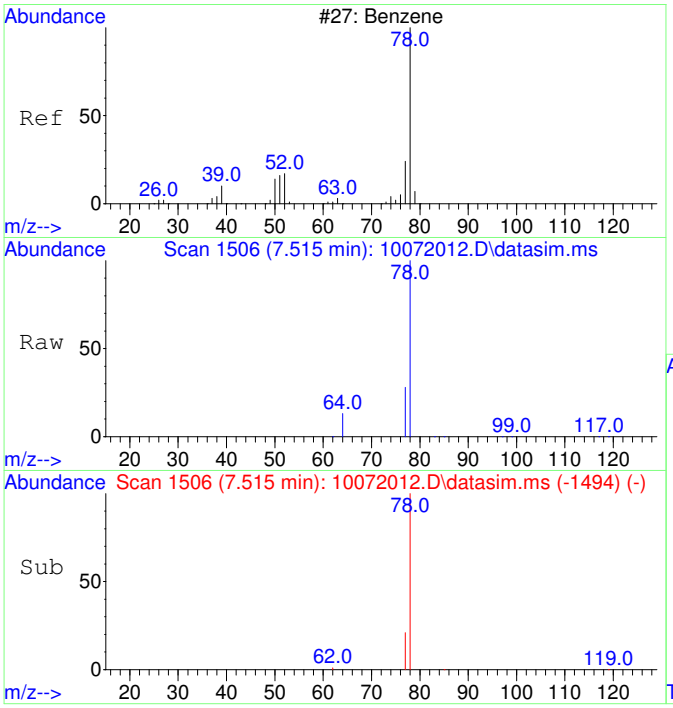



#8
Carbon tetrachloride
Concen: 73.51 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:117 Resp: 2611

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 95.2 | 66.4 | 126.4 |

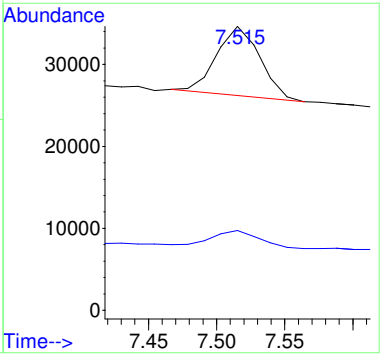


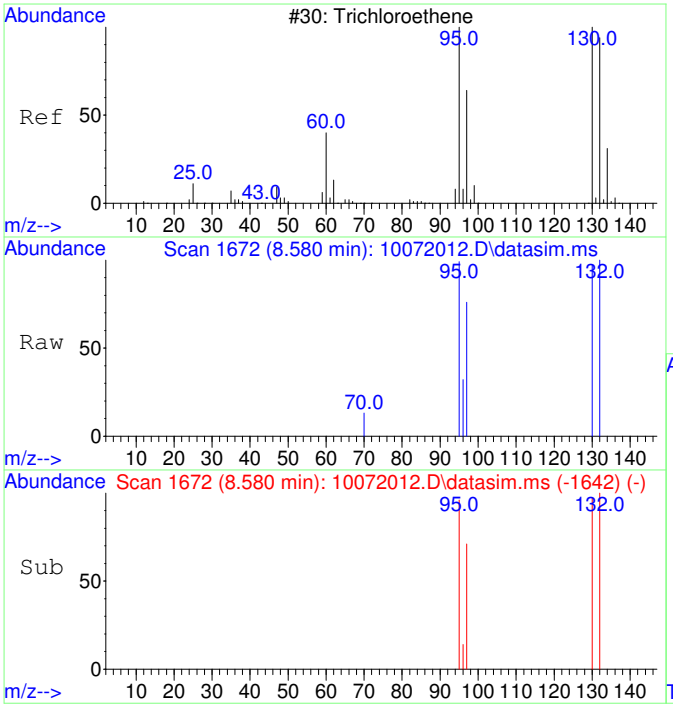




#9
Benzene
Concen: 190.27 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 78 Resp: 18104

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 38.1 | 0.0 | 53.2 |

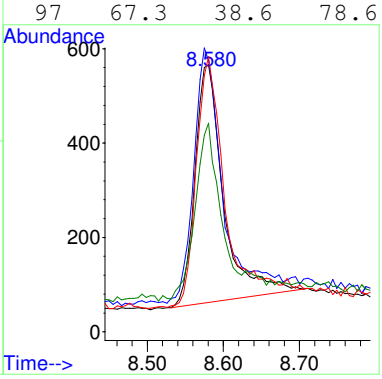


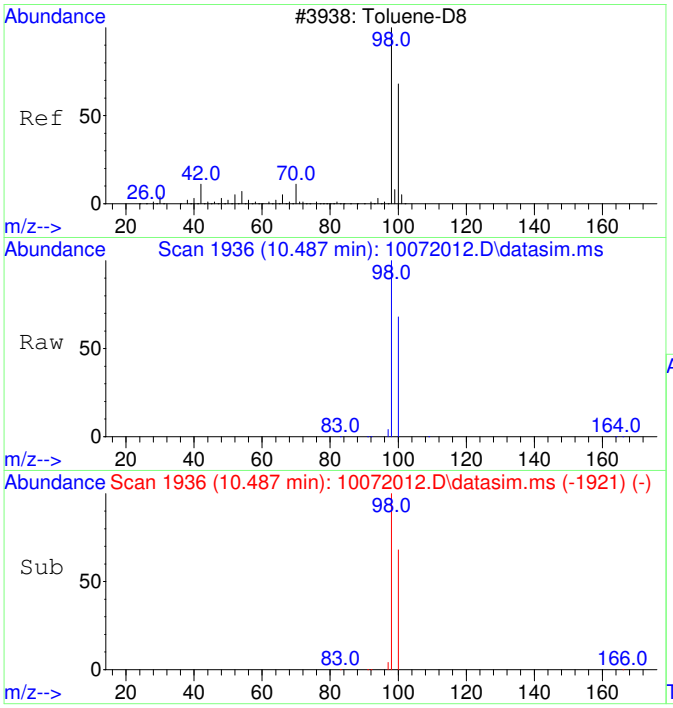



#11
Trichloroethene
Concen: 46.08 ug/L
RT: 8.580 min Scan# 1672
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:130 Resp: 1320

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 114.1 | 60.7 | 120.7 |
| 132 | 111.2 | 76.0 | 116.0 |
| 97 | 67.3 | 38.6 | 78.6 |

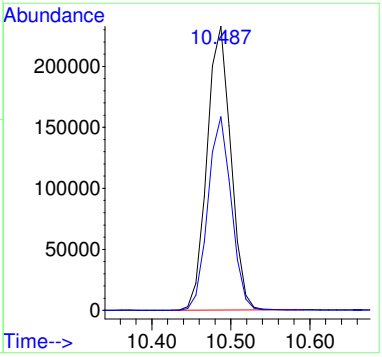


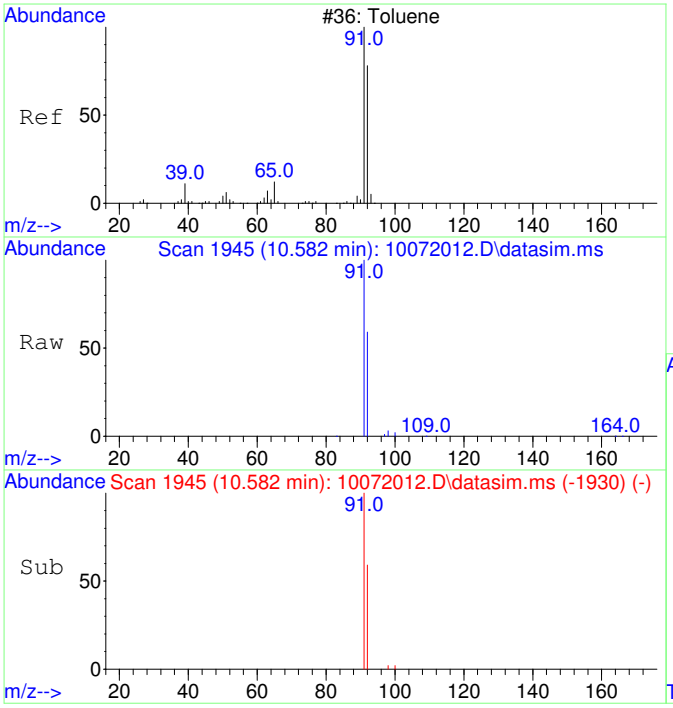




#12
Toluene-d8
Concen: 4443.14 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 98 Resp: 487094

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.0 | 37.1 | 97.1 |

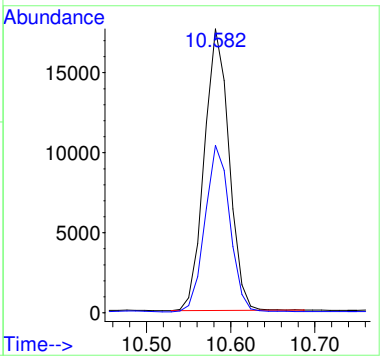


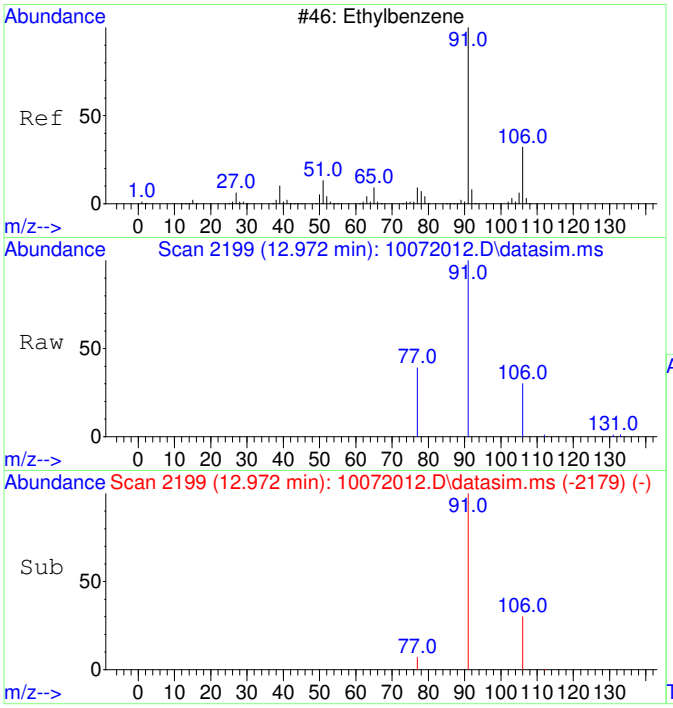



#13
Toluene
Concen: 257.28 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 35959

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.1 | 29.9 | 89.9 |

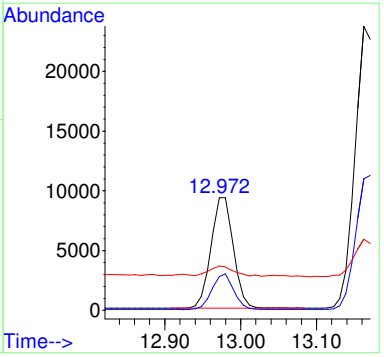


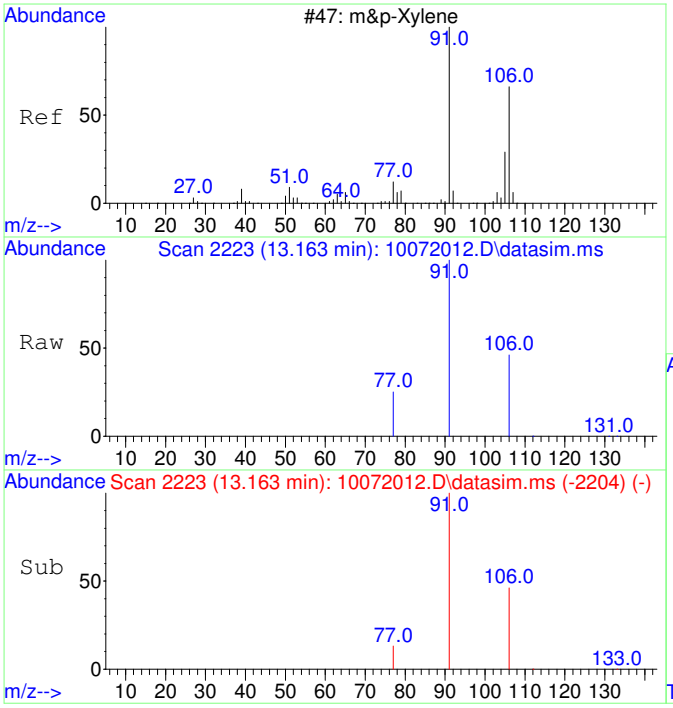




#18
Ethylbenzene
Concen: 111.52 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 18973

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 10.1 | 0.0 | 38.2 |

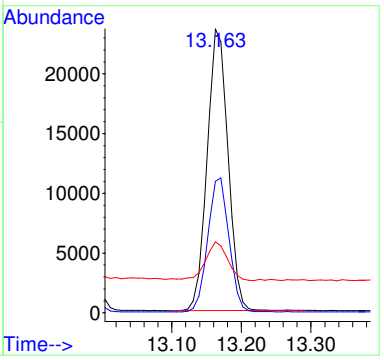


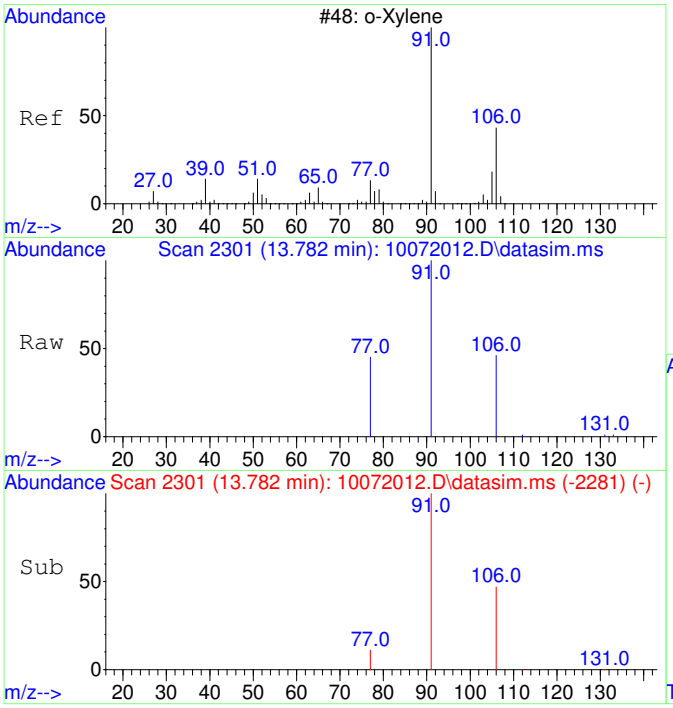



#19
m&p-Xylene
Concen: 369.43 ug/L
RT: 13.163 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 49121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 14.8 | 0.0 | 42.4 |

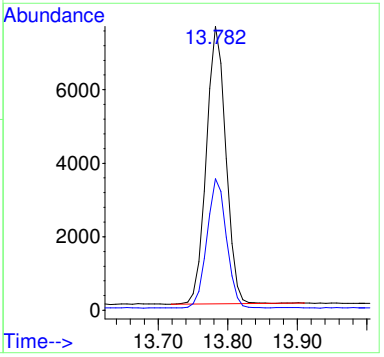


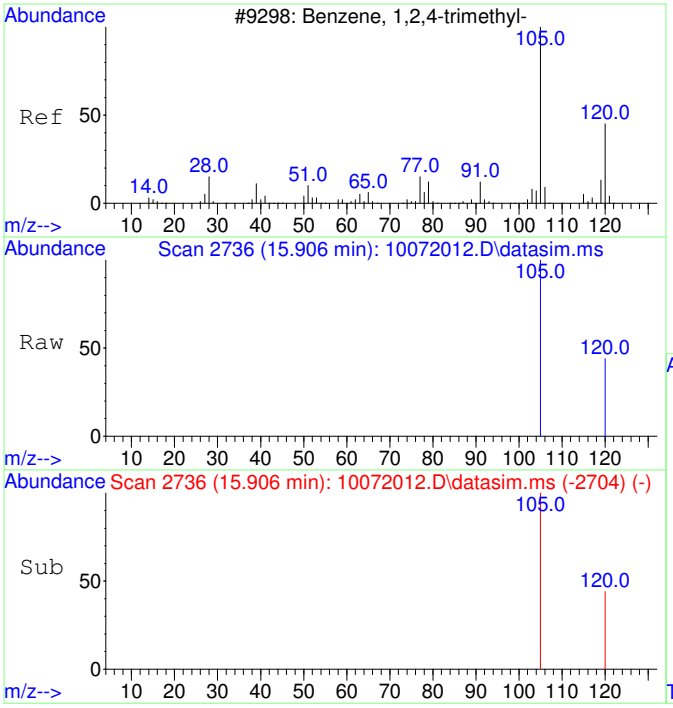




#20
o-Xylene
Concen: 103.28 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 14672

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.7 | 19.2 | 79.2 |

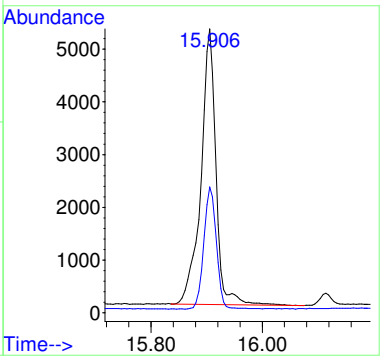


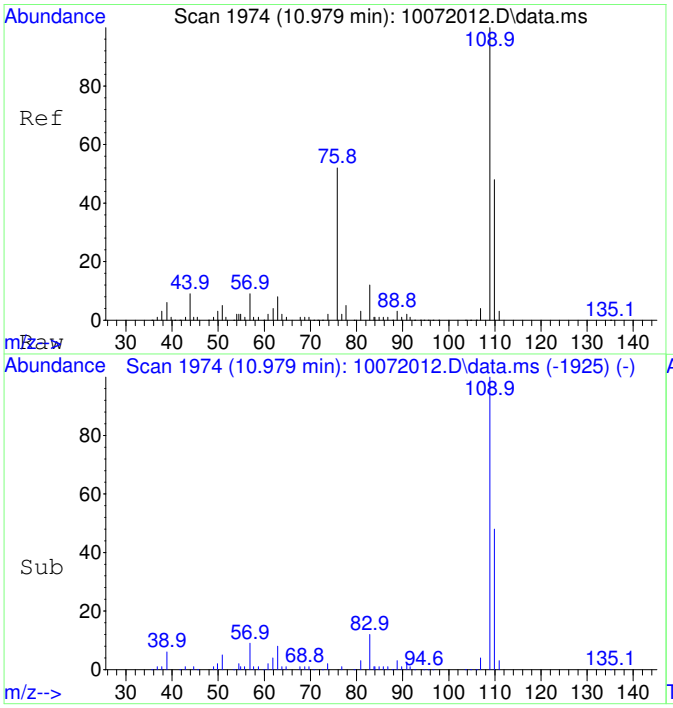



#23
1,2,4-Trimethylbenzene
Concen: 62.23 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:105 Resp: 9773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.0 | 17.2 | 77.2 |

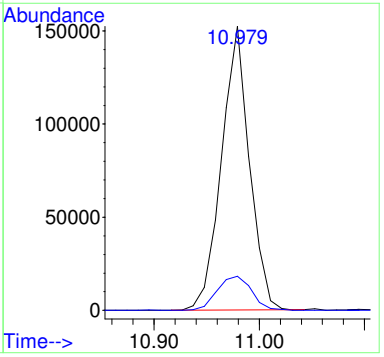


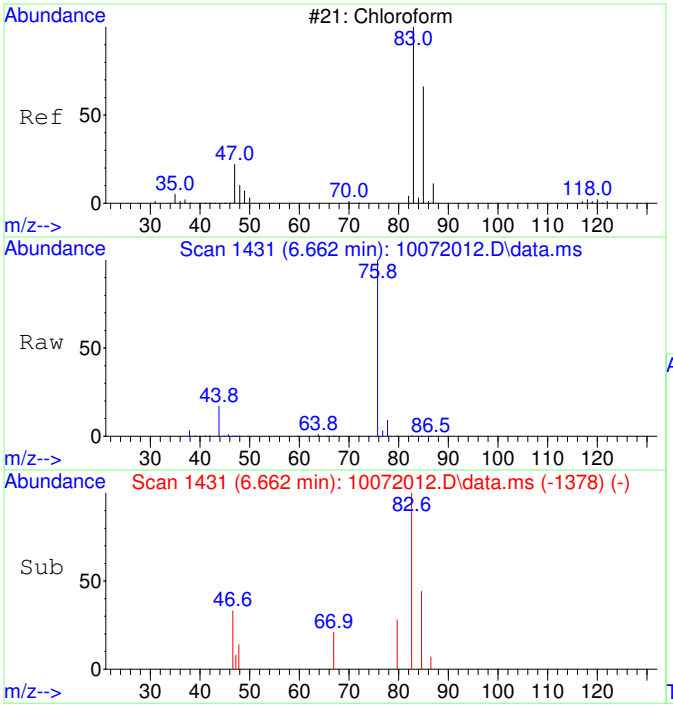




#25
2-Fluorotoluene SCAN
Concen: 5143.01 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:109 Resp: 280761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.8 | 0.0 | 43.8 |

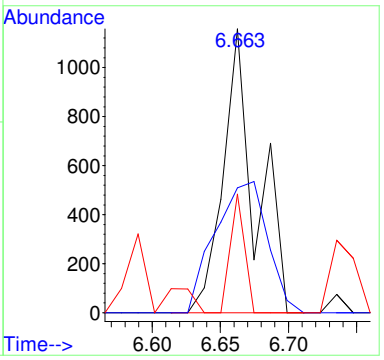


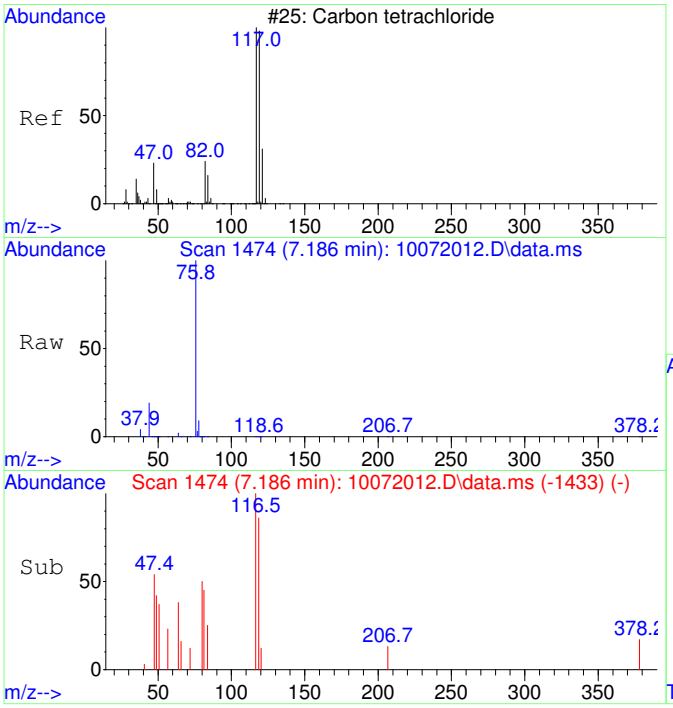



#30
Chloroform SCAN
Concen: 99.51 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 83 Resp: 1920

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 74.8 | 34.6 | 94.6 |
| 47 | 18.4 | 0.0 | 53.4 |

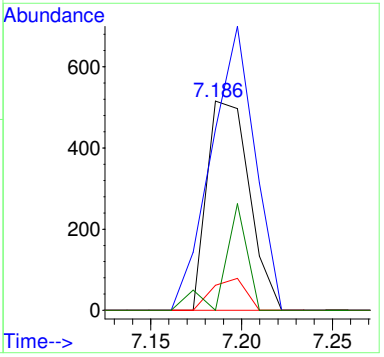


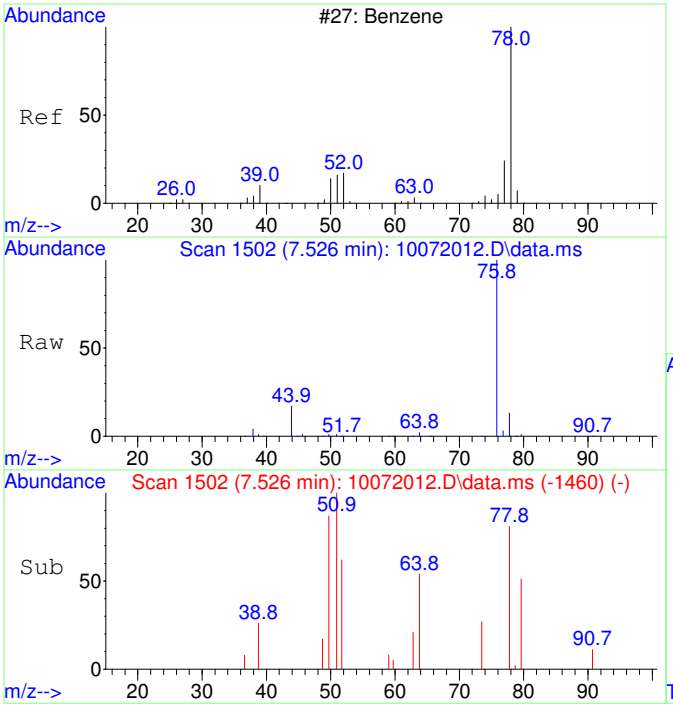




#32
Carbon tetrachloride SCAN
Concen: 45.64 ug/L
RT: 7.186 min Scan# 1474
Delta R.T. 0.000 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:117 Resp: 837

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 139.8 | 75.5 | 135.5# |
| 121 | 12.3 | 0.0 | 58.8 |
| 82 | 27.2 | 0.0 | 59.2 |

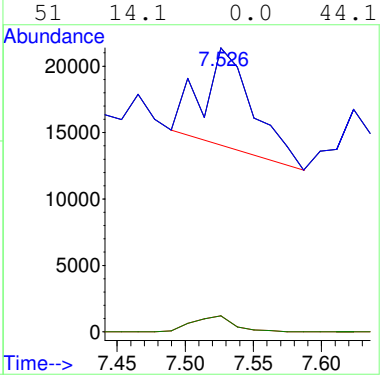


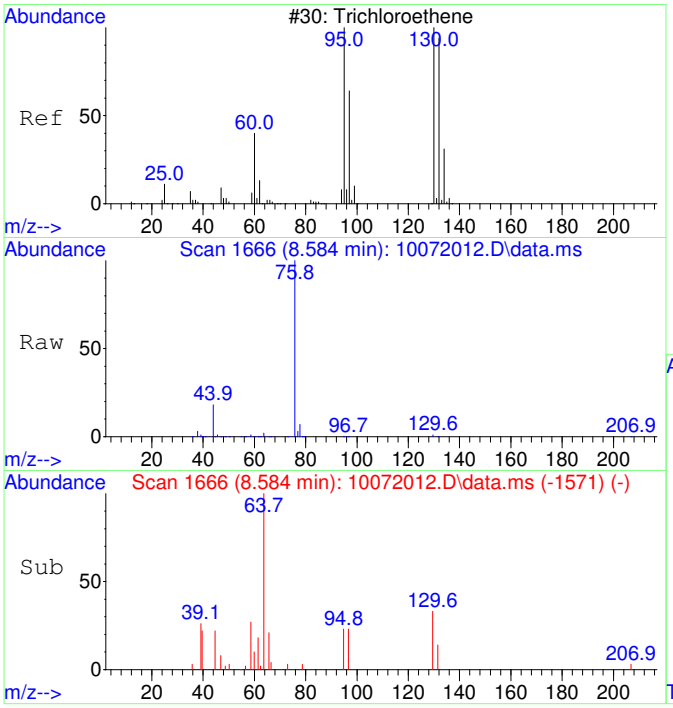



#33
Benzene SCAN
Concen: 374.71 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. 0.012 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 78 Resp: 18140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 14.1 | 0.0 | 47.9 |
| 51 | 14.1 | 0.0 | 44.1 |

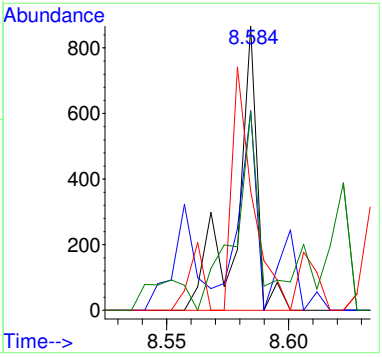


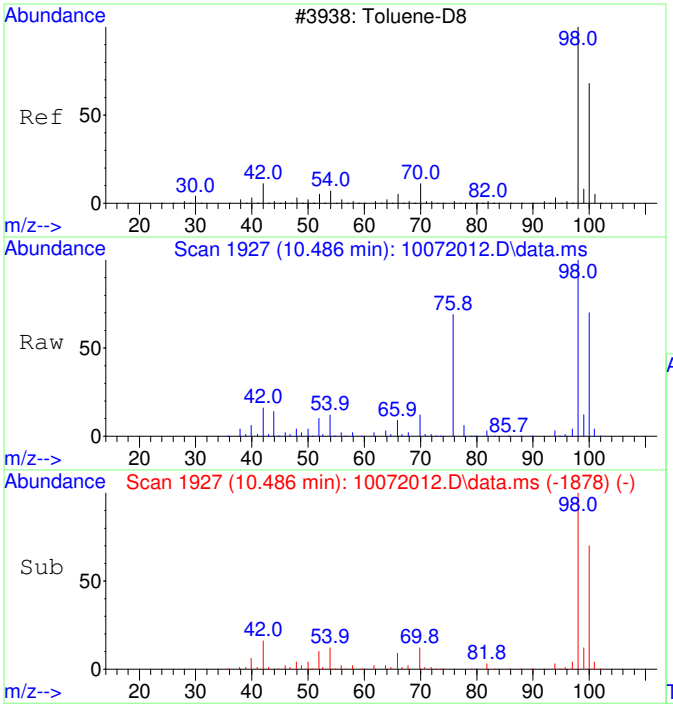




#35
Trichloroethene SCAN
Concen: 38.79 ug/L
RT: 8.584 min Scan# 1666
Delta R.T. 0.016 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:130 Resp: 516

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 51.2 | 60.5 | 120.5# |
| 132 | 102.5 | 59.6 | 119.6 |
| 97 | 68.2 | 28.2 | 88.2 |

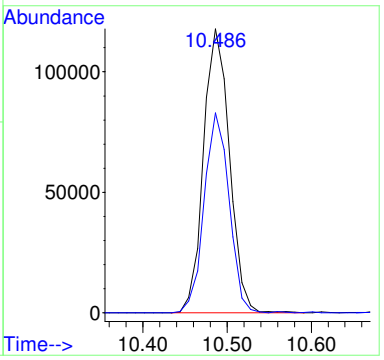


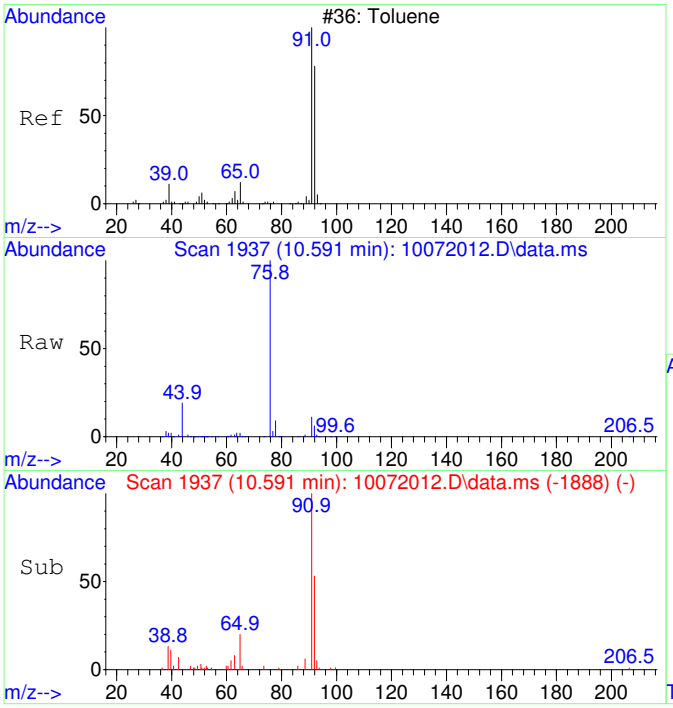



#36
Toluene-d8 SCAN
Concen: 4727.21 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 98 Resp: 252377

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.5 | 40.0 | 100.0 |

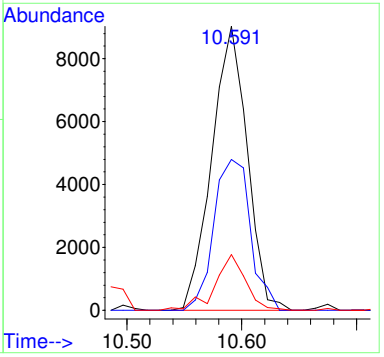


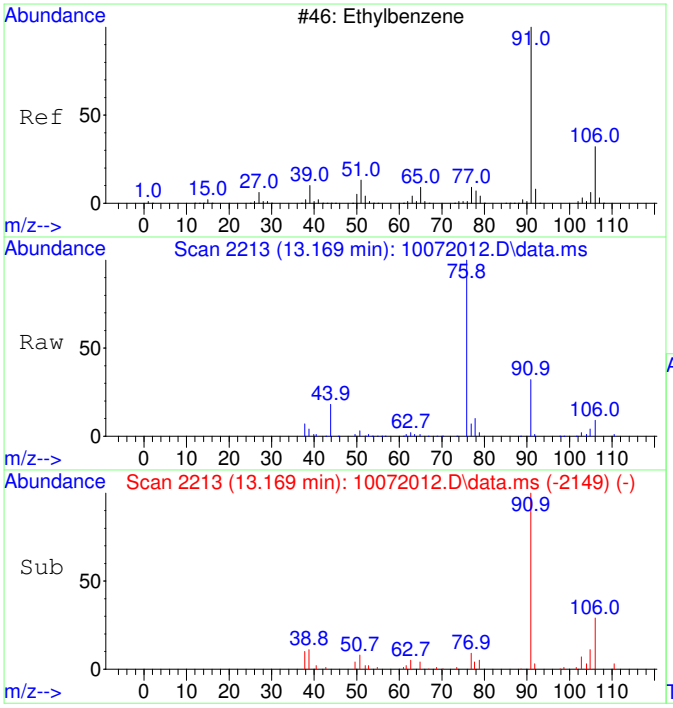




#37
Toluene SCAN
Concen: 283.61 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 19391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 54.9 | 28.3 | 88.3 |
| 65 | 16.9 | 0.0 | 41.0 |

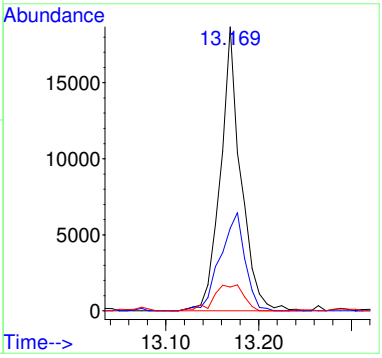


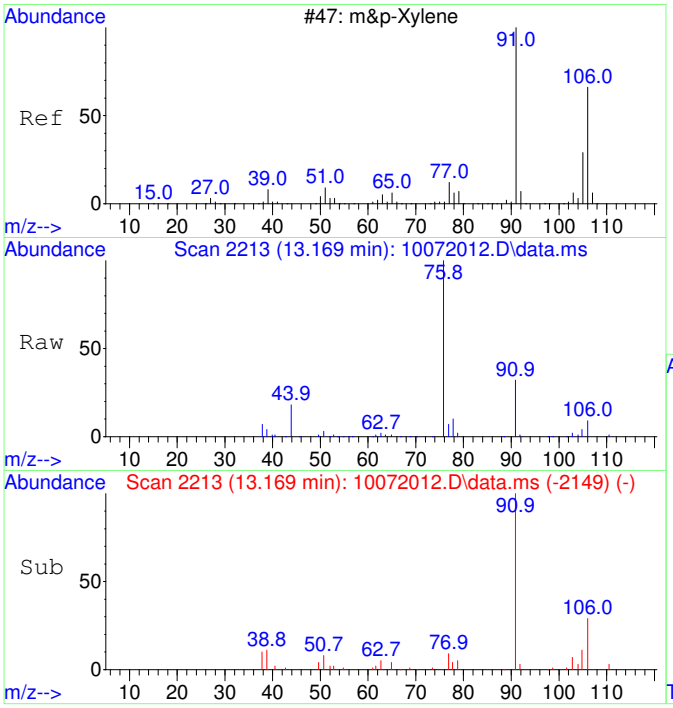



#42
Ethylbenzene SCAN
Concen: 228.92 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 28515

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.2 | 23.1 | 83.1 |
| 51 | 13.5 | 0.0 | 40.1 |

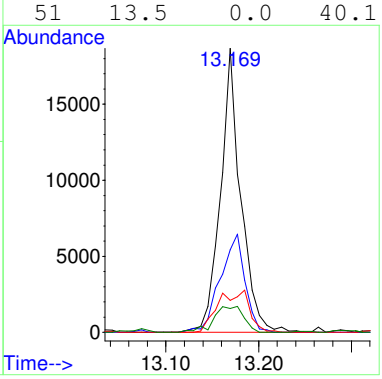


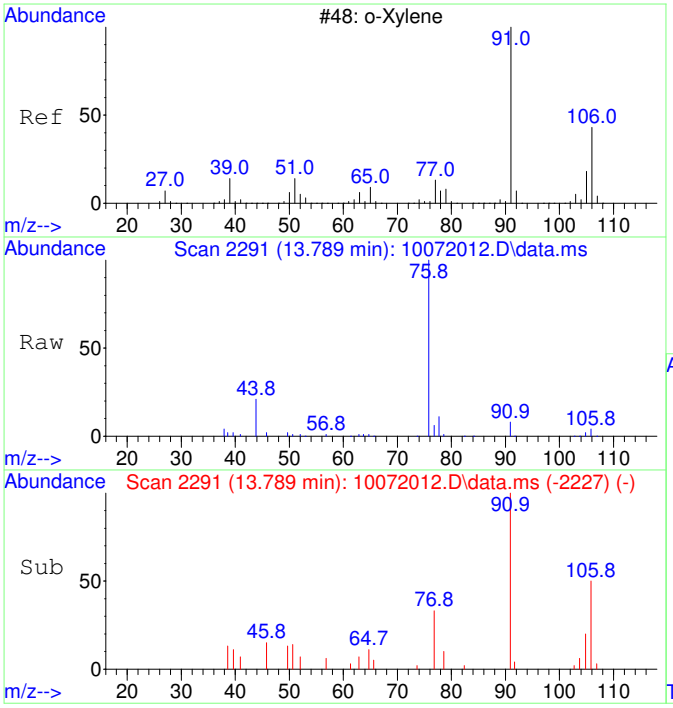




#43
m&p-Xylene SCAN
Concen: 228.92 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 28515

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.2 | 23.1 | 83.1 |
| 105 | 22.9 | 0.0 | 54.7 |
| 51 | 13.5 | 0.0 | 40.1 |

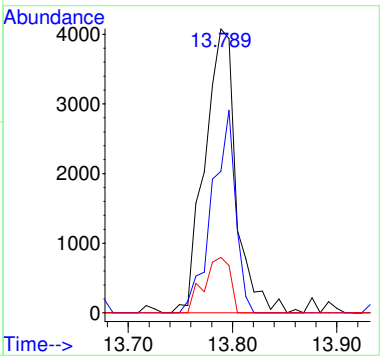


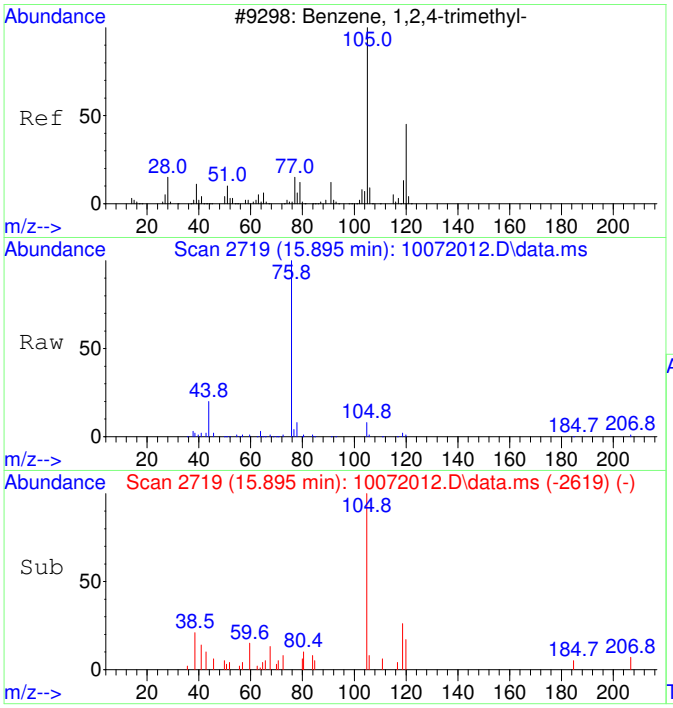



#44
o-Xylene SCAN
Concen: 128.48 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion: 91 Resp: 8566

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 53.2 | 18.0 | 78.0 |
| 105 | 16.3 | 0.0 | 56.6 |

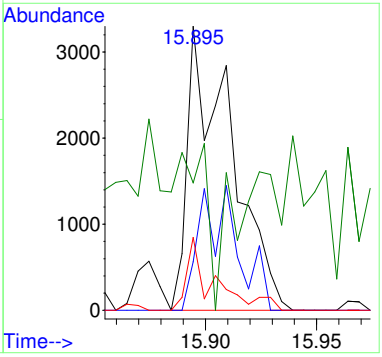



#47
1,2,4-Trimethylbenzene SCAN
Concen: 62.52 ug/L
RT: 15.895 min Scan# 2719
Delta R.T. -0.005 min
Lab File: 10072012.D
Acq: 7 Oct 2020 12:40

Tgt Ion:105 Resp: 4495

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 0.0 | 16.9 | 76.9# |
| 119 | 15.4 | 0.0 | 41.9 |
| 77 | 0.0 | 0.0 | 42.3 |



# 2009037-05

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072013.D
Acq On : 7 Oct 2020 13:04
InstName : AG5975C
Operator : TD
Sample : 2009037-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 07 13:23:08 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

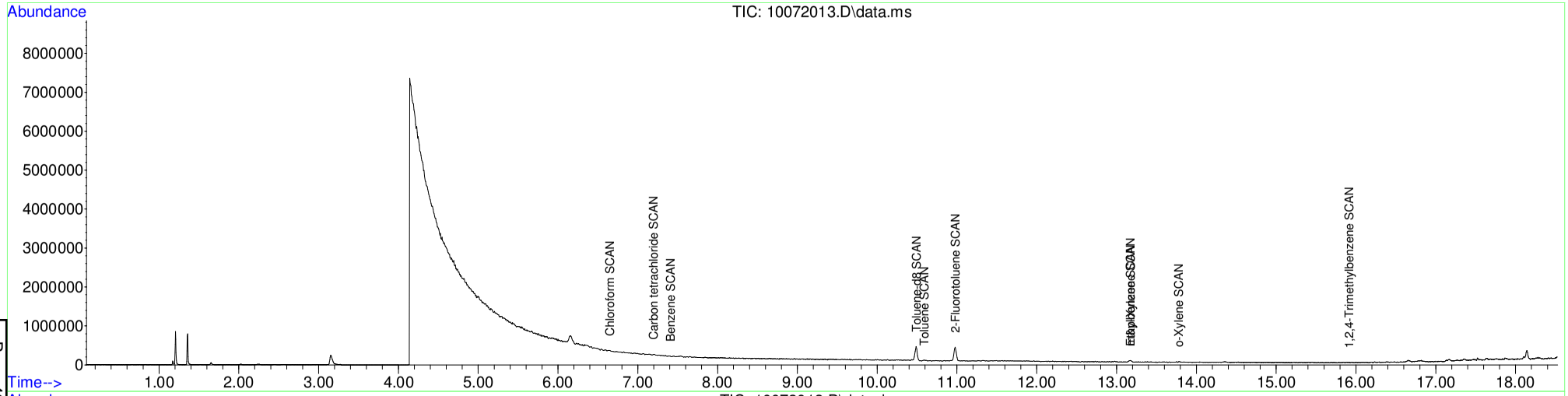
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.981 | 109 | 554104 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 481593 | 4439.80 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.80% | | | |
| Target Compounds | | | | | | Qvalue |
| 6] Chloroform | 6.664 | 83 | 1777 | 51.69 | ug/L | 100 |
| 8] Carbon tetrachloride | 7.187 | 117 | 2833 | 80.61 | ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 17503 | 185.91 | ug/L | 64 |
| 13] Toluene | 10.582 | 91 | 25137 | 181.77 | ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 17336 | 102.99 | ug/L | 96 |
| 19] m&p-Xylene | 13.162 | 91 | 49859 | 378.98 | ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 15375 | 109.39 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7787 | 50.11 | ug/L | 85 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 287786 | 5327.90 | ug/L | 99 |
| 30) Chloroform SCAN | 6.650 | 83 | 1116 | 58.46 | ug/L # | 74 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 1547 | 85.25 | ug/L # | 68 |
| 33) Benzene SCAN | 7.404 | 78 | 18087 | 377.60 | ug/L | 91 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 260711 | 4935.38 | ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 12327 | 182.22 | ug/L | 95 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 25620 | 207.88 | ug/L | 94 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 25620 | 207.88 | ug/L | 95 |
| 44) o-Xylene SCAN | 13.781 | 91 | 8981 | 136.14 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 4536 | 63.76 | ug/L | 88 |

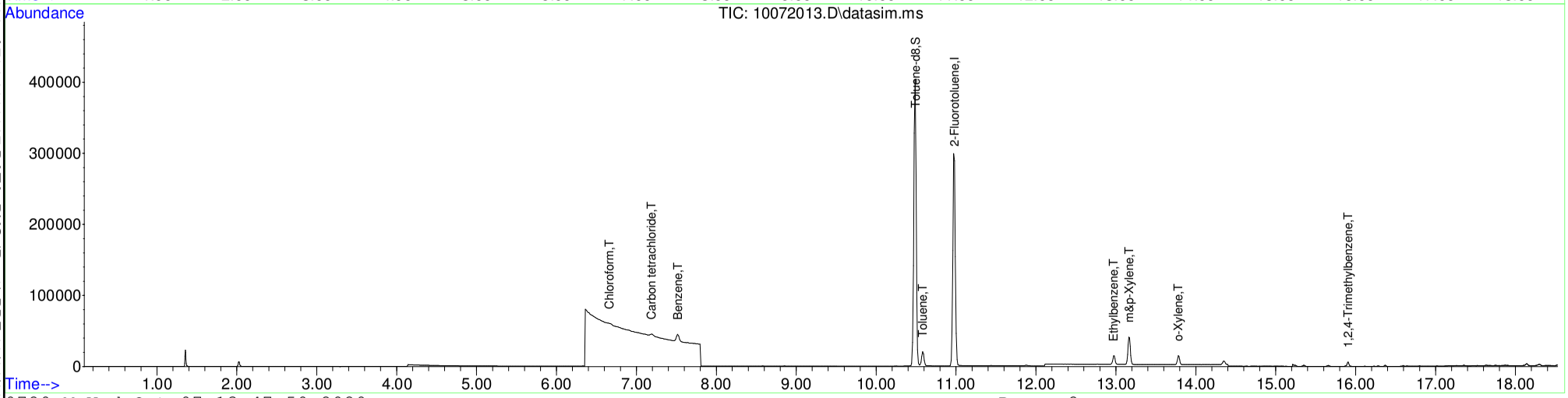
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072013.D
Acq On : 7 Oct 2020 13:04
InstName : AG5975C
Operator : TD
Sample : 2009037-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 07 13:23:08 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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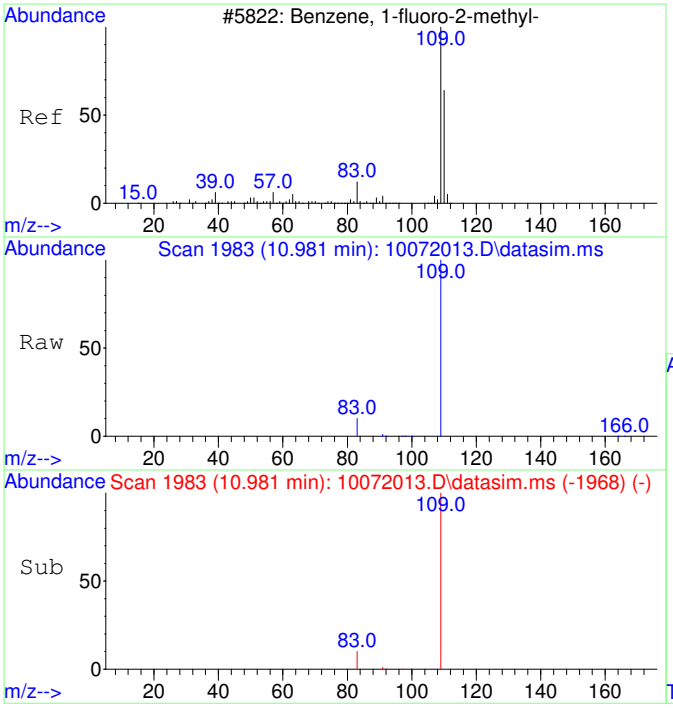
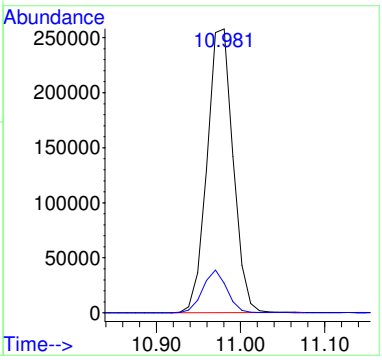
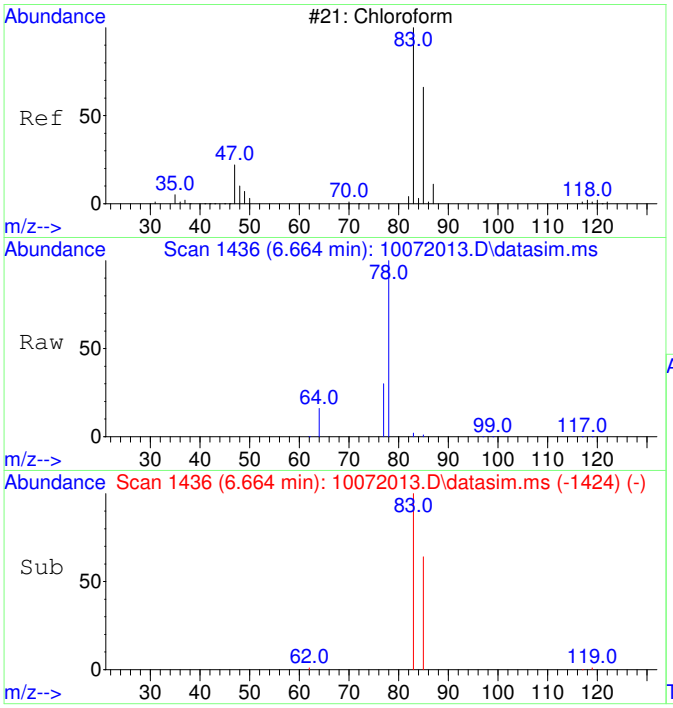



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.981 min Scan# 1983
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion:109 Resp: 554104

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

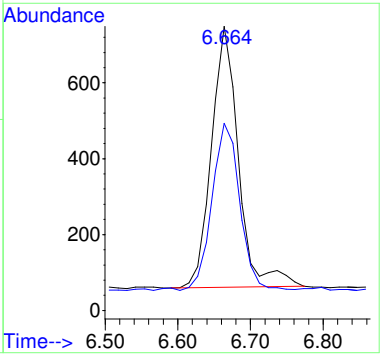


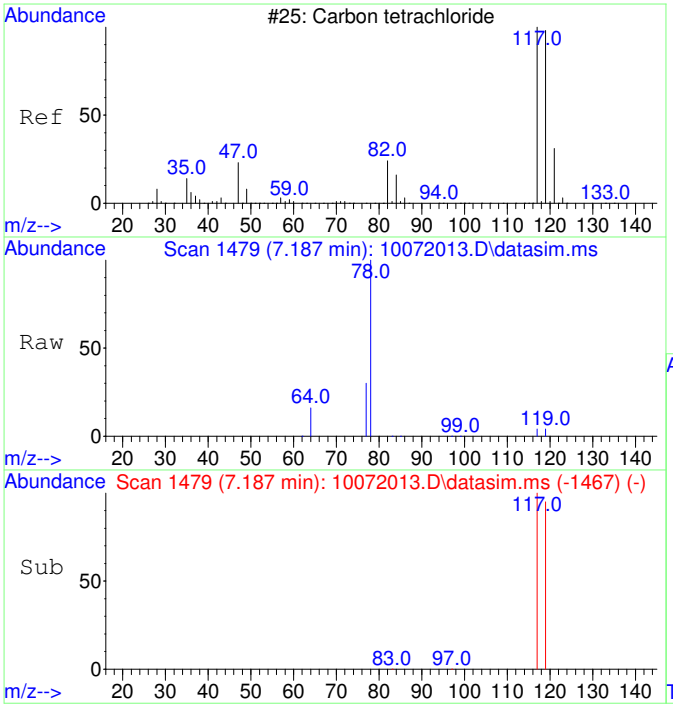




#6
Chloroform
Concen: 51.69 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 83 Resp: 1777

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.3 | 35.1 | 95.1 |

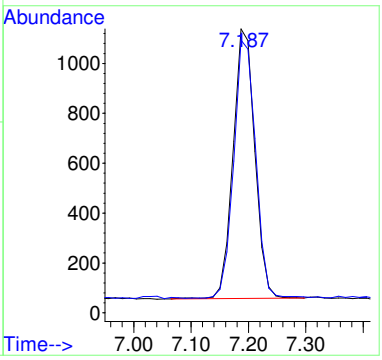


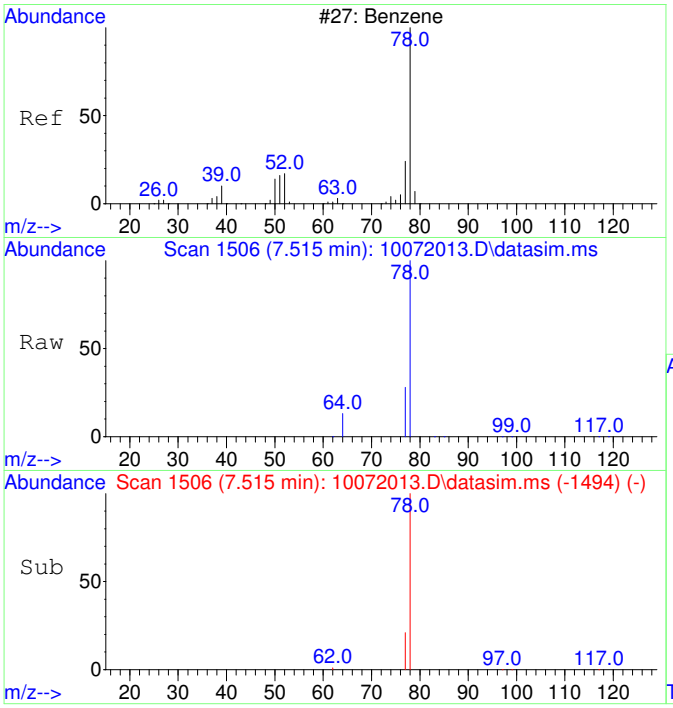



#8
Carbon tetrachloride
Concen: 80.61 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion:117 Resp: 2833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 95.8 | 66.4 | 126.4 |

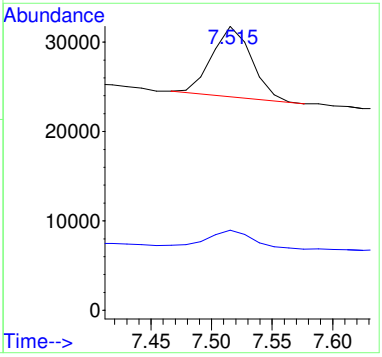


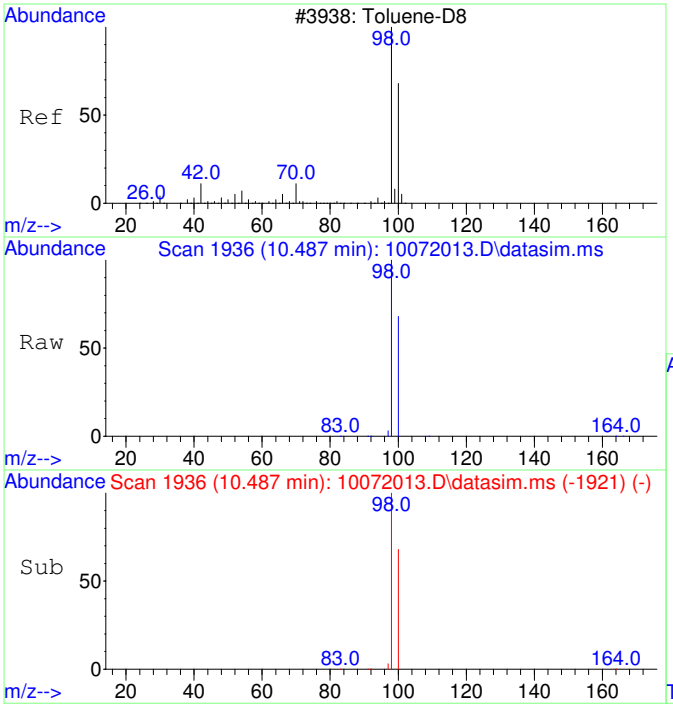




#9
Benzene
Concen: 185.91 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 78 Resp: 17503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 40.7 | 0.0 | 53.2 |

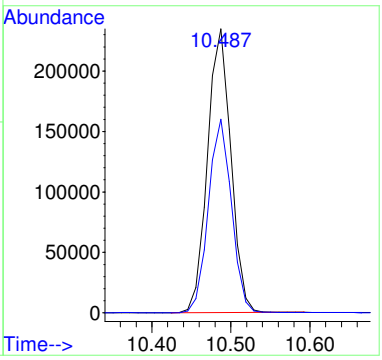


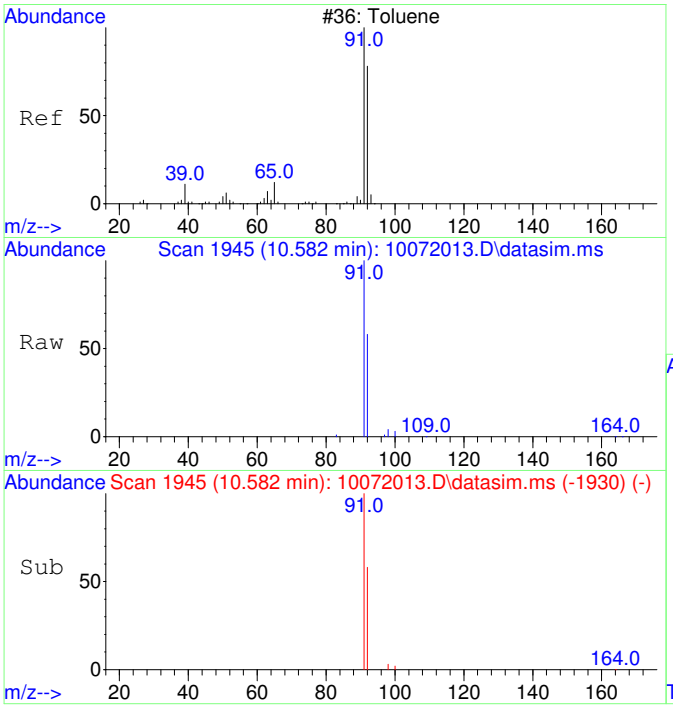



#12
Toluene-d8
Concen: 4439.80 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 98 Resp: 481593

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.1 | 37.1 | 97.1 |

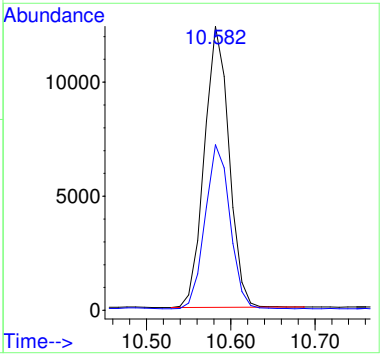


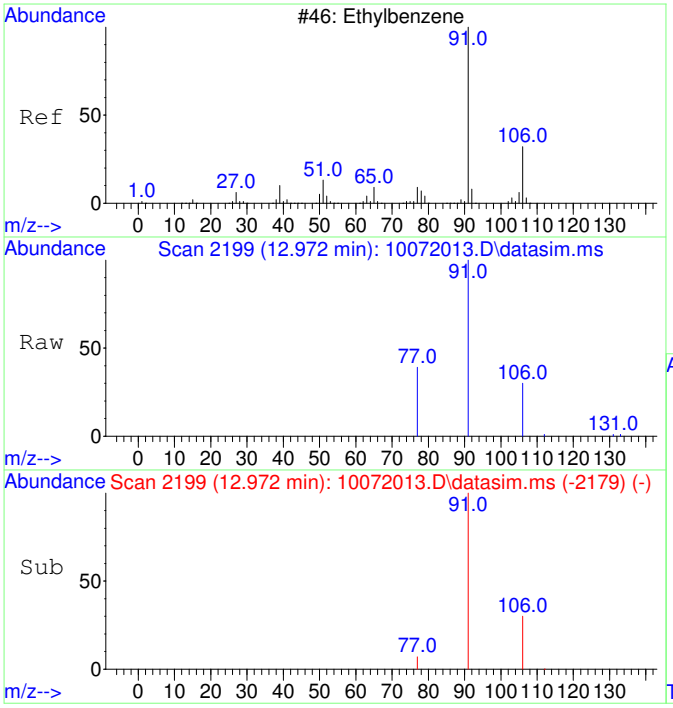




#13
Toluene
Concen: 181.77 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 25137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.8 | 29.9 | 89.9 |

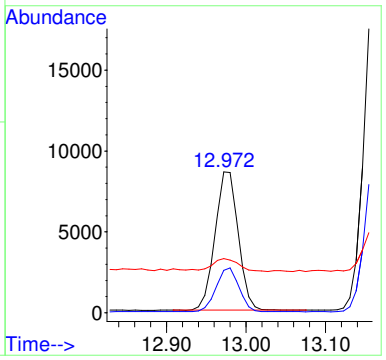


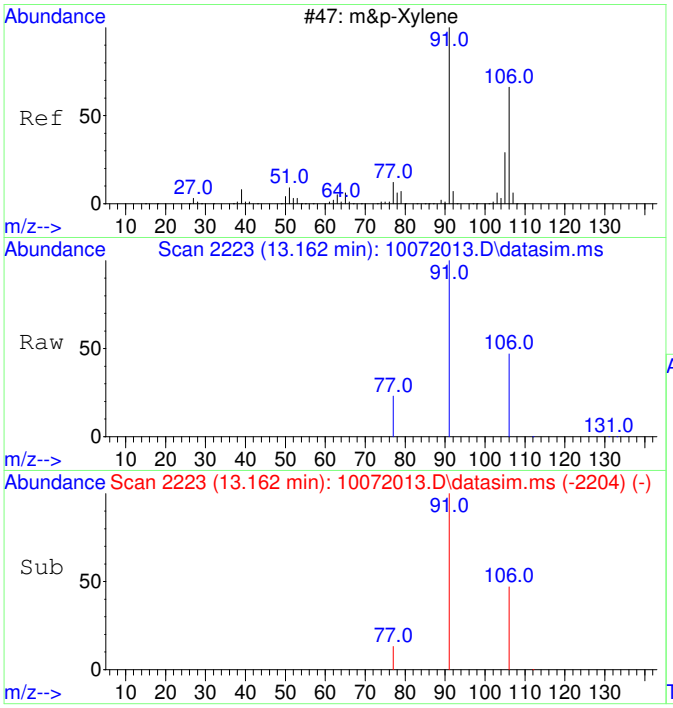



#18
Ethylbenzene
Concen: 102.99 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 17336

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 10.8 | 0.0 | 38.2 |

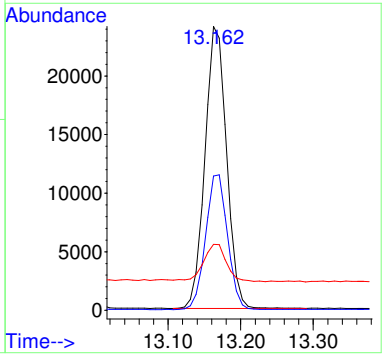


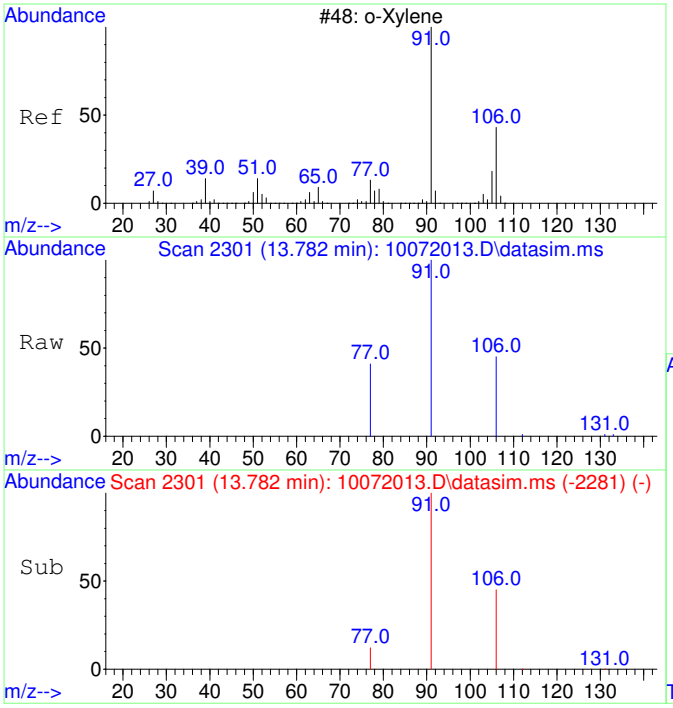




#19
m&p-Xylene
Concen: 378.98 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 49859

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.4 | 22.2 | 82.2 |
| 77 | 14.2 | 0.0 | 42.4 |

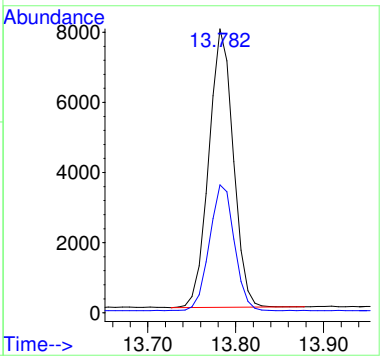


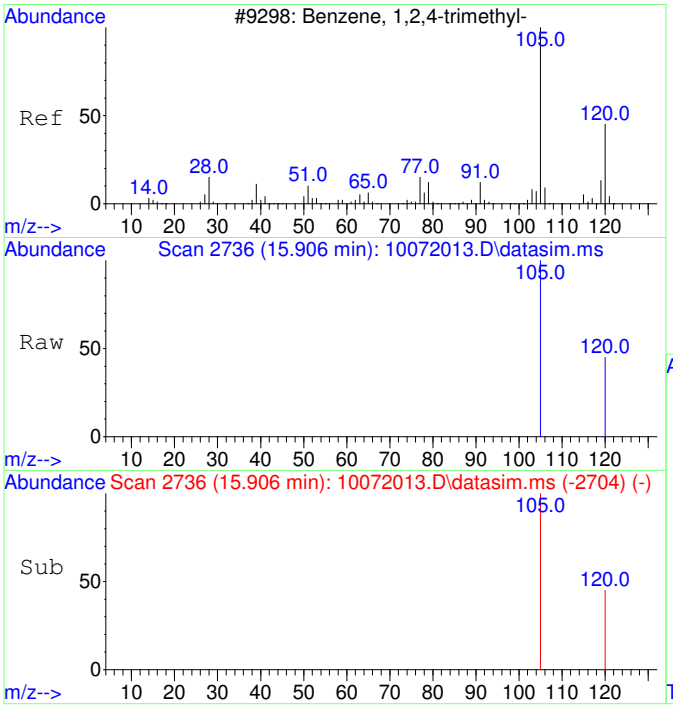



#20
o-Xylene
Concen: 109.39 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 15375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.0 | 19.2 | 79.2 |

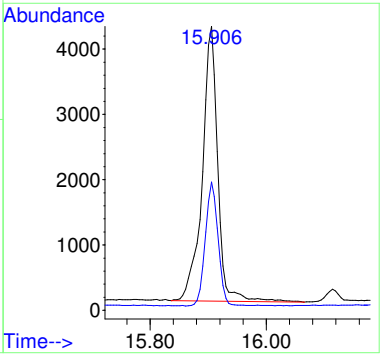


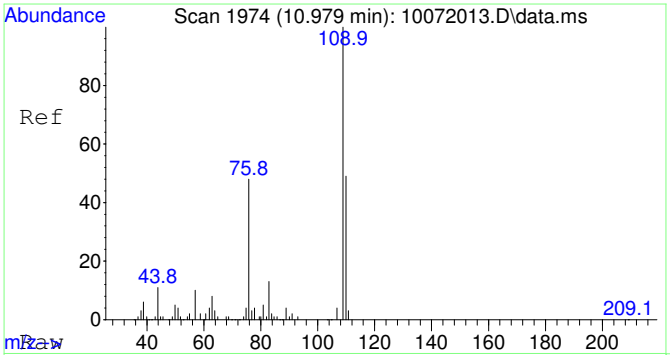




#23
1,2,4-Trimethylbenzene
Concen: 50.11 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion:105 Resp: 7787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.0 | 17.2 | 77.2 |

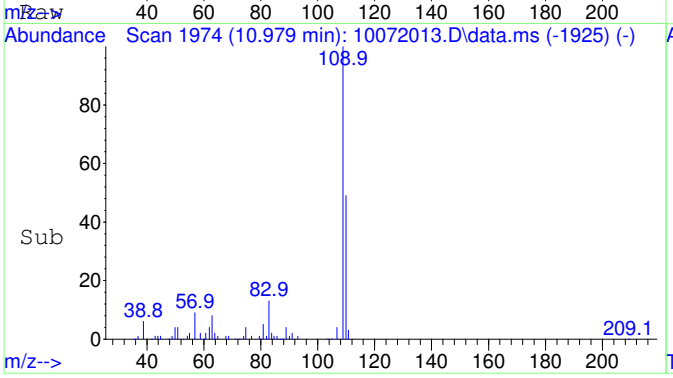


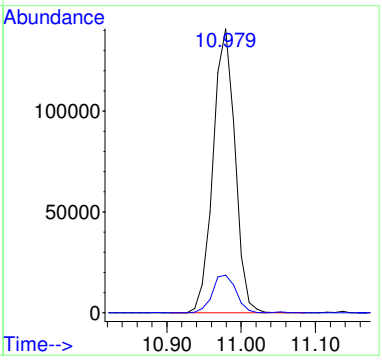


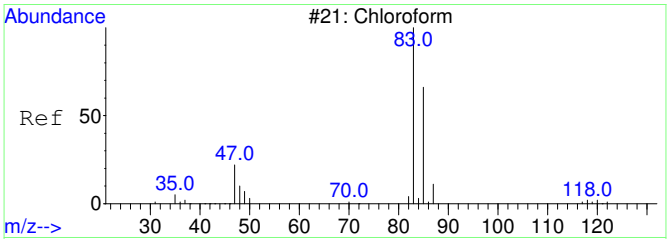

#25
2-Fluorotoluene SCAN
Concen: 5327.90 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

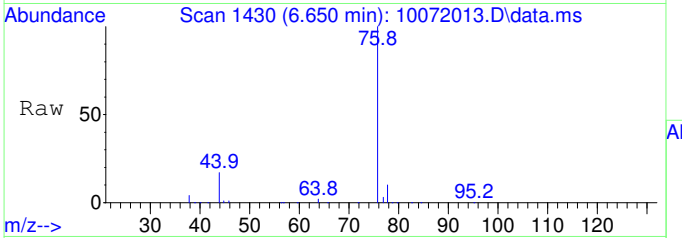
Tgt Ion:109 Resp: 287786

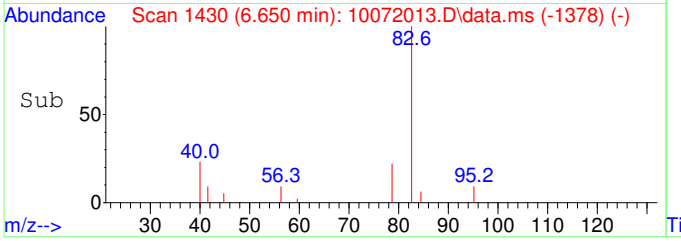
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.3 | 0.0 | 43.8 |



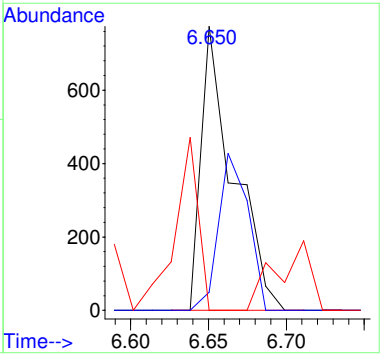



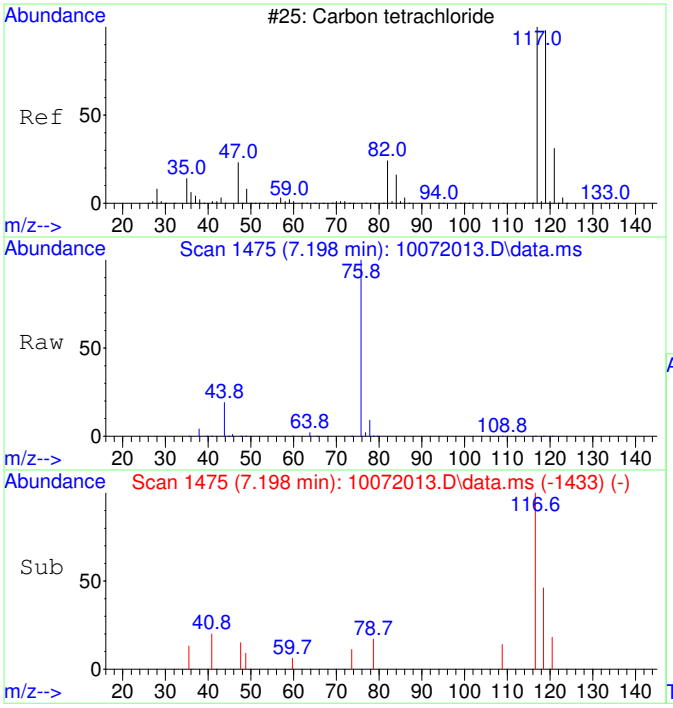




#30
Chloroform SCAN
Concen: 58.46 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 83 Resp: 1116

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 50.9 | 34.6 | 94.6 |
| 47 | 0.0 | 0.0 | 53.4 |

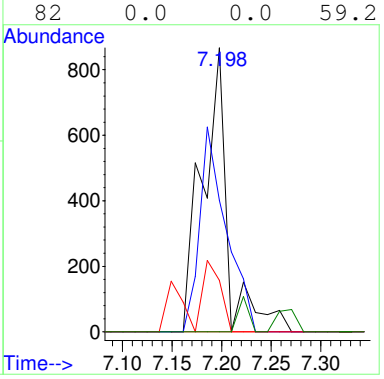


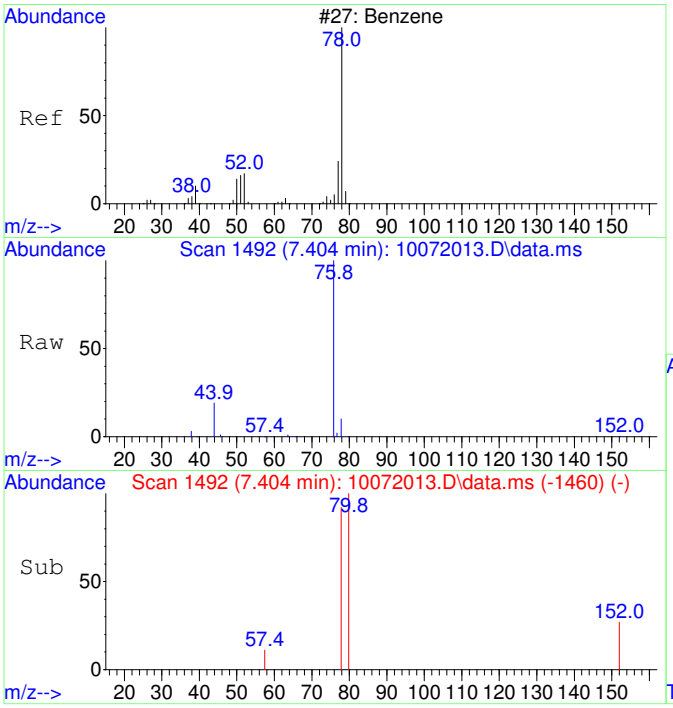



#32
Carbon tetrachloride SCAN
Concen: 85.25 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion:117 Resp: 1547

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 75.6 | 75.5 | 135.5 |
| 121 | 17.7 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

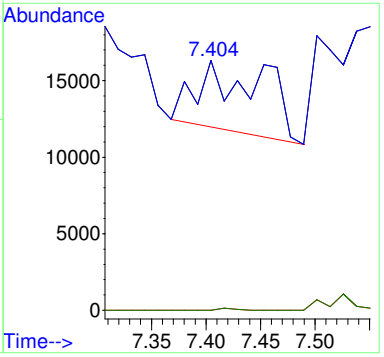


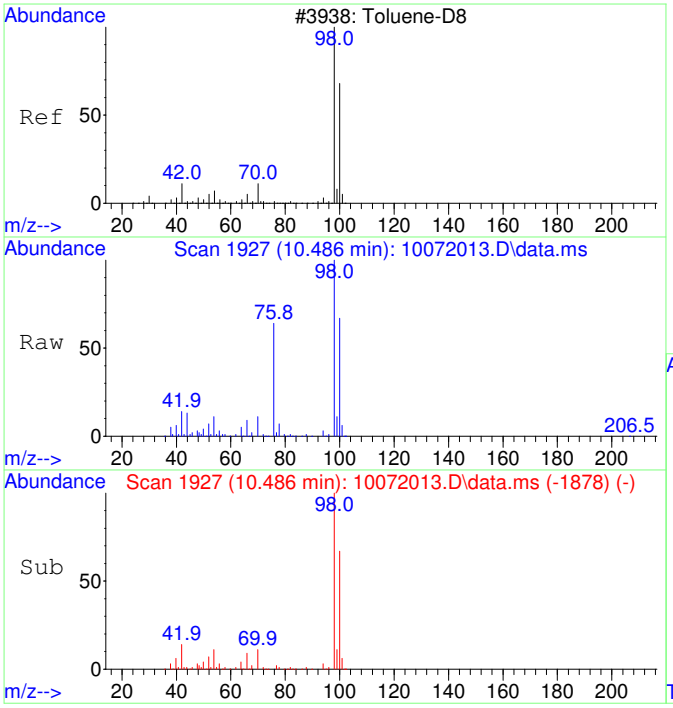




#33
Benzene SCAN
Concen: 377.60 ug/L
RT: 7.404 min Scan# 1492
Delta R.T. -0.109 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 78 Resp: 18087

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 0.8 | 0.0 | 47.9 |
| 51 | 0.8 | 0.0 | 44.1 |

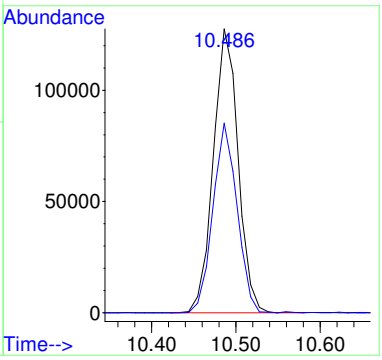


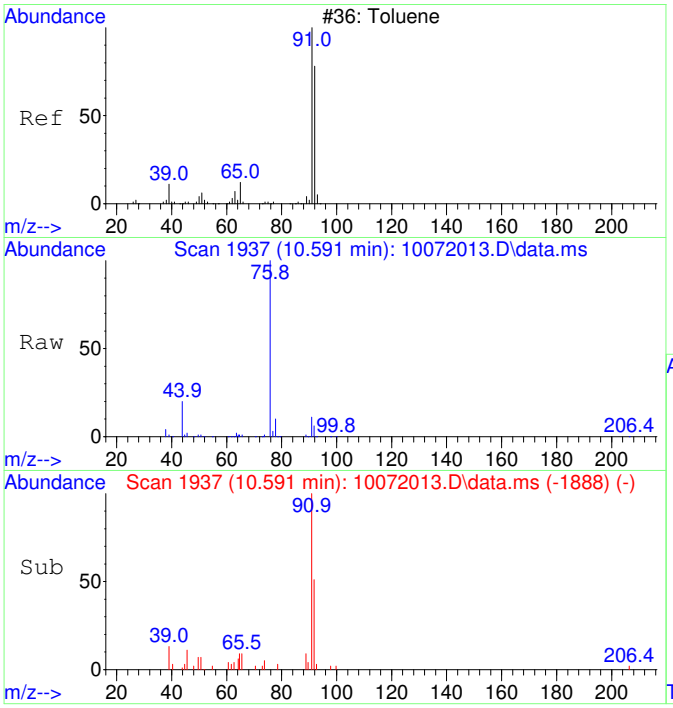



#36
Toluene-d8 SCAN
Concen: 4935.38 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 98 Resp: 260711

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.0 | 40.0 | 100.0 |

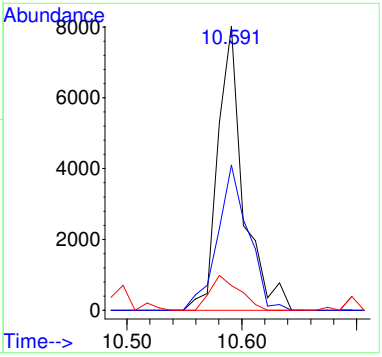


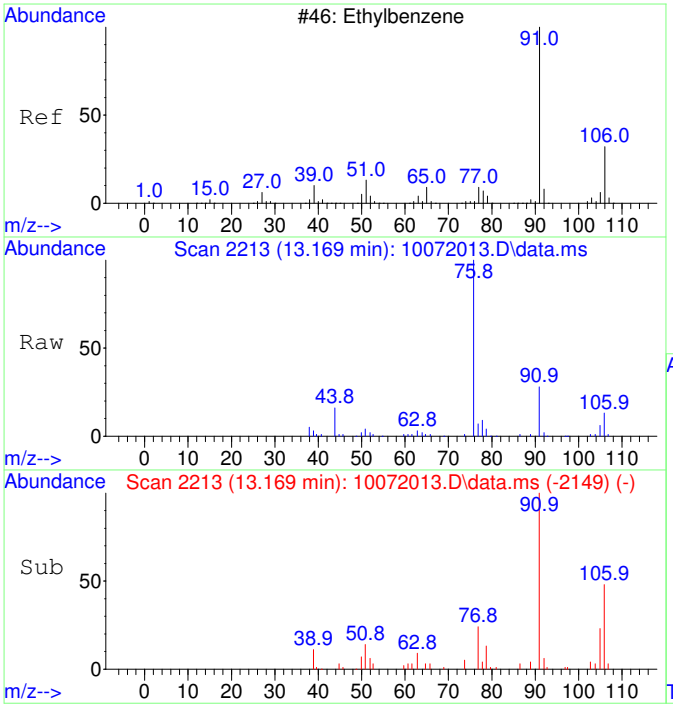




#37
Toluene SCAN
Concen: 182.22 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 12327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.8 | 28.3 | 88.3 |
| 65 | 14.3 | 0.0 | 41.0 |

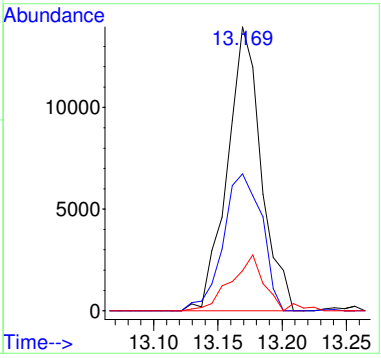


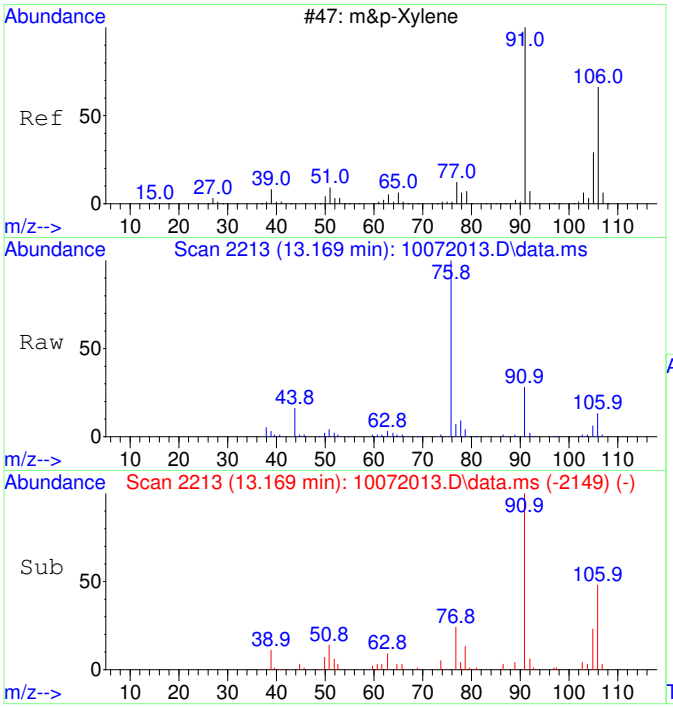



#42
Ethylbenzene SCAN
Concen: 207.88 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 25620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 54.8 | 23.1 | 83.1 |
| 51 | 20.1 | 0.0 | 40.1 |

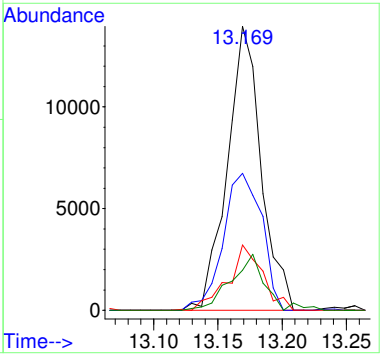


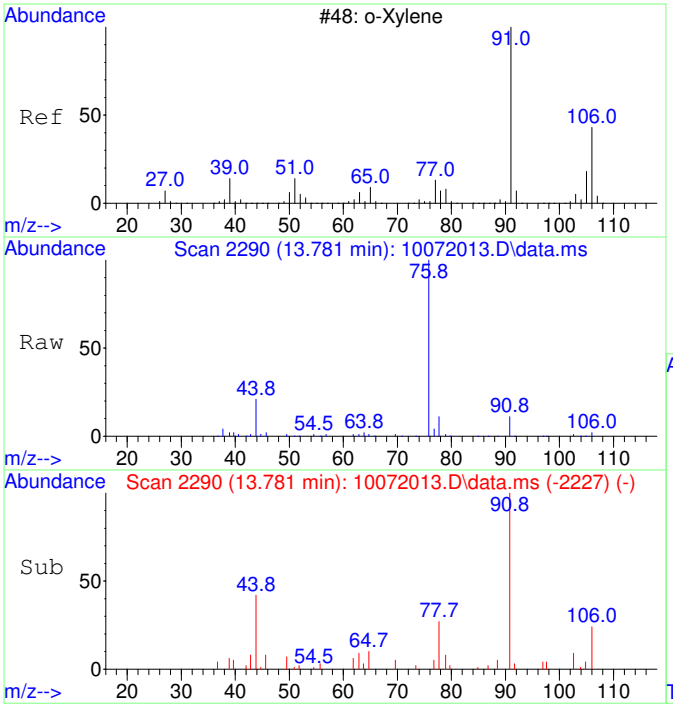




#43
m&p-Xylene SCAN
Concen: 207.88 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 25620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 54.8 | 23.1 | 83.1 |
| 105 | 23.5 | 0.0 | 54.7 |
| 51 | 20.1 | 0.0 | 40.1 |

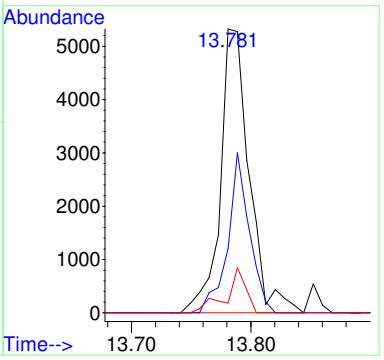


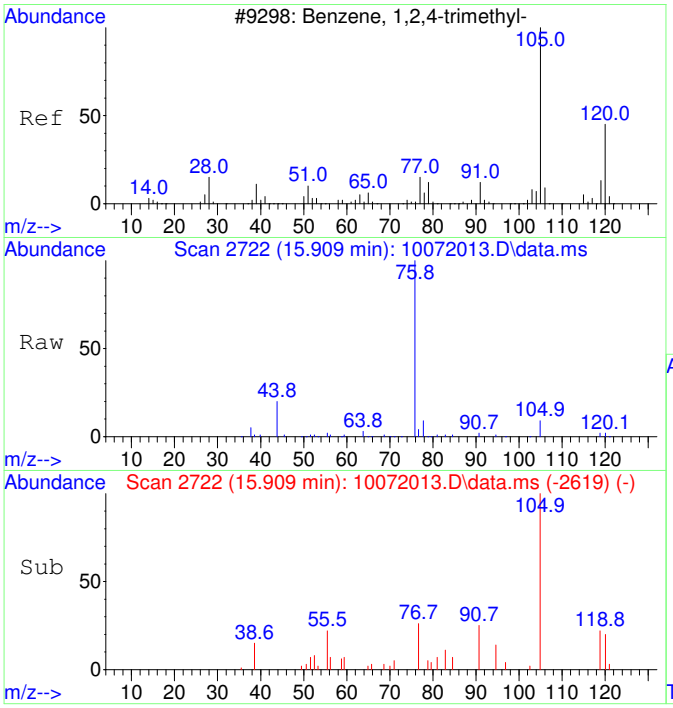



#44
o-Xylene SCAN
Concen: 136.14 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. 0.000 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion: 91 Resp: 8981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.0 | 18.0 | 78.0 |
| 105 | 10.8 | 0.0 | 56.6 |

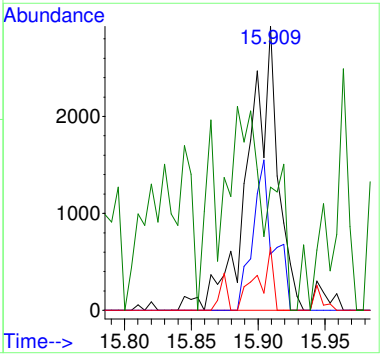



#47
1,2,4-Trimethylbenzene SCAN
Concen: 63.76 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072013.D
Acq: 7 Oct 2020 13:04

Tgt Ion:105 Resp: 4536

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.1 | 16.9 | 76.9 |
| 119 | 11.3 | 0.0 | 41.9 |
| 77 | 16.3 | 0.0 | 42.3 |



# 2009037-06

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072014.D
Acq On : 7 Oct 2020 13:27
InstName : AG5975C
Operator : TD
Sample : 2009037-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 07 13:46:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

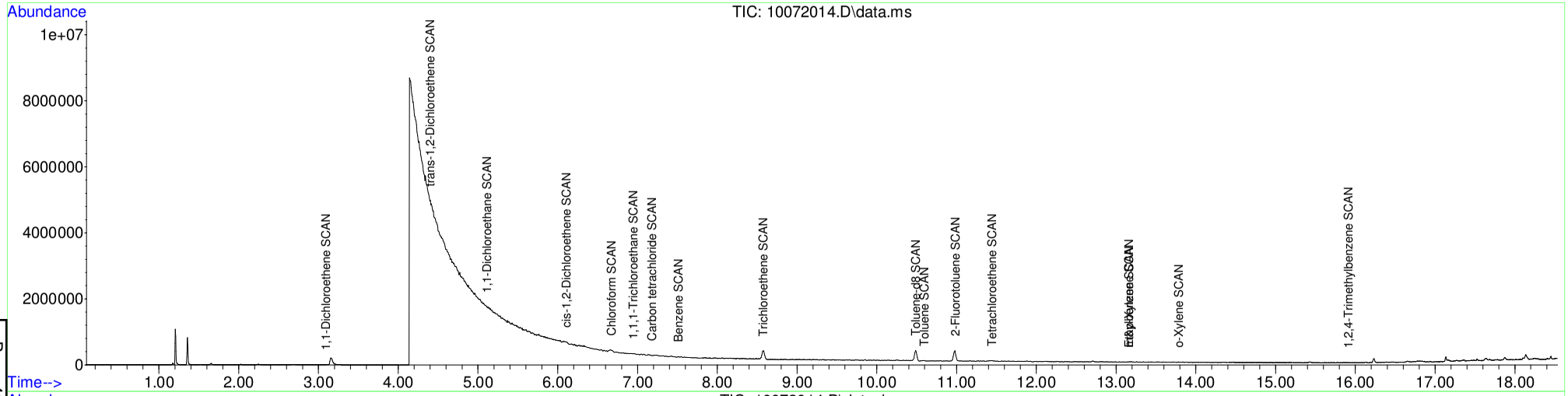
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 503609 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 434617 | 4408.47 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.17% | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.101 | 61 | 4031 | 200.45 | ug/L | 86 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 4703 | 202.42 | ug/L | 91 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 4414 | 152.62 | ug/L | 78 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 67517 | 2211.53 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 94652 | 3029.04 | ug/L | 99 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 2625 | 77.35 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 4287 | 134.22 | ug/L | 99 |
| 9] Benzene | 7.515 | 78 | 10553 | 123.33 | ug/L | 43 |
| 11] Trichloroethene | 8.575 | 130 | 189403 | 7351.80 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 21248 | 169.05 | ug/L | 99 |
| 15] Tetrachloroethene | 11.432 | 166 | 11534 | 317.09 | ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 3178 | 20.77 | ug/L | 92 |
| 19] m&p-Xylene | 13.162 | 91 | 9115 | 76.23 | ug/L | 94 |
| 20] o-Xylene | 13.782 | 91 | 3557 | 27.84 | ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 4558 | 32.27 | ug/L | 85 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 255210 | 5198.54 | ug/L | 98 |
| 26) 1,1-Dichloroethene SCAN | 3.096 | 61 | 337 | 32.32 | ug/L | 66 |
| 27) trans-1,2-Dichloroethe... | 4.394 | 61 | 3095 | 239.90 | ug/L # | 60 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 1882 | 126.05 | ug/L | 79 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 39409 | 2463.55 | ug/L # | 85 |
| 30) Chloroform SCAN | 6.675 | 83 | 52045 | 2999.58 | ug/L | 94 |
| 31) 1,1,1-Trichloroethane ... | 6.942 | 97 | 1066 | 67.42 | ug/L # | 35 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 2367 | 143.51 | ug/L # | 15 |
| 33) Benzene SCAN | 7.514 | 78 | 16316 | 374.78 | ug/L | 97 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 93309 | 7799.38 | ug/L | 86 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 227918 | 4747.20 | ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 12355 | 200.94 | ug/L | 96 |
| 39) Tetrachloroethene SCAN | 11.441 | 166 | 5491 | 371.73 | ug/L | 90 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 5630 | 50.26 | ug/L | 89 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 5630 | 50.26 | ug/L | 92 |
| 44) o-Xylene SCAN | 13.781 | 91 | 3080 | 51.37 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.914 | 105 | 2678 | 41.42 | ug/L # | 36 |

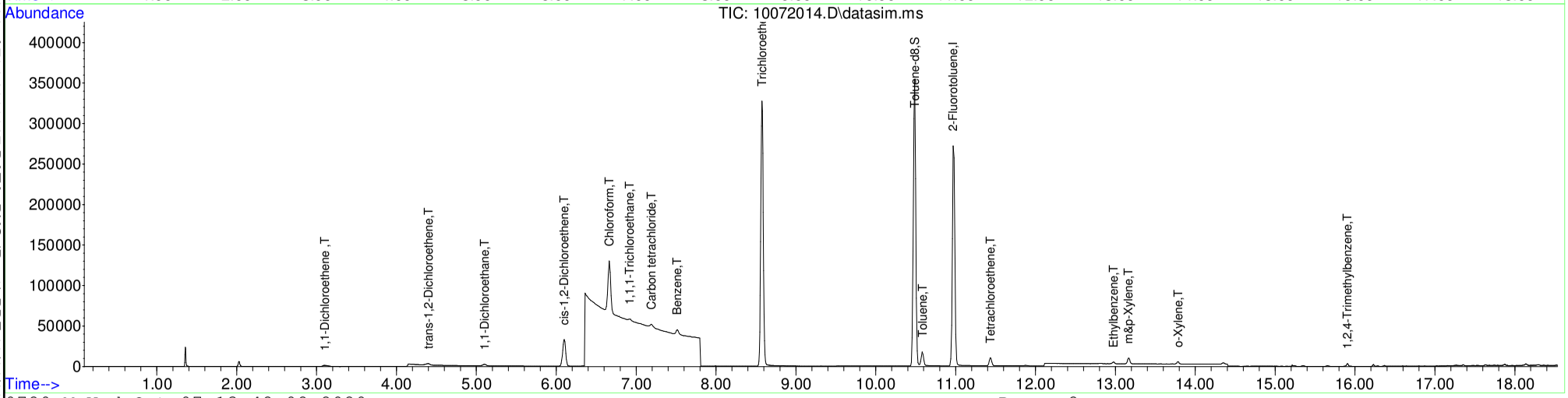
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072014.D
Acq On : 7 Oct 2020 13:27
InstName : AG5975C
Operator : TD
Sample : 2009037-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 07 13:46:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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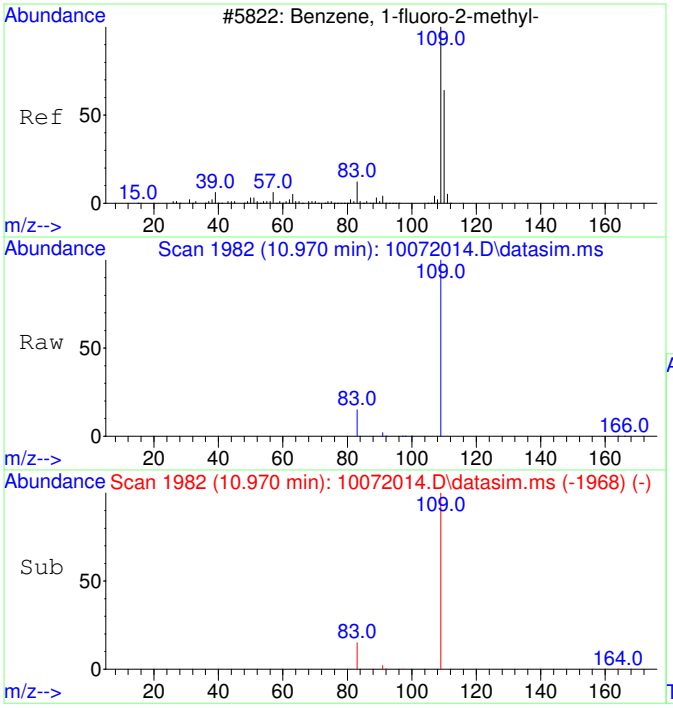
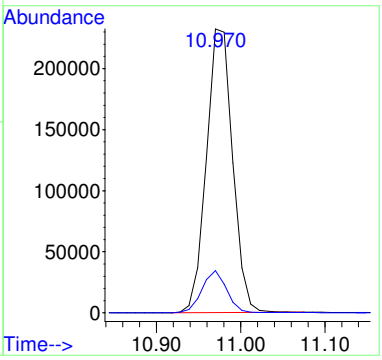
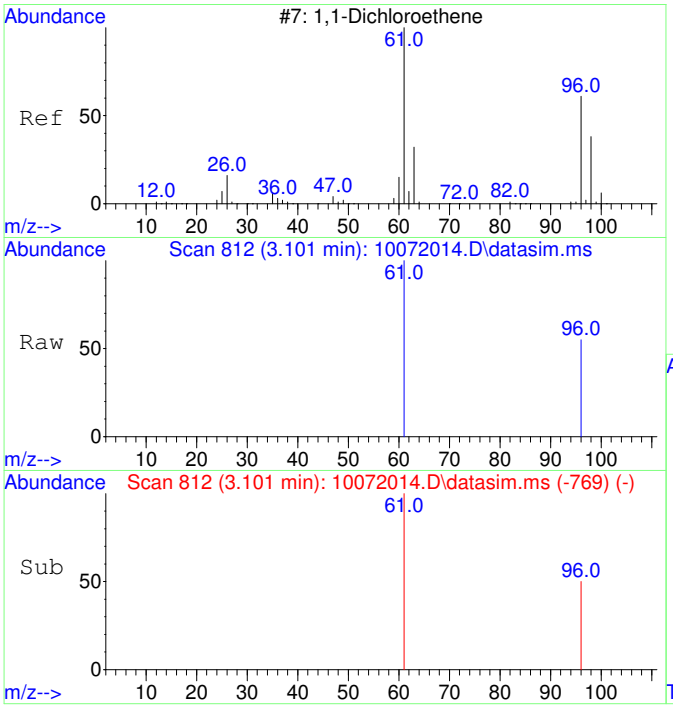



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:109 Resp: 503609

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

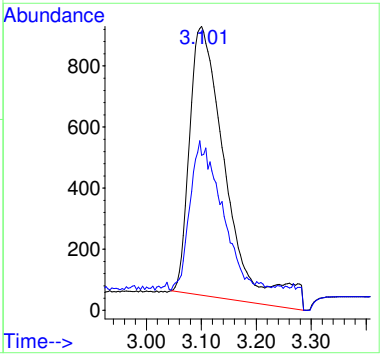


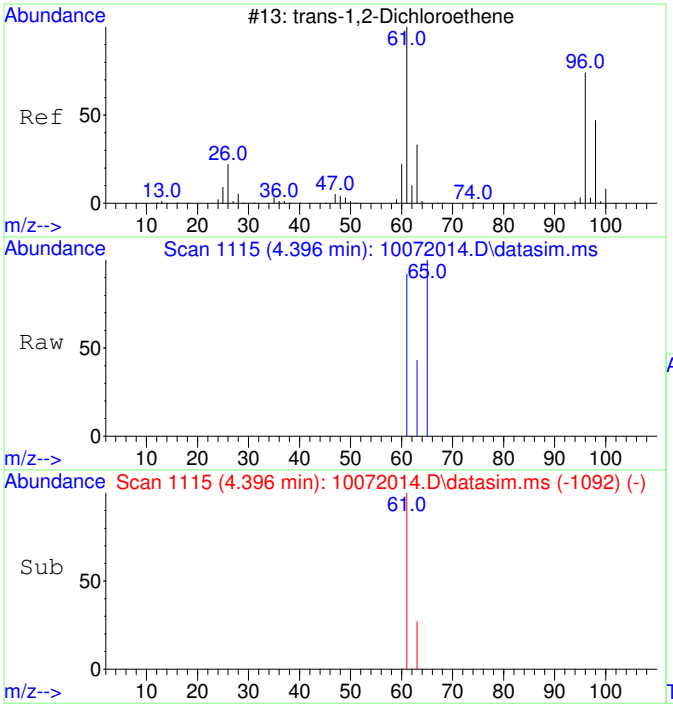




#2
1,1-Dichloroethene
Concen: 200.45 ug/L
RT: 3.101 min Scan# 812
Delta R.T. 0.011 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 4031

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.6 | 37.2 | 97.2 |

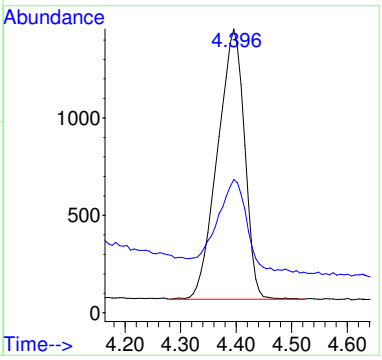


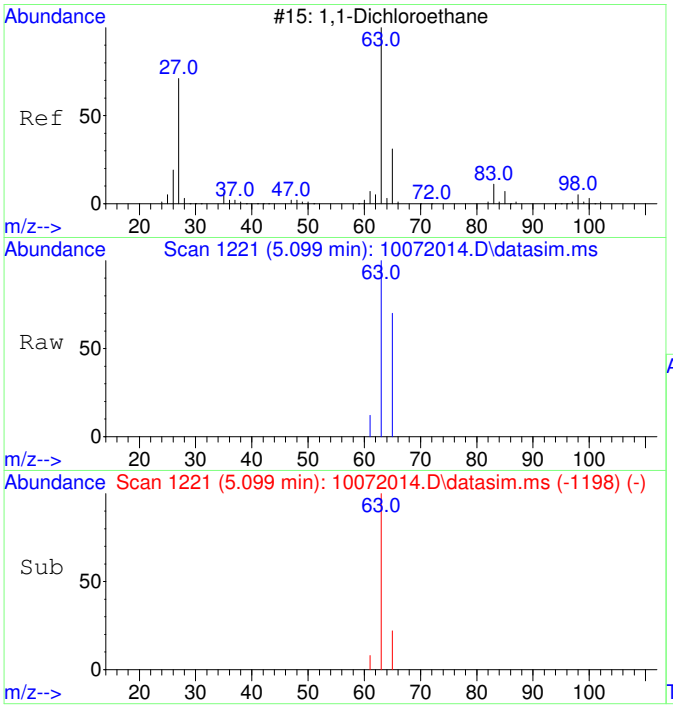



#3
trans-1,2-Dichloroethene
Concen: 202.42 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 4703

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 37.5 | 2.4 | 62.4 |

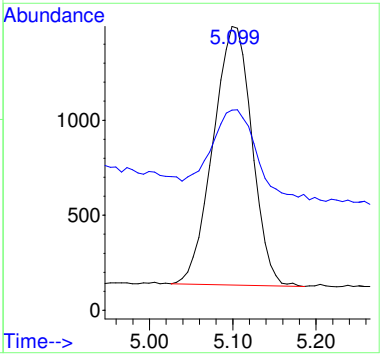


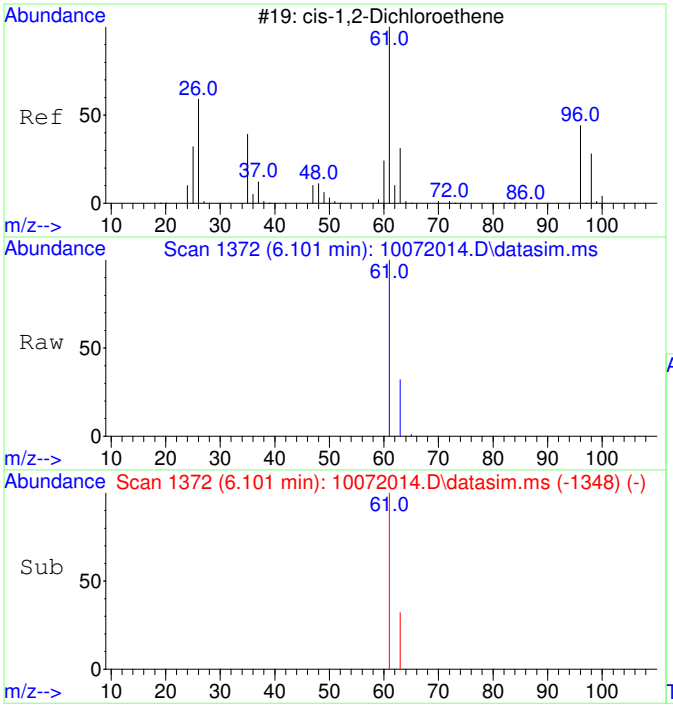




#4
1,1-Dichloroethane
Concen: 152.62 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 63 Resp: 4414

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 43.9 | 1.8 | 61.8 |

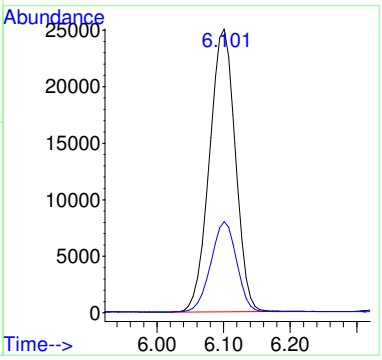


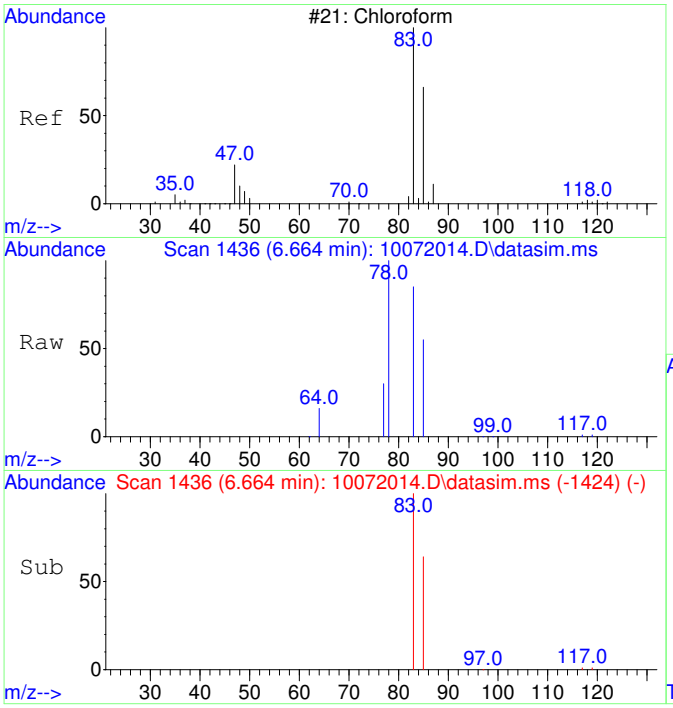



#5
cis-1,2-Dichloroethene
Concen: 2211.53 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 67517

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.6 | 2.5 | 62.5 |

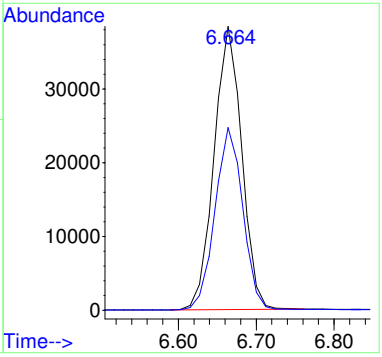


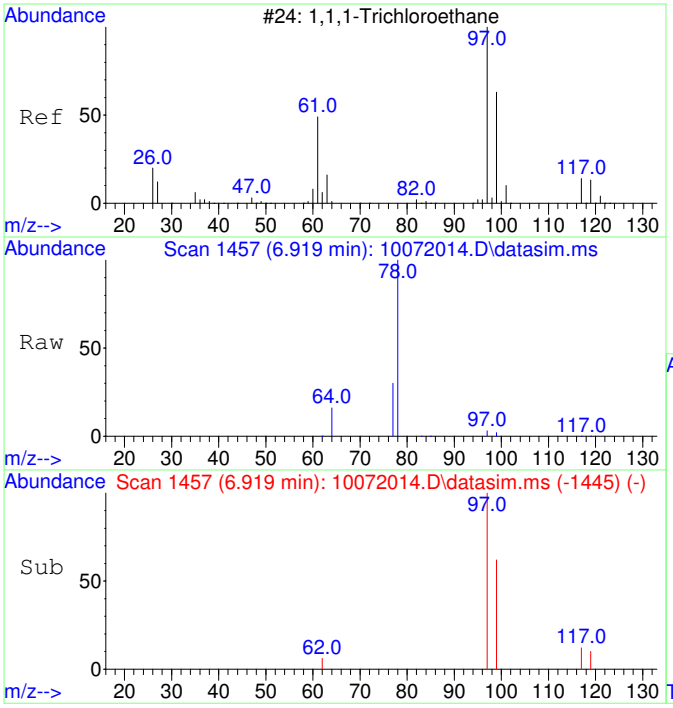




#6
Chloroform
Concen: 3029.04 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 83 Resp: 94652

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.4 | 35.1 | 95.1 |

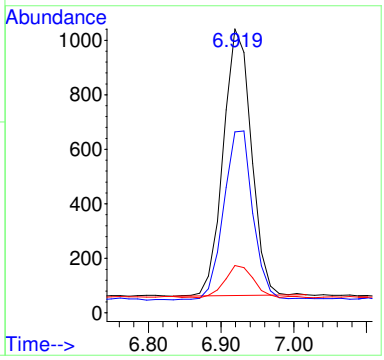


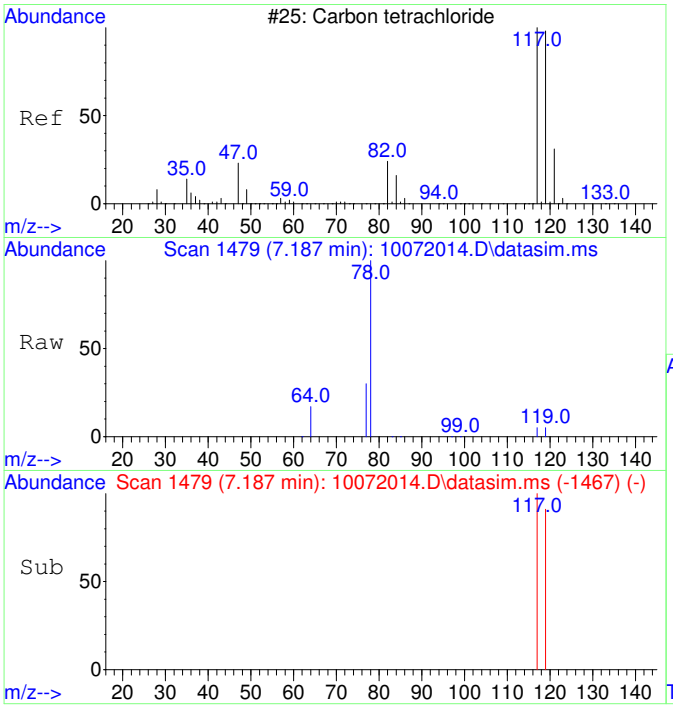



#7
1,1,1-Trichloroethane
Concen: 77.35 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 97 Resp: 2625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.3 | 34.6 | 94.6 |
| 117 | 12.4 | 0.0 | 43.2 |

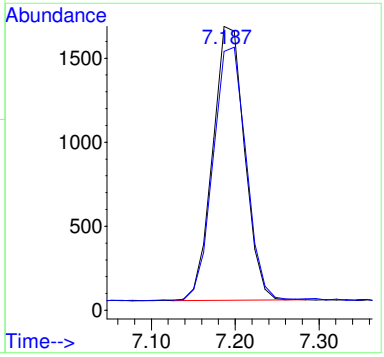


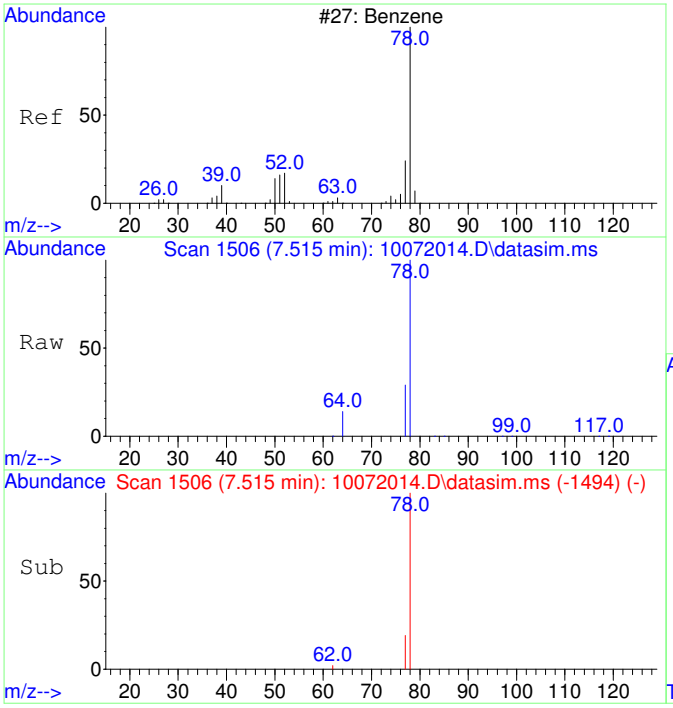




#8
Carbon tetrachloride
Concen: 134.22 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:117 Resp: 4287

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 95.7 | 66.4 | 126.4 |

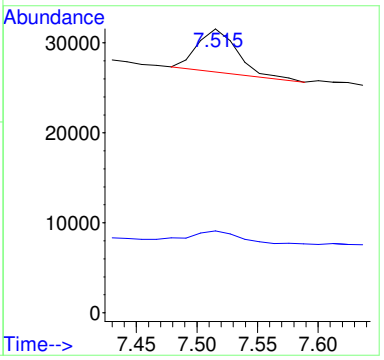


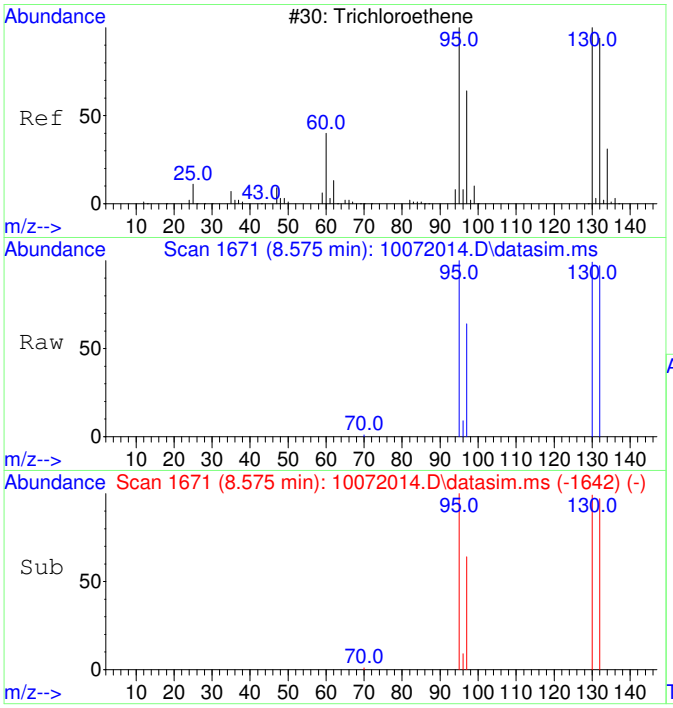



#9
Benzene
Concen: 123.33 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 78 Resp: 10553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 50.7 | 0.0 | 53.2 |

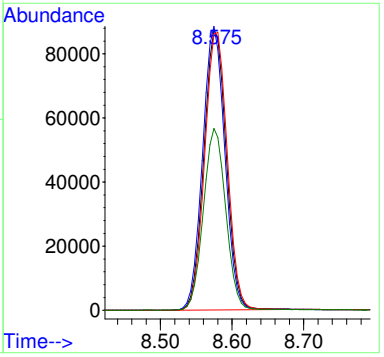


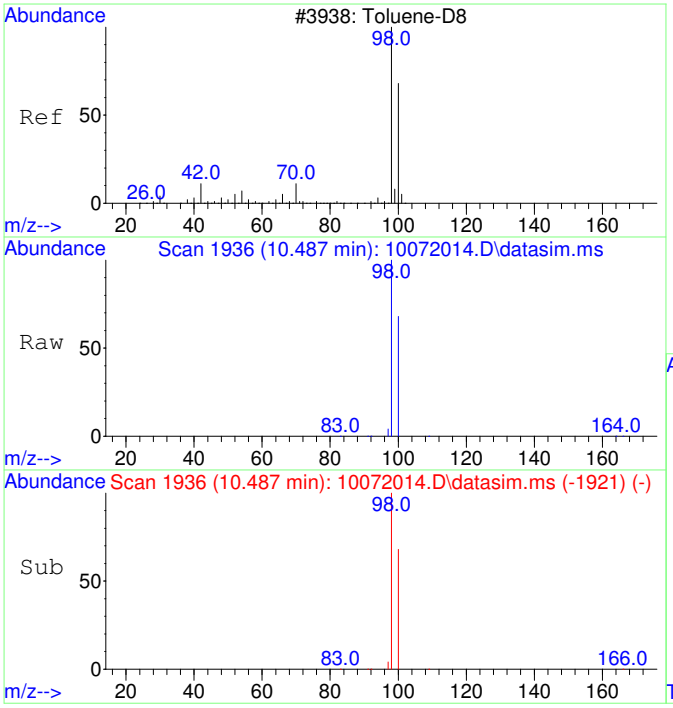




#11
Trichloroethene
Concen: 7351.80 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:130 Resp: 189403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.5 | 60.7 | 120.7 |
| 132 | 99.9 | 76.0 | 116.0 |
| 97 | 64.5 | 38.6 | 78.6 |

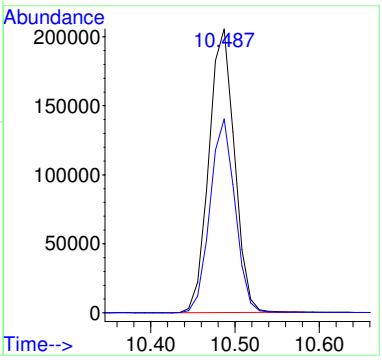


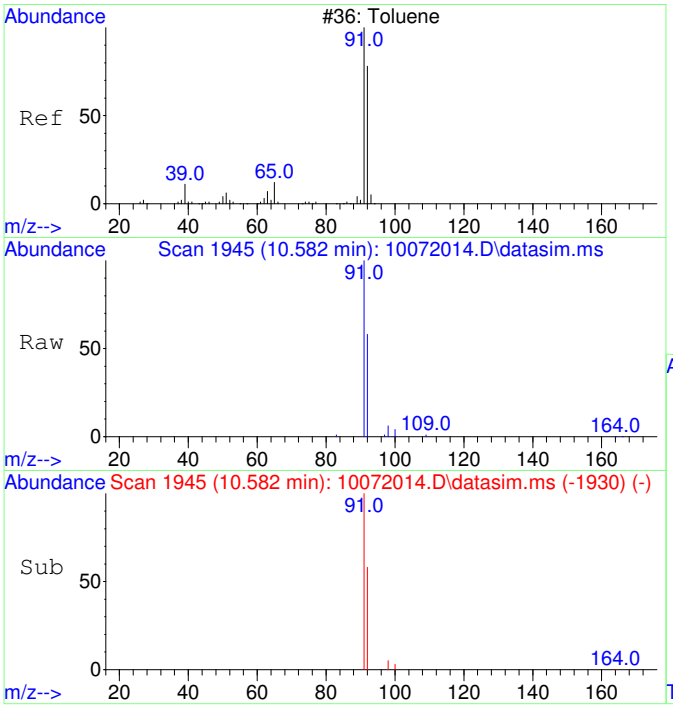



#12
Toluene-d8
Concen: 4408.47 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 98 Resp: 434617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

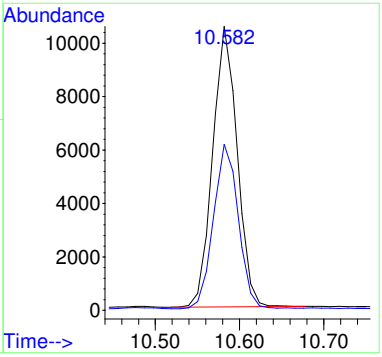


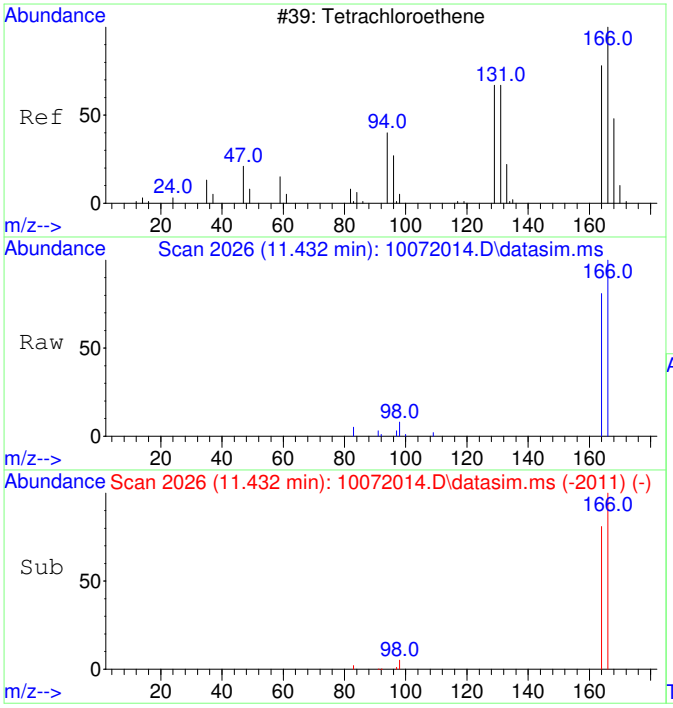




#13
Toluene
Concen: 169.05 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 21248

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.1 | 29.9 | 89.9 |

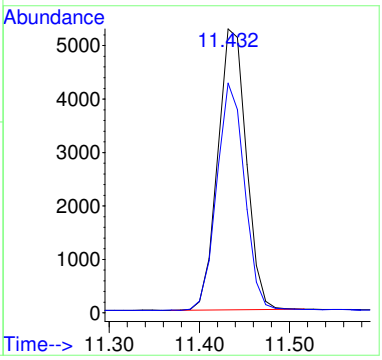


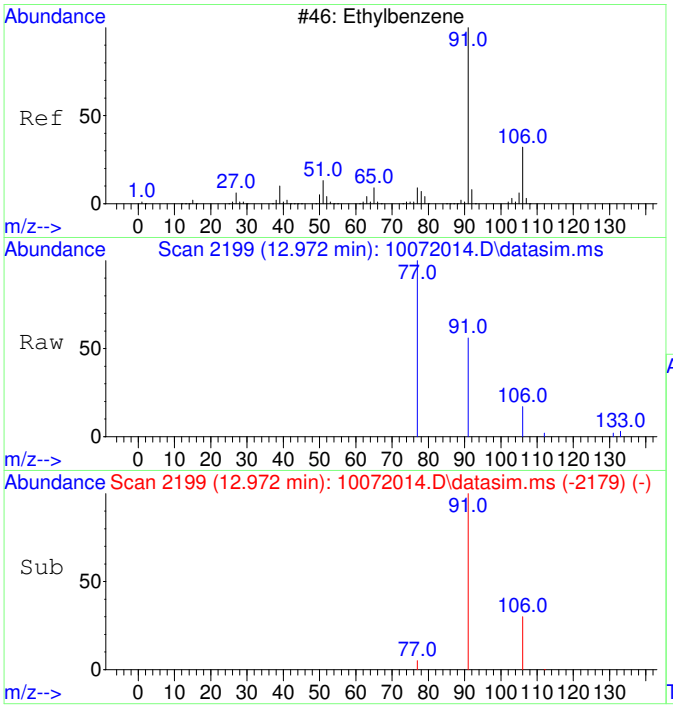



#15
Tetrachloroethene
Concen: 317.09 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:166 Resp: 11534

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.5 | 47.8 | 107.8 |

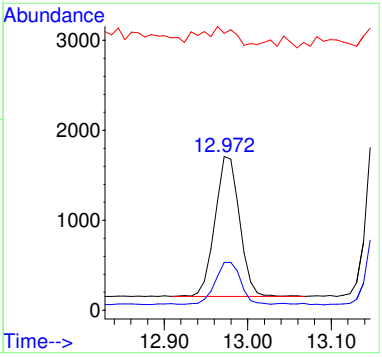


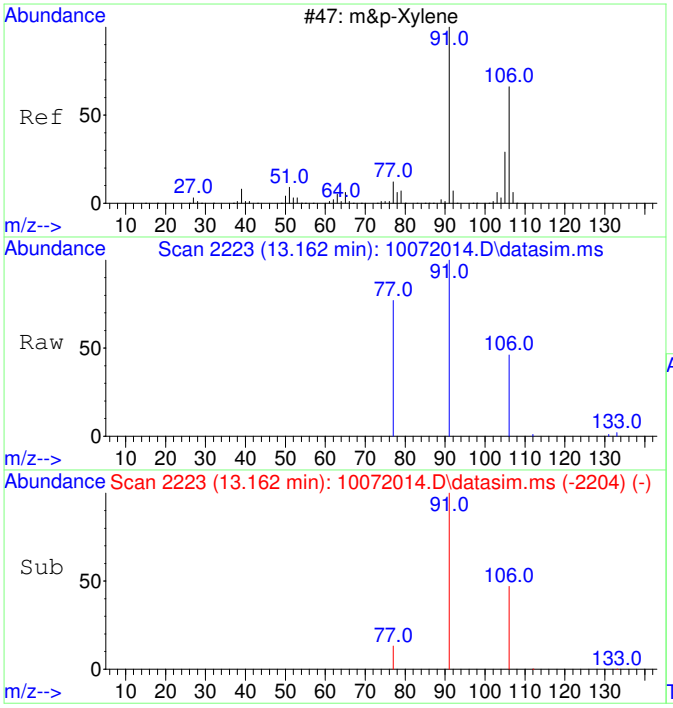




#18
Ethylbenzene
Concen: 20.77 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 3178

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.9 | 3.0 | 63.0 |
| 77 | 17.2 | 0.0 | 38.2 |

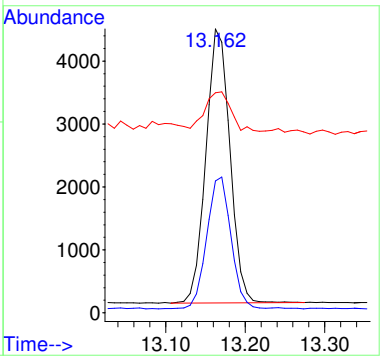


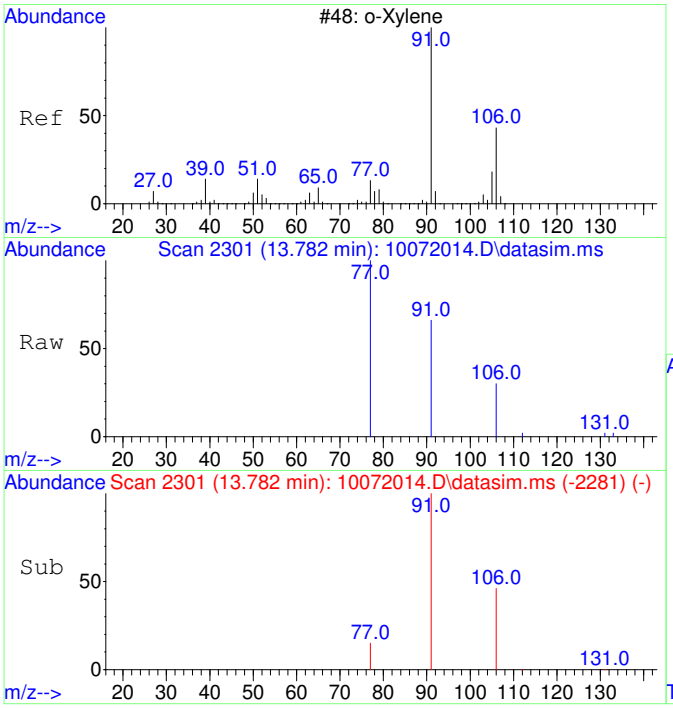



#19
m&p-Xylene
Concen: 76.23 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 9115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.1 | 22.2 | 82.2 |
| 77 | 16.0 | 0.0 | 42.4 |

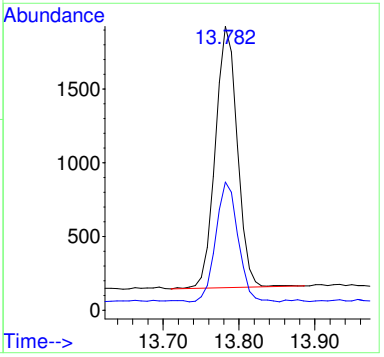


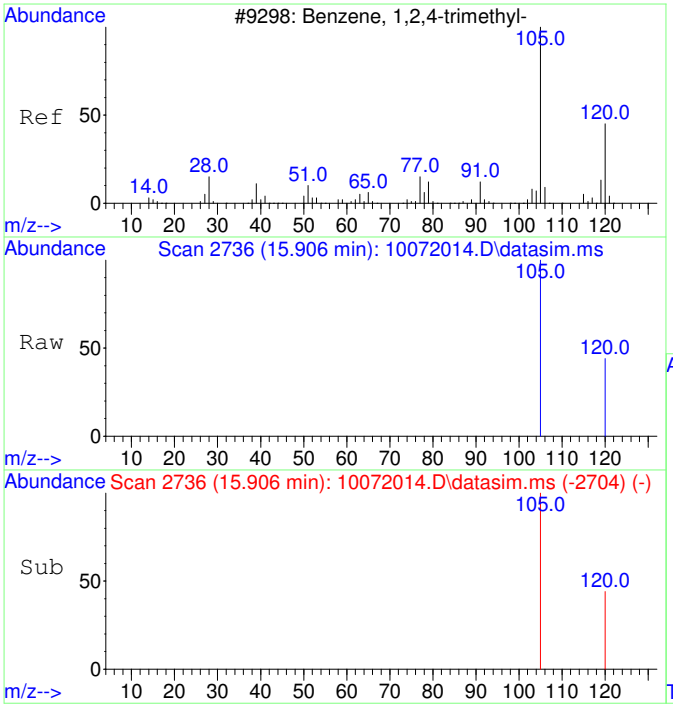




#20
o-Xylene
Concen: 27.84 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 3557

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.5 | 19.2 | 79.2 |

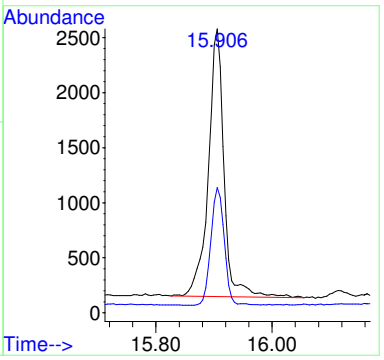


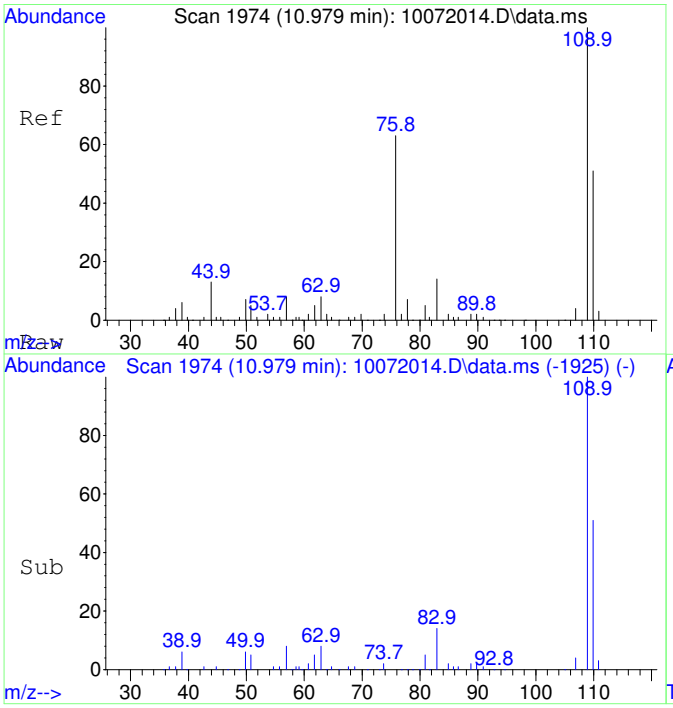



#23
1,2,4-Trimethylbenzene
Concen: 32.27 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:105 Resp: 4558

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.4 | 17.2 | 77.2 |

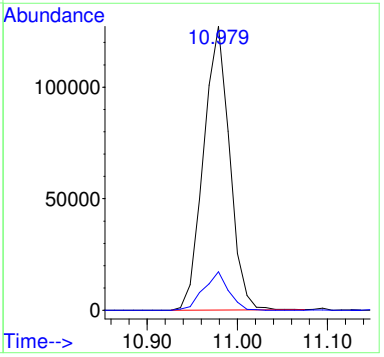


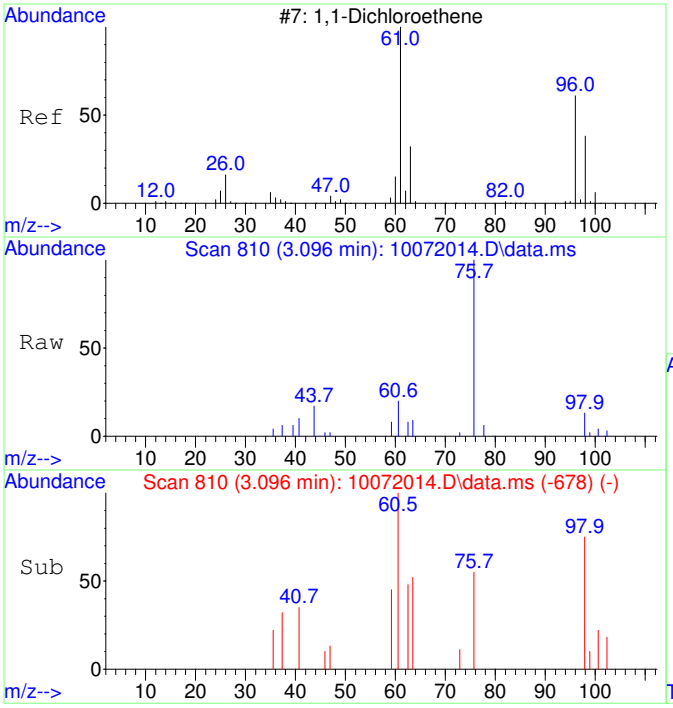




#25
2-Fluorotoluene SCAN
Concen: 5198.54 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:109 Resp: 255210

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.0 | 0.0 | 43.8 |

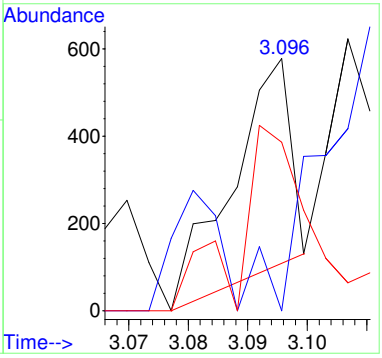


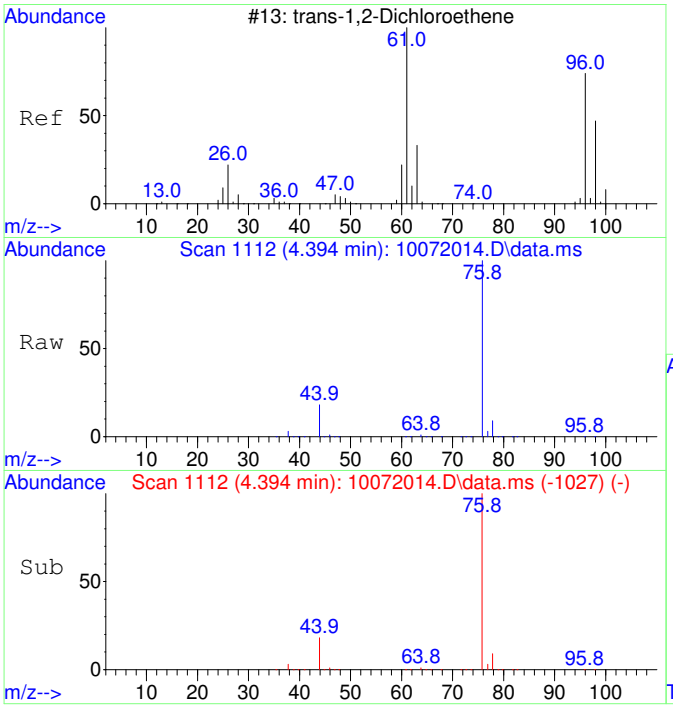



#26
1,1-Dichloroethene SCAN
Concen: 32.32 ug/L
RT: 3.096 min Scan# 810
Delta R.T. -0.011 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 337

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 43.6 | 33.1 | 93.1 |
| 98 | 70.3 | 11.2 | 71.2 |

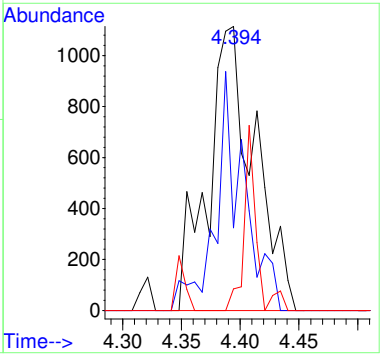


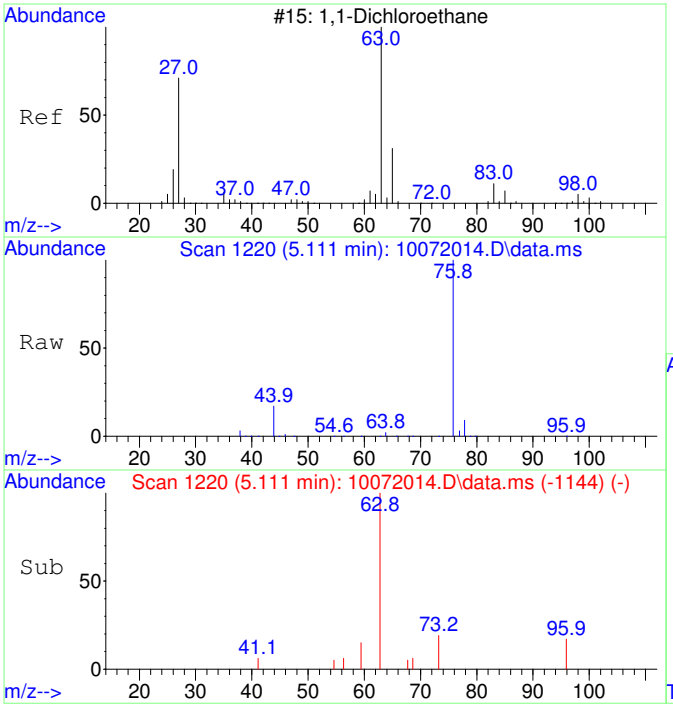




#27
trans-1,2-Dichloroethene SCAN
Concen: 239.90 ug/L
RT: 4.394 min Scan# 1112
Delta R.T. -0.007 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 3095

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 49.4 | 49.0 | 109.0 |
| 98 | 16.8 | 20.5 | 80.5# |

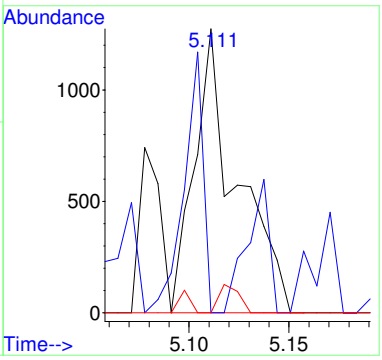


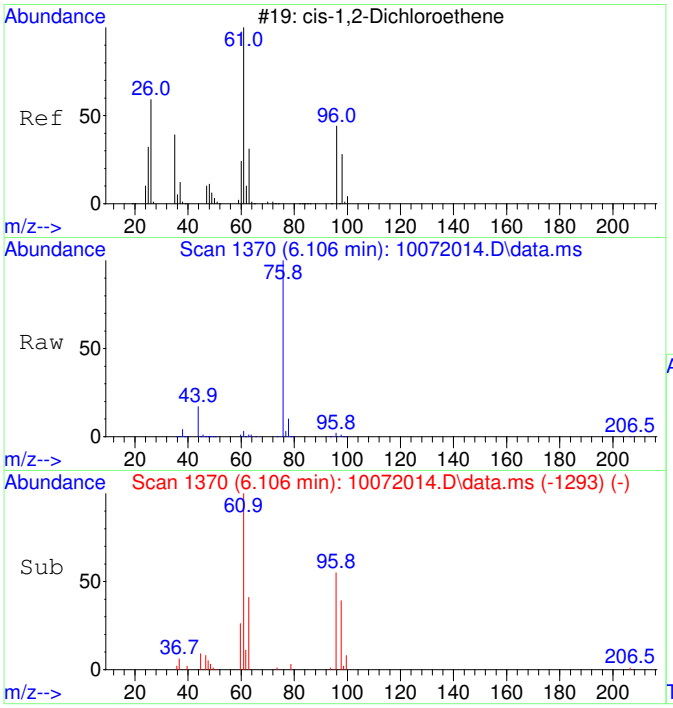



#28
1,1-Dichloroethane SCAN
Concen: 126.05 ug/L
RT: 5.111 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 63 Resp: 1882

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 41.5 | 1.3 | 61.3 |
| 83 | 4.7 | 0.0 | 45.9 |

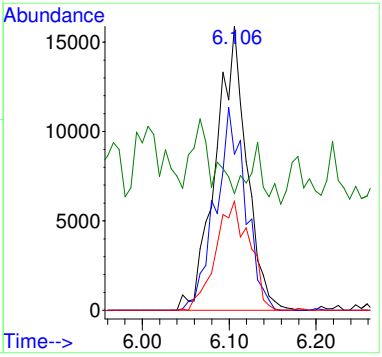


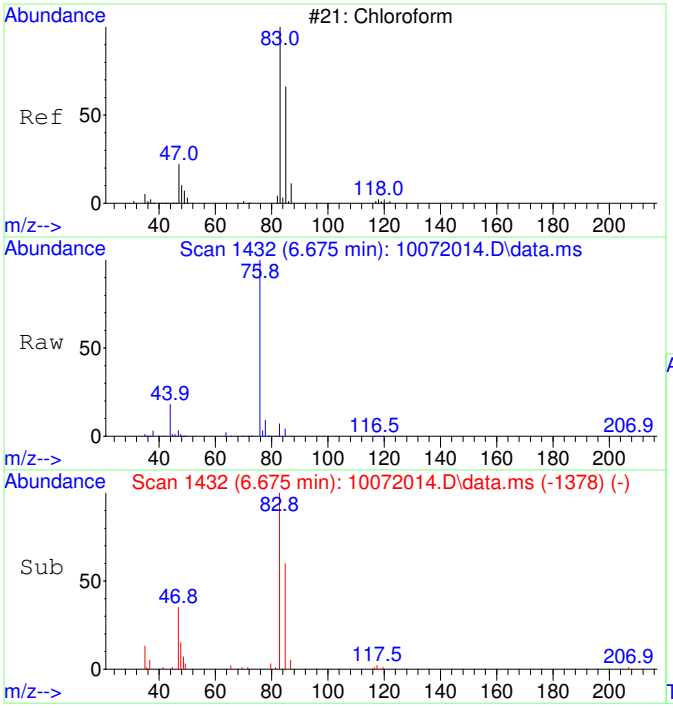




#29
cis-1,2-Dichloroethene SCAN
Concen: 2463.55 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 61 Resp: 39409

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 68.7 | 39.9 | 99.9 |
| 98 | 42.2 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

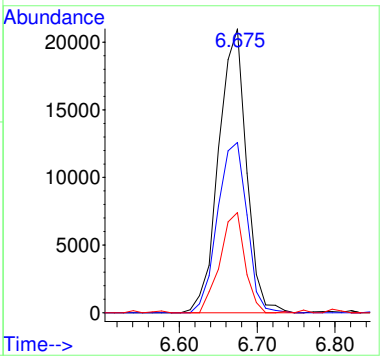


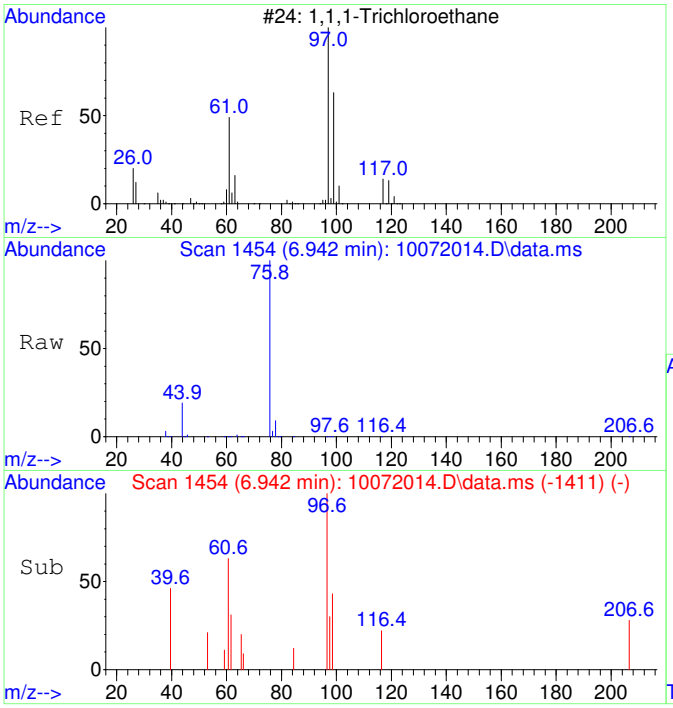



#30
Chloroform SCAN
Concen: 2999.58 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 83 Resp: 52045

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 34.6 | 94.6 |
| 47 | 31.5 | 0.0 | 53.4 |

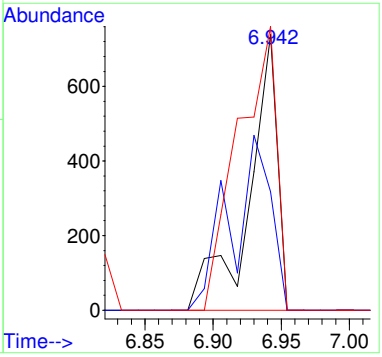


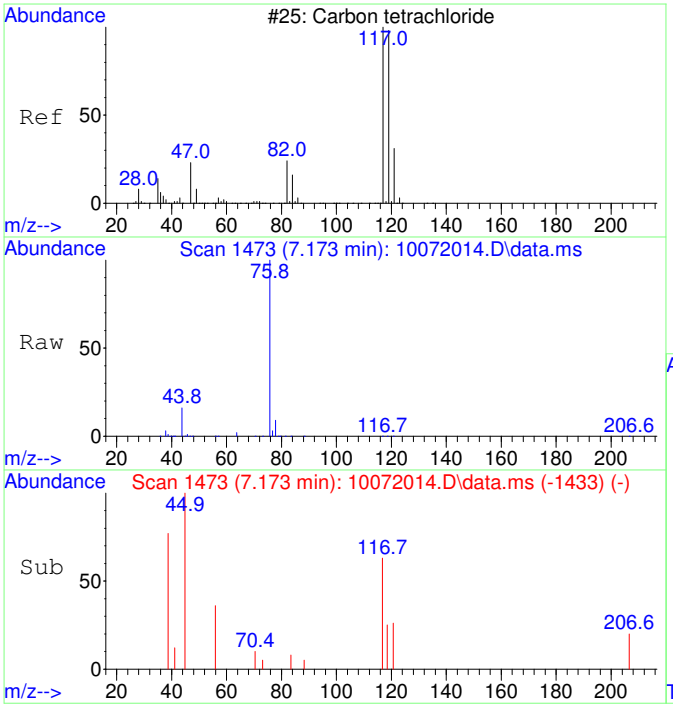




#31
1,1,1-Trichloroethane SCAN
Concen: 67.42 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.024 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 97 Resp: 1066

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 88.6 | 43.6 | 103.6 |
| 61 | 140.3 | 18.0 | 78.0# |

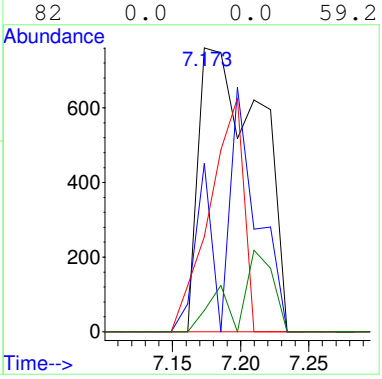


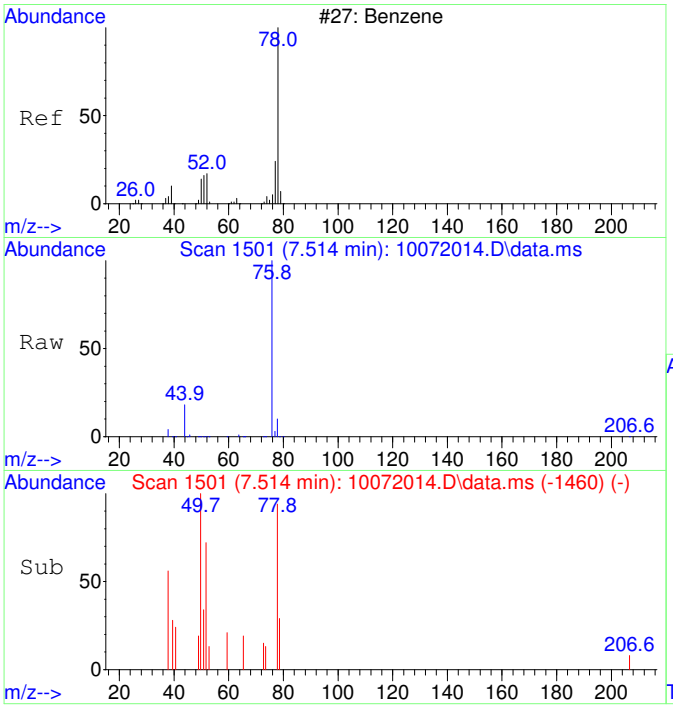



#32
Carbon tetrachloride SCAN
Concen: 143.51 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:117 Resp: 2367

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 0.0 | 75.5 | 135.5# |
| 121 | 0.0 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

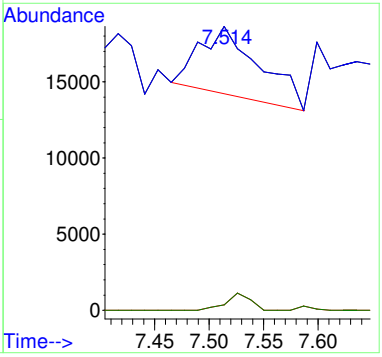


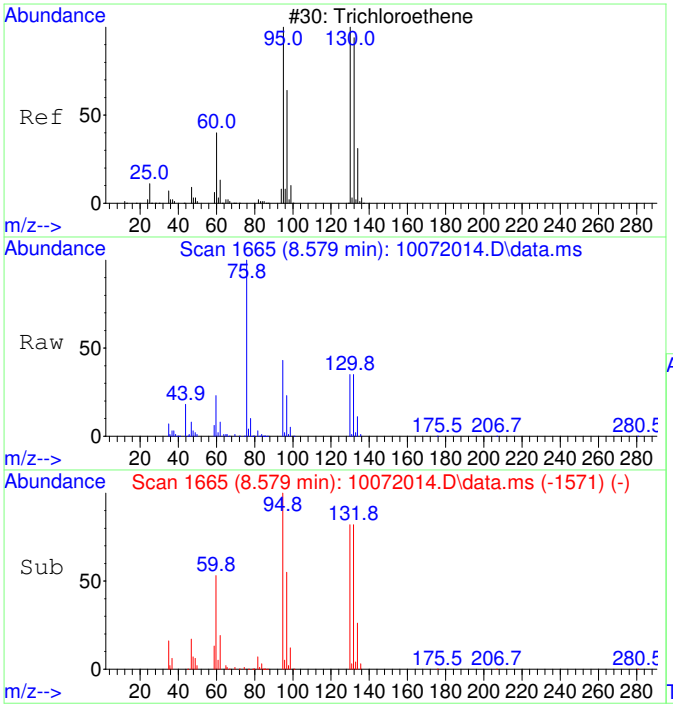




#33
Benzene SCAN
Concen: 374.78 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 78 Resp: 16316

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 10.6 | 0.0 | 47.9 |
| 51 | 10.6 | 0.0 | 44.1 |

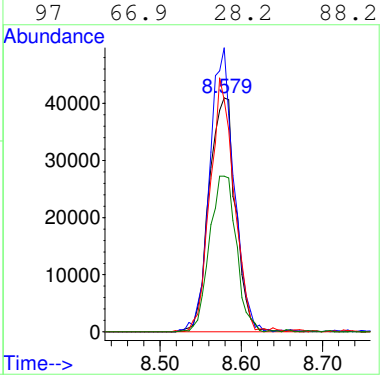


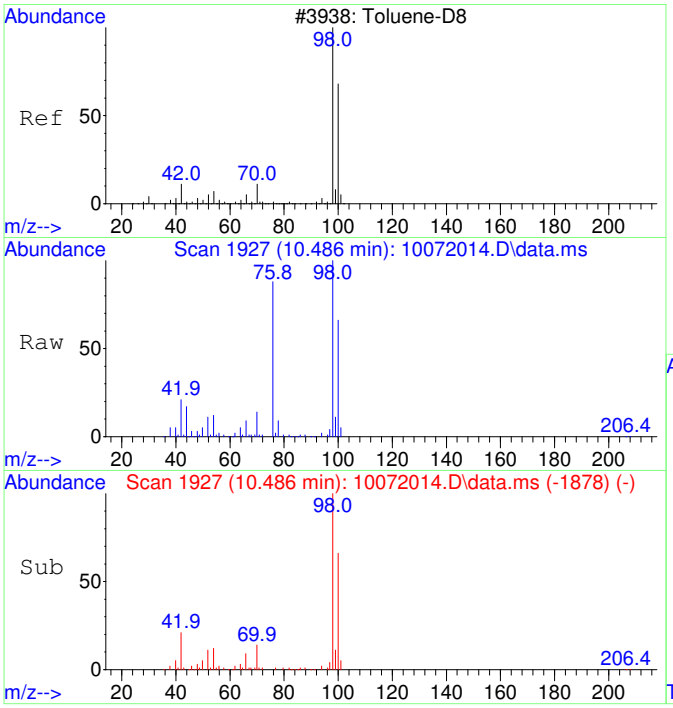



#35
Trichloroethene SCAN
Concen: 7799.38 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:130 Resp: 93309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.2 | 60.5 | 120.5 |
| 132 | 96.7 | 59.6 | 119.6 |
| 97 | 66.9 | 28.2 | 88.2 |

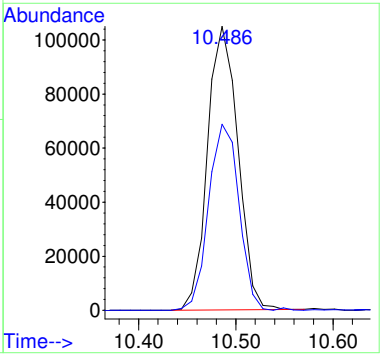


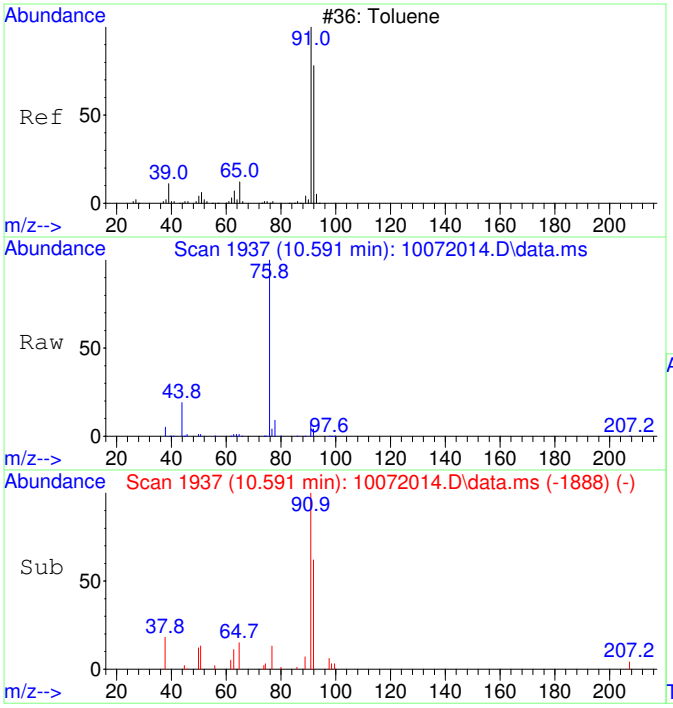




#36
Toluene-d8 SCAN
Concen: 4747.20 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 98 Resp: 227918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.4 | 40.0 | 100.0 |

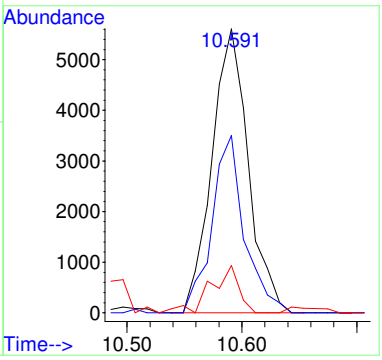


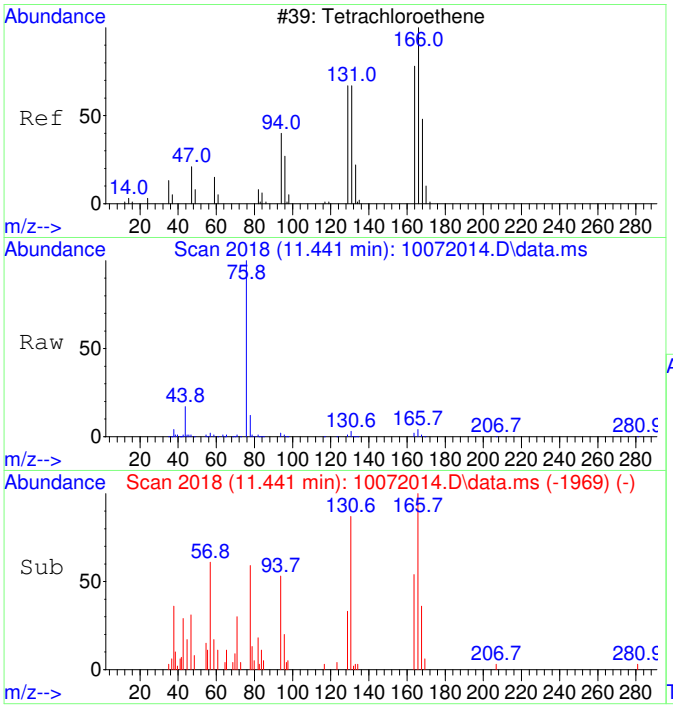



#37
Toluene SCAN
Concen: 200.94 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 12355

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 55.7 | 28.3 | 88.3 |
| 65 | 12.9 | 0.0 | 41.0 |

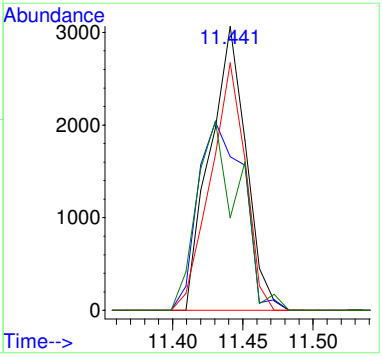


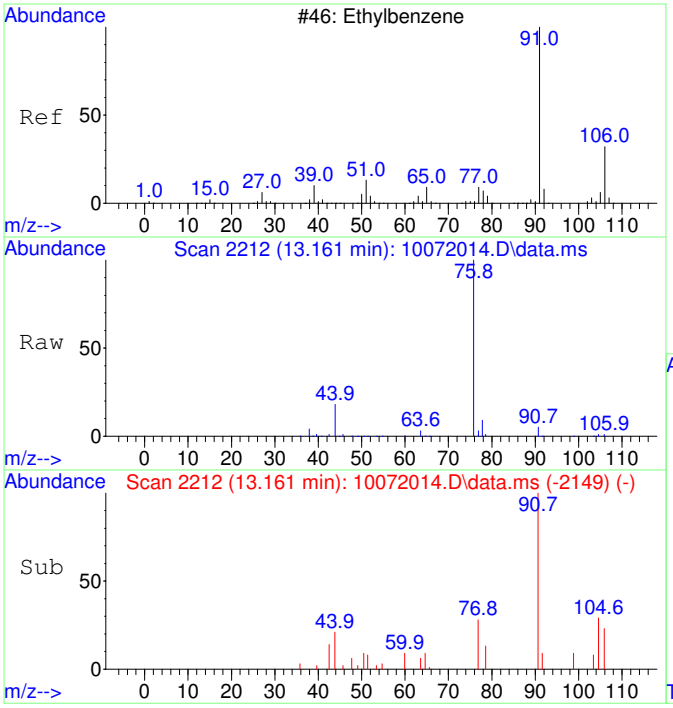




#39
Tetrachloroethene SCAN
Concen: 371.73 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.010 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:166 Resp: 5491

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 83.6 | 50.9 | 110.9 |
| 131 | 84.0 | 38.7 | 98.7 |
| 129 | 78.3 | 41.8 | 101.8 |

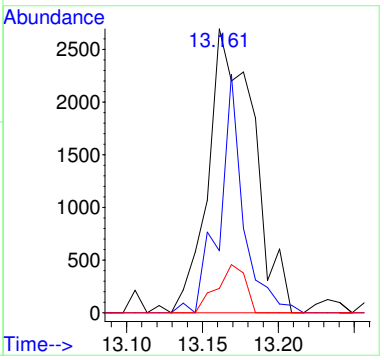


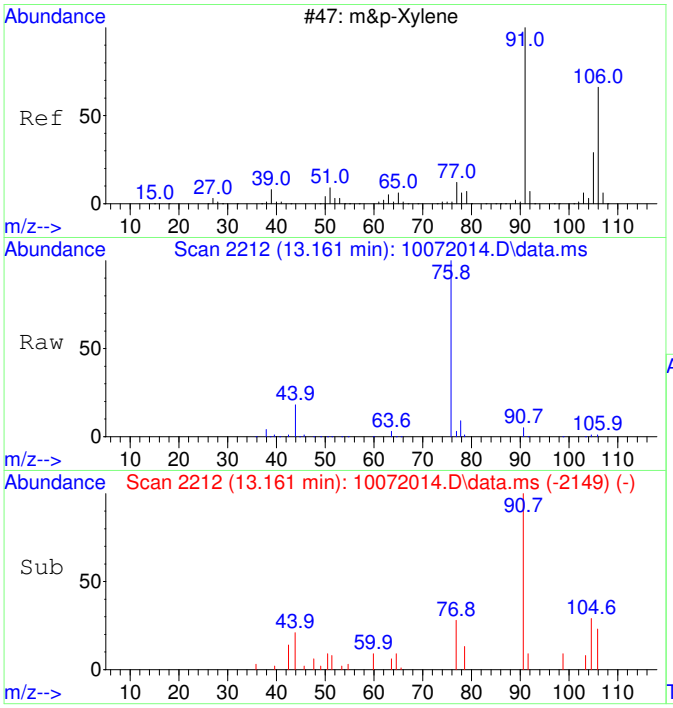



#42
Ethylbenzene SCAN
Concen: 50.26 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 5630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.2 | 23.1 | 83.1 |
| 51 | 10.6 | 0.0 | 40.1 |

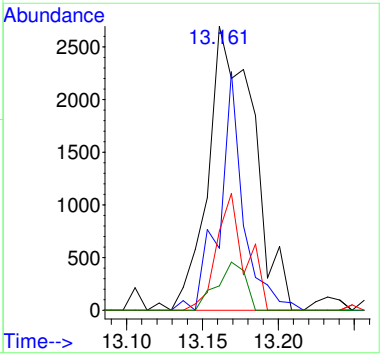


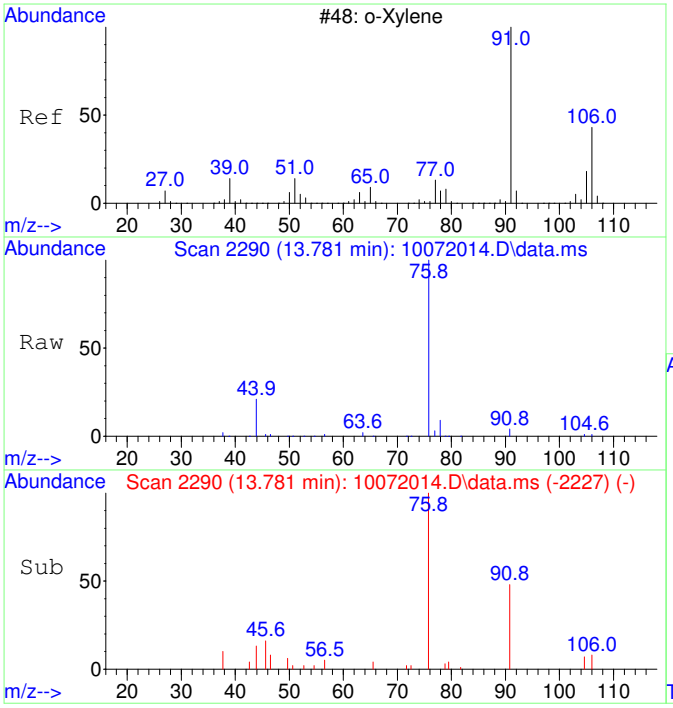




#43
m&p-Xylene SCAN
Concen: 50.26 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 5630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.2 | 23.1 | 83.1 |
| 105 | 25.9 | 0.0 | 54.7 |
| 51 | 10.6 | 0.0 | 40.1 |

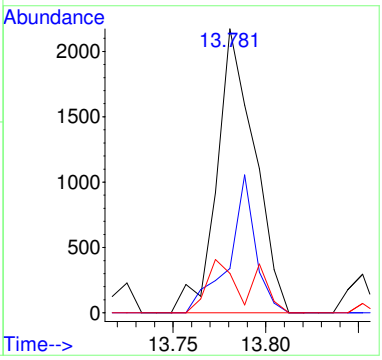


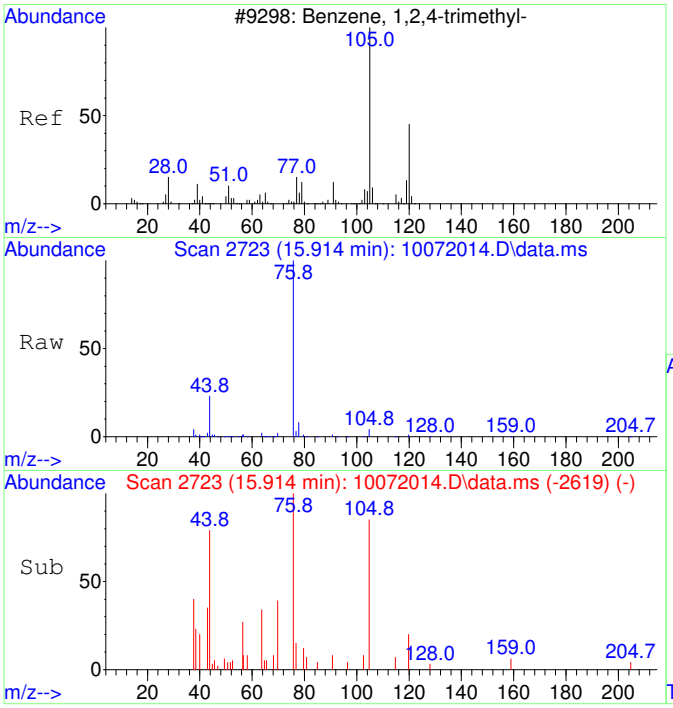



#44
o-Xylene SCAN
Concen: 51.37 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.000 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion: 91 Resp: 3080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 34.2 | 18.0 | 78.0 |
| 105 | 20.7 | 0.0 | 56.6 |

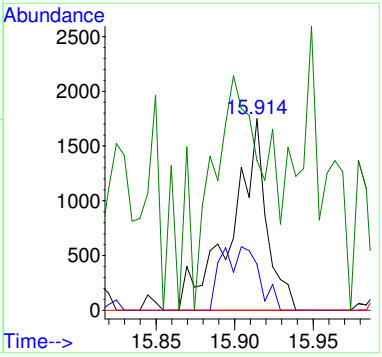



#47
1,2,4-Trimethylbenzene SCAN
Concen: 41.42 ug/L
RT: 15.914 min Scan# 2723
Delta R.T. 0.015 min
Lab File: 10072014.D
Acq: 7 Oct 2020 13:27

Tgt Ion:105 Resp: 2678

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 35.8 | 16.9 | 76.9 |
| 119 | 0.0 | 0.0 | 41.9 |
| 77 | 119.7 | 0.0 | 42.3# |



# S20J011-IBL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072019.D
Acq On : 7 Oct 2020 15:26
InstName : AG5975C
Operator : TD
Sample : S20J011-IBL2 (Sig #1); IB (Sig #2)
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 06:39:02 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

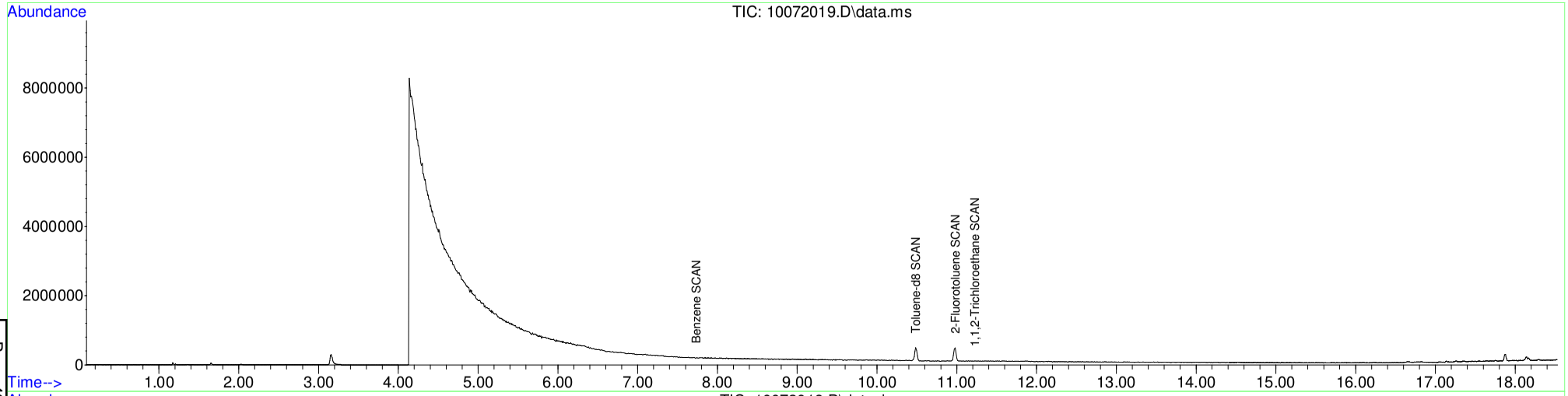
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 634010 | 5000.00 | ug/L | 0.00 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 537782 | 4332.96 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.66% | | | |
| Target Compounds | | | | | | Qvalue |
| 9] Benzene | 7.515 | 78 | 6994 | 64.93 | ug/L | 64 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 311489 | 5039.93 | ug/L | 94 |
| 33) Benzene SCAN | 7.733 | 78 | 4500 | 82.11 | ug/L | 93 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 280716 | 4644.33 | ug/L | 98 |
| 38) 1,1,2-Trichloroethane ... | 11.221 | 97 | 519 | 29.87 | ug/L # | 13 |

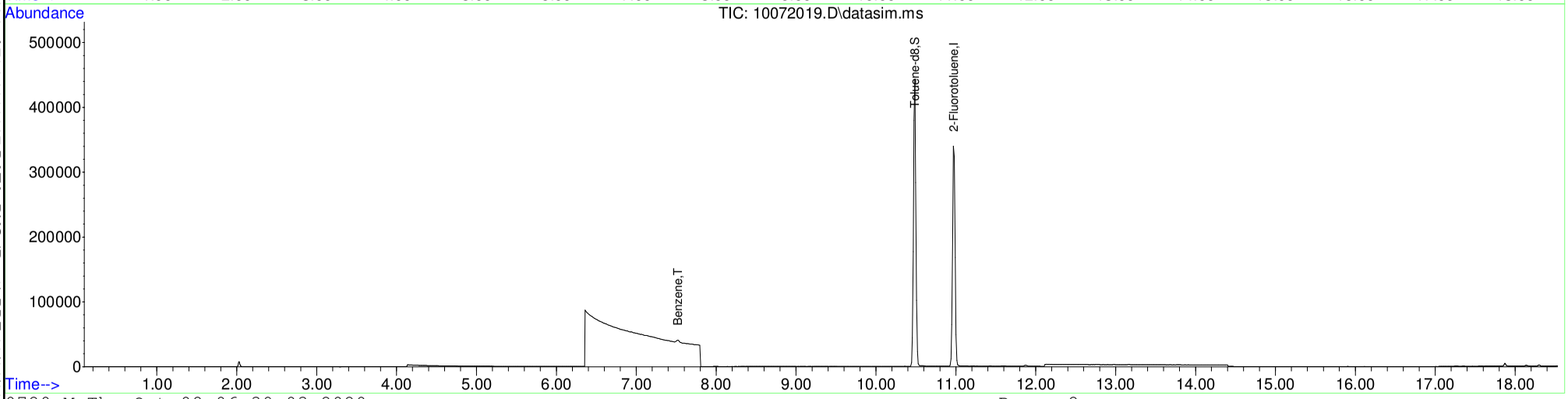
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072019.D
Acq On : 7 Oct 2020 15:26
InstName : AG5975C
Operator : TD
Sample : S20J011-IBL2 (Sig #1); IB (Sig #2)
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 06:39:02 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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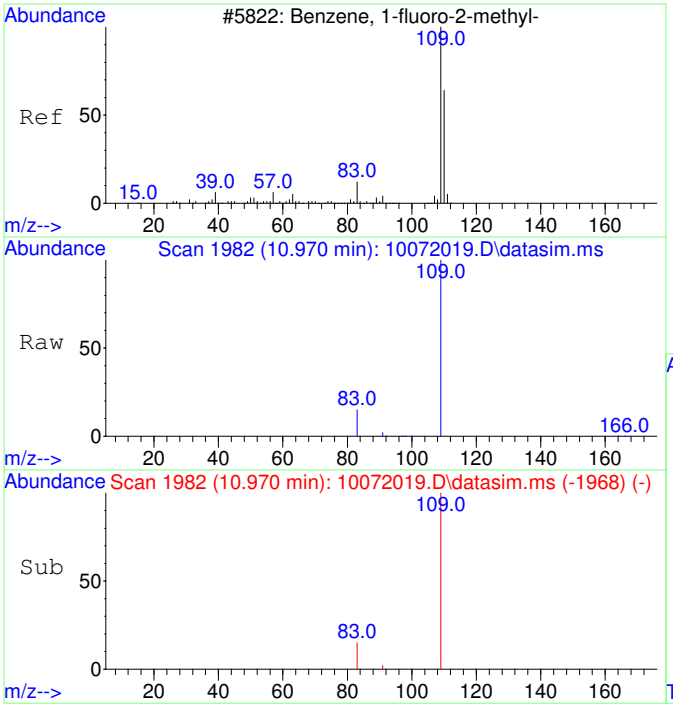
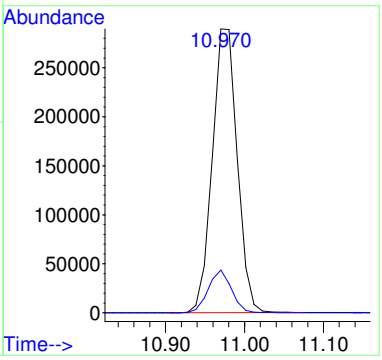
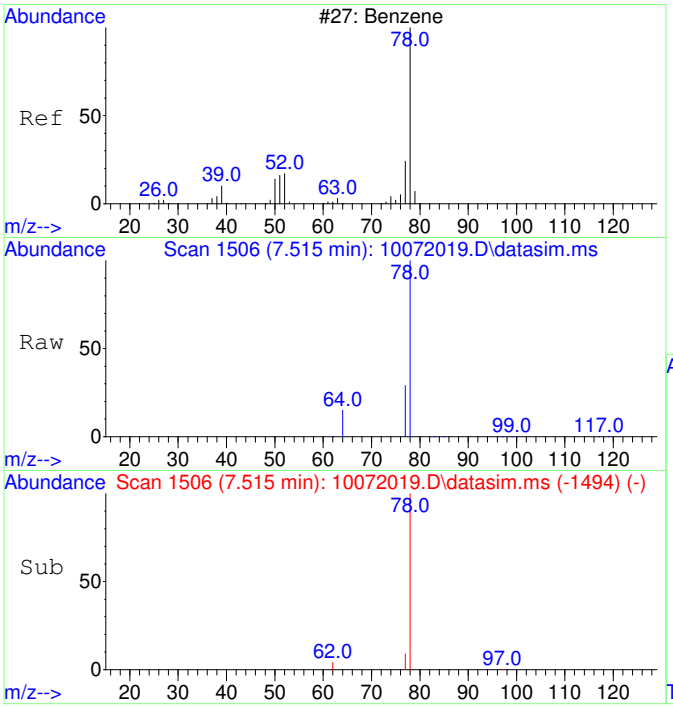



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.000 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion:109 Resp: 634010

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

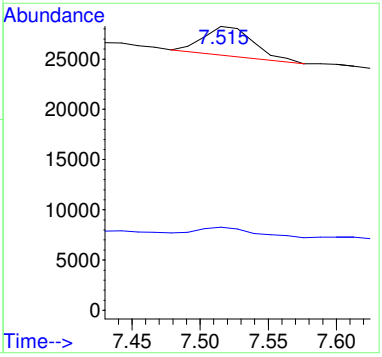


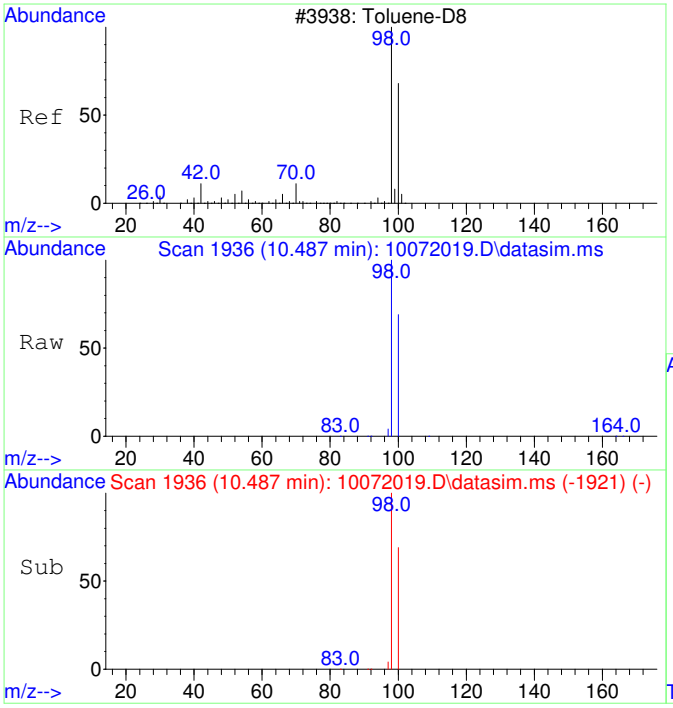




#9
Benzene
Concen: 64.93 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion: 78 Resp: 6994

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 40.5 | 0.0 | 53.2 |

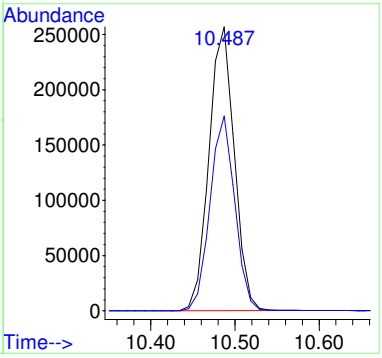


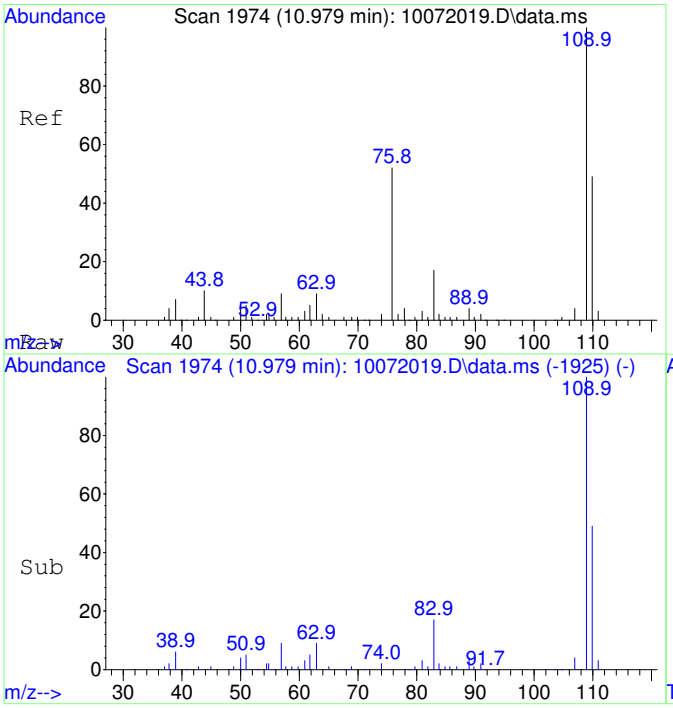



#12
Toluene-d8
Concen: 4332.96 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion: 98 Resp: 537782

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.0 | 37.1 | 97.1 |

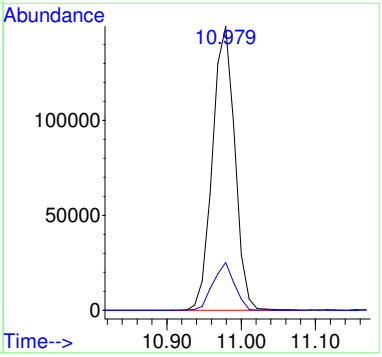


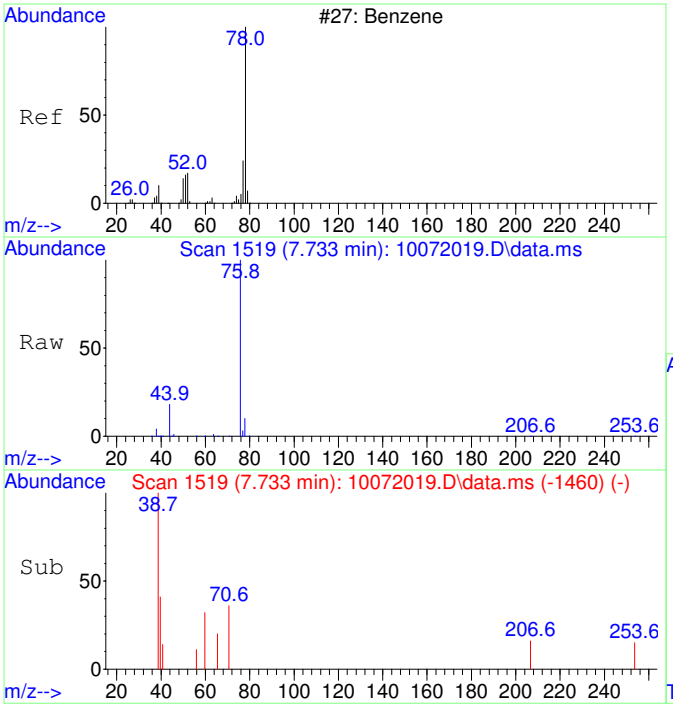




#25
2-Fluorotoluene SCAN
Concen: 5039.93 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion:109 Resp: 311489

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 16.2 | 0.0 | 43.8 |

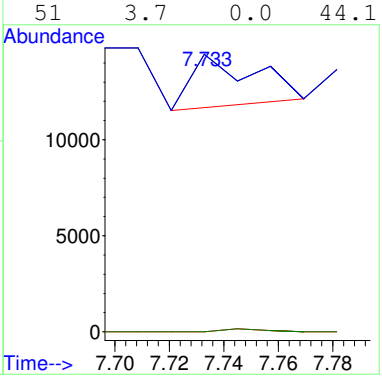


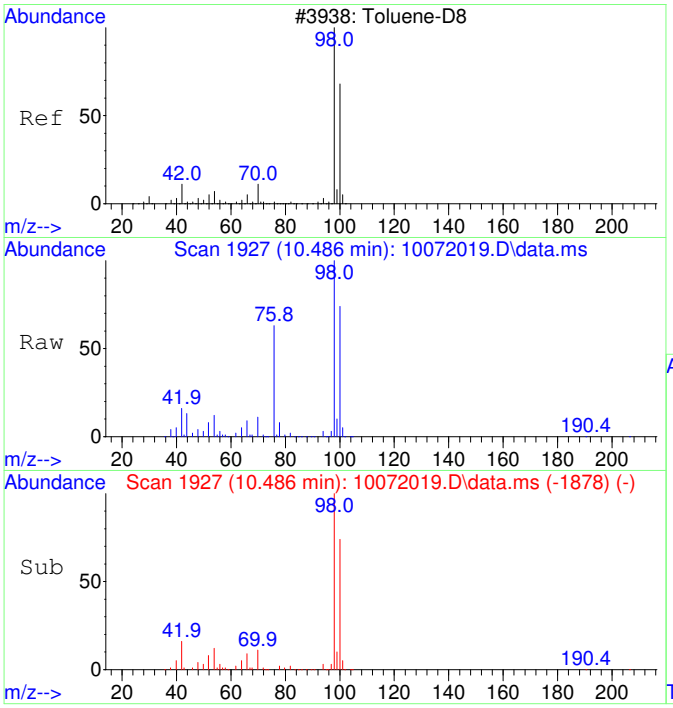



#33
Benzene SCAN
Concen: 82.11 ug/L
RT: 7.733 min Scan# 1519
Delta R.T. 0.219 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion: 78 Resp: 4500

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 3.7 | 0.0 | 47.9 |
| 51 | 3.7 | 0.0 | 44.1 |

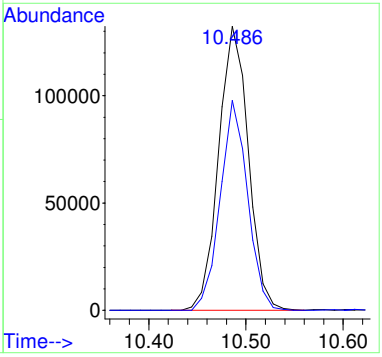


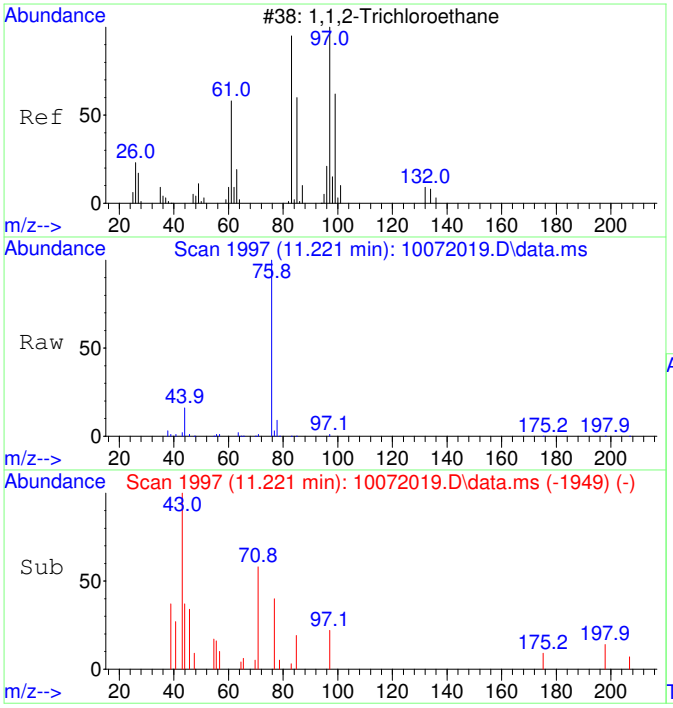




#36
Toluene-d8 SCAN
Concen: 4644.33 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion: 98 Resp: 280716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 68.0 | 40.0 | 100.0 |

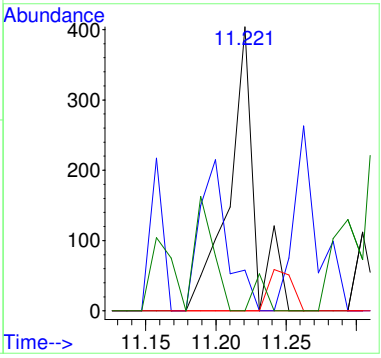





#38
1,1,2-Trichloroethane SCAN
Concen: 29.87 ug/L
RT: 11.221 min Scan# 1997
Delta R.T. 0.000 min
Lab File: 10072019.D
Acq: 7 Oct 2020 15:26

Tgt Ion: 97 Resp: 519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 0.0 | 36.7 | 96.7# |



# 2009037-01RE1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072021.D
Acq On : 7 Oct 2020 16:13
InstName : AG5975C
Operator : TD
Sample : 2009037-01RE1
Misc : 10X DL (90-10)
ALS Vial : 20 Sample Multiplier: 10

Quant Time: Oct 08 06:39:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

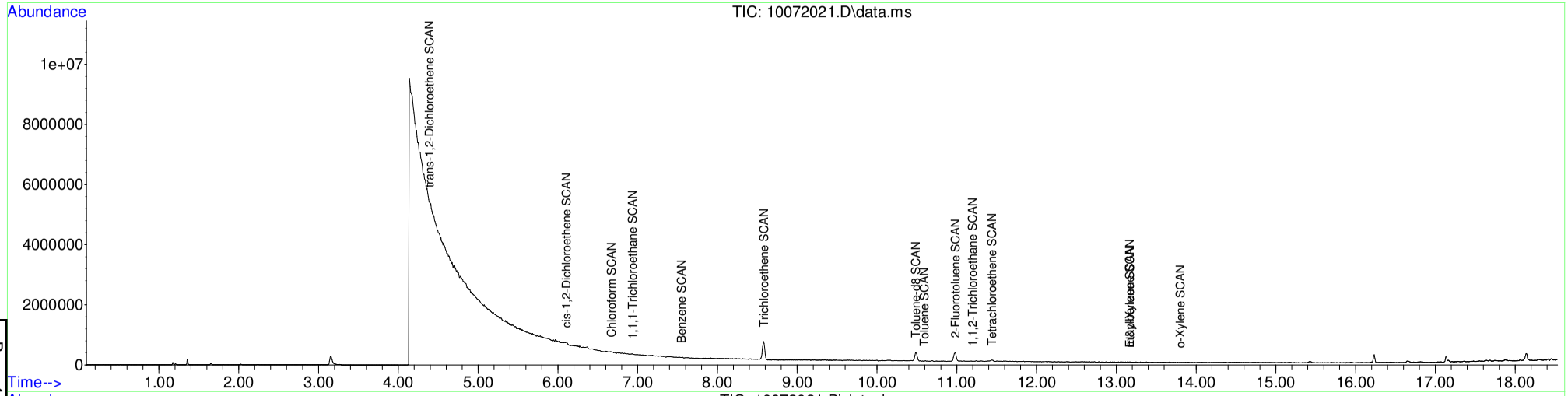
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 497802 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 416401 | 4272.97 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 85.46%# | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.093 | 61 | 3529 | 177.53 ug/L | 84 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 6002 | 261.34 ug/L | 89 |
| 4] 1,1-Dichloroethane | 5.106 | 63 | 3699 | 129.39 ug/L | 72 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 101053 | 3348.62 ug/L RPT | 99 |
| 6] Chloroform | 6.664 | 83 | 39592 | 1281.80 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 3950 | 117.75 ug/L | 99 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1149 | 36.39 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 5097 | 60.26 ug/L # | 1 |
| 11] Trichloroethene | 8.580 | 130 | 405991 | 15942.64 ug/L RPT | 92 |
| 13] Toluene | 10.582 | 91 | 13844 | 111.43 ug/L | 98 |
| 15] Tetrachloroethene | 11.442 | 166 | 25480 | 708.67 ug/L | 99 |
| 19] m&p-Xylene | 13.170 | 91 | 5842 | 49.43 ug/L | 93 |
| 20] o-Xylene | 13.782 | 91 | 3122 | 24.72 ug/L | 95 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 252857 | 5210.70 ug/L | 98 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 4356 | 341.58 ug/L # | 24 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 56174 | 3552.54 ug/L | 86 |
| 30) Chloroform SCAN | 6.675 | 83 | 25663 | 1496.32 ug/L | 89 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 2268 | 145.11 ug/L # | 46 |
| 33) Benzene SCAN | 7.550 | 78 | 7471 | 173.61 ug/L | 96 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 198410 | 16777.87 ug/L | 83 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 221178 | 4660.55 ug/L | 91 |
| 37) Toluene SCAN | 10.591 | 91 | 8152 | 134.13 ug/L | 94 |
| 38) 1,1,2-Trichloroethane ... | 11.200 | 97 | 290 | 21.26 ug/L # | 1 |
| 39) Tetrachloroethene SCAN | 11.441 | 166 | 12343 | 845.33 ug/L | 87 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 4135 | 37.35 ug/L | 82 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 4135 | 37.35 ug/L | 75 |
| 44) o-Xylene SCAN | 13.797 | 91 | 1626 | 27.43 ug/L # | 40 |

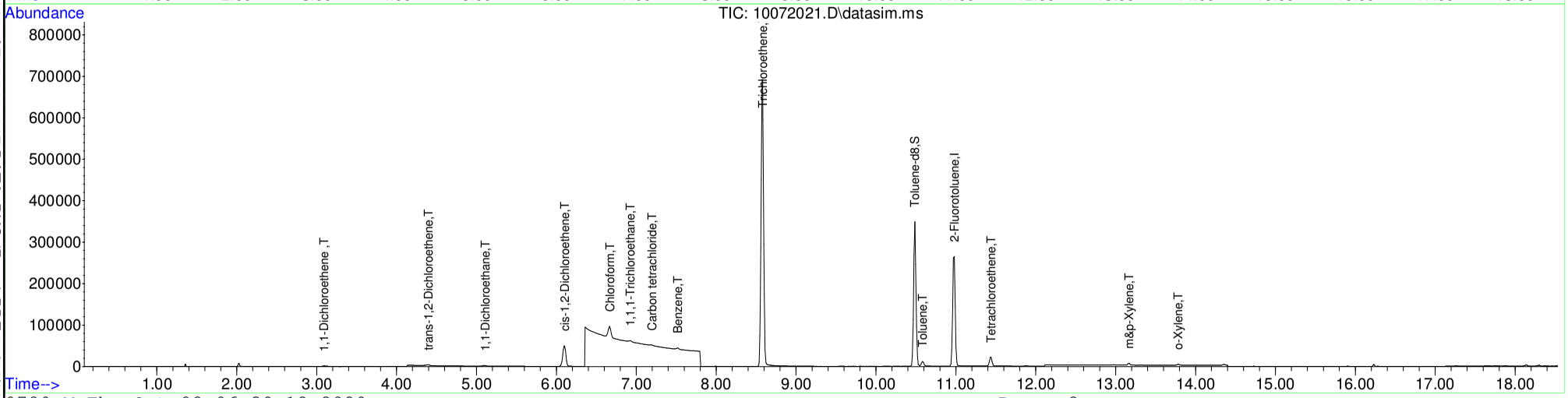
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072021.D
Acq On : 7 Oct 2020 16:13
InstName : AG5975C
Operator : TD
Sample : 2009037-01RE1
Misc : 10X DL (90-10)
ALS Vial : 20 Sample Multiplier: 10

Quant Time: Oct 08 06:39:11 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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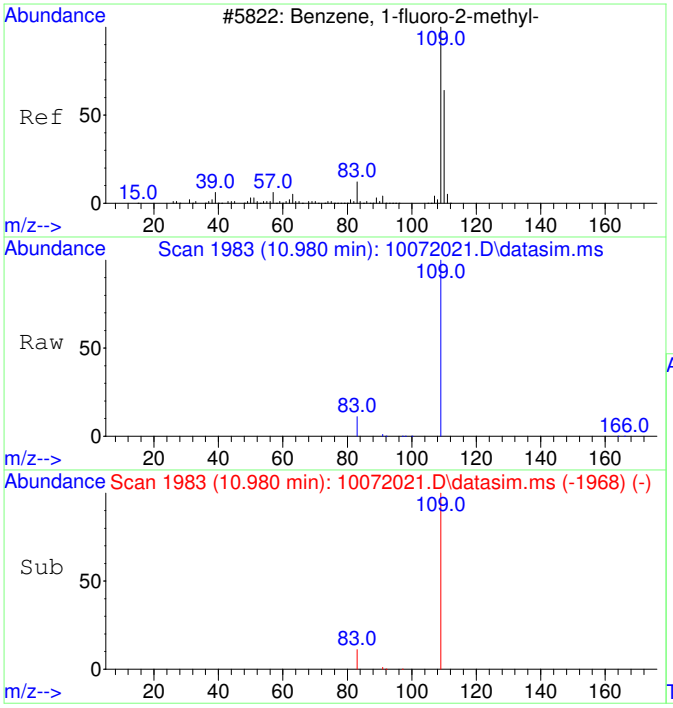
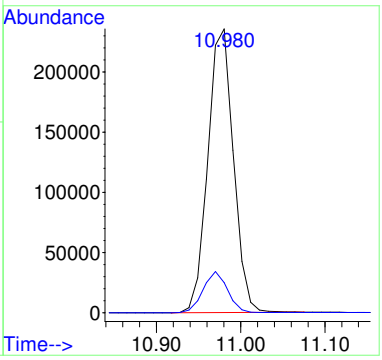
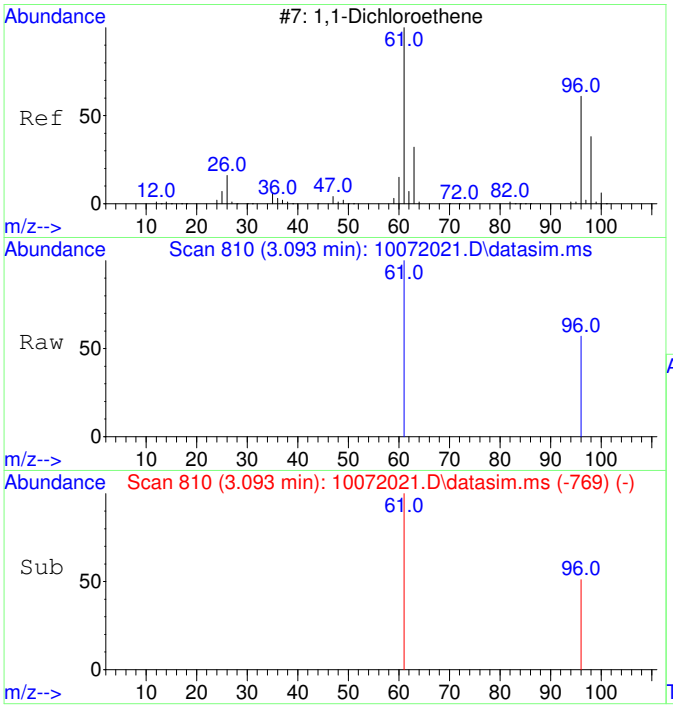



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:109 Resp: 497802

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

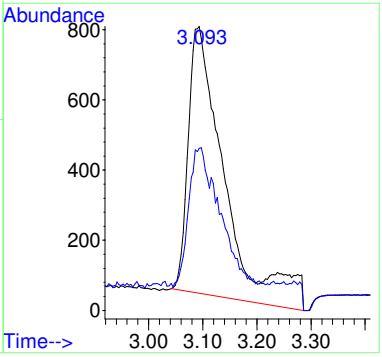


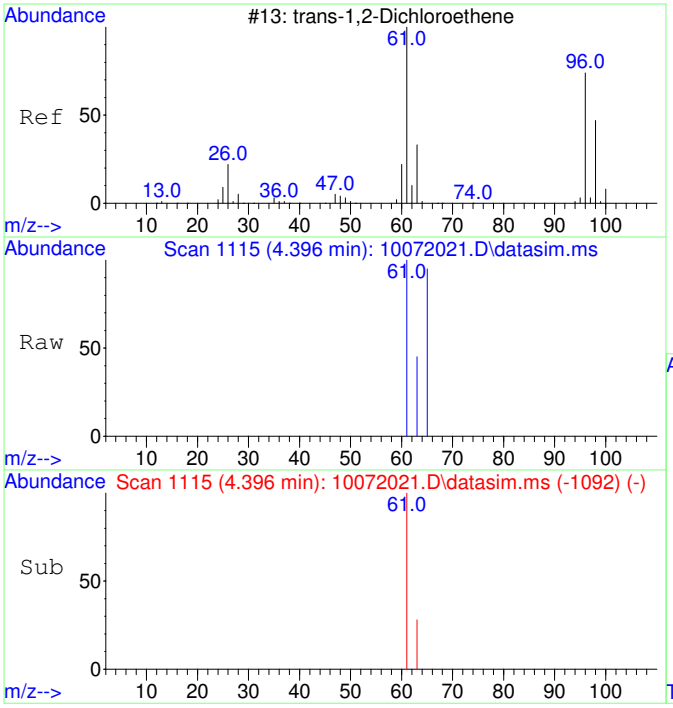




#2
1,1-Dichloroethene
Concen: 177.53 ug/L
RT: 3.093 min Scan# 810
Delta R.T. 0.004 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 61 Resp: 3529

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 37.2 | 97.2 |

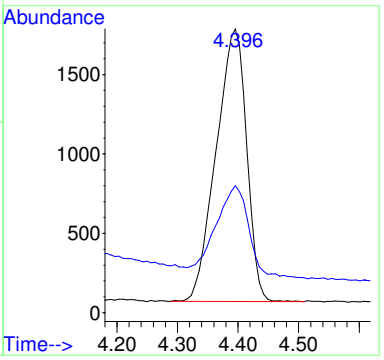


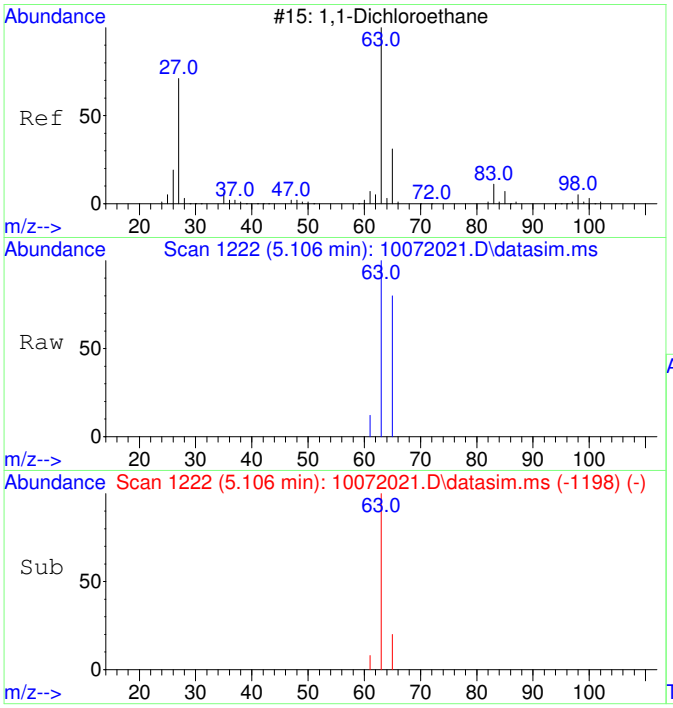



#3
trans-1,2-Dichloroethene
Concen: 261.34 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 61 Resp: 6002

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 38.6 | 2.4 | 62.4 |

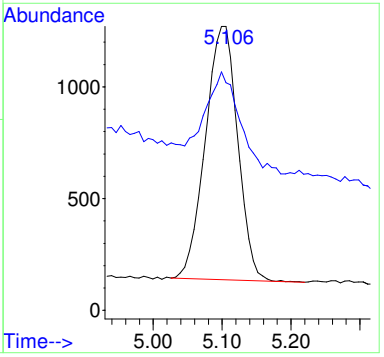


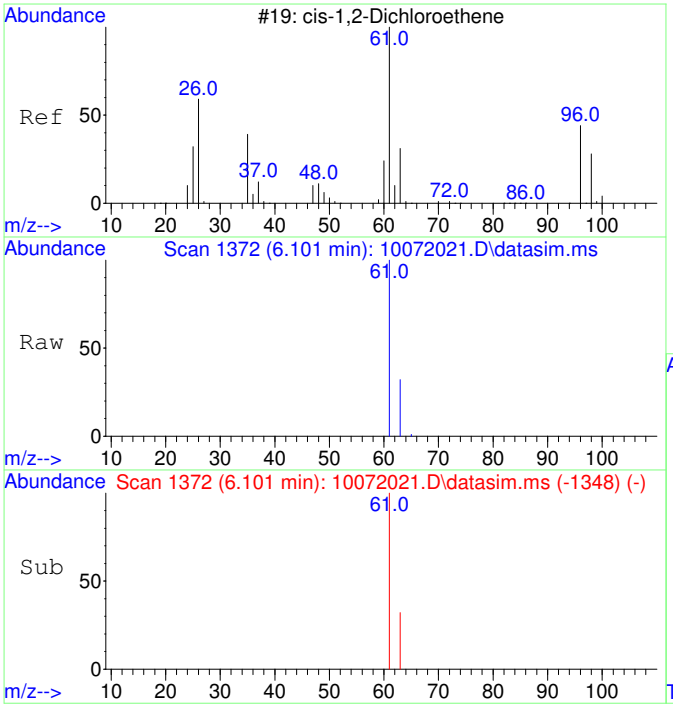




#4
1,1-Dichloroethane
Concen: 129.39 ug/L
RT: 5.106 min Scan# 1222
Delta R.T. 0.007 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 63 Resp: 3699

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 47.3 | 1.8 | 61.8 |

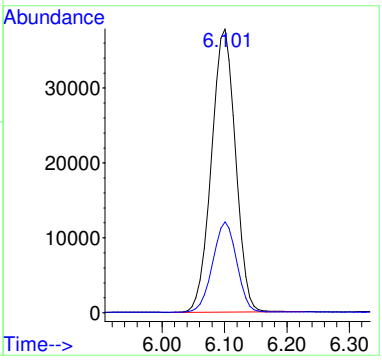


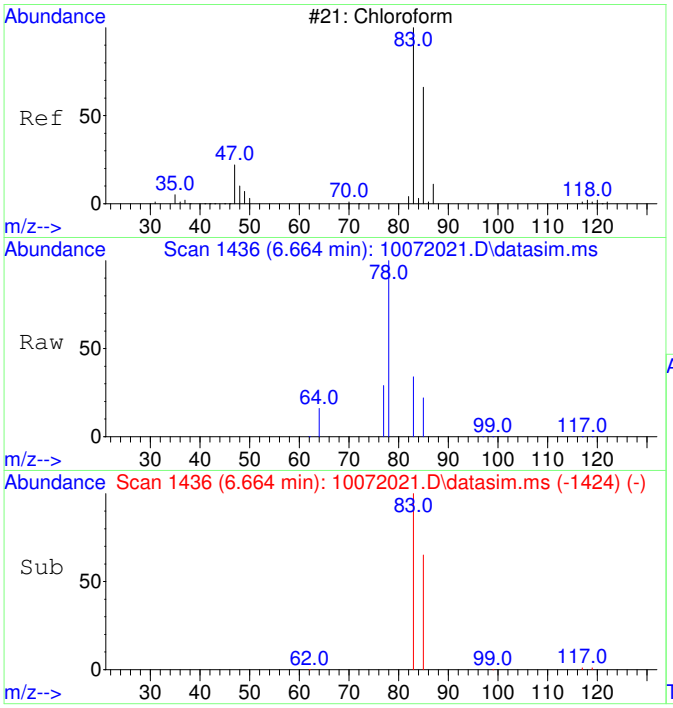



#5
cis-1,2-Dichloroethene
Concen: 3348.62 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 61 Resp: 101053

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.7 | 2.5 | 62.5 |

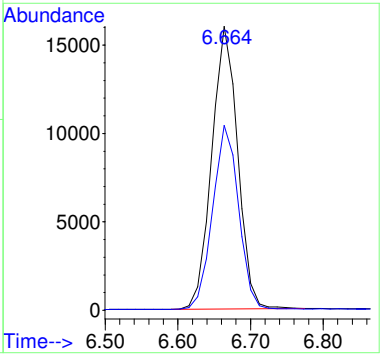


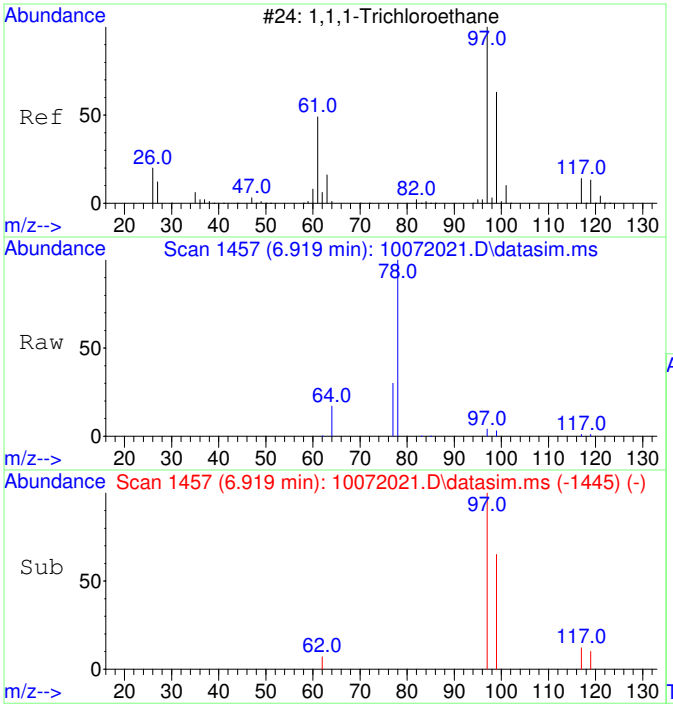




#6
Chloroform
Concen: 1281.80 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 83 Resp: 39592

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 35.1 | 95.1 |

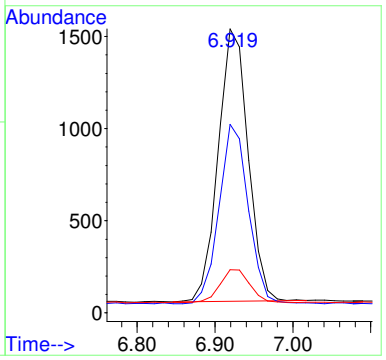


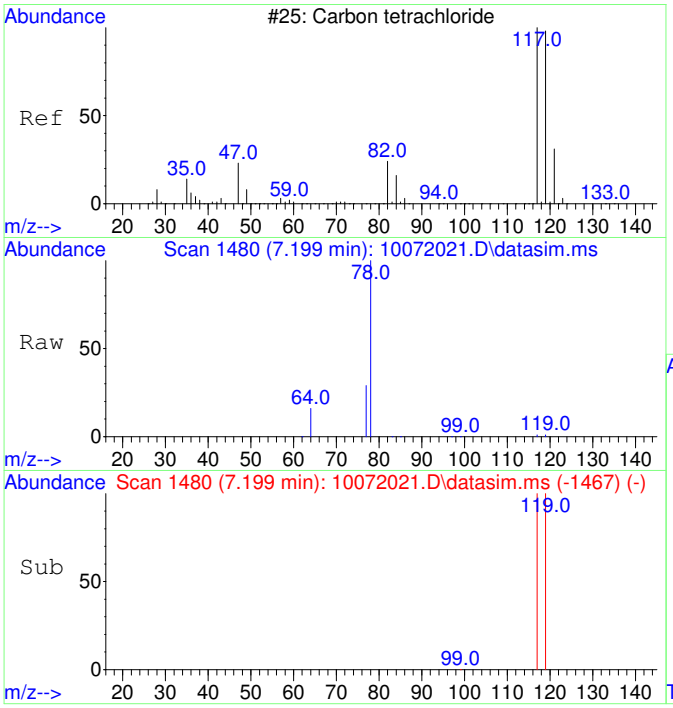



#7
1,1,1-Trichloroethane
Concen: 117.75 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 97 Resp: 3950

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.3 | 34.6 | 94.6 |
| 117 | 12.2 | 0.0 | 43.2 |

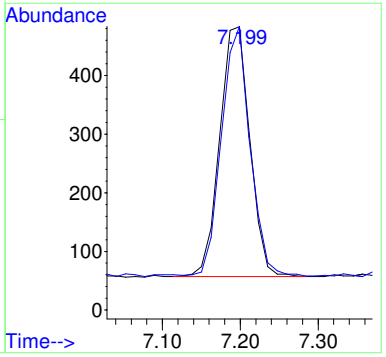


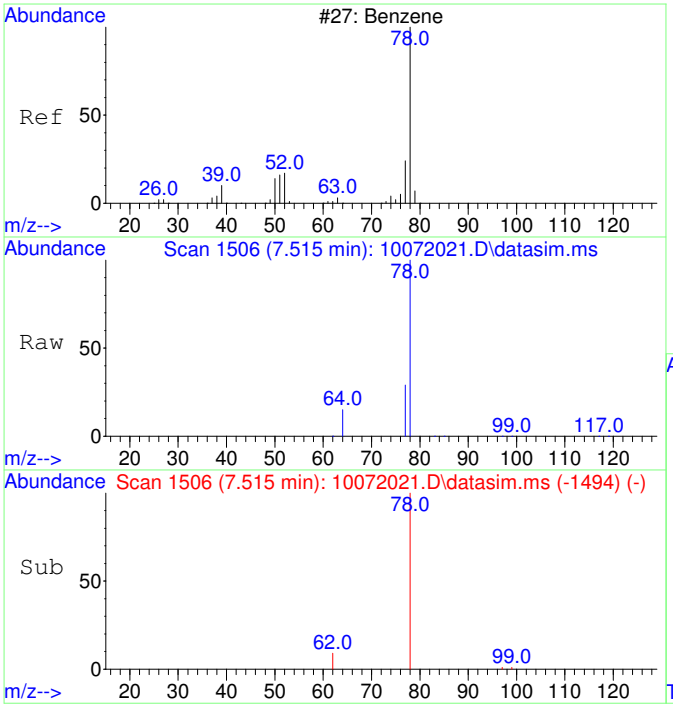




#8
Carbon tetrachloride
Concen: 36.39 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:117 Resp: 1149

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.1 | 66.4 | 126.4 |

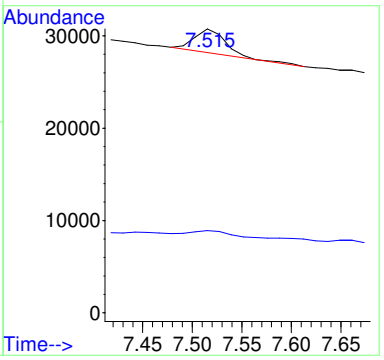


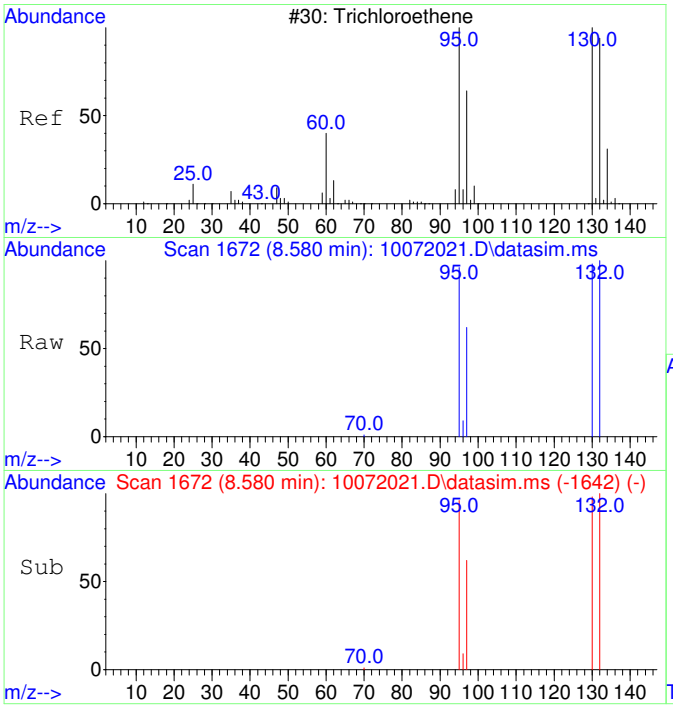



#9
Benzene
Concen: 60.26 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 78 Resp: 5097

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 92.7 | 0.0 | 53.2# |

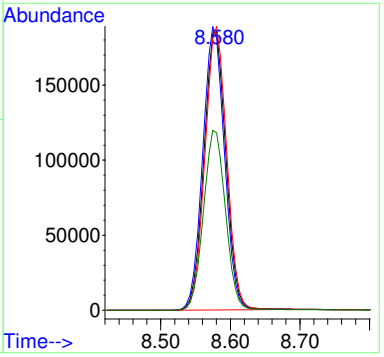


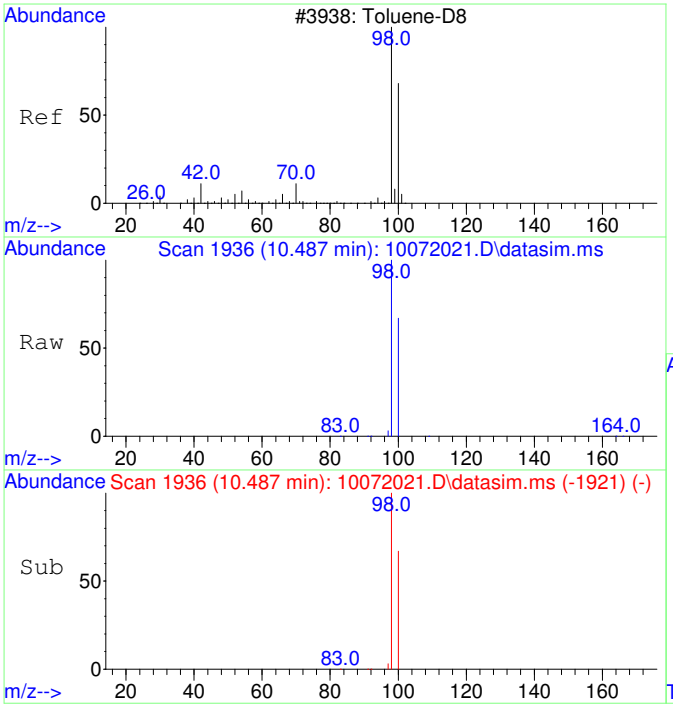




#11
Trichloroethene
Concen: 15942.64 ug/L
RT: 8.580 min Scan# 1672
Delta R.T. 0.011 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:130 Resp: 405991

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.7 | 60.7 | 120.7 |
| 132 | 100.5 | 76.0 | 116.0 |
| 97 | 64.6 | 38.6 | 78.6 |

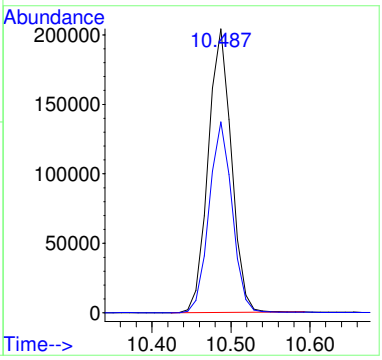


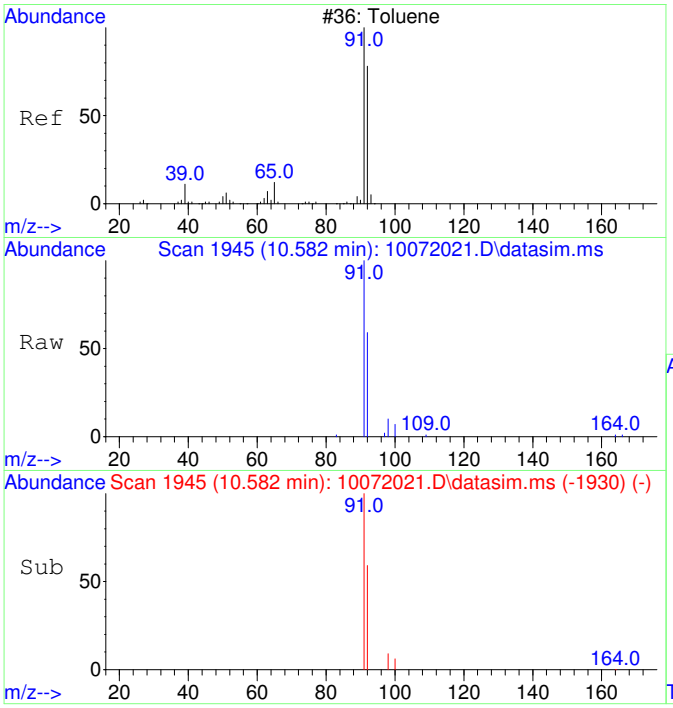



#12
Toluene-d8
Concen: 4272.97 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 98 Resp: 416401

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.5 | 37.1 | 97.1 |

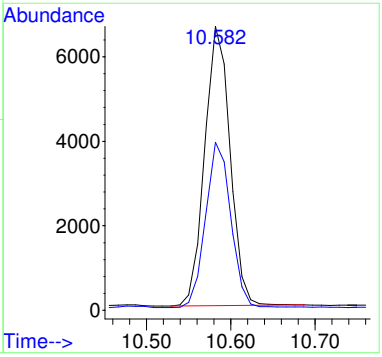


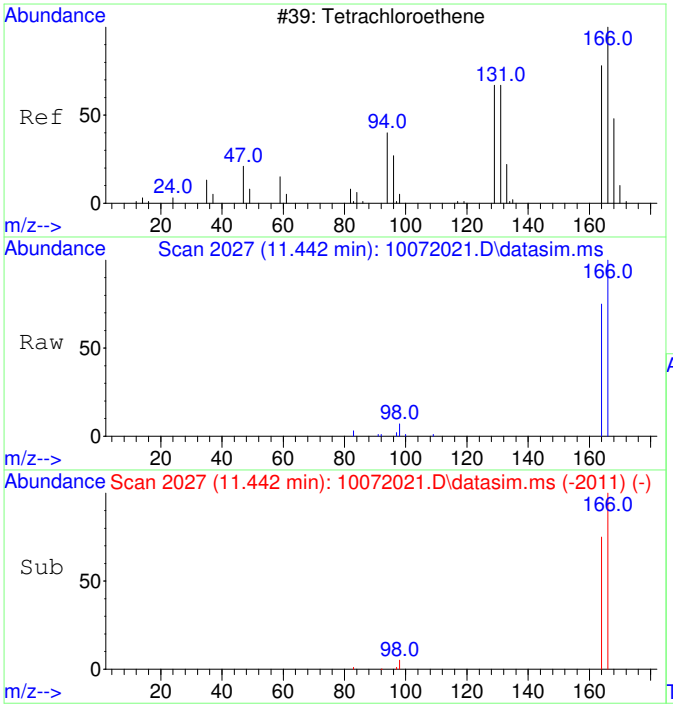




#13
Toluene
Concen: 111.43 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 13844

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.5 | 29.9 | 89.9 |

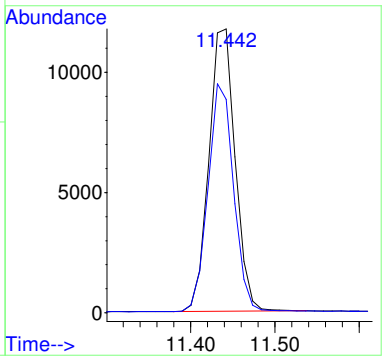


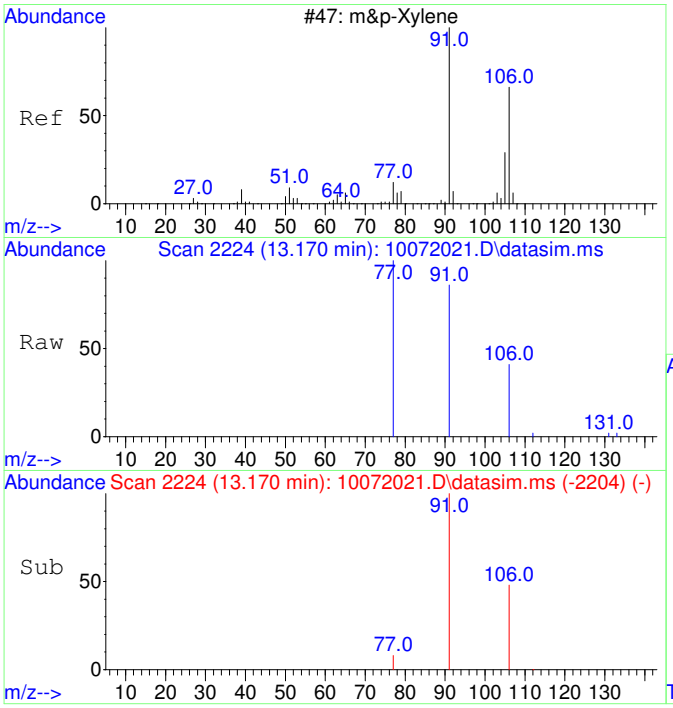



#15
Tetrachloroethene
Concen: 708.67 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:166 Resp: 25480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.4 | 47.8 | 107.8 |

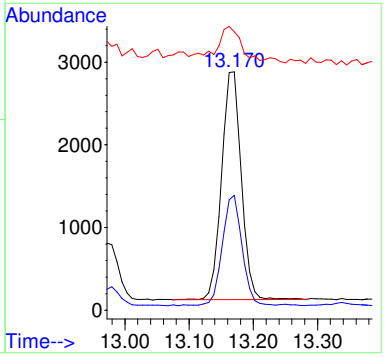


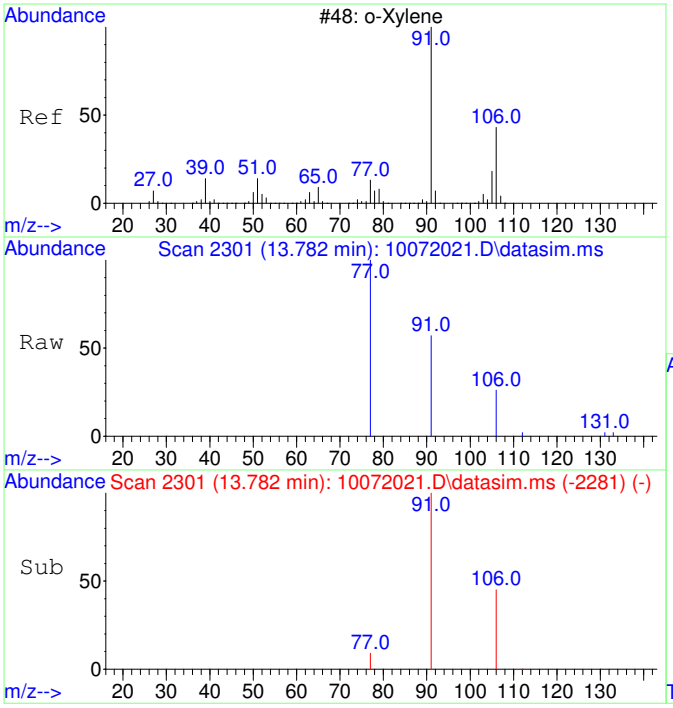




#19
m&p-Xylene
Concen: 49.43 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 5842

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 17.8 | 0.0 | 42.4 |

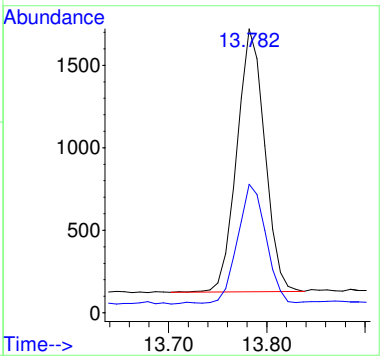


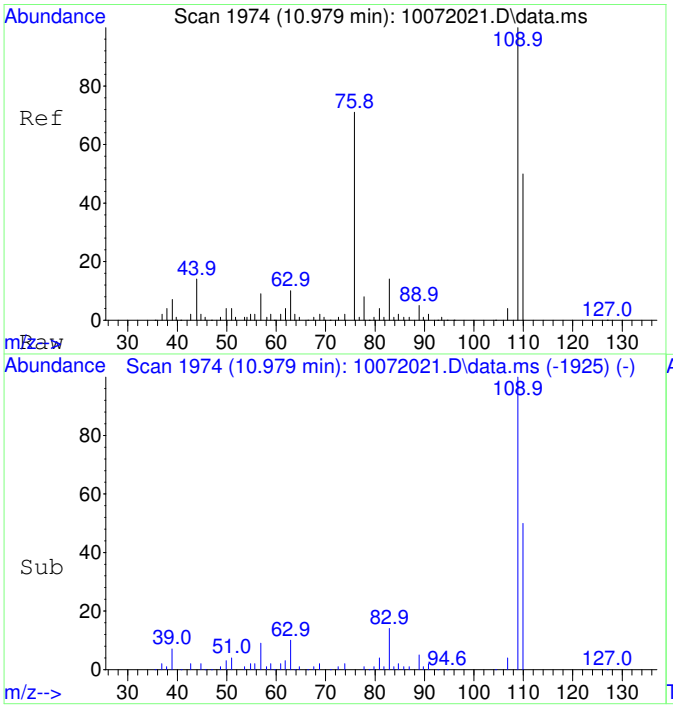



#20
o-Xylene
Concen: 24.72 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 3122

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 19.2 | 79.2 |

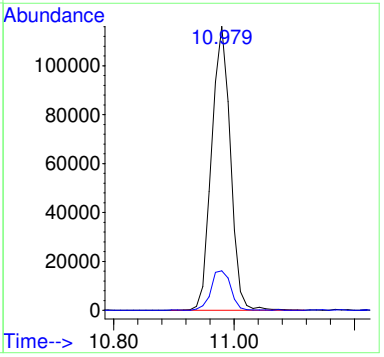


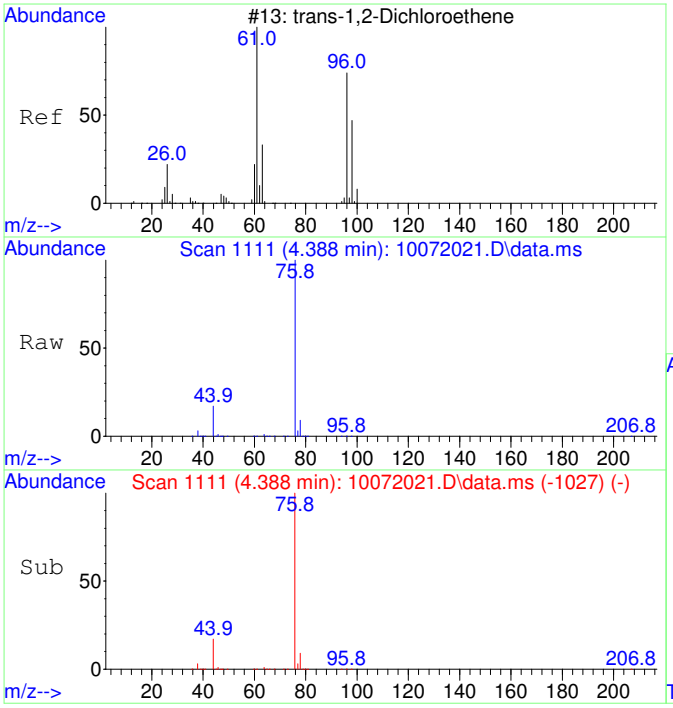




#25
2-Fluorotoluene SCAN
Concen: 5210.70 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:109 Resp: 252857

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.5 | 0.0 | 43.8 |

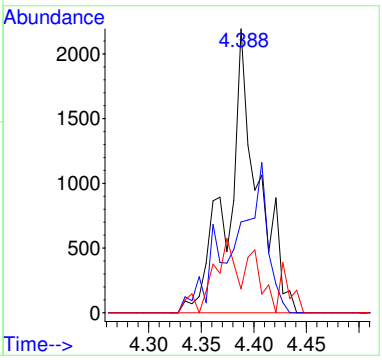


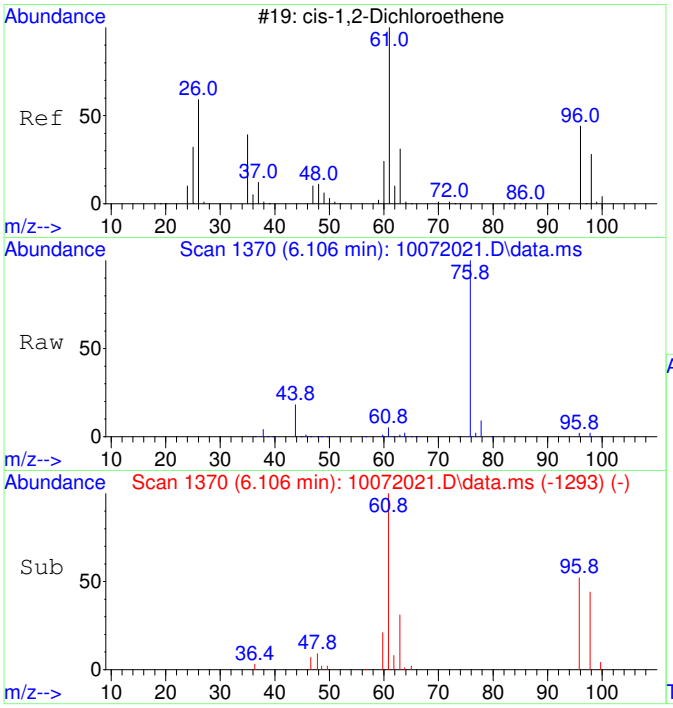



#27
trans-1,2-Dichloroethene SCAN
Concen: 341.58 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 61 Resp: 4356

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 13.1 | 20.5 | 80.5# |

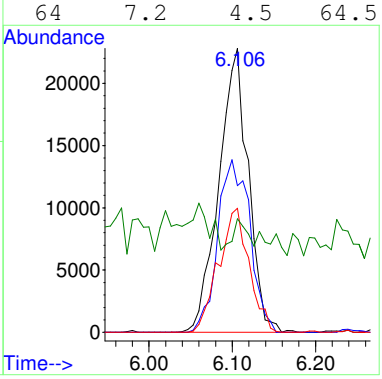


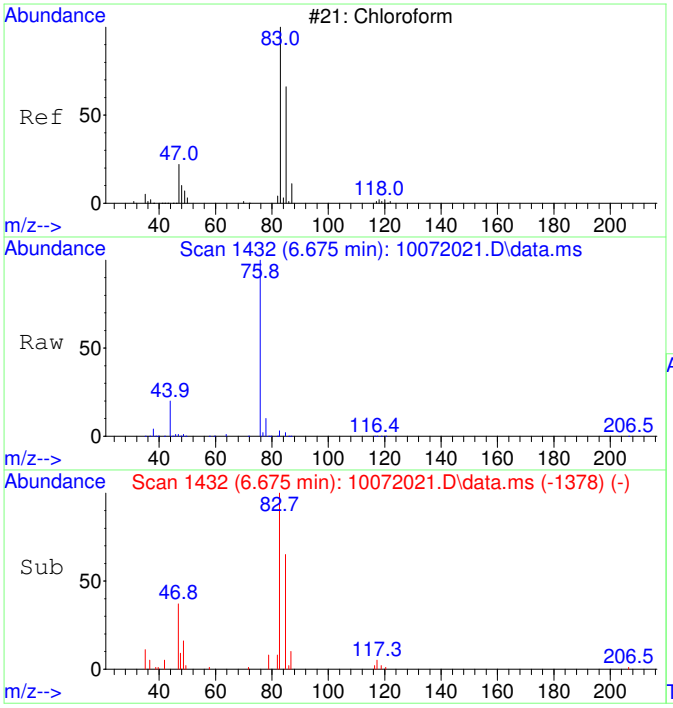




#29
cis-1,2-Dichloroethene SCAN
Concen: 3552.54 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 61 Resp: 56174

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 66.4 | 39.9 | 99.9 |
| 98 | 45.2 | 13.5 | 73.5 |
| 64 | 7.2 | 4.5 | 64.5 |

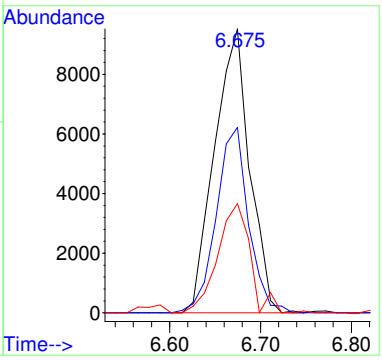


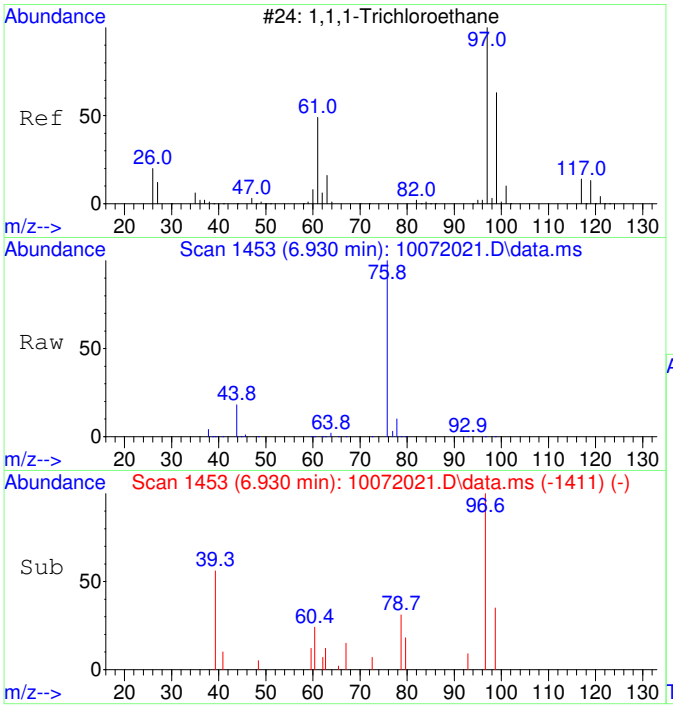



#30
Chloroform SCAN
Concen: 1496.32 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 83 Resp: 25663

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 59.8 | 34.6 | 94.6 |
| 47 | 35.3 | 0.0 | 53.4 |

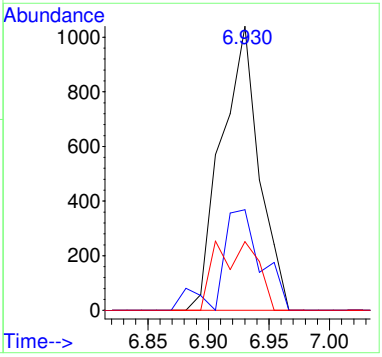


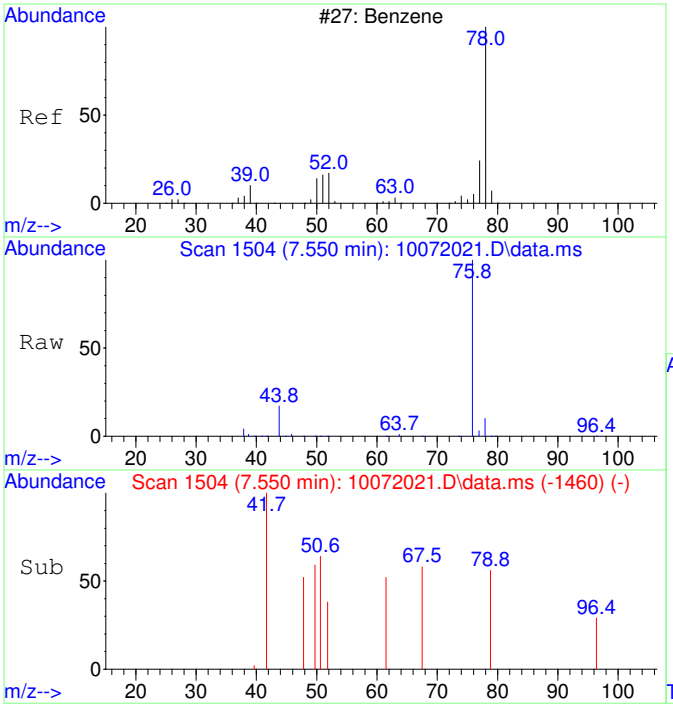




#31
1,1,1-Trichloroethane SCAN
Concen: 145.11 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 97 Resp: 2268

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 37.8 | 43.6 | 103.6# |
| 61 | 0.0 | 18.0 | 78.0# |

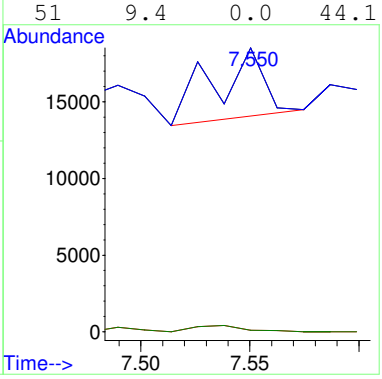


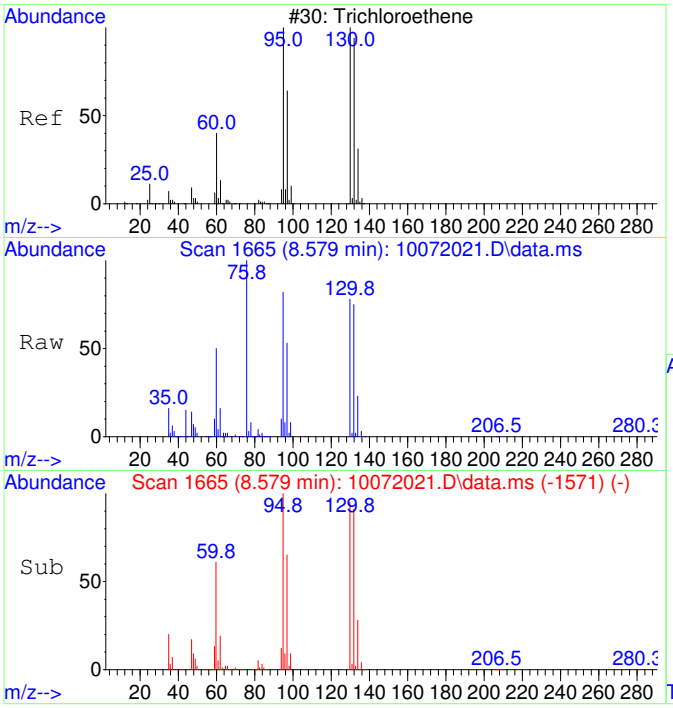



#33
Benzene SCAN
Concen: 173.61 ug/L
RT: 7.550 min Scan# 1504
Delta R.T. 0.036 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 78 Resp: 7471

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 9.4 | 0.0 | 47.9 |
| 51 | 9.4 | 0.0 | 44.1 |

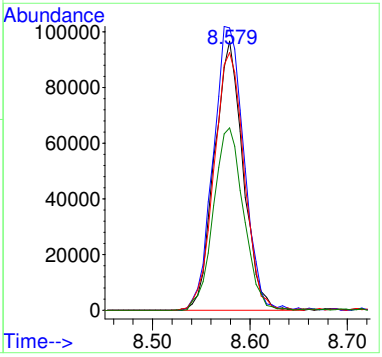


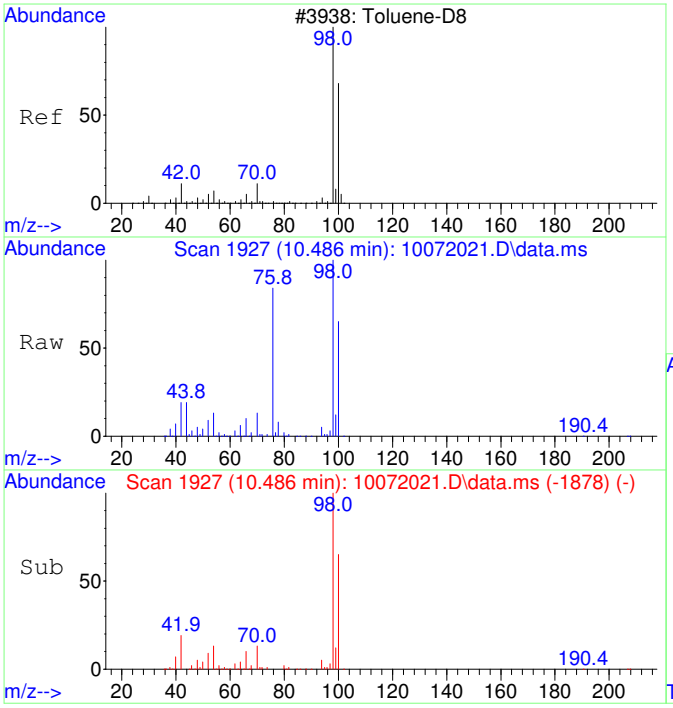




#35
Trichloroethene SCAN
Concen: 16777.87 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:130 Resp: 198410

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 112.3 | 60.5 | 120.5 |
| 132 | 100.1 | 59.6 | 119.6 |
| 97 | 70.7 | 28.2 | 88.2 |

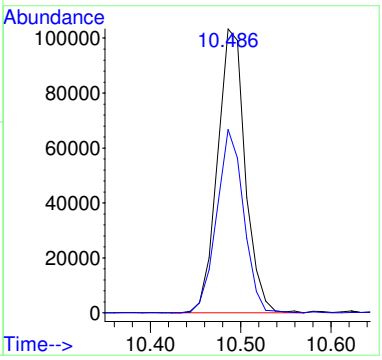


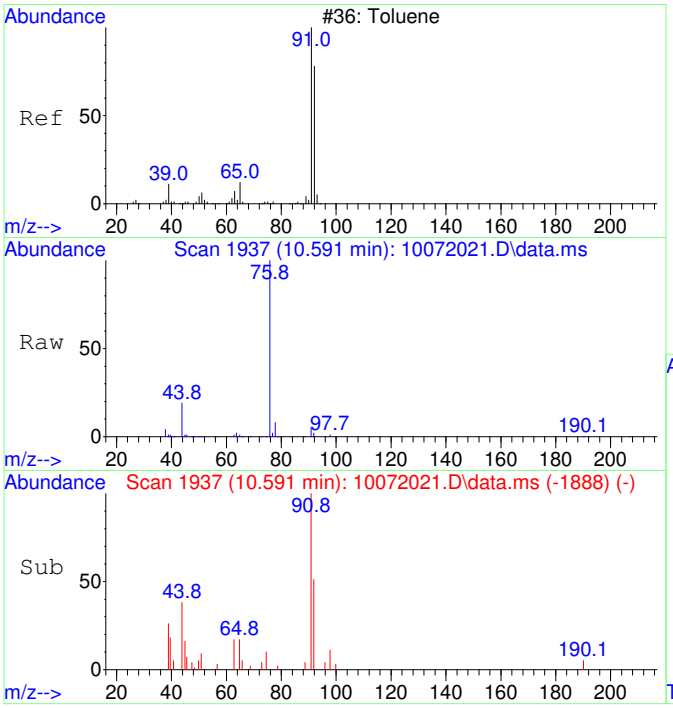



#36
Toluene-d8 SCAN
Concen: 4660.55 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 98 Resp: 221178

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 62.8 | 40.0 | 100.0 |

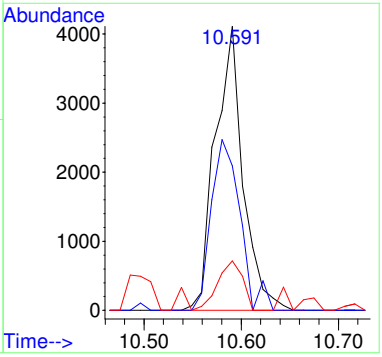


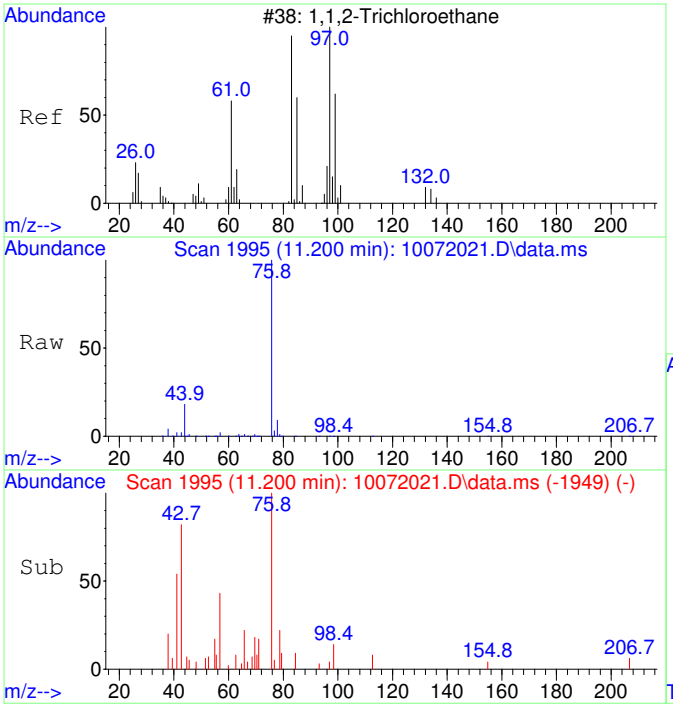




#37
Toluene SCAN
Concen: 134.13 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 8152

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 62.3 | 28.3 | 88.3 |
| 65 | 15.6 | 0.0 | 41.0 |

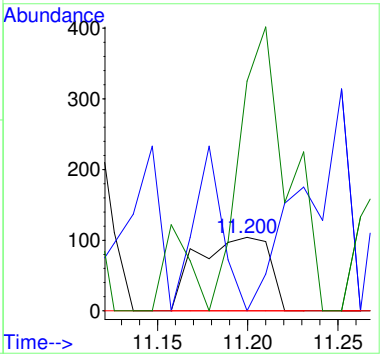


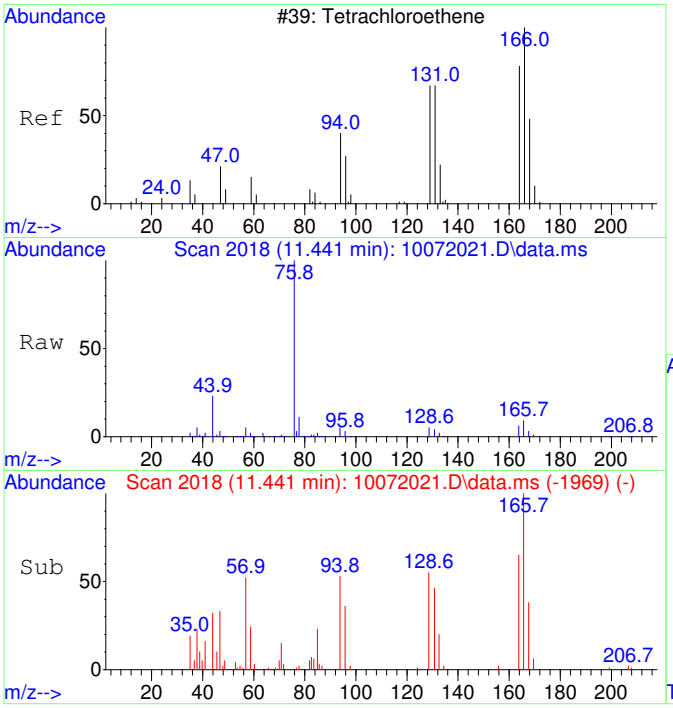



#38
1,1,2-Trichloroethane SCAN
Concen: 21.26 ug/L
RT: 11.200 min Scan# 1995
Delta R.T. -0.021 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 97 Resp: 290

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 261.0 | 36.7 | 96.7# |

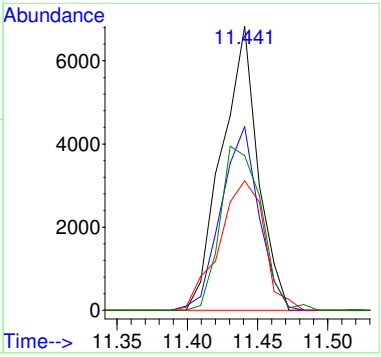


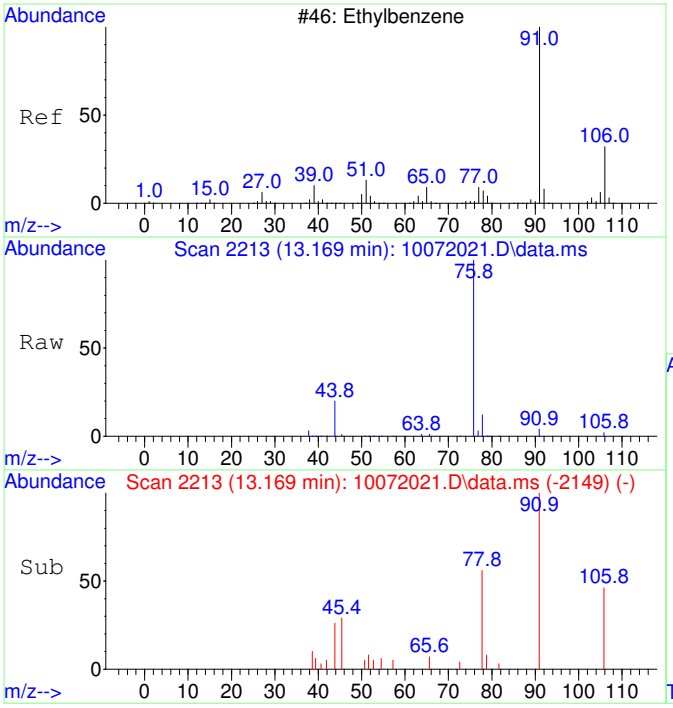




#39
Tetrachloroethene SCAN
Concen: 845.33 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.010 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion:166 Resp: 12343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 67.6 | 50.9 | 110.9 |
| 131 | 56.7 | 38.7 | 98.7 |
| 129 | 65.4 | 41.8 | 101.8 |

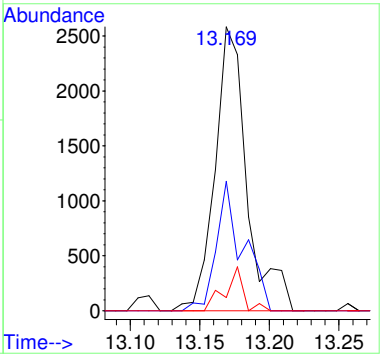


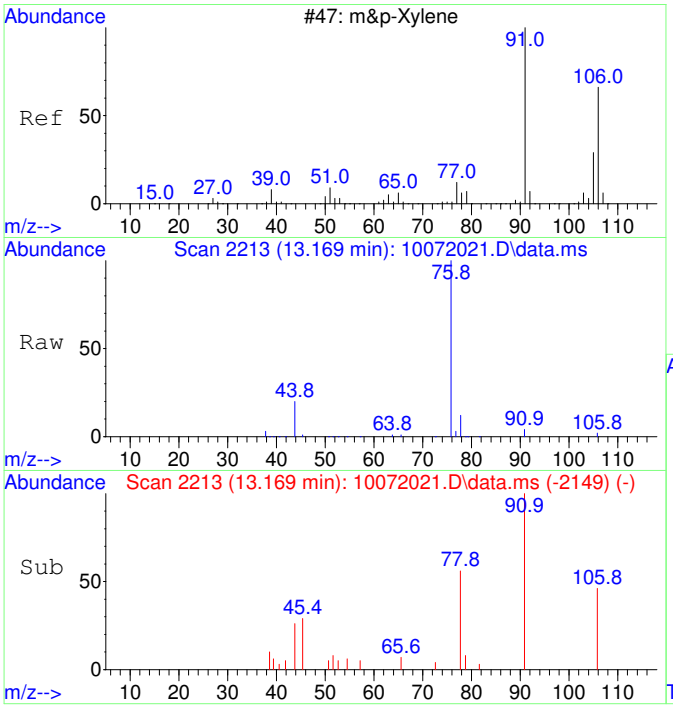



#42
Ethylbenzene SCAN
Concen: 37.35 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 4135

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 38.3 | 23.1 | 83.1 |
| 51 | 8.9 | 0.0 | 40.1 |

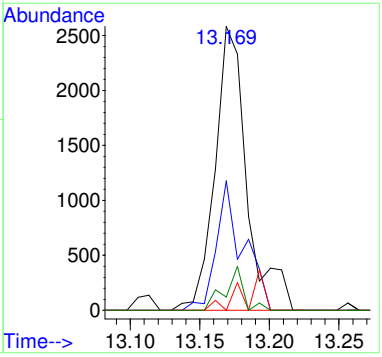


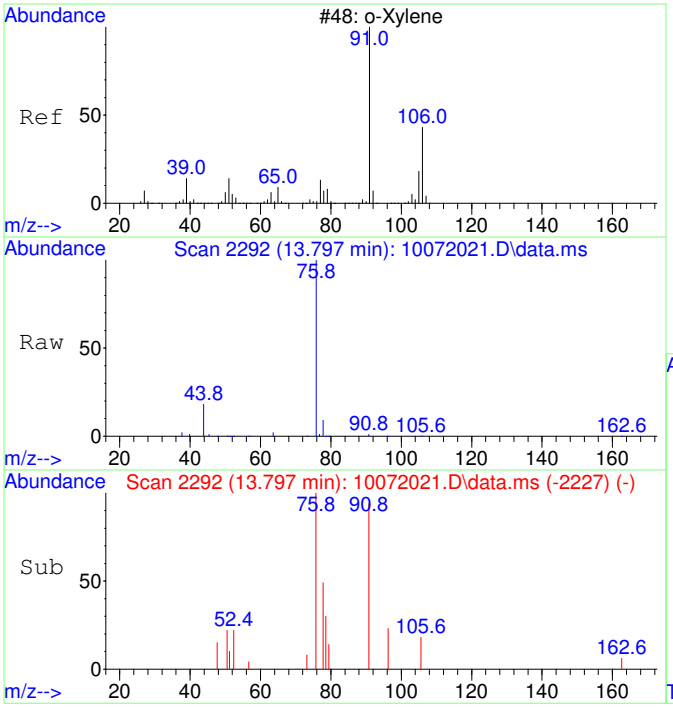




#43
m&p-Xylene SCAN
Concen: 37.35 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 4135

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 38.3 | 23.1 | 83.1 |
| 105 | 3.9 | 0.0 | 54.7 |
| 51 | 8.9 | 0.0 | 40.1 |

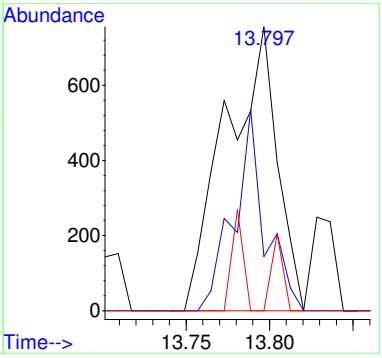





#44
o-Xylene SCAN
Concen: 27.43 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10072021.D
Acq: 7 Oct 2020 16:13

Tgt Ion: 91 Resp: 1626

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 18.0 | 78.0# |
| 105 | 6.0 | 0.0 | 56.6 |



# 2009037-02RE1

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072022.D
Acq On : 7 Oct 2020 16:37
InstName : AG5975C
Operator : TD
Sample : 2009037-02RE1
Misc : 10X DL (90-10)
ALS Vial : 21 Sample Multiplier: 10

Quant Time: Oct 08 06:39:17 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

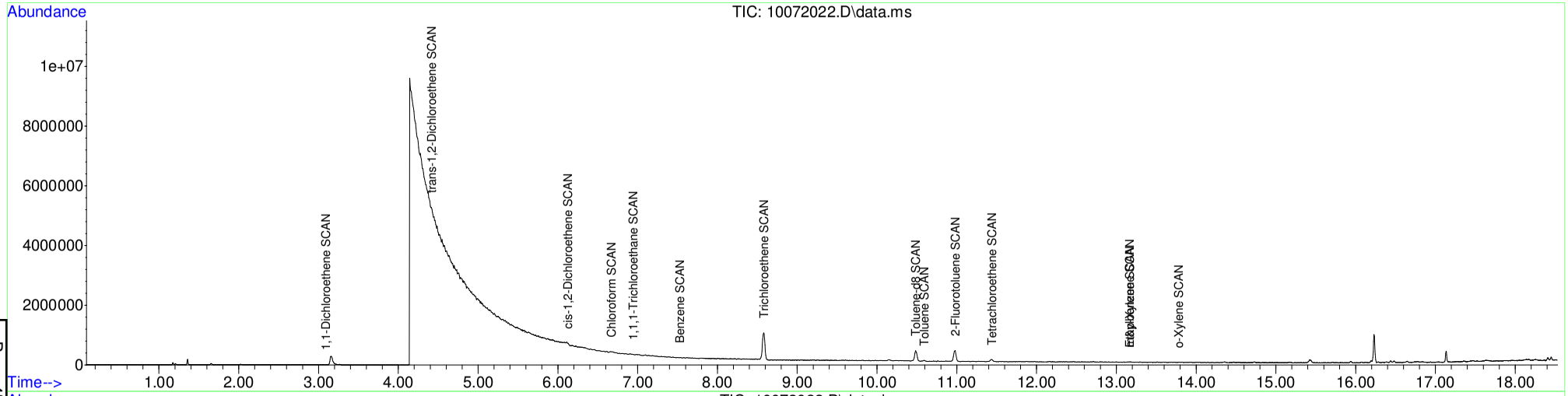
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 592133 | 5000.00 | ug/L | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 496787 | 4285.74 | ug/L | | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 85.71%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 2873 | 121.51 | ug/L | # | 42 |
| 3] trans-1,2-Dichloroethene | 4.422 | 61 | 6991 | 255.91 | ug/L | | 93 |
| 4] 1,1-Dichloroethane | 5.119 | 63 | 2548 | 74.93 | ug/L | | 59 |
| 5] cis-1,2-Dichloroethene | 6.107 | 61 | 112625 | 3137.54 | ug/L | RPT | 99 |
| 6] Chloroform | 6.676 | 83 | 38557 | 1049.43 | ug/L | | 99 |
| 7] 1,1,1-Trichloroethane | 6.931 | 97 | 4481 | 112.30 | ug/L | | 99 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1426 | 37.97 | ug/L | | 96 |
| 9] Benzene | 7.515 | 78 | 6464 | 64.25 | ug/L | # | 30 |
| 11] Trichloroethene | 8.580 | 130 | 643600 | 21246.98 | ug/L | RPT | 92 |
| 13] Toluene | 10.582 | 91 | 42815 | 289.72 | ug/L | | 98 |
| 15] Tetrachloroethene | 11.432 | 166 | 51609 | 1206.72 | ug/L | | 100 |
| 19] m&p-Xylene | 13.162 | 91 | 8892 | 63.25 | ug/L | | 93 |
| 20] o-Xylene | 13.782 | 91 | 6556 | 43.65 | ug/L | | 95 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 299441 | 5187.64 | ug/L | | 95 |
| 26) 1,1-Dichloroethene SCAN | 3.092 | 61 | 283 | 23.09 | ug/L | | 76 |
| 27) trans-1,2-Dichloroethe... | 4.414 | 61 | 2908 | 191.71 | ug/L | | 67 |
| 29) cis-1,2-Dichloroethene... | 6.119 | 61 | 67987 | 3614.65 | ug/L | # | 78 |
| 30) Chloroform SCAN | 6.675 | 83 | 21126 | 1035.55 | ug/L | | 92 |
| 31) 1,1,1-Trichloroethane ... | 6.942 | 97 | 2700 | 145.23 | ug/L | # | 71 |
| 33) Benzene SCAN | 7.526 | 78 | 6356 | 124.17 | ug/L | | 95 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 313839 | 22310.93 | ug/L | | 83 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 258504 | 4579.31 | ug/L | | 96 |
| 37) Toluene SCAN | 10.591 | 91 | 25921 | 358.55 | ug/L | | 97 |
| 39) Tetrachloroethene SCAN | 11.441 | 166 | 24653 | 1419.43 | ug/L | | 94 |
| 42) Ethylbenzene SCAN | 13.161 | 91 | 5660 | 42.97 | ug/L | | 75 |
| 43) m&p-Xylene SCAN | 13.161 | 91 | 5660 | 42.97 | ug/L | # | 68 |
| 44) o-Xylene SCAN | 13.781 | 91 | 3801 | 53.92 | ug/L | | 73 |

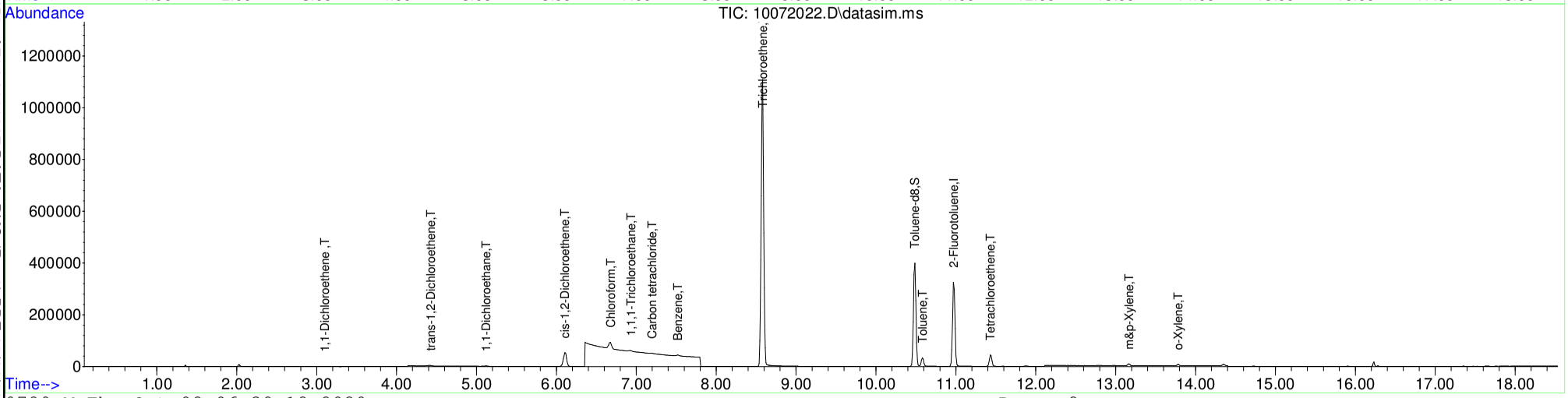
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072022.D
Acq On : 7 Oct 2020 16:37
InstName : AG5975C
Operator : TD
Sample : 2009037-02RE1
Misc : 10X DL (90-10)
ALS Vial : 21 Sample Multiplier: 10

Quant Time: Oct 08 06:39:17 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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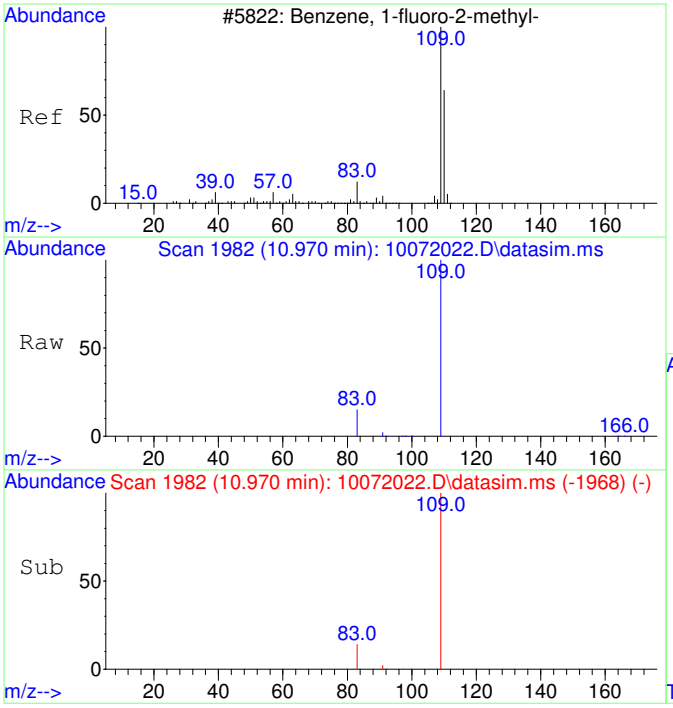
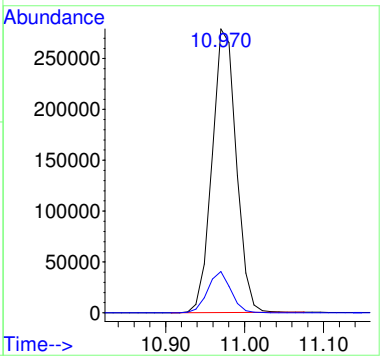
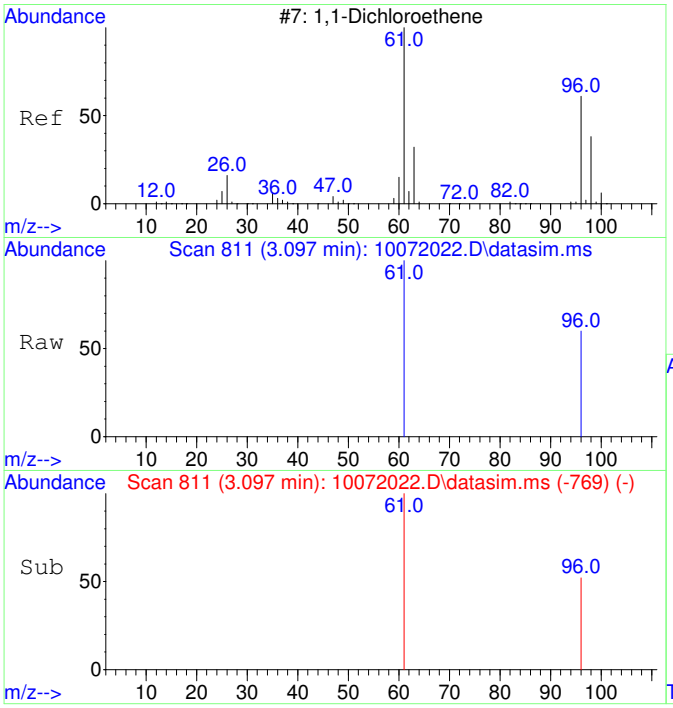



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:109 Resp: 592133

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

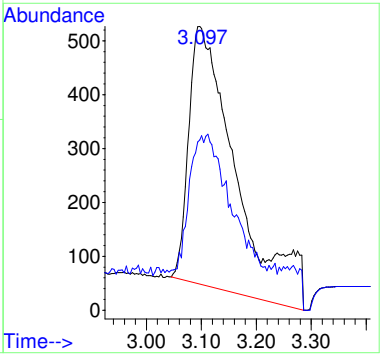


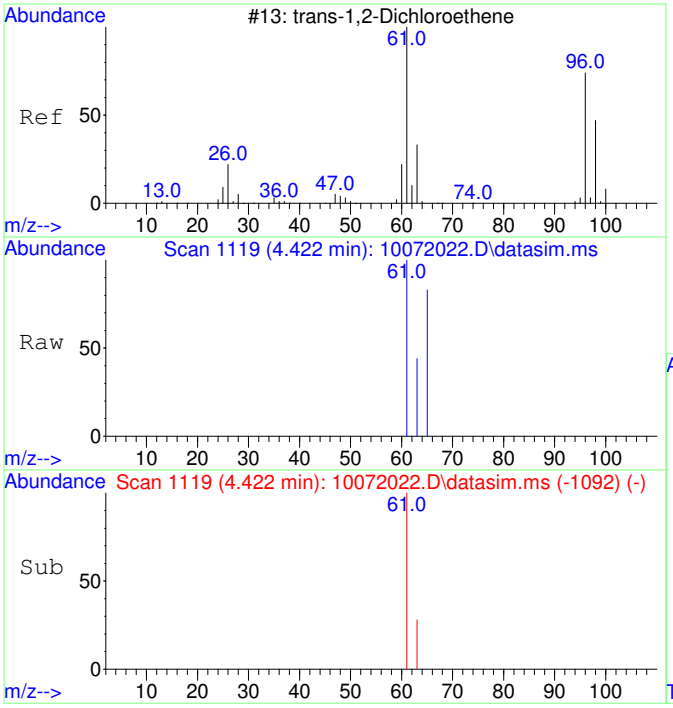




#2
1,1-Dichloroethene
Concen: 121.51 ug/L
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 2873

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 20.4 | 37.2 | 97.2# |

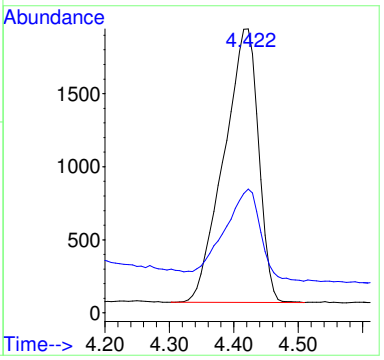


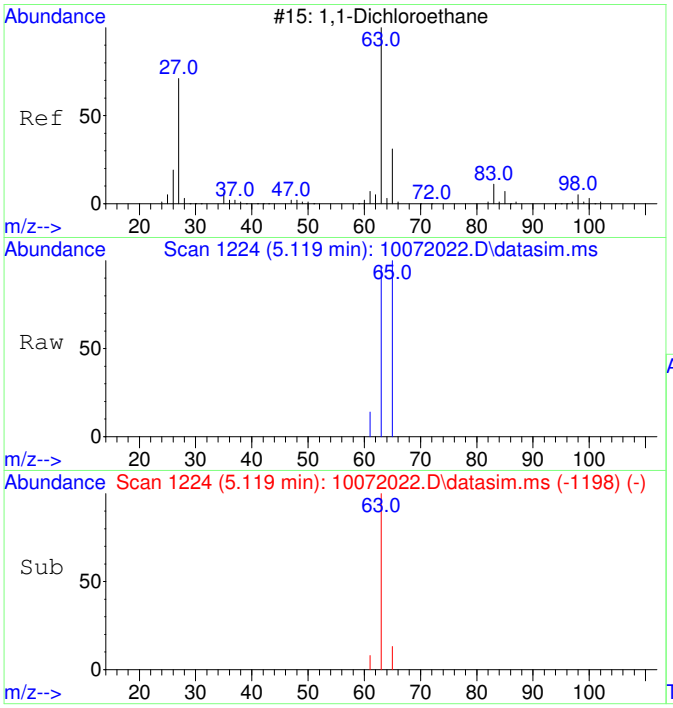



#3
trans-1,2-Dichloroethene
Concen: 255.91 ug/L
RT: 4.422 min Scan# 1119
Delta R.T. 0.026 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 6991

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 36.6 | 2.4 | 62.4 |

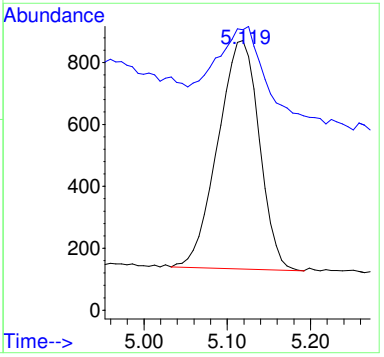


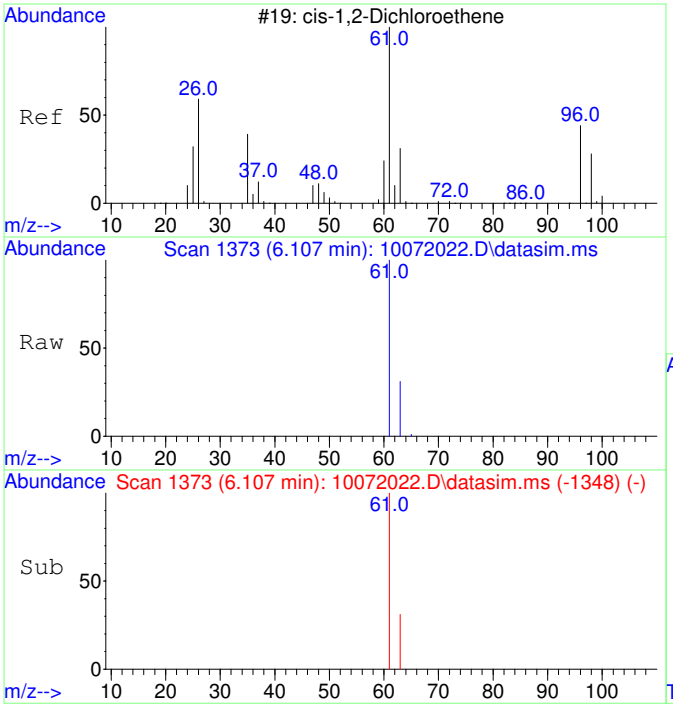




#4
1,1-Dichloroethane
Concen: 74.93 ug/L
RT: 5.119 min Scan# 1224
Delta R.T. 0.020 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 63 Resp: 2548

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 54.7 | 1.8 | 61.8 |

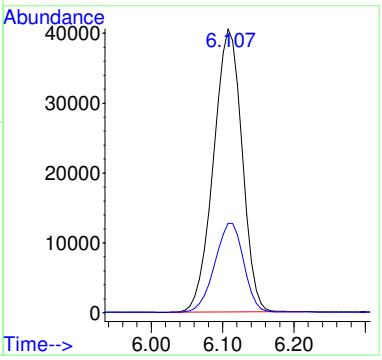


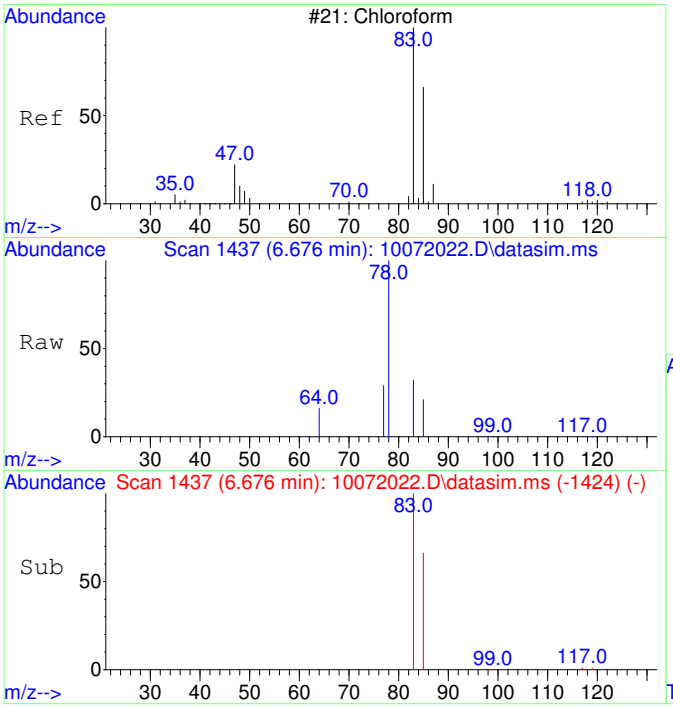



#5
cis-1,2-Dichloroethene
Concen: 3137.54 ug/L
RT: 6.107 min Scan# 1373
Delta R.T. 0.013 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 112625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.7 | 2.5 | 62.5 |

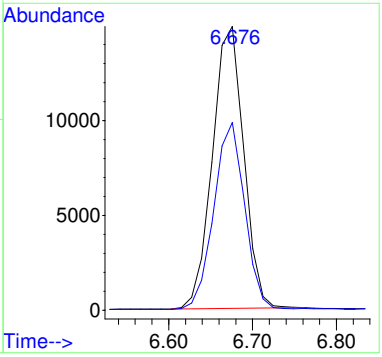


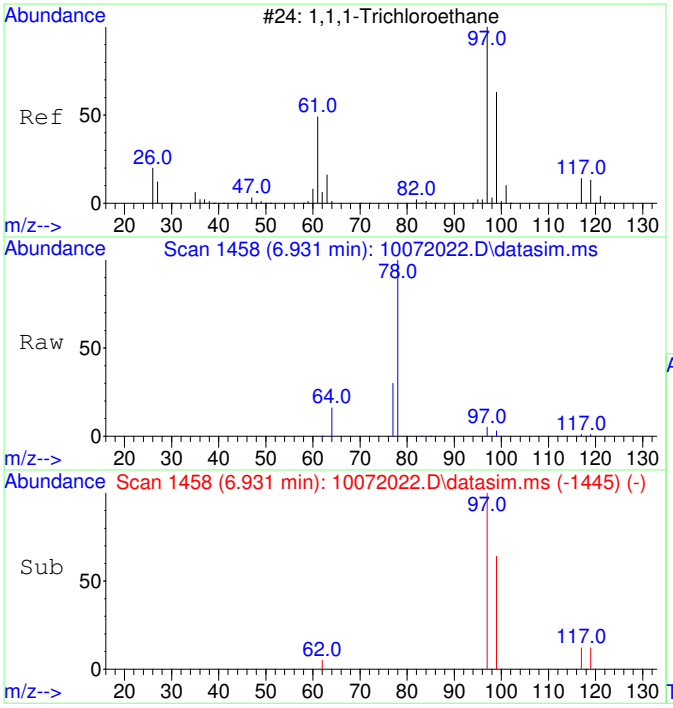




#6
Chloroform
Concen: 1049.43 ug/L
RT: 6.676 min Scan# 1437
Delta R.T. 0.012 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 83 Resp: 38557

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.5 | 35.1 | 95.1 |

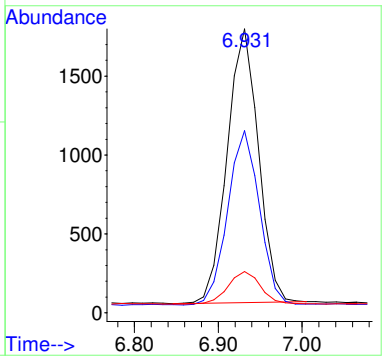


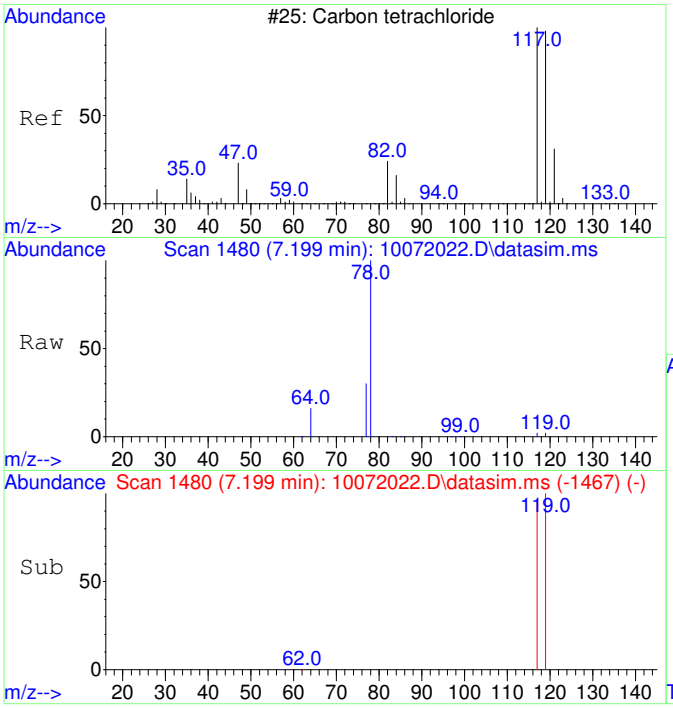



#7
1,1,1-Trichloroethane
Concen: 112.30 ug/L
RT: 6.931 min Scan# 1458
Delta R.T. 0.012 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 97 Resp: 4481

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.4 | 34.6 | 94.6 |
| 117 | 12.3 | 0.0 | 43.2 |

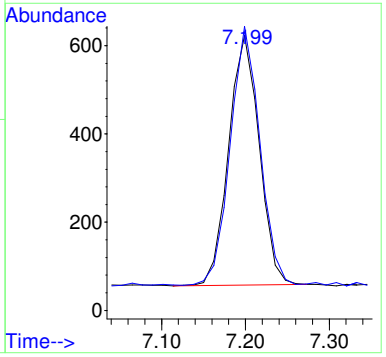


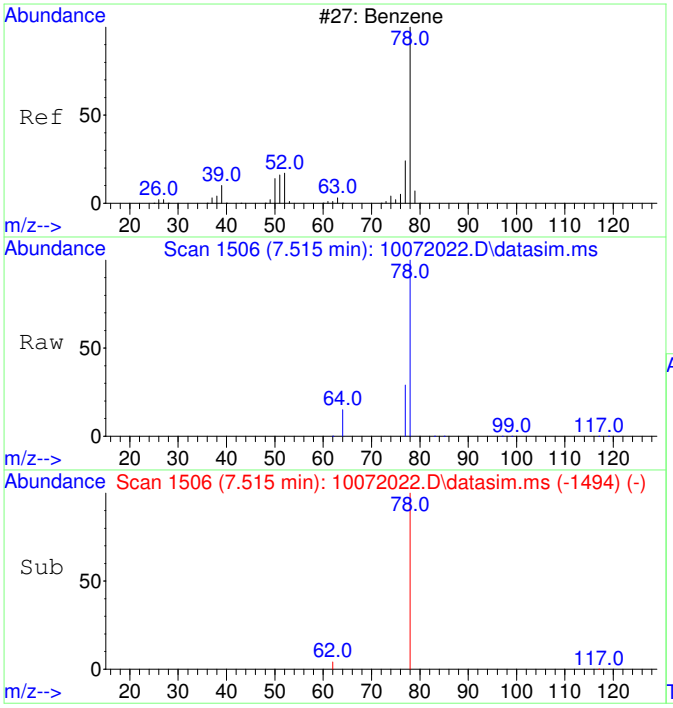




#8
Carbon tetrachloride
Concen: 37.97 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:117 Resp: 1426

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 100.1 | 66.4 | 126.4 |

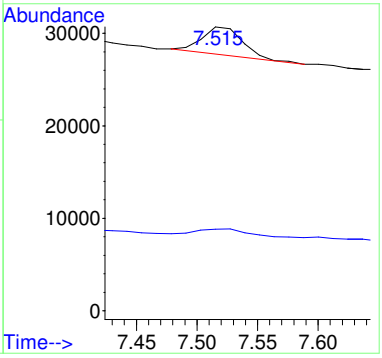


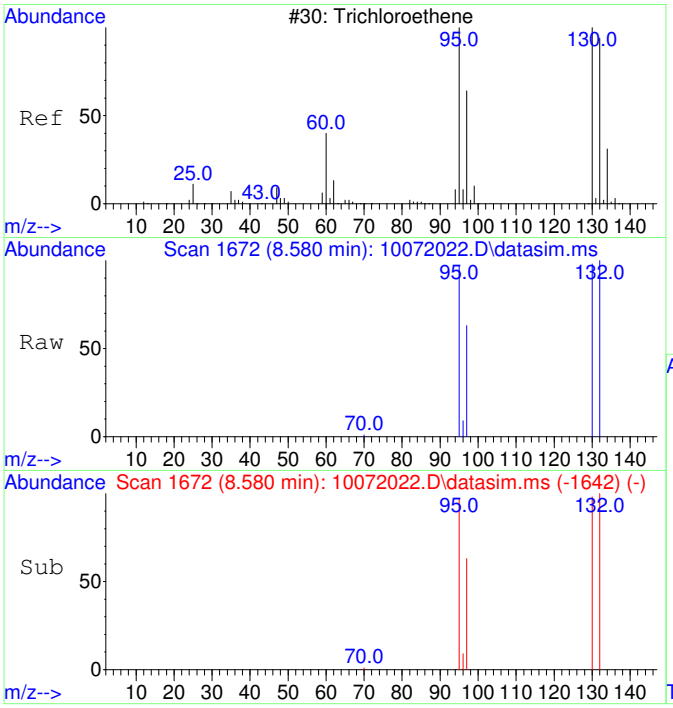



#9
Benzene
Concen: 64.25 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 78 Resp: 6464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 57.5 | 0.0 | 53.2# |

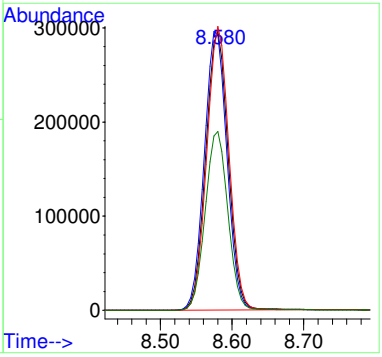


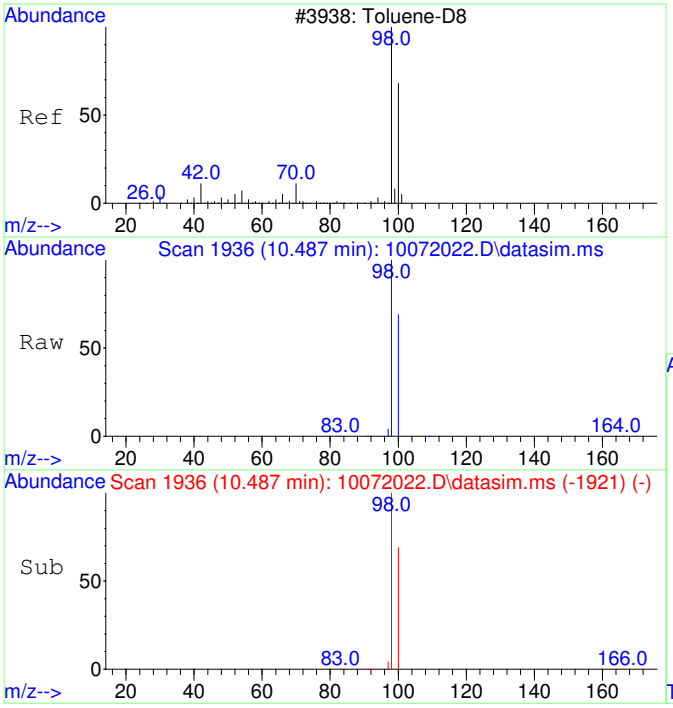




#11
Trichloroethene
Concen: 21246.98 ug/L
RT: 8.580 min Scan# 1672
Delta R.T. 0.011 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:130 Resp: 643600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.8 | 60.7 | 120.7 |
| 132 | 100.6 | 76.0 | 116.0 |
| 97 | 64.5 | 38.6 | 78.6 |

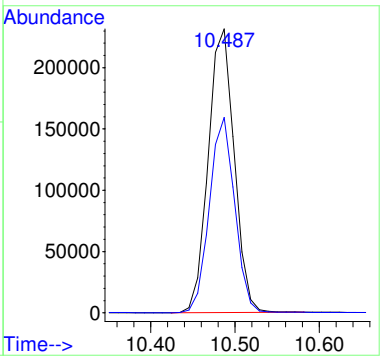


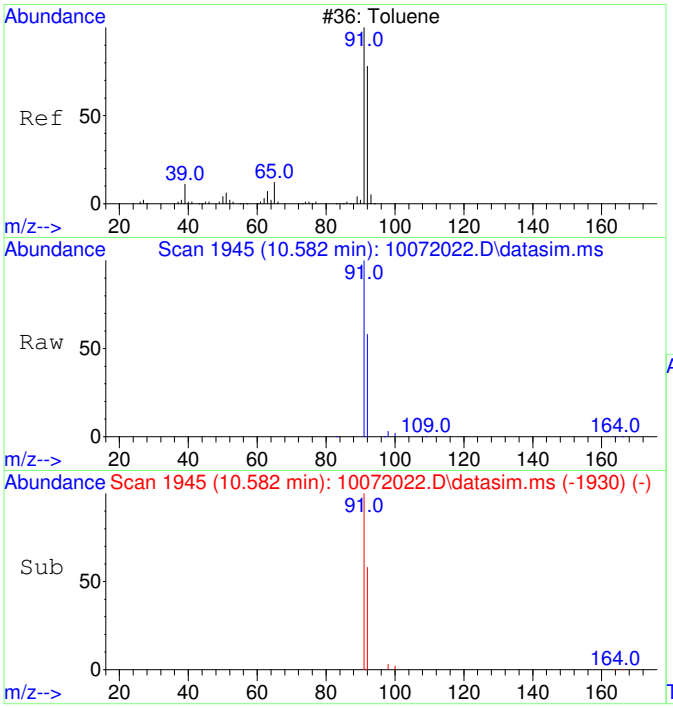



#12
Toluene-d8
Concen: 4285.74 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 98 Resp: 496787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.8 | 37.1 | 97.1 |

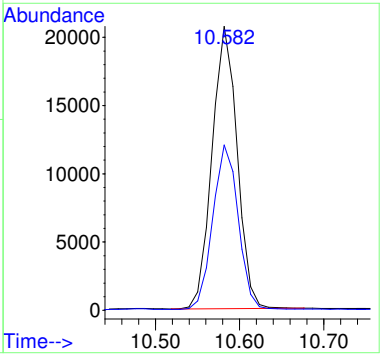


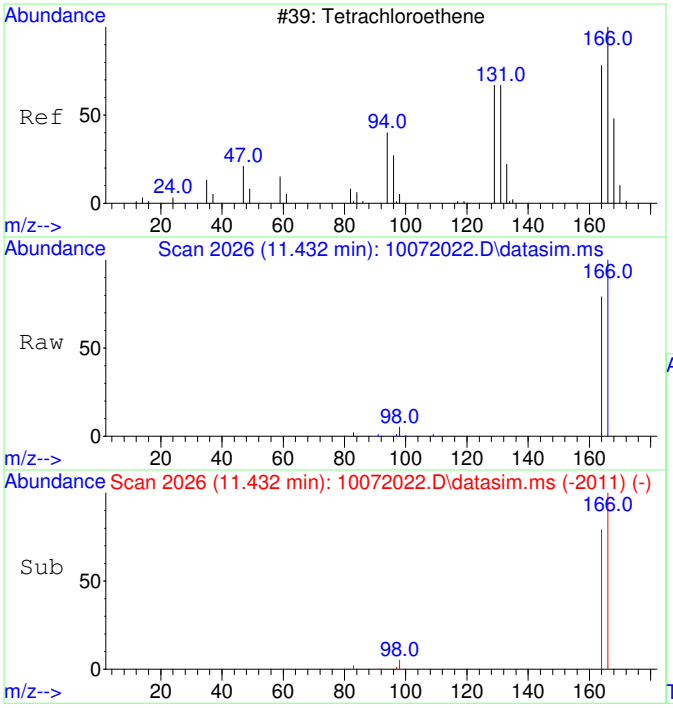




#13
Toluene
Concen: 289.72 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 42815

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.7 | 29.9 | 89.9 |

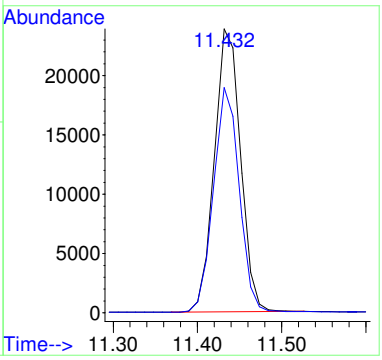


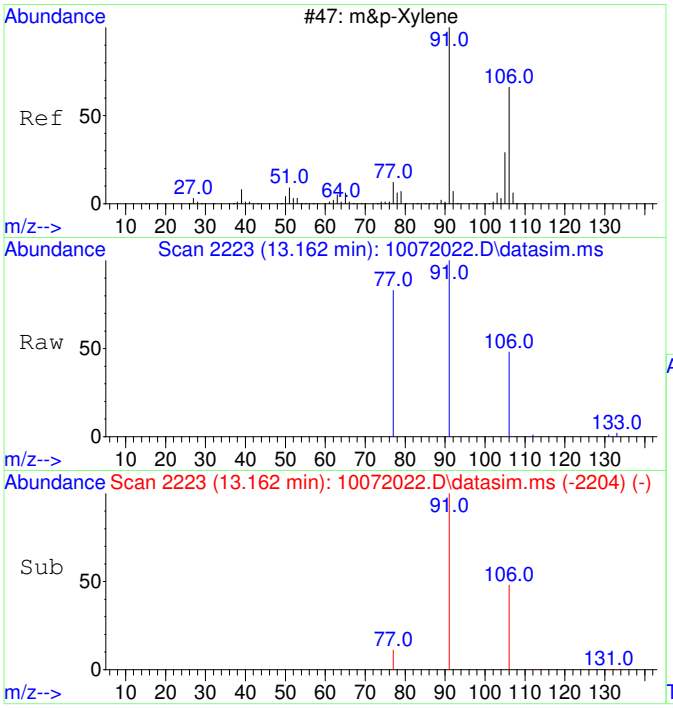



#15
Tetrachloroethene
Concen: 1206.72 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:166 Resp: 51609

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.6 | 47.8 | 107.8 |

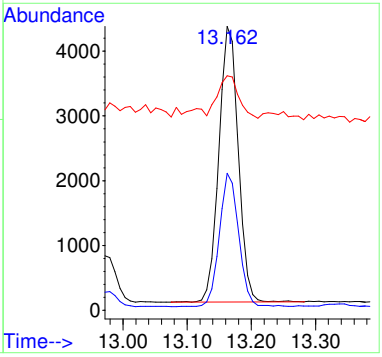


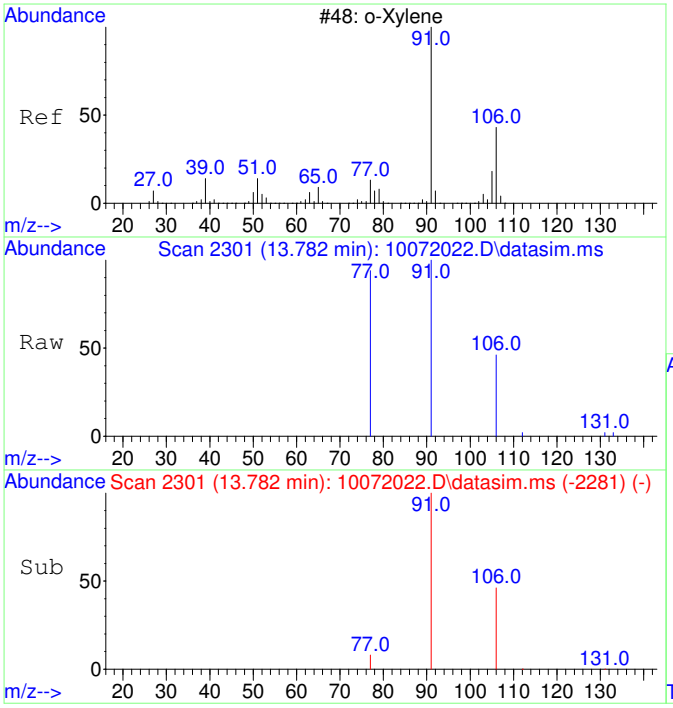




#19
m&p-Xylene
Concen: 63.25 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 8892

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.1 | 22.2 | 82.2 |
| 77 | 16.8 | 0.0 | 42.4 |

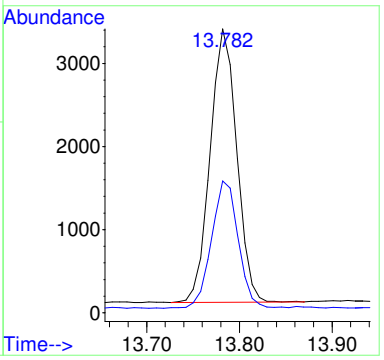


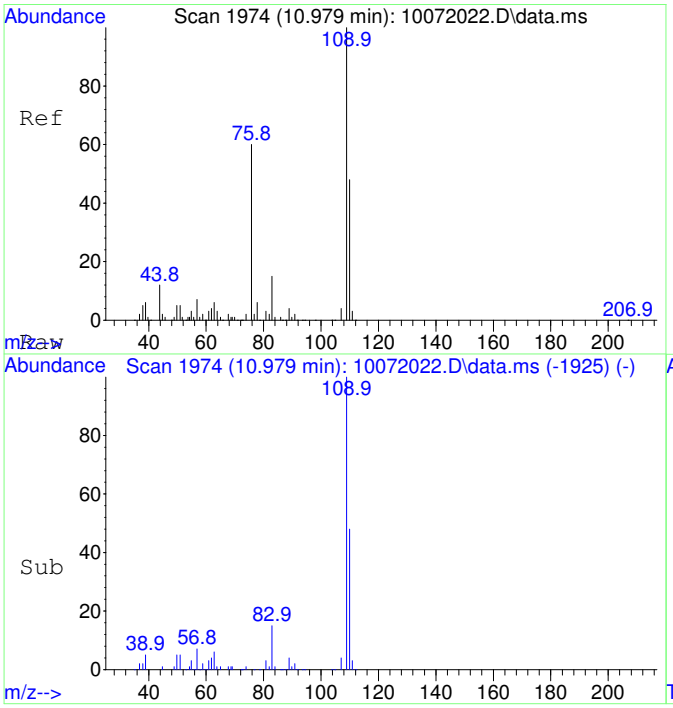



#20
o-Xylene
Concen: 43.65 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 6556

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.1 | 19.2 | 79.2 |

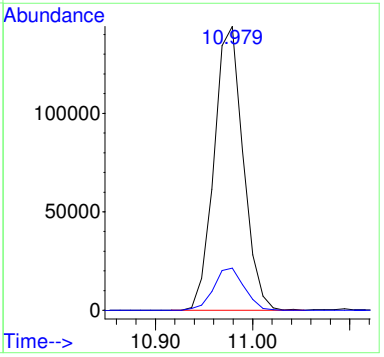


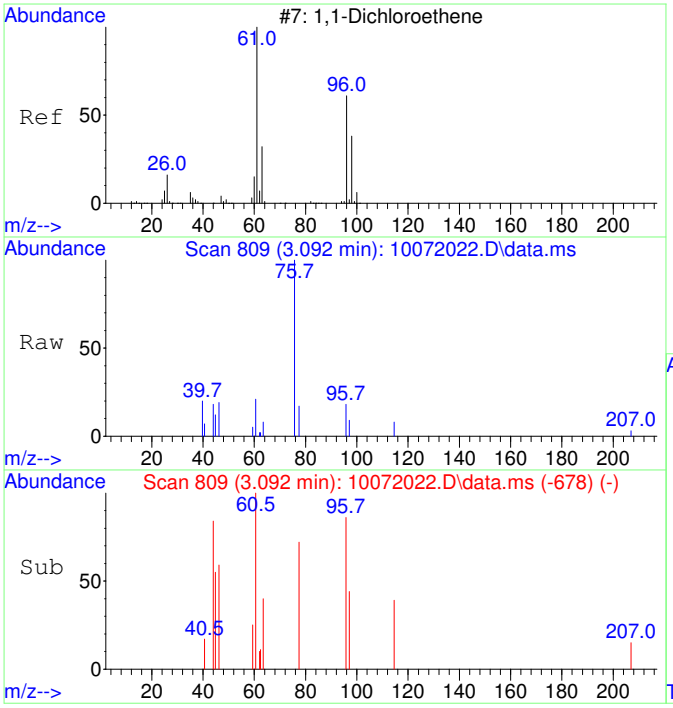




#25
2-Fluorotoluene SCAN
Concen: 5187.64 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:109 Resp: 299441

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.7 | 0.0 | 43.8 |

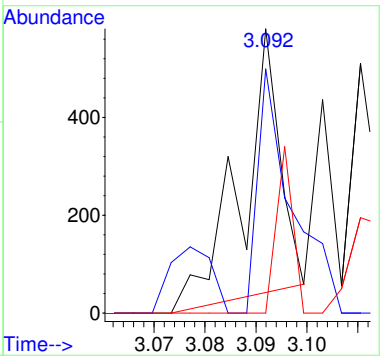


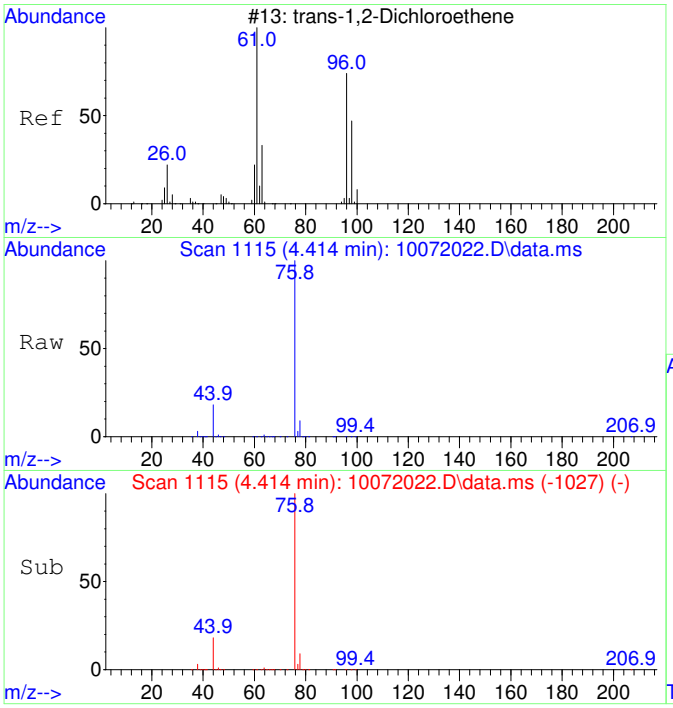



#26
1,1-Dichloroethene SCAN
Concen: 23.09 ug/L
RT: 3.092 min Scan# 809
Delta R.T. -0.015 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 283

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 82.0 | 33.1 | 93.1 |
| 98 | 26.9 | 11.2 | 71.2 |

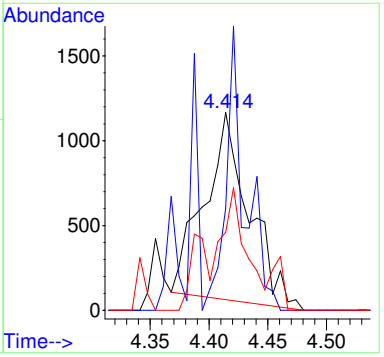


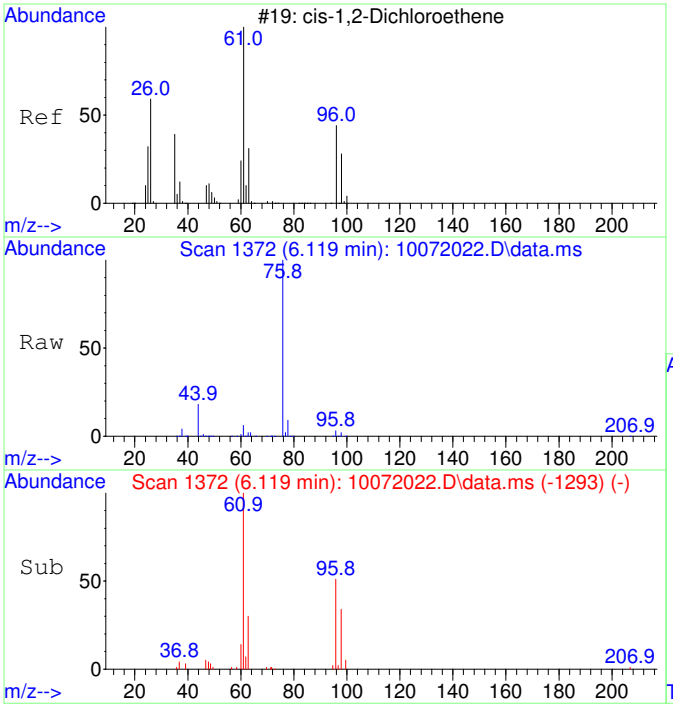




#27
trans-1,2-Dichloroethene SCAN
Concen: 191.71 ug/L
RT: 4.414 min Scan# 1115
Delta R.T. 0.013 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 2908

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.3 | 49.0 | 109.0 |
| 98 | 22.0 | 20.5 | 80.5 |

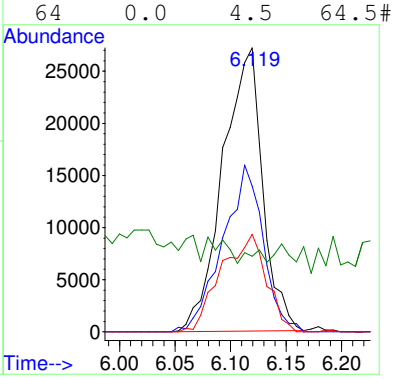


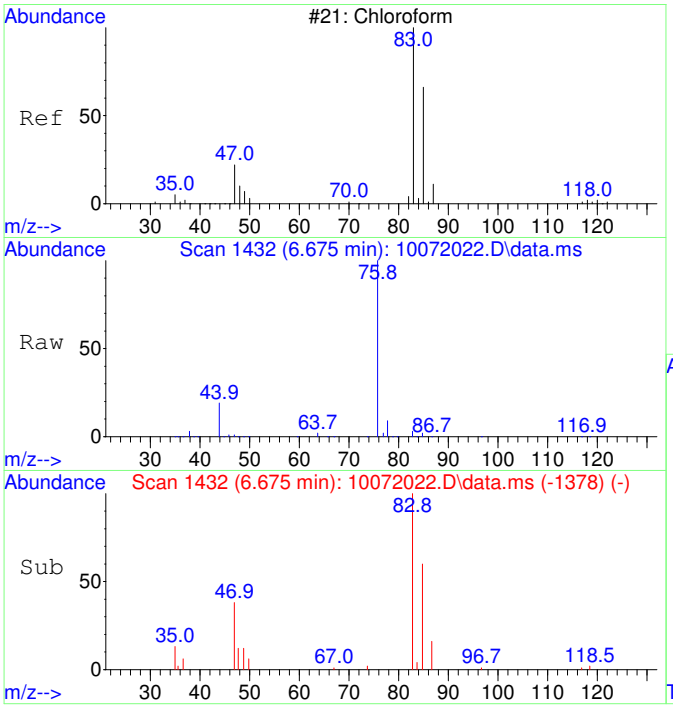



#29
cis-1,2-Dichloroethene SCAN
Concen: 3614.65 ug/L
RT: 6.119 min Scan# 1372
Delta R.T. 0.026 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 61 Resp: 67987

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.4 | 39.9 | 99.9 |
| 98 | 39.0 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

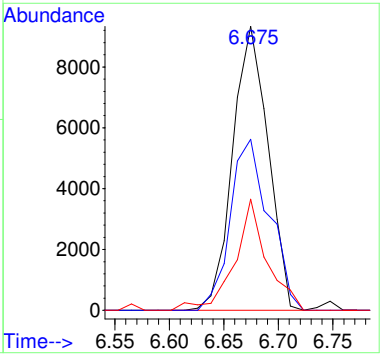


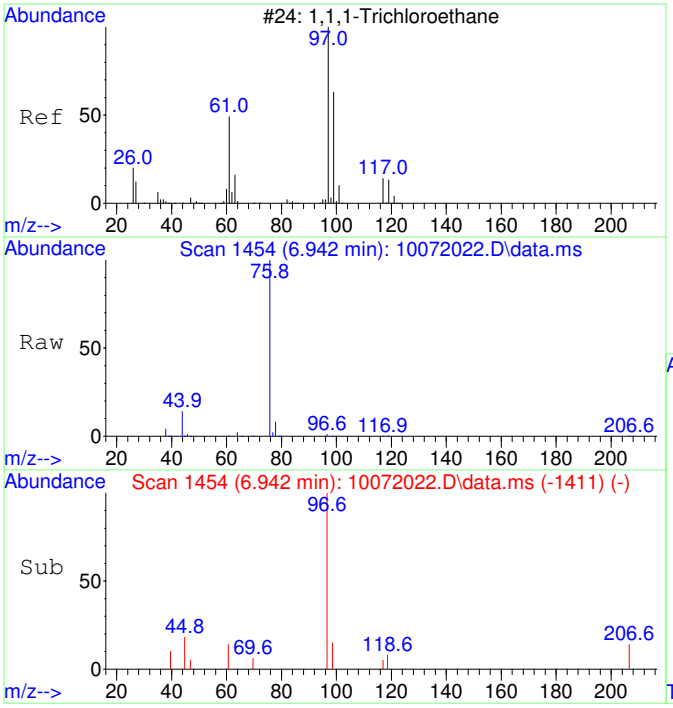




#30
Chloroform SCAN
Concen: 1035.55 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 83 Resp: 21126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 66.4 | 34.6 | 94.6 |
| 47 | 35.7 | 0.0 | 53.4 |

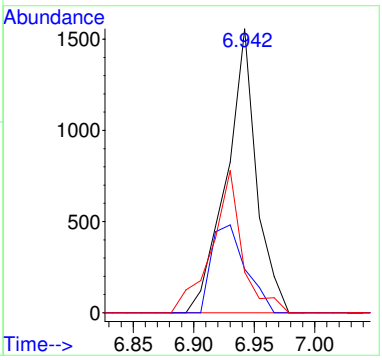


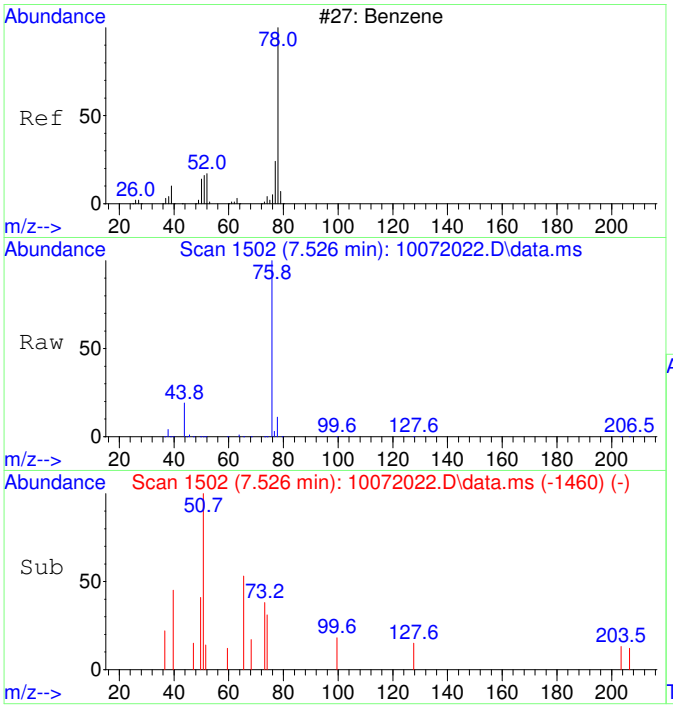



#31
1,1,1-Trichloroethane SCAN
Concen: 145.23 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.024 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 97 Resp: 2700

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 35.3 | 43.6 | 103.6# |
| 61 | 50.6 | 18.0 | 78.0 |

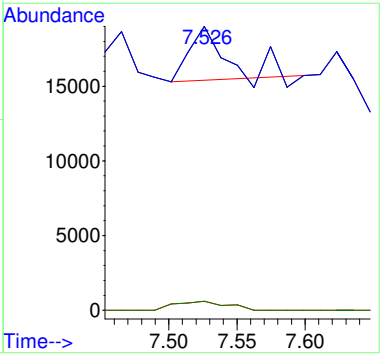


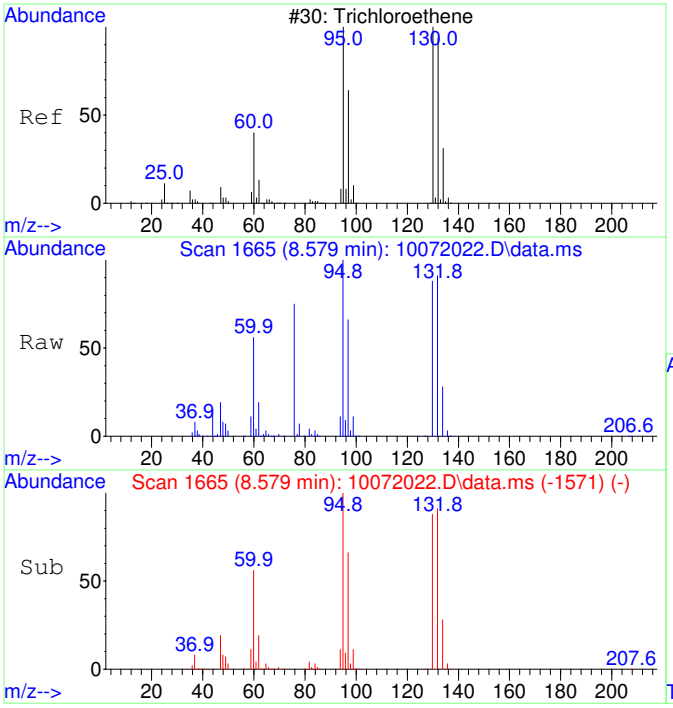




#33
Benzene SCAN
Concen: 124.17 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. 0.012 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 78 Resp: 6356

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 25.6 | 0.0 | 47.9 |
| 51 | 25.6 | 0.0 | 44.1 |

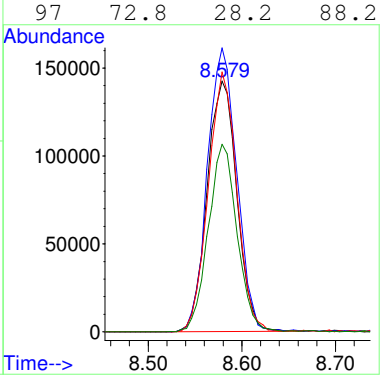


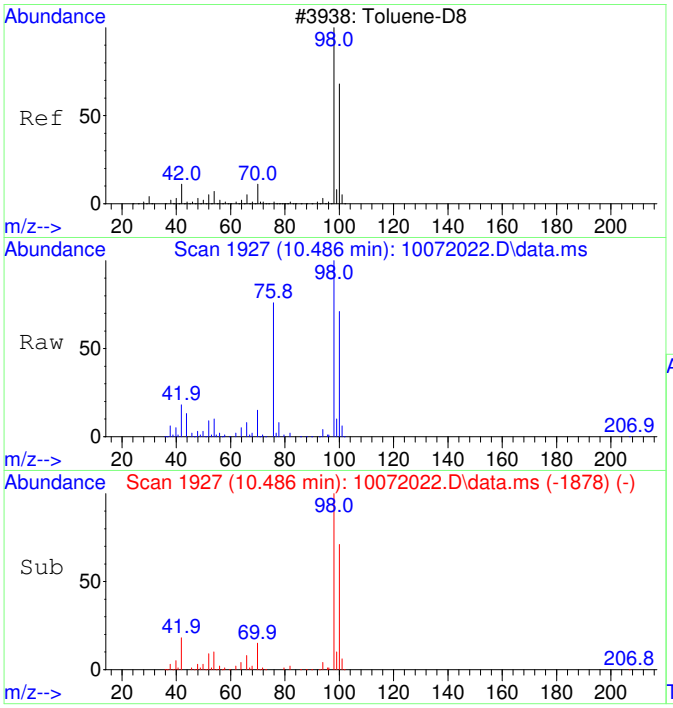



#35
Trichloroethene SCAN
Concen: 22310.93 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:130 Resp: 313839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.4 | 60.5 | 120.5 |
| 132 | 99.3 | 59.6 | 119.6 |
| 97 | 72.8 | 28.2 | 88.2 |

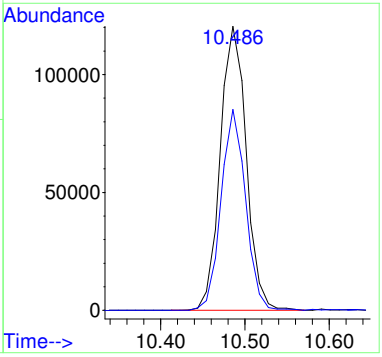


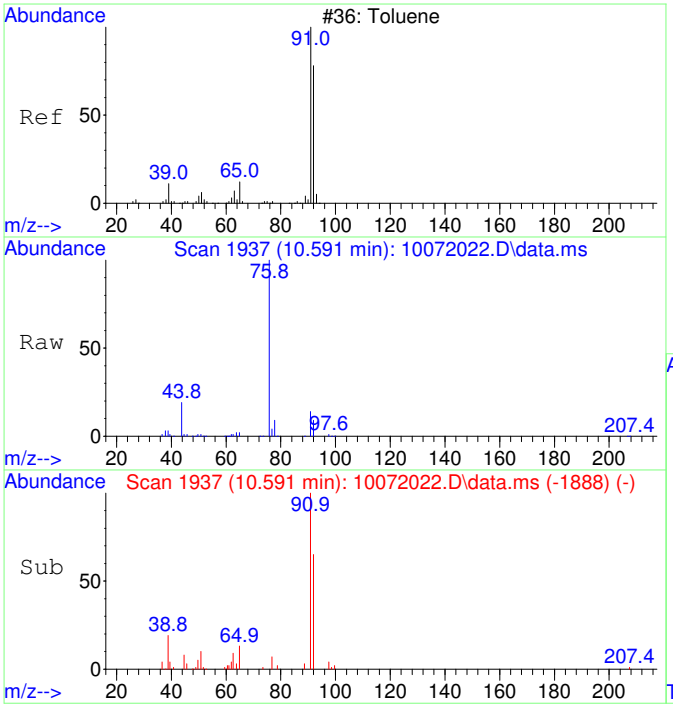




#36
Toluene-d8 SCAN
Concen: 4579.31 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 98 Resp: 258504

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.5 | 40.0 | 100.0 |

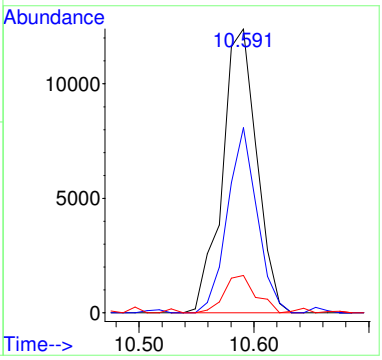


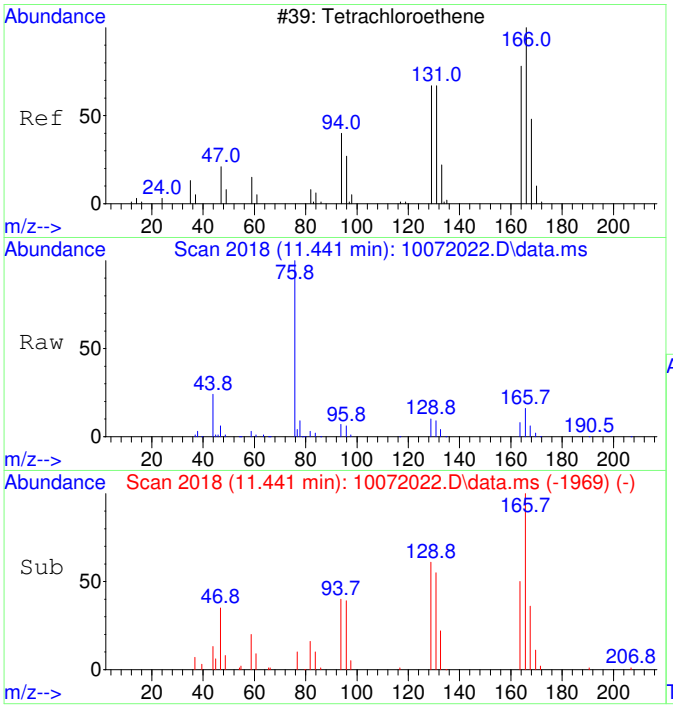



#37
Toluene SCAN
Concen: 358.55 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 25921

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.0 | 28.3 | 88.3 |
| 65 | 11.7 | 0.0 | 41.0 |

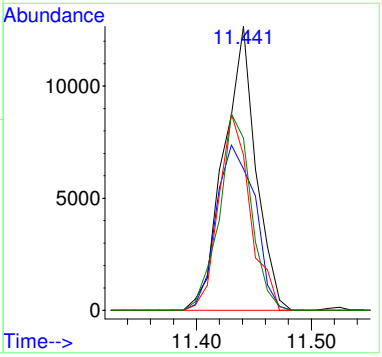


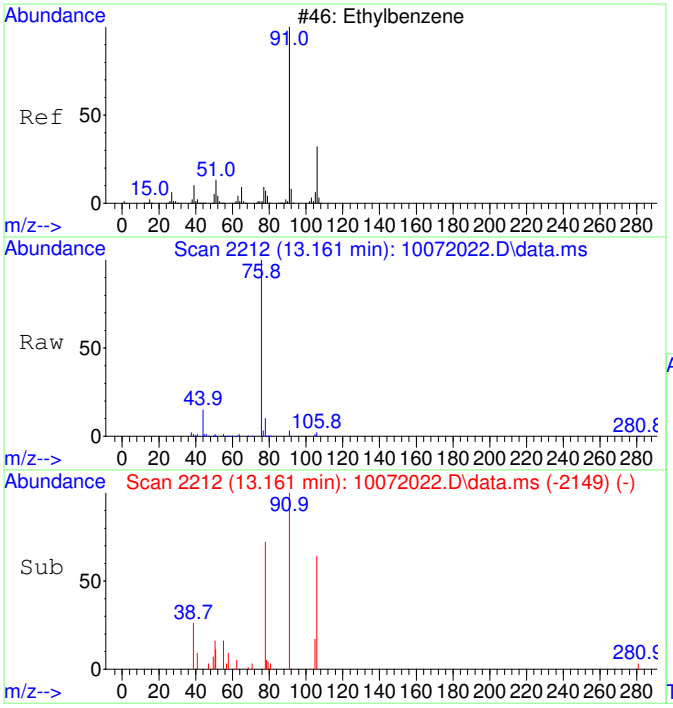




#39
Tetrachloroethene SCAN
Concen: 1419.43 ug/L
RT: 11.441 min Scan# 2018
Delta R.T. 0.010 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion:166 Resp: 24653

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 69.9 | 50.9 | 110.9 |
| 131 | 67.3 | 38.7 | 98.7 |
| 129 | 68.5 | 41.8 | 101.8 |

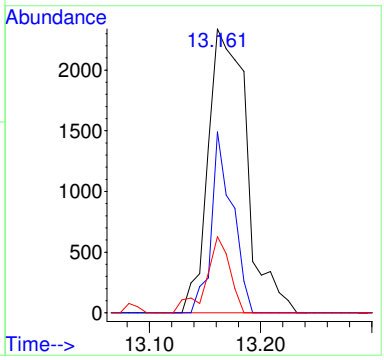


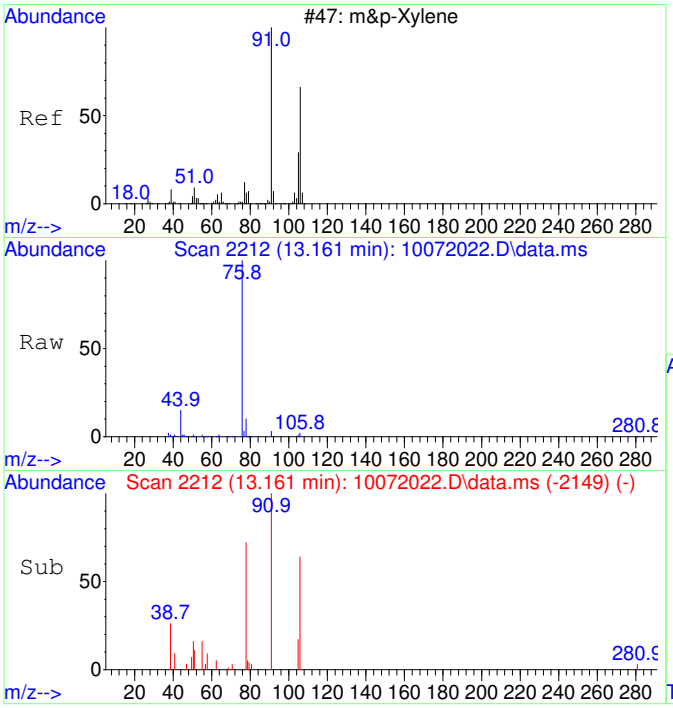



#42
Ethylbenzene SCAN
Concen: 42.97 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 5660

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 34.5 | 23.1 | 83.1 |
| 51 | 16.4 | 0.0 | 40.1 |

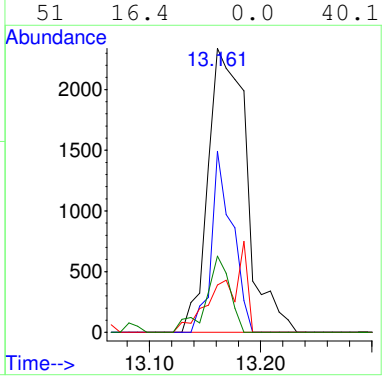


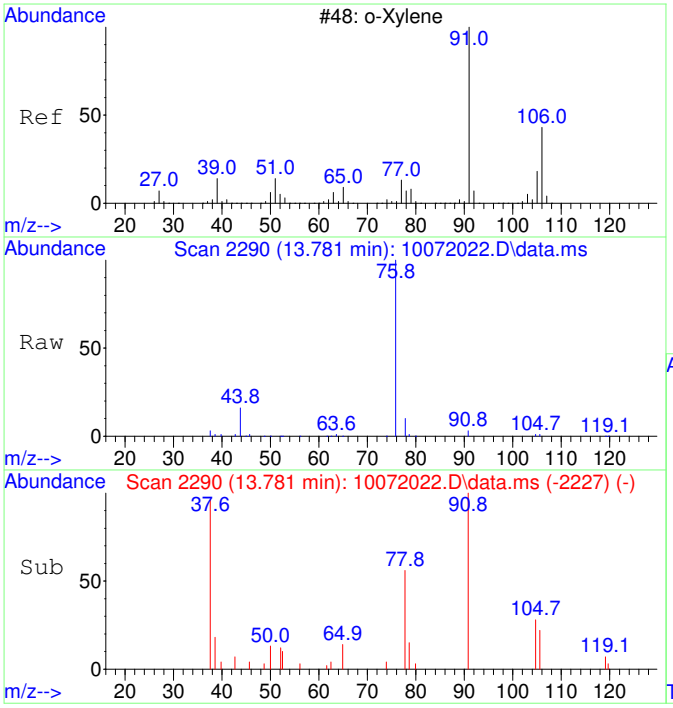




#43
m&p-Xylene SCAN
Concen: 42.97 ug/L
RT: 13.161 min Scan# 2212
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 5660

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 34.5 | 23.1 | 83.1 |
| 105 | 0.0 | 0.0 | 54.7 |
| 51 | 16.4 | 0.0 | 40.1 |

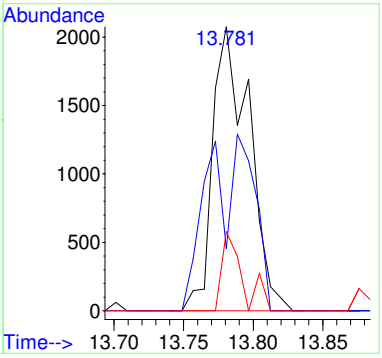





#44
o-Xylene SCAN
Concen: 53.92 ug/L
RT: 13.781 min Scan# 2290
Delta R.T. -0.000 min
Lab File: 10072022.D
Acq: 7 Oct 2020 16:37

Tgt Ion: 91 Resp: 3801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 27.8 | 18.0 | 78.0 |
| 105 | 15.7 | 0.0 | 56.6 |



# 2009037-03RE1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072023.D
Acq On : 7 Oct 2020 17:00
InstName : AG5975C
Operator : TD
Sample : 2009037-03RE1
Misc : 10X DL (90-10)
ALS Vial : 22 Sample Multiplier: 10

Quant Time: Oct 08 06:39:23 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

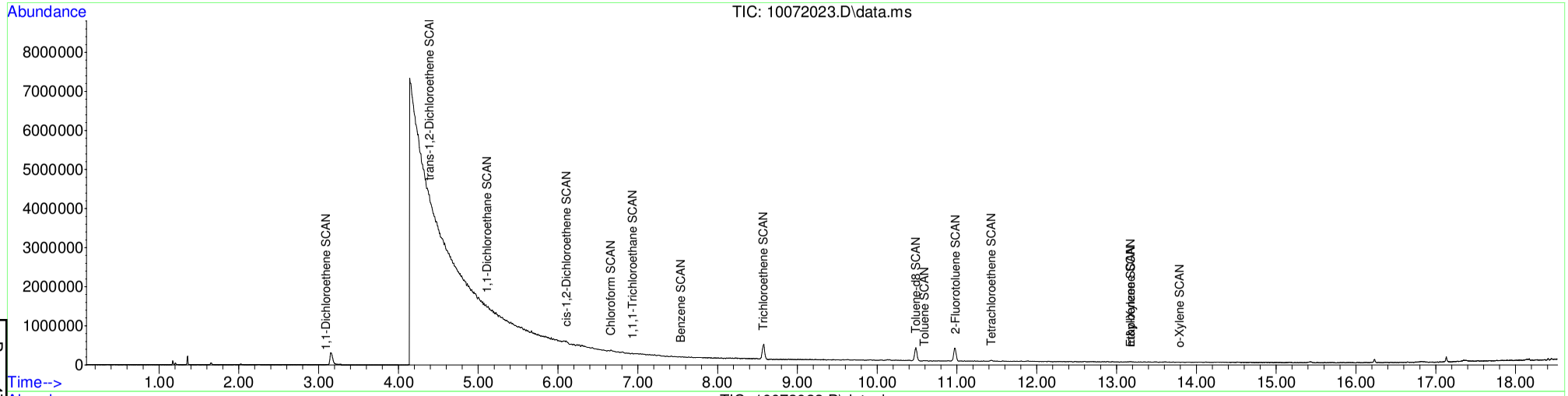
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 558897 | 5000.00 | ug/L | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 471845 | 4312.63 | ug/L | | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.25% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.104 | 61 | 3266 | 146.34 | ug/L | | 88 |
| 3] trans-1,2-Dichloroethene | 4.402 | 61 | 4342 | 168.39 | ug/L | | 88 |
| 4] 1,1-Dichloroethane | 5.106 | 63 | 3687 | 114.87 | ug/L | | 78 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 73930 | 2182.04 | ug/L | | 99 |
| 6] Chloroform | 6.664 | 83 | 34069 | 982.42 | ug/L | | 99 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 2831 | 75.17 | ug/L | | 99 |
| 9] Benzene | 7.515 | 78 | 5908 | 62.22 | ug/L | # | 22 |
| 11] Trichloroethene | 8.575 | 130 | 256189 | 8960.44 | ug/L | RPT | 92 |
| 13] Toluene | 10.582 | 91 | 8537 | 61.20 | ug/L | | 100 |
| 15] Tetrachloroethene | 11.432 | 166 | 14844 | 367.72 | ug/L | | 99 |
| 19] m&p-Xylene | 13.162 | 91 | 9061 | 68.28 | ug/L | | 92 |
| 20] o-Xylene | 13.782 | 91 | 3532 | 24.91 | ug/L | | 95 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 280108 | 5141.28 | ug/L | | 97 |
| 26) 1,1-Dichloroethene SCAN | 3.088 | 61 | 516 | 44.60 | ug/L | # | 59 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 507 | 35.41 | ug/L | # | 65 |
| 28) 1,1-Dichloroethane SCAN | 5.111 | 63 | 1230 | 74.23 | ug/L | # | 61 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 45154 | 2543.46 | ug/L | # | 80 |
| 30) Chloroform SCAN | 6.662 | 83 | 19364 | 1005.63 | ug/L | | 89 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 1635 | 93.18 | ug/L | | 70 |
| 33) Benzene SCAN | 7.538 | 78 | 6245 | 129.26 | ug/L | | 97 |
| 35) Trichloroethene SCAN | 8.574 | 130 | 123084 | 9270.43 | ug/L | | 80 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 248240 | 4658.99 | ug/L | | 97 |
| 37) Toluene SCAN | 10.591 | 91 | 5160 | 75.62 | ug/L | | 95 |
| 39) Tetrachloroethene SCAN | 11.431 | 166 | 7568 | 461.65 | ug/L | # | 63 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 5440 | 43.76 | ug/L | | 98 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 5440 | 43.76 | ug/L | | 98 |
| 44) o-Xylene SCAN | 13.789 | 91 | 2437 | 36.62 | ug/L | | 68 |

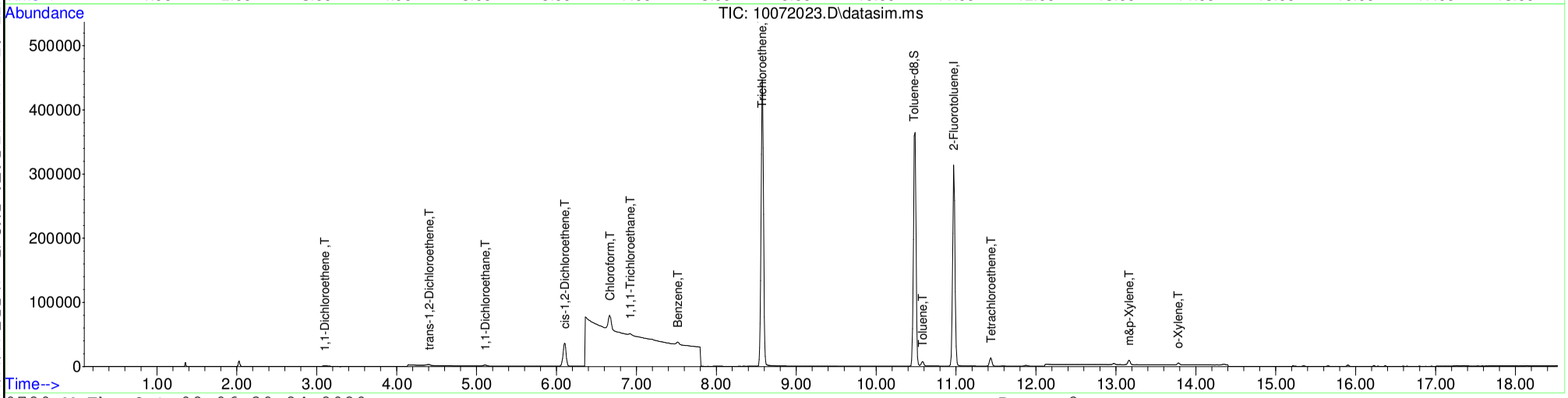
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072023.D
Acq On : 7 Oct 2020 17:00
InstName : AG5975C
Operator : TD
Sample : 2009037-03RE1
Misc : 10X DL (90-10)
ALS Vial : 22 Sample Multiplier: 10

Quant Time: Oct 08 06:39:23 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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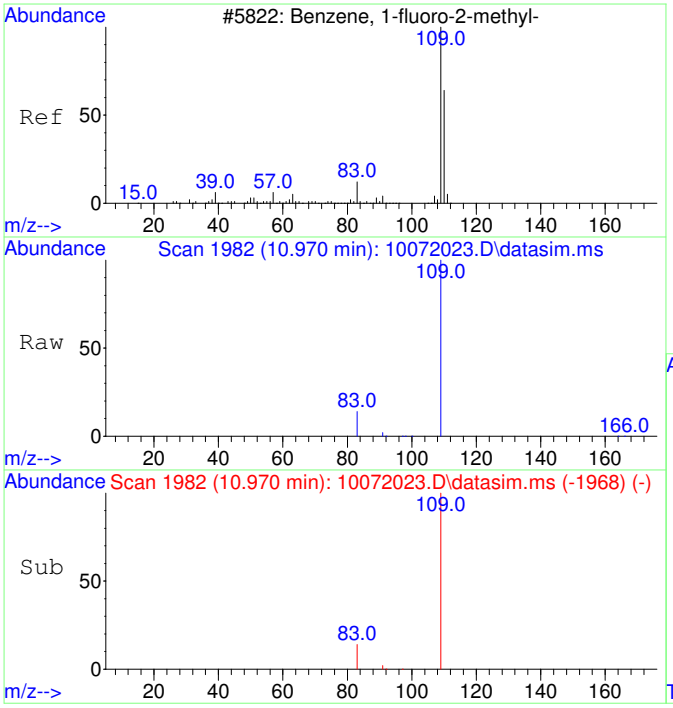
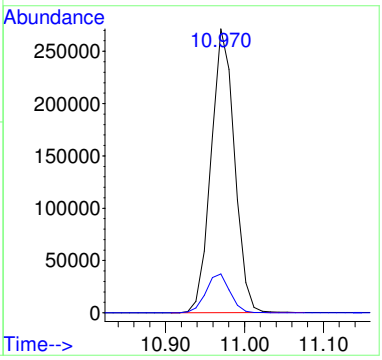
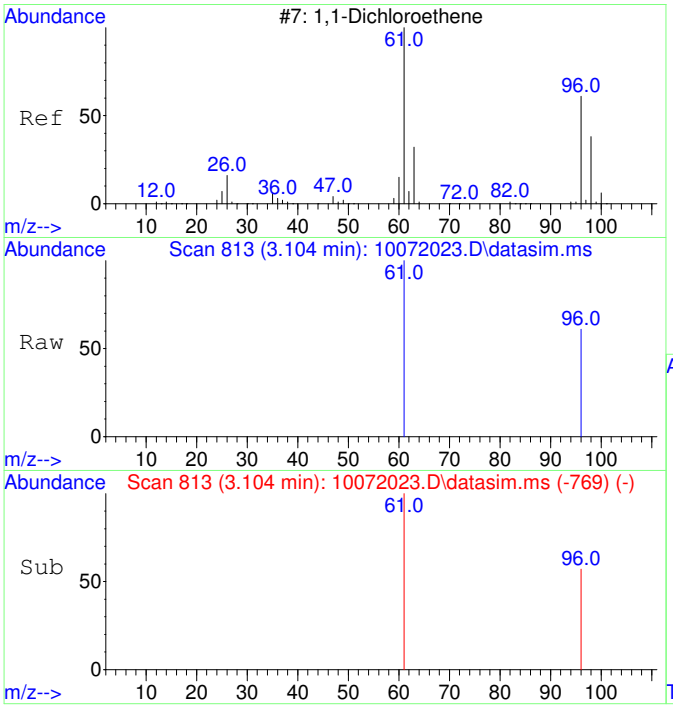



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.970 min Scan# 1982
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion:109 Resp: 558897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.0 | 0.0 | 42.3 |

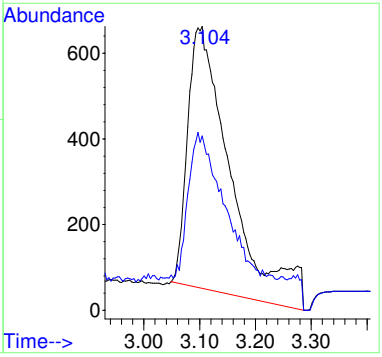


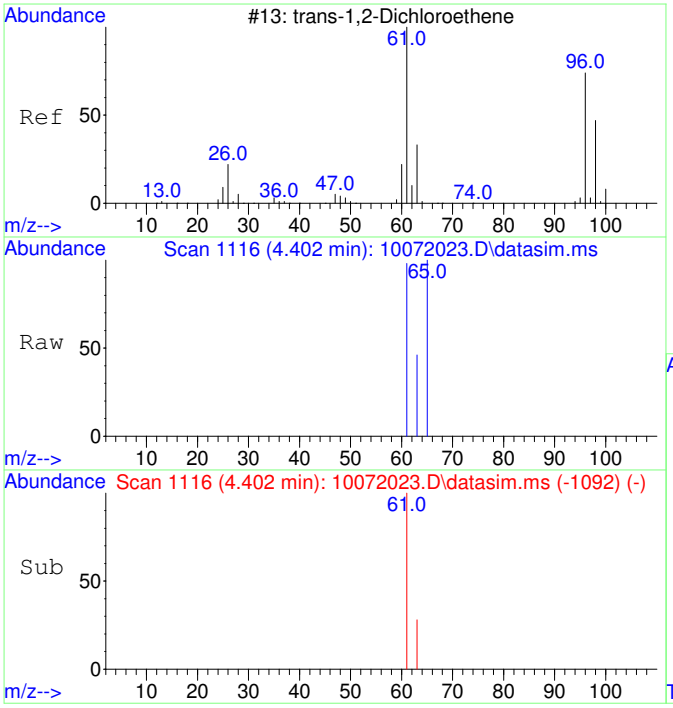




#2
1,1-Dichloroethene
Concen: 146.34 ug/L
RT: 3.104 min Scan# 813
Delta R.T. 0.015 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 3266

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.4 | 37.2 | 97.2 |

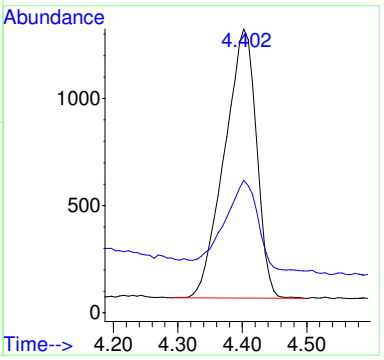


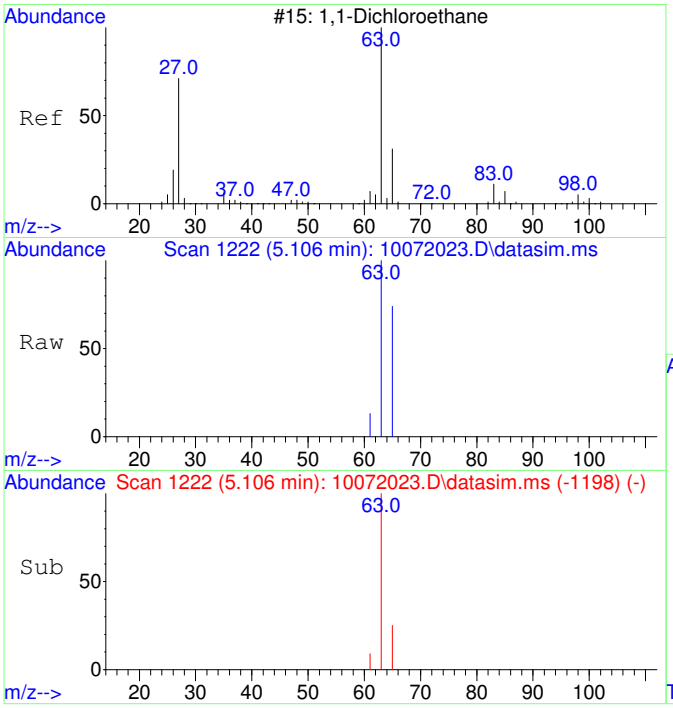



#3
trans-1,2-Dichloroethene
Concen: 168.39 ug/L
RT: 4.402 min Scan# 1116
Delta R.T. 0.007 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 4342

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 38.9 | 2.4 | 62.4 |

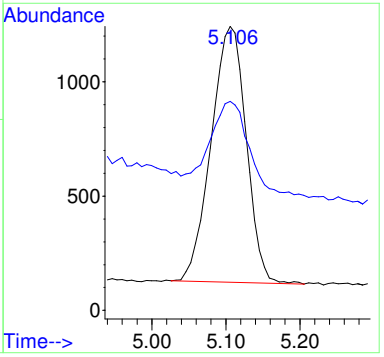


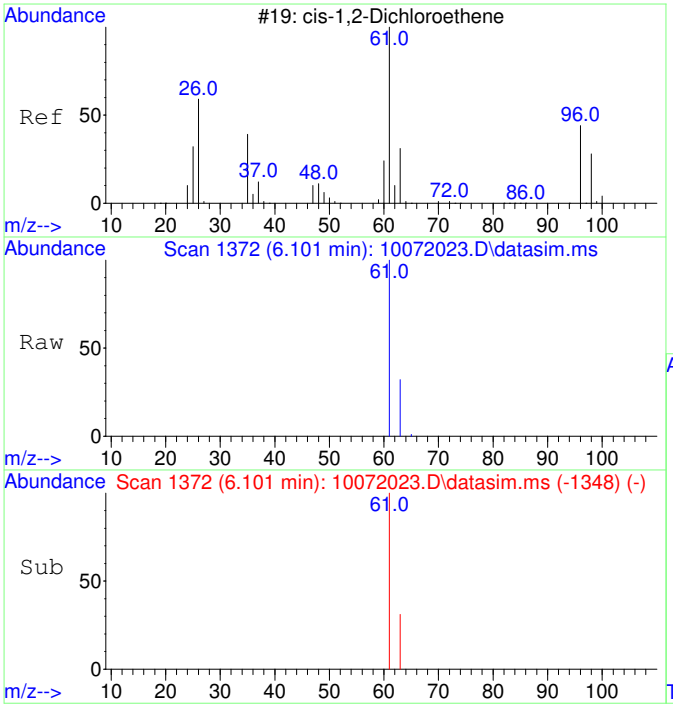




#4
1,1-Dichloroethane
Concen: 114.87 ug/L
RT: 5.106 min Scan# 1222
Delta R.T. 0.007 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 63 Resp: 3687

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 44.3 | 1.8 | 61.8 |

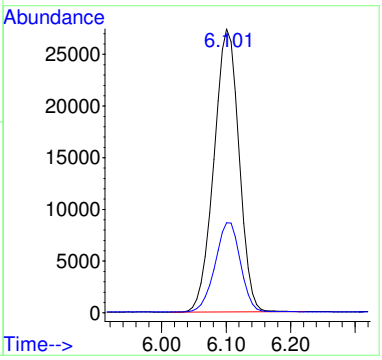


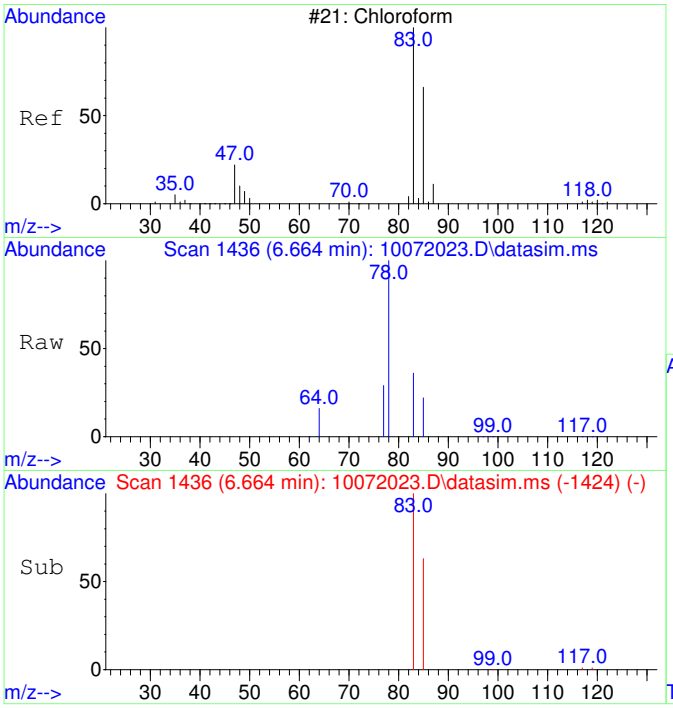



#5
cis-1,2-Dichloroethene
Concen: 2182.04 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 73930

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.7 | 2.5 | 62.5 |

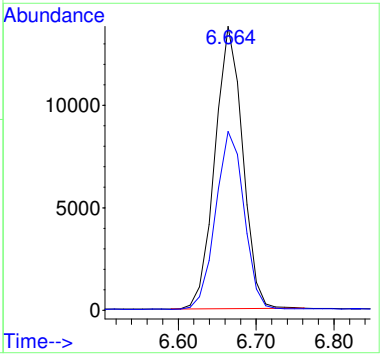


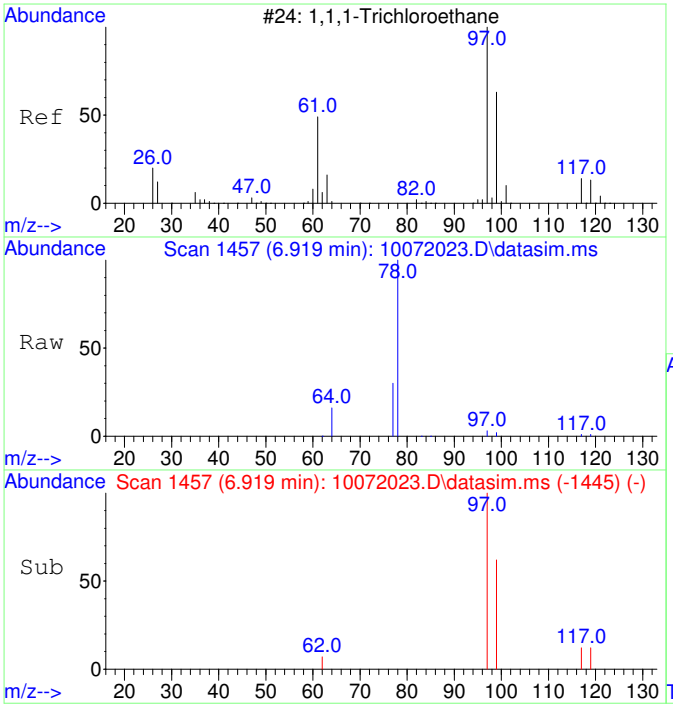




#6
Chloroform
Concen: 982.42 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 83 Resp: 34069

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.4 | 35.1 | 95.1 |

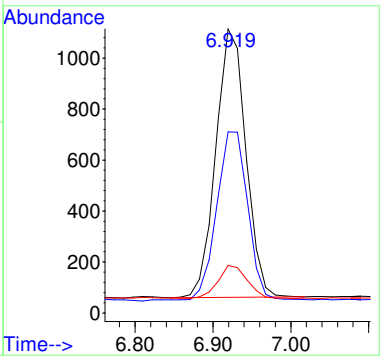


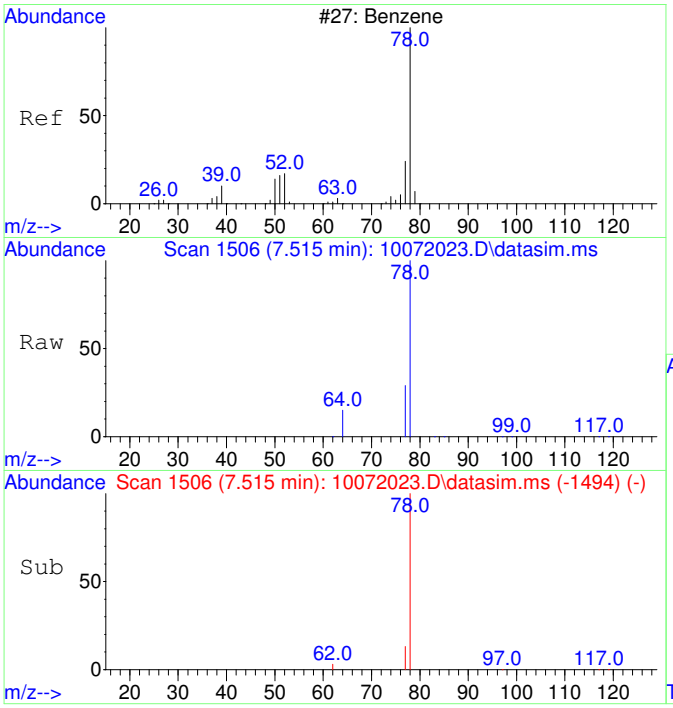



#7
1,1,1-Trichloroethane
Concen: 75.17 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 97 Resp: 2831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.9 | 34.6 | 94.6 |
| 117 | 12.0 | 0.0 | 43.2 |

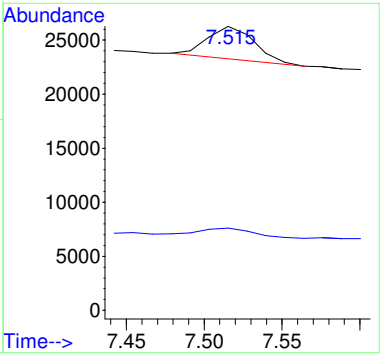


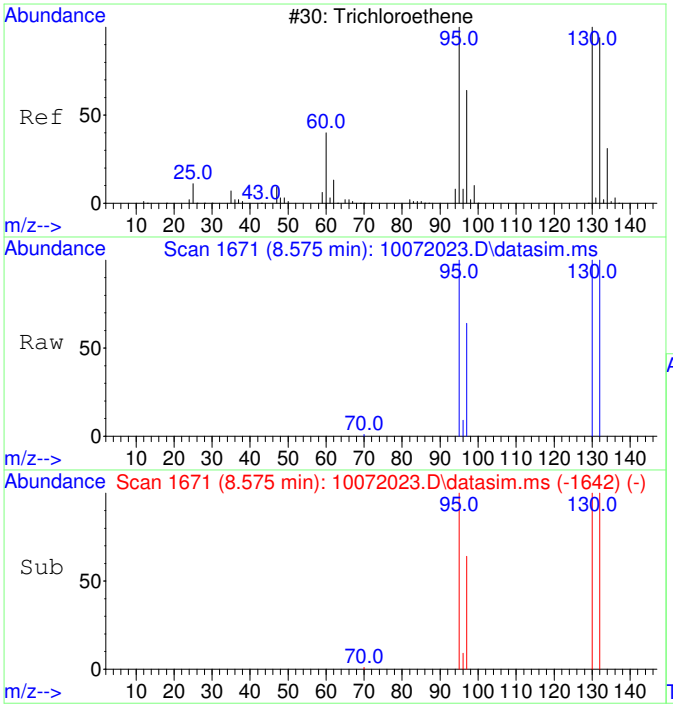




#9
Benzene
Concen: 62.22 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 78 Resp: 5908

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 61.1 | 0.0 | 53.2# |

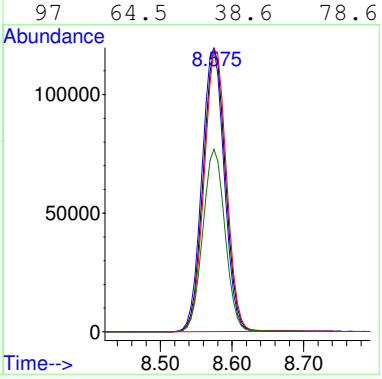


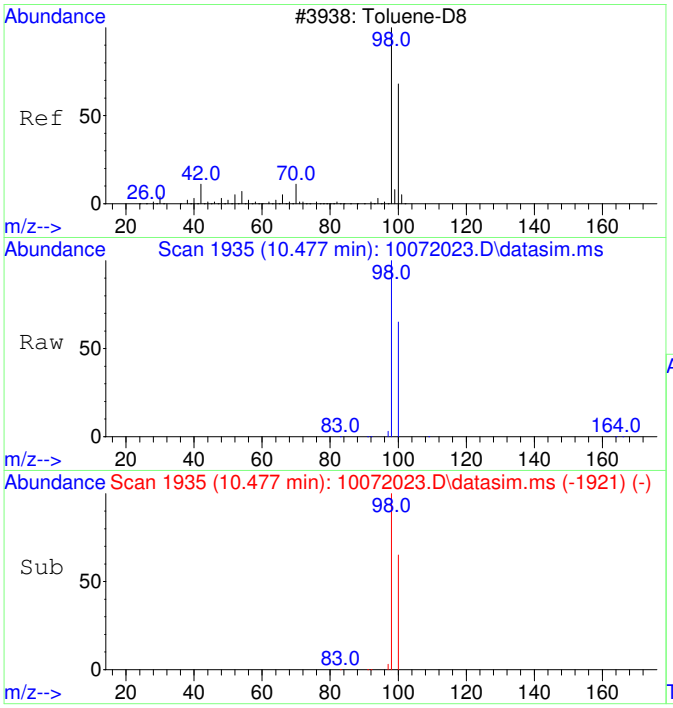



#11
Trichloroethene
Concen: 8960.44 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion:130 Resp: 256189

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 100.9 | 60.7 | 120.7 |
| 132 | 100.2 | 76.0 | 116.0 |
| 97 | 64.5 | 38.6 | 78.6 |

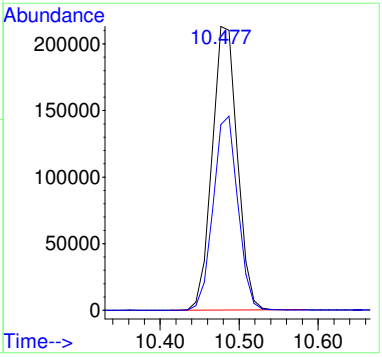


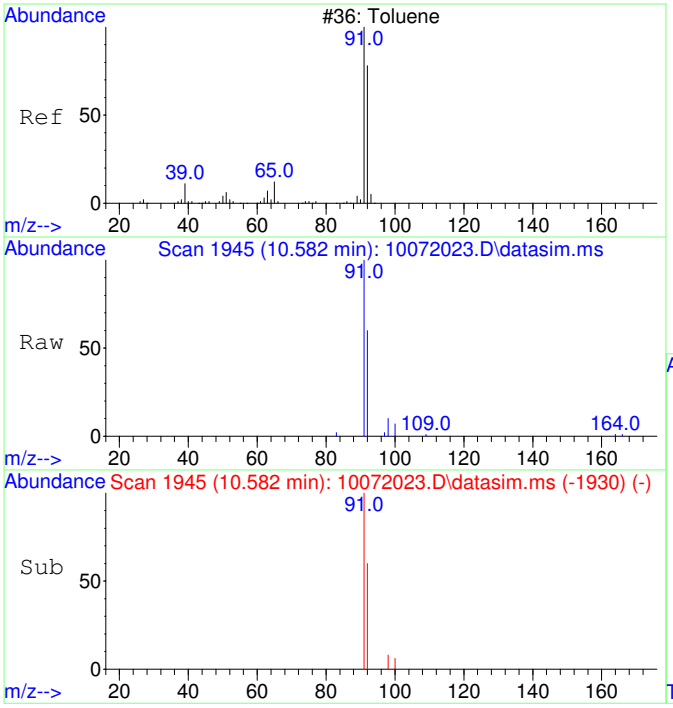




#12
Toluene-d8
Concen: 4312.63 ug/L
RT: 10.477 min Scan# 1935
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 98 Resp: 471845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.7 | 37.1 | 97.1 |

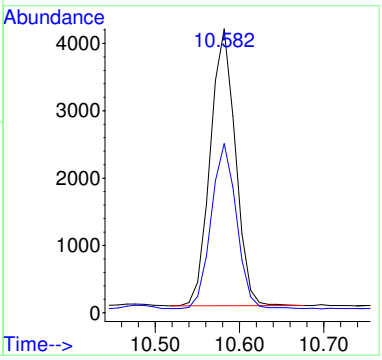


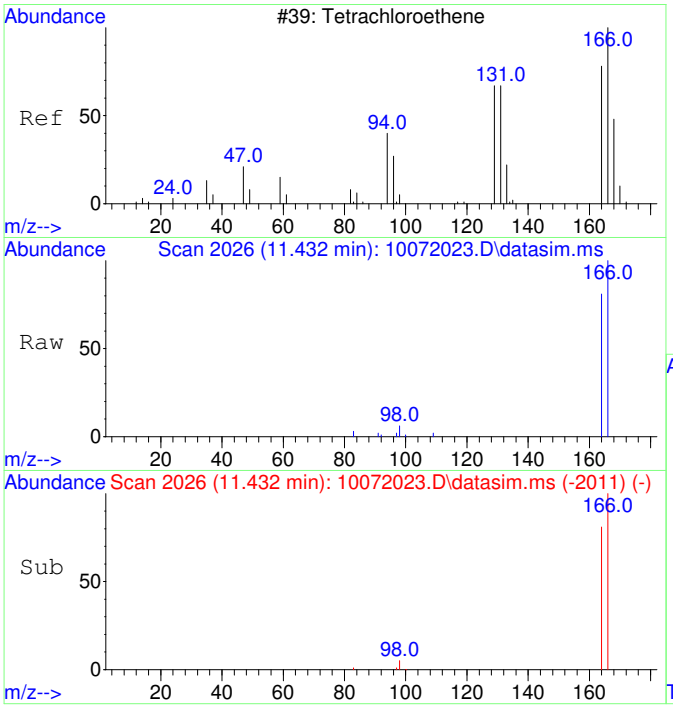



#13
Toluene
Concen: 61.20 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 8537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.6 | 29.9 | 89.9 |

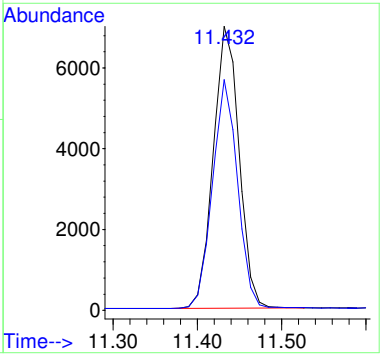


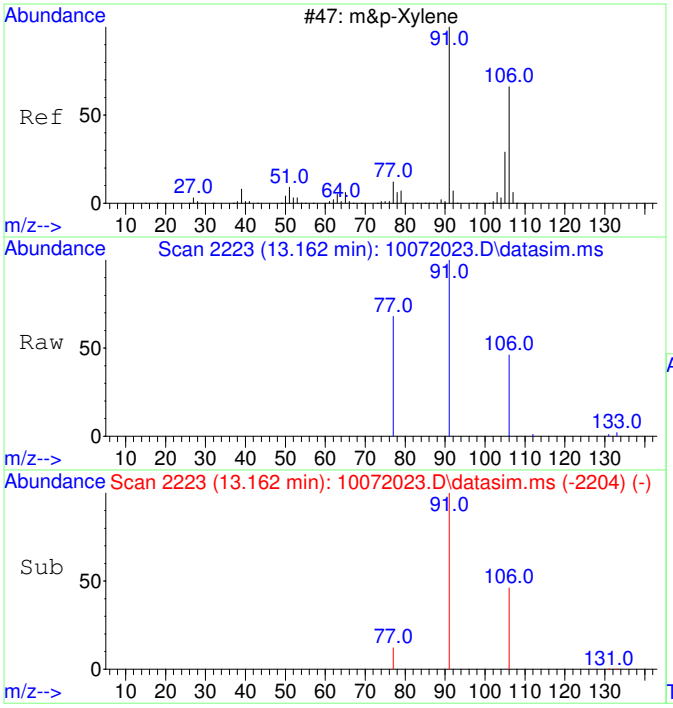




#15
Tetrachloroethene
Concen: 367.72 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.011 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion:166 Resp: 14844

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.3 | 47.8 | 107.8 |

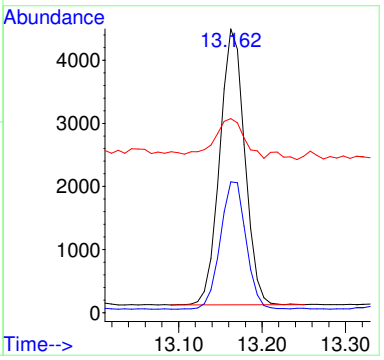


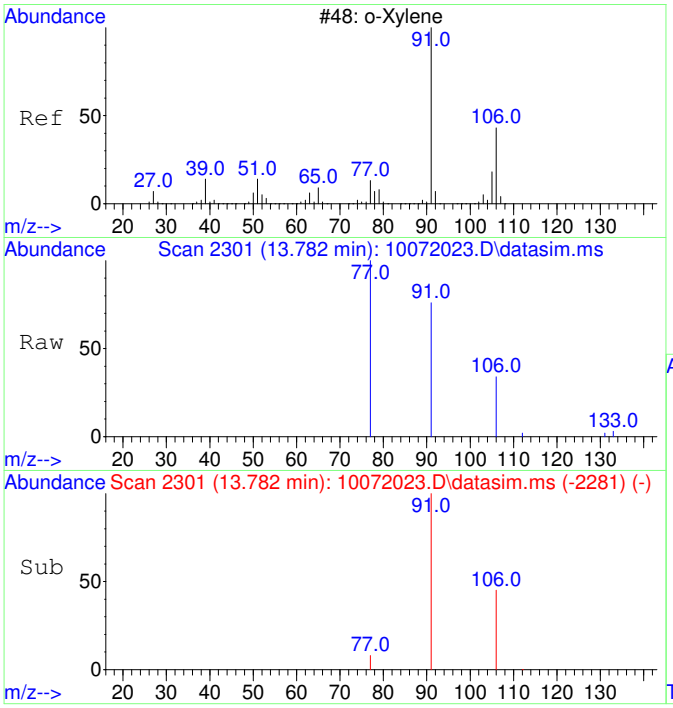



#19
m&p-Xylene
Concen: 68.28 ug/L
RT: 13.162 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 9061

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.5 | 22.2 | 82.2 |
| 77 | 17.3 | 0.0 | 42.4 |

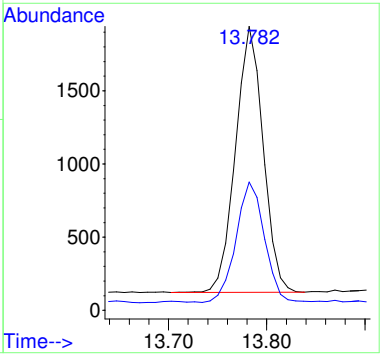


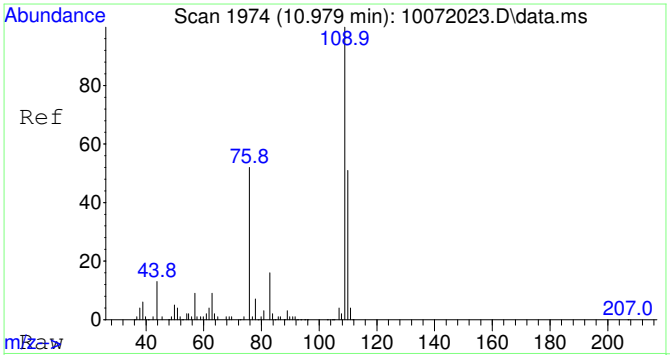




#20
o-Xylene
Concen: 24.91 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 3532

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.1 | 19.2 | 79.2 |

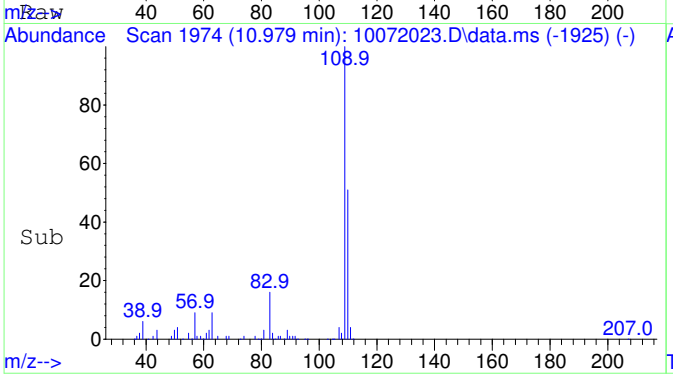


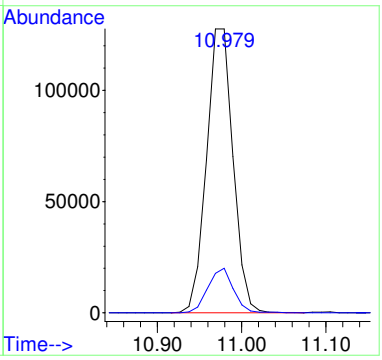


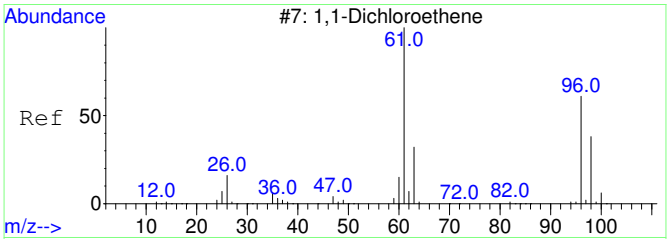

#25
2-Fluorotoluene SCAN
Concen: 5141.28 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.011 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

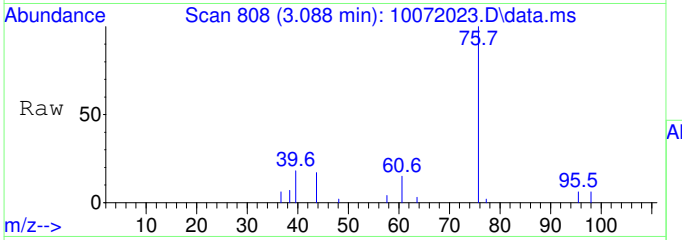
Tgt Ion:109 Resp: 280108

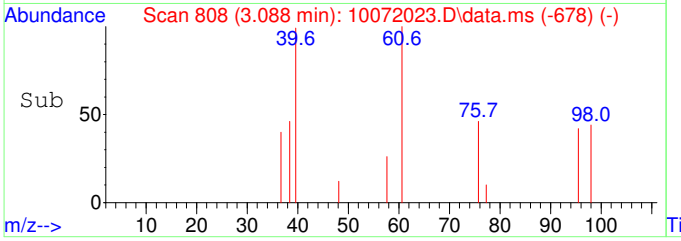
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.1 | 0.0 | 43.8 |



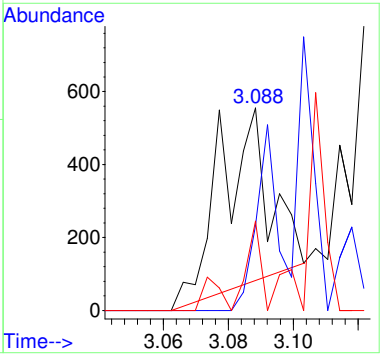



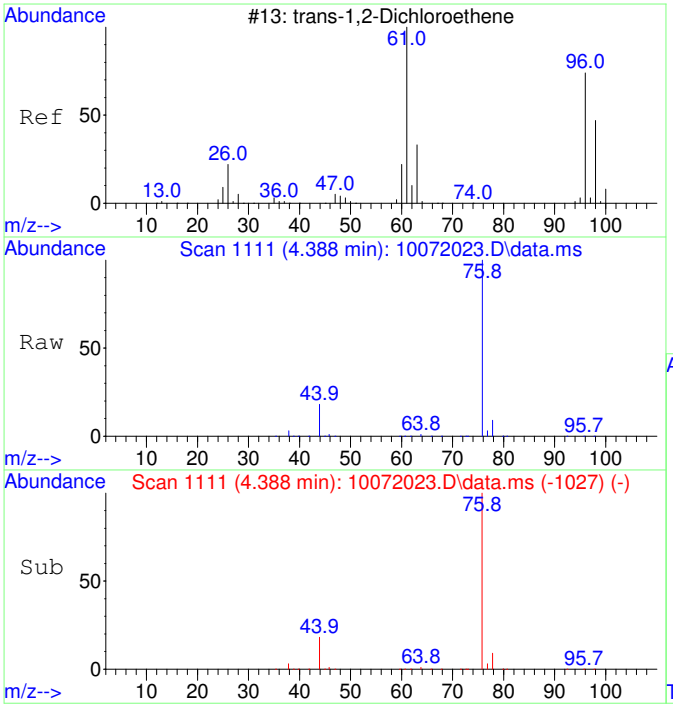




#26
1,1-Dichloroethene SCAN
Concen: 44.60 ug/L
RT: 3.088 min Scan# 808
Delta R.T. -0.019 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 516

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 35.3 | 33.1 | 93.1 |
| 98 | 9.9 | 11.2 | 71.2# |

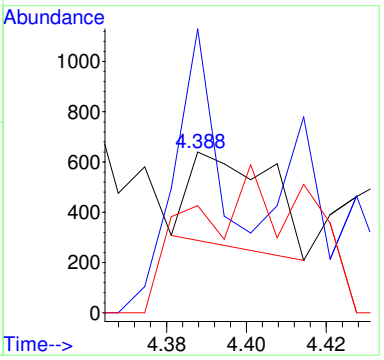


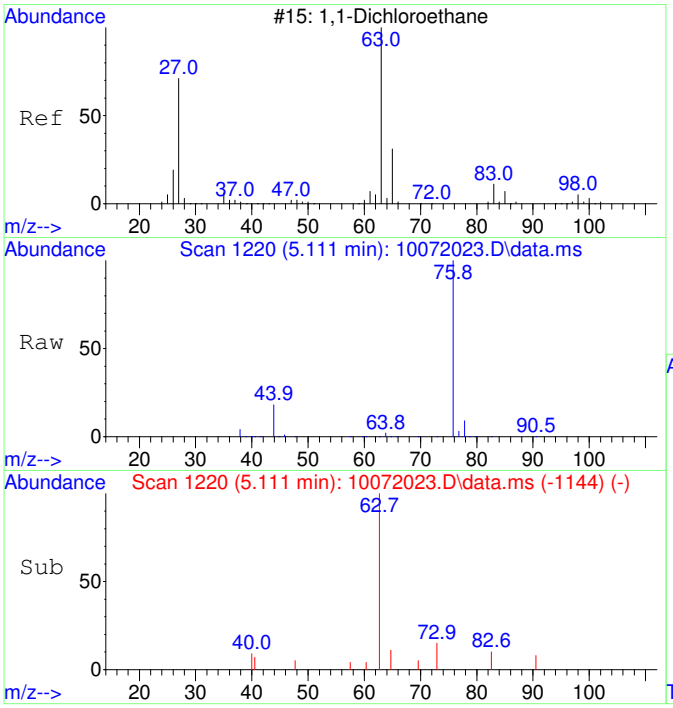



#27
trans-1,2-Dichloroethene SCAN
Concen: 35.41 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 128.6 | 49.0 | 109.0# |
| 98 | 52.1 | 20.5 | 80.5 |

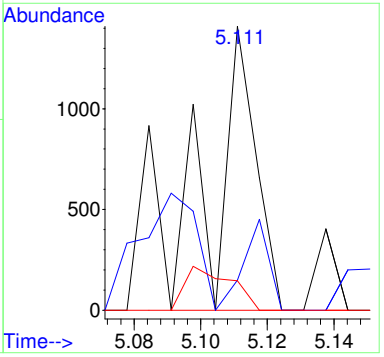


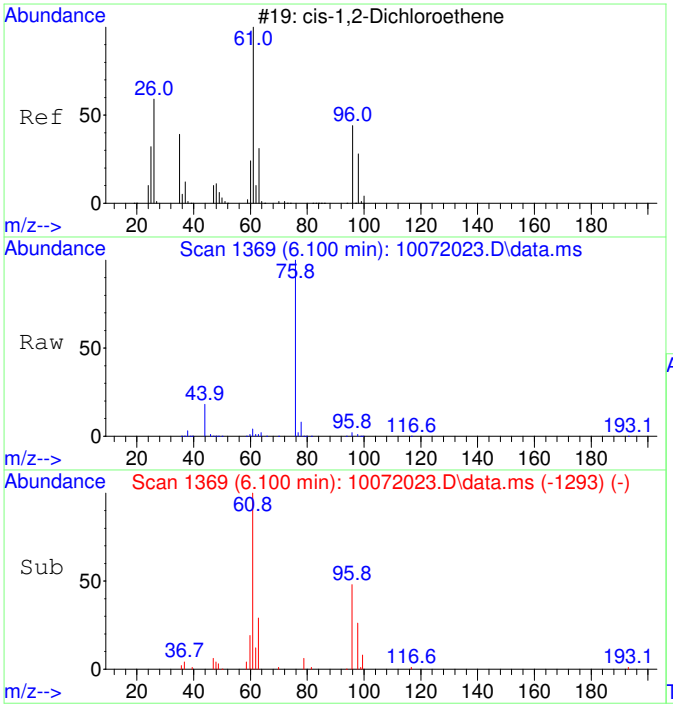




#28
1,1-Dichloroethane SCAN
Concen: 74.23 ug/L
RT: 5.111 min Scan# 1220
Delta R.T. 0.007 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 63 Resp: 1230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 9.8 | 1.3 | 61.3 |
| 83 | 0.0 | 0.0 | 45.9 |

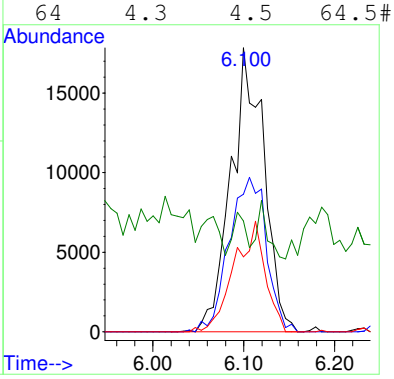


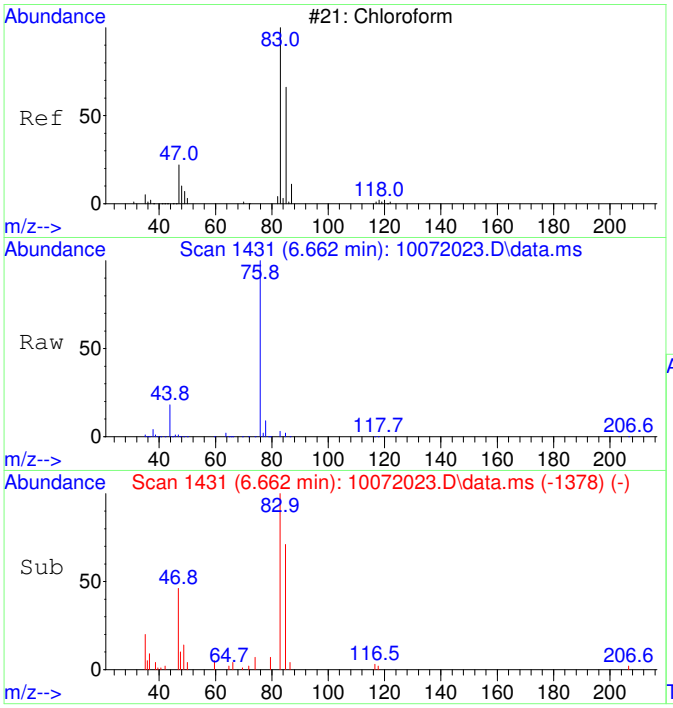



#29
cis-1,2-Dichloroethene SCAN
Concen: 2543.46 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 61 Resp: 45154

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 61.2 | 39.9 | 99.9 |
| 98 | 36.6 | 13.5 | 73.5 |
| 64 | 4.3 | 4.5 | 64.5# |

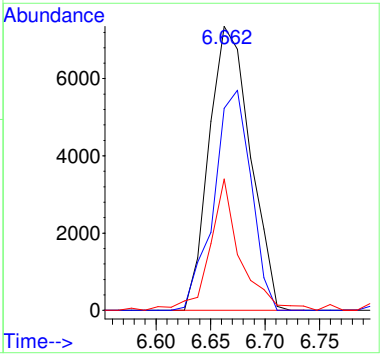


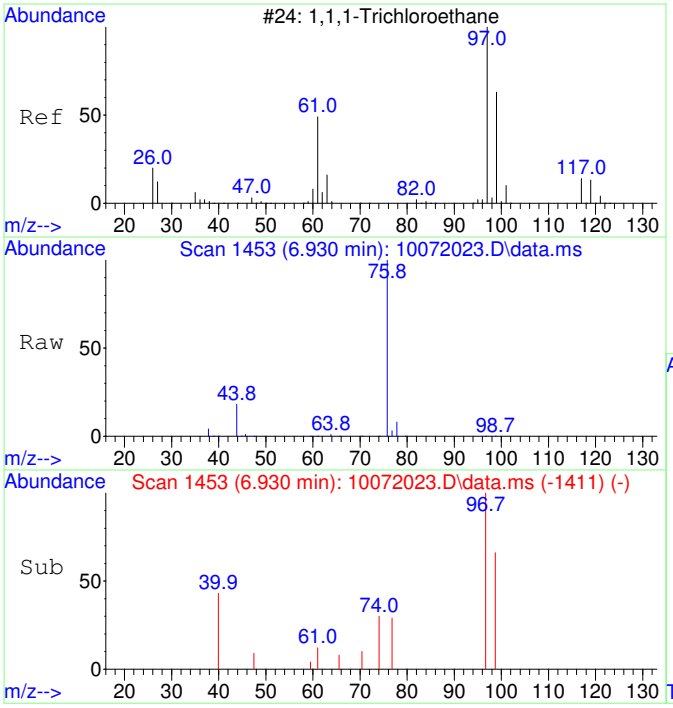




#30
Chloroform SCAN
Concen: 1005.63 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 83 Resp: 19364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 70.1 | 34.6 | 94.6 |
| 47 | 34.1 | 0.0 | 53.4 |

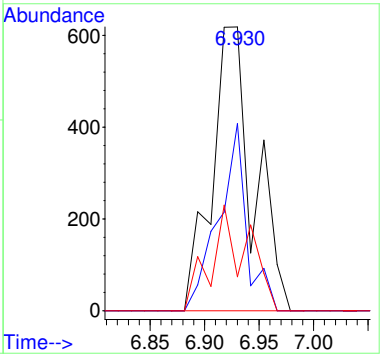


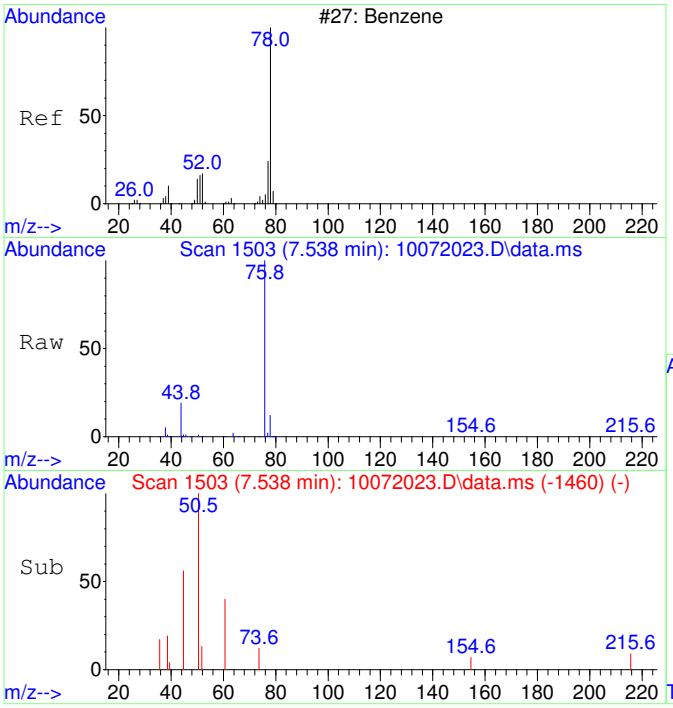



#31
1,1,1-Trichloroethane SCAN
Concen: 93.18 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 97 Resp: 1635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 44.5 | 43.6 | 103.6 |
| 61 | 33.1 | 18.0 | 78.0 |

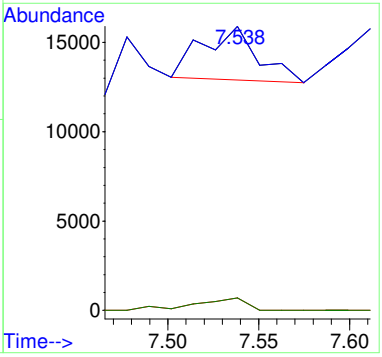


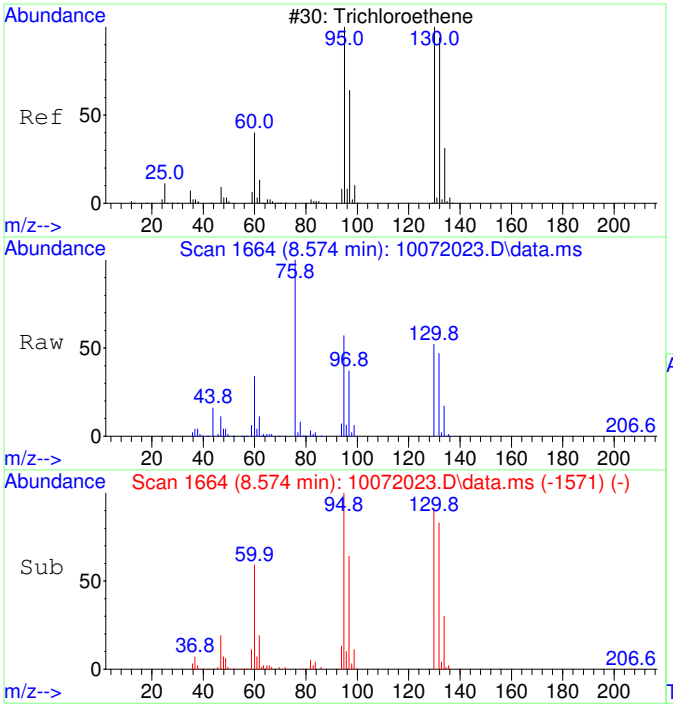




#33
Benzene SCAN
Concen: 129.26 ug/L
RT: 7.538 min Scan# 1503
Delta R.T. 0.024 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 78 Resp: 6245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 21.5 | 0.0 | 47.9 |
| 51 | 21.5 | 0.0 | 44.1 |

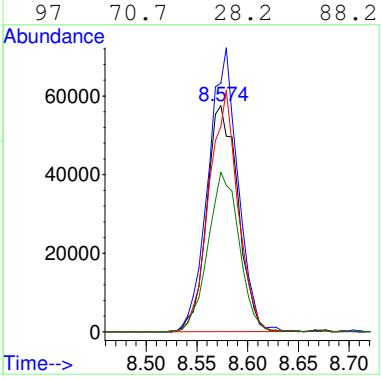


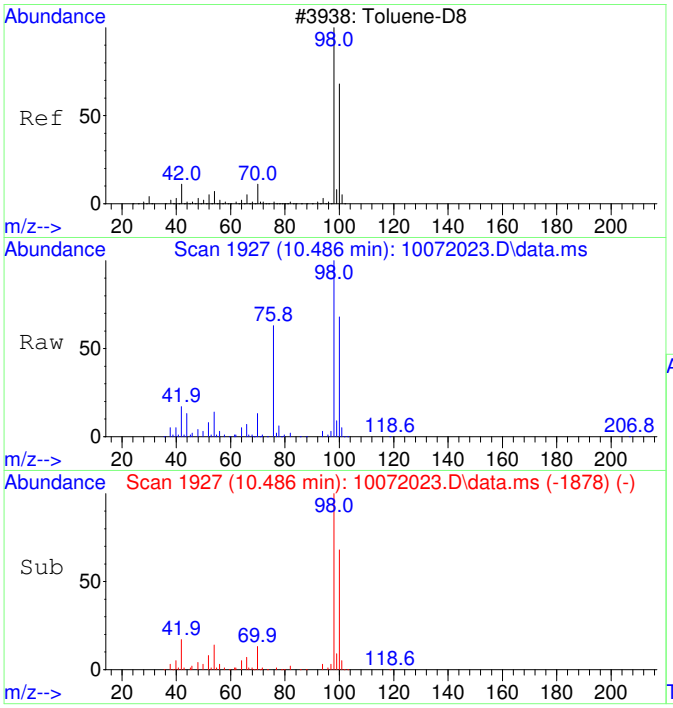



#35
Trichloroethene SCAN
Concen: 9270.43 ug/L
RT: 8.574 min Scan# 1664
Delta R.T. 0.005 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion:130 Resp: 123084

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 119.7 | 60.5 | 120.5 |
| 132 | 98.9 | 59.6 | 119.6 |
| 97 | 70.7 | 28.2 | 88.2 |

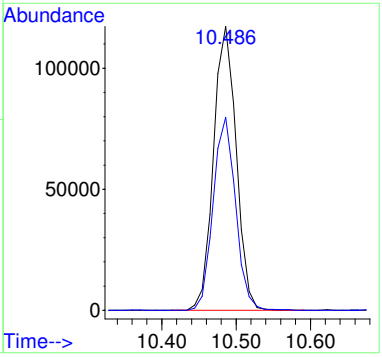


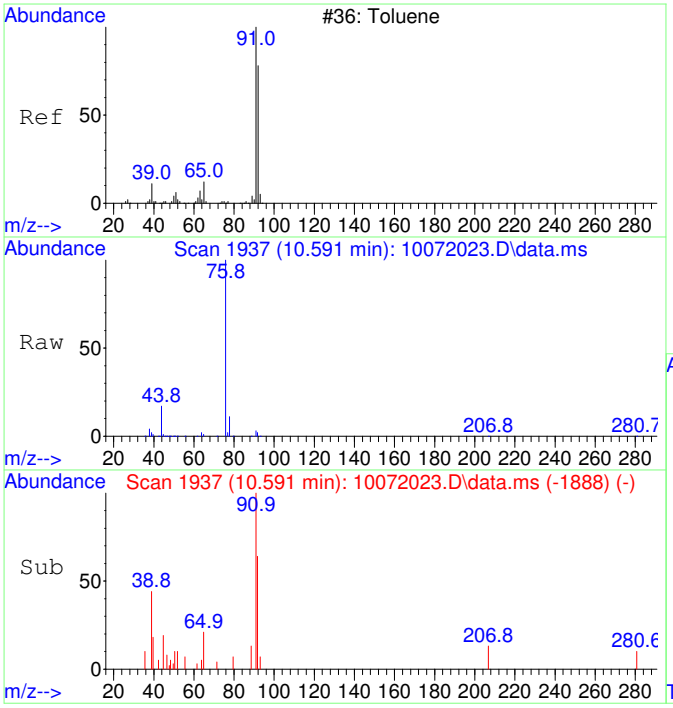




#36
Toluene-d8 SCAN
Concen: 4658.99 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.011 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 98 Resp: 248240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.2 | 40.0 | 100.0 |

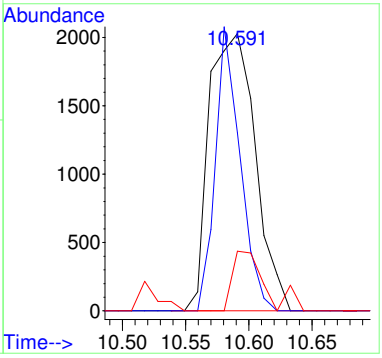


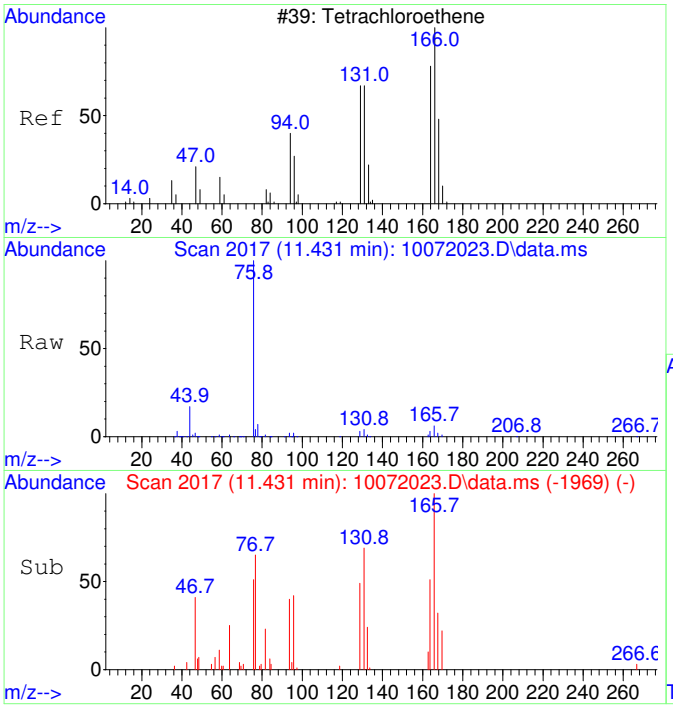



#37
Toluene SCAN
Concen: 75.62 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.011 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 5160

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 55.0 | 28.3 | 88.3 |
| 65 | 15.2 | 0.0 | 41.0 |

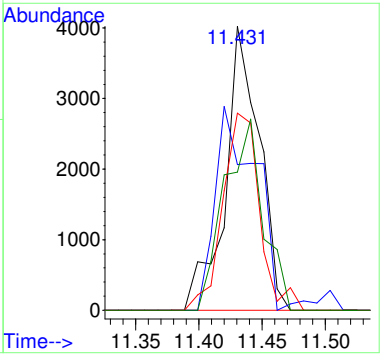


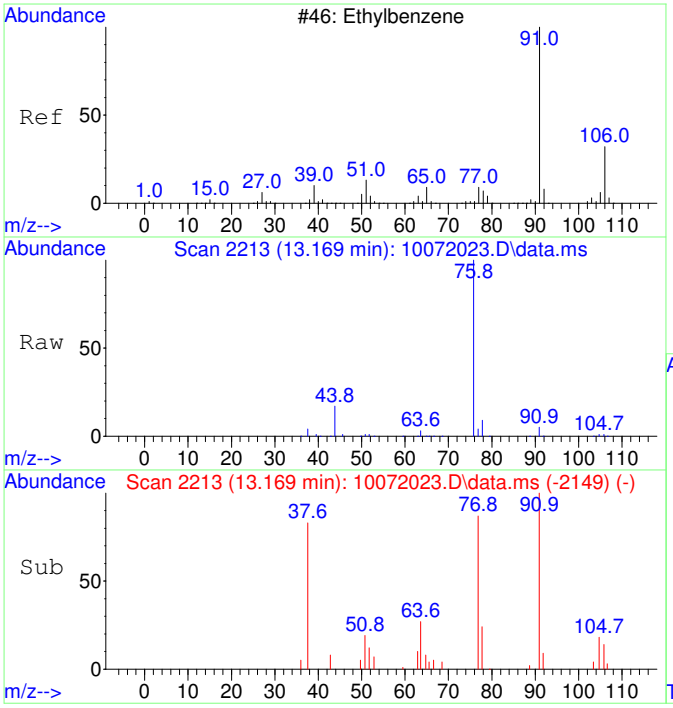




#39
Tetrachloroethene SCAN
Concen: 461.65 ug/L
RT: 11.431 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion:166 Resp: 7568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 0.0 | 50.9 | 110.9# |
| 131 | 74.7 | 38.7 | 98.7 |
| 129 | 76.1 | 41.8 | 101.8 |

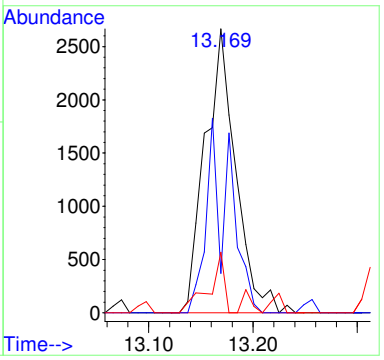


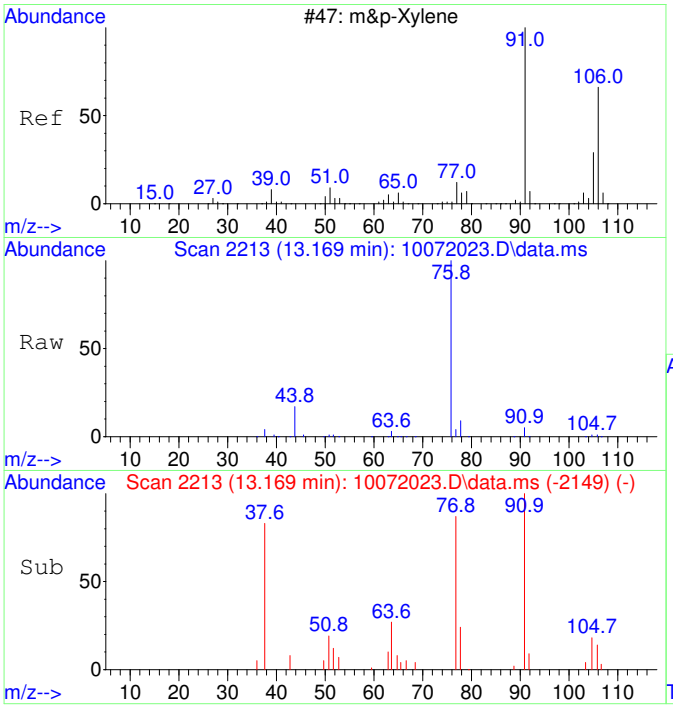



#42
Ethylbenzene SCAN
Concen: 43.76 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 5440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 51.2 | 23.1 | 83.1 |
| 51 | 10.6 | 0.0 | 40.1 |

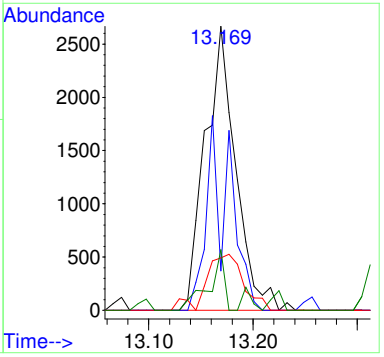


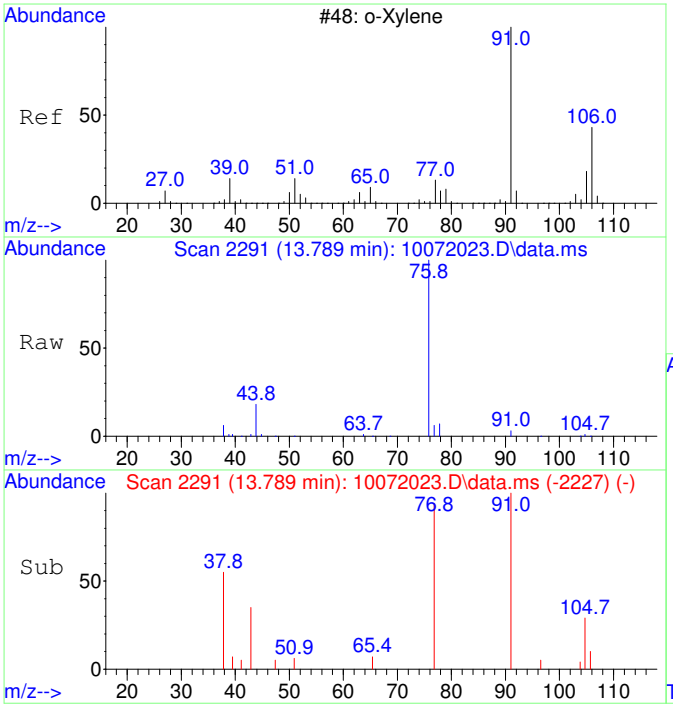




#43
m&p-Xylene SCAN
Concen: 43.76 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 5440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 51.2 | 23.1 | 83.1 |
| 105 | 24.1 | 0.0 | 54.7 |
| 51 | 10.6 | 0.0 | 40.1 |

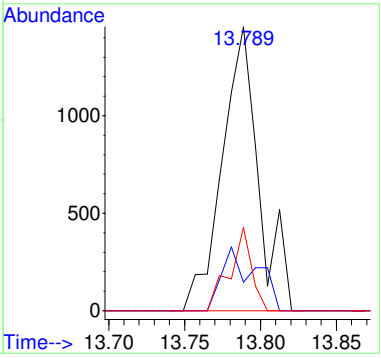





#44
o-Xylene SCAN
Concen: 36.62 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072023.D
Acq: 7 Oct 2020 17:00

Tgt Ion: 91 Resp: 2437

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 20.9 | 18.0 | 78.0 |
| 105 | 17.6 | 0.0 | 56.6 |



# SEQUENCE

## S20J013

Sequence Date: 10/08/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | B20J006 | SEQUENCE #: | S20J013 10/08/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| DOCUMENTATION | ANALYST: Bench sheet(s) attached?<br>REVIEWER: Bench sheet(s) reviewed? | ✔ | | | |
| | ANALYST: Sequence log(s) attached?<br>REVIEWER: Sequence log(s) reviewed? | | Y | Y | |
| | ANALYST: Every run has a PDF in LIMS?<br>REVIEWER: Every PDF reviewed? | | Y | Y | |
| INITIAL CALIBRATION | Date of Initial Calibration used:<br>If applicable, note date of "Last Update" in Comments. | Fri Aug 21 08:33:54 2020 | | | |
| | Initial Calibration ID (LIMS number): | 2008017 | | | |
| | ICAL within QC criteria? | ✔ | | | |
| | SCV within QC criteria? | ✔ | | | |
| INSTRUMENT / QC CHECKS | Tune or degradation checks within QC criteria? | | Y | Y | |
| | CCV(s) within QC criteria? | | Y | Y | |
| | QLS(s) within QC criteria? | | Y | Y | |
| | CB(s) or storage blank(s) within QC criteria? | ✔ | | | |
| | Other instrument checks within QC criteria?<br>Specify if applicable. | ✔ | | | |
| BATCH QCs | Method blanks < 1/2 QL? | ✔ | | | |
| | LCS(s) or SRM(s) within QC criteria? | ✔ | | | |
| | MSs/MSDs and/or DUPs within QC criteria? | ✔ | | | |
| | Other method-specific QCs within QC criteria?<br>Specify if applicable. | ✔ | | | |

# ANALYST / REVIEWER - DATA REVIEW CHECKLIST

| | | | |
|---|---|---|---|
| BATCH #: | B20J006 | SEQUENCE #: | S20J013 10/08/20 |
| BATCH #: | | ANALYSIS: | VOA Passive Air. |

| | CHECKLIST ITEM | N/A | ANALYST Y/N | REVIEWER Y/N | IDENTIFY OUTLIERS / COMMENTS |
|---|---|---|---|---|---|
| IS / SS | Internal standards within QC criteria? | ☐ | Y | Y | |
| | Surrogates within QC criteria? | ☐ | Y | Y | |
| SAMPLE DATA | Were samples prepared & analyzed within holding time? | ✔ | | | |
| | If samples need to be re-run, were RE(s) made in LIMS? | ✔ | | | |
| | Do any samples need to be re-digested or re-extracted? | ✔ | | | |
| | Were all data qualifiers appropriately applied? | ✔ | | | |
| | Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable. | ✔ | | | |
| MANUAL INT | Were manual integrations performed and documented? Specify if applicable. | ☐ | Y | Y | |

| | | |
|---|---|---|
| APPROVALS | ANALYST INITIALS & DATE: | TD 10/08/20 |
| | REVIEWED BY: | Rajabi, Ziyad Digitally signed by Rajabi, Ziyad Date: 2020.10.12 11:29:22 -07'00' SIGN HERE |

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\100820\

| Vial | File Name | Mult | Sample Info | Misc Info | Date Acquired |
|---|---|---|---|---|---|
| 1 | 10082001.D | 1 | S20J013-IBL1 | | 8 Oct 2020 9:57 |
| 2 | 10082002.D | 1 | S20J013-TUN1 | BFB 2040028 | 8 Oct 2020 10:18 |
| 3 | 10082003.D | 1 | S20J013-CCV1 | 2030070 5 mg/L | 8 Oct 2020 10:28 |
| 4 | 10082004.D | 1 | S20J013-CRL1 | 2030073 0.05 mg/L | 8 Oct 2020 10:51 |
| 5 | 10082005.D | 10 | 2009037-01RE2 | 180-20uL); RA for low surr | 8 Oct 2020 11:15 |

NOT USED

GC/MS QA-QC Check Report



Tune File : C:\msdchem\1\Ravioli Data\2020\100820\10082002.D
Tune Time : 8 Oct 2020 10:18

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\100820\10082003.D

465558

| File | Sample | Surrogate Recovery % | Internal Standard Responses | | |
|---|---|---|---|---|---|
| 10082003.D | | | | | |
| | S20J013-CC | 97 | 465558 | | |
| 10082004.D | | | | | |
| | S20J013-CR | 1* | 454821 | | |
| 10082005.D | | | | | |
| | 2009037-01RE2 | 86 | 436470 | 10X DL | NOT USED |

(fails) - fails 12hr time check * - fails criteria

Created: Thu Oct 08 11:36:28 2020 AG5975C

# Analysis Sequence

**S20J013**

**Project:** R20S18
**Analysis:** VOCs, Passive Samplers

**Instrument:** AG5975CV **Calibration ID:** 2008017 Printed: 10/09/2020 8:09 am

| Lab Number | Sample Name | Order | Analyzed Date | STD ID | ISTD ID | Sequenced By | File ID | Comments |
|---|---|---|---|---|---|---|---|---|
| S20J013-IBL1 | Instrument Blank | 1 | 10/8/20 9:57 | | 2030067 | TD | 10082001.D | |
| S20J013-TUN1 | BFB | 2 | 10/8/20 10:18 | 2040028 | | TD | 10082002.D | |
| S20J013-CCV1 | Calibration Check | 3 | 10/8/20 10:28 | 2030070 | | TD | 10082003.D | |
| S20J013-CRL1 | Instrument RL Check | 4 | 10/8/20 10:51 | 2030073 | | TD | 10082004.D | |
| 2009037-01RE2 A | Waverly-MH1-2ft-6d-R | 5 | 10/8/20 11:15 | | | TD | 10082005.D | |

**Sequence Comments**
NOT USED

**Reagents**

| Reagent # | Description |
|---|---|





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# SEQUENCE DATA

## S20J013

# S20J013-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082001.D
Acq On : 8 Oct 2020 9:57
InstName : AG5975C
Operator : TD
Sample : S20J013-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 10:15:52 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

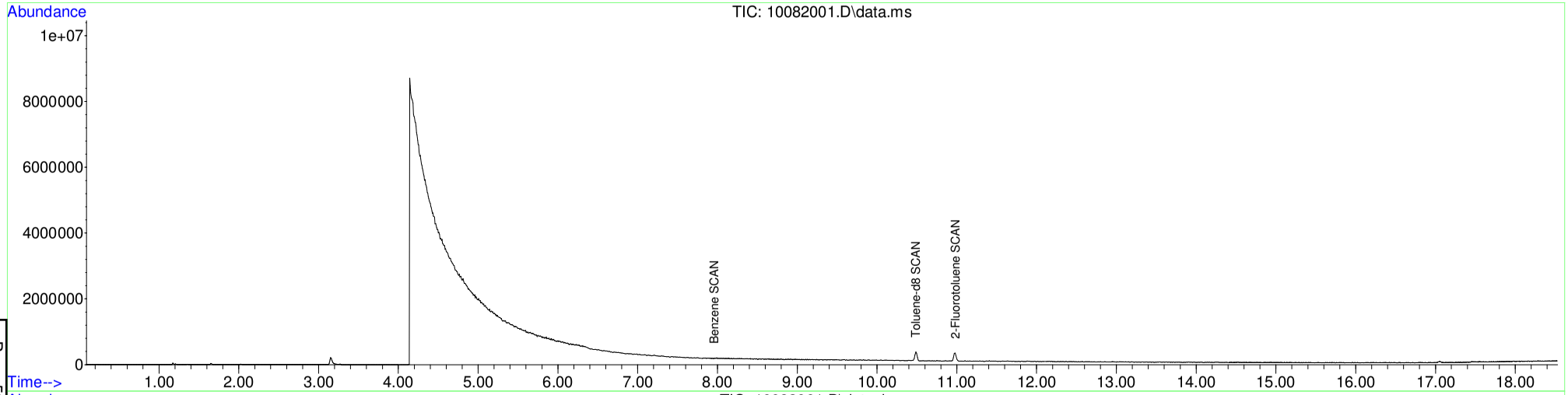
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 424112 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 358516 | 4318.20 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 86.36% | | | |
| Target Compounds | | | | | | Qvalue |
| 9] Benzene | 7.503 | 78 | 2817 | 39.09 | ug/L # | 1 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 215081 | 5202.34 | ug/L | 99 |
| 33) Benzene SCAN | 7.953 | 78 | 4211 | 114.86 | ug/L | 92 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 196081 | 4849.61 | ug/L | 90 |

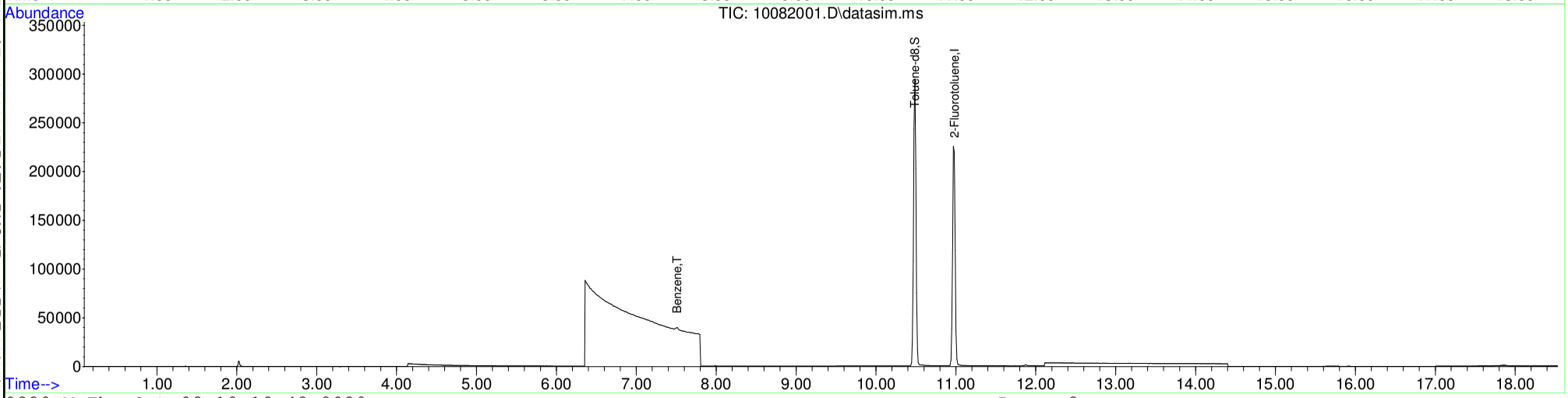
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082001.D
Acq On : 8 Oct 2020 9:57
InstName : AG5975C
Operator : TD
Sample : S20J013-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 10:15:52 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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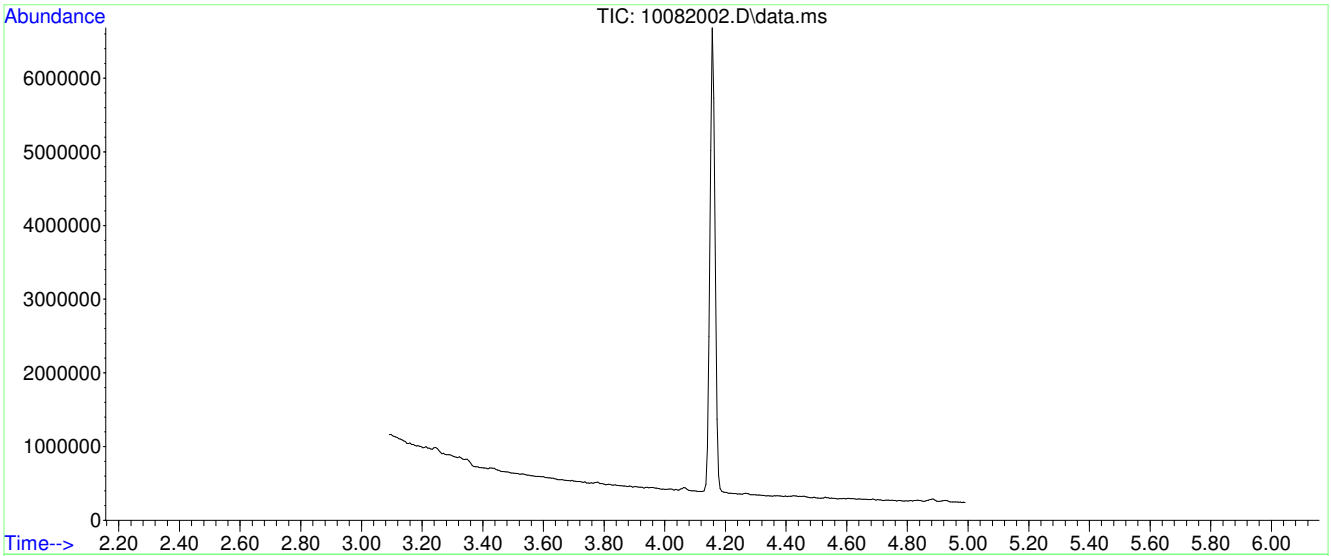
# S20J013-TUN1

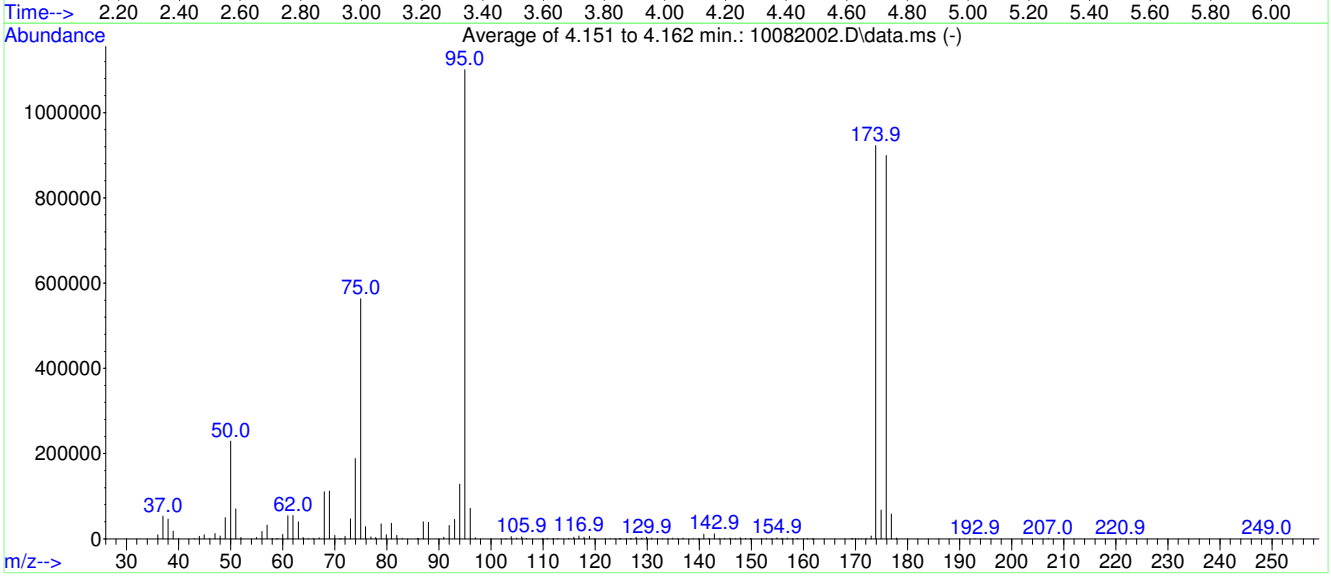
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082002.D
Acq On : 8 Oct 2020 10:18
Operator : TD
Sample : S20J013-TUN1
Misc : BFB 2040028
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Aug 21 08:33:54 2020




AutoFind: Scans 203, 204, 205; Background Corrected with Scan 197

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.8 | 229312 | PASS |
| 75 | 95 | 30 | 60 | 51.2 | 563062 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 1100373 | PASS |
| 96 | 95 | 5 | 9 | 6.5 | 72061 | PASS |
| 173 | 174 | 0.00 | 2 | 0.8 | 6998 | PASS |
| 174 | 95 | 50 | 120 | 83.9 | 922688 | PASS |
| 175 | 174 | 5 | 9 | 7.3 | 67437 | PASS |
| 176 | 174 | 95 | 101 | 97.5 | 899541 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 58096 | PASS |

Average of 4.151 to 4.162 min.: 10082002.D\data.ms
S20J013-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.00 | 9271 | 49.00 | 49603 | 61.00 | 54219 | 71.20 | 106 |
| 37.00 | 53293 | 50.00 | 229312 | 62.00 | 54747 | 72.00 | 5697 |
| 38.00 | 45985 | 51.00 | 70443 | 63.00 | 40291 | 73.00 | 47040 |
| 39.00 | 18275 | 52.00 | 2888 | 63.95 | 3440 | 73.95 | 188545 |
| 40.00 | 562 | 55.00 | 2934 | 64.95 | 495 | 75.00 | 563062 |
| 43.05 | 366 | 56.00 | 17536 | 65.90 | 174 | 75.90 | 28693 |
| 44.00 | 5723 | 57.00 | 32346 | 67.00 | 2627 | 76.95 | 4854 |
| 44.95 | 9739 | 58.00 | 1445 | 68.00 | 110728 | 77.90 | 3288 |
| 45.95 | 257 | 58.85 | 202 | 69.00 | 112077 | 78.90 | 34731 |
| 47.00 | 12344 | 59.10 | 75 | 70.00 | 8092 | 79.90 | 9449 |
| 48.00 | 6922 | 60.00 | 10325 | 70.95 | 175 | 80.90 | 36123 |

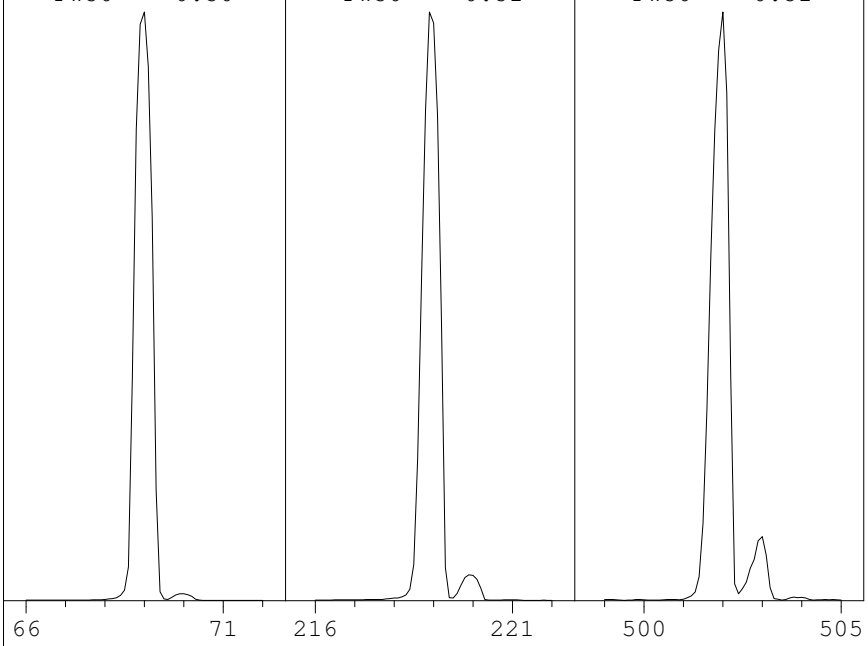
Average of 4.151 to 4.162 min.: 10082002.D\data.ms
S20J013-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 81.90 | 7967 | 96.00 | 72061 | 114.95 | 939 | 124.95 | 213 |
| 82.95 | 990 | 97.00 | 2209 | 115.90 | 4073 | 125.95 | 493 |
| 85.90 | 976 | 102.85 | 453 | 116.90 | 6584 | 126.80 | 116 |
| 86.10 | 177 | 103.90 | 5037 | 117.90 | 3733 | 126.95 | 393 |
| 87.00 | 40296 | 104.90 | 1703 | 118.90 | 6233 | 127.90 | 3665 |
| 88.00 | 38267 | 105.90 | 4824 | 119.95 | 258 | 128.95 | 1693 |
| 90.95 | 3761 | 106.85 | 1110 | 121.90 | 172 | 129.90 | 3761 |
| 92.00 | 31653 | 109.90 | 834 | 122.90 | 334 | 130.90 | 1496 |
| 93.00 | 45451 | 110.85 | 1044 | 123.85 | 570 | 131.95 | 130 |
| 94.00 | 128333 | 111.90 | 783 | 124.70 | 92 | 132.95 | 163 |
| 95.00 | 1.10037e+006 | 112.85 | 910 | 124.80 | 104 | 133.95 | 343 |

Average of 4.151 to 4.162 min.: 10082002.D\data.ms
S20J013-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 134.95 | 1996 | 146.95 | 279 | 157.85 | 276 | 173.90 | 922688 |
| 135.85 | 397 | 147.90 | 2326 | 158.90 | 1303 | 174.90 | 67437 |
| 136.90 | 1901 | 148.90 | 855 | 160.85 | 1303 | 175.90 | 899541 |
| 138.85 | 301 | 149.85 | 1092 | 161.70 | 57 | 176.90 | 58096 |
| 139.85 | 618 | 151.90 | 483 | 169.20 | 73 | 177.90 | 1933 |
| 140.90 | 10769 | 152.90 | 777 | 169.45 | 130 | 191.00 | 81 |
| 141.85 | 1340 | 153.85 | 626 | 170.05 | 266 | 192.95 | 188 |
| 142.90 | 11330 | 154.90 | 2622 | 170.60 | 107 | 207.00 | 230 |
| 143.85 | 693 | 155.80 | 122 | 171.10 | 114 | 220.90 | 106 |
| 144.85 | 977 | 156.00 | 291 | 172.10 | 422 | 249.00 | 83 |
| 145.90 | 1635 | 156.90 | 1920 | 173.00 | 6998 | | |

| Mass | 69.00 | Mass | 218.90 | Mass | 502.00 |
|---|---|---|---|---|---|
| Ab | 534464 | Ab | 329307 | Ab | 9522 |
| Pw50 | 0.50 | Pw50 | 0.51 | Pw50 | 0.51 |

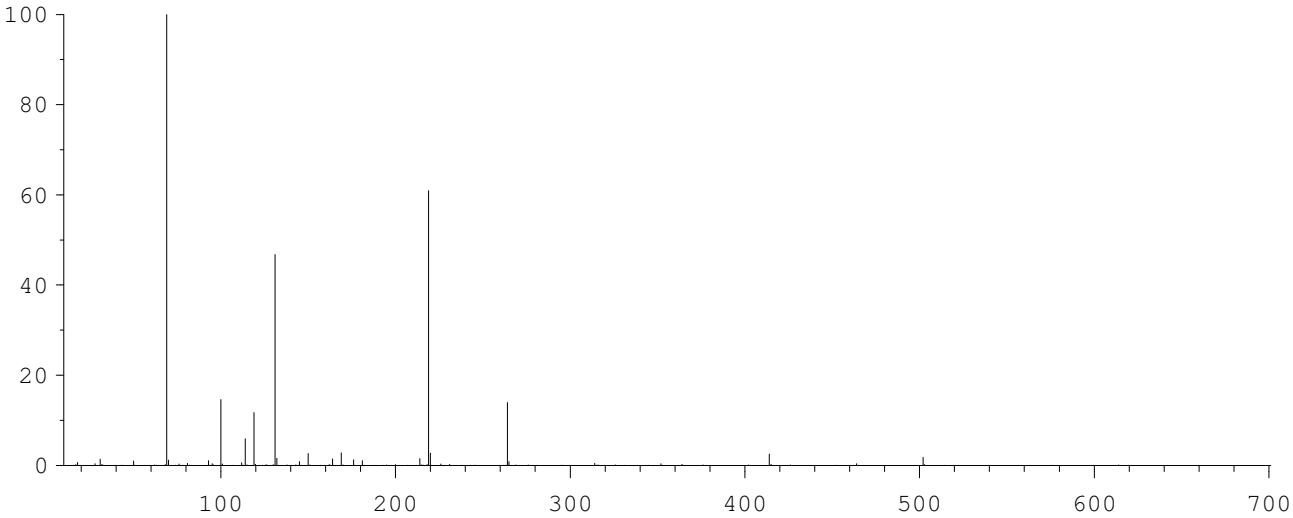



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | -1190 |
| | | MassOffs | -39 |
| Emission | 34.6 | AmuGain | 978 |
| EIEnrgy | 69.9 | AmuOffs | 127.94 |
| Filament | 1 | Wid219 | -0.003 |
| | | DC Pol | Pos |
| Repeller | 29.79 | | |
| IonFcus | 69.3 | HEDEnab | On |
| EntLens | 0.0 | EMVolts | 1329 |
| EntOffs | Var | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | Turbo Speed | 100 |
| MS Quad | 150 | HiVac | 0.00e00 |

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
114 peaks Base: 69.00 Abundance: 505792




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.00 | 505792 | 100.00 | 70.00 | 5784 | 1.14 |
| 219.00 | 308224 | 60.94 | 220.00 | 13608 | 4.41 |
| 502.00 | 8913 | 1.76 | 503.00 | 908 | 10.19 |

Air/Water Check: H20~0.64% N2~0.39% O2~0.23% CO2~0.04% N2/H2O~60.46%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 47126
Repeller Maximum 30 volts using ion 219; Gain Factor 0.47

MassGain Values(Samples): -1178(3) -1176(2) -1156(1) -1125(0) -1039(FS)

| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 1050 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 | 127.9 |
| Entrance Lens Offset: | 16.8 | 14.1 | 14.3 | 15.6 | 16.1 | 16.8 | 16.8 |
| Target Abund(%): | 1.0 | 100.0 | 45.0 | 55.0 | 2.5 | 2.0 | |
| Actual Tune Abund(%): | 1.0 | 100.0 | 46.8 | 60.9 | 2.5 | 1.8 | |

# S20J013-CCV1

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082003.D
Acq On : 8 Oct 2020 10:28
InstName : AG5975C
Operator : TD
Sample : S20J013-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 08 10:46:48 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.03min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | 2-Fluorotoluene | 1.000 | 1.000 | 0.0 | 69 | 0.00 |
| 2 | T | 1,1-Dichloroethene | 0.200 | 0.196 | 2.0 | 72 | 0.00 |
| 3 | T | trans-1,2-Dichloroethene | 0.231 | 0.223 | 3.5 | 72 | 0.00 |
| 4 | T | 1,1-Dichloroethane | 0.287 | 0.278 | 3.1 | 72 | 0.00 |
| 5 | T | cis-1,2-Dichloroethene | 0.303 | 0.293 | 3.3 | 72 | 0.00 |
| 6 | T | Chloroform | 0.310 | 0.291 | 6.1 | 69 | 0.00 |
| 7 | T | 1,1,1-Trichloroethane | 0.337 | 0.319 | 5.3 | 69 | 0.00 |
| 8 | T | Carbon tetrachloride | 0.317 | 0.300 | 5.4 | 69 | 0.00 |
| 9 | T | Benzene | 0.850 | 0.805 | 5.3 | 72 | 0.00 |
| 10 | T | 1,2-Dichloroethane | 0.303 | 0.292 | 3.6 | 71 | 0.00 |
| 11 | T | Trichloroethene | 0.256 | 0.241 | 5.9 | 69 | 0.00 |
| 12 | S | Toluene-d8 | 0.979 | 0.951 | 2.9 | 70 | 0.00 |
| 13 | T | Toluene | 1.248 | 1.149 | 7.9 | 71 | 0.01 |
| 14 | T | 1,1,2-Trichloroethane | 0.272 | 0.261 | 4.0 | 71 | 0.01 |
| 15 | T | Tetrachloroethene | 0.361 | 0.335 | 7.2 | 67 | 0.01 |
| 16 | T | Chlorobenzene | 0.894 | 0.842 | 5.8 | 68 | 0.00 |
| 17 | T | 1,1,1,2-Tetrachloroethane | 0.320 | 0.302 | 5.6 | 68 | 0.00 |
| 18 | T | Ethylbenzene | 1.519 | 1.393 | 8.3 | 68 | 0.00 |
| 19 | T | m&p-Xylene | 1.187 | 1.058 | 10.9 | 67 | 0.00 |
| 20 | T | o-Xylene | 1.268 | 1.140 | 10.1 | 66 | 0.00 |
| 21 | T | 1,1,2,2-Tetrachloroethane | 0.562 | 0.522 | 7.1 | 67 | 0.00 |
| 22 | T | 1,3,5-Trimethylbenzene | 1.350 | 1.211 | 10.3 | 64 | 0.00 |
| 23 | T | 1,2,4-Trimethylbenzene | 1.402 | 1.211 | 13.6 | 64 | 0.00 |
| 24 | T | Naphthalene | 2.216 | 1.952 | 11.9 | 63 | 0.00 |
| 25 | | 2-Fluorotoluene SCAN | 0.487 | 0.502 | -3.1 | 71 | 0.00 |
| 26 | | 1,1-Dichloroethene SCAN | 0.104 | 0.118 | -13.5 | 79 | 0.00 |
| 27 | | trans-1,2-Dichloroethene SC | 0.128 | 0.134 | -4.7 | 72 | 0.00 |
| 28 | | 1,1-Dichloroethane SCAN | 0.148 | 0.168 | -13.5 | 78 | -0.01 |
| 29 | | cis-1,2-Dichloroethene SCAN | 0.159 | 0.168 | -5.7 | 73 | 0.00 |
| 30 | | Chloroform SCAN | 0.172 | 0.168 | 2.3 | 67 | 0.00 |
| 31 | | 1,1,1-Trichloroethane SCAN | 0.157 | 0.179 | -14.0 | 79 | 0.00 |
| 32 | | Carbon tetrachloride SCAN | 0.164 | 0.153 | 6.7 | 65 | 0.00 |
| 33 | | Benzene SCAN | 0.432 | 0.494 | -14.4 | 79 | 0.00 |
| 34 | | 1,2-Dichloroethane SCAN | 0.160 | 0.160 | 0.0 | 69 | 0.01 |
| 35 | | Trichloroethene SCAN | 0.119 | 0.121 | -1.7 | 70 | 0.00 |
| 36 | | Toluene-d8 SCAN | 0.477 | 0.504 | -5.7 | 73 | 0.01 |
| 37 | | Toluene SCAN | 0.610 | 0.619 | -1.5 | 70 | 0.01 |
| 38 | | 1,1,2-Trichloroethane SCAN | 0.137 | 0.135 | 1.5 | 68 | 0.02 |
| 39 | | Tetrachloroethene SCAN | 0.147 | 0.159 | -8.2 | 75 | 0.00 |
| 40 | | Chlorobenzene SCAN | 0.417 | 0.423 | -1.4 | 70 | 0.00 |
| 41 | | 1,1,1,2-Tetrachloroethane S | 0.154 | 0.137 | 11.0 | 61 | 0.00 |
| 42 | | Ethylbenzene SCAN | 1.112 | 1.125 | -1.2 | 70 | 0.00 |
| 43 | | m&p-Xylene SCAN | 1.112 | 1.125 | -1.2 | 70 | 0.00 |
| 44 | | o-Xylene SCAN | 0.595 | 0.587 | 1.3 | 68 | 0.00 |
| 45 | | 1,1,2,2-Tetrachloroethane S | 0.290 | 0.306 | -5.5 | 73 | 0.00 |
| 46 | | 1,3,5-Trimethylbenzene SCAN | 0.627 | 0.598 | 4.6 | 66 | 0.00 |
| 47 | | 1,2,4-Trimethylbenzene SCAN | 0.642 | 0.613 | 4.5 | 66 | 0.00 |
| 48 | | Naphthalene SCAN | 0.971 | 0.889 | 8.4 | 63 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082003.D
Acq On : 8 Oct 2020 10:28
InstName : AG5975C
Operator : TD
Sample : S20J013-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 08 10:46:48 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

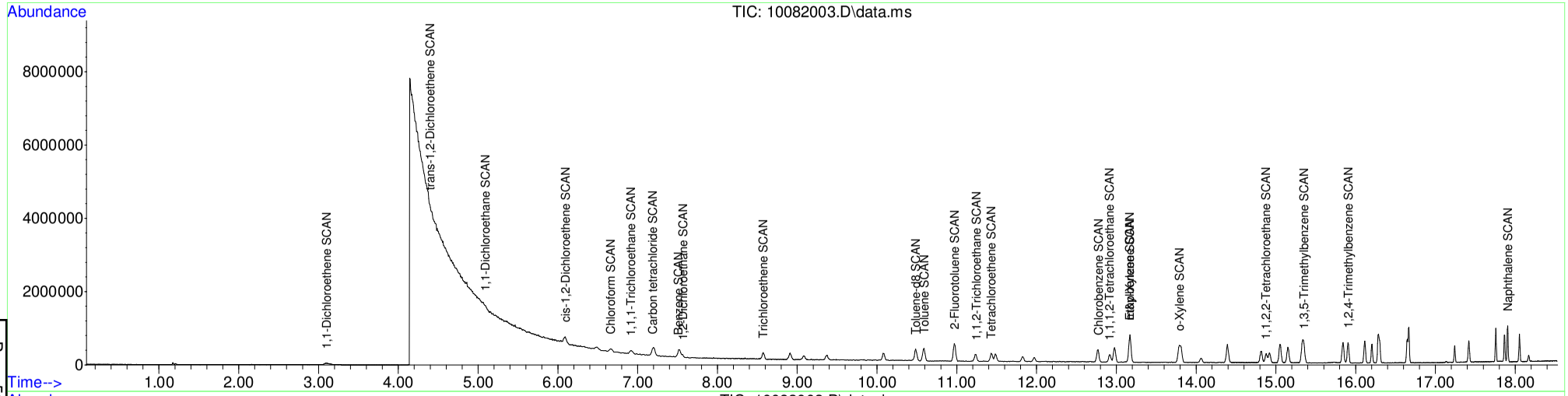
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.970 | 109 | 465558 | 5000.00 ug/L | 0.00 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.477 | 98 | 442906 | 4859.73 ug/L | 0.00 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 97.19% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.093 | 61 | 91438 | 4918.54 ug/L | 82 |
| 3] trans-1,2-Dichloroethene | 4.389 | 61 | 104018 | 4842.80 ug/L | 98 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 129525 | 4844.40 ug/L | 98 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 136251 | 4827.69 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 135301 | 4683.78 ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 148598 | 4736.69 ug/L | 100 |
| 8] Carbon tetrachloride | 7.187 | 117 | 139706 | 4731.42 ug/L | 100 |
| 9] Benzene | 7.515 | 78 | 374662 | 4736.51 ug/L | 99 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 135813 | 4809.71 ug/L | 98 |
| 11] Trichloroethene | 8.575 | 130 | 112373 | 4718.33 ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 534790 | 4602.62 ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 121631 | 4804.06 ug/L | 97 |
| 15] Tetrachloroethene | 11.432 | 166 | 156137 | 4643.36 ug/L | 100 |
| 16] Chlorobenzene | 12.765 | 112 | 392035 | 4712.06 ug/L | 91 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 140490 | 4712.59 ug/L | 99 |
| 18] Ethylbenzene | 12.972 | 91 | 648502 | 4585.29 ug/L | 98 |
| 19] m&p-Xylene | 13.162 | 91 | 985307 | 8913.82 ug/L | 96 |
| 20] o-Xylene | 13.782 | 91 | 530881 | 4495.39 ug/L | 96 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 243017 | 4643.17 ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.348 | 105 | 563653 | 4484.20 ug/L | 96 |
| 23] 1,2,4-Trimethylbenzene | 15.904 | 105 | 563650 | 4317.11 ug/L | 96 |
| 24] Naphthalene | 17.902 | 128 | 908669 | 4403.46 ug/L | 100 |
| 25) 2-Fluorotoluene SCAN | 10.969 | 109 | 233873 | 5153.28 ug/L | 95 |
| 26) 1,1-Dichloroethene SCAN | 3.099 | 61 | 55107 | 5717.64 ug/L | 83 |
| 27) trans-1,2-Dichloroethe... | 4.394 | 61 | 62215 | 5216.55 ug/L | 75 |
| 28) 1,1-Dichloroethane SCAN | 5.091 | 63 | 78292 | 5672.27 ug/L | 90 |
| 29) cis-1,2-Dichloroethene... | 6.093 | 61 | 78010 | 5275.17 ug/L # | 75 |
| 30) Chloroform SCAN | 6.662 | 83 | 78126 | 4870.76 ug/L | 93 |
| 31) 1,1,1-Trichloroethane ... | 6.918 | 97 | 83326 | 5700.71 ug/L | 88 |
| 32) Carbon tetrachloride SCAN | 7.186 | 117 | 71460 | 4686.85 ug/L | 93 |
| 33) Benzene SCAN | 7.514 | 78 | 230077 | 5716.85 ug/L | 96 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 74276 | 4998.13 ug/L | 93 |
| 35) Trichloroethene SCAN | 8.574 | 130 | 56362 | 5096.16 ug/L | 84 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 234499 | 5283.47 ug/L | 96 |
| 37) Toluene SCAN | 10.591 | 91 | 288011 | 5067.08 ug/L | 95 |
| 38) 1,1,2-Trichloroethane ... | 11.242 | 97 | 63046 | 4941.65 ug/L | 93 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 73908 | 5412.30 ug/L | 95 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 196807 | 5067.14 ug/L | 87 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 63823 | 4440.24 ug/L | 95 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 523817 | 5058.49 ug/L | 90 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 523817 | 5058.49 ug/L | 91 |
| 44) o-Xylene SCAN | 13.789 | 91 | 273128 | 4927.54 ug/L | 96 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.875 | 83 | 142401 | 5268.67 ug/L | 98 |
| 46) 1,3,5-Trimethylbenzene... | 15.352 | 105 | 278506 | 4767.60 ug/L | 98 |
| 47) 1,2,4-Trimethylbenzene... | 15.903 | 105 | 285439 | 4775.39 ug/L | 96 |
| 48) Naphthalene SCAN | 17.905 | 128 | 413851 | 4575.67 ug/L | 99 |

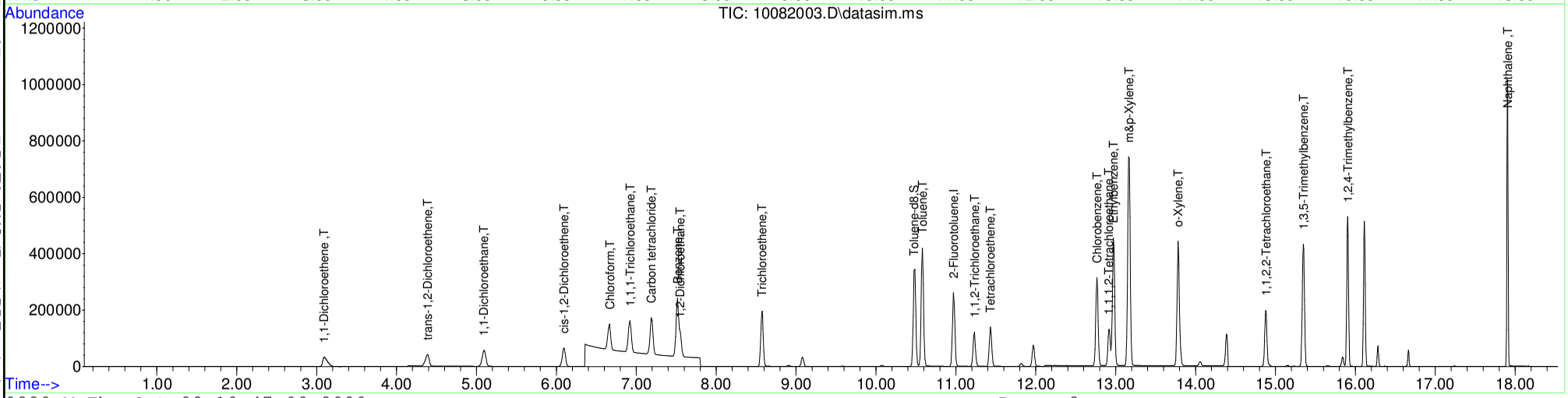
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082003.D
Acq On : 8 Oct 2020 10:28
InstName : AG5975C
Operator : TD
Sample : S20J013-CCV1
Misc : 2030070 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 08 10:46:48 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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# S20J013-CRL1

# QLS REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20J013-CRL1
**Misc Info:** 2030073 0.05 mg/L
**Date Acquired:** 10/8/20 10:51
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000.0 | 5000.00 | 100% | 60 | 140 | pass |
| 2) | 1,1-Dichloroethene | 3.090 | 50.0 | 48.45 | 97% | 60 | 140 | pass |
| 3) | trans-1,2-Dichloroethene | 4.396 | 50.0 | 50.33 | 101% | 60 | 140 | pass |
| 4) | 1,1-Dichloroethane | 5.099 | 50.0 | 52.18 | 104% | 60 | 140 | pass |
| 5) | cis-1,2-Dichloroethene | 6.094 | 50.0 | 51.79 | 104% | 60 | 140 | pass |
| 6) | Chloroform | 6.664 | 50.0 | 47.62 | 95% | 60 | 140 | pass |
| 7) | 1,1,1-Trichloroethane | 6.919 | 50.0 | 47.96 | 96% | 60 | 140 | pass |
| 8) | Carbon tetrachloride | 7.187 | 50.0 | 46.21 | 92% | 60 | 140 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 50.0 | 50.57 | 101% | 60 | 140 | pass |
| 11) | Trichloroethene | 8.569 | 50.0 | 48.52 | 97% | 60 | 140 | pass |
| 12) | Toluene-d8 | 10.477 | 50.0 | 51.11 | 102% | 60 | 140 | pass |
| 13) | Toluene | 10.571 | 50.0 | 51.39 | 103% | 60 | 140 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 50.0 | 50.82 | 102% | 60 | 140 | pass |
| 15) | Tetrachloroethene | 11.421 | 50.0 | 49.68 | 99% | 60 | 140 | pass |
| 16) | Chlorobenzene | 12.757 | 50.0 | 52.95 | 106% | 60 | 140 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 50.0 | 50.99 | 102% | 60 | 140 | pass |
| 18) | Ethylbenzene | 12.964 | 50.0 | 54.30 | 109% | 60 | 140 | pass |
| 19) | m&p-Xylene | 13.162 | 100.0 | 109.02 | 109% | 60 | 140 | pass |
| 20) | o-Xylene | 13.774 | 50.0 | 53.87 | 108% | 60 | 140 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 50.0 | 55.37 | 111% | 60 | 140 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 50.0 | 57.11 | 114% | 60 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 50.0 | 58.17 | 116% | 60 | 140 | pass |
| 24) | Naphthalene | 17.903 | 50.0 | 52.27 | 105% | 60 | 140 | pass |

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

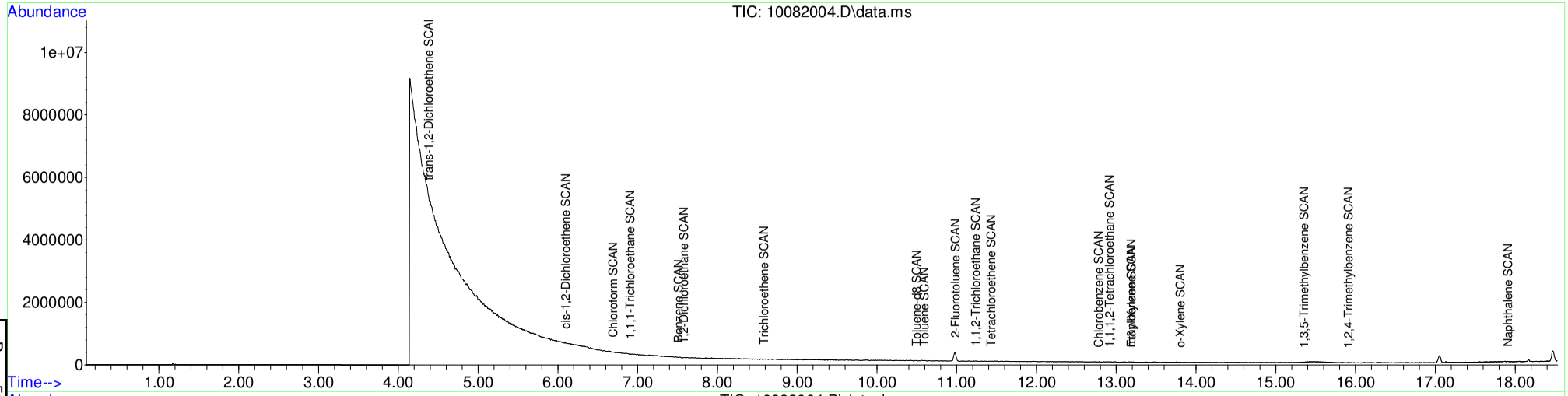
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 454821 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4551 | 51.11 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 1.02%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 1343 | 73.95 | ug/L | 64 |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1056 | 50.33 | ug/L | 56 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1363 | 52.18 | ug/L | 49 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1428 | 51.79 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1344 | 47.62 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1470 | 47.96 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1333 | 46.21 | ug/L | 95 |
| 9] Benzene | 7.515 | 78 | 4011 | 51.90 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1395 | 50.57 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1129 | 48.52 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 5833 | 51.39 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1257 | 50.82 | ug/L | 98 |
| 15] Tetrachloroethene | 11.432 | 166 | 1632 | 49.68 | ug/L | 96 |
| 16] Chlorobenzene | 12.765 | 112 | 4304 | 52.95 | ug/L | 76 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1485 | 50.99 | ug/L | 97 |
| 18] Ethylbenzene | 12.972 | 91 | 7503 | 54.30 | ug/L | 97 |
| 19] m&p-Xylene | 13.170 | 91 | 11773 | 109.02 | ug/L | 93 |
| 20] o-Xylene | 13.782 | 91 | 6215 | 53.87 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2831 | 55.37 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7013 | 57.11 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7419 | 58.17 | ug/L | 92 |
| 24] Naphthalene | 17.904 | 128 | 10537 | 52.27 | ug/L | 97 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 232197 | 5237.13 | ug/L | 97 |
| 27) trans-1,2-Dichloroethe... | 4.374 | 61 | 635 | 54.50 | ug/L # | 71 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 620 | 42.92 | ug/L # | 67 |
| 30) Chloroform SCAN | 6.687 | 83 | 1236 | 78.88 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 512 | 35.86 | ug/L # | 36 |
| 33) Benzene SCAN | 7.514 | 78 | 13029 | 331.38 | ug/L | 95 |
| 34) 1,2-Dichloroethane SCAN | 7.575 | 62 | 886 | 61.03 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 964 | 89.22 | ug/L # | 37 |
| 36) Toluene-d8 SCAN | 10.496 | 98 | 1788 | 41.24 | ug/L | 89 |
| 37) Toluene SCAN | 10.591 | 91 | 4196 | 75.56 | ug/L # | 82 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 839 | 67.31 | ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 625 | 46.85 | ug/L # | 46 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2194 | 57.82 | ug/L # | 41 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 819 | 58.32 | ug/L # | 65 |
| 42) Ethylbenzene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 81 |
| 43) m&p-Xylene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 3798 | 70.14 | ug/L | 81 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 4507 | 78.97 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3981 | 68.17 | ug/L # | 75 |
| 48) Naphthalene SCAN | 17.906 | 128 | 5644 | 63.87 | ug/L | 92 |

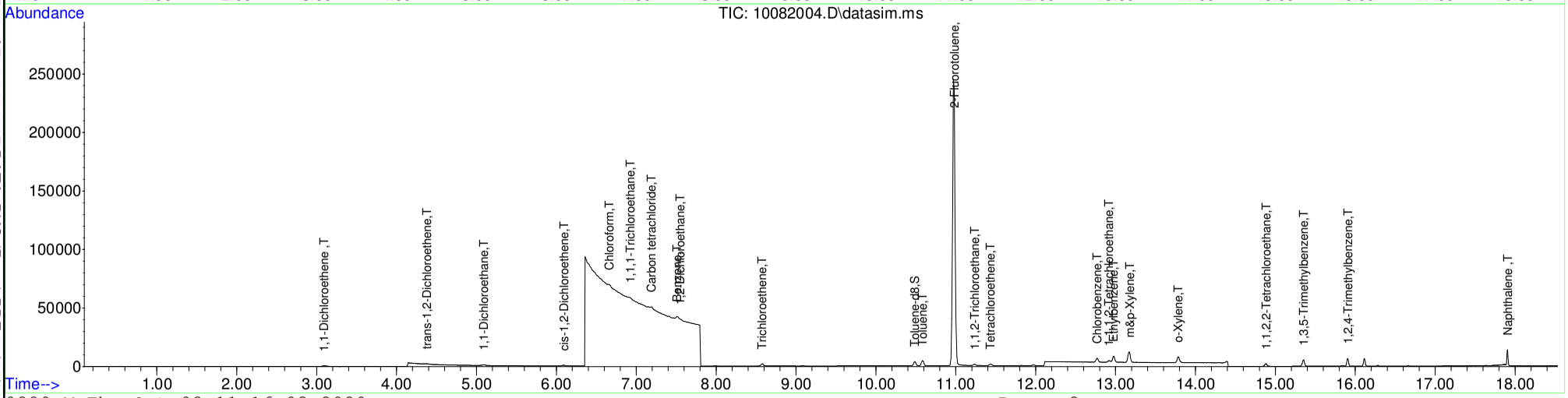
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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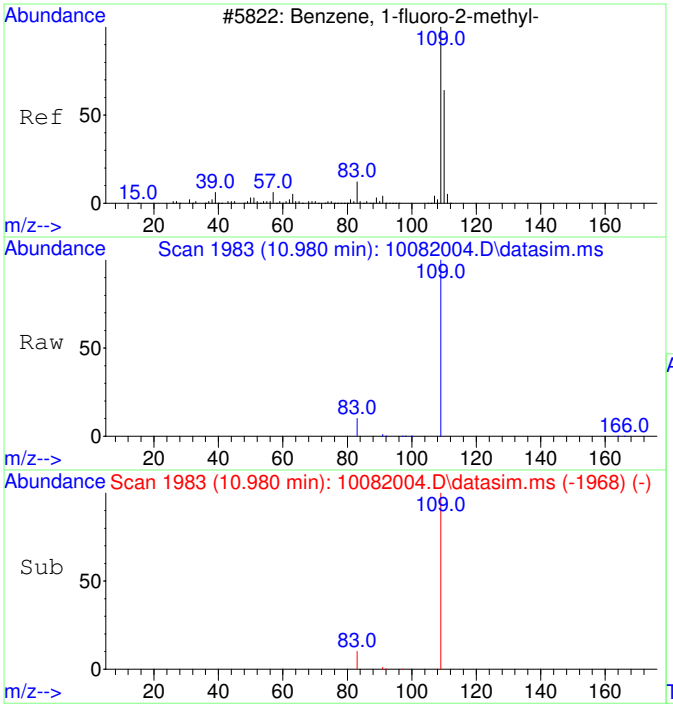
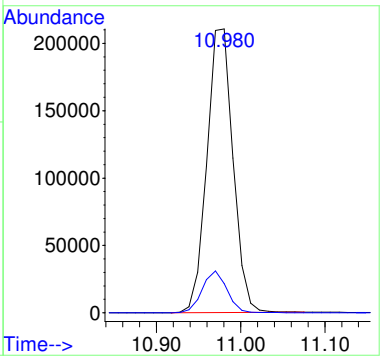
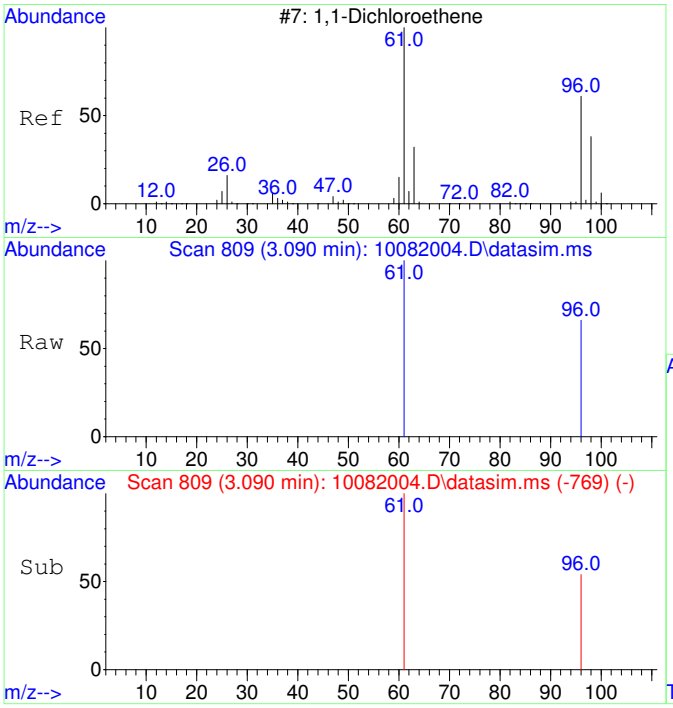



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 454821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

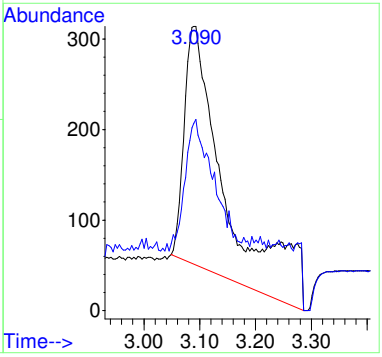


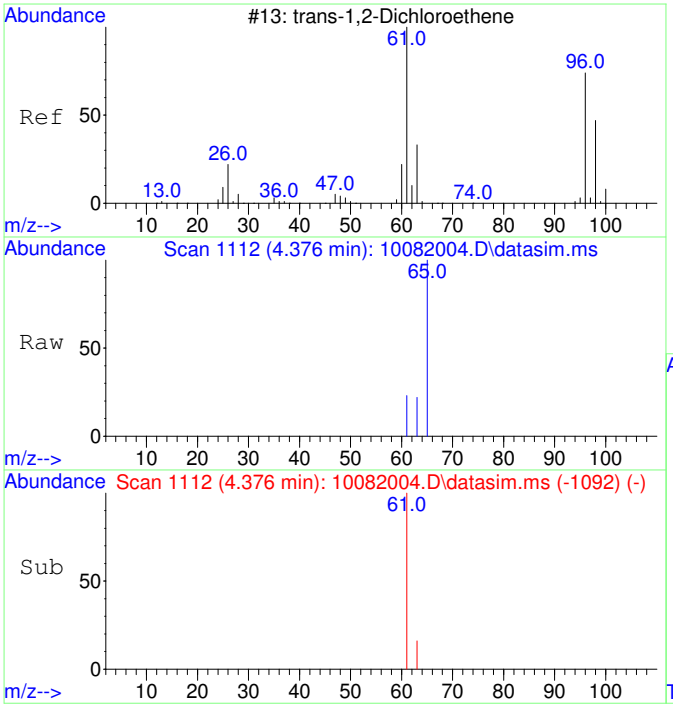

#2
1,1-Dichloroethene
Concen: 73.95 ug/L
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 38.2 | 37.2 | 97.2 |



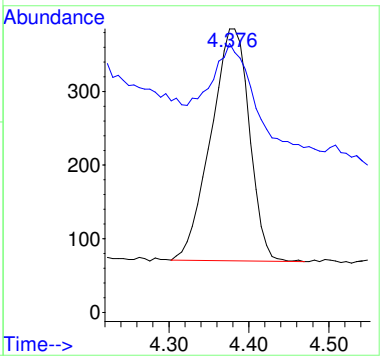

Before MI:
IMPROPER
BASELINE

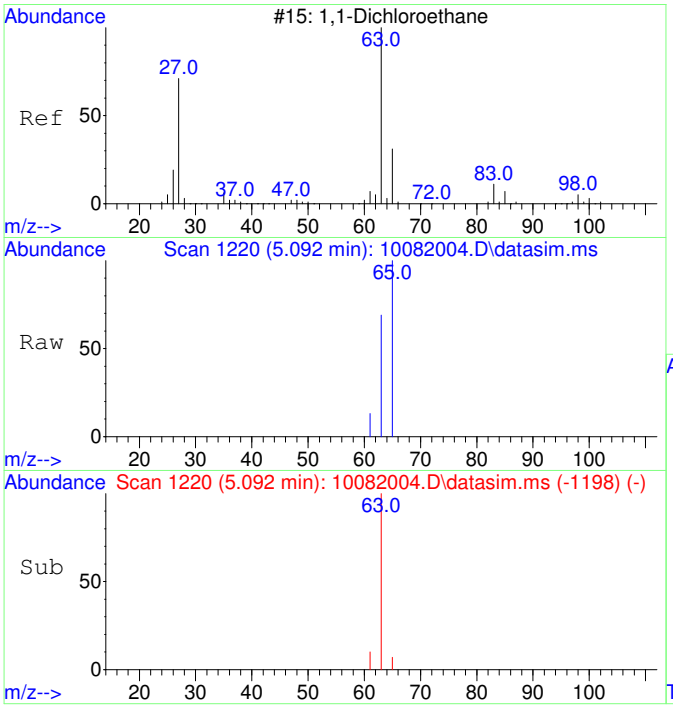



#3
trans-1,2-Dichloroethene
Concen: 50.33 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 56.8 | 2.4 | 62.4 |

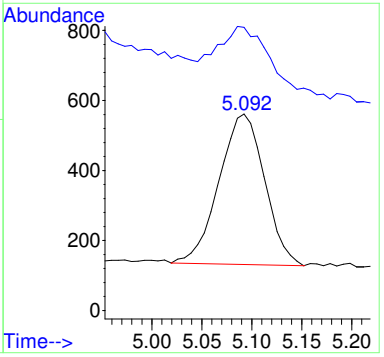


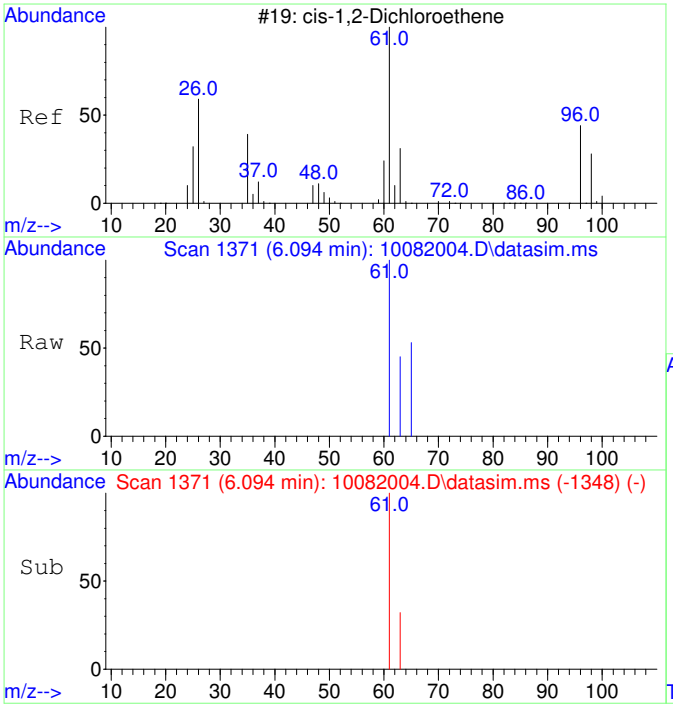




#4
1,1-Dichloroethane
Concen: 52.18 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 63 Resp: 1363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 60.4 | 1.8 | 61.8 |

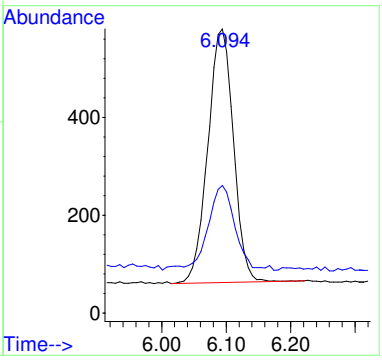


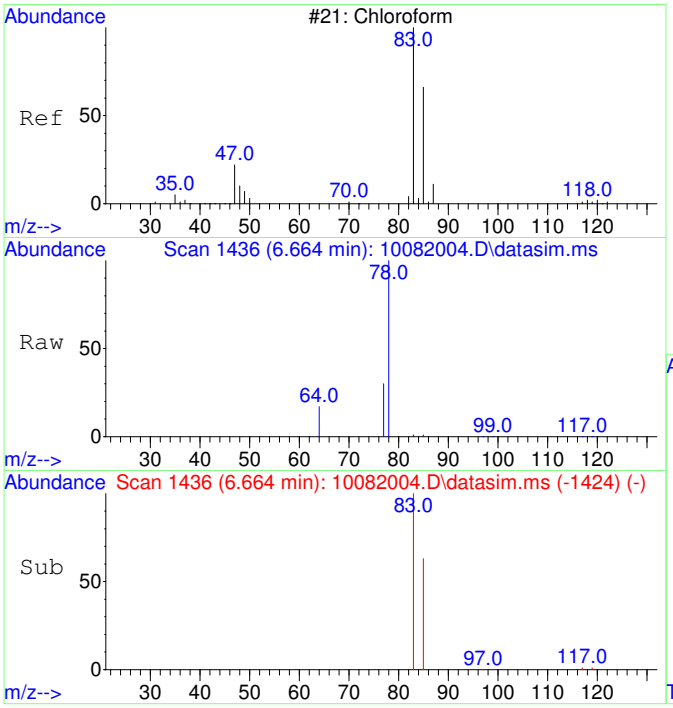



#5
cis-1,2-Dichloroethene
Concen: 51.79 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.4 | 2.5 | 62.5 |

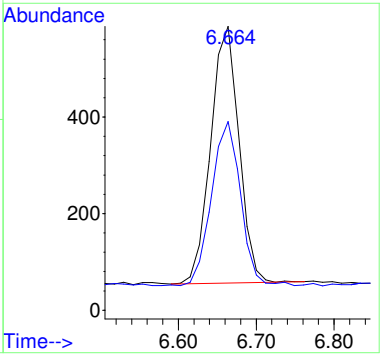


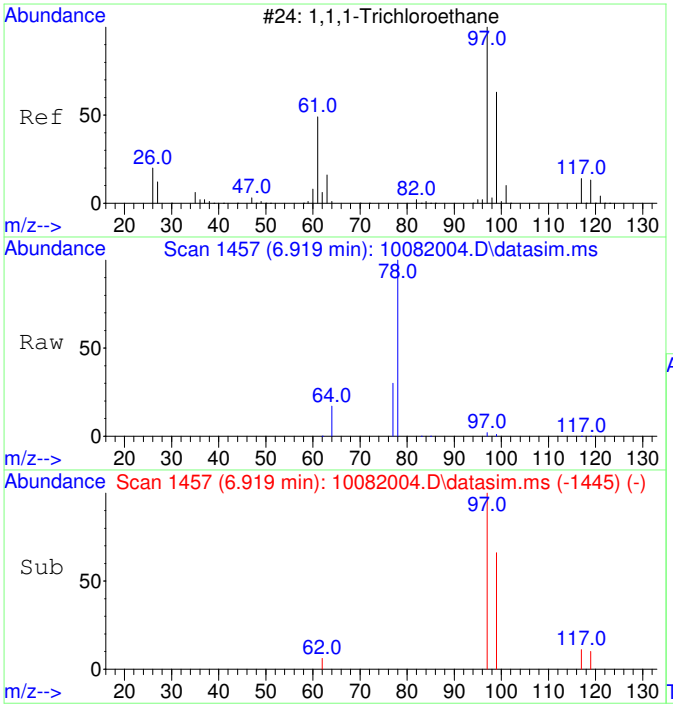




#6
Chloroform
Concen: 47.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1344

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 35.1 | 95.1 |

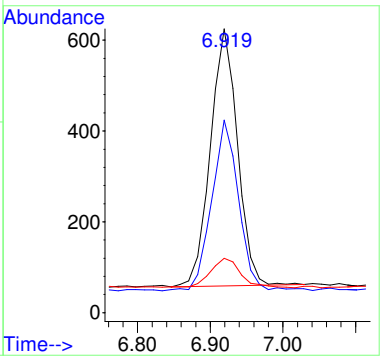


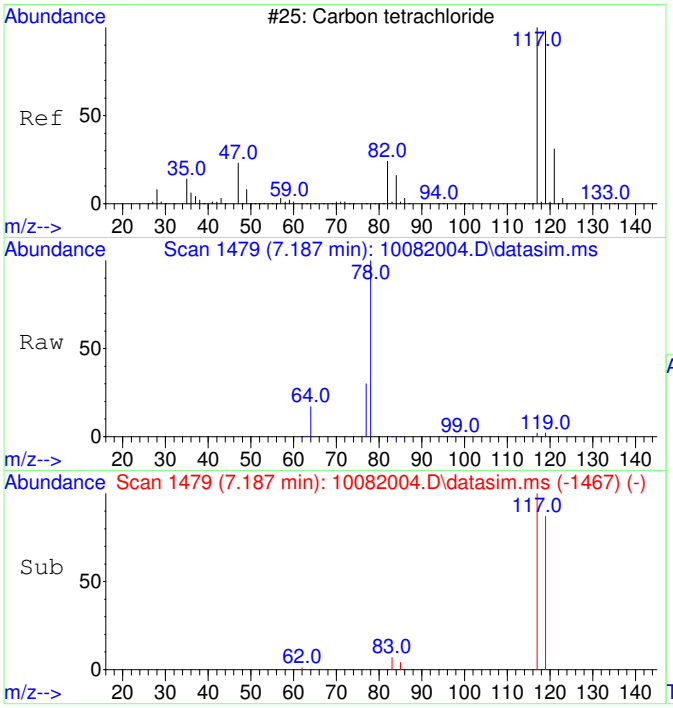



#7
1,1,1-Trichloroethane
Concen: 47.96 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.1 | 34.6 | 94.6 |
| 117 | 12.9 | 0.0 | 43.2 |

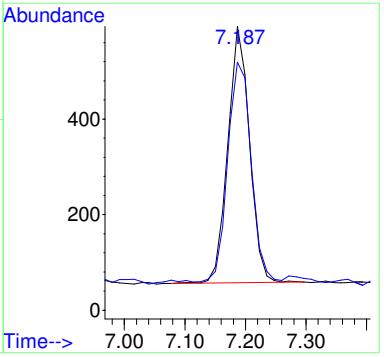


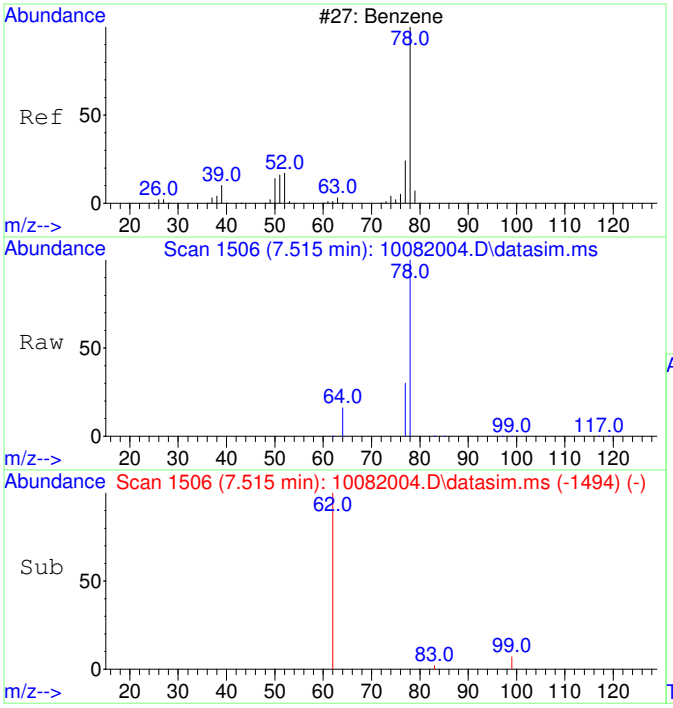




#8
Carbon tetrachloride
Concen: 46.21 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:117 Resp: 1333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 91.7 | 66.4 | 126.4 |

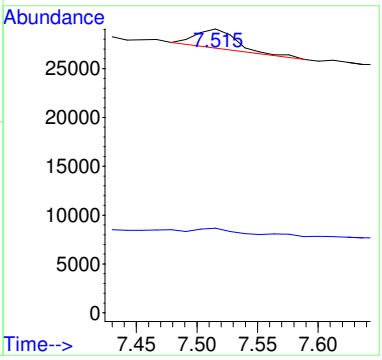


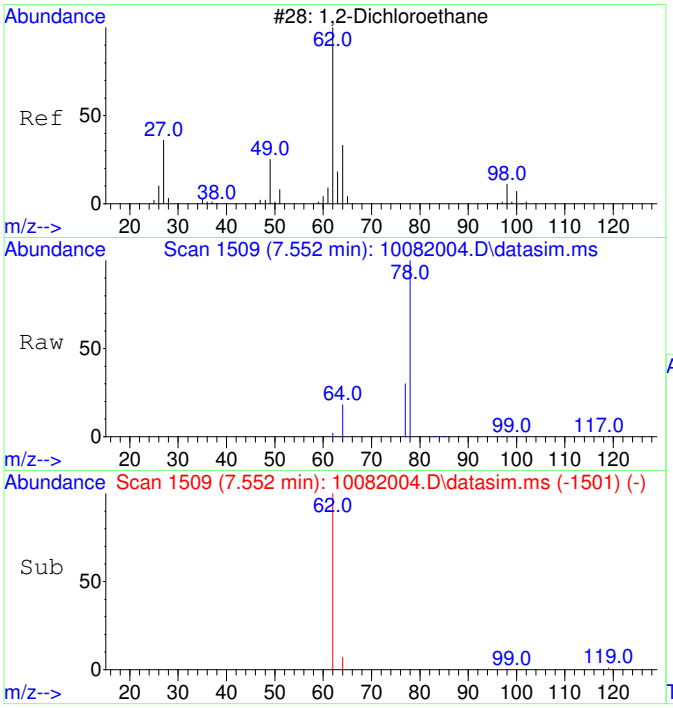



#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 4011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 72.1 | 0.0 | 53.2# |

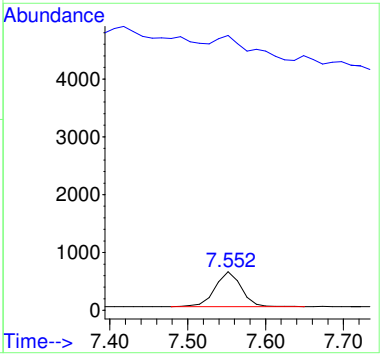


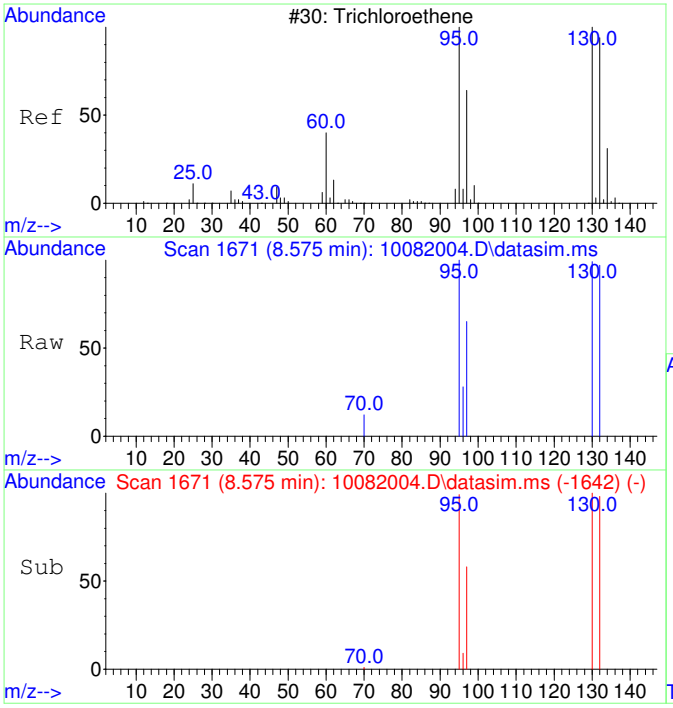




#10
1,2-Dichloroethane
Concen: 50.57 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 1395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.1 | 2.3 | 62.3# |

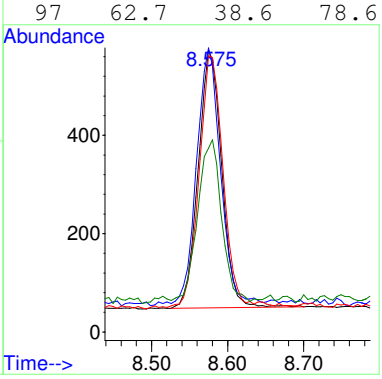


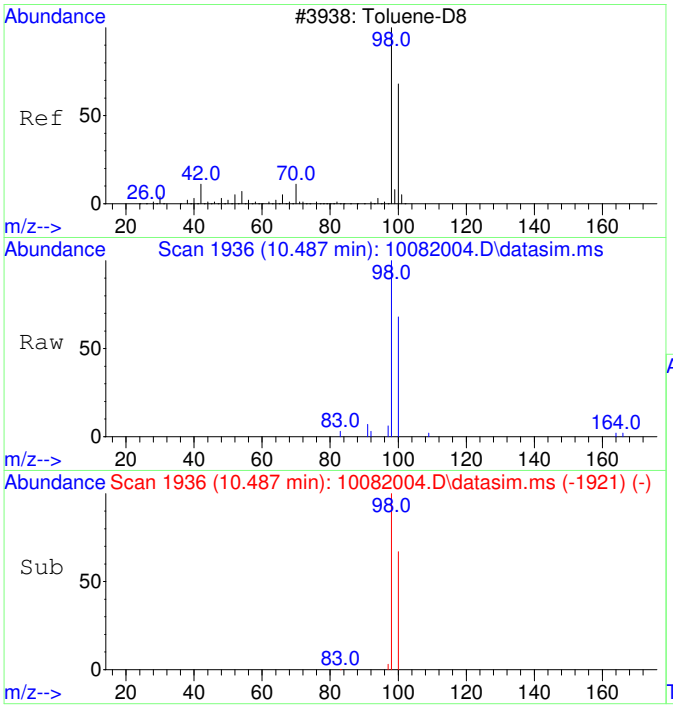



#11
Trichloroethene
Concen: 48.52 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 1129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.2 | 60.7 | 120.7 |
| 132 | 98.8 | 76.0 | 116.0 |
| 97 | 62.7 | 38.6 | 78.6 |

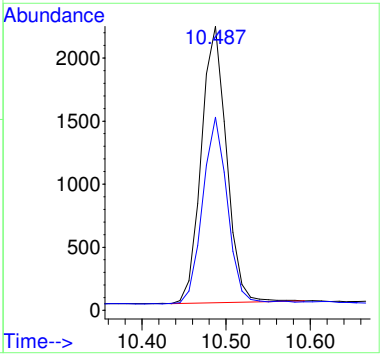


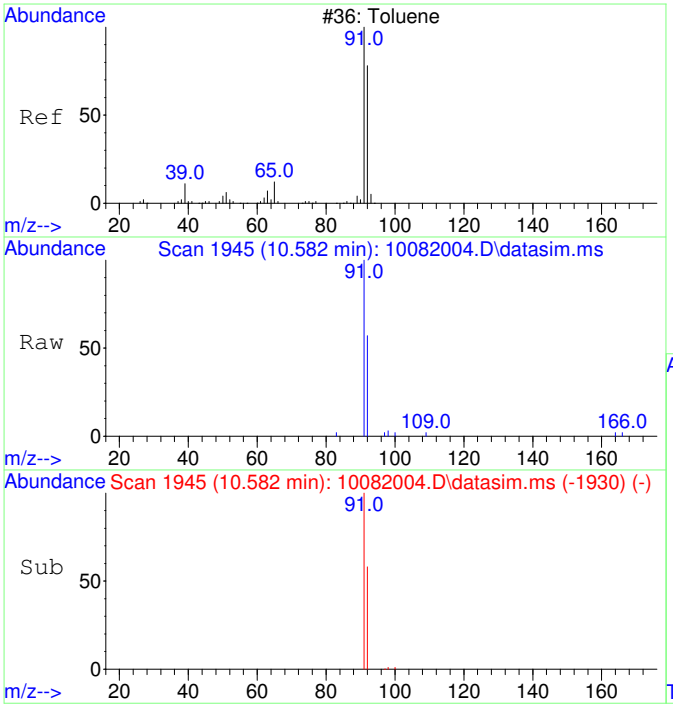




#12
Toluene-d8
Concen: 51.11 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 4551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.3 | 37.1 | 97.1 |

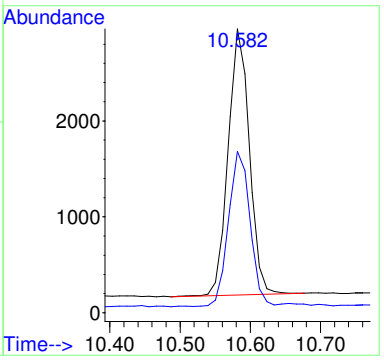


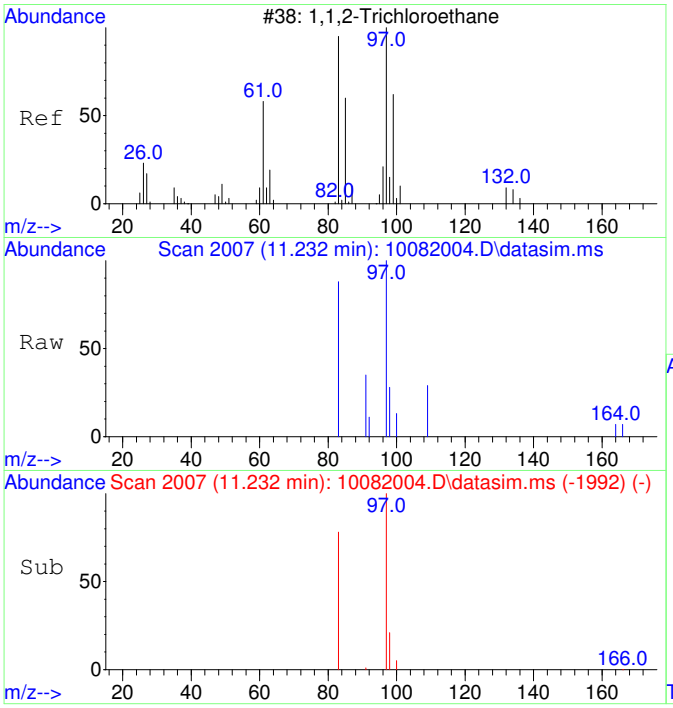



#13
Toluene
Concen: 51.39 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 5833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.7 | 29.9 | 89.9 |

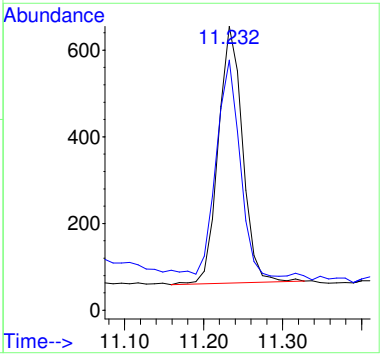


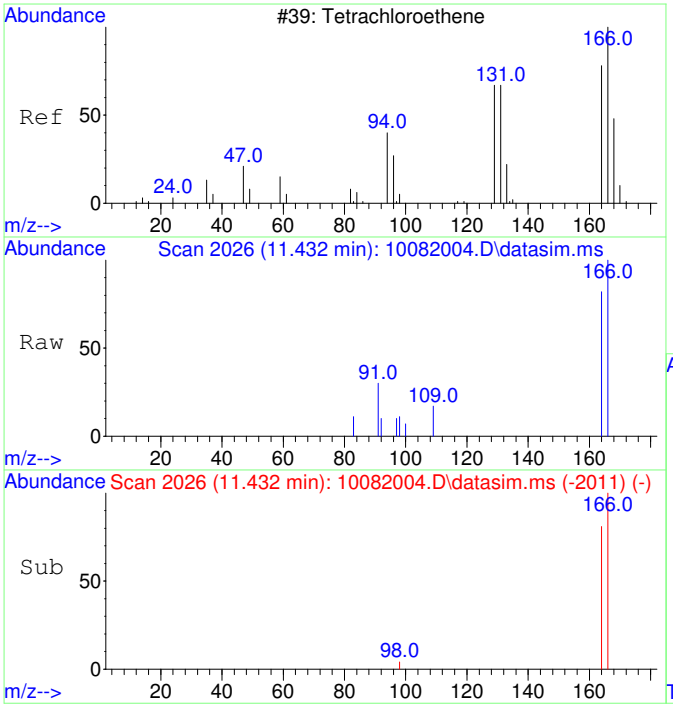




#14
1,1,2-Trichloroethane
Concen: 50.82 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.1 | 51.2 | 111.2 |

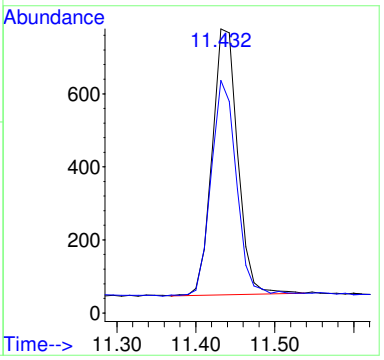


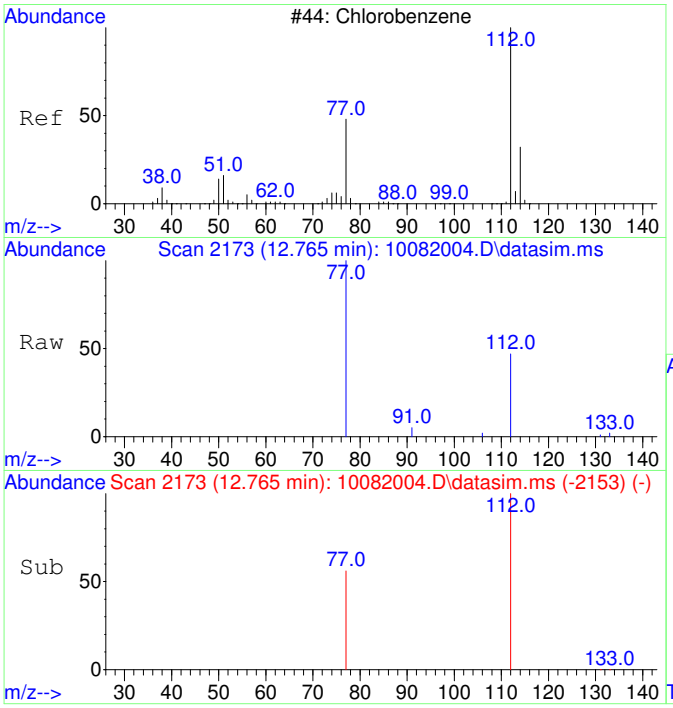



#15
Tetrachloroethene
Concen: 49.68 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 81.7 | 47.8 | 107.8 |

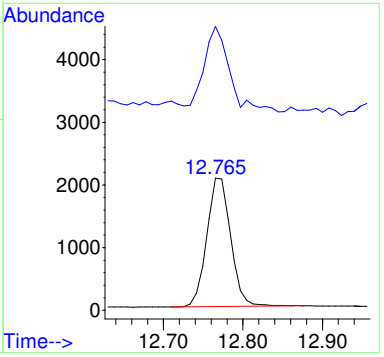


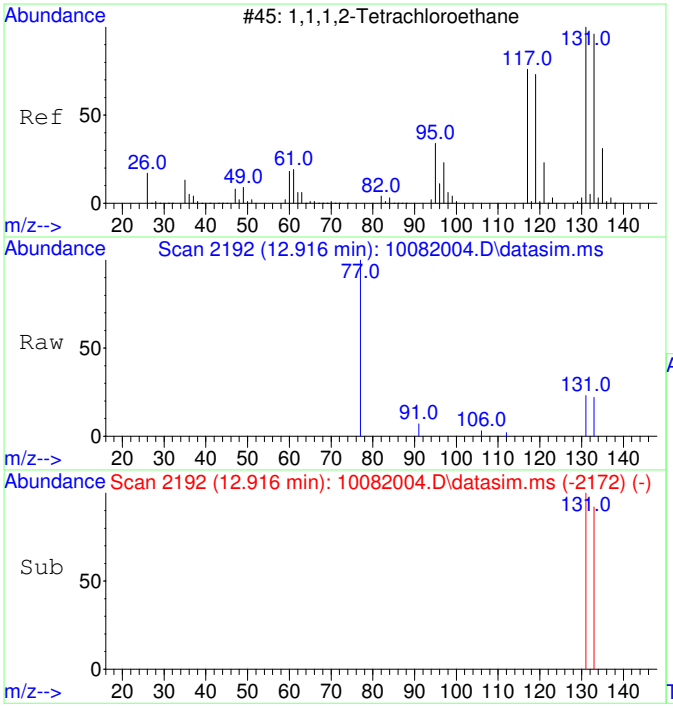




#16
Chlorobenzene
Concen: 52.95 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 4304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 71.1 | 23.6 | 83.6 |

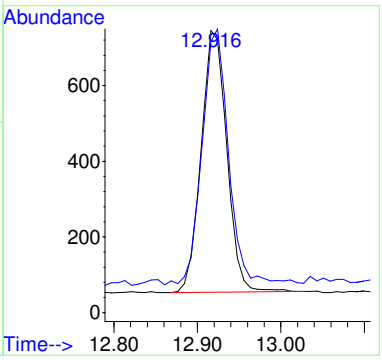


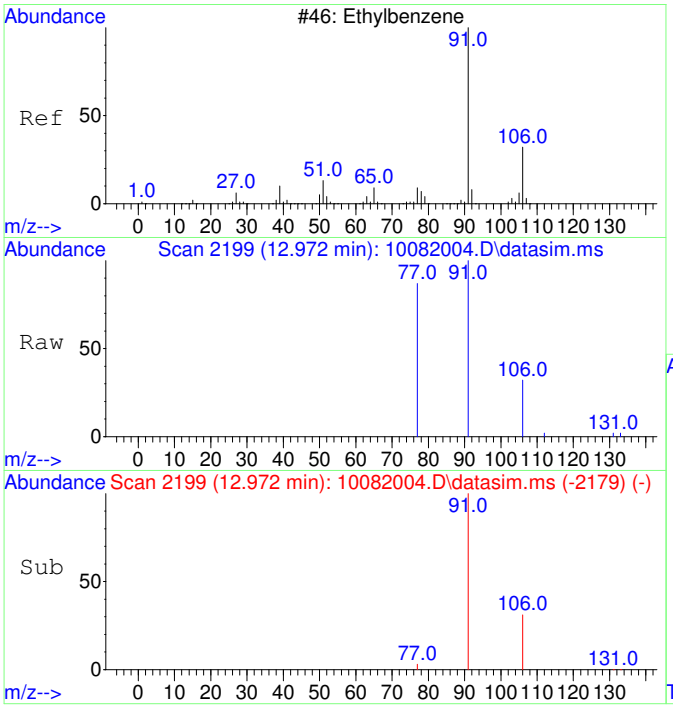



#17
1,1,1,2-Tetrachloroethane
Concen: 50.99 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 1485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.3 | 66.3 | 126.3 |

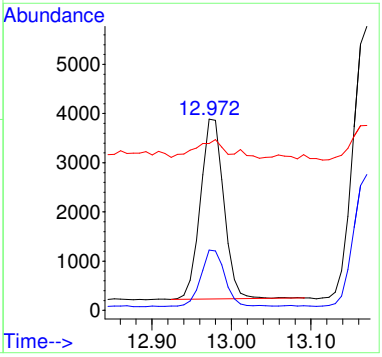


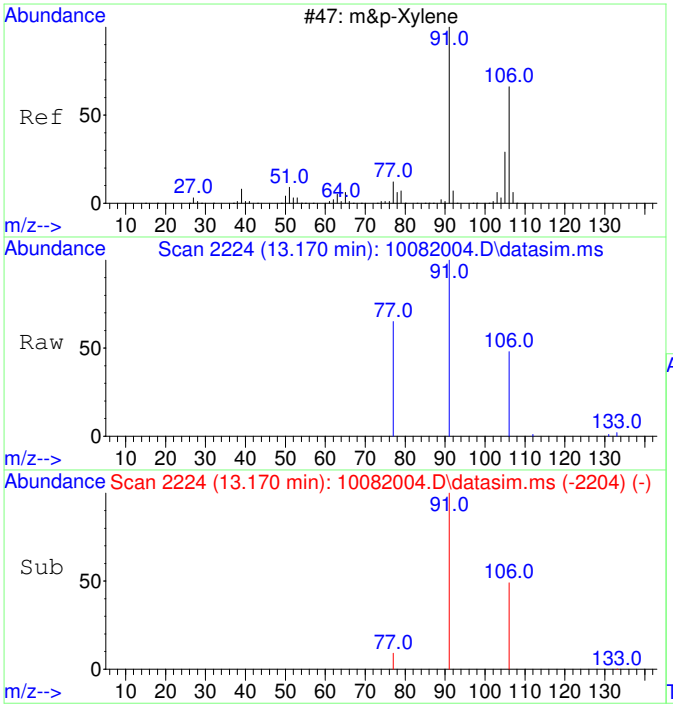




#18
Ethylbenzene
Concen: 54.30 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.0 | 3.0 | 63.0 |
| 77 | 11.1 | 0.0 | 38.2 |

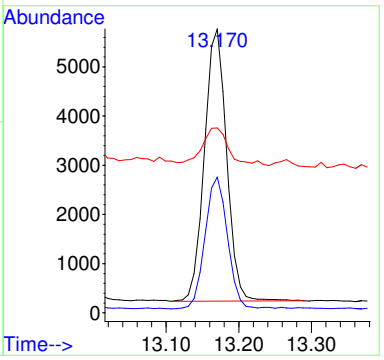


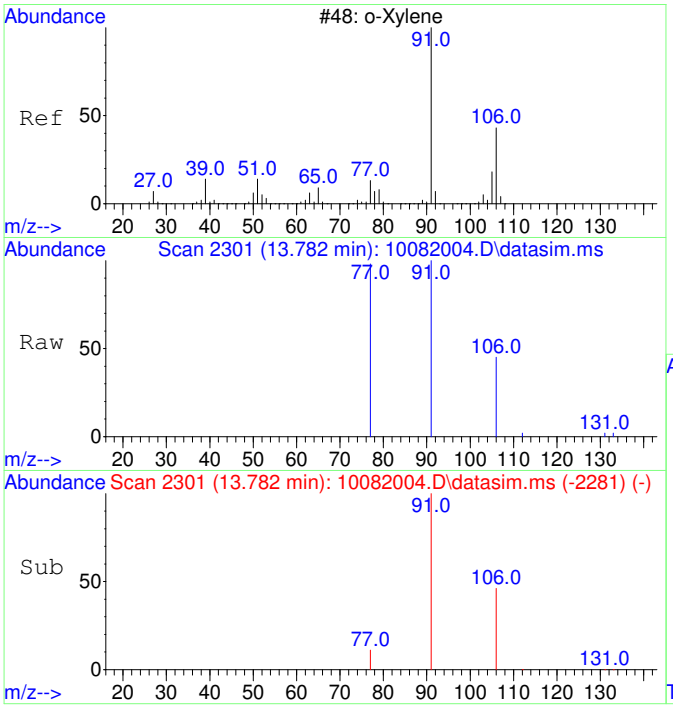



#19
m&p-Xylene
Concen: 109.02 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 11773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 16.9 | 0.0 | 42.4 |

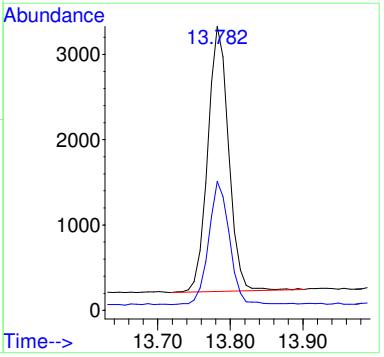


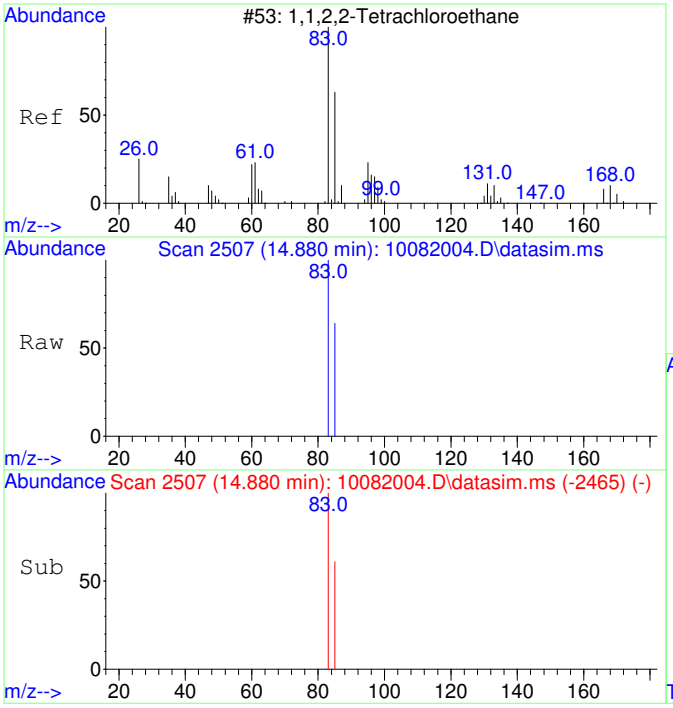




#20
o-Xylene
Concen: 53.87 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 6215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 19.2 | 79.2 |

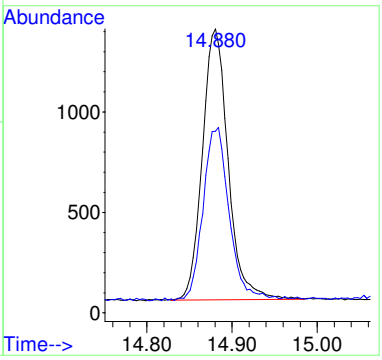


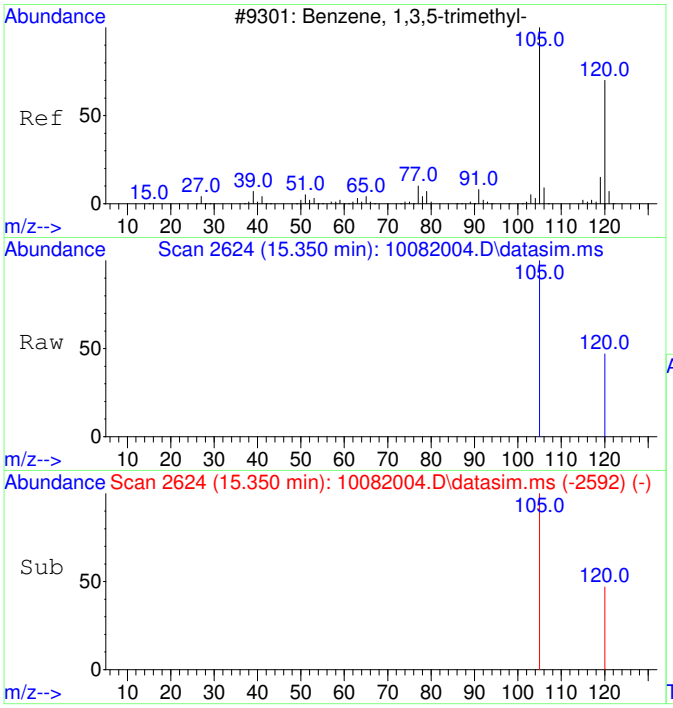



#21
1,1,2,2-Tetrachloroethane
Concen: 55.37 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 2831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 34.8 | 94.8 |

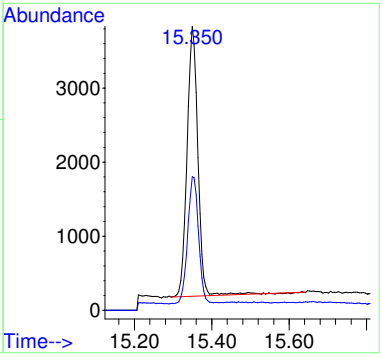


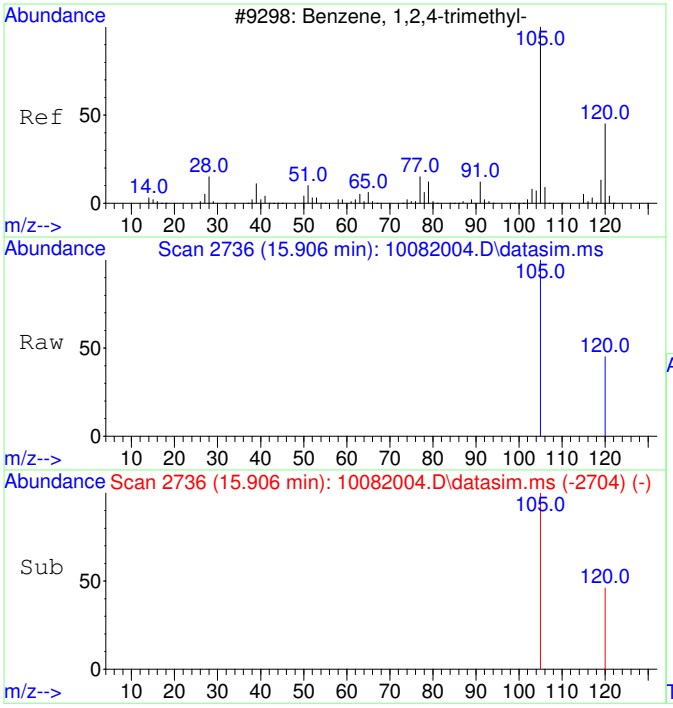




#22
1,3,5-Trimethylbenzene
Concen: 57.11 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.5 | 21.1 | 81.1 |

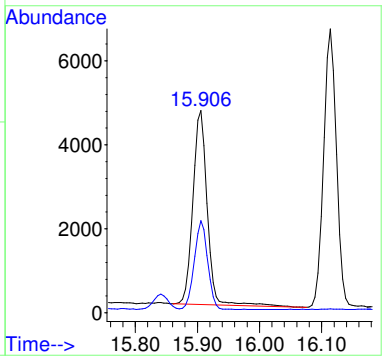


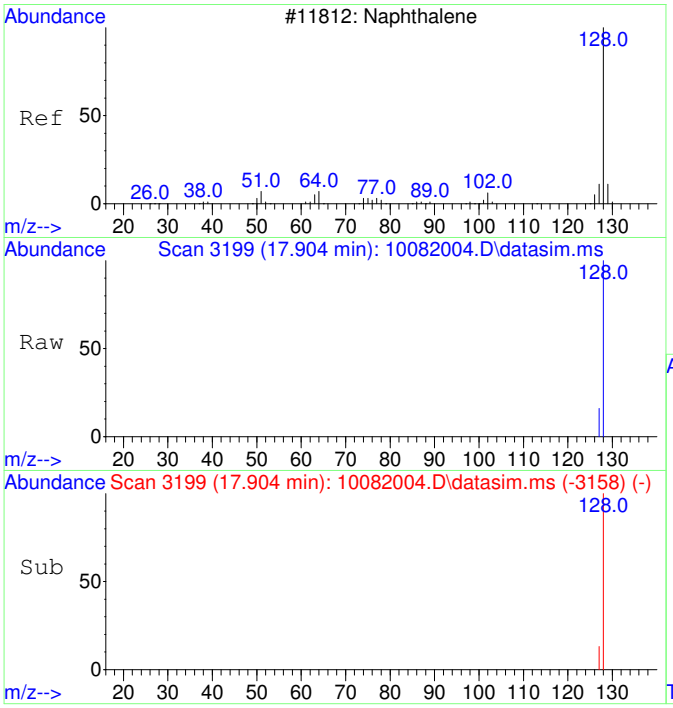



#23
1,2,4-Trimethylbenzene
Concen: 58.17 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7419

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.1 | 17.2 | 77.2 |

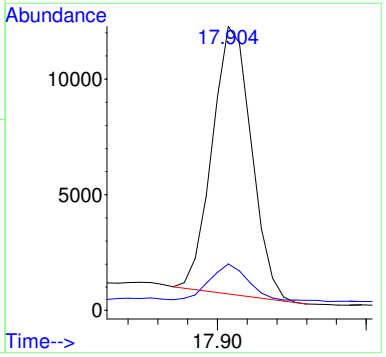


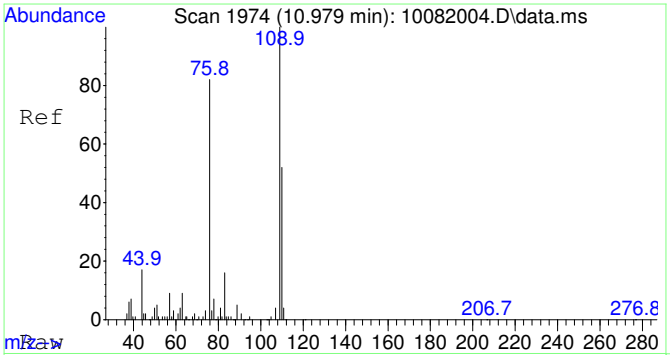




#24
Naphthalene
Concen: 52.27 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 10537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.9 | 0.0 | 42.5 |

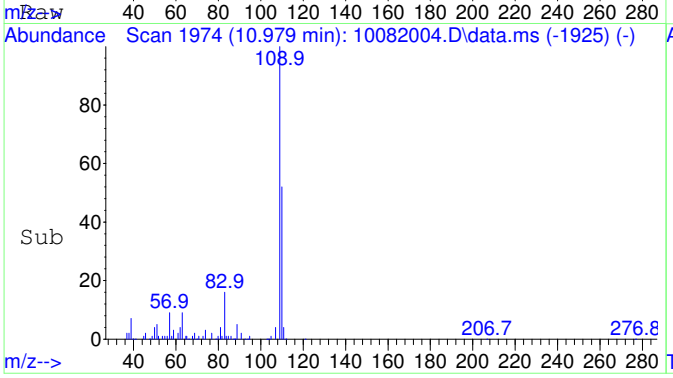


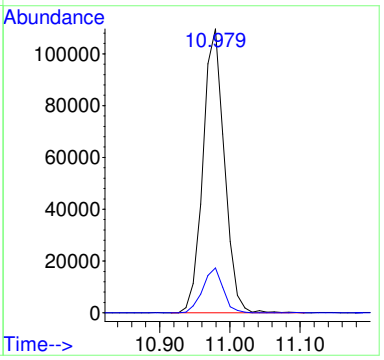


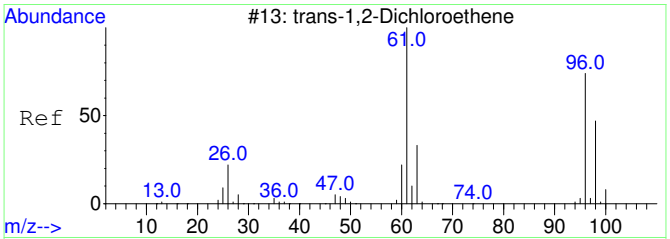

#25
2-Fluorotoluene SCAN
Concen: 5237.13 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 232197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.0 | 0.0 | 43.8 |



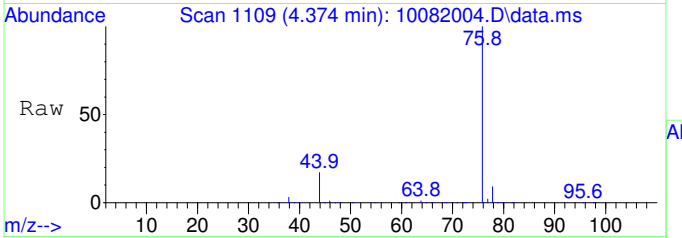



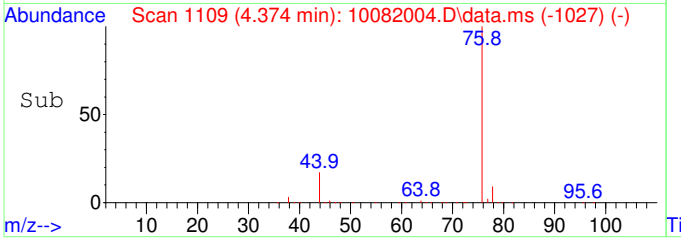



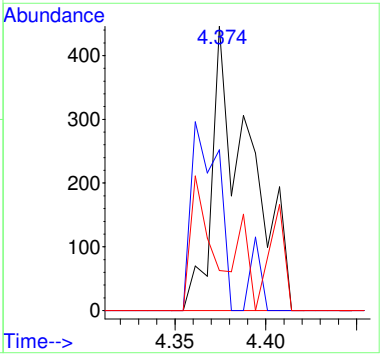

#27
trans-1,2-Dichloroethene SCAN
Concen: 54.50 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.027 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

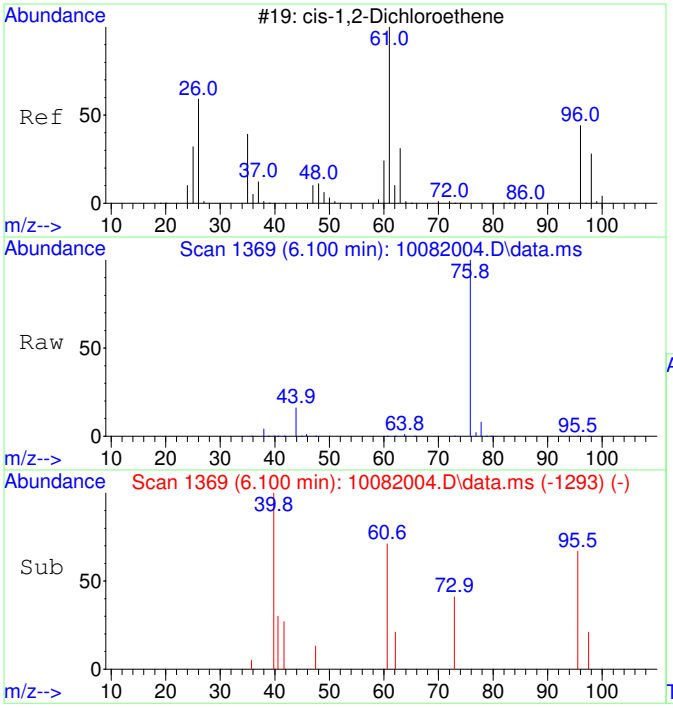
Tgt Ion: 61 Resp: 635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 47.9 | 49.0 | 109.0# |
| 98 | 37.6 | 20.5 | 80.5 |



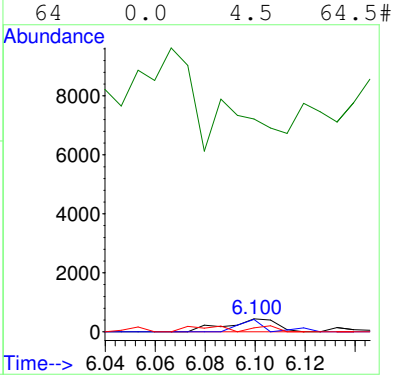



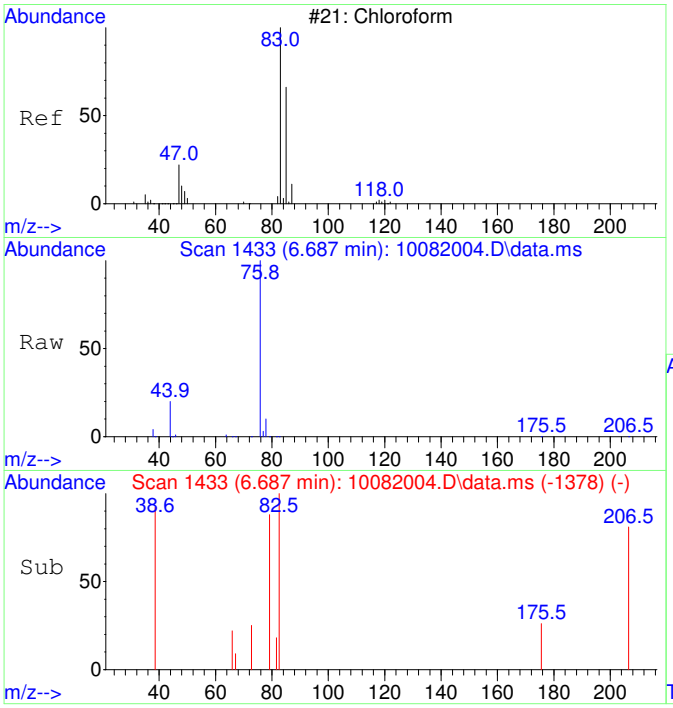



#29
cis-1,2-Dichloroethene SCAN
Concen: 42.92 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 39.9 | 99.9 |
| 98 | 21.5 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

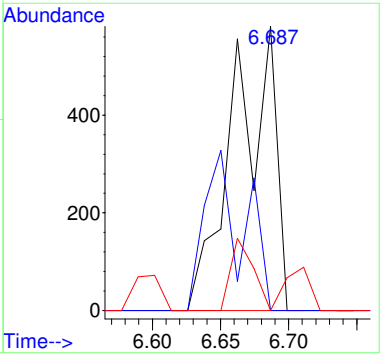


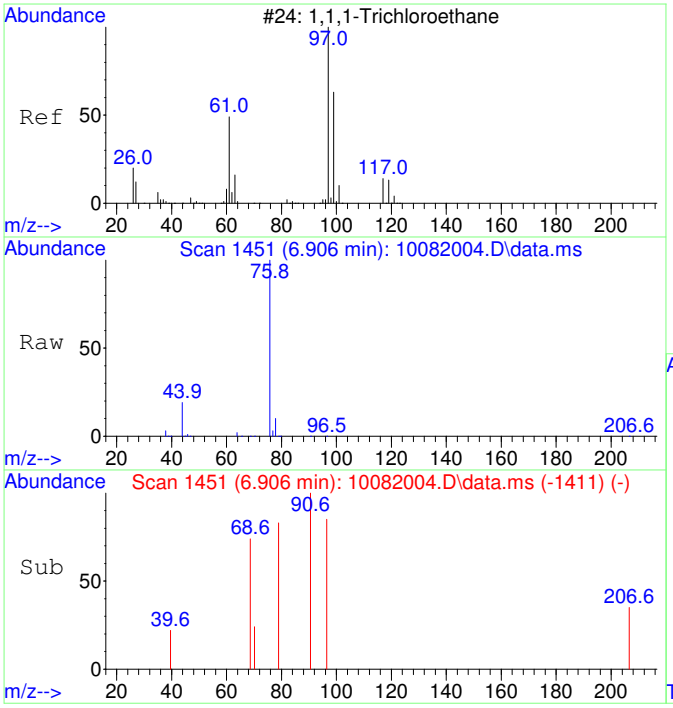




#30
Chloroform SCAN
Concen: 78.88 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

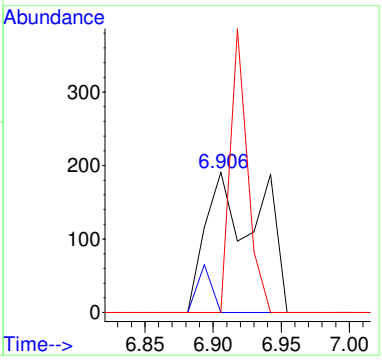


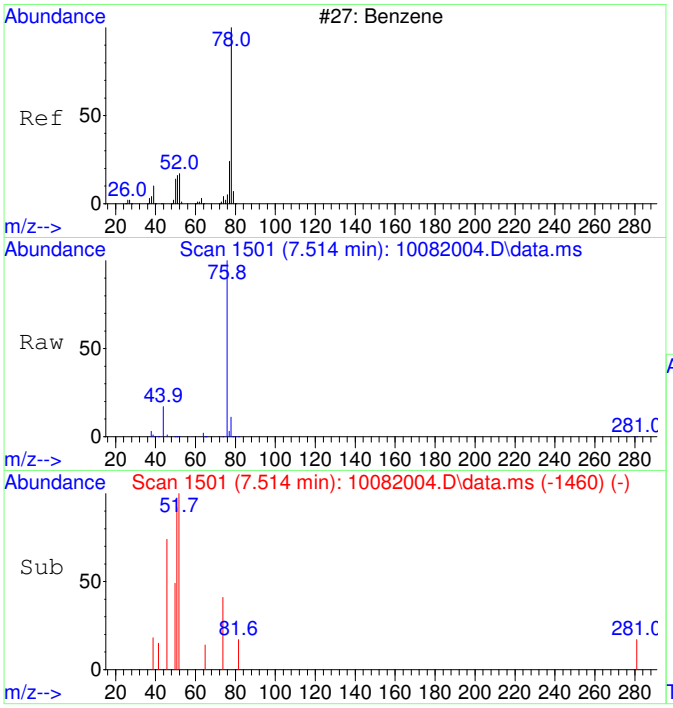



#31
1,1,1-Trichloroethane SCAN
Concen: 35.86 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 512

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 66.8 | 18.0 | 78.0 |

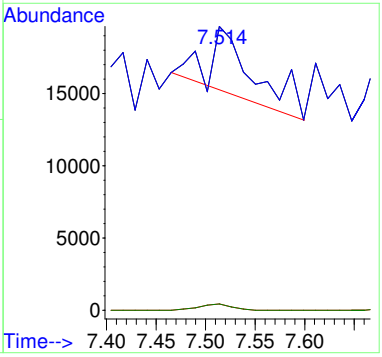


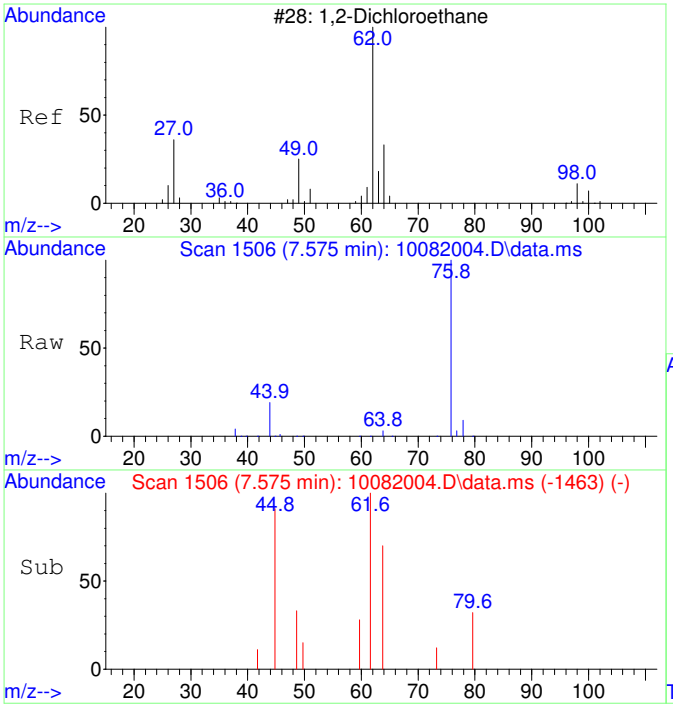




#33
Benzene SCAN
Concen: 331.38 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 13029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 7.7 | 0.0 | 47.9 |
| 51 | 7.7 | 0.0 | 44.1 |

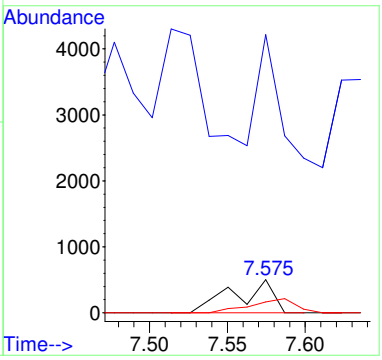


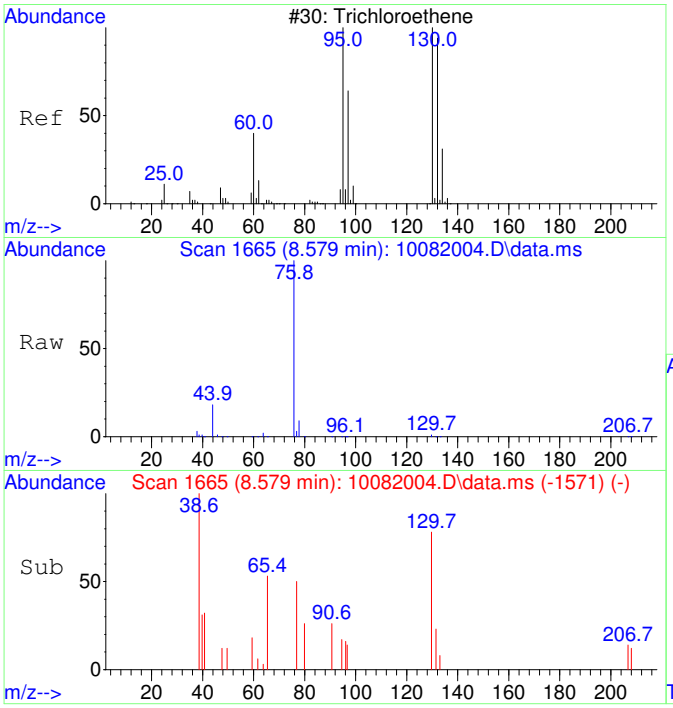



#34
1,2-Dichloroethane SCAN
Concen: 61.03 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 162.9 | 5.2 | 65.2# |
| 49 | 48.4 | 3.9 | 63.9 |

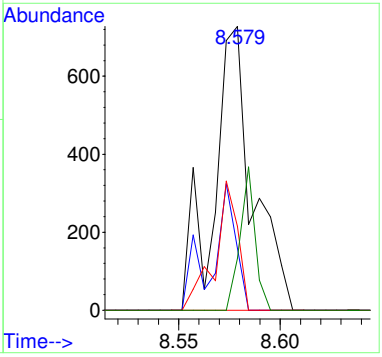


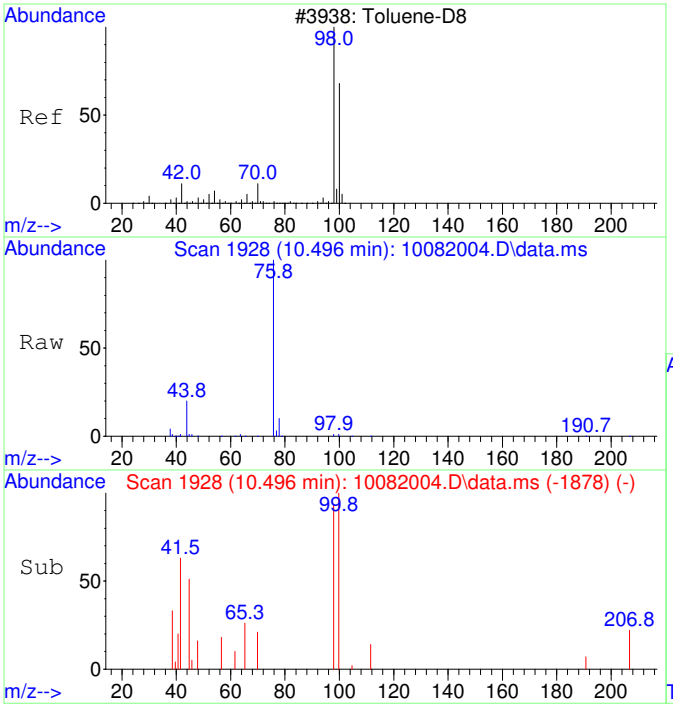




#35
Trichloroethene SCAN
Concen: 89.22 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 27.9 | 60.5 | 120.5# |
| 132 | 26.7 | 59.6 | 119.6# |
| 97 | 19.5 | 28.2 | 88.2# |

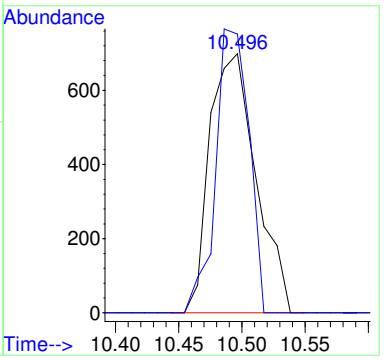


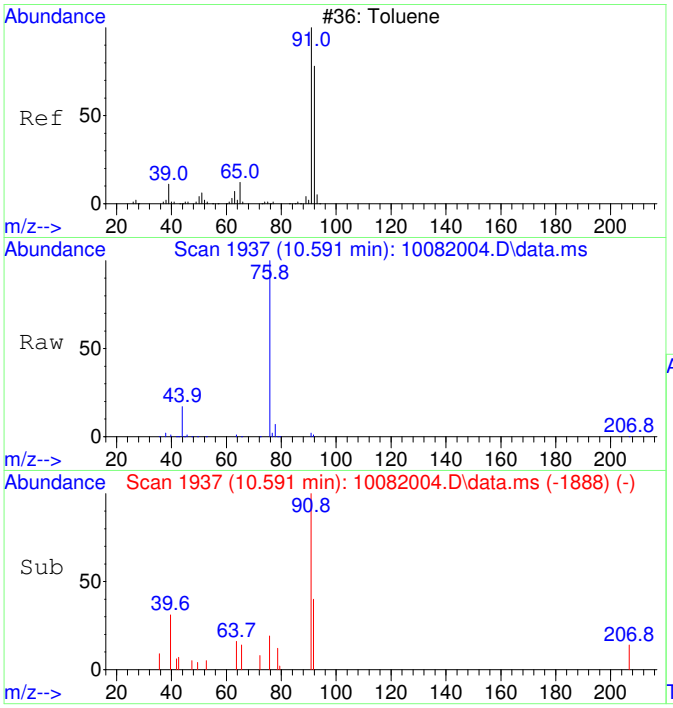



#36
Toluene-d8 SCAN
Concen: 41.24 ug/L
RT: 10.496 min Scan# 1928
Delta R.T. 0.021 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 1788

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 78.8 | 40.0 | 100.0 |

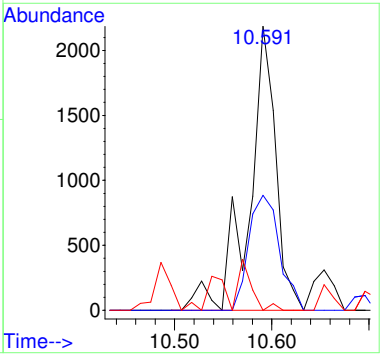


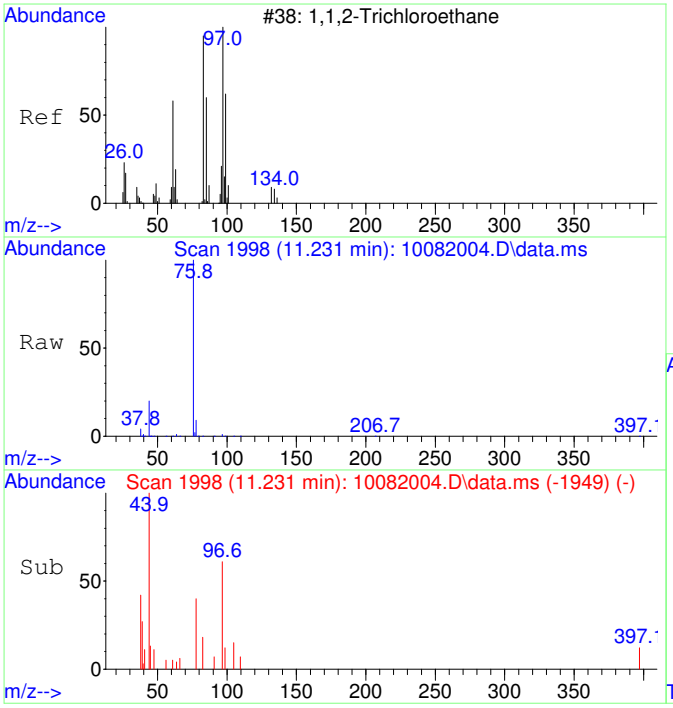




#37
Toluene SCAN
Concen: 75.56 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 4196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 46.4 | 28.3 | 88.3 |
| 65 | 0.0 | 0.0 | 41.0 |

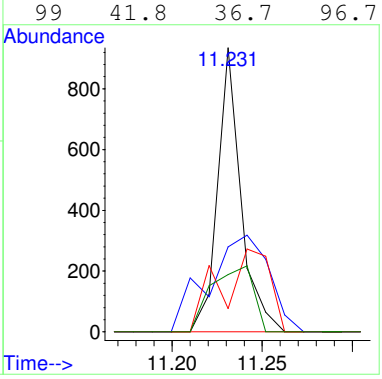


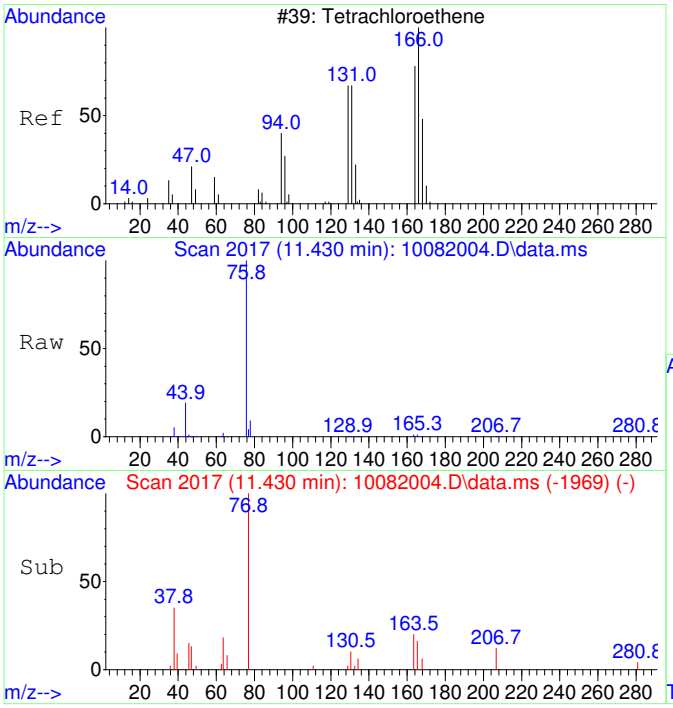



#38
1,1,2-Trichloroethane SCAN
Concen: 67.31 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 89.0 | 57.7 | 117.7 |
| 61 | 61.3 | 32.1 | 92.1 |
| 99 | 41.8 | 36.7 | 96.7 |

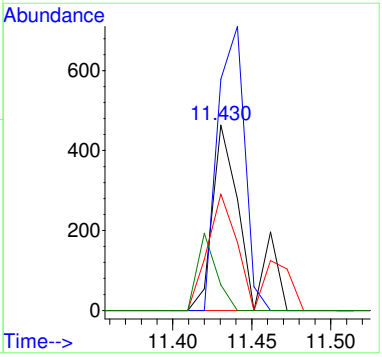


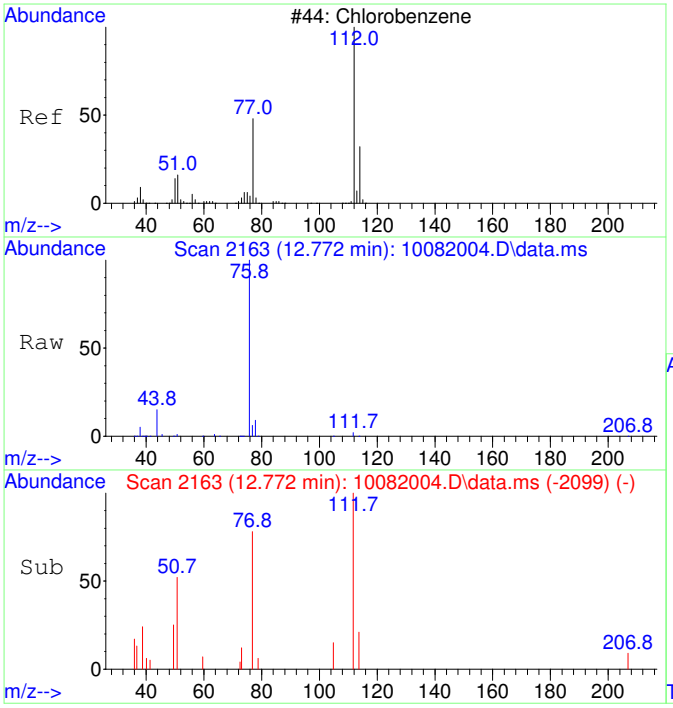




#39
Tetrachloroethene SCAN
Concen: 46.85 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 135.8 | 50.9 | 110.9# |
| 131 | 59.4 | 38.7 | 98.7 |
| 129 | 0.0 | 41.8 | 101.8# |

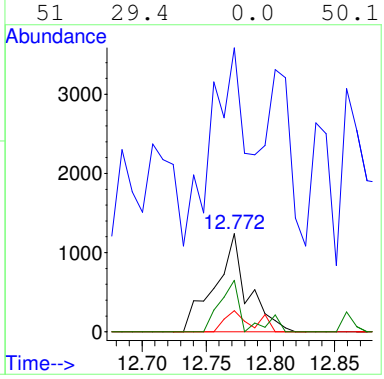


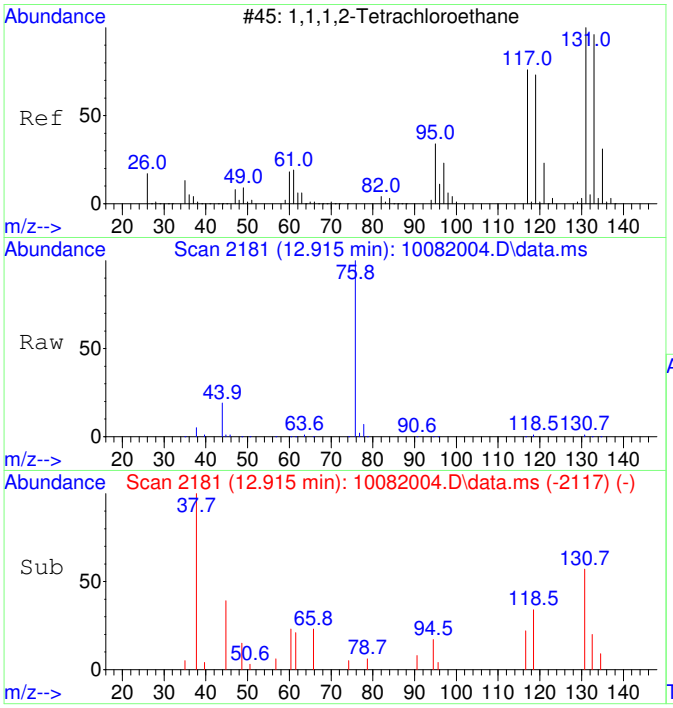



#40
Chlorobenzene SCAN
Concen: 57.82 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 2194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 126.0 | 28.2 | 88.2# |
| 114 | 18.0 | 2.3 | 62.3 |
| 51 | 29.4 | 0.0 | 50.1 |

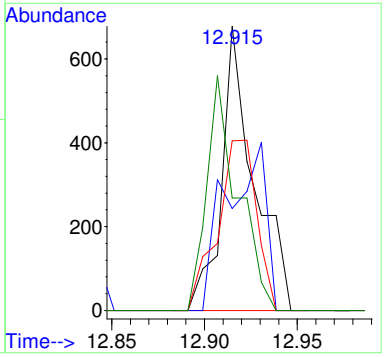


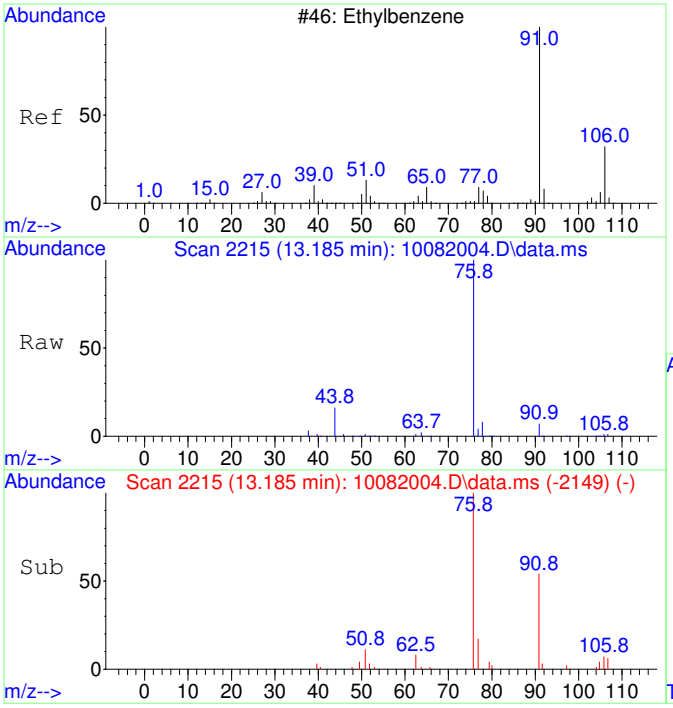




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 58.32 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 819

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 72.2 | 66.9 | 126.9 |
| 119 | 73.0 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

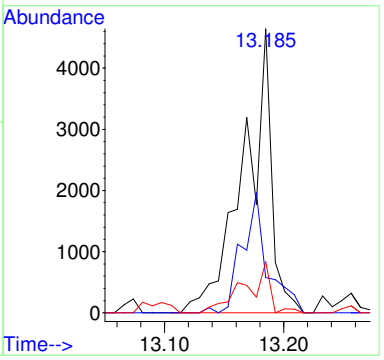


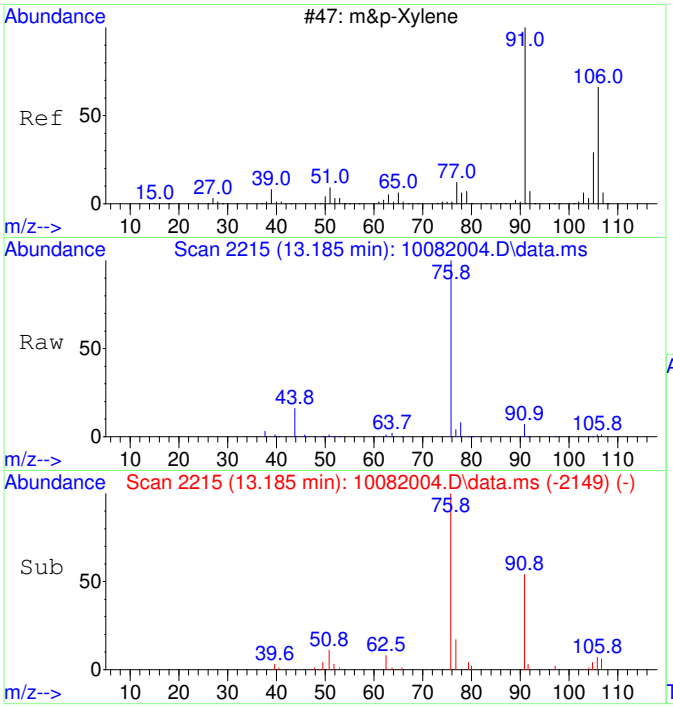



#42
Ethylbenzene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 51 | 16.4 | 0.0 | 40.1 |

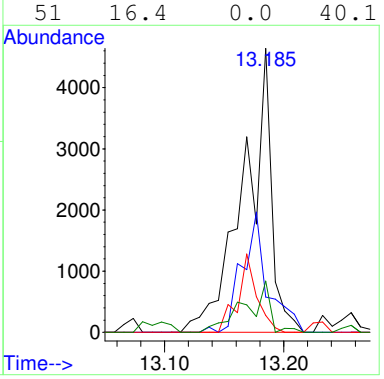


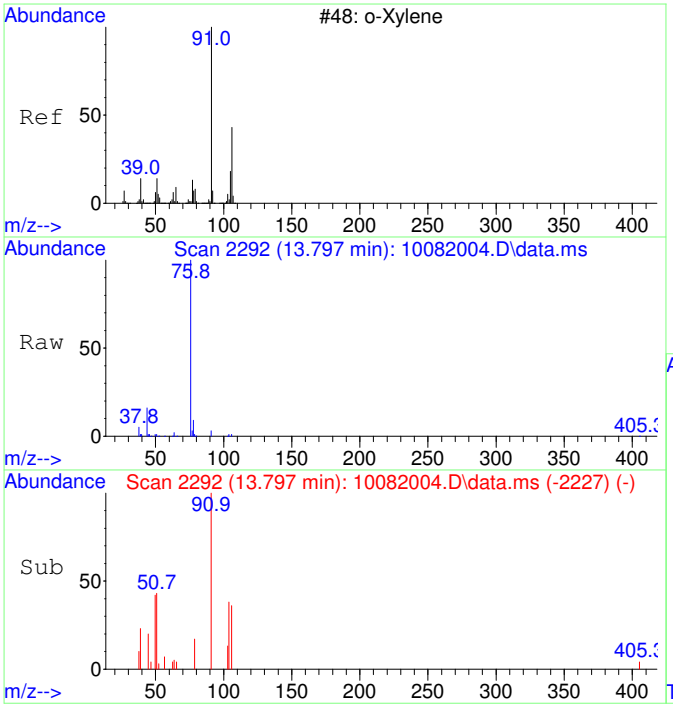




#43
m&p-Xylene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 105 | 19.0 | 0.0 | 54.7 |
| 51 | 16.4 | 0.0 | 40.1 |

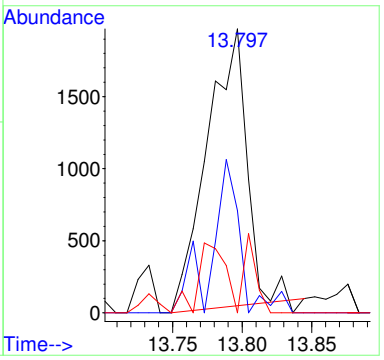


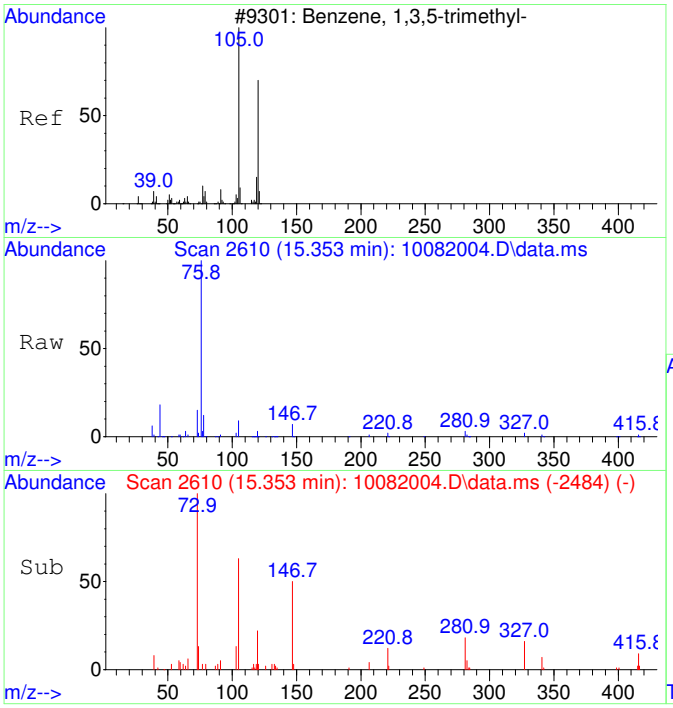



#44
o-Xylene SCAN
Concen: 70.14 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 3798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 40.6 | 18.0 | 78.0 |
| 105 | 8.9 | 0.0 | 56.6 |

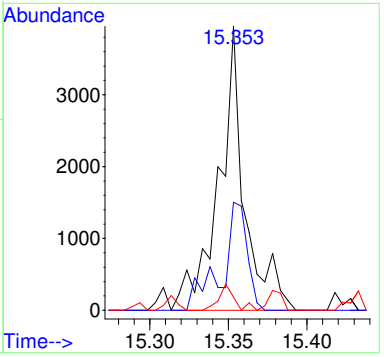


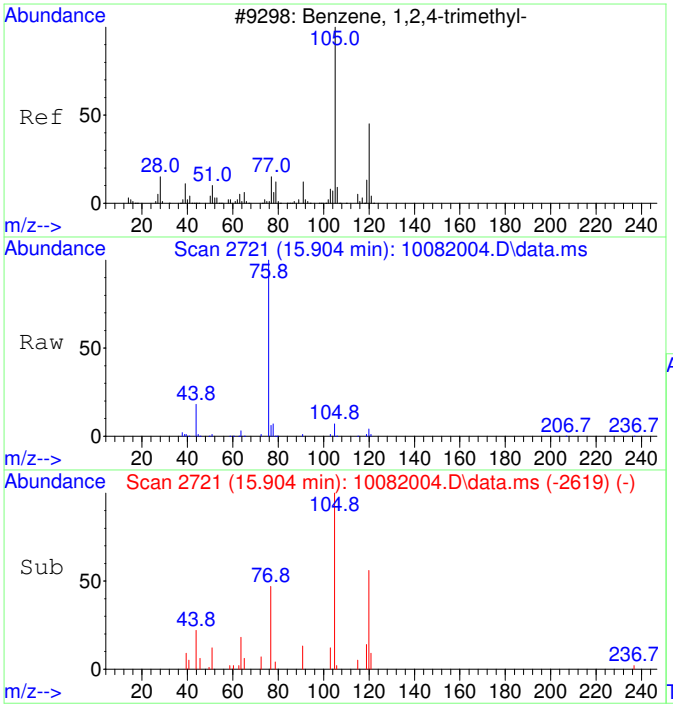




#46
1,3,5-Trimethylbenzene SCAN
Concen: 78.97 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 4507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.4 | 18.3 | 78.3 |
| 119 | 5.5 | 0.0 | 43.1 |

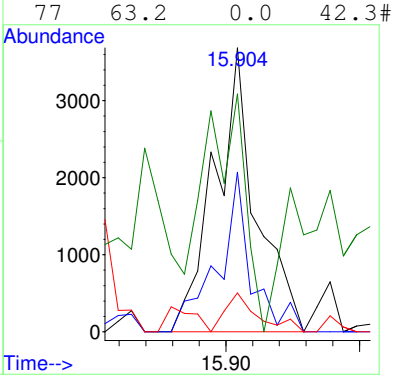


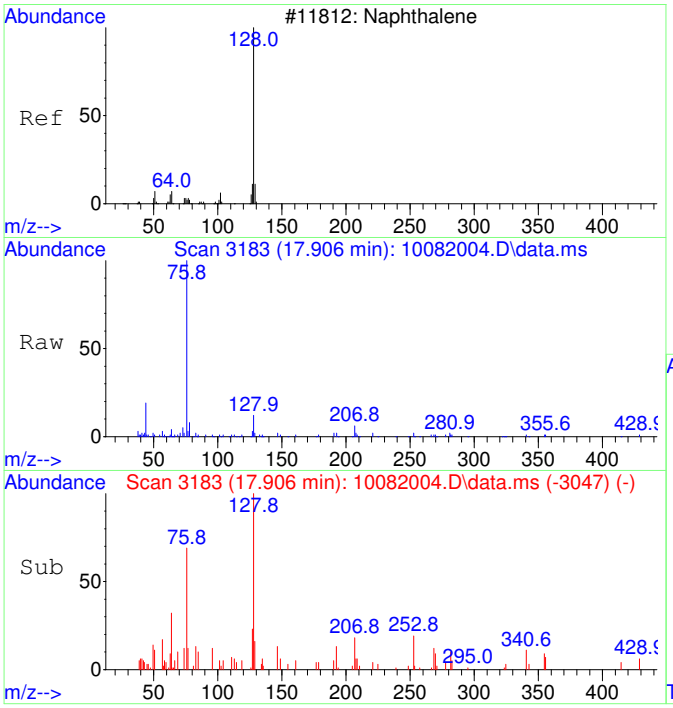



#47
1,2,4-Trimethylbenzene SCAN
Concen: 68.17 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 3981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 16.9 | 76.9 |
| 119 | 10.7 | 0.0 | 41.9 |
| 77 | 63.2 | 0.0 | 42.3# |

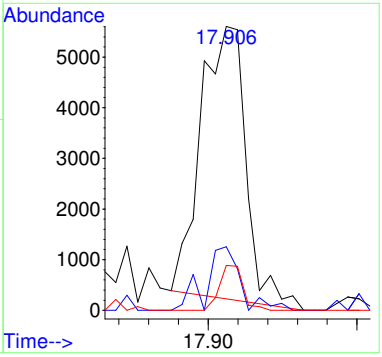



#48
Naphthalene SCAN
Concen: 63.87 ug/L
RT: 17.906 min Scan# 3183
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 5644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 18.0 | 0.0 | 44.0 |
| 129 | 8.6 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 11:17 am, Oct 08, 2020

M.I. Approved By:
ZR at 11:27 am, Oct 12, 2020

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

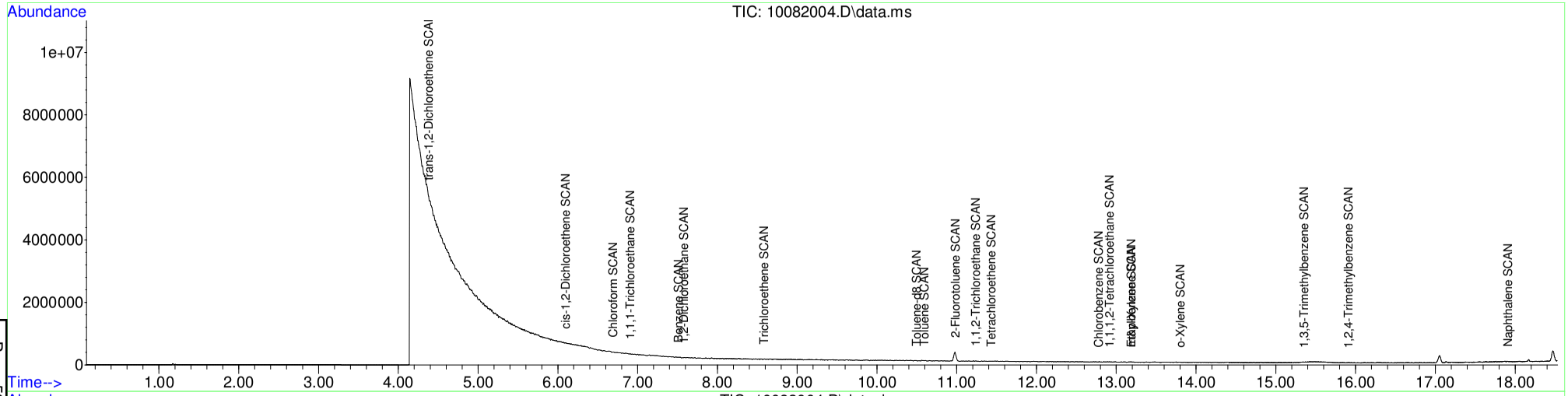
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 454821 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4551 | 51.11 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 1.02%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 880m | 48.45 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1056 | 50.33 | ug/L | 56 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1363 | 52.18 | ug/L | 49 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1428 | 51.79 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1344 | 47.62 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1470 | 47.96 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1333 | 46.21 | ug/L | 95 |
| 9] Benzene | 7.515 | 78 | 4011 | 51.90 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1395 | 50.57 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1129 | 48.52 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 5833 | 51.39 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1257 | 50.82 | ug/L | 98 |
| 15] Tetrachloroethene | 11.432 | 166 | 1632 | 49.68 | ug/L | 96 |
| 16] Chlorobenzene | 12.765 | 112 | 4304 | 52.95 | ug/L | 76 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1485 | 50.99 | ug/L | 97 |
| 18] Ethylbenzene | 12.972 | 91 | 7503 | 54.30 | ug/L | 97 |
| 19] m&p-Xylene | 13.170 | 91 | 11773 | 109.02 | ug/L | 93 |
| 20] o-Xylene | 13.782 | 91 | 6215 | 53.87 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2831 | 55.37 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7013 | 57.11 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7419 | 58.17 | ug/L | 92 |
| 24] Naphthalene | 17.904 | 128 | 10537 | 52.27 | ug/L | 97 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 232197 | 5237.13 | ug/L | 97 |
| 27) trans-1,2-Dichloroethe... | 4.374 | 61 | 635 | 54.50 | ug/L # | 71 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 620 | 42.92 | ug/L # | 67 |
| 30) Chloroform SCAN | 6.687 | 83 | 1236 | 78.88 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 512 | 35.86 | ug/L # | 36 |
| 33) Benzene SCAN | 7.514 | 78 | 13029 | 331.38 | ug/L | 95 |
| 34) 1,2-Dichloroethane SCAN | 7.575 | 62 | 886 | 61.03 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 964 | 89.22 | ug/L # | 37 |
| 36) Toluene-d8 SCAN | 10.496 | 98 | 1788 | 41.24 | ug/L | 89 |
| 37) Toluene SCAN | 10.591 | 91 | 4196 | 75.56 | ug/L # | 82 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 839 | 67.31 | ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 625 | 46.85 | ug/L # | 46 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2194 | 57.82 | ug/L # | 41 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 819 | 58.32 | ug/L # | 65 |
| 42) Ethylbenzene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 81 |
| 43) m&p-Xylene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 3798 | 70.14 | ug/L | 81 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 4507 | 78.97 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3981 | 68.17 | ug/L # | 75 |
| 48) Naphthalene SCAN | 17.906 | 128 | 5644 | 63.87 | ug/L | 92 |

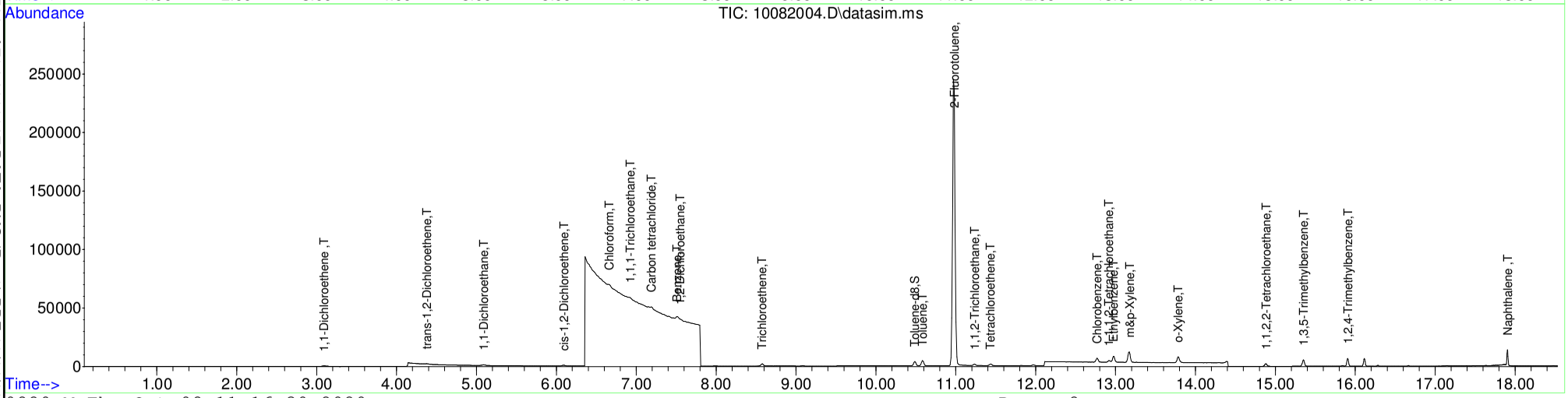
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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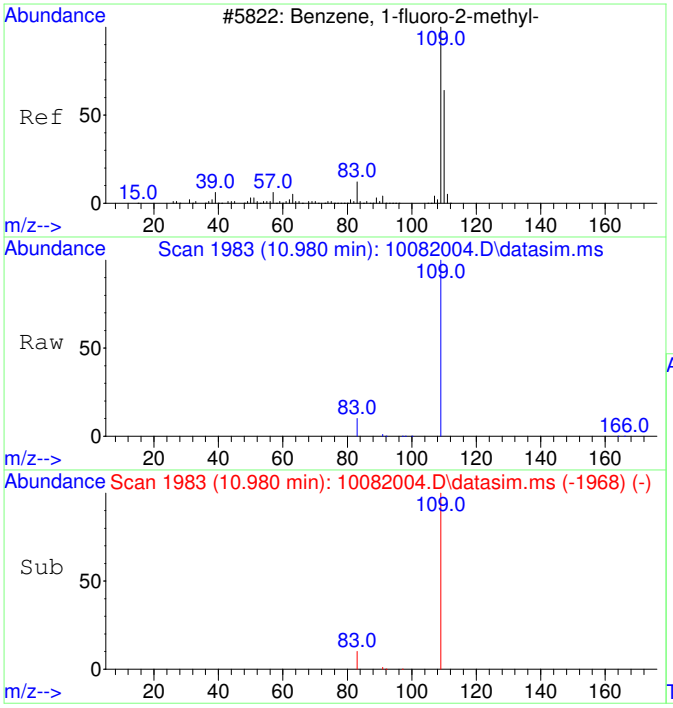
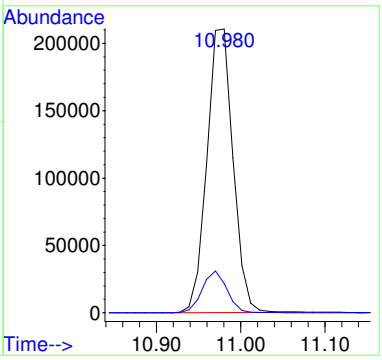
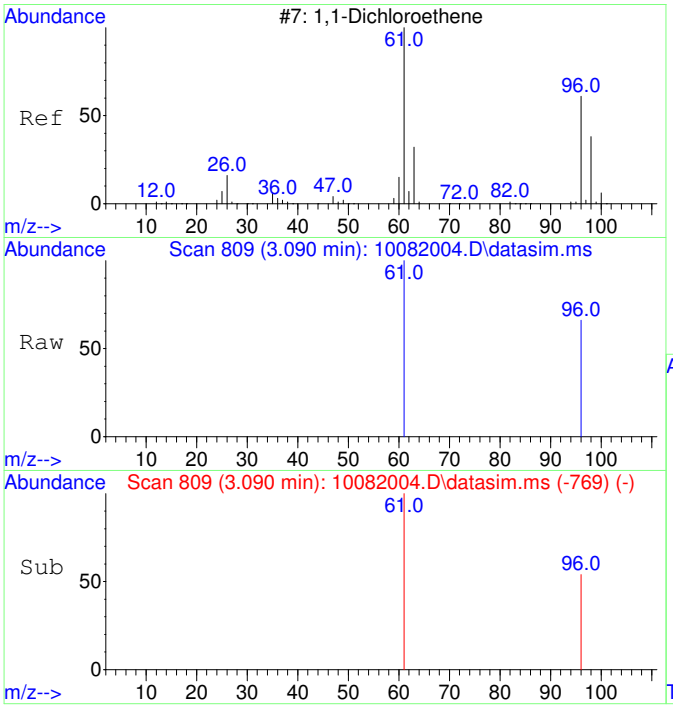



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 454821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

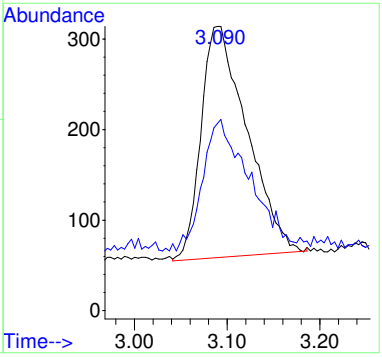


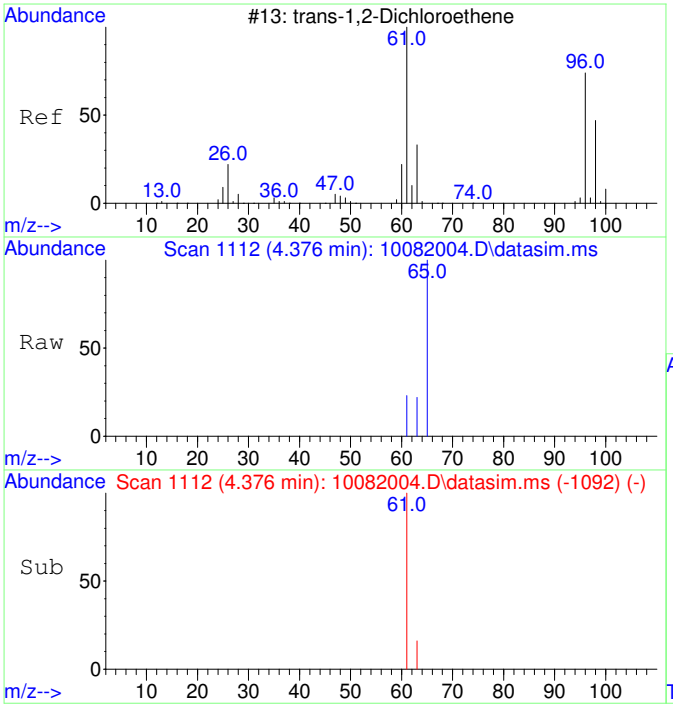




#2
1,1-Dichloroethene
Concen: 48.45 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.3 | 37.2 | 97.2 |

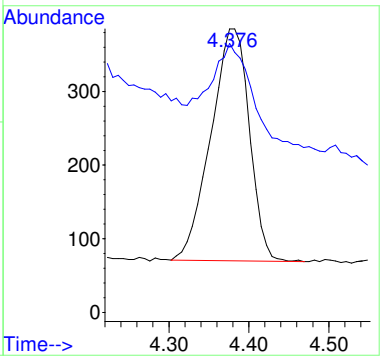


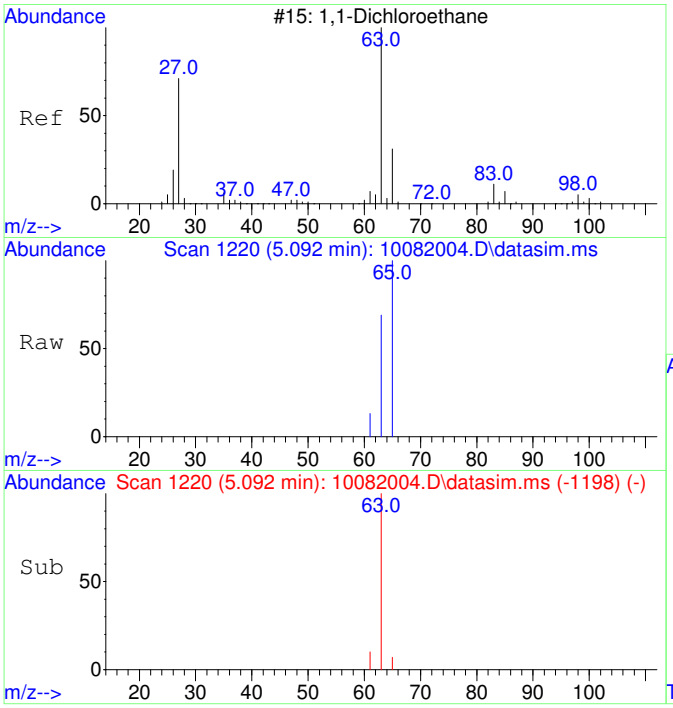



#3
trans-1,2-Dichloroethene
Concen: 50.33 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 56.8 | 2.4 | 62.4 |

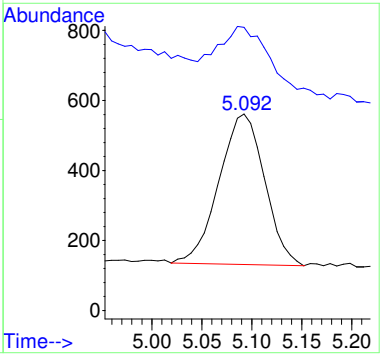


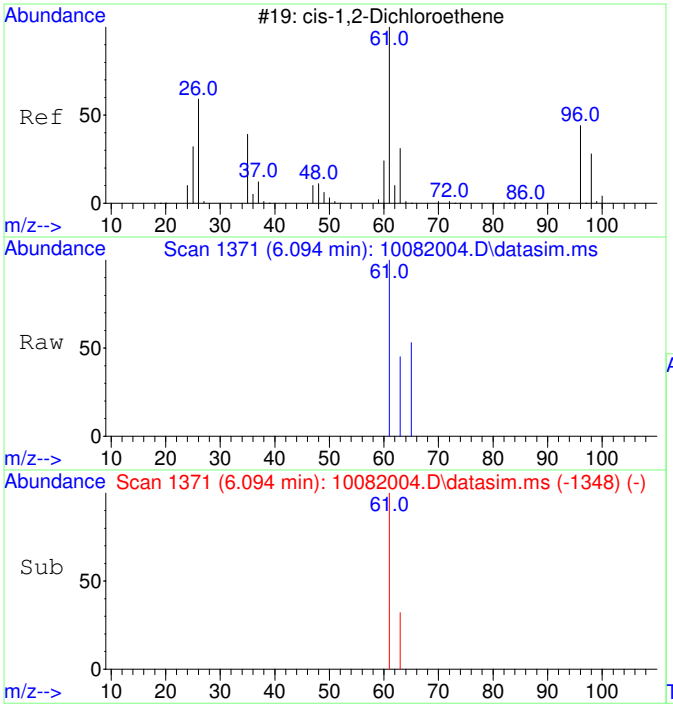




#4
1,1-Dichloroethane
Concen: 52.18 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 63 Resp: 1363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 60.4 | 1.8 | 61.8 |

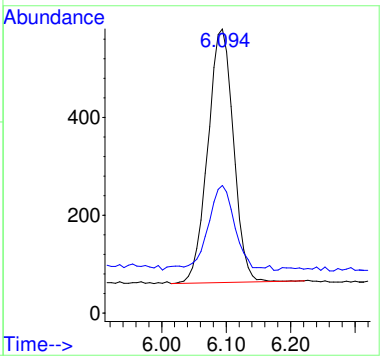


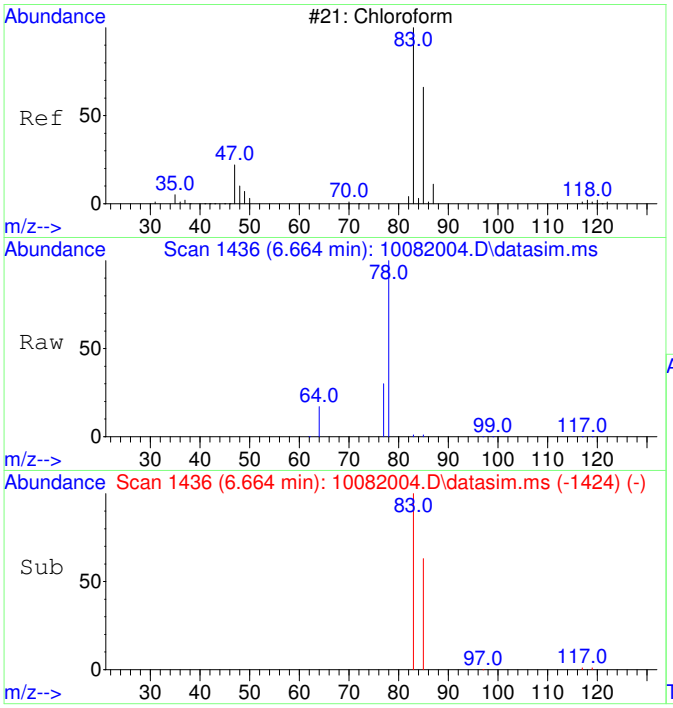



#5
cis-1,2-Dichloroethene
Concen: 51.79 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.4 | 2.5 | 62.5 |

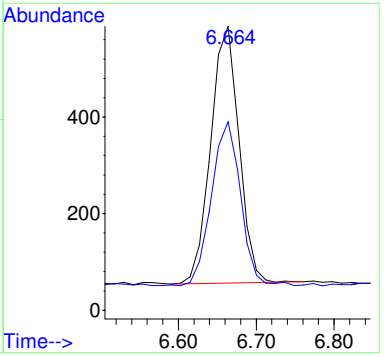


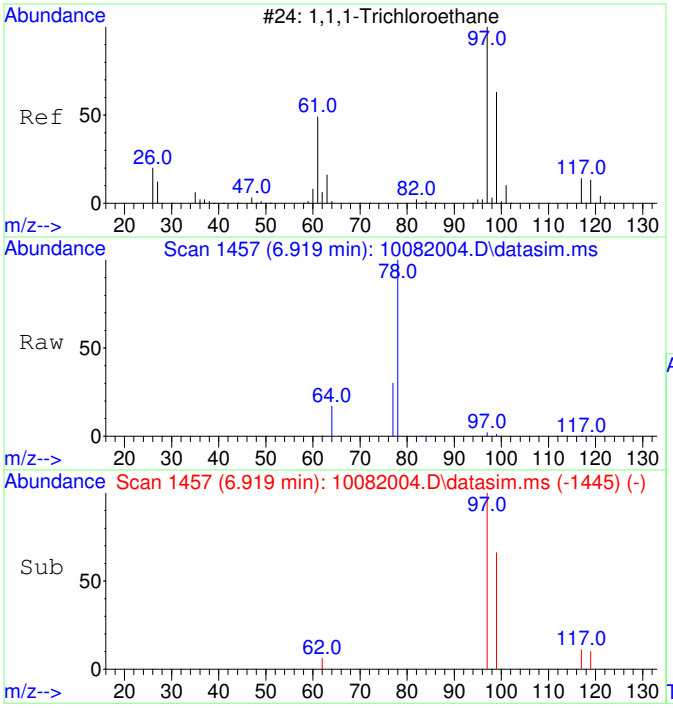




#6
Chloroform
Concen: 47.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1344

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 35.1 | 95.1 |

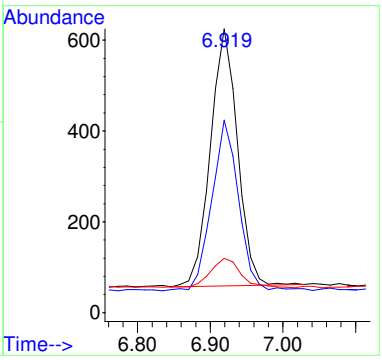


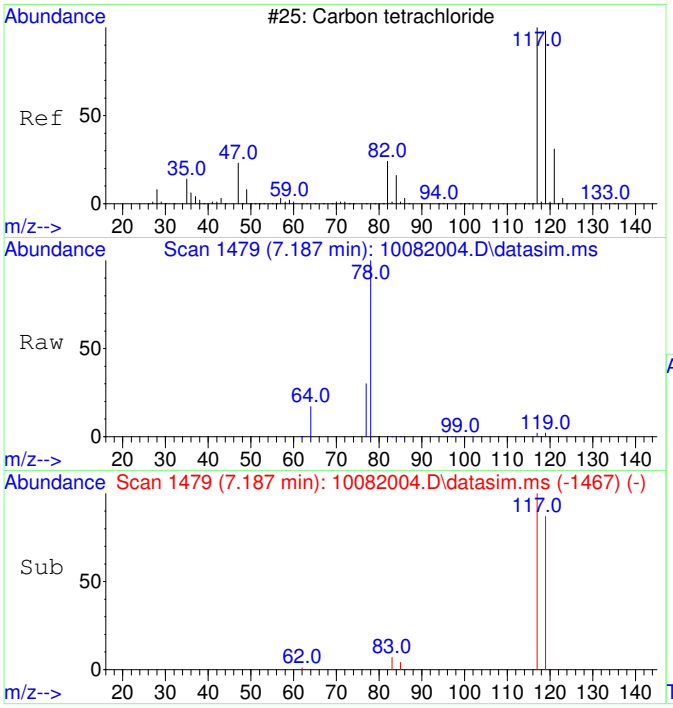



#7
1,1,1-Trichloroethane
Concen: 47.96 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.1 | 34.6 | 94.6 |
| 117 | 12.9 | 0.0 | 43.2 |

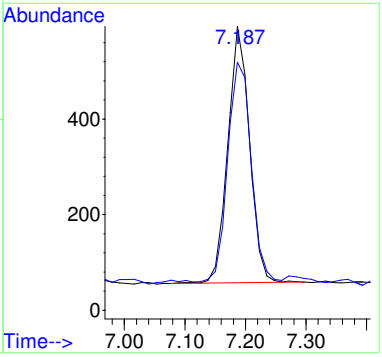


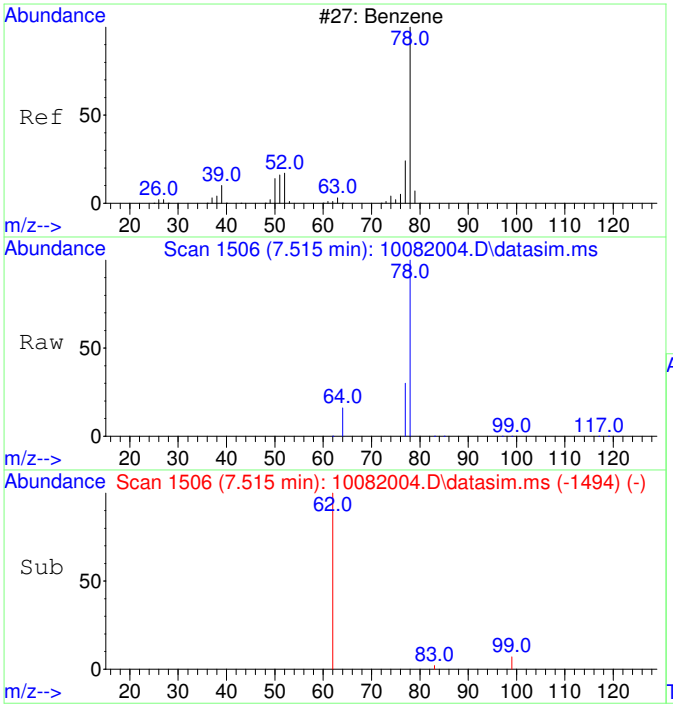




#8
Carbon tetrachloride
Concen: 46.21 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:117 Resp: 1333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 91.7 | 66.4 | 126.4 |

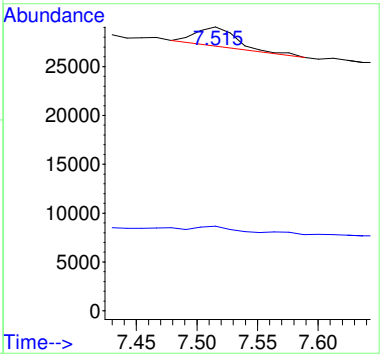


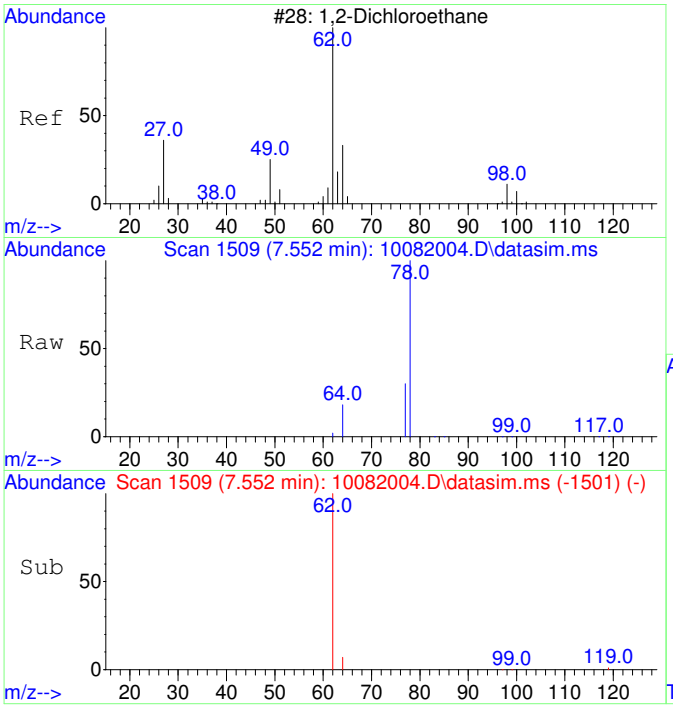



#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 4011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 72.1 | 0.0 | 53.2# |

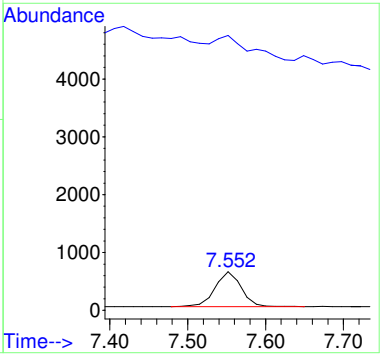


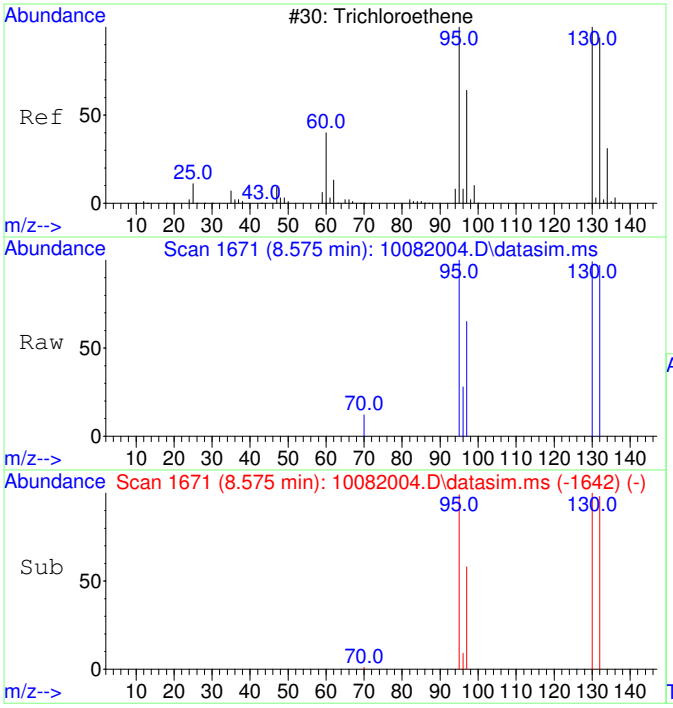




#10
1,2-Dichloroethane
Concen: 50.57 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 1395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.1 | 2.3 | 62.3# |

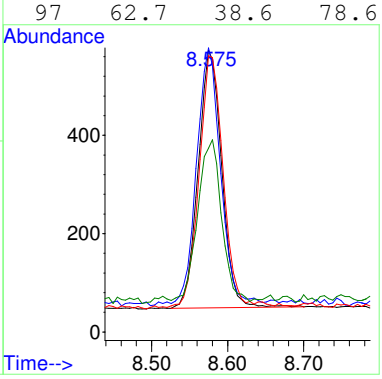


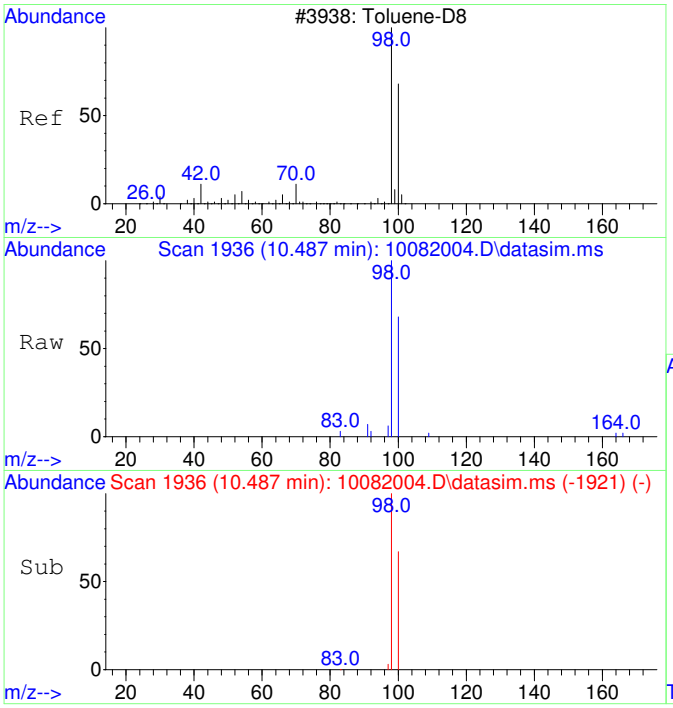



#11
Trichloroethene
Concen: 48.52 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 1129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.2 | 60.7 | 120.7 |
| 132 | 98.8 | 76.0 | 116.0 |
| 97 | 62.7 | 38.6 | 78.6 |

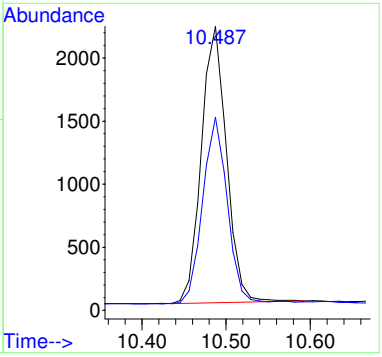


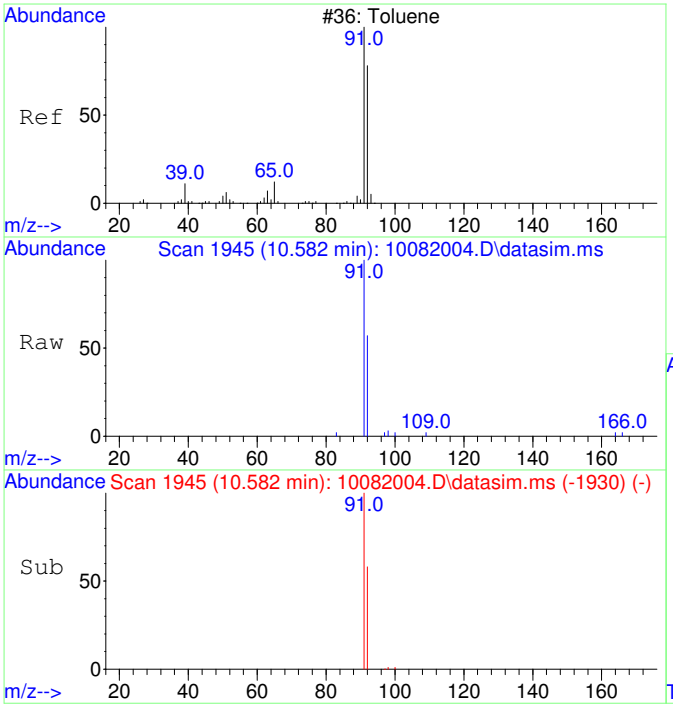




#12
Toluene-d8
Concen: 51.11 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 4551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.3 | 37.1 | 97.1 |

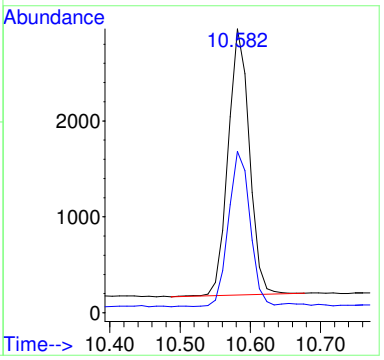


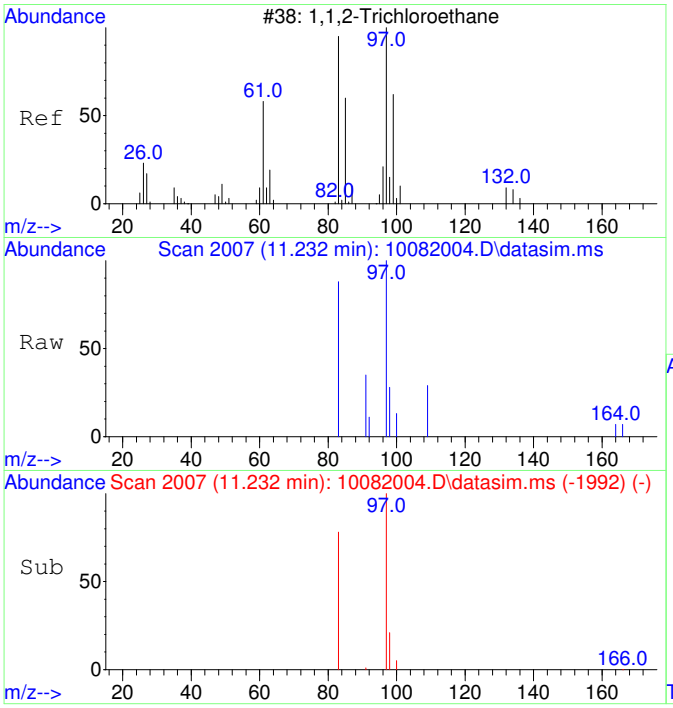



#13
Toluene
Concen: 51.39 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 5833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.7 | 29.9 | 89.9 |

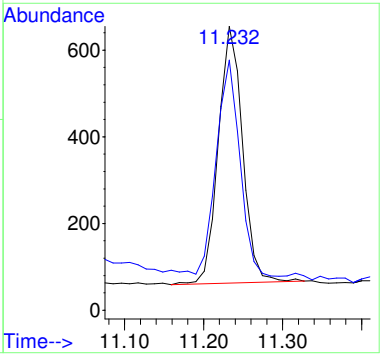


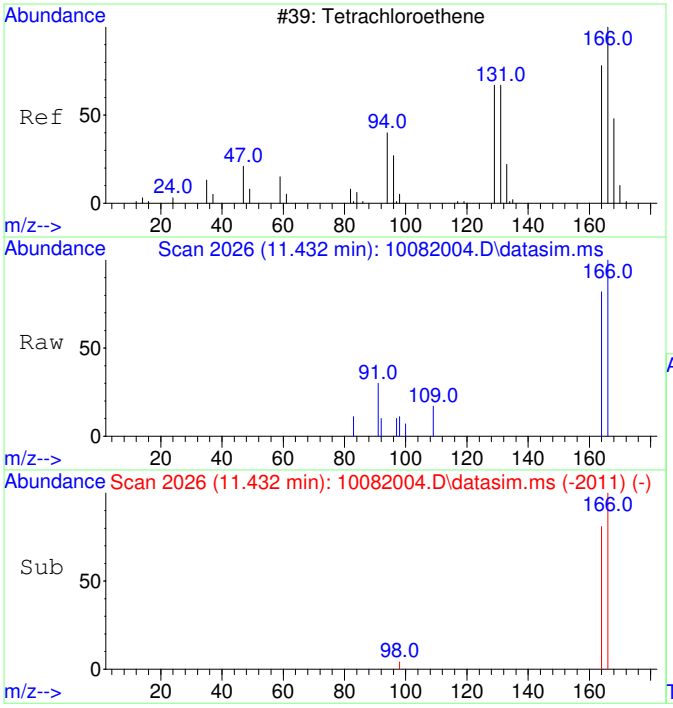




#14
1,1,2-Trichloroethane
Concen: 50.82 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.1 | 51.2 | 111.2 |

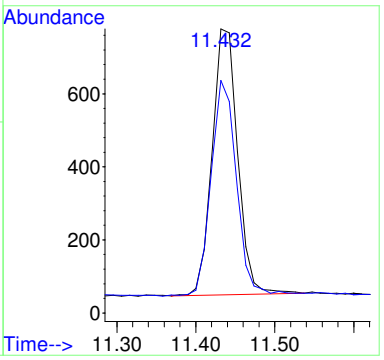


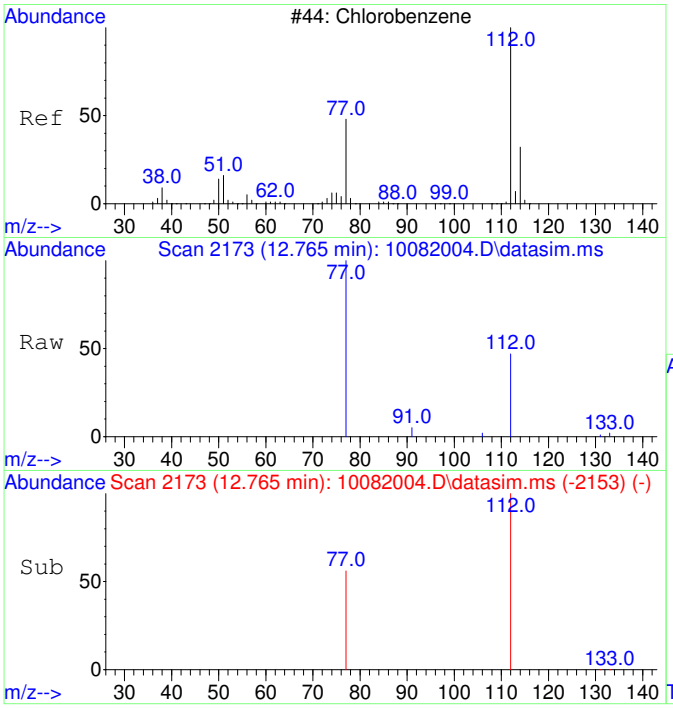



#15
Tetrachloroethene
Concen: 49.68 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 81.7 | 47.8 | 107.8 |

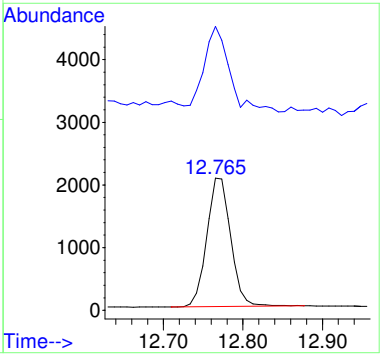


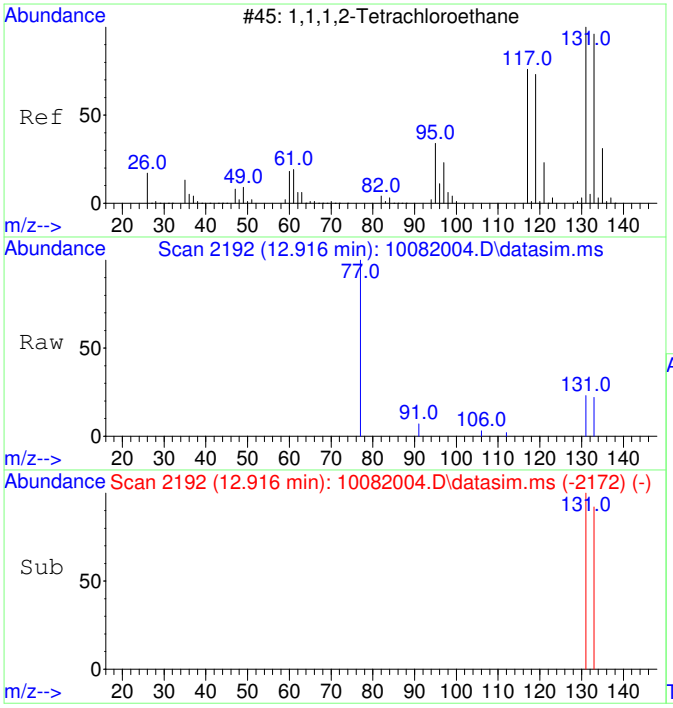




#16
Chlorobenzene
Concen: 52.95 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 4304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 71.1 | 23.6 | 83.6 |

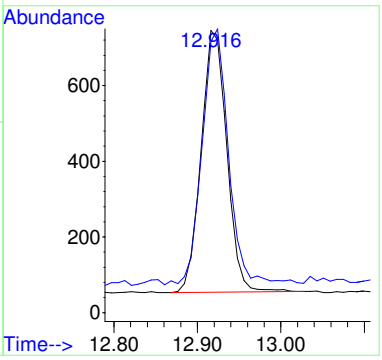


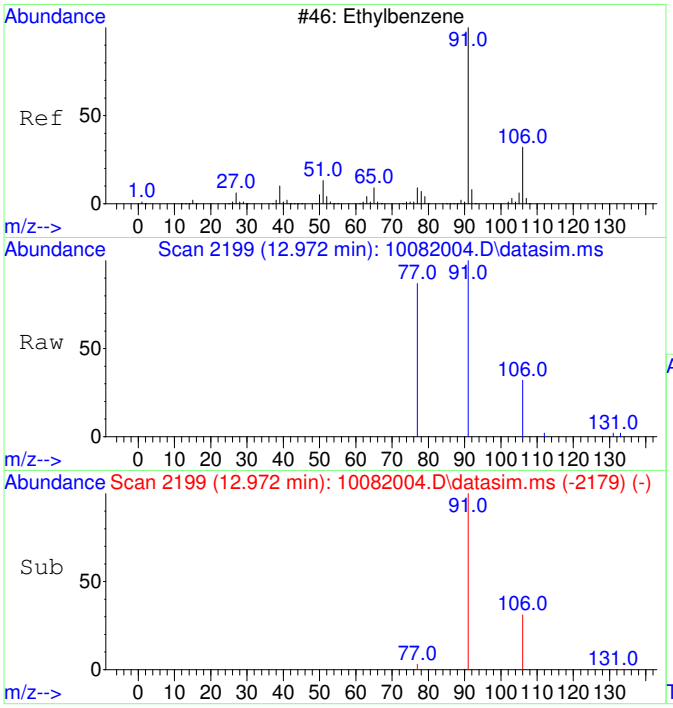



#17
1,1,1,2-Tetrachloroethane
Concen: 50.99 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 1485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.3 | 66.3 | 126.3 |

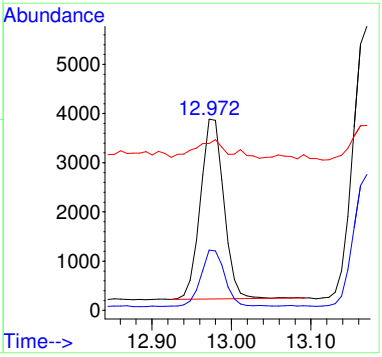


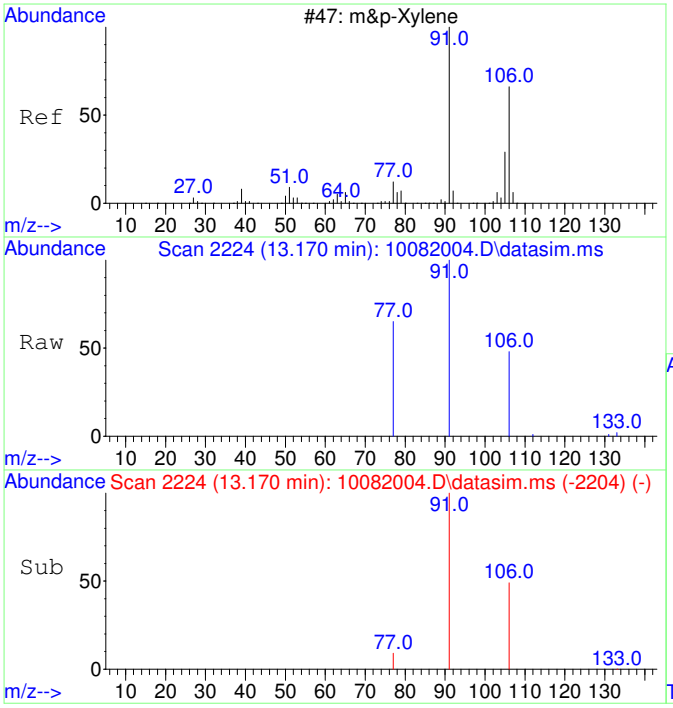




#18
Ethylbenzene
Concen: 54.30 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.0 | 3.0 | 63.0 |
| 77 | 11.1 | 0.0 | 38.2 |

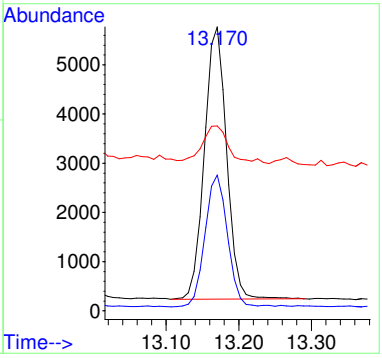


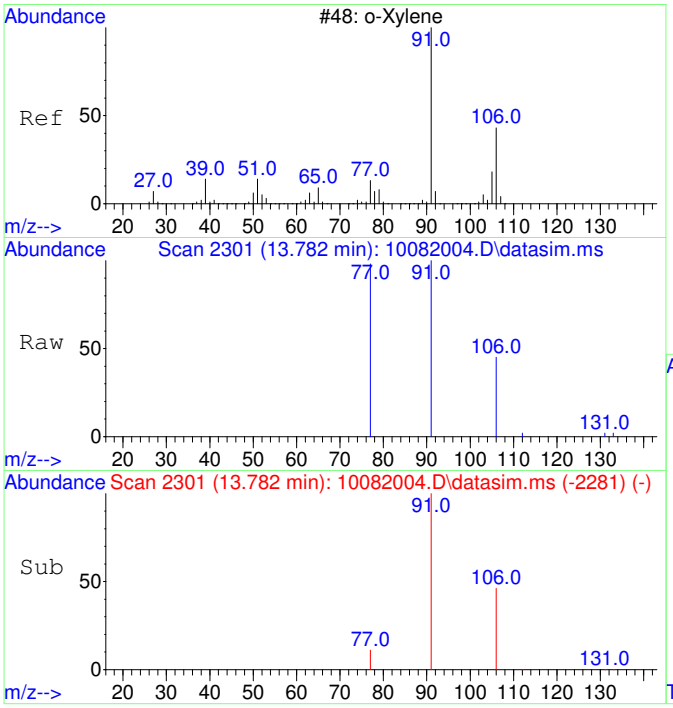



#19
m&p-Xylene
Concen: 109.02 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 11773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 16.9 | 0.0 | 42.4 |

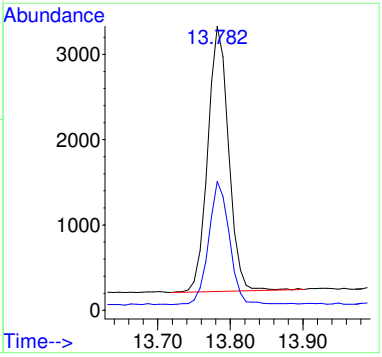


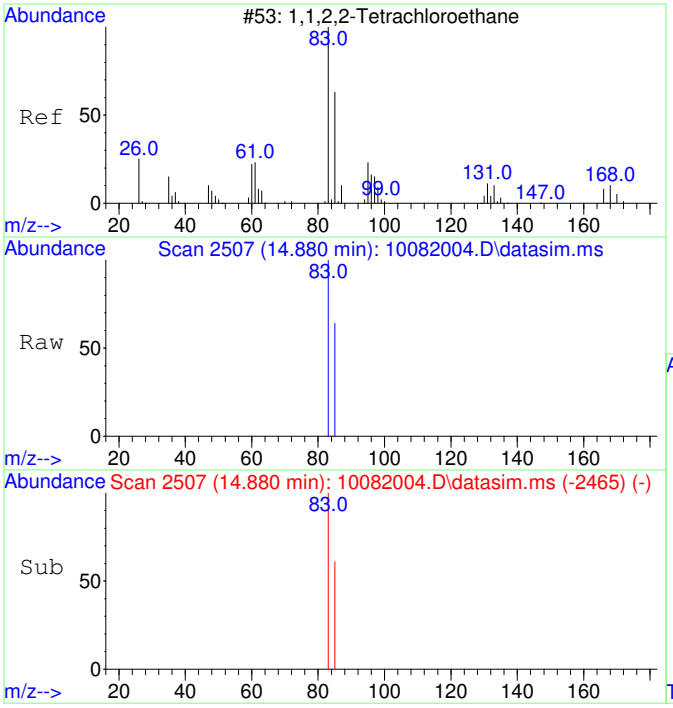




#20
o-Xylene
Concen: 53.87 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 6215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 19.2 | 79.2 |

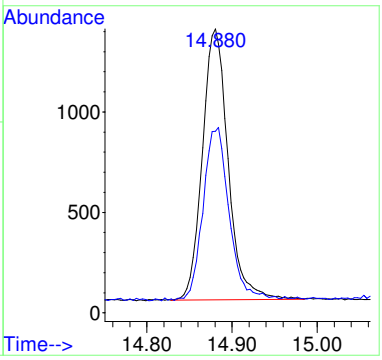


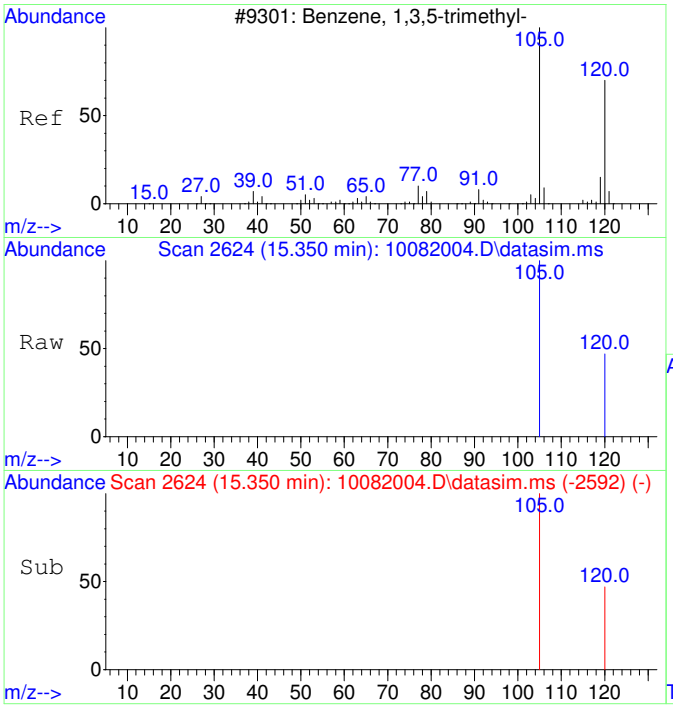



#21
1,1,2,2-Tetrachloroethane
Concen: 55.37 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 2831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 34.8 | 94.8 |

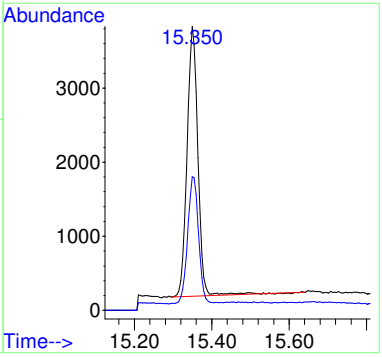


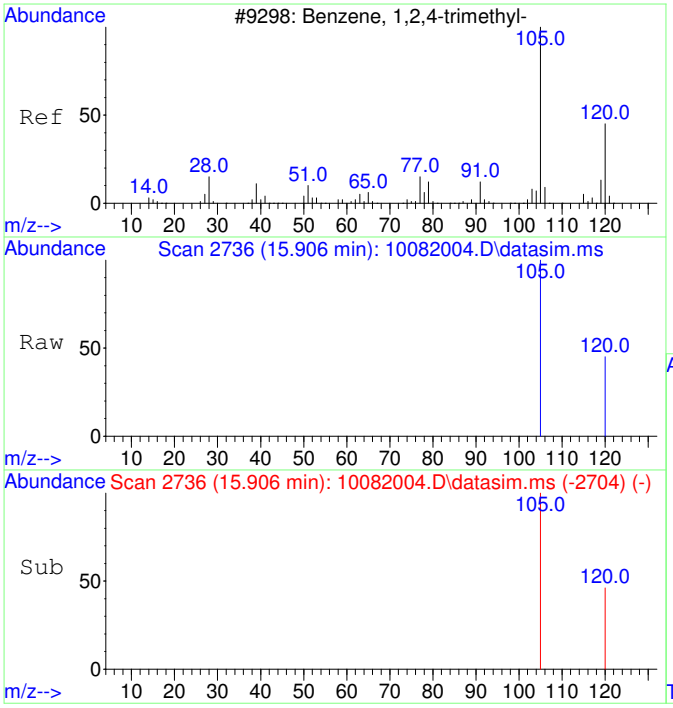




#22
1,3,5-Trimethylbenzene
Concen: 57.11 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.5 | 21.1 | 81.1 |

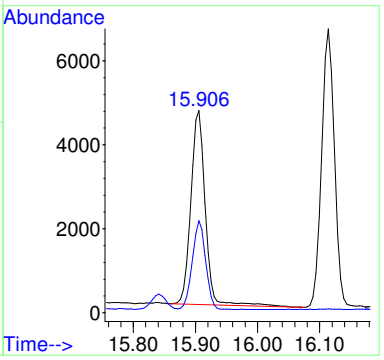


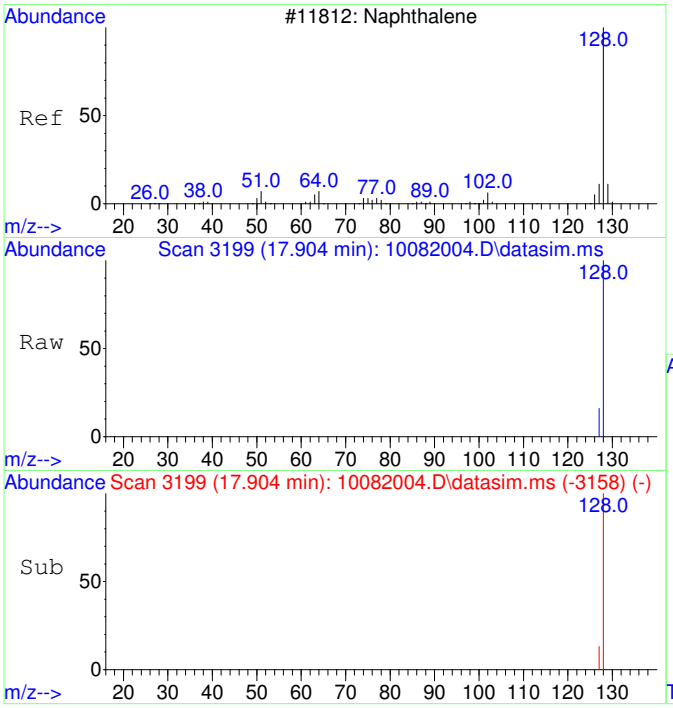



#23
1,2,4-Trimethylbenzene
Concen: 58.17 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7419

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.1 | 17.2 | 77.2 |

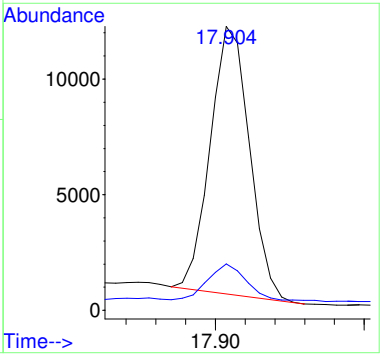


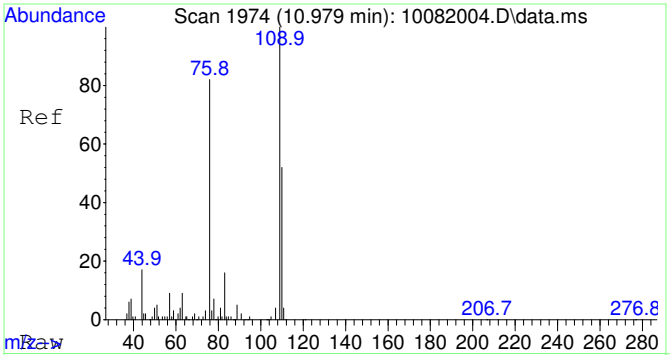




#24
Naphthalene
Concen: 52.27 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 10537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.9 | 0.0 | 42.5 |

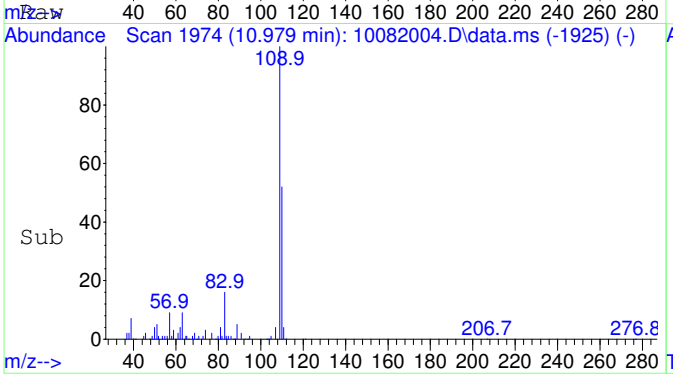


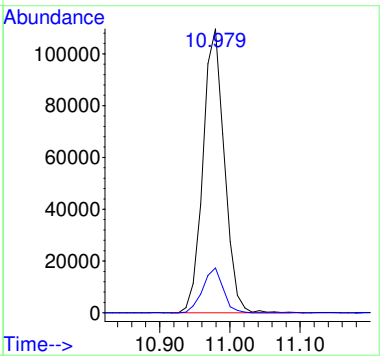


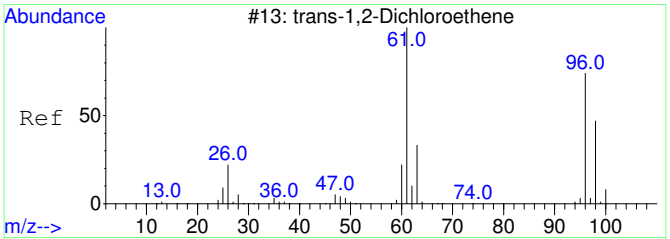

#25
2-Fluorotoluene SCAN
Concen: 5237.13 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 232197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.0 | 0.0 | 43.8 |



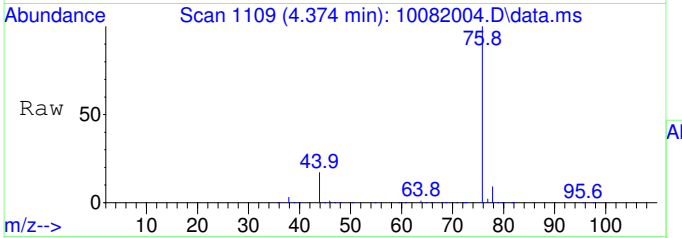



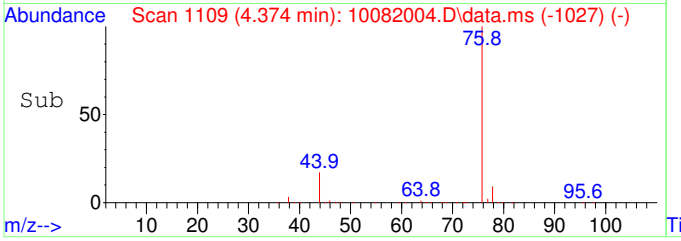



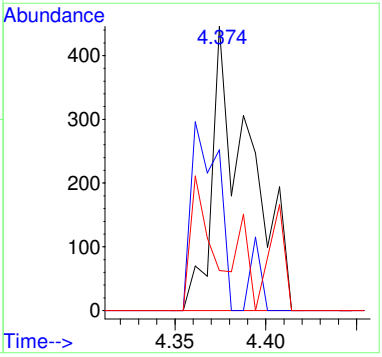

#27
trans-1,2-Dichloroethene SCAN
Concen: 54.50 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.027 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

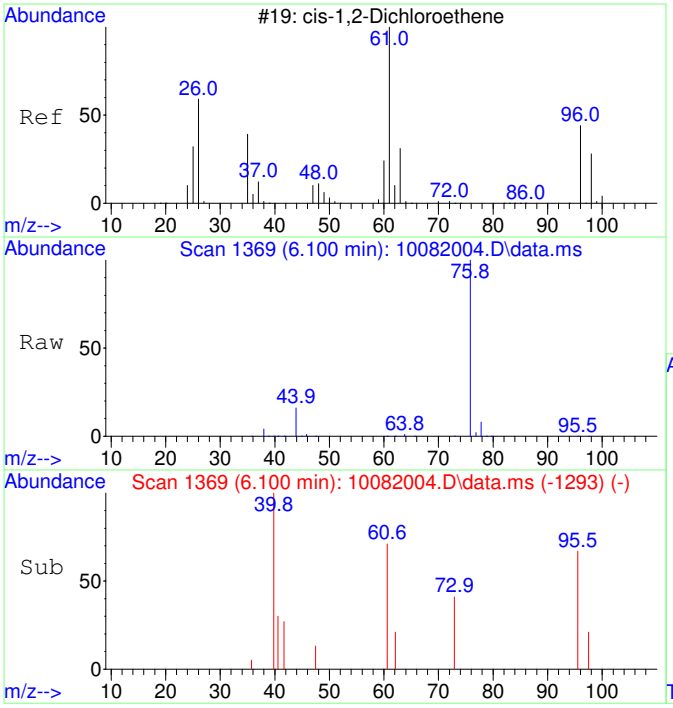
Tgt Ion: 61 Resp: 635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 47.9 | 49.0 | 109.0# |
| 98 | 37.6 | 20.5 | 80.5 |



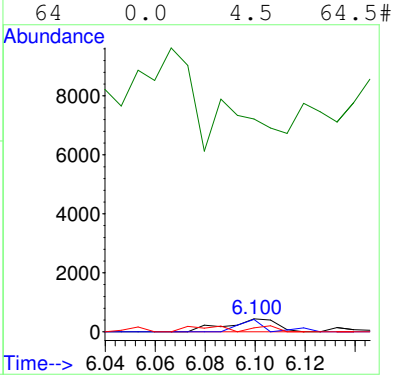



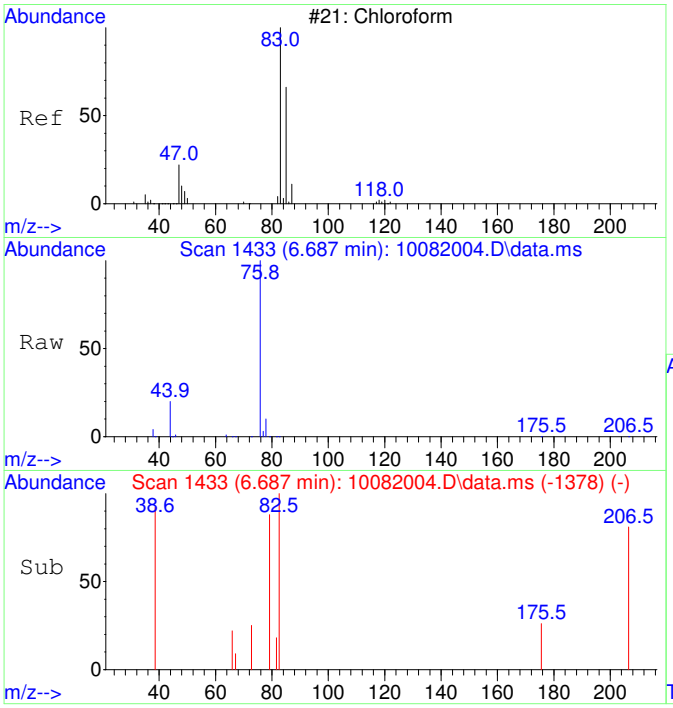



#29
cis-1,2-Dichloroethene SCAN
Concen: 42.92 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 39.9 | 99.9 |
| 98 | 21.5 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

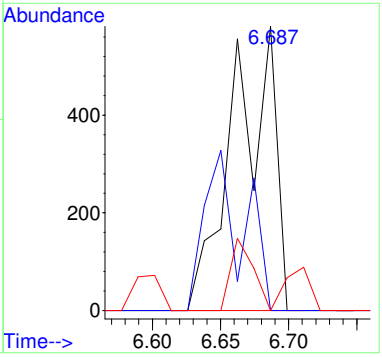


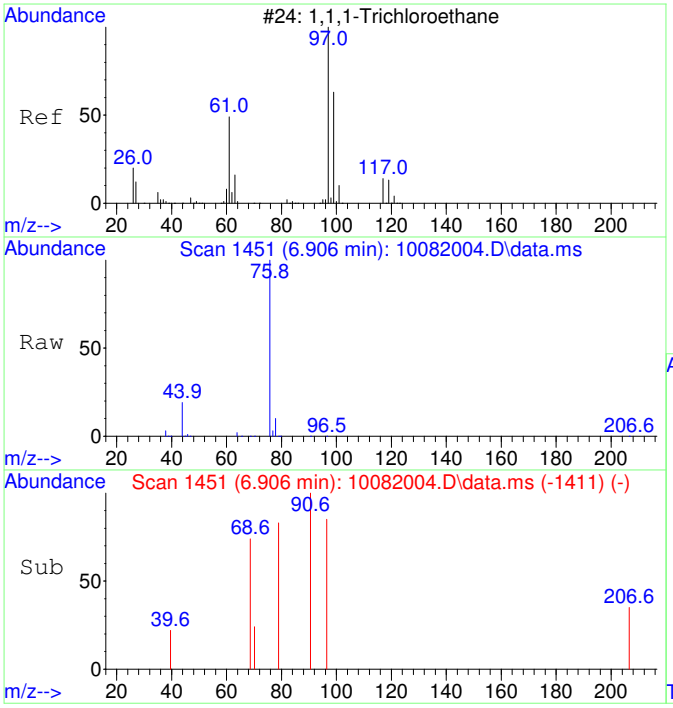




#30
Chloroform SCAN
Concen: 78.88 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

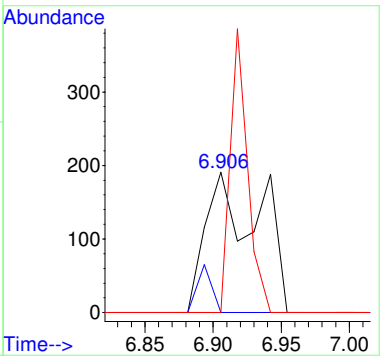


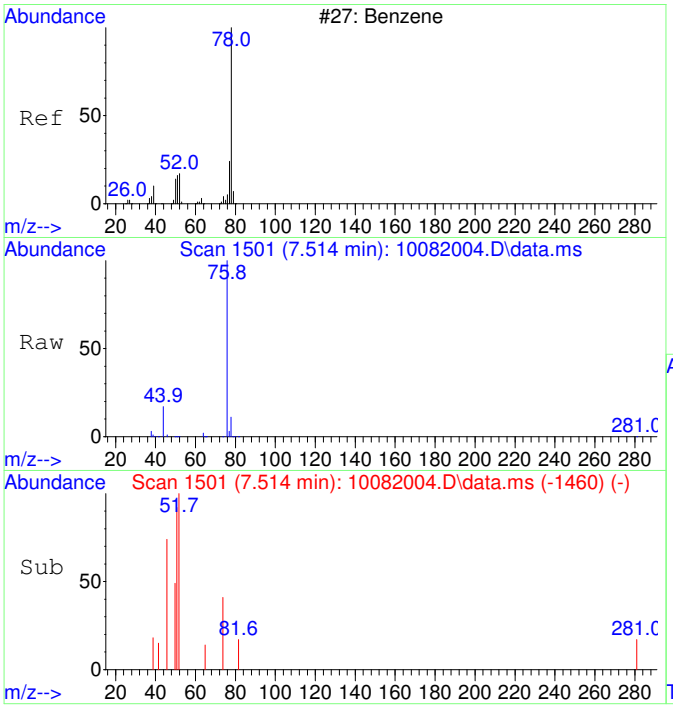



#31
1,1,1-Trichloroethane SCAN
Concen: 35.86 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 512

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 66.8 | 18.0 | 78.0 |

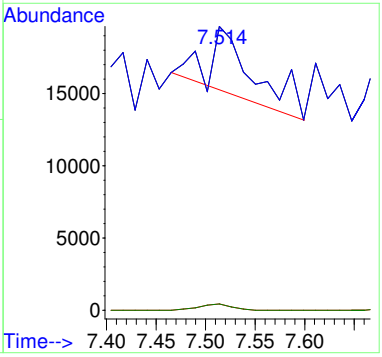


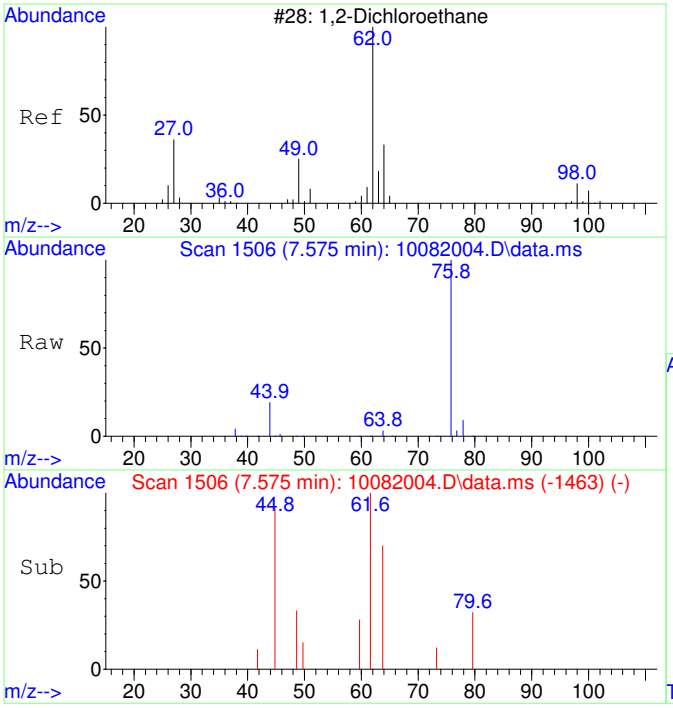




#33
Benzene SCAN
Concen: 331.38 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 13029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 7.7 | 0.0 | 47.9 |
| 51 | 7.7 | 0.0 | 44.1 |

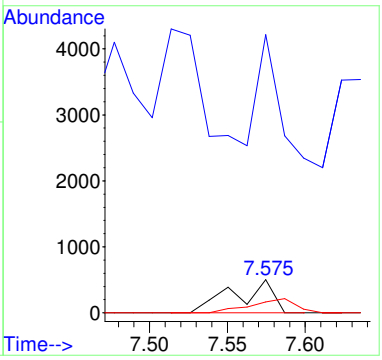


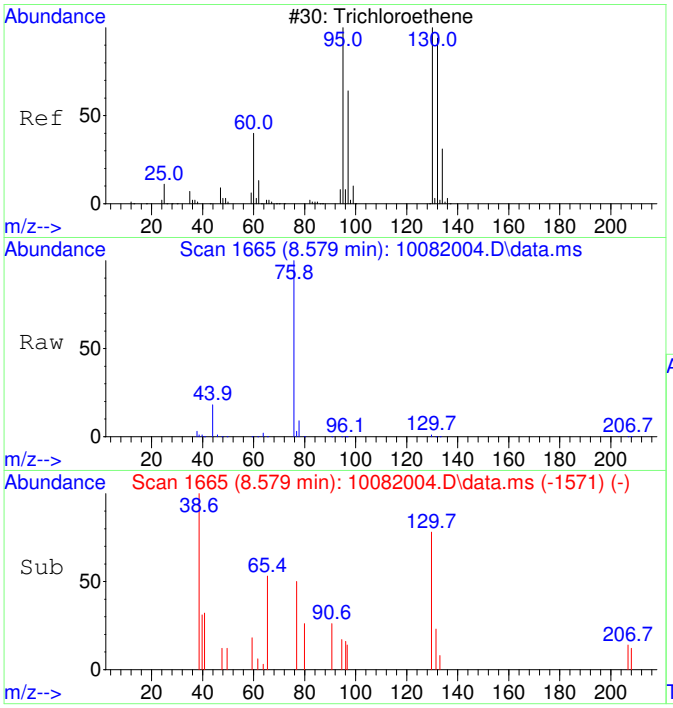



#34
1,2-Dichloroethane SCAN
Concen: 61.03 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 162.9 | 5.2 | 65.2# |
| 49 | 48.4 | 3.9 | 63.9 |

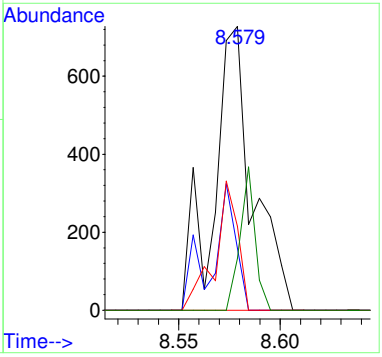


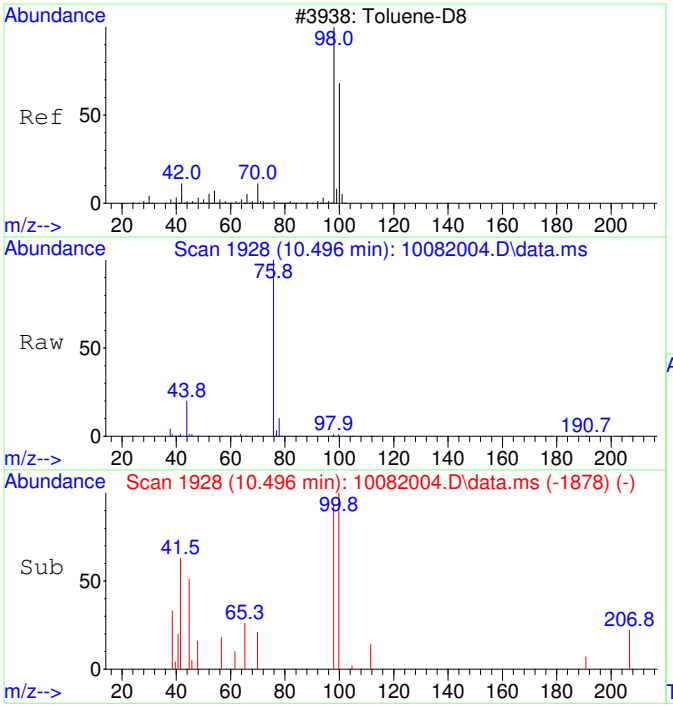




#35
Trichloroethene SCAN
Concen: 89.22 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 27.9 | 60.5 | 120.5# |
| 132 | 26.7 | 59.6 | 119.6# |
| 97 | 19.5 | 28.2 | 88.2# |

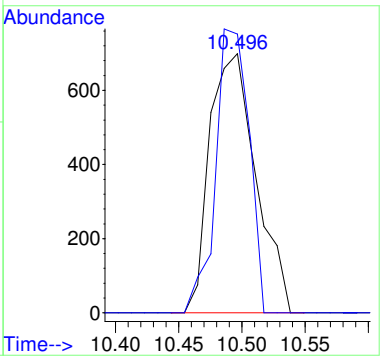


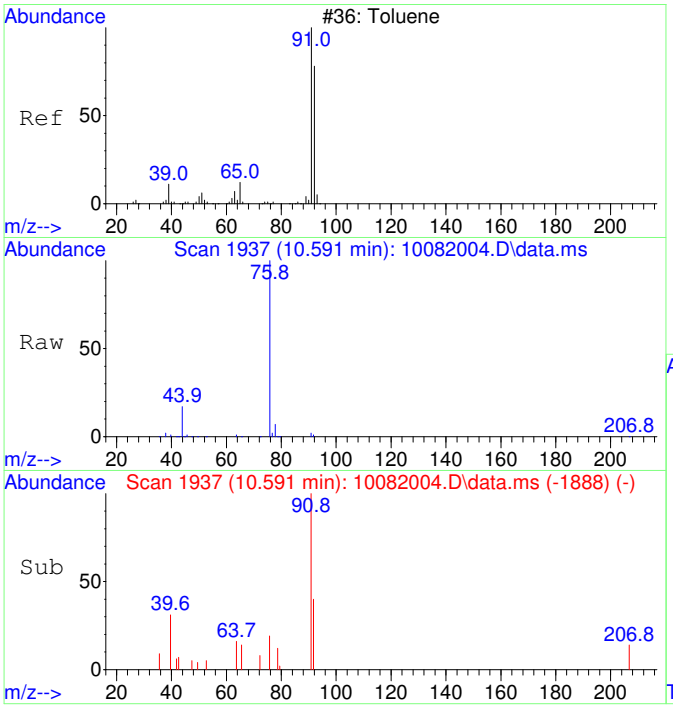



#36
Toluene-d8 SCAN
Concen: 41.24 ug/L
RT: 10.496 min Scan# 1928
Delta R.T. 0.021 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 1788

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 78.8 | 40.0 | 100.0 |

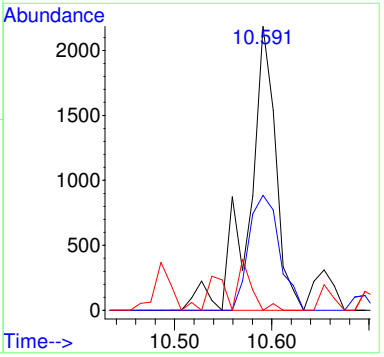


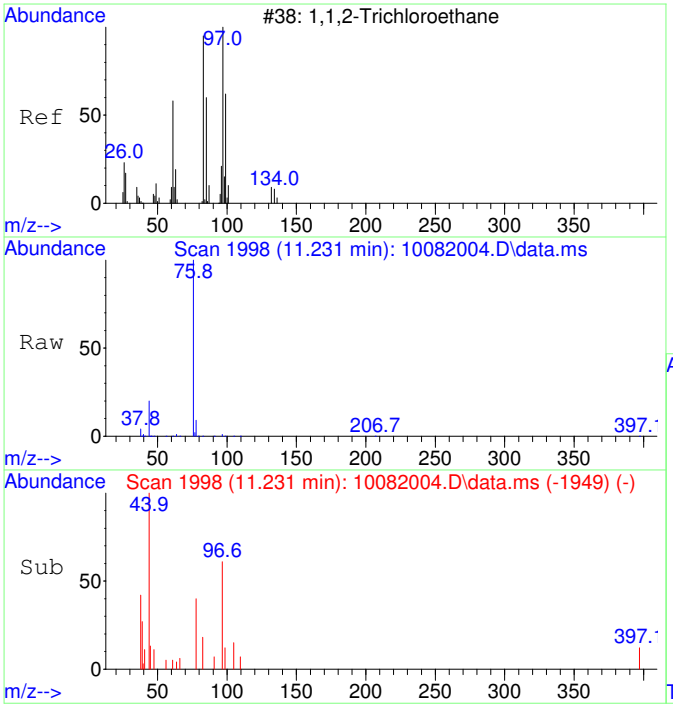




#37
Toluene SCAN
Concen: 75.56 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 4196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 46.4 | 28.3 | 88.3 |
| 65 | 0.0 | 0.0 | 41.0 |

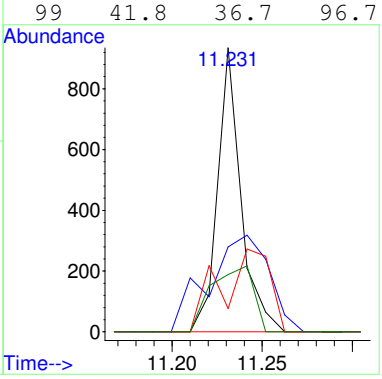


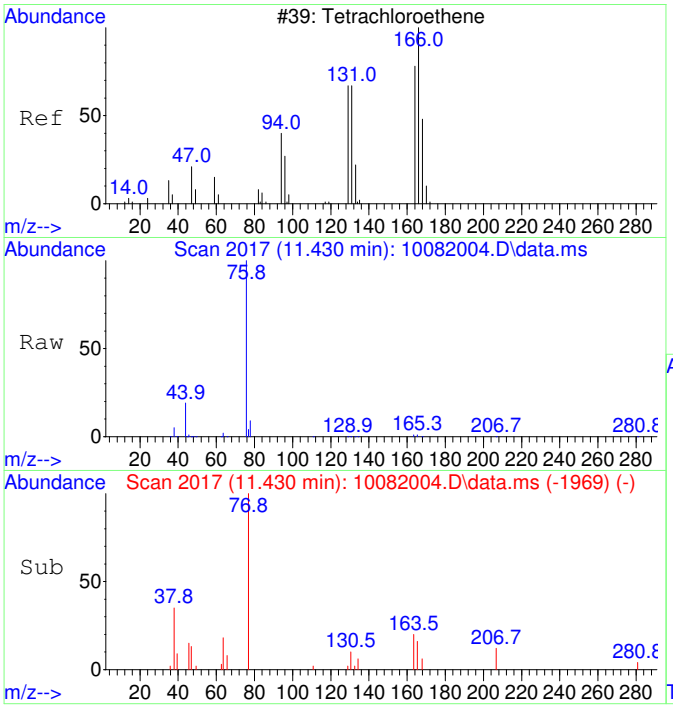



#38
1,1,2-Trichloroethane SCAN
Concen: 67.31 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 89.0 | 57.7 | 117.7 |
| 61 | 61.3 | 32.1 | 92.1 |
| 99 | 41.8 | 36.7 | 96.7 |

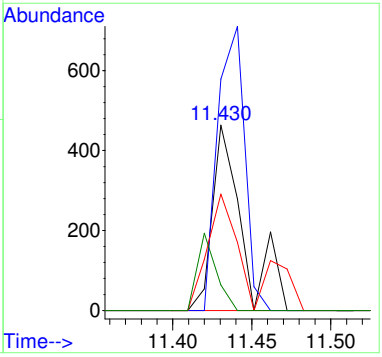


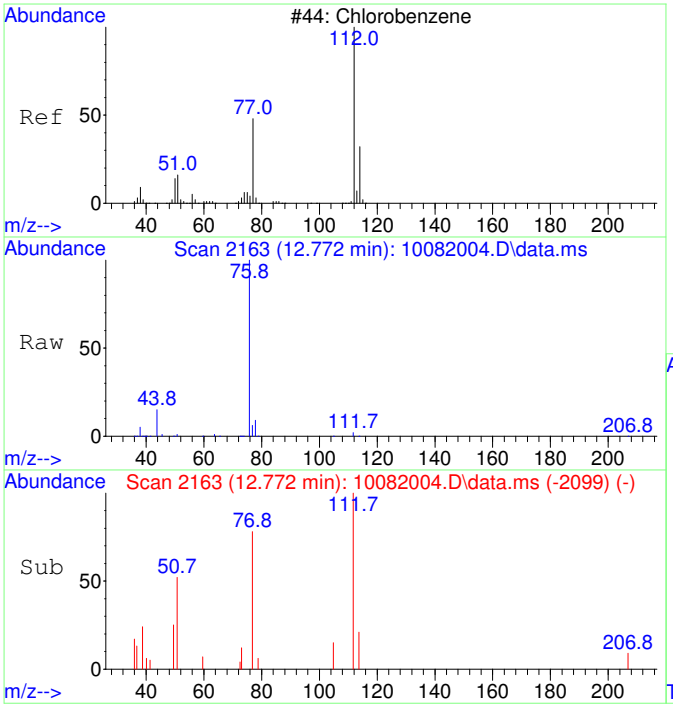




#39
Tetrachloroethene SCAN
Concen: 46.85 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 135.8 | 50.9 | 110.9# |
| 131 | 59.4 | 38.7 | 98.7 |
| 129 | 0.0 | 41.8 | 101.8# |

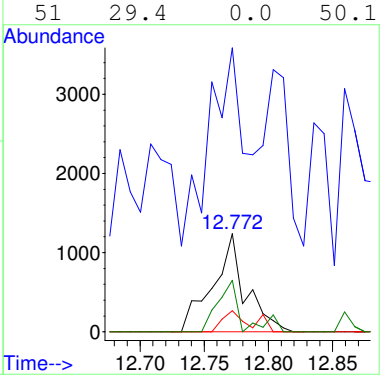


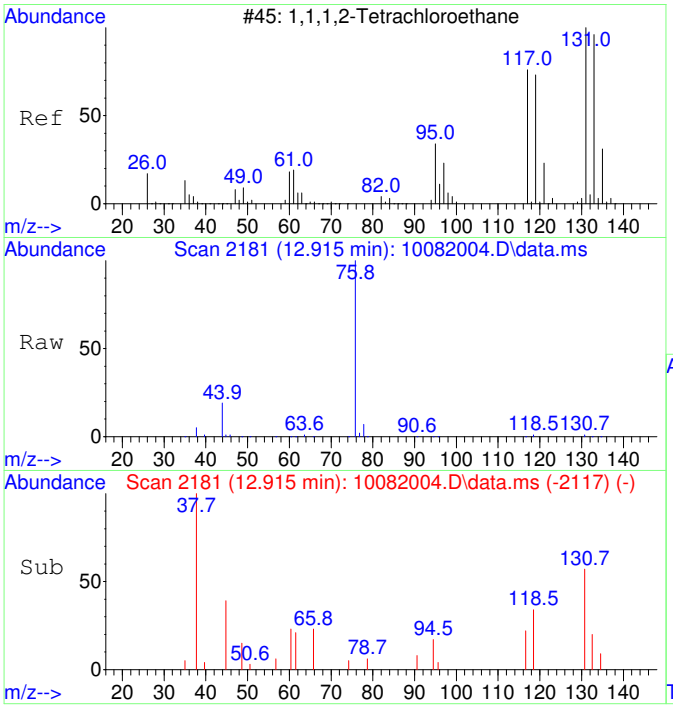



#40
Chlorobenzene SCAN
Concen: 57.82 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 2194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 126.0 | 28.2 | 88.2# |
| 114 | 18.0 | 2.3 | 62.3 |
| 51 | 29.4 | 0.0 | 50.1 |

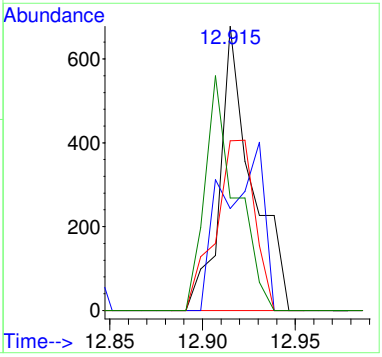


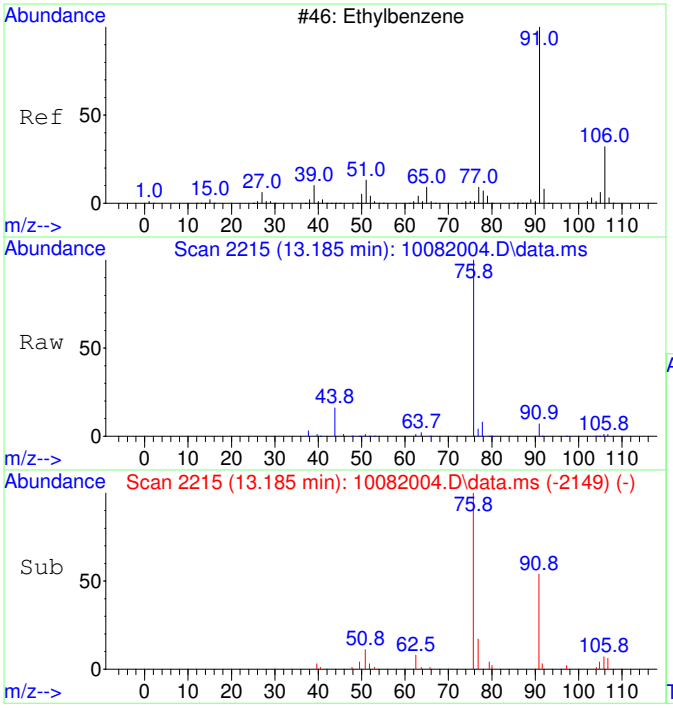




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 58.32 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 819

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 72.2 | 66.9 | 126.9 |
| 119 | 73.0 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

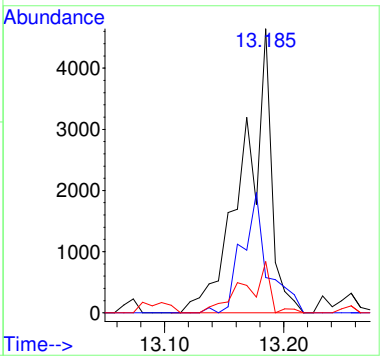


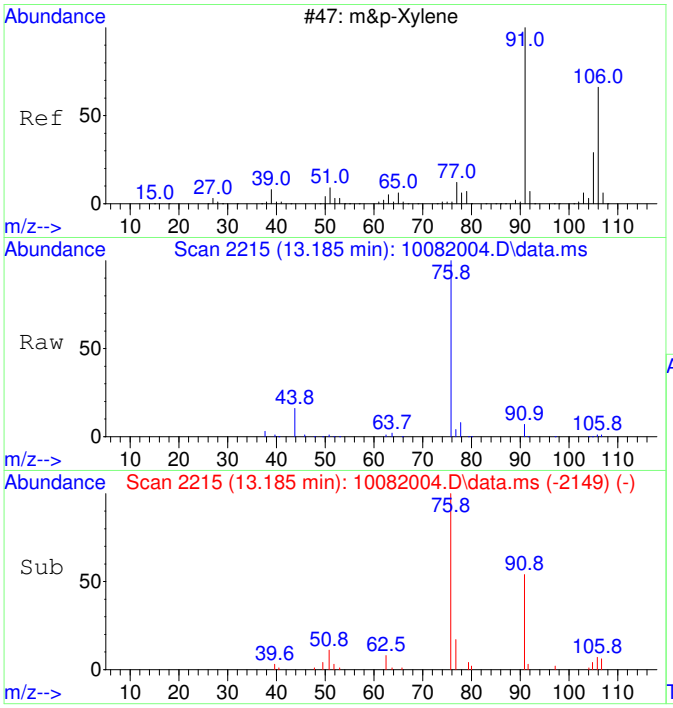



#42
Ethylbenzene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 51 | 16.4 | 0.0 | 40.1 |

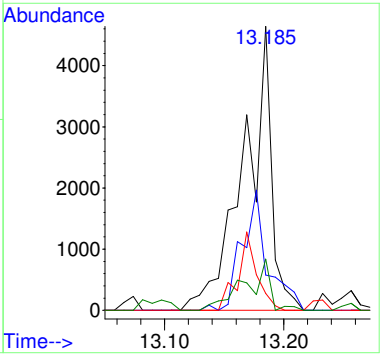


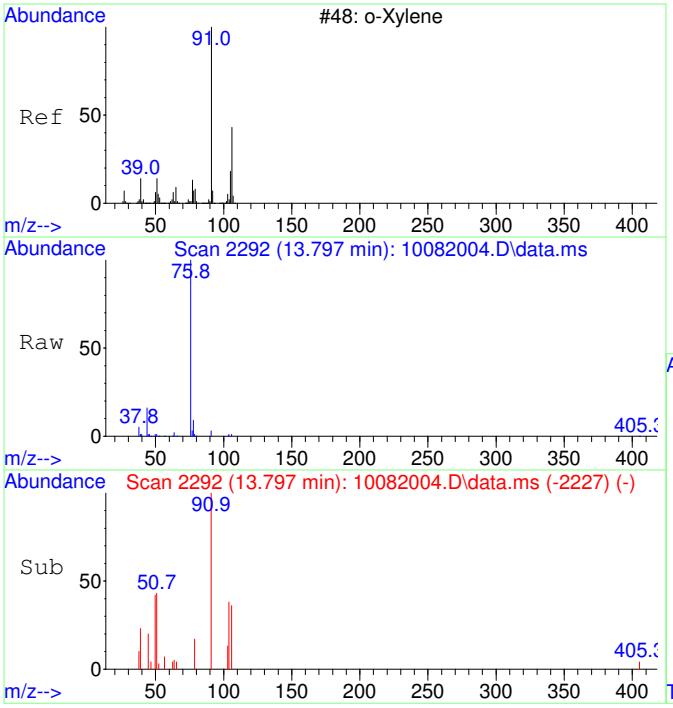




#43
m&p-Xylene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 105 | 19.0 | 0.0 | 54.7 |
| 51 | 16.4 | 0.0 | 40.1 |

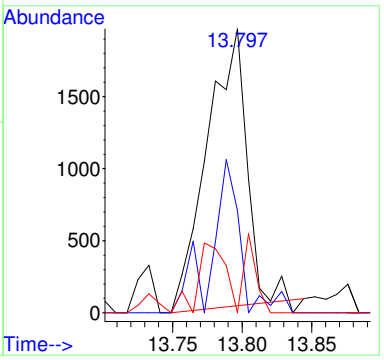


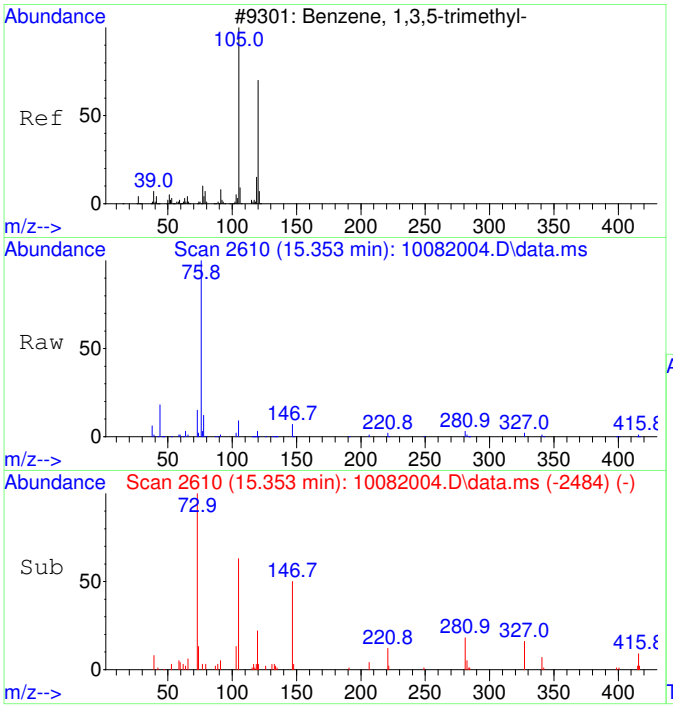



#44
o-Xylene SCAN
Concen: 70.14 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 3798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 40.6 | 18.0 | 78.0 |
| 105 | 8.9 | 0.0 | 56.6 |

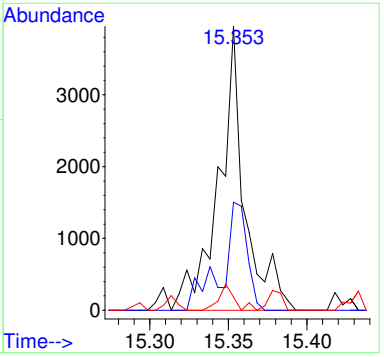


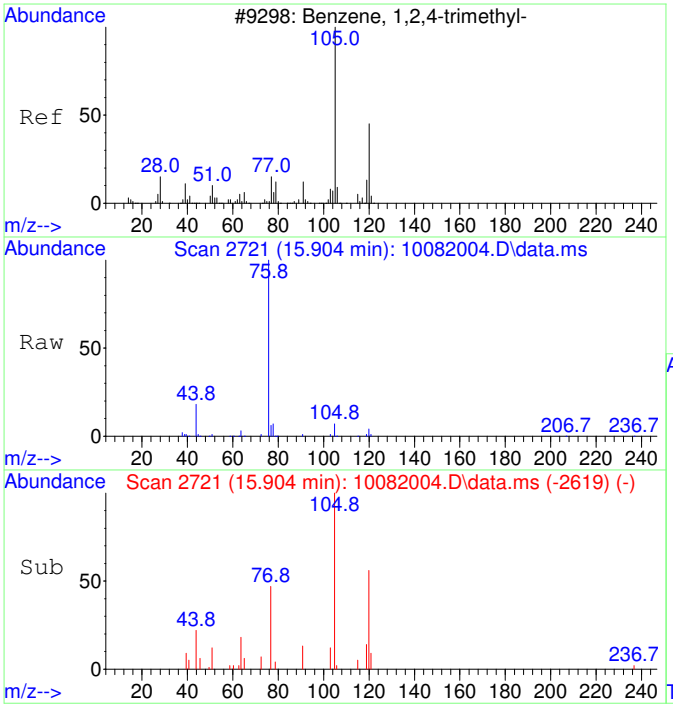




#46
1,3,5-Trimethylbenzene SCAN
Concen: 78.97 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 4507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.4 | 18.3 | 78.3 |
| 119 | 5.5 | 0.0 | 43.1 |

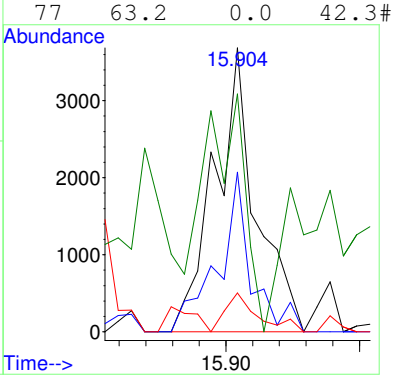


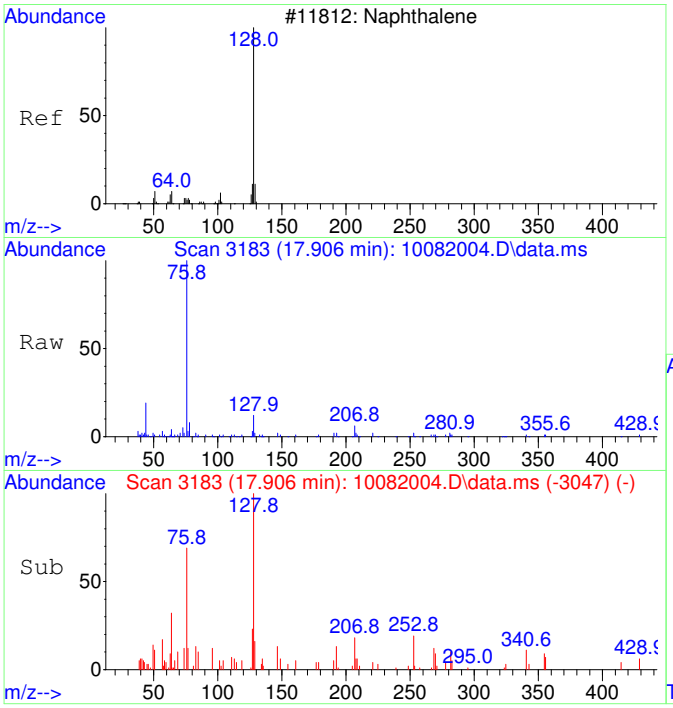



#47
1,2,4-Trimethylbenzene SCAN
Concen: 68.17 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 3981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 16.9 | 76.9 |
| 119 | 10.7 | 0.0 | 41.9 |
| 77 | 63.2 | 0.0 | 42.3# |

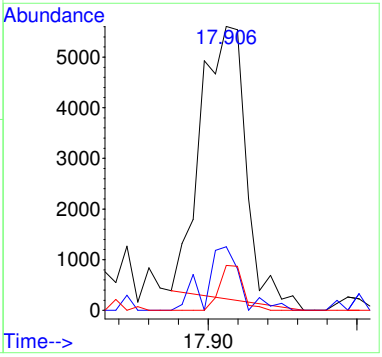



#48
Naphthalene SCAN
Concen: 63.87 ug/L
RT: 17.906 min Scan# 3183
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 5644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 18.0 | 0.0 | 44.0 |
| 129 | 8.6 | 0.0 | 40.8 |



# CRDL STANDARD

## Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 20274B
Client: California Site Cleanup Section 3
Project: MEW OU1 FY2020 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 2008017
Sequence: S20J011

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| B20J006-MRL1 | 1,1-Dichloroethene | 0.131 | 0.143 | 109 | ug/m³ Air | 50 - 150 |
| | trans-1,2-Dichloroethene | 0.160 | 0.174 | 109 | ug/m³ Air | 50 - 150 |
| | 1,1-Dichloroethane | 0.157 | 0.174 | 111 | ug/m³ Air | 50 - 150 |
| | cis-1,2-Dichloroethene | 0.160 | 0.173 | 108 | ug/m³ Air | 50 - 150 |
| | Chloroform | 0.132 | 0.153 | 116 | ug/m³ Air | 50 - 150 |
| | Trichloroethene | 0.144 | 0.144 | 100 | ug/m³ Air | 50 - 150 |
| | Tetrachloroethene | 0.168 | 0.162 | 96 | ug/m³ Air | 50 - 150 |
| | Toluene-d8 | 992 | 883 | 89 | ug/m³ Air | 86 - 118 |

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

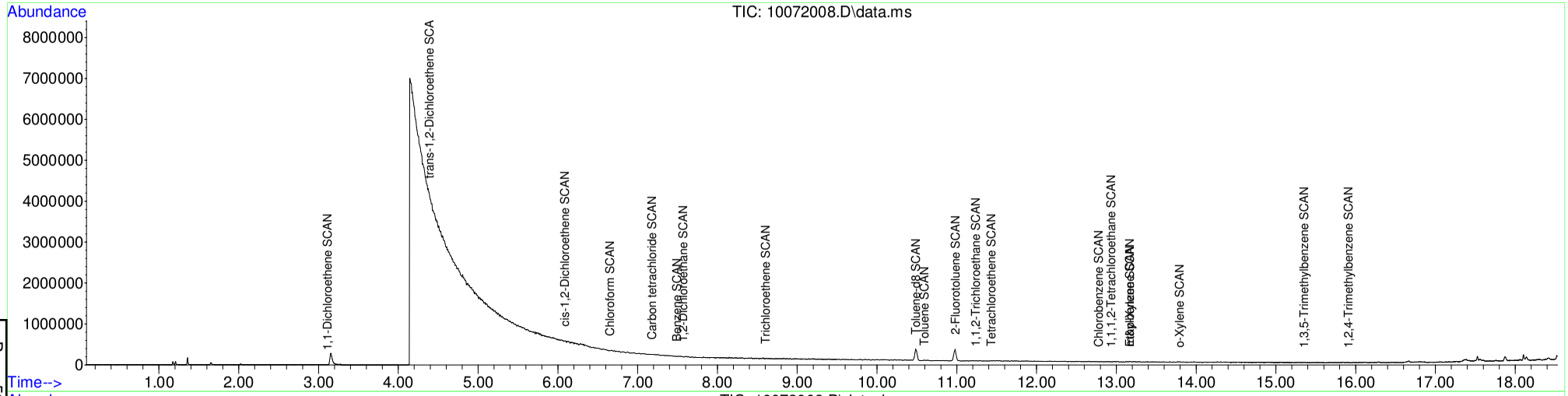
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 429055 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 373704 | 4449.27 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.99% | | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 1428 | 83.35 ug/L | 78 |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1076 | 54.36 ug/L | 63 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1362 | 55.27 ug/L | 57 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1404 | 53.98 ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 1540 | 57.85 ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1440 | 49.81 ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1314 | 48.29 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 7041 | 96.59 ug/L # | 31 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1392 | 53.49 ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1099 | 50.07 ug/L | 90 |
| 13] Toluene | 10.582 | 91 | 6121 | 57.16 ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1140 | 48.86 ug/L | 88 |
| 15] Tetrachloroethene | 11.432 | 166 | 1493 | 48.18 ug/L | 97 |
| 16] Chlorobenzene | 12.773 | 112 | 3625 | 47.28 ug/L | 67 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1375 | 50.05 ug/L | 99 |
| 18] Ethylbenzene | 12.980 | 91 | 8921 | 68.44 ug/L | 96 |
| 19] m&p-Xylene | 13.170 | 91 | 12171 | 119.48 ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 5455 | 50.12 ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2339 | 48.49 ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 6196 | 53.49 ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 6487 | 53.91 ug/L | 92 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 219067 | 5237.71 ug/L | 100 |
| 26) 1,1-Dichloroethene SCAN | 3.111 | 61 | 195 | 21.95 ug/L # | 50 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 397 | 36.12 ug/L # | 26 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 935 | 68.61 ug/L # | 33 |
| 30) Chloroform SCAN | 6.650 | 83 | 1326 | 89.70 ug/L # | 27 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 474 | 33.73 ug/L # | 38 |
| 33) Benzene SCAN | 7.490 | 78 | 11713 | 315.80 ug/L | 99 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 1115 | 81.41 ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.595 | 130 | 303 | 29.73 ug/L # | 23 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 196309 | 4799.32 ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 3478 | 66.40 ug/L | 83 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 566 | 48.14 ug/L # | 29 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 380 | 30.19 ug/L # | 62 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 1952 | 54.53 ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.931 | 131 | 273 | 20.61 ug/L # | 1 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 6312 | 66.14 ug/L # | 35 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 6312 | 66.14 ug/L # | 51 |
| 44) o-Xylene SCAN | 13.789 | 91 | 2779 | 54.40 ug/L | 78 |
| 46) 1,3,5-Trimethylbenzene... | 15.348 | 105 | 3778 | 70.18 ug/L | 89 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 3105 | 56.37 ug/L | 94 |

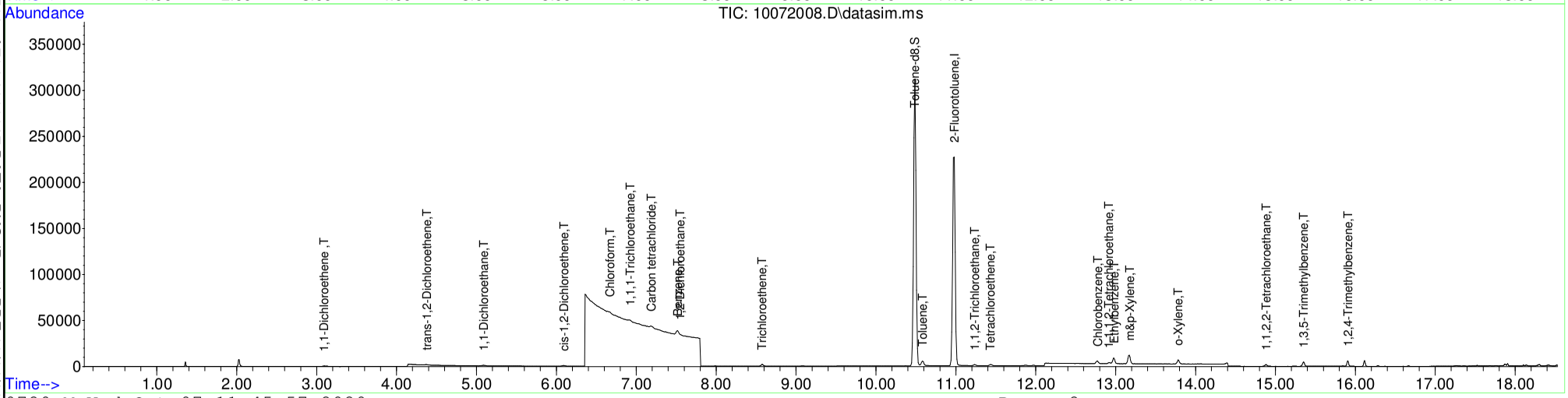
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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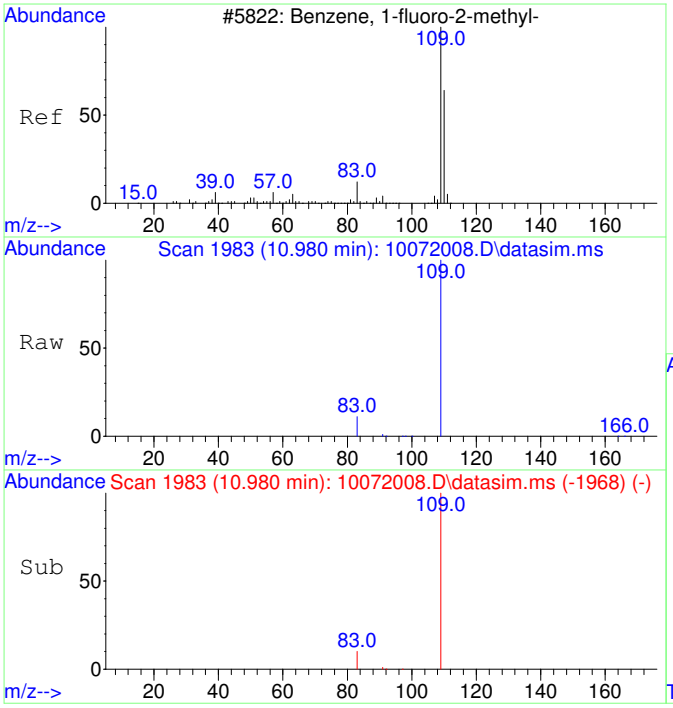
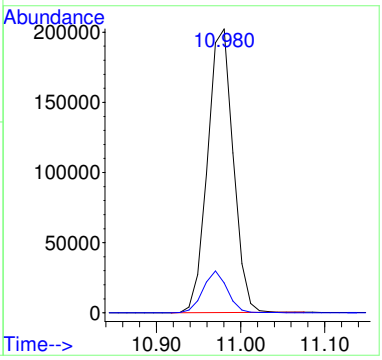
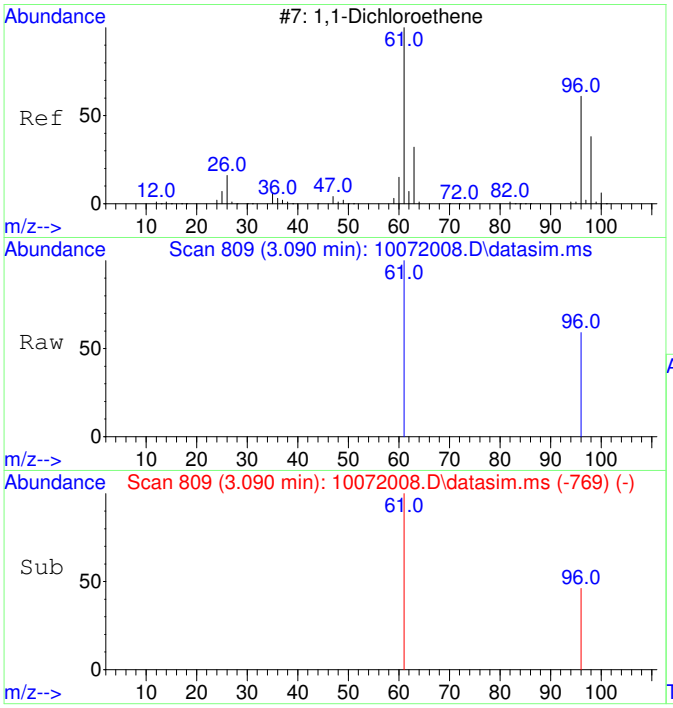



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 429055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

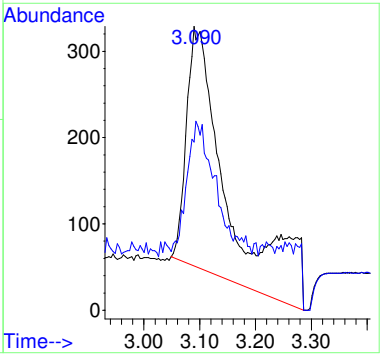


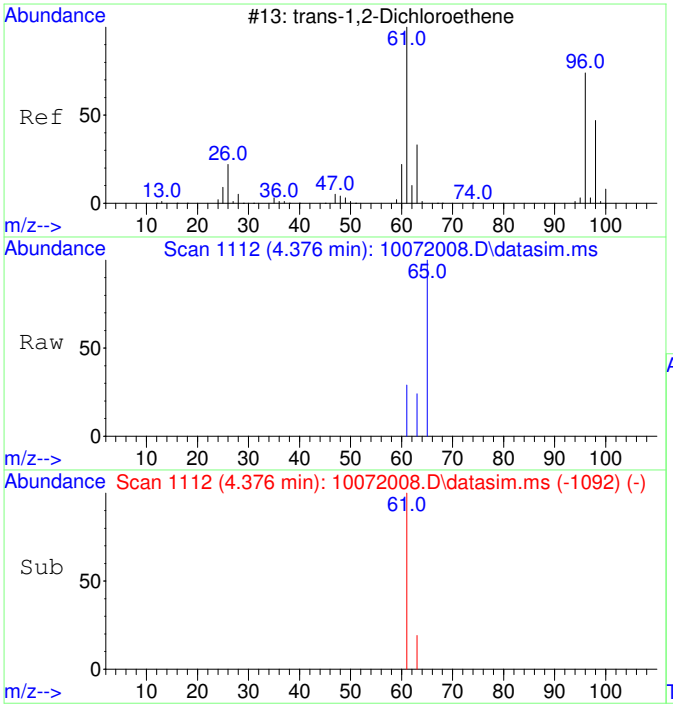

#2
1,1-Dichloroethene
Concen: 83.35 ug/L
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 49.3 | 37.2 | 97.2 |



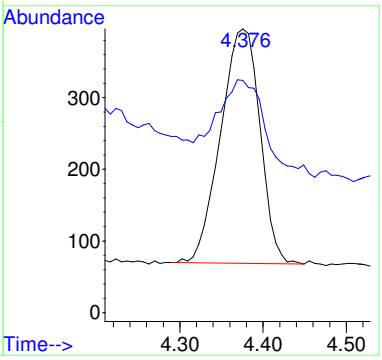

Before MI:
IMPROPER
BASELINE

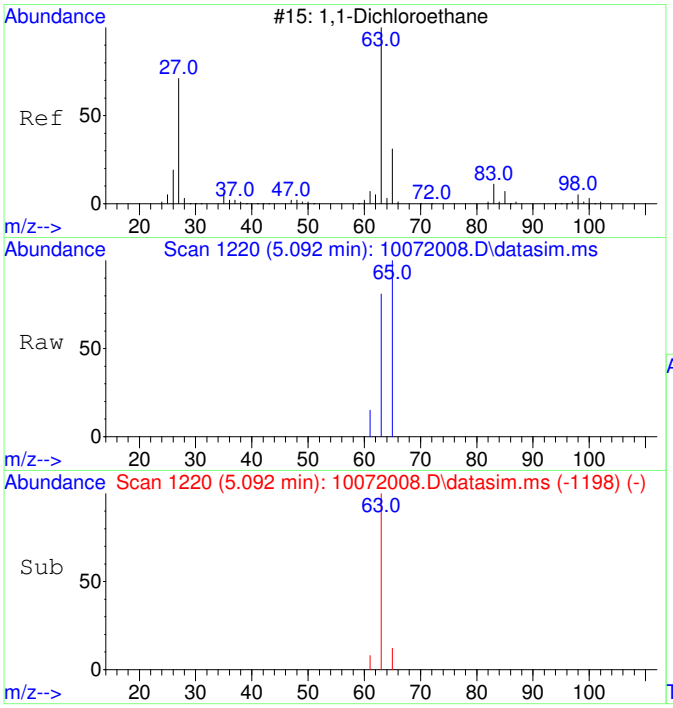



#3
trans-1,2-Dichloroethene
Concen: 54.36 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 53.3 | 2.4 | 62.4 |

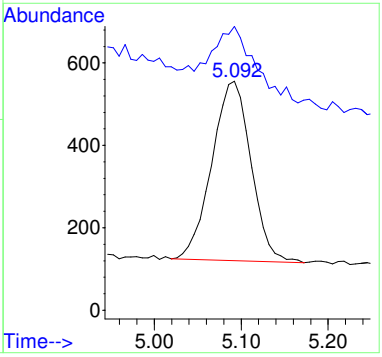


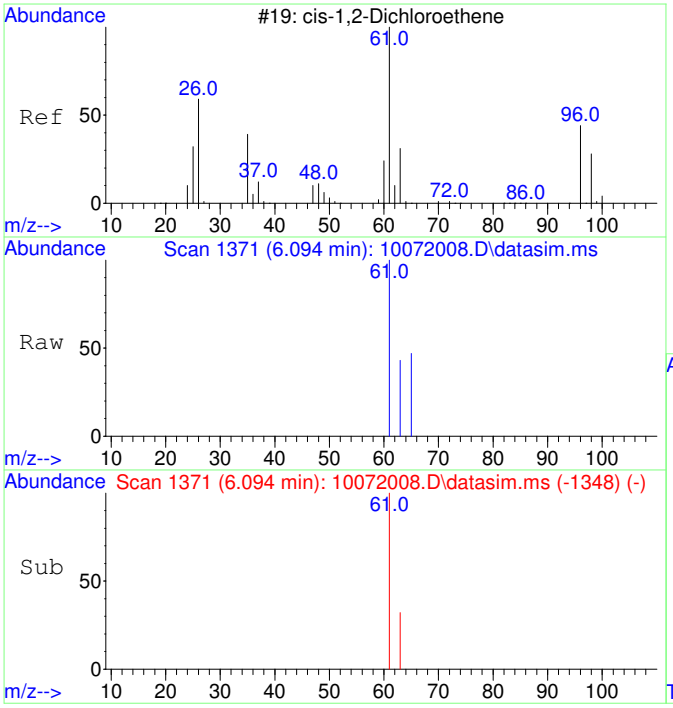




#4
1,1-Dichloroethane
Concen: 55.27 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 63 Resp: 1362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 55.7 | 1.8 | 61.8 |

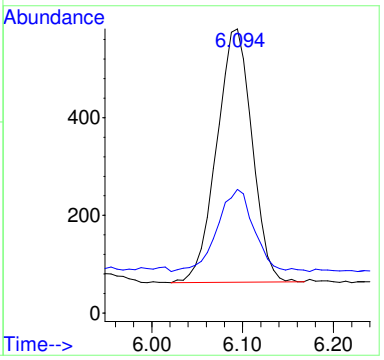


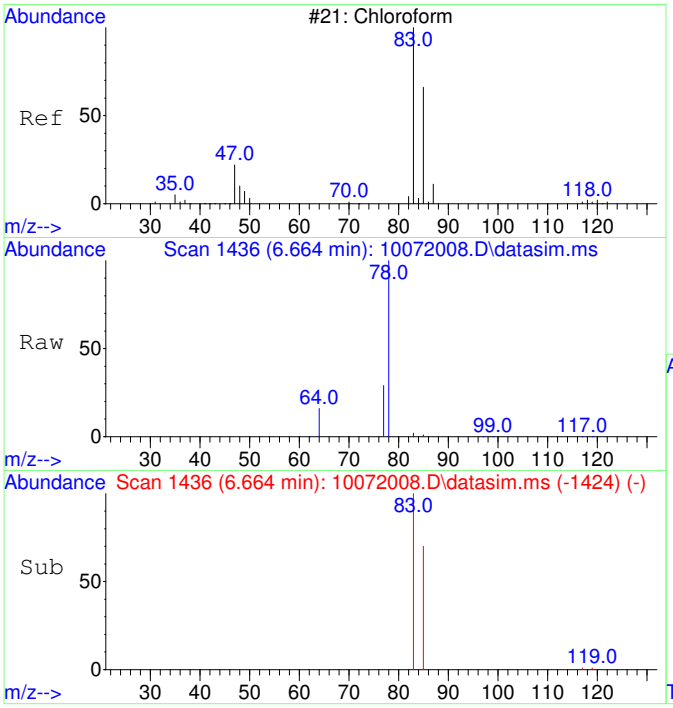



#5
cis-1,2-Dichloroethene
Concen: 53.98 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.2 | 2.5 | 62.5 |

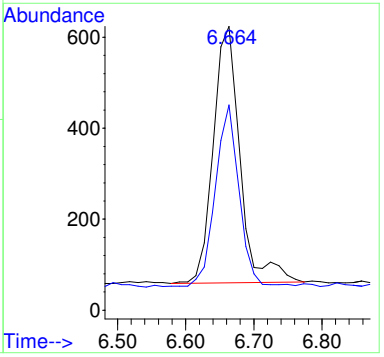


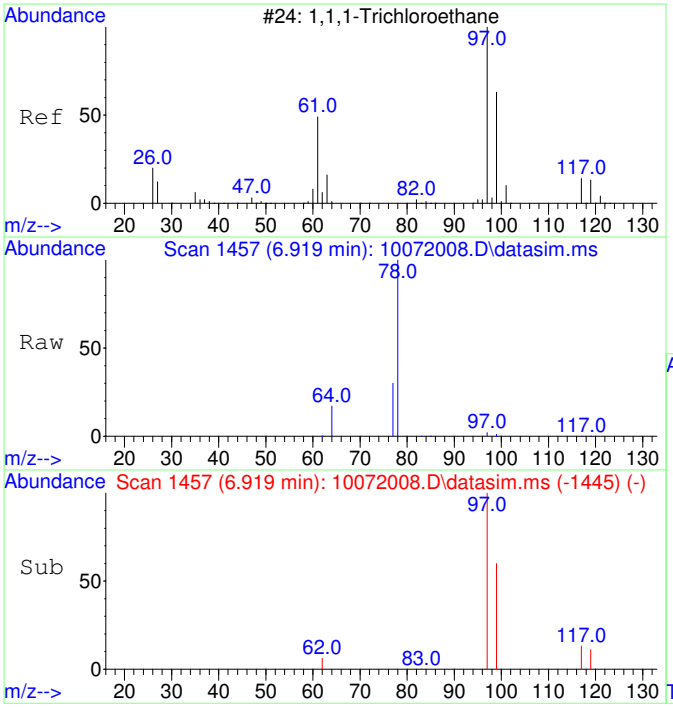




#6
Chloroform
Concen: 57.85 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 60.9 | 35.1 | 95.1 |

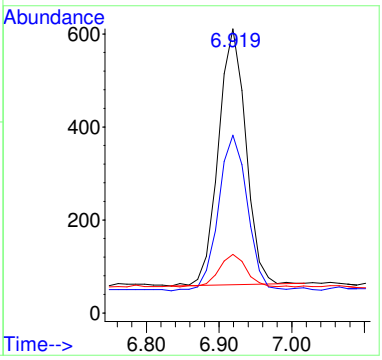


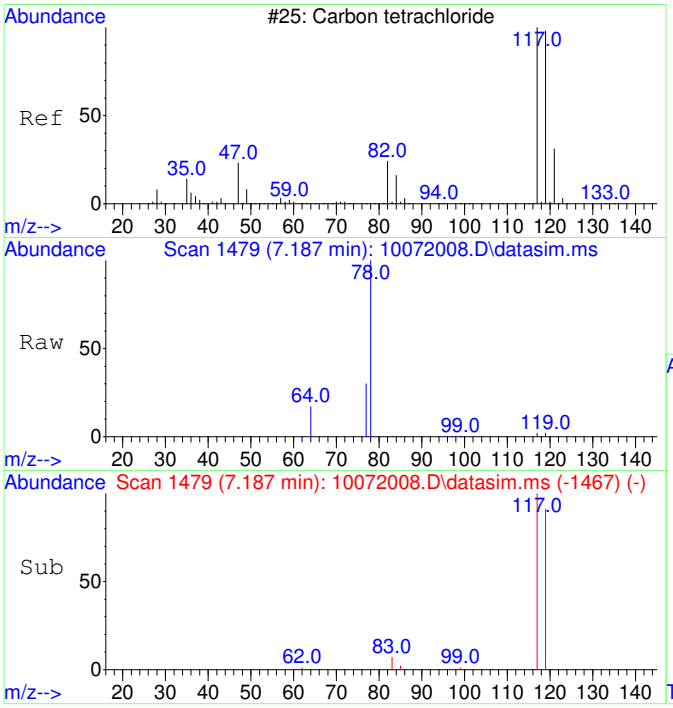



#7
1,1,1-Trichloroethane
Concen: 49.81 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.2 | 34.6 | 94.6 |
| 117 | 13.1 | 0.0 | 43.2 |

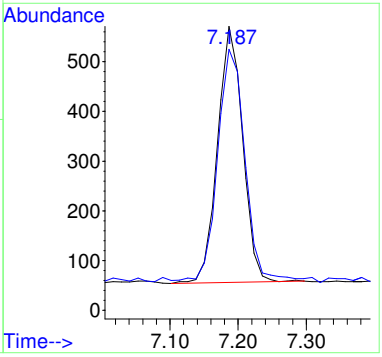


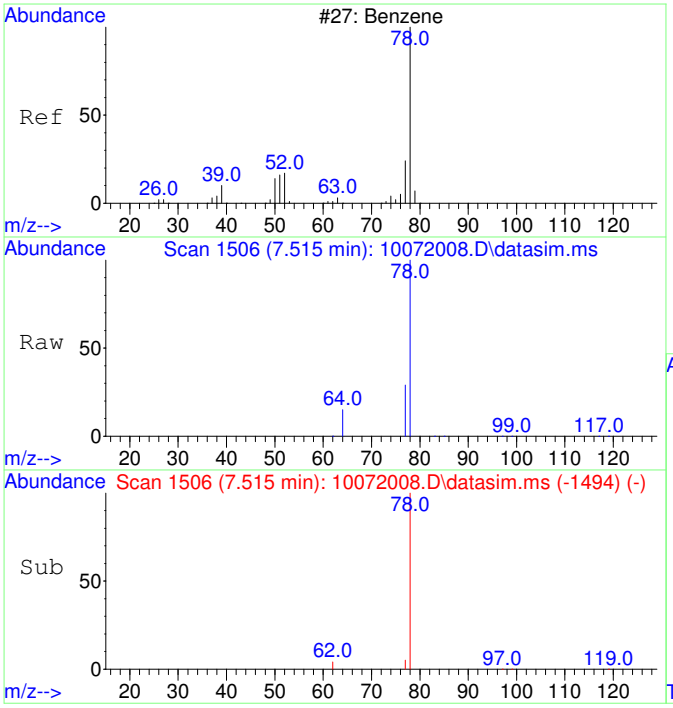




#8
Carbon tetrachloride
Concen: 48.29 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 1314

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

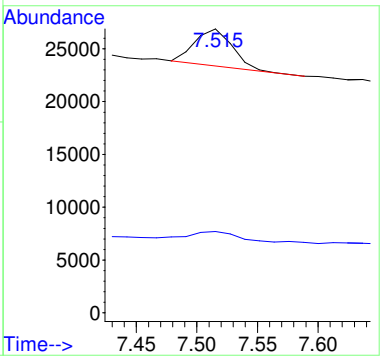


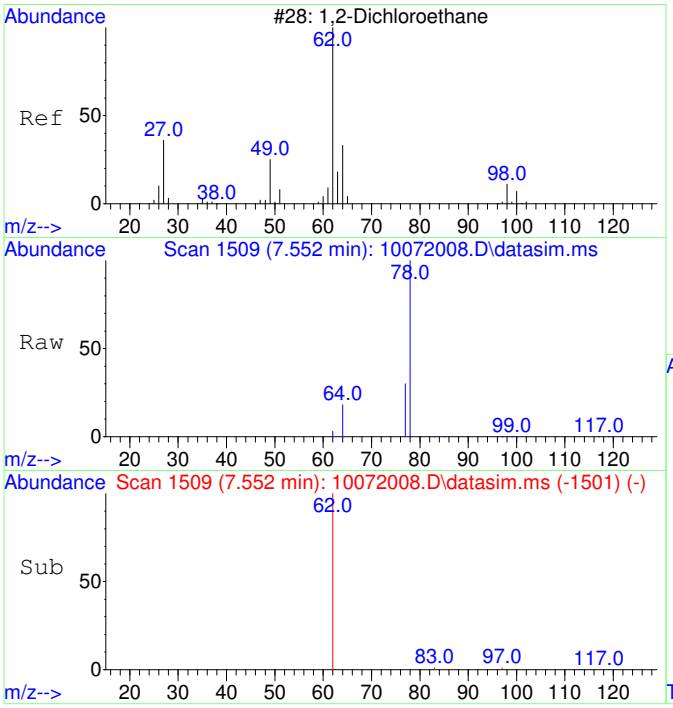



#9
Benzene
Concen: 96.59 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 7041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 56.6 | 0.0 | 53.2# |

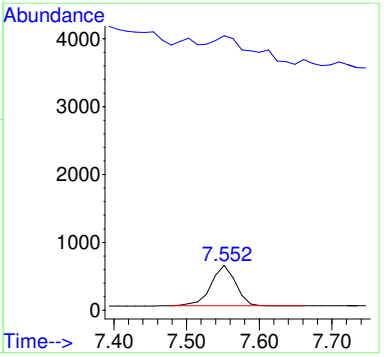


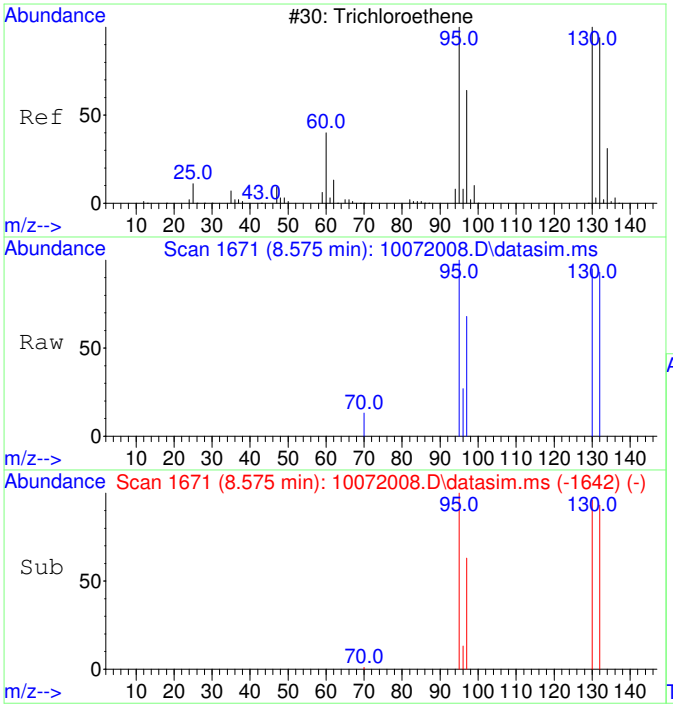




#10
1,2-Dichloroethane
Concen: 53.49 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1392

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 123.1 | 2.3 | 62.3# |

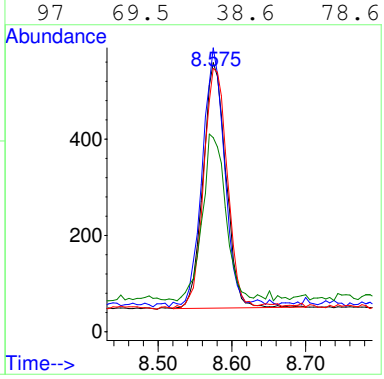


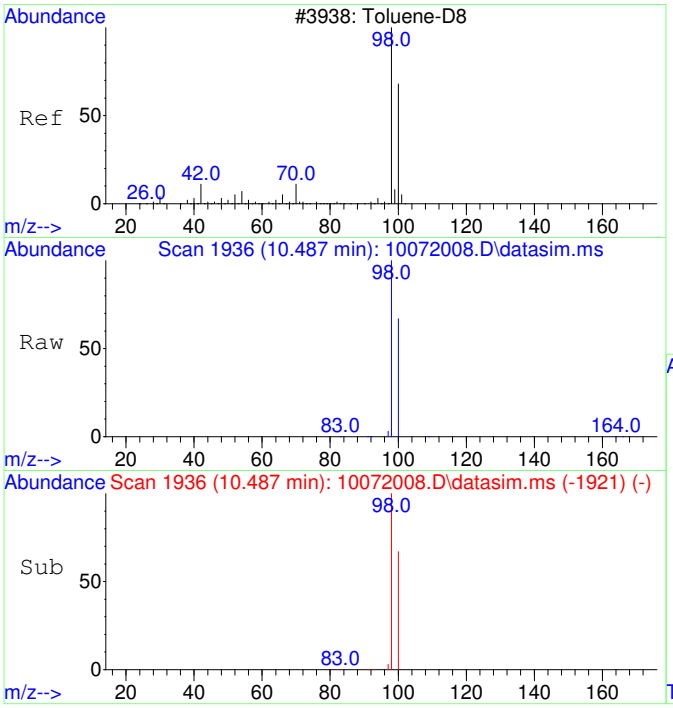



#11
Trichloroethene
Concen: 50.07 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 1099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.0 | 60.7 | 120.7 |
| 132 | 101.0 | 76.0 | 116.0 |
| 97 | 69.5 | 38.6 | 78.6 |

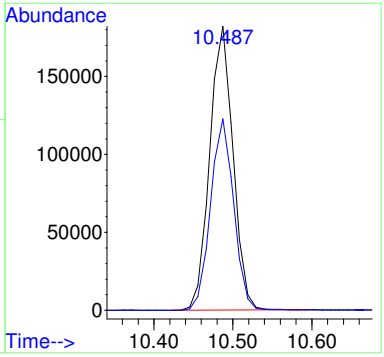


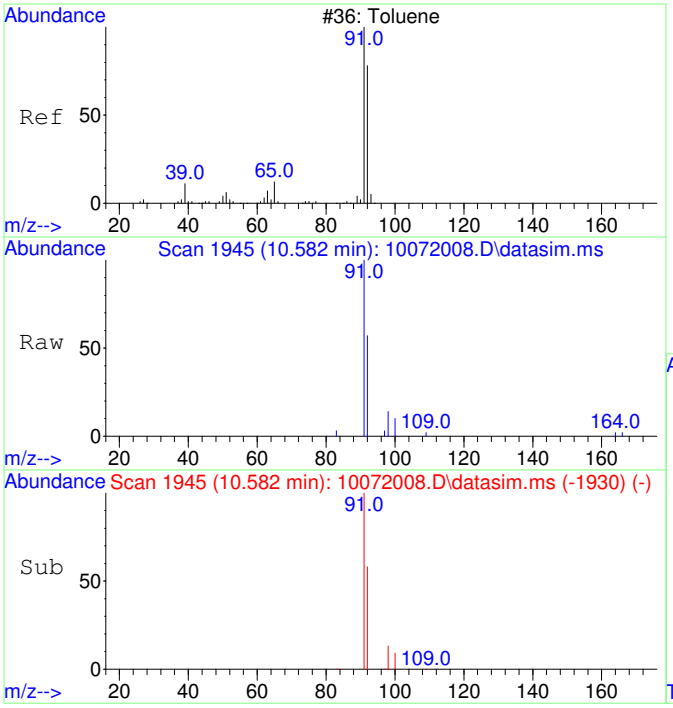




#12
Toluene-d8
Concen: 4449.27 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 373704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

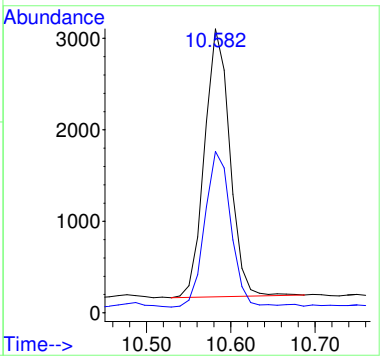


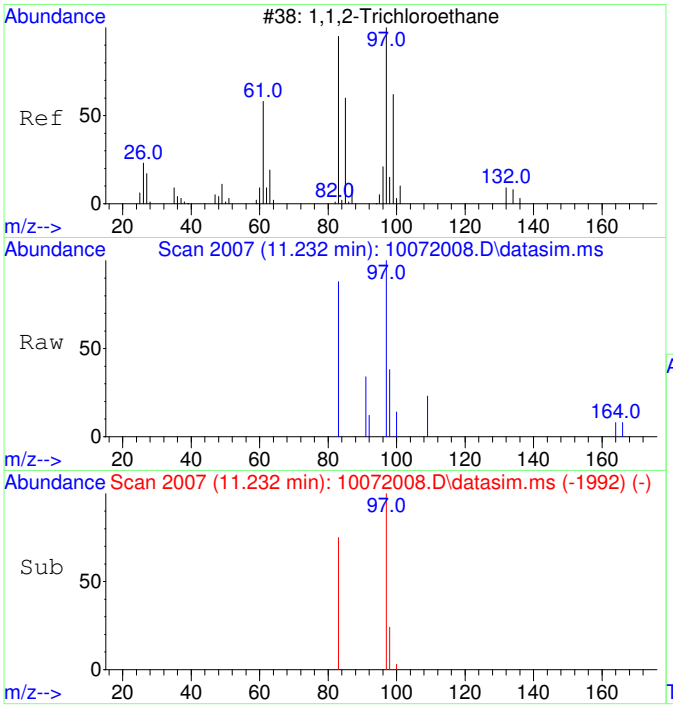



#13
Toluene
Concen: 57.16 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.9 | 29.9 | 89.9 |

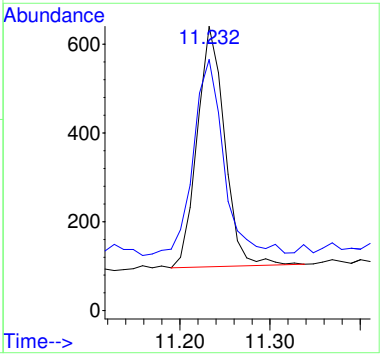


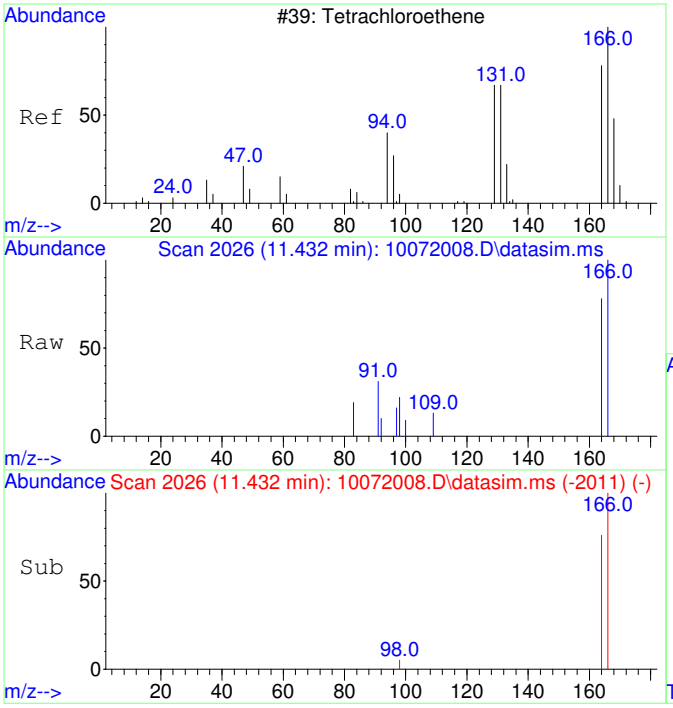




#14
1,1,2-Trichloroethane
Concen: 48.86 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 91.5 | 51.2 | 111.2 |

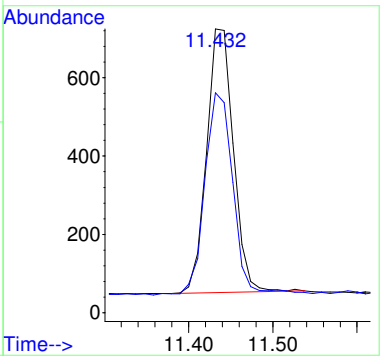


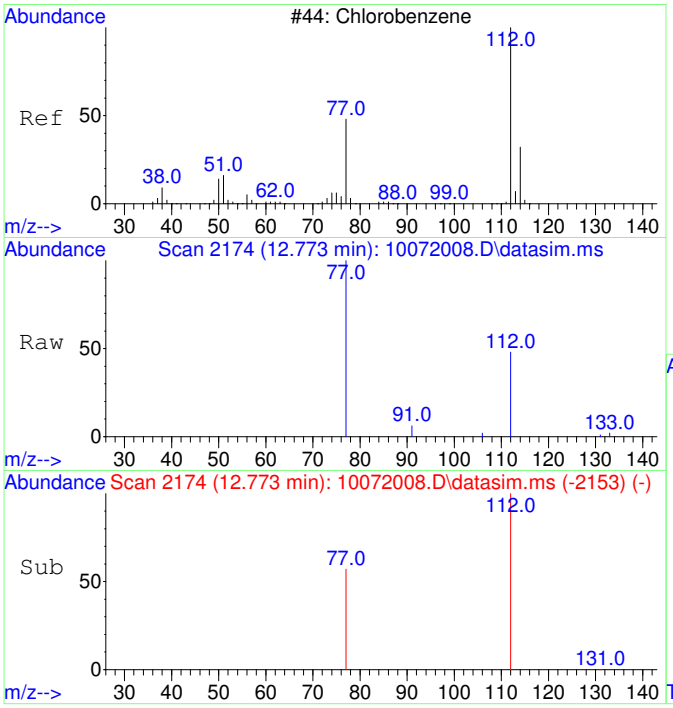



#15
Tetrachloroethene
Concen: 48.18 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 1493

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 47.8 | 107.8 |

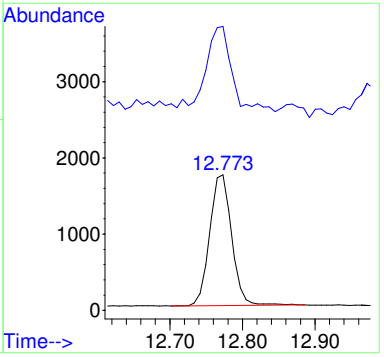


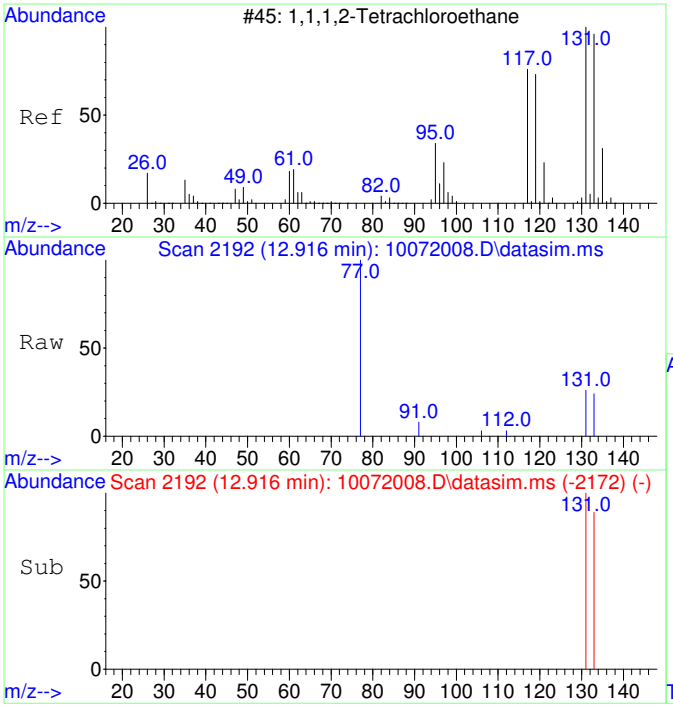




#16
Chlorobenzene
Concen: 47.28 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 3625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 77.2 | 23.6 | 83.6 |

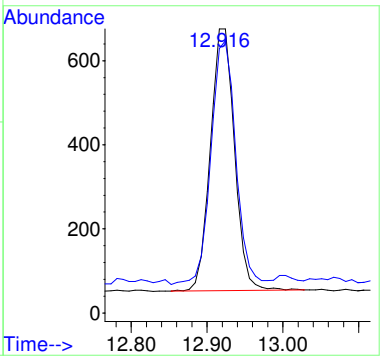


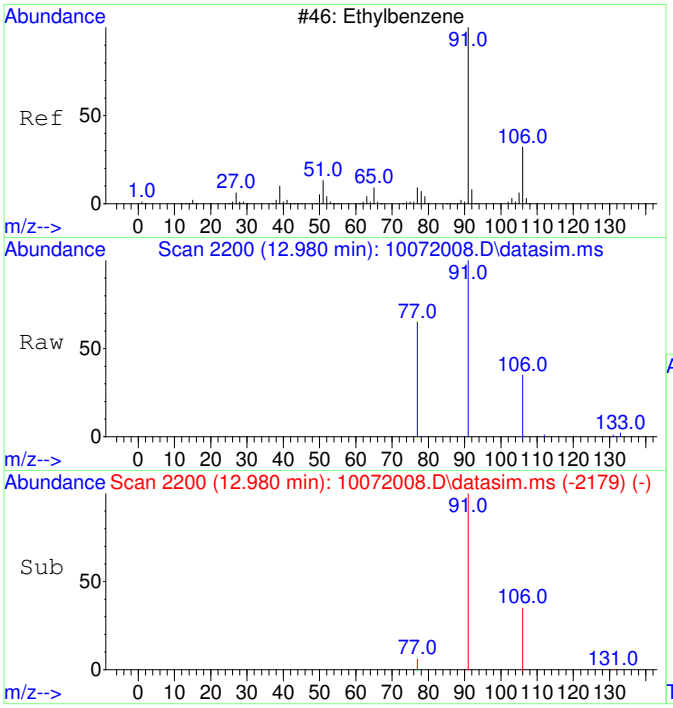



#17
1,1,1,2-Tetrachloroethane
Concen: 50.05 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 1375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.3 | 66.3 | 126.3 |

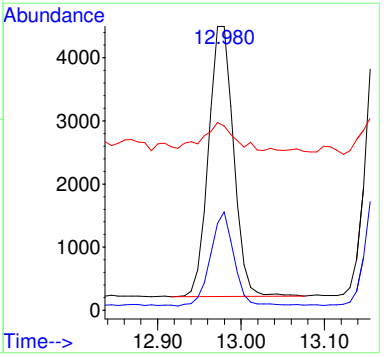


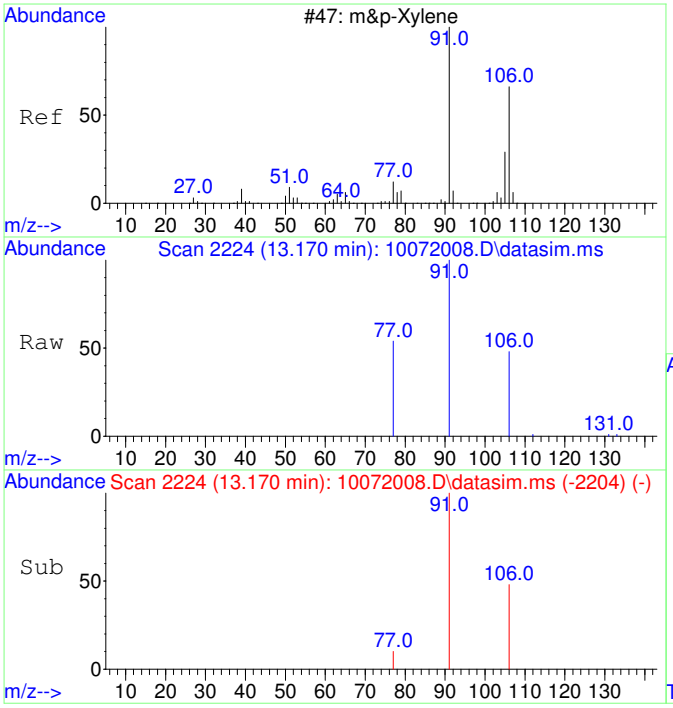




#18
Ethylbenzene
Concen: 68.44 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 8921

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.1 | 3.0 | 63.0 |
| 77 | 13.4 | 0.0 | 38.2 |

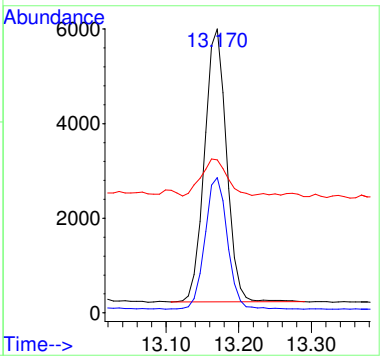


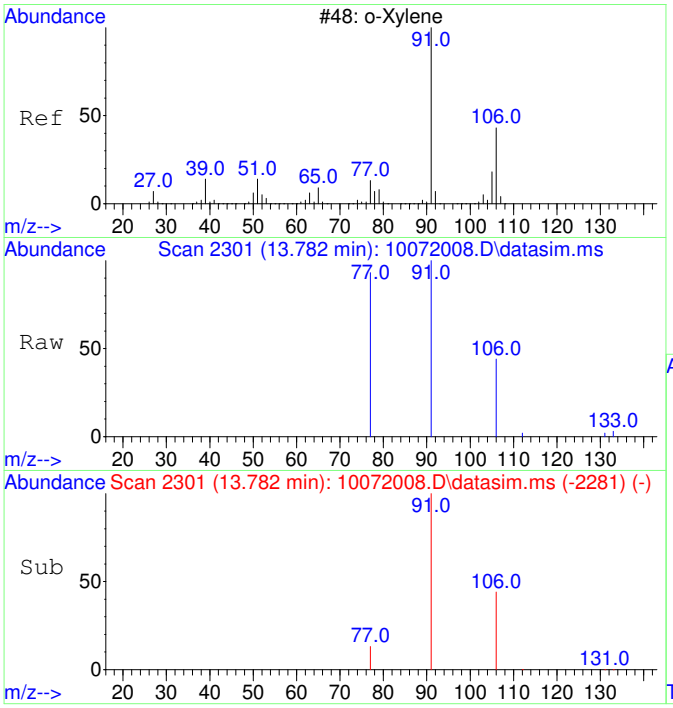



#19
m&p-Xylene
Concen: 119.48 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 12171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.3 | 22.2 | 82.2 |
| 77 | 15.8 | 0.0 | 42.4 |

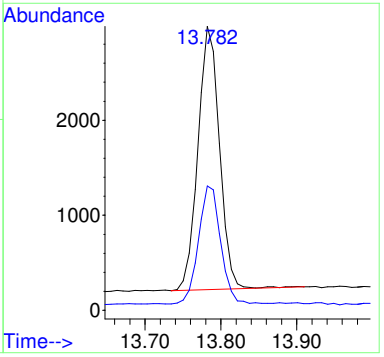


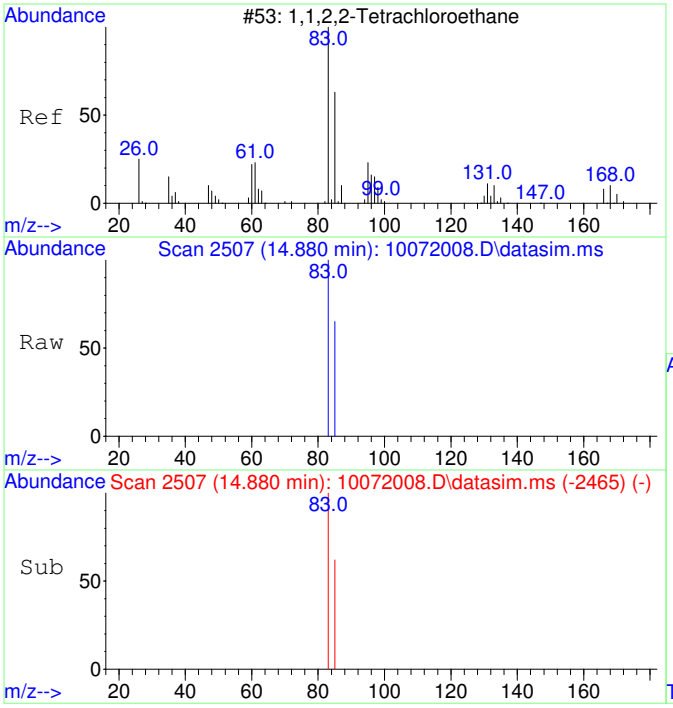




#20
o-Xylene
Concen: 50.12 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 5455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 19.2 | 79.2 |

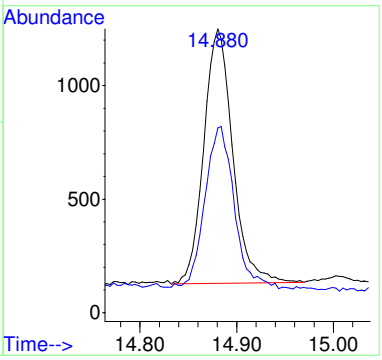


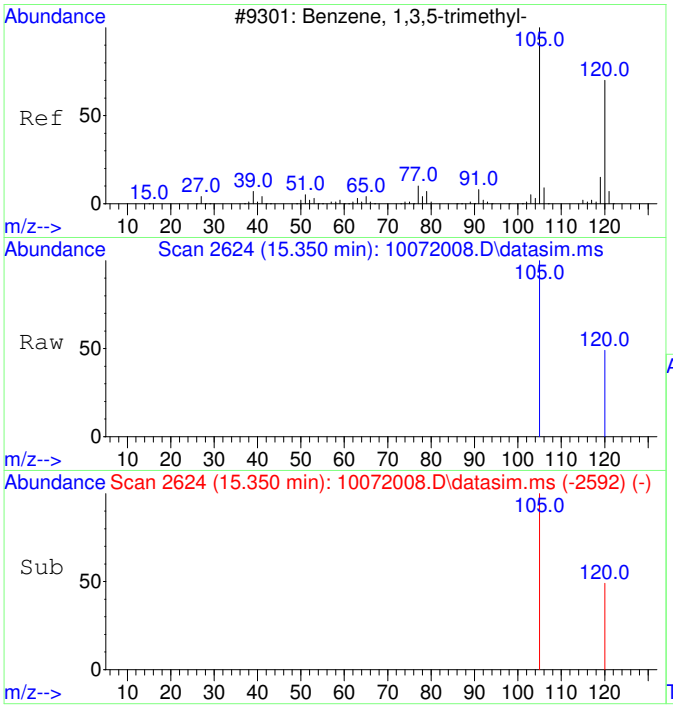



#21
1,1,2,2-Tetrachloroethane
Concen: 48.49 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 2339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.0 | 34.8 | 94.8 |

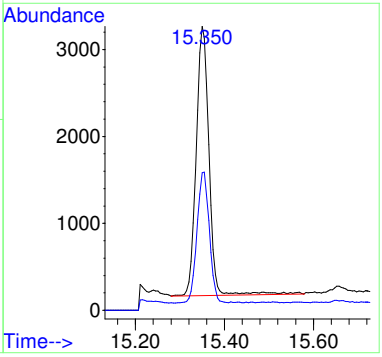


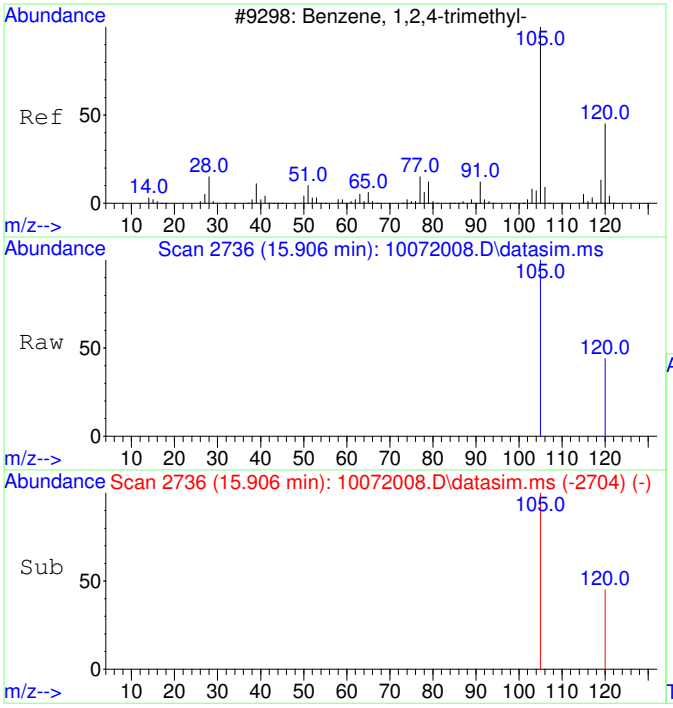




#22
1,3,5-Trimethylbenzene
Concen: 53.49 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.6 | 21.1 | 81.1 |

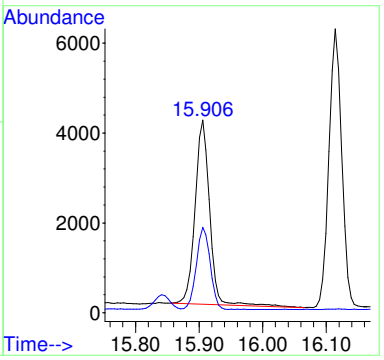


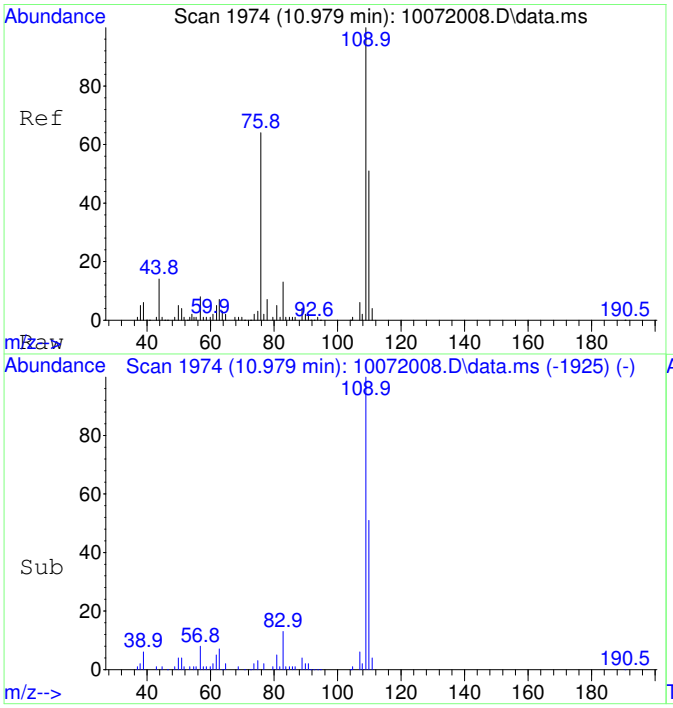



#23
1,2,4-Trimethylbenzene
Concen: 53.91 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6487

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.9 | 17.2 | 77.2 |

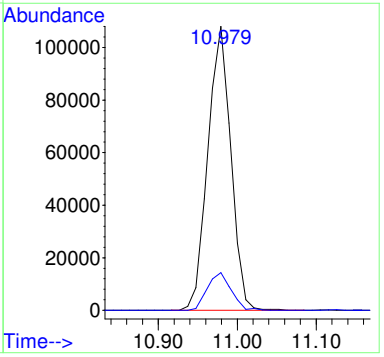


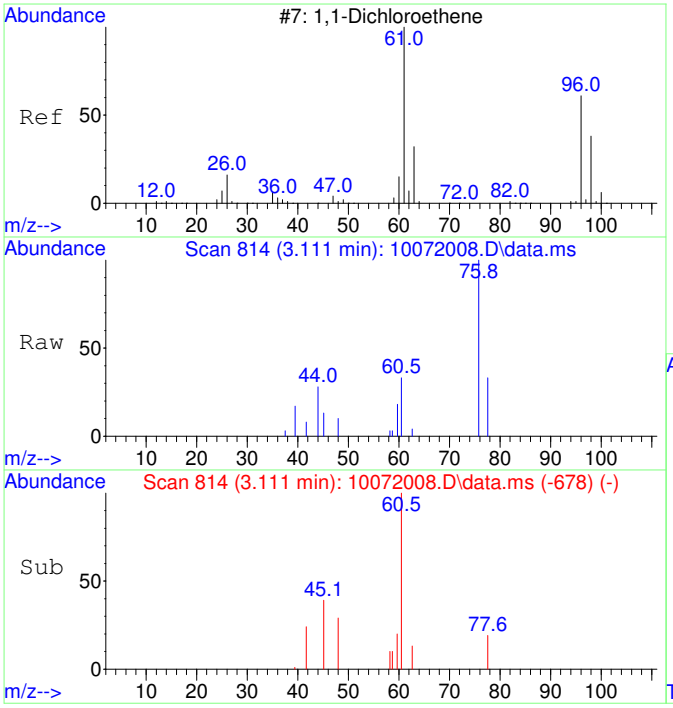




#25
2-Fluorotoluene SCAN
Concen: 5237.71 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 219067

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 43.8 |

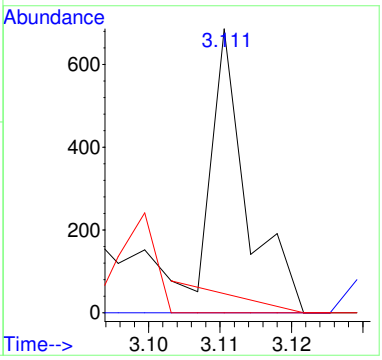


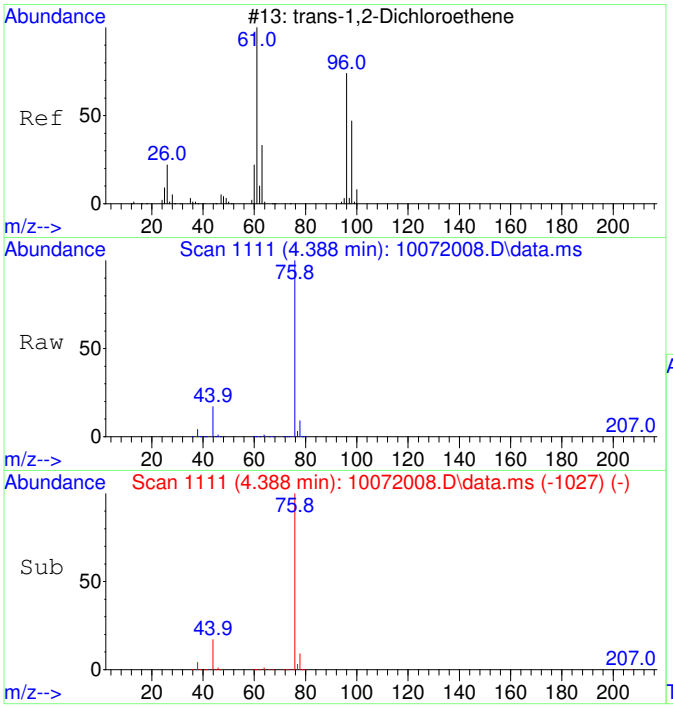



#26
1,1-Dichloroethene SCAN
Concen: 21.95 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 43.1 | 11.2 | 71.2 |

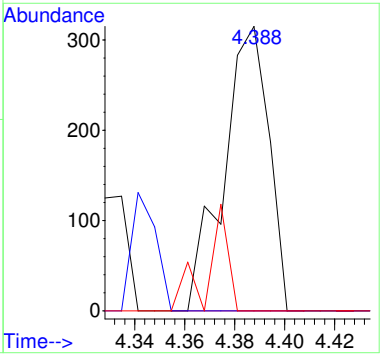


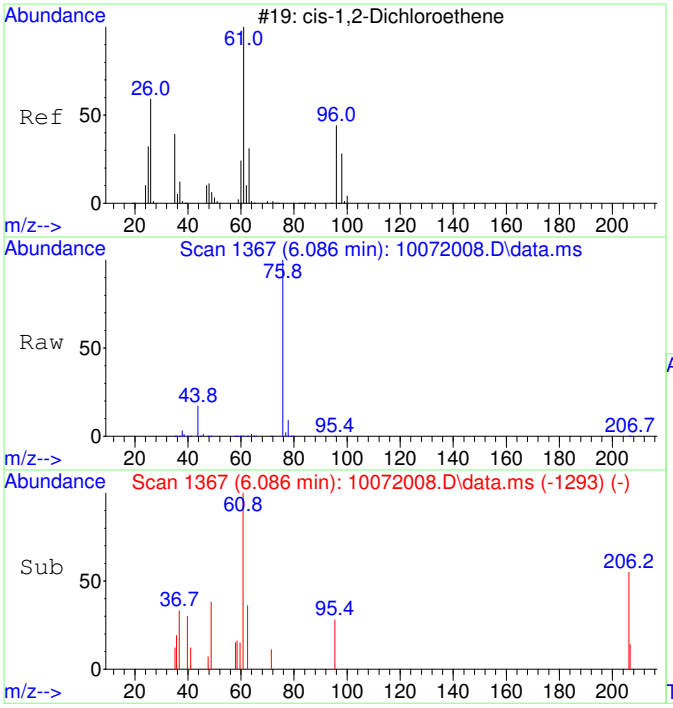




#27
trans-1,2-Dichloroethene SCAN
Concen: 36.12 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 17.1 | 20.5 | 80.5# |

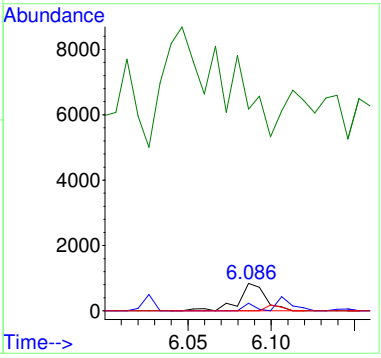


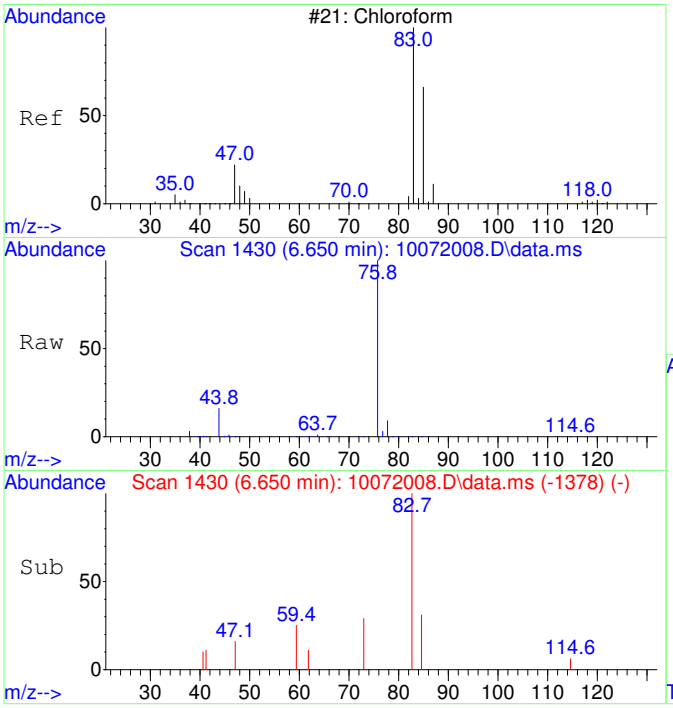



#29
cis-1,2-Dichloroethene SCAN
Concen: 68.61 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 12.1 | 39.9 | 99.9# |
| 98 | 0.0 | 13.5 | 73.5# |
| 64 | 0.0 | 4.5 | 64.5# |

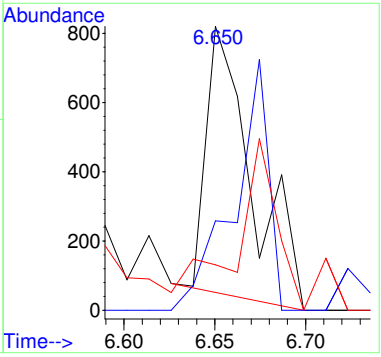


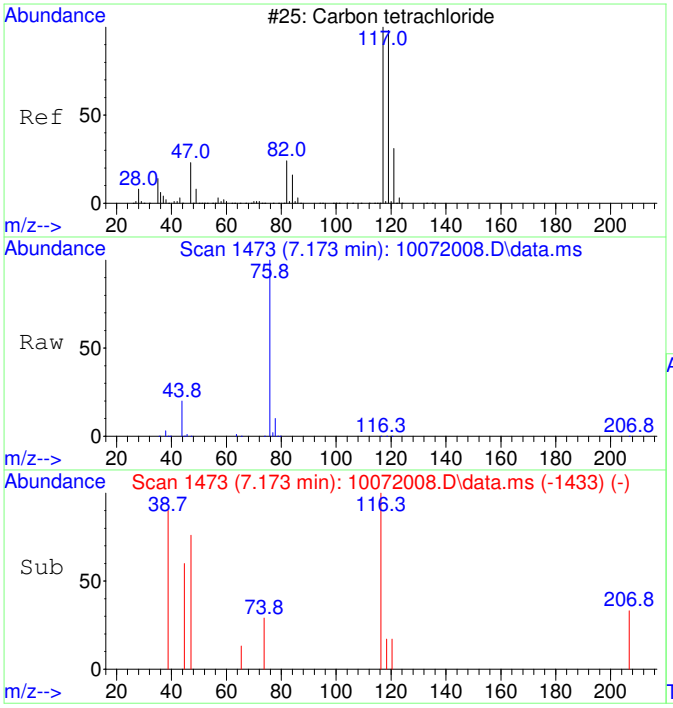




#30
Chloroform SCAN
Concen: 89.70 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1326

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

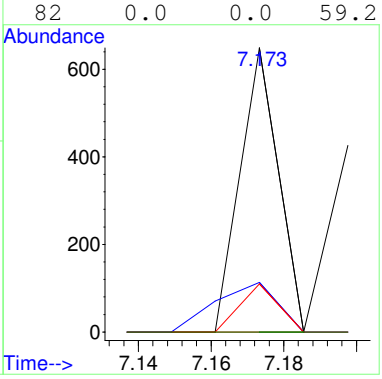


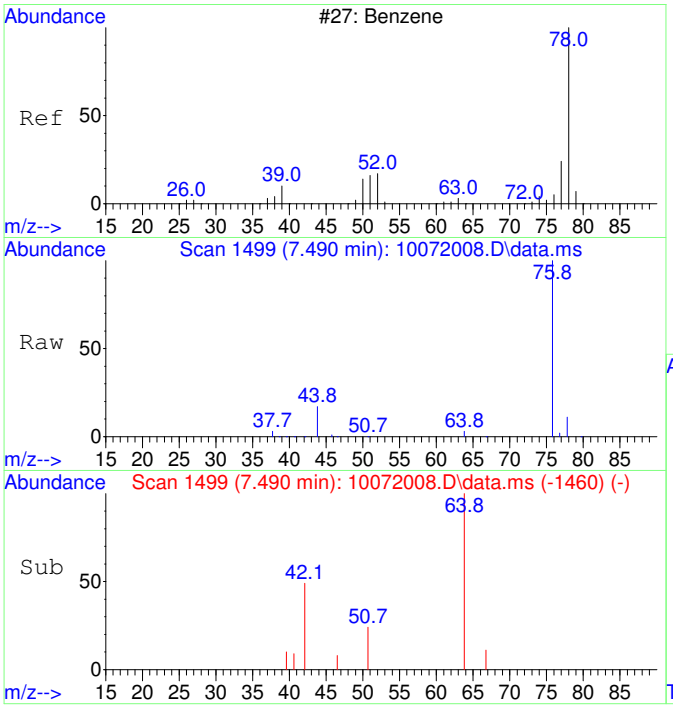



#32
Carbon tetrachloride SCAN
Concen: 33.73 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 28.3 | 75.5 | 135.5# |
| 121 | 16.9 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

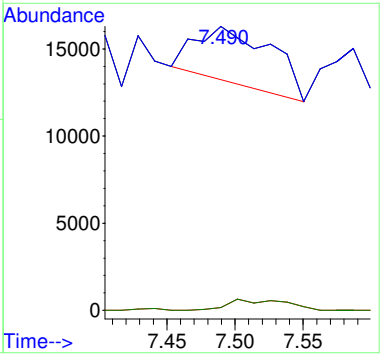


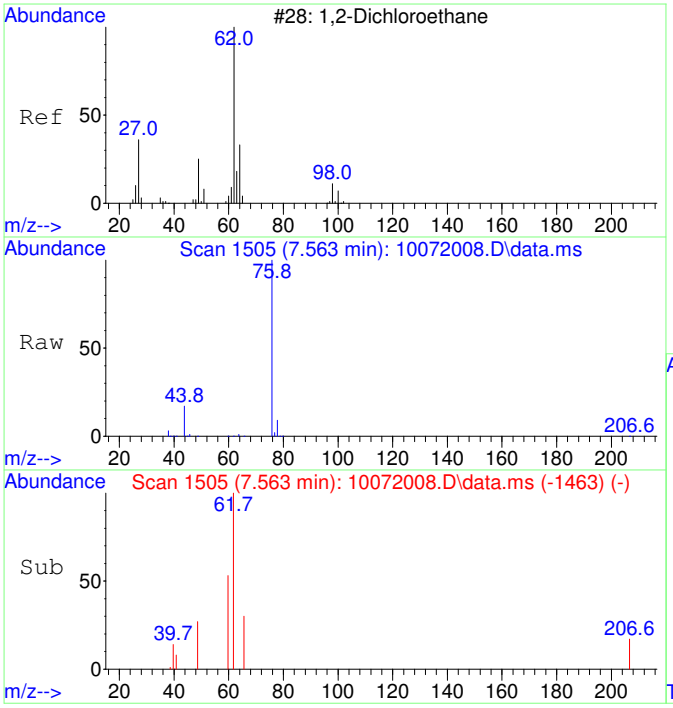




#33
Benzene SCAN
Concen: 315.80 ug/L
RT: 7.490 min Scan# 1499
Delta R.T. -0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 11713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 15.6 | 0.0 | 47.9 |
| 51 | 15.6 | 0.0 | 44.1 |

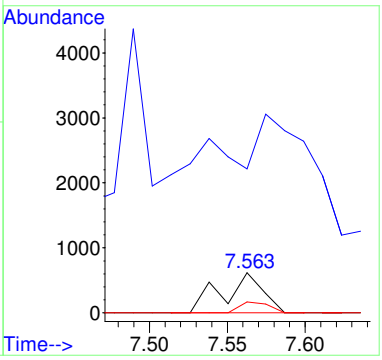


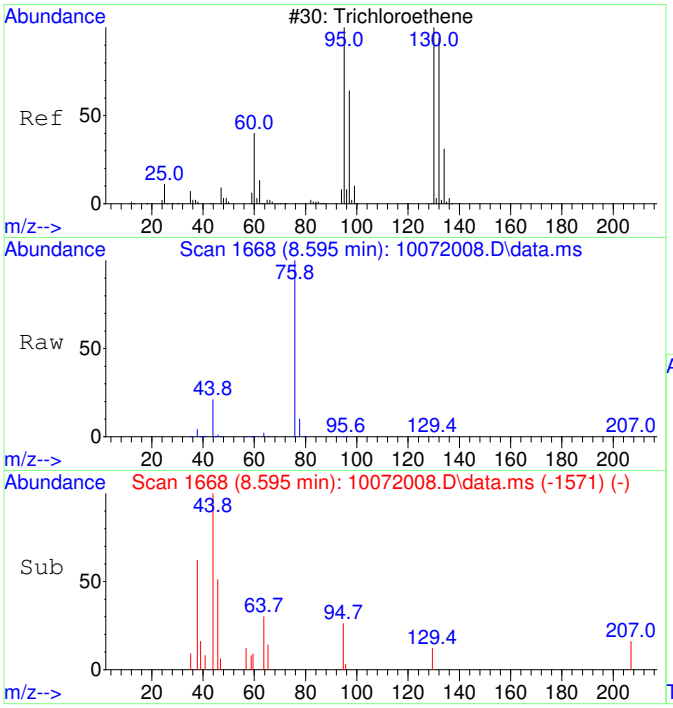



#34
1,2-Dichloroethane SCAN
Concen: 81.41 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 214.3 | 5.2 | 65.2# |
| 49 | 19.7 | 3.9 | 63.9 |

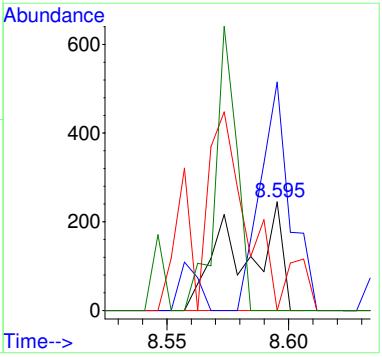


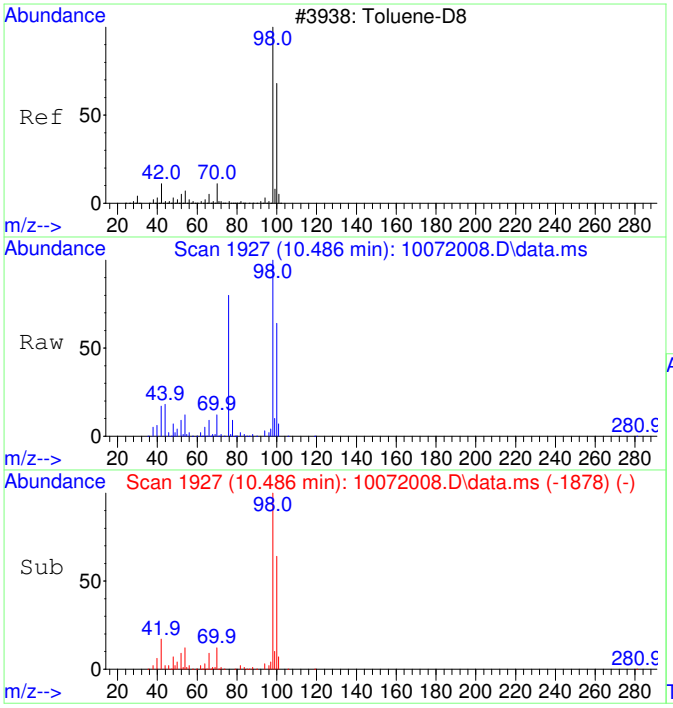




#35
Trichloroethene SCAN
Concen: 29.73 ug/L
RT: 8.595 min Scan# 1668
Delta R.T. 0.027 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 146.2 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 0.0 | 28.2 | 88.2# |

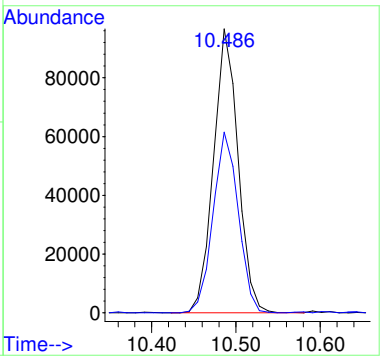


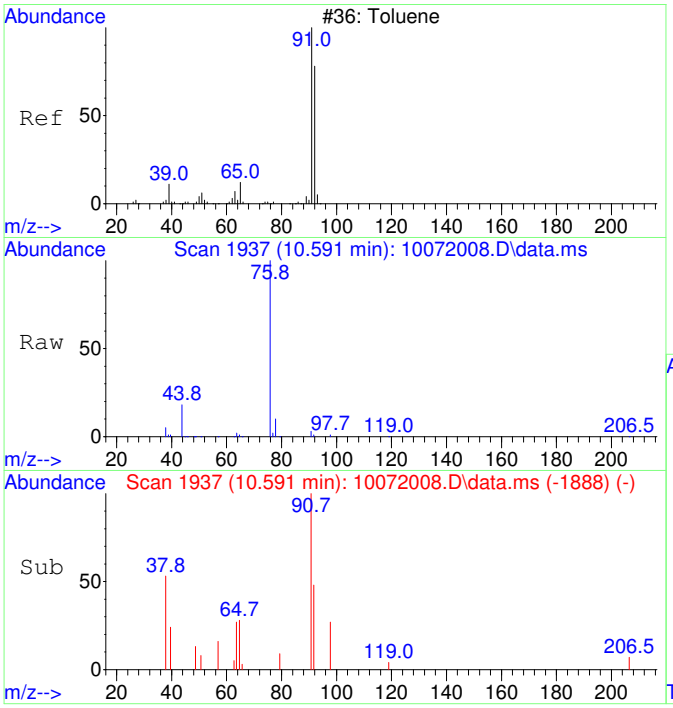



#36
Toluene-d8 SCAN
Concen: 4799.32 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 196309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.2 | 40.0 | 100.0 |

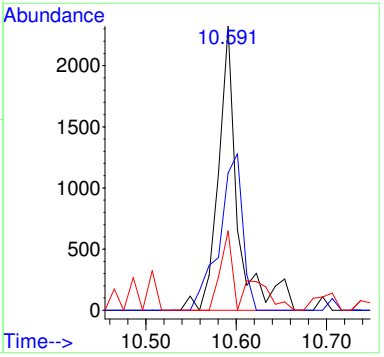


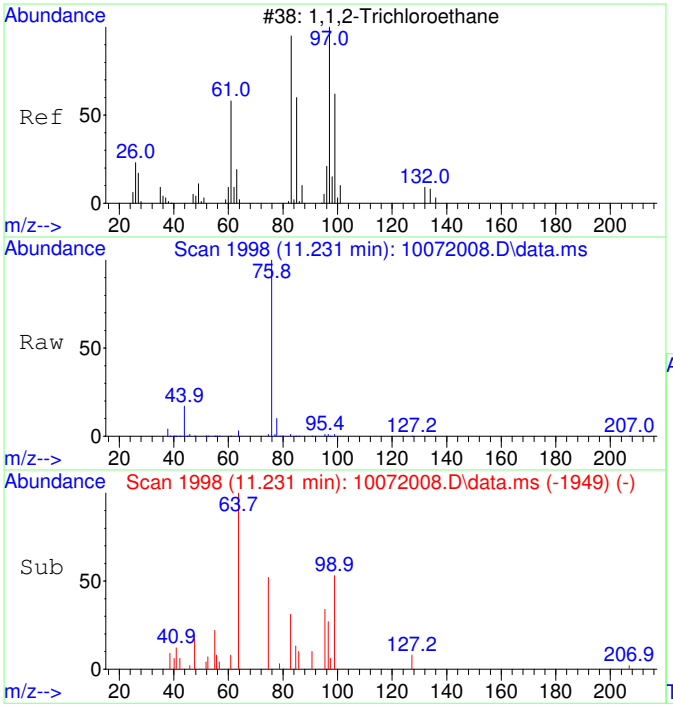




#37
Toluene SCAN
Concen: 66.40 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 3478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.1 | 28.3 | 88.3 |
| 65 | 30.9 | 0.0 | 41.0 |

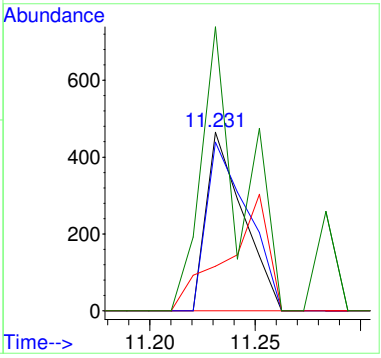


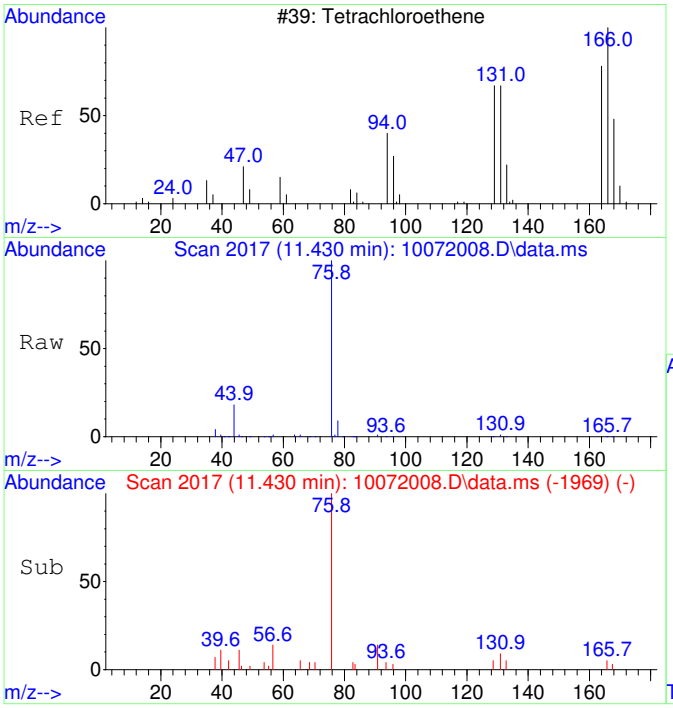



#38
1,1,2-Trichloroethane SCAN
Concen: 48.14 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 566

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 105.8 | 57.7 | 117.7 |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 171.4 | 36.7 | 96.7# |

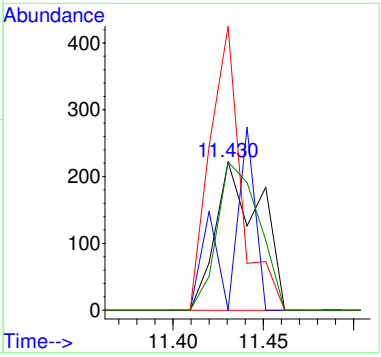


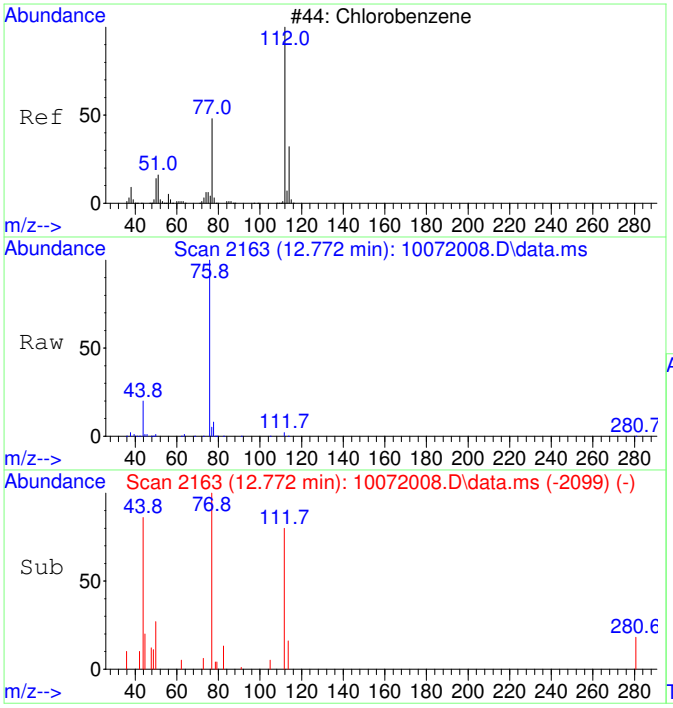




#39
Tetrachloroethene SCAN
Concen: 30.19 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 70.0 | 50.9 | 110.9 |
| 131 | 134.7 | 38.7 | 98.7# |
| 129 | 94.2 | 41.8 | 101.8 |

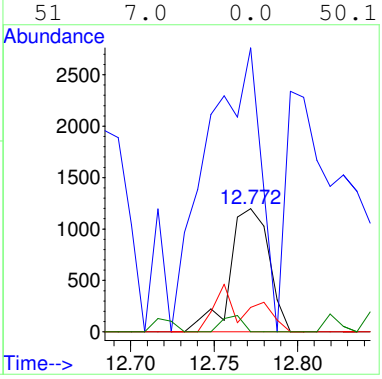


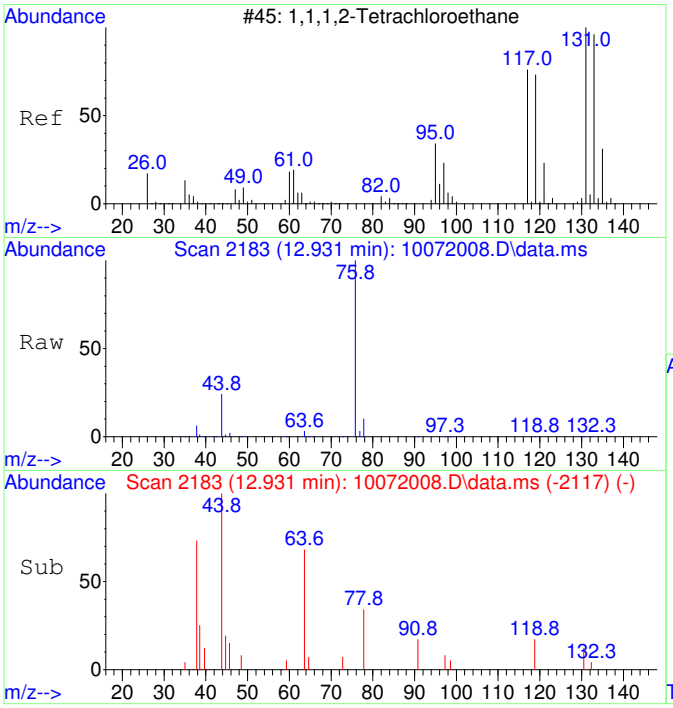



#40
Chlorobenzene SCAN
Concen: 54.53 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 1952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 346.4 | 28.2 | 88.2# |
| 114 | 33.8 | 2.3 | 62.3 |
| 51 | 7.0 | 0.0 | 50.1 |

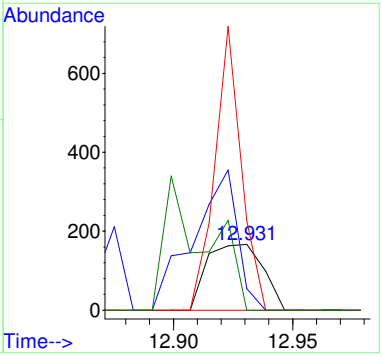


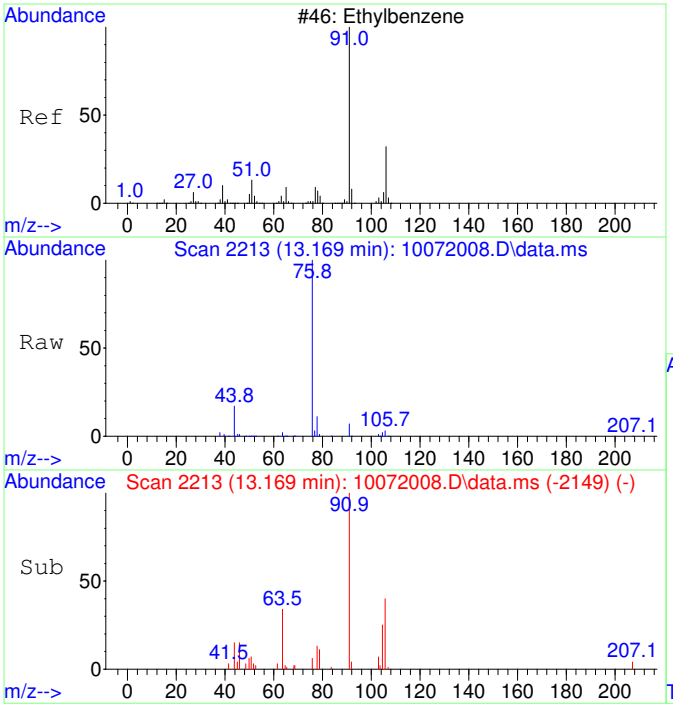




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.61 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 167.8 | 66.9 | 126.9# |
| 119 | 203.7 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

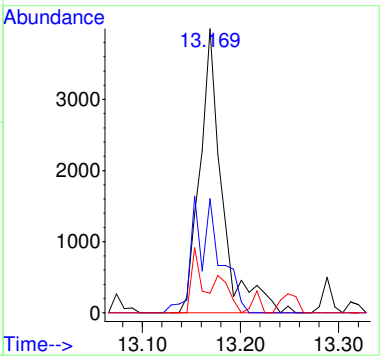


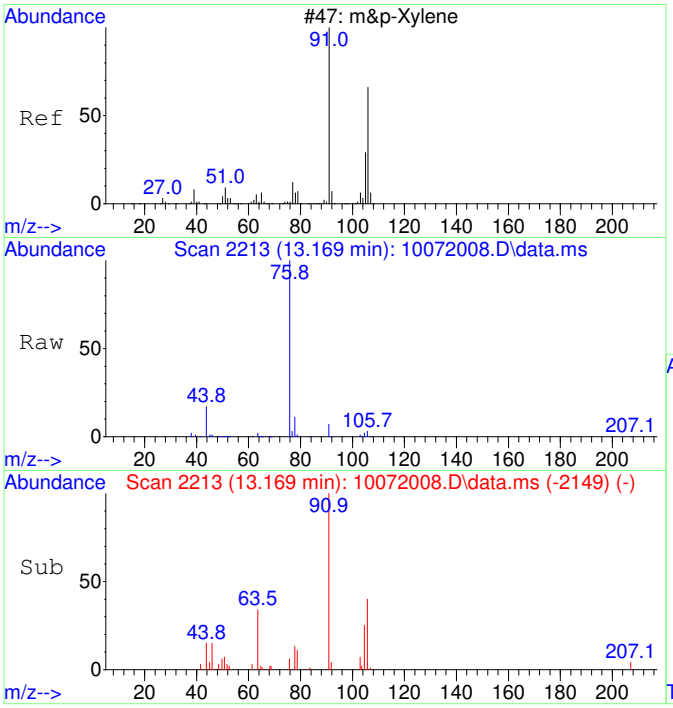



#42
Ethylbenzene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 51 | 4.3 | 0.0 | 40.1 |

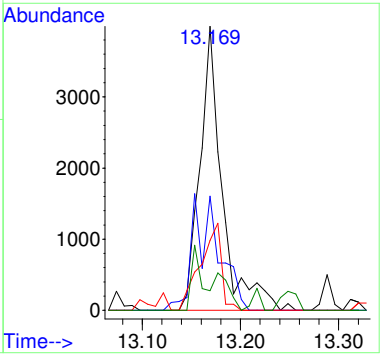


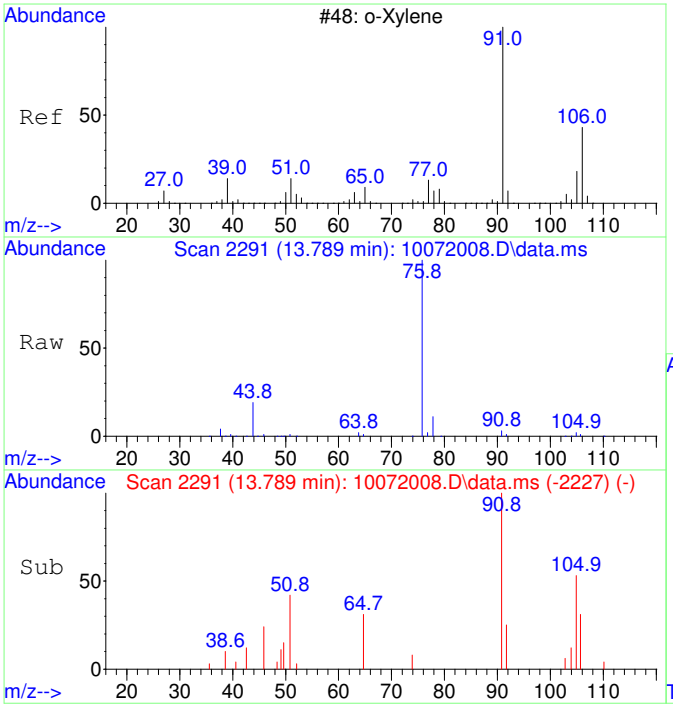




#43
m&p-Xylene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 105 | 29.0 | 0.0 | 54.7 |
| 51 | 4.3 | 0.0 | 40.1 |

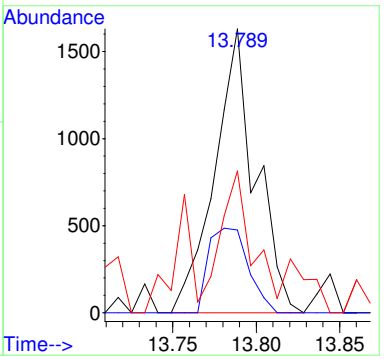


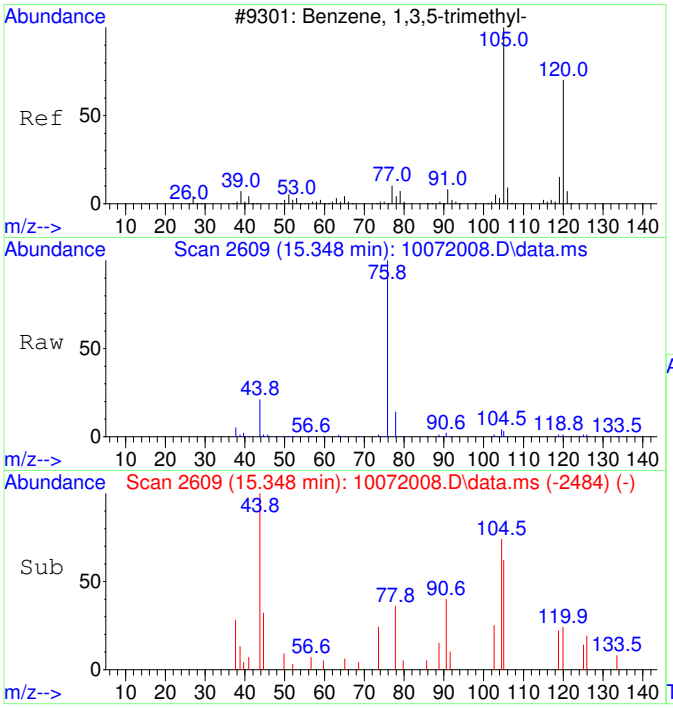



#44
o-Xylene SCAN
Concen: 54.40 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 2779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.1 | 18.0 | 78.0 |
| 105 | 32.0 | 0.0 | 56.6 |

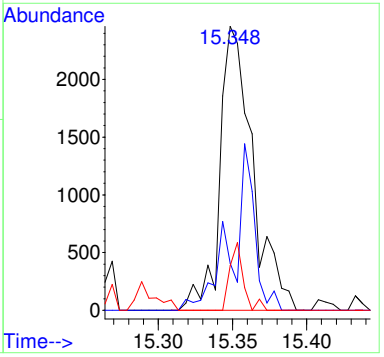


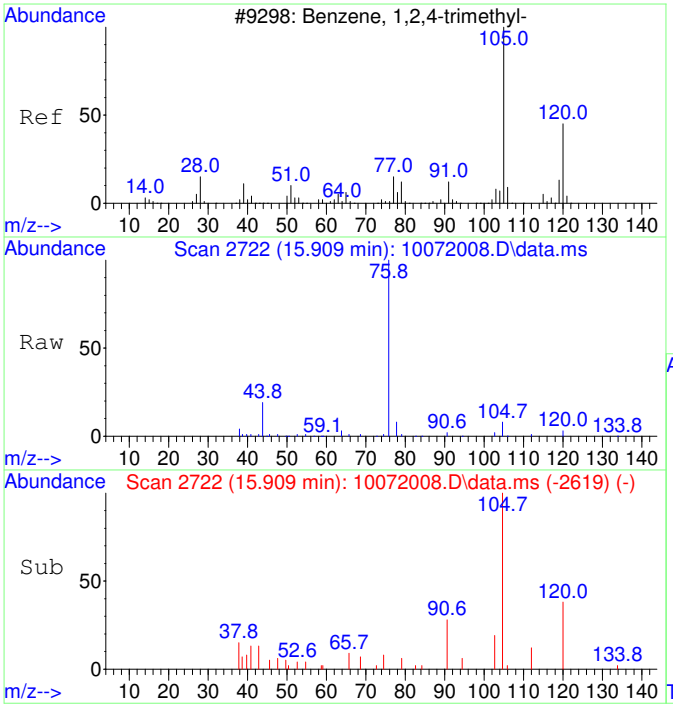




#46
1,3,5-Trimethylbenzene SCAN
Concen: 70.18 ug/L
RT: 15.348 min Scan# 2609
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3778

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.0 | 18.3 | 78.3 |
| 119 | 10.0 | 0.0 | 43.1 |

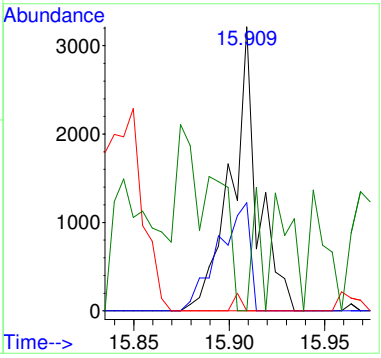





#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.37 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.5 | 16.9 | 76.9 |
| 119 | 1.9 | 0.0 | 41.9 |
| 77 | 13.4 | 0.0 | 42.3 |



Quantitation Report (QT Reviewed)

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M.I. Performed By:
TD at 12:58 pm, Oct 07, 2020

M.I. Approved By:
ZR at 11:12 am, Oct 12, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

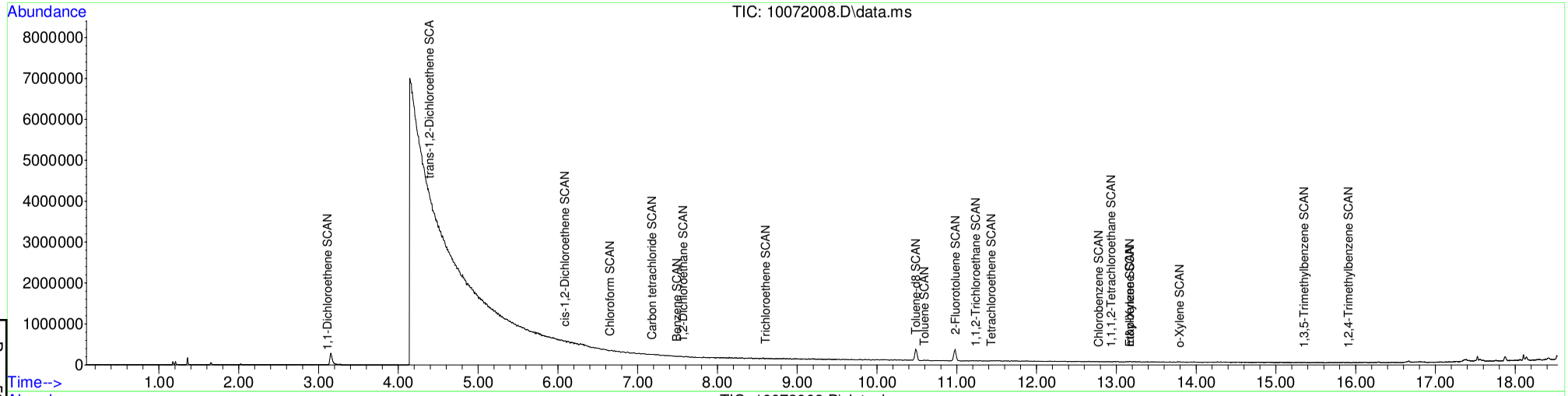
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 429055 | 5000.00 | ug/L | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 373704 | 4449.27 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 88.99% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 936m | 54.63 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1076 | 54.36 | ug/L | 63 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1362 | 55.27 | ug/L | 57 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1404 | 53.98 | ug/L | 99 |
| 6] Chloroform | 6.664 | 83 | 1540 | 57.85 | ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1440 | 49.81 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1314 | 48.29 | ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 7041 | 96.59 | ug/L # | 31 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1392 | 53.49 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1099 | 50.07 | ug/L | 90 |
| 13] Toluene | 10.582 | 91 | 6121 | 57.16 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1140 | 48.86 | ug/L | 88 |
| 15] Tetrachloroethene | 11.432 | 166 | 1493 | 48.18 | ug/L | 97 |
| 16] Chlorobenzene | 12.773 | 112 | 3625 | 47.28 | ug/L | 67 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1375 | 50.05 | ug/L | 99 |
| 18] Ethylbenzene | 12.980 | 91 | 8921 | 68.44 | ug/L | 96 |
| 19] m&p-Xylene | 13.170 | 91 | 12171 | 119.48 | ug/L | 95 |
| 20] o-Xylene | 13.782 | 91 | 5455 | 50.12 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2339 | 48.49 | ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 6196 | 53.49 | ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 6487 | 53.91 | ug/L | 92 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 219067 | 5237.71 | ug/L | 100 |
| 26) 1,1-Dichloroethene SCAN | 3.111 | 61 | 195 | 21.95 | ug/L # | 50 |
| 27) trans-1,2-Dichloroethe... | 4.388 | 61 | 397 | 36.12 | ug/L # | 26 |
| 29) cis-1,2-Dichloroethene... | 6.086 | 61 | 935 | 68.61 | ug/L # | 33 |
| 30) Chloroform SCAN | 6.650 | 83 | 1326 | 89.70 | ug/L # | 27 |
| 32) Carbon tetrachloride SCAN | 7.173 | 117 | 474 | 33.73 | ug/L # | 38 |
| 33) Benzene SCAN | 7.490 | 78 | 11713 | 315.80 | ug/L | 99 |
| 34) 1,2-Dichloroethane SCAN | 7.563 | 62 | 1115 | 81.41 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.595 | 130 | 303 | 29.73 | ug/L # | 23 |
| 36) Toluene-d8 SCAN | 10.486 | 98 | 196309 | 4799.32 | ug/L | 94 |
| 37) Toluene SCAN | 10.591 | 91 | 3478 | 66.40 | ug/L | 83 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 566 | 48.14 | ug/L # | 29 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 380 | 30.19 | ug/L # | 62 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 1952 | 54.53 | ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.931 | 131 | 273 | 20.61 | ug/L # | 1 |
| 42) Ethylbenzene SCAN | 13.169 | 91 | 6312 | 66.14 | ug/L # | 35 |
| 43) m&p-Xylene SCAN | 13.169 | 91 | 6312 | 66.14 | ug/L # | 51 |
| 44) o-Xylene SCAN | 13.789 | 91 | 2779 | 54.40 | ug/L | 78 |
| 46) 1,3,5-Trimethylbenzene... | 15.348 | 105 | 3778 | 70.18 | ug/L | 89 |
| 47) 1,2,4-Trimethylbenzene... | 15.909 | 105 | 3105 | 56.37 | ug/L | 94 |

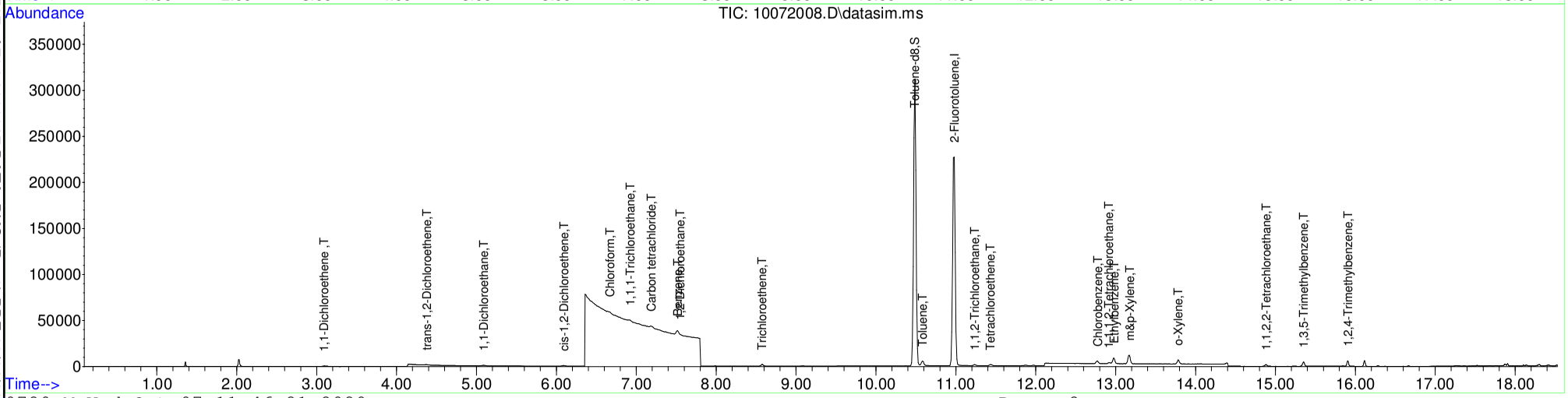
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072008.D
Acq On : 7 Oct 2020 11:06
InstName : AG5975C
Operator : TD
Sample : B20J006-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 11:24:51 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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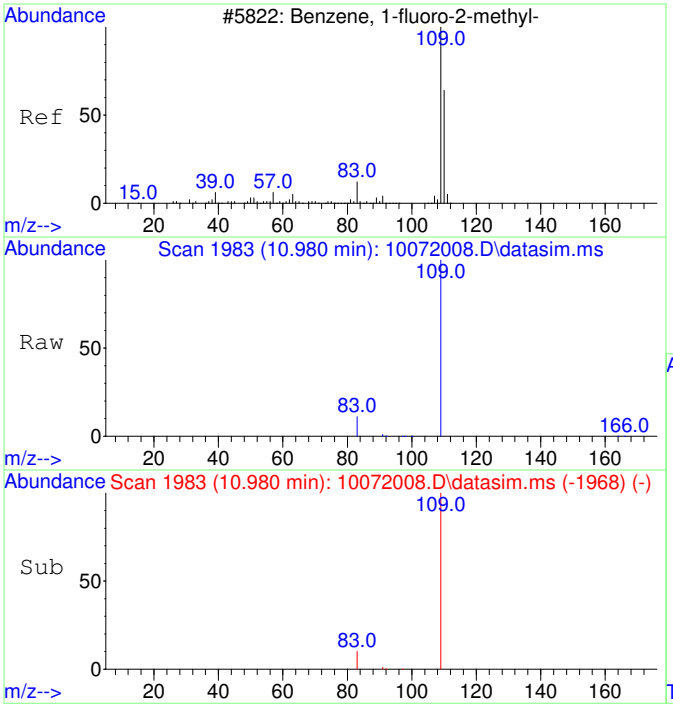
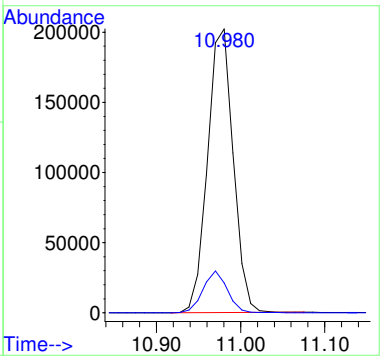
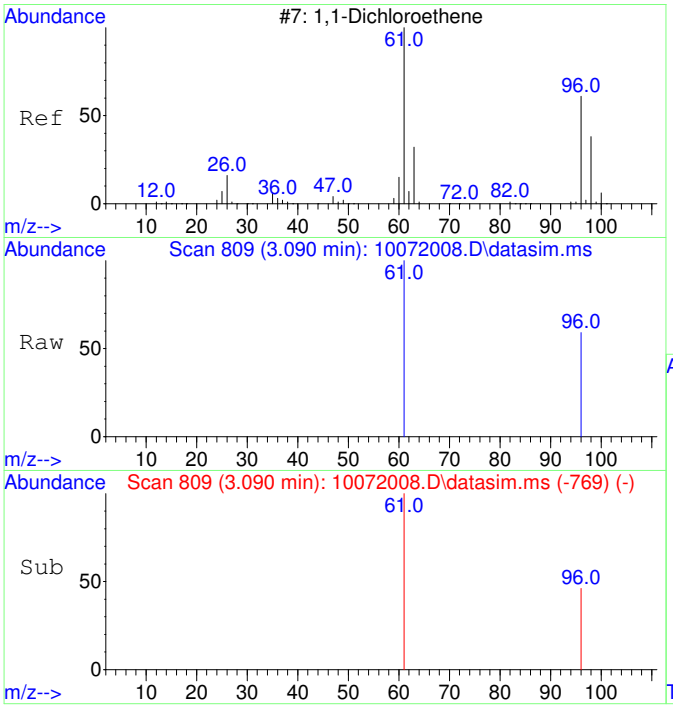



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 429055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

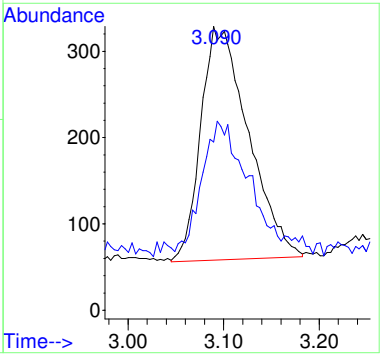


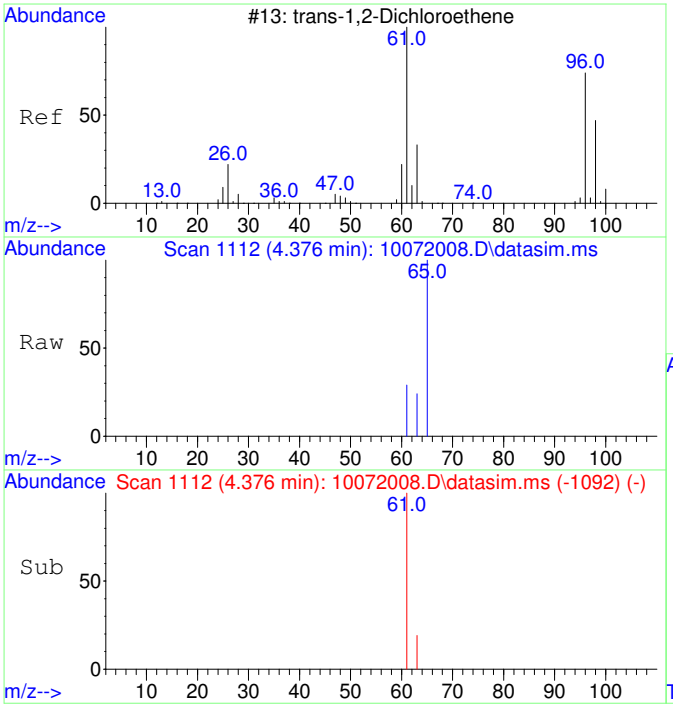




#2
1,1-Dichloroethene
Concen: 54.63 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 75.2 | 37.2 | 97.2 |

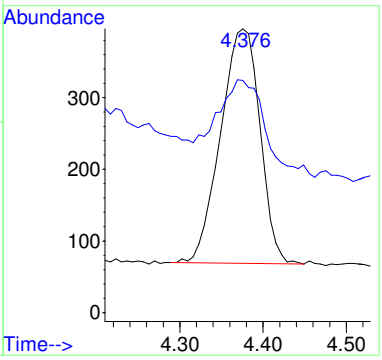


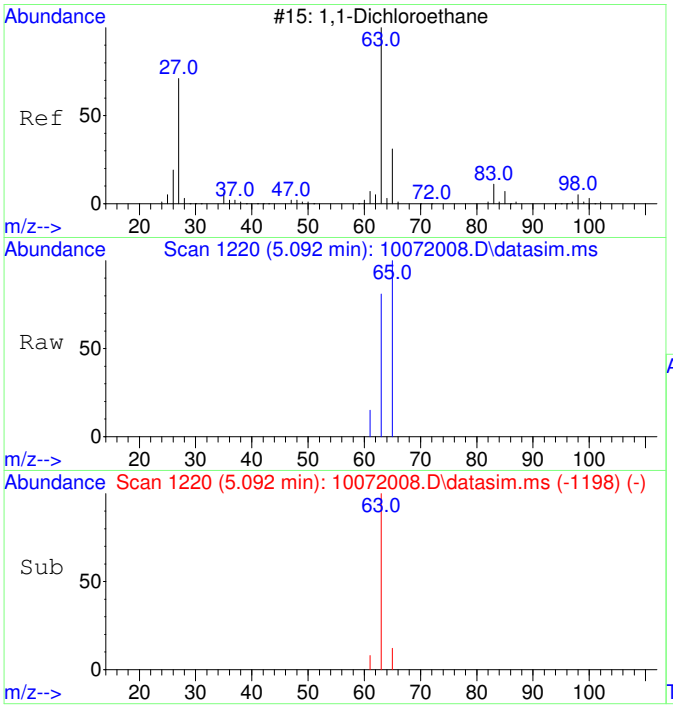



#3
trans-1,2-Dichloroethene
Concen: 54.36 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 53.3 | 2.4 | 62.4 |

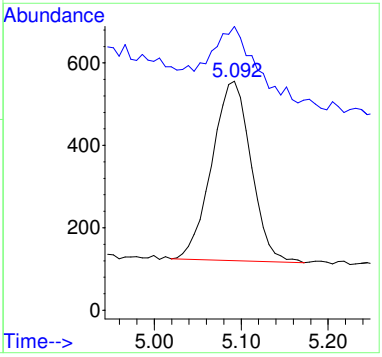


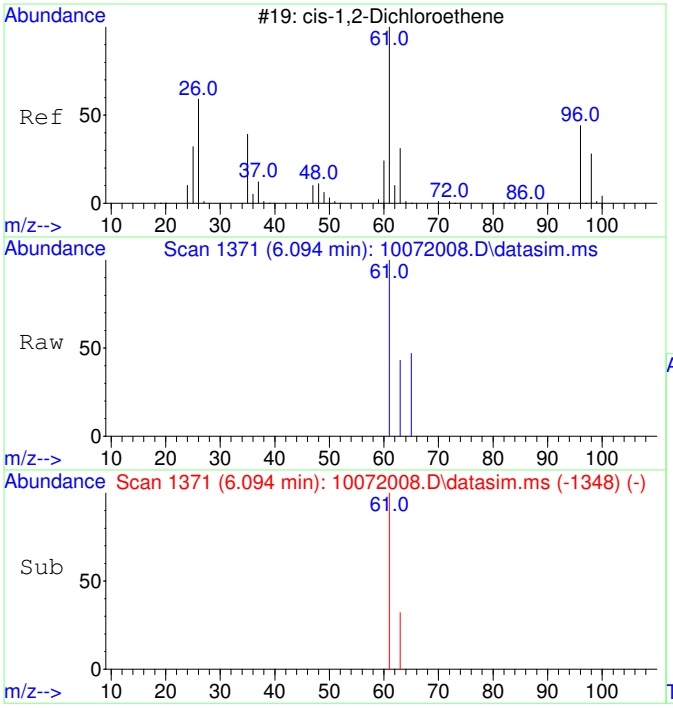




#4
1,1-Dichloroethane
Concen: 55.27 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 63 Resp: 1362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 55.7 | 1.8 | 61.8 |

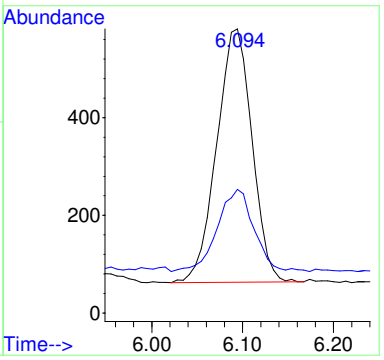


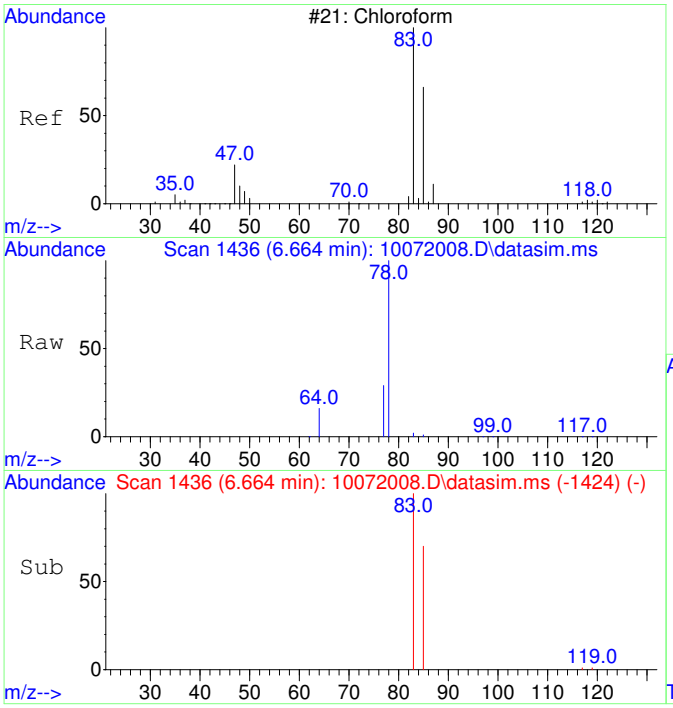



#5
cis-1,2-Dichloroethene
Concen: 53.98 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 1404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.2 | 2.5 | 62.5 |

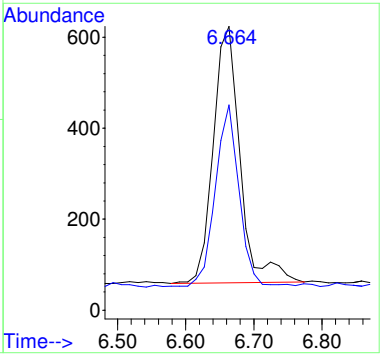


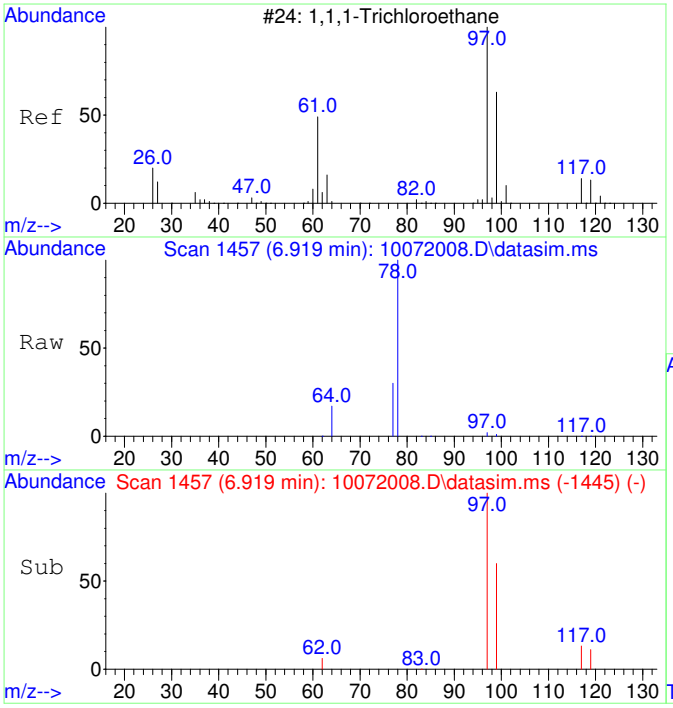




#6
Chloroform
Concen: 57.85 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 60.9 | 35.1 | 95.1 |

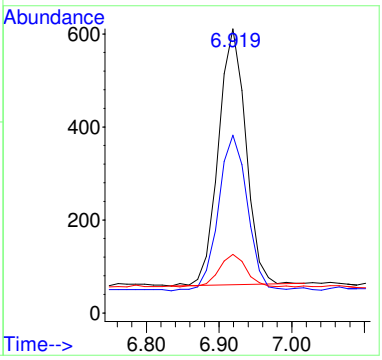


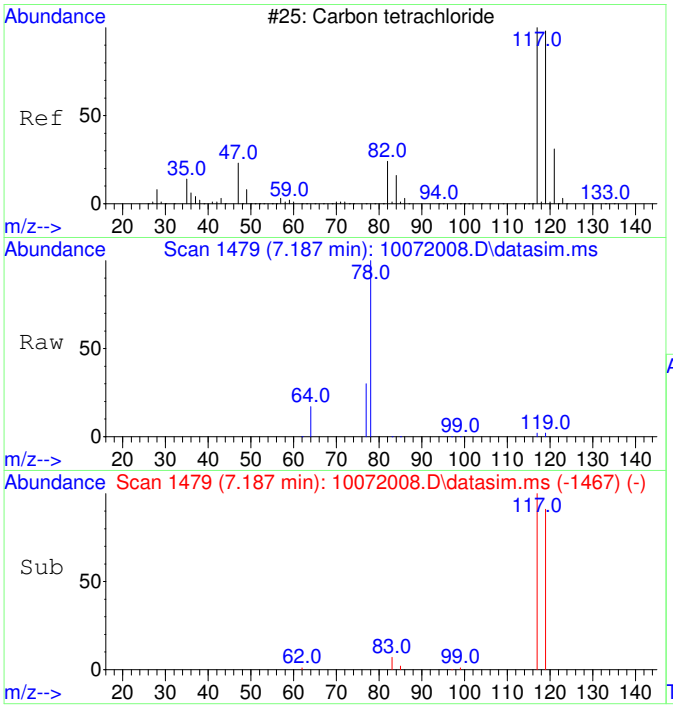



#7
1,1,1-Trichloroethane
Concen: 49.81 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1440

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.2 | 34.6 | 94.6 |
| 117 | 13.1 | 0.0 | 43.2 |

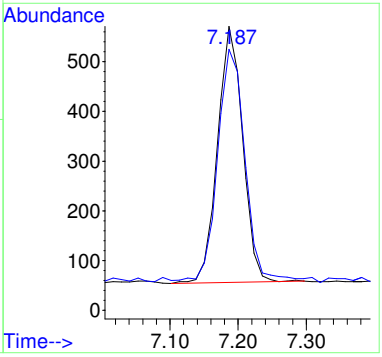


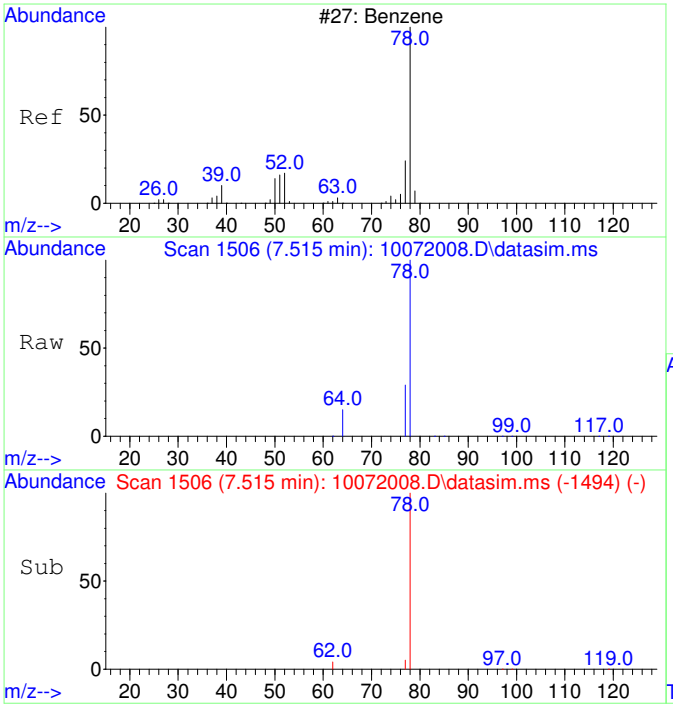




#8
Carbon tetrachloride
Concen: 48.29 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 1314

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

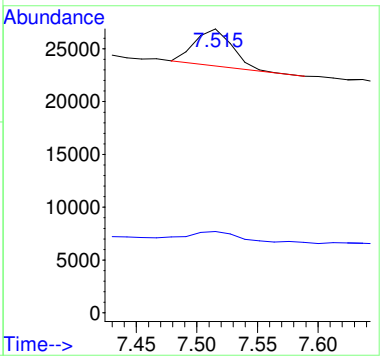


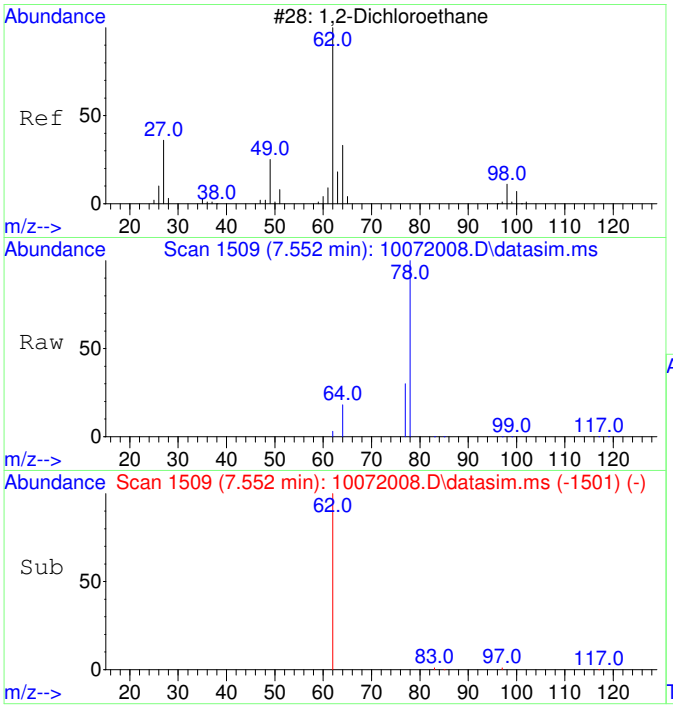



#9
Benzene
Concen: 96.59 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 7041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 56.6 | 0.0 | 53.2# |

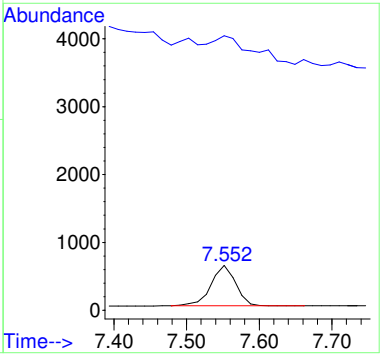


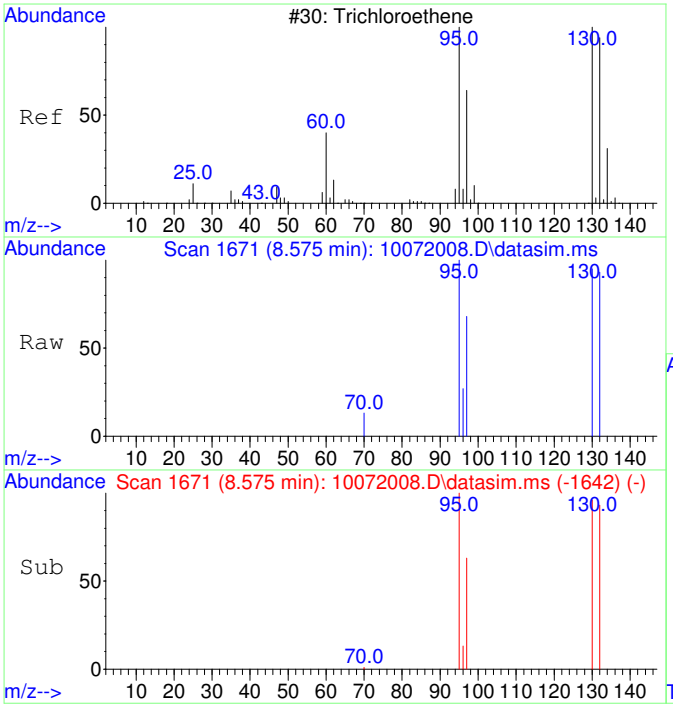




#10
1,2-Dichloroethane
Concen: 53.49 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1392

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 123.1 | 2.3 | 62.3# |

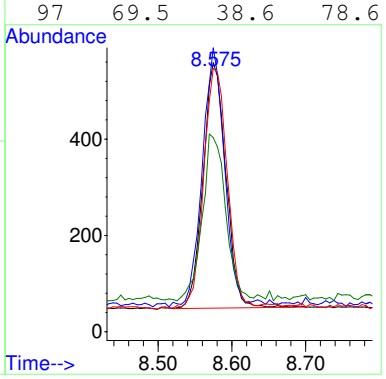


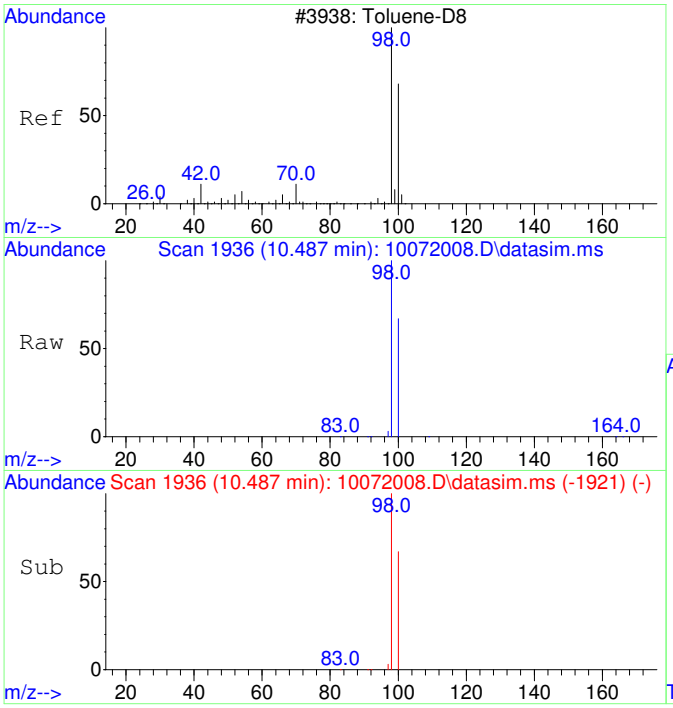



#11
Trichloroethene
Concen: 50.07 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 1099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.0 | 60.7 | 120.7 |
| 132 | 101.0 | 76.0 | 116.0 |
| 97 | 69.5 | 38.6 | 78.6 |

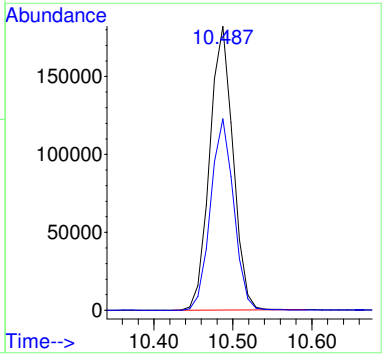


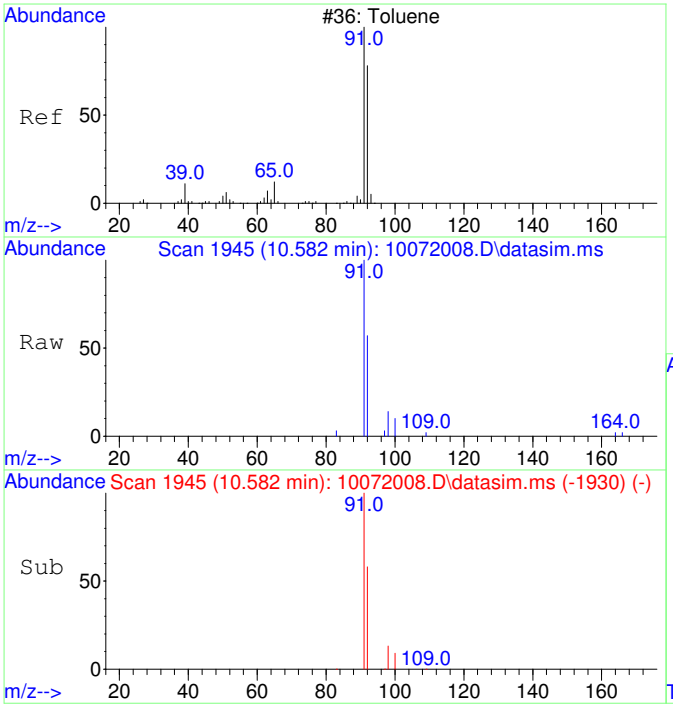




#12
Toluene-d8
Concen: 4449.27 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 373704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.6 | 37.1 | 97.1 |

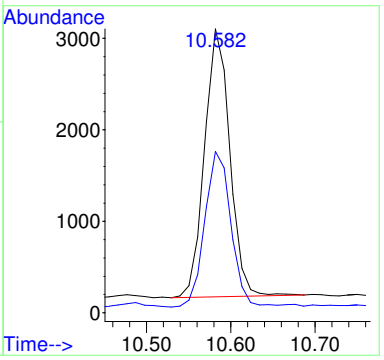


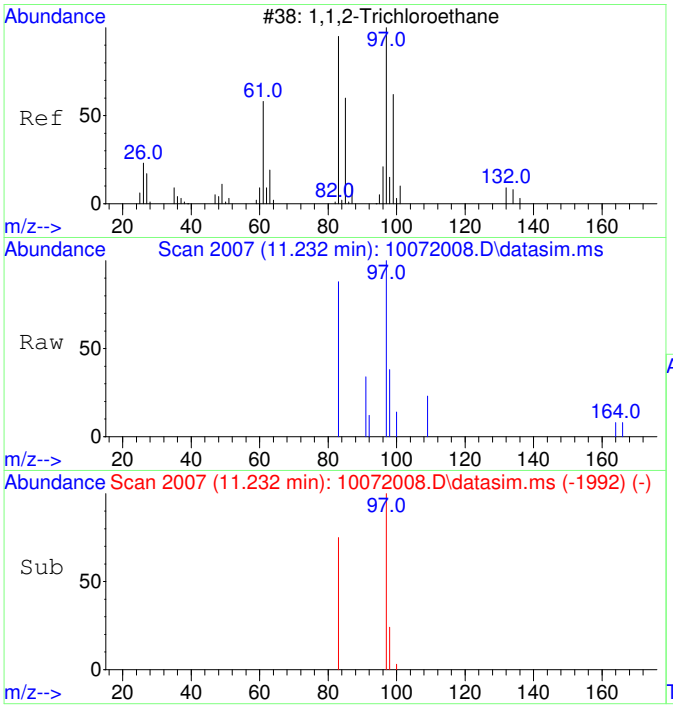



#13
Toluene
Concen: 57.16 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.9 | 29.9 | 89.9 |

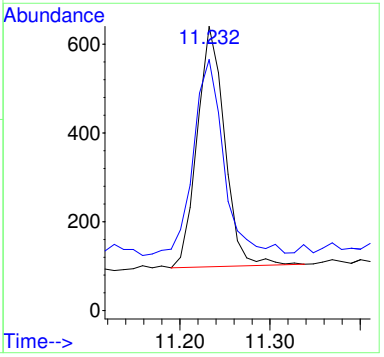


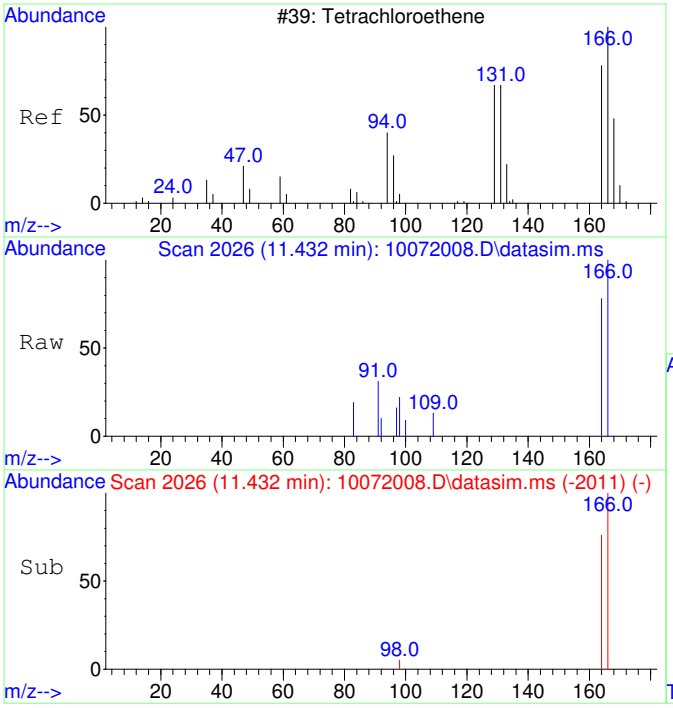




#14
1,1,2-Trichloroethane
Concen: 48.86 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.011 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 1140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 91.5 | 51.2 | 111.2 |

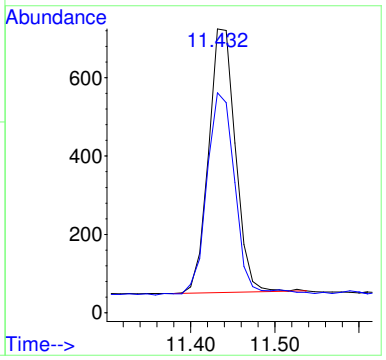


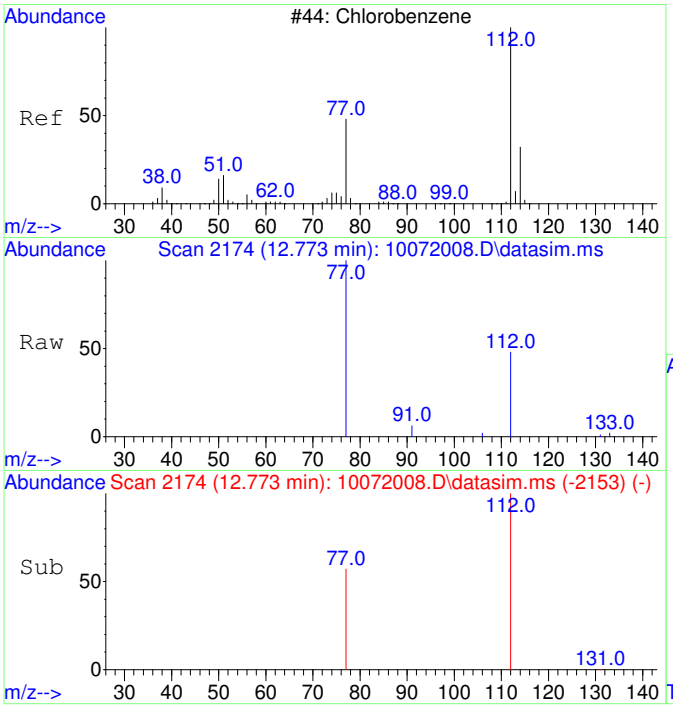



#15
Tetrachloroethene
Concen: 48.18 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 1493

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 47.8 | 107.8 |

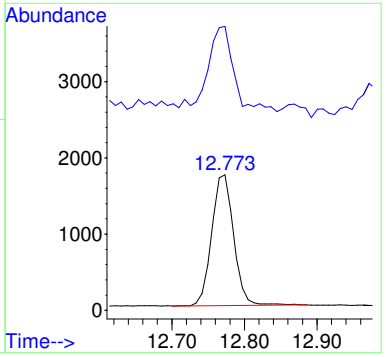


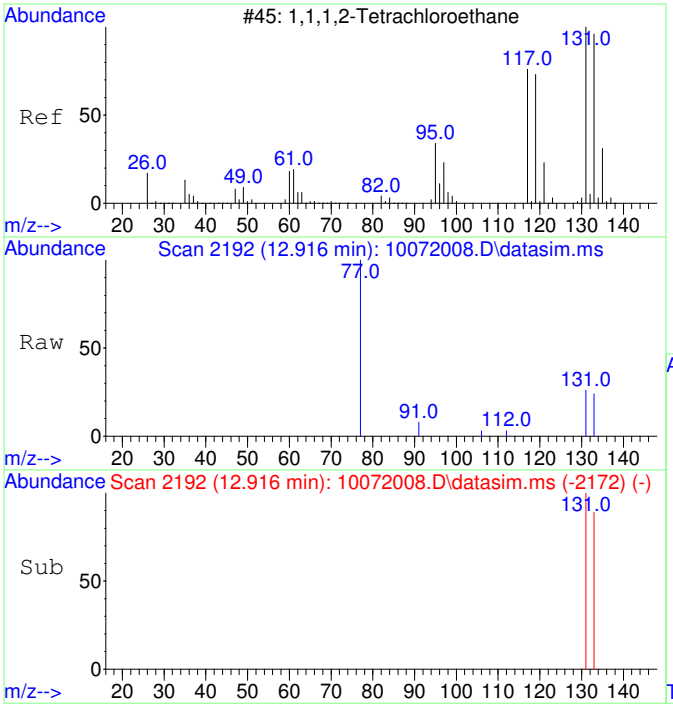




#16
Chlorobenzene
Concen: 47.28 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 3625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 77.2 | 23.6 | 83.6 |

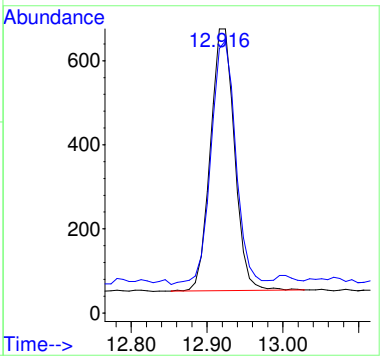


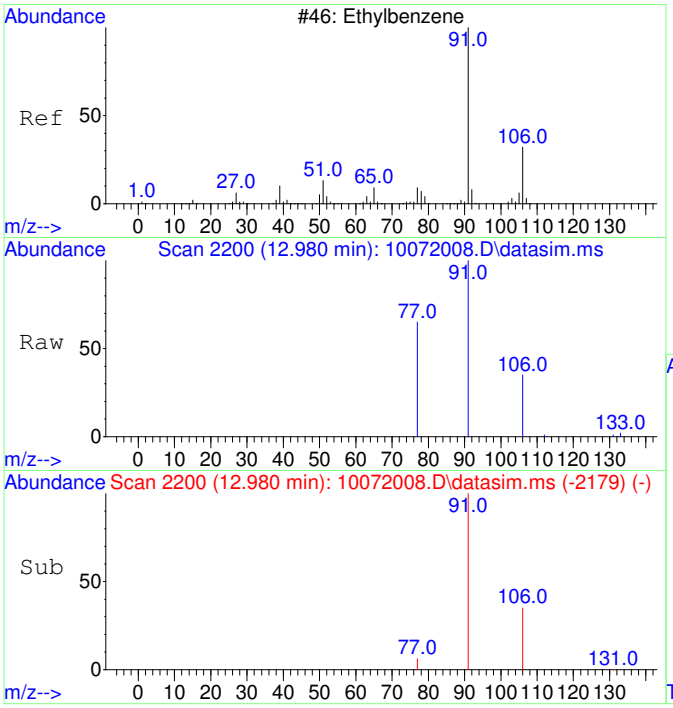



#17
1,1,1,2-Tetrachloroethane
Concen: 50.05 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 1375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.3 | 66.3 | 126.3 |

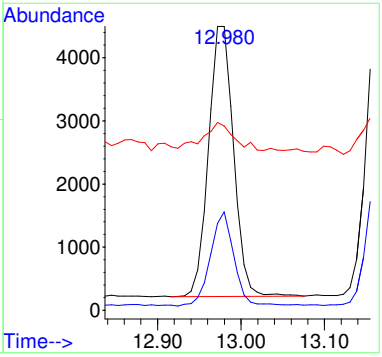


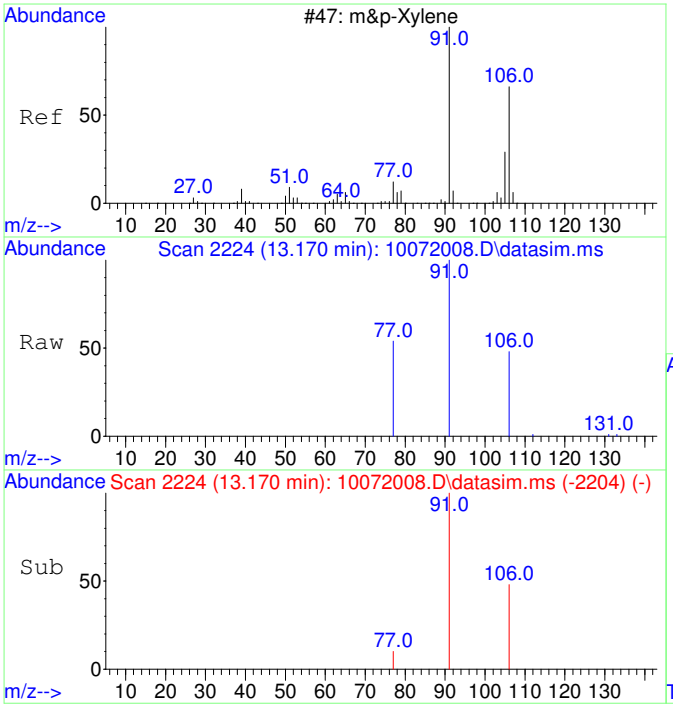




#18
Ethylbenzene
Concen: 68.44 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 8921

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.1 | 3.0 | 63.0 |
| 77 | 13.4 | 0.0 | 38.2 |

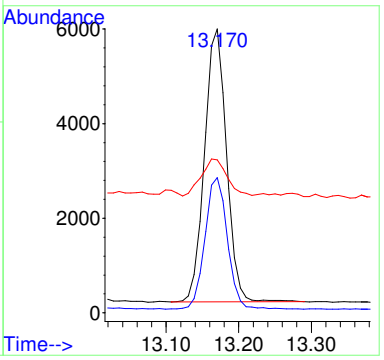


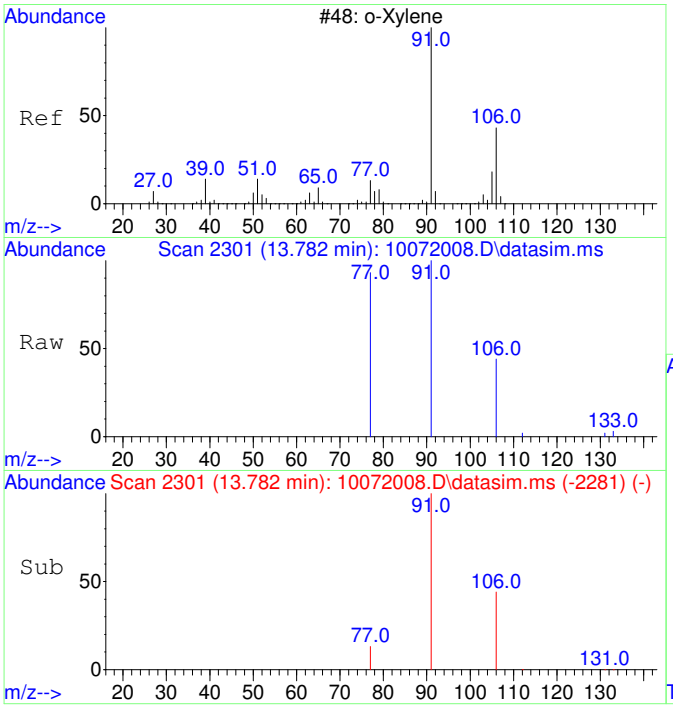



#19
m&p-Xylene
Concen: 119.48 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 12171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.3 | 22.2 | 82.2 |
| 77 | 15.8 | 0.0 | 42.4 |

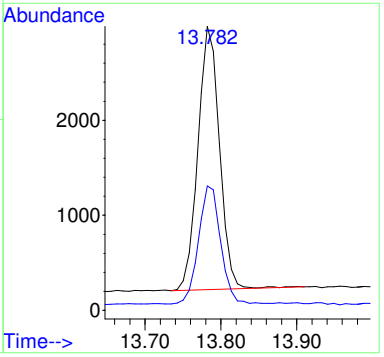


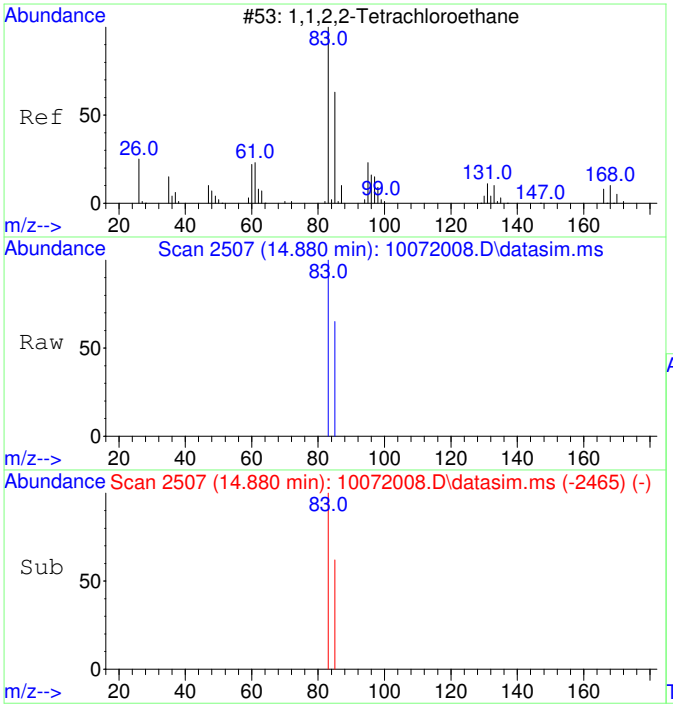




#20
o-Xylene
Concen: 50.12 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 5455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 19.2 | 79.2 |

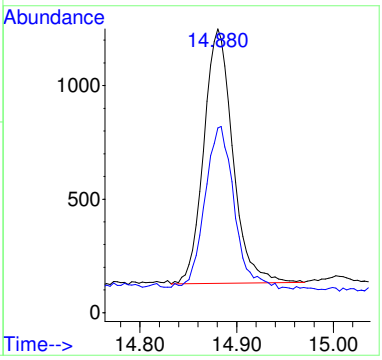


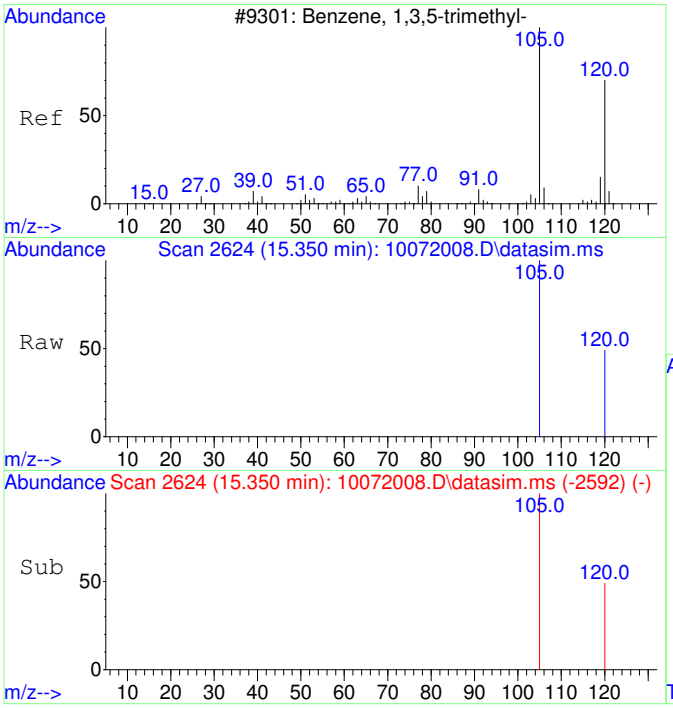



#21
1,1,2,2-Tetrachloroethane
Concen: 48.49 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 2339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.0 | 34.8 | 94.8 |

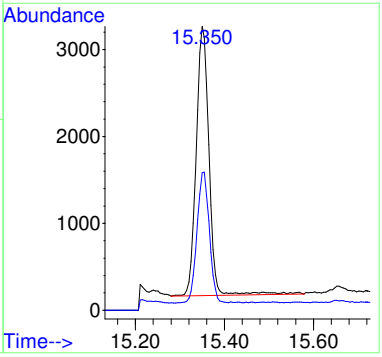


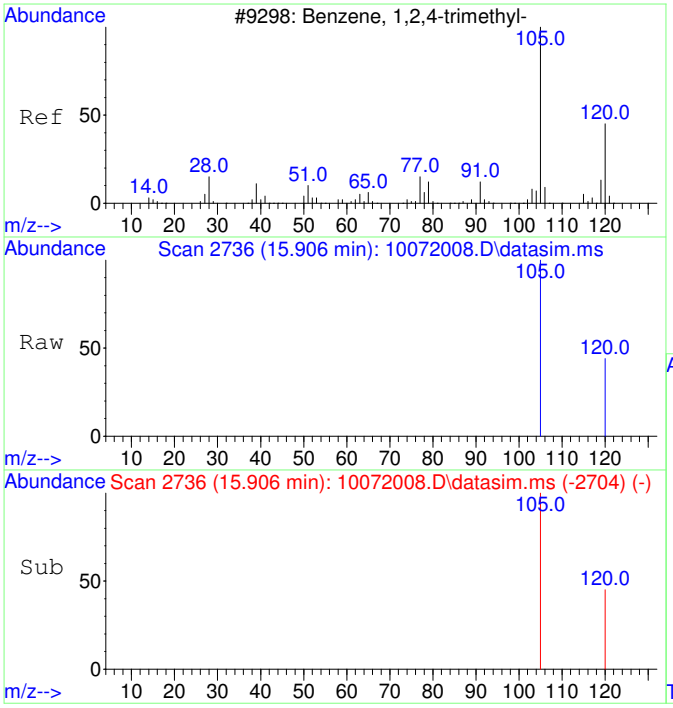




#22
1,3,5-Trimethylbenzene
Concen: 53.49 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.6 | 21.1 | 81.1 |

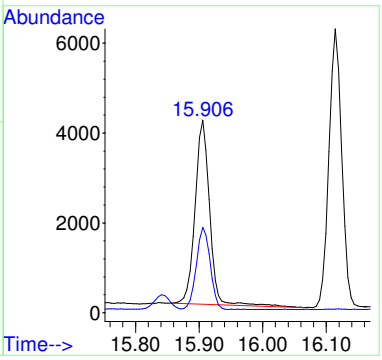


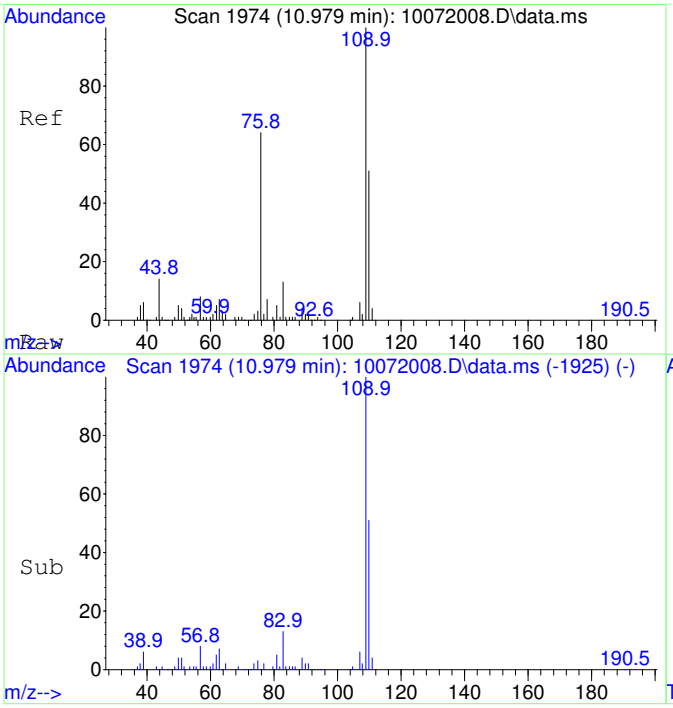



#23
1,2,4-Trimethylbenzene
Concen: 53.91 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 6487

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.9 | 17.2 | 77.2 |

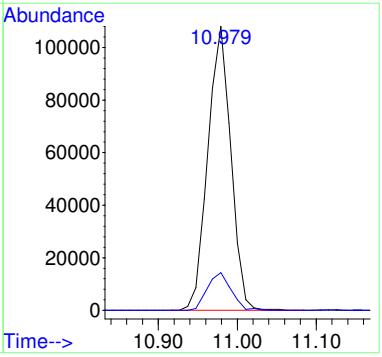


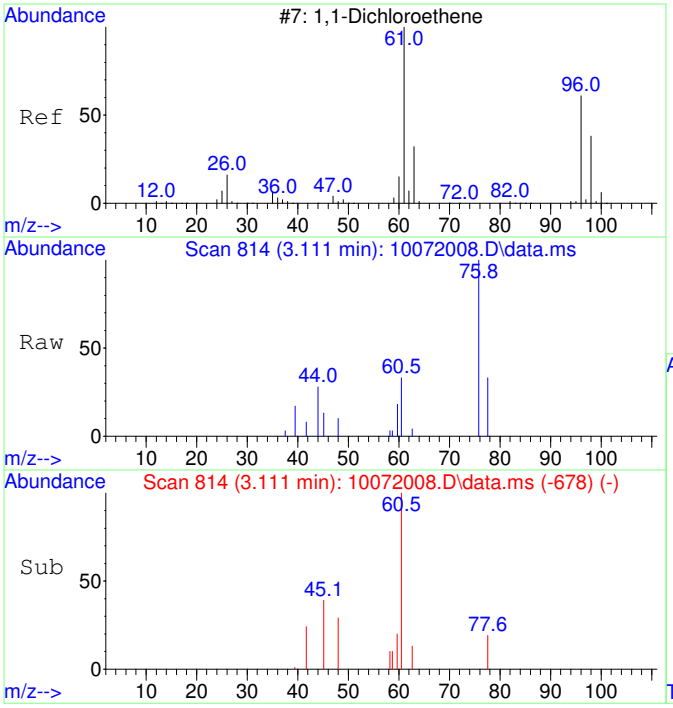




#25
2-Fluorotoluene SCAN
Concen: 5237.71 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:109 Resp: 219067

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.7 | 0.0 | 43.8 |

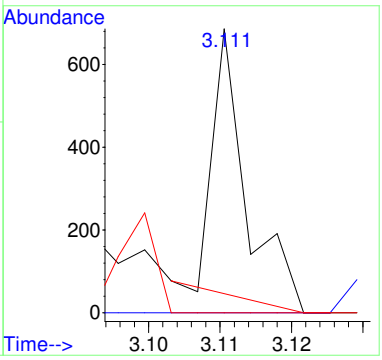


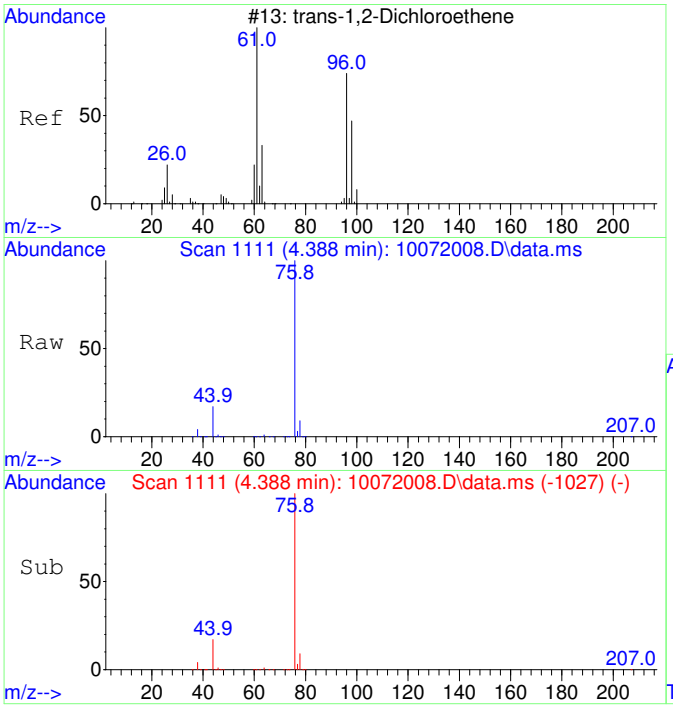



#26
1,1-Dichloroethene SCAN
Concen: 21.95 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 33.1 | 93.1# |
| 98 | 43.1 | 11.2 | 71.2 |

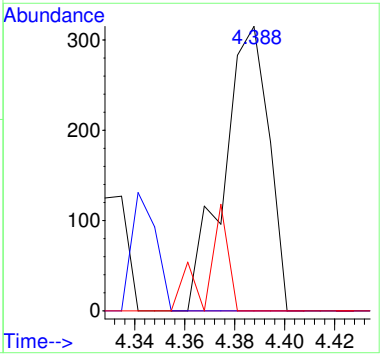


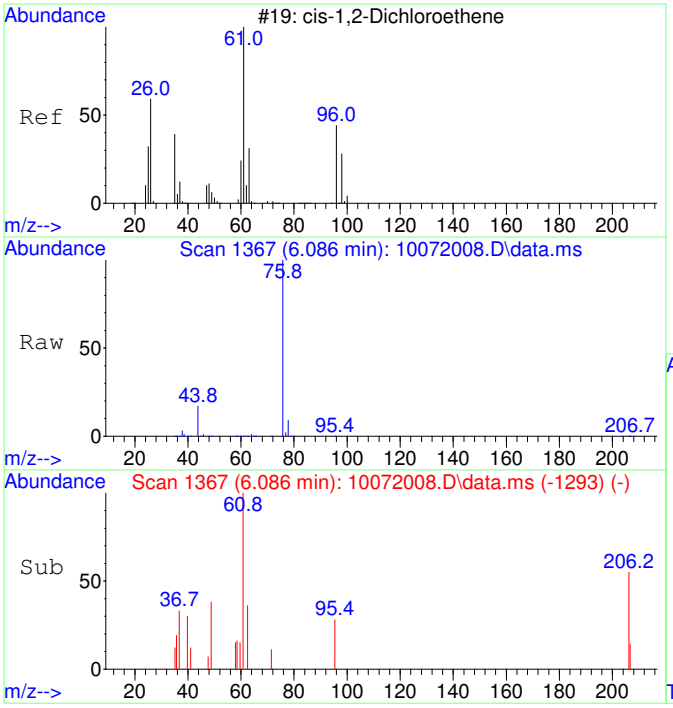




#27
trans-1,2-Dichloroethene SCAN
Concen: 36.12 ug/L
RT: 4.388 min Scan# 1111
Delta R.T. -0.013 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 17.1 | 20.5 | 80.5# |

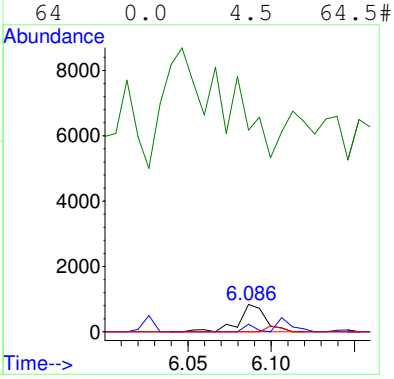


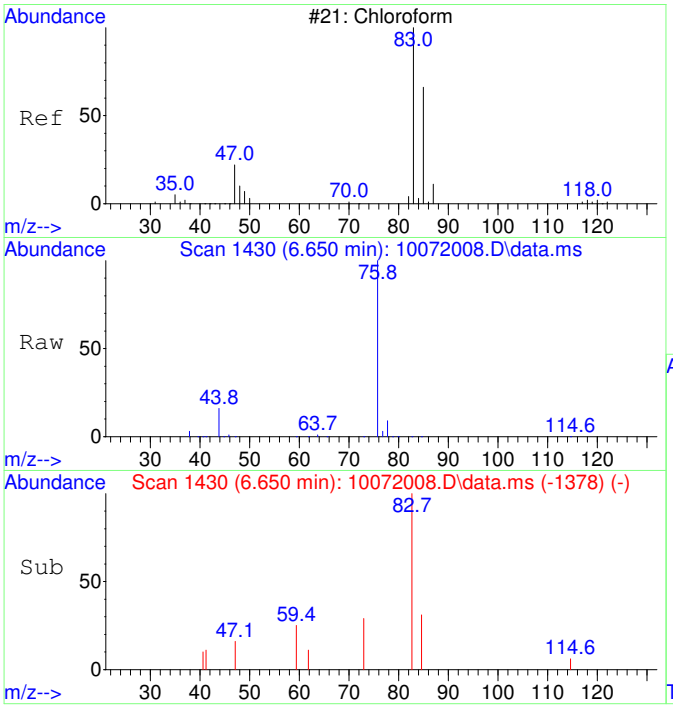



#29
cis-1,2-Dichloroethene SCAN
Concen: 68.61 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. -0.007 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 61 Resp: 935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 12.1 | 39.9 | 99.9# |
| 98 | 0.0 | 13.5 | 73.5# |
| 64 | 0.0 | 4.5 | 64.5# |

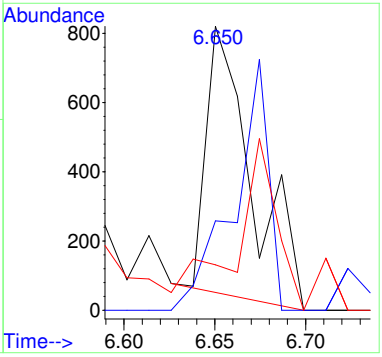


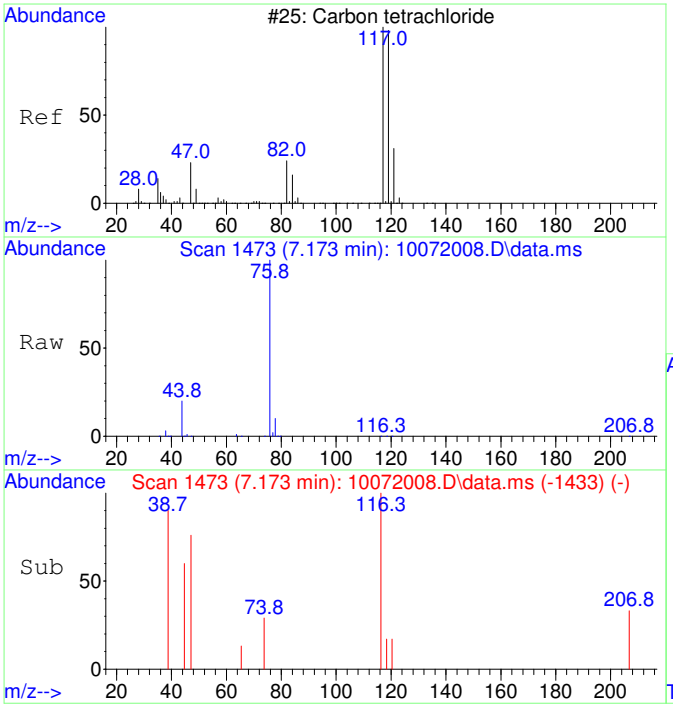




#30
Chloroform SCAN
Concen: 89.70 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 83 Resp: 1326

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

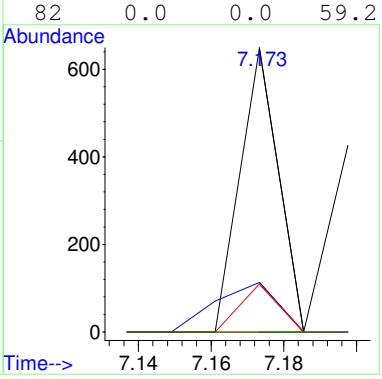


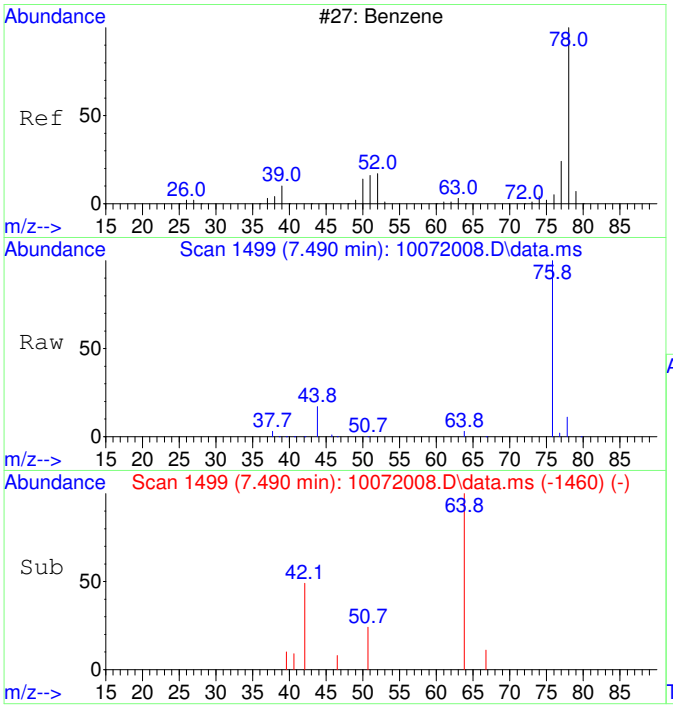



#32
Carbon tetrachloride SCAN
Concen: 33.73 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:117 Resp: 474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 28.3 | 75.5 | 135.5# |
| 121 | 16.9 | 0.0 | 58.8 |
| 82 | 0.0 | 0.0 | 59.2 |

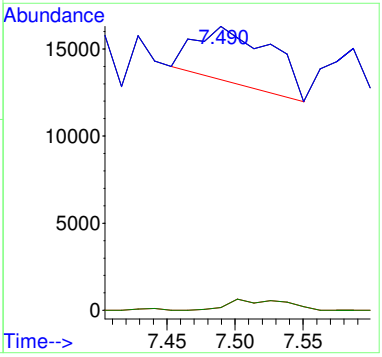


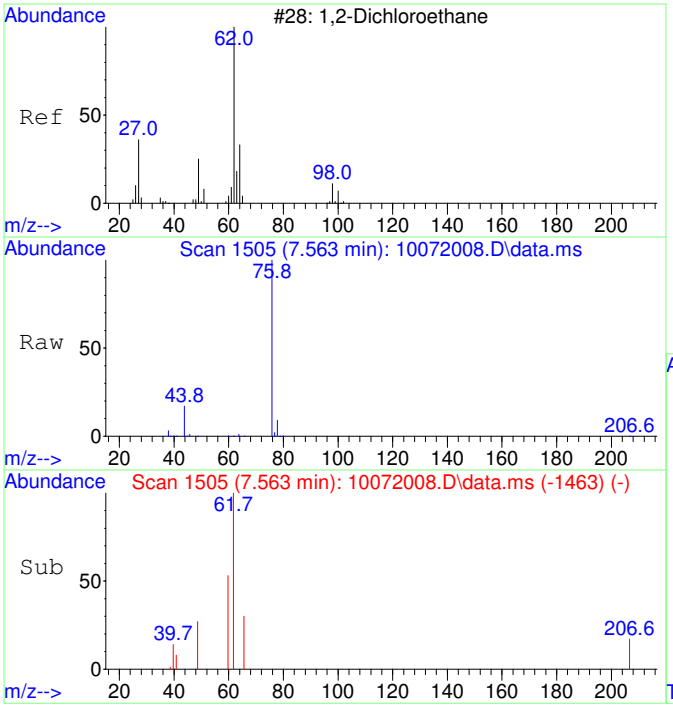




#33
Benzene SCAN
Concen: 315.80 ug/L
RT: 7.490 min Scan# 1499
Delta R.T. -0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 78 Resp: 11713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 15.6 | 0.0 | 47.9 |
| 51 | 15.6 | 0.0 | 44.1 |

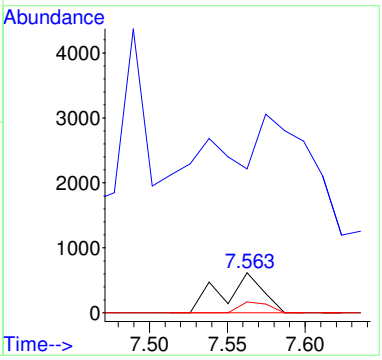


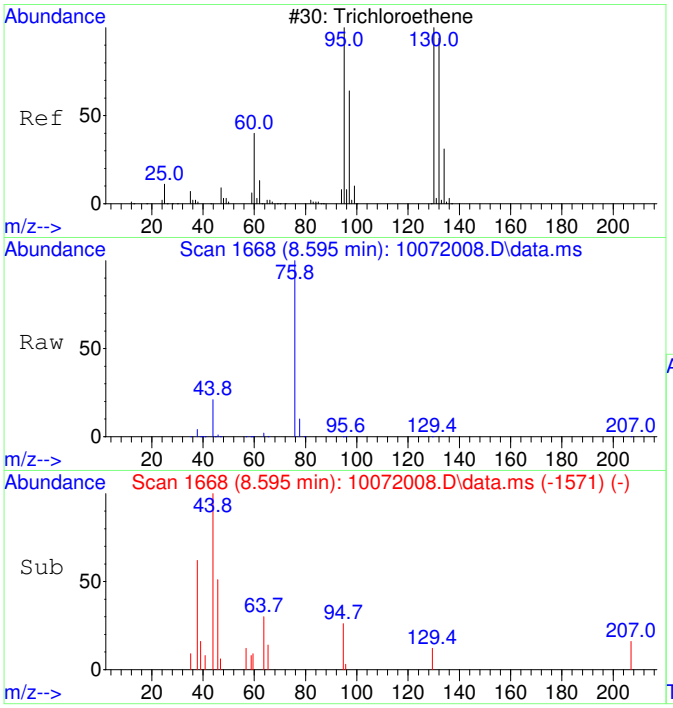



#34
1,2-Dichloroethane SCAN
Concen: 81.41 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 62 Resp: 1115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 214.3 | 5.2 | 65.2# |
| 49 | 19.7 | 3.9 | 63.9 |

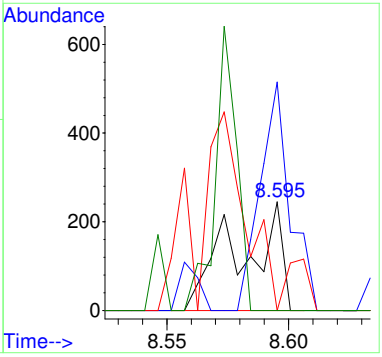


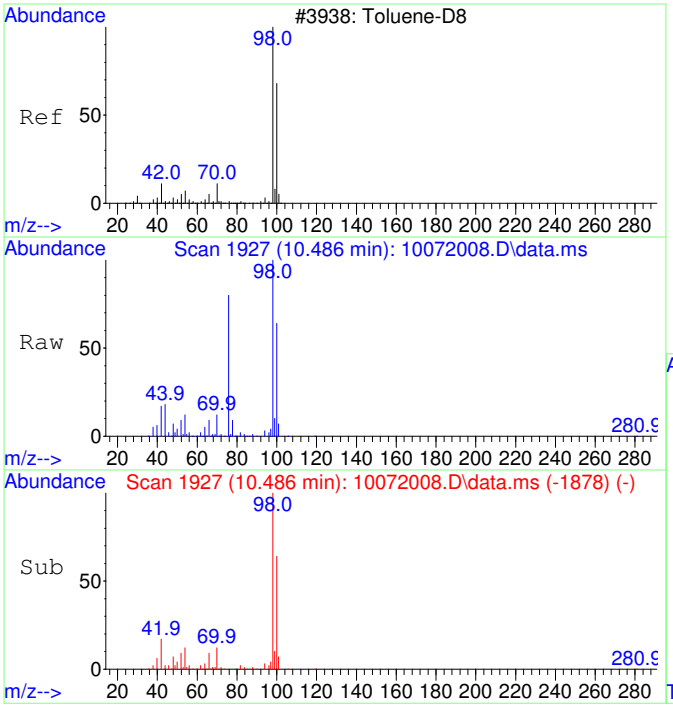




#35
Trichloroethene SCAN
Concen: 29.73 ug/L
RT: 8.595 min Scan# 1668
Delta R.T. 0.027 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:130 Resp: 303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 146.2 | 60.5 | 120.5# |
| 132 | 0.0 | 59.6 | 119.6# |
| 97 | 0.0 | 28.2 | 88.2# |

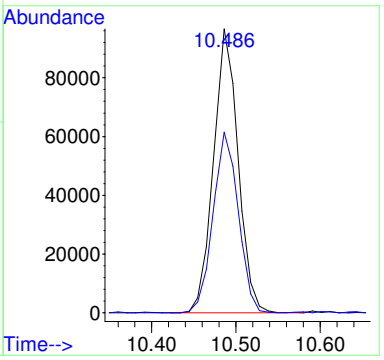


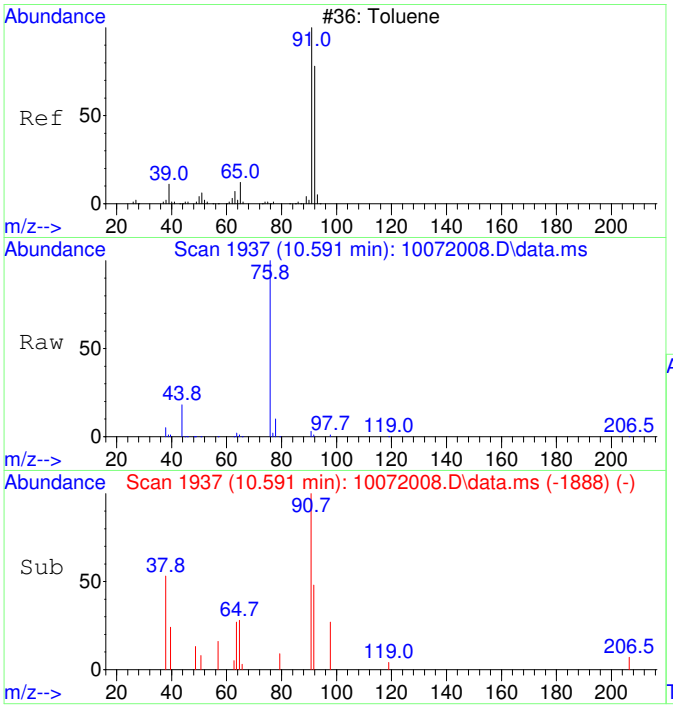



#36
Toluene-d8 SCAN
Concen: 4799.32 ug/L
RT: 10.486 min Scan# 1927
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 98 Resp: 196309

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.2 | 40.0 | 100.0 |

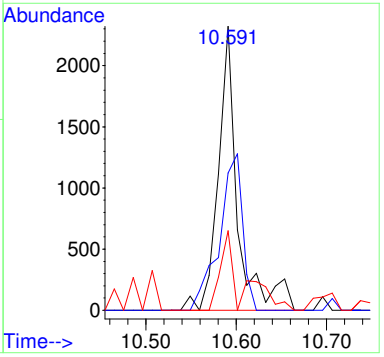


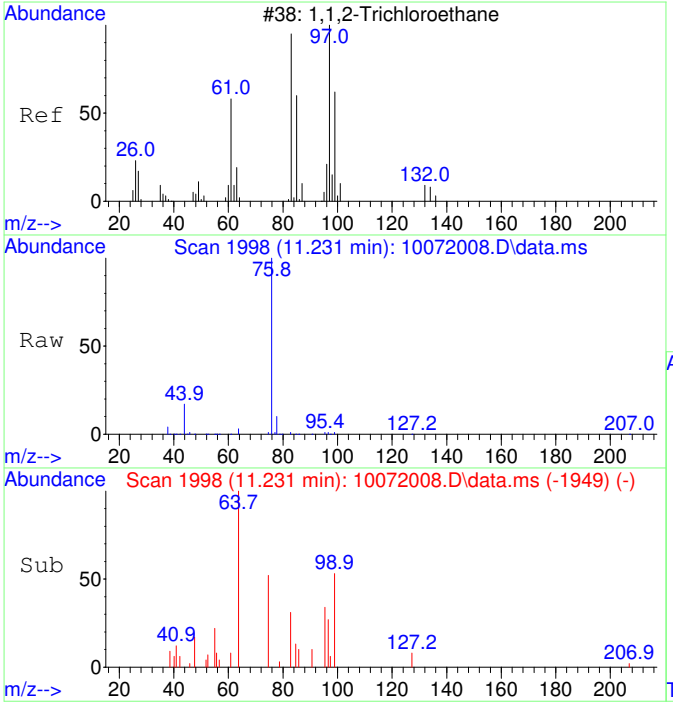




#37
Toluene SCAN
Concen: 66.40 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 3478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 66.1 | 28.3 | 88.3 |
| 65 | 30.9 | 0.0 | 41.0 |

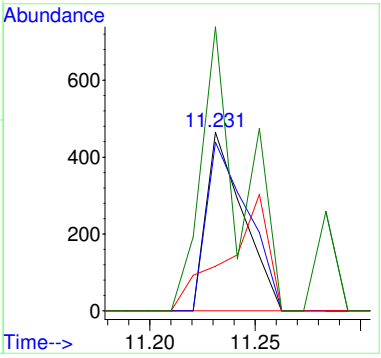


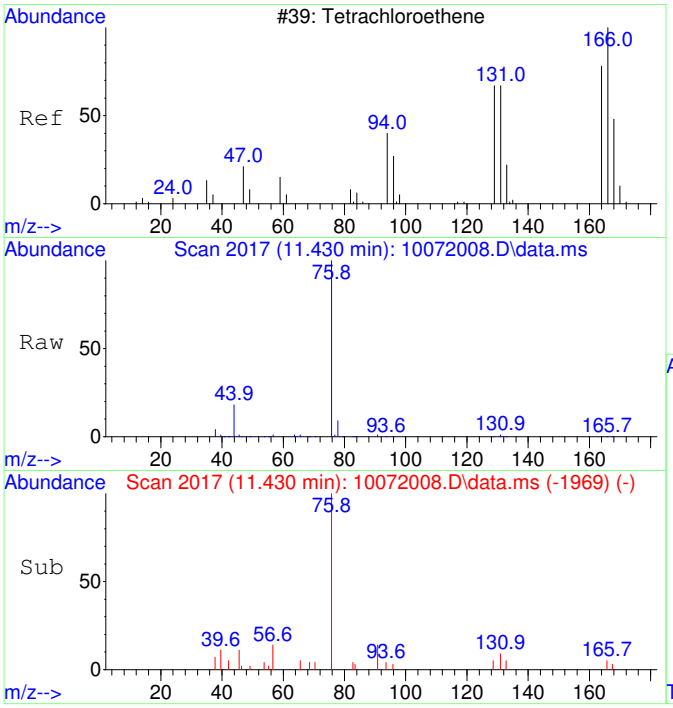



#38
1,1,2-Trichloroethane SCAN
Concen: 48.14 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 97 Resp: 566

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 105.8 | 57.7 | 117.7 |
| 61 | 0.0 | 32.1 | 92.1# |
| 99 | 171.4 | 36.7 | 96.7# |

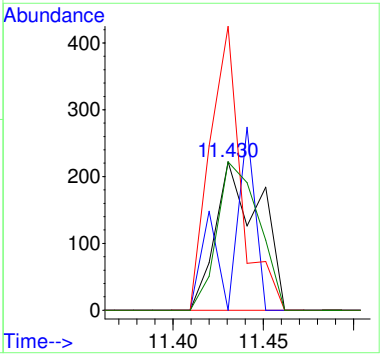


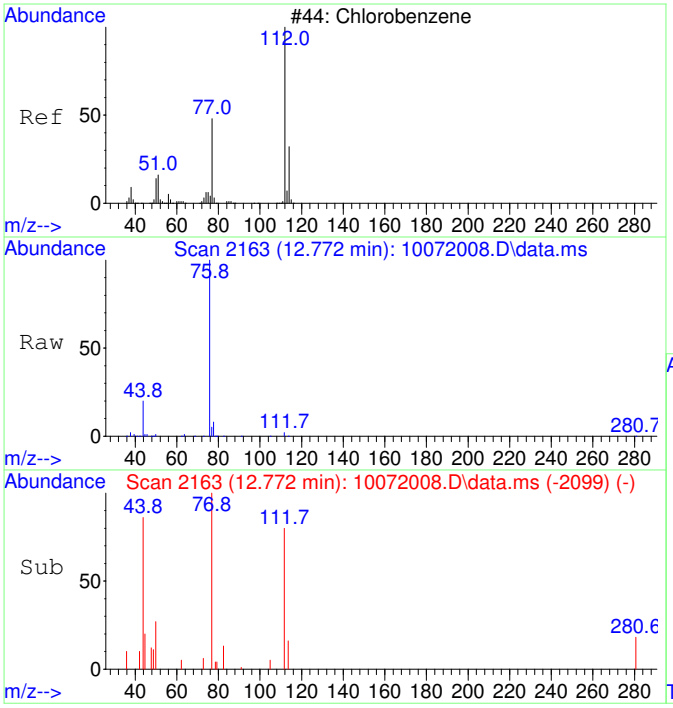




#39
Tetrachloroethene SCAN
Concen: 30.19 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. 0.000 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:166 Resp: 380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 70.0 | 50.9 | 110.9 |
| 131 | 134.7 | 38.7 | 98.7# |
| 129 | 94.2 | 41.8 | 101.8 |

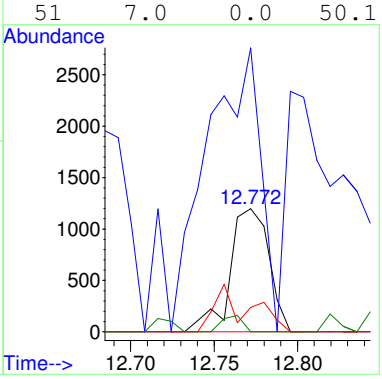


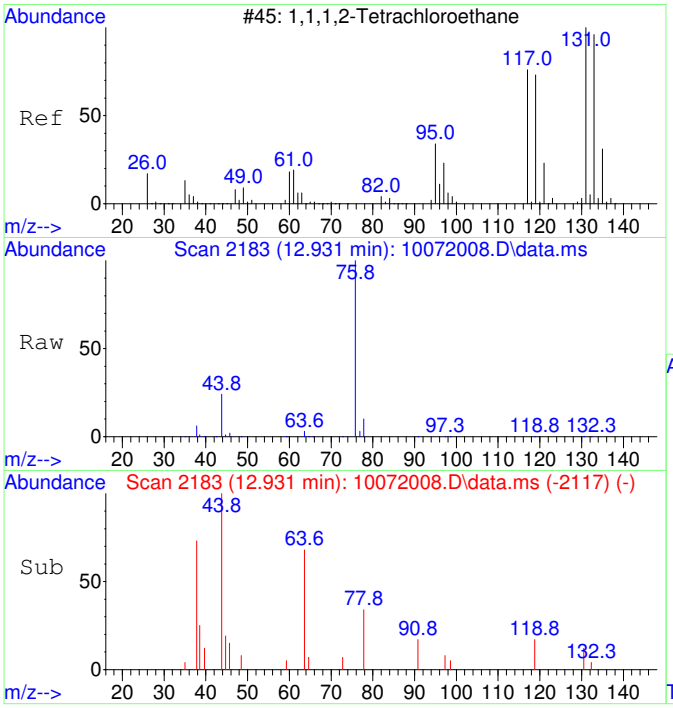



#40
Chlorobenzene SCAN
Concen: 54.53 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:112 Resp: 1952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 346.4 | 28.2 | 88.2# |
| 114 | 33.8 | 2.3 | 62.3 |
| 51 | 7.0 | 0.0 | 50.1 |

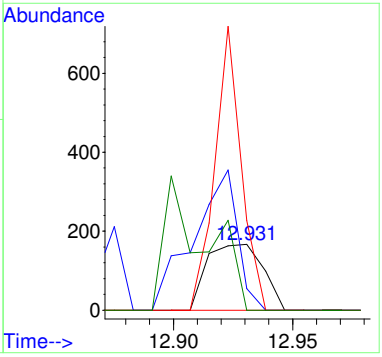


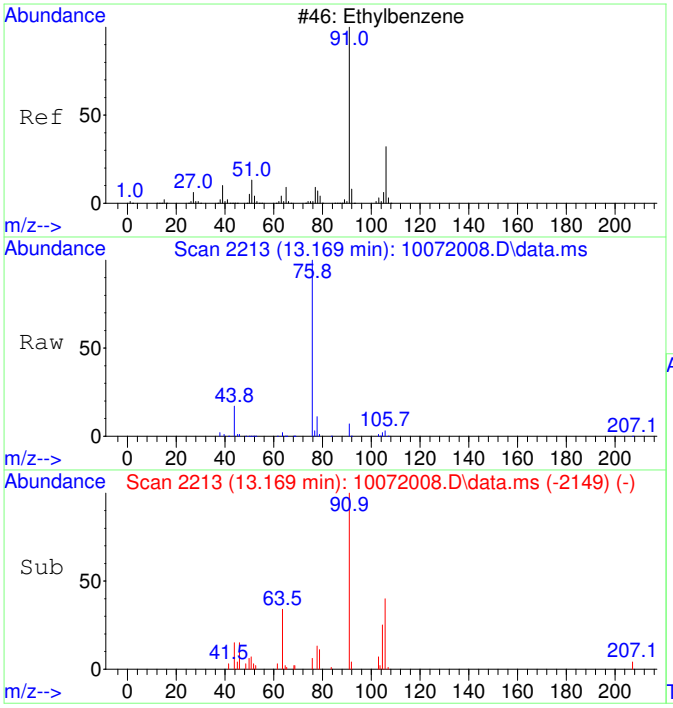




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 20.61 ug/L
RT: 12.931 min Scan# 2183
Delta R.T. 0.024 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:131 Resp: 273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 167.8 | 66.9 | 126.9# |
| 119 | 203.7 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

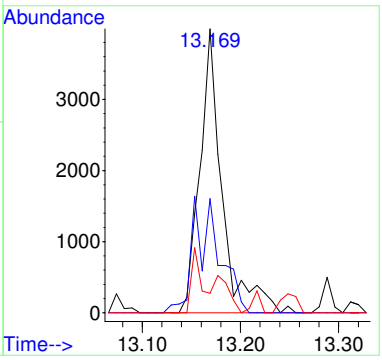


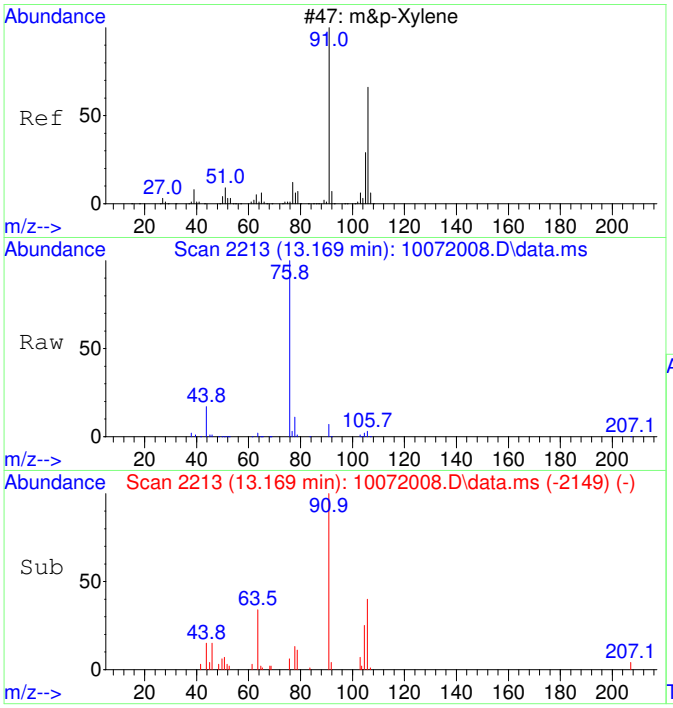



#42
Ethylbenzene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 51 | 4.3 | 0.0 | 40.1 |

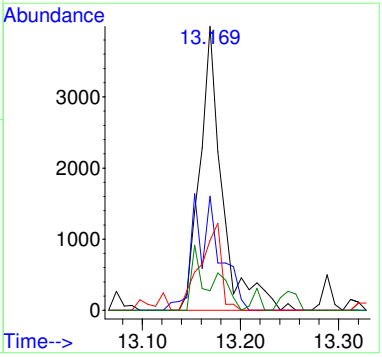


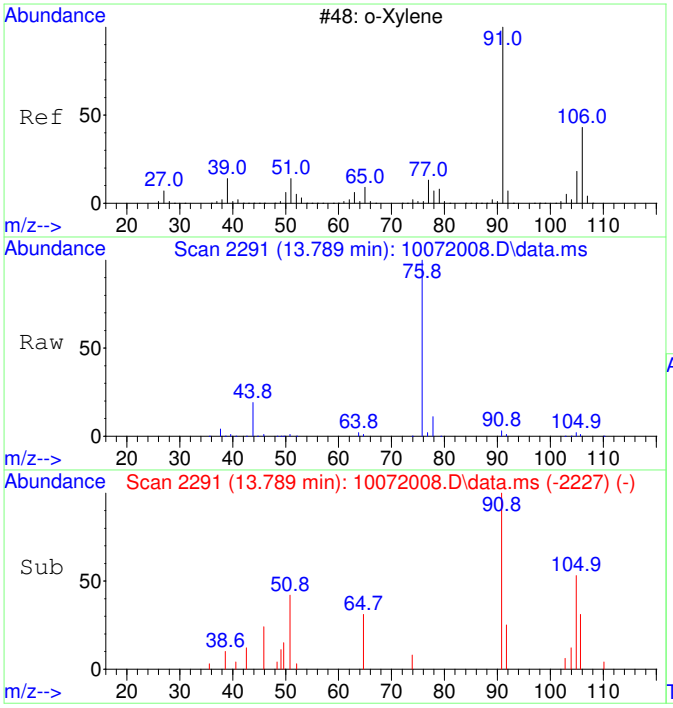




#43
m&p-Xylene SCAN
Concen: 66.14 ug/L
RT: 13.169 min Scan# 2213
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 6312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 23.1 | 83.1# |
| 105 | 29.0 | 0.0 | 54.7 |
| 51 | 4.3 | 0.0 | 40.1 |

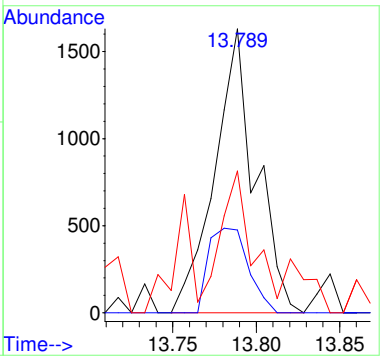


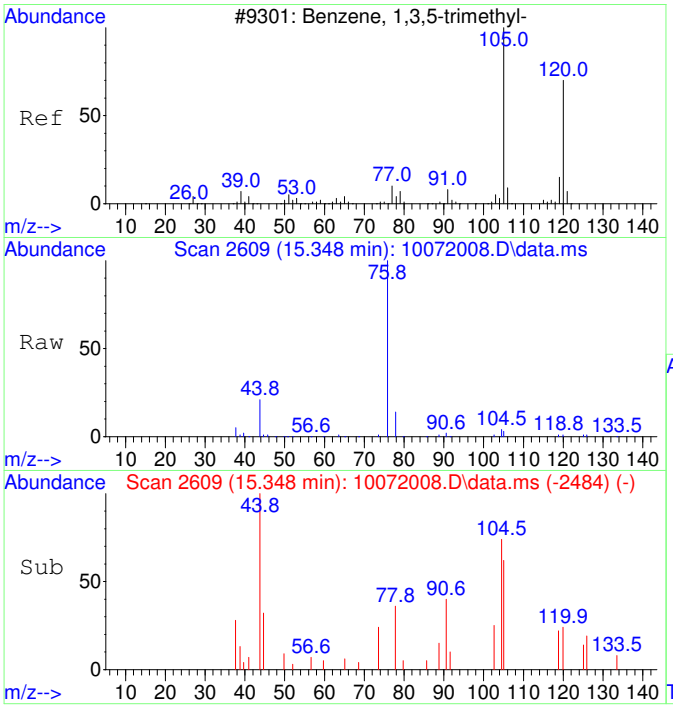



#44
o-Xylene SCAN
Concen: 54.40 ug/L
RT: 13.789 min Scan# 2291
Delta R.T. 0.008 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion: 91 Resp: 2779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.1 | 18.0 | 78.0 |
| 105 | 32.0 | 0.0 | 56.6 |

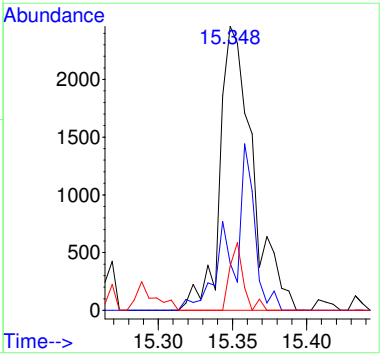


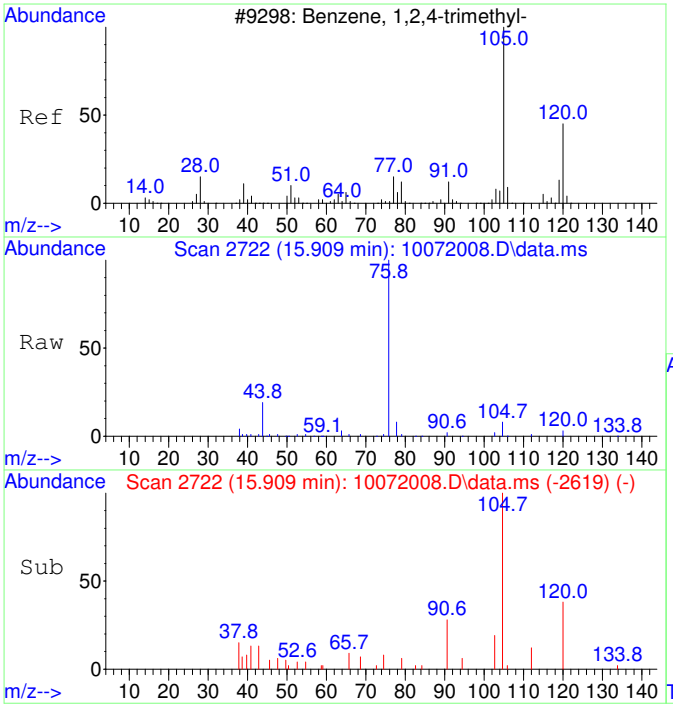




#46
1,3,5-Trimethylbenzene SCAN
Concen: 70.18 ug/L
RT: 15.348 min Scan# 2609
Delta R.T. 0.005 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3778

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.0 | 18.3 | 78.3 |
| 119 | 10.0 | 0.0 | 43.1 |

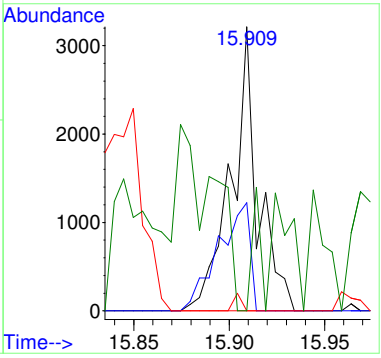





#47
1,2,4-Trimethylbenzene SCAN
Concen: 56.37 ug/L
RT: 15.909 min Scan# 2722
Delta R.T. 0.010 min
Lab File: 10072008.D
Acq: 7 Oct 2020 11:06

Tgt Ion:105 Resp: 3105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.5 | 16.9 | 76.9 |
| 119 | 1.9 | 0.0 | 41.9 |
| 77 | 13.4 | 0.0 | 42.3 |



# CRDL STANDARD

## Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 20274B
Client: California Site Cleanup Section 3
Project: MEW OU1 FY2020 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 2008017
Sequence: S20J011

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| S20J011-CRL1 | 1,1-Dichloroethene | 50.0 | 50.9 | 102 | ug/L | 60 - 140 |
| | trans-1,2-Dichloroethene | 50.0 | 51.8 | 104 | ug/L | 60 - 140 |
| | 1,1-Dichloroethane | 50.0 | 53.3 | 107 | ug/L | 60 - 140 |
| | cis-1,2-Dichloroethene | 50.0 | 51.3 | 103 | ug/L | 60 - 140 |
| | Chloroform | 50.0 | 48.0 | 96 | ug/L | 60 - 140 |
| | Trichloroethene | 50.0 | 48.2 | 96 | ug/L | 60 - 140 |
| | Tetrachloroethene | 50.0 | 48.5 | 97 | ug/L | 60 - 140 |
| | Toluene-d8 | 50.0 | 49.8 | 100 | ug/L | 60 - 140 |

# QLS REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20J011-CRL1
**Misc Info:** 2030073 0.05 mg/L
**Date Acquired:** 10/7/20 9:31
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000.0 | 5000.00 | 100% | 60 | 140 | pass |
| 2) | 1,1-Dichloroethene | 3.090 | 50.0 | 50.87 | 102% | 60 | 140 | pass |
| 3) | trans-1,2-Dichloroethene | 4.396 | 50.0 | 51.83 | 104% | 60 | 140 | pass |
| 4) | 1,1-Dichloroethane | 5.099 | 50.0 | 53.26 | 107% | 60 | 140 | pass |
| 5) | cis-1,2-Dichloroethene | 6.094 | 50.0 | 51.27 | 103% | 60 | 140 | pass |
| 6) | Chloroform | 6.664 | 50.0 | 47.99 | 96% | 60 | 140 | pass |
| 7) | 1,1,1-Trichloroethane | 6.919 | 50.0 | 47.01 | 94% | 60 | 140 | pass |
| 8) | Carbon tetrachloride | 7.187 | 50.0 | 46.10 | 92% | 60 | 140 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 50.0 | 50.23 | 100% | 60 | 140 | pass |
| 11) | Trichloroethene | 8.569 | 50.0 | 48.18 | 96% | 60 | 140 | pass |
| 12) | Toluene-d8 | 10.477 | 50.0 | 49.83 | 100% | 60 | 140 | pass |
| 13) | Toluene | 10.571 | 50.0 | 51.23 | 102% | 60 | 140 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 50.0 | 49.65 | 99% | 60 | 140 | pass |
| 15) | Tetrachloroethene | 11.421 | 50.0 | 48.49 | 97% | 60 | 140 | pass |
| 16) | Chlorobenzene | 12.757 | 50.0 | 52.17 | 104% | 60 | 140 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 50.0 | 49.37 | 99% | 60 | 140 | pass |
| 18) | Ethylbenzene | 12.964 | 50.0 | 52.88 | 106% | 60 | 140 | pass |
| 19) | m&p-Xylene | 13.162 | 100.0 | 105.22 | 105% | 60 | 140 | pass |
| 20) | o-Xylene | 13.774 | 50.0 | 51.99 | 104% | 60 | 140 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 50.0 | 52.46 | 105% | 60 | 140 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 50.0 | 54.22 | 108% | 60 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 50.0 | 54.30 | 109% | 60 | 140 | pass |
| 24) | Naphthalene | 17.903 | 50.0 | 49.96 | 100% | 60 | 140 | pass |

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

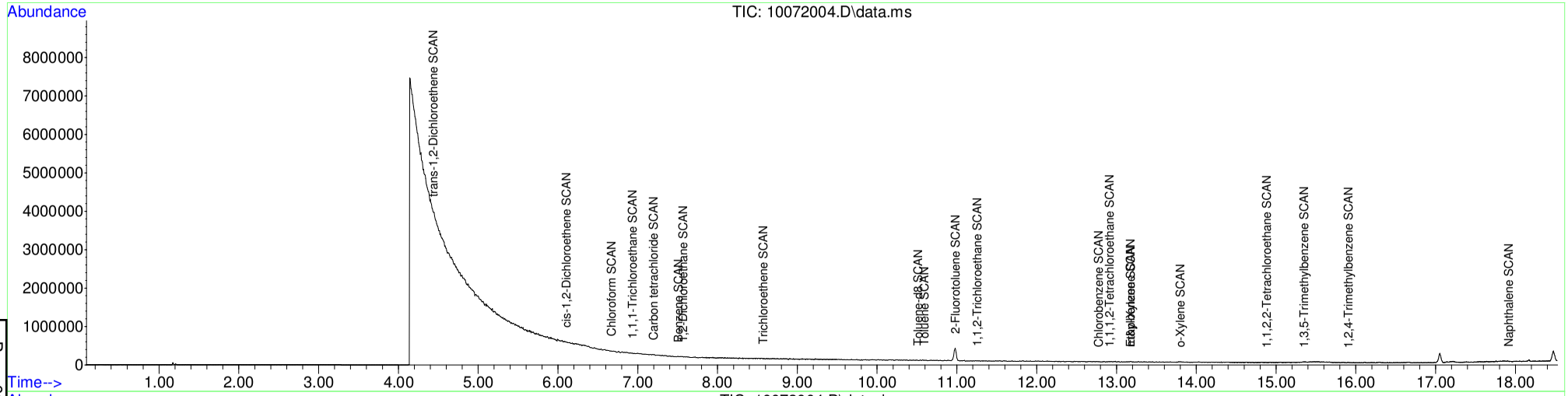
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 505137 | 5000.00 ug/L | 0.01 |
| System Monitoring Compounds | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4927 | 49.83 ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = | 1.00%# | |
| Target Compounds | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 1430 | 70.89 ug/L # | 38 |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 1208 | 51.83 ug/L | 83 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 1545 | 53.26 ug/L | 64 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 1570 | 51.27 ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1504 | 47.99 ug/L | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1600 | 47.01 ug/L | 100 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1477 | 46.10 ug/L | 98 |
| 9] Benzene | 7.515 | 78 | 4219 | 49.16 ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1539 | 50.23 ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1245 | 48.18 ug/L | 91 |
| 13] Toluene | 10.582 | 91 | 6458 | 51.23 ug/L | 99 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1364 | 49.65 ug/L | 98 |
| 15] Tetrachloroethene | 11.442 | 166 | 1769 | 48.49 ug/L | 99 |
| 16] Chlorobenzene | 12.773 | 112 | 4709 | 52.17 ug/L | 81 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1597 | 49.37 ug/L | 97 |
| 18] Ethylbenzene | 12.980 | 91 | 8115 | 52.88 ug/L | 90 |
| 19] m&p-Xylene | 13.170 | 91 | 12619 | 105.22 ug/L | 94 |
| 20] o-Xylene | 13.782 | 91 | 6662 | 51.99 ug/L | 93 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2979 | 52.46 ug/L | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7395 | 54.22 ug/L | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7692 | 54.30 ug/L | 93 |
| 24] Naphthalene | 17.904 | 128 | 11186 | 49.96 ug/L | 96 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 254255 | 5163.42 ug/L | 99 |
| 27) trans-1,2-Dichloroethe... | 4.434 | 61 | 747 | 57.73 ug/L # | 17 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 519 | 32.35 ug/L # | 1 |
| 30) Chloroform SCAN | 6.662 | 83 | 1256 | 72.17 ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 645 | 40.67 ug/L # | 42 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 431 | 26.05 ug/L # | 1 |
| 33) Benzene SCAN | 7.514 | 78 | 16561 | 379.26 ug/L | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 617 | 38.27 ug/L # | 40 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 552 | 46.00 ug/L # | 71 |
| 36) Toluene-d8 SCAN | 10.507 | 98 | 3299 | 68.51 ug/L # | 15 |
| 37) Toluene SCAN | 10.591 | 91 | 3480 | 56.43 ug/L | 87 |
| 38) 1,1,2-Trichloroethane ... | 11.252 | 97 | 1000 | 72.24 ug/L # | 26 |
| 40) Chlorobenzene SCAN | 12.780 | 112 | 2108 | 50.02 ug/L # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 682 | 43.73 ug/L # | 4 |
| 42) Ethylbenzene SCAN | 13.177 | 91 | 7193 | 64.02 ug/L | 80 |
| 43) m&p-Xylene SCAN | 13.177 | 91 | 7193 | 64.02 ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 5728 | 95.24 ug/L | 88 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.879 | 83 | 1787 | 60.94 ug/L # | 56 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 4051 | 63.91 ug/L # | 64 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3725 | 57.44 ug/L | 86 |
| 48) Naphthalene SCAN | 17.910 | 128 | 5282 | 53.82 ug/L # | 71 |

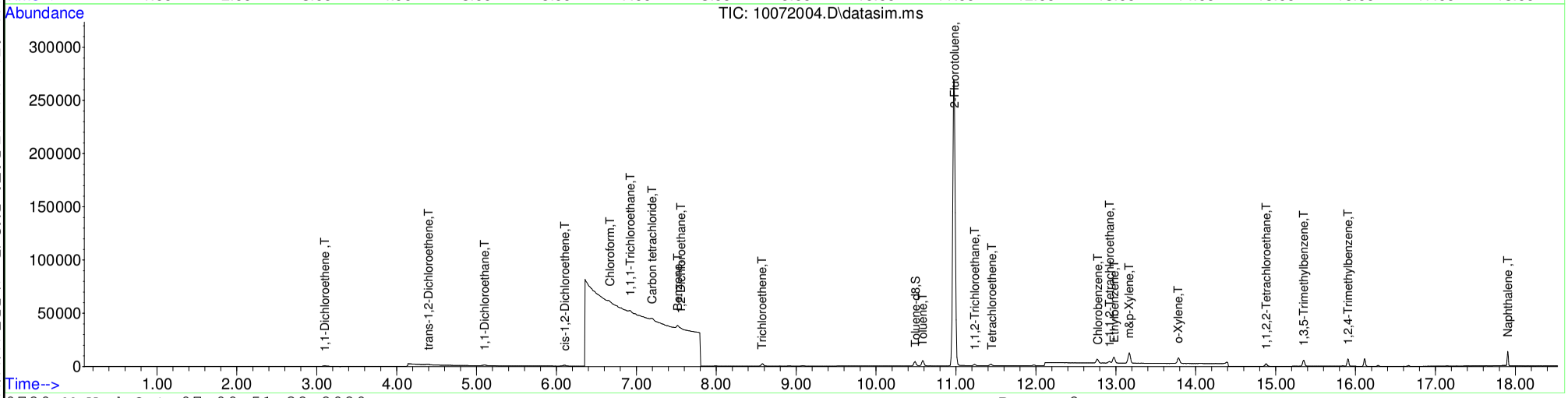
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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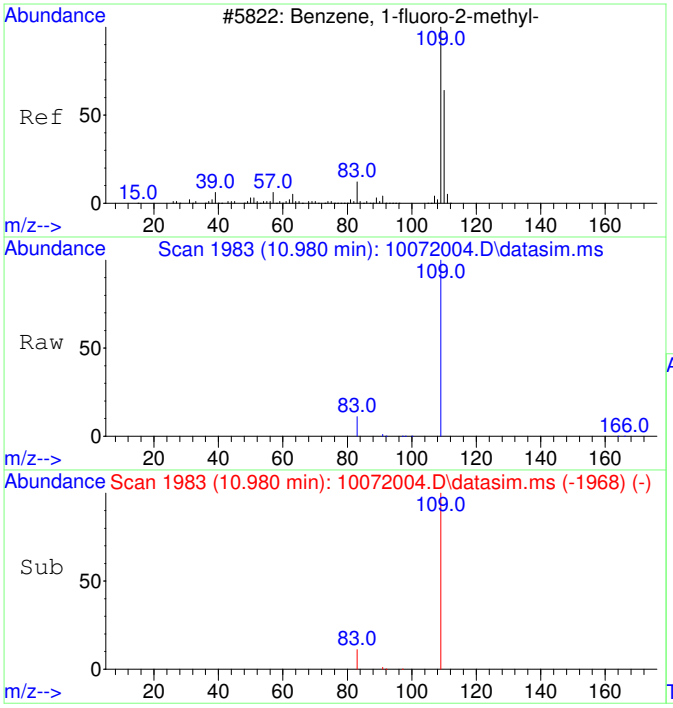
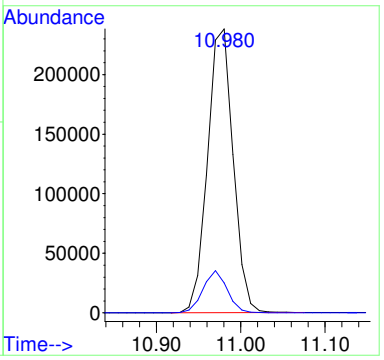
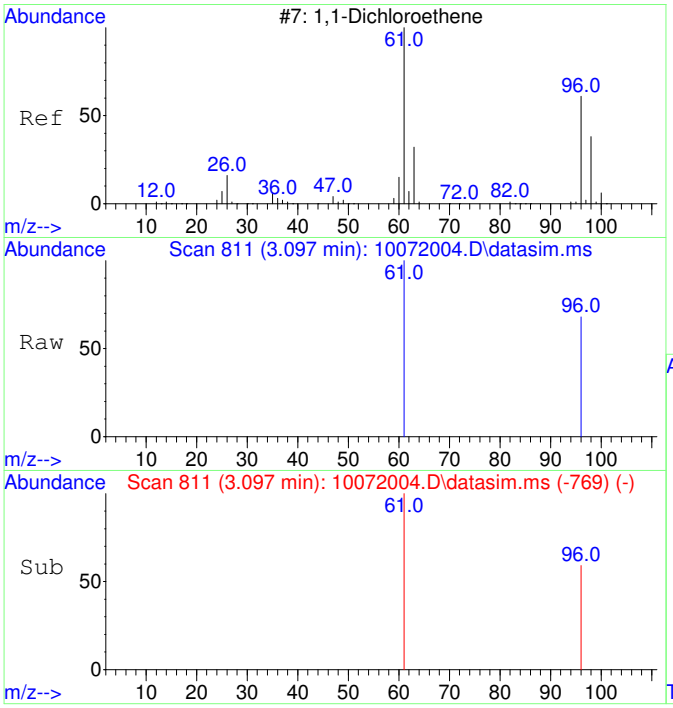



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 505137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

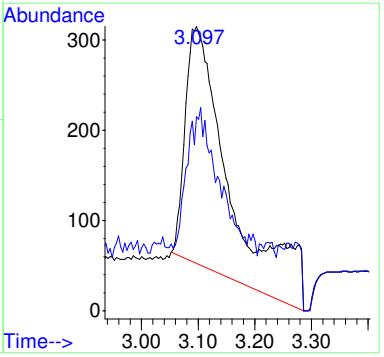


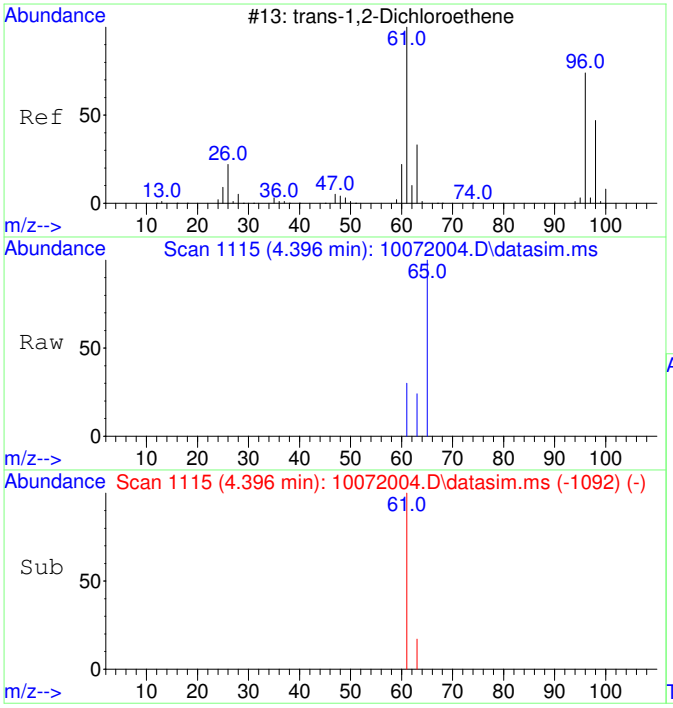

#2
1,1-Dichloroethene
Concen: 70.89 ug/L
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1430

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 17.3 | 37.2 | 97.2# |



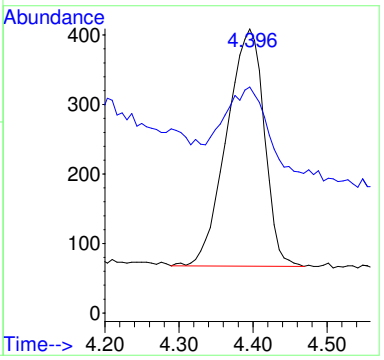

Before MI:
IMPROPER
BASELINE

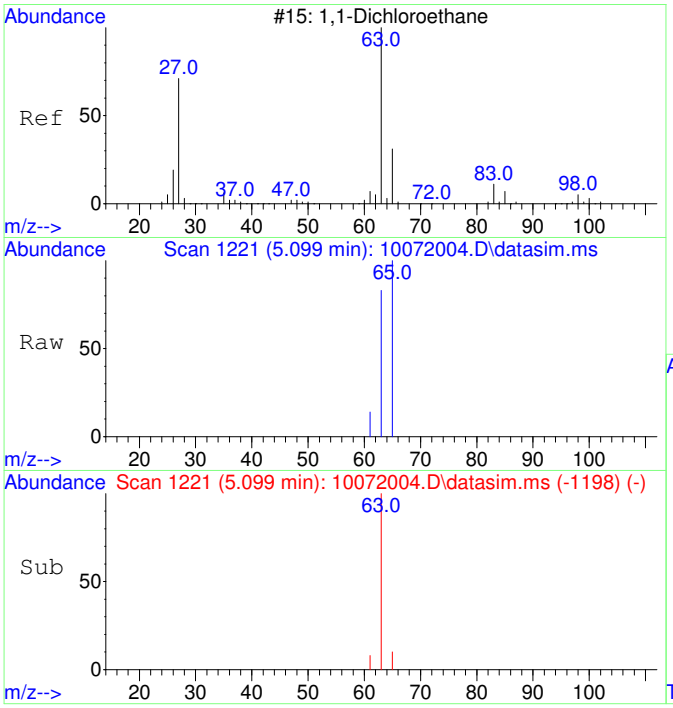



#3
trans-1,2-Dichloroethene
Concen: 51.83 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 41.8 | 2.4 | 62.4 |

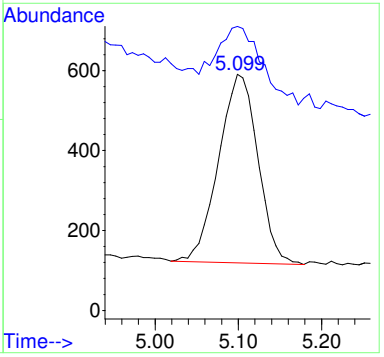


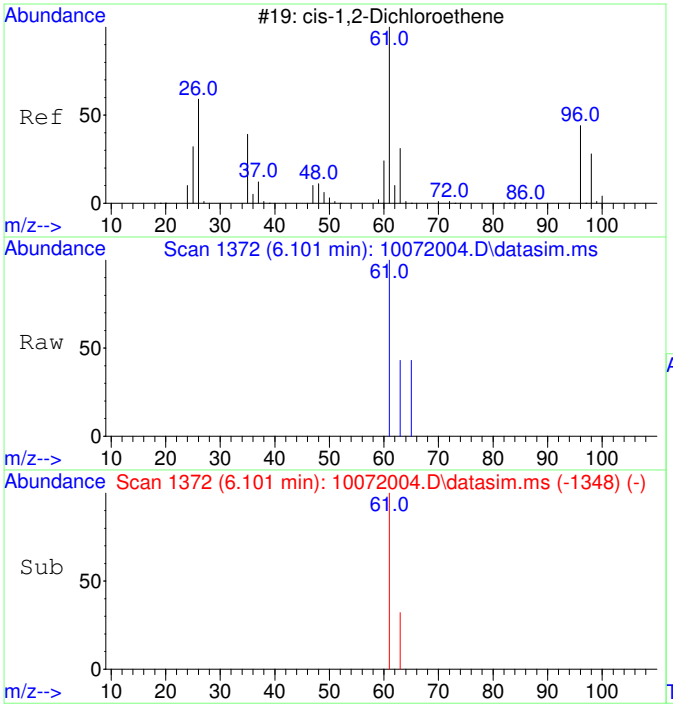




#4
1,1-Dichloroethane
Concen: 53.26 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 63 Resp: 1545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 52.0 | 1.8 | 61.8 |

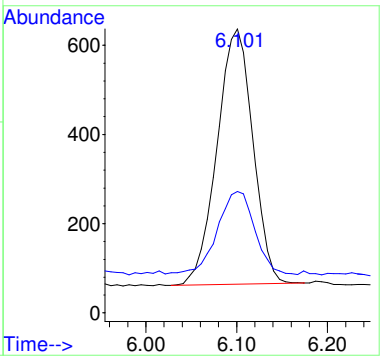


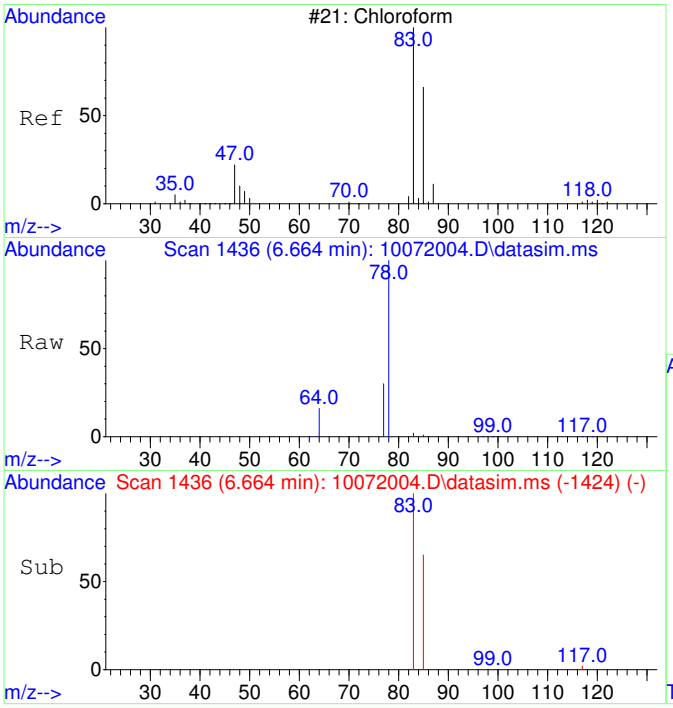



#5
cis-1,2-Dichloroethene
Concen: 51.27 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.7 | 2.5 | 62.5 |

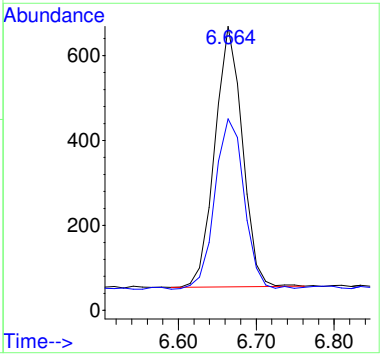


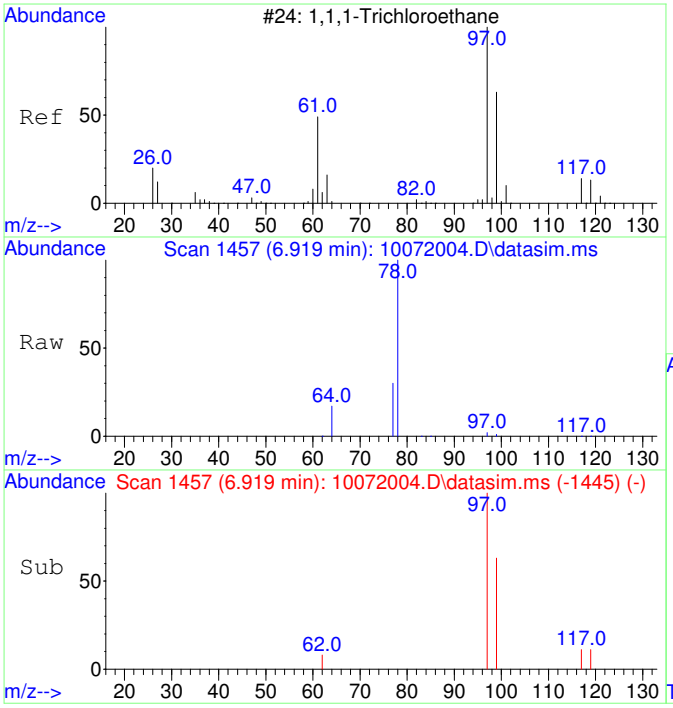




#6
Chloroform
Concen: 47.99 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1504

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.2 | 35.1 | 95.1 |

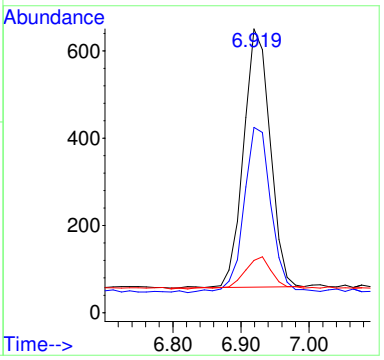


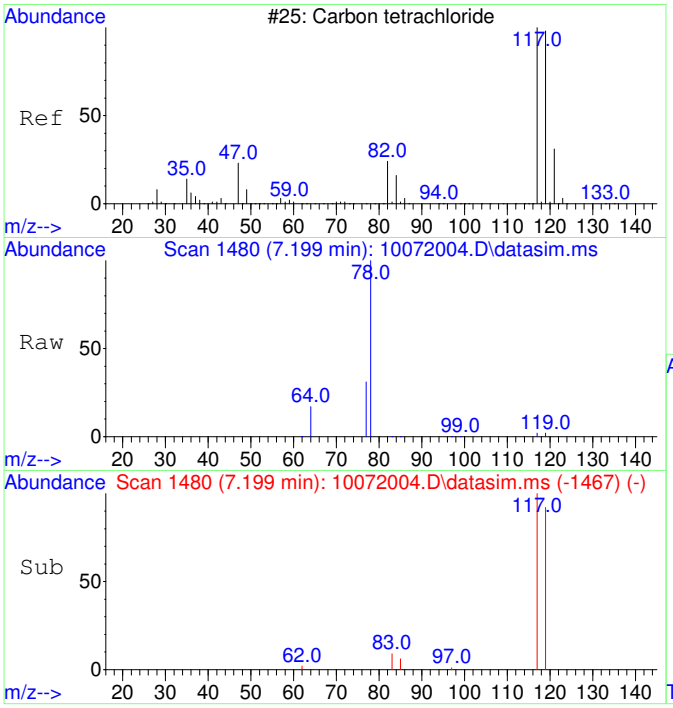



#7
1,1,1-Trichloroethane
Concen: 47.01 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.3 | 0.0 | 43.2 |

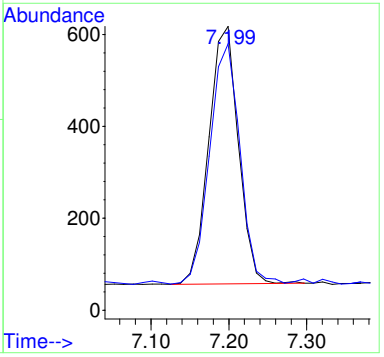


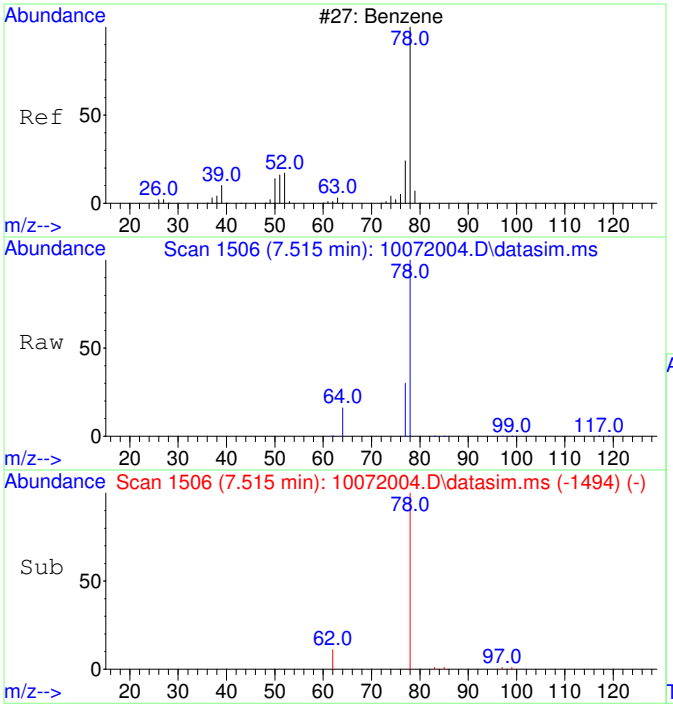




#8
Carbon tetrachloride
Concen: 46.10 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 1477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

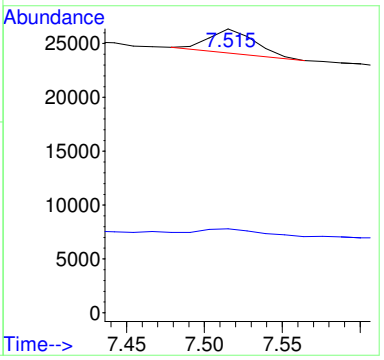


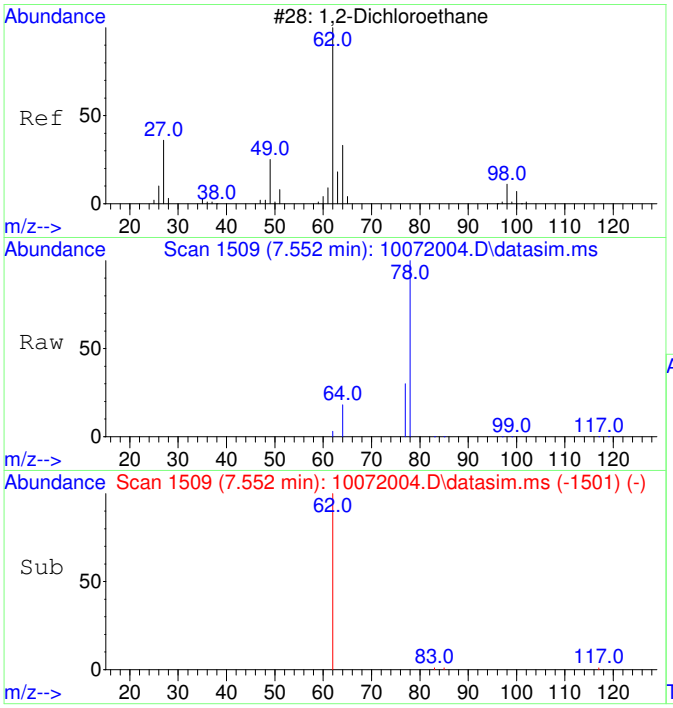



#9
Benzene
Concen: 49.16 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 4219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 84.0 | 0.0 | 53.2# |

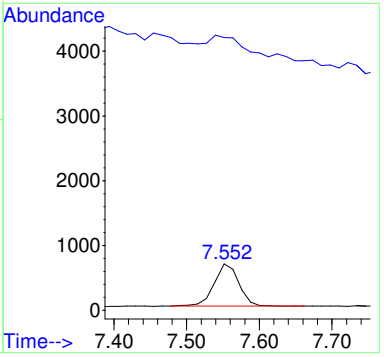


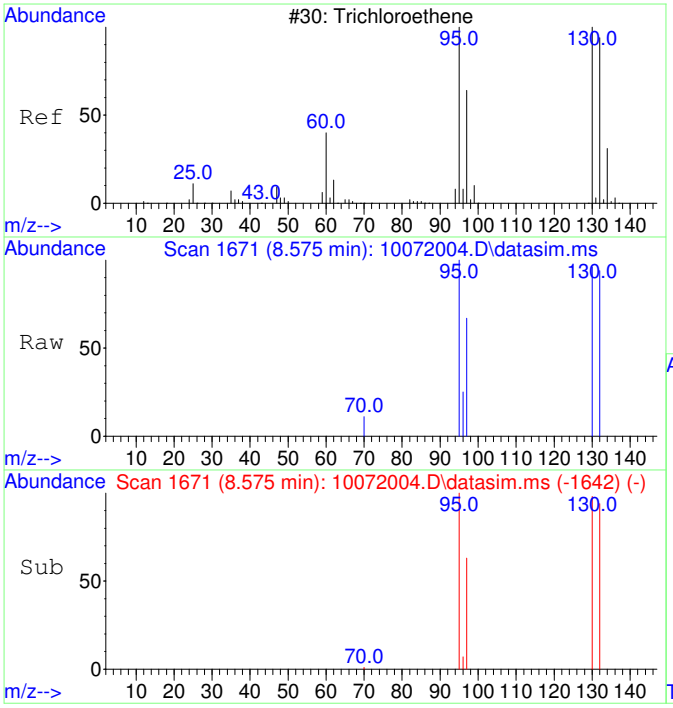




#10
1,2-Dichloroethane
Concen: 50.23 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 1539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 99.5 | 2.3 | 62.3# |

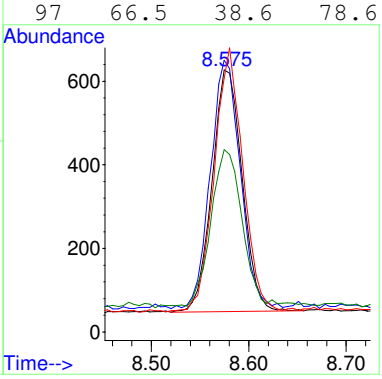


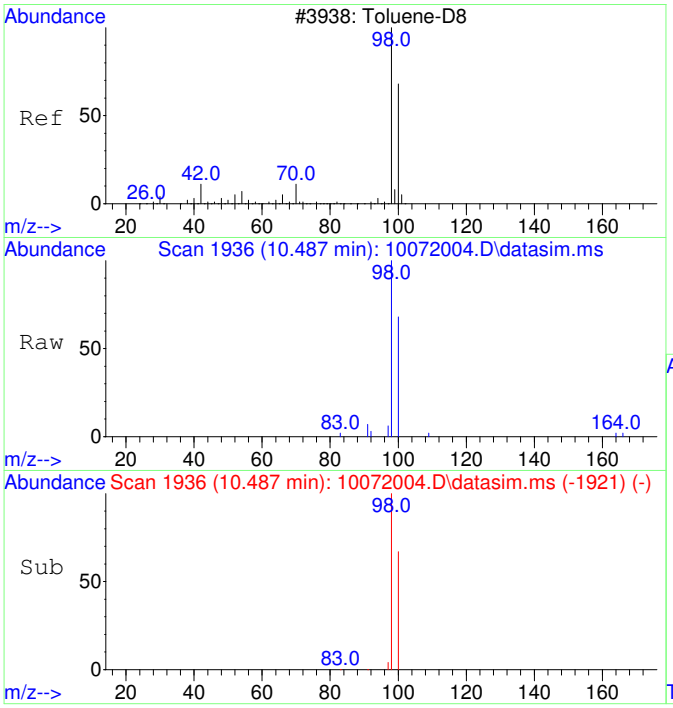



#11
Trichloroethene
Concen: 48.18 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 1245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.2 | 60.7 | 120.7 |
| 132 | 102.7 | 76.0 | 116.0 |
| 97 | 66.5 | 38.6 | 78.6 |

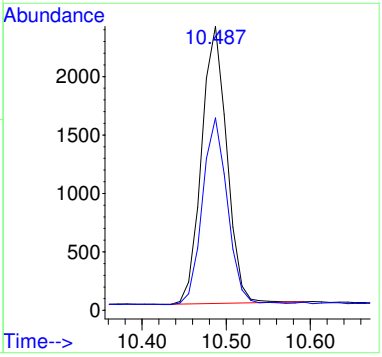


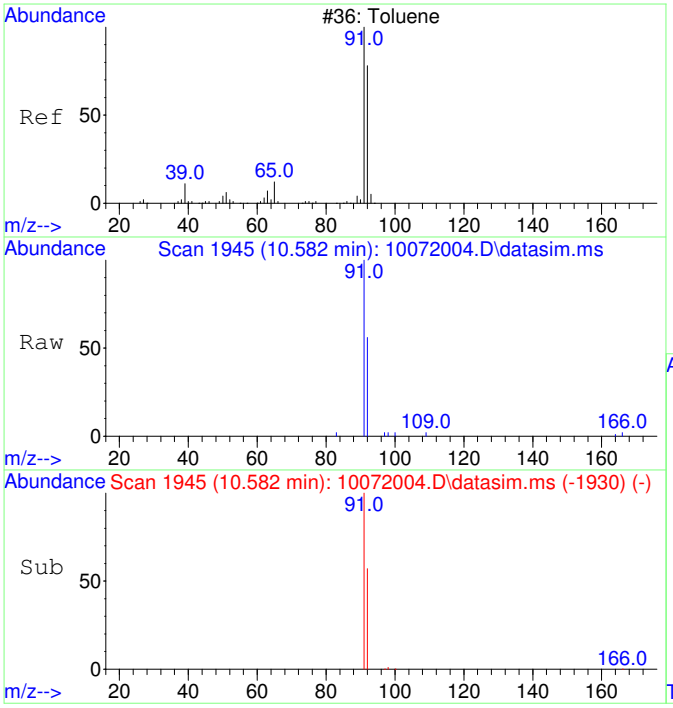




#12
Toluene-d8
Concen: 49.83 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 4927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.2 | 37.1 | 97.1 |

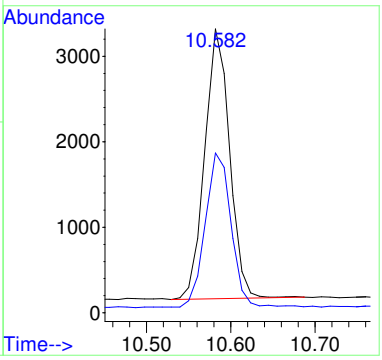


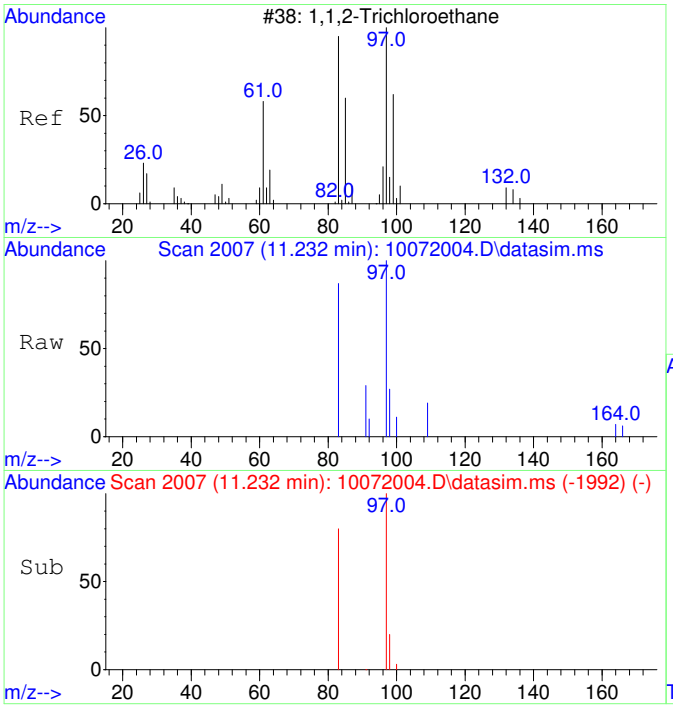



#13
Toluene
Concen: 51.23 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.4 | 29.9 | 89.9 |

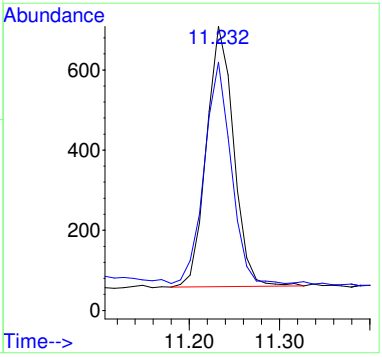


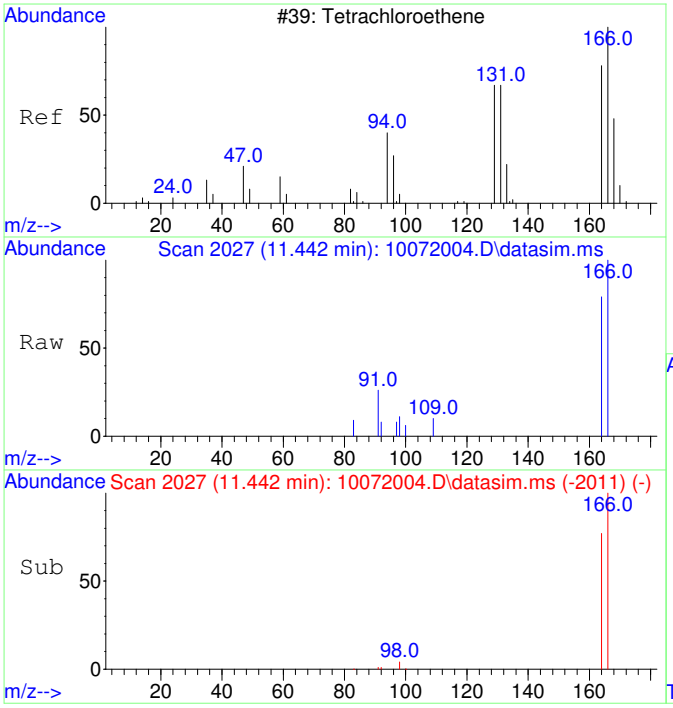




#14
1,1,2-Trichloroethane
Concen: 49.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.6 | 51.2 | 111.2 |

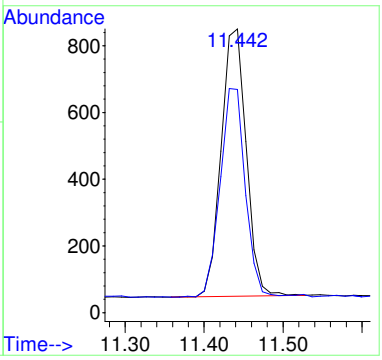


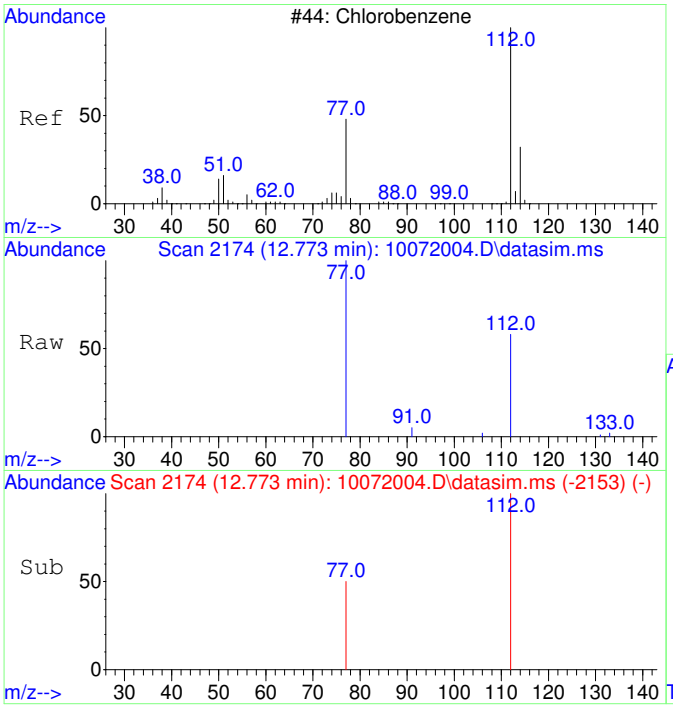



#15
Tetrachloroethene
Concen: 48.49 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:166 Resp: 1769

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.0 | 47.8 | 107.8 |

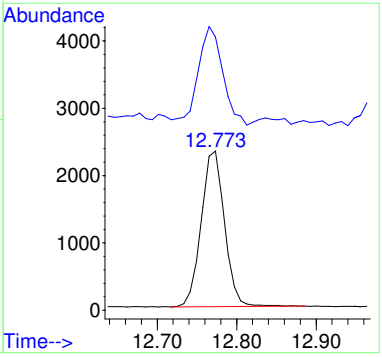


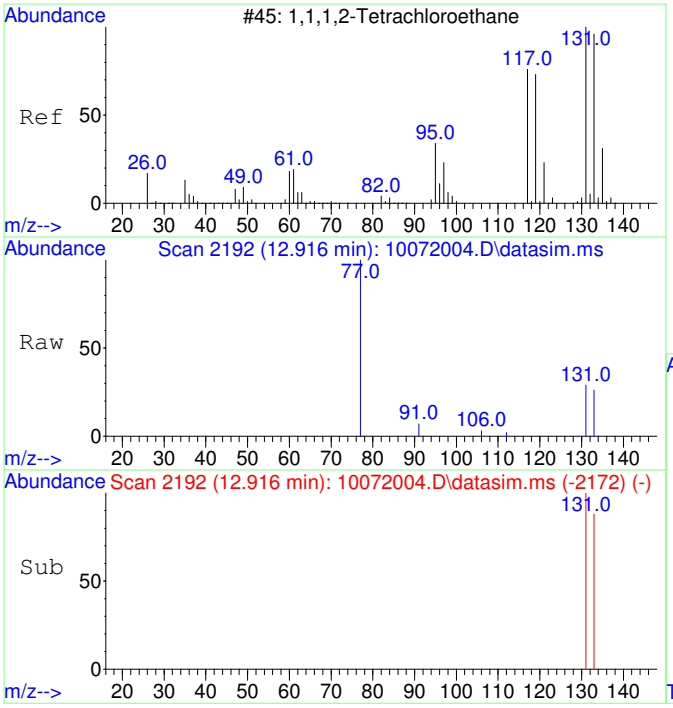




#16
Chlorobenzene
Concen: 52.17 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 4709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 66.9 | 23.6 | 83.6 |

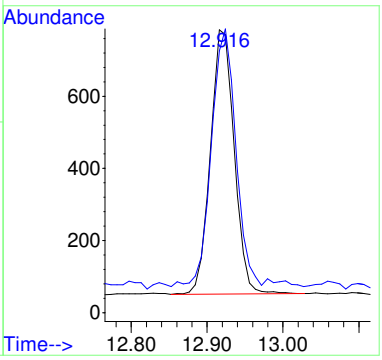


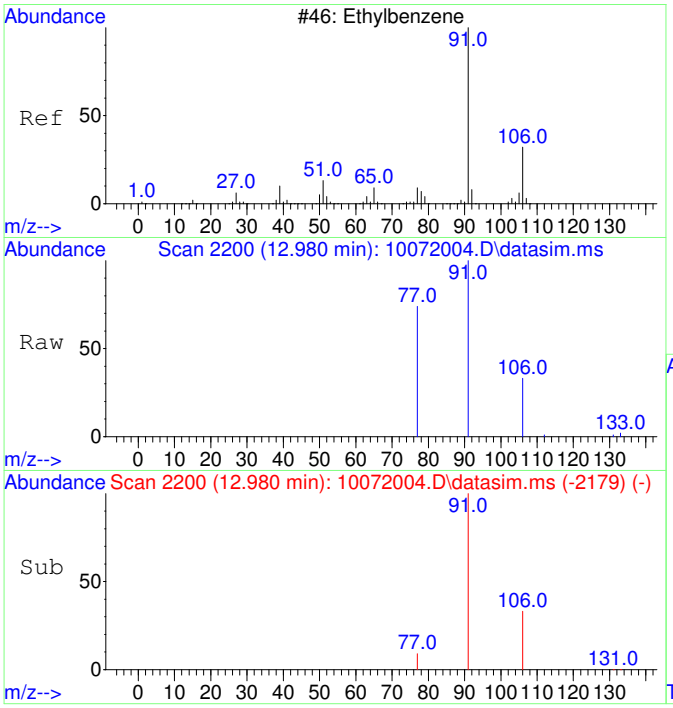



#17
1,1,1,2-Tetrachloroethane
Concen: 49.37 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 1597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.1 | 66.3 | 126.3 |

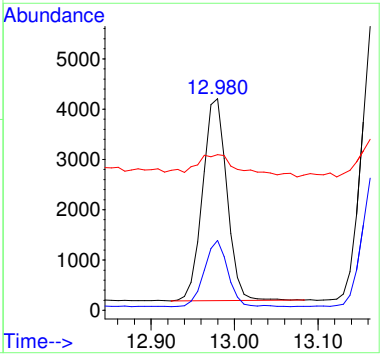


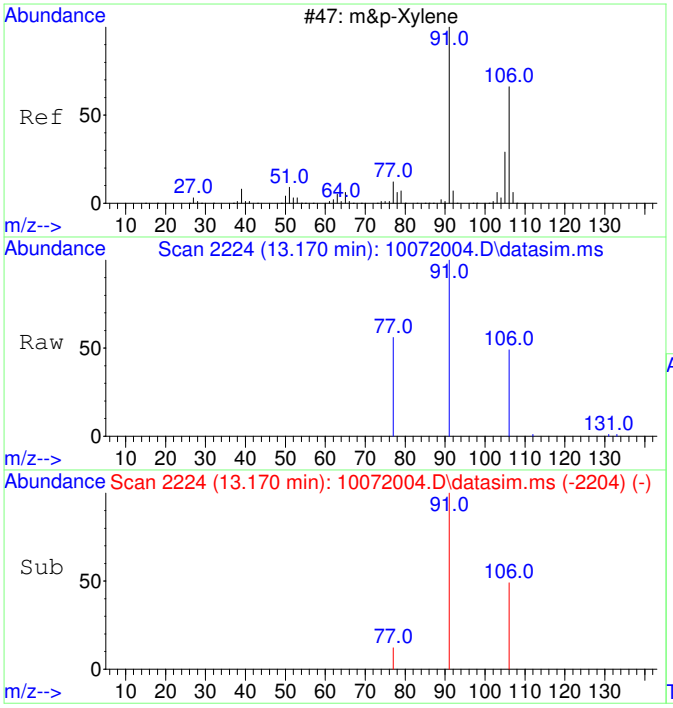




#18
Ethylbenzene
Concen: 52.88 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 8115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 21.2 | 0.0 | 38.2 |

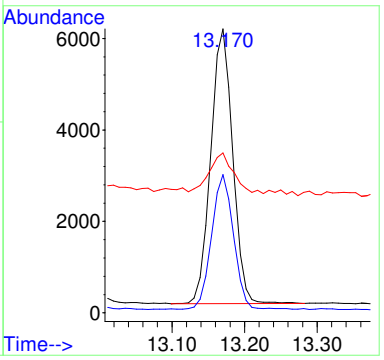


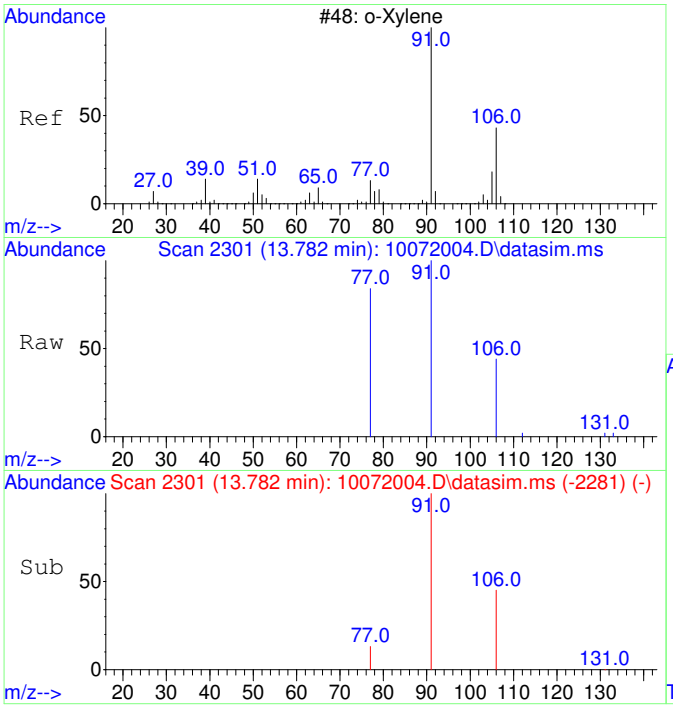



#19
m&p-Xylene
Concen: 105.22 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 12619

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 22.2 | 82.2 |
| 77 | 17.0 | 0.0 | 42.4 |

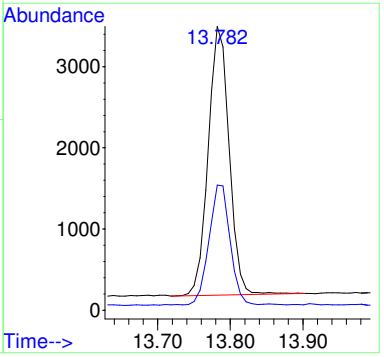


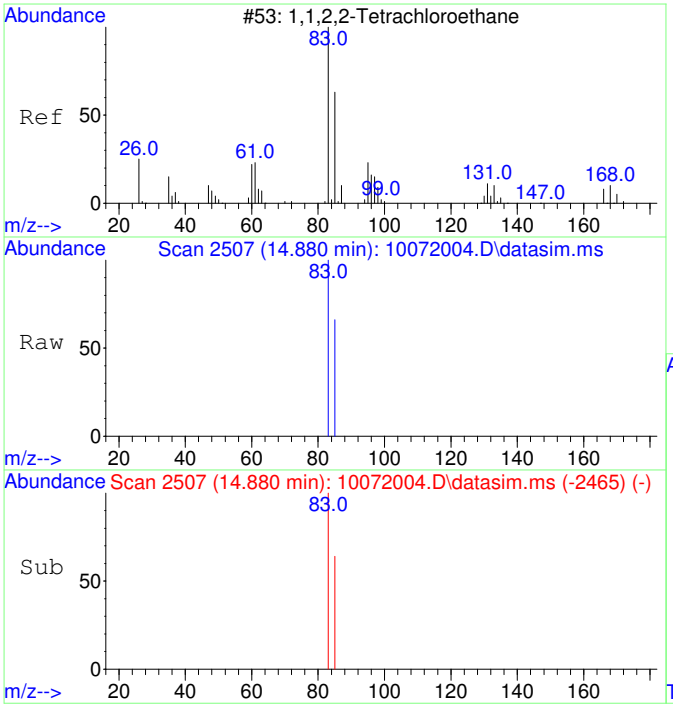




#20
o-Xylene
Concen: 51.99 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.7 | 19.2 | 79.2 |

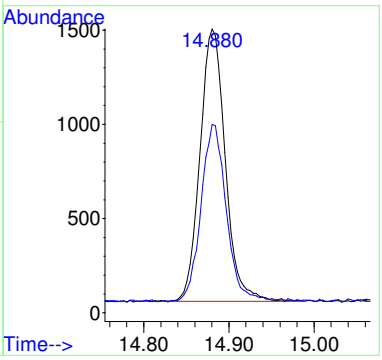


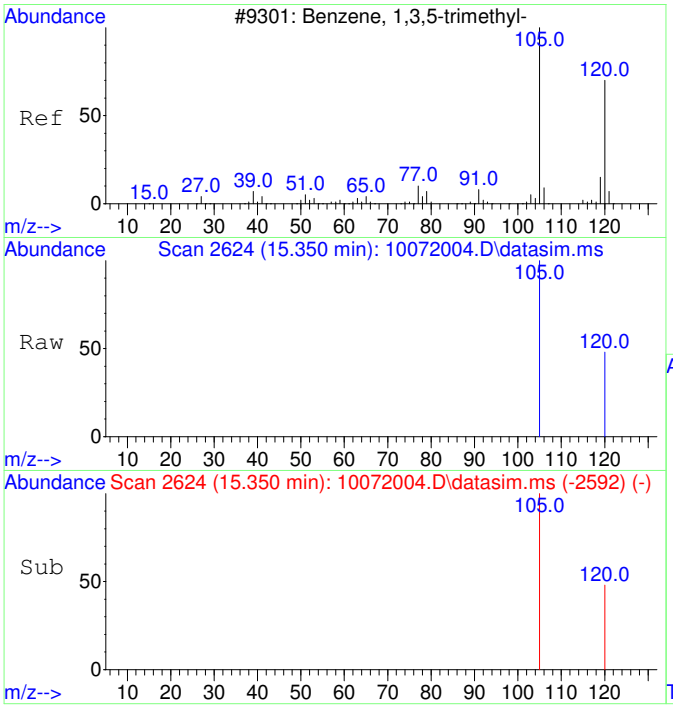



#21
1,1,2,2-Tetrachloroethane
Concen: 52.46 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 2979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.7 | 34.8 | 94.8 |

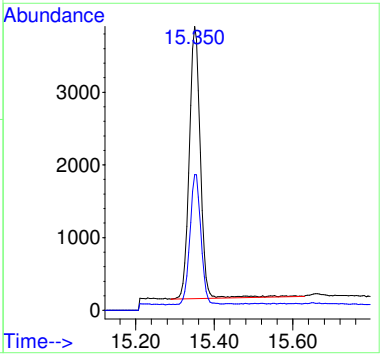


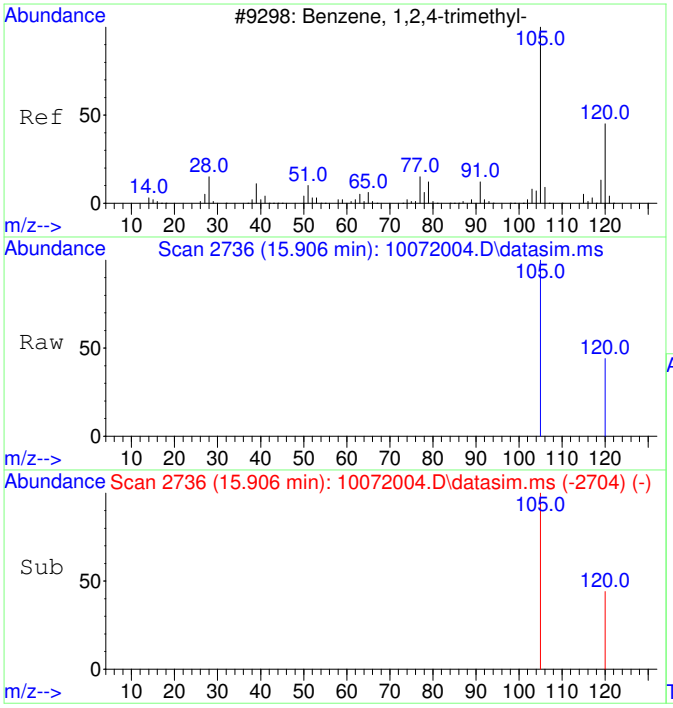




#22
1,3,5-Trimethylbenzene
Concen: 54.22 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.7 | 21.1 | 81.1 |

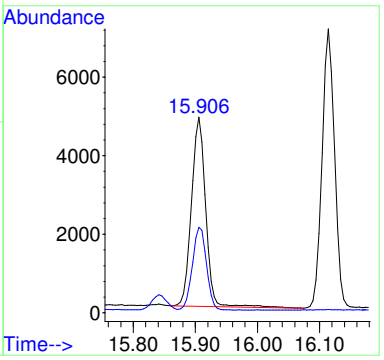


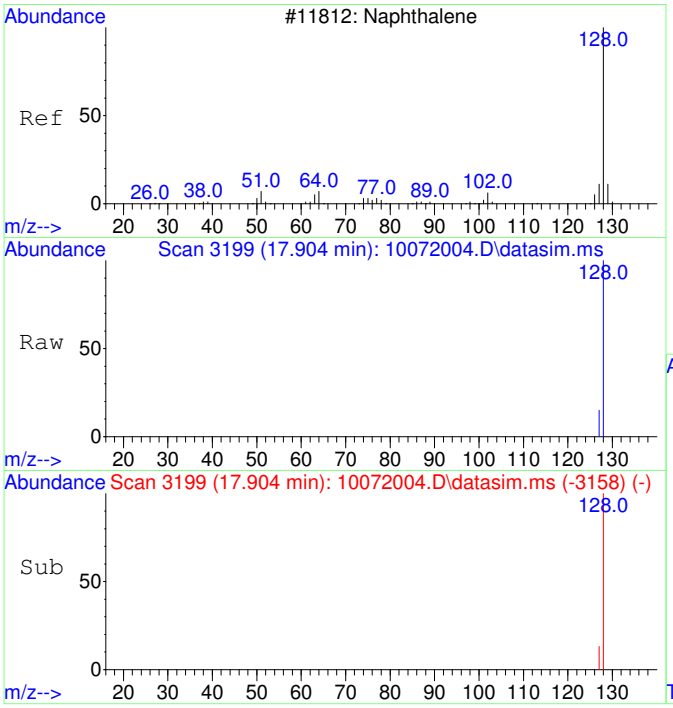



#23
1,2,4-Trimethylbenzene
Concen: 54.30 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.7 | 17.2 | 77.2 |

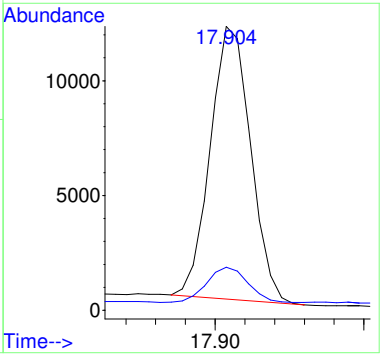


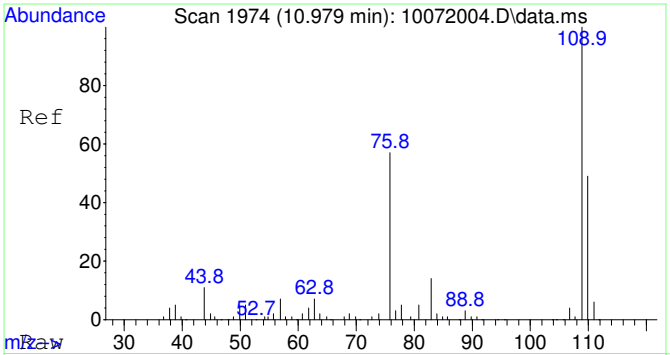




#24
Naphthalene
Concen: 49.96 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 11186

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 42.5 |

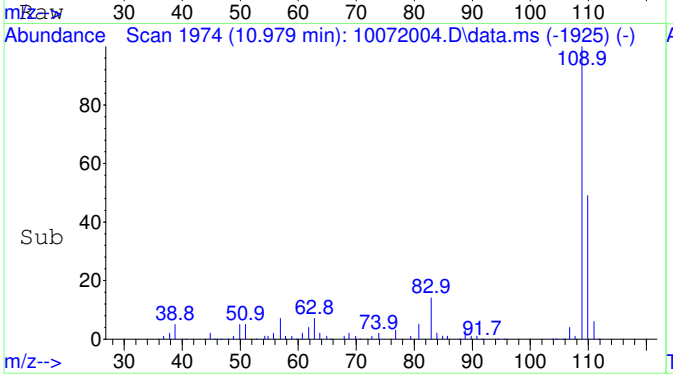


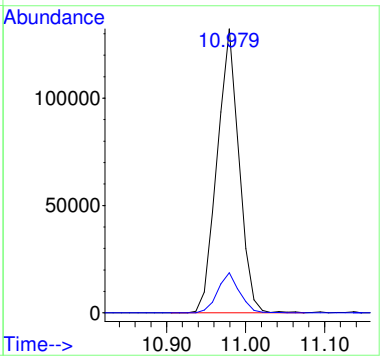


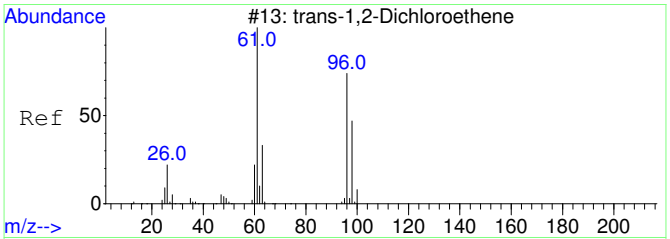

#25
2-Fluorotoluene SCAN
Concen: 5163.42 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 254255

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.0 | 0.0 | 43.8 |



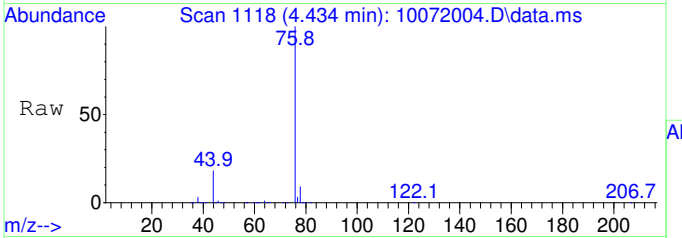



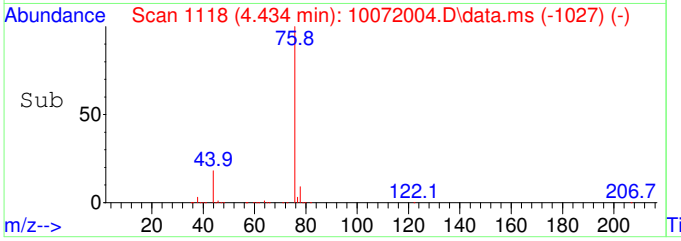



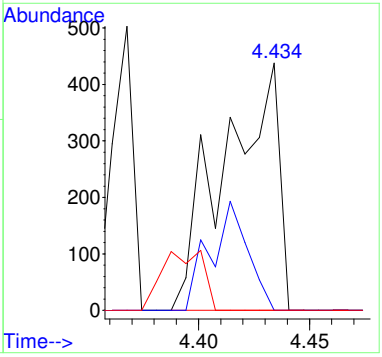

#27
trans-1,2-Dichloroethene SCAN
Concen: 57.73 ug/L
RT: 4.434 min Scan# 1118
Delta R.T. 0.033 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

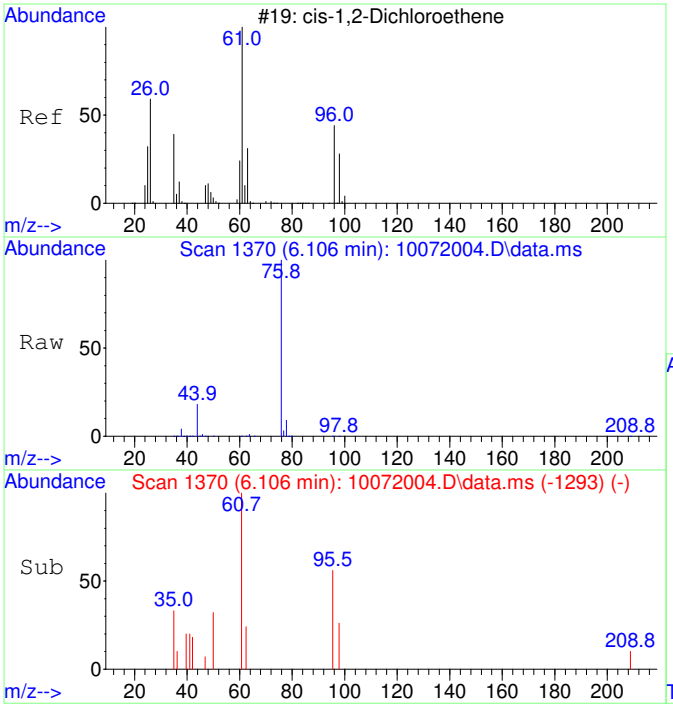
Tgt Ion: 61 Resp: 747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 0.0 | 20.5 | 80.5# |



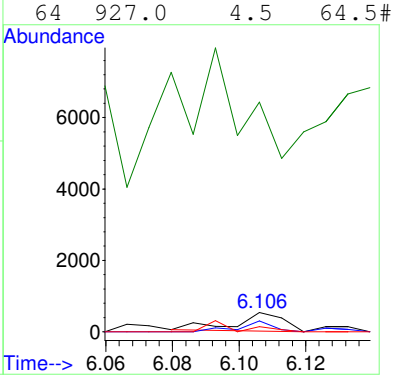



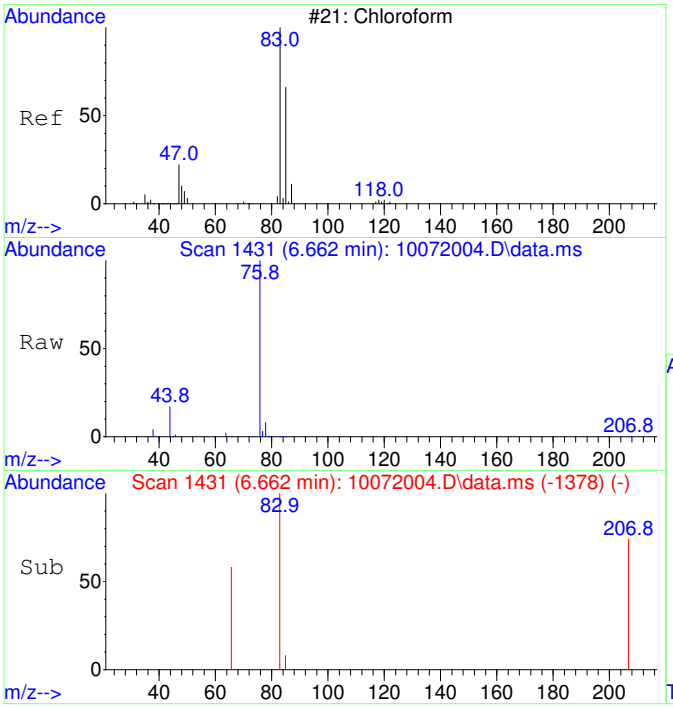



#29
cis-1,2-Dichloroethene SCAN
Concen: 32.35 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 41.4 | 39.9 | 99.9 |
| 98 | 39.7 | 13.5 | 73.5 |
| 64 | 927.0 | 4.5 | 64.5# |

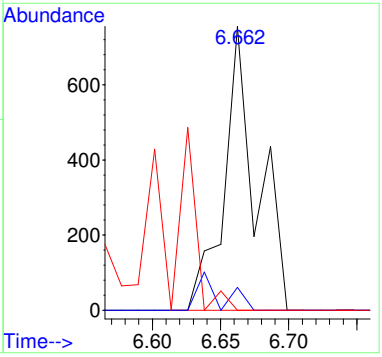


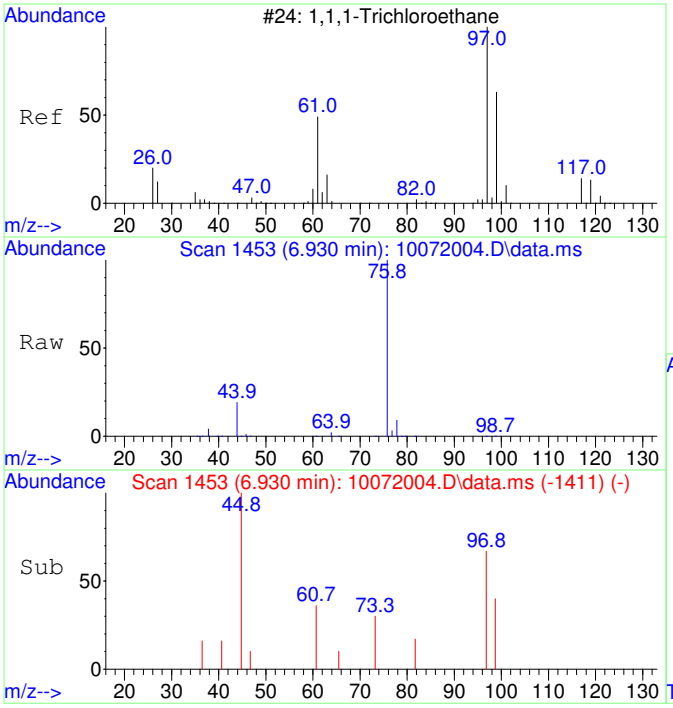




#30
Chloroform SCAN
Concen: 72.17 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1256

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

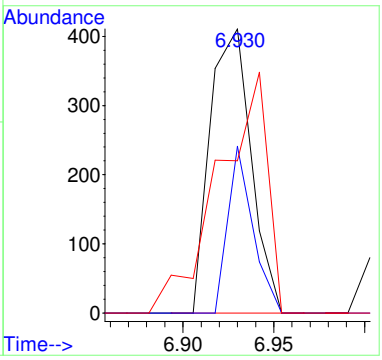


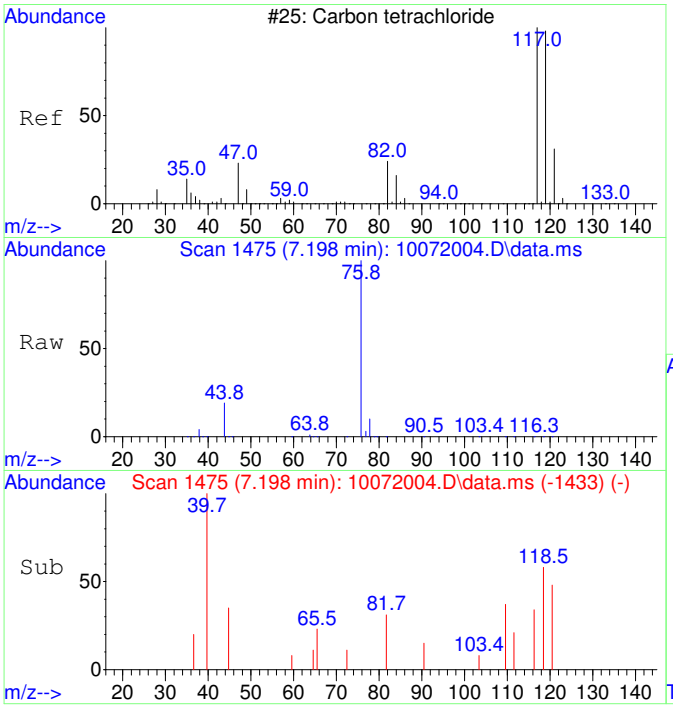



#31
1,1,1-Trichloroethane SCAN
Concen: 40.67 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 35.7 | 43.6 | 103.6# |
| 61 | 101.2 | 18.0 | 78.0# |

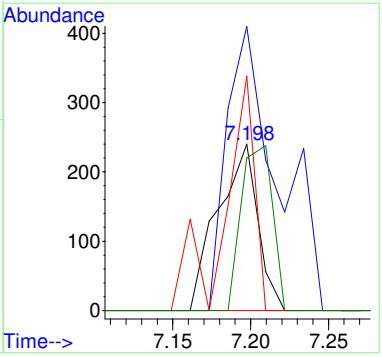


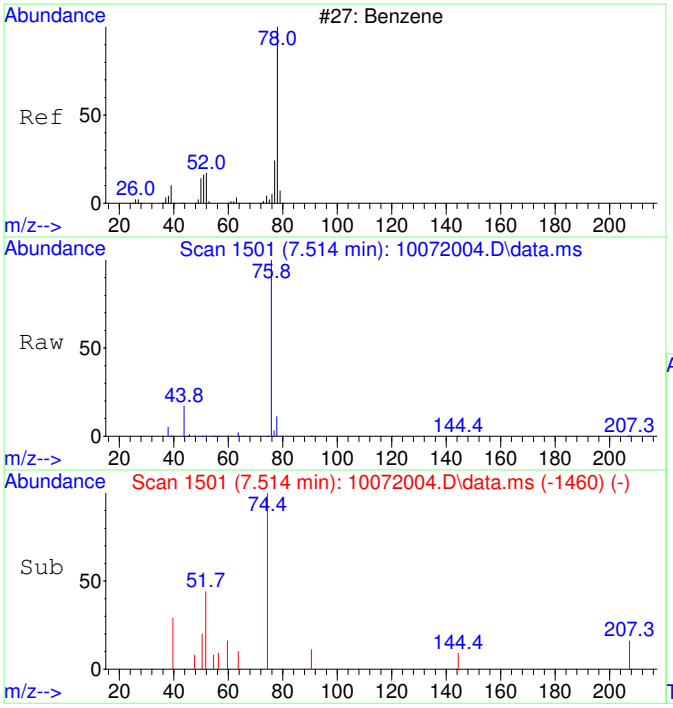




#32
Carbon tetrachloride SCAN
Concen: 26.05 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 219.3 | 75.5 | 135.5# |
| 121 | 105.3 | 0.0 | 58.8# |
| 82 | 77.5 | 0.0 | 59.2# |

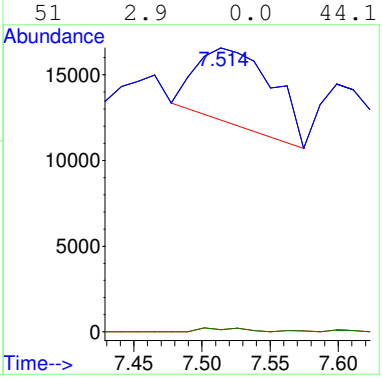


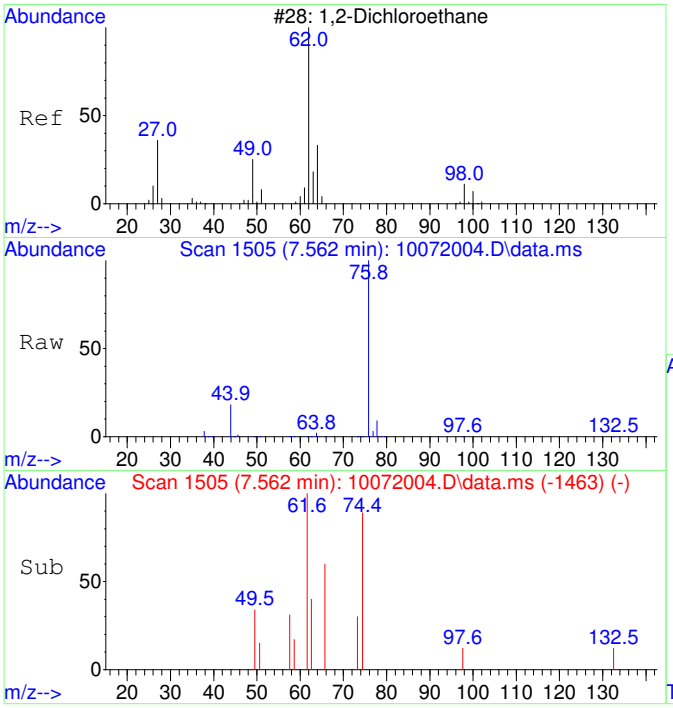



#33
Benzene SCAN
Concen: 379.26 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 16561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 2.9 | 0.0 | 47.9 |
| 51 | 2.9 | 0.0 | 44.1 |

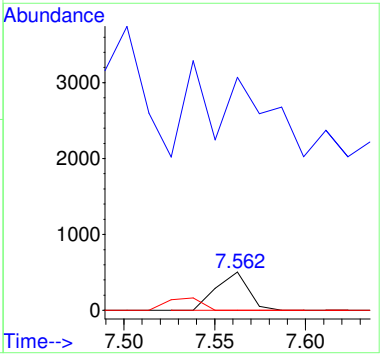


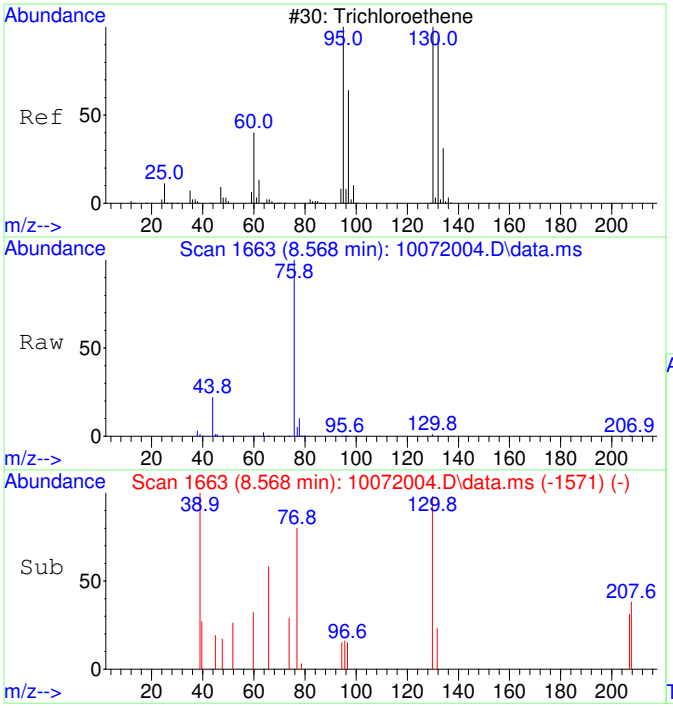




#34
1,2-Dichloroethane SCAN
Concen: 38.27 ug/L
RT: 7.562 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

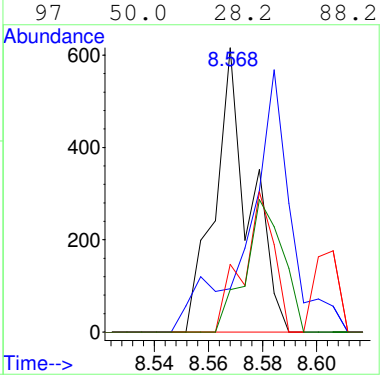


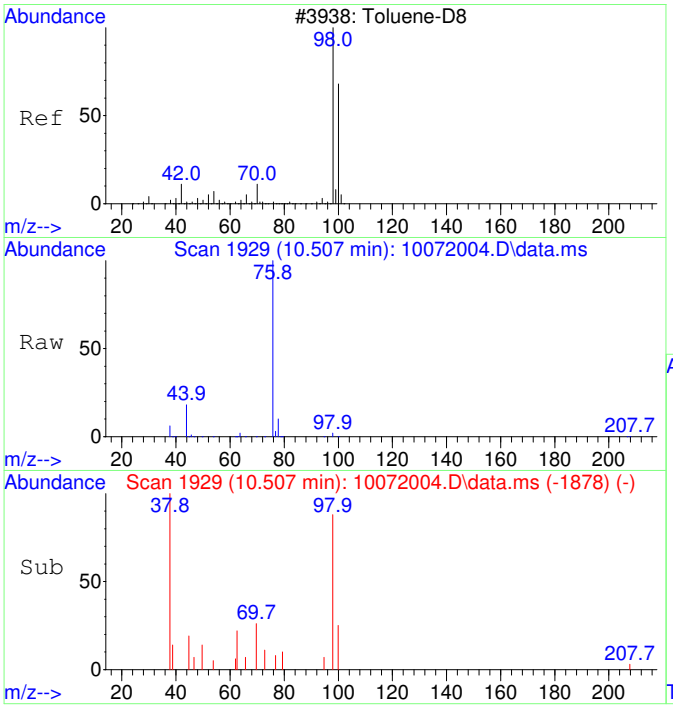



#35
Trichloroethene SCAN
Concen: 46.00 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.6 | 60.5 | 120.5 |
| 132 | 43.8 | 59.6 | 119.6# |
| 97 | 50.0 | 28.2 | 88.2 |

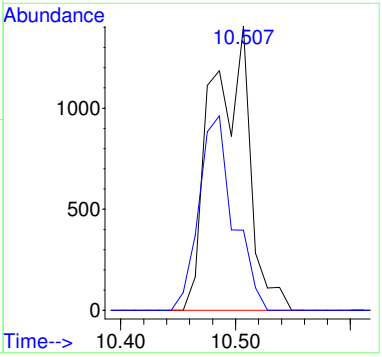


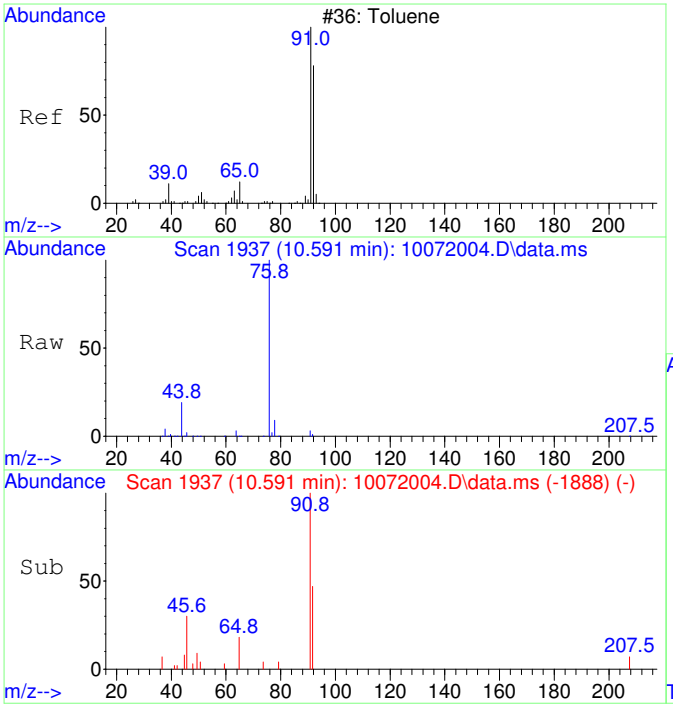




#36
Toluene-d8 SCAN
Concen: 68.51 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 3299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 0.0 | 40.0 | 100.0# |

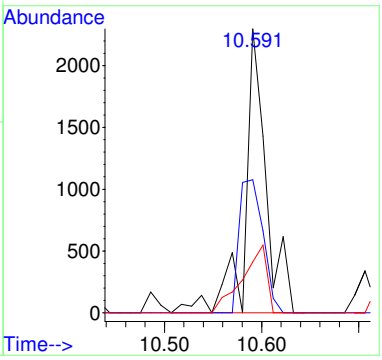


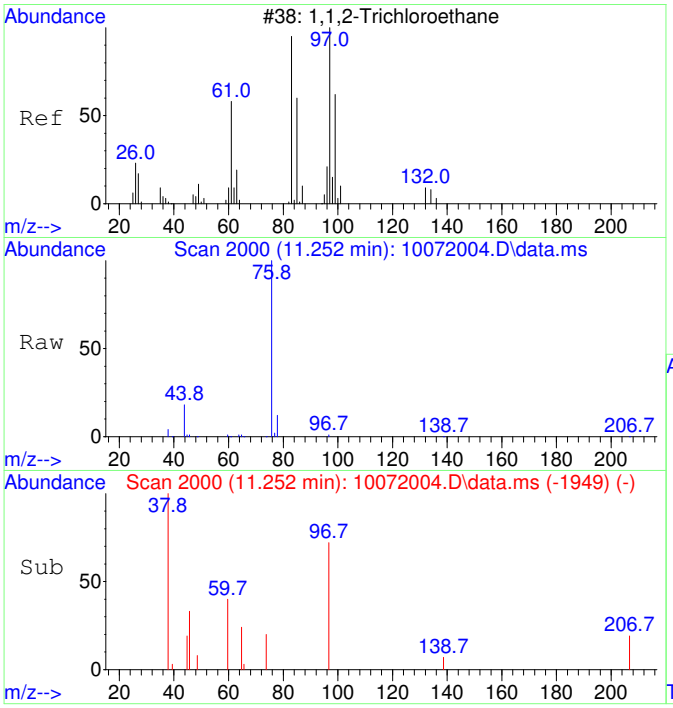



#37
Toluene SCAN
Concen: 56.43 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 3480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.7 | 28.3 | 88.3 |
| 65 | 27.5 | 0.0 | 41.0 |

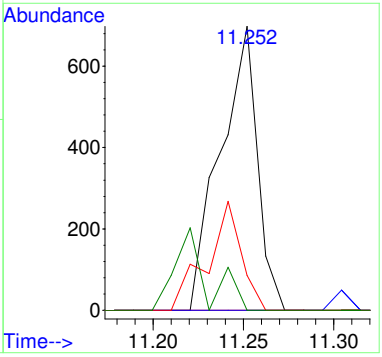


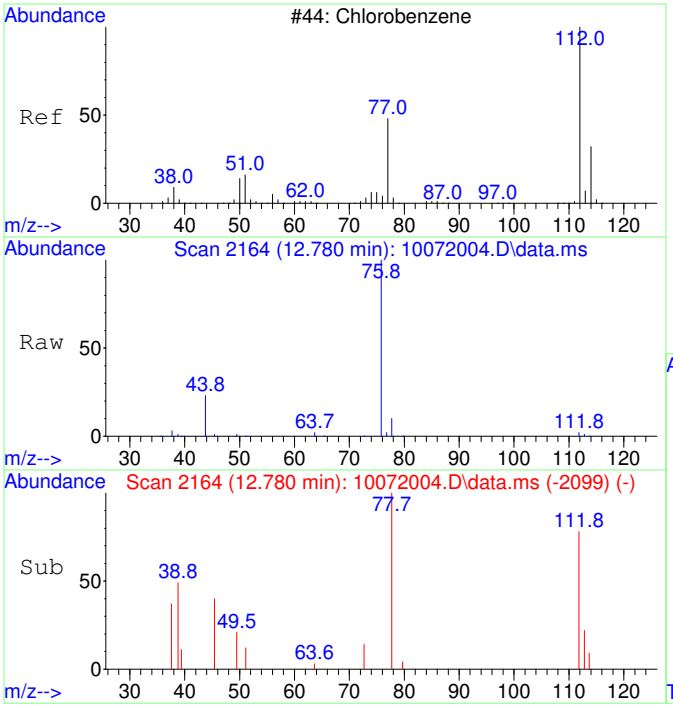




#38
1,1,2-Trichloroethane SCAN
Concen: 72.24 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 35.1 | 32.1 | 92.1 |
| 99 | 0.0 | 36.7 | 96.7# |

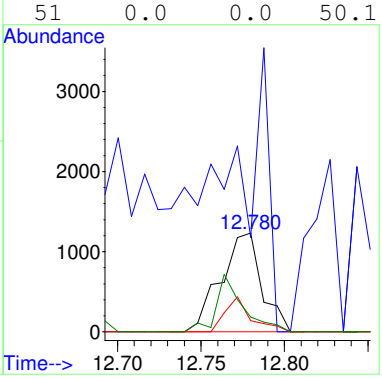


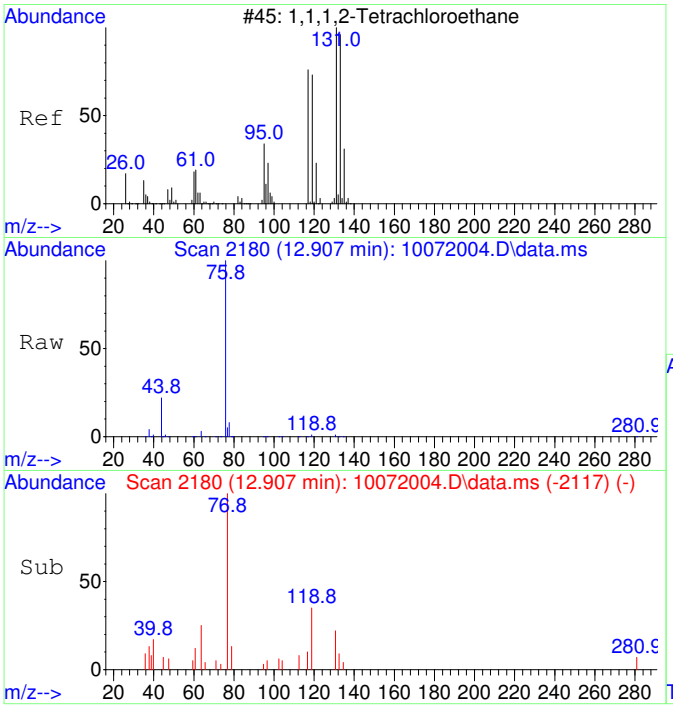



#40
Chlorobenzene SCAN
Concen: 50.02 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 2108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 873.2 | 28.2 | 88.2# |
| 114 | 0.0 | 2.3 | 62.3# |
| 51 | 0.0 | 0.0 | 50.1 |

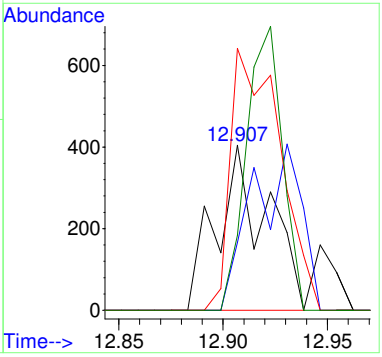


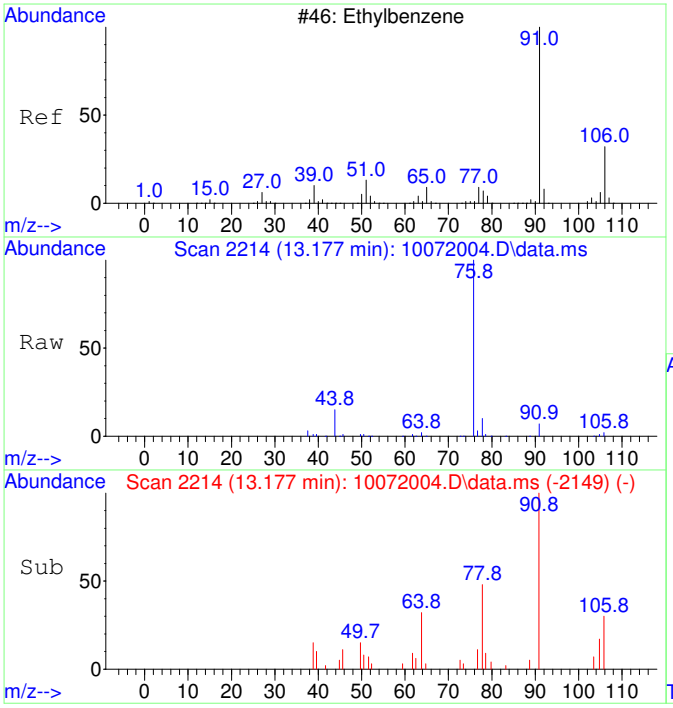




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 43.73 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 155.6 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

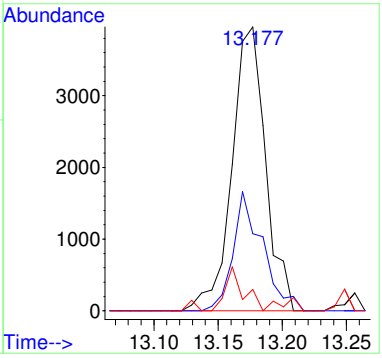


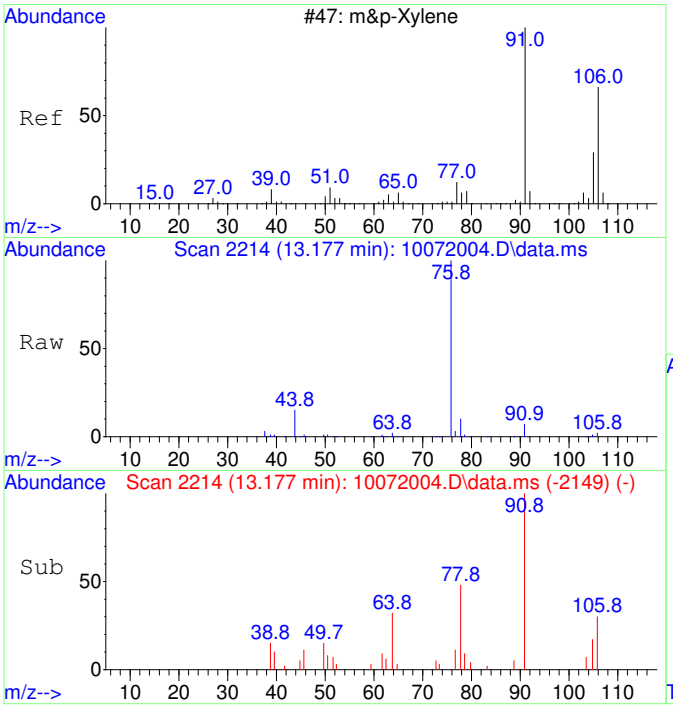



#42
Ethylbenzene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 51 | 10.7 | 0.0 | 40.1 |

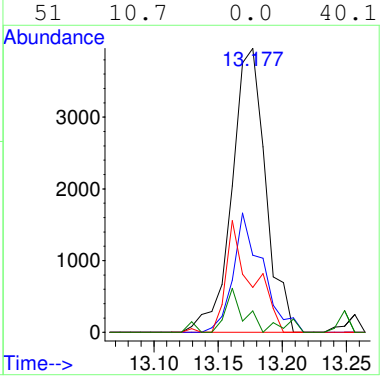


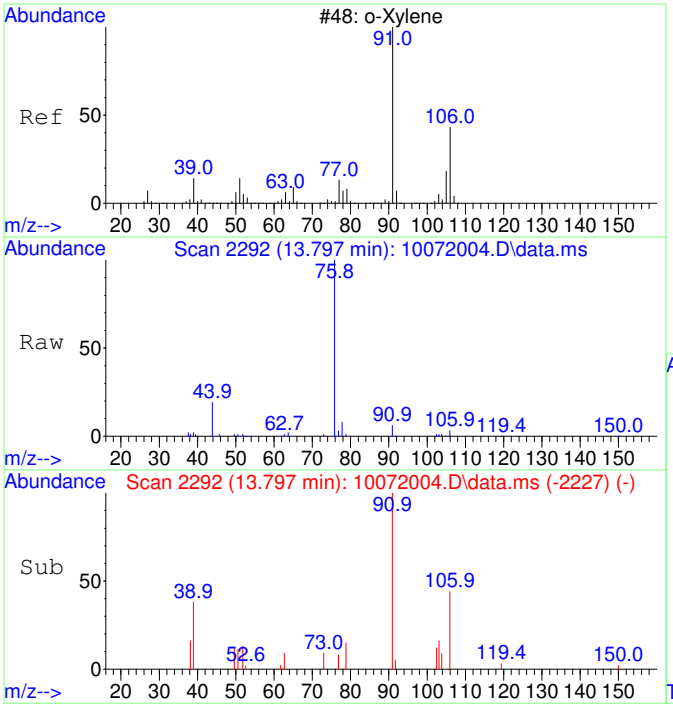




#43
m&p-Xylene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 105 | 30.4 | 0.0 | 54.7 |
| 51 | 10.7 | 0.0 | 40.1 |

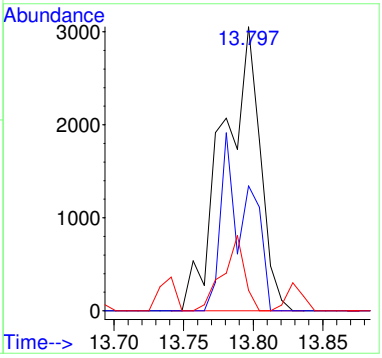


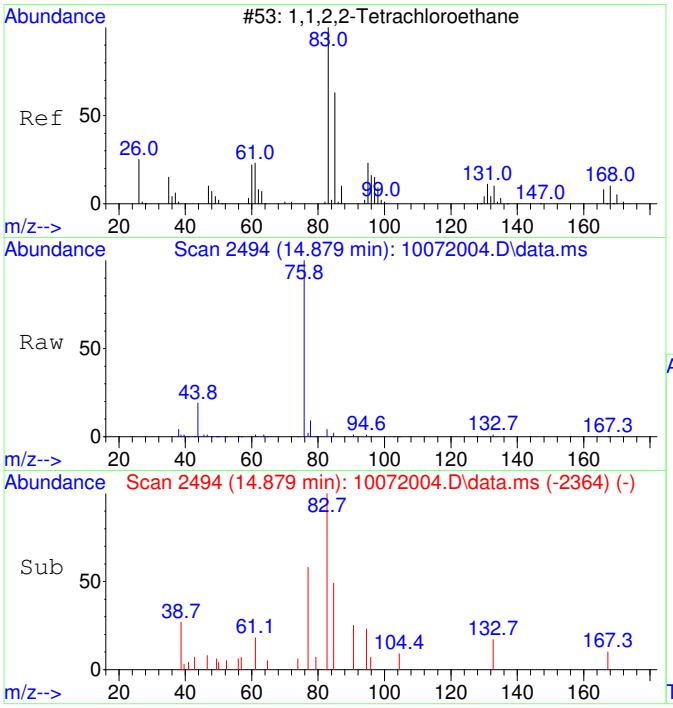



#44
o-Xylene SCAN
Concen: 95.24 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 5728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.0 | 18.0 | 78.0 |
| 105 | 15.3 | 0.0 | 56.6 |

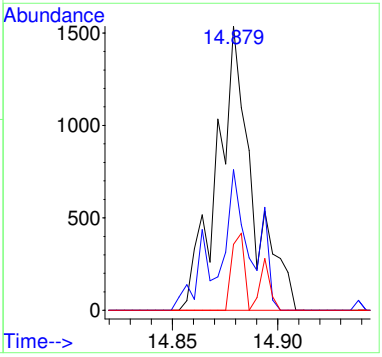


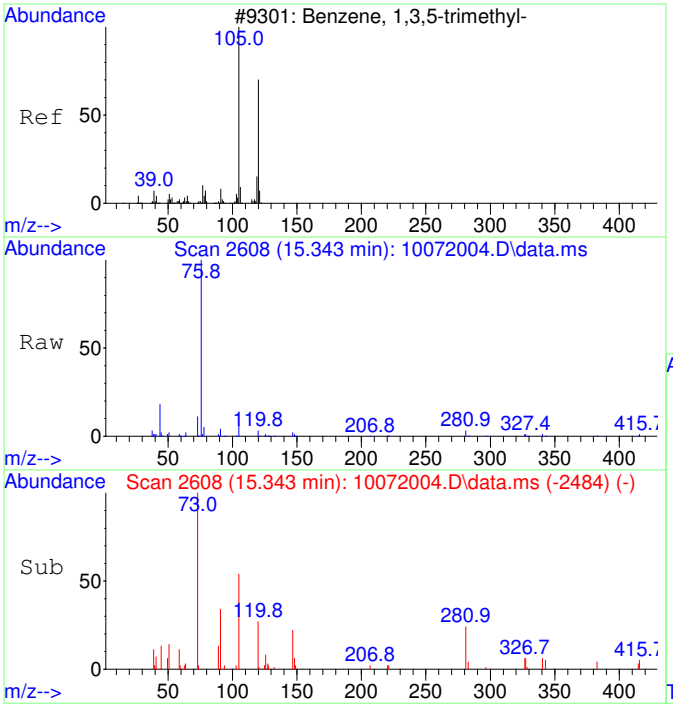




#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 60.94 ug/L
RT: 14.879 min Scan# 2494
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 26.2 | 35.9 | 95.9# |
| 95 | 8.8 | 0.0 | 47.4 |

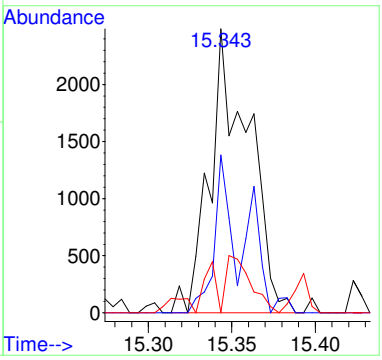


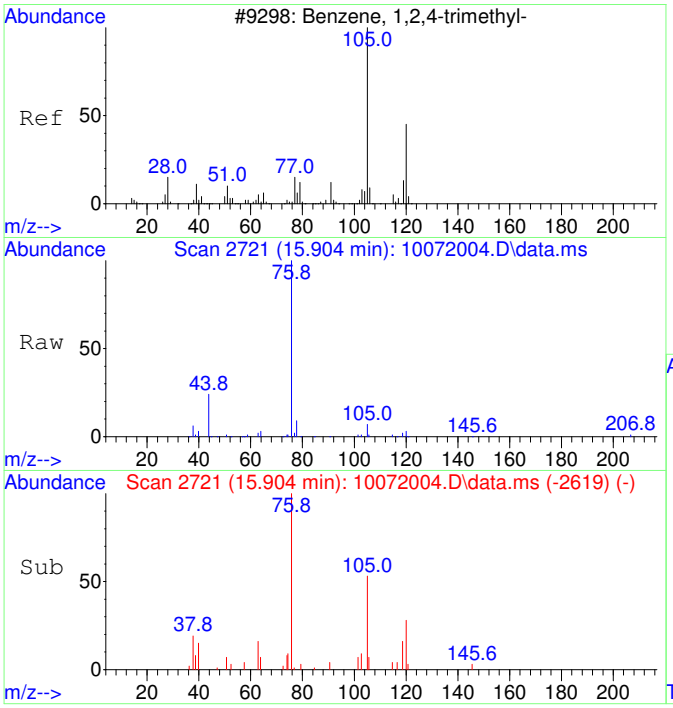



#46
1,3,5-Trimethylbenzene SCAN
Concen: 63.91 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 4051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 17.4 | 18.3 | 78.3# |
| 119 | 12.6 | 0.0 | 43.1 |

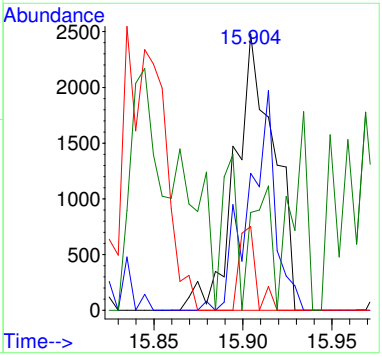


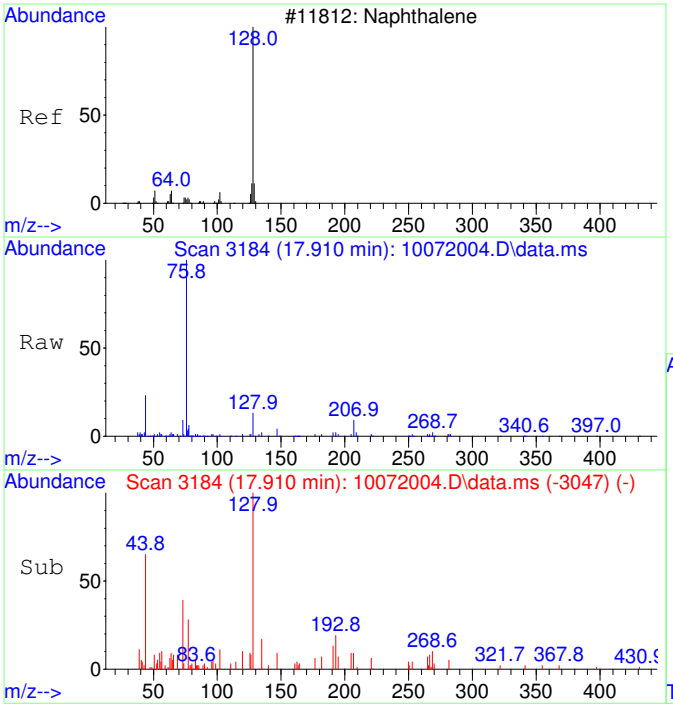




#47
1,2,4-Trimethylbenzene SCAN
Concen: 57.44 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 3725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 55.4 | 16.9 | 76.9 |
| 119 | 13.3 | 0.0 | 41.9 |
| 77 | 23.1 | 0.0 | 42.3 |

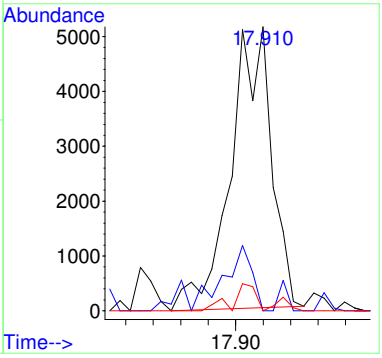





#48
Naphthalene SCAN
Concen: 53.82 ug/L
RT: 17.910 min Scan# 3184
Delta R.T. 0.009 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 5282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 2.3 | 0.0 | 44.0 |
| 129 | 0.0 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

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M.I. Performed By:

TD at 10:50 am, Oct 07, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

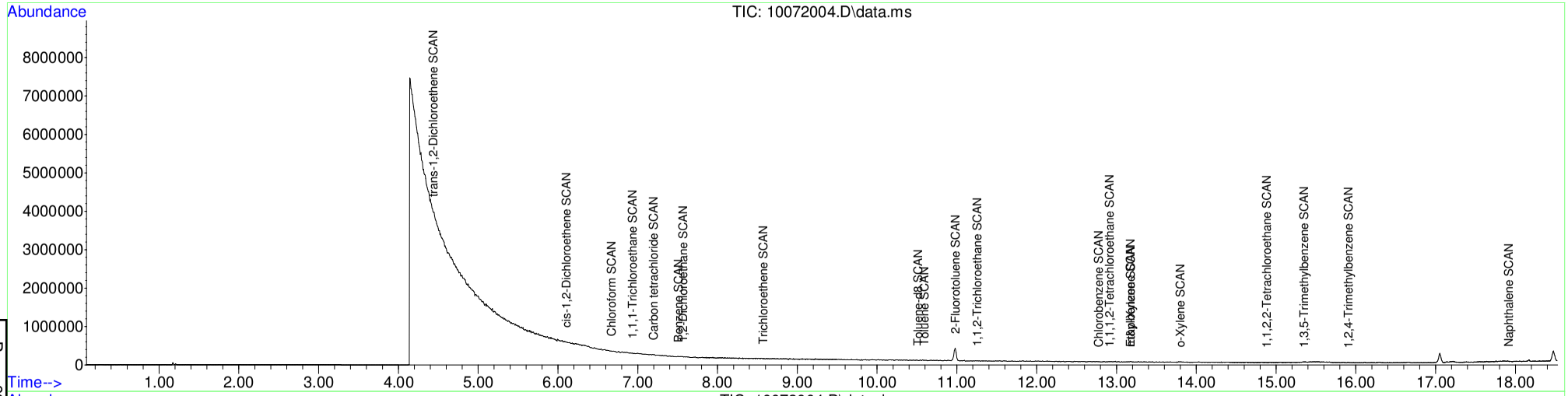
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 505137 | 5000.00 | ug/L | | 0.01 |
| System Monitoring Compounds | | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4927 | 49.83 | ug/L | | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = | 1.00%# | | | |
| Target Compounds | | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.097 | 61 | 1026m | 50.87 | ug/L | | |
| 3] trans-1,2-Dichloroethene | 4.396 | 61 | 1208 | 51.83 | ug/L | | 83 |
| 4] 1,1-Dichloroethane | 5.099 | 63 | 1545 | 53.26 | ug/L | | 64 |
| 5] cis-1,2-Dichloroethene | 6.101 | 61 | 1570 | 51.27 | ug/L | | 98 |
| 6] Chloroform | 6.664 | 83 | 1504 | 47.99 | ug/L | | 95 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1600 | 47.01 | ug/L | | 100 |
| 8] Carbon tetrachloride | 7.199 | 117 | 1477 | 46.10 | ug/L | | 98 |
| 9] Benzene | 7.515 | 78 | 4219 | 49.16 | ug/L | # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1539 | 50.23 | ug/L | # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1245 | 48.18 | ug/L | | 91 |
| 13] Toluene | 10.582 | 91 | 6458 | 51.23 | ug/L | | 99 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1364 | 49.65 | ug/L | | 98 |
| 15] Tetrachloroethene | 11.442 | 166 | 1769 | 48.49 | ug/L | | 99 |
| 16] Chlorobenzene | 12.773 | 112 | 4709 | 52.17 | ug/L | | 81 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1597 | 49.37 | ug/L | | 97 |
| 18] Ethylbenzene | 12.980 | 91 | 8115 | 52.88 | ug/L | | 90 |
| 19] m&p-Xylene | 13.170 | 91 | 12619 | 105.22 | ug/L | | 94 |
| 20] o-Xylene | 13.782 | 91 | 6662 | 51.99 | ug/L | | 93 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2979 | 52.46 | ug/L | | 99 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7395 | 54.22 | ug/L | | 94 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7692 | 54.30 | ug/L | | 93 |
| 24] Naphthalene | 17.904 | 128 | 11186 | 49.96 | ug/L | | 96 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 254255 | 5163.42 | ug/L | | 99 |
| 27) trans-1,2-Dichloroethe... | 4.434 | 61 | 747 | 57.73 | ug/L | # | 17 |
| 29) cis-1,2-Dichloroethene... | 6.106 | 61 | 519 | 32.35 | ug/L | # | 1 |
| 30) Chloroform SCAN | 6.662 | 83 | 1256 | 72.17 | ug/L | # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.930 | 97 | 645 | 40.67 | ug/L | # | 42 |
| 32) Carbon tetrachloride SCAN | 7.198 | 117 | 431 | 26.05 | ug/L | # | 1 |
| 33) Benzene SCAN | 7.514 | 78 | 16561 | 379.26 | ug/L | | 92 |
| 34) 1,2-Dichloroethane SCAN | 7.562 | 62 | 617 | 38.27 | ug/L | # | 40 |
| 35) Trichloroethene SCAN | 8.568 | 130 | 552 | 46.00 | ug/L | # | 71 |
| 36) Toluene-d8 SCAN | 10.507 | 98 | 3299 | 68.51 | ug/L | # | 15 |
| 37) Toluene SCAN | 10.591 | 91 | 3480 | 56.43 | ug/L | | 87 |
| 38) 1,1,2-Trichloroethane ... | 11.252 | 97 | 1000 | 72.24 | ug/L | # | 26 |
| 40) Chlorobenzene SCAN | 12.780 | 112 | 2108 | 50.02 | ug/L | # | 1 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.907 | 131 | 682 | 43.73 | ug/L | # | 4 |
| 42) Ethylbenzene SCAN | 13.177 | 91 | 7193 | 64.02 | ug/L | | 80 |
| 43) m&p-Xylene SCAN | 13.177 | 91 | 7193 | 64.02 | ug/L | | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 5728 | 95.24 | ug/L | | 88 |
| 45) 1,1,2,2-Tetrachloroeth... | 14.879 | 83 | 1787 | 60.94 | ug/L | # | 56 |
| 46) 1,3,5-Trimethylbenzene... | 15.343 | 105 | 4051 | 63.91 | ug/L | # | 64 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3725 | 57.44 | ug/L | | 86 |
| 48) Naphthalene SCAN | 17.910 | 128 | 5282 | 53.82 | ug/L | # | 71 |

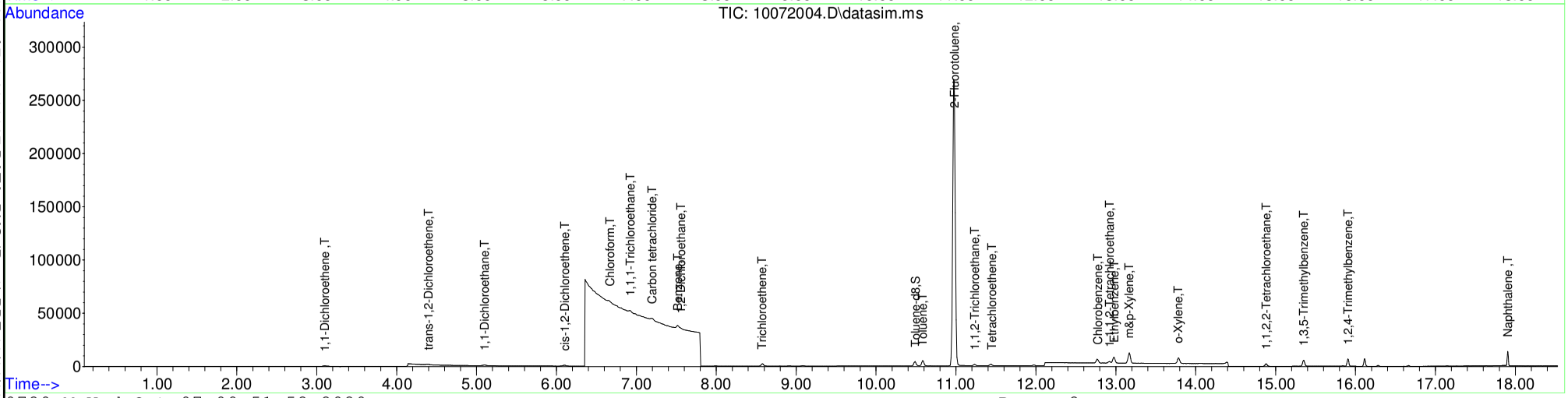
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100720\
Data File : 10072004.D
Acq On : 7 Oct 2020 9:31
InstName : AG5975C
Operator : TD
Sample : S20J011-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 09:49:59 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100720.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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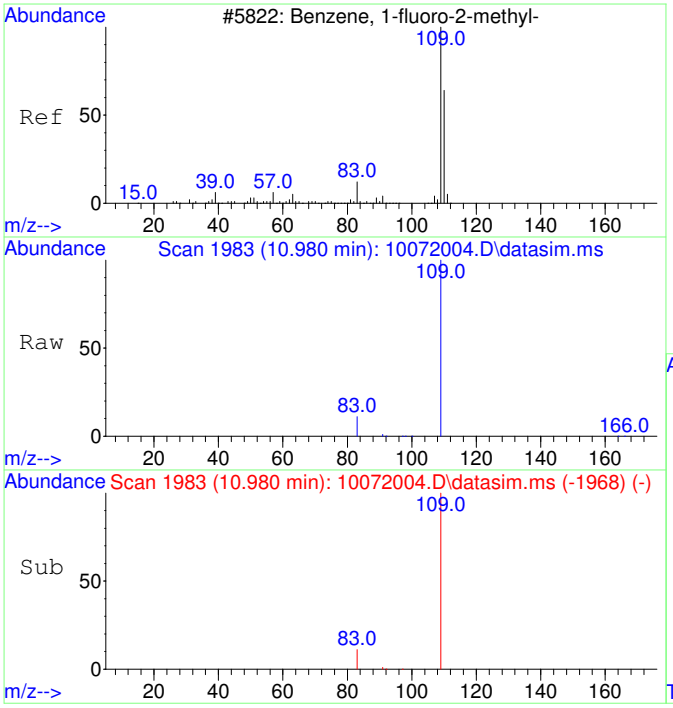
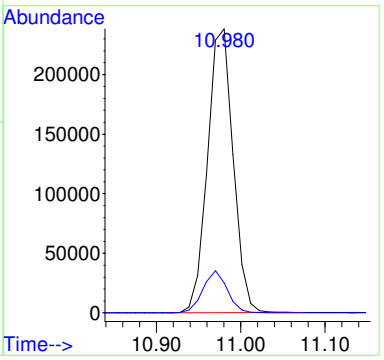
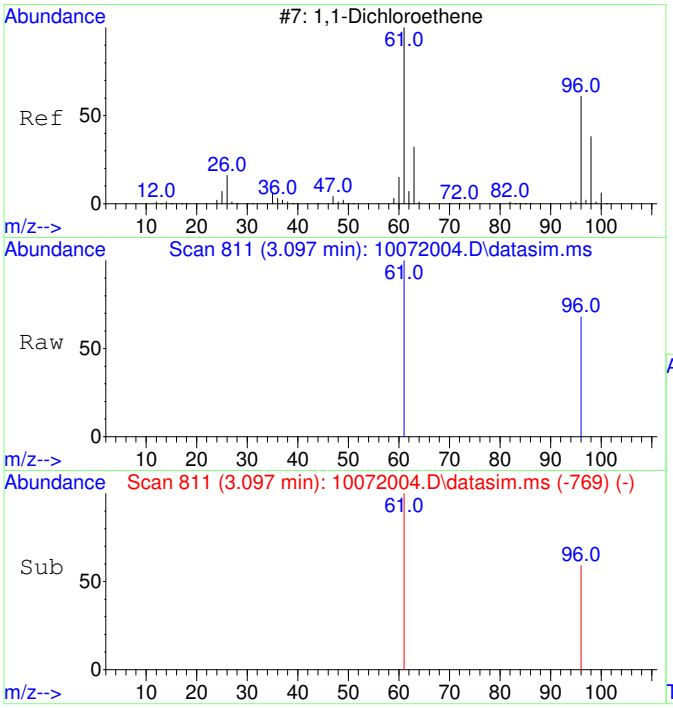



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 505137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.9 | 0.0 | 42.3 |

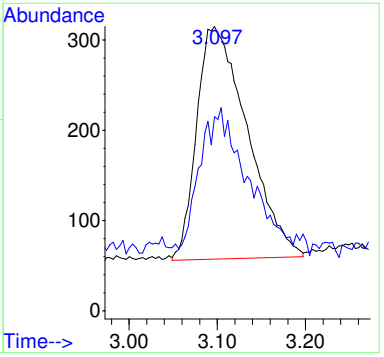


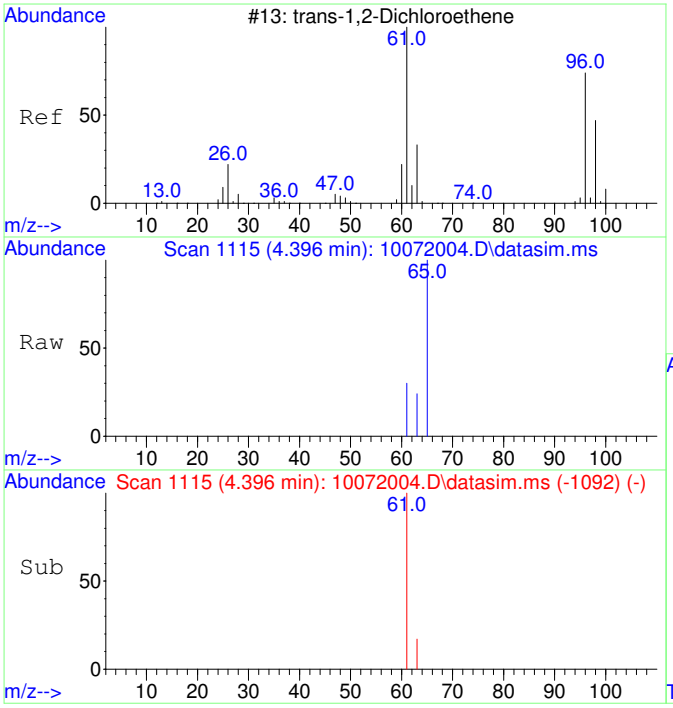




#2
1,1-Dichloroethene
Concen: 50.87 ug/L m
RT: 3.097 min Scan# 811
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1026

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 24.1 | 37.2 | 97.2# |

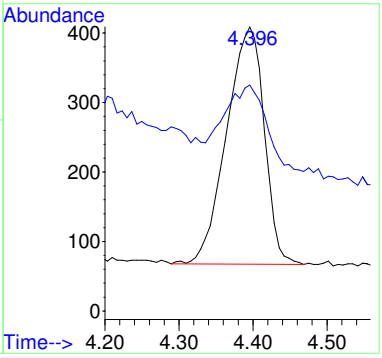


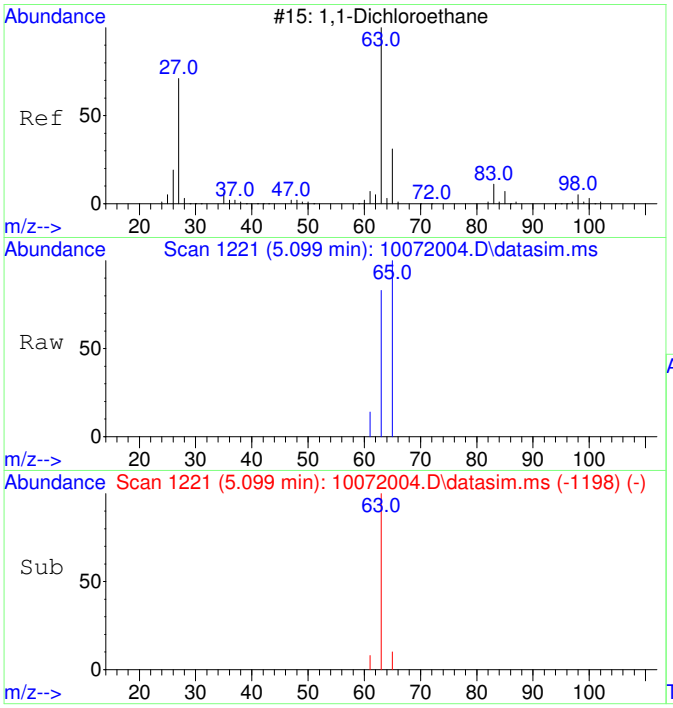



#3
trans-1,2-Dichloroethene
Concen: 51.83 ug/L
RT: 4.396 min Scan# 1115
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 41.8 | 2.4 | 62.4 |

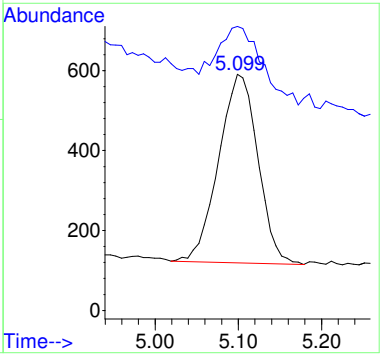


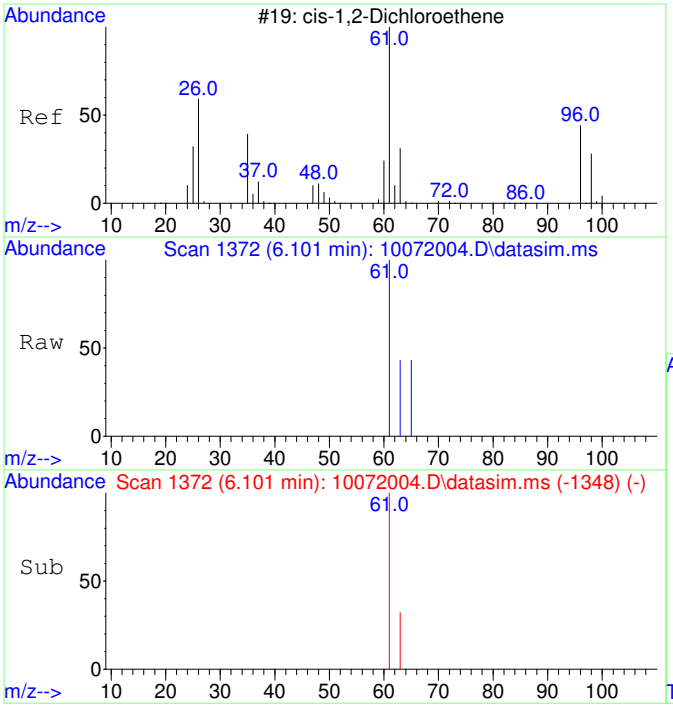




#4
1,1-Dichloroethane
Concen: 53.26 ug/L
RT: 5.099 min Scan# 1221
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 63 Resp: 1545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 52.0 | 1.8 | 61.8 |

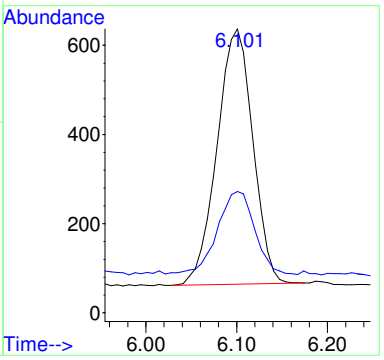


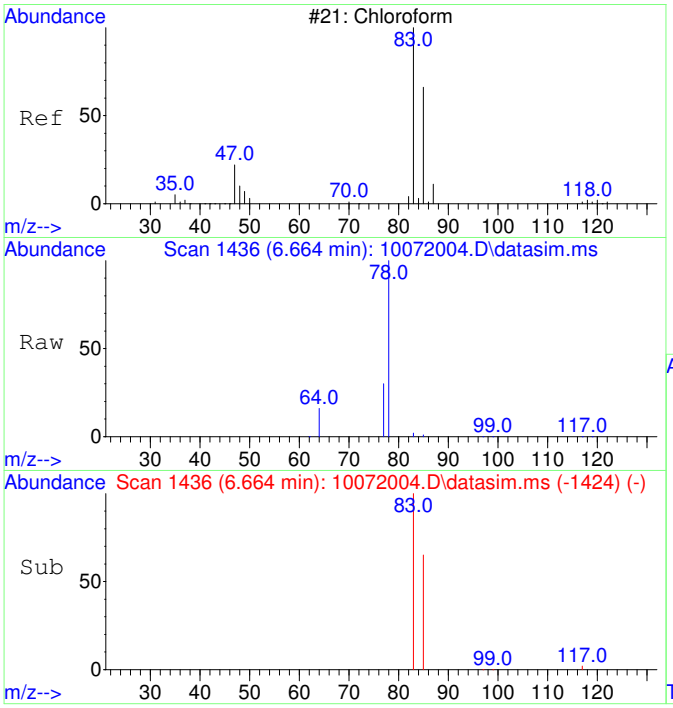



#5
cis-1,2-Dichloroethene
Concen: 51.27 ug/L
RT: 6.101 min Scan# 1372
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 1570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 33.7 | 2.5 | 62.5 |

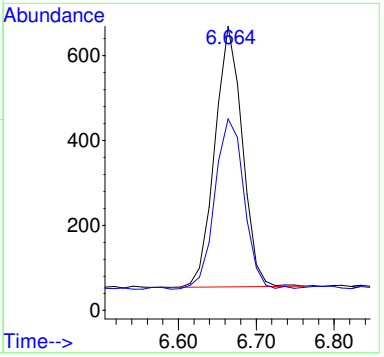


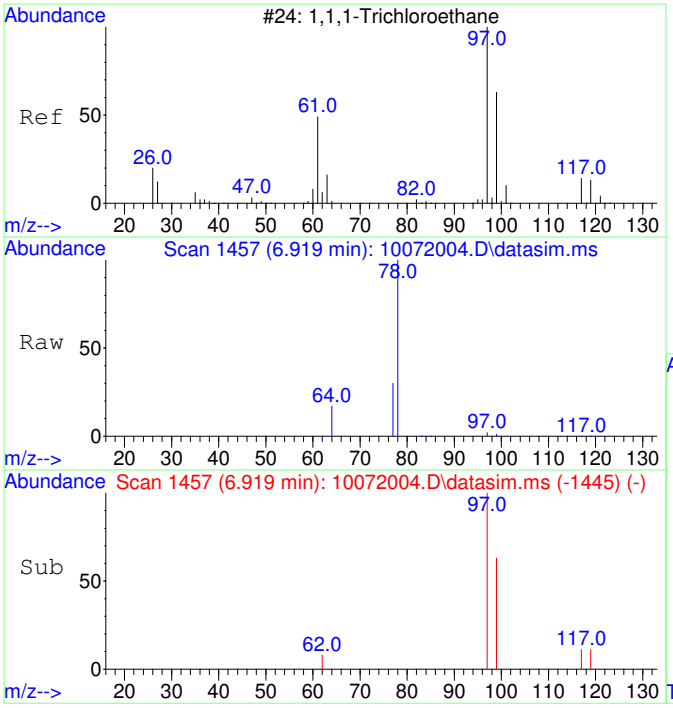




#6
Chloroform
Concen: 47.99 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1504

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 69.2 | 35.1 | 95.1 |

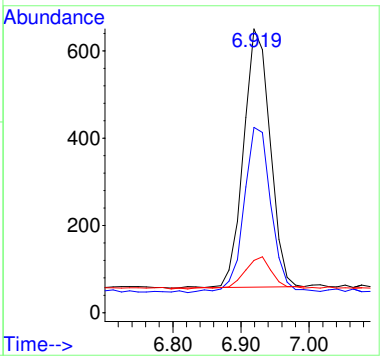


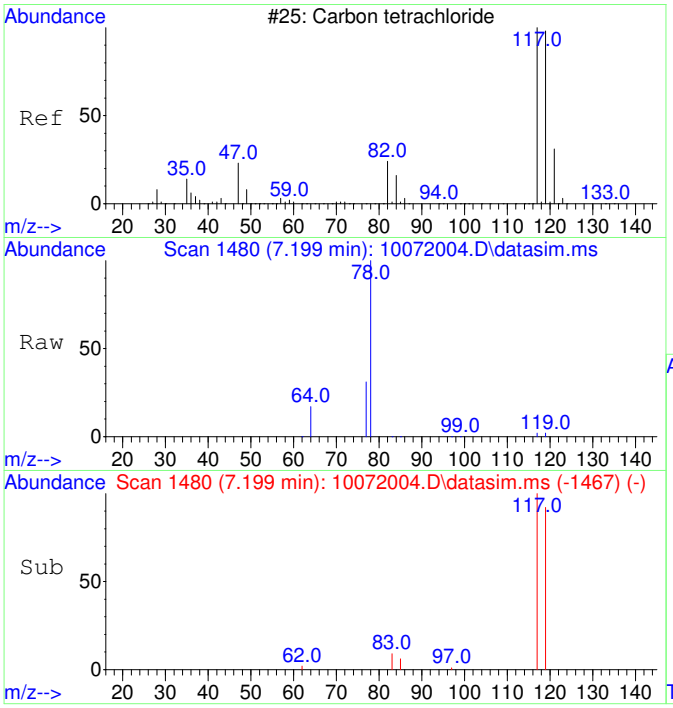



#7
1,1,1-Trichloroethane
Concen: 47.01 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 34.6 | 94.6 |
| 117 | 12.3 | 0.0 | 43.2 |

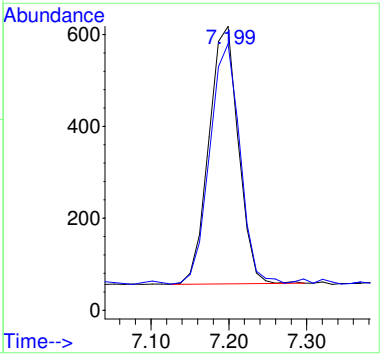


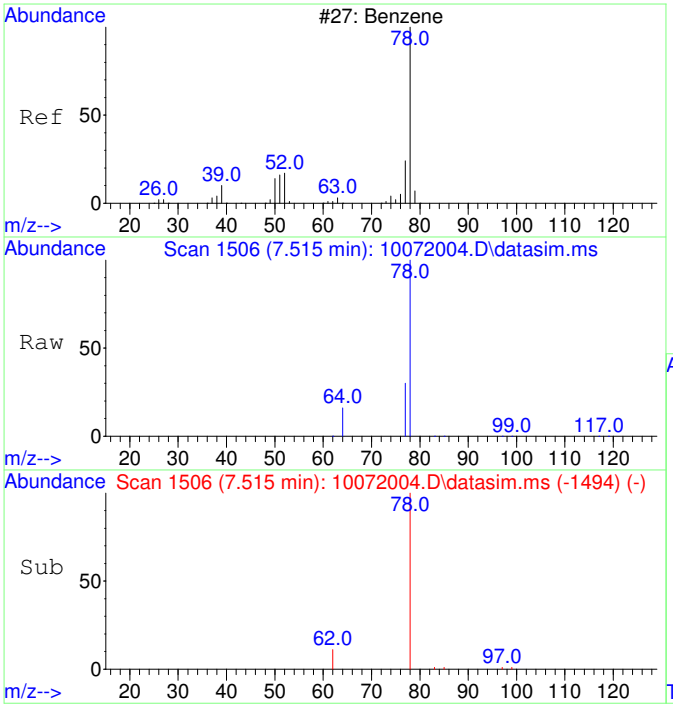




#8
Carbon tetrachloride
Concen: 46.10 ug/L
RT: 7.199 min Scan# 1480
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 1477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.7 | 66.4 | 126.4 |

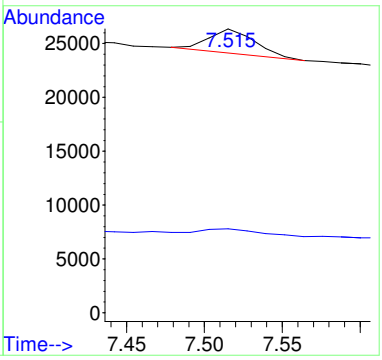


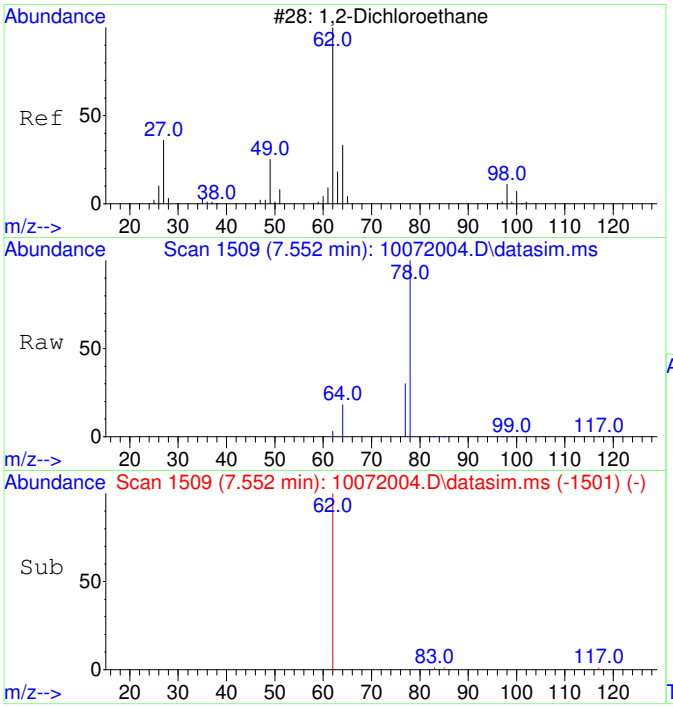



#9
Benzene
Concen: 49.16 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 4219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 84.0 | 0.0 | 53.2# |

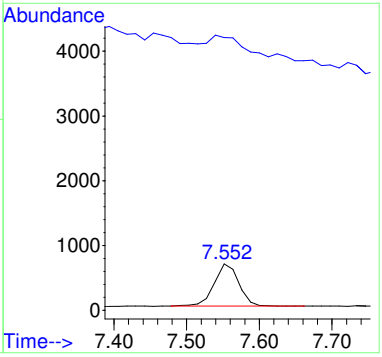


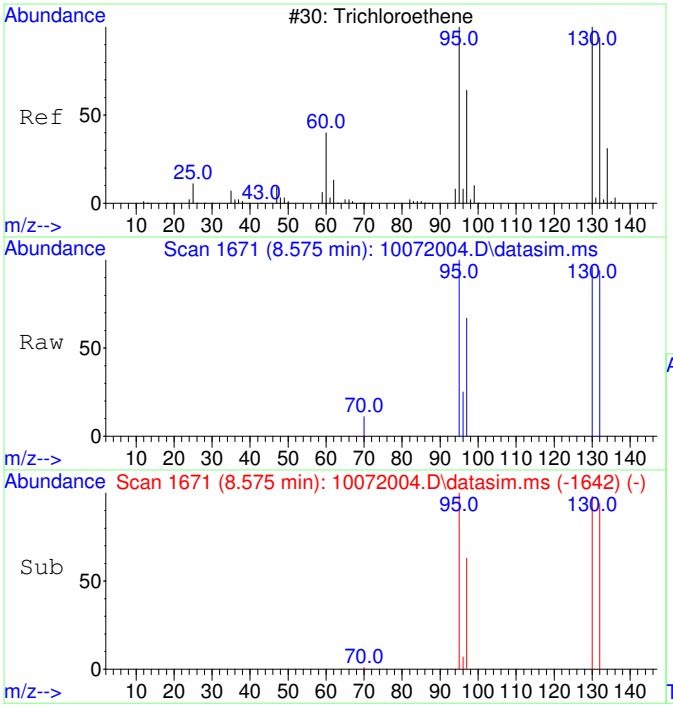




#10
1,2-Dichloroethane
Concen: 50.23 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 1539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 99.5 | 2.3 | 62.3# |

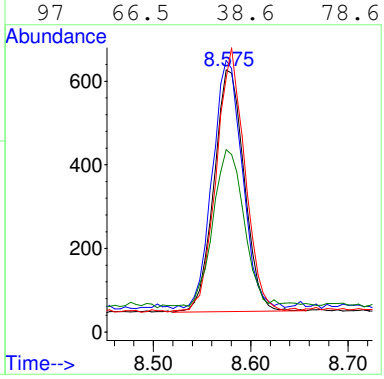


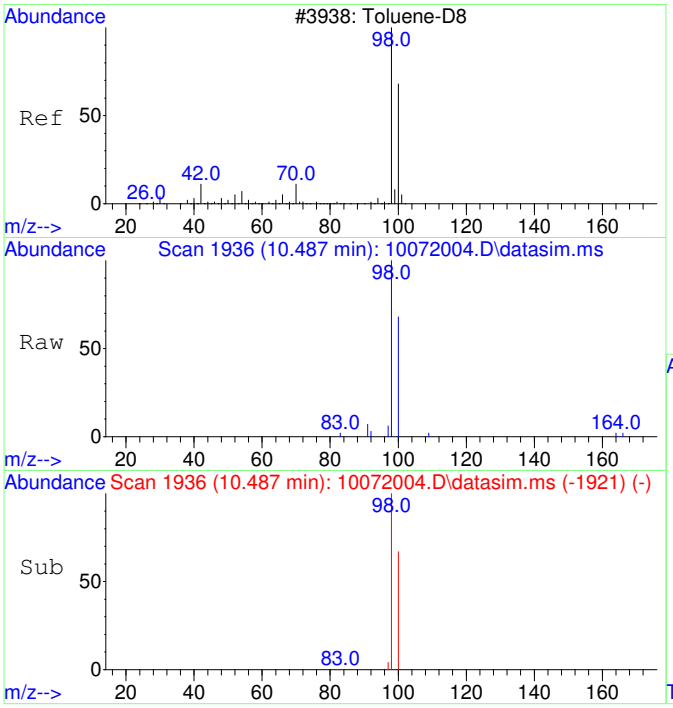



#11
Trichloroethene
Concen: 48.18 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 1245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.2 | 60.7 | 120.7 |
| 132 | 102.7 | 76.0 | 116.0 |
| 97 | 66.5 | 38.6 | 78.6 |

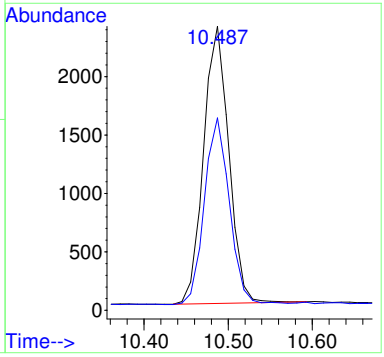


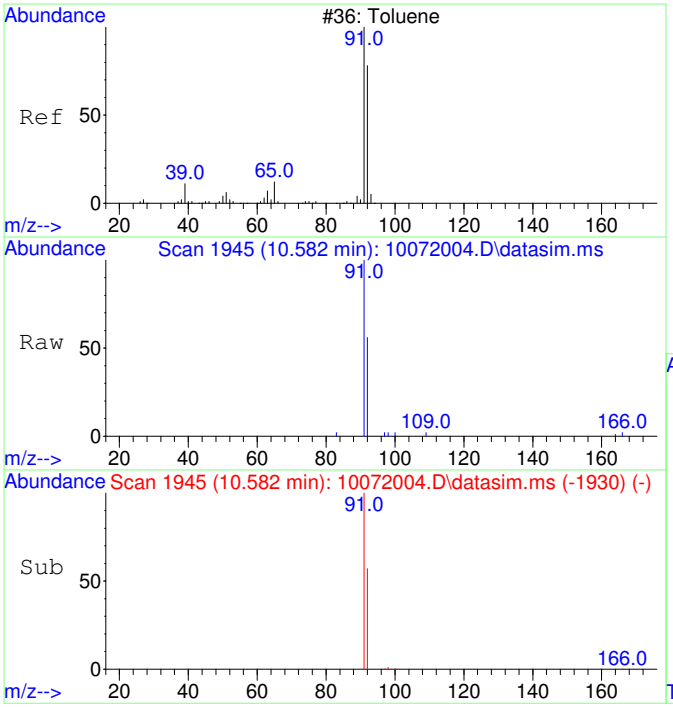




#12
Toluene-d8
Concen: 49.83 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 4927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.2 | 37.1 | 97.1 |

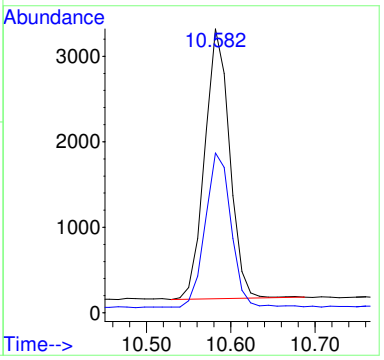


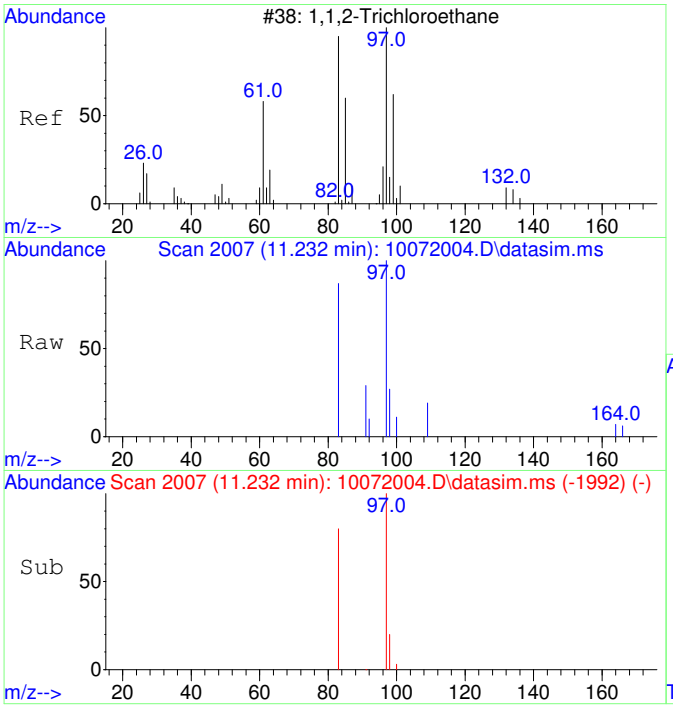



#13
Toluene
Concen: 51.23 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.4 | 29.9 | 89.9 |

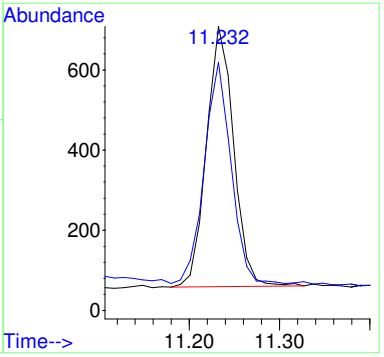


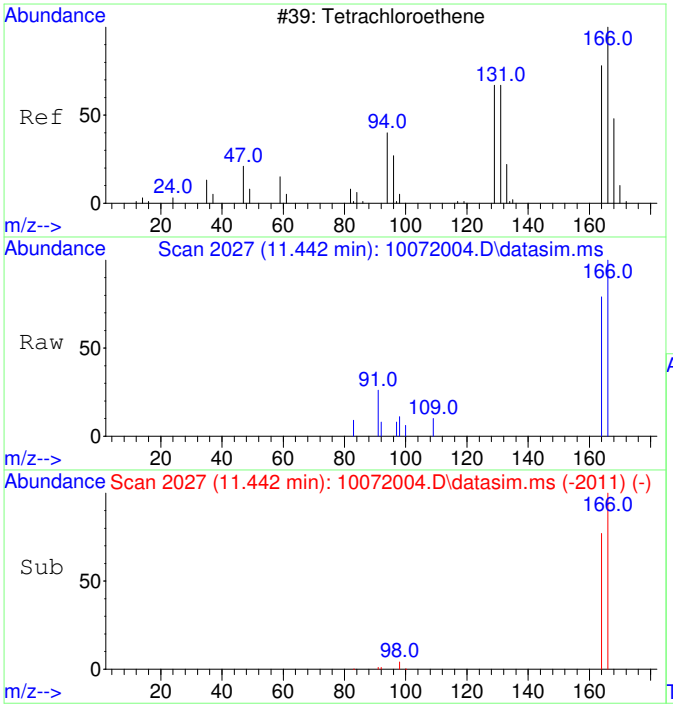




#14
1,1,2-Trichloroethane
Concen: 49.65 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.6 | 51.2 | 111.2 |

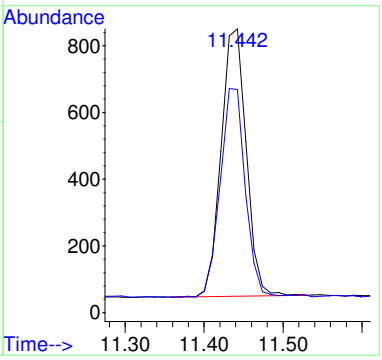


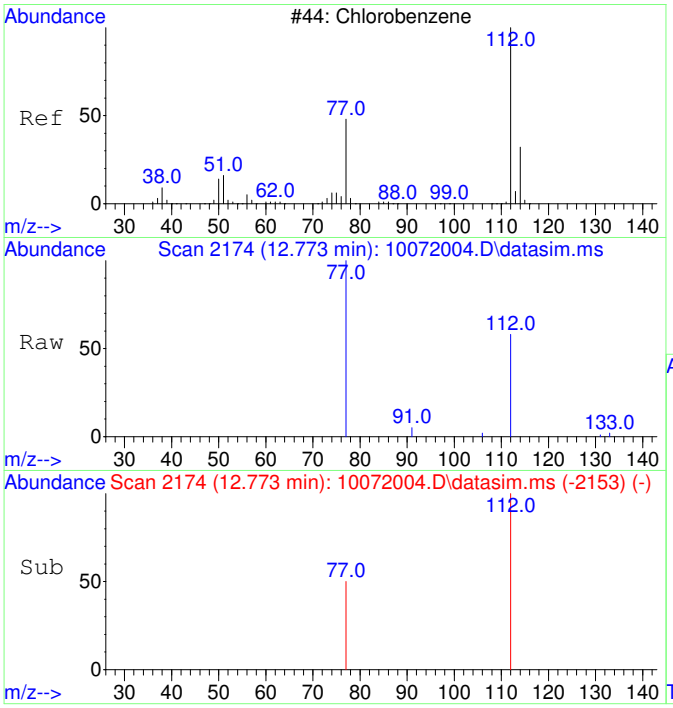



#15
Tetrachloroethene
Concen: 48.49 ug/L
RT: 11.442 min Scan# 2027
Delta R.T. 0.021 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:166 Resp: 1769

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.0 | 47.8 | 107.8 |

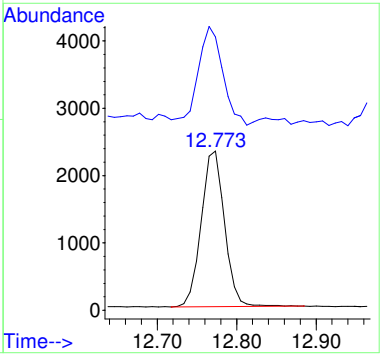


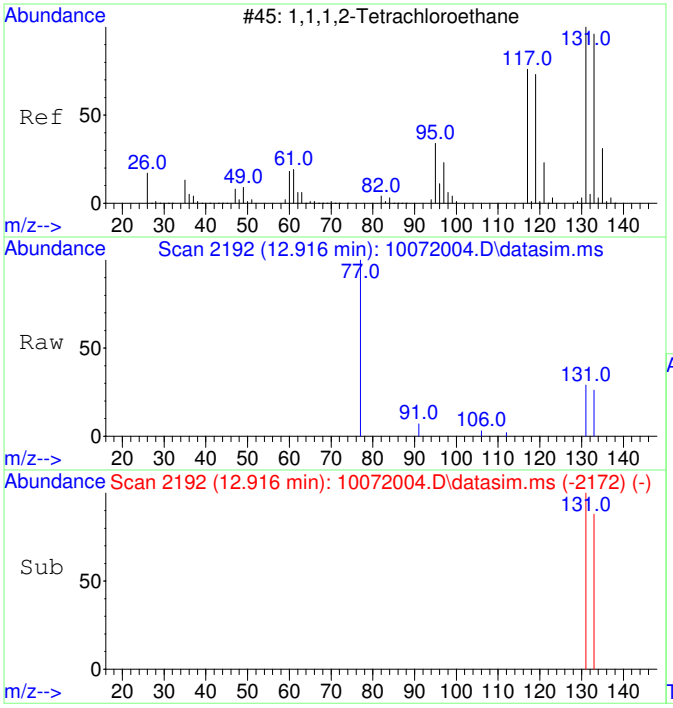




#16
Chlorobenzene
Concen: 52.17 ug/L
RT: 12.773 min Scan# 2174
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 4709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 66.9 | 23.6 | 83.6 |

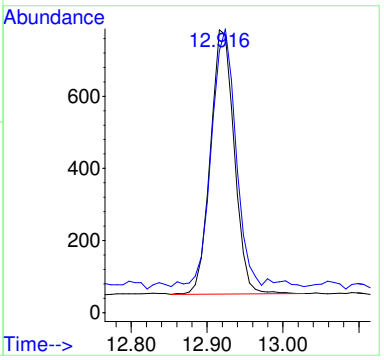


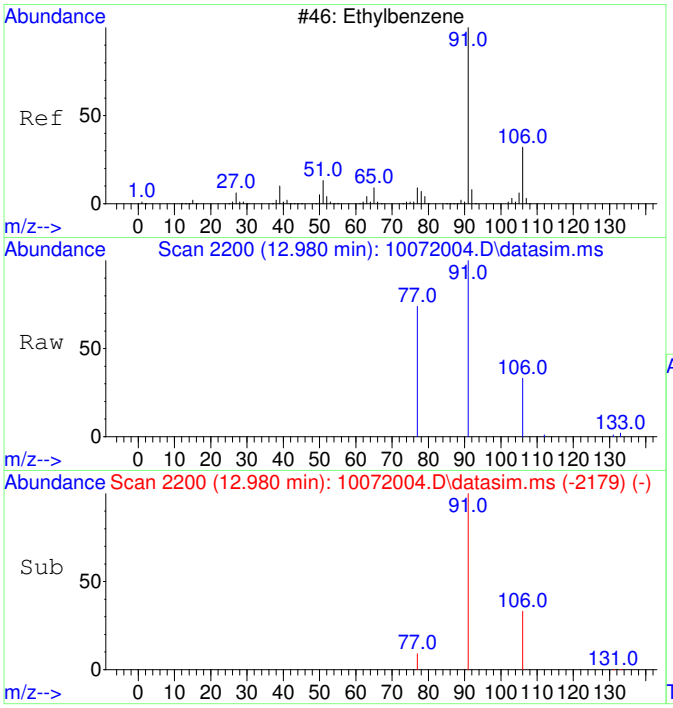



#17
1,1,1,2-Tetrachloroethane
Concen: 49.37 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 1597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.1 | 66.3 | 126.3 |

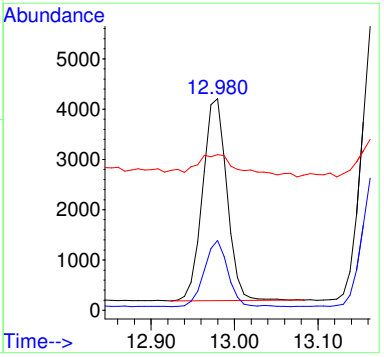


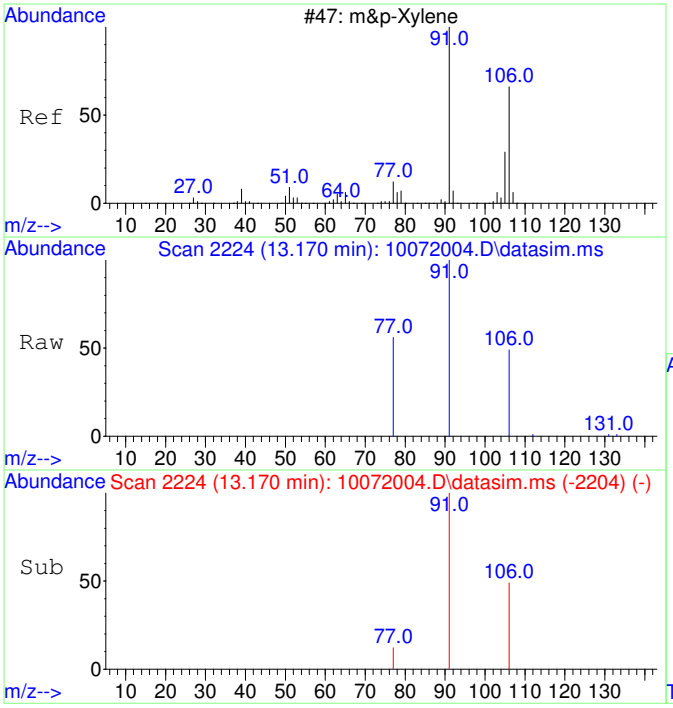




#18
Ethylbenzene
Concen: 52.88 ug/L
RT: 12.980 min Scan# 2200
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 8115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.1 | 3.0 | 63.0 |
| 77 | 21.2 | 0.0 | 38.2 |

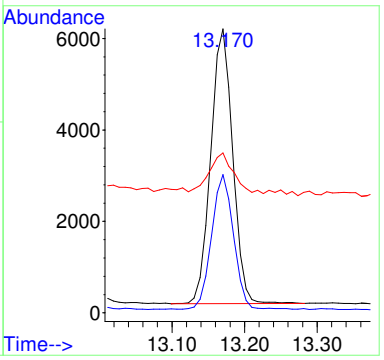


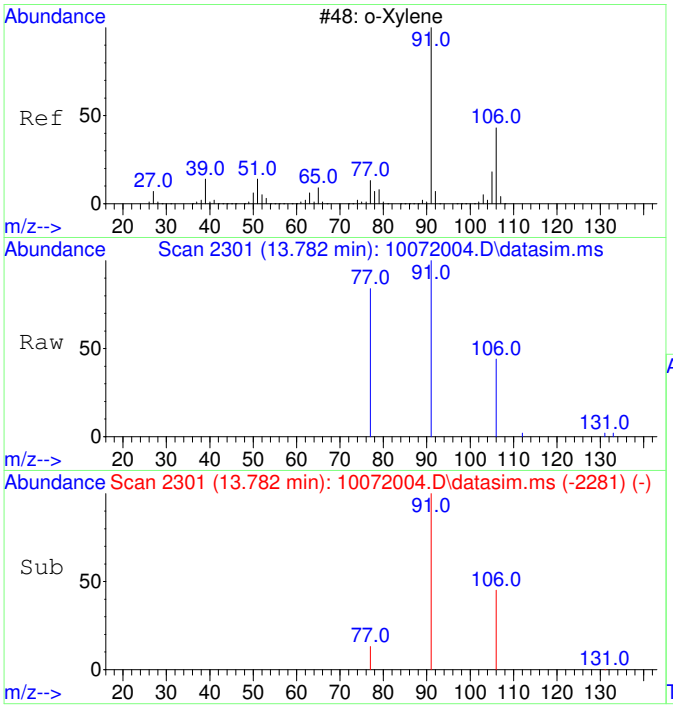



#19
m&p-Xylene
Concen: 105.22 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 12619

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 22.2 | 82.2 |
| 77 | 17.0 | 0.0 | 42.4 |

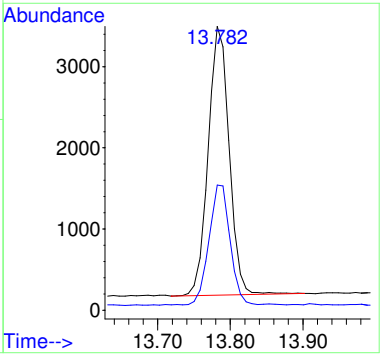


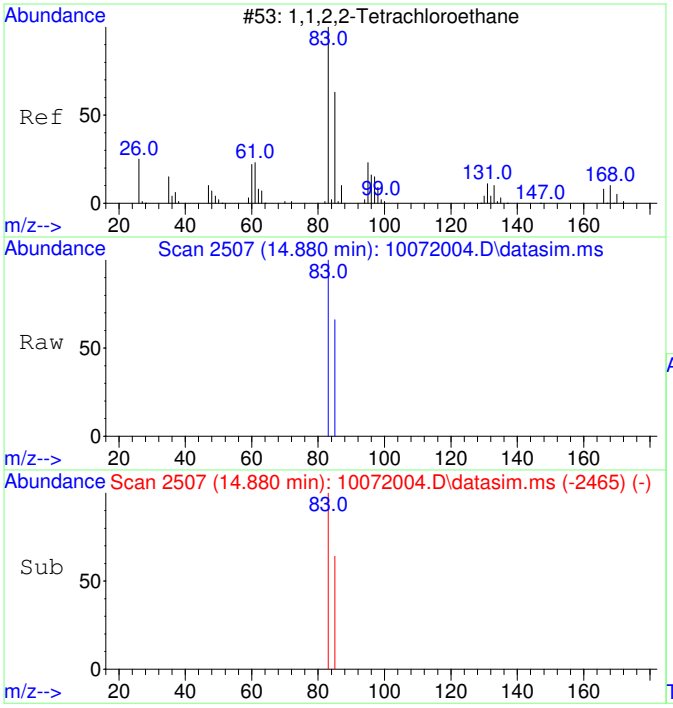




#20
o-Xylene
Concen: 51.99 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 6662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.7 | 19.2 | 79.2 |

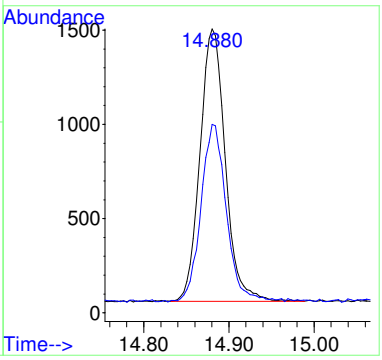


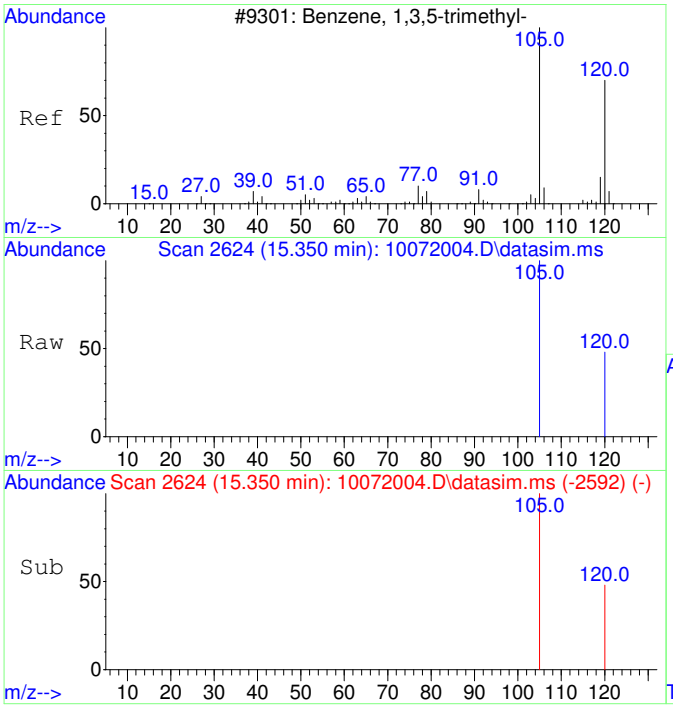



#21
1,1,2,2-Tetrachloroethane
Concen: 52.46 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 2979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.7 | 34.8 | 94.8 |

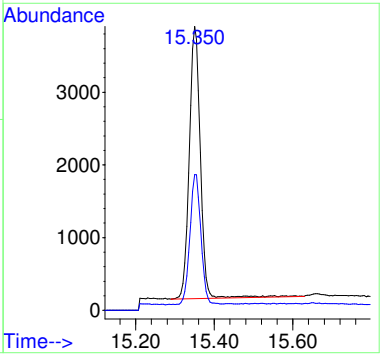


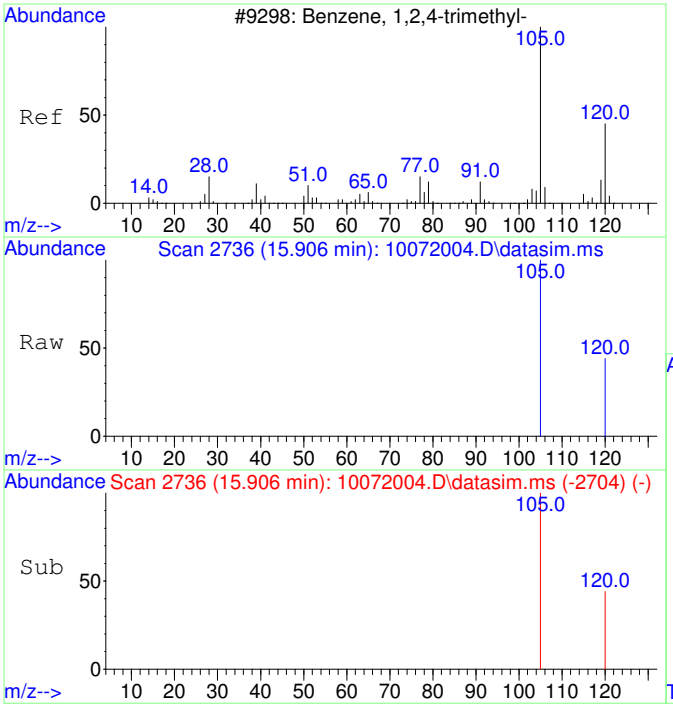




#22
1,3,5-Trimethylbenzene
Concen: 54.22 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.7 | 21.1 | 81.1 |

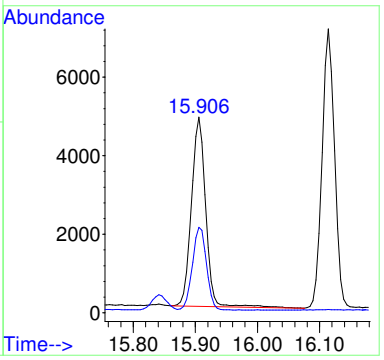


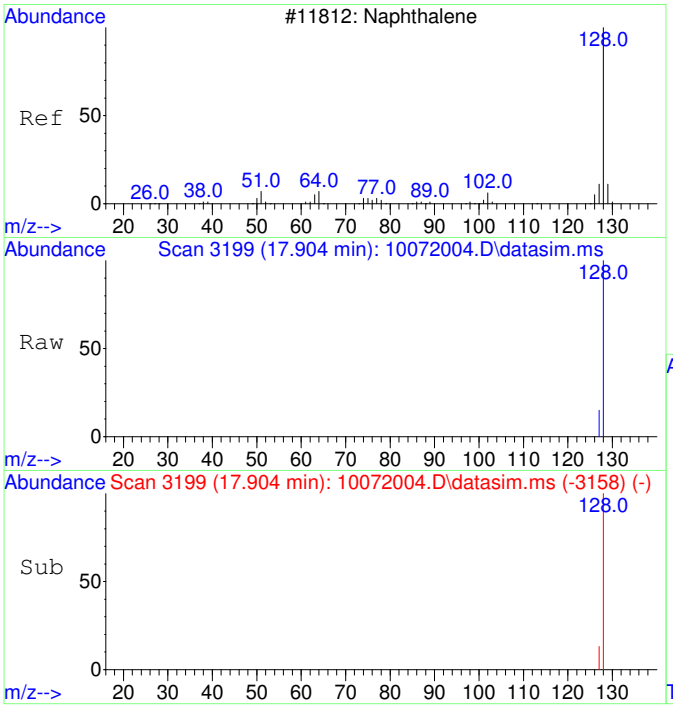



#23
1,2,4-Trimethylbenzene
Concen: 54.30 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 7692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.7 | 17.2 | 77.2 |

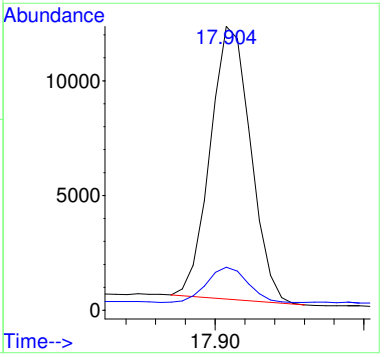


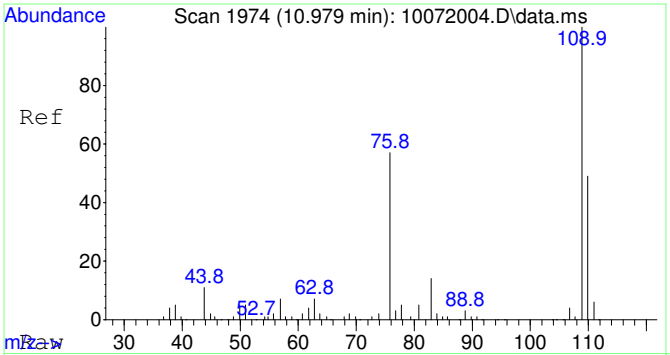




#24
Naphthalene
Concen: 49.96 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 11186

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 14.1 | 0.0 | 42.5 |

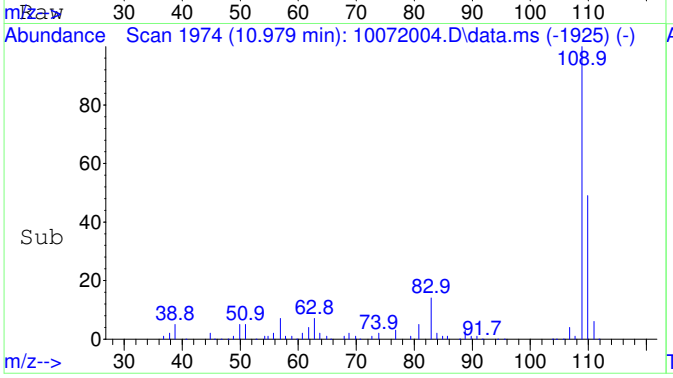


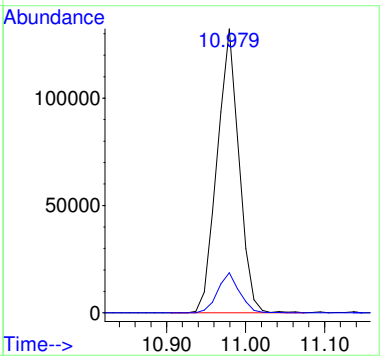


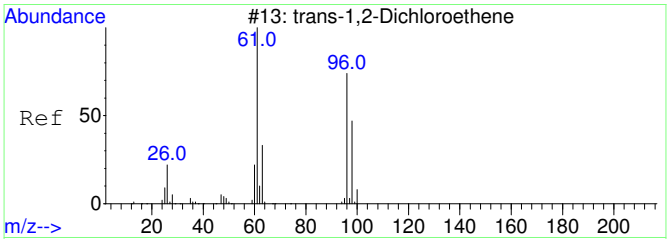

#25
2-Fluorotoluene SCAN
Concen: 5163.42 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:109 Resp: 254255

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 14.0 | 0.0 | 43.8 |



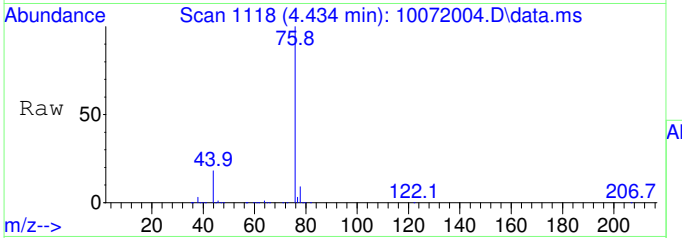



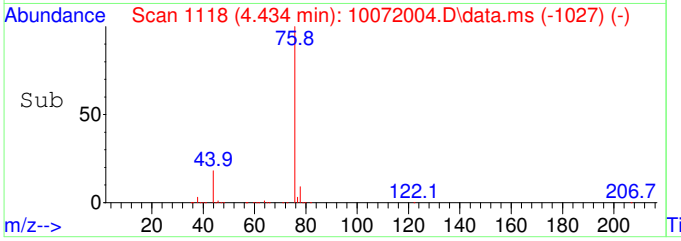



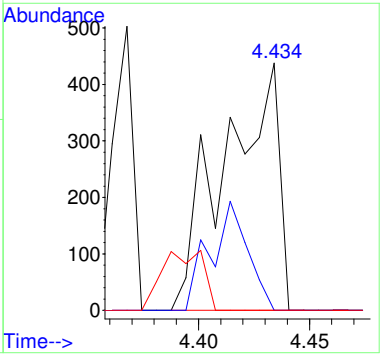

#27
trans-1,2-Dichloroethene SCAN
Concen: 57.73 ug/L
RT: 4.434 min Scan# 1118
Delta R.T. 0.033 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

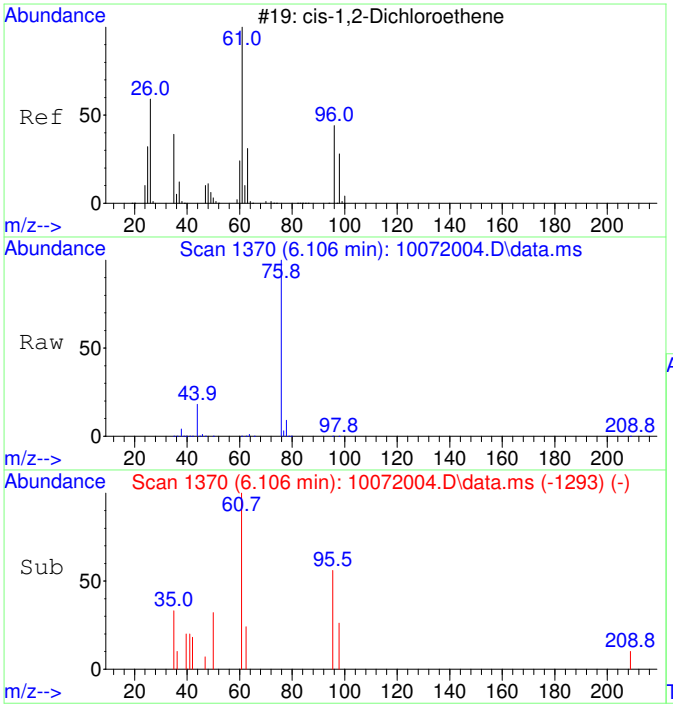
Tgt Ion: 61 Resp: 747

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 0.0 | 49.0 | 109.0# |
| 98 | 0.0 | 20.5 | 80.5# |



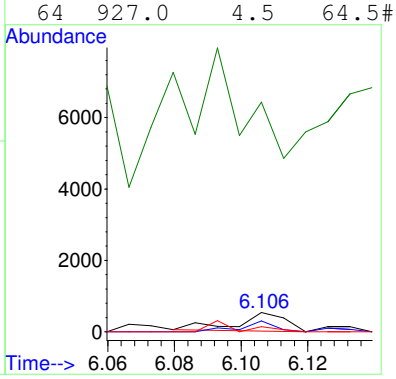



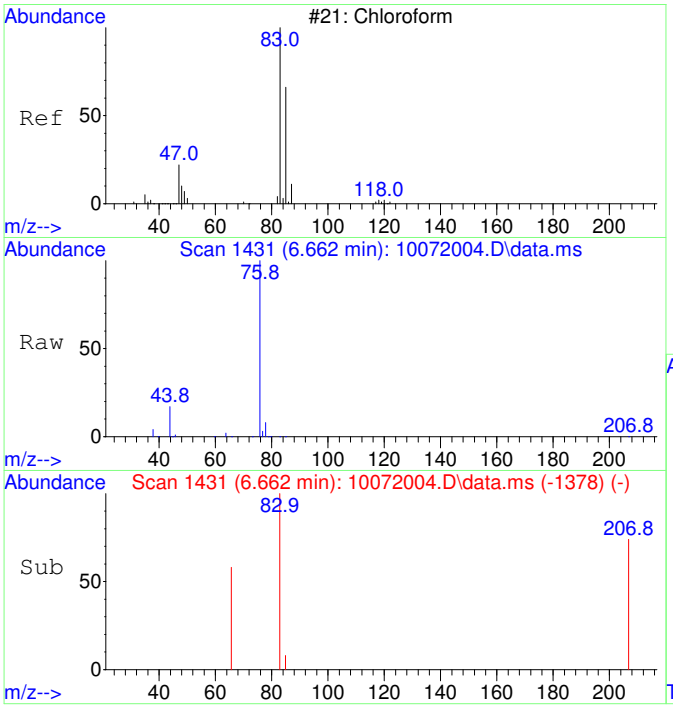



#29
cis-1,2-Dichloroethene SCAN
Concen: 32.35 ug/L
RT: 6.106 min Scan# 1370
Delta R.T. 0.013 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 61 Resp: 519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 41.4 | 39.9 | 99.9 |
| 98 | 39.7 | 13.5 | 73.5 |
| 64 | 927.0 | 4.5 | 64.5# |

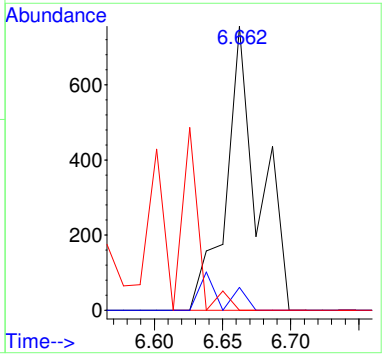


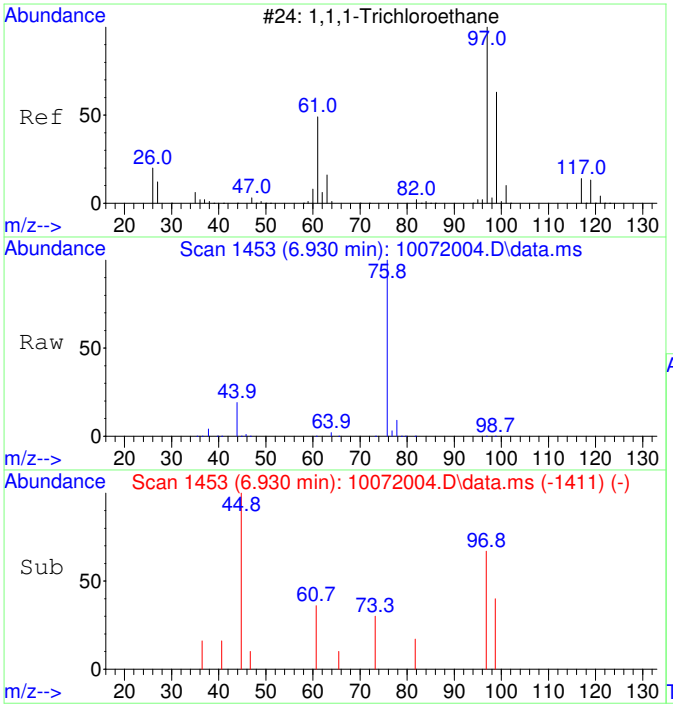




#30
Chloroform SCAN
Concen: 72.17 ug/L
RT: 6.662 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1256

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

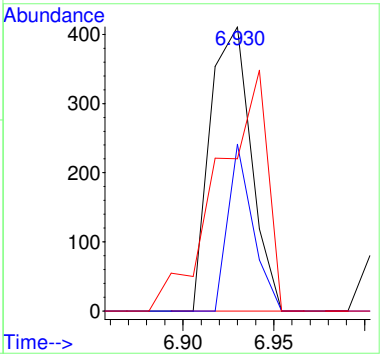


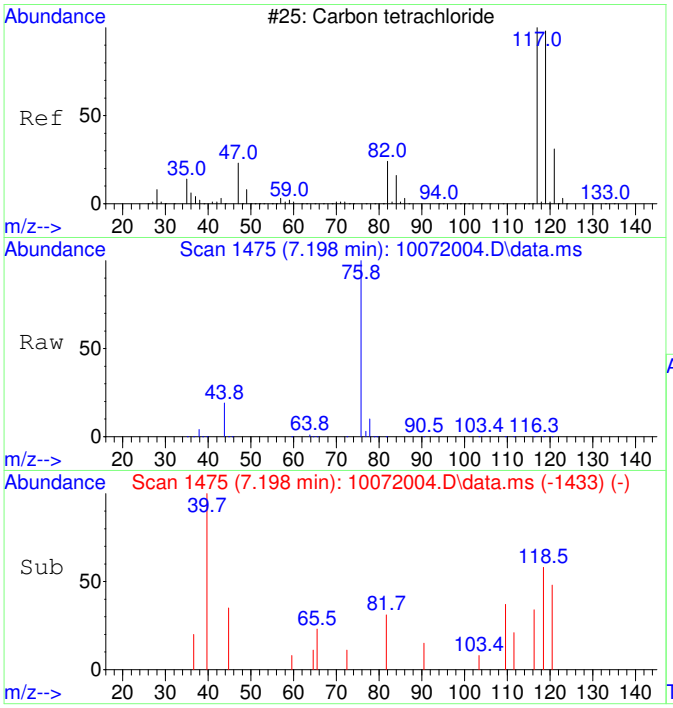



#31
1,1,1-Trichloroethane SCAN
Concen: 40.67 ug/L
RT: 6.930 min Scan# 1453
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 35.7 | 43.6 | 103.6# |
| 61 | 101.2 | 18.0 | 78.0# |

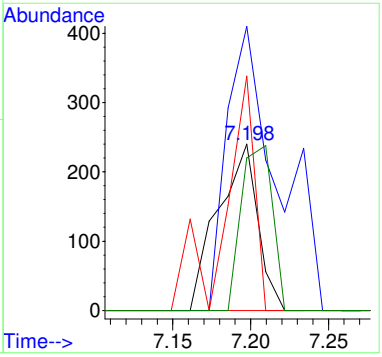


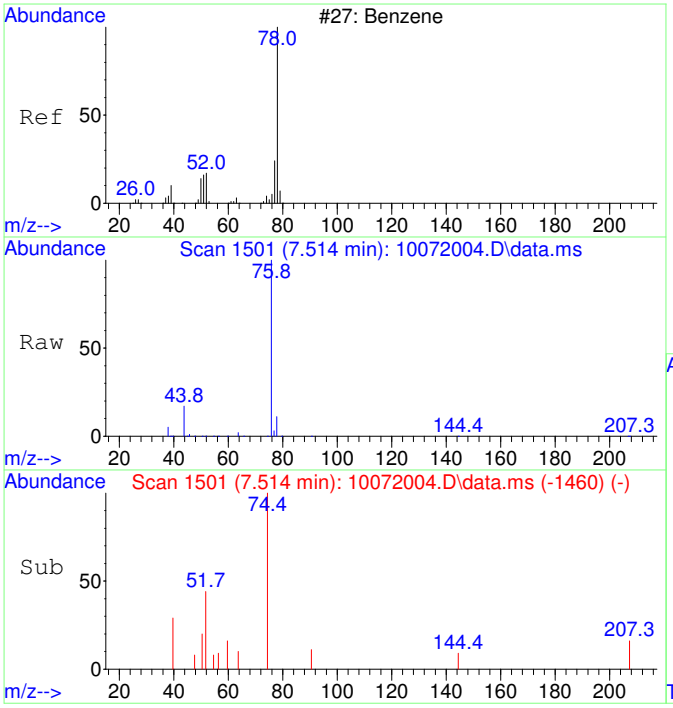




#32
Carbon tetrachloride SCAN
Concen: 26.05 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:117 Resp: 431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 219.3 | 75.5 | 135.5# |
| 121 | 105.3 | 0.0 | 58.8# |
| 82 | 77.5 | 0.0 | 59.2# |

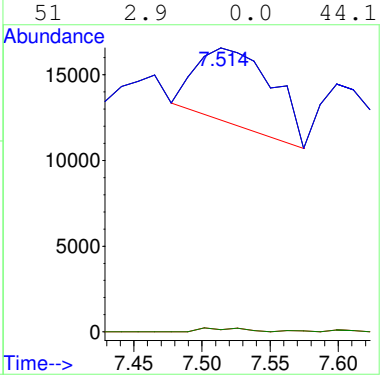


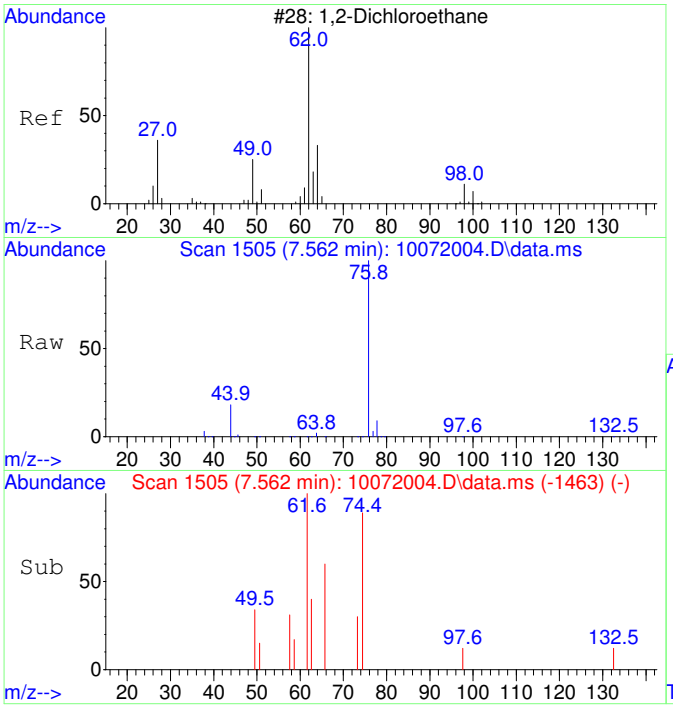



#33
Benzene SCAN
Concen: 379.26 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 78 Resp: 16561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 2.9 | 0.0 | 47.9 |
| 51 | 2.9 | 0.0 | 44.1 |

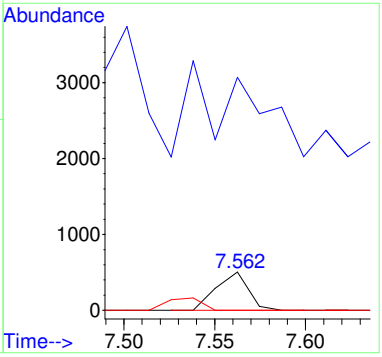


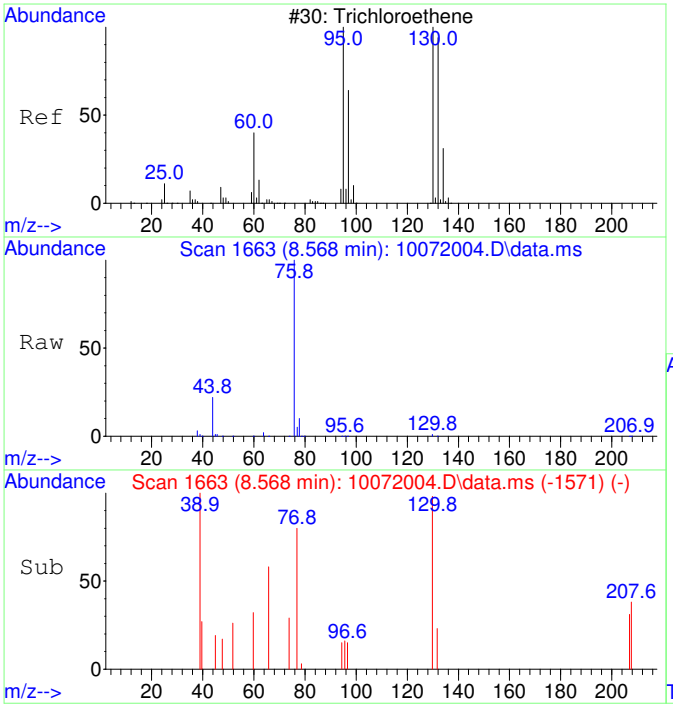




#34
1,2-Dichloroethane SCAN
Concen: 38.27 ug/L
RT: 7.562 min Scan# 1505
Delta R.T. 0.012 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 62 Resp: 617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 0.0 | 5.2 | 65.2# |
| 49 | 0.0 | 3.9 | 63.9# |

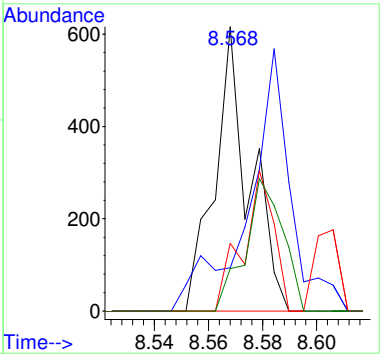


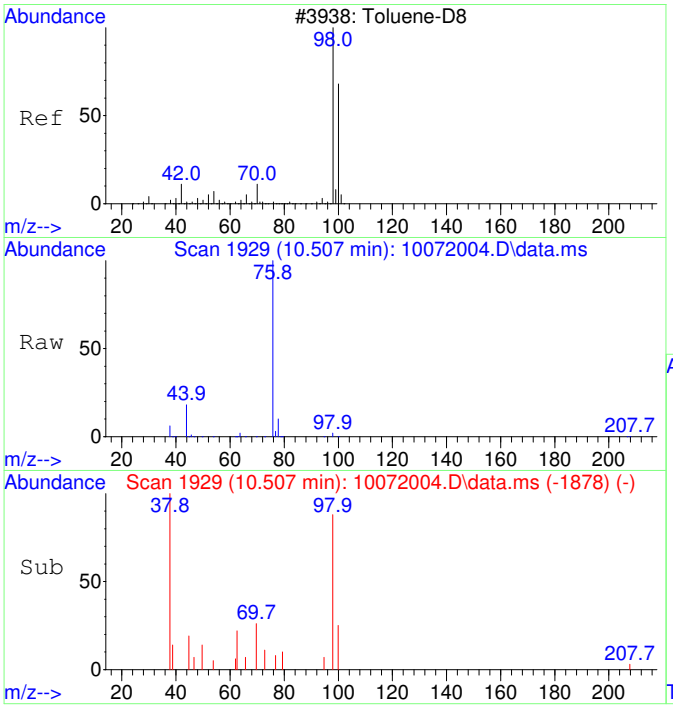



#35
Trichloroethene SCAN
Concen: 46.00 ug/L
RT: 8.568 min Scan# 1663
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:130 Resp: 552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 111.6 | 60.5 | 120.5 |
| 132 | 43.8 | 59.6 | 119.6# |
| 97 | 50.0 | 28.2 | 88.2 |

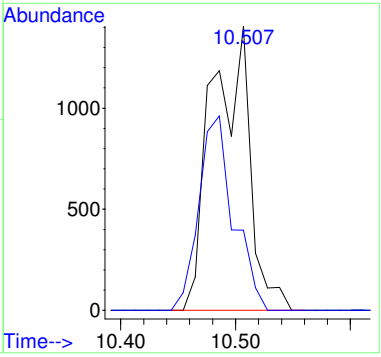


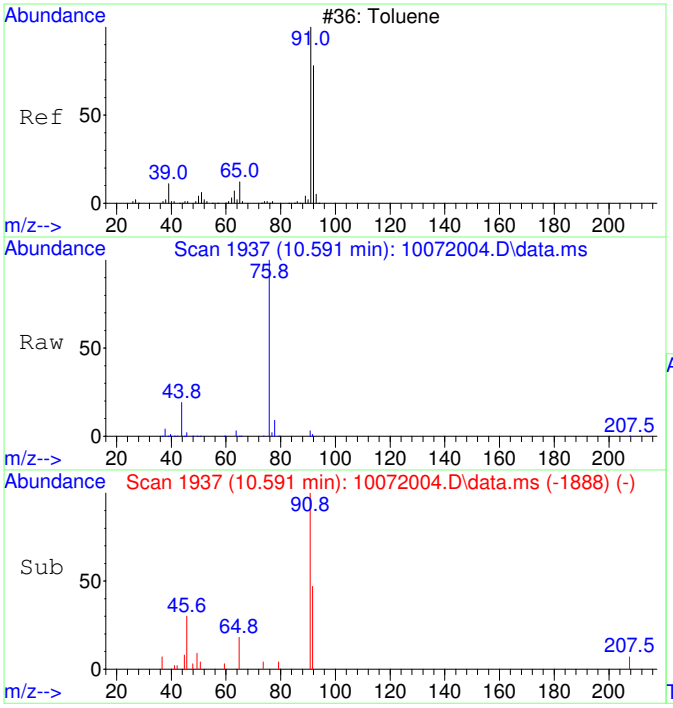




#36
Toluene-d8 SCAN
Concen: 68.51 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 98 Resp: 3299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 0.0 | 40.0 | 100.0# |

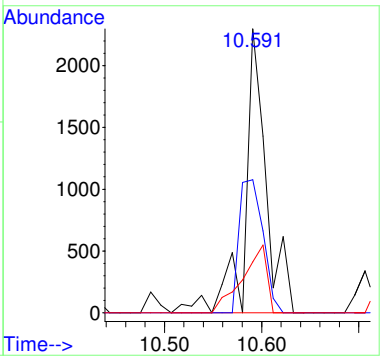


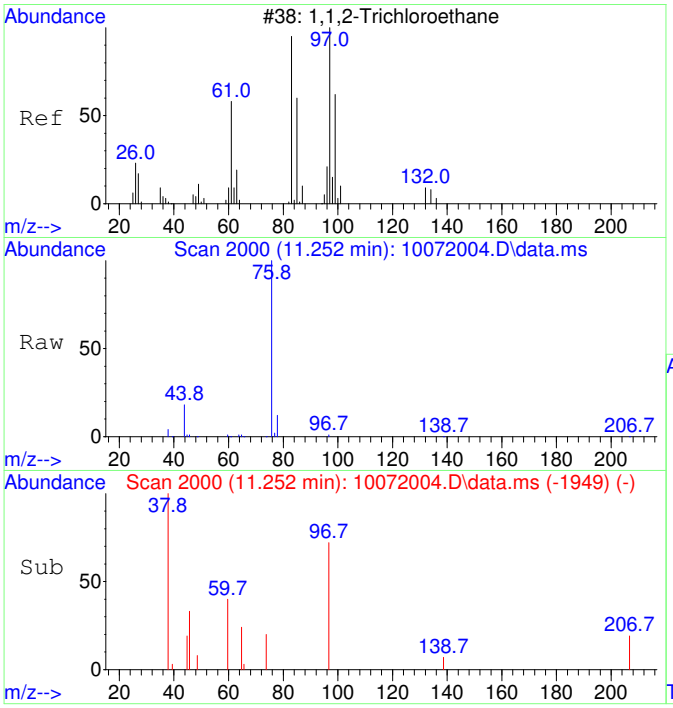



#37
Toluene SCAN
Concen: 56.43 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 3480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.7 | 28.3 | 88.3 |
| 65 | 27.5 | 0.0 | 41.0 |

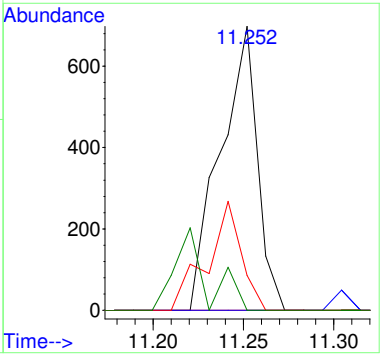


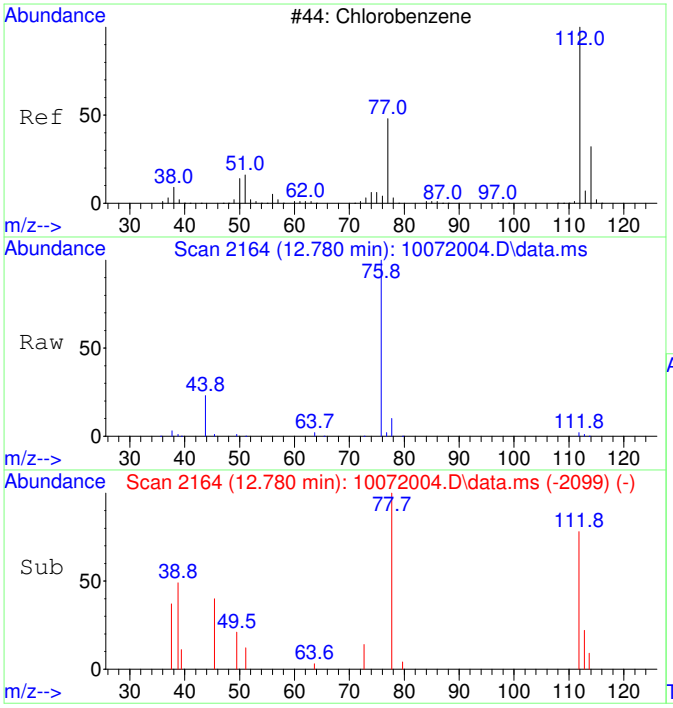




#38
1,1,2-Trichloroethane SCAN
Concen: 72.24 ug/L
RT: 11.252 min Scan# 2000
Delta R.T. 0.031 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 97 Resp: 1000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 0.0 | 57.7 | 117.7# |
| 61 | 35.1 | 32.1 | 92.1 |
| 99 | 0.0 | 36.7 | 96.7# |

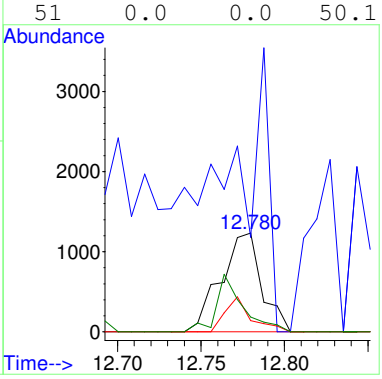


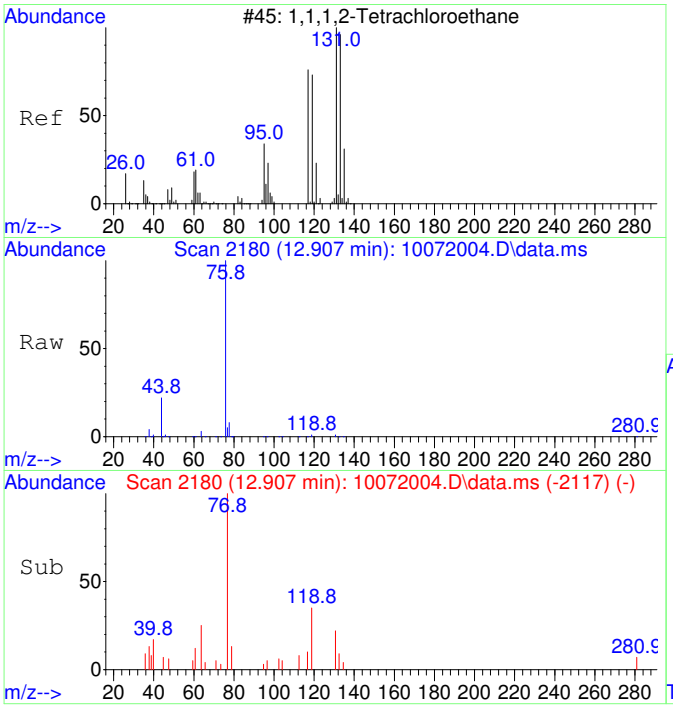



#40
Chlorobenzene SCAN
Concen: 50.02 ug/L
RT: 12.780 min Scan# 2164
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:112 Resp: 2108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 873.2 | 28.2 | 88.2# |
| 114 | 0.0 | 2.3 | 62.3# |
| 51 | 0.0 | 0.0 | 50.1 |

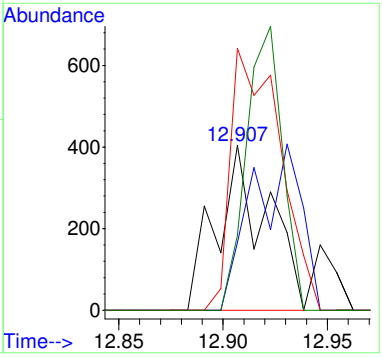


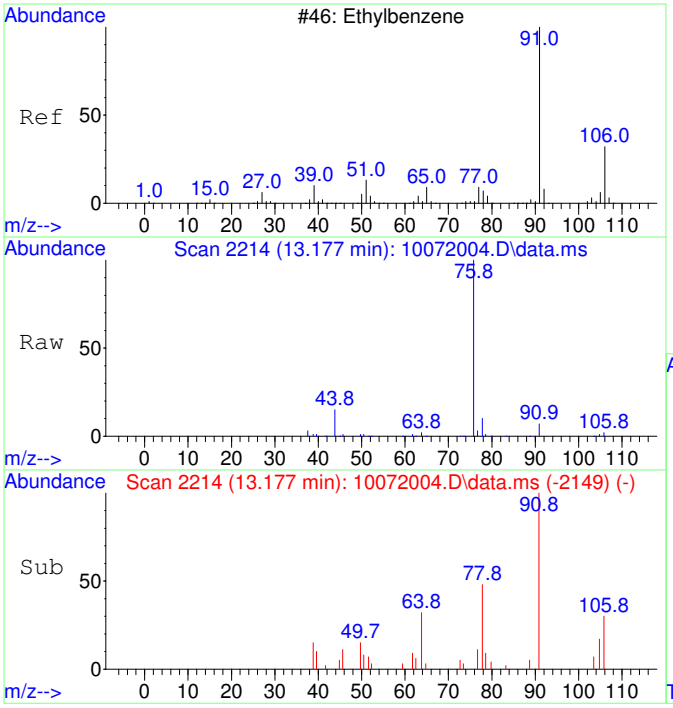




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 43.73 ug/L
RT: 12.907 min Scan# 2180
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:131 Resp: 682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 0.0 | 66.9 | 126.9# |
| 119 | 155.6 | 40.4 | 100.4# |
| 117 | 0.0 | 35.1 | 95.1# |

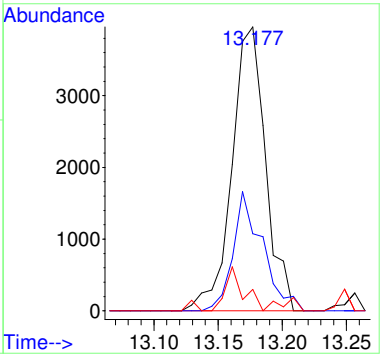


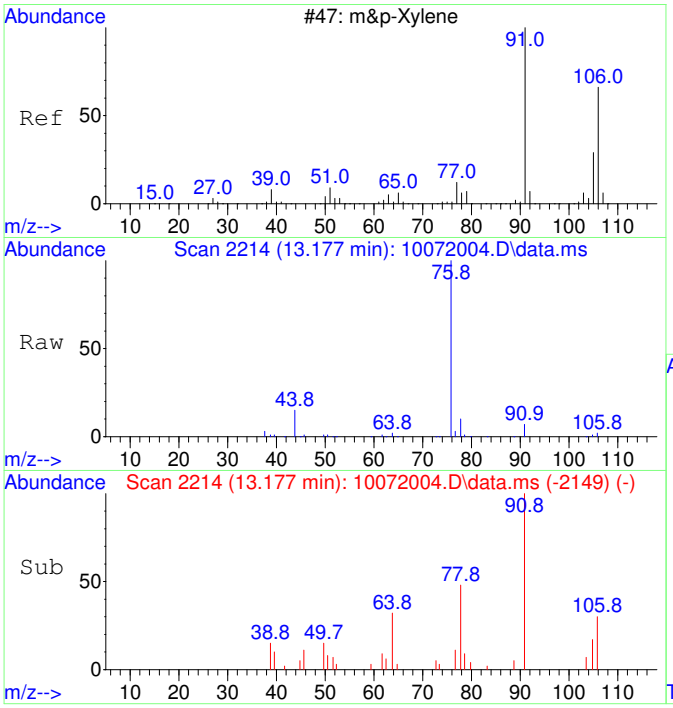



#42
Ethylbenzene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 51 | 10.7 | 0.0 | 40.1 |

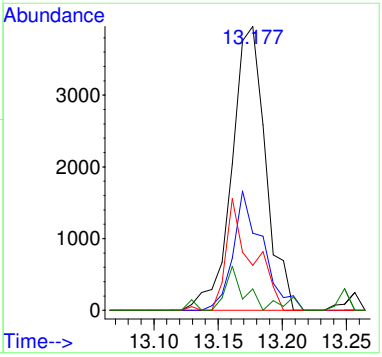


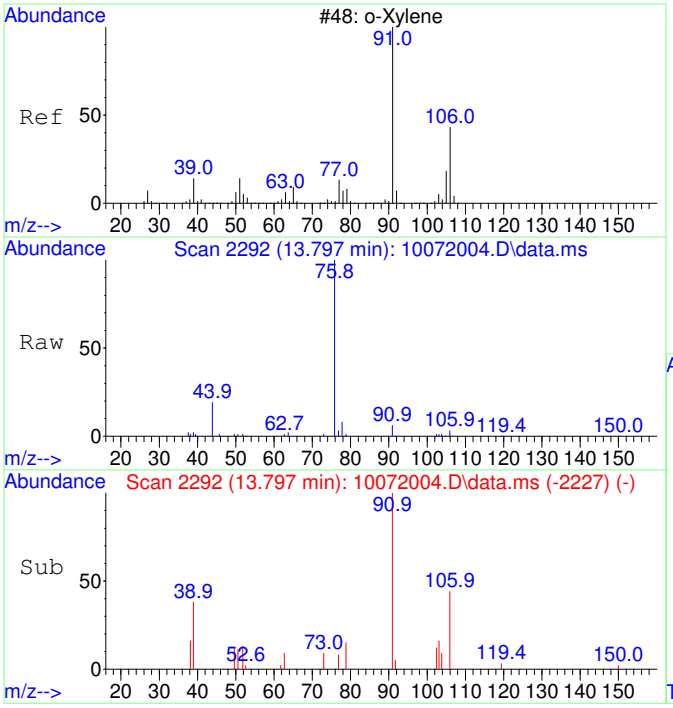




#43
m&p-Xylene SCAN
Concen: 64.02 ug/L
RT: 13.177 min Scan# 2214
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 7193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.7 | 23.1 | 83.1 |
| 105 | 30.4 | 0.0 | 54.7 |
| 51 | 10.7 | 0.0 | 40.1 |

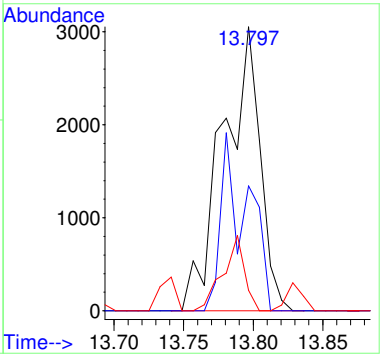


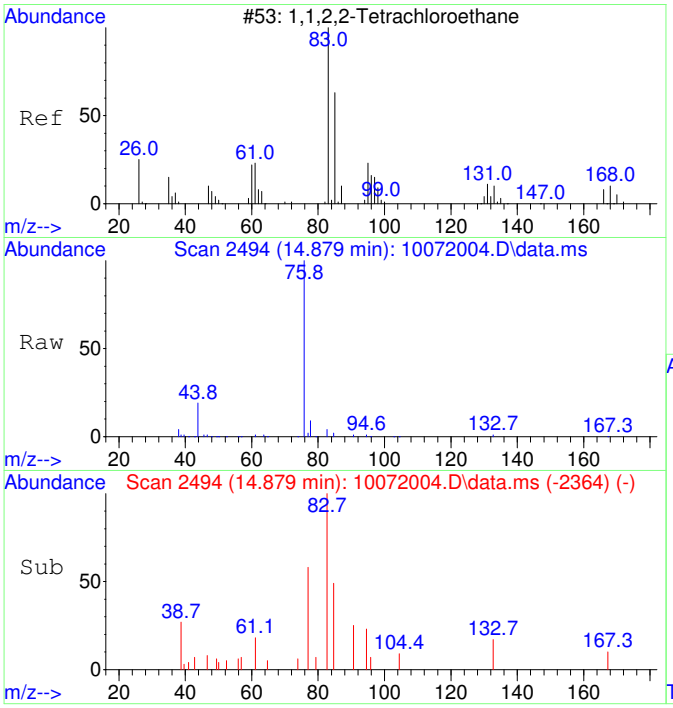



#44
o-Xylene SCAN
Concen: 95.24 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 91 Resp: 5728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.0 | 18.0 | 78.0 |
| 105 | 15.3 | 0.0 | 56.6 |

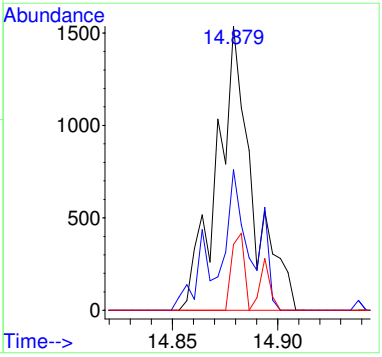


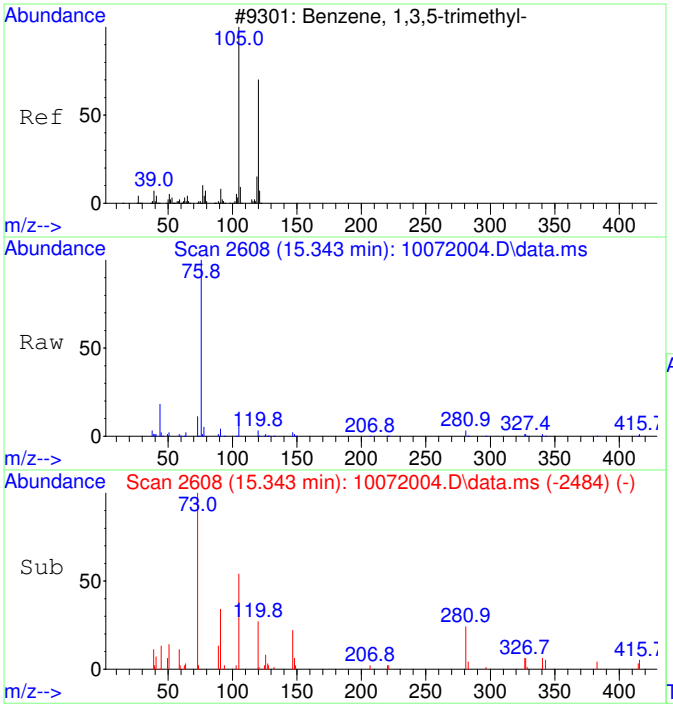




#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 60.94 ug/L
RT: 14.879 min Scan# 2494
Delta R.T. 0.007 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion: 83 Resp: 1787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 26.2 | 35.9 | 95.9# |
| 95 | 8.8 | 0.0 | 47.4 |

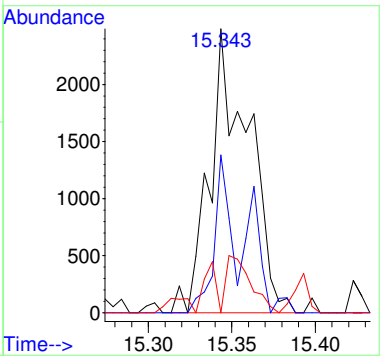


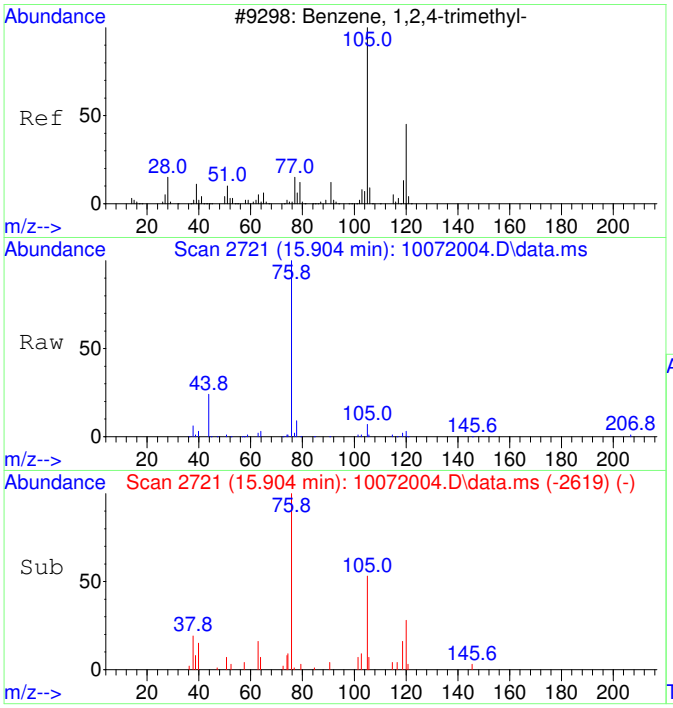



#46
1,3,5-Trimethylbenzene SCAN
Concen: 63.91 ug/L
RT: 15.343 min Scan# 2608
Delta R.T. -0.000 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 4051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 17.4 | 18.3 | 78.3# |
| 119 | 12.6 | 0.0 | 43.1 |

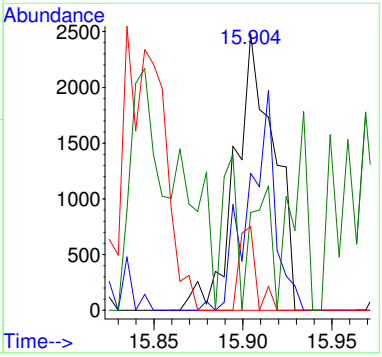


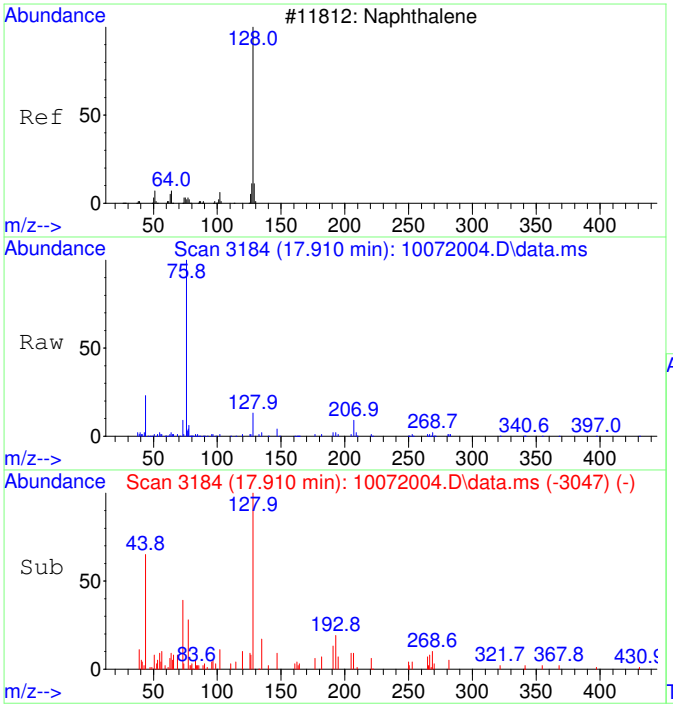




#47
1,2,4-Trimethylbenzene SCAN
Concen: 57.44 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:105 Resp: 3725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 55.4 | 16.9 | 76.9 |
| 119 | 13.3 | 0.0 | 41.9 |
| 77 | 23.1 | 0.0 | 42.3 |

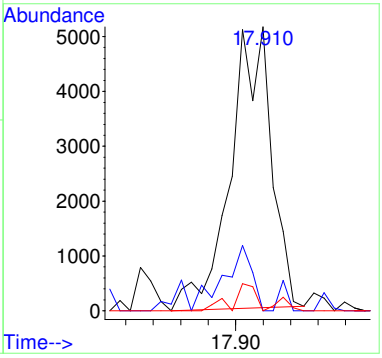





#48
Naphthalene SCAN
Concen: 53.82 ug/L
RT: 17.910 min Scan# 3184
Delta R.T. 0.009 min
Lab File: 10072004.D
Acq: 7 Oct 2020 9:31

Tgt Ion:128 Resp: 5282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 2.3 | 0.0 | 44.0 |
| 129 | 0.0 | 0.0 | 40.8 |



# CRDL STANDARD

## Radiello D1

Laboratory: EPA Region 9 Laboratory
SDG: 20274B
Client: California Site Cleanup Section 3
Project: MEW OU1 FY2020 Vapor Intrusion Investigation
Instrument ID: AG5975CV
Calibration: 2008017
Sequence: S20J013

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| S20J013-CRL1 | 1,1-Dichloroethene | 50.0 | 48.4 | 97 | ug/L | 60 - 140 |
| | trans-1,2-Dichloroethene | 50.0 | 50.3 | 101 | ug/L | 60 - 140 |
| | 1,1-Dichloroethane | 50.0 | 52.2 | 104 | ug/L | 60 - 140 |
| | cis-1,2-Dichloroethene | 50.0 | 51.8 | 104 | ug/L | 60 - 140 |
| | Chloroform | 50.0 | 47.6 | 95 | ug/L | 60 - 140 |
| | Trichloroethene | 50.0 | 48.5 | 97 | ug/L | 60 - 140 |
| | Tetrachloroethene | 50.0 | 49.7 | 99 | ug/L | 60 - 140 |
| | Toluene-d8 | 50.0 | 51.1 | 102 | ug/L | 60 - 140 |

# QLS REPORT

**Instrument Name:** AG5975C
**Sample Name:** S20J013-CRL1
**Misc Info:** 2030073 0.05 mg/L
**Date Acquired:** 10/8/20 10:51
**QLast Update:** Fri Aug 21 08:33:54 2020
**Operator:** TD

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | 2-Fluorotoluene | 10.970 | 5000.0 | 5000.00 | 100% | 60 | 140 | pass |
| 2) | 1,1-Dichloroethene | 3.090 | 50.0 | 48.45 | 97% | 60 | 140 | pass |
| 3) | trans-1,2-Dichloroethene | 4.396 | 50.0 | 50.33 | 101% | 60 | 140 | pass |
| 4) | 1,1-Dichloroethane | 5.099 | 50.0 | 52.18 | 104% | 60 | 140 | pass |
| 5) | cis-1,2-Dichloroethene | 6.094 | 50.0 | 51.79 | 104% | 60 | 140 | pass |
| 6) | Chloroform | 6.664 | 50.0 | 47.62 | 95% | 60 | 140 | pass |
| 7) | 1,1,1-Trichloroethane | 6.919 | 50.0 | 47.96 | 96% | 60 | 140 | pass |
| 8) | Carbon tetrachloride | 7.187 | 50.0 | 46.21 | 92% | 60 | 140 | pass |
| 10) | 1,2-Dichloroethane | 7.552 | 50.0 | 50.57 | 101% | 60 | 140 | pass |
| 11) | Trichloroethene | 8.569 | 50.0 | 48.52 | 97% | 60 | 140 | pass |
| 12) | Toluene-d8 | 10.477 | 50.0 | 51.11 | 102% | 60 | 140 | pass |
| 13) | Toluene | 10.571 | 50.0 | 51.39 | 103% | 60 | 140 | pass |
| 14) | 1,1,2-Trichloroethane | 11.222 | 50.0 | 50.82 | 102% | 60 | 140 | pass |
| 15) | Tetrachloroethene | 11.421 | 50.0 | 49.68 | 99% | 60 | 140 | pass |
| 16) | Chlorobenzene | 12.757 | 50.0 | 52.95 | 106% | 60 | 140 | pass |
| 17) | 1,1,1,2-Tetrachloroethane | 12.908 | 50.0 | 50.99 | 102% | 60 | 140 | pass |
| 18) | Ethylbenzene | 12.964 | 50.0 | 54.30 | 109% | 60 | 140 | pass |
| 19) | m&p-Xylene | 13.162 | 100.0 | 109.02 | 109% | 60 | 140 | pass |
| 20) | o-Xylene | 13.774 | 50.0 | 53.87 | 108% | 60 | 140 | pass |
| 21) | 1,1,2,2-Tetrachloroethane | 14.873 | 50.0 | 55.37 | 111% | 60 | 140 | pass |
| 22) | 1,3,5-Trimethylbenzene | 15.345 | 50.0 | 57.11 | 114% | 60 | 140 | pass |
| 23) | 1,2,4-Trimethylbenzene | 15.896 | 50.0 | 58.17 | 116% | 60 | 140 | pass |
| 24) | Naphthalene | 17.903 | 50.0 | 52.27 | 105% | 60 | 140 | pass |

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

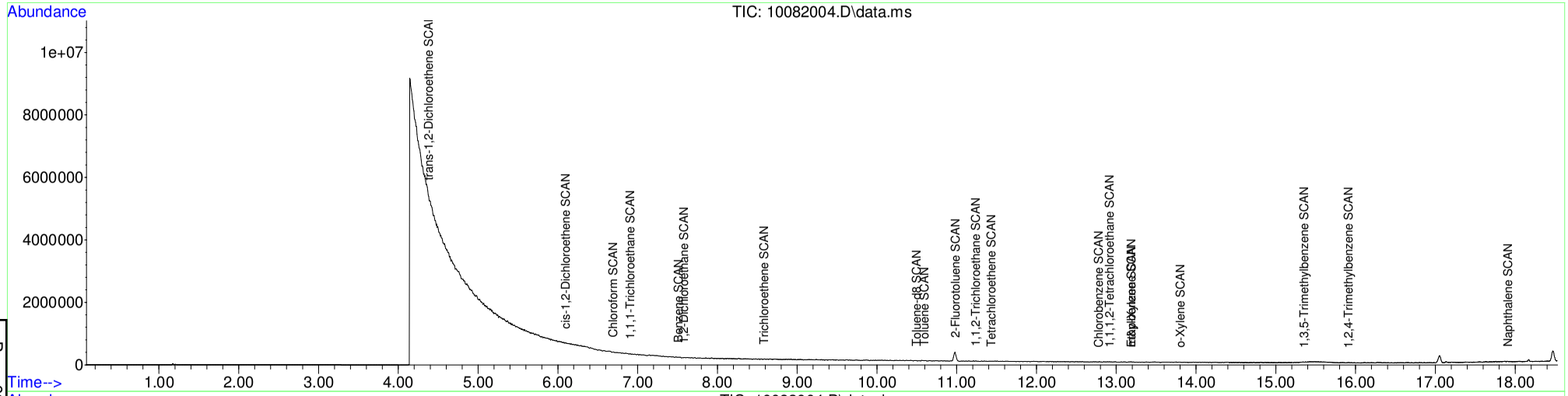
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 454821 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4551 | 51.11 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 1.02%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 1343 | 73.95 | ug/L | 64 |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1056 | 50.33 | ug/L | 56 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1363 | 52.18 | ug/L | 49 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1428 | 51.79 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1344 | 47.62 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1470 | 47.96 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1333 | 46.21 | ug/L | 95 |
| 9] Benzene | 7.515 | 78 | 4011 | 51.90 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1395 | 50.57 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1129 | 48.52 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 5833 | 51.39 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1257 | 50.82 | ug/L | 98 |
| 15] Tetrachloroethene | 11.432 | 166 | 1632 | 49.68 | ug/L | 96 |
| 16] Chlorobenzene | 12.765 | 112 | 4304 | 52.95 | ug/L | 76 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1485 | 50.99 | ug/L | 97 |
| 18] Ethylbenzene | 12.972 | 91 | 7503 | 54.30 | ug/L | 97 |
| 19] m&p-Xylene | 13.170 | 91 | 11773 | 109.02 | ug/L | 93 |
| 20] o-Xylene | 13.782 | 91 | 6215 | 53.87 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2831 | 55.37 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7013 | 57.11 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7419 | 58.17 | ug/L | 92 |
| 24] Naphthalene | 17.904 | 128 | 10537 | 52.27 | ug/L | 97 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 232197 | 5237.13 | ug/L | 97 |
| 27) trans-1,2-Dichloroethe... | 4.374 | 61 | 635 | 54.50 | ug/L # | 71 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 620 | 42.92 | ug/L # | 67 |
| 30) Chloroform SCAN | 6.687 | 83 | 1236 | 78.88 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 512 | 35.86 | ug/L # | 36 |
| 33) Benzene SCAN | 7.514 | 78 | 13029 | 331.38 | ug/L | 95 |
| 34) 1,2-Dichloroethane SCAN | 7.575 | 62 | 886 | 61.03 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 964 | 89.22 | ug/L # | 37 |
| 36) Toluene-d8 SCAN | 10.496 | 98 | 1788 | 41.24 | ug/L | 89 |
| 37) Toluene SCAN | 10.591 | 91 | 4196 | 75.56 | ug/L # | 82 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 839 | 67.31 | ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 625 | 46.85 | ug/L # | 46 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2194 | 57.82 | ug/L # | 41 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 819 | 58.32 | ug/L # | 65 |
| 42) Ethylbenzene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 81 |
| 43) m&p-Xylene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 3798 | 70.14 | ug/L | 81 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 4507 | 78.97 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3981 | 68.17 | ug/L # | 75 |
| 48) Naphthalene SCAN | 17.906 | 128 | 5644 | 63.87 | ug/L | 92 |

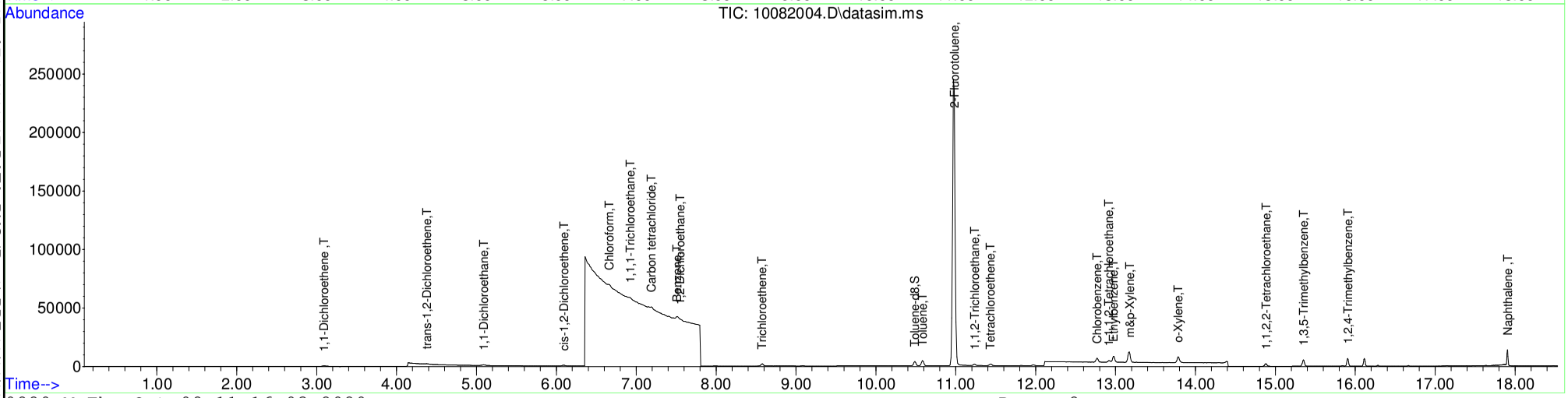
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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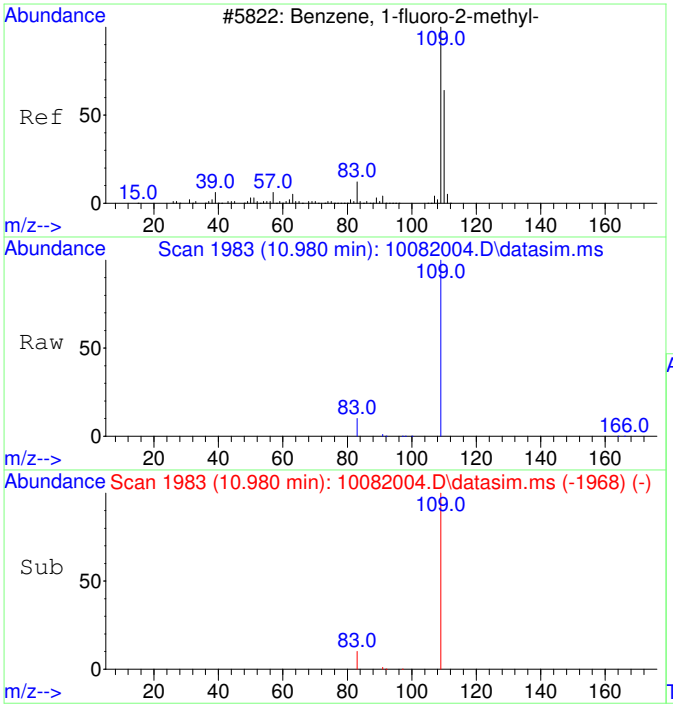
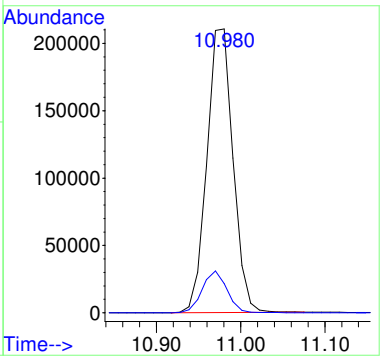
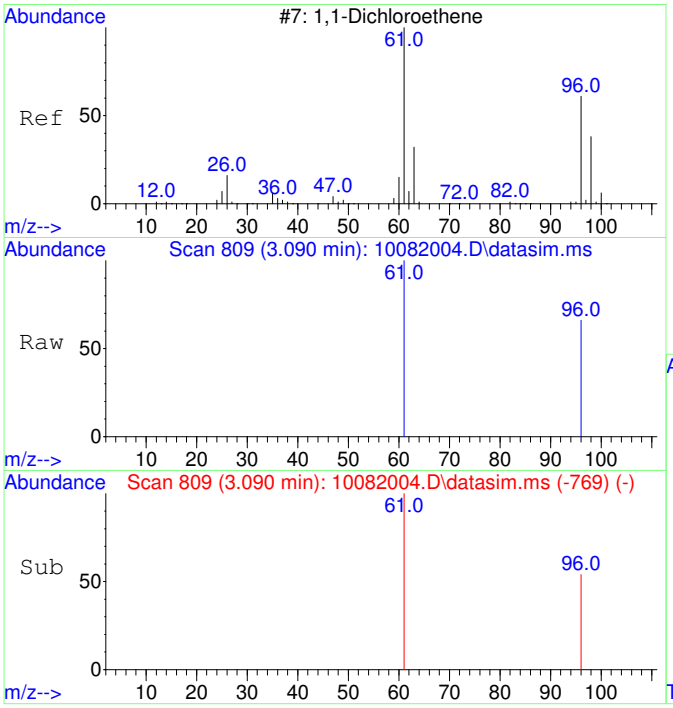



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 454821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

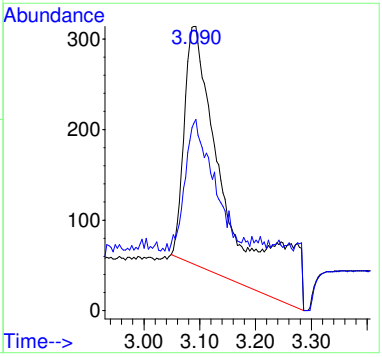


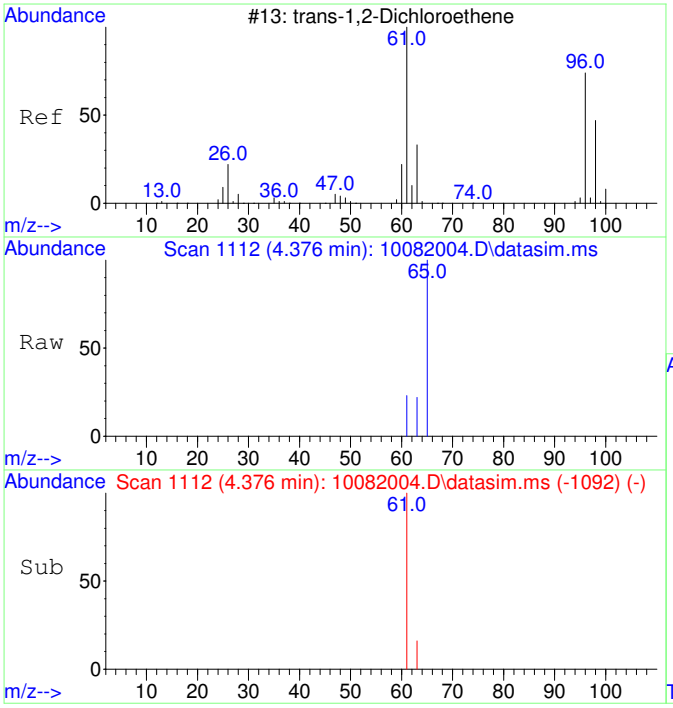

#2
1,1-Dichloroethene
Concen: 73.95 ug/L
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 38.2 | 37.2 | 97.2 |



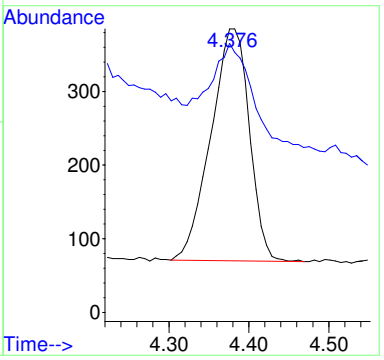

Before MI:
IMPROPER
BASELINE

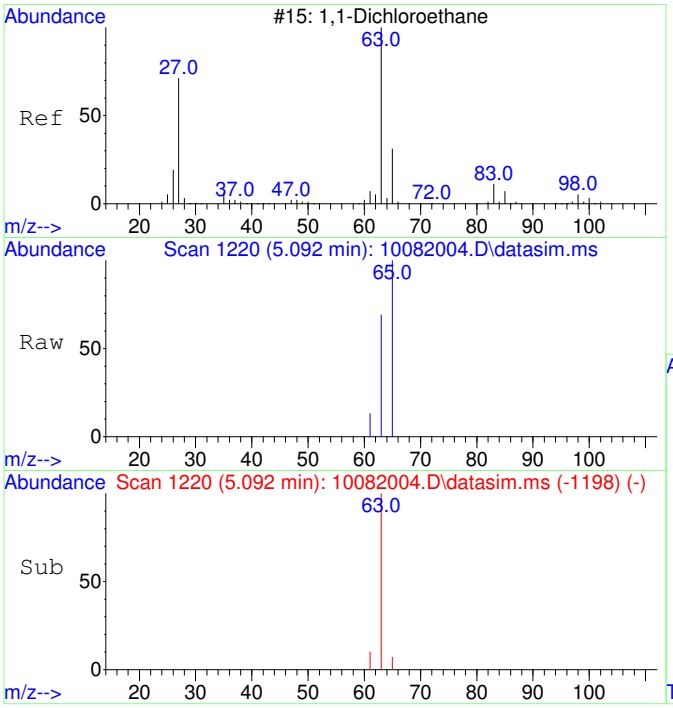



#3
trans-1,2-Dichloroethene
Concen: 50.33 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 56.8 | 2.4 | 62.4 |

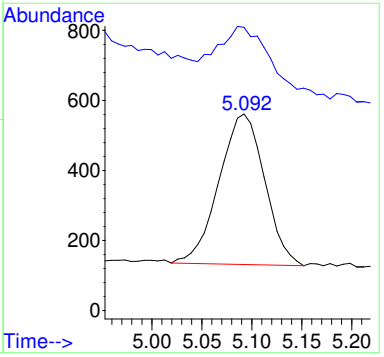


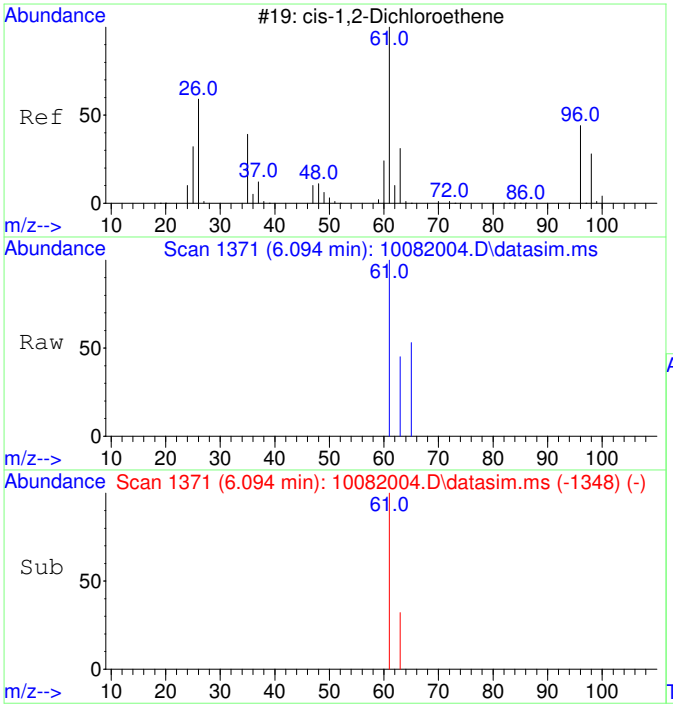




#4
1,1-Dichloroethane
Concen: 52.18 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 63 Resp: 1363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 60.4 | 1.8 | 61.8 |

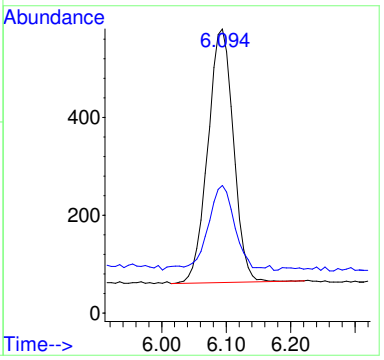


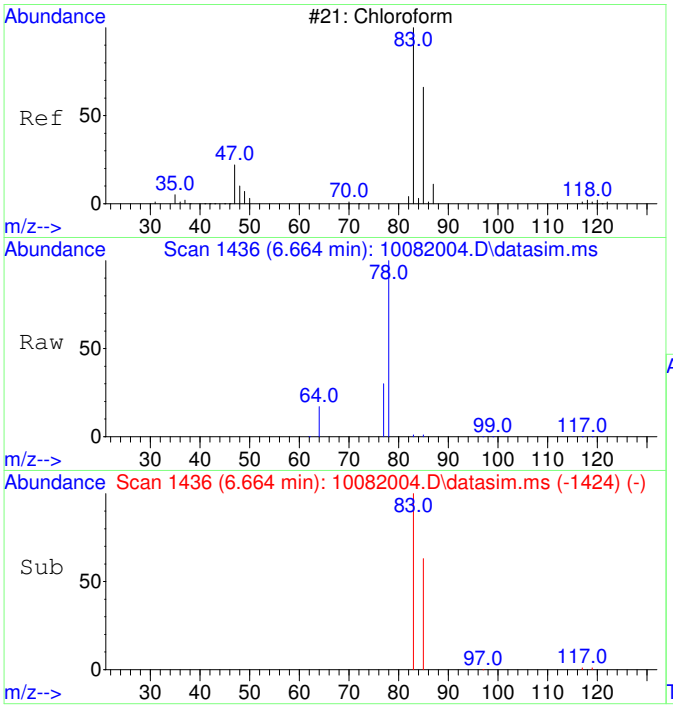



#5
cis-1,2-Dichloroethene
Concen: 51.79 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.4 | 2.5 | 62.5 |

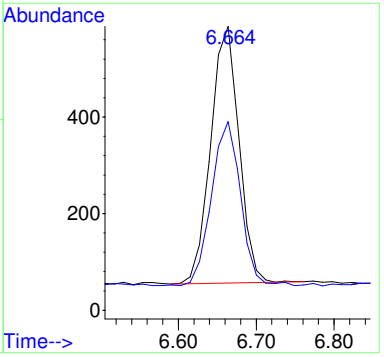


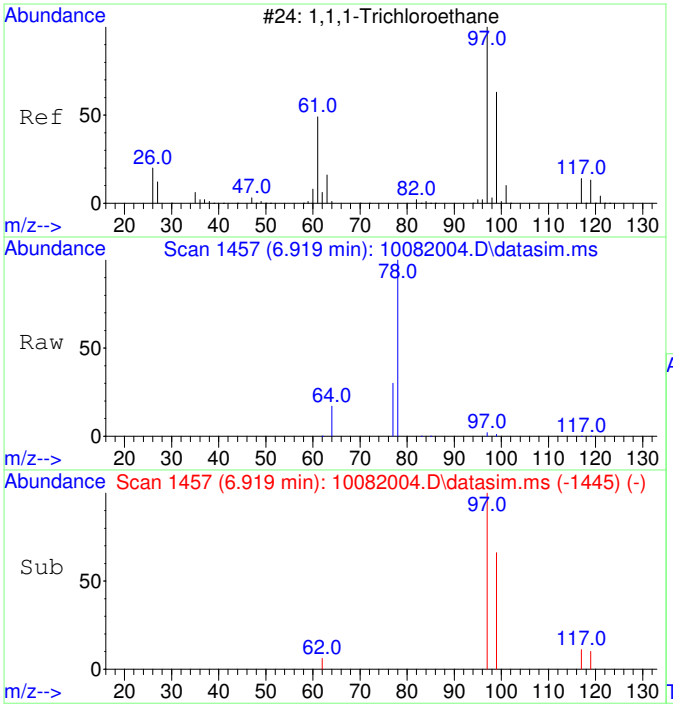




#6
Chloroform
Concen: 47.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1344

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 35.1 | 95.1 |

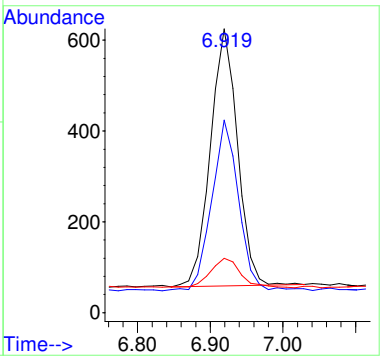


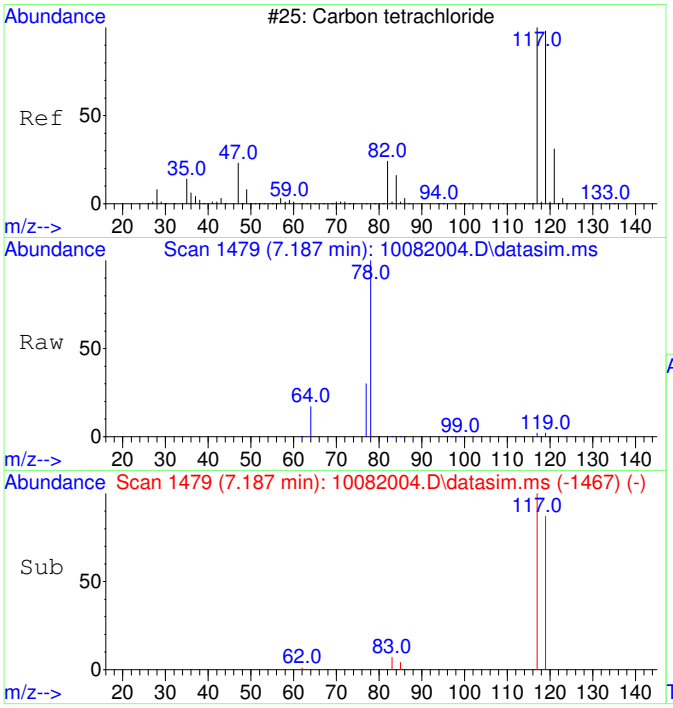



#7
1,1,1-Trichloroethane
Concen: 47.96 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.1 | 34.6 | 94.6 |
| 117 | 12.9 | 0.0 | 43.2 |

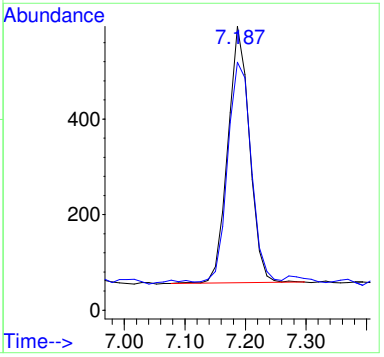


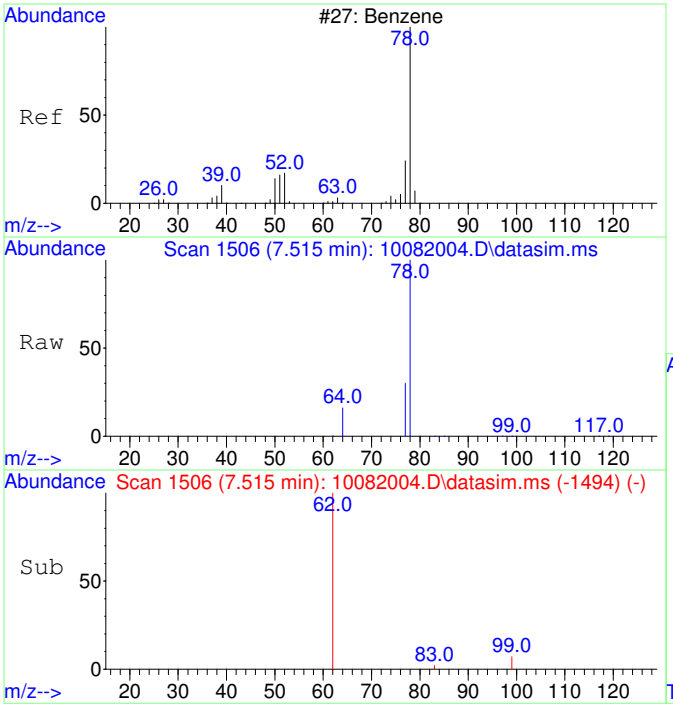




#8
Carbon tetrachloride
Concen: 46.21 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:117 Resp: 1333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 91.7 | 66.4 | 126.4 |

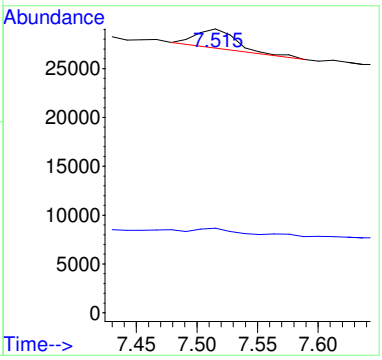


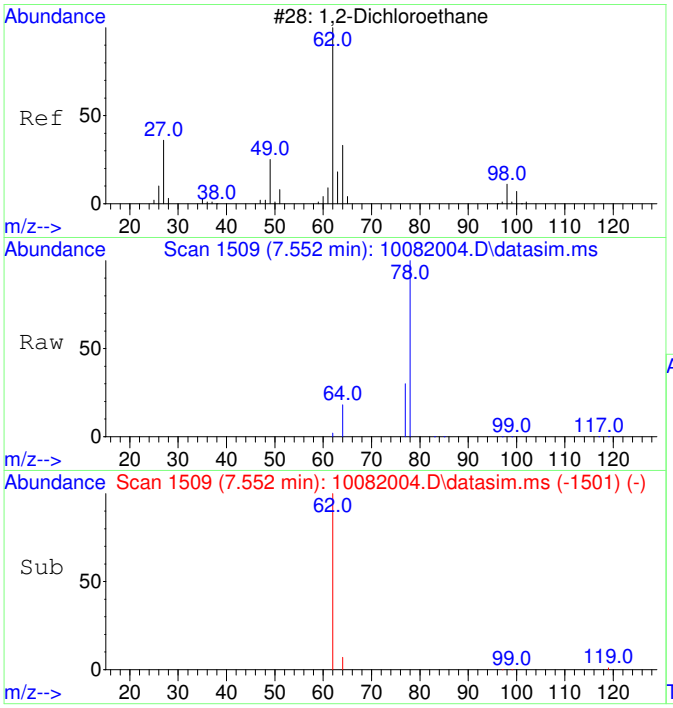



#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 4011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 72.1 | 0.0 | 53.2# |

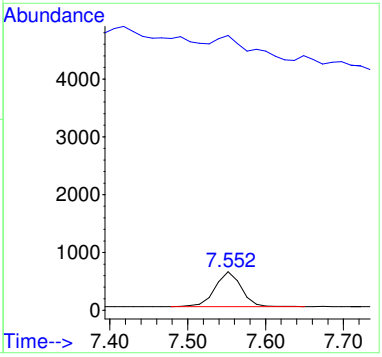


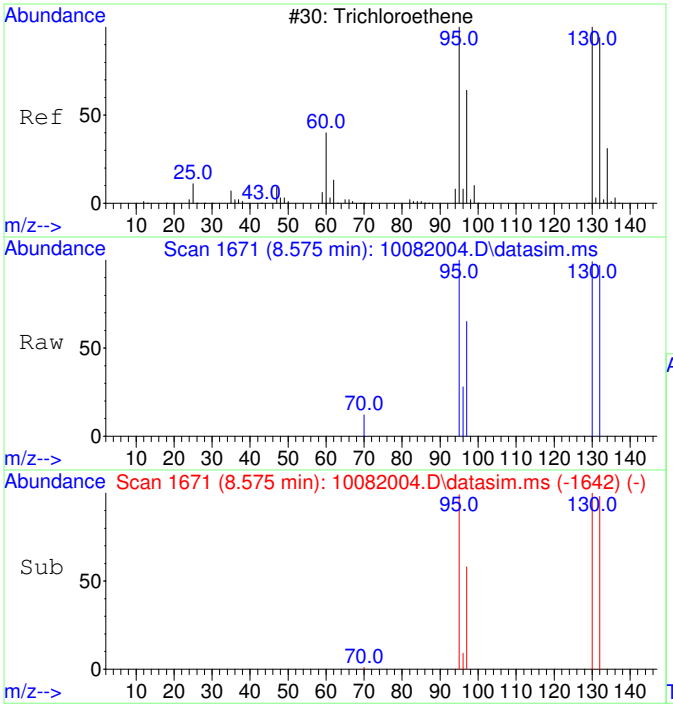




#10
1,2-Dichloroethane
Concen: 50.57 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 1395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.1 | 2.3 | 62.3# |

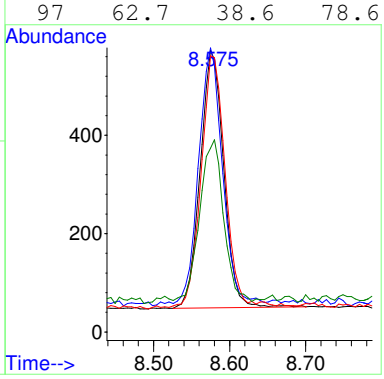


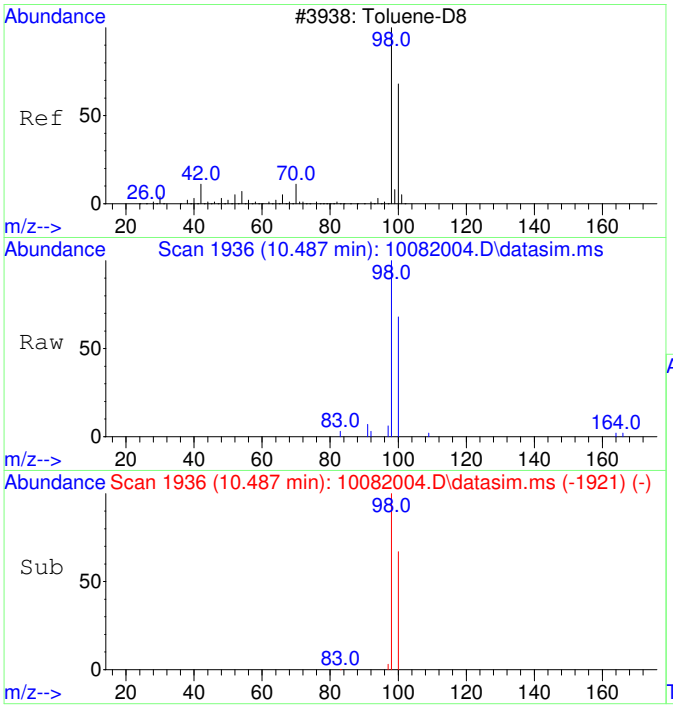



#11
Trichloroethene
Concen: 48.52 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 1129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.2 | 60.7 | 120.7 |
| 132 | 98.8 | 76.0 | 116.0 |
| 97 | 62.7 | 38.6 | 78.6 |

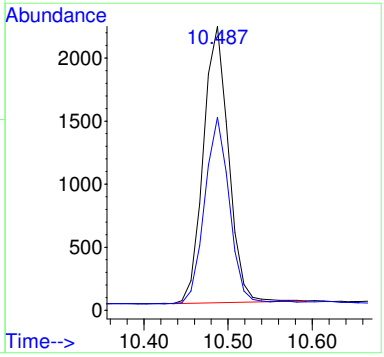


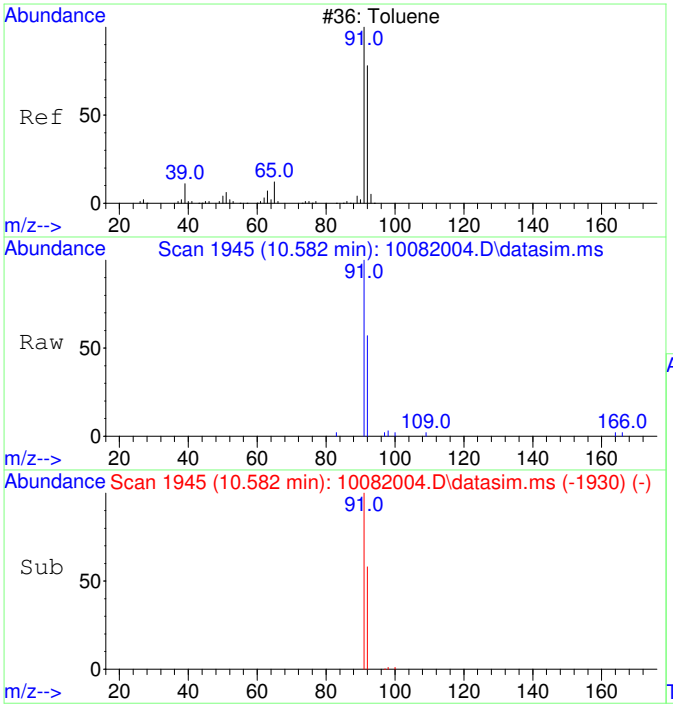




#12
Toluene-d8
Concen: 51.11 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 4551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.3 | 37.1 | 97.1 |

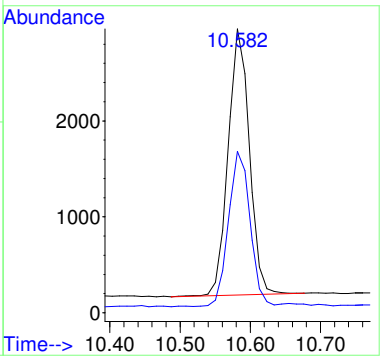


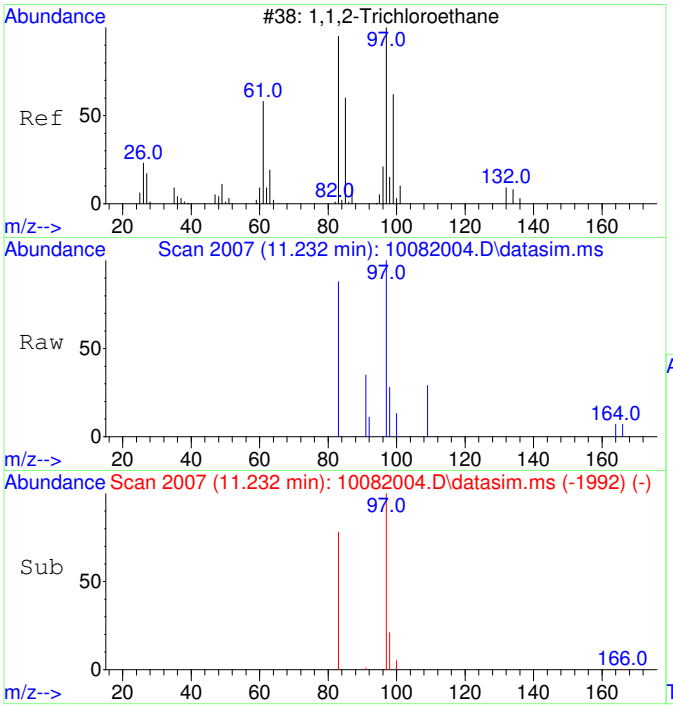



#13
Toluene
Concen: 51.39 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 5833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.7 | 29.9 | 89.9 |

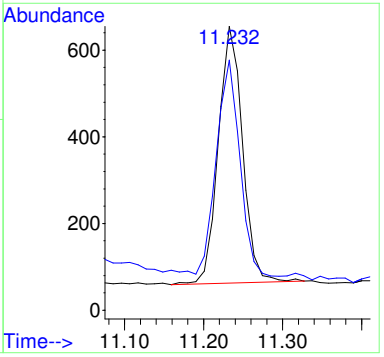


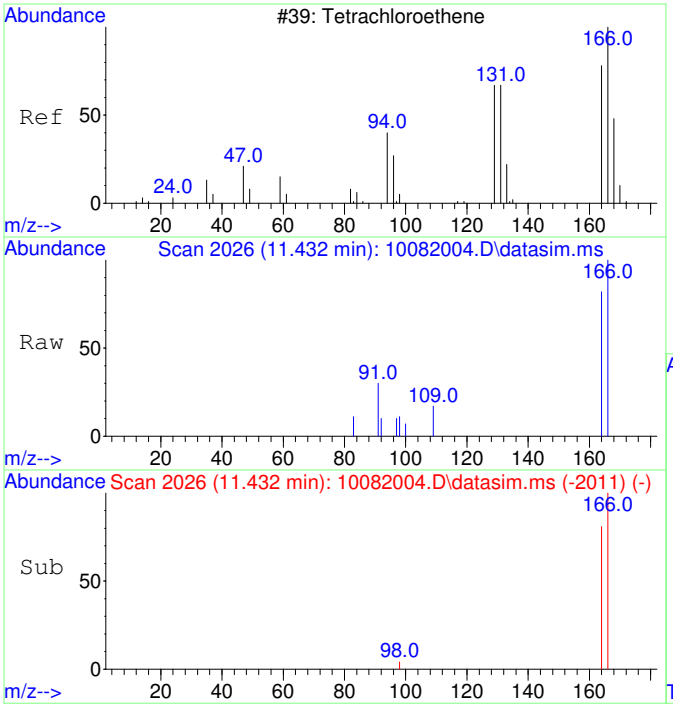




#14
1,1,2-Trichloroethane
Concen: 50.82 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.1 | 51.2 | 111.2 |

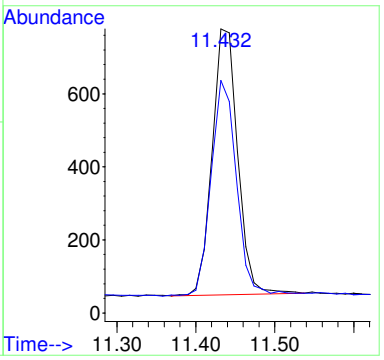


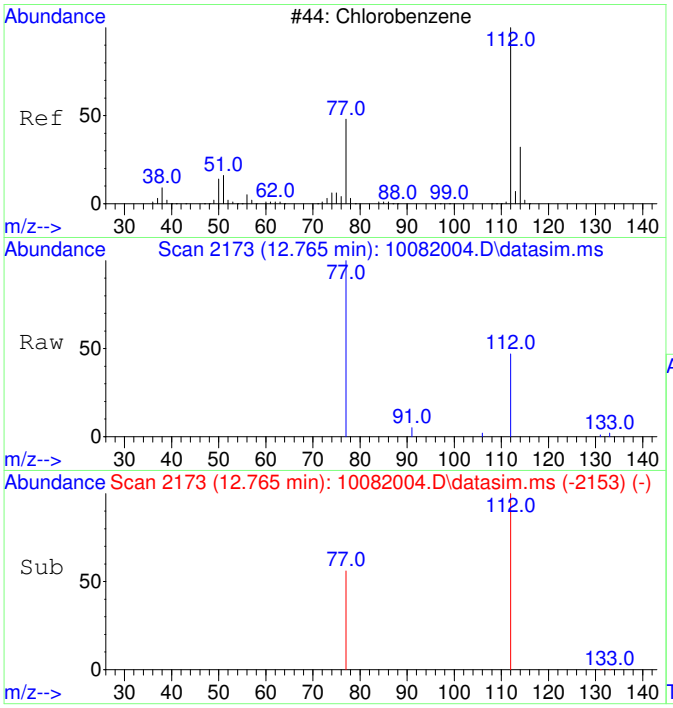



#15
Tetrachloroethene
Concen: 49.68 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 81.7 | 47.8 | 107.8 |

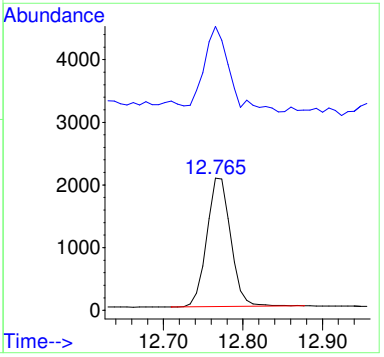


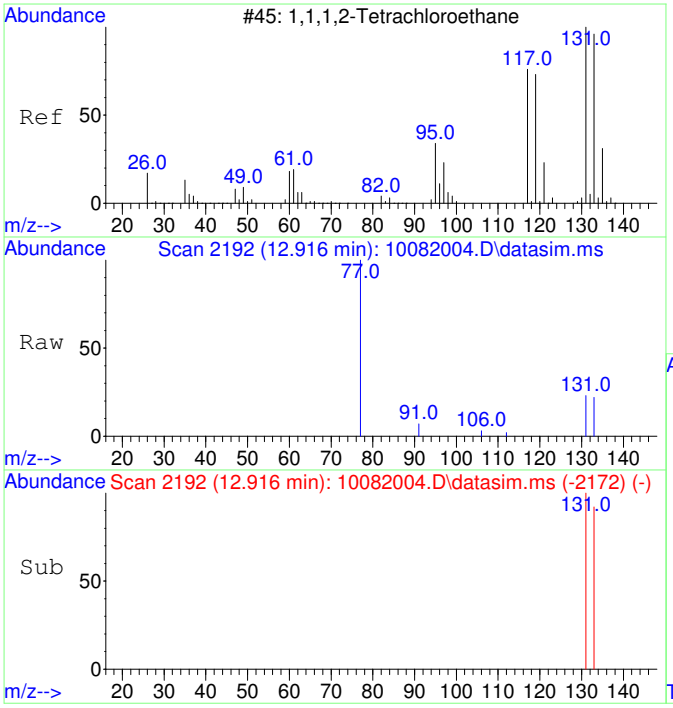




#16
Chlorobenzene
Concen: 52.95 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 4304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 71.1 | 23.6 | 83.6 |

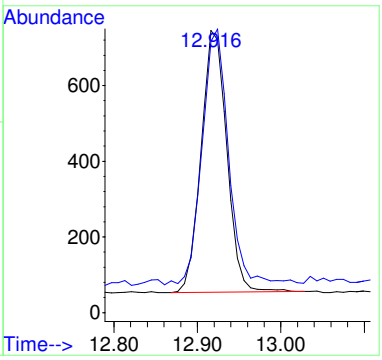


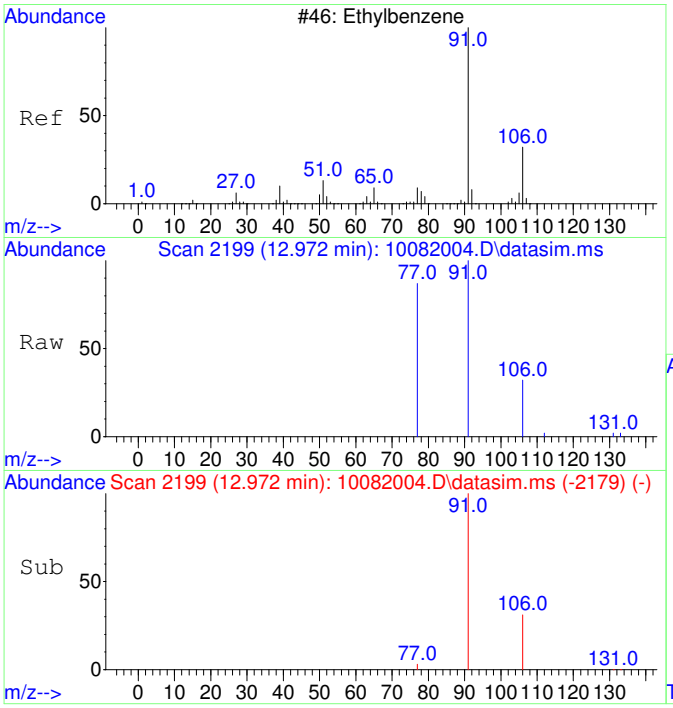



#17
1,1,1,2-Tetrachloroethane
Concen: 50.99 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 1485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.3 | 66.3 | 126.3 |

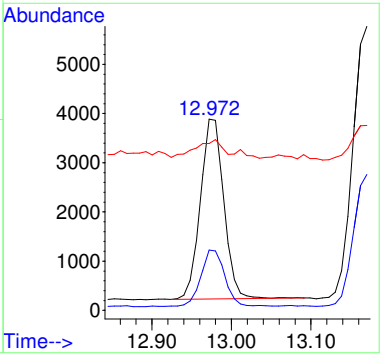


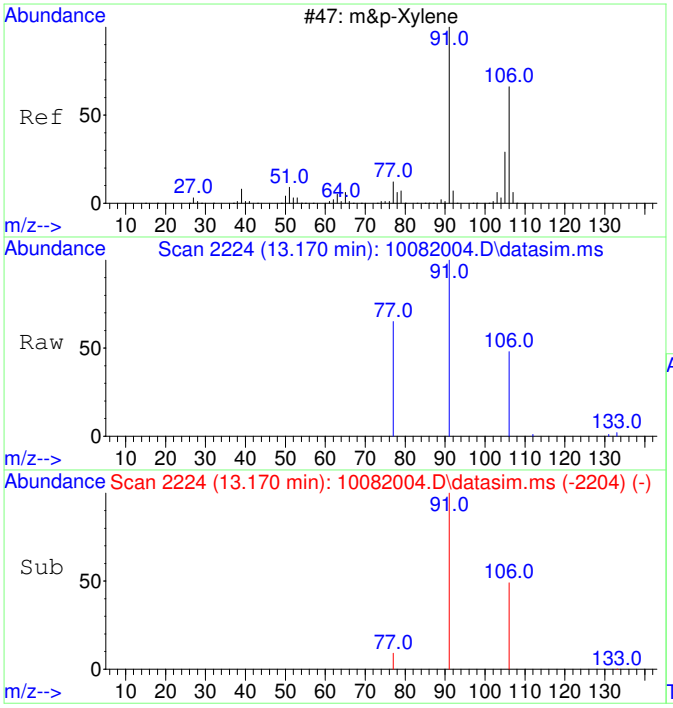




#18
Ethylbenzene
Concen: 54.30 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.0 | 3.0 | 63.0 |
| 77 | 11.1 | 0.0 | 38.2 |

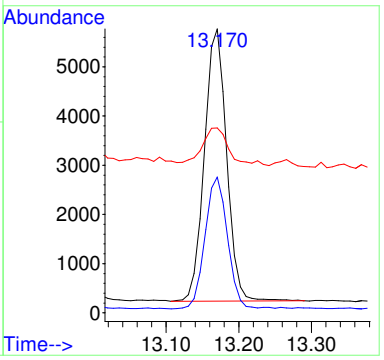


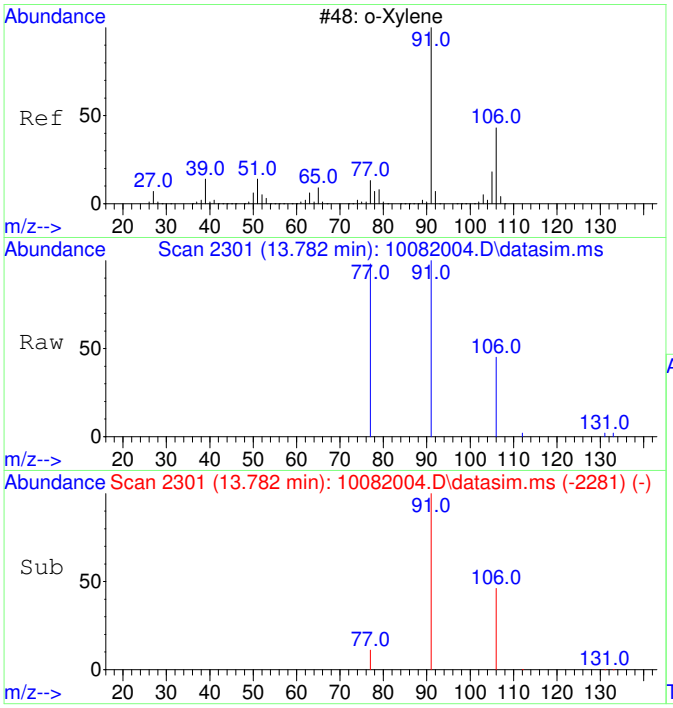



#19
m&p-Xylene
Concen: 109.02 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 11773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 16.9 | 0.0 | 42.4 |

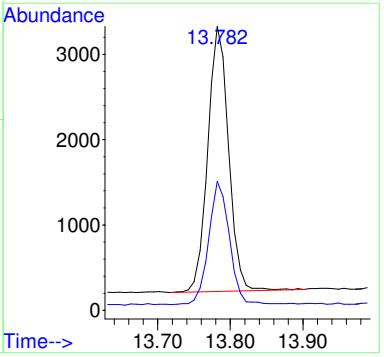


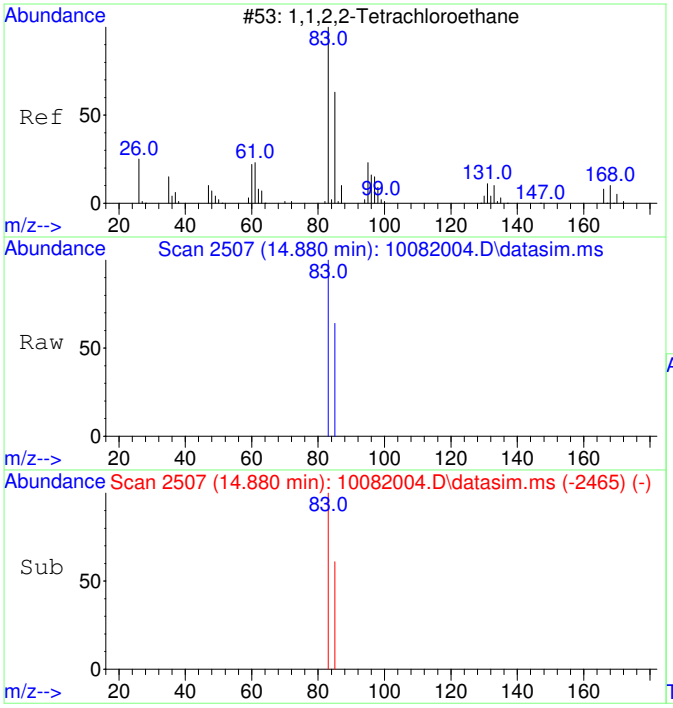




#20
o-Xylene
Concen: 53.87 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 6215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 19.2 | 79.2 |

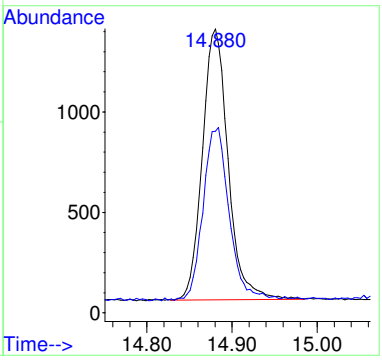


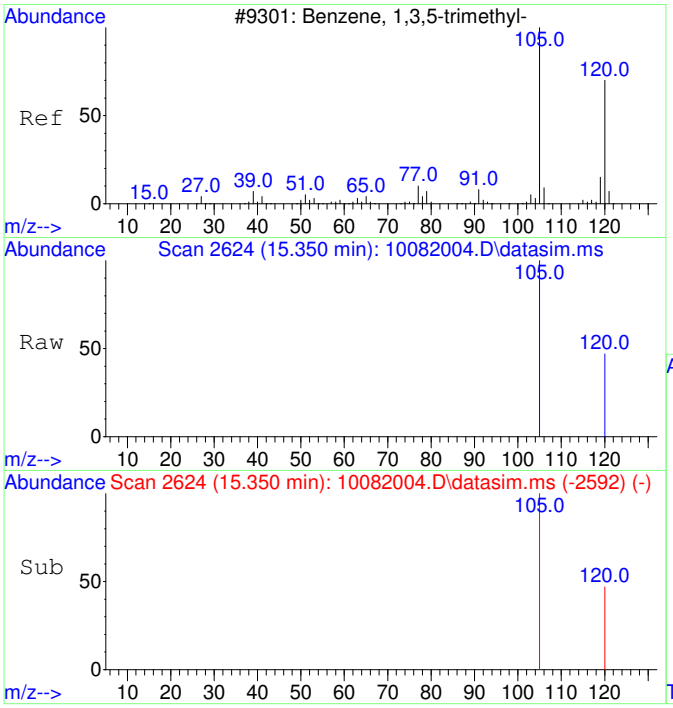



#21
1,1,2,2-Tetrachloroethane
Concen: 55.37 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 2831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 34.8 | 94.8 |

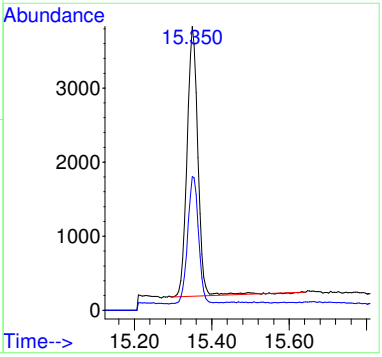


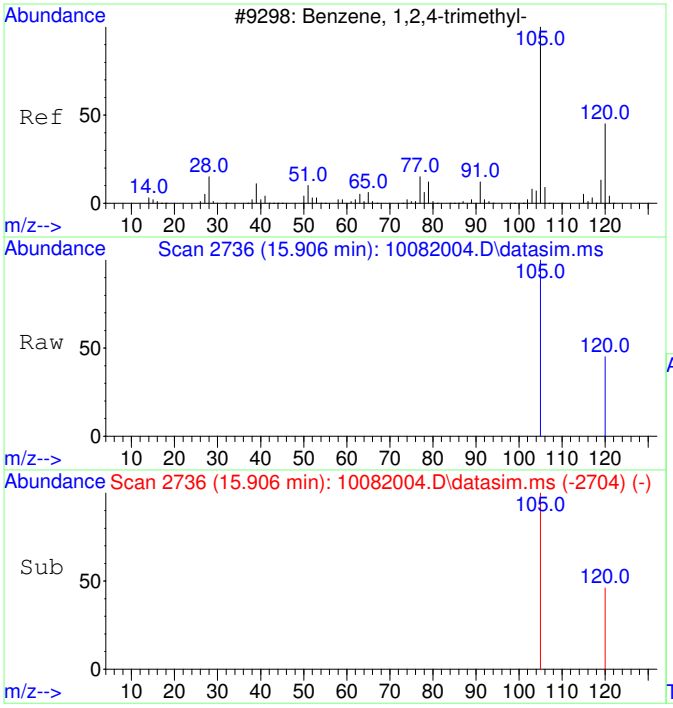




#22
1,3,5-Trimethylbenzene
Concen: 57.11 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.5 | 21.1 | 81.1 |

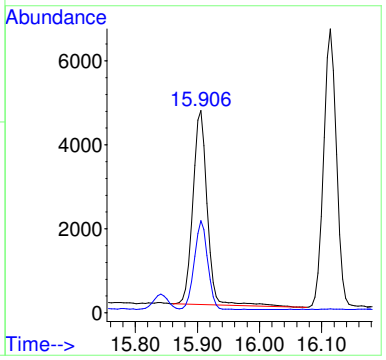


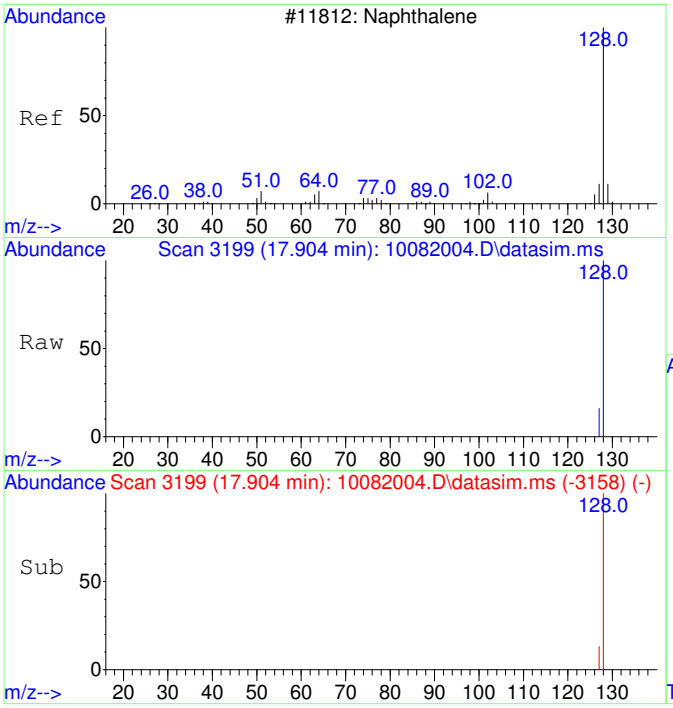



#23
1,2,4-Trimethylbenzene
Concen: 58.17 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7419

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.1 | 17.2 | 77.2 |

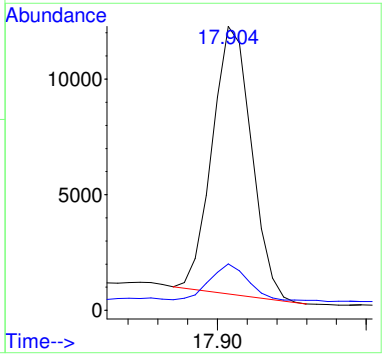


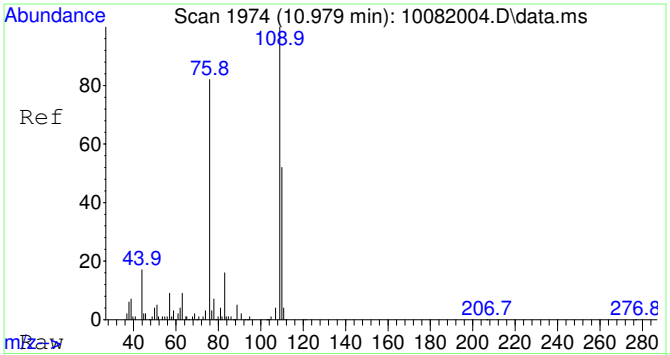




#24
Naphthalene
Concen: 52.27 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 10537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.9 | 0.0 | 42.5 |

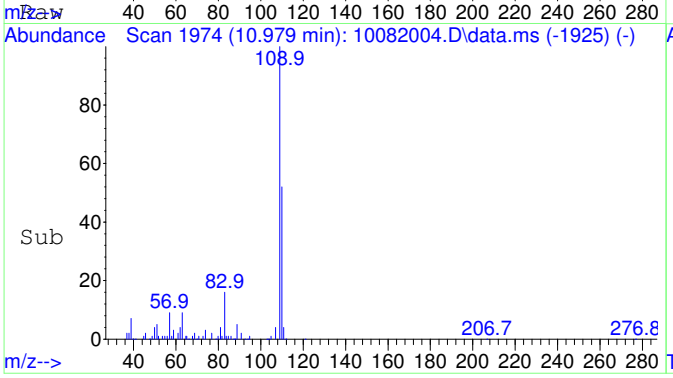


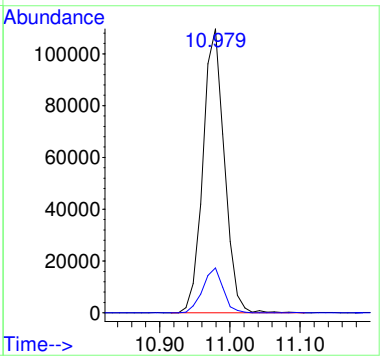


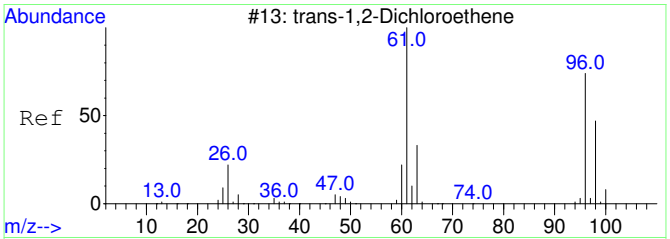

#25
2-Fluorotoluene SCAN
Concen: 5237.13 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 232197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.0 | 0.0 | 43.8 |



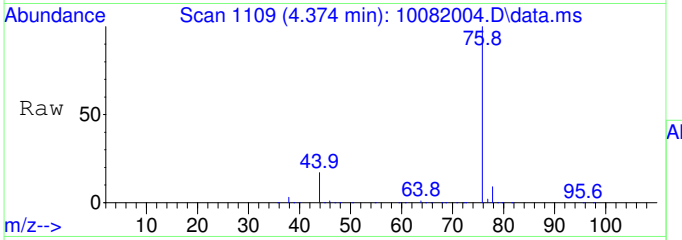



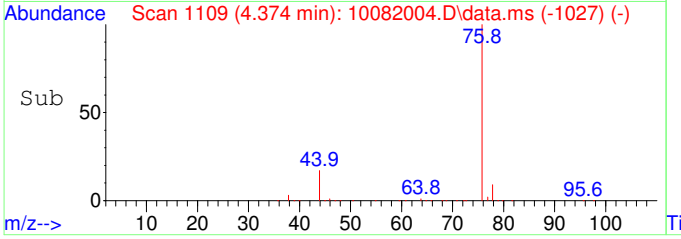



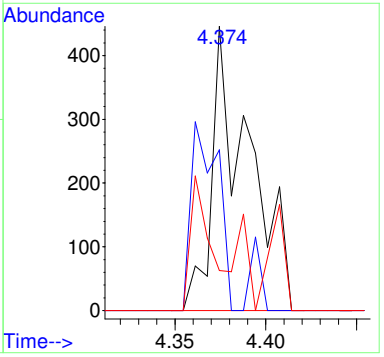

#27
trans-1,2-Dichloroethene SCAN
Concen: 54.50 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.027 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

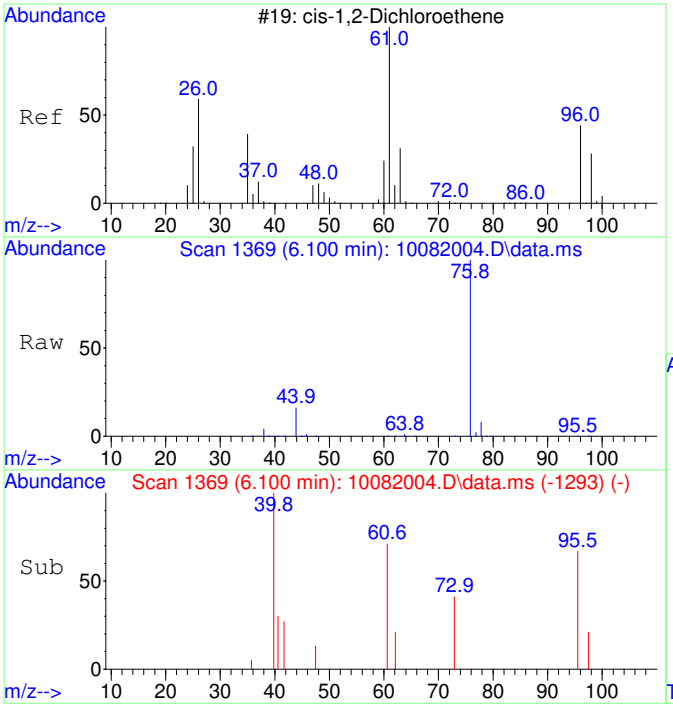
Tgt Ion: 61 Resp: 635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 47.9 | 49.0 | 109.0# |
| 98 | 37.6 | 20.5 | 80.5 |



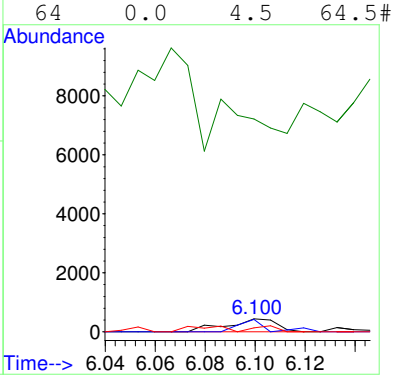



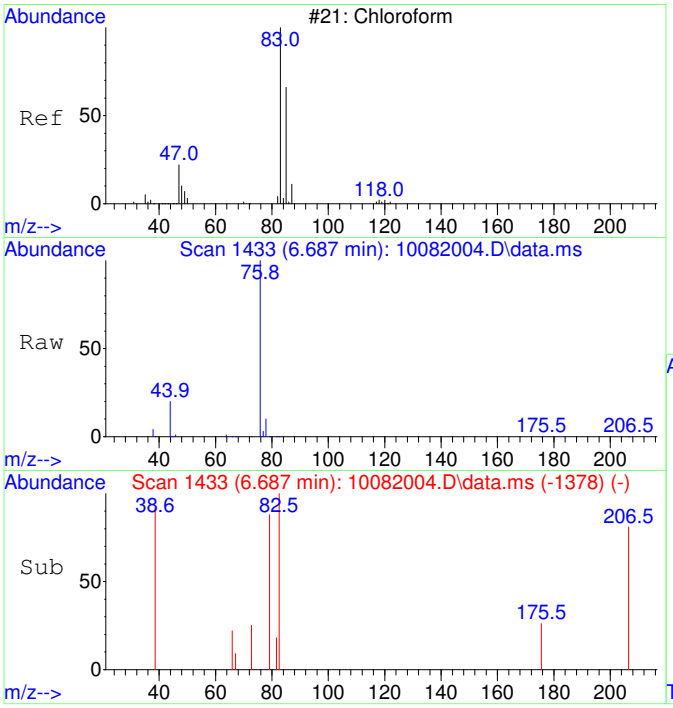



#29
cis-1,2-Dichloroethene SCAN
Concen: 42.92 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 39.9 | 99.9 |
| 98 | 21.5 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

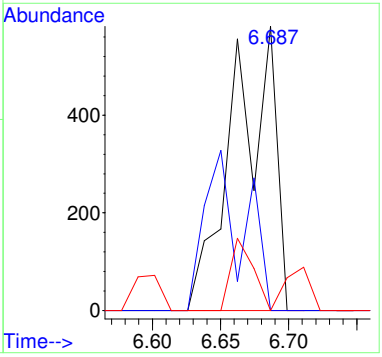


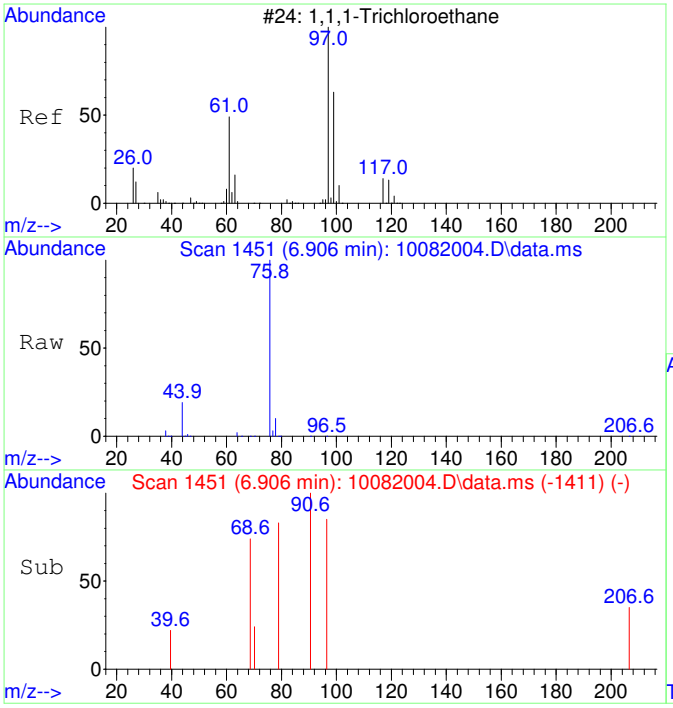




#30
Chloroform SCAN
Concen: 78.88 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

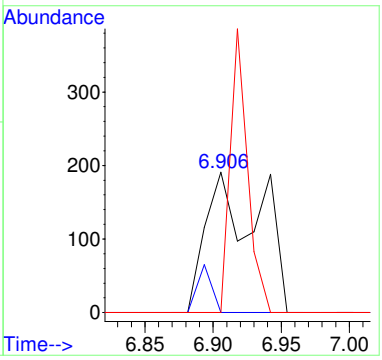


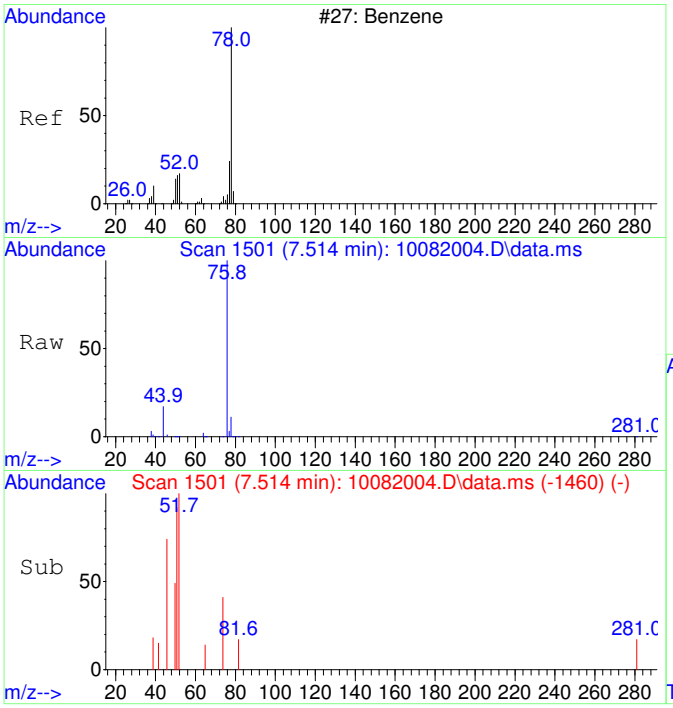



#31
1,1,1-Trichloroethane SCAN
Concen: 35.86 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 512

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 66.8 | 18.0 | 78.0 |

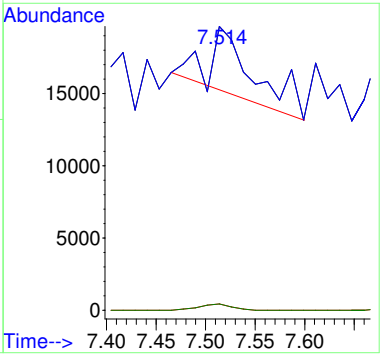


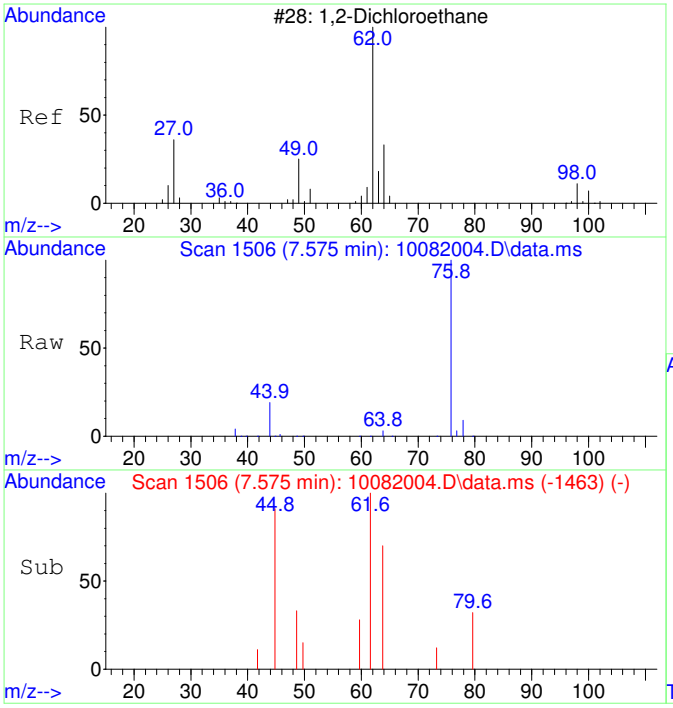




#33
Benzene SCAN
Concen: 331.38 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 13029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 7.7 | 0.0 | 47.9 |
| 51 | 7.7 | 0.0 | 44.1 |

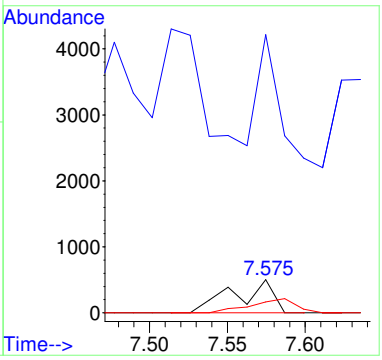


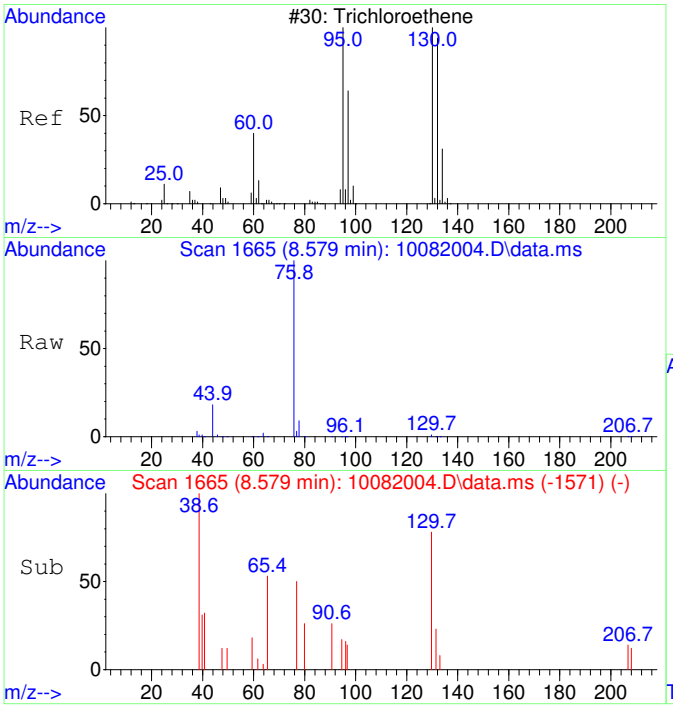



#34
1,2-Dichloroethane SCAN
Concen: 61.03 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 162.9 | 5.2 | 65.2# |
| 49 | 48.4 | 3.9 | 63.9 |

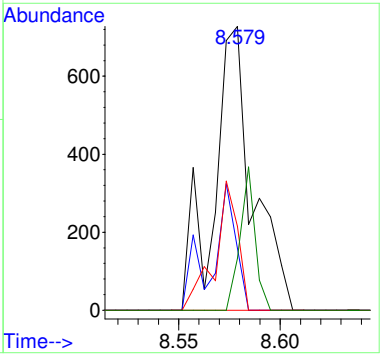


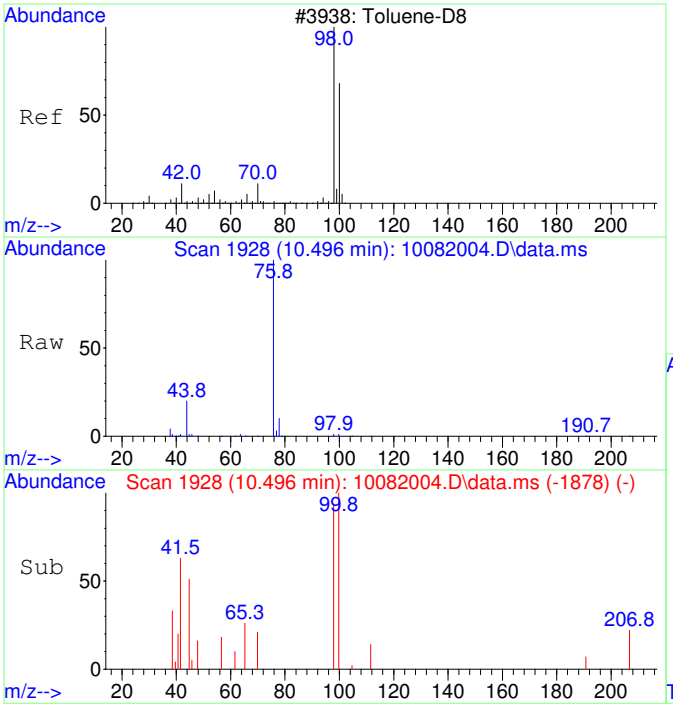




#35
Trichloroethene SCAN
Concen: 89.22 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 27.9 | 60.5 | 120.5# |
| 132 | 26.7 | 59.6 | 119.6# |
| 97 | 19.5 | 28.2 | 88.2# |

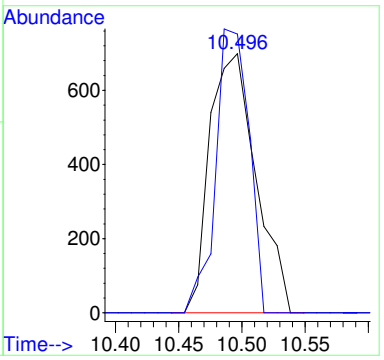


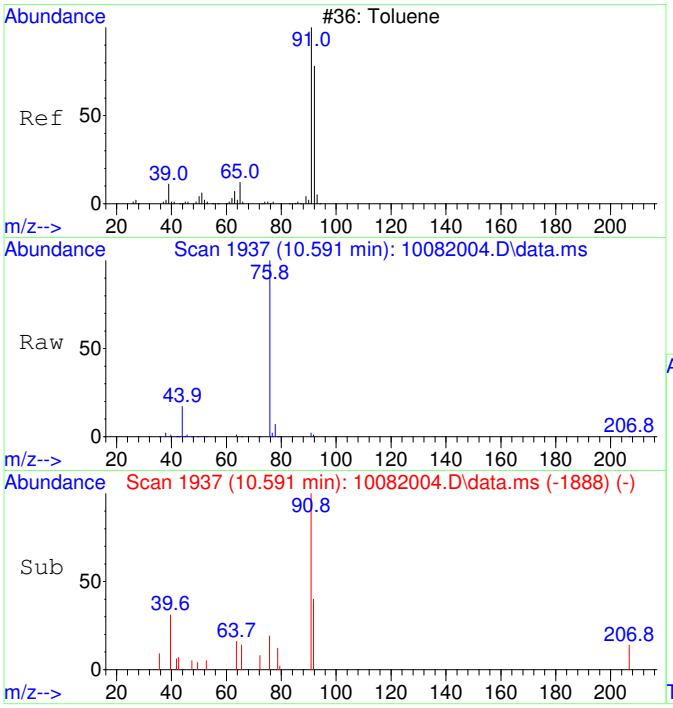



#36
Toluene-d8 SCAN
Concen: 41.24 ug/L
RT: 10.496 min Scan# 1928
Delta R.T. 0.021 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 1788

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 78.8 | 40.0 | 100.0 |

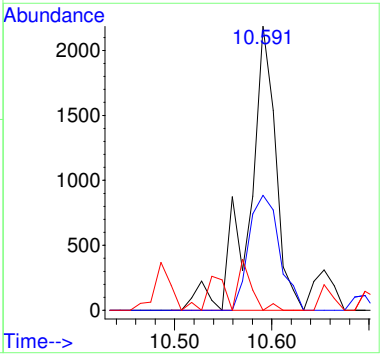


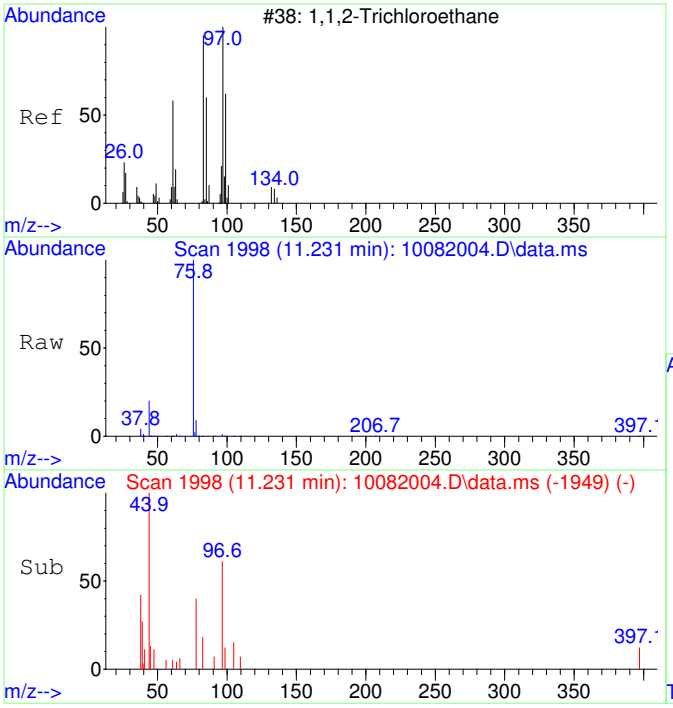




#37
Toluene SCAN
Concen: 75.56 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 4196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 46.4 | 28.3 | 88.3 |
| 65 | 0.0 | 0.0 | 41.0 |

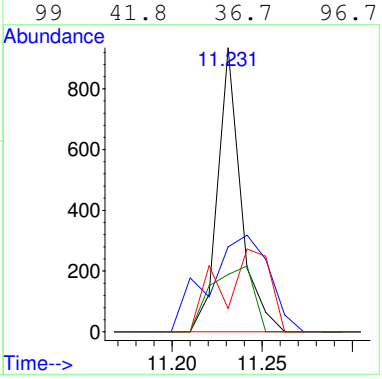


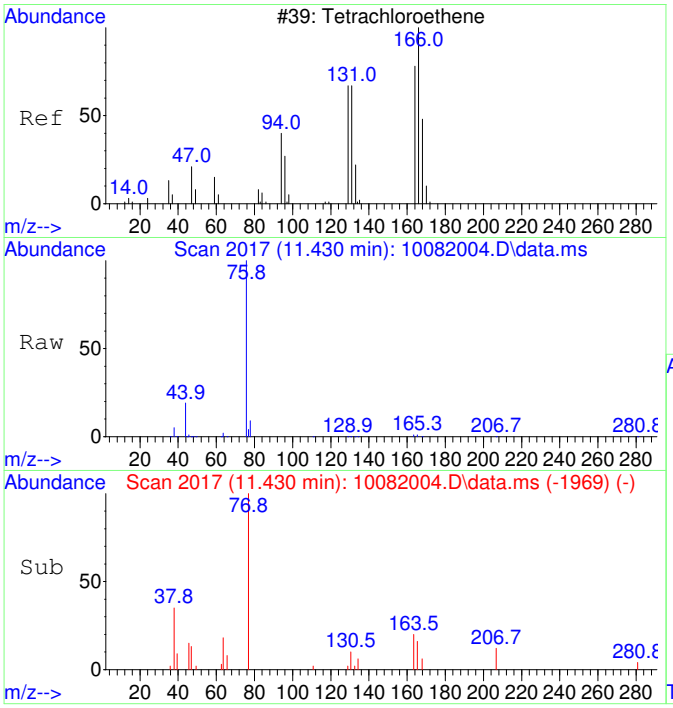



#38
1,1,2-Trichloroethane SCAN
Concen: 67.31 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 89.0 | 57.7 | 117.7 |
| 61 | 61.3 | 32.1 | 92.1 |
| 99 | 41.8 | 36.7 | 96.7 |

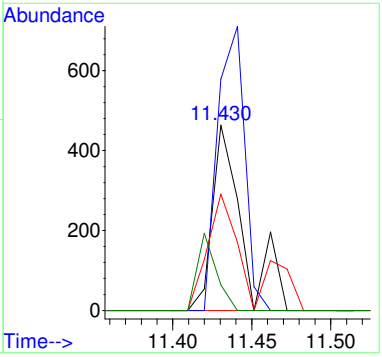


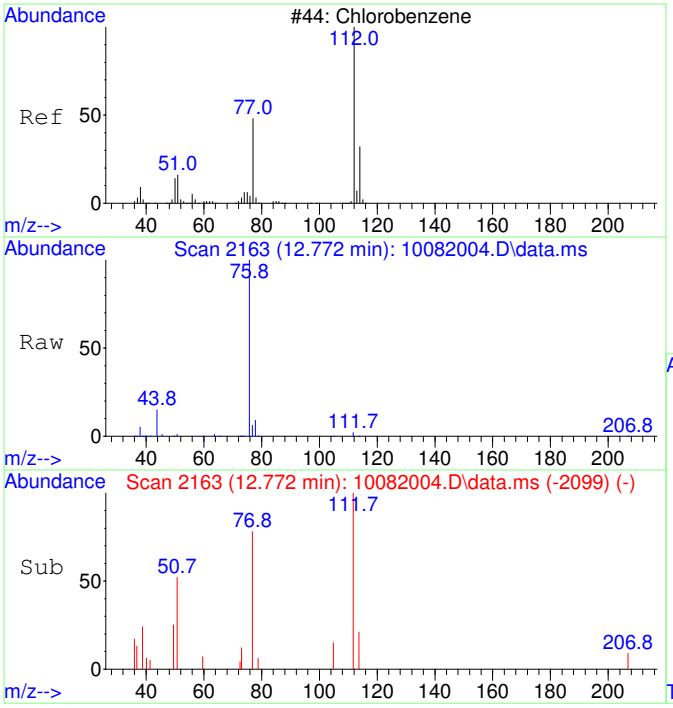




#39
Tetrachloroethene SCAN
Concen: 46.85 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 135.8 | 50.9 | 110.9# |
| 131 | 59.4 | 38.7 | 98.7 |
| 129 | 0.0 | 41.8 | 101.8# |

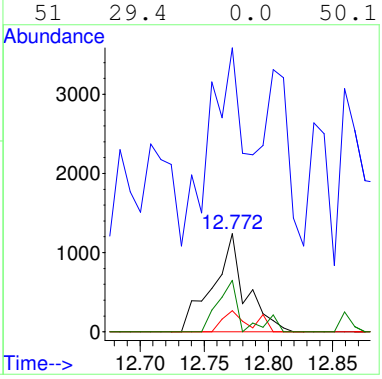


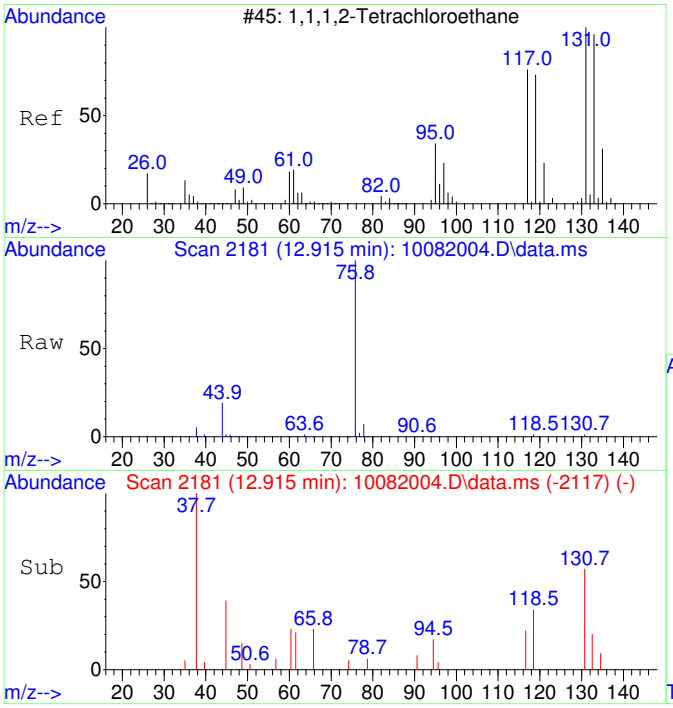



#40
Chlorobenzene SCAN
Concen: 57.82 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 2194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 126.0 | 28.2 | 88.2# |
| 114 | 18.0 | 2.3 | 62.3 |
| 51 | 29.4 | 0.0 | 50.1 |

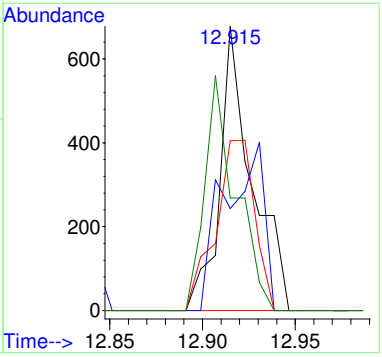


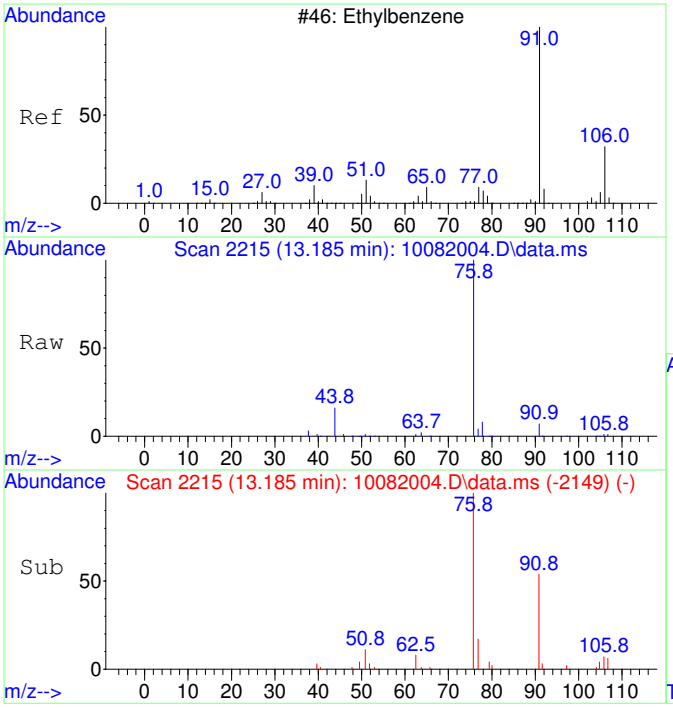




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 58.32 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 819

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 72.2 | 66.9 | 126.9 |
| 119 | 73.0 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

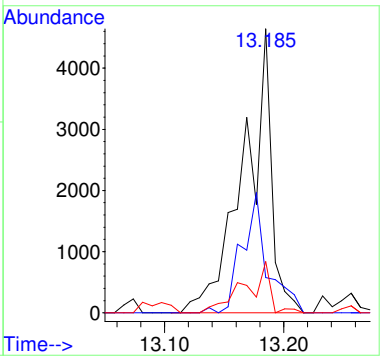


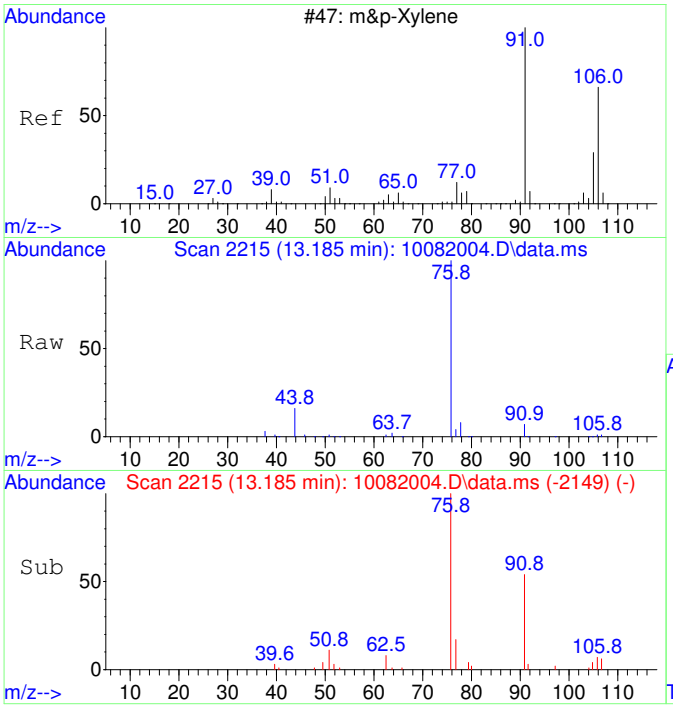



#42
Ethylbenzene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 51 | 16.4 | 0.0 | 40.1 |

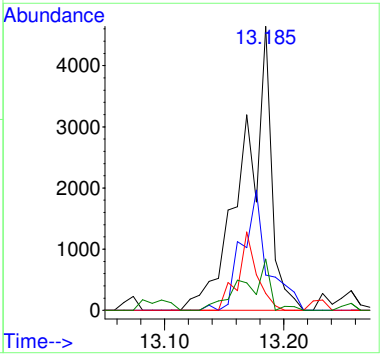


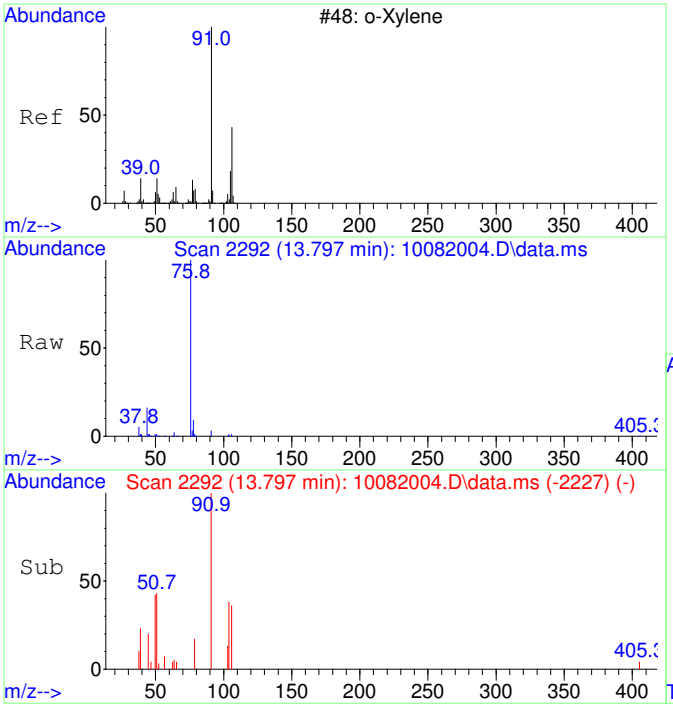




#43
m&p-Xylene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 105 | 19.0 | 0.0 | 54.7 |
| 51 | 16.4 | 0.0 | 40.1 |

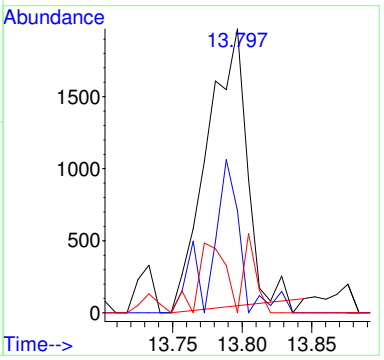


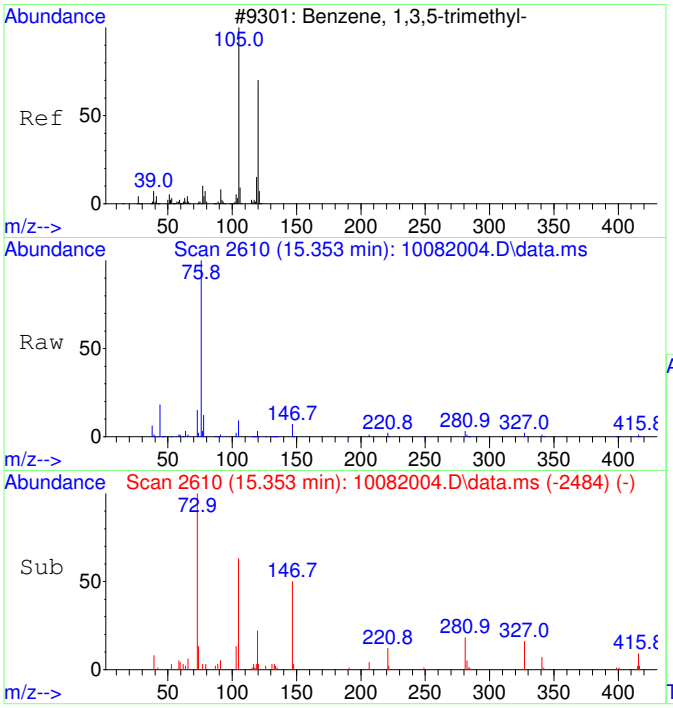



#44
o-Xylene SCAN
Concen: 70.14 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 3798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 40.6 | 18.0 | 78.0 |
| 105 | 8.9 | 0.0 | 56.6 |

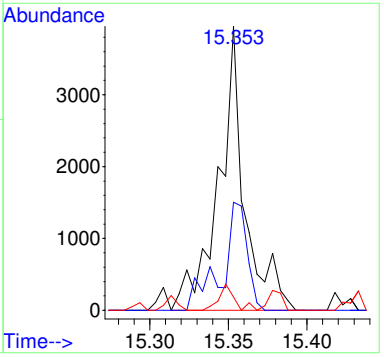


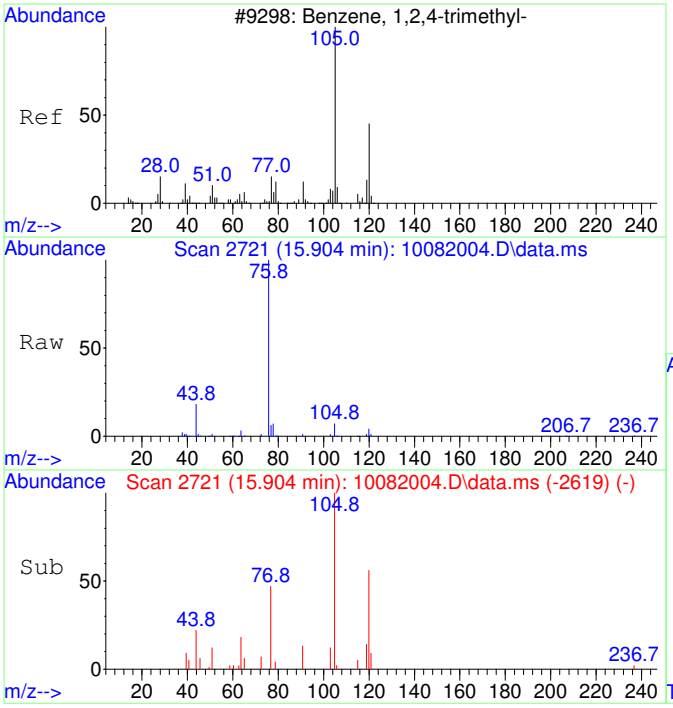




#46
1,3,5-Trimethylbenzene SCAN
Concen: 78.97 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 4507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.4 | 18.3 | 78.3 |
| 119 | 5.5 | 0.0 | 43.1 |

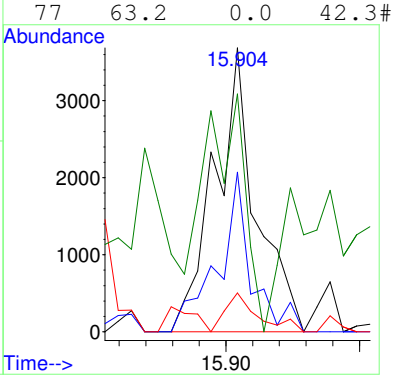


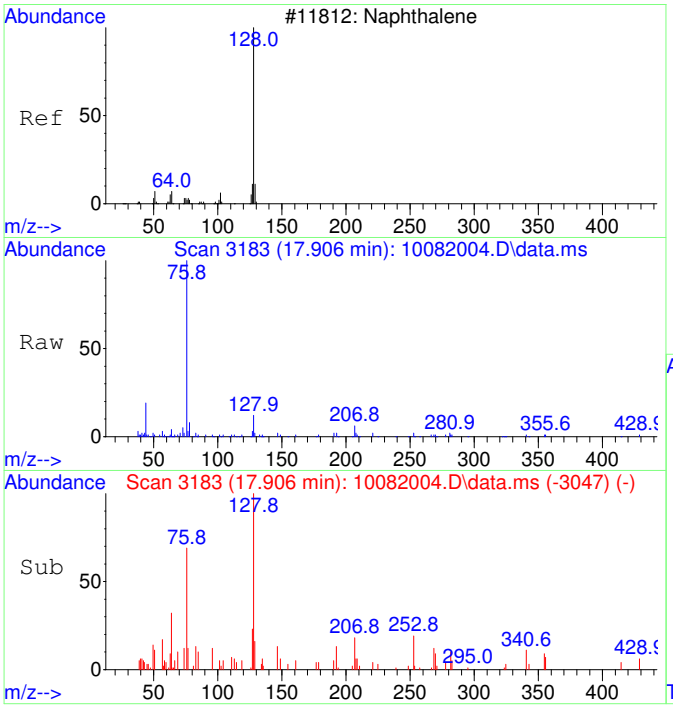



#47
1,2,4-Trimethylbenzene SCAN
Concen: 68.17 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 3981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 16.9 | 76.9 |
| 119 | 10.7 | 0.0 | 41.9 |
| 77 | 63.2 | 0.0 | 42.3# |

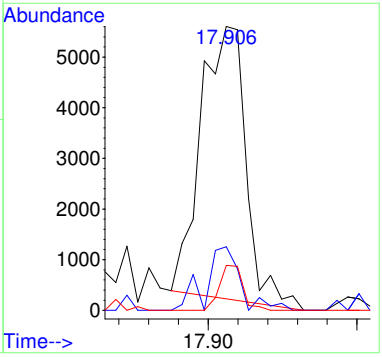



#48
Naphthalene SCAN
Concen: 63.87 ug/L
RT: 17.906 min Scan# 3183
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 5644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 18.0 | 0.0 | 44.0 |
| 129 | 8.6 | 0.0 | 40.8 |



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
TD at 11:17 am, Oct 08, 2020

M.I. Approved By:
ZR at 11:27 am, Oct 12, 2020

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration

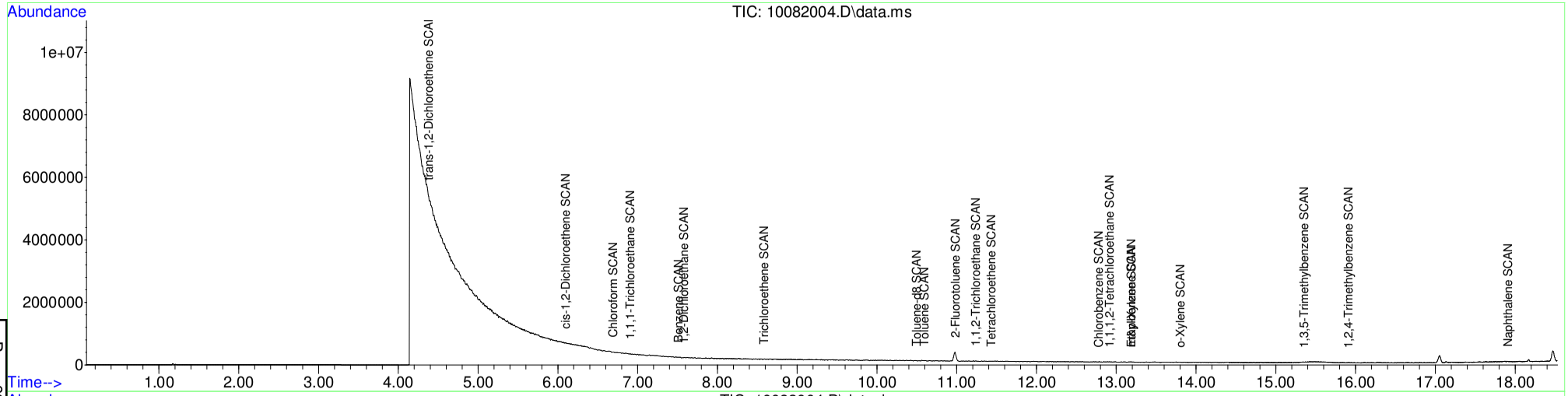
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) 2-Fluorotoluene | 10.980 | 109 | 454821 | 5000.00 | ug/L | 0.01 |
| System Monitoring Compounds | | | | | | |
| 12) Toluene-d8 | 10.487 | 98 | 4551 | 51.11 | ug/L | 0.01 |
| Spiked Amount 5000.000 | Range 86 - 118 | | Recovery = 1.02%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2] 1,1-Dichloroethene | 3.090 | 61 | 880m | 48.45 | ug/L | |
| 3] trans-1,2-Dichloroethene | 4.376 | 61 | 1056 | 50.33 | ug/L | 56 |
| 4] 1,1-Dichloroethane | 5.092 | 63 | 1363 | 52.18 | ug/L | 49 |
| 5] cis-1,2-Dichloroethene | 6.094 | 61 | 1428 | 51.79 | ug/L | 98 |
| 6] Chloroform | 6.664 | 83 | 1344 | 47.62 | ug/L | 100 |
| 7] 1,1,1-Trichloroethane | 6.919 | 97 | 1470 | 47.96 | ug/L | 98 |
| 8] Carbon tetrachloride | 7.187 | 117 | 1333 | 46.21 | ug/L | 95 |
| 9] Benzene | 7.515 | 78 | 4011 | 51.90 | ug/L # | 1 |
| 10] 1,2-Dichloroethane | 7.552 | 62 | 1395 | 50.57 | ug/L # | 1 |
| 11] Trichloroethene | 8.575 | 130 | 1129 | 48.52 | ug/L | 93 |
| 13] Toluene | 10.582 | 91 | 5833 | 51.39 | ug/L | 100 |
| 14] 1,1,2-Trichloroethane | 11.232 | 97 | 1257 | 50.82 | ug/L | 98 |
| 15] Tetrachloroethene | 11.432 | 166 | 1632 | 49.68 | ug/L | 96 |
| 16] Chlorobenzene | 12.765 | 112 | 4304 | 52.95 | ug/L | 76 |
| 17] 1,1,1,2-Tetrachloroethane | 12.916 | 131 | 1485 | 50.99 | ug/L | 97 |
| 18] Ethylbenzene | 12.972 | 91 | 7503 | 54.30 | ug/L | 97 |
| 19] m&p-Xylene | 13.170 | 91 | 11773 | 109.02 | ug/L | 93 |
| 20] o-Xylene | 13.782 | 91 | 6215 | 53.87 | ug/L | 95 |
| 21] 1,1,2,2-Tetrachloroethane | 14.880 | 83 | 2831 | 55.37 | ug/L | 100 |
| 22] 1,3,5-Trimethylbenzene | 15.350 | 105 | 7013 | 57.11 | ug/L | 95 |
| 23] 1,2,4-Trimethylbenzene | 15.906 | 105 | 7419 | 58.17 | ug/L | 92 |
| 24] Naphthalene | 17.904 | 128 | 10537 | 52.27 | ug/L | 97 |
| 25) 2-Fluorotoluene SCAN | 10.979 | 109 | 232197 | 5237.13 | ug/L | 97 |
| 27) trans-1,2-Dichloroethe... | 4.374 | 61 | 635 | 54.50 | ug/L # | 71 |
| 29) cis-1,2-Dichloroethene... | 6.100 | 61 | 620 | 42.92 | ug/L # | 67 |
| 30) Chloroform SCAN | 6.687 | 83 | 1236 | 78.88 | ug/L # | 27 |
| 31) 1,1,1-Trichloroethane ... | 6.906 | 97 | 512 | 35.86 | ug/L # | 36 |
| 33) Benzene SCAN | 7.514 | 78 | 13029 | 331.38 | ug/L | 95 |
| 34) 1,2-Dichloroethane SCAN | 7.575 | 62 | 886 | 61.03 | ug/L # | 1 |
| 35) Trichloroethene SCAN | 8.579 | 130 | 964 | 89.22 | ug/L # | 37 |
| 36) Toluene-d8 SCAN | 10.496 | 98 | 1788 | 41.24 | ug/L | 89 |
| 37) Toluene SCAN | 10.591 | 91 | 4196 | 75.56 | ug/L # | 82 |
| 38) 1,1,2-Trichloroethane ... | 11.231 | 97 | 839 | 67.31 | ug/L | 90 |
| 39) Tetrachloroethene SCAN | 11.430 | 166 | 625 | 46.85 | ug/L # | 46 |
| 40) Chlorobenzene SCAN | 12.772 | 112 | 2194 | 57.82 | ug/L # | 41 |
| 41) 1,1,1,2-Tetrachloroeth... | 12.915 | 131 | 819 | 58.32 | ug/L # | 65 |
| 42) Ethylbenzene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 81 |
| 43) m&p-Xylene SCAN | 13.185 | 91 | 7503 | 74.17 | ug/L | 83 |
| 44) o-Xylene SCAN | 13.797 | 91 | 3798 | 70.14 | ug/L | 81 |
| 46) 1,3,5-Trimethylbenzene... | 15.353 | 105 | 4507 | 78.97 | ug/L | 83 |
| 47) 1,2,4-Trimethylbenzene... | 15.904 | 105 | 3981 | 68.17 | ug/L # | 75 |
| 48) Naphthalene SCAN | 17.906 | 128 | 5644 | 63.87 | ug/L | 92 |

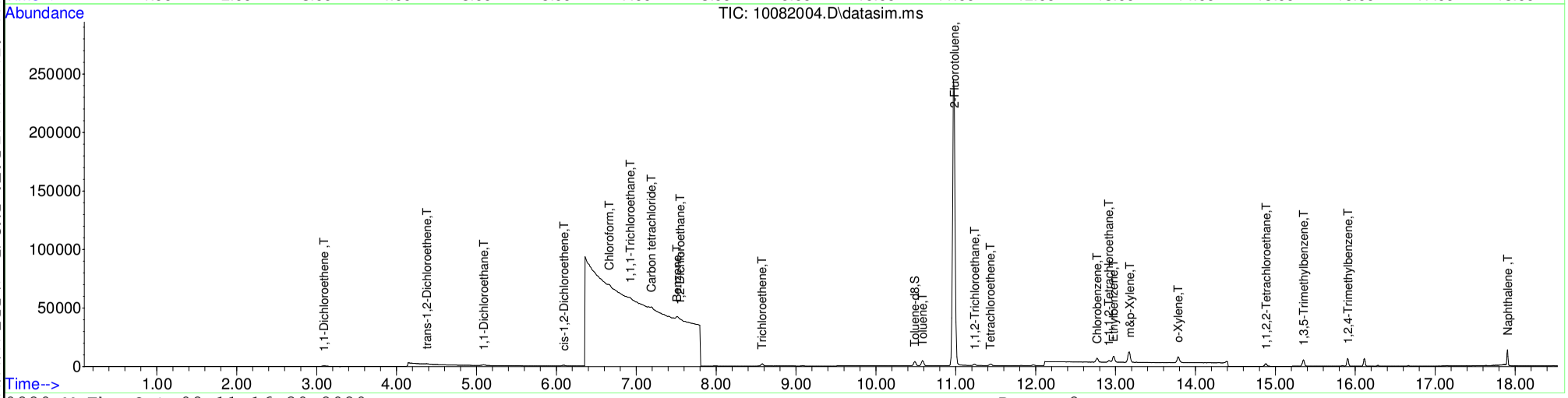
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\100820\
Data File : 10082004.D
Acq On : 8 Oct 2020 10:51
InstName : AG5975C
Operator : TD
Sample : S20J013-CRL1
Misc : 2030073 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 11:10:24 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\100820.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Aug 21 08:33:54 2020
Response via : Initial Calibration





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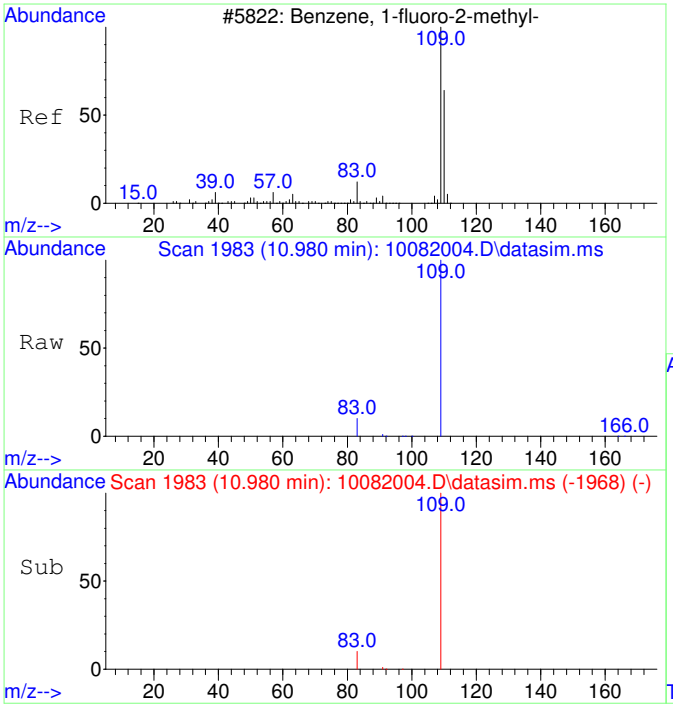
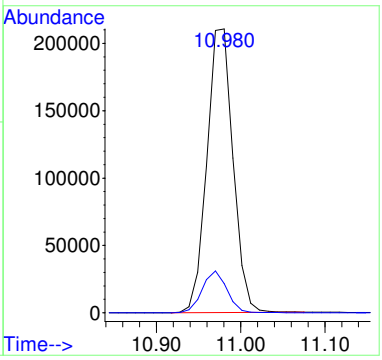
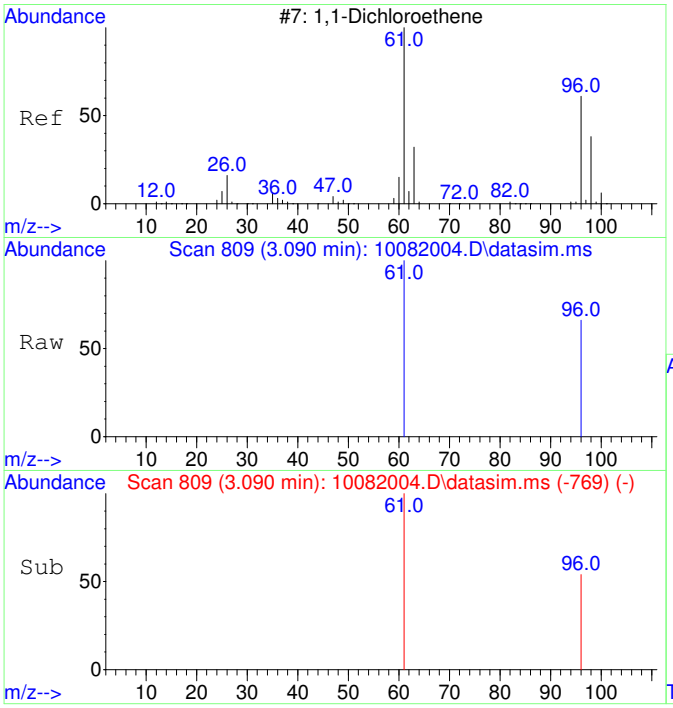



#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 10.980 min Scan# 1983
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 454821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 13.8 | 0.0 | 42.3 |

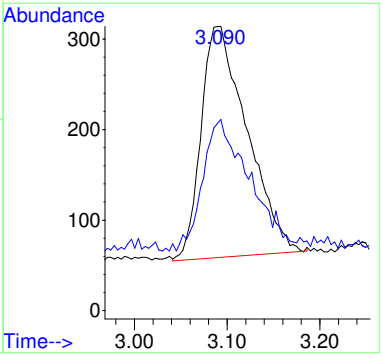


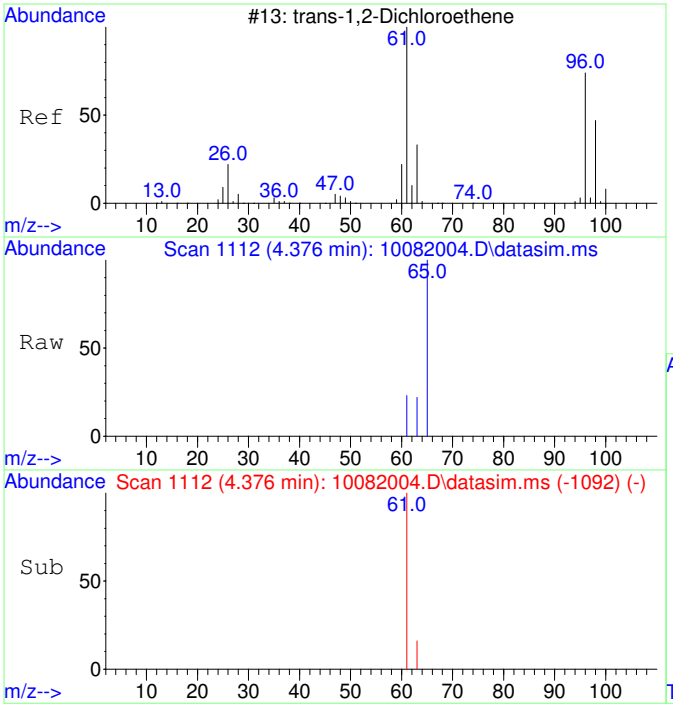




#2
1,1-Dichloroethene
Concen: 48.45 ug/L m
RT: 3.090 min Scan# 809
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.3 | 37.2 | 97.2 |

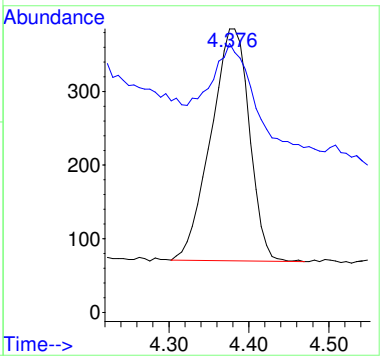


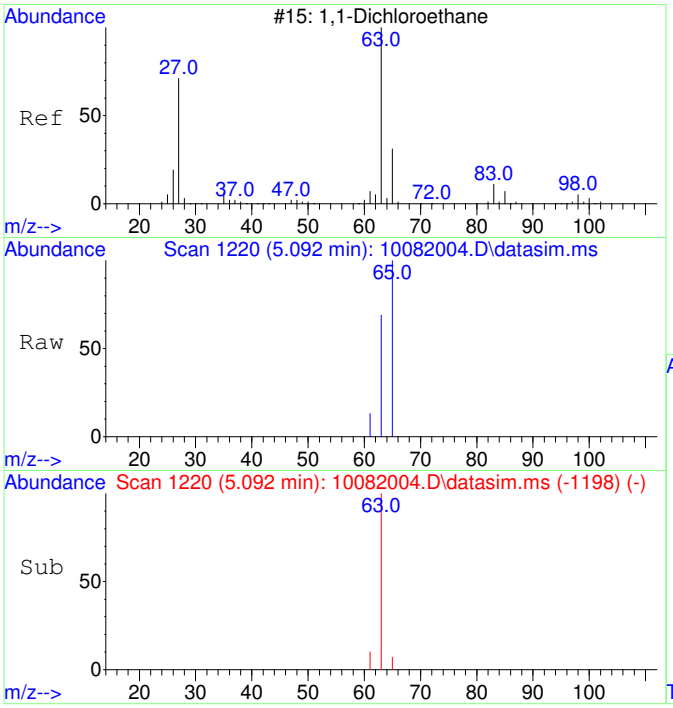



#3
trans-1,2-Dichloroethene
Concen: 50.33 ug/L
RT: 4.376 min Scan# 1112
Delta R.T. -0.020 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 56.8 | 2.4 | 62.4 |

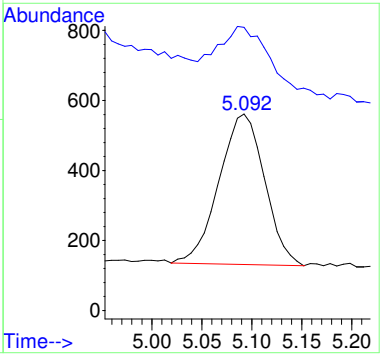


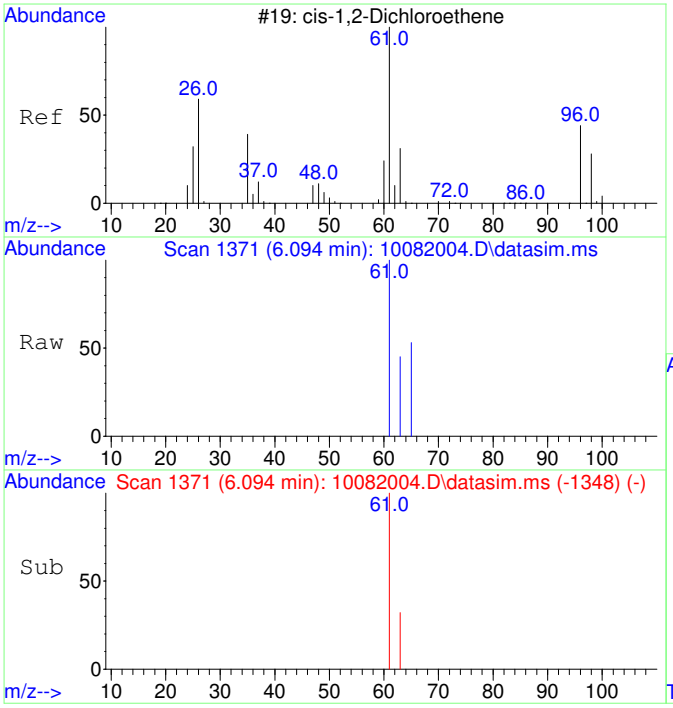




#4
1,1-Dichloroethane
Concen: 52.18 ug/L
RT: 5.092 min Scan# 1220
Delta R.T. -0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 63 Resp: 1363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 60.4 | 1.8 | 61.8 |

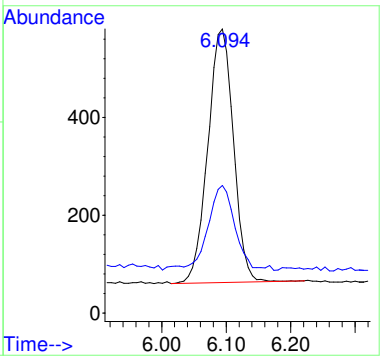


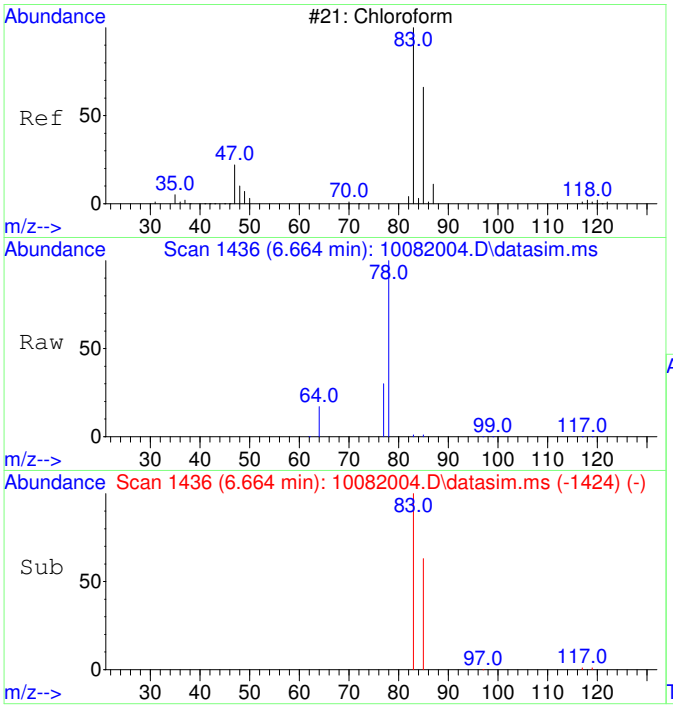



#5
cis-1,2-Dichloroethene
Concen: 51.79 ug/L
RT: 6.094 min Scan# 1371
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 1428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 63 | 31.4 | 2.5 | 62.5 |

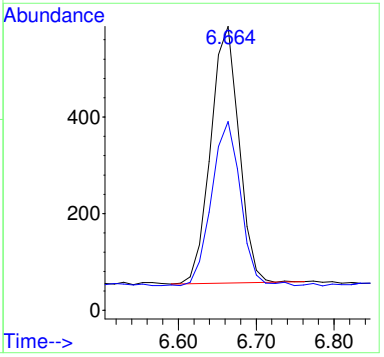


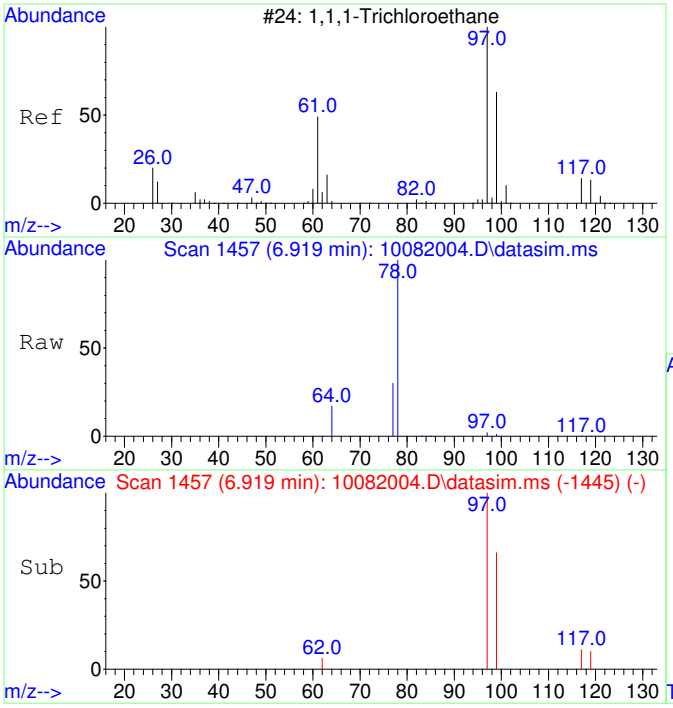




#6
Chloroform
Concen: 47.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1344

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 35.1 | 95.1 |

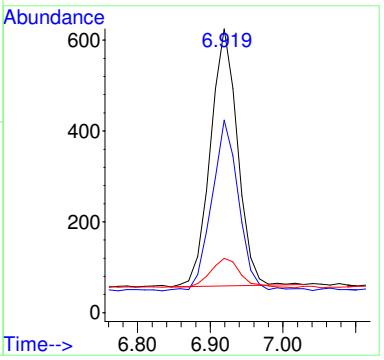


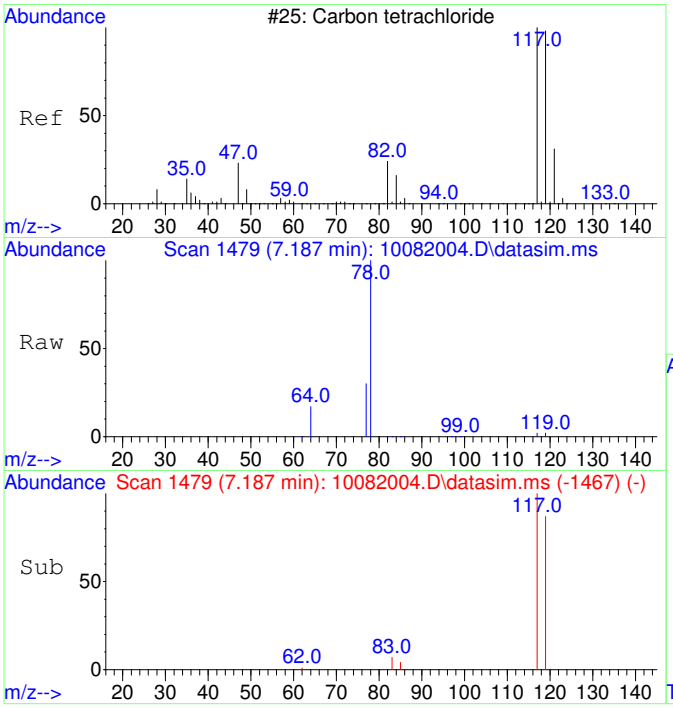



#7
1,1,1-Trichloroethane
Concen: 47.96 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.1 | 34.6 | 94.6 |
| 117 | 12.9 | 0.0 | 43.2 |

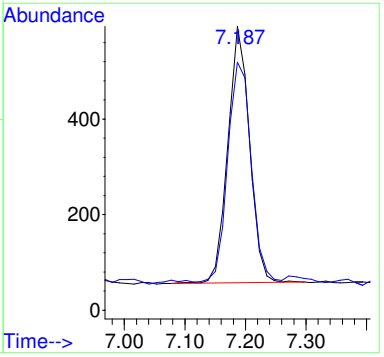


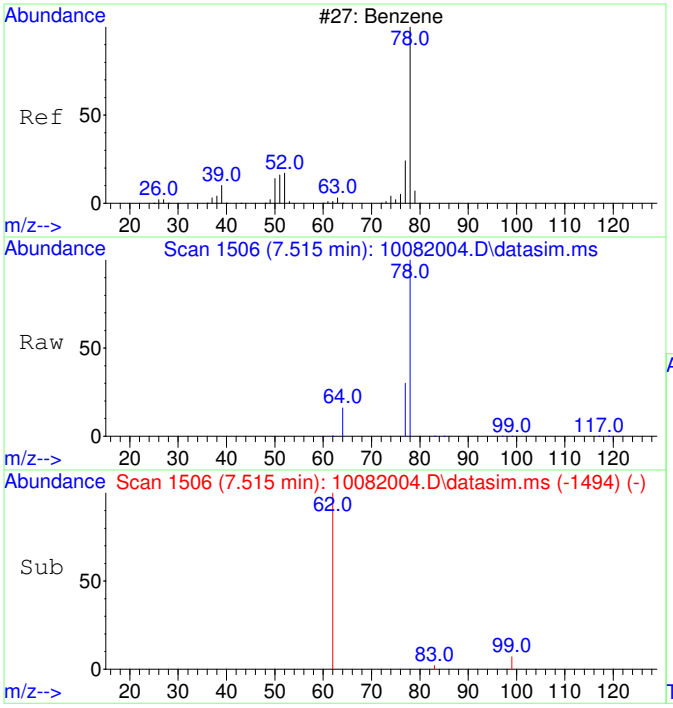




#8
Carbon tetrachloride
Concen: 46.21 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:117 Resp: 1333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 91.7 | 66.4 | 126.4 |

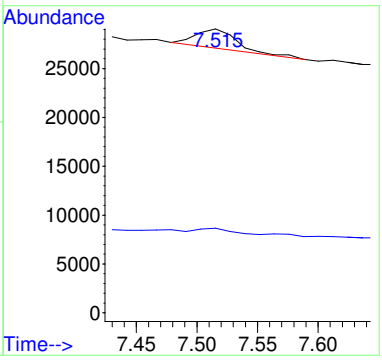


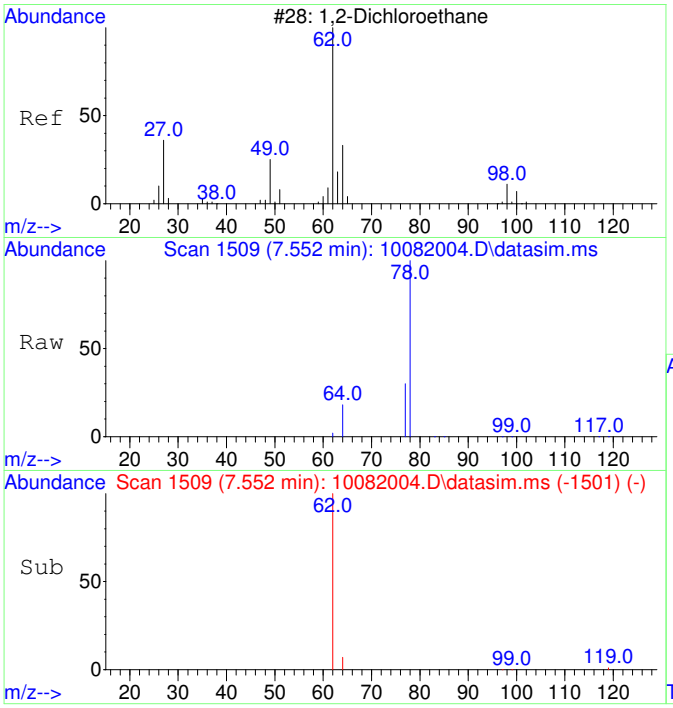



#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 4011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 72.1 | 0.0 | 53.2# |

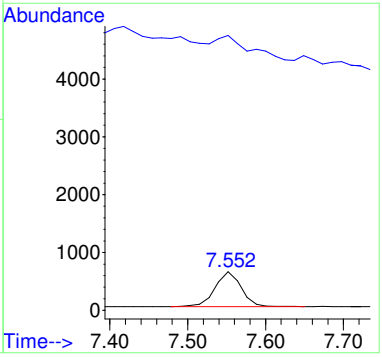


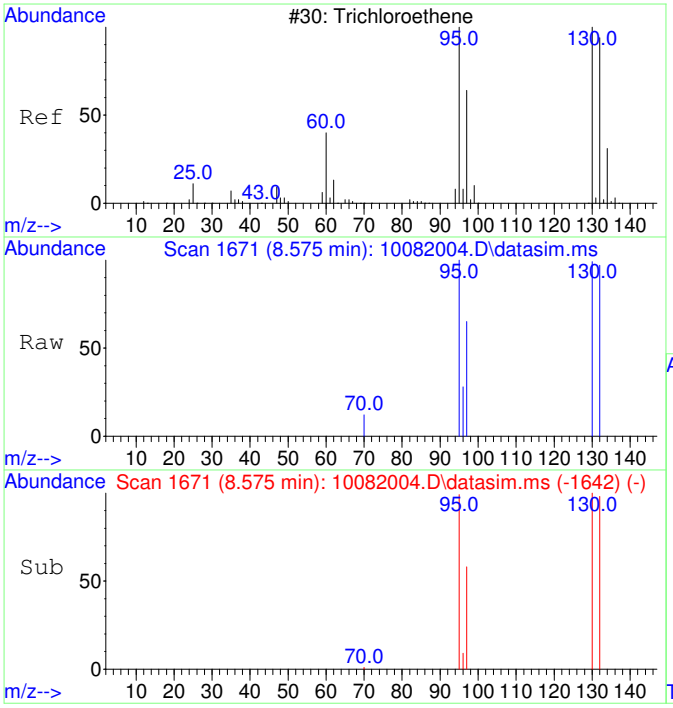




#10
1,2-Dichloroethane
Concen: 50.57 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 1395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 90.1 | 2.3 | 62.3# |

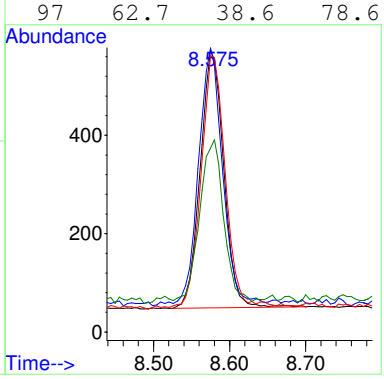


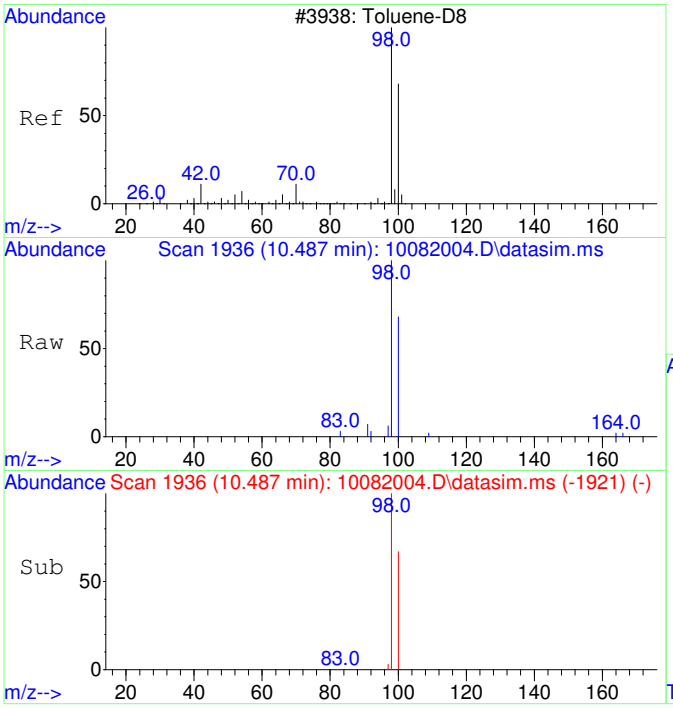



#11
Trichloroethene
Concen: 48.52 ug/L
RT: 8.575 min Scan# 1671
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 1129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.2 | 60.7 | 120.7 |
| 132 | 98.8 | 76.0 | 116.0 |
| 97 | 62.7 | 38.6 | 78.6 |

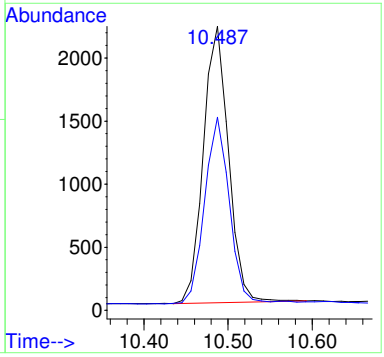


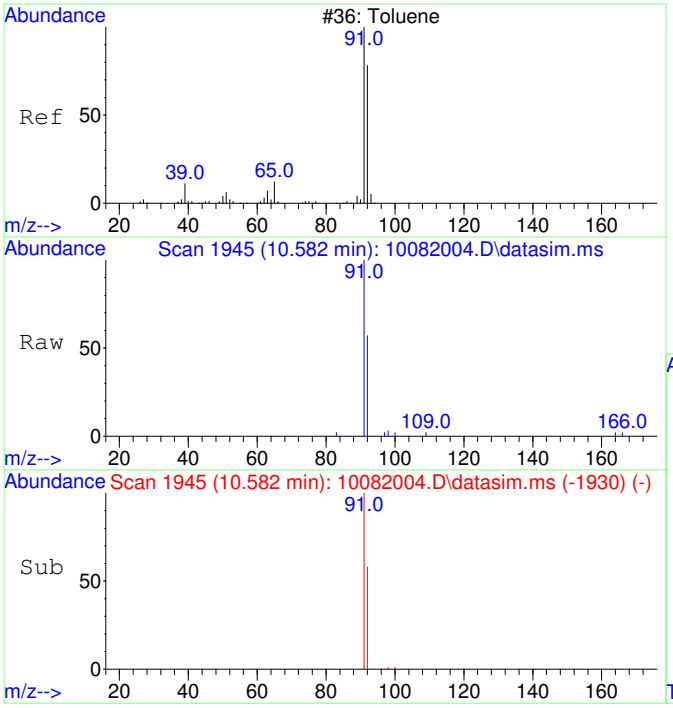




#12
Toluene-d8
Concen: 51.11 ug/L
RT: 10.487 min Scan# 1936
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 4551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 67.3 | 37.1 | 97.1 |

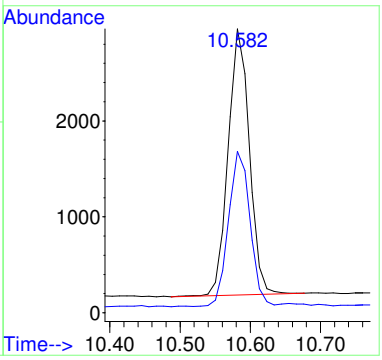


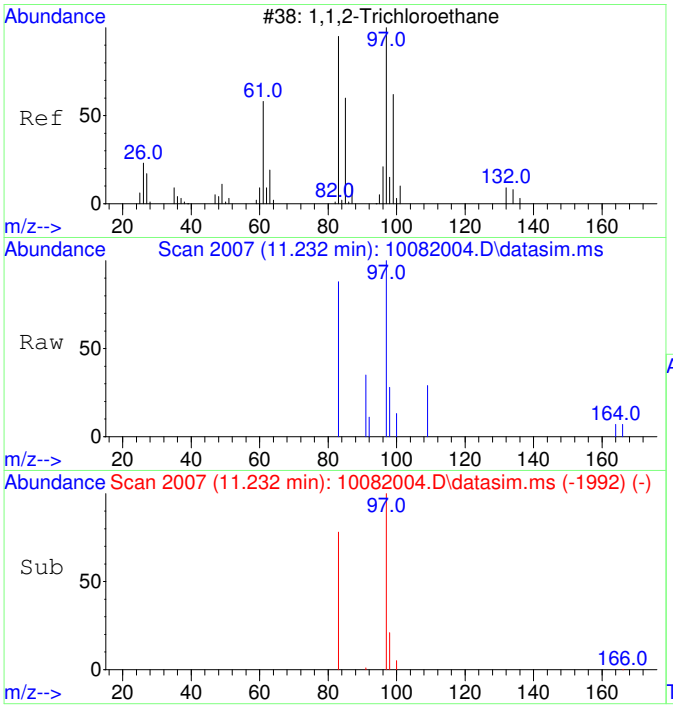



#13
Toluene
Concen: 51.39 ug/L
RT: 10.582 min Scan# 1945
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 5833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.7 | 29.9 | 89.9 |

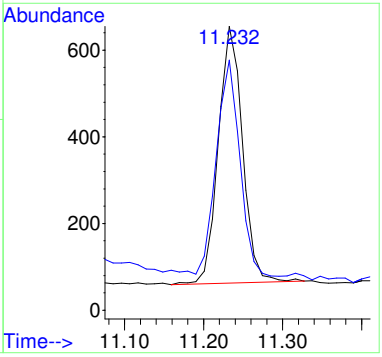


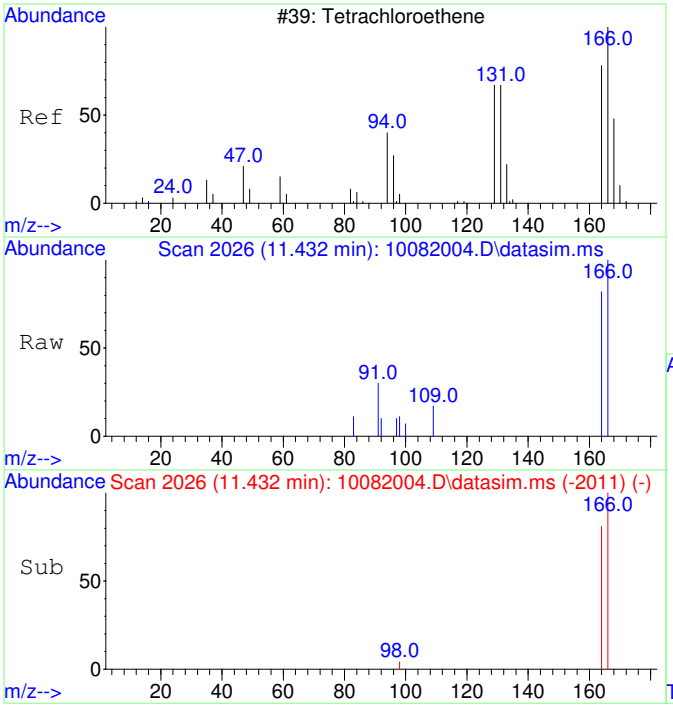




#14
1,1,2-Trichloroethane
Concen: 50.82 ug/L
RT: 11.232 min Scan# 2007
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 1257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.1 | 51.2 | 111.2 |

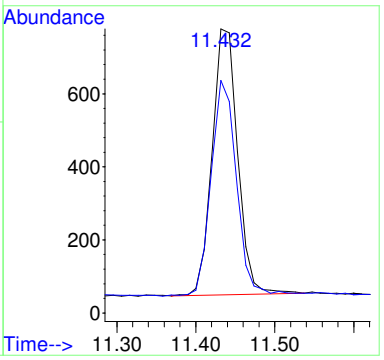


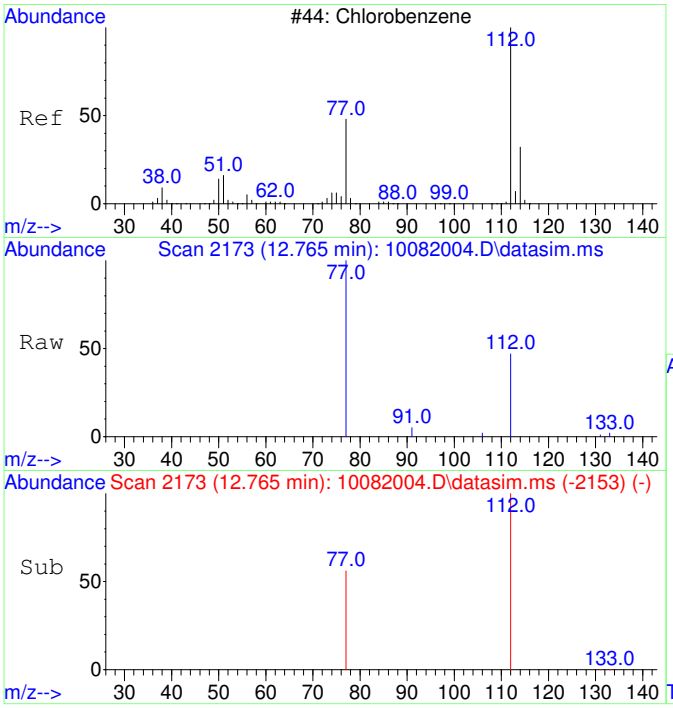



#15
Tetrachloroethene
Concen: 49.68 ug/L
RT: 11.432 min Scan# 2026
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 1632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 81.7 | 47.8 | 107.8 |

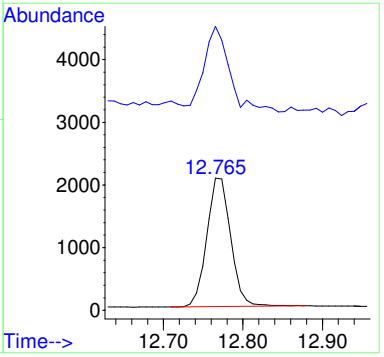


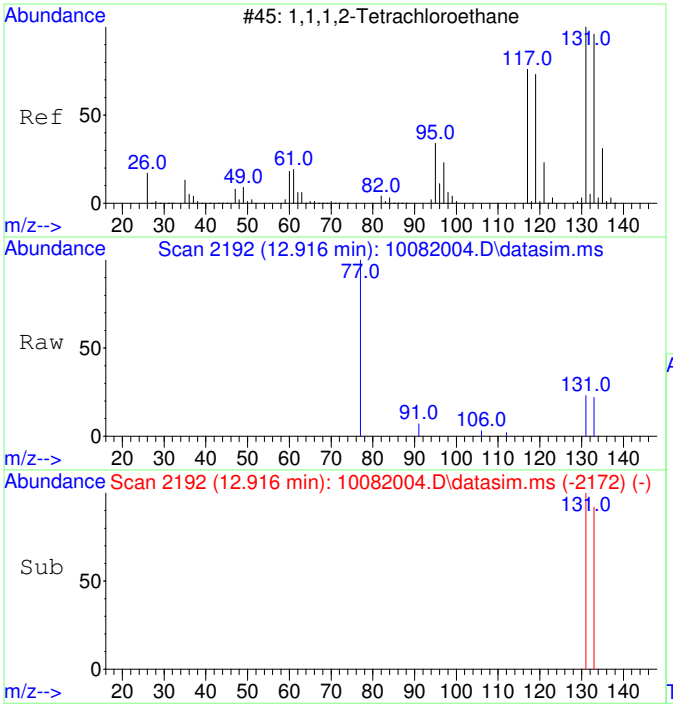




#16
Chlorobenzene
Concen: 52.95 ug/L
RT: 12.765 min Scan# 2173
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 4304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 71.1 | 23.6 | 83.6 |

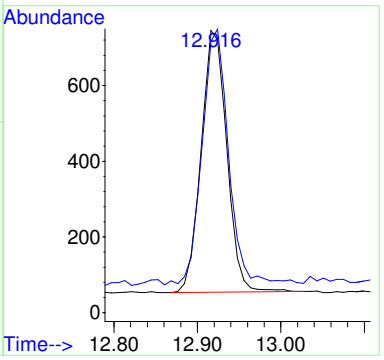


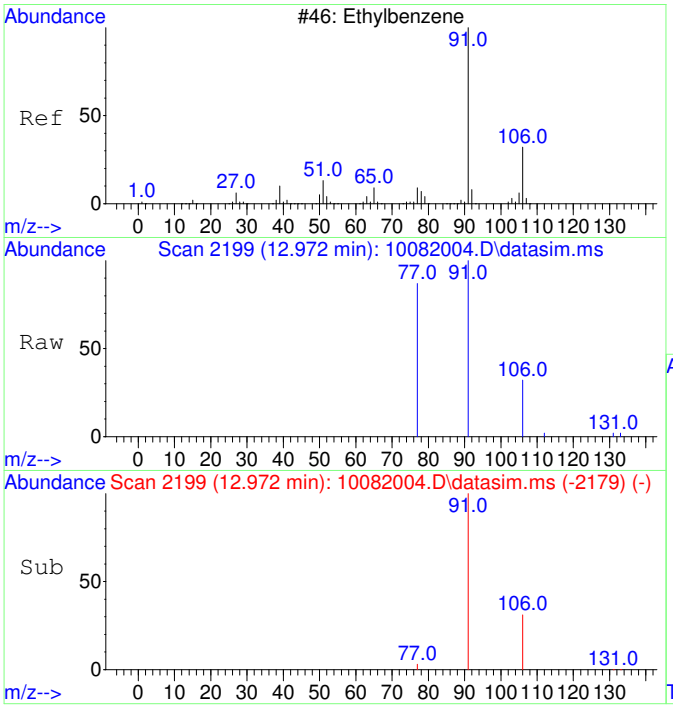



#17
1,1,1,2-Tetrachloroethane
Concen: 50.99 ug/L
RT: 12.916 min Scan# 2192
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 1485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 99.3 | 66.3 | 126.3 |

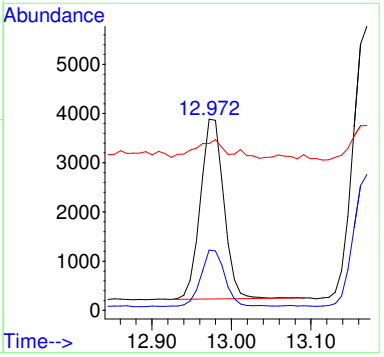


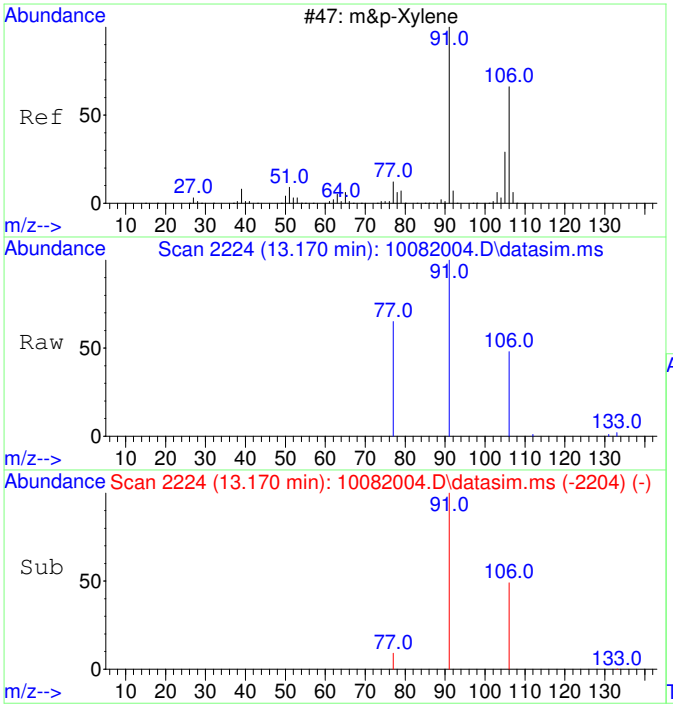




#18
Ethylbenzene
Concen: 54.30 ug/L
RT: 12.972 min Scan# 2199
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.0 | 3.0 | 63.0 |
| 77 | 11.1 | 0.0 | 38.2 |

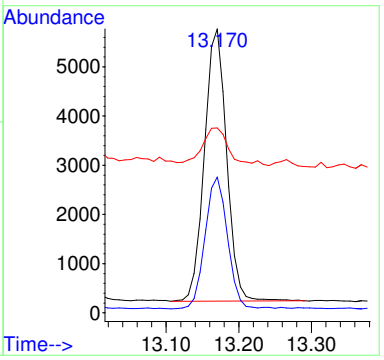


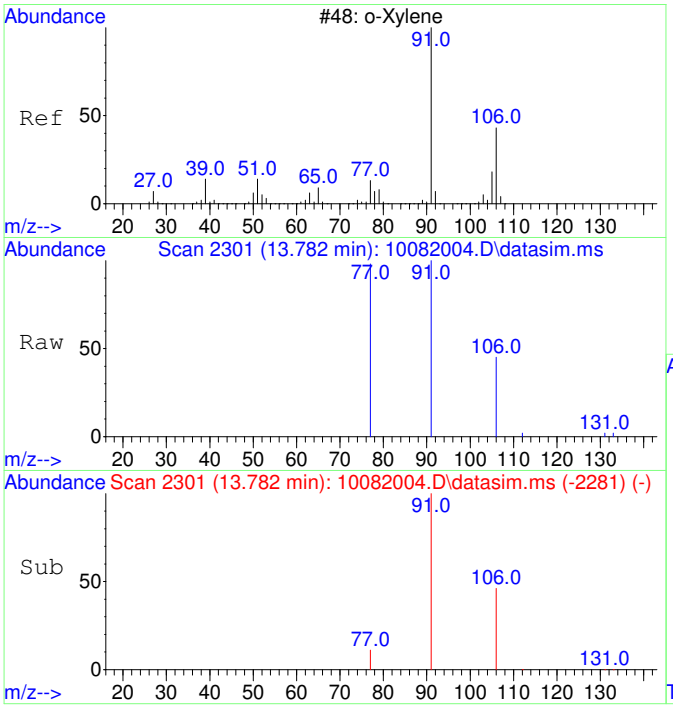



#19
m&p-Xylene
Concen: 109.02 ug/L
RT: 13.170 min Scan# 2224
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 11773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.3 | 22.2 | 82.2 |
| 77 | 16.9 | 0.0 | 42.4 |

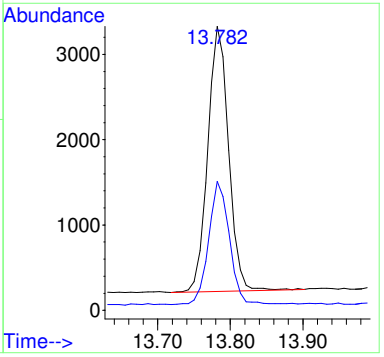


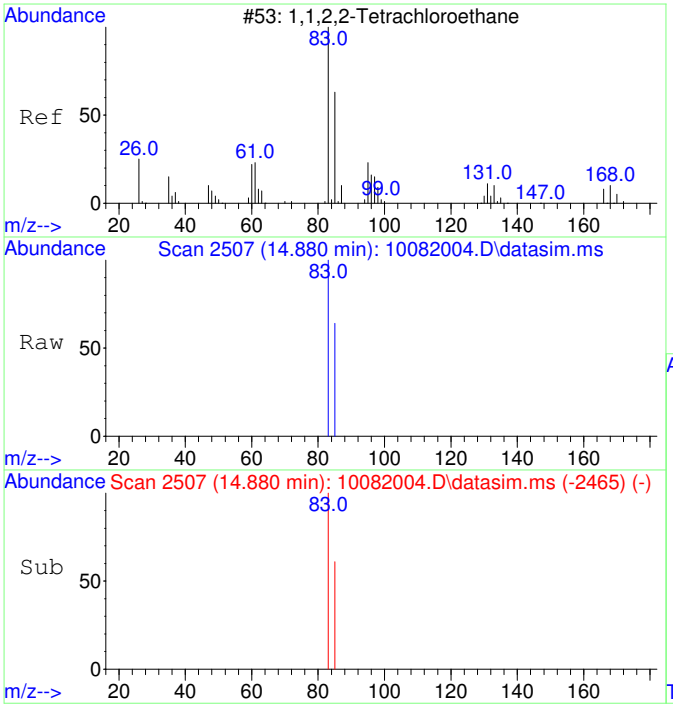




#20
o-Xylene
Concen: 53.87 ug/L
RT: 13.782 min Scan# 2301
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 6215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 19.2 | 79.2 |

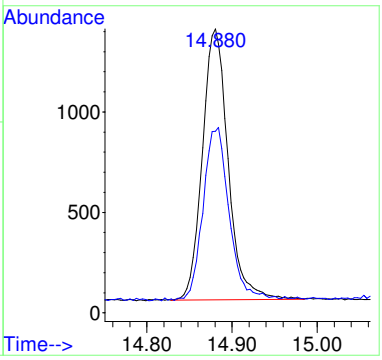


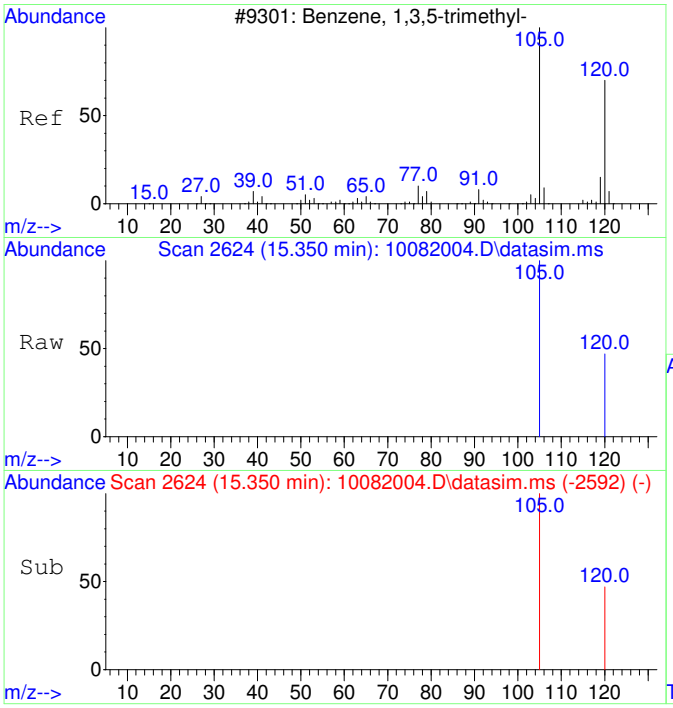



#21
1,1,2,2-Tetrachloroethane
Concen: 55.37 ug/L
RT: 14.880 min Scan# 2507
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 2831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 34.8 | 94.8 |

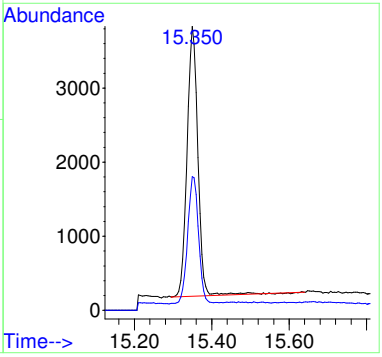


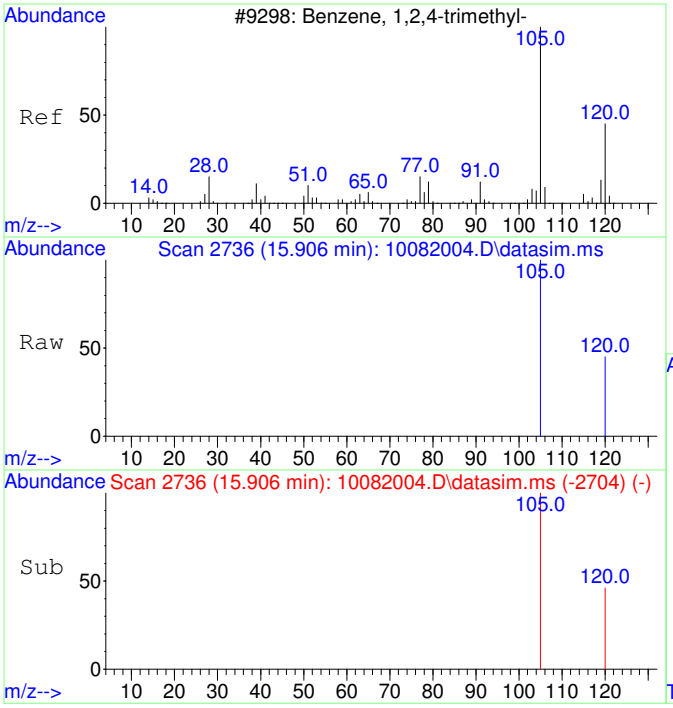




#22
1,3,5-Trimethylbenzene
Concen: 57.11 ug/L
RT: 15.350 min Scan# 2624
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.5 | 21.1 | 81.1 |

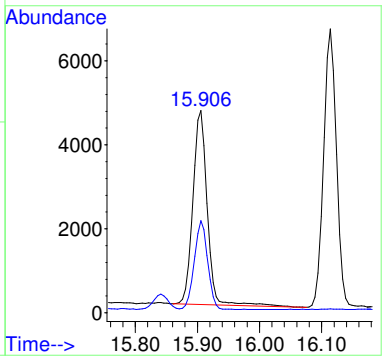


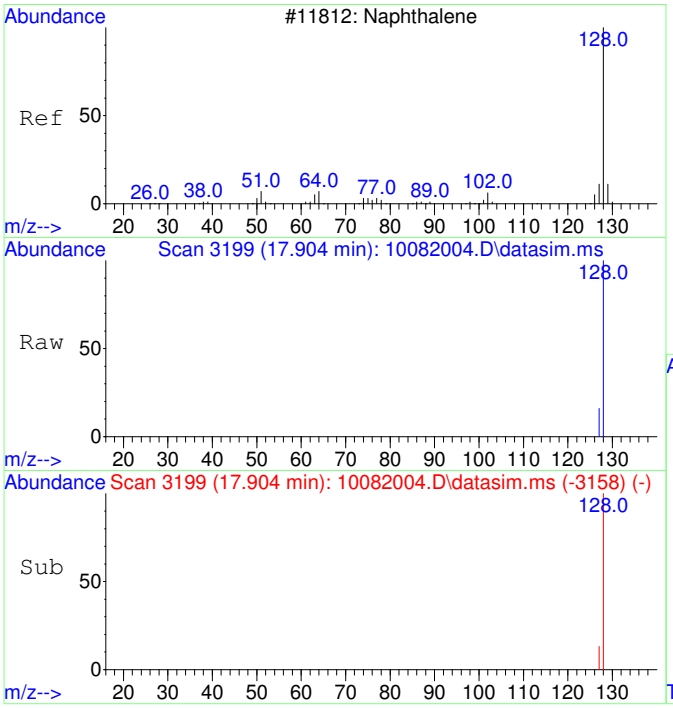



#23
1,2,4-Trimethylbenzene
Concen: 58.17 ug/L
RT: 15.906 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 7419

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.1 | 17.2 | 77.2 |

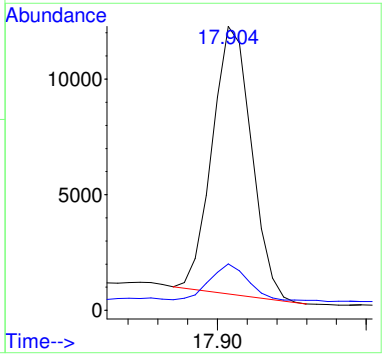


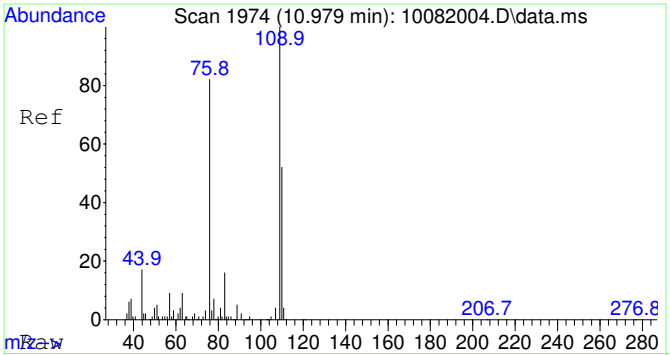




#24
Naphthalene
Concen: 52.27 ug/L
RT: 17.904 min Scan# 3199
Delta R.T. 0.001 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 10537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.9 | 0.0 | 42.5 |

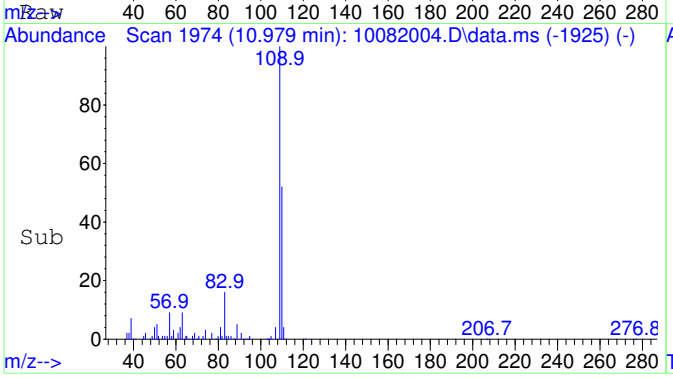


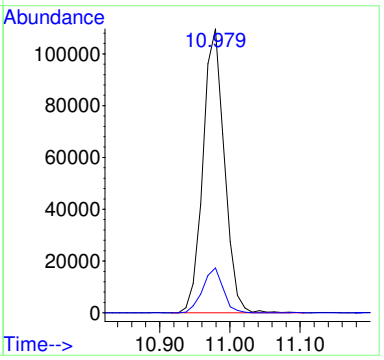


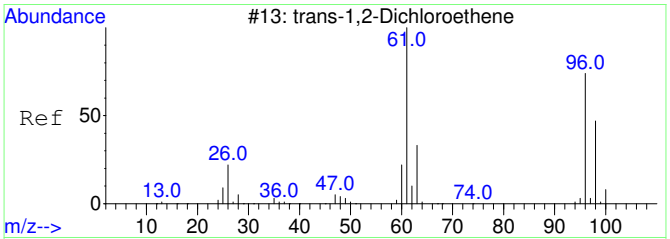

#25
2-Fluorotoluene SCAN
Concen: 5237.13 ug/L
RT: 10.979 min Scan# 1974
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:109 Resp: 232197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 109 | 100 | | |
| 83 | 15.0 | 0.0 | 43.8 |



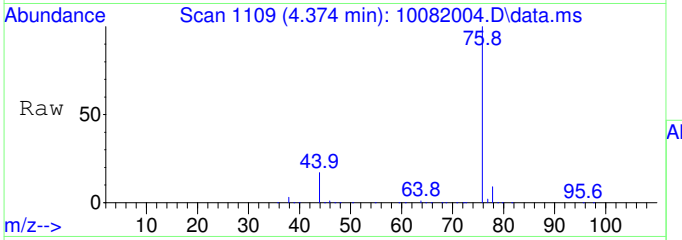



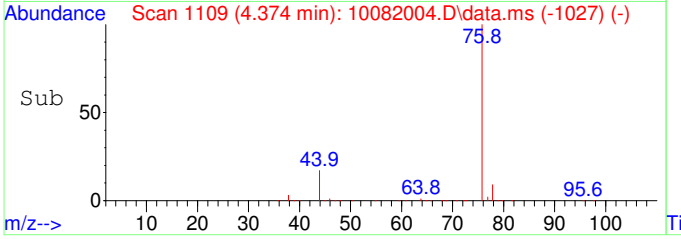



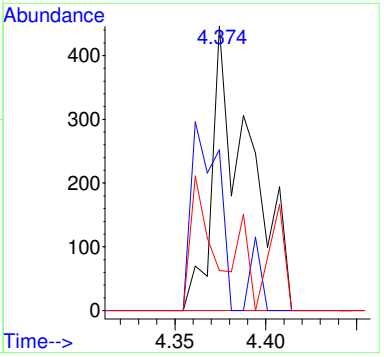

#27
trans-1,2-Dichloroethene SCAN
Concen: 54.50 ug/L
RT: 4.374 min Scan# 1109
Delta R.T. -0.027 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

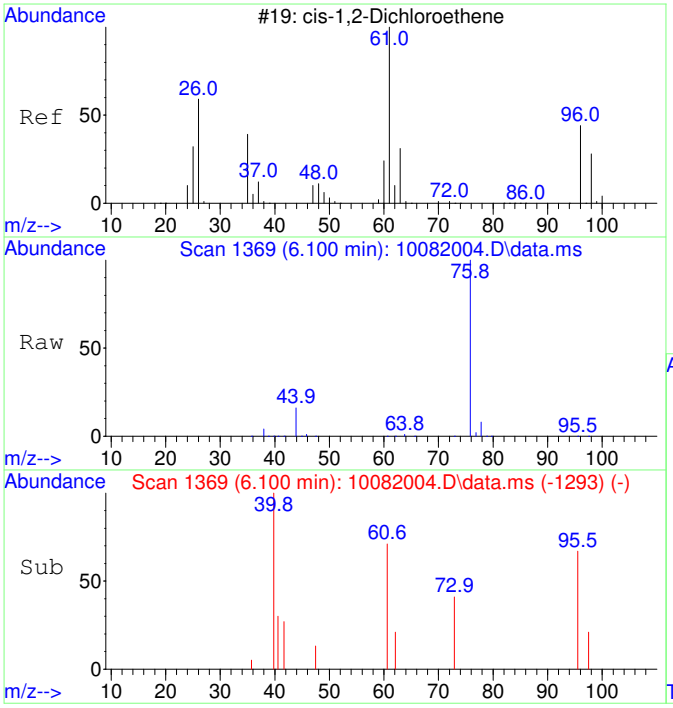
Tgt Ion: 61 Resp: 635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 47.9 | 49.0 | 109.0# |
| 98 | 37.6 | 20.5 | 80.5 |



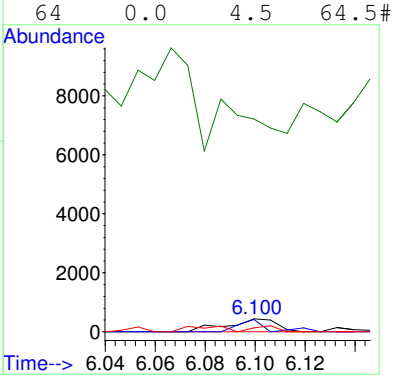



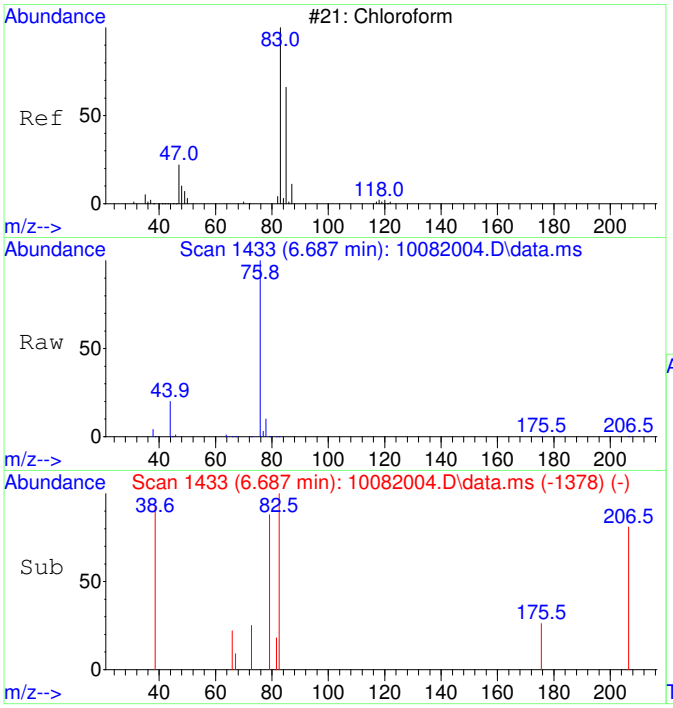



#29
cis-1,2-Dichloroethene SCAN
Concen: 42.92 ug/L
RT: 6.100 min Scan# 1369
Delta R.T. 0.007 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 61 Resp: 620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.2 | 39.9 | 99.9 |
| 98 | 21.5 | 13.5 | 73.5 |
| 64 | 0.0 | 4.5 | 64.5# |

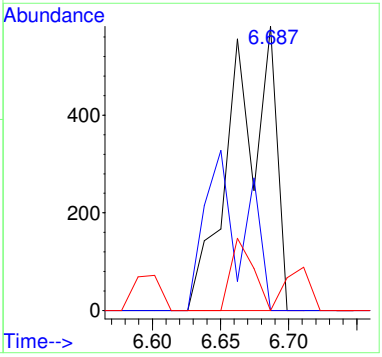


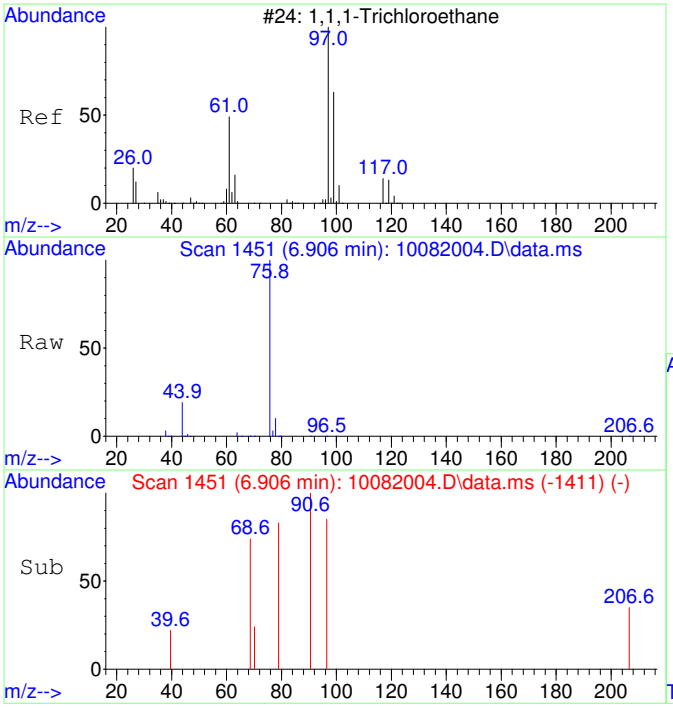




#30
Chloroform SCAN
Concen: 78.88 ug/L
RT: 6.687 min Scan# 1433
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 83 Resp: 1236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 0.0 | 34.6 | 94.6# |
| 47 | 0.0 | 0.0 | 53.4 |

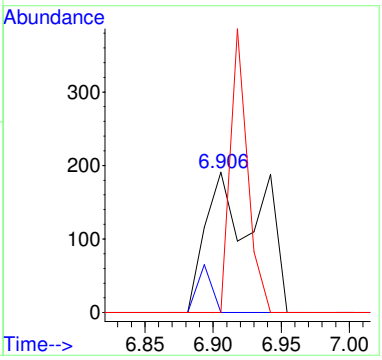


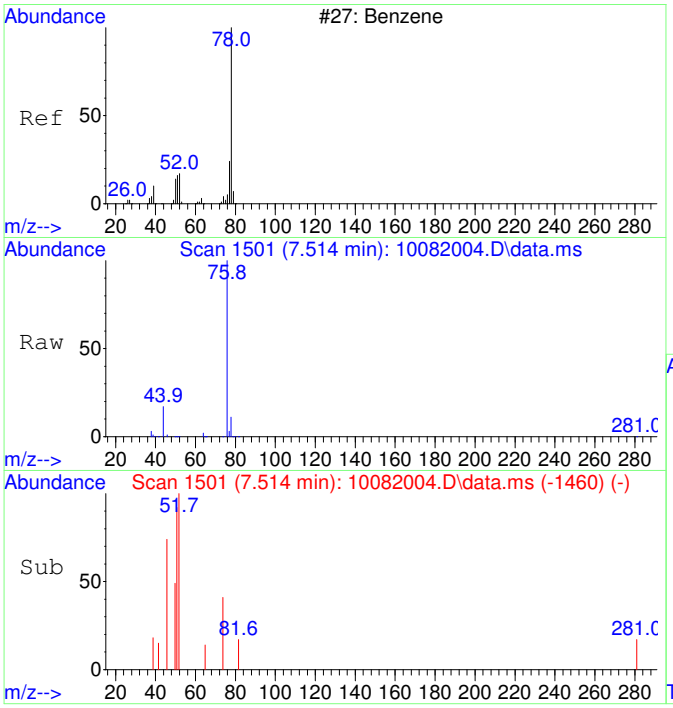



#31
1,1,1-Trichloroethane SCAN
Concen: 35.86 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 512

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 43.6 | 103.6# |
| 61 | 66.8 | 18.0 | 78.0 |

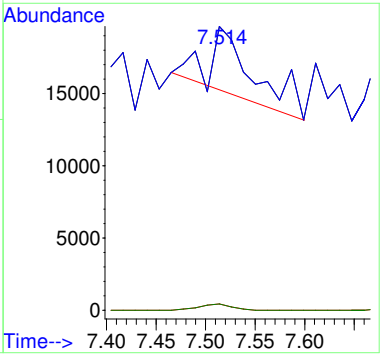


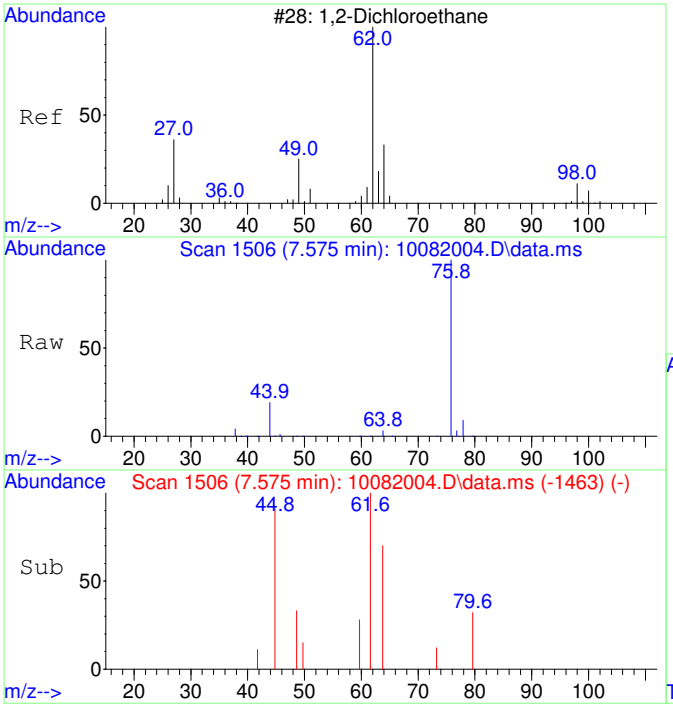




#33
Benzene SCAN
Concen: 331.38 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 78 Resp: 13029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 78 | 100.0 | 70.0 | 130.0 |
| 51 | 7.7 | 0.0 | 47.9 |
| 51 | 7.7 | 0.0 | 44.1 |

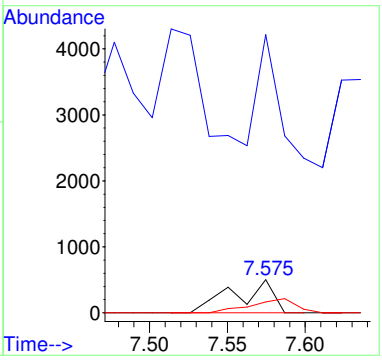


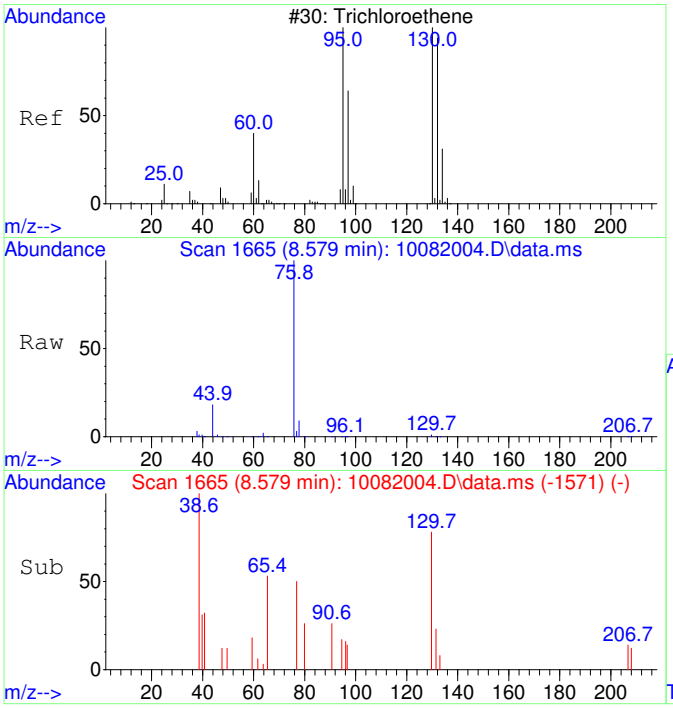



#34
1,2-Dichloroethane SCAN
Concen: 61.03 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 62 Resp: 886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 162.9 | 5.2 | 65.2# |
| 49 | 48.4 | 3.9 | 63.9 |

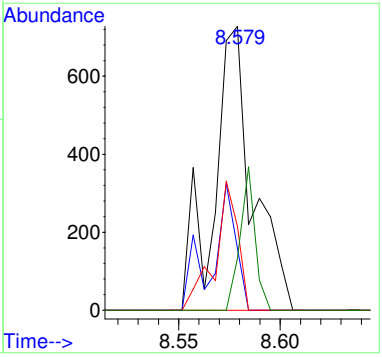


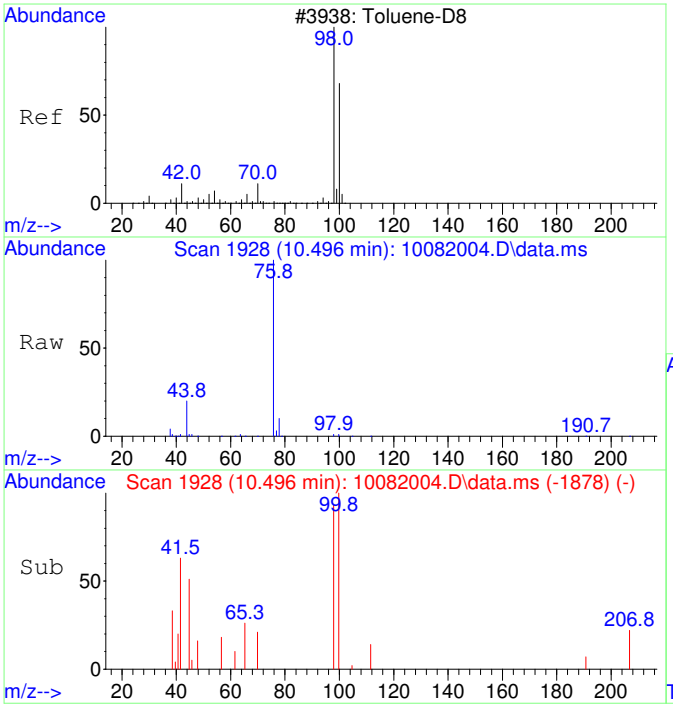




#35
Trichloroethene SCAN
Concen: 89.22 ug/L
RT: 8.579 min Scan# 1665
Delta R.T. 0.011 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:130 Resp: 964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 27.9 | 60.5 | 120.5# |
| 132 | 26.7 | 59.6 | 119.6# |
| 97 | 19.5 | 28.2 | 88.2# |

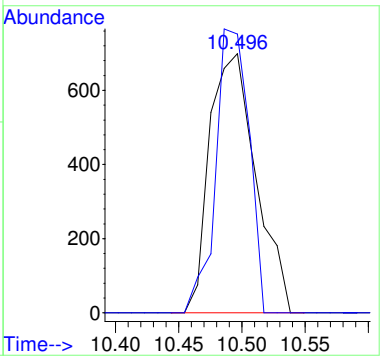


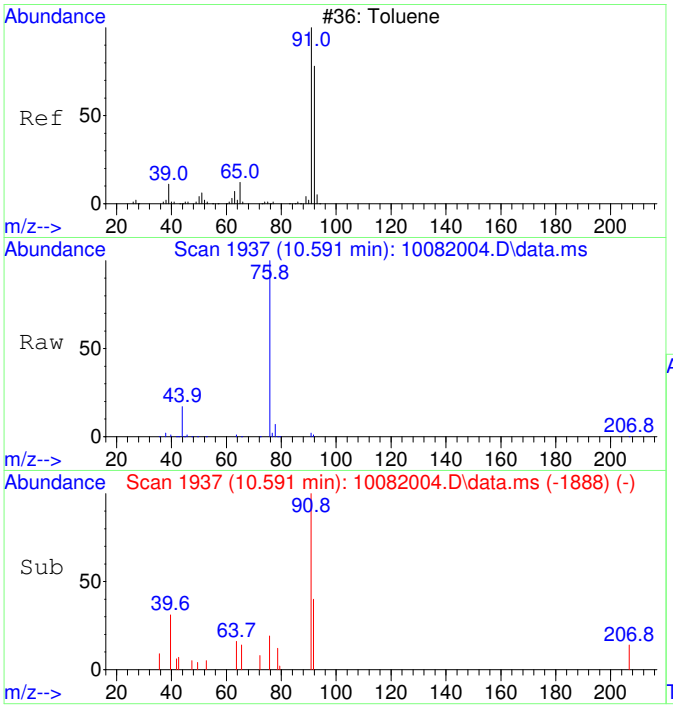



#36
Toluene-d8 SCAN
Concen: 41.24 ug/L
RT: 10.496 min Scan# 1928
Delta R.T. 0.021 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 98 Resp: 1788

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 78.8 | 40.0 | 100.0 |

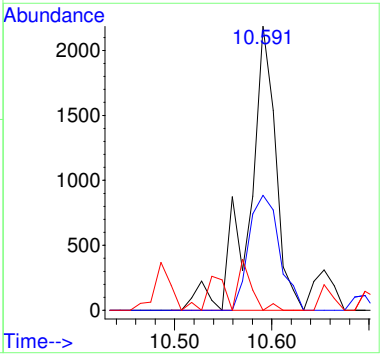


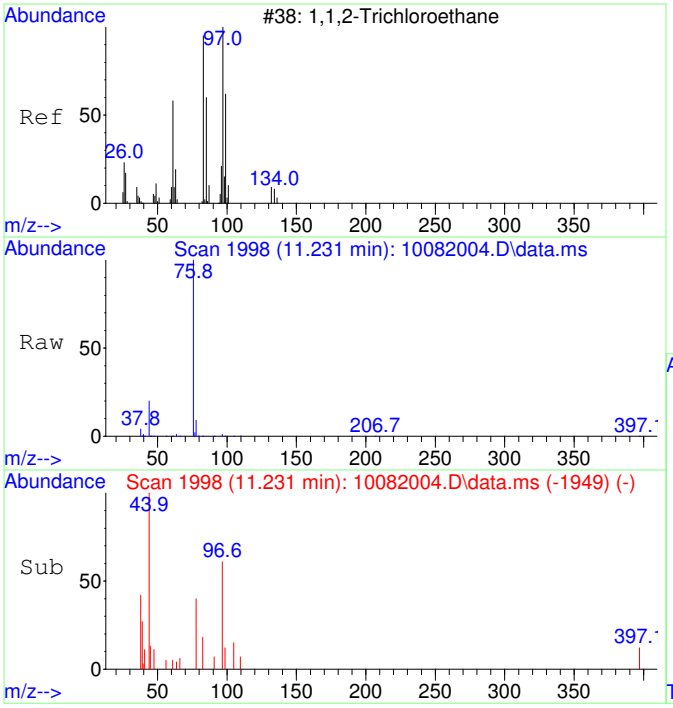




#37
Toluene SCAN
Concen: 75.56 ug/L
RT: 10.591 min Scan# 1937
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 4196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 46.4 | 28.3 | 88.3 |
| 65 | 0.0 | 0.0 | 41.0 |

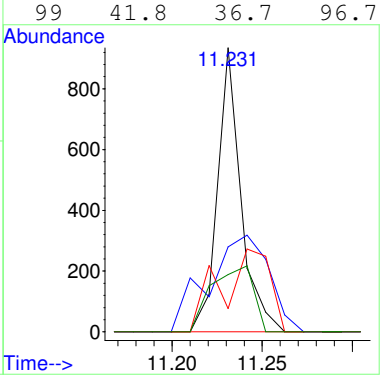


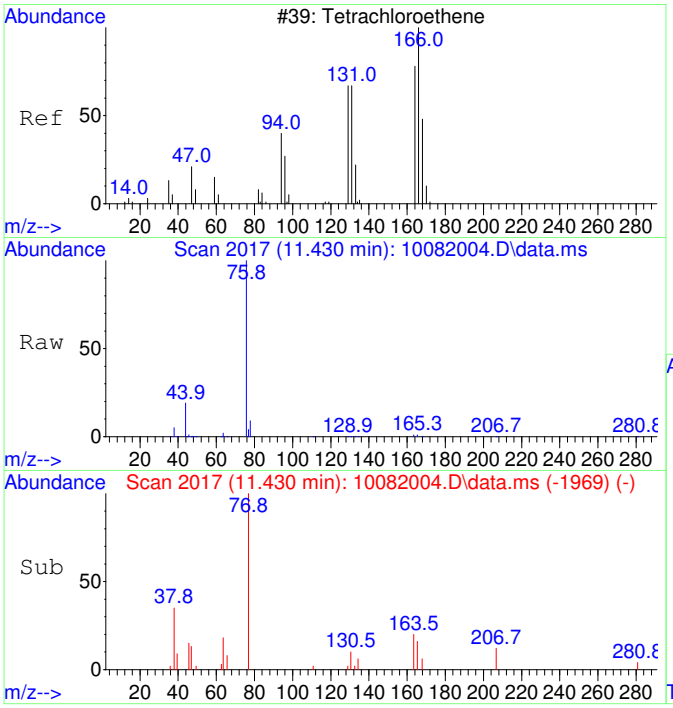



#38
1,1,2-Trichloroethane SCAN
Concen: 67.31 ug/L
RT: 11.231 min Scan# 1998
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 97 Resp: 839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 89.0 | 57.7 | 117.7 |
| 61 | 61.3 | 32.1 | 92.1 |
| 99 | 41.8 | 36.7 | 96.7 |

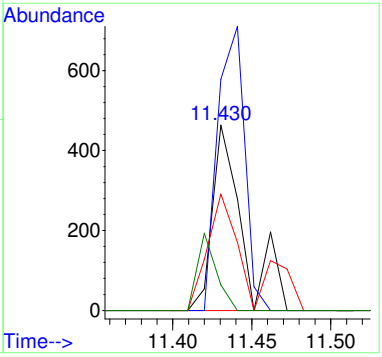


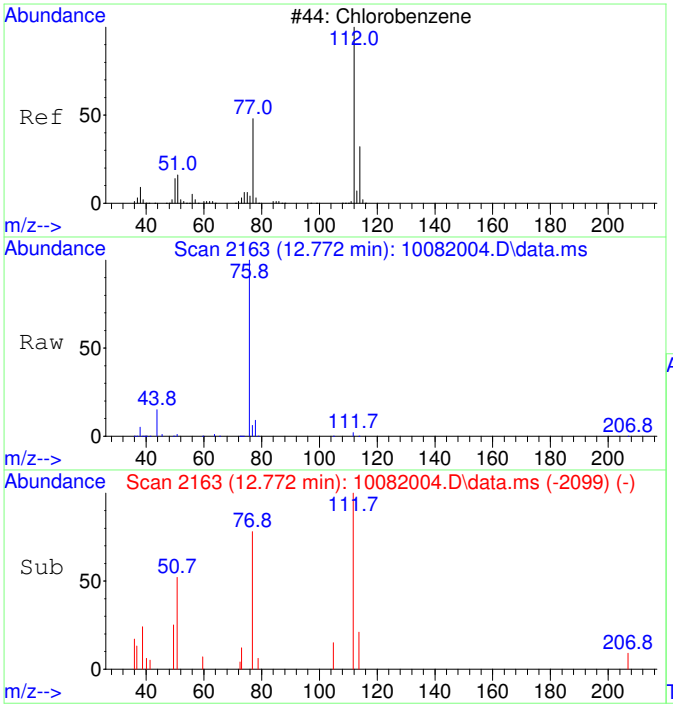




#39
Tetrachloroethene SCAN
Concen: 46.85 ug/L
RT: 11.430 min Scan# 2017
Delta R.T. -0.000 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:166 Resp: 625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 135.8 | 50.9 | 110.9# |
| 131 | 59.4 | 38.7 | 98.7 |
| 129 | 0.0 | 41.8 | 101.8# |

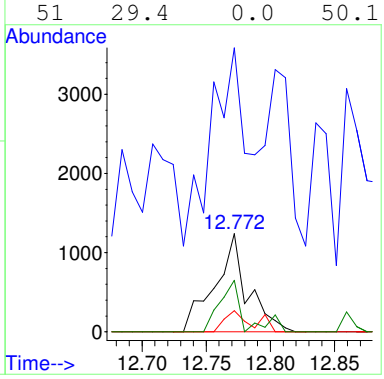


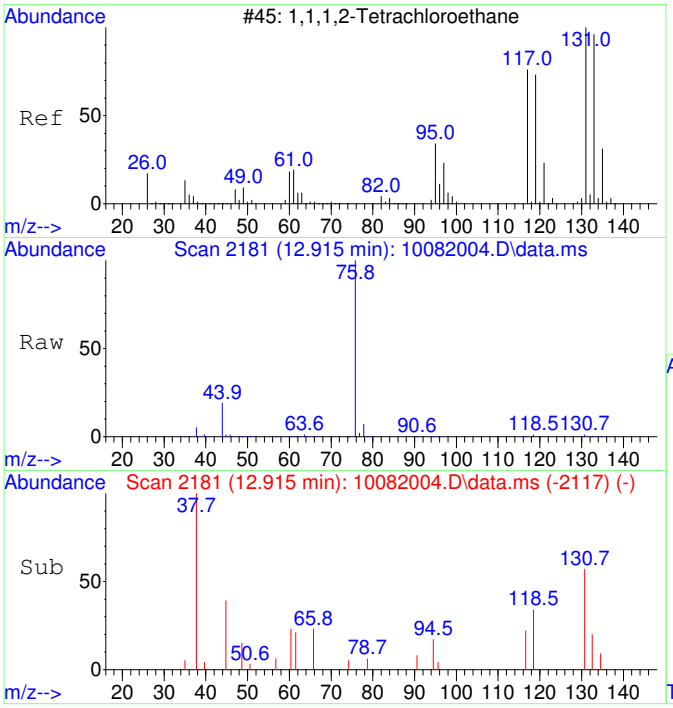



#40
Chlorobenzene SCAN
Concen: 57.82 ug/L
RT: 12.772 min Scan# 2163
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:112 Resp: 2194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 126.0 | 28.2 | 88.2# |
| 114 | 18.0 | 2.3 | 62.3 |
| 51 | 29.4 | 0.0 | 50.1 |

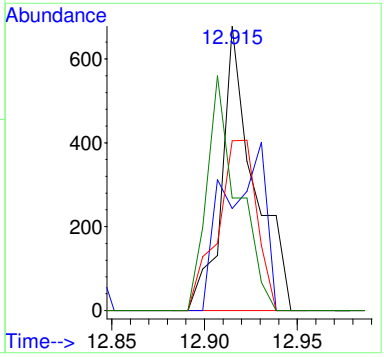


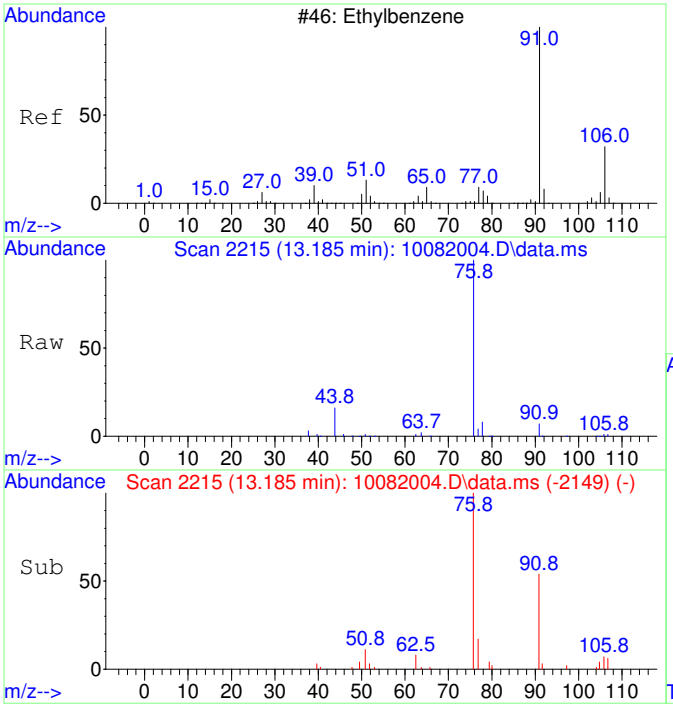




#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 58.32 ug/L
RT: 12.915 min Scan# 2181
Delta R.T. 0.008 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:131 Resp: 819

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 72.2 | 66.9 | 126.9 |
| 119 | 73.0 | 40.4 | 100.4 |
| 117 | 0.0 | 35.1 | 95.1# |

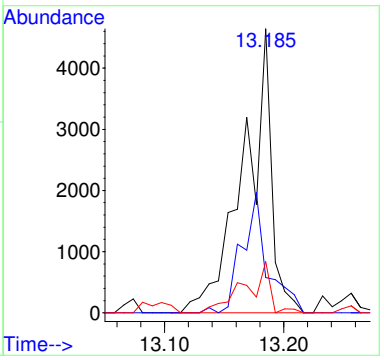


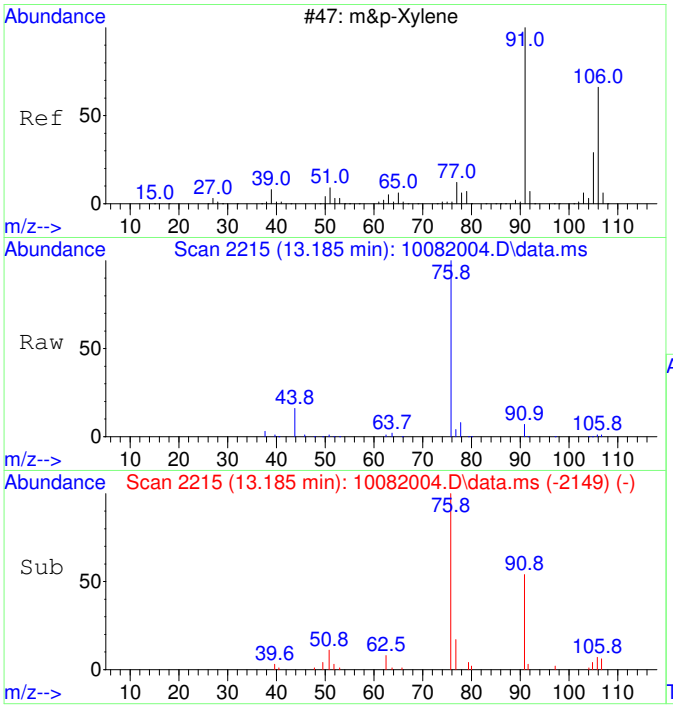



#42
Ethylbenzene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 51 | 16.4 | 0.0 | 40.1 |

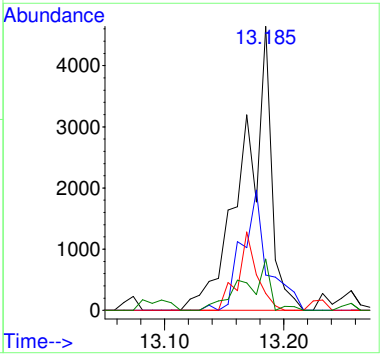


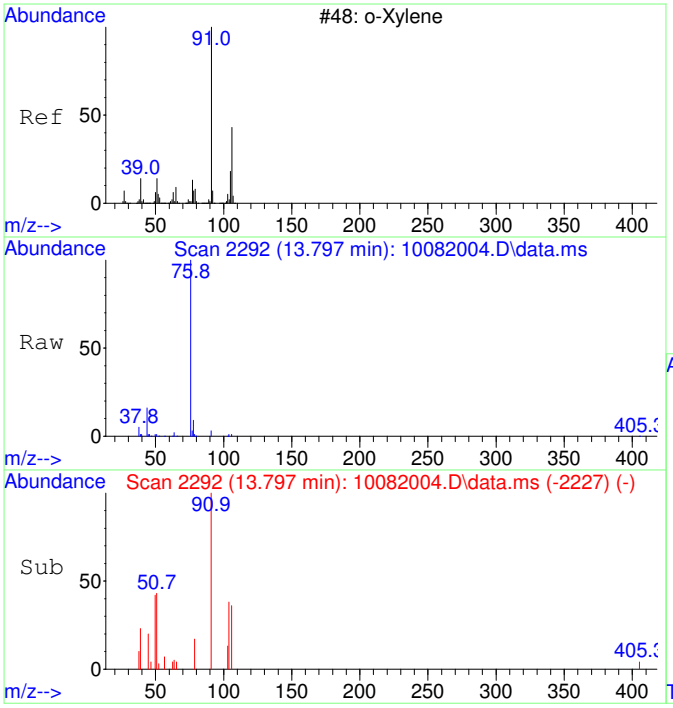




#43
m&p-Xylene SCAN
Concen: 74.17 ug/L
RT: 13.185 min Scan# 2215
Delta R.T. 0.024 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 7503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 39.0 | 23.1 | 83.1 |
| 105 | 19.0 | 0.0 | 54.7 |
| 51 | 16.4 | 0.0 | 40.1 |

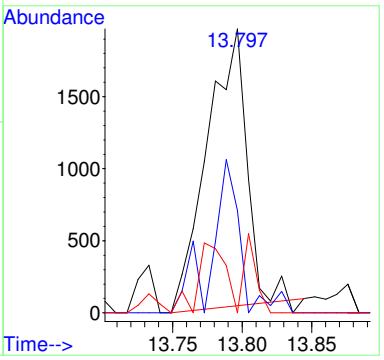


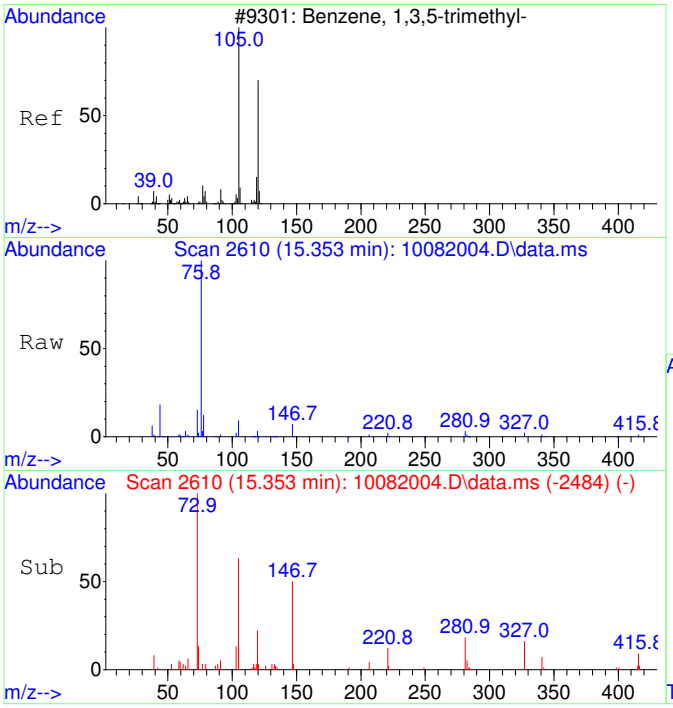



#44
o-Xylene SCAN
Concen: 70.14 ug/L
RT: 13.797 min Scan# 2292
Delta R.T. 0.016 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion: 91 Resp: 3798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 40.6 | 18.0 | 78.0 |
| 105 | 8.9 | 0.0 | 56.6 |

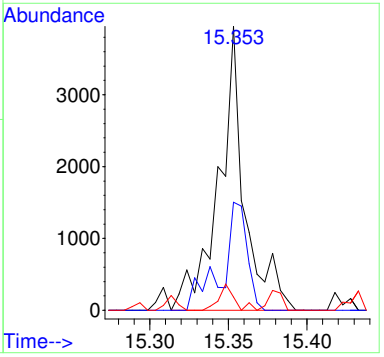


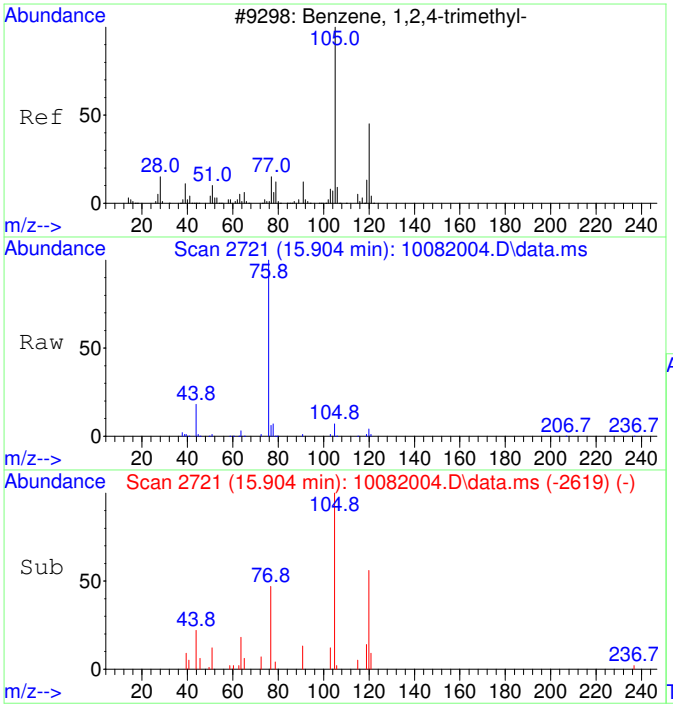




#46
1,3,5-Trimethylbenzene SCAN
Concen: 78.97 ug/L
RT: 15.353 min Scan# 2610
Delta R.T. 0.010 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 4507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 37.4 | 18.3 | 78.3 |
| 119 | 5.5 | 0.0 | 43.1 |

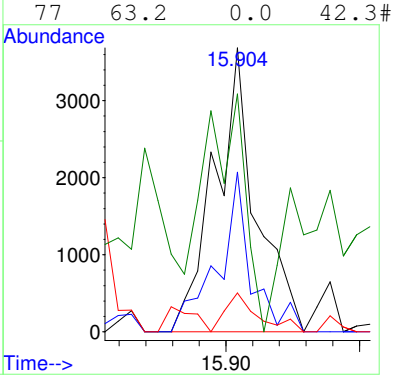


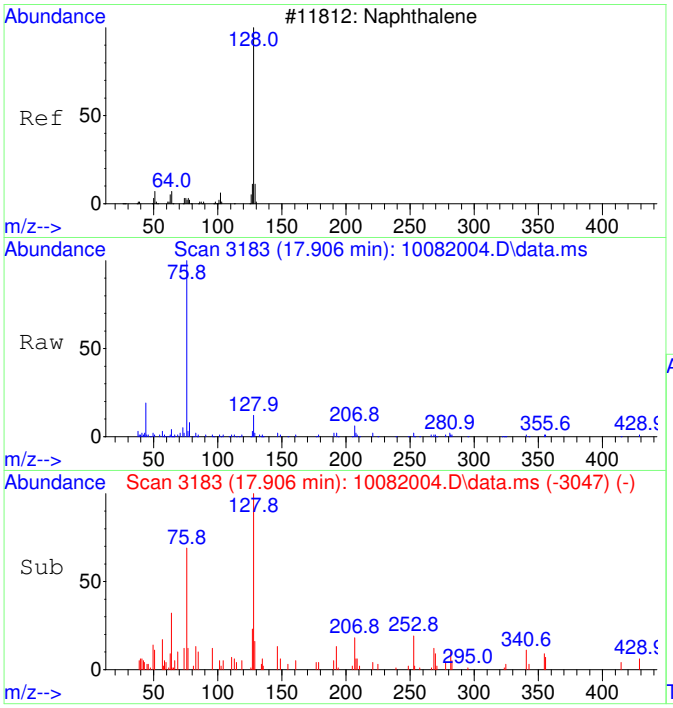



#47
1,2,4-Trimethylbenzene SCAN
Concen: 68.17 ug/L
RT: 15.904 min Scan# 2721
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:105 Resp: 3981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 16.9 | 76.9 |
| 119 | 10.7 | 0.0 | 41.9 |
| 77 | 63.2 | 0.0 | 42.3# |

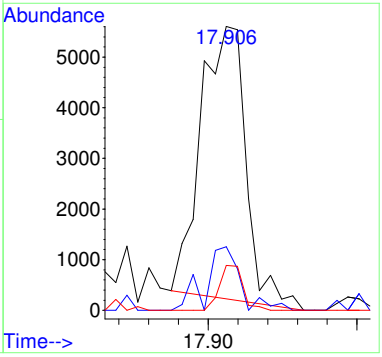



#48
Naphthalene SCAN
Concen: 63.87 ug/L
RT: 17.906 min Scan# 3183
Delta R.T. 0.005 min
Lab File: 10082004.D
Acq: 8 Oct 2020 10:51

Tgt Ion:128 Resp: 5644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 18.0 | 0.0 | 44.0 |
| 129 | 8.6 | 0.0 | 40.8 |



# SECOND SOURCE CALIBRATION CHECK

Laboratory:

Client:

Instrument ID:

Lab File ID:

Sequence:

Lab Sample ID:

SDG:

Project:

Calibration:

Calibration Date:

Injection Date:

Injection Time:

| COMPOUND | TYPE | | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | SCV | ICAL | SCV | MIN (#) | SCV | LIMIT (#) |
| | | | | | | | | |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1639096

| | | | |
|---|---|---|---|
| **Description:** | 2-Fluorotlouene | **Expires:** | 12/31/29 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/22/16 |
| **Solvent:** | na | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 100 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 09/22/16 11:46 by RH |
| **Vendor:** | | **Lot Numbe** | STBF8552V |

Aldrich; Cat # F15323-100G, bar code #AU008468

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 2-Fluorotoluene | 95-52-3 | 1000000 |

SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

# Certificate of Analysis

| | |
|---|---|
| **Product Name:** | 2-FLUOROTOLUENE |
| | >= 99 % |
| **Product Number:** | F15323 |
| **Batch Number:** | STBF8552V |
| **Brand:** | Aldrich |
| **CAS Number:** | 95-52-3 |
| **Formula:** | $CH_3C_6H_4F$ |
| **Formula Weight:** | 110.13 |
| **Quality Release Date:** | 14 SEP 2015 |

| TEST | SPECIFICATION | RESULT |
|---|---|---|
| **APPEARANCE (COLOR)** | COLORLESS TO VERY FAINT YELLOW | VERY FAINT YELLOW |
| **APPEARANCE (FORM)** | LIQUID | LIQUID |
| **COLOR (IN APHA)** | ≤ 50 APHA | 40 APHA |
| **PURITY (GC AREA %)** | ≥ 99.0 % | 99.9 % |
| **INFRARED SPECTRUM** | CONFORMS TO STRUCTURE | CONFORMS |

Dr. Claudia Geitner
Manager Quality Control
Steinheim, Germany

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1740054

| | | | |
|---|---|---|---|
| **Description:** | VOA BFB tuning mix, stock STD. | **Expires:** | 11/30/22 |
| **Standard Type:** | Other Solution | **Prepared:** | 10/03/17 |
| **Solvent:** | Solvent Lot # | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 10/03/17 14:37 by YNB |
| **Vendor:** | Restek | **Lot Numbe** | A0129653 |

RESTEK Cat No. 30003, LOT # A0129653, Bar code #AU009457

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 5000 |

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 30003 **Lot No.:** A0129653

**Description :** VOA Tuning Compound Mix

VOA Tuning Compound Mix 5,000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** November 30, 2022 **Storage:** 0°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1-Bromo-4-fluorobenzene (BFB)<br>**CAS #** 460-00-4 (Lot 20401KOV)<br>**Purity** 99% | 5,002.0 µg/mL | +/- 29.3545 | µg/mL | Gravimetric |
| | | | +/- 280.4856 | µg/mL | Unstressed |
| | | | +/- 287.0473 | µg/mL | Stressed |

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

| A4009453 | 1740050 |
|---|---|
| 54 | 51 |
| 55 | 52 |
| 56 | 53 |
| 57 | 54 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1843069

| | | | |
|---|---|---|---|
| **Description:** | VOA 502/524 VOC Mix, Stock | **Expires:** | 09/30/20 |
| **Standard Type:** | Other Solution | **Prepared:** | 10/24/18 |
| **Solvent:** | MeOH | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1.15 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 10/24/18 12:14 by YNB |
| **Vendor:** | Sigma Aldrich | **Lot Numbe** | LRAC0242 |

Sigma-Aldrich (Supelco), Cat # 502111, Lot# LRAC0242, bar code AU010582

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 2000 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 2000 |
| Benzene | 71-43-2 | 2000 |
| 4-Chlorotoluene | 106-43-4 | 2000 |
| 2-Chlorotoluene | 95-49-8 | 2000 |
| 2,2-Dichloropropane | 594-20-7 | 2000 |
| 1,4-Dichlorobenzene | 106-46-7 | 2000 |
| 1,3-Dichloropropane | 142-28-9 | 2000 |
| 1,3-Dichlorobenzene | 541-73-1 | 2000 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 2000 |
| 1,2-Dichloropropane | 78-87-5 | 2000 |
| 1,2-Dichloroethane | 107-06-2 | 2000 |
| Bromochloromethane | 74-97-5 | 2000 |
| 1,2-Dibromoethane (EDB) | 106-93-4 | 2000 |
| Bromodichloromethane | 75-27-4 | 2000 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2000 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 2000 |
| 1,2,3-Trimethylbenzene | 526-73-8 | 2000 |
| 1,2,3-Trichloropropane | 96-18-4 | 2000 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 2000 |
| 1,1-Dichloropropene | 563-58-6 | 2000 |
| 1,1-Dichloroethene | 75-35-4 | 2000 |
| 1,1-Dichloroethane | 75-34-3 | 2000 |
| 1,1,2-Trichloroethane | 79-00-5 | 2000 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 2000 |
| 1,1,1-Trichloroethane | 71-55-6 | 2000 |
| 1,2-Dichlorobenzene | 95-50-1 | 2000 |
| Hexachlorobutadiene | 87-68-3 | 2000 |
| trans-1,3-Dichloropropene | 10061-02-6 | 2000 |
| trans-1,2-Dichloroethene | 156-60-5 | 2000 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**1843069**

| | | |
|---|---|---|
| Toluene | 108-88-3 | 2000 |
| Tetrachloroethene | 127-18-4 | 2000 |
| tert-Butylbenzene | 98-06-6 | 2000 |
| Styrene | 100-42-5 | 2000 |
| sec-Butylbenzene | 135-98-8 | 2000 |
| Propylbenzene | 103-65-1 | 2000 |
| p-Isopropyltoluene | 99-87-6 | 2000 |
| o-Xylene | 95-47-6 | 2000 |
| Naphthalene | 91-20-3 | 2000 |
| Bromobenzene | 108-86-1 | 2000 |
| Isopropylbenzene | 98-82-8 | 2000 |
| Trichloroethene | 79-01-6 | 2000 |
| Ethylbenzene | 100-41-4 | 2000 |
| Dichloromethane | 75-09-2 | 2000 |
| Dibromomethane | 74-95-3 | 2000 |
| cis-1,3-Dichloropropene | 10061-01-5 | 2000 |
| cis-1,2-Dichloroethene | 156-59-2 | 2000 |
| Chloroform | 67-66-3 | 2000 |
| Chlorodibromomethane | 124-48-1 | 2000 |
| Chlorobenzene | 108-90-7 | 2000 |
| Carbon tetrachloride | 56-23-5 | 2000 |
| Butylbenzene | 104-51-8 | 2000 |
| Bromoform | 75-25-2 | 2000 |
| m&p-Xylene | 179601-23-1 | 4000 |

# Certificate of Analysis

## 502/524 VOLATILE ORGANICS CALIBRATION

*Certified Reference Material*

**Product ID** 502111
**Lot** **LRAC0242**
**Expiration Date** September 2020
**MFG Date** September 2018
**Storage Conditions** Freeze
**Solvent/Matrix** METHANOL

| *Analyte* | *Units* | *Certified Value* [1,4] | *Analytical Value* | *Raw Material Purity,%* | *Raw Material lot* | *Elution order* | *CAS* |
|---|---|---|---|---|---|---|---|
| 1,1-DICHLOROETHYLENE | µg/ml | 2000 ± 170 | 2120 | 99.9998 | LC08188 | 1 | 75-35-4 |
| DICHLOROMETHANE | µg/ml | 2000 ± 140 | 2040 | 99.99 | SHBK1353 | 2 | 75-09-2 |
| TRANS-1,2-DICHLOROETHYLENE | µg/ml | 2000 ± 140 | 2040 | 99.7 | MKBH9850V | 3 | 156-60-5 |
| 1,1-DICHLOROETHANE | µg/ml | 2001 ± 130 | 1980 | 99.9 | LB68167 | 4 | 75-34-3 |
| 2,2-DICHLOROPROPANE | µg/ml | 2000 ± 135 | 2010 | 98.4 | BCBR0622V | 5 | 594-20-7 |
| CIS-1,2-DICHLOROETHYLENE | µg/ml | 2001 ± 130 | 2010 | 99.9 | LB73428 | 6 | 156-59-2 |
| CHLOROFORM | µg/ml | 2000 ± 120 | 2000 | 99.94 | MKBV7632V | 7 | 67-66-3 |
| BROMOCHLOROMETHANE | µg/ml | 2001 ± 110 | 1990 | 98.9 | LB39040 | 8 | 74-97-5 |
| 1,1,1-TRICHLOROETHANE | µg/ml | 2000 ± 140 | 2020 | 97.2 | LC06533 | 9 | 71-55-6 |
| 1,1-DICHLOROPROPYLENE | µg/ml | 2001 ± 125 | 1990 | 99.5 | 7738900 | 10 | 563-58-6 |
| CARBON TETRACHLORIDE | µg/ml | 2000 ± 140 | 1990 | 99.97 | 02041MB | 11 | 56-23-5 |
| 1,2-DICHLOROETHANE | µg/ml | 2001 ± 110 | 2010 | 99.9 | LB74294 | 12 | 107-06-02 |
| BENZENE | µg/ml | 2000 ± 120 | 1970 | 99.99 | SHBJ5344 | 13 | 71-43-2 |
| TRICHLOROETHYLENE | µg/ml | 2001 ± 110 | 2010 | 98.6 | LB86674 | 14 | 79-01-6 |
| 1,2-DICHLOROPROPANE | µg/ml | 2001 ± 120 | 1980 | 99.9 | LC14320 | 15 | 78-87-5 |
| BROMODICHLOROMETHANE | µg/ml | 2001 ± 120 | 1980 | 97.9 | MKCF8470 | 16 | 75-27-4 |
| DIBROMOMETHANE | µg/ml | 2001 ± 110 | 2030 | 98.8 | LB81118 | 17 | 74-95-3 |
| TRANS 1,3-DICHLOROPROPENE | µg/ml | 2002 ± 120 | 1970 | 99 | ZDMSLEK | 18 | 10061-02-06 |
| TOLUENE | µg/ml | 2000 ± 110 | 2010 | 99.98 | MKCF0747 | 19 | 108-88-3 |
| CIS 1,3-DICHLOROPROPENE | µg/ml | 2001 ± 120 | 1990 | 99.3 | MKBZ5000V | 20 | 10061-01-5 |
| 1,1,2-TRICHLOROETHANE | µg/ml | 2000 ± 110 | 2010 | 99.9 | LB87978 | 21 | 79-00-5 |
| 1,3-DICHLOROPROPANE | µg/ml | 2000 ± 110 | 1990 | 99.9 | LC10811 | 22 | 142-28-9 |
| TETRACHLOROETHYLENE | µg/ml | 2000 ± 110 | 2010 | 99.9 | LB67182 | 23 | 127-18-4 |
| DIBROMOCHLOROMETHANE | µg/ml | 2000 ± 120 | 2020 | 96.5 | LB89245 | 24 | 124-48-1 |

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rctechgroup@sial.com www.sigma-aldrich.com

**Lot** **LRAC0242**
**Expiration Date** September 2020
**MFG Date** September 2018
**Storage Conditions** Freeze
**Solvent/Matrix** METHANOL

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,2-DIBROMOETHANE | µg/ml | 2003 ± 110 | 2020 | 99.1 | LB42792 | 25 | 106-93-4 |
| CHLOROBENZENE | µg/ml | 2000 ± 94 | 1990 | 99.9 | LB93949 | 26 | 108-90-7 |
| 1,1,1,2-TETRACHLOROETHANE | µg/ml | 2000 ± 110 | 1980 | 99.9 | LC14810 | 27 | 630-20-6 |
| ETHYLBENZENE | µg/ml | 2000 ± 110 | 1980 | 99.87 | SHBK2389 | 28 | 100-41-4 |
| M-XYLENE | µg/ml | 2002 ± 110 | 2000 | 99.8 | LB87531 | 29 | 108-38-3 |
| P-XYLENE | µg/ml | 2000 ± 110 | 2000 | 99.9 | LB73203 | 29 | 106-42-3 |
| O-XYLENE | µg/ml | 2000 ± 110 | 2000 | 99.5 | LB92424 | 30 | 95-47-6 |
| STYRENE | µg/ml | 2000 ± 98 | 1990 | 99.9 | LC17632 | 31 | 100-42-5 |
| CUMENE | µg/ml | 2000 ± 99 | 2010 | 99.9 | LB89580 | 32 | 98-82-8 |
| BROMOFORM | µg/ml | 2001 ± 120 | 2050 | 96.1 | 67996PJ | 33 | 75-25-2 |
| 1,1,2,2-TETRACHLOROETHANE | µg/ml | 2000 ± 100 | 1990 | 99.9 | LB51327 | 34 | 79-34-5 |
| 1,2,3-TRICHLOROPROPANE | µg/ml | 2001 ± 99 | 2020 | 99 | BCBH8722V | 35 | 96-18-4 |
| N-PROPYLBENZENE | µg/ml | 2000 ± 100 | 1990 | 99.9 | T2HFC | 36 | 103-65-1 |
| BROMOBENZENE | µg/ml | 2001 ± 98 | 1980 | 99.5 | LB99843 | 37 | 108-86-1 |
| 1,2,4-TRIMETHYLBENZENE | µg/ml | 2000 ± 100 | 2020 | 98.9 | LB97224 | 38 | 95-63-6 |
| 2-CHLOROTOLUENE | µg/ml | 2001 ± 98 | 2010 | 99.9 | LC01464 | 39 | 95-49-8 |
| 4-CHLOROTOLUENE | µg/ml | 2001 ± 92 | 2000 | 99.9 | LC02742 | 40 | 106-43-4 |
| TERT-BUTYLBENZENE | µg/ml | 2000 ± 93 | 2000 | 99.9 | LB40373 | 41 | 98-06-6 |
| 1,3,5-TRIMETHYLBENZENE | µg/ml | 2000 ± 94 | 1980 | 99.3 | LB82157 | 42 | 108-67-8 |
| SEC-BUTYLBENZENE | µg/ml | 2000 ± 93 | 1990 | 99.4 | LB77150 | 43 | 135-98-8 |
| P-ISOPROPYLTOLUENE | µg/ml | 2000 ± 88 | 1960 | 98.7 | LB40003 | 44 | 99-87-6 |
| 1,4-DICHLOROBENZENE | µg/ml | 2000 ± 88 | 2000 | 99.9 | LB90630 | 45 | 106-46-7 |
| 1,3-DICHLOROBENZENE | µg/ml | 2001 ± 94 | 2010 | 99.9 | LC17654 | 46 | 541-73-1 |
| N-BUTYLBENZENE | µg/ml | 2000 ± 91 | 2010 | 99.9 | LB81630 | 47 | 104-51-8 |
| 1,2-DICHLOROBENZENE | µg/ml | 2001 ± 82 | 2010 | 99.4 | LB58923 | 48 | 95-50-1 |
| 1,2-DIBROMO-3-CHLOROPROPANE | µg/ml | 2000 ± 89 | 2060 | 96.8 | LB06608 | 49 | 96-12-8 |
| 1,2,3-TRICHLOROBENZENE | µg/ml | 2000 ± 73 | 2010 | 99.9 | LC20450 | 50 | 87-61-6 |
| HEXACHLOROBUTADIENE | µg/ml | 2000 ± 81 | 2060 | 97.4 | MKCD4346 | 51 | 87-68-3 |

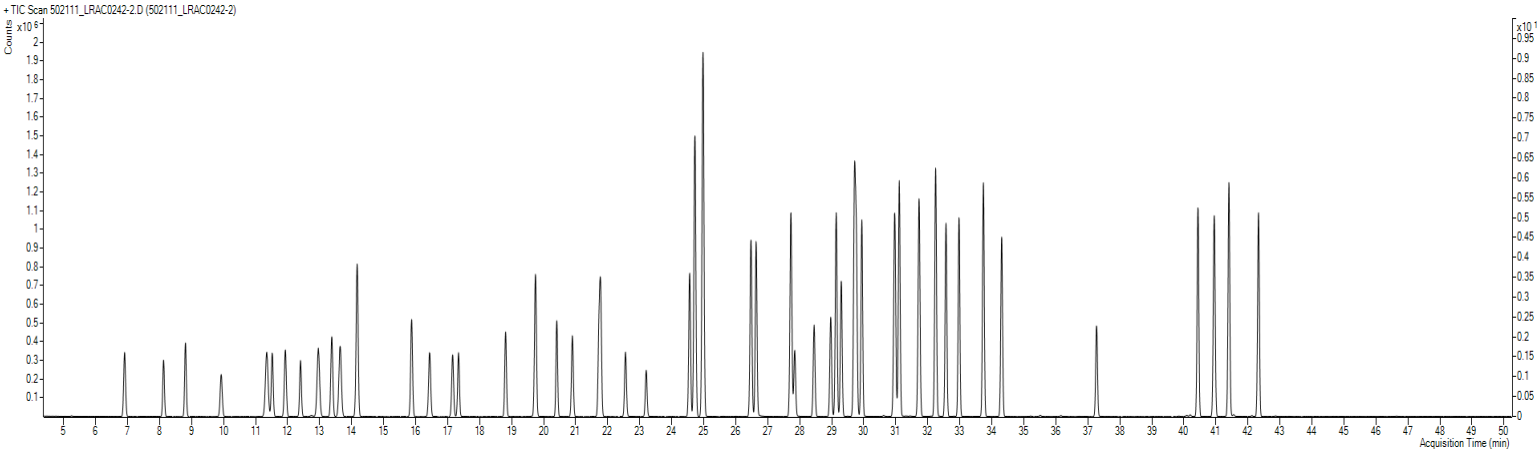
# Certificate of Analysis

## 502/524 VOLATILE ORGANICS CALIBRATION

*Certified Reference Material*

**Product ID** 502111
**Lot** **LRAC0242**
**Expiration Date** September 2020
**MFG Date** September 2018
**Storage Conditions** Freeze
**Solvent/Matrix** METHANOL

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NAPHTHALENE | µg/ml | 2000 ± 81 | 1990 | 99.9 | 16412TN | 52 | 91-20-3 |
| 1,2,4-TRICHLOROBENZENE | µg/ml | 2001 ± 67 | 2020 | 99.4 | LB48083 | 53 | 120-82-1 |




***Additional Information***:

Analytical Method Parameters:

Column: VOCOL, 60 m x 0.25 mm x 1.5 µm df
35°C (4 min) to 200°C (5 min) at 4°C/min
Detector: MSD, 200°C
Injection Volume: 1 µL

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rtctechgroup@sial.com www.sigma-aldrich.com

**Lot** **LRAC0242**
**Expiration Date** September 2020
**MFG Date** September 2018
**Storage Conditions** Freeze
**Solvent/Matrix** METHANOL

1 Certified value - based on the gravimetric preparation and analytically verified by RTC with associated uncertainties from the preparation and analytical procedures.

4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Traceability: The standard was manufactured under an ISO/IEC 17025:2005 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2005 (ANAB Cert AT-1467) and ISO GUIDE 34:2009 (ANAB Cert AR-1470).

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

Robert O'Brien - QC Supervisor

Mark Pooler - QA Supervisor

**Certification Date** October 04, 2018
**Version** -1042018

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1920044

| | | | |
|---|---|---|---|
| Description: | Toluene-d8 | Expires: | 05/15/29 |
| Standard Type: | Calibration Standa | Prepared: | 05/15/19 |
| Solvent: | na | Prepared By: | ** Vendor ** |
| Final Volume (mls): | 0.1 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 05/15/19 13:00 by TD |

Supelco; POS # 18C-262, bar code #AU0010912

Experation date changed, neat standard, per ZAR

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 1000000 | ppm |

Reviewed By Date

# CERTIFICATE OF ANALYSIS

# FROM VENDOR

# IS NOT AVAILABLE.

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1920045

| | | | |
|---|---|---|---|
| Description: | Toluene-d8 | Expires: | 05/15/29 |
| Standard Type: | Calibration Standa | Prepared: | 05/15/19 |
| Solvent: | na | Prepared By: | ** Vendor ** |
| Final Volume (mls): | 0.1 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 05/15/19 13:00 by TD |

Supelco; POS # 18C-262, bar code #AU0010913

Experation date changed, neat standard, per ZAR

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 1000000 | ppm |

Reviewed By Date

# CERTIFICATE OF ANALYSIS

# FROM VENDOR

# IS NOT AVAILABLE.

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1937061

| | | | |
|---|---|---|---|
| **Description:** | VOA 502.2 CAL 2000 MEGA MIX, Stock | **Expires:** | 03/31/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/10/19 |
| **Solvent:** | MeOH | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 09/10/19 13:18 by YNB |
| **Vendor:** | Restek | **Lot Numbe** | A0146957 |

RESTEK, catalog # 30431, Barcode AU011277

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 2000 |
| Bromobenzene | 108-86-1 | 2000 |
| Benzene | 71-43-2 | 2000 |
| 4-Chlorotoluene | 106-43-4 | 2000 |
| 2-Chlorotoluene | 95-49-8 | 2000 |
| 2,2-Dichloropropane | 594-20-7 | 2000 |
| 1,4-Dichlorobenzene | 106-46-7 | 2000 |
| 1,3-Dichloropropane | 142-28-9 | 2000 |
| 1,3-Dichlorobenzene | 541-73-1 | 2000 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 2000 |
| 1,2-Dichloropropane | 78-87-5 | 2000 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 2000 |
| 1,2-Dichlorobenzene | 95-50-1 | 2000 |
| Bromoform | 75-25-2 | 2000 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 2000 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2000 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 2000 |
| 1,2,3-Trichloropropane | 96-18-4 | 2000 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 2000 |
| 1,1-Dichloropropene | 563-58-6 | 2000 |
| 1,1-Dichloroethene | 75-35-4 | 2000 |
| 1,1-Dichloroethane | 75-34-3 | 2000 |
| 1,1,2-Trichloroethane | 79-00-5 | 2000 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 2000 |
| 1,1,1-Trichloroethane | 71-55-6 | 2000 |
| 1,2-Dichloroethane | 107-06-2 | 2000 |
| Hexachlorobutadiene | 87-68-3 | 2000 |
| trans-1,3-Dichloropropene | 10061-02-6 | 2000 |
| trans-1,2-Dichloroethene | 156-60-5 | 2000 |
| Toluene | 108-88-3 | 2000 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**1937061**

| | | |
|---|---|---|
| Tetrachloroethene | 127-18-4 | 2000 |
| tert-Butylbenzene | 98-06-6 | 2000 |
| Styrene | 100-42-5 | 2000 |
| sec-Butylbenzene | 135-98-8 | 2000 |
| Propylbenzene | 103-65-1 | 2000 |
| p-Isopropyltoluene | 99-87-6 | 2000 |
| o-Xylene | 95-47-6 | 2000 |
| Naphthalene | 91-20-3 | 2000 |
| Bromochloromethane | 74-97-5 | 2000 |
| Isopropylbenzene | 98-82-8 | 2000 |
| Bromodichloromethane | 75-27-4 | 2000 |
| Ethylbenzene | 100-41-4 | 2000 |
| Dichloromethane | 75-09-2 | 2000 |
| Dibromomethane | 74-95-3 | 2000 |
| cis-1,3-Dichloropropene | 10061-01-5 | 2000 |
| cis-1,2-Dichloroethene | 156-59-2 | 2000 |
| Chloroform | 67-66-3 | 2000 |
| Chlorodibromomethane | 124-48-1 | 2000 |
| Chlorobenzene | 108-90-7 | 2000 |
| Carbon tetrachloride | 56-23-5 | 2000 |
| Butylbenzene | 104-51-8 | 2000 |
| Trichloroethene | 79-01-6 | 2000 |
| m&p-Xylene | 179601-23-1 | 4000 |

# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 30431 **Lot No.:** A0146957

**Description :** 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** March 31, 2021 **Storage:** 0°C or colder

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

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,1-dichloroethene | 2,008.6 µg/mL | +/- 12.7358 | µg/mL | Gravimetric |
| | **CAS #** 75-35-4 (Lot SHBG8609V) | | +/- 90.6111 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.5146 | µg/mL | Stressed |
| 2 | Methylene chloride (dichloromethane) | 2,007.1 µg/mL | +/- 12.7263 | µg/mL | Gravimetric |
| | **CAS #** 75-09-2 (Lot SHBK5095) | | +/- 90.5435 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.4395 | µg/mL | Stressed |
| 3 | trans-1,2-Dichloroethene | 2,005.2 µg/mL | +/- 12.7140 | µg/mL | Gravimetric |
| | **CAS #** 156-60-5 (Lot MKBH9850V) | | +/- 90.4563 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3427 | µg/mL | Stressed |
| 4 | 1,1-Dichloroethane | 2,003.1 µg/mL | +/- 12.7009 | µg/mL | Gravimetric |
| | **CAS #** 75-34-3 (Lot 462600) | | +/- 90.3630 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2393 | µg/mL | Stressed |
| 5 | 2,2-Dichloropropane | 2,000.3 µg/mL | +/- 12.6830 | µg/mL | Gravimetric |
| | **CAS #** 594-20-7 (Lot BCBT5124) | | +/- 90.2358 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.0982 | µg/mL | Stressed |
| 6 | cis-1,2-Dichloroethene | 2,002.5 µg/mL | +/- 12.6972 | µg/mL | Gravimetric |
| | **CAS #** 156-59-2 (Lot MKBX5945V) | | +/- 90.3369 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2103 | µg/mL | Stressed |
| 7 | chloroform | 2,004.8 µg/mL | +/- 12.7115 | µg/mL | Gravimetric |
| | **CAS #** 67-66-3 (Lot SHBJ9076) | | +/- 90.4382 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3227 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | | 2,000.7 | µg/mL | +/- | 12.6854 | µg/mL | Gravimetric |
| | **CAS #** | 74-97-5 | (Lot 00008541) | | | +/- | 90.2525 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1167 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | | 2,000.9 | µg/mL | +/- | 12.6872 | µg/mL | Gravimetric |
| | **CAS #** | 71-55-6 | (Lot 190123CG) | | | +/- | 90.2652 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1308 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7084 | µg/mL | Gravimetric |
| | **CAS #** | 563-58-6 | (Lot 190122JLM) | | | +/- | 90.4163 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2984 | µg/mL | Stressed |
| 11 | carbon tetrachloride | | | 2,004.5 | µg/mL | +/- | 12.7100 | µg/mL | Gravimetric |
| | **CAS #** | 56-23-5 | (Lot SHBJ2110) | | | +/- | 90.4277 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3110 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | | 2,007.5 | µg/mL | +/- | 12.7290 | µg/mL | Gravimetric |
| | **CAS #** | 107-06-2 | (Lot SHBJ6510) | | | +/- | 90.5630 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4612 | µg/mL | Stressed |
| 13 | Benzene | | | 2,004.2 | µg/mL | +/- | 12.7079 | µg/mL | Gravimetric |
| | **CAS #** | 71-43-2 | (Lot SHBJ5344) | | | +/- | 90.4126 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2944 | µg/mL | Stressed |
| 14 | Trichloroethene | | | 2,003.4 | µg/mL | +/- | 12.7030 | µg/mL | Gravimetric |
| | **CAS #** | 79-01-6 | (Lot SHBH1955V) | | | +/- | 90.3781 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2560 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | | 2,007.7 | µg/mL | +/- | 12.7299 | µg/mL | Gravimetric |
| | **CAS #** | 78-87-5 | (Lot BCBR0882V) | | | +/- | 90.5690 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4678 | µg/mL | Stressed |
| 16 | bromodichloromethane | | | 2,016.1 | µg/mL | +/- | 12.7833 | µg/mL | Gravimetric |
| | **CAS #** | 75-27-4 | (Lot MKCF8470) | | | +/- | 90.9495 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.8899 | µg/mL | Stressed |
| 17 | Dibromomethane | | | 2,002.3 | µg/mL | +/- | 12.6960 | µg/mL | Gravimetric |
| | **CAS #** | 74-95-3 | (Lot 10201030) | | | +/- | 90.3278 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2003 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | | 2,005.6 | µg/mL | +/- | 12.7170 | µg/mL | Gravimetric |
| | **CAS #** | 10061-01-5 | (Lot 25076) | | | +/- | 90.4773 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3661 | µg/mL | Stressed |
| 19 | Toluene | | | 2,000.7 | µg/mL | +/- | 12.6856 | µg/mL | Gravimetric |
| | **CAS #** | 108-88-3 | (Lot SHBJ5659) | | | +/- | 90.2539 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1182 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7083 | µg/mL | Gravimetric |
| | **CAS #** | 10061-02-6 | (Lot C797620) | | | +/- | 90.4155 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.2975 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | | 2,007.0 | µg/mL | +/- | 12.7254 | µg/mL | Gravimetric |
| | **CAS #** | 79-00-5 | (Lot FGB01) | | | +/- | 90.5375 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4328 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | | 2,001.5 | µg/mL | +/- | 12.6909 | µg/mL | Gravimetric |
| | **CAS #** | 142-28-9 | (Lot BCBG2162V) | | | +/- | 90.2918 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1603 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | | 2,005.1 | µg/mL | +/- | 12.7136 | µg/mL | Gravimetric |
| | **CAS #** | 127-18-4 | (Lot SHBH9691) | | | +/- | 90.4533 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3394 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 24 | dibromochloromethane | | | 2,003.7 | µg/mL | +/- | 12.7046 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1 | (Lot MKCC0877) | | | | +/- | 90.3890 | µg/mL | Unstressed |
| | **Purity** 98% | | | | | +/- | 100.2681 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | | 2,000.7 | µg/mL | +/- | 12.6858 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4 | (Lot BCBP2268V) | | | | +/- | 90.2557 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1202 | µg/mL | Stressed |
| 26 | Chlorobenzene | | | 2,005.3 | µg/mL | +/- | 12.7147 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7 | (Lot SHBH4459V) | | | | +/- | 90.4608 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3477 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | | 2,001.7 | µg/mL | +/- | 12.6919 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6 | (Lot MKBS3769V) | | | | +/- | 90.2990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1683 | µg/mL | Stressed |
| 28 | Ethylbenzene | | | 2,001.6 | µg/mL | +/- | 12.6917 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4 | (Lot SHBJ4278) | | | | +/- | 90.2972 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1663 | µg/mL | Stressed |
| 29 | m-Xylene | | | 2,003.4 | µg/mL | +/- | 12.7031 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3 | (Lot SHBJ2338) | | | | +/- | 90.3784 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.2563 | µg/mL | Stressed |
| 30 | p-Xylene | | | 2,001.8 | µg/mL | +/- | 12.6927 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3 | (Lot SHBJ7329) | | | | +/- | 90.3044 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1743 | µg/mL | Stressed |
| 31 | o-Xylene | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6 | (Lot SHBH7231) | | | | +/- | 90.4289 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3124 | µg/mL | Stressed |
| 32 | Styrene | | | 2,001.4 | µg/mL | +/- | 12.6899 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5 | (Lot MKCC9766) | | | | +/- | 90.2845 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1522 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | | 2,001.3 | µg/mL | +/- | 12.6894 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8 | (Lot P15E008) | | | | +/- | 90.2809 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1482 | µg/mL | Stressed |
| 34 | bromoform | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2 | (Lot SHBJ4835) | | | | +/- | 90.4292 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3127 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | | 2,005.5 | µg/mL | +/- | 12.7161 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5 | (Lot CFA4D) | | | | +/- | 90.4713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3594 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | | 2,002.0 | µg/mL | +/- | 12.6942 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4 | (Lot BCBH8722V) | | | | +/- | 90.3152 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1863 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | | 2,001.2 | µg/mL | +/- | 12.6891 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1 | (Lot WXBC3346V) | | | | +/- | 90.2791 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1462 | µg/mL | Stressed |
| 38 | Bromobenzene | | | 2,003.2 | µg/mL | +/- | 12.7016 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1 | (Lot WXBC5147V) | | | | +/- | 90.3675 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.2443 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | | 2,001.4 | µg/mL | +/- | 12.6904 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8 | (Lot BCBS7648V) | | | | +/- | 90.2881 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1562 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | 2,003.5 | µg/mL | +/- | 12.7033 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8 | (Lot MKBW5554V) | | | +/- | 90.3802 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2583 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | 2,002.8 | µg/mL | +/- | 12.6990 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4 | (Lot MKBL7753V) | | | +/- | 90.3495 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2243 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | 2,002.2 | µg/mL | +/- | 12.6950 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6 | (Lot STBD6954V) | | | +/- | 90.3206 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1923 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | 2,001.6 | µg/mL | +/- | 12.6911 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6 | (Lot MKBJ6229V) | | | +/- | 90.2932 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 100.1619 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8 | (Lot MKBR9260V) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 45 | p-Isopropyltoluene (p-Cymene) | | 2,000.4 | µg/mL | +/- | 12.6835 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6 | (Lot MKCB7536) | | | +/- | 90.2394 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1022 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | 2,008.3 | µg/mL | +/- | 12.7339 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1 | (Lot BCBQ7100V) | | | +/- | 90.5976 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.4995 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | 2,000.4 | µg/mL | +/- | 12.6836 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7 | (Lot MKBS4401V) | | | +/- | 90.2397 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1025 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | 2,000.3 | µg/mL | +/- | 12.6833 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8 | (Lot 09804AE) | | | +/- | 90.2376 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1002 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | 2,005.0 | µg/mL | +/- | 12.7128 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1 | (Lot SHBG3111V) | | | +/- | 90.4472 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.3327 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | 2,000.1 | µg/mL | +/- | 12.6820 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8 | (Lot FBL01) | | | +/- | 90.2286 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.0902 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1 | (Lot SHBJ9215) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | 2,004.0 | µg/mL | +/- | 12.7064 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3 | (Lot J31X013) | | | +/- | 90.4018 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2824 | µg/mL | Stressed |
| 53 | Naphthalene | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3 | (Lot MKBZ8680V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2804 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** 87-61-6 | (Lot MKBX7627V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2804 | 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)

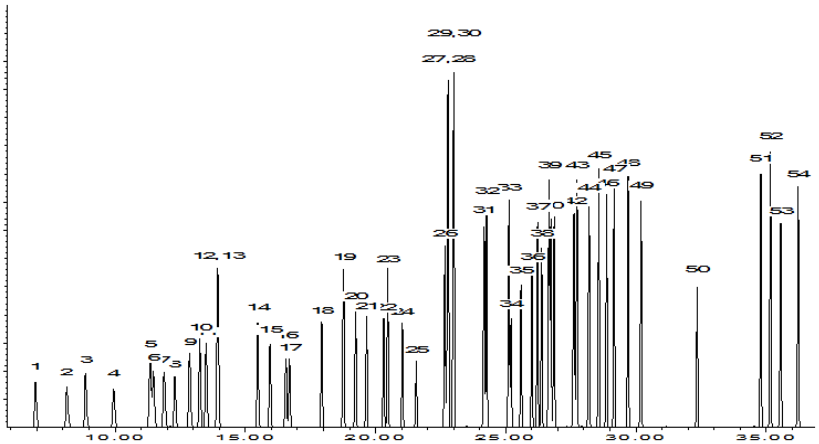
**Carrier Gas:**
helium-constant pressure 30 psi

**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.

**Date Mixed:** 12-Mar-2019 **Balance:** 1126342624

Fang-Yun Lo - QC Analyst

**Date Passed:** 20-Mar-2019

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1937062

| | | | |
|---|---|---|---|
| **Description:** | VOA 502.2 CAL 2000 MEGA MIX, Stock | **Expires:** | 03/31/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/10/19 |
| **Solvent:** | MeOH | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 09/10/19 13:18 by YNB |
| **Vendor:** | Restek | **Lot Numbe** | A0146957 |

RESTEK, catalog # 30431, Barcode AU011278

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 2000 |
| Bromobenzene | 108-86-1 | 2000 |
| Benzene | 71-43-2 | 2000 |
| 4-Chlorotoluene | 106-43-4 | 2000 |
| 2-Chlorotoluene | 95-49-8 | 2000 |
| 2,2-Dichloropropane | 594-20-7 | 2000 |
| 1,4-Dichlorobenzene | 106-46-7 | 2000 |
| 1,3-Dichloropropane | 142-28-9 | 2000 |
| 1,3-Dichlorobenzene | 541-73-1 | 2000 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 2000 |
| 1,2-Dichloropropane | 78-87-5 | 2000 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 2000 |
| 1,2-Dichlorobenzene | 95-50-1 | 2000 |
| Bromoform | 75-25-2 | 2000 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 2000 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2000 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 2000 |
| 1,2,3-Trichloropropane | 96-18-4 | 2000 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 2000 |
| 1,1-Dichloropropene | 563-58-6 | 2000 |
| 1,1-Dichloroethene | 75-35-4 | 2000 |
| 1,1-Dichloroethane | 75-34-3 | 2000 |
| 1,1,2-Trichloroethane | 79-00-5 | 2000 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 2000 |
| 1,1,1-Trichloroethane | 71-55-6 | 2000 |
| 1,2-Dichloroethane | 107-06-2 | 2000 |
| Hexachlorobutadiene | 87-68-3 | 2000 |
| trans-1,3-Dichloropropene | 10061-02-6 | 2000 |
| trans-1,2-Dichloroethene | 156-60-5 | 2000 |
| Toluene | 108-88-3 | 2000 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**1937062**

| | | |
|---|---|---|
| Tetrachloroethene | 127-18-4 | 2000 |
| tert-Butylbenzene | 98-06-6 | 2000 |
| Styrene | 100-42-5 | 2000 |
| sec-Butylbenzene | 135-98-8 | 2000 |
| Propylbenzene | 103-65-1 | 2000 |
| p-Isopropyltoluene | 99-87-6 | 2000 |
| o-Xylene | 95-47-6 | 2000 |
| Naphthalene | 91-20-3 | 2000 |
| Bromochloromethane | 74-97-5 | 2000 |
| Isopropylbenzene | 98-82-8 | 2000 |
| Bromodichloromethane | 75-27-4 | 2000 |
| Ethylbenzene | 100-41-4 | 2000 |
| Dichloromethane | 75-09-2 | 2000 |
| Dibromomethane | 74-95-3 | 2000 |
| cis-1,3-Dichloropropene | 10061-01-5 | 2000 |
| cis-1,2-Dichloroethene | 156-59-2 | 2000 |
| Chloroform | 67-66-3 | 2000 |
| Chlorodibromomethane | 124-48-1 | 2000 |
| Chlorobenzene | 108-90-7 | 2000 |
| Carbon tetrachloride | 56-23-5 | 2000 |
| Butylbenzene | 104-51-8 | 2000 |
| Trichloroethene | 79-01-6 | 2000 |
| m&p-Xylene | 179601-23-1 | 4000 |

# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 30431 **Lot No.:** A0146957

**Description :** 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** March 31, 2021 **Storage:** 0°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,1-dichloroethene | 2,008.6 µg/mL | +/- 12.7358 | µg/mL | Gravimetric |
| | **CAS #** 75-35-4 (Lot SHBG8609V) | | +/- 90.6111 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.5146 | µg/mL | Stressed |
| 2 | Methylene chloride (dichloromethane) | 2,007.1 µg/mL | +/- 12.7263 | µg/mL | Gravimetric |
| | **CAS #** 75-09-2 (Lot SHBK5095) | | +/- 90.5435 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.4395 | µg/mL | Stressed |
| 3 | trans-1,2-Dichloroethene | 2,005.2 µg/mL | +/- 12.7140 | µg/mL | Gravimetric |
| | **CAS #** 156-60-5 (Lot MKBH9850V) | | +/- 90.4563 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3427 | µg/mL | Stressed |
| 4 | 1,1-Dichloroethane | 2,003.1 µg/mL | +/- 12.7009 | µg/mL | Gravimetric |
| | **CAS #** 75-34-3 (Lot 462600) | | +/- 90.3630 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2393 | µg/mL | Stressed |
| 5 | 2,2-Dichloropropane | 2,000.3 µg/mL | +/- 12.6830 | µg/mL | Gravimetric |
| | **CAS #** 594-20-7 (Lot BCBT5124) | | +/- 90.2358 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.0982 | µg/mL | Stressed |
| 6 | cis-1,2-Dichloroethene | 2,002.5 µg/mL | +/- 12.6972 | µg/mL | Gravimetric |
| | **CAS #** 156-59-2 (Lot MKBX5945V) | | +/- 90.3369 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2103 | µg/mL | Stressed |
| 7 | chloroform | 2,004.8 µg/mL | +/- 12.7115 | µg/mL | Gravimetric |
| | **CAS #** 67-66-3 (Lot SHBJ9076) | | +/- 90.4382 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3227 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | | 2,000.7 | µg/mL | +/- | 12.6854 | µg/mL | Gravimetric |
| | **CAS #** | 74-97-5 | (Lot 00008541) | | | +/- | 90.2525 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1167 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | | 2,000.9 | µg/mL | +/- | 12.6872 | µg/mL | Gravimetric |
| | **CAS #** | 71-55-6 | (Lot 190123CG) | | | +/- | 90.2652 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1308 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7084 | µg/mL | Gravimetric |
| | **CAS #** | 563-58-6 | (Lot 190122JLM) | | | +/- | 90.4163 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2984 | µg/mL | Stressed |
| 11 | carbon tetrachloride | | | 2,004.5 | µg/mL | +/- | 12.7100 | µg/mL | Gravimetric |
| | **CAS #** | 56-23-5 | (Lot SHBJ2110) | | | +/- | 90.4277 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3110 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | | 2,007.5 | µg/mL | +/- | 12.7290 | µg/mL | Gravimetric |
| | **CAS #** | 107-06-2 | (Lot SHBJ6510) | | | +/- | 90.5630 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4612 | µg/mL | Stressed |
| 13 | Benzene | | | 2,004.2 | µg/mL | +/- | 12.7079 | µg/mL | Gravimetric |
| | **CAS #** | 71-43-2 | (Lot SHBJ5344) | | | +/- | 90.4126 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2944 | µg/mL | Stressed |
| 14 | Trichloroethene | | | 2,003.4 | µg/mL | +/- | 12.7030 | µg/mL | Gravimetric |
| | **CAS #** | 79-01-6 | (Lot SHBH1955V) | | | +/- | 90.3781 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2560 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | | 2,007.7 | µg/mL | +/- | 12.7299 | µg/mL | Gravimetric |
| | **CAS #** | 78-87-5 | (Lot BCBR0882V) | | | +/- | 90.5690 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4678 | µg/mL | Stressed |
| 16 | bromodichloromethane | | | 2,016.1 | µg/mL | +/- | 12.7833 | µg/mL | Gravimetric |
| | **CAS #** | 75-27-4 | (Lot MKCF8470) | | | +/- | 90.9495 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.8899 | µg/mL | Stressed |
| 17 | Dibromomethane | | | 2,002.3 | µg/mL | +/- | 12.6960 | µg/mL | Gravimetric |
| | **CAS #** | 74-95-3 | (Lot 10201030) | | | +/- | 90.3278 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2003 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | | 2,005.6 | µg/mL | +/- | 12.7170 | µg/mL | Gravimetric |
| | **CAS #** | 10061-01-5 | (Lot 25076) | | | +/- | 90.4773 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3661 | µg/mL | Stressed |
| 19 | Toluene | | | 2,000.7 | µg/mL | +/- | 12.6856 | µg/mL | Gravimetric |
| | **CAS #** | 108-88-3 | (Lot SHBJ5659) | | | +/- | 90.2539 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1182 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7083 | µg/mL | Gravimetric |
| | **CAS #** | 10061-02-6 | (Lot C797620) | | | +/- | 90.4155 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.2975 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | | 2,007.0 | µg/mL | +/- | 12.7254 | µg/mL | Gravimetric |
| | **CAS #** | 79-00-5 | (Lot FGB01) | | | +/- | 90.5375 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4328 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | | 2,001.5 | µg/mL | +/- | 12.6909 | µg/mL | Gravimetric |
| | **CAS #** | 142-28-9 | (Lot BCBG2162V) | | | +/- | 90.2918 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1603 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | | 2,005.1 | µg/mL | +/- | 12.7136 | µg/mL | Gravimetric |
| | **CAS #** | 127-18-4 | (Lot SHBH9691) | | | +/- | 90.4533 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3394 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 24 | dibromochloromethane | | | 2,003.7 | µg/mL | +/- | 12.7046 | µg/mL | Gravimetric |
| | **CAS #** | 124-48-1 | (Lot MKCC0877) | | | +/- | 90.3890 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.2681 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | | 2,000.7 | µg/mL | +/- | 12.6858 | µg/mL | Gravimetric |
| | **CAS #** | 106-93-4 | (Lot BCBP2268V) | | | +/- | 90.2557 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1202 | µg/mL | Stressed |
| 26 | Chlorobenzene | | | 2,005.3 | µg/mL | +/- | 12.7147 | µg/mL | Gravimetric |
| | **CAS #** | 108-90-7 | (Lot SHBH4459V) | | | +/- | 90.4608 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3477 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | | 2,001.7 | µg/mL | +/- | 12.6919 | µg/mL | Gravimetric |
| | **CAS #** | 630-20-6 | (Lot MKBS3769V) | | | +/- | 90.2990 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1683 | µg/mL | Stressed |
| 28 | Ethylbenzene | | | 2,001.6 | µg/mL | +/- | 12.6917 | µg/mL | Gravimetric |
| | **CAS #** | 100-41-4 | (Lot SHBJ4278) | | | +/- | 90.2972 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1663 | µg/mL | Stressed |
| 29 | m-Xylene | | | 2,003.4 | µg/mL | +/- | 12.7031 | µg/mL | Gravimetric |
| | **CAS #** | 108-38-3 | (Lot SHBJ2338) | | | +/- | 90.3784 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2563 | µg/mL | Stressed |
| 30 | p-Xylene | | | 2,001.8 | µg/mL | +/- | 12.6927 | µg/mL | Gravimetric |
| | **CAS #** | 106-42-3 | (Lot SHBJ7329) | | | +/- | 90.3044 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1743 | µg/mL | Stressed |
| 31 | o-Xylene | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** | 95-47-6 | (Lot SHBH7231) | | | +/- | 90.4289 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3124 | µg/mL | Stressed |
| 32 | Styrene | | | 2,001.4 | µg/mL | +/- | 12.6899 | µg/mL | Gravimetric |
| | **CAS #** | 100-42-5 | (Lot MKCC9766) | | | +/- | 90.2845 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1522 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | | 2,001.3 | µg/mL | +/- | 12.6894 | µg/mL | Gravimetric |
| | **CAS #** | 98-82-8 | (Lot P15E008) | | | +/- | 90.2809 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1482 | µg/mL | Stressed |
| 34 | bromoform | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** | 75-25-2 | (Lot SHBJ4835) | | | +/- | 90.4292 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3127 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | | 2,005.5 | µg/mL | +/- | 12.7161 | µg/mL | Gravimetric |
| | **CAS #** | 79-34-5 | (Lot CFA4D) | | | +/- | 90.4713 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3594 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | | 2,002.0 | µg/mL | +/- | 12.6942 | µg/mL | Gravimetric |
| | **CAS #** | 96-18-4 | (Lot BCBH8722V) | | | +/- | 90.3152 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1863 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | | 2,001.2 | µg/mL | +/- | 12.6891 | µg/mL | Gravimetric |
| | **CAS #** | 103-65-1 | (Lot WXBC3346V) | | | +/- | 90.2791 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1462 | µg/mL | Stressed |
| 38 | Bromobenzene | | | 2,003.2 | µg/mL | +/- | 12.7016 | µg/mL | Gravimetric |
| | **CAS #** | 108-86-1 | (Lot WXBC5147V) | | | +/- | 90.3675 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2443 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | | 2,001.4 | µg/mL | +/- | 12.6904 | µg/mL | Gravimetric |
| | **CAS #** | 108-67-8 | (Lot BCBS7648V) | | | +/- | 90.2881 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1562 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | | 2,003.5 | µg/mL | +/- | 12.7033 | µg/mL | Gravimetric |
| | **CAS #** | 95-49-8 | (Lot MKBW5554V) | | | +/- | 90.3802 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2583 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | | 2,002.8 | µg/mL | +/- | 12.6990 | µg/mL | Gravimetric |
| | **CAS #** | 106-43-4 | (Lot MKBL7753V) | | | +/- | 90.3495 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2243 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | | 2,002.2 | µg/mL | +/- | 12.6950 | µg/mL | Gravimetric |
| | **CAS #** | 98-06-6 | (Lot STBD6954V) | | | +/- | 90.3206 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1923 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | | 2,001.6 | µg/mL | +/- | 12.6911 | µg/mL | Gravimetric |
| | **CAS #** | 95-63-6 | (Lot MKBJ6229V) | | | +/- | 90.2932 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1619 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** | 135-98-8 | (Lot MKBR9260V) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 45 | p-Isopropyltoluene (p-Cymene) | | | 2,000.4 | µg/mL | +/- | 12.6835 | µg/mL | Gravimetric |
| | **CAS #** | 99-87-6 | (Lot MKCB7536) | | | +/- | 90.2394 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1022 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | | 2,008.3 | µg/mL | +/- | 12.7339 | µg/mL | Gravimetric |
| | **CAS #** | 541-73-1 | (Lot BCBQ7100V) | | | +/- | 90.5976 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4995 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | | 2,000.4 | µg/mL | +/- | 12.6836 | µg/mL | Gravimetric |
| | **CAS #** | 106-46-7 | (Lot MKBS4401V) | | | +/- | 90.2397 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1025 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | | 2,000.3 | µg/mL | +/- | 12.6833 | µg/mL | Gravimetric |
| | **CAS #** | 104-51-8 | (Lot 09804AE) | | | +/- | 90.2376 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1002 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | | 2,005.0 | µg/mL | +/- | 12.7128 | µg/mL | Gravimetric |
| | **CAS #** | 95-50-1 | (Lot SHBG3111V) | | | +/- | 90.4472 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3327 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | | 2,000.1 | µg/mL | +/- | 12.6820 | µg/mL | Gravimetric |
| | **CAS #** | 96-12-8 | (Lot FBL01) | | | +/- | 90.2286 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.0902 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** | 120-82-1 | (Lot SHBJ9215) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | | 2,004.0 | µg/mL | +/- | 12.7064 | µg/mL | Gravimetric |
| | **CAS #** | 87-68-3 | (Lot J31X013) | | | +/- | 90.4018 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2824 | µg/mL | Stressed |
| 53 | Naphthalene | | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** | 91-20-3 | (Lot MKBZ8680V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2804 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** | 87-61-6 | (Lot MKBX7627V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2804 | 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)

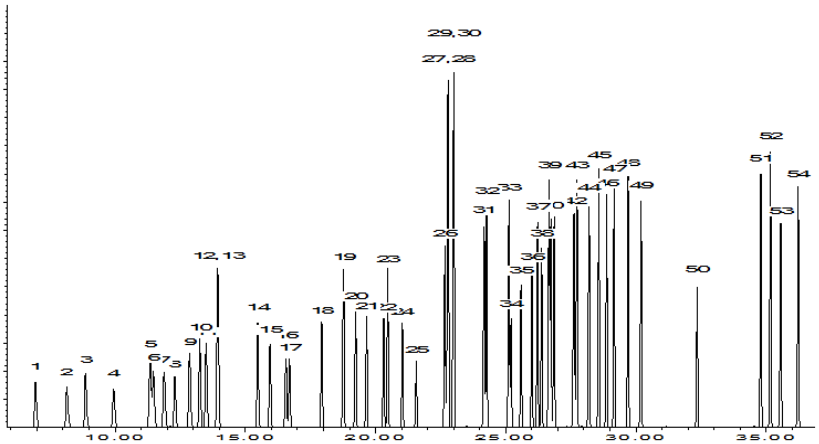
**Carrier Gas:**
helium-constant pressure 30 psi

**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.

**Date Mixed:** 12-Mar-2019 **Balance:** 1126342624

Fang-Yun Lo - QC Analyst

**Date Passed:** 20-Mar-2019

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Analytical Standard Record

## EPA Region 9 Laboratory

## 1937063

| | | | |
|---|---|---|---|
| **Description:** | VOA 502.2 CAL 2000 MEGA MIX, Stock | **Expires:** | 03/31/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/10/19 |
| **Solvent:** | MeOH | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 09/10/19 13:18 by YNB |
| **Vendor:** | Restek | **Lot Numbe** | A0146957 |

RESTEK, catalog # 30431, Barcode AU011279

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 2000 |
| Bromobenzene | 108-86-1 | 2000 |
| Benzene | 71-43-2 | 2000 |
| 4-Chlorotoluene | 106-43-4 | 2000 |
| 2-Chlorotoluene | 95-49-8 | 2000 |
| 2,2-Dichloropropane | 594-20-7 | 2000 |
| 1,4-Dichlorobenzene | 106-46-7 | 2000 |
| 1,3-Dichloropropane | 142-28-9 | 2000 |
| 1,3-Dichlorobenzene | 541-73-1 | 2000 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 2000 |
| 1,2-Dichloropropane | 78-87-5 | 2000 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 2000 |
| 1,2-Dichlorobenzene | 95-50-1 | 2000 |
| Bromoform | 75-25-2 | 2000 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 2000 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2000 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 2000 |
| 1,2,3-Trichloropropane | 96-18-4 | 2000 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 2000 |
| 1,1-Dichloropropene | 563-58-6 | 2000 |
| 1,1-Dichloroethene | 75-35-4 | 2000 |
| 1,1-Dichloroethane | 75-34-3 | 2000 |
| 1,1,2-Trichloroethane | 79-00-5 | 2000 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 2000 |
| 1,1,1-Trichloroethane | 71-55-6 | 2000 |
| 1,2-Dichloroethane | 107-06-2 | 2000 |
| Hexachlorobutadiene | 87-68-3 | 2000 |
| trans-1,3-Dichloropropene | 10061-02-6 | 2000 |
| trans-1,2-Dichloroethene | 156-60-5 | 2000 |
| Toluene | 108-88-3 | 2000 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**1937063**

| | | |
|---|---|---|
| Tetrachloroethene | 127-18-4 | 2000 |
| tert-Butylbenzene | 98-06-6 | 2000 |
| Styrene | 100-42-5 | 2000 |
| sec-Butylbenzene | 135-98-8 | 2000 |
| Propylbenzene | 103-65-1 | 2000 |
| p-Isopropyltoluene | 99-87-6 | 2000 |
| o-Xylene | 95-47-6 | 2000 |
| Naphthalene | 91-20-3 | 2000 |
| Bromochloromethane | 74-97-5 | 2000 |
| Isopropylbenzene | 98-82-8 | 2000 |
| Bromodichloromethane | 75-27-4 | 2000 |
| Ethylbenzene | 100-41-4 | 2000 |
| Dichloromethane | 75-09-2 | 2000 |
| Dibromomethane | 74-95-3 | 2000 |
| cis-1,3-Dichloropropene | 10061-01-5 | 2000 |
| cis-1,2-Dichloroethene | 156-59-2 | 2000 |
| Chloroform | 67-66-3 | 2000 |
| Chlorodibromomethane | 124-48-1 | 2000 |
| Chlorobenzene | 108-90-7 | 2000 |
| Carbon tetrachloride | 56-23-5 | 2000 |
| Butylbenzene | 104-51-8 | 2000 |
| Trichloroethene | 79-01-6 | 2000 |
| m&p-Xylene | 179601-23-1 | 4000 |

# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 30431 **Lot No.:** A0146957

**Description :** 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** March 31, 2021 **Storage:** 0°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1,1-dichloroethene | 2,008.6 µg/mL | +/- 12.7358 | µg/mL | Gravimetric |
| | **CAS #** 75-35-4 (Lot SHBG8609V) | | +/- 90.6111 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.5146 | µg/mL | Stressed |
| 2 | Methylene chloride (dichloromethane) | 2,007.1 µg/mL | +/- 12.7263 | µg/mL | Gravimetric |
| | **CAS #** 75-09-2 (Lot SHBK5095) | | +/- 90.5435 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.4395 | µg/mL | Stressed |
| 3 | trans-1,2-Dichloroethene | 2,005.2 µg/mL | +/- 12.7140 | µg/mL | Gravimetric |
| | **CAS #** 156-60-5 (Lot MKBH9850V) | | +/- 90.4563 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3427 | µg/mL | Stressed |
| 4 | 1,1-Dichloroethane | 2,003.1 µg/mL | +/- 12.7009 | µg/mL | Gravimetric |
| | **CAS #** 75-34-3 (Lot 462600) | | +/- 90.3630 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2393 | µg/mL | Stressed |
| 5 | 2,2-Dichloropropane | 2,000.3 µg/mL | +/- 12.6830 | µg/mL | Gravimetric |
| | **CAS #** 594-20-7 (Lot BCBT5124) | | +/- 90.2358 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.0982 | µg/mL | Stressed |
| 6 | cis-1,2-Dichloroethene | 2,002.5 µg/mL | +/- 12.6972 | µg/mL | Gravimetric |
| | **CAS #** 156-59-2 (Lot MKBX5945V) | | +/- 90.3369 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.2103 | µg/mL | Stressed |
| 7 | chloroform | 2,004.8 µg/mL | +/- 12.7115 | µg/mL | Gravimetric |
| | **CAS #** 67-66-3 (Lot SHBJ9076) | | +/- 90.4382 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 100.3227 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | | 2,000.7 | µg/mL | +/- | 12.6854 | µg/mL | Gravimetric |
| | **CAS #** | 74-97-5 | (Lot 00008541) | | | +/- | 90.2525 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1167 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | | 2,000.9 | µg/mL | +/- | 12.6872 | µg/mL | Gravimetric |
| | **CAS #** | 71-55-6 | (Lot 190123CG) | | | +/- | 90.2652 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.1308 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7084 | µg/mL | Gravimetric |
| | **CAS #** | 563-58-6 | (Lot 190122JLM) | | | +/- | 90.4163 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2984 | µg/mL | Stressed |
| 11 | carbon tetrachloride | | | 2,004.5 | µg/mL | +/- | 12.7100 | µg/mL | Gravimetric |
| | **CAS #** | 56-23-5 | (Lot SHBJ2110) | | | +/- | 90.4277 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3110 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | | 2,007.5 | µg/mL | +/- | 12.7290 | µg/mL | Gravimetric |
| | **CAS #** | 107-06-2 | (Lot SHBJ6510) | | | +/- | 90.5630 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4612 | µg/mL | Stressed |
| 13 | Benzene | | | 2,004.2 | µg/mL | +/- | 12.7079 | µg/mL | Gravimetric |
| | **CAS #** | 71-43-2 | (Lot SHBJ5344) | | | +/- | 90.4126 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2944 | µg/mL | Stressed |
| 14 | Trichloroethene | | | 2,003.4 | µg/mL | +/- | 12.7030 | µg/mL | Gravimetric |
| | **CAS #** | 79-01-6 | (Lot SHBH1955V) | | | +/- | 90.3781 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2560 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | | 2,007.7 | µg/mL | +/- | 12.7299 | µg/mL | Gravimetric |
| | **CAS #** | 78-87-5 | (Lot BCBR0882V) | | | +/- | 90.5690 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4678 | µg/mL | Stressed |
| 16 | bromodichloromethane | | | 2,016.1 | µg/mL | +/- | 12.7833 | µg/mL | Gravimetric |
| | **CAS #** | 75-27-4 | (Lot MKCF8470) | | | +/- | 90.9495 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.8899 | µg/mL | Stressed |
| 17 | Dibromomethane | | | 2,002.3 | µg/mL | +/- | 12.6960 | µg/mL | Gravimetric |
| | **CAS #** | 74-95-3 | (Lot 10201030) | | | +/- | 90.3278 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.2003 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | | 2,005.6 | µg/mL | +/- | 12.7170 | µg/mL | Gravimetric |
| | **CAS #** | 10061-01-5 | (Lot 25076) | | | +/- | 90.4773 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3661 | µg/mL | Stressed |
| 19 | Toluene | | | 2,000.7 | µg/mL | +/- | 12.6856 | µg/mL | Gravimetric |
| | **CAS #** | 108-88-3 | (Lot SHBJ5659) | | | +/- | 90.2539 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1182 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | | 2,004.3 | µg/mL | +/- | 12.7083 | µg/mL | Gravimetric |
| | **CAS #** | 10061-02-6 | (Lot C797620) | | | +/- | 90.4155 | µg/mL | Unstressed |
| | **Purity** | 98% | | | | +/- | 100.2975 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | | 2,007.0 | µg/mL | +/- | 12.7254 | µg/mL | Gravimetric |
| | **CAS #** | 79-00-5 | (Lot FGB01) | | | +/- | 90.5375 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.4328 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | | 2,001.5 | µg/mL | +/- | 12.6909 | µg/mL | Gravimetric |
| | **CAS #** | 142-28-9 | (Lot BCBG2162V) | | | +/- | 90.2918 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.1603 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | | 2,005.1 | µg/mL | +/- | 12.7136 | µg/mL | Gravimetric |
| | **CAS #** | 127-18-4 | (Lot SHBH9691) | | | +/- | 90.4533 | µg/mL | Unstressed |
| | **Purity** | 99% | | | | +/- | 100.3394 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 24 | dibromochloromethane | | | 2,003.7 | µg/mL | +/- | 12.7046 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1 | (Lot MKCC0877) | | | | +/- | 90.3890 | µg/mL | Unstressed |
| | **Purity** 98% | | | | | +/- | 100.2681 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | | 2,000.7 | µg/mL | +/- | 12.6858 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4 | (Lot BCBP2268V) | | | | +/- | 90.2557 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1202 | µg/mL | Stressed |
| 26 | Chlorobenzene | | | 2,005.3 | µg/mL | +/- | 12.7147 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7 | (Lot SHBH4459V) | | | | +/- | 90.4608 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3477 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | | 2,001.7 | µg/mL | +/- | 12.6919 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6 | (Lot MKBS3769V) | | | | +/- | 90.2990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1683 | µg/mL | Stressed |
| 28 | Ethylbenzene | | | 2,001.6 | µg/mL | +/- | 12.6917 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4 | (Lot SHBJ4278) | | | | +/- | 90.2972 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1663 | µg/mL | Stressed |
| 29 | m-Xylene | | | 2,003.4 | µg/mL | +/- | 12.7031 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3 | (Lot SHBJ2338) | | | | +/- | 90.3784 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.2563 | µg/mL | Stressed |
| 30 | p-Xylene | | | 2,001.8 | µg/mL | +/- | 12.6927 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3 | (Lot SHBJ7329) | | | | +/- | 90.3044 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1743 | µg/mL | Stressed |
| 31 | o-Xylene | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6 | (Lot SHBH7231) | | | | +/- | 90.4289 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3124 | µg/mL | Stressed |
| 32 | Styrene | | | 2,001.4 | µg/mL | +/- | 12.6899 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5 | (Lot MKCC9766) | | | | +/- | 90.2845 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1522 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | | 2,001.3 | µg/mL | +/- | 12.6894 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8 | (Lot P15E008) | | | | +/- | 90.2809 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1482 | µg/mL | Stressed |
| 34 | bromoform | | | 2,004.6 | µg/mL | +/- | 12.7102 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2 | (Lot SHBJ4835) | | | | +/- | 90.4292 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3127 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | | 2,005.5 | µg/mL | +/- | 12.7161 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5 | (Lot CFA4D) | | | | +/- | 90.4713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.3594 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | | 2,002.0 | µg/mL | +/- | 12.6942 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4 | (Lot BCBH8722V) | | | | +/- | 90.3152 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1863 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | | 2,001.2 | µg/mL | +/- | 12.6891 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1 | (Lot WXBC3346V) | | | | +/- | 90.2791 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1462 | µg/mL | Stressed |
| 38 | Bromobenzene | | | 2,003.2 | µg/mL | +/- | 12.7016 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1 | (Lot WXBC5147V) | | | | +/- | 90.3675 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.2443 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | | 2,001.4 | µg/mL | +/- | 12.6904 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8 | (Lot BCBS7648V) | | | | +/- | 90.2881 | µg/mL | Unstressed |
| | **Purity** 99% | | | | | +/- | 100.1562 | µg/mL | Stressed |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | 2,003.5 | µg/mL | +/- | 12.7033 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8 | (Lot MKBW5554V) | | | +/- | 90.3802 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2583 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | 2,002.8 | µg/mL | +/- | 12.6990 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4 | (Lot MKBL7753V) | | | +/- | 90.3495 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2243 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | 2,002.2 | µg/mL | +/- | 12.6950 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6 | (Lot STBD6954V) | | | +/- | 90.3206 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1923 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | 2,001.6 | µg/mL | +/- | 12.6911 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6 | (Lot MKBJ6229V) | | | +/- | 90.2932 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 100.1619 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8 | (Lot MKBR9260V) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 45 | p-Isopropyltoluene (p-Cymene) | | 2,000.4 | µg/mL | +/- | 12.6835 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6 | (Lot MKCB7536) | | | +/- | 90.2394 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1022 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | 2,008.3 | µg/mL | +/- | 12.7339 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1 | (Lot BCBQ7100V) | | | +/- | 90.5976 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.4995 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | 2,000.4 | µg/mL | +/- | 12.6836 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7 | (Lot MKBS4401V) | | | +/- | 90.2397 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1025 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | 2,000.3 | µg/mL | +/- | 12.6833 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8 | (Lot 09804AE) | | | +/- | 90.2376 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1002 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | 2,005.0 | µg/mL | +/- | 12.7128 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1 | (Lot SHBG3111V) | | | +/- | 90.4472 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.3327 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | 2,000.1 | µg/mL | +/- | 12.6820 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8 | (Lot FBL01) | | | +/- | 90.2286 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.0902 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | 2,002.0 | µg/mL | +/- | 12.6939 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1 | (Lot SHBJ9215) | | | +/- | 90.3134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.1843 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | 2,004.0 | µg/mL | +/- | 12.7064 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3 | (Lot J31X013) | | | +/- | 90.4018 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2824 | µg/mL | Stressed |
| 53 | Naphthalene | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3 | (Lot MKBZ8680V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2804 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | 2,003.9 | µg/mL | +/- | 12.7061 | µg/mL | Gravimetric |
| | **CAS #** 87-61-6 | (Lot MKBX7627V) | | | +/- | 90.4000 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 100.2804 | 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)

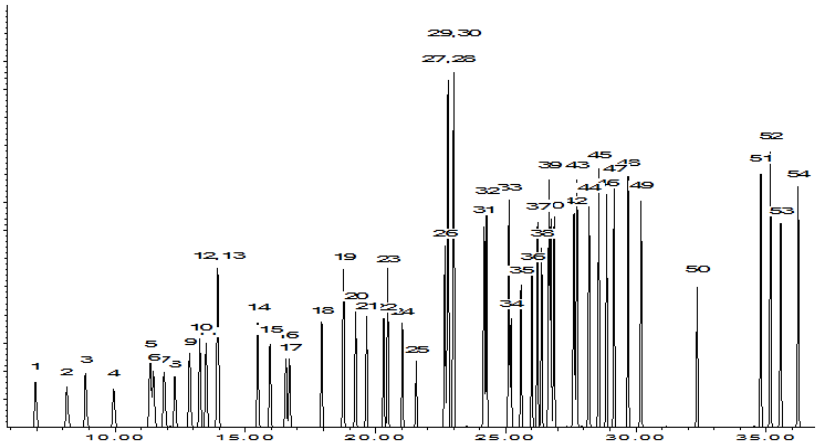
**Carrier Gas:**
helium-constant pressure 30 psi

**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.

**Date Mixed:** 12-Mar-2019 **Balance:** 1126342624

**Date Passed:** 20-Mar-2019

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

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

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004018

| | | | |
|---|---|---|---|
| Description: | Passive indoor air Surrogate Stock | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 2 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 09:38 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 10000 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1920044 | Toluene-d8 | 05/15/19 | ** Vendor ** | 07/21/20 | 01/21/20 09:34 by TD | 0.02 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004019

| | | | |
|---|---|---|---|
| Description: | Passive indoor air Internal Standard Stock | Expires: | 07/21/20 |
| Standard Type: | Internal Standard | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 2 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 09:38 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 2-Fluorotoluene | 95-52-3 | 10000 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1639096 | 2-Fluorotoluene | 09/22/16 | ** Vendor ** | 12/31/29 | 09/22/17 11:57 by TD | 0.02 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004021

| | | | |
|---|---|---|---|
| Description: | Passive indoor air stock std 50 | Expires: | 07/21/20 |
| Standard Type: | Analyte Spike | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 20 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 50 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 50 | ug/mL |
| Bromobenzene | 108-86-1 | 50 | ug/mL |
| Benzene | 71-43-2 | 50 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 50 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 50 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 50 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 50 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 50 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 50 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 50 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 50 | ug/mL |
| Bromodichloromethane | 75-27-4 | 50 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 50 | ug/mL |
| Bromoform | 75-25-2 | 50 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 50 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 50 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 50 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 50 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 50 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 50 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 50 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 50 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 50 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 50 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 50 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 50 | ug/mL |
| Isopropylbenzene | 98-82-8 | 50 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 50 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 50 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004021**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 50 | ug/mL |
| Toluene | 108-88-3 | 50 | ug/mL |
| Tetrachloroethene | 127-18-4 | 50 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 50 | ug/mL |
| Styrene | 100-42-5 | 50 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 50 | ug/mL |
| Propylbenzene | 103-65-1 | 50 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 50 | ug/mL |
| o-Xylene | 95-47-6 | 50 | ug/mL |
| Bromochloromethane | 74-97-5 | 50 | ug/mL |
| m&p-Xylene | 179601-23-1 | 100 | ug/mL |
| Trichloroethene | 79-01-6 | 50 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 50 | ug/mL |
| Ethylbenzene | 100-41-4 | 50 | ug/mL |
| Dichloromethane | 75-09-2 | 50 | ug/mL |
| Dibromomethane | 74-95-3 | 50 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 50 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 50 | ug/mL |
| Chloroform | 67-66-3 | 50 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 50 | ug/mL |
| Chlorobenzene | 108-90-7 | 50 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 50 | ug/mL |
| Butylbenzene | 104-51-8 | 50 | ug/mL |
| Naphthalene | 91-20-3 | 50 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004018 | Passive indoor air Surrogate Stock | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.1 |
| 1937061 | VOA 502.2 CAL 2000 MEGA MIX, St | 09/10/19 | ** Vendor ** | 07/21/20 | 01/21/20 10:04 by TD | 0.5 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004023

| | | | |
|---|---|---|---|
| Description: | Passive indoor air 10 | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 10 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 10 | ug/mL |
| Bromobenzene | 108-86-1 | 10 | ug/mL |
| Benzene | 71-43-2 | 10 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 10 | ug/mL |
| 2-Fluorotoluene | 95-52-3 | 5 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 10 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 10 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 10 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 10 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 10 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 10 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 10 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 10 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 10 | ug/mL |
| Bromoform | 75-25-2 | 10 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 10 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 10 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 10 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 10 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 10 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 10 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 10 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 10 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 10 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 10 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 10 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 10 | ug/mL |
| Isopropylbenzene | 98-82-8 | 10 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 10 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 10 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004023**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 10 | ug/mL |
| Toluene | 108-88-3 | 10 | ug/mL |
| Tetrachloroethene | 127-18-4 | 10 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 10 | ug/mL |
| Styrene | 100-42-5 | 10 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 10 | ug/mL |
| Propylbenzene | 103-65-1 | 10 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 10 | ug/mL |
| o-Xylene | 95-47-6 | 10 | ug/mL |
| Bromochloromethane | 74-97-5 | 10 | ug/mL |
| m&p-Xylene | 179601-23-1 | 20 | ug/mL |
| Bromodichloromethane | 75-27-4 | 10 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 10 | ug/mL |
| Ethylbenzene | 100-41-4 | 10 | ug/mL |
| Dichloromethane | 75-09-2 | 10 | ug/mL |
| Dibromomethane | 74-95-3 | 10 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 10 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 10 | ug/mL |
| Chloroform | 67-66-3 | 10 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 10 | ug/mL |
| Chlorobenzene | 108-90-7 | 10 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 10 | ug/mL |
| Butylbenzene | 104-51-8 | 10 | ug/mL |
| Trichloroethene | 79-01-6 | 10 | ug/mL |
| Naphthalene | 91-20-3 | 10 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 10:10 by TD | 2 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004024

| | | | |
|---|---|---|---|
| Description: | Passive indoor air 5 | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 10 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 5 | ug/mL |
| Bromobenzene | 108-86-1 | 5 | ug/mL |
| Benzene | 71-43-2 | 5 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 5 | ug/mL |
| 2-Fluorotoluene | 95-52-3 | 5 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 5 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 5 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 5 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 5 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 5 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 5 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 5 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 5 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 5 | ug/mL |
| Bromoform | 75-25-2 | 5 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 5 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 5 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 5 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 5 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 5 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 5 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 5 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 5 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 5 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 5 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 5 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 5 | ug/mL |
| Isopropylbenzene | 98-82-8 | 5 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 5 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 5 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004024**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 5 | ug/mL |
| Toluene | 108-88-3 | 5 | ug/mL |
| Tetrachloroethene | 127-18-4 | 5 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 5 | ug/mL |
| Styrene | 100-42-5 | 5 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 5 | ug/mL |
| Propylbenzene | 103-65-1 | 5 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 5 | ug/mL |
| o-Xylene | 95-47-6 | 5 | ug/mL |
| Bromochloromethane | 74-97-5 | 5 | ug/mL |
| m&p-Xylene | 179601-23-1 | 10 | ug/mL |
| Bromodichloromethane | 75-27-4 | 5 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 5 | ug/mL |
| Ethylbenzene | 100-41-4 | 5 | ug/mL |
| Dichloromethane | 75-09-2 | 5 | ug/mL |
| Dibromomethane | 74-95-3 | 5 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 5 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 5 | ug/mL |
| Chloroform | 67-66-3 | 5 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 5 | ug/mL |
| Chlorobenzene | 108-90-7 | 5 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 5 | ug/mL |
| Butylbenzene | 104-51-8 | 5 | ug/mL |
| Trichloroethene | 79-01-6 | 5 | ug/mL |
| Naphthalene | 91-20-3 | 5 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 10:10 by TD | 1 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004025

| | | | |
|---|---|---|---|
| Description: | Passive indoor air 1 | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 10 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 1 | ug/mL |
| Bromobenzene | 108-86-1 | 1 | ug/mL |
| Benzene | 71-43-2 | 1 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 1 | ug/mL |
| 2-Fluorotoluene | 95-52-3 | 5 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 1 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 1 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 1 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 1 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 1 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 1 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 1 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 1 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 1 | ug/mL |
| Bromoform | 75-25-2 | 1 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 1 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 1 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 1 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 1 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 1 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 1 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 1 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 1 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 1 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 1 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 1 | ug/mL |
| Isopropylbenzene | 98-82-8 | 1 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 1 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 1 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004025**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 1 | ug/mL |
| Toluene | 108-88-3 | 1 | ug/mL |
| Tetrachloroethene | 127-18-4 | 1 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 1 | ug/mL |
| Styrene | 100-42-5 | 1 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 1 | ug/mL |
| Propylbenzene | 103-65-1 | 1 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 1 | ug/mL |
| o-Xylene | 95-47-6 | 1 | ug/mL |
| Bromochloromethane | 74-97-5 | 1 | ug/mL |
| m&p-Xylene | 179601-23-1 | 2 | ug/mL |
| Bromodichloromethane | 75-27-4 | 1 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 1 | ug/mL |
| Ethylbenzene | 100-41-4 | 1 | ug/mL |
| Dichloromethane | 75-09-2 | 1 | ug/mL |
| Dibromomethane | 74-95-3 | 1 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 1 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 1 | ug/mL |
| Chloroform | 67-66-3 | 1 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 1 | ug/mL |
| Chlorobenzene | 108-90-7 | 1 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 1 | ug/mL |
| Butylbenzene | 104-51-8 | 1 | ug/mL |
| Trichloroethene | 79-01-6 | 1 | ug/mL |
| Naphthalene | 91-20-3 | 1 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 10:10 by TD | 0.2 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004026

| | | | |
|---|---|---|---|
| Description: | Passive indoor air 0.15 | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 10 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 0.15 | ug/mL |
| Bromobenzene | 108-86-1 | 0.15 | ug/mL |
| Benzene | 71-43-2 | 0.15 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 0.15 | ug/mL |
| 2-Fluorotoluene | 95-52-3 | 5 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 0.15 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 0.15 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 0.15 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 0.15 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 0.15 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.15 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 0.15 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.15 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 0.15 | ug/mL |
| Bromoform | 75-25-2 | 0.15 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 0.15 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.15 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.15 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 0.15 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.15 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 0.15 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 0.15 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 0.15 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 0.15 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.15 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 0.15 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 0.15 | ug/mL |
| Isopropylbenzene | 98-82-8 | 0.15 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.15 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 0.15 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004026**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 0.15 | ug/mL |
| Toluene | 108-88-3 | 0.15 | ug/mL |
| Tetrachloroethene | 127-18-4 | 0.15 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 0.15 | ug/mL |
| Styrene | 100-42-5 | 0.15 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 0.15 | ug/mL |
| Propylbenzene | 103-65-1 | 0.15 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 0.15 | ug/mL |
| o-Xylene | 95-47-6 | 0.15 | ug/mL |
| Bromochloromethane | 74-97-5 | 0.15 | ug/mL |
| m&p-Xylene | 179601-23-1 | 0.3 | ug/mL |
| Bromodichloromethane | 75-27-4 | 0.15 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 0.15 | ug/mL |
| Ethylbenzene | 100-41-4 | 0.15 | ug/mL |
| Dichloromethane | 75-09-2 | 0.15 | ug/mL |
| Dibromomethane | 74-95-3 | 0.15 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.15 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 0.15 | ug/mL |
| Chloroform | 67-66-3 | 0.15 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 0.15 | ug/mL |
| Chlorobenzene | 108-90-7 | 0.15 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 0.15 | ug/mL |
| Butylbenzene | 104-51-8 | 0.15 | ug/mL |
| Trichloroethene | 79-01-6 | 0.15 | ug/mL |
| Naphthalene | 91-20-3 | 0.15 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 10:10 by TD | 0.03 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2004027

| | | | |
|---|---|---|---|
| Description: | Passive indoor air 0.05 | Expires: | 07/21/20 |
| Standard Type: | Calibration Standa | Prepared: | 01/21/20 |
| Solvent: | CS2 | Prepared By: | Tatyana Dadiomov |
| Final Volume (mls): | 10 | Department: | Volatiles |
| Vials: | 1 | Last Edit: | 01/21/20 10:10 by TD |

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 0.05 | ug/mL |
| Bromobenzene | 108-86-1 | 0.05 | ug/mL |
| Benzene | 71-43-2 | 0.05 | ug/mL |
| 4-Chlorotoluene | 106-43-4 | 0.05 | ug/mL |
| 2-Fluorotoluene | 95-52-3 | 5 | ug/mL |
| 2-Chlorotoluene | 95-49-8 | 0.05 | ug/mL |
| 2,2-Dichloropropane | 594-20-7 | 0.05 | ug/mL |
| 1,4-Dichlorobenzene | 106-46-7 | 0.05 | ug/mL |
| 1,3-Dichloropropane | 142-28-9 | 0.05 | ug/mL |
| 1,3-Dichlorobenzene | 541-73-1 | 0.05 | ug/mL |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.05 | ug/mL |
| 1,2-Dichloropropane | 78-87-5 | 0.05 | ug/mL |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.05 | ug/mL |
| 1,2-Dichlorobenzene | 95-50-1 | 0.05 | ug/mL |
| Bromoform | 75-25-2 | 0.05 | ug/mL |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 0.05 | ug/mL |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.05 | ug/mL |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.05 | ug/mL |
| 1,2,3-Trichloropropane | 96-18-4 | 0.05 | ug/mL |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.05 | ug/mL |
| 1,1-Dichloropropene | 563-58-6 | 0.05 | ug/mL |
| 1,1-Dichloroethene | 75-35-4 | 0.05 | ug/mL |
| 1,1-Dichloroethane | 75-34-3 | 0.05 | ug/mL |
| 1,1,2-Trichloroethane | 79-00-5 | 0.05 | ug/mL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.05 | ug/mL |
| 1,1,1-Trichloroethane | 71-55-6 | 0.05 | ug/mL |
| 1,2-Dichloroethane | 107-06-2 | 0.05 | ug/mL |
| Isopropylbenzene | 98-82-8 | 0.05 | ug/mL |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.05 | ug/mL |
| trans-1,2-Dichloroethene | 156-60-5 | 0.05 | ug/mL |

Reviewed By Date

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2004027**

| | | | |
|---|---|---|---|
| Toluene-d8 | 2037-26-5 | 0.05 | ug/mL |
| Toluene | 108-88-3 | 0.05 | ug/mL |
| Tetrachloroethene | 127-18-4 | 0.05 | ug/mL |
| tert-Butylbenzene | 98-06-6 | 0.05 | ug/mL |
| Styrene | 100-42-5 | 0.05 | ug/mL |
| sec-Butylbenzene | 135-98-8 | 0.05 | ug/mL |
| Propylbenzene | 103-65-1 | 0.05 | ug/mL |
| p-Isopropyltoluene | 99-87-6 | 0.05 | ug/mL |
| o-Xylene | 95-47-6 | 0.05 | ug/mL |
| Bromochloromethane | 74-97-5 | 0.05 | ug/mL |
| m&p-Xylene | 179601-23-1 | 0.1 | ug/mL |
| Bromodichloromethane | 75-27-4 | 0.05 | ug/mL |
| Hexachlorobutadiene | 87-68-3 | 0.05 | ug/mL |
| Ethylbenzene | 100-41-4 | 0.05 | ug/mL |
| Dichloromethane | 75-09-2 | 0.05 | ug/mL |
| Dibromomethane | 74-95-3 | 0.05 | ug/mL |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.05 | ug/mL |
| cis-1,2-Dichloroethene | 156-59-2 | 0.05 | ug/mL |
| Chloroform | 67-66-3 | 0.05 | ug/mL |
| Chlorodibromomethane | 124-48-1 | 0.05 | ug/mL |
| Chlorobenzene | 108-90-7 | 0.05 | ug/mL |
| Carbon tetrachloride | 56-23-5 | 0.05 | ug/mL |
| Butylbenzene | 104-51-8 | 0.05 | ug/mL |
| Trichloroethene | 79-01-6 | 0.05 | ug/mL |
| Naphthalene | 91-20-3 | 0.05 | ug/mL |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 10:10 by TD | 0.01 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

Reviewed By Date

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2016028

| | | | |
|---|---|---|---|
| **Description:** | passive air WORKING BFB 50 mg/L | **Expires:** | 09/15/20 |
| **Standard Type:** | Other Solution | **Prepared:** | 04/15/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 5 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 04/17/20 12:22 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1748145 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 50 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1740054 | VOA BFB tuning mix, stock STD. | 10/03/17 | ** Vendor ** | 11/30/22 | 10/03/17 14:37 by YNB | 0.05 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2017002

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 25 | **Expires:** | 07/21/20 |
| **Standard Type:** | Other Solution | **Prepared:** | 04/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 04/22/20 10:13 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 25 |
| Bromobenzene | 108-86-1 | 25 |
| Benzene | 71-43-2 | 25 |
| 4-Chlorotoluene | 106-43-4 | 25 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 25 |
| 2,2-Dichloropropane | 594-20-7 | 25 |
| 1,4-Dichlorobenzene | 106-46-7 | 25 |
| 1,3-Dichloropropane | 142-28-9 | 25 |
| 1,3-Dichlorobenzene | 541-73-1 | 25 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 25 |
| 1,2-Dichloropropane | 78-87-5 | 25 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 25 |
| 1,2-Dichlorobenzene | 95-50-1 | 25 |
| Bromoform | 75-25-2 | 25 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 25 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 25 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 25 |
| 1,2,3-Trichloropropane | 96-18-4 | 25 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 25 |
| 1,1-Dichloropropene | 563-58-6 | 25 |
| 1,1-Dichloroethene | 75-35-4 | 25 |
| 1,1-Dichloroethane | 75-34-3 | 25 |
| 1,1,2-Trichloroethane | 79-00-5 | 25 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 25 |
| 1,1,1-Trichloroethane | 71-55-6 | 25 |
| 1,2-Dichloroethane | 107-06-2 | 25 |
| Isopropylbenzene | 98-82-8 | 25 |
| trans-1,3-Dichloropropene | 10061-02-6 | 25 |
| trans-1,2-Dichloroethene | 156-60-5 | 25 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2017002**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 25 |
| Toluene | 108-88-3 | 25 |
| Tetrachloroethene | 127-18-4 | 25 |
| tert-Butylbenzene | 98-06-6 | 25 |
| Styrene | 100-42-5 | 25 |
| sec-Butylbenzene | 135-98-8 | 25 |
| Propylbenzene | 103-65-1 | 25 |
| p-Isopropyltoluene | 99-87-6 | 25 |
| o-Xylene | 95-47-6 | 25 |
| Bromochloromethane | 74-97-5 | 25 |
| m&p-Xylene | 179601-23-1 | 50 |
| Bromodichloromethane | 75-27-4 | 25 |
| Hexachlorobutadiene | 87-68-3 | 25 |
| Ethylbenzene | 100-41-4 | 25 |
| Dichloromethane | 75-09-2 | 25 |
| Dibromomethane | 74-95-3 | 25 |
| cis-1,3-Dichloropropene | 10061-01-5 | 25 |
| cis-1,2-Dichloroethene | 156-59-2 | 25 |
| Chloroform | 67-66-3 | 25 |
| Chlorodibromomethane | 124-48-1 | 25 |
| Chlorobenzene | 108-90-7 | 25 |
| Carbon tetrachloride | 56-23-5 | 25 |
| Butylbenzene | 104-51-8 | 25 |
| Trichloroethene | 79-01-6 | 25 |
| Naphthalene | 91-20-3 | 25 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2004021 | Passive indoor air stock std 50 | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/29/20 06:58 by TD | 5 |
| 2004019 | Passive indoor air Internal Standard Sto | 01/21/20 | Tatyana Dadiomov | 07/21/20 | 01/21/20 09:38 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2020011

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air MRL Spike | **Expires:** | 11/13/20 |
| **Standard Type:** | Analyte Spike | **Prepared:** | 05/13/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 2 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 05/13/20 10:46 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1748145 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 20 |
| Bromobenzene | 108-86-1 | 20 |
| Benzene | 71-43-2 | 20 |
| 4-Chlorotoluene | 106-43-4 | 20 |
| 2-Chlorotoluene | 95-49-8 | 20 |
| 2,2-Dichloropropane | 594-20-7 | 20 |
| 1,4-Dichlorobenzene | 106-46-7 | 20 |
| 1,3-Dichloropropane | 142-28-9 | 20 |
| 1,3-Dichlorobenzene | 541-73-1 | 20 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 20 |
| 1,2-Dichloropropane | 78-87-5 | 20 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 20 |
| 1,2-Dichlorobenzene | 95-50-1 | 20 |
| Bromoform | 75-25-2 | 20 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 20 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 20 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 20 |
| 1,2,3-Trichloropropane | 96-18-4 | 20 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 20 |
| 1,1-Dichloropropene | 563-58-6 | 20 |
| 1,1-Dichloroethene | 75-35-4 | 20 |
| 1,1-Dichloroethane | 75-34-3 | 20 |
| 1,1,2-Trichloroethane | 79-00-5 | 20 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 20 |
| 1,1,1-Trichloroethane | 71-55-6 | 20 |
| 1,2-Dichloroethane | 107-06-2 | 20 |
| Hexachlorobutadiene | 87-68-3 | 20 |
| trans-1,3-Dichloropropene | 10061-02-6 | 20 |
| trans-1,2-Dichloroethene | 156-60-5 | 20 |
| Toluene | 108-88-3 | 20 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2020011**

| | | |
|---|---|---|
| Tetrachloroethene | 127-18-4 | 20 |
| tert-Butylbenzene | 98-06-6 | 20 |
| Styrene | 100-42-5 | 20 |
| sec-Butylbenzene | 135-98-8 | 20 |
| Propylbenzene | 103-65-1 | 20 |
| p-Isopropyltoluene | 99-87-6 | 20 |
| o-Xylene | 95-47-6 | 20 |
| Naphthalene | 91-20-3 | 20 |
| Bromochloromethane | 74-97-5 | 20 |
| Isopropylbenzene | 98-82-8 | 20 |
| Bromodichloromethane | 75-27-4 | 20 |
| Ethylbenzene | 100-41-4 | 20 |
| Dichloromethane | 75-09-2 | 20 |
| Dibromomethane | 74-95-3 | 20 |
| cis-1,3-Dichloropropene | 10061-01-5 | 20 |
| cis-1,2-Dichloroethene | 156-59-2 | 20 |
| Chloroform | 67-66-3 | 20 |
| Chlorodibromomethane | 124-48-1 | 20 |
| Chlorobenzene | 108-90-7 | 20 |
| Carbon tetrachloride | 56-23-5 | 20 |
| Butylbenzene | 104-51-8 | 20 |
| Trichloroethene | 79-01-6 | 20 |
| m&p-Xylene | 179601-23-1 | 40 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1937062 | VOA 502.2 CAL 2000 MEGA MIX, St | 09/10/19 | ** Vendor ** | 11/13/20 | 05/13/20 10:46 by TD | 0.02 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030064

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air Surrogate Stock | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 2 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:52 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 10000 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1920045 | Toluene-d8 | 05/15/19 | ** Vendor ** | 01/22/21 | 07/22/20 08:49 by TD | 0.02 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030065

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air Internal Standard Stock | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 2 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:52 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 2-Fluorotoluene | 95-52-3 | 10000 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1639096 | 2-Fluorotoluene | 09/22/16 | ** Vendor ** | 12/31/29 | 09/22/17 11:57 by TD | 0.02 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030066

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air stock std 50 | **Expires:** | 01/22/21 |
| **Standard Type:** | Analyte Spike | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 20 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:55 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 50 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 50 |
| Bromobenzene | 108-86-1 | 50 |
| Benzene | 71-43-2 | 50 |
| 4-Chlorotoluene | 106-43-4 | 50 |
| 2-Chlorotoluene | 95-49-8 | 50 |
| 2,2-Dichloropropane | 594-20-7 | 50 |
| 1,4-Dichlorobenzene | 106-46-7 | 50 |
| 1,3-Dichloropropane | 142-28-9 | 50 |
| 1,3-Dichlorobenzene | 541-73-1 | 50 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 50 |
| 1,2-Dichloropropane | 78-87-5 | 50 |
| Bromodichloromethane | 75-27-4 | 50 |
| 1,2-Dichlorobenzene | 95-50-1 | 50 |
| Bromoform | 75-25-2 | 50 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 50 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 50 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 50 |
| 1,2,3-Trichloropropane | 96-18-4 | 50 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 50 |
| 1,1-Dichloropropene | 563-58-6 | 50 |
| 1,1-Dichloroethene | 75-35-4 | 50 |
| 1,1-Dichloroethane | 75-34-3 | 50 |
| 1,1,2-Trichloroethane | 79-00-5 | 50 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 50 |
| 1,1,1-Trichloroethane | 71-55-6 | 50 |
| 1,2-Dichloroethane | 107-06-2 | 50 |
| Isopropylbenzene | 98-82-8 | 50 |
| trans-1,3-Dichloropropene | 10061-02-6 | 50 |
| trans-1,2-Dichloroethene | 156-60-5 | 50 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030066**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 50 |
| Toluene | 108-88-3 | 50 |
| Tetrachloroethene | 127-18-4 | 50 |
| tert-Butylbenzene | 98-06-6 | 50 |
| Styrene | 100-42-5 | 50 |
| sec-Butylbenzene | 135-98-8 | 50 |
| Propylbenzene | 103-65-1 | 50 |
| p-Isopropyltoluene | 99-87-6 | 50 |
| o-Xylene | 95-47-6 | 50 |
| Bromochloromethane | 74-97-5 | 50 |
| m&p-Xylene | 179601-23-1 | 100 |
| Trichloroethene | 79-01-6 | 50 |
| Hexachlorobutadiene | 87-68-3 | 50 |
| Ethylbenzene | 100-41-4 | 50 |
| Dichloromethane | 75-09-2 | 50 |
| Dibromomethane | 74-95-3 | 50 |
| cis-1,3-Dichloropropene | 10061-01-5 | 50 |
| cis-1,2-Dichloroethene | 156-59-2 | 50 |
| Chloroform | 67-66-3 | 50 |
| Chlorodibromomethane | 124-48-1 | 50 |
| Chlorobenzene | 108-90-7 | 50 |
| Carbon tetrachloride | 56-23-5 | 50 |
| Butylbenzene | 104-51-8 | 50 |
| Naphthalene | 91-20-3 | 50 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1937063 | VOA 502.2 CAL 2000 MEGA MIX, St | 09/10/19 | ** Vendor ** | 01/22/21 | 07/22/20 08:48 by TD | 0.5 |
| 2030064 | Passive indoor air Surrogate Stock | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.1 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030067

| | | | |
|---|---|---|---|
| **Description:** | Passive air Surrogate/I.S. Working solutio | **Expires:** | 01/22/21 |
| **Standard Type:** | Surrogate Spike | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 25 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:56 by TD |
| **Vendor:** | Restek | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 200 |
| 2-Fluorotoluene | 95-52-3 | 200 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030064 | Passive indoor air Surrogate Stock | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.5 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.5 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030068

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 25 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:58 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 25 |
| Bromobenzene | 108-86-1 | 25 |
| Benzene | 71-43-2 | 25 |
| 4-Chlorotoluene | 106-43-4 | 25 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 25 |
| 2,2-Dichloropropane | 594-20-7 | 25 |
| 1,4-Dichlorobenzene | 106-46-7 | 25 |
| 1,3-Dichloropropane | 142-28-9 | 25 |
| 1,3-Dichlorobenzene | 541-73-1 | 25 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 25 |
| 1,2-Dichloropropane | 78-87-5 | 25 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 25 |
| 1,2-Dichlorobenzene | 95-50-1 | 25 |
| Bromoform | 75-25-2 | 25 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 25 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 25 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 25 |
| 1,2,3-Trichloropropane | 96-18-4 | 25 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 25 |
| 1,1-Dichloropropene | 563-58-6 | 25 |
| 1,1-Dichloroethene | 75-35-4 | 25 |
| 1,1-Dichloroethane | 75-34-3 | 25 |
| 1,1,2-Trichloroethane | 79-00-5 | 25 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 25 |
| 1,1,1-Trichloroethane | 71-55-6 | 25 |
| 1,2-Dichloroethane | 107-06-2 | 25 |
| Isopropylbenzene | 98-82-8 | 25 |
| trans-1,3-Dichloropropene | 10061-02-6 | 25 |
| trans-1,2-Dichloroethene | 156-60-5 | 25 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030068**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 25 |
| Toluene | 108-88-3 | 25 |
| Tetrachloroethene | 127-18-4 | 25 |
| tert-Butylbenzene | 98-06-6 | 25 |
| Styrene | 100-42-5 | 25 |
| sec-Butylbenzene | 135-98-8 | 25 |
| Propylbenzene | 103-65-1 | 25 |
| p-Isopropyltoluene | 99-87-6 | 25 |
| o-Xylene | 95-47-6 | 25 |
| Bromochloromethane | 74-97-5 | 25 |
| m&p-Xylene | 179601-23-1 | 50 |
| Bromodichloromethane | 75-27-4 | 25 |
| Hexachlorobutadiene | 87-68-3 | 25 |
| Ethylbenzene | 100-41-4 | 25 |
| Dichloromethane | 75-09-2 | 25 |
| Dibromomethane | 74-95-3 | 25 |
| cis-1,3-Dichloropropene | 10061-01-5 | 25 |
| cis-1,2-Dichloroethene | 156-59-2 | 25 |
| Chloroform | 67-66-3 | 25 |
| Chlorodibromomethane | 124-48-1 | 25 |
| Chlorobenzene | 108-90-7 | 25 |
| Carbon tetrachloride | 56-23-5 | 25 |
| Butylbenzene | 104-51-8 | 25 |
| Trichloroethene | 79-01-6 | 25 |
| Naphthalene | 91-20-3 | 25 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 5 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030069

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 10 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:59 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 10 |
| Bromobenzene | 108-86-1 | 10 |
| Benzene | 71-43-2 | 10 |
| 4-Chlorotoluene | 106-43-4 | 10 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 10 |
| 2,2-Dichloropropane | 594-20-7 | 10 |
| 1,4-Dichlorobenzene | 106-46-7 | 10 |
| 1,3-Dichloropropane | 142-28-9 | 10 |
| 1,3-Dichlorobenzene | 541-73-1 | 10 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 10 |
| 1,2-Dichloropropane | 78-87-5 | 10 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 10 |
| 1,2-Dichlorobenzene | 95-50-1 | 10 |
| Bromoform | 75-25-2 | 10 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 10 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 10 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 10 |
| 1,2,3-Trichloropropane | 96-18-4 | 10 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 10 |
| 1,1-Dichloropropene | 563-58-6 | 10 |
| 1,1-Dichloroethene | 75-35-4 | 10 |
| 1,1-Dichloroethane | 75-34-3 | 10 |
| 1,1,2-Trichloroethane | 79-00-5 | 10 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 10 |
| 1,1,1-Trichloroethane | 71-55-6 | 10 |
| 1,2-Dichloroethane | 107-06-2 | 10 |
| Isopropylbenzene | 98-82-8 | 10 |
| trans-1,3-Dichloropropene | 10061-02-6 | 10 |
| trans-1,2-Dichloroethene | 156-60-5 | 10 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030069**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 10 |
| Toluene | 108-88-3 | 10 |
| Tetrachloroethene | 127-18-4 | 10 |
| tert-Butylbenzene | 98-06-6 | 10 |
| Styrene | 100-42-5 | 10 |
| sec-Butylbenzene | 135-98-8 | 10 |
| Propylbenzene | 103-65-1 | 10 |
| p-Isopropyltoluene | 99-87-6 | 10 |
| o-Xylene | 95-47-6 | 10 |
| Bromochloromethane | 74-97-5 | 10 |
| m&p-Xylene | 179601-23-1 | 20 |
| Bromodichloromethane | 75-27-4 | 10 |
| Hexachlorobutadiene | 87-68-3 | 10 |
| Ethylbenzene | 100-41-4 | 10 |
| Dichloromethane | 75-09-2 | 10 |
| Dibromomethane | 74-95-3 | 10 |
| cis-1,3-Dichloropropene | 10061-01-5 | 10 |
| cis-1,2-Dichloroethene | 156-59-2 | 10 |
| Chloroform | 67-66-3 | 10 |
| Chlorodibromomethane | 124-48-1 | 10 |
| Chlorobenzene | 108-90-7 | 10 |
| Carbon tetrachloride | 56-23-5 | 10 |
| Butylbenzene | 104-51-8 | 10 |
| Trichloroethene | 79-01-6 | 10 |
| Naphthalene | 91-20-3 | 10 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 2 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030070

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 5 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 08:59 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 5 |
| Bromobenzene | 108-86-1 | 5 |
| Benzene | 71-43-2 | 5 |
| 4-Chlorotoluene | 106-43-4 | 5 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 5 |
| 2,2-Dichloropropane | 594-20-7 | 5 |
| 1,4-Dichlorobenzene | 106-46-7 | 5 |
| 1,3-Dichloropropane | 142-28-9 | 5 |
| 1,3-Dichlorobenzene | 541-73-1 | 5 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 5 |
| 1,2-Dichloropropane | 78-87-5 | 5 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 5 |
| 1,2-Dichlorobenzene | 95-50-1 | 5 |
| Bromoform | 75-25-2 | 5 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 5 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 5 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 5 |
| 1,2,3-Trichloropropane | 96-18-4 | 5 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 5 |
| 1,1-Dichloropropene | 563-58-6 | 5 |
| 1,1-Dichloroethene | 75-35-4 | 5 |
| 1,1-Dichloroethane | 75-34-3 | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | 5 |
| 1,2-Dichloroethane | 107-06-2 | 5 |
| Isopropylbenzene | 98-82-8 | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | 5 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030070**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 5 |
| Toluene | 108-88-3 | 5 |
| Tetrachloroethene | 127-18-4 | 5 |
| tert-Butylbenzene | 98-06-6 | 5 |
| Styrene | 100-42-5 | 5 |
| sec-Butylbenzene | 135-98-8 | 5 |
| Propylbenzene | 103-65-1 | 5 |
| p-Isopropyltoluene | 99-87-6 | 5 |
| o-Xylene | 95-47-6 | 5 |
| Bromochloromethane | 74-97-5 | 5 |
| m&p-Xylene | 179601-23-1 | 10 |
| Bromodichloromethane | 75-27-4 | 5 |
| Hexachlorobutadiene | 87-68-3 | 5 |
| Ethylbenzene | 100-41-4 | 5 |
| Dichloromethane | 75-09-2 | 5 |
| Dibromomethane | 74-95-3 | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | 5 |
| Chloroform | 67-66-3 | 5 |
| Chlorodibromomethane | 124-48-1 | 5 |
| Chlorobenzene | 108-90-7 | 5 |
| Carbon tetrachloride | 56-23-5 | 5 |
| Butylbenzene | 104-51-8 | 5 |
| Trichloroethene | 79-01-6 | 5 |
| Naphthalene | 91-20-3 | 5 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 1 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030071

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 1 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 09:00 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 1 |
| Bromobenzene | 108-86-1 | 1 |
| Benzene | 71-43-2 | 1 |
| 4-Chlorotoluene | 106-43-4 | 1 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 1 |
| 2,2-Dichloropropane | 594-20-7 | 1 |
| 1,4-Dichlorobenzene | 106-46-7 | 1 |
| 1,3-Dichloropropane | 142-28-9 | 1 |
| 1,3-Dichlorobenzene | 541-73-1 | 1 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 1 |
| 1,2-Dichloropropane | 78-87-5 | 1 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 1 |
| 1,2-Dichlorobenzene | 95-50-1 | 1 |
| Bromoform | 75-25-2 | 1 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 1 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 1 |
| 1,2,3-Trichloropropane | 96-18-4 | 1 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 1 |
| 1,1-Dichloropropene | 563-58-6 | 1 |
| 1,1-Dichloroethene | 75-35-4 | 1 |
| 1,1-Dichloroethane | 75-34-3 | 1 |
| 1,1,2-Trichloroethane | 79-00-5 | 1 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 1 |
| 1,1,1-Trichloroethane | 71-55-6 | 1 |
| 1,2-Dichloroethane | 107-06-2 | 1 |
| Isopropylbenzene | 98-82-8 | 1 |
| trans-1,3-Dichloropropene | 10061-02-6 | 1 |
| trans-1,2-Dichloroethene | 156-60-5 | 1 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030071**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 1 |
| Toluene | 108-88-3 | 1 |
| Tetrachloroethene | 127-18-4 | 1 |
| tert-Butylbenzene | 98-06-6 | 1 |
| Styrene | 100-42-5 | 1 |
| sec-Butylbenzene | 135-98-8 | 1 |
| Propylbenzene | 103-65-1 | 1 |
| p-Isopropyltoluene | 99-87-6 | 1 |
| o-Xylene | 95-47-6 | 1 |
| Bromochloromethane | 74-97-5 | 1 |
| m&p-Xylene | 179601-23-1 | 2 |
| Bromodichloromethane | 75-27-4 | 1 |
| Hexachlorobutadiene | 87-68-3 | 1 |
| Ethylbenzene | 100-41-4 | 1 |
| Dichloromethane | 75-09-2 | 1 |
| Dibromomethane | 74-95-3 | 1 |
| cis-1,3-Dichloropropene | 10061-01-5 | 1 |
| cis-1,2-Dichloroethene | 156-59-2 | 1 |
| Chloroform | 67-66-3 | 1 |
| Chlorodibromomethane | 124-48-1 | 1 |
| Chlorobenzene | 108-90-7 | 1 |
| Carbon tetrachloride | 56-23-5 | 1 |
| Butylbenzene | 104-51-8 | 1 |
| Trichloroethene | 79-01-6 | 1 |
| Naphthalene | 91-20-3 | 1 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 0.2 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030072

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 0.15 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 09:01 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 0.15 |
| Bromobenzene | 108-86-1 | 0.15 |
| Benzene | 71-43-2 | 0.15 |
| 4-Chlorotoluene | 106-43-4 | 0.15 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 0.15 |
| 2,2-Dichloropropane | 594-20-7 | 0.15 |
| 1,4-Dichlorobenzene | 106-46-7 | 0.15 |
| 1,3-Dichloropropane | 142-28-9 | 0.15 |
| 1,3-Dichlorobenzene | 541-73-1 | 0.15 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.15 |
| 1,2-Dichloropropane | 78-87-5 | 0.15 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.15 |
| 1,2-Dichlorobenzene | 95-50-1 | 0.15 |
| Bromoform | 75-25-2 | 0.15 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 0.15 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.15 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.15 |
| 1,2,3-Trichloropropane | 96-18-4 | 0.15 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.15 |
| 1,1-Dichloropropene | 563-58-6 | 0.15 |
| 1,1-Dichloroethene | 75-35-4 | 0.15 |
| 1,1-Dichloroethane | 75-34-3 | 0.15 |
| 1,1,2-Trichloroethane | 79-00-5 | 0.15 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.15 |
| 1,1,1-Trichloroethane | 71-55-6 | 0.15 |
| 1,2-Dichloroethane | 107-06-2 | 0.15 |
| Isopropylbenzene | 98-82-8 | 0.15 |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.15 |
| trans-1,2-Dichloroethene | 156-60-5 | 0.15 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030072**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 0.15 |
| Toluene | 108-88-3 | 0.15 |
| Tetrachloroethene | 127-18-4 | 0.15 |
| tert-Butylbenzene | 98-06-6 | 0.15 |
| Styrene | 100-42-5 | 0.15 |
| sec-Butylbenzene | 135-98-8 | 0.15 |
| Propylbenzene | 103-65-1 | 0.15 |
| p-Isopropyltoluene | 99-87-6 | 0.15 |
| o-Xylene | 95-47-6 | 0.15 |
| Bromochloromethane | 74-97-5 | 0.15 |
| m&p-Xylene | 179601-23-1 | 0.3 |
| Bromodichloromethane | 75-27-4 | 0.15 |
| Hexachlorobutadiene | 87-68-3 | 0.15 |
| Ethylbenzene | 100-41-4 | 0.15 |
| Dichloromethane | 75-09-2 | 0.15 |
| Dibromomethane | 74-95-3 | 0.15 |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.15 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.15 |
| Chloroform | 67-66-3 | 0.15 |
| Chlorodibromomethane | 124-48-1 | 0.15 |
| Chlorobenzene | 108-90-7 | 0.15 |
| Carbon tetrachloride | 56-23-5 | 0.15 |
| Butylbenzene | 104-51-8 | 0.15 |
| Trichloroethene | 79-01-6 | 0.15 |
| Naphthalene | 91-20-3 | 0.15 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 0.03 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030073

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air 0.05 | **Expires:** | 01/22/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 09:01 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1705143 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 0.05 |
| Bromobenzene | 108-86-1 | 0.05 |
| Benzene | 71-43-2 | 0.05 |
| 4-Chlorotoluene | 106-43-4 | 0.05 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 0.05 |
| 2,2-Dichloropropane | 594-20-7 | 0.05 |
| 1,4-Dichlorobenzene | 106-46-7 | 0.05 |
| 1,3-Dichloropropane | 142-28-9 | 0.05 |
| 1,3-Dichlorobenzene | 541-73-1 | 0.05 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.05 |
| 1,2-Dichloropropane | 78-87-5 | 0.05 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.05 |
| 1,2-Dichlorobenzene | 95-50-1 | 0.05 |
| Bromoform | 75-25-2 | 0.05 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 0.05 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.05 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.05 |
| 1,2,3-Trichloropropane | 96-18-4 | 0.05 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.05 |
| 1,1-Dichloropropene | 563-58-6 | 0.05 |
| 1,1-Dichloroethene | 75-35-4 | 0.05 |
| 1,1-Dichloroethane | 75-34-3 | 0.05 |
| 1,1,2-Trichloroethane | 79-00-5 | 0.05 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.05 |
| 1,1,1-Trichloroethane | 71-55-6 | 0.05 |
| 1,2-Dichloroethane | 107-06-2 | 0.05 |
| Isopropylbenzene | 98-82-8 | 0.05 |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.05 |
| trans-1,2-Dichloroethene | 156-60-5 | 0.05 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030073**

| | | |
|---|---|---|
| Toluene-d8 | 2037-26-5 | 0.05 |
| Toluene | 108-88-3 | 0.05 |
| Tetrachloroethene | 127-18-4 | 0.05 |
| tert-Butylbenzene | 98-06-6 | 0.05 |
| Styrene | 100-42-5 | 0.05 |
| sec-Butylbenzene | 135-98-8 | 0.05 |
| Propylbenzene | 103-65-1 | 0.05 |
| p-Isopropyltoluene | 99-87-6 | 0.05 |
| o-Xylene | 95-47-6 | 0.05 |
| Bromochloromethane | 74-97-5 | 0.05 |
| m&p-Xylene | 179601-23-1 | 0.1 |
| Bromodichloromethane | 75-27-4 | 0.05 |
| Hexachlorobutadiene | 87-68-3 | 0.05 |
| Ethylbenzene | 100-41-4 | 0.05 |
| Dichloromethane | 75-09-2 | 0.05 |
| Dibromomethane | 74-95-3 | 0.05 |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.05 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.05 |
| Chloroform | 67-66-3 | 0.05 |
| Chlorodibromomethane | 124-48-1 | 0.05 |
| Chlorobenzene | 108-90-7 | 0.05 |
| Carbon tetrachloride | 56-23-5 | 0.05 |
| Butylbenzene | 104-51-8 | 0.05 |
| Trichloroethene | 79-01-6 | 0.05 |
| Naphthalene | 91-20-3 | 0.05 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2030066 | Passive indoor air stock std 50 | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:55 by TD | 0.01 |
| 2030065 | Passive indoor air Internal Standard Sto | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:52 by TD | 0.005 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2030074

| | | | |
|---|---|---|---|
| **Description:** | Passive indoor air SCV | **Expires:** | 09/30/20 |
| **Standard Type:** | Other Solution | **Prepared:** | 07/22/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 10 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 07/22/20 09:03 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1811012 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 1,2-Dibromoethane (EDB) | 106-93-4 | 5 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 5 |
| Benzene | 71-43-2 | 5 |
| 4-Chlorotoluene | 106-43-4 | 5 |
| 2-Fluorotoluene | 95-52-3 | 5 |
| 2-Chlorotoluene | 95-49-8 | 5 |
| 2,2-Dichloropropane | 594-20-7 | 5 |
| 1,4-Dichlorobenzene | 106-46-7 | 5 |
| 1,3-Dichloropropane | 142-28-9 | 5 |
| 1,3-Dichlorobenzene | 541-73-1 | 5 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 5 |
| 1,2-Dichloropropane | 78-87-5 | 5 |
| Bromochloromethane | 74-97-5 | 5 |
| 1,2-Dichlorobenzene | 95-50-1 | 5 |
| Bromodichloromethane | 75-27-4 | 5 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 5 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 5 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 5 |
| 1,2,3-Trimethylbenzene | 526-73-8 | 5 |
| 1,2,3-Trichloropropane | 96-18-4 | 5 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 5 |
| 1,1-Dichloropropene | 563-58-6 | 5 |
| 1,1-Dichloroethene | 75-35-4 | 5 |
| 1,1-Dichloroethane | 75-34-3 | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | 5 |
| 1,2-Dichloroethane | 107-06-2 | 5 |
| Isopropylbenzene | 98-82-8 | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | 5 |

**Analytical Standard Record**

**EPA Region 9 Laboratory**

**2030074**

| | | |
|---|---|---|
| trans-1,2-Dichloroethene | 156-60-5 | 5 |
| Toluene-d8 | 2037-26-5 | 5 |
| Toluene | 108-88-3 | 5 |
| Tetrachloroethene | 127-18-4 | 5 |
| tert-Butylbenzene | 98-06-6 | 5 |
| Styrene | 100-42-5 | 5 |
| sec-Butylbenzene | 135-98-8 | 5 |
| Propylbenzene | 103-65-1 | 5 |
| p-Isopropyltoluene | 99-87-6 | 5 |
| o-Xylene | 95-47-6 | 5 |
| Bromobenzene | 108-86-1 | 5 |
| m&p-Xylene | 179601-23-1 | 10 |
| Trichloroethene | 79-01-6 | 5 |
| Hexachlorobutadiene | 87-68-3 | 5 |
| Ethylbenzene | 100-41-4 | 5 |
| Dichloromethane | 75-09-2 | 5 |
| Dibromomethane | 74-95-3 | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | 5 |
| Chloroform | 67-66-3 | 5 |
| Chlorodibromomethane | 124-48-1 | 5 |
| Chlorobenzene | 108-90-7 | 5 |
| Carbon tetrachloride | 56-23-5 | 5 |
| Butylbenzene | 104-51-8 | 5 |
| Bromoform | 75-25-2 | 5 |
| Naphthalene | 91-20-3 | 5 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 1843069 | VOA 502/524 VOC Mix, Stock | 10/24/18 | ** Vendor ** | 09/30/20 | 07/22/20 08:50 by TD | 0.025 |
| 2030067 | Passive air Surrogate/I.S. Working solu | 07/22/20 | Tatyana Dadiomov | 01/22/21 | 07/22/20 08:56 by TD | 0.25 |

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2039024

| | | | |
|---|---|---|---|
| **Description:** | VOA BFB tuning mix, stock STD. | **Expires:** | 10/31/25 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/24/20 |
| **Solvent:** | Solvent Lot # | **Prepared By:** | ** Vendor ** |
| **Final Volume (mls):** | 1 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 09/24/20 11:26 by EM |
| **Vendor:** | Restek | **Lot Numbe** | A0162498 |

RESTEK Cat No. 30003, LOT # A0162498 Bar code #AU012127

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 5000 |

# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 30003 **Lot No.:** A0162498

**Description :** VOA Tuning Compound Mix

VOA Tuning Compound Mix 5,000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** October 31, 2025 **Storage:** 0°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1-Bromo-4-fluorobenzene (BFB) | 5,012.0 µg/mL | +/- 29.4132 µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 281.0463 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.6211 µg/mL | Stressed |

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

AU012127/2039024
AU012128/2039025
AU012129/2039026
AU012130/2039027
AU012131/2039028

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

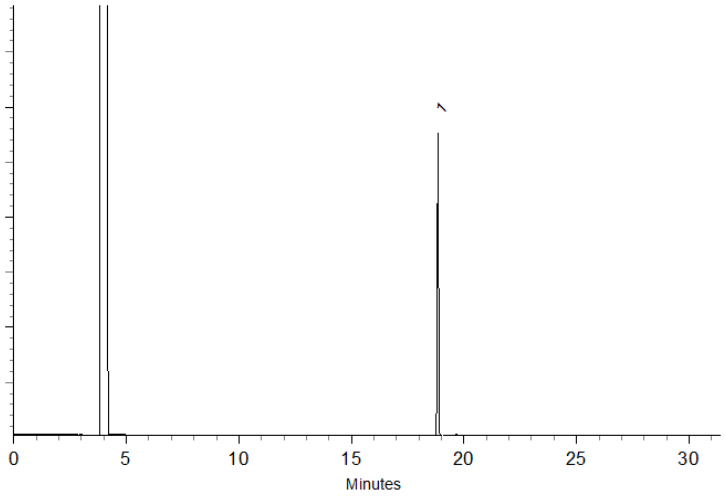
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




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

Kylie Struble - Operations Technician I

**Date Mixed:** 13-Jul-2020 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 14-Jul-2020

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

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

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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

**Manufacturing Notes:**

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

**Handling Notes:**

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

# Analytical Standard Record

## EPA Region 9 Laboratory

## 2040028

| | | | |
|---|---|---|---|
| **Description:** | passive air WORKING BFB 50 mg/L | **Expires:** | 03/30/21 |
| **Standard Type:** | Other Solution | **Prepared:** | 09/30/20 |
| **Solvent:** | CS2 | **Prepared By:** | Tatyana Dadiomov |
| **Final Volume (mls):** | 5 | **Department:** | Volatiles |
| **Vials:** | 1 | **Last Edit:** | 10/05/20 08:43 by TD |
| **Vendor:** | *Prepared* | **Lot Numbe** | 1748145 |

| Analyte | CAS Number | Concentration (ppm) |
|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 50 |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 2039024 | VOA BFB tuning mix, stock STD. | 09/24/20 | ** Vendor ** | 10/31/25 | 09/24/20 11:26 by EM | 0.05 |