ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1302224

Client: Geosphere Environmental Manageme

ATTN: Bruce Hoskins

Project Name: CUMMINGS BEVERLY AIR SAMPI

Project Number: 12201

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# Sample Delivery Group Information

# Sample Delivery Group Form

**Laboratory Job number:** L1302224
**Project Manager:** Chris Anderson **Review Date:** 02/08/2013
**Project Number:** 12201
**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Received:** 02/06/2013 11:25
**Client Account:** Geosphere Environmental Mgmt, Inc **Received by:** DIANNE JANAK

**Samples Delivered by:** COURIER **Call Tracker #**
**Bill Of Laden** N/A **Trackingnum**
**Coc Present** Present

**Container Status** Intact **Sample IDs**

**All Containers Accounted For?** Yes

**Were Extra Samples Received?** No

**Do Sample Labels and COC agree?** Yes

**Are Samples in Appropriate Containers?** Yes

**Are Samples Received within Holding time?** Yes

**pH of Samples upon Receipt** N/A **Are samples Properly Preserved?** Yes
**Initial pH** **preserved in house with** **Final pH**
**Other Issues**
**Chlorine Check** N/A

**Are VOA/VPH Vials Present?** No
**Aqueous: Do Vials Contain Head Space?** N/A
**Soils: Is MeOHCovering the Soil?** N/A
**Reagent H2O Preserved vials Frozen on** N/A
**Frozen by Client** N/A

| Cooler | Seal | Ice Present | Blue Ice Present | Temp. (Celsius) | Frozen upon Receipt | Delivered Direct from Site |
|---|---|---|---|---|---|---|
| N/A | Absent | No | No | - | No | No |

# LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jul 22 2015, 05:25 pm

Login Number: L1302224
Account: GEOSPHERE  Geosphere Environmental Mgmt, IncProject: 12201
Received: 06FEB13  Due Date: 13FEB13

| Sample # | Client ID | Mat | PR | Collected | Container |
|---|---|---|---|---|---|
| L1302224-01 | S-149-J | 10 | S0 | 04FEB13 15:05 | 1-Can-6 |

| A2-DPKG-FULL Package Due Date: 07/23/15

A2-DPKG-FULL,APH-10,CAN-RENT,FLOW-RENT,MCP,MCP-TO15,MCP-TO15-SIM

| | | | | | |
|---|---|---|---|---|---|
| L1302224-02 | DUP | 10 | S0 | 04FEB13 15:07 | 1-Can-6 |

| Package Due Date: 07/23/15

APH-10,CAN-RENT,FLOW-RENT,MCP-TO15,MCP-TO15-SIM

| | | | | | |
|---|---|---|---|---|---|
| L1302224-03 | S-157-J | 10 | S0 | 04FEB13 15:14 | 1-Can-6 |

| Package Due Date: 07/23/15

APH-10,CAN-RENT,FLOW-RENT,MCP-TO15,MCP-TO15-SIM

| | | | | | |
|---|---|---|---|---|---|
| L1302224-04 | S-1100 | 10 | S0 | 04FEB13 15:40 | 1-Can-6 |

| Package Due Date: 07/23/15

APH-10,CAN-RENT,FLOW-RENT,MCP-TO15,MCP-TO15-SIM

| | | | | | |
|---|---|---|---|---|---|
| L1302224-05 | S-171-X | 10 | S0 | 04FEB13 15:30 | 1-Can-6 |

| Package Due Date: 07/23/15

APH-10,CAN-RENT,FLOW-RENT,MCP-TO15,MCP-TO15-SIM

| | | | | | |
|---|---|---|---|---|---|
| L1302224-06 | NEPD | 10 | S0 | 04FEB13 15:20 | 1-Can-6 |

| Package Due Date: 07/23/15

APH-10,CAN-RENT,FLOW-RENT,MCP-TO15,MCP-TO15-SIM



Logged By: Chris Anderson

# Chain of Custody

# AIR ANALYSIS

PAGE 1 OF 1

**CHAIN OF CUSTODY**

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1302224

**Client Information**

Client: Geosphere Environmental Management, Inc
Address: 51 Portsmouth Ave.
Exeter, NH 03833
Phone: 603-773-0075 x14
Fax: 603-773-0077
Email: bhoskins@geospherenh.com
☐ These samples have been previously analyzed by Alpha

**Project Information**

Project Name: Cummings Beverly Air Sampling
Project Location: Beverly, MA
Project #: 12201
Project Manager: Bruce Hoskins
ALPHA Quote #:

**Turn-Around Time**

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

**Report Information - Data Deliverables**

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☒ Additional Deliverables: Hard copy in mail
Report to: (if different than Project Manager)

**Billing Information**

☒ Same as Client info PO #:

**Regulatory Requirements/Report Limits**

| State/Fed | Program | Criteria |
|---|---|---|
| | | |
| | | |
| | | |

Other Project Specific Requirements/Comments: Run entire TO-15 compound list - Quantify per TO-15 SIM where applicable

**All Columns Below Must Be Filled Out**

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Start Time | End Time | Initial Vacuum | Final Vacuum | Sample Matrix* | Sampler's Initials | Can Size | I D Can | I D - Flow Controller | TO-14A by TO-15 | TO-15 | TO-15 SIM | APH | FIXED GASES | TO-13A | TO-4 / TO-10 | Sample Comments (i.e. PID) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | S-149-J | 2/4/2013 | 3:05pm | 3:05pm | -29.36 | -7.35 | AA | CB | 6L | 1000 | 0241 | | X | X | X | | | | |
| -2 | DUP | ↓ | 3:07pm | 3:07pm | -29.55 | -8.63 | AA | CB | 6L | 1608 | 0354 | | X | X | X | | | | |
| -3 | S-157-J | | 3:14pm | 3:14pm | -29.67 | -7.80 | AA | CB | 6L | 1583 | 0223 | | X | X | X | | | | |
| -4 | S-1100 | | 3:40pm | 3:40pm | -29.53 | -9.93 | AA | CB | 6L | 967 | 0373 | | X | X | X | | | | |
| -5 | S-171-X | | 3:30pm | 3:30pm | -29.81 | -9.30 | AA | CB | 6L | 608 | 0427 | | X | X | X | | | | |
| -6 | NEPD | | 3:20pm | 3:20pm | -28.92 | -6.04 | AA | CB | 6L | 985 | 0286 | | X | X | X | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Container Type: CS CS CS

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

| Relinquished By: | Date/Time | Received By: | Date/Time: |
|---|---|---|---|
| [signature] | 2/6/13 11:25 | [signature] | 2/6/13 1125 |
| [signature] | 2/6/13 1630 | [signature] | 2/7/13 0805 |
| [signature] | 2/7/13 1055 | [signature] | 2/7/13 1055 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 (19-Jun-09)

# Organics

# Air Petroleum Hydrocarbons Analysis

# Initial Calibration

# Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Method File : APH121211.M
Title : APH Analysis
Last Update : Tue Dec 11 13:02:35 2012
Response Via : Initial Calibration

Calibration Files
0.4 =R125406.D 0.8 =R125407.D 2.0 =R125408.D 10 =R125409.D 20 =R125410.D 50 =R125411.D
80 =R125412.D 100 =R125413.D

| | | Compound | 0.4 | 0.8 | 2.0 | 10 | 20 | 50 | 80 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | | | | |
| 2) | T | 1,3-butadiene | 0.462 | 0.517 | 0.506 | 0.443 | 0.629 | 0.683 | 0.512 | 0.444 | 0.5244 | 16.66 |
| 3) | | isopentane | 4.475 | 5.092 | 3.807 | 3.344 | 4.790 | 5.172 | 3.834 | 3.353 | 4.2333 | 17.62 |
| 4) | T | methyl tert butyl ether | 0.894 | 1.007 | 0.824 | 0.767 | 1.072 | 1.178 | 0.875 | 0.768 | 0.9230 | 16.14 |
| 5) | | hexane | 3.520 | 3.138 | 3.109 | 2.618 | 3.054 | 3.156 | 2.356 | 2.607 | 2.9447 | 12.96 |
| 6) | | cyclohexane | 3.612 | 3.861 | 3.021 | 2.801 | 3.934 | 4.284 | 3.194 | 2.787 | 3.4368 | 16.43 |
| 7) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 8) | | 2,3-dimethylpentane | 0.730 | 0.676 | 0.675 | 0.596 | 0.762 | 0.814 | 0.612 | 0.609 | 0.6841 | 11.56 |
| 9) | T | benzene | 0.284 | 0.265 | 0.258 | 0.231 | 0.293 | 0.315 | 0.235 | 0.236 | 0.2646 | 11.59 |
| 10) | | heptane | 0.672 | 0.649 | 0.636 | 0.575 | 0.729 | 0.777 | 0.575 | 0.576 | 0.6486 | 11.61 |
| 11) | H | C5-C8 Aliphatics Total | 0.752 | 0.684 | 0.669 | 0.594 | 0.737 | 0.778 | 0.579 | 0.594 | 0.6734 | 11.59 |
| 12) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | |
| 13) | | toluene | 1.257 | 1.196 | 1.084 | 0.984 | 1.074 | 1.257 | 0.963 | 0.978 | 1.0990 | 11.23 |
| 14) | | n-octane | 3.046 | 2.900 | 2.704 | 2.481 | 2.695 | 3.085 | 2.337 | 2.324 | 2.6966 | 11.11 |
| 15) | | 2,3-dimethylheptane | 3.325 | 3.217 | 3.025 | 2.725 | 2.915 | 3.335 | 2.489 | 2.468 | 2.9372 | 11.94 |
| 16) | T | ethyl benzene | 1.382 | 1.319 | 1.240 | 1.132 | 1.225 | 1.416 | 1.084 | 1.087 | 1.2355 | 10.46 |
| 17) | T | m+p-xylene | 1.077 | 1.027 | 0.958 | 0.888 | 0.960 | 1.147 | 0.889 | 0.900 | 0.9809 | 9.68 |
| 18) | | n-nonane | 3.257 | 3.155 | 2.989 | 2.716 | 2.951 | 3.365 | 2.501 | 2.450 | 2.9231 | 11.64 |
| 19) | T | o-xylene | 1.078 | 1.061 | 1.000 | 0.899 | 0.999 | 1.178 | 0.893 | 0.892 | 1.0002 | 10.35 |
| 20) | | decane | 3.320 | 3.338 | 3.125 | 2.862 | 3.113 | 3.497 | 2.520 | 2.473 | 3.0308 | 12.54 |
| 21) | | butylcyclohexane | 3.298 | 3.476 | 3.201 | 2.944 | 3.209 | 3.942 | 2.743 | 2.676 | 3.1860 | 12.91 |
| 22) | | n-undecane | 3.256 | 3.231 | 2.979 | 2.862 | 3.175 | 3.573 | 2.608 | 2.526 | 3.0261 | 11.66 |
| 23) | T | naphthalene | 1.183 | 1.157 | 1.147 | 1.161 | 1.307 | 1.563 | 1.206 | 1.201 | 1.2406 | 11.25 |
| 24) | | n-dodecane | 2.879 | 2.947 | 2.795 | 2.801 | 3.132 | 3.625 | 2.635 | 2.539 | 2.9193 | 11.58 |
| 25) | H | C9-C12 Aliphatics Total | 3.210 | 3.219 | 3.011 | 2.821 | 3.090 | 3.561 | 2.587 | 2.524 | 3.0029 | 11.56 |
| 27) | | C9-C10 Aromatics Total | 0.449 | 0.430 | 0.420 | 0.387 | 0.425 | 0.503 | 0.378 | 0.376 | 0.4209 | 10.16 |
| 28) | s | bromochloromethane (TIC) | 6.096 | 5.399 | 6.424 | 6.272 | 4.611 | 4.743 | 4.934 | 5.901 | 5.5474 | 13.00 |
| 29) | s | 1,4-difluorobenzene (TIC) | 9.695 | 9.718 | 9.536 | 9.519 | 8.162 | 8.788 | 9.144 | 9.340 | 9.2376 | 5.77 |
| 30) | s | chlorobenzene-D5 (TIC) | 1.207 | 1.204 | 1.186 | 1.193 | 1.186 | 1.192 | 1.149 | 1.149 | 1.1832 | 1.89 |

Method Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Method File : APH121211.M
Title : APH Analysis
Last Update : Tue Dec 11 13:02:35 2012
Response Via : Initial Calibration

Calibration Files
0.4 =R125406.D 0.8 =R125407.D 2.0 =R125408.D 10 =R125409.D 20 =R125410.D 50 =R125411.D
80 =R125412.D 100 =R125413.D

| Compound | 0.4 | 0.8 | 2.0 | 10 | 20 | 50 | 80 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 31) s 1,2-dichloroethane-D4 (TIC) | 3.639 | 3.666 | 3.591 | 3.478 | 3.863 | 3.509 | 3.445 | 3.551 | 3.5927 | 3.70 |
| 32) s toluene-D8 (TIC) | 0.927 | 0.972 | 0.945 | 0.935 | 1.030 | 1.214 | 0.952 | 0.961 | 0.9920 | 9.60 |
| 33) s bromofluorobenzene (TIC) | 1.167 | 1.207 | 1.158 | 1.141 | 1.275 | 1.423 | 1.143 | 1.171 | 1.2107 | 7.93 |

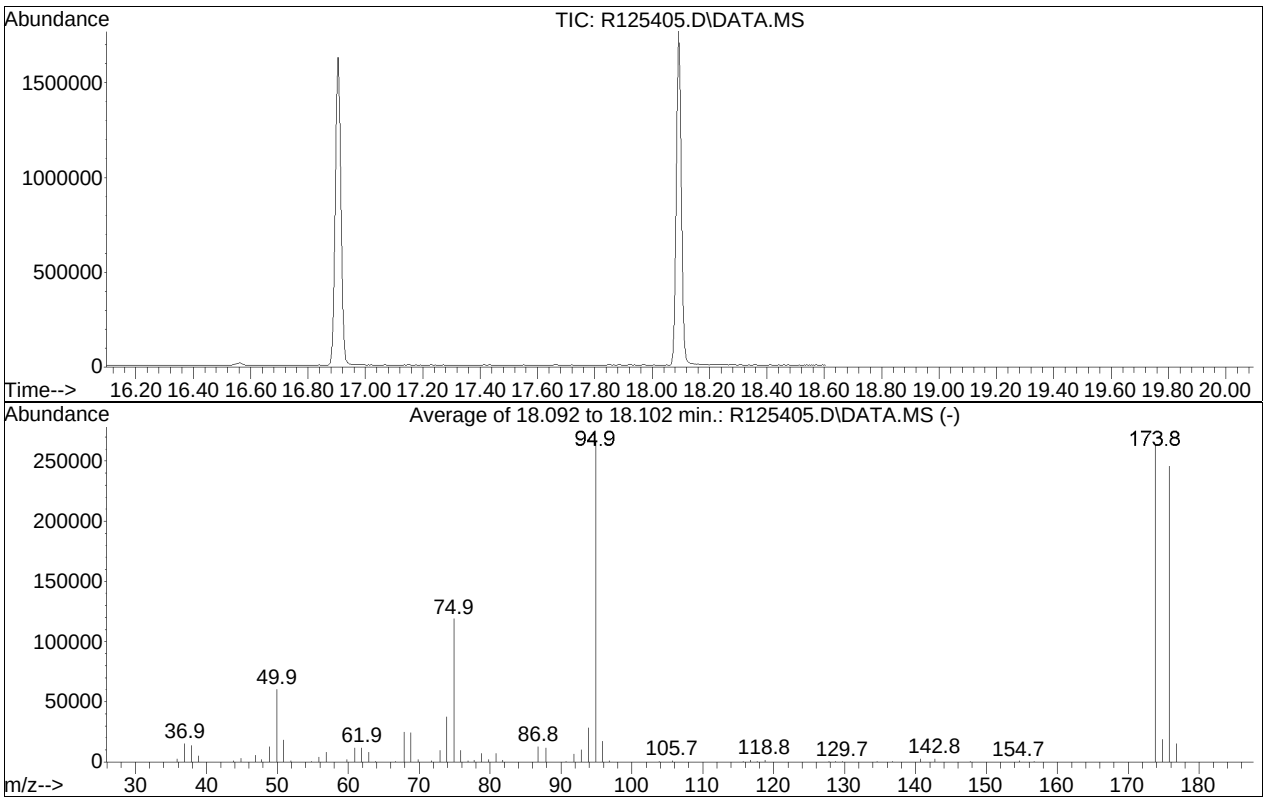
(#) = Out of Range

BFB

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125405.D
Acq On : 11 Dec 2012 8:21 am
Operator : AIRPIANO1:AR
Sample : TA1121101
Misc : WG578918
ALS Vial : 1 Sample Multiplier: 1

Integration File: ALIP-Range-all.E

Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Title : APH Analysis
Last Update : Tue Dec 11 13:02:35 2012




AutoFind: Scans 2825, 2826, 2827; Background Corrected with Scan 2814

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 22.8 | 60387 | PASS |
| 75 | 95 | 30 | 66 | 44.8 | 118928 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 265259 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 17616 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 99.2 | 263168 | PASS |
| 175 | 174 | 4 | 9 | 7.1 | 18774 | PASS |
| 176 | 174 | 93 | 101 | 93.4 | 245824 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 15264 | PASS |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125406.D
Acq On : 11 Dec 2012 8:53 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.4
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:20:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.28 | 128 | 1577304 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 100.23% | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 7573686 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 98.30% | |
| 12) chlorobenzene-D5 | 16.91 | 54 | 1841207 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 96.28% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.28 | TIC | 11223311 | 9.719 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 97.19% | |
| 29) 1,4-difluorobenzene (TIC) | 12.50 | TIC | 17850798 | 10.185 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.85% | |
| 30) chlorobenzene-D5 (TIC) | 16.91 | TIC | 22218149 | 10.117 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.17% | |
| 31) 1,2-dichloroethane-D4 ... | 11.16 | TIC | 6699316 | 10.461 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 104.61% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 17752698 | 10.308 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 103.08% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 21495675 | 10.234 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 102.34% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 64062 | 0.916 | ug/m3# | 89 |
| 3) isopentane | 6.43 | TIC | 832835M4 | 1.579 | ug/m3 | |
| 4) methyl tert butyl ether | 9.19 | 73 | 203055 | 1.678 | ug/m3# | 90 |
| 5) hexane | 10.33 | TIC | 782751M2 | 1.895 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 786246M4 | 1.780 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 906343 | 2.007 | ug/m3 | 97 |
| 9) benzene | 12.09 | 78 | 275500 | 1.572 | ug/m3 | 97 |
| 10) heptane | 13.62 | TIC | 834727 | 1.918 | ug/m3 | 99 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 27638788 | 8.331 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 349336 | 1.929 | ug/m3 | 99 |
| 14) n-octane | 16.22 | TIC | 1048656 | 2.295 | ug/m3# | 98 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 1285451 | 2.562 | ug/m3 | 99 |
| 16) ethyl benzene | 17.24 | 91 | 442868 | 2.125 | ug/m3 | 98 |
| 17) m+p-xylene | 17.38 | 91 | 344962 | 2.109 | ug/m3 | 98 |
| 18) n-nonane | 17.88 | TIC | 1259277M3 | 2.518 | ug/m3 | |
| 19) o-xylene | 17.75 | 91 | 345435 | 2.086 | ug/m3 | 99 |
| 20) decane | 19.07 | TIC | 1424260 | 2.703 | ug/m3# | 98 |
| 21) butylcyclohexane | 19.54 | TIC | 1390500 | 2.565 | ug/m3 | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125406.D
Acq On : 11 Dec 2012 8:53 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.4
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:20:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

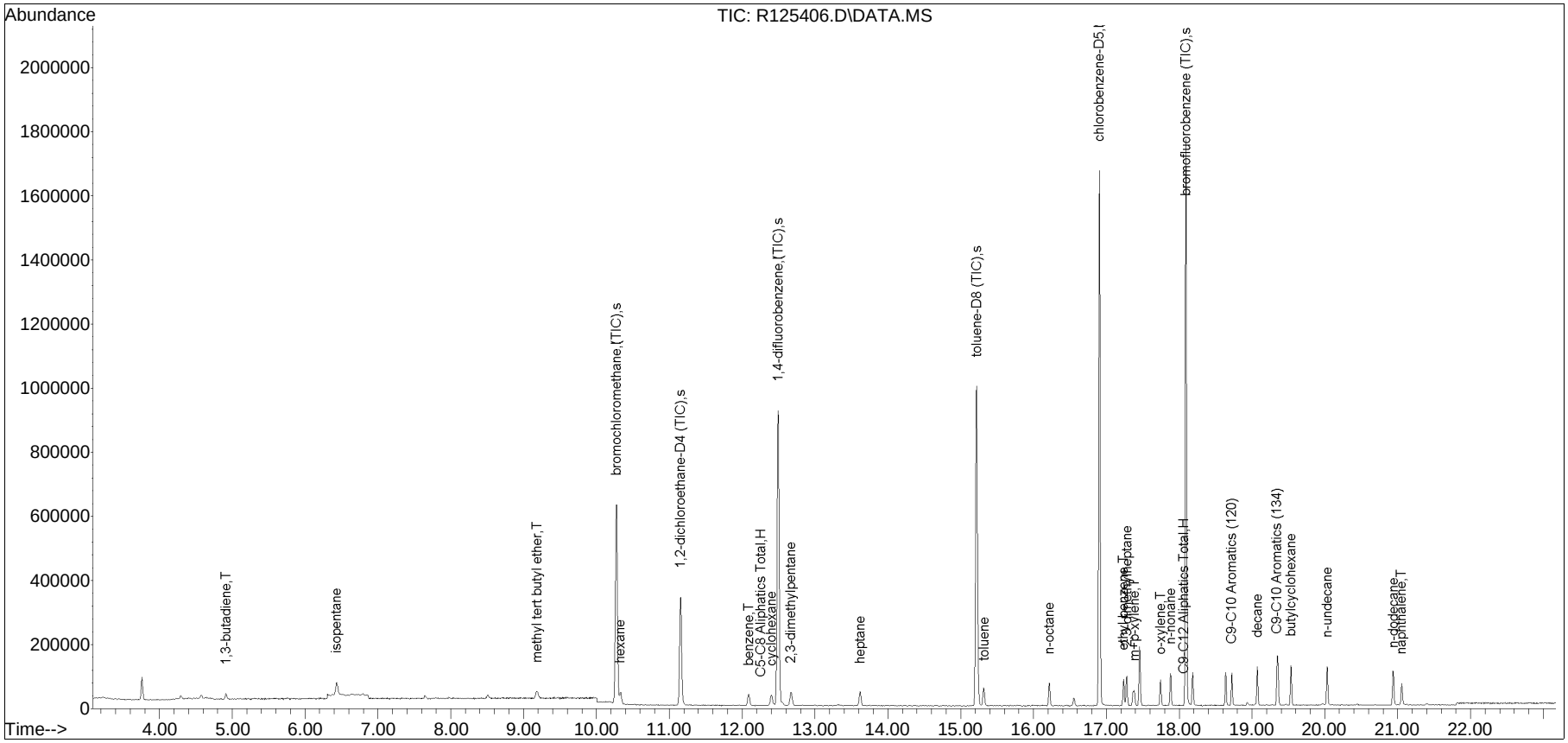
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 22) n-undecane | 20.03 | TIC | 1534477 | 2.912 | ug/m3 | 98 |
| 23) naphthalene | 21.06 | 128 | 457484 | 2.140 | ug/m3 | 100 |
| 24) n-dodecane | 20.94 | TIC | 1473761 | 2.858 | ug/m3 | 97 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 15863691 | -4.633 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 691513M5 | 11.518 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 135737M5 | 12.165 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 827251 | 74.138 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125406.D
Acq On : 11 Dec 2012 8:53 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.4
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:20:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125407.D
Acq On : 11 Dec 2012 9:24 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.8
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:19:51 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.28 | 128 | 1309521 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 83.21% | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 7489728 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 97.21% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1810777 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 94.69% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.28 | TIC | 9775630 | 8.608 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 86.08% | |
| 29) 1,4-difluorobenzene (TIC) | 12.50 | TIC | 17597108 | 10.209 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 102.09% | |
| 30) chlorobenzene-D5 (TIC) | 16.91 | TIC | 21796843 | 10.092 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 100.92% | |
| 31) 1,2-dichloroethane-D4 ... | 11.16 | TIC | 6638852 | 10.541 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 105.41% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 19000370 | 11.218 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 112.18% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 21862115 | 10.583 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 105.83% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.91 | 54 | 119262M4 | 2.054 | ug/m3 | |
| 3) isopentane | 6.43 | TIC | 1573596M4 | 3.593 | ug/m3 | |
| 4) methyl tert butyl ether | 9.18 | 73 | 379924 | 3.781 | ug/m3# | 94 |
| 5) hexane | 10.33 | TIC | 1158985M2 | 3.380 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 1395537M4 | 3.805 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.68 | TIC | 1661477 | 3.721 | ug/m3 | 99 |
| 9) benzene | 12.09 | 78 | 507586 | 2.929 | ug/m3 | 97 |
| 10) heptane | 13.62 | TIC | 1593409 | 3.702 | ug/m3 | 99 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 54169039 | 16.733 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 653959 | 3.672 | ug/m3 | 99 |
| 14) n-octane | 16.22 | TIC | 1963798 | 4.370 | ug/m3# | 99 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 2446239 | 4.958 | ug/m3 | 100 |
| 16) ethyl benzene | 17.24 | 91 | 830993 | 4.054 | ug/m3 | 100 |
| 17) m+p-xylene | 17.38 | 91 | 647404 | 4.025 | ug/m3 | 100 |
| 18) n-nonane | 17.88 | TIC | 2399244 | 4.878 | ug/m3 | 98 |
| 19) o-xylene | 17.74 | 91 | 668711 | 4.107 | ug/m3 | 98 |
| 20) decane | 19.07 | TIC | 2816397 | 5.435 | ug/m3# | 99 |
| 21) butylcyclohexane | 19.53 | TIC | 2882531 | 5.407 | ug/m3 | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125407.D
Acq On : 11 Dec 2012 9:24 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.8
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:19:51 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

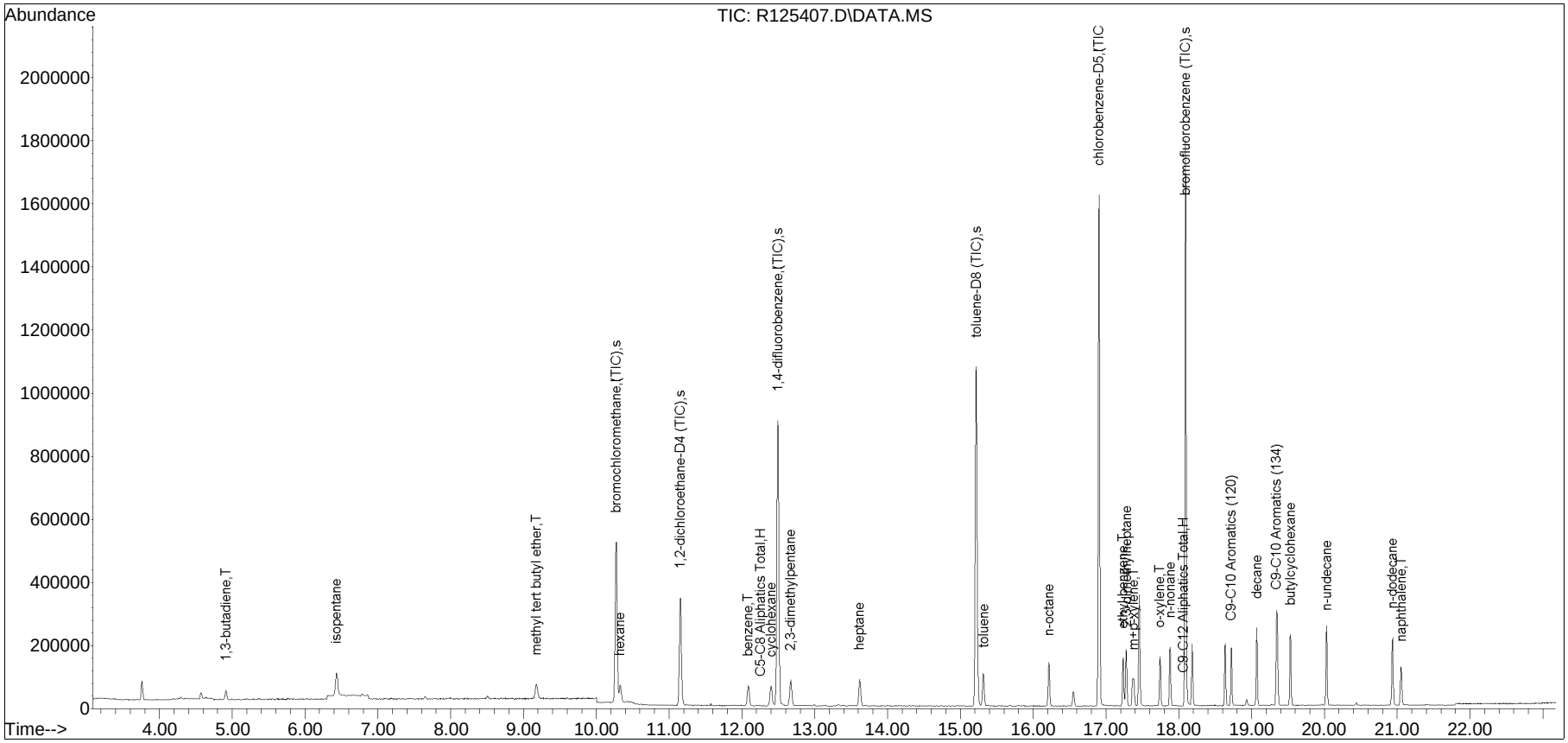
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 22) n-undecane | 20.03 | TIC | 2995215 | 5.780 | ug/m3 | 99 |
| 23) naphthalene | 21.05 | 128 | 877730 | 4.174 | ug/m3 | 99 |
| 24) n-dodecane | 20.94 | TIC | 2966711 | 5.849 | ug/m3 | 99 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 27940526 | -11.161 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 1302751M5 | 22.064 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 254736M5 | 23.213 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 1557487 | 141.926 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125407.D
Acq On : 11 Dec 2012 9:24 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD0.8
Misc : WG578918
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 11 11:19:51 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125408.D
Acq On : 11 Dec 2012 9:56 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD2.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:21:32 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1574031 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 100.02% | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 7592170 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 98.54% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1874209 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 98.00% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.28 | TIC | 12040632 | 10.243 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 102.43% | |
| 29) 1,4-difluorobenzene (TIC) | 12.50 | TIC | 17871608 | 10.018 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 100.18% | |
| 30) chlorobenzene-D5 (TIC) | 16.91 | TIC | 22224718 | 9.942 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.42% | |
| 31) 1,2-dichloroethane-D4 ... | 11.16 | TIC | 6729848 | 10.324 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 103.24% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 21253022 | 12.124 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 121.24% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 21712086 | 10.155 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.55% | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 1,3-butadiene | 4.92 | 54 | 352336 | 5.049 | ug/m3 | 97 |
| 3) isopentane | 6.43 | TIC | 3535178M4 | 6.716 | ug/m3 | |
| 4) methyl tert butyl ether | 9.18 | 73 | 933540 | 7.730 | ug/m3 | 96 |
| 5) hexane | 10.33 | TIC | 3444725M2 | 8.358 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 3272058M4 | 7.421 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 4195053 | 9.268 | ug/m3 | 100 |
| 9) benzene | 12.09 | 78 | 1249274 | 7.112 | ug/m3 | 99 |
| 10) heptane | 13.62 | TIC | 3957400 | 9.071 | ug/m3 | 99 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 91234221 | 13.635 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 1529546 | 8.298 | ug/m3 | 99 |
| 14) n-octane | 16.22 | TIC | 4733821 | 10.178 | ug/m3# | 99 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 5942236 | 11.635 | ug/m3 | 100 |
| 16) ethyl benzene | 17.24 | 91 | 2016506 | 9.504 | ug/m3 | 99 |
| 17) m+p-xylene | 17.38 | 91 | 1559078 | 9.365 | ug/m3 | 98 |
| 18) n-nonane | 17.88 | TIC | 5871805 | 11.534 | ug/m3 | 99 |
| 19) o-xylene | 17.74 | 91 | 1627447 | 9.656 | ug/m3 | 99 |
| 20) decane | 19.07 | TIC | 6812548 | 12.702 | ug/m3 | 100 |
| 21) butylcyclohexane | 19.53 | TIC | 6880274 | 12.469 | ug/m3 | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125408.D
Acq On : 11 Dec 2012 9:56 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD2.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:21:32 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

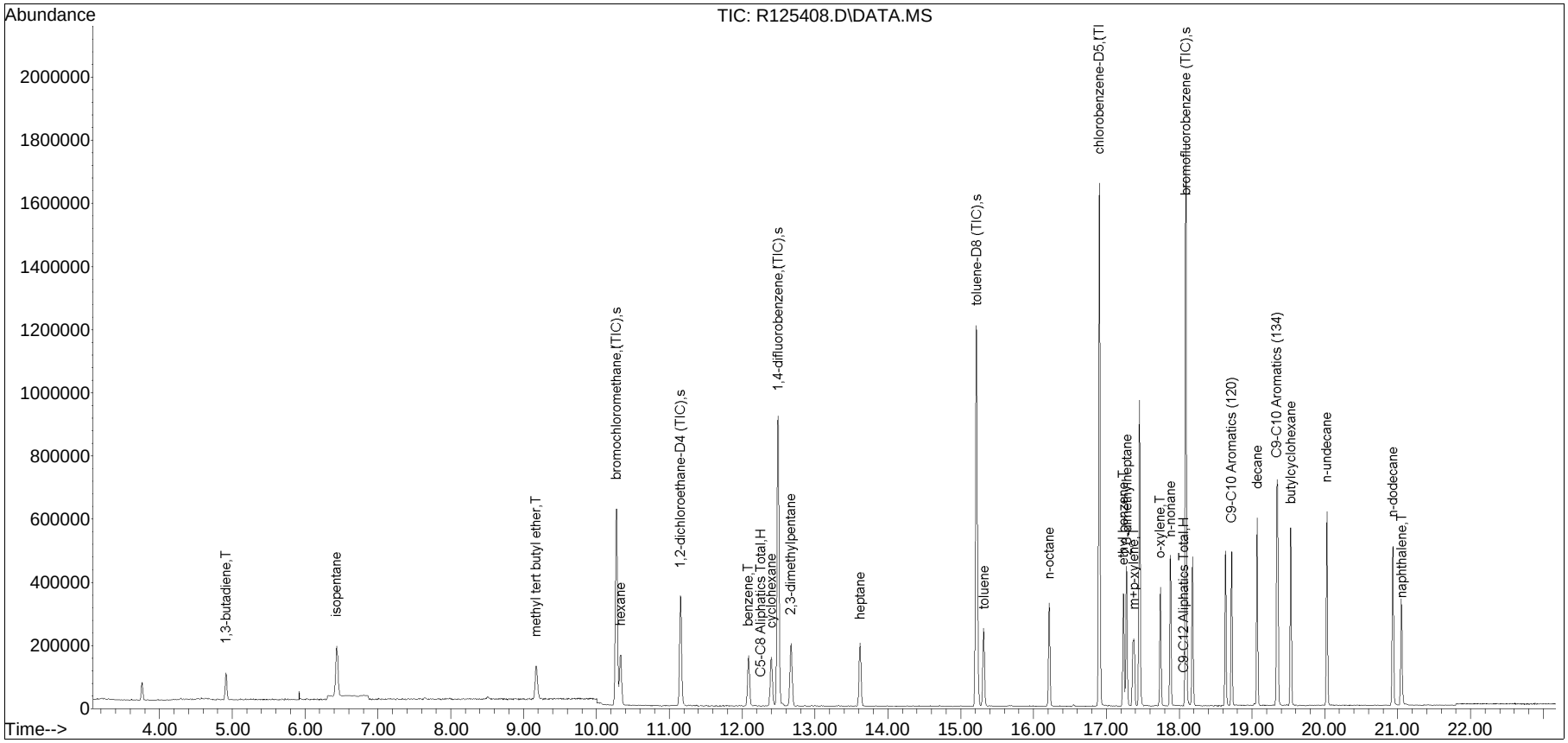
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 22) n-undecane | 20.03 | TIC | 7135411 | 13.303 | ug/m3 | 99 |
| 23) naphthalene | 21.05 | 128 | 2253095 | 10.353 | ug/m3 | 99 |
| 24) n-dodecane | 20.94 | TIC | 7292682 | 13.892 | ug/m3 | 100 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 64376730 | -31.653 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 3332797M5 | 54.535 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 602703 | 53.063 | ug/m3 | 100 |
| 27) C9-C10 Aromatics Total | 0.00 | | 3935500 | 346.486 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125408.D
Acq On : 11 Dec 2012 9:56 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD2.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:21:32 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:15:47 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125409.D
Acq On : 11 Dec 2012 10:28 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD10.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:15:10 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Nov 13 11:26:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1573682 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery = 100.00% | | | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 7704992 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery = 100.00% | | | |
| 12) chlorobenzene-D5 | 16.91 | 54 | 1912406 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 11994008 | 9.451 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 94.51% | | | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 18203579 | 8.280 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 82.80% | | | |
| 30) chlorobenzene-D5 (TIC) | 16.91 | TIC | 22809443 | 8.571 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 85.71% | | | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6651718 | 9.460 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 94.60% | | | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 35774981 | 16.319 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 163.19% | | | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 21816578 | 8.891 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery = 88.91% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 1541850 | 22.664 | ug/m3 | 96 |
| 3) isopentane | 6.43 | TIC | 15524023M4 | 26.703 | ug/m3 | |
| 4) methyl tert butyl ether | 9.16 | 73 | 4346878 | 28.183 | ug/m3 | 95 |
| 5) hexane | 10.33 | TIC | 14503879M4 | 43.022 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 15163624M4 | 35.041 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 18833539 | 44.329 | ug/m3 | 99 |
| 9) benzene | 12.09 | 78 | 5686784 | 26.749 | ug/m3 | 94 |
| 10) heptane | 13.62 | TIC | 18153521 | 45.203 | ug/m3 | 99 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 323004470m | 766.826 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 7090998 | 26.158 | ug/m3 | 100 |
| 14) n-octane | 16.22 | TIC | 22162112 | 42.029 | ug/m3 | 99 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 27307148 | 47.095 | ug/m3 | 98 |
| 16) ethyl benzene | 17.24 | 91 | 9395894 | 31.498 | ug/m3 | 100 |
| 17) m+p-xylene | 17.37 | 91 | 7372578 | 30.984 | ug/m3 | 100 |
| 18) n-nonane | 17.88 | TIC | 27220681 | 48.201 | ug/m3 | 99 |
| 19) o-xylene | 17.74 | 91 | 7463781 | 30.944 | ug/m3 | 100 |
| 20) decane | 19.07 | TIC | 31849875 | 54.593 | ug/m3 | 98 |
| 21) butylcyclohexane | 19.53 | TIC | 32261544 | 47.821 | ug/m3 | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125409.D
Acq On : 11 Dec 2012 10:28 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD10.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:15:10 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Nov 13 11:26:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

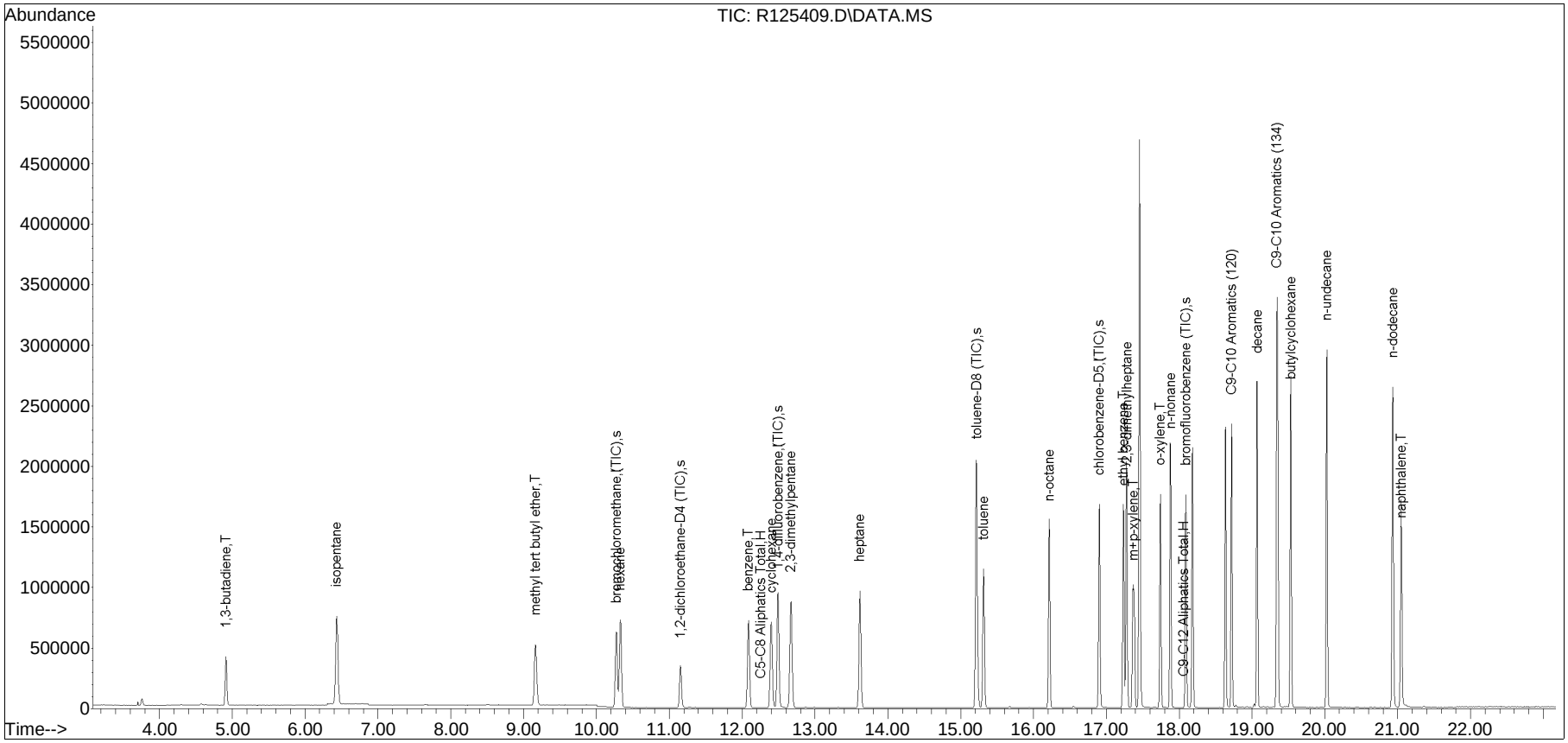
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 22) | n-undecane | 20.03 | TIC | 34972693 | 59.432 | ug/m3 | 99 |
| 23) | naphthalene | 21.05 | 128 | 11640945 | 42.078 | ug/m3 | 99 |
| 24) | n-dodecane | 20.93 | TIC | 37282264 | 65.505 | ug/m3 | 99 |
| 25) | C9-C12 Aliphatics Total | 18.07 | TIC | 306021569m | 516.182 | ug/m3 | |
| 26) | C9-C10 Aromatics (120) | 18.72 | 120 | 15589673M5 | 165.383 | ug/m3 | |
| 27) | C9-C10 Aromatics (134) | 19.34 | 134 | 2897455M5 | 30.738 | ug/m3 | |
| 27) | C9-C10 Aromatics Total | 0.00 | | 18487127 | 196.120 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125409.D
Acq On : 11 Dec 2012 10:28 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD10.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:15:10 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Nov 13 11:26:12 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125410.D
Acq On : 11 Dec 2012 11:00 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD20.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:24:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:22:29 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1099963 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 69.90% | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 6006402 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 77.95% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1736998 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 90.83% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 8009256 | 7.625 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 76.25% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 14177674 | 8.487 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 84.87% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 20606787 | 9.909 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.09% | |
| 31) 1,2-dichloroethane-D4 ... | 11.16 | TIC | 6709194 | 10.749 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 107.49% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 53680861 | 32.712 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 327.12% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 22139268 | 10.908 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 109.08% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 3060234 | 57.698 | ug/m3 | 100 |
| 3) isopentane | 6.44 | TIC | 31069306 | 67.585 | ug/m3 | 100 |
| 4) methyl tert butyl ether | 9.16 | 73 | 8493318 | 88.437 | ug/m3 | 99 |
| 5) hexane | 10.33 | TIC | 23661527M4 | 69.475 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 29767340M4 | 81.415 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 37469770 | 93.218 | ug/m3 | 100 |
| 9) benzene | 12.09 | 78 | 11247238 | 72.146 | ug/m3 | 99 |
| 10) heptane | 13.62 | TIC | 35872488 | 94.360 | ug/m3 | 100 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 622386611 | -153.282 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 14049843 | 71.585 | ug/m3 | 99 |
| 14) n-octane | 16.22 | TIC | 43699308 | 90.405 | ug/m3 | 100 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 53075773 | 99.439 | ug/m3 | 100 |
| 16) ethyl benzene | 17.24 | 91 | 18476464 | 83.877 | ug/m3 | 100 |
| 17) m+p-xylene | 17.37 | 91 | 14482451 | 84.415 | ug/m3 | 100 |
| 18) n-nonane | 17.88 | TIC | 53728705 | 102.108 | ug/m3 | 100 |
| 19) o-xylene | 17.74 | 91 | 15058818 | 85.856 | ug/m3 | 100 |
| 20) decane | 19.07 | TIC | 62873105 | 114.504 | ug/m3 | 100 |
| 21) butylcyclohexane | 19.53 | TIC | 63910518 | 113.928 | ug/m3 | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125410.D
Acq On : 11 Dec 2012 11:00 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD20.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:24:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:22:29 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

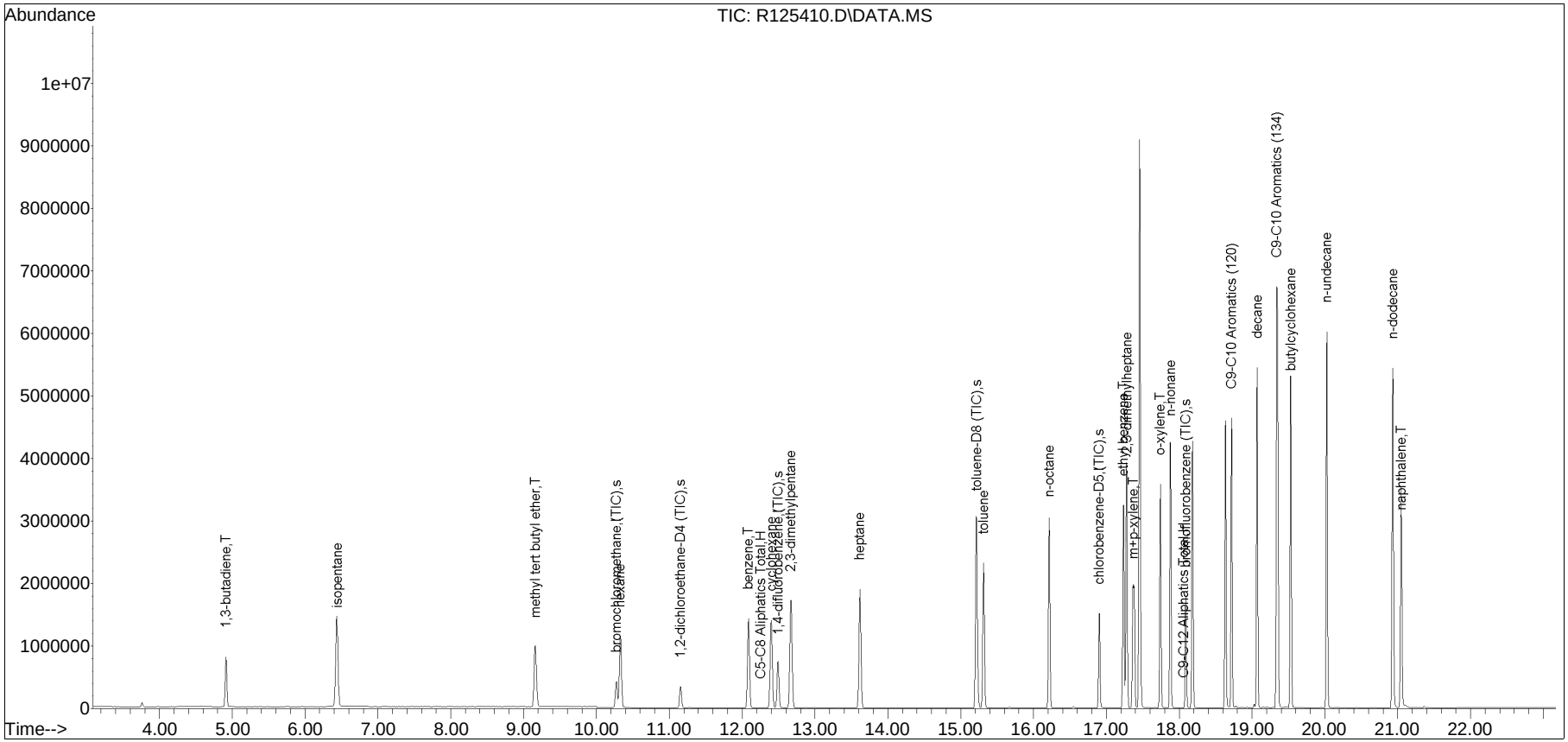
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 22) n-undecane | 20.03 | TIC | 70458097 | 131.623 | ug/m3 | 100 |
| 23) naphthalene | 21.05 | 128 | 23807293 | 117.943 | ug/m3 | 99 |
| 24) n-dodecane | 20.93 | TIC | 75738364 | 152.695 | ug/m3 | 100 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 606728871 | -336.658 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 31027482M5 | 504.233 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 5847308 | 500.607 | ug/m3 | 100 |
| 27) C9-C10 Aromatics Total | 0.00 | | 36874790 | 3156.973 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125410.D
Acq On : 11 Dec 2012 11:00 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD20.0
Misc : WG578918
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 11 11:24:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:22:29 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125411.D
Acq On : 11 Dec 2012 11:32 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD50.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:03:38 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:24:33 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1069200 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 67.94% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5957771 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 77.32% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1585599 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 82.91% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.28 | TIC | 7520133 | 8.234 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 82.34% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 13934433 | 9.423 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 94.23% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 18900780 | 9.975 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.75% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 5564333 | 9.622 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 96.22% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 115532153 | 75.755 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 757.55% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 22555189 | 11.957 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 119.57% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 8072722 | 147.610 | ug/m3 | 99 |
| 3) isopentane | 6.44 | TIC | 81534791 | 177.286 | ug/m3 | 100 |
| 4) methyl tert butyl ether | 9.16 | 73 | 22695711 | 232.542 | ug/m3 | 100 |
| 5) hexane | 10.33 | TIC | 60309530M4 | 182.677 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 78762529M4 | 213.771 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 99290698 | 242.336 | ug/m3 | 100 |
| 9) benzene | 12.09 | 78 | 29938831 | 188.701 | ug/m3 | 100 |
| 10) heptane | 13.62 | TIC | 94814355 | 244.013 | ug/m3 | 100 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 1571415717 | -488.588 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 37561311 | 211.747 | ug/m3 | 100 |
| 14) n-octane | 16.22 | TIC | 114284074 | 260.656 | ug/m3 | 100 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 138574313 | 287.368 | ug/m3 | 99 |
| 16) ethyl benzene | 17.24 | 91 | 48742053 | 244.071 | ug/m3 | 99 |
| 17) m+p-xylene | 17.38 | 91 | 39470770 | 253.455 | ug/m3 | 100 |
| 18) n-nonane | 17.88 | TIC | 139952898 | 292.888 | ug/m3 | 99 |
| 19) o-xylene | 17.75 | 91 | 40568123 | 253.919 | ug/m3 | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125411.D
Acq On : 11 Dec 2012 11:32 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD50.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:03:38 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:24:33 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

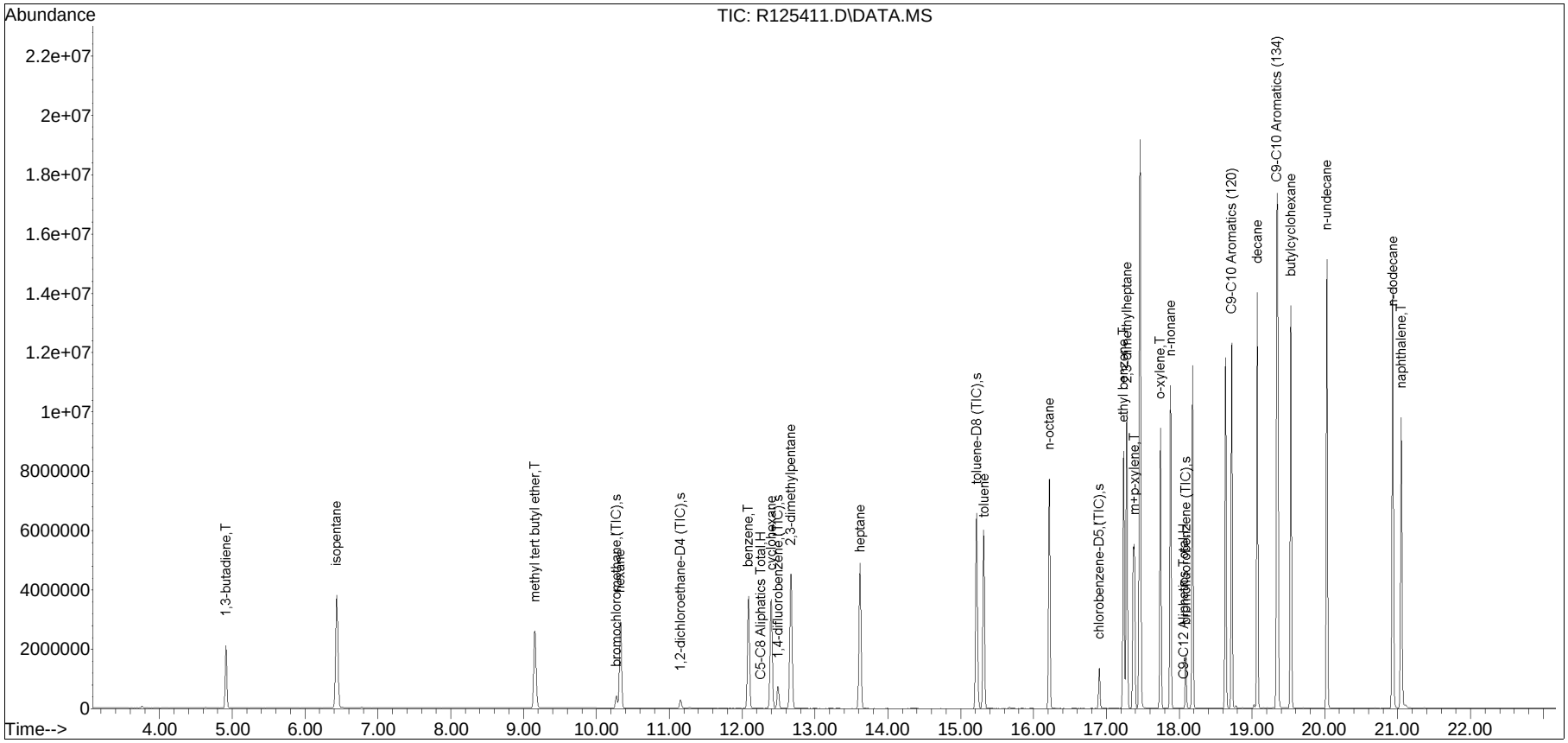
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 20) decane | 19.07 | TIC | 161317162 | 322.833 ug/m3 | 99 |
| 21) butylcyclohexane | 19.53 | TIC | 167892518 | 328.279 ug/m3 | 99 |
| 22) n-undecane | 20.03 | TIC | 181109030 | 368.409 ug/m3 | 99 |
| 23) naphthalene | 21.05 | 128 | 64945829 | 343.872 ug/m3 | 99 |
| 24) n-dodecane | 20.93 | TIC | 200231372 | 433.831 ug/m3 | 99 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 1586980475 | -1049.870 ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 83827898M5 | 1489.857 ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 15956593M5 | 1496.173 ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 99784491 | 9356.315 ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125411.D
Acq On : 11 Dec 2012 11:32 am
Operator : AIRPIANO1:AR
Sample : IAPH-10STD50.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:03:38 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 11:24:33 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125412.D
Acq On : 11 Dec 2012 12:04 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD80.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:25:37 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:04:02 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) bromochloromethane | 10.28 | 128 | 1389079 | 10.000 ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = 88.27% | |
| 7) 1,4-difluorobenzene | 12.50 | 114 | 7706870 | 10.000 ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = 100.02% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1980044 | 10.000 ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = 103.54% | |
| System Monitoring Compounds | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 9769740 | 8.826 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 88.26% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 18105445 | 9.900 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 99.00% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 22757300 | 9.621 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 96.21% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6821013 | 9.505 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 95.05% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 169623727 | 85.332 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 853.32% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 22638054 | 9.306 ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = 93.06% | |
| Target Compounds | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 12582405 | 167.741 ug/m3 | 100 |
| 3) isopentane | 6.44 | TIC | 125634663 | 203.403 ug/m3 | 100 |
| 4) methyl tert butyl ether | 9.15 | 73 | 35047227 | 263.662 ug/m3 | 100 |
| 5) hexane | 10.33 | TIC | 92272776M4 | 214.344 ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 122100243M4 | 245.149 ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 154607971 | 283.045 ug/m3 | 100 |
| 9) benzene | 12.09 | 78 | 46235163 | 218.670 ug/m3 | 100 |
| 10) heptane | 13.62 | TIC | 145421552 | 280.398 ug/m3 | 100 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 2364271465 | -554.111 ug/m3 | |
| 13) toluene | 15.32 | 91 | 57495294 | 254.309 ug/m3 | 99 |
| 14) n-octane | 16.22 | TIC | 172908569 | 309.823 ug/m3 | 99 |
| 15) 2,3-dimethylheptane | 17.29 | TIC | 206600818 | 337.659 ug/m3 | 98 |
| 16) ethyl benzene | 17.24 | 91 | 74533259 | 292.811 ug/m3 | 98 |
| 17) m+p-xylene | 17.39 | 91 | 61181308 | 306.066 ug/m3 | 100 |
| 18) n-nonane | 17.88 | TIC | 207845643 | 341.677 ug/m3# | 98 |
| 19) o-xylene | 17.75 | 91 | 61398610 | 299.288 ug/m3 | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125412.D
Acq On : 11 Dec 2012 12:04 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD80.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:25:37 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:04:02 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

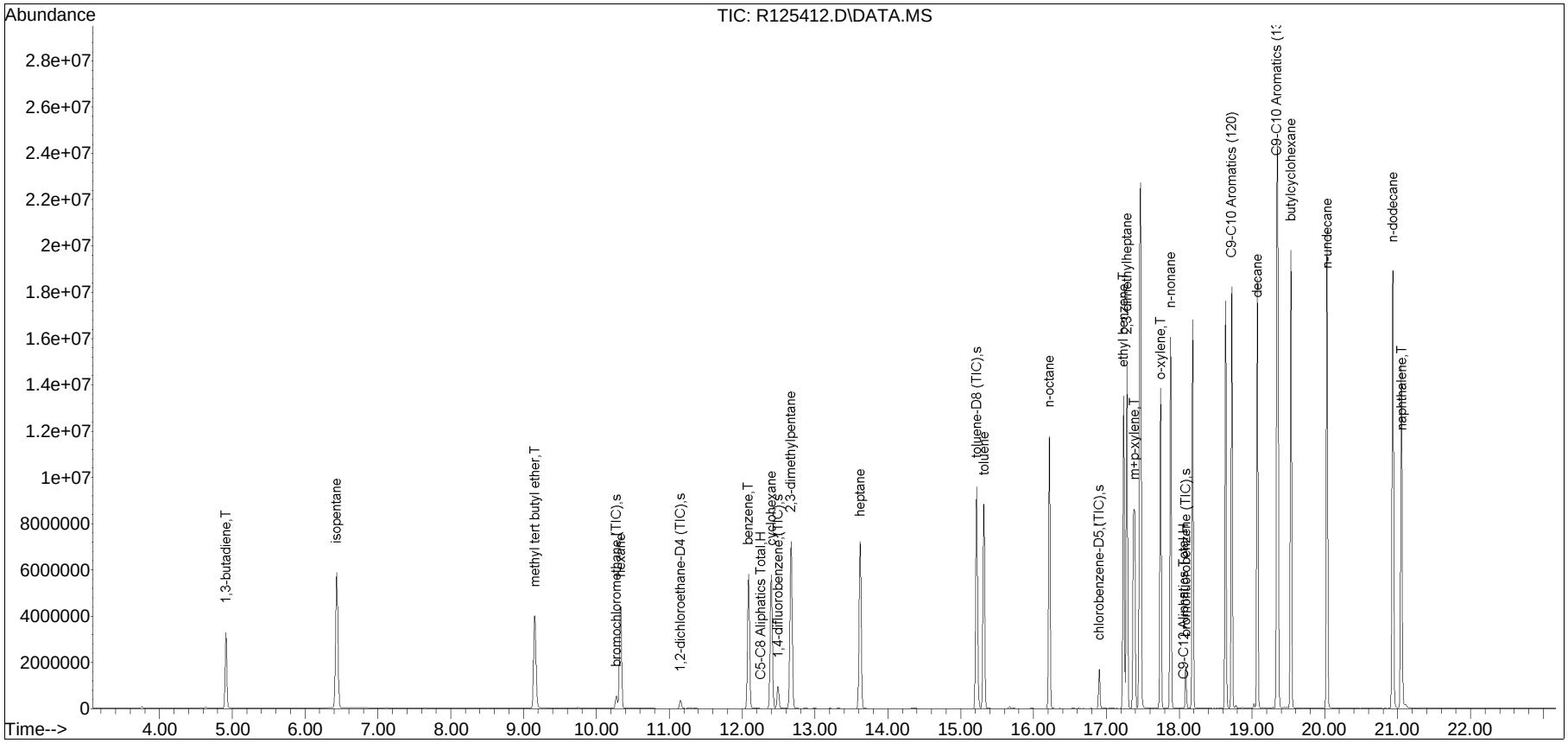
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 20) decane | 19.07 | TIC | 232341156 | 365.666 ug/m3 | 97 |
| 21) butylcyclohexane | 19.53 | TIC | 248934913M4 | 375.864 ug/m3 | |
| 22) n-undecane | 20.03 | TIC | 264057003 | 419.472 ug/m3 | 98 |
| 23) naphthalene | 21.05 | 128 | 100123992 | 403.544 ug/m3 | 98 |
| 24) n-dodecane | 20.94 | TIC | 290824627 | 484.758 ug/m3 | 98 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 2334406343 | -1182.351 ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.72 | 120 | 126454265M5 | 1743.959 ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 23105777M5 | 1679.790 ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 149560042 | 10873.015 ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125412.D
Acq On : 11 Dec 2012 12:04 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD80.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 12:25:37 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:04:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125413.D
Acq On : 11 Dec 2012 12:35 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD100.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 13:02:15 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:25:55 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1573453 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 99.99% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 7610714 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 98.78% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1933004 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 101.08% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 11406126 | 10.735 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 107.35% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 18053389 | 10.126 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.26% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 22203817 | 9.668 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 96.68% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6865010 | 9.869 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 98.69% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 204321766 | 106.075 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 1060.75% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 22643427 | 9.631 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 96.31% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 15446695 | 183.162 | ug/m3 | 99 |
| 3) isopentane | 6.44 | TIC | 155548634 | 226.785 | ug/m3 | 100 |
| 4) methyl tert butyl ether | 9.15 | 73 | 43545056 | 292.796 | ug/m3 | 100 |
| 5) hexane | 10.33 | TIC | 144587258M4 | 307.032 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 150832477M4 | 271.587 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.68 | TIC | 189781621 | 358.854 | ug/m3 | 100 |
| 9) benzene | 12.09 | 78 | 57331116 | 280.357 | ug/m3 | 100 |
| 10) heptane | 13.62 | TIC | 179742863 | 358.385 | ug/m3 | 100 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 2894890306 | -631.709 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 71241870 | 330.176 | ug/m3 | 98 |
| 14) n-octane | 16.22 | TIC | 209876957 | 394.845 | ug/m3 | 99 |
| 15) 2,3-dimethylheptane | 17.29 | TIC | 250037175 | 430.558 | ug/m3 | 98 |
| 16) ethyl benzene | 17.24 | 91 | 91232379 | 375.567 | ug/m3 | 97 |
| 17) m+p-xylene | 17.39 | 91 | 75581539 | 394.002 | ug/m3 | 100 |
| 18) n-nonane | 17.89 | TIC | 248422427 | 429.727 | ug/m3# | 97 |
| 19) o-xylene | 17.75 | 91 | 74894272 | 381.503 | ug/m3 | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125413.D
Acq On : 11 Dec 2012 12:35 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD100.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 13:02:15 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:25:55 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

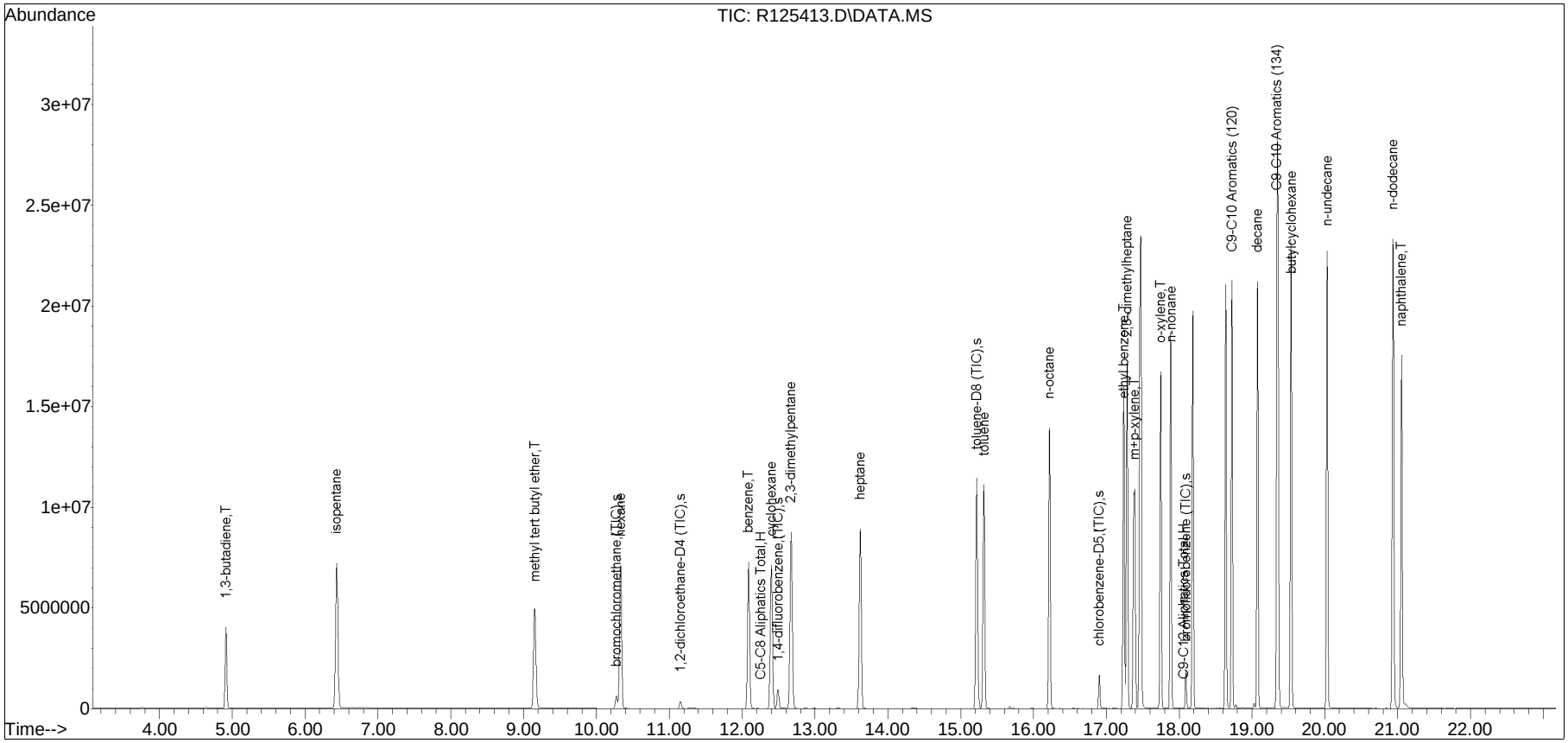
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 20) decane | 19.08 | TIC | 278136982 | 462.577 ug/m3# | 97 |
| 21) butylcyclohexane | 19.54 | TIC | 296526471 | 470.725 ug/m3 | 98 |
| 22) n-undecane | 20.03 | TIC | 312117795 | 521.276 ug/m3 | 97 |
| 23) naphthalene | 21.06 | 128 | 121679061 | 505.077 ug/m3 | 98 |
| 24) n-dodecane | 20.94 | TIC | 341940251 | 594.894 ug/m3 | 97 |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 2793476473 | -1486.159 ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.73 | 120 | 153954213M5 | 2215.402 ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 27587771M5 | 2102.528 ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 181541984 | 13835.732 ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125413.D
Acq On : 11 Dec 2012 12:35 pm
Operator : AIRPIANO1:AR
Sample : IAPH-10STD100.0
Misc : WG578918
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 11 13:02:15 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 12:25:55 2012
Response via : Initial Calibration



RSF Update Summary Report

```
Method Path.........: O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Method File.........: APH121211.M
Method Title........: APH Analysis
Last Update.........: Tue Dec 11 13:02:35 2012


Generating Sum Response Factor For:  C5-C8 Aliphatics Total

No  Compound                  Level            Conc        Response

-----------------------------------------------------------------------------------
-------------------------------------
      3 isopentane                   1         1.18000       832834.501
      5 hexane                       1         1.41000       782750.957
      6 cyclohexane                  1         1.38000       786246.351
      8 2,3-dimethylpentane          1         1.64000       906342.530
     10 heptane                      1         1.64000       834726.573
     14 n-octane                     1         1.87000      1048655.910

-----------------------------------------------------------------------------------
-------------------------------------
Sum RSF For: C5-C8 Aliphatics Total         9.12000      5191556.823
ISTD: 1,4-difluorobenzene                  10.00000      7573685.873
Level 1 Response Factor =          0.7516

      3 isopentane                   2         2.36000      1573596.475
      5 hexane                       2         2.82000      1158985.377
      6 cyclohexane                  2         2.76000      1395536.710
      8 2,3-dimethylpentane          2         3.28000      1661476.884
     10 heptane                      2         3.28000      1593409.138
     14 n-octane                     2         3.74000      1963798.300

-----------------------------------------------------------------------------------
-------------------------------------
Sum RSF For: C5-C8 Aliphatics Total        18.24000      9346802.883
ISTD: 1,4-difluorobenzene                  10.00000      7489728.180
Level 2 Response Factor =          0.6842

      3 isopentane                   3         5.90000      3535178.209
      5 hexane                       3         7.04000      3444724.647
      6 cyclohexane                  3         6.88000      3272058.012
      8 2,3-dimethylpentane          3         8.19000      4195053.290
     10 heptane                      3         8.19000      3957399.970
     14 n-octane                     3         9.34000      4733820.900

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-------------------------------------
Sum RSF For: C5-C8 Aliphatics Total        45.54000     23138235.028
ISTD: 1,4-difluorobenzene                  10.00000      7592169.778
Level 3 Response Factor =          0.6692

      3 isopentane                   4        29.50000     15524022.713
      5 hexane                       4        35.20000     14503879.331
      6 cyclohexane                  4        34.40000     15163623.700
      8 2,3-dimethylpentane          4        41.00000     18833539.076
     10 heptane                      4        41.00000     18153521.275
     14 n-octane                     4        46.70000     22162111.566
```

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--------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C5-C8 Aliphatics Total       227.80000    104340697.661
     ISTD: 1,4-difluorobenzene                  10.00000      7704992.185
     Level 4 Response Factor =          0.5945

       3 isopentane                    5        58.97000     31069306.322
       5 hexane                        5        70.44000     23661526.704
       6 cyclohexane                   5        68.79000     29767340.315
       8 2,3-dimethylpentane           5        81.90000     37469770.324
      10 heptane                       5        81.90000     35872488.240
      14 n-octane                      5        93.36000     43699307.790

--------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C5-C8 Aliphatics Total       455.36000    201539739.695
     ISTD: 1,4-difluorobenzene                  10.00000      6006402.133
     Level 5 Response Factor =          0.7369

       3 isopentane                    6       147.43000     81534791.221
       5 hexane                        6       178.74000     60309529.518
       6 cyclohexane                   6       171.97000     78762529.203
       8 2,3-dimethylpentane           6       204.74000     99290698.127
      10 heptane                       6       204.91000     94814355.472
      14 n-octane                      6       233.60000    114284073.515

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-------------------------------------
     Sum RSF For: C5-C8 Aliphatics Total      1141.39000    528995977.057
     ISTD: 1,4-difluorobenzene                  10.00000      5957771.270
     Level 6 Response Factor =          0.7779

       3 isopentane                    7       235.88000    125634662.570
       5 hexane                        7       281.98000     92272776.178
       6 cyclohexane                   7       275.20000    122100242.584
       8 2,3-dimethylpentane           7       328.00000    154607970.867
      10 heptane                       7       328.00000    145421551.670
      14 n-octane                      7       373.60000    172908569.265

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-------------------------------------
     Sum RSF For: C5-C8 Aliphatics Total      1822.66000    812945773.134
     ISTD: 1,4-difluorobenzene                  10.00000      7706870.243
     Level 7 Response Factor =          0.5787

       3 isopentane                    8       294.85000    155548633.782
       5 hexane                        8       352.47000    144587257.721
       6 cyclohexane                   8       343.93000    150832476.912
       8 2,3-dimethylpentane           8       409.48000    189781620.987
      10 heptane                       8       409.82000    179742862.995
      14 n-octane                      8       467.20000    209876957.490

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-------------------------------------
     Sum RSF For: C5-C8 Aliphatics Total      2277.75000   1030369809.889
     ISTD: 1,4-difluorobenzene                  10.00000      7610713.632
     Level 8 Response Factor =          0.5944

     Avg Response Factor =  0.6734
     Rel Standard Deviation =  11.59%


     Generating Sum Response Factor For:  C9-C12 Aliphatics Total
```

```
     No  Compound                  Level            Conc        Response

-----------------------------------------------------------------------------------
-------------------------------------
      15 2,3-dimethylheptane           1         2.10000      1285450.925
      18 n-nonane                      1         2.10000      1259276.572
      20 decane                        1         2.33000      1424260.299
      21 butylcyclohexane              1         2.29000      1390499.805
      22 n-undecane                    1         2.56000      1534477.148
      24 n-dodecane                    1         2.78000      1473760.967

-----------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total        14.16000      8367725.716
     ISTD: chlorobenzene-D5                      10.00000      1841207.330
     Level 1 Response Factor =          3.2095

      15 2,3-dimethylheptane           2         4.20000      2446239.189
      18 n-nonane                      2         4.20000      2399244.094
      20 decane                        2         4.66000      2816396.624
      21 butylcyclohexane              2         4.58000      2882531.112
      22 n-undecane                    2         5.12000      2995215.402
      24 n-dodecane                    2         5.56000      2966710.841

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-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total        28.32000     16506337.262
     ISTD: chlorobenzene-D5                      10.00000      1810777.450
     Level 2 Response Factor =          3.2188

      15 2,3-dimethylheptane           3        10.48000      5942235.534
      18 n-nonane                      3        10.48000      5871804.593
      20 decane                        3        11.63000      6812548.020
      21 butylcyclohexane              3        11.47000      6880273.687
      22 n-undecane                    3        12.78000      7135411.227
      24 n-dodecane                    3        13.92000      7292681.985

-----------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total        70.76000     39934955.045
     ISTD: chlorobenzene-D5                      10.00000      1874209.170
     Level 3 Response Factor =          3.0113

      15 2,3-dimethylheptane           4        52.40000     27307147.955
      18 n-nonane                      4        52.40000     27220680.940
      20 decane                        4        58.20000     31849874.688
      21 butylcyclohexane              4        57.30000     32261544.450
      22 n-undecane                    4        63.90000     34972692.825
      24 n-dodecane                    4        69.60000     37282263.641

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-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total       353.80000    190894204.499
     ISTD: chlorobenzene-D5                      10.00000      1912406.460
     Level 4 Response Factor =          2.8213

      15 2,3-dimethylheptane           5       104.83000     53075772.904
      18 n-nonane                      5       104.83000     53728705.175
      20 decane                        5       116.29000     62873105.421
      21 butylcyclohexane              5       114.65000     63910517.527
      22 n-undecane                    5       127.76000     70458096.610
      24 n-dodecane                    5       139.22000     75738364.273
```

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-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total       707.58000    379784561.910
     ISTD: chlorobenzene-D5                      10.00000      1736997.870
     Level 5 Response Factor =          3.0900

      15 2,3-dimethylheptane           6       262.08000    138574312.648
      18 n-nonane                      6       262.29000    139952897.988
      20 decane                        6       290.96000    161317161.521
      21 butylcyclohexane              6       268.62000    167892518.405
      22 n-undecane                    6       319.65000    181109029.658
      24 n-dodecane                    6       348.33000    200231372.472

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total      1751.93000    989077292.692
     ISTD: chlorobenzene-D5                      10.00000      1585598.951
     Level 6 Response Factor =          3.5606

      15 2,3-dimethylheptane           7       419.20000    206600817.863
      18 n-nonane                      7       419.66000    207845643.495
      20 decane                        7       465.60000    232341156.239
      21 butylcyclohexane              7       458.40000    248934913.284
      22 n-undecane                    7       511.44000    264057002.580
      24 n-dodecane                    7       557.32000    290824627.340

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total      2831.62000   1450604160.800
     ISTD: chlorobenzene-D5                      10.00000      1980043.677
     Level 7 Response Factor =          2.5873

      15 2,3-dimethylheptane           8       524.15000    250037175.070
      18 n-nonane                      8       524.58000    248422426.665
      20 decane                        8       581.92000    278136981.818
      21 butylcyclohexane              8       573.23000    296526470.880
      22 n-undecane                    8       639.30000    312117795.310
      24 n-dodecane                    8       696.65000    341940250.649

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-------------------------------------
     Sum RSF For: C9-C12 Aliphatics Total      3539.83000   1727181100.392
     ISTD: chlorobenzene-D5                      10.00000      1933003.780
     Level 8 Response Factor =          2.5242

     Avg Response Factor =  3.0029
     Rel Standard Deviation =  11.56%


     Generating Sum Response Factor For:  C9-C10 Aromatics (120)

     No  Compound                   Level            Conc        Response

-------------------------------------------------------------------------------------
-------------------------------------
      26 C9-C10 Aromatics (120)        1        10.00000       691513.245
      27 C9-C10 Aromatics (134)        1        10.00000       135737.475

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)        10.00000       827250.720
     ISTD: chlorobenzene-D5                      10.00000      1841207.330
```

```
     Level 1 Response Factor =          0.4493

      26 C9-C10 Aromatics (120)        2        20.00000      1302750.960
      27 C9-C10 Aromatics (134)        2        20.00000       254736.070

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)        20.00000      1557487.030
     ISTD: chlorobenzene-D5                     10.00000      1810777.450
     Level 2 Response Factor =          0.4301

      26 C9-C10 Aromatics (120)        3        50.00000      3332796.985
      27 C9-C10 Aromatics (134)        3        50.00000       602702.700

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)        50.00000      3935499.685
     ISTD: chlorobenzene-D5                     10.00000      1874209.170
     Level 3 Response Factor =          0.4200

      26 C9-C10 Aromatics (120)        4       250.00000     15589672.525
      27 C9-C10 Aromatics (134)        4       250.00000      2897454.565

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)       250.00000     18487127.090
     ISTD: chlorobenzene-D5                     10.00000      1912406.460
     Level 4 Response Factor =          0.3867

      26 C9-C10 Aromatics (120)        5       500.00000     31027482.030
      27 C9-C10 Aromatics (134)        5       500.00000      5847308.100

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)       500.00000     36874790.130
     ISTD: chlorobenzene-D5                     10.00000      1736997.870
     Level 5 Response Factor =          0.4246

      26 C9-C10 Aromatics (120)        6      1250.00000     83827897.632
      27 C9-C10 Aromatics (134)        6      1250.00000     15956593.011

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)      1250.00000     99784490.643
     ISTD: chlorobenzene-D5                     10.00000      1585598.951
     Level 6 Response Factor =          0.5035

      26 C9-C10 Aromatics (120)        7      2000.00000    126454264.505
      27 C9-C10 Aromatics (134)        7      2000.00000     23105777.495

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)      2000.00000    149560042.000
     ISTD: chlorobenzene-D5                     10.00000      1980043.677
     Level 7 Response Factor =          0.3777

      26 C9-C10 Aromatics (120)        8      2500.00000    153954212.740
      27 C9-C10 Aromatics (134)        8      2500.00000     27587770.850

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (120)      2500.00000    181541983.590
     ISTD: chlorobenzene-D5                     10.00000      1933003.780
```

```
     Level 8 Response Factor =          0.3757

     Avg Response Factor =  0.4209
     Rel Standard Deviation =  10.16%


     Generating Sum Response Factor For:  C9-C10 Aromatics (134)

     No  Compound                  Level            Conc        Response

-------------------------------------------------------------------------------------
-------------------------------------
      26 C9-C10 Aromatics (120)        1        10.00000       691513.245
      27 C9-C10 Aromatics (134)        1        10.00000       135737.475

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)        10.00000       827250.720
     ISTD: chlorobenzene-D5                     10.00000      1841207.330
     Level 1 Response Factor =          0.4493

      26 C9-C10 Aromatics (120)        2        20.00000      1302750.960
      27 C9-C10 Aromatics (134)        2        20.00000       254736.070

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)        20.00000      1557487.030
     ISTD: chlorobenzene-D5                     10.00000      1810777.450
     Level 2 Response Factor =          0.4301

      26 C9-C10 Aromatics (120)        3        50.00000      3332796.985
      27 C9-C10 Aromatics (134)        3        50.00000       602702.700

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)        50.00000      3935499.685
     ISTD: chlorobenzene-D5                     10.00000      1874209.170
     Level 3 Response Factor =          0.4200

      26 C9-C10 Aromatics (120)        4       250.00000     15589672.525
      27 C9-C10 Aromatics (134)        4       250.00000      2897454.565

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)       250.00000     18487127.090
     ISTD: chlorobenzene-D5                     10.00000      1912406.460
     Level 4 Response Factor =          0.3867

      26 C9-C10 Aromatics (120)        5       500.00000     31027482.030
      27 C9-C10 Aromatics (134)        5       500.00000      5847308.100

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)       500.00000     36874790.130
     ISTD: chlorobenzene-D5                     10.00000      1736997.870
     Level 5 Response Factor =          0.4246

      26 C9-C10 Aromatics (120)        6      1250.00000     83827897.632
      27 C9-C10 Aromatics (134)        6      1250.00000     15956593.011

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)      1250.00000     99784490.643
```

```
     ISTD: chlorobenzene-D5                      10.00000      1585598.951
     Level 6 Response Factor =          0.5035

      26 C9-C10 Aromatics (120)        7      2000.00000    126454264.505
      27 C9-C10 Aromatics (134)        7      2000.00000     23105777.495

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)      2000.00000    149560042.000
     ISTD: chlorobenzene-D5                      10.00000      1980043.677
     Level 7 Response Factor =          0.3777

      26 C9-C10 Aromatics (120)        8      2500.00000    153954212.740
      27 C9-C10 Aromatics (134)        8      2500.00000     27587770.850

-------------------------------------------------------------------------------------
-------------------------------------
     Sum RSF For: C9-C10 Aromatics (134)      2500.00000    181541983.590
     ISTD: chlorobenzene-D5                      10.00000      1933003.780
     Level 8 Response Factor =          0.3757

     Avg Response Factor =  0.4209
     Rel Standard Deviation =  10.16%


     Generating Reference Response Factors

     No  Compound                             No  Refrence Compound

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                                                Abacus Response Factor Update Macro
Ver. 1.0
```

# Initial Calibration Verification

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125416.D
Acq On : 11 Dec 2012 2:56 pm
Operator : AIRPIANO1:AR
Sample : CAPH-10STD10
Misc : WG578918
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 11 15:24:16 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 10.000 | 10.000 | 0.0 | 99 | 0.00 |
| 2 | T | 1,3-butadiene | 22.100 | 19.270 | 12.8 | 103 | 0.00 |
| 4 | T | methyl tert butyl ether | 36.000 | 33.520 | 6.9 | 111 | 0.00 |
| 7 | I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 97 | 0.00 |
| 9 | T | benzene | 31.900 | 29.841 | 6.5 | 104 | 0.00 |
| 11 | H | C5-C8 Aliphatics Total | 122.000 | 111.724 | 8.4 | 54 | 0.00 |
| 12 | I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 99 | 0.00 |
| 13 | | toluene | 37.700 | 35.943 | 4.7 | 105 | 0.00 |
| 16 | T | ethyl benzene | 43.400 | 42.267 | 2.6 | 105 | 0.00 |
| 17 | T | m+p-xylene | 86.800 | 82.919 | 4.5 | 208 | 0.01 |
| 19 | T | o-xylene | 43.400 | 42.269 | 2.6 | 107 | 0.00 |
| 23 | T | naphthalene | 52.420 | 57.504 | -9.7 | 116 | 0.00 |
| 25 | H | C9-C12 Aliphatics Total | 174.000 | 167.131 | 3.9 | 50 | 0.00 |
| 27 | | C9-C10 Aromatics Total | 465.000 | 373.476 | 19.7 | 161 | 0.00 |
| 28 | s | bromochloromethane (TIC) | 10.000 | 11.535 | -15.4 | 101 | 0.00 |
| 29 | s | 1,4-difluorobenzene (TIC) | 10.000 | 10.167 | -1.7 | 97 | 0.00 |
| 30 | s | chlorobenzene-D5 (TIC) | 10.000 | 11.132 | -11.3 | 109 | 0.00 |
| 31 | s | 1,2-dichloroethane-D4 (TIC) | 10.000 | 9.907 | 0.9 | 101 | 0.00 |
| 32 | s | toluene-D8 (TIC) | 20.000 | 9.130 | 54.4# | 48 | 0.00 |
| 33 | s | bromofluorobenzene (TIC) | 10.000 | 9.417 | 5.8 | 99 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125416.D
Acq On : 11 Dec 2012 2:56 pm
Operator : AIRPIANO1:AR
Sample : CAPH-10STD10
Misc : WG578918
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 11 15:24:16 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

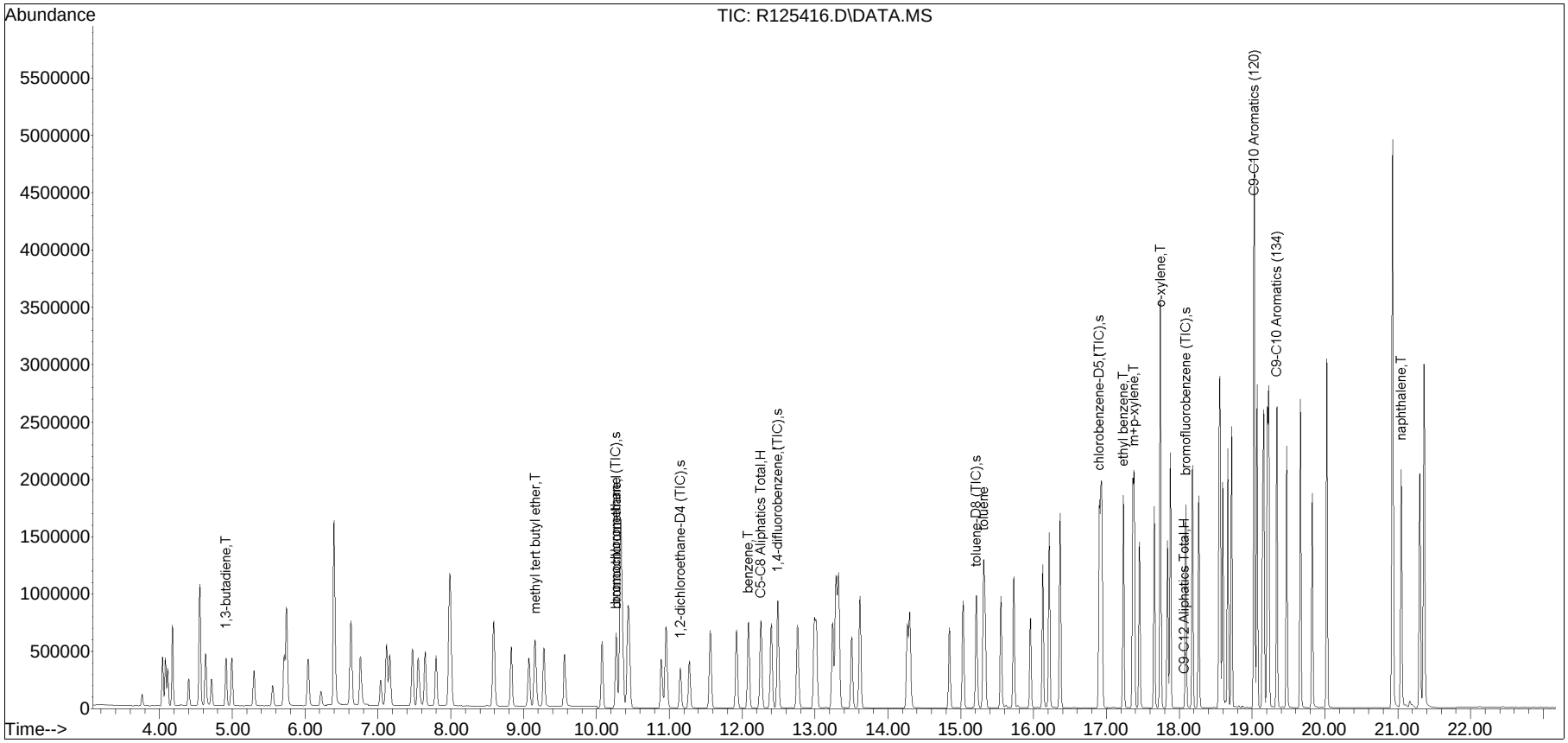
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1564319 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1573682 | | | Recovery | = | 99.41% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 7482413 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 7704992 | | | Recovery | = | 97.11% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1888907 | 10.000 | ug/m3 | # 0.00 |
| Standard Area = 1912406 | | | Recovery | = | 98.77% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 12086499 | 11.535 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 115.35% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 17740848 | 10.167 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.67% | |
| 30) chlorobenzene-D5 (TIC) | 16.91 | TIC | 24878827m | 11.132 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 111.32% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6723530 | 9.907 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.07% | |
| 32) toluene-D8 (TIC) | 15.22 | TIC | 17107702 | 9.130 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 91.30% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 21535733 | 9.417 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 94.17% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 1580902 | 19.270 | ug/m3 | 99 |
| 4) methyl tert butyl ether | 9.16 | 73 | 4839851 | 33.520 | ug/m3 | 98 |
| 9) benzene | 12.09 | 78 | 5907628 | 29.841 | ug/m3 | 100 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 56296100m | 111.724 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 7461128 | 35.943 | ug/m3 | 100 |
| 16) ethyl benzene | 17.24 | 91 | 9863906 | 42.267 | ug/m3 | 99 |
| 17) m+p-xylene | 17.38 | 91 | 15363592 | 82.919 | ug/m3 | 100 |
| 19) o-xylene | 17.74 | 91 | 7985674 | 42.269 | ug/m3 | 99 |
| 23) naphthalene | 21.05 | 128 | 13475651 | 57.504 | ug/m3 | 99 |
| 25) C9-C12 Aliphatics Total | 18.07 | TIC | 94799016m | 167.131 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.03 | 120 | 19777988M5 | 248.754 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 9916365M5 | 124.721 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 29694353 | 373.476 | ug/m3 | |

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

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211_APHICAL\
Data File : R125416.D
Acq On : 11 Dec 2012 2:56 pm
Operator : AIRPIANO1:AR
Sample : CAPH-10STD10
Misc : WG578918
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 11 15:24:16 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211_APHICAL\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration



# Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 21 2015, 01:01 pm

Work Group: WG589501 for Department: 3 GC/MS

Created: 08-FEB-13 Due: Operator: ry

| Sample | Client ID | C | Product | Matrix | Stat | UA | HOLD | DUE | PR | Location |
|---|---|---|---|---|---|---|---|---|---|---|
| L1301988-01 | CAN 331 SHELF #9 | S | APH-10 | AIR | DONE | I | 0303 | 0207 | NC | Can-2.7 |
| L1302169-01 | CAN 1672 SHELF 36 | S | APH-10 | AIR | DONE | I | 0307 | 0213 | NC | Can-6 |
| L1302169-02 | CAN 607 SHELF 37 | S | APH-10 | AIR | DONE | I | 0307 | 0213 | NC | Can-6 |
| L1302224-01 | S-149-J | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-02 | DUP | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-03 | S-157-J | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-04 | S-1100 | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-05 | S-171-X | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-06 | NEPD | S | APH-10 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302352-01 | C | S | APH-10 | AIR | DONE | U | 0309 | 0215 | S0 | Can-2.7 |
| L1302352-02 | IAREAR-A1-020713 | S | APH-10 | AIR | DONE | U | 0309 | 0215 | S0 | Can-2.7 |
| L1302352-03 | AAFENCE-A1-020713 | S | APH-10 | AIR | DONE | U | 0309 | 0215 | S0 | Can-2.7 |
| L1302354-01 | IA-1 | S | APH-10 | AIR | DONE | U | 0310 | 0214 | S0 | Can-6 |
| WG589501-1 | MS BFB Tune Standard | S | APH-10 | AIR | DONE | U | | | | |
| WG589501-2 | Continuing Calibrati | S | APH-10 | AIR | DONE | U | | | | |
| WG589501-3 | Laboratory Control S | S | APH-10 | AIR | DONE | U | | | | |
| WG589501-4 | Laboratory Method Bl | S | APH-10 | AIR | DONE | U | | | | |
| WG589501-5 | Duplicate Sample | S | APH-10 | AIR | DONE | U | | | | |

Comments:

WG589501-5 L1302224-01

# Sequence Logs

# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Date: 12/11/12

Analyst Initials: AR

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Internal Standard/Surrogate Volume: 100 mL

EM Voltage: 1800

SIM ICAL# Full Scan ICAL# PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1121101 | TO15_SFS | R125403 | 250ml | TUNE; RESPONSE LOW |
| 1 | TA1121101 | TO15_SFS | R125404 | 250ml | TUNE; RESPONSE LOW |
| 1 | TA1121101 | TO15_SFS | R125405 | 250ml | OK |
| 5 | IAPH-10STD0.4 | TO15_SFS | R125406 | SS12-035C 125ML 0.4 | |
| 5 | IAPH-10STD0.8 | TO15_SFS | R125407 | SS12-035C 250ML 0.8 | |
| 6 | IAPH-10STD2.0 | TO15_SFS | R125408 | SS12-035B 25ML 2.0 | |
| 6 | IAPH-10STD10.0 | TO15_SFS | R125409 | SS12-035B 125ML 10.0 | |
| 6 | IAPH-10STD20.0 | TO15_SFS | R125410 | SS12-035B 250ML 20.0 | |
| 7 | IAPH-10STD50.0 | TO15_SFS | R125411 | SS12-035A 125ML 50.0 | |
| 7 | IAPH-10STD80.0 | TO15_SFS | R125412 | SS12-035A 200ML 80.0 | |
| 7 | IAPH-10STD100.0 | TO15_SFS | R125413 | SS12-035A 250ML 100.0 | |
| 1 | BA1121101 | TO15_SFS | R125414 | 250ml | CARRYOVER CHK |
| 1 | BA1121102 | TO15_SFS | R125415 | 250ml | POST-FLUSH BLK |
| 2 | CAPH-10STD10 | TO15_SFS | R125416 | SS12-041C 250ML 10.0 | ICV |
| | | | | | |
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# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Date: 02/08/13

Internal Standard/Surrogate Volume: 100 mL

Analyst Initials: MB/AR

EM Voltage: 1918

SIM ICAL# 7589 Full Scan ICAL# 7588 PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1020801 | TO15_SFS | R126424 | 250ml | TUNE |
| 2 | CAPH-10STD10 | TO15_SFS | R126425 | SS12-047B 125ML 10.0 | APH CC |
| 3 | CTO15-LLSTD10.0 | TO15_SFS | R126426 | SS13-001B 250ML 10.0 | LL LCS |
| 3 | CTO15-SIMSTD5.0 | TO15_SFS | R126427 | SS13-001B 125ML 10.0 | SIM LCS |
| 1 | BA1020801 | TO15_SFS | R126428 | 250ml | INST. BLANK |
| 1 | BA1020802 | TO15_SFS | R126429 | 250ml | BLANK |
| 2 | L1301988-01,3,250,250 | TO15_SFS | R126430 | WG589501,ICAL7587 | |
| 3 | L1302052-01,3,250,250 | TO15_SFS | R126431 | WG589501,ICAL7587 | |
| 4 | L1302169-01,3,250,250 | TO15_SFS | R126432 | WG589501,ICAL7587 | |
| 5 | L1302169-02,3,250,250 | TO15_SFS | R126433 | WG589501,ICAL7587 | |
| 6 | L1302354-01,3,250,250 | TO15_SFS | R126434 | WG589501,ICAL7587 | |
| 7 | L1302352-01,3,250,250 | TO15_SFS | R126435 | WG589501,ICAL7587 | |
| 8 | L1302352-02,3,250,250 | TO15_SFS | R126436 | WG589501,ICAL7587 | |
| 9 | L1302352-03,3,250,250 | TO15_SFS | R126437 | WG589501,ICAL7587 | |
| 10 | L1302224-01,3,250,250 | TO15_SFS | R126438 | WG589501,ICAL7587 | |
| 10 | L1302224-01DUP,3,250,250 | TO15_SFS | R126439 | WG589501,ICAL7587 | APH, SIM, TO15-LL DUP |
| 11 | L1302224-02,3,250,250 | TO15_SFS | R126440 | WG589501,ICAL7587 | |
| 12 | L1302224-03,3,250,250 | TO15_SFS | R126441 | WG589501,ICAL7587 | |
| 13 | L1302224-04,3,250,250 | TO15_SFS | R126442 | WG589501,ICAL7587 | |
| 14 | L1302224-05,3,250,250 | TO15_SFS | R126443 | WG589501,ICAL7587 | |
| 15 | L1302224-06,3,250,250 | TO15_SFS | R126444 | WG589501,ICAL7587 | |

# Alpha Analytical Air Lab
# Instrument Run Log

| | | | | | |
|---|---|---|---|---|---|
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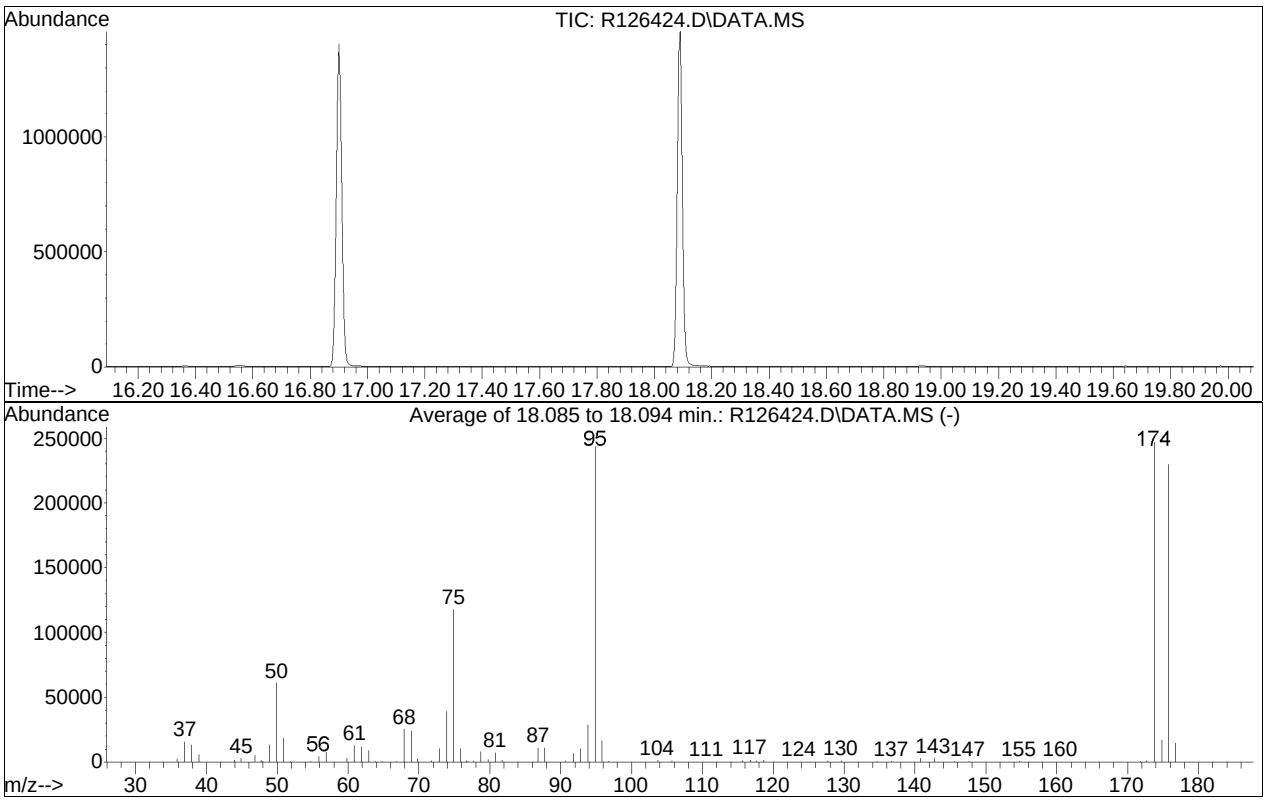
# Analytical Event

# Continuing Calibration
# BFB Tune

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126424.D
Acq On : 8 Feb 2013 10:47 am
Operator : AIRPIANO1:RY
Sample : WG589501-1,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 1 Sample Multiplier: 1

Integration File: ALIP-Range-all.E

Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Title : APH Analysis
Last Update : Tue Dec 11 13:02:35 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 2872

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 25.1 | 61168 | PASS |
| 75 | 95 | 30 | 66 | 48.3 | 117757 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 243627 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 16555 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 904 | PASS |
| 174 | 95 | 50 | 120 | 101.2 | 246507 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 17143 | PASS |
| 176 | 174 | 93 | 101 | 93.1 | 229611 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 14686 | PASS |

# Continuing Calibration

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126425.D
Acq On : 8 Feb 2013 11:19 am
Operator : AIRPIANO1:RY
Sample : WG589501-2,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 08 12:04:10 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 2 | T | 1,3-butadiene | 0.524 | 0.414 | 21.0 | 88 | 0.00 |
| 3 | | isopentane | 4.233 | 3.218 | 24.0 | 90 | 0.00 |
| 4 | T | methyl tert butyl ether | 0.923 | 0.687 | 25.6 | 84 | 0.00 |
| 5 | | hexane | 2.945 | 2.472 | 16.1 | 89 | 0.00 |
| 6 | | cyclohexane | 3.437 | 2.526 | 26.5 | 85 | 0.00 |
| 7 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 8 | | 2,3-dimethylpentane | 0.684 | 0.601 | 12.1 | 88 | 0.00 |
| 9 | T | benzene | 0.265 | 0.213 | 19.6 | 80 | 0.00 |
| 10 | | heptane | 0.649 | 0.565 | 12.9 | 86 | 0.00 |
| 11 | H | C5-C8 Aliphatics Total | 0.673 | 0.593 | 11.9 | 87 | 0.00 |
| 12 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 13 | | toluene | 1.099 | 0.880 | 19.9 | 83 | 0.00 |
| 14 | | n-octane | 2.697 | 2.296 | 14.9 | 86 | 0.00 |
| 15 | | 2,3-dimethylheptane | 2.937 | 2.573 | 12.4 | 88 | 0.00 |
| 16 | T | ethyl benzene | 1.235 | 1.035 | 16.2 | 85 | 0.00 |
| 17 | T | m+p-xylene | 0.981 | 0.819 | 16.5 | 86 | 0.00 |
| 18 | | n-nonane | 2.923 | 2.558 | 12.5 | 87 | 0.00 |
| 19 | T | o-xylene | 1.000 | 0.853 | 14.7 | 88 | 0.00 |
| 20 | | decane | 3.031 | 2.830 | 6.6 | 92 | 0.00 |
| 21 | | butylcyclohexane | 3.186 | 2.873 | 9.8 | 91 | 0.00 |
| 22 | | n-undecane | 3.026 | 2.883 | 4.7 | 93 | 0.00 |
| 23 | T | naphthalene | 1.241 | 1.287 | -3.7 | 103 | 0.00 |
| 24 | | n-dodecane | 2.919 | 2.907 | 0.4 | 96 | 0.00 |
| 25 | H | C9-C12 Aliphatics Total | 3.003 | 2.792 | 7.0 | 92 | 0.00 |
| 27 | | C9-C10 Aromatics Total | 0.421 | 0.378 | 10.2 | 91 | -0.66# |
| 28 | s | bromochloromethane (TIC) | 5.547 | 6.396 | -15.3 | 95 | 0.00 |
| 29 | s | 1,4-difluorobenzene (TIC) | 9.238 | 8.906 | 3.6 | 87 | 0.00 |
| 30 | s | chlorobenzene-D5 (TIC) | 11.832 | 11.582 | 2.1 | 90 | 0.00 |
| 31 | s | 1,2-dichloroethane-D4 (TIC) | 3.593 | 3.474 | 3.3 | 93 | 0.00 |
| 32 | s | toluene-D8 (TIC) | 9.920 | 8.614 | 13.2 | 85 | 0.00 |
| 33 | s | bromofluorobenzene (TIC) | 12.107 | 10.826 | 10.6 | 88 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126425.D
Acq On : 8 Feb 2013 11:19 am
Operator : AIRPIANO1:RY
Sample : WG589501-2,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 08 12:04:10 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1478420 | 10.000 | ug/m3 | 0.00 |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 6732125 | 10.000 | ug/m3 | 0.00 |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1774225 | 10.000 | ug/m3 | 0.00 |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 11347808 | 11.530 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 115.30% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 15801091 | 9.641 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 96.41% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 20549711 | 9.789 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 97.89% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6163374 | 9.669 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 96.69% | |
| 32) toluene-D8 (TIC) | 15.21 | TIC | 30566182 | 17.366 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 173.66% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 19207746 | 8.942 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 89.42% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 1353796 | 17.460 | ug/m3 | 98 |
| 3) isopentane | 6.44 | TIC | 14036479 | 22.427 | ug/m3 | 98 |
| 4) methyl tert butyl ether | 9.16 | 73 | 3655852 | 26.791 | ug/m3 | 99 |
| 5) hexane | 10.32 | TIC | 12865804M4 | 29.553 | ug/m3 | |
| 6) cyclohexane | 12.40 | TIC | 12848893M4 | 25.288 | ug/m3 | |
| 8) 2,3-dimethylpentane | 12.67 | TIC | 16591988 | 36.025 | ug/m3 | 99 |
| 9) benzene | 12.09 | 78 | 4569080 | 25.652 | ug/m3 | 96 |
| 10) heptane | 13.62 | TIC | 15588851 | 35.699 | ug/m3 | 98 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 91009946m | 200.747 | ug/m3 | |
| 13) toluene | 15.31 | 91 | 5882929 | 30.172 | ug/m3 | 100 |
| 14) n-octane | 16.21 | TIC | 19027350 | 39.770 | ug/m3 | 99 |
| 15) 2,3-dimethylheptane | 17.28 | TIC | 23923817 | 45.908 | ug/m3 | 98 |
| 16) ethyl benzene | 17.23 | 91 | 7968078 | 36.351 | ug/m3 | 99 |
| 17) m+p-xylene | 17.36 | 91 | 6308445M1 | 36.248 | ug/m3 | |
| 18) n-nonane | 17.88 | TIC | 23781010 | 45.855 | ug/m3 | 99 |
| 19) o-xylene | 17.74 | 91 | 6565937 | 37.001 | ug/m3 | 99 |
| 20) decane | 19.07 | TIC | 29217944 | 54.335 | ug/m3 | 99 |
| 21) butylcyclohexane | 19.53 | TIC | 29206908 | 51.669 | ug/m3 | 99 |
| 22) n-undecane | 20.03 | TIC | 32682768 | 60.874 | ug/m3 | 99 |
| 23) naphthalene | 21.05 | 128 | 11967933 | 54.371 | ug/m3 | 100 |
| 24) n-dodecane | 20.93 | TIC | 35898230 | 69.309 | ug/m3 | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126425.D
Acq On : 8 Feb 2013 11:19 am
Operator : AIRPIANO1:RY
Sample : WG589501-2,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 08 12:04:10 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

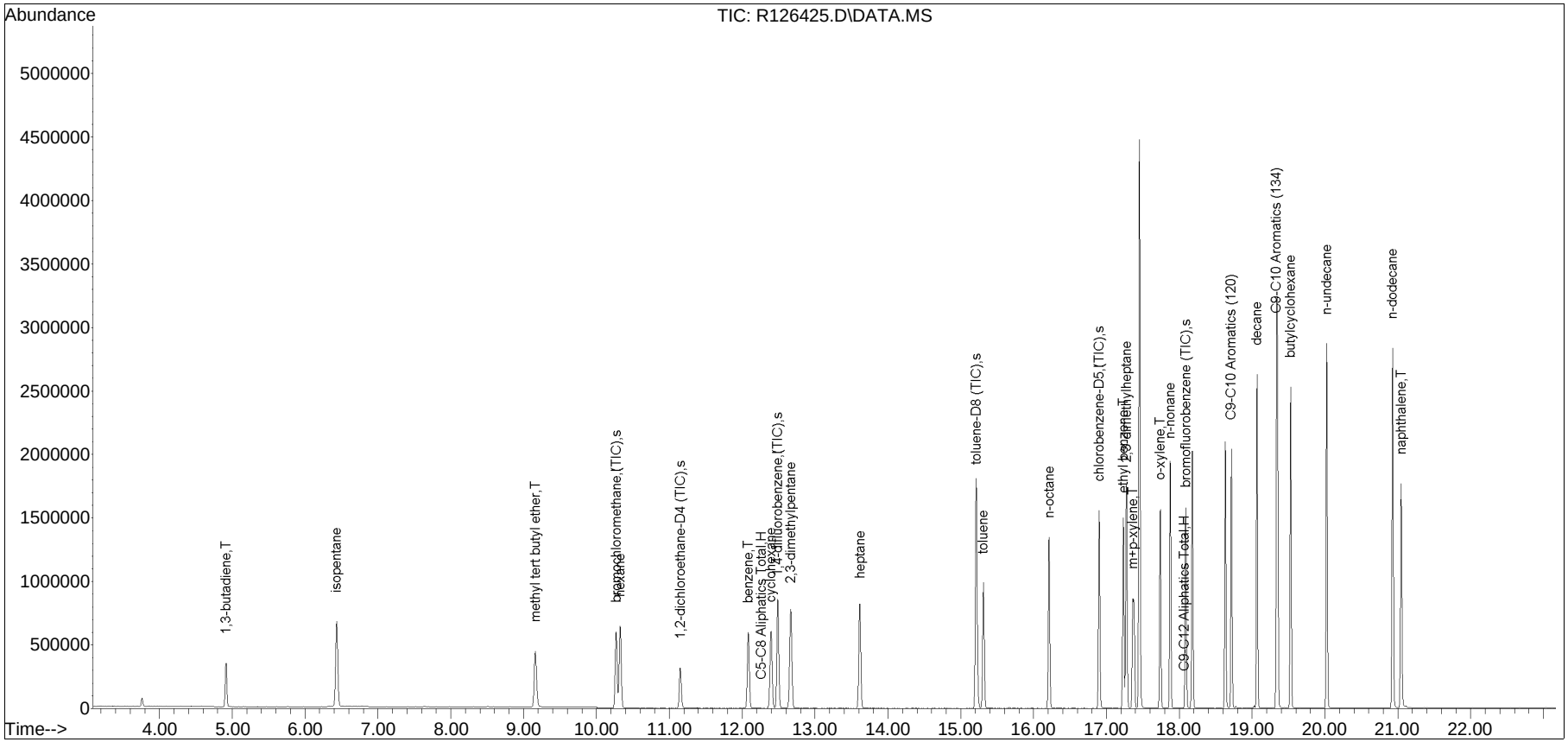
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 25) C9-C12 Aliphatics Total | 18.07 | TIC | 175230013m | 328.899 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 18.71 | 120 | 14072080M5 | 188.429 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.34 | 134 | 2702137M5 | 36.182 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 16774217 | 224.612 | ug/m3 | |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126425.D
Acq On : 8 Feb 2013 11:19 am
Operator : AIRPIANO1:RY
Sample : WG589501-2,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 08 12:04:10 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

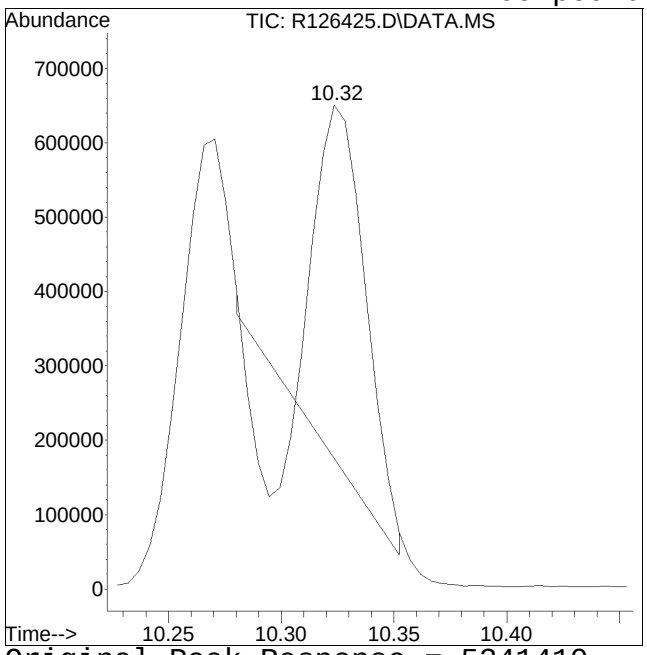


Manual Integration/Negative Proof Report

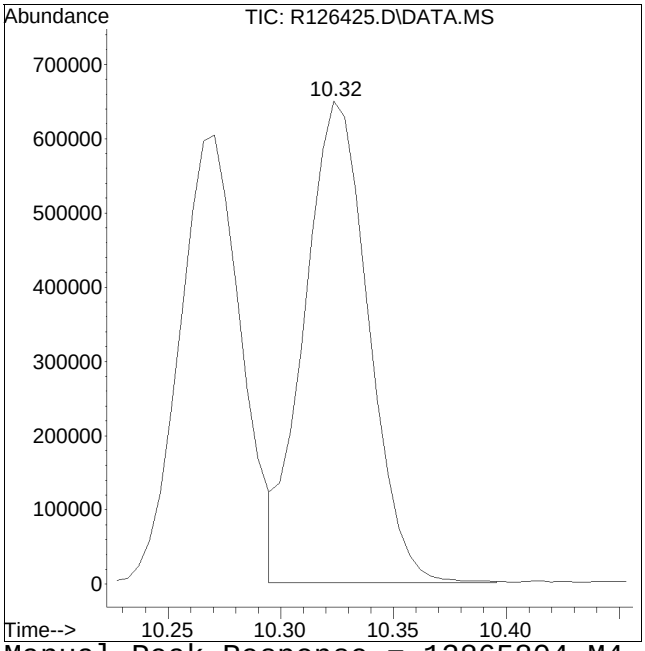
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126425.D
Date Inj'd : 2/8/2013 11:19 am
Sample : WG589501-2,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:02 pm

Compound #5: hexane




Original Peak Response = 5341410



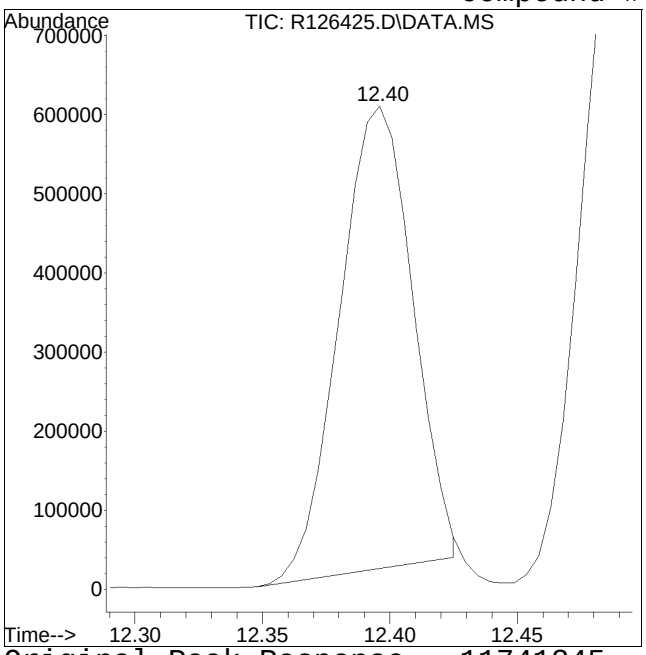

Manual Peak Response = 12865804 M4

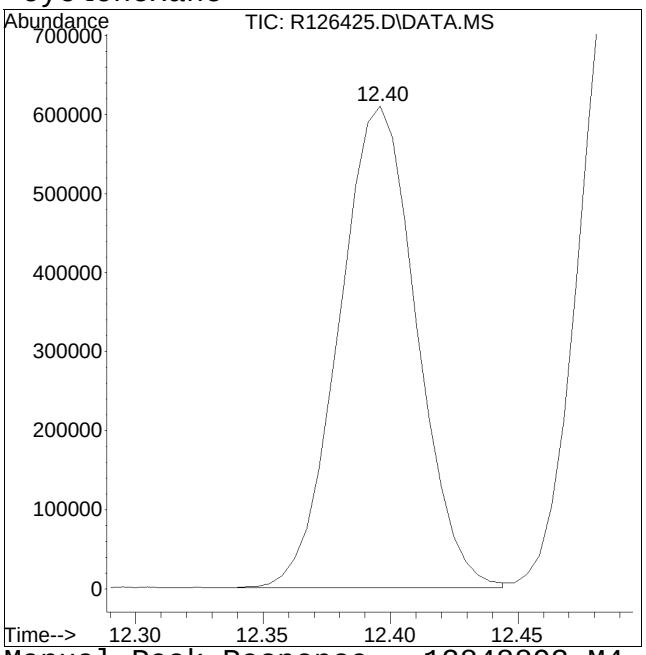
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126425.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:19 am | Instrument | : Air Piano 1 |
| Sample | : WG589501-2,3,250,250 | Quant Date | : 2/8/2013 12:02 pm |

Compound #6: cyclohexane



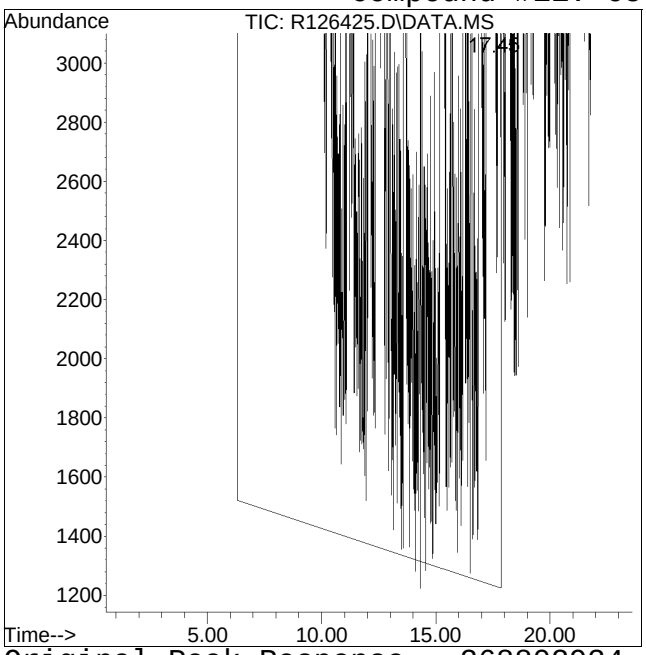

Original Peak Response = 11741245 Manual Peak Response = 12848893 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

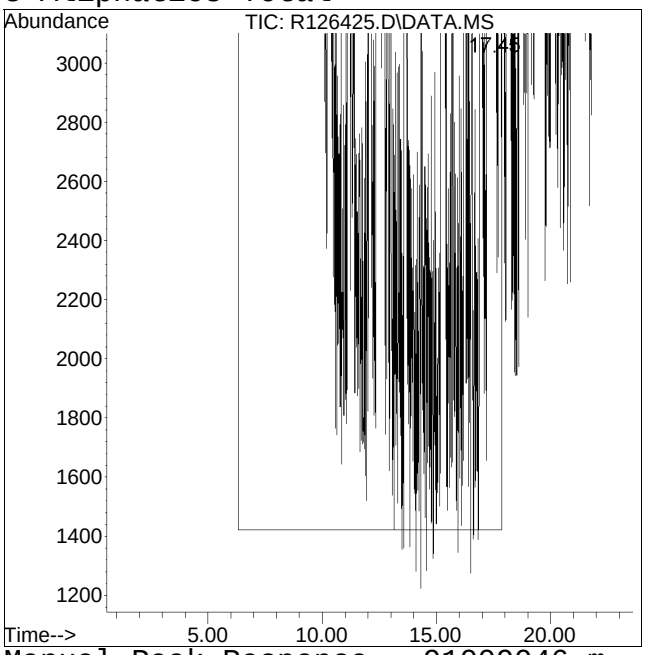
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126425.D
Date Inj'd : 2/8/2013 11:19 am
Sample : WG589501-2,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:02 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 268802934



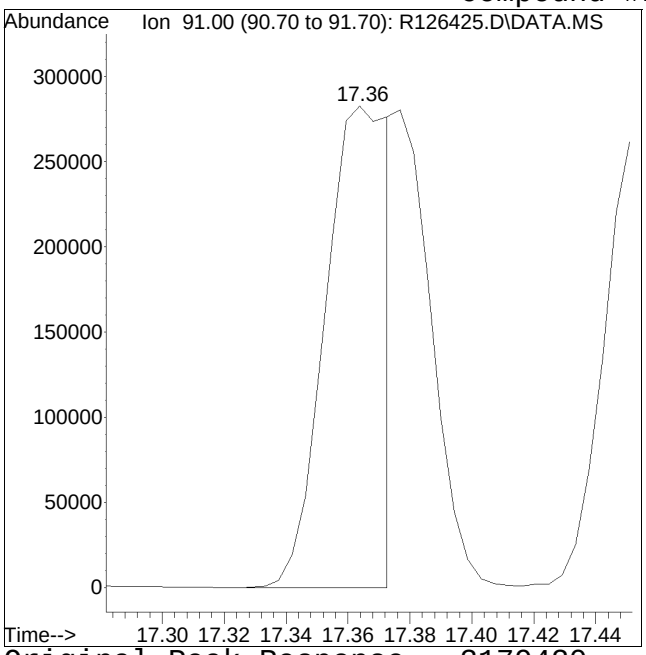

Manual Peak Response = 91009946 m

Manual Integration/Negative Proof Report

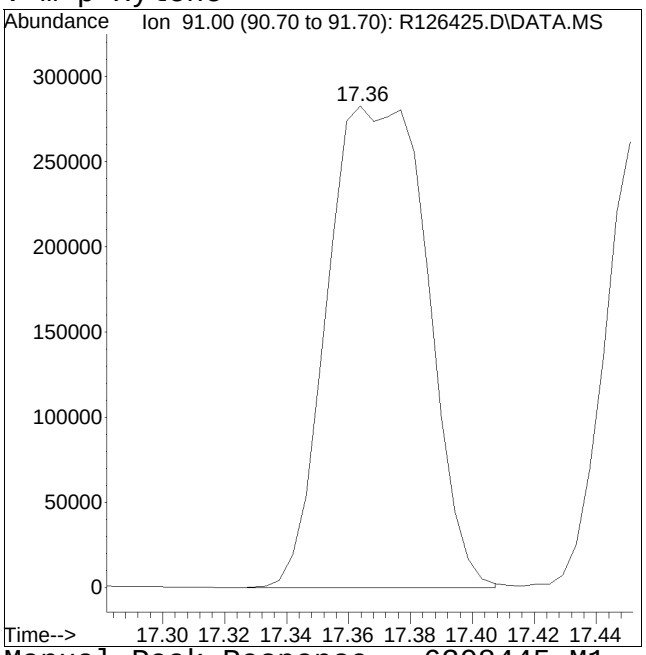
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126425.D
Date Inj'd : 2/8/2013 11:19 am
Sample : WG589501-2,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:02 pm

Compound #17: m+p-xylene




Original Peak Response = 3179420



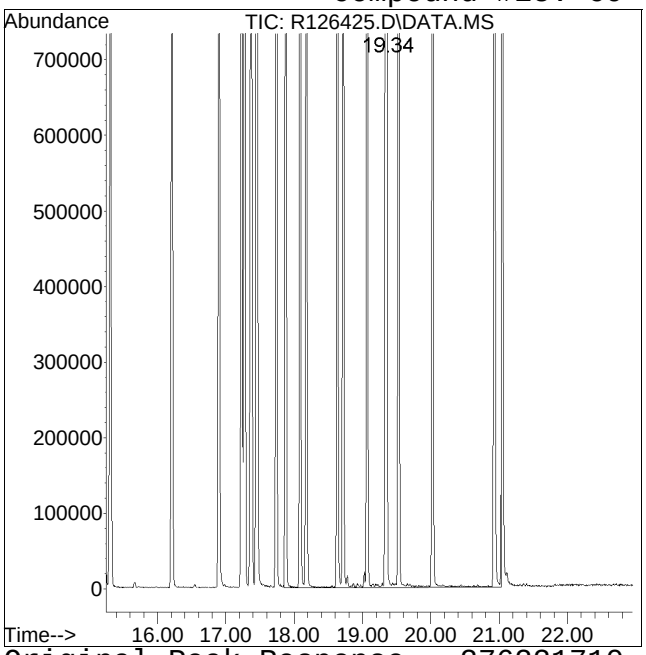

Manual Peak Response = 6308445 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

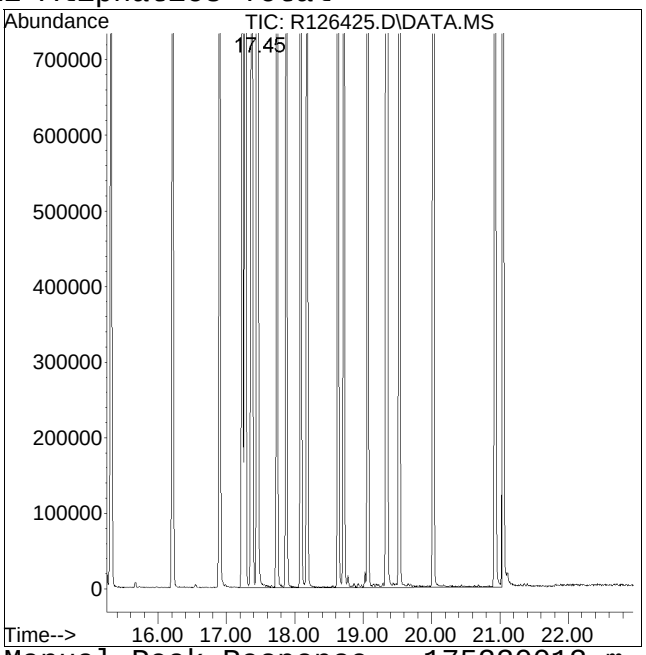
Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126425.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:19 am | Instrument | : Air Piano 1 |
| Sample | : WG589501-2,3,250,250 | Quant Date | : 2/8/2013 12:02 pm |

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 276221710

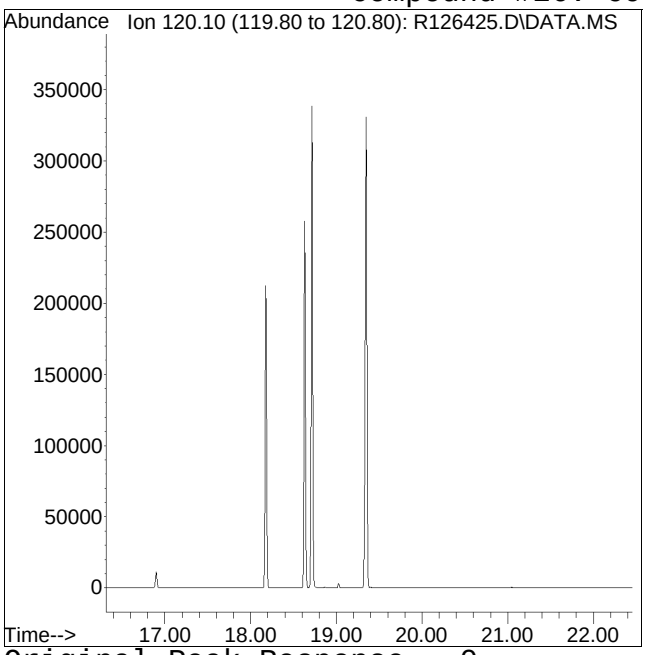



Manual Peak Response = 175230013 m

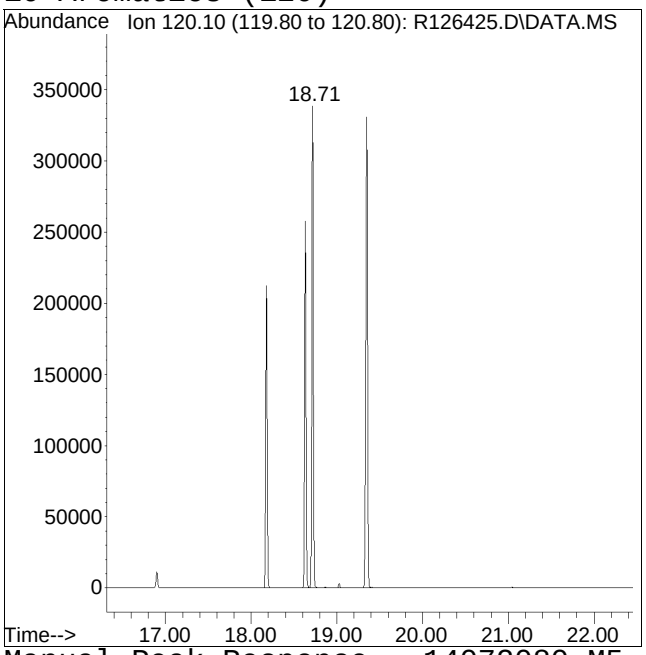
Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126425.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:19 am | Instrument | : Air Piano 1 |
| Sample | : WG589501-2,3,250,250 | Quant Date | : 2/8/2013 12:02 pm |

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0



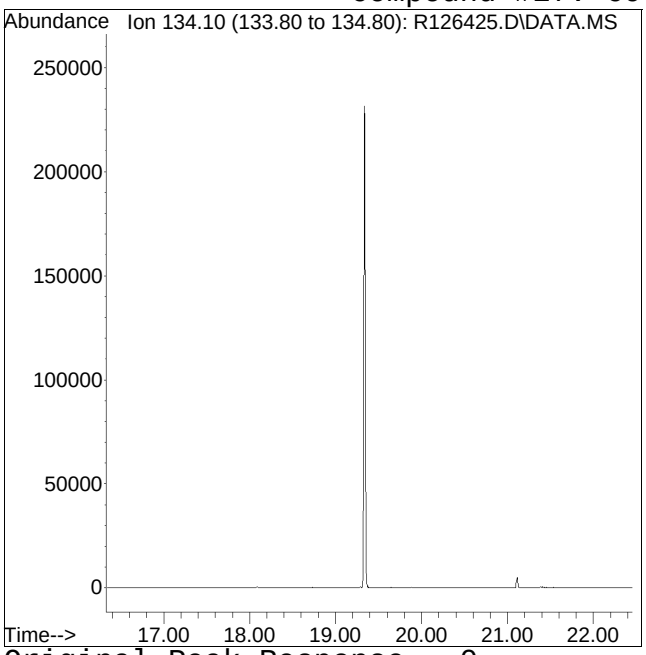

Manual Peak Response = 14072080 M5

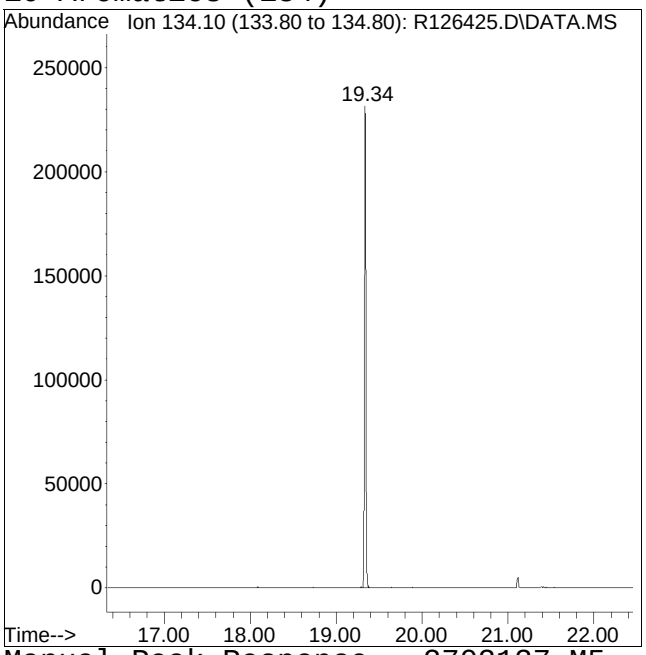
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126425.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:19 am | Instrument | : Air Piano 1 |
| Sample | : WG589501-2,3,250,250 | Quant Date | : 2/8/2013 12:02 pm |

Compound #27: C9-C10 Aromatics (134)




Original Peak Response = 0 Manual Peak Response = 2702137 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 12 11:49:20 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

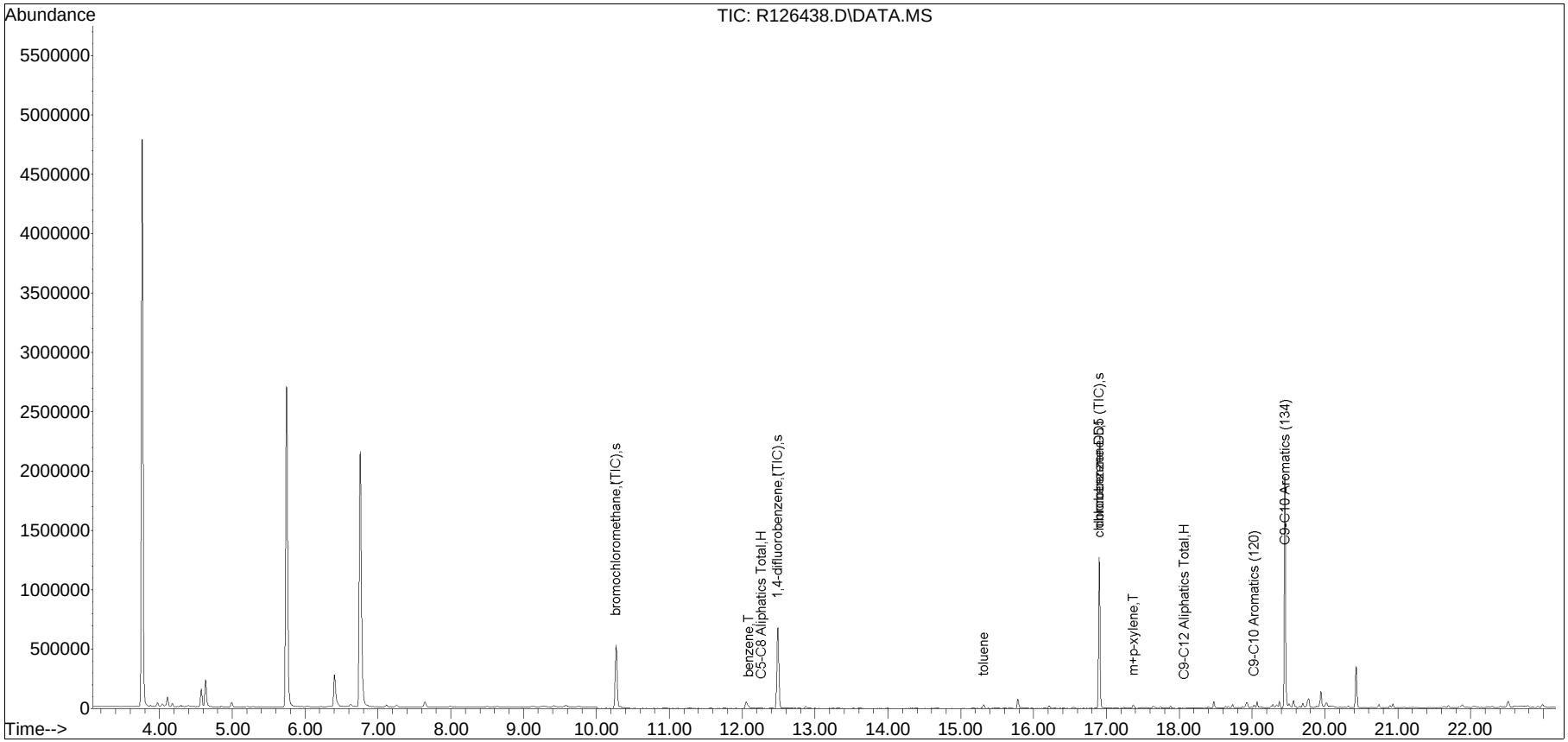
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1289883 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 87.25% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5433272 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 80.71% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1478355 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 83.32% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 10004591M4 | 12.199 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 121.99% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 12758970 | 9.343 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 93.43% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 17391179M4 | 9.943 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.43% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | 78 | 82181 | 0.572 | ug/m3 | 97 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 9797960 | 23.695 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 163824 | 1.008 | ug/m3 | 92 |
| 16) ethyl benzene | 17.23 | | 0 | N.D. | | |
| 17) m+p-xylene | 17.37 | 91 | 123717 | 0.853 | ug/m3 | 98 |
| 19) o-xylene | 17.74 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 50245906 | 109.190 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.03 | 120 | 148000M5 | 2.378 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.46 | 134 | 100547M5 | 1.616 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 248547 | 3.994 | ug/m3 | |

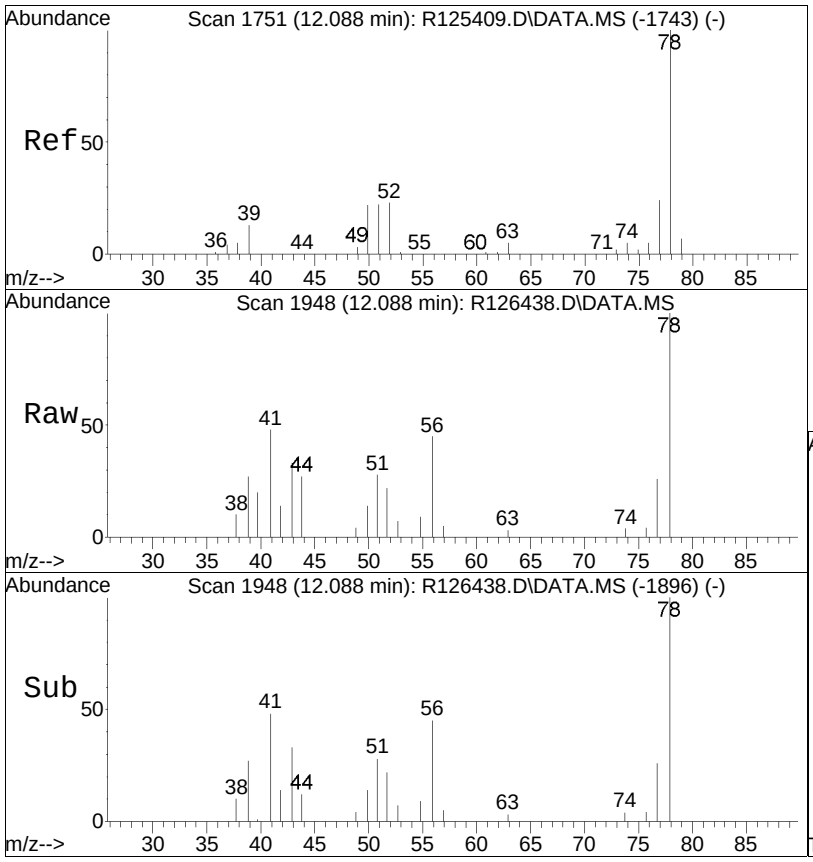
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 12 11:49:20 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

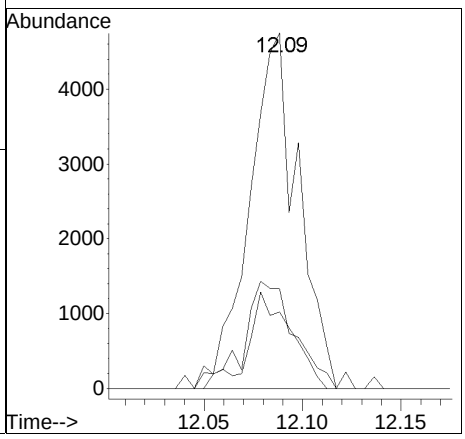


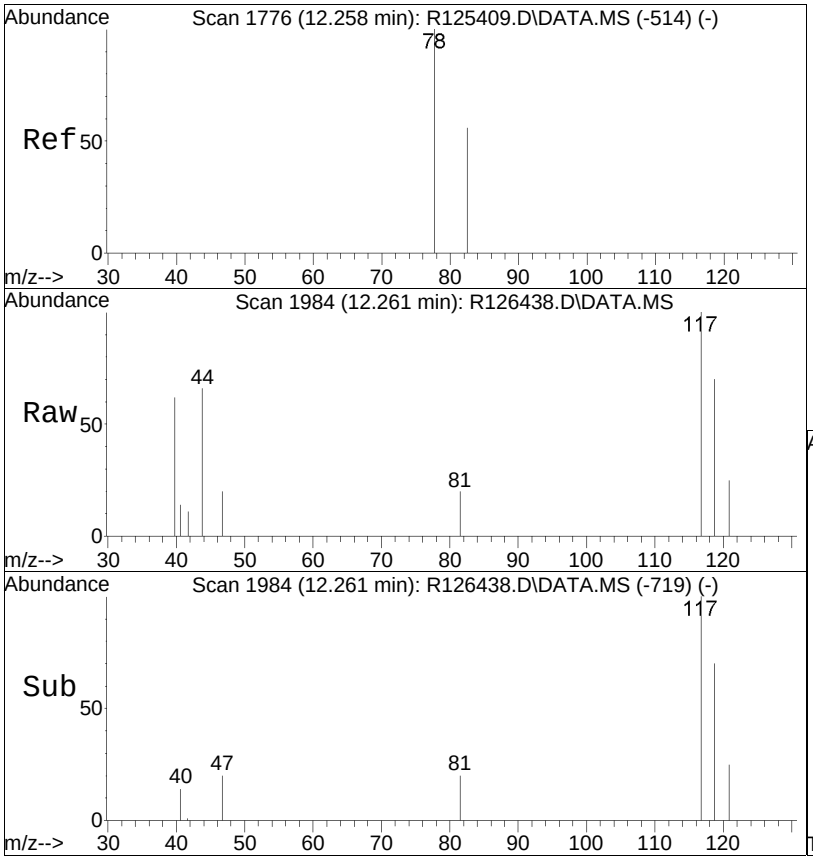



#9
benzene
Concen: 0.57 ug/m3
RT: 12.09 min Scan# 1948
Delta R.T. -0.002 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 78 Resp: 82181

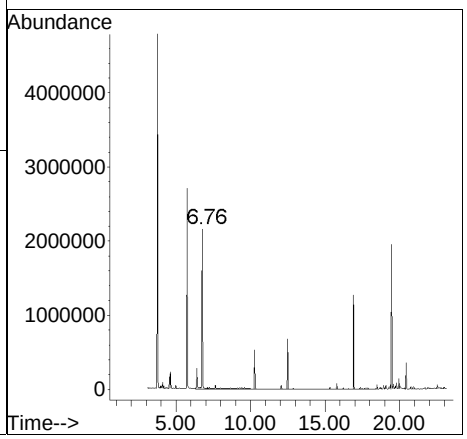
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 23.7 | 18.5 | 27.7 |
| 51 | 25.3 | 18.4 | 27.6 |

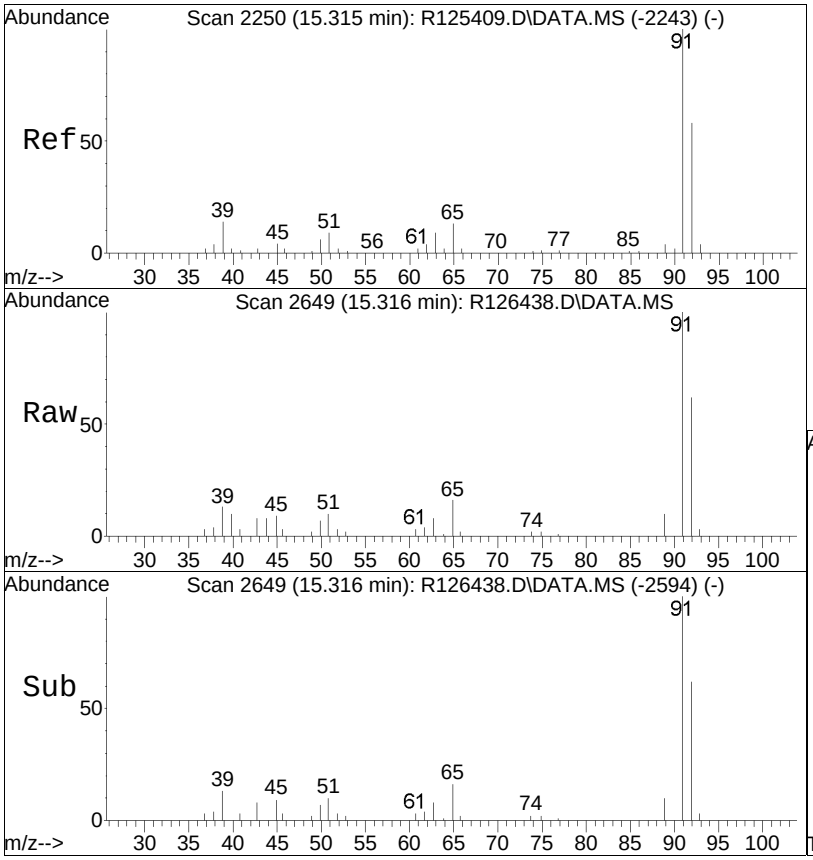





#11
C5-C8 Aliphatics Total
Concen: 26.78 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:TIC Resp: 9797960

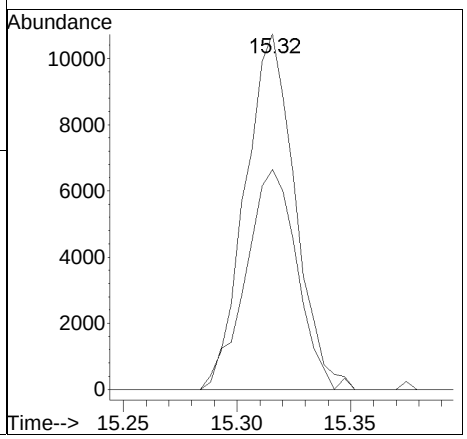


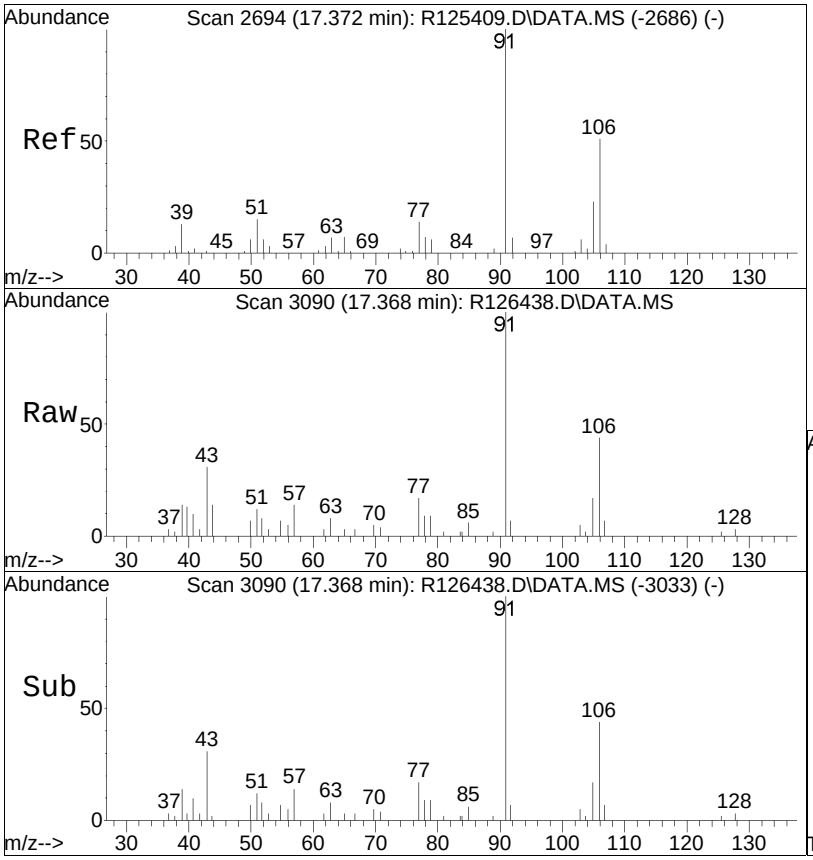



#13
toluene
Concen: 1.01 ug/m3
RT: 15.32 min Scan# 2649
Delta R.T. -0.001 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 163824

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 63.6 | 46.2 | 69.2 |

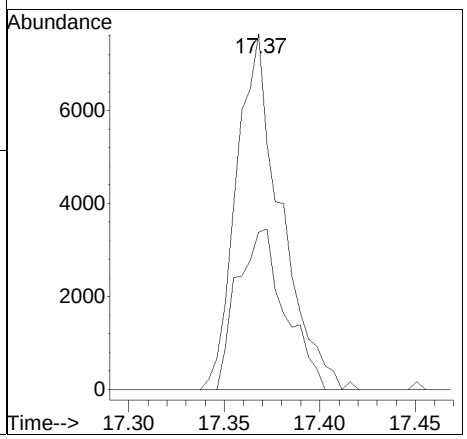


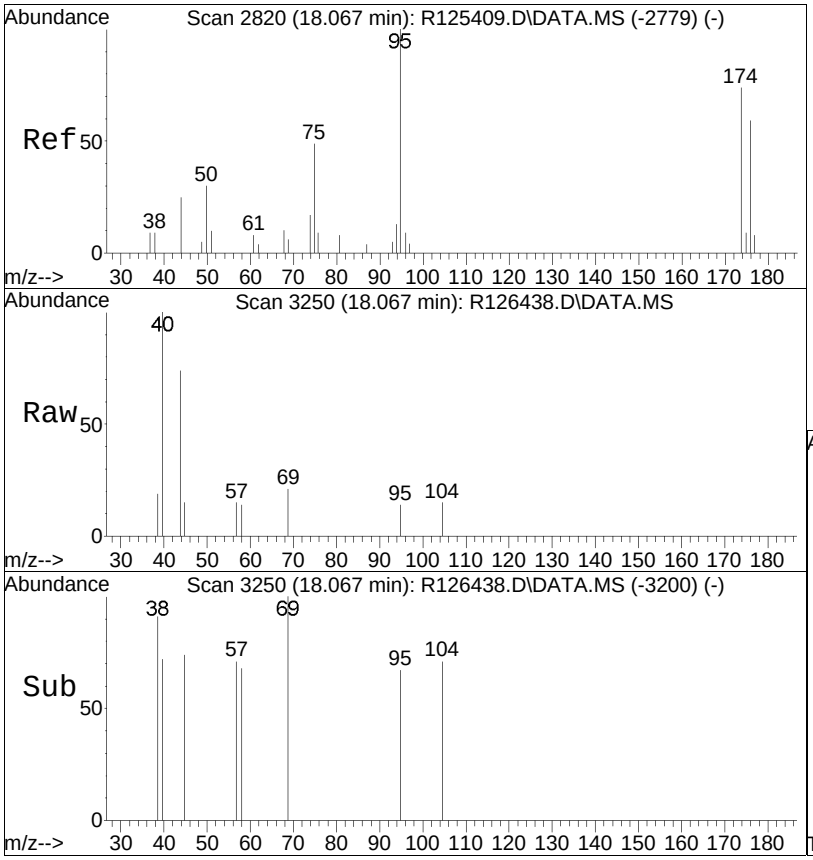



#17
m+p-xylene
Concen: 0.85 ug/m3
RT: 17.37 min Scan# 3090
Delta R.T. -0.001 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 123717

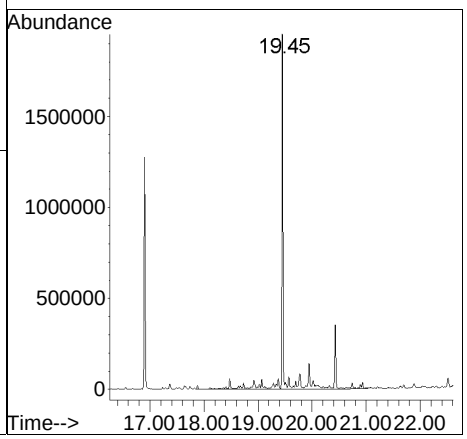
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 39.7 | 59.5 |

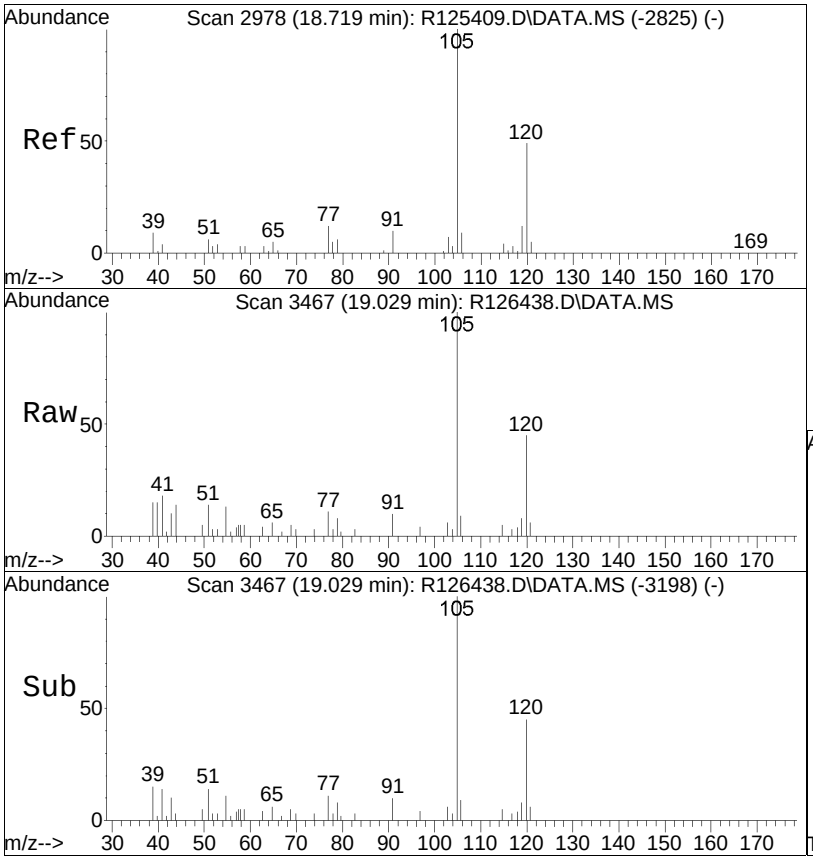





#25
C9-C12 Aliphatics Total
Concen: 113.18 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

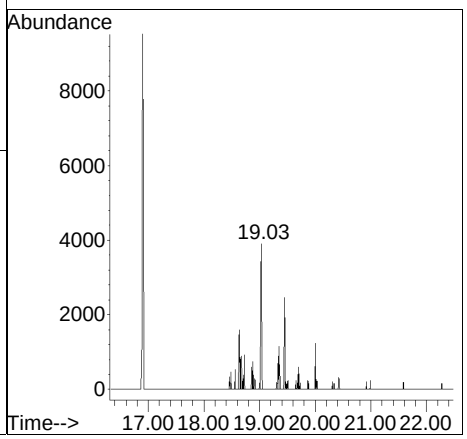
Tgt Ion:TIC Resp:50245906

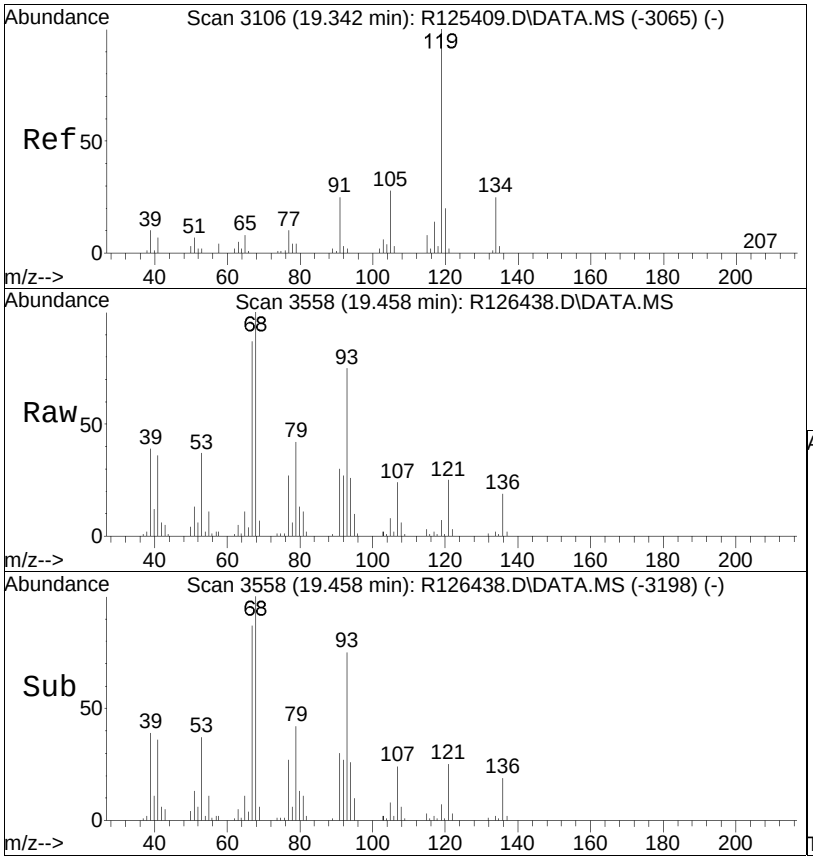





#26
C9-C10 Aromatics (120)
Concen: 2.38 ug/m3 m
RT: 19.03 min Scan# 3467
Delta R.T. -0.971 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

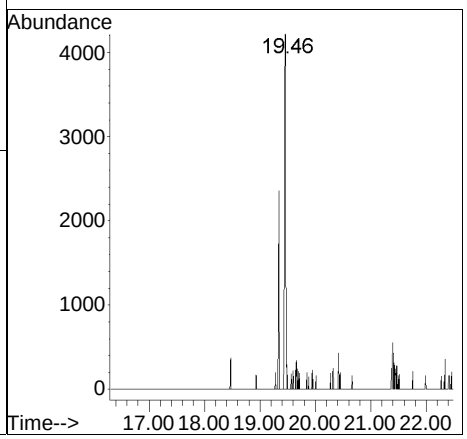
Tgt Ion:120 Resp: 148000






#27
C9-C10 Aromatics (134)
Concen: 1.62 ug/m3 m
RT: 19.46 min Scan# 3558
Delta R.T. -0.542 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:134 Resp: 100547

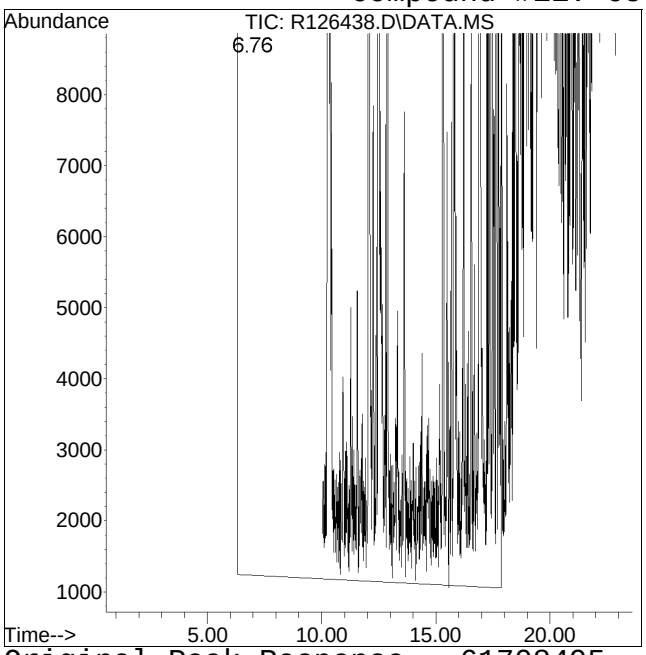


Manual Integration/Negative Proof Report

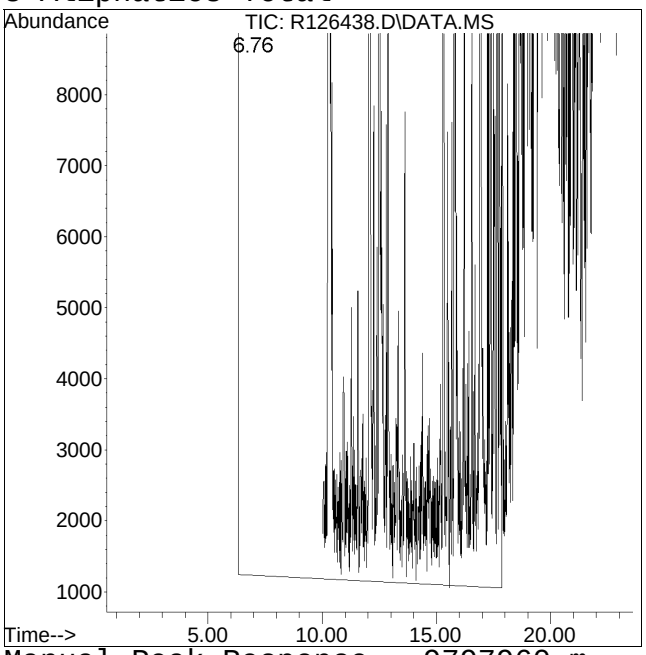
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 61708495



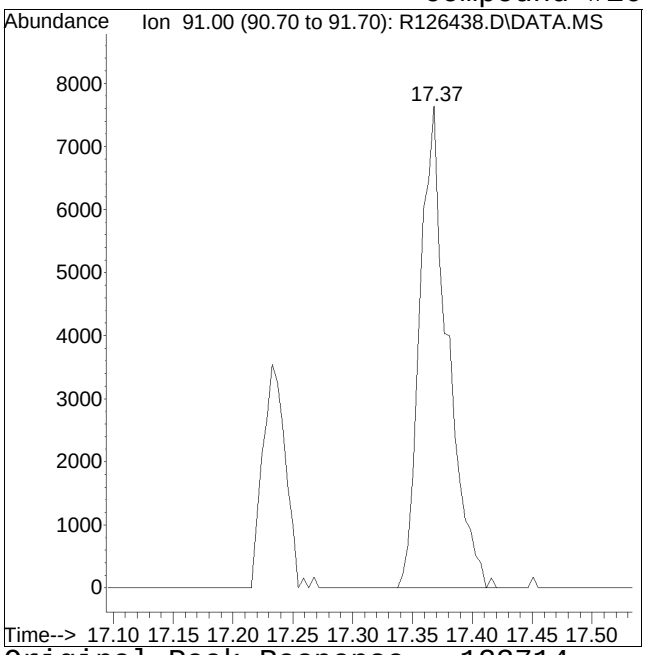

Manual Peak Response = 9797960 m

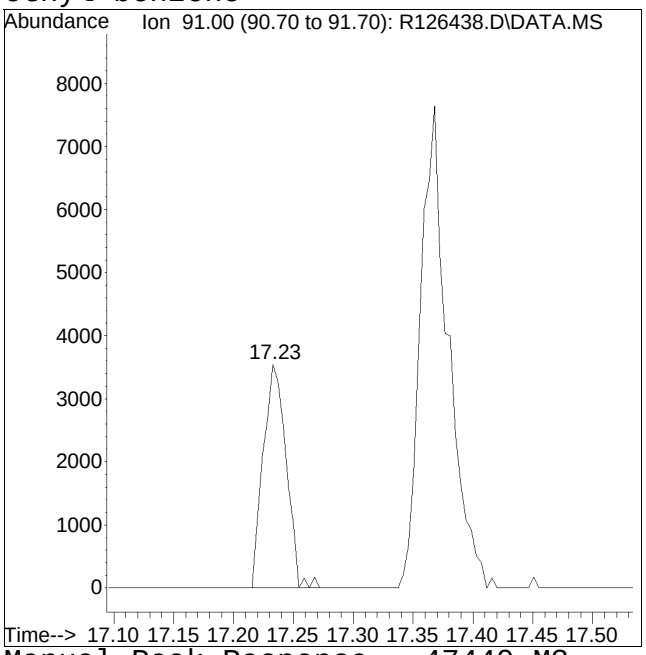
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #16: ethyl benzene




Original Peak Response = 123714 Manual Peak Response = 47440 M3

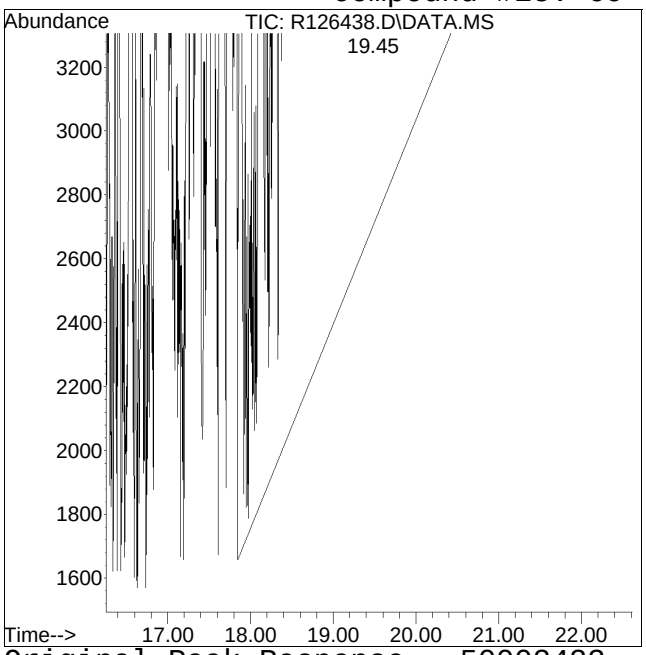
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

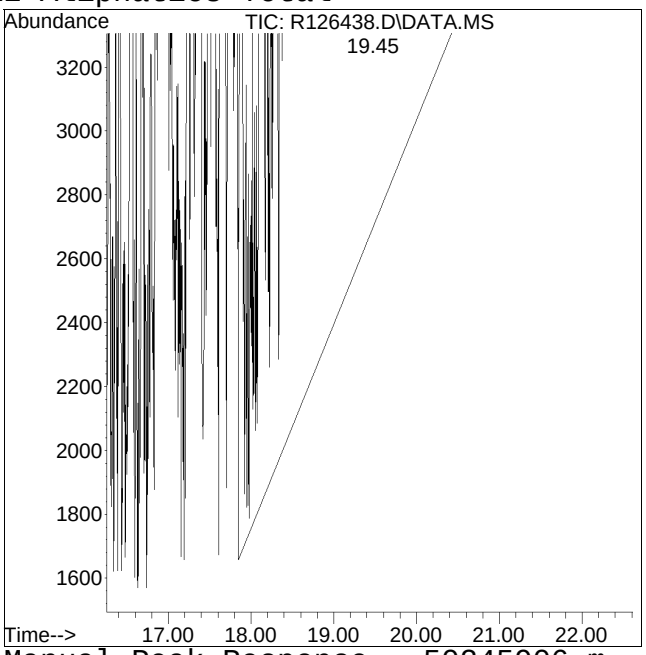
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 50002423



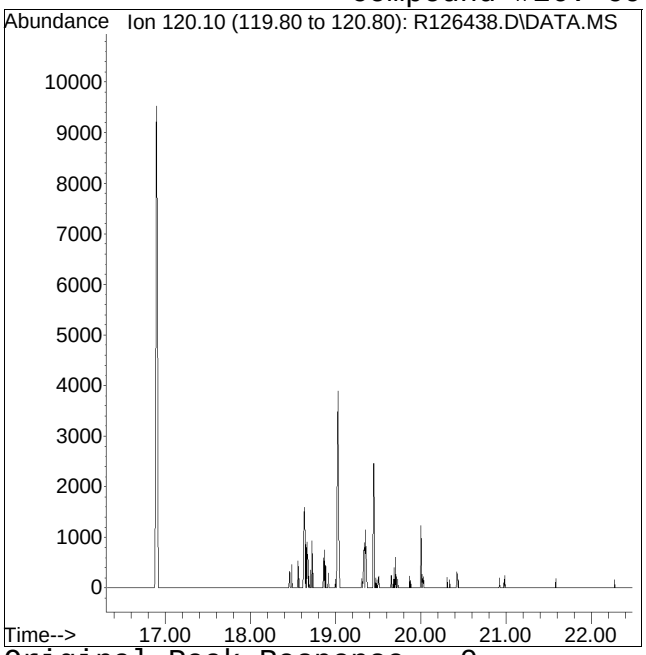

Manual Peak Response = 50245906 m

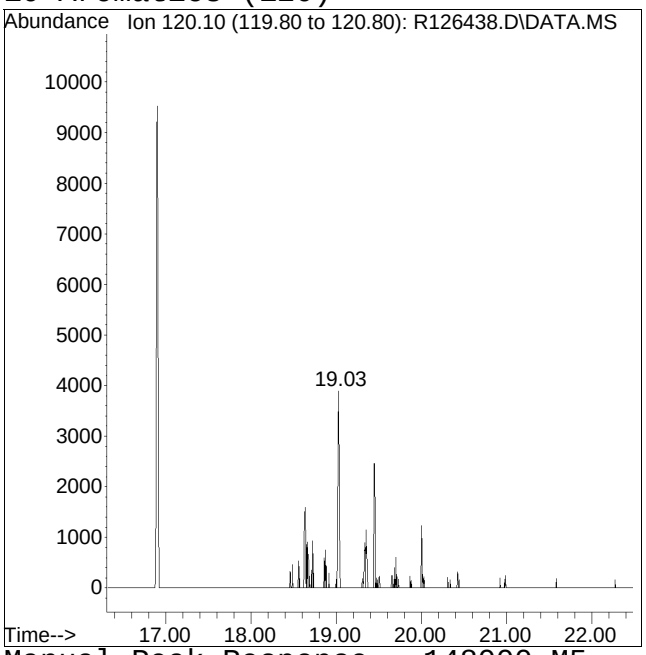
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #26: C9-C10 Aromatics (120)



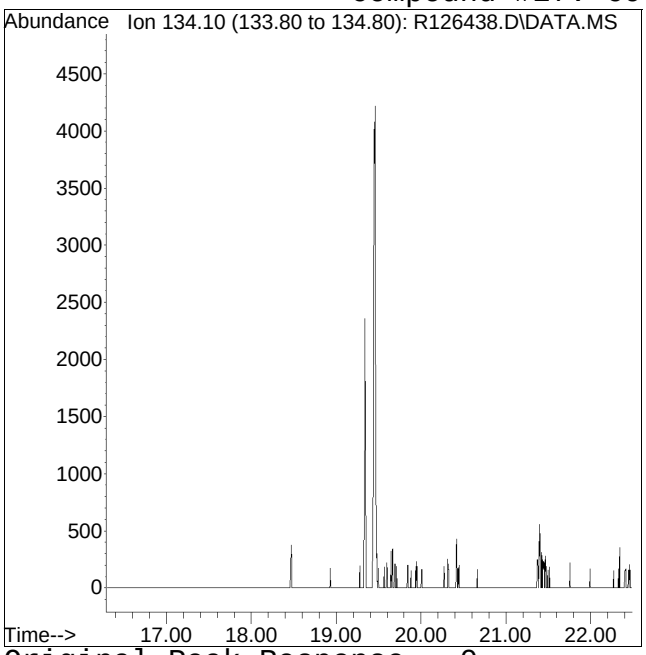

Original Peak Response = 0 Manual Peak Response = 148000 M5

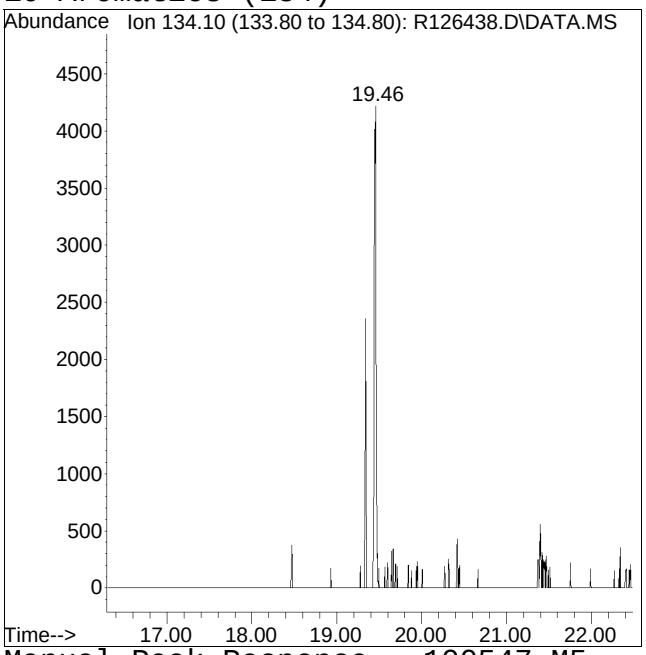
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126438.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 6:56 pm Instrument : Air Piano 1
Sample : L1302224-01,3,250,250 Quant Date : 2/11/2013 10:33 pm

Compound #27: C9-C10 Aromatics (134)



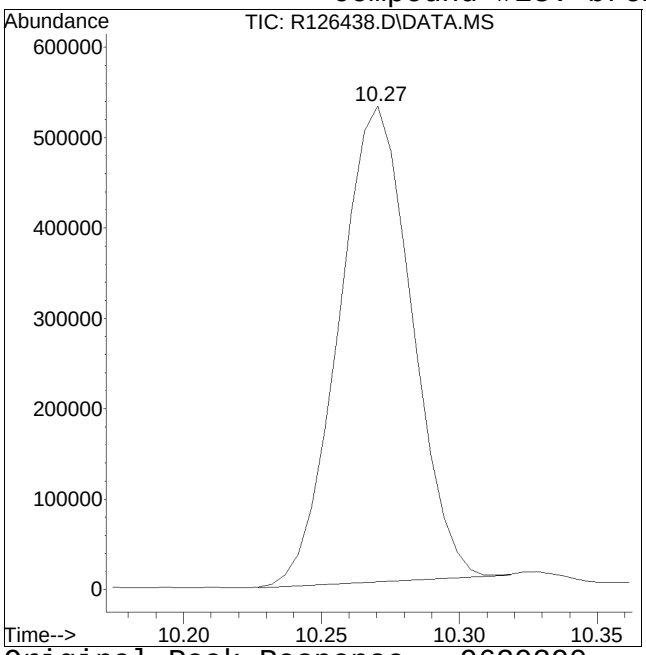



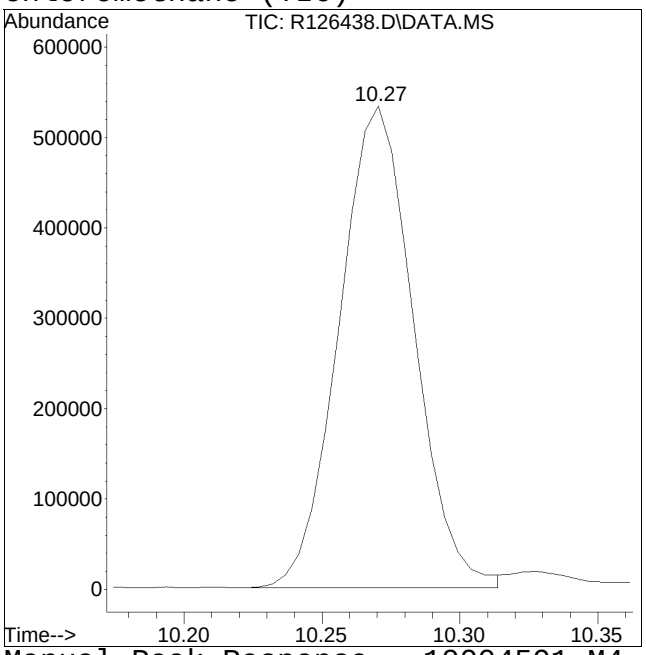

Original Peak Response = 0 Manual Peak Response = 100547 M5
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126438.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 6:56 pm Instrument : Air Piano 1
Sample : L1302224-01,3,250,250 Quant Date : 2/11/2013 10:33 pm

Compound #28: bromochloromethane (TIC)



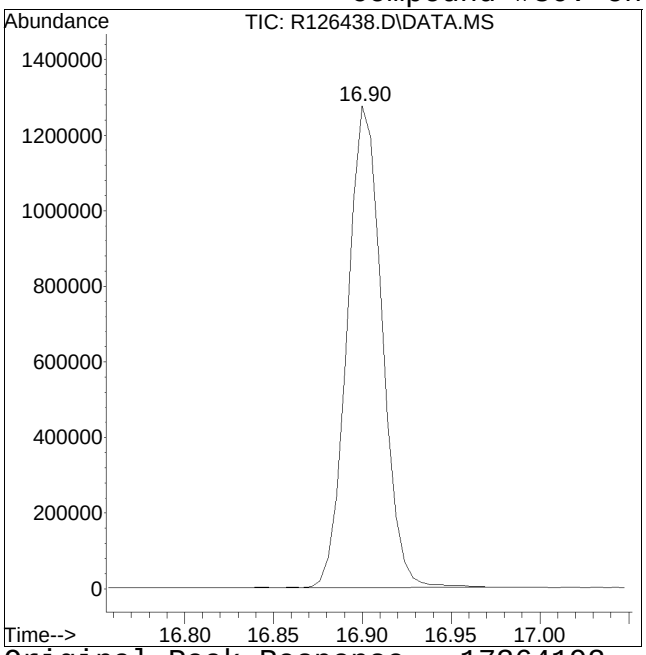

Original Peak Response = 9629390 Manual Peak Response = 10004591 M4
M4 = Poor automated baseline construction.

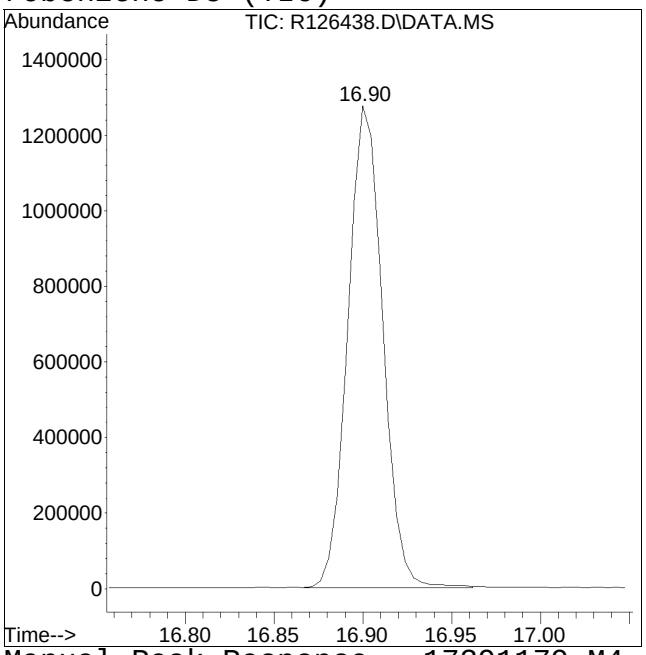
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 17364192 Manual Peak Response = 17391179 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 12 11:51:58 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1314294 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 88.90% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5472855 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 81.29% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1447588 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 81.59% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 10123223M4 | 12.606 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 126.06% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 12996965M4 | 9.719 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 97.19% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 16881272M4 | 9.856 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 98.56% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | 78 | 76259 | 0.527 | ug/m3# | 53 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 6675352 | 15.949 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 124126 | 0.780 | ug/m3 | 97 |
| 16) ethyl benzene | 17.24 | | 0 | N.D. | | |
| 17) m+p-xylene | 17.37 | | 0 | N.D. | | |
| 19) o-xylene | 17.74 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 19159046 | 42.853 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.45 | 120 | 33651M5 | 0.552 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.44 | 134 | 40809M5 | 0.670 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 74460 | 1.222 | ug/m3 | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 12 11:51:58 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

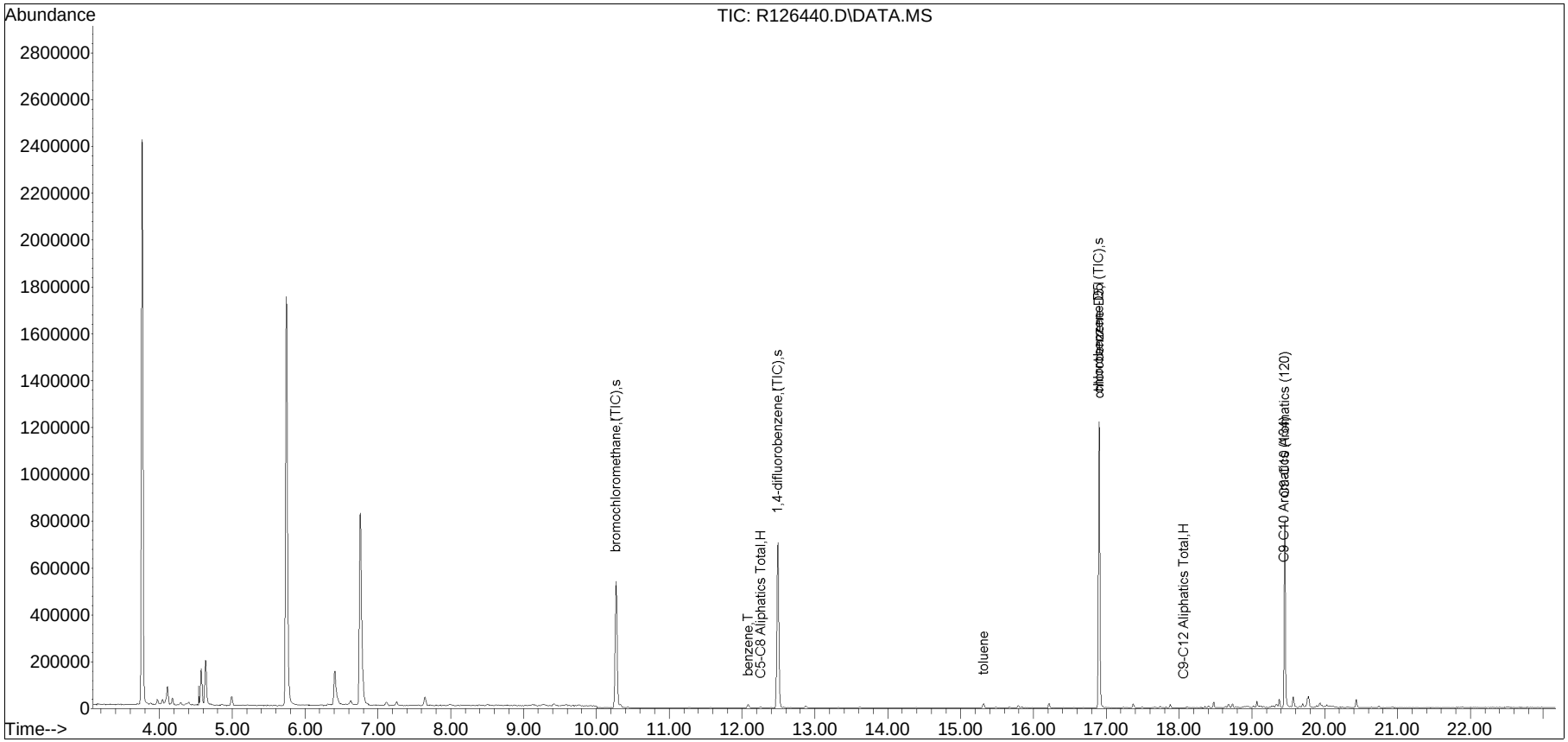
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

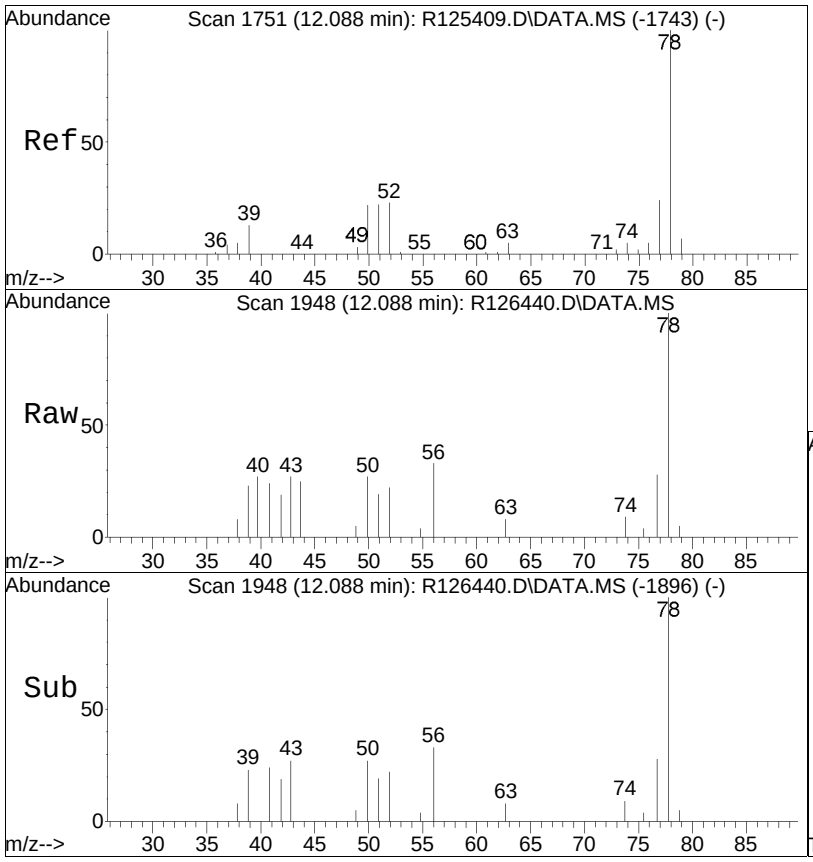
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 12 11:51:58 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

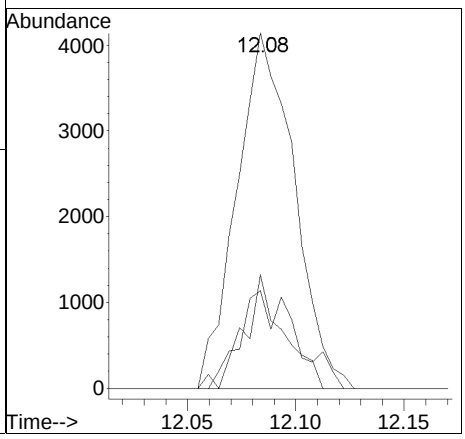


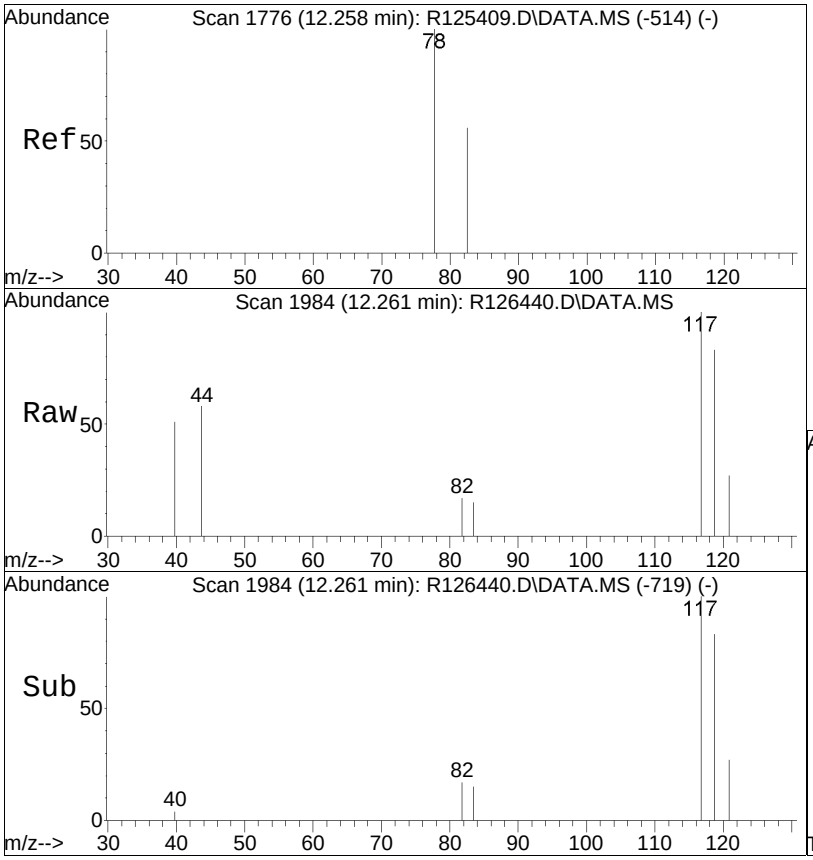



#9
benzene
Concen: 0.53 ug/m3
RT: 12.09 min Scan# 1948
Delta R.T. -0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 78 Resp: 76259

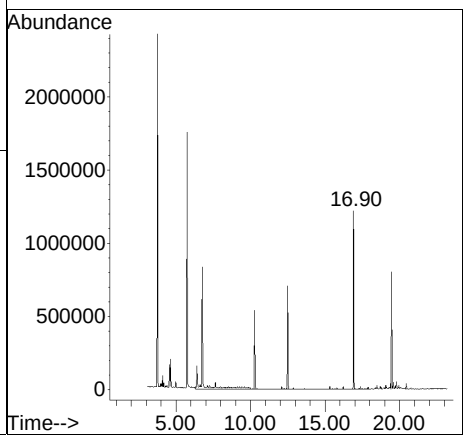
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 0.0 | 18.5 | 27.7# |
| 51 | 0.0 | 18.4 | 27.6# |

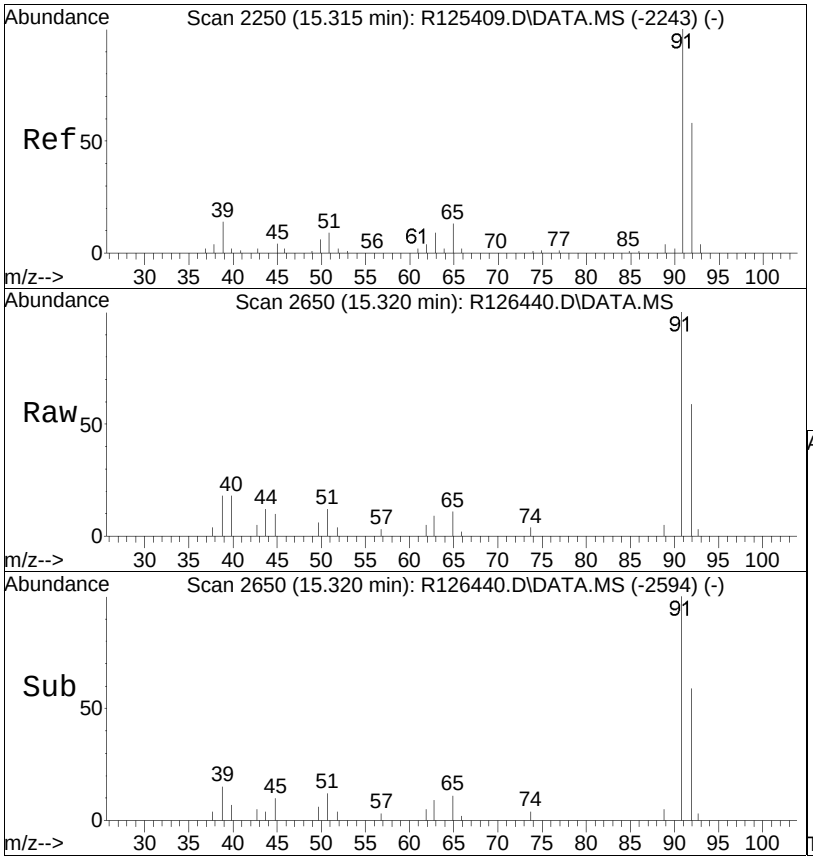





#11
C5-C8 Aliphatics Total
Concen: 18.11 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:TIC Resp: 6675352

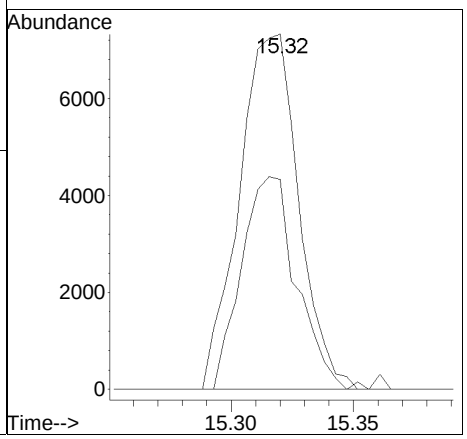


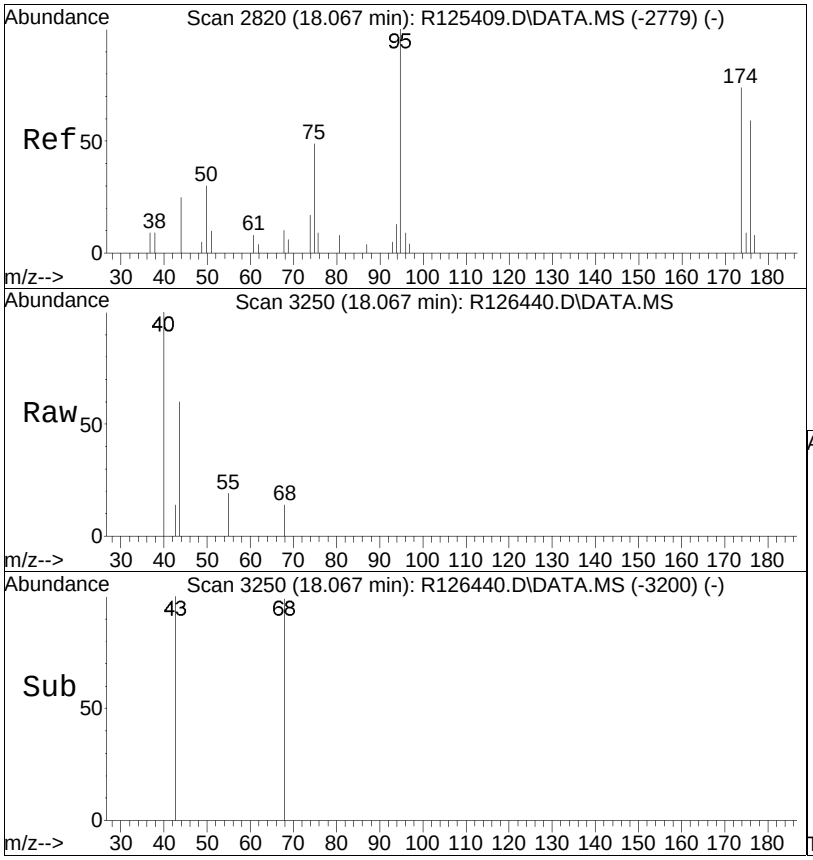



#13
toluene
Concen: 0.78 ug/m3
RT: 15.32 min Scan# 2650
Delta R.T. 0.001 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 91 Resp: 124126

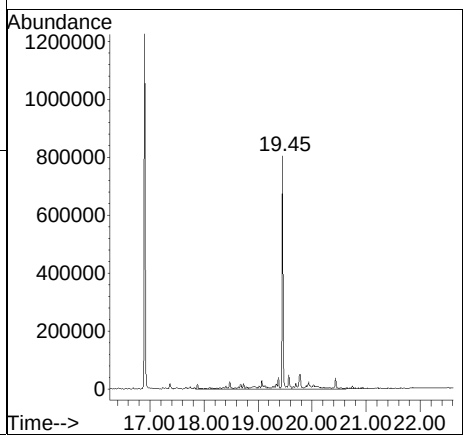
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 55.6 | 46.2 | 69.2 |

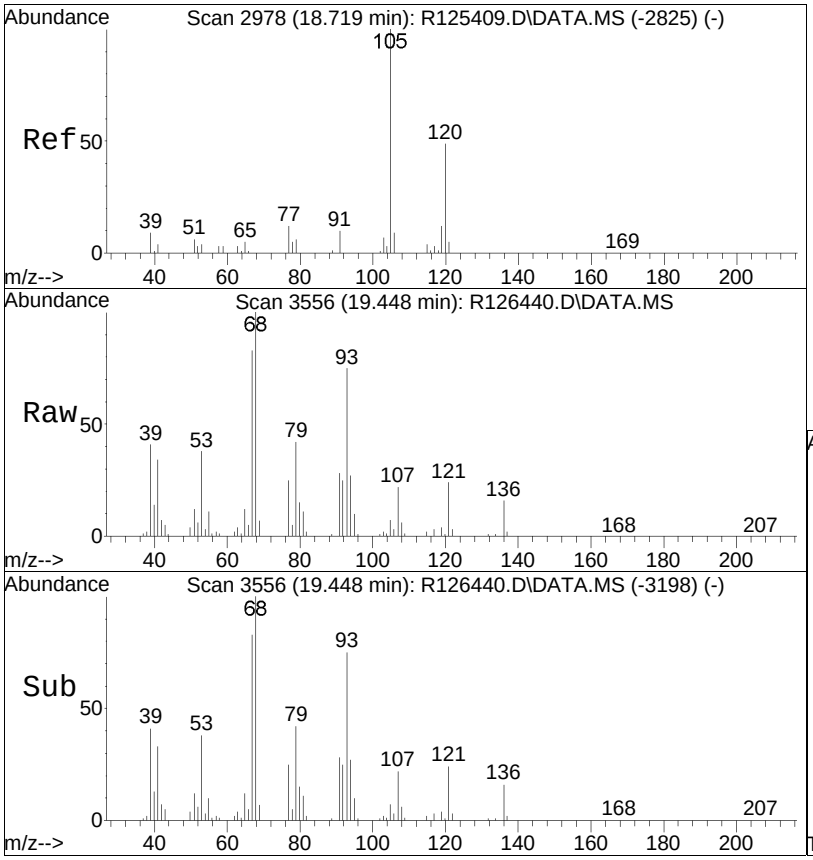





#25
C9-C12 Aliphatics Total
Concen: 44.07 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

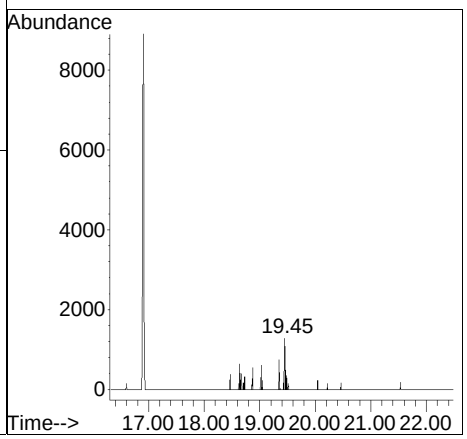
Tgt Ion:TIC Resp:19159046

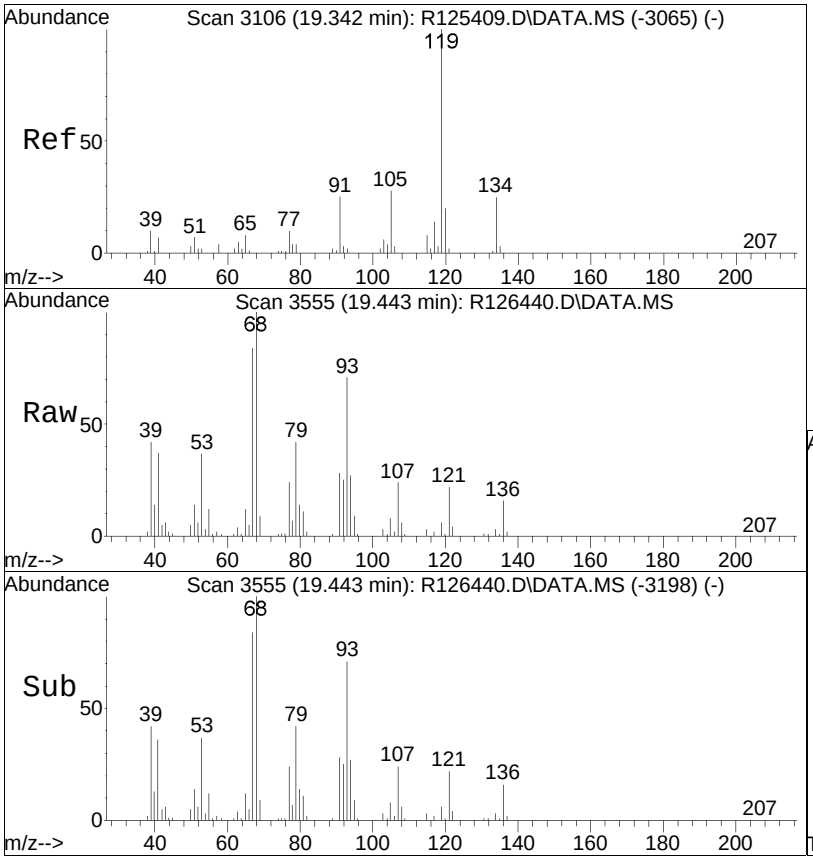





#26
C9-C10 Aromatics (120)
Concen: 0.55 ug/m3 m
RT: 19.45 min Scan# 3556
Delta R.T. -0.552 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

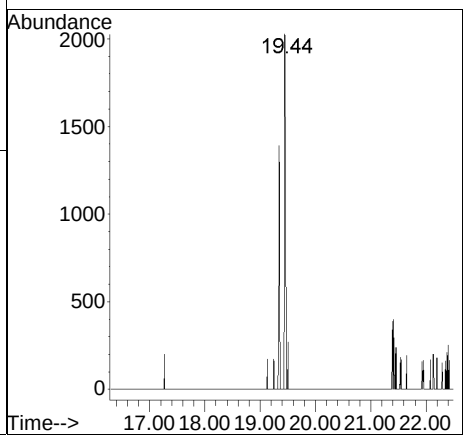
Tgt Ion:120 Resp: 33651






#27
C9-C10 Aromatics (134)
Concen: 0.67 ug/m3 m
RT: 19.44 min Scan# 3555
Delta R.T. -0.557 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:134 Resp: 40809

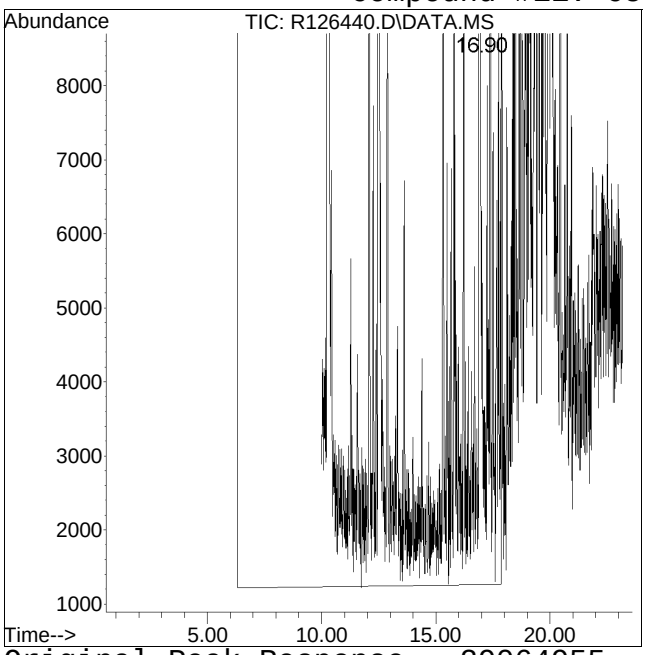


Manual Integration/Negative Proof Report

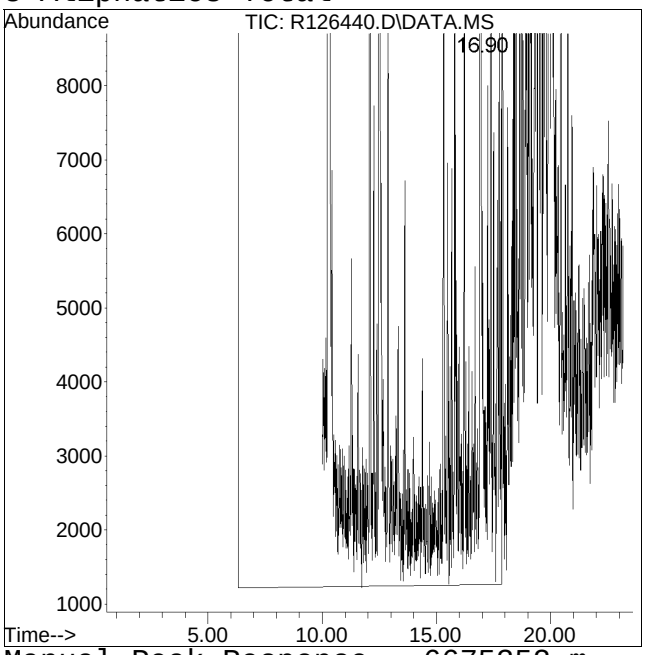
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 29064955



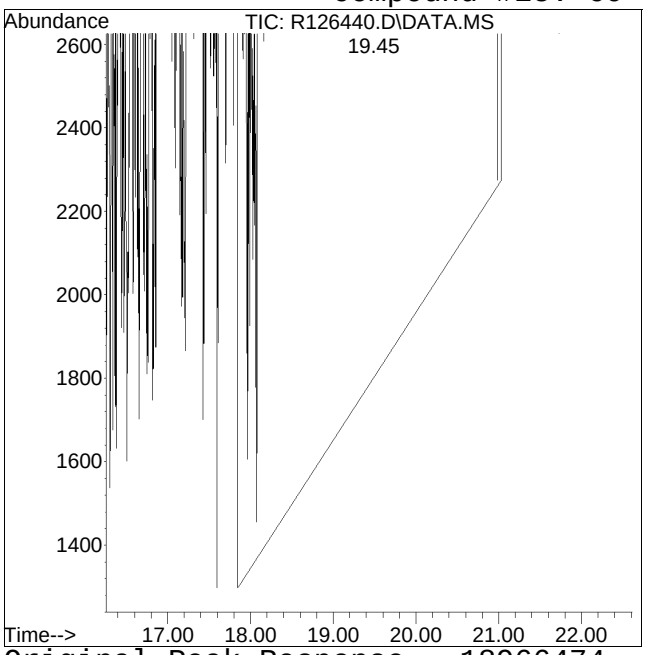

Manual Peak Response = 6675352 m

Manual Integration/Negative Proof Report

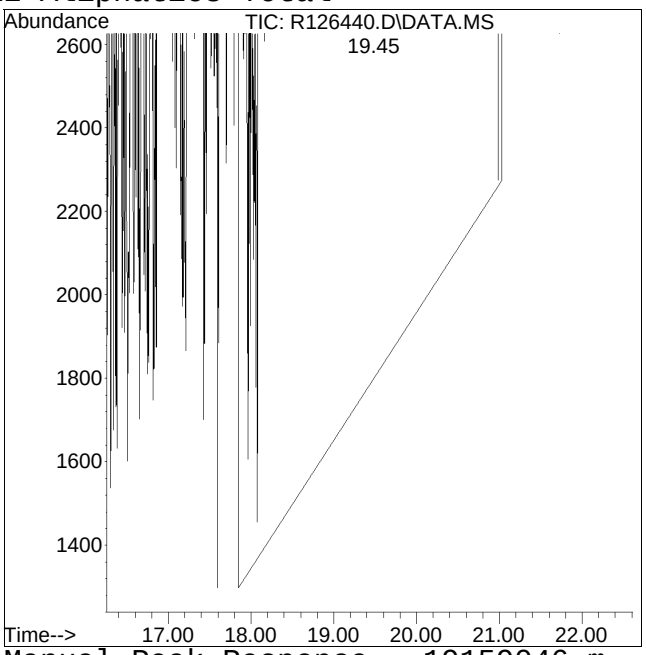
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 18966474



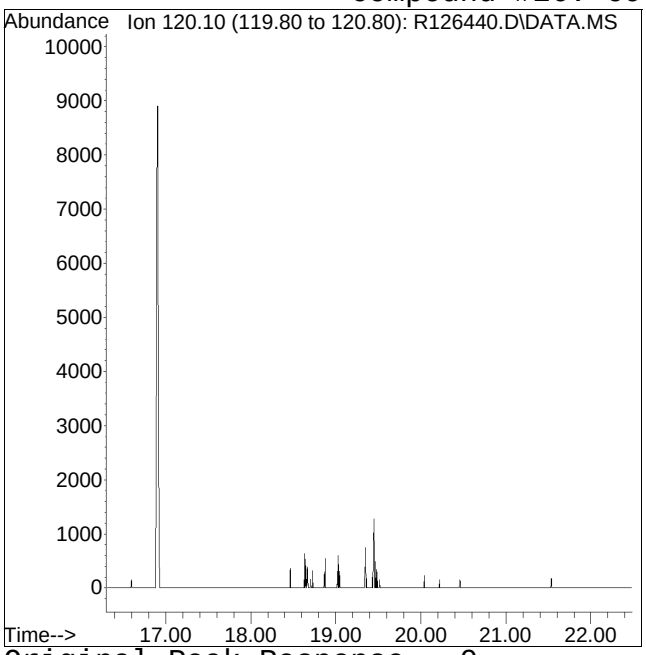

Manual Peak Response = 19159046 m

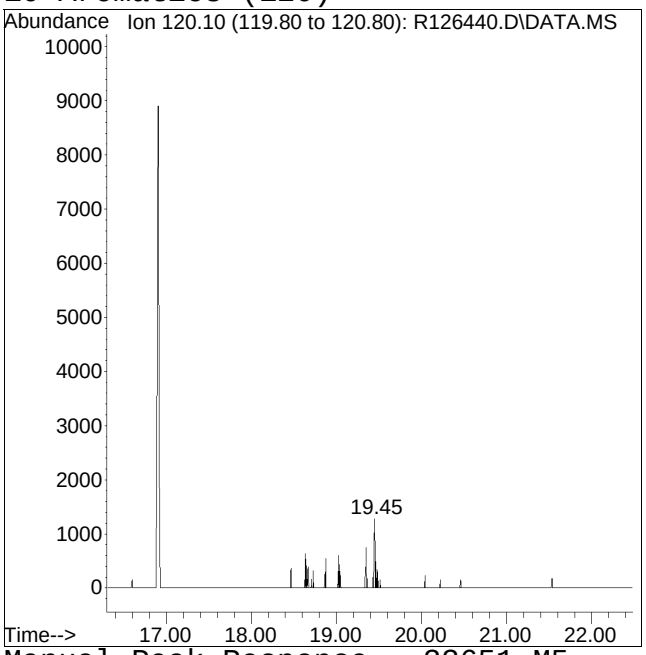
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 33651 M5

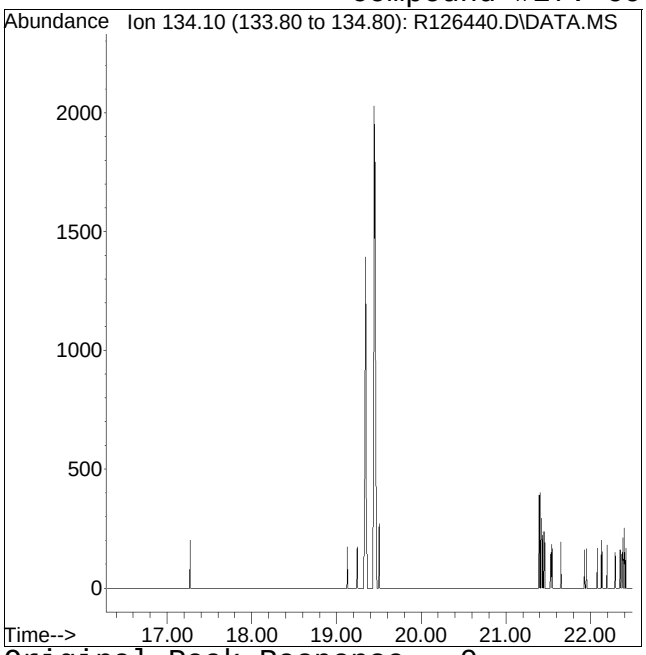
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

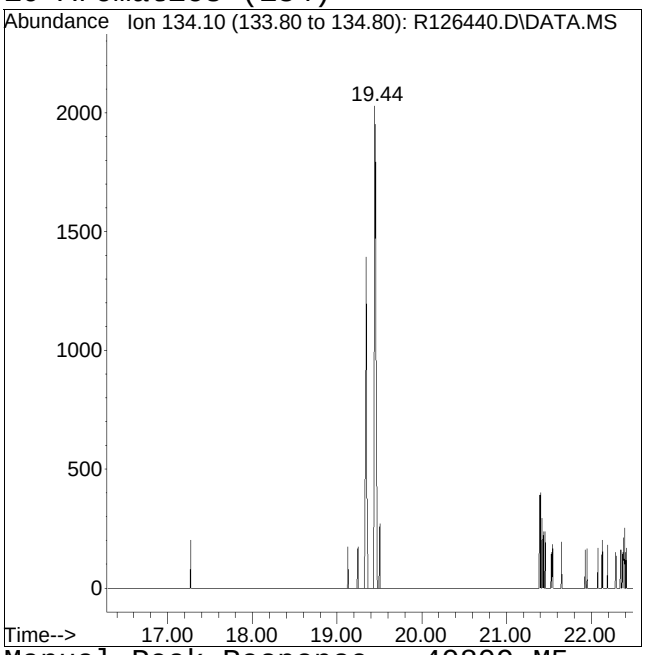
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #27: C9-C10 Aromatics (134)




Original Peak Response = 0 Manual Peak Response = 40809 M5

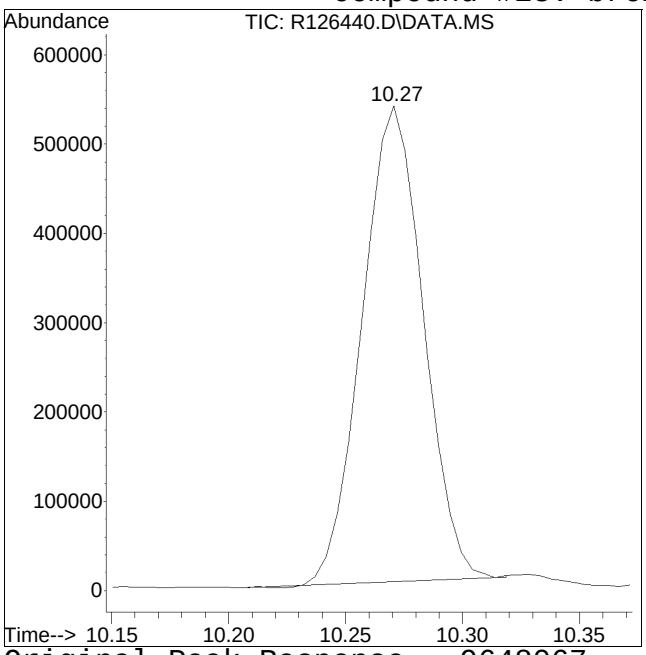
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

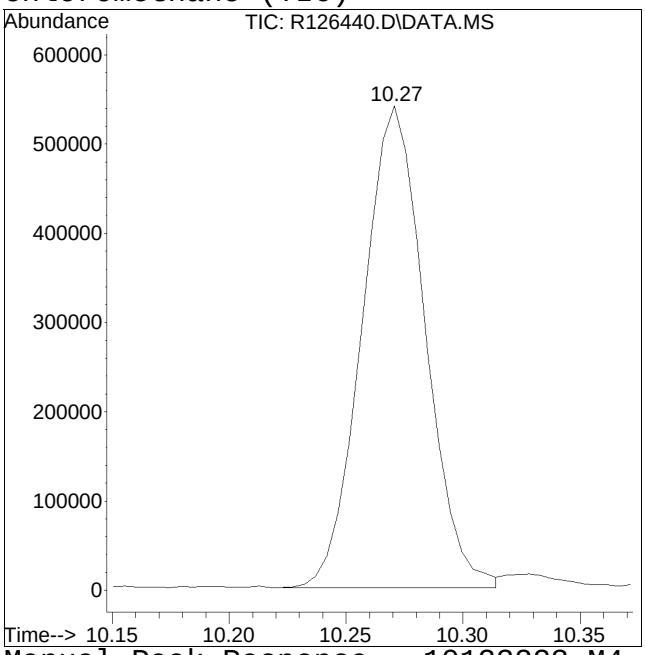
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #28: bromochloromethane (TIC)



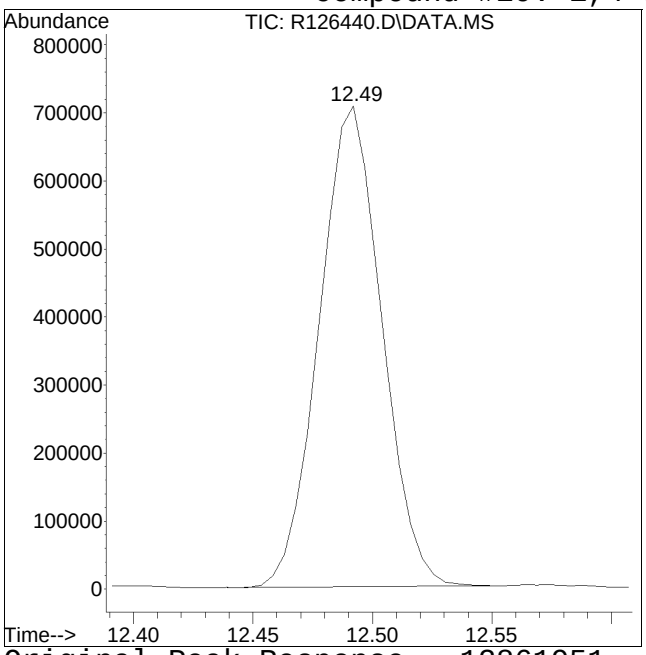

Original Peak Response = 9648067 Manual Peak Response = 10123223 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

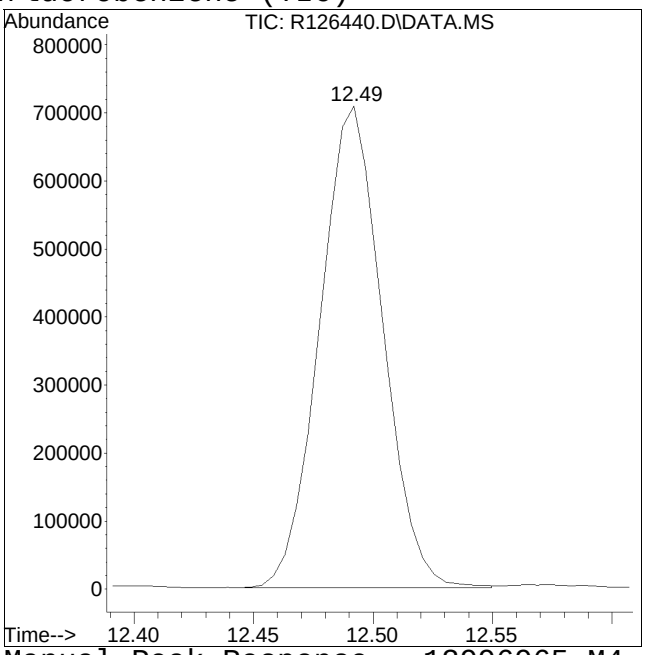
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #29: 1,4-difluorobenzene (TIC)




Original Peak Response = 12861951




Manual Peak Response = 12996965 M4

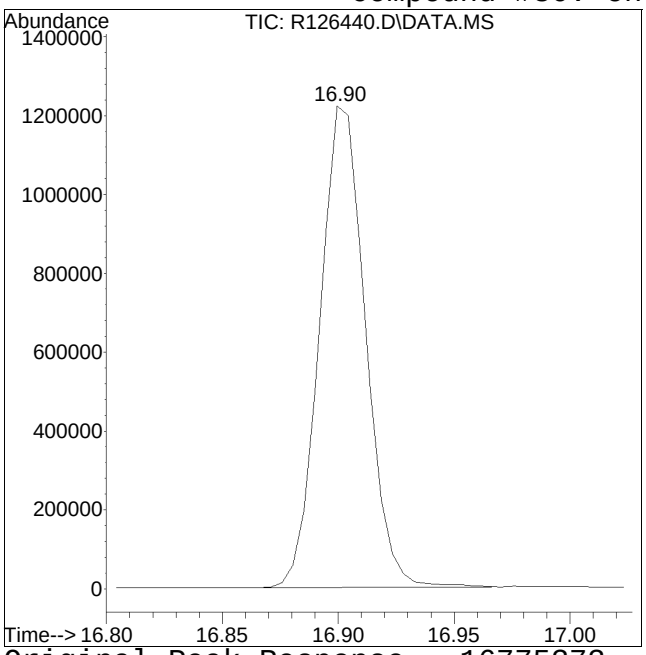
M4 = Poor automated baseline construction.

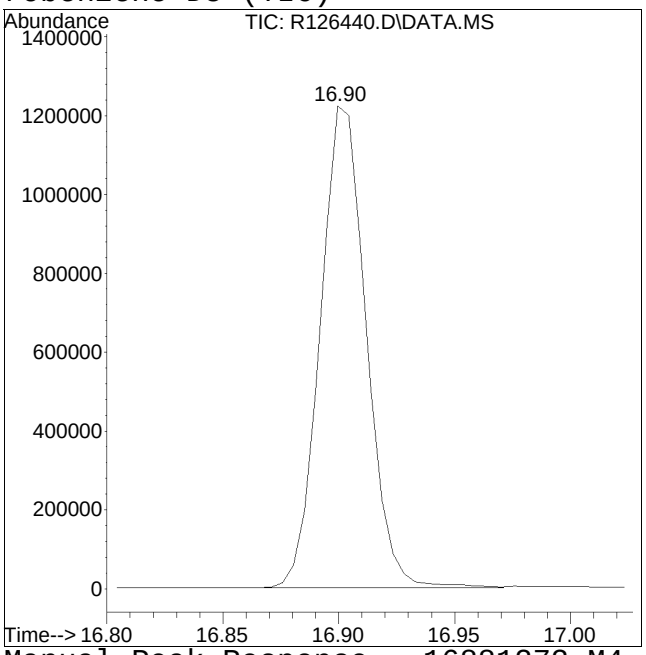
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:50 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 16775373 Manual Peak Response = 16881272 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 12 11:52:52 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

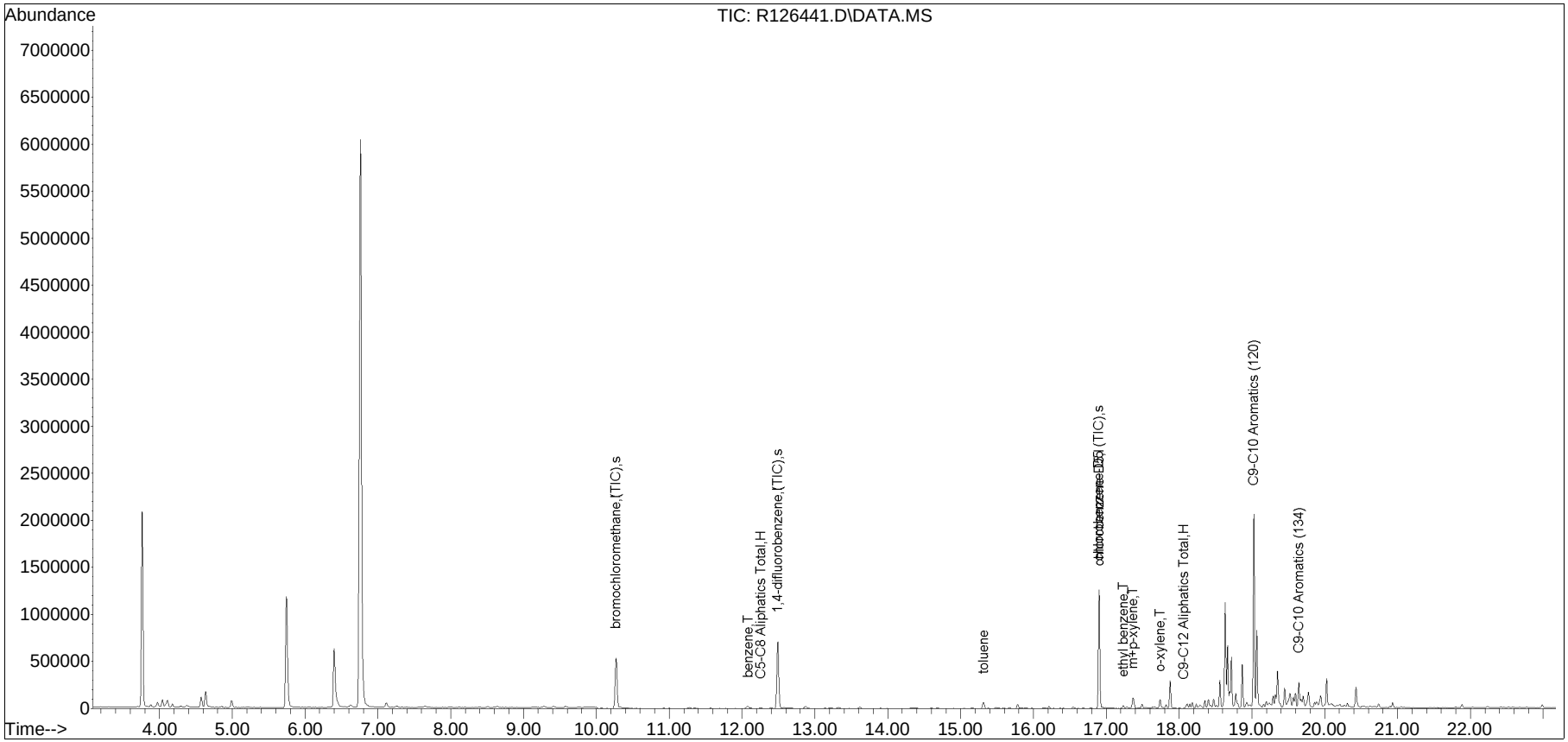
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1337811 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 90.49% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5502736 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 81.74% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1436645 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 80.97% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 10096102M4 | 12.668 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 126.68% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 12889000 | 9.712 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 97.12% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 17168673M4 | 10.100 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.00% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | 78 | 101081 | 0.694 | ug/m3# | 69 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 18859408 | 41.441 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 391924M4 | 2.482 | ug/m3 | |
| 16) ethyl benzene | 17.24 | 91 | 173114 | 0.975 | ug/m3# | 43 |
| 17) m+p-xylene | 17.37 | 91 | 427541 | 3.034 | ug/m3 | 99 |
| 19) o-xylene | 17.74 | 91 | 325703 | 2.267 | ug/m3 | 96 |
| 23) naphthalene | 21.05 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 154522773 | 198.672 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.03 | 120 | 8733175M5 | 144.418 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.65 | 134 | 912754M5 | 15.094 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 9645929 | 159.512 | ug/m3 | |

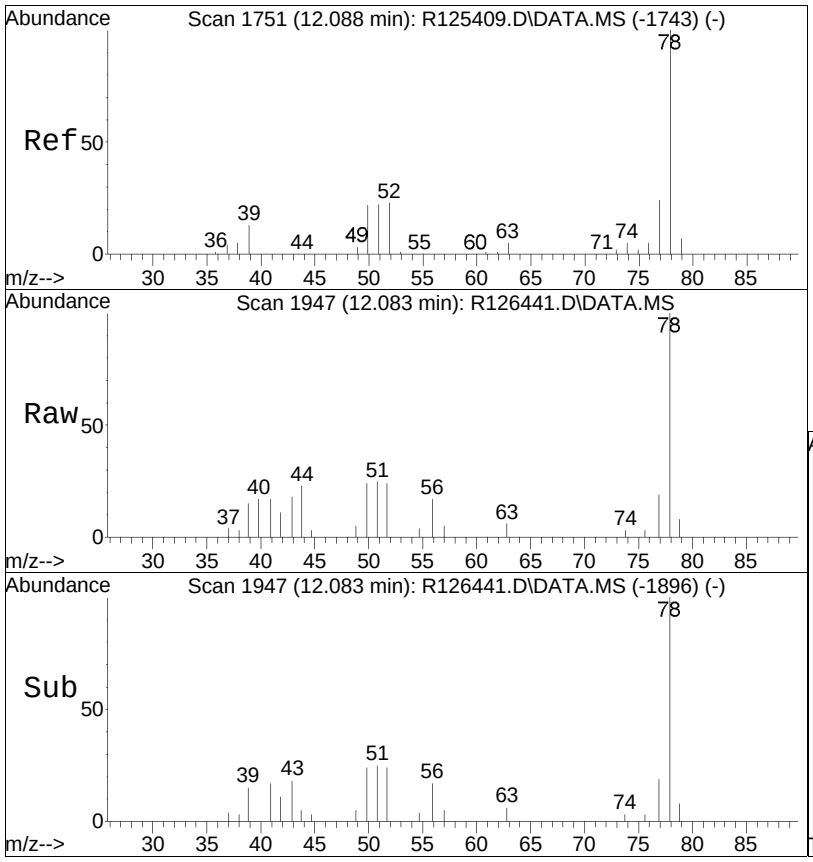
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 12 11:52:52 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

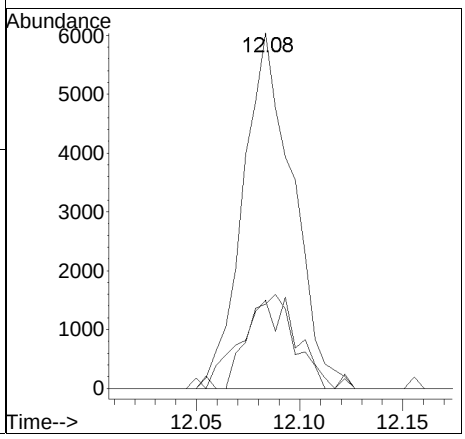


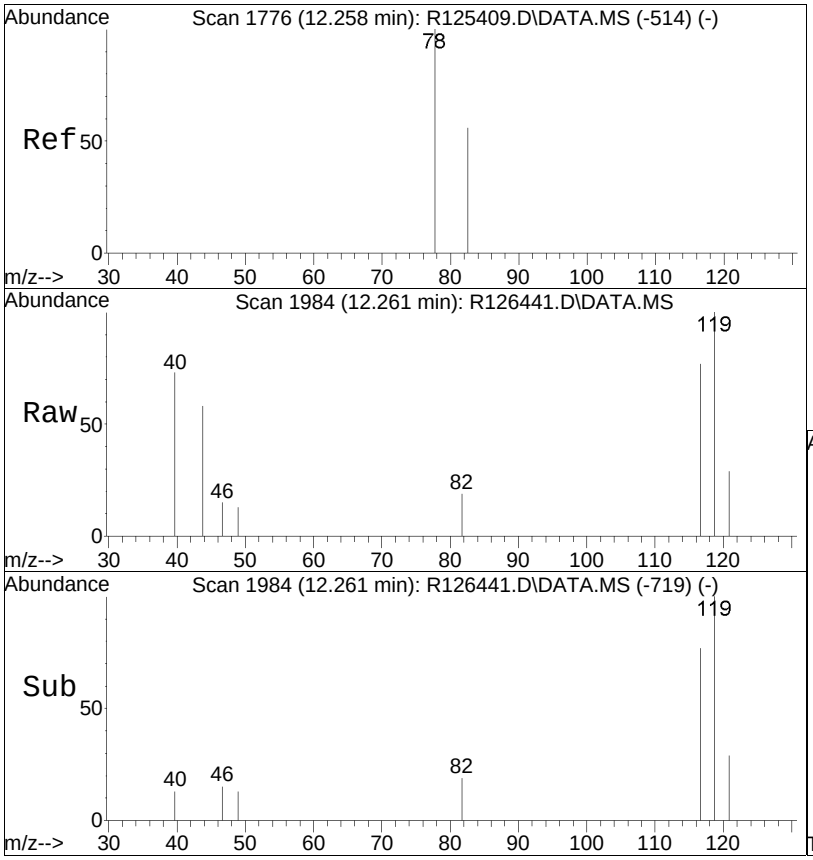



#9
benzene
Concen: 0.69 ug/m3
RT: 12.09 min Scan# 1947
Delta R.T. -0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 78 Resp: 101081

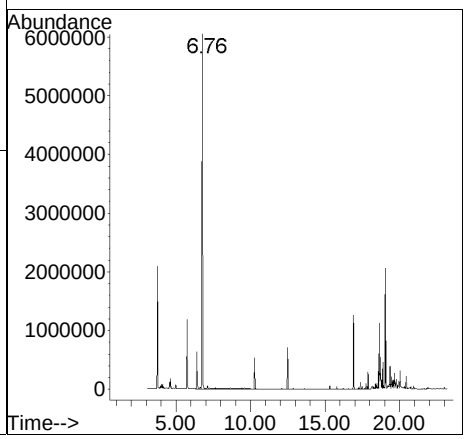
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 0.0 | 18.5 | 27.7# |
| 51 | 29.5 | 18.4 | 27.6# |

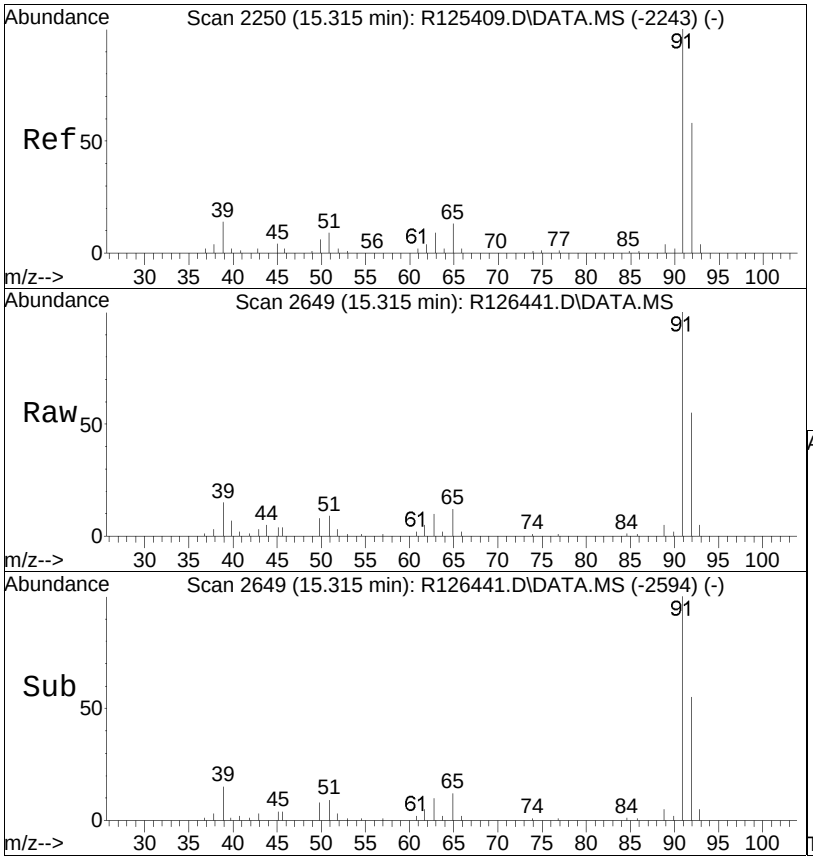





#11
C5-C8 Aliphatics Total
Concen: 50.89 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:TIC Resp:18859408

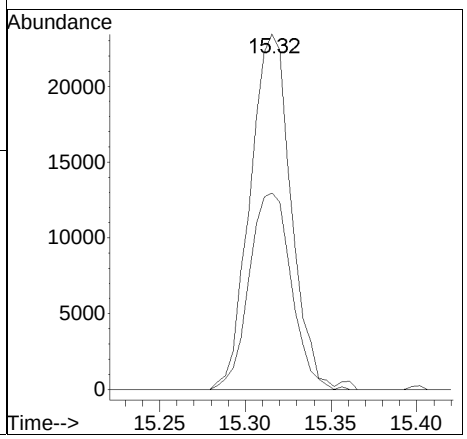


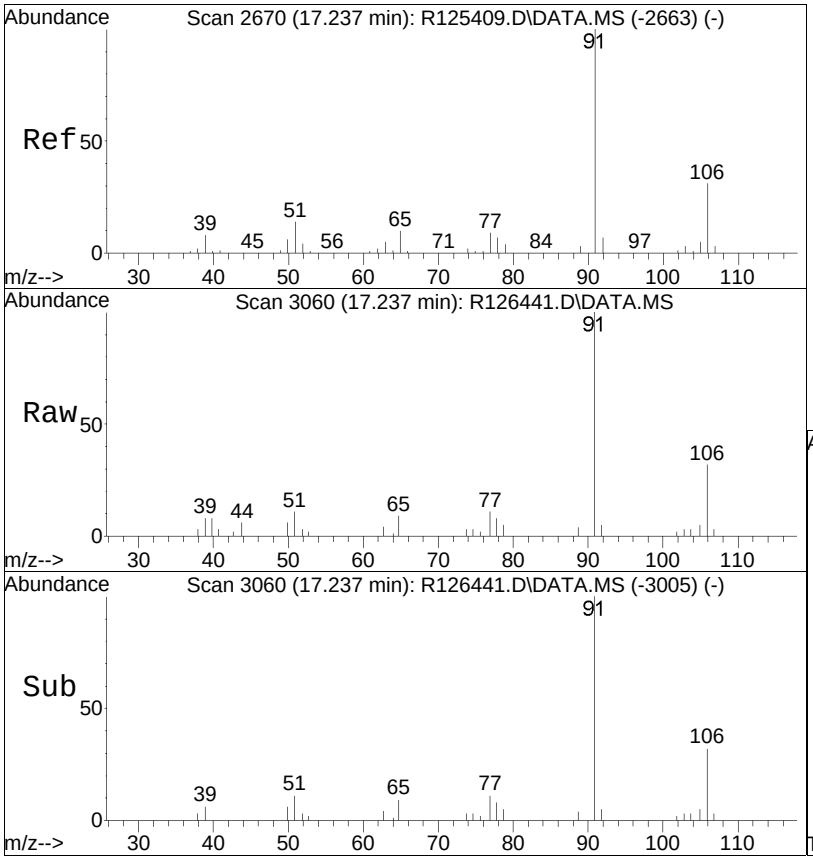



#13
toluene
Concen: 2.48 ug/m3 m
RT: 15.32 min Scan# 2649
Delta R.T. -0.002 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 391924

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.5 | 46.2 | 69.2 |

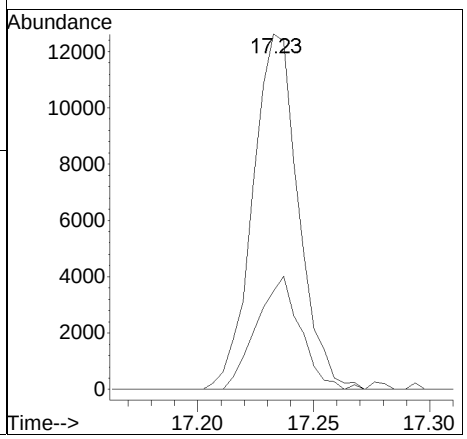


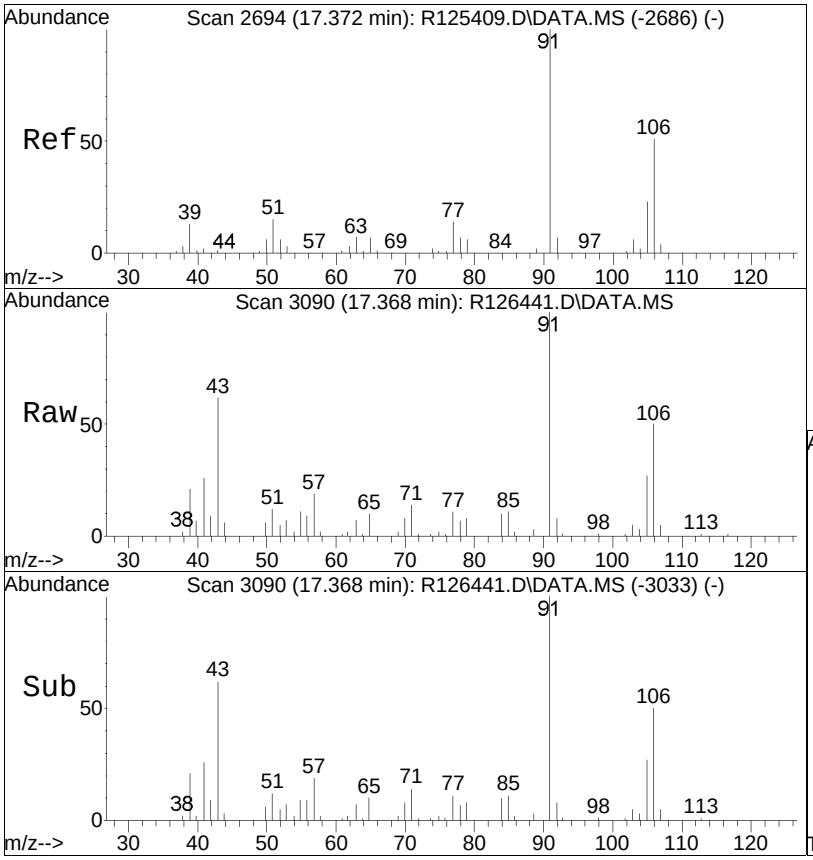



#16
ethyl benzene
Concen: 0.98 ug/m3
RT: 17.24 min Scan# 3060
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 173114

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 0.0 | 25.1 | 37.7# |

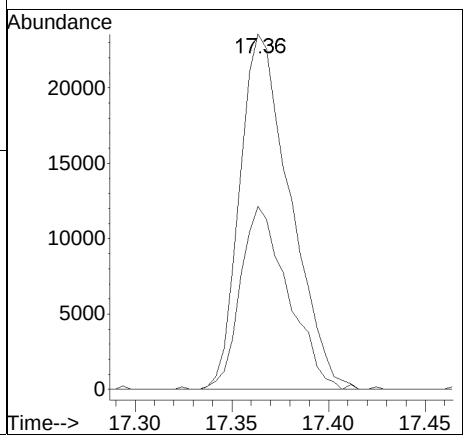


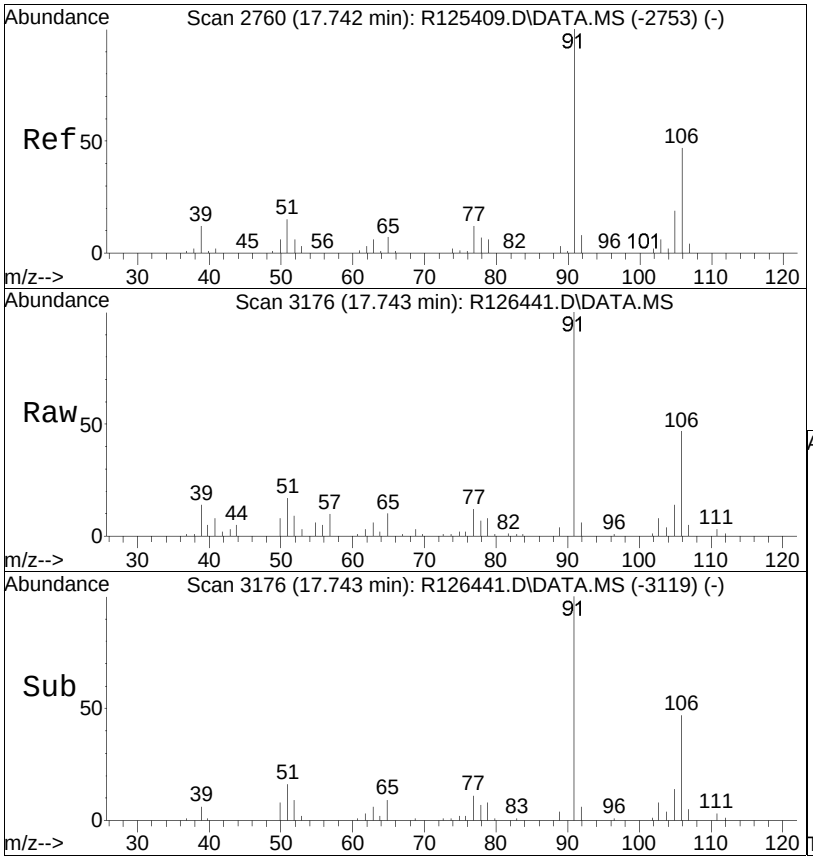



#17
m+p-xylene
Concen: 3.03 ug/m3
RT: 17.37 min Scan# 3090
Delta R.T. -0.004 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 427541

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.0 | 39.7 | 59.5 |

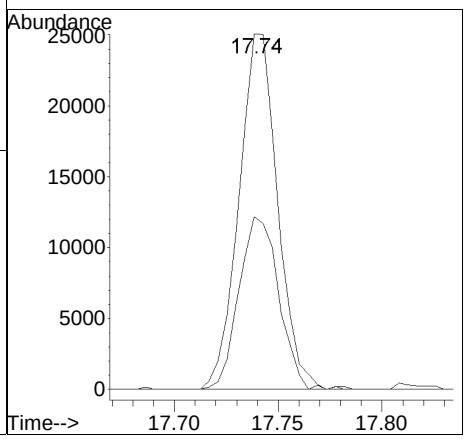


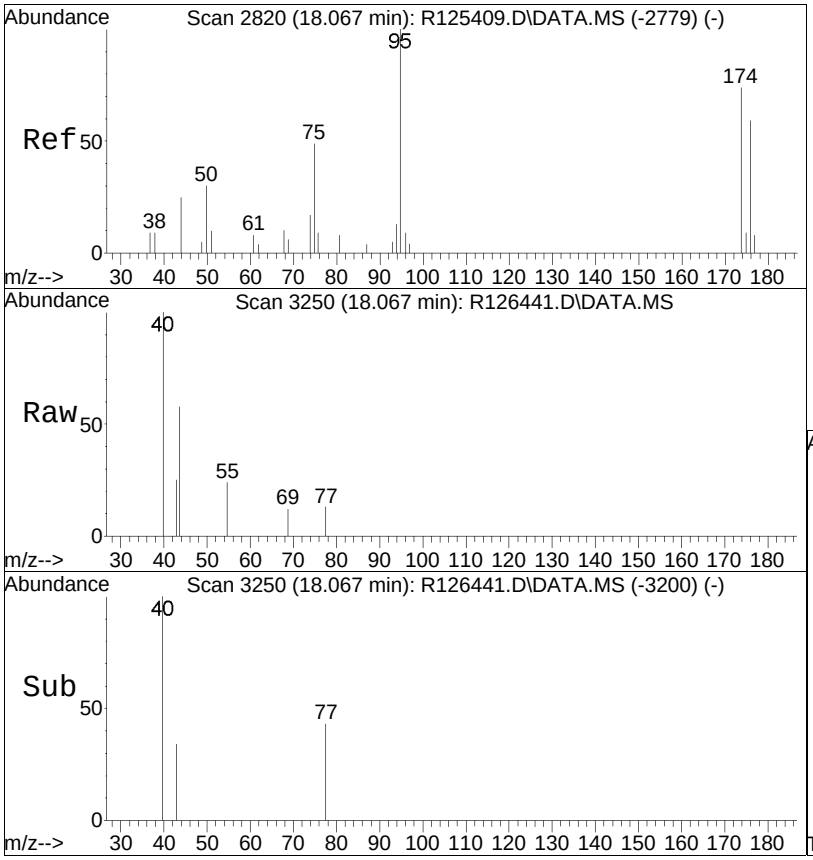



#19
o-xylene
Concen: 2.27 ug/m3
RT: 17.74 min Scan# 3176
Delta R.T. -0.001 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 325703

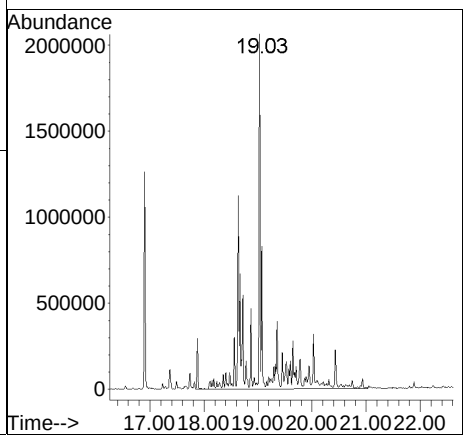
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.8 | 37.7 | 56.5 |

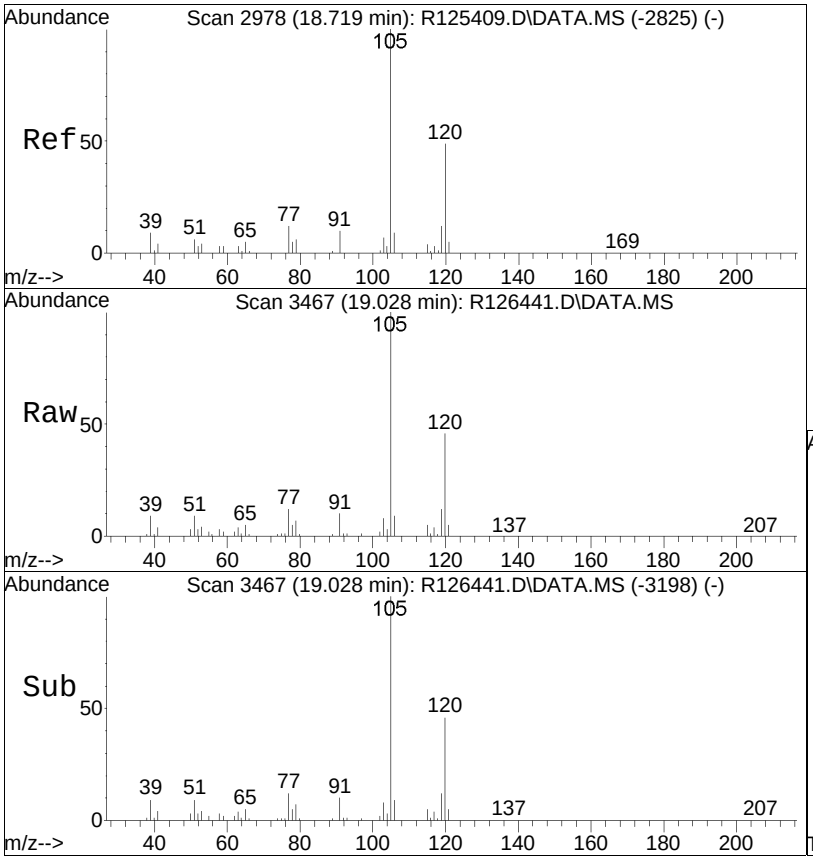





#25
C9-C12 Aliphatics Total
Concen: 358.18 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

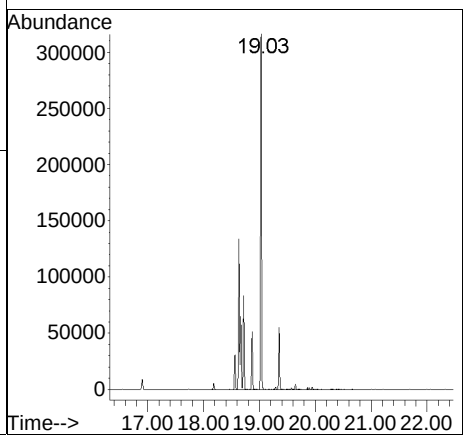
Tgt Ion:TIC Resp:154522773

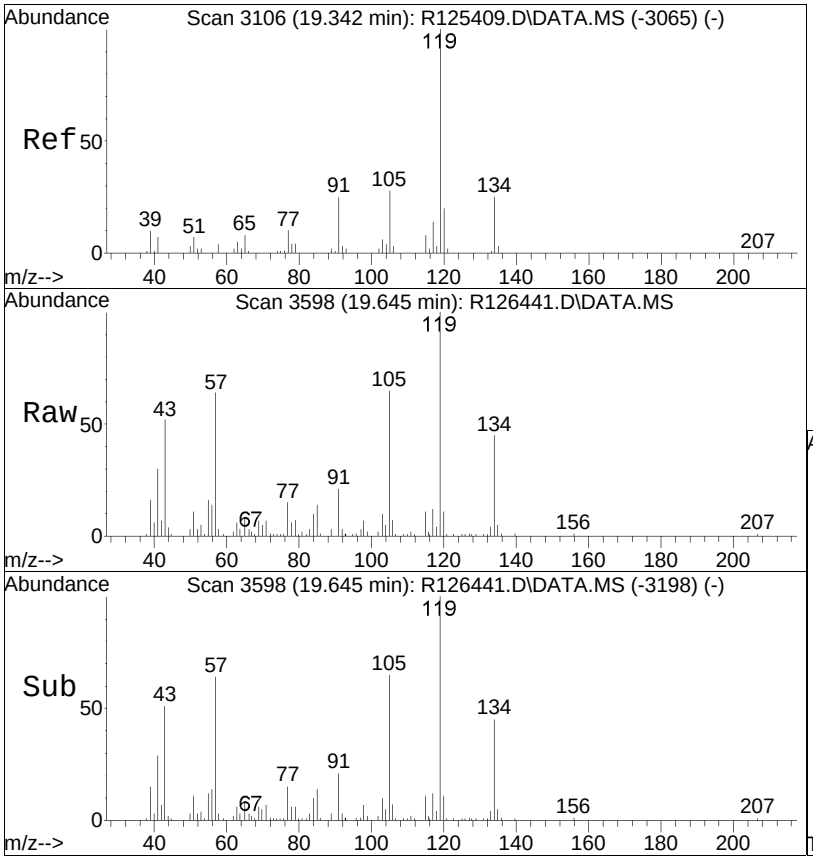





#26
C9-C10 Aromatics (120)
Concen: 144.42 ug/m3 m
RT: 19.03 min Scan# 3467
Delta R.T. -0.972 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

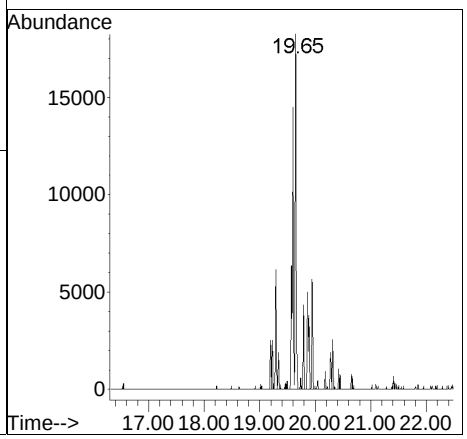
Tgt Ion:120 Resp: 8733175






#27
C9-C10 Aromatics (134)
Concen: 15.09 ug/m3 m
RT: 19.65 min Scan# 3598
Delta R.T. -0.355 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:134 Resp: 912754

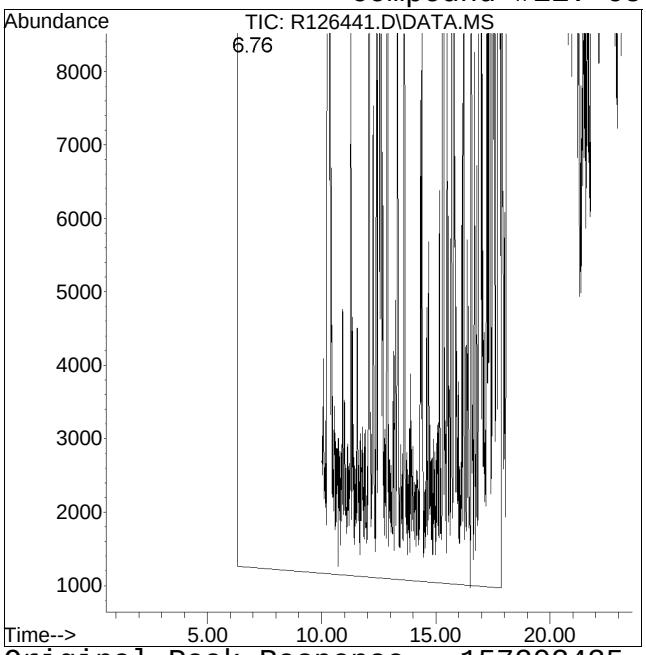


Manual Integration/Negative Proof Report

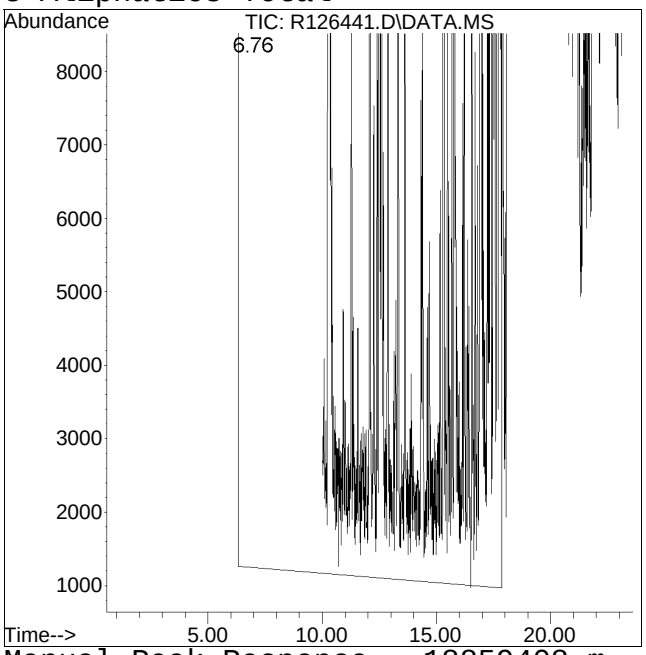
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:53 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 157202435

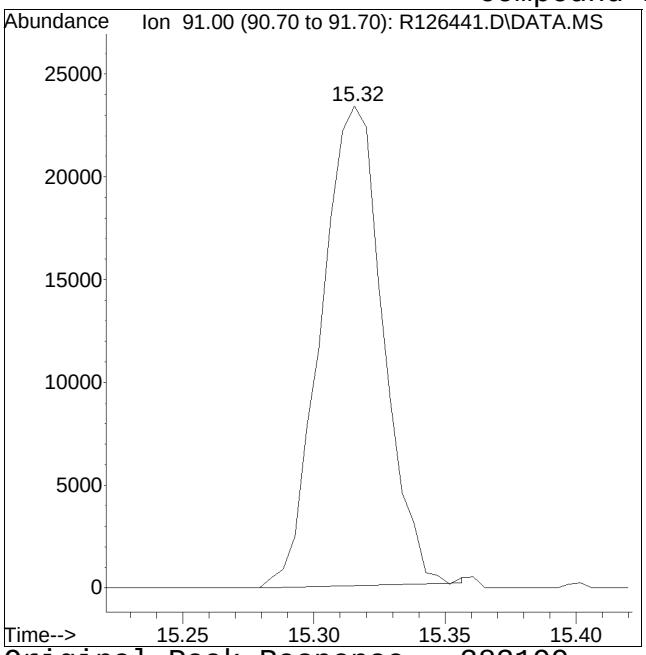


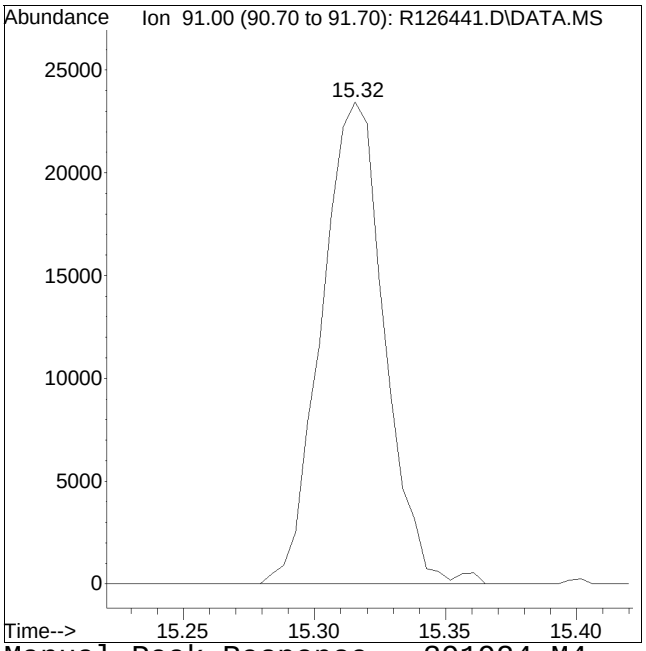

Manual Peak Response = 18859408 m

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126441.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 8:31 pm Instrument : Air Piano 1
Sample : L1302224-03,3,250,250 Quant Date : 2/11/2013 10:53 pm

Compound #13: toluene



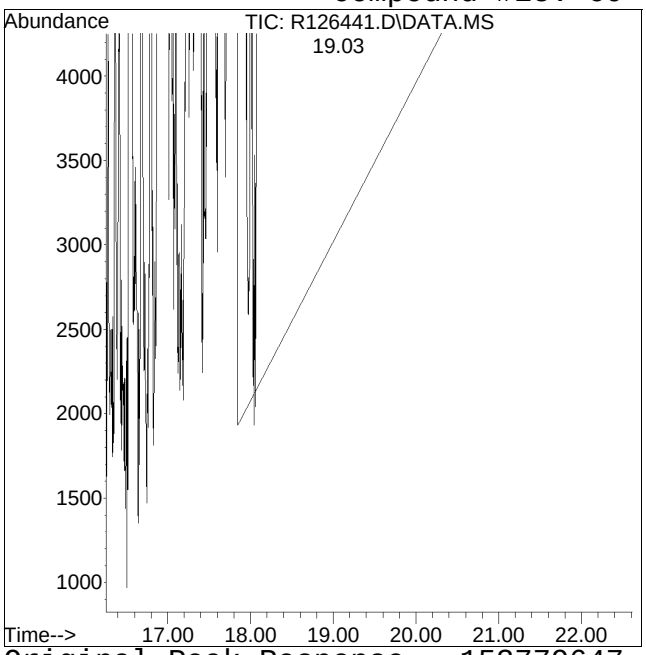

Original Peak Response = 383199 Manual Peak Response = 391924 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

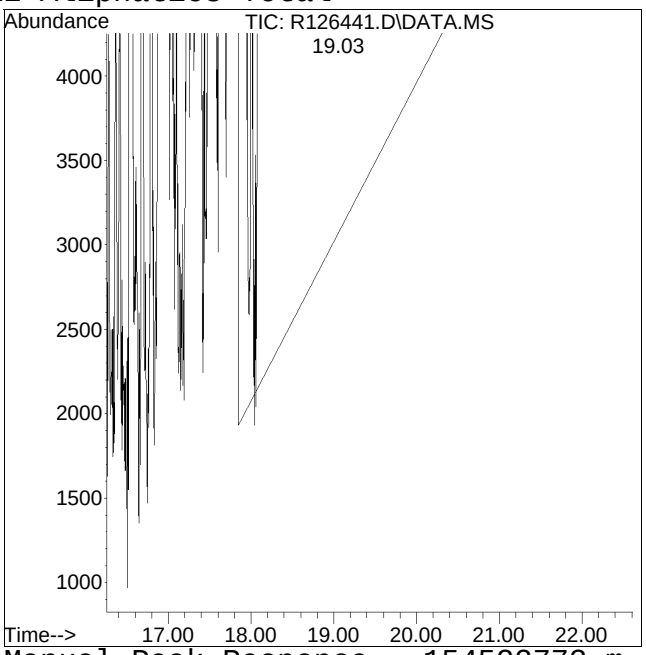
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:53 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 153779647

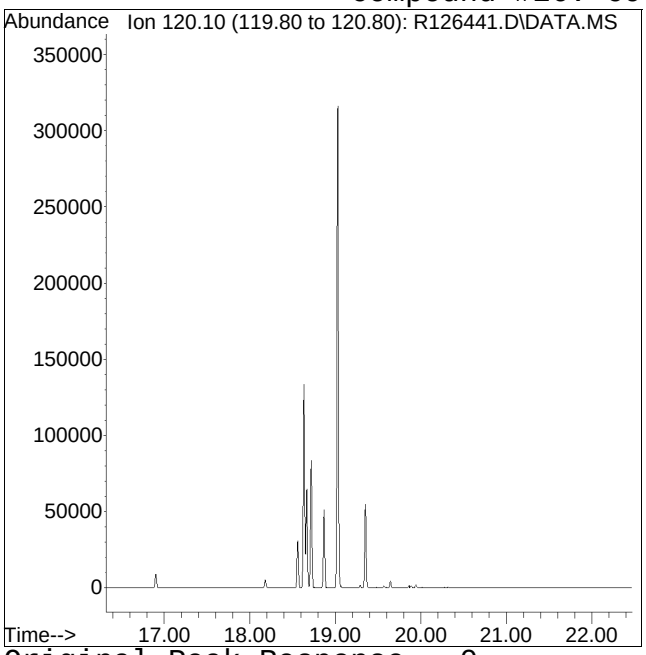


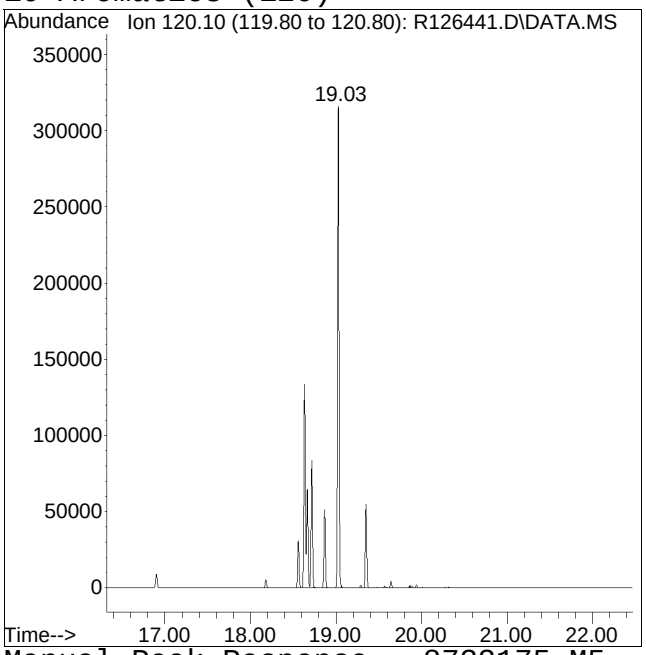

Manual Peak Response = 154522773 m

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126441.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 8:31 pm Instrument : Air Piano 1
Sample : L1302224-03,3,250,250 Quant Date : 2/11/2013 10:53 pm

Compound #26: C9-C10 Aromatics (120)



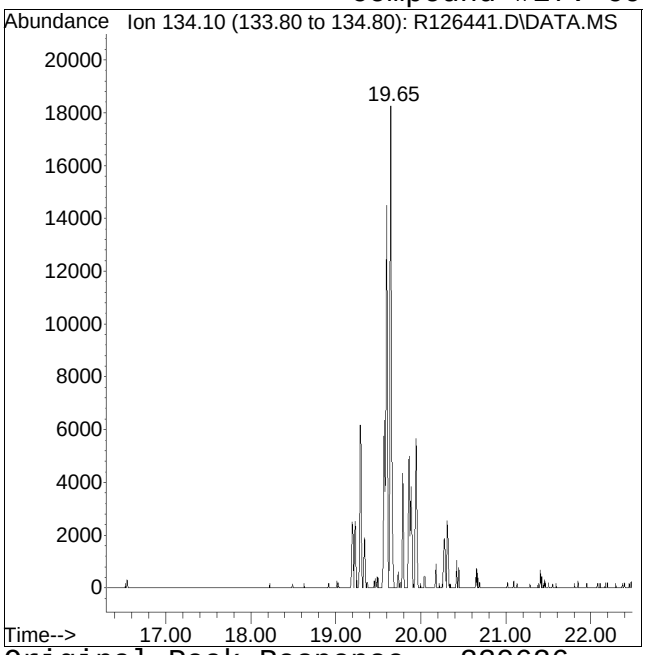



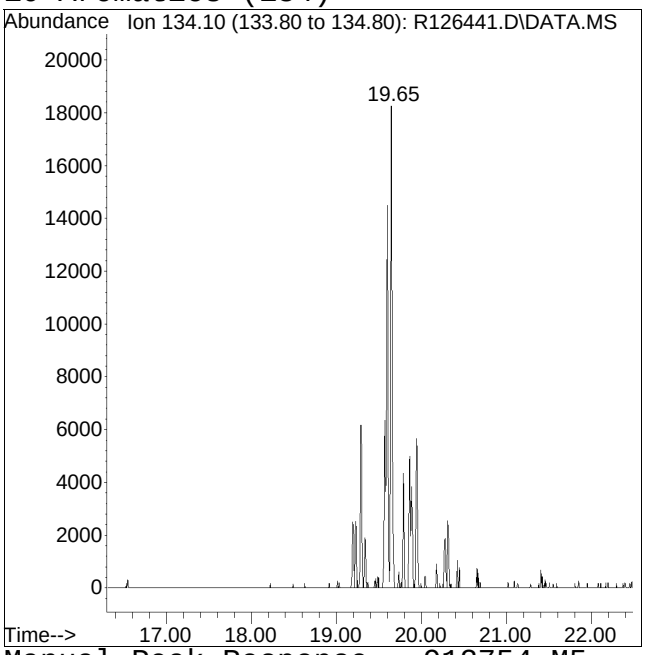

Original Peak Response = 0 Manual Peak Response = 8733175 M5
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126441.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/8/2013 8:31 pm | Instrument | : Air Piano 1 |
| Sample | : L1302224-03,3,250,250 | Quant Date | : 2/11/2013 10:53 pm |

Compound #27: C9-C10 Aromatics (134)



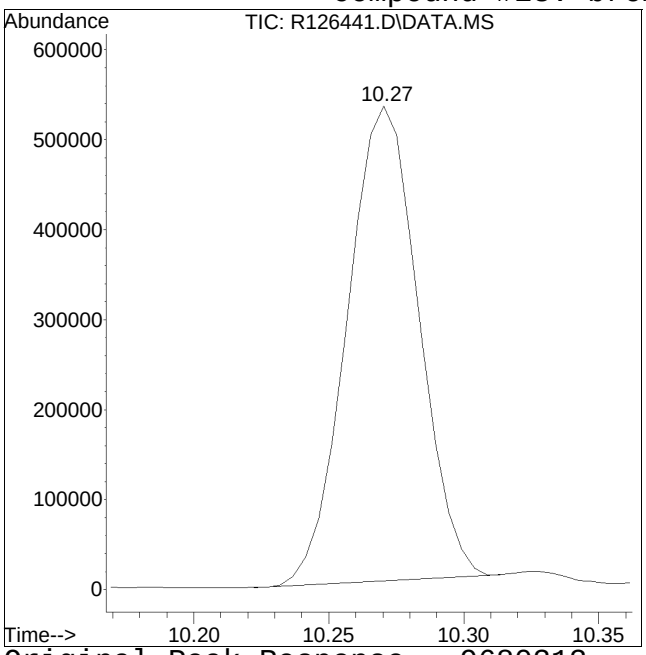

Original Peak Response = 230626 Manual Peak Response = 912754 M5

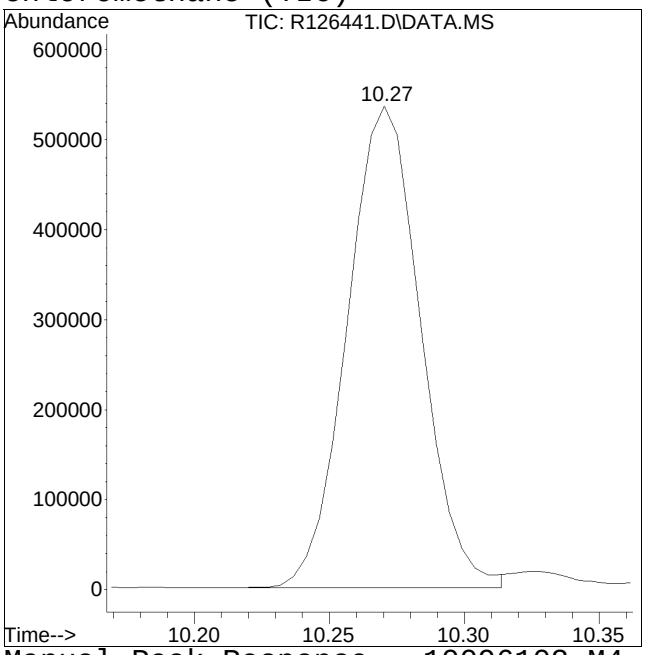
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126441.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 8:31 pm Instrument : Air Piano 1
Sample : L1302224-03,3,250,250 Quant Date : 2/11/2013 10:53 pm

Compound #28: bromochloromethane (TIC)



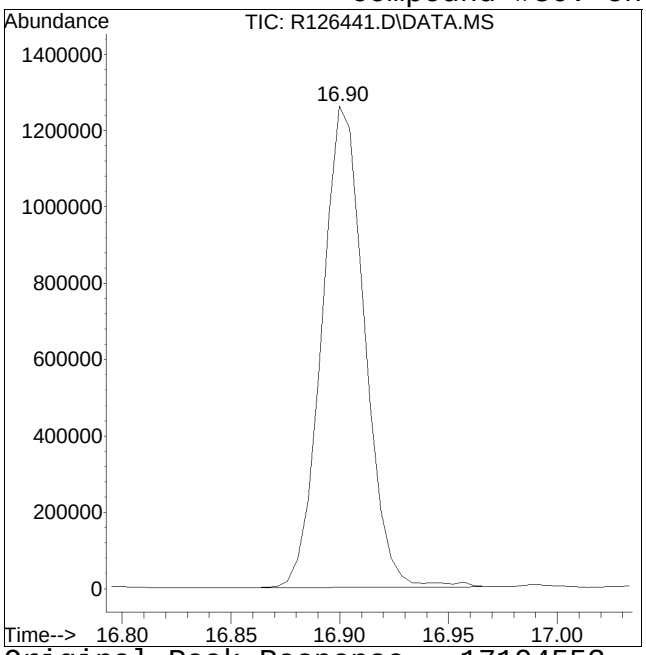

Original Peak Response = 9680313 Manual Peak Response = 10096102 M4
M4 = Poor automated baseline construction.

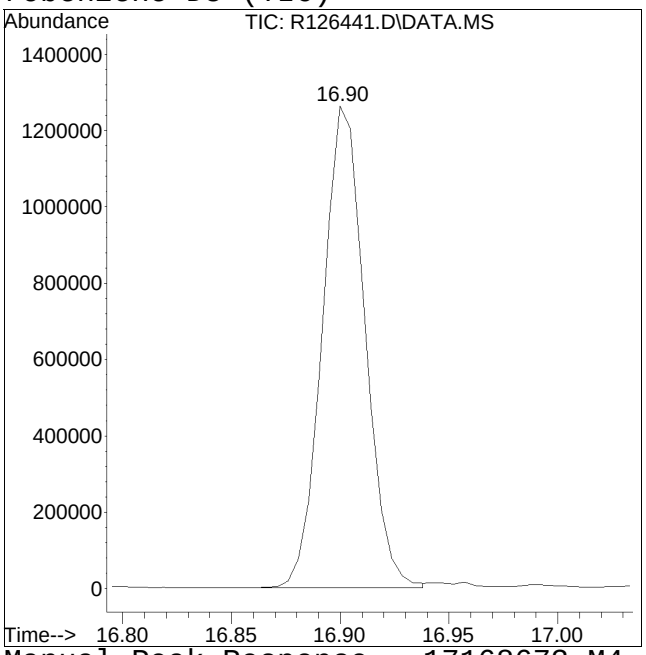
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:53 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 17194553 Manual Peak Response = 17168673 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 12 11:53:26 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1145703 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 77.50% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5492996 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 81.59% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1408084 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 79.36% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 8567147M4 | 10.968 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 109.68% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 13132317M4 | 10.096 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 100.96% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 16414485M4 | 9.853 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 98.53% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | | 0 | N.D. | | |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 7146054 | 18.047 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 127917 | 0.827 | ug/m3 | 99 |
| 16) ethyl benzene | 0.00 | | 0 | N.D. | | |
| 17) m+p-xylene | 0.00 | | 0 | N.D. | | |
| 19) o-xylene | 0.00 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 19337217 | 43.934 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.03 | 120 | 65532M5 | 1.106 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.45 | 134 | 41116M5 | 0.694 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 106648 | 1.799 | ug/m3 | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 12 11:53:26 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

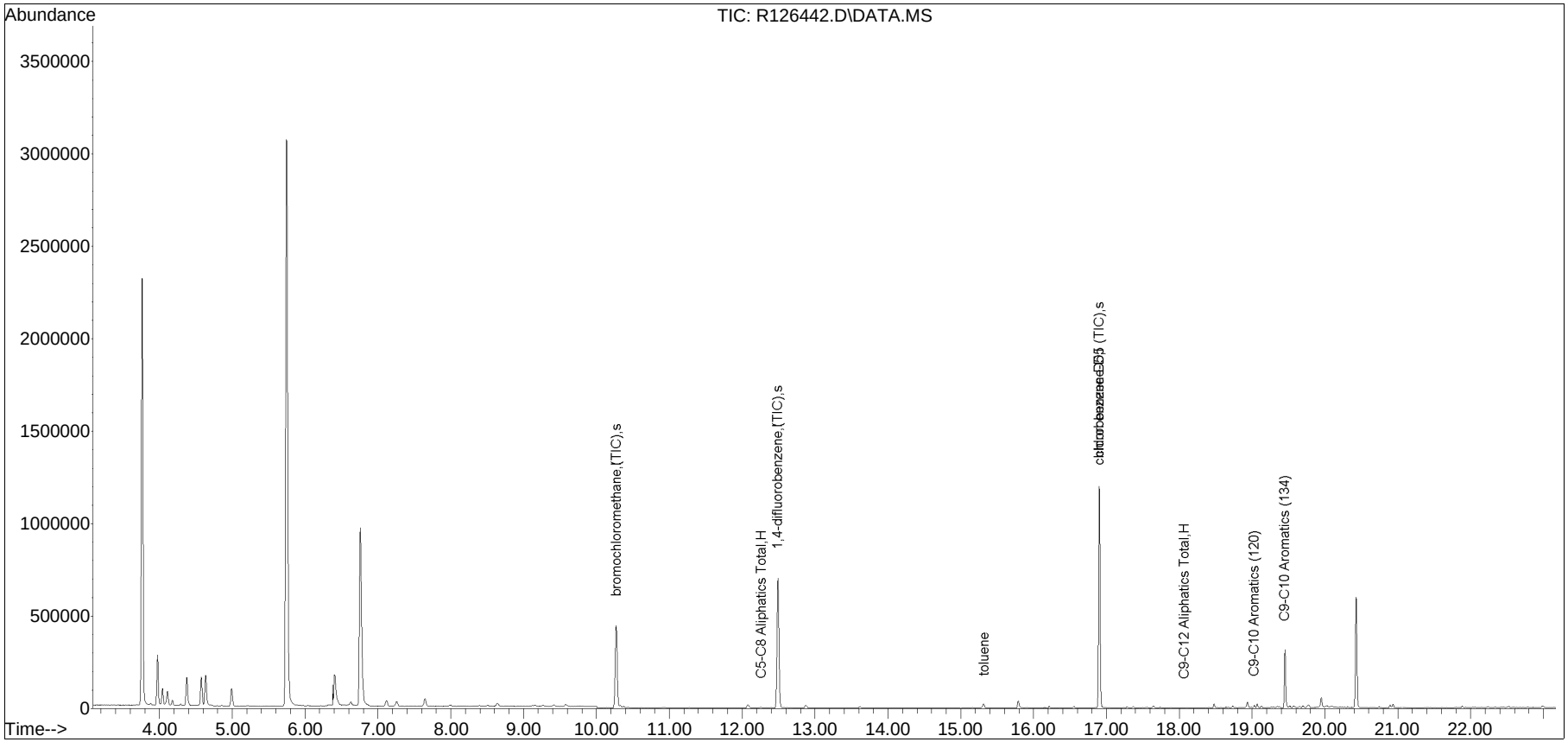
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

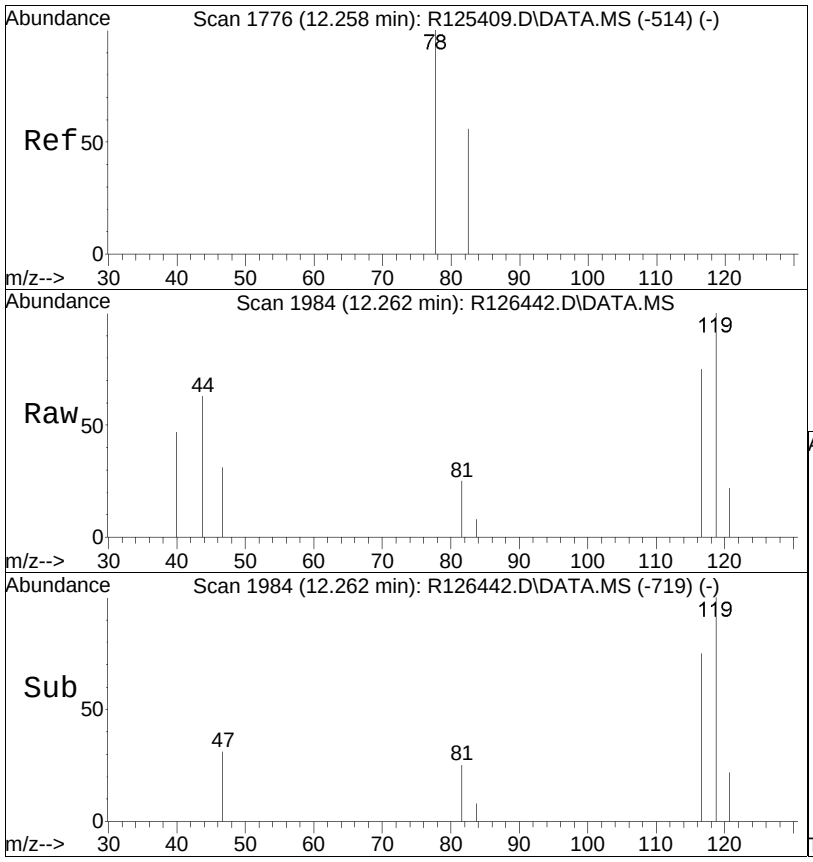
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 13 Sample Multiplier: 1

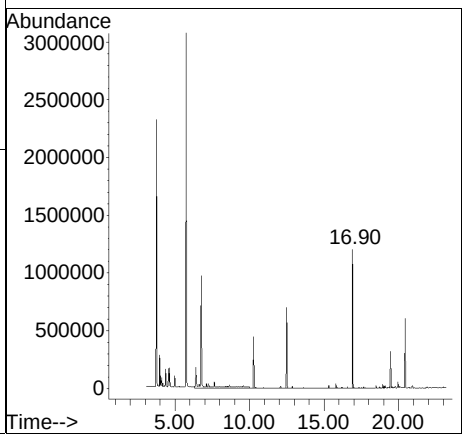
Quant Time: Feb 12 11:53:26 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

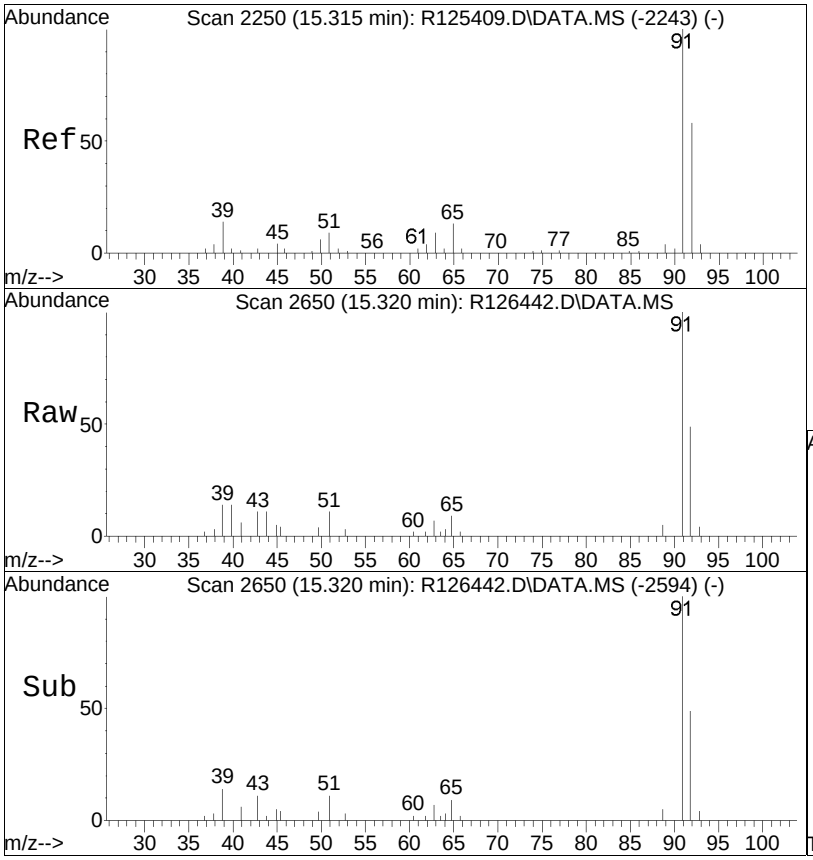





#11
C5-C8 Aliphatics Total
Concen: 19.32 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:TIC Resp: 7146054

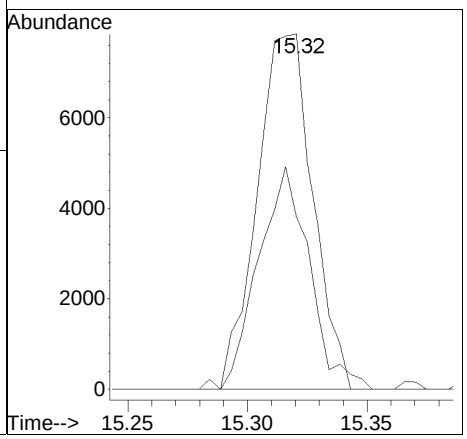


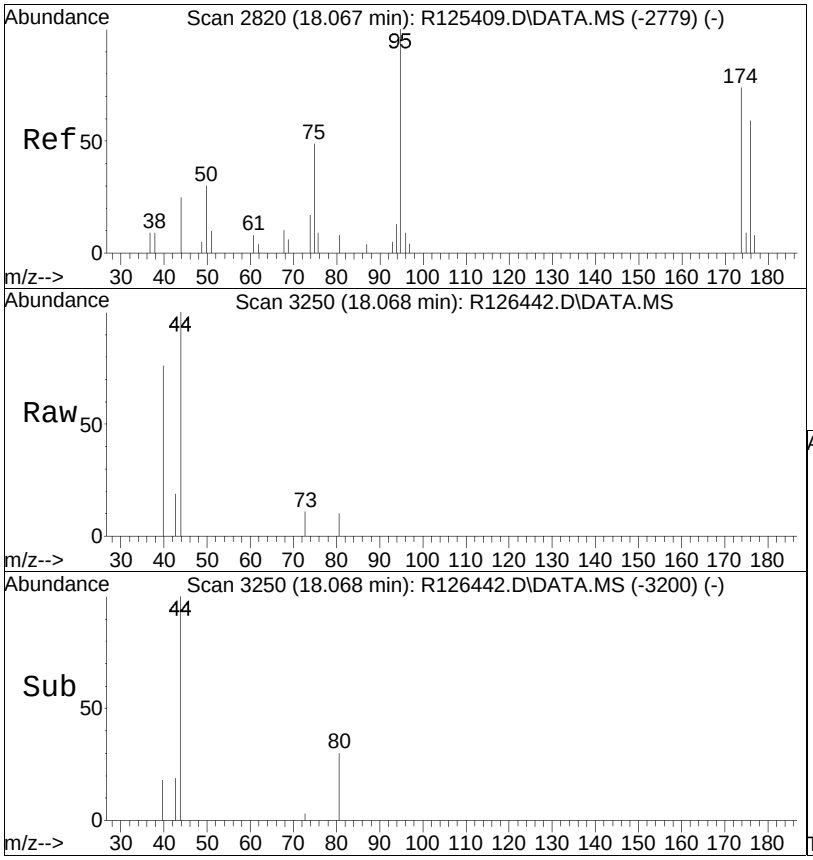



#13
toluene
Concen: 0.83 ug/m3
RT: 15.32 min Scan# 2650
Delta R.T. 0.001 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 91 Resp: 127917

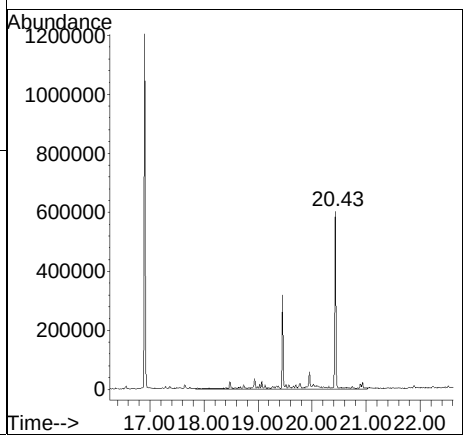
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.8 | 46.2 | 69.2 |

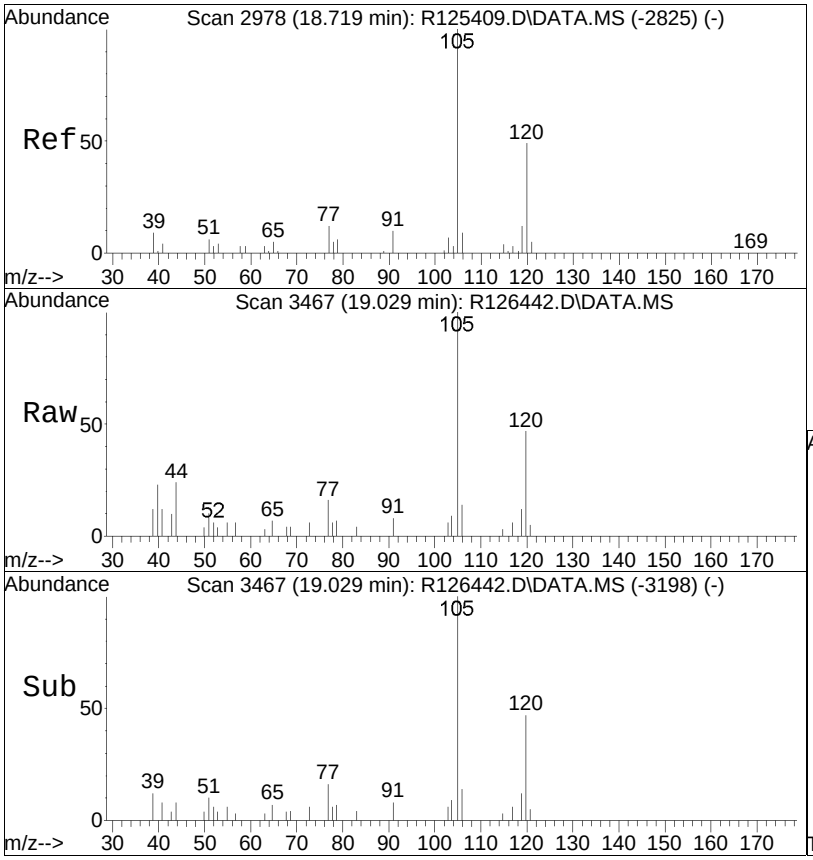





#25
C9-C12 Aliphatics Total
Concen: 45.73 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

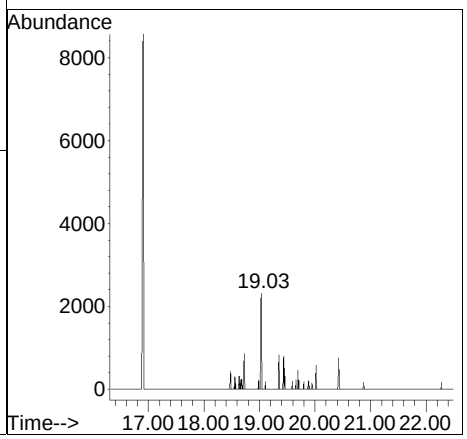
Tgt Ion:TIC Resp:19337217

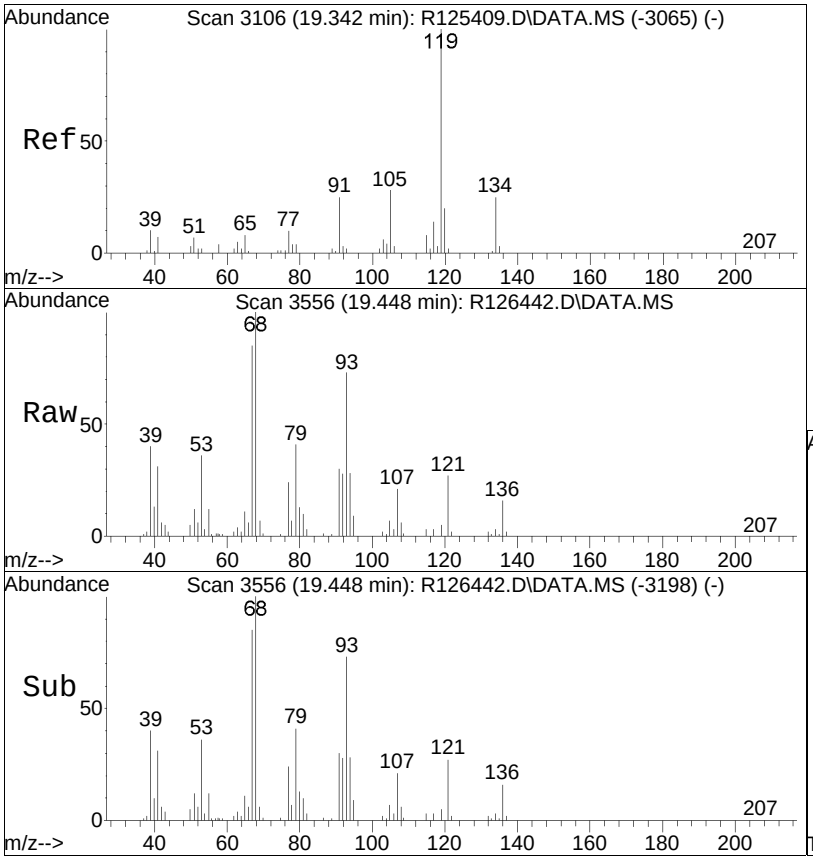





#26
C9-C10 Aromatics (120)
Concen: 1.11 ug/m3 m
RT: 19.03 min Scan# 3467
Delta R.T. -0.971 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

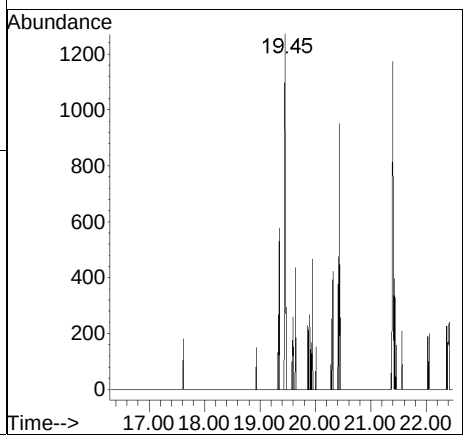
Tgt Ion:120 Resp: 65532






#27
C9-C10 Aromatics (134)
Concen: 0.69 ug/m3 m
RT: 19.45 min Scan# 3556
Delta R.T. -0.552 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:134 Resp: 41116

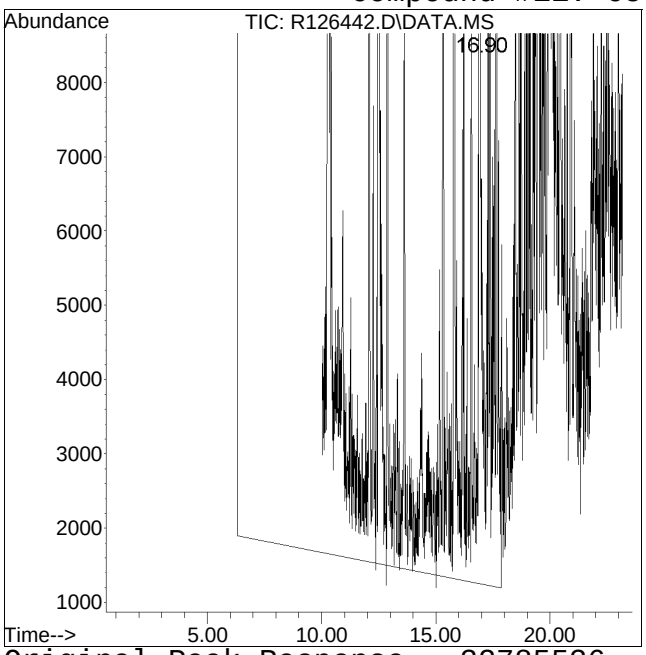


Manual Integration/Negative Proof Report

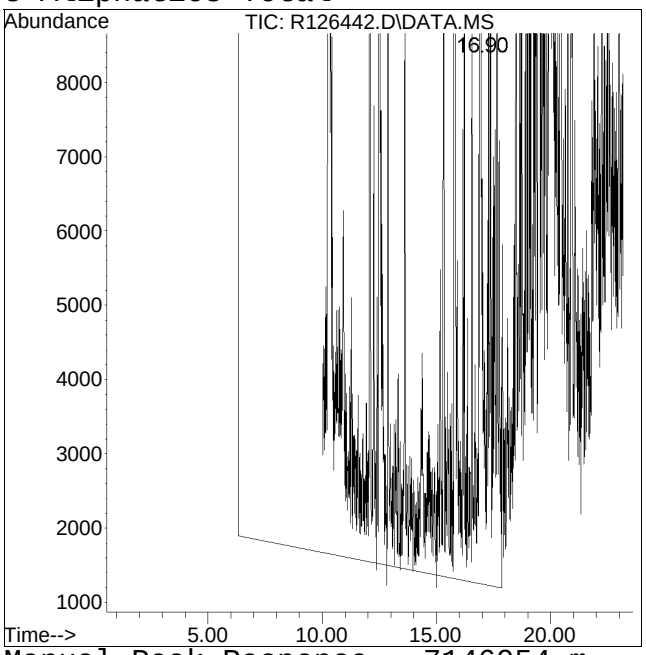
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 32785536



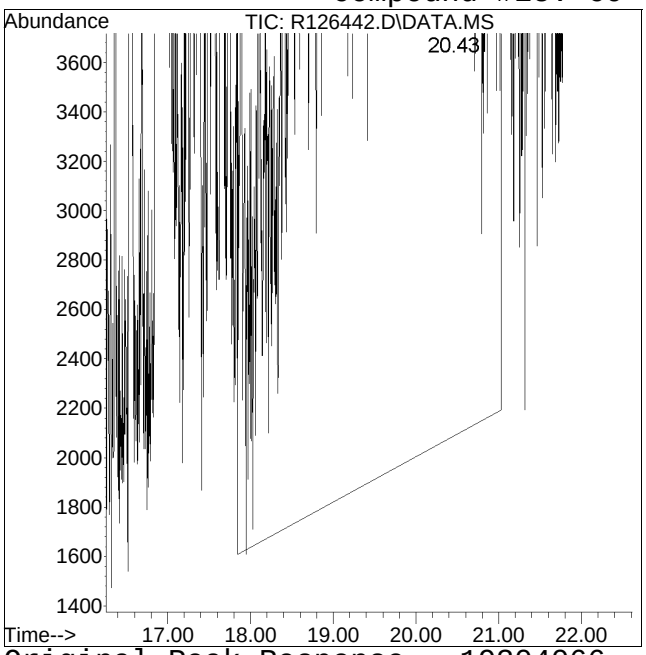

Manual Peak Response = 7146054 m

Manual Integration/Negative Proof Report

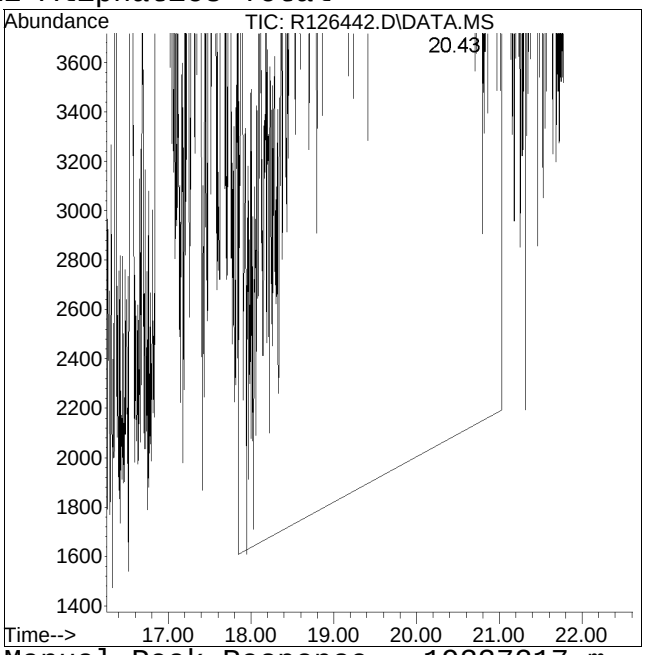
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 19304066

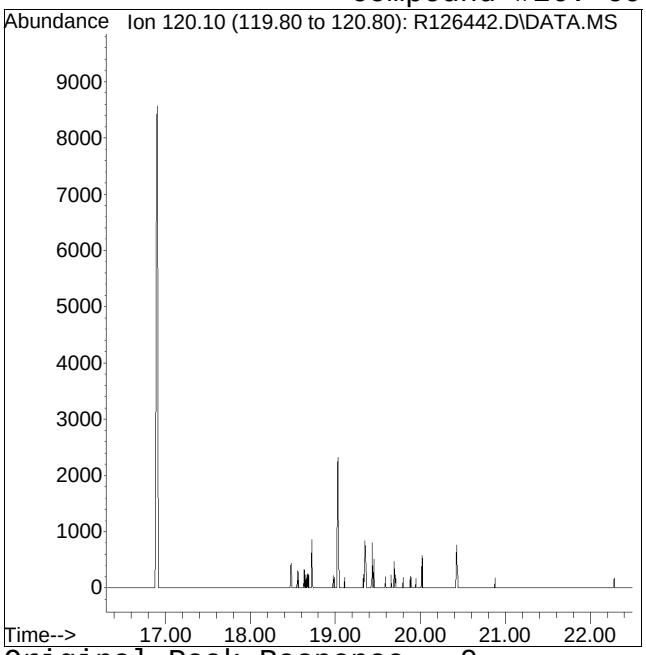


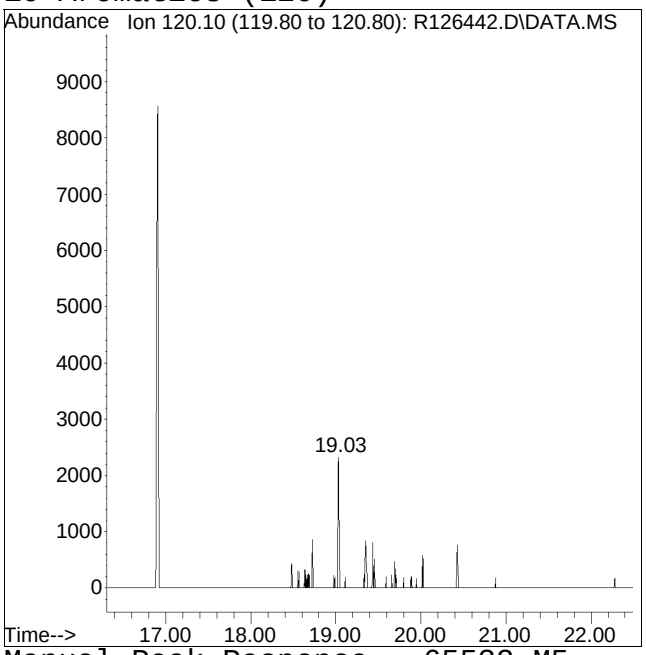

Manual Peak Response = 19337217 m

Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126442.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/8/2013 9:03 pm | Instrument | : Air Piano 1 |
| Sample | : L1302224-04,3,250,250 | Quant Date | : 2/11/2013 10:33 pm |

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 65532 M5

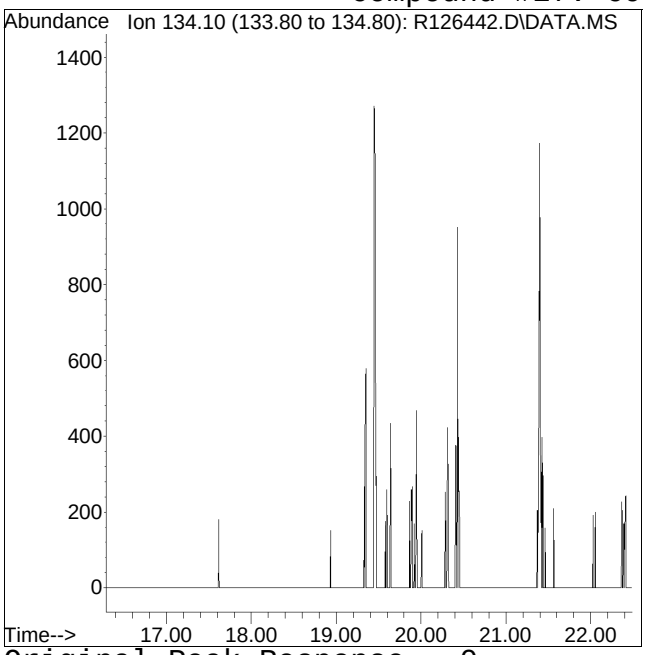
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

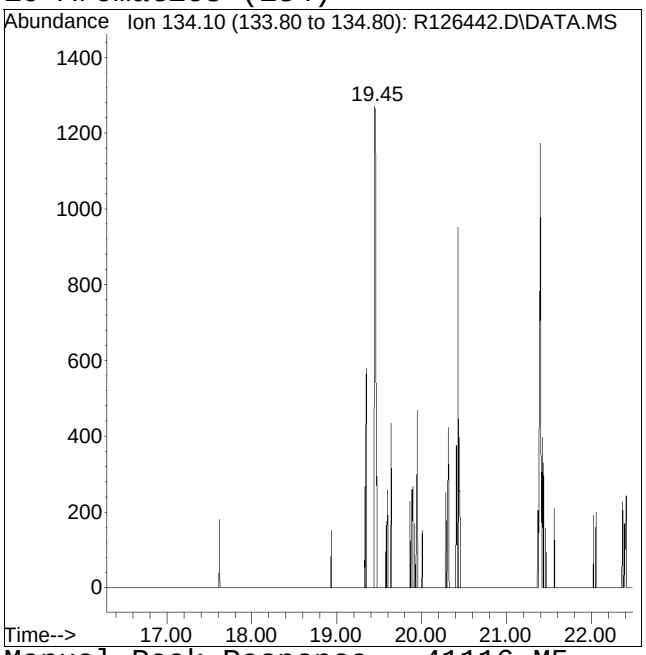
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #27: C9-C10 Aromatics (134)




Original Peak Response = 0 Manual Peak Response = 41116 M5

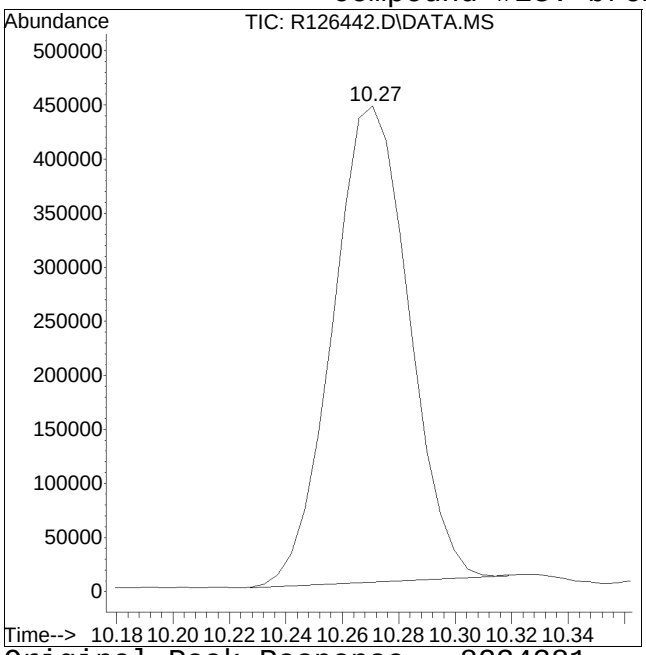
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

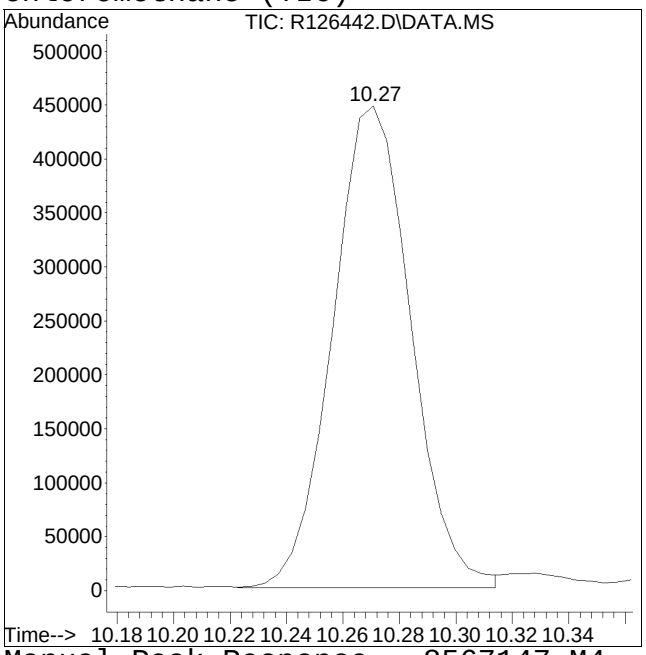
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #28: bromochloromethane (TIC)




Original Peak Response = 8234381




Manual Peak Response = 8567147 M4

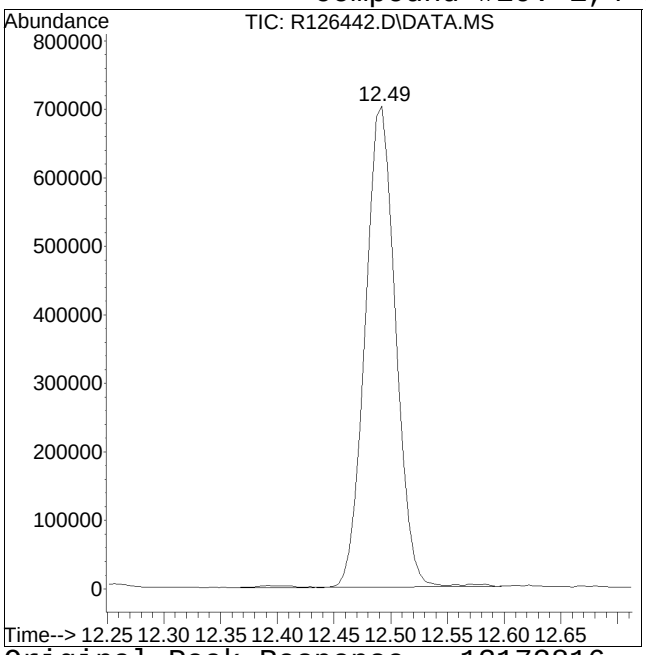
M4 = Poor automated baseline construction.

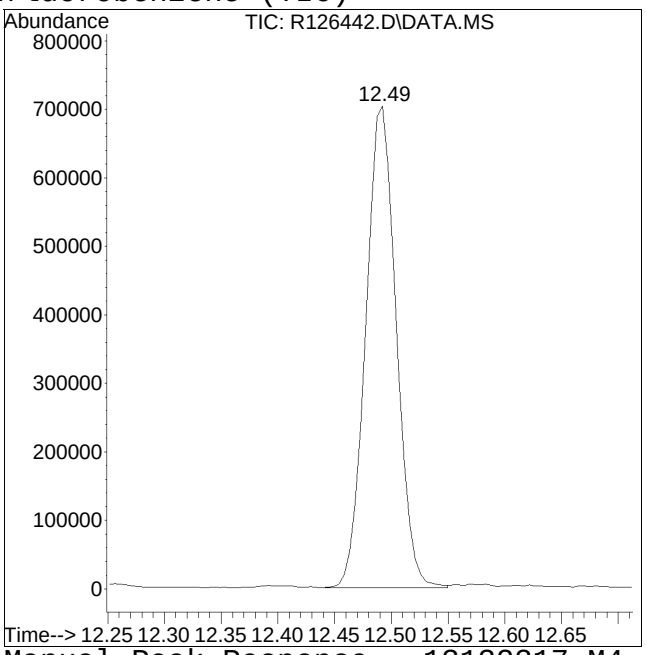
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #29: 1,4-difluorobenzene (TIC)



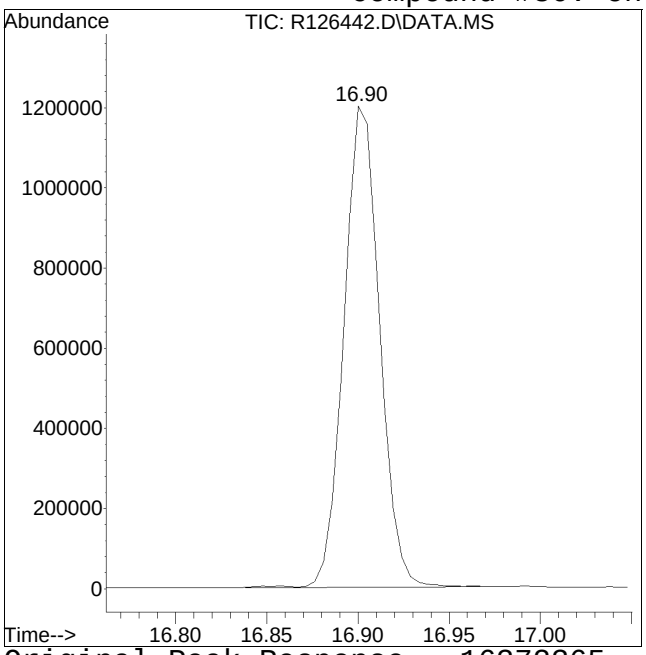

Original Peak Response = 13173816 Manual Peak Response = 13132317 M4
M4 = Poor automated baseline construction.

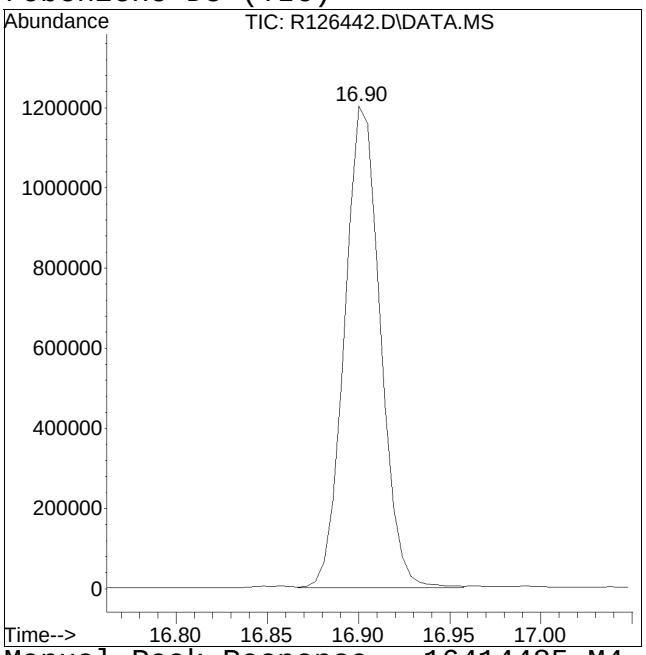
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:33 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 16372365 Manual Peak Response = 16414485 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 12 11:53:49 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

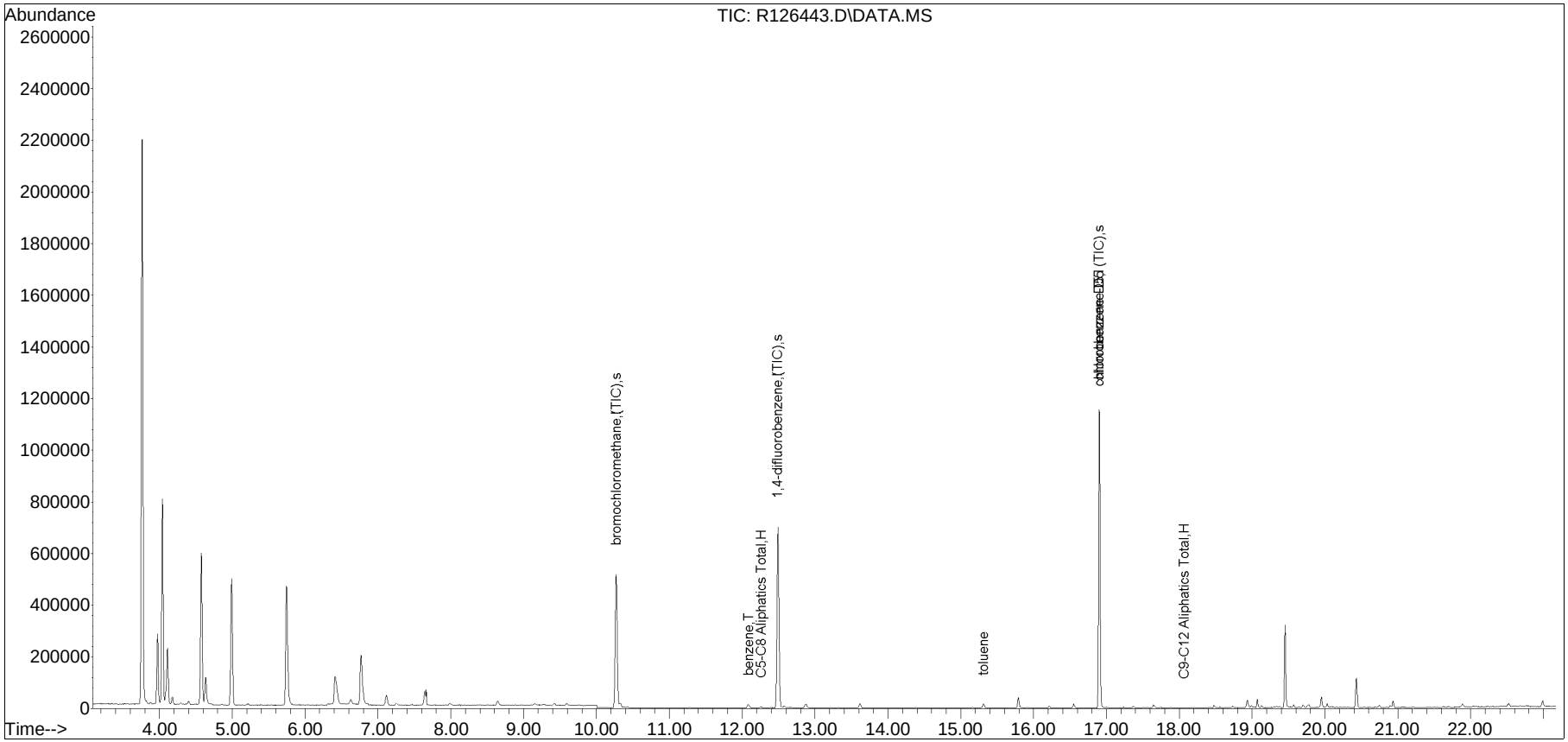
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1262616 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 85.40% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5472078 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 81.28% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1355291 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 76.39% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 9903206M4 | 13.172 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 131.72% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 12966280M4 | 10.357 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 103.57% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 15863038M4 | 9.893 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 98.93% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | 78 | 77927 | 0.538 | ug/m3# | 53 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 7354706 | 18.416 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 91619 | 0.615 | ug/m3 | 98 |
| 16) ethyl benzene | 17.24 | | 0 | N.D. | | |
| 17) m+p-xylene | 17.37 | | 0 | N.D. | | |
| 19) o-xylene | 0.00 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 10389543 | 24.777 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 0 | N.D. | | |

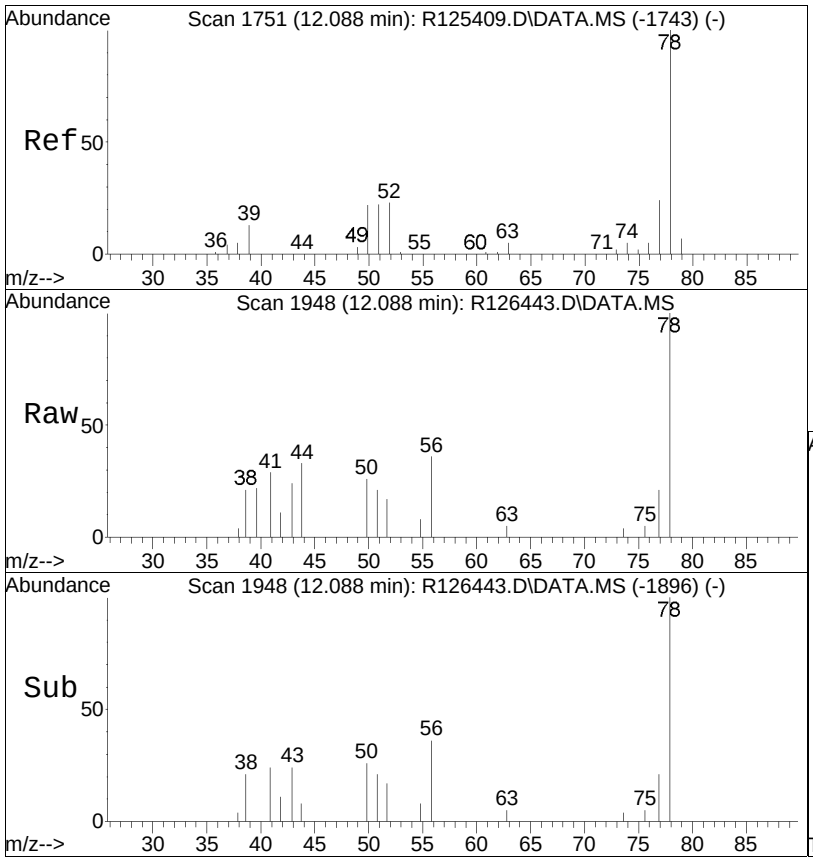
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 12 11:53:49 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

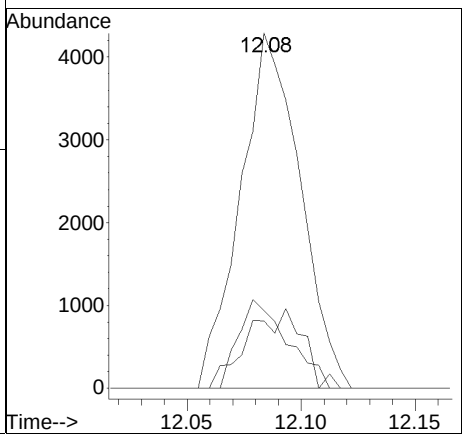


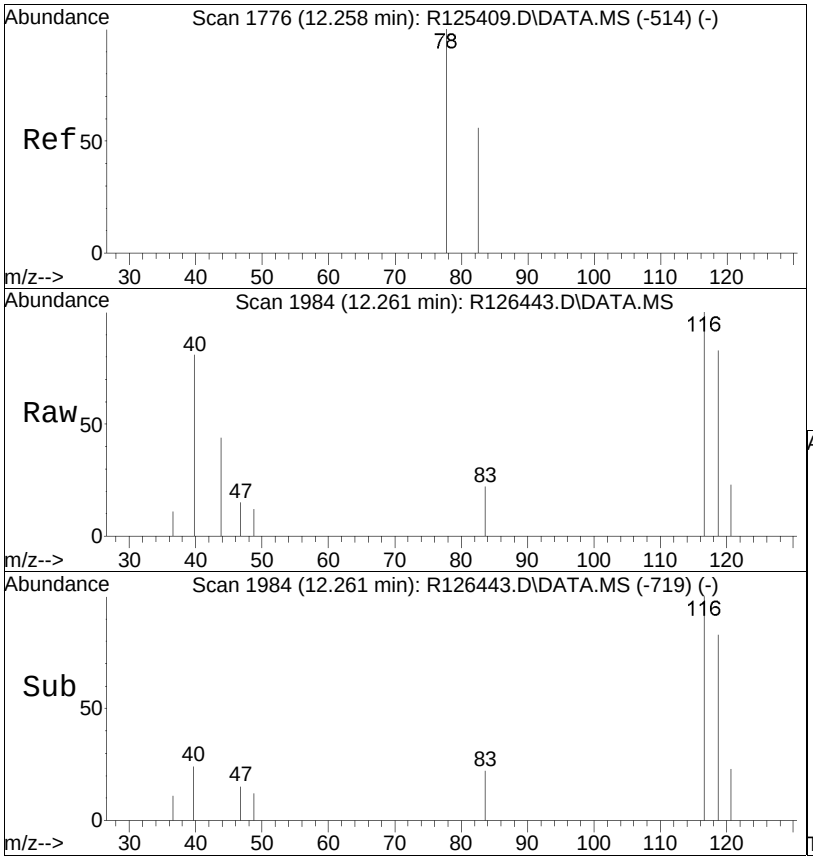



#9
benzene
Concen: 0.54 ug/m3
RT: 12.09 min Scan# 1948
Delta R.T. -0.003 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 78 Resp: 77927

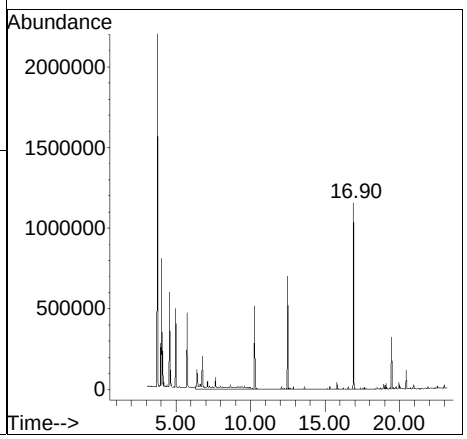
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 0.0 | 18.5 | 27.7# |
| 51 | 0.0 | 18.4 | 27.6# |

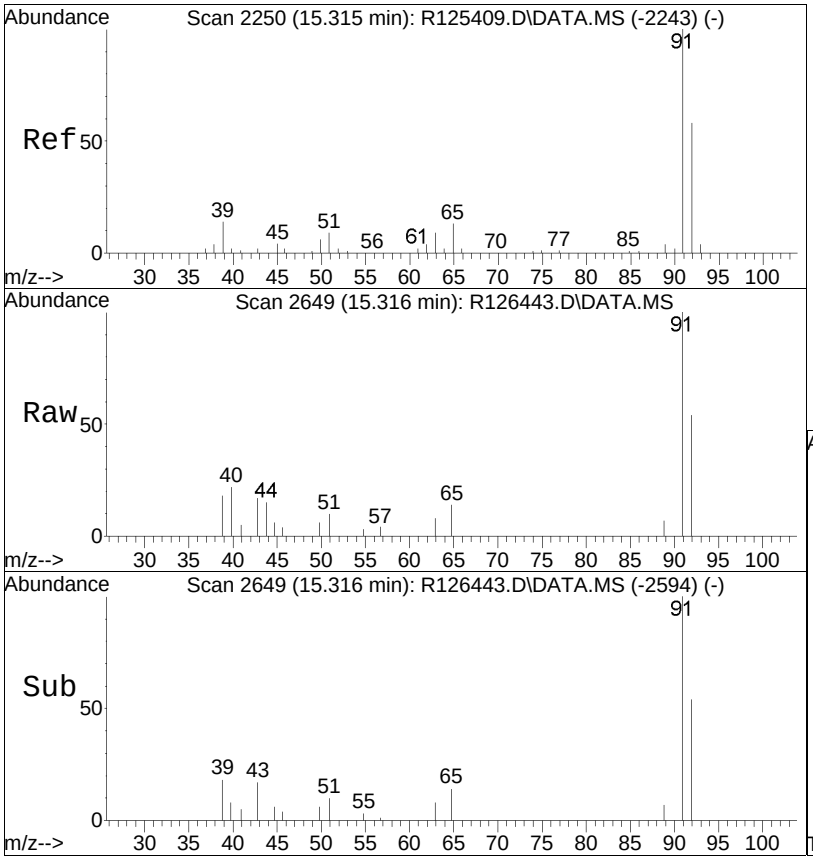





#11
C5-C8 Aliphatics Total
Concen: 19.96 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:TIC Resp: 7354706

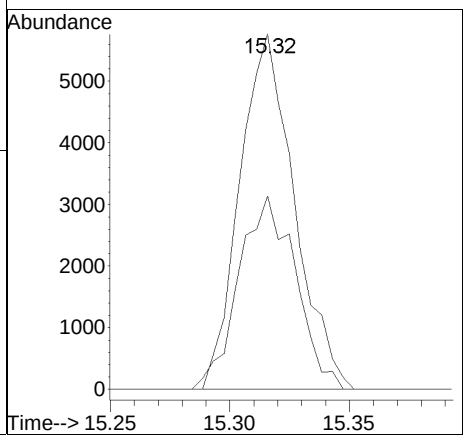


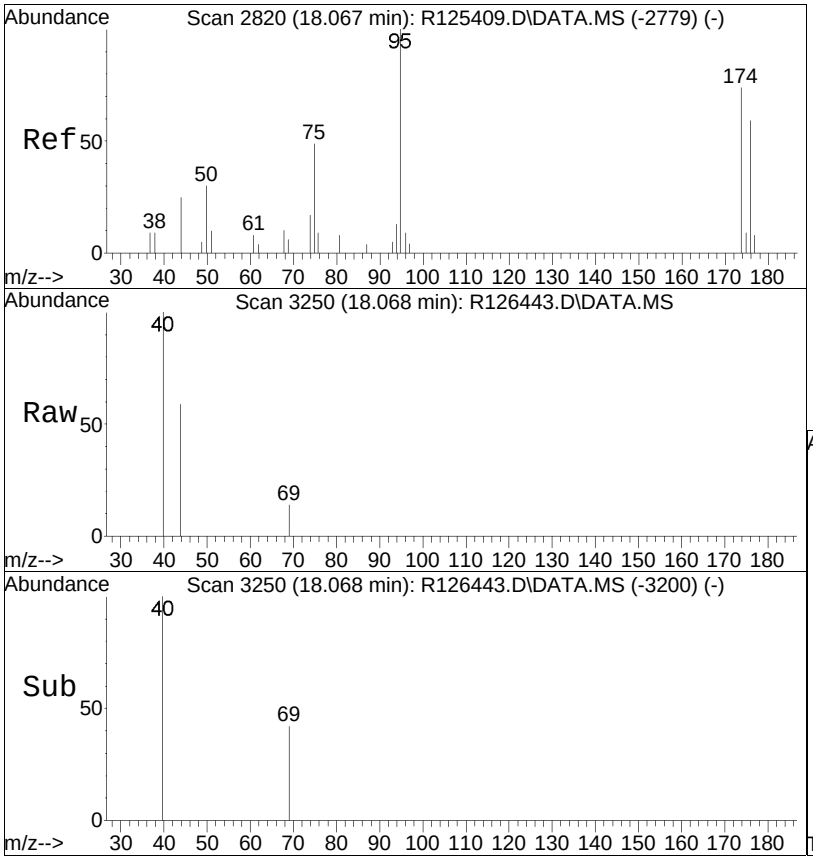



#13
toluene
Concen: 0.62 ug/m3
RT: 15.32 min Scan# 2649
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 91 Resp: 91619

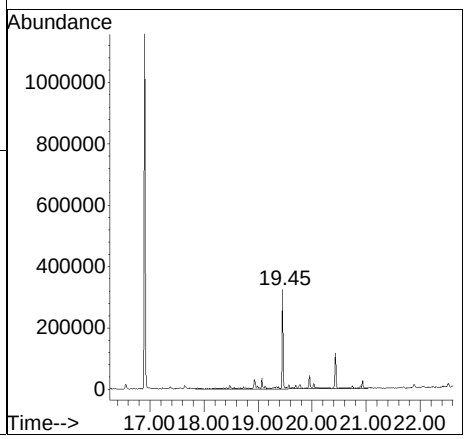
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.4 | 46.2 | 69.2 |






#25
C9-C12 Aliphatics Total
Concen: 25.53 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:TIC Resp:10389543

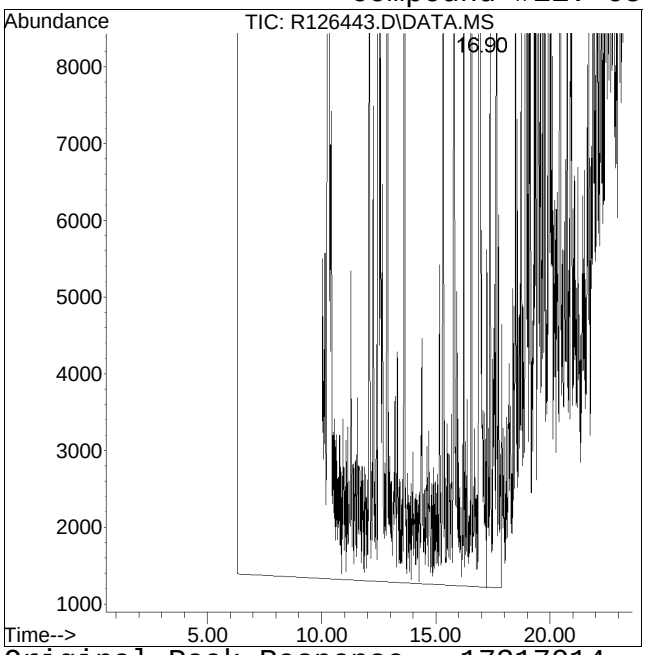


Manual Integration/Negative Proof Report

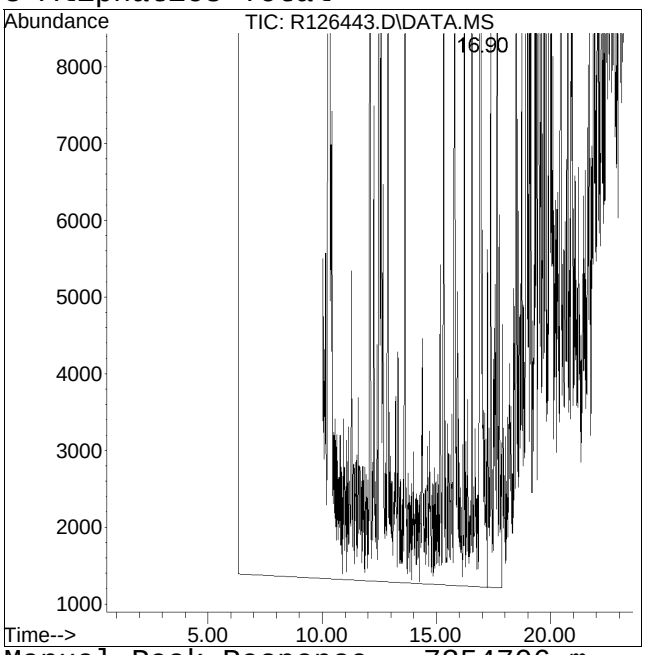
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 17317014



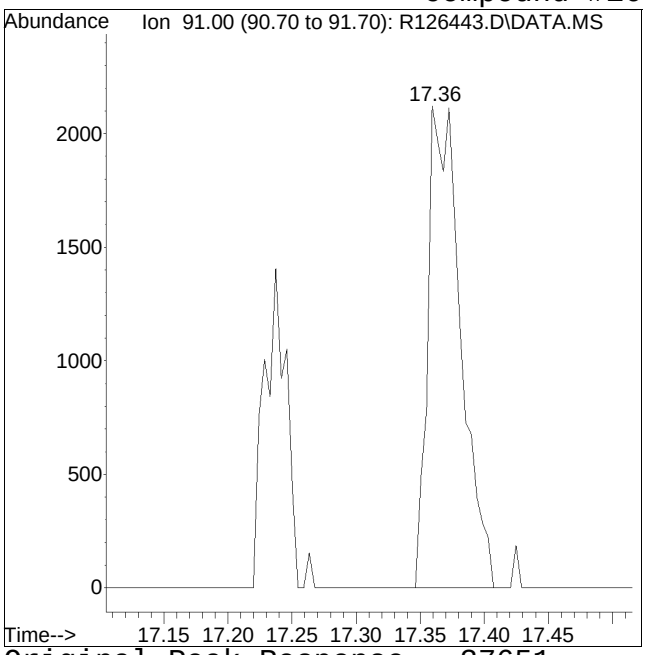

Manual Peak Response = 7354706 m

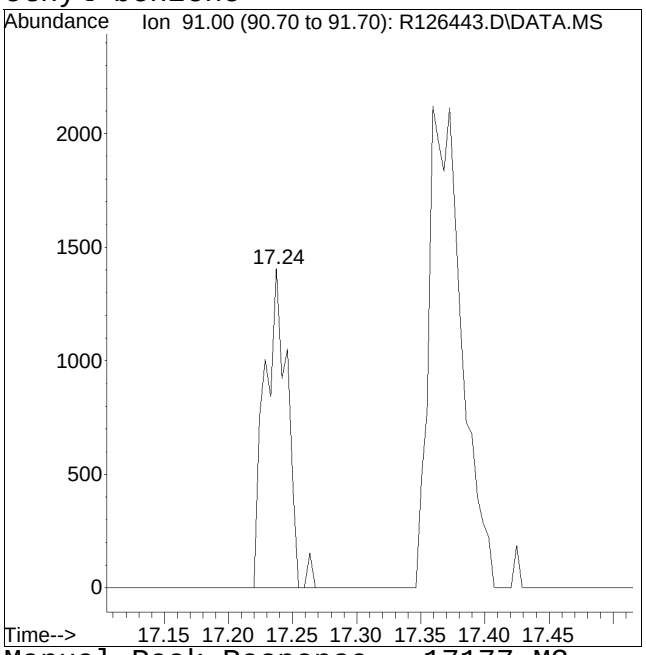
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #16: ethyl benzene




Original Peak Response = 37651 Manual Peak Response = 17177 M3

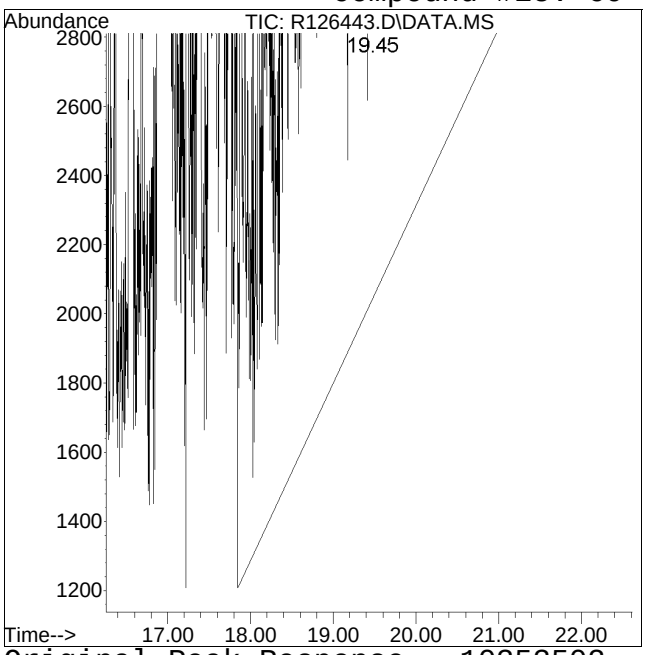
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

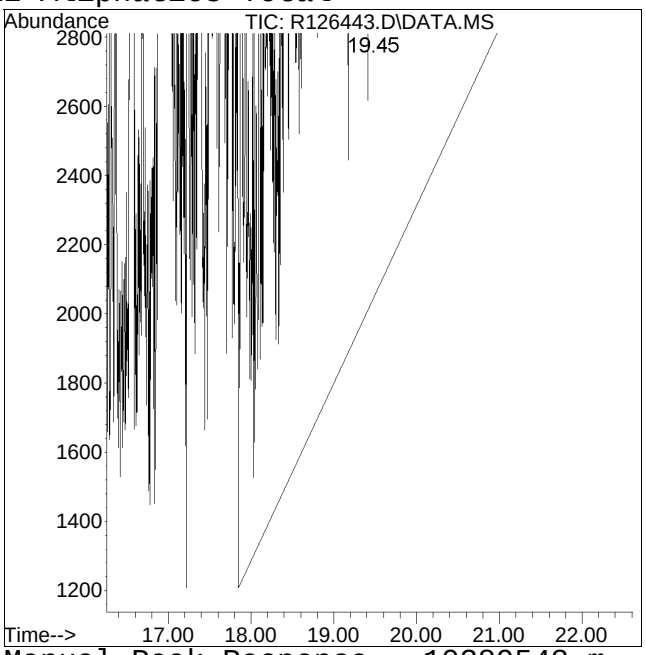
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 10353502



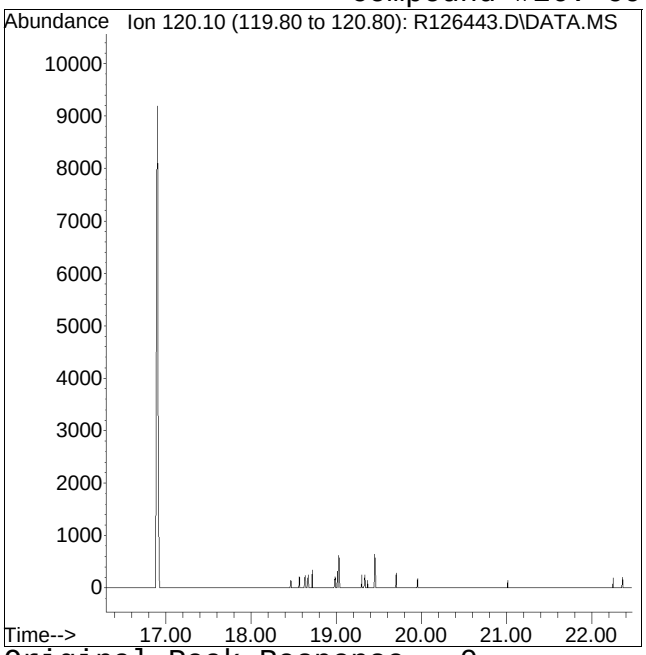

Manual Peak Response = 10389543 m

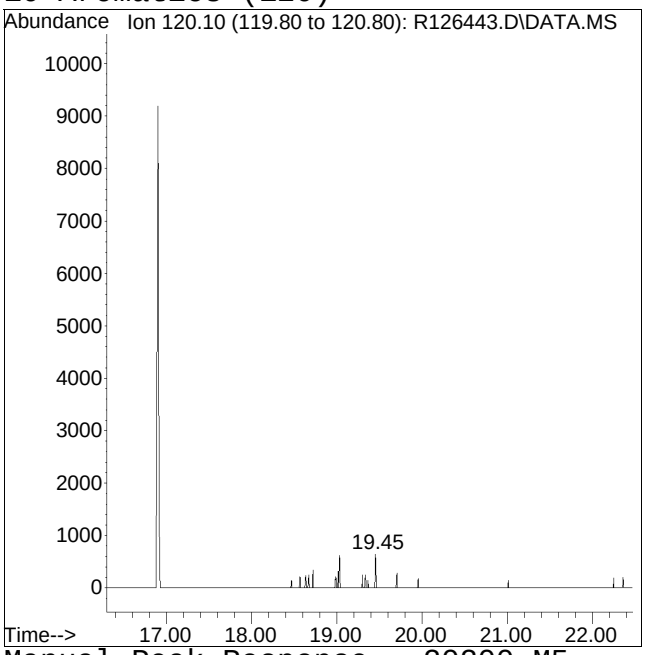
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 20200 M5

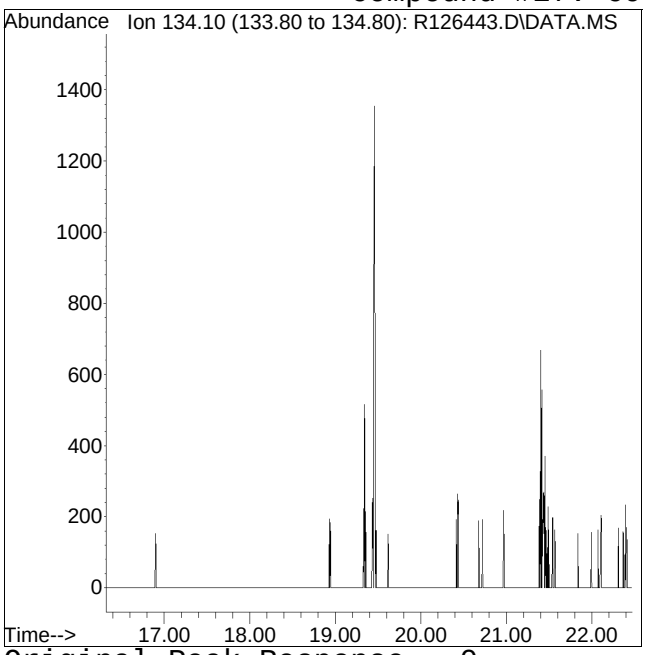
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

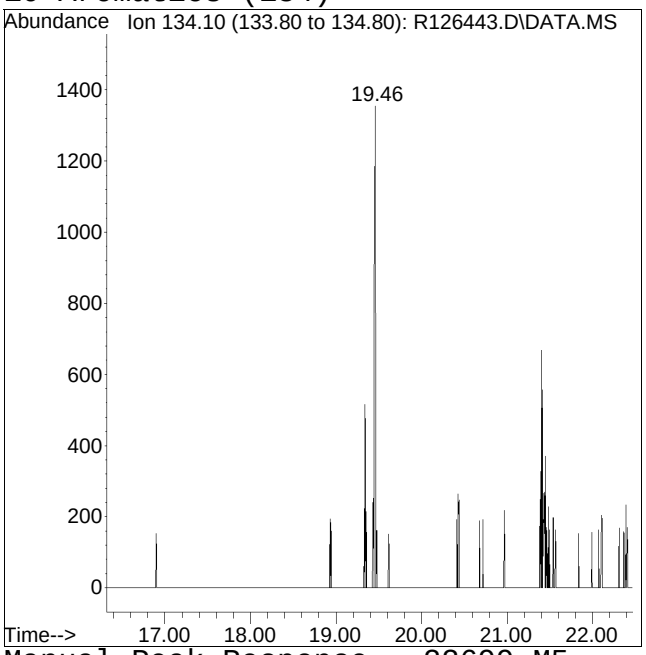
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #27: C9-C10 Aromatics (134)




Original Peak Response = 0

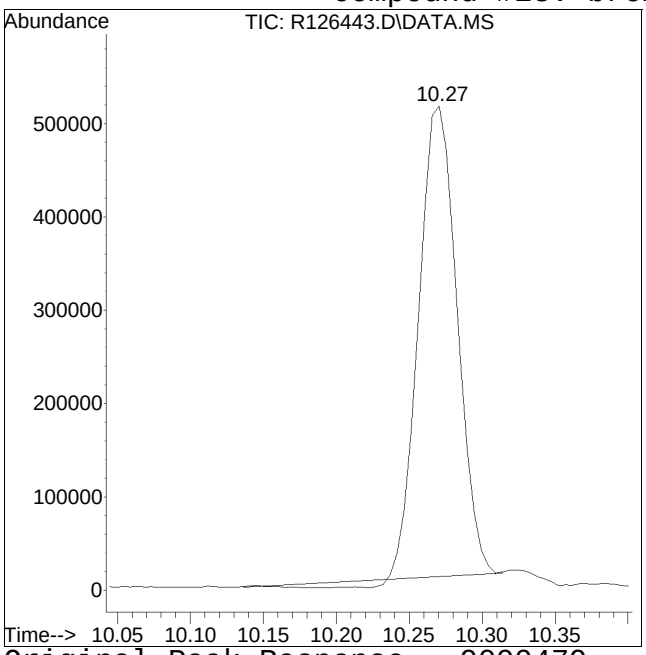
Manual Peak Response = 22699 M5

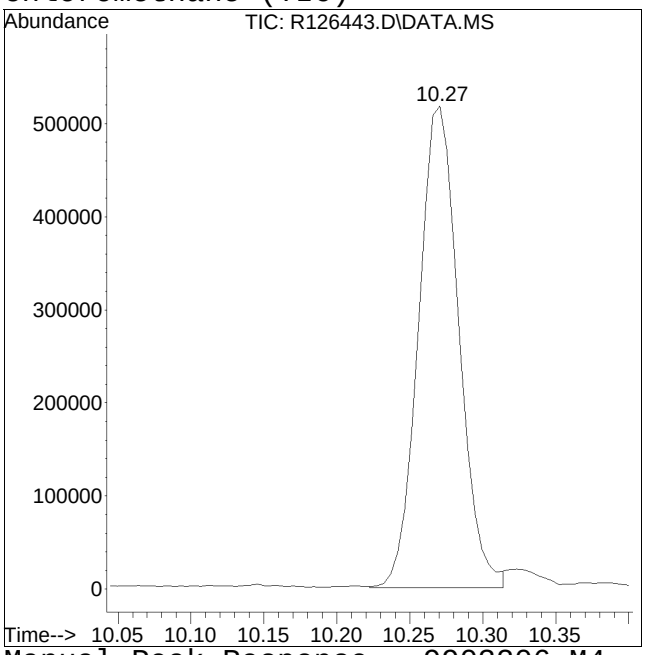
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126443.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 9:34 pm Instrument : Air Piano 1
Sample : L1302224-05,3,250,250 Quant Date : 2/11/2013 10:57 pm

Compound #28: bromochloromethane (TIC)



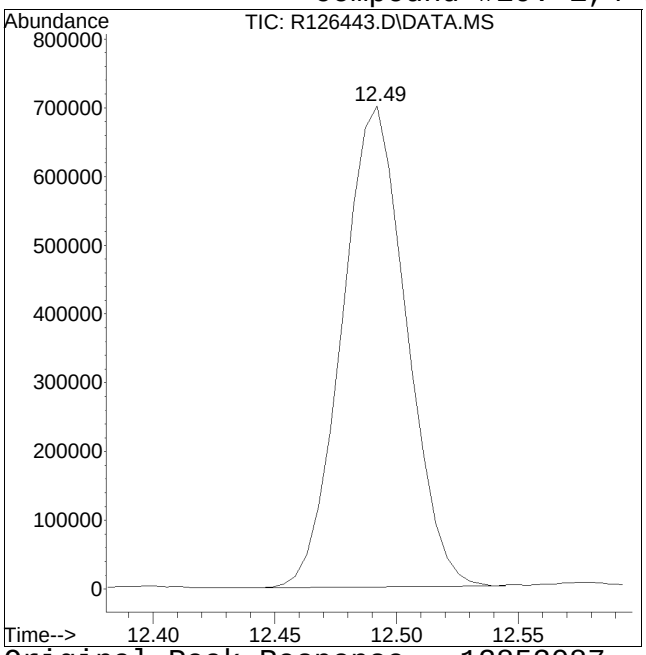

Original Peak Response = 9000479 Manual Peak Response = 9903206 M4
M4 = Poor automated baseline construction.

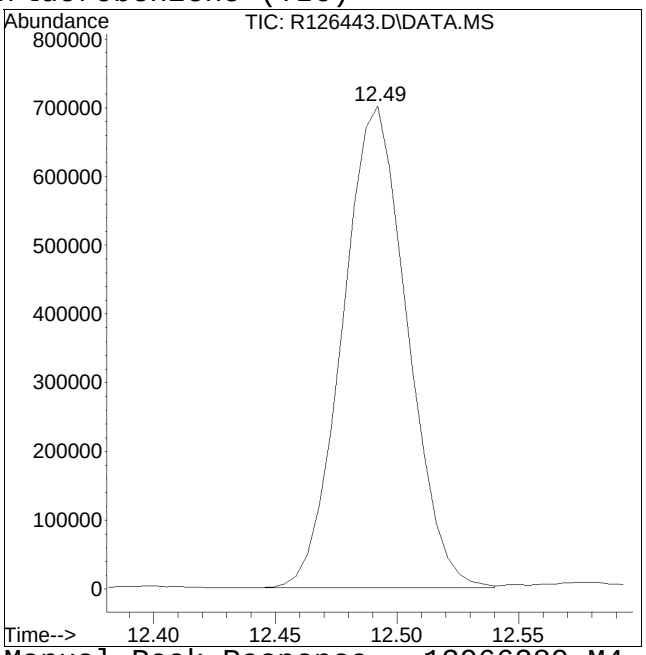
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #29: 1,4-difluorobenzene (TIC)



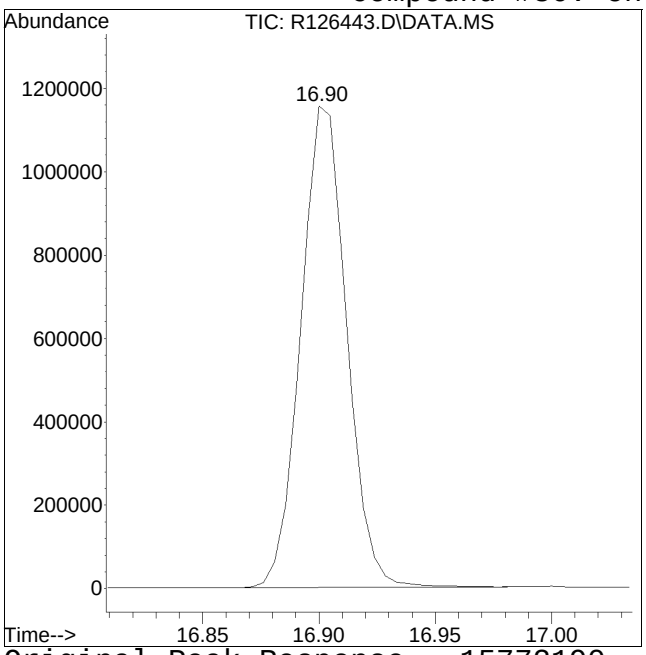

Original Peak Response = 12853087 Manual Peak Response = 12966280 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

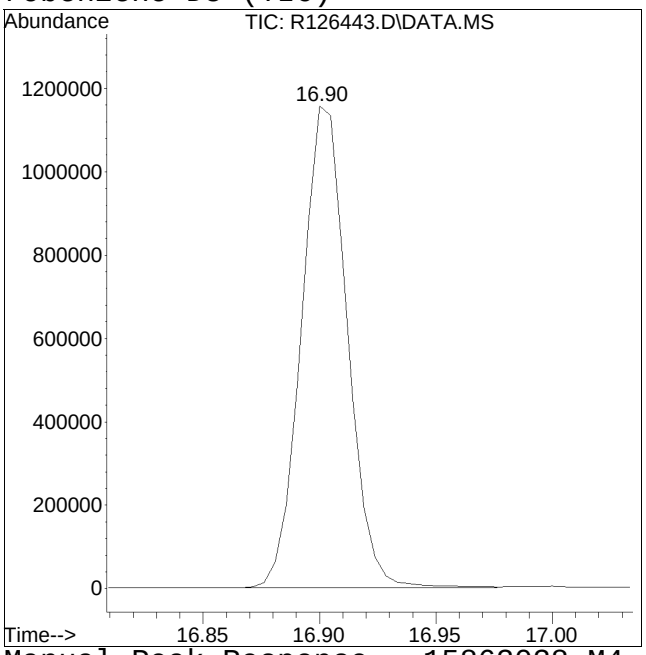
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:57 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 15772190




Manual Peak Response = 15863038 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 12 11:54:23 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1319520 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 89.25% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5626026 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 83.57% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1447928 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 81.61% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 10292368M4 | 12.814 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 128.14% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 13342082M4 | 9.975 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.75% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 16623552 | 9.704 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 97.04% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 18.11 | TIC | 32281 | 0.018 | ug/m3 | 0.01 |
| Spiked Amount 10.000 | | | Recovery | = | 0.18% | |

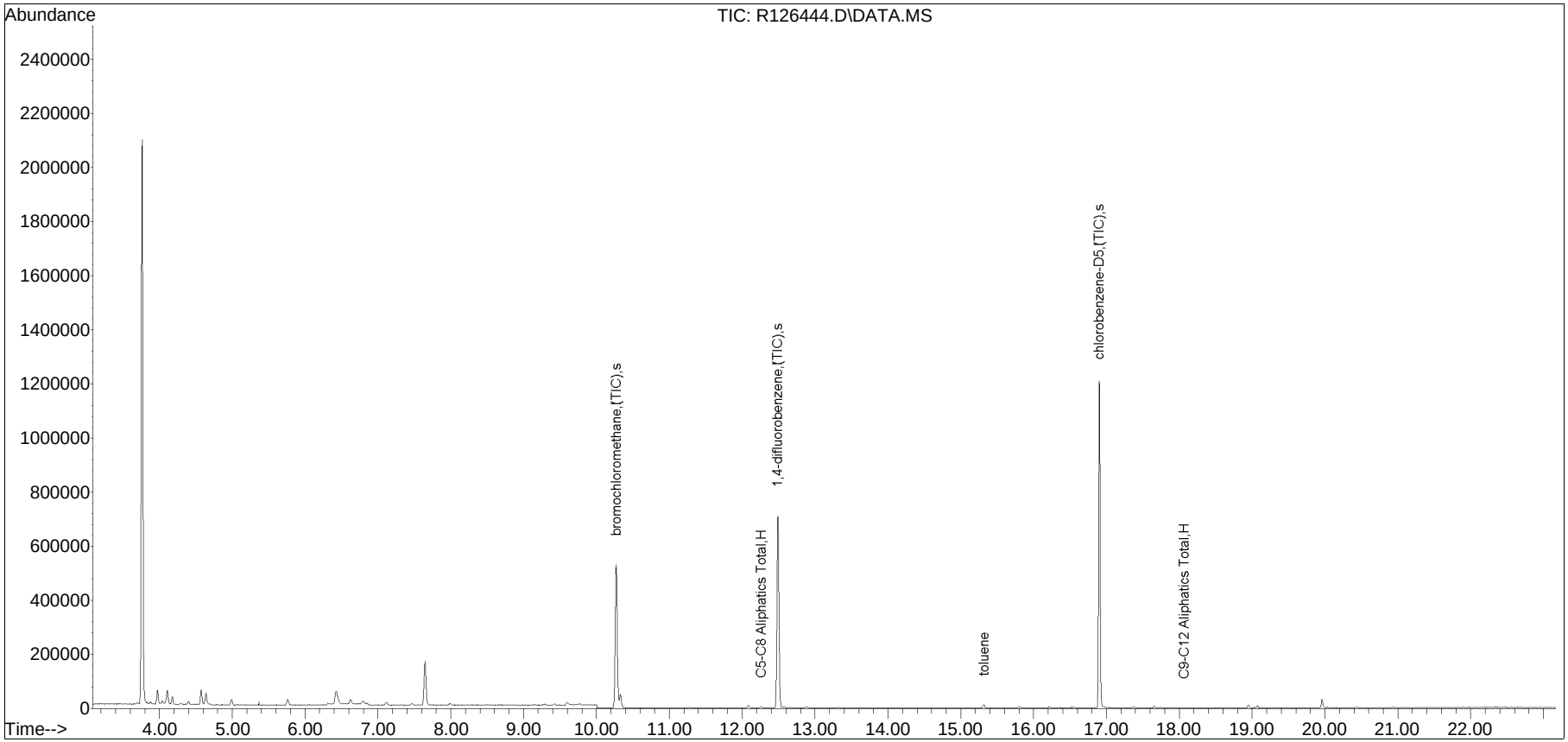
| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | | 0 | N.D. | | |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 4577681 | 11.099 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 81903 | 0.515 | ug/m3 | 94 |
| 16) ethyl benzene | 0.00 | | 0 | N.D. | | |
| 17) m+p-xylene | 0.00 | | 0 | N.D. | | |
| 19) o-xylene | 0.00 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 1035422 | 2.212 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 0 | N.D. | | |

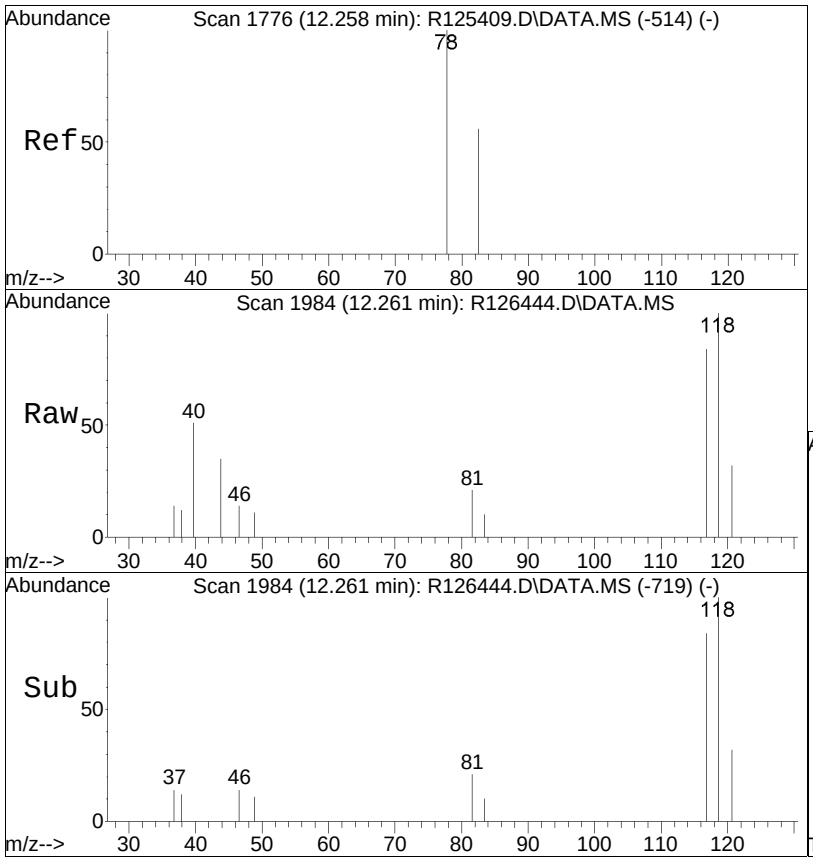
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 15 Sample Multiplier: 1

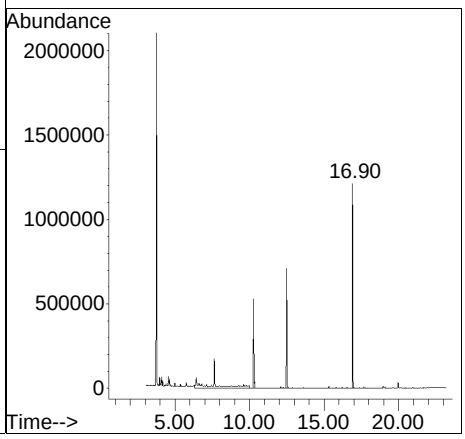
Quant Time: Feb 12 11:54:23 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

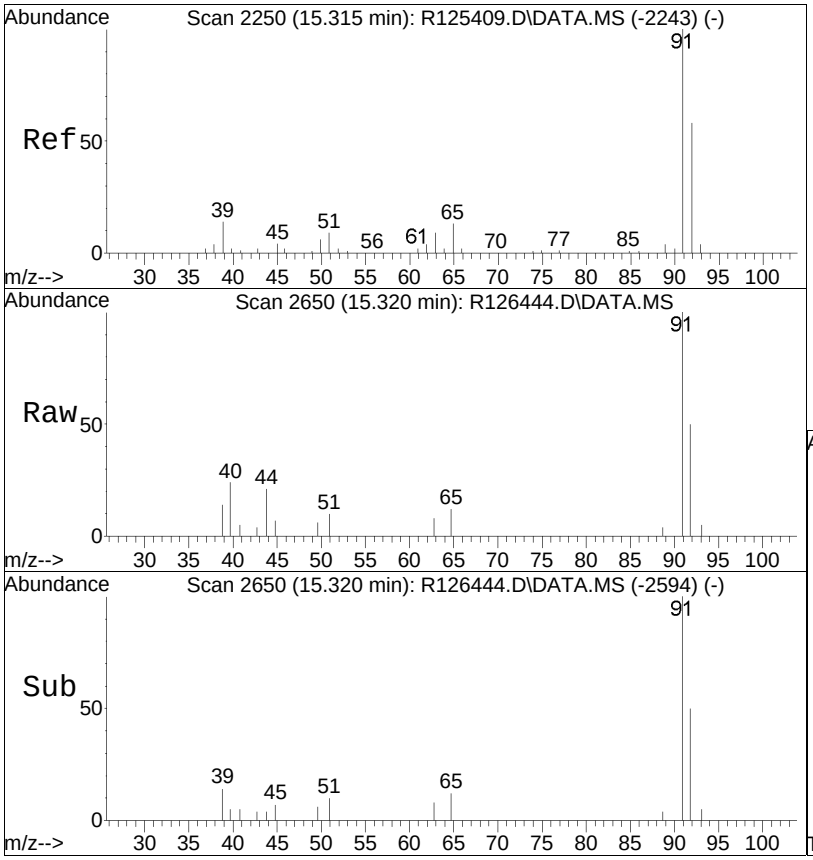





#11
C5-C8 Aliphatics Total
Concen: 12.08 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:TIC Resp: 4577681

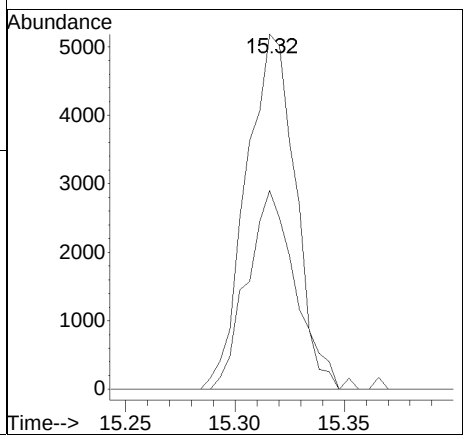


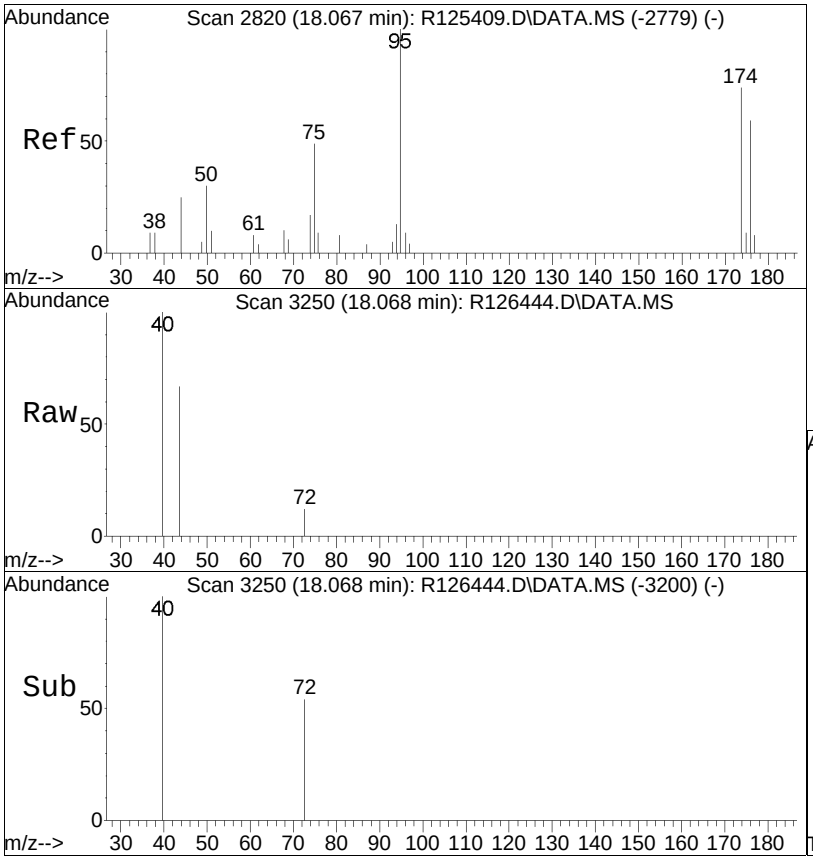



#13
toluene
Concen: 0.51 ug/m3
RT: 15.32 min Scan# 2650
Delta R.T. 0.002 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 91 Resp: 81903

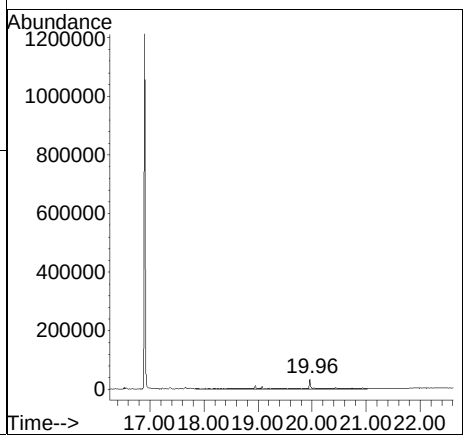
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 53.4 | 46.2 | 69.2 |






#25
C9-C12 Aliphatics Total
Concen: 2.38 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:TIC Resp: 1035422

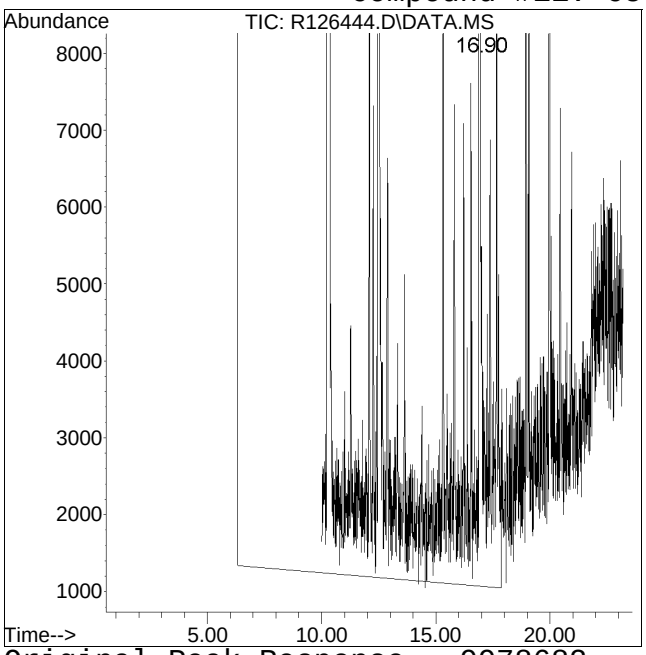


Manual Integration/Negative Proof Report

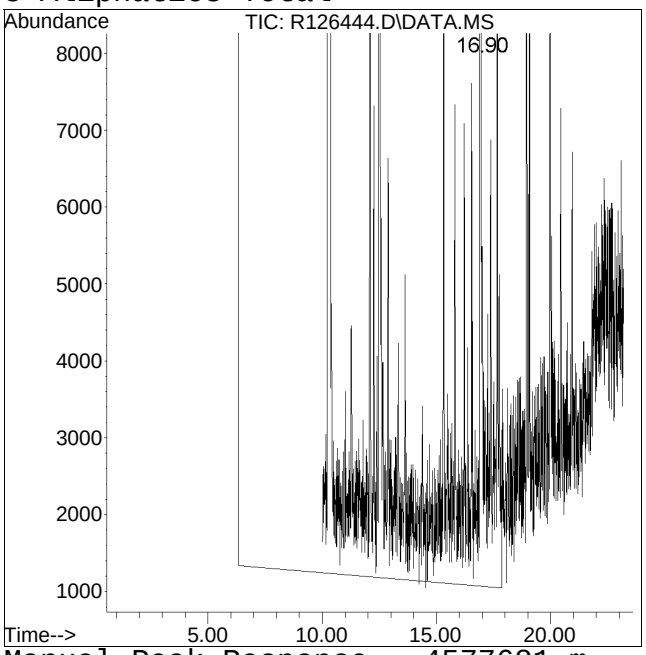
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 9978682



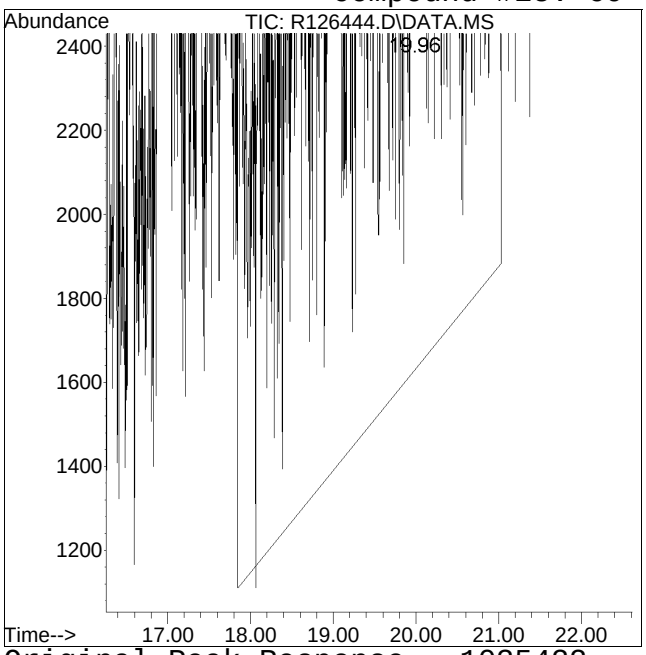

Manual Peak Response = 4577681 m

Manual Integration/Negative Proof Report

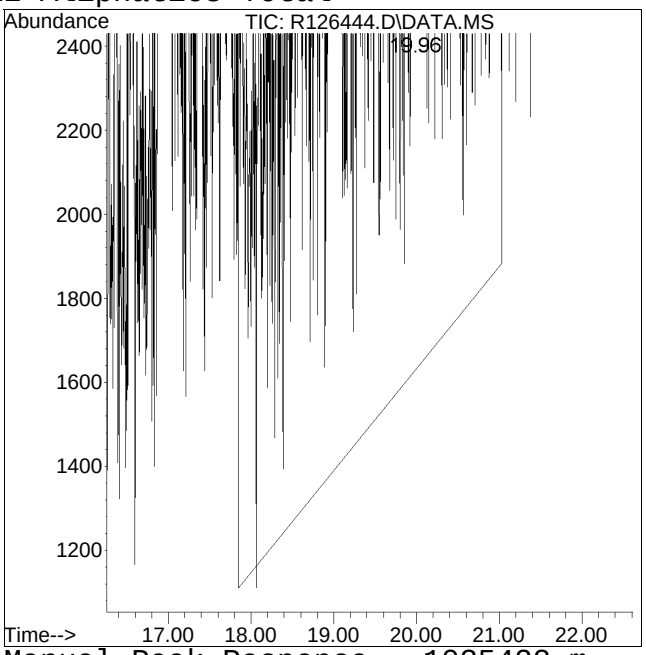
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 1035422



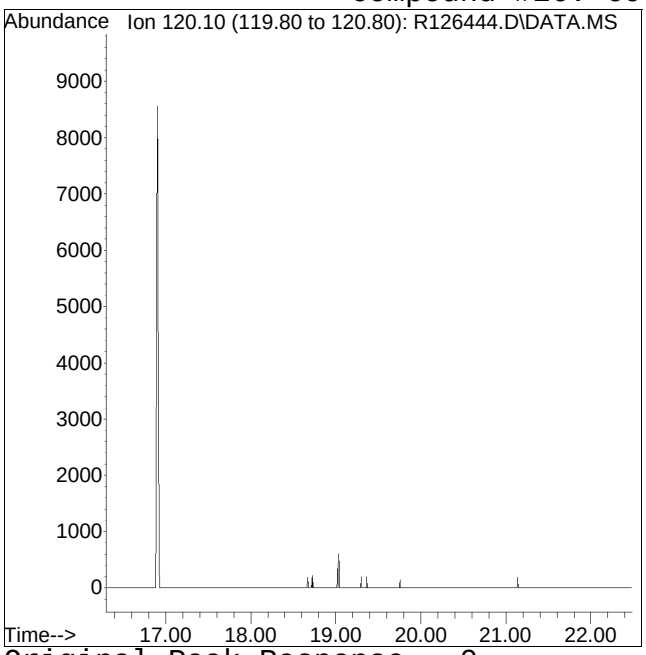

Manual Peak Response = 1035422 m

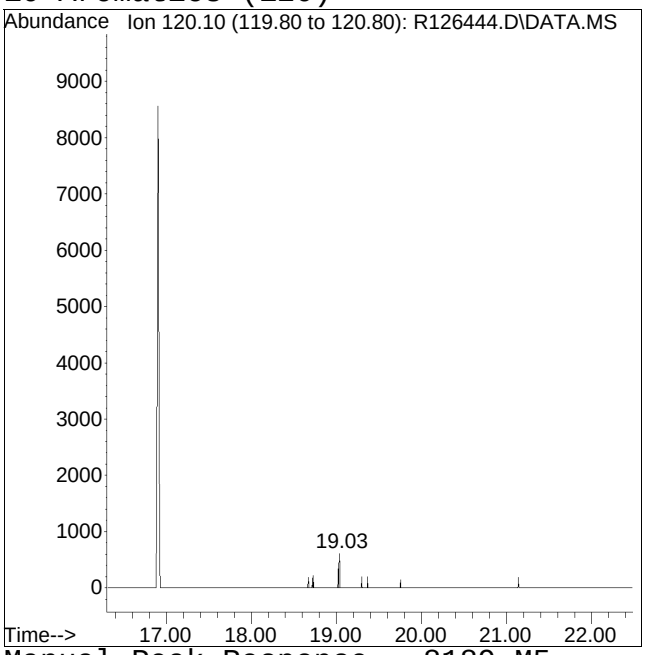
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 8189 M5

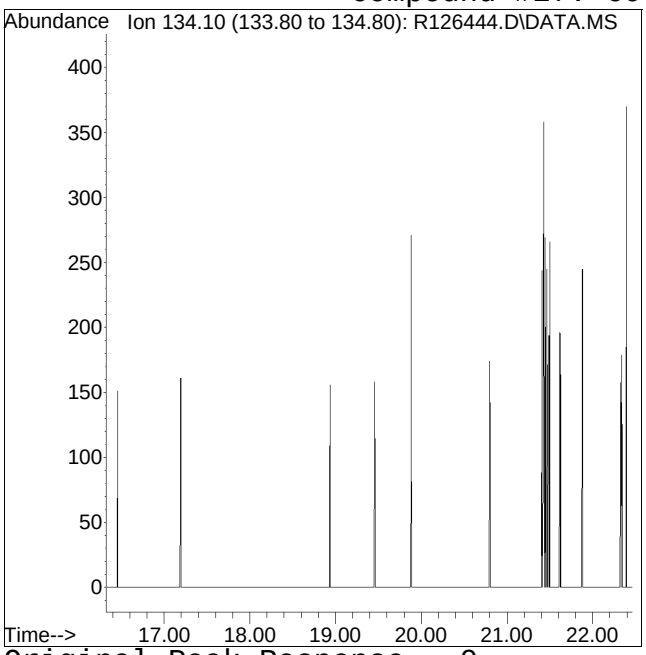
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

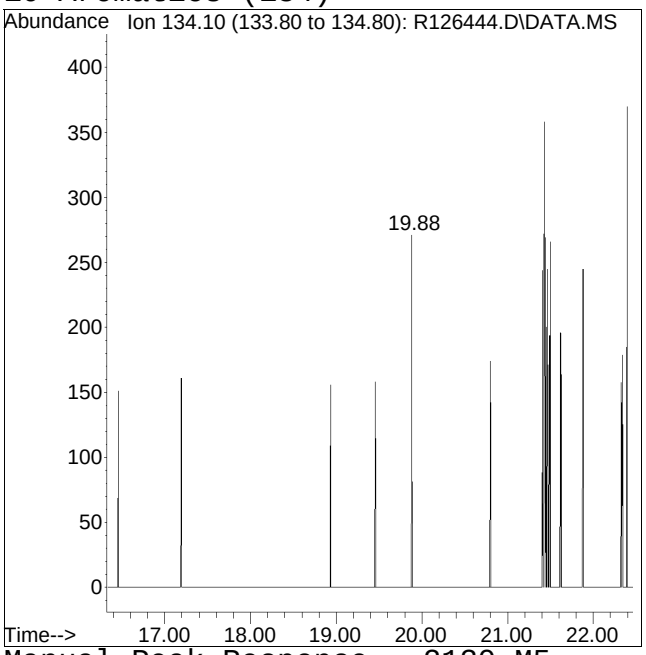
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #27: C9-C10 Aromatics (134)




Original Peak Response = 0 Manual Peak Response = 2130 M5

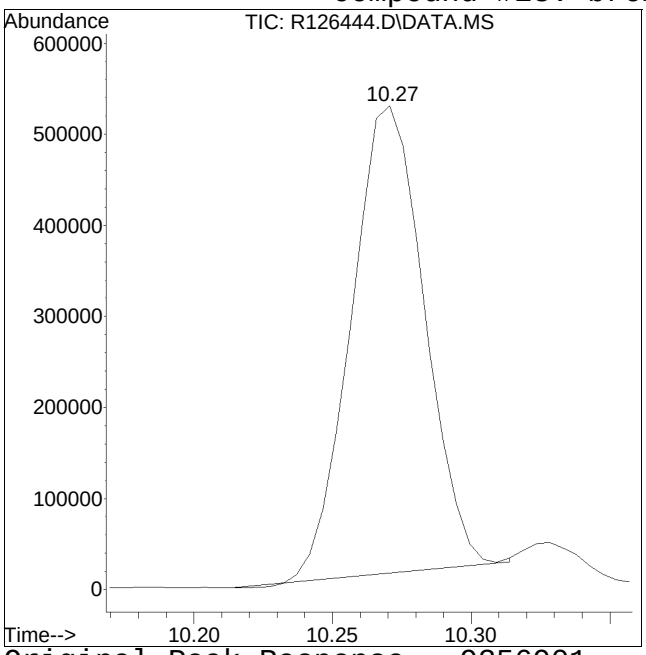
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

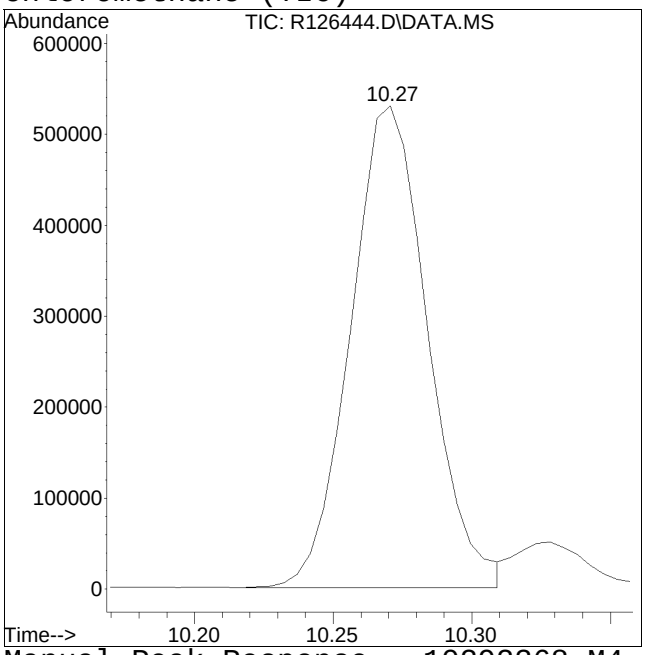
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #28: bromochloromethane (TIC)



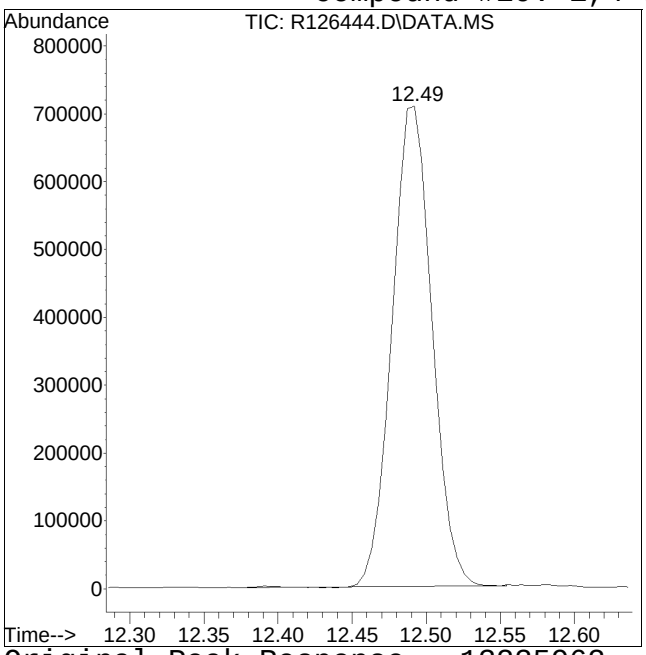

Original Peak Response = 9356901 Manual Peak Response = 10292368 M4
M4 = Poor automated baseline construction.

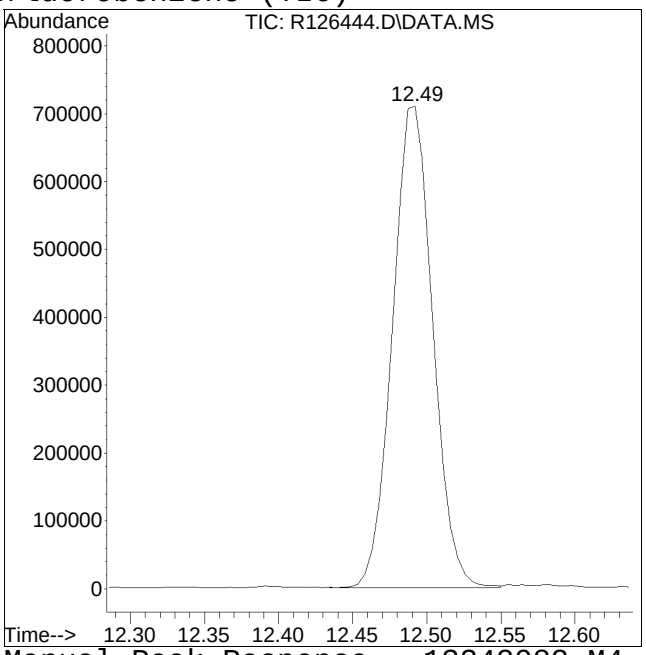
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:59 pm

Compound #29: 1,4-difluorobenzene (TIC)




Original Peak Response = 13235962 Manual Peak Response = 13342082 M4
M4 = Poor automated baseline construction.

# Method Blank
# Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:MB
Sample : WG589501-4,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 21:16:59 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:35 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

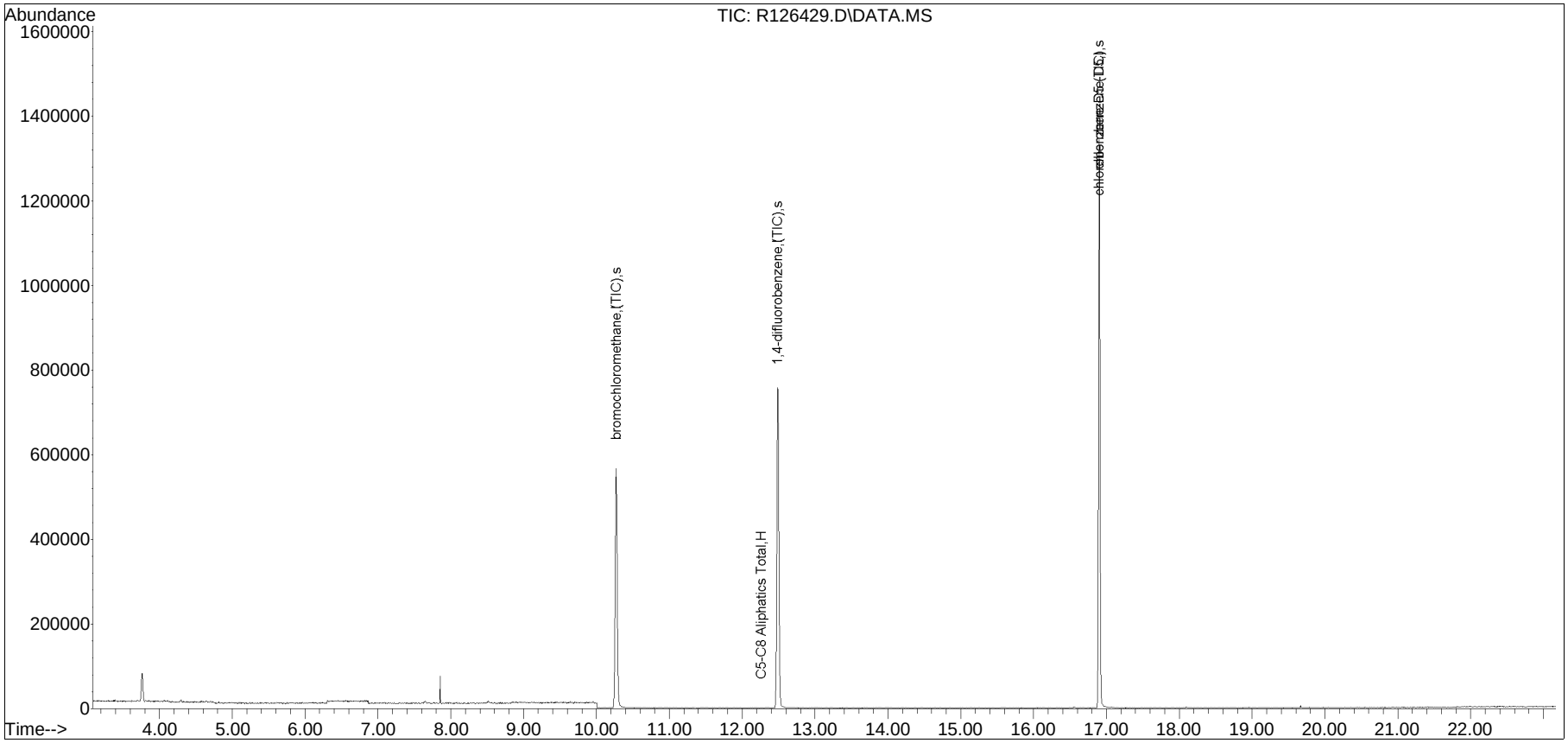
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1433934 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 96.99% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 6184714 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 91.87% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1551973 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 87.47% | |
| **System Monitoring Compounds** | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 10752062 | 12.489 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 124.89% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 14423969 | 10.061 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 100.61% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 18237707M4 | 9.932 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.32% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0 | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0 | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 18.10 | TIC | 24778 | 0.013 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 0.13% | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 0.00 | | 0 | N.D. | | |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 462004 | 1.109 | ug/m3 | |
| 13) toluene | 0.00 | | 0 | N.D. | | |
| 16) ethyl benzene | 0.00 | | 0 | N.D. | | |
| 17) m+p-xylene | 0.00 | | 0 | N.D. | | |
| 19) o-xylene | 0.00 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Total | 18.07 | | 0 | N.D. | | |
| 27) C9-C10 Aromatics Total | 0.00 | | 0 | N.D. | | |

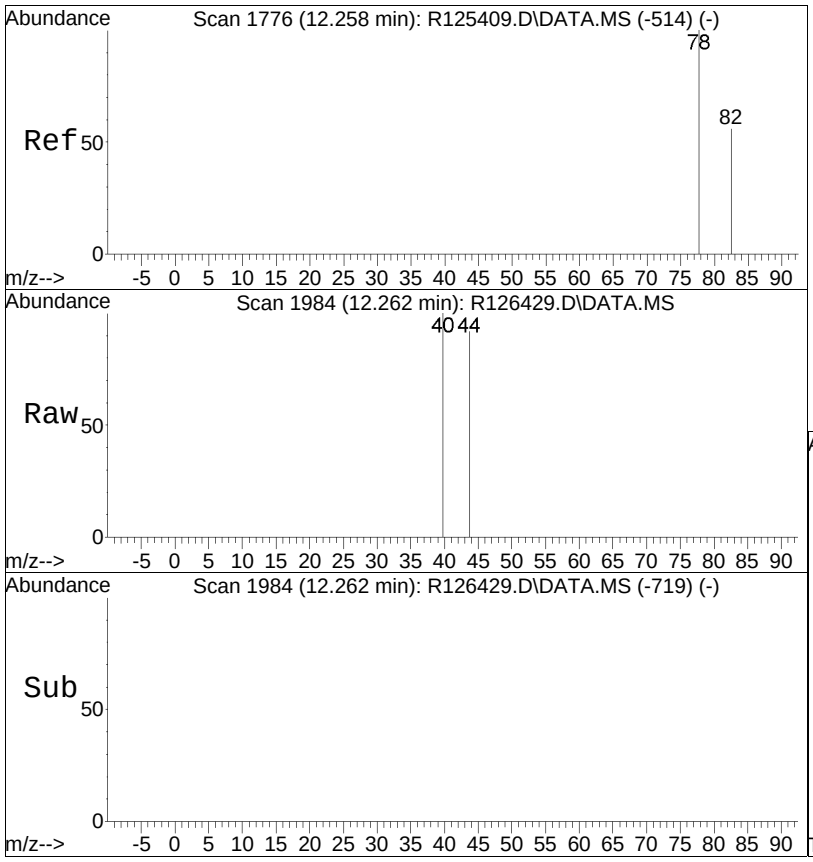
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:MB
Sample : WG589501-4,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 1 Sample Multiplier: 1

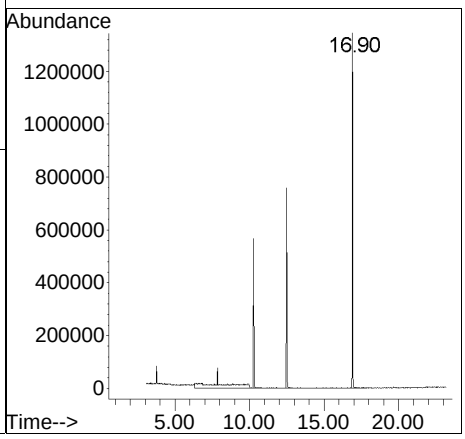
Quant Time: Feb 11 21:16:59 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:35 2012
Response via : Initial Calibration






#11
C5-C8 Aliphatics Total
Concen: 1.11 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126429.D
Acq: 8 Feb 2013 2:12 pm

Tgt Ion:TIC Resp: 462004

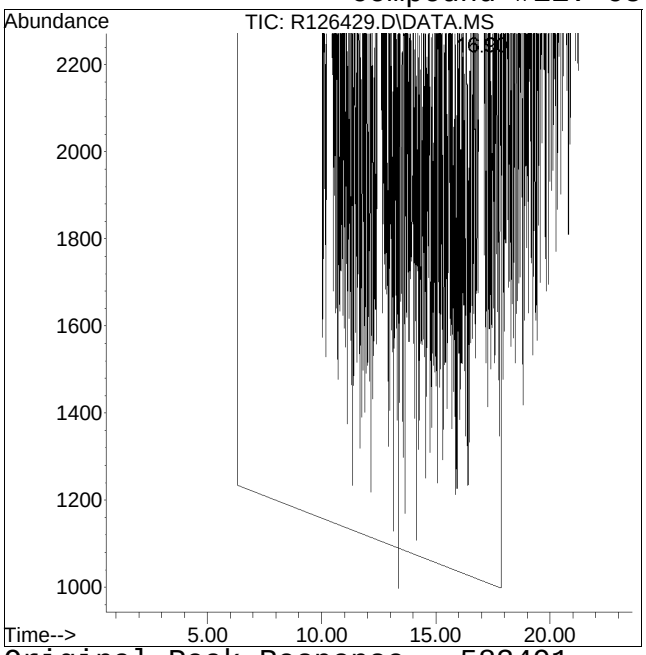


Manual Integration/Negative Proof Report

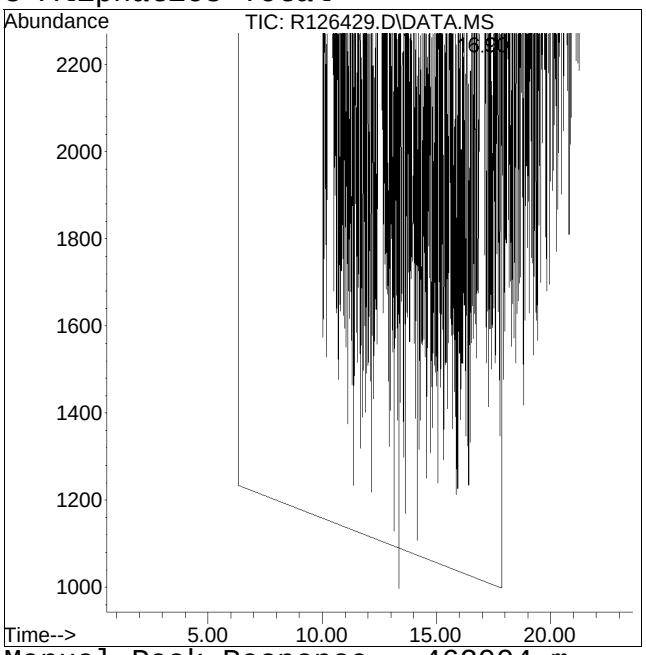
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589501-4,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 7:50 am

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 583491



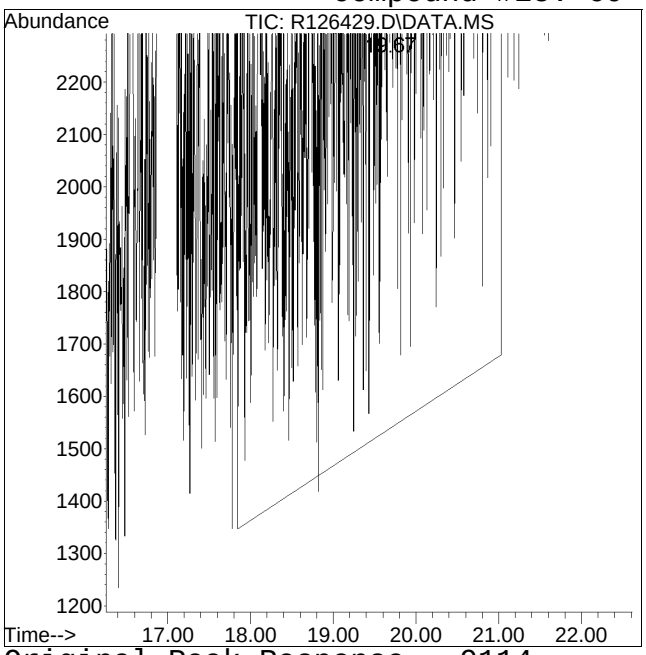

Manual Peak Response = 462004 m

Manual Integration/Negative Proof Report

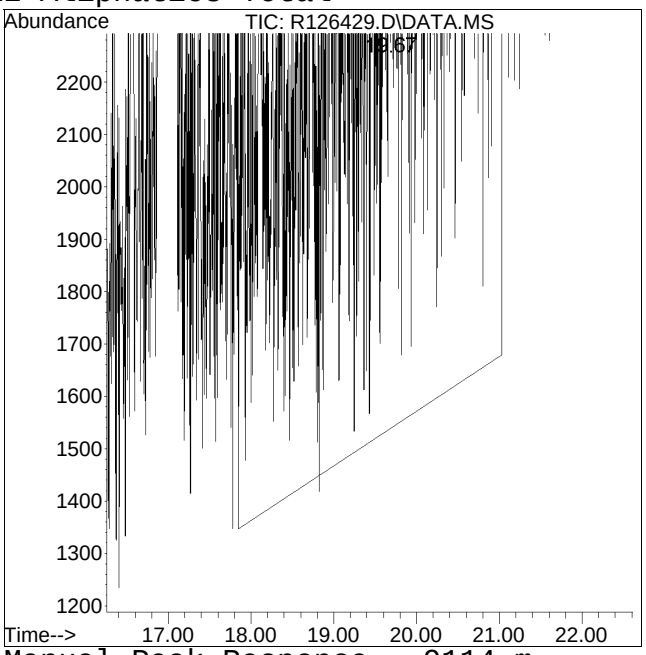
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589501-4,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 7:50 am

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 9114



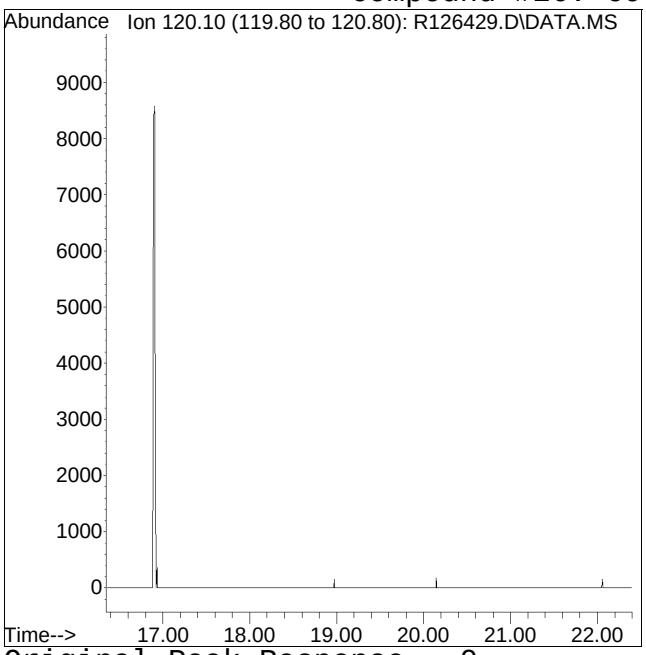

Manual Peak Response = 9114 m

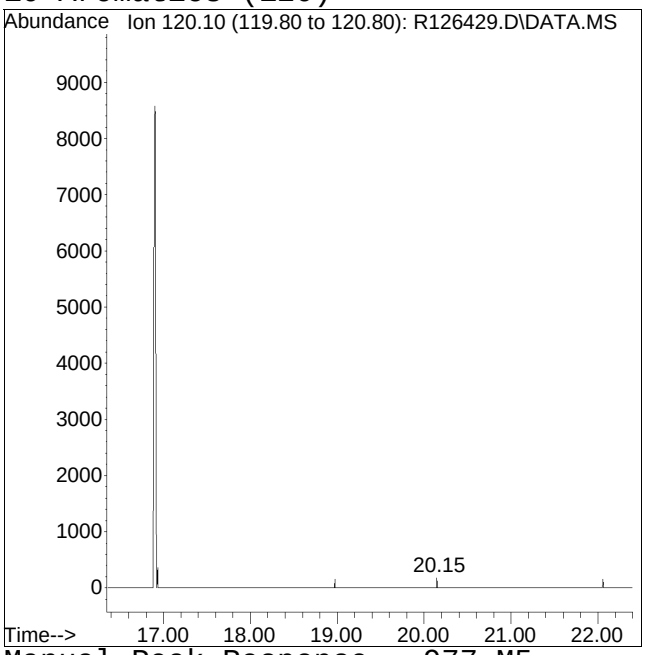
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589501-4,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 7:50 am

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 977 M5

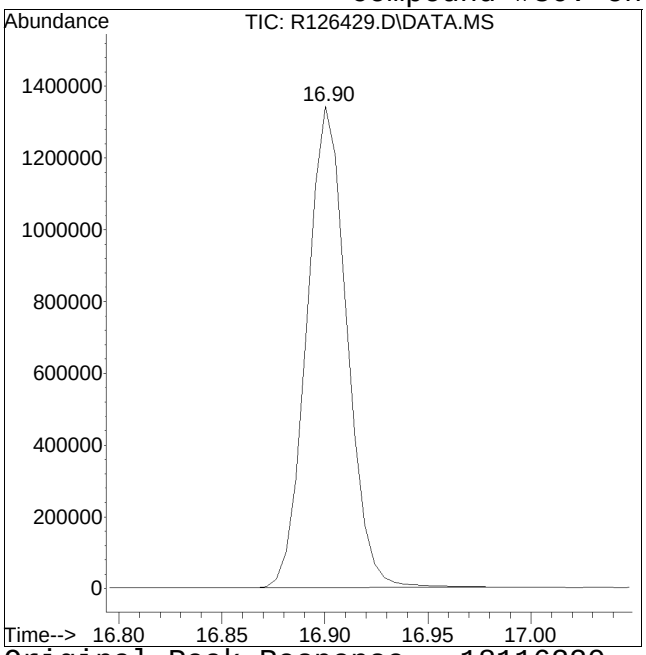
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

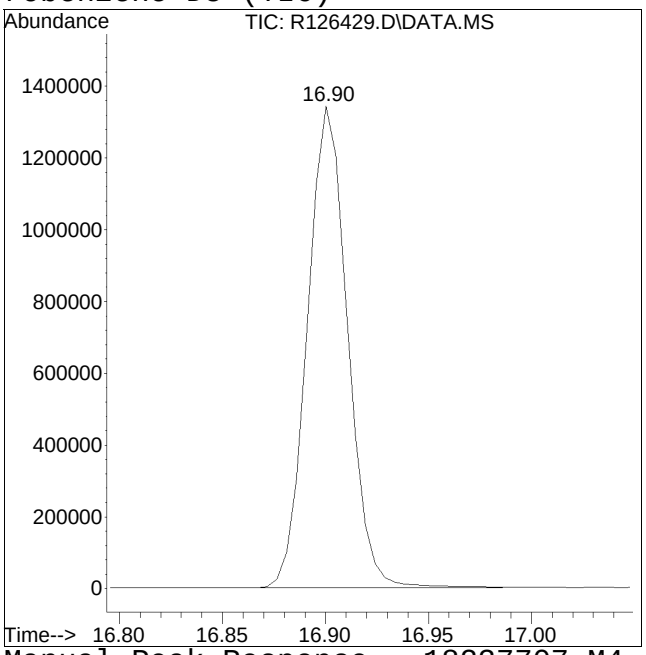
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589501-4,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 7:50 am

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 18116220 Manual Peak Response = 18237707 M4
M4 = Poor automated baseline construction.

# Batch Quality Control

# LCS Raw Data

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589501-3,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:16:46 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 10.000 | 10.000 | 0.0 | 94 | 0.00 |
| 2 | T | 1,3-butadiene | 22.100 | 18.139 | 17.9 | 91 | 0.00 |
| 4 | T | methyl tert butyl ether | 36.000 | 27.456 | 23.7 | 86 | 0.00 |
| 7 | I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 84 | 0.00 |
| 9 | T | benzene | 31.900 | 28.094 | 11.9 | 85 | 0.00 |
| 11 | H | C5-C8 Aliphatics Total | 122.000 | 114.487 | 6.2 | 48 | 0.00 |
| 12 | I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 87 | 0.00 |
| 13 | | toluene | 37.700 | 33.974 | 9.9 | 87 | 0.00 |
| 16 | T | ethyl benzene | 43.400 | 40.707 | 6.2 | 89 | 0.00 |
| 17 | T | m+p-xylene | 86.800 | 81.530 | 6.1 | 180 | 0.00 |
| 19 | T | o-xylene | 43.400 | 41.965 | 3.3 | 93 | 0.00 |
| 23 | T | naphthalene | 52.420 | 66.683 | -27.2 | 118 | 0.00 |
| 25 | H | C9-C12 Aliphatics Total | 174.000 | 182.055 | -4.6 | 48 | 0.00 |
| 27 | | C9-C10 Aromatics Total | 465.000 | 414.770 | 10.8 | 157 | -0.67# |
| 28 | s | bromochloromethane (TIC) | 10.000 | 12.136 | -21.4 | 93 | 0.00 |
| 29 | s | 1,4-difluorobenzene (TIC) | 10.000 | 9.947 | 0.5 | 84 | 0.00 |
| 30 | s | chlorobenzene-D5 (TIC) | 10.000 | 7.625 | 23.8 | 66 | 0.00 |
| 31 | s | 1,2-dichloroethane-D4 (TIC) | 10.000 | 10.136 | -1.4 | 91 | 0.00 |
| 32 | s | toluene-D8 (TIC) | 20.000 | 8.748 | 56.3# | 40 | 0.00 |
| 33 | s | bromofluorobenzene (TIC) | 10.000 | 9.331 | 6.7 | 86 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589501-3,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:16:46 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

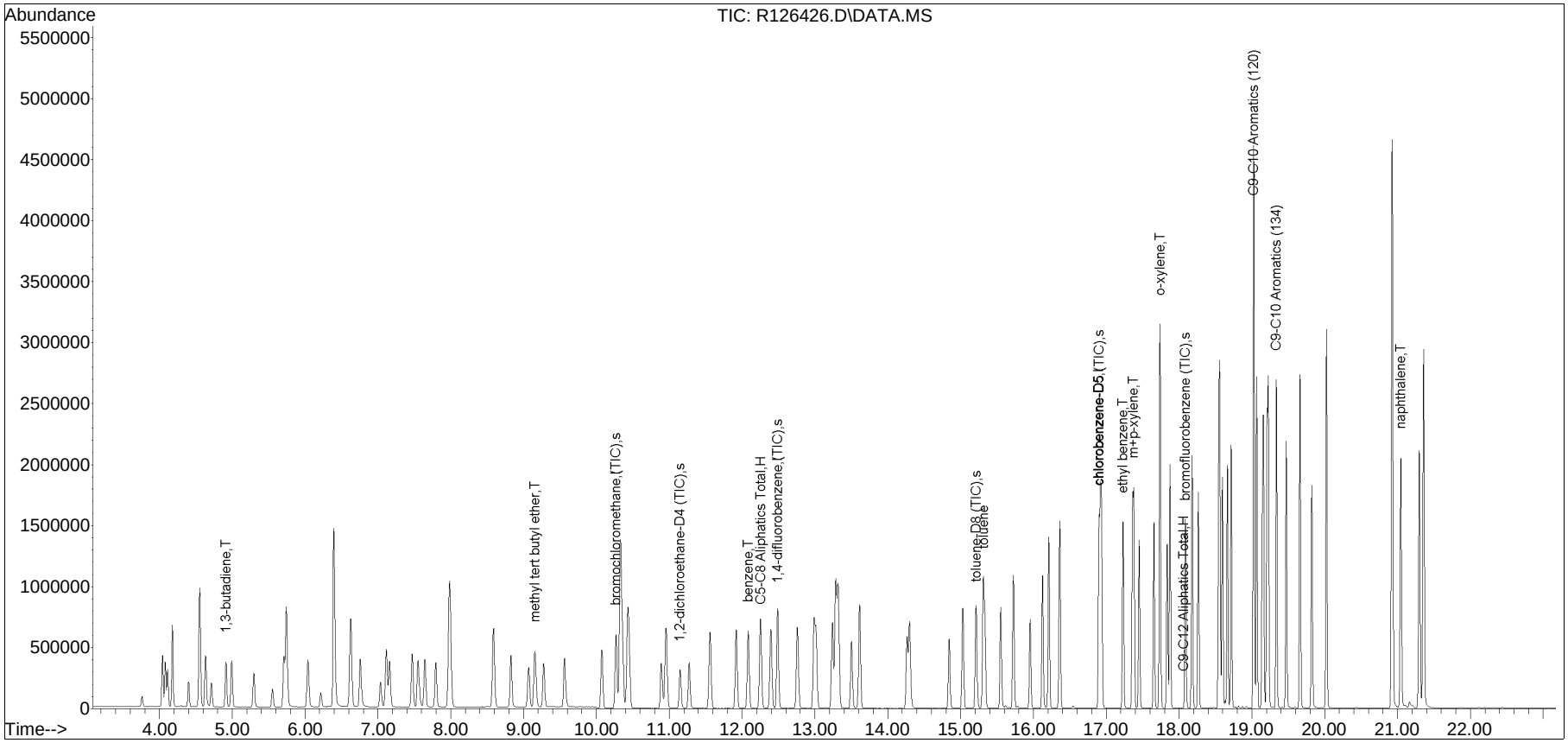
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1479917 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 100.10% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 6472341 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 96.14% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1661340 | 10.000 | ug/m3 | # 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 93.64% | |
| **System Monitoring Compounds** | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 11184529 | 12.136 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 121.36% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 15265738 | 9.947 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 99.47% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 14988194M6 | 7.625 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 76.25% | |
| 31) 1,2-dichloroethane-D4 ... | 11.15 | TIC | 6050070 | 10.136 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 101.36% | |
| 32) toluene-D8 (TIC) | 15.21 | TIC | 14416972 | 8.748 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 87.48% | |
| 33) bromofluorobenzene (TIC) | 18.09 | TIC | 18767763 | 9.331 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 93.31% | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,3-butadiene | 4.92 | 54 | 1407820 | 18.139 | ug/m3 | 99 |
| 4) methyl tert butyl ether | 9.16 | 73 | 3750401 | 27.456 | ug/m3 | 98 |
| 9) benzene | 12.09 | 78 | 4810902 | 28.094 | ug/m3 | 97 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 49900755m | 114.487 | ug/m3 | |
| 13) toluene | 15.31 | 91 | 6202853 | 33.974 | ug/m3 | 100 |
| 16) ethyl benzene | 17.23 | 91 | 8355262 | 40.707 | ug/m3 | 99 |
| 17) m+p-xylene | 17.38 | 91 | 13286322 | 81.530 | ug/m3 | 100 |
| 19) o-xylene | 17.74 | 91 | 6972996 | 41.965 | ug/m3 | 100 |
| 23) naphthalene | 21.05 | 128 | 13743920 | 66.683 | ug/m3 | 99 |
| 25) C9-C12 Aliphatics Total | 18.07 | TIC | 90823414m | 182.055 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.02 | 120 | 18955125M5 | 271.061 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.33 | 134 | 10049502M5 | 143.709 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 29004627 | 414.770 | ug/m3 | |

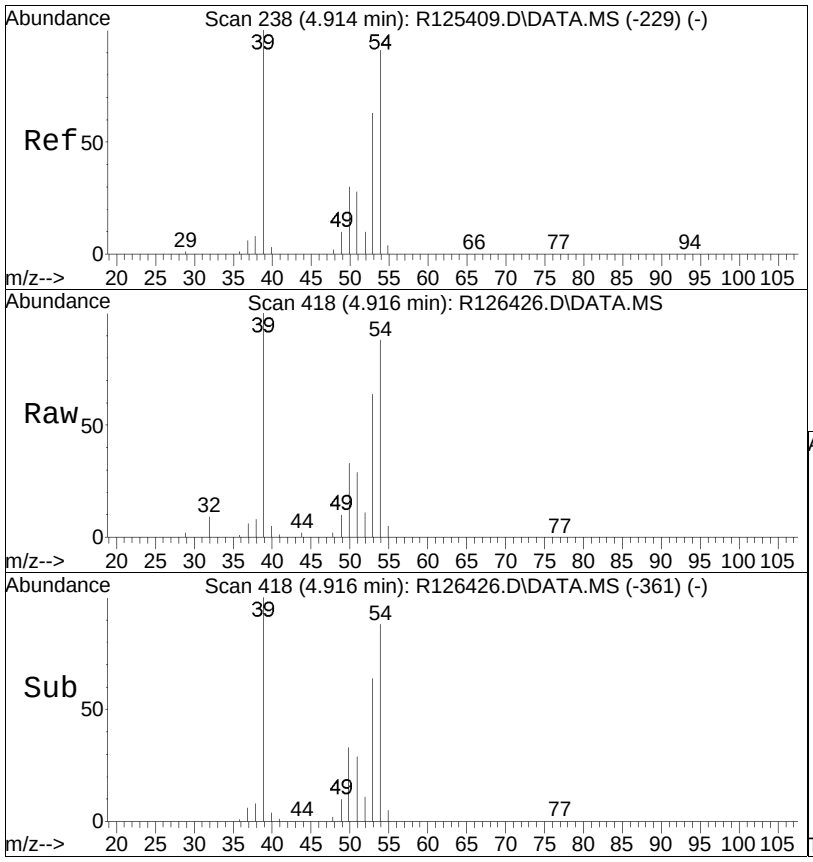
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589501-3,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:16:46 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

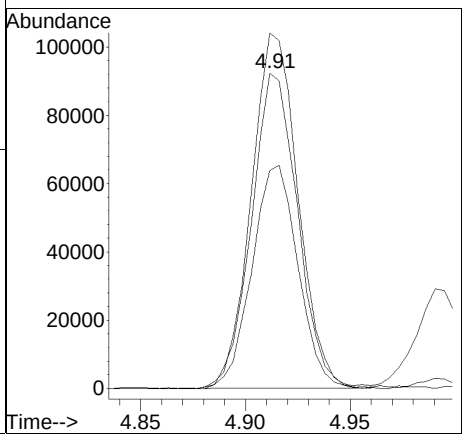


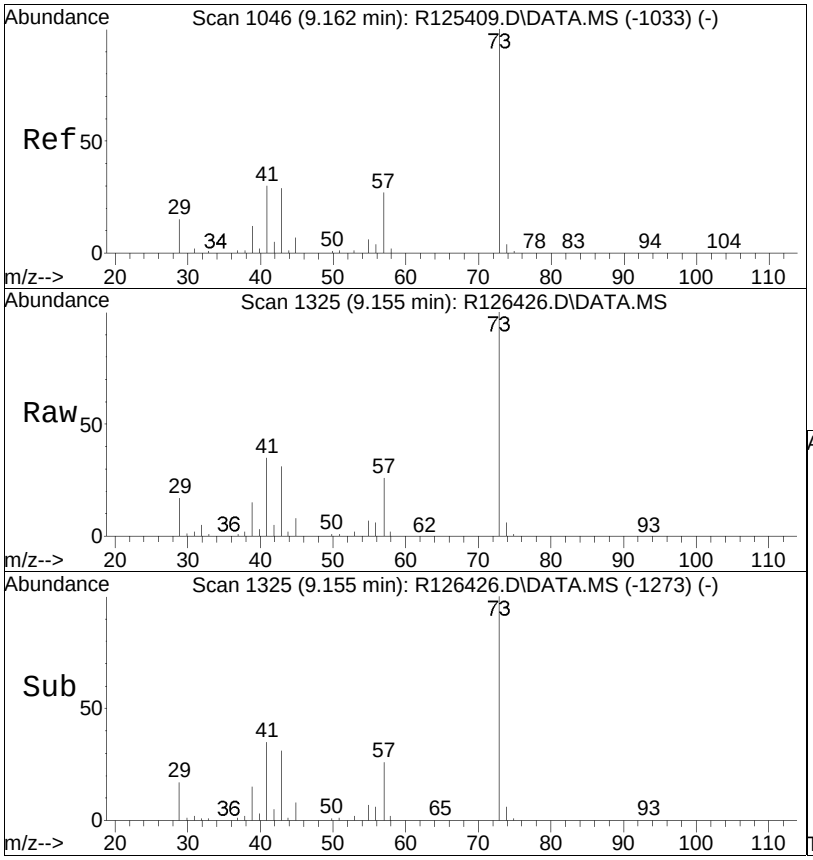



#2
1,3-butadiene
Concen: 18.14 ug/m3
RT: 4.92 min Scan# 418
Delta R.T. -0.002 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 54 Resp: 1407820

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 53 | 71.0 | 57.8 | 86.8 |
| 39 | 114.4 | 91.5 | 137.3 |

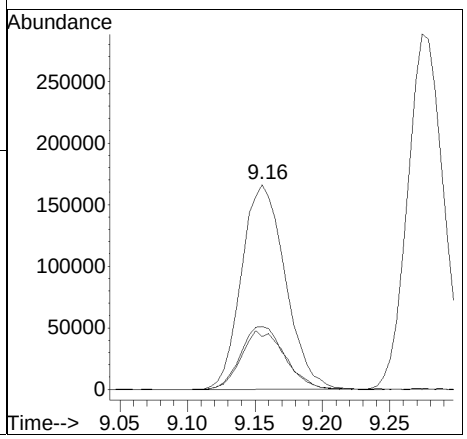


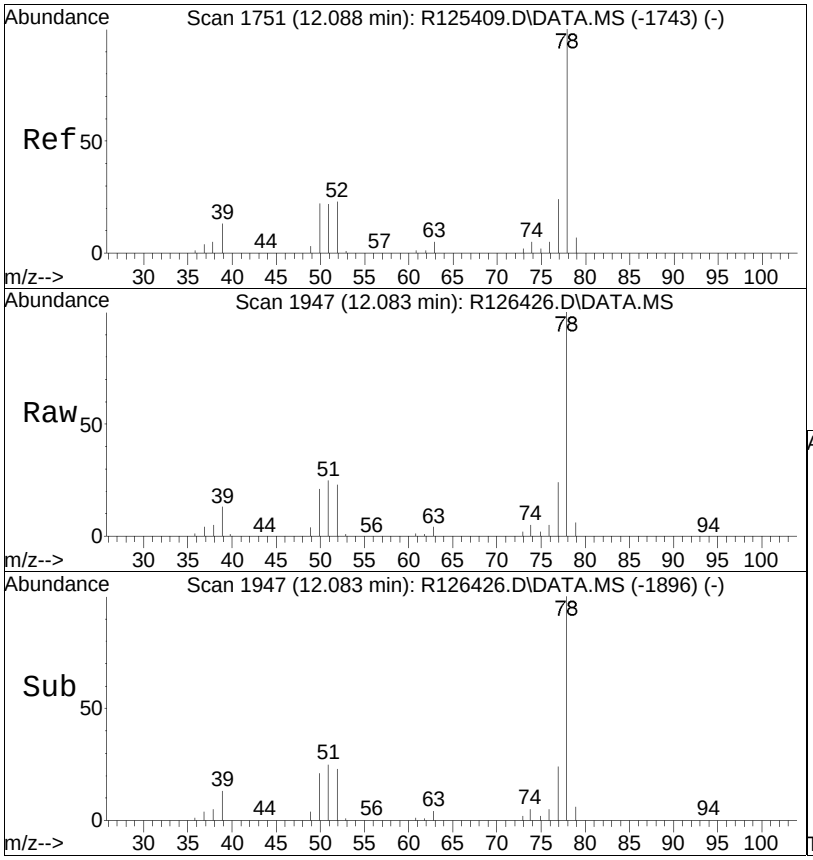



#4
methyl tert butyl ether
Concen: 27.46 ug/m3
RT: 9.16 min Scan# 1325
Delta R.T. -0.007 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 73 Resp: 3750401

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 28.6 | 22.5 | 33.7 |
| 43 | 31.0 | 23.8 | 35.6 |

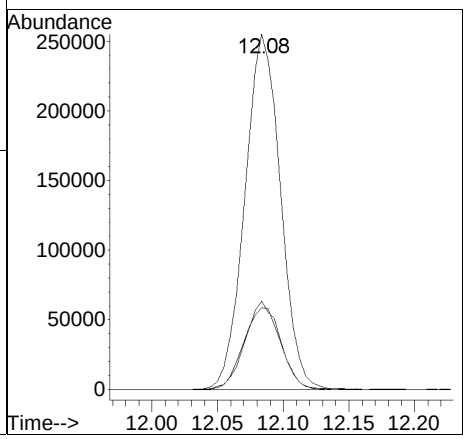


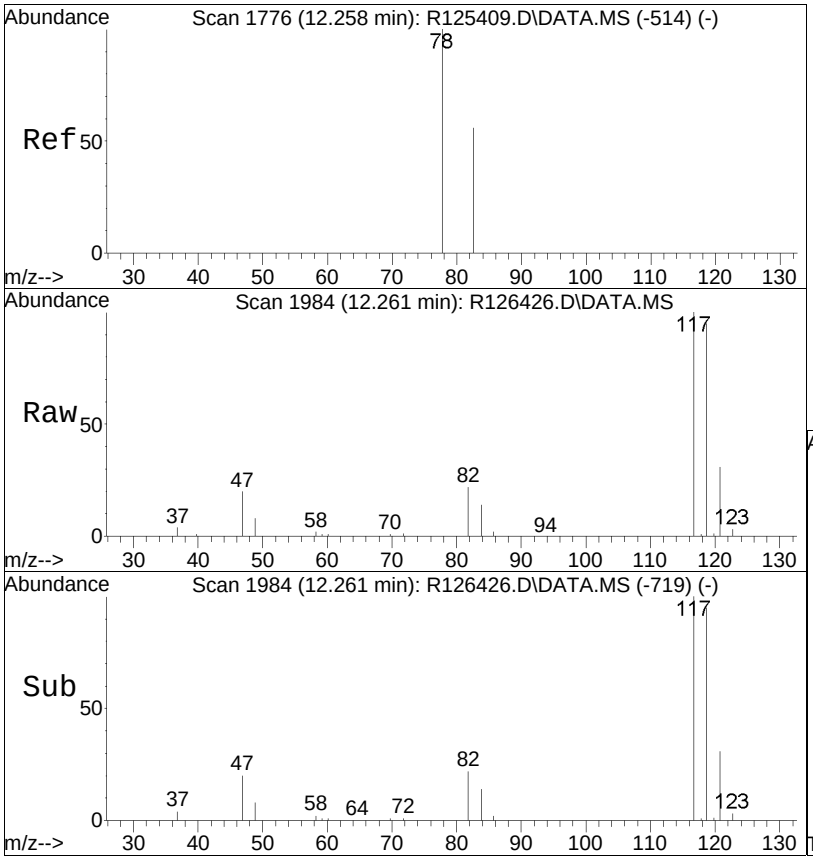



#9
benzene
Concen: 28.09 ug/m3
RT: 12.09 min Scan# 1947
Delta R.T. -0.004 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 78 Resp: 4810902

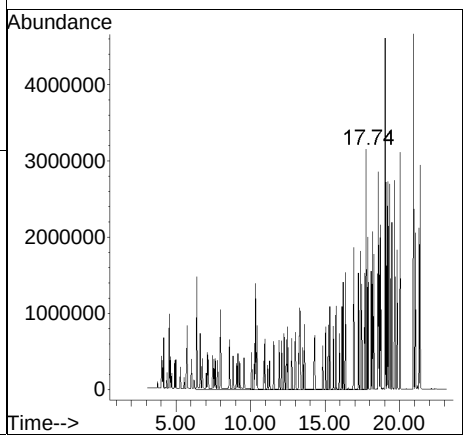
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 24.1 | 18.5 | 27.7 |
| 51 | 24.5 | 18.4 | 27.6 |

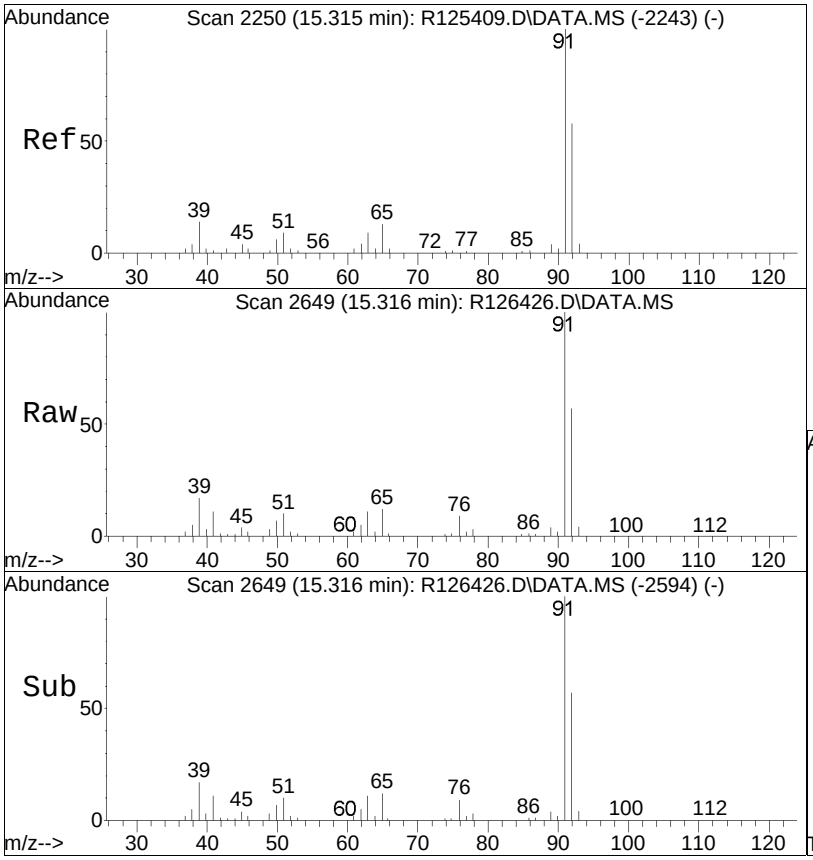





#11
C5-C8 Aliphatics Total
Concen: 114.49 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion:TIC Resp:49900755

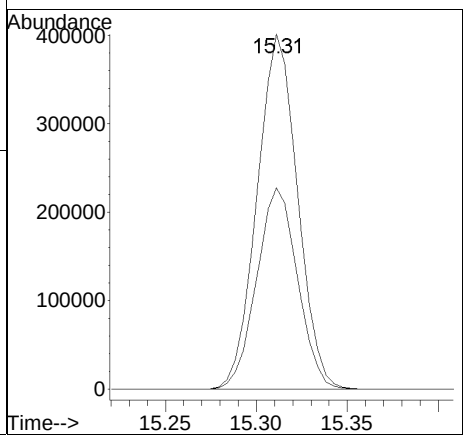


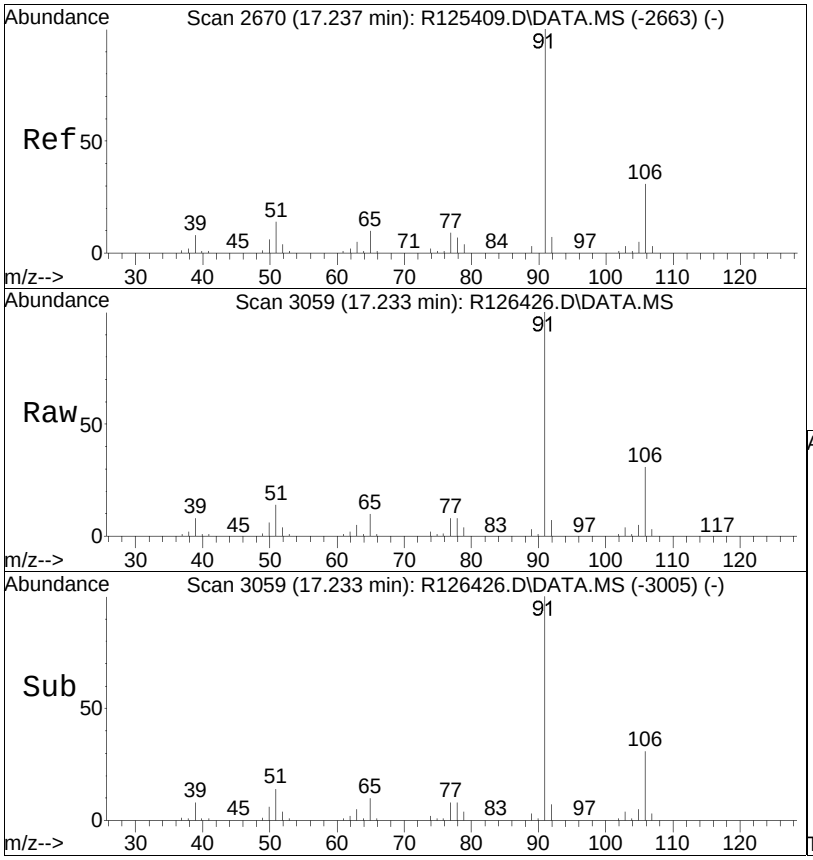



#13
toluene
Concen: 33.97 ug/m3
RT: 15.31 min Scan# 2649
Delta R.T. -0.004 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 91 Resp: 6202853

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.5 | 46.2 | 69.2 |

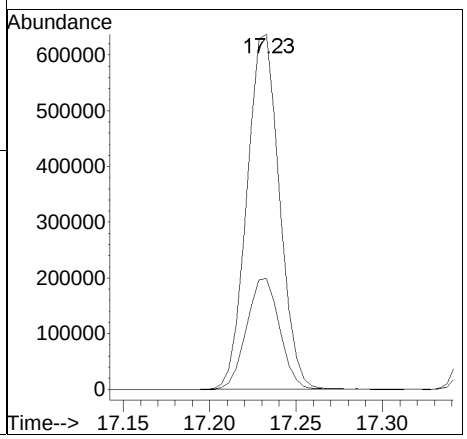


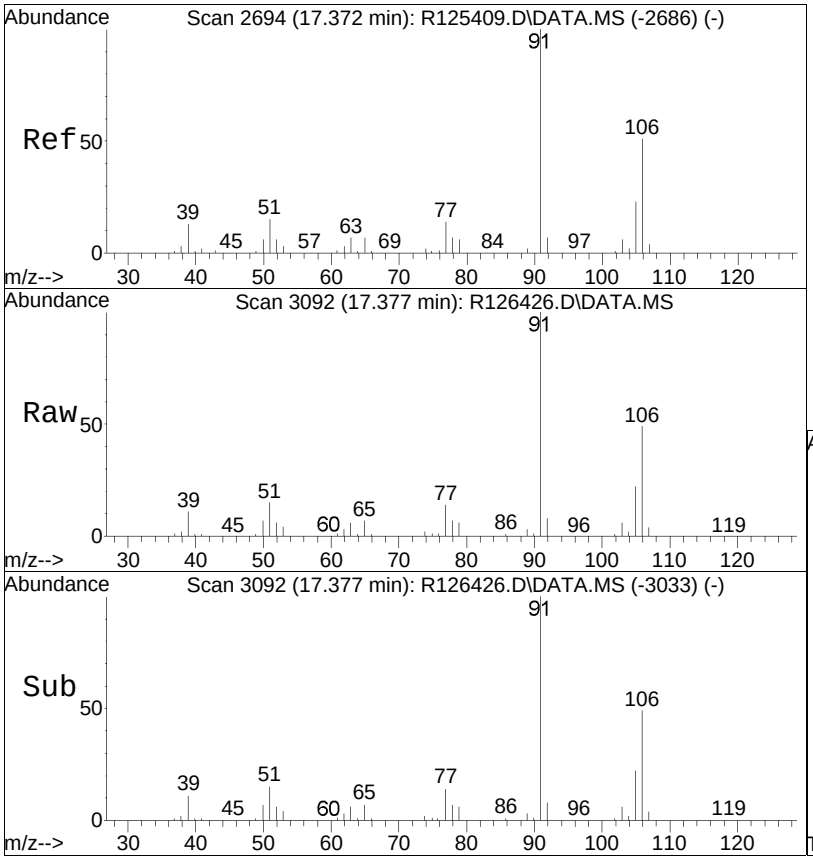



#16
ethyl benzene
Concen: 40.71 ug/m3
RT: 17.23 min Scan# 3059
Delta R.T. -0.003 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 91 Resp: 8355262

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.7 | 25.1 | 37.7 |

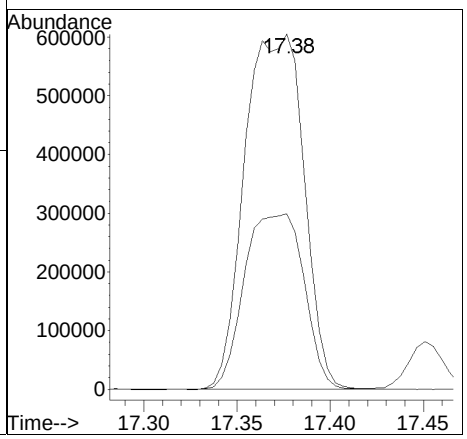


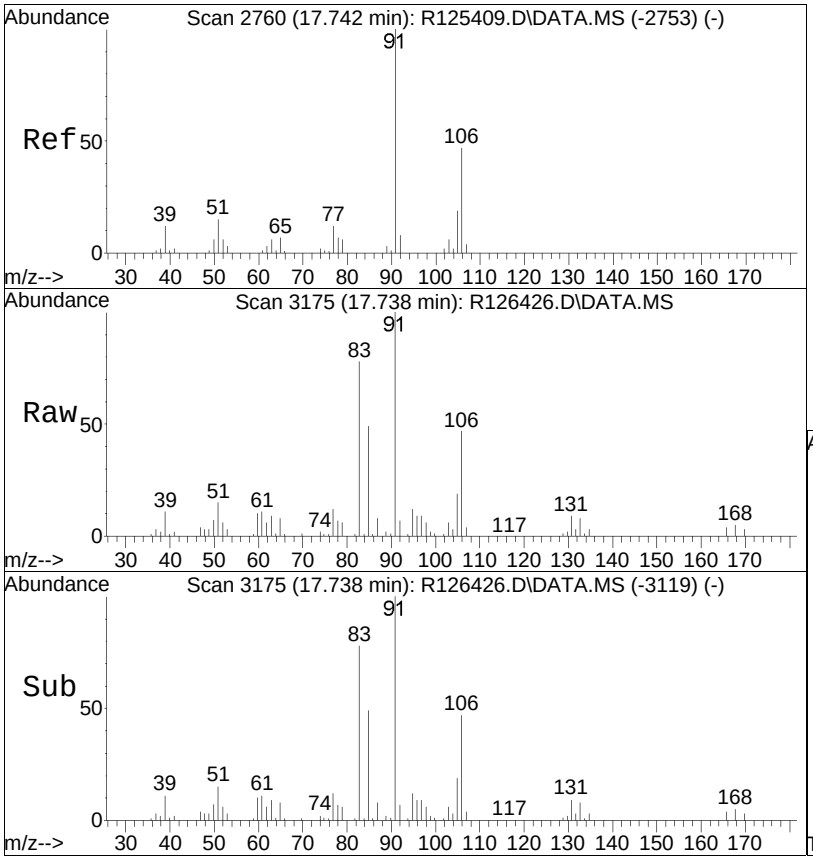



#17
m+p-xylene
Concen: 81.53 ug/m3
RT: 17.38 min Scan# 3092
Delta R.T. 0.007 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 91 Resp:13286322

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.9 | 39.7 | 59.5 |

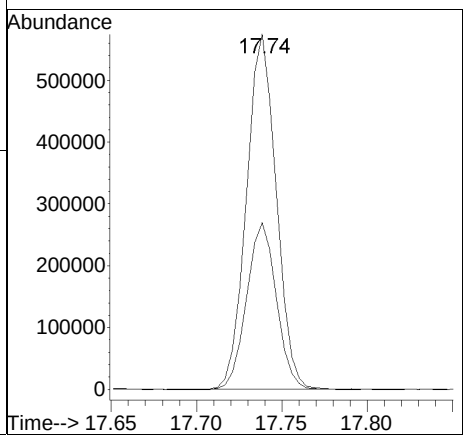


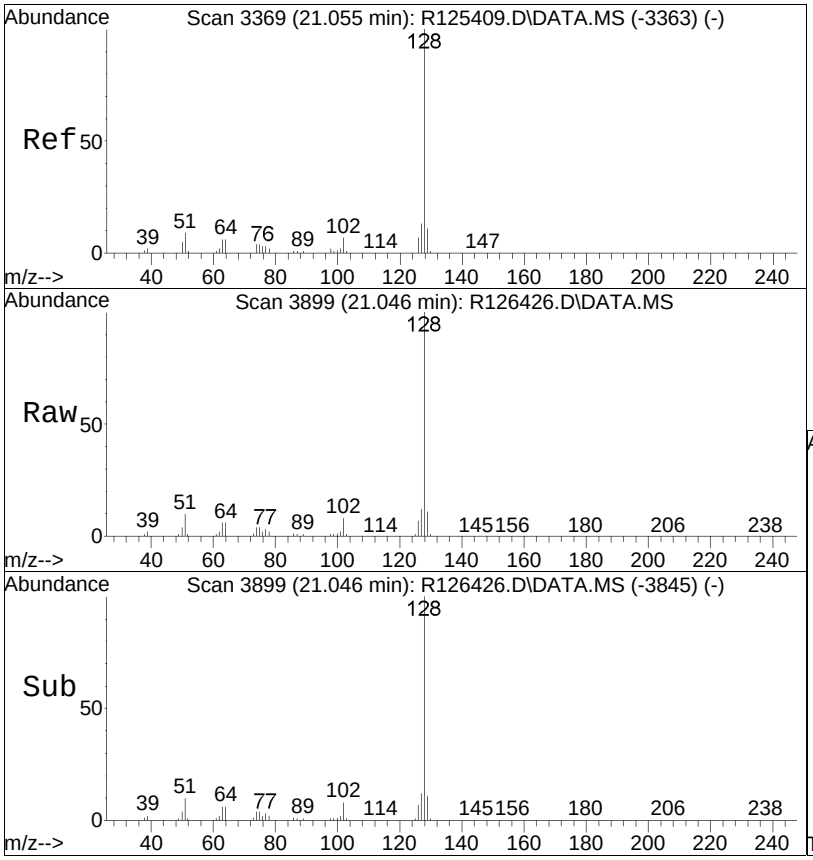



#19
o-xylene
Concen: 41.96 ug/m3
RT: 17.74 min Scan# 3175
Delta R.T. -0.004 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 91 Resp: 6972996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.8 | 37.7 | 56.5 |

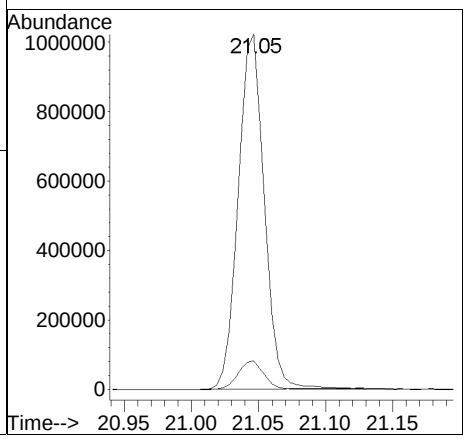


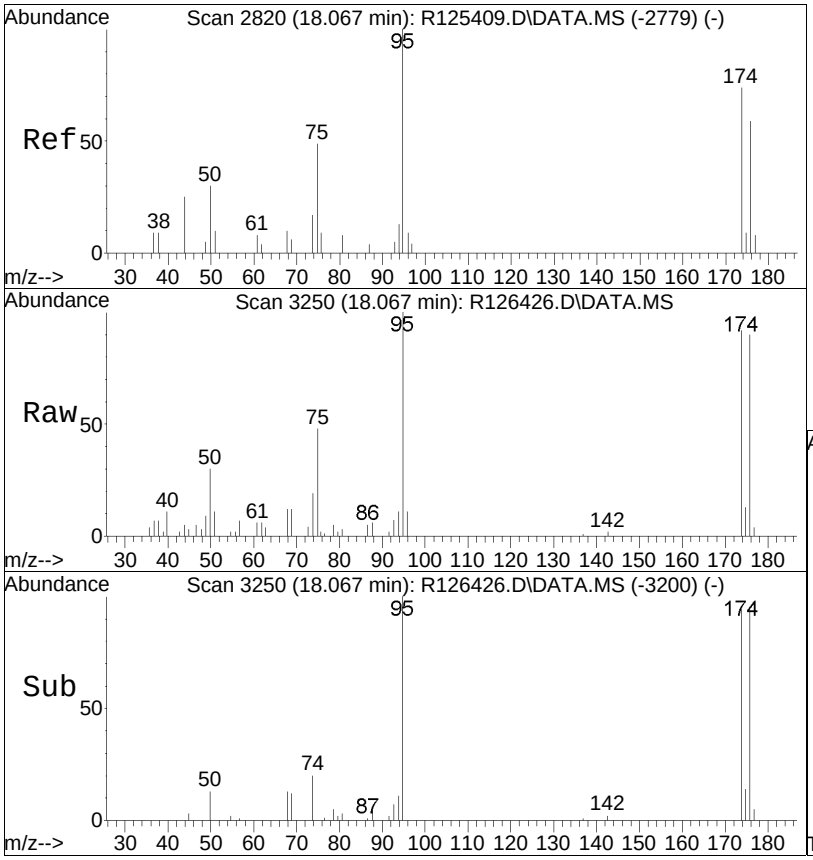



#23
naphthalene
Concen: 66.68 ug/m3
RT: 21.05 min Scan# 3899
Delta R.T. -0.004 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion:128 Resp:13743920

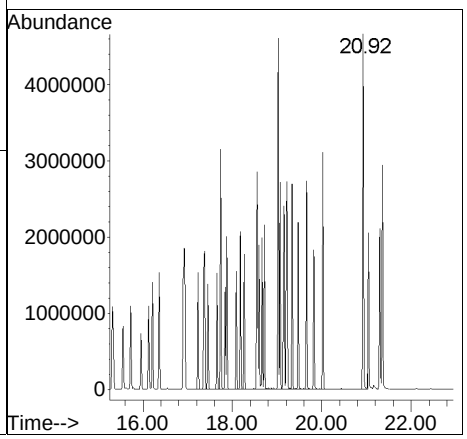
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 7.9 | 6.1 | 9.1 |

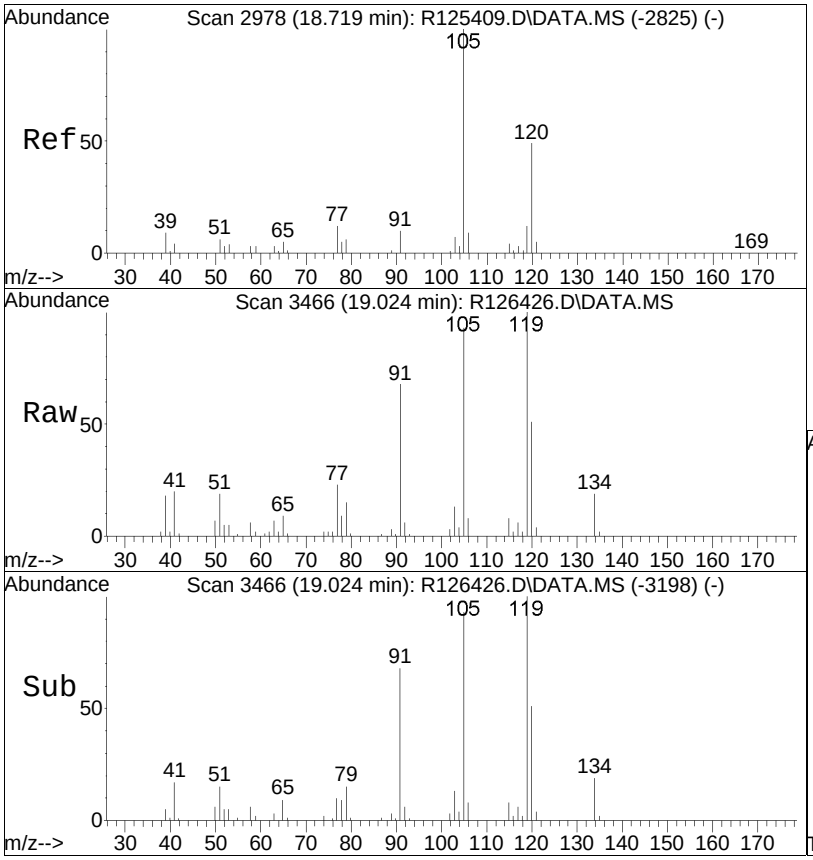





#25
C9-C12 Aliphatics Total
Concen: 182.06 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

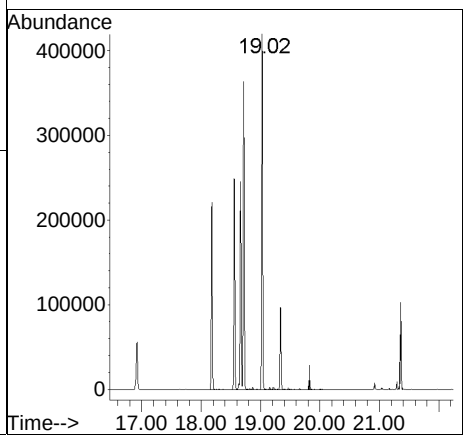
Tgt Ion:TIC Resp:90823414

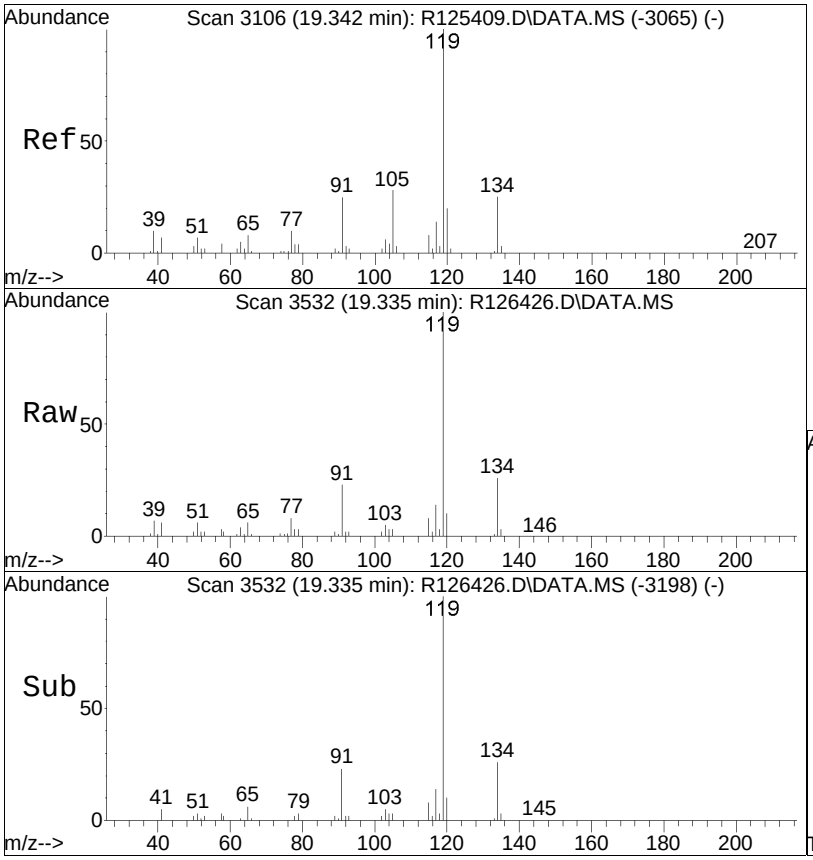





#26
C9-C10 Aromatics (120)
Concen: 271.06 ug/m3 m
RT: 19.02 min Scan# 3466
Delta R.T. -0.976 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

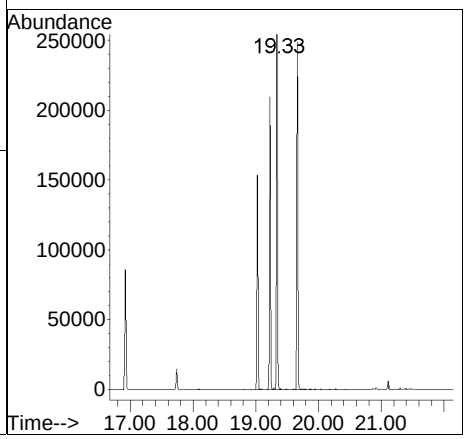
Tgt Ion:120 Resp:18955125






#27
C9-C10 Aromatics (134)
Concen: 143.71 ug/m3 m
RT: 19.33 min Scan# 3532
Delta R.T. -0.665 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion:134 Resp:10049502

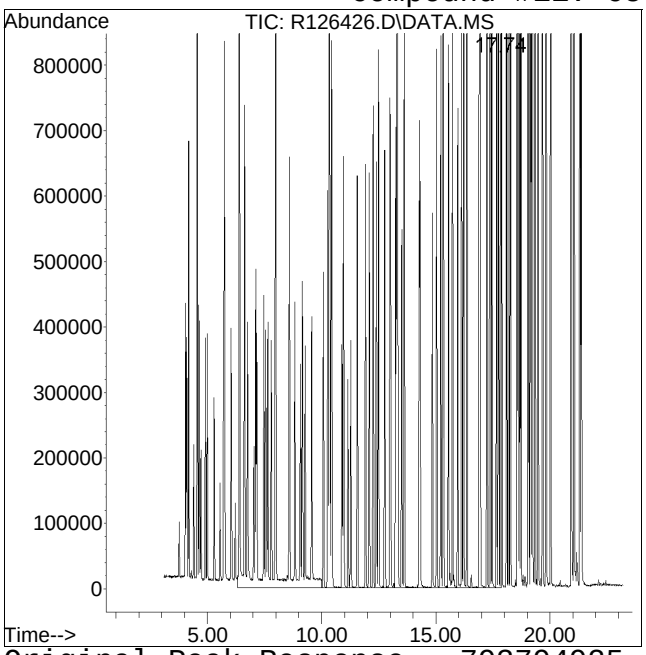


Manual Integration/Negative Proof Report

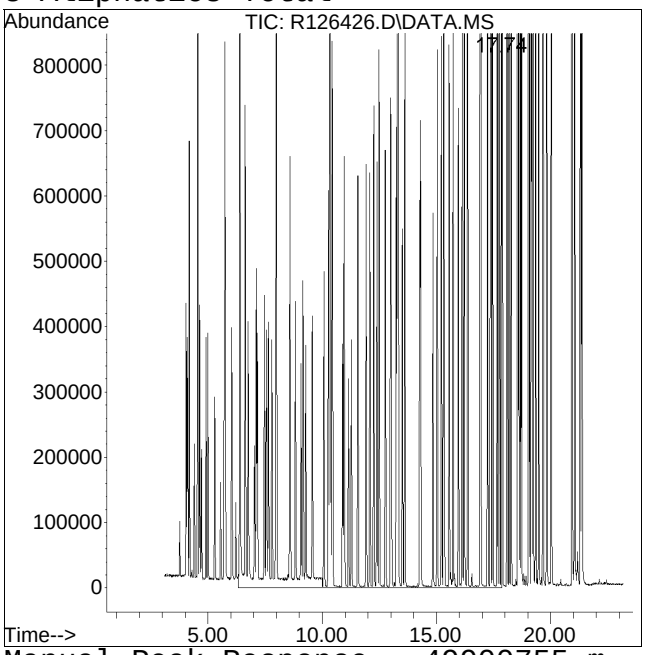
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126426.D
Date Inj'd : 2/8/2013 11:50 am
Sample : WG589501-3,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:15 pm

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 793794925



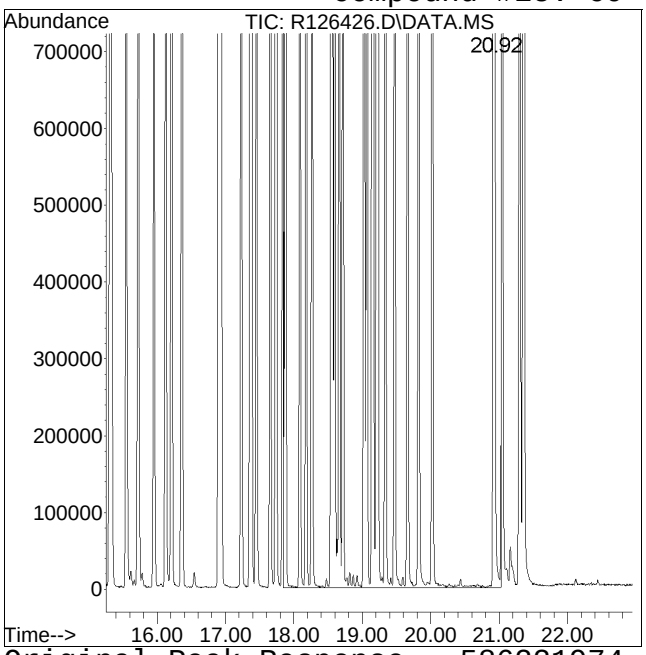

Manual Peak Response = 49900755 m

Manual Integration/Negative Proof Report

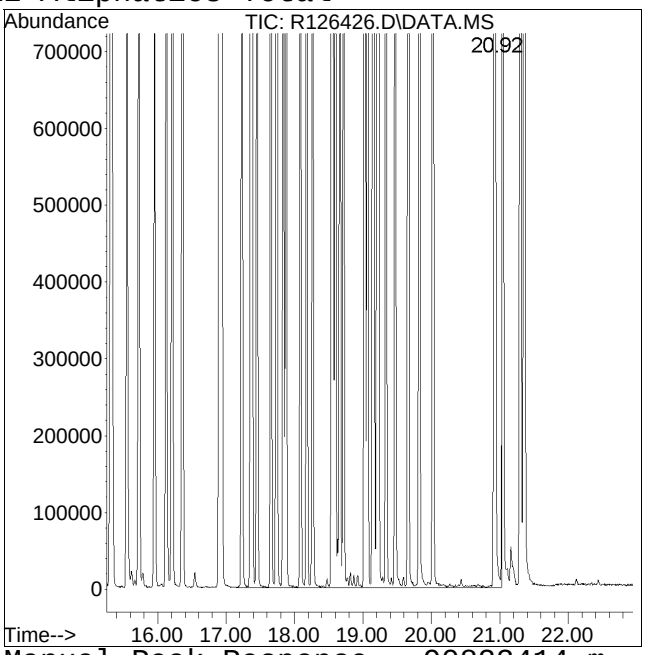
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126426.D
Date Inj'd : 2/8/2013 11:50 am
Sample : WG589501-3,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:15 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 586221974



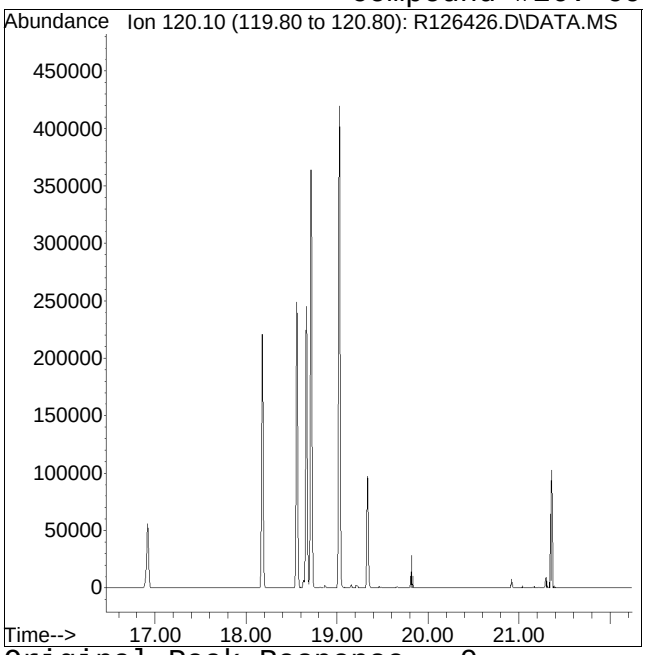

Manual Peak Response = 90823414 m

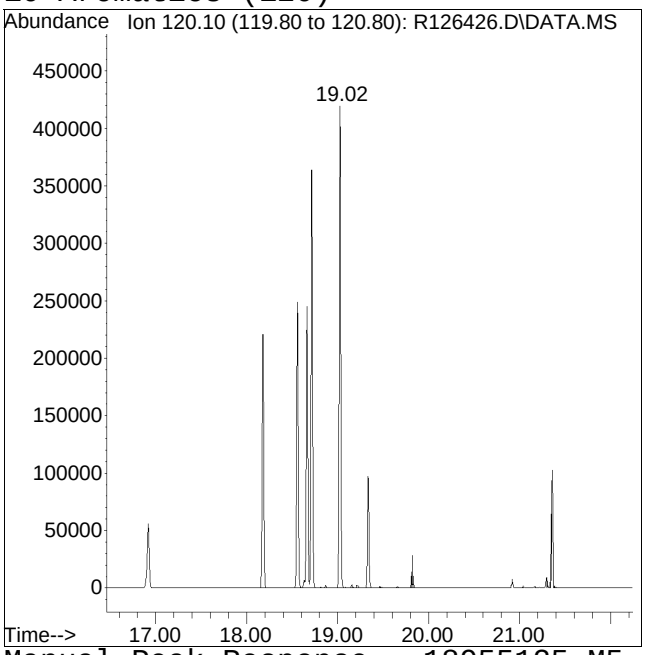
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126426.D
Date Inj'd : 2/8/2013 11:50 am
Sample : WG589501-3,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:15 pm

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 18955125 M5

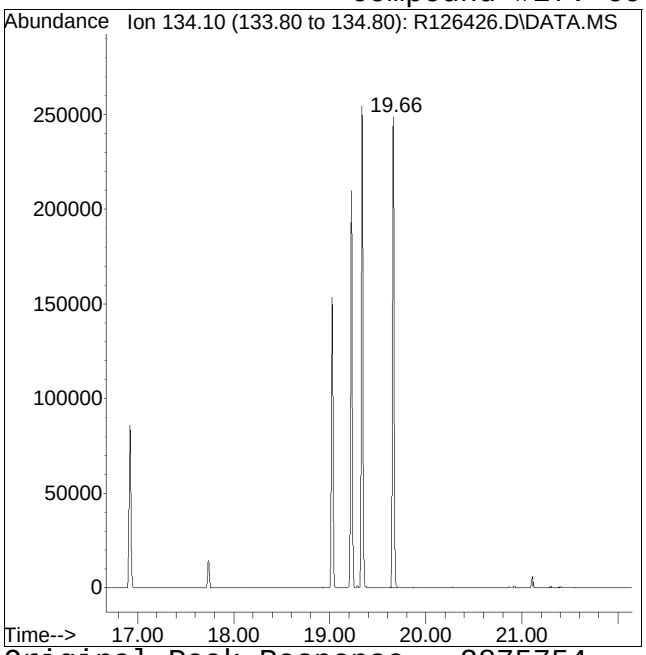
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

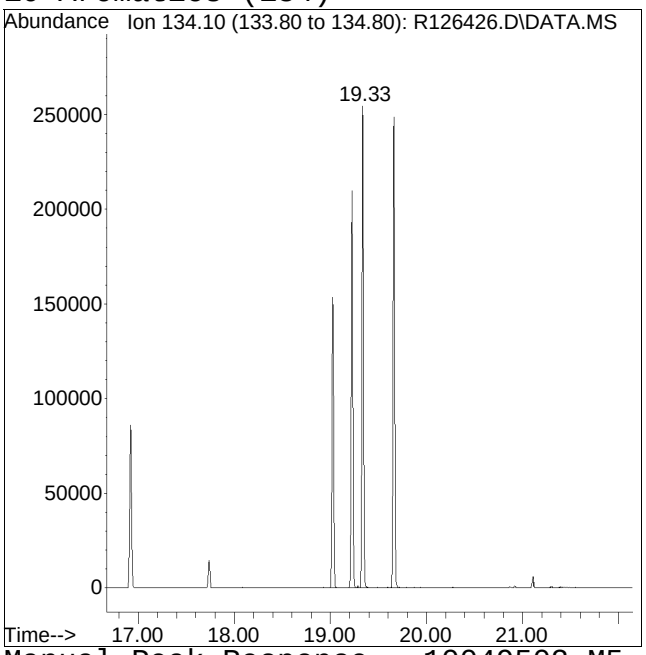
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126426.D
Date Inj'd : 2/8/2013 11:50 am
Sample : WG589501-3,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:15 pm

Compound #27: C9-C10 Aromatics (134)



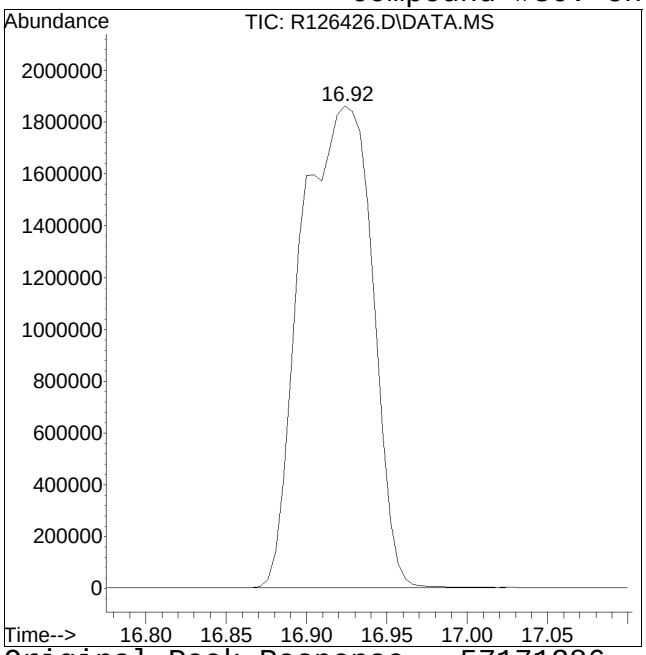

Original Peak Response = 2875754 Manual Peak Response = 10049502 M5
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

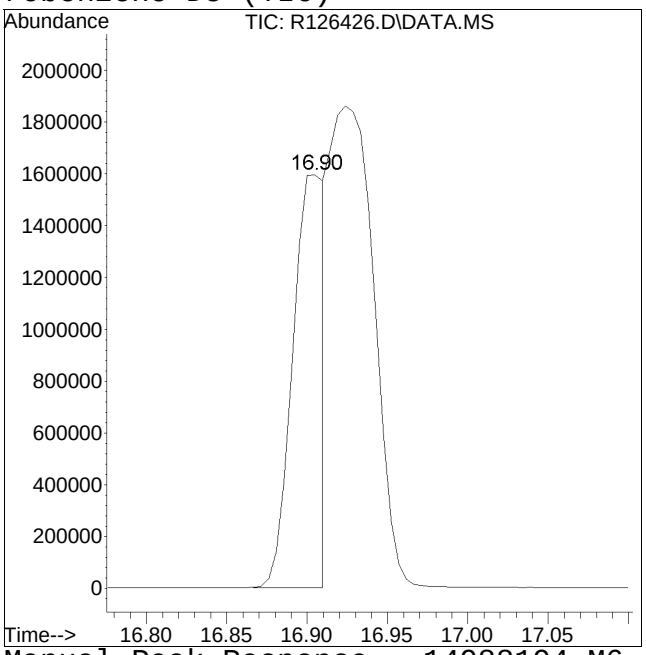
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126426.D
Date Inj'd : 2/8/2013 11:50 am
Sample : WG589501-3,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:15 pm

Compound #30: chlorobenzene-D5 (TIC)




Original Peak Response = 57171286




Manual Peak Response = 14988194 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589501-5,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 12 11:50:47 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

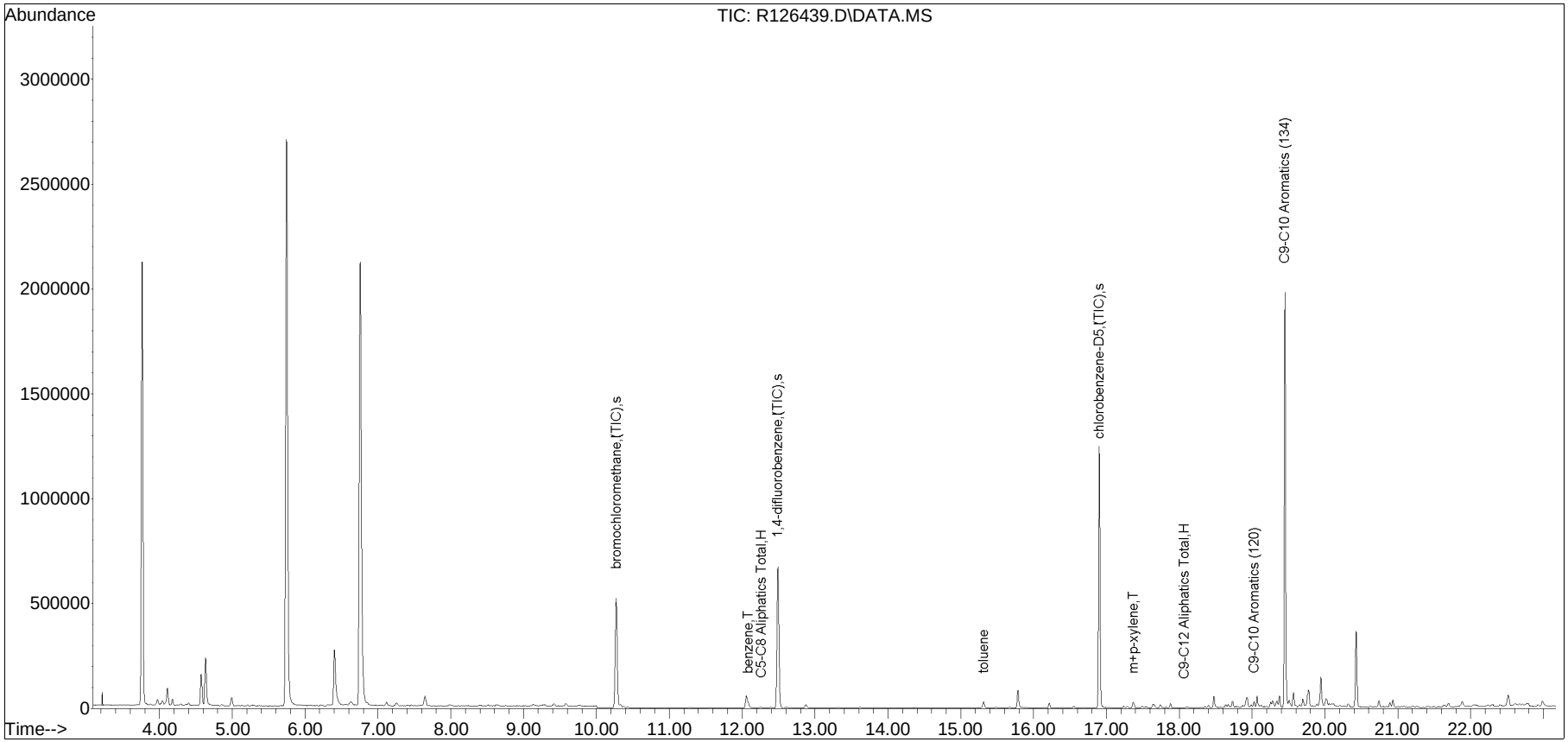
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 128 | 1291976 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1478420 | | | Recovery | = | 87.39% | |
| 7) 1,4-difluorobenzene | 12.49 | 114 | 5313509 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 6732125 | | | Recovery | = | 78.93% | |
| 12) chlorobenzene-D5 | 16.90 | 54 | 1411361 | 10.000 | ug/m3 | 0.00 |
| Standard Area = 1774225 | | | Recovery | = | 79.55% | |
| System Monitoring Compounds | | | | | | |
| 28) bromochloromethane (TIC) | 10.27 | TIC | 9935906M4 | 12.691 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 126.91% | |
| 29) 1,4-difluorobenzene (TIC) | 12.49 | TIC | 12481954 | 9.574 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 95.74% | |
| 30) chlorobenzene-D5 (TIC) | 16.90 | TIC | 16482970 | 9.871 | ug/m3 | 0.00 |
| Spiked Amount 10.000 | | | Recovery | = | 98.71% | |
| 31) 1,2-dichloroethane-D4 ... | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 32) toluene-D8 (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| 33) bromofluorobenzene (TIC) | 0.00 | TIC | 0d | 0.000 | ug/m3 | |
| Spiked Amount 10.000 | | | Recovery | = | 0.00% | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,3-butadiene | 0.00 | | 0 | N.D. | | |
| 4) methyl tert butyl ether | 0.00 | | 0 | N.D. | | |
| 9) benzene | 12.09 | 78 | 87365 | 0.621 | ug/m3# | 85 |
| 11) C5-C8 Aliphatics Total | 12.26 | TIC | 9760896 | 23.879 | ug/m3 | |
| 13) toluene | 15.32 | 91 | 175106 | 1.129 | ug/m3 | 100 |
| 16) ethyl benzene | 17.24 | | 0 | N.D. | | |
| 17) m+p-xylene | 17.37 | 91 | 127009 | 0.917 | ug/m3 | 99 |
| 19) o-xylene | 17.74 | | 0 | N.D. | | |
| 23) naphthalene | 0.00 | | 0 | N.D. | | |
| 25) C9-C12 Aliphatics Tota | 18.07 | TIC | 50703271 | 115.103 | ug/m3 | |
| 26) C9-C10 Aromatics (120) | 19.03 | 120 | 156509M5 | 2.635 | ug/m3 | |
| 27) C9-C10 Aromatics (134) | 19.45 | 134 | 112771M5 | 1.898 | ug/m3 | |
| 27) C9-C10 Aromatics Total | 0.00 | | 269280 | 4.533 | ug/m3 | |

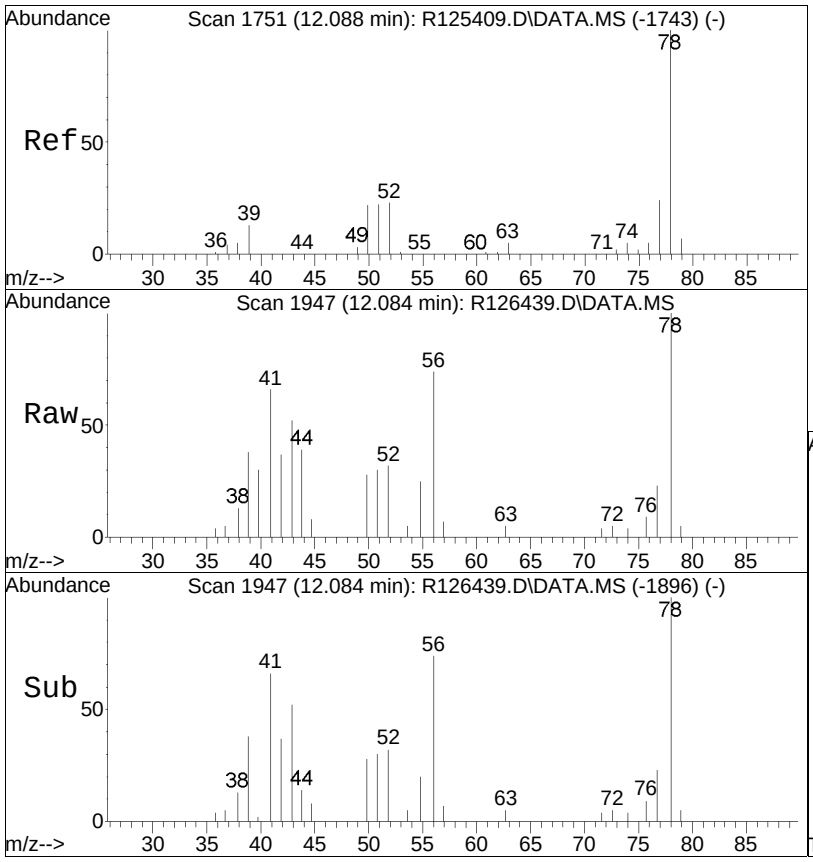
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : APH_STD_M - .ion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208A\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589501-5,3,250,250
Misc : WG589501,ICAL7587
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 12 11:50:47 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208A\APH121211.M
Quant Title : APH Analysis
QLast Update : Tue Dec 11 13:02:47 2012
Response via : Initial Calibration

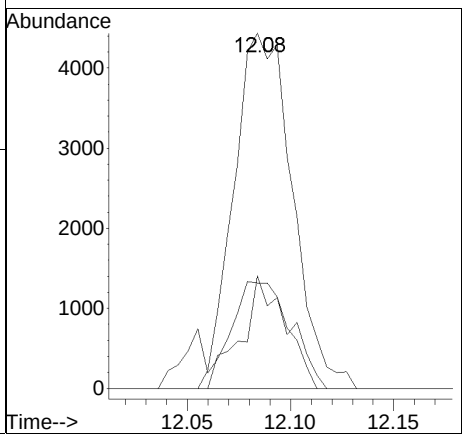


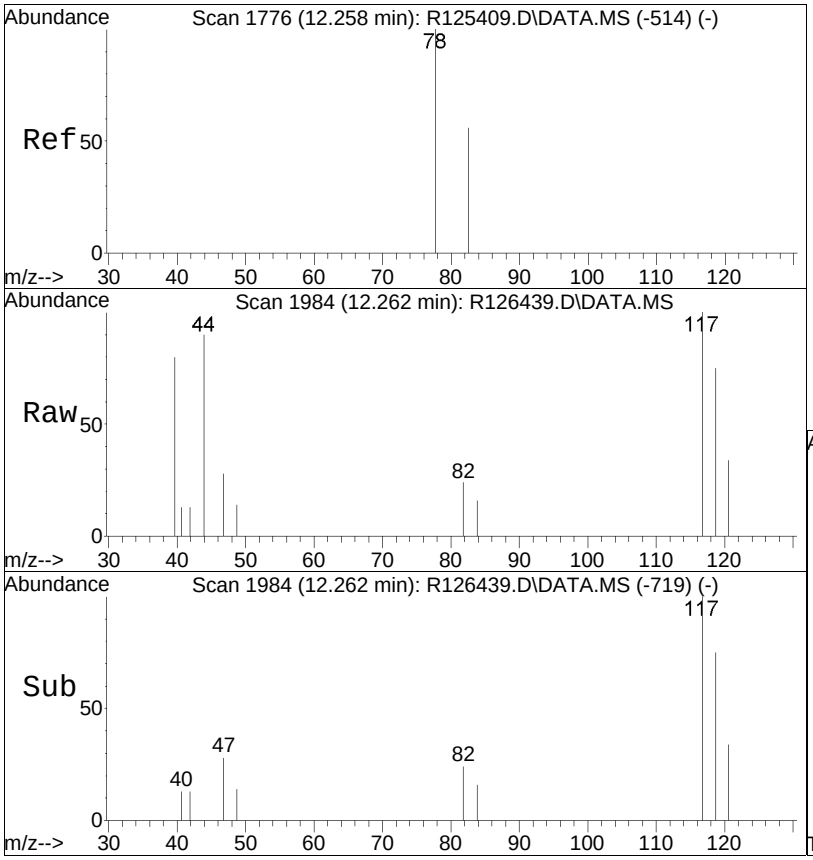



#9
benzene
Concen: 0.62 ug/m3
RT: 12.09 min Scan# 1947
Delta R.T. -0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 78 Resp: 87365

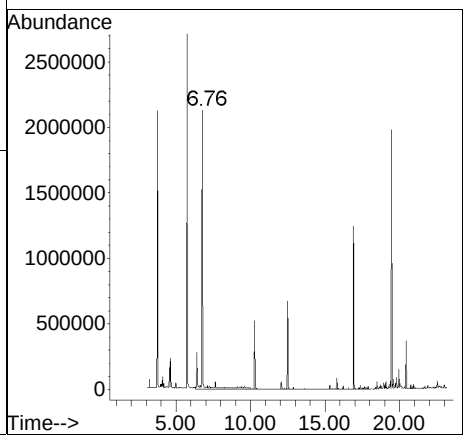
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 25.4 | 18.5 | 27.7 |
| 51 | 34.9 | 18.4 | 27.6# |

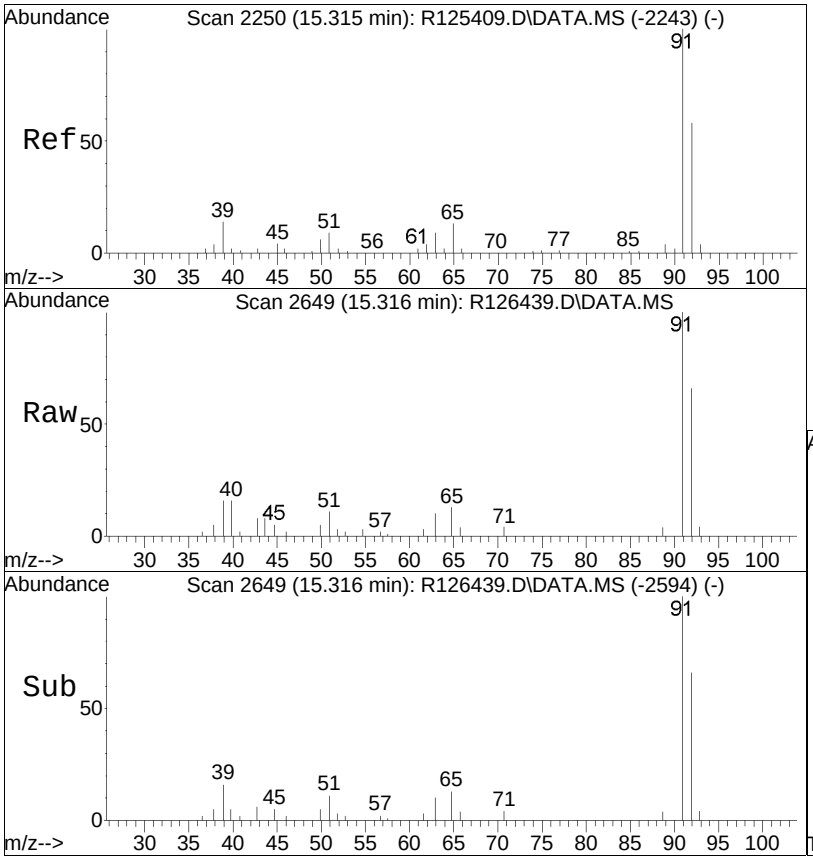





#11
C5-C8 Aliphatics Total
Concen: 27.28 ug/m3 m
RT: 12.26 min Scan# 1984
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:TIC Resp: 9760896

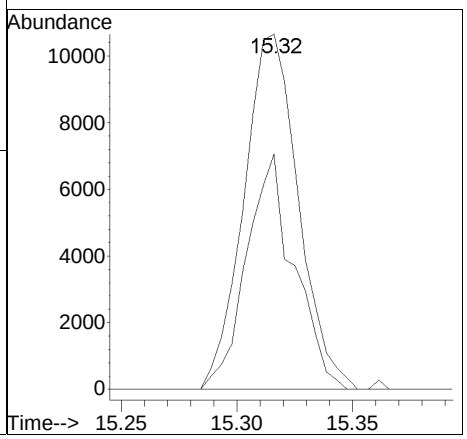


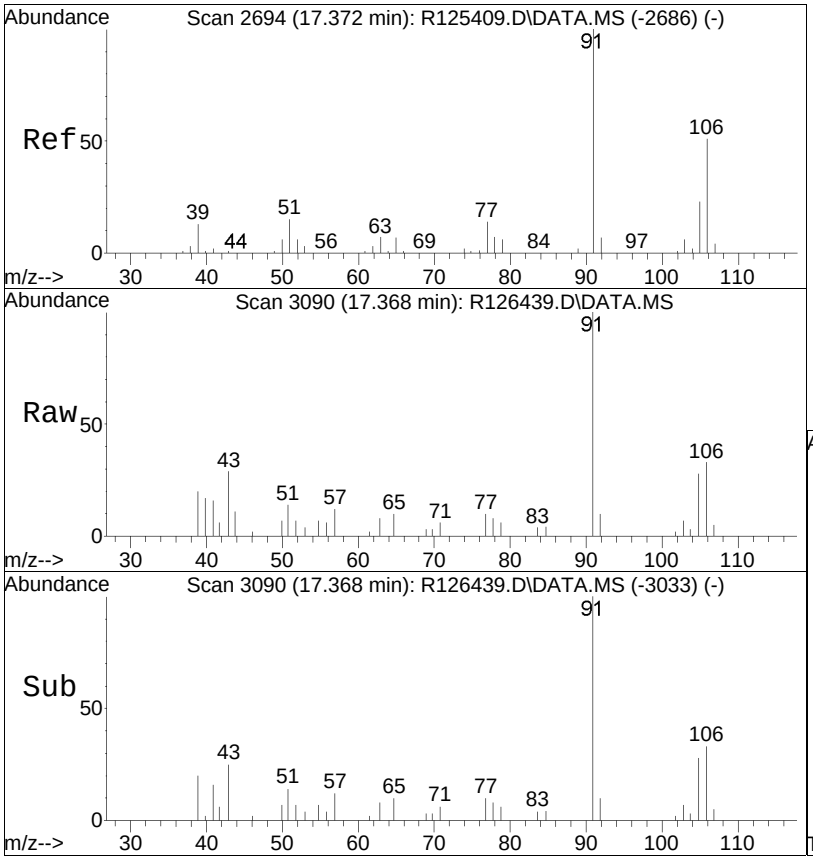



#13
toluene
Concen: 1.13 ug/m3
RT: 15.32 min Scan# 2649
Delta R.T. -0.001 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 175106

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.8 | 46.2 | 69.2 |

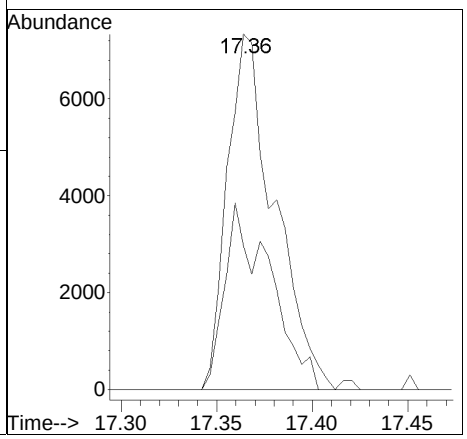


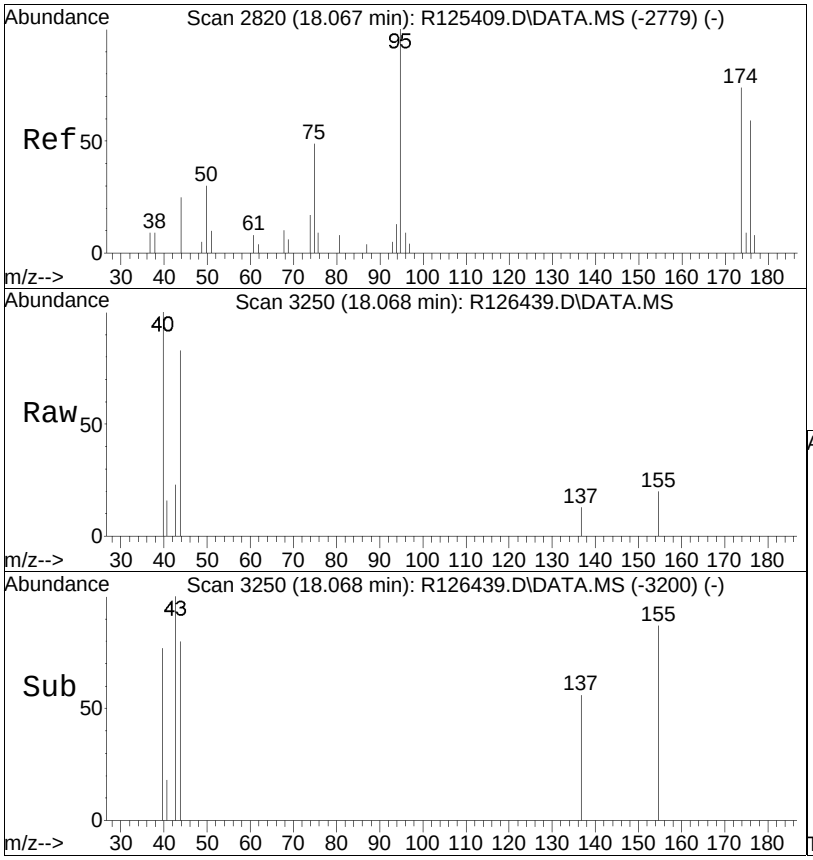



#17
m+p-xylene
Concen: 0.92 ug/m3
RT: 17.37 min Scan# 3090
Delta R.T. -0.003 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 127009

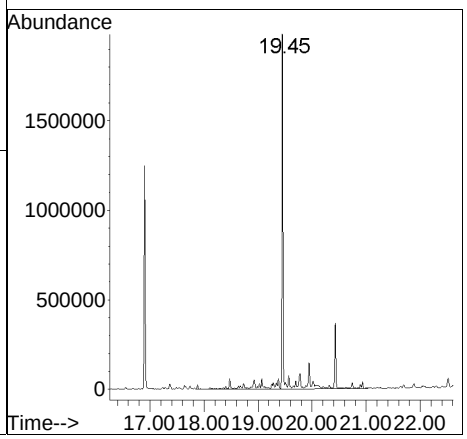
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 50.2 | 39.7 | 59.5 |

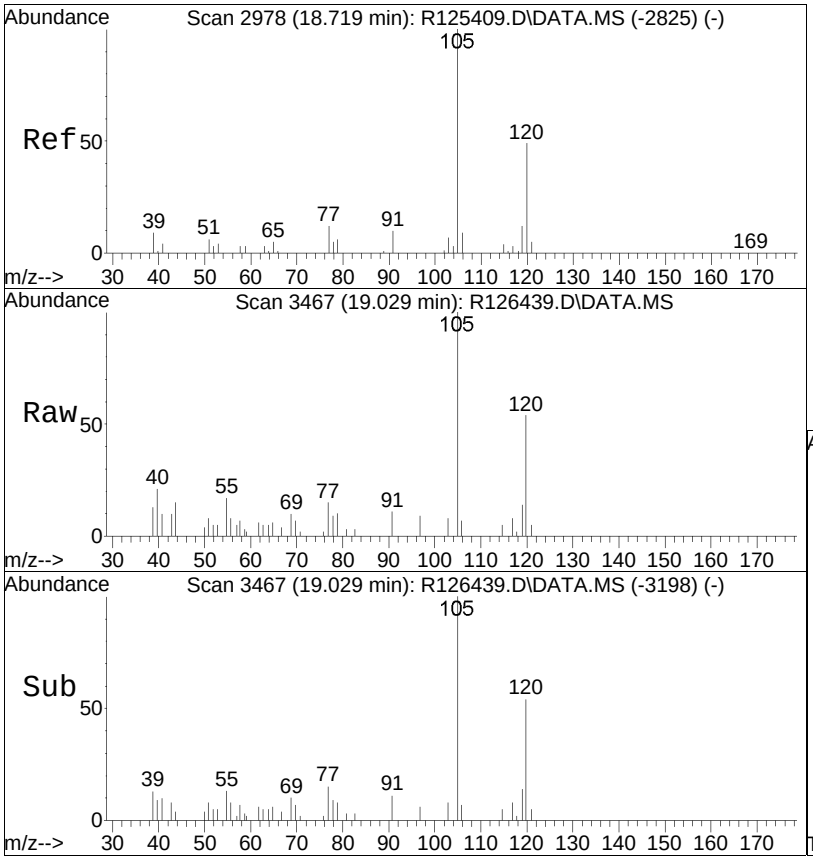





#25
C9-C12 Aliphatics Total
Concen: 119.64 ug/m3 m
RT: 18.07 min Scan# 3250
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

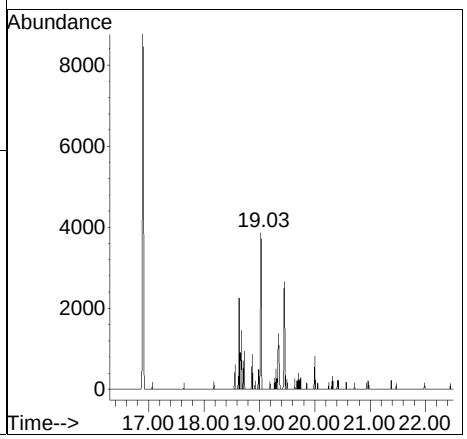
Tgt Ion:TIC Resp:50703271

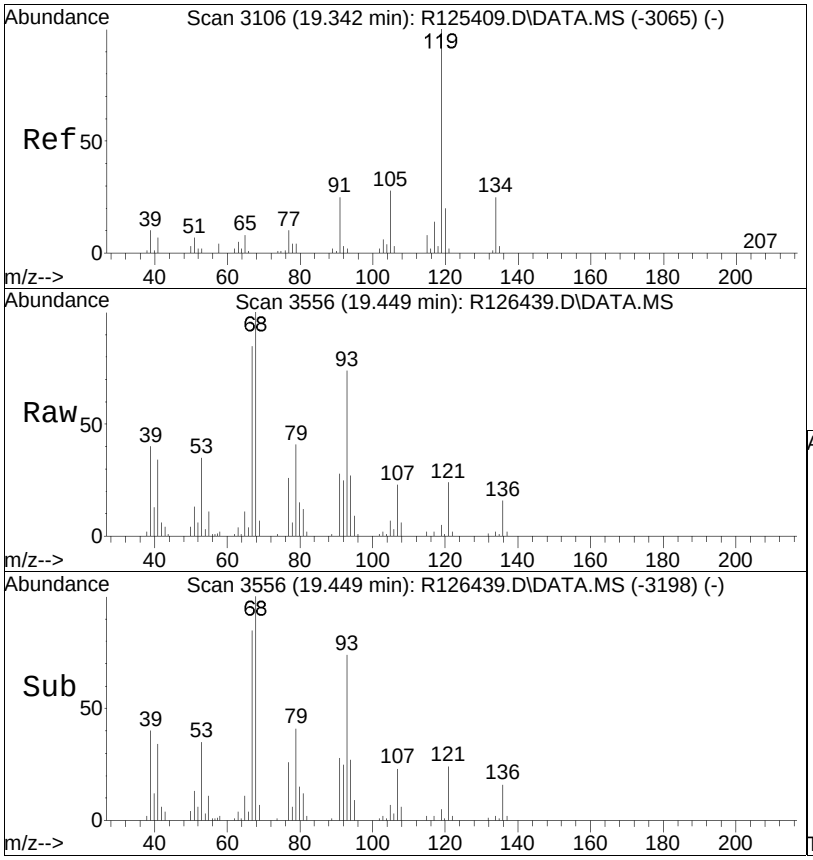





#26
C9-C10 Aromatics (120)
Concen: 2.63 ug/m3 m
RT: 19.03 min Scan# 3467
Delta R.T. -0.971 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

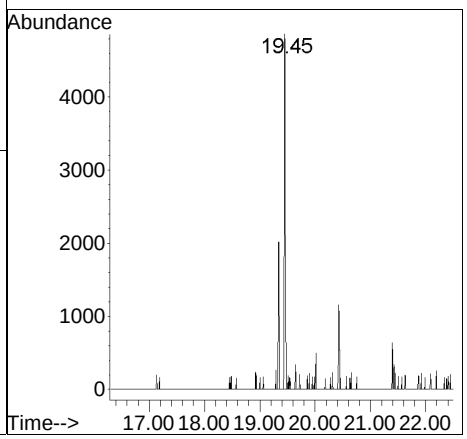
Tgt Ion:120 Resp: 156509






#27
C9-C10 Aromatics (134)
Concen: 1.90 ug/m3 m
RT: 19.45 min Scan# 3556
Delta R.T. -0.551 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

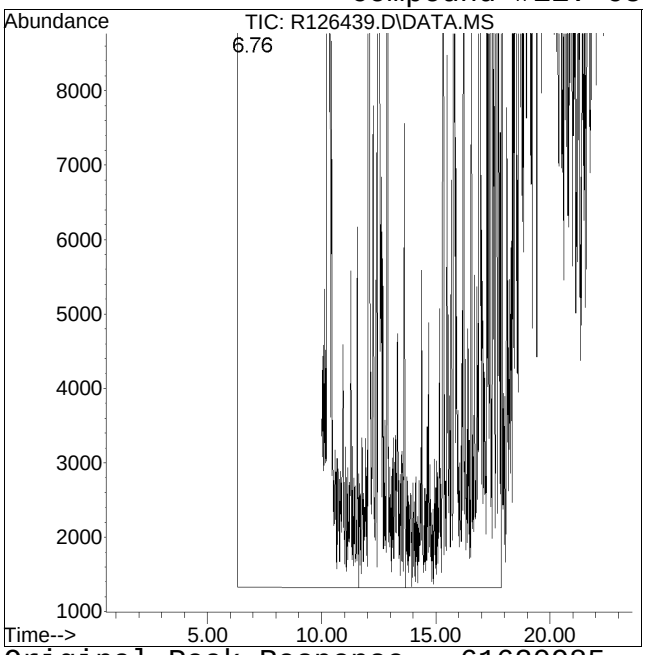
Tgt Ion:134 Resp: 112771



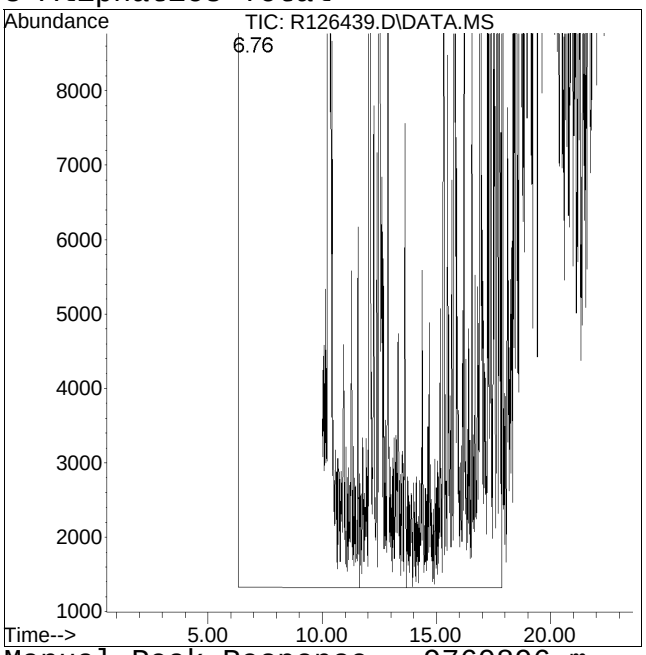
Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : APH121211.M |
| Data File | : R126439.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/8/2013 7:27 pm | Instrument | : Air Piano 1 |
| Sample | : WG589501-5,3,250,250 | Quant Date | : 2/11/2013 10:47 pm |

Compound #11: C5-C8 Aliphatics Total




Original Peak Response = 61620985



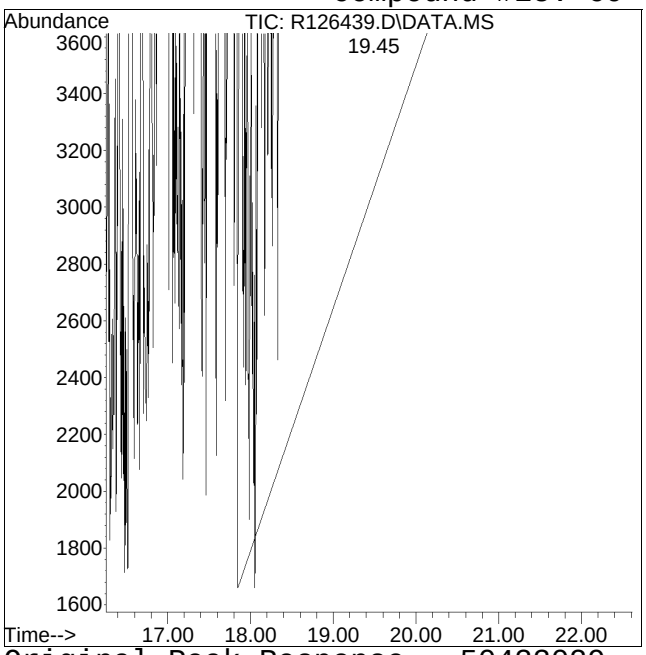

Manual Peak Response = 9760896 m

Manual Integration/Negative Proof Report

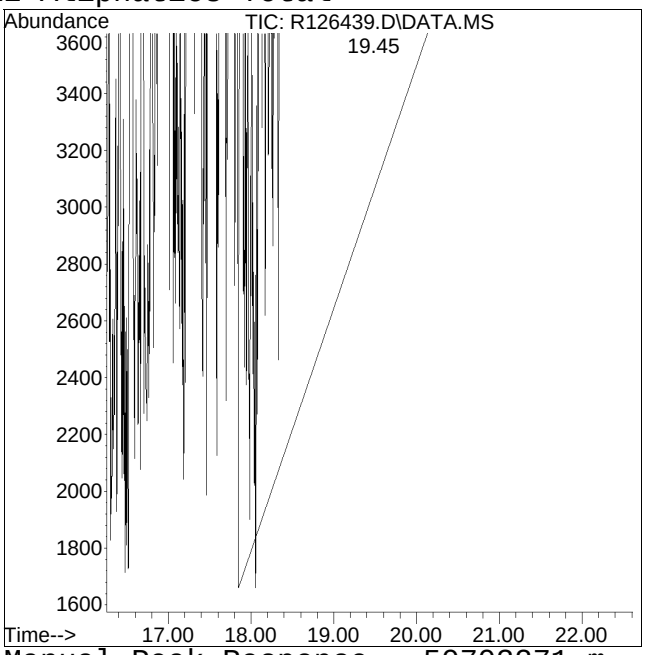
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589501-5,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:47 pm

Compound #25: C9-C12 Aliphatics Total




Original Peak Response = 50433029



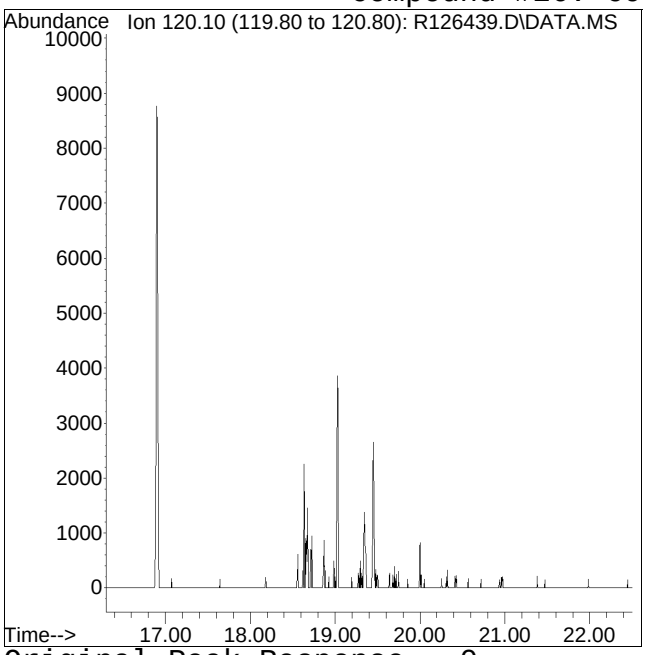

Manual Peak Response = 50703271 m

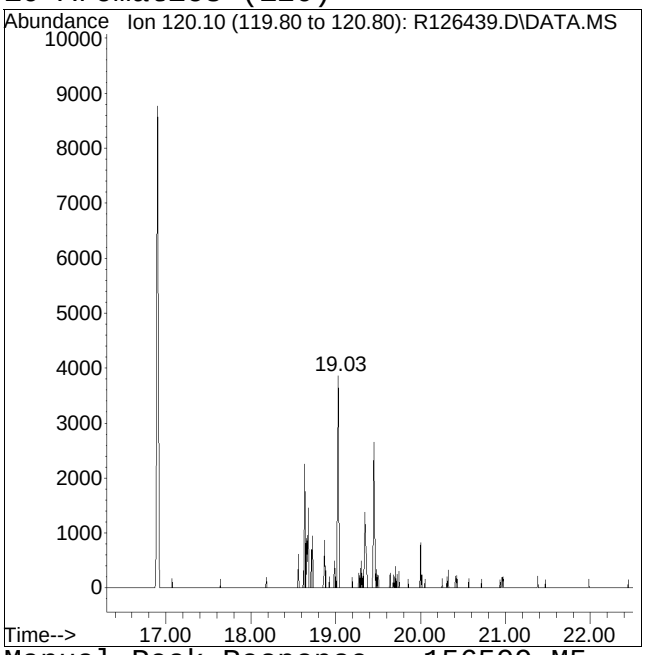
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589501-5,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:47 pm

Compound #26: C9-C10 Aromatics (120)




Original Peak Response = 0 Manual Peak Response = 156509 M5

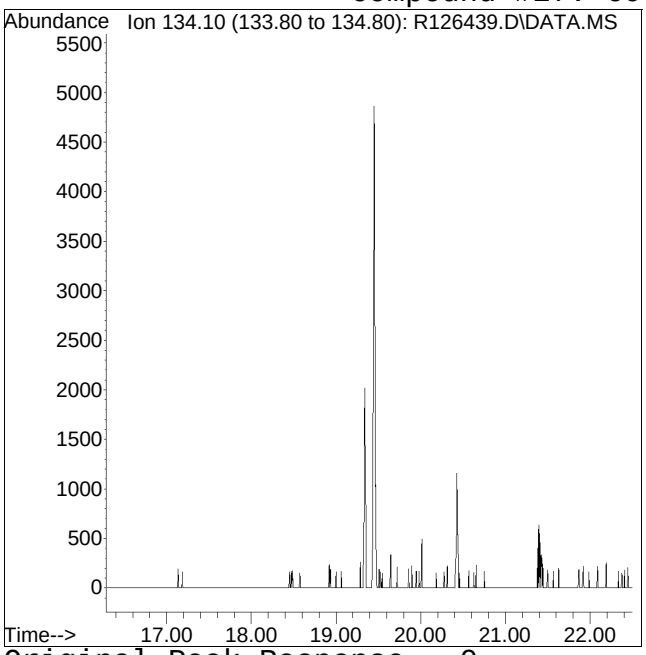
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

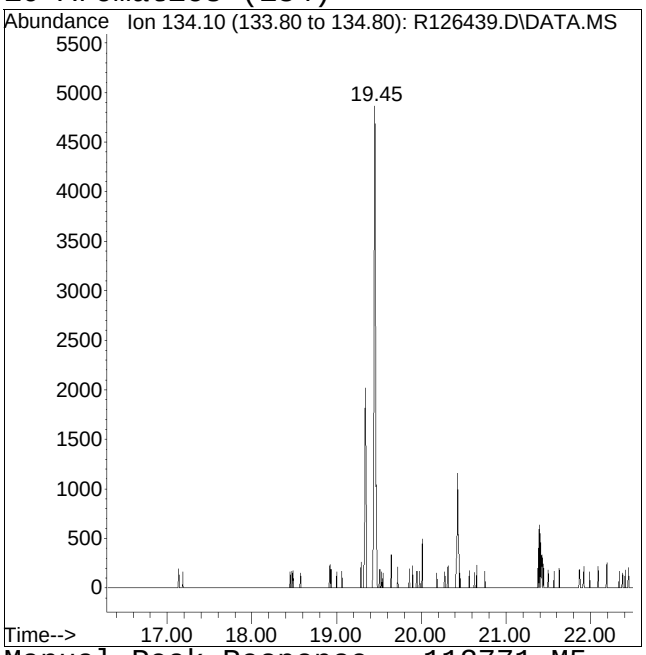
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589501-5,3,250,250

Method : APH121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 10:47 pm

Compound #27: C9-C10 Aromatics (134)



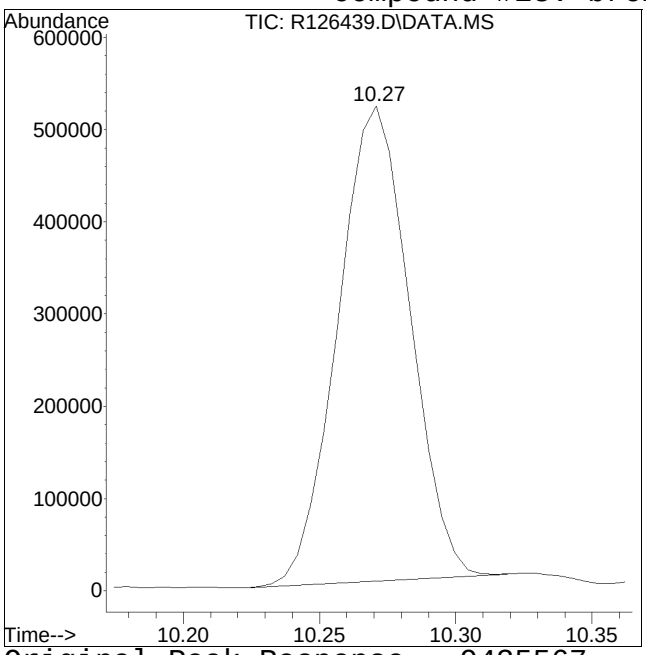

Original Peak Response = 0 Manual Peak Response = 112771 M5

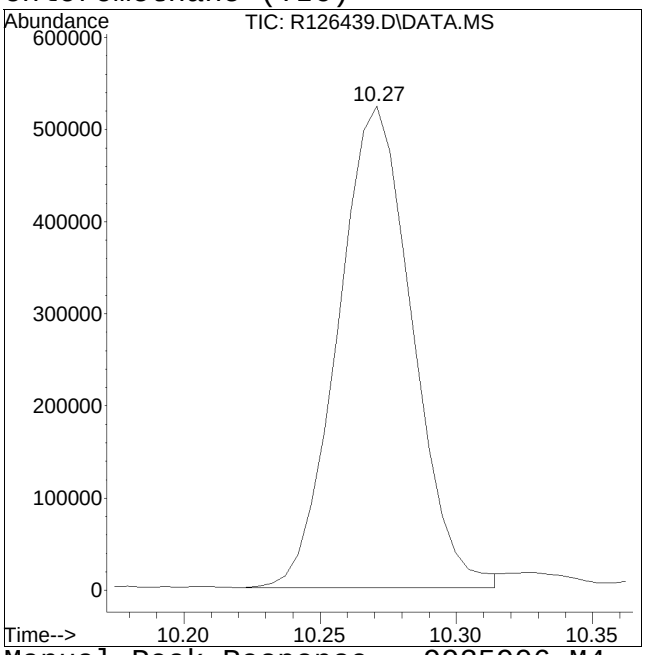
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013QMethod : APH121211.M
Data File : R126439.D Operator : AIRPIANO1:MB
Date Inj'd : 2/8/2013 7:27 pm Instrument : Air Piano 1
Sample : WG589501-5,3,250,250 Quant Date : 2/11/2013 10:47 pm

Compound #28: bromochloromethane (TIC)




Original Peak Response = 9435567 Manual Peak Response = 9935906 M4
M4 = Poor automated baseline construction.

# GC/MS VOA
# Air Analysis
# Selective Ion Monitoring

# Initial Calibration

# Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Method File : TSIM121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 12:37:31 2012
Response Via : Initial Calibration

Calibration Files
0.02=R125417.D 0.04=R125418.D 0.1 =R125419.D 0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D
2.5 =R125423.D 5.0 =R125424.D 10.0=R125425.D 20.0=R125426.D 50.0=R125427.D

| | | Compound | 0.02 | 0.04 | 0.1 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | | | | | ----------ISTD---------- | | | | | | | | |
| 2) | | propylene | 0.873 | 0.783 | 0.605 | 0.683 | 0.592 | 0.687 | 0.557 | 0.533 | 0.525 | 0.502 | 0.589 | 0.6300 | 18.38 |
| 3) | | dichlorodifl... | 1.779 | 1.663 | 1.407 | 1.579 | 1.426 | 1.645 | 1.383 | 1.292 | 1.318 | 1.248 | 1.462 | 1.4730 | 11.62 |
| 4) | C | chloromethane | | 1.077 | 0.747 | 0.803 | 0.683 | 0.775 | 0.645 | 0.614 | 0.612 | 0.582 | 0.677 | 0.7216 | 20.06 |
| 5) | | Freon-114 | 1.886 | 1.781 | 1.547 | 1.788 | 1.579 | 1.850 | 1.520 | 1.464 | 1.460 | 1.384 | 1.602 | 1.6237 | 10.69 |
| 6) | C | vinyl chloride | 0.752 | 0.706 | 0.614 | 0.707 | 0.621 | 0.730 | 0.604 | 0.580 | 0.580 | 0.554 | 0.651 | 0.6454 | 10.55 |
| 7) | C | 1,3-butadiene | 0.555 | 0.541 | 0.492 | 0.547 | 0.490 | 0.569 | 0.472 | 0.454 | 0.453 | 0.432 | 0.510 | 0.5014 | 9.28 |
| 8) | C | bromomethane | 0.701 | 0.654 | 0.563 | 0.635 | 0.572 | 0.661 | 0.548 | 0.526 | 0.528 | 0.504 | 0.595 | 0.5898 | 10.94 |
| 9) | C | chloroethane | 0.375 | 0.329 | 0.277 | 0.321 | 0.280 | 0.327 | 0.268 | 0.260 | 0.260 | 0.248 | 0.293 | 0.2943 | 13.28 |
| 10) | | ethanol | | | 0.541 | 0.619 | 0.539 | 0.635 | 0.527 | 0.509 | 0.484 | 0.449 | 0.502 | 0.5339 | 11.24 |
| 11) | C | vinyl bromide | 0.654 | 0.617 | 0.565 | 0.640 | 0.568 | 0.659 | 0.546 | 0.530 | 0.531 | 0.508 | 0.603 | 0.5836 | 9.18 |
| 12) | | acetone | | | 1.392 | 1.544 | 1.235 | 1.430 | 1.139 | 1.095 | 1.068 | 1.000 | 1.129 | 1.2258 | 15.28 |
| 13) | | trichloroflu... | 1.972 | 1.883 | 1.652 | 1.927 | 1.717 | 2.000 | 1.657 | 1.591 | 1.594 | 1.523 | 1.795 | 1.7555 | 9.58 |
| 14) | | isopropyl al... | | | | | 1.813 | 2.072 | 1.518 | 1.458 | 1.448 | 1.378 | 1.614 | 1.6143 | 15.31 |
| 15) | C | acrylonitrile | 0.803 | 0.651 | 0.553 | 0.630 | 0.555 | 0.656 | 0.554 | 0.532 | 0.536 | 0.515 | 0.609 | 0.5994 | 14.00 |
| 16) | C | 1,1-dichloro... | 1.217 | 1.170 | 1.026 | 1.191 | 1.063 | 1.240 | 1.031 | 0.984 | 0.991 | 0.947 | 1.110 | 1.0882 | 9.43 |
| 17) | C | methylene ch... | | | | | 1.114 | 1.199 | 0.938 | 0.890 | 0.878 | 0.833 | 0.967 | 0.9741 | 13.75 |
| 18) | C | 3-chloropropene | 1.154 | 1.059 | 0.910 | 1.074 | 0.945 | 1.105 | 0.911 | 0.886 | 0.879 | 0.843 | 0.985 | 0.9775 | 10.71 |
| 19) | C | carbon disul... | | | 2.007 | 2.099 | 1.725 | 1.967 | 1.609 | 1.551 | 1.559 | 1.488 | 1.750 | 1.7506 | 12.78 |
| 20) | | Freon 113 | 1.349 | 1.300 | 1.154 | 1.332 | 1.191 | 1.392 | 1.152 | 1.110 | 1.115 | 1.067 | 1.256 | 1.2198 | 9.07 |
| 21) | | Halothane | 1.005 | 0.993 | 0.883 | 1.014 | 0.897 | 1.059 | 0.886 | 0.859 | 0.846 | 0.811 | 0.976 | 0.9300 | 8.78 |
| 22) | | trans-1,2-di... | 1.085 | 1.101 | 0.971 | 1.138 | 1.022 | 1.192 | 0.995 | 0.960 | 0.955 | 0.983 | 1.072 | 1.0430 | 7.63 |
| 23) | C | 1,1-dichloro... | 1.283 | 1.298 | 1.142 | 1.327 | 1.180 | 1.376 | 1.145 | 1.107 | 1.105 | 1.147 | 1.230 | 1.2127 | 7.82 |
| 24) | C | MTBE | 1.619 | 1.527 | 1.350 | 1.586 | 1.396 | 1.633 | 1.357 | 1.308 | 1.301 | 1.362 | 1.461 | 1.4453 | 8.70 |
| 25) | C | vinyl acetate | 2.497 | 2.261 | 1.868 | 2.172 | 1.907 | 2.238 | 1.860 | 1.807 | 1.816 | 1.958 | 2.020 | 2.0368 | 11.04 |
| 26) | C | 2-butanone | 2.284 | 2.054 | 1.614 | 1.851 | 1.605 | 1.875 | 1.771 | 1.491 | 1.486 | 1.626 | 1.628 | 1.7531 | 14.09 |
| 27) | | cis-1,2-dich... | 0.989 | 0.945 | 0.839 | 0.995 | 0.936 | 1.037 | 0.982 | 0.955 | 0.836 | 0.913 | 0.930 | 0.9415 | 6.60 |
| 28) | | Ethyl Acetate | 0.269 | 0.250 | 0.226 | 0.231 | 0.242 | 0.240 | 0.232 | 0.227 | 0.229 | 0.218 | 0.215 | 0.2345 | 6.49 |
| 29) | C | chloroform | 1.299 | 1.404 | 1.255 | 1.443 | 1.312 | 1.320 | 1.274 | 1.231 | 1.231 | 1.177 | 1.168 | 1.2830 | 6.68 |
| 30) | | Tetrahydrofuran | 0.813 | 1.149 | 1.042 | 1.123 | 0.998 | 0.844 | 0.983 | 0.947 | 0.939 | 0.890 | 1.044 | 0.9793 | 10.94 |
| 31) | C | 1,2-dichloro... | 1.054 | 1.177 | 0.967 | 1.130 | 0.979 | 0.928 | 0.950 | 0.917 | 0.920 | 0.878 | 1.025 | 0.9932 | 9.49 |

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Method File : TSIM121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 12:37:31 2012
Response Via : Initial Calibration

Calibration Files
0.02=R125417.D 0.04=R125418.D 0.1 =R125419.D 0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D
2.5 =R125423.D 5.0 =R125424.D 10.0=R125425.D 20.0=R125426.D 50.0=R125427.D

| | | Compound | 0.02 | 0.04 | 0.1 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | | | | |
| 33) | C | hexane | 0.442 | 0.511 | 0.524 | 0.415 | 0.534 | 0.431 | 0.512 | 0.497 | 0.501 | 0.481 | 0.384 | 0.4757 | 10.45 |
| 34) | s | 1,2-dichloro... | 0.261 | 0.322 | 0.323 | 0.321 | 0.324 | 0.259 | 0.323 | 0.322 | 0.324 | 0.325 | 0.328 | 0.3119 | 8.28 |
| 35) | C | 1,1,1-trichl... | 0.547 | 0.533 | 0.576 | 0.563 | 0.607 | 0.581 | 0.593 | 0.581 | 0.579 | 0.559 | 0.570 | 0.5716 | 3.59 |
| 36) | C | benzene | | 0.838 | 0.858 | 0.803 | 0.868 | 0.824 | 0.831 | 0.806 | 0.813 | 0.786 | 0.793 | 0.8219 | 3.29 |
| 37) | C | carbon tetra... | 0.574 | 0.552 | 0.597 | 0.575 | 0.627 | 0.597 | 0.619 | 0.605 | 0.614 | 0.601 | 0.609 | 0.5972 | 3.72 |
| 38) | | cyclohexane | 0.570 | 0.506 | 0.540 | 0.510 | 0.551 | 0.531 | 0.533 | 0.515 | 0.520 | 0.499 | 0.507 | 0.5257 | 4.13 |
| 39) | C | 1,2-dichloro... | 0.377 | 0.351 | 0.381 | 0.365 | 0.394 | 0.376 | 0.381 | 0.369 | 0.374 | 0.360 | 0.364 | 0.3720 | 3.19 |
| 40) | | bromodichlor... | 0.625 | 0.589 | 0.639 | 0.619 | 0.670 | 0.649 | 0.658 | 0.655 | 0.654 | 0.649 | 0.657 | 0.6421 | 3.59 |
| 41) | C | 1,4-dioxane | 0.207 | 0.173 | 0.185 | 0.179 | 0.191 | 0.183 | 0.185 | 0.181 | 0.185 | 0.180 | 0.185 | 0.1848 | 4.66 |
| 42) | C | trichloroethene | 0.391 | 0.371 | 0.406 | 0.392 | 0.422 | 0.403 | 0.414 | 0.403 | 0.402 | 0.394 | 0.401 | 0.3999 | 3.29 |
| 43) | C | 2,2,4-trimet... | 1.663 | 1.590 | 1.699 | 1.640 | 1.780 | 1.713 | 1.720 | 1.664 | 1.655 | 1.600 | 1.578 | 1.6638 | 3.70 |
| 44) | | heptane | 0.775 | 0.737 | 0.733 | 0.696 | 0.753 | 0.714 | 0.725 | 0.703 | 0.707 | 0.675 | 0.676 | 0.7177 | 4.31 |
| 45) | C | cis-1,3-dich... | 0.434 | 0.412 | 0.454 | 0.439 | 0.479 | 0.461 | 0.473 | 0.463 | 0.474 | 0.462 | 0.470 | 0.4565 | 4.47 |
| 46) | C | 4-methyl-2-p... | 1.017 | 0.897 | 0.972 | 0.943 | 1.034 | 1.011 | 1.023 | 1.002 | 1.006 | 0.969 | 0.963 | 0.9852 | 4.16 |
| 47) | | trans-1,3-di... | 0.435 | 0.405 | 0.449 | 0.434 | 0.480 | 0.466 | 0.479 | 0.473 | 0.485 | 0.475 | 0.487 | 0.4608 | 5.72 |
| 48) | C | 1,1,2-trichl... | 0.357 | 0.329 | 0.361 | 0.353 | 0.380 | 0.367 | 0.373 | 0.360 | 0.366 | 0.357 | 0.361 | 0.3603 | 3.58 |
| 49) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | | | | |
| 50) | C | toluene | | 4.123 | 4.133 | 3.985 | 4.334 | 4.129 | 4.123 | 4.013 | 4.001 | 3.852 | 3.824 | 4.0516 | 3.71 |
| 51) | s | toluene-D8 | 2.966 | 2.968 | 2.952 | 2.956 | 2.964 | 2.910 | 2.940 | 2.941 | 2.964 | 2.941 | 2.969 | 2.9518 | 0.60 |
| 52) | | 2-hexanone | 3.139 | 2.996 | 3.515 | 3.446 | 3.730 | 3.754 | 3.857 | 3.842 | 3.876 | 3.684 | 3.574 | 3.5831 | 8.16 |
| 53) | | dibromochlor... | 2.536 | 2.438 | 2.682 | 2.593 | 2.865 | 2.768 | 2.904 | 2.899 | 2.946 | 2.886 | 3.007 | 2.7748 | 6.72 |
| 54) | C | 1,2-dibromoe... | 2.318 | 2.185 | 2.399 | 2.338 | 2.568 | 2.484 | 2.536 | 2.478 | 2.493 | 2.412 | 2.446 | 2.4233 | 4.55 |
| 55) | C | tetrachloroe... | 1.907 | 1.846 | 1.985 | 1.920 | 2.096 | 2.005 | 2.040 | 1.998 | 2.014 | 1.954 | 2.019 | 1.9804 | 3.51 |
| 56) | | 1,1,1,2-tetr... | 2.223 | 1.957 | 1.993 | 1.921 | 2.093 | 2.001 | 2.103 | 2.072 | 2.088 | 2.033 | 2.049 | 2.0483 | 4.02 |
| 57) | C | chlorobenzene | 3.407 | 3.193 | 3.402 | 3.262 | 3.582 | 3.425 | 3.485 | 3.423 | 3.442 | 3.319 | 3.324 | 3.3875 | 3.18 |
| 58) | C | ethylbenzene | 5.399 | 4.958 | 5.208 | 4.991 | 5.506 | 5.248 | 5.364 | 5.248 | 5.269 | 5.055 | 5.009 | 5.2048 | 3.49 |
| 59) | C | m+p-xylene | 4.156 | 3.832 | 4.015 | 3.891 | 4.303 | 4.108 | 4.225 | 4.123 | 4.147 | 3.982 | 3.893 | 4.0614 | 3.70 |
| 60) | C | bromoform | 3.400 | 2.622 | 2.633 | 2.452 | 2.712 | 2.606 | 2.808 | 2.826 | 2.929 | 2.932 | 3.075 | 2.8178 | 9.34 |
| 61) | C | styrene | 2.904 | 2.671 | 3.126 | 3.072 | 3.255 | 3.163 | 3.274 | 3.238 | 3.279 | 3.166 | 3.175 | 3.1203 | 5.90 |

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Method File : TSIM121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 12:37:31 2012
Response Via : Initial Calibration

Calibration Files
0.02=R125417.D 0.04=R125418.D 0.1 =R125419.D 0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D
2.5 =R125423.D 5.0 =R125424.D 10.0=R125425.D 20.0=R125426.D 50.0=R125427.D

| | Compound | 0.02 | 0.04 | 0.1 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 62) C | 1,1,2,2-tetr... | 3.113 | 3.044 | 3.305 | 3.203 | 3.576 | 3.456 | 3.568 | 3.501 | 3.540 | 3.395 | 3.312 | 3.3647 | 5.51 |
| 63) C | o-xylene | 4.239 | 3.947 | 4.223 | 4.071 | 4.422 | 4.243 | 4.347 | 4.251 | 4.278 | 4.102 | 3.927 | 4.1864 | 3.75 |
| 64) s | bromofluorob... | 2.280 | 2.281 | 2.284 | 2.278 | 2.289 | 2.241 | 2.274 | 2.286 | 2.321 | 2.289 | 2.337 | 2.2874 | 1.09 |
| 65) C | isopropylben... | 5.912 | 5.587 | 5.898 | 5.790 | 6.338 | 6.070 | 6.338 | 6.173 | 6.149 | 5.849 | 5.686 | 5.9809 | 4.22 |
| 66) | 4-ethyl toluene | 5.501 | 5.228 | 5.702 | 5.788 | 6.458 | 6.169 | 6.437 | 6.324 | 6.308 | 6.061 | 5.836 | 5.9829 | 6.76 |
| 67) | 1,3,5-trimet... | 5.143 | 4.547 | 4.994 | 4.798 | 5.258 | 4.986 | 5.168 | 5.051 | 5.113 | 4.888 | 4.813 | 4.9781 | 4.11 |
| 68) | tert-butylbe... | 5.323 | 4.981 | 5.327 | 5.261 | 5.892 | 5.667 | 5.948 | 5.836 | 5.813 | 5.465 | 5.041 | 5.5050 | 6.27 |
| 69) | 1,2,4-trimet... | 4.839 | 4.446 | 4.672 | 4.637 | 5.181 | 5.009 | 5.178 | 5.108 | 5.177 | 4.873 | 4.559 | 4.8799 | 5.54 |
| 70) C | Benzyl Chloride | 3.726 | 3.164 | 3.452 | 3.424 | 4.069 | 4.028 | 4.423 | 4.540 | 4.739 | 4.686 | 4.654 | 4.0820 | 13.97 |
| 71) | 1,3-dichloro... | 3.492 | 3.187 | 3.424 | 3.454 | 3.887 | 3.770 | 3.923 | 3.875 | 3.959 | 3.826 | 3.843 | 3.6946 | 6.99 |
| 72) C | 1,4-dichloro... | 3.842 | 3.320 | 3.561 | 3.506 | 4.022 | 3.850 | 3.995 | 3.951 | 4.016 | 3.919 | 3.915 | 3.8090 | 6.22 |
| 73) | sec-butylben... | 7.009 | 6.767 | 7.233 | 7.199 | 8.127 | 7.770 | 8.239 | 8.074 | 7.944 | 7.628 | 7.162 | 7.5592 | 6.71 |
| 74) | p-isopropylt... | 7.038 | 6.161 | 6.935 | 6.536 | 7.431 | 7.108 | 7.410 | 7.349 | 7.258 | 6.902 | 6.504 | 6.9666 | 5.96 |
| 75) | 1,2-dichloro... | 3.529 | 3.152 | 3.286 | 3.269 | 3.752 | 3.614 | 3.753 | 3.714 | 3.775 | 3.665 | 3.706 | 3.5649 | 6.31 |
| 76) | n-butylbenzene | 5.620 | 5.363 | 5.679 | 5.730 | 6.625 | 6.494 | 6.909 | 6.870 | 6.738 | 6.437 | 6.155 | 6.2383 | 8.90 |
| 77) C | 1,2,4-trichl... | 2.933 | 2.134 | 2.271 | 2.329 | 2.945 | 2.949 | 2.971 | 3.231 | 3.368 | 3.301 | 3.165 | 2.8723 | 15.05 |
| 78) | naphthalene | | 8.724 | 9.694 | 8.353 | 8.218 | 7.817 | 7.511 | 8.062 | 8.300 | 8.080 | 7.938 | 8.2696 | 7.23 |
| 79) | 1,2,3-trichl... | 2.887 | 2.191 | 2.295 | 2.369 | 3.053 | 3.036 | 2.866 | 3.142 | 3.428 | 3.393 | 3.423 | 2.9166 | 15.50 |
| 80) C | hexachlorobu... | 2.026 | 1.834 | 1.898 | 1.913 | 2.356 | 2.271 | 2.289 | 2.439 | 2.542 | 2.499 | 2.509 | 2.2341 | 12.03 |

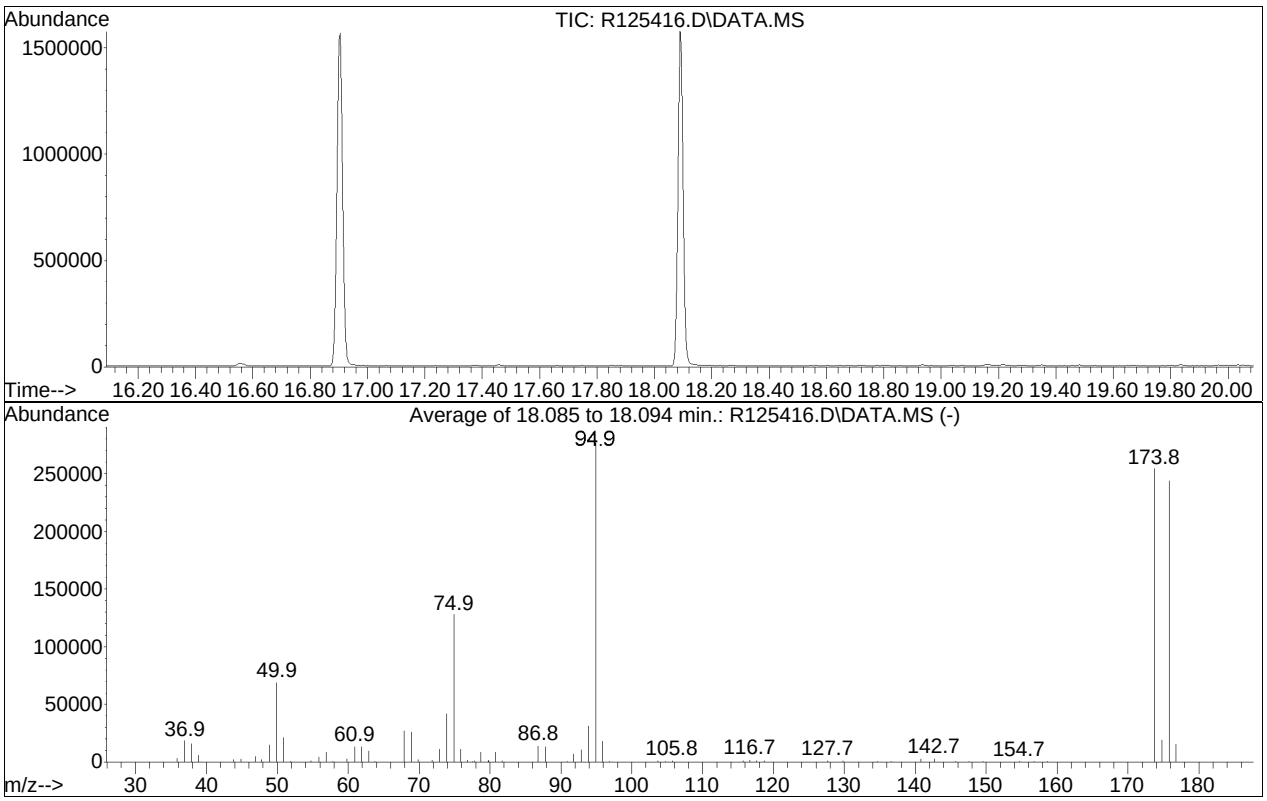
(#) = Out of Range

BFB

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125416.D
Acq On : 11 Dec 2012 4:25 pm
Operator : AIRPIANO1:RY
Sample : wg579024-1,3,250,250
Misc : wg579024
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 12:37:31 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 3246

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 24.9 | 69040 | PASS |
| 75 | 95 | 30 | 66 | 46.2 | 127963 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 276992 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 18243 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 91.9 | 254635 | PASS |
| 175 | 174 | 4 | 9 | 7.5 | 19205 | PASS |
| 176 | 174 | 93 | 101 | 95.7 | 243755 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 15665 | PASS |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125417.D
Acq On : 11 Dec 2012 4:57 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.02
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:13:40 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 314422 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 76.78% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 817597 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 95.79% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 205607 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 96.30% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 213283 | 8.110 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 81.10% | | | |
| 51) toluene-D8 | 15.22 | 98 | 609739 | 10.084 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.84% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 468824 | 9.973 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.73% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 549 | 0.033 | ppbV | 89 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 1119 | 0.028 | ppbV | 97 |
| 4) chloromethane | 4.40 | 50 | 828M4 | 0.043 | ppbV | |
| 5) Freon-114 | 4.55 | 85 | 1186 | 0.026 | ppbV | 97 |
| 6) vinyl chloride | 4.72 | 62 | 473 | 0.026 | ppbV # | 57 |
| 7) 1,3-butadiene | 4.91 | 54 | 349 | 0.024 | ppbV # | 29 |
| 8) bromomethane | 5.30 | 94 | 441 | 0.027 | ppbV # | 72 |
| 9) chloroethane | 5.55 | 64 | 236 | 0.029 | ppbV # | 23 |
| 10) ethanol | 5.76 | 31 | 3101 | 0.194 | ppbV # | 81 |
| 11) vinyl bromide | 6.04 | 106 | 411 | 0.025 | ppbV | 97 |
| 12) acetone | 6.43 | 43 | 8526 | 0.248 | ppbV # | 94 |
| 13) trichlorofluoromethane | 6.63 | 101 | 1240 | 0.025 | ppbV | 92 |
| 14) isopropyl alcohol | 6.79 | 45 | 2458M4 | 0.054 | ppbV | |
| 15) acrylonitrile | 7.04 | 53 | 505 | 0.030 | ppbV # | 80 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 765 | 0.025 | ppbV # | 70 |
| 17) methylene chloride | 7.64 | 49 | 4673 | 0.167 | ppbV | 95 |
| 18) 3-chloropropene | 7.80 | 41 | 726 | 0.026 | ppbV # | 81 |
| 19) carbon disulfide | 7.98 | 76 | 3070 | 0.063 | ppbV # | 1 |
| 20) Freon 113 | 7.99 | 101 | 848 | 0.024 | ppbV # | 91 |
| 21) Halothane | 8.59 | 117 | 632 | 0.023 | ppbV # | 82 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 682 | 0.023 | ppbV # | 78 |
| 23) 1,1-dichloroethane | 9.07 | 63 | 807 | 0.023 | ppbV # | 64 |
| 24) MTBE | 9.19 | 73 | 1018 | 0.025 | ppbV # | 1 |
| 25) vinyl acetate | 9.29 | 43 | 1570 | 0.028 | ppbV # | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125417.D
Acq On : 11 Dec 2012 4:57 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.02
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:13:40 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.60 | 43 | 1436 | 0.031 ppbV # | 86 |
| 27) | cis-1,2-dichloroethene | 10.08 | 61 | 622 | 0.021 ppbV # | 75 |
| 28) | Ethyl Acetate | 10.39 | 61 | 169 | 0.024 ppbV # | 75 |
| 29) | chloroform | 10.43 | 83 | 817 | 0.021 ppbV # | 94 |
| 30) | Tetrahydrofuran | 10.94 | 42 | 511M3 | 0.017 ppbV | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 663 | 0.023 ppbV # | 62 |
| 33) | hexane | 10.33 | 57 | 723 | 0.018 ppbV # | 61 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 894 | 0.019 ppbV # | 90 |
| 36) | benzene | 12.09 | 78 | 1567 | 0.024 ppbV # | 81 |
| 37) | carbon tetrachloride | 12.26 | 117 | 938 | 0.019 ppbV # | 89 |
| 38) | cyclohexane | 12.39 | 56 | 932 | 0.022 ppbV # | 66 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 617 | 0.020 ppbV # | 53 |
| 40) | bromodichloromethane | 13.25 | 83 | 1022 | 0.019 ppbV # | 96 |
| 41) | 1,4-dioxane | 13.35 | 88 | 338 | 0.023 ppbV | 95 |
| 42) | trichloroethene | 13.29 | 130 | 640 | 0.019 ppbV | 95 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 2719 | 0.020 ppbV # | 65 |
| 44) | heptane | 13.61 | 43 | 1267 | 0.022 ppbV # | 90 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 710 | 0.019 ppbV # | 41 |
| 46) | 4-methyl-2-pentanone | 14.36 | 43 | 1663 | 0.020 ppbV # | 89 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 711 | 0.018 ppbV # | 36 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 583M2 | 0.020 ppbV | |
| 50) | toluene | 15.32 | 91 | 1936 | 0.023 ppbV | 98 |
| 52) | 2-hexanone | 15.61 | 43 | 1291M4 | 0.016 ppbV | |
| 53) | dibromochloromethane | 15.73 | 129 | 1043 | 0.017 ppbV # | 97 |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 953 | 0.019 ppbV | 99 |
| 55) | tetrachloroethene | 16.37 | 166 | 784 | 0.019 ppbV # | 92 |
| 56) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 914 | 0.021 ppbV | 95 |
| 57) | chlorobenzene | 16.94 | 112 | 1401 | 0.020 ppbV # | 85 |
| 58) | ethylbenzene | 17.23 | 91 | 2220 | 0.021 ppbV | 98 |
| 59) | m+p-xylene | 17.38 | 91 | 3418 | 0.040 ppbV | 100 |
| 60) | bromoform | 17.46 | 173 | 1398 | 0.024 ppbV | 96 |
| 61) | styrene | 17.66 | 104 | 1194 | 0.018 ppbV | 95 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 1280 | 0.018 ppbV | 98 |
| 63) | o-xylene | 17.74 | 91 | 1743 | 0.020 ppbV | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 2431 | 0.019 ppbV | 97 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 2262 | 0.017 ppbV # | 94 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 2115 | 0.020 ppbV # | 97 |
| 68) | tert-butylbenzene | 19.03 | 119 | 2189 | 0.018 ppbV | 98 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 1990 | 0.019 ppbV | 99 |
| 70) | Benzyl Chloride | 19.15 | 91 | 1532 | 0.016 ppbV | 99 |
| 71) | 1,3-dichlorobenzene | 19.17 | 146 | 1436 | 0.018 ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125417.D
Acq On : 11 Dec 2012 4:57 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.02
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:13:40 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 1580M3 | 0.019 | ppbV | |
| 73) sec-butylbenzene | 19.23 | 105 | 2882 | 0.017 | ppbV | 98 |
| 74) p-isopropyltoluene | 19.35 | 119 | 2894 | 0.019 | ppbV | 98 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 1451 | 0.019 | ppbV # | 84 |
| 76) n-butylbenzene | 19.67 | 91 | 2311 | 0.016 | ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 1206 | 0.018 | ppbV # | 87 |
| 78) naphthalene | 21.05 | 128 | 6818 | 0.041 | ppbV | 96 |
| 79) 1,2,3-trichlorobenzene | 21.31 | 180 | 1187 | 0.018 | ppbV # | 89 |
| 80) hexachlorobutadiene | 21.36 | 225 | 833 | 0.017 | ppbV | 91 |

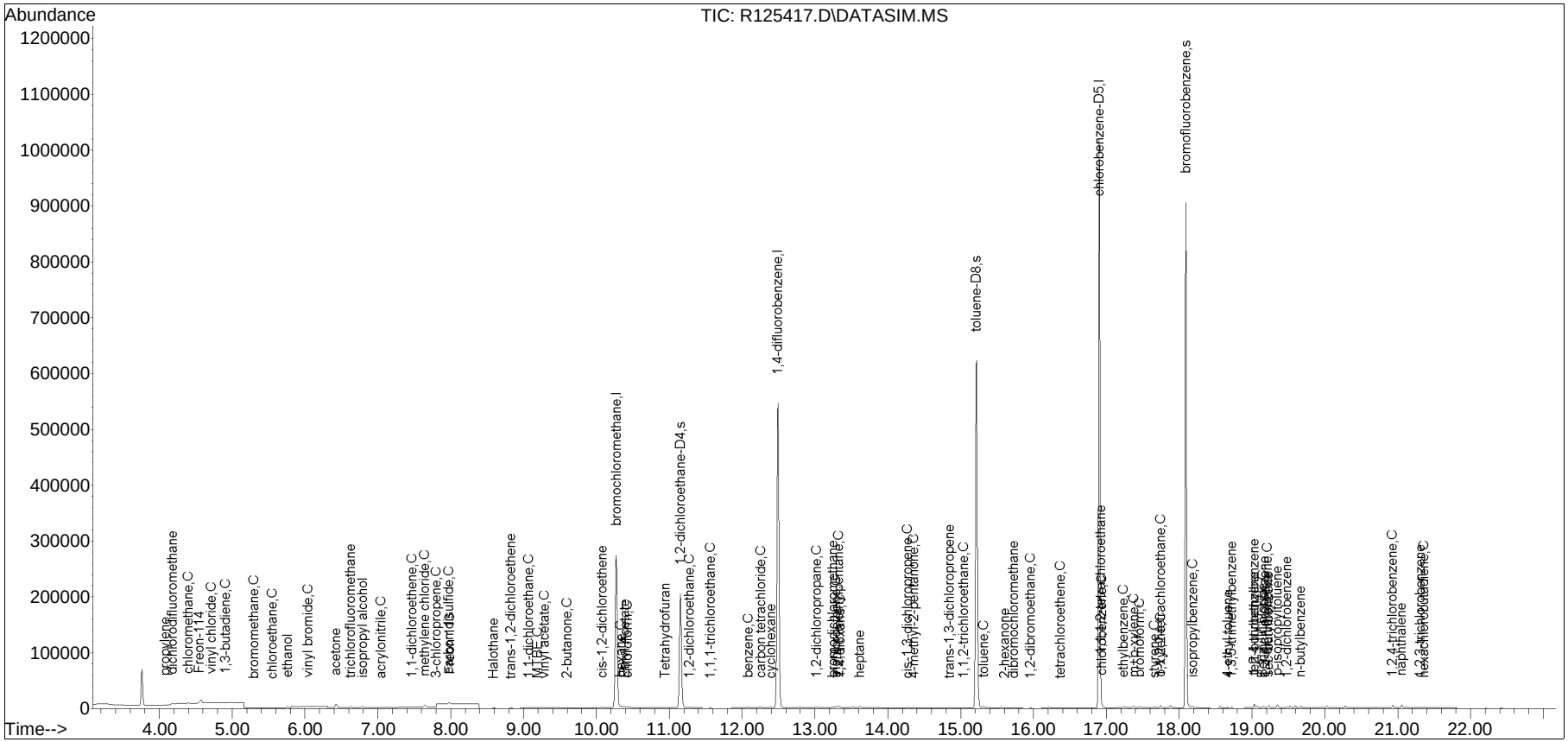
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125417.D
Acq On : 11 Dec 2012 4:57 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.02
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:13:40 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

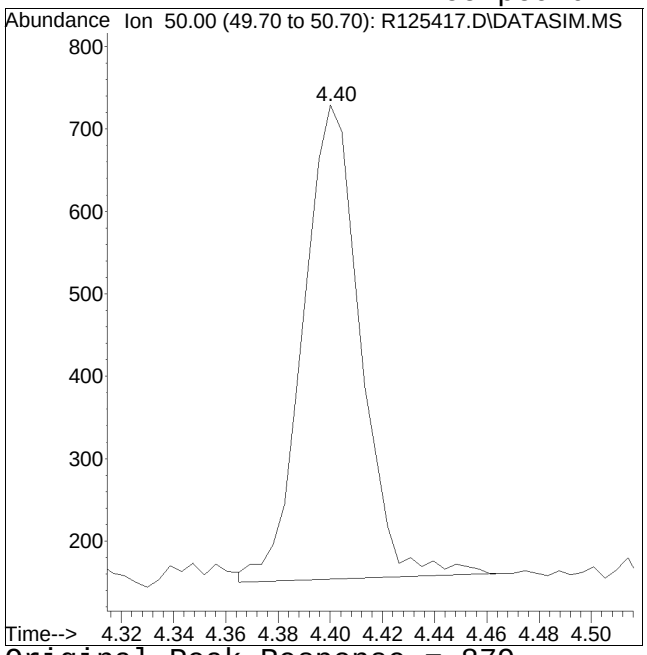


Manual Integration/Negative Proof Report

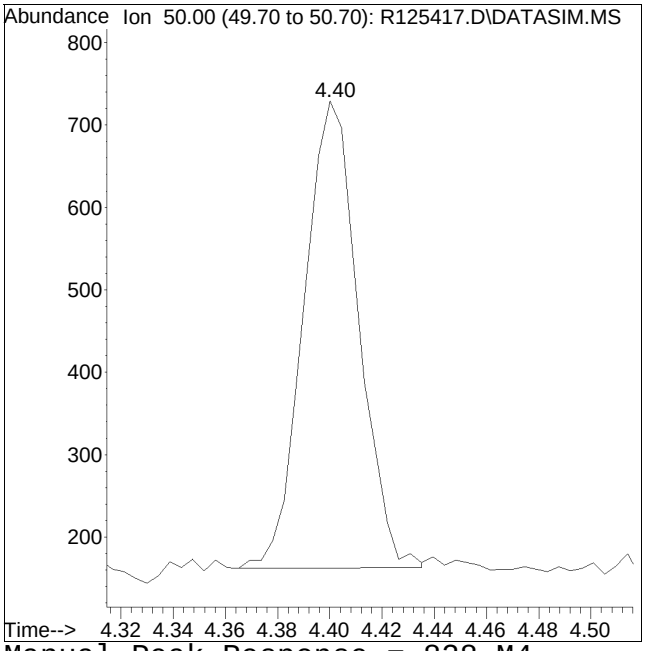
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #4: chloromethane




Original Peak Response = 879




Manual Peak Response = 828 M4

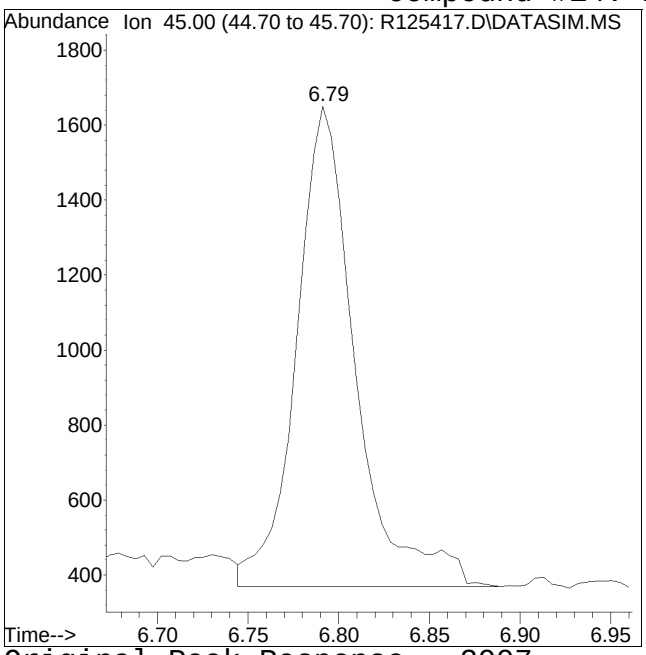
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

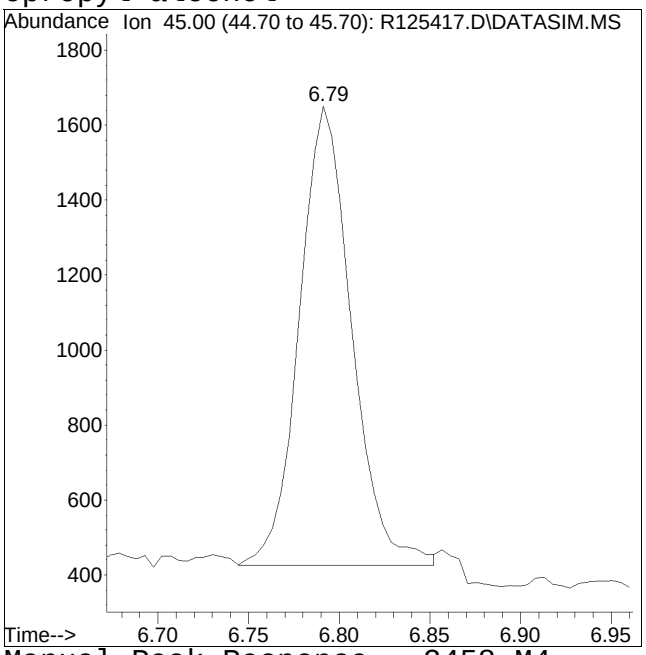
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #14: isopropyl alcohol




Original Peak Response = 2907




Manual Peak Response = 2458 M4

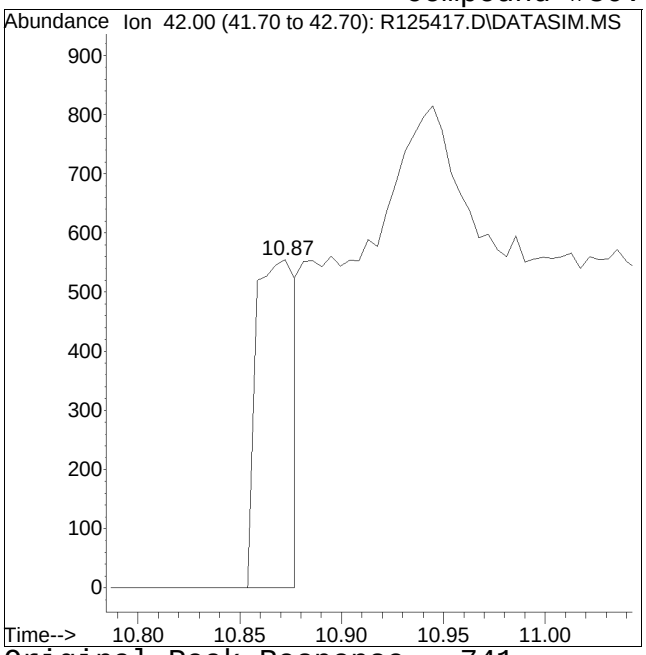
M4 = Poor automated baseline construction.

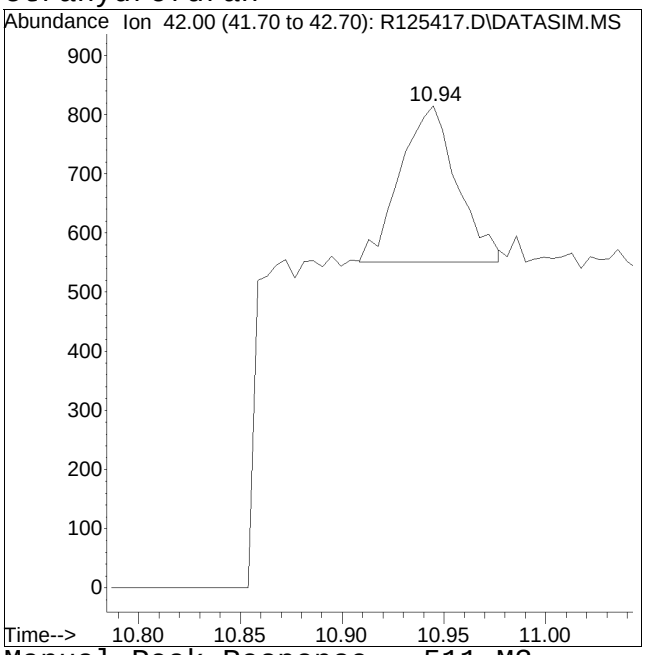
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 741 Manual Peak Response = 511 M3

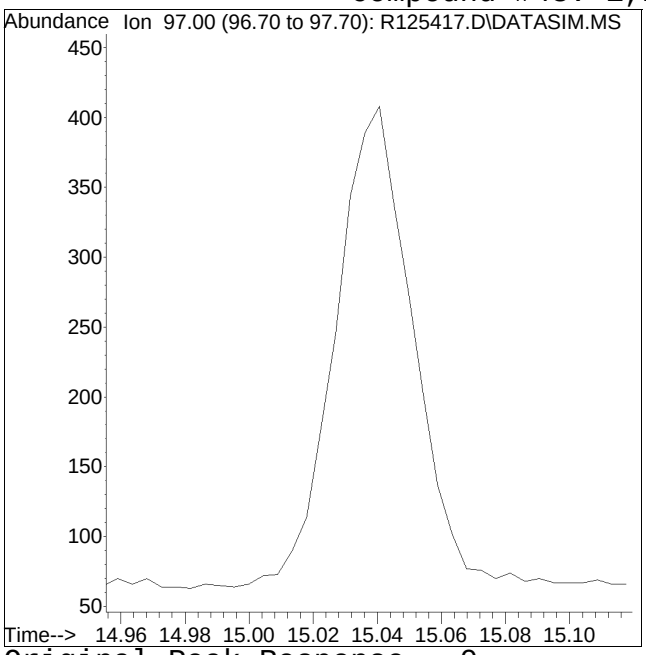
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

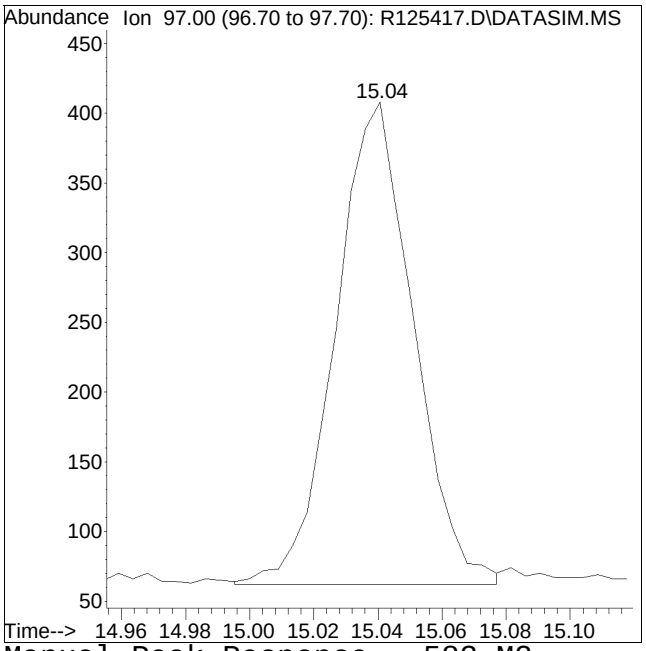
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #48: 1,1,2-trichloroethane



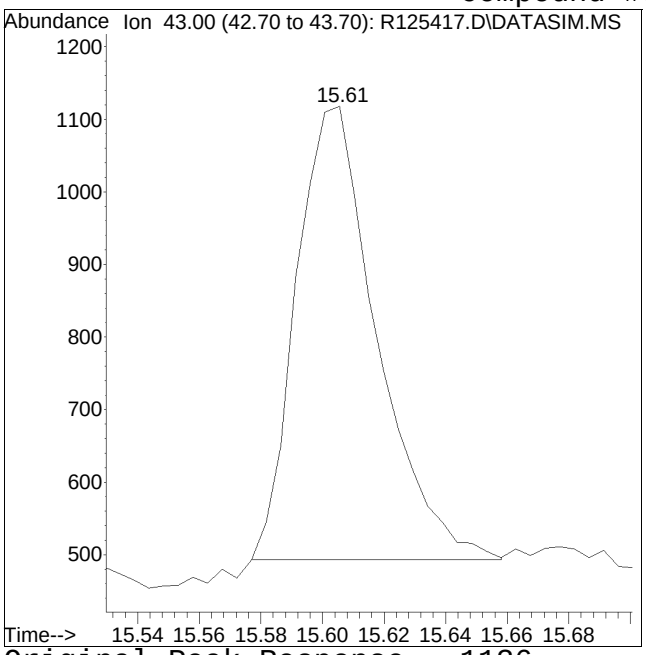

Original Peak Response = 0 Manual Peak Response = 583 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

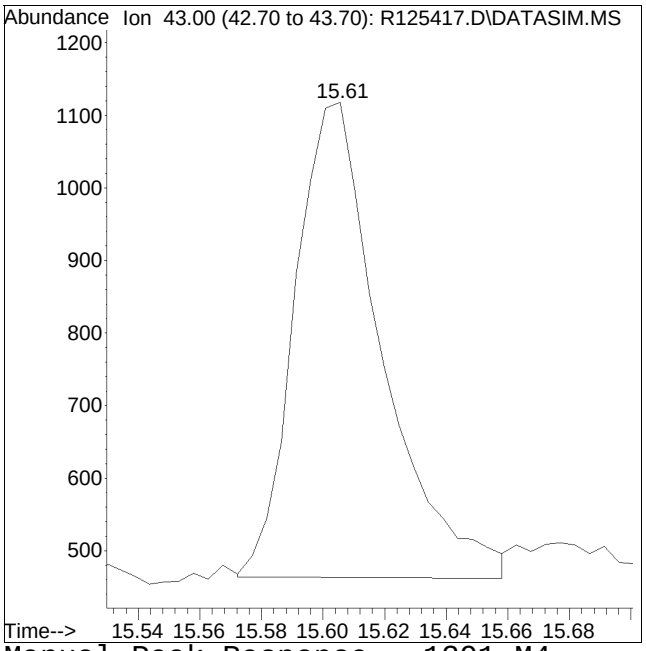
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #52: 2-hexanone




Original Peak Response = 1136




Manual Peak Response = 1291 M4

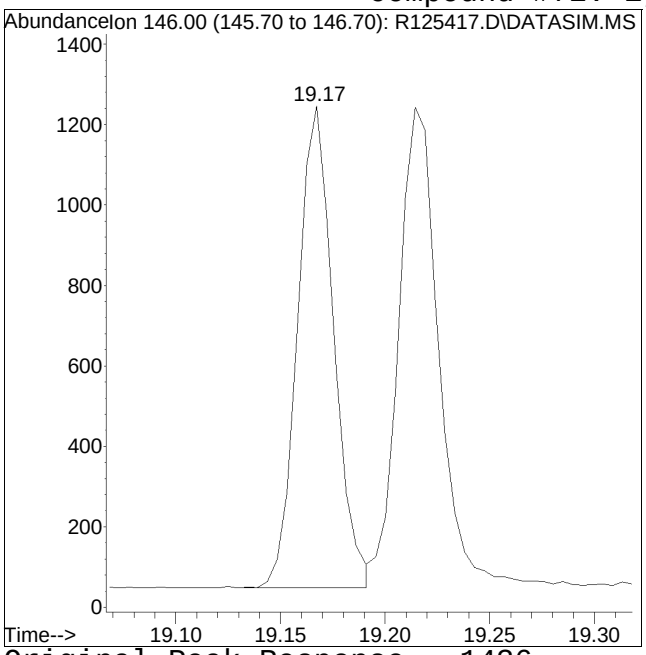
M4 = Poor automated baseline construction.

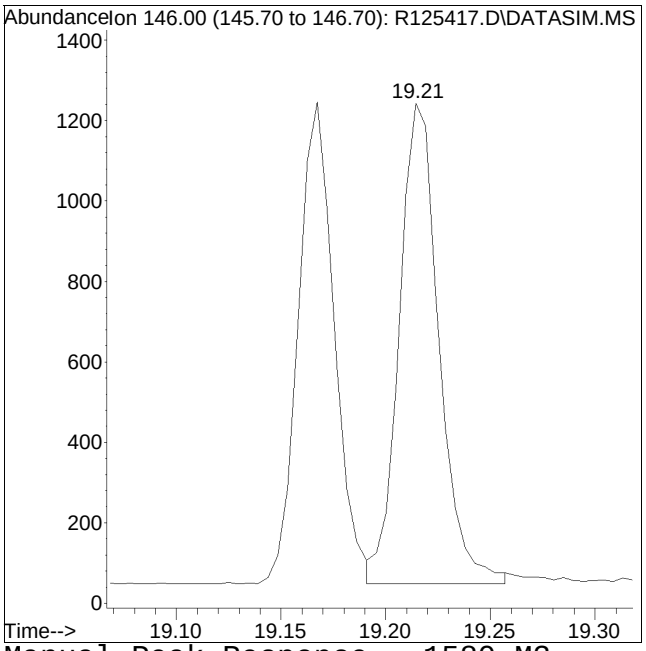
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125417.D
Date Inj'd : 12/11/2012 4:57 pm
Sample : ITO15-SIMSTD0.02

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:09 pm

Compound #72: 1,4-dichlorobenzene




Original Peak Response = 1436 Manual Peak Response = 1580 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125418.D
Acq On : 11 Dec 2012 5:29 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.04
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:15:39 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 317883 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 77.63% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 823869 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 96.52% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 205846 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 96.41% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 265330 | 10.012 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.12% | | | |
| 51) toluene-D8 | 15.22 | 98 | 610857 | 10.091 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.91% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 469601 | 9.978 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.78% | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) propylene | 4.08 | 41 | 995 | 0.059 | ppbV | 95 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 2115 | 0.051 | ppbV | 98 |
| 4) chloromethane | 4.40 | 50 | 1369M4 | 0.070 | ppbV | |
| 5) Freon-114 | 4.55 | 85 | 2265 | 0.049 | ppbV | 99 |
| 6) vinyl chloride | 4.72 | 62 | 898 | 0.049 | ppbV # | 79 |
| 7) 1,3-butadiene | 4.92 | 54 | 688 | 0.048 | ppbV # | 54 |
| 8) bromomethane | 5.30 | 94 | 831 | 0.050 | ppbV | 85 |
| 9) chloroethane | 5.56 | 64 | 418 | 0.051 | ppbV # | 51 |
| 10) ethanol | 5.76 | 31 | 5658 | 0.350 | ppbV | 90 |
| 11) vinyl bromide | 6.04 | 106 | 784 | 0.047 | ppbV | 99 |
| 12) acetone | 6.43 | 43 | 14301 | 0.411 | ppbV # | 95 |
| 13) trichlorofluoromethane | 6.63 | 101 | 2394 | 0.047 | ppbV | 93 |
| 14) isopropyl alcohol | 6.79 | 45 | 3481 | 0.075 | ppbV # | 93 |
| 15) acrylonitrile | 7.05 | 53 | 828 | 0.049 | ppbV # | 84 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 1488 | 0.048 | ppbV # | 85 |
| 17) methylene chloride | 7.65 | 49 | 5630 | 0.199 | ppbV | 94 |
| 18) 3-chloropropene | 7.80 | 41 | 1346 | 0.048 | ppbV # | 85 |
| 19) carbon disulfide | 7.98 | 76 | 4094 | 0.083 | ppbV # | 1 |
| 20) Freon 113 | 7.99 | 101 | 1653 | 0.047 | ppbV | 95 |
| 21) Halothane | 8.59 | 117 | 1263 | 0.046 | ppbV # | 90 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 1400 | 0.046 | ppbV | 90 |
| 23) 1,1-dichloroethane | 9.07 | 63 | 1650 | 0.047 | ppbV # | 79 |
| 24) MTBE | 9.19 | 73 | 1941 | 0.047 | ppbV # | 1 |
| 25) vinyl acetate | 9.28 | 43 | 2875M4 | 0.050 | ppbV | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125418.D
Acq On : 11 Dec 2012 5:29 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.04
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:15:39 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.60 | 43 | 2612 | 0.055 | ppbV | # | 90 |
| 27) | cis-1,2-dichloroethene | 10.08 | 61 | 1202 | 0.040 | ppbV | # | 84 |
| 28) | Ethyl Acetate | 10.39 | 61 | 318 | 0.044 | ppbV | # | 98 |
| 29) | chloroform | 10.43 | 83 | 1785 | 0.046 | ppbV | | 96 |
| 30) | Tetrahydrofuran | 10.94 | 42 | 1461M4 | 0.049 | ppbV | | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 1497 | 0.051 | ppbV | # | 84 |
| 33) | hexane | 10.33 | 57 | 1685 | 0.041 | ppbV | # | 96 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 1758 | 0.037 | ppbV | # | 94 |
| 36) | benzene | 12.08 | 78 | 2762 | 0.042 | ppbV | # | 90 |
| 37) | carbon tetrachloride | 12.26 | 117 | 1820 | 0.037 | ppbV | # | 94 |
| 38) | cyclohexane | 12.40 | 56 | 1669 | 0.039 | ppbV | # | 87 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 1157 | 0.038 | ppbV | # | 77 |
| 40) | bromodichloromethane | 13.25 | 83 | 1941 | 0.036 | ppbV | # | 95 |
| 41) | 1,4-dioxane | 13.34 | 88 | 569 | 0.038 | ppbV | # | 78 |
| 42) | trichloroethene | 13.29 | 130 | 1223 | 0.037 | ppbV | | 96 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 5239 | 0.038 | ppbV | # | 86 |
| 44) | heptane | 13.61 | 43 | 2428 | 0.042 | ppbV | | 91 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 1358 | 0.036 | ppbV | # | 66 |
| 46) | 4-methyl-2-pentanone | 14.35 | 43 | 2955 | 0.036 | ppbV | | 94 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 1335 | 0.034 | ppbV | # | 68 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 1085 | 0.037 | ppbV | | 98 |
| 50) | toluene | 15.32 | 91 | 3395 | 0.041 | ppbV | | 99 |
| 52) | 2-hexanone | 15.60 | 43 | 2467M4 | 0.031 | ppbV | | |
| 53) | dibromochloromethane | 15.73 | 129 | 2007 | 0.034 | ppbV | | 98 |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 1799 | 0.035 | ppbV | | 100 |
| 55) | tetrachloroethene | 16.37 | 166 | 1520 | 0.037 | ppbV | | 97 |
| 56) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 1611 | 0.038 | ppbV | | 97 |
| 57) | chlorobenzene | 16.94 | 112 | 2629 | 0.037 | ppbV | | 96 |
| 58) | ethylbenzene | 17.23 | 91 | 4082 | 0.038 | ppbV | | 98 |
| 59) | m+p-xylene | 17.37 | 91 | 6311 | 0.074 | ppbV | | 98 |
| 60) | bromoform | 17.46 | 173 | 2159 | 0.037 | ppbV | | 97 |
| 61) | styrene | 17.66 | 104 | 2199 | 0.033 | ppbV | | 97 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 2506 | 0.035 | ppbV | | 99 |
| 63) | o-xylene | 17.74 | 91 | 3250 | 0.037 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 4600 | 0.036 | ppbV | | 98 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 4305 | 0.033 | ppbV | # | 97 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 3744 | 0.036 | ppbV | # | 98 |
| 68) | tert-butylbenzene | 19.03 | 119 | 4101 | 0.034 | ppbV | | 97 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 3661 | 0.035 | ppbV | | 97 |
| 70) | Benzyl Chloride | 19.15 | 91 | 2605 | 0.028 | ppbV | | 98 |
| 71) | 1,3-dichlorobenzene | 19.17 | 146 | 2624 | 0.033 | ppbV | | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125418.D
Acq On : 11 Dec 2012 5:29 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.04
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:15:39 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 2734 | 0.034 | ppbV | 94 |
| 73) sec-butylbenzene | 19.23 | 105 | 5572 | 0.034 | ppbV | 99 |
| 74) p-isopropyltoluene | 19.34 | 119 | 5073 | 0.034 | ppbV | 97 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 2595 | 0.034 | ppbV | 96 |
| 76) n-butylbenzene | 19.67 | 91 | 4416 | 0.031 | ppbV | 98 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 1757 | 0.026 | ppbV | 94 |
| 78) naphthalene | 21.05 | 128 | 7183 | 0.043 | ppbV | 99 |
| 79) 1,2,3-trichlorobenzene | 21.31 | 180 | 1804 | 0.028 | ppbV | 95 |
| 80) hexachlorobutadiene | 21.36 | 225 | 1510 | 0.030 | ppbV | 92 |

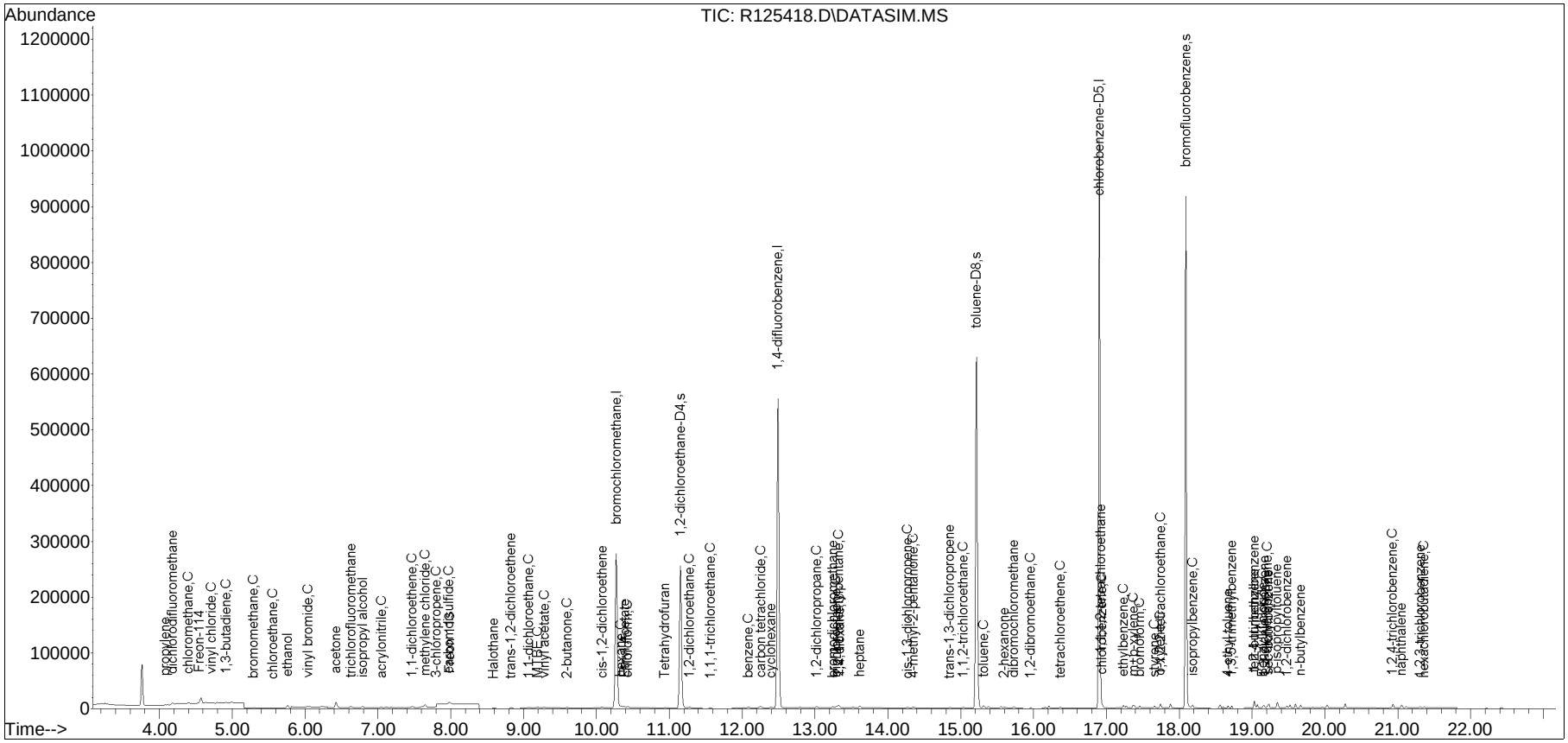
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125418.D
Acq On : 11 Dec 2012 5:29 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.04
Misc : wg579024
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 12:15:39 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

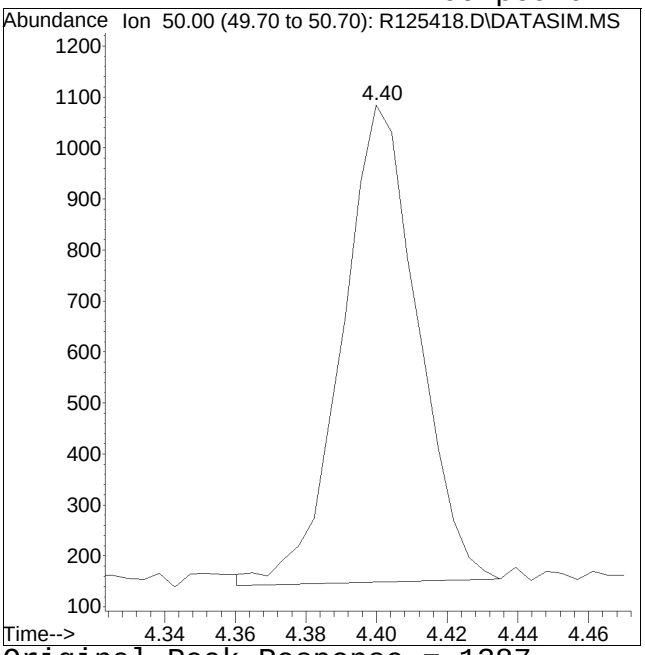


Manual Integration/Negative Proof Report

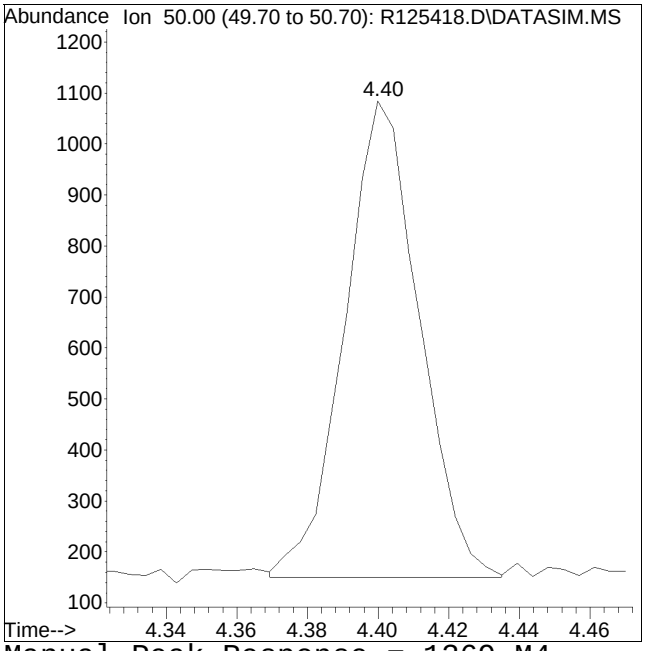
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125418.D
Date Inj'd : 12/11/2012 5:29 pm
Sample : ITO15-SIMSTD0.04

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #4: chloromethane




Original Peak Response = 1387




Manual Peak Response = 1369 M4

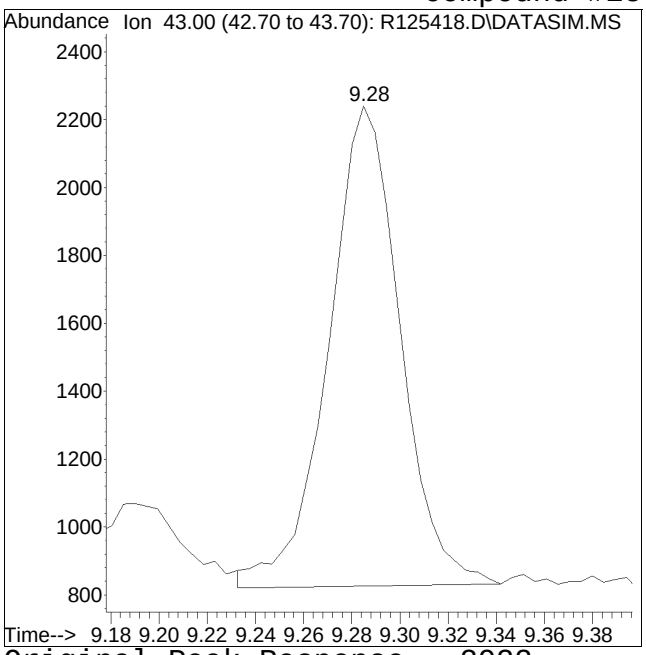
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

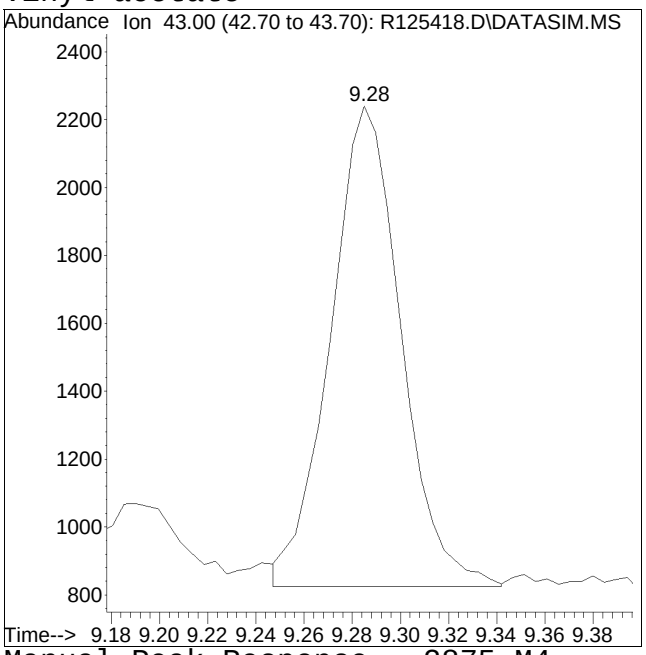
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125418.D
Date Inj'd : 12/11/2012 5:29 pm
Sample : ITO15-SIMSTD0.04

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #25: vinyl acetate




Original Peak Response = 2922




Manual Peak Response = 2875 M4

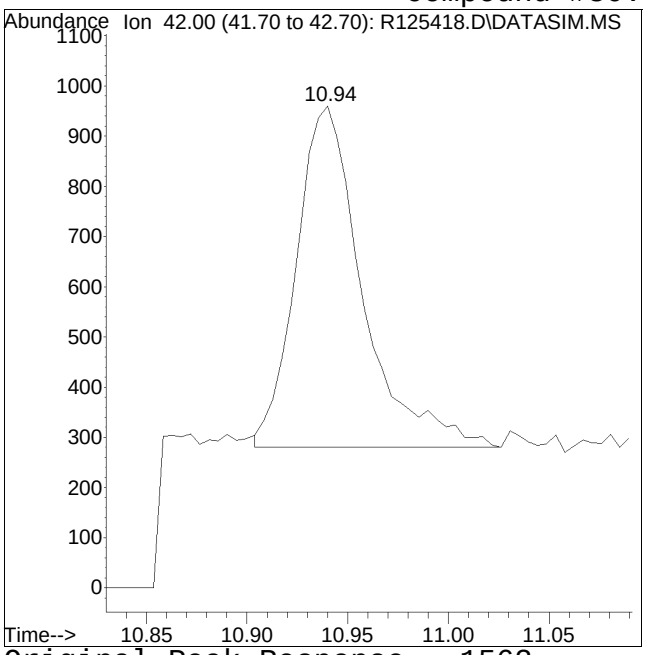
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

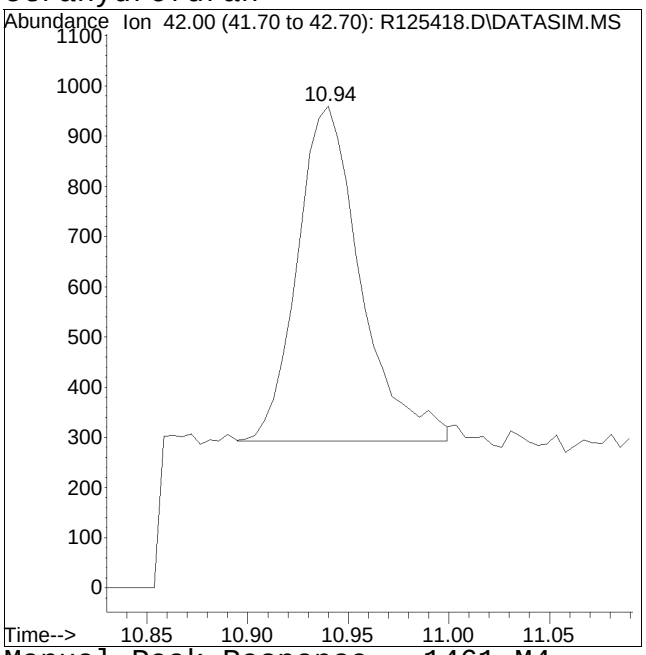
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125418.D
Date Inj'd : 12/11/2012 5:29 pm
Sample : ITO15-SIMSTD0.04

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 1562




Manual Peak Response = 1461 M4

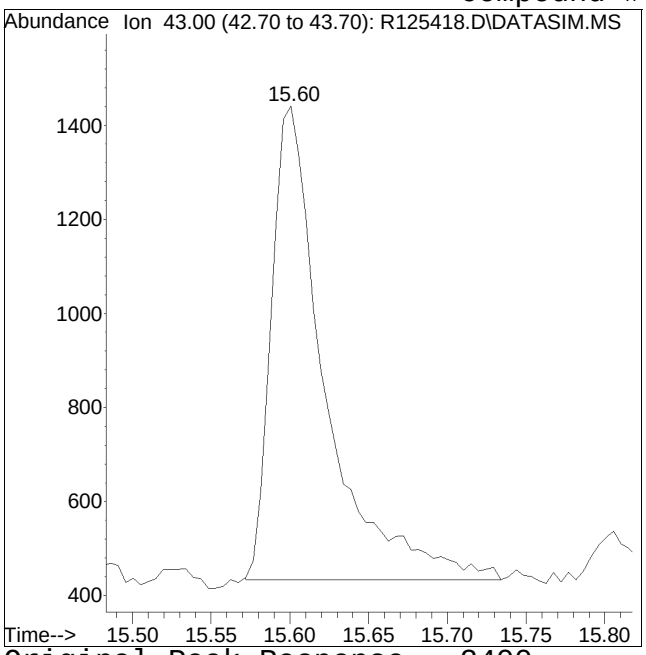
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

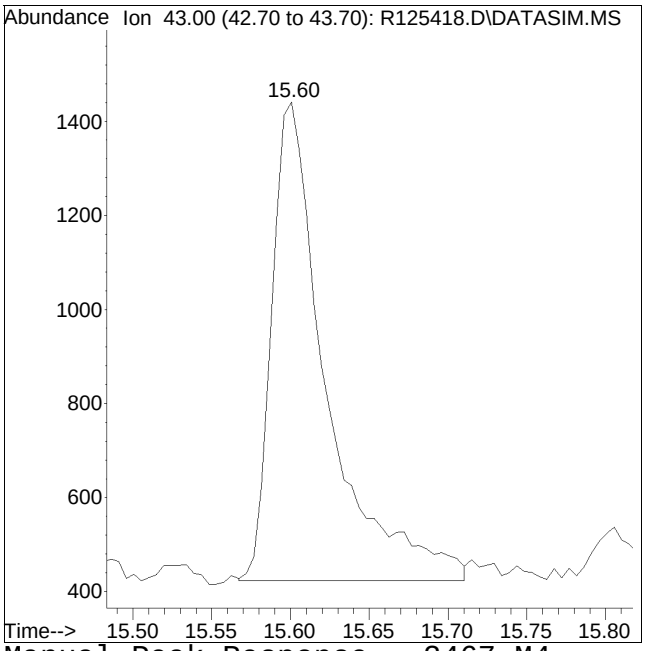
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125418.D
Date Inj'd : 12/11/2012 5:29 pm
Sample : ITO15-SIMSTD0.04

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #52: 2-hexanone




Original Peak Response = 2400




Manual Peak Response = 2467 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125419.D
Acq On : 11 Dec 2012 6:01 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.1
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:17:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 385018 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 94.02% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 820248 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 96.10% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 206891 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 96.90% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 264621 | 10.030 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.30% | | | |
| 51) toluene-D8 | 15.22 | 98 | 610665 | 10.037 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.37% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 472632 | 9.992 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.92% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 2330 | 0.114 | ppbV | 98 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 5416 | 0.109 | ppbV | 98 |
| 4) chloromethane | 4.40 | 50 | 2878 | 0.122 | ppbV | 94 |
| 5) Freon-114 | 4.55 | 85 | 5956 | 0.106 | ppbV | 99 |
| 6) vinyl chloride | 4.72 | 62 | 2365 | 0.106 | ppbV # | 88 |
| 7) 1,3-butadiene | 4.92 | 54 | 1893 | 0.108 | ppbV | 86 |
| 8) bromomethane | 5.30 | 94 | 2168 | 0.107 | ppbV | 92 |
| 9) chloroethane | 5.55 | 64 | 1068 | 0.107 | ppbV # | 79 |
| 10) ethanol | 5.76 | 31 | 10410 | 0.531 | ppbV | 96 |
| 11) vinyl bromide | 6.04 | 106 | 2175 | 0.107 | ppbV | 96 |
| 12) acetone | 6.42 | 43 | 26795 | 0.636 | ppbV # | 97 |
| 13) trichlorofluoromethane | 6.63 | 101 | 6360 | 0.104 | ppbV | 97 |
| 14) isopropyl alcohol | 6.79 | 45 | 9581 | 0.171 | ppbV # | 97 |
| 15) acrylonitrile | 7.04 | 53 | 2130M6 | 0.104 | ppbV | |
| 16) 1,1-dichloroethene | 7.47 | 61 | 3951 | 0.104 | ppbV | 95 |
| 17) methylene chloride | 7.65 | 49 | 7631 | 0.223 | ppbV | 96 |
| 18) 3-chloropropene | 7.80 | 41 | 3504 | 0.103 | ppbV | 92 |
| 19) carbon disulfide | 7.98 | 76 | 7726 | 0.129 | ppbV # | 1 |
| 20) Freon 113 | 8.00 | 101 | 4443 | 0.104 | ppbV | 98 |
| 21) Halothane | 8.59 | 117 | 3401 | 0.103 | ppbV | 97 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 3740 | 0.101 | ppbV | 96 |
| 23) 1,1-dichloroethane | 9.07 | 63 | 4395 | 0.103 | ppbV | 92 |
| 24) MTBE | 9.19 | 73 | 5197 | 0.103 | ppbV # | 64 |
| 25) vinyl acetate | 9.29 | 43 | 7193 | 0.103 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125419.D
Acq On : 11 Dec 2012 6:01 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.1
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:17:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.59 | 43 | 6213 | 0.108 | ppbV | # | 95 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 3231 | 0.088 | ppbV | | 95 |
| 28) | Ethyl Acetate | 10.38 | 61 | 872 | 0.100 | ppbV | | 98 |
| 29) | chloroform | 10.43 | 83 | 4831 | 0.102 | ppbV | | 98 |
| 30) | Tetrahydrofuran | 10.94 | 42 | 4013M4 | 0.110 | ppbV | | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 3723 | 0.105 | ppbV | # | 95 |
| 33) | hexane | 10.33 | 57 | 4297 | 0.105 | ppbV | # | 67 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 4721 | 0.099 | ppbV | | 99 |
| 36) | benzene | 12.09 | 78 | 7035 | 0.106 | ppbV | | 97 |
| 37) | carbon tetrachloride | 12.26 | 117 | 4894 | 0.099 | ppbV | | 98 |
| 38) | cyclohexane | 12.40 | 56 | 4428 | 0.105 | ppbV | | 94 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 3127 | 0.103 | ppbV | # | 90 |
| 40) | bromodichloromethane | 13.24 | 83 | 5243 | 0.098 | ppbV | | 99 |
| 41) | 1,4-dioxane | 13.33 | 88 | 1521 | 0.103 | ppbV | # | 72 |
| 42) | trichloroethene | 13.29 | 130 | 3331 | 0.101 | ppbV | | 96 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 13936 | 0.102 | ppbV | | 94 |
| 44) | heptane | 13.61 | 43 | 6015 | 0.104 | ppbV | | 97 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 3723 | 0.098 | ppbV | | 90 |
| 46) | 4-methyl-2-pentanone | 14.34 | 43 | 7969 | 0.097 | ppbV | | 98 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 3686 | 0.095 | ppbV | | 87 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 2963 | 0.100 | ppbV | | 99 |
| 50) | toluene | 15.32 | 91 | 8551 | 0.103 | ppbV | | 99 |
| 52) | 2-hexanone | 15.59 | 43 | 7272 | 0.091 | ppbV | | 91 |
| 53) | dibromochloromethane | 15.73 | 129 | 5548 | 0.093 | ppbV | | 99 |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 4963 | 0.097 | ppbV | | 98 |
| 55) | tetrachloroethene | 16.37 | 166 | 4107 | 0.099 | ppbV | | 99 |
| 56) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 4123 | 0.096 | ppbV | | 98 |
| 57) | chlorobenzene | 16.94 | 112 | 7038 | 0.099 | ppbV | | 98 |
| 58) | ethylbenzene | 17.23 | 91 | 10775 | 0.099 | ppbV | | 97 |
| 59) | m+p-xylene | 17.37 | 91 | 16613 | 0.195 | ppbV | | 99 |
| 60) | bromoform | 17.46 | 173 | 5448 | 0.093 | ppbV | | 98 |
| 61) | styrene | 17.66 | 104 | 6468 | 0.097 | ppbV | | 98 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 6838 | 0.094 | ppbV | | 98 |
| 63) | o-xylene | 17.74 | 91 | 8737 | 0.099 | ppbV | | 97 |
| 65) | isopropylbenzene | 18.18 | 105 | 12202 | 0.096 | ppbV | | 100 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 11797 | 0.090 | ppbV | | 99 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 10332 | 0.099 | ppbV | | 99 |
| 68) | tert-butylbenzene | 19.03 | 119 | 11021 | 0.091 | ppbV | | 99 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 9666 | 0.091 | ppbV | | 98 |
| 70) | Benzyl Chloride | 19.15 | 91 | 7141 | 0.076 | ppbV | | 98 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 7083 | 0.088 | ppbV | | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125419.D
Acq On : 11 Dec 2012 6:01 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.1
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:17:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 7368 | 0.090 | ppbV | 99 |
| 73) sec-butylbenzene | 19.23 | 105 | 14965 | 0.090 | ppbV | 99 |
| 74) p-isopropyltoluene | 19.34 | 119 | 14348 | 0.094 | ppbV | 100 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 6798 | 0.088 | ppbV | 99 |
| 76) n-butylbenzene | 19.67 | 91 | 11750 | 0.083 | ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 4699 | 0.070 | ppbV | 99 |
| 78) naphthalene | 21.05 | 128 | 20057 | 0.120 | ppbV | 99 |
| 79) 1,2,3-trichlorobenzene | 21.31 | 180 | 4749 | 0.073 | ppbV | 98 |
| 80) hexachlorobutadiene | 21.36 | 225 | 3926 | 0.078 | ppbV | 99 |

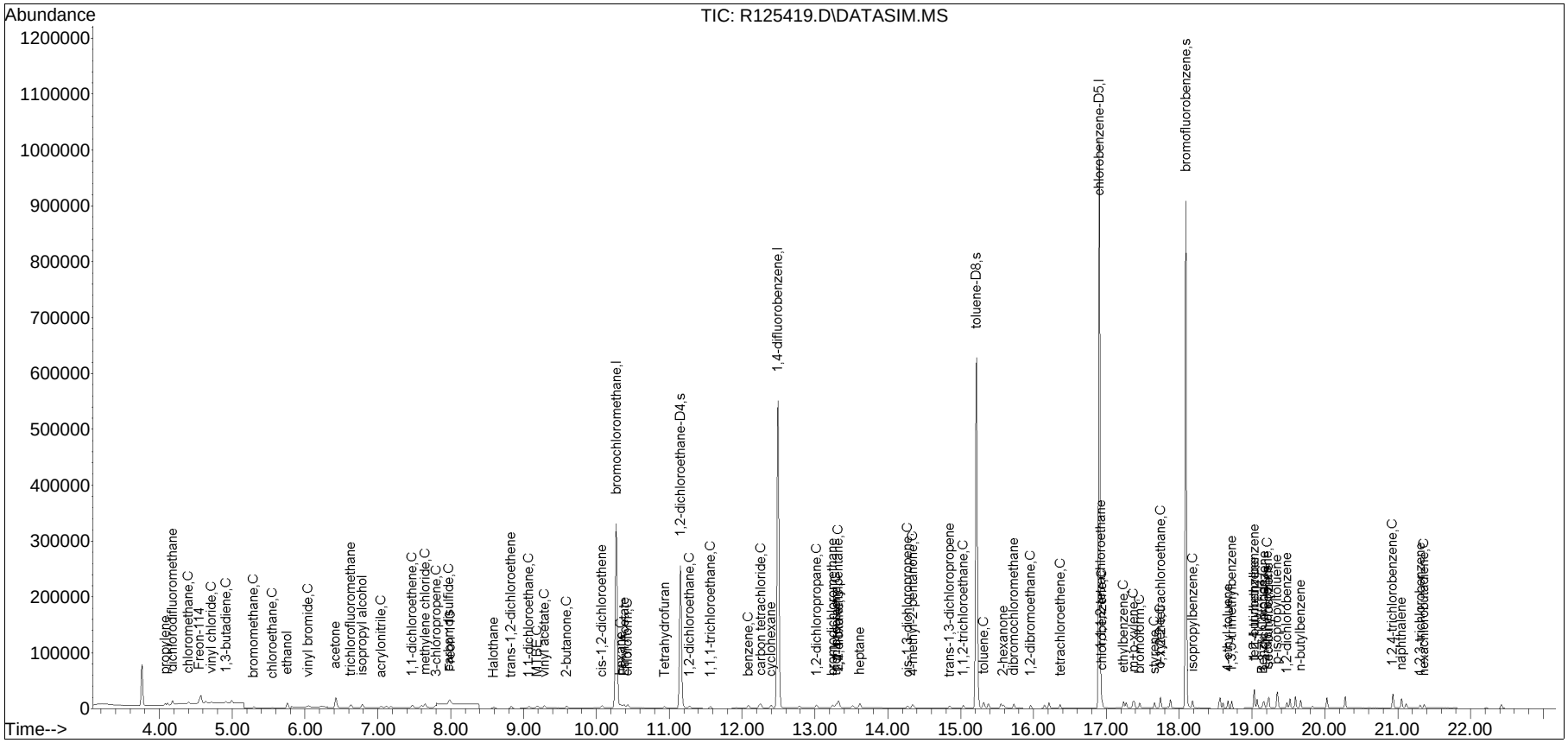
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125419.D
Acq On : 11 Dec 2012 6:01 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.1
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:17:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

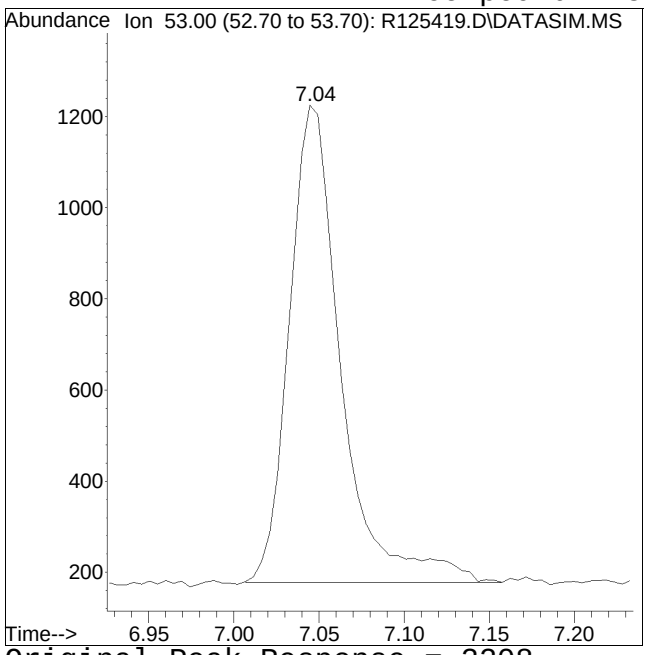


Manual Integration/Negative Proof Report

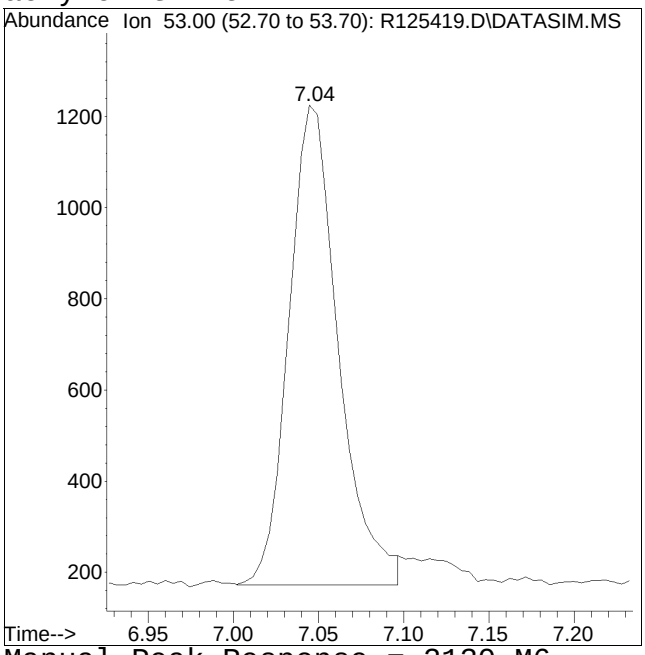
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125419.D
Date Inj'd : 12/11/2012 6:01 pm
Sample : ITO15-SIMSTD0.1

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #15: acrylonitrile




Original Peak Response = 2208




Manual Peak Response = 2130 M6

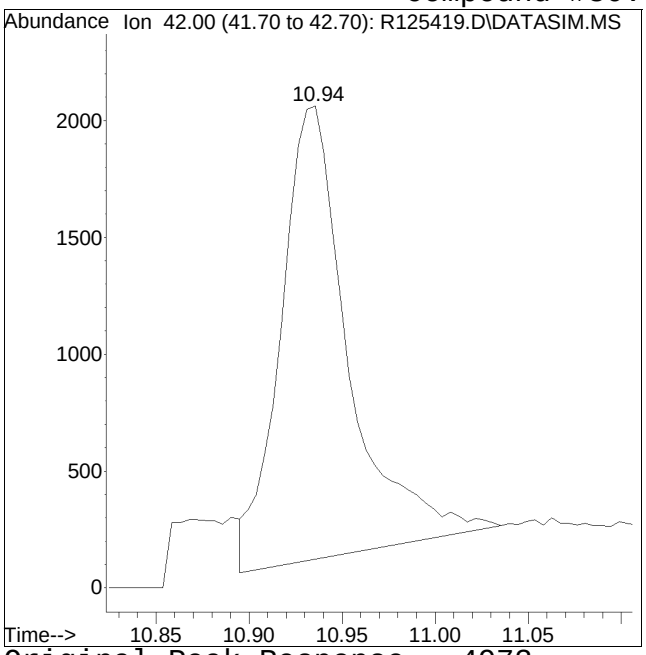
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

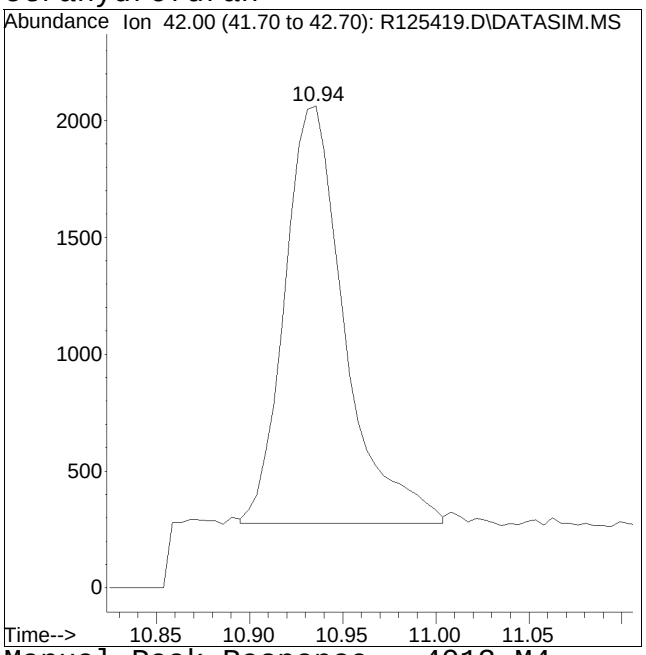
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125419.D
Date Inj'd : 12/11/2012 6:01 pm
Sample : ITO15-SIMSTD0.1

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 4973




Manual Peak Response = 4013 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.2
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:19:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 320009 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 78.14% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 822069 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 96.31% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 207450 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 97.16% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 263689 | 9.972 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.72% | | | |
| 51) toluene-D8 | 15.21 | 98 | 613202 | 10.052 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.52% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 472557 | 9.963 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.63% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 4371 | 0.256 | ppbV | 97 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 10107 | 0.244 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 5141 | 0.262 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 11446 | 0.244 | ppbV | 99 |
| 6) vinyl chloride | 4.72 | 62 | 4527 | 0.244 | ppbV | 96 |
| 7) 1,3-butadiene | 4.91 | 54 | 3499 | 0.241 | ppbV | 89 |
| 8) bromomethane | 5.30 | 94 | 4066 | 0.241 | ppbV | 97 |
| 9) chloroethane | 5.55 | 64 | 2055 | 0.247 | ppbV # | 88 |
| 10) ethanol | 5.76 | 31 | 19801 | 1.216 | ppbV | 97 |
| 11) vinyl bromide | 6.04 | 106 | 4095 | 0.242 | ppbV | 98 |
| 12) acetone | 6.42 | 43 | 49415 | 1.411 | ppbV # | 97 |
| 13) trichlorofluoromethane | 6.63 | 101 | 12333 | 0.242 | ppbV | 98 |
| 14) isopropyl alcohol | 6.78 | 45 | 17358 | 0.372 | ppbV | 98 |
| 15) acrylonitrile | 7.04 | 53 | 4035 | 0.237 | ppbV | 93 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 7624 | 0.242 | ppbV | 98 |
| 17) methylene chloride | 7.64 | 49 | 11449M4 | 0.402 | ppbV | |
| 18) 3-chloropropene | 7.80 | 41 | 6872 | 0.242 | ppbV | 96 |
| 19) carbon disulfide | 7.98 | 76 | 13436 | 0.271 | ppbV # | 1 |
| 20) Freon 113 | 8.00 | 101 | 8528 | 0.240 | ppbV | 100 |
| 21) Halothane | 8.59 | 117 | 6489 | 0.236 | ppbV | 98 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 7282 | 0.237 | ppbV | 97 |
| 23) 1,1-dichloroethane | 9.07 | 63 | 8495 | 0.240 | ppbV | 96 |
| 24) MTBE | 9.19 | 73 | 10153 | 0.243 | ppbV # | 83 |
| 25) vinyl acetate | 9.28 | 43 | 13902 | 0.240 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.2
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:19:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.59 | 43 | 11847 | 0.248 | ppbV | # | 97 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 6366 | 0.208 | ppbV | | 99 |
| 28) | Ethyl Acetate | 10.38 | 61 | 1478 | 0.203 | ppbV | | 98 |
| 29) | chloroform | 10.43 | 83 | 9235 | 0.234 | ppbV | | 98 |
| 30) | Tetrahydrofuran | 10.93 | 42 | 7189M6 | 0.237 | ppbV | | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 7233 | 0.246 | ppbV | | 98 |
| 33) | hexane | 10.33 | 57 | 6817 | 0.167 | ppbV | # | 69 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 9254 | 0.194 | ppbV | | 99 |
| 36) | benzene | 12.09 | 78 | 13195 | 0.199 | ppbV | | 100 |
| 37) | carbon tetrachloride | 12.26 | 117 | 9446 | 0.190 | ppbV | | 99 |
| 38) | cyclohexane | 12.40 | 56 | 8387 | 0.198 | ppbV | | 96 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 5998 | 0.198 | ppbV | | 96 |
| 40) | bromodichloromethane | 13.24 | 83 | 10175 | 0.189 | ppbV | | 99 |
| 41) | 1,4-dioxane | 13.32 | 88 | 2938 | 0.198 | ppbV | # | 63 |
| 42) | trichloroethene | 13.29 | 130 | 6451 | 0.195 | ppbV | | 98 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 26959 | 0.197 | ppbV | | 98 |
| 44) | heptane | 13.62 | 43 | 11437 | 0.198 | ppbV | | 98 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 7210 | 0.189 | ppbV | | 94 |
| 46) | 4-methyl-2-pentanone | 14.33 | 43 | 15504 | 0.188 | ppbV | | 99 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 7140 | 0.184 | ppbV | | 93 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 5800 | 0.196 | ppbV | | 99 |
| 50) | toluene | 15.31 | 91 | 16535 | 0.199 | ppbV | | 99 |
| 52) | 2-hexanone | 15.58 | 43 | 14296 | 0.179 | ppbV | | 93 |
| 53) | dibromochloromethane | 15.73 | 129 | 10759 | 0.179 | ppbV | | 99 |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 9702M4 | 0.189 | ppbV | | |
| 55) | tetrachloroethene | 16.37 | 166 | 7967 | 0.192 | ppbV | | 98 |
| 56) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 7970 | 0.185 | ppbV | | 100 |
| 57) | chlorobenzene | 16.94 | 112 | 13534 | 0.191 | ppbV | | 97 |
| 58) | ethylbenzene | 17.23 | 91 | 20708 | 0.190 | ppbV | | 100 |
| 59) | m+p-xylene | 17.38 | 91 | 32290 | 0.378 | ppbV | | 100 |
| 60) | bromoform | 17.46 | 173 | 10173 | 0.173 | ppbV | | 99 |
| 61) | styrene | 17.66 | 104 | 12747 | 0.190 | ppbV | | 98 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 13290 | 0.183 | ppbV | | 100 |
| 63) | o-xylene | 17.74 | 91 | 16892 | 0.192 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 24023 | 0.188 | ppbV | | 99 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 24014 | 0.183 | ppbV | | 100 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 19905 | 0.190 | ppbV | | 99 |
| 68) | tert-butylbenzene | 19.03 | 119 | 21829 | 0.180 | ppbV | | 98 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 19237 | 0.182 | ppbV | | 99 |
| 70) | Benzyl Chloride | 19.15 | 91 | 14205 | 0.151 | ppbV | | 99 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 14330 | 0.178 | ppbV | | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.2
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:19:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 14547 | 0.177 ppbV | 98 |
| 73) sec-butylbenzene | 19.23 | 105 | 29867 | 0.178 ppbV | 98 |
| 74) p-isopropyltoluene | 19.34 | 119 | 27119 | 0.178 ppbV | 99 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 13565 | 0.176 ppbV | 99 |
| 76) n-butylbenzene | 19.67 | 91 | 23774 | 0.167 ppbV | 100 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 9662 | 0.144 ppbV | 99 |
| 78) naphthalene | 21.05 | 128 | 34658 | 0.207 ppbV | 99 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 9828 | 0.151 ppbV | 98 |
| 80) hexachlorobutadiene | 21.36 | 225 | 7935 | 0.157 ppbV | 98 |

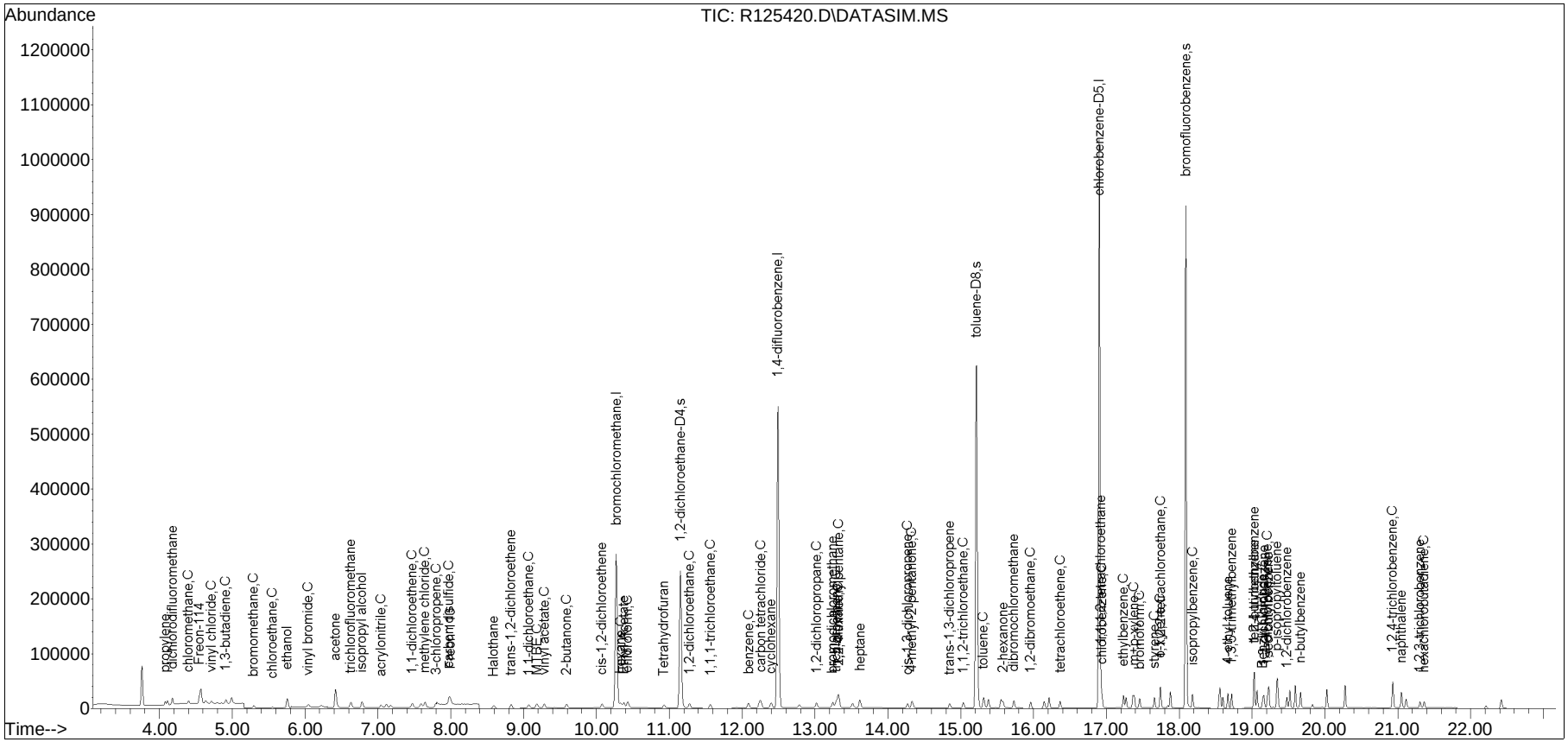
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.2
Misc : wg579024
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 12:19:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

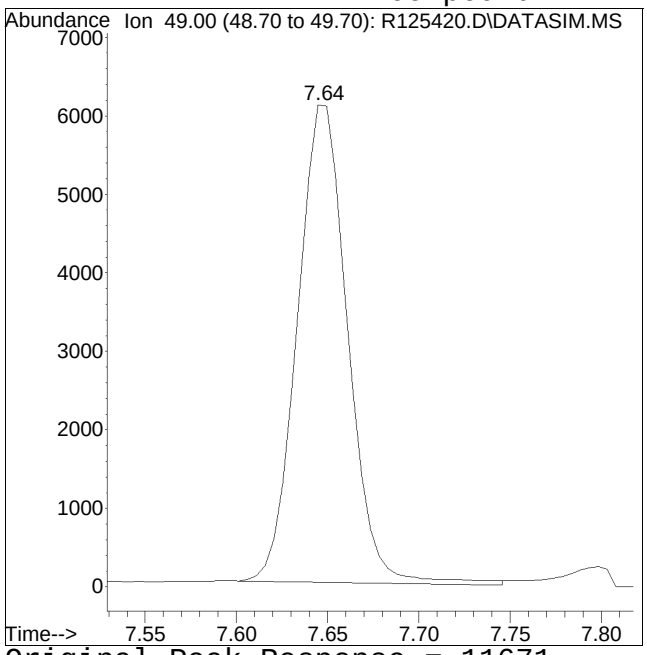


Manual Integration/Negative Proof Report

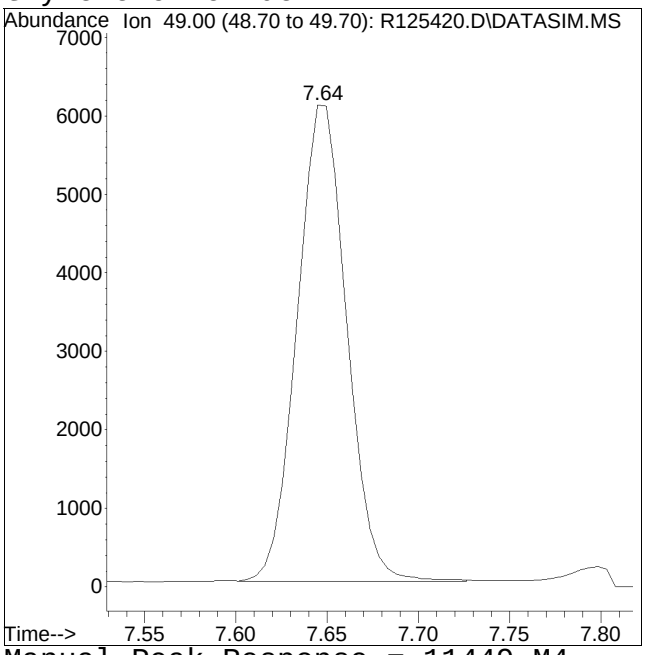
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125420.D
Date Inj'd : 12/11/2012 6:33 pm
Sample : ITO15-SIMSTD0.2

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #17: methylene chloride




Original Peak Response = 11671




Manual Peak Response = 11449 M4

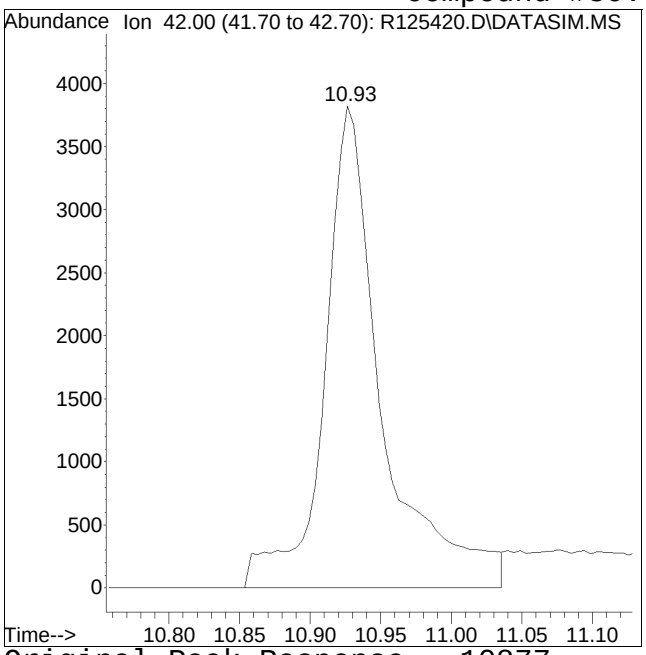
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

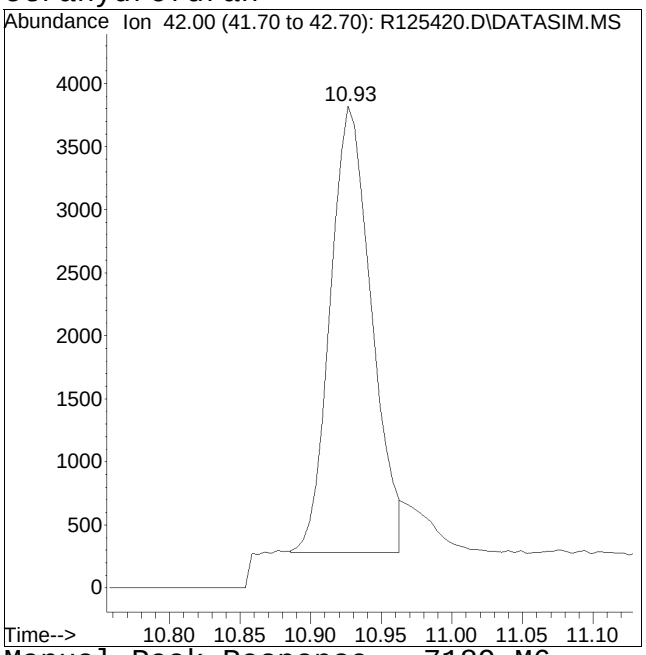
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125420.D
Date Inj'd : 12/11/2012 6:33 pm
Sample : ITO15-SIMSTD0.2

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 10877




Manual Peak Response = 7189 M6

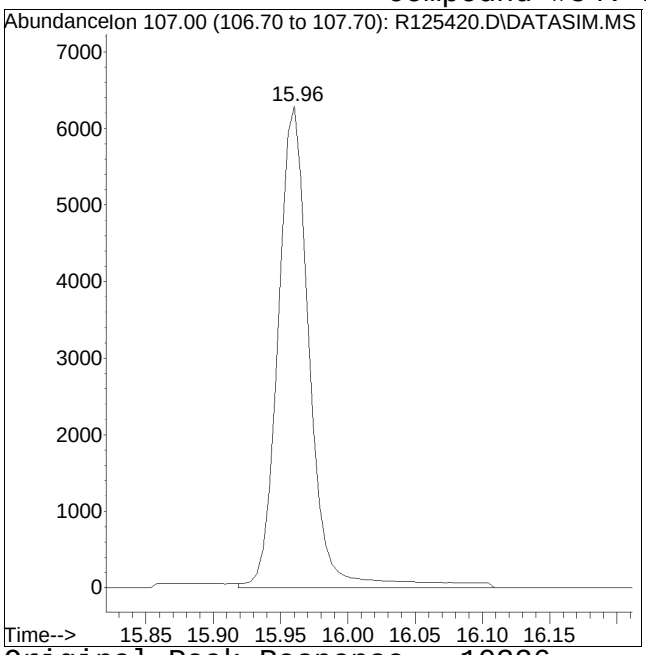
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

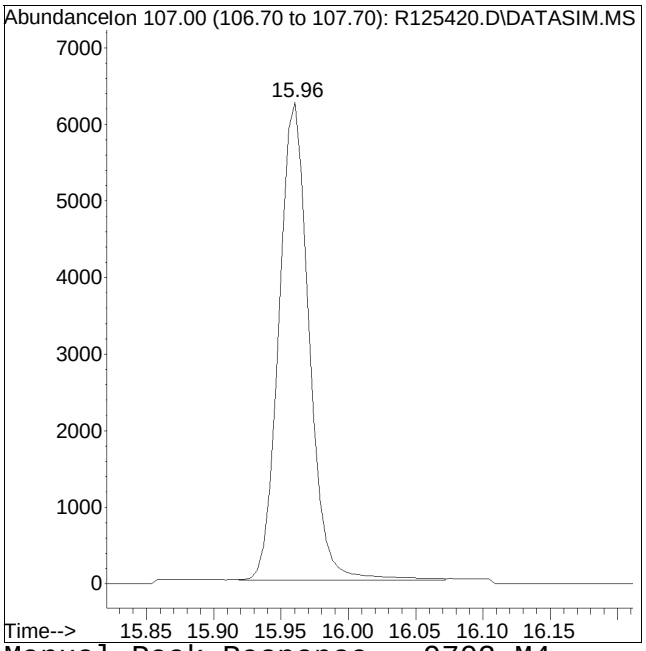
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125420.D
Date Inj'd : 12/11/2012 6:33 pm
Sample : ITO15-SIMSTD0.2

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 10326




Manual Peak Response = 9702 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.5
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:22:35 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 394213 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 96.26% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 827185 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 96.91% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 207155 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 97.03% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 268244 | 10.082 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.82% | | | |
| 51) toluene-D8 | 15.22 | 98 | 613977 | 10.079 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.79% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 474274 | 10.014 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.14% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 11670 | 0.556 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 28104 | 0.552 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 13455 | 0.556 | ppbV | 98 |
| 5) Freon-114 | 4.55 | 85 | 31116 | 0.539 | ppbV | 100 |
| 6) vinyl chloride | 4.72 | 62 | 12235 | 0.535 | ppbV | 98 |
| 7) 1,3-butadiene | 4.91 | 54 | 9661 | 0.540 | ppbV | 97 |
| 8) bromomethane | 5.30 | 94 | 11269 | 0.543 | ppbV | 98 |
| 9) chloroethane | 5.55 | 64 | 5519 | 0.539 | ppbV | 95 |
| 10) ethanol | 5.75 | 31 | 53124M6 | 2.648 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 11205 | 0.537 | ppbV | 100 |
| 12) acetone | 6.41 | 43 | 121706 | 2.820 | ppbV # | 99 |
| 13) trichlorofluoromethane | 6.63 | 101 | 33839 | 0.540 | ppbV | 99 |
| 14) isopropyl alcohol | 6.78 | 45 | 35731 | 0.622 | ppbV | 99 |
| 15) acrylonitrile | 7.04 | 53 | 10932 | 0.522 | ppbV | 98 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 20959 | 0.540 | ppbV | 100 |
| 17) methylene chloride | 7.64 | 49 | 21952M4 | 0.626 | ppbV | |
| 18) 3-chloropropene | 7.79 | 41 | 18630 | 0.533 | ppbV | 98 |
| 19) carbon disulfide | 7.98 | 76 | 34000 | 0.556 | ppbV # | 26 |
| 20) Freon 113 | 8.00 | 101 | 23476 | 0.536 | ppbV | 99 |
| 21) Halothane | 8.59 | 117 | 17690 | 0.522 | ppbV | 98 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 20138M4 | 0.532 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 23249 | 0.533 | ppbV | 98 |
| 24) MTBE | 9.18 | 73 | 27512 | 0.534 | ppbV # | 93 |
| 25) vinyl acetate | 9.28 | 43 | 37579 | 0.527 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.5
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:22:35 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.58 | 43 | 31628 | 0.538 | ppbV | | 99 |
| 27) | cis-1,2-dichloroethene | 10.08 | 61 | 18442 | 0.490 | ppbV | | 97 |
| 28) | Ethyl Acetate | 10.37 | 61 | 4778 | 0.534 | ppbV | | 95 |
| 29) | chloroform | 10.43 | 83 | 25856 | 0.533 | ppbV | | 99 |
| 30) | Tetrahydrofuran | 10.92 | 42 | 19676M6 | 0.527 | ppbV | | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 19295 | 0.534 | ppbV | | 99 |
| 33) | hexane | 10.33 | 57 | 22094 | 0.537 | ppbV | | 82 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 25087 | 0.522 | ppbV | | 100 |
| 36) | benzene | 12.09 | 78 | 35891 | 0.538 | ppbV | | 99 |
| 37) | carbon tetrachloride | 12.26 | 117 | 25931 | 0.518 | ppbV | | 99 |
| 38) | cyclohexane | 12.40 | 56 | 22803 | 0.535 | ppbV | | 98 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 16300 | 0.534 | ppbV | | 98 |
| 40) | bromodichloromethane | 13.24 | 83 | 27703 | 0.511 | ppbV | | 100 |
| 41) | 1,4-dioxane | 13.31 | 88 | 7884 | 0.527 | ppbV | # | 71 |
| 42) | trichloroethene | 13.29 | 130 | 17452 | 0.523 | ppbV | | 100 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 73631 | 0.535 | ppbV | | 99 |
| 44) | heptane | 13.61 | 43 | 31158 | 0.536 | ppbV | | 99 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 19818 | 0.517 | ppbV | | 100 |
| 46) | 4-methyl-2-pentanone | 14.32 | 43 | 42781 | 0.516 | ppbV | | 100 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 19844 | 0.507 | ppbV | | 98 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 15706 | 0.528 | ppbV | | 99 |
| 50) | toluene | 15.31 | 91 | 44892 | 0.540 | ppbV | | 100 |
| 52) | 2-hexanone | 15.57 | 43 | 38639 | 0.485 | ppbV | | 96 |
| 53) | dibromochloromethane | 15.73 | 129 | 29674M4 | 0.494 | ppbV | | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 26596M4 | 0.518 | ppbV | | |
| 55) | tetrachloroethene | 16.37 | 166 | 21709 | 0.524 | ppbV | | 97 |
| 56) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 21674 | 0.505 | ppbV | | 99 |
| 57) | chlorobenzene | 16.94 | 112 | 37105 | 0.523 | ppbV | | 99 |
| 58) | ethylbenzene | 17.23 | 91 | 57026 | 0.525 | ppbV | | 98 |
| 59) | m+p-xylene | 17.37 | 91 | 89134 | 1.044 | ppbV | | 99 |
| 60) | bromoform | 17.46 | 173 | 28087 | 0.480 | ppbV | | 99 |
| 61) | styrene | 17.66 | 104 | 33717 | 0.503 | ppbV | | 99 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 37040 | 0.511 | ppbV | | 99 |
| 63) | o-xylene | 17.74 | 91 | 45802 | 0.520 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 65648 | 0.513 | ppbV | | 99 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 66886 | 0.511 | ppbV | | 99 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 54461 | 0.521 | ppbV | | 99 |
| 68) | tert-butylbenzene | 19.03 | 119 | 61026 | 0.505 | ppbV | | 100 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 53663 | 0.507 | ppbV | | 97 |
| 70) | Benzyl Chloride | 19.14 | 91 | 42146 | 0.448 | ppbV | | 96 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 40262 | 0.502 | ppbV | | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.5
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:22:35 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 41663 | 0.509 | ppbV | 96 |
| 73) sec-butylbenzene | 19.23 | 105 | 84182 | 0.503 | ppbV | 97 |
| 74) p-isopropyltoluene | 19.34 | 119 | 76968 | 0.506 | ppbV | 100 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 38866 | 0.505 | ppbV | 95 |
| 76) n-butylbenzene | 19.66 | 91 | 68623 | 0.482 | ppbV | 96 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 30500 | 0.456 | ppbV | 99 |
| 78) naphthalene | 21.05 | 128 | 85117 | 0.510 | ppbV | 100 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 31625 | 0.486 | ppbV | 99 |
| 80) hexachlorobutadiene | 21.36 | 225 | 24406 | 0.483 | ppbV | 98 |

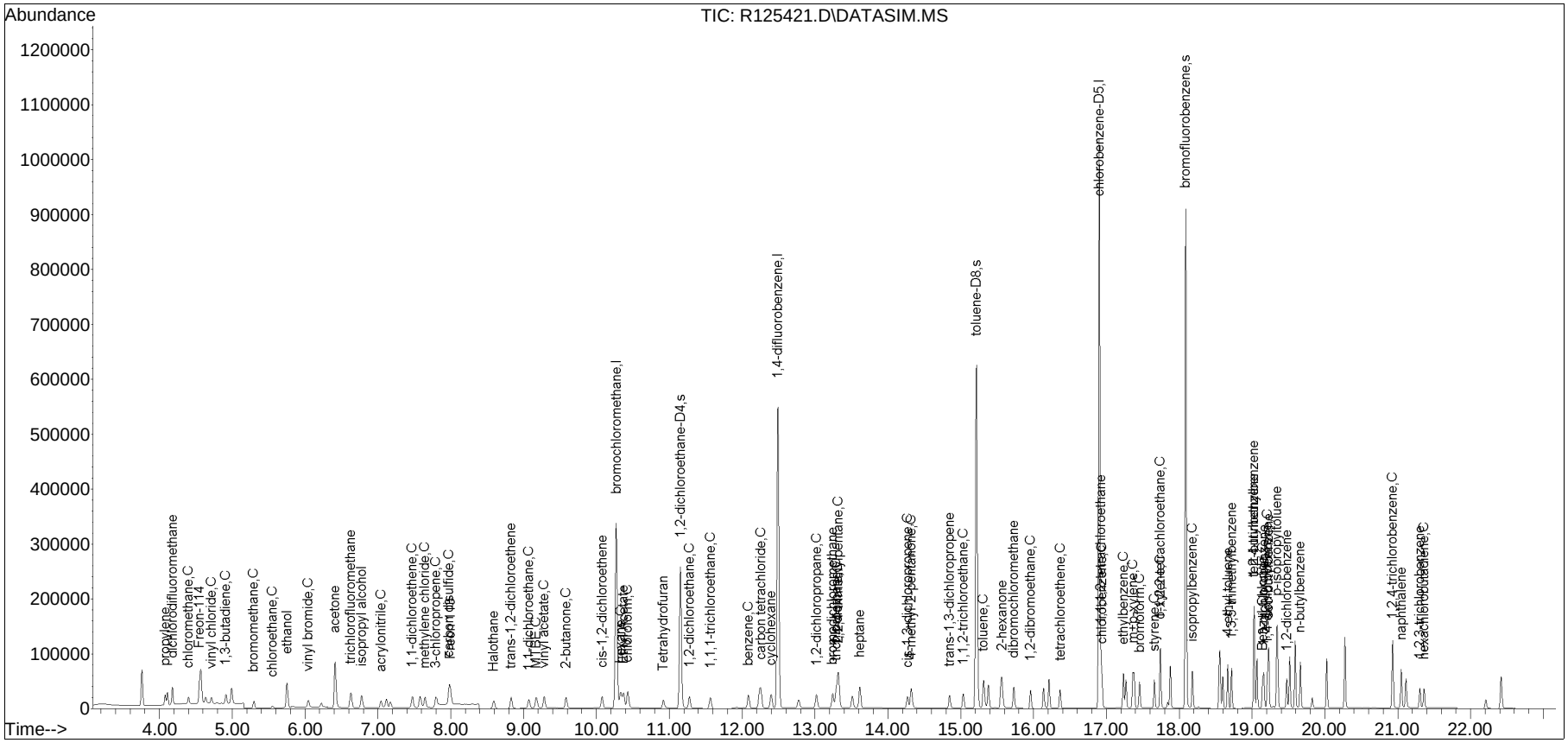
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD0.5
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:22:35 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

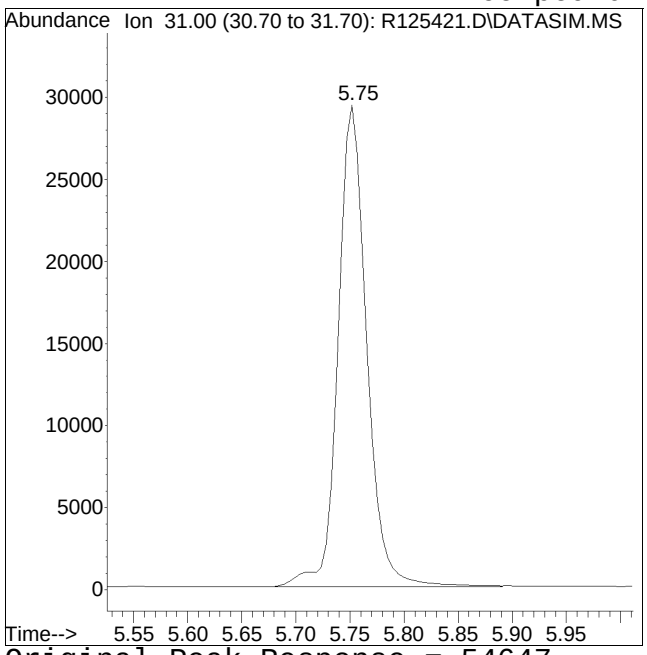


Manual Integration/Negative Proof Report

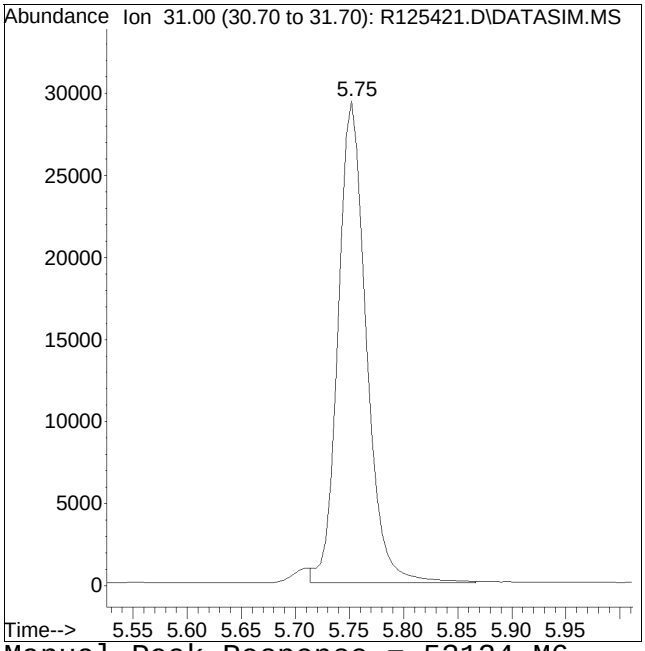
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #10: ethanol




Original Peak Response = 54647




Manual Peak Response = 53124 M6

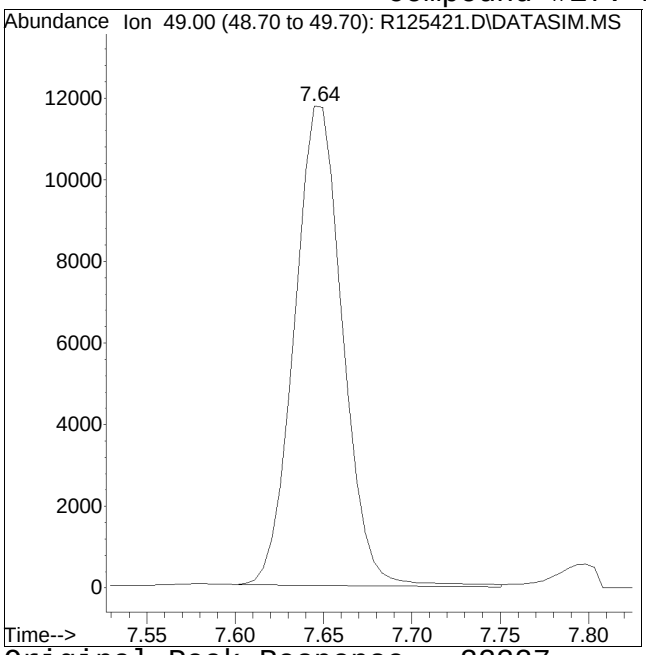
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

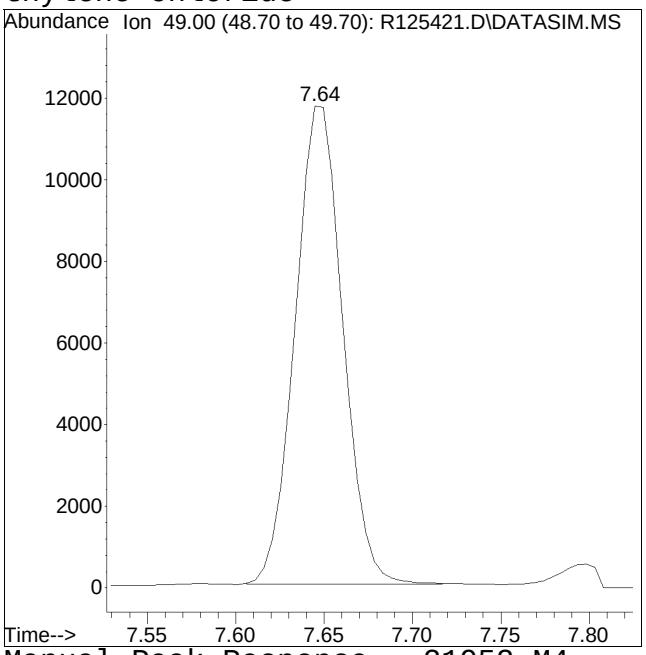
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #17: methylene chloride




Original Peak Response = 22327




Manual Peak Response = 21952 M4

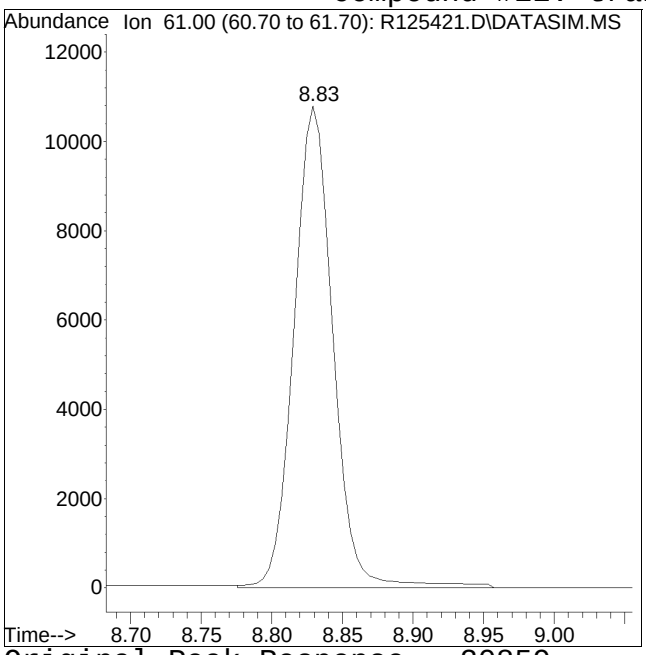
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

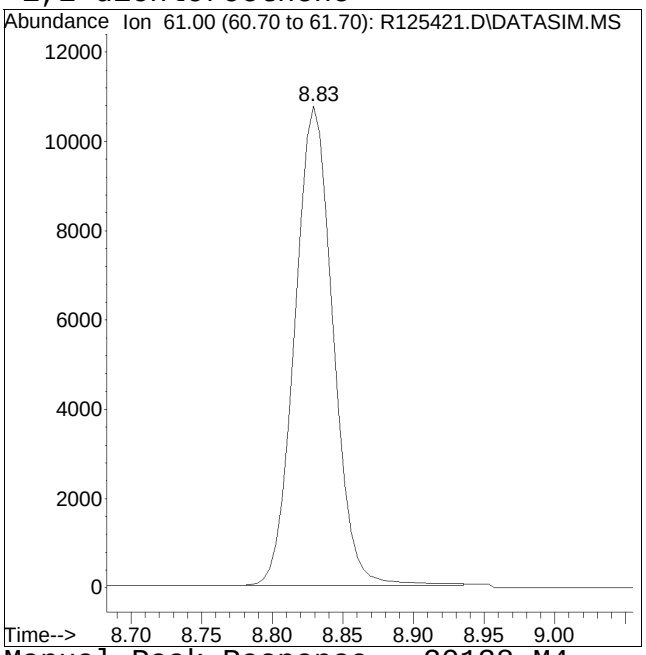
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 20859




Manual Peak Response = 20138 M4

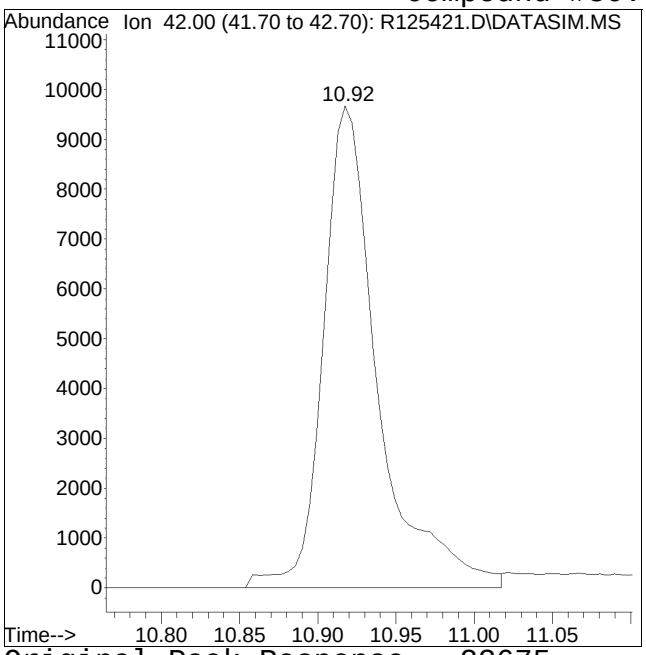
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

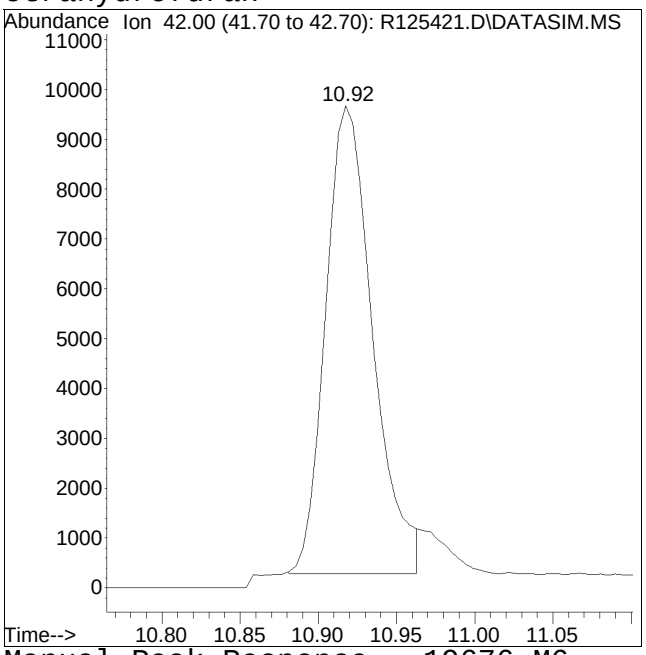
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 23675




Manual Peak Response = 19676 M6

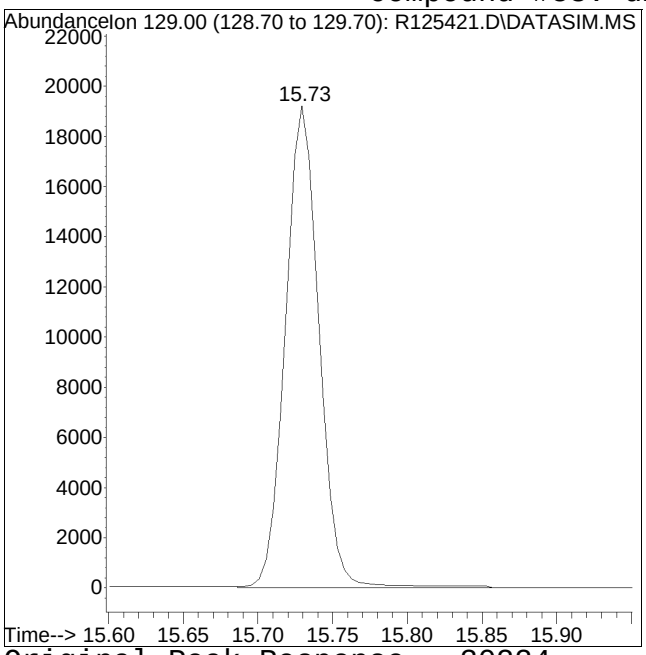
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

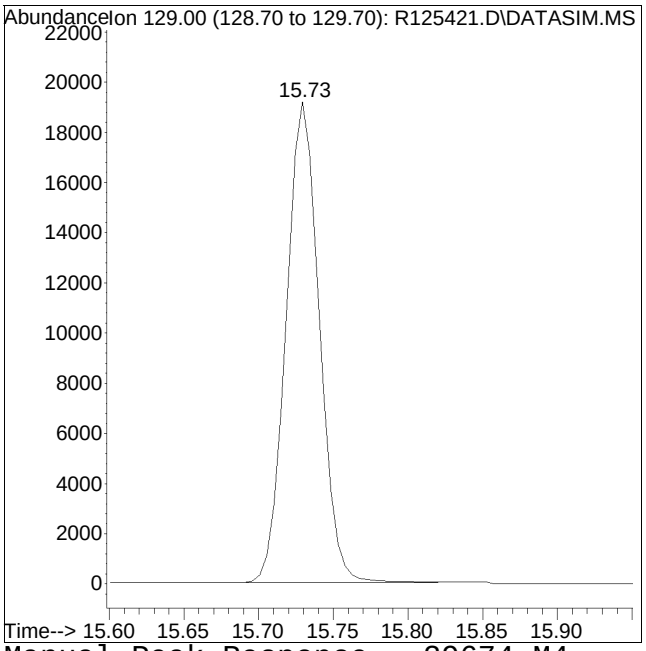
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #53: dibromochloromethane




Original Peak Response = 30224




Manual Peak Response = 29674 M4

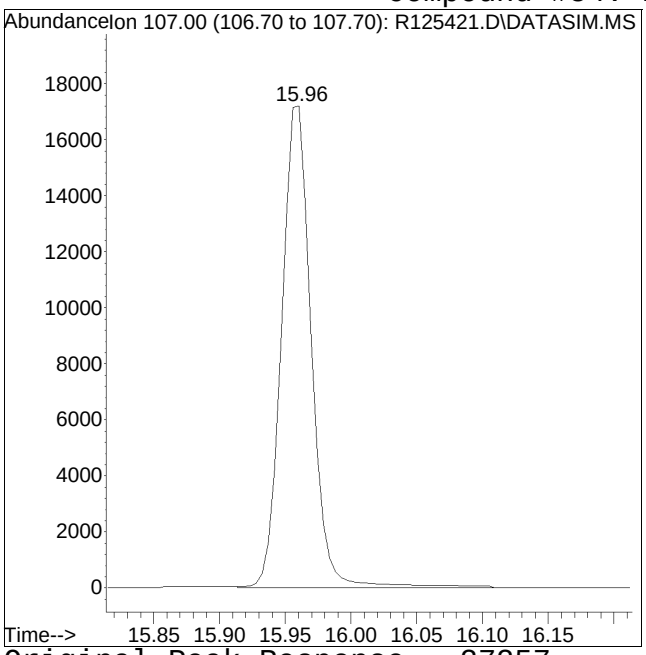
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

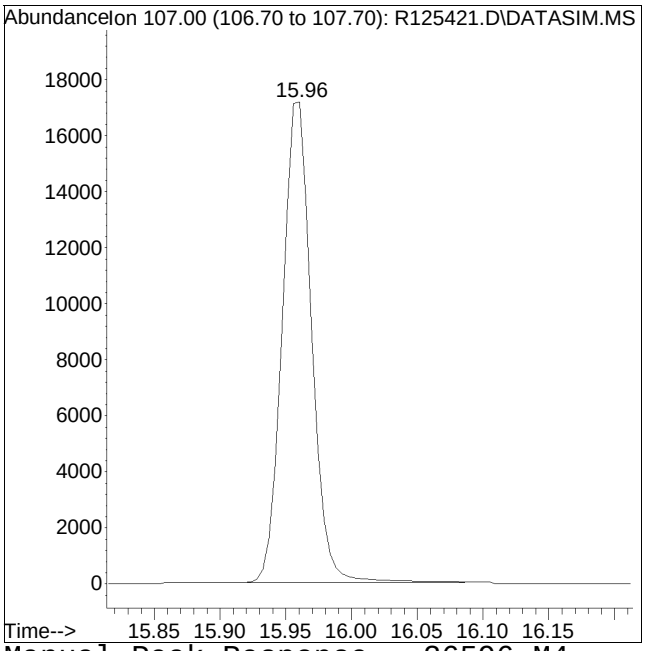
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 27257




Manual Peak Response = 26596 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD1.0
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:25:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 329624 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 80.49% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 844263 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 98.91% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 212569 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 99.56% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 218405 | 8.042 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 80.42% | | | |
| 51) toluene-D8 | 15.21 | 98 | 618664 | 9.897 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.97% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 476269 | 9.800 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.00% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 22649 | 1.290 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 54235 | 1.273 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 25552 | 1.262 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 60973 | 1.264 | ppbV | 100 |
| 6) vinyl chloride | 4.72 | 62 | 24064 | 1.258 | ppbV | 99 |
| 7) 1,3-butadiene | 4.91 | 54 | 18754 | 1.253 | ppbV | 100 |
| 8) bromomethane | 5.30 | 94 | 21792 | 1.256 | ppbV | 99 |
| 9) chloroethane | 5.55 | 64 | 10773 | 1.258 | ppbV | 98 |
| 10) ethanol | 5.75 | 31 | 104647M6 | 6.238 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 21738 | 1.245 | ppbV | 100 |
| 12) acetone | 6.41 | 43 | 235744 | 6.533 | ppbV | 99 |
| 13) trichlorofluoromethane | 6.63 | 101 | 65931 | 1.257 | ppbV | 100 |
| 14) isopropyl alcohol | 6.77 | 45 | 68302 | 1.422 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 21618 | 1.234 | ppbV | 99 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 40862 | 1.260 | ppbV | 100 |
| 17) methylene chloride | 7.65 | 49 | 39526M4 | 1.348 | ppbV | |
| 18) 3-chloropropene | 7.79 | 41 | 36436 | 1.248 | ppbV | 99 |
| 19) carbon disulfide | 7.98 | 76 | 64845 | 1.268 | ppbV # | 66 |
| 20) Freon 113 | 7.99 | 101 | 45871 | 1.253 | ppbV | 99 |
| 21) Halothane | 8.59 | 117 | 34904 | 1.232 | ppbV | 99 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 39295 | 1.242 | ppbV | 100 |
| 23) 1,1-dichloroethane | 9.07 | 63 | 45355 | 1.243 | ppbV | 100 |
| 24) MTBE | 9.17 | 73 | 53813 | 1.248 | ppbV | 97 |
| 25) vinyl acetate | 9.28 | 43 | 73780 | 1.238 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD1.0
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:25:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.58 | 43 | 61804 | 1.257 | ppbV | | 99 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 34193 | 1.087 | ppbV | | 100 |
| 28) | Ethyl Acetate | 10.37 | 61 | 7908 | 1.056 | ppbV | | 84 |
| 29) | chloroform | 10.43 | 83 | 43496 | 1.072 | ppbV | | 99 |
| 30) | Tetrahydrofuran | 10.91 | 42 | 27821M6 | 0.891 | ppbV | | |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 30595 | 1.012 | ppbV | | 97 |
| 33) | hexane | 10.33 | 57 | 36375 | 0.867 | ppbV | | 88 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 49016 | 1.000 | ppbV | | 100 |
| 36) | benzene | 12.09 | 78 | 69588 | 1.023 | ppbV | | 99 |
| 37) | carbon tetrachloride | 12.26 | 117 | 50383 | 0.986 | ppbV | | 99 |
| 38) | cyclohexane | 12.40 | 56 | 44850 | 1.032 | ppbV | | 99 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 31761 | 1.019 | ppbV | | 99 |
| 40) | bromodichloromethane | 13.24 | 83 | 54790 | 0.991 | ppbV | | 99 |
| 41) | 1,4-dioxane | 13.31 | 88 | 15479 | 1.014 | ppbV | # | 77 |
| 42) | trichloroethene | 13.29 | 130 | 33982 | 0.998 | ppbV | | 99 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 144651 | 1.030 | ppbV | | 100 |
| 44) | heptane | 13.61 | 43 | 60322 | 1.016 | ppbV | | 100 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 38930 | 0.995 | ppbV | | 99 |
| 46) | 4-methyl-2-pentanone | 14.32 | 43 | 85352 | 1.009 | ppbV | | 100 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 39343 | 0.985 | ppbV | | 97 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 31019 | 1.021 | ppbV | | 99 |
| 50) | toluene | 15.31 | 91 | 87760M4 | 1.029 | ppbV | | |
| 52) | 2-hexanone | 15.56 | 43 | 79806M4 | 0.977 | ppbV | | |
| 53) | dibromochloromethane | 15.73 | 129 | 58837M4 | 0.955 | ppbV | | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 52793M4 | 1.002 | ppbV | | |
| 55) | tetrachloroethene | 16.37 | 166 | 42615 | 1.003 | ppbV | | 97 |
| 56) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 42530 | 0.966 | ppbV | | 99 |
| 57) | chlorobenzene | 16.94 | 112 | 72798 | 1.001 | ppbV | | 100 |
| 58) | ethylbenzene | 17.23 | 91 | 111553 | 1.000 | ppbV | | 98 |
| 59) | m+p-xylene | 17.38 | 91 | 174646 | 1.993 | ppbV | | 99 |
| 60) | bromoform | 17.46 | 173 | 55389 | 0.922 | ppbV | | 99 |
| 61) | styrene | 17.66 | 104 | 67235 | 0.977 | ppbV | | 100 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 73465 | 0.987 | ppbV | | 99 |
| 63) | o-xylene | 17.74 | 91 | 90198 | 0.998 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 129021 | 0.983 | ppbV | | 100 |
| 66) | 4-ethyl toluene | 18.67 | 105 | 131142 | 0.976 | ppbV | | 99 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 105985 | 0.987 | ppbV | | 99 |
| 68) | tert-butylbenzene | 19.03 | 119 | 120464 | 0.971 | ppbV | | 100 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 106476 | 0.981 | ppbV | | 100 |
| 70) | Benzyl Chloride | 19.14 | 91 | 85615 | 0.887 | ppbV | | 97 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 80138 | 0.973 | ppbV | | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD1.0
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:25:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 81837 | 0.974 | ppbV | 99 |
| 73) sec-butylbenzene | 19.22 | 105 | 165156 | 0.962 | ppbV | 98 |
| 74) p-isopropyltoluene | 19.34 | 119 | 151095 | 0.967 | ppbV | 100 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 76821 | 0.973 | ppbV | 98 |
| 76) n-butylbenzene | 19.66 | 91 | 138033 | 0.945 | ppbV | 97 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 62689 | 0.913 | ppbV | 99 |
| 78) naphthalene | 21.05 | 128 | 166161 | 0.970 | ppbV | 100 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 64539 | 0.966 | ppbV | 99 |
| 80) hexachlorobutadiene | 21.36 | 225 | 48275 | 0.931 | ppbV | 99 |

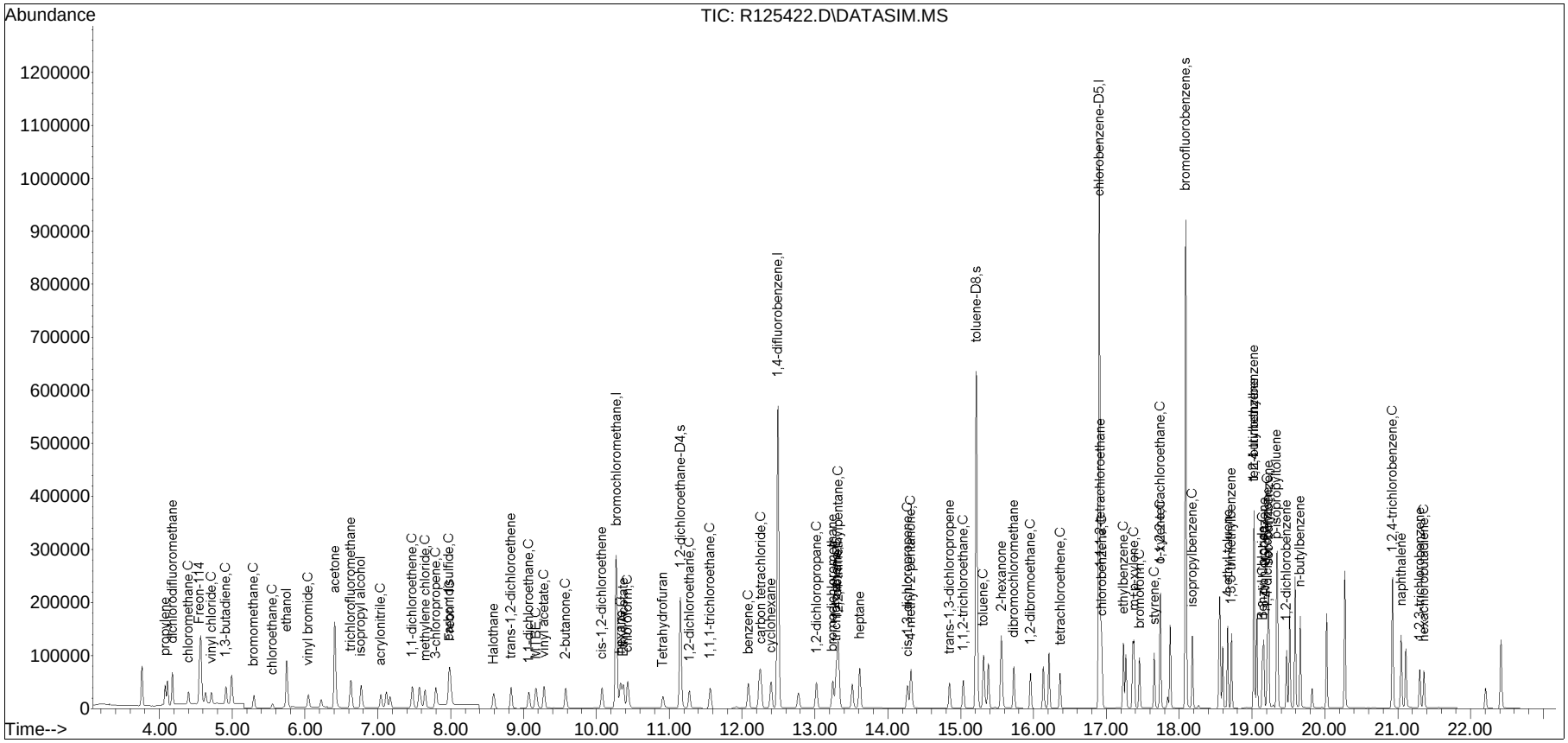
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD1.0
Misc : wg579024
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 12:25:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

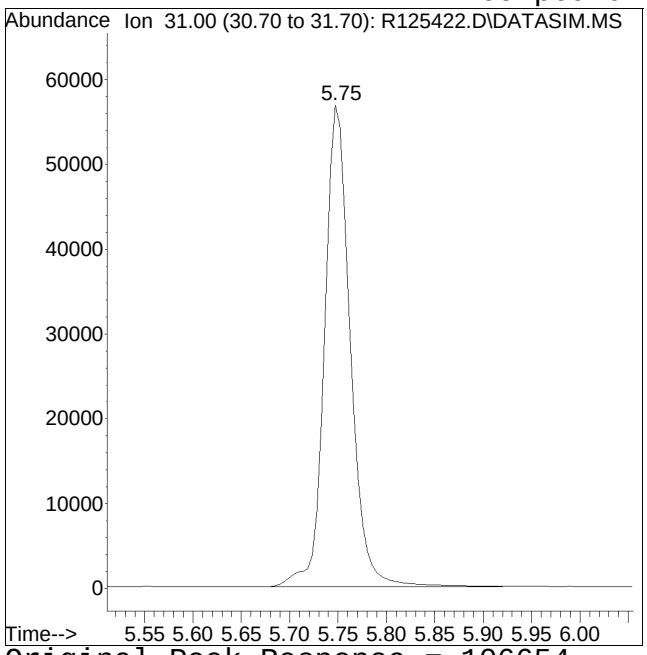


Manual Integration/Negative Proof Report

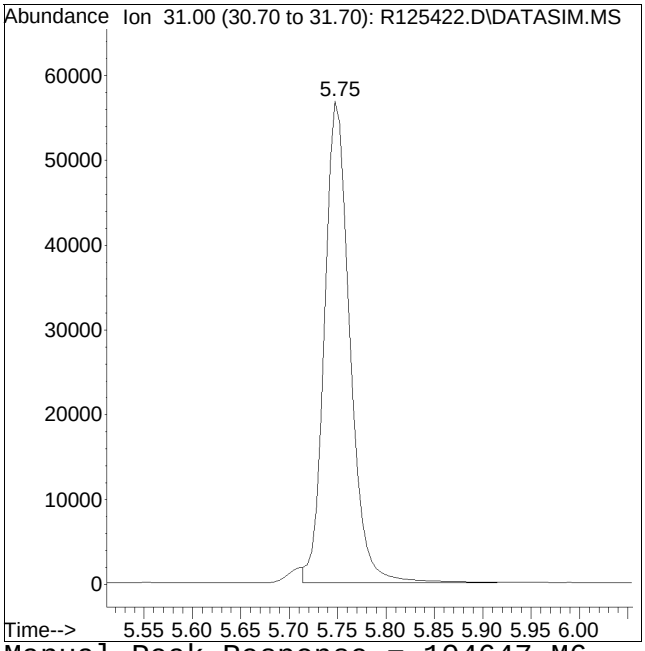
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #10: ethanol




Original Peak Response = 106654




Manual Peak Response = 104647 M6

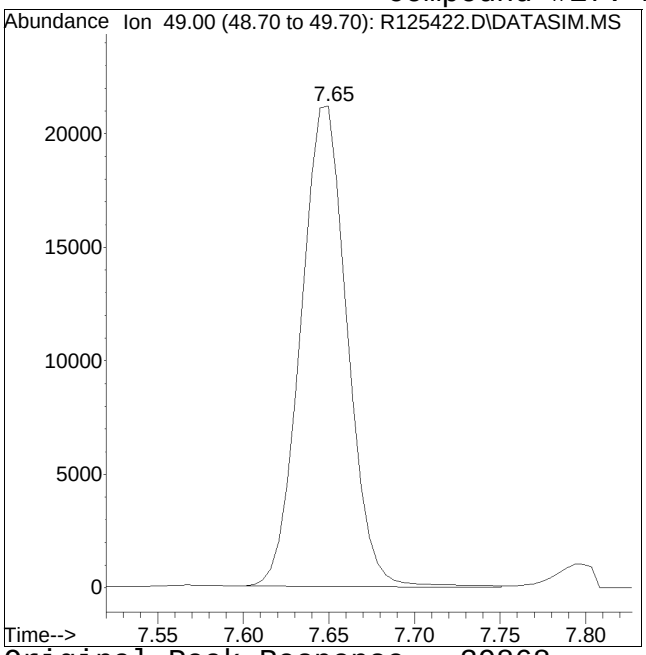
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

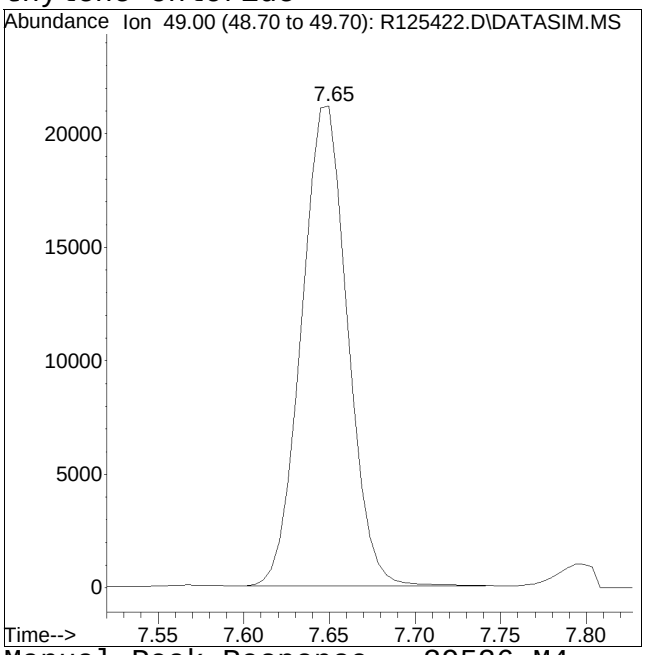
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #17: methylene chloride




Original Peak Response = 39868




Manual Peak Response = 39526 M4

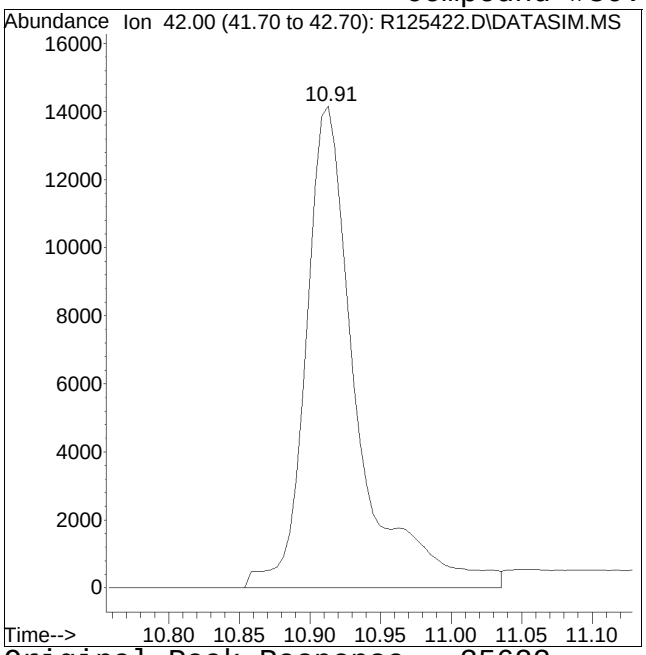
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

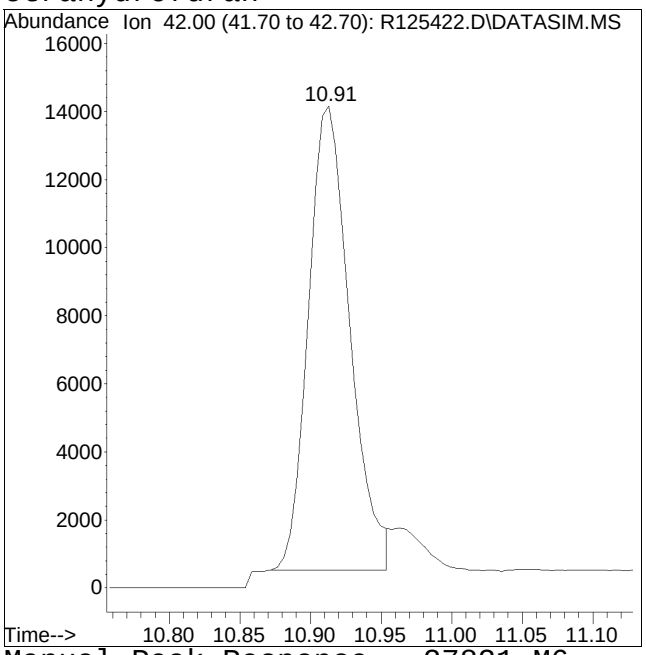
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #30: Tetrahydrofuran




Original Peak Response = 35622




Manual Peak Response = 27821 M6

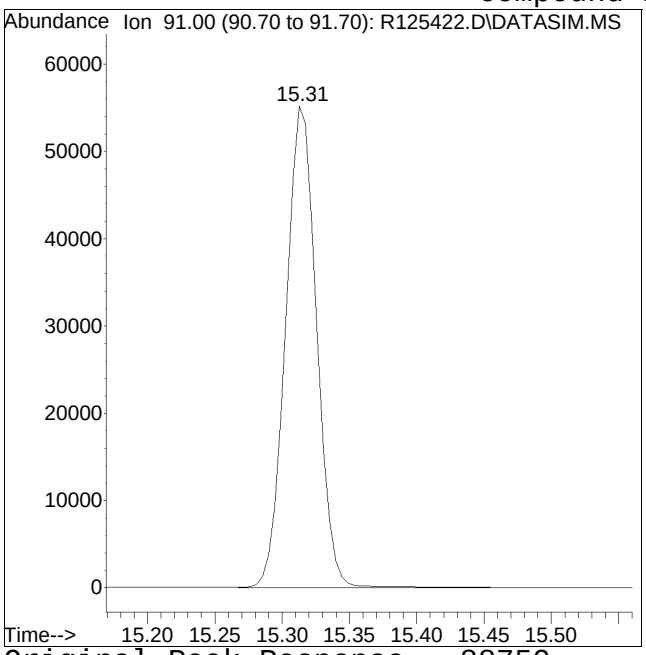
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

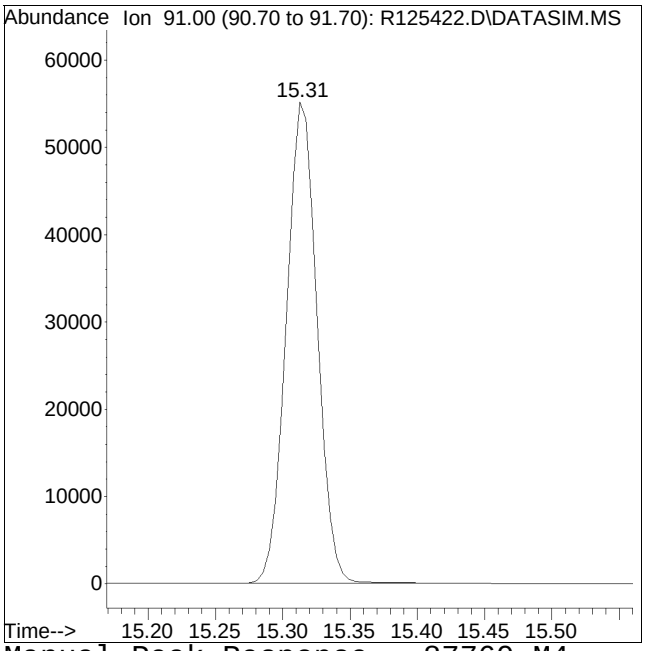
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #50: toluene




Original Peak Response = 88759




Manual Peak Response = 87760 M4

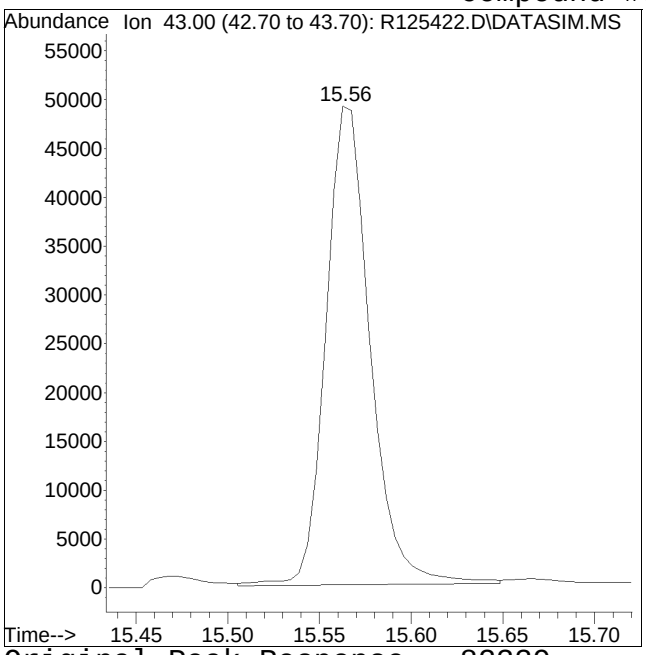
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

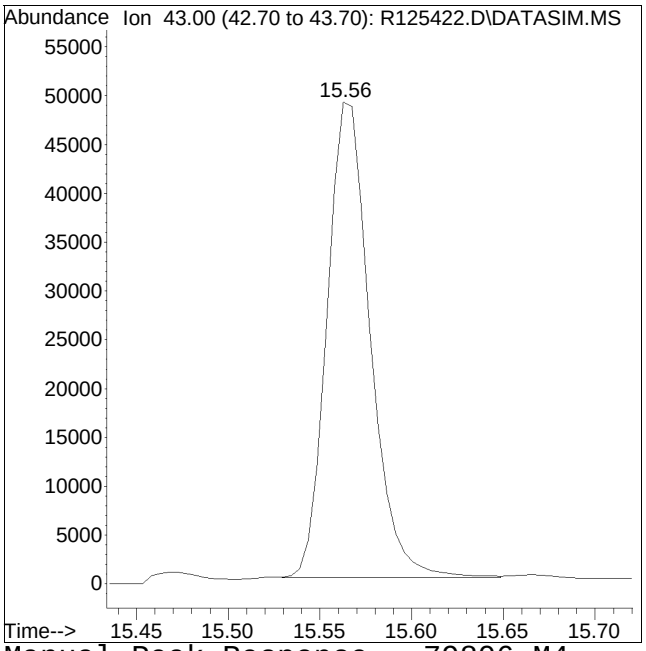
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #52: 2-hexanone




Original Peak Response = 82339




Manual Peak Response = 79806 M4

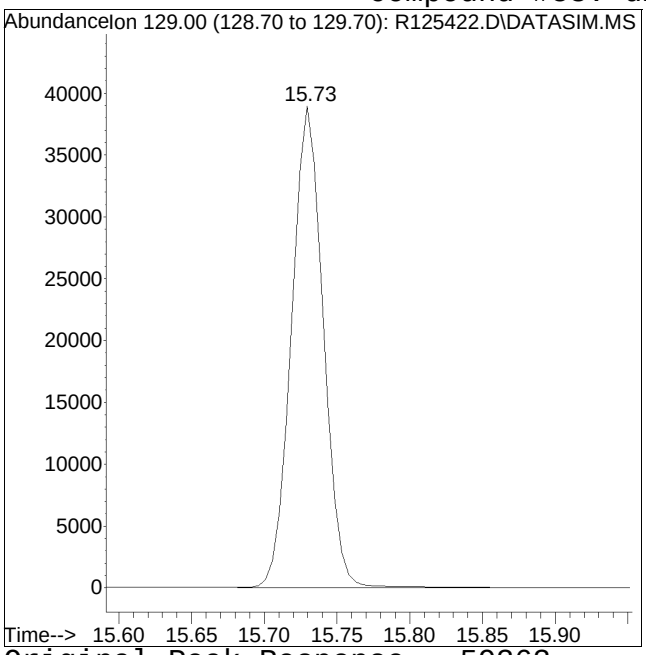
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

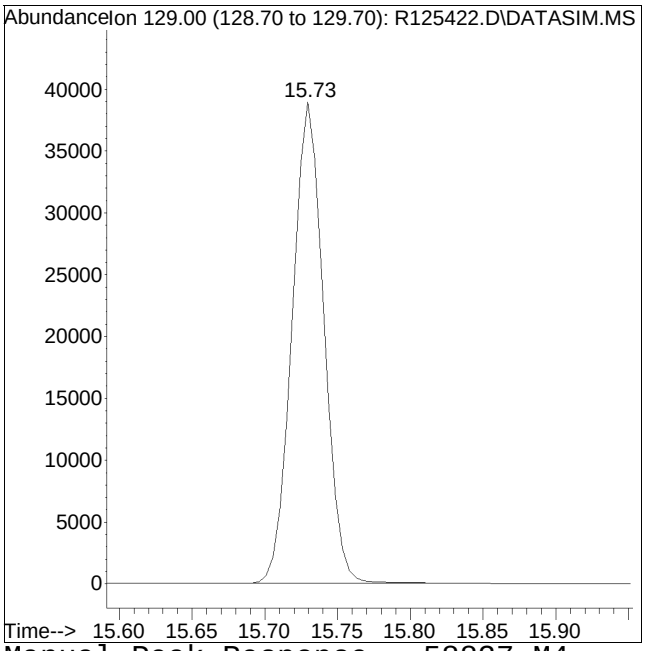
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #53: dibromochloromethane




Original Peak Response = 59363




Manual Peak Response = 58837 M4

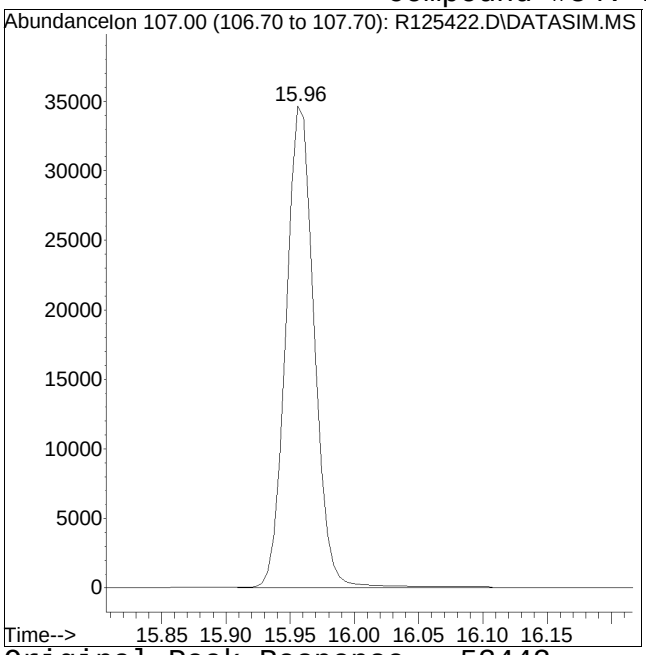
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

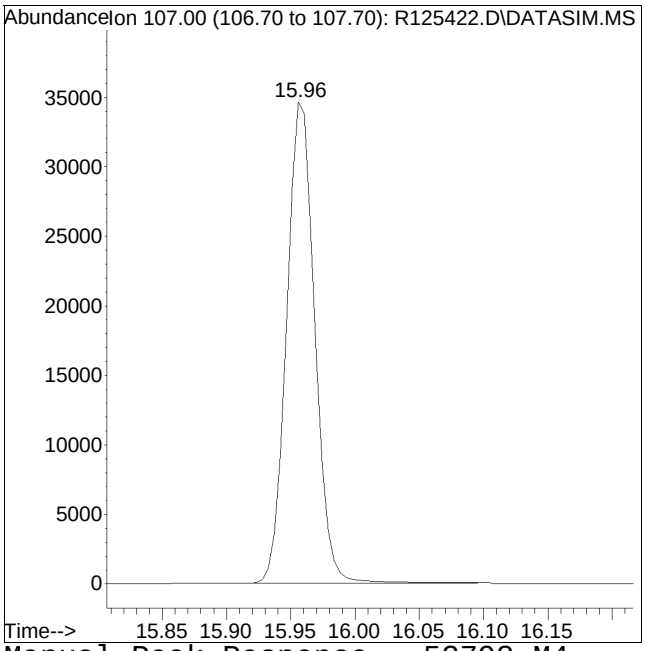
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 53442




Manual Peak Response = 52793 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD2.5
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:28:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 401105 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 97.95% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 841872 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 98.63% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 211645 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 99.13% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 271626 | 10.031 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.31% | | | |
| 51) toluene-D8 | 15.21 | 98 | 622342 | 9.999 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.99% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 481199 | 9.945 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.45% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 55834 | 2.613 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 138712 | 2.676 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 64650 | 2.624 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 152437 | 2.596 | ppbV | 100 |
| 6) vinyl chloride | 4.72 | 62 | 60564 | 2.602 | ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 47373 | 2.602 | ppbV | 98 |
| 8) bromomethane | 5.30 | 94 | 54932 | 2.601 | ppbV | 99 |
| 9) chloroethane | 5.55 | 64 | 26845 | 2.575 | ppbV | 99 |
| 10) ethanol | 5.74 | 31 | 264001M6 | 12.933 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 54730 | 2.576 | ppbV | 100 |
| 12) acetone | 6.40 | 43 | 570971 | 13.003 | ppbV | 98 |
| 13) trichlorofluoromethane | 6.63 | 101 | 166165 | 2.604 | ppbV | 100 |
| 14) isopropyl alcohol | 6.76 | 45 | 152205 | 2.603 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 55523 | 2.604 | ppbV | 99 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 103371 | 2.620 | ppbV | 100 |
| 17) methylene chloride | 7.64 | 49 | 94088M4 | 2.637 | ppbV | |
| 18) 3-chloropropene | 7.79 | 41 | 91381 | 2.572 | ppbV | 100 |
| 19) carbon disulfide | 7.98 | 76 | 161385 | 2.594 | ppbV | 92 |
| 20) Freon 113 | 7.99 | 101 | 115563 | 2.595 | ppbV | 100 |
| 21) Halothane | 8.59 | 117 | 88845 | 2.578 | ppbV | 100 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 99745M4 | 2.591 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 114857 | 2.586 | ppbV | 100 |
| 24) MTBE | 9.16 | 73 | 136051 | 2.593 | ppbV | 98 |
| 25) vinyl acetate | 9.28 | 43 | 186530 | 2.573 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD2.5
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:28:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.57 | 43 | 177572 | 2.969 | ppbV | 99 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 98500 | 2.572 | ppbV | 99 |
| 28) | Ethyl Acetate | 10.36 | 61 | 23259 | 2.553 | ppbV | 92 |
| 29) | chloroform | 10.43 | 83 | 127738 | 2.587 | ppbV | 99 |
| 30) | Tetrahydrofuran | 10.90 | 42 | 98619 | 2.596 | ppbV | 99 |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 95242 | 2.589 | ppbV | 100 |
| 33) | hexane | 10.32 | 57 | 107847 | 2.578 | ppbV | 94 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 124789 | 2.552 | ppbV | 98 |
| 36) | benzene | 12.08 | 78 | 174880 | 2.578 | ppbV | 100 |
| 37) | carbon tetrachloride | 12.26 | 117 | 130234 | 2.557 | ppbV | 100 |
| 38) | cyclohexane | 12.40 | 56 | 112114 | 2.586 | ppbV | 99 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 80106 | 2.577 | ppbV | 99 |
| 40) | bromodichloromethane | 13.24 | 83 | 138452 | 2.511 | ppbV | 99 |
| 41) | 1,4-dioxane | 13.29 | 88 | 38979 | 2.560 | ppbV | 96 |
| 42) | trichloroethene | 13.29 | 130 | 87056 | 2.564 | ppbV | 100 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 362073 | 2.585 | ppbV | 100 |
| 44) | heptane | 13.61 | 43 | 152535 | 2.577 | ppbV | 99 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 99641 | 2.554 | ppbV | 100 |
| 46) | 4-methyl-2-pentanone | 14.31 | 43 | 215367 | 2.552 | ppbV | 100 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 100778 | 2.529 | ppbV | 99 |
| 48) | 1,1,2-trichloroethane | 15.03 | 97 | 78460 | 2.591 | ppbV | 99 |
| 50) | toluene | 15.31 | 91 | 218146M4 | 2.569 | ppbV | |
| 52) | 2-hexanone | 15.56 | 43 | 204064M4 | 2.509 | ppbV | |
| 53) | dibromochloromethane | 15.73 | 129 | 153661M4 | 2.505 | ppbV | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 134187M4 | 2.558 | ppbV | |
| 55) | tetrachloroethene | 16.36 | 166 | 107918 | 2.552 | ppbV | 99 |
| 56) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 111293 | 2.538 | ppbV | 100 |
| 57) | chlorobenzene | 16.94 | 112 | 184394 | 2.545 | ppbV | 100 |
| 58) | ethylbenzene | 17.23 | 91 | 283814 | 2.555 | ppbV | 98 |
| 59) | m+p-xylene | 17.38 | 91 | 447150 | 5.124 | ppbV | 99 |
| 60) | bromoform | 17.45 | 173 | 148599 | 2.484 | ppbV | 100 |
| 61) | styrene | 17.66 | 104 | 173244 | 2.528 | ppbV | 100 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 188780 | 2.548 | ppbV | 99 |
| 63) | o-xylene | 17.74 | 91 | 229997 | 2.556 | ppbV | 100 |
| 65) | isopropylbenzene | 18.18 | 105 | 335376 | 2.567 | ppbV | 100 |
| 66) | 4-ethyl toluene | 18.66 | 105 | 340596 | 2.545 | ppbV | 99 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 273446 | 2.558 | ppbV | 99 |
| 68) | tert-butylbenzene | 19.03 | 119 | 314740 | 2.548 | ppbV | 100 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 273954 | 2.534 | ppbV | 99 |
| 70) | Benzyl Chloride | 19.14 | 91 | 234001 | 2.435 | ppbV | 100 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 207591 | 2.531 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD2.5
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:28:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 72) | 1,4-dichlorobenzene | 19.21 | 146 | 211386 | 2.528 | ppbV | 99 |
| 73) | sec-butylbenzene | 19.22 | 105 | 435946 | 2.551 | ppbV | 100 |
| 74) | p-isopropyltoluene | 19.34 | 119 | 392094 | 2.521 | ppbV | 100 |
| 75) | 1,2-dichlorobenzene | 19.47 | 146 | 198550 | 2.526 | ppbV | 99 |
| 76) | n-butylbenzene | 19.66 | 91 | 365556 | 2.514 | ppbV | 99 |
| 77) | 1,2,4-trichlorobenzene | 20.92 | 180 | 157195 | 2.299 | ppbV | 100 |
| 78) | naphthalene | 21.04 | 128 | 397396 | 2.329 | ppbV | 100 |
| 79) | 1,2,3-trichlorobenzene | 21.30 | 180 | 151645 | 2.280 | ppbV | 100 |
| 80) | hexachlorobutadiene | 21.36 | 225 | 121124 | 2.346 | ppbV | 100 |

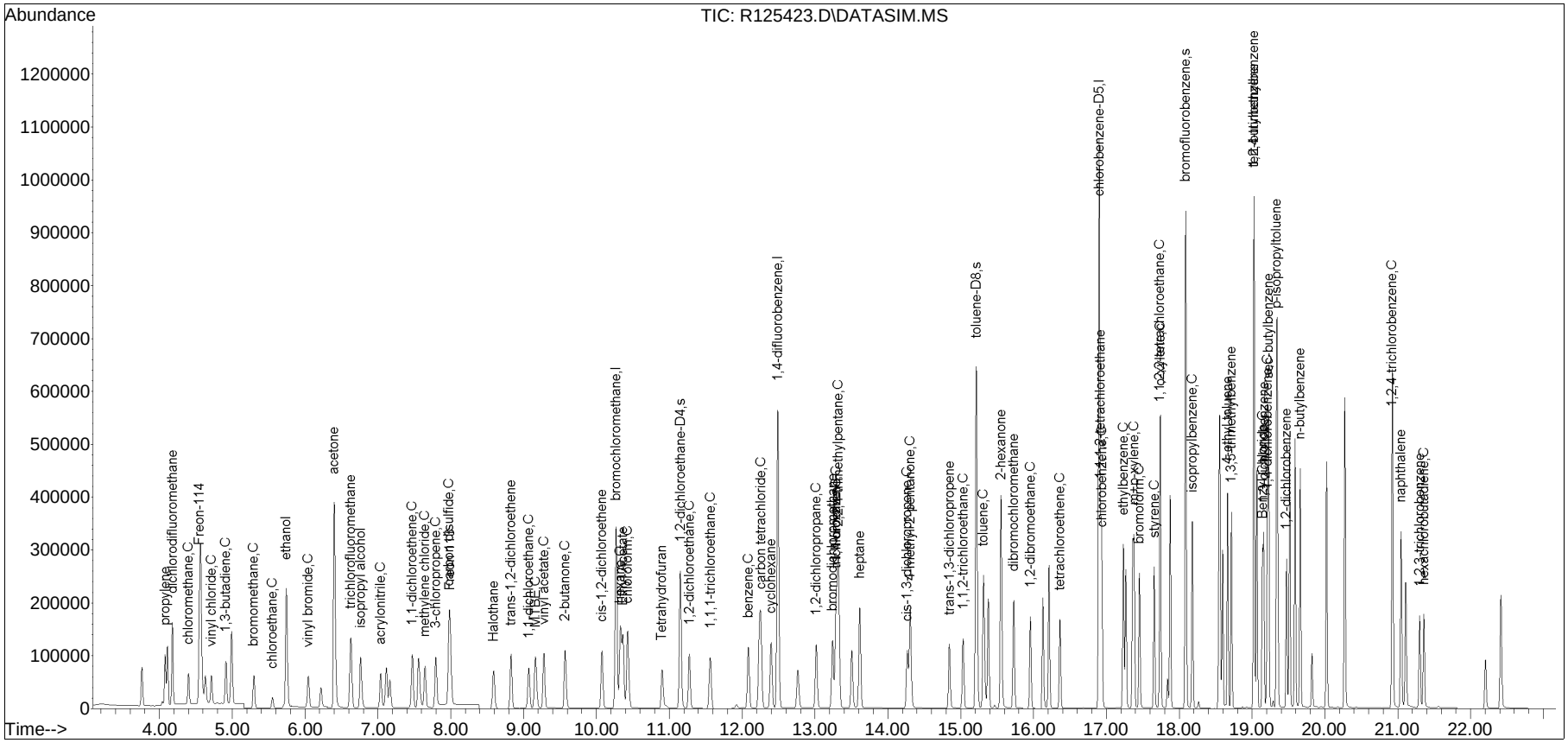
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD2.5
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:28:26 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

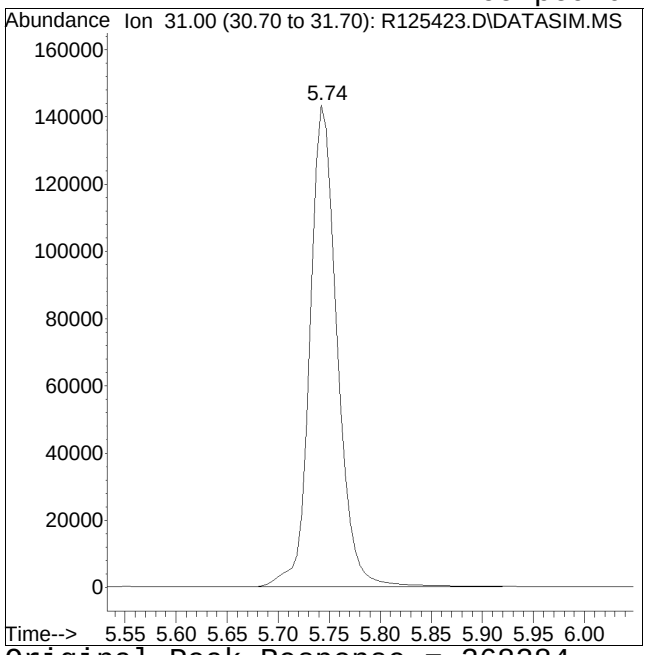


Manual Integration/Negative Proof Report

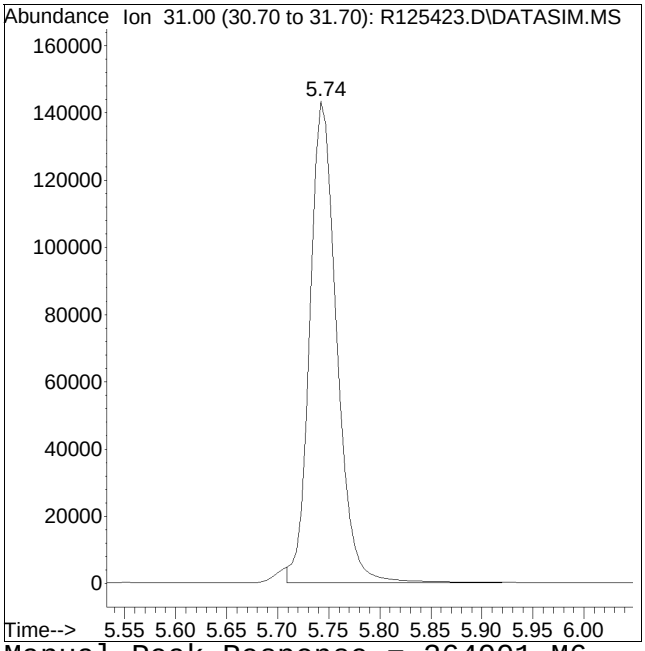
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #10: ethanol




Original Peak Response = 268284




Manual Peak Response = 264001 M6

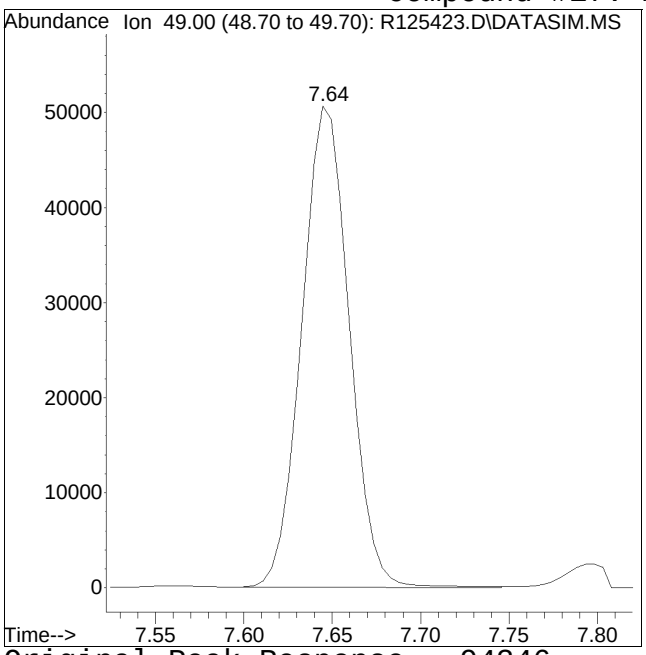
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

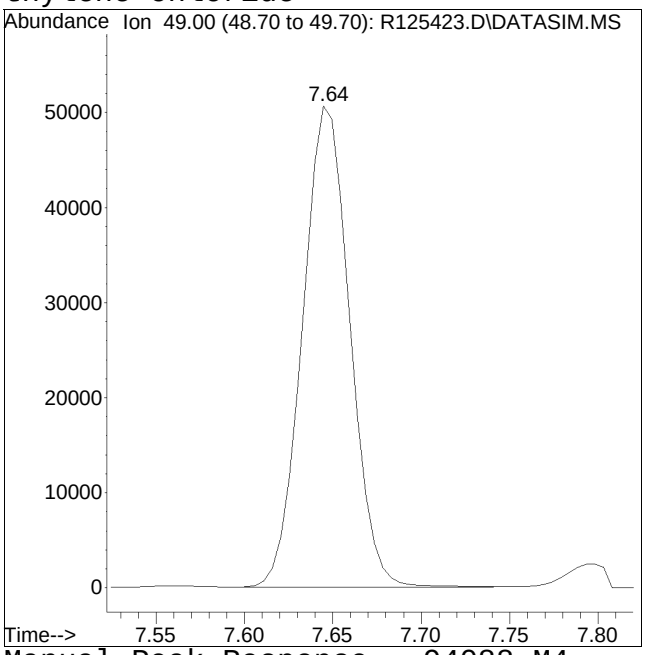
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #17: methylene chloride




Original Peak Response = 94346




Manual Peak Response = 94088 M4

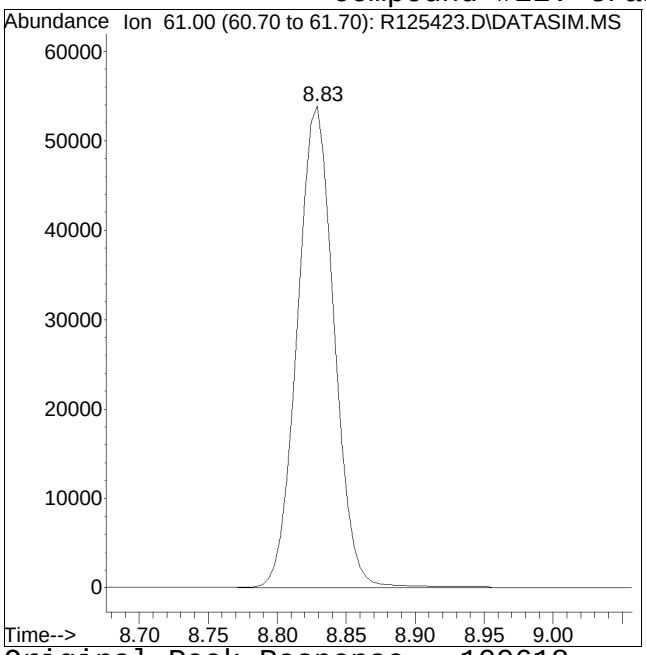
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

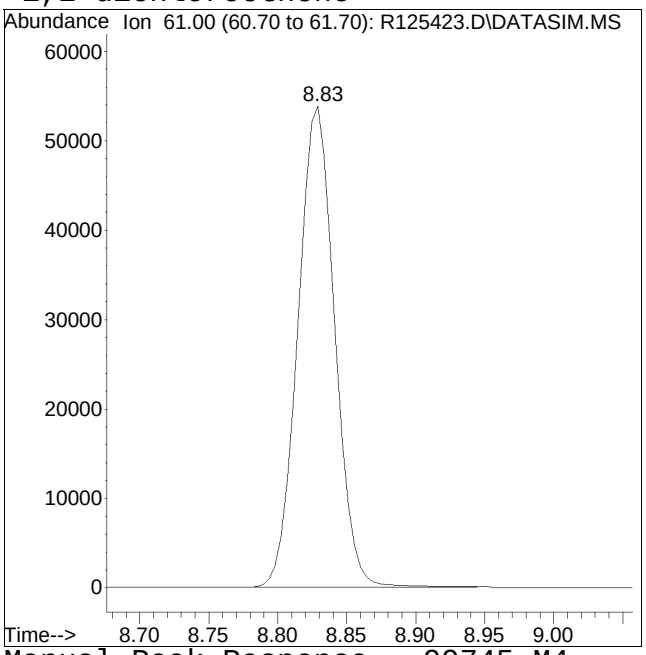
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 100618




Manual Peak Response = 99745 M4

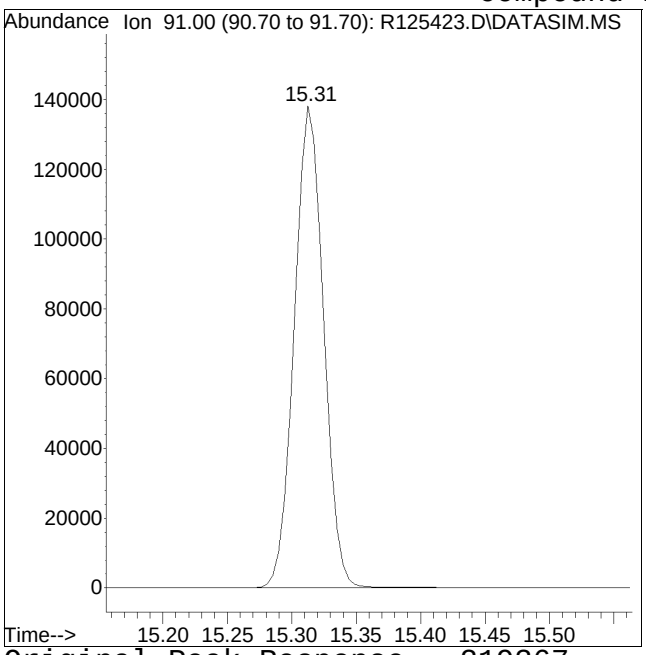
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

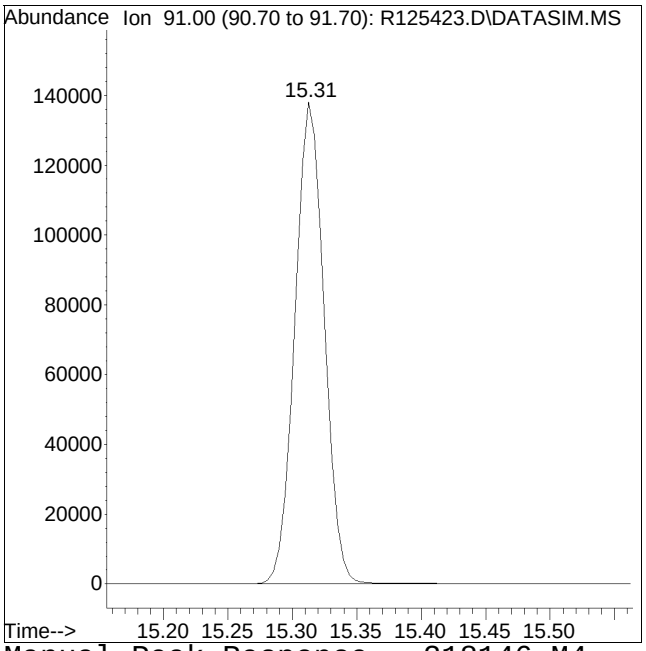
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #50: toluene




Original Peak Response = 219367




Manual Peak Response = 218146 M4

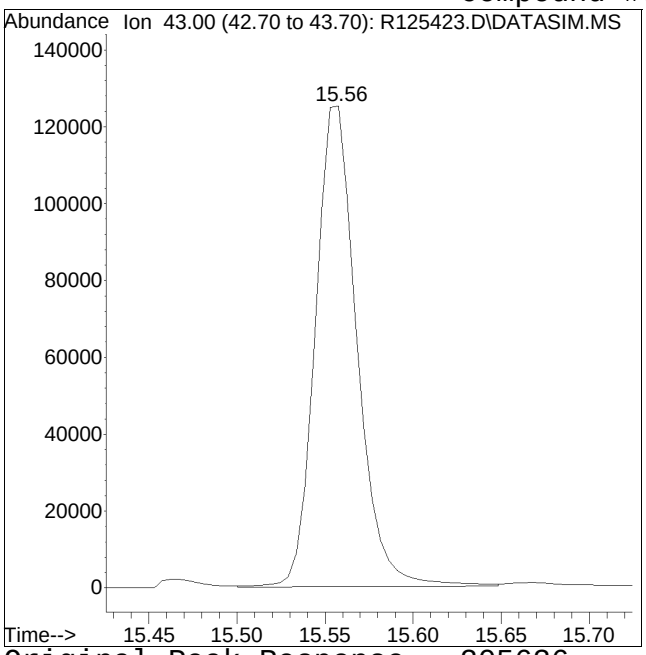
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

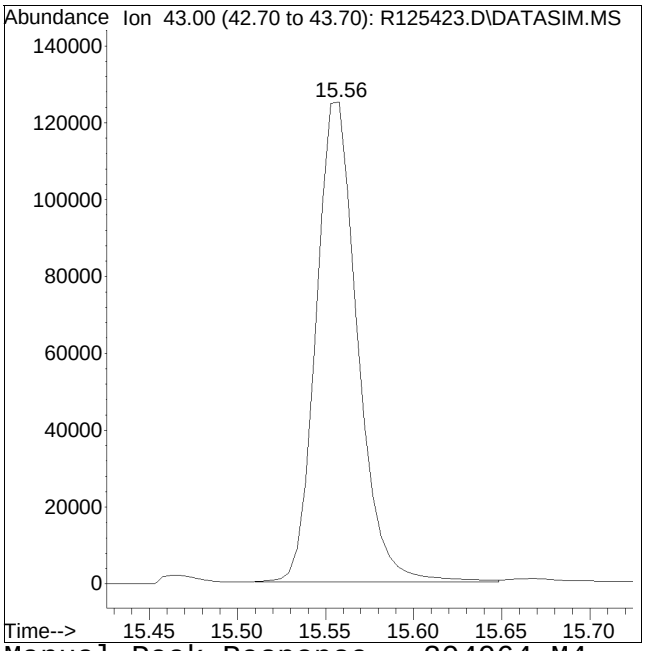
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #52: 2-hexanone




Original Peak Response = 205636




Manual Peak Response = 204064 M4

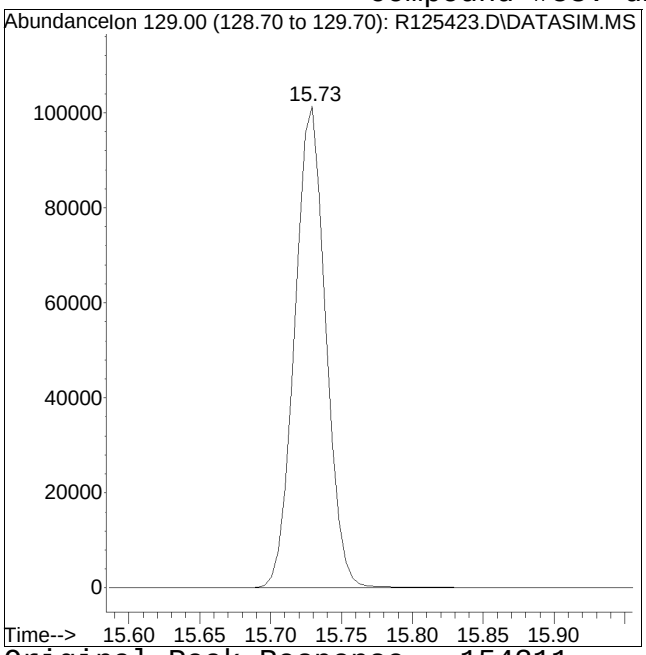
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

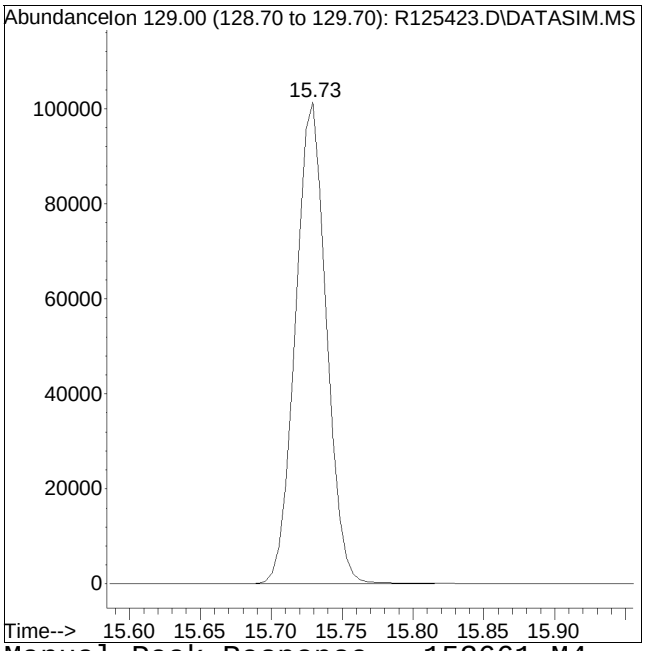
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #53: dibromochloromethane




Original Peak Response = 154311




Manual Peak Response = 153661 M4

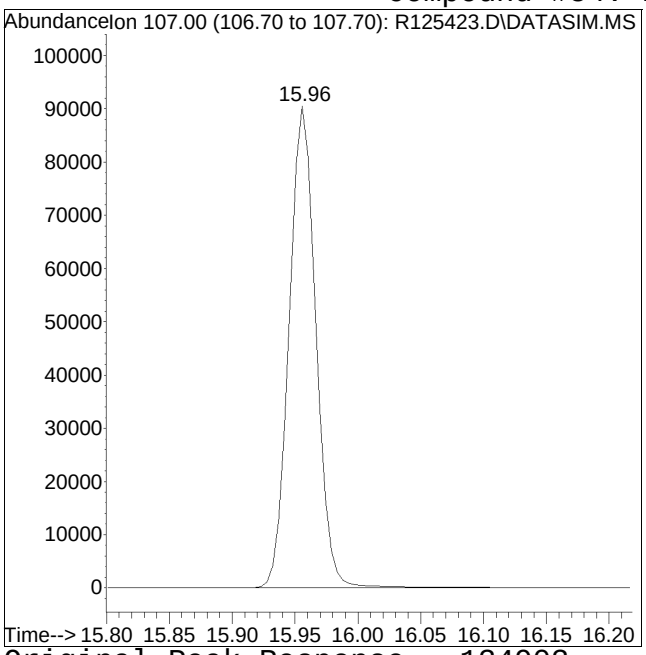
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

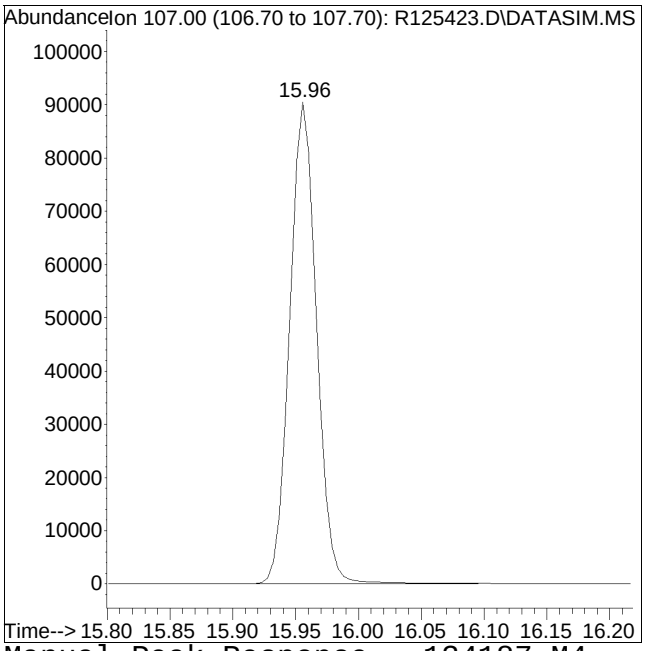
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:10 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 134903




Manual Peak Response = 134187 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:09:00 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Dec 11 15:56:54 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 409509 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 100.00% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 853543 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 100.00% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 213504 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 274551 | 11.238 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 112.38% | | | |
| 51) toluene-D8 | 15.21 | 98 | 627859 | 9.640 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 96.40% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 488133 | 10.078 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.78% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 109087 | 4.756 | ppbV | 87 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 264597 | 4.935 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 125765 | 4.959 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 299730 | 5.220 | ppbV | 97 |
| 6) vinyl chloride | 4.72 | 62 | 118802 | 5.093 | ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 92943 | 5.369 | ppbV | 84 |
| 8) bromomethane | 5.30 | 94 | 107799 | 5.441 | ppbV | 100 |
| 9) chloroethane | 5.55 | 64 | 53216 | 4.944 | ppbV | 100 |
| 10) ethanol | 5.74 | 31 | 521000 | 35.028 | ppbV | 90 |
| 11) vinyl bromide | 6.04 | 106 | 108470 | 5.329 | ppbV | 99 |
| 12) acetone | 6.40 | 43 | 1120748 | 33.653 | ppbV | 93 |
| 13) trichlorofluoromethane | 6.63 | 101 | 325756 | 5.918 | ppbV | 100 |
| 14) isopropyl alcohol | 6.76 | 45 | 298443 | 6.697 | ppbV | 99 |
| 15) acrylonitrile | 7.04 | 53 | 108846 | 6.046 | ppbV | 98 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 201443 | 5.227 | ppbV | 98 |
| 17) methylene chloride | 7.64 | 49 | 182165 | 5.531 | ppbV | 95 |
| 18) 3-chloropropene | 7.79 | 41 | 181387 | 5.697 | ppbV | 96 |
| 19) carbon disulfide | 7.98 | 76 | 317548 | 4.880 | ppbV # | 87 |
| 20) Freon 113 | 7.99 | 101 | 227331 | 5.370 | ppbV | 96 |
| 21) Halothane | 8.59 | 117 | 175945 | 5.006 | ppbV | 92 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 196491M4 | 4.533 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 226737 | 5.014 | ppbV | 100 |
| 24) MTBE | 9.16 | 73 | 267830 | 4.808 | ppbV | 95 |
| 25) vinyl acetate | 9.28 | 43 | 370050 | 4.890 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:09:00 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Dec 11 15:56:54 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.56 | 43 | 305345 | 4.365 | ppbV | | 98 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 195488 | 5.114 | ppbV | | 97 |
| 28) | Ethyl Acetate | 10.36 | 61 | 46502 | 4.785 | ppbV | | 78 |
| 29) | chloroform | 10.43 | 83 | 252027 | 5.428 | ppbV | | 98 |
| 30) | Tetrahydrofuran | 10.89 | 42 | 193951 | 5.877 | ppbV | | 97 |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 187773 | 5.145 | ppbV | | 98 |
| 33) | hexane | 10.32 | 57 | 212103 | 5.161 | ppbV | # | 66 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 247874 | 5.591 | ppbV | | 98 |
| 36) | benzene | 12.09 | 78 | 343944 | 5.074 | ppbV | | 99 |
| 37) | carbon tetrachloride | 12.26 | 117 | 258211 | 5.438 | ppbV | | 98 |
| 38) | cyclohexane | 12.40 | 56 | 219758 | 5.085 | ppbV | # | 90 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 157566 | 5.383 | ppbV | # | 94 |
| 40) | bromodichloromethane | 13.24 | 83 | 279501 | 5.936 | ppbV | | 98 |
| 41) | 1,4-dioxane | 13.29 | 88 | 77173 | 5.124 | ppbV | | 91 |
| 42) | trichloroethene | 13.29 | 130 | 172101 | 5.284 | ppbV | | 98 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 709998 | 5.240 | ppbV | | 91 |
| 44) | heptane | 13.61 | 43 | 300055 | 5.666 | ppbV | | 93 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 197767 | 5.554 | ppbV | | 90 |
| 46) | 4-methyl-2-pentanone | 14.30 | 43 | 427736 | 5.993 | ppbV | | 94 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 201973 | 5.765 | ppbV | | 90 |
| 48) | 1,1,2-trichloroethane | 15.03 | 97 | 153521 | 5.582 | ppbV | | 91 |
| 50) | toluene | 15.31 | 91 | 428375M4 | 5.078 | ppbV | | |
| 52) | 2-hexanone | 15.55 | 43 | 410185 | 6.007 | ppbV | | 91 |
| 53) | dibromochloromethane | 15.73 | 129 | 309451M4 | 5.518 | ppbV | | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 264571M4 | 5.450 | ppbV | | |
| 55) | tetrachloroethene | 16.36 | 166 | 213294 | 4.841 | ppbV | # | 90 |
| 56) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 221158 | 5.858 | ppbV | | 93 |
| 57) | chlorobenzene | 16.94 | 112 | 365390 | 5.157 | ppbV | | 98 |
| 58) | ethylbenzene | 17.23 | 91 | 560195 | 5.196 | ppbV | | 100 |
| 59) | m+p-xylene | 17.38 | 91 | 880266 | 10.451 | ppbV | | 98 |
| 60) | bromoform | 17.45 | 173 | 301727 | 5.358 | ppbV | | 99 |
| 61) | styrene | 17.66 | 104 | 345696 | 4.921 | ppbV | | 98 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 373704 | 5.793 | ppbV | | 99 |
| 63) | o-xylene | 17.74 | 91 | 453837 | 5.226 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 658958 | 5.111 | ppbV | | 99 |
| 66) | 4-ethyl toluene | 18.66 | 105 | 675131 | 5.288 | ppbV | | 98 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 539192 | 5.300 | ppbV | | 98 |
| 68) | tert-butylbenzene | 19.03 | 119 | 623006 | 5.098 | ppbV | | 99 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 545332 | 5.327 | ppbV | | 99 |
| 70) | Benzyl Chloride | 19.14 | 91 | 484683 | 5.467 | ppbV | | 98 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 413708 | 5.219 | ppbV | | 91 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:09:00 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Dec 11 15:56:54 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 421754 | 5.262 ppbV | 97 |
| 73) sec-butylbenzene | 19.22 | 105 | 861932 | 5.307 ppbV | 96 |
| 74) p-isopropyltoluene | 19.34 | 119 | 784470 | 5.355 ppbV | 99 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 396484 | 5.251 ppbV | 95 |
| 76) n-butylbenzene | 19.66 | 91 | 733429 | 5.634 ppbV | 100 |
| 77) 1,2,4-trichlorobenzene | 20.92 | 180 | 344899 | 5.488 ppbV # | 91 |
| 78) naphthalene | 21.04 | 128 | 860601 | 5.629 ppbV | 99 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 335409 | 4.831 ppbV # | 91 |
| 80) hexachlorobutadiene | 21.36 | 225 | 260365 | 4.835 ppbV # | 93 |

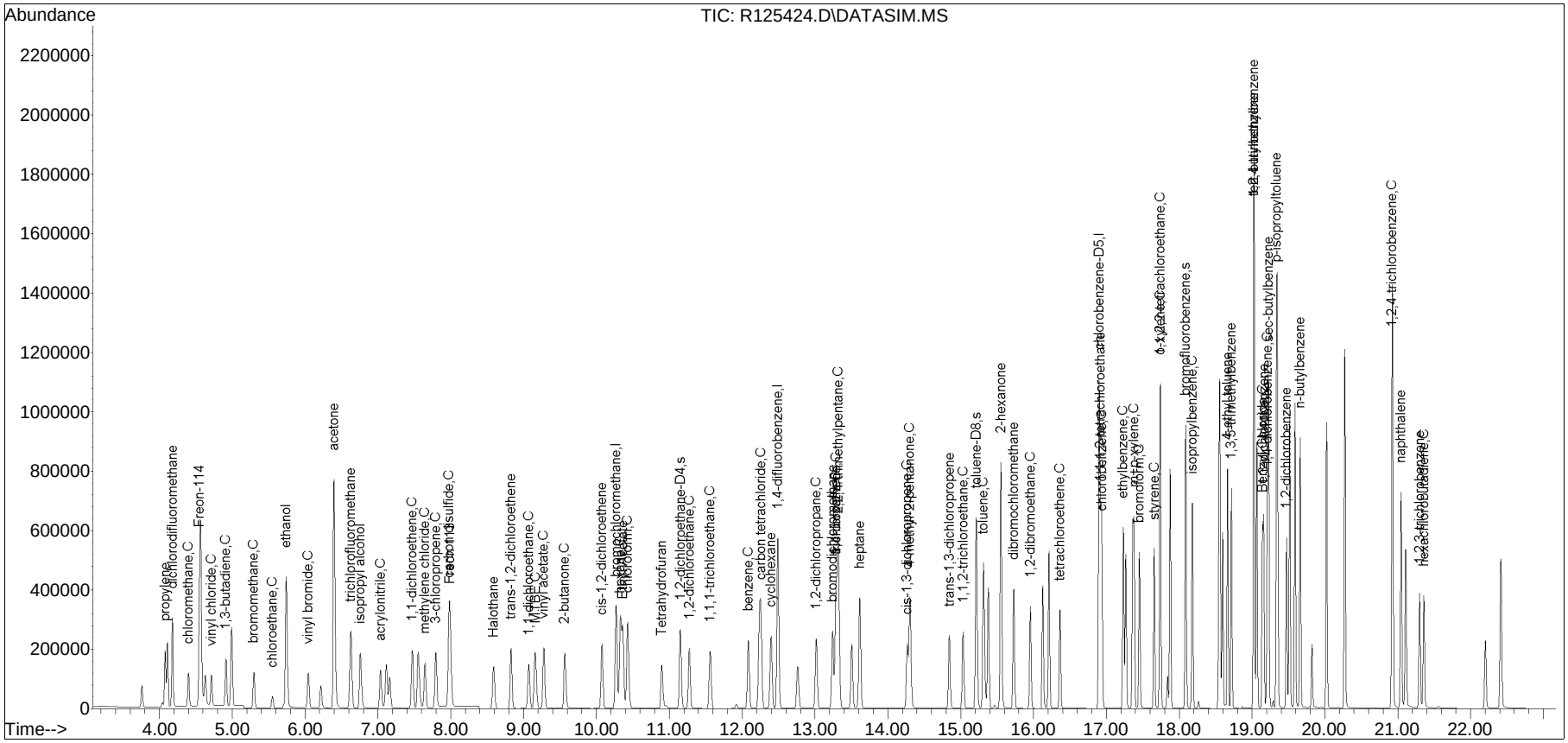
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 12:09:00 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Dec 11 15:56:54 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

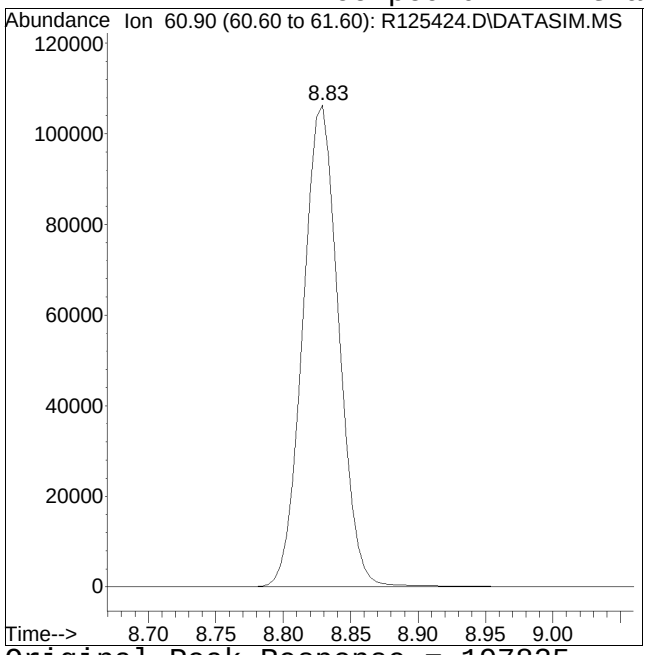


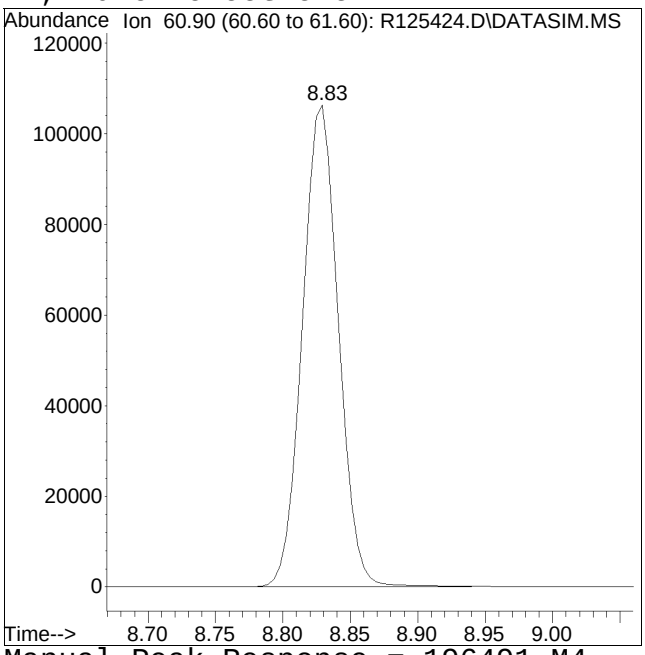
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:05 pm

Compound #22: trans-1,2-dichloroethene



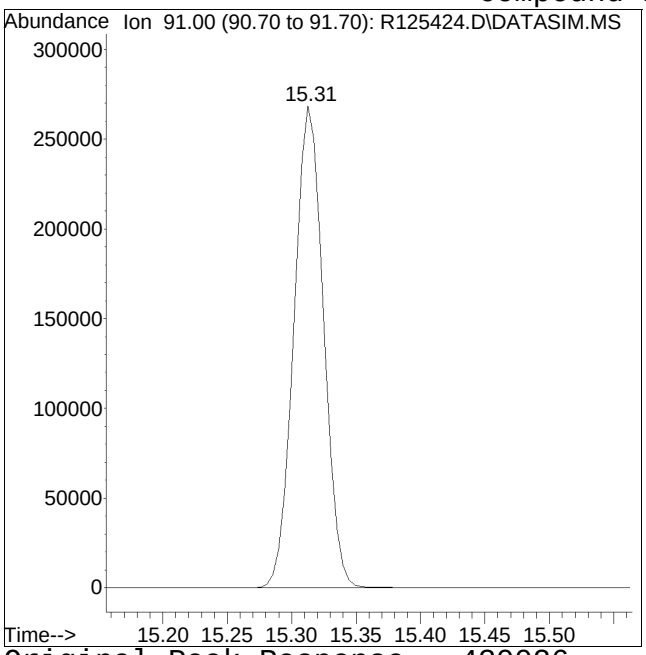

Original Peak Response = 197825 Manual Peak Response = 196491 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

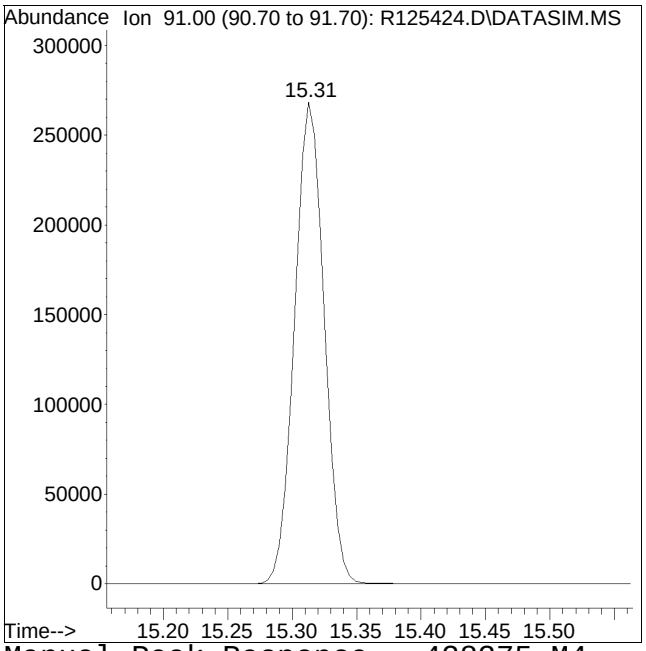
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:05 pm

Compound #50: toluene




Original Peak Response = 430026




Manual Peak Response = 428375 M4

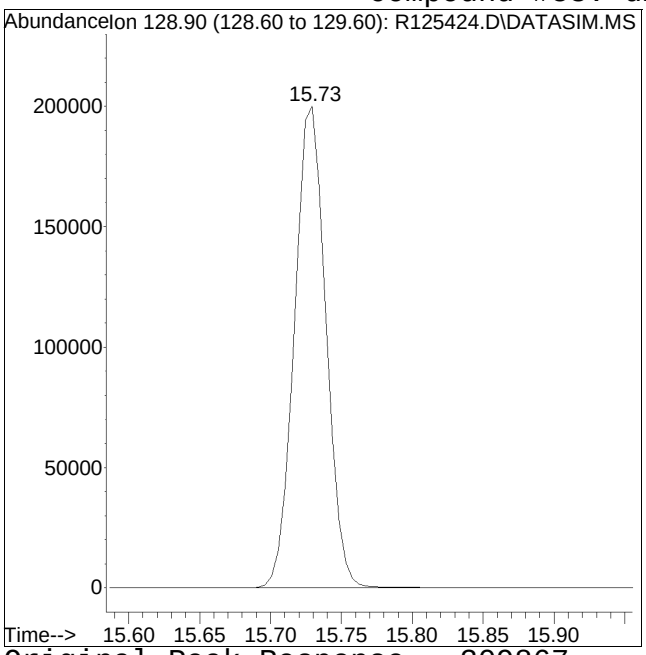
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

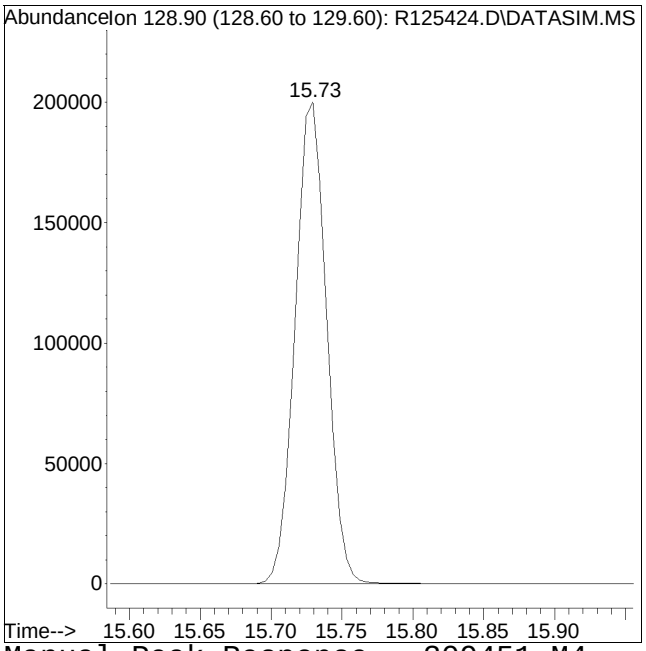
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:05 pm

Compound #53: dibromochloromethane




Original Peak Response = 309867




Manual Peak Response = 309451 M4

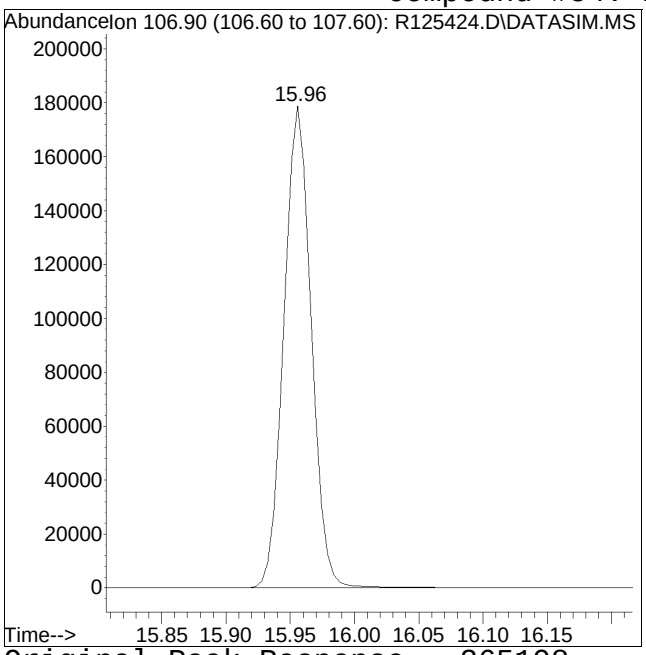
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

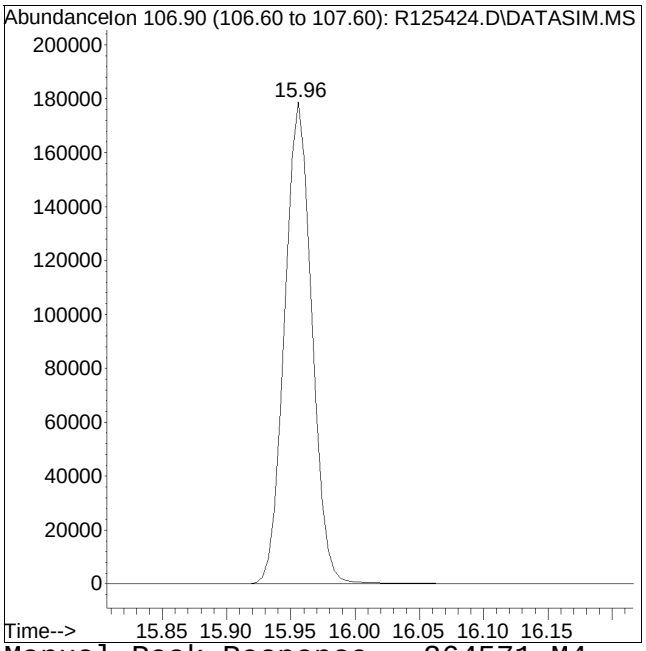
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:05 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 265198




Manual Peak Response = 264571 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD10.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:31:36 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 408906 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 99.85% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 849395 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 99.51% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 213300 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 99.90% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 275489 | 10.083 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.83% | | | |
| 51) toluene-D8 | 15.21 | 98 | 632192 | 10.079 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.79% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 495098 | 10.152 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.52% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 214794 | 9.860 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 538787 | 10.196 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 250420 | 9.971 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 596827 | 9.971 | ppbV | 100 |
| 6) vinyl chloride | 4.72 | 62 | 237015 | 9.990 | ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 185384 | 9.988 | ppbV | 99 |
| 8) bromomethane | 5.30 | 94 | 215875 | 10.028 | ppbV | 100 |
| 9) chloroethane | 5.55 | 64 | 106247 | 9.997 | ppbV | 100 |
| 10) ethanol | 5.74 | 31 | 990488M6 | 47.598 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 216977 | 10.016 | ppbV | 100 |
| 12) acetone | 6.39 | 43 | 2183958 | 48.788 | ppbV | 100 |
| 13) trichlorofluoromethane | 6.63 | 101 | 651624 | 10.016 | ppbV | 100 |
| 14) isopropyl alcohol | 6.76 | 45 | 592079 | 9.934 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 219120 | 10.080 | ppbV | 99 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 405375 | 10.077 | ppbV | 100 |
| 17) methylene chloride | 7.64 | 49 | 358979M4 | 9.868 | ppbV | |
| 18) 3-chloropropene | 7.79 | 41 | 359590 | 9.927 | ppbV | 100 |
| 19) carbon disulfide | 7.98 | 76 | 637417 | 10.051 | ppbV | 95 |
| 20) Freon 113 | 7.99 | 101 | 456037 | 10.045 | ppbV | 100 |
| 21) Halothane | 8.59 | 117 | 346106 | 9.850 | ppbV | 99 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 390454M4 | 9.950 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 451776 | 9.977 | ppbV | 100 |
| 24) MTBE | 9.16 | 73 | 531904 | 9.945 | ppbV | 100 |
| 25) vinyl acetate | 9.28 | 43 | 742485 | 10.047 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD10.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:31:36 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 2-butanone | 9.56 | 43 | 607739 | 9.966 | ppbV | 100 |
| 27) cis-1,2-dichloroethene | 10.07 | 61 | 341981 | 8.760 | ppbV | 99 |
| 28) Ethyl Acetate | 10.36 | 61 | 93697 | 10.089 | ppbV | 94 |
| 29) chloroform | 10.43 | 83 | 503470 | 10.003 | ppbV | 100 |
| 30) Tetrahydrofuran | 10.89 | 42 | 383928 | 9.912 | ppbV | 100 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 376022 | 10.027 | ppbV | 100 |
| 33) hexane | 10.32 | 57 | 425693 | 10.084 | ppbV | 97 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 491828 | 9.969 | ppbV | 100 |
| 36) benzene | 12.09 | 78 | 690265 | 10.084 | ppbV | 100 |
| 37) carbon tetrachloride | 12.26 | 117 | 521242 | 10.143 | ppbV | 100 |
| 38) cyclohexane | 12.40 | 56 | 441653 | 10.098 | ppbV | 99 |
| 39) 1,2-dichloropropane | 13.02 | 63 | 317377 | 10.120 | ppbV | 99 |
| 40) bromodichloromethane | 13.24 | 83 | 555615 | 9.988 | ppbV | 100 |
| 41) 1,4-dioxane | 13.28 | 88 | 157129 | 10.230 | ppbV | 98 |
| 42) trichloroethene | 13.29 | 130 | 341345 | 9.965 | ppbV | 100 |
| 43) 2,2,4-trimethylpentane | 13.32 | 57 | 1405424 | 9.946 | ppbV | 100 |
| 44) heptane | 13.61 | 43 | 600680 | 10.058 | ppbV | 99 |
| 45) cis-1,3-dichloropropene | 14.27 | 75 | 402279 | 10.220 | ppbV | 99 |
| 46) 4-methyl-2-pentanone | 14.30 | 43 | 854408 | 10.036 | ppbV | 100 |
| 47) trans-1,3-dichloropropene | 14.85 | 75 | 411779 | 10.244 | ppbV | 100 |
| 48) 1,1,2-trichloroethane | 15.03 | 97 | 310998 | 10.178 | ppbV | 100 |
| 50) toluene | 15.31 | 91 | 853365M4 | 9.970 | ppbV | |
| 52) 2-hexanone | 15.55 | 43 | 826726 | 10.087 | ppbV | 98 |
| 53) dibromochloromethane | 15.73 | 129 | 628405M4 | 10.163 | ppbV | |
| 54) 1,2-dibromoethane | 15.96 | 107 | 531808M4 | 10.060 | ppbV | |
| 55) tetrachloroethene | 16.36 | 166 | 429649 | 10.081 | ppbV | 99 |
| 56) 1,1,1,2-tetrachloroethane | 16.92 | 131 | 445299 | 10.077 | ppbV | 99 |
| 57) chlorobenzene | 16.94 | 112 | 734089 | 10.055 | ppbV | 100 |
| 58) ethylbenzene | 17.23 | 91 | 1123956 | 10.041 | ppbV | 100 |
| 59) m+p-xylene | 17.38 | 91 | 1769144 | 20.117 | ppbV | 100 |
| 60) bromoform | 17.45 | 173 | 624764 | 10.363 | ppbV | 100 |
| 61) styrene | 17.66 | 104 | 699424 | 10.126 | ppbV | 100 |
| 62) 1,1,2,2-tetrachloroethane | 17.74 | 83 | 755011 | 10.111 | ppbV | 99 |
| 63) o-xylene | 17.74 | 91 | 912555 | 10.063 | ppbV | 100 |
| 65) isopropylbenzene | 18.18 | 105 | 1311542 | 9.961 | ppbV | 100 |
| 66) 4-ethyl toluene | 18.66 | 105 | 1345416 | 9.974 | ppbV | 100 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 1090696 | 10.124 | ppbV | 100 |
| 68) tert-butylbenzene | 19.03 | 119 | 1240005 | 9.961 | ppbV | 100 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 1104208 | 10.134 | ppbV | 98 |
| 70) Benzyl Chloride | 19.14 | 91 | 1010742 | 10.437 | ppbV | 99 |
| 71) 1,3-dichlorobenzene | 19.16 | 146 | 844501 | 10.216 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD10.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:31:36 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 856709 | 10.166 | ppbV | 100 |
| 73) sec-butylbenzene | 19.22 | 105 | 1694354 | 9.838 | ppbV | 100 |
| 74) p-isopropyltoluene | 19.34 | 119 | 1548235 | 9.877 | ppbV | 99 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 805131 | 10.163 | ppbV | 100 |
| 76) n-butylbenzene | 19.66 | 91 | 1437294 | 9.808 | ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.92 | 180 | 718346 | 10.424 | ppbV | 100 |
| 78) naphthalene | 21.04 | 128 | 1770375 | 10.296 | ppbV | 100 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 731188 | 10.910 | ppbV | 99 |
| 80) hexachlorobutadiene | 21.36 | 225 | 542103 | 10.420 | ppbV | 99 |

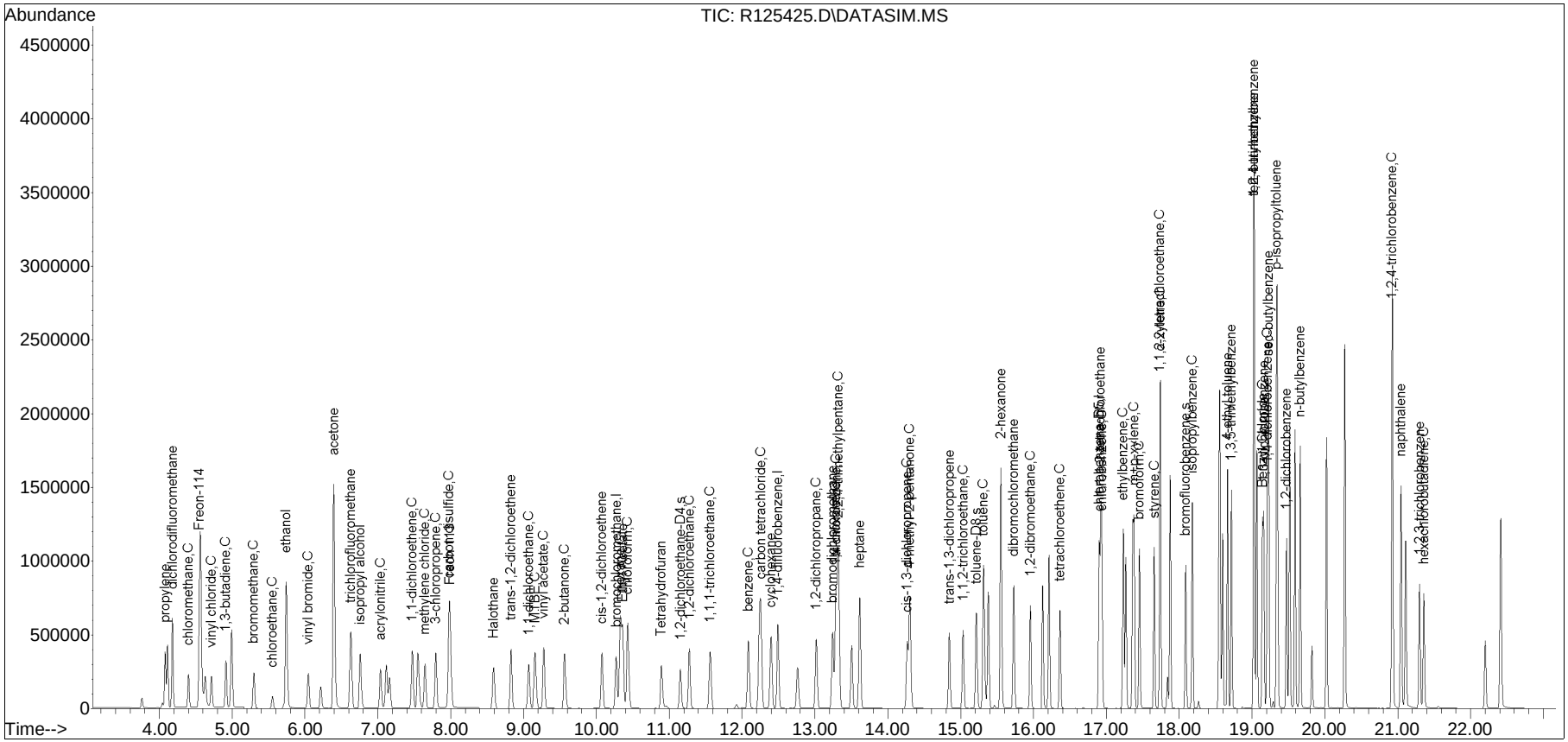
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD10.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:31:36 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

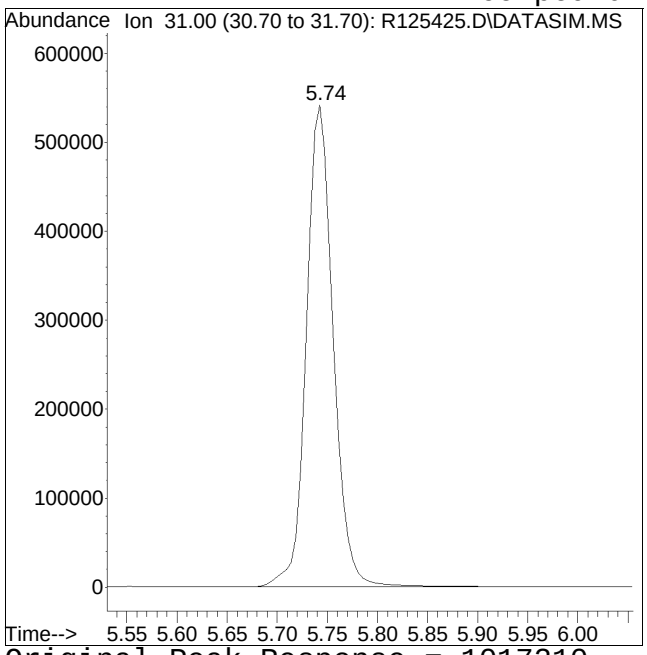


Manual Integration/Negative Proof Report

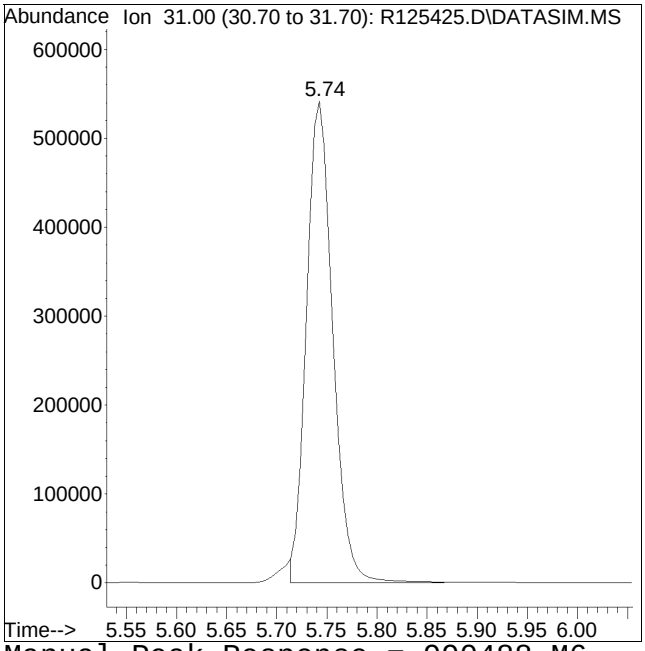
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #10: ethanol




Original Peak Response = 1017210




Manual Peak Response = 990488 M6

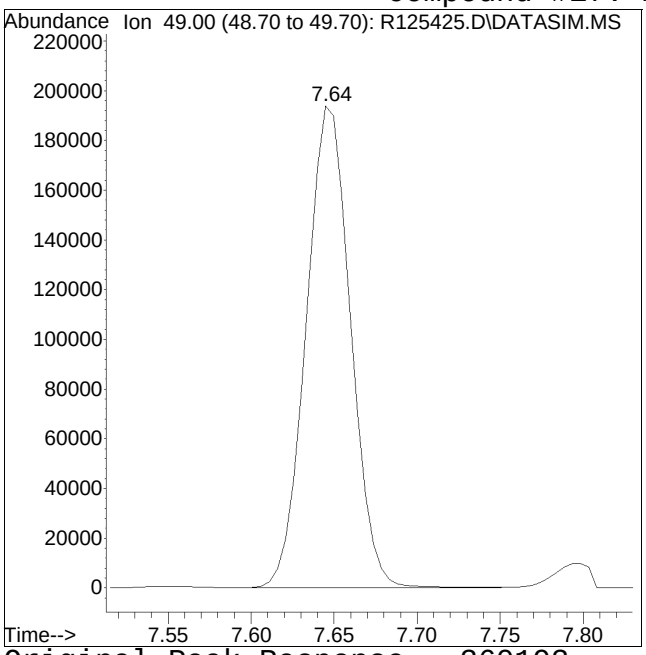
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

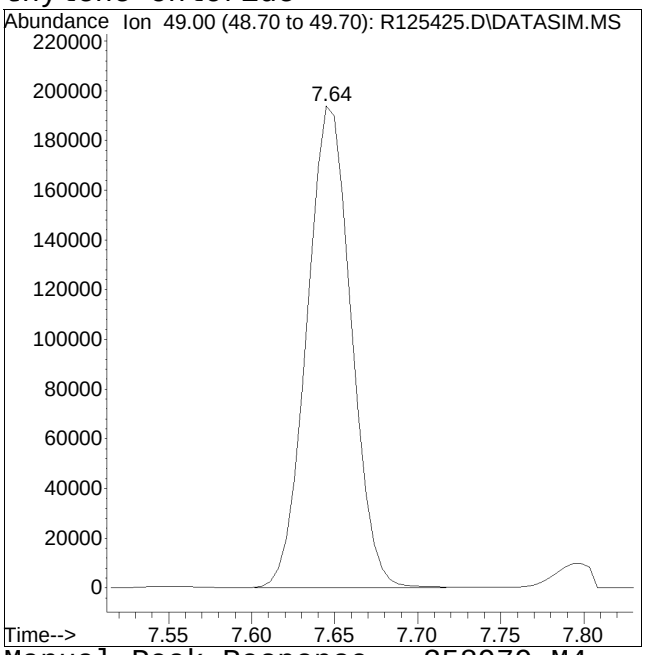
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #17: methylene chloride




Original Peak Response = 360193




Manual Peak Response = 358979 M4

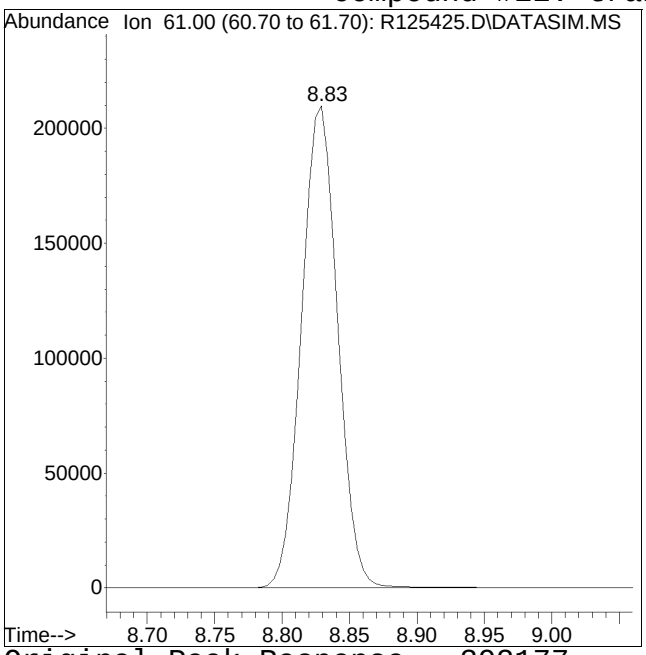
M4 = Poor automated baseline construction.

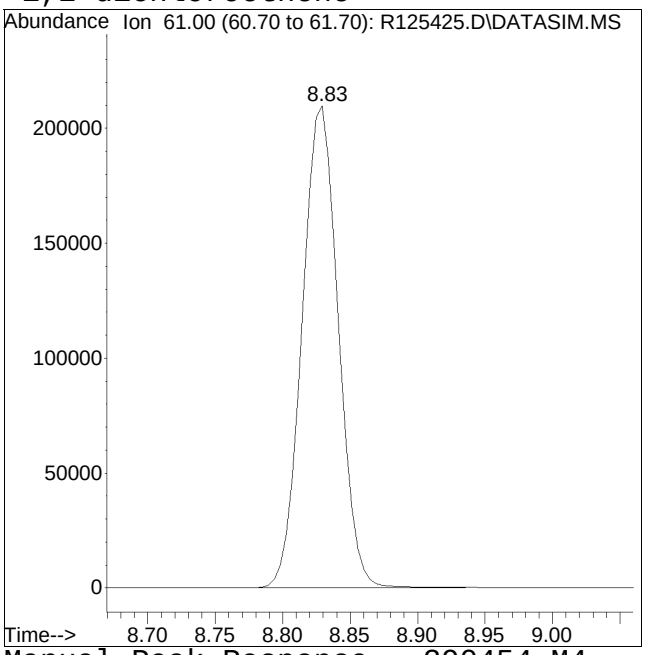
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #22: trans-1,2-dichloroethene



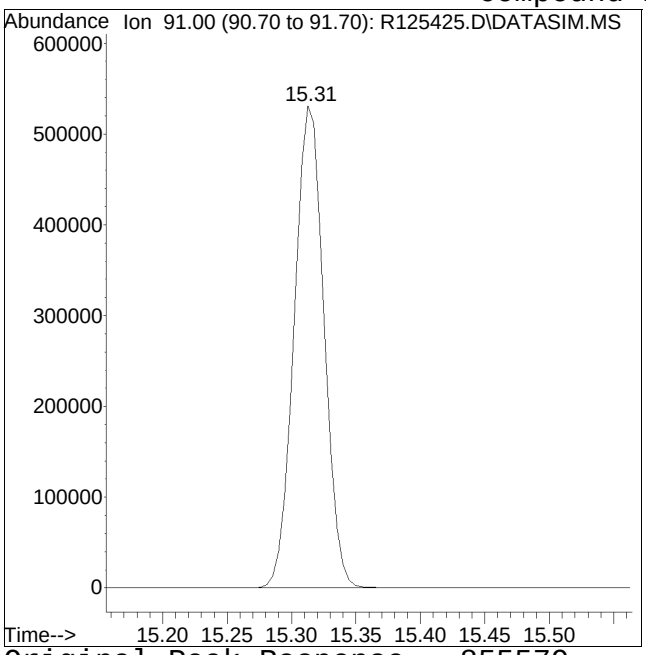

Original Peak Response = 392177 Manual Peak Response = 390454 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

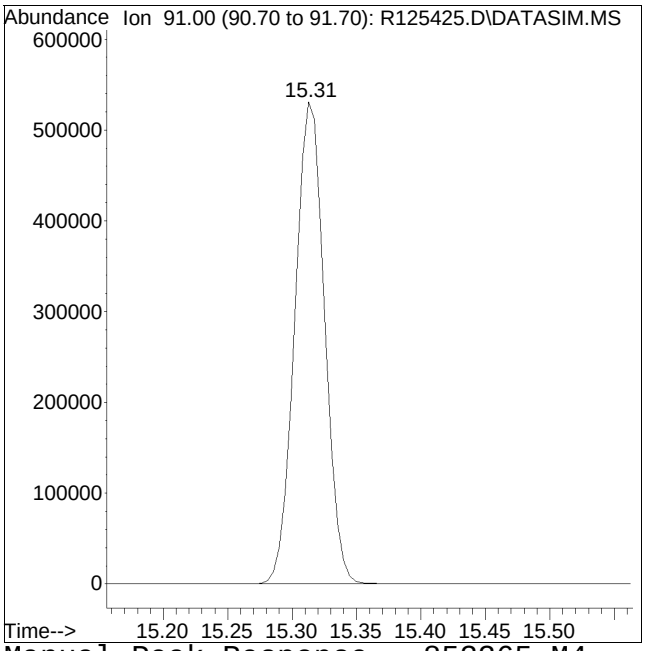
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #50: toluene




Original Peak Response = 855579




Manual Peak Response = 853365 M4

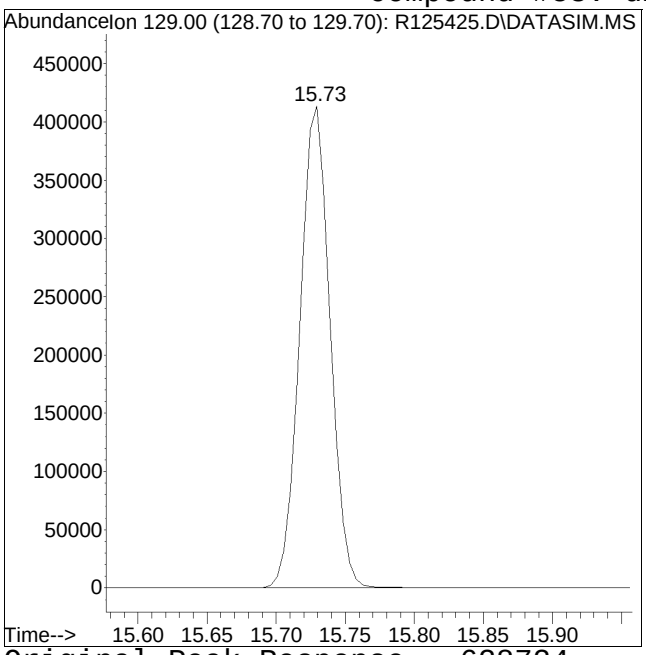
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

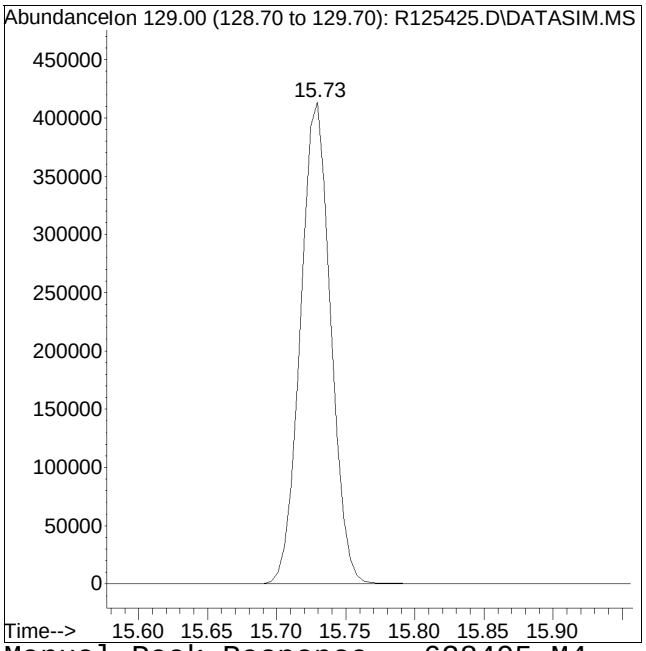
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #53: dibromochloromethane




Original Peak Response = 628724




Manual Peak Response = 628405 M4

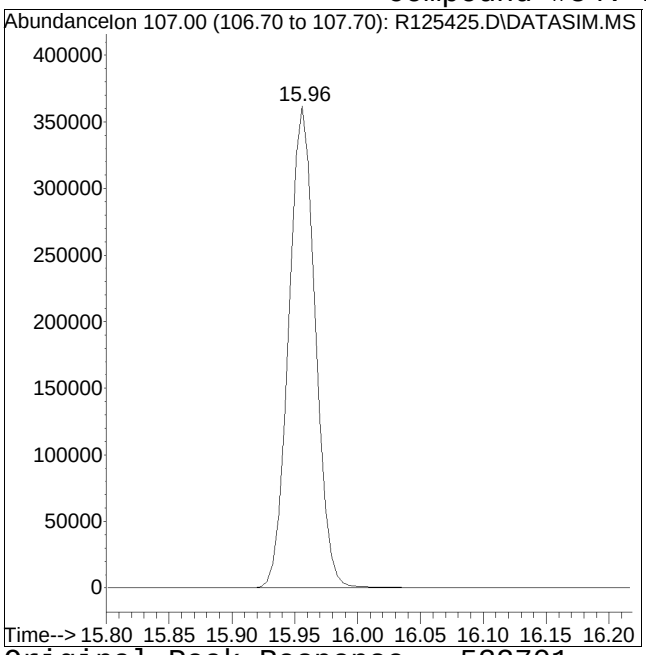
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

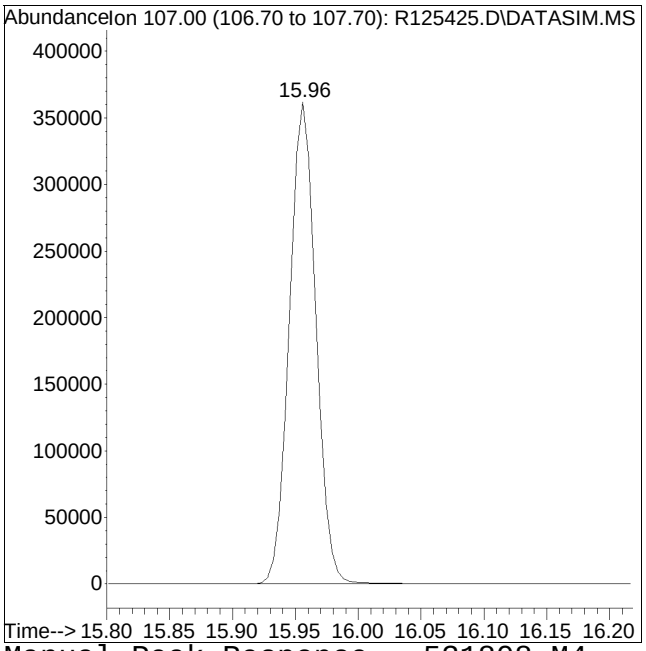
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 532701




Manual Peak Response = 531808 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD20.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:33:48 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 413473 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 100.97% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 847356 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 99.28% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 214956 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 100.68% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 275122 | 10.094 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.94% | | | |
| 51) toluene-D8 | 15.21 | 98 | 632122 | 10.000 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.00% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 492092 | 10.013 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.13% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 415535 | 18.863 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 1032271 | 19.319 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 481599 | 18.963 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 1144215 | 18.904 | ppbV | 99 |
| 6) vinyl chloride | 4.72 | 62 | 457991 | 19.091 | ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 356901 | 19.016 | ppbV | 98 |
| 8) bromomethane | 5.30 | 94 | 416878 | 19.151 | ppbV | 100 |
| 9) chloroethane | 5.55 | 64 | 204682 | 19.047 | ppbV | 100 |
| 10) ethanol | 5.74 | 31 | 1856556M6 | 88.232 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 420051 | 19.177 | ppbV | 100 |
| 12) acetone | 6.39 | 43 | 4134748 | 91.348 | ppbV | 99 |
| 13) trichlorofluoromethane | 6.63 | 101 | 1259542 | 19.147 | ppbV | 100 |
| 14) isopropyl alcohol | 6.76 | 45 | 1139460 | 18.907 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 425728 | 19.369 | ppbV | 100 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 782895 | 19.246 | ppbV | 100 |
| 17) methylene chloride | 7.64 | 49 | 689133 | 18.734 | ppbV | 100 |
| 18) 3-chloropropene | 7.79 | 41 | 697437 | 19.041 | ppbV | 100 |
| 19) carbon disulfide | 7.98 | 76 | 1230717 | 19.193 | ppbV | 93 |
| 20) Freon 113 | 7.99 | 101 | 882298 | 19.220 | ppbV | 99 |
| 21) Halothane | 8.59 | 117 | 670687 | 18.877 | ppbV | 100 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 813052M4 | 20.491 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 948843 | 20.723 | ppbV | 100 |
| 24) MTBE | 9.15 | 73 | 1126503 | 20.829 | ppbV | 98 |
| 25) vinyl acetate | 9.28 | 43 | 1619221 | 21.669 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD20.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:33:48 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 2-butanone | 9.56 | 43 | 1344230 | 21.801 | ppbV | 99 |
| 27) cis-1,2-dichloroethene | 10.07 | 61 | 754764 | 19.120 | ppbV | 100 |
| 28) Ethyl Acetate | 10.36 | 61 | 180106 | 19.180 | ppbV | 97 |
| 29) chloroform | 10.43 | 83 | 973079 | 19.120 | ppbV | 100 |
| 30) Tetrahydrofuran | 10.89 | 42 | 735569 | 18.781 | ppbV | 98 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 726036 | 19.147 | ppbV | 100 |
| 33) hexane | 10.33 | 57 | 814321 | 19.337 | ppbV | 79 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 947774 | 19.258 | ppbV | 100 |
| 36) benzene | 12.08 | 78 | 1332465 | 19.512 | ppbV | 100 |
| 37) carbon tetrachloride | 12.26 | 117 | 1018949 | 19.875 | ppbV | 100 |
| 38) cyclohexane | 12.40 | 56 | 846436 | 19.399 | ppbV | 99 |
| 39) 1,2-dichloropropane | 13.02 | 63 | 610357 | 19.510 | ppbV | 99 |
| 40) bromodichloromethane | 13.24 | 83 | 1099401 | 19.811 | ppbV | 100 |
| 41) 1,4-dioxane | 13.28 | 88 | 304685 | 19.885 | ppbV | 95 |
| 42) trichloroethene | 13.29 | 130 | 667797 | 19.543 | ppbV | 100 |
| 43) 2,2,4-trimethylpentane | 13.32 | 57 | 2712350 | 19.241 | ppbV | 100 |
| 44) heptane | 13.61 | 43 | 1143481 | 19.194 | ppbV | 99 |
| 45) cis-1,3-dichloropropene | 14.27 | 75 | 783172 | 19.945 | ppbV | 99 |
| 46) 4-methyl-2-pentanone | 14.30 | 43 | 1641477 | 19.328 | ppbV | 99 |
| 47) trans-1,3-dichloropropene | 14.85 | 75 | 805615 | 20.089 | ppbV | 98 |
| 48) 1,1,2-trichloroethane | 15.03 | 97 | 604680 | 19.838 | ppbV | 99 |
| 50) toluene | 15.31 | 91 | 1655938M4 | 19.198 | ppbV | |
| 52) 2-hexanone | 15.55 | 43 | 1583918 | 19.177 | ppbV | 99 |
| 53) dibromochloromethane | 15.73 | 129 | 1240600M4 | 19.910 | ppbV | |
| 54) 1,2-dibromoethane | 15.96 | 107 | 1036899M4 | 19.463 | ppbV | |
| 55) tetrachloroethene | 16.37 | 166 | 840251 | 19.564 | ppbV | 96 |
| 56) 1,1,1,2-tetrachloroethane | 16.92 | 131 | 874006 | 19.626 | ppbV | 100 |
| 57) chlorobenzene | 16.94 | 112 | 1426802 | 19.392 | ppbV | 100 |
| 58) ethylbenzene | 17.23 | 91 | 2173039 | 19.264 | ppbV | 97 |
| 59) m+p-xylene | 17.38 | 91 | 3423955 | 38.634 | ppbV | 99 |
| 60) bromoform | 17.46 | 173 | 1260444 | 20.746 | ppbV | 99 |
| 61) styrene | 17.66 | 104 | 1361077 | 19.553 | ppbV | 99 |
| 62) 1,1,2,2-tetrachloroethane | 17.74 | 83 | 1459536 | 19.396 | ppbV | 100 |
| 63) o-xylene | 17.74 | 91 | 1763464 | 19.297 | ppbV | 100 |
| 65) isopropylbenzene | 18.18 | 105 | 2514761 | 18.952 | ppbV | 99 |
| 66) 4-ethyl toluene | 18.66 | 105 | 2605550 | 19.166 | ppbV | 99 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 2101590 | 19.357 | ppbV | 96 |
| 68) tert-butylbenzene | 19.03 | 119 | 2349567 | 18.729 | ppbV | 99 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 2094900 | 19.078 | ppbV | 100 |
| 70) Benzyl Chloride | 19.14 | 91 | 2014506 | 20.641 | ppbV | 100 |
| 71) 1,3-dichlorobenzene | 19.16 | 146 | 1644991 | 19.747 | ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD20.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:33:48 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 1684708 | 19.838 | ppbV | 98 |
| 73) sec-butylbenzene | 19.23 | 105 | 3279231 | 18.894 | ppbV | 94 |
| 74) p-isopropyltoluene | 19.34 | 119 | 2967068 | 18.784 | ppbV | 97 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 1575766 | 19.738 | ppbV | 99 |
| 76) n-butylbenzene | 19.66 | 91 | 2767316 | 18.738 | ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.92 | 180 | 1419076 | 20.433 | ppbV | 99 |
| 78) naphthalene | 21.04 | 128 | 3473545 | 20.045 | ppbV | 99 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 1458772 | 21.599 | ppbV | 100 |
| 80) hexachlorobutadiene | 21.36 | 225 | 1074463 | 20.494 | ppbV | 98 |

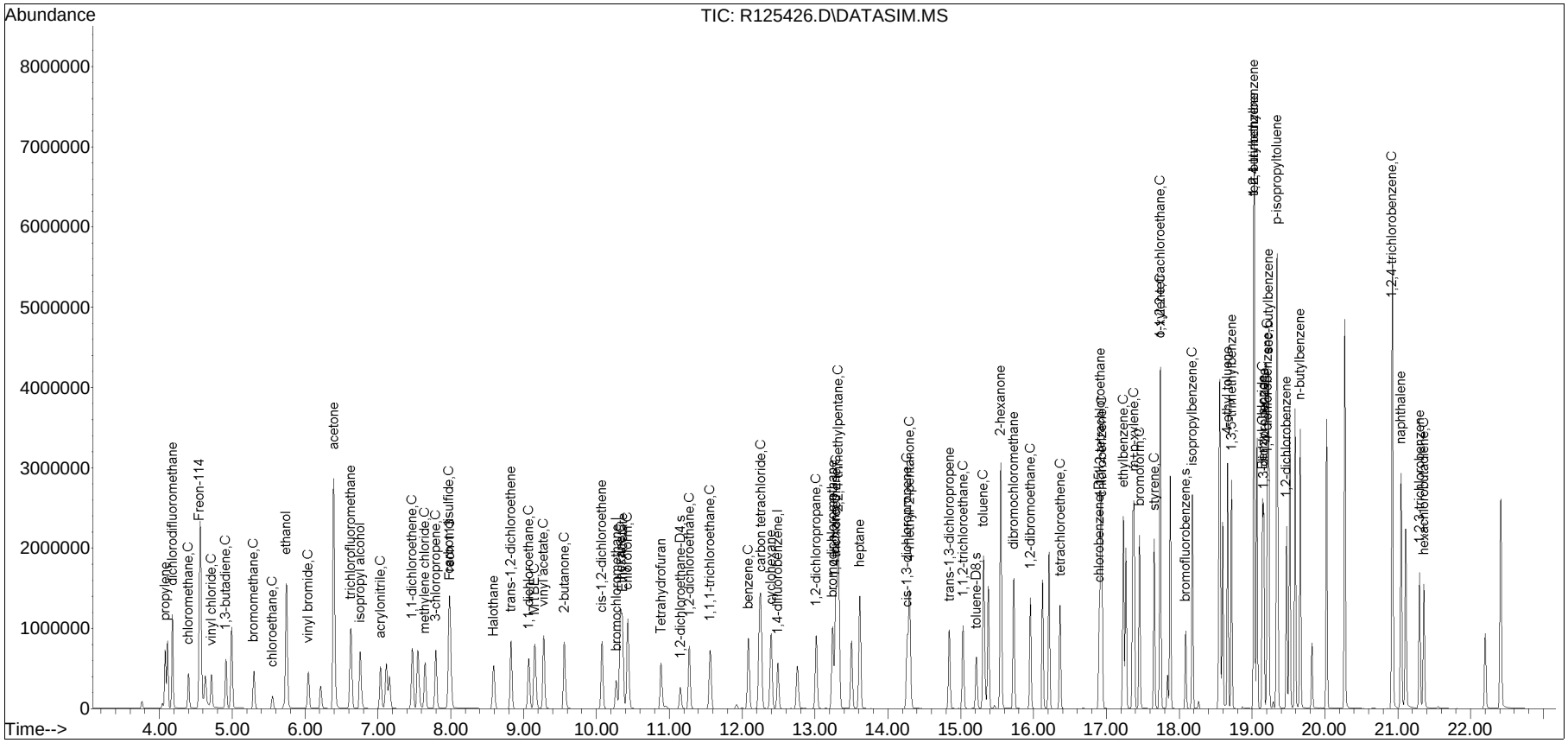
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD20.0
Misc : wg579024
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 12:33:48 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

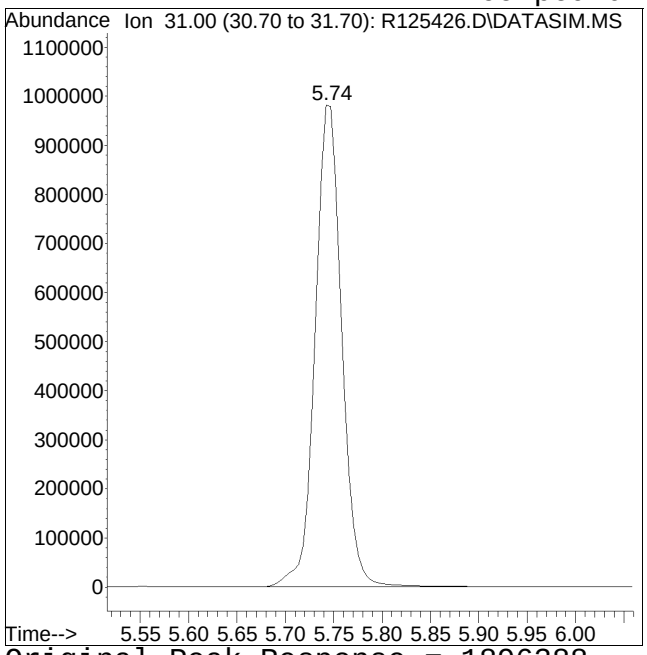


Manual Integration/Negative Proof Report

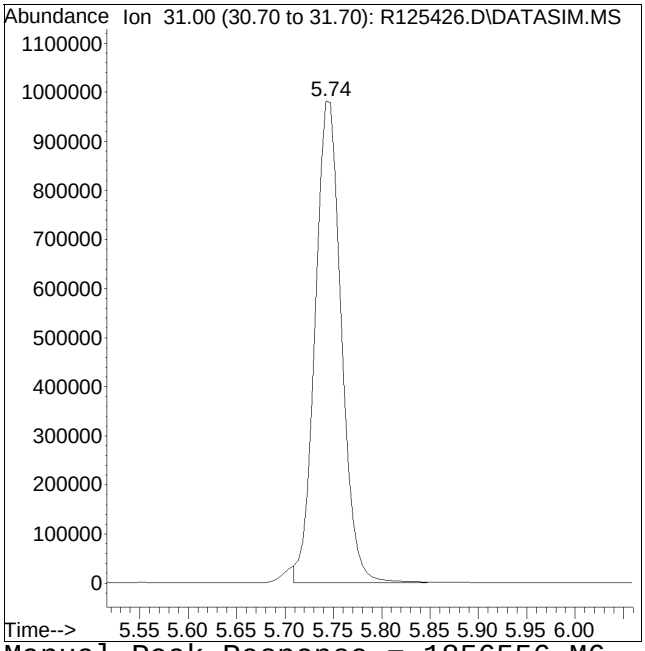
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #10: ethanol




Original Peak Response = 1896388




Manual Peak Response = 1856556 M6

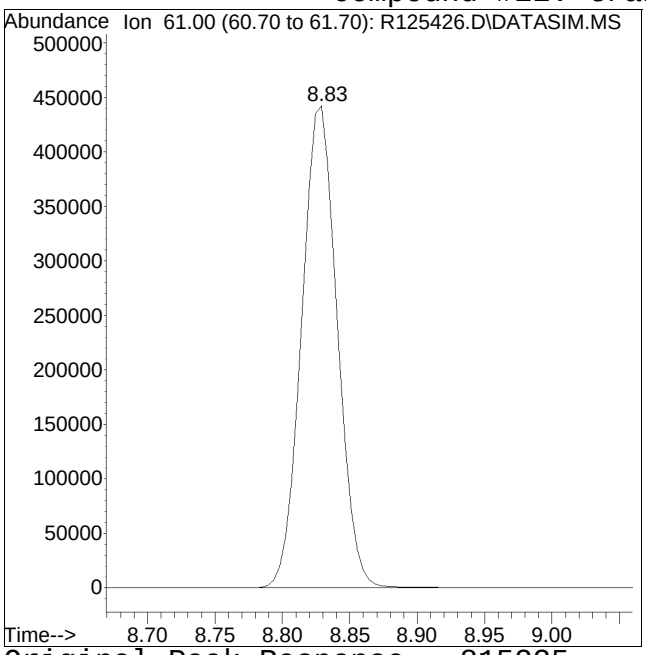
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

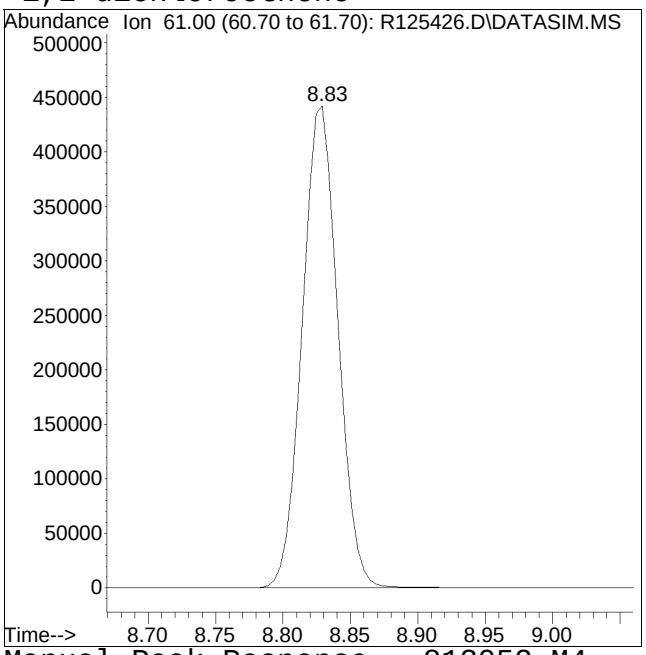
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 815225




Manual Peak Response = 813052 M4

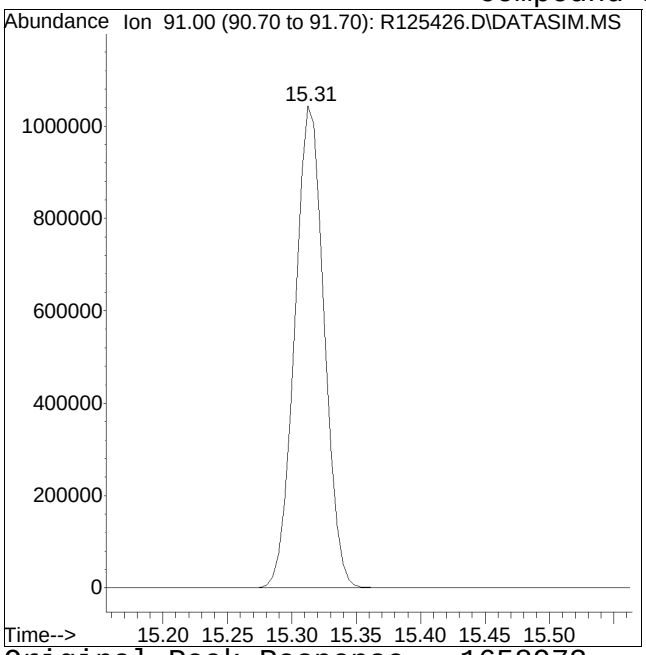
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

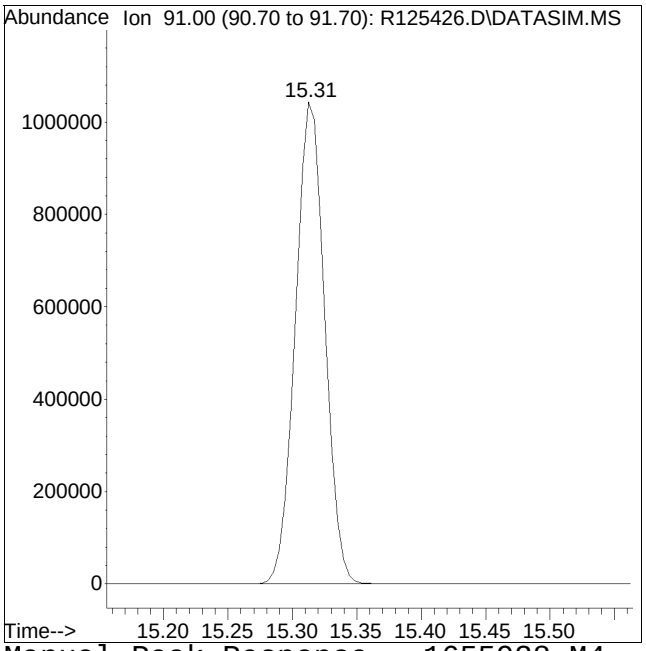
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #50: toluene




Original Peak Response = 1658973




Manual Peak Response = 1655938 M4

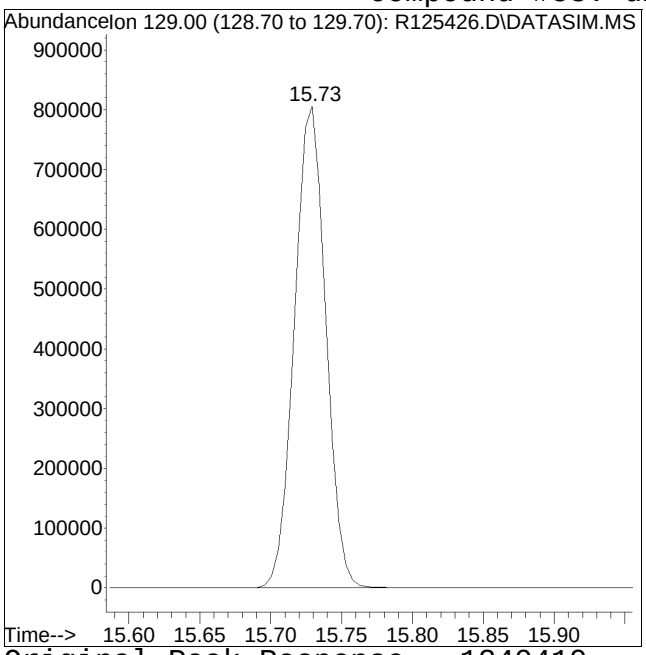
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

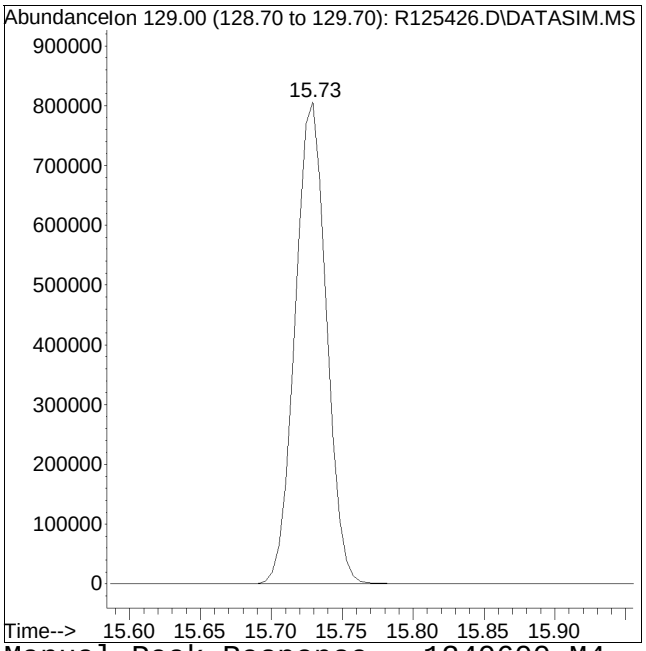
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #53: dibromochloromethane




Original Peak Response = 1240410




Manual Peak Response = 1240600 M4

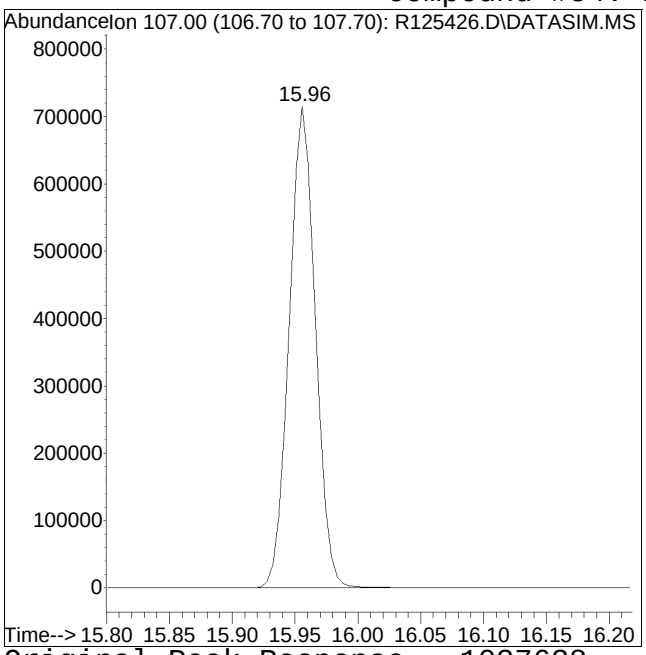
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

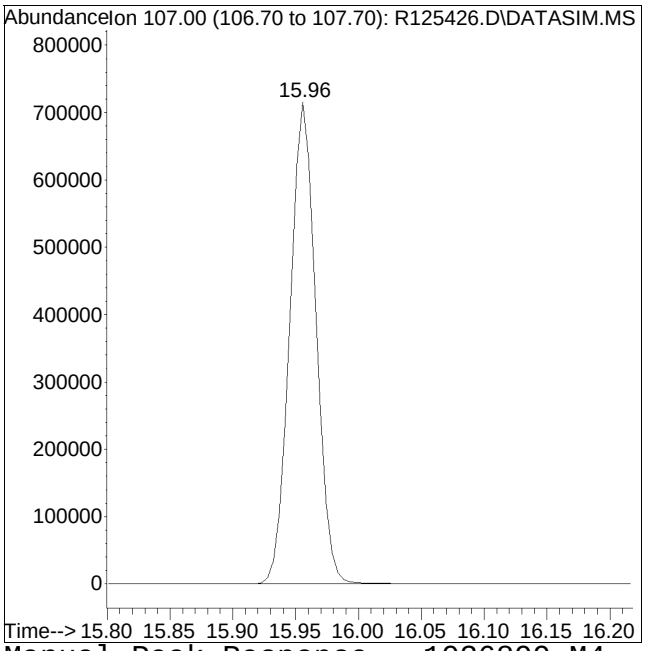
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 1037638




Manual Peak Response = 1036899 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD50.0
Misc : wg579024
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 12:35:52 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 353704 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 86.37% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 845487 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 99.06% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 213773 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 100.13% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 277396 | 10.200 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 102.00% | | | |
| 51) toluene-D8 | 15.22 | 98 | 634615 | 10.095 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.95% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 499632 | 10.223 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 102.23% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 1042221 | 55.307 | ppbV | 99 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 2585731 | 56.571 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 1197365 | 55.114 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 2833039 | 54.716 | ppbV | 98 |
| 6) vinyl chloride | 4.72 | 62 | 1150605 | 56.066 | ppbV | 99 |
| 7) 1,3-butadiene | 4.91 | 54 | 902601 | 56.218 | ppbV | 97 |
| 8) bromomethane | 5.30 | 94 | 1052149 | 56.501 | ppbV | 99 |
| 9) chloroethane | 5.55 | 64 | 517727 | 56.319 | ppbV | 100 |
| 10) ethanol | 5.76 | 31 | 4441174M6 | 246.731 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 1066562 | 56.921 | ppbV | 100 |
| 12) acetone | 6.39 | 43 | 9984202 | 257.851 | ppbV | 97 |
| 13) trichlorofluoromethane | 6.63 | 101 | 3174350 | 56.410 | ppbV | 99 |
| 14) isopropyl alcohol | 6.76 | 45 | 2853718 | 55.353 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 1076254 | 57.239 | ppbV | 98 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 1963452 | 56.424 | ppbV | 99 |
| 17) methylene chloride | 7.64 | 49 | 1709669 | 54.330 | ppbV | 99 |
| 18) 3-chloropropene | 7.79 | 41 | 1742301 | 55.605 | ppbV | 100 |
| 19) carbon disulfide | 7.98 | 76 | 3094322 | 56.409 | ppbV # | 90 |
| 20) Freon 113 | 7.99 | 101 | 2220422 | 56.542 | ppbV | 99 |
| 21) Halothane | 8.59 | 117 | 1725377 | 56.768 | ppbV | 99 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 1896708M4 | 55.879 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 2174425 | 55.516 | ppbV | 100 |
| 24) MTBE | 9.15 | 73 | 2582994 | 55.829 | ppbV | 99 |
| 25) vinyl acetate | 9.28 | 43 | 3572988 | 55.894 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD50.0
Misc : wg579024
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 12:35:52 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 2-butanone | 9.56 | 43 | 2879173 | 54.585 | ppbV | 98 |
| 27) cis-1,2-dichloroethene | 10.08 | 61 | 1644097 | 48.686 | ppbV | 96 |
| 28) Ethyl Acetate | 10.36 | 61 | 380979 | 47.427 | ppbV | 79 |
| 29) chloroform | 10.44 | 83 | 2065902 | 47.452 | ppbV | 98 |
| 30) Tetrahydrofuran | 10.89 | 42 | 1846103 | 55.101 | ppbV | 99 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 1812590 | 55.880 | ppbV | 100 |
| 33) hexane | 10.32 | 57 | 1624423 | 38.658 | ppbV | 85 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 2407685 | 49.029 | ppbV | 98 |
| 36) benzene | 12.09 | 78 | 3351187 | 49.181 | ppbV | 99 |
| 37) carbon tetrachloride | 12.26 | 117 | 2575265 | 50.343 | ppbV | 100 |
| 38) cyclohexane | 12.40 | 56 | 2141926 | 49.198 | ppbV | 99 |
| 39) 1,2-dichloropropane | 13.02 | 63 | 1536754 | 49.230 | ppbV | 98 |
| 40) bromodichloromethane | 13.25 | 83 | 2778266 | 50.174 | ppbV | 100 |
| 41) 1,4-dioxane | 13.28 | 88 | 780771 | 51.068 | ppbV | 95 |
| 42) trichloroethene | 13.29 | 130 | 1695742 | 49.735 | ppbV | 99 |
| 43) 2,2,4-trimethylpentane | 13.32 | 57 | 6671511 | 47.430 | ppbV | 100 |
| 44) heptane | 13.62 | 43 | 2858733 | 48.091 | ppbV | 98 |
| 45) cis-1,3-dichloropropene | 14.27 | 75 | 1986057 | 50.690 | ppbV | 97 |
| 46) 4-methyl-2-pentanone | 14.30 | 43 | 4072613 | 48.060 | ppbV | 98 |
| 47) trans-1,3-dichloropropene | 14.85 | 75 | 2057552 | 51.422 | ppbV | 97 |
| 48) 1,1,2-trichloroethane | 15.04 | 97 | 1524784 | 50.134 | ppbV | 99 |
| 50) toluene | 15.32 | 91 | 4087248 | 47.646 | ppbV | 99 |
| 52) 2-hexanone | 15.55 | 43 | 3819701 | 46.502 | ppbV | 95 |
| 53) dibromochloromethane | 15.73 | 129 | 3214075M4 | 51.867 | ppbV | |
| 54) 1,2-dibromoethane | 15.96 | 107 | 2613981M4 | 49.338 | ppbV | |
| 55) tetrachloroethene | 16.37 | 166 | 2158250 | 50.530 | ppbV | 97 |
| 56) 1,1,1,2-tetrachloroethane | 16.93 | 131 | 2190440 | 49.460 | ppbV | 99 |
| 57) chlorobenzene | 16.94 | 112 | 3552985 | 48.558 | ppbV | 97 |
| 58) ethylbenzene | 17.23 | 91 | 5353602 | 47.723 | ppbV | 97 |
| 59) m+p-xylene | 17.38 | 91 | 8321746 | 94.418 | ppbV | 97 |
| 60) bromoform | 17.46 | 173 | 3287235 | 54.405 | ppbV | 99 |
| 61) styrene | 17.66 | 104 | 3393702 | 49.023 | ppbV | 98 |
| 62) 1,1,2,2-tetrachloroethane | 17.74 | 83 | 3539793 | 47.301 | ppbV | 100 |
| 63) o-xylene | 17.74 | 91 | 4197497 | 46.186 | ppbV | 96 |
| 65) isopropylbenzene | 18.18 | 105 | 6077662 | 46.058 | ppbV | 95 |
| 66) 4-ethyl toluene | 18.67 | 105 | 6238323 | 46.143 | ppbV | 95 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 5144492 | 47.646 | ppbV | 96 |
| 68) tert-butylbenzene | 19.03 | 119 | 5388187 | 43.189 | ppbV | 96 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 4872737 | 44.621 | ppbV | 96 |
| 70) Benzyl Chloride | 19.15 | 91 | 4974179 | 51.249 | ppbV | 96 |
| 71) 1,3-dichlorobenzene | 19.16 | 146 | 4107208 | 49.577 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD50.0
Misc : wg579024
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 12:35:52 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 4184758 | 49.549 ppbV | 98 |
| 73) sec-butylbenzene | 19.23 | 105 | 7655635 | 44.354 ppbV | 92 |
| 74) p-isopropyltoluene | 19.34 | 119 | 6952278 | 44.256 ppbV | 94 |
| 75) 1,2-dichlorobenzene | 19.48 | 146 | 3961008 | 49.889 ppbV | 99 |
| 76) n-butylbenzene | 19.66 | 91 | 6579283 | 44.796 ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.93 | 180 | 3382523 | 48.975 ppbV | 98 |
| 78) naphthalene | 21.05 | 128 | 8484244 | 49.231 ppbV | 98 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 3658353 | 54.467 ppbV | 99 |
| 80) hexachlorobutadiene | 21.36 | 225 | 2681946 | 51.439 ppbV | 96 |

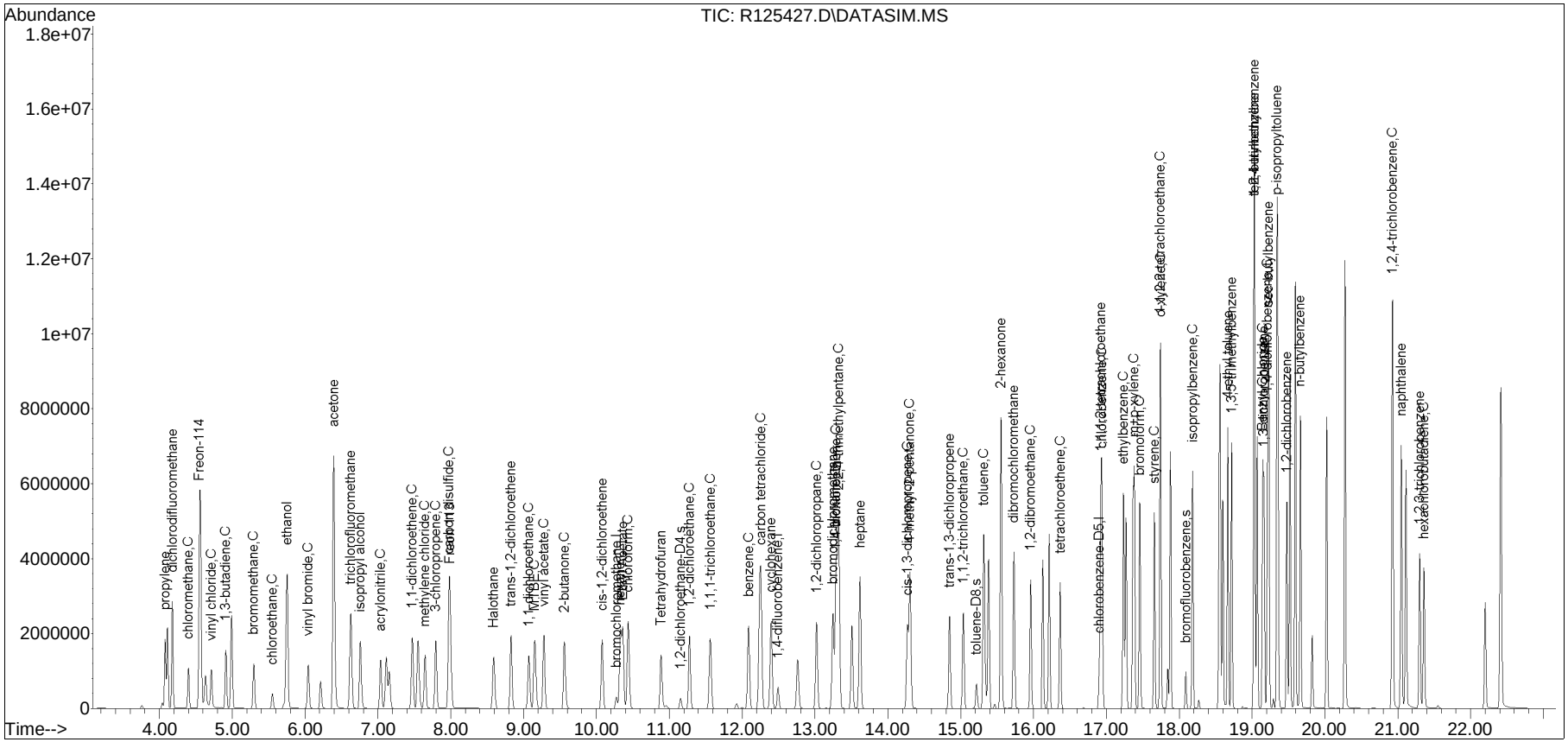
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:RY
Sample : ITO15-SIMSTD50.0
Misc : wg579024
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 12:35:52 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:09:45 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

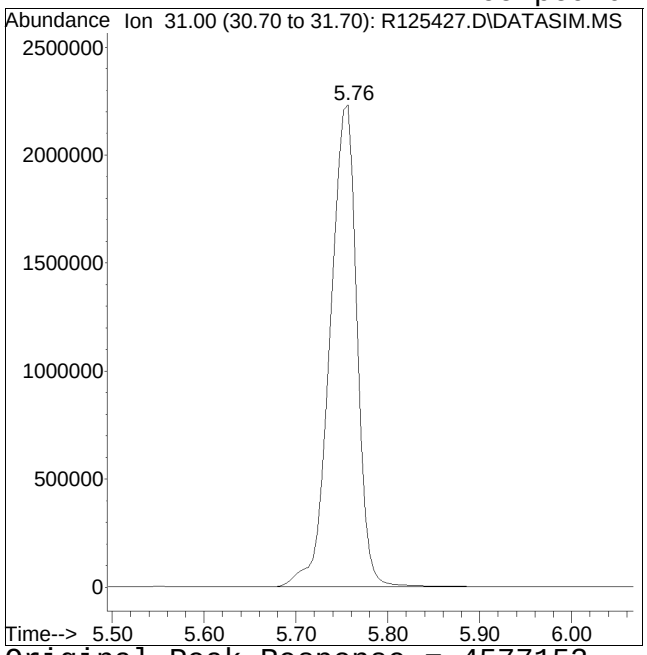


Manual Integration/Negative Proof Report

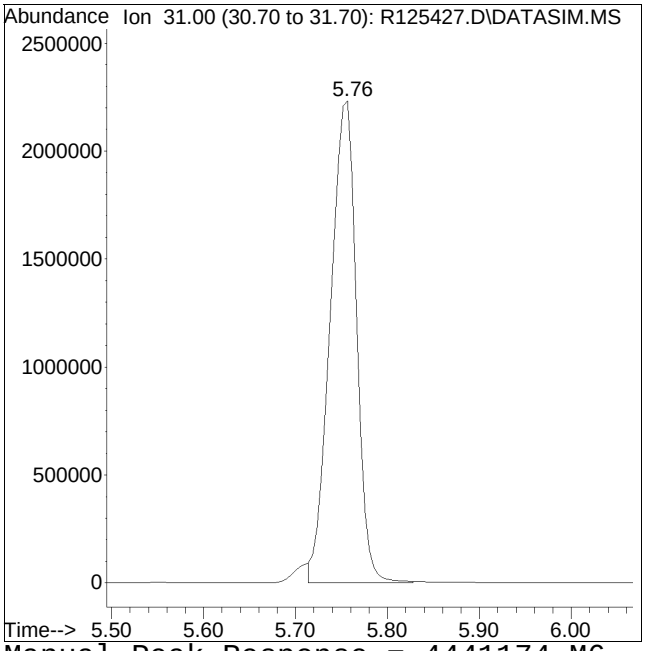
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #10: ethanol




Original Peak Response = 4577152




Manual Peak Response = 4441174 M6

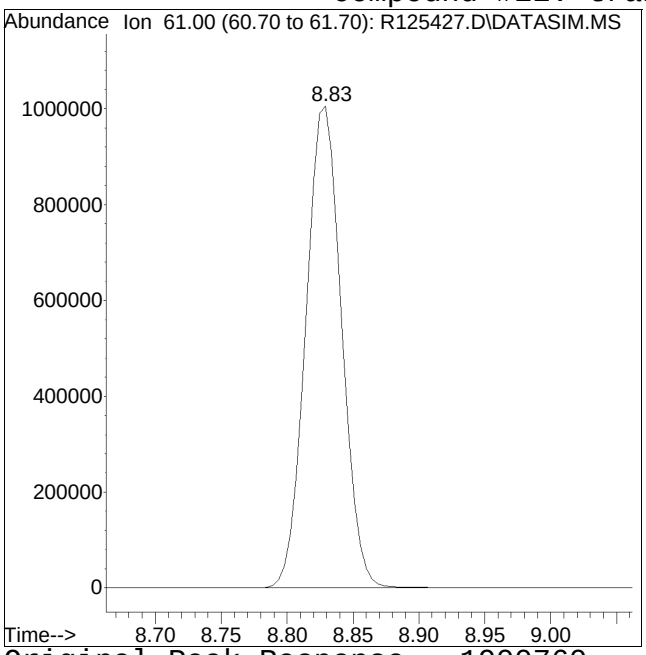
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

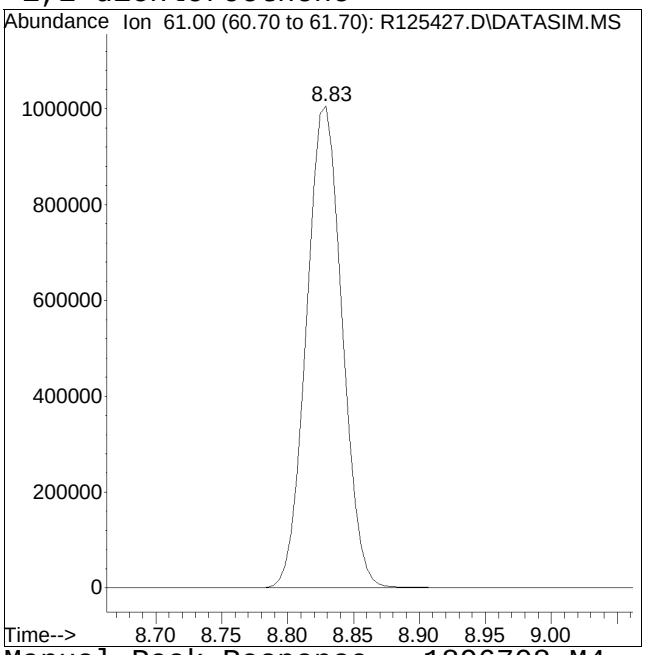
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 1900760




Manual Peak Response = 1896708 M4

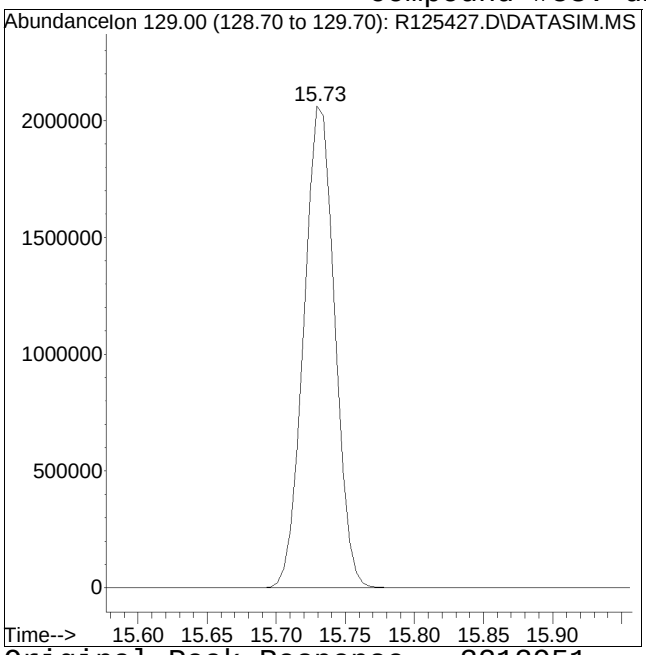
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

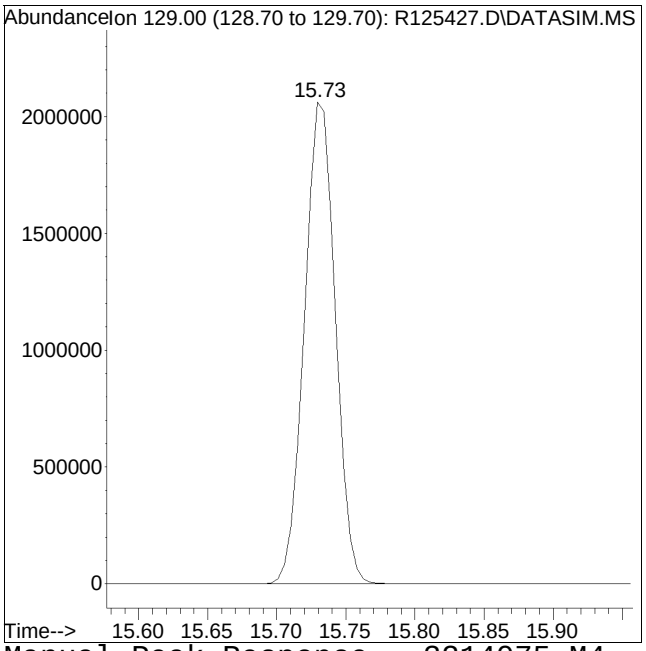
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #53: dibromochloromethane




Original Peak Response = 3212951




Manual Peak Response = 3214075 M4

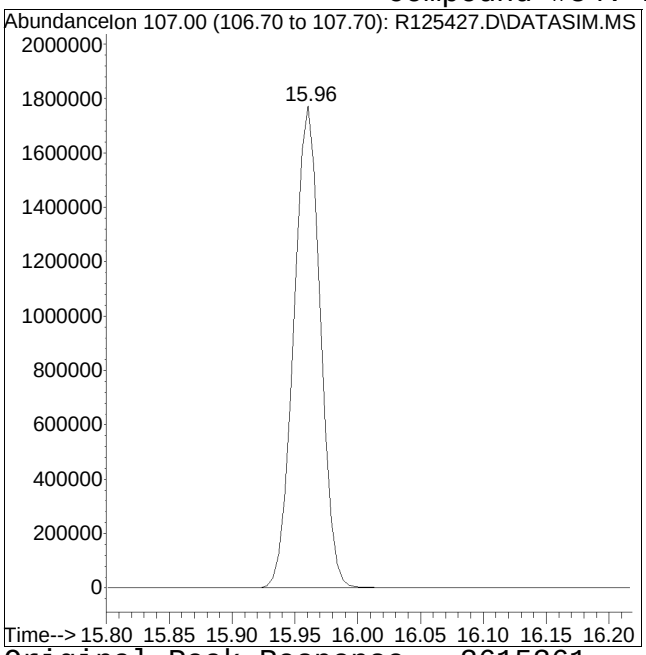
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

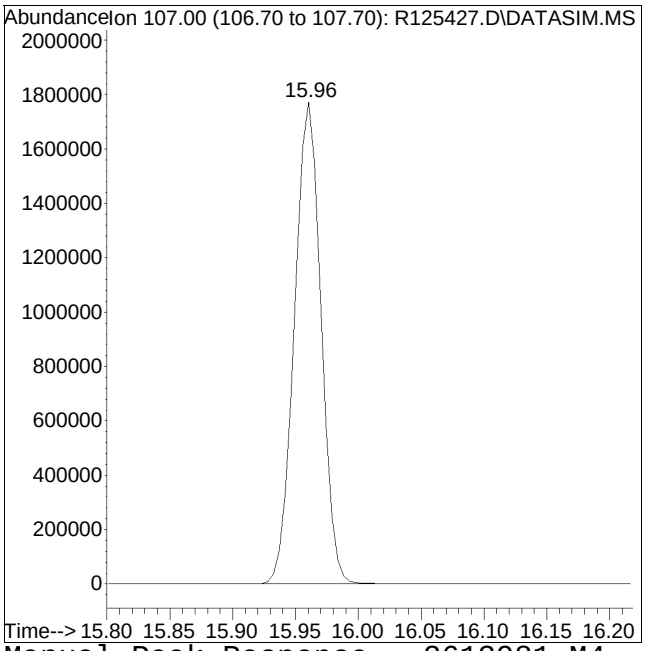
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:11 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 2615361




Manual Peak Response = 2613981 M4

M4 = Poor automated baseline construction.

# Initial Calibration Verification

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 78 | 0.00 |
| 2 | | propylene | 0.630 | 0.638 | -1.3 | 94 | 0.00 |
| 3 | | dichlorodifluoromethane | 1.473 | 1.584 | -7.5 | 96 | 0.00 |
| 4 | C | chloromethane | 0.722 | 0.743 | -2.9 | 95 | 0.00 |
| 5 | | Freon-114 | 1.624 | 1.793 | -10.4 | 96 | 0.00 |
| 6 | C | vinyl chloride | 0.645 | 0.706 | -9.5 | 95 | 0.00 |
| 7 | C | 1,3-butadiene | 0.501 | 0.553 | -10.4 | 95 | 0.00 |
| 8 | C | bromomethane | 0.590 | 0.643 | -9.0 | 96 | 0.00 |
| 9 | C | chloroethane | 0.294 | 0.319 | -8.5 | 96 | 0.00 |
| 10 | | ethanol | 0.534 | 0.501 | 6.2 | 77 | 0.00 |
| 11 | C | vinyl bromide | 0.584 | 0.609 | -4.3 | 90 | 0.00 |
| 12 | | acetone | 1.226 | 1.311 | -6.9 | 94 | 0.00 |
| 13 | | trichlorofluoromethane | 1.755 | 1.953 | -11.3 | 96 | 0.00 |
| 14 | | isopropyl alcohol | 1.614 | 1.763 | -9.2 | 95 | 0.00 |
| 15 | C | acrylonitrile | 0.599 | 0.563 | 6.0 | 83 | 0.00 |
| 16 | C | 1,1-dichloroethene | 1.088 | 1.214 | -11.6 | 97 | 0.00 |
| 17 | C | methylene chloride | 0.974 | 1.088 | -11.7 | 96 | 0.00 |
| 18 | C | 3-chloropropene | 0.978 | 1.100 | -12.5 | 97 | 0.00 |
| 19 | C | carbon disulfide | 1.751 | 1.799 | -2.7 | 91 | 0.00 |
| 20 | | Freon 113 | 1.220 | 1.381 | -13.2 | 97 | 0.00 |
| 21 | | Halothane | 0.930 | 0.892 | 4.1 | 81 | 0.00 |
| 22 | | trans-1,2-dichloroethene | 1.043 | 1.021 | 2.1 | 83 | 0.00 |
| 23 | C | 1,1-dichloroethane | 1.213 | 1.354 | -11.6 | 96 | 0.00 |
| 24 | C | MTBE | 1.445 | 1.535 | -6.2 | 92 | 0.00 |
| 25 | C | vinyl acetate | 2.037 | 2.346 | -15.2 | 102 | 0.00 |
| 26 | C | 2-butanone | 1.753 | 1.702 | 2.9 | 89 | 0.00 |
| 27 | | cis-1,2-dichloroethene | 0.942 | 1.118 | -18.7 | 92 | 0.00 |
| 28 | | Ethyl Acetate | 0.235 | 0.225 | 4.3 | 77 | 0.00 |
| 29 | C | chloroform | 1.283 | 1.318 | -2.7 | 84 | 0.00 |
| 30 | | Tetrahydrofuran | 0.979 | 0.784 | 19.9 | 65 | 0.00 |
| 31 | C | 1,2-dichloroethane | 0.993 | 0.895 | 9.9 | 76 | 0.00 |
| 32 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 33 | C | hexane | 0.476 | 0.398 | 16.4 | 77 | 0.00 |
| 34 | s | 1,2-dichloroethane-D4 | 0.312 | 0.260 | 16.7 | 77 | 0.00 |
| 35 | C | 1,1,1-trichloroethane | 0.572 | 0.458 | 19.9 | 75 | 0.00 |
| 36 | C | benzene | 0.822 | 0.802 | 2.4 | 95 | 0.00 |
| 37 | C | carbon tetrachloride | 0.597 | 0.612 | -2.5 | 97 | 0.00 |
| 38 | | cyclohexane | 0.526 | 0.482 | 8.4 | 89 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 39 | C | 1,2-dichloropropane | 0.372 | 0.375 | -0.8 | 97 | 0.00 |
| 40 | | bromodichloromethane | 0.642 | 0.616 | 4.0 | 90 | 0.00 |
| 41 | C | 1,4-dioxane | 0.185 | 0.169 | 8.6 | 90 | 0.00 |
| 42 | C | trichloroethene | 0.400 | 0.402 | -0.5 | 95 | 0.00 |
| 43 | C | 2,2,4-trimethylpentane | 1.664 | 1.577 | 5.2 | 91 | 0.00 |
| 44 | | heptane | 0.718 | 0.663 | 7.7 | 90 | 0.00 |
| 45 | C | cis-1,3-dichloropropene | 0.456 | 0.492 | -7.9 | 101 | 0.00 |
| 46 | C | 4-methyl-2-pentanone | 0.985 | 0.938 | 4.8 | 89 | 0.00 |
| 47 | | trans-1,3-dichloropropene | 0.461 | 0.426 | 7.6 | 86 | 0.00 |
| 48 | C | 1,1,2-trichloroethane | 0.360 | 0.374 | -3.9 | 99 | 0.00 |
| 49 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 50 | C | toluene | 4.052 | 4.021 | 0.8 | 96 | 0.00 |
| 51 | s | toluene-D8 | 2.952 | 2.954 | -0.1 | 96 | 0.00 |
| 52 | | 2-hexanone | 3.583 | 3.563 | 0.6 | 89 | 0.00 |
| 53 | | dibromochloromethane | 2.775 | 2.631 | 5.2 | 87 | 0.00 |
| 54 | C | 1,2-dibromoethane | 2.423 | 2.491 | -2.8 | 96 | 0.00 |
| 55 | C | tetrachloroethene | 1.980 | 2.000 | -1.0 | 96 | 0.00 |
| 56 | | 1,1,1,2-tetrachloroethane | 2.048 | 1.796 | 12.3 | 83 | 0.00 |
| 57 | C | chlorobenzene | 3.388 | 3.471 | -2.4 | 97 | 0.00 |
| 58 | C | ethylbenzene | 5.205 | 5.325 | -2.3 | 97 | 0.00 |
| 59 | C | m+p-xylene | 4.061 | 4.170 | -2.7 | 97 | 0.00 |
| 60 | C | bromoform | 2.818 | 2.472 | 12.3 | 83 | 0.00 |
| 61 | C | styrene | 3.120 | 3.266 | -4.7 | 96 | 0.00 |
| 62 | C | 1,1,2,2-tetrachloroethane | 3.365 | 3.527 | -4.8 | 96 | 0.00 |
| 63 | C | o-xylene | 4.186 | 4.323 | -3.3 | 97 | 0.00 |
| 64 | s | bromofluorobenzene | 2.287 | 2.279 | 0.3 | 95 | 0.00 |
| 65 | C | isopropylbenzene | 5.981 | 5.494 | 8.1 | 85 | 0.00 |
| 66 | | 4-ethyl toluene | 5.983 | 5.540 | 7.4 | 84 | 0.00 |
| 67 | | 1,3,5-trimethylbenzene | 4.978 | 5.053 | -1.5 | 95 | 0.00 |
| 68 | | tert-butylbenzene | 5.505 | 5.077 | 7.8 | 83 | 0.00 |
| 69 | | 1,2,4-trimethylbenzene | 4.880 | 5.173 | -6.0 | 97 | 0.00 |
| 70 | C | Benzyl Chloride | 4.082 | 4.059 | 0.6 | 85 | 0.00 |
| 71 | | 1,3-dichlorobenzene | 3.695 | 3.905 | -5.7 | 96 | 0.00 |
| 72 | C | 1,4-dichlorobenzene | 3.809 | 3.932 | -3.2 | 95 | 0.00 |
| 73 | | sec-butylbenzene | 7.559 | 6.932 | 8.3 | 82 | 0.00 |
| 74 | | p-isopropyltoluene | 6.967 | 5.844 | 16.1 | 76 | 0.00 |
| 75 | | 1,2-dichlorobenzene | 3.565 | 3.750 | -5.2 | 96 | 0.00 |
| 76 | | n-butylbenzene | 6.238 | 6.002 | 3.8 | 83 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 77 C | 1,2,4-trichlorobenzene | 2.872 | 3.270 | -13.9 | 97 | 0.00 |
| 78 | naphthalene | 8.270 | 7.437 | 10.1 | 88 | 0.00 |
| 79 | 1,2,3-trichlorobenzene | 2.917 | 3.022 | -3.6 | 92 | 0.00 |
| 80 C | hexachlorobutadiene | 2.234 | 2.498 | -11.8 | 98 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 320654 | 10.000 | ppbV | 0.00 |
| Standard Area = 409509 | | | Recovery = 78.30% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 816226 | 10.000 | ppbV | 0.00 |
| Standard Area = 853543 | | | Recovery = 95.63% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 203811 | 10.000 | ppbV | 0.00 |
| Standard Area = 213504 | | | Recovery = 95.46% | | | |
| System Monitoring Compounds | | | | | | |
| 34) 1,2-dichloroethane-D4 | 11.15 | 65 | 212004 | 8.328 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 83.28% | | | |
| 51) toluene-D8 | 15.21 | 98 | 602097 | 10.008 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.08% | | | |
| 64) bromofluorobenzene | 18.09 | 95 | 464486 | 9.963 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.63% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) propylene | 4.08 | 41 | 102362 | 5.067 | ppbV | 100 |
| 3) dichlorodifluoromethane | 4.18 | 85 | 253985 | 5.377 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 119104 | 5.147 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 287465 | 5.521 | ppbV | 100 |
| 6) vinyl chloride | 4.72 | 62 | 113148 | 5.468 | ppbV | 99 |
| 7) 1,3-butadiene | 4.91 | 54 | 88727 | 5.519 | ppbV | 99 |
| 8) bromomethane | 5.30 | 94 | 103146 | 5.454 | ppbV | 100 |
| 9) chloroethane | 5.55 | 64 | 51164 | 5.422 | ppbV | 100 |
| 10) ethanol | 5.74 | 31 | 402001M6 | 23.484 | ppbV | |
| 11) vinyl bromide | 6.04 | 106 | 97636 | 5.217 | ppbV | 100 |
| 12) acetone | 6.40 | 43 | 1051149 | 26.743 | ppbV | 99 |
| 13) trichlorofluoromethane | 6.63 | 101 | 313182 | 5.564 | ppbV | 100 |
| 14) isopropyl alcohol | 6.76 | 45 | 282613 | 5.460 | ppbV | 100 |
| 15) acrylonitrile | 7.04 | 53 | 90249 | 4.696 | ppbV | 100 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 194565 | 5.576 | ppbV | 100 |
| 17) methylene chloride | 7.64 | 49 | 174390 | 5.583 | ppbV | 99 |
| 18) 3-chloropropene | 7.79 | 41 | 176355 | 5.626 | ppbV | 100 |
| 19) carbon disulfide | 7.98 | 76 | 288420 | 5.138 | ppbV | 99 |
| 20) Freon 113 | 7.99 | 101 | 221415 | 5.661 | ppbV | 100 |
| 21) Halothane | 8.59 | 117 | 142948 | 4.793 | ppbV | 100 |
| 22) trans-1,2-dichloroethene | 8.83 | 61 | 163698M4 | 4.894 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 217159 | 5.585 | ppbV | 100 |
| 24) MTBE | 9.16 | 73 | 246147 | 5.311 | ppbV | 100 |
| 25) vinyl acetate | 9.28 | 43 | 376199 | 5.760 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 2-butanone | 9.56 | 43 | 272923 | 4.855 | ppbV | | 100 |
| 27) | cis-1,2-dichloroethene | 10.07 | 61 | 179185 | 5.935 | ppbV | | 99 |
| 28) | Ethyl Acetate | 10.36 | 61 | 36035 | 4.791 | ppbV | | 86 |
| 29) | chloroform | 10.43 | 83 | 211281 | 5.136 | ppbV | | 98 |
| 30) | Tetrahydrofuran | 10.89 | 42 | 125736 | 4.004 | ppbV | | 96 |
| 31) | 1,2-dichloroethane | 11.28 | 62 | 143432 | 4.504 | ppbV | | 97 |
| 33) | hexane | 10.32 | 57 | 162465 | 4.185 | ppbV | | 86 |
| 35) | 1,1,1-trichloroethane | 11.56 | 97 | 186757 | 4.003 | ppbV | | 99 |
| 36) | benzene | 12.09 | 78 | 327313 | 4.879 | ppbV | | 99 |
| 37) | carbon tetrachloride | 12.25 | 117 | 249897 | 5.127 | ppbV | | 99 |
| 38) | cyclohexane | 12.39 | 56 | 196611 | 4.582 | ppbV | | 99 |
| 39) | 1,2-dichloropropane | 13.02 | 63 | 153180 | 5.045 | ppbV | | 99 |
| 40) | bromodichloromethane | 13.24 | 83 | 251376 | 4.796 | ppbV | | 100 |
| 41) | 1,4-dioxane | 13.29 | 88 | 69152 | 4.584 | ppbV | | 94 |
| 42) | trichloroethene | 13.29 | 130 | 164155 | 5.029 | ppbV | | 99 |
| 43) | 2,2,4-trimethylpentane | 13.32 | 57 | 643694 | 4.740 | ppbV | | 99 |
| 44) | heptane | 13.61 | 43 | 270534 | 4.618 | ppbV | | 99 |
| 45) | cis-1,3-dichloropropene | 14.27 | 75 | 200607 | 5.384 | ppbV | | 99 |
| 46) | 4-methyl-2-pentanone | 14.31 | 43 | 382677 | 4.759 | ppbV | | 100 |
| 47) | trans-1,3-dichloropropene | 14.85 | 75 | 173935 | 4.625 | ppbV | | 100 |
| 48) | 1,1,2-trichloroethane | 15.04 | 97 | 152727 | 5.194 | ppbV | | 97 |
| 50) | toluene | 15.31 | 91 | 409747M4 | 4.962 | ppbV | | |
| 52) | 2-hexanone | 15.56 | 43 | 363098 | 4.972 | ppbV | # | 95 |
| 53) | dibromochloromethane | 15.73 | 129 | 268133M4 | 4.741 | ppbV | | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 253862M4 | 5.140 | ppbV | | |
| 55) | tetrachloroethene | 16.36 | 166 | 203861 | 5.051 | ppbV | | 99 |
| 56) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 183064 | 4.385 | ppbV | | 99 |
| 57) | chlorobenzene | 16.93 | 112 | 353680 | 5.123 | ppbV | | 97 |
| 58) | ethylbenzene | 17.23 | 91 | 542662 | 5.116 | ppbV | | 100 |
| 59) | m+p-xylene | 17.38 | 91 | 849908 | 10.268 | ppbV | | 100 |
| 60) | bromoform | 17.45 | 173 | 251865 | 4.386 | ppbV | | 100 |
| 61) | styrene | 17.66 | 104 | 332801 | 5.233 | ppbV | | 99 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 359447 | 5.242 | ppbV | | 99 |
| 63) | o-xylene | 17.74 | 91 | 440495 | 5.163 | ppbV | | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 559881 | 4.593 | ppbV | | 100 |
| 66) | 4-ethyl toluene | 18.66 | 105 | 564544 | 4.630 | ppbV | | 100 |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 514894 | 5.075 | ppbV | | 100 |
| 68) | tert-butylbenzene | 19.03 | 119 | 517356 | 4.611 | ppbV | | 99 |
| 69) | 1,2,4-trimethylbenzene | 19.03 | 105 | 527188 | 5.301 | ppbV | | 92 |
| 70) | Benzyl Chloride | 19.14 | 91 | 413680 | 4.972 | ppbV | | 95 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 397903 | 5.284 | ppbV | | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 72) 1,4-dichlorobenzene | 19.21 | 146 | 400647 | 5.161 ppbV | 98 |
| 73) sec-butylbenzene | 19.22 | 105 | 706431 | 4.585 ppbV | 99 |
| 74) p-isopropyltoluene | 19.34 | 119 | 595557 | 4.194 ppbV | 99 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 382108 | 5.259 ppbV | 98 |
| 76) n-butylbenzene | 19.66 | 91 | 611605 | 4.810 ppbV | 99 |
| 77) 1,2,4-trichlorobenzene | 20.92 | 180 | 333254 | 5.693 ppbV | 100 |
| 78) naphthalene | 21.04 | 128 | 757889 | 4.497 ppbV | 100 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 307994 | 5.181 ppbV | 100 |
| 80) hexachlorobutadiene | 21.36 | 225 | 254549 | 5.590 ppbV | 99 |

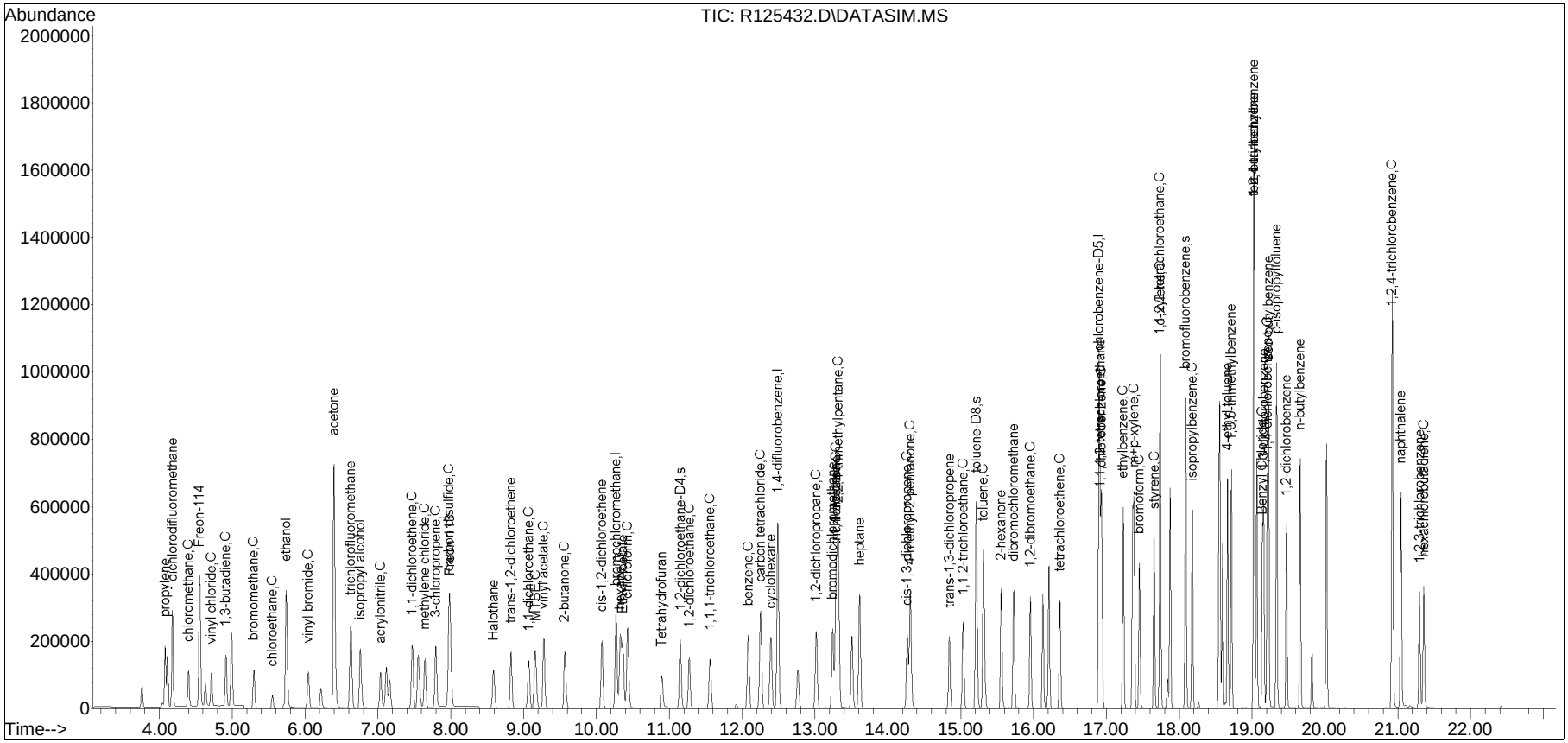
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\
Data File : R125432.D
Acq On : 12 Dec 2012 11:44 am
Operator : AIRPIANO1:RY
Sample : CTO15-SIMSTD5.0
Misc : wg579024
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 13:07:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211SIM_ICAL\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

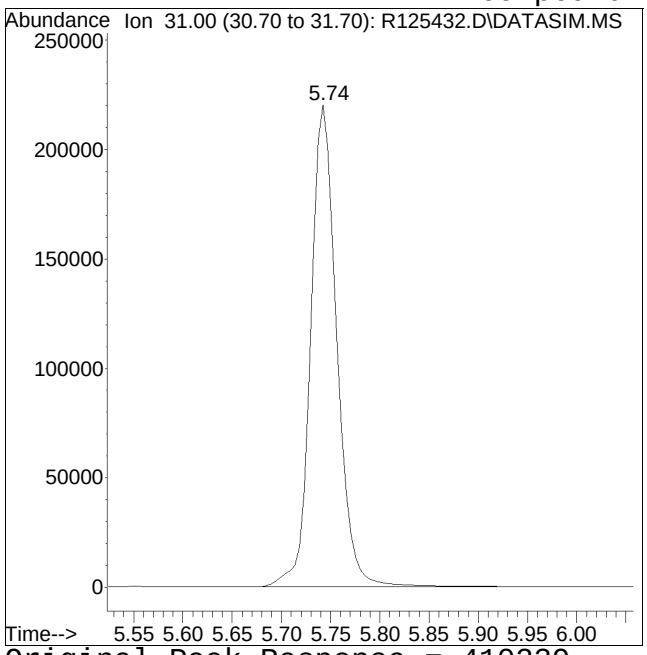


Manual Integration/Negative Proof Report

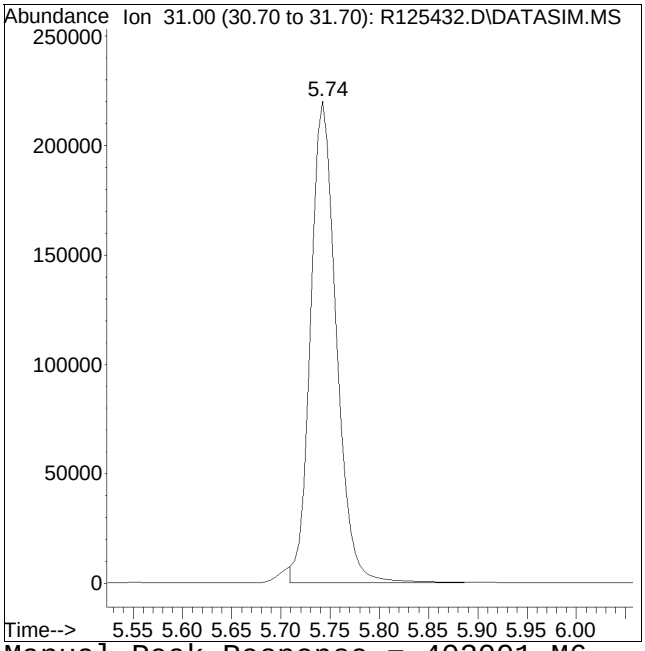
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125432.D
Date Inj'd : 12/12/2012 11:44 am
Sample : CTO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:39 pm

Compound #10: ethanol




Original Peak Response = 410239




Manual Peak Response = 402001 M6

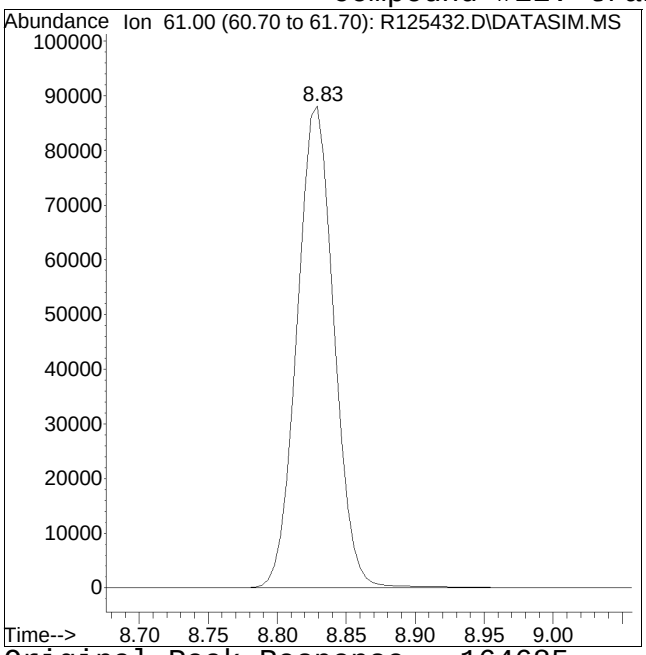
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

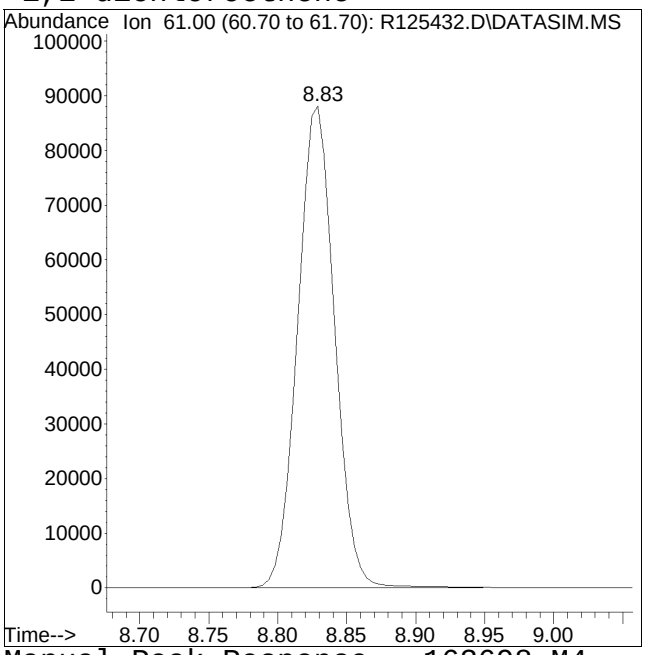
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125432.D
Date Inj'd : 12/12/2012 11:44 am
Sample : CTO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:39 pm

Compound #22: trans-1,2-dichloroethene



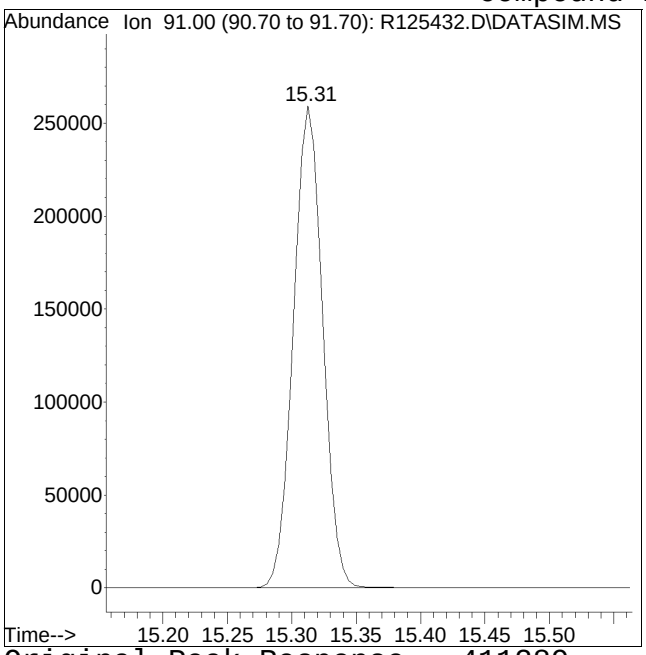

Original Peak Response = 164685 Manual Peak Response = 163698 M4
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

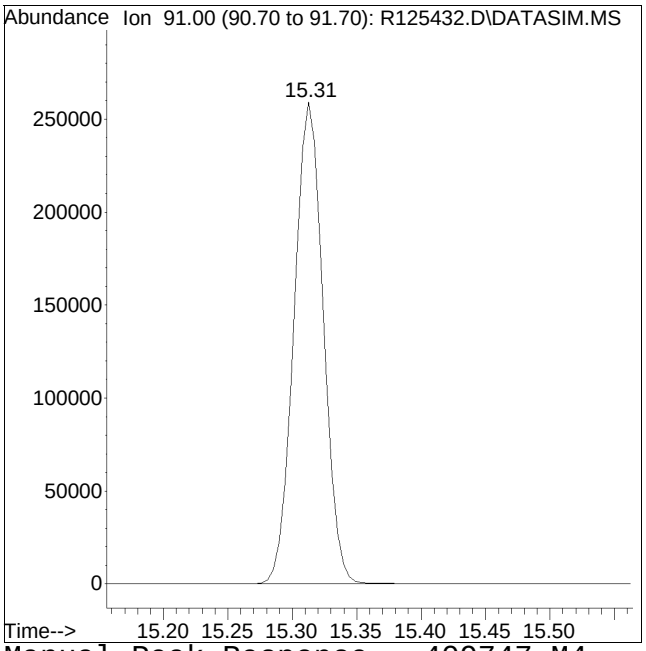
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125432.D
Date Inj'd : 12/12/2012 11:44 am
Sample : CTO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:39 pm

Compound #50: toluene




Original Peak Response = 411289




Manual Peak Response = 409747 M4

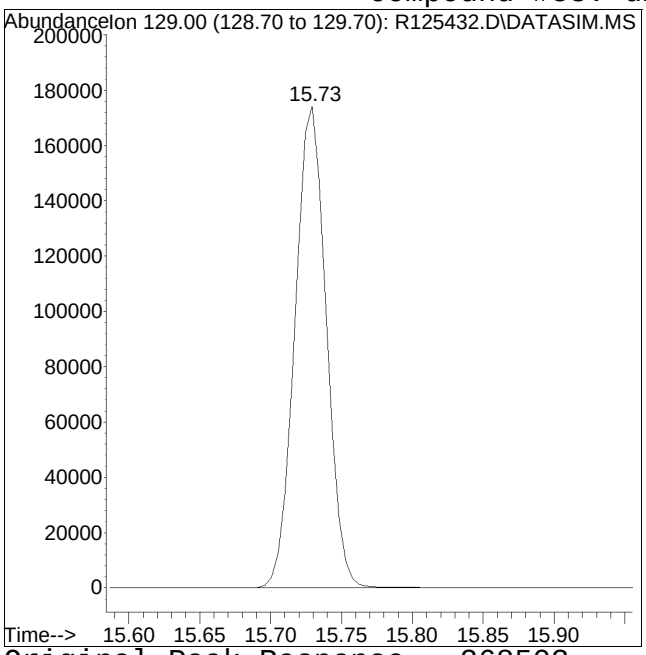
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

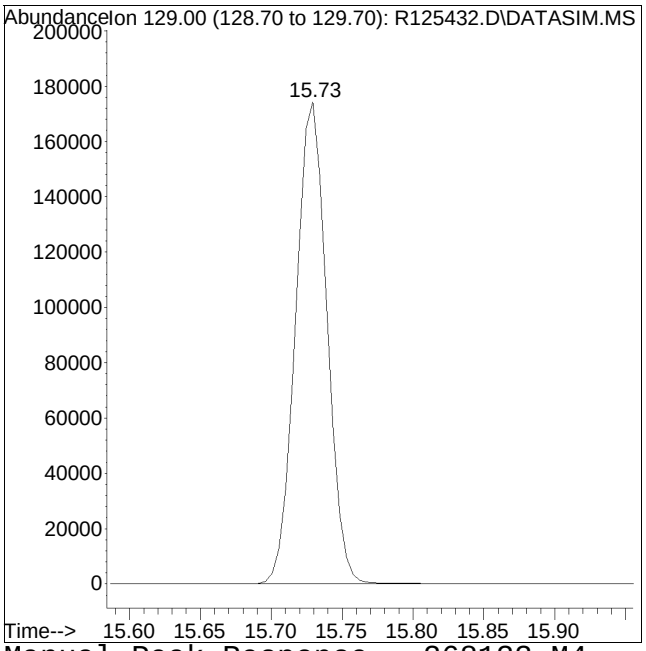
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125432.D
Date Inj'd : 12/12/2012 11:44 am
Sample : CTO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:39 pm

Compound #53: dibromochloromethane




Original Peak Response = 268503




Manual Peak Response = 268133 M4

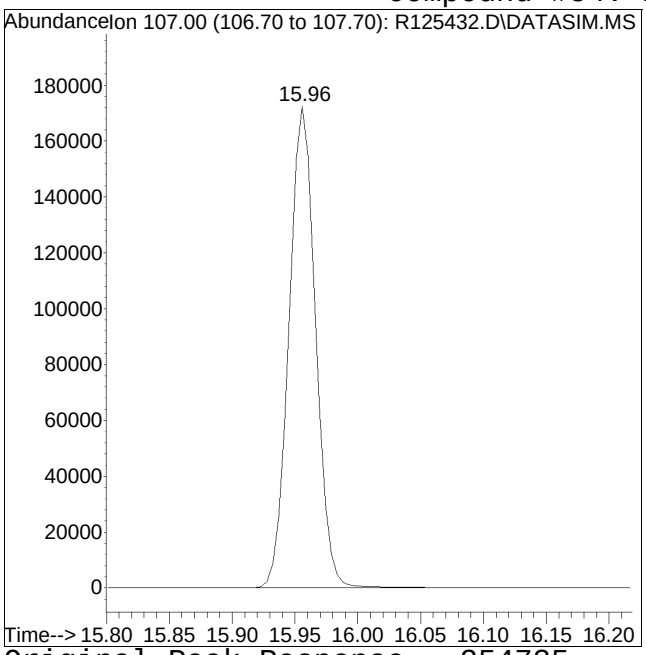
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

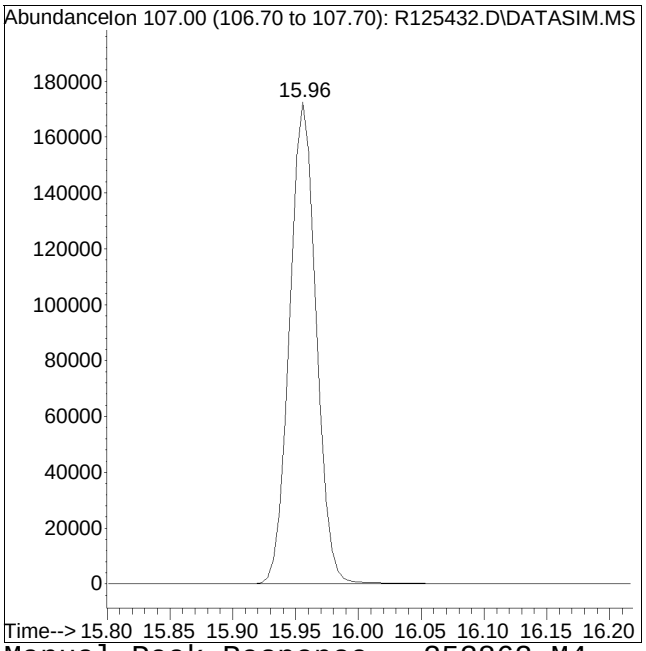
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125432.D
Date Inj'd : 12/12/2012 11:44 am
Sample : CTO15-SIMSTD5.0

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 12/12/2012 12:39 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 254735




Manual Peak Response = 253862 M4

M4 = Poor automated baseline construction.

# Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 21 2015, 01:14 pm

Work Group: WG589504 for Department: 3 GC/MS

Created: 08-FEB-13 Due: Operator: ry

| Sample | Client ID | C | Product | Matrix | Stat | UA | HOLD | DUE | PR | Location |
|---|---|---|---|---|---|---|---|---|---|---|
| L1302224-01 | S-149-J | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-02 | DUP | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-03 | S-157-J | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-04 | S-1100 | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-05 | S-171-X | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-06 | NEPD | S | MCP-TO15-SIM | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302354-01 | IA-1 | S | MCP-TO15-SIM | AIR | DONE | U | 0310 | 0214 | S0 | Can-6 |
| WG589504-1 | MS BFB Tune Standard | S | MCP-TO15-SIM | AIR | DONE | U | | | | |
| WG589504-2 | Continuing Calibrati | S | MCP-TO15-SIM | AIR | DONE | U | | | | |
| WG589504-3 | Laboratory Control S | S | MCP-TO15-SIM | AIR | DONE | U | | | | |
| WG589504-4 | Laboratory Method Bl | S | MCP-TO15-SIM | AIR | DONE | U | | | | |
| WG589504-5 | Duplicate Sample | S | MCP-TO15-SIM | AIR | DONE | U | | | | |

Comments:

WG589504-5 L1302224-01

# Sequence Logs

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\121211_TO15ICAL.SEQ
Date: 12-12-2012
Time: 12:15:05
Int. Std Volume: 100 cc

| Sample Name | Inlet # | Auto Pos | Samp Vol. | Cal Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| TA1121101 | 1 | 1 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.02 | 1 | 5 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.04 | 1 | 5 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.1 | 1 | 6 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.2 | 1 | 6 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.5 | 1 | 7 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD1.0 | 1 | 7 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD2.5 | 1 | 8 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD5.0 | 1 | 8 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD10 | 1 | 9 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD20 | 1 | 9 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD50 | 1 | 10 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD100 | 1 | 10 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| BA1121101 | 1 | 1 | 250 | 0 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| BA1121102 | 1 | 1 | 250 | 0 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| CTO15-LLSTD10 | 1 | 2 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| CTO15-SIMSTD5.0 | 1 | 2 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |

# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Date: 12/11/12

Internal Standard/Surrogate Volume: 100 mL

Analyst Initials: AR/MB

EM Voltage: 1800

SIM ICAL# Full Scan ICAL# PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1121101 | TO15_SFS | R125416 | 250ml | TUNE |
| 5 | ITO15-SIMSTD0.02 | TO15_SFS | R125417 | SS12-044F 125ML 0.02 | SIM ONLY |
| 5 | ITO15-SIMSTD0.04 | TO15_SFS | R125418 | SS12-044F 250ML 0.04 | SIM ONLY |
| 6 | ITO15-SIMSTD0.1 | TO15_SFS | R125419 | SS12-044E 125ML 0.1 | SIM ONLY |
| 6 | ITO15-SIMSTD0.2 | TO15_SFS | R125420 | SS12-044E 250ML 0.2 | |
| 7 | ITO15-SIMSTD0.5 | TO15_SFS | R125421 | SS12-044D 125ML 0.5 | |
| 7 | ITO15-SIMSTD1.0 | TO15_SFS | R125422 | SS12-044D 250ML 1.0 | |
| 8 | ITO15-SIMSTD2.5 | TO15_SFS | R125423 | SS12-044C 125ML 2.5 | |
| 8 | ITO15-SIMSTD5.0 | TO15_SFS | R125424 | SS12-044C 250ML 5.0 | |
| 9 | ITO15-SIMSTD10.0 | TO15_SFS | R125425 | SS12-044B 125ML 10.0 | |
| 9 | ITO15-SIMSTD20.0 | TO15_SFS | R125426 | SS12-044B 250ML 20.0 | |
| 10 | ITO15-SIMSTD50.0 | TO15_SFS | R125427 | SS12-044A 125ML 50.0 | |
| 10 | ITO15-LLSTD100.0 | TO15_SFS | R125428 | SS12-044A 250ML 100.0 | FULL SCAN ONLY |
| 1 | BA1121101 | TO15_SFS | R125429 | 250ml | |
| | | Pause | | | |
| 1 | BA1121102 | TO15_SFS | R125430 | 250ml | |
| 2 | CTO15-LLSTD10 | TO15_SFS | R125431 | SS12-041C 250ML 10.0 | FULL SCAN ICV |
| 2 | CTO15-SIMSTD5.0 | TO15_SFS | R125432 | SS12-041C 125ML 5.0 | SIM ICV |
| | | | | | |
| | | | | | |

# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Date: 02/08/13

Internal Standard/Surrogate Volume: 100 mL

Analyst Initials: MB/AR

EM Voltage: 1918

SIM ICAL# 7589 Full Scan ICAL# 7588 PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1020801 | TO15_SFS | R126424 | 250ml | TUNE |
| 2 | CAPH-10STD10 | TO15_SFS | R126425 | SS12-047B 125ML 10.0 | APH CC |
| 3 | CTO15-LLSTD10.0 | TO15_SFS | R126426 | SS13-001B 250ML 10.0 | LL LCS |
| 3 | CTO15-SIMSTD5.0 | TO15_SFS | R126427 | SS13-001B 125ML 10.0 | SIM LCS |
| 1 | BA1020801 | TO15_SFS | R126428 | 250ml | INST. BLANK |
| 1 | BA1020802 | TO15_SFS | R126429 | 250ml | BLANK |
| 2 | L1301988-01,3,250,250 | TO15_SFS | R126430 | WG589501,ICAL7587 | |
| 3 | L1302052-01,3,250,250 | TO15_SFS | R126431 | WG589501,ICAL7587 | |
| 4 | L1302169-01,3,250,250 | TO15_SFS | R126432 | WG589501,ICAL7587 | |
| 5 | L1302169-02,3,250,250 | TO15_SFS | R126433 | WG589501,ICAL7587 | |
| 6 | L1302354-01,3,250,250 | TO15_SFS | R126434 | WG589501,ICAL7587 | |
| 7 | L1302352-01,3,250,250 | TO15_SFS | R126435 | WG589501,ICAL7587 | |
| 8 | L1302352-02,3,250,250 | TO15_SFS | R126436 | WG589501,ICAL7587 | |
| 9 | L1302352-03,3,250,250 | TO15_SFS | R126437 | WG589501,ICAL7587 | |
| 10 | L1302224-01,3,250,250 | TO15_SFS | R126438 | WG589501,ICAL7587 | |
| 10 | L1302224-01DUP,3,250,250 | TO15_SFS | R126439 | WG589501,ICAL7587 | APH, SIM, TO15-LL DUP |
| 11 | L1302224-02,3,250,250 | TO15_SFS | R126440 | WG589501,ICAL7587 | |
| 12 | L1302224-03,3,250,250 | TO15_SFS | R126441 | WG589501,ICAL7587 | |
| 13 | L1302224-04,3,250,250 | TO15_SFS | R126442 | WG589501,ICAL7587 | |
| 14 | L1302224-05,3,250,250 | TO15_SFS | R126443 | WG589501,ICAL7587 | |
| 15 | L1302224-06,3,250,250 | TO15_SFS | R126444 | WG589501,ICAL7587 | |

# Alpha Analytical Air Lab
# Instrument Run Log

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
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# Analytical Event

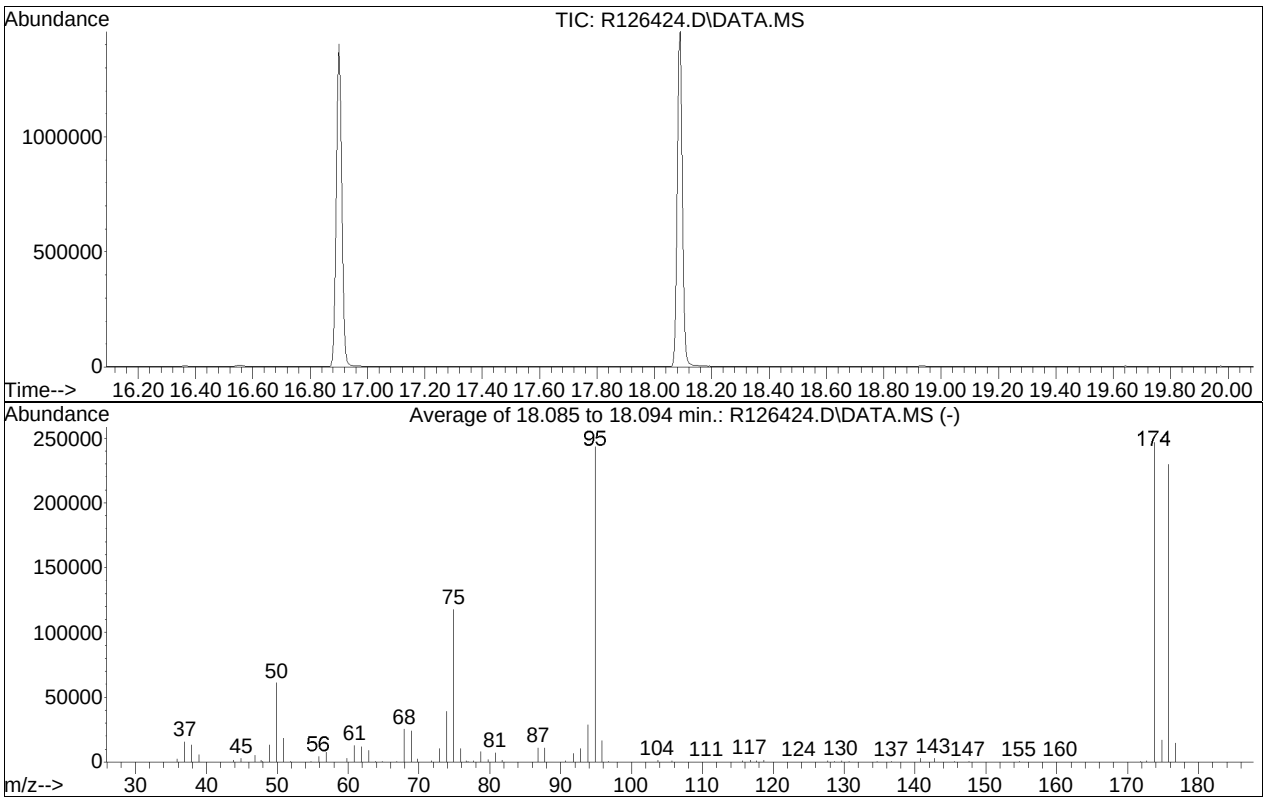
# Continuing Calibration
# BFB Tune

BFB

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126424.D
Acq On : 8 Feb 2013 10:47 am
Operator : AIRPIANO1:RY
Sample : WG589504-1,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 12:37:31 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 3246

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 25.1 | 61168 | PASS |
| 75 | 95 | 30 | 66 | 48.3 | 117757 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 243627 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 16787 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 904 | PASS |
| 174 | 95 | 50 | 120 | 101.2 | 246507 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 17143 | PASS |
| 176 | 174 | 93 | 101 | 93.1 | 229611 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 14686 | PASS |

# Continuing Calibration

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 89 | 0.00 |
| 3 | | dichlorodifluoromethane | 1.473 | 1.392 | 5.5 | 96 | 0.00 |
| 4 | C | chloromethane | 0.722 | 0.596 | 17.5 | 86 | 0.00 |
| 5 | | Freon-114 | 1.624 | 1.397 | 14.0 | 85 | 0.00 |
| 6 | C | vinyl chloride | 0.645 | 0.526 | 18.4 | 81 | 0.00 |
| 7 | C | 1,3-butadiene | 0.501 | 0.436 | 13.0 | 86 | 0.00 |
| 8 | C | bromomethane | 0.590 | 0.489 | 17.1 | 83 | 0.00 |
| 9 | C | chloroethane | 0.294 | 0.229 | 22.1 | 78 | 0.00 |
| 12 | | acetone | 1.226 | 1.071 | 12.6 | 87 | 0.00 |
| 13 | | trichlorofluoromethane | 1.755 | 1.706 | 2.8 | 96 | 0.00 |
| 15 | C | acrylonitrile | 0.599 | 0.456 | 23.9 | 76 | 0.00 |
| 16 | C | 1,1-dichloroethene | 1.088 | 0.932 | 14.3 | 84 | 0.00 |
| 17 | C | methylene chloride | 0.974 | 0.830 | 14.8 | 83 | 0.00 |
| 20 | | Freon 113 | 1.220 | 1.088 | 10.8 | 87 | 0.00 |
| 21 | | Halothane | 0.930 | 0.717 | 22.9 | 74 | 0.00 |
| 22 | | trans-1,2-dichloroethene | 1.043 | 0.795 | 23.8 | 74 | 0.00 |
| 23 | C | 1,1-dichloroethane | 1.213 | 1.012 | 16.6 | 81 | 0.00 |
| 24 | C | MTBE | 1.445 | 1.174 | 18.8 | 80 | 0.00 |
| 26 | C | 2-butanone | 1.753 | 1.273 | 27.4 | 76 | 0.00 |
| 27 | | cis-1,2-dichloroethene | 0.942 | 0.839 | 10.9 | 78 | 0.00 |
| 29 | C | chloroform | 1.283 | 1.235 | 3.7 | 89 | 0.00 |
| 31 | C | 1,2-dichloroethane | 0.993 | 0.911 | 8.3 | 88 | 0.00 |
| 32 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 89 | 0.00 |
| 35 | C | 1,1,1-trichloroethane | 0.572 | 0.608 | -6.3 | 93 | 0.00 |
| 36 | C | benzene | 0.822 | 0.718 | 12.7 | 79 | 0.00 |
| 37 | C | carbon tetrachloride | 0.597 | 0.649 | -8.7 | 95 | 0.00 |
| 39 | C | 1,2-dichloropropane | 0.372 | 0.342 | 8.1 | 82 | 0.00 |
| 40 | | bromodichloromethane | 0.642 | 0.639 | 0.5 | 86 | 0.00 |
| 41 | C | 1,4-dioxane | 0.185 | 0.160 | 13.5 | 78 | 0.00 |
| 42 | C | trichloroethene | 0.400 | 0.405 | -1.3 | 89 | 0.00 |
| 45 | C | cis-1,3-dichloropropene | 0.456 | 0.438 | 3.9 | 84 | 0.00 |
| 46 | C | 4-methyl-2-pentanone | 0.985 | 0.909 | 7.7 | 80 | 0.00 |
| 47 | | trans-1,3-dichloropropene | 0.461 | 0.388 | 15.8 | 73 | 0.00 |
| 48 | C | 1,1,2-trichloroethane | 0.360 | 0.358 | 0.6 | 88 | 0.00 |
| 49 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 50 | C | toluene | 4.052 | 3.693 | 8.9 | 80 | 0.00 |
| 53 | | dibromochloromethane | 2.775 | 2.869 | -3.4 | 86 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 54 C | 1,2-dibromoethane | 2.423 | 2.481 | -2.4 | 87 | 0.00 |
| 55 C | tetrachloroethene | 1.980 | 2.021 | -2.1 | 88 | 0.00 |
| 56 | 1,1,1,2-tetrachloroethane | 2.048 | 2.052 | -0.2 | 86 | 0.00 |
| 57 C | chlorobenzene | 3.388 | 3.461 | -2.2 | 88 | 0.00 |
| 58 C | ethylbenzene | 5.205 | 5.084 | 2.3 | 84 | 0.00 |
| 59 C | m+p-xylene | 4.061 | 4.004 | 1.4 | 85 | 0.00 |
| 60 C | bromoform | 2.818 | 2.723 | 3.4 | 84 | 0.00 |
| 61 C | styrene | 3.120 | 3.123 | -0.1 | 84 | 0.00 |
| 62 C | 1,1,2,2-tetrachloroethane | 3.365 | 3.407 | -1.2 | 85 | 0.00 |
| 63 C | o-xylene | 4.186 | 4.265 | -1.9 | 87 | 0.00 |
| 65 C | isopropylbenzene | 5.981 | 6.078 | -1.6 | 86 | 0.00 |
| 66 | 4-ethyl toluene | 5.983 | 5.645 | 5.6 | 78 | 0.00 |
| 67 | 1,3,5-trimethylbenzene | 4.978 | 5.146 | -3.4 | 89 | 0.00 |
| 69 | 1,2,4-trimethylbenzene | 4.880 | 5.294 | -8.5 | 90 | 0.00 |
| 71 | 1,3-dichlorobenzene | 3.695 | 4.097 | -10.9 | 92 | 0.00 |
| 72 C | 1,4-dichlorobenzene | 3.809 | 4.176 | -9.6 | 92 | 0.00 |
| 73 | sec-butylbenzene | 7.559 | 7.739 | -2.4 | 83 | 0.00 |
| 74 | p-isopropyltoluene | 6.967 | 6.675 | 4.2 | 79 | 0.00 |
| 75 | 1,2-dichlorobenzene | 3.565 | 3.988 | -11.9 | 93 | 0.00 |
| 76 | n-butylbenzene | 6.238 | 6.630 | -6.3 | 84 | 0.00 |
| 77 C | 1,2,4-trichlorobenzene | 2.872 | 3.476 | -21.0 | 94 | 0.00 |
| 78 | naphthalene | 8.270 | 8.528 | -3.1 | 92 | 0.00 |
| 79 | 1,2,3-trichlorobenzene | 2.917 | 3.462 | -18.7 | 96 | 0.00 |
| 80 C | hexachlorobutadiene | 2.234 | 2.662 | -19.2 | 95 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 364674 | 10.000 ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery | = 100.00% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 755678 | 10.000 ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery | = 100.00% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 185873 | 10.000 ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery | = 100.00% | |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 253895 | 4.726 ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 108628 | 4.128 ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 254770 | 4.303 ppbV | 95 |
| 6) vinyl chloride | 4.72 | 62 | 95824 | 4.072 ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 79567 | 4.352 ppbV | 95 |
| 8) bromomethane | 5.30 | 94 | 89198 | 4.147 ppbV | 99 |
| 9) chloroethane | 5.55 | 64 | 41699 | 3.886 ppbV | 100 |
| 12) acetone | 6.39 | 43 | 976532 | 21.846 ppbV | 96 |
| 13) trichlorofluoromethane | 6.63 | 101 | 311109 | 4.860 ppbV | 99 |
| 15) acrylonitrile | 7.04 | 53 | 83060 | 3.800 ppbV | 100 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 169938 | 4.282 ppbV | 99 |
| 17) methylene chloride | 7.64 | 49 | 151288M4 | 4.259 ppbV | |
| 20) Freon 113 | 7.99 | 101 | 198403 | 4.460 ppbV | 97 |
| 21) Halothane | 8.59 | 117 | 130672 | 3.853 ppbV | 99 |
| 22) trans-1,2-dichloroethene | 8.82 | 61 | 145035M4 | 3.813 ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 184585 | 4.174 ppbV | 99 |
| 24) MTBE | 9.16 | 73 | 214100 | 4.062 ppbV | 99 |
| 26) 2-butanone | 9.56 | 43 | 232166 | 3.632 ppbV | 99 |
| 27) cis-1,2-dichloroethene | 10.07 | 61 | 152986 | 4.456 ppbV | 98 |
| 29) chloroform | 10.43 | 83 | 225220 | 4.814 ppbV | 99 |
| 31) 1,2-dichloroethane | 11.27 | 62 | 166081 | 4.585 ppbV | 98 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 229632 | 5.316 ppbV | 97 |
| 36) benzene | 12.09 | 78 | 271363 | 4.369 ppbV | 99 |
| 37) carbon tetrachloride | 12.25 | 117 | 245312 | 5.436 ppbV | 99 |
| 39) 1,2-dichloropropane | 13.02 | 63 | 129049 | 4.591 ppbV | 99 |
| 40) bromodichloromethane | 13.24 | 83 | 241559 | 4.978 ppbV | 99 |
| 41) 1,4-dioxane | 13.29 | 88 | 60306M4 | 4.318 ppbV | |
| 42) trichloroethene | 13.28 | 130 | 153122 | 5.066 ppbV | 98 |
| 45) cis-1,3-dichloropropene | 14.27 | 75 | 165599 | 4.801 ppbV | 96 |
| 46) 4-methyl-2-pentanone | 14.30 | 43 | 343390 | 4.612 ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

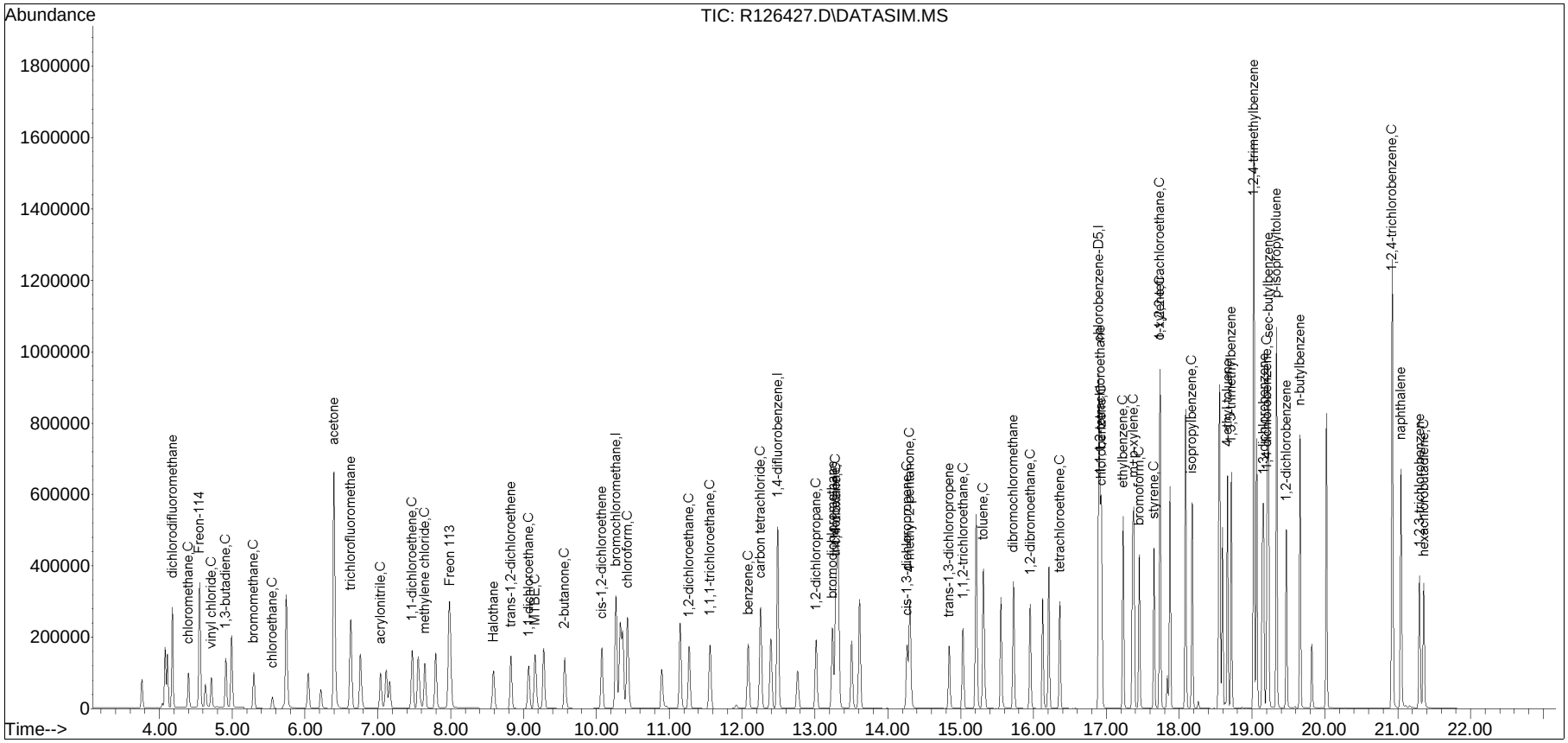
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 47) trans-1,3-dichloropropene | 14.84 | 75 | 146527 | 4.208 | ppbV | 97 |
| 48) 1,1,2-trichloroethane | 15.03 | 97 | 135303 | 4.970 | ppbV | 97 |
| 50) toluene | 15.31 | 91 | 343244M4 | 4.558 | ppbV | |
| 53) dibromochloromethane | 15.72 | 129 | 266598M4 | 5.169 | ppbV | |
| 54) 1,2-dibromoethane | 15.96 | 107 | 230579M4 | 5.119 | ppbV | |
| 55) tetrachloroethene | 16.36 | 166 | 187802 | 5.102 | ppbV | 98 |
| 56) 1,1,1,2-tetrachloroethane | 16.92 | 131 | 190711 | 5.009 | ppbV | 99 |
| 57) chlorobenzene | 16.93 | 112 | 321644 | 5.108 | ppbV | 99 |
| 58) ethylbenzene | 17.23 | 91 | 472488 | 4.884 | ppbV | 98 |
| 59) m+p-xylene | 17.37 | 91 | 744145 | 9.857 | ppbV | 100 |
| 60) bromoform | 17.45 | 173 | 253065 | 4.832 | ppbV | 100 |
| 61) styrene | 17.65 | 104 | 290226 | 5.004 | ppbV | 99 |
| 62) 1,1,2,2-tetrachloroethane | 17.74 | 83 | 316634 | 5.063 | ppbV | 100 |
| 63) o-xylene | 17.74 | 91 | 396339 | 5.093 | ppbV | 99 |
| 65) isopropylbenzene | 18.18 | 105 | 564874 | 5.081 | ppbV | 100 |
| 66) 4-ethyl toluene | 18.66 | 105 | 524641M6 | 4.718 | ppbV | |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 478293 | 5.169 | ppbV | 98 |
| 69) 1,2,4-trimethylbenzene | 19.02 | 105 | 492033 | 5.425 | ppbV | 97 |
| 71) 1,3-dichlorobenzene | 19.16 | 146 | 380743 | 5.544 | ppbV | 94 |
| 72) 1,4-dichlorobenzene | 19.20 | 146 | 388065 | 5.481 | ppbV | 97 |
| 73) sec-butylbenzene | 19.22 | 105 | 719263 | 5.119 | ppbV | 97 |
| 74) p-isopropyltoluene | 19.34 | 119 | 620335 | 4.791 | ppbV | 98 |
| 75) 1,2-dichlorobenzene | 19.47 | 146 | 370629 | 5.593 | ppbV | 94 |
| 76) n-butylbenzene | 19.66 | 91 | 616127 | 5.314 | ppbV | 96 |
| 77) 1,2,4-trichlorobenzene | 20.92 | 180 | 323056 | 6.051 | ppbV | 99 |
| 78) naphthalene | 21.04 | 128 | 792556 | 5.156 | ppbV | 100 |
| 79) 1,2,3-trichlorobenzene | 21.30 | 180 | 321773 | 5.935 | ppbV | 99 |
| 80) hexachlorobutadiene | 21.36 | 225 | 247364 | 5.957 | ppbV | 98 |

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

Sub List : Default-SIM - All compounds listediewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

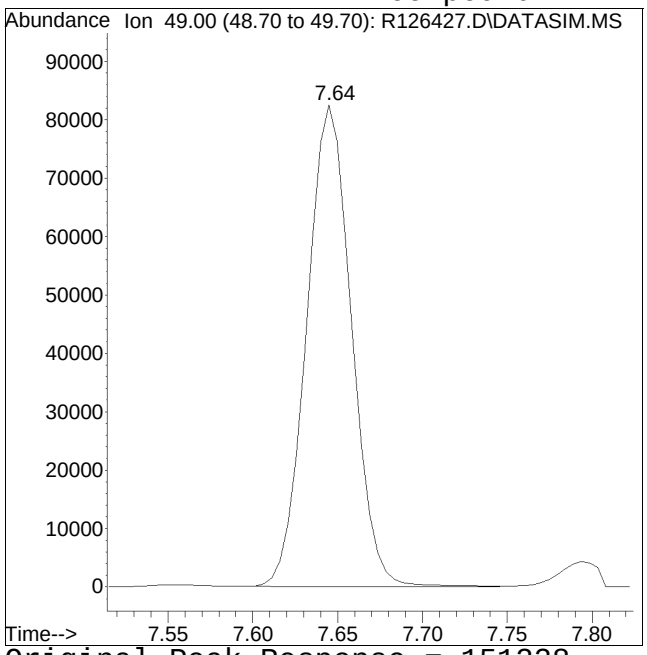


Manual Integration/Negative Proof Report

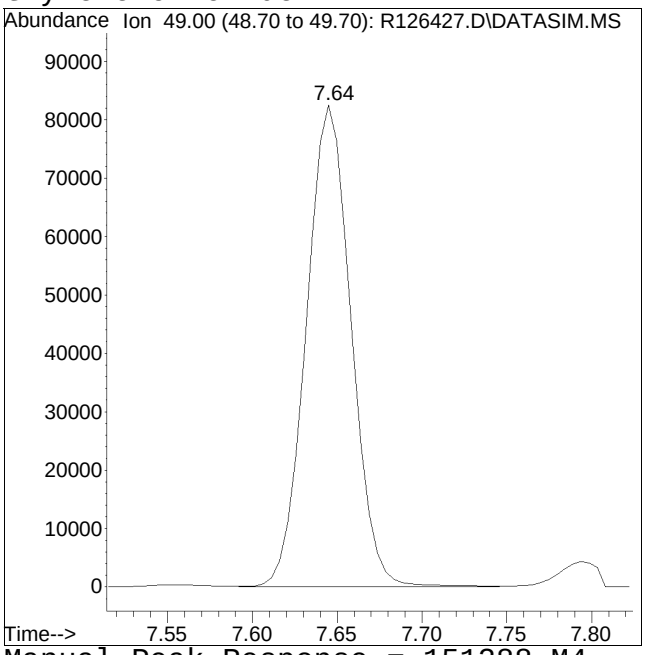
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #17: methylene chloride




Original Peak Response = 151228




Manual Peak Response = 151288 M4

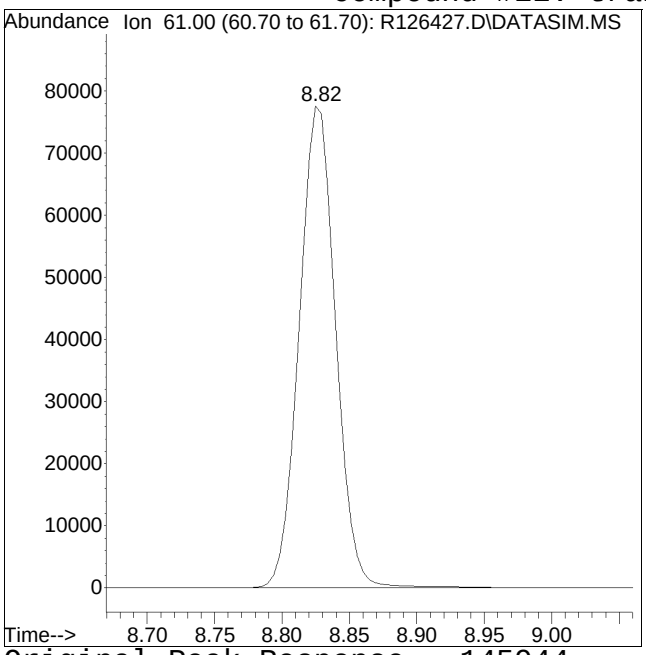
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

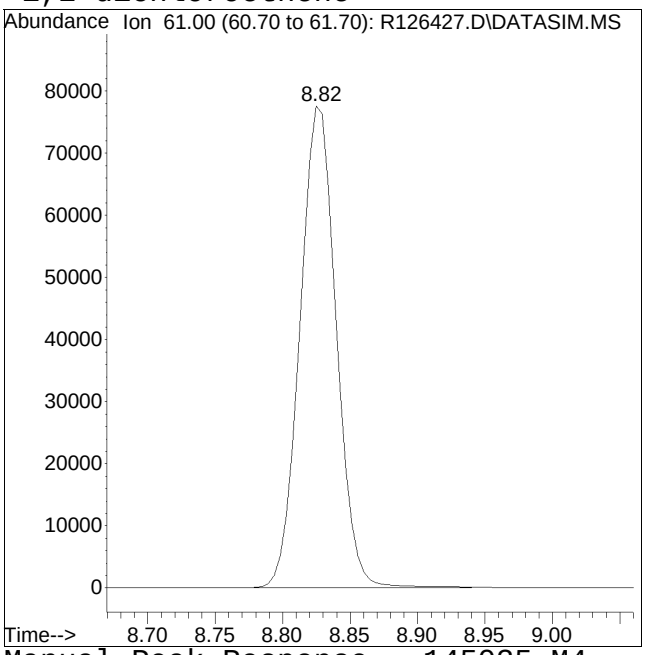
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 145944




Manual Peak Response = 145035 M4

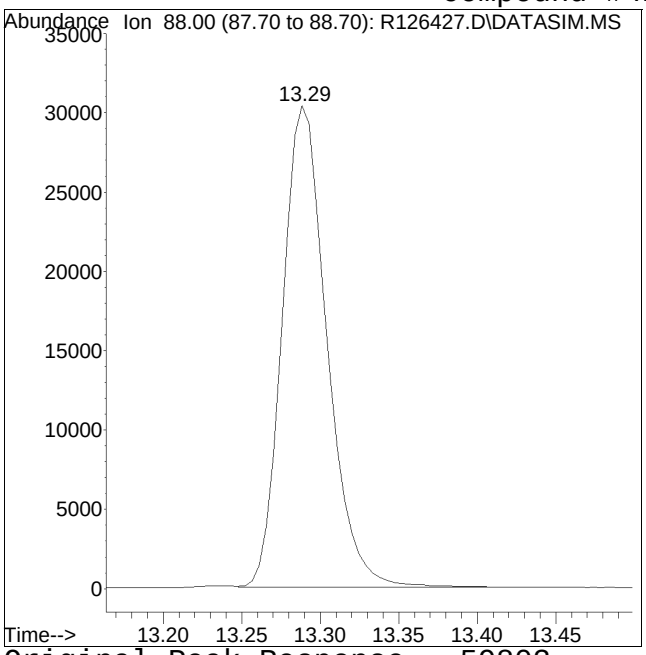
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

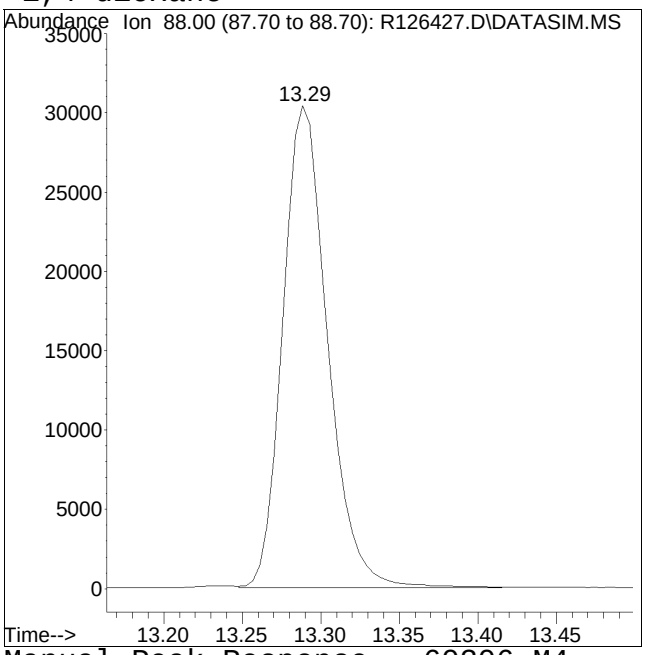
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #41: 1,4-dioxane




Original Peak Response = 59803




Manual Peak Response = 60306 M4

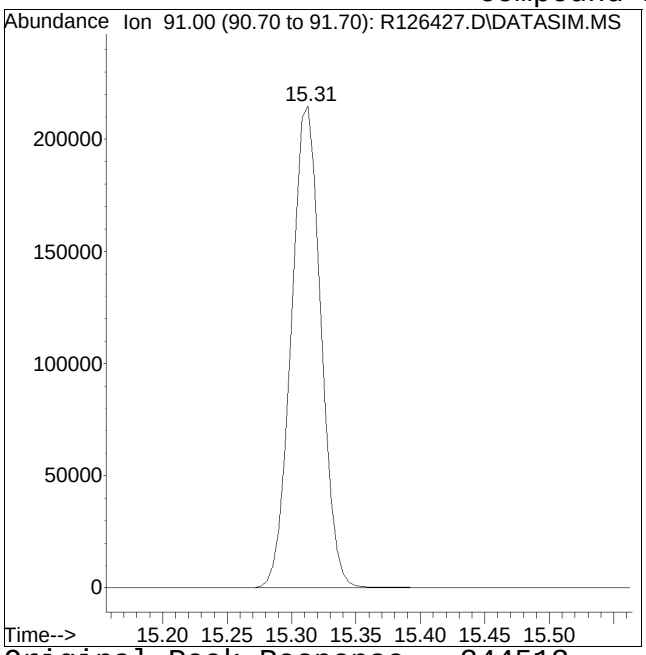
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

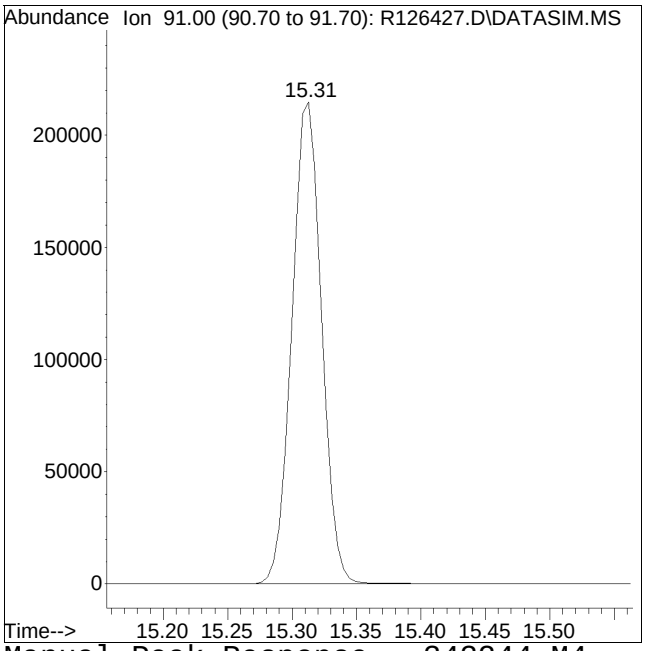
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #50: toluene




Original Peak Response = 344513




Manual Peak Response = 343244 M4

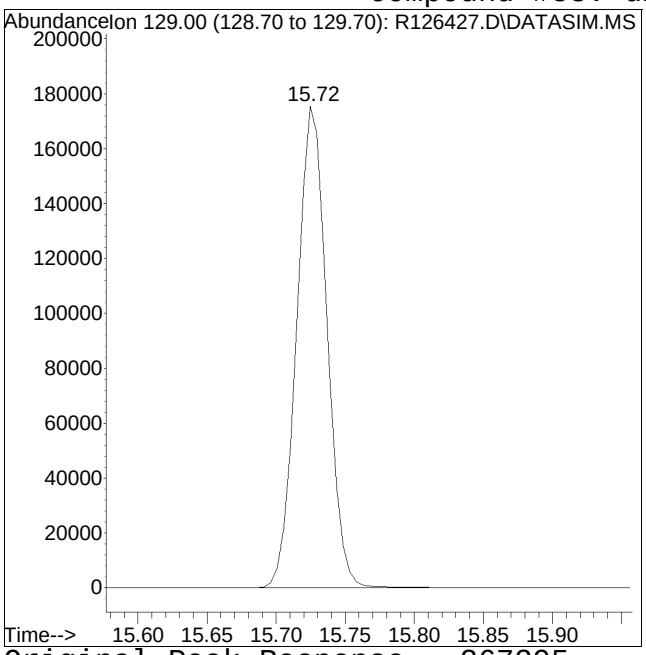
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

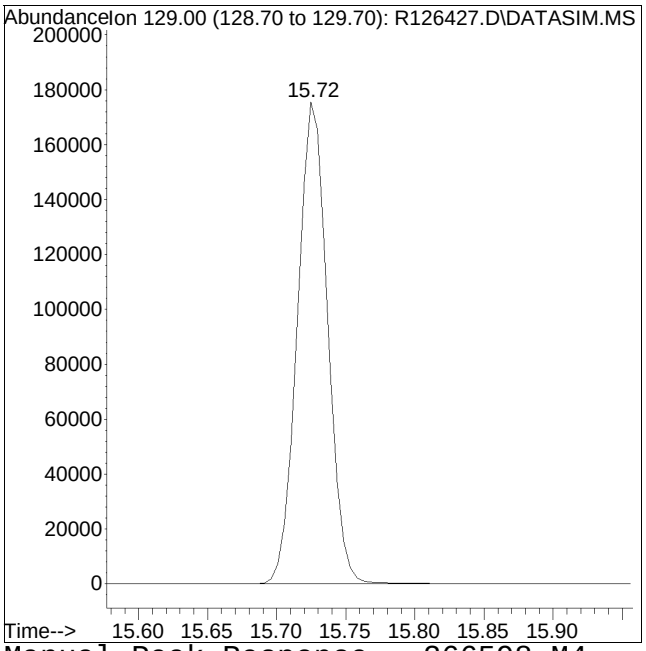
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #53: dibromochloromethane




Original Peak Response = 267295




Manual Peak Response = 266598 M4

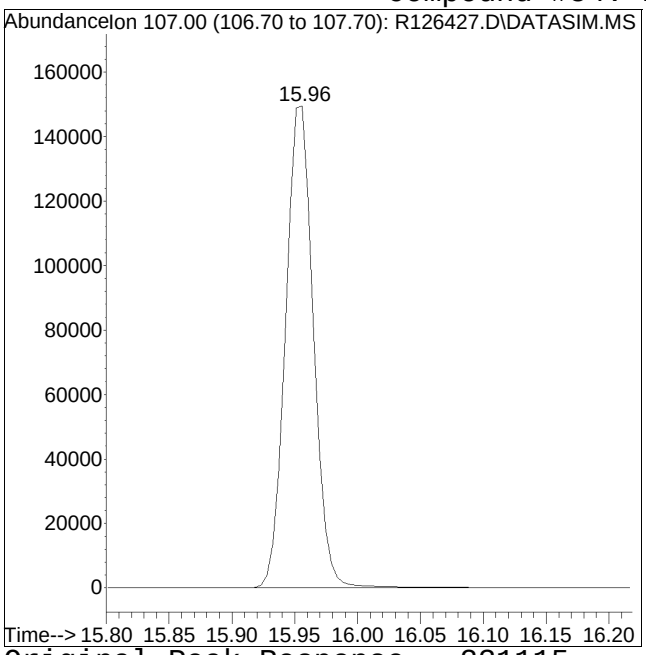
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

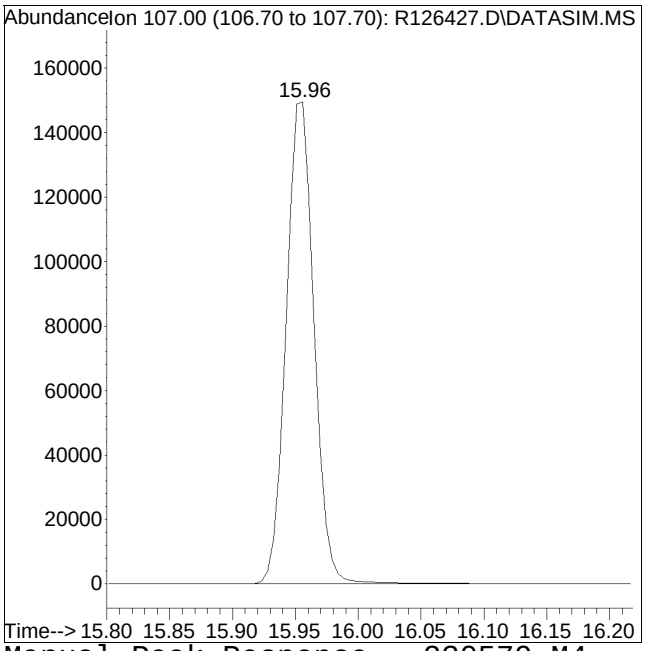
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 231115




Manual Peak Response = 230579 M4

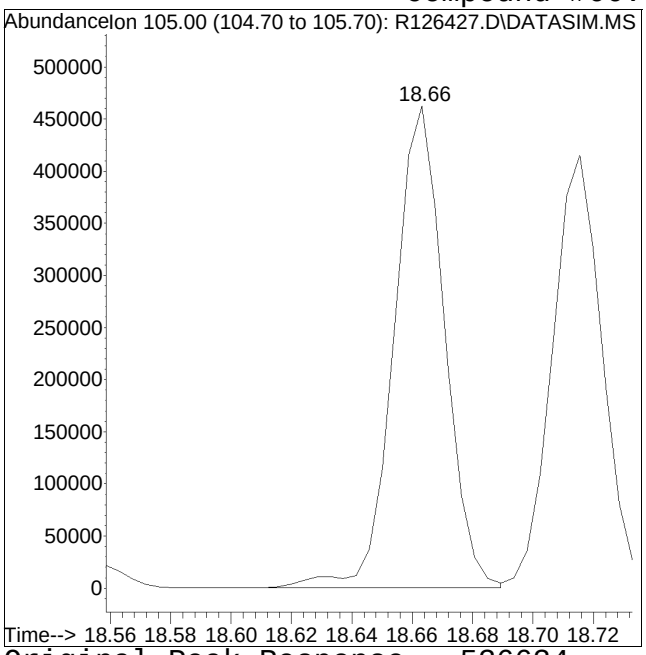
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

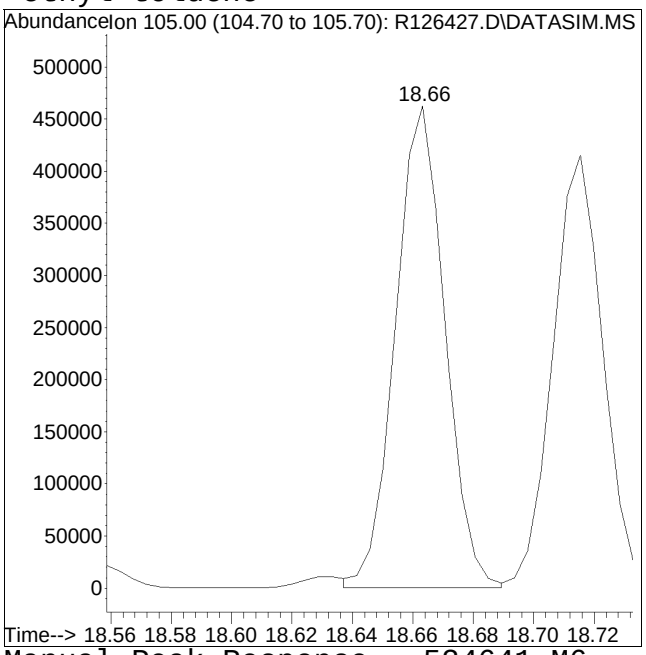
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-2,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #66: 4-ethyl toluene




Original Peak Response = 536634




Manual Peak Response = 524641 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:19:19 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 326059 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = | 89.41% | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 628536 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = | 83.18% | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 166188 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = | 89.41% | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 22800 | 0.475 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 11685 | 0.497 | ppbV | 97 |
| 5) Freon-114 | 4.55 | 85 | 699 | 0.013 | ppbV # | 84 |
| 6) vinyl chloride | 4.72 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 243 | 0.015 | ppbV # | 66 |
| 8) bromomethane | 5.30 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 12657 | 0.221 | ppbV | 100 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 17) methylene chloride | 7.64 | 49 | 31862 | 1.003 | ppbV | 98 |
| 20) Freon 113 | 7.99 | 101 | 2537 | 0.064 | ppbV | 90 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 9.07 | | 0 | N.D. | | |
| 24) MTBE | 9.18 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 10.07 | | 0 | N.D. | | |
| 29) chloroform | 10.43 | 83 | 3851 | 0.092 | ppbV | 98 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 848 | 0.026 | ppbV # | 89 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 1375 | 0.038 | ppbV # | 95 |
| 36) benzene | 12.08 | 78 | 9472 | 0.183 | ppbV | 94 |
| 37) carbon tetrachloride | 12.25 | 117 | 3517 | 0.094 | ppbV | 97 |
| 39) 1,2-dichloropropane | 13.01 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | 83 | 842M4 | 0.021 | ppbV | |
| 42) trichloroethene | 13.28 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.27 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.84 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.03 | | 0 | N.D. | | |
| 50) toluene | 15.31 | 91 | 19510M4 | 0.290 | ppbV | |
| 53) dibromochloromethane | 15.73 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.36 | 166 | 390 | 0.012 | ppbV # | 89 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:19:19 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

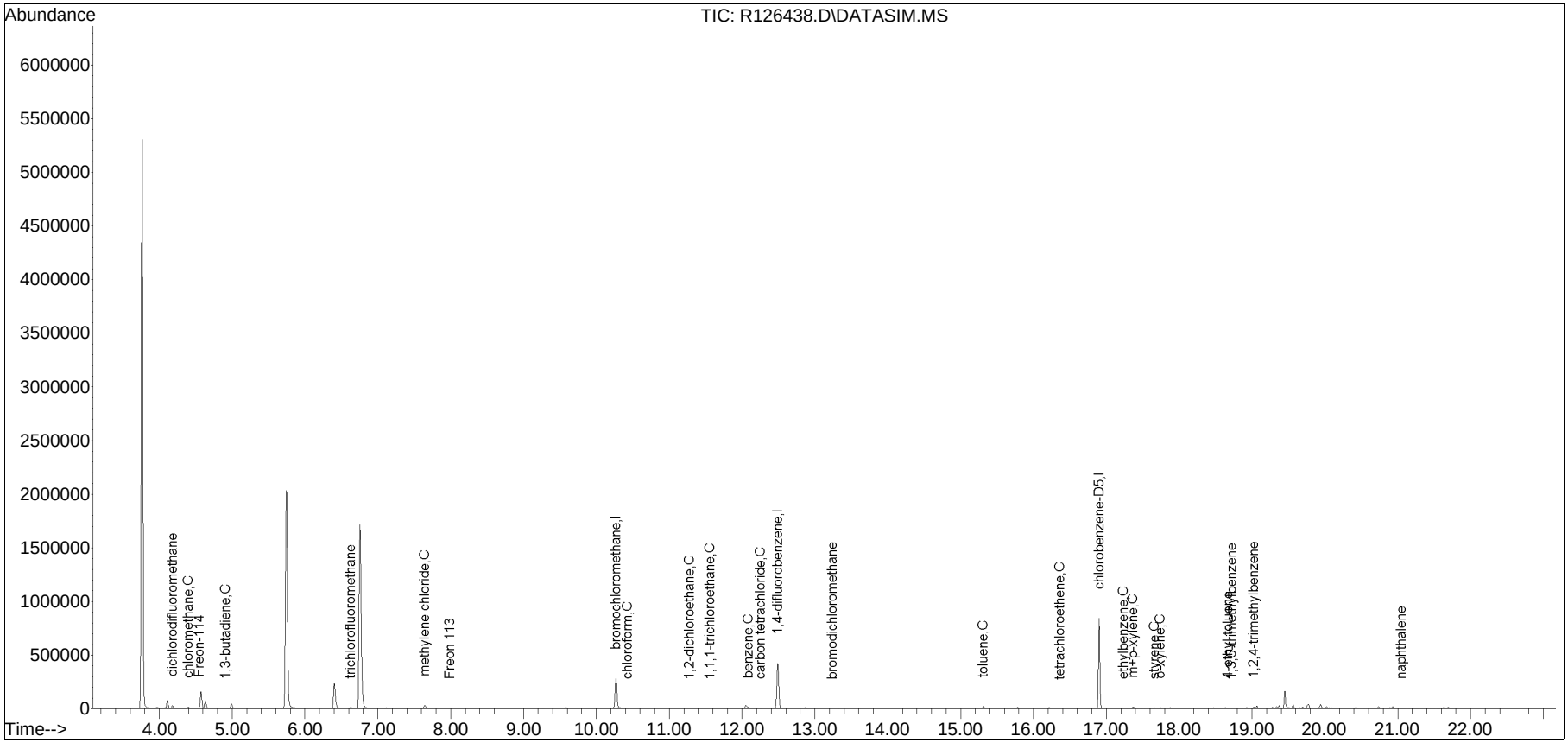
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 16.93 | | 0 | N.D. | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | |
| 58) ethylbenzene | 17.23 | 91 | 5798 | 0.067 ppbV | 96 |
| 59) m+p-xylene | 17.36 | 91 | 14032 | 0.208 ppbV | 100 |
| 60) bromoform | 17.45 | | 0 | N.D. | |
| 61) styrene | 17.66 | 104 | 4292 | 0.083 ppbV | 98 |
| 62) 1,1,2,2-tetrachloroethane | 17.67 | | 0 | N.D. | |
| 63) o-xylene | 17.74 | 91 | 6333 | 0.091 ppbV | 99 |
| 66) 4-ethyl toluene | 18.67 | 105 | 3662 | 0.037 ppbV # | 93 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 2871 | 0.035 ppbV # | 96 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 9457 | 0.117 ppbV # | 50 |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | N.D. | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | N.D. | |
| 78) naphthalene | 21.05 | 128 | 2682 | 0.020 ppbV # | 94 |
| 80) hexachlorobutadiene | 21.36 | | 0 | N.D. | |

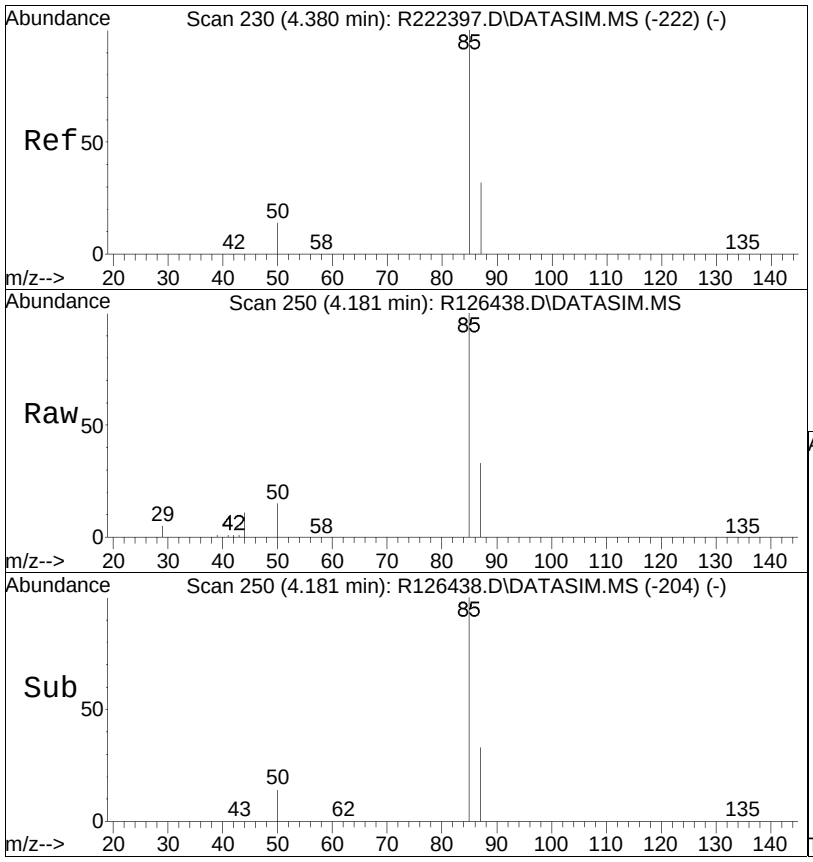
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:19:19 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

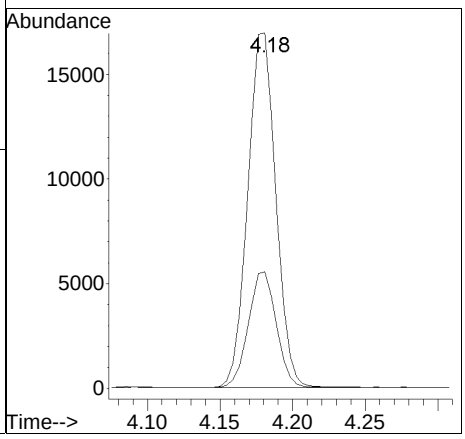


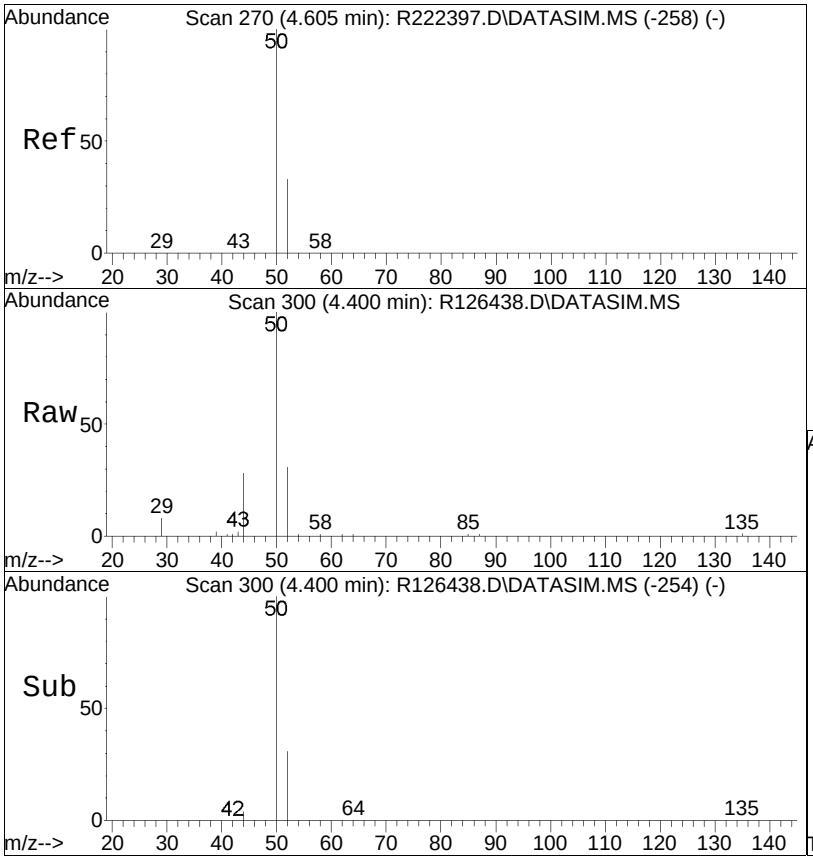



#3
dichlorodifluoromethane
Concen: 0.47 ppbV
RT: 4.18 min Scan# 250
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 85 Resp: 22800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.8 | 25.9 | 38.9 |

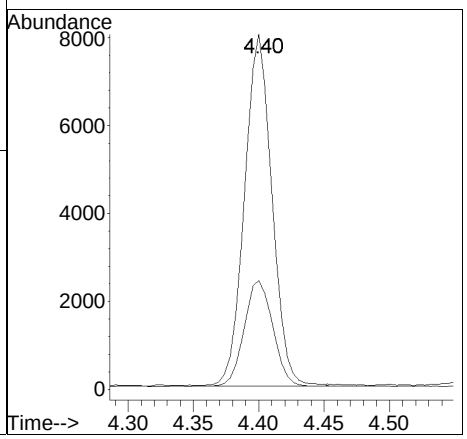


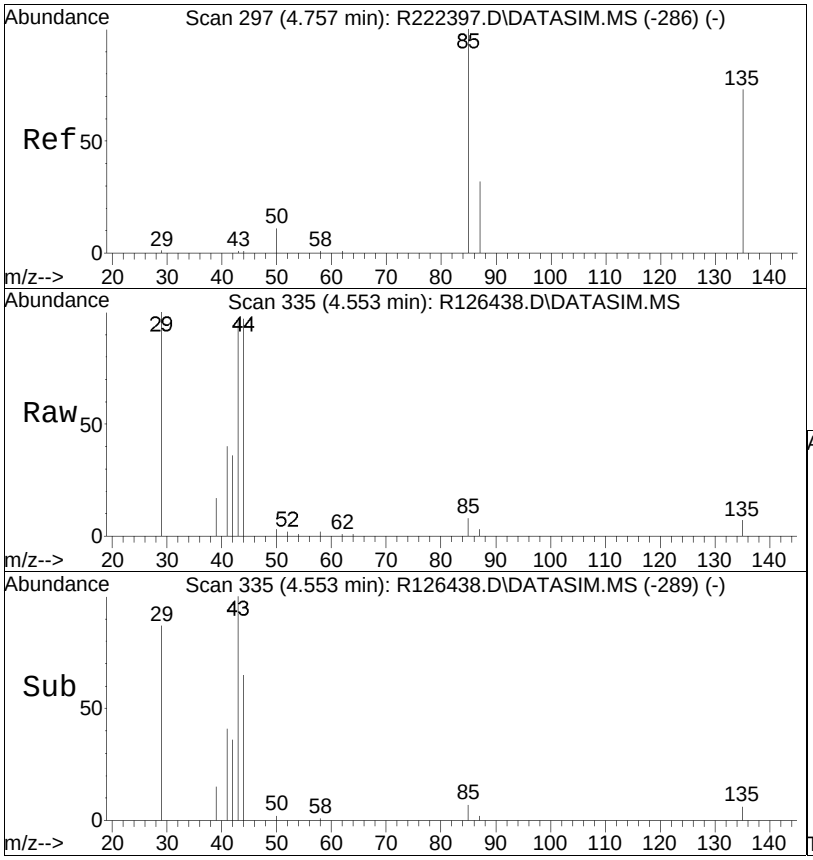



#4
chloromethane
Concen: 0.50 ppbV
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 50 Resp: 11685

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 30.6 | 25.8 | 38.6 |

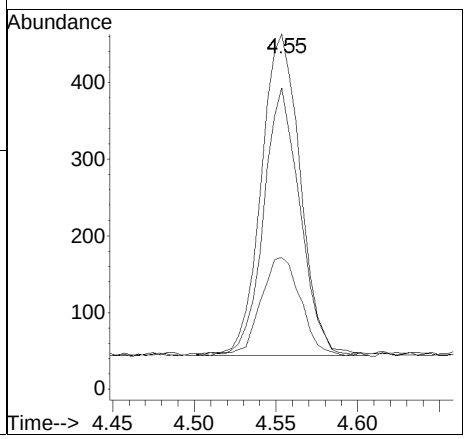


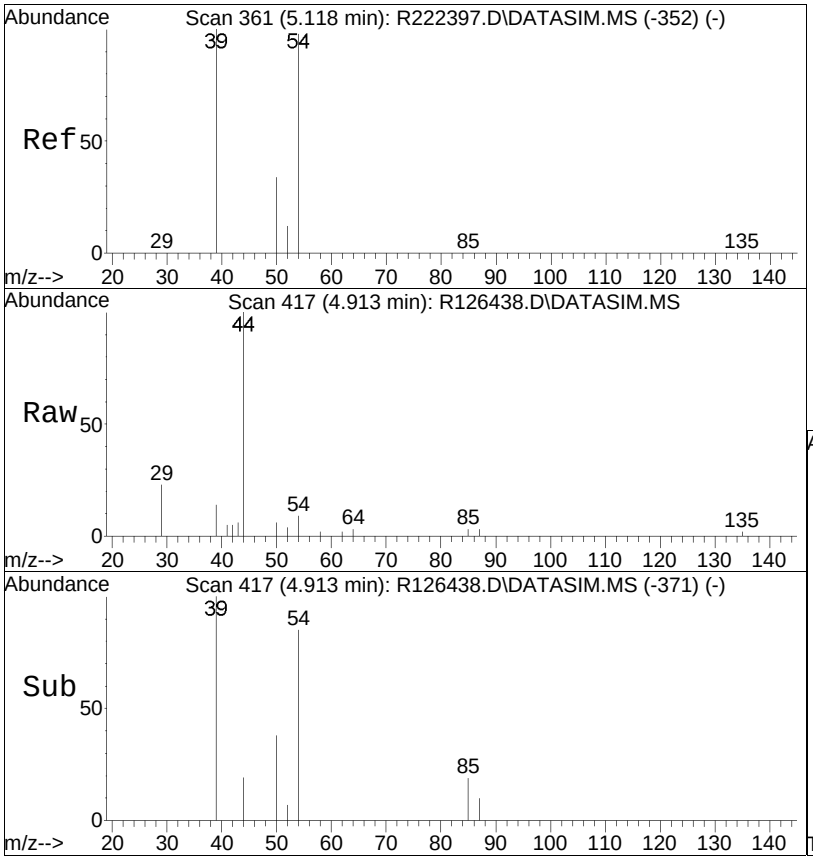



#5
Freon-114
Concen: 0.01 ppbV
RT: 4.55 min Scan# 335
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 85 Resp: 699

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 37.1 | 25.7 | 38.5 |
| 135 | 84.9 | 55.7 | 83.5# |

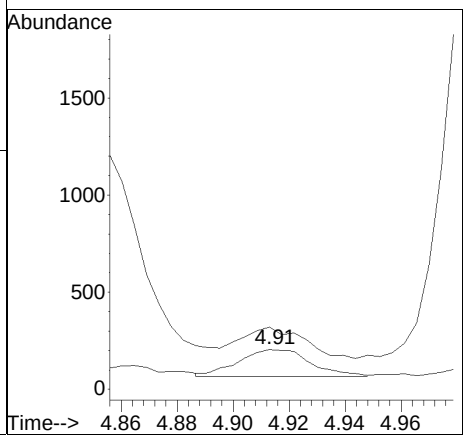


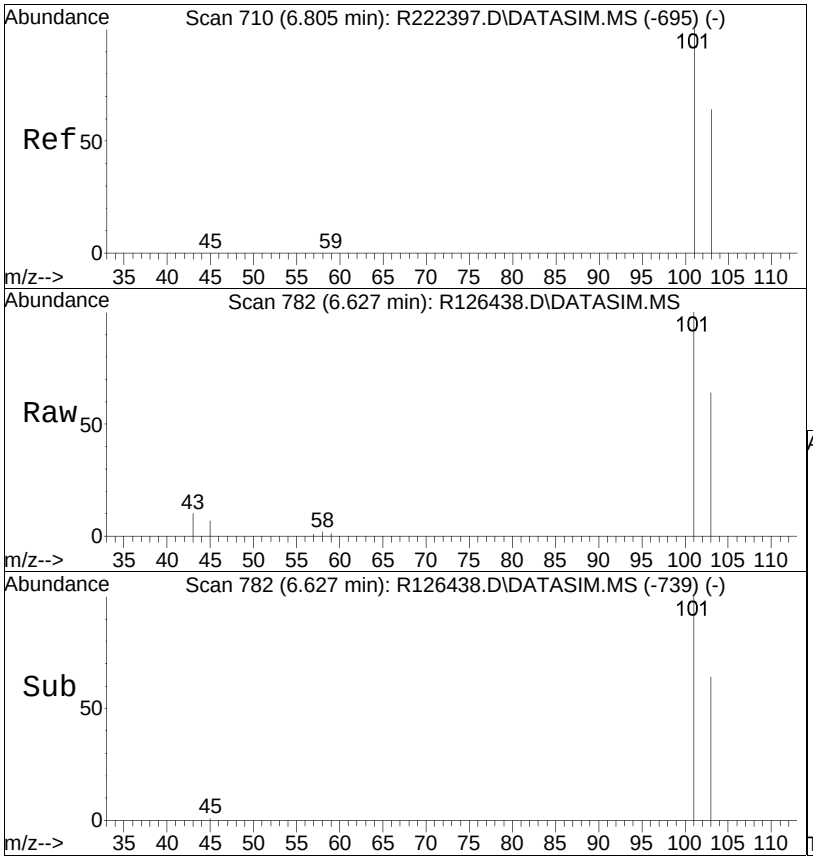



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 417
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 54 Resp: 243

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 156.6 | 95.5 | 143.3# |

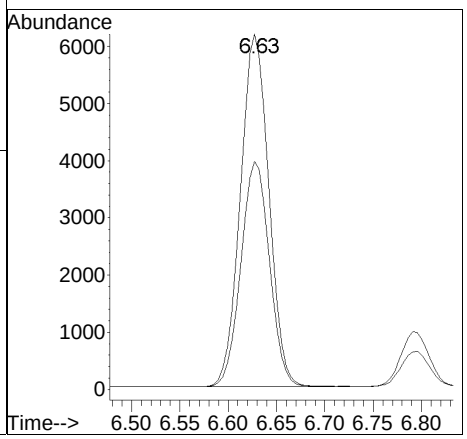


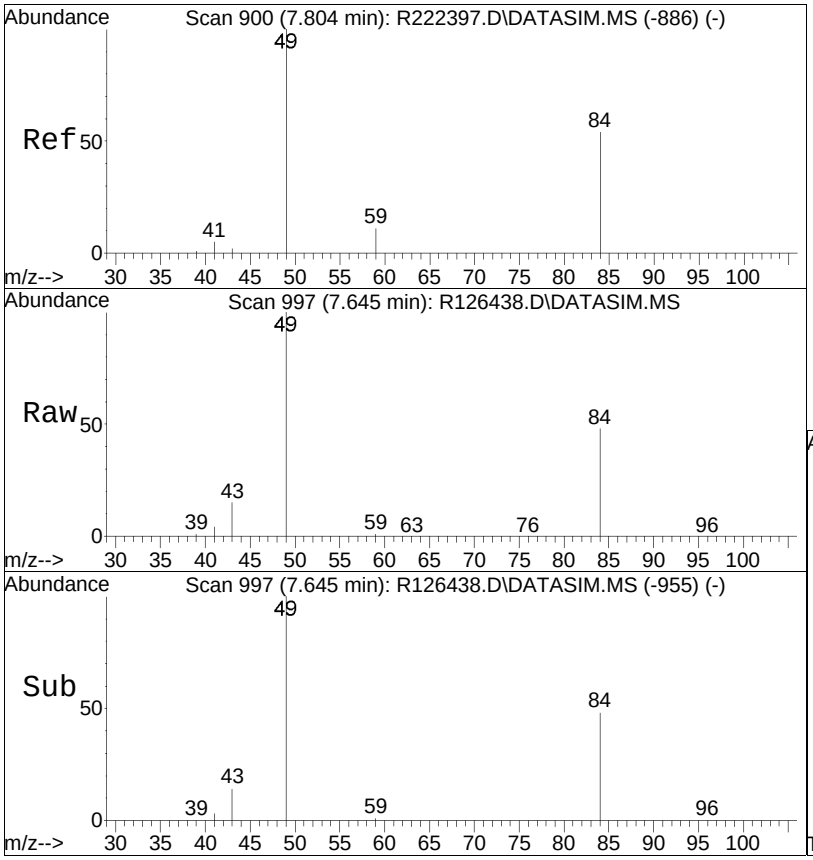



#13
trichlorofluoromethane
Concen: 0.22 ppbV
RT: 6.63 min Scan# 782
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:101 Resp: 12657

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.2 | 51.4 | 77.2 |

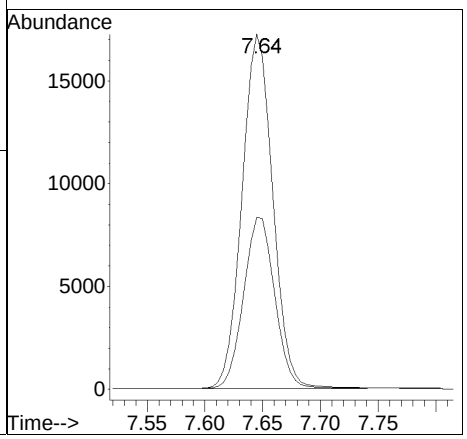


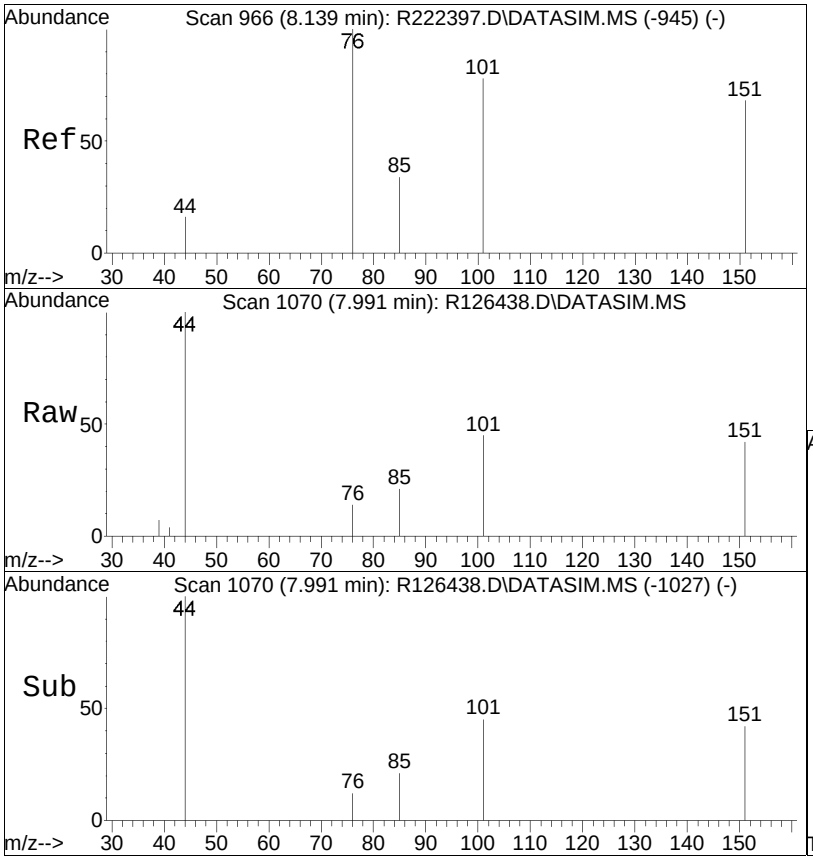



#17
methylene chloride
Concen: 1.00 ppbV
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 49 Resp: 31862

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.4 | 40.0 | 60.0 |

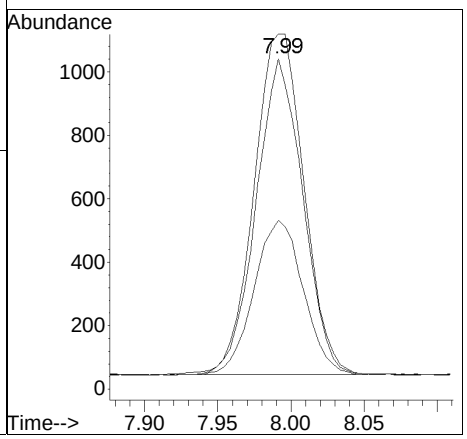


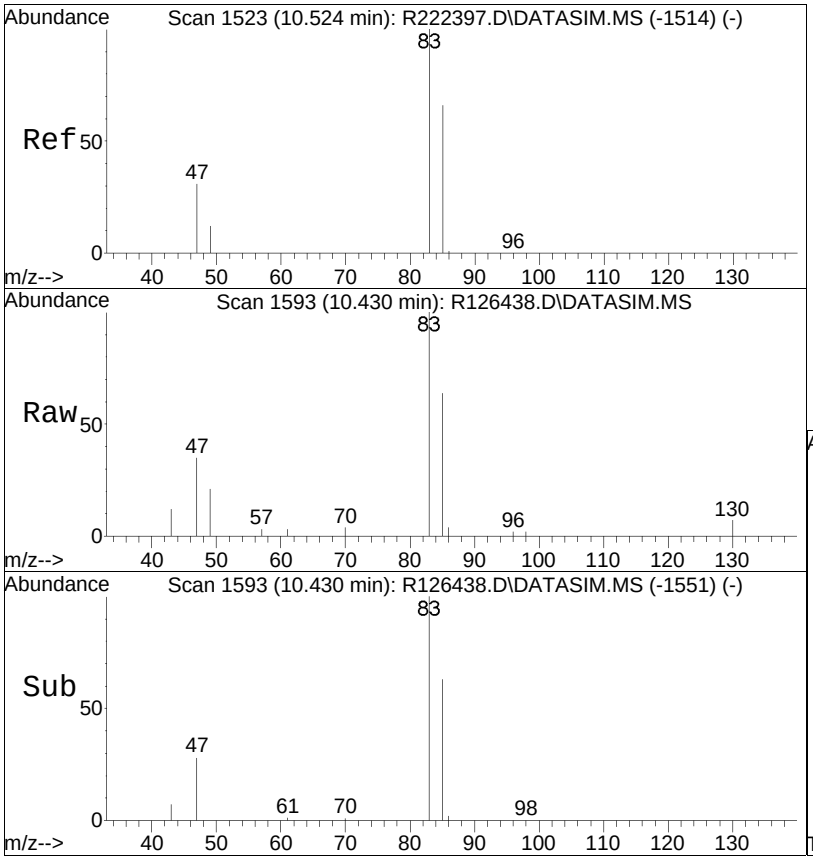



#20
Freon 113
Concen: 0.06 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. 0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:101 Resp: 2537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 47.5 | 34.6 | 51.8 |
| 151 | 93.0 | 66.0 | 99.0 |

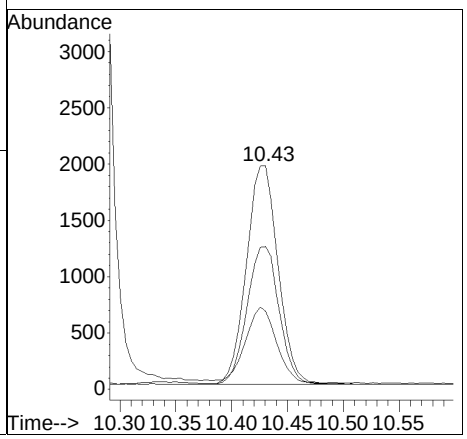


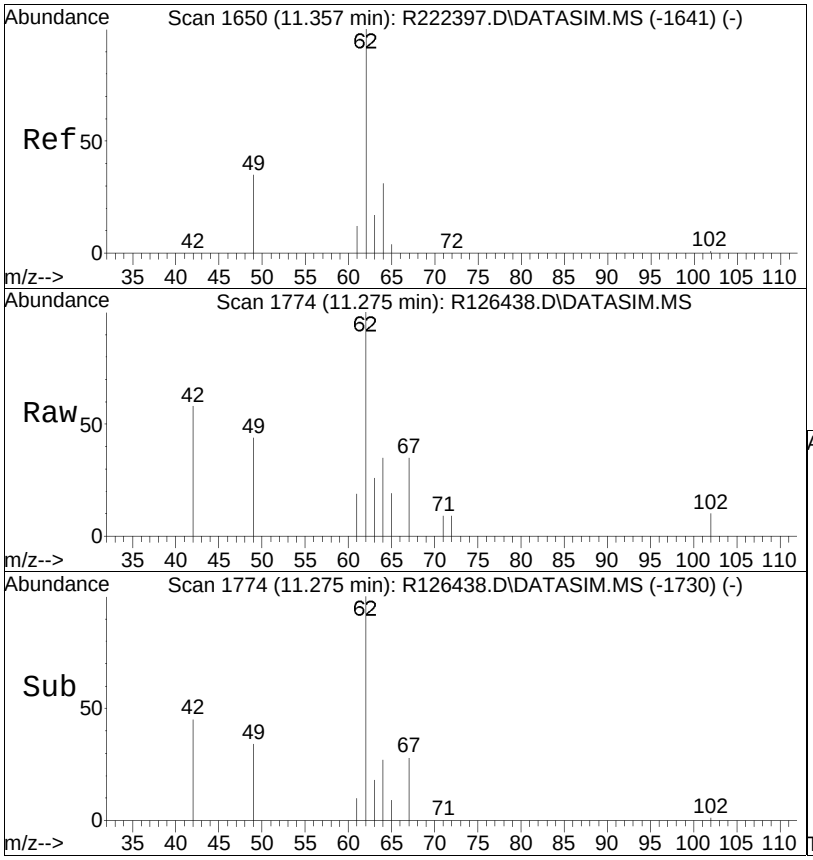



#29
chloroform
Concen: 0.09 ppbV
RT: 10.43 min Scan# 1593
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 83 Resp: 3851

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.9 | 52.2 | 78.2 |
| 47 | 35.0 | 27.0 | 40.6 |

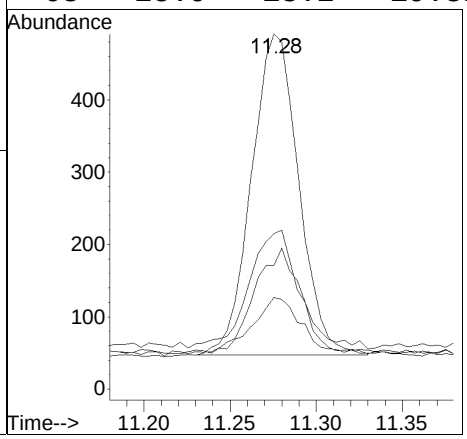


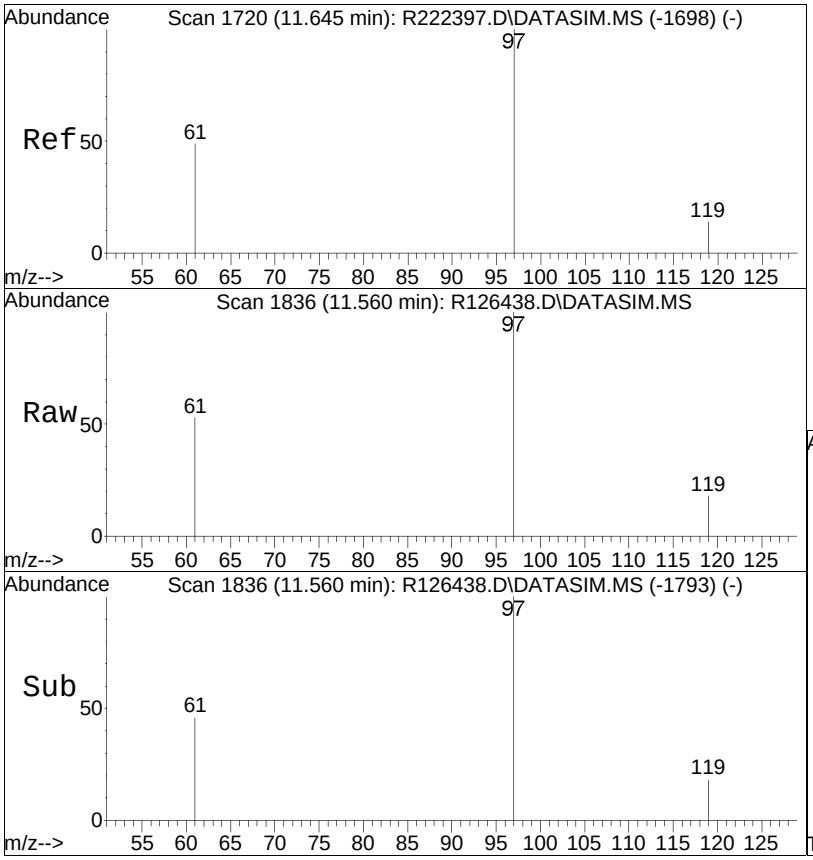



#31
1,2-dichloroethane
Concen: 0.03 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 62 Resp: 848

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 34.8 | 25.3 | 37.9 |
| 49 | 43.8 | 30.2 | 45.2 |
| 63 | 25.9 | 13.2 | 19.8# |

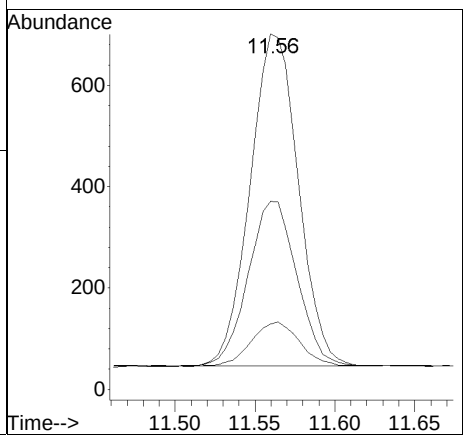


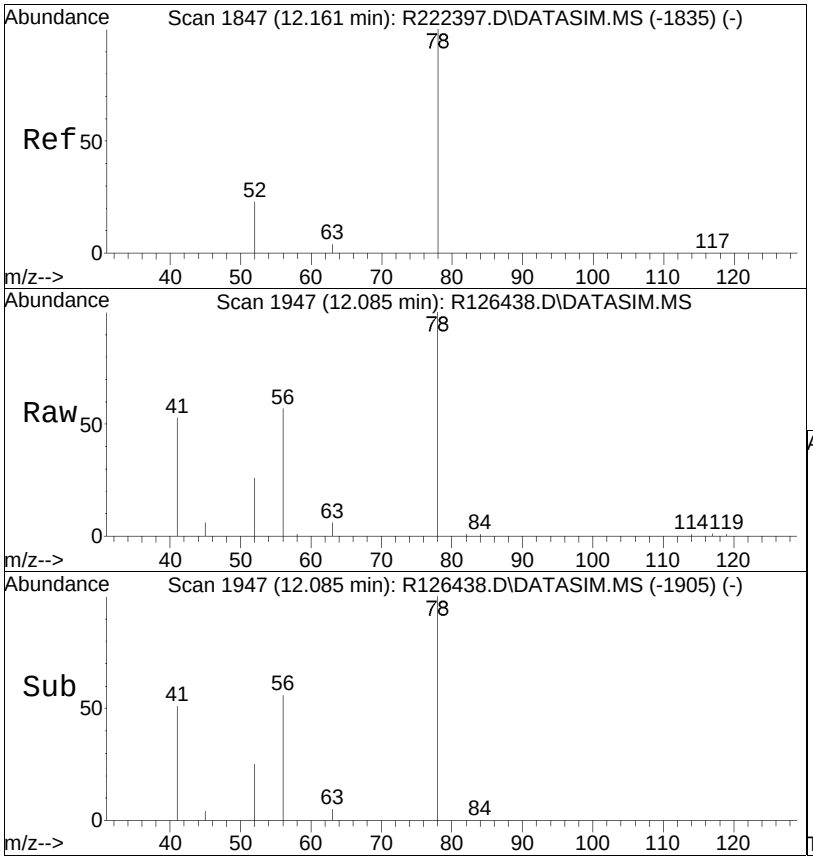



#35
1,1,1-trichloroethane
Concen: 0.04 ppbV
RT: 11.56 min Scan# 1836
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 97 Resp: 1375

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 52.9 | 40.8 | 61.2 |
| 119 | 18.4 | 10.6 | 15.8# |

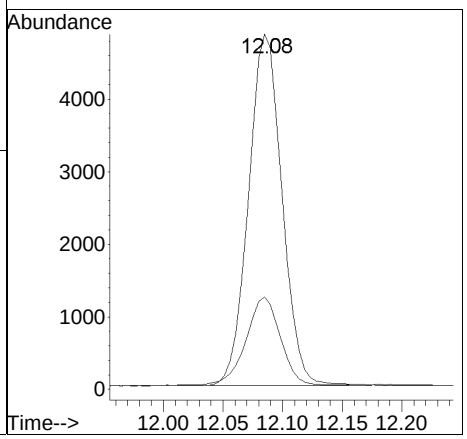


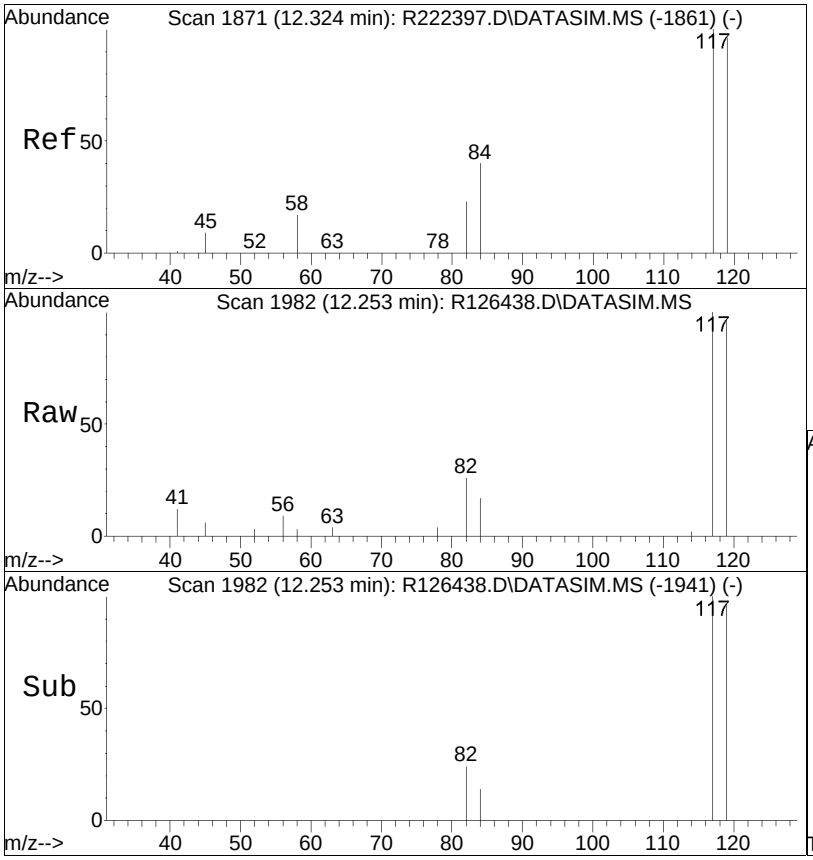



#36
benzene
Concen: 0.18 ppbV
RT: 12.08 min Scan# 1947
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 78 Resp: 9472

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 26.1 | 18.6 | 28.0 |

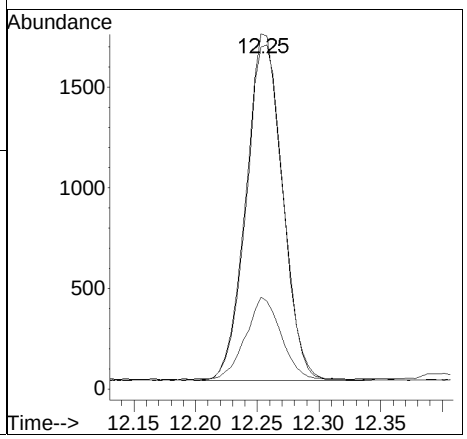


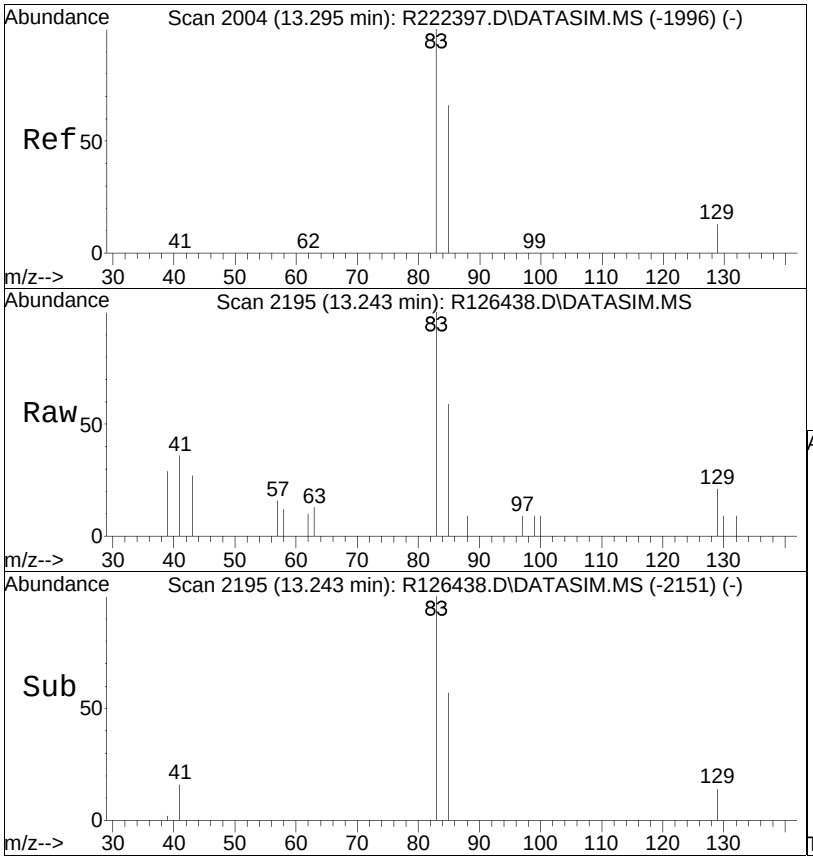



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.25 min Scan# 1982
Delta R.T. -0.005 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:117 Resp: 3517

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.4 | 78.7 | 118.1 |
| 82 | 26.0 | 18.9 | 28.3 |

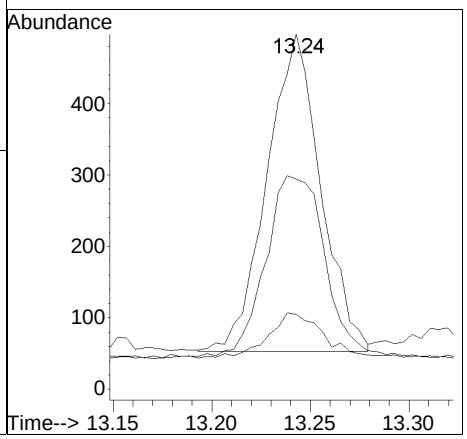


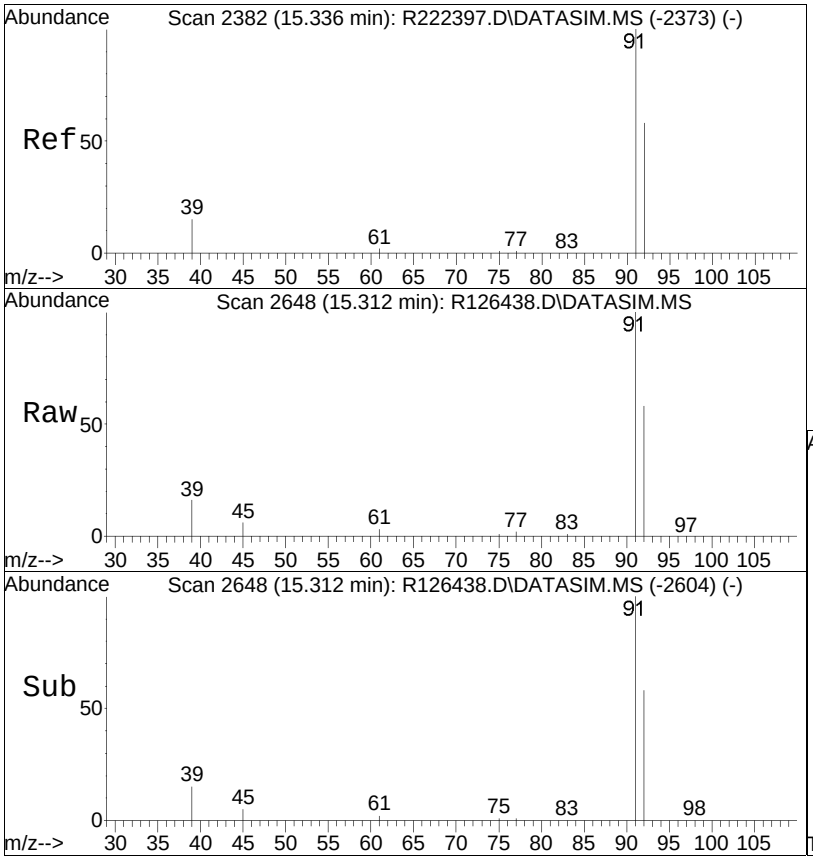



#40
bromodichloromethane
Concen: 0.02 ppbV m
RT: 13.24 min Scan# 2195
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 83 Resp: 842

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 59.2 | 51.4 | 77.0 |
| 129 | 21.1 | 9.9 | 14.9# |

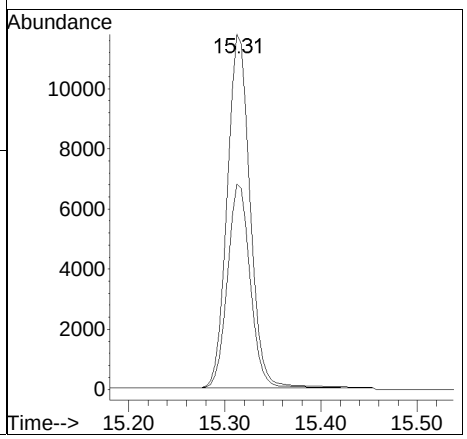


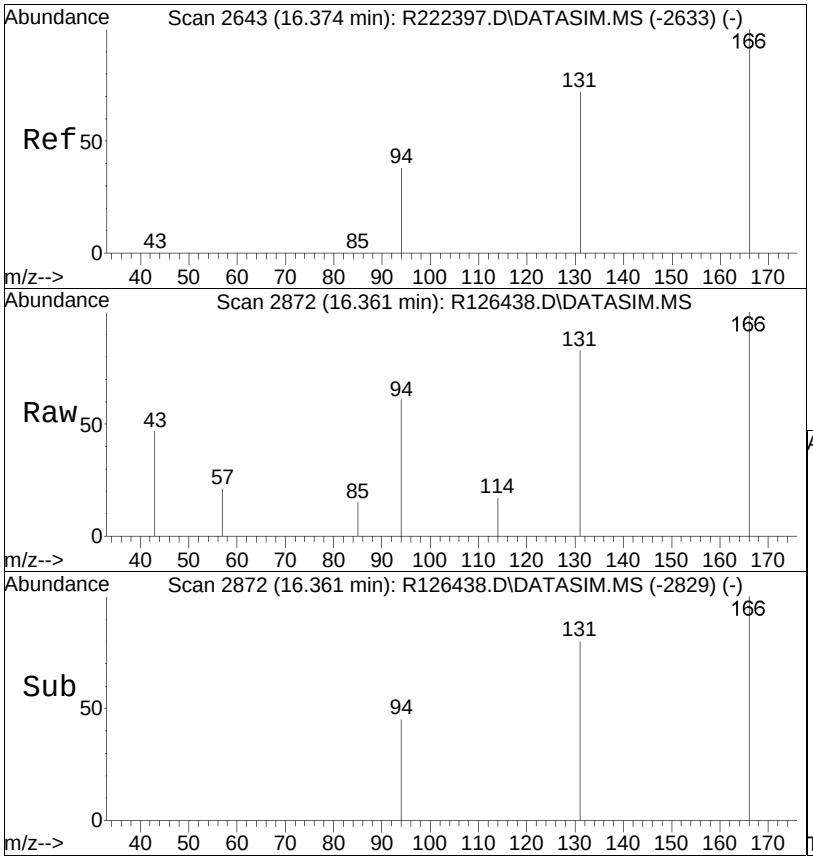



#50
toluene
Concen: 0.29 ppbV m
RT: 15.31 min Scan# 2648
Delta R.T. -0.001 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 19510

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.8 | 46.3 | 69.5 |

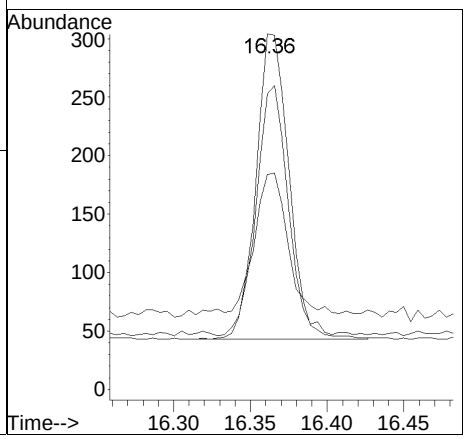


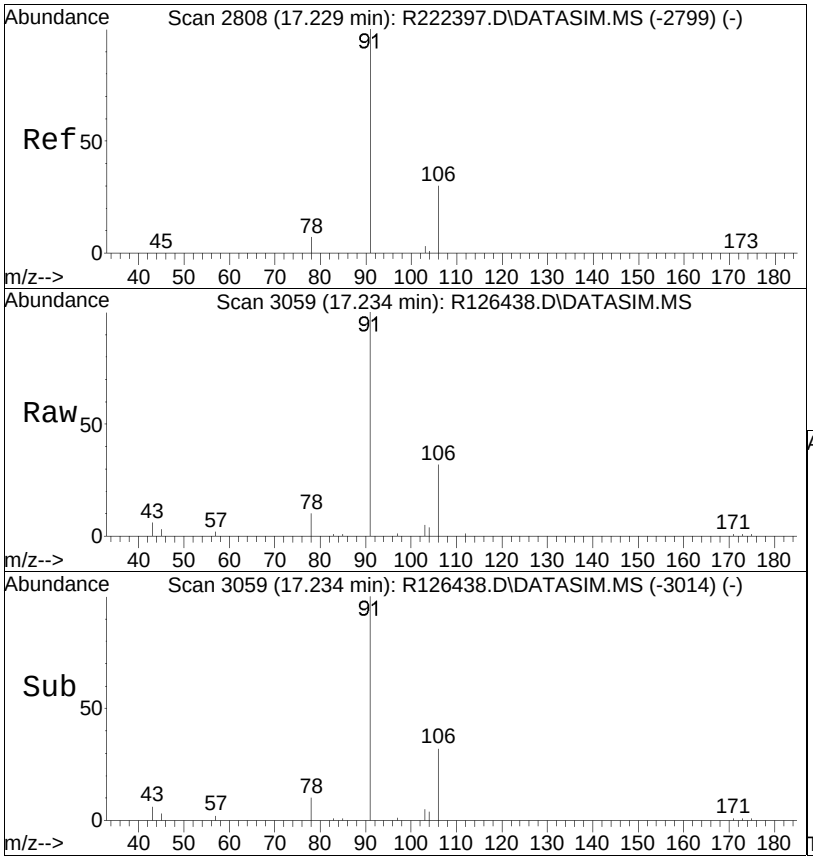



#55
tetrachloroethene
Concen: 0.01 ppbV
RT: 16.36 min Scan# 2872
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:166 Resp: 390

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 83.2 | 63.1 | 94.7 |
| 94 | 60.5 | 37.2 | 55.8# |

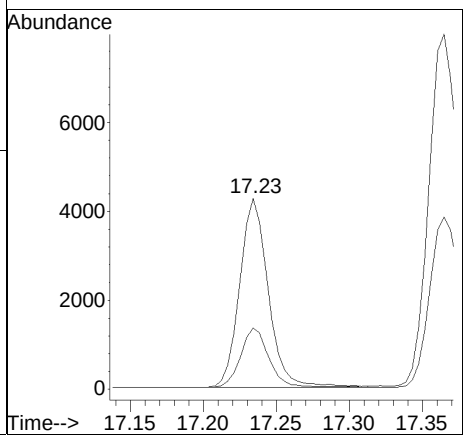


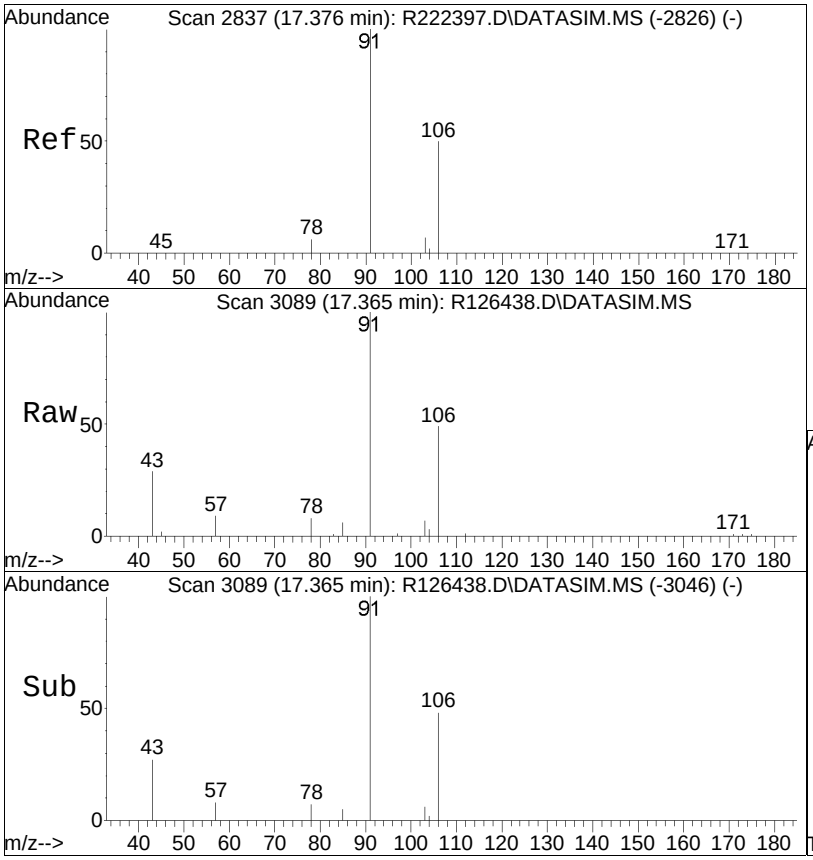



#58
ethylbenzene
Concen: 0.07 ppbV
RT: 17.23 min Scan# 3059
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 5798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.2 | 24.2 | 36.2 |

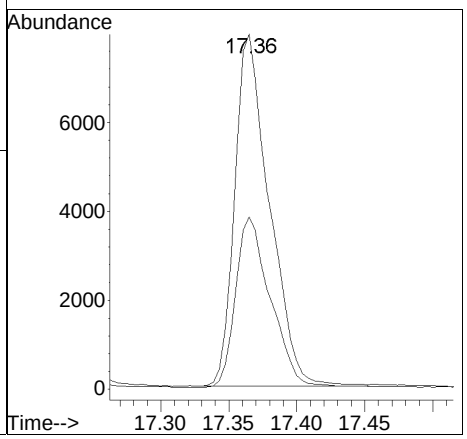


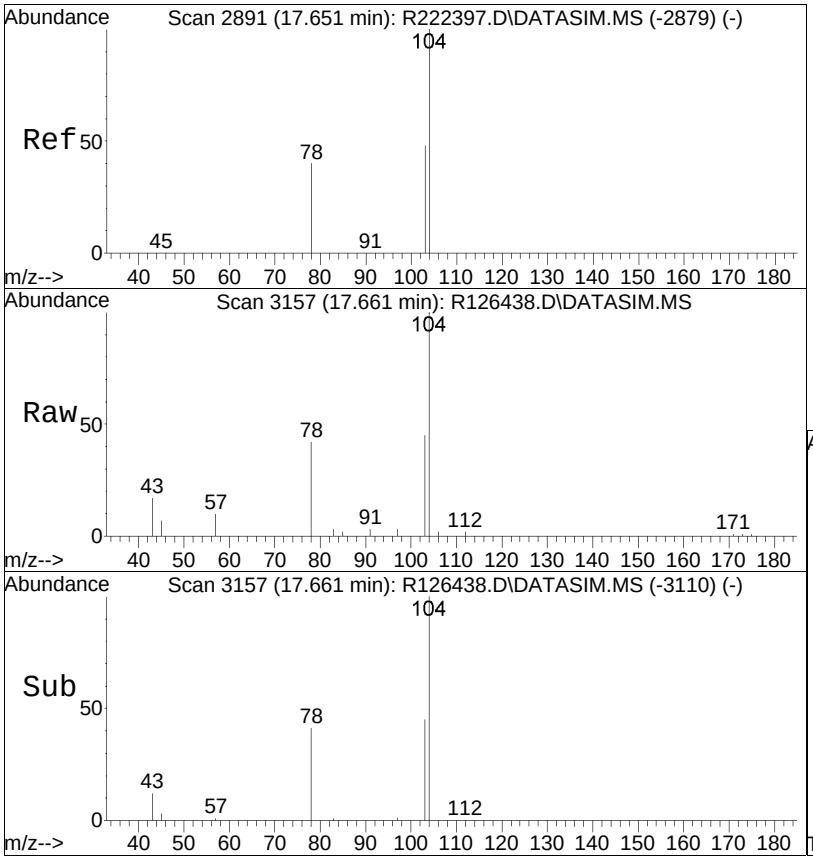



#59
m+p-xylene
Concen: 0.21 ppbV
RT: 17.36 min Scan# 3089
Delta R.T. -0.013 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 14032

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.6 | 39.0 | 58.4 |

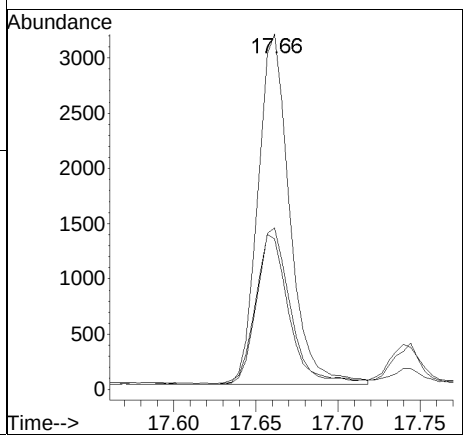


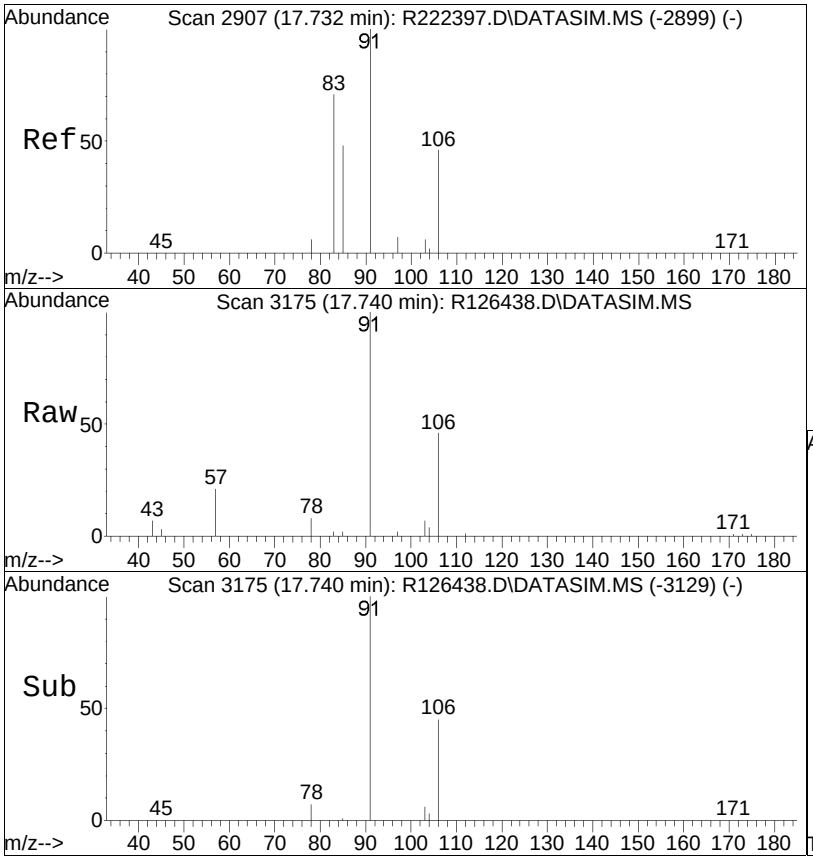



#61
styrene
Concen: 0.08 ppbV
RT: 17.66 min Scan# 3157
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:104 Resp: 4292

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 45.4 | 37.5 | 56.3 |
| 78 | 42.4 | 33.5 | 50.3 |

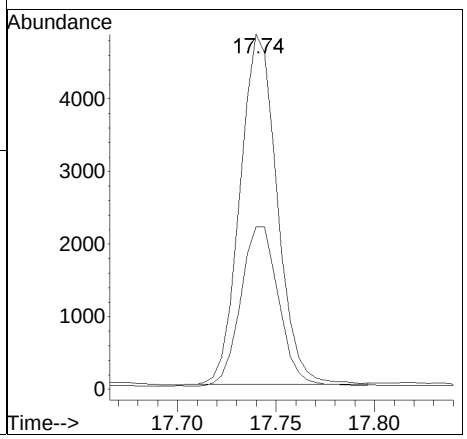


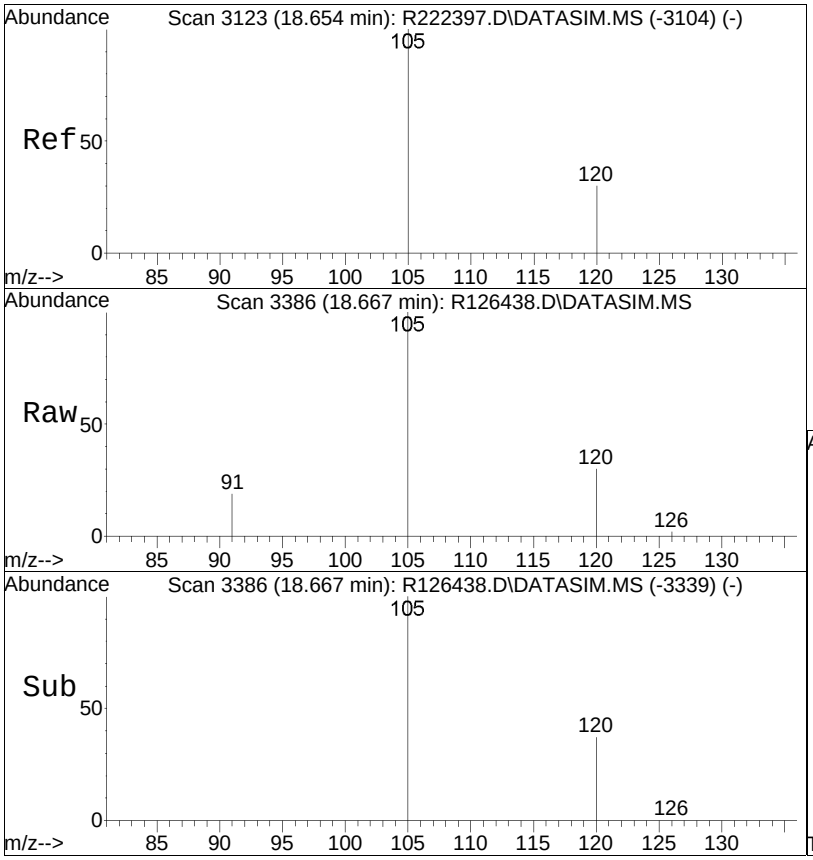



#63
o-xylene
Concen: 0.09 ppbV
RT: 17.74 min Scan# 3175
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 91 Resp: 6333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 37.1 | 55.7 |

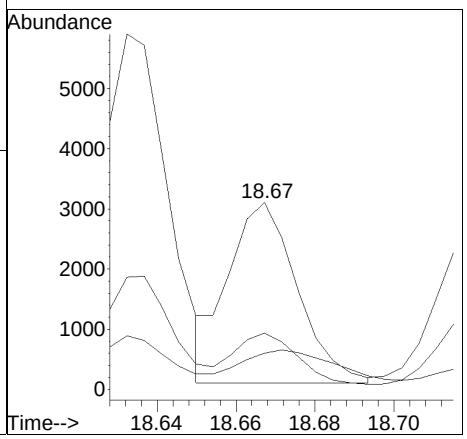


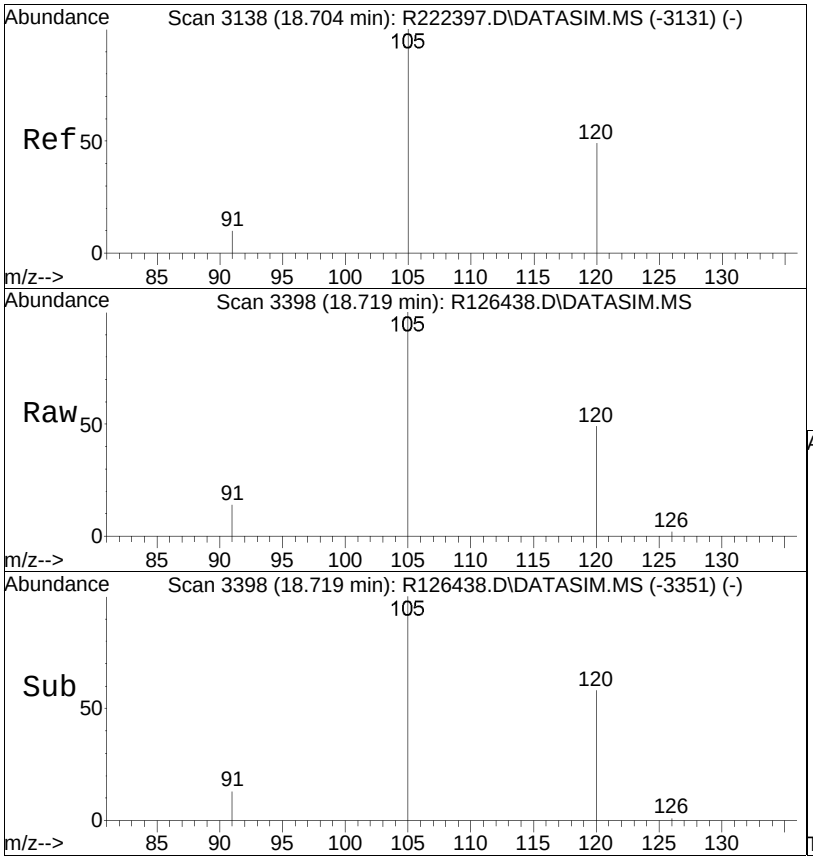



#66
4-ethyl toluene
Concen: 0.04 ppbV
RT: 18.67 min Scan# 3386
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:105 Resp: 3662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 30.1 | 23.4 | 35.2 |
| 91 | 19.4 | 9.0 | 13.6# |

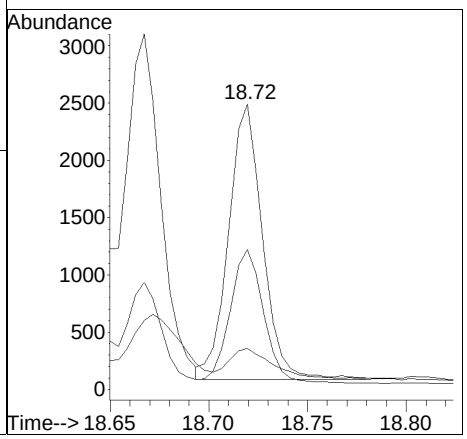


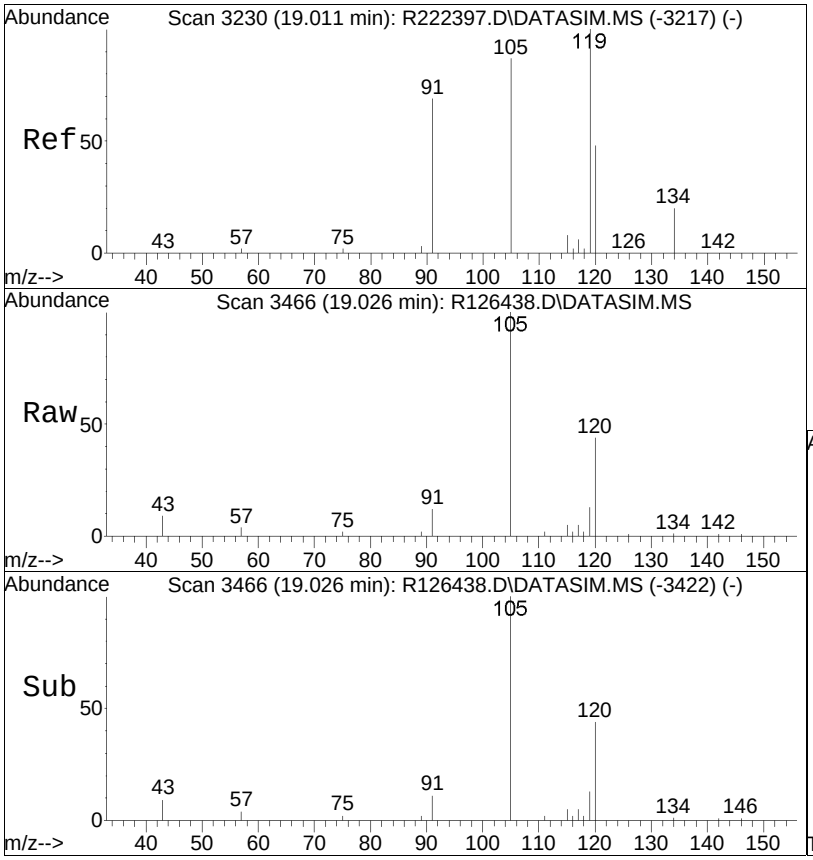



#67
1,3,5-trimethylbenzene
Concen: 0.03 ppbV
RT: 18.72 min Scan# 3398
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:105 Resp: 2871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 49.0 | 38.1 | 57.1 |
| 91 | 14.4 | 8.5 | 12.7# |

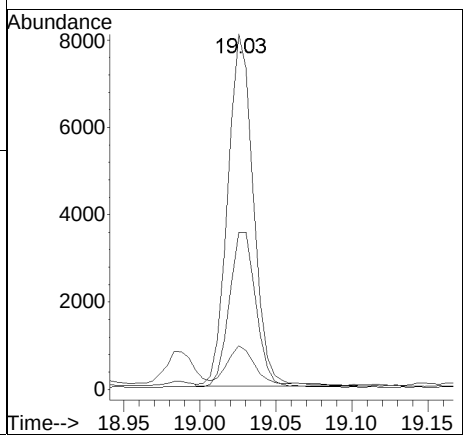


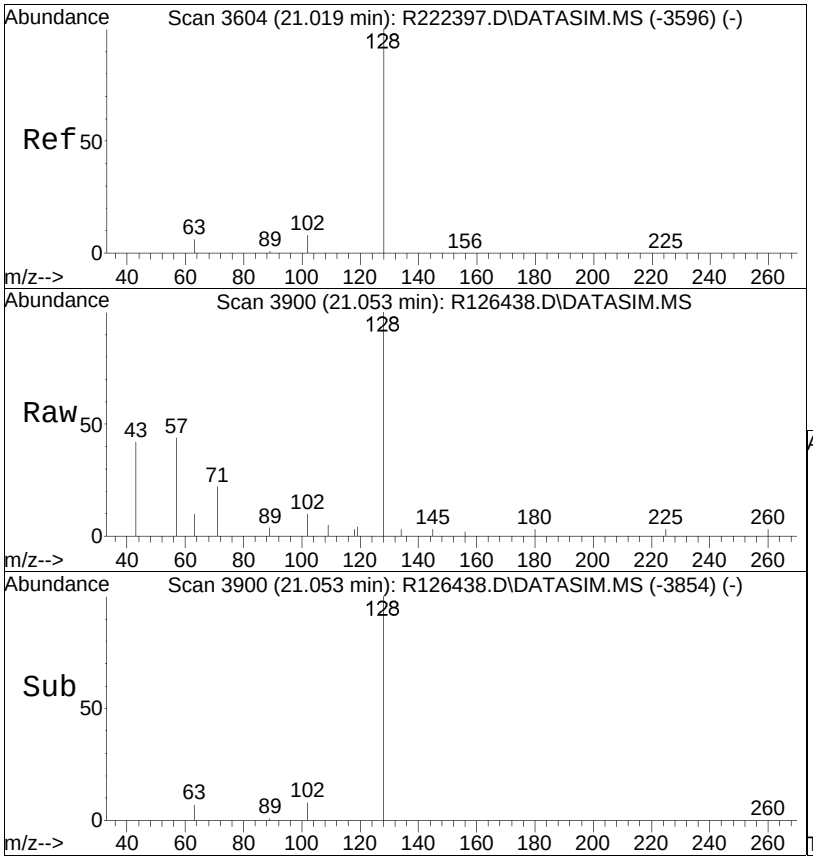



#69
1,2,4-trimethylbenzene
Concen: 0.12 ppbV
RT: 19.03 min Scan# 3466
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:105 Resp: 9457

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.2 | 43.6 | 65.4 |
| 91 | 12.3 | 62.0 | 93.0# |

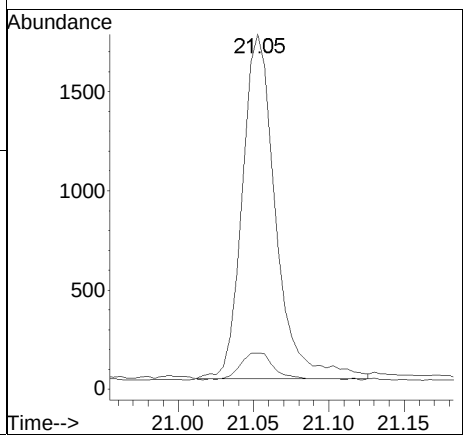





#78
naphthalene
Concen: 0.02 ppbV
RT: 21.05 min Scan# 3900
Delta R.T. 0.009 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion:128 Resp: 2682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 10.3 | 6.4 | 9.6# |

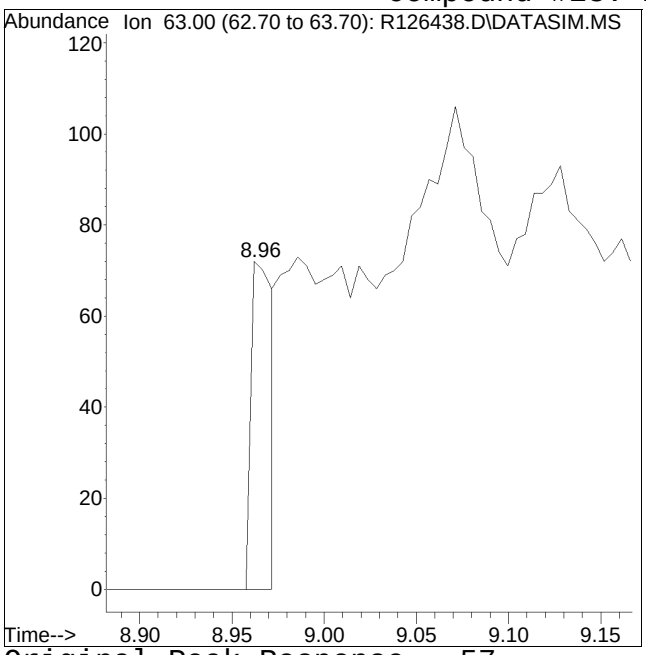


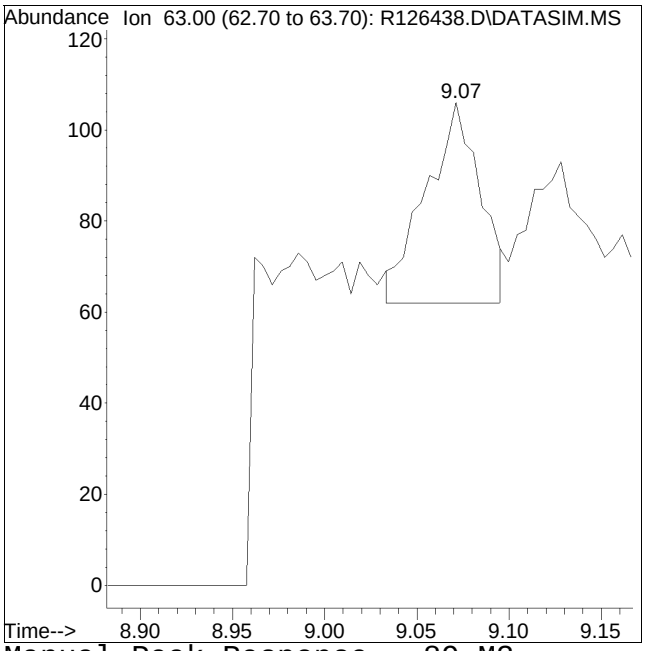
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #23: 1,1-dichloroethane




Original Peak Response = 57 Manual Peak Response = 89 M3

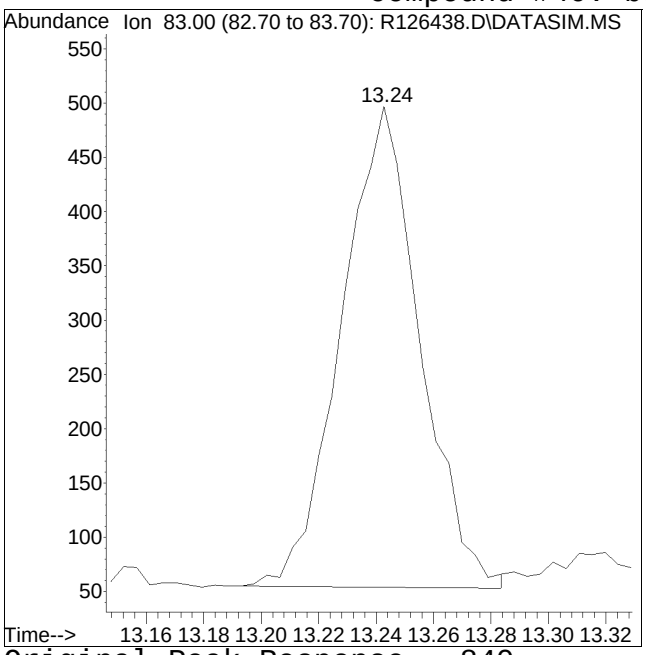
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

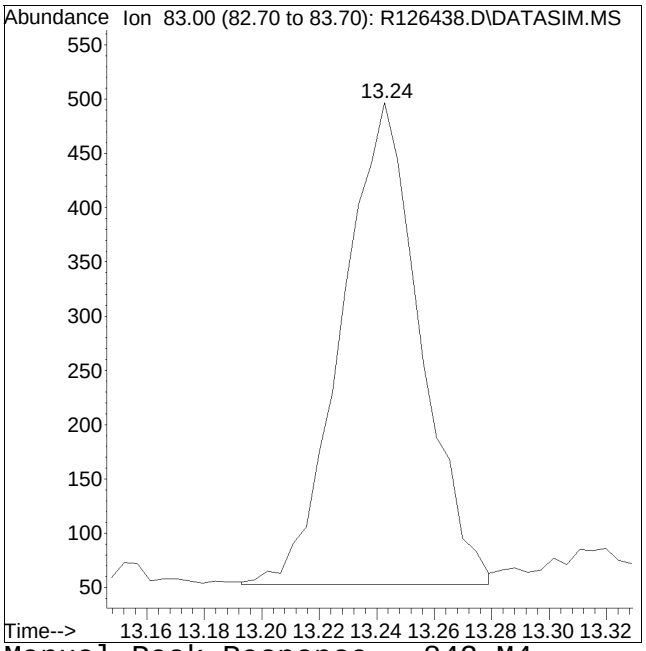
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #40: bromodichloromethane




Original Peak Response = 840




Manual Peak Response = 842 M4

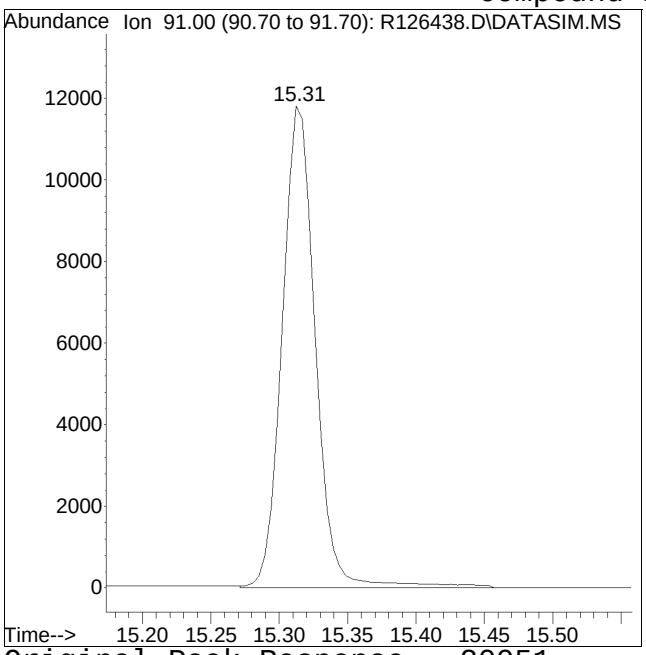
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

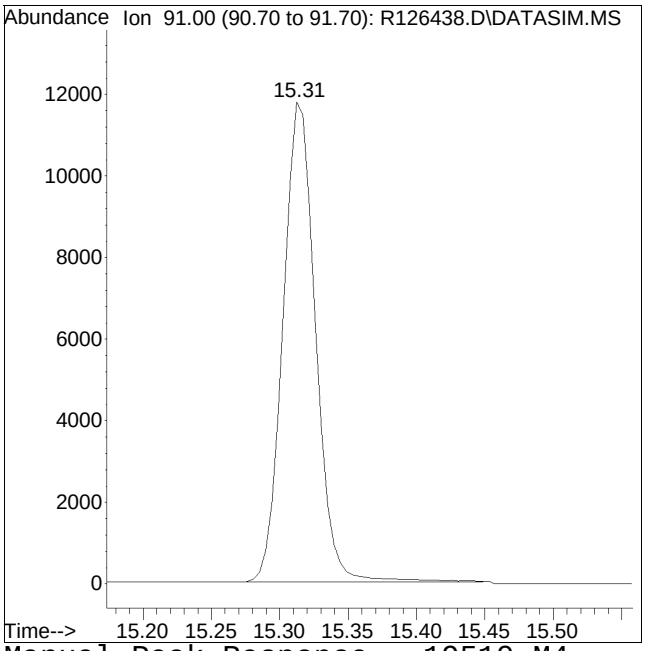
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #50: toluene




Original Peak Response = 20051




Manual Peak Response = 19510 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 11 22:20:16 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 327725 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery | = | 89.87% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 636735 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery | = | 84.26% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 160635 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery | = | 86.42% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 21956 | 0.455 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 11519 | 0.487 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 711 | 0.013 | ppbV # | 88 |
| 6) vinyl chloride | 4.72 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 245 | 0.015 | ppbV # | 59 |
| 8) bromomethane | 5.29 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 12550 | 0.218 | ppbV | 98 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 17) methylene chloride | 7.64 | 49 | 24596 | 0.770 | ppbV | 98 |
| 20) Freon 113 | 7.99 | 101 | 2570 | 0.064 | ppbV | 96 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 9.07 | | 0 | N.D. | | |
| 24) MTBE | 9.19 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 10.07 | | 0 | N.D. | | |
| 29) chloroform | 10.43 | 83 | 3630 | 0.086 | ppbV | 99 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 759 | 0.023 | ppbV # | 85 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 1311 | 0.036 | ppbV # | 96 |
| 36) benzene | 12.08 | 78 | 8408 | 0.161 | ppbV | 94 |
| 37) carbon tetrachloride | 12.26 | 117 | 3381 | 0.089 | ppbV | 98 |
| 39) 1,2-dichloropropane | 13.01 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | 83 | 770 | 0.019 | ppbV # | 92 |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.26 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.84 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.00 | | 0 | N.D. | | |
| 50) toluene | 15.32 | 91 | 14458 | 0.222 | ppbV | 99 |
| 53) dibromochloromethane | 15.73 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.37 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 11 22:20:16 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

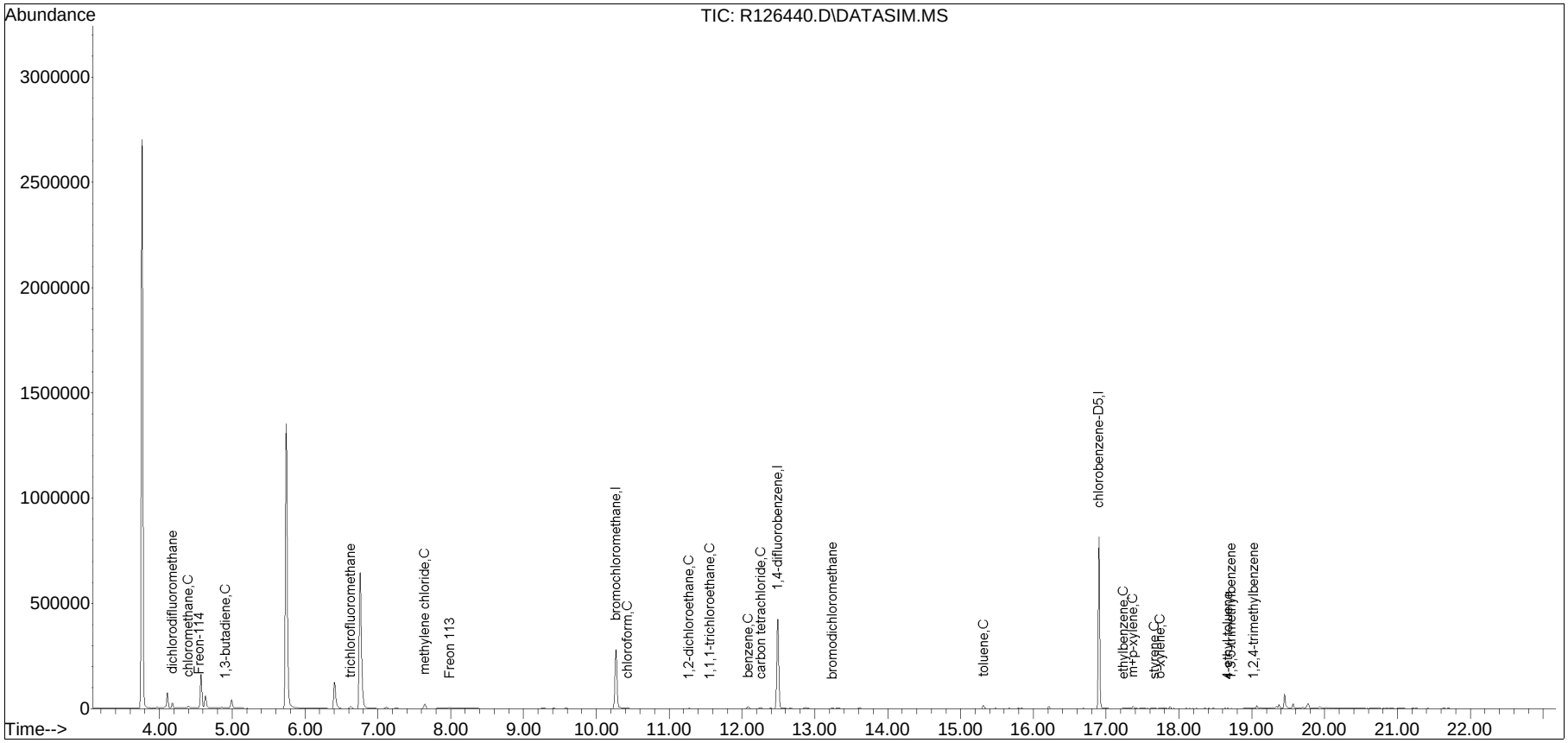
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 0.00 | | 0 | N.D. | d | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | | |
| 58) ethylbenzene | 17.24 | 91 | 3365 | 0.040 | ppbV | 95 |
| 59) m+p-xylene | 17.36 | 91 | 6913 | 0.106 | ppbV | 99 |
| 60) bromoform | 17.46 | | 0 | N.D. | | |
| 61) styrene | 17.66 | 104 | 650 | 0.013 | ppbV # | 87 |
| 62) 1,1,2,2-tetrachloroethane | 17.72 | | 0 | N.D. | | |
| 63) o-xylene | 17.74 | 91 | 3070 | 0.046 | ppbV | 100 |
| 66) 4-ethyl toluene | 18.67 | 105 | 1225 | 0.013 | ppbV # | 53 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 926 | 0.012 | ppbV # | 94 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 1945 | 0.025 | ppbV # | 53 |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | N.D. | | |
| 72) 1,4-dichlorobenzene | 19.22 | | 0 | N.D. | | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | | |
| 77) 1,2,4-trichlorobenzene | 20.94 | | 0 | N.D. | | |
| 78) naphthalene | 21.06 | | 0 | N.D. | | |
| 80) hexachlorobutadiene | 21.37 | | 0 | N.D. | | |

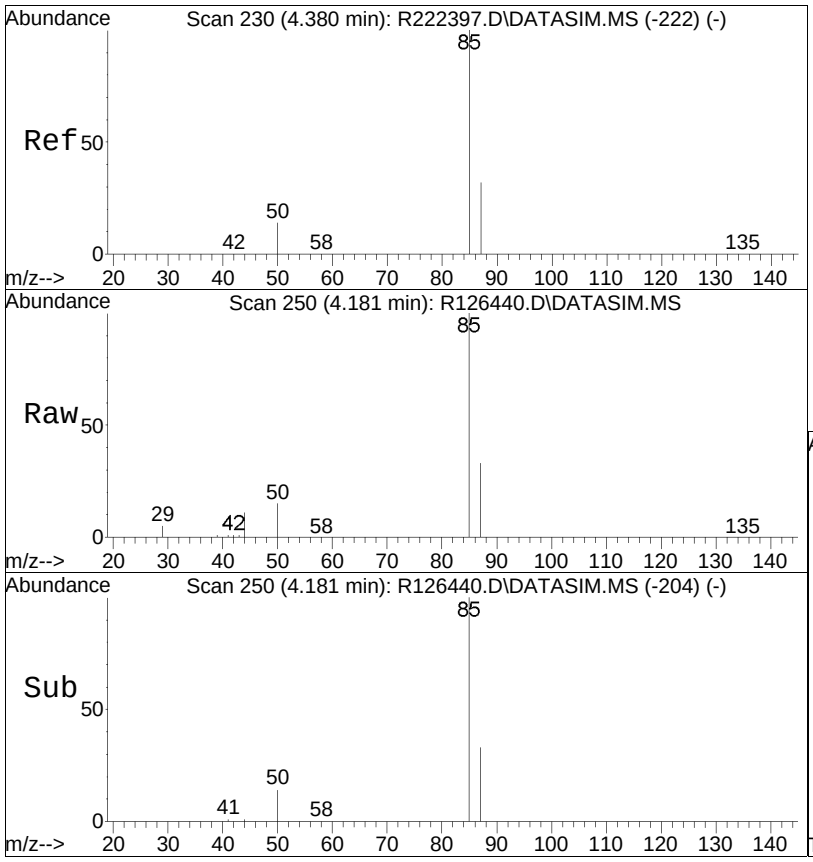
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 11 22:20:16 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

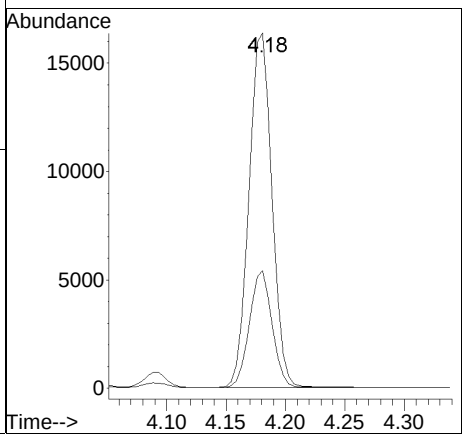


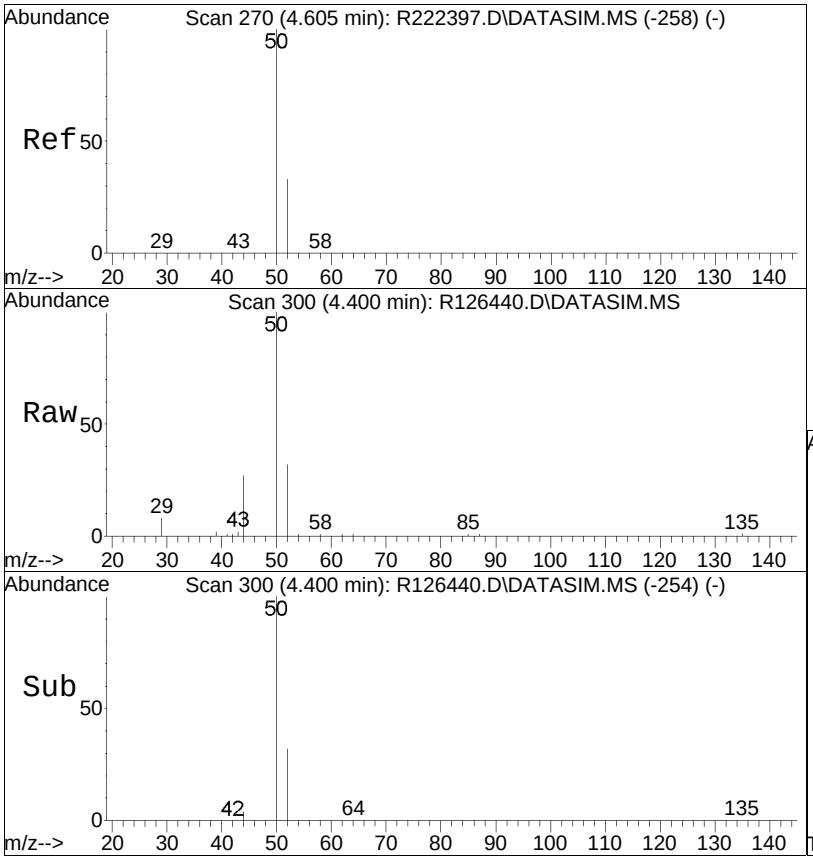



#3
dichlorodifluoromethane
Concen: 0.45 ppbV
RT: 4.18 min Scan# 250
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 85 Resp: 21956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.2 | 25.9 | 38.9 |

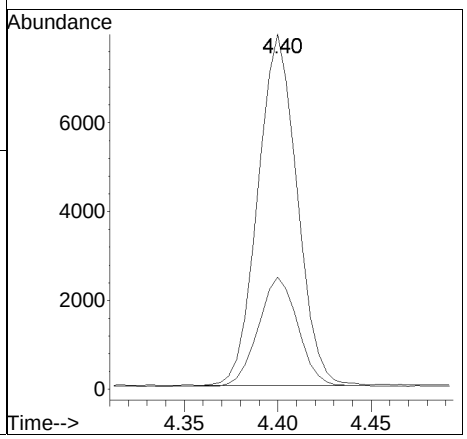


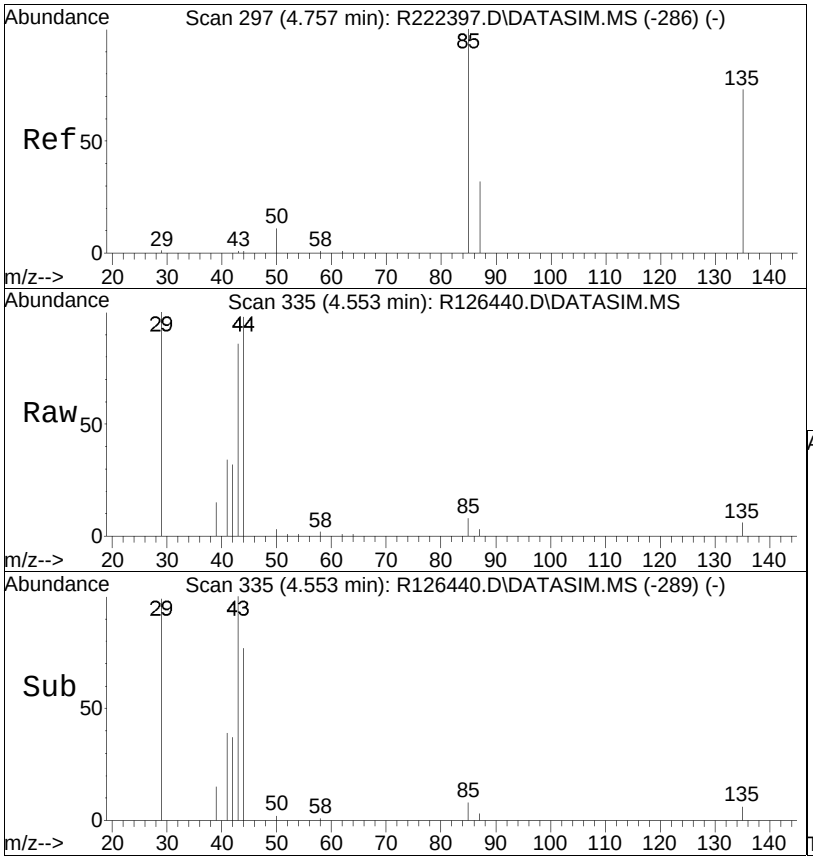



#4
chloromethane
Concen: 0.49 ppbV
RT: 4.40 min Scan# 300
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 50 Resp: 11519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.6 | 25.8 | 38.6 |

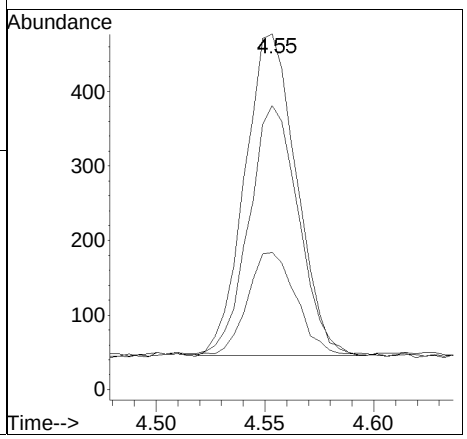


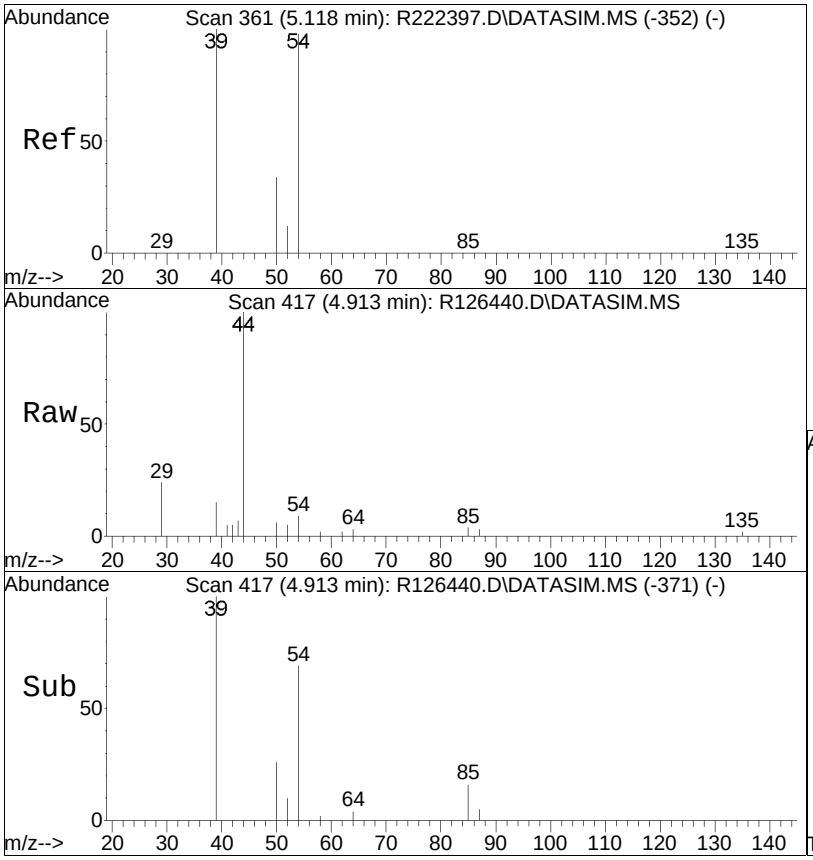



#5
Freon-114
Concen: 0.01 ppbV
RT: 4.55 min Scan# 335
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 85 Resp: 711

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 38.6 | 25.7 | 38.5# |
| 135 | 79.9 | 55.7 | 83.5 |

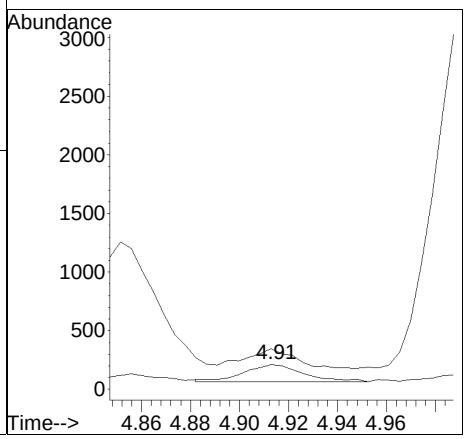


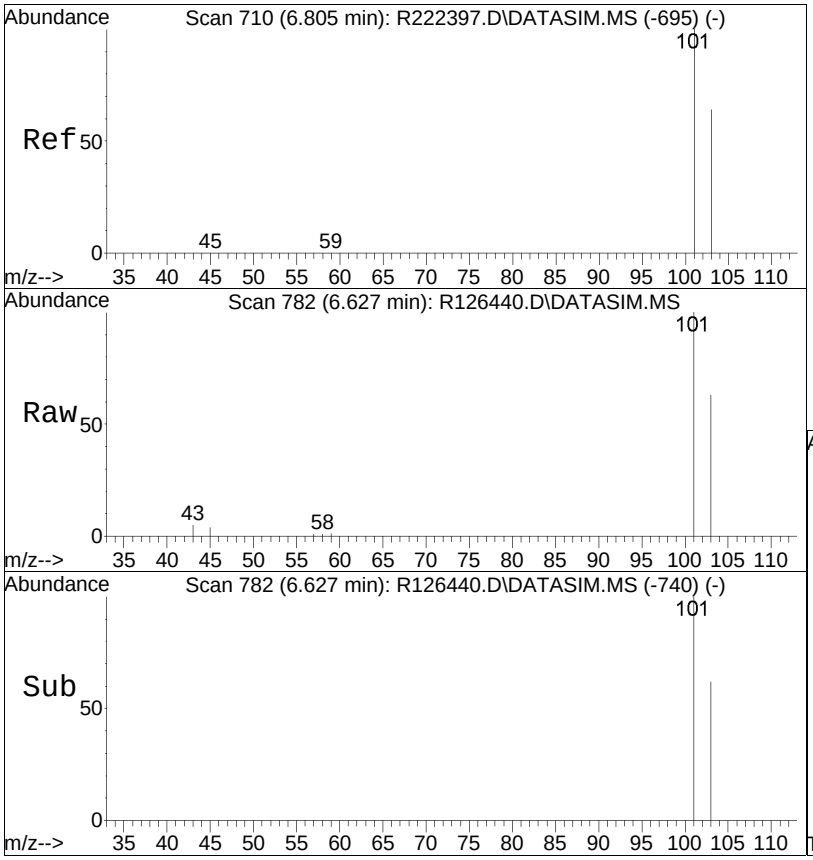



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 417
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 54 Resp: 245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 164.5 | 95.5 | 143.3# |

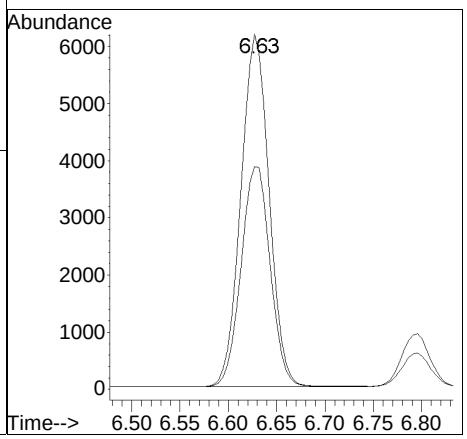


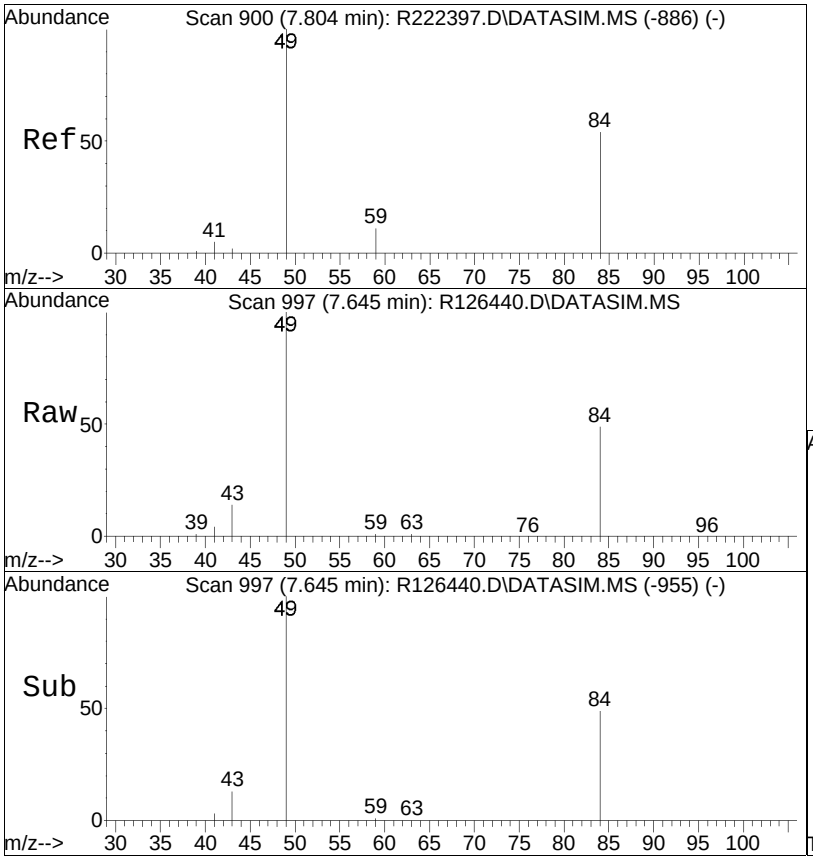



#13
trichlorofluoromethane
Concen: 0.22 ppbV
RT: 6.63 min Scan# 782
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:101 Resp: 12550

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 62.7 | 51.4 | 77.2 |

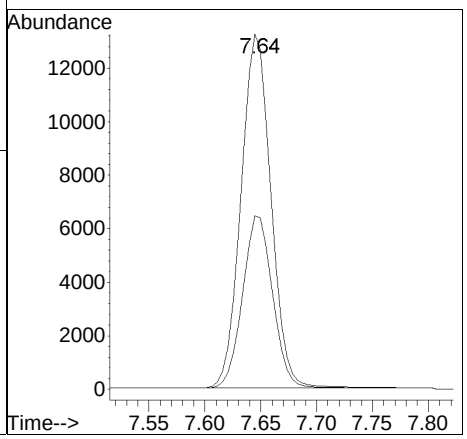


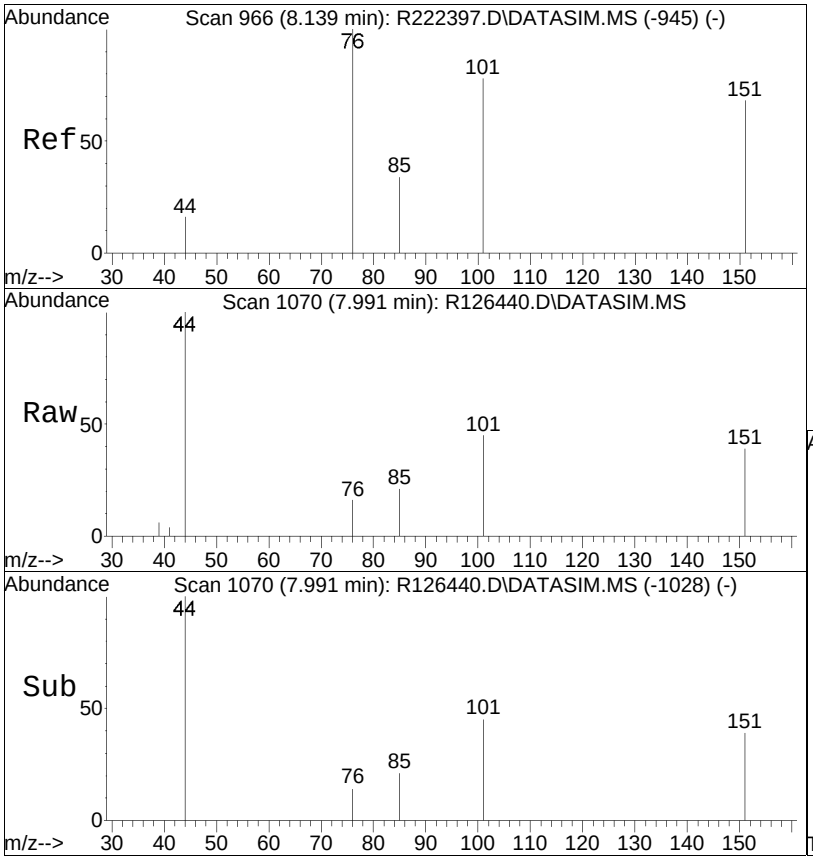



#17
methylene chloride
Concen: 0.77 ppbV
RT: 7.64 min Scan# 997
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 49 Resp: 24596

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.8 | 40.0 | 60.0 |

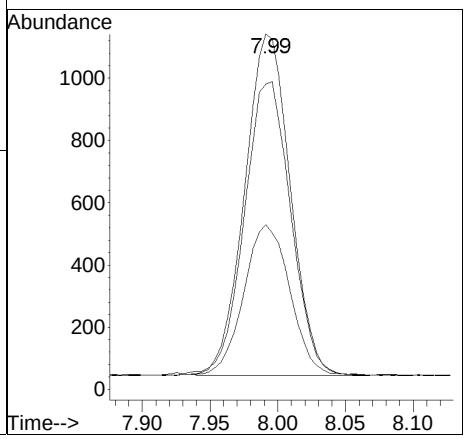


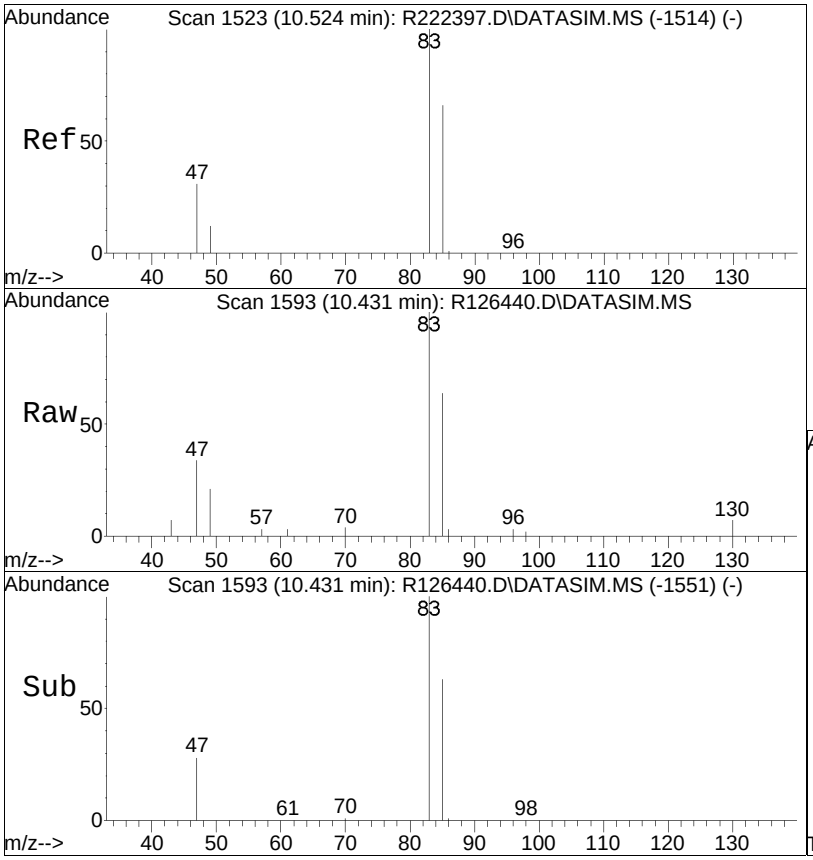



#20
Freon 113
Concen: 0.06 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:101 Resp: 2570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 46.4 | 34.6 | 51.8 |
| 151 | 85.9 | 66.0 | 99.0 |

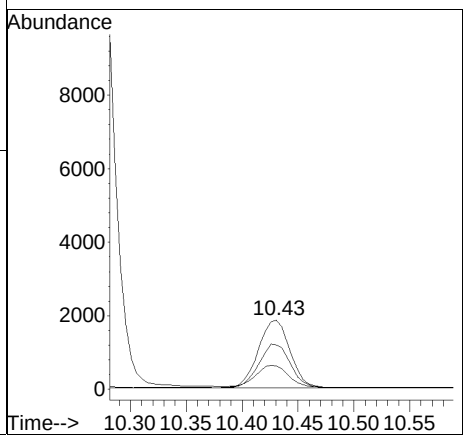


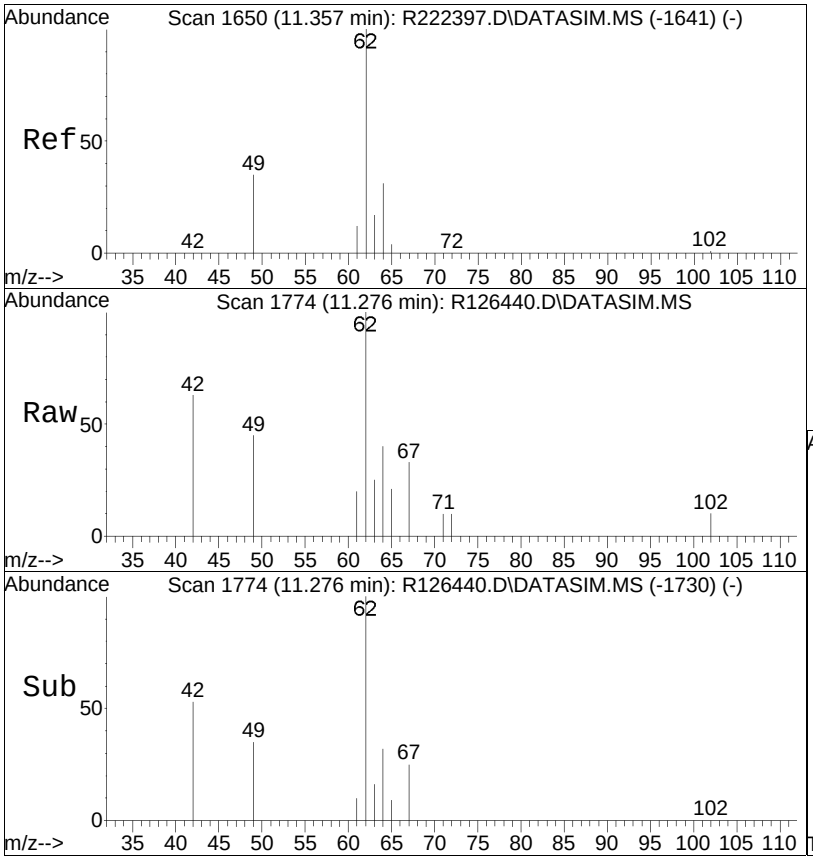



#29
chloroform
Concen: 0.09 ppbV
RT: 10.43 min Scan# 1593
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 83 Resp: 3630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.3 | 52.2 | 78.2 |
| 47 | 33.9 | 27.0 | 40.6 |

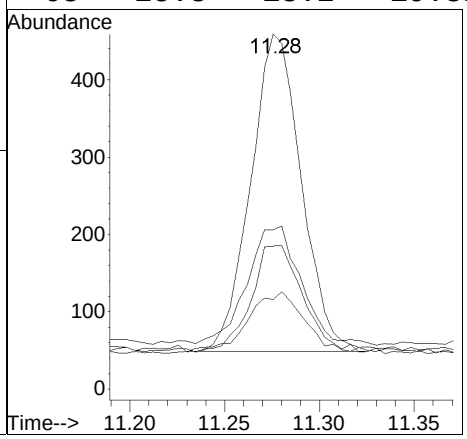


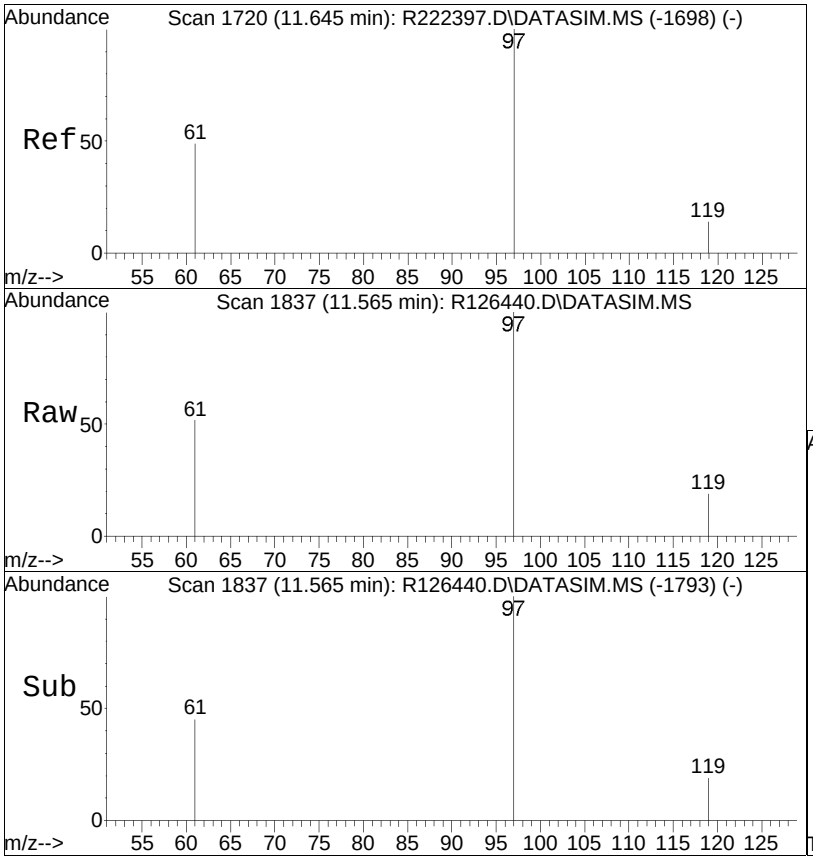



#31
1,2-dichloroethane
Concen: 0.02 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 62 Resp: 759

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 40.3 | 25.3 | 37.9# |
| 49 | 44.9 | 30.2 | 45.2 |
| 63 | 25.3 | 13.2 | 19.8# |

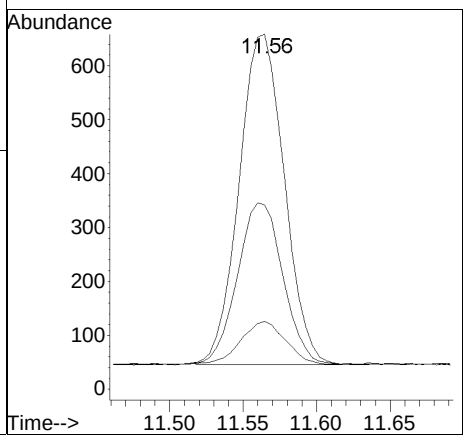


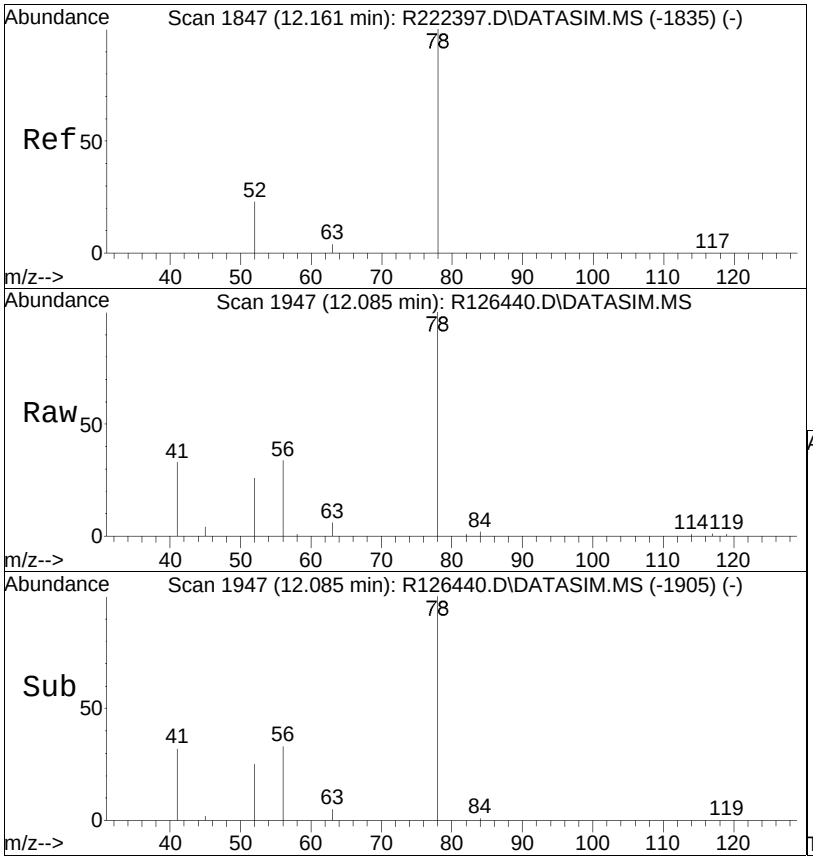



#35
1,1,1-trichloroethane
Concen: 0.04 ppbV
RT: 11.56 min Scan# 1837
Delta R.T. 0.005 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 97 Resp: 1311

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 51.9 | 40.8 | 61.2 |
| 119 | 19.1 | 10.6 | 15.8# |

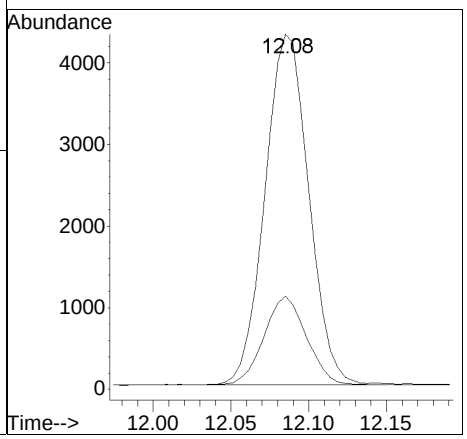


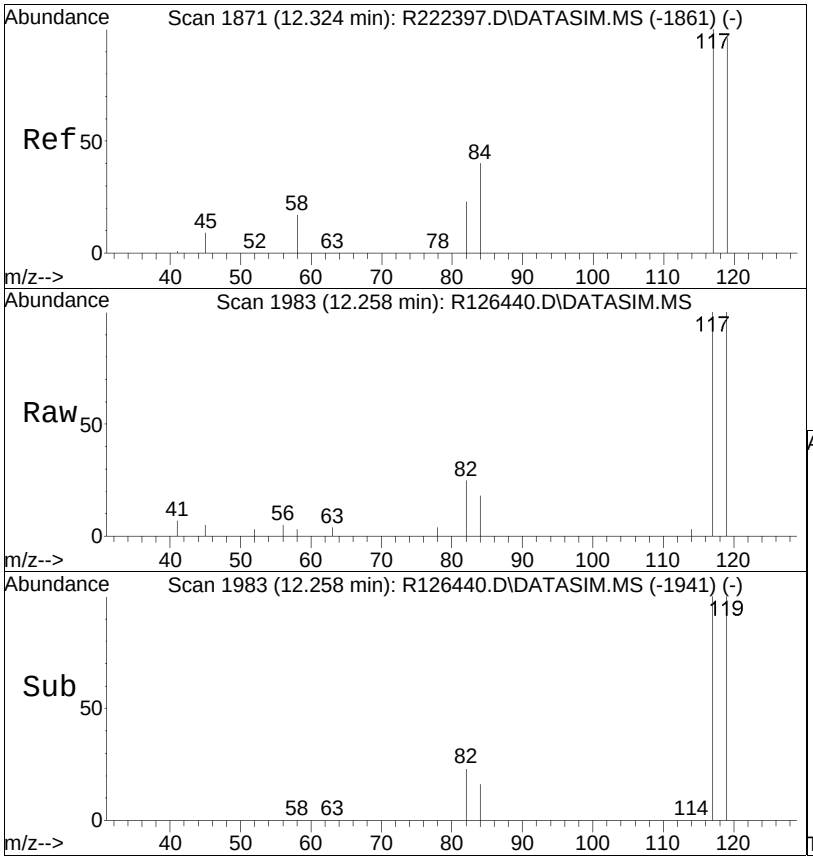



#36
benzene
Concen: 0.16 ppbV
RT: 12.08 min Scan# 1947
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 78 Resp: 8408

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 26.2 | 18.6 | 28.0 |

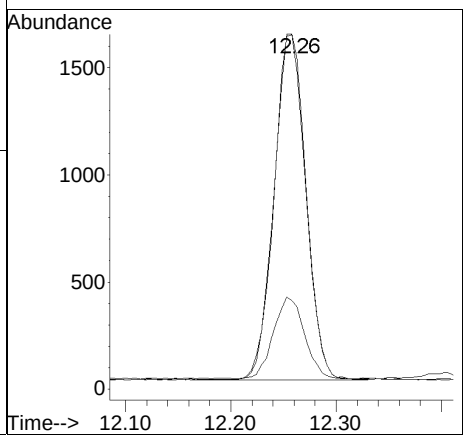


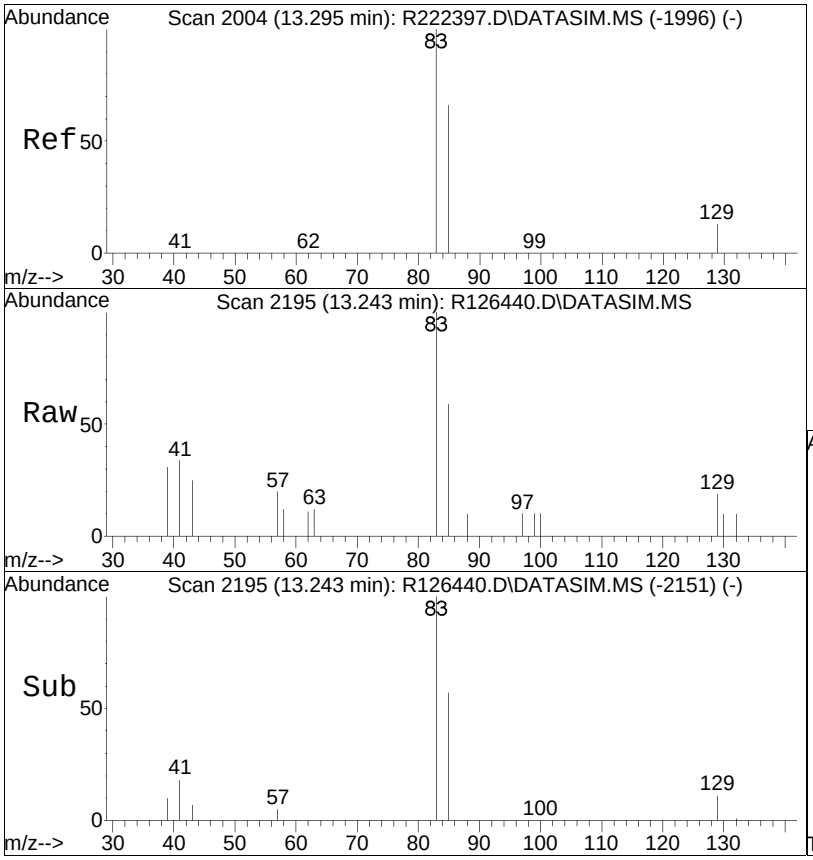



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.26 min Scan# 1983
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:117 Resp: 3381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 100.2 | 78.7 | 118.1 |
| 82 | 25.0 | 18.9 | 28.3 |

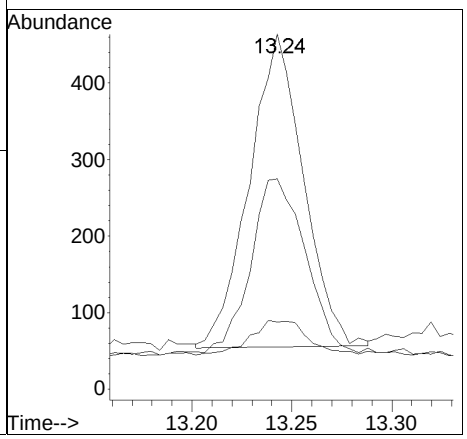


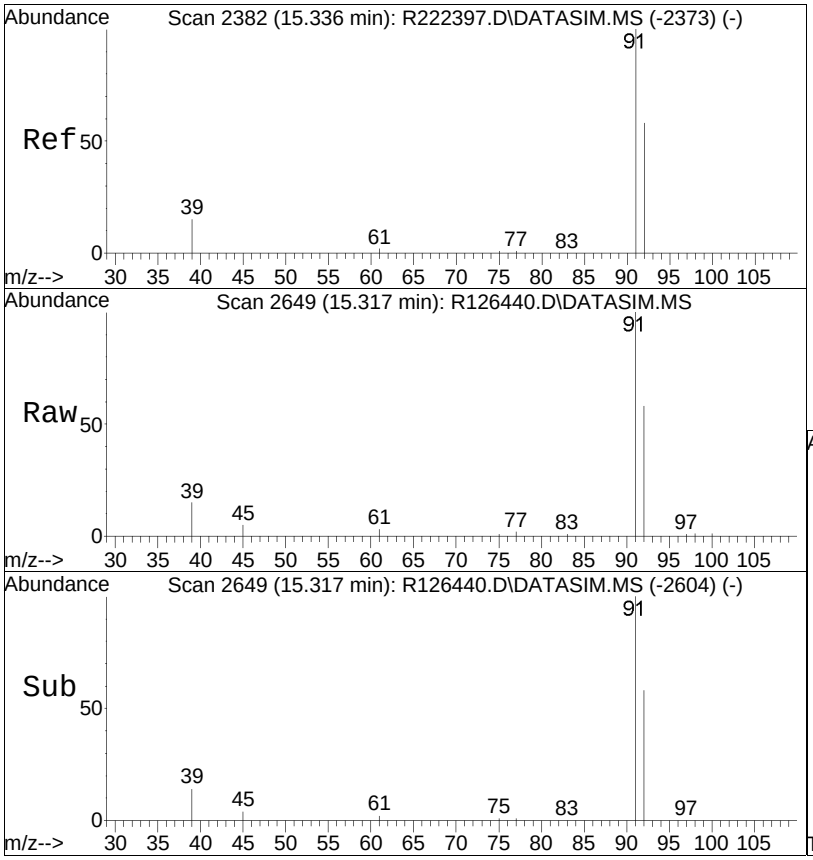



#40
bromodichloromethane
Concen: 0.02 ppbV
RT: 13.24 min Scan# 2195
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 83 Resp: 770

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 59.3 | 51.4 | 77.0 |
| 129 | 19.0 | 9.9 | 14.9# |

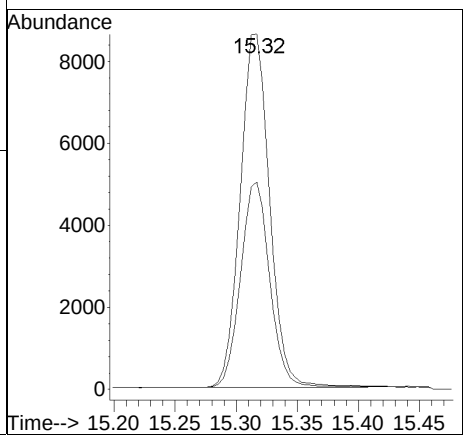


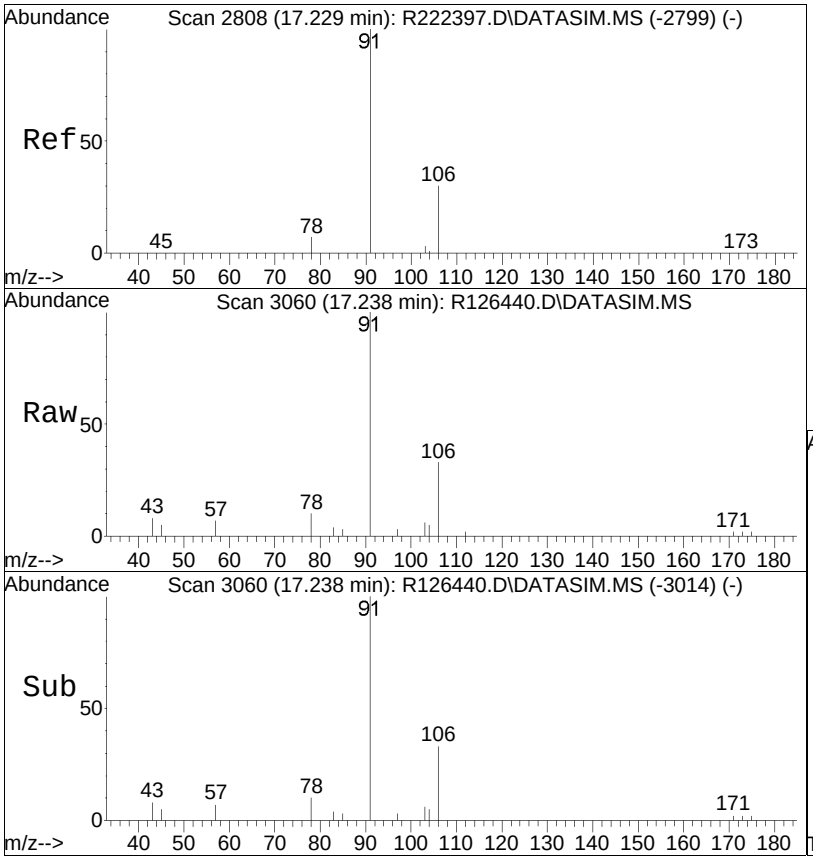



#50
toluene
Concen: 0.22 ppbV
RT: 15.32 min Scan# 2649
Delta R.T. 0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 91 Resp: 14458

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.4 | 46.3 | 69.5 |

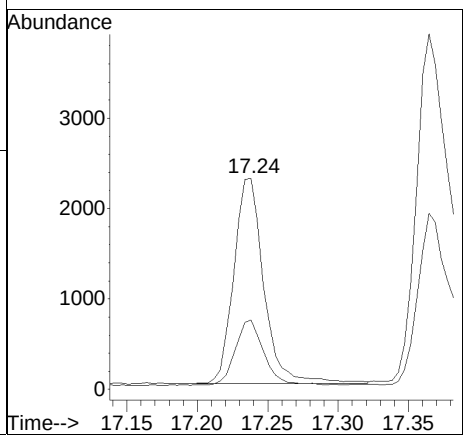


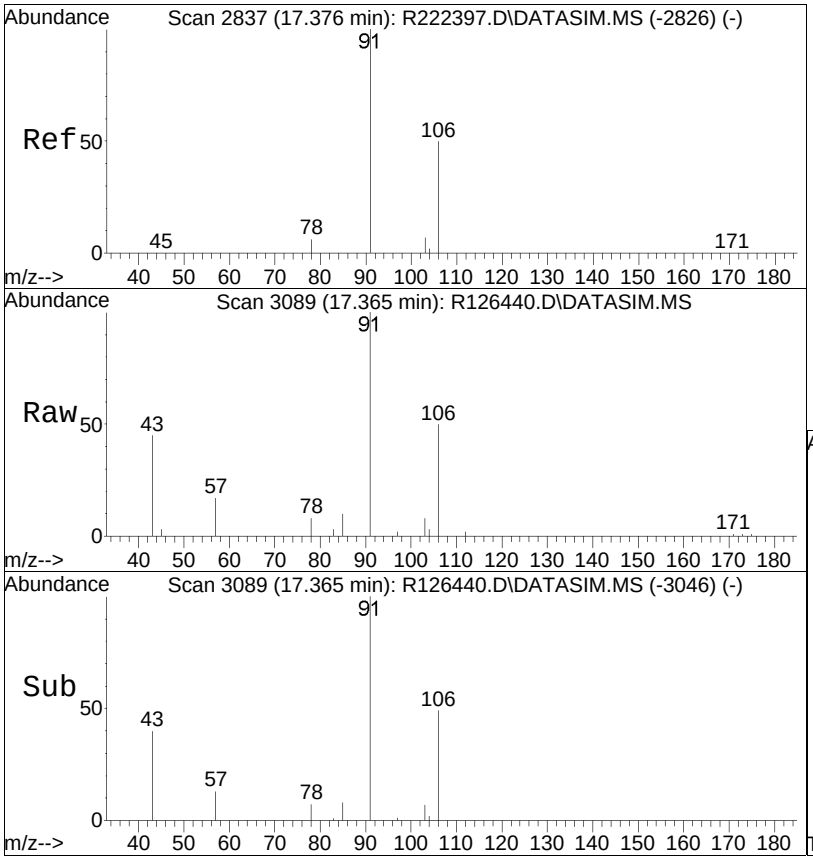



#58
ethylbenzene
Concen: 0.04 ppbV
RT: 17.24 min Scan# 3060
Delta R.T. 0.008 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 91 Resp: 3365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.9 | 24.2 | 36.2 |

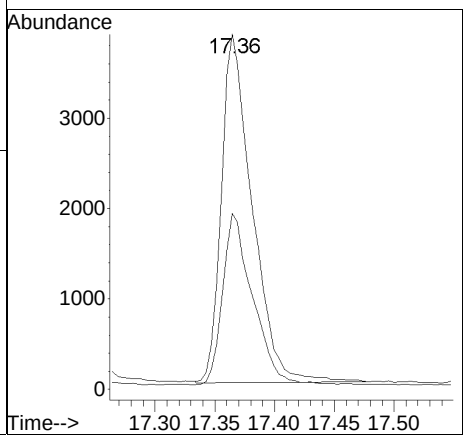


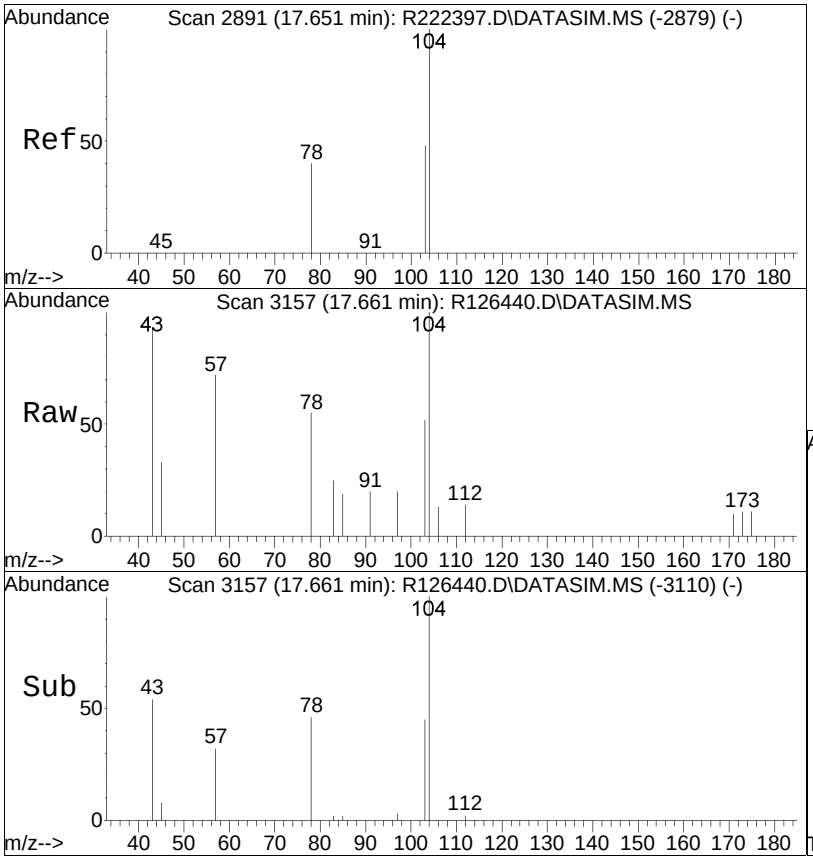



#59
m+p-xylene
Concen: 0.11 ppbV
RT: 17.36 min Scan# 3089
Delta R.T. -0.014 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 91 Resp: 6913

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.5 | 39.0 | 58.4 |

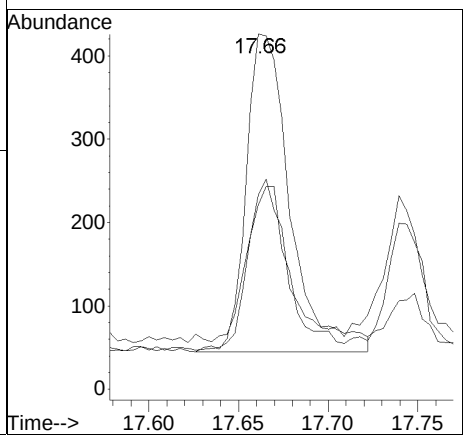


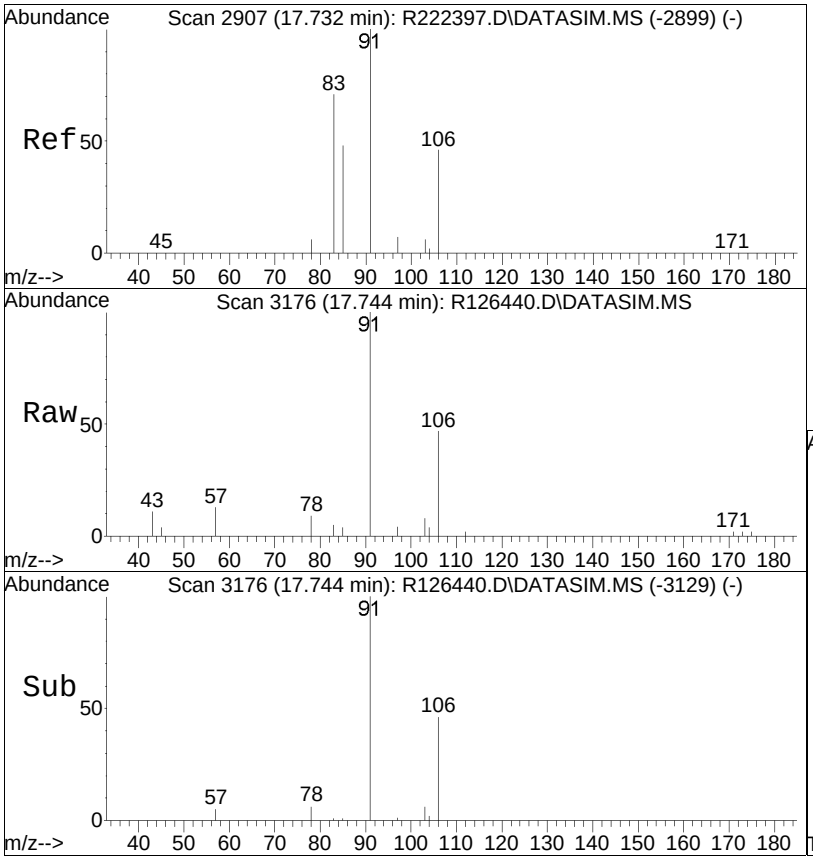



#61
styrene
Concen: 0.01 ppbV
RT: 17.66 min Scan# 3157
Delta R.T. 0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:104 Resp: 650

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 51.9 | 37.5 | 56.3 |
| 78 | 54.7 | 33.5 | 50.3# |

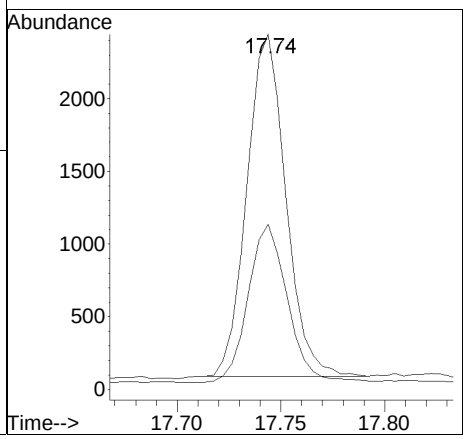


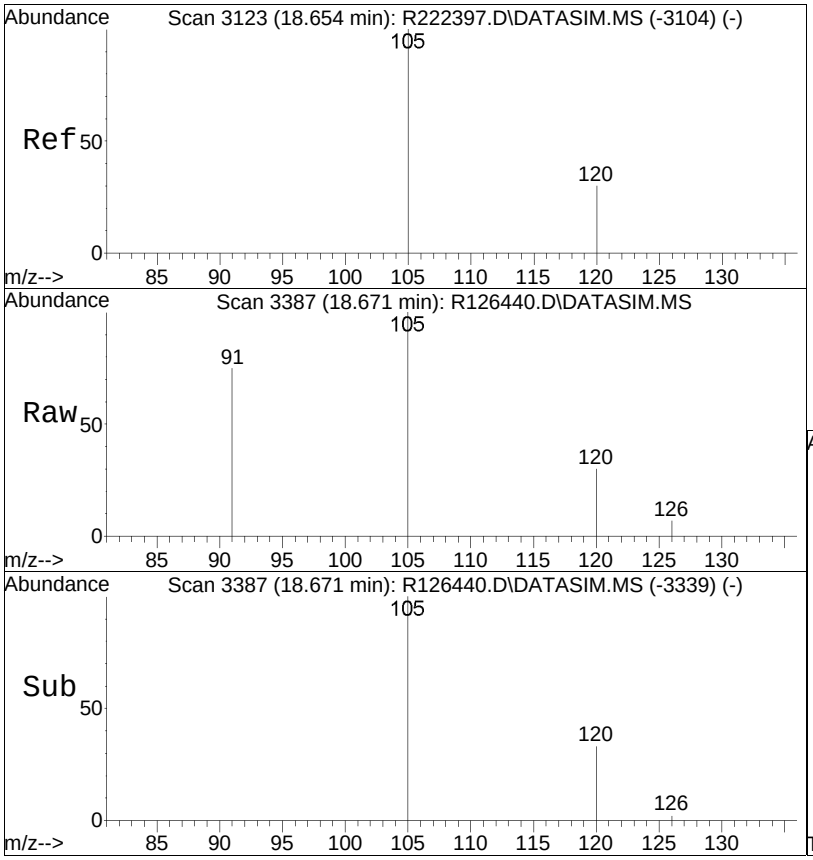



#63
o-xylene
Concen: 0.05 ppbV
RT: 17.74 min Scan# 3176
Delta R.T. 0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 91 Resp: 3070

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.5 | 37.1 | 55.7 |

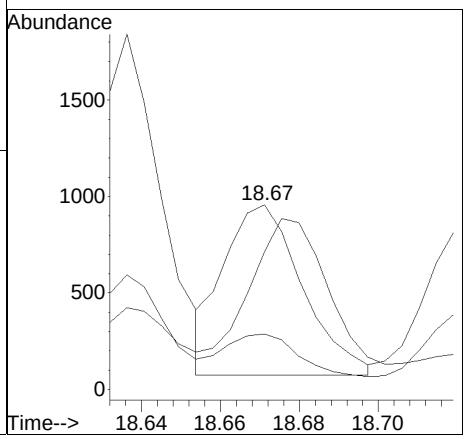


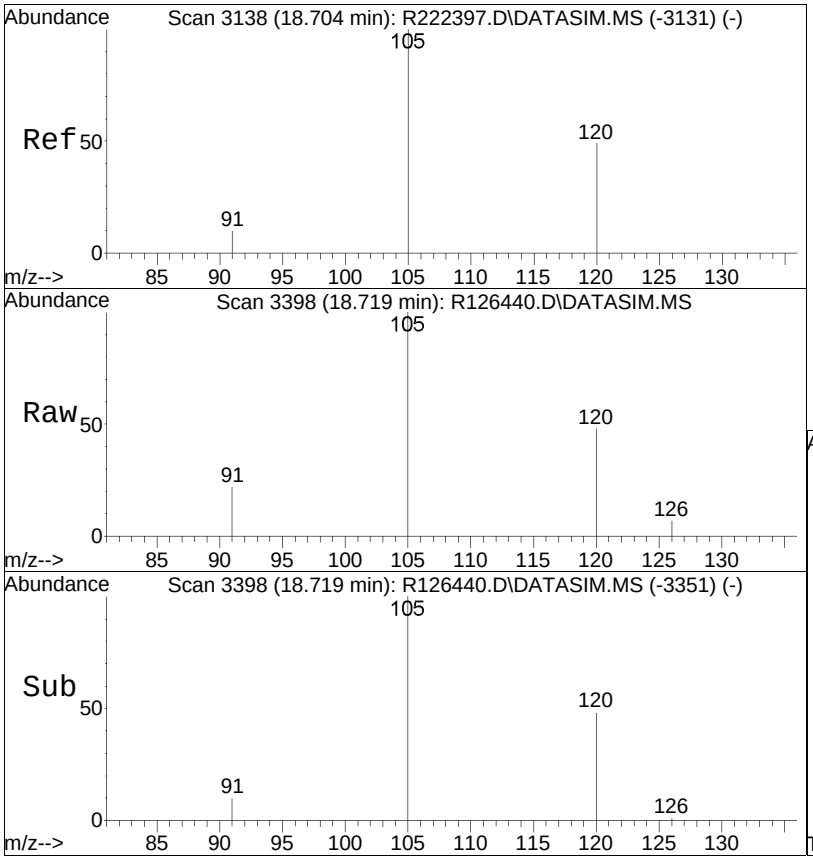



#66
4-ethyl toluene
Concen: 0.01 ppbV
RT: 18.67 min Scan# 3387
Delta R.T. 0.008 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:105 Resp: 1225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 30.1 | 23.4 | 35.2 |
| 91 | 74.6 | 9.0 | 13.6# |

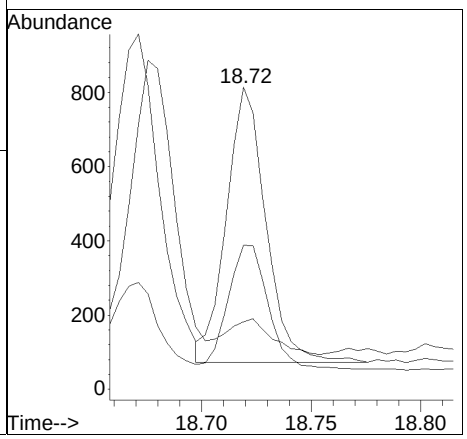


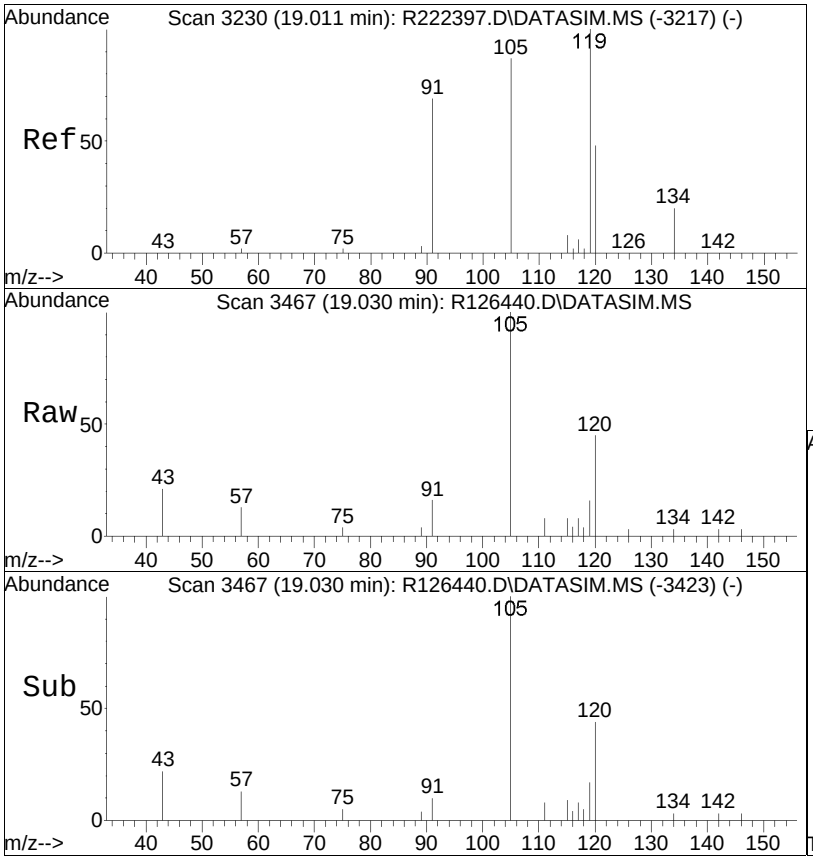



#67
1,3,5-trimethylbenzene
Concen: 0.01 ppbV
RT: 18.72 min Scan# 3398
Delta R.T. 0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:105 Resp: 926

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.7 | 38.1 | 57.1 |
| 91 | 22.4 | 8.5 | 12.7# |

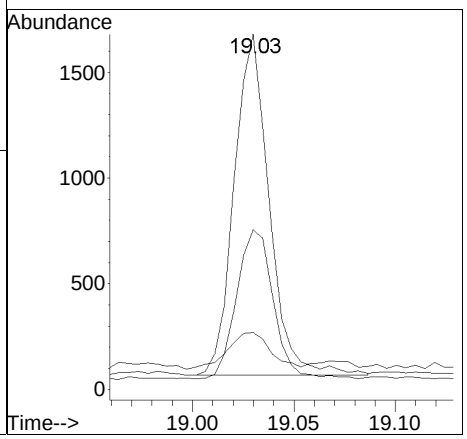





#69
1,2,4-trimethylbenzene
Concen: 0.02 ppbV
RT: 19.03 min Scan# 3467
Delta R.T. 0.004 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion:105 Resp: 1945

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.9 | 43.6 | 65.4 |
| 91 | 16.1 | 62.0 | 93.0# |

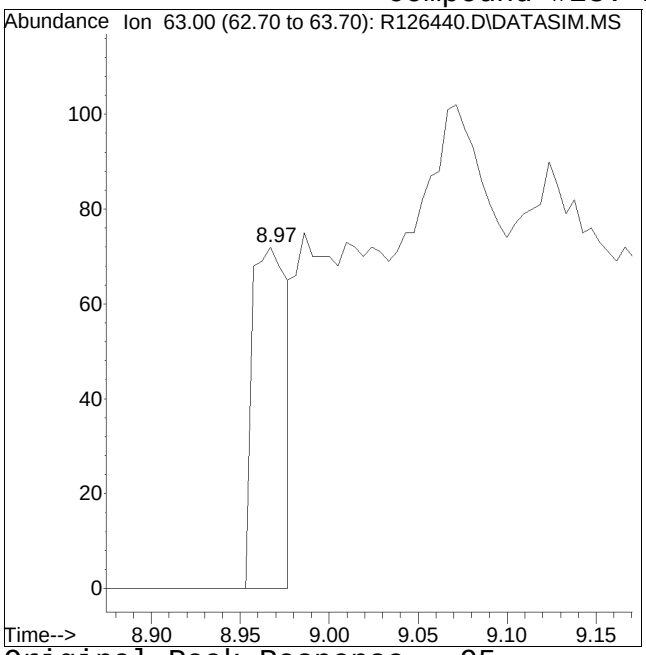


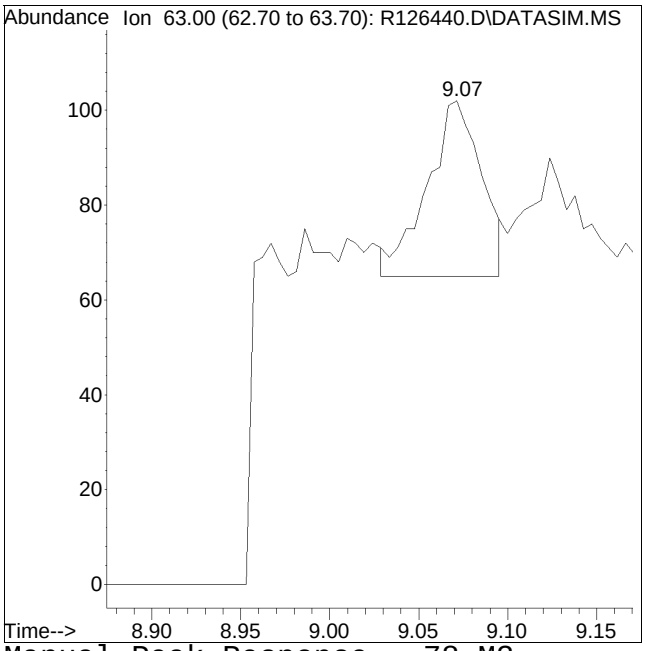
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #23: 1,1-dichloroethane




Original Peak Response = 95 Manual Peak Response = 78 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:34:11 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 329913 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = | | 90.47% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 639221 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = | | 84.59% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 163978 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = | | 88.22% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 21736 | 0.447 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 11508 | 0.483 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 718 | 0.013 | ppbV | 95 |
| 6) vinyl chloride | 4.71 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.92 | 54 | 376 | 0.023 | ppbV | 82 |
| 8) bromomethane | 5.30 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 13042 | 0.225 | ppbV | 99 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 17) methylene chloride | 7.64 | 49 | 10177 | 0.317 | ppbV | 98 |
| 20) Freon 113 | 7.99 | 101 | 2568 | 0.064 | ppbV | 95 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 9.07 | | 0 | N.D. | | |
| 24) MTBE | 9.18 | 73 | 838 | 0.018 | ppbV # | 1 |
| 27) cis-1,2-dichloroethene | 10.07 | 61 | 1024 | 0.033 | ppbV | 96 |
| 29) chloroform | 10.43 | 83 | 2487 | 0.059 | ppbV | 97 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 758 | 0.023 | ppbV # | 88 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 737 | 0.020 | ppbV # | 91 |
| 36) benzene | 12.08 | 78 | 11431 | 0.218 | ppbV | 95 |
| 37) carbon tetrachloride | 12.26 | 117 | 3486 | 0.091 | ppbV | 98 |
| 39) 1,2-dichloropropane | 13.02 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | | 0 | N.D. | | |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.28 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.86 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.11 | | 0 | N.D. | | |
| 50) toluene | 15.31 | 91 | 44250 | 0.666 | ppbV | 99 |
| 53) dibromochloromethane | 15.72 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.37 | 166 | 883 | 0.027 | ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:34:11 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

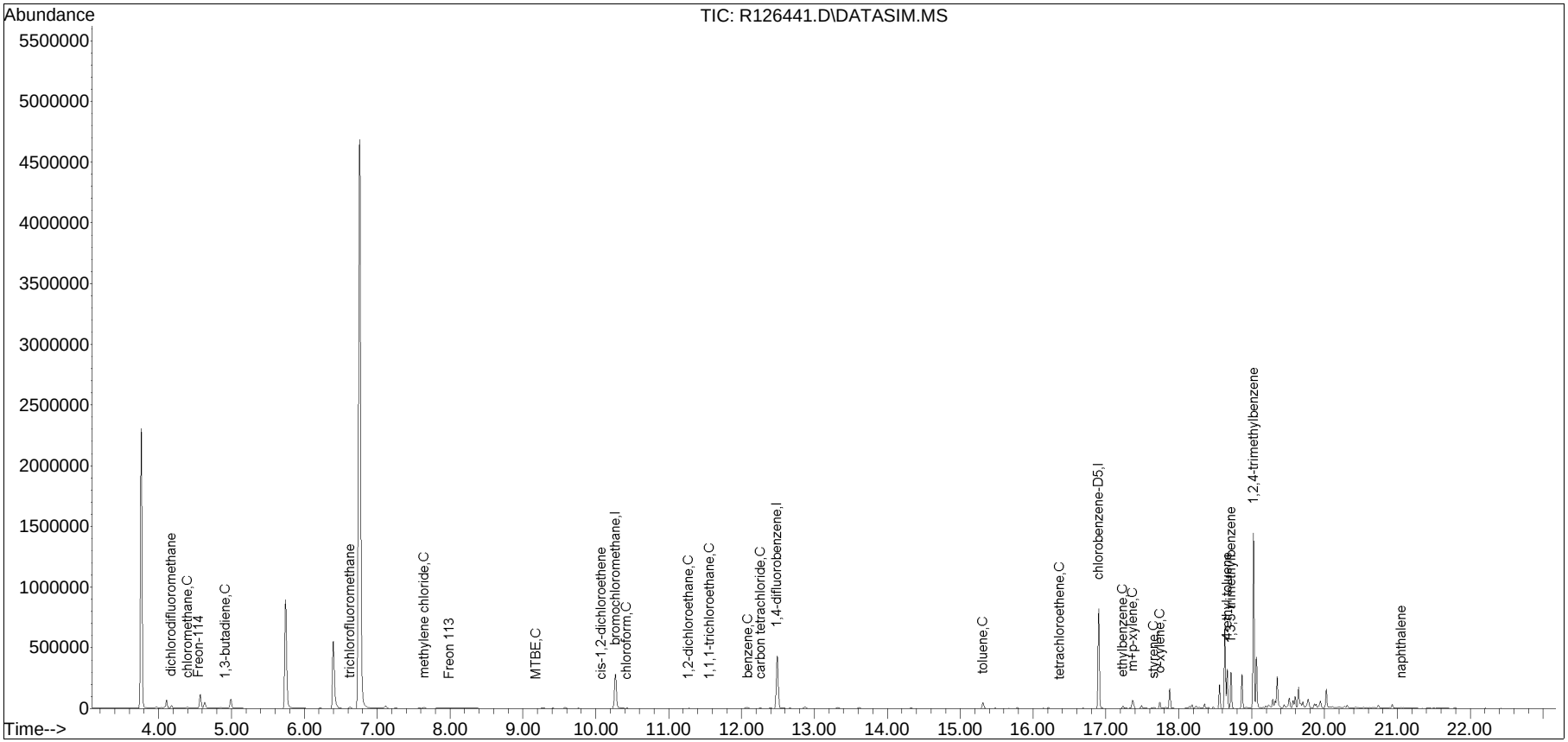
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 0.00 | | 0 | N.D. | d | |
| 57) chlorobenzene | 0.00 | | 0 | N.D. | d | |
| 58) ethylbenzene | 17.23 | 91 | 18983 | 0.222 | ppbV | 99 |
| 59) m+p-xylene | 17.36 | 91 | 49152 | 0.738 | ppbV | 98 |
| 60) bromoform | 17.46 | | 0 | N.D. | | |
| 61) styrene | 17.66 | 104 | 4535 | 0.089 | ppbV | 97 |
| 62) 1,1,2,2-tetrachloroethane | 0.00 | | 0 | N.D. | d | |
| 63) o-xylene | 17.74 | 91 | 37019 | 0.539 | ppbV | 99 |
| 66) 4-ethyl toluene | 18.66 | 105 | 260535 | 2.656 | ppbV | 100 |
| 67) 1,3,5-trimethylbenzene | 18.71 | 105 | 223484 | 2.738 | ppbV | 100 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 886620 | 11.080 | ppbV # | 49 |
| 71) 1,3-dichlorobenzene | 19.16 | | 0 | N.D. | | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | N.D. | | |
| 78) naphthalene | 21.05 | 128 | 9539M4 | 0.070 | ppbV | |
| 80) hexachlorobutadiene | 21.36 | | 0 | N.D. | | |

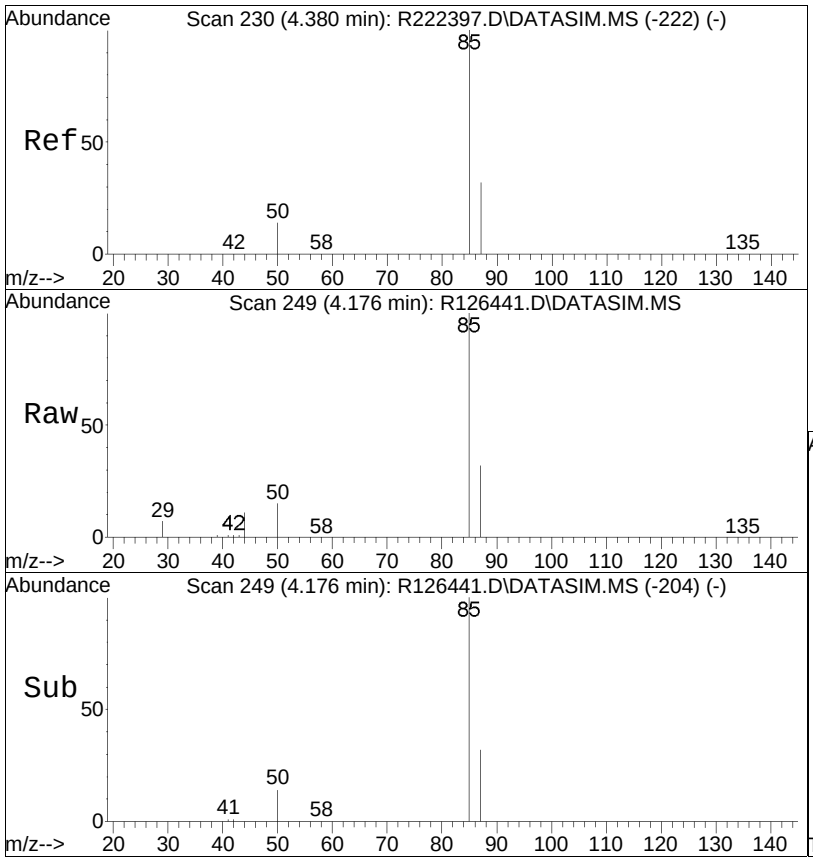
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:34:11 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

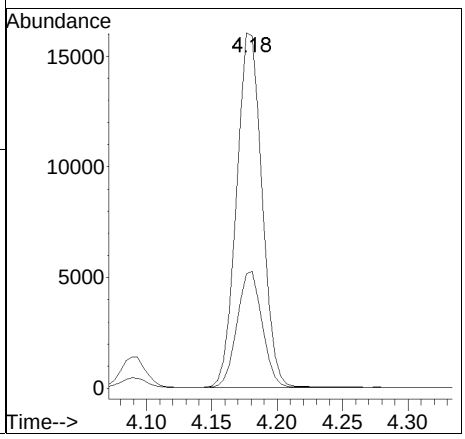


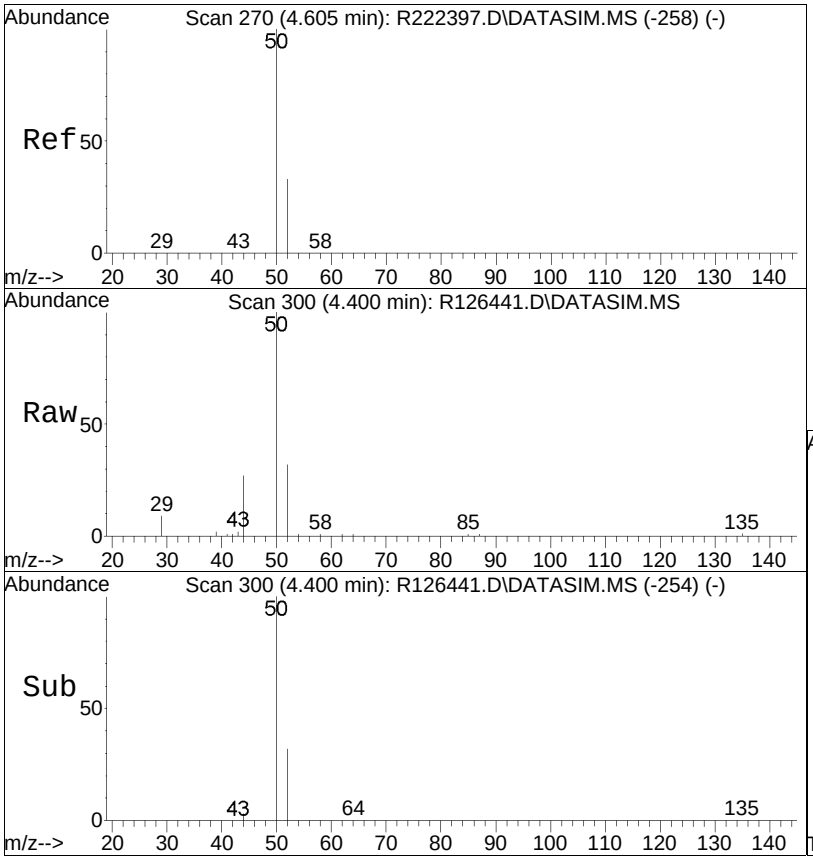



#3
dichlorodifluoromethane
Concen: 0.45 ppbV
RT: 4.18 min Scan# 249
Delta R.T. -0.004 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 85 Resp: 21736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.2 | 25.9 | 38.9 |

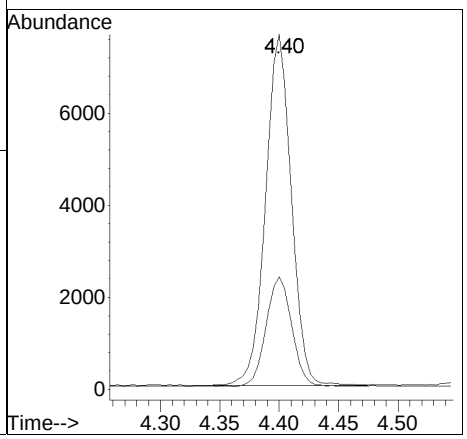


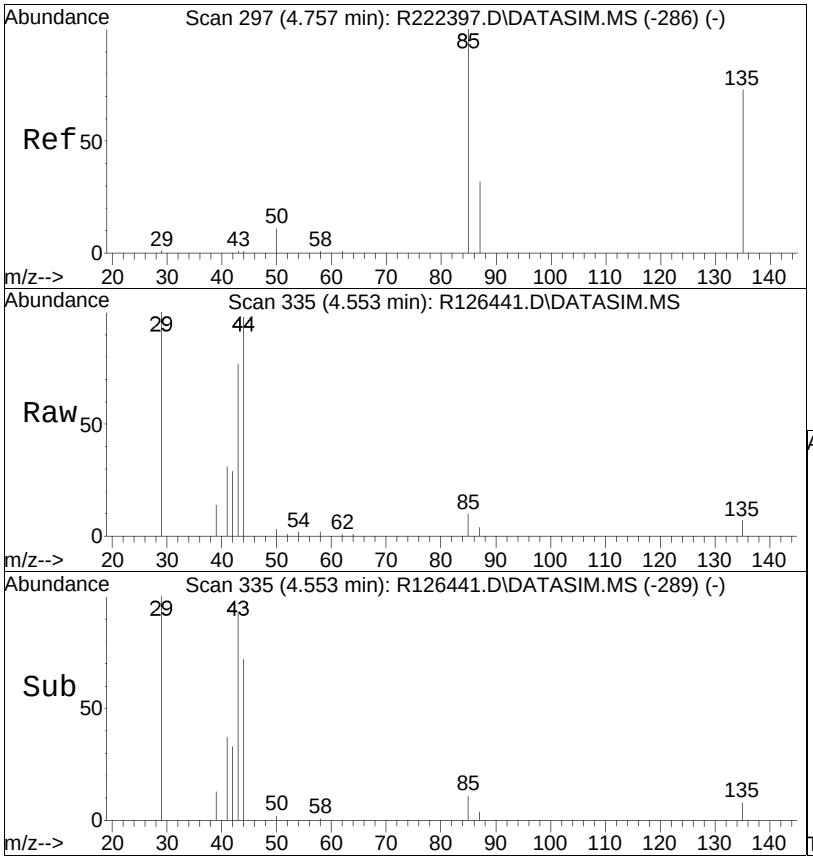



#4
chloromethane
Concen: 0.48 ppbV
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 50 Resp: 11508

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.7 | 25.8 | 38.6 |

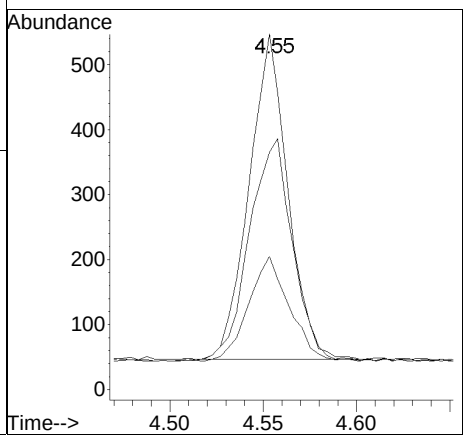


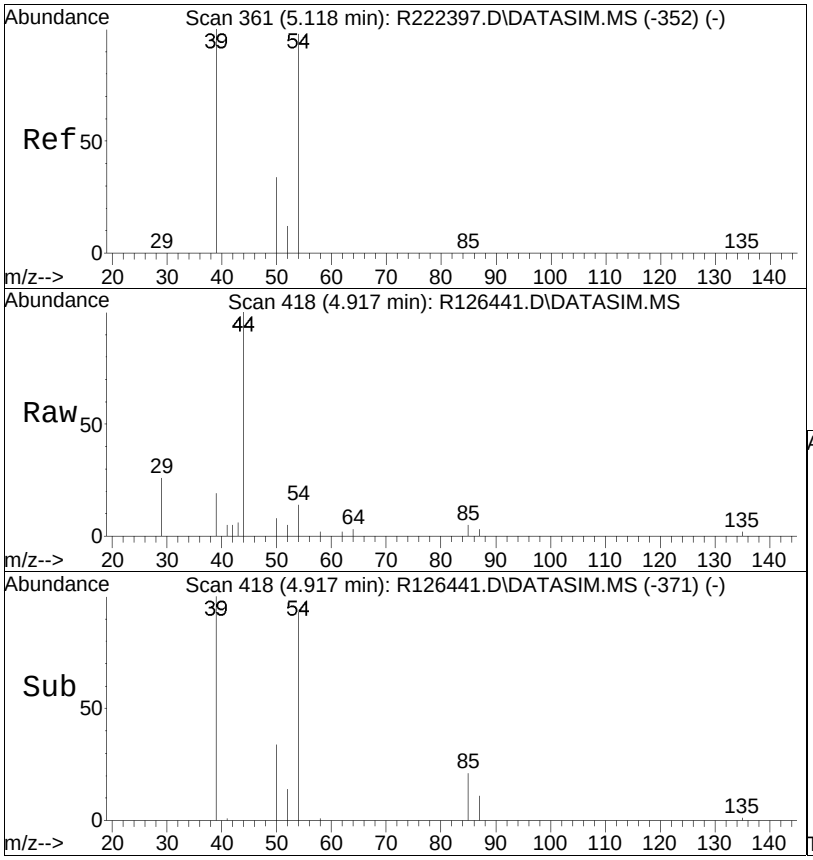



#5
Freon-114
Concen: 0.01 ppbV
RT: 4.55 min Scan# 335
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 85 Resp: 718

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 37.5 | 25.7 | 38.5 |
| 135 | 66.7 | 55.7 | 83.5 |

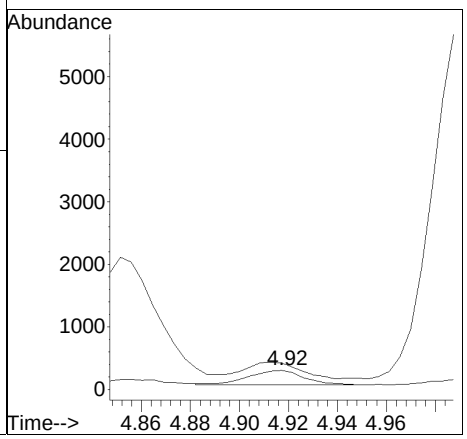


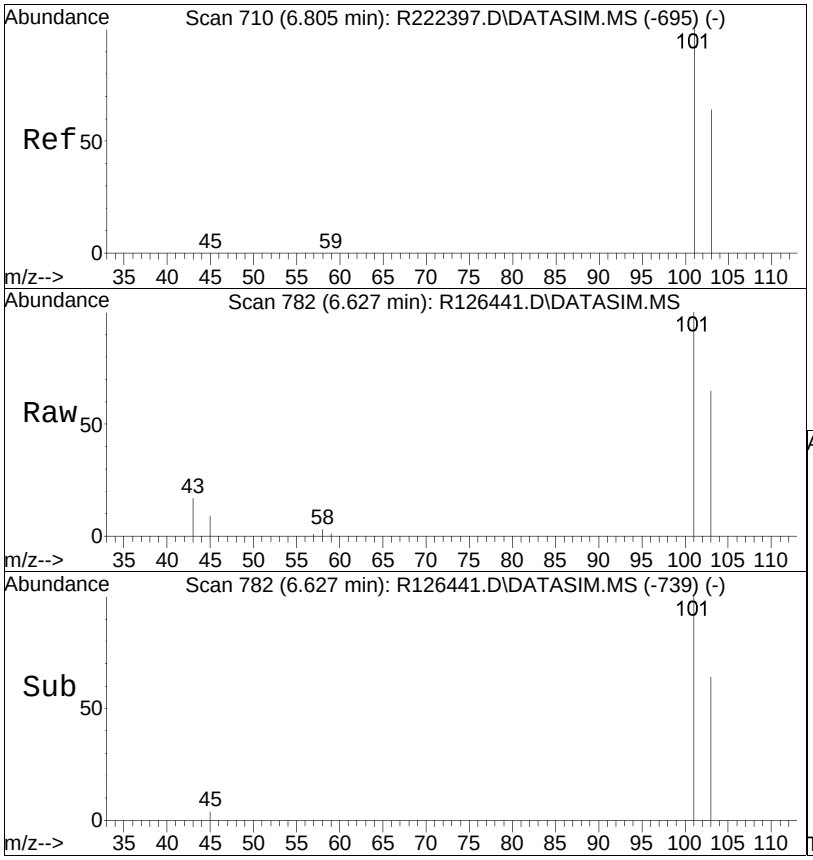



#7
1,3-butadiene
Concen: 0.02 ppbV
RT: 4.92 min Scan# 418
Delta R.T. 0.004 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 54 Resp: 376

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 139.0 | 95.5 | 143.3 |

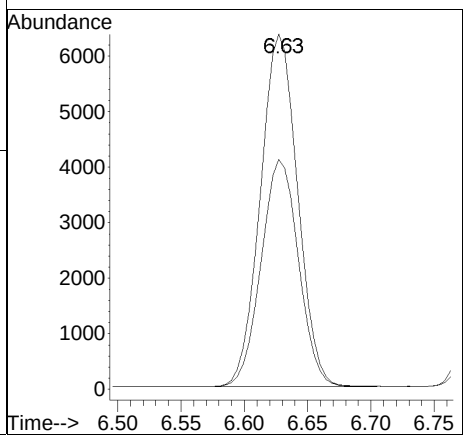


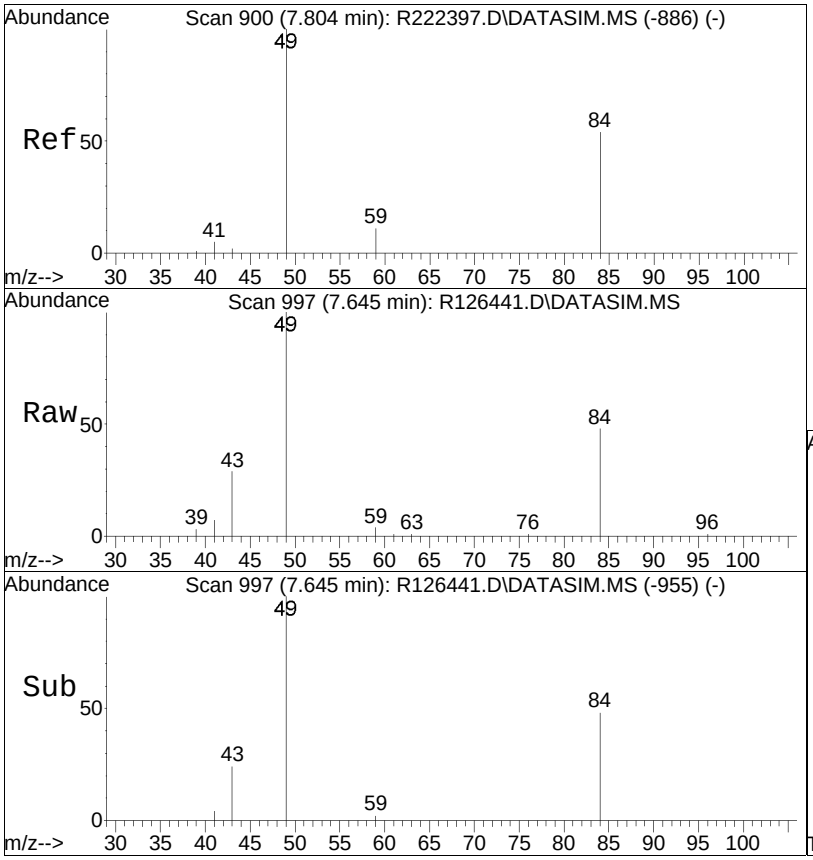



#13
trichlorofluoromethane
Concen: 0.23 ppbV
RT: 6.63 min Scan# 782
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:101 Resp: 13042

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.8 | 51.4 | 77.2 |

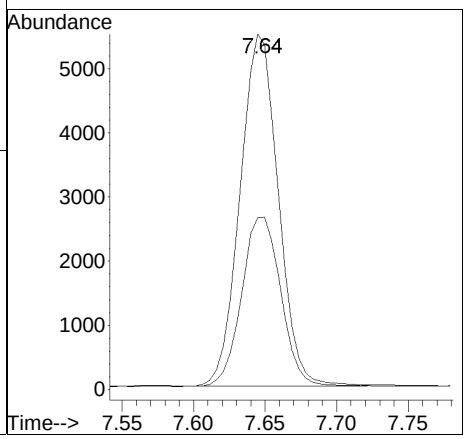


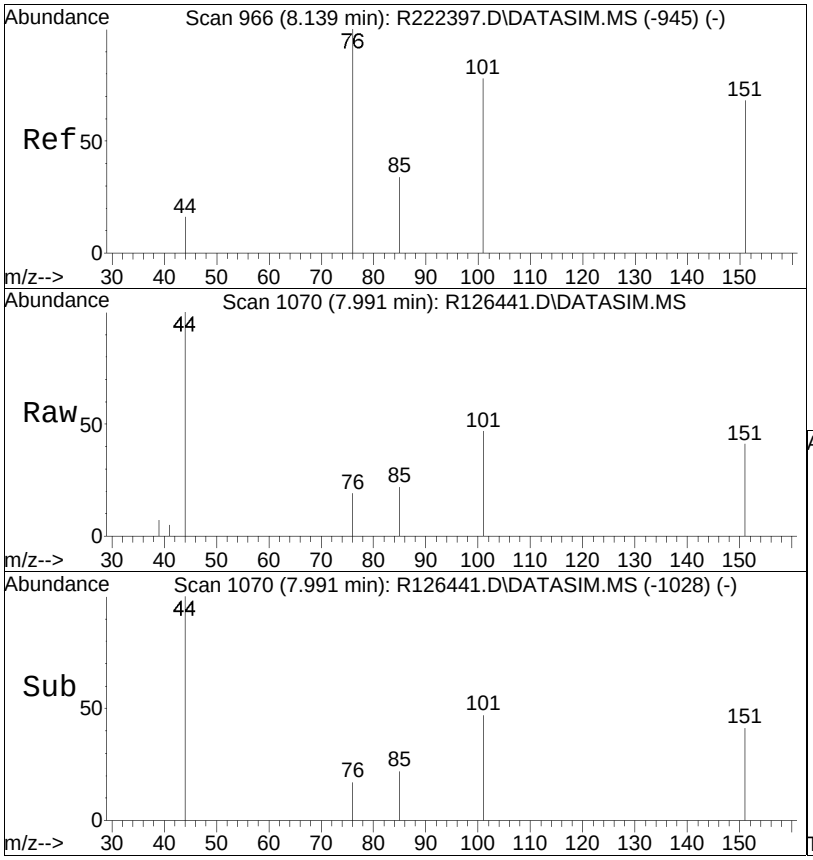



#17
methylene chloride
Concen: 0.32 ppbV
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 49 Resp: 10177

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.3 | 40.0 | 60.0 |

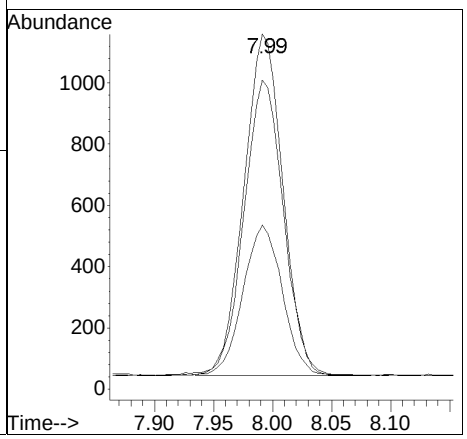


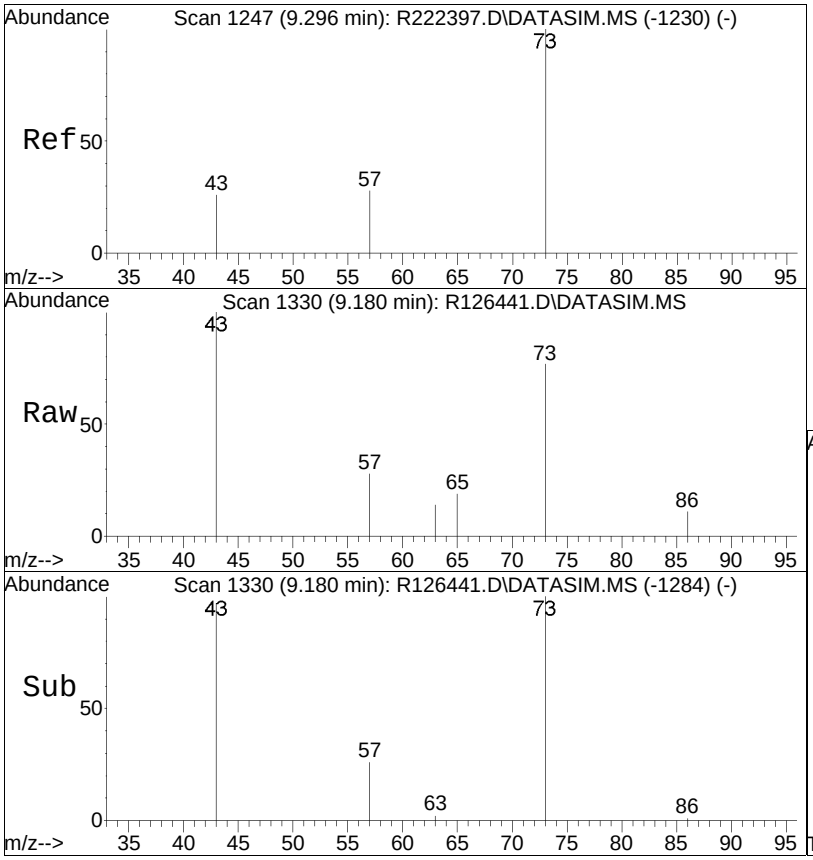



#20
Freon 113
Concen: 0.06 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. 0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:101 Resp: 2568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 46.2 | 34.6 | 51.8 |
| 151 | 87.1 | 66.0 | 99.0 |

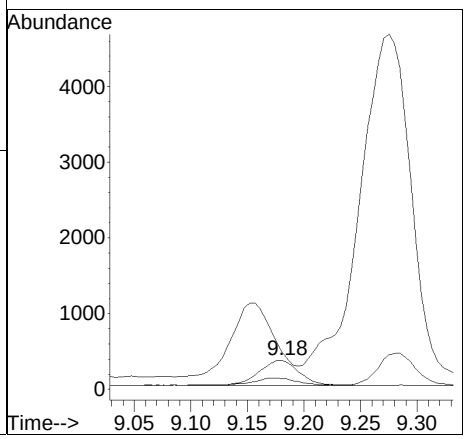


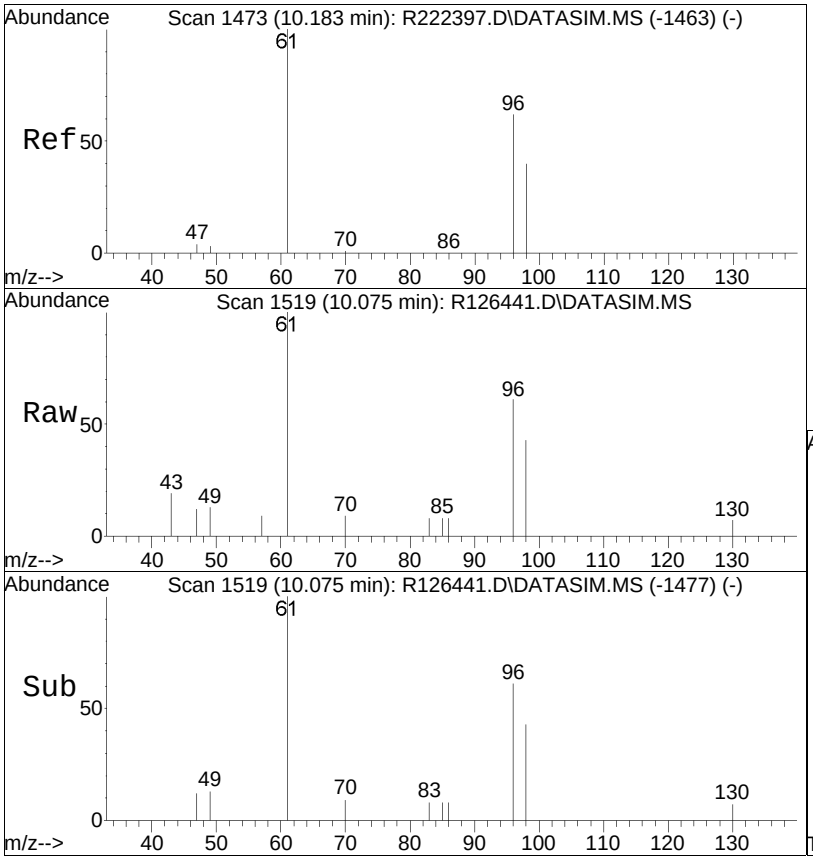



#24
MTBE
Concen: 0.02 ppbV
RT: 9.18 min Scan# 1330
Delta R.T. 0.019 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 73 Resp: 838

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 36.8 | 22.7 | 34.1# |
| 43 | 129.8 | 24.6 | 36.8# |

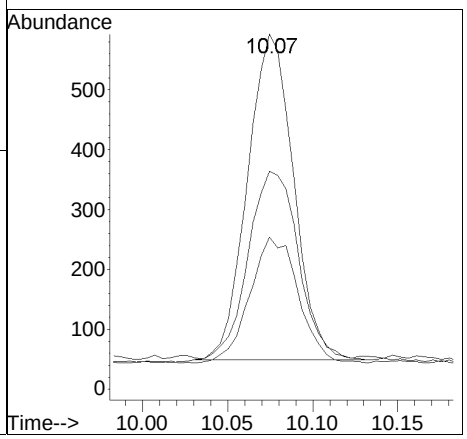


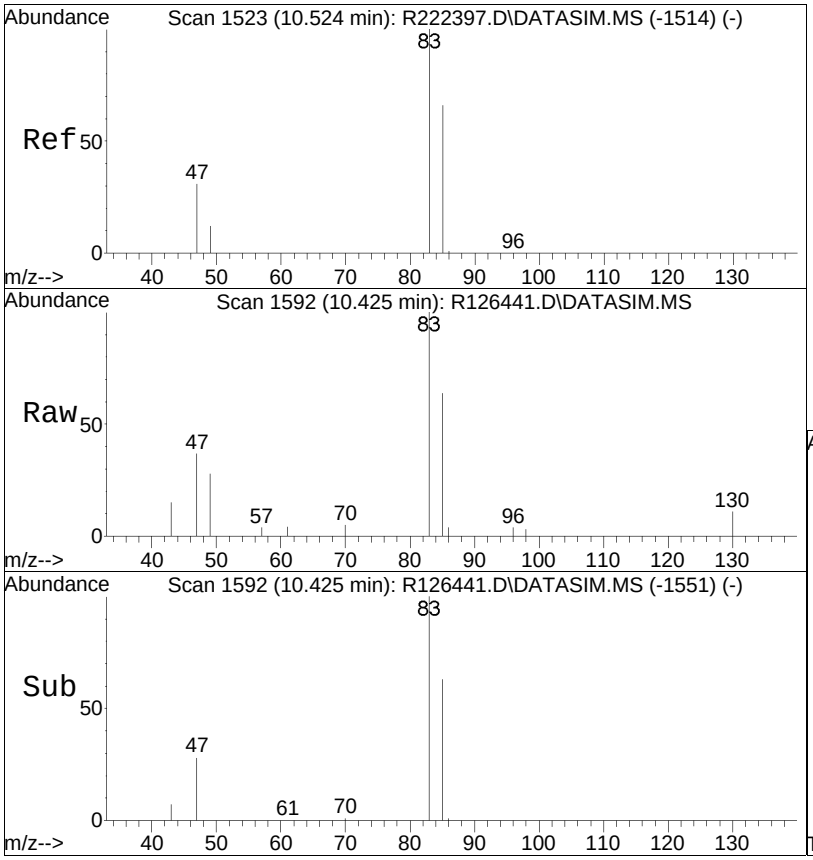



#27
cis-1,2-dichloroethene
Concen: 0.03 ppbV
RT: 10.07 min Scan# 1519
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 61 Resp: 1024

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 61.4 | 47.9 | 71.9 |
| 98 | 42.8 | 31.0 | 46.6 |

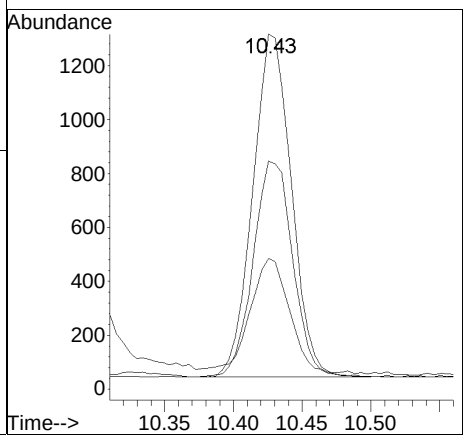


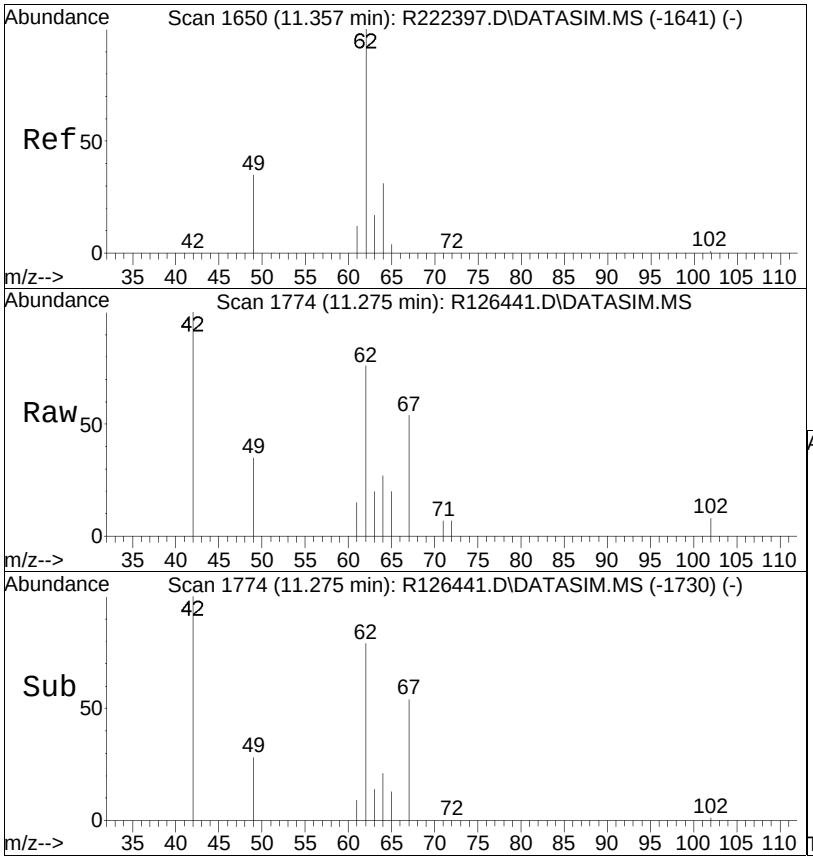



#29
chloroform
Concen: 0.06 ppbV
RT: 10.43 min Scan# 1592
Delta R.T. -0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 83 Resp: 2487

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.2 | 52.2 | 78.2 |
| 47 | 36.8 | 27.0 | 40.6 |

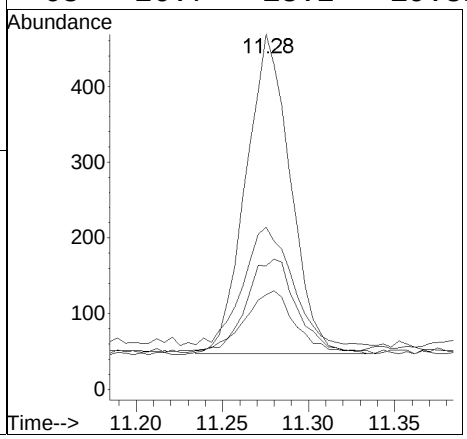


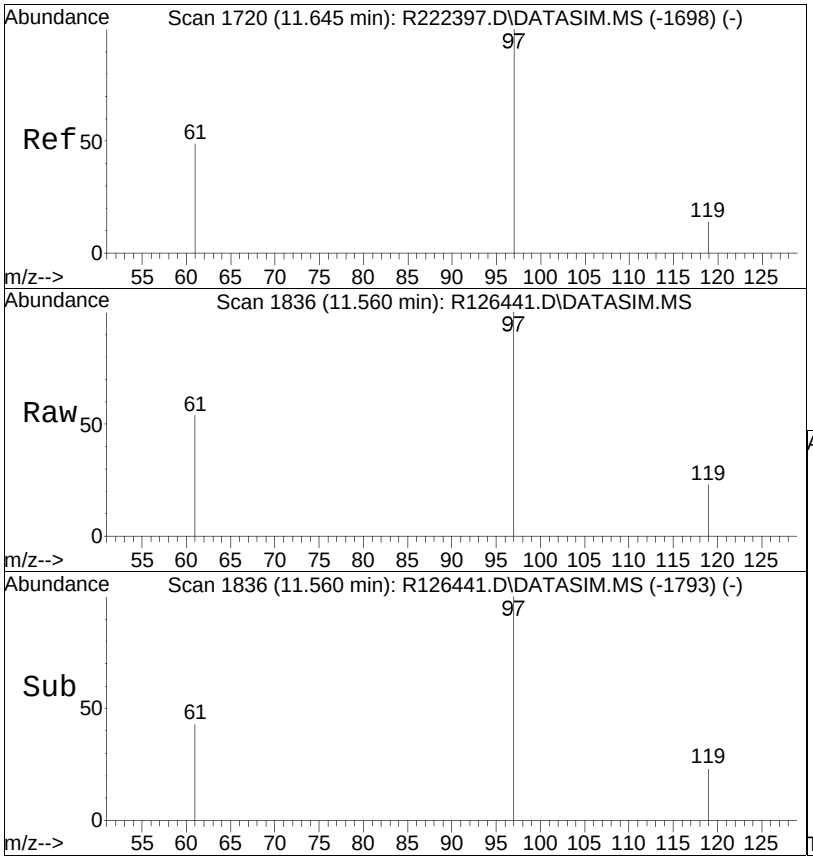



#31
1,2-dichloroethane
Concen: 0.02 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 62 Resp: 758

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 34.8 | 25.3 | 37.9 |
| 49 | 45.6 | 30.2 | 45.2# |
| 63 | 26.7 | 13.2 | 19.8# |

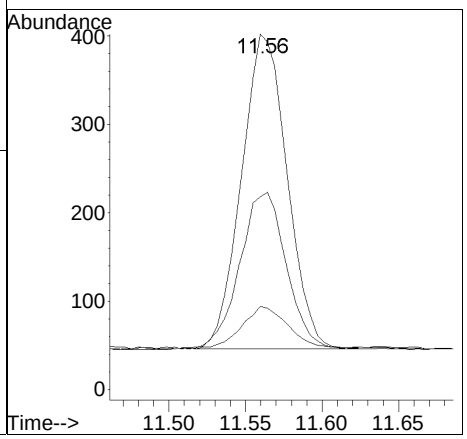


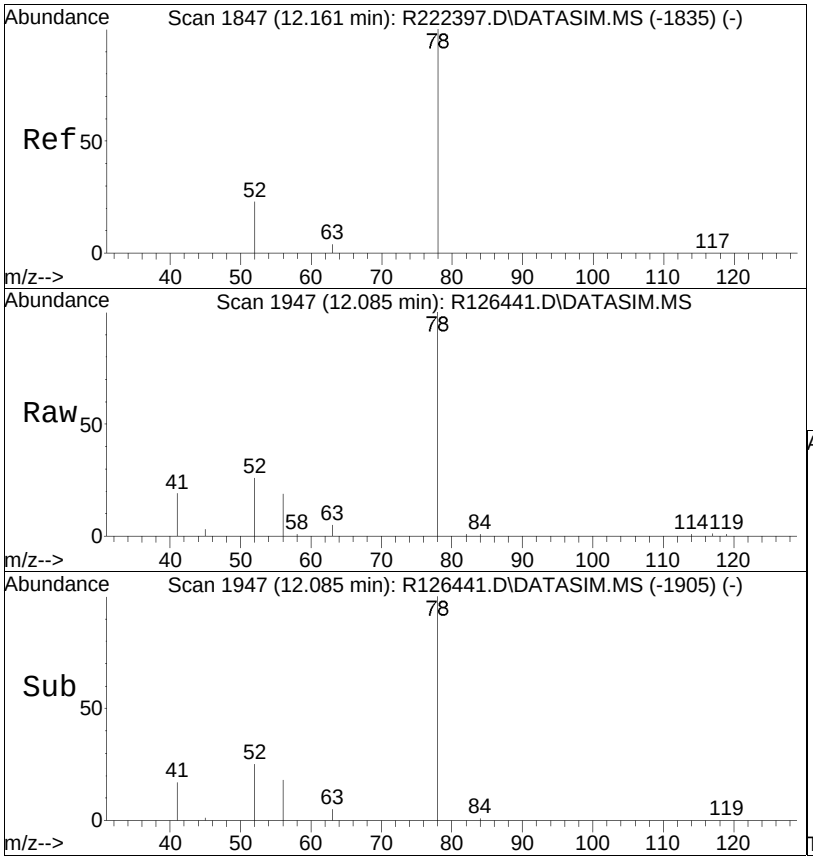



#35
1,1,1-trichloroethane
Concen: 0.02 ppbV
RT: 11.56 min Scan# 1836
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 97 Resp: 737

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 54.2 | 40.8 | 61.2 |
| 119 | 23.4 | 10.6 | 15.8# |

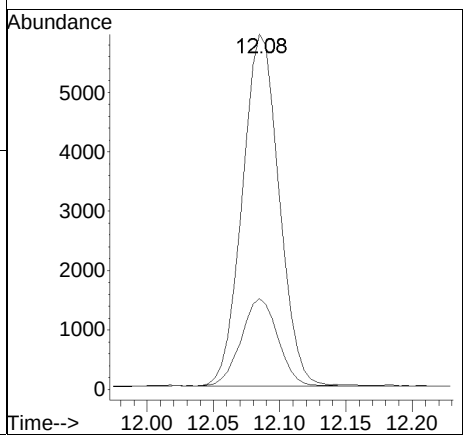


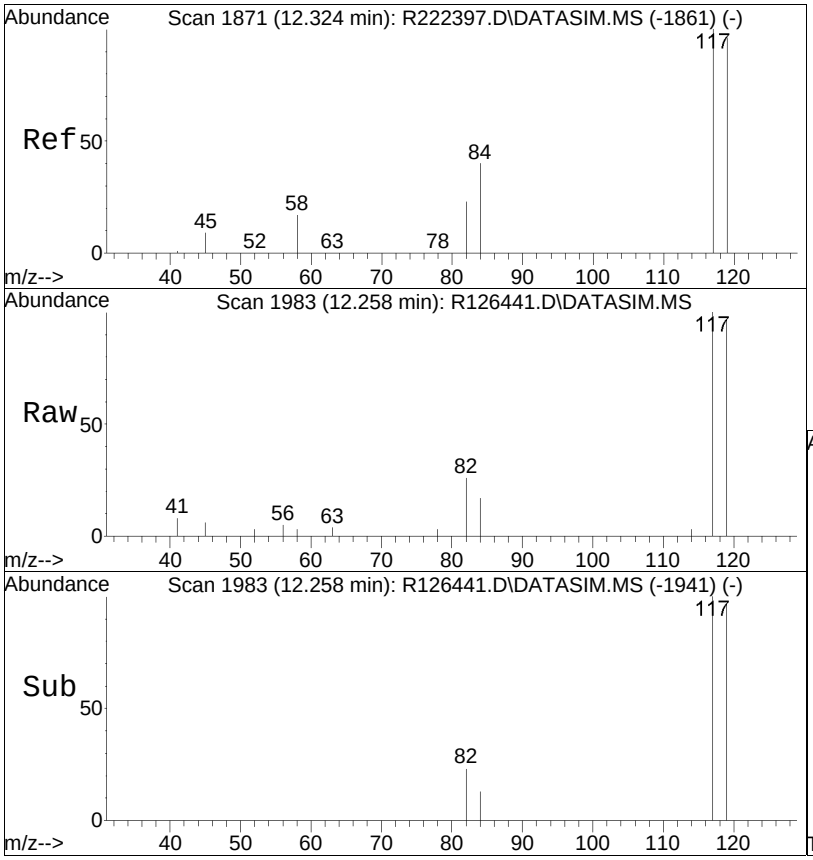



#36
benzene
Concen: 0.22 ppbV
RT: 12.08 min Scan# 1947
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 78 Resp: 11431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 25.6 | 18.6 | 28.0 |

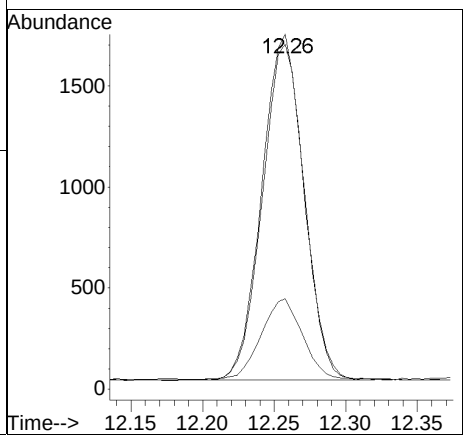


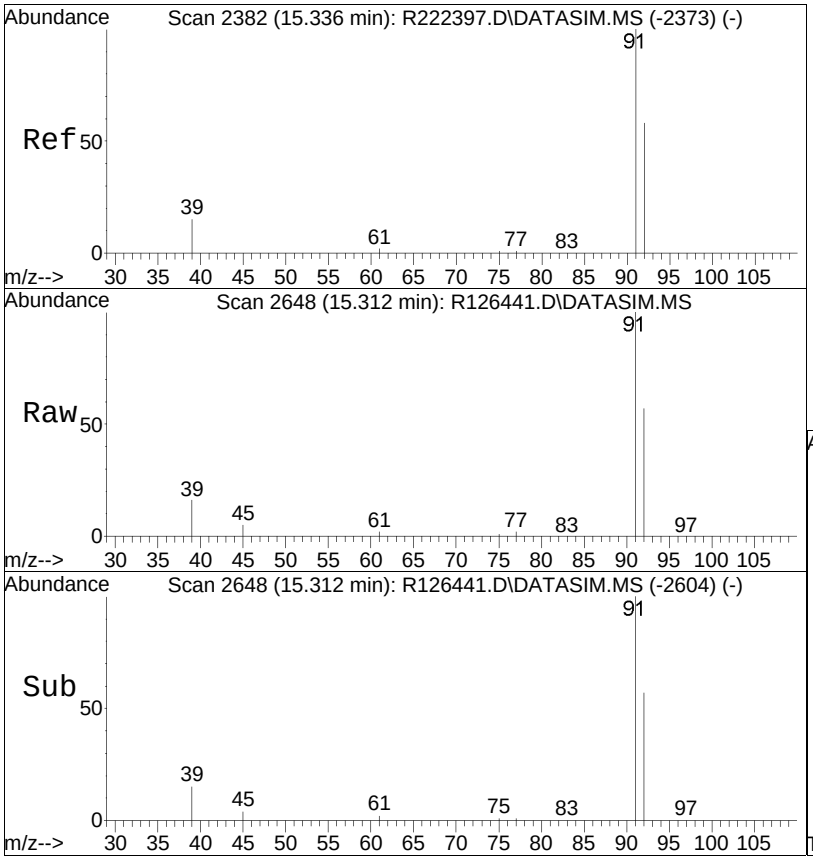



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.26 min Scan# 1983
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:117 Resp: 3486

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 97.2 | 78.7 | 118.1 |
| 82 | 25.5 | 18.9 | 28.3 |

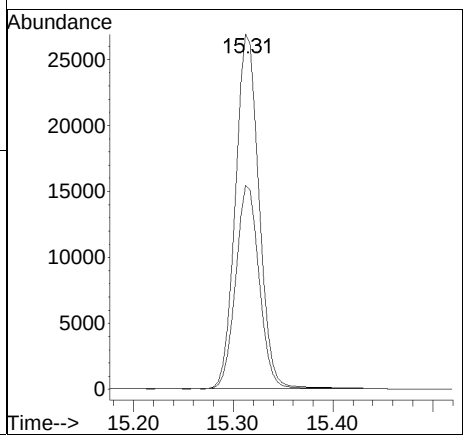


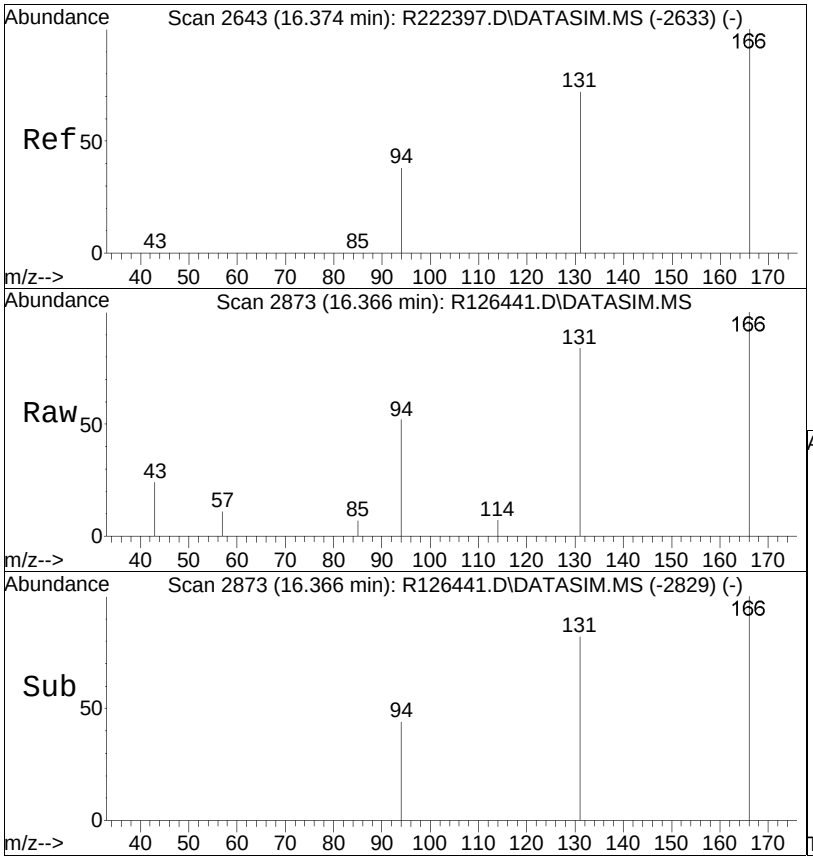



#50
toluene
Concen: 0.67 ppbV
RT: 15.31 min Scan# 2648
Delta R.T. -0.001 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 44250

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.4 | 46.3 | 69.5 |

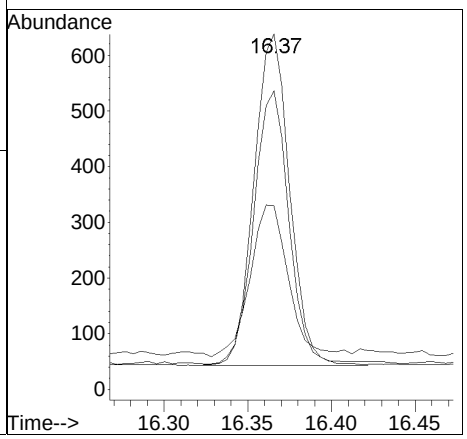


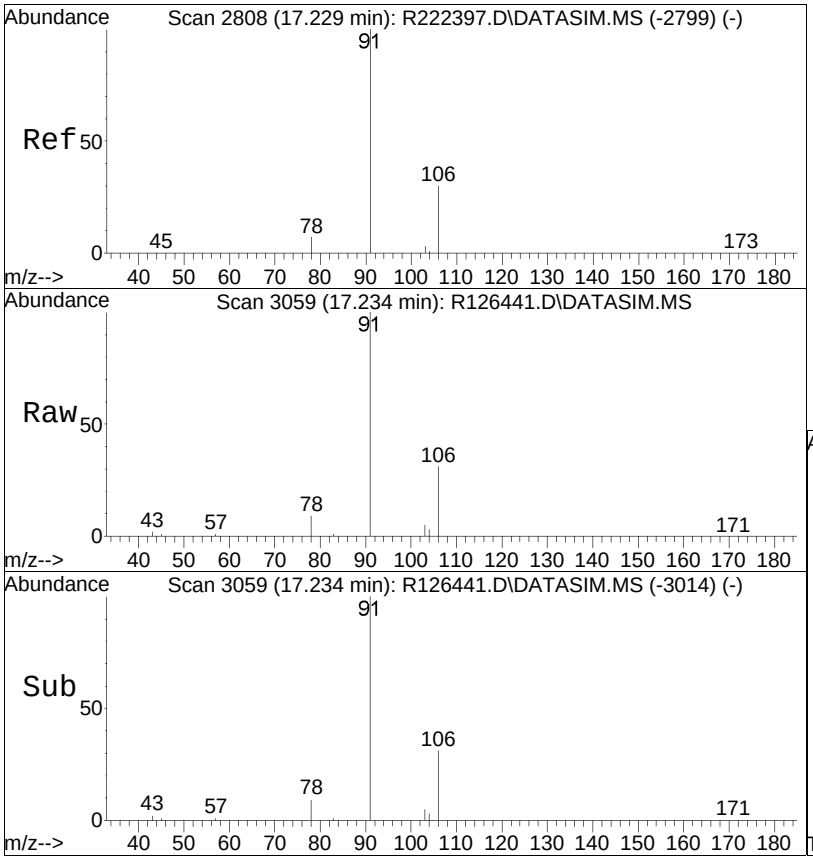



#55
tetrachloroethene
Concen: 0.03 ppbV
RT: 16.37 min Scan# 2873
Delta R.T. 0.004 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:166 Resp: 883

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 84.0 | 63.1 | 94.7 |
| 94 | 51.7 | 37.2 | 55.8 |

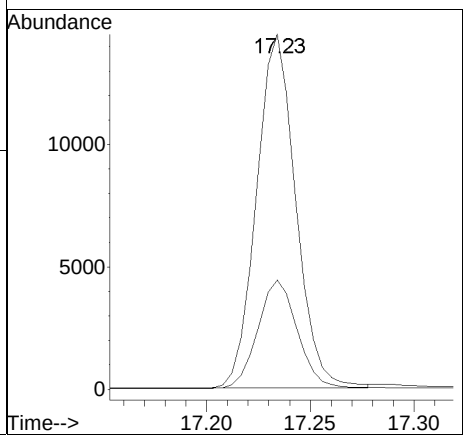


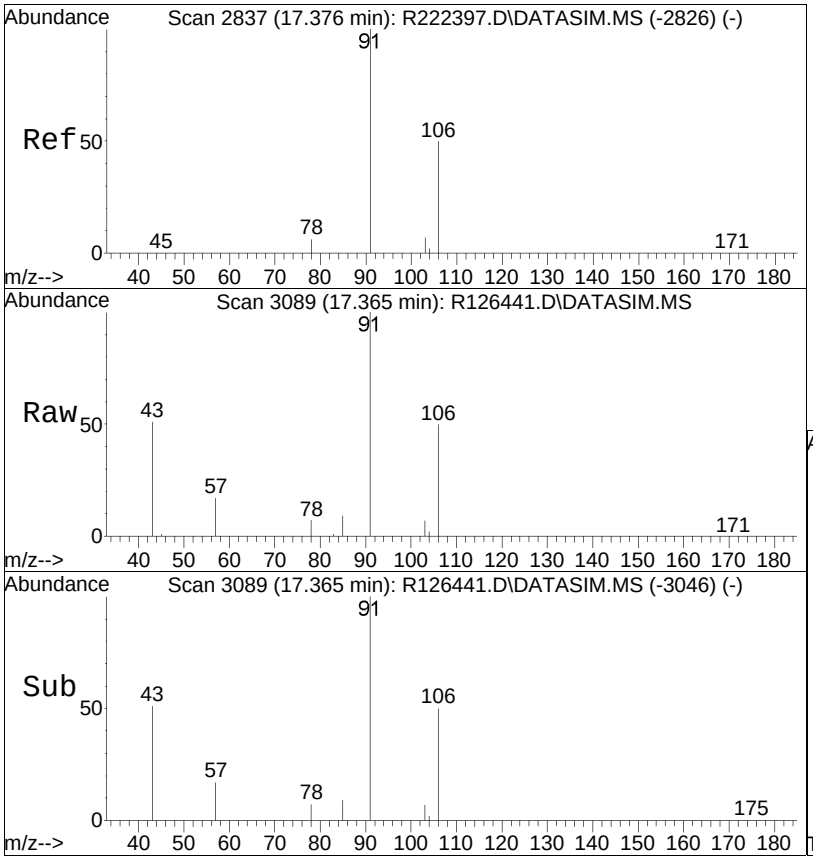



#58
ethylbenzene
Concen: 0.22 ppbV
RT: 17.23 min Scan# 3059
Delta R.T. 0.004 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 18983

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.8 | 24.2 | 36.2 |

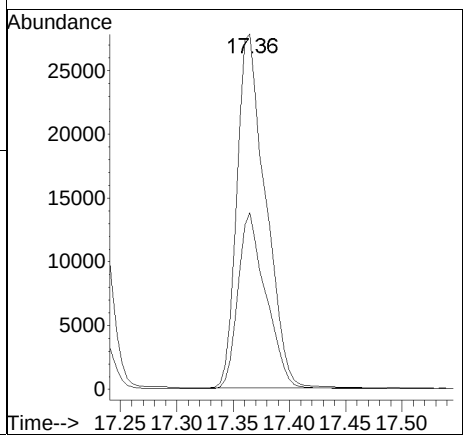


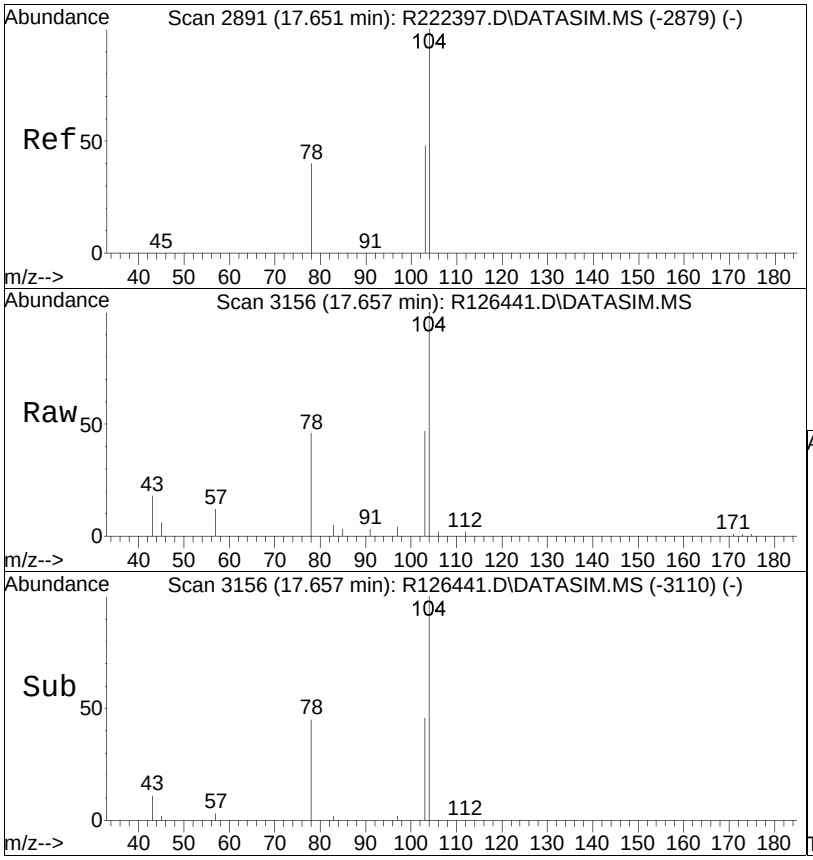



#59
m+p-xylene
Concen: 0.74 ppbV
RT: 17.36 min Scan# 3089
Delta R.T. -0.013 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 49152

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.8 | 39.0 | 58.4 |

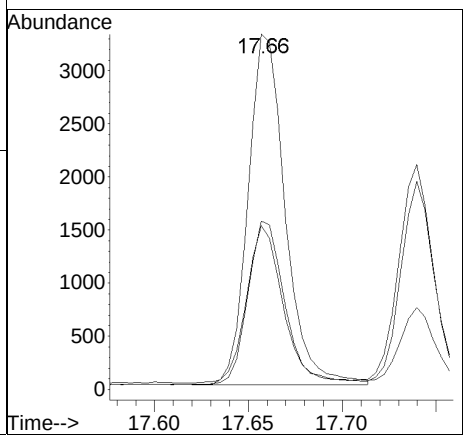


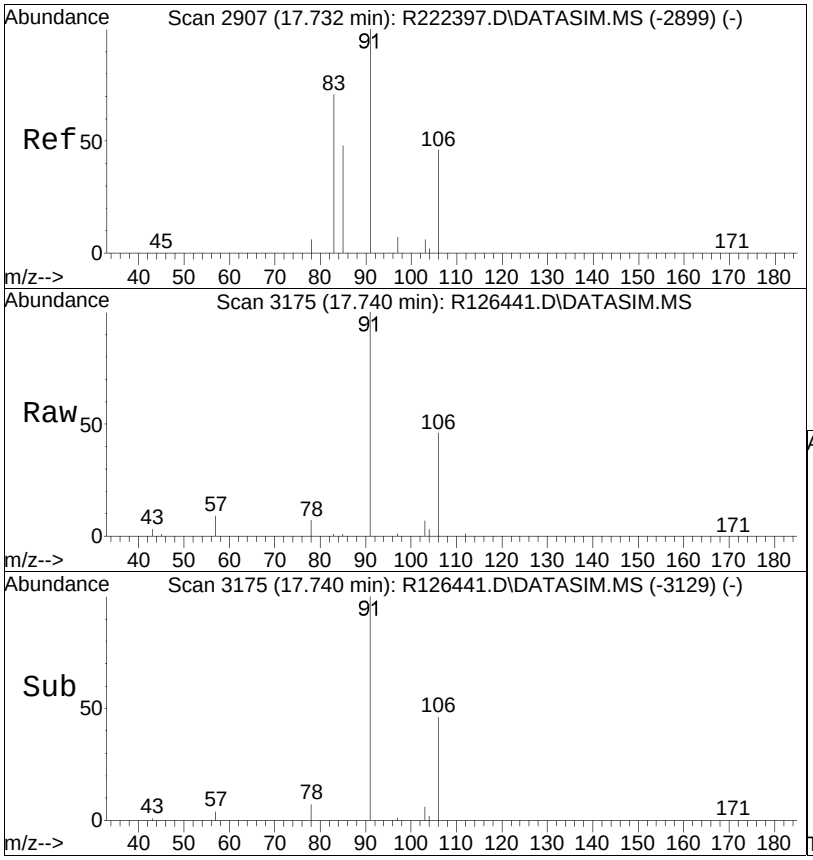



#61
styrene
Concen: 0.09 ppbV
RT: 17.66 min Scan# 3156
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:104 Resp: 4535

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 47.4 | 37.5 | 56.3 |
| 78 | 46.1 | 33.5 | 50.3 |

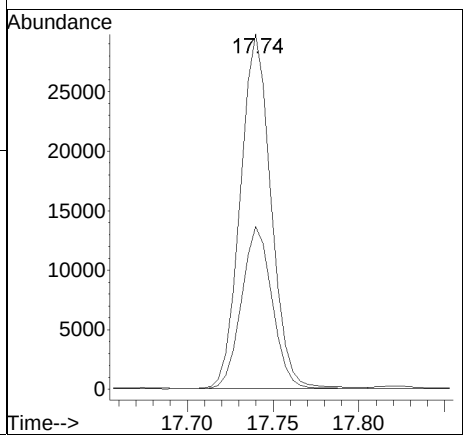


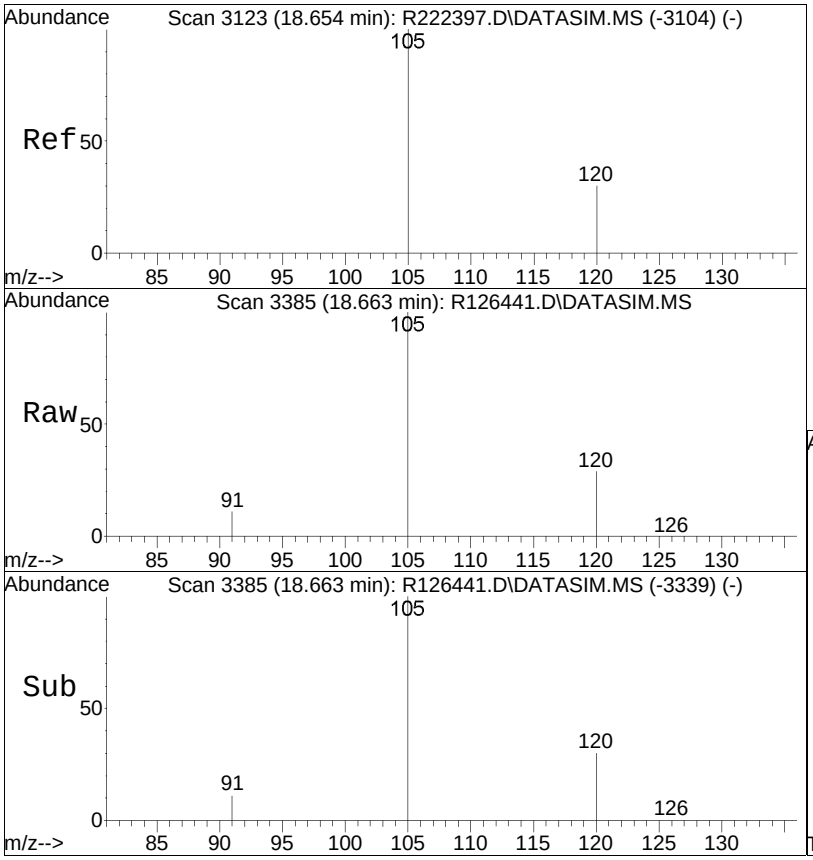



#63
o-xylene
Concen: 0.54 ppbV
RT: 17.74 min Scan# 3175
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 91 Resp: 37019

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.8 | 37.1 | 55.7 |

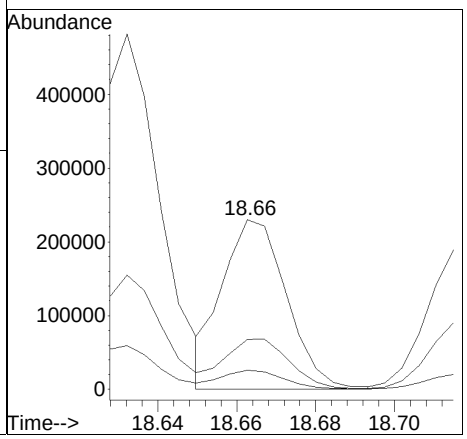


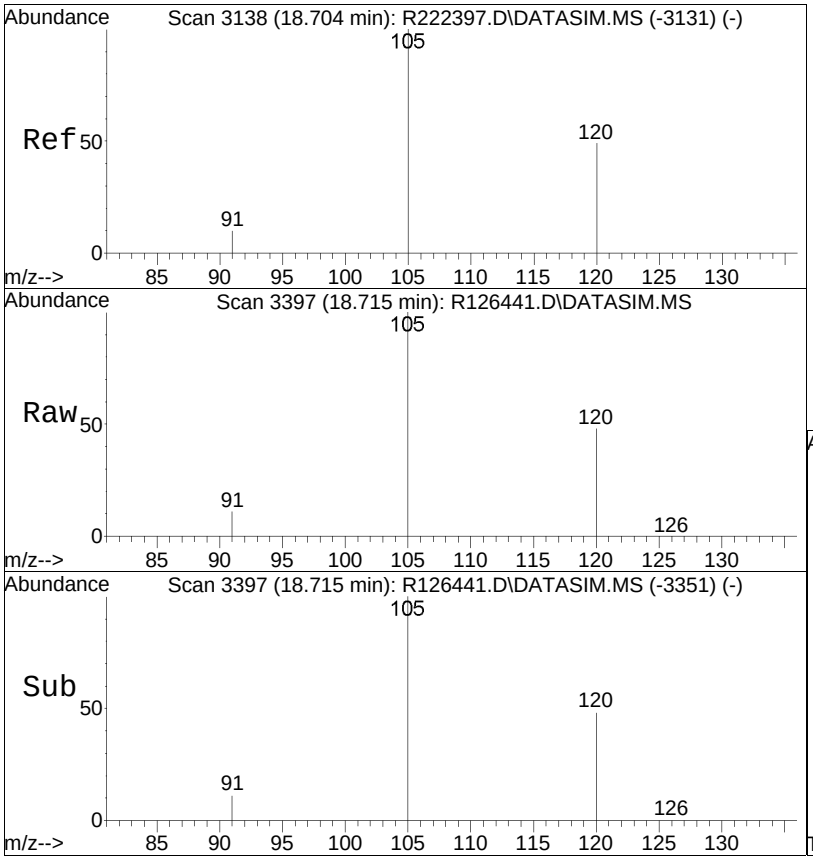



#66
4-ethyl toluene
Concen: 2.66 ppbV
RT: 18.66 min Scan# 3385
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:105 Resp: 260535

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 29.4 | 23.4 | 35.2 |
| 91 | 11.3 | 9.0 | 13.6 |

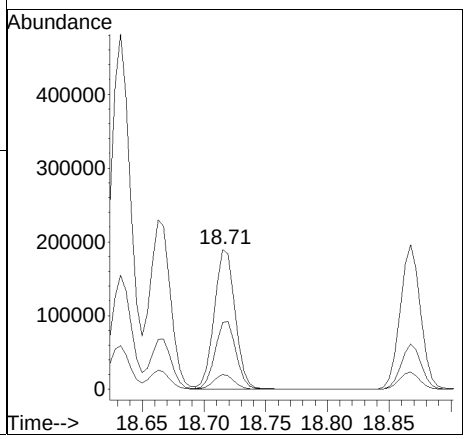


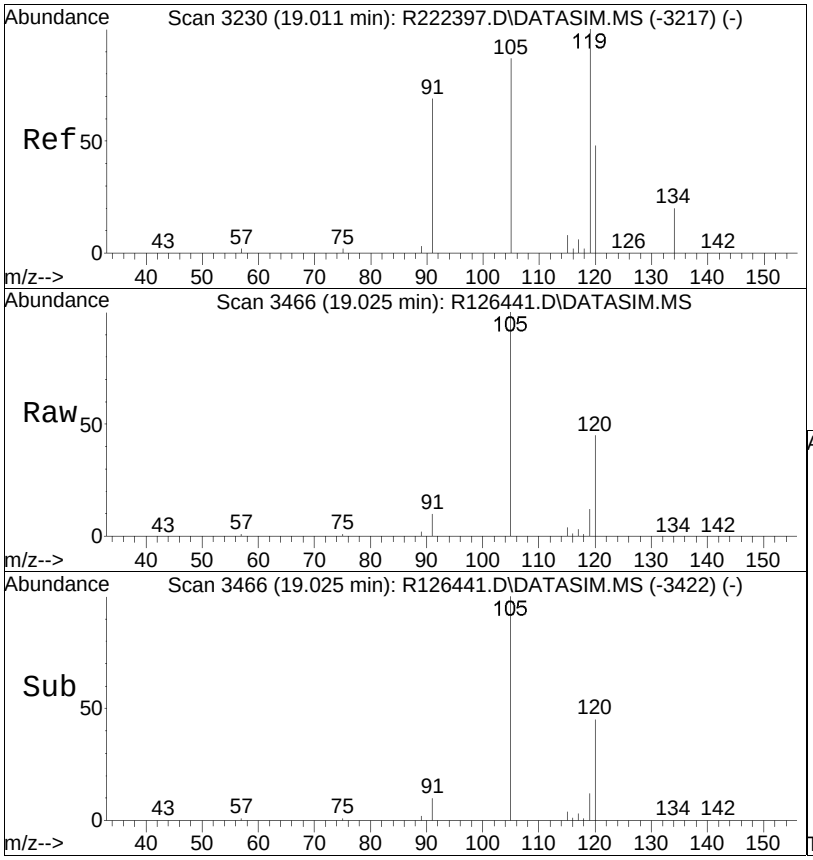



#67
1,3,5-trimethylbenzene
Concen: 2.74 ppbV
RT: 18.71 min Scan# 3397
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:105 Resp: 223484

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.8 | 38.1 | 57.1 |
| 91 | 10.7 | 8.5 | 12.7 |

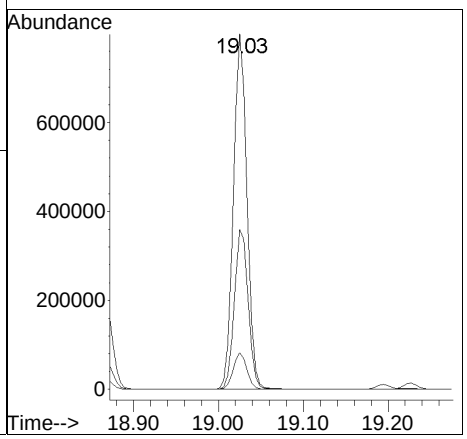


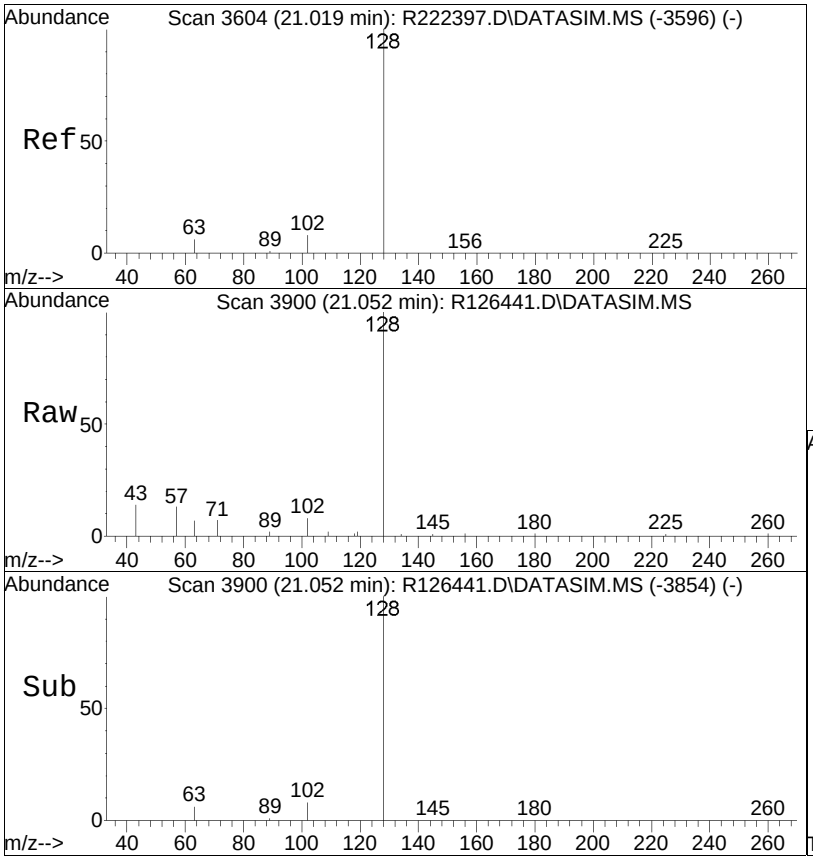



#69
1,2,4-trimethylbenzene
Concen: 11.08 ppbV
RT: 19.03 min Scan# 3466
Delta R.T. -0.001 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:105 Resp: 886620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.9 | 43.6 | 65.4 |
| 91 | 10.4 | 62.0 | 93.0# |

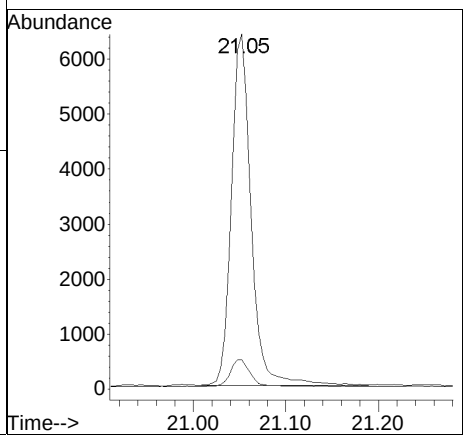





#78
naphthalene
Concen: 0.07 ppbV m
RT: 21.05 min Scan# 3900
Delta R.T. 0.008 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:128 Resp: 9539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 8.4 | 6.4 | 9.6 |

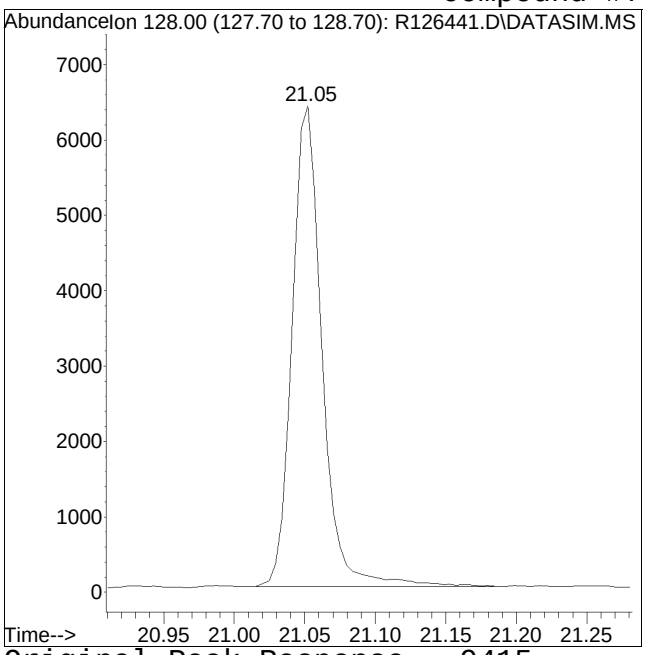


Manual Integration/Negative Proof Report

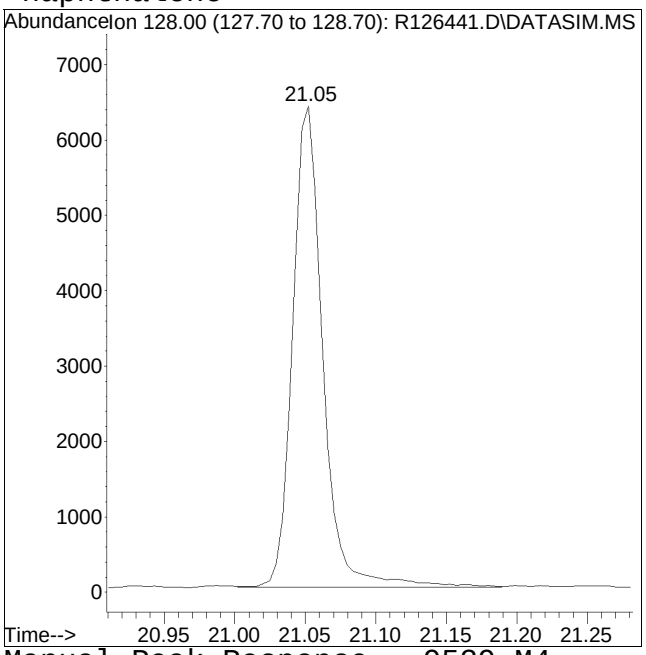
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #78: naphthalene




Original Peak Response = 9415




Manual Peak Response = 9539 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 11 22:24:30 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 254267 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery | = | 69.72% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 639423 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery | = | 84.62% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 158519 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery | = | 85.28% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 21845 | 0.583 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 12053M6 | 0.657 | ppbV | |
| 5) Freon-114 | 4.55 | 85 | 720 | 0.017 | ppbV # | 91 |
| 6) vinyl chloride | 4.71 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 148 | 0.012 | ppbV # | 74 |
| 8) bromomethane | 5.30 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 12617 | 0.283 | ppbV | 99 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 17) methylene chloride | 7.64 | 49 | 28771M4 | 1.162 | ppbV | |
| 20) Freon 113 | 7.99 | 101 | 2542 | 0.082 | ppbV | 93 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 0.00 | | 0 | N.D. | d | |
| 24) MTBE | 9.18 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 9.97 | | 0 | N.D. | | |
| 29) chloroform | 10.43 | 83 | 2530 | 0.078 | ppbV | 97 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 964 | 0.038 | ppbV # | 86 |
| 35) 1,1,1-trichloroethane | 11.56 | | 0 | N.D. | | |
| 36) benzene | 12.09 | 78 | 7970 | 0.152 | ppbV | 96 |
| 37) carbon tetrachloride | 12.25 | 117 | 3455 | 0.090 | ppbV | 96 |
| 39) 1,2-dichloropropane | 13.02 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | | 0 | N.D. | | |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.25 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.86 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.04 | | 0 | N.D. | | |
| 50) toluene | 15.31 | 91 | 14682M4 | 0.229 | ppbV | |
| 53) dibromochloromethane | 15.72 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.37 | 166 | 605 | 0.019 | ppbV | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 11 22:24:30 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

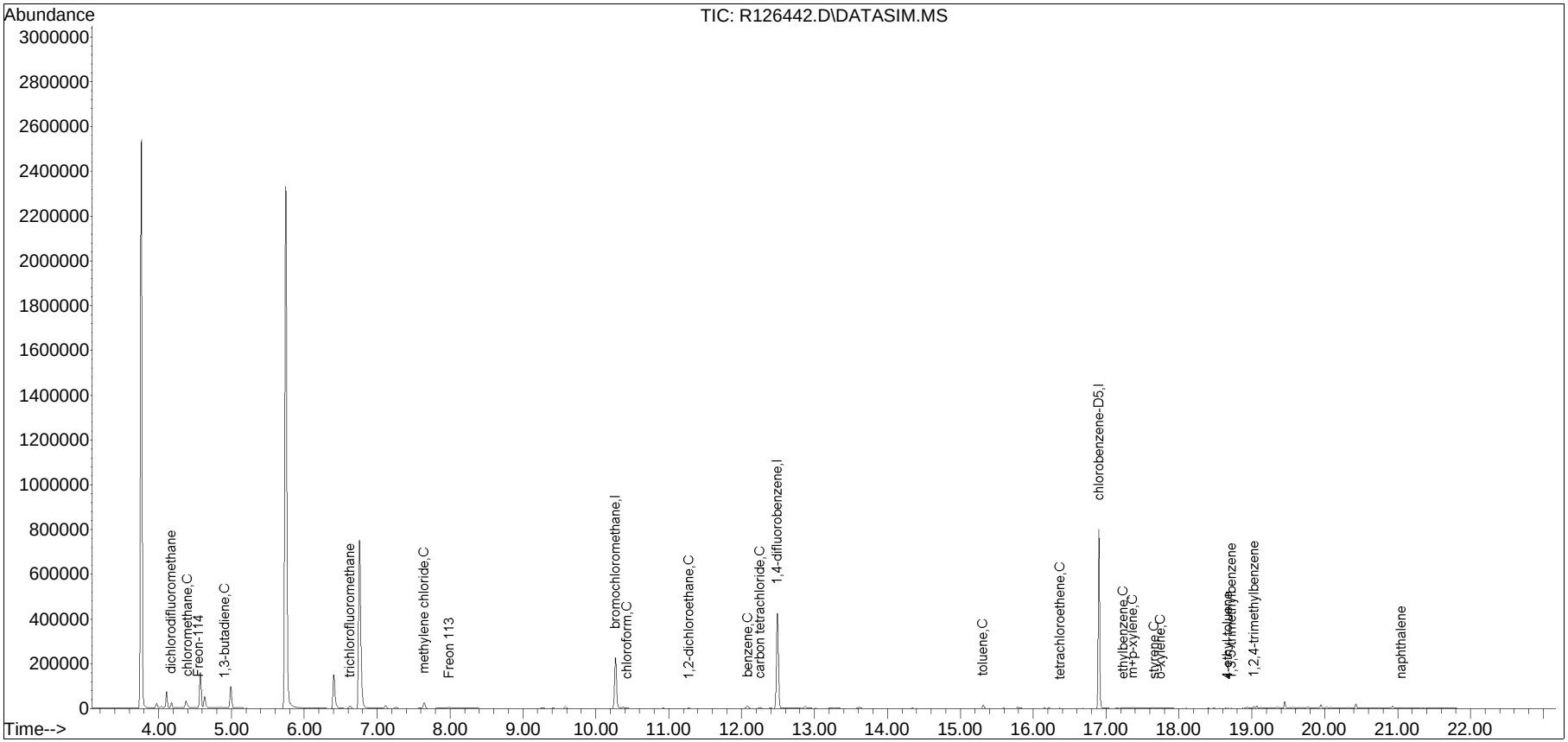
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 16.91 | | 0 | N.D. | | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | | |
| 58) ethylbenzene | 17.23 | 91 | 2262 | 0.027 | ppbV | 94 |
| 59) m+p-xylene | 17.37 | 91 | 4000 | 0.062 | ppbV | 100 |
| 60) bromoform | 17.46 | | 0 | N.D. | | |
| 61) styrene | 17.66 | 104 | 1200 | 0.024 | ppbV | 89 |
| 62) 1,1,2,2-tetrachloroethane | 17.64 | | 0 | N.D. | | |
| 63) o-xylene | 17.74 | 91 | 1757 | 0.026 | ppbV | 98 |
| 66) 4-ethyl toluene | 18.67 | 105 | 1163 | 0.012 | ppbV # | 88 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 1299 | 0.016 | ppbV # | 92 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 5215 | 0.067 | ppbV # | 52 |
| 71) 1,3-dichlorobenzene | 19.16 | | 0 | N.D. | | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | N.D. | | |
| 78) naphthalene | 21.05 | 128 | 2164 | 0.017 | ppbV # | 91 |
| 80) hexachlorobutadiene | 21.36 | | 0 | N.D. | | |

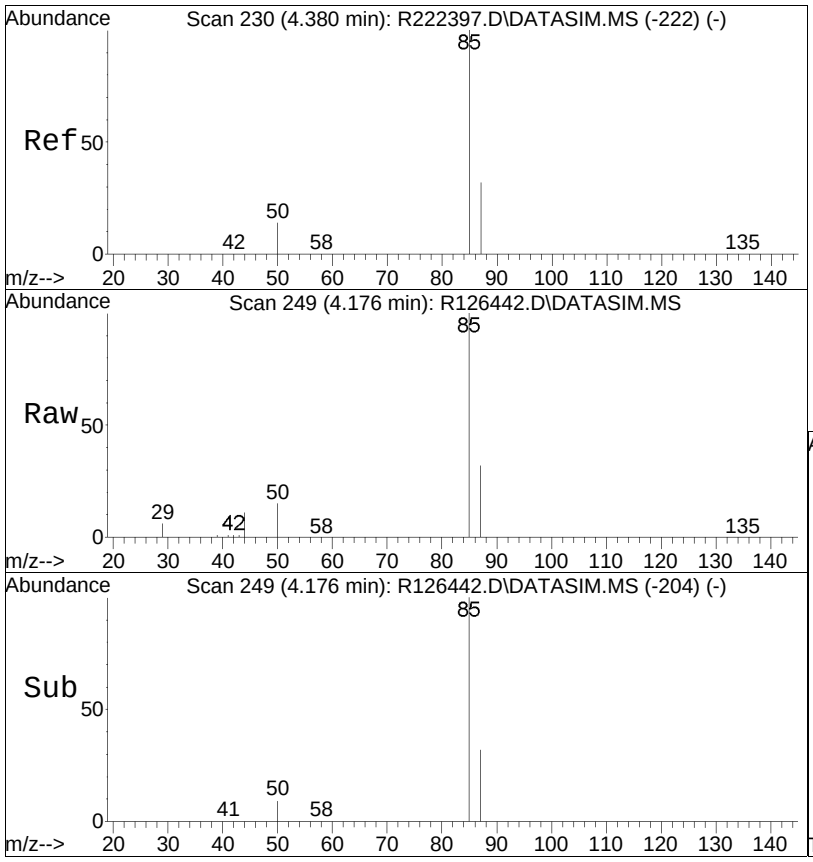
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 11 22:24:30 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

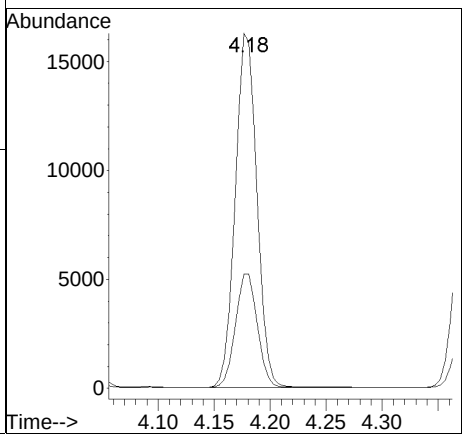


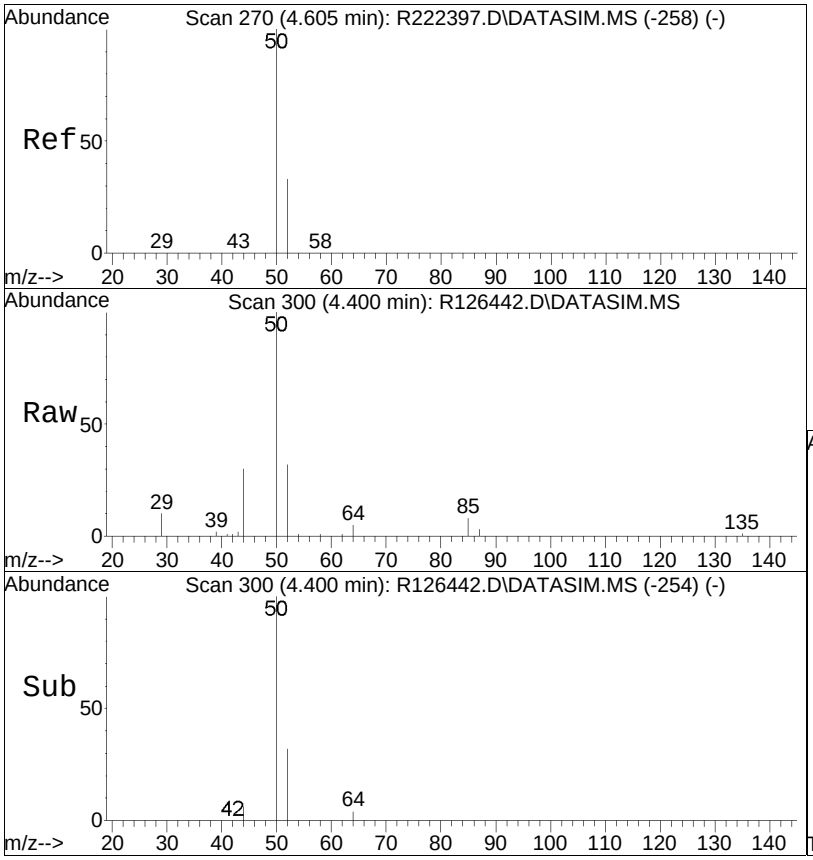



#3
dichlorodifluoromethane
Concen: 0.58 ppbV
RT: 4.18 min Scan# 249
Delta R.T. -0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 85 Resp: 21845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.2 | 25.9 | 38.9 |

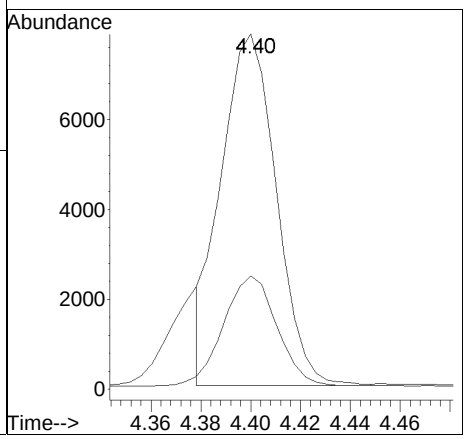


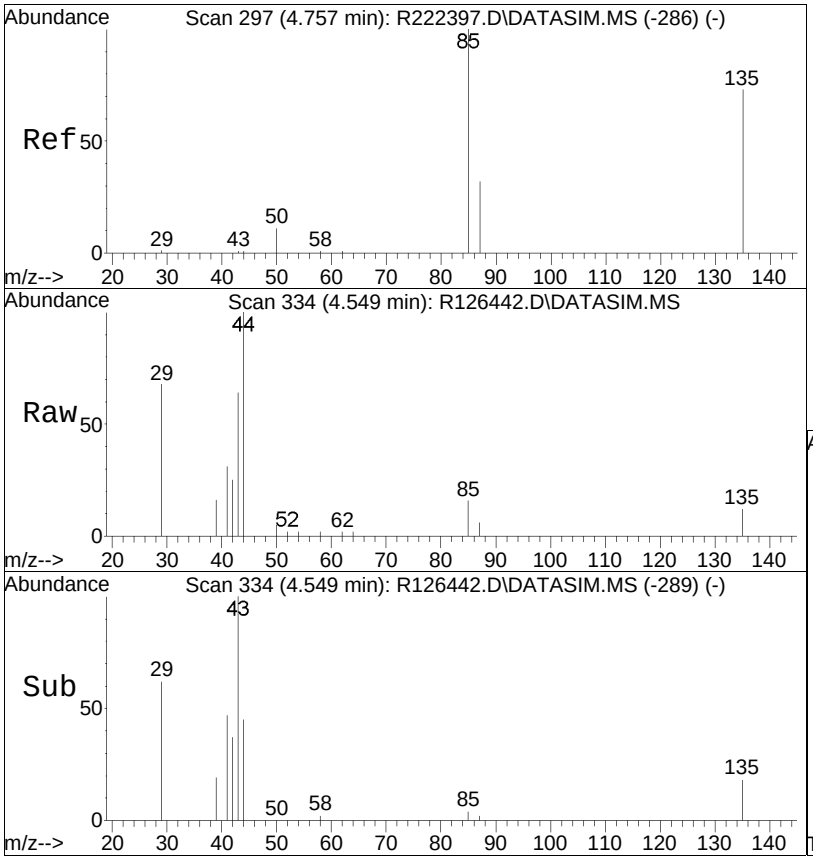



#4
chloromethane
Concen: 0.66 ppbV m
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 50 Resp: 12053

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.0 | 25.8 | 38.6 |

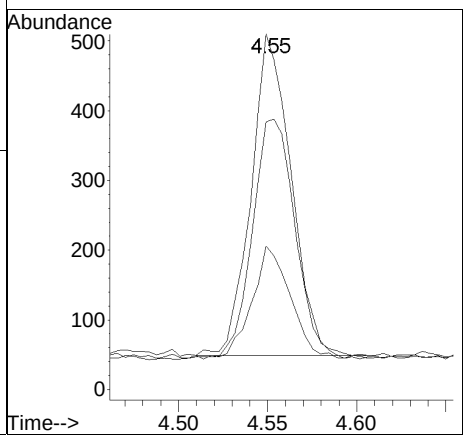


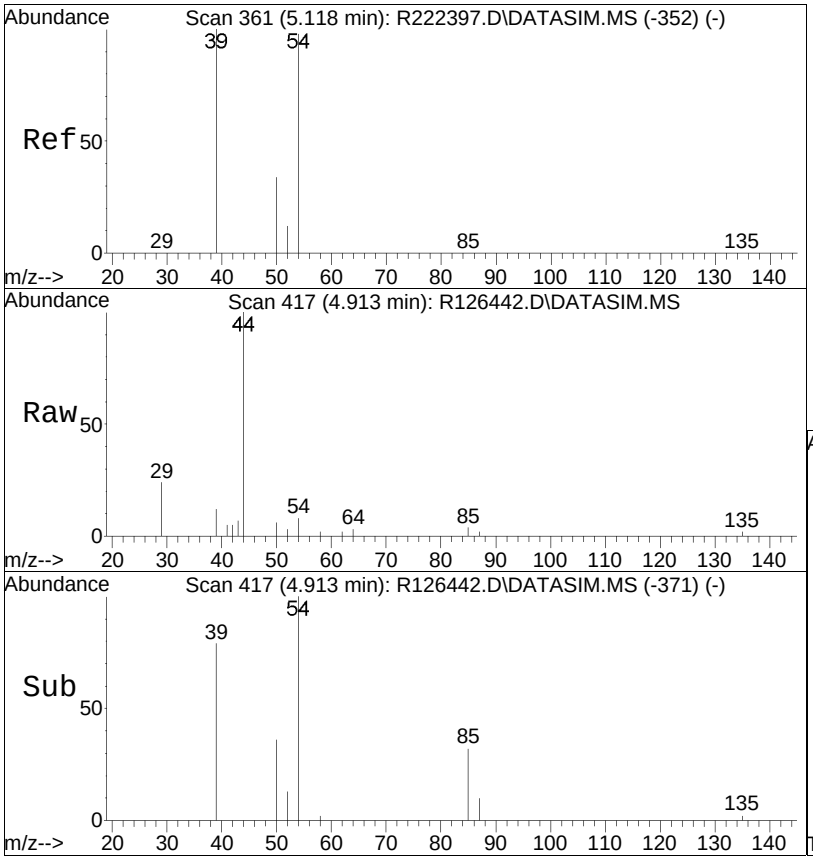



#5
Freon-114
Concen: 0.02 ppbV
RT: 4.55 min Scan# 334
Delta R.T. -0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 85 Resp: 720

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 40.4 | 25.7 | 38.5# |
| 135 | 75.3 | 55.7 | 83.5 |

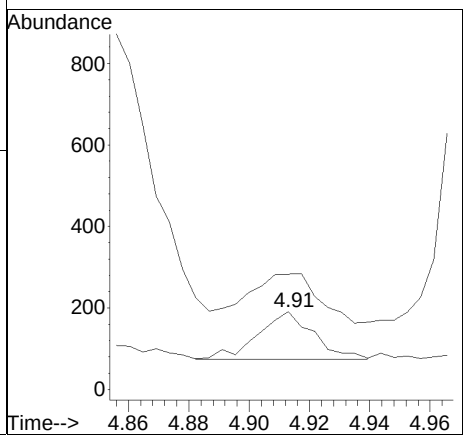


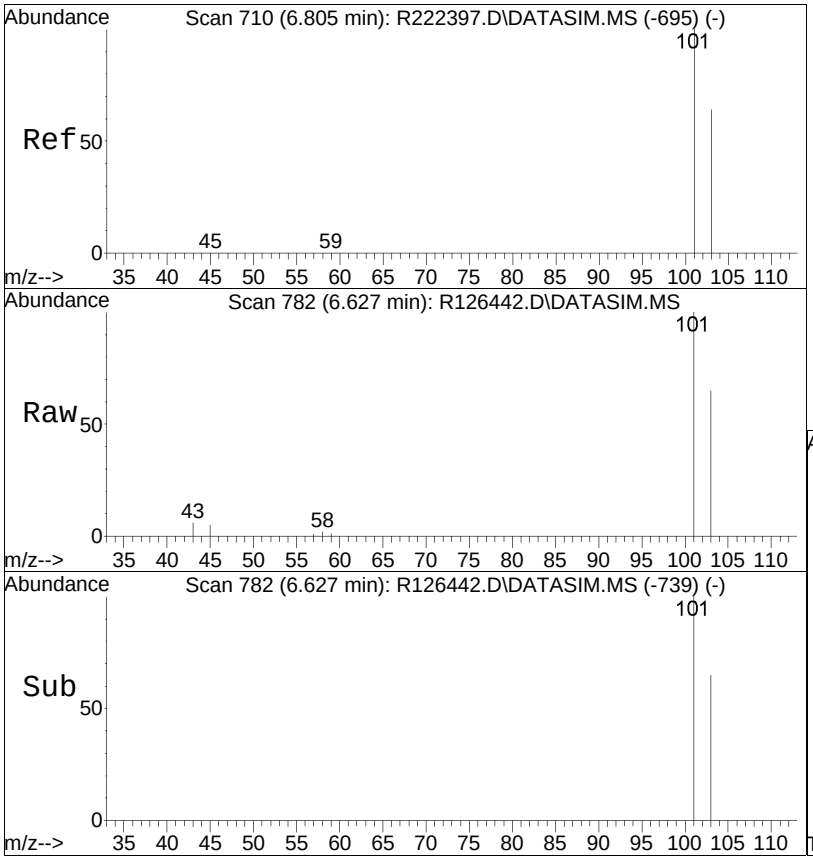



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 417
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 54 Resp: 148

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 148.2 | 95.5 | 143.3# |

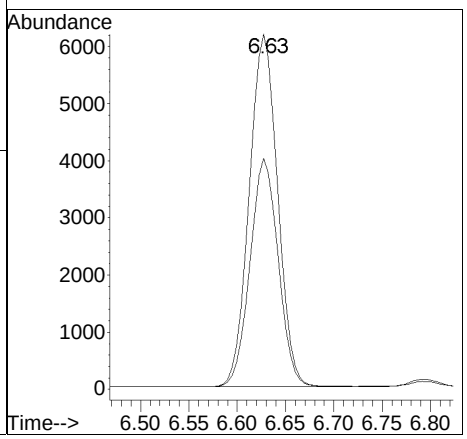


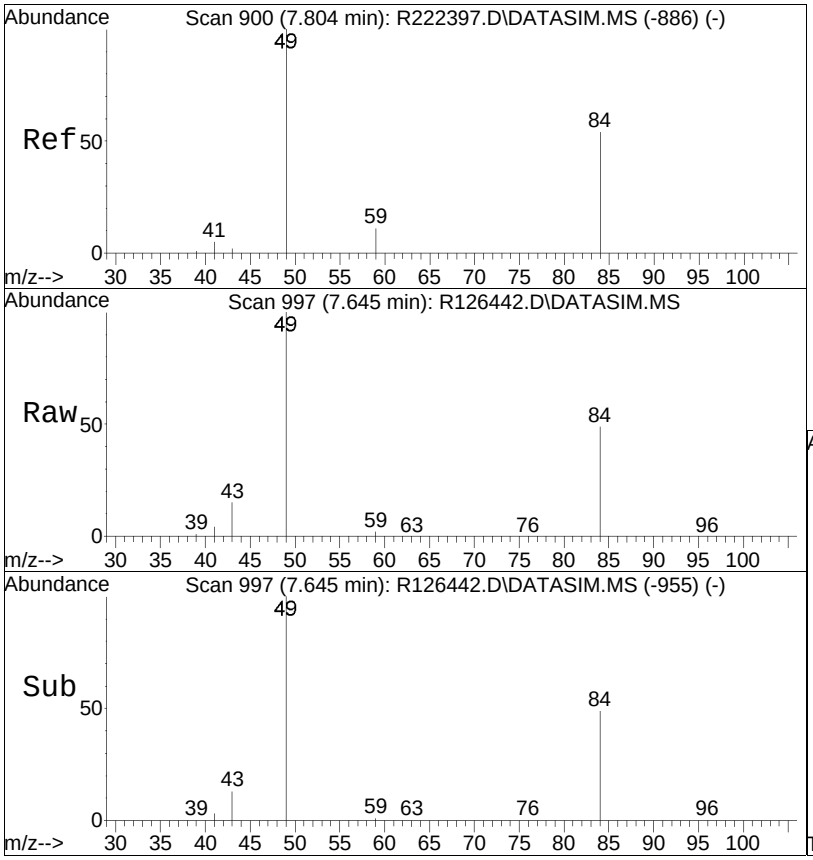



#13
trichlorofluoromethane
Concen: 0.28 ppbV
RT: 6.63 min Scan# 782
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:101 Resp: 12617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 65.1 | 51.4 | 77.2 |

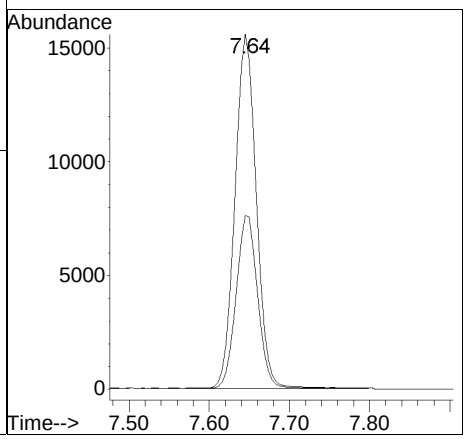


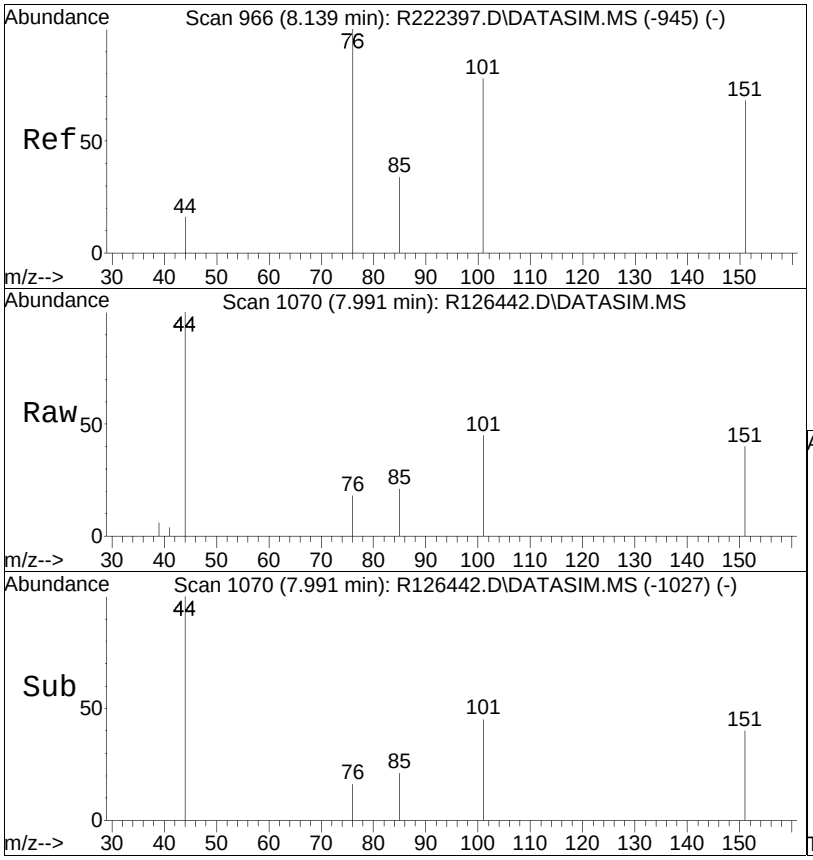



#17
methylene chloride
Concen: 1.16 ppbV m
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 49 Resp: 28771

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.9 | 40.0 | 60.0 |

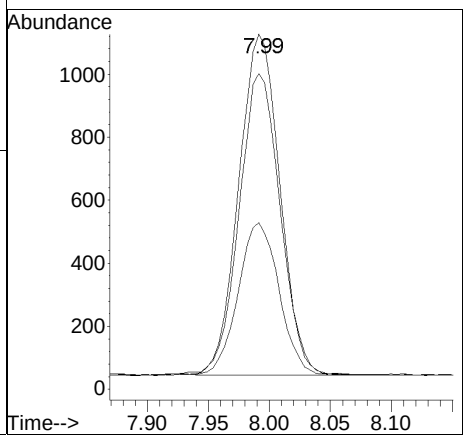


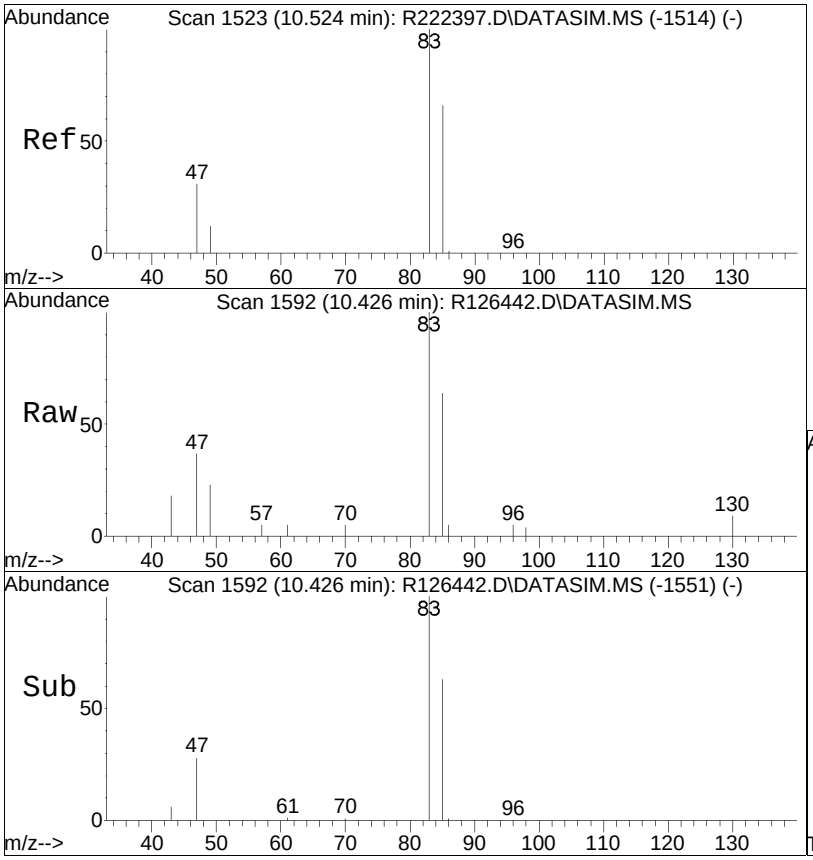



#20
Freon 113
Concen: 0.08 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:101 Resp: 2542

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 46.9 | 34.6 | 51.8 |
| 151 | 88.9 | 66.0 | 99.0 |

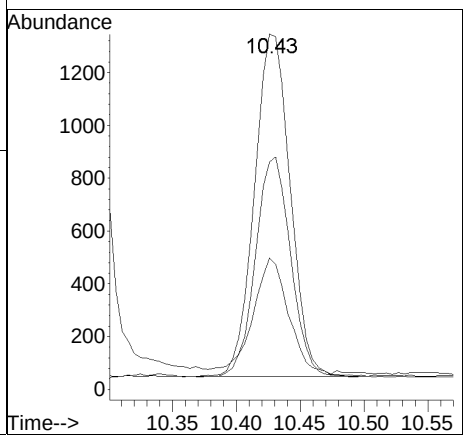


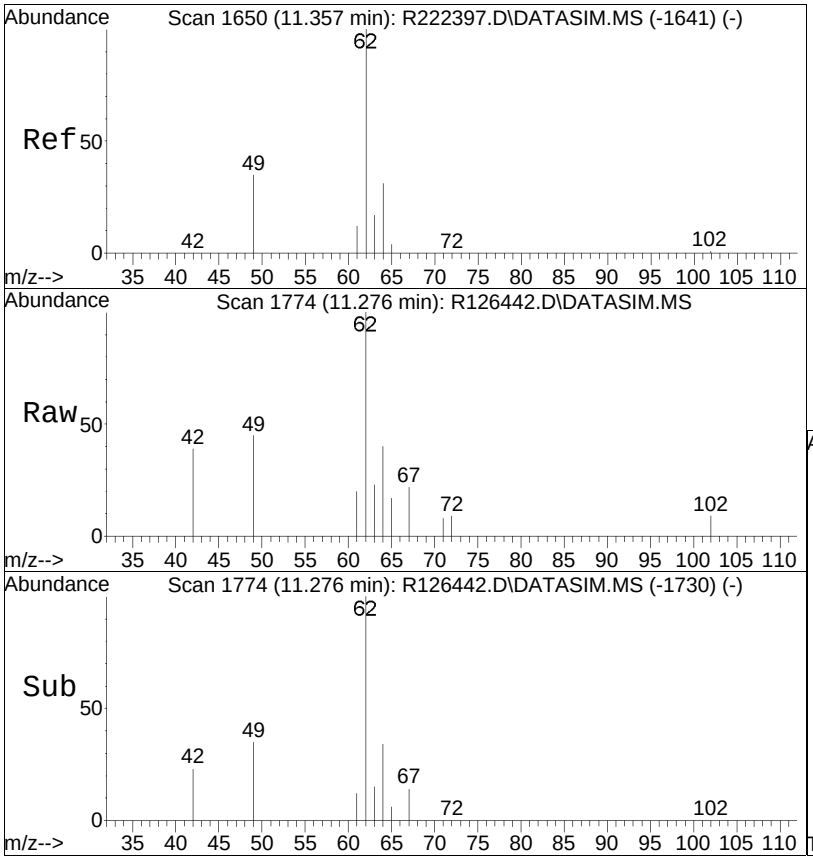



#29
chloroform
Concen: 0.08 ppbV
RT: 10.43 min Scan# 1592
Delta R.T. -0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 83 Resp: 2530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.0 | 52.2 | 78.2 |
| 47 | 37.0 | 27.0 | 40.6 |

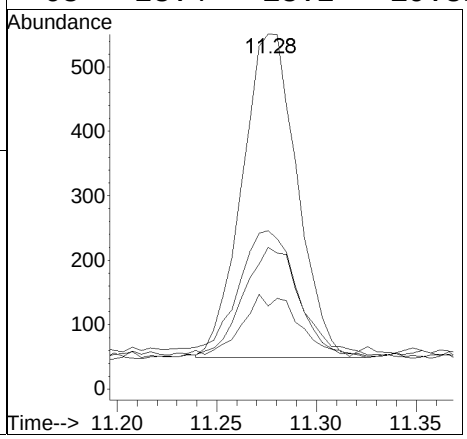


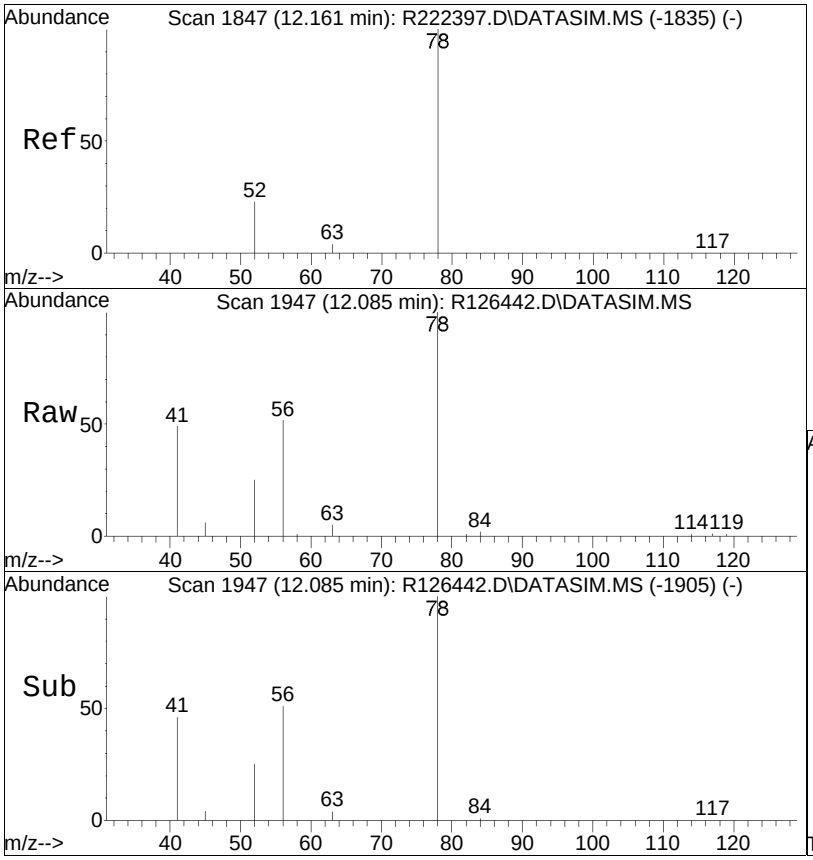



#31
1,2-dichloroethane
Concen: 0.04 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 62 Resp: 964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 39.9 | 25.3 | 37.9# |
| 49 | 44.6 | 30.2 | 45.2 |
| 63 | 23.4 | 13.2 | 19.8# |

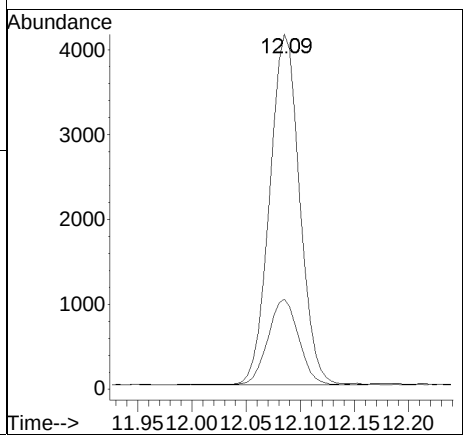


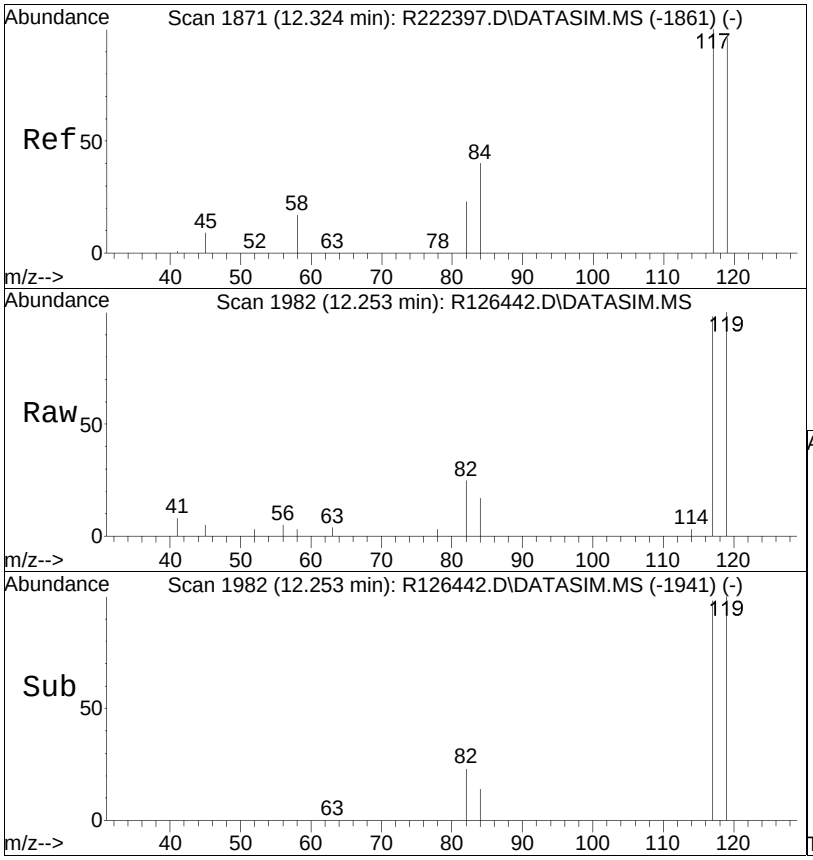



#36
benzene
Concen: 0.15 ppbV
RT: 12.09 min Scan# 1947
Delta R.T. 0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 78 Resp: 7970

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 25.4 | 18.6 | 28.0 |

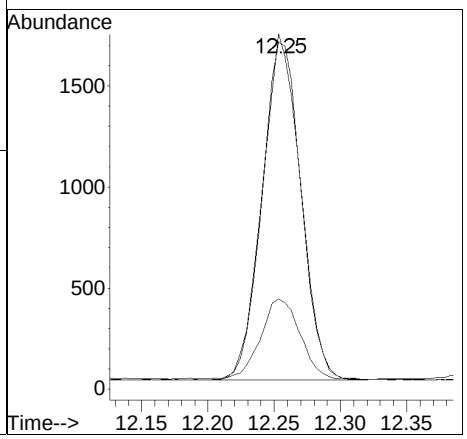


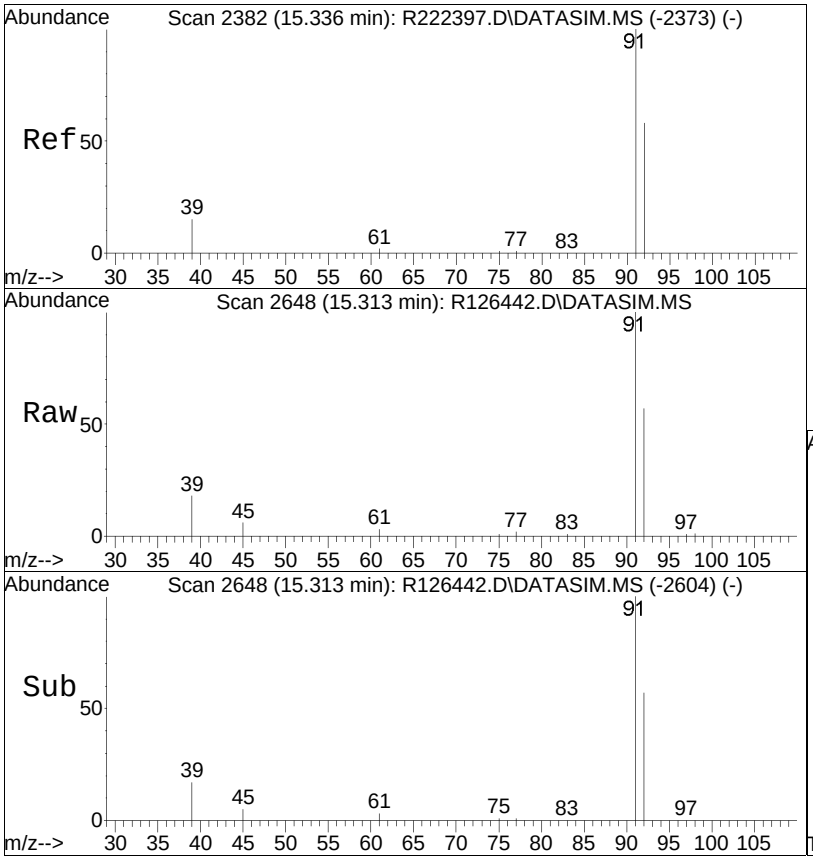



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.25 min Scan# 1982
Delta R.T. -0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:117 Resp: 3455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 102.3 | 78.7 | 118.1 |
| 82 | 26.0 | 18.9 | 28.3 |

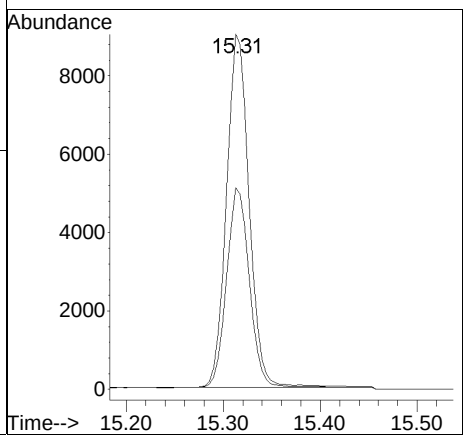


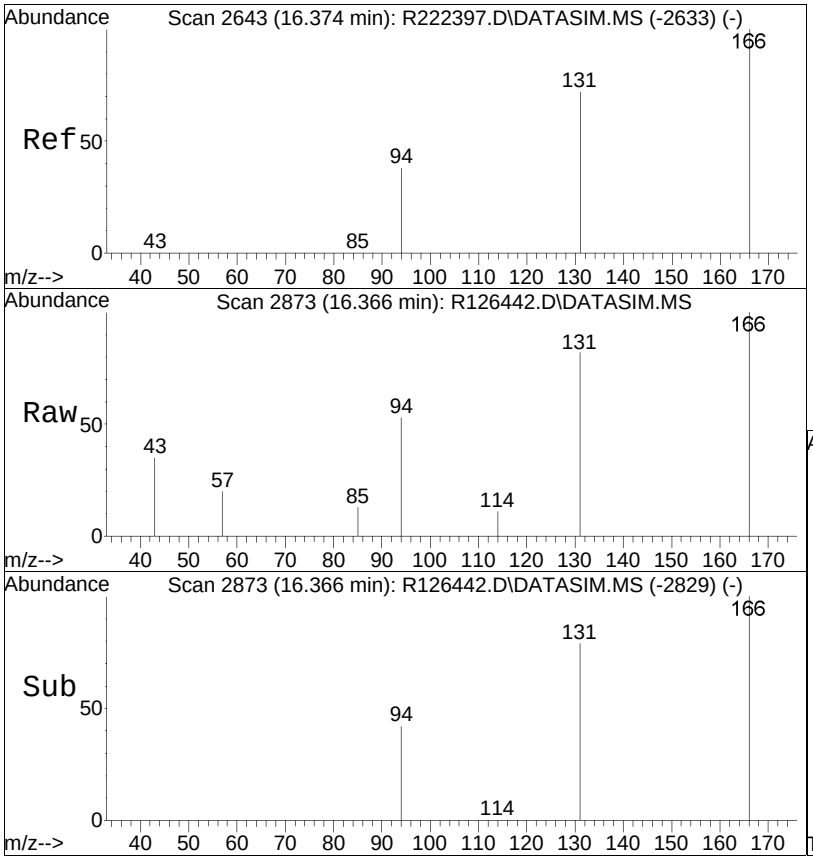



#50
toluene
Concen: 0.23 ppbV m
RT: 15.31 min Scan# 2648
Delta R.T. -0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 91 Resp: 14682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 56.8 | 46.3 | 69.5 |

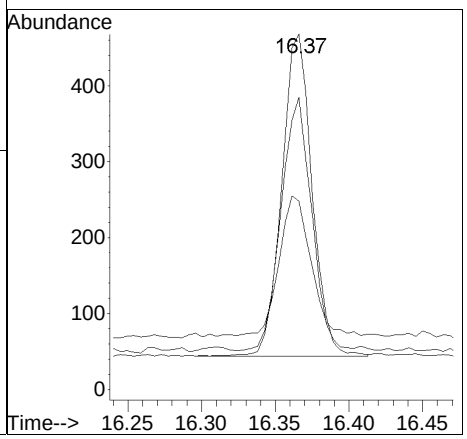


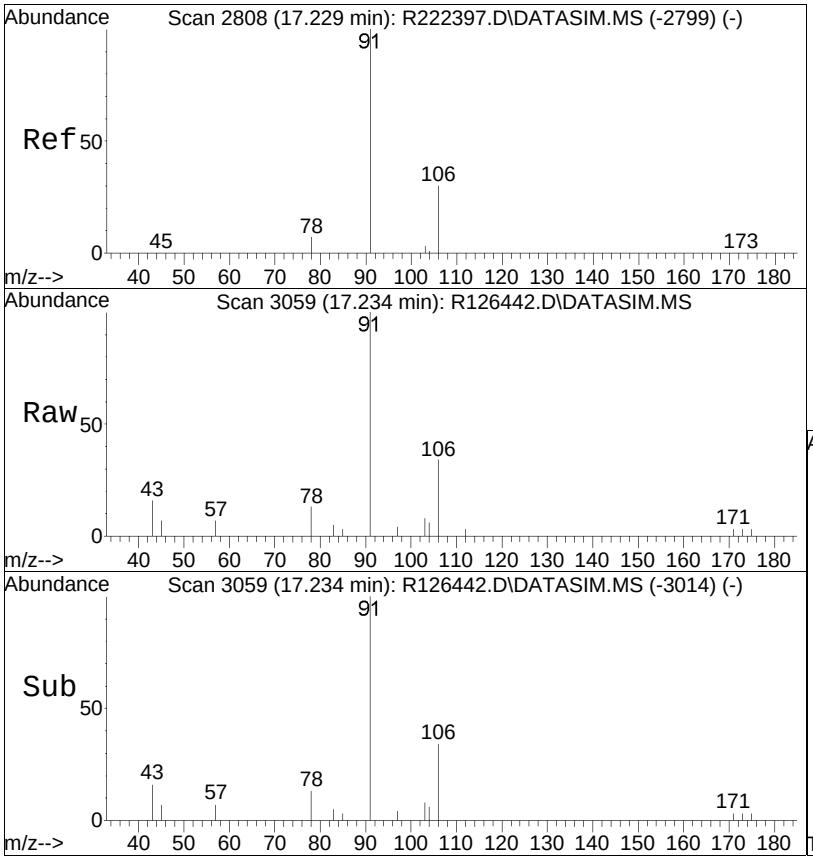



#55
tetrachloroethene
Concen: 0.02 ppbV
RT: 16.37 min Scan# 2873
Delta R.T. 0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:166 Resp: 605

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 82.3 | 63.1 | 94.7 |
| 94 | 53.0 | 37.2 | 55.8 |

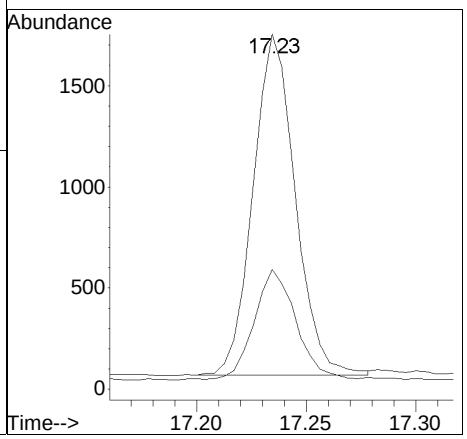


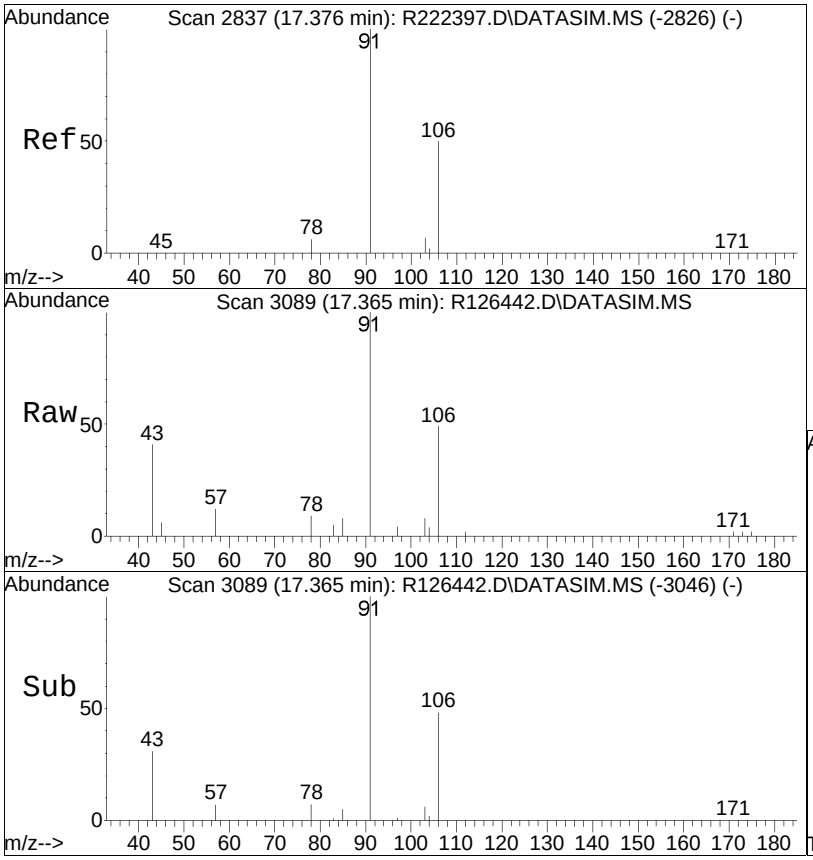



#58
ethylbenzene
Concen: 0.03 ppbV
RT: 17.23 min Scan# 3059
Delta R.T. 0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 91 Resp: 2262

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 33.7 | 24.2 | 36.2 |

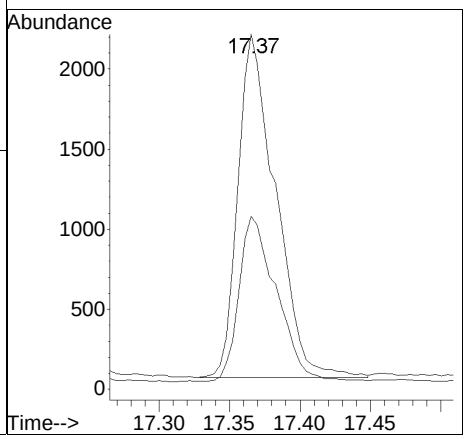


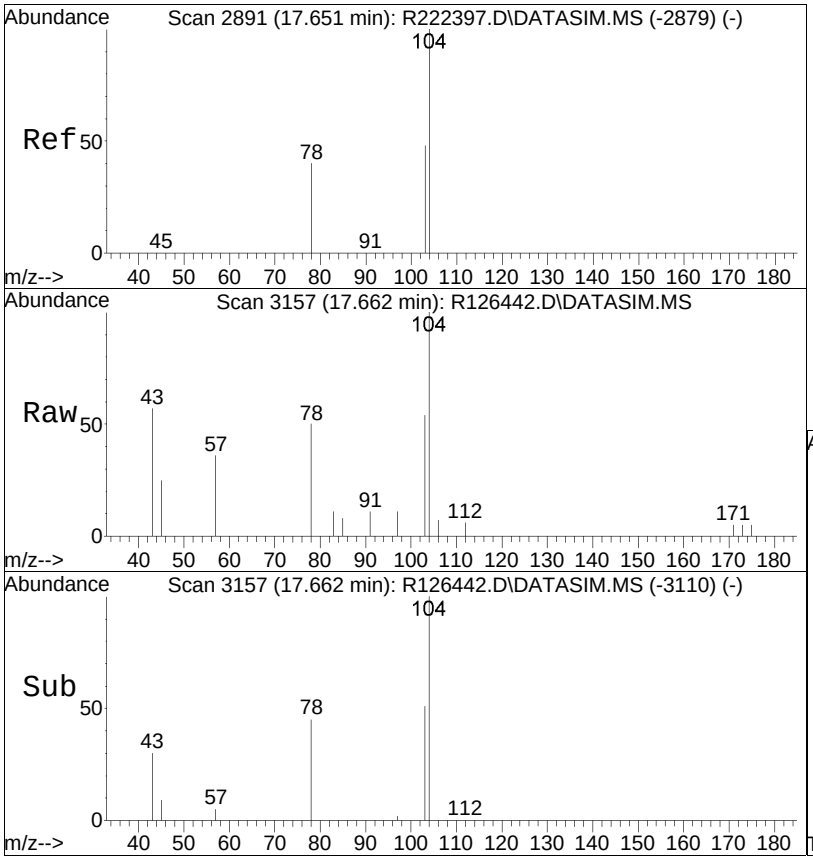



#59
m+p-xylene
Concen: 0.06 ppbV
RT: 17.37 min Scan# 3089
Delta R.T. -0.013 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 91 Resp: 4000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.7 | 39.0 | 58.4 |

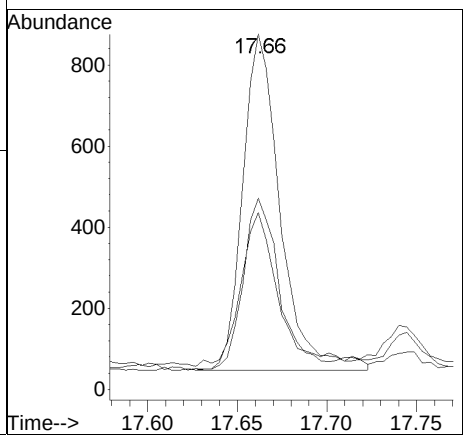


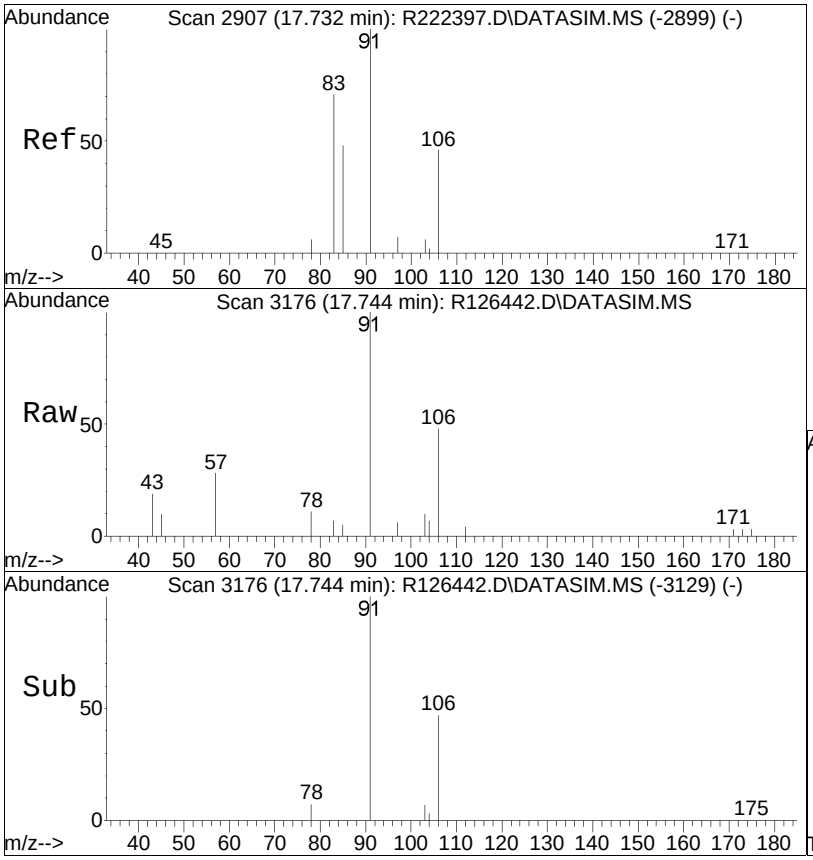



#61
styrene
Concen: 0.02 ppbV
RT: 17.66 min Scan# 3157
Delta R.T. 0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:104 Resp: 1200

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 53.8 | 37.5 | 56.3 |
| 78 | 49.8 | 33.5 | 50.3 |

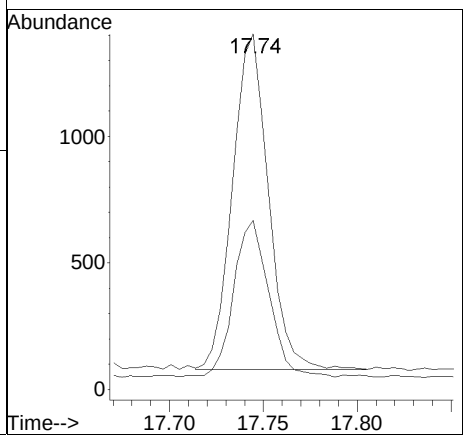


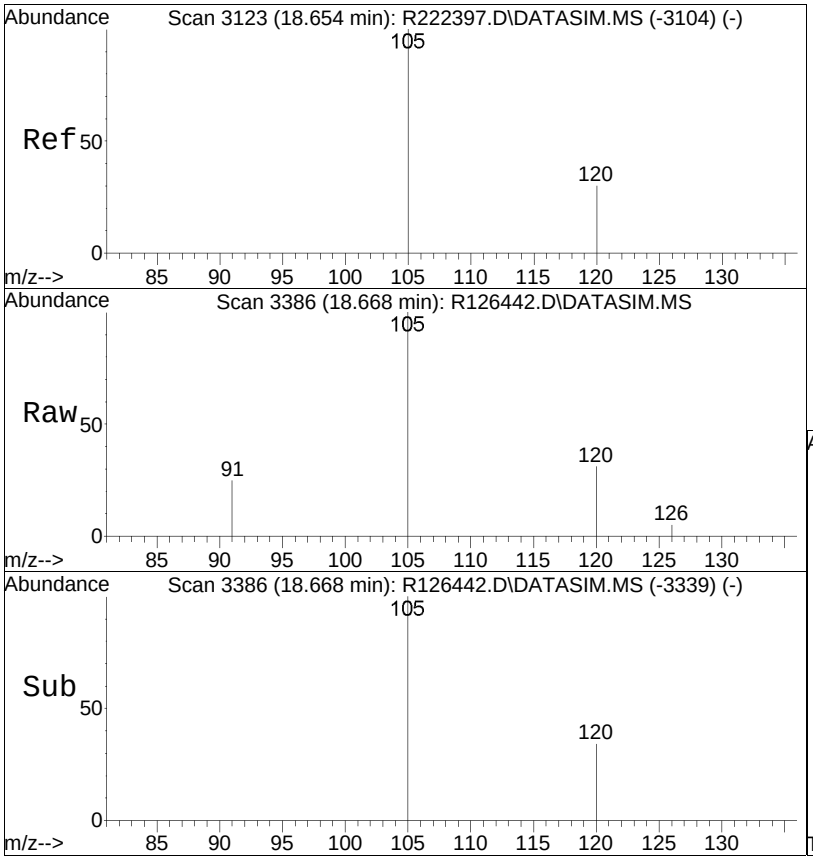



#63
o-xylene
Concen: 0.03 ppbV
RT: 17.74 min Scan# 3176
Delta R.T. 0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 91 Resp: 1757

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.6 | 37.1 | 55.7 |

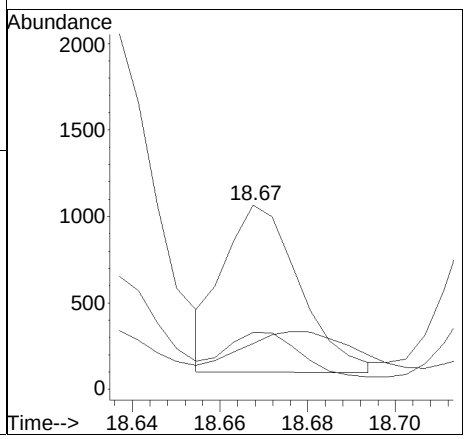


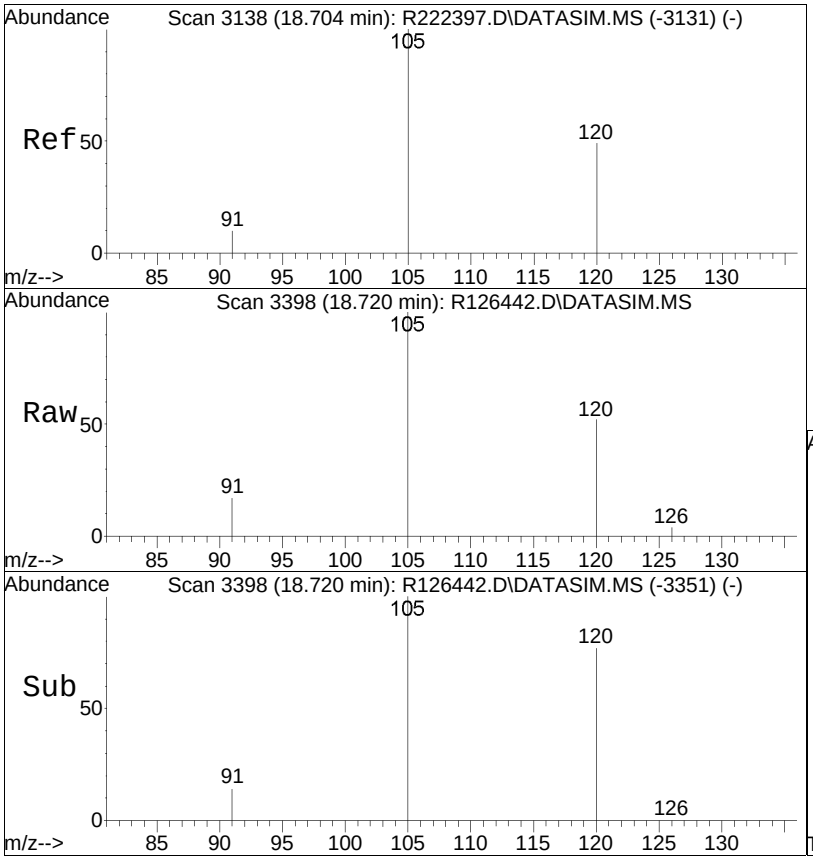



#66
4-ethyl toluene
Concen: 0.01 ppbV
RT: 18.67 min Scan# 3386
Delta R.T. 0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:105 Resp: 1163

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 30.9 | 23.4 | 35.2 |
| 91 | 24.9 | 9.0 | 13.6# |

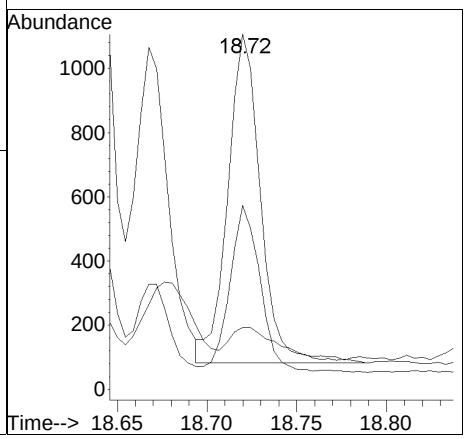


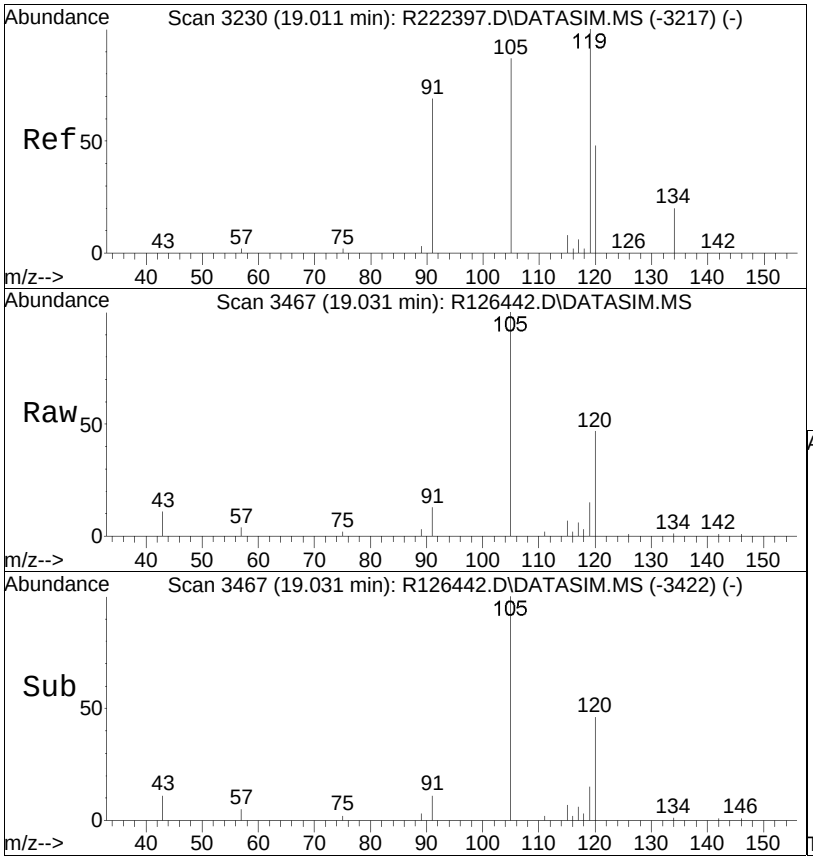



#67
1,3,5-trimethylbenzene
Concen: 0.02 ppbV
RT: 18.72 min Scan# 3398
Delta R.T. 0.004 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:105 Resp: 1299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 51.8 | 38.1 | 57.1 |
| 91 | 17.4 | 8.5 | 12.7# |

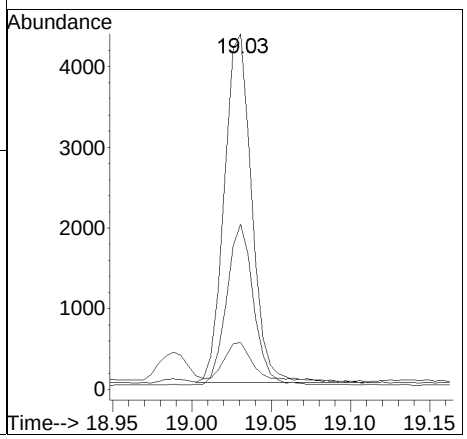


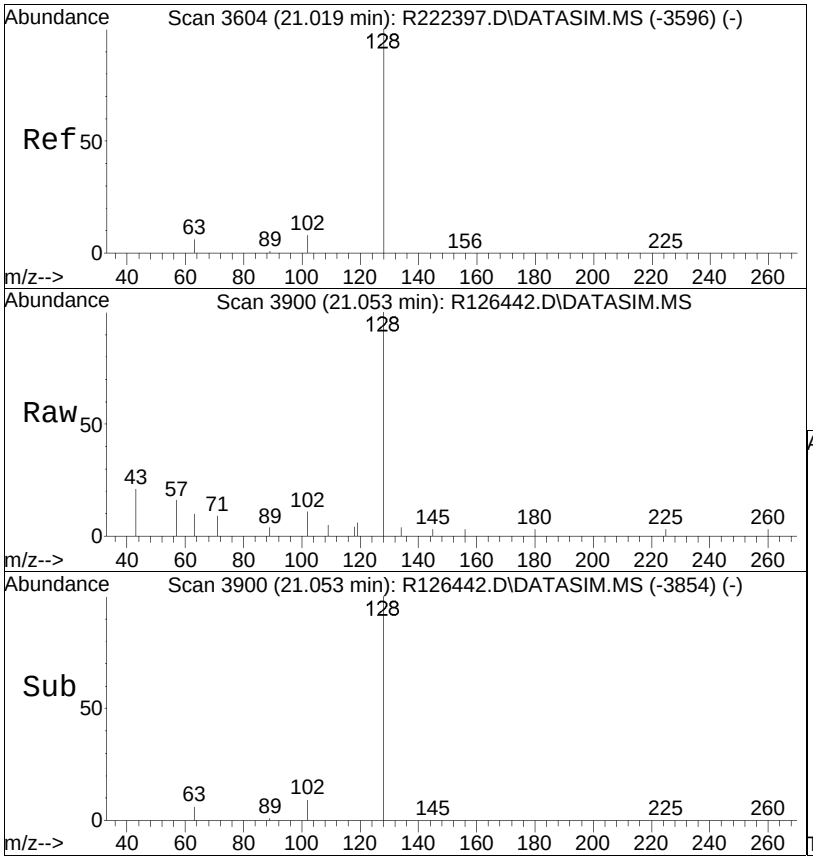



#69
1,2,4-trimethylbenzene
Concen: 0.07 ppbV
RT: 19.03 min Scan# 3467
Delta R.T. 0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:105 Resp: 5215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.5 | 43.6 | 65.4 |
| 91 | 13.2 | 62.0 | 93.0# |

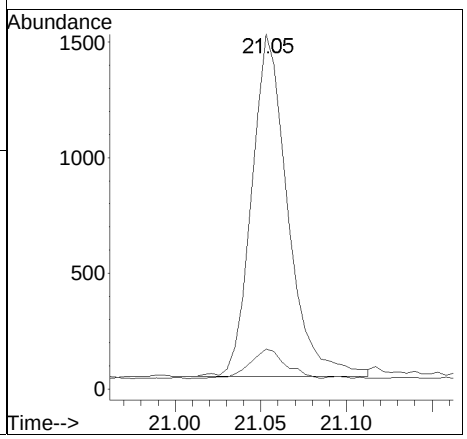





#78
naphthalene
Concen: 0.02 ppbV
RT: 21.05 min Scan# 3900
Delta R.T. 0.009 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion:128 Resp: 2164

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 11.4 | 6.4 | 9.6# |

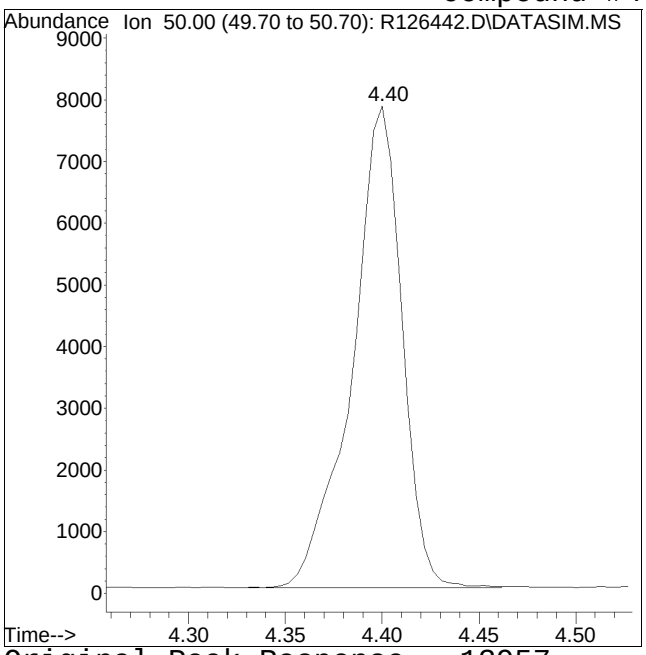


Manual Integration/Negative Proof Report

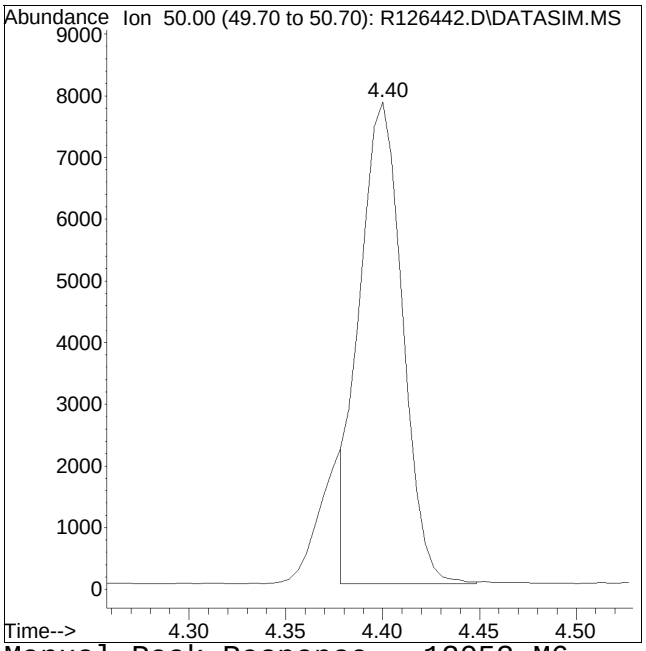
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #4: chloromethane




Original Peak Response = 13957




Manual Peak Response = 12053 M6

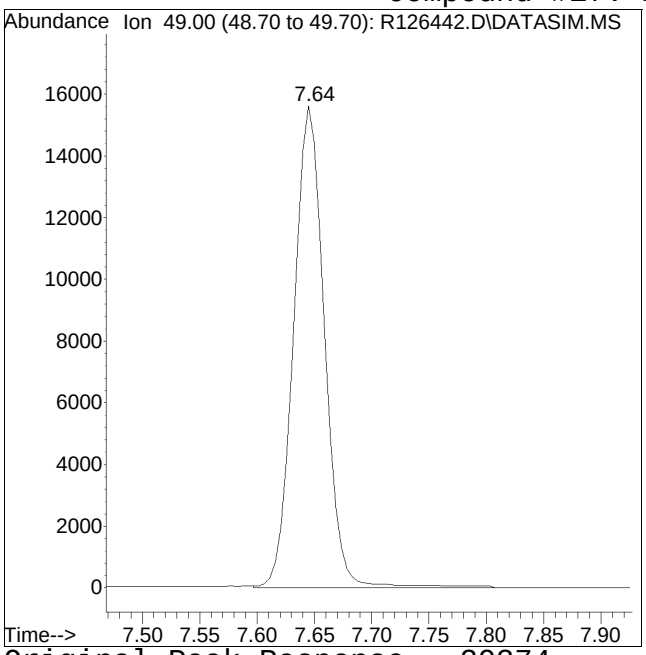
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

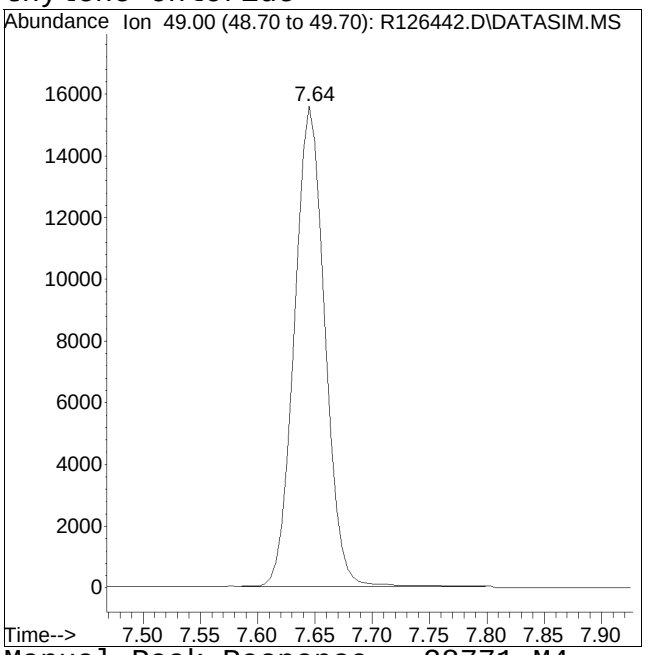
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #17: methylene chloride




Original Peak Response = 29374




Manual Peak Response = 28771 M4

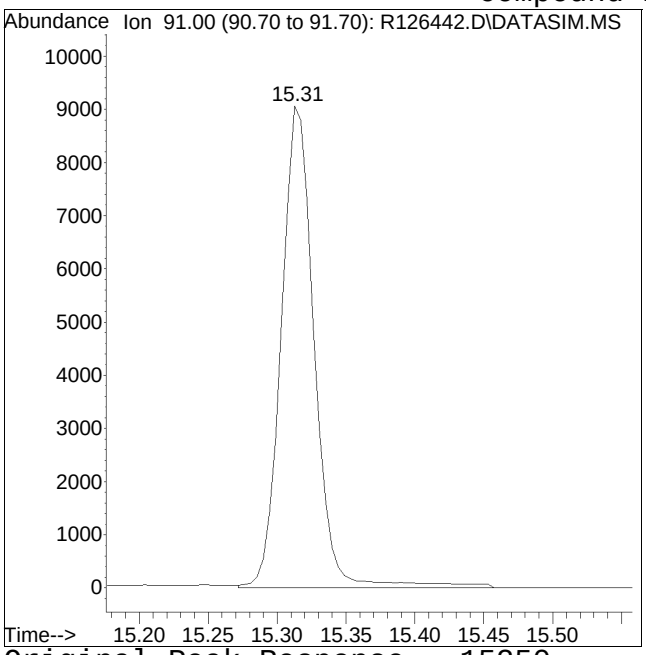
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

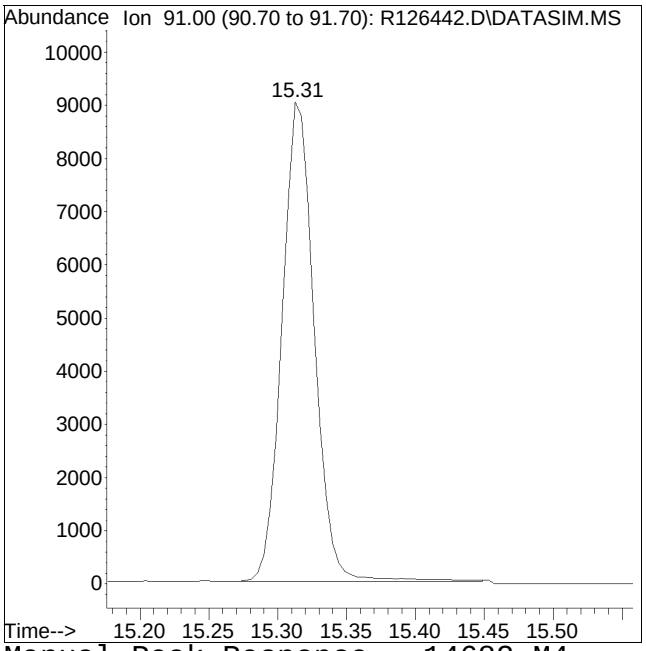
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #50: toluene




Original Peak Response = 15250




Manual Peak Response = 14682 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 11 22:26:24 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 322631 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = | | 88.47% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 637029 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = | | 84.30% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 152584 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = | | 82.09% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 21594 | 0.454 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 11283 | 0.485 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 878 | 0.017 | ppbV | 93 |
| 6) vinyl chloride | 4.70 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 170 | 0.011 | ppbV # | 60 |
| 8) bromomethane | 5.30 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 13221 | 0.233 | ppbV | 99 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 643 | 0.018 | ppbV # | 86 |
| 17) methylene chloride | 7.64 | 49 | 40690 | 1.295 | ppbV | 98 |
| 20) Freon 113 | 7.99 | 101 | 3073 | 0.078 | ppbV | 98 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 8.96 | | 0 | N.D. | | |
| 24) MTBE | 9.19 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 29) chloroform | 10.43 | 83 | 3537 | 0.085 | ppbV | 97 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 766 | 0.024 | ppbV # | 87 |
| 35) 1,1,1-trichloroethane | 11.56 | | 0 | N.D. | | |
| 36) benzene | 12.08 | 78 | 7963 | 0.152 | ppbV | 95 |
| 37) carbon tetrachloride | 12.26 | 117 | 3409 | 0.090 | ppbV | 96 |
| 39) 1,2-dichloropropane | 13.02 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | 83 | 586M4 | 0.014 | ppbV | |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.26 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.85 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.15 | | 0 | N.D. | | |
| 50) toluene | 15.32 | 91 | 10131 | 0.164 | ppbV | 100 |
| 53) dibromochloromethane | 15.73 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.37 | 166 | 397 | 0.013 | ppbV # | 84 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 11 22:26:24 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

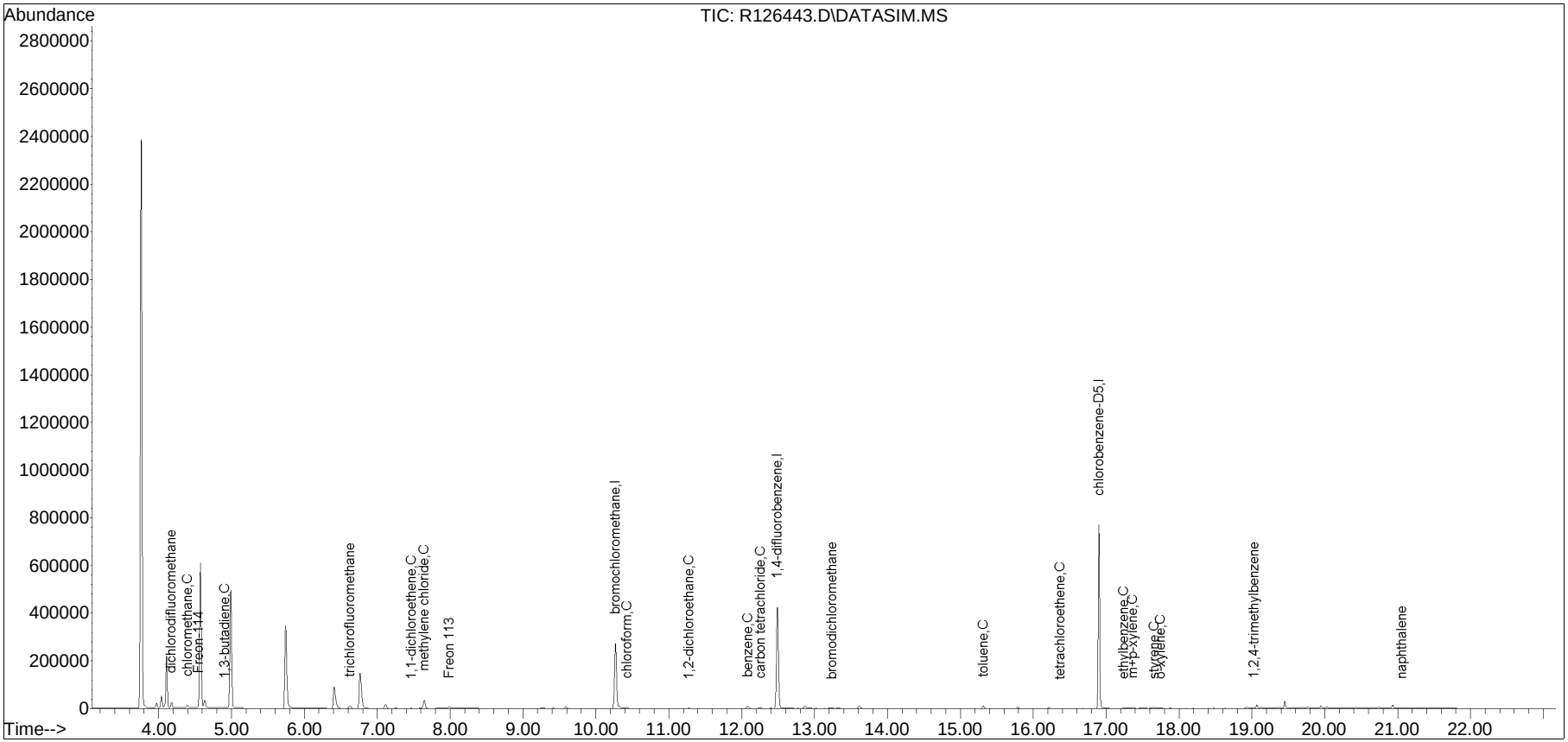
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 0.00 | | 0 | N.D. d | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | |
| 58) ethylbenzene | 17.24 | 91 | 2102 | 0.026 ppbV | 94 |
| 59) m+p-xylene | 17.36 | 91 | 4102 | 0.066 ppbV | 98 |
| 60) bromoform | 17.46 | | 0 | N.D. | |
| 61) styrene | 17.66 | 104 | 1394 | 0.029 ppbV | 92 |
| 62) 1,1,2,2-tetrachloroethane | 17.65 | | 0 | N.D. | |
| 63) o-xylene | 17.74 | 91 | 1701 | 0.027 ppbV | 99 |
| 66) 4-ethyl toluene | 18.67 | | 0 | N.D. | |
| 67) 1,3,5-trimethylbenzene | 18.72 | | 0 | N.D. | |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 1785 | 0.024 ppbV # | 54 |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | N.D. | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | |
| 77) 1,2,4-trichlorobenzene | 20.92 | | 0 | N.D. | |
| 78) naphthalene | 21.06 | 128 | 2423 | 0.019 ppbV # | 95 |
| 80) hexachlorobutadiene | 21.37 | | 0 | N.D. | |

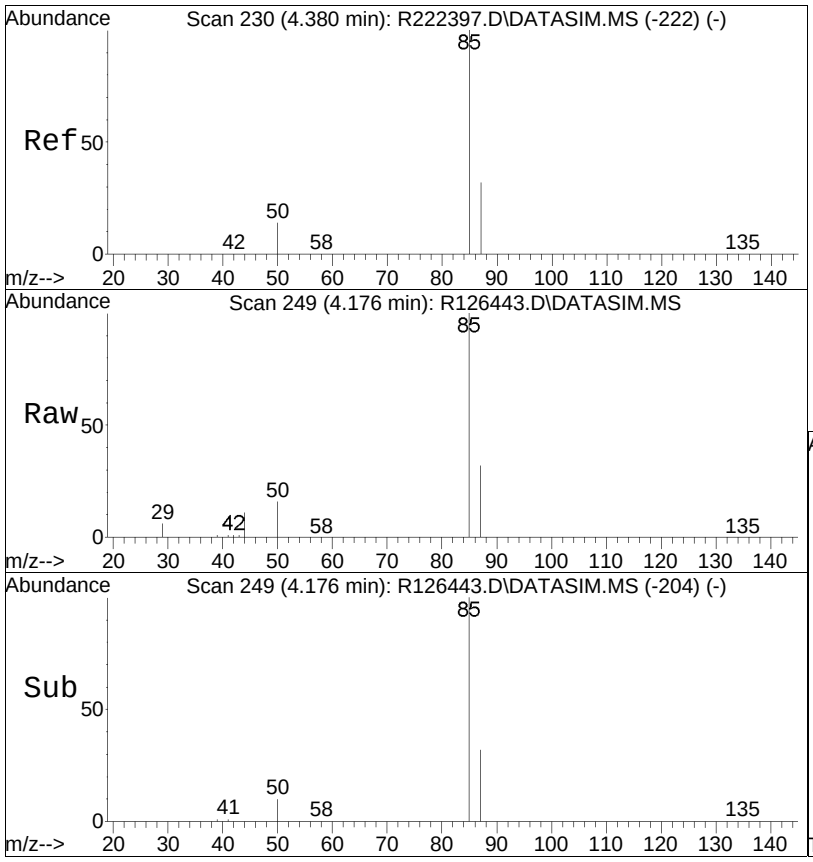
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 11 22:26:24 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

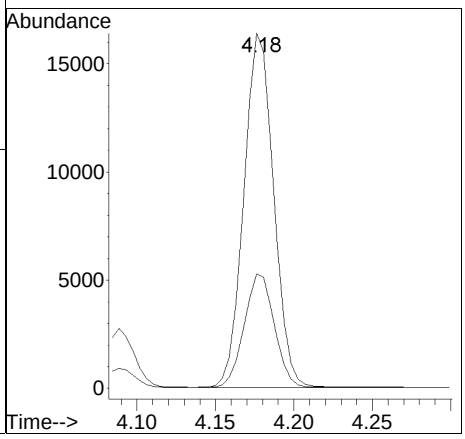


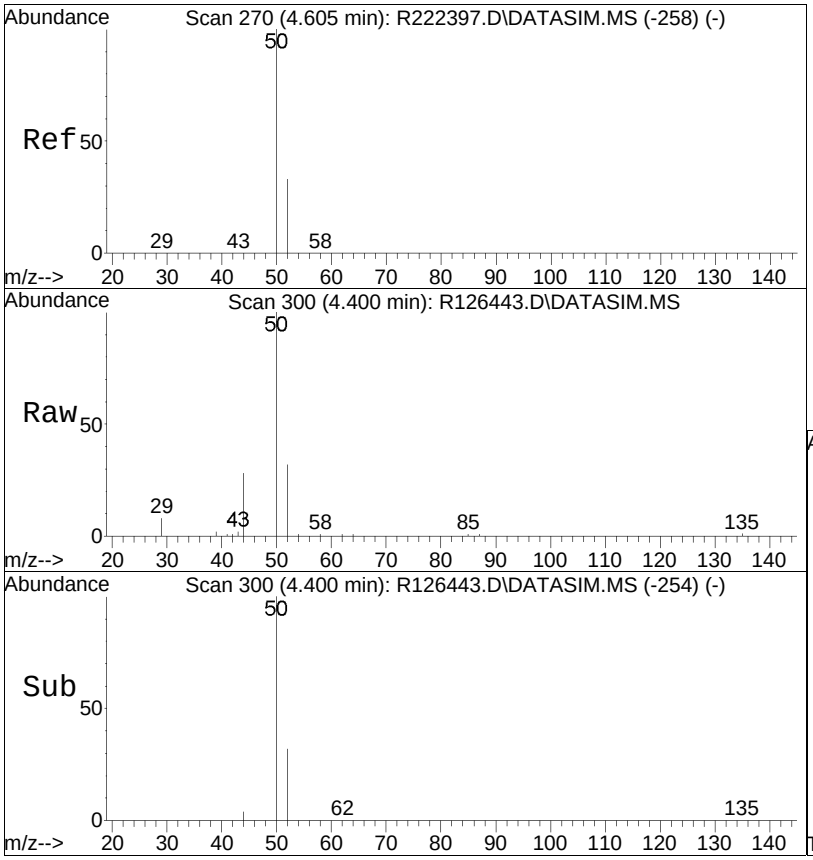



#3
dichlorodifluoromethane
Concen: 0.45 ppbV
RT: 4.18 min Scan# 249
Delta R.T. -0.004 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 85 Resp: 21594

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.2 | 25.9 | 38.9 |

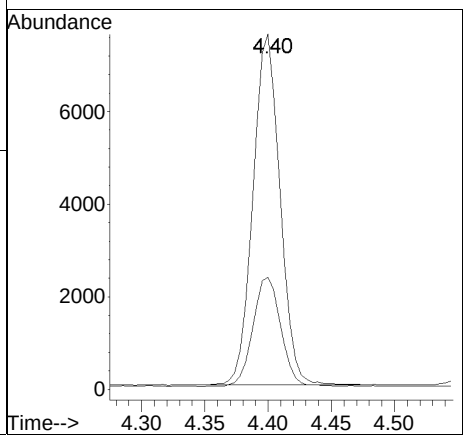


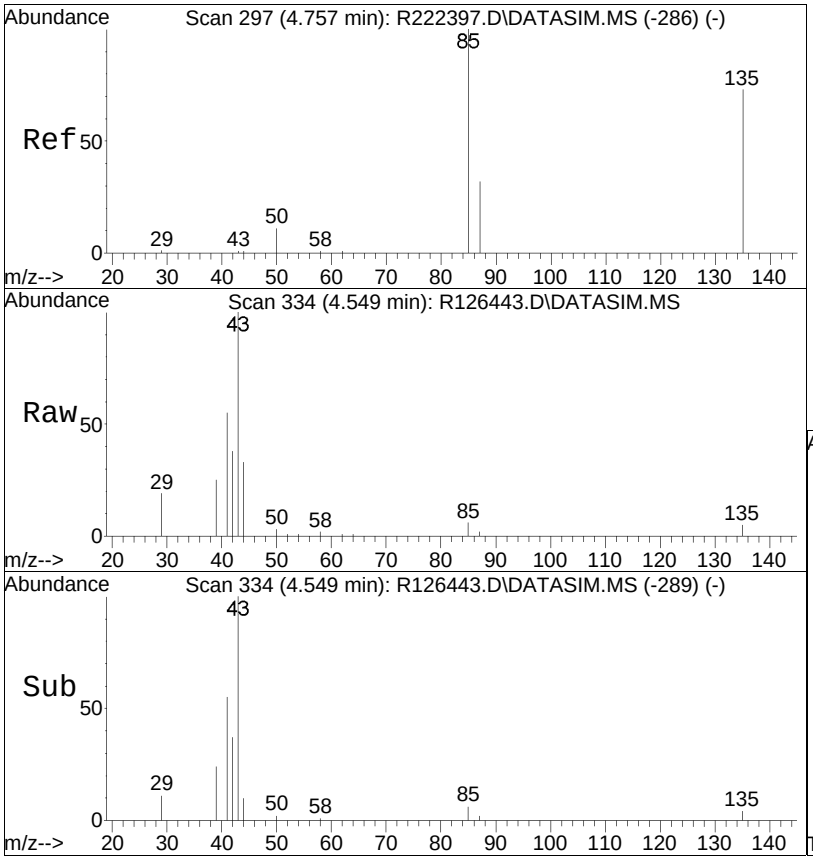



#4
chloromethane
Concen: 0.48 ppbV
RT: 4.40 min Scan# 300
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 50 Resp: 11283

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.6 | 25.8 | 38.6 |

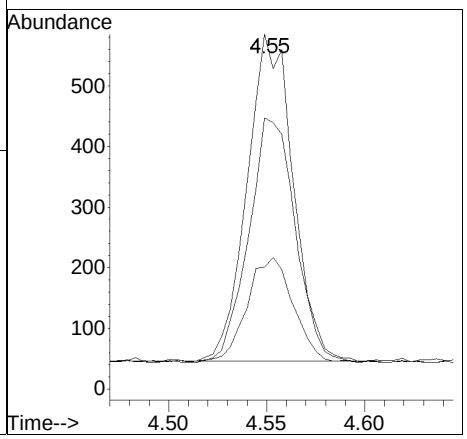


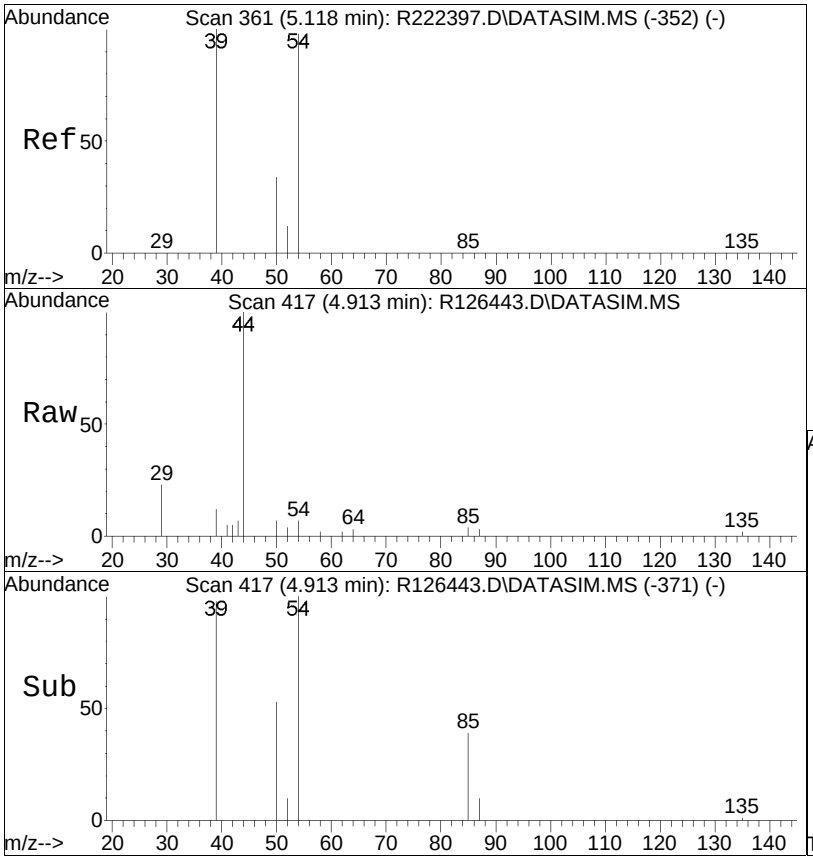



#5
Freon-114
Concen: 0.02 ppbV
RT: 4.55 min Scan# 334
Delta R.T. -0.004 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 85 Resp: 878

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 34.4 | 25.7 | 38.5 |
| 135 | 76.4 | 55.7 | 83.5 |

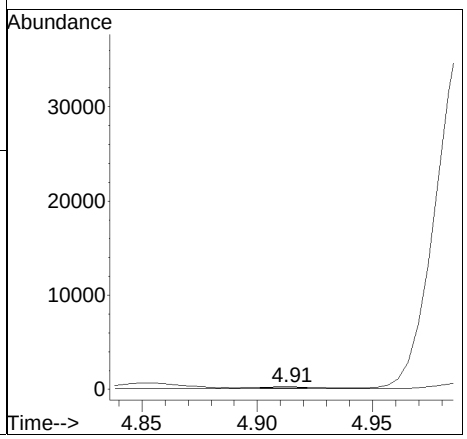


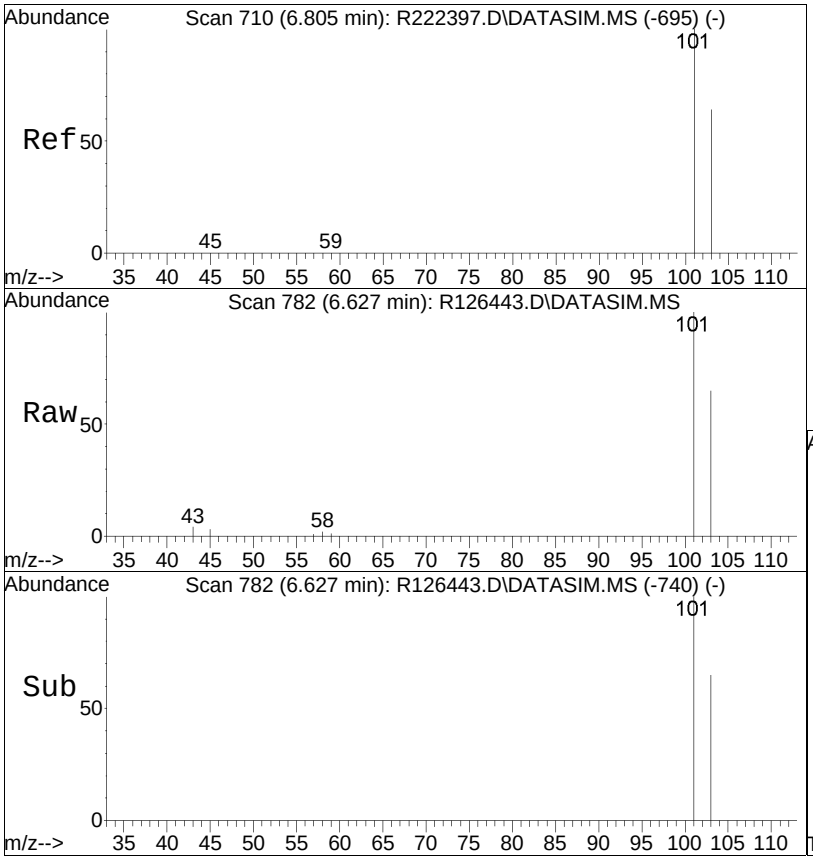



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 417
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 54 Resp: 170

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 163.9 | 95.5 | 143.3# |

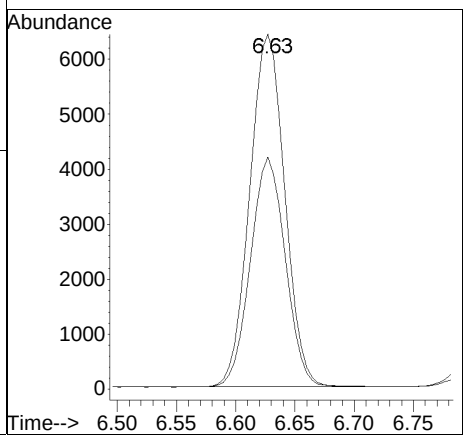


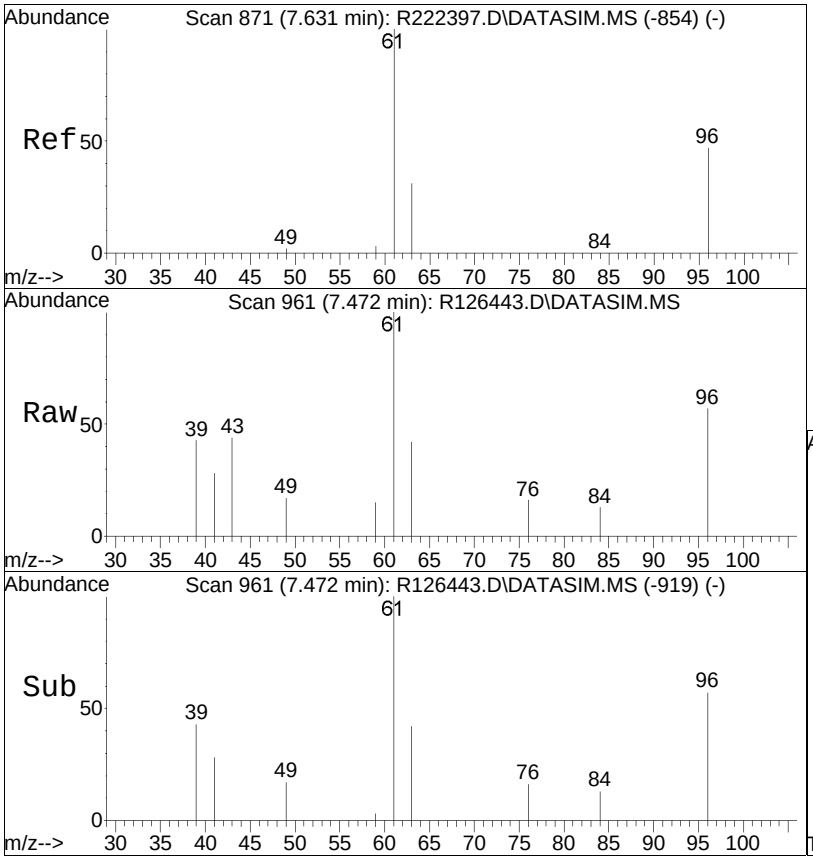



#13
trichlorofluoromethane
Concen: 0.23 ppbV
RT: 6.63 min Scan# 782
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:101 Resp: 13221

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 65.4 | 51.4 | 77.2 |

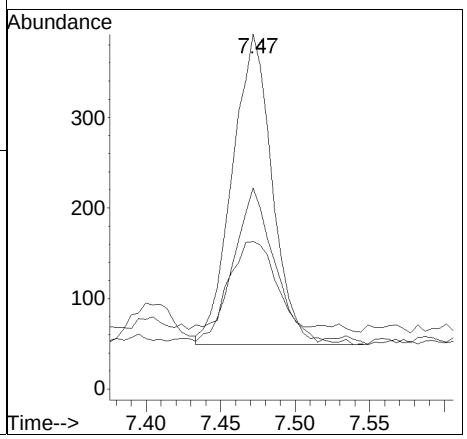


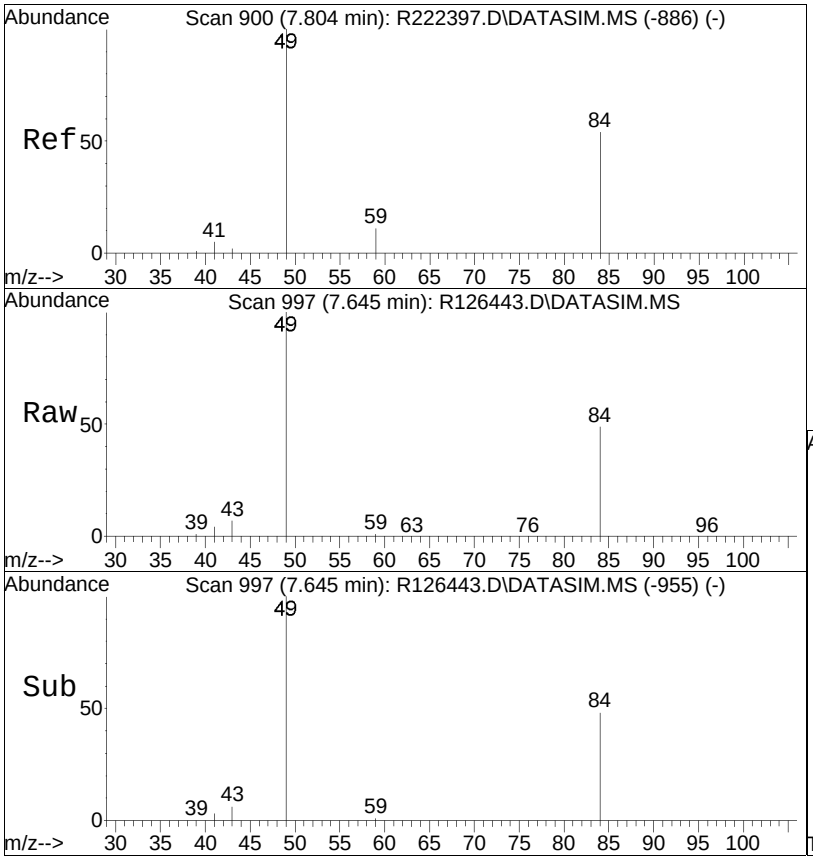



#16
1,1-dichloroethene
Concen: 0.02 ppbV
RT: 7.47 min Scan# 961
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 61 Resp: 643

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.6 | 39.4 | 59.2 |
| 63 | 41.6 | 25.1 | 37.7# |

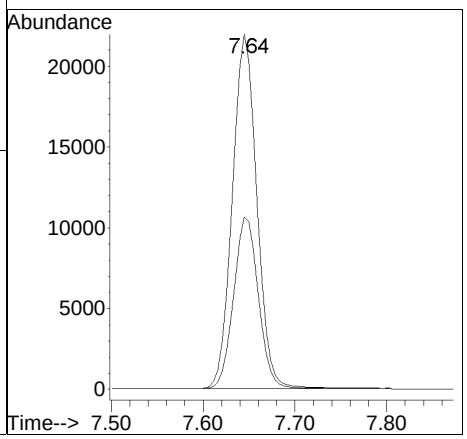


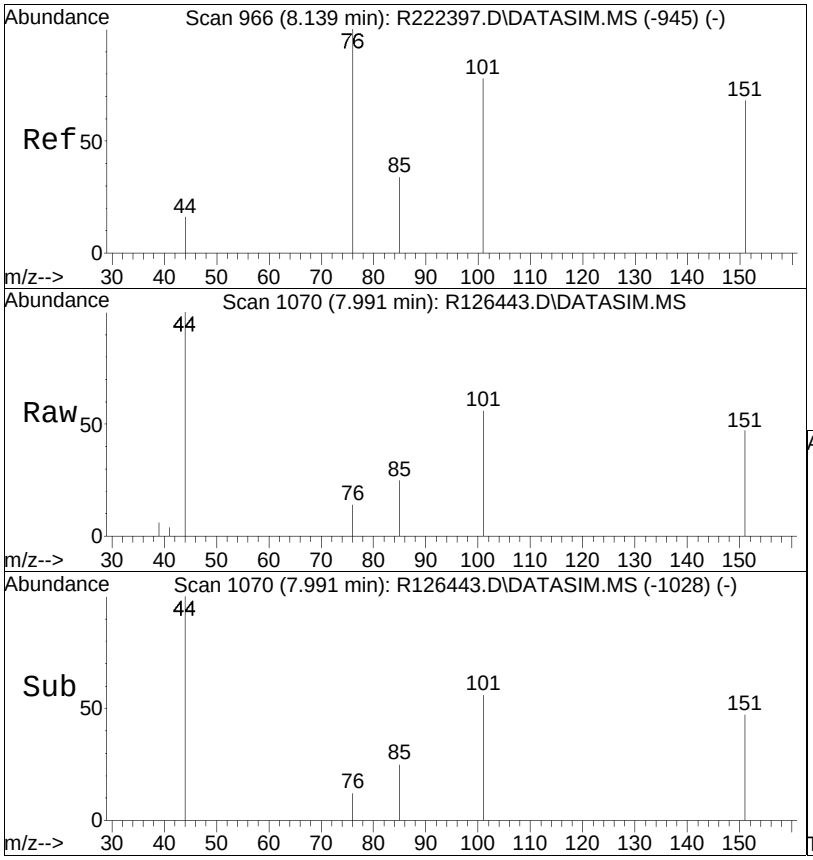



#17
methylene chloride
Concen: 1.29 ppbV
RT: 7.64 min Scan# 997
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 49 Resp: 40690

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.6 | 40.0 | 60.0 |

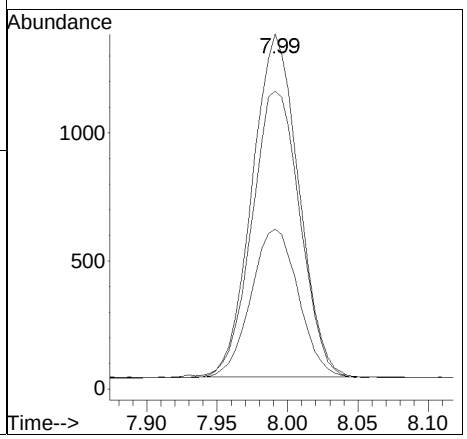


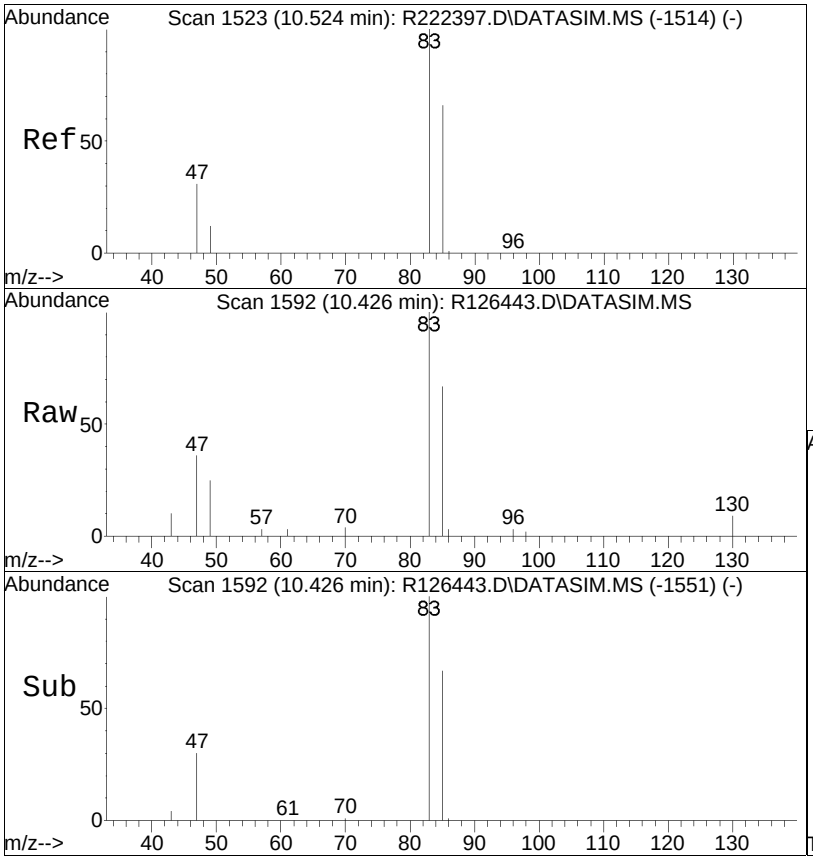



#20
Freon 113
Concen: 0.08 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:101 Resp: 3073

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.1 | 34.6 | 51.8 |
| 151 | 83.9 | 66.0 | 99.0 |

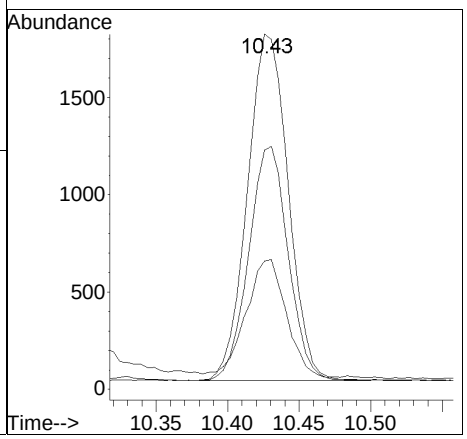


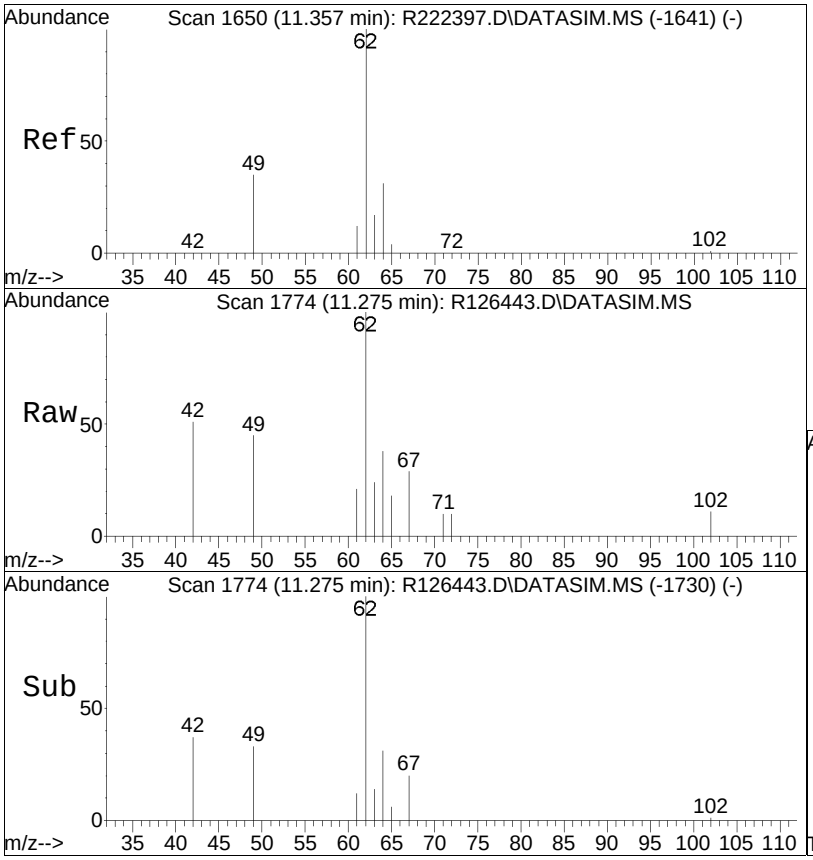



#29
chloroform
Concen: 0.09 ppbV
RT: 10.43 min Scan# 1592
Delta R.T. -0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 83 Resp: 3537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 67.4 | 52.2 | 78.2 |
| 47 | 36.1 | 27.0 | 40.6 |

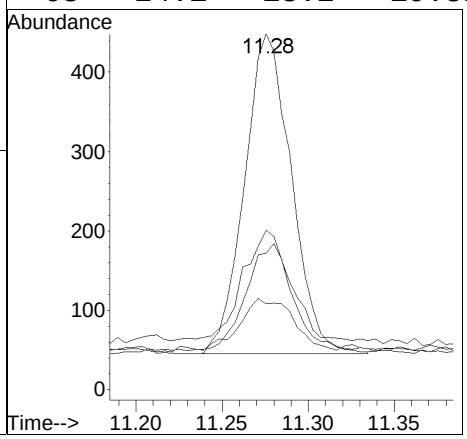


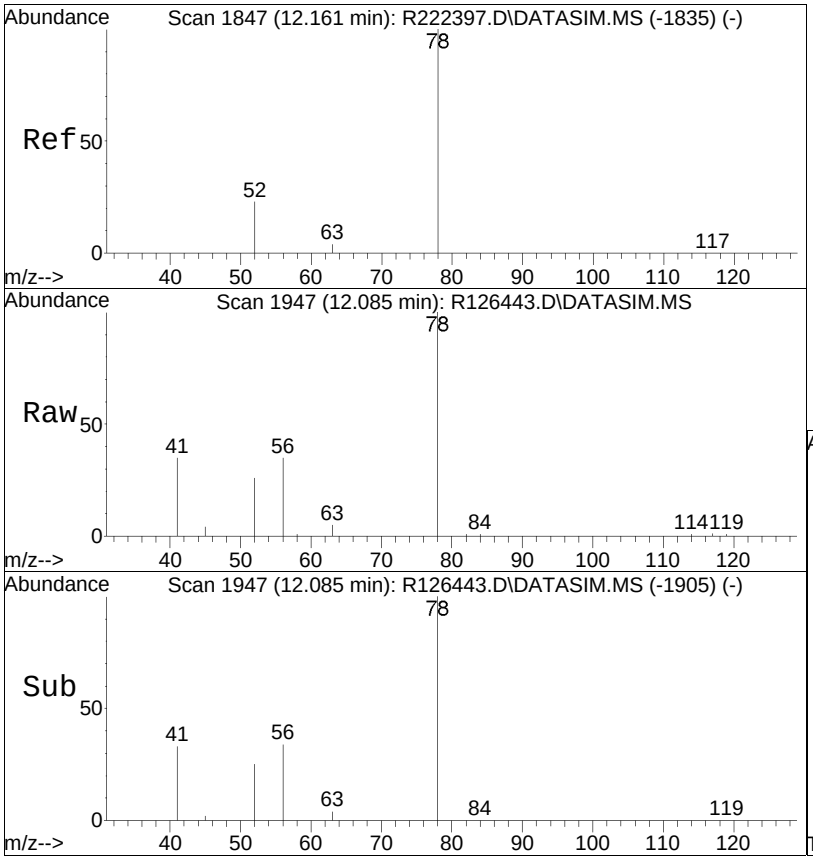



#31
1,2-dichloroethane
Concen: 0.02 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 62 Resp: 766

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 38.4 | 25.3 | 37.9# |
| 49 | 44.9 | 30.2 | 45.2 |
| 63 | 24.1 | 13.2 | 19.8# |

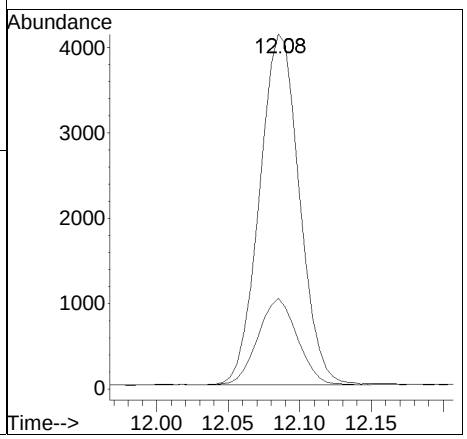


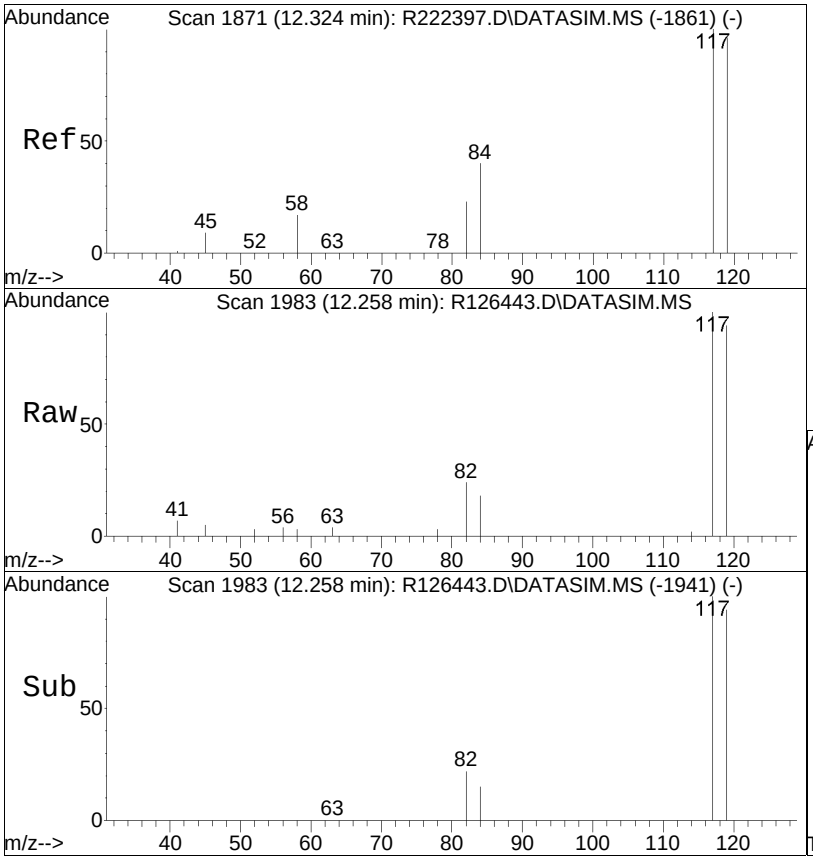



#36
benzene
Concen: 0.15 ppbV
RT: 12.08 min Scan# 1947
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 78 Resp: 7963

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 25.7 | 18.6 | 28.0 |

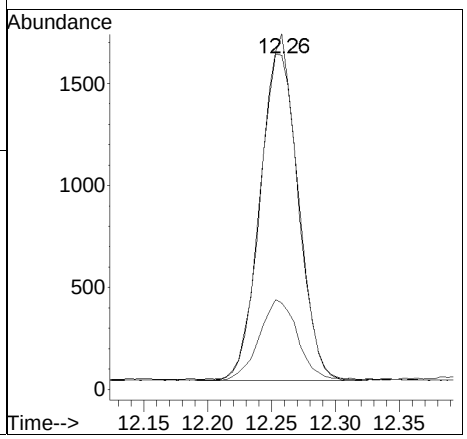


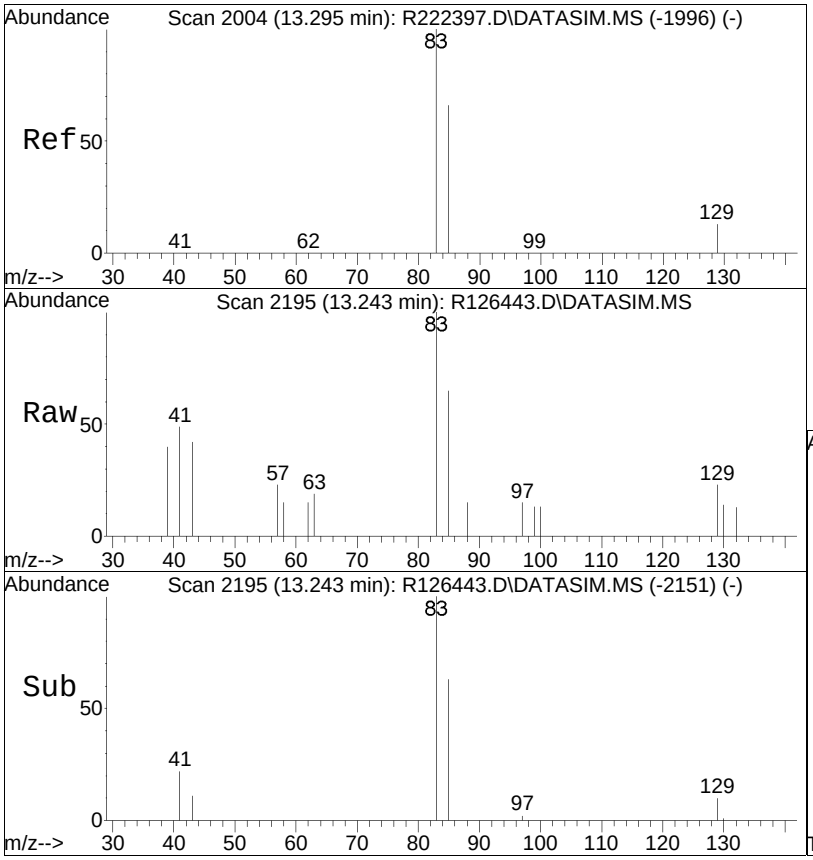



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.26 min Scan# 1983
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:117 Resp: 3409

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.0 | 78.7 | 118.1 |
| 82 | 24.3 | 18.9 | 28.3 |

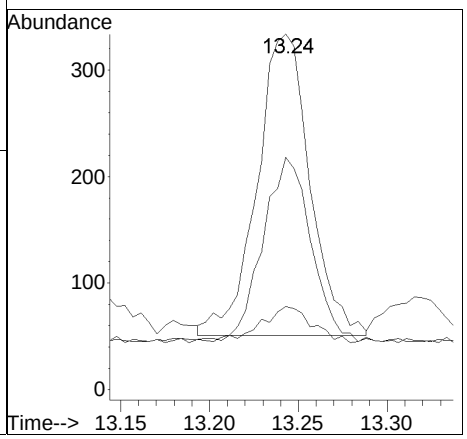


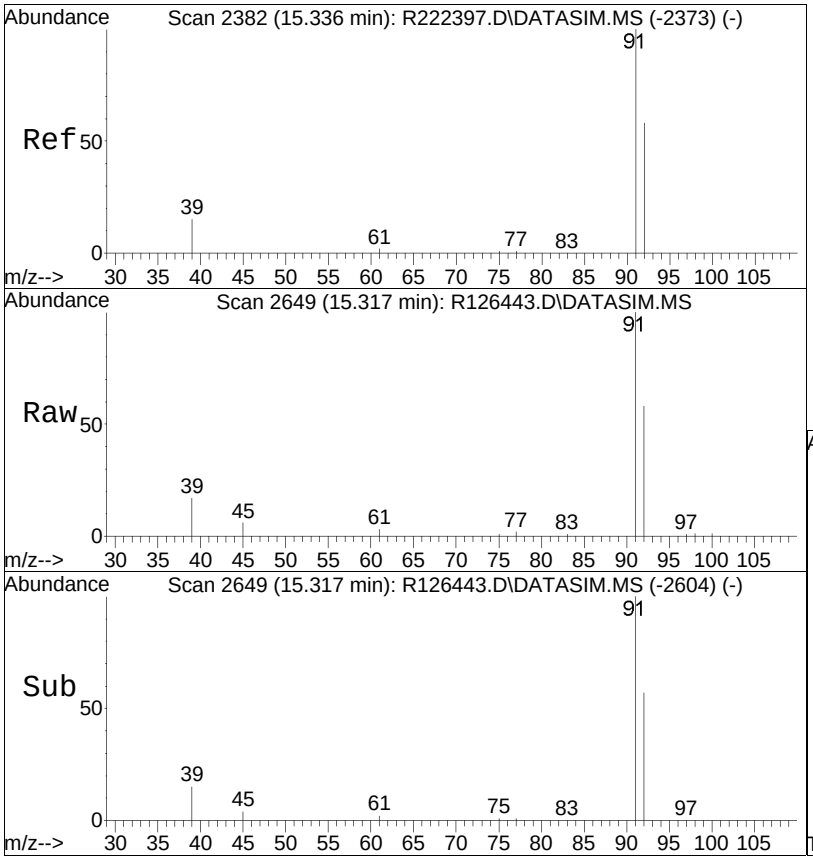



#40
bromodichloromethane
Concen: 0.01 ppbV m
RT: 13.24 min Scan# 2195
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 83 Resp: 586

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.3 | 51.4 | 77.0 |
| 129 | 23.4 | 9.9 | 14.9# |

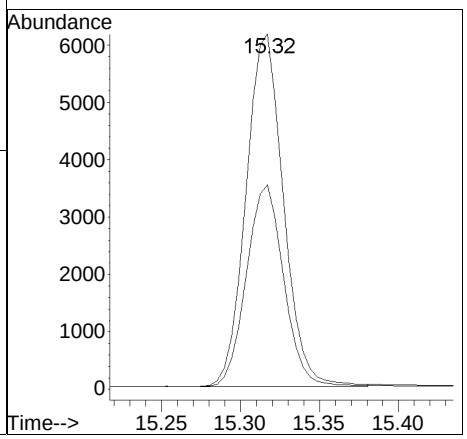


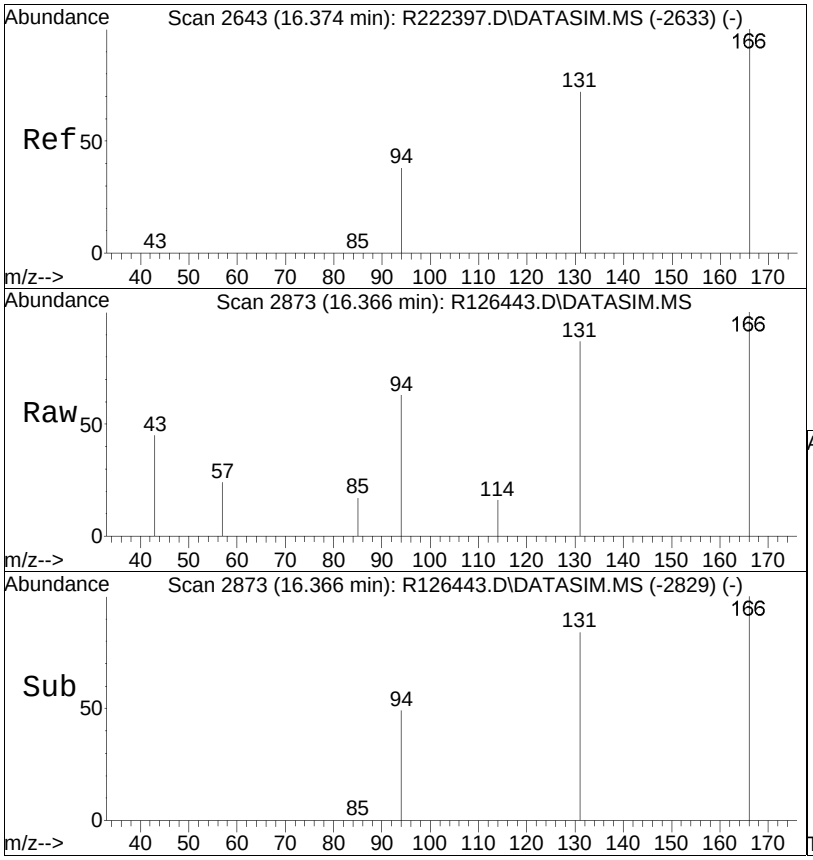



#50
toluene
Concen: 0.16 ppbV
RT: 15.32 min Scan# 2649
Delta R.T. 0.004 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 91 Resp: 10131

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.5 | 46.3 | 69.5 |

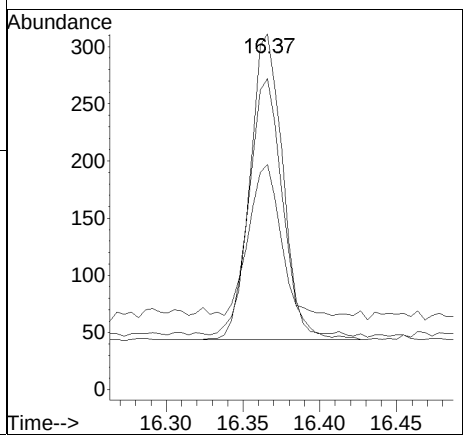


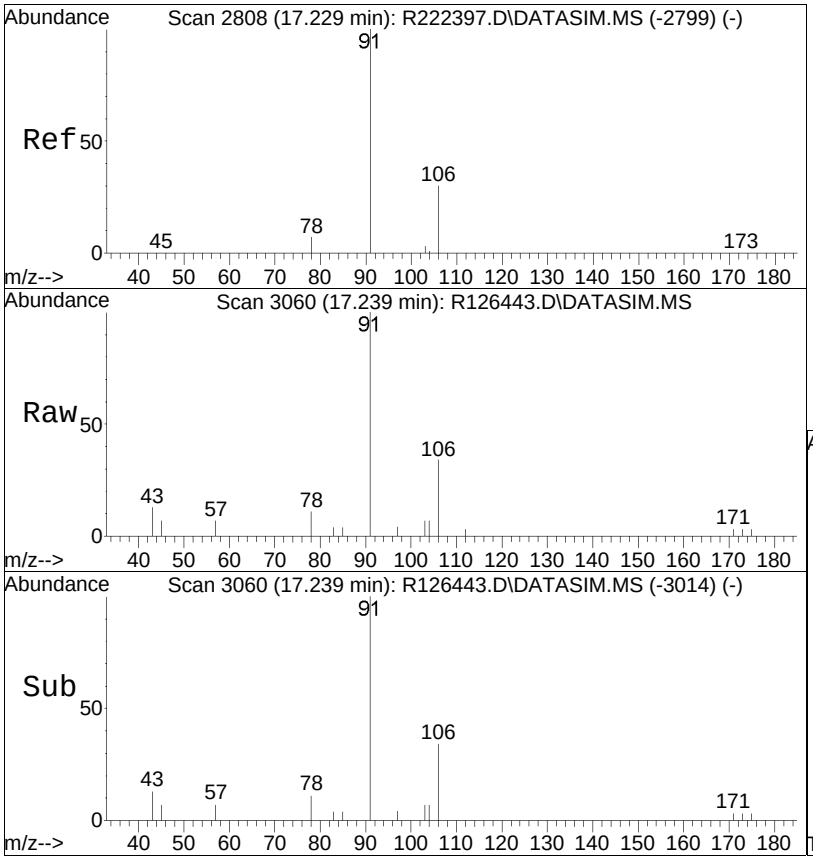



#55
tetrachloroethene
Concen: 0.01 ppbV
RT: 16.37 min Scan# 2873
Delta R.T. 0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:166 Resp: 397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 87.5 | 63.1 | 94.7 |
| 94 | 63.3 | 37.2 | 55.8# |

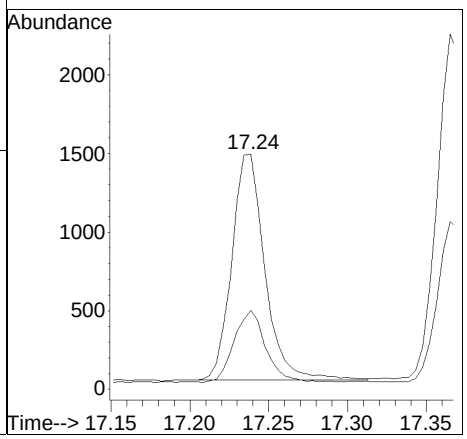


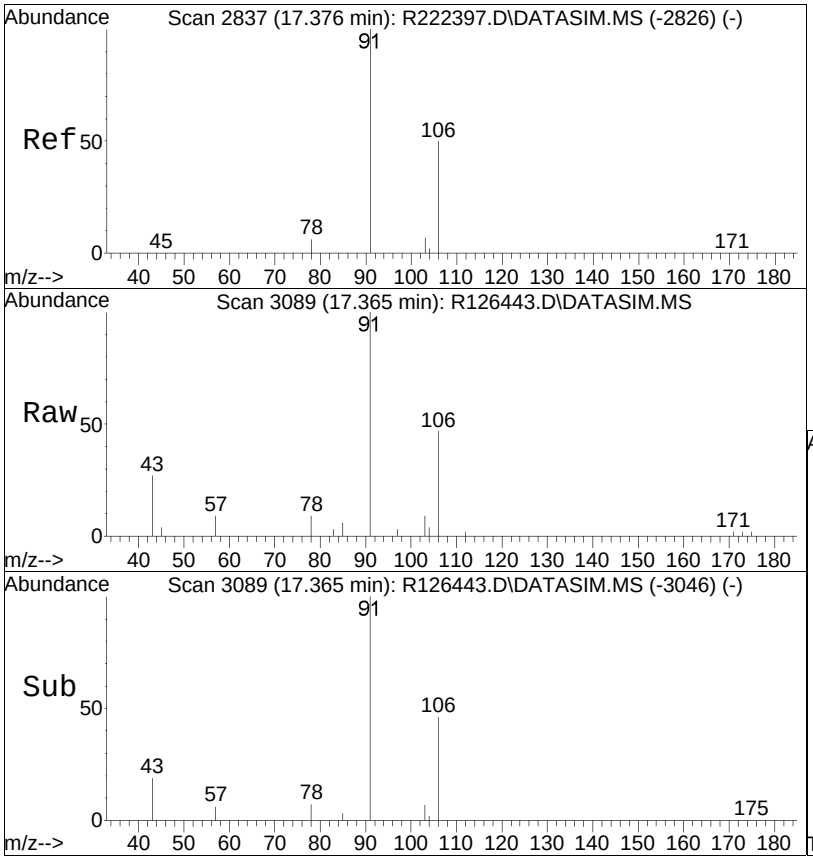



#58
ethylbenzene
Concen: 0.03 ppbV
RT: 17.24 min Scan# 3060
Delta R.T. 0.009 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 91 Resp: 2102

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 33.6 | 24.2 | 36.2 |

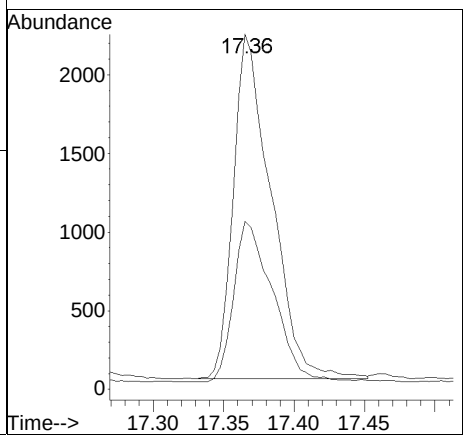


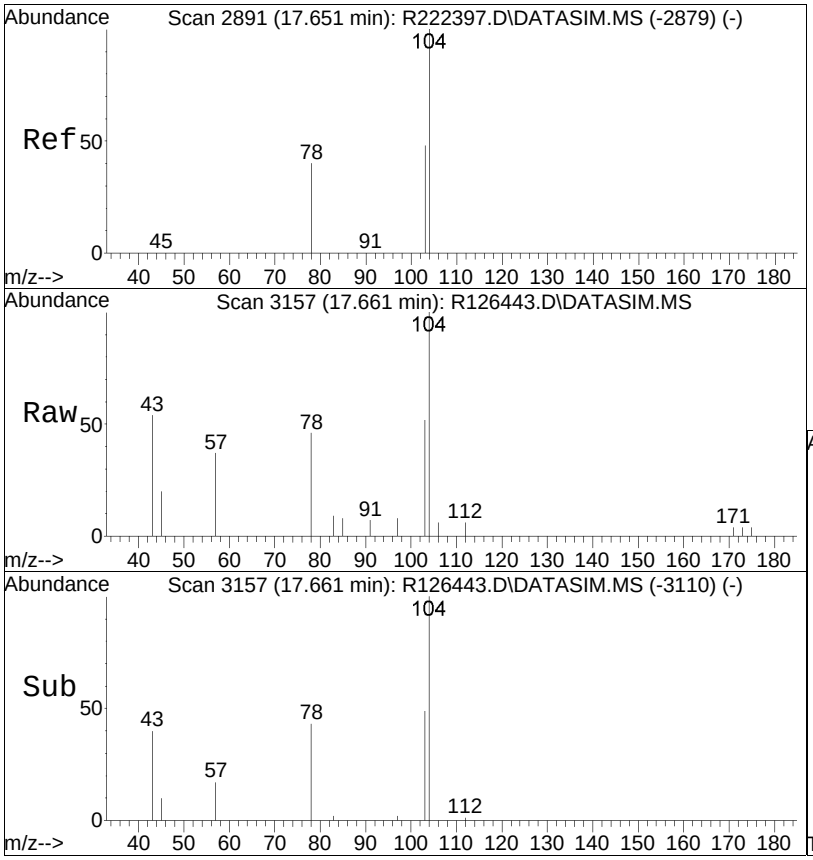



#59
m+p-xylene
Concen: 0.07 ppbV
RT: 17.36 min Scan# 3089
Delta R.T. -0.013 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 91 Resp: 4102

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.2 | 39.0 | 58.4 |

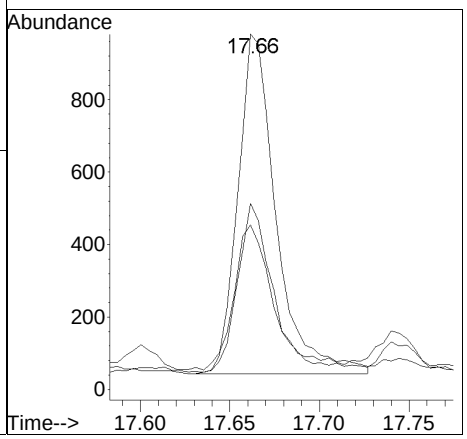


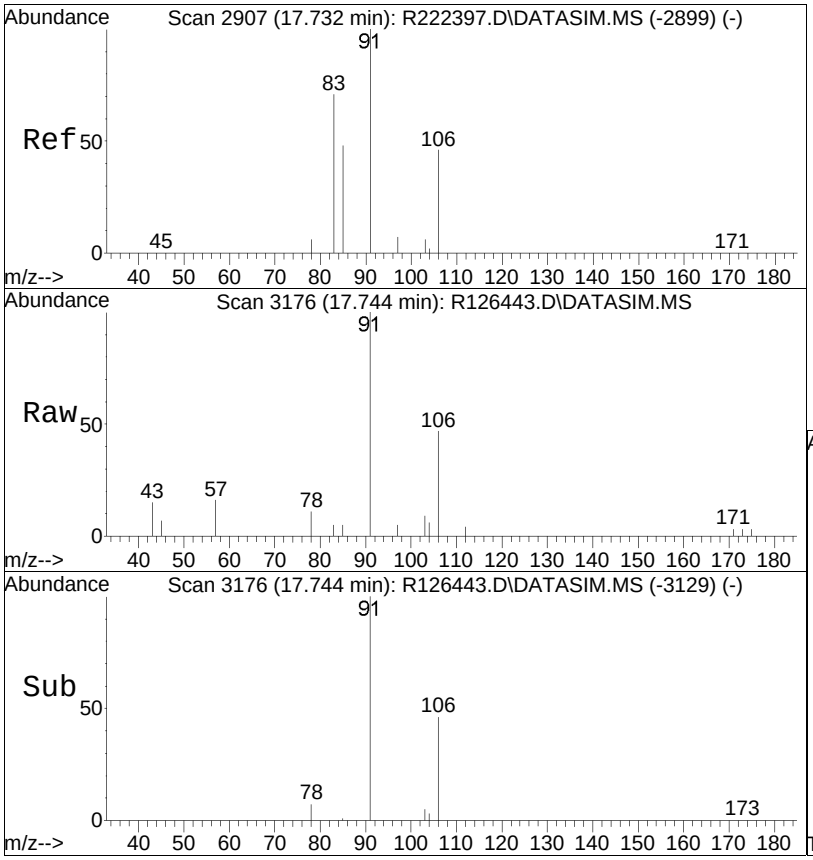



#61
styrene
Concen: 0.03 ppbV
RT: 17.66 min Scan# 3157
Delta R.T. 0.004 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:104 Resp: 1394

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 52.4 | 37.5 | 56.3 |
| 78 | 46.3 | 33.5 | 50.3 |

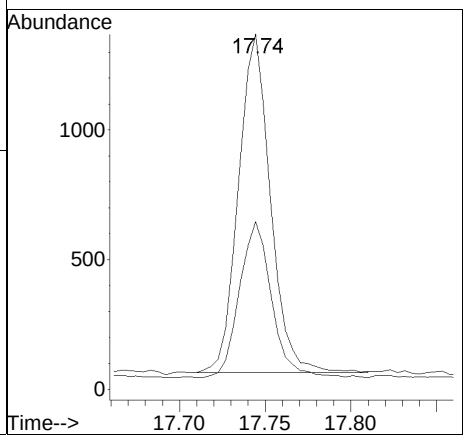


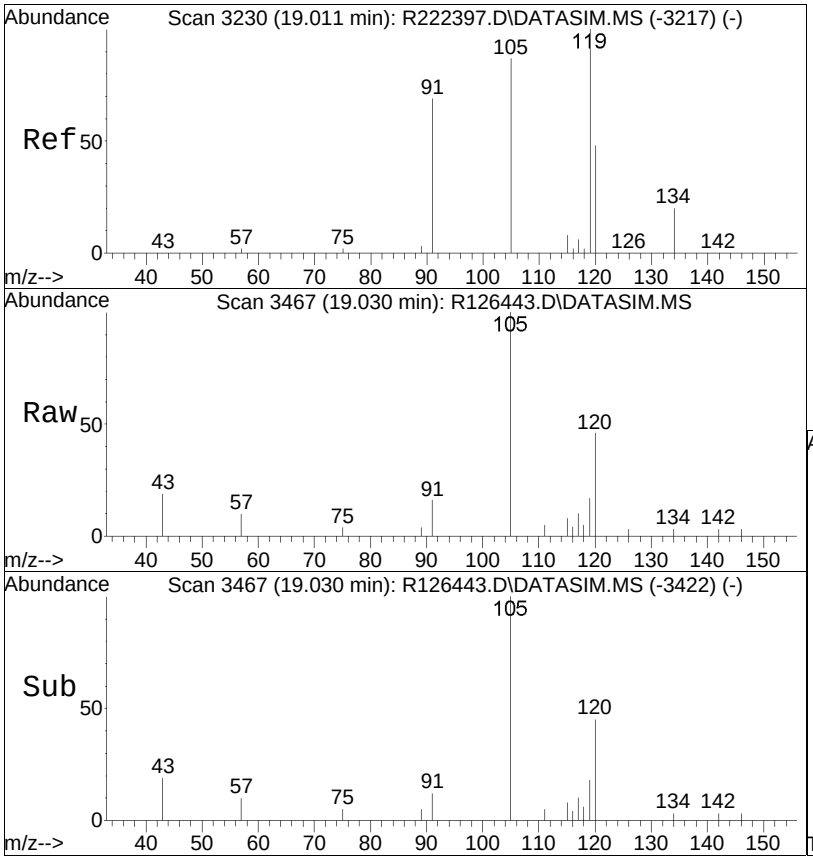



#63
o-xylene
Concen: 0.03 ppbV
RT: 17.74 min Scan# 3176
Delta R.T. 0.004 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 91 Resp: 1701

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 47.2 | 37.1 | 55.7 |

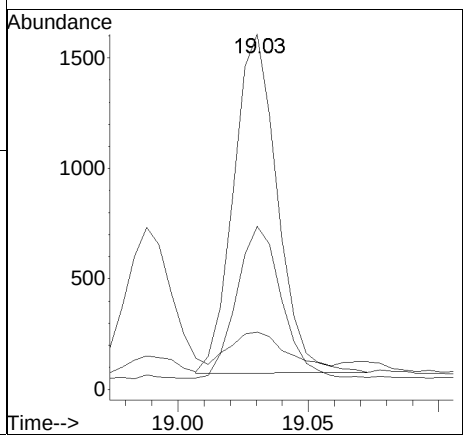


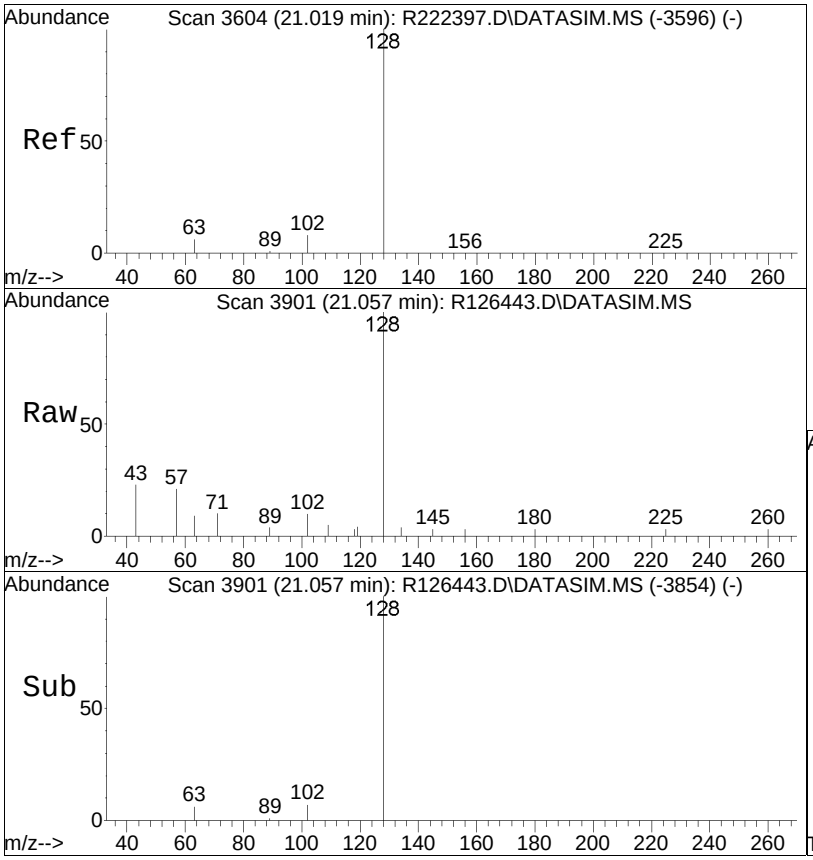



#69
1,2,4-trimethylbenzene
Concen: 0.02 ppbV
RT: 19.03 min Scan# 3467
Delta R.T. 0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:105 Resp: 1785

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.9 | 43.6 | 65.4 |
| 91 | 16.2 | 62.0 | 93.0# |

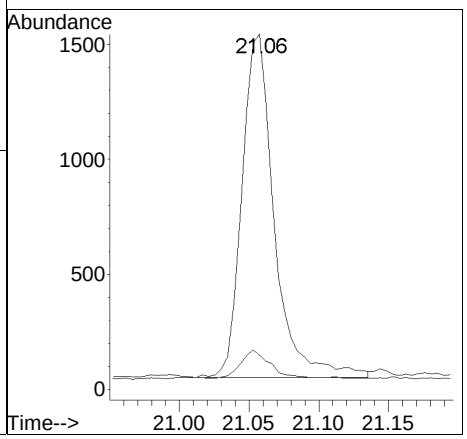





#78
naphthalene
Concen: 0.02 ppbV
RT: 21.06 min Scan# 3901
Delta R.T. 0.013 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion:128 Resp: 2423

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 9.6 | 6.4 | 9.6# |

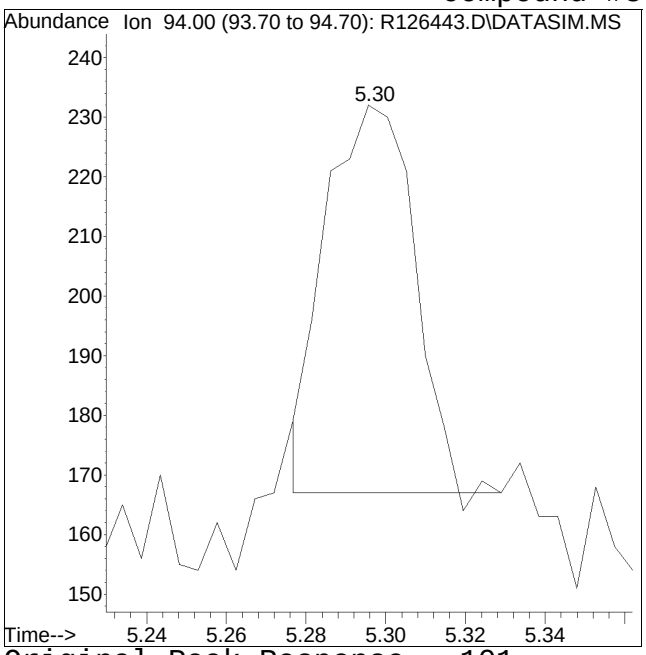


Manual Integration/Negative Proof Report

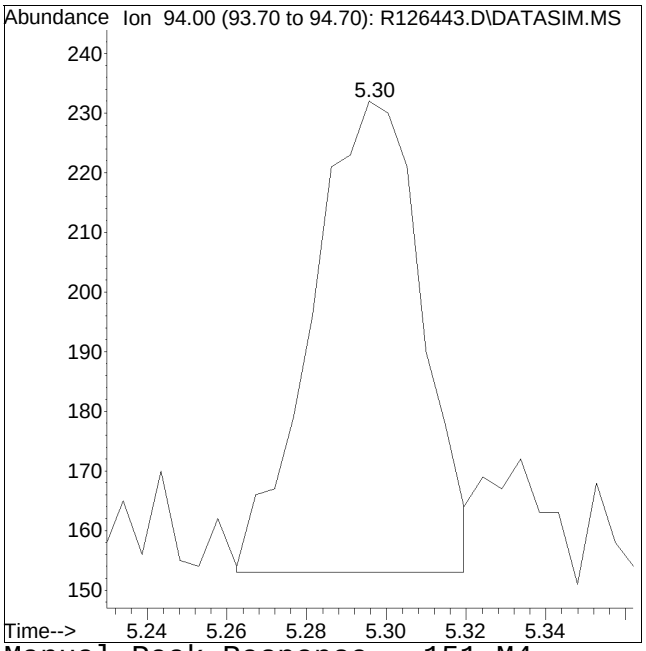
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #8: bromomethane




Original Peak Response = 101




Manual Peak Response = 151 M4

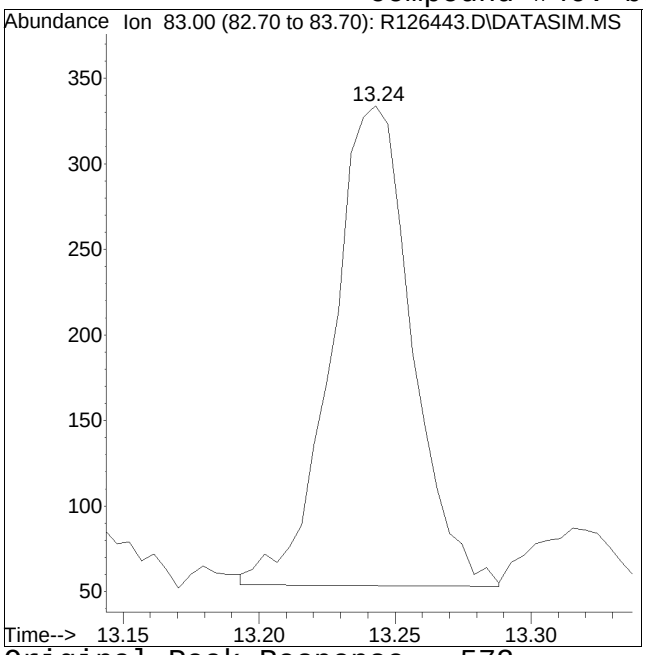
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

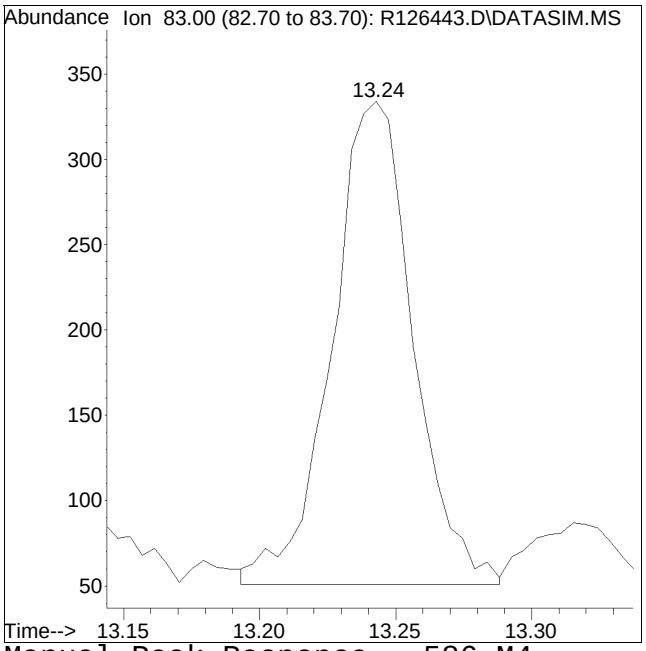
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #40: bromodichloromethane




Original Peak Response = 572




Manual Peak Response = 586 M4

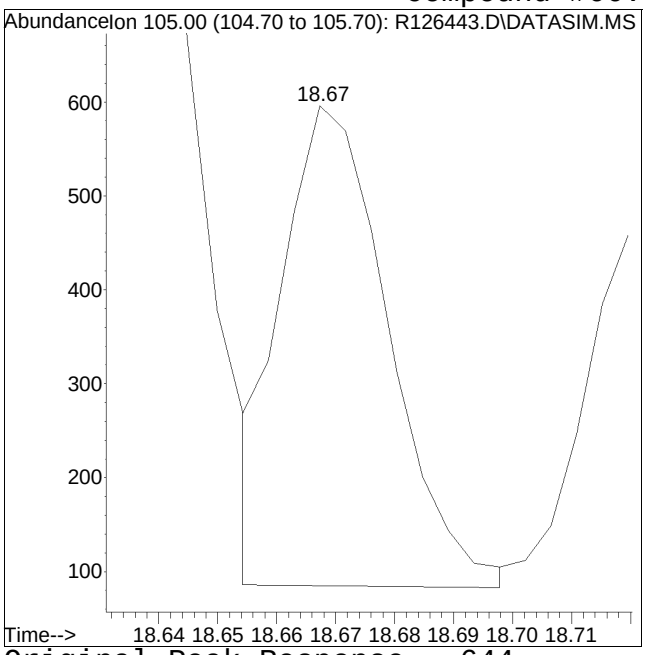
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

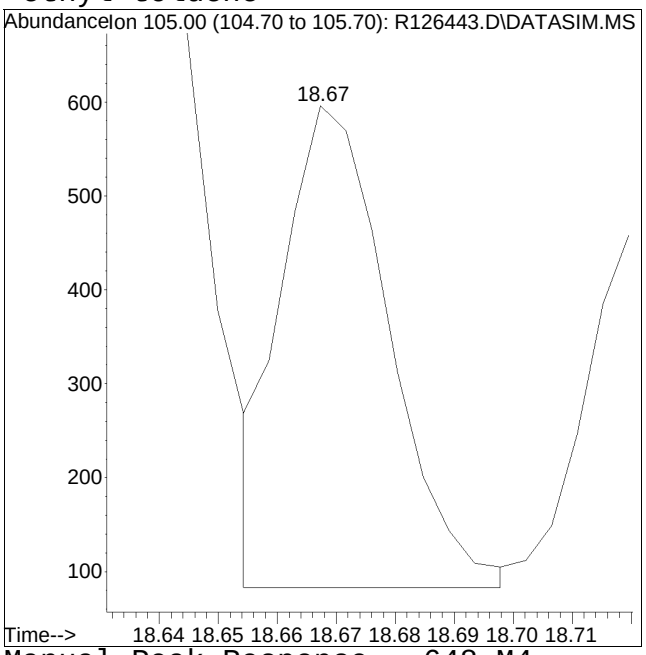
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #66: 4-ethyl toluene




Original Peak Response = 644




Manual Peak Response = 648 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 11 22:27:17 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 333806 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = | | 91.54% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 656312 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = | | 86.85% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 162809 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = | | 87.59% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 22197 | 0.451 | ppbV | 99 |
| 4) chloromethane | 4.40 | 50 | 10906 | 0.453 | ppbV | 100 |
| 5) Freon-114 | 4.55 | 85 | 714 | 0.013 | ppbV | 97 |
| 6) vinyl chloride | 4.71 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 201 | 0.012 | ppbV # | 66 |
| 8) bromomethane | 5.30 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 12599 | 0.215 | ppbV | 100 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 17) methylene chloride | 7.64 | 49 | 124191M4 | 3.819 | ppbV | |
| 20) Freon 113 | 7.99 | 101 | 2562 | 0.063 | ppbV | 97 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 0.00 | | 0 | N.D. | d | |
| 24) MTBE | 9.20 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 29) chloroform | 10.43 | 83 | 613 | 0.014 | ppbV # | 92 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 536 | 0.016 | ppbV # | 75 |
| 35) 1,1,1-trichloroethane | 11.56 | | 0 | N.D. | | |
| 36) benzene | 12.08 | 78 | 8185 | 0.152 | ppbV | 95 |
| 37) carbon tetrachloride | 12.25 | 117 | 3420 | 0.087 | ppbV | 98 |
| 39) 1,2-dichloropropane | 13.02 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.22 | | 0 | N.D. | | |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.28 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.85 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.15 | | 0 | N.D. | | |
| 50) toluene | 15.32 | 91 | 9275 | 0.141 | ppbV | 100 |
| 53) dibromochloromethane | 0.00 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 15.86 | | 0 | N.D. | | |
| 55) tetrachloroethene | 16.37 | 166 | 398 | 0.012 | ppbV # | 89 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 11 22:27:17 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

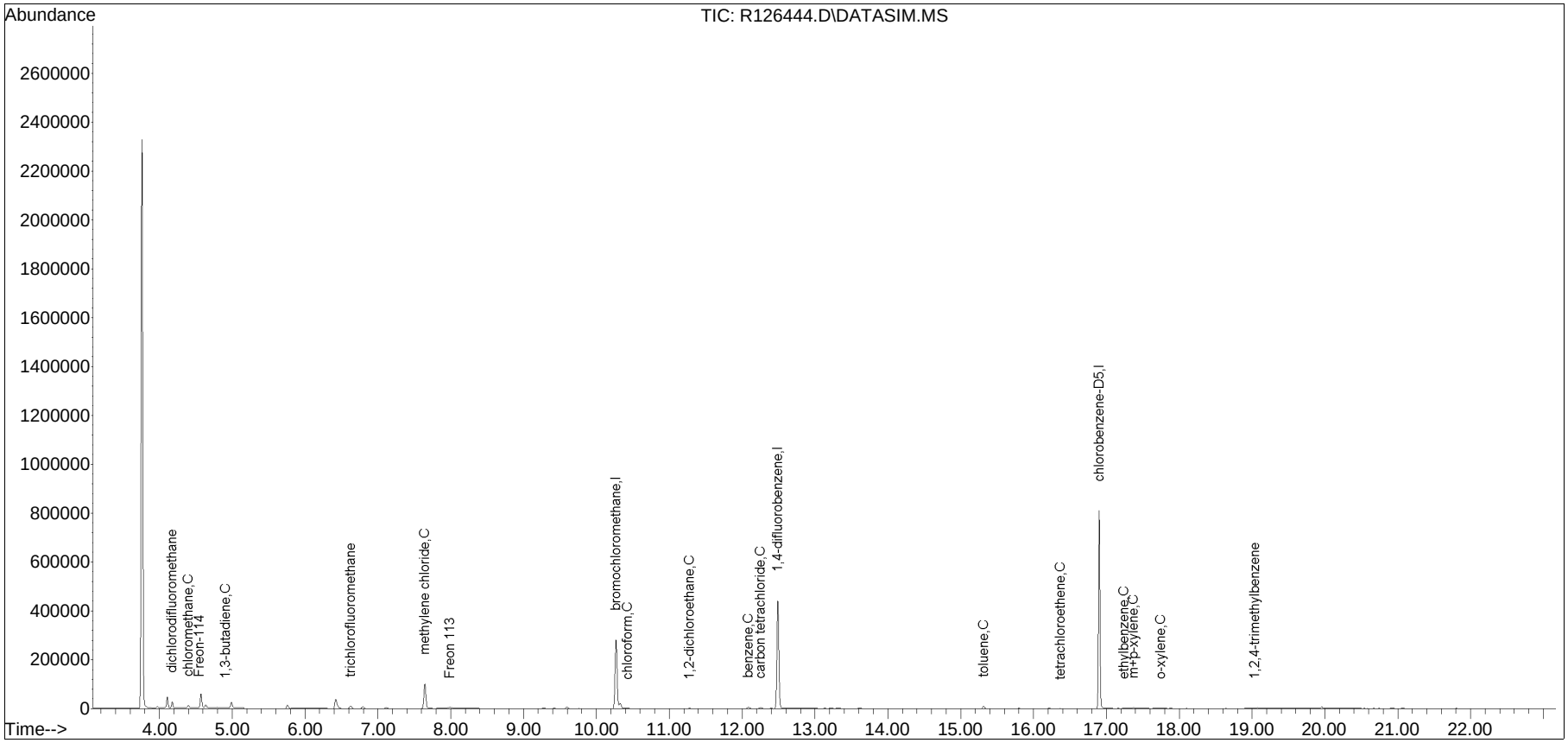
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 16.90 | | 0 | N.D. | | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | | |
| 58) ethylbenzene | 17.24 | 91 | 1717 | 0.020 | ppbV | 95 |
| 59) m+p-xylene | 17.37 | 91 | 3563 | 0.054 | ppbV | 97 |
| 60) bromoform | 17.46 | | 0 | N.D. | | |
| 61) styrene | 17.67 | | 0 | N.D. | | |
| 62) 1,1,2,2-tetrachloroethane | 17.66 | | 0 | N.D. | | |
| 63) o-xylene | 17.74 | 91 | 1477 | 0.022 | ppbV | 99 |
| 66) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 67) 1,3,5-trimethylbenzene | 18.72 | | 0 | N.D. | | |
| 69) 1,2,4-trimethylbenzene | 19.04 | 105 | 1343 | 0.017 | ppbV # | 55 |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | N.D. | | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | N.D. | | |
| 78) naphthalene | 21.06 | | 0 | N.D. | | |
| 80) hexachlorobutadiene | 21.37 | | 0 | N.D. | | |

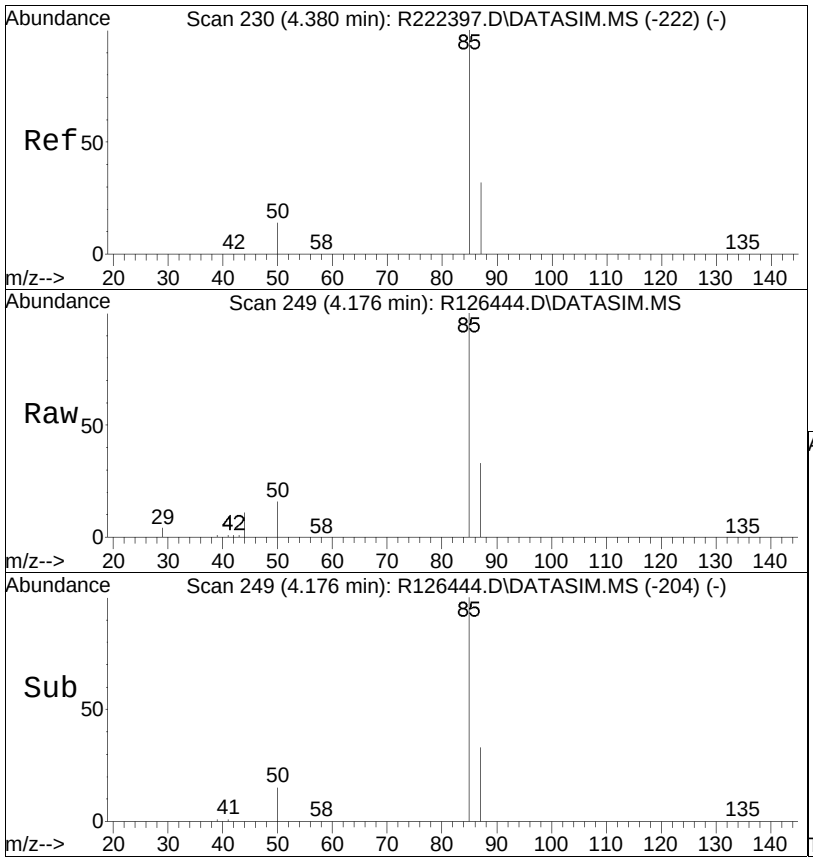
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 11 22:27:17 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

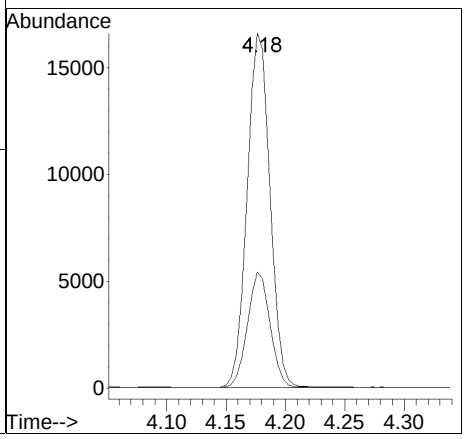


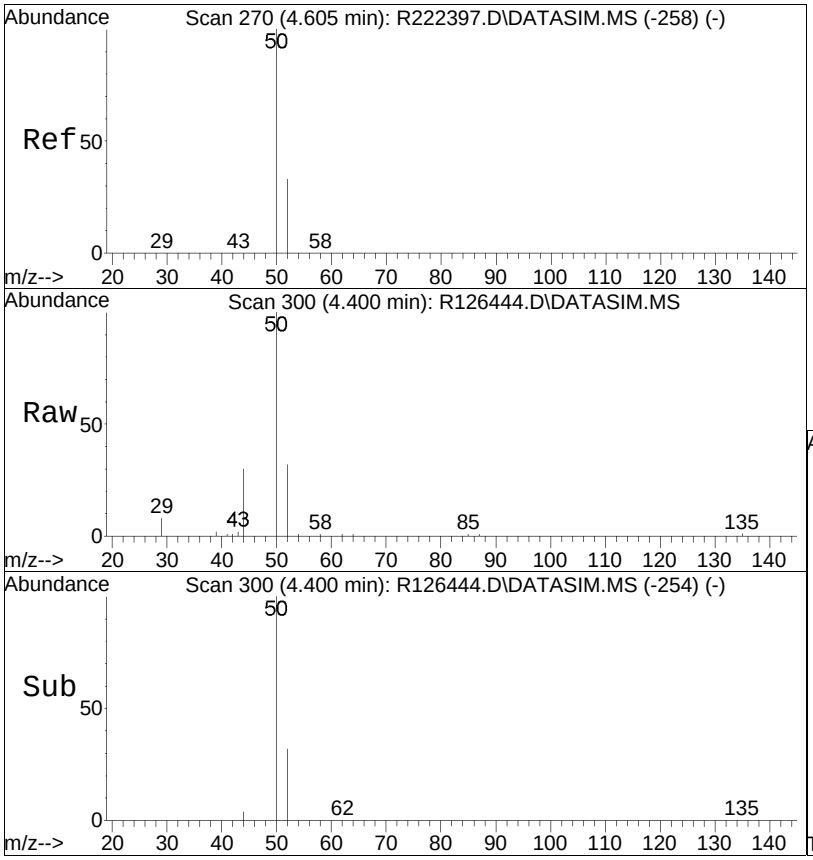



#3
dichlorodifluoromethane
Concen: 0.45 ppbV
RT: 4.18 min Scan# 249
Delta R.T. -0.004 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 85 Resp: 22197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.8 | 25.9 | 38.9 |

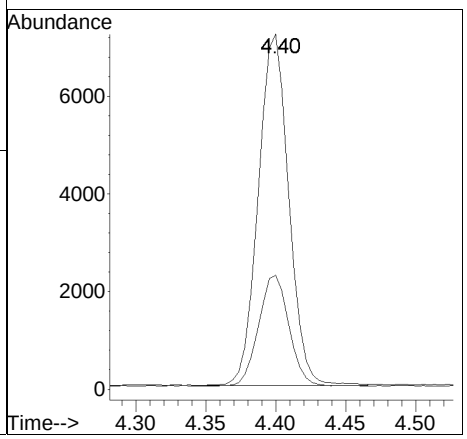


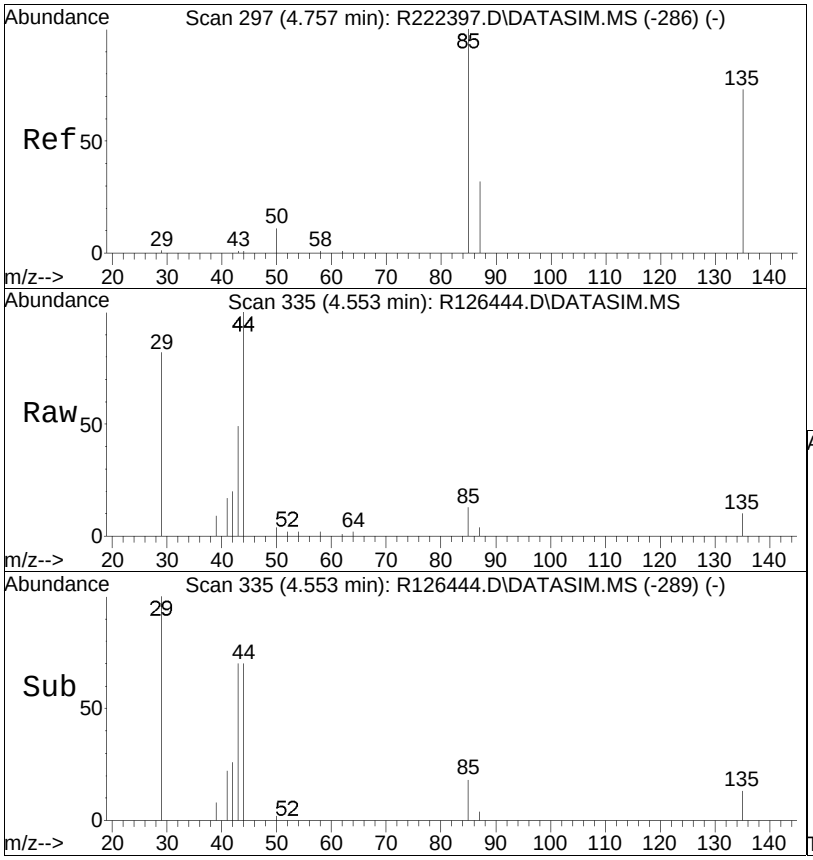



#4
chloromethane
Concen: 0.45 ppbV
RT: 4.40 min Scan# 300
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 50 Resp: 10906

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.2 | 25.8 | 38.6 |

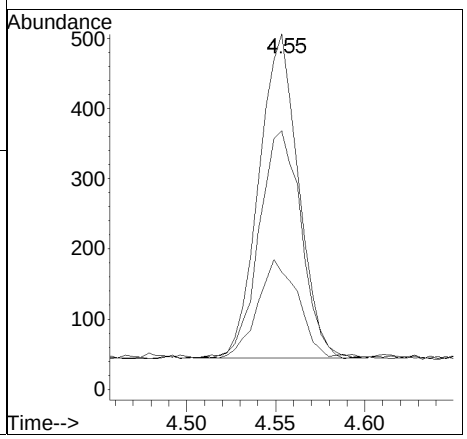


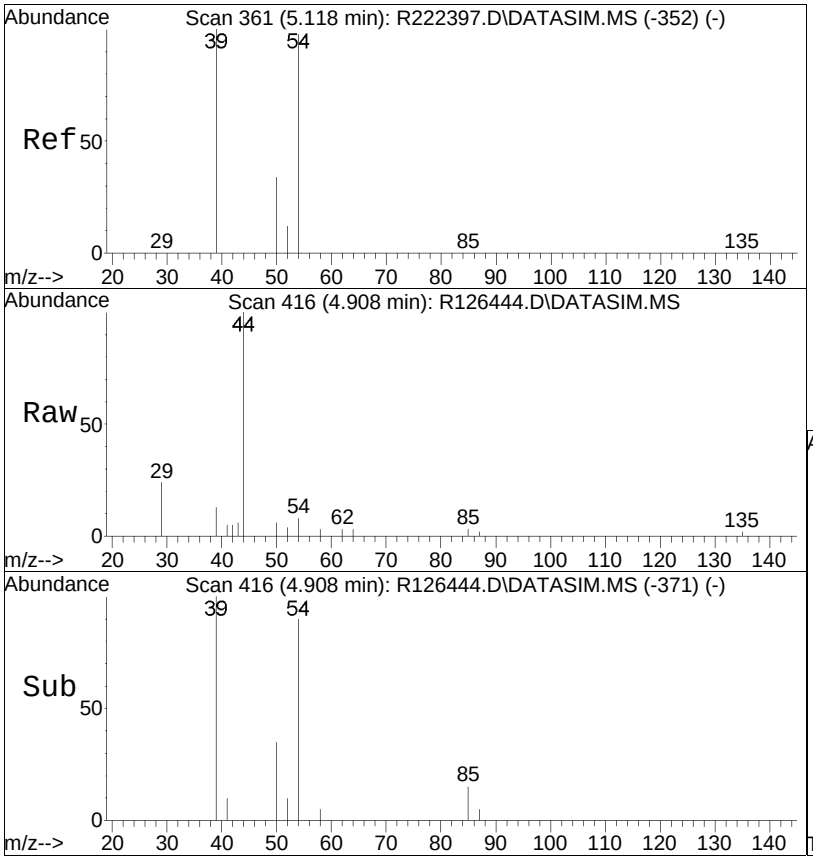



#5
Freon-114
Concen: 0.01 ppbV
RT: 4.55 min Scan# 335
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 85 Resp: 714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.0 | 25.7 | 38.5 |
| 135 | 72.7 | 55.7 | 83.5 |

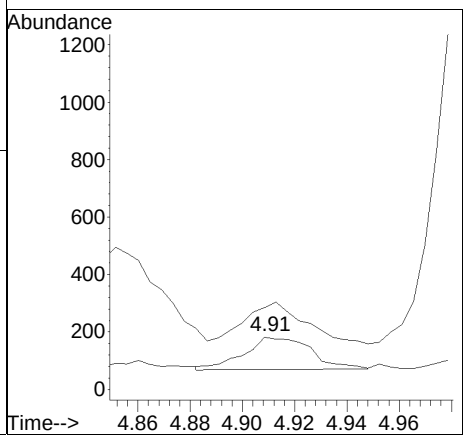


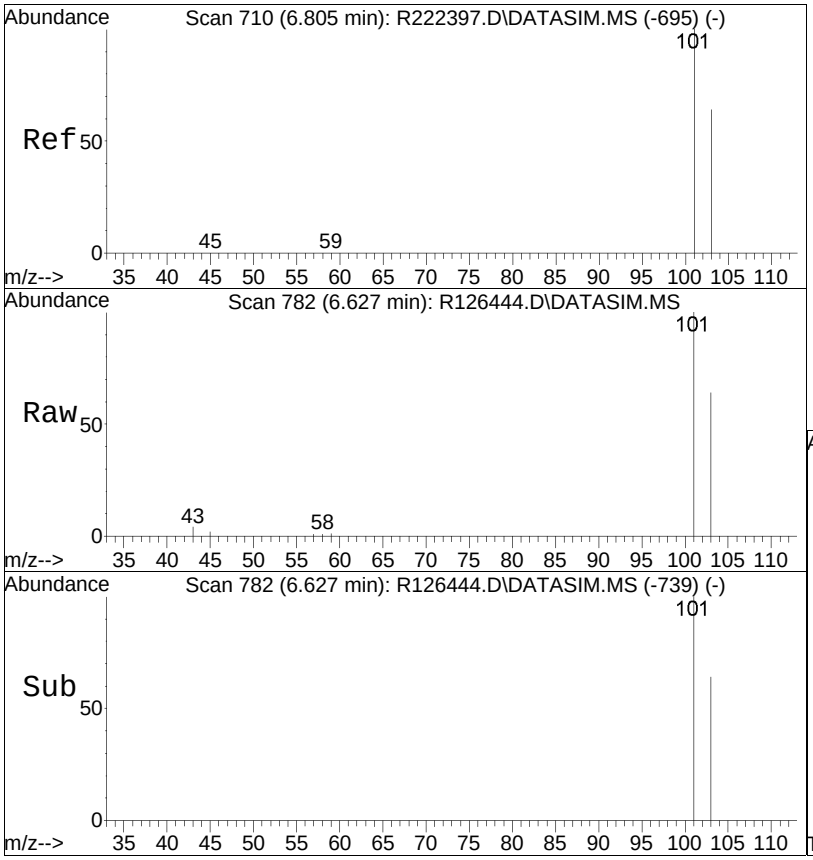



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 416
Delta R.T. -0.004 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 54 Resp: 201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 156.6 | 95.5 | 143.3# |

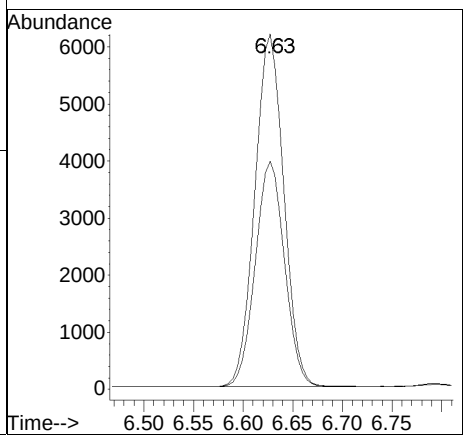


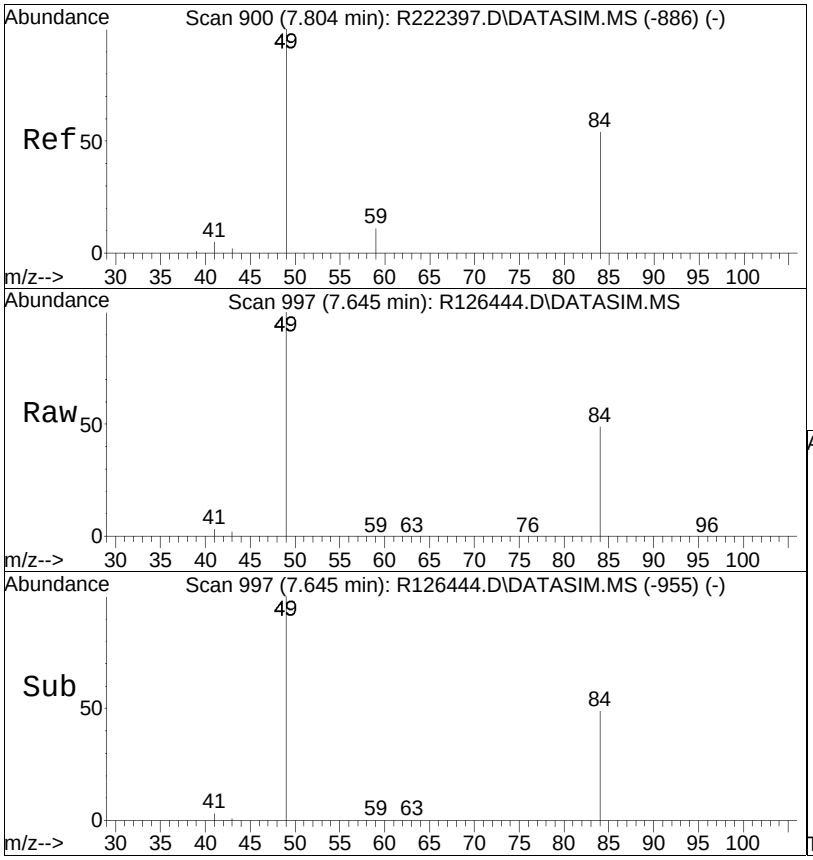



#13
trichlorofluoromethane
Concen: 0.22 ppbV
RT: 6.63 min Scan# 782
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:101 Resp: 12599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.2 | 51.4 | 77.2 |

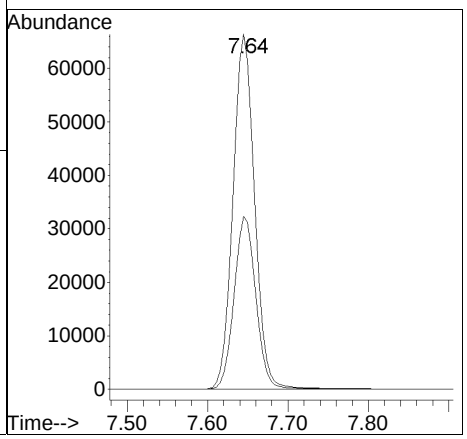


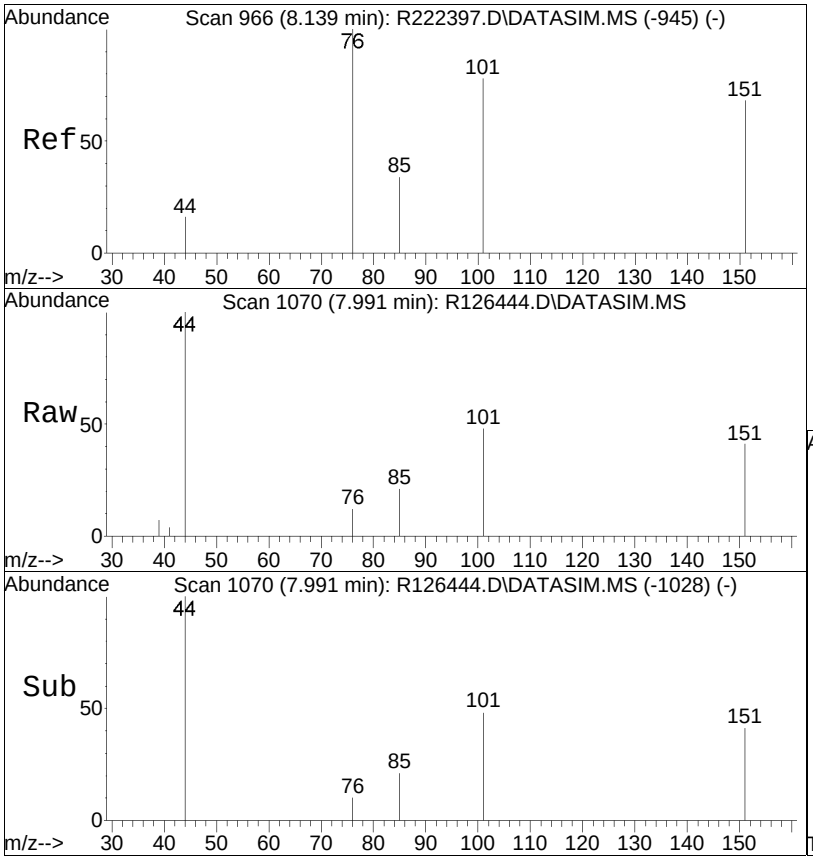



#17
methylene chloride
Concen: 3.82 ppbV m
RT: 7.64 min Scan# 997
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 49 Resp: 124191

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.7 | 40.0 | 60.0 |

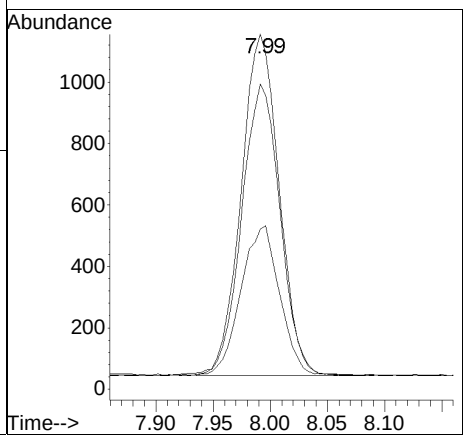


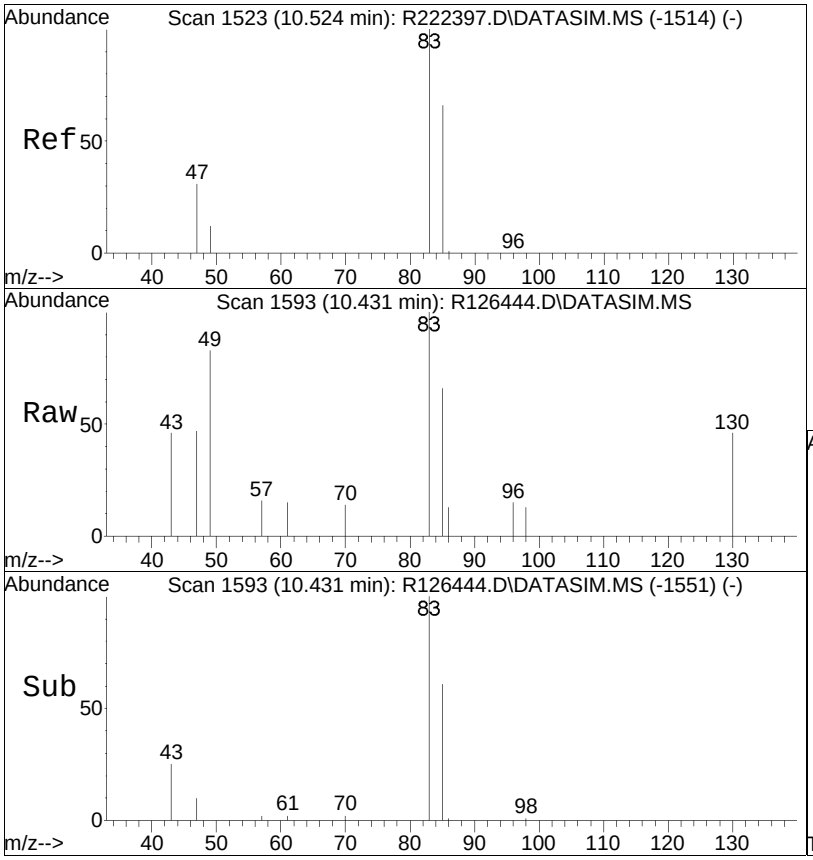



#20
Freon 113
Concen: 0.06 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:101 Resp: 2562

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.1 | 34.6 | 51.8 |
| 151 | 85.9 | 66.0 | 99.0 |

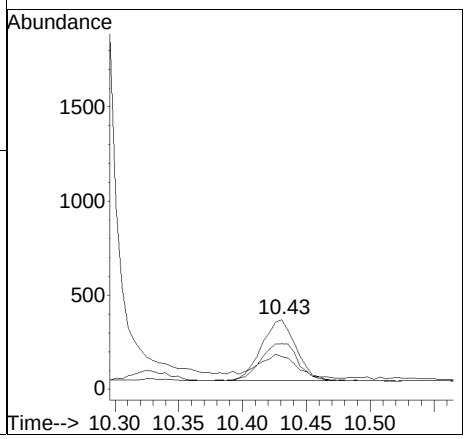


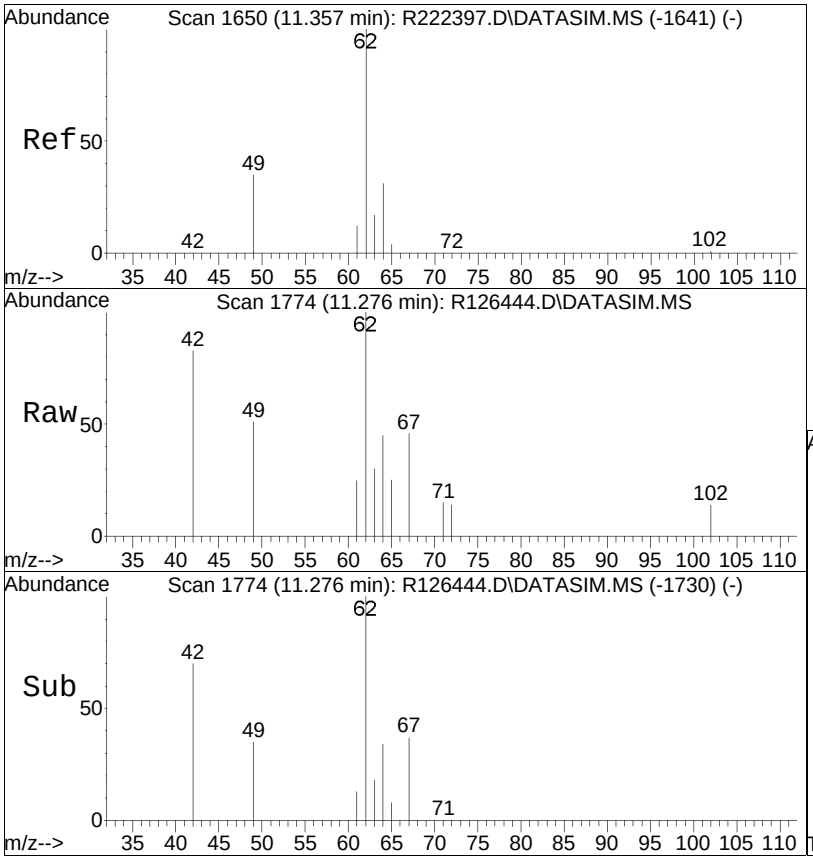



#29
chloroform
Concen: 0.01 ppbV
RT: 10.43 min Scan# 1593
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 83 Resp: 613

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.7 | 52.2 | 78.2 |
| 47 | 46.8 | 27.0 | 40.6# |

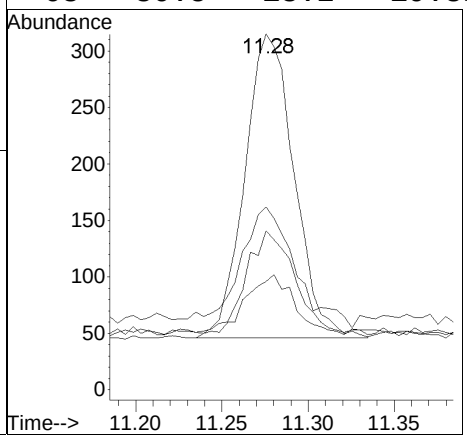


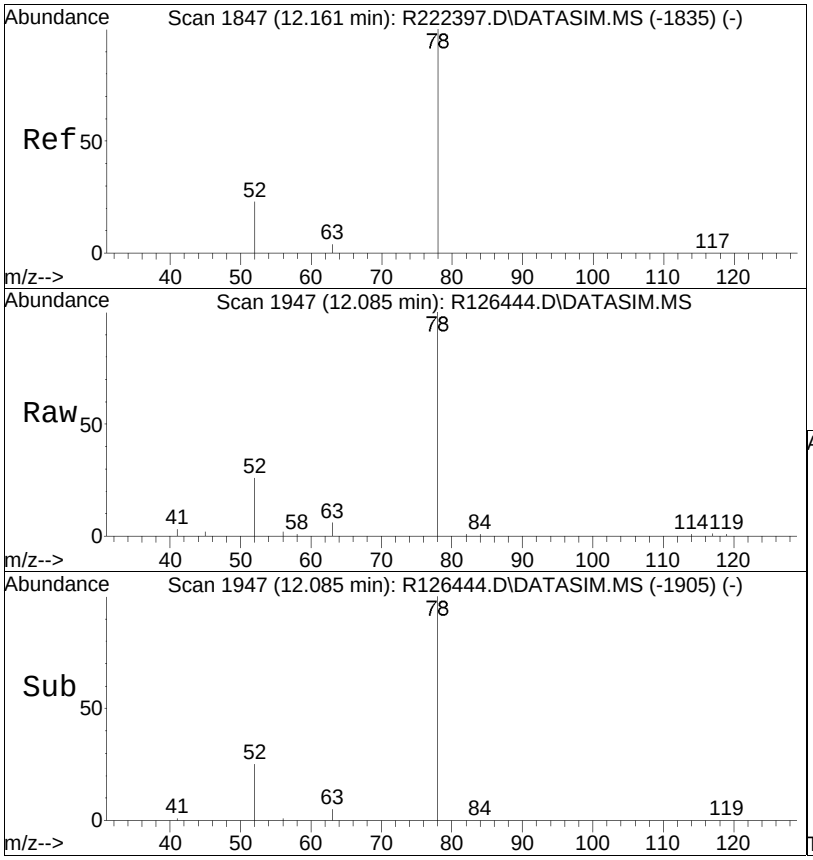



#31
1,2-dichloroethane
Concen: 0.02 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 62 Resp: 536

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 44.8 | 25.3 | 37.9# |
| 49 | 51.4 | 30.2 | 45.2# |
| 63 | 30.5 | 13.2 | 19.8# |

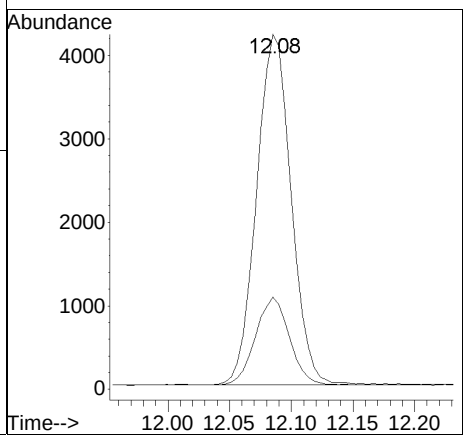


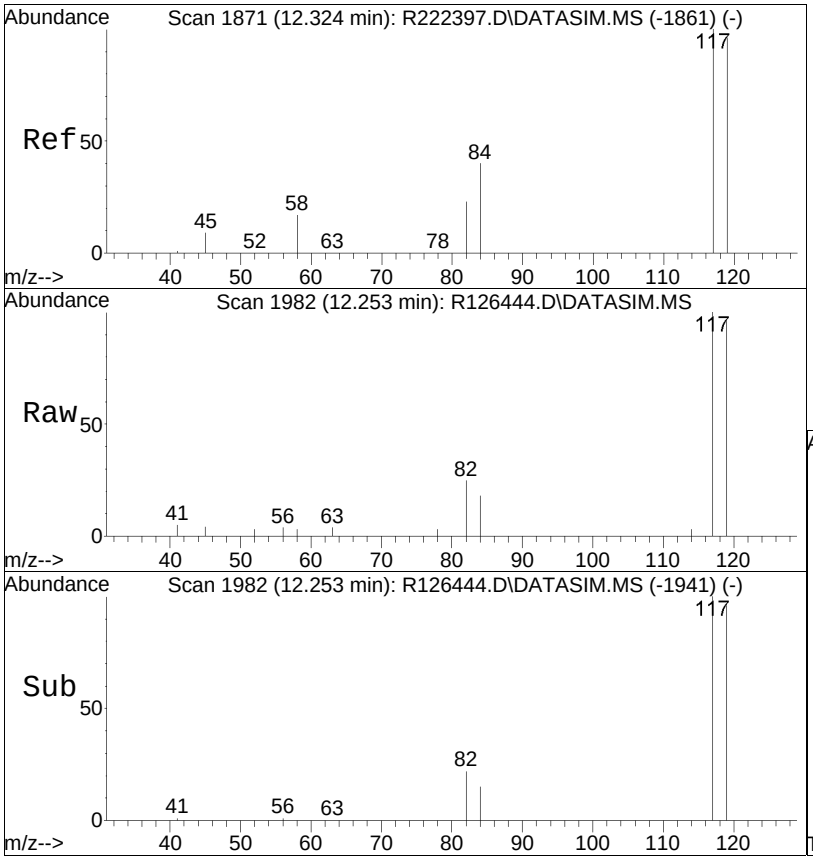



#36
benzene
Concen: 0.15 ppbV
RT: 12.08 min Scan# 1947
Delta R.T. -0.000 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 78 Resp: 8185

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 26.0 | 18.6 | 28.0 |

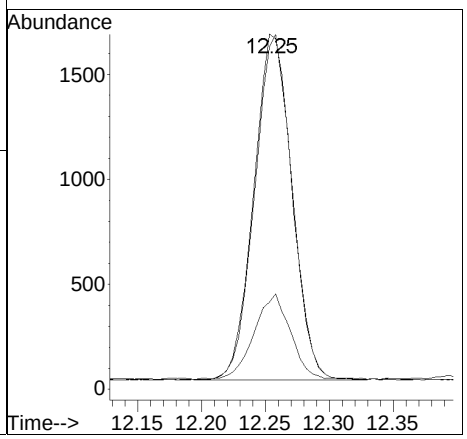


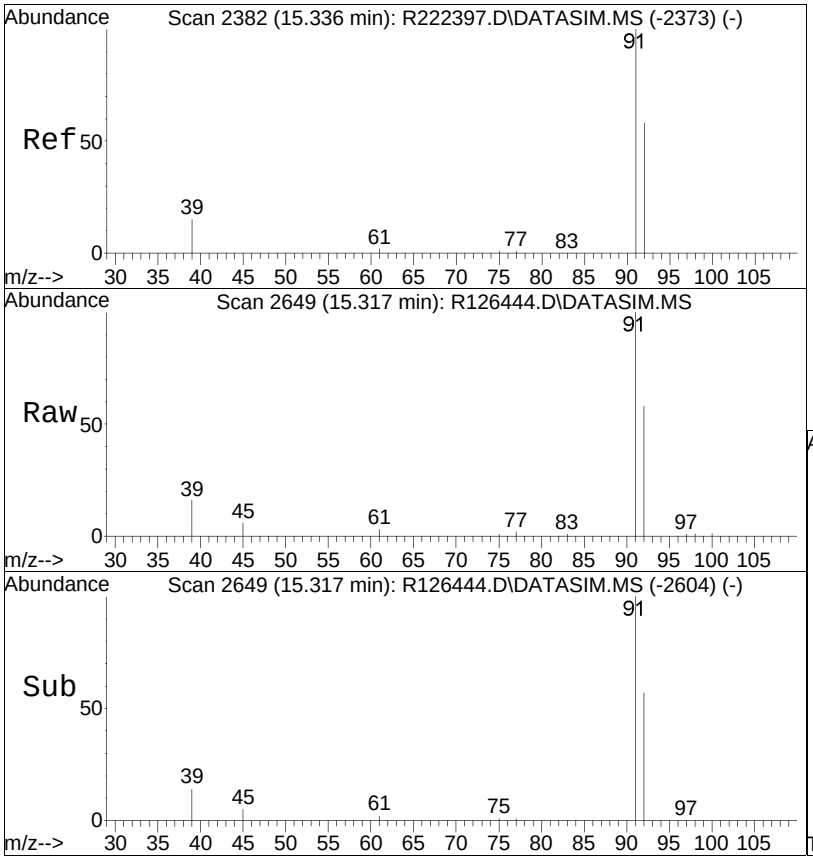



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.25 min Scan# 1982
Delta R.T. -0.005 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:117 Resp: 3420

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.5 | 78.7 | 118.1 |
| 82 | 24.5 | 18.9 | 28.3 |

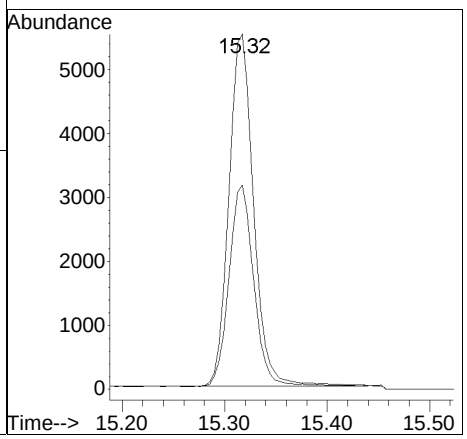


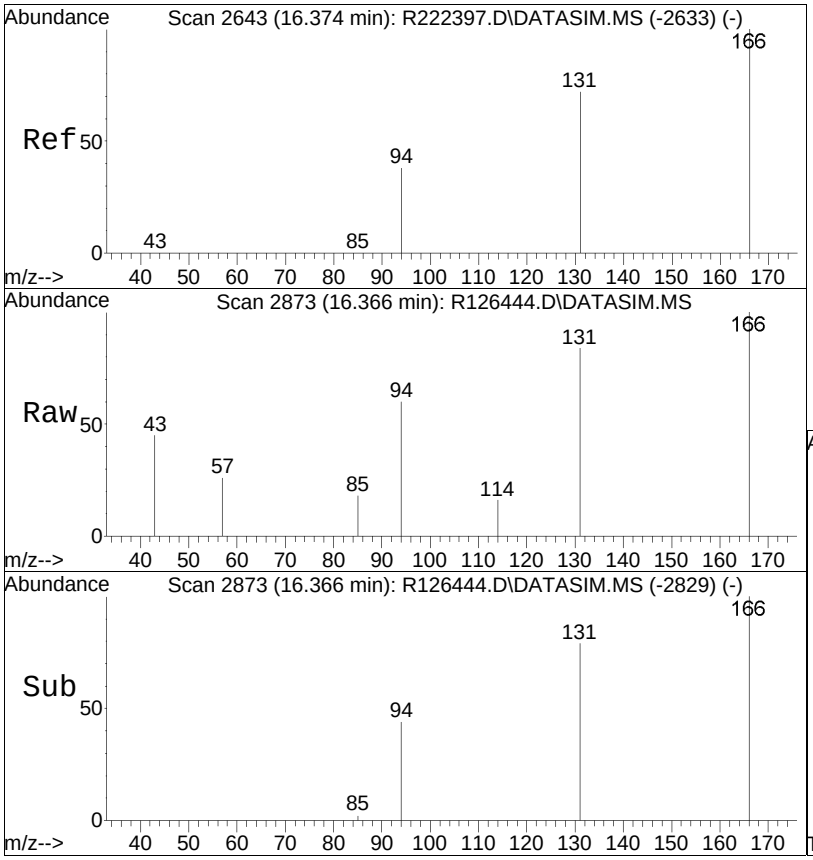



#50
toluene
Concen: 0.14 ppbV
RT: 15.32 min Scan# 2649
Delta R.T. 0.004 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 91 Resp: 9275

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.6 | 46.3 | 69.5 |

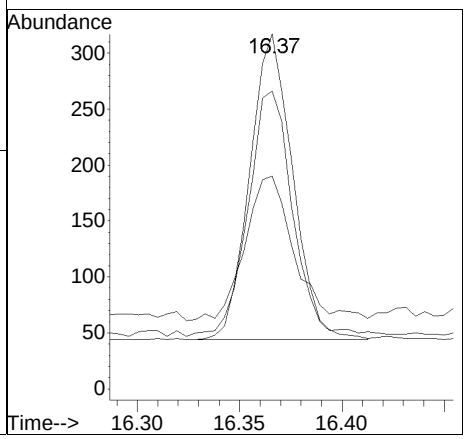


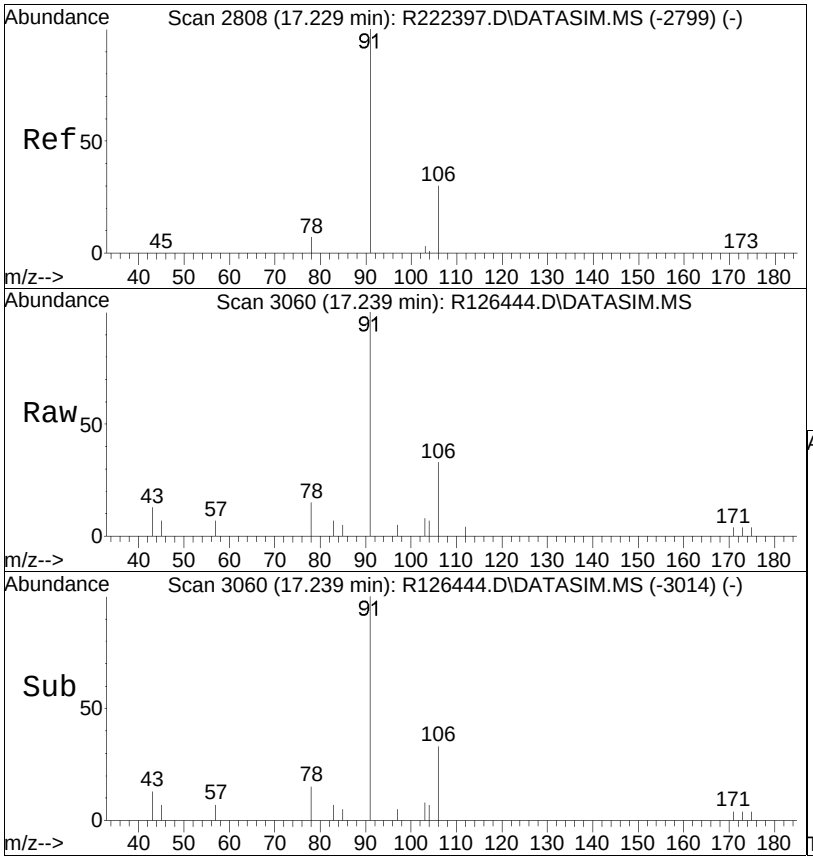



#55
tetrachloroethene
Concen: 0.01 ppbV
RT: 16.37 min Scan# 2873
Delta R.T. 0.005 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:166 Resp: 398

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 83.9 | 63.1 | 94.7 |
| 94 | 59.9 | 37.2 | 55.8# |

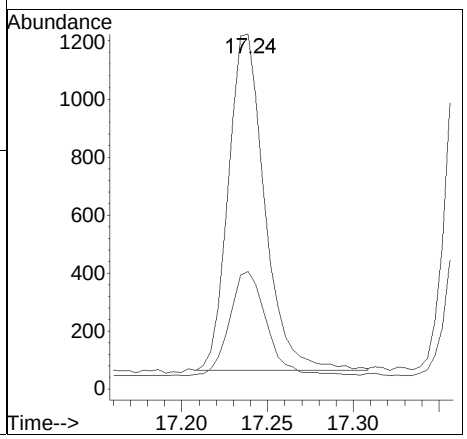


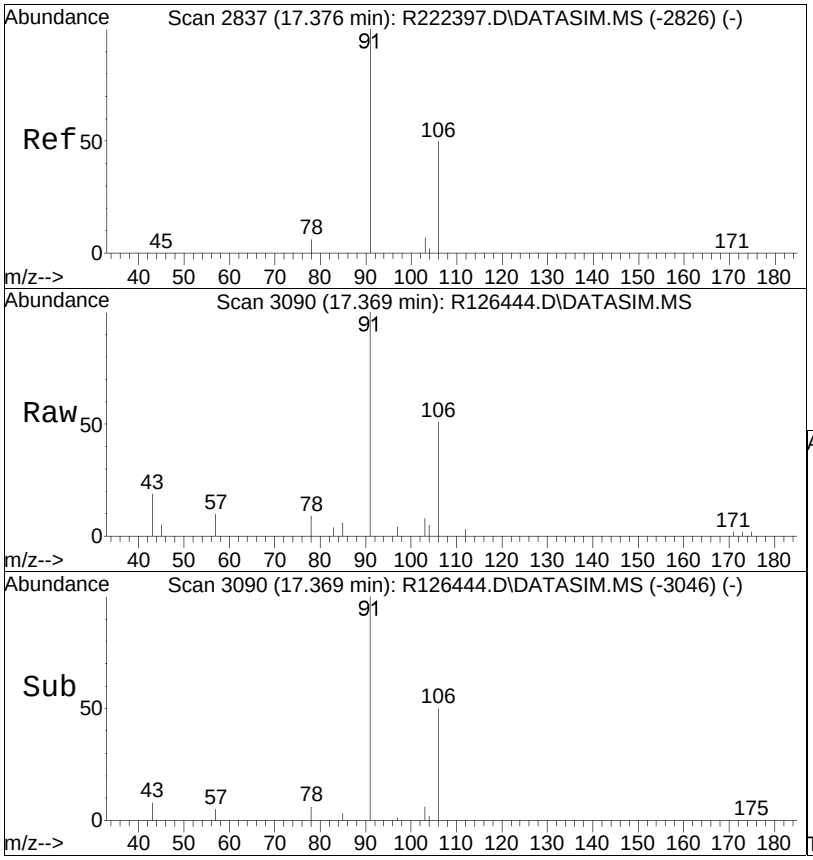



#58
ethylbenzene
Concen: 0.02 ppbV
RT: 17.24 min Scan# 3060
Delta R.T. 0.009 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 91 Resp: 1717

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 33.2 | 24.2 | 36.2 |

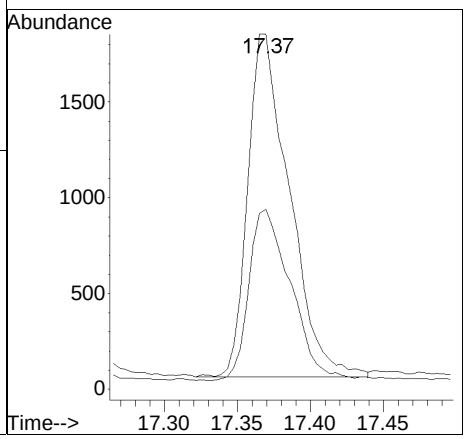


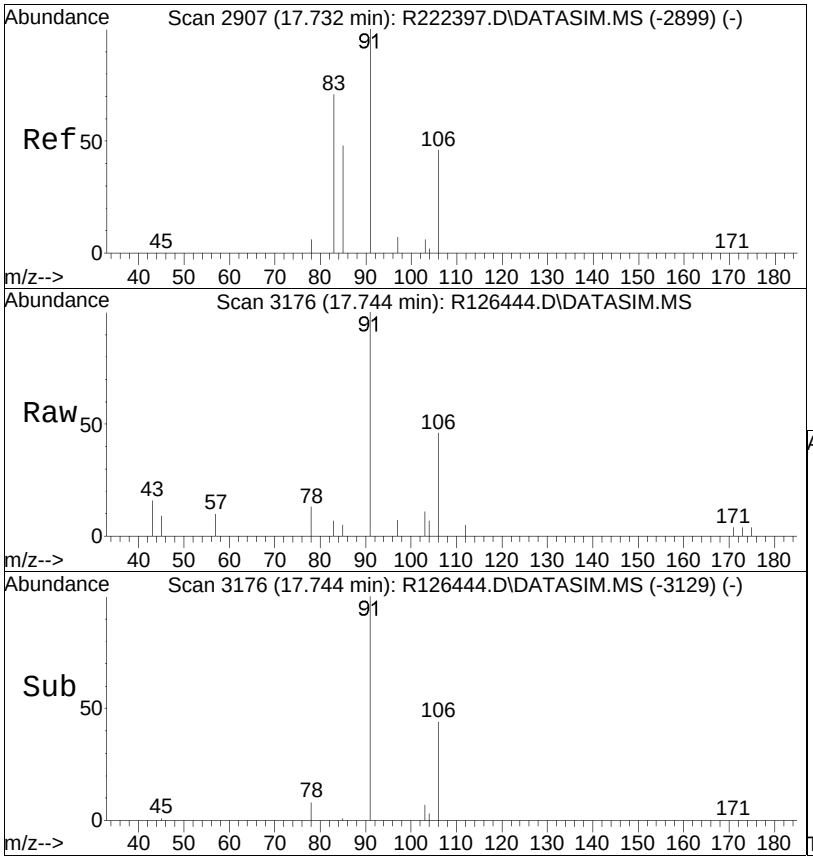



#59
m+p-xylene
Concen: 0.05 ppbV
RT: 17.37 min Scan# 3090
Delta R.T. -0.009 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 91 Resp: 3563

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 50.7 | 39.0 | 58.4 |

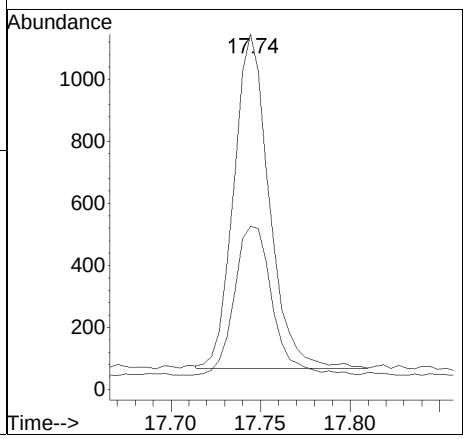


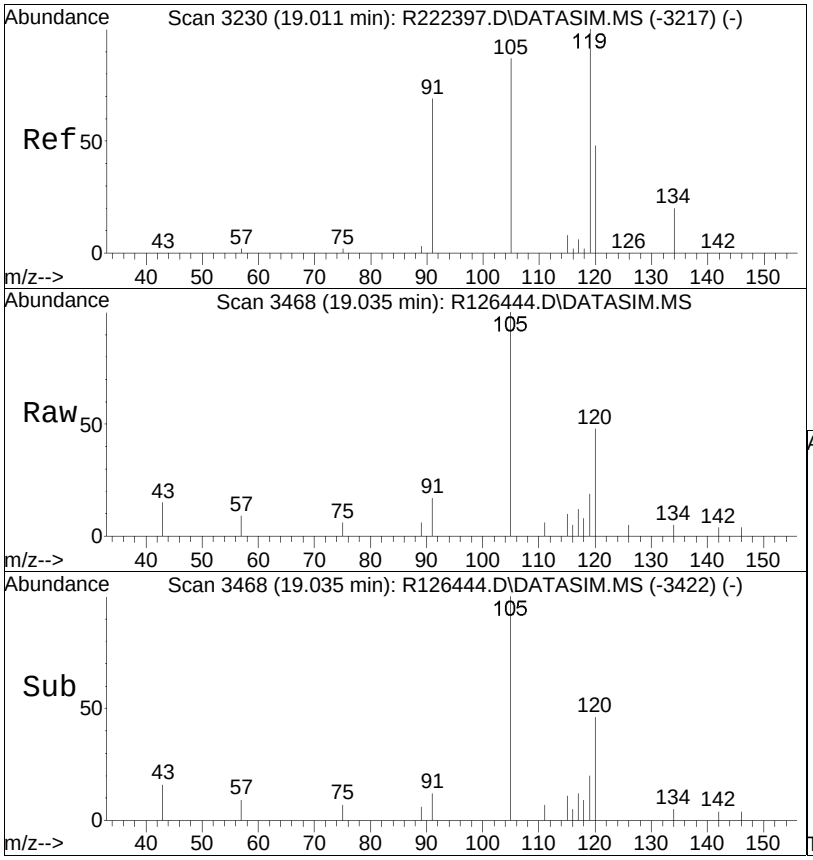



#63
o-xylene
Concen: 0.02 ppbV
RT: 17.74 min Scan# 3176
Delta R.T. 0.004 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 91 Resp: 1477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.9 | 37.1 | 55.7 |

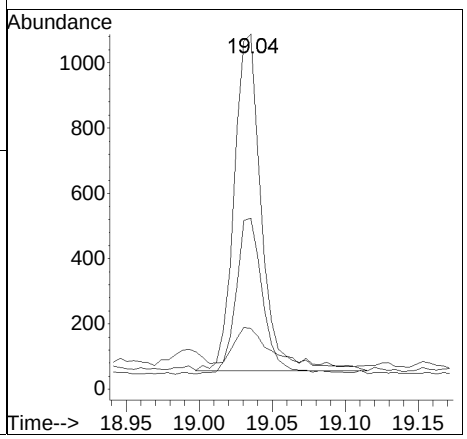





#69
1,2,4-trimethylbenzene
Concen: 0.02 ppbV
RT: 19.04 min Scan# 3468
Delta R.T. 0.009 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion:105 Resp: 1343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.2 | 43.6 | 65.4 |
| 91 | 17.1 | 62.0 | 93.0# |

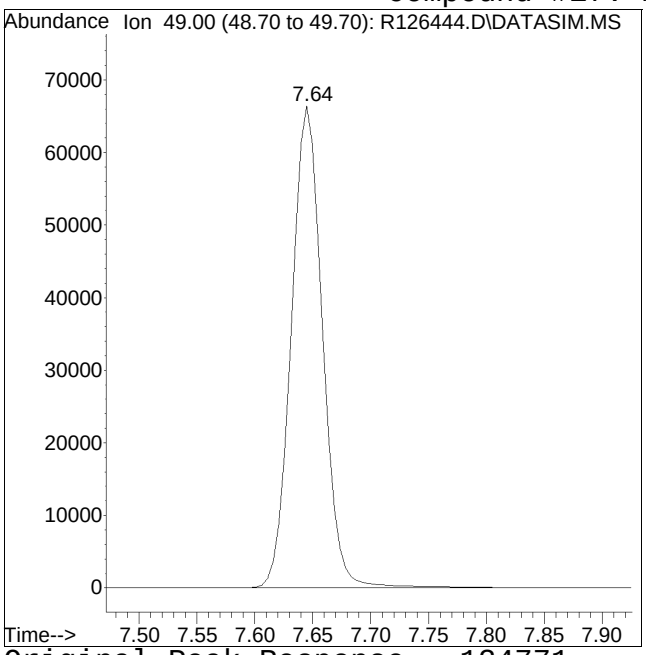


Manual Integration/Negative Proof Report

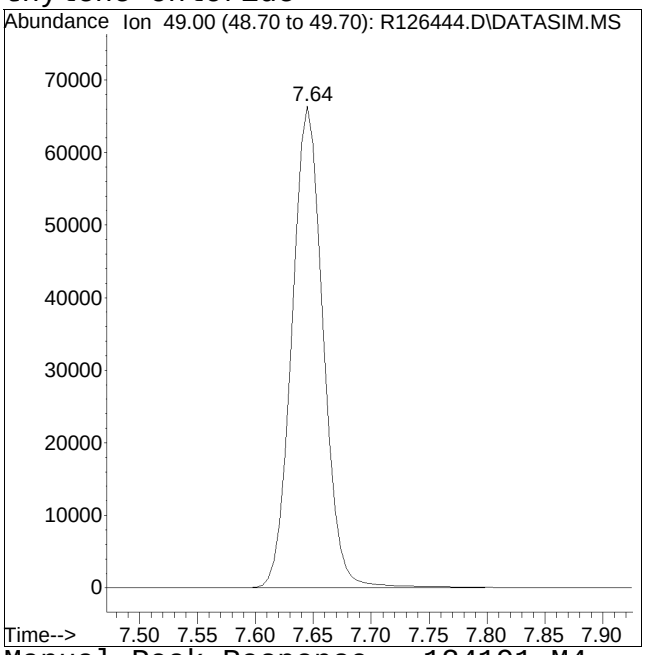
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #17: methylene chloride




Original Peak Response = 124771




Manual Peak Response = 124191 M4

M4 = Poor automated baseline construction.

# Method Blank
# Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:RY
Sample : WG589504-4,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 21:29:32 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 350471 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = | | 96.11% | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 709057 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = | | 93.83% | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 175684 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = | | 94.52% | |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 3) dichlorodifluoromethane | 4.18 | | 0 | N.D. | | |
| 4) chloromethane | 4.40 | 50 | 366 | 0.014 | ppbV # | 78 |
| 5) Freon-114 | 4.55 | | 0 | N.D. | | |
| 6) vinyl chloride | 4.73 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.90 | | 0 | N.D. | | |
| 8) bromomethane | 0.00 | | 0 | N.D. | d | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 12) acetone | 6.44 | 43 | 1394 | 0.032 | ppbV # | 99 |
| 13) trichlorofluoromethane | 6.63 | | 0 | N.D. | | |
| 15) acrylonitrile | 7.05 | | 0 | N.D. | | |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | | |
| 17) methylene chloride | 7.64 | 49 | 3123 | 0.091 | ppbV | 99 |
| 20) Freon 113 | 0.00 | | 0 | N.D. | | |
| 21) Halothane | 8.61 | | 0 | N.D. | | |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 8.97 | | 0 | N.D. | | |
| 24) MTBE | 9.17 | | 0 | N.D. | | |
| 26) 2-butanone | 9.61 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 9.96 | | 0 | N.D. | | |
| 29) chloroform | 10.44 | | 0 | N.D. | | |
| 31) 1,2-dichloroethane | 0.00 | | 0 | N.D. | | |
| 35) 1,1,1-trichloroethane | 11.47 | | 0 | N.D. | | |
| 36) benzene | 12.09 | | 0 | N.D. | | |
| 37) carbon tetrachloride | 12.25 | | 0 | N.D. | | |
| 39) 1,2-dichloropropane | 13.03 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | | 0 | N.D. | | |
| 41) 1,4-dioxane | 13.36 | | 0 | N.D. | | |
| 42) trichloroethene | 13.28 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.29 | | 0 | N.D. | | |
| 46) 4-methyl-2-pentanone | 14.33 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:RY
Sample : WG589504-4,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 21:29:32 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

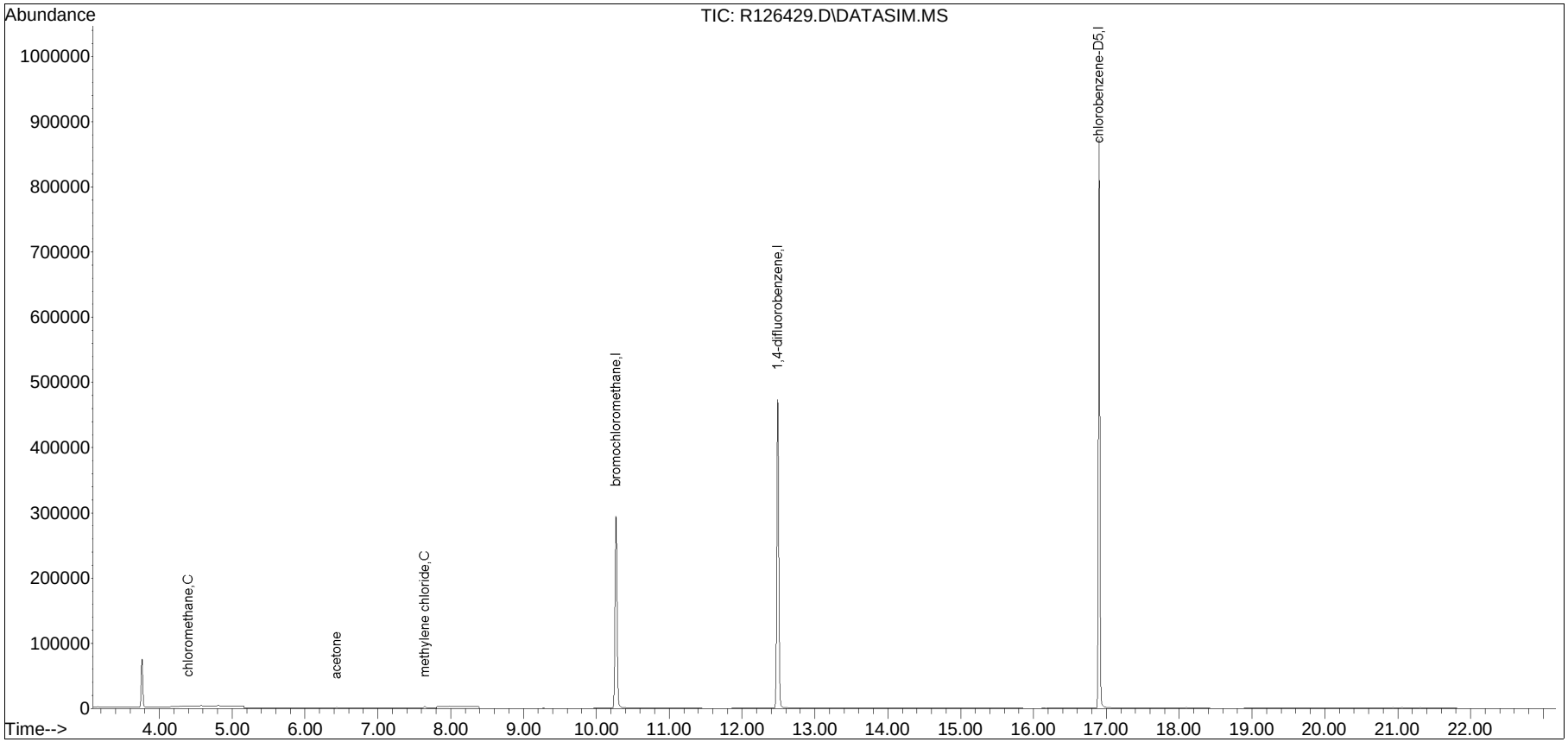
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 47) trans-1,3-dichloropropene | 14.86 | | 0 | | N.D. | |
| 48) 1,1,2-trichloroethane | 15.05 | | 0 | | N.D. | |
| 50) toluene | 15.32 | | 0 | | N.D. | |
| 53) dibromochloromethane | 0.00 | | 0 | | N.D. | |
| 54) 1,2-dibromoethane | 15.97 | | 0 | | N.D. | |
| 55) tetrachloroethene | 16.37 | | 0 | | N.D. | |
| 56) 1,1,1,2-tetrachloroethane | 16.91 | | 0 | | N.D. | |
| 57) chlorobenzene | 16.93 | | 0 | | N.D. | |
| 58) ethylbenzene | 17.24 | | 0 | | N.D. | |
| 59) m+p-xylene | 17.38 | | 0 | | N.D. | |
| 60) bromoform | 17.46 | | 0 | | N.D. | |
| 61) styrene | 17.67 | | 0 | | N.D. | |
| 62) 1,1,2,2-tetrachloroethane | 17.75 | | 0 | | N.D. | |
| 63) o-xylene | 17.74 | | 0 | | N.D. | |
| 65) isopropylbenzene | 18.19 | | 0 | | N.D. | |
| 66) 4-ethyl toluene | 18.67 | | 0 | | N.D. | |
| 67) 1,3,5-trimethylbenzene | 18.72 | | 0 | | N.D. | |
| 69) 1,2,4-trimethylbenzene | 19.04 | | 0 | | N.D. | |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | | N.D. | |
| 72) 1,4-dichlorobenzene | 19.22 | | 0 | | N.D. | |
| 73) sec-butylbenzene | 19.23 | | 0 | | N.D. | |
| 74) p-isopropyltoluene | 19.35 | | 0 | | N.D. | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | | N.D. | |
| 76) n-butylbenzene | 19.67 | | 0 | | N.D. | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | | N.D. | |
| 78) naphthalene | 21.06 | | 0 | | N.D. | |
| 79) 1,2,3-trichlorobenzene | 21.31 | | 0 | | N.D. | |
| 80) hexachlorobutadiene | 21.37 | | 0 | | N.D. | |

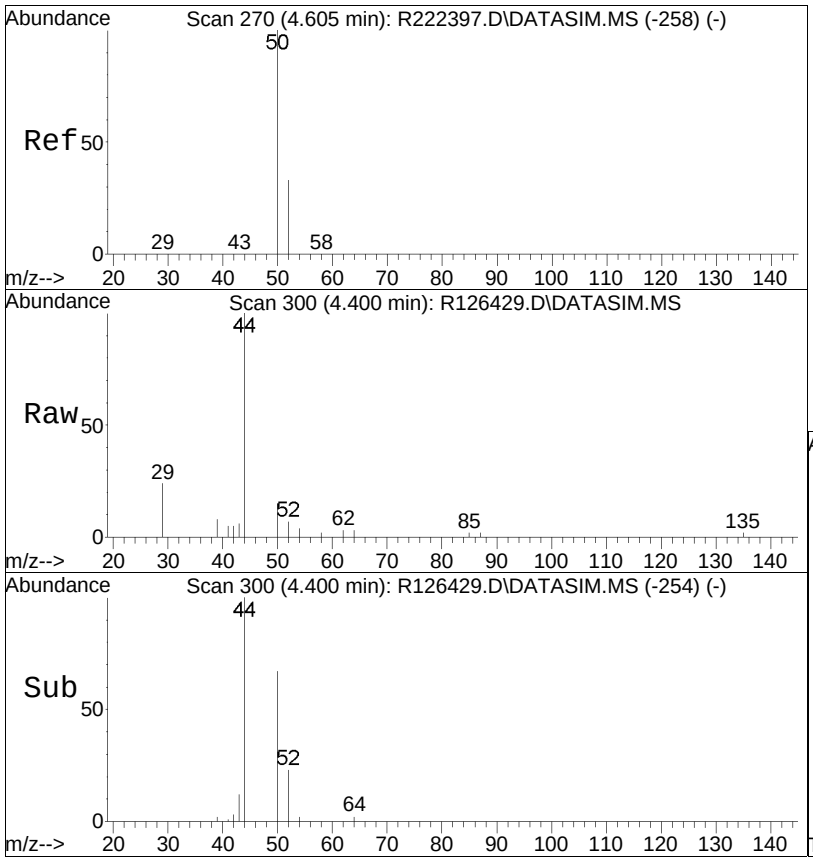
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-SIM - All compounds listediewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:RY
Sample : WG589504-4,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 21:29:32 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

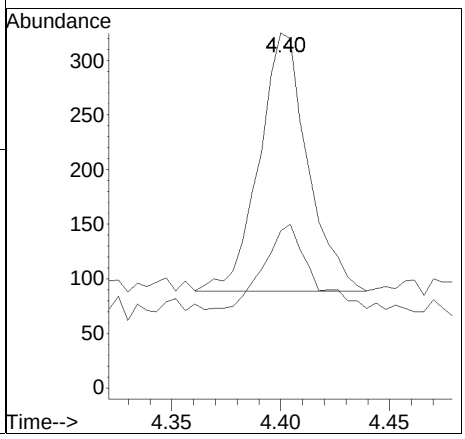


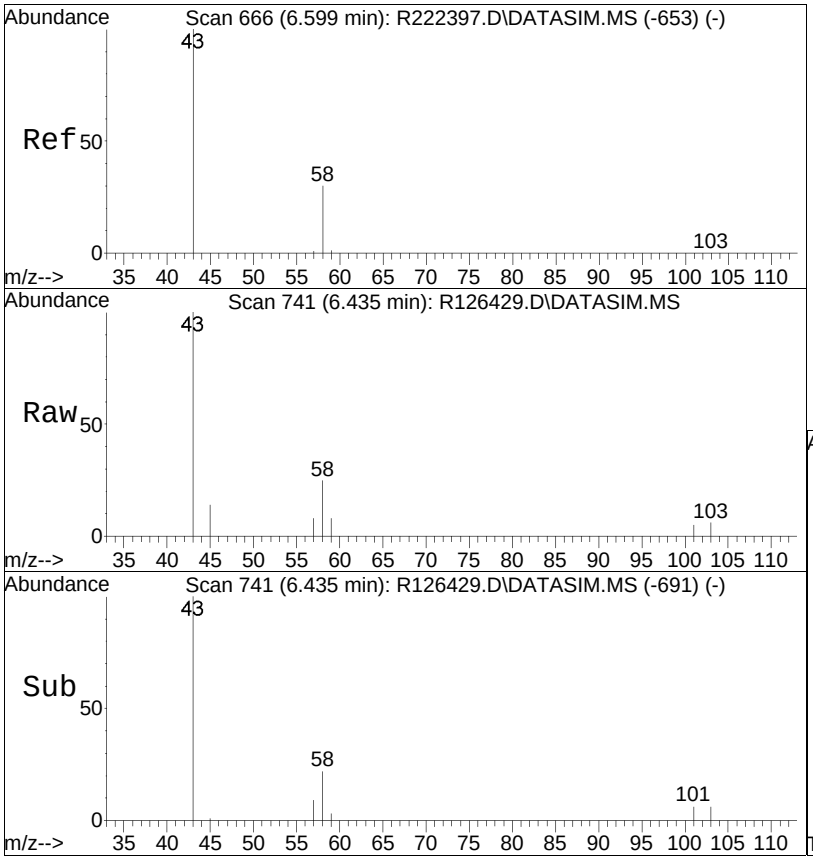



#4
chloromethane
Concen: 0.01 ppbV
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126429.D
Acq: 8 Feb 2013 2:12 pm

Tgt Ion: 50 Resp: 366

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 44.3 | 25.8 | 38.6# |

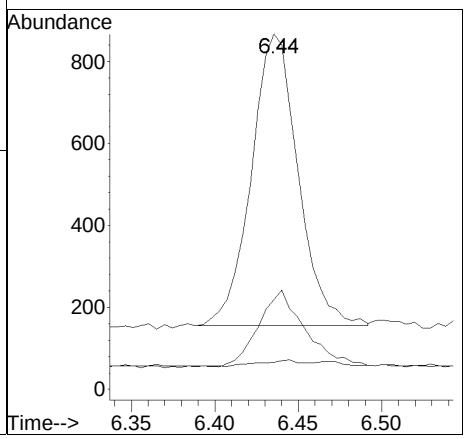


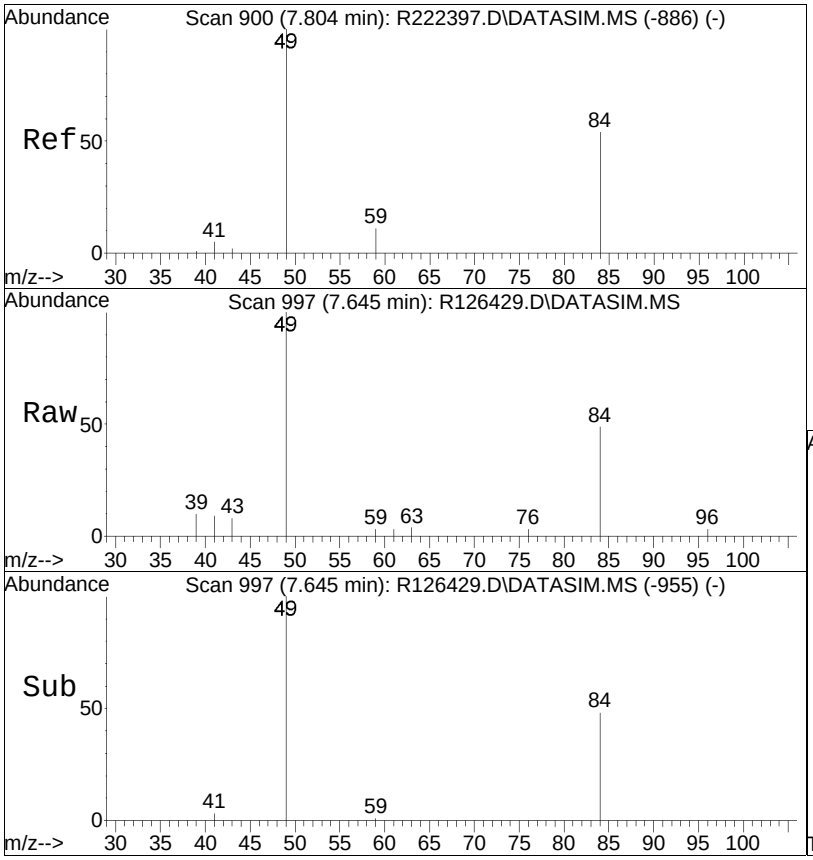



#12
acetone
Concen: 0.03 ppbV
RT: 6.44 min Scan# 741
Delta R.T. 0.038 min
Lab File: R126429.D
Acq: 8 Feb 2013 2:12 pm

Tgt Ion: 43 Resp: 1394

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 25.3 | 20.5 | 30.7 |
| 57 | 7.6 | 0.6 | 1.0# |

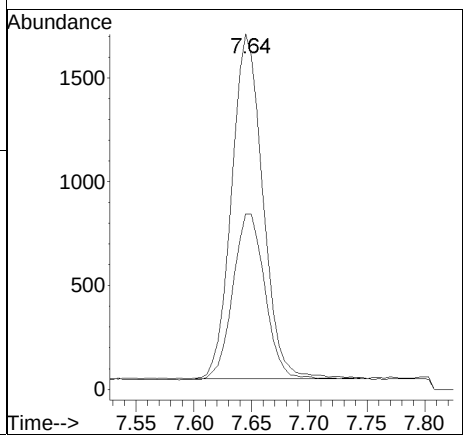





#17
methylene chloride
Concen: 0.09 ppbV
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126429.D
Acq: 8 Feb 2013 2:12 pm

Tgt Ion: 49 Resp: 3123

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 49.4 | 40.0 | 60.0 |

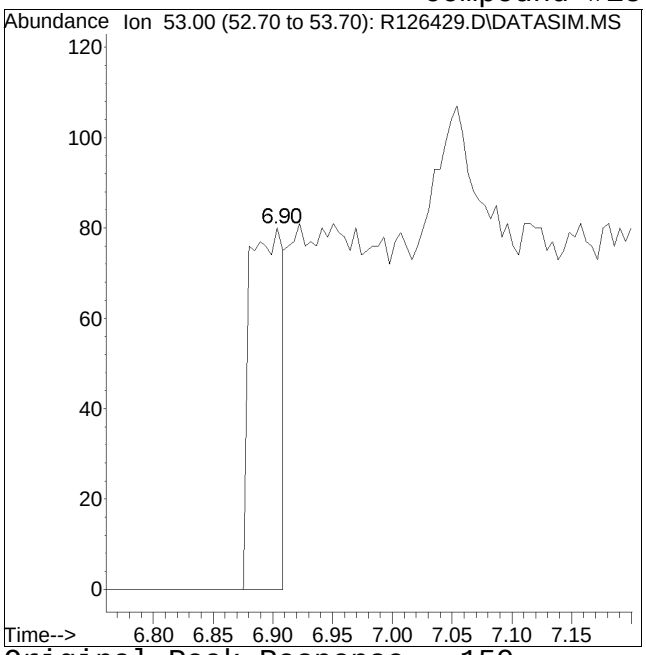


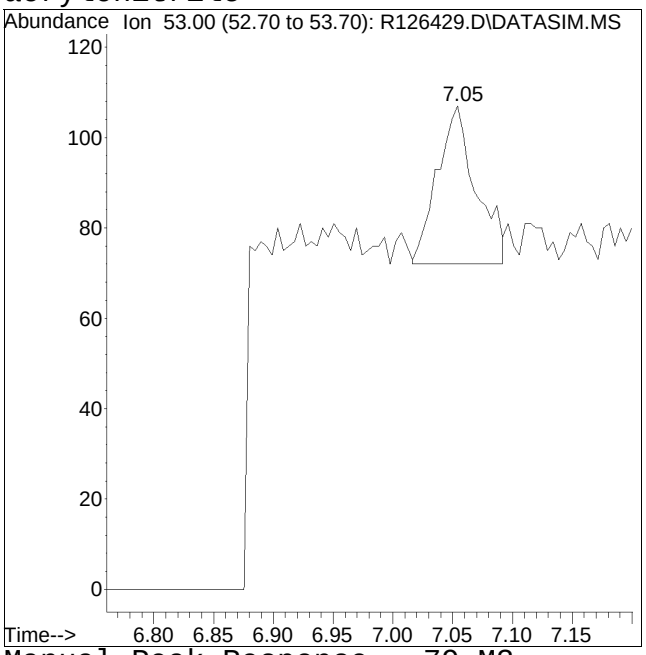
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589504-4,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:26 pm

Compound #15: acrylonitrile




Original Peak Response = 150 Manual Peak Response = 79 M3

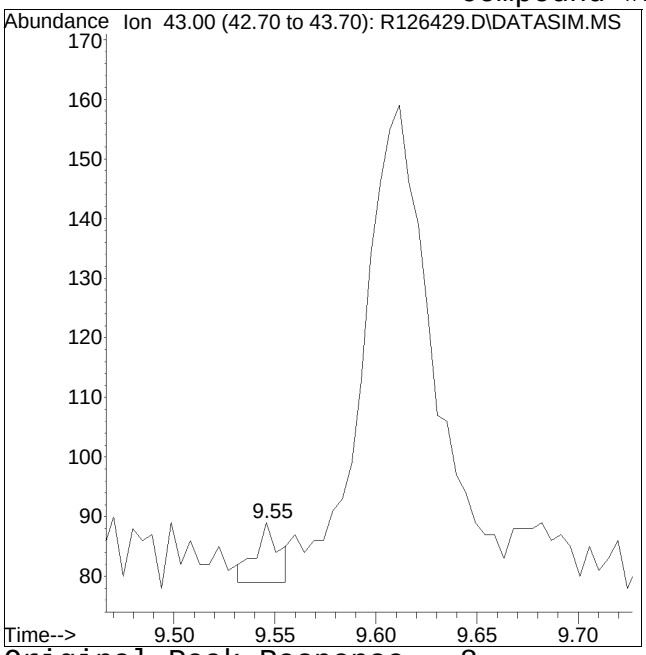
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

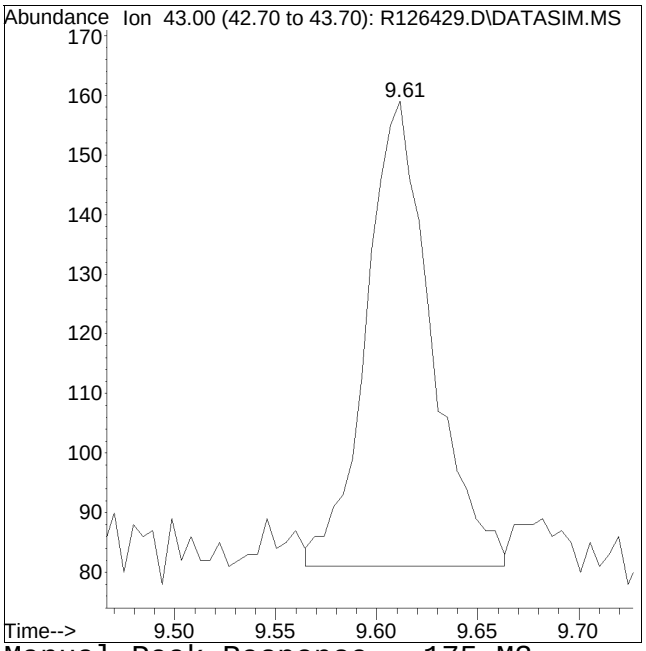
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589504-4,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:26 pm

Compound #26: 2-butanone




Original Peak Response = 8 Manual Peak Response = 175 M3

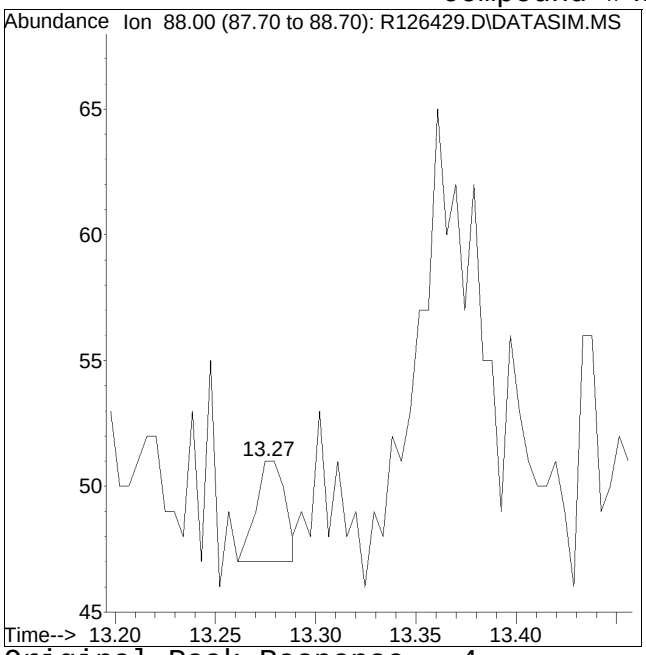
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

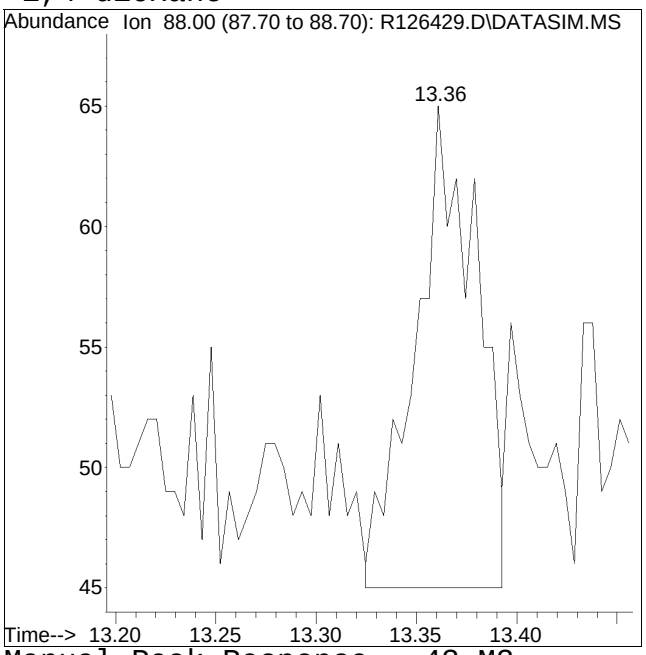
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589504-4,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:26 pm

Compound #41: 1,4-dioxane




Original Peak Response = 4 Manual Peak Response = 43 M3

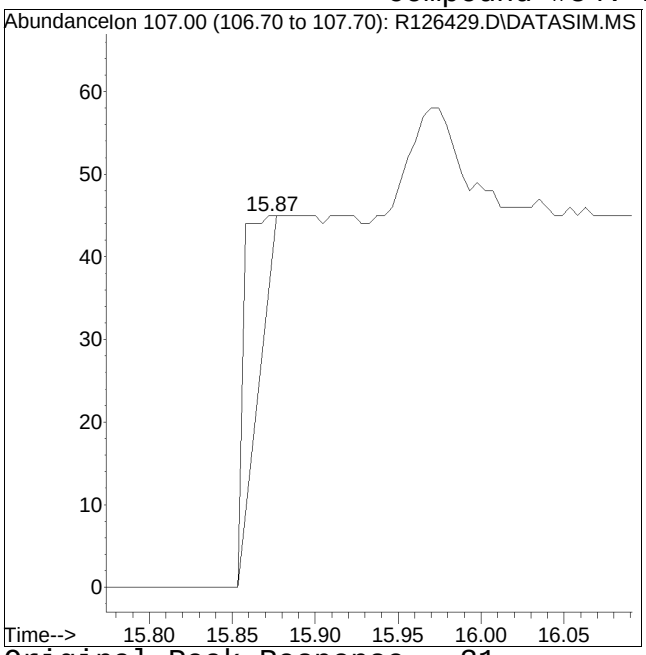
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

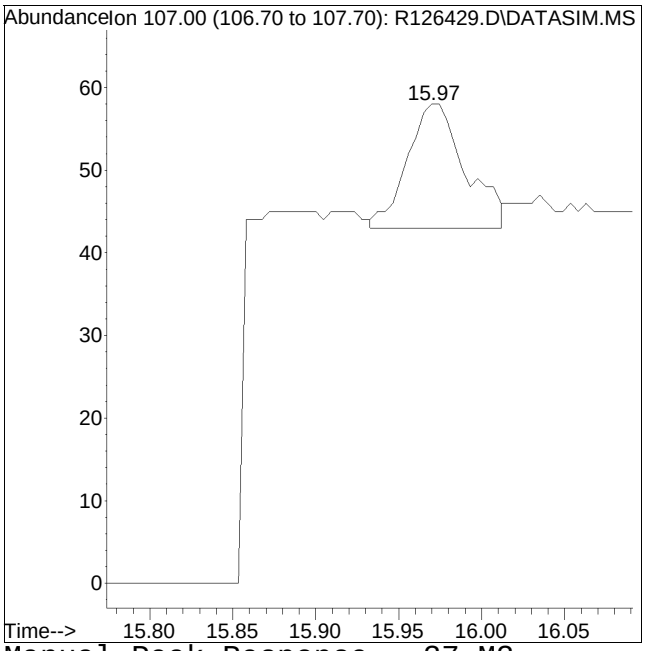
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589504-4,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:26 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 31 Manual Peak Response = 37 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

# Batch Quality Control

# LCS Raw Data

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-3,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 10.000 | 10.000 | 0.0 | 89 | 0.00 |
| 3 | | dichlorodifluoromethane | 5.000 | 4.726 | 5.5 | 96 | 0.00 |
| 4 | C | chloromethane | 5.000 | 4.128 | 17.4 | 86 | 0.00 |
| 5 | | Freon-114 | 5.000 | 4.303 | 13.9 | 85 | 0.00 |
| 6 | C | vinyl chloride | 5.000 | 4.072 | 18.6 | 81 | 0.00 |
| 7 | C | 1,3-butadiene | 5.000 | 4.352 | 13.0 | 86 | 0.00 |
| 8 | C | bromomethane | 5.000 | 4.147 | 17.1 | 83 | 0.00 |
| 9 | C | chloroethane | 5.000 | 3.886 | 22.3 | 78 | 0.00 |
| 12 | | acetone | 25.000 | 21.846 | 12.6 | 87 | 0.00 |
| 13 | | trichlorofluoromethane | 5.000 | 4.860 | 2.8 | 96 | 0.00 |
| 15 | C | acrylonitrile | 5.000 | 3.800 | 24.0 | 76 | 0.00 |
| 16 | C | 1,1-dichloroethene | 5.000 | 4.282 | 14.4 | 84 | 0.00 |
| 17 | C | methylene chloride | 5.000 | 4.259 | 14.8 | 83 | 0.00 |
| 20 | | Freon 113 | 5.000 | 4.460 | 10.8 | 87 | 0.00 |
| 21 | | Halothane | 5.000 | 3.853 | 22.9 | 74 | 0.00 |
| 22 | | trans-1,2-dichloroethene | 5.000 | 3.813 | 23.7 | 74 | 0.00 |
| 23 | C | 1,1-dichloroethane | 5.000 | 4.174 | 16.5 | 81 | 0.00 |
| 24 | C | MTBE | 5.000 | 4.062 | 18.8 | 80 | 0.00 |
| 26 | C | 2-butanone | 5.000 | 3.632 | 27.4 | 76 | 0.00 |
| 27 | | cis-1,2-dichloroethene | 5.000 | 4.456 | 10.9 | 78 | 0.00 |
| 29 | C | chloroform | 5.000 | 4.814 | 3.7 | 89 | 0.00 |
| 31 | C | 1,2-dichloroethane | 5.000 | 4.585 | 8.3 | 88 | 0.00 |
| 32 | I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 89 | 0.00 |
| 35 | C | 1,1,1-trichloroethane | 5.000 | 5.316 | -6.3 | 93 | 0.00 |
| 36 | C | benzene | 5.000 | 4.369 | 12.6 | 79 | 0.00 |
| 37 | C | carbon tetrachloride | 5.000 | 5.436 | -8.7 | 95 | 0.00 |
| 39 | C | 1,2-dichloropropane | 5.000 | 4.591 | 8.2 | 82 | 0.00 |
| 40 | | bromodichloromethane | 5.000 | 4.978 | 0.4 | 86 | 0.00 |
| 41 | C | 1,4-dioxane | 5.000 | 4.318 | 13.6 | 78 | 0.00 |
| 42 | C | trichloroethene | 5.000 | 5.066 | -1.3 | 89 | 0.00 |
| 45 | C | cis-1,3-dichloropropene | 5.000 | 4.801 | 4.0 | 84 | 0.00 |
| 46 | C | 4-methyl-2-pentanone | 5.000 | 4.612 | 7.8 | 80 | 0.00 |
| 47 | | trans-1,3-dichloropropene | 5.000 | 4.208 | 15.8 | 73 | 0.00 |
| 48 | C | 1,1,2-trichloroethane | 5.000 | 4.970 | 0.6 | 88 | 0.00 |
| 49 | I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 87 | 0.00 |
| 50 | C | toluene | 5.000 | 4.558 | 8.8 | 80 | 0.00 |
| 53 | | dibromochloromethane | 5.000 | 5.169 | -3.4 | 86 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-3,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 54 C | 1,2-dibromoethane | 5.000 | 5.119 | -2.4 | 87 | 0.00 |
| 55 C | tetrachloroethene | 5.000 | 5.102 | -2.0 | 88 | 0.00 |
| 56 | 1,1,1,2-tetrachloroethane | 5.000 | 5.009 | -0.2 | 86 | 0.00 |
| 57 C | chlorobenzene | 5.000 | 5.108 | -2.2 | 88 | 0.00 |
| 58 C | ethylbenzene | 5.000 | 4.884 | 2.3 | 84 | 0.00 |
| 59 C | m+p-xylene | 10.000 | 9.857 | 1.4 | 85 | 0.00 |
| 60 C | bromoform | 5.000 | 4.832 | 3.4 | 84 | 0.00 |
| 61 C | styrene | 5.000 | 5.004 | -0.1 | 84 | 0.00 |
| 62 C | 1,1,2,2-tetrachloroethane | 5.000 | 5.063 | -1.3 | 85 | 0.00 |
| 63 C | o-xylene | 5.000 | 5.093 | -1.9 | 87 | 0.00 |
| 65 C | isopropylbenzene | 5.000 | 5.081 | -1.6 | 86 | 0.00 |
| 66 | 4-ethyl toluene | 5.000 | 4.718 | 5.6 | 78 | 0.00 |
| 67 | 1,3,5-trimethylbenzene | 5.000 | 5.169 | -3.4 | 89 | 0.00 |
| 69 | 1,2,4-trimethylbenzene | 5.000 | 5.425 | -8.5 | 90 | 0.00 |
| 71 | 1,3-dichlorobenzene | 5.000 | 5.544 | -10.9 | 92 | 0.00 |
| 72 C | 1,4-dichlorobenzene | 5.000 | 5.481 | -9.6 | 92 | 0.00 |
| 73 | sec-butylbenzene | 5.000 | 5.119 | -2.4 | 83 | 0.00 |
| 74 | p-isopropyltoluene | 5.000 | 4.791 | 4.2 | 79 | 0.00 |
| 75 | 1,2-dichlorobenzene | 5.000 | 5.593 | -11.9 | 93 | 0.00 |
| 76 | n-butylbenzene | 5.000 | 5.314 | -6.3 | 84 | 0.00 |
| 77 C | 1,2,4-trichlorobenzene | 5.000 | 6.051 | -21.0 | 94 | 0.00 |
| 78 | naphthalene | 5.000 | 5.156 | -3.1 | 92 | 0.00 |
| 79 | 1,2,3-trichlorobenzene | 5.000 | 5.935 | -18.7 | 96 | 0.00 |
| 80 C | hexachlorobutadiene | 5.000 | 5.957 | -19.1 | 95 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-3,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 364674 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = 100.00% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 755678 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = 100.00% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 185873 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 253895 | 4.726 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 108628 | 4.128 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 254770 | 4.303 | ppbV | 95 |
| 6) vinyl chloride | 4.72 | 62 | 95824 | 4.072 | ppbV | 100 |
| 7) 1,3-butadiene | 4.91 | 54 | 79567 | 4.352 | ppbV | 95 |
| 8) bromomethane | 5.30 | 94 | 89198 | 4.147 | ppbV | 99 |
| 9) chloroethane | 5.55 | 64 | 41699 | 3.886 | ppbV | 100 |
| 12) acetone | 6.39 | 43 | 976532 | 21.846 | ppbV | 96 |
| 13) trichlorofluoromethane | 6.63 | 101 | 311109 | 4.860 | ppbV | 99 |
| 15) acrylonitrile | 7.04 | 53 | 83060 | 3.800 | ppbV | 100 |
| 16) 1,1-dichloroethene | 7.47 | 61 | 169938 | 4.282 | ppbV | 99 |
| 17) methylene chloride | 7.64 | 49 | 151288M4 | 4.259 | ppbV | |
| 20) Freon 113 | 7.99 | 101 | 198403 | 4.460 | ppbV | 97 |
| 21) Halothane | 8.59 | 117 | 130672 | 3.853 | ppbV | 99 |
| 22) trans-1,2-dichloroethene | 8.82 | 61 | 145035M4 | 3.813 | ppbV | |
| 23) 1,1-dichloroethane | 9.07 | 63 | 184585 | 4.174 | ppbV | 99 |
| 24) MTBE | 9.16 | 73 | 214100 | 4.062 | ppbV | 99 |
| 26) 2-butanone | 9.56 | 43 | 232166 | 3.632 | ppbV | 99 |
| 27) cis-1,2-dichloroethene | 10.07 | 61 | 152986 | 4.456 | ppbV | 98 |
| 29) chloroform | 10.43 | 83 | 225220 | 4.814 | ppbV | 99 |
| 31) 1,2-dichloroethane | 11.27 | 62 | 166081 | 4.585 | ppbV | 98 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 229632 | 5.316 | ppbV | 97 |
| 36) benzene | 12.09 | 78 | 271363 | 4.369 | ppbV | 99 |
| 37) carbon tetrachloride | 12.25 | 117 | 245312 | 5.436 | ppbV | 99 |
| 39) 1,2-dichloropropane | 13.02 | 63 | 129049 | 4.591 | ppbV | 99 |
| 40) bromodichloromethane | 13.24 | 83 | 241559 | 4.978 | ppbV | 99 |
| 41) 1,4-dioxane | 13.29 | 88 | 60306M4 | 4.318 | ppbV | |
| 42) trichloroethene | 13.28 | 130 | 153122 | 5.066 | ppbV | 98 |
| 45) cis-1,3-dichloropropene | 14.27 | 75 | 165599 | 4.801 | ppbV | 96 |
| 46) 4-methyl-2-pentanone | 14.30 | 43 | 343390 | 4.612 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-3,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

Sub List : Default-SIM - All compounds listed

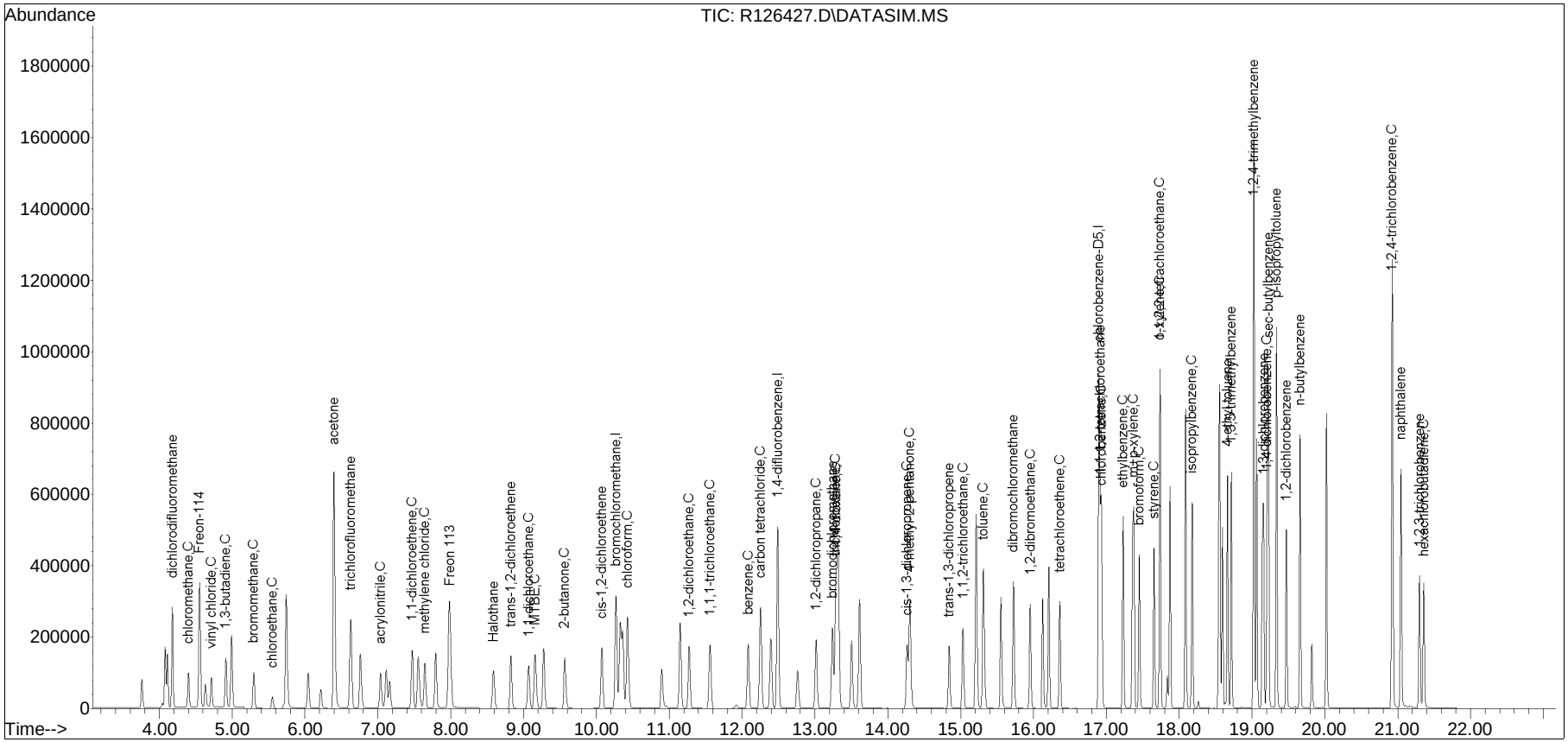
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 47) | trans-1,3-dichloropropene | 14.84 | 75 | 146527 | 4.208 | ppbV | 97 |
| 48) | 1,1,2-trichloroethane | 15.03 | 97 | 135303 | 4.970 | ppbV | 97 |
| 50) | toluene | 15.31 | 91 | 343244M4 | 4.558 | ppbV | |
| 53) | dibromochloromethane | 15.72 | 129 | 266598M4 | 5.169 | ppbV | |
| 54) | 1,2-dibromoethane | 15.96 | 107 | 230579M4 | 5.119 | ppbV | |
| 55) | tetrachloroethene | 16.36 | 166 | 187802 | 5.102 | ppbV | 98 |
| 56) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 190711 | 5.009 | ppbV | 99 |
| 57) | chlorobenzene | 16.93 | 112 | 321644 | 5.108 | ppbV | 99 |
| 58) | ethylbenzene | 17.23 | 91 | 472488 | 4.884 | ppbV | 98 |
| 59) | m+p-xylene | 17.37 | 91 | 744145 | 9.857 | ppbV | 100 |
| 60) | bromoform | 17.45 | 173 | 253065 | 4.832 | ppbV | 100 |
| 61) | styrene | 17.65 | 104 | 290226 | 5.004 | ppbV | 99 |
| 62) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 316634 | 5.063 | ppbV | 100 |
| 63) | o-xylene | 17.74 | 91 | 396339 | 5.093 | ppbV | 99 |
| 65) | isopropylbenzene | 18.18 | 105 | 564874 | 5.081 | ppbV | 100 |
| 66) | 4-ethyl toluene | 18.66 | 105 | 524641M6 | 4.718 | ppbV | |
| 67) | 1,3,5-trimethylbenzene | 18.72 | 105 | 478293 | 5.169 | ppbV | 98 |
| 69) | 1,2,4-trimethylbenzene | 19.02 | 105 | 492033 | 5.425 | ppbV | 97 |
| 71) | 1,3-dichlorobenzene | 19.16 | 146 | 380743 | 5.544 | ppbV | 94 |
| 72) | 1,4-dichlorobenzene | 19.20 | 146 | 388065 | 5.481 | ppbV | 97 |
| 73) | sec-butylbenzene | 19.22 | 105 | 719263 | 5.119 | ppbV | 97 |
| 74) | p-isopropyltoluene | 19.34 | 119 | 620335 | 4.791 | ppbV | 98 |
| 75) | 1,2-dichlorobenzene | 19.47 | 146 | 370629 | 5.593 | ppbV | 94 |
| 76) | n-butylbenzene | 19.66 | 91 | 616127 | 5.314 | ppbV | 96 |
| 77) | 1,2,4-trichlorobenzene | 20.92 | 180 | 323056 | 6.051 | ppbV | 99 |
| 78) | naphthalene | 21.04 | 128 | 792556 | 5.156 | ppbV | 100 |
| 79) | 1,2,3-trichlorobenzene | 21.30 | 180 | 321773 | 5.935 | ppbV | 99 |
| 80) | hexachlorobutadiene | 21.36 | 225 | 247364 | 5.957 | ppbV | 98 |

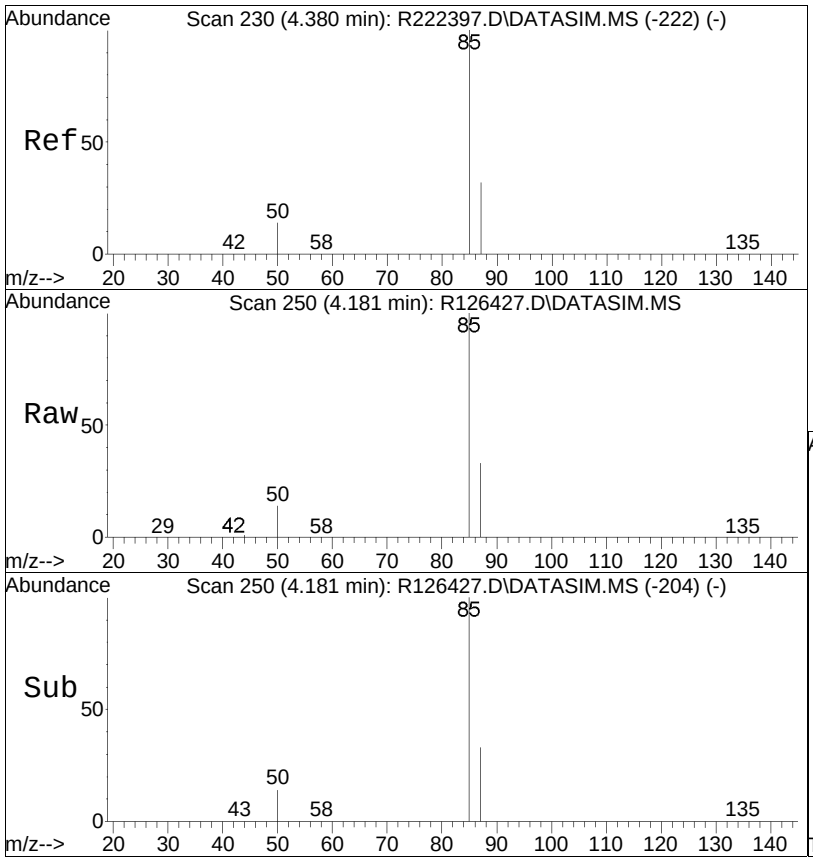
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-SIM - All compounds listediewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-3,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012
Response via : Initial Calibration

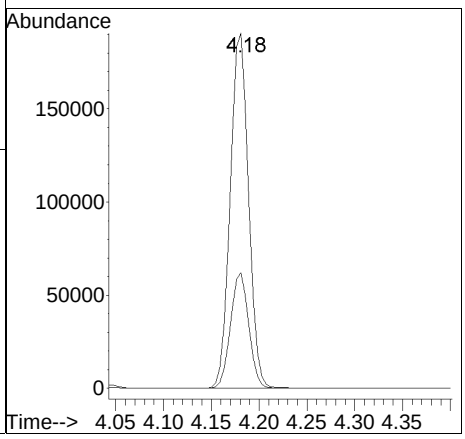


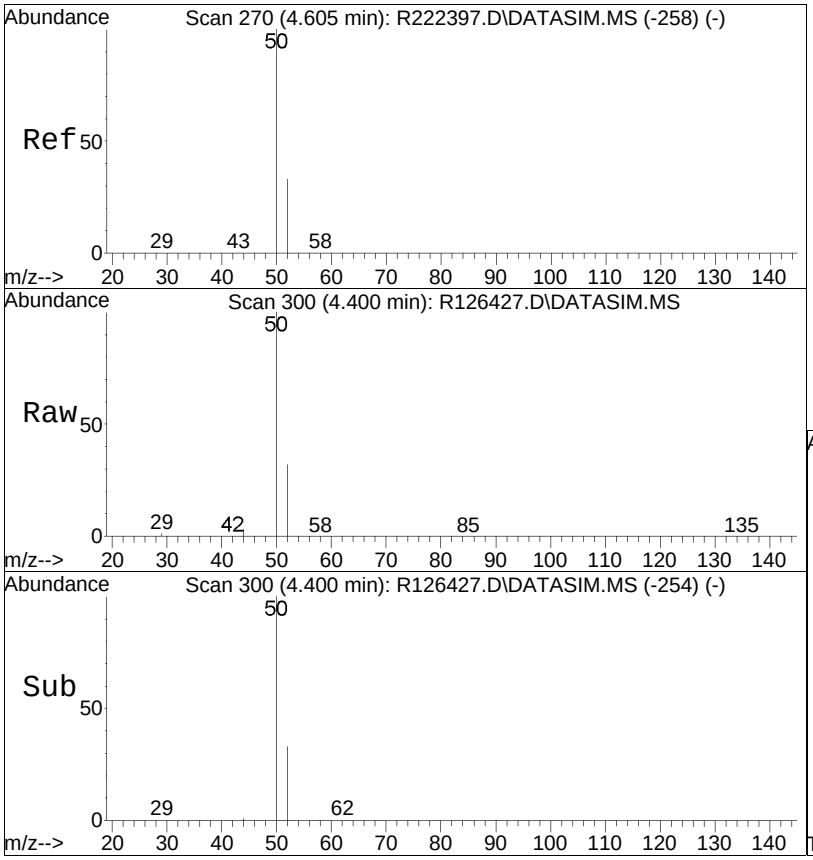



#3
dichlorodifluoromethane
Concen: 4.73 ppbV
RT: 4.18 min Scan# 250
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 85 Resp: 253895

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.6 | 25.9 | 38.9 |

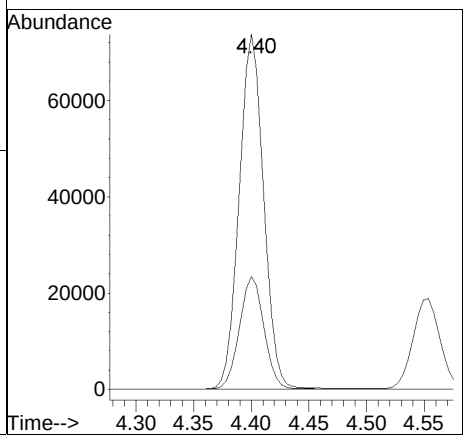


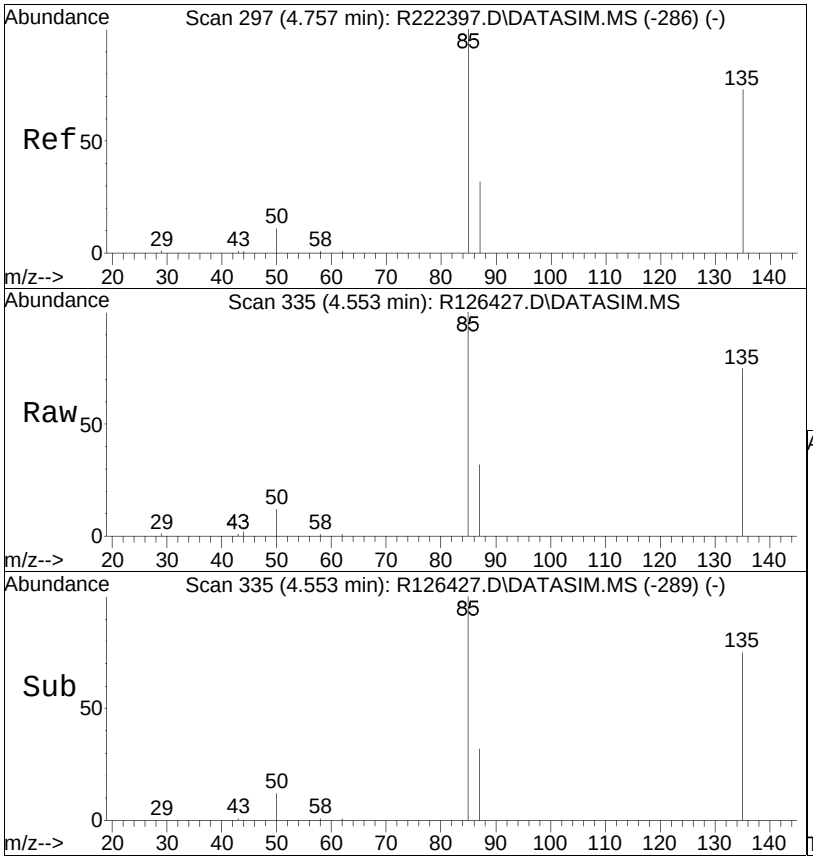



#4
chloromethane
Concen: 4.13 ppbV
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 50 Resp: 108628

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.8 | 25.8 | 38.6 |

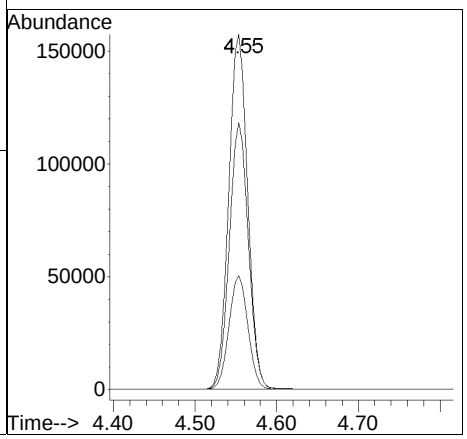


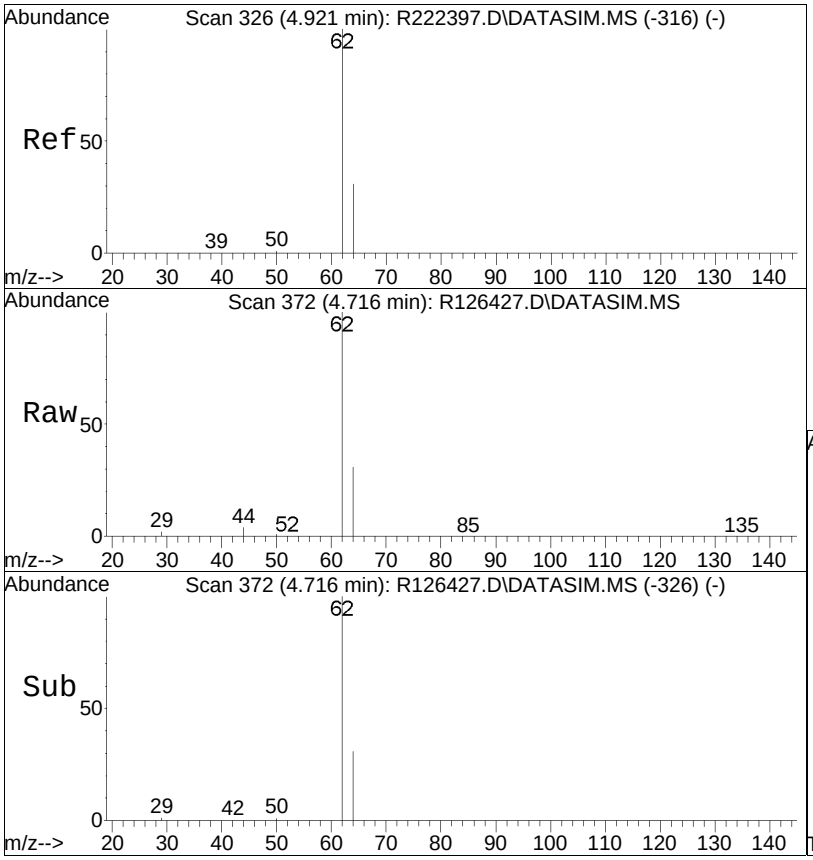



#5
Freon-114
Concen: 4.30 ppbV
RT: 4.55 min Scan# 335
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 85 Resp: 254770

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.1 | 25.7 | 38.5 |
| 135 | 75.2 | 55.7 | 83.5 |

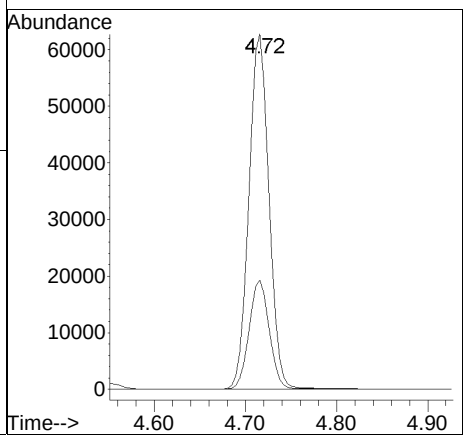


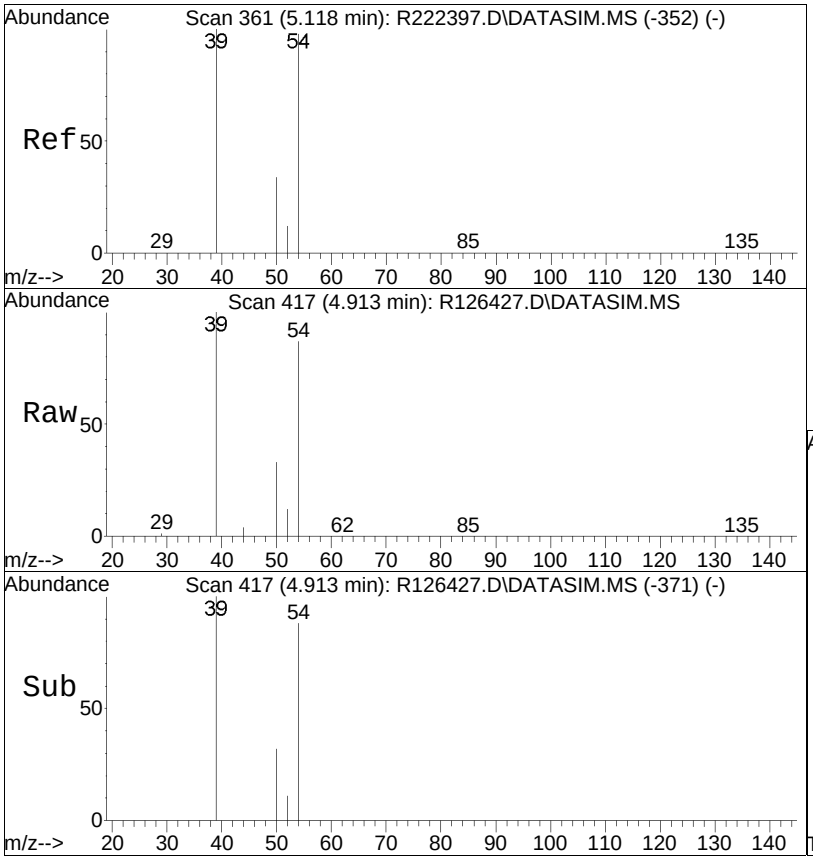



#6
vinyl chloride
Concen: 4.07 ppbV
RT: 4.72 min Scan# 372
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 62 Resp: 95824

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 30.7 | 24.6 | 37.0 |

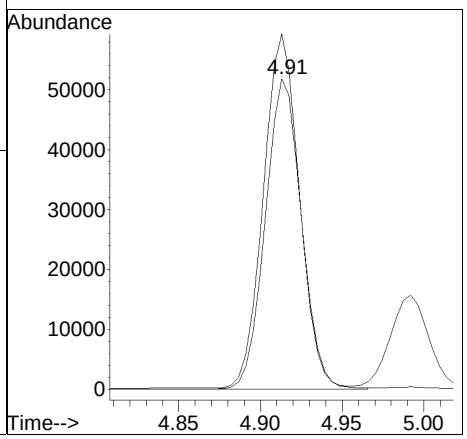


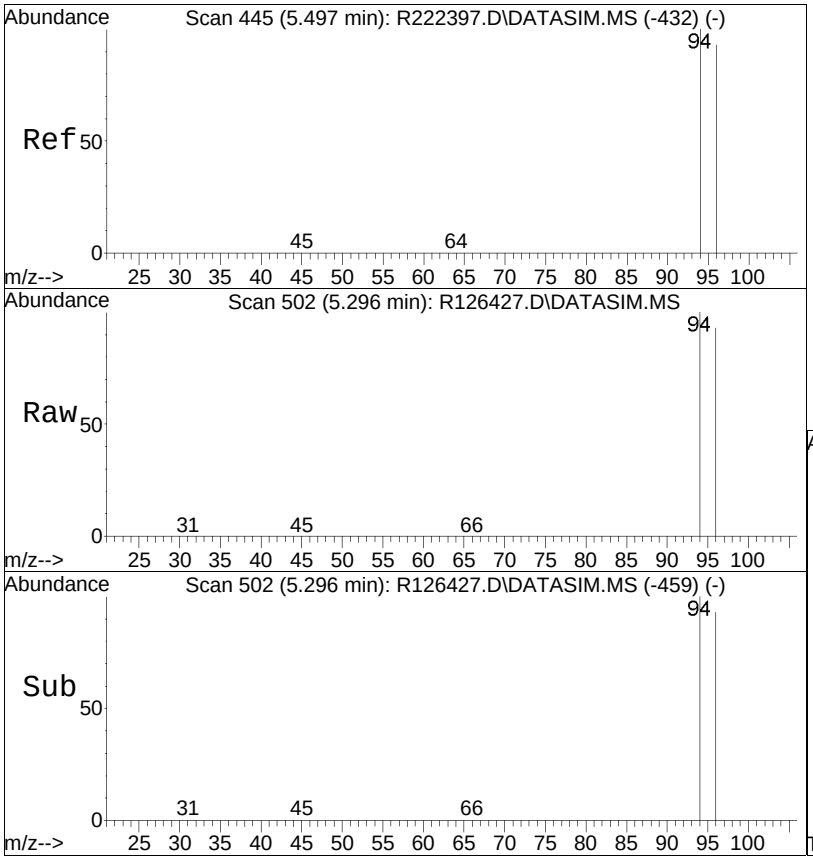



#7
1,3-butadiene
Concen: 4.35 ppbV
RT: 4.91 min Scan# 417
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 54 Resp: 79567

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 114.3 | 95.5 | 143.3 |

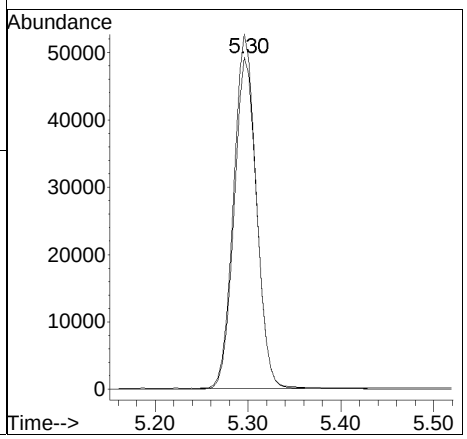


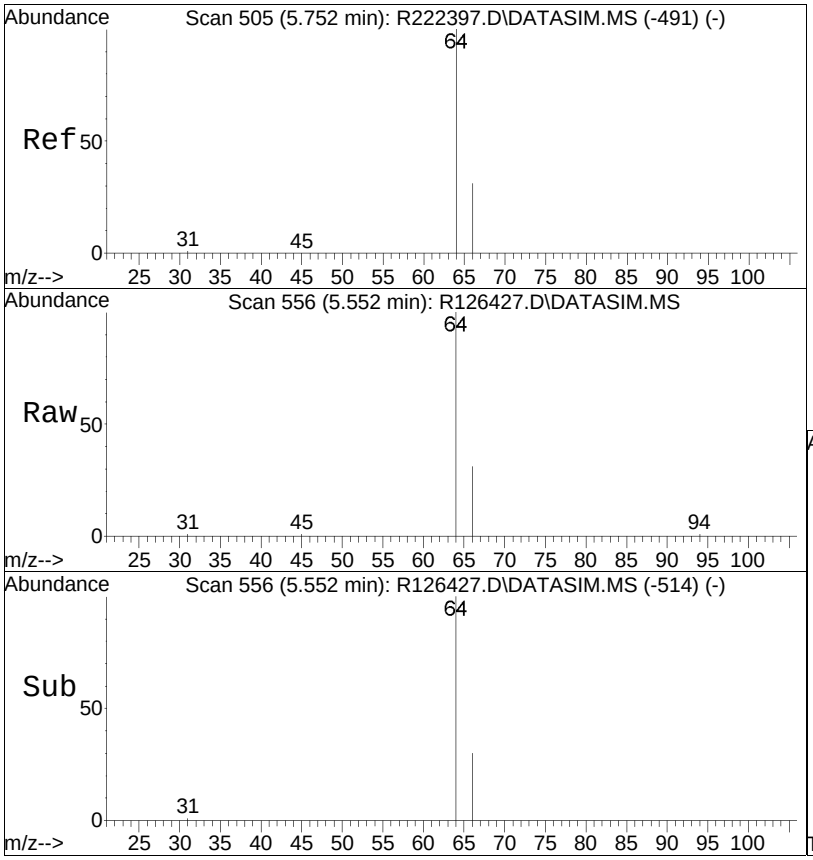



#8
bromomethane
Concen: 4.15 ppbV
RT: 5.30 min Scan# 502
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 94 Resp: 89198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 93.5 | 74.2 | 111.4 |

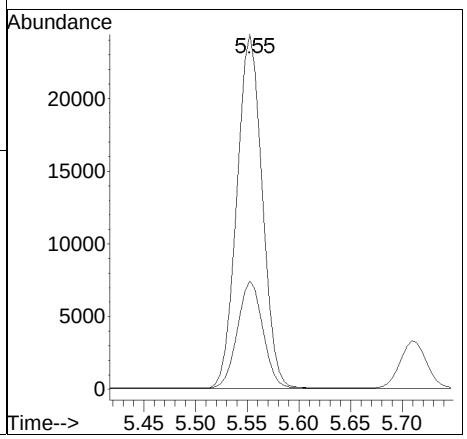


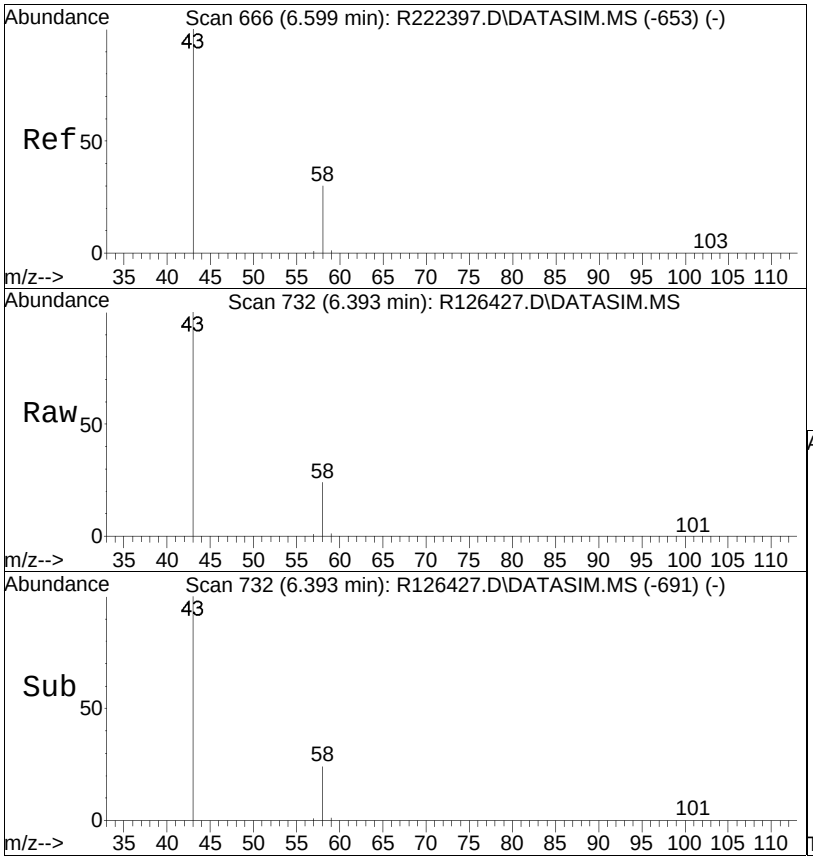



#9
chloroethane
Concen: 3.89 ppbV
RT: 5.55 min Scan# 556
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 64 Resp: 41699

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 30.6 | 24.4 | 36.6 |

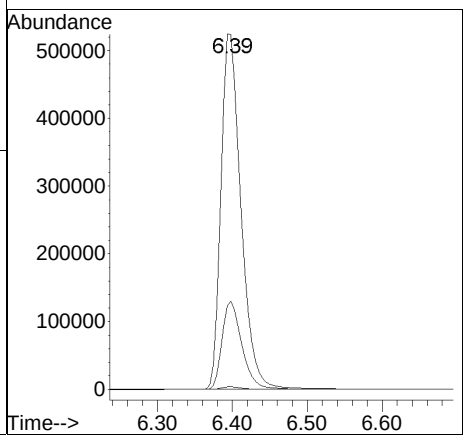


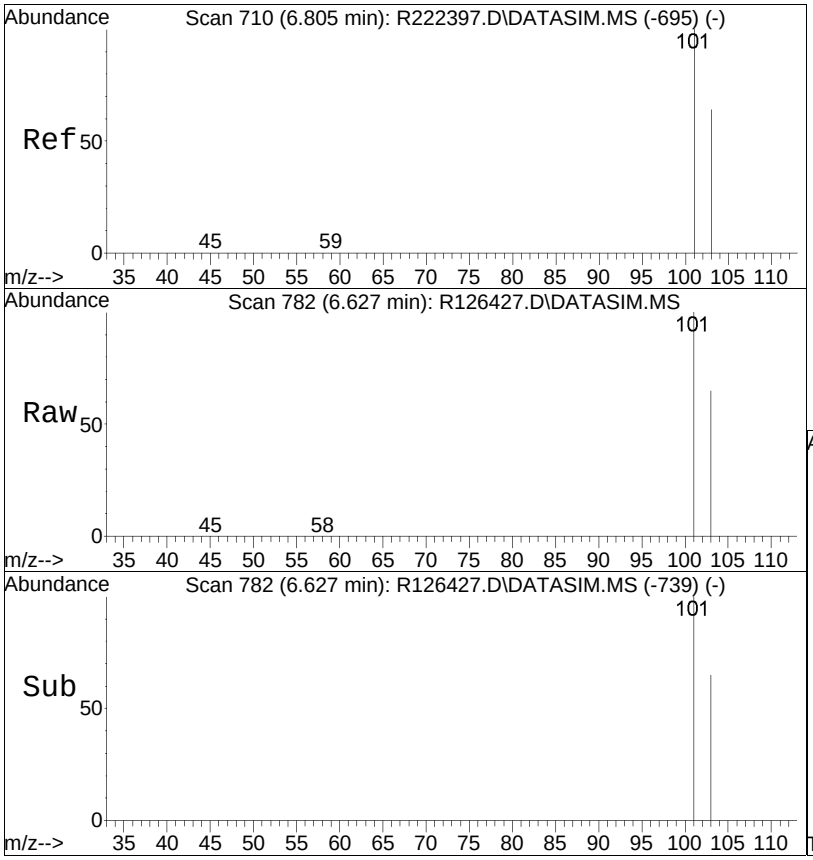



#12
acetone
Concen: 21.85 ppbV
RT: 6.39 min Scan# 732
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 43 Resp: 976532

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.6 | 20.5 | 30.7 |
| 57 | 0.7 | 0.6 | 1.0 |

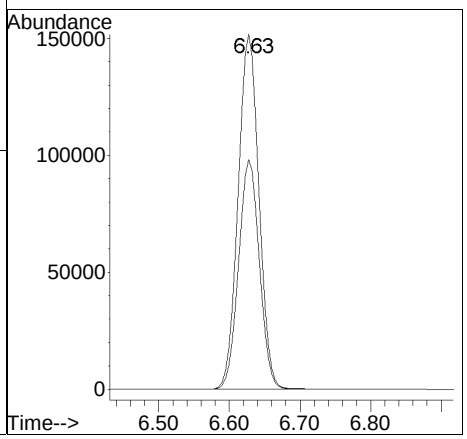


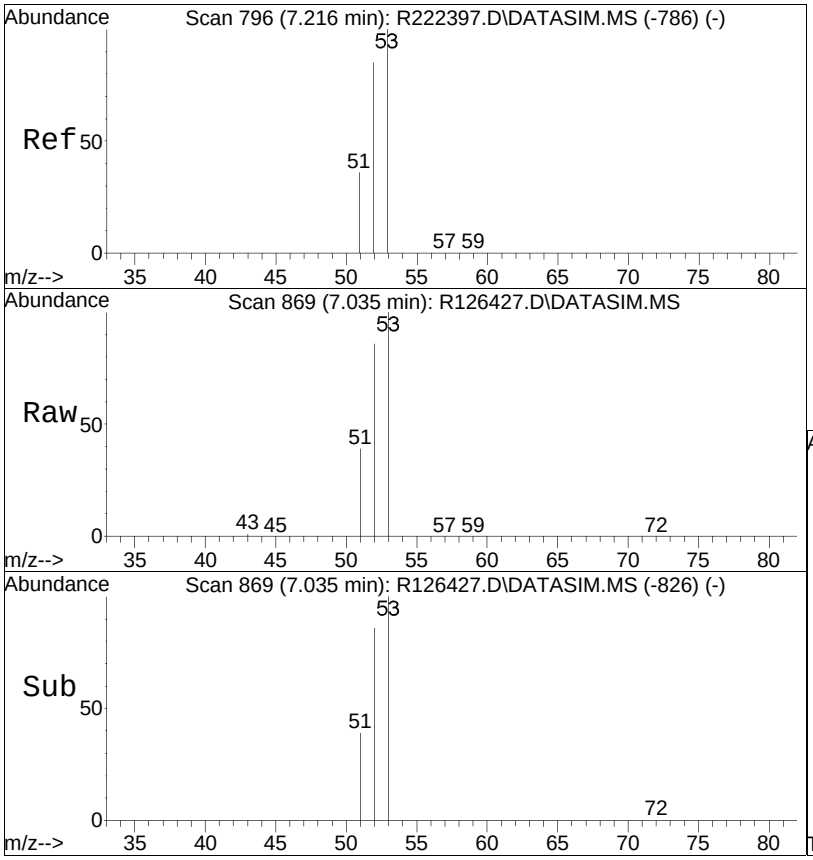



#13
trichlorofluoromethane
Concen: 4.86 ppbV
RT: 6.63 min Scan# 782
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:101 Resp: 311109

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.7 | 51.4 | 77.2 |

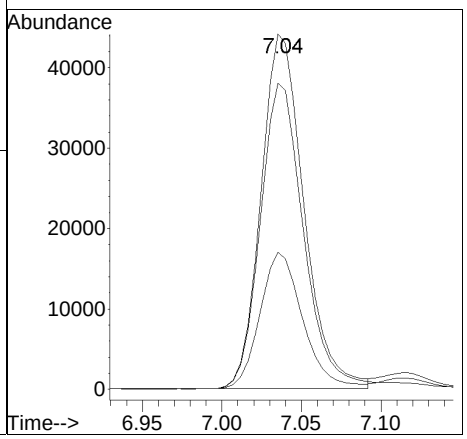


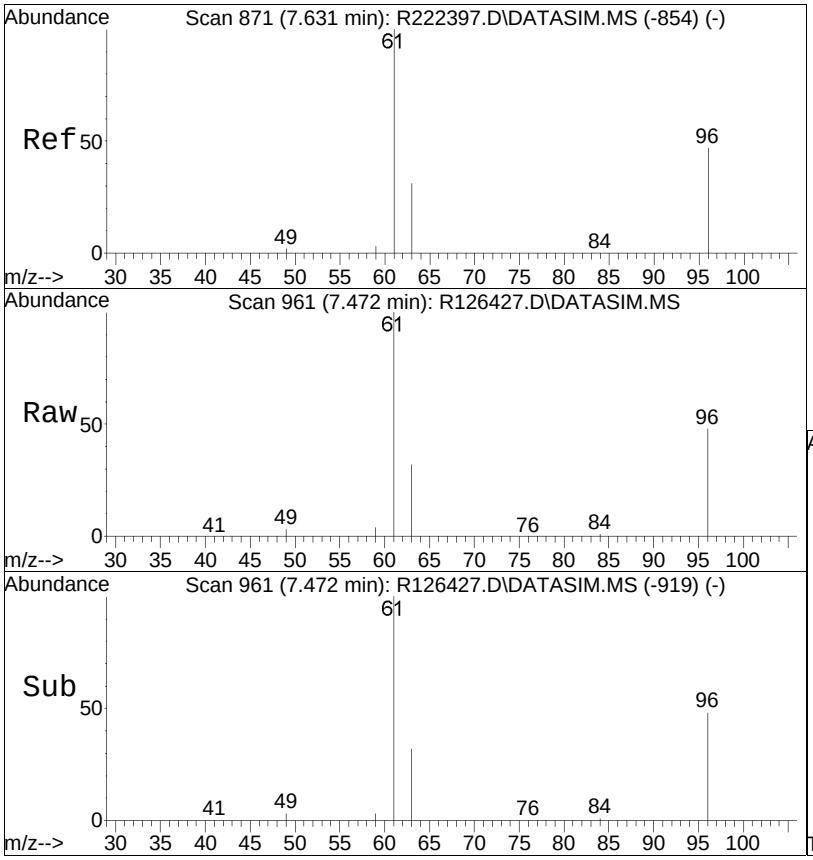



#15
acrylonitrile
Concen: 3.80 ppbV
RT: 7.04 min Scan# 869
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 53 Resp: 83060

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 86.2 | 69.0 | 103.6 |
| 51 | 38.6 | 30.5 | 45.7 |

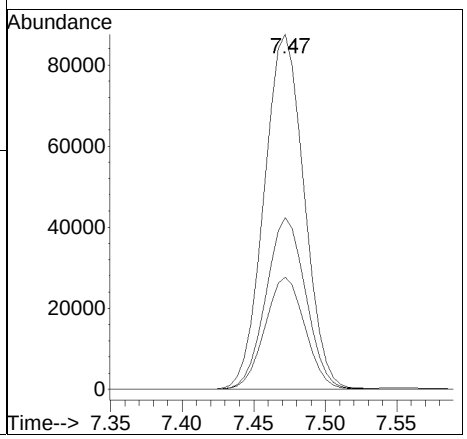


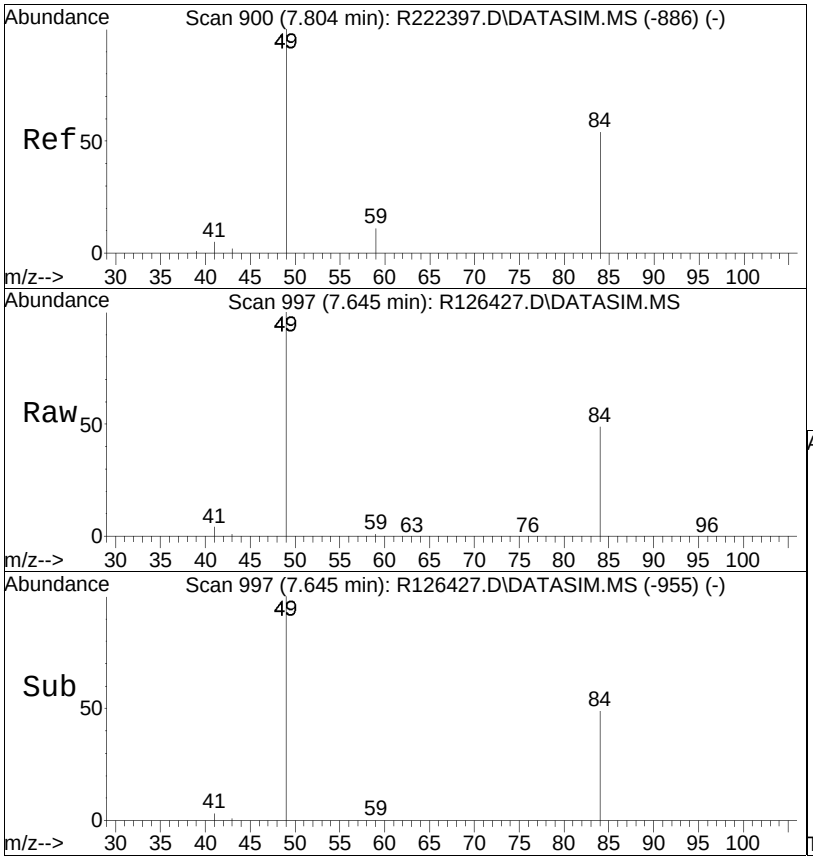



#16
1,1-dichloroethene
Concen: 4.28 ppbV
RT: 7.47 min Scan# 961
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 61 Resp: 169938

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 48.4 | 39.4 | 59.2 |
| 63 | 31.6 | 25.1 | 37.7 |

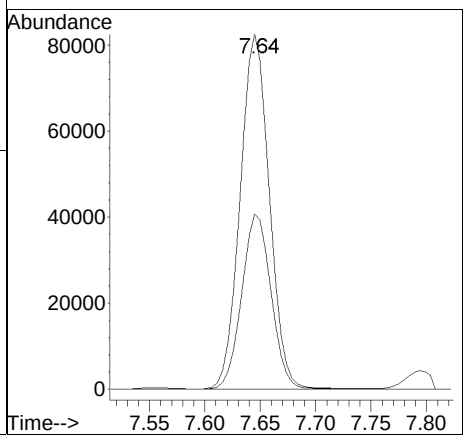


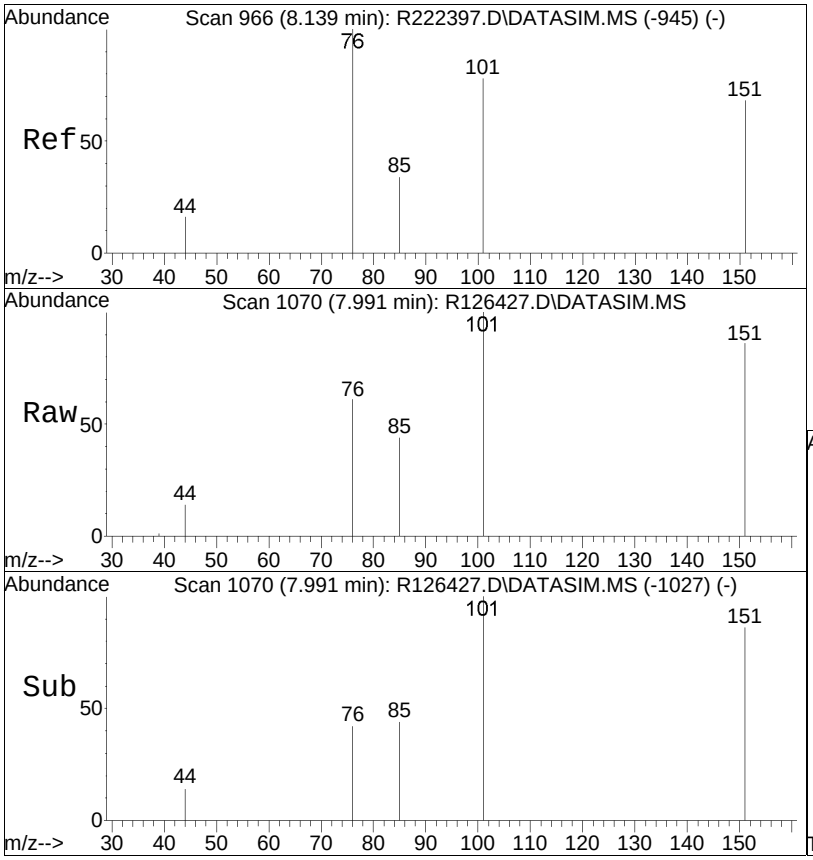



#17
methylene chloride
Concen: 4.26 ppbV m
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 49 Resp: 151288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 49.4 | 40.0 | 60.0 |

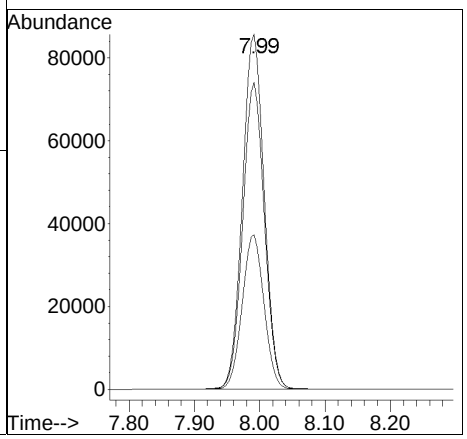


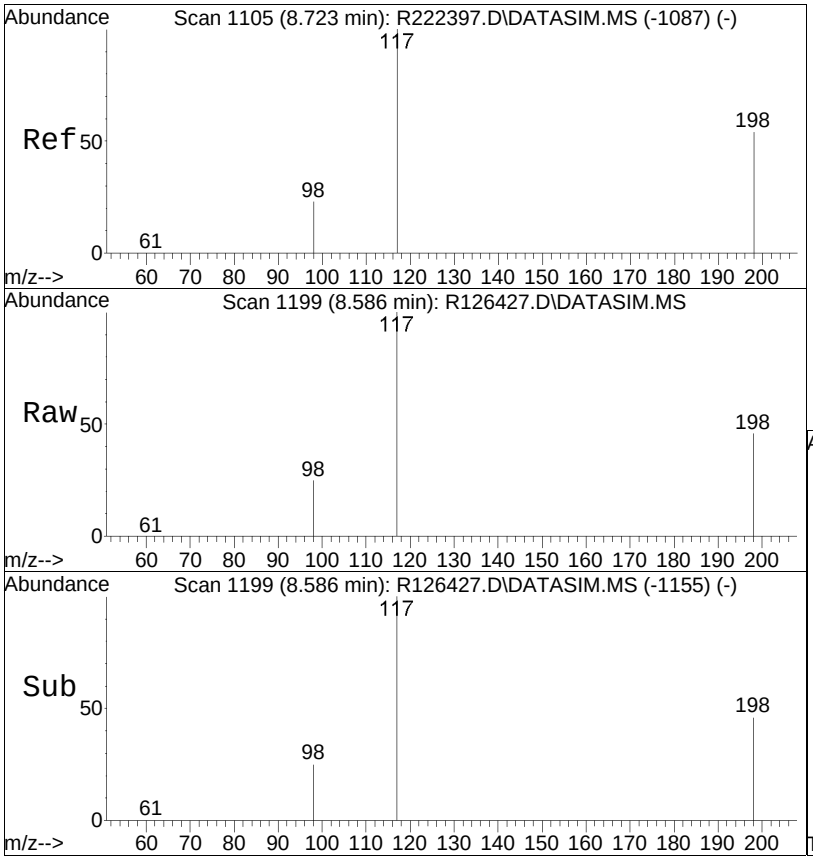



#20
Freon 113
Concen: 4.46 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:101 Resp: 198403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 43.6 | 34.6 | 51.8 |
| 151 | 86.5 | 66.0 | 99.0 |

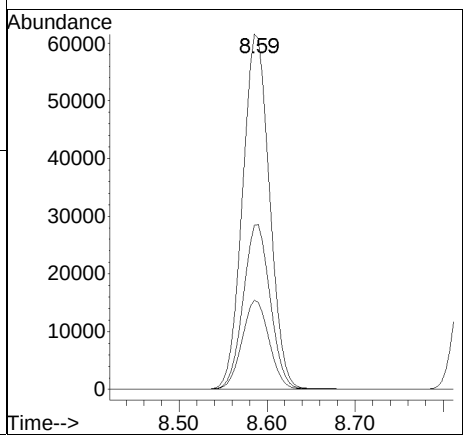


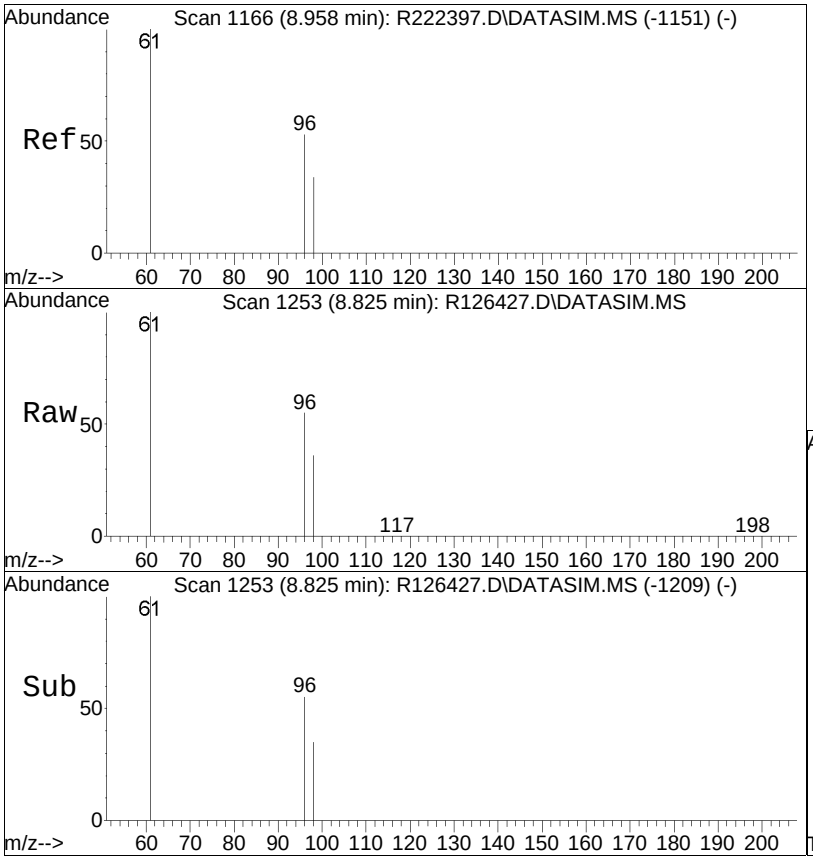



#21
Halothane
Concen: 3.85 ppbV
RT: 8.59 min Scan# 1199
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:117 Resp: 130672

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 198 | 46.2 | 37.4 | 56.0 |
| 98 | 25.1 | 19.6 | 29.4 |

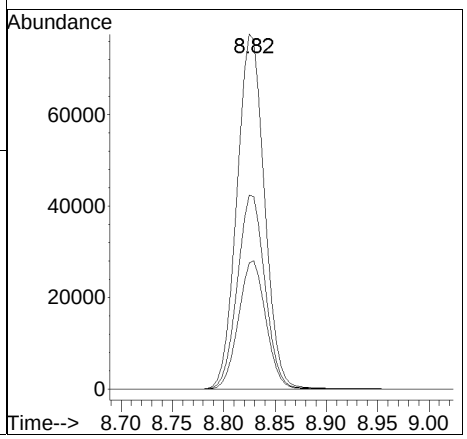


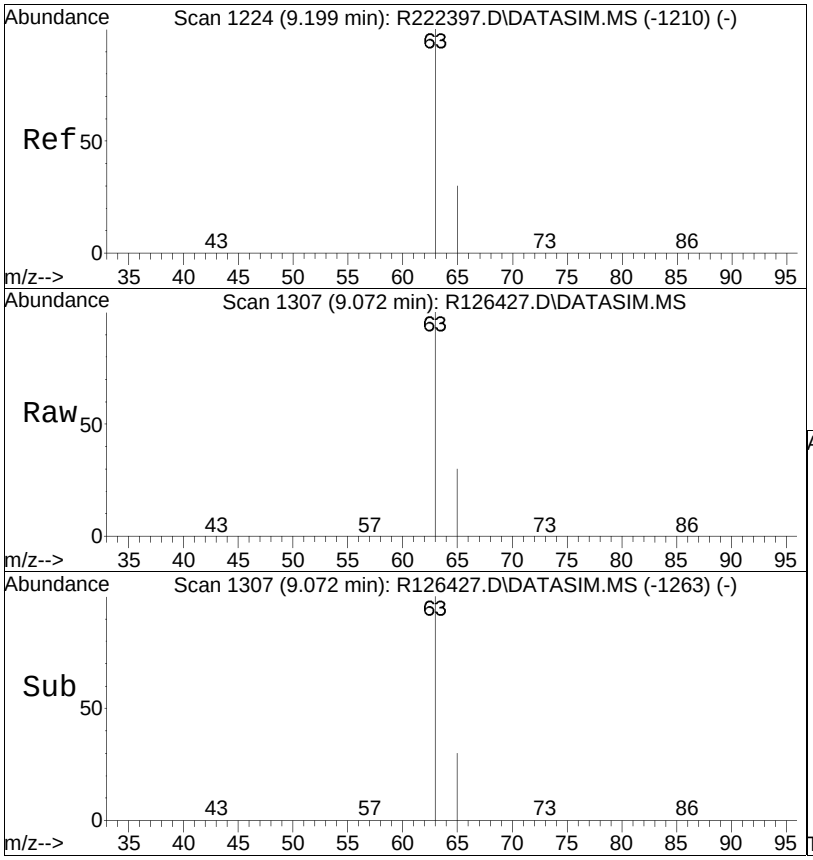



#22
trans-1,2-dichloroethene
Concen: 3.81 ppbV m
RT: 8.82 min Scan# 1253
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 61 Resp: 145035

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.6 | 44.2 | 66.2 |
| 98 | 35.5 | 29.0 | 43.4 |

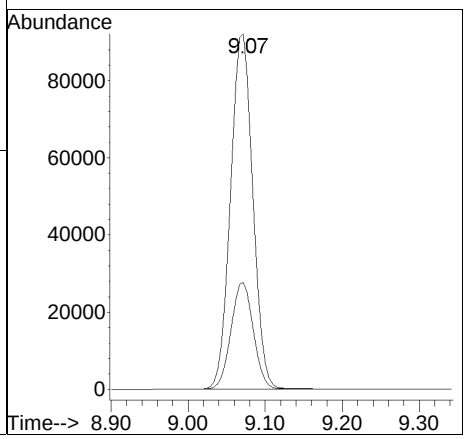


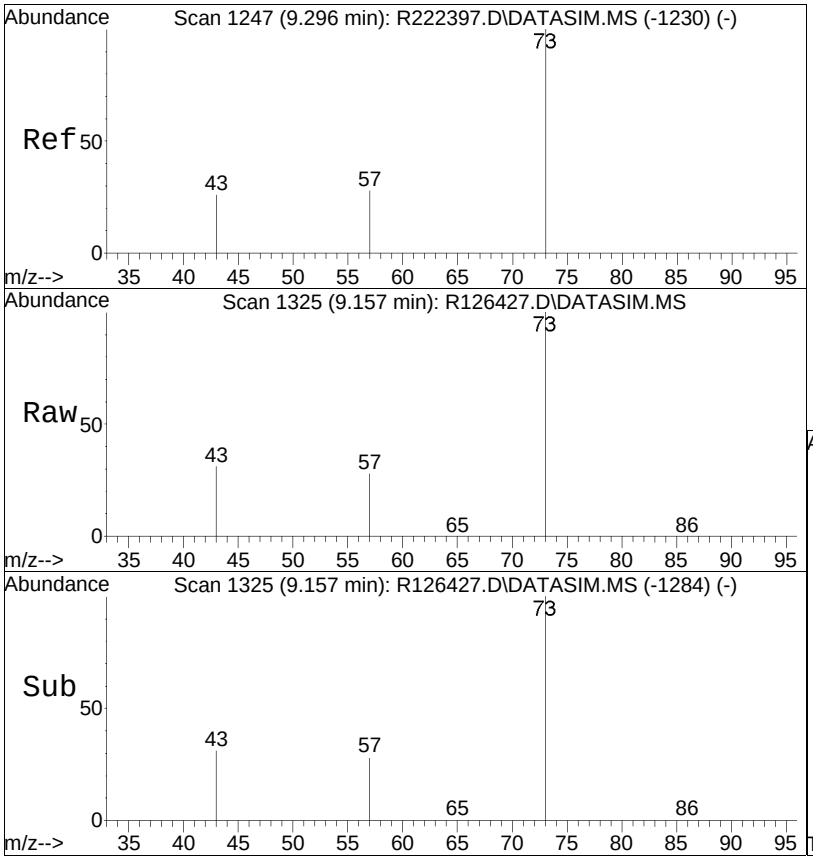



#23
1,1-dichloroethane
Concen: 4.17 ppbV
RT: 9.07 min Scan# 1307
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 63 Resp: 184585

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.1 | 24.3 | 36.5 |

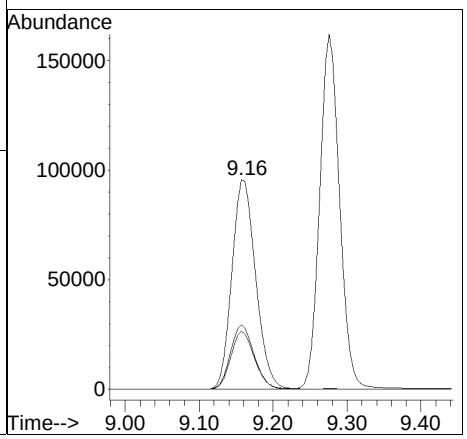


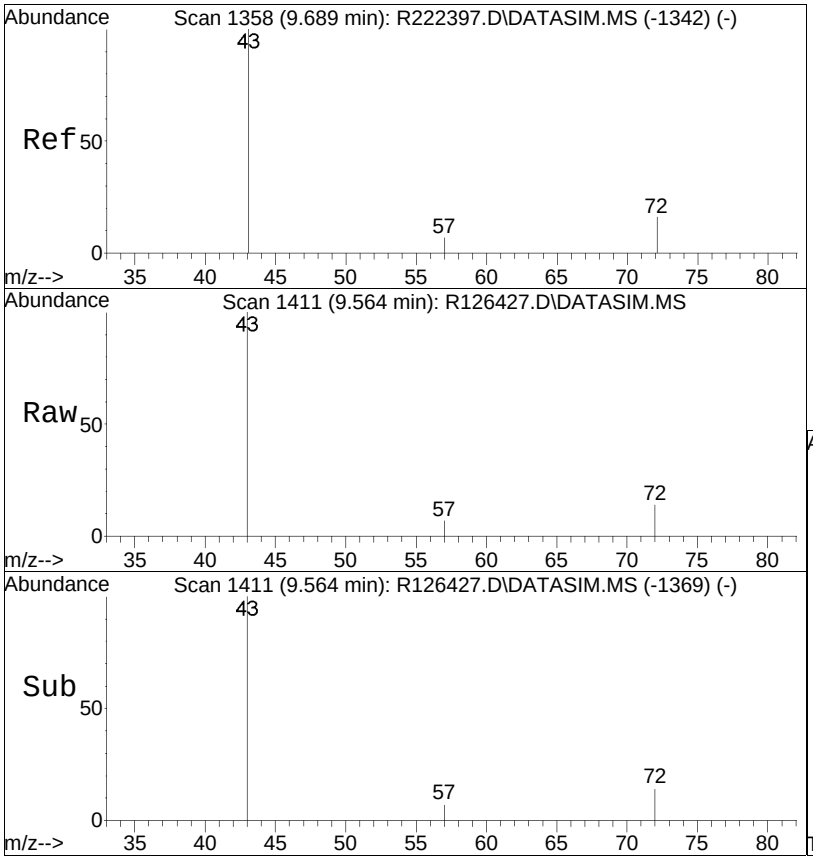



#24
MTBE
Concen: 4.06 ppbV
RT: 9.16 min Scan# 1325
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 73 Resp: 214100

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 27.7 | 22.7 | 34.1 |
| 43 | 30.9 | 24.6 | 36.8 |

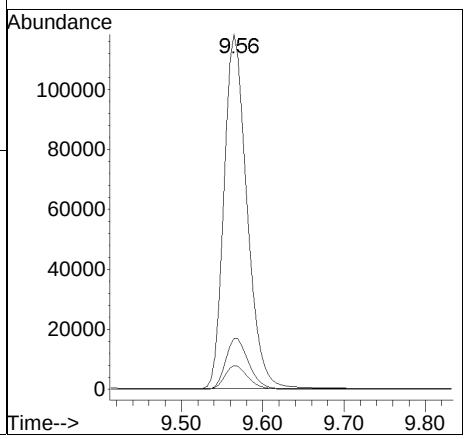


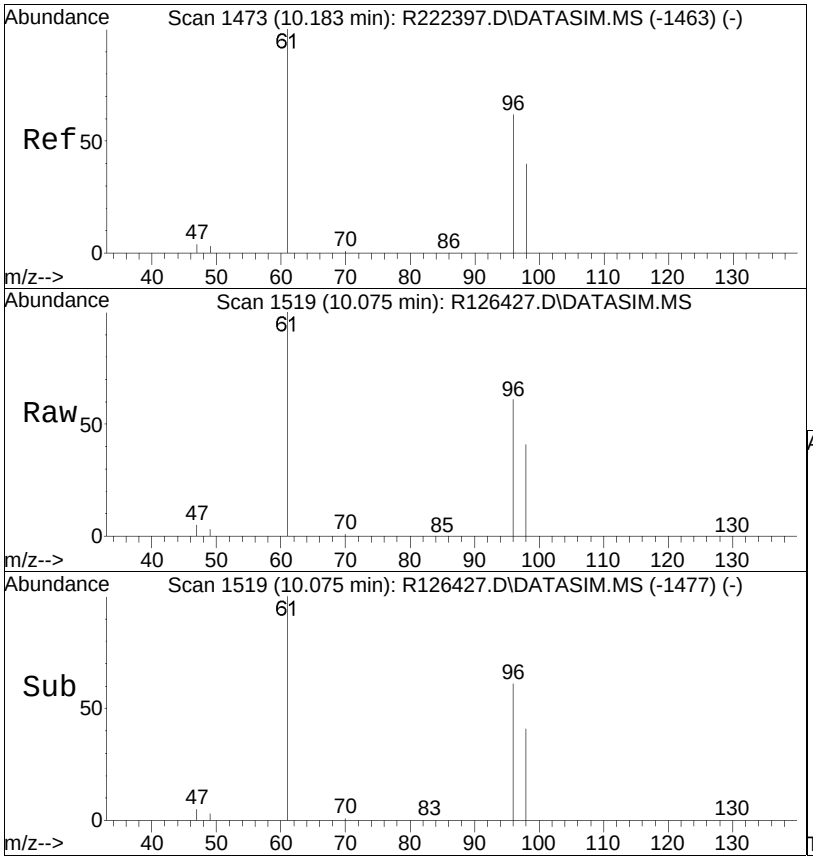



#26
2-butanone
Concen: 3.63 ppbV
RT: 9.56 min Scan# 1411
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 43 Resp: 232166

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.3 | 11.7 | 17.5 |
| 57 | 6.7 | 5.3 | 7.9 |

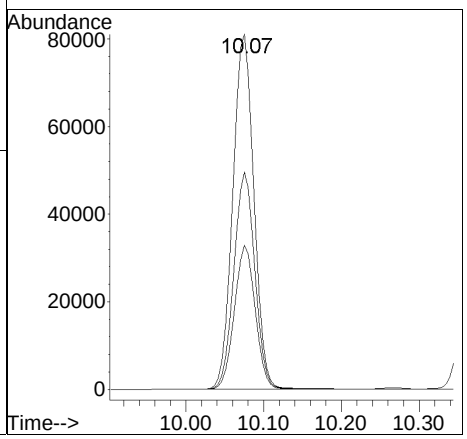


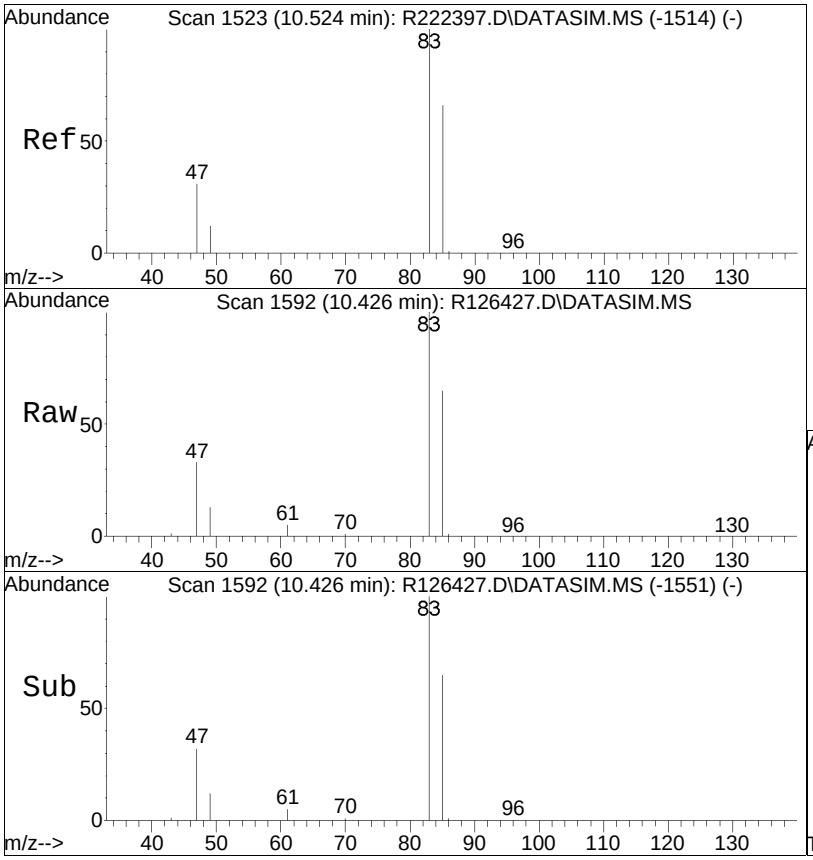



#27
cis-1,2-dichloroethene
Concen: 4.46 ppbV
RT: 10.07 min Scan# 1519
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 61 Resp: 152986

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 61.2 | 47.9 | 71.9 |
| 98 | 40.6 | 31.0 | 46.6 |

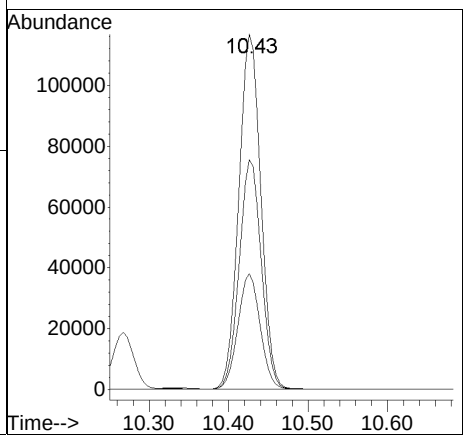


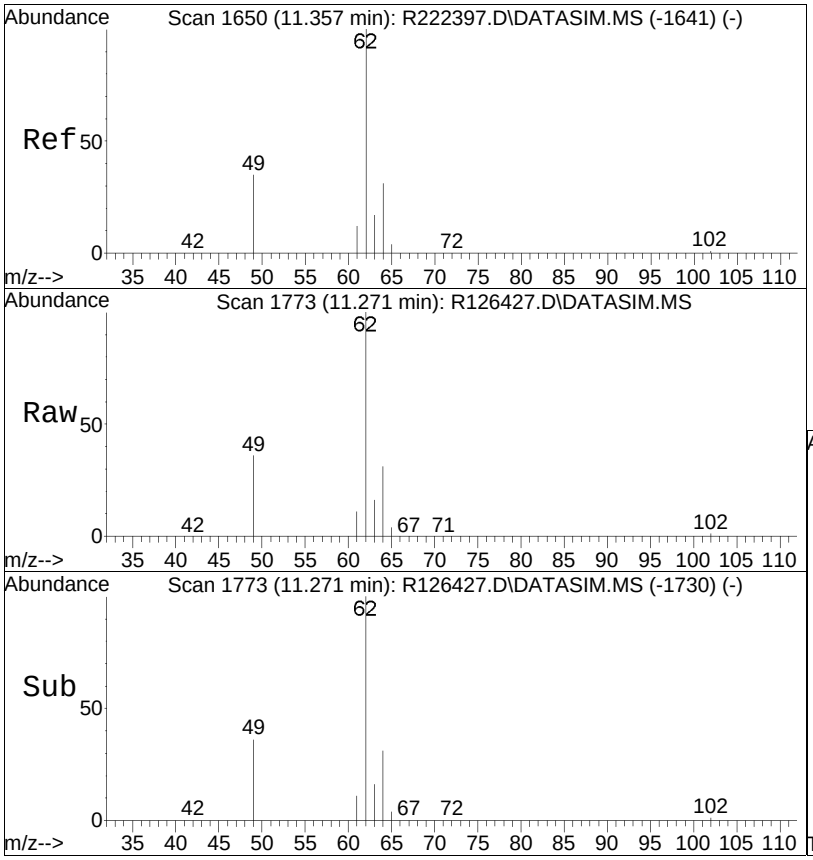



#29
chloroform
Concen: 4.81 ppbV
RT: 10.43 min Scan# 1592
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 83 Resp: 225220

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.7 | 52.2 | 78.2 |
| 47 | 32.6 | 27.0 | 40.6 |

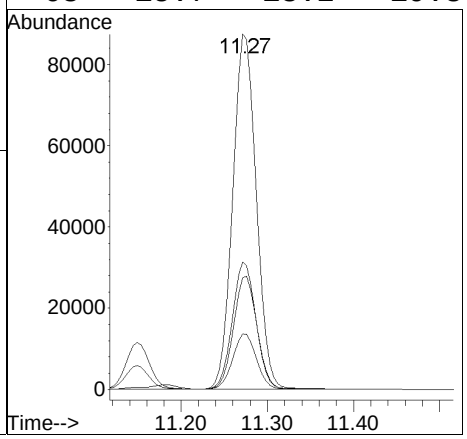


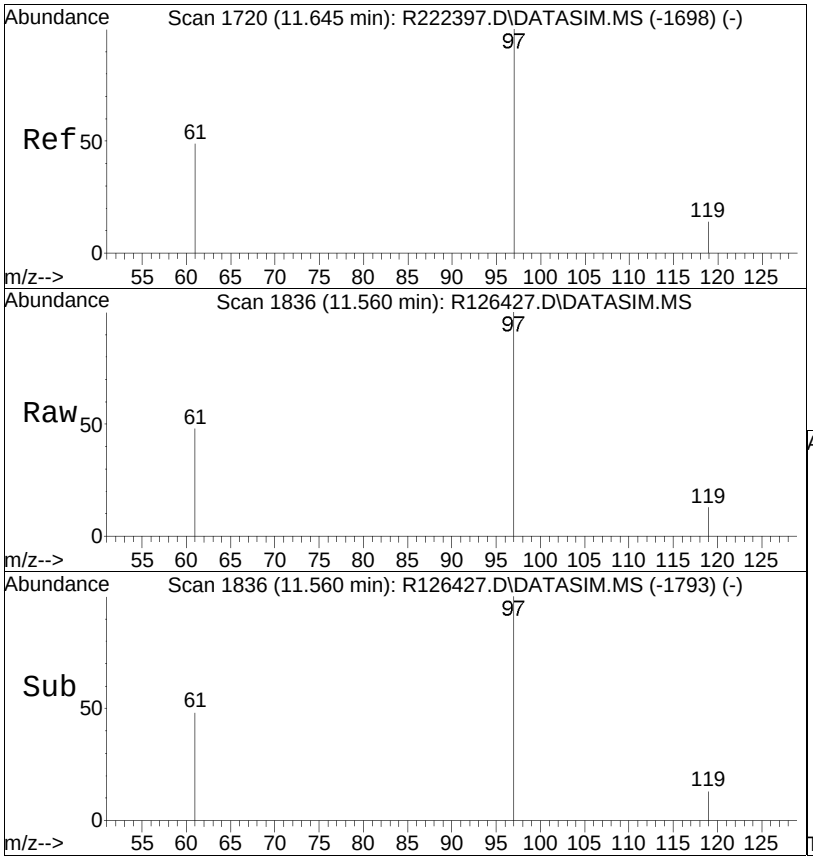



#31
1,2-dichloroethane
Concen: 4.59 ppbV
RT: 11.27 min Scan# 1773
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 62 Resp: 166081

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.4 | 25.3 | 37.9 |
| 49 | 35.9 | 30.2 | 45.2 |
| 63 | 15.7 | 13.2 | 19.8 |

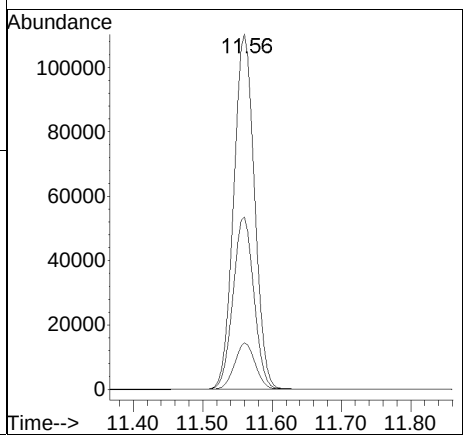


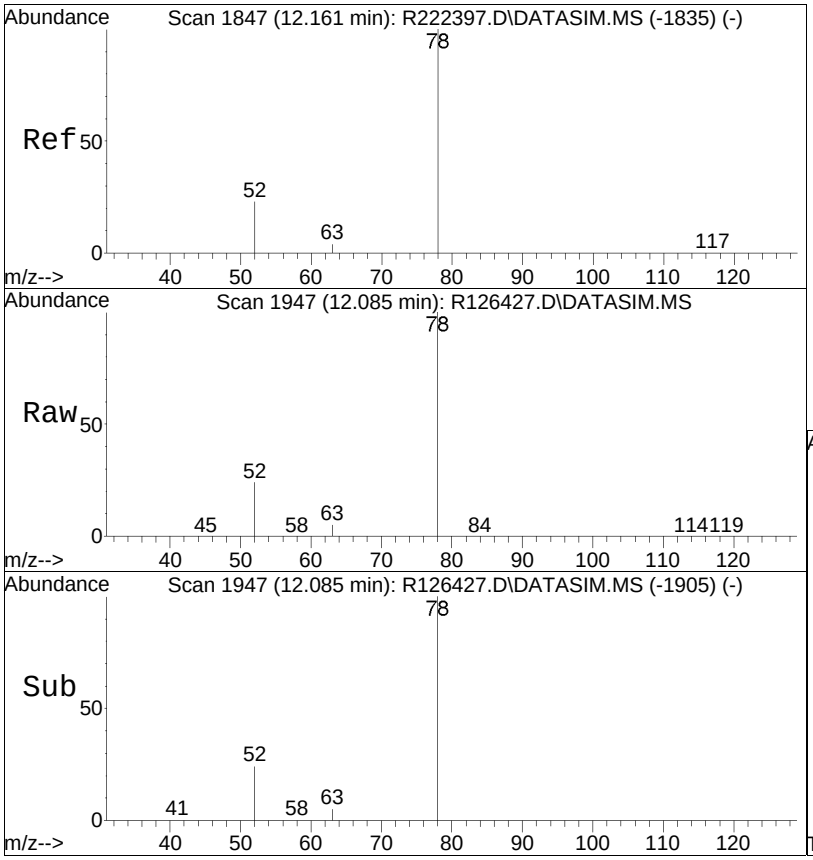



#35
1,1,1-trichloroethane
Concen: 5.32 ppbV
RT: 11.56 min Scan# 1836
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 97 Resp: 229632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 48.5 | 40.8 | 61.2 |
| 119 | 13.1 | 10.6 | 15.8 |

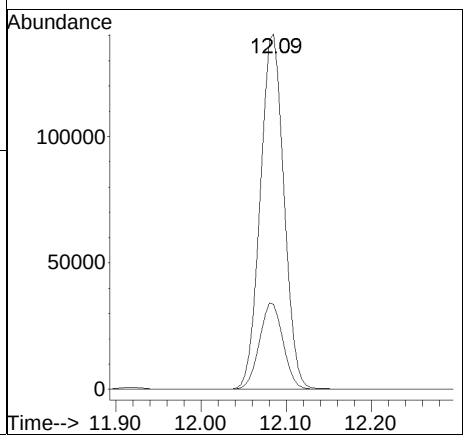


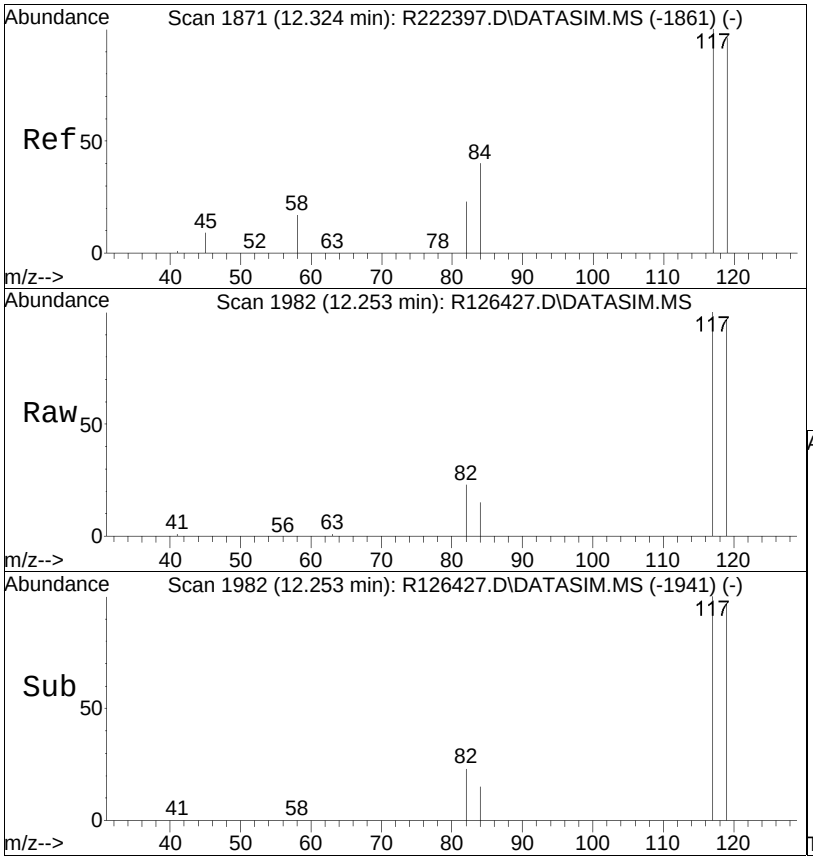



#36
benzene
Concen: 4.37 ppbV
RT: 12.09 min Scan# 1947
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 78 Resp: 271363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 24.0 | 18.6 | 28.0 |

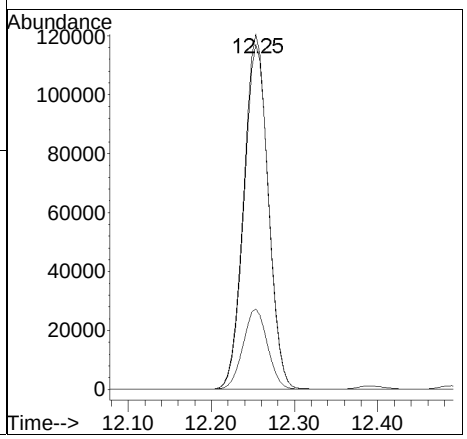


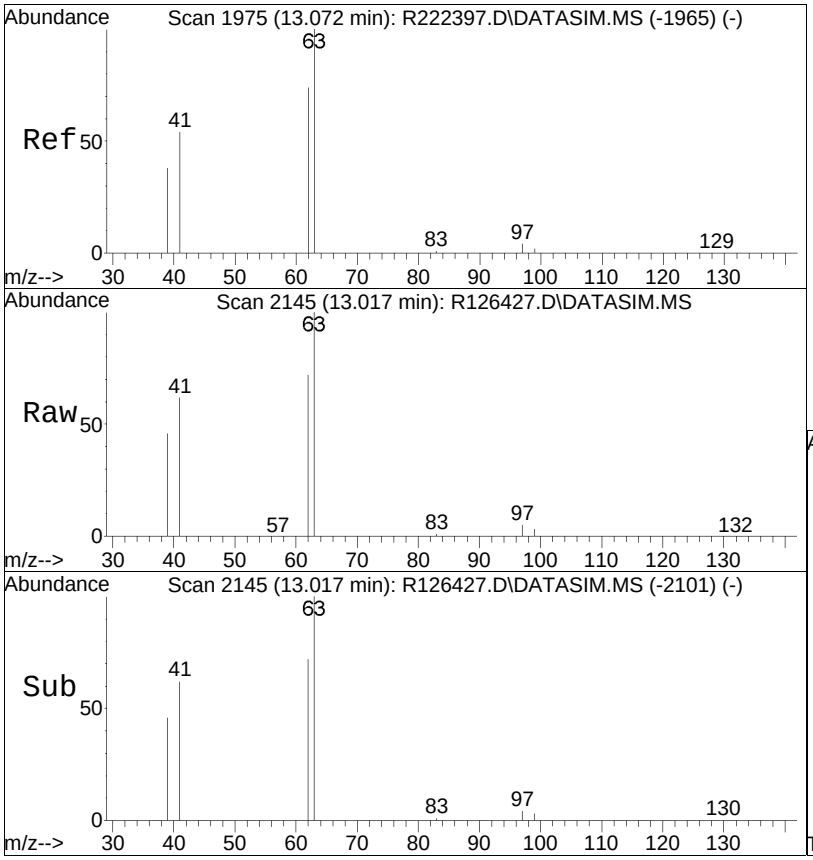



#37
carbon tetrachloride
Concen: 5.44 ppbV
RT: 12.25 min Scan# 1982
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:117 Resp: 245312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 97.1 | 78.7 | 118.1 |
| 82 | 22.7 | 18.9 | 28.3 |

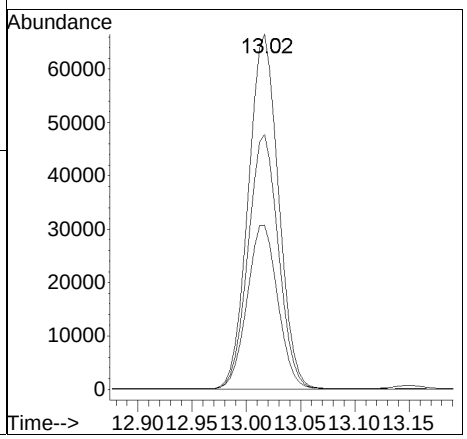


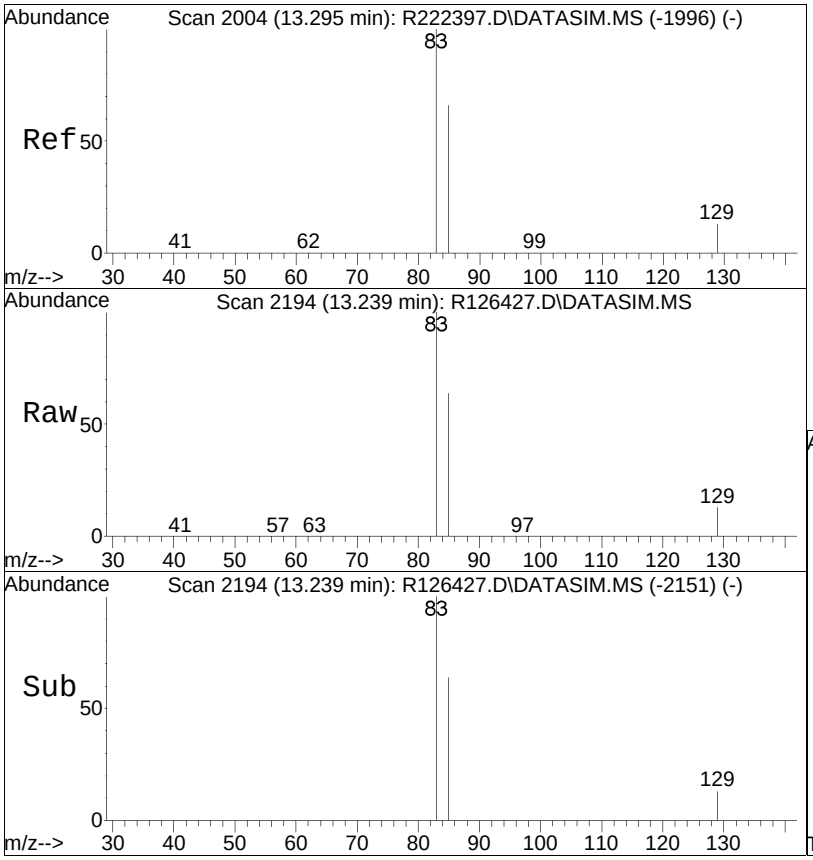



#39
1,2-dichloropropane
Concen: 4.59 ppbV
RT: 13.02 min Scan# 2145
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 63 Resp: 129049

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 62 | 71.8 | 58.1 | 87.1 |
| 39 | 46.2 | 38.0 | 57.0 |

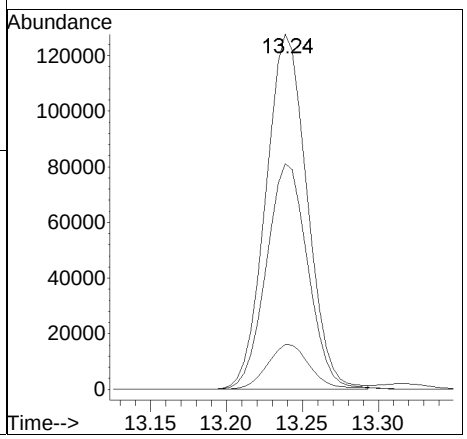


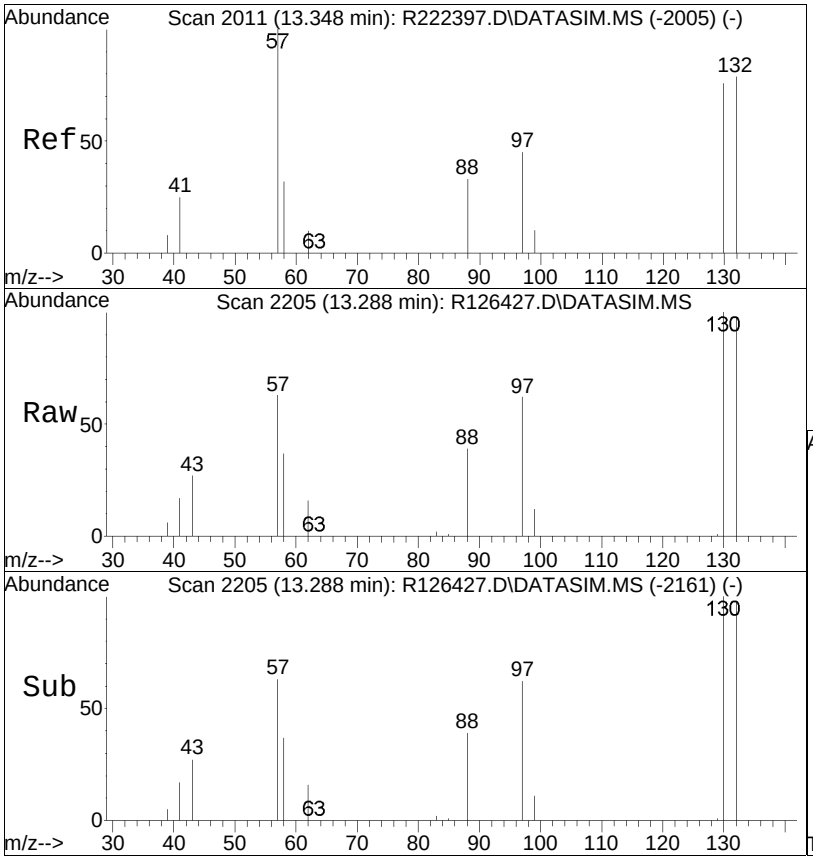



#40
bromodichloromethane
Concen: 4.98 ppbV
RT: 13.24 min Scan# 2194
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 83 Resp: 241559

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.5 | 51.4 | 77.0 |
| 129 | 12.6 | 9.9 | 14.9 |

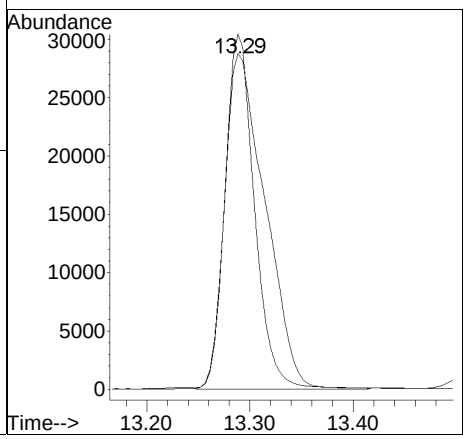


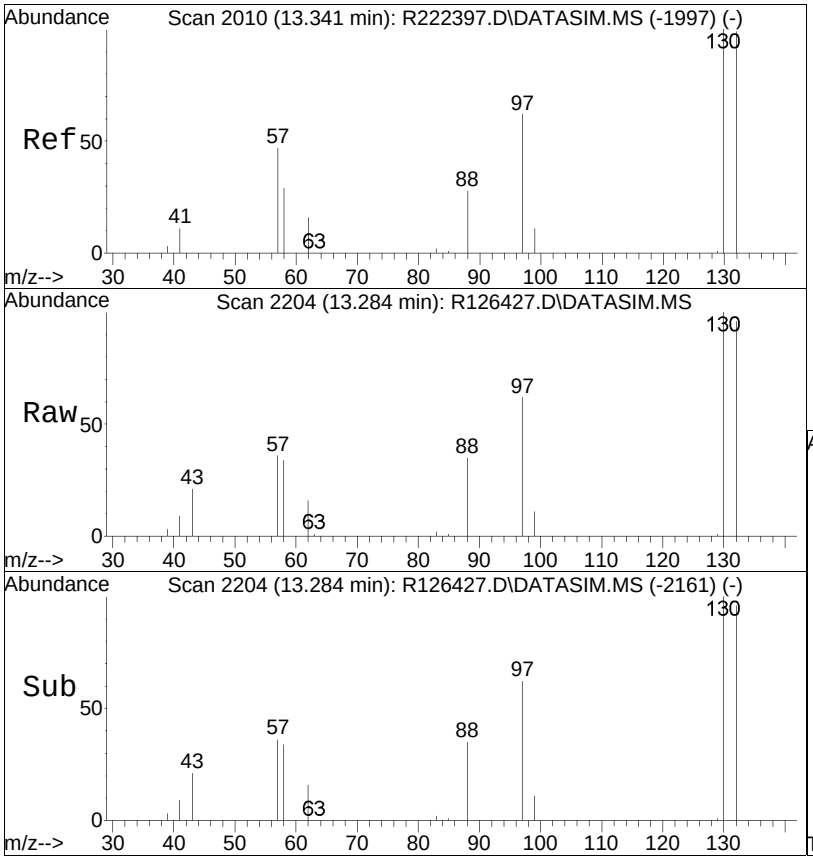



#41
1,4-dioxane
Concen: 4.32 ppbV m
RT: 13.29 min Scan# 2205
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 88 Resp: 60306

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 58 | 94.5 | 71.4 | 107.2 |

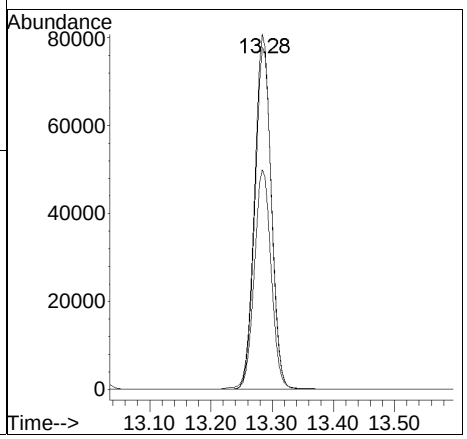


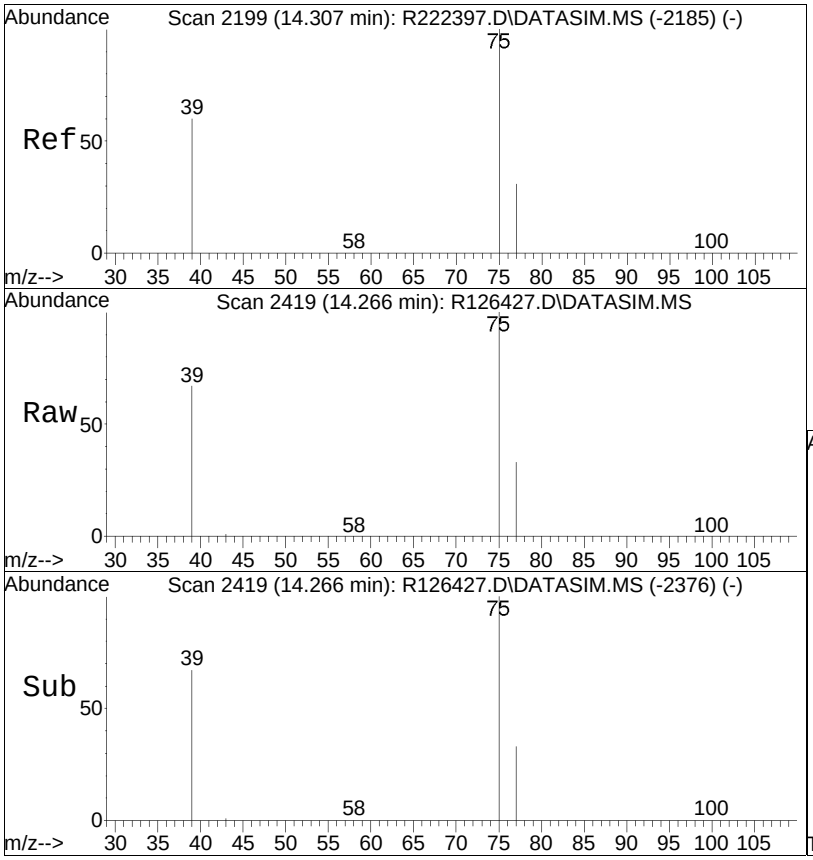



#42
trichloroethene
Concen: 5.07 ppbV
RT: 13.28 min Scan# 2204
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:130 Resp: 153122

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 96.3 | 77.6 | 116.4 |
| 97 | 61.8 | 51.2 | 76.8 |

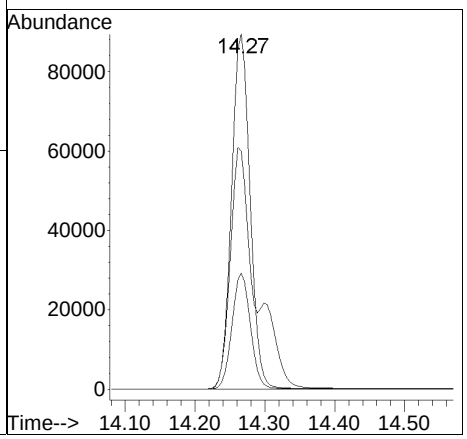


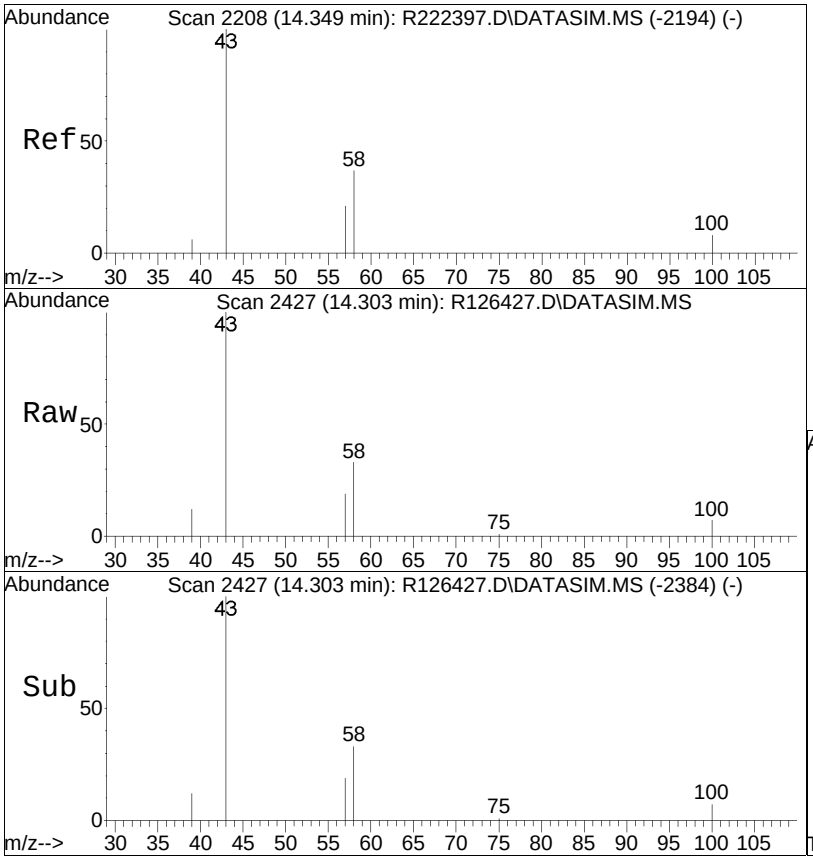



#45
cis-1,3-dichloropropene
Concen: 4.80 ppbV
RT: 14.27 min Scan# 2419
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 75 Resp: 165599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 67.1 | 57.0 | 85.4 |
| 77 | 32.7 | 25.8 | 38.8 |

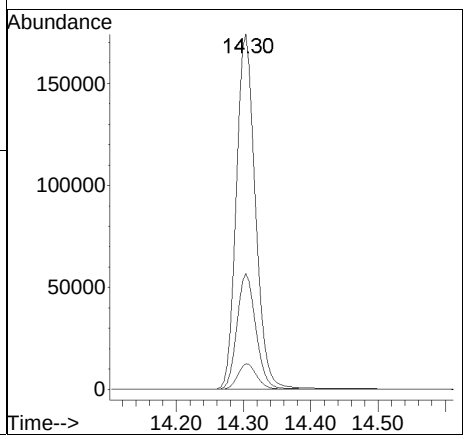


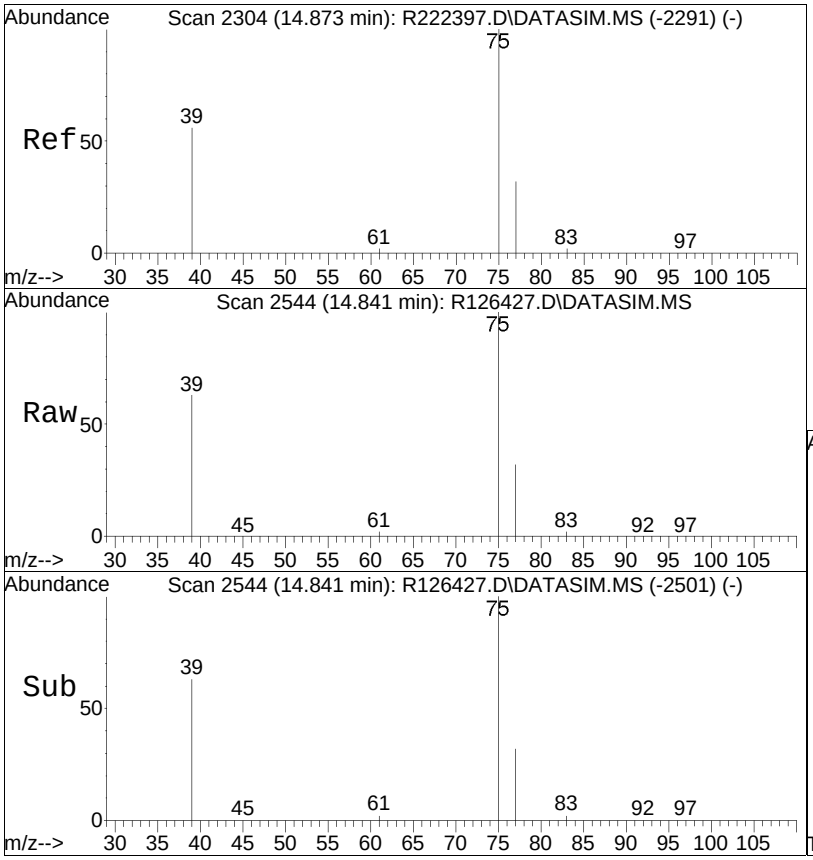



#46
4-methyl-2-pentanone
Concen: 4.61 ppbV
RT: 14.30 min Scan# 2427
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 43 Resp: 343390

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 32.6 | 26.2 | 39.2 |
| 100 | 7.2 | 5.8 | 8.8 |

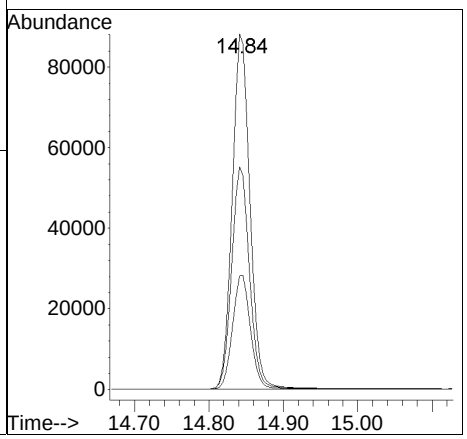


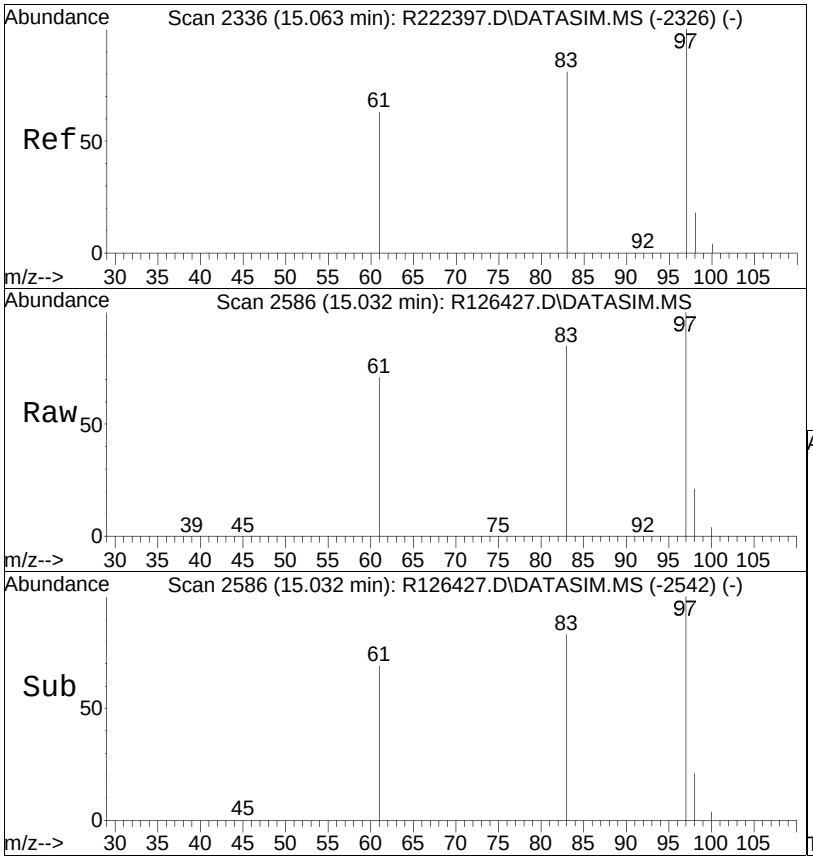



#47
trans-1,3-dichloropropene
Concen: 4.21 ppbV
RT: 14.84 min Scan# 2544
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 75 Resp: 146527

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.9 | 25.9 | 38.9 |
| 39 | 62.7 | 53.2 | 79.8 |

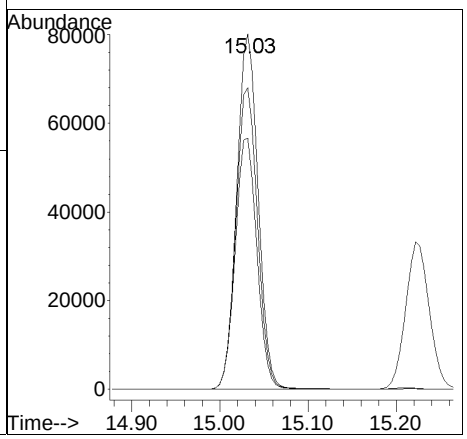


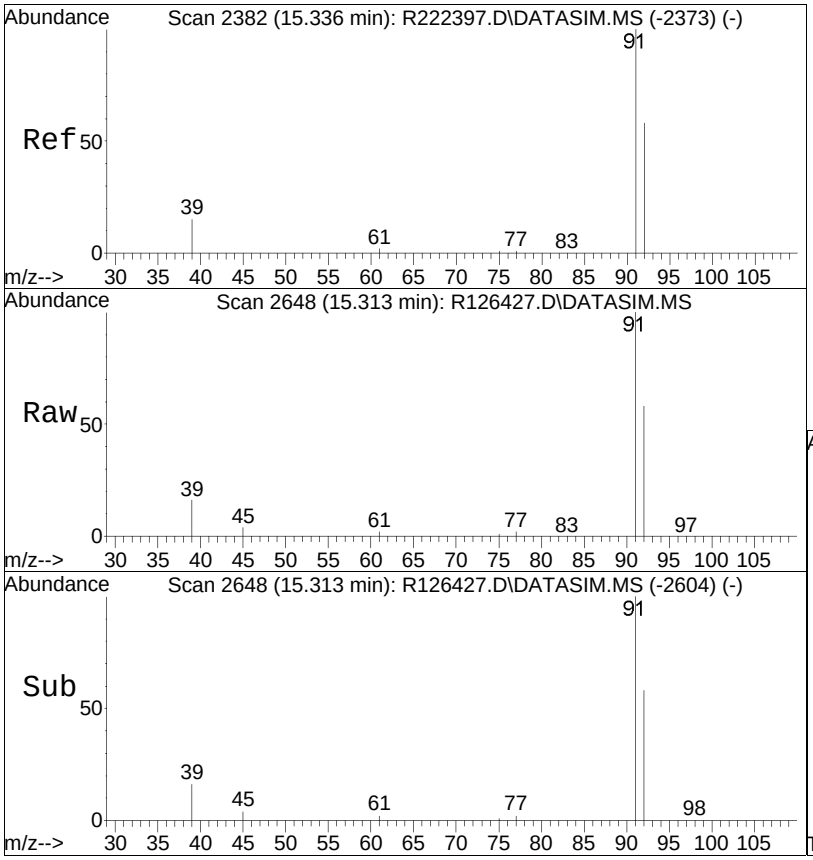



#48
1,1,2-trichloroethane
Concen: 4.97 ppbV
RT: 15.03 min Scan# 2586
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 97 Resp: 135303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 84.9 | 71.3 | 106.9 |
| 61 | 70.7 | 56.1 | 84.1 |

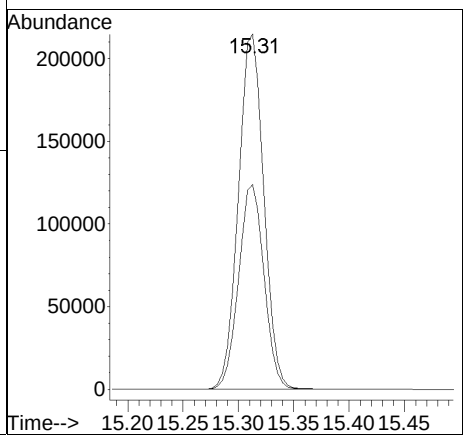


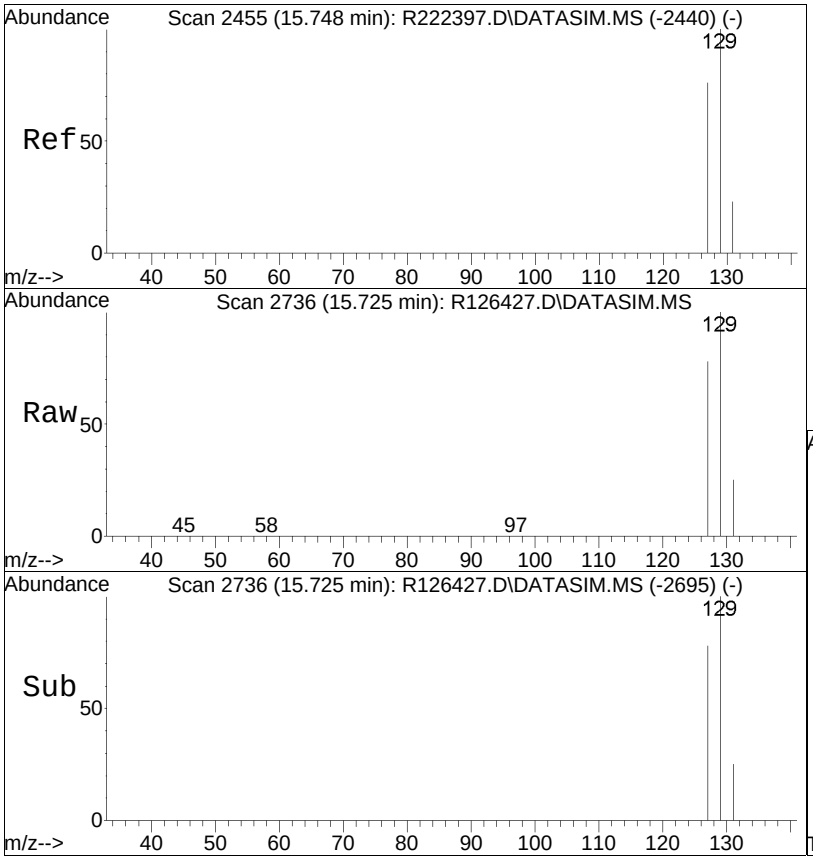



#50
toluene
Concen: 4.56 ppbV m
RT: 15.31 min Scan# 2648
Delta R.T. -0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 91 Resp: 343244

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.6 | 46.3 | 69.5 |

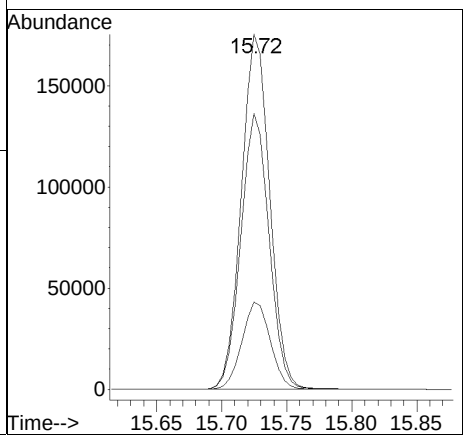


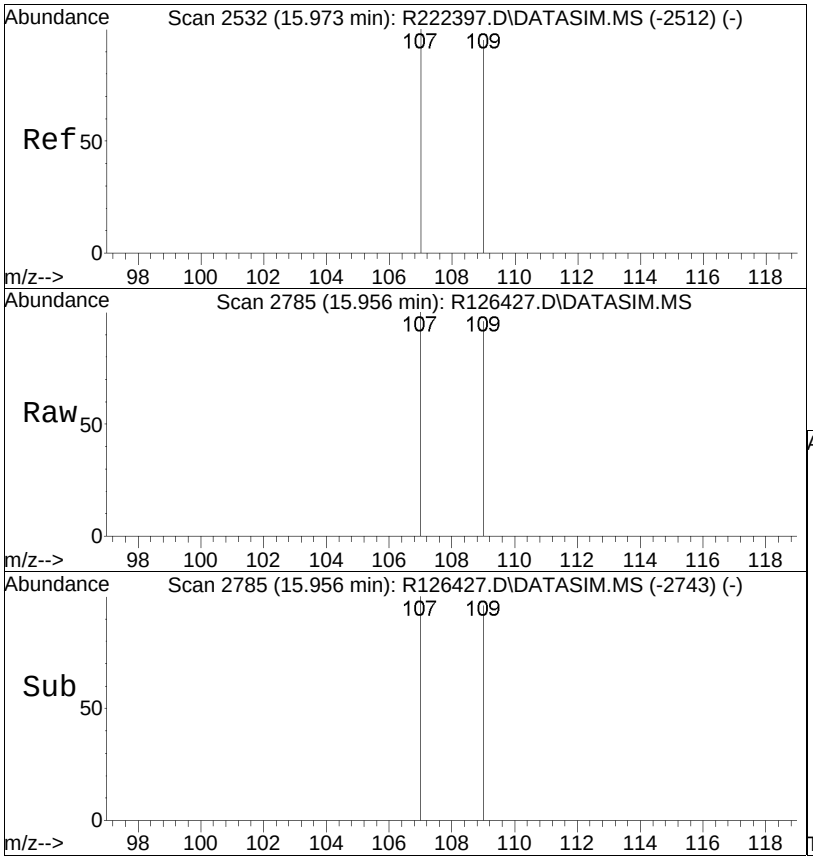



#53
dibromochloromethane
Concen: 5.17 ppbV m
RT: 15.72 min Scan# 2736
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:129 Resp: 266598

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.7 | 61.4 | 92.0 |
| 131 | 24.6 | 19.8 | 29.6 |

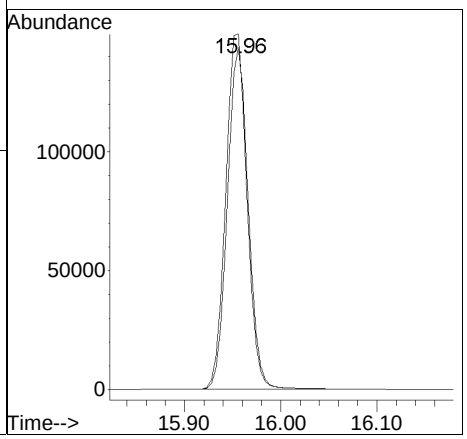


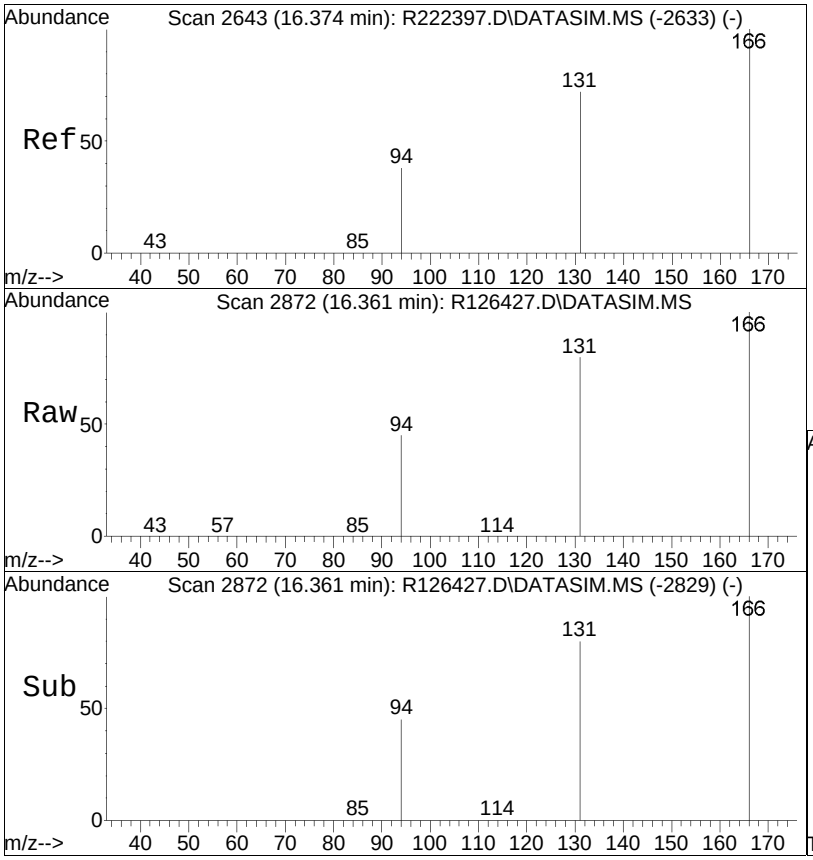



#54
1,2-dibromoethane
Concen: 5.12 ppbV m
RT: 15.96 min Scan# 2785
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:107 Resp: 230579

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 96.2 | 74.2 | 111.2 |

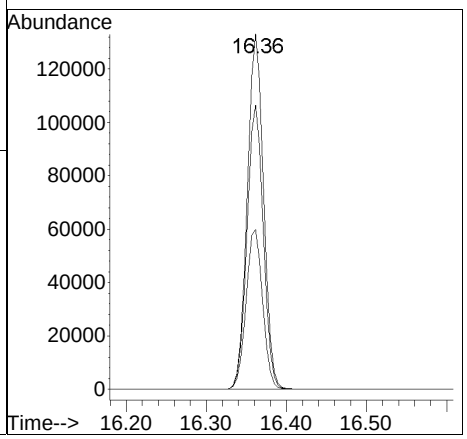


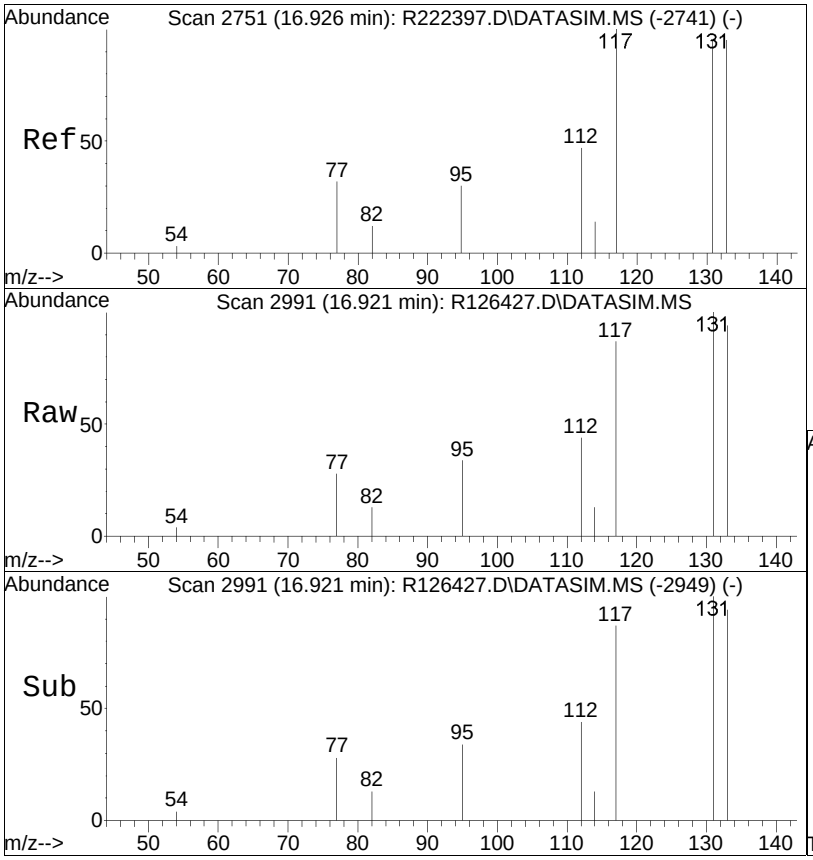



#55
tetrachloroethene
Concen: 5.10 ppbV
RT: 16.36 min Scan# 2872
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:166 Resp: 187802

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 80.1 | 63.1 | 94.7 |
| 94 | 45.0 | 37.2 | 55.8 |

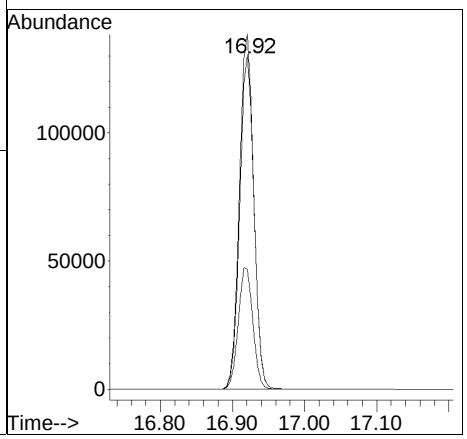


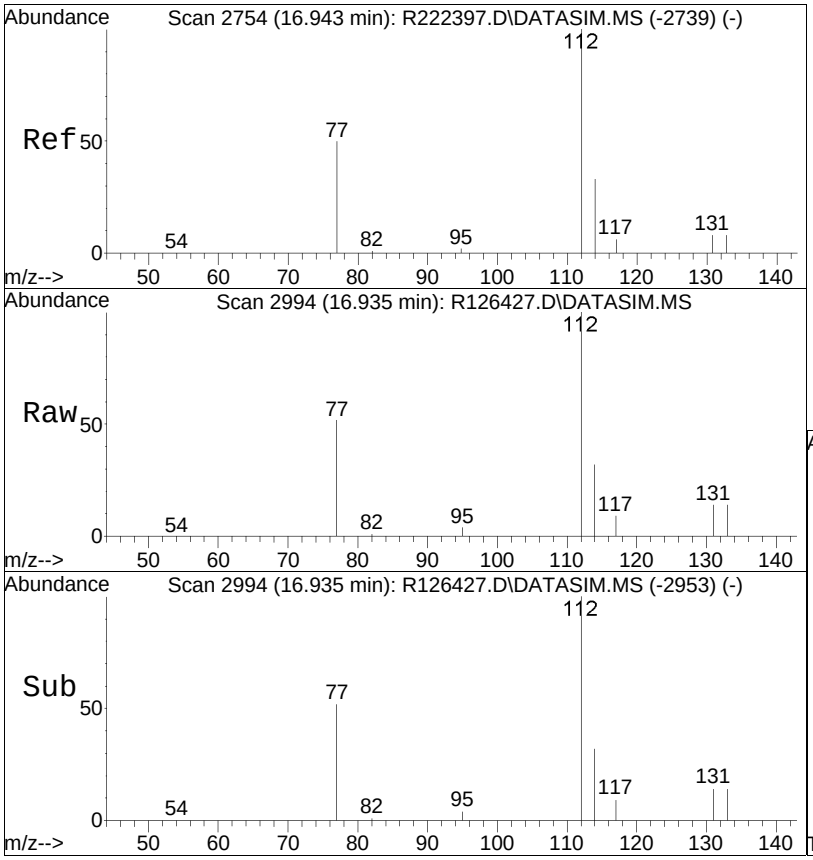



#56
1,1,1,2-tetrachloroethane
Concen: 5.01 ppbV
RT: 16.92 min Scan# 2991
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:131 Resp: 190711

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 94.1 | 75.2 | 112.8 |
| 95 | 33.7 | 28.6 | 43.0 |

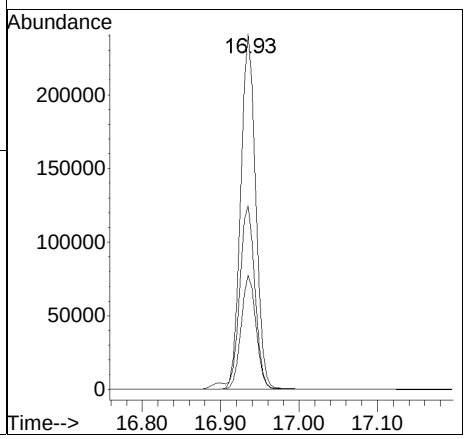


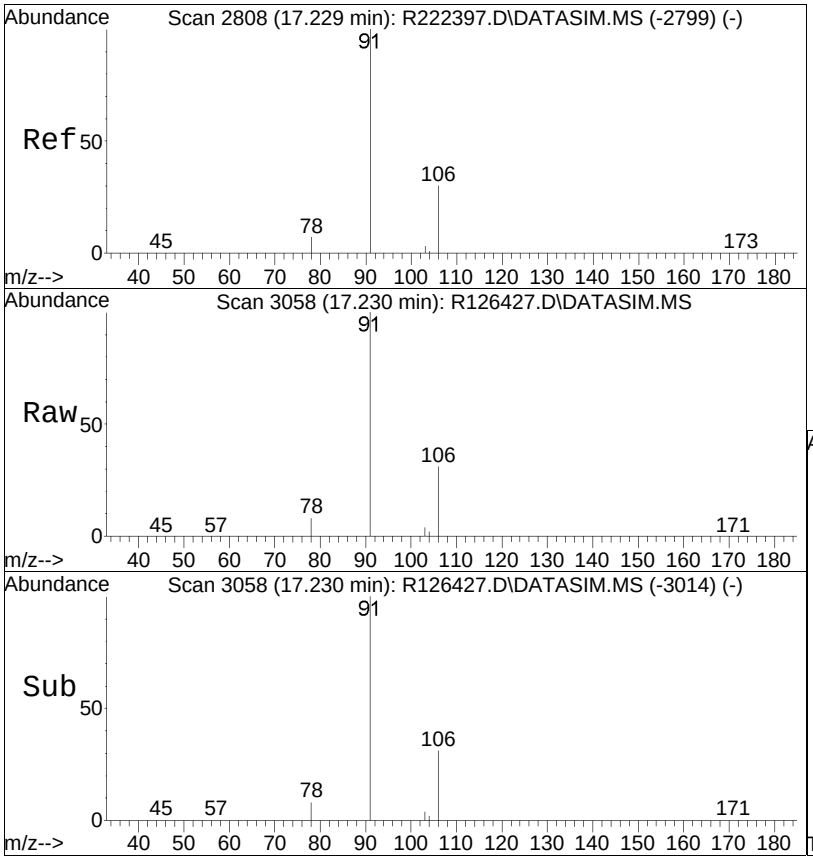



#57
chlorobenzene
Concen: 5.11 ppbV
RT: 16.93 min Scan# 2994
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:112 Resp: 321644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 32.2 | 26.2 | 39.2 |
| 77 | 51.8 | 42.2 | 63.2 |

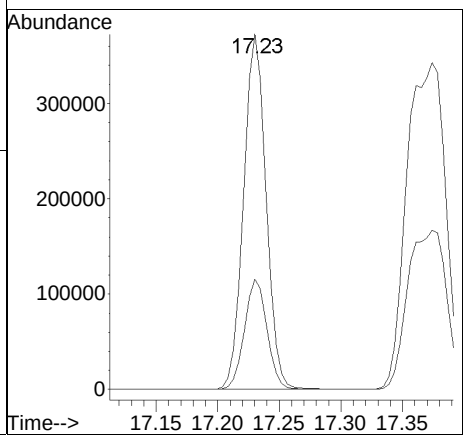


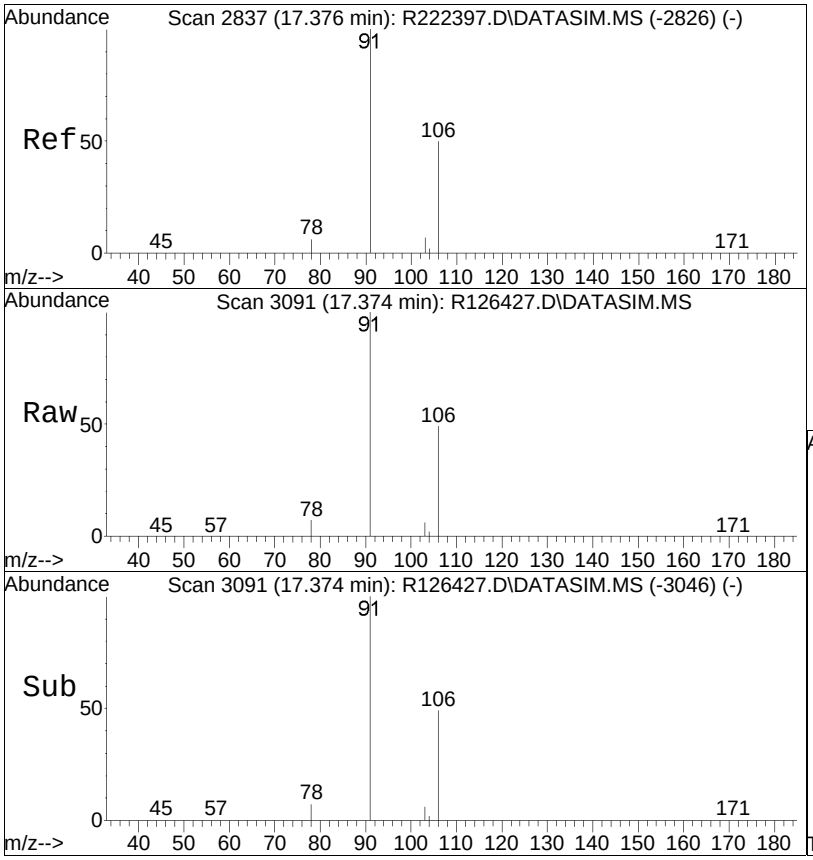



#58
ethylbenzene
Concen: 4.88 ppbV
RT: 17.23 min Scan# 3058
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 91 Resp: 472488

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.0 | 24.2 | 36.2 |

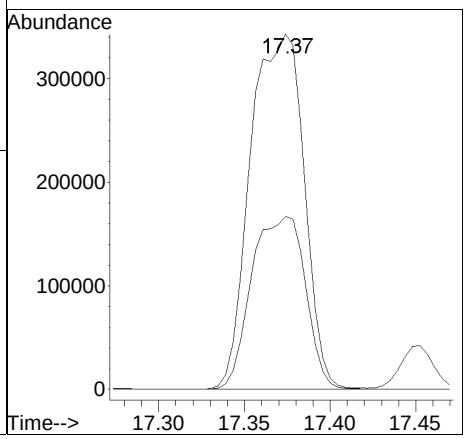


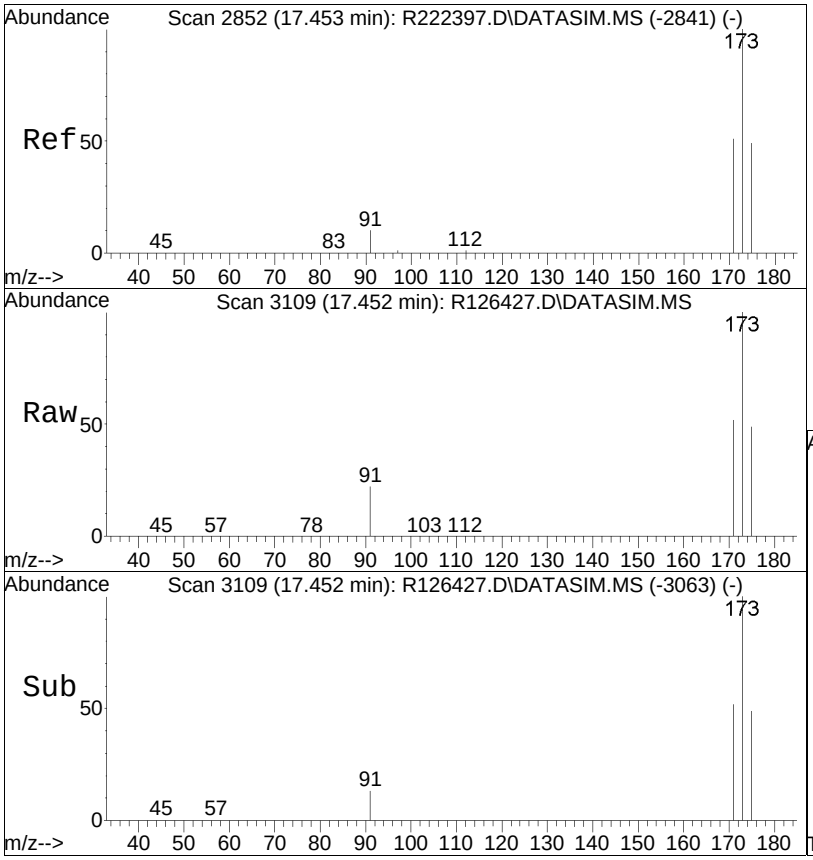



#59
m+p-xylene
Concen: 9.86 ppbV
RT: 17.37 min Scan# 3091
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 91 Resp: 744145

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.7 | 39.0 | 58.4 |

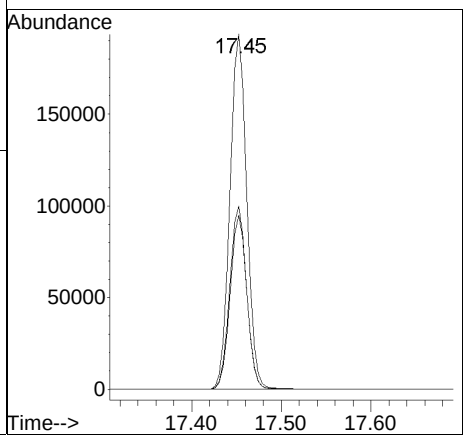


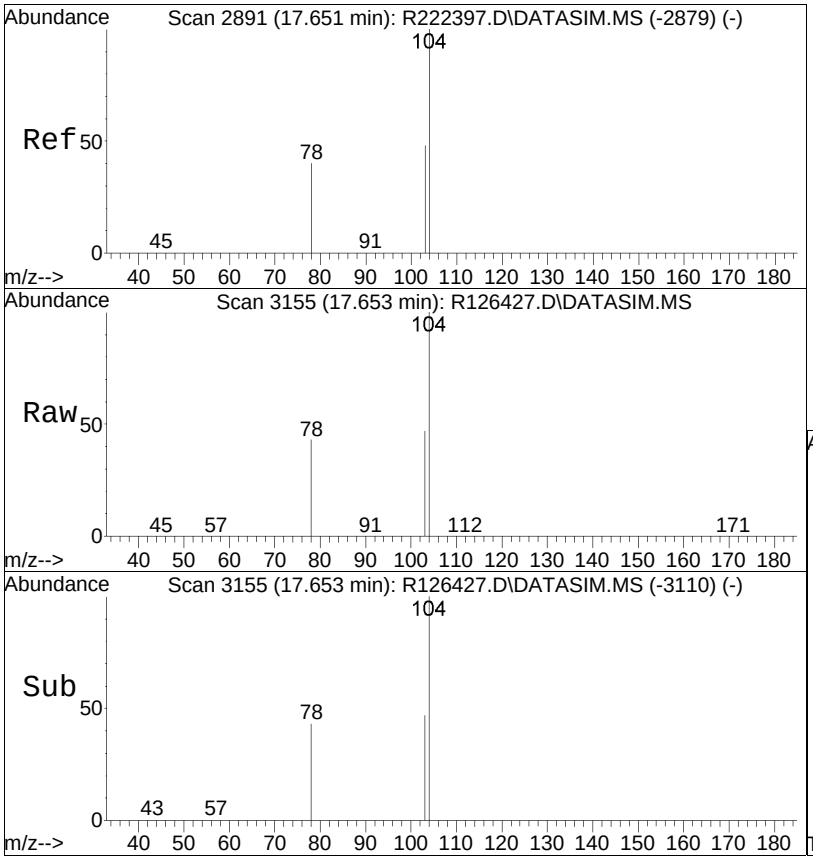



#60
bromoform
Concen: 4.83 ppbV
RT: 17.45 min Scan# 3109
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:173 Resp: 253065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 49.0 | 38.7 | 58.1 |
| 171 | 51.7 | 41.4 | 62.0 |

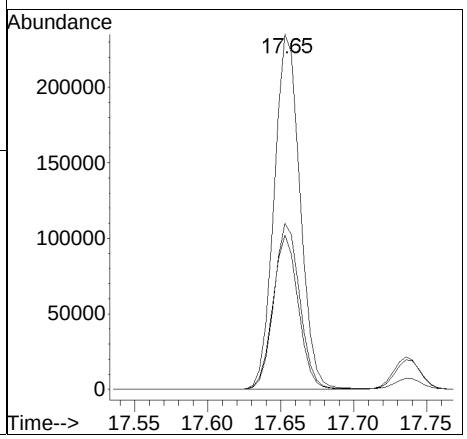


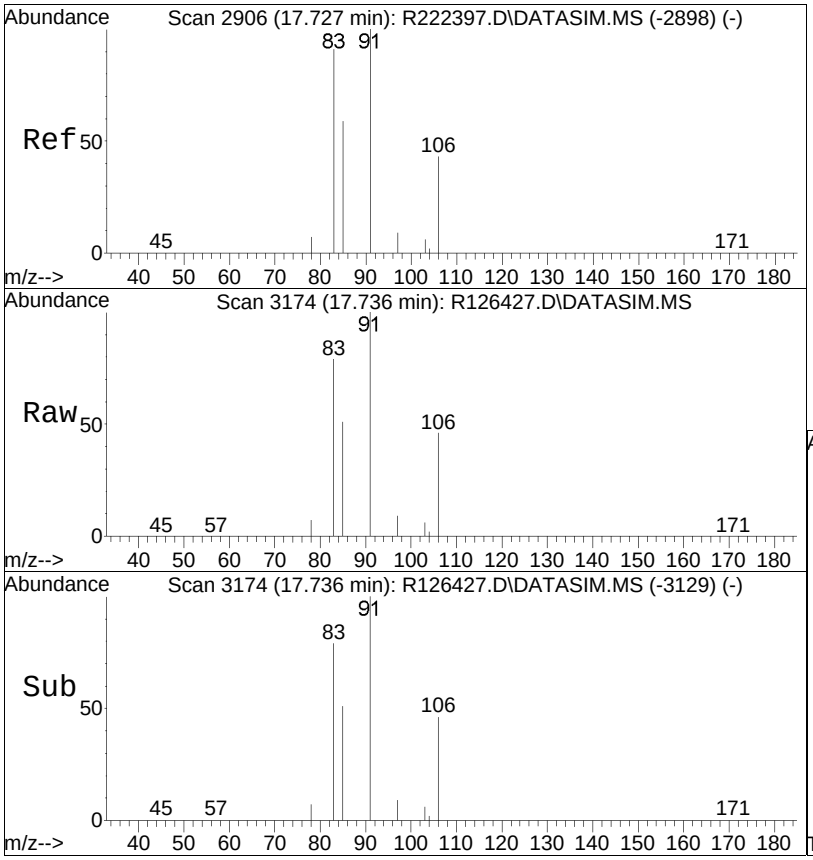



#61
styrene
Concen: 5.00 ppbV
RT: 17.65 min Scan# 3155
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:104 Resp: 290226

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 46.8 | 37.5 | 56.3 |
| 78 | 43.5 | 33.5 | 50.3 |

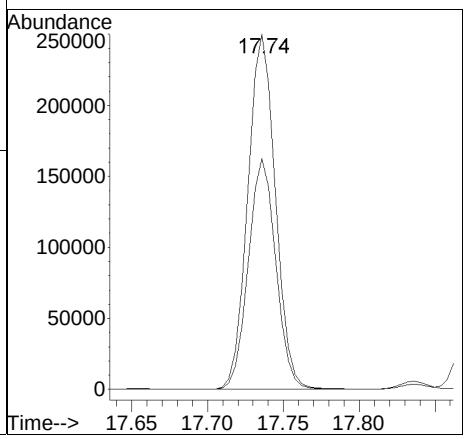


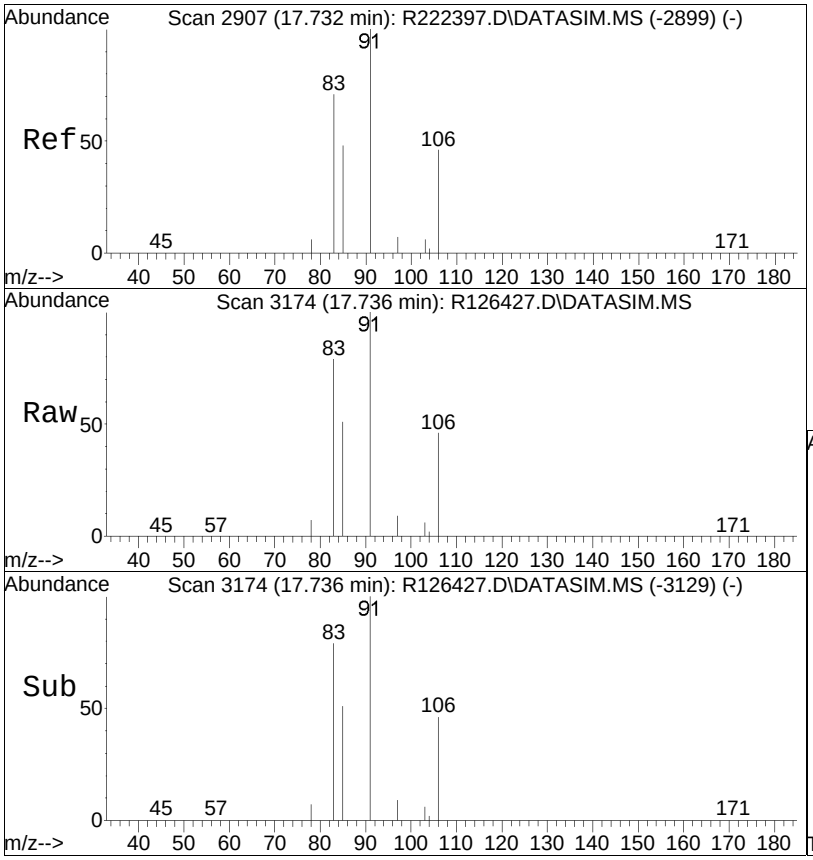



#62
1,1,2,2-tetrachloroethane
Concen: 5.06 ppbV
RT: 17.74 min Scan# 3174
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 83 Resp: 316634

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.9 | 51.8 | 77.8 |

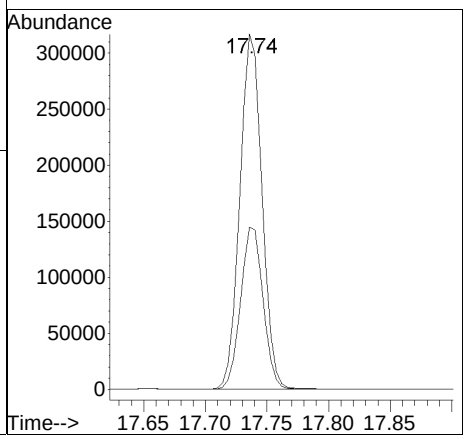


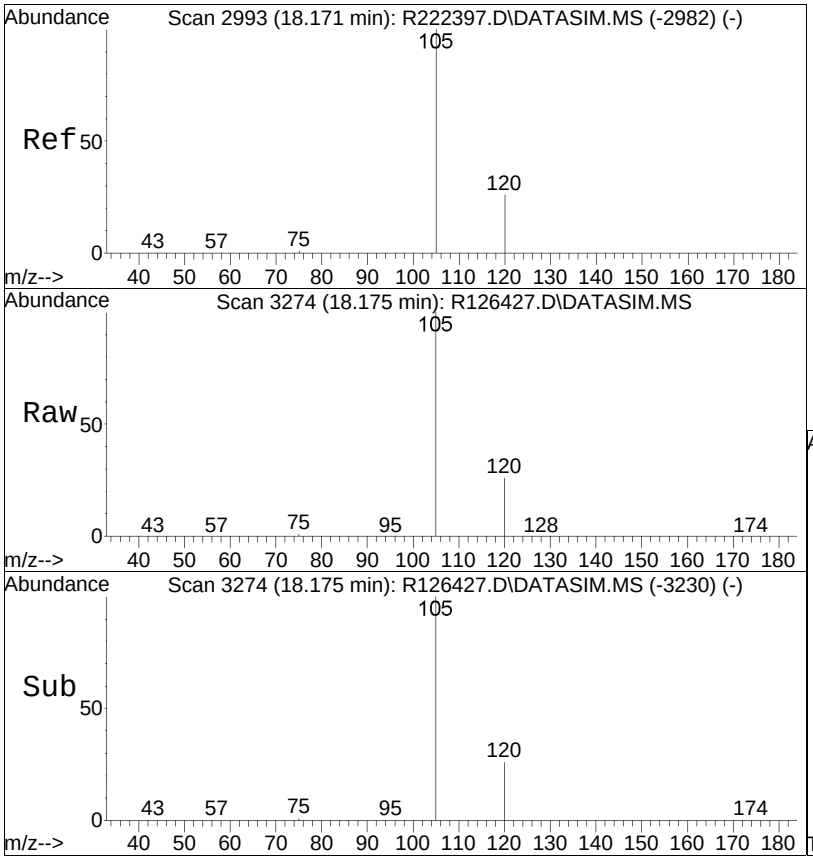



#63
o-xylene
Concen: 5.09 ppbV
RT: 17.74 min Scan# 3174
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 91 Resp: 396339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.7 | 37.1 | 55.7 |

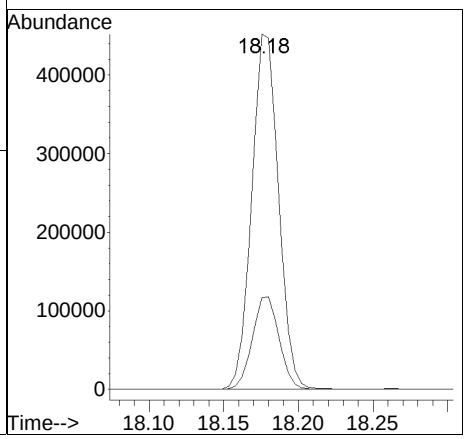


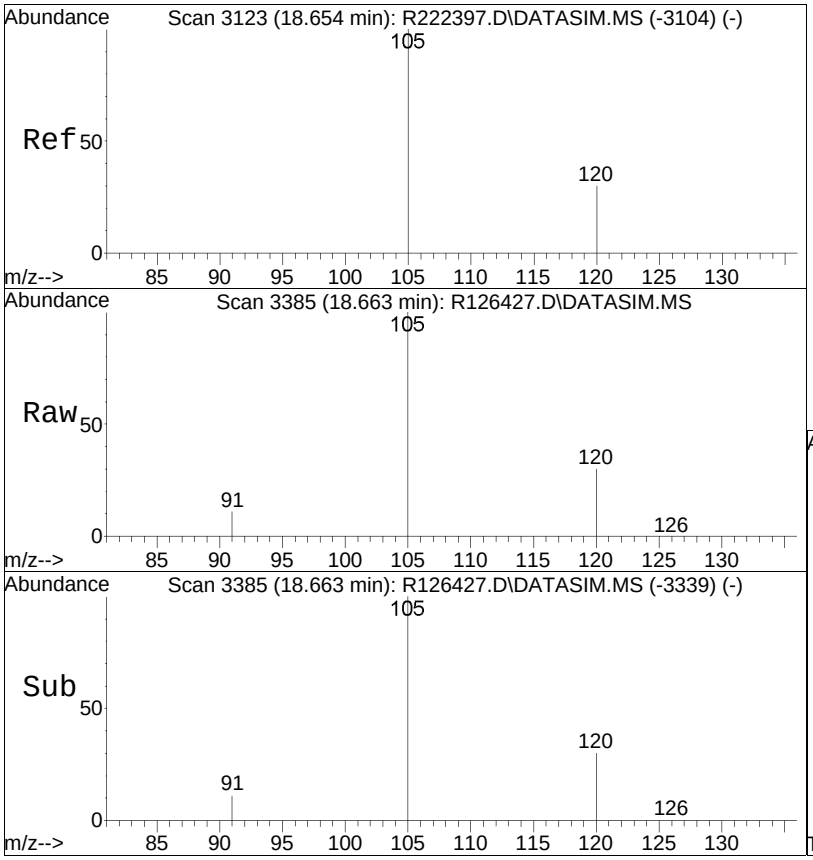



#65
isopropylbenzene
Concen: 5.08 ppbV
RT: 18.18 min Scan# 3274
Delta R.T. -0.004 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:105 Resp: 564874

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 25.7 | 20.6 | 31.0 |

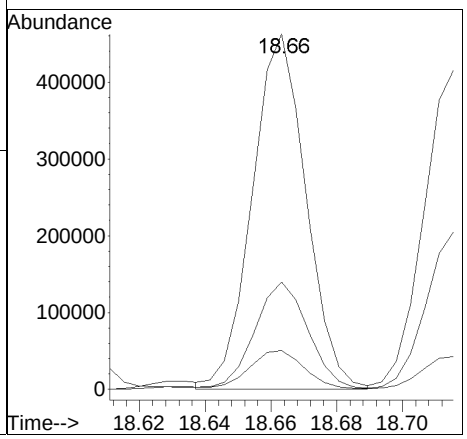


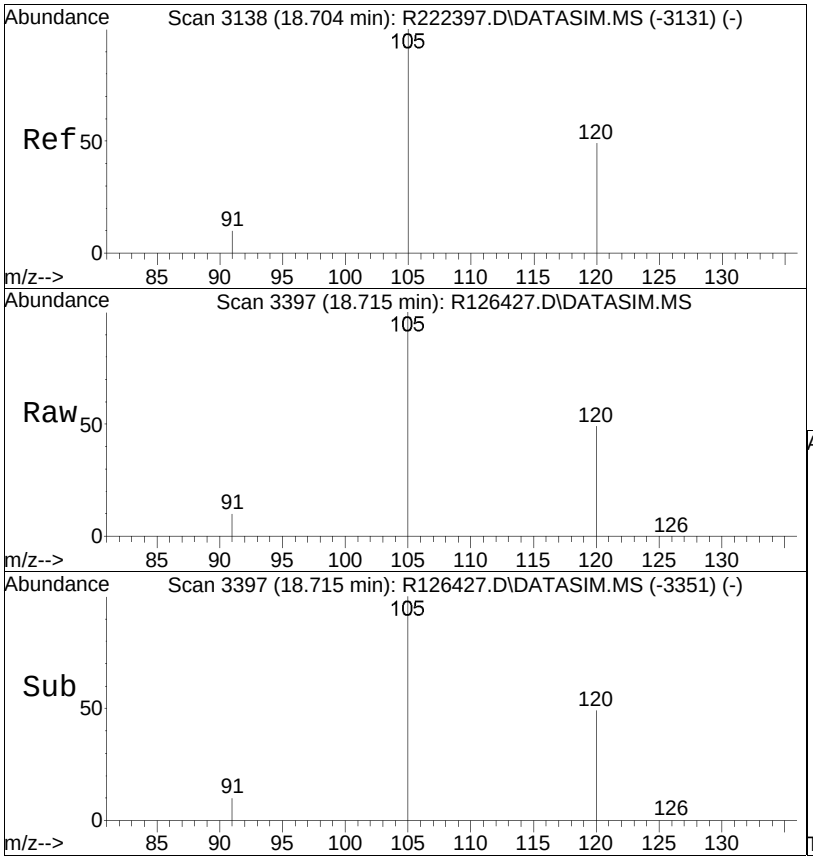



#66
4-ethyl toluene
Concen: 4.72 ppbV m
RT: 18.66 min Scan# 3385
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:105 Resp: 524641

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 30.2 | 23.4 | 35.2 |
| 91 | 10.9 | 9.0 | 13.6 |

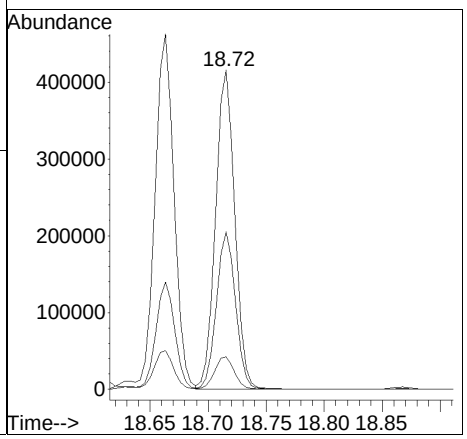


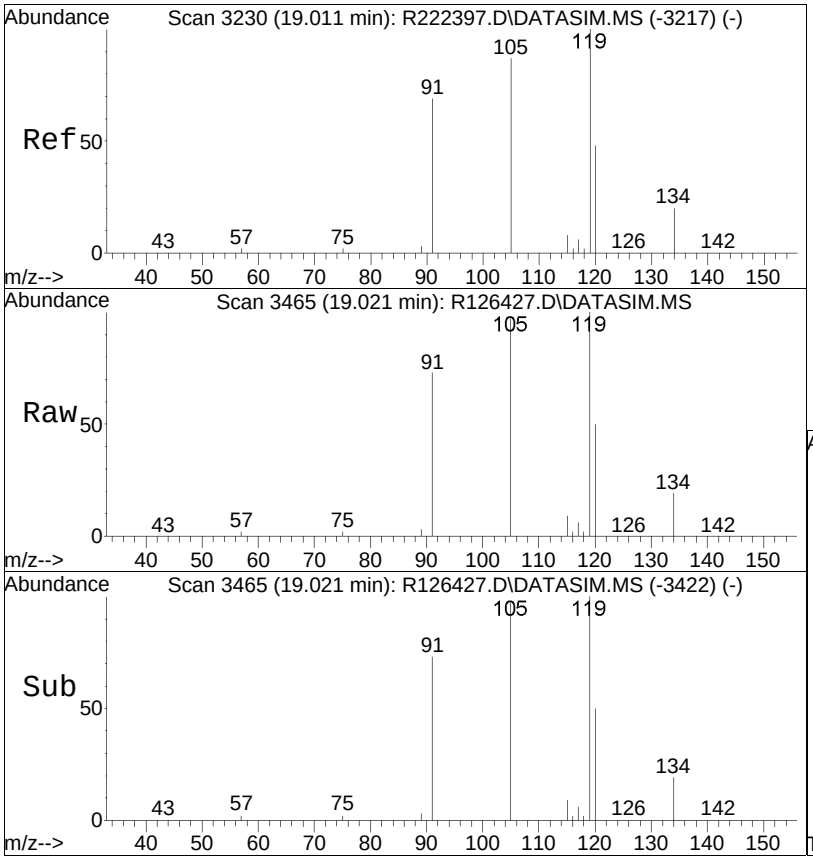



#67
1,3,5-trimethylbenzene
Concen: 5.17 ppbV
RT: 18.72 min Scan# 3397
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:105 Resp: 478293

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 49.4 | 38.1 | 57.1 |
| 91 | 10.3 | 8.5 | 12.7 |

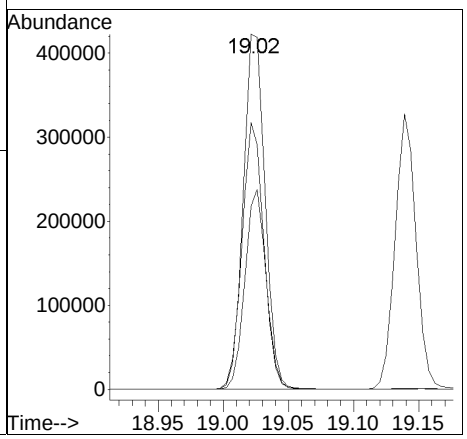


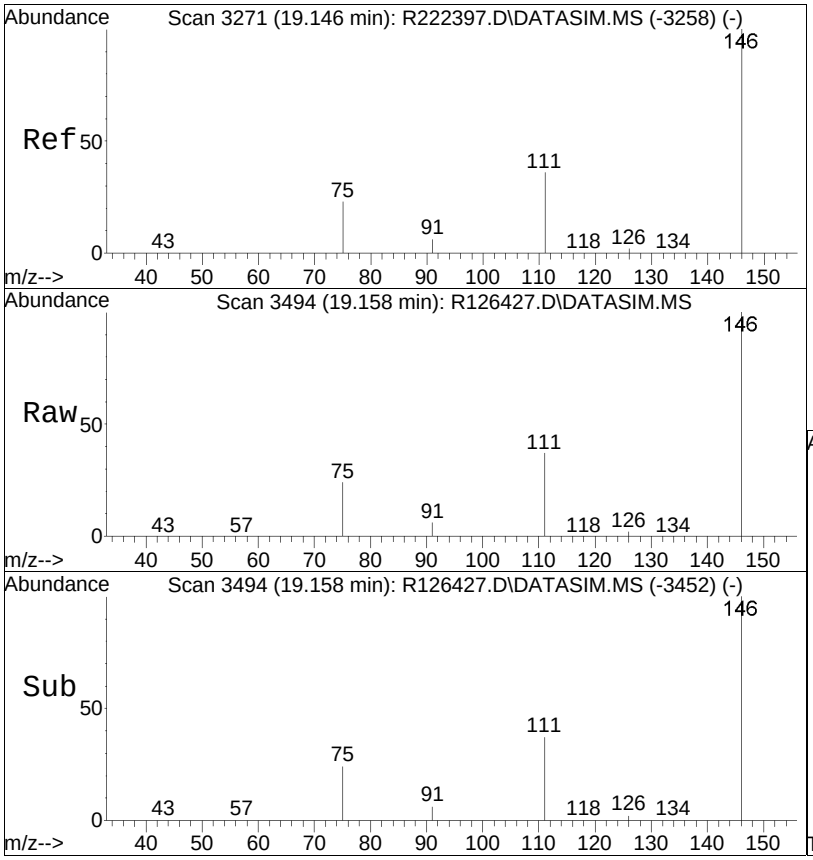



#69
1,2,4-trimethylbenzene
Concen: 5.42 ppbV
RT: 19.02 min Scan# 3465
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:105 Resp: 492033

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 51.5 | 43.6 | 65.4 |
| 91 | 75.1 | 62.0 | 93.0 |

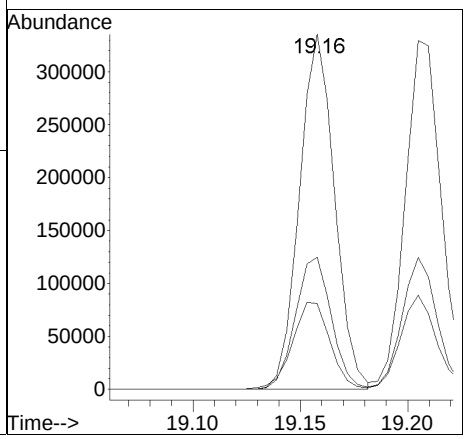


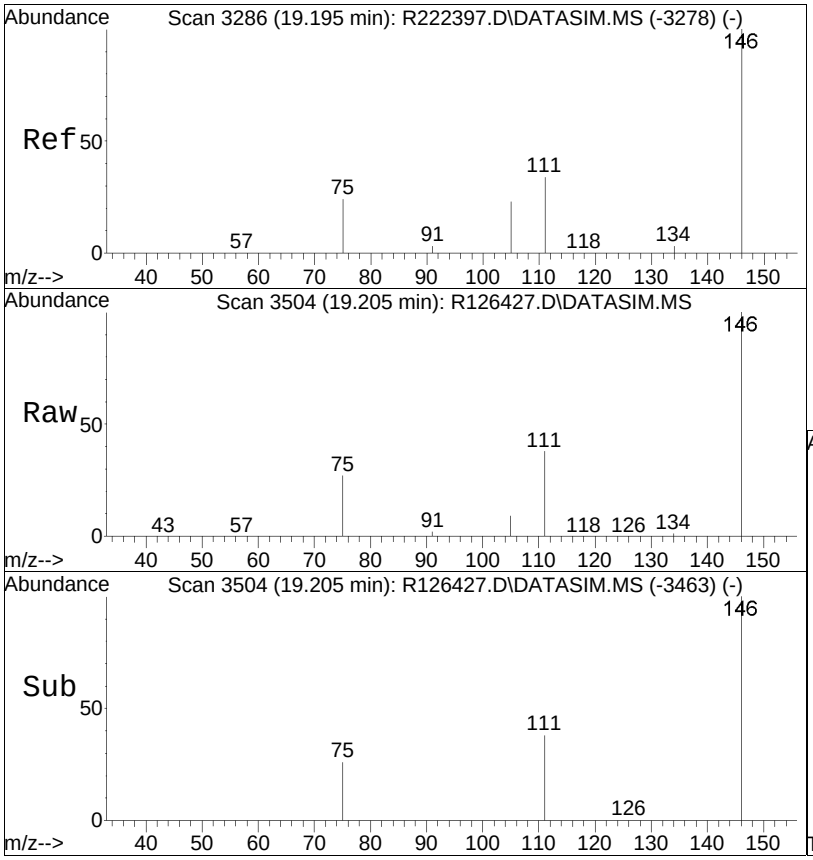



#71
1,3-dichlorobenzene
Concen: 5.54 ppbV
RT: 19.16 min Scan# 3494
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:146 Resp: 380743

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 37.2 | 32.3 | 48.5 |
| 75 | 24.1 | 22.1 | 33.1 |

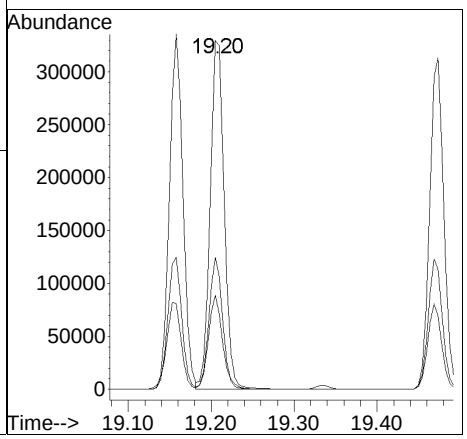


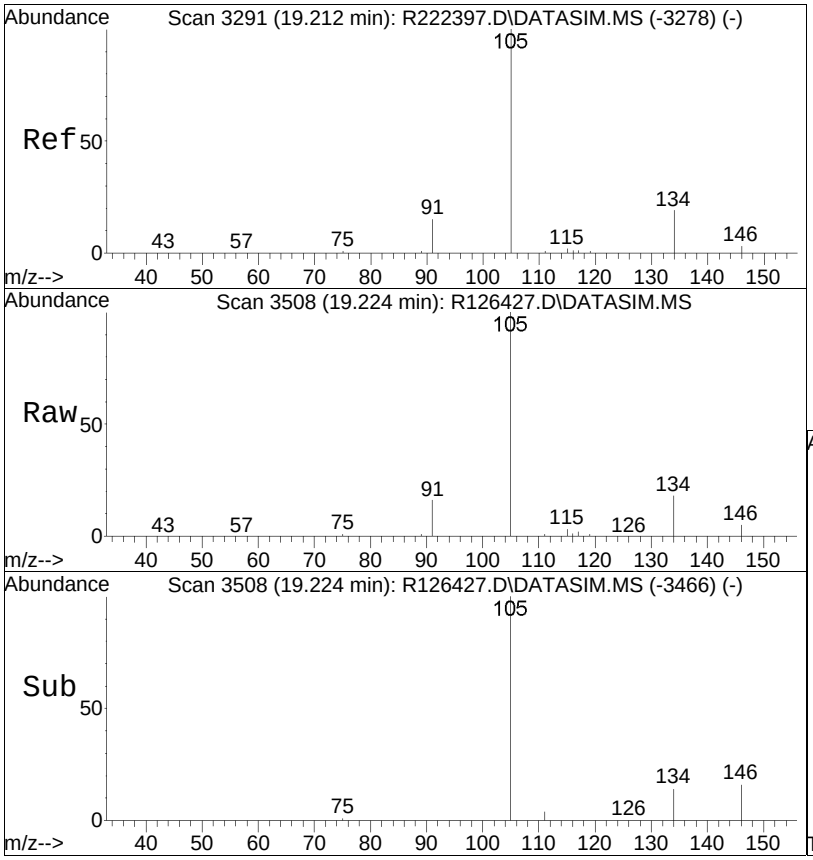



#72
1,4-dichlorobenzene
Concen: 5.48 ppbV
RT: 19.20 min Scan# 3504
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:146 Resp: 388065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 37.8 | 28.8 | 43.2 |
| 75 | 27.0 | 20.4 | 30.6 |

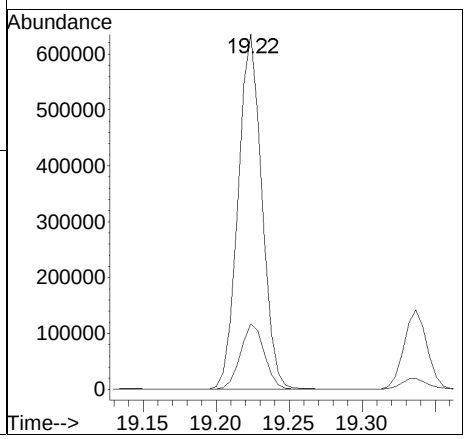


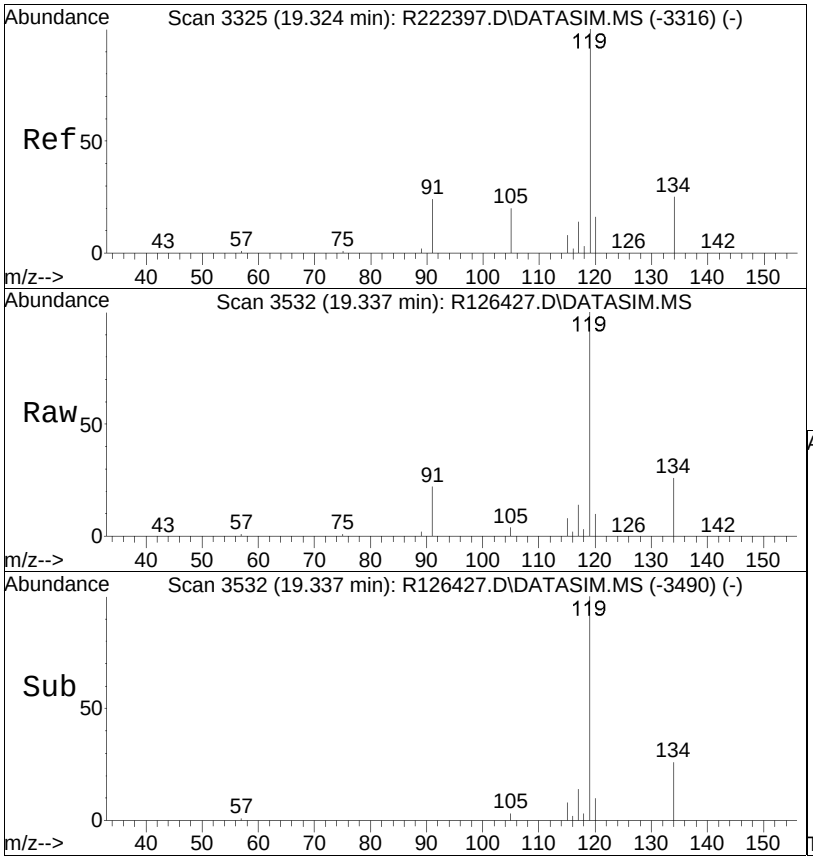



#73
sec-butylbenzene
Concen: 5.12 ppbV
RT: 19.22 min Scan# 3508
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:105 Resp: 719263

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 18.5 | 13.7 | 20.5 |

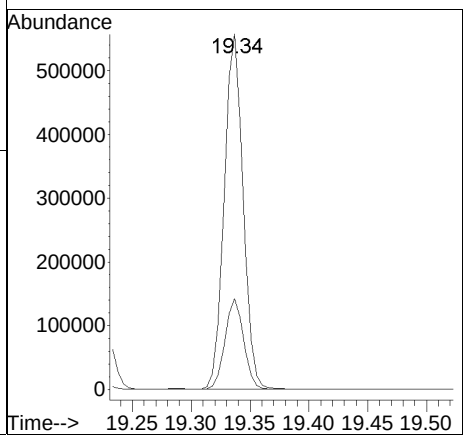


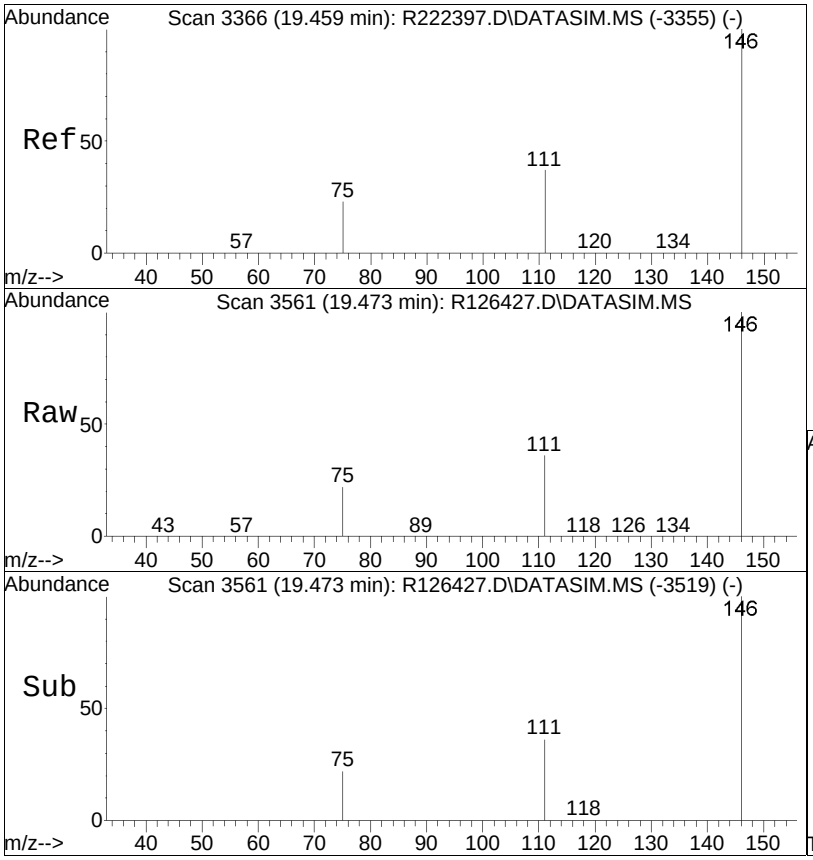



#74
p-isopropyltoluene
Concen: 4.79 ppbV
RT: 19.34 min Scan# 3532
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:119 Resp: 620335

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 25.6 | 19.8 | 29.6 |

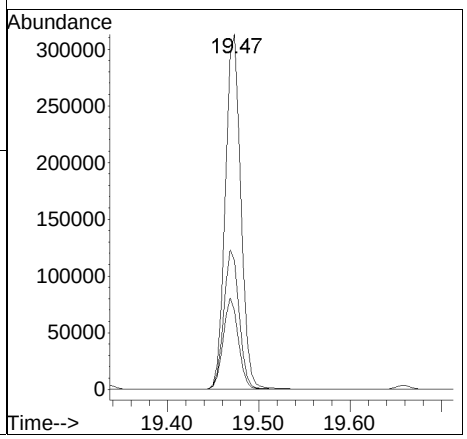


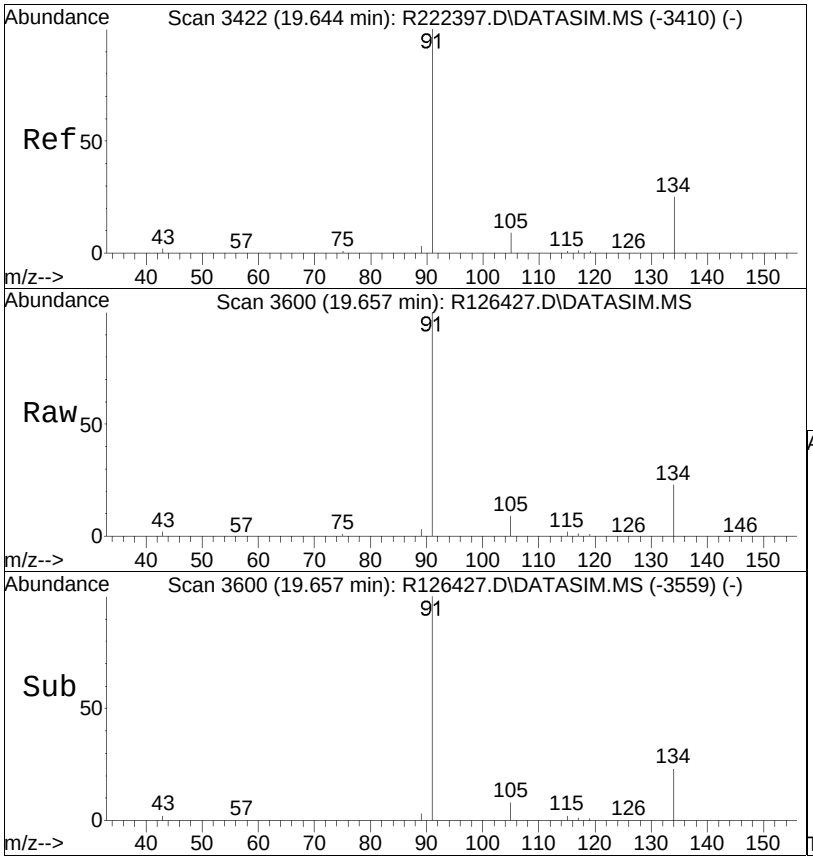



#75
1,2-dichlorobenzene
Concen: 5.59 ppbV
RT: 19.47 min Scan# 3561
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:146 Resp: 370629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 36.3 | 31.6 | 47.4 |
| 75 | 22.1 | 20.6 | 31.0 |

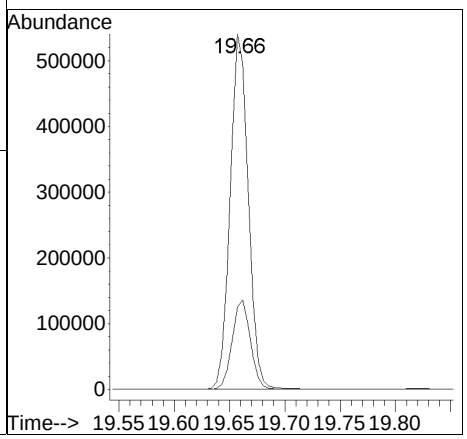


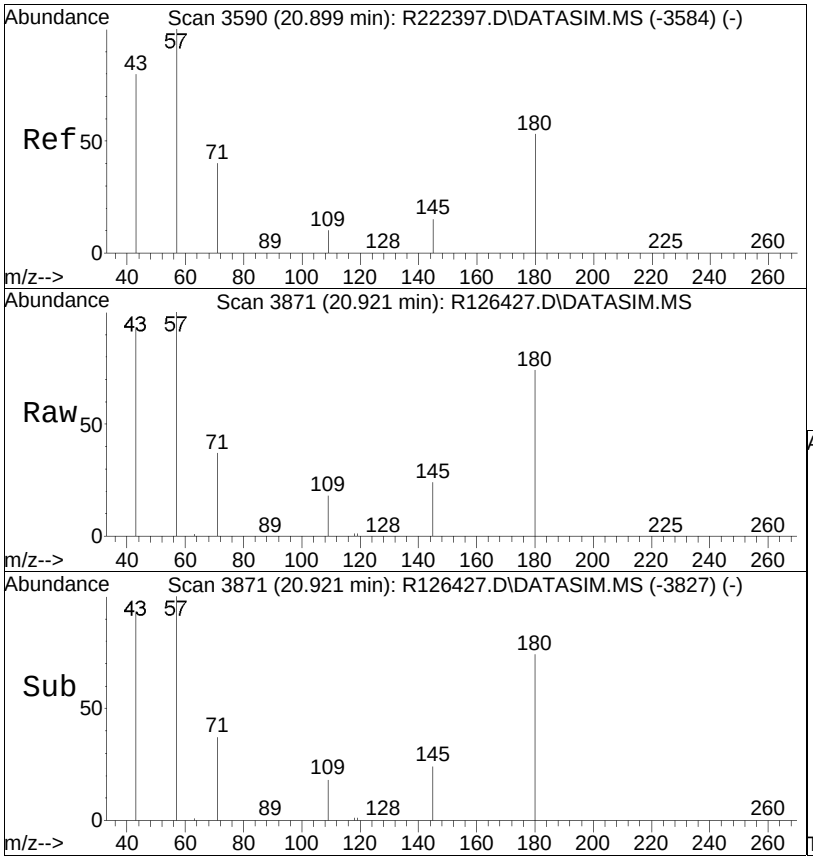



#76
n-butylbenzene
Concen: 5.31 ppbV
RT: 19.66 min Scan# 3600
Delta R.T. -0.005 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion: 91 Resp: 616127

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 134 | 23.2 | 20.2 | 30.4 |

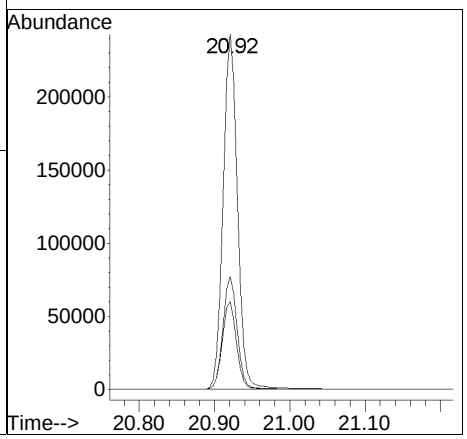


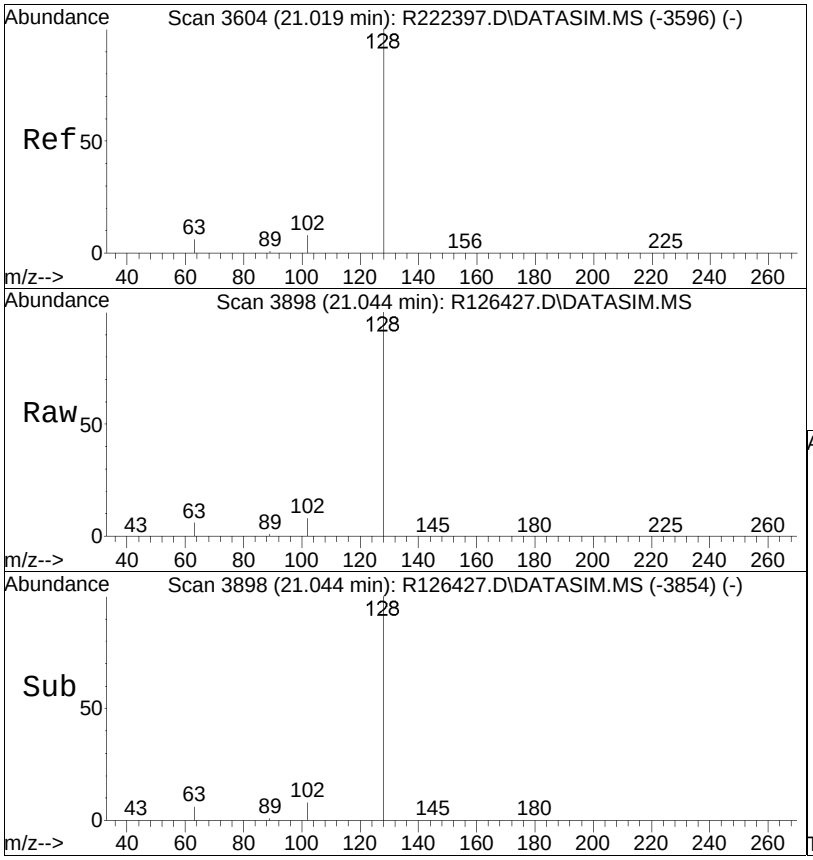



#77
1,2,4-trichlorobenzene
Concen: 6.05 ppbV
RT: 20.92 min Scan# 3871
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:180 Resp: 323056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 145 | 31.8 | 24.9 | 37.3 |
| 109 | 24.7 | 20.0 | 30.0 |

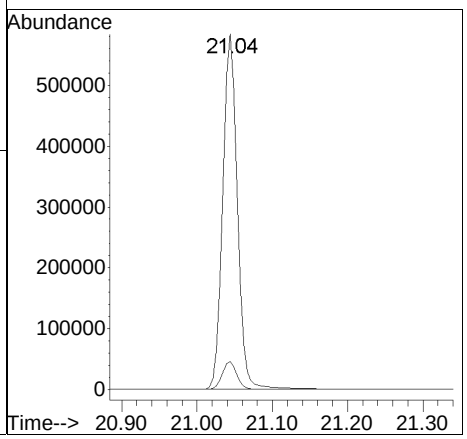


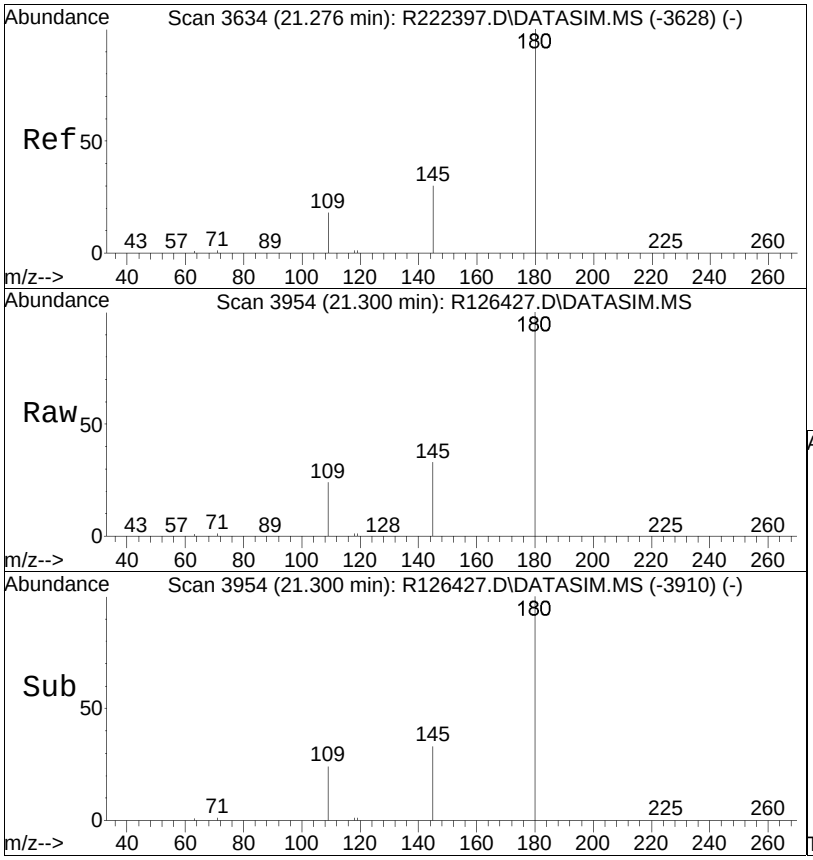



#78
naphthalene
Concen: 5.16 ppbV
RT: 21.04 min Scan# 3898
Delta R.T. -0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:128 Resp: 792556

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 7.9 | 6.4 | 9.6 |

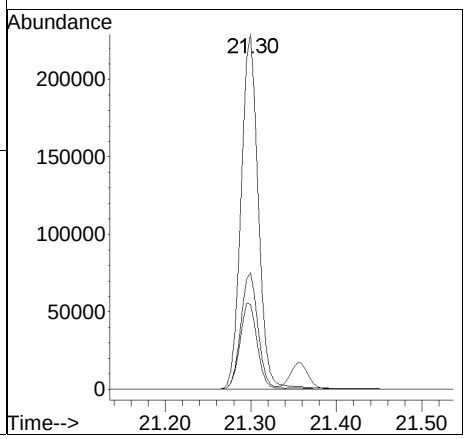


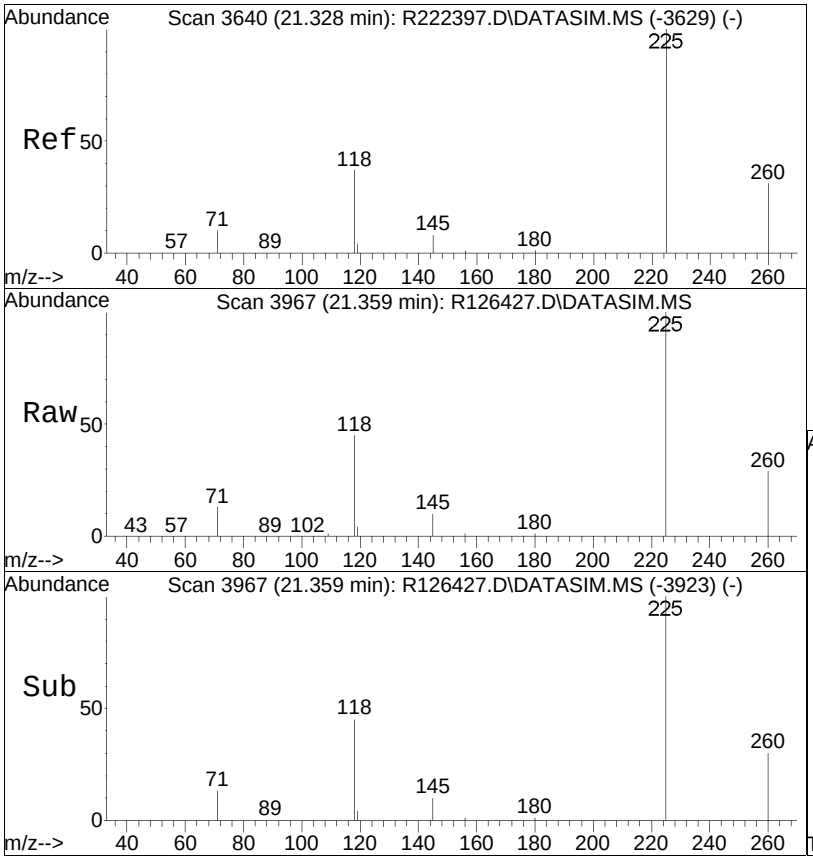



#79
1,2,3-trichlorobenzene
Concen: 5.94 ppbV
RT: 21.30 min Scan# 3954
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:180 Resp: 321773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 145 | 32.8 | 26.1 | 39.1 |
| 109 | 23.9 | 19.6 | 29.4 |

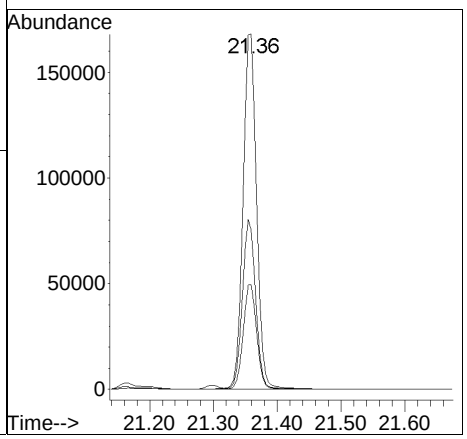





#80
hexachlorobutadiene
Concen: 5.96 ppbV
RT: 21.36 min Scan# 3967
Delta R.T. 0.000 min
Lab File: R126427.D
Acq: 8 Feb 2013 12:22 pm

Tgt Ion:225 Resp: 247364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 260 | 29.5 | 25.3 | 37.9 |
| 118 | 44.8 | 36.0 | 54.0 |

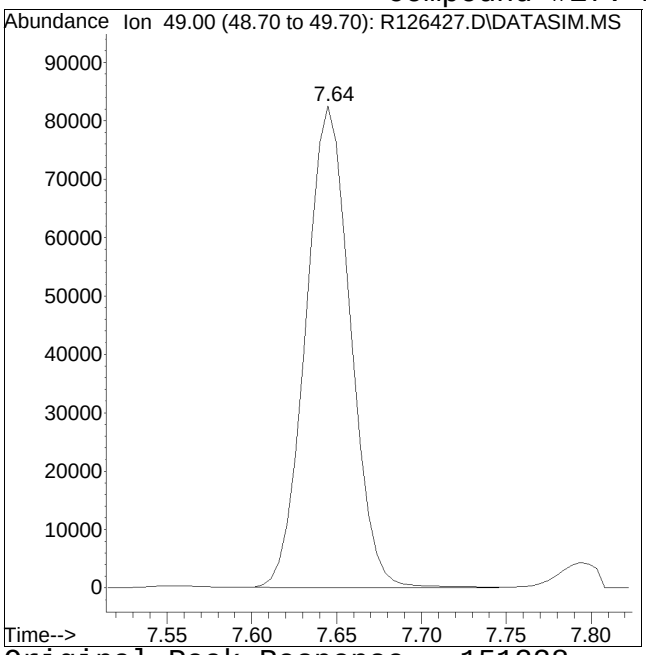


Manual Integration/Negative Proof Report

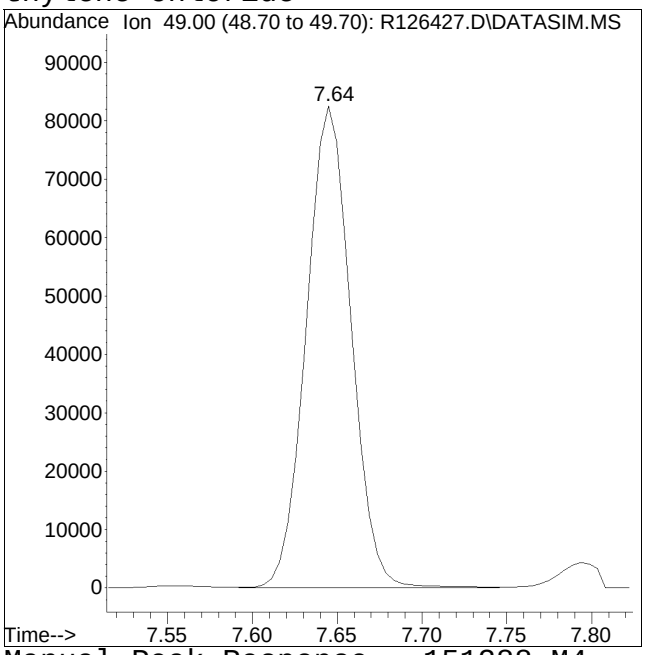
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #17: methylene chloride




Original Peak Response = 151228




Manual Peak Response = 151288 M4

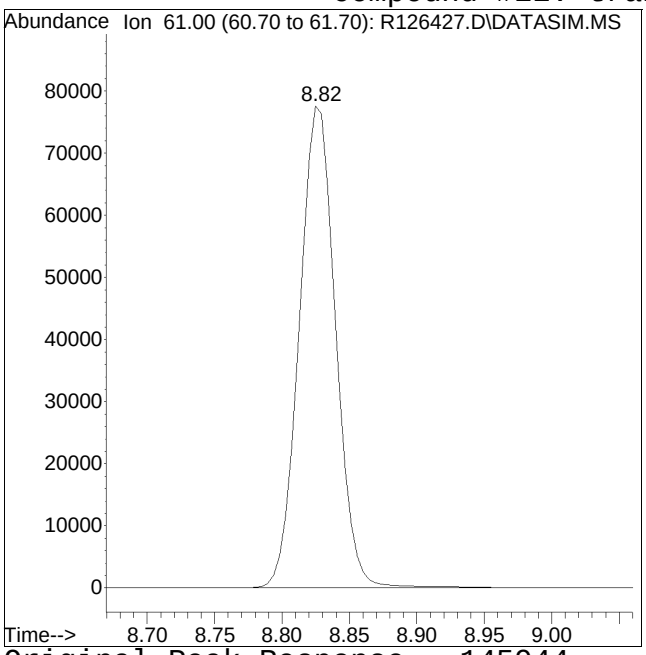
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

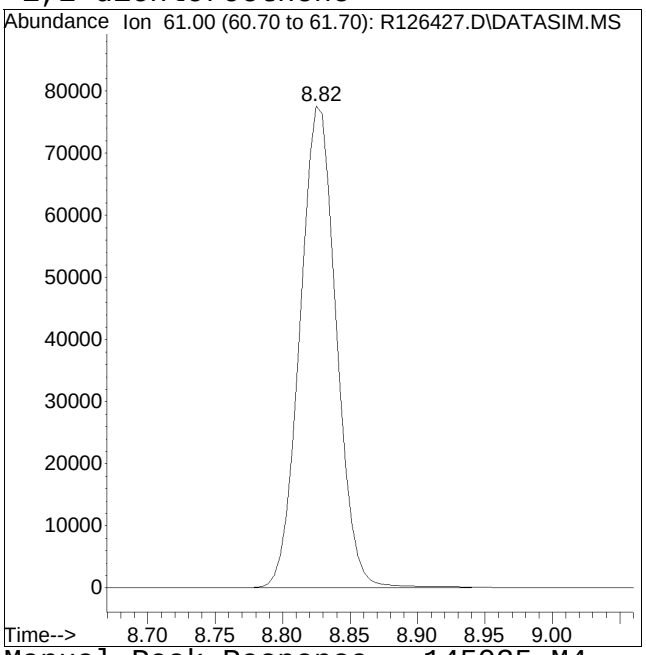
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #22: trans-1,2-dichloroethene




Original Peak Response = 145944




Manual Peak Response = 145035 M4

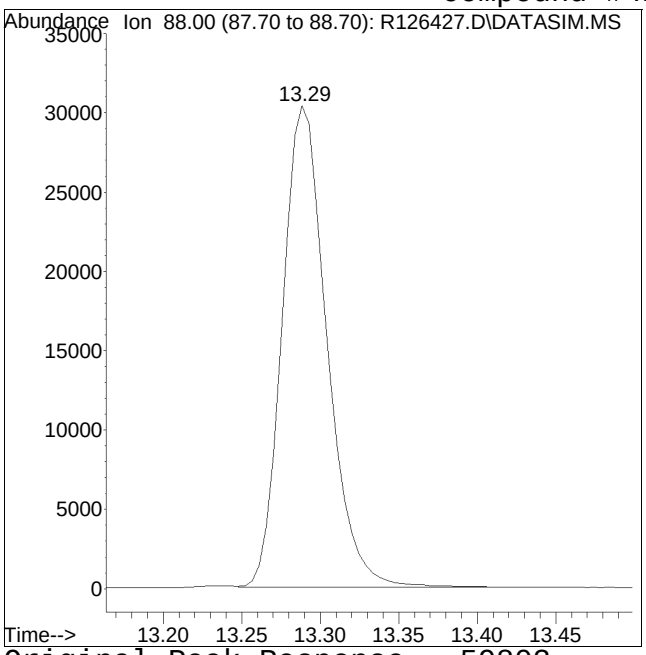
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

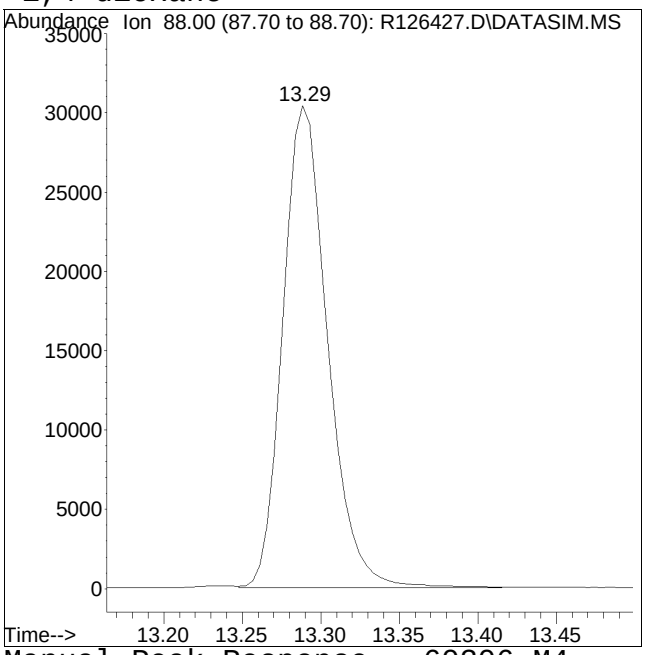
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #41: 1,4-dioxane




Original Peak Response = 59803




Manual Peak Response = 60306 M4

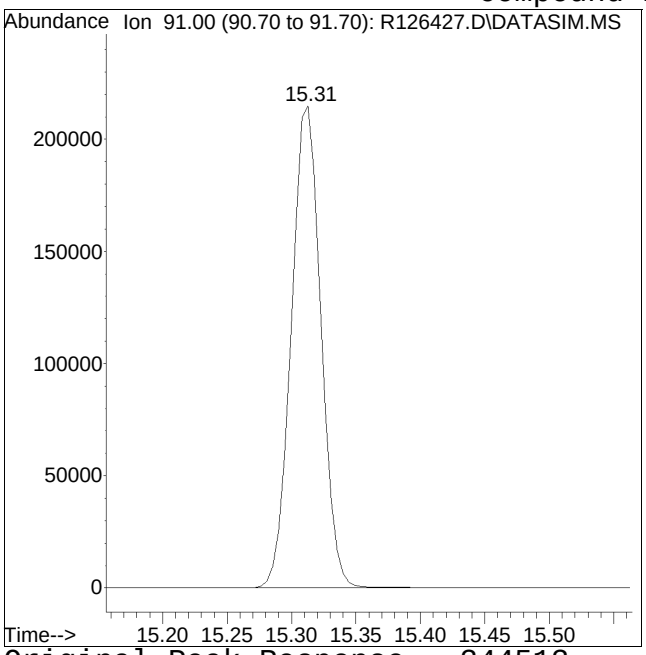
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

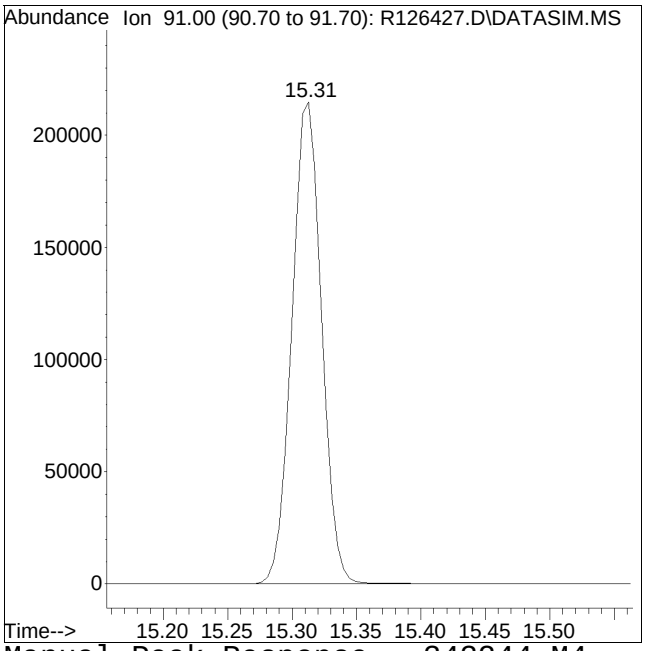
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #50: toluene




Original Peak Response = 344513




Manual Peak Response = 343244 M4

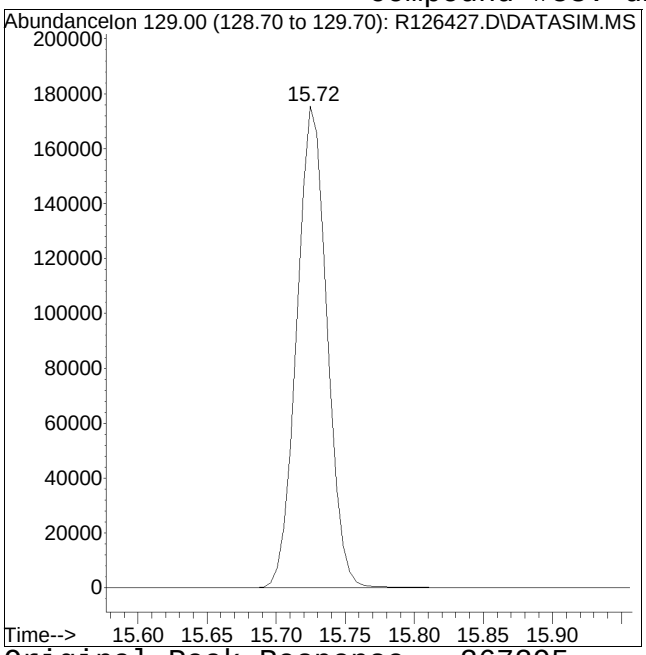
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

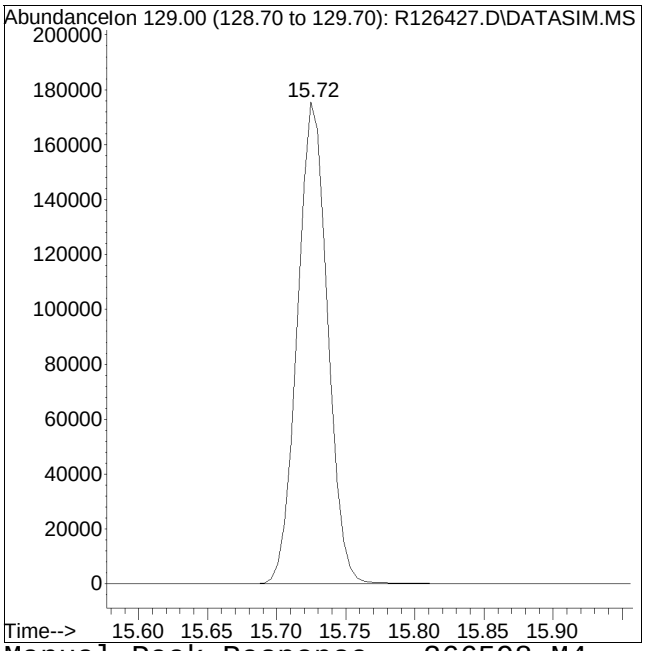
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #53: dibromochloromethane




Original Peak Response = 267295




Manual Peak Response = 266598 M4

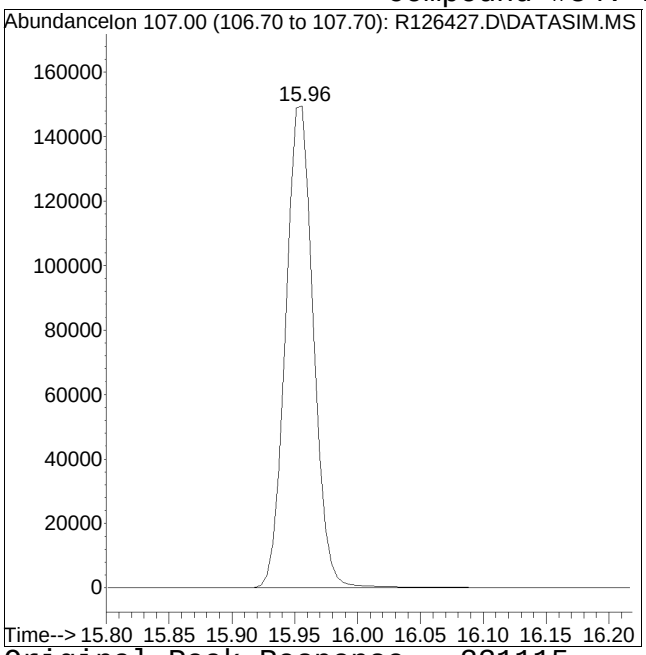
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

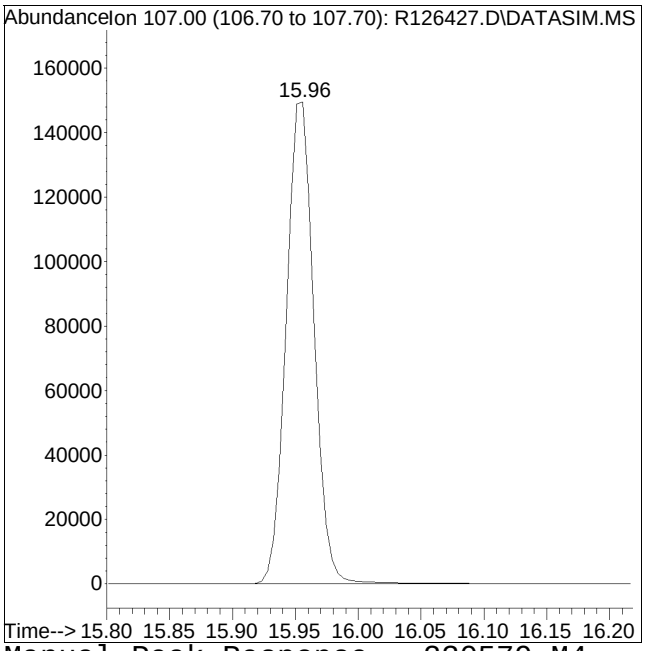
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #54: 1,2-dibromoethane




Original Peak Response = 231115




Manual Peak Response = 230579 M4

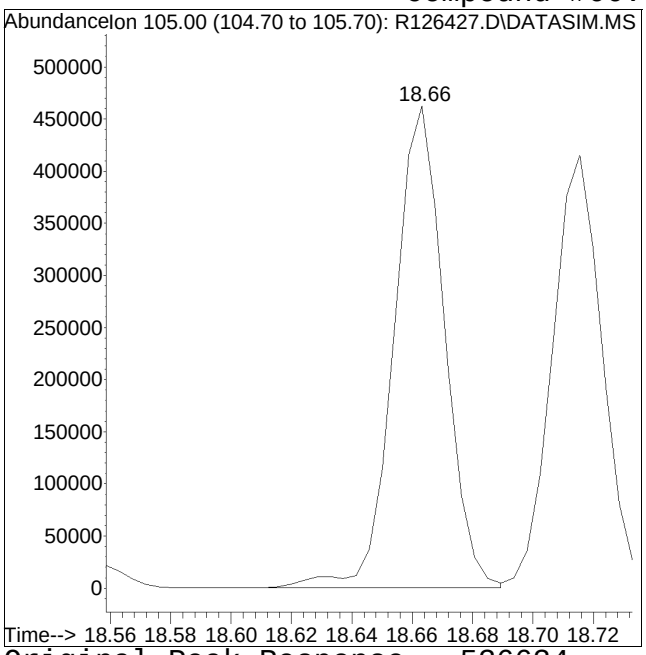
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

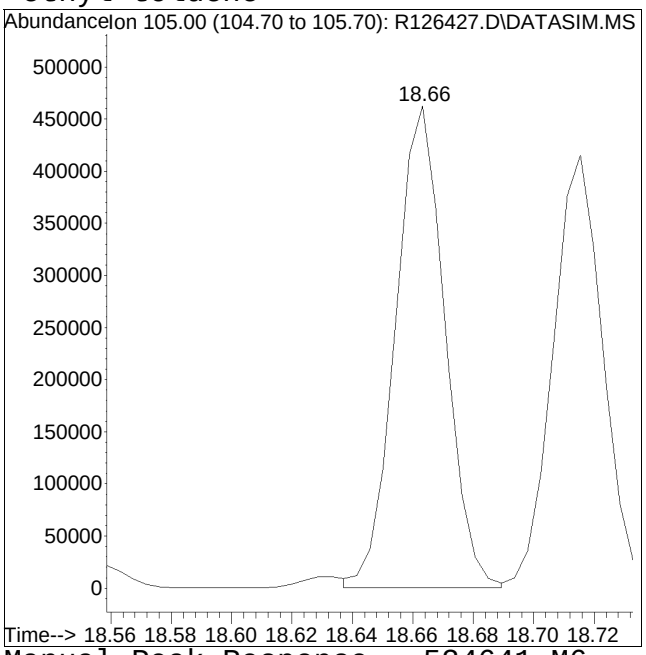
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126427.D
Date Inj'd : 2/8/2013 12:22 pm
Sample : WG589504-3,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:RY
Instrument : Air Piano 1
Quant Date : 2/8/2013 12:44 pm

Compound #66: 4-ethyl toluene




Original Peak Response = 536634




Manual Peak Response = 524641 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589504-5,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:18:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 320703 | 10.000 | ppbV | 0.00 |
| Standard Area = 364674 | | | Recovery = 87.94% | | | |
| 32) 1,4-difluorobenzene | 12.49 | 114 | 615371 | 10.000 | ppbV | 0.00 |
| Standard Area = 755678 | | | Recovery = 81.43% | | | |
| 49) chlorobenzene-D5 | 16.90 | 54 | 157837 | 10.000 | ppbV | 0.00 |
| Standard Area = 185873 | | | Recovery = 84.92% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) dichlorodifluoromethane | 4.18 | 85 | 21373 | 0.452 | ppbV | 100 |
| 4) chloromethane | 4.40 | 50 | 11586 | 0.501 | ppbV | 99 |
| 5) Freon-114 | 4.55 | 85 | 693 | 0.013 | ppbV # | 91 |
| 6) vinyl chloride | 4.72 | | 0 | N.D. | | |
| 7) 1,3-butadiene | 4.91 | 54 | 241 | 0.015 | ppbV | 79 |
| 8) bromomethane | 5.29 | | 0 | N.D. | | |
| 9) chloroethane | 5.55 | | 0 | N.D. | | |
| 13) trichlorofluoromethane | 6.63 | 101 | 12627 | 0.224 | ppbV | 99 |
| 16) 1,1-dichloroethene | 0.00 | | 0 | N.D. | d | |
| 17) methylene chloride | 7.64 | 49 | 31683 | 1.014 | ppbV | 98 |
| 20) Freon 113 | 7.99 | 101 | 2549 | 0.065 | ppbV | 96 |
| 22) trans-1,2-dichloroethene | 0.00 | | 0 | N.D. | | |
| 23) 1,1-dichloroethane | 9.07 | | 0 | N.D. | | |
| 24) MTBE | 9.18 | | 0 | N.D. | | |
| 27) cis-1,2-dichloroethene | 10.08 | | 0 | N.D. | | |
| 29) chloroform | 10.43 | 83 | 3811 | 0.093 | ppbV | 99 |
| 31) 1,2-dichloroethane | 11.28 | 62 | 863 | 0.027 | ppbV # | 84 |
| 35) 1,1,1-trichloroethane | 11.56 | 97 | 1380M4 | 0.039 | ppbV | |
| 36) benzene | 12.09 | 78 | 9448 | 0.187 | ppbV | 94 |
| 37) carbon tetrachloride | 12.25 | 117 | 3463 | 0.094 | ppbV | 98 |
| 39) 1,2-dichloropropane | 13.02 | | 0 | N.D. | | |
| 40) bromodichloromethane | 13.24 | 83 | 863 | 0.022 | ppbV # | 94 |
| 42) trichloroethene | 13.29 | | 0 | N.D. | | |
| 45) cis-1,3-dichloropropene | 14.28 | | 0 | N.D. | | |
| 47) trans-1,3-dichloropropene | 14.86 | | 0 | N.D. | | |
| 48) 1,1,2-trichloroethane | 15.09 | | 0 | N.D. | | |
| 50) toluene | 15.31 | 91 | 19588M4 | 0.306 | ppbV | |
| 53) dibromochloromethane | 15.73 | | 0 | N.D. | | |
| 54) 1,2-dibromoethane | 0.00 | | 0 | N.D. | d | |
| 55) tetrachloroethene | 16.36 | 166 | 377 | 0.012 | ppbV # | 89 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589504-5,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:18:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

Sub List : TO15_SIM+Naph - All Compounds reported

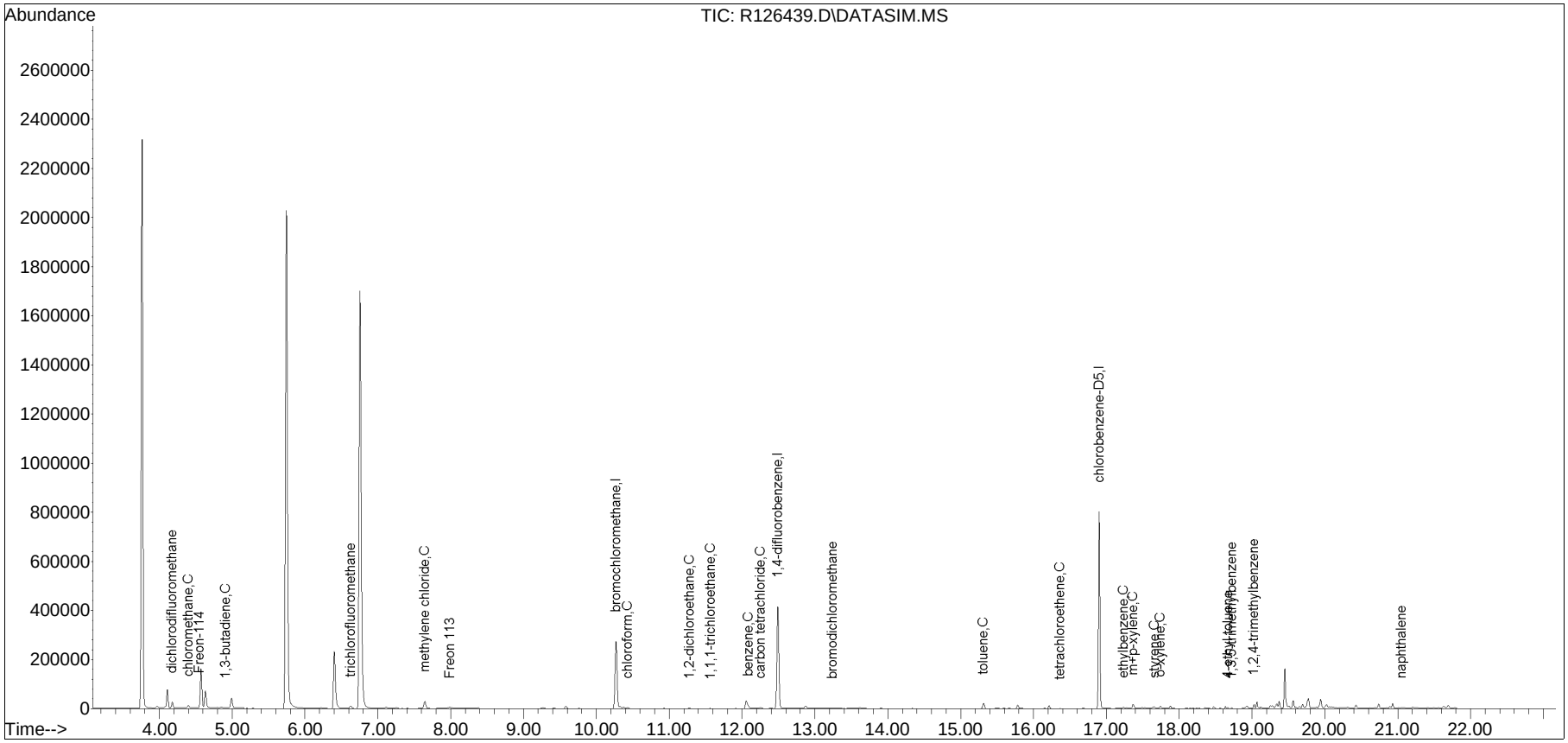
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 56) 1,1,1,2-tetrachloroethane | 16.93 | | 0 | N.D. | | |
| 57) chlorobenzene | 16.94 | | 0 | N.D. | | |
| 58) ethylbenzene | 17.23 | 91 | 5825 | 0.071 | ppbV | 98 |
| 59) m+p-xylene | 17.37 | 91 | 14187 | 0.221 | ppbV | 100 |
| 60) bromoform | 17.46 | | 0 | N.D. | | |
| 61) styrene | 17.66 | 104 | 4340 | 0.088 | ppbV | 99 |
| 62) 1,1,2,2-tetrachloroethane | 17.73 | | 0 | N.D. | | |
| 63) o-xylene | 17.74 | 91 | 6424 | 0.097 | ppbV | 100 |
| 66) 4-ethyl toluene | 18.67 | 105 | 3607 | 0.038 | ppbV # | 91 |
| 67) 1,3,5-trimethylbenzene | 18.72 | 105 | 2835 | 0.036 | ppbV # | 96 |
| 69) 1,2,4-trimethylbenzene | 19.03 | 105 | 9545 | 0.124 | ppbV # | 51 |
| 71) 1,3-dichlorobenzene | 19.17 | | 0 | N.D. | | |
| 72) 1,4-dichlorobenzene | 19.21 | | 0 | N.D. | | |
| 75) 1,2-dichlorobenzene | 19.48 | | 0 | N.D. | | |
| 77) 1,2,4-trichlorobenzene | 20.93 | | 0 | N.D. | | |
| 78) naphthalene | 21.05 | 128 | 2586 | 0.020 | ppbV # | 95 |
| 80) hexachlorobutadiene | 21.35 | | 0 | N.D. | | |

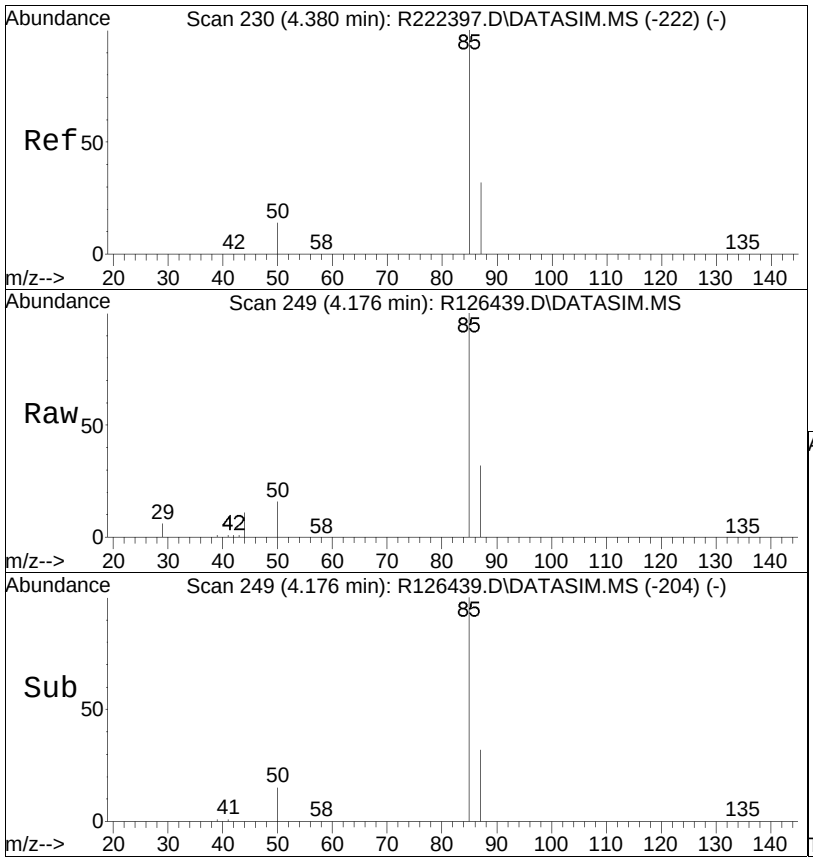
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15_SIM+Naph - All Compounds reportedd)

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589504-5,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 11 22:18:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:37:31 2012
Response via : Initial Calibration

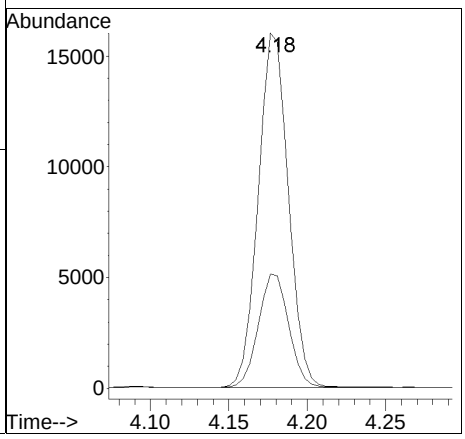


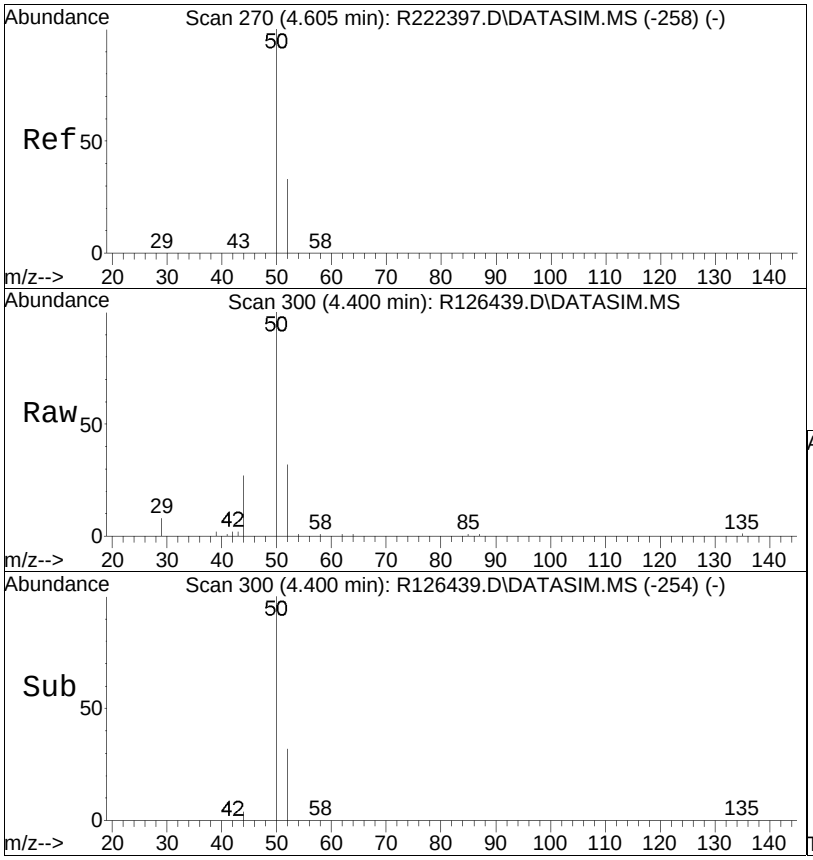



#3
dichlorodifluoromethane
Concen: 0.45 ppbV
RT: 4.18 min Scan# 249
Delta R.T. -0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 85 Resp: 21373

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.2 | 25.9 | 38.9 |

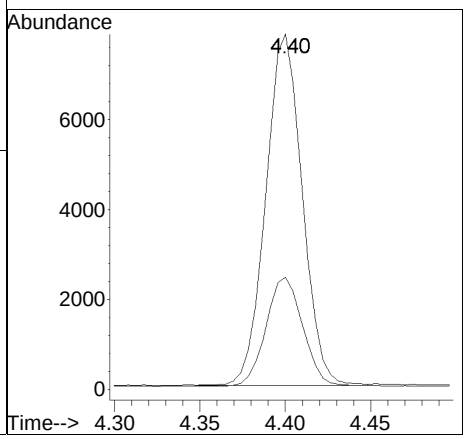


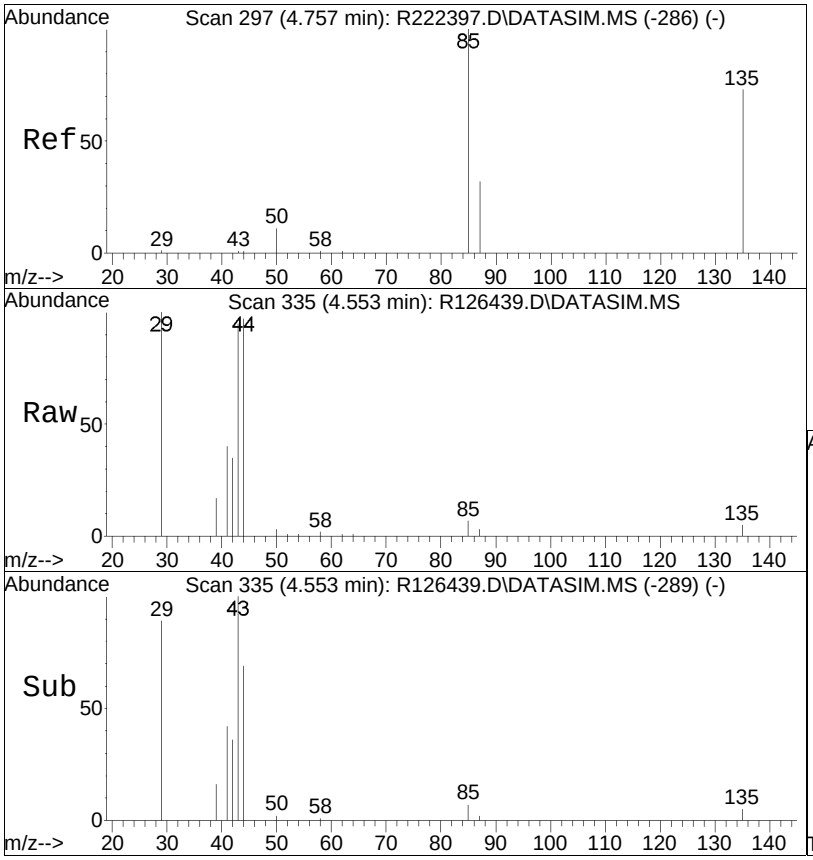



#4
chloromethane
Concen: 0.50 ppbV
RT: 4.40 min Scan# 300
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 50 Resp: 11586

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.6 | 25.8 | 38.6 |

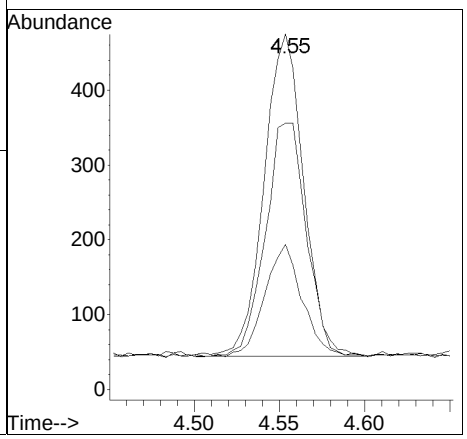


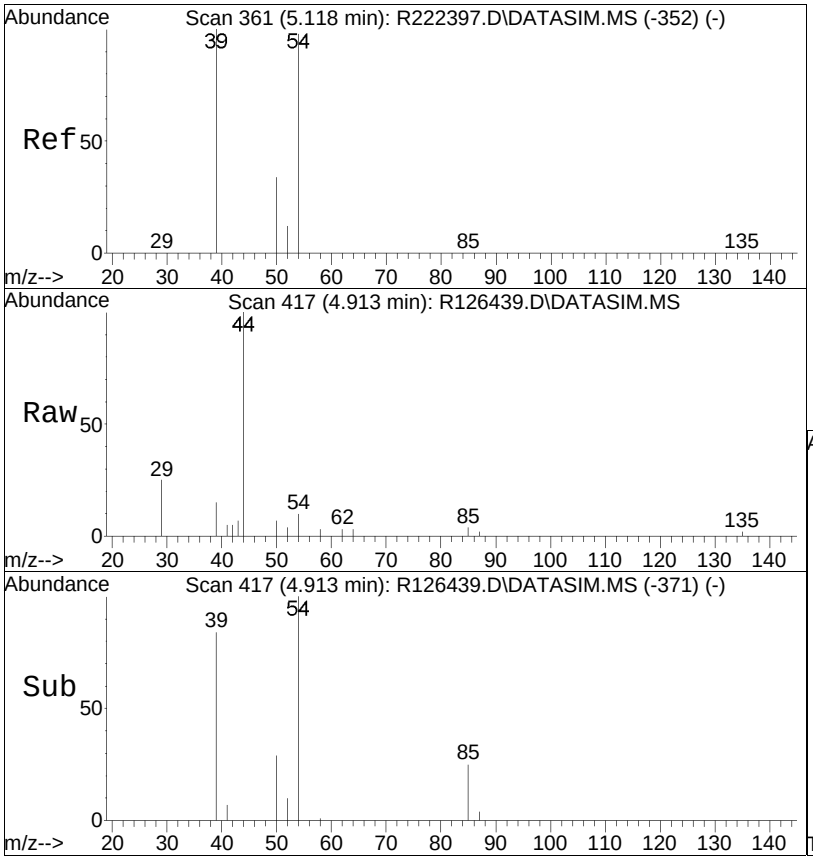



#5
Freon-114
Concen: 0.01 ppbV
RT: 4.55 min Scan# 335
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 85 Resp: 693

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 40.8 | 25.7 | 38.5# |
| 135 | 74.9 | 55.7 | 83.5 |

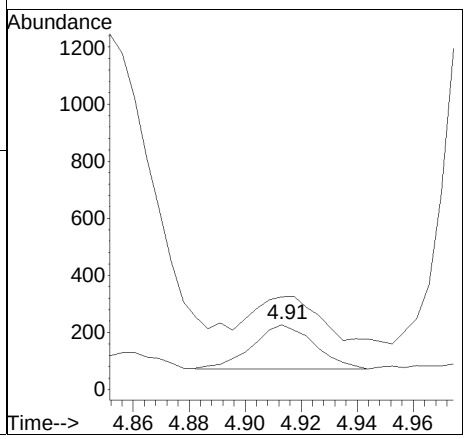


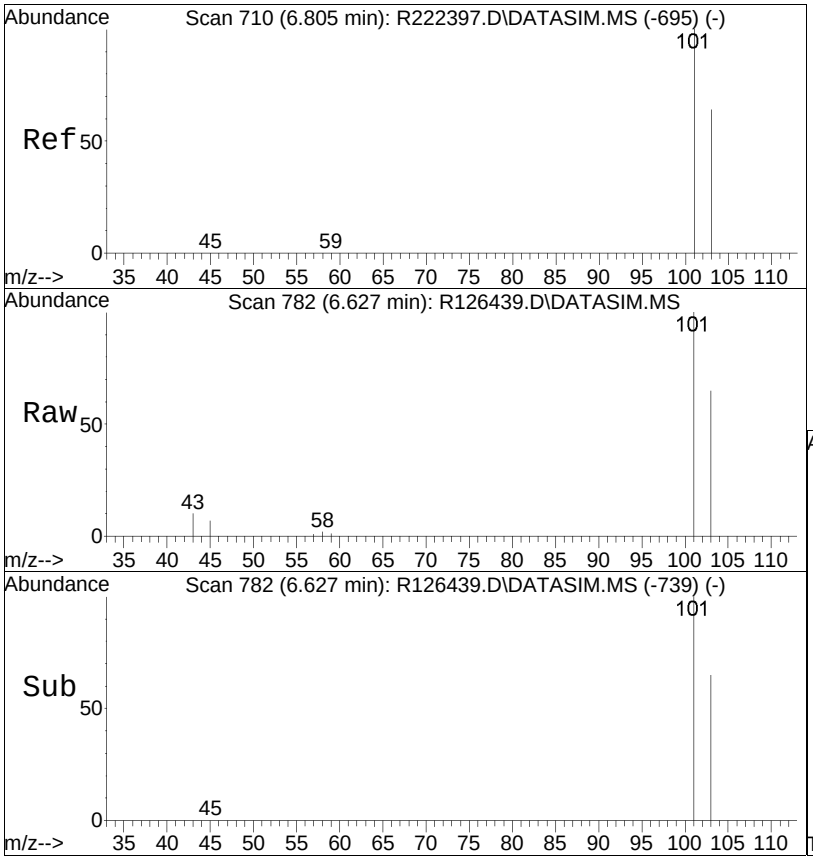



#7
1,3-butadiene
Concen: 0.01 ppbV
RT: 4.91 min Scan# 417
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 54 Resp: 241

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 143.2 | 95.5 | 143.3 |

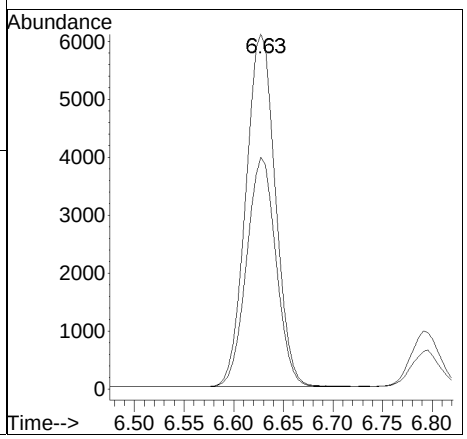


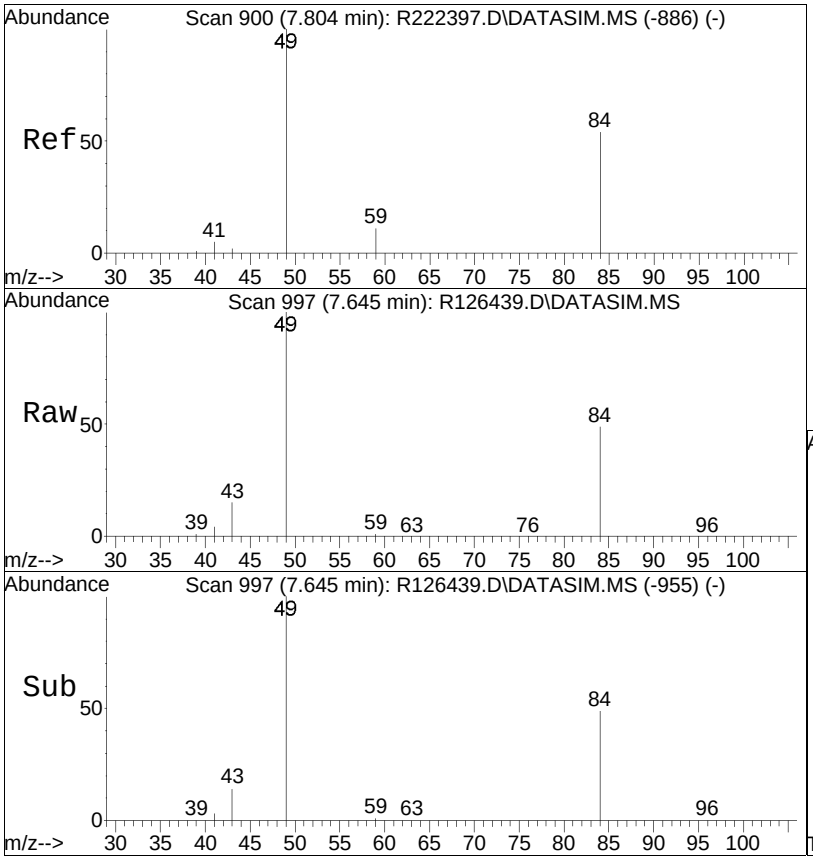



#13
trichlorofluoromethane
Concen: 0.22 ppbV
RT: 6.63 min Scan# 782
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:101 Resp: 12627

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 65.3 | 51.4 | 77.2 |

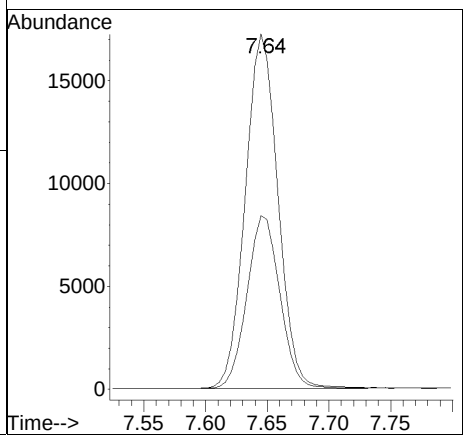


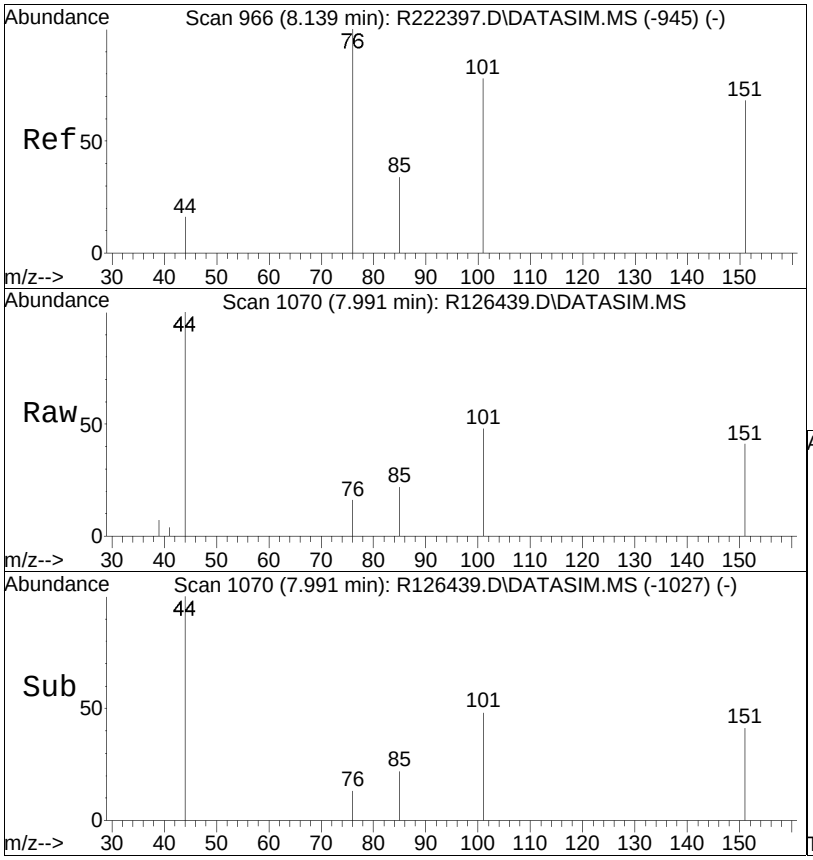



#17
methylene chloride
Concen: 1.01 ppbV
RT: 7.64 min Scan# 997
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 49 Resp: 31683

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 48.9 | 40.0 | 60.0 |

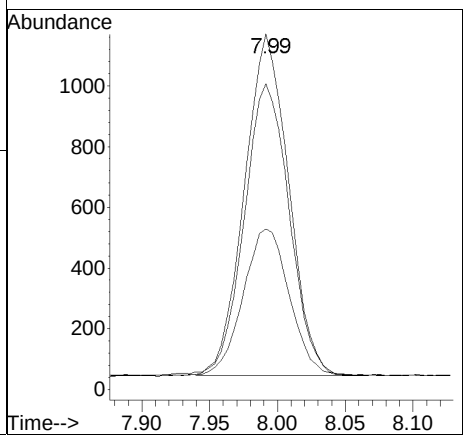


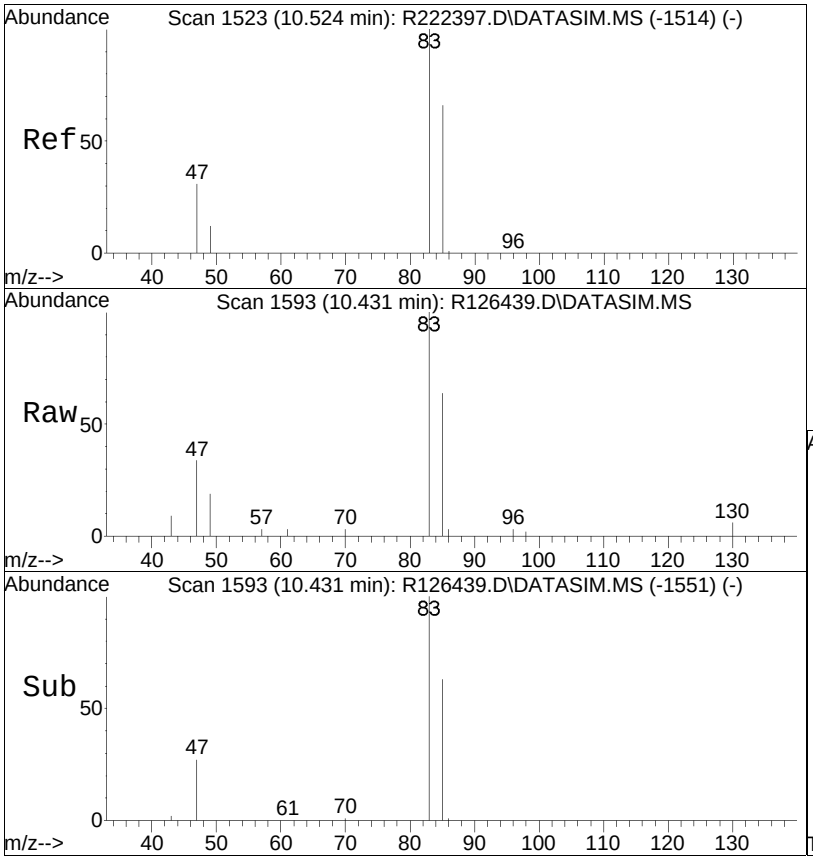



#20
Freon 113
Concen: 0.07 ppbV
RT: 7.99 min Scan# 1070
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:101 Resp: 2549

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.2 | 34.6 | 51.8 |
| 151 | 86.0 | 66.0 | 99.0 |

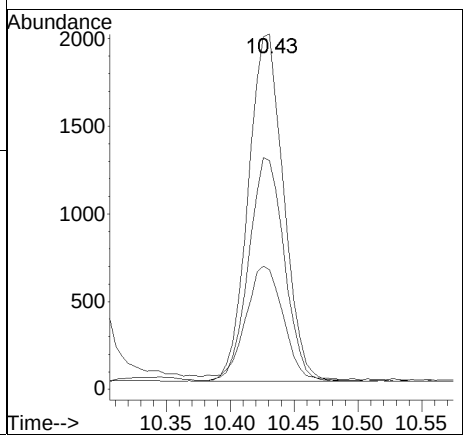


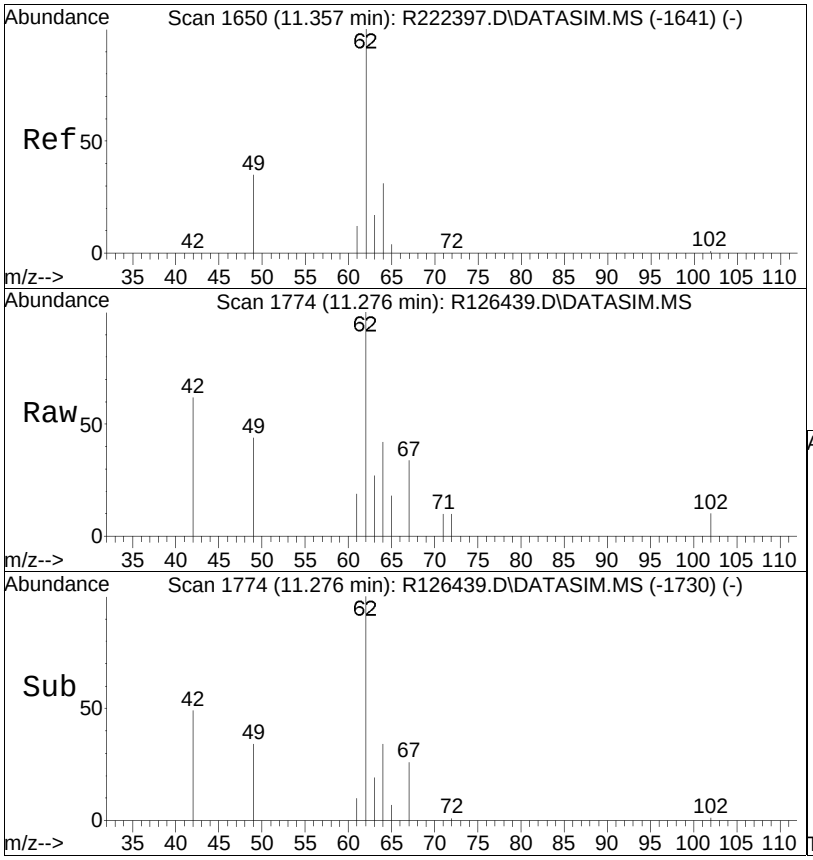



#29
chloroform
Concen: 0.09 ppbV
RT: 10.43 min Scan# 1593
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 83 Resp: 3811

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.4 | 52.2 | 78.2 |
| 47 | 33.7 | 27.0 | 40.6 |

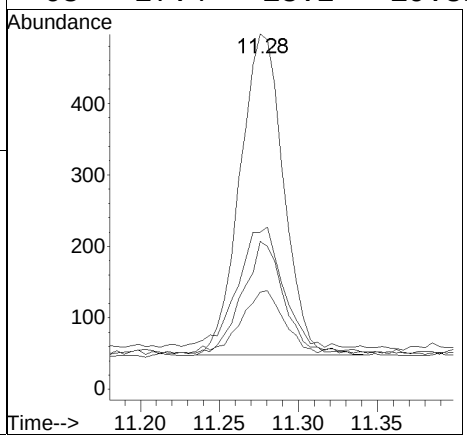


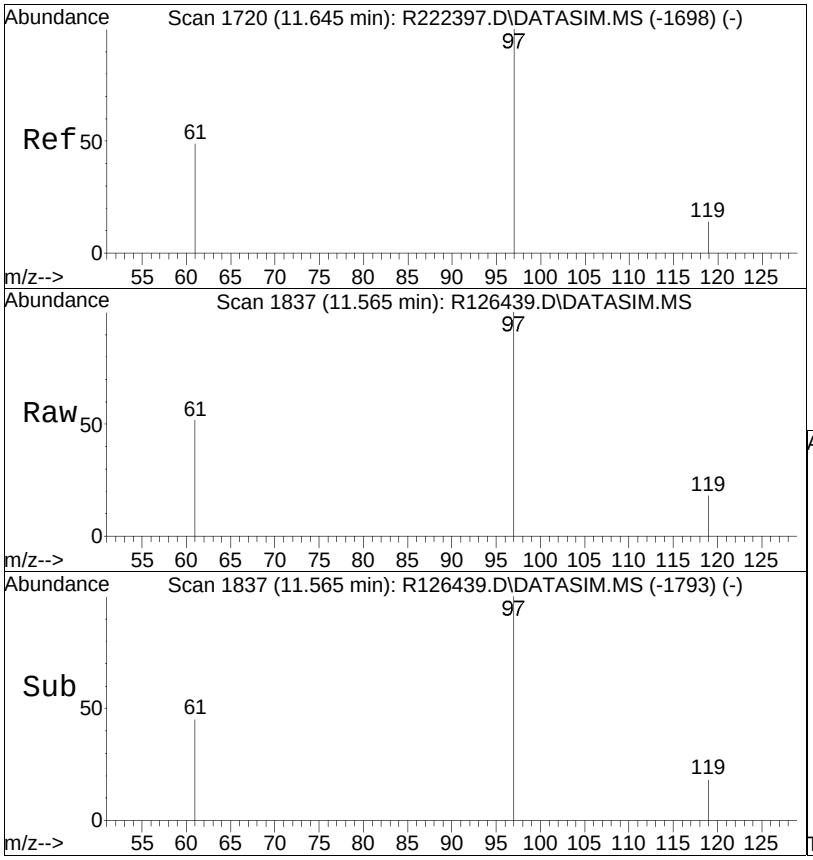



#31
1,2-dichloroethane
Concen: 0.03 ppbV
RT: 11.28 min Scan# 1774
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 62 Resp: 863

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 41.6 | 25.3 | 37.9# |
| 49 | 44.3 | 30.2 | 45.2 |
| 63 | 27.4 | 13.2 | 19.8# |

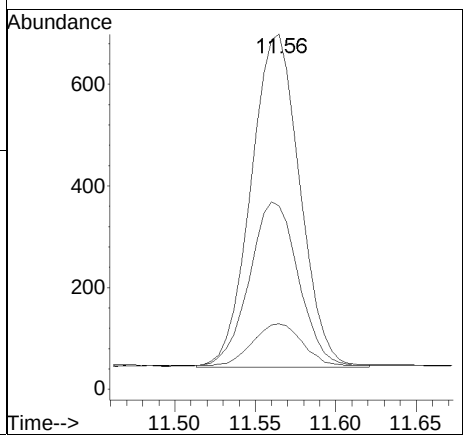


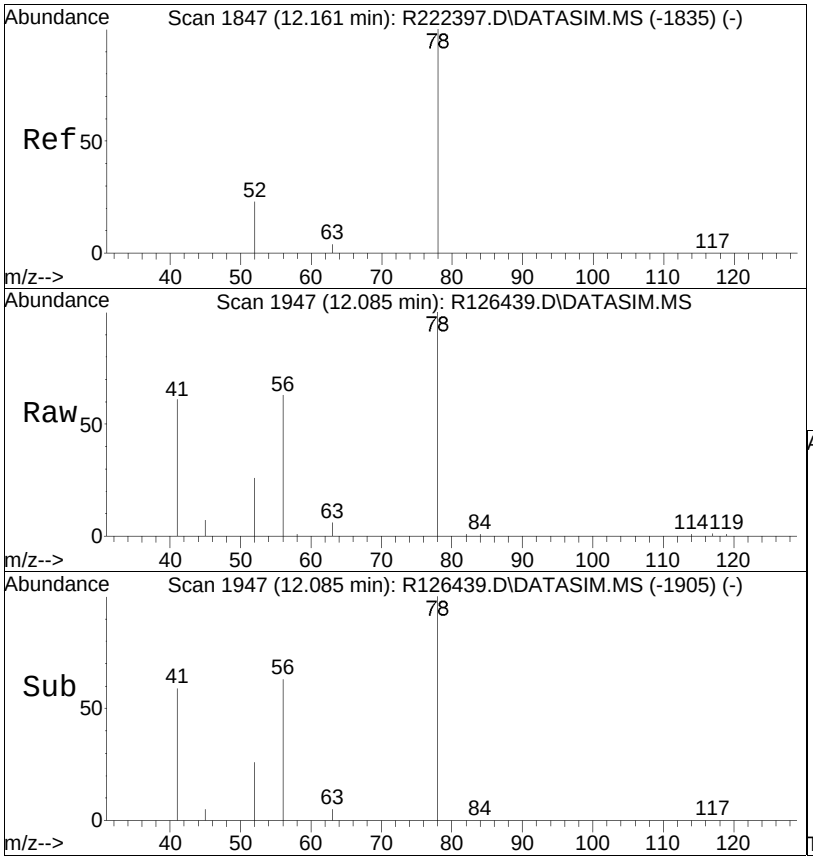



#35
1,1,1-trichloroethane
Concen: 0.04 ppbV m
RT: 11.56 min Scan# 1837
Delta R.T. 0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 97 Resp: 1380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 51.6 | 40.8 | 61.2 |
| 119 | 18.5 | 10.6 | 15.8# |

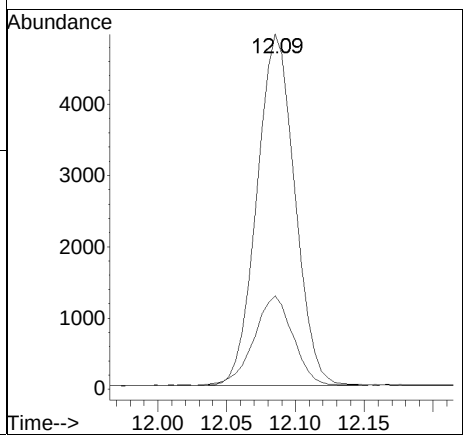


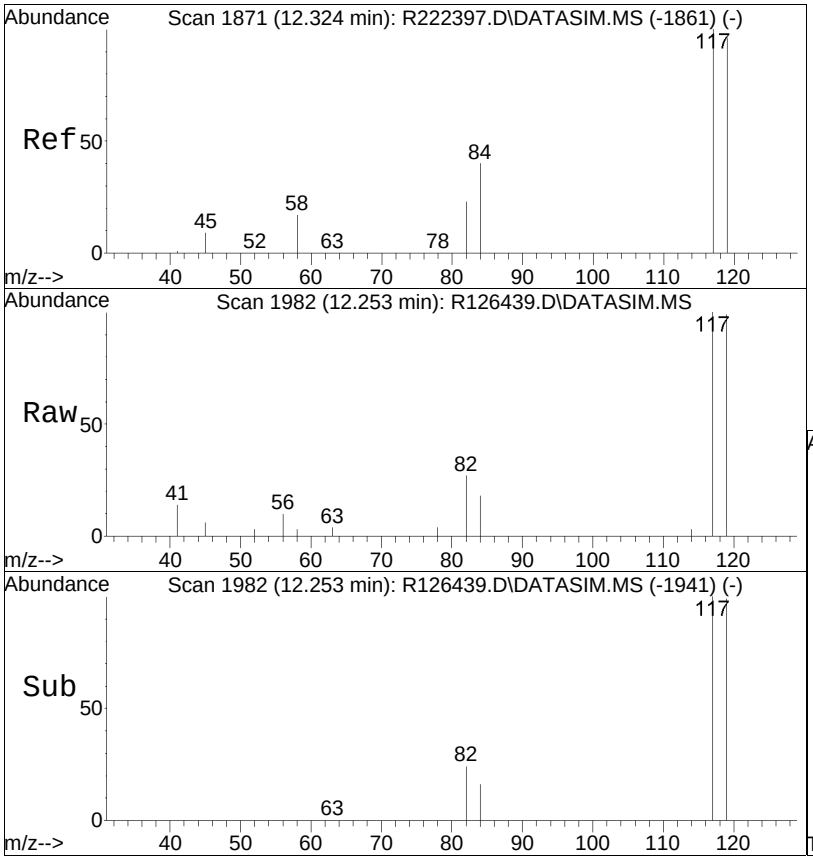



#36
benzene
Concen: 0.19 ppbV
RT: 12.09 min Scan# 1947
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 78 Resp: 9448

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 52 | 26.4 | 18.6 | 28.0 |

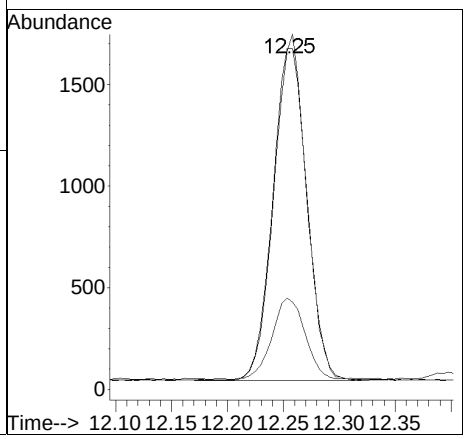


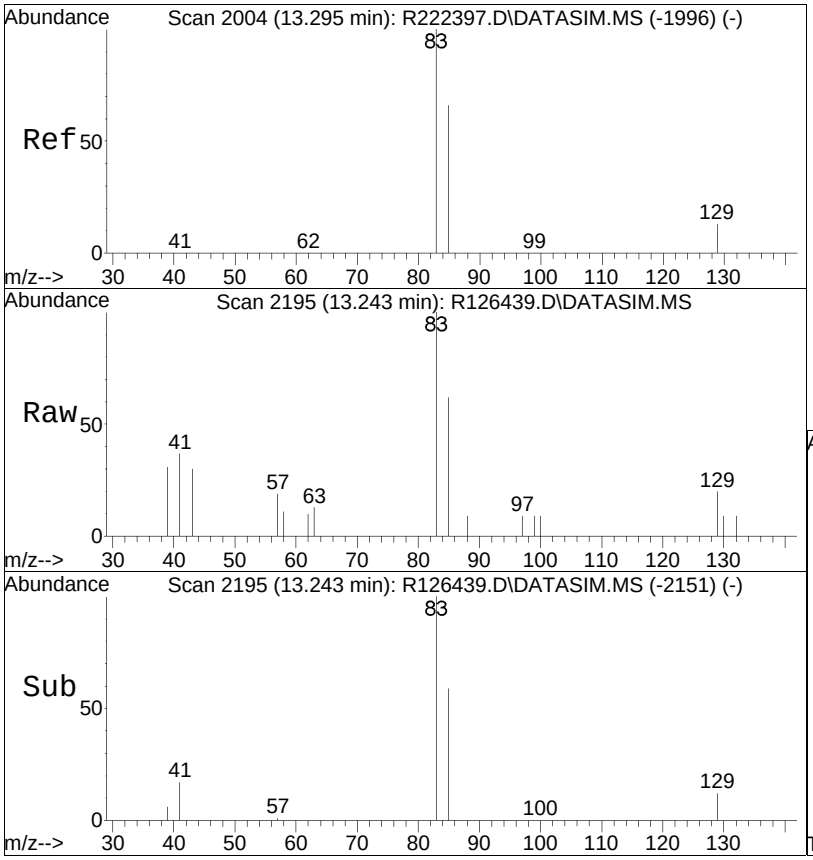



#37
carbon tetrachloride
Concen: 0.09 ppbV
RT: 12.25 min Scan# 1982
Delta R.T. -0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:117 Resp: 3463

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 99.2 | 78.7 | 118.1 |
| 82 | 26.9 | 18.9 | 28.3 |

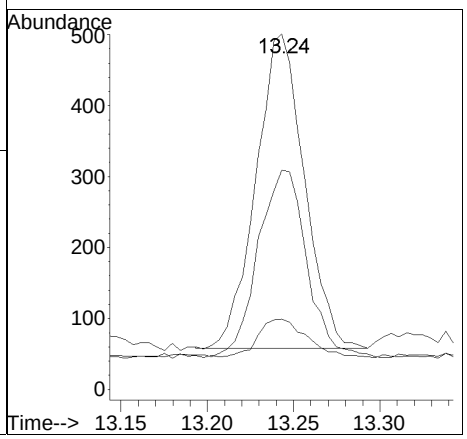


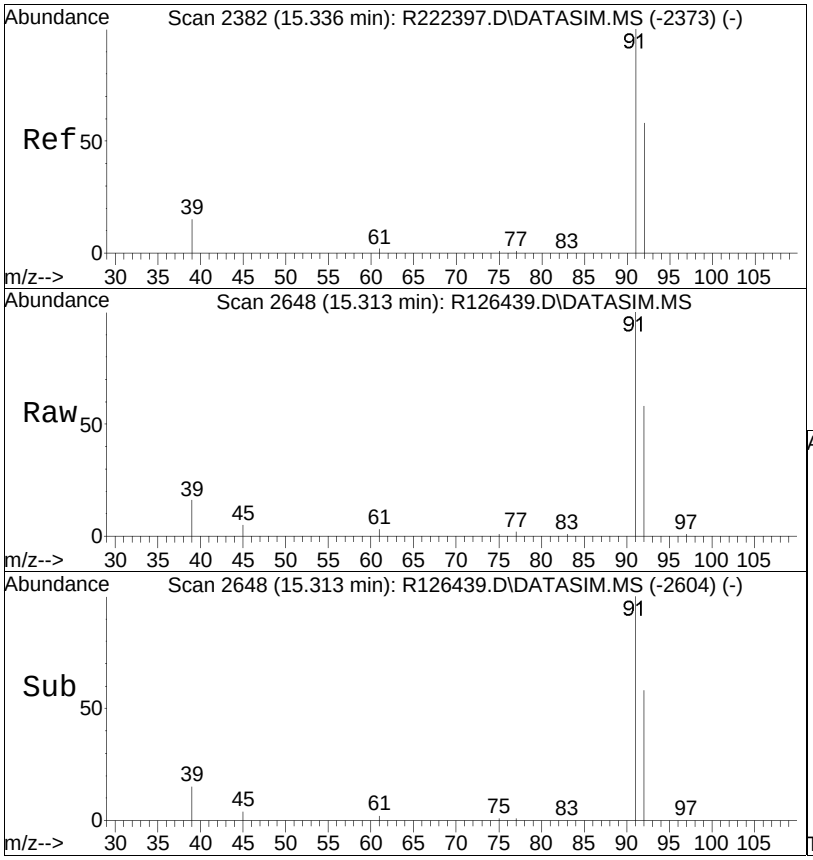



#40
bromodichloromethane
Concen: 0.02 ppbV
RT: 13.24 min Scan# 2195
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 83 Resp: 863

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 61.7 | 51.4 | 77.0 |
| 129 | 19.8 | 9.9 | 14.9# |

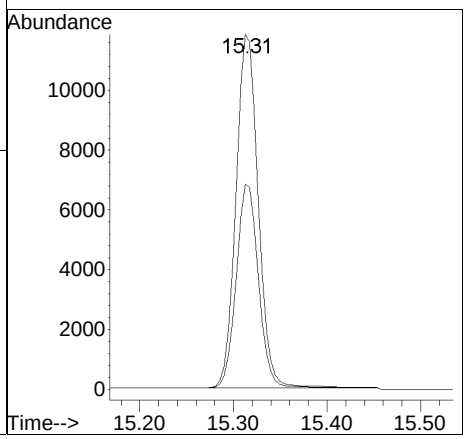


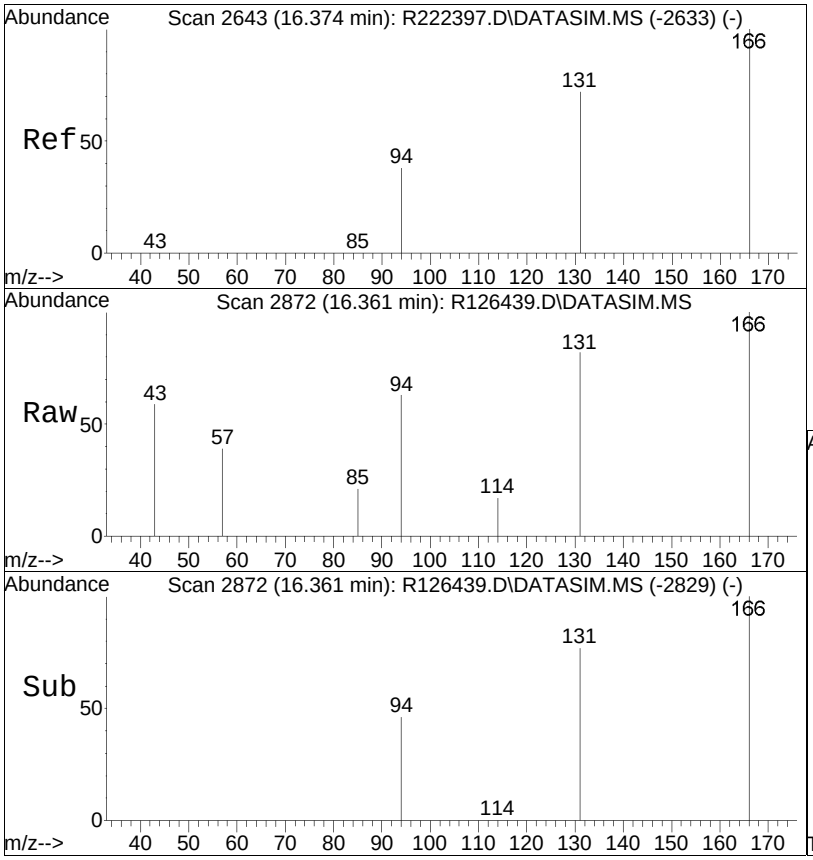



#50
toluene
Concen: 0.31 ppbV m
RT: 15.31 min Scan# 2648
Delta R.T. -0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 19588

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.8 | 46.3 | 69.5 |

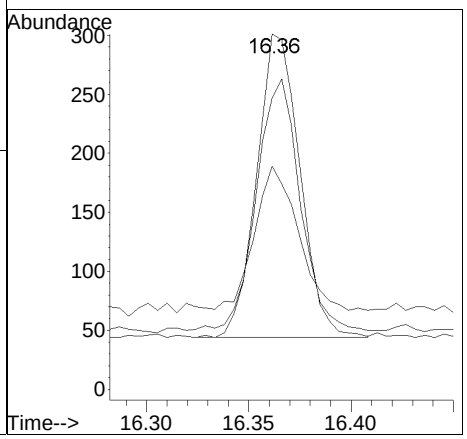


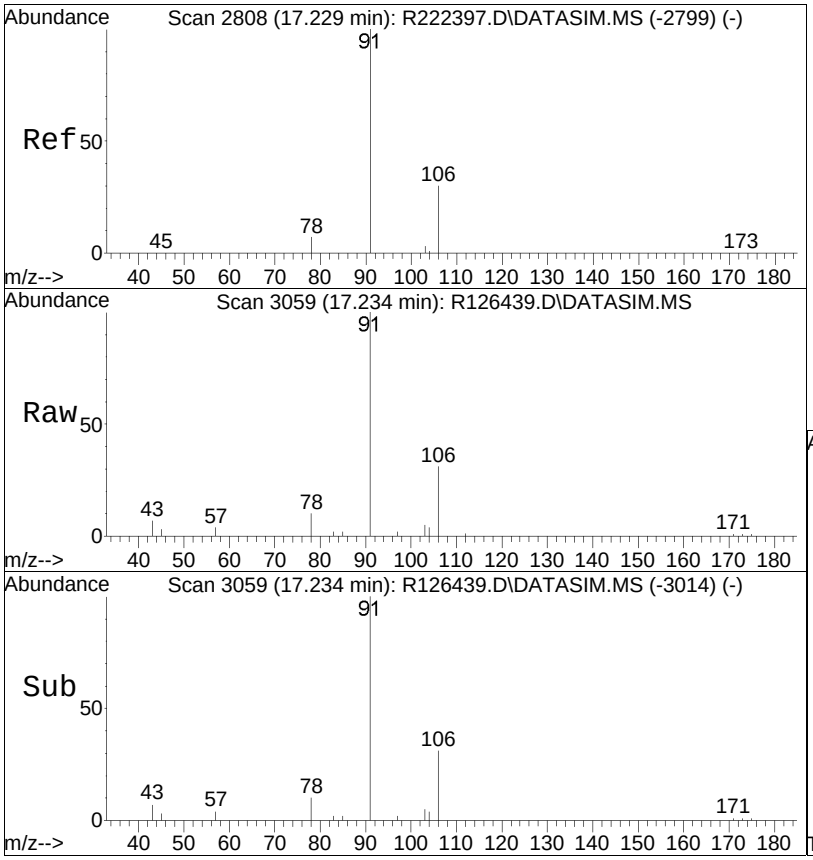



#55
tetrachloroethene
Concen: 0.01 ppbV
RT: 16.36 min Scan# 2872
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:166 Resp: 377

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 82.1 | 63.1 | 94.7 |
| 94 | 62.8 | 37.2 | 55.8# |

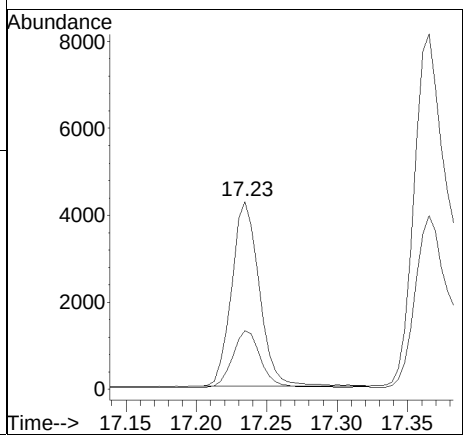


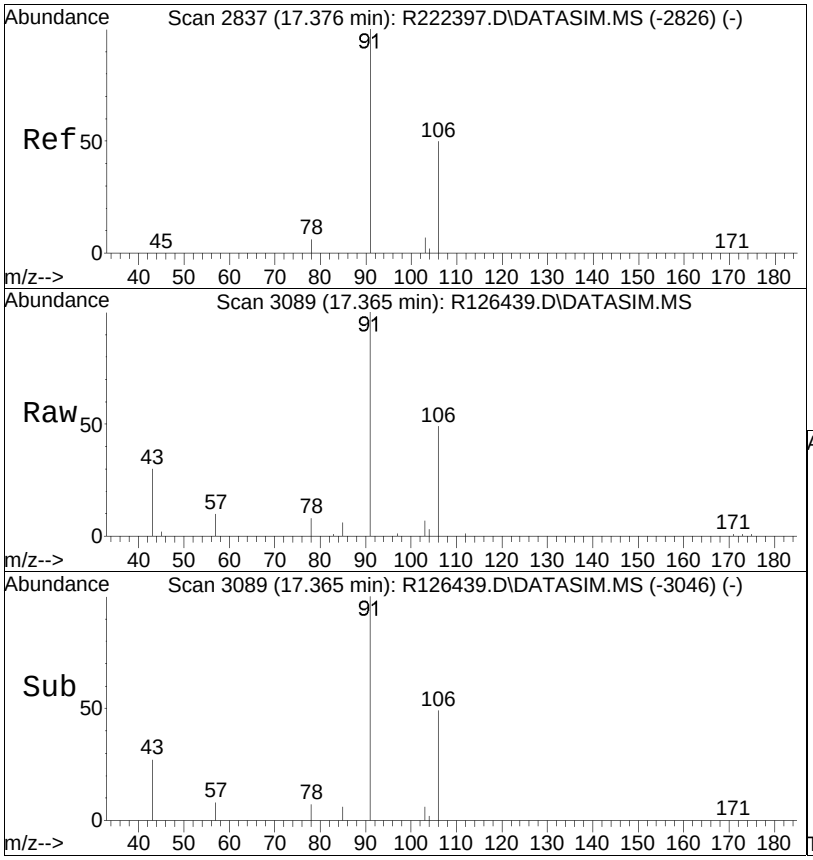



#58
ethylbenzene
Concen: 0.07 ppbV
RT: 17.23 min Scan# 3059
Delta R.T. 0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 5825

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.3 | 24.2 | 36.2 |

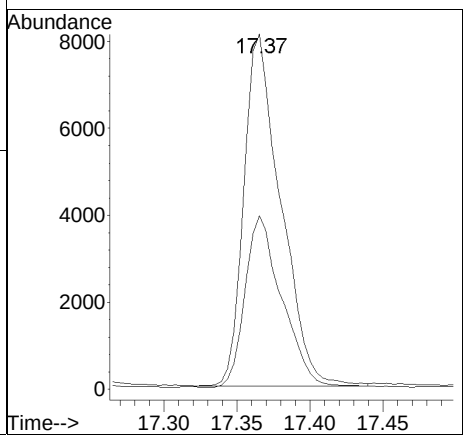


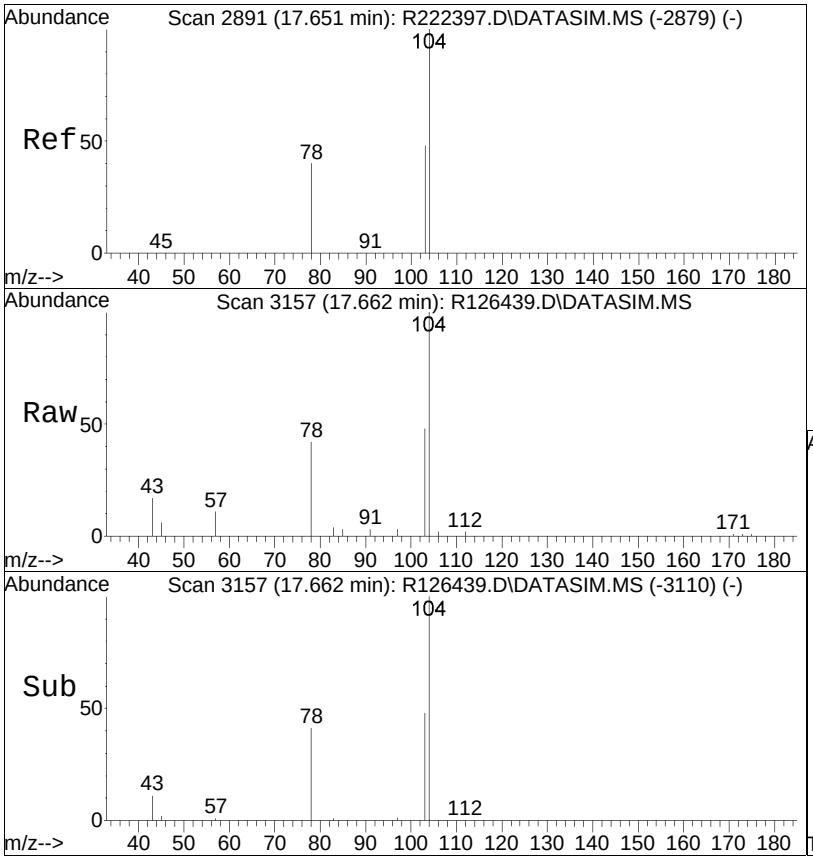



#59
m+p-xylene
Concen: 0.22 ppbV
RT: 17.37 min Scan# 3089
Delta R.T. -0.013 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 14187

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 48.9 | 39.0 | 58.4 |

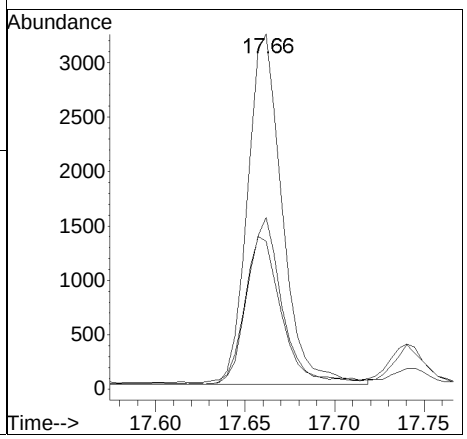


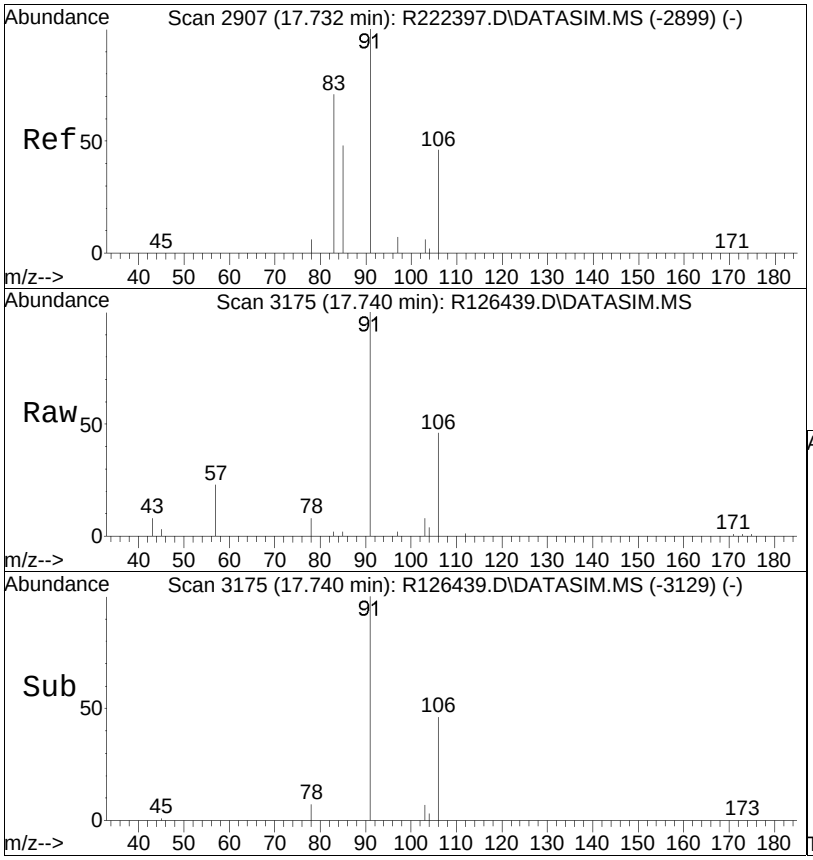



#61
styrene
Concen: 0.09 ppbV
RT: 17.66 min Scan# 3157
Delta R.T. 0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:104 Resp: 4340

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 103 | 48.4 | 37.5 | 56.3 |
| 78 | 41.7 | 33.5 | 50.3 |

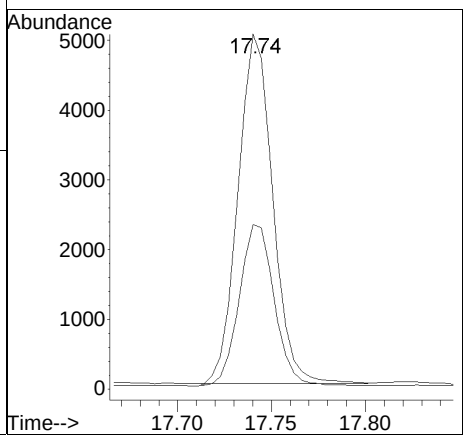


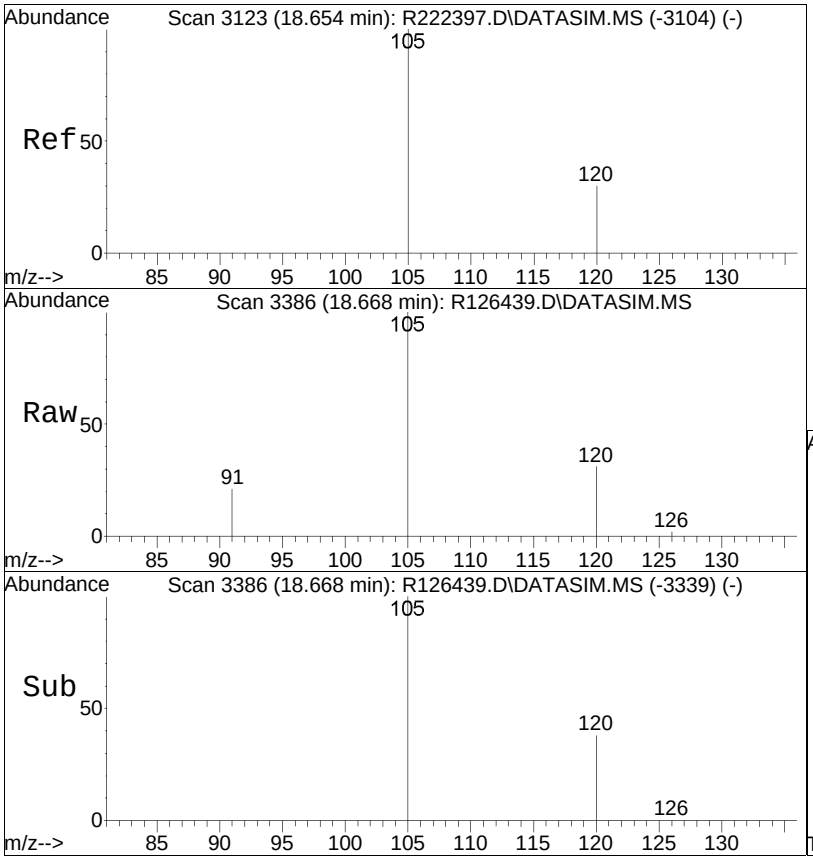



#63
o-xylene
Concen: 0.10 ppbV
RT: 17.74 min Scan# 3175
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 91 Resp: 6424

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.4 | 37.1 | 55.7 |

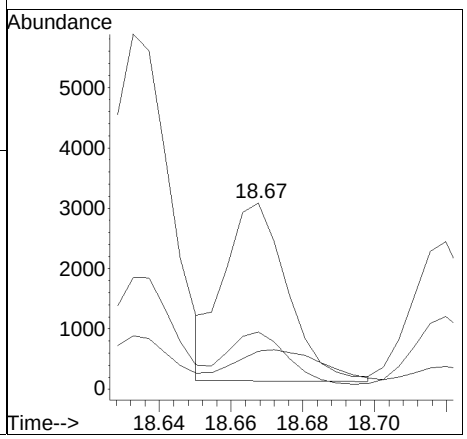


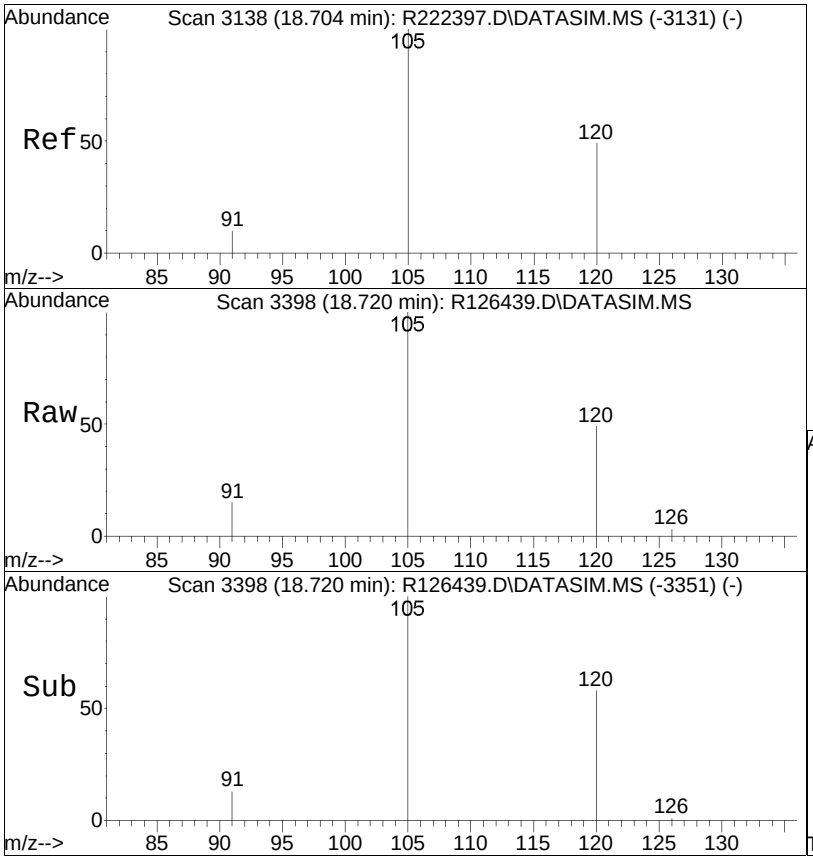



#66
4-ethyl toluene
Concen: 0.04 ppbV
RT: 18.67 min Scan# 3386
Delta R.T. 0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:105 Resp: 3607

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 30.8 | 23.4 | 35.2 |
| 91 | 20.5 | 9.0 | 13.6# |

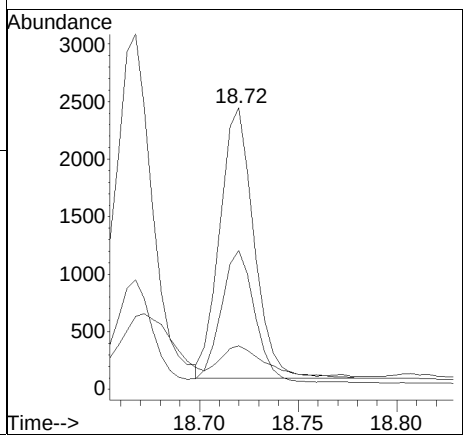


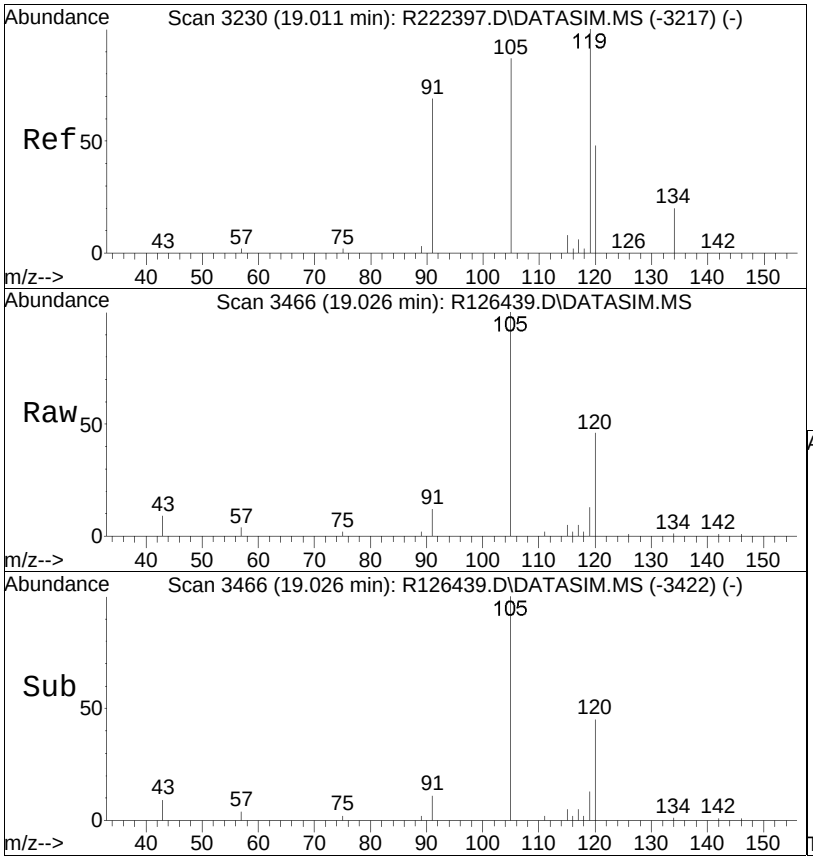



#67
1,3,5-trimethylbenzene
Concen: 0.04 ppbV
RT: 18.72 min Scan# 3398
Delta R.T. 0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:105 Resp: 2835

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 49.3 | 38.1 | 57.1 |
| 91 | 15.5 | 8.5 | 12.7# |

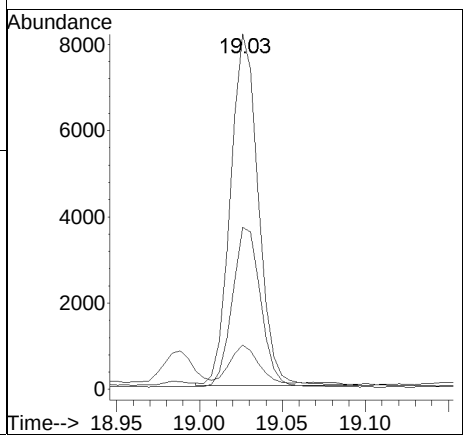


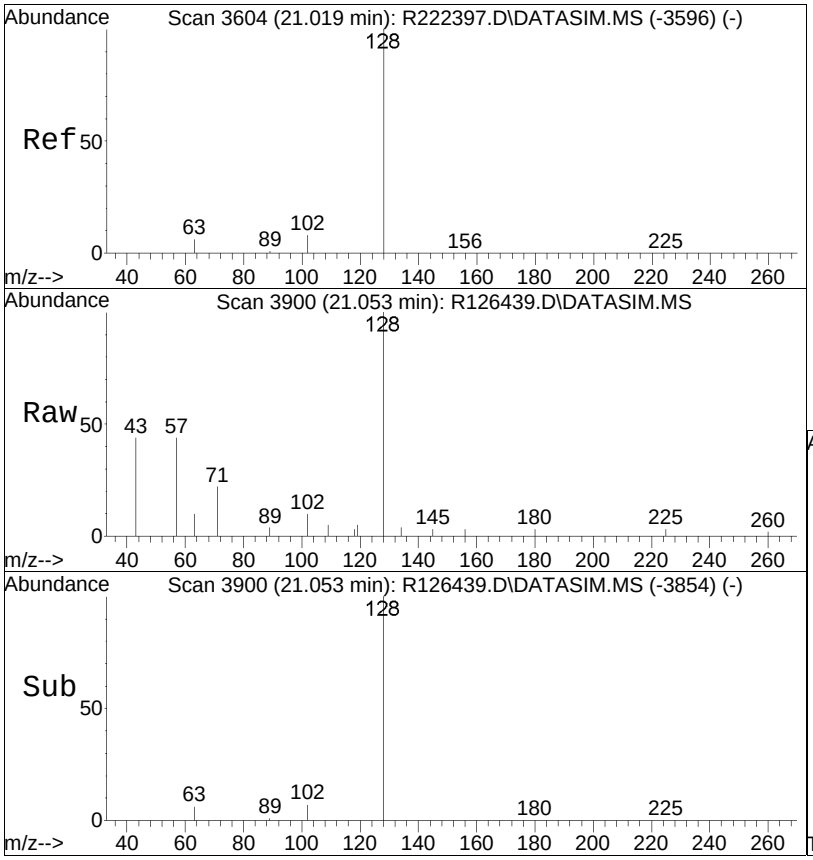



#69
1,2,4-trimethylbenzene
Concen: 0.12 ppbV
RT: 19.03 min Scan# 3466
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:105 Resp: 9545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.6 | 43.6 | 65.4 |
| 91 | 12.5 | 62.0 | 93.0# |

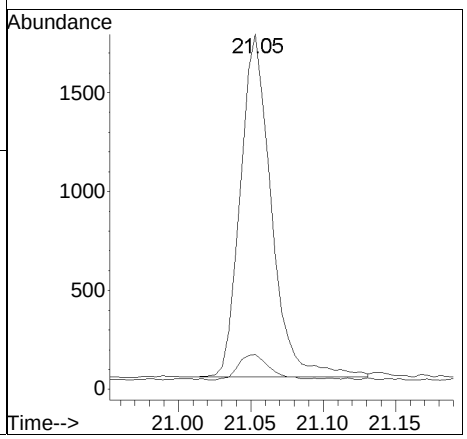





#78
naphthalene
Concen: 0.02 ppbV
RT: 21.05 min Scan# 3900
Delta R.T. 0.009 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion:128 Resp: 2586

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 102 | 9.9 | 6.4 | 9.6# |

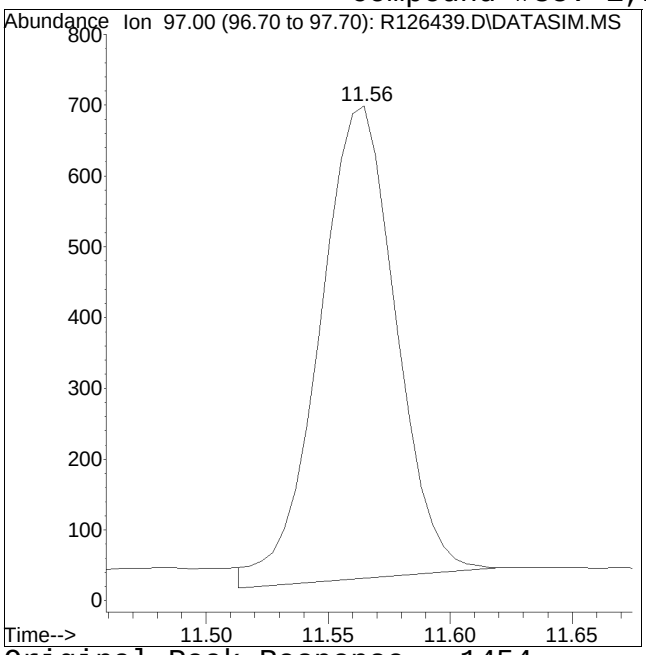


Manual Integration/Negative Proof Report

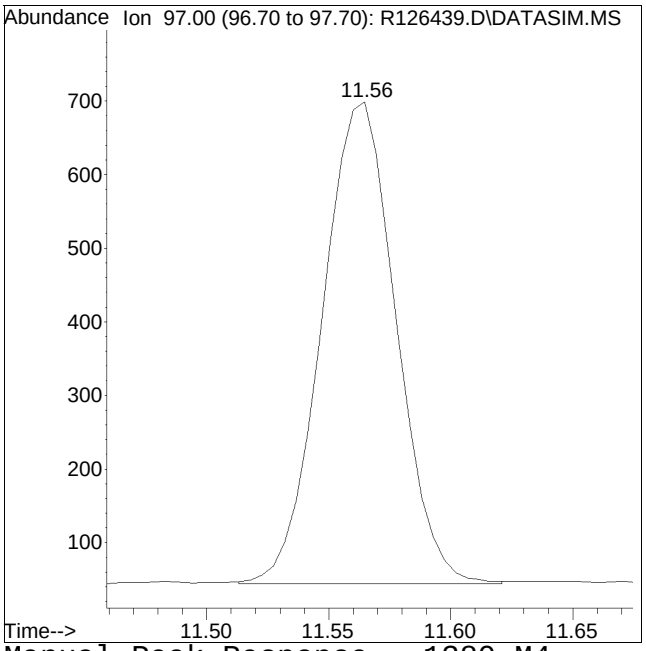
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589504-5,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #35: 1,1,1-trichloroethane




Original Peak Response = 1454




Manual Peak Response = 1380 M4

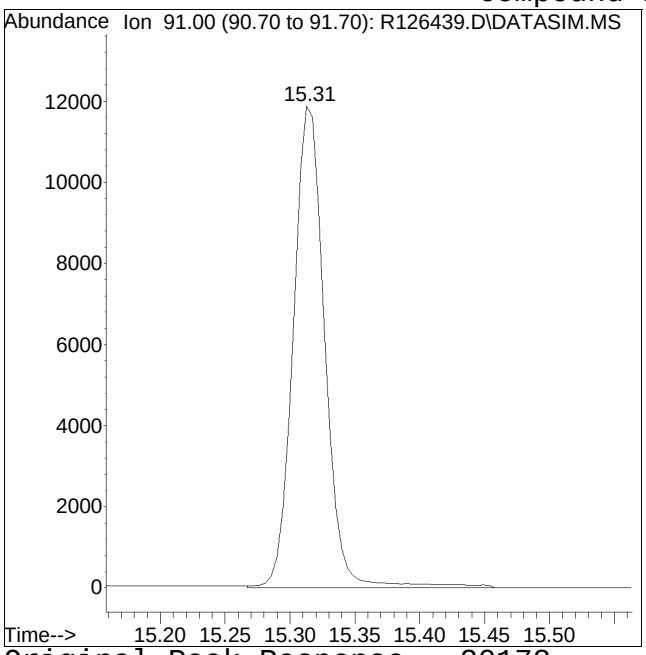
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

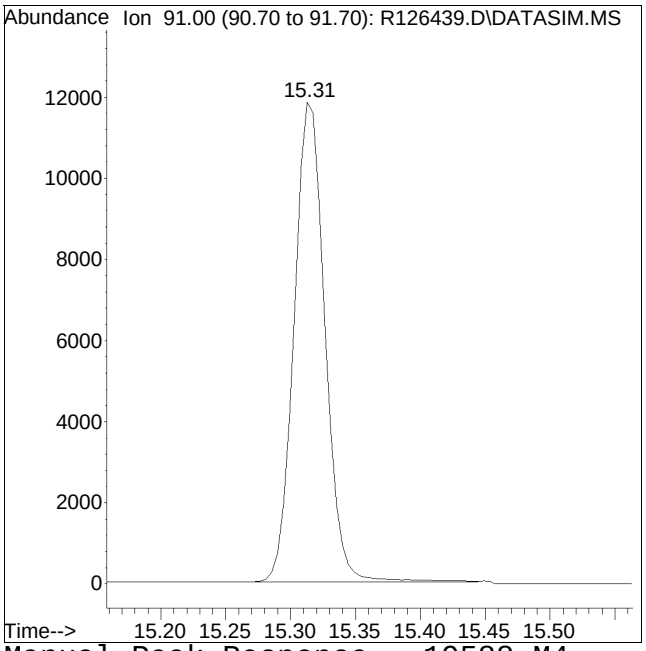
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589504-5,3,250,250

Method : TSIM121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/11/2013 9:43 pm

Compound #50: toluene




Original Peak Response = 20172




Manual Peak Response = 19588 M4

M4 = Poor automated baseline construction.

# Volatile Organics in Air
# TO-15 Low Level

# Initial Calibration

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Method File : TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012
Response Via : Initial Calibration

Calibration Files
0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D 2.5 =R125423.D 5.0 =R125424.D 10 =R125425.D
20 =R125426.D 50 =R125427.D 100 =R125428.D

| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | | | | | |
| 2) | | chlorodifluoromethane | 1.518 | 1.416 | 1.584 | 1.328 | 1.269 | 1.257 | 1.213 | 1.365 | 1.022 | 1.3303 | 12.64 |
| 3) | | propylene | 0.802 | 0.598 | 0.721 | 0.571 | 0.561 | 0.526 | 0.524 | 0.580 | 0.438 | 0.5914 | 18.44 |
| 4) | | propane | 0.972 | 0.802 | 0.865 | 0.659 | 0.633 | 0.618 | 0.597 | 0.696 | 0.516 | 0.7063 | 20.56 |
| 5) | | dichlorodifluoromethane | 1.658 | 1.476 | 1.651 | 1.427 | 1.331 | 1.360 | 1.287 | 1.483 | 1.086 | 1.4176 | 12.66 |
| 6) | C | chloromethane | 0.911 | 0.743 | 0.795 | 0.669 | 0.625 | 0.616 | 0.592 | 0.674 | 0.517 | 0.6825 | 17.35 |
| 7) | | Freon-114 | 1.802 | 1.673 | 1.869 | 1.574 | 1.515 | 1.505 | 1.439 | 1.637 | 1.210 | 1.5806 | 12.49 |
| 8) | C | methanol | | 0.300 | 0.322 | 0.256 | 0.249 | 0.230 | 0.220 | 0.242 | 0.180 | 0.2497 | 17.90 |
| 9) | C | vinyl chloride | 0.789 | 0.631 | 0.746 | 0.599 | 0.593 | 0.590 | 0.566 | 0.654 | 0.504 | 0.6301 | 14.09 |
| 10) | C | 1,3-butadiene | 0.644 | 0.530 | 0.579 | 0.501 | 0.468 | 0.473 | 0.447 | 0.518 | 0.390 | 0.5056 | 14.79 |
| 11) | | butane | 1.515 | 1.222 | 1.337 | 1.090 | 1.068 | 1.040 | 0.995 | 1.129 | 0.834 | 1.1368 | 17.55 |
| 12) | C | acetaldehyde | 0.447 | 0.339 | 0.389 | 0.300 | 0.283 | 0.253 | 0.226 | 0.258 | 0.183 | 0.2976 | 27.63 |
| 13) | C | bromomethane | 0.842 | 0.643 | 0.714 | 0.596 | 0.559 | 0.557 | 0.534 | 0.621 | 0.471 | 0.6154 | 17.84 |
| 14) | C | chloroethane | 0.318 | 0.305 | 0.331 | 0.279 | 0.264 | 0.266 | 0.254 | 0.291 | 0.223 | 0.2813 | 12.01 |
| 15) | | ethanol | 0.654 | 0.566 | 0.625 | 0.535 | 0.515 | 0.503 | 0.468 | 0.512 | 0.371 | 0.5278 | 15.88 |
| 16) | | dichlorofluoromethane | 1.506 | 1.368 | 1.575 | 1.342 | 1.284 | 1.265 | 1.222 | 1.410 | 1.070 | 1.3379 | 11.33 |
| 17) | C | vinyl bromide | 0.620 | 0.612 | 0.685 | 0.591 | 0.561 | 0.560 | 0.536 | 0.627 | 0.480 | 0.5859 | 10.15 |
| 18) | C | acrolein | 0.480 | 0.351 | 0.393 | 0.309 | 0.293 | 0.296 | 0.281 | 0.331 | 0.254 | 0.3319 | 20.75 |
| 19) | | acetone | 1.680 | 1.326 | 1.510 | 1.198 | 1.154 | 1.126 | 1.059 | 1.178 | 0.840 | 1.2303 | 20.15 |
| 20) | C | acetonitrile | 0.788 | 0.774 | 0.807 | 0.685 | 0.645 | 0.651 | 0.616 | 0.696 | 0.515 | 0.6866 | 13.60 |
| 21) | | trichlorofluoromethane | 2.038 | 1.966 | 2.197 | 1.865 | 1.798 | 1.791 | 1.708 | 1.974 | 1.492 | 1.8697 | 10.96 |
| 22) | | isopropyl alcohol | | 1.918 | 2.108 | 1.594 | 1.529 | 1.528 | 1.446 | 1.669 | 1.261 | 1.6316 | 16.46 |
| 23) | C | acrylonitrile | 0.741 | 0.595 | 0.689 | 0.568 | 0.554 | 0.546 | 0.529 | 0.617 | 0.469 | 0.5896 | 14.12 |
| 24) | | pentane | 1.647 | 1.349 | 1.607 | 1.279 | 1.236 | 1.230 | 1.193 | 1.325 | 0.987 | 1.3171 | 15.50 |
| 25) | | ethyl ether | 1.153 | 1.039 | 1.126 | 0.974 | 0.935 | 0.924 | 0.877 | 0.979 | 0.711 | 0.9687 | 13.73 |
| 26) | C | 1,1-dichloroethene | 1.209 | 1.080 | 1.237 | 1.029 | 1.012 | 1.007 | 0.963 | 1.115 | 0.838 | 1.0543 | 11.68 |
| 27) | | tertiary butyl alcohol | 1.708 | 1.600 | 1.785 | 1.435 | 1.381 | 1.384 | 1.320 | 1.514 | 1.145 | 1.4749 | 13.55 |
| 28) | C | methylene chloride | | 1.181 | 1.189 | 0.968 | 0.903 | 0.897 | 0.853 | 0.968 | 0.724 | 0.9603 | 16.48 |
| 29) | C | 3-chloropropene | 1.280 | 0.982 | 1.136 | 0.945 | 0.909 | 0.896 | 0.859 | 0.995 | 0.739 | 0.9712 | 16.27 |
| 30) | C | carbon disulfide | 2.211 | 1.809 | 2.000 | 1.673 | 1.622 | 1.615 | 1.555 | 1.788 | 1.330 | 1.7337 | 14.88 |
| 31) | | Freon 113 | 1.465 | 1.287 | 1.460 | 1.217 | 1.176 | 1.185 | 1.125 | 1.310 | 0.986 | 1.2457 | 12.42 |

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Method File : TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012
Response Via : Initial Calibration

Calibration Files
0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D 2.5 =R125423.D 5.0 =R125424.D 10 =R125425.D
20 =R125426.D 50 =R125427.D 100 =R125428.D

| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32) | | trans-1,2-dichloroethene | 1.182 | 1.034 | 1.202 | 1.009 | 0.973 | 0.962 | 0.982 | 1.076 | 0.817 | 1.0263 | 11.46 |
| 33) | C | 1,1-dichloroethane | 1.398 | 1.218 | 1.346 | 1.145 | 1.111 | 1.095 | 1.124 | 1.220 | 0.927 | 1.1761 | 11.97 |
| 34) | C | MTBE | 1.708 | 1.480 | 1.638 | 1.410 | 1.360 | 1.345 | 1.381 | 1.486 | 1.136 | 1.4382 | 11.71 |
| 35) | C | vinyl acetate | 2.324 | 1.991 | 2.287 | 1.916 | 1.873 | 1.860 | 1.976 | 2.026 | 1.516 | 1.9743 | 12.15 |
| 36) | C | 2-butanone | 2.041 | 1.709 | 1.913 | 1.820 | 1.527 | 1.524 | 1.639 | 1.650 | 1.235 | 1.6731 | 14.21 |
| 37) | | cis-1,2-dichloroethene | 1.064 | 0.981 | 1.071 | 0.979 | 0.951 | 0.858 | 0.905 | 0.928 | 0.699 | 0.9375 | 12.03 |
| 38) | | Ethyl Acetate | 0.224 | 0.261 | 0.257 | 0.246 | 0.229 | 0.232 | 0.219 | 0.222 | 0.200 | 0.2324 | 8.36 |
| 39) | C | chloroform | 1.493 | 1.304 | 1.399 | 1.302 | 1.271 | 1.263 | 1.207 | 1.200 | 1.070 | 1.2787 | 9.45 |
| 40) | | Tetrahydrofuran | 1.332 | 1.069 | 0.960 | 0.997 | 0.971 | 0.959 | 0.924 | 1.058 | 0.791 | 1.0068 | 14.55 |
| 41) | | 2,2-dichloropropane | 1.355 | 1.155 | 1.175 | 1.108 | 1.078 | 1.070 | 1.035 | 1.041 | 0.924 | 1.1045 | 10.79 |
| 42) | C | 1,2-dichloroethane | 1.131 | 0.982 | 0.931 | 0.923 | 0.908 | 0.914 | 0.870 | 1.000 | 0.757 | 0.9351 | 10.85 |
| 43) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | | |
| 44) | C | hexane | 0.494 | 0.580 | 0.481 | 0.531 | 0.517 | 0.514 | 0.495 | 0.408 | 0.457 | 0.4975 | 9.65 |
| 45) | | diisopropyl ether | 0.172 | 0.237 | 0.183 | 0.224 | 0.217 | 0.220 | 0.212 | 0.183 | 0.203 | 0.2057 | 10.73 |
| 46) | | tert-butyl ethyl ether | 1.109 | 1.182 | 0.947 | 1.151 | 1.130 | 1.120 | 1.091 | 1.087 | 1.017 | 1.0928 | 6.52 |
| 47) | s | 1,2-dichloroethane-D4 | 0.320 | 0.323 | 0.269 | 0.323 | 0.324 | 0.328 | 0.324 | 0.331 | 0.319 | 0.3179 | 5.93 |
| 48) | C | 1,1,1-trichloroethane | 0.602 | 0.621 | 0.602 | 0.610 | 0.599 | 0.595 | 0.576 | 0.587 | 0.558 | 0.5945 | 3.12 |
| 49) | | 1,1-dichloropropene | 0.457 | 0.468 | 0.452 | 0.464 | 0.445 | 0.446 | 0.439 | 0.445 | 0.421 | 0.4486 | 3.15 |
| 50) | C | benzene | 0.836 | 0.908 | 0.843 | 0.850 | 0.828 | 0.831 | 0.809 | 0.813 | 0.765 | 0.8314 | 4.58 |
| 51) | | thiophene | 0.525 | 0.555 | 0.518 | 0.530 | 0.520 | 0.507 | 0.491 | 0.505 | 0.484 | 0.5150 | 4.16 |
| 52) | C | carbon tetrachloride | 0.613 | 0.661 | 0.644 | 0.656 | 0.655 | 0.659 | 0.646 | 0.652 | 0.622 | 0.6452 | 2.63 |
| 53) | | cyclohexane | 0.586 | 0.585 | 0.565 | 0.561 | 0.540 | 0.538 | 0.518 | 0.525 | 0.493 | 0.5457 | 5.75 |
| 54) | | tert-amyl methyl ether | 0.775 | 0.861 | 0.825 | 0.861 | 0.831 | 0.833 | 0.804 | 0.809 | 0.766 | 0.8184 | 4.10 |
| 55) | | dibromomethane | 0.433 | 0.464 | 0.440 | 0.438 | 0.436 | 0.428 | 0.420 | 0.425 | 0.406 | 0.4321 | 3.72 |
| 56) | C | 1,2-dichloropropane | 0.378 | 0.385 | 0.386 | 0.378 | 0.365 | 0.370 | 0.359 | 0.363 | 0.346 | 0.3701 | 3.53 |
| 57) | | bromodichloromethane | 0.668 | 0.706 | 0.656 | 0.679 | 0.680 | 0.672 | 0.672 | 0.682 | 0.647 | 0.6735 | 2.50 |
| 58) | C | 1,4-dioxane | 0.185 | 0.194 | 0.194 | 0.188 | 0.188 | 0.188 | 0.184 | 0.191 | 0.181 | 0.1879 | 2.34 |
| 59) | C | trichloroethene | 0.424 | 0.434 | 0.410 | 0.438 | 0.428 | 0.424 | 0.420 | 0.427 | 0.408 | 0.4235 | 2.38 |
| 60) | C | 2,2,4-trimethylpentane | 1.737 | 1.861 | 1.790 | 1.780 | 1.729 | 1.695 | 1.652 | 1.639 | 1.522 | 1.7116 | 5.80 |
| 61) | | methyl methacrylate | 0.607 | 0.554 | 0.529 | 0.514 | 0.507 | 0.495 | 0.486 | 0.518 | 0.481 | 0.5214 | 7.49 |
| 62) | | heptane | 0.784 | 0.781 | 0.742 | 0.750 | 0.728 | 0.728 | 0.695 | 0.701 | 0.638 | 0.7274 | 6.23 |

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Method File : TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012
Response Via : Initial Calibration

Calibration Files
0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D 2.5 =R125423.D 5.0 =R125424.D 10 =R125425.D
20 =R125426.D 50 =R125427.D 100 =R125428.D

| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63) | C | cis-1,3-dichloropropene | 0.427 | 0.479 | 0.456 | 0.482 | 0.462 | 0.474 | 0.458 | 0.470 | 0.448 | 0.4617 | 3.72 |
| 64) | C | 4-methyl-2-pentanone | 0.981 | 1.066 | 1.039 | 1.056 | 1.031 | 1.029 | 0.994 | 0.988 | 0.909 | 1.0102 | 4.80 |
| 65) | | trans-1,3-dichloropropene | 0.421 | 0.465 | 0.474 | 0.470 | 0.477 | 0.478 | 0.475 | 0.488 | 0.465 | 0.4681 | 4.08 |
| 66) | C | 1,1,2-trichloroethane | 0.357 | 0.393 | 0.377 | 0.389 | 0.372 | 0.376 | 0.370 | 0.373 | 0.357 | 0.3737 | 3.27 |
| 67) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | | |
| 68) | C | toluene | 4.087 | 4.292 | 4.187 | 4.094 | 4.047 | 3.971 | 3.846 | 3.863 | 3.824 | 4.0233 | 4.01 |
| 69) | s | toluene-D8 | 3.036 | 2.985 | 2.982 | 3.006 | 3.041 | 2.990 | 2.993 | 3.008 | 3.110 | 3.0168 | 1.36 |
| 70) | | 2-methylthiophene | 3.036 | 3.348 | 3.242 | 3.202 | 3.184 | 3.014 | 2.865 | 3.135 | 3.153 | 3.1309 | 4.54 |
| 71) | | 1,3-dichloropropane | 1.856 | 2.102 | 2.002 | 1.995 | 1.996 | 1.938 | 1.865 | 1.918 | 1.913 | 1.9538 | 3.98 |
| 72) | | 2-hexanone | 3.380 | 3.761 | 3.837 | 3.761 | 3.848 | 3.831 | 3.648 | 3.588 | 3.233 | 3.6541 | 5.98 |
| 73) | | 3-methylthiophene | 3.215 | 3.538 | 3.402 | 3.375 | 3.325 | 3.149 | 3.051 | 3.276 | 3.170 | 3.2778 | 4.55 |
| 74) | | dibromochloromethane | 2.845 | 3.126 | 2.984 | 3.085 | 3.132 | 3.122 | 3.100 | 3.185 | 3.122 | 3.0779 | 3.33 |
| 75) | C | 1,2-dibromoethane | 2.335 | 2.540 | 2.484 | 2.520 | 2.537 | 2.479 | 2.453 | 2.486 | 2.447 | 2.4758 | 2.52 |
| 76) | | butyl acetate | 0.470 | 0.443 | 0.440 | 0.467 | 0.443 | 0.444 | 0.423 | 0.441 | 0.441 | 0.4457 | 3.18 |
| 77) | | octane | 1.168 | 1.204 | 1.127 | 1.172 | 1.170 | 1.133 | 1.087 | 1.116 | 1.094 | 1.1411 | 3.44 |
| 78) | C | tetrachloroethene | 2.141 | 2.205 | 2.105 | 2.171 | 2.151 | 2.132 | 2.087 | 2.170 | 2.151 | 2.1460 | 1.66 |
| 79) | | 1,1,1,2-tetrachloroethane | 1.997 | 2.102 | 2.069 | 2.061 | 2.109 | 2.078 | 2.049 | 2.091 | 2.014 | 2.0636 | 1.85 |
| 80) | C | chlorobenzene | 3.158 | 3.440 | 3.325 | 3.338 | 3.347 | 3.343 | 3.223 | 3.303 | 3.200 | 3.2975 | 2.66 |
| 81) | C | ethylbenzene | 4.938 | 5.315 | 5.242 | 5.296 | 5.312 | 5.215 | 5.044 | 5.068 | 4.868 | 5.1442 | 3.29 |
| 82) | | 2-ethylthiophene | 3.532 | 3.851 | 3.726 | 3.832 | 3.795 | 3.606 | 3.519 | 3.646 | 3.572 | 3.6755 | 3.51 |
| 83) | C | m+p-xylene | 3.879 | 4.298 | 4.083 | 4.185 | 4.106 | 4.078 | 3.964 | 3.927 | 3.743 | 4.0292 | 4.18 |
| 84) | C | bromoform | 2.758 | 3.058 | 2.937 | 3.121 | 3.151 | 3.249 | 3.288 | 3.474 | 3.350 | 3.1539 | 6.92 |
| 85) | C | styrene | 3.164 | 3.230 | 3.149 | 3.243 | 3.248 | 3.223 | 3.161 | 3.204 | 3.120 | 3.1938 | 1.45 |
| 86) | C | 1,1,2,2-tetrachloroethane | 3.339 | 3.556 | 3.548 | 3.552 | 3.593 | 3.535 | 3.450 | 3.404 | 3.004 | 3.4422 | 5.36 |
| 87) | C | o-xylene | 4.017 | 4.422 | 4.220 | 4.277 | 4.289 | 4.181 | 4.098 | 4.022 | 3.611 | 4.1264 | 5.67 |
| 88) | | 1,2,3-trichloropropane | 2.533 | 2.677 | 2.637 | 2.719 | 2.645 | 2.597 | 2.546 | 2.582 | 2.509 | 2.6051 | 2.69 |
| 89) | | nonane | 4.898 | 4.551 | 4.578 | 4.753 | 4.622 | 4.473 | 4.244 | 4.078 | 3.518 | 4.4129 | 9.43 |
| 90) | s | bromofluorobenzene | 2.226 | 2.199 | 2.179 | 2.197 | 2.244 | 2.228 | 2.218 | 2.246 | 2.328 | 2.2296 | 1.93 |
| 91) | C | isopropylbenzene | 5.950 | 6.219 | 6.114 | 6.340 | 6.195 | 6.140 | 5.896 | 5.871 | 5.469 | 6.0215 | 4.32 |
| 92) | | bromobenzene | 3.057 | 3.363 | 3.219 | 3.284 | 3.292 | 3.198 | 3.141 | 3.189 | 3.038 | 3.1979 | 3.36 |
| 93) | | 2-chlorotoluene | 1.678 | 1.820 | 1.731 | 1.805 | 1.784 | 1.730 | 1.712 | 1.763 | | 1.7528 | 2.77 |

Method Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Method File : TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012
Response Via : Initial Calibration

Calibration Files
0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D 2.5 =R125423.D 5.0 =R125424.D 10 =R125425.D
20 =R125426.D 50 =R125427.D 100 =R125428.D

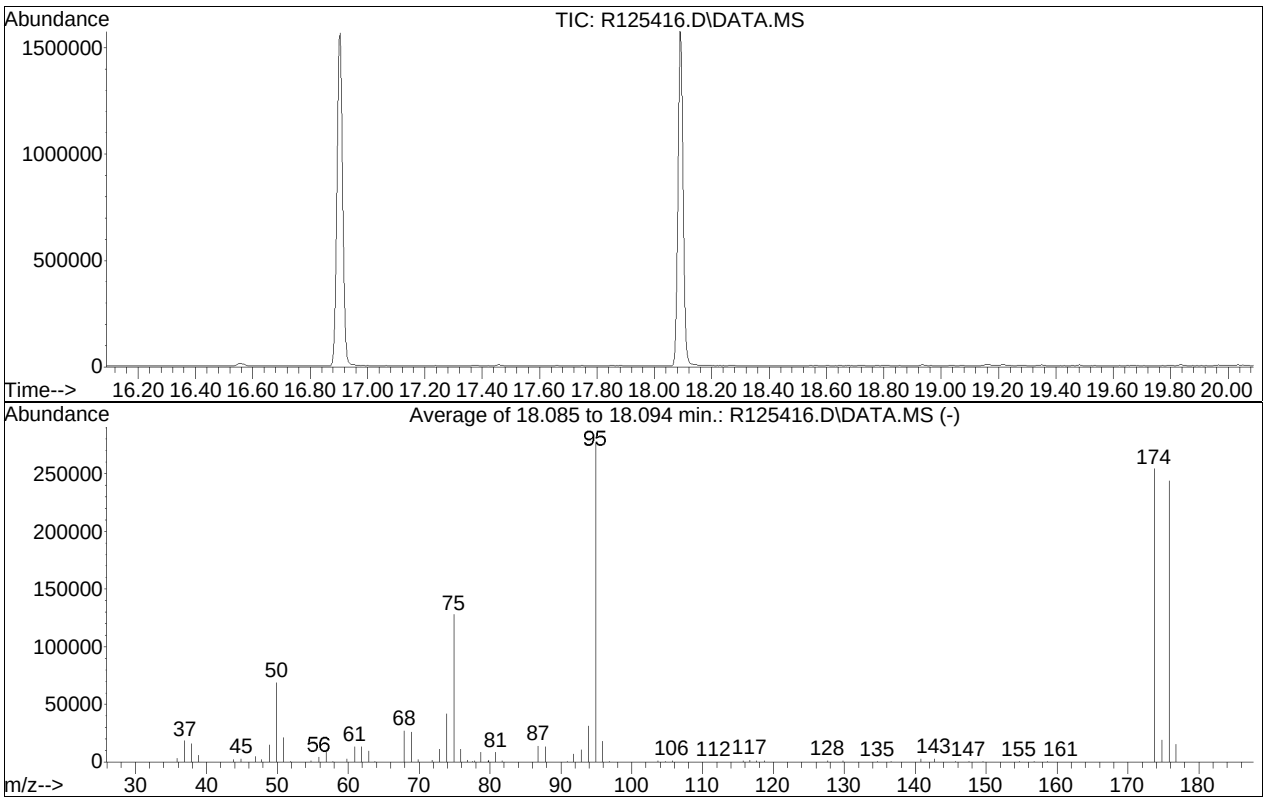
| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 94) | | n-propylbenzene | 1.696 | 1.772 | 1.725 | 1.818 | 1.790 | 1.775 | 1.739 | 1.787 | | 1.7626 | 2.26 |
| 95) | | 4-chlorotoluene | 4.251 | 4.887 | 4.754 | 4.828 | 4.840 | 4.702 | 4.591 | 4.503 | 4.394 | 4.6389 | 4.73 |
| 96) | | 4-ethyl toluene | 5.716 | 6.392 | 6.131 | 6.279 | 6.243 | 6.158 | 6.030 | 5.956 | 5.534 | 6.0487 | 4.57 |
| 97) | | 1,3,5-trimethylbenzene | 4.830 | 5.143 | 4.903 | 5.057 | 5.004 | 5.068 | 4.910 | 4.943 | 4.594 | 4.9390 | 3.27 |
| 98) | | tert-butylbenzene | 5.380 | 5.792 | 5.707 | 5.915 | 5.906 | 5.905 | 5.607 | 5.400 | 4.531 | 5.5715 | 7.92 |
| 99) | | 1,2,4-trimethylbenzene | 4.725 | 5.071 | 5.030 | 5.154 | 5.104 | 5.174 | 4.975 | 4.783 | 4.009 | 4.8915 | 7.48 |
| 100) | | decane | 4.190 | 4.536 | 4.313 | 4.567 | 4.484 | 4.418 | 4.212 | 4.088 | 3.518 | 4.2584 | 7.59 |
| 101) | C | Benzyl Chloride | 3.324 | 3.975 | 3.993 | 4.331 | 4.572 | 4.688 | 4.663 | 4.728 | 4.434 | 4.3007 | 10.75 |
| 102) | | 1,3-dichlorobenzene | 3.594 | 3.842 | 3.777 | 3.827 | 3.867 | 3.866 | 3.821 | 3.891 | 3.627 | 3.7901 | 2.83 |
| 103) | C | 1,4-dichlorobenzene | 3.734 | 4.048 | 3.766 | 3.918 | 3.898 | 3.934 | 3.929 | 3.984 | 3.568 | 3.8644 | 3.83 |
| 104) | | sec-butylbenzene | 7.052 | 8.032 | 7.762 | 8.152 | 8.185 | 7.877 | 7.701 | 7.473 | 6.275 | 7.6121 | 8.07 |
| 105) | | 1,2,3-trimethylbenzene | 4.831 | 5.605 | 5.363 | 4.737 | 4.776 | 4.293 | 4.105 | 5.290 | 4.642 | 4.8490 | 10.19 |
| 106) | | p-isopropyltoluene | 6.563 | 7.370 | 7.201 | 7.402 | 7.434 | 7.250 | 7.050 | 6.949 | 5.909 | 7.0141 | 7.08 |
| 107) | | 1,2-dichlorobenzene | 3.062 | 3.677 | 3.557 | 3.667 | 3.702 | 3.710 | 3.640 | 3.740 | 3.565 | 3.5911 | 5.79 |
| 108) | | n-butylbenzene | 5.819 | 6.617 | 6.517 | 6.828 | 6.822 | 6.668 | 6.480 | 6.325 | 5.747 | 6.4248 | 6.19 |
| 109) | | indan | 4.025 | 4.696 | 4.605 | 5.009 | 4.966 | 4.674 | 4.552 | 4.591 | 4.343 | 4.6067 | 6.49 |
| 110) | | indene | 5.336 | 5.969 | 6.008 | 4.983 | 5.056 | 4.609 | 4.518 | 6.113 | 5.554 | 5.3495 | 11.26 |
| 111) | C | 1,2-dibromo-3-chloropropane | 1.435 | 1.698 | 1.716 | 1.827 | 1.873 | 1.812 | 1.790 | 1.811 | 1.719 | 1.7422 | 7.43 |
| 112) | | undecane | 5.037 | 4.905 | 4.872 | 5.109 | 5.305 | 5.081 | 4.942 | 4.750 | 3.983 | 4.8873 | 7.67 |
| 113) | | 1,2,4,5-tetramethylbenzene | 6.343 | 7.316 | 7.444 | 6.762 | 7.142 | 7.150 | 6.970 | 7.500 | 6.607 | 7.0259 | 5.58 |
| 114) | | dodecane | 5.256 | 4.786 | 4.865 | 4.966 | 5.513 | 5.542 | 5.324 | 4.618 | 3.457 | 4.9253 | 12.98 |
| 115) | C | 1,2,4-trichlorobenzene | 2.199 | 2.788 | 2.857 | 2.899 | 3.217 | 3.300 | 3.321 | 3.302 | 2.843 | 2.9694 | 12.29 |
| 116) | | naphthalene | 8.154 | 7.890 | 7.604 | 7.309 | 7.976 | 8.103 | 8.086 | 8.121 | 7.357 | 7.8444 | 4.27 |
| 117) | | 1,2,3-trichlorobenzene | 2.339 | 2.988 | 2.977 | 2.783 | 3.112 | 3.365 | 3.399 | 3.511 | 3.410 | 3.0982 | 12.14 |
| 118) | | benzothiophene | | 5.605 | 5.839 | 4.933 | 5.507 | 5.724 | 5.721 | 6.686 | 6.436 | 5.8063 | 9.38 |
| 119) | C | hexachlorobutadiene | 2.125 | 2.566 | 2.513 | 2.456 | 2.655 | 2.745 | 2.768 | 2.835 | 2.655 | 2.5909 | 8.24 |
| 120) | | 2-methylnaphthalene | | 1.125 | 1.274 | 1.255 | 1.545 | 1.499 | 1.547 | 1.872 | 1.855 | 1.4963 | 18.23 |
| 121) | | 1-methylnaphthalene | | 4.025 | 4.418 | 2.979 | 3.516 | 4.324 | 4.425 | 6.030 | 5.494 | 4.4015 | 22.40 |

(#) = Out of Range

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125416.D
Acq On : 11 Dec 2012 4:25 pm
Operator : AIRPIANO1:MB
Sample : WG578983-1,3,250,250
Misc : WG578983
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 3246

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 24.9 | 69040 | PASS |
| 75 | 95 | 30 | 66 | 46.2 | 127963 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 276992 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 18243 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 91.9 | 254635 | PASS |
| 175 | 174 | 4 | 9 | 7.5 | 19205 | PASS |
| 176 | 174 | 93 | 101 | 95.7 | 243755 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 15665 | PASS |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.2
Misc : WG578983
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 09:46:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 287549 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 79.86% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 716323 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 97.07% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 183452 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 95.58% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 229417 | 9.771 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 97.71% | | | |
| 69) toluene-D8 | 15.22 | 98 | 556989 | 10.154 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.54% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 408382 | 9.991 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.91% | | | |

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) chlorodifluoromethane | 4.04 | 51 | 8729 | 0.241 | ppbV # | 86 |
| 3) propylene | 4.08 | 41 | 4615M3 | 0.305 | ppbV | |
| 4) propane | 4.11 | 29 | 5588 | 0.314 | ppbV | 91 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 9534 | 0.244 | ppbV # | 88 |
| 6) chloromethane | 4.40 | 50 | 5239 | 0.296 | ppbV | 99 |
| 7) Freon-114 | 4.56 | 85 | 10366 | 0.240 | ppbV | 96 |
| 8) methanol | 4.64 | 31 | 12299 | 1.861 | ppbV # | 1 |
| 9) vinyl chloride | 4.71 | 62 | 4537 | 0.267 | ppbV | 97 |
| 10) 1,3-butadiene | 4.92 | 54 | 3704 | 0.273 | ppbV # | 75 |
| 11) butane | 4.99 | 43 | 8715 | 0.291 | ppbV | 93 |
| 12) acetaldehyde | 4.58 | 29 | 12842 | 1.766 | ppbV # | 72 |
| 13) bromomethane | 5.29 | 94 | 4845 | 0.302 | ppbV # | 72 |
| 14) chloroethane | 5.55 | 64 | 1826 | 0.239 | ppbV # | 84 |
| 15) ethanol | 5.76 | 31 | 18804 | 1.300 | ppbV | 94 |
| 16) dichlorofluoromethane | 5.71 | 67 | 8661 | 0.238 | ppbV | 92 |
| 17) vinyl bromide | 6.05 | 106 | 3568 | 0.222 | ppbV | 88 |
| 18) acrolein | 6.23 | 56 | 2758 | 0.325 | ppbV # | 71 |
| 19) acetone | 6.42 | 43 | 48314 | 1.492 | ppbV # | 99 |
| 20) acetonitrile | 6.04 | 41 | 4531 | 0.242 | ppbV # | 72 |
| 21) trichlorofluoromethane | 6.63 | 101 | 11718 | 0.228 | ppbV | 99 |
| 22) isopropyl alcohol | 6.78 | 45 | 15468 | 0.352 | ppbV | 99 |
| 23) acrylonitrile | 7.04 | 53 | 4260 | 0.271 | ppbV | 89 |
| 24) pentane | 7.12 | 43 | 9470 | 0.268 | ppbV # | 76 |
| 25) ethyl ether | 7.18 | 31 | 6629 | 0.250 | ppbV # | 85 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.2
Misc : WG578983
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 09:46:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 6951 | 0.240 | ppbV | 96 |
| 27) tertiary butyl alcohol | 7.60 | 59 | 9825 | 0.247 | ppbV # | 84 |
| 28) methylene chloride | 7.65 | 49 | 10233 | 0.397 | ppbV | 87 |
| 29) 3-chloropropene | 7.80 | 41 | 7361 | 0.286 | ppbV | 88 |
| 30) carbon disulfide | 7.98 | 76 | 12713 | 0.274 | ppbV # | 1 |
| 31) Freon 113 | 7.99 | 101 | 8428 | 0.247 | ppbV # | 83 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 6796 | 0.246 | ppbV | 92 |
| 33) 1,1-dichloroethane | 9.08 | 63 | 8042 | 0.255 | ppbV | 94 |
| 34) MTBE | 9.18 | 73 | 9821 | 0.254 | ppbV # | 66 |
| 35) vinyl acetate | 9.29 | 43 | 13367 | 0.250 | ppbV | 99 |
| 36) 2-butanone | 9.59 | 43 | 11737 | 0.268 | ppbV # | 94 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 6119 | 0.248 | ppbV | 97 |
| 38) Ethyl Acetate | 10.38 | 61 | 1286 | 0.193 | ppbV | 88 |
| 39) chloroform | 10.43 | 83 | 8586 | 0.237 | ppbV | 93 |
| 40) Tetrahydrofuran | 10.93 | 42 | 7661 | 0.278 | ppbV # | 91 |
| 41) 2,2-dichloropropane | 10.46 | 77 | 7792 | 0.253 | ppbV # | 84 |
| 42) 1,2-dichloroethane | 11.28 | 62 | 6507 | 0.248 | ppbV | 95 |
| 44) hexane | 10.33 | 57 | 7084 | 0.193 | ppbV # | 51 |
| 45) diisopropyl ether | 10.36 | 87 | 2459 | 0.156 | ppbV | 90 |
| 46) tert-butyl ethyl ether | 10.98 | 59 | 15882 | 0.198 | ppbV # | 90 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 8624 | 0.202 | ppbV | 98 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 6554 | 0.205 | ppbV # | 82 |
| 50) benzene | 12.08 | 78 | 11975 | 0.201 | ppbV | 99 |
| 51) thiophene | 12.24 | 84 | 7520 | 0.207 | ppbV | 89 |
| 52) carbon tetrachloride | 12.26 | 117 | 8780 | 0.186 | ppbV | 96 |
| 53) cyclohexane | 12.40 | 56 | 8402 | 0.218 | ppbV | 93 |
| 54) tert-amyl methyl ether | 12.78 | 73 | 11103 | 0.186 | ppbV # | 88 |
| 55) dibromomethane | 13.00 | 93 | 6208 | 0.202 | ppbV | 88 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 5410 | 0.204 | ppbV # | 81 |
| 57) bromodichloromethane | 13.25 | 83 | 9573 | 0.199 | ppbV # | 96 |
| 58) 1,4-dioxane | 13.32 | 88 | 2644 | 0.197 | ppbV # | 78 |
| 59) trichloroethene | 13.29 | 130 | 6076 | 0.200 | ppbV | 93 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 24884 | 0.205 | ppbV # | 98 |
| 61) methyl methacrylate | 13.52 | 41 | 8690M4 | 0.245 | ppbV | |
| 62) heptane | 13.62 | 43 | 11228 | 0.215 | ppbV | 97 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 6120 | 0.180 | ppbV | 90 |
| 64) 4-methyl-2-pentanone | 14.33 | 43 | 14051 | 0.191 | ppbV # | 88 |
| 65) trans-1,3-dichloropropene | 14.85 | 75 | 6029 | 0.176 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 15.04 | 97 | 5120 | 0.190 | ppbV | 91 |
| 68) toluene | 15.32 | 91 | 14994 | 0.206 | ppbV | 96 |
| 70) 2-methylthiophene | 15.38 | 97 | 11140 | 0.201 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.2
Misc : WG578983
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 09:46:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 6810 | 0.192 ppbV | 98 |
| 72) | 2-hexanone | 15.58 | 43 | 12400 | 0.176 ppbV | 88 |
| 73) | 3-methylthiophene | 15.56 | 97 | 11796 | 0.204 ppbV # | 86 |
| 74) | dibromochloromethane | 15.73 | 129 | 10438 | 0.182 ppbV | 92 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 8568 | 0.188 ppbV | 87 |
| 76) | butyl acetate | 16.15 | 73 | 1723 | 0.212 ppbV # | 29 |
| 77) | octane | 16.22 | 85 | 4284 | 0.206 ppbV # | 77 |
| 78) | tetrachloroethene | 16.36 | 166 | 7855 | 0.201 ppbV # | 86 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 7327 | 0.192 ppbV # | 87 |
| 80) | chlorobenzene | 16.94 | 112 | 11587 | 0.189 ppbV | 91 |
| 81) | ethylbenzene | 17.24 | 91 | 18117 | 0.189 ppbV | 93 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 12958 | 0.196 ppbV | 96 |
| 83) | m+p-xylene | 17.37 | 91 | 28462 | 0.380 ppbV | 93 |
| 84) | bromoform | 17.46 | 173 | 10121 | 0.170 ppbV | 97 |
| 85) | styrene | 17.66 | 104 | 11610 | 0.196 ppbV | 97 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 12250 | 0.189 ppbV | 98 |
| 87) | o-xylene | 17.74 | 91 | 14739 | 0.192 ppbV | 92 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 9294 | 0.195 ppbV # | 86 |
| 89) | nonane | 17.88 | 43 | 17970 | 0.219 ppbV | 93 |
| 91) | isopropylbenzene | 18.18 | 105 | 21831 | 0.194 ppbV | 96 |
| 92) | bromobenzene | 18.27 | 77 | 11217 | 0.191 ppbV | 93 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 6155 | 0.194 ppbV | 75 |
| 94) | n-propylbenzene | 18.56 | 120 | 6221 | 0.191 ppbV | 79 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 15598 | 0.181 ppbV | 94 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 20972 | 0.186 ppbV # | 96 |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 17720 | 0.191 ppbV | 91 |
| 98) | tert-butylbenzene | 19.03 | 119 | 19740 | 0.182 ppbV | 98 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 17336 | 0.183 ppbV | 91 |
| 100) | decane | 19.07 | 57 | 15374 | 0.190 ppbV | 91 |
| 101) | Benzyl Chloride | 19.15 | 91 | 12196 | 0.142 ppbV | 99 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 13186 | 0.186 ppbV | 98 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 13702 | 0.190 ppbV | 99 |
| 104) | sec-butylbenzene | 19.23 | 105 | 25873 | 0.179 ppbV | 99 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 17725 | 0.225 ppbV | 95 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 24079 | 0.181 ppbV | 99 |
| 107) | 1,2-dichlorobenzene | 19.48 | 146 | 11236 | 0.165 ppbV # | 89 |
| 108) | n-butylbenzene | 19.66 | 91 | 21350 | 0.175 ppbV | 100 |
| 109) | indan | 19.52 | 117 | 14768 | 0.172 ppbV | 92 |
| 110) | indene | 19.59 | 115 | 19577 | 0.232 ppbV | 96 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 5264 | 0.158 ppbV | 87 |
| 112) | undecane | 20.03 | 57 | 18482 | 0.198 ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.2
Misc : WG578983
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 09:46:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

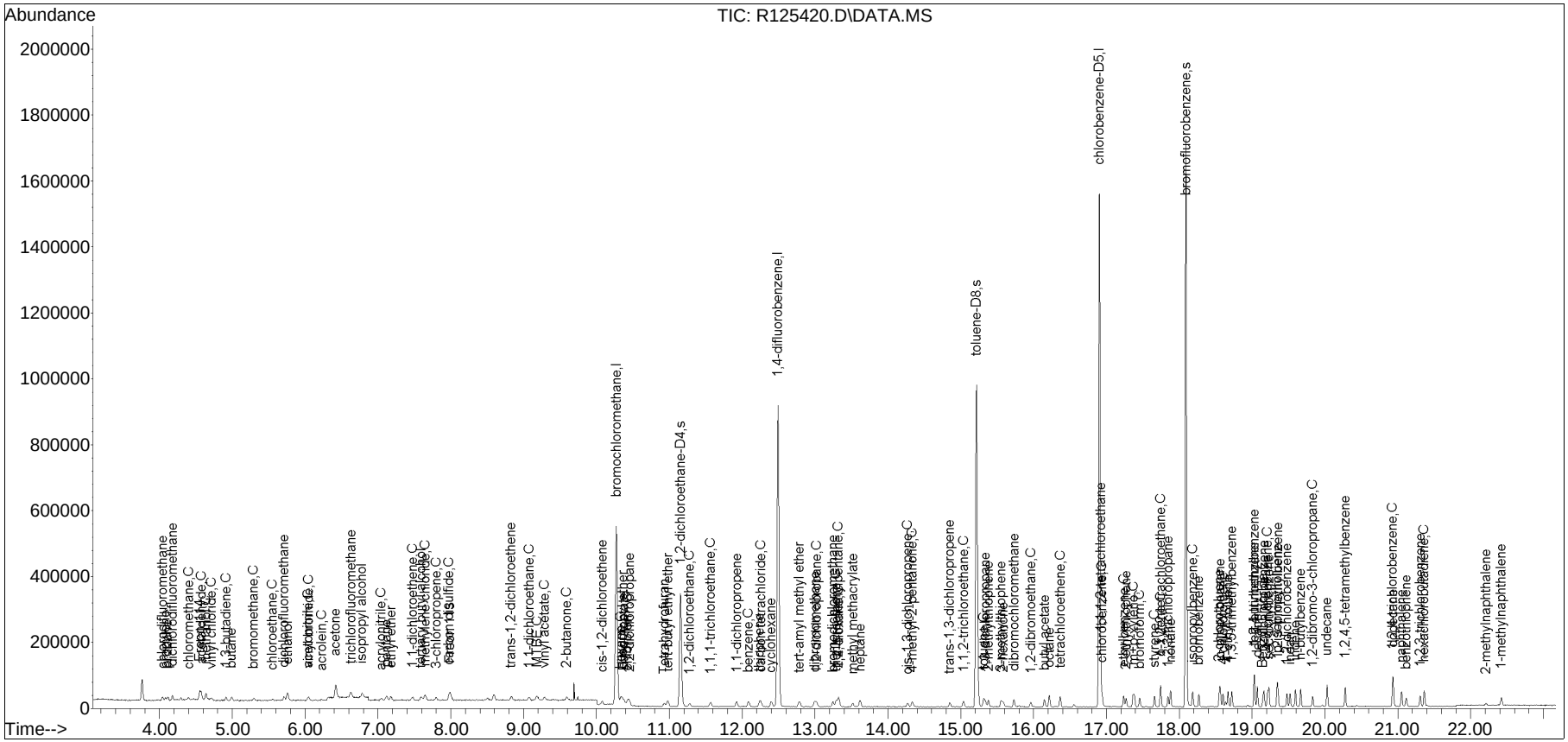
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.28 | 119 | 23271 | 0.177 | ppbV | 91 |
| 114) dodecane | 20.93 | 57 | 19284 | 0.190 | ppbV | 96 |
| 115) 1,2,4-trichlorobenzene | 20.93 | 180 | 8068 | 0.133 | ppbV | 97 |
| 116) naphthalene | 21.05 | 128 | 29918 | 0.201 | ppbV | 96 |
| 117) 1,2,3-trichlorobenzene | 21.31 | 180 | 8582 | 0.139 | ppbV | 97 |
| 118) benzothiophene | 21.12 | 134 | 16445 | 0.157 | ppbV # | 93 |
| 119) hexachlorobutadiene | 21.36 | 225 | 7796 | 0.155 | ppbV | 97 |
| 120) 2-methylnaphthalene | 22.21 | 142 | 3669 | 0.133 | ppbV | 90 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 10846 | 0.137 | ppbV | 83 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125420.D
Acq On : 11 Dec 2012 6:33 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.2
Misc : WG578983
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 09:46:59 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:06 2012
Response via : Initial Calibration

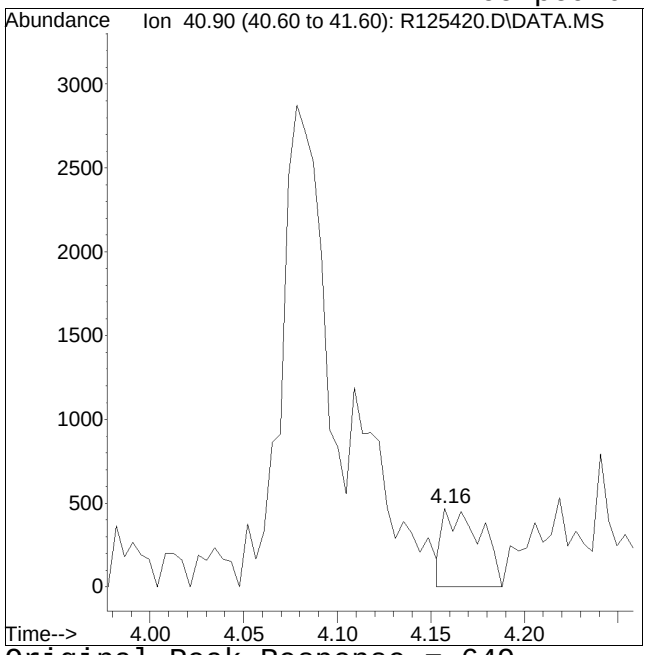


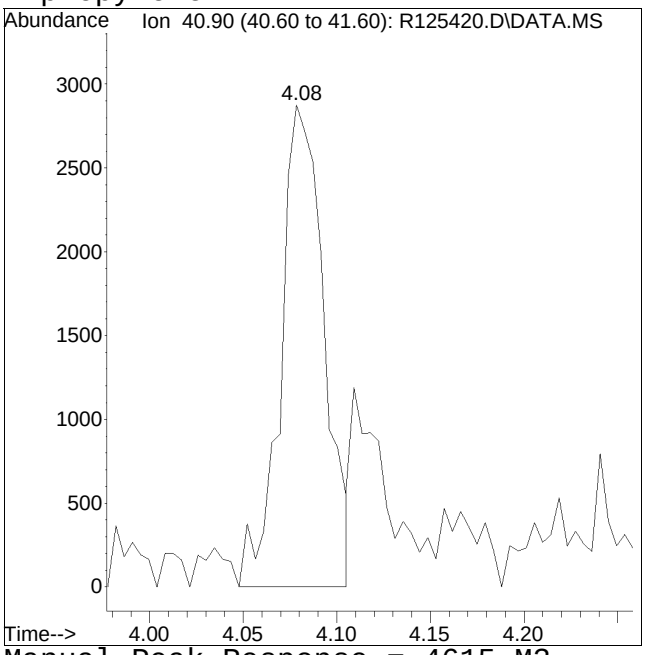
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125420.D
Date Inj'd : 12/11/2012 6:33 pm
Sample : ITO15-SIMSTD0.2

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #3: propylene




Original Peak Response = 649 Manual Peak Response = 4615 M3

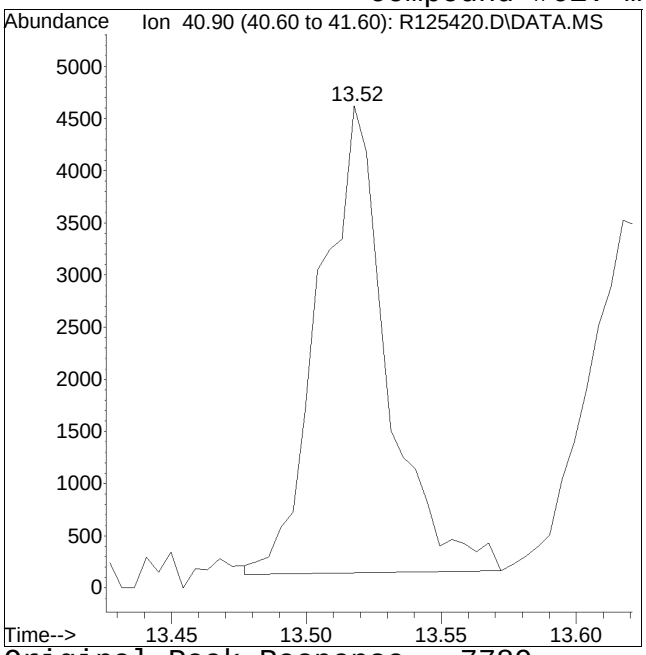
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

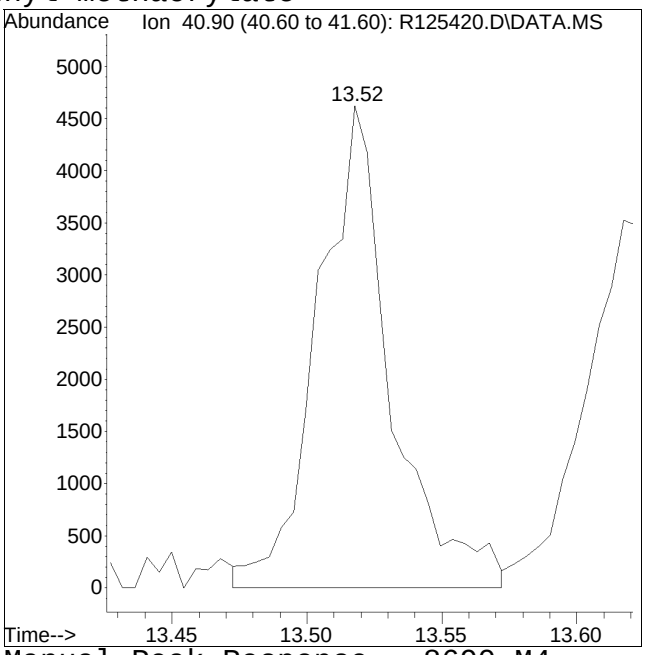
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125420.D
Date Inj'd : 12/11/2012 6:33 pm
Sample : ITO15-SIMSTD0.2

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #61: methyl methacrylate




Original Peak Response = 7789




Manual Peak Response = 8690 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.5
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:49:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 346355 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 96.19% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 722551 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 97.91% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 186697 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 97.27% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 233710 | 9.868 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.68% | | | |
| 69) toluene-D8 | 15.22 | 98 | 557271 | 9.982 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.82% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 410591 | 9.870 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.70% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 24526 | 0.563 | ppbV | 100 |
| 3) propylene | 4.08 | 41 | 10359 | 0.569 | ppbV | 98 |
| 4) propane | 4.11 | 29 | 13885 | 0.649 | ppbV | 94 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 25564 | 0.543 | ppbV | 97 |
| 6) chloromethane | 4.40 | 50 | 12874 | 0.604 | ppbV | 98 |
| 7) Freon-114 | 4.55 | 85 | 28968 | 0.556 | ppbV | 92 |
| 8) methanol | 4.64 | 31 | 25941 | 3.260 | ppbV # | 38 |
| 9) vinyl chloride | 4.71 | 62 | 10921 | 0.534 | ppbV | 91 |
| 10) 1,3-butadiene | 4.91 | 54 | 9184 | 0.561 | ppbV | 91 |
| 11) butane | 4.99 | 43 | 21155 | 0.587 | ppbV # | 91 |
| 12) acetaldehyde | 4.57 | 29 | 29361 | 3.353 | ppbV # | 87 |
| 13) bromomethane | 5.29 | 94 | 11140 | 0.577 | ppbV | 99 |
| 14) chloroethane | 5.56 | 64 | 5284 | 0.574 | ppbV # | 84 |
| 15) ethanol | 5.75 | 31 | 49036M6 | 2.815 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 23683 | 0.541 | ppbV | 98 |
| 17) vinyl bromide | 6.04 | 106 | 10605 | 0.547 | ppbV | 100 |
| 18) acrolein | 6.23 | 56 | 6079 | 0.594 | ppbV # | 78 |
| 19) acetone | 6.42 | 43 | 114821 | 2.943 | ppbV # | 98 |
| 20) acetonitrile | 6.04 | 41 | 13412M4 | 0.595 | ppbV | |
| 21) trichlorofluoromethane | 6.63 | 101 | 34050 | 0.549 | ppbV | 97 |
| 22) isopropyl alcohol | 6.78 | 45 | 33207 | 0.628 | ppbV # | 91 |
| 23) acrylonitrile | 7.04 | 53 | 10306 | 0.545 | ppbV | 97 |
| 24) pentane | 7.12 | 43 | 23362 | 0.548 | ppbV | 95 |
| 25) ethyl ether | 7.17 | 31 | 18001 | 0.563 | ppbV # | 89 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.5
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:49:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 18698 | 0.536 | ppbV | 99 |
| 27) tertiary butyl alcohol | 7.58 | 59 | 27711 | 0.578 | ppbV # | 84 |
| 28) methylene chloride | 7.65 | 49 | 20444 | 0.658 | ppbV | 99 |
| 29) 3-chloropropene | 7.80 | 41 | 17005 | 0.548 | ppbV # | 92 |
| 30) carbon disulfide | 7.98 | 76 | 31320 | 0.560 | ppbV # | 12 |
| 31) Freon 113 | 7.99 | 101 | 22282 | 0.543 | ppbV | 94 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 17907 | 0.538 | ppbV | 95 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 21088 | 0.556 | ppbV | 100 |
| 34) MTBE | 9.17 | 73 | 25629 | 0.550 | ppbV # | 93 |
| 35) vinyl acetate | 9.28 | 43 | 34485 | 0.535 | ppbV # | 97 |
| 36) 2-butanone | 9.59 | 43 | 29588 | 0.561 | ppbV # | 98 |
| 37) cis-1,2-dichloroethene | 10.07 | 61 | 16997 | 0.572 | ppbV | 94 |
| 38) Ethyl Acetate | 10.38 | 61 | 4527 | 0.564 | ppbV # | 90 |
| 39) chloroform | 10.43 | 83 | 22583 | 0.516 | ppbV | 93 |
| 40) Tetrahydrofuran | 10.92 | 42 | 18513M6 | 0.557 | ppbV | |
| 41) 2,2-dichloropropane | 10.45 | 77 | 20000 | 0.540 | ppbV # | 84 |
| 42) 1,2-dichloroethane | 11.28 | 62 | 17011 | 0.538 | ppbV # | 96 |
| 44) hexane | 10.33 | 57 | 20942 | 0.564 | ppbV # | 61 |
| 45) diisopropyl ether | 10.35 | 87 | 8571 | 0.540 | ppbV | 95 |
| 46) tert-butyl ethyl ether | 10.97 | 59 | 42713 | 0.528 | ppbV | 97 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 22433 | 0.522 | ppbV | 93 |
| 49) 1,1-dichloropropene | 11.92 | 75 | 16921 | 0.525 | ppbV # | 93 |
| 50) benzene | 12.09 | 78 | 32793 | 0.546 | ppbV | 91 |
| 51) thiophene | 12.23 | 84 | 20053 | 0.547 | ppbV | 96 |
| 52) carbon tetrachloride | 12.26 | 117 | 23890 | 0.502 | ppbV | 97 |
| 53) cyclohexane | 12.40 | 56 | 21127 | 0.543 | ppbV | 90 |
| 54) tert-amyl methyl ether | 12.77 | 73 | 31106 | 0.517 | ppbV | 97 |
| 55) dibromomethane | 12.99 | 93 | 16766 | 0.542 | ppbV | 94 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 13918 | 0.521 | ppbV | 95 |
| 57) bromodichloromethane | 13.24 | 83 | 25509 | 0.525 | ppbV | 97 |
| 58) 1,4-dioxane | 13.31 | 88 | 6993 | 0.516 | ppbV # | 74 |
| 59) trichloroethene | 13.29 | 130 | 15687 | 0.512 | ppbV | 91 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 67222 | 0.549 | ppbV | 98 |
| 61) methyl methacrylate | 13.51 | 41 | 20029 | 0.559 | ppbV | 97 |
| 62) heptane | 13.62 | 43 | 28199 | 0.536 | ppbV | 97 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 17298 | 0.506 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 14.32 | 43 | 38513 | 0.518 | ppbV # | 98 |
| 65) trans-1,3-dichloropropene | 14.85 | 75 | 16793 | 0.486 | ppbV | 96 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 14187 | 0.522 | ppbV | 95 |
| 68) toluene | 15.32 | 91 | 40065 | 0.540 | ppbV | 90 |
| 70) 2-methylthiophene | 15.38 | 97 | 31255 | 0.555 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.5
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:49:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 19619 | 0.542 | ppbV | | 99 |
| 72) | 2-hexanone | 15.57 | 43 | 35110 | 0.491 | ppbV | | 92 |
| 73) | 3-methylthiophene | 15.56 | 97 | 33024 | 0.562 | ppbV | | 97 |
| 74) | dibromochloromethane | 15.73 | 129 | 29182 | 0.501 | ppbV | | 95 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 23711 | 0.512 | ppbV | | 91 |
| 76) | butyl acetate | 16.14 | 73 | 4133 | 0.499 | ppbV | | 79 |
| 77) | octane | 16.22 | 85 | 11236 | 0.531 | ppbV | | 83 |
| 78) | tetrachloroethene | 16.36 | 166 | 20585 | 0.517 | ppbV | | 91 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 19626 | 0.506 | ppbV | | 98 |
| 80) | chlorobenzene | 16.94 | 112 | 32109 | 0.514 | ppbV | | 96 |
| 81) | ethylbenzene | 17.23 | 91 | 49614 | 0.510 | ppbV | | 99 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 35947 | 0.534 | ppbV | | 97 |
| 83) | m+p-xylene | 17.36 | 91 | 80236 | 1.054 | ppbV | | 97 |
| 84) | bromoform | 17.46 | 173 | 28542 | 0.471 | ppbV | | 99 |
| 85) | styrene | 17.66 | 104 | 30152 | 0.501 | ppbV | | 96 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 33193 | 0.503 | ppbV | | 98 |
| 87) | o-xylene | 17.74 | 91 | 41282 | 0.529 | ppbV | | 97 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 24991 | 0.515 | ppbV | | 97 |
| 89) | nonane | 17.88 | 43 | 42486 | 0.509 | ppbV | # | 93 |
| 91) | isopropylbenzene | 18.18 | 105 | 58052 | 0.506 | ppbV | | 95 |
| 92) | bromobenzene | 18.27 | 77 | 31391 | 0.526 | ppbV | | 96 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 16987 | 0.526 | ppbV | | 76 |
| 94) | n-propylbenzene | 18.56 | 120 | 16542 | 0.499 | ppbV | | 87 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 45620 | 0.520 | ppbV | | 99 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 59664M6 | 0.519 | ppbV | | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 48005 | 0.507 | ppbV | | 98 |
| 98) | tert-butylbenzene | 19.03 | 119 | 54067 | 0.490 | ppbV | | 97 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 47340 | 0.490 | ppbV | | 97 |
| 100) | decane | 19.07 | 57 | 42341 | 0.513 | ppbV | | 96 |
| 101) | Benzyl Chloride | 19.15 | 91 | 37104 | 0.424 | ppbV | | 98 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 35860 | 0.497 | ppbV | | 96 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 37783 | 0.514 | ppbV | | 94 |
| 104) | sec-butylbenzene | 19.23 | 105 | 74978 | 0.510 | ppbV | | 98 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 52320 | 0.653 | ppbV | | 99 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 68801 | 0.508 | ppbV | | 98 |
| 107) | 1,2-dichlorobenzene | 19.48 | 146 | 34324 | 0.496 | ppbV | | 99 |
| 108) | n-butylbenzene | 19.67 | 91 | 61768 | 0.496 | ppbV | | 100 |
| 109) | indan | 19.52 | 117 | 43832 | 0.502 | ppbV | | 97 |
| 110) | indene | 19.59 | 115 | 55717 | 0.648 | ppbV | | 98 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 15847 | 0.468 | ppbV | | 94 |
| 112) | undecane | 20.03 | 57 | 45788 | 0.483 | ppbV | # | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.5
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:49:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

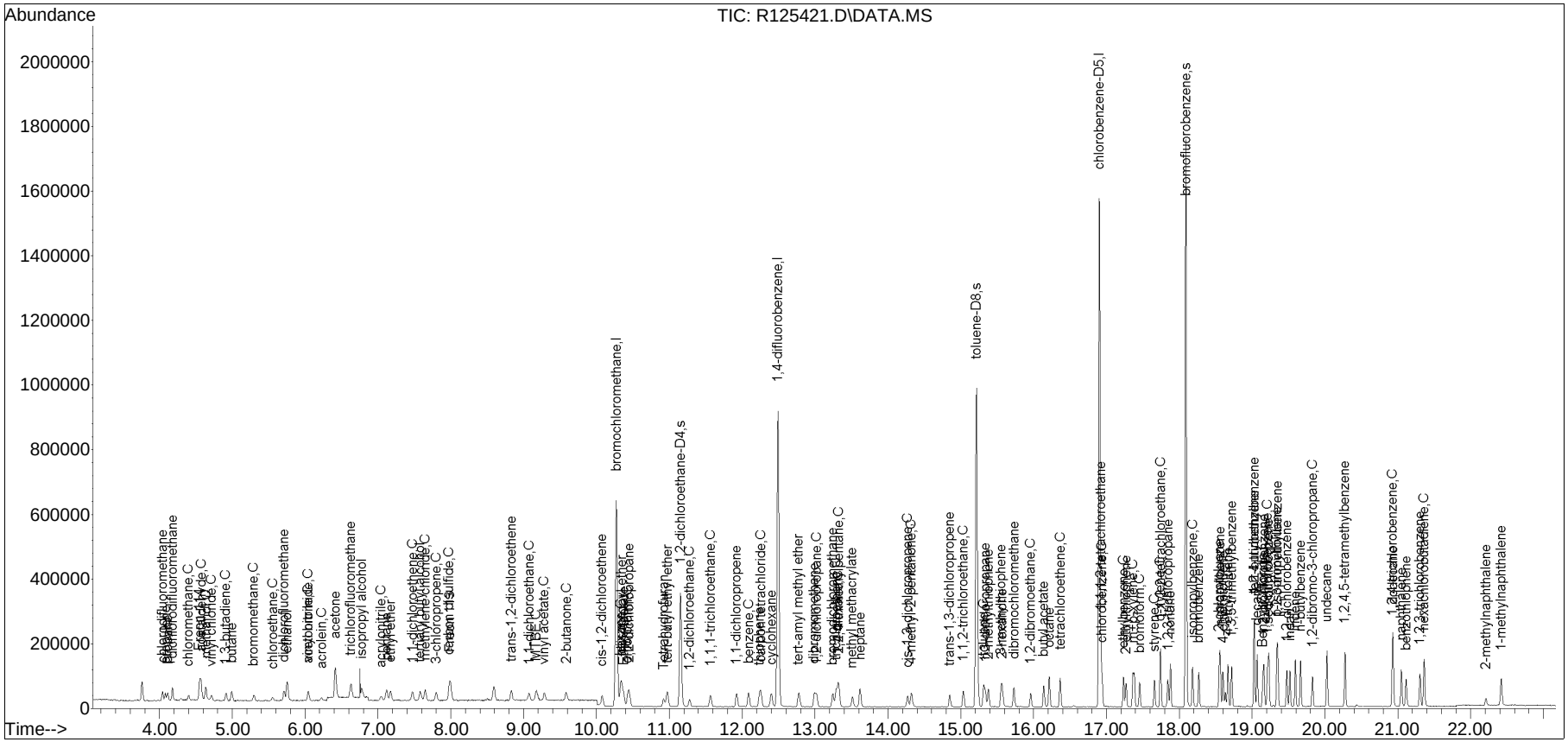
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 68296 | 0.512 ppbV | 98 |
| 114) dodecane | 20.93 | 57 | 44681 | 0.432 ppbV | 96 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 26030 | 0.422 ppbV | 96 |
| 116) naphthalene | 21.05 | 128 | 73648 | 0.487 ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 27889 | 0.444 ppbV | 98 |
| 118) benzothiophene | 21.11 | 134 | 52322 | 0.490 ppbV | 98 |
| 119) hexachlorobutadiene | 21.36 | 225 | 23953 | 0.467 ppbV | 96 |
| 120) 2-methylnaphthalene | 22.21 | 142 | 10501 | 0.375 ppbV | 97 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 37576 | 0.465 ppbV | 95 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125421.D
Acq On : 11 Dec 2012 7:04 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD0.5
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:49:13 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

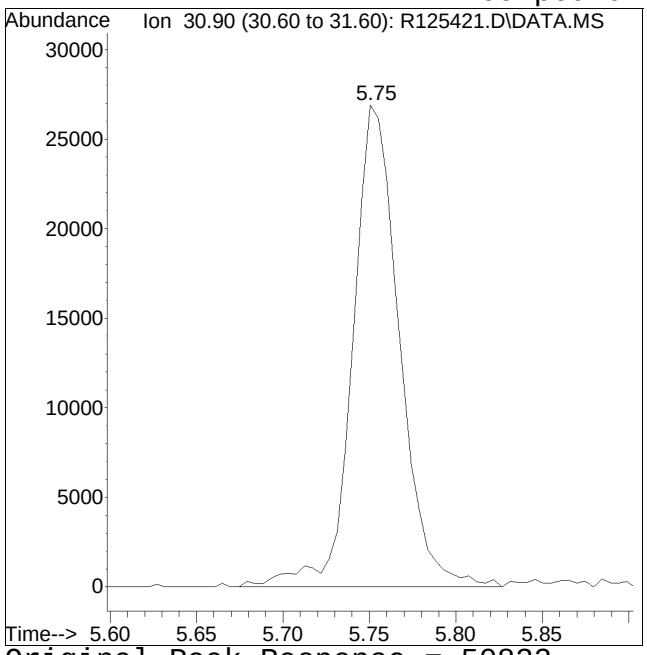


Manual Integration/Negative Proof Report

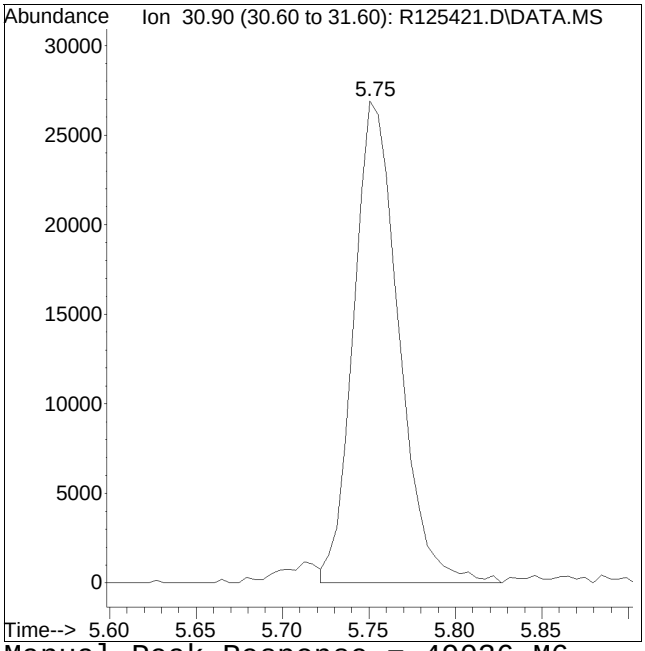
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #15: ethanol




Original Peak Response = 50832




Manual Peak Response = 49036 M6

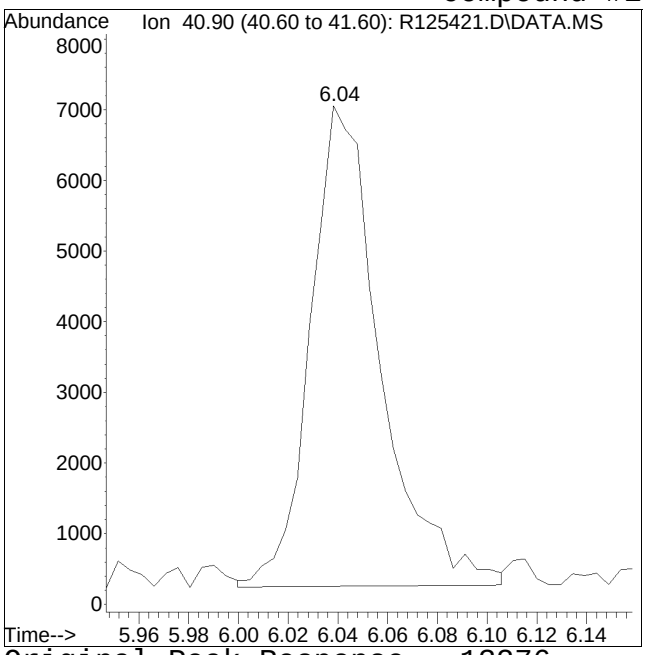
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

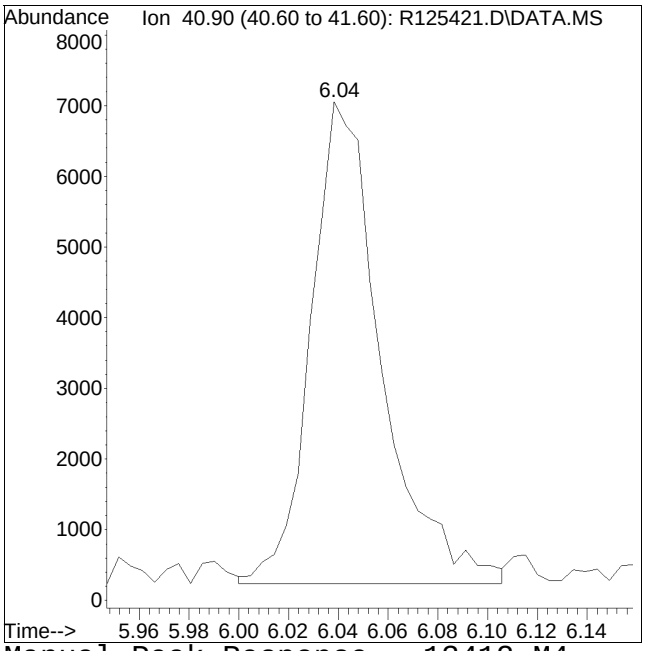
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #20: acetonitrile




Original Peak Response = 13276




Manual Peak Response = 13412 M4

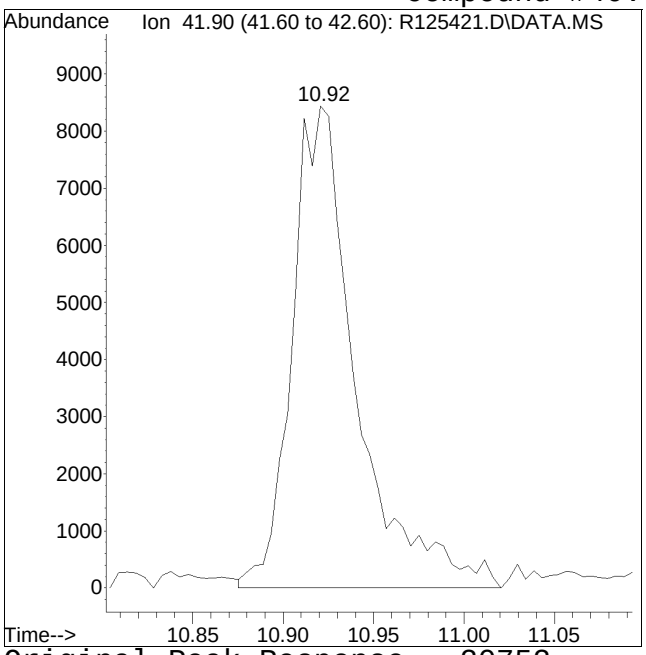
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

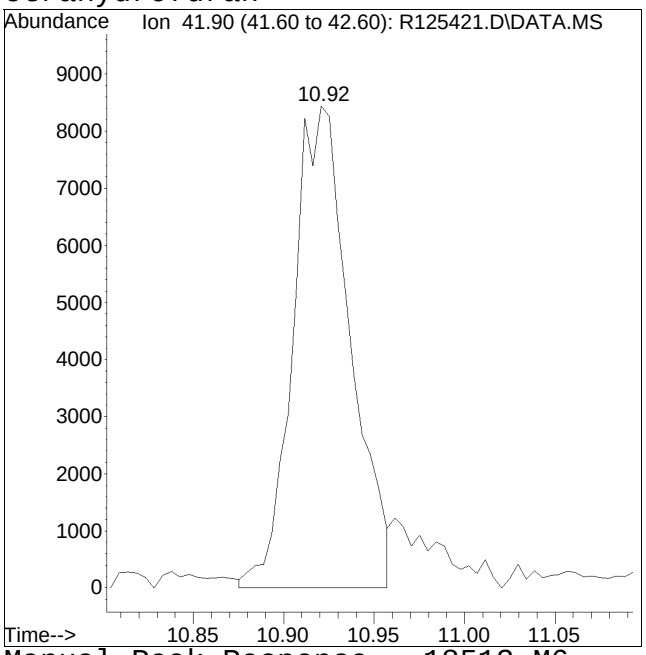
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #40: Tetrahydrofuran




Original Peak Response = 20752




Manual Peak Response = 18513 M6

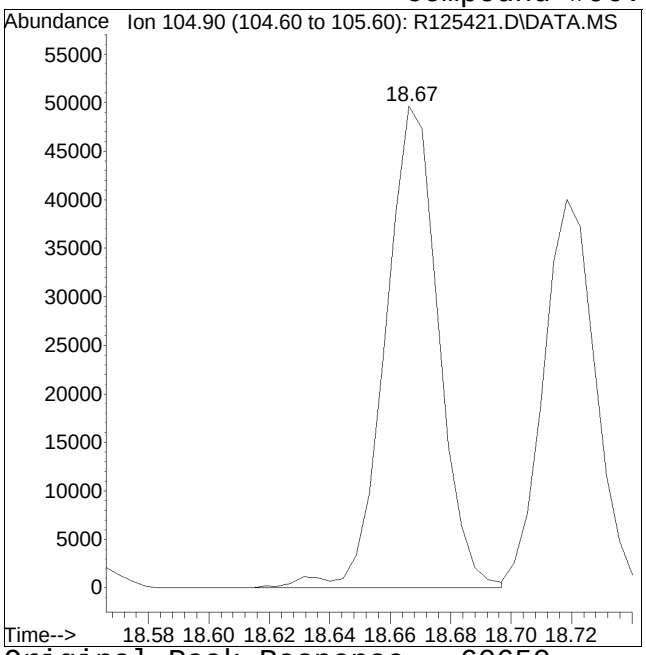
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

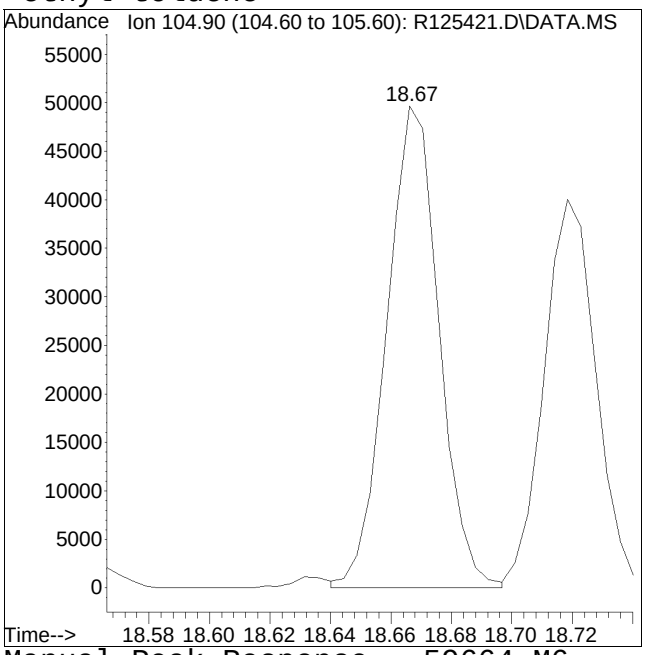
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125421.D
Date Inj'd : 12/11/2012 7:04 pm
Sample : ITO15-SIMSTD0.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #96: 4-ethyl toluene




Original Peak Response = 60650




Manual Peak Response = 59664 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD1.0
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:51:45 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 296798 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery | = | 82.43% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 737263 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery | = | 99.91% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 187775 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery | = | 97.84% | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 198006 | 8.194 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 81.94% | |
| 69) toluene-D8 | 15.21 | 98 | 559887 | 9.972 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 99.72% | |
| 90) bromofluorobenzene | 18.09 | 95 | 409222 | 9.781 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = | 97.81% | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 47013 | 1.260 | ppbV | 96 |
| 3) propylene | 4.08 | 41 | 21397 | 1.371 | ppbV | 92 |
| 4) propane | 4.11 | 29 | 25679 | 1.400 | ppbV | 94 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 48997 | 1.214 | ppbV | 99 |
| 6) chloromethane | 4.40 | 50 | 23608 | 1.292 | ppbV | 100 |
| 7) Freon-114 | 4.55 | 85 | 55478 | 1.242 | ppbV | 95 |
| 8) methanol | 4.64 | 31 | 47752 | 7.002 | ppbV # | 69 |
| 9) vinyl chloride | 4.71 | 62 | 22127 | 1.263 | ppbV | 98 |
| 10) 1,3-butadiene | 4.92 | 54 | 17198 | 1.226 | ppbV | 91 |
| 11) butane | 4.99 | 43 | 39676 | 1.285 | ppbV | 95 |
| 12) acetaldehyde | 4.57 | 29 | 57662 | 7.684 | ppbV | 93 |
| 13) bromomethane | 5.30 | 94 | 21195 | 1.281 | ppbV | 97 |
| 14) chloroethane | 5.55 | 64 | 9832 | 1.247 | ppbV | 97 |
| 15) ethanol | 5.75 | 31 | 92806M6 | 6.218 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 46731 | 1.245 | ppbV | 98 |
| 17) vinyl bromide | 6.04 | 106 | 20327 | 1.223 | ppbV | 94 |
| 18) acrolein | 6.22 | 56 | 11664 | 1.330 | ppbV | 95 |
| 19) acetone | 6.41 | 43 | 224098 | 6.703 | ppbV | 98 |
| 20) acetonitrile | 6.04 | 41 | 23959 | 1.240 | ppbV | 89 |
| 21) trichlorofluoromethane | 6.63 | 101 | 65204 | 1.227 | ppbV | 94 |
| 22) isopropyl alcohol | 6.77 | 45 | 62578 | 1.380 | ppbV | 99 |
| 23) acrylonitrile | 7.04 | 53 | 20443 | 1.262 | ppbV | 96 |
| 24) pentane | 7.12 | 43 | 47700 | 1.307 | ppbV | 100 |
| 25) ethyl ether | 7.17 | 31 | 33425 | 1.219 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD1.0
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:51:45 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 36705 | 1.228 | ppbV | 99 |
| 27) tertiary butyl alcohol | 7.57 | 59 | 52992 | 1.290 | ppbV # | 91 |
| 28) methylene chloride | 7.65 | 49 | 35288 | 1.325 | ppbV | 96 |
| 29) 3-chloropropene | 7.80 | 41 | 33710 | 1.268 | ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 59372 | 1.238 | ppbV # | 56 |
| 31) Freon 113 | 7.99 | 101 | 43335 | 1.232 | ppbV | 93 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 35673 | 1.250 | ppbV | 100 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 39956 | 1.229 | ppbV | 92 |
| 34) MTBE | 9.17 | 73 | 48624 | 1.218 | ppbV # | 93 |
| 35) vinyl acetate | 9.28 | 43 | 67874 | 1.230 | ppbV | 99 |
| 36) 2-butanone | 9.58 | 43 | 56791 | 1.255 | ppbV # | 97 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 31782 | 1.248 | ppbV | 96 |
| 38) Ethyl Acetate | 10.37 | 61 | 7623 | 1.108 | ppbV | 81 |
| 39) chloroform | 10.43 | 83 | 41528 | 1.108 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.92 | 42 | 28481M6 | 1.000 | ppbV | |
| 41) 2,2-dichloropropane | 10.45 | 77 | 34873 | 1.098 | ppbV | 98 |
| 42) 1,2-dichloroethane | 11.27 | 62 | 27630 | 1.019 | ppbV | 96 |
| 44) hexane | 10.33 | 57 | 35434 | 0.936 | ppbV | 88 |
| 45) diisopropyl ether | 10.35 | 87 | 13465 | 0.831 | ppbV | 82 |
| 46) tert-butyl ethyl ether | 10.97 | 59 | 69854 | 0.846 | ppbV | 98 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 44372 | 1.011 | ppbV | 94 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 33320 | 1.013 | ppbV | 97 |
| 50) benzene | 12.09 | 78 | 62187 | 1.015 | ppbV | 98 |
| 51) thiophene | 12.24 | 84 | 38192 | 1.021 | ppbV | 93 |
| 52) carbon tetrachloride | 12.25 | 117 | 47480 | 0.977 | ppbV | 94 |
| 53) cyclohexane | 12.40 | 56 | 41659 | 1.050 | ppbV | 94 |
| 54) tert-amyl methyl ether | 12.77 | 73 | 60822 | 0.990 | ppbV | 98 |
| 55) dibromomethane | 12.99 | 93 | 32425 | 1.027 | ppbV | 92 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 28479 | 1.045 | ppbV | 94 |
| 57) bromodichloromethane | 13.25 | 83 | 48340 | 0.976 | ppbV | 99 |
| 58) 1,4-dioxane | 13.31 | 88 | 14294 | 1.033 | ppbV | 82 |
| 59) trichloroethene | 13.28 | 130 | 30203 | 0.967 | ppbV | 92 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 131944 | 1.056 | ppbV | 99 |
| 61) methyl methacrylate | 13.51 | 41 | 39003 | 1.068 | ppbV | 98 |
| 62) heptane | 13.61 | 43 | 54696 | 1.019 | ppbV # | 95 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 33608 | 0.963 | ppbV | 95 |
| 64) 4-methyl-2-pentanone | 14.32 | 43 | 76573 | 1.009 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.85 | 75 | 34956 | 0.992 | ppbV | 99 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 27807 | 1.003 | ppbV | 94 |
| 68) toluene | 15.32 | 91 | 78623 | 1.054 | ppbV | 94 |
| 70) 2-methylthiophene | 15.38 | 97 | 60873 | 1.076 | ppbV | 95 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD1.0
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:51:45 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 37586 | 1.033 | ppbV | | 97 |
| 72) | 2-hexanone | 15.57 | 43 | 72042 | 1.001 | ppbV | | 97 |
| 73) | 3-methylthiophene | 15.55 | 97 | 63875 | 1.080 | ppbV | | 98 |
| 74) | dibromochloromethane | 15.73 | 129 | 56034 | 0.956 | ppbV | | 97 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 46649 | 1.002 | ppbV | | 94 |
| 76) | butyl acetate | 16.14 | 73 | 8261 | 0.992 | ppbV | | 78 |
| 77) | octane | 16.22 | 85 | 21154 | 0.994 | ppbV | | 100 |
| 78) | tetrachloroethene | 16.36 | 166 | 39527 | 0.987 | ppbV | | 98 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 38858 | 0.996 | ppbV | | 95 |
| 80) | chlorobenzene | 16.94 | 112 | 62432 | 0.994 | ppbV | | 97 |
| 81) | ethylbenzene | 17.23 | 91 | 98433 | 1.005 | ppbV | | 93 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 69967 | 1.033 | ppbV | | 98 |
| 83) | m+p-xylene | 17.37 | 91 | 153347 | 2.003 | ppbV | | 95 |
| 84) | bromoform | 17.46 | 173 | 55153 | 0.904 | ppbV | | 97 |
| 85) | styrene | 17.66 | 104 | 59136 | 0.977 | ppbV | | 98 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 66619 | 1.004 | ppbV | | 100 |
| 87) | o-xylene | 17.74 | 91 | 79244 | 1.009 | ppbV | | 96 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 49523 | 1.015 | ppbV | | 96 |
| 89) | nonane | 17.88 | 43 | 85971 | 1.024 | ppbV | | 99 |
| 91) | isopropylbenzene | 18.18 | 105 | 114815 | 0.996 | ppbV | | 99 |
| 92) | bromobenzene | 18.27 | 77 | 60448 | 1.007 | ppbV | | 99 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 32511 | 1.001 | ppbV | | 99 |
| 94) | n-propylbenzene | 18.56 | 120 | 32394 | 0.972 | ppbV | | 88 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 89263 | 1.011 | ppbV | | 99 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 115124M6 | 0.996 | ppbV | | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 92059 | 0.967 | ppbV | | 96 |
| 98) | tert-butylbenzene | 19.02 | 119 | 107166 | 0.966 | ppbV | | 100 |
| 99) | 1,2,4-trimethylbenzene | 19.02 | 105 | 94446 | 0.972 | ppbV | | 97 |
| 100) | decane | 19.07 | 57 | 80993 | 0.976 | ppbV | # | 96 |
| 101) | Benzyl Chloride | 19.14 | 91 | 74972 | 0.852 | ppbV | | 98 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 70925 | 0.977 | ppbV | | 95 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 70714 | 0.957 | ppbV | | 100 |
| 104) | sec-butylbenzene | 19.23 | 105 | 145756 | 0.985 | ppbV | | 100 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 100700 | 1.249 | ppbV | | 99 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 135218 | 0.993 | ppbV | | 100 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 66790 | 0.959 | ppbV | | 99 |
| 108) | n-butylbenzene | 19.67 | 91 | 122372 | 0.977 | ppbV | | 100 |
| 109) | indan | 19.51 | 117 | 86465 | 0.985 | ppbV | | 98 |
| 110) | indene | 19.59 | 115 | 112821 | 1.304 | ppbV | | 97 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 32215 | 0.947 | ppbV | | 94 |
| 112) | undecane | 20.02 | 57 | 91477 | 0.959 | ppbV | | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD1.0
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:51:45 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

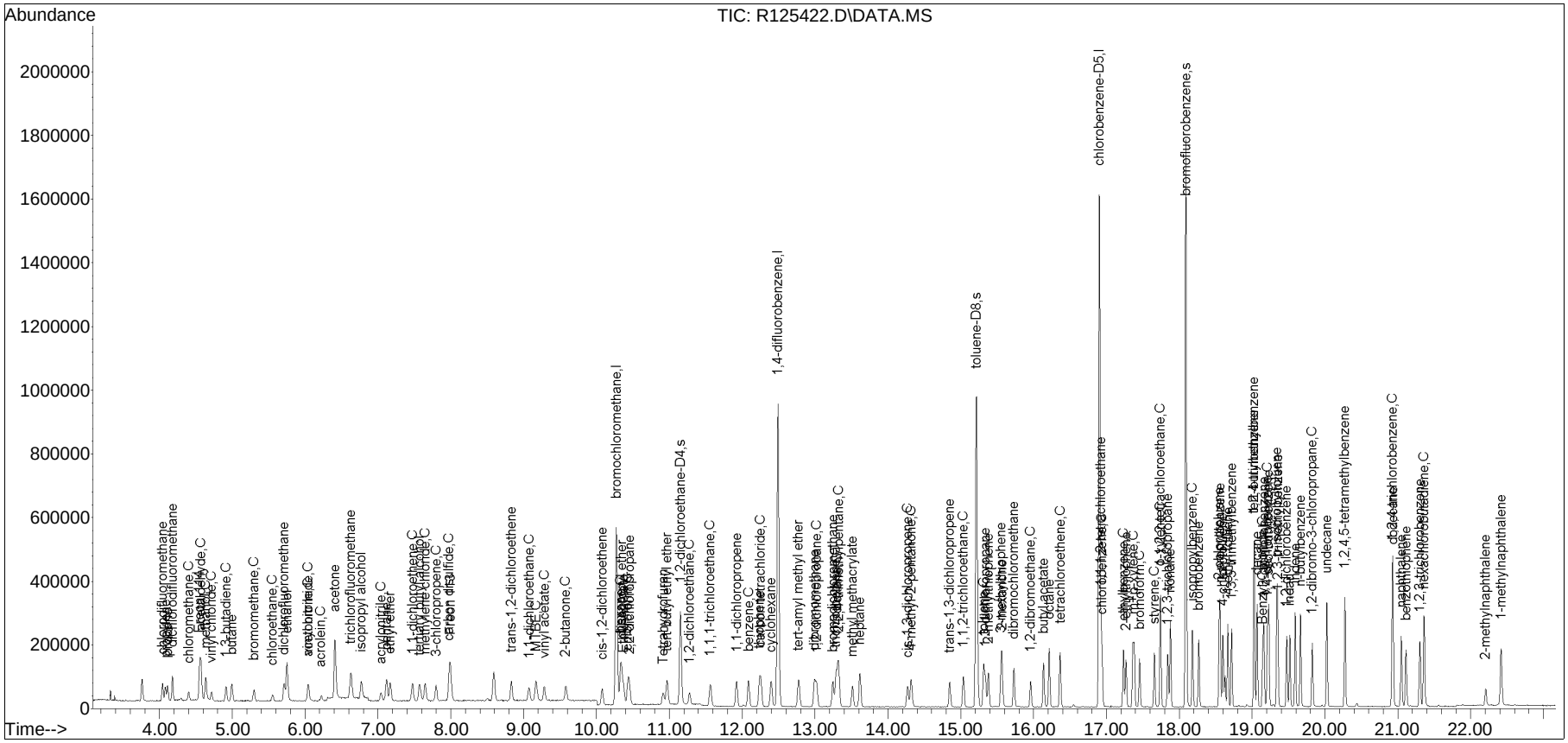
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 139781 | 1.041 | ppbV | 99 |
| 114) dodecane | 20.93 | 57 | 91346 | 0.878 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 53638 | 0.866 | ppbV | 97 |
| 116) naphthalene | 21.05 | 128 | 142783 | 0.938 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 55900 | 0.885 | ppbV | 99 |
| 118) benzothiophene | 21.11 | 134 | 109636 | 1.020 | ppbV | 100 |
| 119) hexachlorobutadiene | 21.36 | 225 | 47197 | 0.916 | ppbV | 98 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 23923 | 0.850 | ppbV | 97 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 82967 | 1.022 | ppbV | 98 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125422.D
Acq On : 11 Dec 2012 7:36 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD1.0
Misc : WG578983
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 12 09:51:45 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

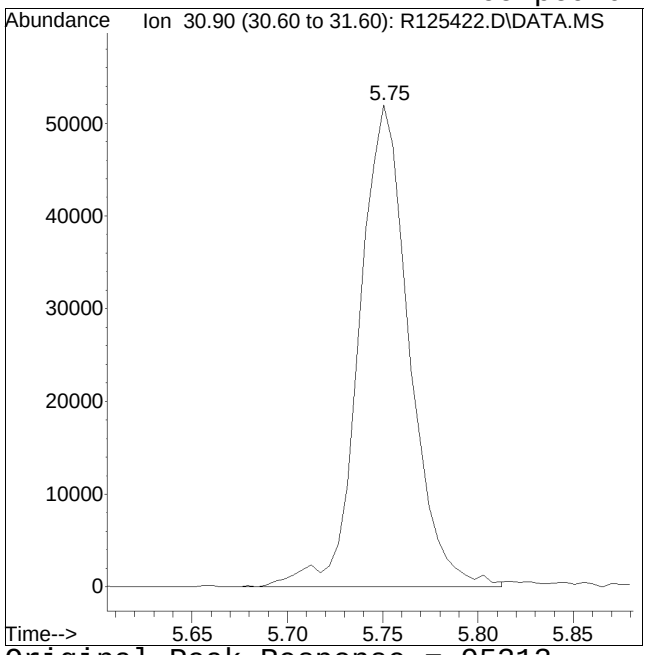


Manual Integration/Negative Proof Report

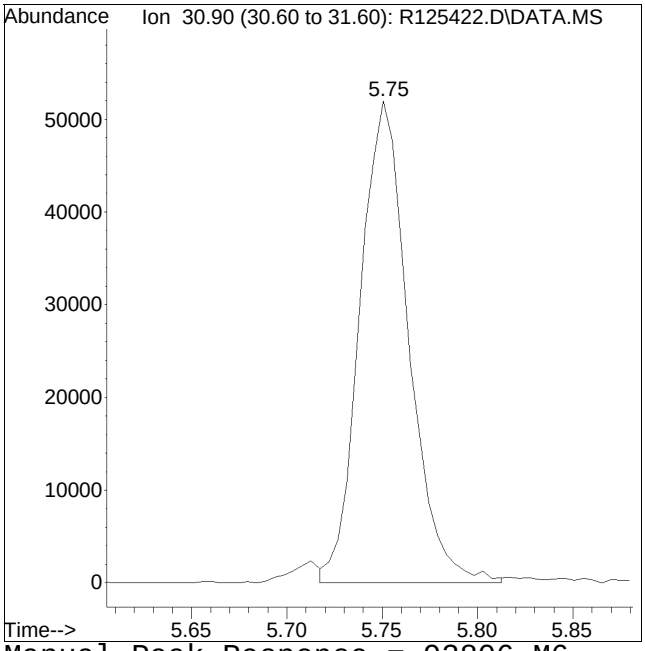
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #15: ethanol




Original Peak Response = 95313




Manual Peak Response = 92806 M6

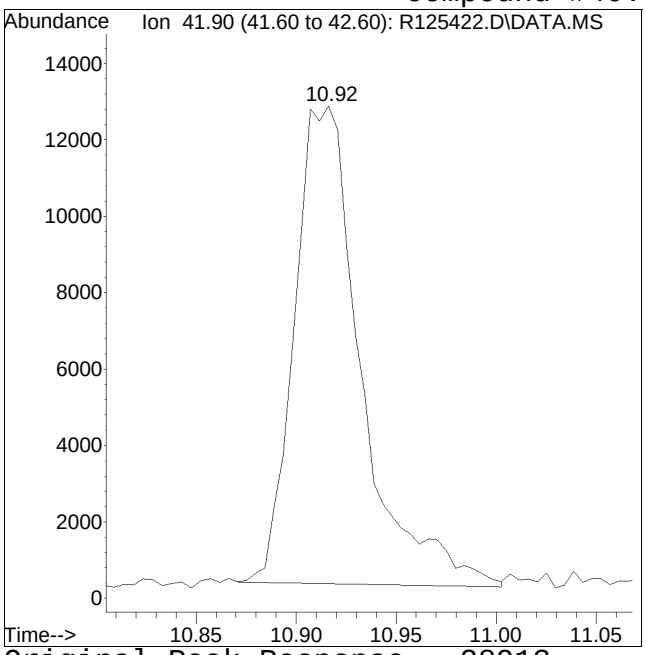
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

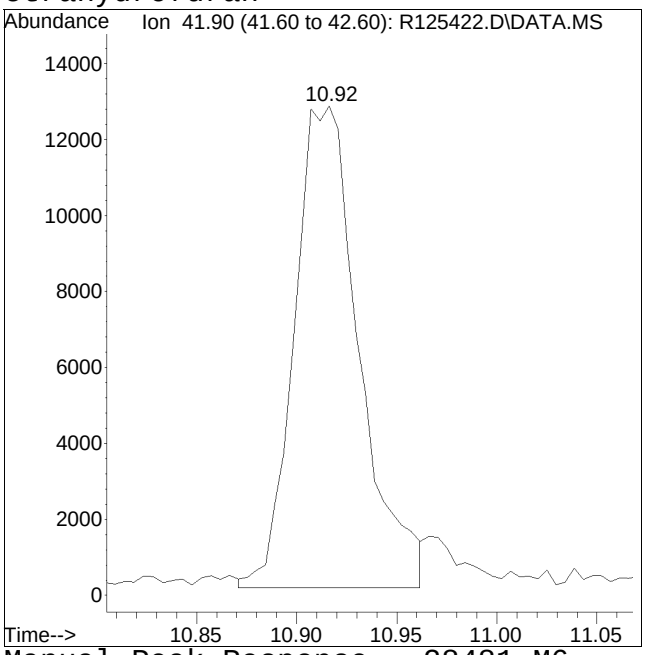
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #40: Tetrahydrofuran




Original Peak Response = 28913




Manual Peak Response = 28481 M6

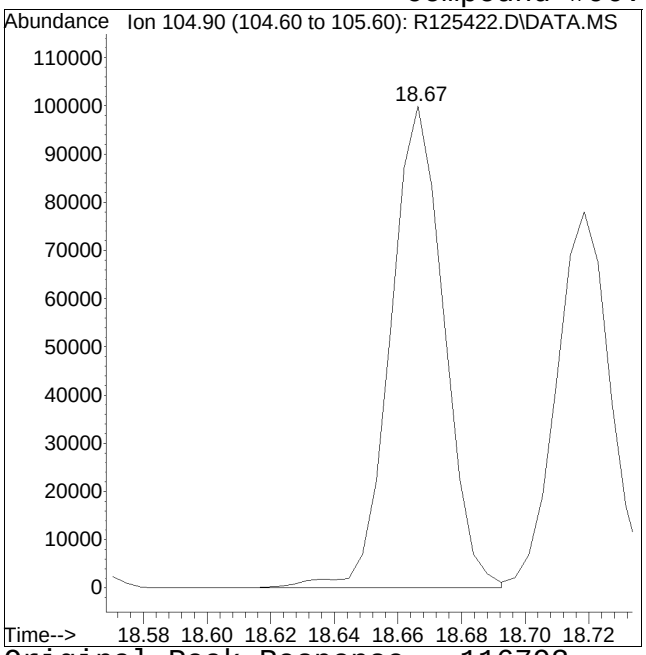
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

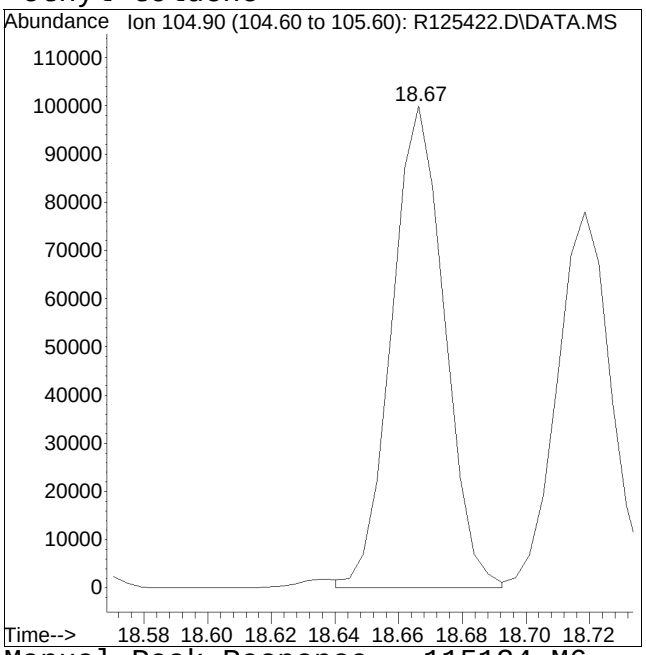
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125422.D
Date Inj'd : 12/11/2012 7:36 pm
Sample : ITO15-SIMSTD1.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #96: 4-ethyl toluene




Original Peak Response = 116793




Manual Peak Response = 115124 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD2.5
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:53:25 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 352907 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 98.01% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 729430 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 98.84% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 189135 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 98.54% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 235708 | 9.859 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.59% | | | |
| 69) toluene-D8 | 15.22 | 98 | 568554 | 10.053 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.53% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 415602 | 9.862 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.62% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 117195 | 2.642 | ppbV | 100 |
| 3) propylene | 4.08 | 41 | 50388 | 2.716 | ppbV | 91 |
| 4) propane | 4.11 | 29 | 58176 | 2.668 | ppbV | 95 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 125885 | 2.622 | ppbV | 99 |
| 6) chloromethane | 4.40 | 50 | 59060 | 2.718 | ppbV | 98 |
| 7) Freon-114 | 4.55 | 85 | 138872 | 2.614 | ppbV | 95 |
| 8) methanol | 4.64 | 31 | 112881 | 13.920 | ppbV # | 87 |
| 9) vinyl chloride | 4.71 | 62 | 52829 | 2.536 | ppbV | 99 |
| 10) 1,3-butadiene | 4.91 | 54 | 44161 | 2.647 | ppbV | 99 |
| 11) butane | 4.99 | 43 | 96166 | 2.619 | ppbV | 94 |
| 12) acetaldehyde | 4.57 | 29 | 132498 | 14.849 | ppbV | 97 |
| 13) bromomethane | 5.30 | 94 | 52589 | 2.674 | ppbV | 91 |
| 14) chloroethane | 5.56 | 64 | 24657 | 2.630 | ppbV | 99 |
| 15) ethanol | 5.75 | 31 | 236042M6 | 13.300 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 118425 | 2.653 | ppbV | 96 |
| 17) vinyl bromide | 6.04 | 106 | 52102 | 2.636 | ppbV | 100 |
| 18) acrolein | 6.22 | 56 | 27294 | 2.617 | ppbV | 92 |
| 19) acetone | 6.40 | 43 | 528559 | 13.296 | ppbV | 99 |
| 20) acetonitrile | 6.03 | 41 | 60470 | 2.632 | ppbV | 98 |
| 21) trichlorofluoromethane | 6.63 | 101 | 164575 | 2.604 | ppbV | 100 |
| 22) isopropyl alcohol | 6.76 | 45 | 140637 | 2.609 | ppbV # | 96 |
| 23) acrylonitrile | 7.04 | 53 | 50077 | 2.599 | ppbV | 92 |
| 24) pentane | 7.11 | 43 | 112846 | 2.600 | ppbV | 99 |
| 25) ethyl ether | 7.17 | 31 | 85949 | 2.636 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD2.5
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:53:25 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.47 | 61 | 90807 | 2.554 | ppbV | 97 |
| 27) tertiary butyl alcohol | 7.56 | 59 | 126636 | 2.593 | ppbV | 98 |
| 28) methylene chloride | 7.65 | 49 | 85417 | 2.698 | ppbV | 97 |
| 29) 3-chloropropene | 7.80 | 41 | 83376 | 2.637 | ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 147637 | 2.590 | ppbV # | 85 |
| 31) Freon 113 | 7.99 | 101 | 107414 | 2.569 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 89040 | 2.624 | ppbV | 98 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 101005 | 2.613 | ppbV | 93 |
| 34) MTBE | 9.16 | 73 | 124409 | 2.622 | ppbV | 99 |
| 35) vinyl acetate | 9.28 | 43 | 169030 | 2.576 | ppbV | 100 |
| 36) 2-butanone | 9.57 | 43 | 160534 | 2.985 | ppbV | 99 |
| 37) cis-1,2-dichloroethene | 10.07 | 61 | 86417 | 2.853 | ppbV | 96 |
| 38) Ethyl Acetate | 10.37 | 61 | 21733 | 2.657 | ppbV | 99 |
| 39) chloroform | 10.43 | 83 | 114832 | 2.577 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.90 | 42 | 87985M6 | 2.599 | ppbV | |
| 41) 2,2-dichloropropane | 10.45 | 77 | 97774 | 2.590 | ppbV | 97 |
| 42) 1,2-dichloroethane | 11.27 | 62 | 81422 | 2.526 | ppbV | 98 |
| 44) hexane | 10.33 | 57 | 96765 | 2.582 | ppbV | 90 |
| 45) diisopropyl ether | 10.34 | 87 | 40787 | 2.543 | ppbV | 94 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 209874 | 2.570 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 111195 | 2.561 | ppbV | 97 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 84527 | 2.597 | ppbV | 96 |
| 50) benzene | 12.08 | 78 | 154930 | 2.557 | ppbV | 97 |
| 51) thiophene | 12.24 | 84 | 96563 | 2.609 | ppbV | 96 |
| 52) carbon tetrachloride | 12.26 | 117 | 119537 | 2.487 | ppbV | 96 |
| 53) cyclohexane | 12.40 | 56 | 102327 | 2.606 | ppbV | 97 |
| 54) tert-amyl methyl ether | 12.77 | 73 | 157020 | 2.584 | ppbV | 100 |
| 55) dibromomethane | 12.99 | 93 | 79784 | 2.555 | ppbV | 98 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 68942 | 2.558 | ppbV | 97 |
| 57) bromodichloromethane | 13.24 | 83 | 123786 | 2.525 | ppbV | 98 |
| 58) 1,4-dioxane | 13.29 | 88 | 34259 | 2.502 | ppbV | 93 |
| 59) trichloroethene | 13.29 | 130 | 79824 | 2.582 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 324512 | 2.624 | ppbV | 98 |
| 61) methyl methacrylate | 13.51 | 41 | 93680 | 2.592 | ppbV | 100 |
| 62) heptane | 13.62 | 43 | 136841 | 2.577 | ppbV | 98 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 87971 | 2.547 | ppbV | 97 |
| 64) 4-methyl-2-pentanone | 14.31 | 43 | 192621 | 2.567 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.84 | 75 | 85770 | 2.460 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 70957 | 2.587 | ppbV | 95 |
| 68) toluene | 15.32 | 91 | 193584 | 2.577 | ppbV | 99 |
| 70) 2-methylthiophene | 15.38 | 97 | 151402 | 2.656 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD2.5
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:53:25 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 94325 | 2.574 | ppbV | 99 |
| 72) | 2-hexanone | 15.56 | 43 | 177837 | 2.454 | ppbV | 98 |
| 73) | 3-methylthiophene | 15.55 | 97 | 159565 | 2.679 | ppbV | 98 |
| 74) | dibromochloromethane | 15.73 | 129 | 145866 | 2.470 | ppbV | 99 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 119155 | 2.541 | ppbV | 97 |
| 76) | butyl acetate | 16.13 | 73 | 22059 | 2.629 | ppbV | 93 |
| 77) | octane | 16.22 | 85 | 55407 | 2.586 | ppbV | 99 |
| 78) | tetrachloroethene | 16.36 | 166 | 102669 | 2.546 | ppbV | 96 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 97462 | 2.479 | ppbV | 97 |
| 80) | chlorobenzene | 16.94 | 112 | 157826 | 2.496 | ppbV | 97 |
| 81) | ethylbenzene | 17.23 | 91 | 250402 | 2.539 | ppbV | 99 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 181197 | 2.657 | ppbV | 98 |
| 83) | m+p-xylene | 17.38 | 91 | 395784 | 5.132 | ppbV | 99 |
| 84) | bromoform | 17.46 | 173 | 147593 | 2.402 | ppbV | 99 |
| 85) | styrene | 17.66 | 104 | 153359 | 2.516 | ppbV | 95 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 167961 | 2.512 | ppbV | 98 |
| 87) | o-xylene | 17.74 | 91 | 202221 | 2.557 | ppbV | 99 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 128574 | 2.617 | ppbV | 98 |
| 89) | nonane | 17.88 | 43 | 224761 | 2.657 | ppbV | 97 |
| 91) | isopropylbenzene | 18.18 | 105 | 299777 | 2.581 | ppbV | 99 |
| 92) | bromobenzene | 18.27 | 77 | 155291 | 2.568 | ppbV | 98 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 85330 | 2.607 | ppbV | 99 |
| 94) | n-propylbenzene | 18.56 | 120 | 85974 | 2.561 | ppbV | 97 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 228274 | 2.567 | ppbV | 98 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 296911M6 | 2.549 | ppbV | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 239112 | 2.495 | ppbV | 99 |
| 98) | tert-butylbenzene | 19.02 | 119 | 279702 | 2.504 | ppbV | 99 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 243681 | 2.490 | ppbV | 97 |
| 100) | decane | 19.07 | 57 | 215961 | 2.585 | ppbV | 97 |
| 101) | Benzyl Chloride | 19.14 | 91 | 204769 | 2.309 | ppbV | 99 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 180968 | 2.475 | ppbV | 99 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 185280 | 2.490 | ppbV | 98 |
| 104) | sec-butylbenzene | 19.23 | 105 | 385479 | 2.587 | ppbV | 99 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 223970 | 2.759 | ppbV | 99 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 349972 | 2.552 | ppbV | 98 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 173398 | 2.471 | ppbV | 98 |
| 108) | n-butylbenzene | 19.66 | 91 | 322869 | 2.560 | ppbV | 99 |
| 109) | indan | 19.51 | 117 | 236826 | 2.679 | ppbV | 99 |
| 110) | indene | 19.59 | 115 | 235599 | 2.703 | ppbV | 100 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 86394 | 2.521 | ppbV | 97 |
| 112) | undecane | 20.02 | 57 | 241591 | 2.514 | ppbV # | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD2.5
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:53:25 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

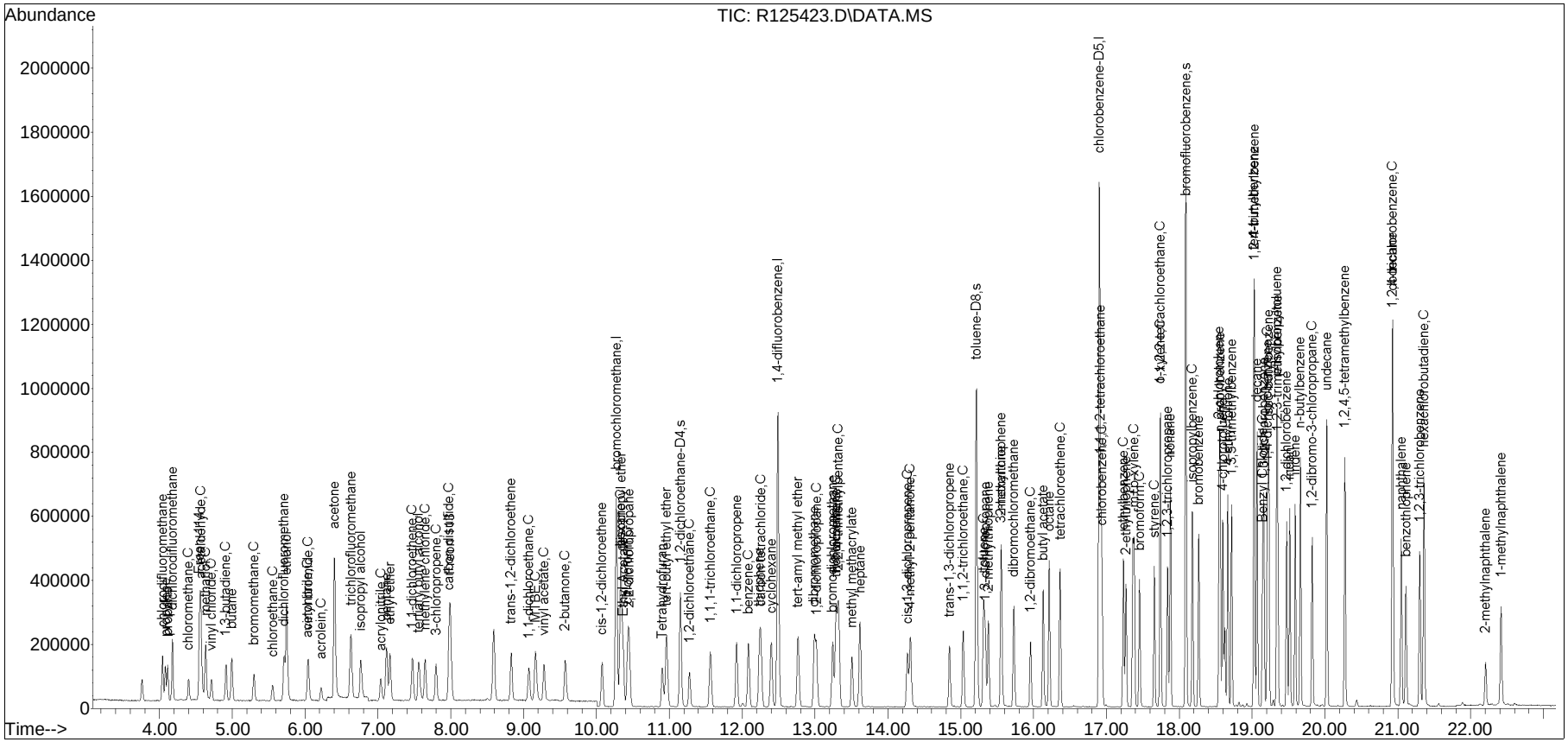
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 319714 | 2.364 | ppbV | 99 |
| 114) dodecane | 20.93 | 57 | 234818 | 2.240 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 137070 | 2.196 | ppbV | 99 |
| 116) naphthalene | 21.05 | 128 | 345603 | 2.255 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 131598 | 2.068 | ppbV | 98 |
| 118) benzothiophene | 21.11 | 134 | 233244 | 2.154 | ppbV | 99 |
| 119) hexachlorobutadiene | 21.36 | 225 | 116119 | 2.236 | ppbV | 98 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 59318 | 2.093 | ppbV | 100 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 140845 | 1.722 | ppbV | 99 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125423.D
Acq On : 11 Dec 2012 8:08 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD2.5
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:53:25 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

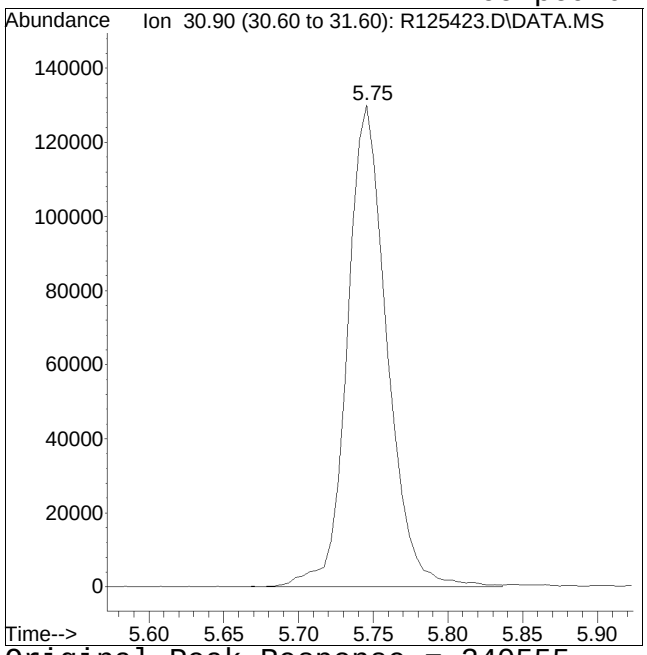


Manual Integration/Negative Proof Report

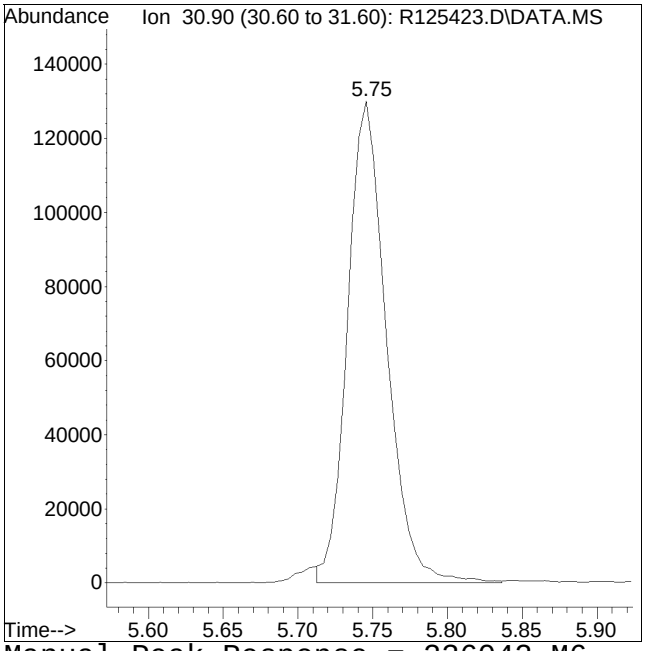
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #15: ethanol




Original Peak Response = 240555




Manual Peak Response = 236042 M6

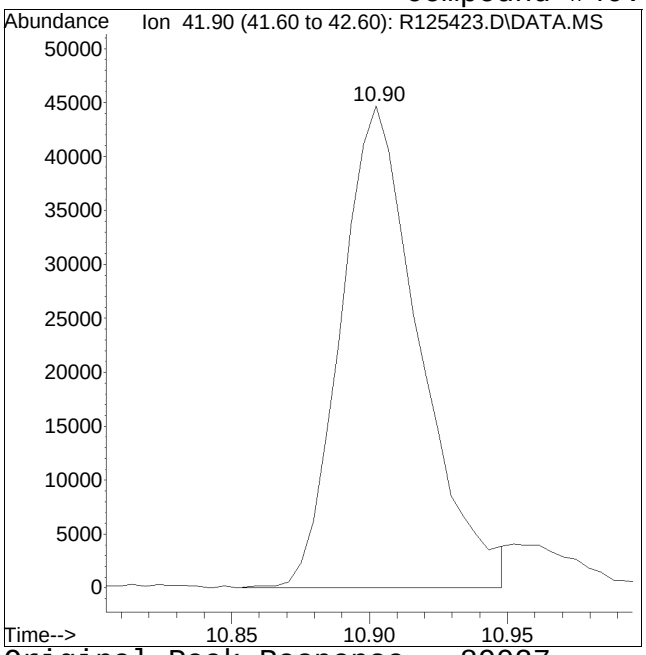
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

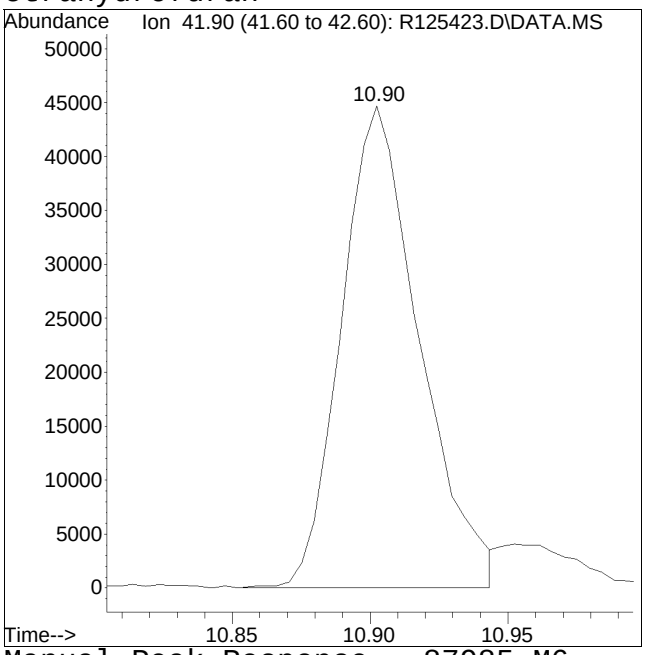
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #40: Tetrahydrofuran




Original Peak Response = 89027




Manual Peak Response = 87985 M6

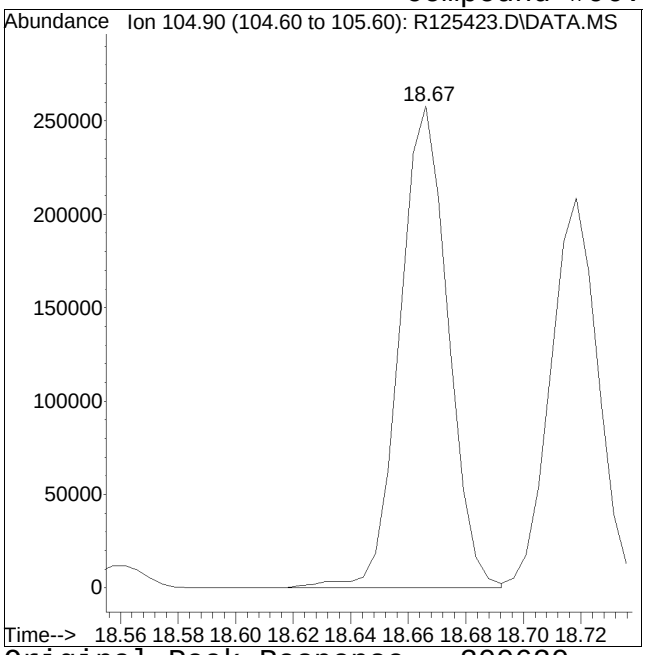
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

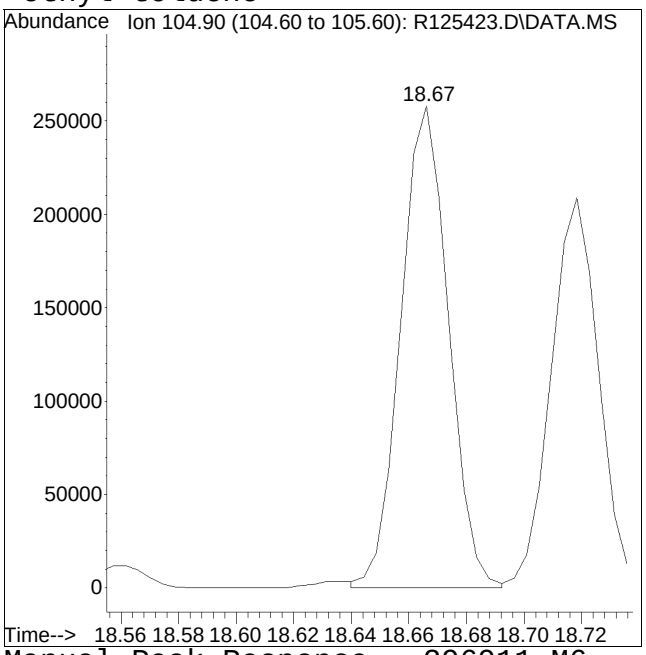
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125423.D
Date Inj'd : 12/11/2012 8:08 pm
Sample : ITO15-SIMSTD2.5

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #96: 4-ethyl toluene




Original Peak Response = 300620




Manual Peak Response = 296911 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD5.0
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:55:18 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 358820 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 99.65% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 736244 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 99.77% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 188660 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 98.30% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 238499 | 9.883 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.83% | | | |
| 69) toluene-D8 | 15.21 | 98 | 573762 | 10.171 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.71% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 423322 | 10.070 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.70% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 227683 | 5.048 | ppbV | 99 |
| 3) propylene | 4.08 | 41 | 100711 | 5.338 | ppbV | 99 |
| 4) propane | 4.11 | 29 | 113552 | 5.121 | ppbV | 98 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 238778 | 4.892 | ppbV | 99 |
| 6) chloromethane | 4.40 | 50 | 112060 | 5.072 | ppbV | 99 |
| 7) Freon-114 | 4.55 | 85 | 271850 | 5.034 | ppbV | 99 |
| 8) methanol | 4.63 | 31 | 222957 | 27.042 | ppbV | 94 |
| 9) vinyl chloride | 4.71 | 62 | 106406 | 5.023 | ppbV | 99 |
| 10) 1,3-butadiene | 4.92 | 54 | 83888 | 4.946 | ppbV | 97 |
| 11) butane | 4.99 | 43 | 191639 | 5.134 | ppbV | 98 |
| 12) acetaldehyde | 4.57 | 29 | 253845 | 27.979 | ppbV | 98 |
| 13) bromomethane | 5.29 | 94 | 100227 | 5.012 | ppbV | 96 |
| 14) chloroethane | 5.56 | 64 | 47434 | 4.977 | ppbV | 92 |
| 15) ethanol | 5.75 | 31 | 462136M6 | 25.610 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 230412 | 5.077 | ppbV | 99 |
| 17) vinyl bromide | 6.04 | 106 | 100708 | 5.012 | ppbV | 100 |
| 18) acrolein | 6.22 | 56 | 52489 | 4.949 | ppbV | 98 |
| 19) acetone | 6.40 | 43 | 1035298 | 25.613 | ppbV | 99 |
| 20) acetonitrile | 6.03 | 41 | 115800 | 4.956 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.63 | 101 | 322517 | 5.020 | ppbV | 99 |
| 22) isopropyl alcohol | 6.76 | 45 | 274310 | 5.004 | ppbV | 98 |
| 23) acrylonitrile | 7.04 | 53 | 99446 | 5.076 | ppbV | 99 |
| 24) pentane | 7.12 | 43 | 221737M6 | 5.024 | ppbV | |
| 25) ethyl ether | 7.16 | 31 | 167711 | 5.059 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD5.0
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:55:18 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 181522 | 5.022 | ppbV | 98 |
| 27) tertiary butyl alcohol | 7.55 | 59 | 247784 | 4.989 | ppbV | 99 |
| 28) methylene chloride | 7.65 | 49 | 161984 | 5.032 | ppbV | 99 |
| 29) 3-chloropropene | 7.80 | 41 | 163163 | 5.075 | ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 290916 | 5.019 | ppbV | 94 |
| 31) Freon 113 | 7.99 | 101 | 210976 | 4.962 | ppbV | 99 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 174573 | 5.059 | ppbV | 98 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 199310 | 5.071 | ppbV | 100 |
| 34) MTBE | 9.16 | 73 | 243923 | 5.056 | ppbV | 97 |
| 35) vinyl acetate | 9.28 | 43 | 336103 | 5.037 | ppbV | 99 |
| 36) 2-butanone | 9.57 | 43 | 274028 | 5.011 | ppbV | 99 |
| 37) cis-1,2-dichloroethene | 10.07 | 61 | 170662 | 5.542 | ppbV | 97 |
| 38) Ethyl Acetate | 10.36 | 61 | 41165 | 4.949 | ppbV | 83 |
| 39) chloroform | 10.43 | 83 | 227991 | 5.033 | ppbV | 98 |
| 40) Tetrahydrofuran | 10.90 | 42 | 174177 | 5.061 | ppbV | 98 |
| 41) 2,2-dichloropropane | 10.45 | 77 | 193369 | 5.038 | ppbV | 99 |
| 42) 1,2-dichloroethane | 11.27 | 62 | 162899 | 4.970 | ppbV | 99 |
| 44) hexane | 10.33 | 57 | 190471 | 5.036 | ppbV | 91 |
| 45) diisopropyl ether | 10.33 | 87 | 80063 | 4.946 | ppbV | 98 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 415913 | 5.045 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 220666 | 5.035 | ppbV | 100 |
| 49) 1,1-dichloropropene | 11.92 | 75 | 163702 | 4.984 | ppbV | 98 |
| 50) benzene | 12.09 | 78 | 304844 | 4.984 | ppbV | 97 |
| 51) thiophene | 12.24 | 84 | 191570 | 5.128 | ppbV | 93 |
| 52) carbon tetrachloride | 12.26 | 117 | 241131 | 4.970 | ppbV | 96 |
| 53) cyclohexane | 12.40 | 56 | 198654 | 5.013 | ppbV | 99 |
| 54) tert-amyl methyl ether | 12.76 | 73 | 305964 | 4.989 | ppbV | 98 |
| 55) dibromomethane | 12.99 | 93 | 160678 | 5.098 | ppbV | 98 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 134377 | 4.939 | ppbV | 98 |
| 57) bromodichloromethane | 13.25 | 83 | 250215 | 5.057 | ppbV | 97 |
| 58) 1,4-dioxane | 13.29 | 88 | 69157 | 5.004 | ppbV | 93 |
| 59) trichloroethene | 13.29 | 130 | 157464 | 5.046 | ppbV | 94 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 636401 | 5.099 | ppbV | 100 |
| 61) methyl methacrylate | 13.51 | 41 | 186767 | 5.120 | ppbV | 99 |
| 62) heptane | 13.62 | 43 | 267885 | 4.998 | ppbV | 96 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 169995 | 4.876 | ppbV | 98 |
| 64) 4-methyl-2-pentanone | 14.30 | 43 | 379710 | 5.013 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.84 | 75 | 175435 | 4.986 | ppbV | 98 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 136819 | 4.942 | ppbV | 99 |
| 68) toluene | 15.31 | 91 | 381721 | 5.095 | ppbV | 100 |
| 70) 2-methylthiophene | 15.38 | 97 | 300376 | 5.283 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD5.0
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:55:18 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 188299 | 5.151 | ppbV | 99 |
| 72) | 2-hexanone | 15.56 | 43 | 362973 | 5.022 | ppbV | 99 |
| 73) | 3-methylthiophene | 15.55 | 97 | 313611 | 5.278 | ppbV | 97 |
| 74) | dibromochloromethane | 15.73 | 129 | 295467 | 5.017 | ppbV | 98 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 239336 | 5.117 | ppbV | 98 |
| 76) | butyl acetate | 16.13 | 73 | 41784 | 4.992 | ppbV | 94 |
| 77) | octane | 16.22 | 85 | 110346 | 5.163 | ppbV | 99 |
| 78) | tetrachloroethene | 16.36 | 166 | 202865 | 5.043 | ppbV | 99 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 198984 | 5.075 | ppbV | 98 |
| 80) | chlorobenzene | 16.94 | 112 | 315706 | 5.005 | ppbV | 99 |
| 81) | ethylbenzene | 17.23 | 91 | 501035 | 5.093 | ppbV | 100 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 357974 | 5.262 | ppbV | 100 |
| 83) | m+p-xylene | 17.38 | 91 | 774718 | 10.070 | ppbV | 99 |
| 84) | bromoform | 17.46 | 173 | 297208 | 4.849 | ppbV | 99 |
| 85) | styrene | 17.66 | 104 | 306408 | 5.039 | ppbV | 100 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 338944 | 5.083 | ppbV | 100 |
| 87) | o-xylene | 17.74 | 91 | 404624 | 5.129 | ppbV | 98 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 249461 | 5.091 | ppbV | 99 |
| 89) | nonane | 17.88 | 43 | 436038 | 5.167 | ppbV | 100 |
| 91) | isopropylbenzene | 18.18 | 105 | 584366 | 5.045 | ppbV | 99 |
| 92) | bromobenzene | 18.27 | 77 | 310502 | 5.147 | ppbV | 98 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 168242 | 5.153 | ppbV | 98 |
| 94) | n-propylbenzene | 18.56 | 120 | 168838 | 5.043 | ppbV | 100 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 456594 | 5.147 | ppbV | 98 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 588908M6 | 5.069 | ppbV | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 472061 | 4.937 | ppbV | 98 |
| 98) | tert-butylbenzene | 19.02 | 119 | 557083 | 5.001 | ppbV | 99 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 481444 | 4.933 | ppbV | 97 |
| 100) | decane | 19.07 | 57 | 422943 | 5.075 | ppbV | 96 |
| 101) | Benzyl Chloride | 19.14 | 91 | 431290 | 4.876 | ppbV | 100 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 364797 | 5.002 | ppbV | 99 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 367652 | 4.953 | ppbV | 100 |
| 104) | sec-butylbenzene | 19.23 | 105 | 772064 | 5.195 | ppbV | 100 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 450565 | 5.564 | ppbV | 98 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 701249 | 5.127 | ppbV | 99 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 349190 | 4.989 | ppbV | 99 |
| 108) | n-butylbenzene | 19.66 | 91 | 643505 | 5.116 | ppbV | 99 |
| 109) | indan | 19.51 | 117 | 468438 | 5.312 | ppbV | 99 |
| 110) | indene | 19.59 | 115 | 476977 | 5.486 | ppbV | 99 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 176661 | 5.167 | ppbV | 97 |
| 112) | undecane | 20.02 | 57 | 500454 | 5.220 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD5.0
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:55:18 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

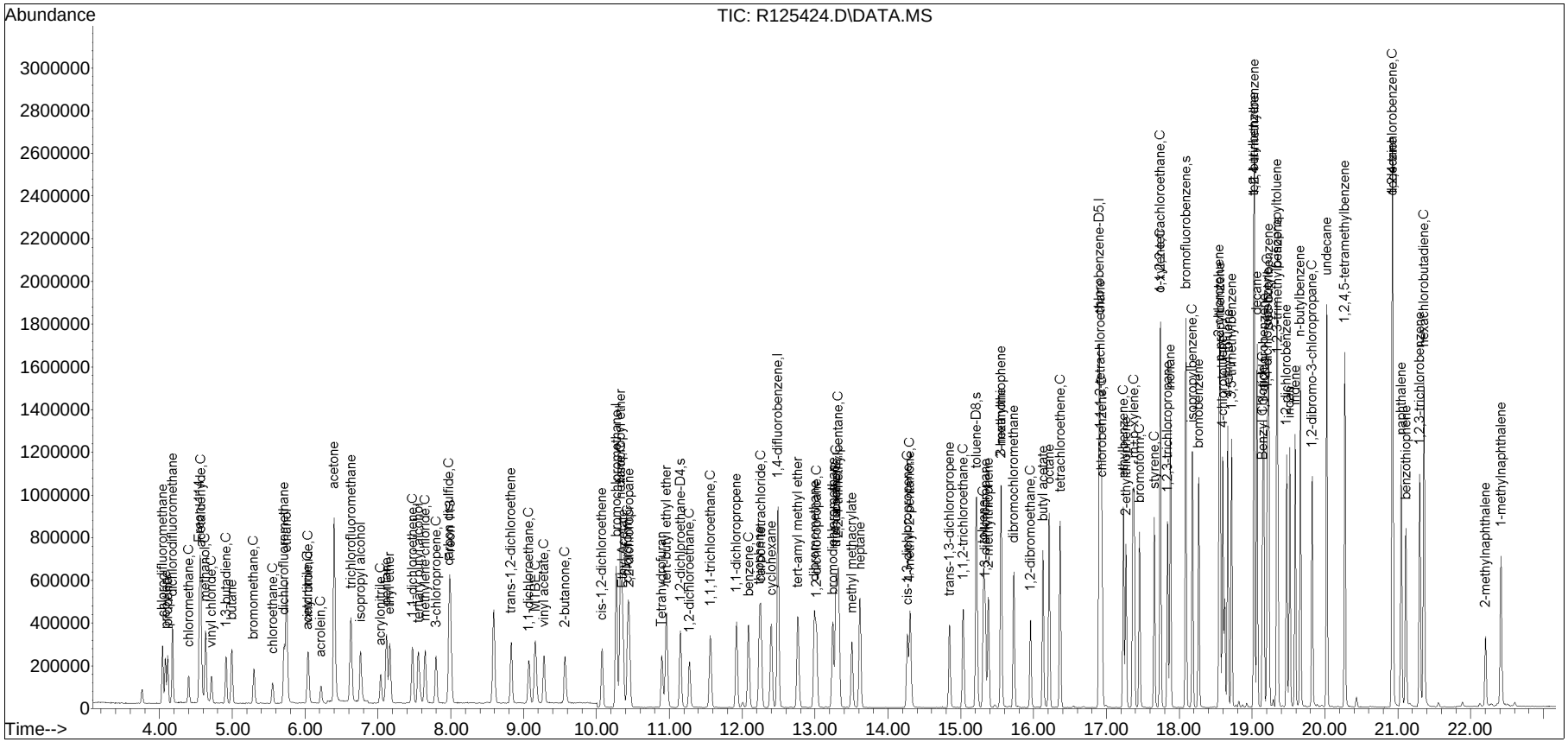
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 673673 | 4.994 | ppbV | 98 |
| 114) dodecane | 20.93 | 57 | 520067 | 4.974 | ppbV | 100 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 303453 | 4.874 | ppbV | 99 |
| 116) naphthalene | 21.05 | 128 | 752338 | 4.921 | ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 293576 | 4.625 | ppbV | 97 |
| 118) benzothiophene | 21.11 | 134 | 519489 | 4.811 | ppbV | 100 |
| 119) hexachlorobutadiene | 21.36 | 225 | 250411 | 4.835 | ppbV | 100 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 145710 | 5.153 | ppbV | 99 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 331697 | 4.066 | ppbV | 99 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125424.D
Acq On : 11 Dec 2012 8:40 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD5.0
Misc : WG578983
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 12 09:55:18 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

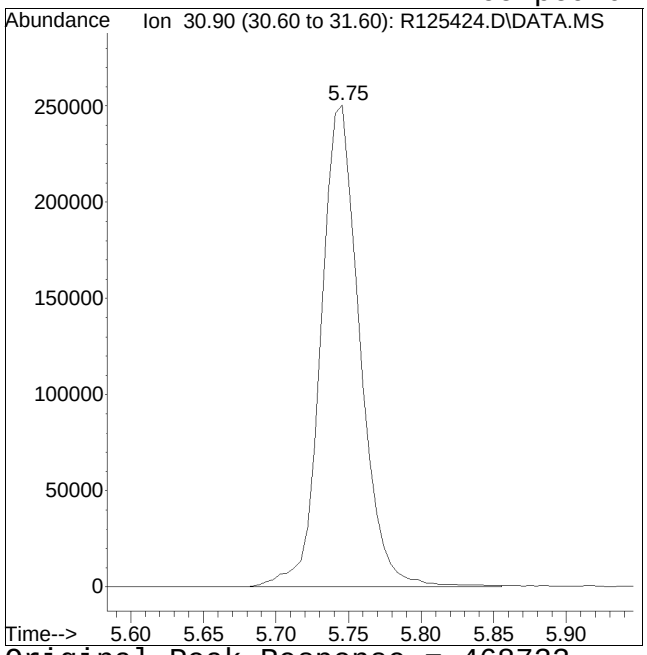


Manual Integration/Negative Proof Report

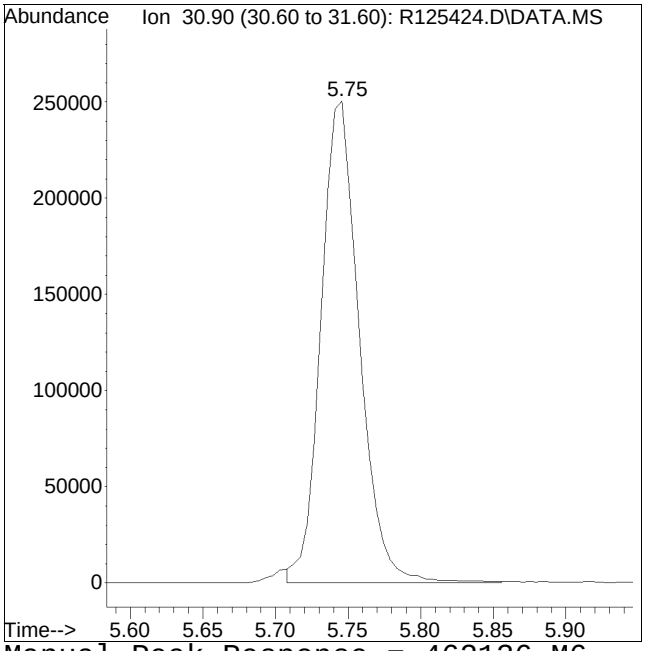
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #15: ethanol




Original Peak Response = 468733




Manual Peak Response = 462136 M6

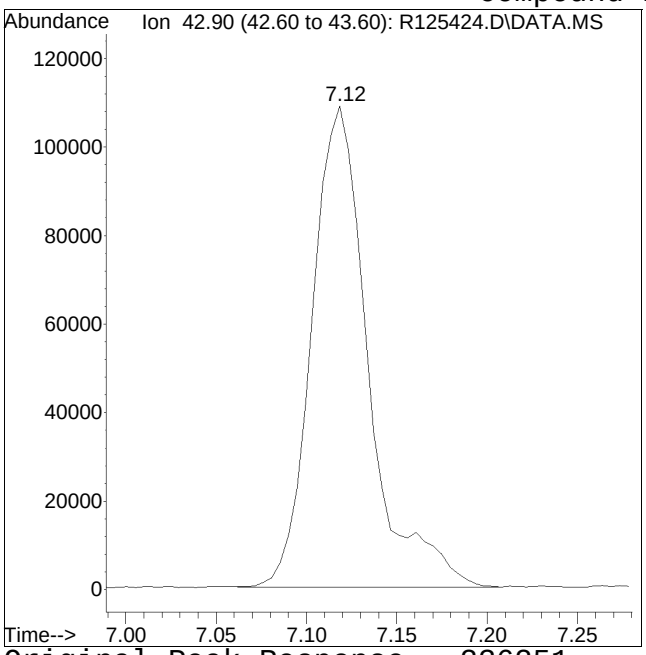
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

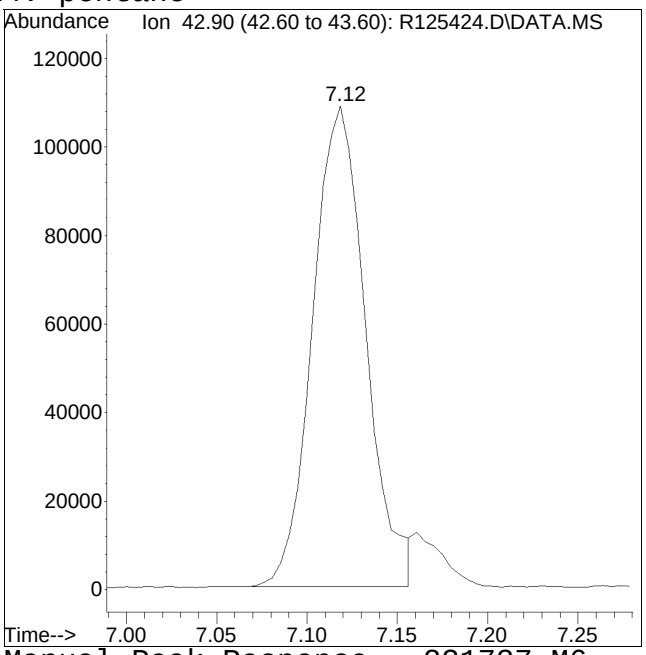
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #24: pentane




Original Peak Response = 236251




Manual Peak Response = 221737 M6

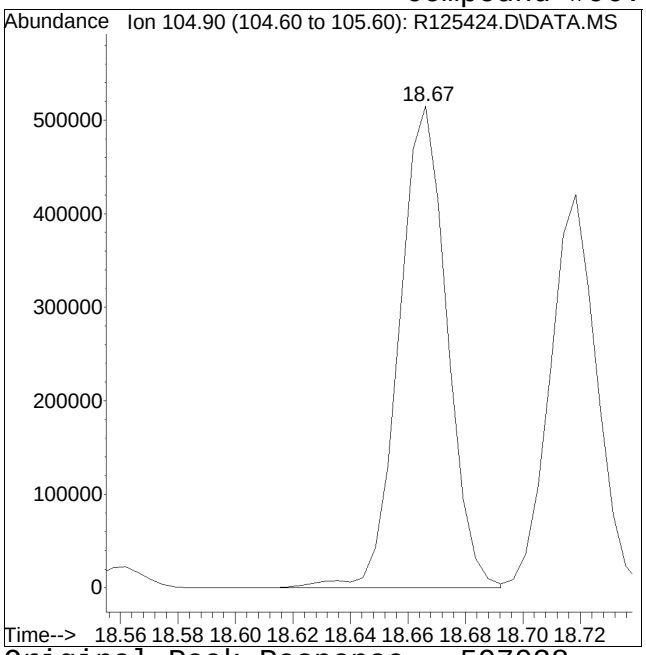
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

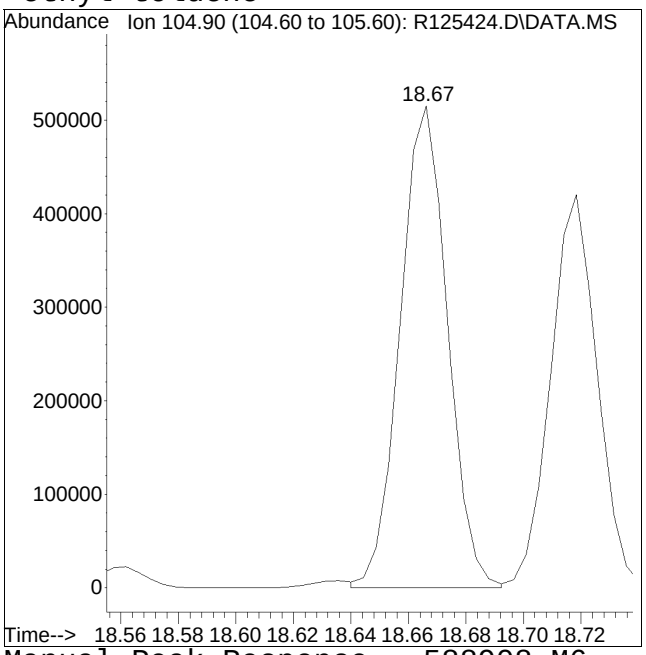
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125424.D
Date Inj'd : 12/11/2012 8:40 pm
Sample : ITO15-SIMSTD5.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #96: 4-ethyl toluene




Original Peak Response = 597038




Manual Peak Response = 588908 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD10.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 09:43:24 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Nov 03 17:24:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 360069 | 10.000 ppbV | # 0.00 |
| Standard Area = 360069 | | | Recovery | = 100.00% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 737954 | 10.000 ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery | = 100.00% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 191928 | 10.000 ppbV | # 0.00 |
| Standard Area = 191928 | | | Recovery | = 100.00% | |
| System Monitoring Compounds | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 241881 | 10.645 ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = 106.45% | |
| 69) toluene-D8 | 15.22 | 98 | 573897 | 8.395 ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = 83.95% | |
| 90) bromofluorobenzene | 18.09 | 95 | 427645 | 8.292 ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery | = 82.92% | |
| Target Compounds | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 452646 | 8.962 ppbV # | 88 |
| 3) propylene | 4.08 | 41 | 189315 | 9.130 ppbV | 97 |
| 4) propane | 4.11 | 29 | 222506 | 9.904 ppbV | 96 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 489830 | 9.539 ppbV | 97 |
| 6) chloromethane | 4.40 | 50 | 221689 | 8.493 ppbV | 97 |
| 7) Freon-114 | 4.55 | 85 | 541943 | 7.214 ppbV | 93 |
| 8) methanol | 4.63 | 31 | 413679 | 36.215 ppbV | 98 |
| 9) vinyl chloride | 4.71 | 62 | 212558 | 7.126 ppbV | 96 |
| 10) 1,3-butadiene | 4.92 | 54 | 170196 | 8.203 ppbV | 97 |
| 11) butane | 4.99 | 43 | 374589 | 8.167 ppbV | 98 |
| 12) acetaldehyde | 4.57 | 29 | 455217 | 38.346 ppbV | 99 |
| 13) bromomethane | 5.30 | 94 | 200674 | 6.110 ppbV | 97 |
| 14) chloroethane | 5.55 | 64 | 95644 | 6.920 ppbV | 99 |
| 15) ethanol | 5.74 | 31 | 905414 | 40.658 ppbV | 98 |
| 16) dichlorofluoromethane | 5.71 | 67 | 455374 | 6.063 ppbV # | 96 |
| 17) vinyl bromide | 6.04 | 106 | 201648 | 6.605 ppbV | 100 |
| 18) acrolein | 6.22 | 56 | 106424 | 7.687 ppbV | 95 |
| 19) acetone | 6.40 | 43 | 2028051 | 40.410 ppbV | 95 |
| 20) acetonitrile | 6.03 | 41 | 234448 | 8.601 ppbV | 100 |
| 21) trichlorofluoromethane | 6.63 | 101 | 644718 | 6.467 ppbV | 98 |
| 22) isopropyl alcohol | 6.76 | 45 | 550060 | 8.394 ppbV | 98 |
| 23) acrylonitrile | 7.03 | 53 | 196595 | 8.137 ppbV | 95 |
| 24) pentane | 7.12 | 43 | 442907M6 | 8.563 ppbV | |
| 25) ethyl ether | 7.16 | 31 | 332681 | 8.875 ppbV | 93 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD10.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 09:43:24 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Nov 03 17:24:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 26) | 1,1-dichloroethene | 7.48 | 61 | 362734 | 7.324 | ppbV | | 91 |
| 27) | tertiary butyl alcohol | 7.55 | 59 | 498371 | 7.482 | ppbV | | 94 |
| 28) | methylene chloride | 7.65 | 49 | 323018 | 8.395 | ppbV | # | 72 |
| 29) | 3-chloropropene | 7.80 | 41 | 322596 | 9.085 | ppbV | # | 92 |
| 30) | carbon disulfide | 7.98 | 76 | 581681 | 5.932 | ppbV | # | 90 |
| 31) | Freon 113 | 7.99 | 101 | 426654 | 6.704 | ppbV | | 93 |
| 32) | trans-1,2-dichloroethene | 8.83 | 61 | 346262 | 7.141 | ppbV | | 91 |
| 33) | 1,1-dichloroethane | 9.07 | 63 | 394435 | 6.867 | ppbV | | 99 |
| 34) | MTBE | 9.16 | 73 | 484133 | 5.982 | ppbV | # | 83 |
| 35) | vinyl acetate | 9.28 | 43 | 669586 | 8.610 | ppbV | # | 94 |
| 36) | 2-butanone | 9.56 | 43 | 548787 | 8.029 | ppbV | # | 88 |
| 37) | cis-1,2-dichloroethene | 10.08 | 61 | 309014 | 7.308 | ppbV | | 90 |
| 38) | Ethyl Acetate | 10.36 | 61 | 83461 | 8.022 | ppbV | # | 29 |
| 39) | chloroform | 10.43 | 83 | 454588 | 7.170 | ppbV | # | 94 |
| 40) | Tetrahydrofuran | 10.89 | 42 | 345376 | 10.151 | ppbV | # | 78 |
| 41) | 2,2-dichloropropane | 10.45 | 77 | 385144 | 6.691 | ppbV | # | 82 |
| 42) | 1,2-dichloroethane | 11.27 | 62 | 328925 | 7.726 | ppbV | # | 93 |
| 44) | hexane | 10.33 | 57 | 379106 | 11.772 | ppbV | # | 75 |
| 45) | diisopropyl ether | 10.33 | 87 | 162235 | 9.339 | ppbV | # | 21 |
| 46) | tert-butyl ethyl ether | 10.96 | 59 | 826256 | 10.655 | ppbV | | 93 |
| 48) | 1,1,1-trichloroethane | 11.56 | 97 | 439289 | 9.605 | ppbV | | 95 |
| 49) | 1,1-dichloropropene | 11.92 | 75 | 329244 | 8.590 | ppbV | # | 79 |
| 50) | benzene | 12.08 | 78 | 613097 | 9.257 | ppbV | # | 84 |
| 51) | thiophene | 12.24 | 84 | 374474 | 8.816 | ppbV | # | 76 |
| 52) | carbon tetrachloride | 12.26 | 117 | 486286 | 9.751 | ppbV | | 98 |
| 53) | cyclohexane | 12.40 | 56 | 397216 | 11.840 | ppbV | # | 86 |
| 54) | tert-amyl methyl ether | 12.76 | 73 | 614727 | 8.935 | ppbV | # | 84 |
| 55) | dibromomethane | 12.99 | 93 | 315882 | 8.940 | ppbV | | 94 |
| 56) | 1,2-dichloropropane | 13.02 | 63 | 272699 | 10.584 | ppbV | | 94 |
| 57) | bromodichloromethane | 13.24 | 83 | 495939 | 8.931 | ppbV | | 97 |
| 58) | 1,4-dioxane | 13.29 | 88 | 138533 | 9.360 | ppbV | | 85 |
| 59) | trichloroethene | 13.29 | 130 | 312768 | 9.961 | ppbV | | 97 |
| 60) | 2,2,4-trimethylpentane | 13.32 | 57 | 1251099 | 11.653 | ppbV | | 98 |
| 61) | methyl methacrylate | 13.50 | 41 | 365640 | 13.278 | ppbV | # | 78 |
| 62) | heptane | 13.62 | 43 | 537228 | 12.911 | ppbV | # | 94 |
| 63) | cis-1,3-dichloropropene | 14.27 | 75 | 349462 | 9.170 | ppbV | # | 84 |
| 64) | 4-methyl-2-pentanone | 14.30 | 43 | 759280 | 13.121 | ppbV | # | 92 |
| 65) | trans-1,3-dichloropropene | 14.84 | 75 | 352668 | 9.045 | ppbV | # | 84 |
| 66) | 1,1,2-trichloroethane | 15.03 | 97 | 277478 | 9.725 | ppbV | | 95 |
| 68) | toluene | 15.32 | 91 | 762238 | 7.680 | ppbV | | 100 |
| 70) | 2-methylthiophene | 15.38 | 97 | 578420 | 8.249 | ppbV | # | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD10.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 09:43:24 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Nov 03 17:24:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 371861 | 7.356 | ppbV # | 71 |
| 72) | 2-hexanone | 15.55 | 43 | 735264 | 10.761 | ppbV # | 91 |
| 73) | 3-methylthiophene | 15.55 | 97 | 604433 | 7.606 | ppbV # | 95 |
| 74) | dibromochloromethane | 15.73 | 129 | 599191 | 8.364 | ppbV | 99 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 475818 | 7.947 | ppbV | 98 |
| 76) | butyl acetate | 16.13 | 73 | 85144 | 8.087 | ppbV # | 32 |
| 77) | octane | 16.22 | 85 | 217423 | 7.431 | ppbV # | 47 |
| 78) | tetrachloroethene | 16.36 | 166 | 409261 | 8.395 | ppbV | 96 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 398908 | 8.386 | ppbV | 98 |
| 80) | chlorobenzene | 16.94 | 112 | 641686 | 8.290 | ppbV | 94 |
| 81) | ethylbenzene | 17.23 | 91 | 1000837 | 7.967 | ppbV | 99 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 692071 | 7.713 | ppbV # | 93 |
| 83) | m+p-xylene | 17.38 | 91 | 1565278 | 15.791 | ppbV | 97 |
| 84) | bromoform | 17.46 | 173 | 623514 | 8.546 | ppbV | 100 |
| 85) | styrene | 17.66 | 104 | 618622 | 7.934 | ppbV | 97 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 678398 | 8.143 | ppbV | 100 |
| 87) | o-xylene | 17.74 | 91 | 802502 | 7.986 | ppbV | 97 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 498466 | 7.198 | ppbV # | 90 |
| 89) | nonane | 17.88 | 43 | 858508 | 11.080 | ppbV # | 90 |
| 91) | isopropylbenzene | 18.18 | 105 | 1178413 | 8.062 | ppbV | 100 |
| 92) | bromobenzene | 18.27 | 77 | 613749 | 7.427 | ppbV | 92 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 332128 | 8.147 | ppbV | 88 |
| 94) | n-propylbenzene | 18.56 | 120 | 340607 | 8.202 | ppbV | 85 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 902416 | 7.671 | ppbV | 98 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 1181802M6 | 8.047 | ppbV | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 972663 | 8.264 | ppbV | 99 |
| 98) | tert-butylbenzene | 19.02 | 119 | 1133346 | 8.661 | ppbV | 100 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 992960 | 8.628 | ppbV | 96 |
| 100) | decane | 19.07 | 57 | 847894 | 10.019 | ppbV | 88 |
| 101) | Benzyl Chloride | 19.14 | 91 | 899804 | 8.276 | ppbV | 98 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 741952 | 8.664 | ppbV | 94 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 755129 | 8.735 | ppbV | 98 |
| 104) | sec-butylbenzene | 19.23 | 105 | 1511803 | 8.171 | ppbV | 98 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 823880 | 8.516 | ppbV | 98 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 1391421 | 8.531 | ppbV | 98 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 711978 | 8.718 | ppbV | 96 |
| 108) | n-butylbenzene | 19.66 | 91 | 1279691 | 8.010 | ppbV | 98 |
| 109) | indan | 19.51 | 117 | 897077 | 9.453 | ppbV | 99 |
| 110) | indene | 19.59 | 115 | 884522 | 10.054 | ppbV | 100 |
| 111) | 1,2-dibromo-3-chloropr... | 19.82 | 75 | 347822 | 7.439 | ppbV # | 81 |
| 112) | undecane | 20.02 | 57 | 975263 | 10.307 | ppbV # | 87 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD10.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 09:43:24 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Nov 03 17:24:06 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

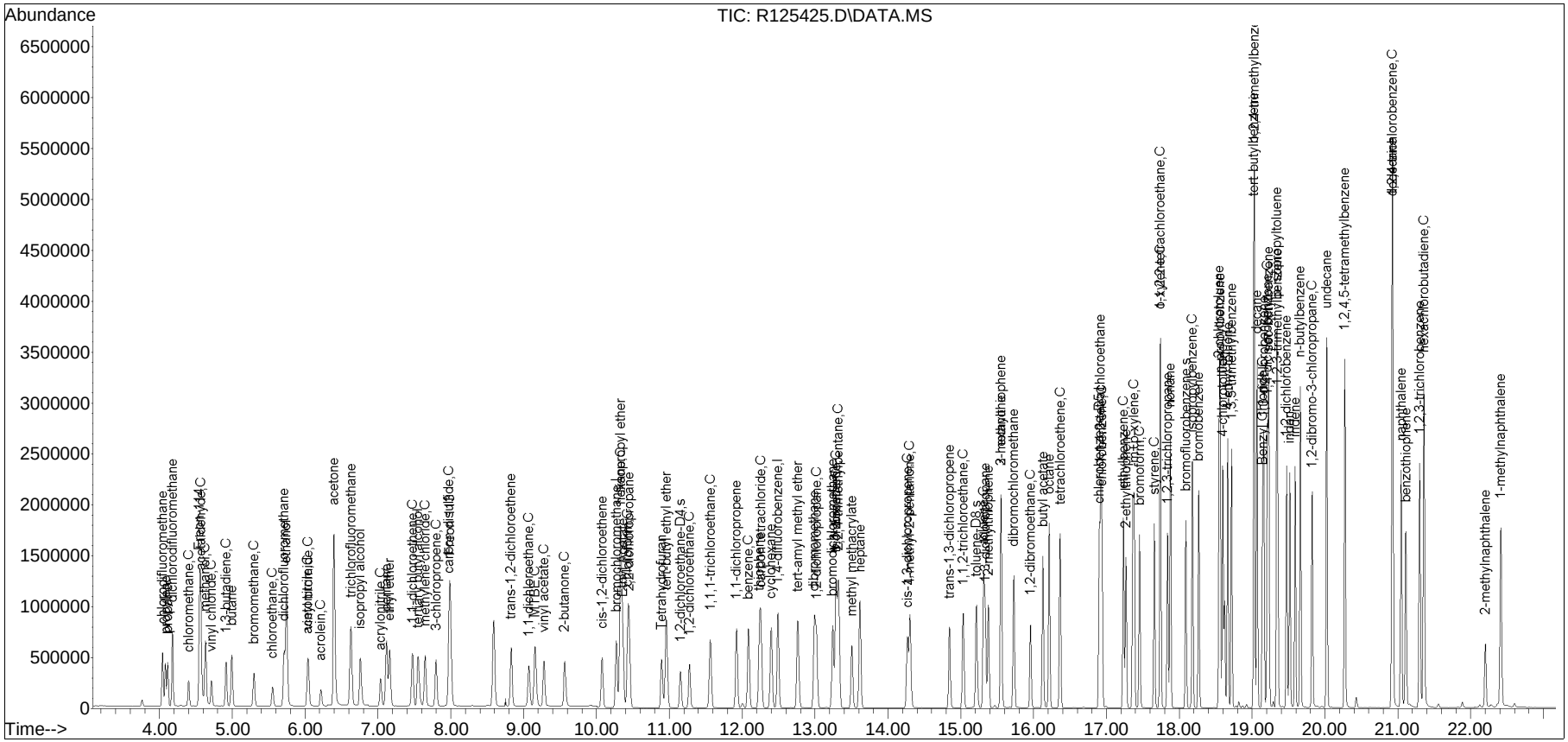
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 1372282 | 9.281 | ppbV | 98 |
| 114) dodecane | 20.93 | 57 | 1063603 | 11.162 | ppbV | 87 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 633387 | 9.328 | ppbV | 99 |
| 116) naphthalene | 21.05 | 128 | 1555235 | 8.556 | ppbV | 97 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 645755 | 8.437 | ppbV | 98 |
| 118) benzothiophene | 21.11 | 134 | 1098603 | 7.214 | ppbV | 98 |
| 119) hexachlorobutadiene | 21.36 | 225 | 526872 | 8.997 | ppbV | 99 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 287650 | 6.568 | ppbV | 97 |
| 121) 1-methylnaphthalene | 22.41 | 142 | 829922 | 10.863 | ppbV | 99 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125425.D
Acq On : 11 Dec 2012 9:12 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD10.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 09:43:24 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Nov 03 17:24:06 2012
Response via : Initial Calibration

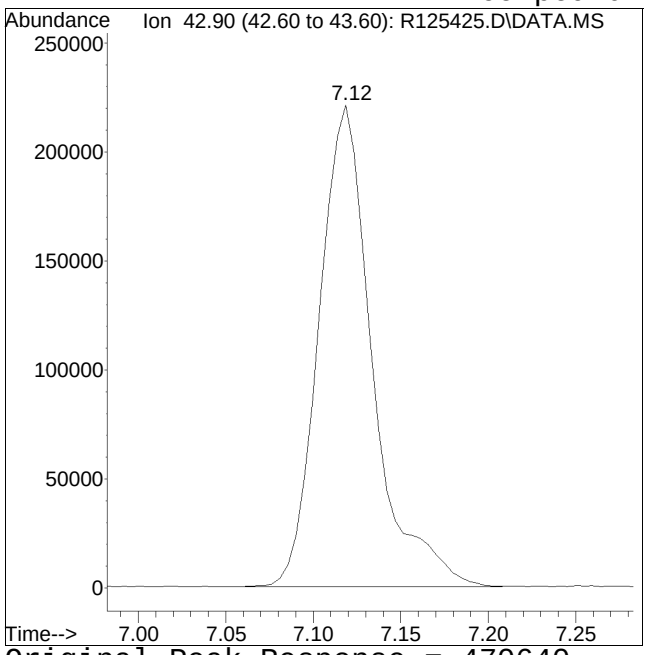


Manual Integration/Negative Proof Report

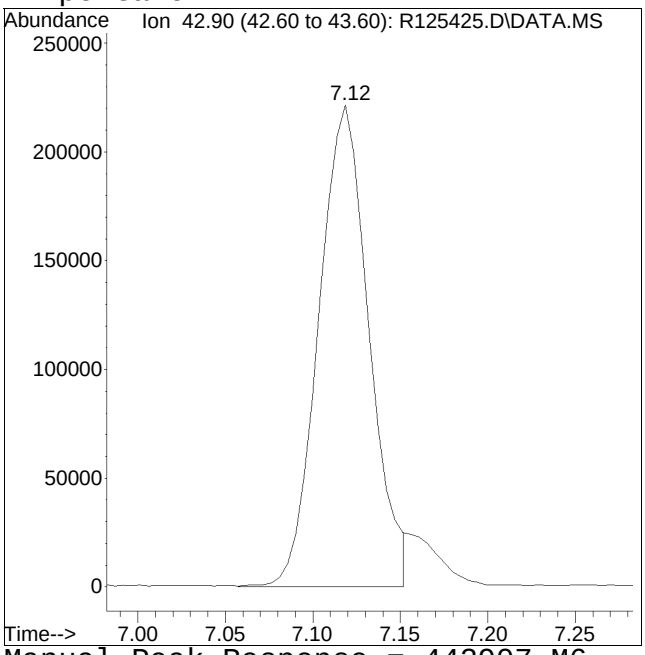
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:39 am

Compound #24: pentane




Original Peak Response = 470640




Manual Peak Response = 442907 M6

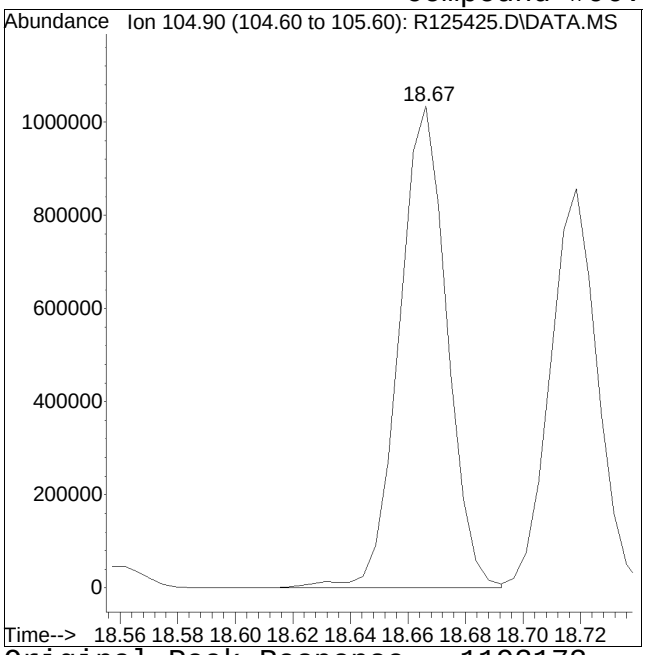
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

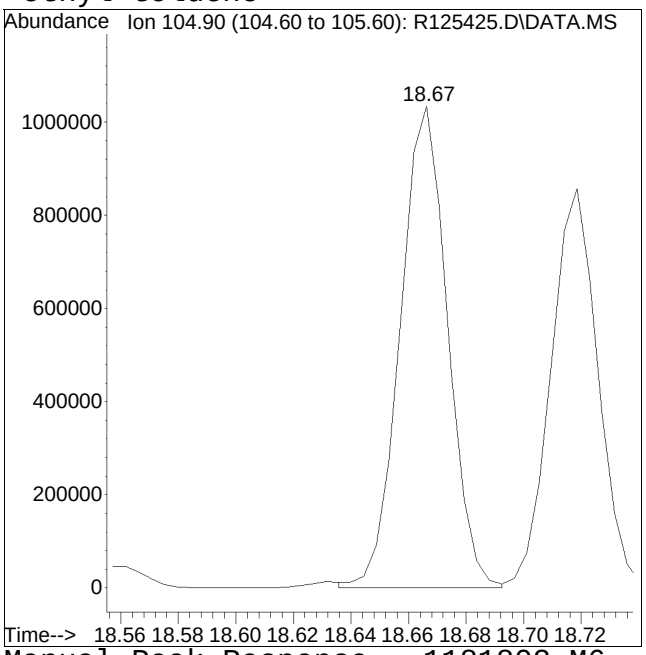
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125425.D
Date Inj'd : 12/11/2012 9:12 pm
Sample : ITO15-SIMSTD10.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:39 am

Compound #96: 4-ethyl toluene




Original Peak Response = 1193173




Manual Peak Response = 1181802 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD20.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 10:02:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 362563 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 100.69% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 733205 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 99.36% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 192284 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 100.19% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 237616 | 9.887 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.87% | | | |
| 69) toluene-D8 | 15.22 | 98 | 575472 | 10.009 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.09% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 426510 | 9.955 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.55% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 879873 | 19.305 | ppbV | 100 |
| 3) propylene | 4.08 | 41 | 379769 | 19.922 | ppbV | 99 |
| 4) propane | 4.11 | 29 | 432734 | 19.314 | ppbV | 97 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 933294 | 18.922 | ppbV | 98 |
| 6) chloromethane | 4.40 | 50 | 429261 | 19.230 | ppbV | 100 |
| 7) Freon-114 | 4.55 | 85 | 1043556 | 19.123 | ppbV | 99 |
| 8) methanol | 4.63 | 31 | 795956 | 95.543 | ppbV | 98 |
| 9) vinyl chloride | 4.71 | 62 | 410680 | 19.188 | ppbV | 99 |
| 10) 1,3-butadiene | 4.92 | 54 | 324453 | 18.932 | ppbV | 100 |
| 11) butane | 4.99 | 43 | 721580 | 19.131 | ppbV | 97 |
| 12) acetaldehyde | 4.57 | 29 | 821091 | 89.566 | ppbV | 99 |
| 13) bromomethane | 5.30 | 94 | 387361 | 19.170 | ppbV | 97 |
| 14) chloroethane | 5.56 | 64 | 183920 | 19.097 | ppbV | 100 |
| 15) ethanol | 5.75 | 31 | 1696658 | 93.051 | ppbV | 99 |
| 16) dichlorofluoromethane | 5.71 | 67 | 886141 | 19.326 | ppbV | 99 |
| 17) vinyl bromide | 6.04 | 106 | 388570 | 19.137 | ppbV | 99 |
| 18) acrolein | 6.22 | 56 | 204114 | 19.047 | ppbV | 97 |
| 19) acetone | 6.39 | 43 | 3838201 | 93.977 | ppbV | 99 |
| 20) acetonitrile | 6.03 | 41 | 447024 | 18.936 | ppbV | 98 |
| 21) trichlorofluoromethane | 6.63 | 101 | 1238299 | 19.075 | ppbV | 99 |
| 22) isopropyl alcohol | 6.76 | 45 | 1048613 | 18.932 | ppbV | 99 |
| 23) acrylonitrile | 7.03 | 53 | 383253 | 19.360 | ppbV | 99 |
| 24) pentane | 7.12 | 43 | 865247M6 | 19.401 | ppbV | |
| 25) ethyl ether | 7.16 | 31 | 636149 | 18.990 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD20.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 10:02:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 698024 | 19.111 | ppbV | 99 |
| 27) tertiary butyl alcohol | 7.55 | 59 | 957112 | 19.073 | ppbV | 99 |
| 28) methylene chloride | 7.65 | 49 | 618301 | 19.010 | ppbV | 98 |
| 29) 3-chloropropene | 7.80 | 41 | 623015 | 19.180 | ppbV | 99 |
| 30) carbon disulfide | 7.98 | 76 | 1127341 | 19.247 | ppbV | 99 |
| 31) Freon 113 | 7.99 | 101 | 815786 | 18.989 | ppbV | 99 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 712106 | 20.424 | ppbV | 100 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 814949 | 20.519 | ppbV | 100 |
| 34) MTBE | 9.16 | 73 | 1001357 | 20.541 | ppbV | 98 |
| 35) vinyl acetate | 9.28 | 43 | 1432542 | 21.247 | ppbV | 99 |
| 36) 2-butanone | 9.56 | 43 | 1188607 | 21.510 | ppbV | 100 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 656112 | 21.086 | ppbV | 99 |
| 38) Ethyl Acetate | 10.36 | 61 | 159043 | 18.925 | ppbV | 91 |
| 39) chloroform | 10.43 | 83 | 875149 | 19.119 | ppbV | 99 |
| 40) Tetrahydrofuran | 10.88 | 42 | 670185 | 19.271 | ppbV | 99 |
| 41) 2,2-dichloropropane | 10.45 | 77 | 750382 | 19.349 | ppbV | 97 |
| 42) 1,2-dichloroethane | 11.27 | 62 | 630718 | 19.043 | ppbV | 99 |
| 44) hexane | 10.33 | 57 | 726587 | 19.290 | ppbV | 96 |
| 45) diisopropyl ether | 10.33 | 87 | 311000 | 19.294 | ppbV | 96 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 1600585 | 19.497 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 845339 | 19.368 | ppbV | 100 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 644432 | 19.700 | ppbV | 97 |
| 50) benzene | 12.09 | 78 | 1186522 | 19.478 | ppbV | 97 |
| 51) thiophene | 12.24 | 84 | 719630 | 19.342 | ppbV | 98 |
| 52) carbon tetrachloride | 12.26 | 117 | 946712 | 19.594 | ppbV | 99 |
| 53) cyclohexane | 12.40 | 56 | 759025 | 19.232 | ppbV | 96 |
| 54) tert-amyl methyl ether | 12.76 | 73 | 1179404 | 19.310 | ppbV | 99 |
| 55) dibromomethane | 12.99 | 93 | 615261 | 19.604 | ppbV | 99 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 526792 | 19.443 | ppbV | 98 |
| 57) bromodichloromethane | 13.24 | 83 | 986135 | 20.013 | ppbV | 100 |
| 58) 1,4-dioxane | 13.28 | 88 | 269686 | 19.593 | ppbV | 99 |
| 59) trichloroethene | 13.29 | 130 | 615297 | 19.800 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 2423006 | 19.492 | ppbV | 98 |
| 61) methyl methacrylate | 13.50 | 41 | 713362 | 19.636 | ppbV | 100 |
| 62) heptane | 13.62 | 43 | 1019149 | 19.093 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 14.26 | 75 | 672016 | 19.355 | ppbV | 99 |
| 64) 4-methyl-2-pentanone | 14.30 | 43 | 1457218 | 19.316 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.84 | 75 | 696139 | 19.867 | ppbV | 99 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 542669 | 19.684 | ppbV | 99 |
| 68) toluene | 15.32 | 91 | 1478861 | 19.366 | ppbV | 100 |
| 70) 2-methylthiophene | 15.38 | 97 | 1101727 | 19.012 | ppbV | 100 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD20.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 10:02:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 717096 | 19.248 | ppbV | 98 |
| 72) | 2-hexanone | 15.55 | 43 | 1402813 | 19.044 | ppbV | 99 |
| 73) | 3-methylthiophene | 15.55 | 97 | 1173399 | 19.377 | ppbV | 99 |
| 74) | dibromochloromethane | 15.73 | 129 | 1192055 | 19.858 | ppbV | 100 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 943345 | 19.789 | ppbV | 96 |
| 76) | butyl acetate | 16.13 | 73 | 162777 | 19.082 | ppbV | 86 |
| 77) | octane | 16.22 | 85 | 418200 | 19.199 | ppbV | 99 |
| 78) | tetrachloroethene | 16.36 | 166 | 802779 | 19.579 | ppbV | 99 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 788127 | 19.721 | ppbV | 99 |
| 80) | chlorobenzene | 16.94 | 112 | 1239525 | 19.281 | ppbV | 98 |
| 81) | ethylbenzene | 17.23 | 91 | 1939781 | 19.346 | ppbV | 100 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 1353407 | 19.520 | ppbV | 98 |
| 83) | m+p-xylene | 17.38 | 91 | 3049172 | 38.888 | ppbV | 99 |
| 84) | bromoform | 17.46 | 173 | 1264332 | 20.240 | ppbV | 99 |
| 85) | styrene | 17.66 | 104 | 1215745 | 19.616 | ppbV | 99 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 1326723 | 19.520 | ppbV | 99 |
| 87) | o-xylene | 17.74 | 91 | 1576025 | 19.603 | ppbV | 98 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 979193 | 19.608 | ppbV | 99 |
| 89) | nonane | 17.88 | 43 | 1631971 | 18.974 | ppbV | 98 |
| 91) | isopropylbenzene | 18.18 | 105 | 2267225 | 19.204 | ppbV | 98 |
| 92) | bromobenzene | 18.27 | 77 | 1207957 | 19.645 | ppbV | 99 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 658330 | 19.785 | ppbV | 90 |
| 94) | n-propylbenzene | 18.56 | 120 | 668666 | 19.595 | ppbV | 99 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 1765733 | 19.531 | ppbV | 97 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 2319078M6 | 19.587 | ppbV | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 1888213 | 19.377 | ppbV | 99 |
| 98) | tert-butylbenzene | 19.03 | 119 | 2156260 | 18.990 | ppbV | 99 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 1913115 | 19.231 | ppbV | 98 |
| 100) | decane | 19.07 | 57 | 1619686 | 19.067 | ppbV | 98 |
| 101) | Benzyl Chloride | 19.14 | 91 | 1793132 | 19.891 | ppbV | 98 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 1469283 | 19.766 | ppbV | 99 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 1511156 | 19.975 | ppbV | 99 |
| 104) | sec-butylbenzene | 19.23 | 105 | 2961378 | 19.552 | ppbV | 99 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 1578502 | 19.124 | ppbV | 97 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 2711029 | 19.448 | ppbV | 100 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 1399964 | 19.627 | ppbV | 99 |
| 108) | n-butylbenzene | 19.66 | 91 | 2492063 | 19.438 | ppbV | 99 |
| 109) | indan | 19.52 | 117 | 1750593 | 19.478 | ppbV | 99 |
| 110) | indene | 19.59 | 115 | 1737439 | 19.606 | ppbV | 100 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 688237 | 19.750 | ppbV | 95 |
| 112) | undecane | 20.02 | 57 | 1900601 | 19.452 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD20.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 10:02:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

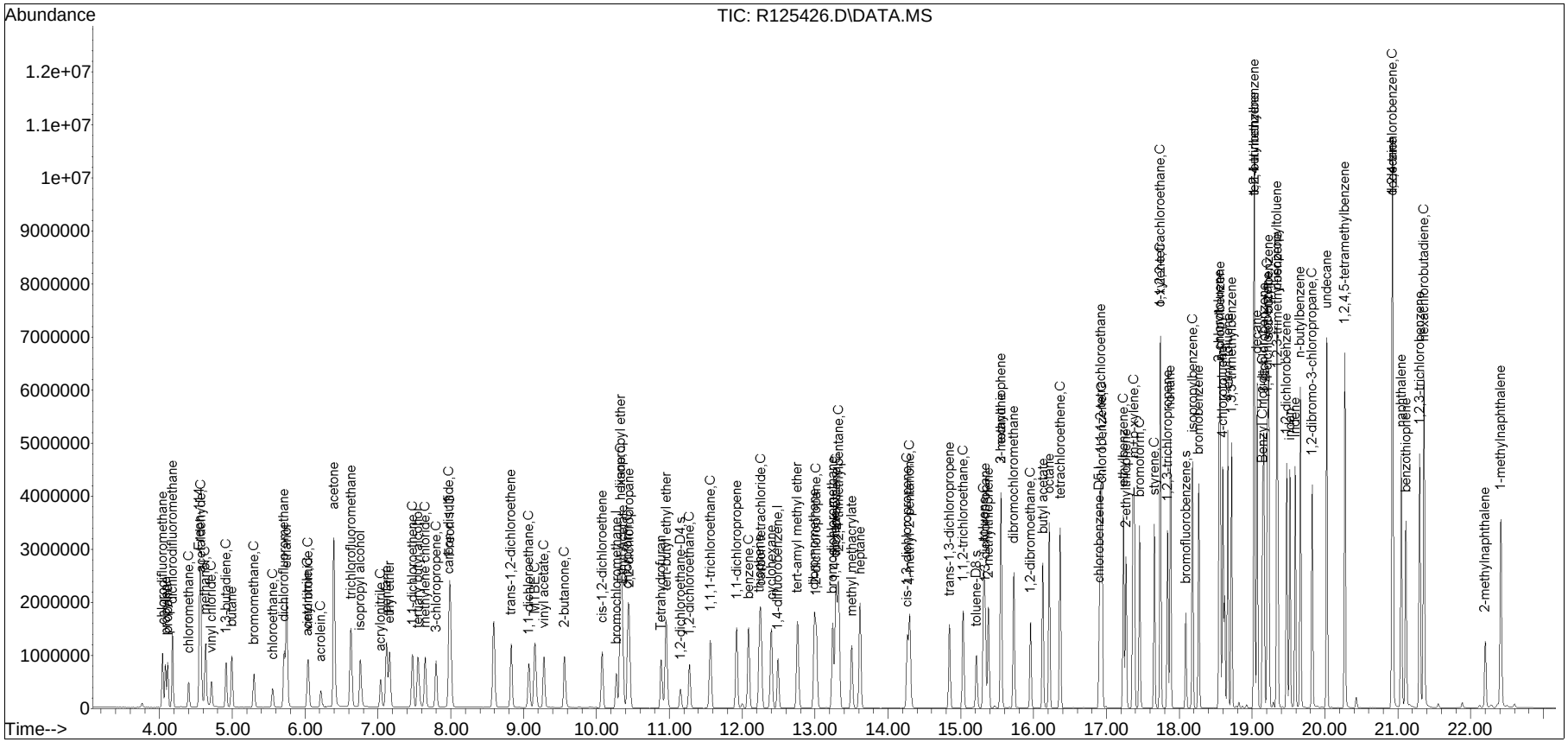
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.27 | 119 | 2680605 | 19.498 | ppbV | 99 |
| 114) dodecane | 20.93 | 57 | 2047442 | 19.214 | ppbV | 96 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 1277068 | 20.125 | ppbV | 99 |
| 116) naphthalene | 21.05 | 128 | 3109622 | 19.958 | ppbV | 100 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 1307270 | 20.207 | ppbV | 98 |
| 118) benzothiophene | 21.11 | 134 | 2199934 | 19.988 | ppbV | 100 |
| 119) hexachlorobutadiene | 21.36 | 225 | 1064380 | 20.164 | ppbV | 99 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 594759 | 20.638 | ppbV | 98 |
| 121) 1-methylnaphthalene | 22.41 | 142 | 1701878 | 20.469 | ppbV | 99 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125426.D
Acq On : 11 Dec 2012 9:43 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD20.0
Misc : WG578983
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 12 10:02:05 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

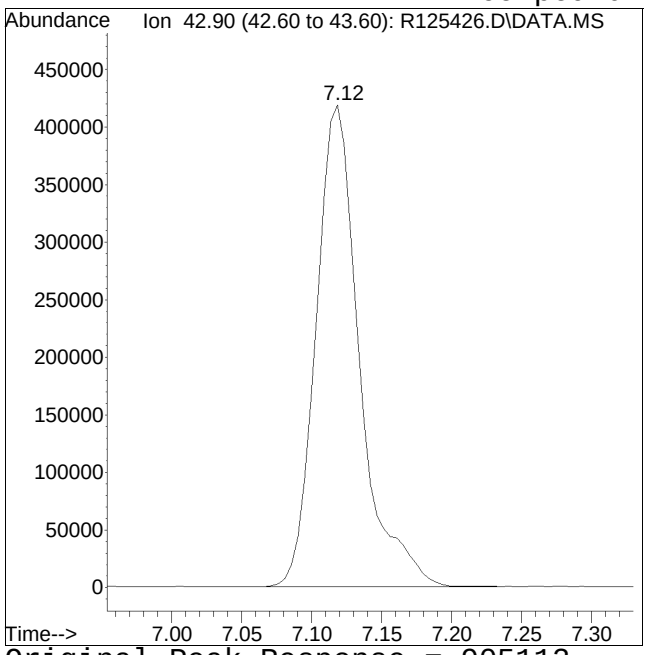


Manual Integration/Negative Proof Report

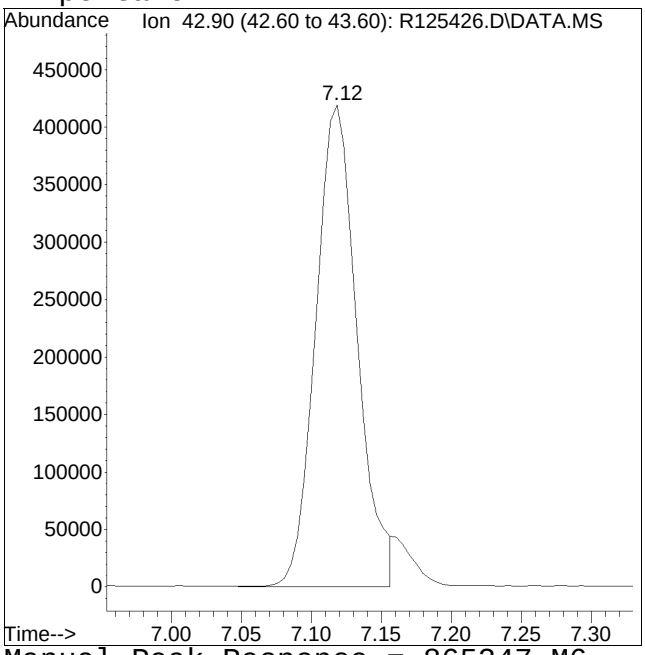
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #24: pentane




Original Peak Response = 905112




Manual Peak Response = 865247 M6

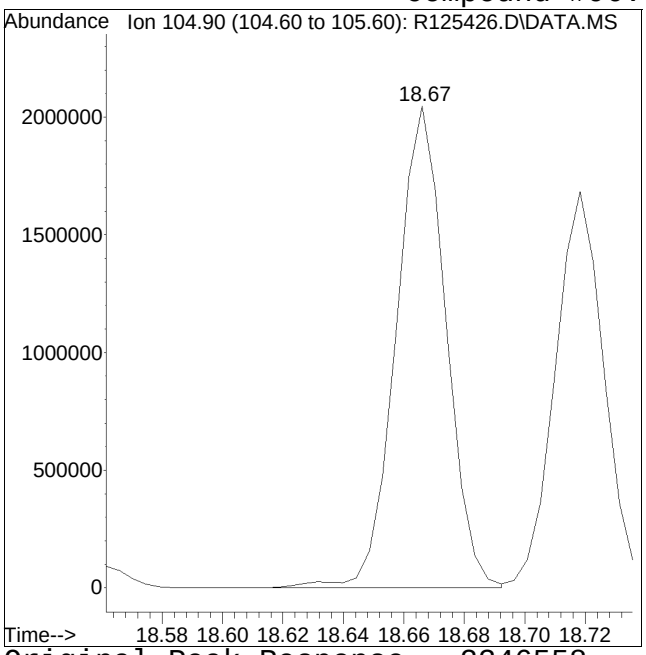
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

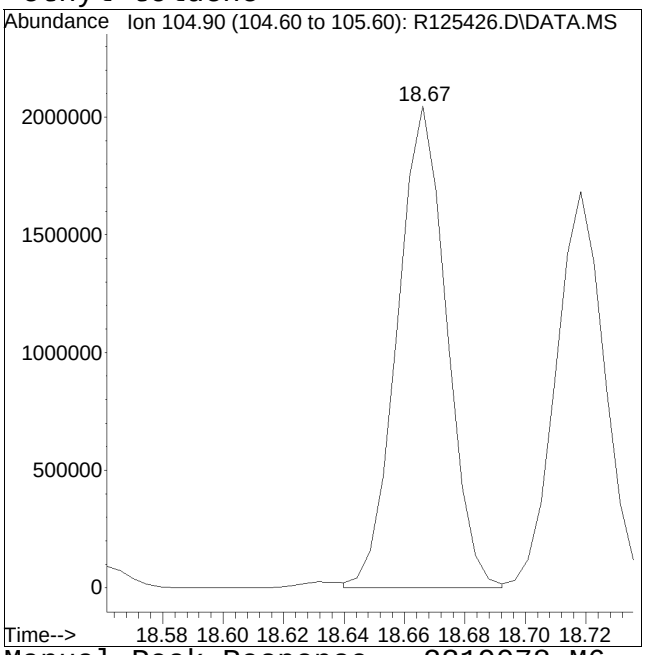
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125426.D
Date Inj'd : 12/11/2012 9:43 pm
Sample : ITO15-SIMSTD20.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:44 am

Compound #96: 4-ethyl toluene




Original Peak Response = 2346558




Manual Peak Response = 2319078 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD50.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:04:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 316586 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 87.92% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 735066 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 99.61% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 192179 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 100.13% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.16 | 65 | 243420 | 10.103 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.03% | | | |
| 69) toluene-D8 | 15.22 | 98 | 578094 | 10.060 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.60% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 431646 | 10.080 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.80% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 2160934 | 54.297 | ppbV | 99 |
| 3) propylene | 4.08 | 41 | 918735 | 55.195 | ppbV | 99 |
| 4) propane | 4.11 | 29 | 1101139 | 56.285 | ppbV | 100 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 2347138 | 54.499 | ppbV | 98 |
| 6) chloromethane | 4.40 | 50 | 1067087 | 54.746 | ppbV | 99 |
| 7) Freon-114 | 4.55 | 85 | 2591519 | 54.387 | ppbV | 98 |
| 8) methanol | 4.64 | 31 | 1918518 | 263.734 | ppbV | 96 |
| 9) vinyl chloride | 4.71 | 62 | 1034779 | 55.369 | ppbV | 98 |
| 10) 1,3-butadiene | 4.92 | 54 | 820404 | 54.824 | ppbV | 98 |
| 11) butane | 4.99 | 43 | 1787500 | 54.273 | ppbV | 97 |
| 12) acetaldehyde | 4.57 | 29 | 2045003 | 255.470 | ppbV | 98 |
| 13) bromomethane | 5.29 | 94 | 982699 | 55.696 | ppbV | 97 |
| 14) chloroethane | 5.55 | 64 | 461111 | 54.833 | ppbV | 99 |
| 15) ethanol | 5.76 | 31 | 4056156M6 | 254.760 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 2232548 | 55.760 | ppbV | 99 |
| 17) vinyl bromide | 6.04 | 106 | 992252 | 55.966 | ppbV | 99 |
| 18) acrolein | 6.21 | 56 | 524226 | 56.024 | ppbV | 97 |
| 19) acetone | 6.40 | 43 | 9327300 | 261.542 | ppbV | 97 |
| 20) acetonitrile | 6.03 | 41 | 1101326 | 53.427 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.63 | 101 | 3124068 | 55.112 | ppbV | 100 |
| 22) isopropyl alcohol | 6.76 | 45 | 2641153 | 54.611 | ppbV | 100 |
| 23) acrylonitrile | 7.04 | 53 | 976497 | 56.493 | ppbV | 100 |
| 24) pentane | 7.12 | 43 | 2097526M6 | 53.863 | ppbV | |
| 25) ethyl ether | 7.16 | 31 | 1549243 | 52.965 | ppbV | 97 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD50.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:04:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.47 | 61 | 1764851 | 55.337 | ppbV | 97 |
| 27) tertiary butyl alcohol | 7.55 | 59 | 2397103 | 54.705 | ppbV | 98 |
| 28) methylene chloride | 7.65 | 49 | 1531980 | 53.941 | ppbV | 97 |
| 29) 3-chloropropene | 7.80 | 41 | 1574747 | 55.520 | ppbV | 99 |
| 30) carbon disulfide | 7.98 | 76 | 2830934 | 55.353 | ppbV | 97 |
| 31) Freon 113 | 7.99 | 101 | 2073233 | 55.267 | ppbV | 97 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 1703177 | 55.943 | ppbV | 100 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 1931810 | 55.704 | ppbV | 100 |
| 34) MTBE | 9.16 | 73 | 2353011 | 55.278 | ppbV | 100 |
| 35) vinyl acetate | 9.28 | 43 | 3206886 | 54.472 | ppbV | 99 |
| 36) 2-butanone | 9.56 | 43 | 2611489 | 54.123 | ppbV | 98 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 1468831 | 54.061 | ppbV | 98 |
| 38) Ethyl Acetate | 10.37 | 61 | 351584 | 47.911 | ppbV | 67 |
| 39) chloroform | 10.43 | 83 | 1899511 | 47.525 | ppbV | 97 |
| 40) Tetrahydrofuran | 10.89 | 42 | 1675164 | 55.164 | ppbV | 99 |
| 41) 2,2-dichloropropane | 10.45 | 77 | 1647665 | 48.656 | ppbV | 95 |
| 42) 1,2-dichloroethane | 11.28 | 62 | 1583604 | 54.758 | ppbV | 100 |
| 44) hexane | 10.33 | 57 | 1499771 | 39.716 | ppbV | 78 |
| 45) diisopropyl ether | 10.34 | 87 | 673422 | 41.672 | ppbV | 72 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 3995902 | 48.552 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 2156210 | 49.277 | ppbV | 99 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 1634028 | 49.825 | ppbV | 96 |
| 50) benzene | 12.09 | 78 | 2989127 | 48.946 | ppbV | 98 |
| 51) thiophene | 12.24 | 84 | 1857363 | 49.794 | ppbV | 94 |
| 52) carbon tetrachloride | 12.26 | 117 | 2397816 | 49.502 | ppbV | 99 |
| 53) cyclohexane | 12.40 | 56 | 1930289 | 48.786 | ppbV | 98 |
| 54) tert-amyl methyl ether | 12.76 | 73 | 2974470 | 48.577 | ppbV | 99 |
| 55) dibromomethane | 13.00 | 93 | 1562051 | 49.645 | ppbV | 99 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 1334904 | 49.144 | ppbV | 98 |
| 57) bromodichloromethane | 13.25 | 83 | 2506322 | 50.735 | ppbV | 99 |
| 58) 1,4-dioxane | 13.29 | 88 | 701760 | 50.856 | ppbV | 97 |
| 59) trichloroethene | 13.29 | 130 | 1570183 | 50.400 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 6023638 | 48.336 | ppbV | 98 |
| 61) methyl methacrylate | 13.51 | 41 | 1904742 | 52.298 | ppbV | 98 |
| 62) heptane | 13.62 | 43 | 2575567 | 48.130 | ppbV | 99 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 1727430 | 49.625 | ppbV | 98 |
| 64) 4-methyl-2-pentanone | 14.31 | 43 | 3630359 | 48.001 | ppbV | 98 |
| 65) trans-1,3-dichloropropene | 14.85 | 75 | 1795141 | 51.102 | ppbV | 97 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 1369310 | 49.542 | ppbV | 99 |
| 68) toluene | 15.32 | 91 | 3711544 | 48.629 | ppbV | 98 |
| 70) 2-methylthiophene | 15.38 | 97 | 3012103 | 52.007 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD50.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:04:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.34 | 76 | 1843310 | 49.505 | ppbV | | 95 |
| 72) | 2-hexanone | 15.56 | 43 | 3448069 | 46.834 | ppbV | | 95 |
| 73) | 3-methylthiophene | 15.56 | 97 | 3148103 | 52.016 | ppbV | | 99 |
| 74) | dibromochloromethane | 15.73 | 129 | 3060177 | 51.005 | ppbV | | 98 |
| 75) | 1,2-dibromoethane | 15.96 | 107 | 2388611 | 50.135 | ppbV | | 98 |
| 76) | butyl acetate | 16.13 | 73 | 423679 | 49.695 | ppbV | | 97 |
| 77) | octane | 16.22 | 85 | 1072180 | 49.249 | ppbV | | 90 |
| 78) | tetrachloroethene | 16.36 | 166 | 2085525 | 50.892 | ppbV | | 99 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 2009177 | 50.301 | ppbV | | 99 |
| 80) | chlorobenzene | 16.94 | 112 | 3174032 | 49.399 | ppbV | | 99 |
| 81) | ethylbenzene | 17.24 | 91 | 4870075 | 48.596 | ppbV | | 97 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 3503629 | 50.559 | ppbV | | 99 |
| 83) | m+p-xylene | 17.38 | 91 | 7547281 | 96.308 | ppbV | | 97 |
| 84) | bromoform | 17.46 | 173 | 3338000 | 53.465 | ppbV | | 99 |
| 85) | styrene | 17.66 | 104 | 3078908 | 49.705 | ppbV | | 99 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 3270436 | 48.145 | ppbV | | 99 |
| 87) | o-xylene | 17.74 | 91 | 3864492 | 48.093 | ppbV | | 98 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 2481015 | 49.708 | ppbV | | 97 |
| 89) | nonane | 17.88 | 43 | 3918541 | 45.584 | ppbV | | 95 |
| 91) | isopropylbenzene | 18.18 | 105 | 5640966 | 47.807 | ppbV | | 96 |
| 92) | bromobenzene | 18.27 | 77 | 3064467 | 49.865 | ppbV | | 97 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 1694368 | 50.949 | ppbV | # | 59 |
| 94) | n-propylbenzene | 18.56 | 120 | 1716834 | 50.339 | ppbV | | 93 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 4326695 | 47.883 | ppbV | | 96 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 5723114M6 | 48.364 | ppbV | | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 4749759 | 48.769 | ppbV | | 97 |
| 98) | tert-butylbenzene | 19.03 | 119 | 5189159 | 45.726 | ppbV | | 96 |
| 99) | 1,2,4-trimethylbenzene | 19.03 | 105 | 4595627 | 46.222 | ppbV | | 97 |
| 100) | decane | 19.07 | 57 | 3927906 | 46.265 | ppbV | # | 94 |
| 101) | Benzyl Chloride | 19.15 | 91 | 4543033 | 50.423 | ppbV | | 96 |
| 102) | 1,3-dichlorobenzene | 19.17 | 146 | 3738736 | 50.325 | ppbV | | 99 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 3828144 | 50.629 | ppbV | | 99 |
| 104) | sec-butylbenzene | 19.23 | 105 | 7181222 | 47.439 | ppbV | | 97 |
| 105) | 1,2,3-trimethylbenzene | 19.35 | 105 | 5083186 | 61.618 | ppbV | | 98 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 6676781 | 47.923 | ppbV | | 97 |
| 107) | 1,2-dichlorobenzene | 19.48 | 146 | 3593429 | 50.405 | ppbV | | 100 |
| 108) | n-butylbenzene | 19.67 | 91 | 6077875 | 47.433 | ppbV | | 94 |
| 109) | indan | 19.52 | 117 | 4411916 | 49.117 | ppbV | | 97 |
| 110) | indene | 19.59 | 115 | 5874334 | 66.326 | ppbV | | 99 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 1739971 | 49.959 | ppbV | | 90 |
| 112) | undecane | 20.03 | 57 | 4564304 | 46.740 | ppbV | # | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD50.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:04:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

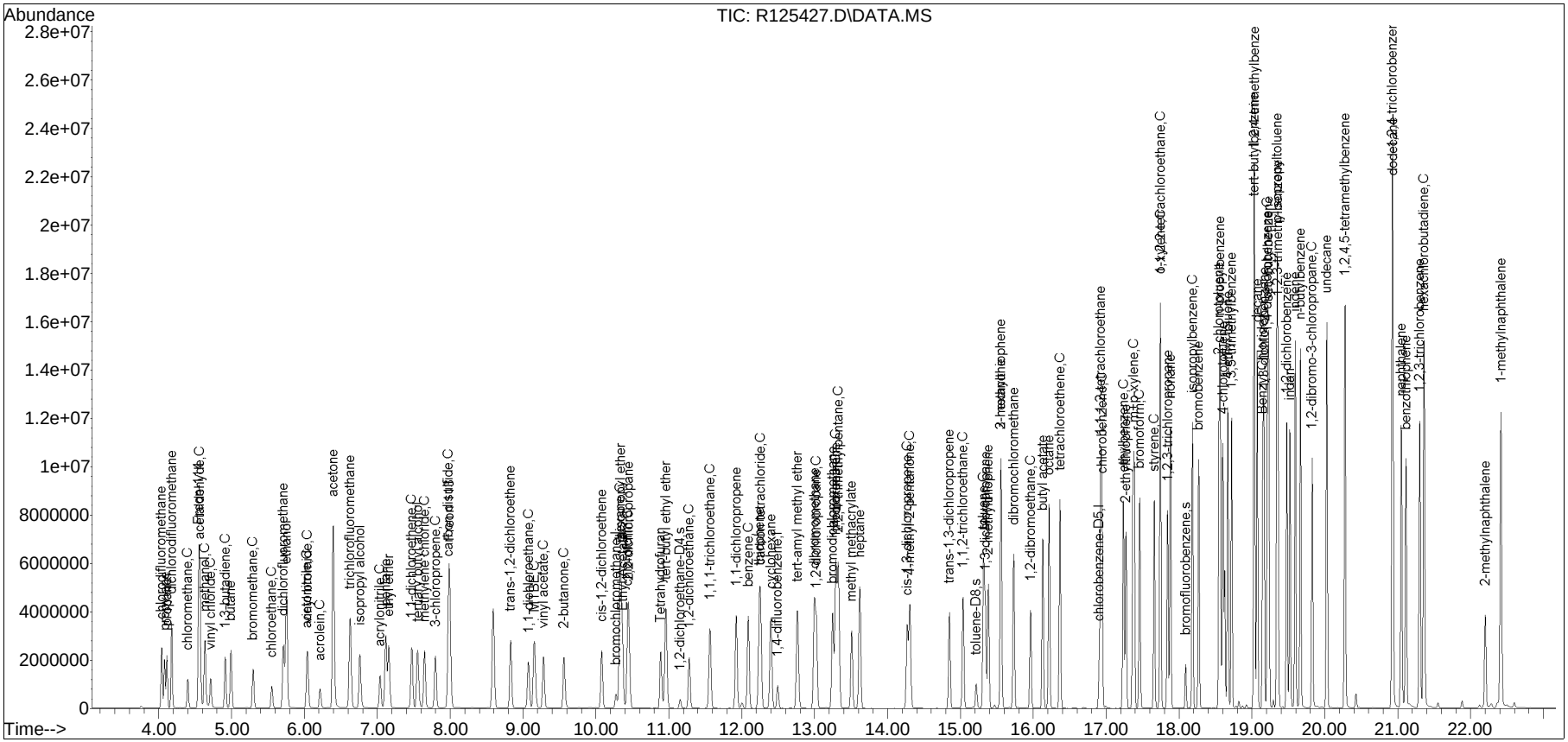
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.28 | 119 | 7206822 | 52.448 ppbV | 96 |
| 114) dodecane | 20.93 | 57 | 4437710 | 41.669 ppbV | 91 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 3172581 | 50.024 ppbV | 99 |
| 116) naphthalene | 21.05 | 128 | 7802956 | 50.107 ppbV | 99 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 3373330 | 52.170 ppbV | 98 |
| 118) benzothiophene | 21.11 | 134 | 6424624 | 58.404 ppbV | 99 |
| 119) hexachlorobutadiene | 21.36 | 225 | 2724377 | 51.641 ppbV | 95 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 1799091 | 62.463 ppbV | 100 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 5794555 | 69.729 ppbV | 100 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125427.D
Acq On : 11 Dec 2012 10:15 pm
Operator : AIRPIANO1:MB
Sample : ITO15-SIMSTD50.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:04:06 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

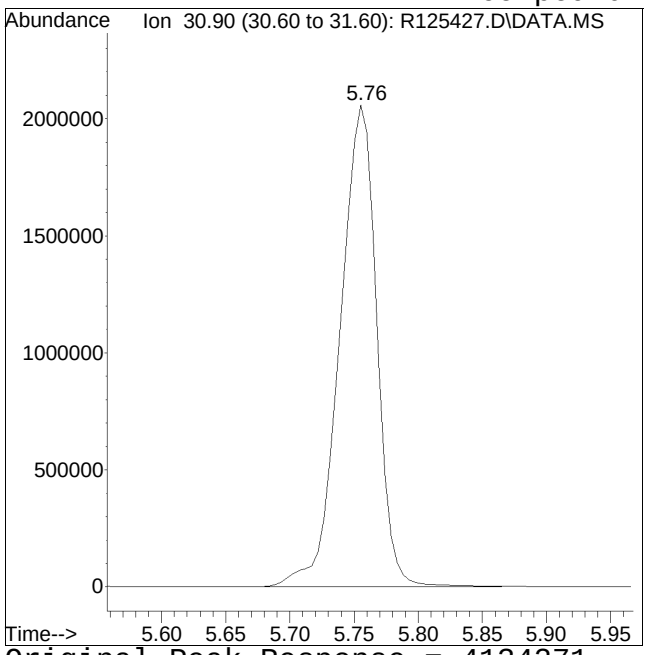


Manual Integration/Negative Proof Report

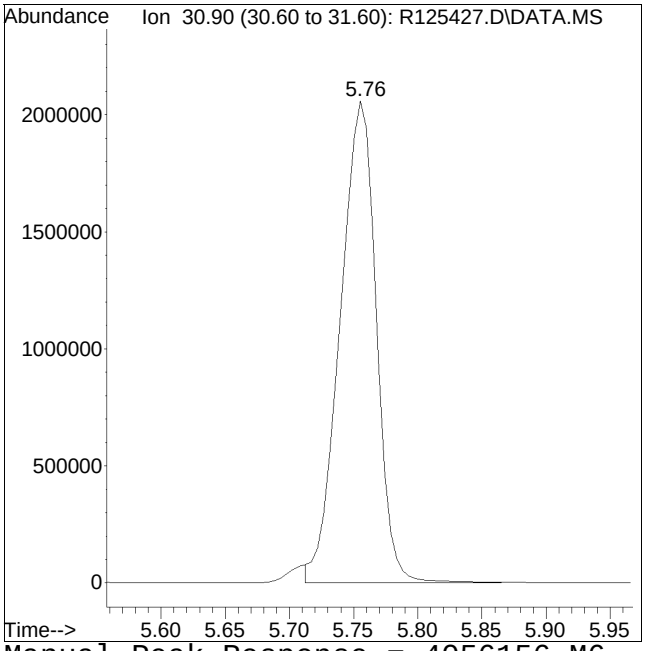
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #15: ethanol




Original Peak Response = 4134271




Manual Peak Response = 4056156 M6

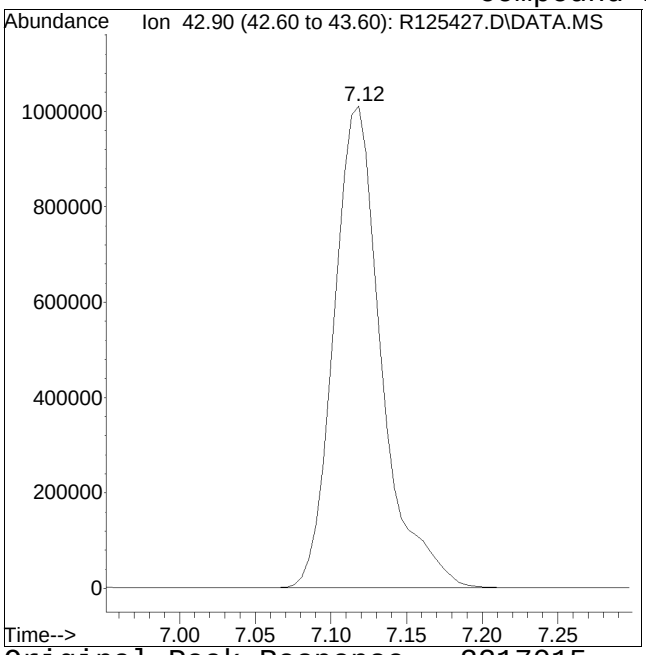
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

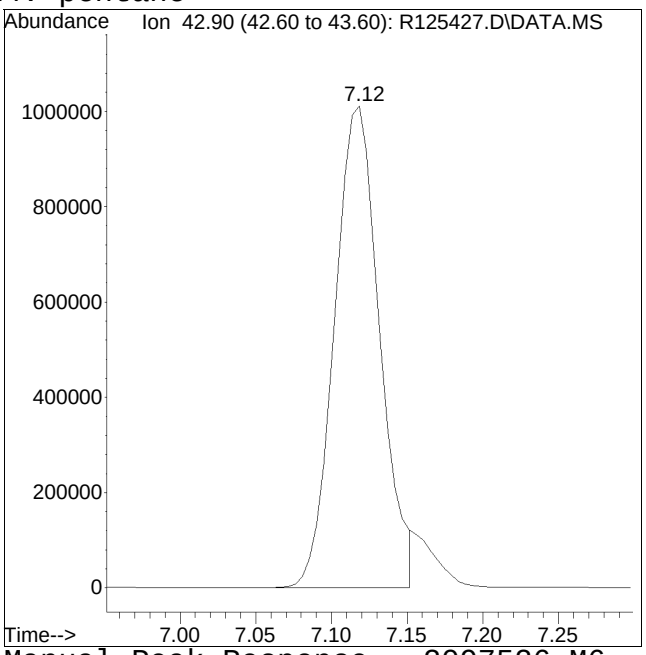
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #24: pentane




Original Peak Response = 2217015




Manual Peak Response = 2097526 M6

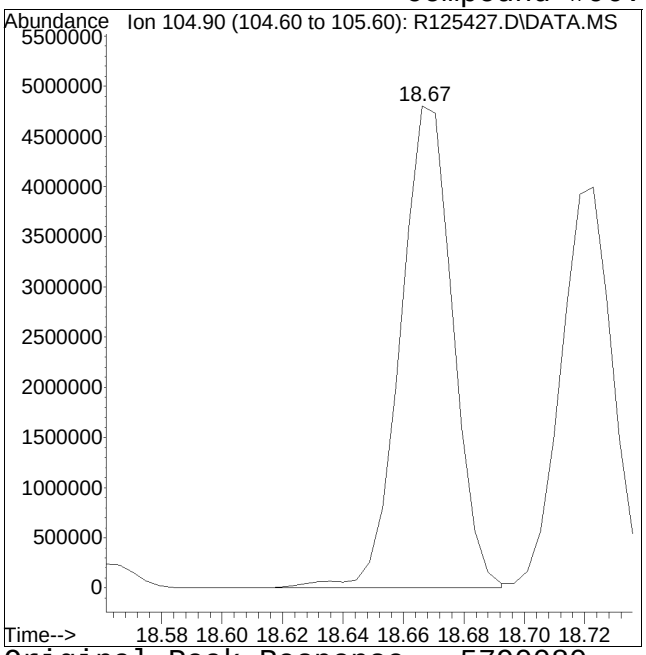
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

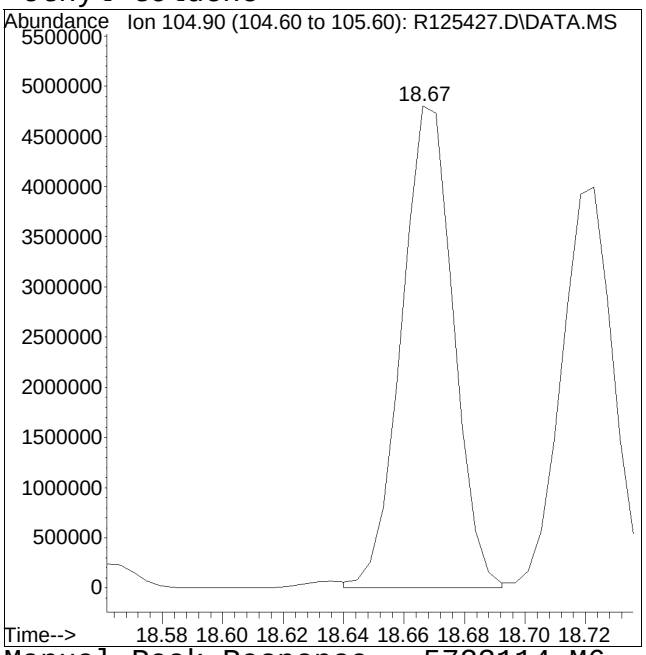
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125427.D
Date Inj'd : 12/11/2012 10:15 pm
Sample : ITO15-SIMSTD50.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #96: 4-ethyl toluene




Original Peak Response = 5790080




Manual Peak Response = 5723114 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125428.D
Acq On : 11 Dec 2012 10:47 pm
Operator : AIRPIANO1:MB
Sample : ITO15-LLSTD100.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:06:07 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.28 | 49 | 397491 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 110.39% | | | |
| 43) 1,4-difluorobenzene | 12.50 | 114 | 745630 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 101.04% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 185723 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 96.77% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.16 | 65 | 237905 | 9.734 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 97.34% | | | |
| 69) toluene-D8 | 15.22 | 98 | 577669 | 10.402 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.02% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 432361 | 10.448 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.48% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 4061761 | 81.286 | ppbV | 99 |
| 3) propylene | 4.08 | 41 | 1742104 | 83.358 | ppbV | 99 |
| 4) propane | 4.11 | 29 | 2049308 | 83.430 | ppbV | 99 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 4315866 | 79.814 | ppbV | 96 |
| 6) chloromethane | 4.40 | 50 | 2055913 | 84.008 | ppbV | 99 |
| 7) Freon-114 | 4.55 | 85 | 4809301 | 80.387 | ppbV | 96 |
| 8) methanol | 4.64 | 31 | 3571222 | 391.005 | ppbV | 96 |
| 9) vinyl chloride | 4.71 | 62 | 2001822 | 85.311 | ppbV | 99 |
| 10) 1,3-butadiene | 4.91 | 54 | 1549314 | 82.461 | ppbV | 98 |
| 11) butane | 4.99 | 43 | 3316559 | 80.203 | ppbV | 96 |
| 12) acetaldehyde | 4.57 | 29 | 3640852 | 362.254 | ppbV | 99 |
| 13) bromomethane | 5.29 | 94 | 1873211 | 84.558 | ppbV | 98 |
| 14) chloroethane | 5.55 | 64 | 887832 | 84.088 | ppbV | 99 |
| 15) ethanol | 5.77 | 31 | 7371249M6 | 368.742 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 4252084 | 84.585 | ppbV | 99 |
| 17) vinyl bromide | 6.04 | 106 | 1909804 | 85.793 | ppbV | 98 |
| 18) acrolein | 6.22 | 56 | 1007717 | 85.774 | ppbV | 97 |
| 19) acetone | 6.40 | 43 | 16701594 | 372.999 | ppbV | 95 |
| 20) acetonitrile | 6.04 | 41 | 2048822 | 79.162 | ppbV | 98 |
| 21) trichlorofluoromethane | 6.63 | 101 | 5930397 | 83.324 | ppbV | 99 |
| 22) isopropyl alcohol | 6.77 | 45 | 5013156 | 82.558 | ppbV | 99 |
| 23) acrylonitrile | 7.04 | 53 | 1862808 | 85.833 | ppbV | 100 |
| 24) pentane | 7.12 | 43 | 3924763M6 | 80.271 | ppbV | |
| 25) ethyl ether | 7.16 | 31 | 2827412 | 76.987 | ppbV | 94 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125428.D
Acq On : 11 Dec 2012 10:47 pm
Operator : AIRPIANO1:MB
Sample : ITO15-LLSTD100.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:06:07 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 26) 1,1-dichloroethene | 7.48 | 61 | 3329858 | 83.156 | ppbV | 96 |
| 27) tertiary butyl alcohol | 7.56 | 59 | 4552660 | 82.751 | ppbV | 100 |
| 28) methylene chloride | 7.65 | 49 | 2879707 | 80.757 | ppbV | 93 |
| 29) 3-chloropropene | 7.80 | 41 | 2938038 | 82.501 | ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 5286895 | 82.333 | ppbV | 96 |
| 31) Freon 113 | 7.99 | 101 | 3919505 | 83.217 | ppbV | 98 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 3247501 | 84.958 | ppbV | 98 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 3685521 | 84.641 | ppbV | 100 |
| 34) MTBE | 9.16 | 73 | 4515725 | 84.493 | ppbV | 99 |
| 35) vinyl acetate | 9.28 | 43 | 6024017 | 81.496 | ppbV | 98 |
| 36) 2-butanone | 9.56 | 43 | 4910555 | 81.056 | ppbV | 97 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 2780236 | 81.501 | ppbV | 98 |
| 38) Ethyl Acetate | 10.37 | 61 | 796485 | 86.448 | ppbV | 71 |
| 39) chloroform | 10.44 | 83 | 4253508 | 84.759 | ppbV | 98 |
| 40) Tetrahydrofuran | 10.89 | 42 | 3143743 | 82.454 | ppbV | 97 |
| 41) 2,2-dichloropropane | 10.45 | 77 | 3672835 | 86.385 | ppbV | 94 |
| 42) 1,2-dichloroethane | 11.28 | 62 | 3008997 | 82.867 | ppbV | 99 |
| 44) hexane | 10.33 | 57 | 3407375 | 88.954 | ppbV # | 67 |
| 45) diisopropyl ether | 10.35 | 87 | 1516526 | 92.515 | ppbV | 76 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 7585646 | 90.862 | ppbV | 97 |
| 48) 1,1,1-trichloroethane | 11.57 | 97 | 4163485 | 93.802 | ppbV | 100 |
| 49) 1,1-dichloropropene | 11.93 | 75 | 3137398 | 94.310 | ppbV | 92 |
| 50) benzene | 12.09 | 78 | 5701351 | 92.035 | ppbV | 98 |
| 51) thiophene | 12.25 | 84 | 3607198 | 95.335 | ppbV | 92 |
| 52) carbon tetrachloride | 12.26 | 117 | 4634302 | 94.319 | ppbV | 98 |
| 53) cyclohexane | 12.40 | 56 | 3675740 | 91.585 | ppbV | 98 |
| 54) tert-amyl methyl ether | 12.77 | 73 | 5709418 | 91.921 | ppbV | 97 |
| 55) dibromomethane | 13.00 | 93 | 3023671 | 94.736 | ppbV | 97 |
| 56) 1,2-dichloropropane | 13.03 | 63 | 2582313 | 93.720 | ppbV | 96 |
| 57) bromodichloromethane | 13.25 | 83 | 4822483 | 96.238 | ppbV | 100 |
| 58) 1,4-dioxane | 13.29 | 88 | 1347921 | 96.298 | ppbV | 95 |
| 59) trichloroethene | 13.30 | 130 | 3038652 | 96.153 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 13.33 | 57 | 11349643 | 89.783 | ppbV | 99 |
| 61) methyl methacrylate | 13.51 | 41 | 3586143 | 97.069 | ppbV | 96 |
| 62) heptane | 13.62 | 43 | 4760287 | 87.696 | ppbV | 98 |
| 63) cis-1,3-dichloropropene | 14.27 | 75 | 3338340 | 94.545 | ppbV | 95 |
| 64) 4-methyl-2-pentanone | 14.31 | 43 | 6774601 | 88.305 | ppbV | 96 |
| 65) trans-1,3-dichloropropene | 14.85 | 75 | 3469596 | 97.369 | ppbV | 95 |
| 66) 1,1,2-trichloroethane | 15.04 | 97 | 2658244 | 94.814 | ppbV | 98 |
| 68) toluene | 15.32 | 91 | 7101562 | 96.280 | ppbV | 98 |
| 70) 2-methylthiophene | 15.39 | 97 | 5854955 | 104.605 | ppbV | 98 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125428.D
Acq On : 11 Dec 2012 10:47 pm
Operator : AIRPIANO1:MB
Sample : ITO15-LLSTD100.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:06:07 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 71) | 1,3-dichloropropane | 15.35 | 76 | 3552585 | 98.727 | ppbV | | 92 |
| 72) | 2-hexanone | 15.56 | 43 | 6004839 | 84.398 | ppbV | # | 90 |
| 73) | 3-methylthiophene | 15.56 | 97 | 5886940 | 100.650 | ppbV | | 97 |
| 74) | dibromochloromethane | 15.73 | 129 | 5798884 | 100.012 | ppbV | | 97 |
| 75) | 1,2-dibromoethane | 15.97 | 107 | 4545568 | 98.723 | ppbV | | 98 |
| 76) | butyl acetate | 16.13 | 73 | 819637 | 99.481 | ppbV | | 78 |
| 77) | octane | 16.22 | 85 | 2032552 | 96.607 | ppbV | | 78 |
| 78) | tetrachloroethene | 16.37 | 166 | 3995174 | 100.881 | ppbV | | 99 |
| 79) | 1,1,1,2-tetrachloroethane | 16.93 | 131 | 3740839 | 96.910 | ppbV | | 99 |
| 80) | chlorobenzene | 16.95 | 112 | 5943768 | 95.722 | ppbV | | 99 |
| 81) | ethylbenzene | 17.24 | 91 | 9041871 | 93.361 | ppbV | | 95 |
| 82) | 2-ethylthiophene | 17.27 | 97 | 6634775 | 99.071 | ppbV | | 98 |
| 83) | m+p-xylene | 17.39 | 91 | 13901411 | 183.557 | ppbV | | 95 |
| 84) | bromoform | 17.46 | 173 | 6220823 | 103.104 | ppbV | | 98 |
| 85) | styrene | 17.66 | 104 | 5794713 | 96.801 | ppbV | | 98 |
| 86) | 1,1,2,2-tetrachloroethane | 17.75 | 83 | 5578799 | 84.982 | ppbV | | 99 |
| 87) | o-xylene | 17.75 | 91 | 6705966 | 86.355 | ppbV | | 98 |
| 88) | 1,2,3-trichloropropane | 17.85 | 75 | 4659991 | 96.610 | ppbV | | 95 |
| 89) | nonane | 17.88 | 43 | 6534194 | 78.654 | ppbV | # | 87 |
| 91) | isopropylbenzene | 18.19 | 105 | 10157432 | 89.076 | ppbV | | 94 |
| 92) | bromobenzene | 18.27 | 77 | 5641955 | 94.997 | ppbV | | 95 |
| 93) | 2-chlorotoluene | 18.55 | 126 | 3125979 | 97.264 | ppbV | # | 55 |
| 94) | n-propylbenzene | 18.57 | 120 | 3117029 | 94.571 | ppbV | # | 45 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 8161056 | 93.457 | ppbV | | 92 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 10277851M6 | 89.873 | ppbV | | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 8532494 | 90.654 | ppbV | | 95 |
| 98) | tert-butylbenzene | 19.03 | 119 | 8414363 | 76.724 | ppbV | | 97 |
| 99) | 1,2,4-trimethylbenzene | 19.04 | 105 | 7445767 | 77.491 | ppbV | | 95 |
| 100) | decane | 19.08 | 57 | 6534076 | 79.637 | ppbV | # | 90 |
| 101) | Benzyl Chloride | 19.15 | 91 | 8234265 | 94.569 | ppbV | | 92 |
| 102) | 1,3-dichlorobenzene | 19.17 | 146 | 6735518 | 93.814 | ppbV | | 96 |
| 103) | 1,4-dichlorobenzene | 19.22 | 146 | 6626010 | 90.678 | ppbV | | 98 |
| 104) | sec-butylbenzene | 19.23 | 105 | 11653534 | 79.659 | ppbV | # | 87 |
| 105) | 1,2,3-trimethylbenzene | 19.36 | 105 | 8620512 | 108.129 | ppbV | | 98 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 10975017 | 81.512 | ppbV | | 94 |
| 107) | 1,2-dichlorobenzene | 19.48 | 146 | 6621791 | 96.113 | ppbV | | 98 |
| 108) | n-butylbenzene | 19.67 | 91 | 10673376 | 86.192 | ppbV | | 90 |
| 109) | indan | 19.52 | 117 | 8065111 | 92.908 | ppbV | | 96 |
| 110) | indene | 19.60 | 115 | 10315116 | 120.514 | ppbV | | 100 |
| 111) | 1,2-dibromo-3-chloropr... | 19.83 | 75 | 3193196 | 94.873 | ppbV | | 86 |
| 112) | undecane | 20.03 | 57 | 7397270 | 78.383 | ppbV | # | 89 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125428.D
Acq On : 11 Dec 2012 10:47 pm
Operator : AIRPIANO1:MB
Sample : ITO15-LLSTD100.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:06:07 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

Sub List : Default - All compounds listed

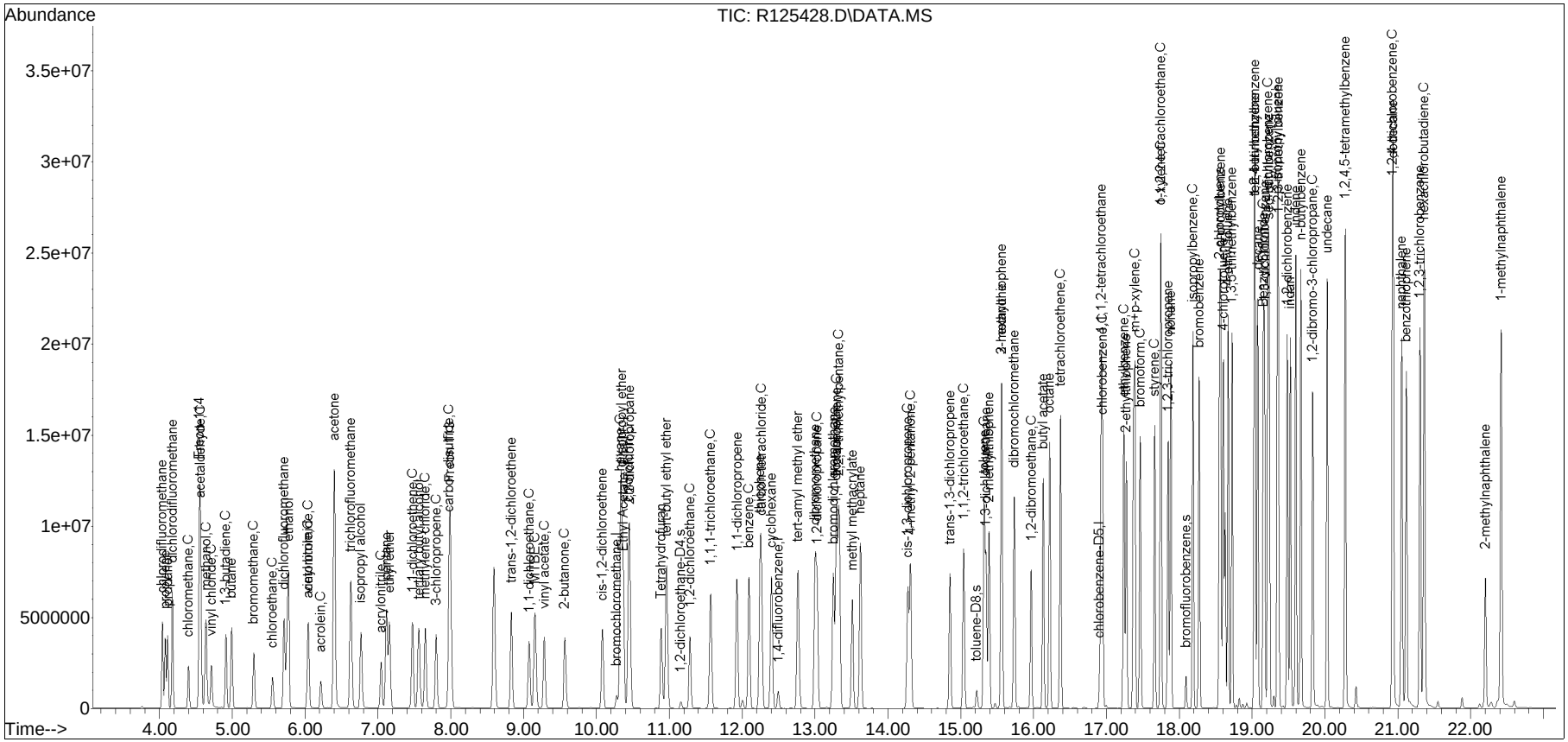
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 113) 1,2,4,5-tetramethylben... | 20.28 | 119 | 12270150 | 92.402 | ppbV | 92 |
| 114) dodecane | 20.94 | 57 | 6421274 | 62.390 | ppbV | 90 |
| 115) 1,2,4-trichlorobenzene | 20.92 | 180 | 5279388 | 86.136 | ppbV | 98 |
| 116) naphthalene | 21.05 | 128 | 13663968 | 90.793 | ppbV # | 93 |
| 117) 1,2,3-trichlorobenzene | 21.30 | 180 | 6333202 | 101.351 | ppbV | 98 |
| 118) benzothiophene | 21.12 | 134 | 11952540 | 112.433 | ppbV | 98 |
| 119) hexachlorobutadiene | 21.36 | 225 | 4930826 | 96.714 | ppbV | 94 |
| 120) 2-methylnaphthalene | 22.20 | 142 | 3445181 | 123.771 | ppbV | 100 |
| 121) 1-methylnaphthalene | 22.42 | 142 | 10202728 | 127.043 | ppbV | 99 |

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

Sub List : Default - All compounds listed Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125428.D
Acq On : 11 Dec 2012 10:47 pm
Operator : AIRPIANO1:MB
Sample : ITO15-LLSTD100.0
Misc : WG578983
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 12 10:06:07 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 09:44:07 2012
Response via : Initial Calibration

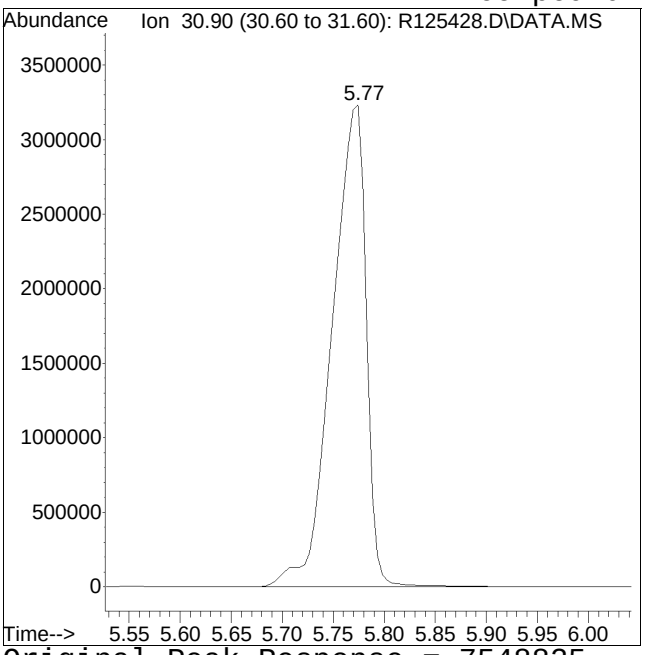


Manual Integration/Negative Proof Report

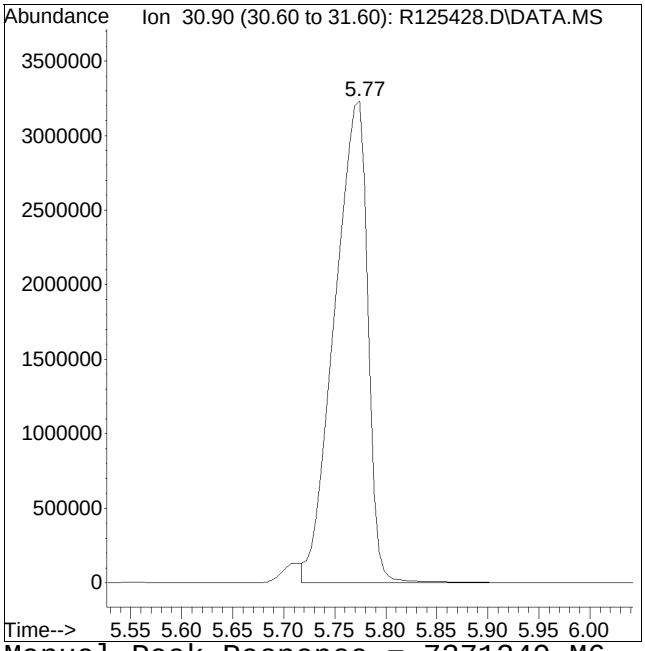
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125428.D
Date Inj'd : 12/11/2012 10:47 pm
Sample : ITO15-LLSTD100.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #15: ethanol




Original Peak Response = 7548825




Manual Peak Response = 7371249 M6

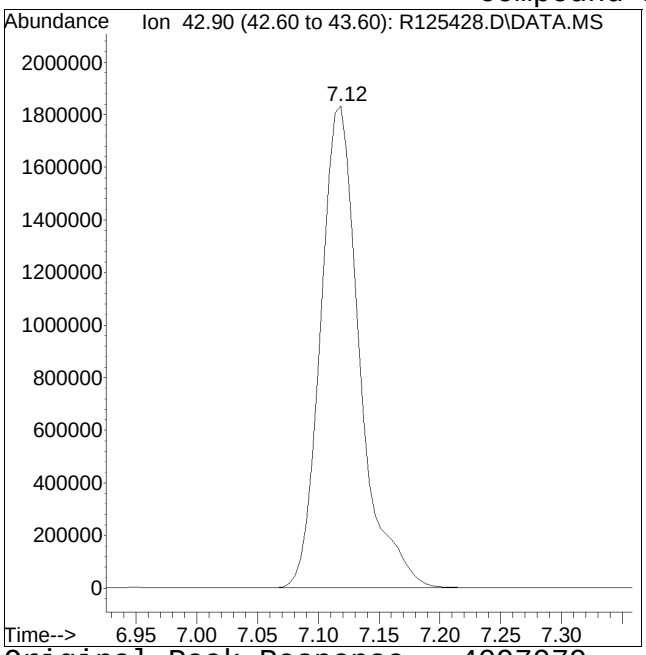
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

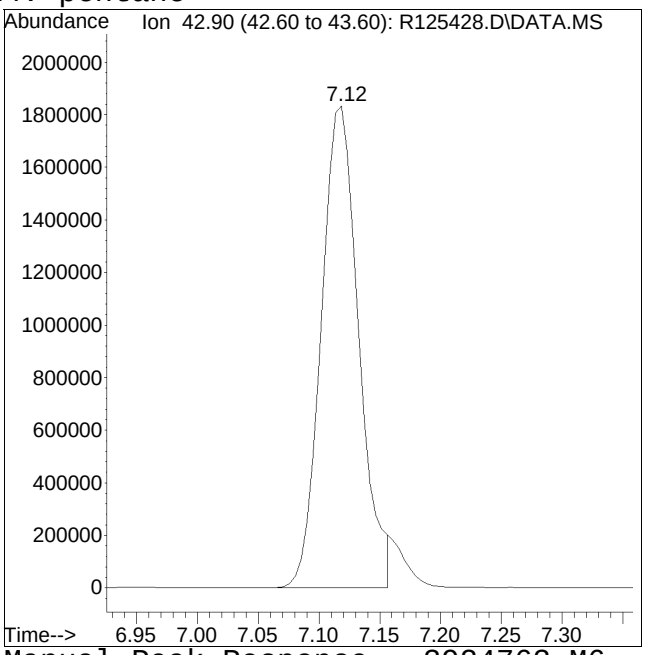
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125428.D
Date Inj'd : 12/11/2012 10:47 pm
Sample : ITO15-LLSTD100.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #24: pentane




Original Peak Response = 4097979




Manual Peak Response = 3924763 M6

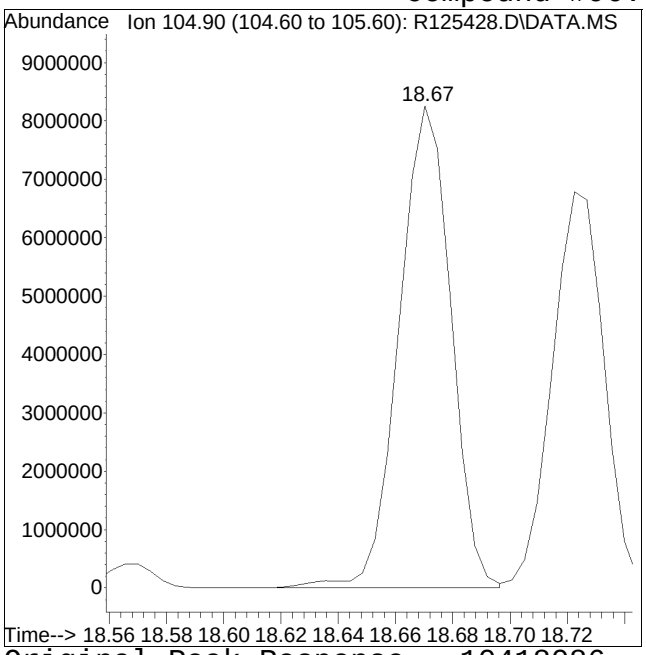
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

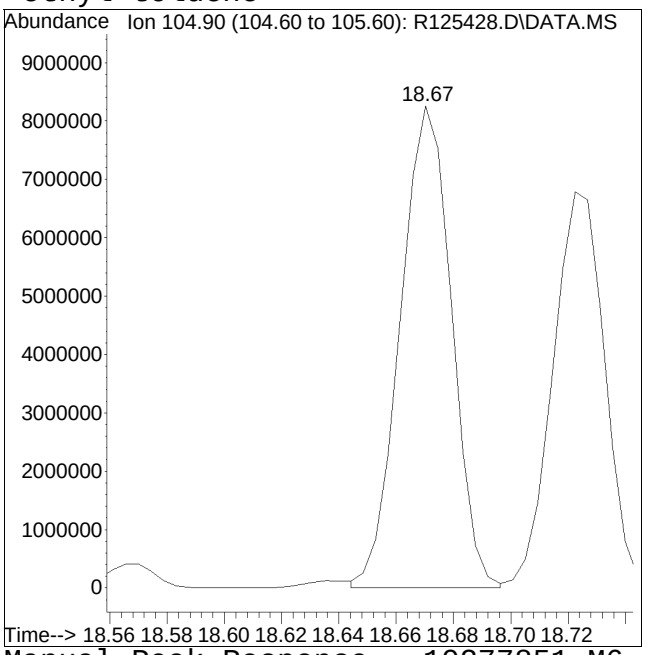
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125428.D
Date Inj'd : 12/11/2012 10:47 pm
Sample : ITO15-LLSTD100.0

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 9:45 am

Compound #96: 4-ethyl toluene




Original Peak Response = 10418086




Manual Peak Response = 10277851 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Initial Calibration Verification

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 80 | 0.00 |
| 2 | | chlorodifluoromethane | 1.330 | 1.223 | 8.0 | 77 | 0.00 |
| 3 | | propylene | 0.591 | 0.634 | -7.3 | 96 | 0.00 |
| 4 | | propane | 0.706 | 0.539 | 23.7 | 69 | 0.00 |
| 5 | | dichlorodifluoromethane | 1.418 | 1.516 | -6.9 | 89 | 0.00 |
| 6 | C | chloromethane | 0.683 | 0.723 | -5.9 | 94 | 0.00 |
| 7 | | Freon-114 | 1.581 | 1.755 | -11.0 | 93 | 0.00 |
| 8 | C | methanol | 0.250 | 0.219 | 12.4 | 76 | 0.00 |
| 9 | C | vinyl chloride | 0.630 | 0.687 | -9.0 | 93 | 0.00 |
| 10 | C | 1,3-butadiene | 0.506 | 0.547 | -8.1 | 92 | 0.00 |
| 11 | | butane | 1.137 | 1.062 | 6.6 | 81 | 0.00 |
| 13 | C | bromomethane | 0.615 | 0.648 | -5.4 | 93 | 0.00 |
| 14 | C | chloroethane | 0.281 | 0.303 | -7.8 | 91 | 0.00 |
| 15 | | ethanol | 0.528 | 0.486 | 8.0 | 77 | 0.00 |
| 16 | | dichlorofluoromethane | 1.338 | 1.275 | 4.7 | 80 | 0.00 |
| 17 | C | vinyl bromide | 0.586 | 0.625 | -6.7 | 89 | 0.00 |
| 18 | C | acrolein | 0.332 | 0.292 | 12.0 | 79 | 0.00 |
| 19 | | acetone | 1.230 | 1.308 | -6.3 | 92 | 0.00 |
| 20 | C | acetonitrile | 0.687 | 0.643 | 6.4 | 79 | 0.00 |
| 21 | | trichlorofluoromethane | 1.870 | 2.089 | -11.7 | 93 | 0.00 |
| 22 | | isopropyl alcohol | 1.632 | 1.763 | -8.0 | 92 | 0.00 |
| 23 | C | acrylonitrile | 0.590 | 0.564 | 4.4 | 82 | 0.00 |
| 24 | | pentane | 1.317 | 1.246 | 5.4 | 81 | 0.00 |
| 25 | | ethyl ether | 0.969 | 0.894 | 7.7 | 77 | 0.00 |
| 26 | C | 1,1-dichloroethene | 1.054 | 1.167 | -10.7 | 92 | 0.00 |
| 27 | | tertiary butyl alcohol | 1.475 | 1.434 | 2.8 | 82 | 0.00 |
| 28 | C | methylene chloride | 0.960 | 1.035 | -7.8 | 92 | 0.00 |
| 29 | C | 3-chloropropene | 0.971 | 1.075 | -10.7 | 96 | 0.00 |
| 30 | C | carbon disulfide | 1.734 | 1.799 | -3.7 | 89 | 0.00 |
| 31 | | Freon 113 | 1.246 | 1.390 | -11.6 | 93 | 0.00 |
| 32 | | trans-1,2-dichloroethene | 1.026 | 0.985 | 4.0 | 82 | 0.00 |
| 33 | C | 1,1-dichloroethane | 1.176 | 1.300 | -10.5 | 95 | 0.00 |
| 34 | C | MTBE | 1.438 | 1.497 | -4.1 | 89 | 0.00 |
| 35 | C | vinyl acetate | 1.974 | 2.296 | -16.3 | 98 | 0.00 |
| 36 | C | 2-butanone | 1.673 | 1.681 | -0.5 | 88 | 0.00 |
| 37 | | cis-1,2-dichloroethene | 0.937 | 1.106 | -18.0 | 103 | 0.00 |
| 38 | | Ethyl Acetate | 0.232 | 0.226 | 2.6 | 78 | 0.00 |
| 39 | C | chloroform | 1.279 | 1.339 | -4.7 | 84 | 0.00 |
| 40 | | Tetrahydrofuran | 1.007 | 1.058 | -5.1 | 88 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 41 | | 2,2-dichloropropane | 1.104 | 0.968 | 12.3 | 72 | 0.00 |
| 42 | C | 1,2-dichloroethane | 0.935 | 1.044 | -11.7 | 91 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 44 | C | hexane | 0.497 | 0.413 | 16.9 | 76 | 0.00 |
| 45 | | diisopropyl ether | 0.206 | 0.164 | 20.4 | 71 | 0.00 |
| 46 | | tert-butyl ethyl ether | 1.093 | 0.950 | 13.1 | 81 | 0.00 |
| 47 | s | 1,2-dichloroethane-D4 | 0.318 | 0.314 | 1.3 | 91 | 0.00 |
| 48 | C | 1,1,1-trichloroethane | 0.595 | 0.606 | -1.8 | 97 | 0.00 |
| 49 | | 1,1-dichloropropene | 0.449 | 0.399 | 11.1 | 85 | 0.00 |
| 50 | C | benzene | 0.831 | 0.808 | 2.8 | 93 | 0.00 |
| 52 | C | carbon tetrachloride | 0.645 | 0.664 | -2.9 | 96 | 0.00 |
| 53 | | cyclohexane | 0.546 | 0.504 | 7.7 | 89 | 0.00 |
| 54 | | tert-amyl methyl ether | 0.818 | 0.714 | 12.7 | 82 | 0.00 |
| 55 | | dibromomethane | 0.432 | 0.371 | 14.1 | 82 | 0.00 |
| 56 | C | 1,2-dichloropropane | 0.370 | 0.369 | 0.3 | 95 | 0.00 |
| 57 | | bromodichloromethane | 0.674 | 0.642 | 4.7 | 91 | 0.00 |
| 58 | C | 1,4-dioxane | 0.188 | 0.172 | 8.5 | 87 | 0.00 |
| 59 | C | trichloroethene | 0.424 | 0.423 | 0.2 | 95 | 0.00 |
| 60 | C | 2,2,4-trimethylpentane | 1.712 | 1.591 | 7.1 | 89 | 0.00 |
| 61 | | methyl methacrylate | 0.521 | 0.509 | 2.3 | 98 | 0.00 |
| 62 | | heptane | 0.727 | 0.676 | 7.0 | 88 | 0.00 |
| 63 | C | cis-1,3-dichloropropene | 0.462 | 0.493 | -6.7 | 99 | 0.00 |
| 64 | C | 4-methyl-2-pentanone | 1.010 | 0.942 | 6.7 | 87 | 0.00 |
| 65 | | trans-1,3-dichloropropene | 0.468 | 0.426 | 9.0 | 85 | 0.00 |
| 66 | C | 1,1,2-trichloroethane | 0.374 | 0.384 | -2.7 | 97 | 0.00 |
| 67 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 68 | C | toluene | 4.023 | 3.966 | 1.4 | 94 | 0.00 |
| 69 | s | toluene-D8 | 3.017 | 2.933 | 2.8 | 93 | 0.00 |
| 71 | | 1,3-dichloropropane | 1.954 | 1.694 | 13.3 | 82 | 0.00 |
| 72 | | 2-hexanone | 3.654 | 3.563 | 2.5 | 88 | 0.00 |
| 74 | | dibromochloromethane | 3.078 | 2.867 | 6.9 | 87 | 0.00 |
| 75 | C | 1,2-dibromoethane | 2.476 | 2.504 | -1.1 | 95 | 0.00 |
| 76 | | butyl acetate | 0.446 | 0.380 | 14.8 | 81 | 0.00 |
| 77 | | octane | 1.141 | 0.976 | 14.5 | 81 | 0.00 |
| 78 | C | tetrachloroethene | 2.146 | 2.157 | -0.5 | 95 | 0.00 |
| 79 | | 1,1,1,2-tetrachloroethane | 2.064 | 1.839 | 10.9 | 83 | 0.00 |
| 80 | C | chlorobenzene | 3.297 | 3.350 | -1.6 | 95 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 81 | C | ethylbenzene | 5.144 | 5.255 | -2.2 | 95 | 0.00 |
| 83 | C | m+p-xylene | 4.029 | 4.107 | -1.9 | 95 | 0.00 |
| 84 | C | bromoform | 3.154 | 2.876 | 8.8 | 84 | 0.00 |
| 85 | C | styrene | 3.194 | 3.233 | -1.2 | 95 | 0.00 |
| 86 | C | 1,1,2,2-tetrachloroethane | 3.442 | 3.575 | -3.9 | 95 | 0.00 |
| 87 | C | o-xylene | 4.126 | 4.264 | -3.3 | 96 | 0.00 |
| 88 | | 1,2,3-trichloropropane | 2.605 | 2.279 | 12.5 | 83 | 0.00 |
| 89 | | nonane | 4.413 | 3.780 | 14.3 | 80 | 0.00 |
| 90 | s | bromofluorobenzene | 2.230 | 2.203 | 1.2 | 93 | 0.00 |
| 91 | C | isopropylbenzene | 6.021 | 5.489 | 8.8 | 84 | 0.00 |
| 92 | | bromobenzene | 3.198 | 2.827 | 11.6 | 83 | 0.00 |
| 93 | | 2-chlorotoluene | 1.753 | 1.528 | 12.8 | 83 | 0.00 |
| 94 | | n-propylbenzene | 1.763 | 1.559 | 11.6 | 83 | 0.00 |
| 95 | | 4-chlorotoluene | 4.639 | 4.021 | 13.3 | 81 | 0.00 |
| 96 | | 4-ethyl toluene | 6.049 | 5.439 | 10.1 | 83 | 0.00 |
| 97 | | 1,3,5-trimethylbenzene | 4.939 | 5.031 | -1.9 | 94 | 0.00 |
| 98 | | tert-butylbenzene | 5.571 | 5.154 | 7.5 | 82 | 0.00 |
| 99 | | 1,2,4-trimethylbenzene | 4.891 | 5.199 | -6.3 | 95 | 0.00 |
| 100 | | decane | 4.258 | 3.792 | 10.9 | 81 | 0.00 |
| 101 | C | Benzyl Chloride | 4.301 | 4.172 | 3.0 | 84 | 0.00 |
| 102 | | 1,3-dichlorobenzene | 3.790 | 3.894 | -2.7 | 95 | 0.00 |
| 103 | C | 1,4-dichlorobenzene | 3.864 | 3.900 | -0.9 | 94 | 0.00 |
| 104 | | sec-butylbenzene | 7.612 | 6.942 | 8.8 | 83 | 0.00 |
| 106 | | p-isopropyltoluene | 7.014 | 5.924 | 15.5 | 77 | 0.00 |
| 107 | | 1,2-dichlorobenzene | 3.591 | 3.740 | -4.1 | 95 | 0.00 |
| 108 | | n-butylbenzene | 6.425 | 6.001 | 6.6 | 85 | 0.00 |
| 111 | C | 1,2-dibromo-3-chloropropane | 1.742 | 1.611 | 7.5 | 84 | 0.00 |
| 112 | | undecane | 4.887 | 4.515 | 7.6 | 84 | 0.00 |
| 114 | | dodecane | 4.925 | 4.847 | 1.6 | 83 | 0.00 |
| 115 | C | 1,2,4-trichlorobenzene | 2.969 | 3.236 | -9.0 | 93 | 0.00 |
| 116 | | naphthalene | 7.844 | 7.257 | 7.5 | 84 | 0.00 |
| 117 | | 1,2,3-trichlorobenzene | 3.098 | 3.014 | 2.7 | 85 | 0.00 |
| 119 | C | hexachlorobutadiene | 2.591 | 2.772 | -7.0 | 95 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Default-ICV-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 286744 | 10.000 | ppbV | 0.00 |
| Standard Area = 360069 | | | Recovery = 79.64% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 702007 | 10.000 | ppbV | 0.00 |
| Standard Area = 737954 | | | Recovery = 95.13% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 181060 | 10.000 | ppbV | 0.00 |
| Standard Area = 191928 | | | Recovery = 94.34% | | | |
| System Monitoring Compounds | | | | | | |
| 47) 1,2-dichloroethane-D4 | 11.15 | 65 | 220406 | 9.875 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.75% | | | |
| 69) toluene-D8 | 15.21 | 98 | 531127 | 9.724 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 97.24% | | | |
| 90) bromofluorobenzene | 18.09 | 95 | 398828 | 9.880 | ppbV | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.80% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) chlorodifluoromethane | 4.04 | 51 | 350748 | 9.195 | ppbV | 100 |
| 3) propylene | 4.08 | 41 | 181684 | 10.715 | ppbV | 98 |
| 4) propane | 4.11 | 29 | 154635 | 7.635 | ppbV | 100 |
| 5) dichlorodifluoromethane | 4.18 | 85 | 434663 | 10.693 | ppbV | 97 |
| 6) chloromethane | 4.40 | 50 | 207381 | 10.596 | ppbV | 96 |
| 7) Freon-114 | 4.55 | 85 | 503141 | 11.102 | ppbV | 99 |
| 8) methanol | 4.63 | 31 | 314402 | 43.920 | ppbV | 94 |
| 9) vinyl chloride | 4.71 | 62 | 197072 | 10.907 | ppbV | 99 |
| 10) 1,3-butadiene | 4.92 | 54 | 156716 | 10.810 | ppbV | 99 |
| 11) butane | 4.99 | 43 | 304414 | 9.339 | ppbV | 100 |
| 13) bromomethane | 5.30 | 94 | 185729 | 10.526 | ppbV | 96 |
| 14) chloroethane | 5.56 | 64 | 86954 | 10.780 | ppbV | 99 |
| 15) ethanol | 5.74 | 31 | 696376M6 | 46.014 | ppbV | |
| 16) dichlorofluoromethane | 5.71 | 67 | 365477 | 9.526 | ppbV | 99 |
| 17) vinyl bromide | 6.04 | 106 | 179199 | 10.667 | ppbV | 96 |
| 18) acrolein | 6.22 | 56 | 83636 | 8.788 | ppbV | 98 |
| 19) acetone | 6.40 | 43 | 1875744 | 53.171 | ppbV # | 99 |
| 20) acetonitrile | 6.03 | 41 | 184305 | 9.362 | ppbV | 99 |
| 21) trichlorofluoromethane | 6.63 | 101 | 598930 | 11.171 | ppbV | 98 |
| 22) isopropyl alcohol | 6.76 | 45 | 505406 | 10.803 | ppbV | 99 |
| 23) acrylonitrile | 7.04 | 53 | 161854 | 9.573 | ppbV | 97 |
| 24) pentane | 7.11 | 43 | 357374M6 | 9.463 | ppbV | |
| 25) ethyl ether | 7.16 | 31 | 256211 | 9.224 | ppbV | 99 |
| 26) 1,1-dichloroethene | 7.47 | 61 | 334700 | 11.071 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Default-ICV-AP2 - All compounds listed

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 27) tertiary butyl alcohol | 7.55 | 59 | 411120 | 9.721 | ppbV | 99 |
| 28) methylene chloride | 7.65 | 49 | 296753 | 10.777 | ppbV | 98 |
| 29) 3-chloropropene | 7.80 | 41 | 308282 | 11.069 | ppbV | 96 |
| 30) carbon disulfide | 7.98 | 76 | 515762 | 10.375 | ppbV | 100 |
| 31) Freon 113 | 7.99 | 101 | 398467 | 11.155 | ppbV | 97 |
| 32) trans-1,2-dichloroethene | 8.83 | 61 | 282438 | 9.598 | ppbV | 99 |
| 33) 1,1-dichloroethane | 9.07 | 63 | 372881 | 11.057 | ppbV | 99 |
| 34) MTBE | 9.16 | 73 | 429205 | 10.408 | ppbV | 98 |
| 35) vinyl acetate | 9.28 | 43 | 658368 | 11.630 | ppbV | 99 |
| 36) 2-butanone | 9.56 | 43 | 482111 | 10.049 | ppbV | 97 |
| 37) cis-1,2-dichloroethene | 10.08 | 61 | 317257 | 11.802 | ppbV | 98 |
| 38) Ethyl Acetate | 10.37 | 61 | 64846 | 9.733 | ppbV | 62 |
| 39) chloroform | 10.43 | 83 | 384050 | 10.475 | ppbV | 97 |
| 40) Tetrahydrofuran | 10.89 | 42 | 303255 | 10.504 | ppbV | 98 |
| 41) 2,2-dichloropropane | 10.45 | 77 | 277522 | 8.763 | ppbV | 96 |
| 42) 1,2-dichloroethane | 11.28 | 62 | 299276 | 11.161 | ppbV | 99 |
| 44) hexane | 10.33 | 57 | 289653 | 8.294 | ppbV | 88 |
| 45) diisopropyl ether | 10.33 | 87 | 115467 | 7.997 | ppbV | 81 |
| 46) tert-butyl ethyl ether | 10.96 | 59 | 667048 | 8.695 | ppbV | 99 |
| 48) 1,1,1-trichloroethane | 11.56 | 97 | 425360 | 10.192 | ppbV | 100 |
| 49) 1,1-dichloropropene | 11.92 | 75 | 280298 | 8.902 | ppbV | 98 |
| 50) benzene | 12.09 | 78 | 567165 | 9.718 | ppbV | 97 |
| 52) carbon tetrachloride | 12.25 | 117 | 465857 | 10.285 | ppbV | 97 |
| 53) cyclohexane | 12.40 | 56 | 353993 | 9.241 | ppbV | 99 |
| 54) tert-amyl methyl ether | 12.76 | 73 | 501382 | 8.727 | ppbV | 99 |
| 55) dibromomethane | 12.99 | 93 | 260122 | 8.574 | ppbV | 100 |
| 56) 1,2-dichloropropane | 13.02 | 63 | 258831 | 9.963 | ppbV | 99 |
| 57) bromodichloromethane | 13.24 | 83 | 450751 | 9.533 | ppbV | 99 |
| 58) 1,4-dioxane | 13.29 | 88 | 120571 | 9.141 | ppbV | 100 |
| 59) trichloroethene | 13.29 | 130 | 297163 | 9.995 | ppbV | 98 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 1117061 | 9.297 | ppbV | 99 |
| 61) methyl methacrylate | 13.50 | 41 | 357391 | 9.765 | ppbV | 99 |
| 62) heptane | 13.61 | 43 | 474902 | 9.300 | ppbV | 98 |
| 63) cis-1,3-dichloropropene | 14.26 | 75 | 345985 | 10.674 | ppbV | 98 |
| 64) 4-methyl-2-pentanone | 14.30 | 43 | 661511 | 9.328 | ppbV | 99 |
| 65) trans-1,3-dichloropropene | 14.84 | 75 | 298944 | 9.097 | ppbV | 99 |
| 66) 1,1,2-trichloroethane | 15.03 | 97 | 269886 | 10.288 | ppbV | 99 |
| 68) toluene | 15.31 | 91 | 718166 | 9.859 | ppbV | 99 |
| 71) 1,3-dichloropropane | 15.33 | 76 | 306721 | 8.671 | ppbV | 98 |
| 72) 2-hexanone | 15.55 | 43 | 645192 | 9.752 | ppbV # | 94 |
| 74) dibromochloromethane | 15.73 | 129 | 519022 | 9.313 | ppbV | 99 |

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Default-ICV-AP2 - All compounds listed

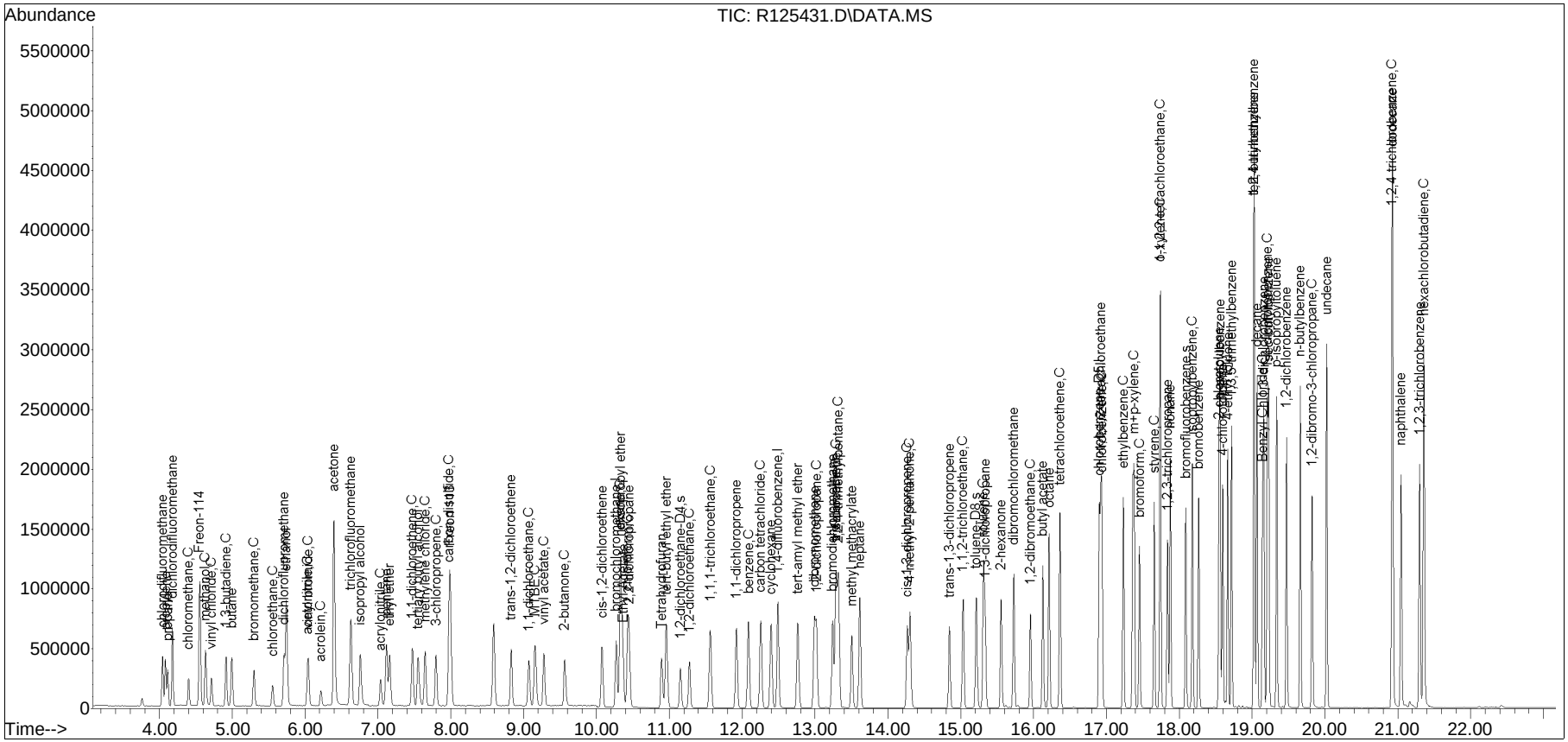
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 75) | 1,2-dibromoethane | 15.95 | 107 | 453412 | 10.115 | ppbV | 97 |
| 76) | butyl acetate | 16.13 | 73 | 68832 | 8.530 | ppbV | 93 |
| 77) | octane | 16.22 | 85 | 176632 | 8.549 | ppbV | 99 |
| 78) | tetrachloroethene | 16.36 | 166 | 390483 | 10.049 | ppbV | 99 |
| 79) | 1,1,1,2-tetrachloroethane | 16.92 | 131 | 332969 | 8.912 | ppbV | 96 |
| 80) | chlorobenzene | 16.94 | 112 | 606494 | 10.158 | ppbV | 98 |
| 81) | ethylbenzene | 17.23 | 91 | 951437 | 10.215 | ppbV | 99 |
| 83) | m+p-xylene | 17.38 | 91 | 1487387 | 20.388 | ppbV | 100 |
| 84) | bromoform | 17.46 | 173 | 520718 | 9.119 | ppbV | 98 |
| 85) | styrene | 17.66 | 104 | 585436 | 10.124 | ppbV | 99 |
| 86) | 1,1,2,2-tetrachloroethane | 17.74 | 83 | 647209 | 10.385 | ppbV | 98 |
| 87) | o-xylene | 17.74 | 91 | 771985 | 10.333 | ppbV | 97 |
| 88) | 1,2,3-trichloropropane | 17.84 | 75 | 412561 | 8.747 | ppbV | 99 |
| 89) | nonane | 17.88 | 43 | 684345 | 8.565 | ppbV | 99 |
| 91) | isopropylbenzene | 18.18 | 105 | 993795 | 9.115 | ppbV | 99 |
| 92) | bromobenzene | 18.26 | 77 | 511804 | 8.839 | ppbV | 98 |
| 93) | 2-chlorotoluene | 18.54 | 126 | 276742 | 8.720 | ppbV | 66 |
| 94) | n-propylbenzene | 18.56 | 120 | 282197 | 8.842 | ppbV | 95 |
| 95) | 4-chlorotoluene | 18.60 | 91 | 728055 | 8.668 | ppbV | 98 |
| 96) | 4-ethyl toluene | 18.67 | 105 | 984813M6 | 8.992 | ppbV | |
| 97) | 1,3,5-trimethylbenzene | 18.72 | 105 | 910940 | 10.187 | ppbV | 99 |
| 98) | tert-butylbenzene | 19.02 | 119 | 933197 | 9.251 | ppbV | 99 |
| 99) | 1,2,4-trimethylbenzene | 19.02 | 105 | 941383 | 10.629 | ppbV | 97 |
| 100) | decane | 19.07 | 57 | 686490 | 8.904 | ppbV | 99 |
| 101) | Benzyl Chloride | 19.14 | 91 | 755406 | 9.701 | ppbV | 99 |
| 102) | 1,3-dichlorobenzene | 19.16 | 146 | 704960 | 10.273 | ppbV | 99 |
| 103) | 1,4-dichlorobenzene | 19.21 | 146 | 706172 | 10.093 | ppbV | 99 |
| 104) | sec-butylbenzene | 19.23 | 105 | 1256897 | 9.120 | ppbV | 99 |
| 106) | p-isopropyltoluene | 19.34 | 119 | 1072543 | 8.445 | ppbV | 100 |
| 107) | 1,2-dichlorobenzene | 19.47 | 146 | 677102 | 10.414 | ppbV | 99 |
| 108) | n-butylbenzene | 19.66 | 91 | 1086471 | 9.340 | ppbV | 99 |
| 111) | 1,2-dibromo-3-chloropr... | 19.82 | 75 | 291677 | 9.247 | ppbV | 99 |
| 112) | undecane | 20.02 | 57 | 817455 | 9.238 | ppbV | 99 |
| 114) | dodecane | 20.93 | 57 | 877571 | 9.841 | ppbV | 100 |
| 115) | 1,2,4-trichlorobenzene | 20.92 | 180 | 585935 | 10.898 | ppbV | 99 |
| 116) | naphthalene | 21.04 | 128 | 1313889 | 9.251 | ppbV | 99 |
| 117) | 1,2,3-trichlorobenzene | 21.30 | 180 | 545790 | 9.730 | ppbV | 98 |
| 119) | hexachlorobutadiene | 21.36 | 225 | 501980 | 10.701 | ppbV | 99 |

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

Sub List : Default-ICV-AP2 - All compounds listedd)

Data Path : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\
Data File : R125431.D
Acq On : 12 Dec 2012 11:12 am
Operator : AIRPIANO1:MB
Sample : CTO15-LLSTD10
Misc : WG578983
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 11:40:42 2012
Quant Method : O:\Forensics\Data\AIR1\2012\121211TO15_ICAL\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

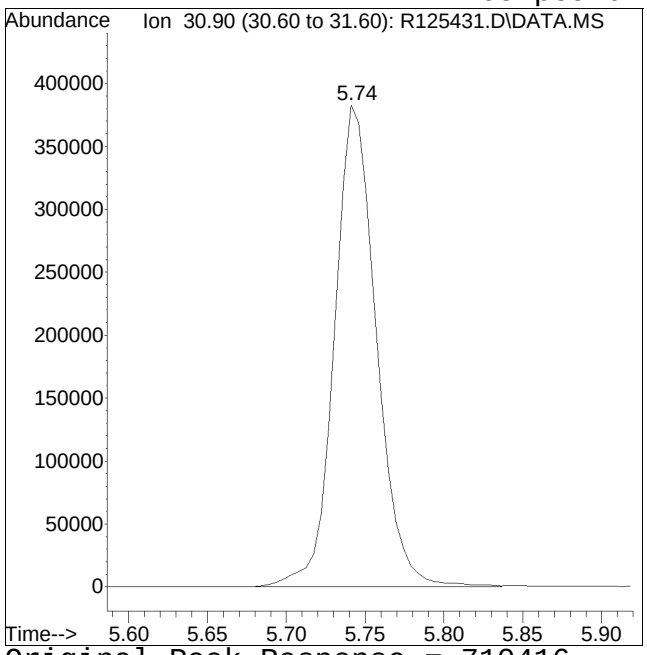


Manual Integration/Negative Proof Report

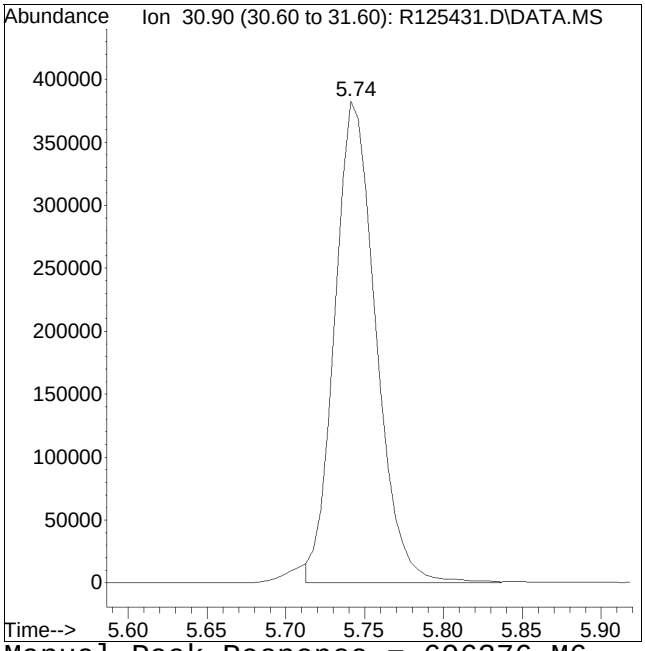
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125431.D
Date Inj'd : 12/12/2012 11:12 am
Sample : CTO15-LLSTD10

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 11:39 am

Compound #15: ethanol




Original Peak Response = 710416




Manual Peak Response = 696376 M6

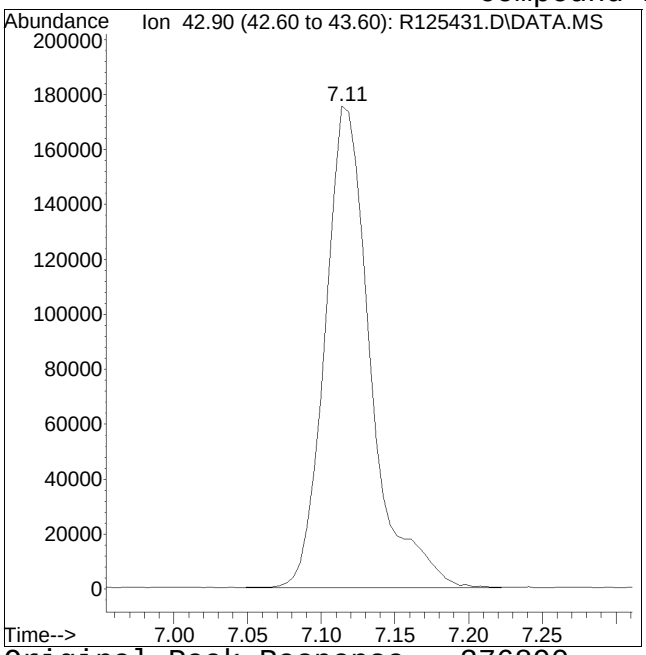
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

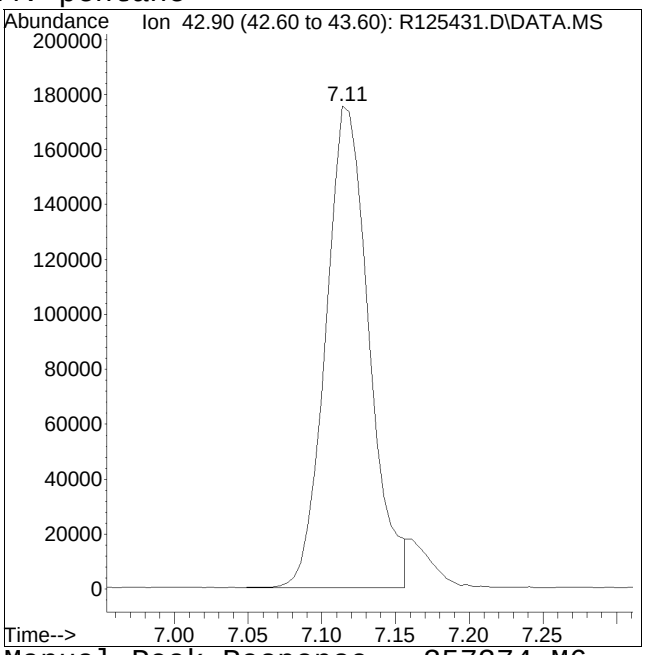
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125431.D
Date Inj'd : 12/12/2012 11:12 am
Sample : CTO15-LLSTD10

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 11:39 am

Compound #24: pentane




Original Peak Response = 376890




Manual Peak Response = 357374 M6

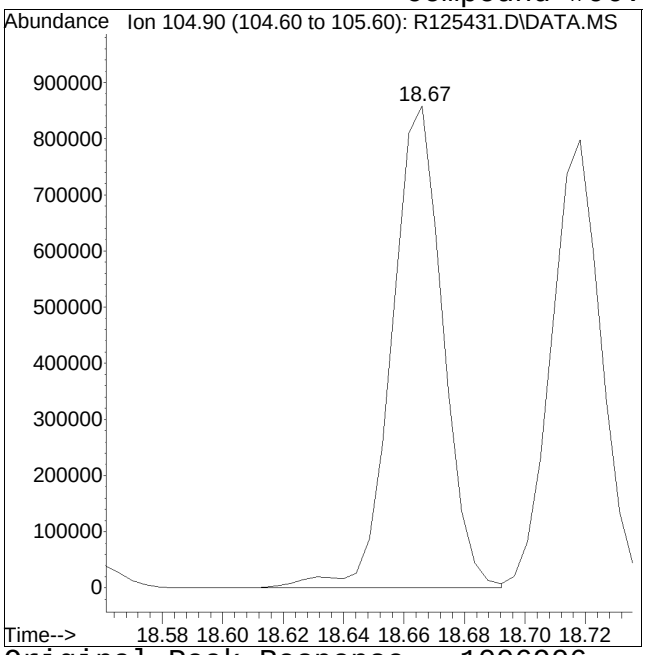
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

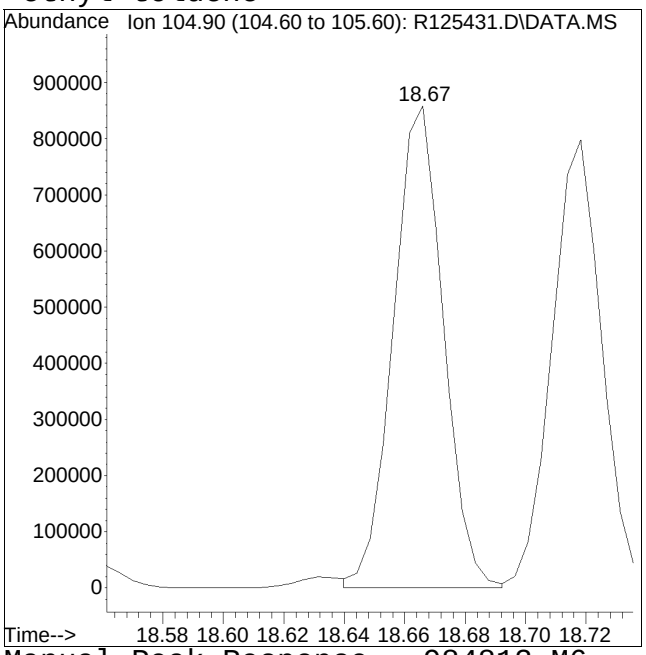
Data Path : O:\Forensics\Data\AIR1\2012Q
Data File : R125431.D
Date Inj'd : 12/12/2012 11:12 am
Sample : CTO15-LLSTD10

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 12/12/2012 11:39 am

Compound #96: 4-ethyl toluene




Original Peak Response = 1006906




Manual Peak Response = 984813 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 21 2015, 01:15 pm

Work Group: WG589503 for Department: 3 GC/MS

Created: 08-FEB-13 Due: Operator: ry

| Sample | Client ID | C | Product | Matrix | Stat | UA | HOLD | DUE | PR | Location |
|---|---|---|---|---|---|---|---|---|---|---|
| L1302224-01 | S-149-J | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-02 | DUP | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-03 | S-157-J | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-04 | S-1100 | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-05 | S-171-X | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| L1302224-06 | NEPD | S | MCP-TO15 | AIR | DONE | U | 0306 | 0213 | S0 | Can-6 |
| WG589503-1 | MS BFB Tune Standard | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-2 | Continuing Calibrati | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-3 | Laboratory Control S | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-4 | Laboratory Method Bl | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-5 | Duplicate Sample | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-6 | MS BFB Tune Standard | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-7 | Continuing Calibrati | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-8 | Laboratory Control S | S | MCP-TO15 | AIR | DONE | U | | | | |
| WG589503-9 | Laboratory Method Bl | S | MCP-TO15 | AIR | DONE | U | | | | |

Comments:

WG589503-5 L1302224-01

# Sequence Logs

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\121211_TO15ICAL.SEQ
Date: 12-12-2012
Time: 12:15:05
Int. Std Volume: 100 cc

| Sample Name | Inlet # | Auto Samp Pos | Cal Vol. | Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| TA1121101 | 1 | 1 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.02 | 1 | 5 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.04 | 1 | 5 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.1 | 1 | 6 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.2 | 1 | 6 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD0.5 | 1 | 7 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD1.0 | 1 | 7 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD2.5 | 1 | 8 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD5.0 | 1 | 8 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD10 | 1 | 9 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD20 | 1 | 9 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD50 | 1 | 10 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| ITO15-SIMSTD100 | 1 | 10 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| BA1121101 | 1 | 1 | 250 | 0 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| BA1121102 | 1 | 1 | 250 | 0 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| CTO15-LLSTD10 | 1 | 2 | 250 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |
| CTO15-SIMSTD5.0 | 1 | 2 | 125 | 100 | C:\Smart\Alpha-TO15.CTD | 12:00 |

# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Date: 12/11/12

Internal Standard/Surrogate Volume: 100 mL

Analyst Initials: AR/MB

EM Voltage: 1800

SIM ICAL# Full Scan ICAL# PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1121101 | TO15_SFS | R125416 | 250ml | TUNE |
| 5 | ITO15-SIMSTD0.02 | TO15_SFS | R125417 | SS12-044F 125ML 0.02 | SIM ONLY |
| 5 | ITO15-SIMSTD0.04 | TO15_SFS | R125418 | SS12-044F 250ML 0.04 | SIM ONLY |
| 6 | ITO15-SIMSTD0.1 | TO15_SFS | R125419 | SS12-044E 125ML 0.1 | SIM ONLY |
| 6 | ITO15-SIMSTD0.2 | TO15_SFS | R125420 | SS12-044E 250ML 0.2 | |
| 7 | ITO15-SIMSTD0.5 | TO15_SFS | R125421 | SS12-044D 125ML 0.5 | |
| 7 | ITO15-SIMSTD1.0 | TO15_SFS | R125422 | SS12-044D 250ML 1.0 | |
| 8 | ITO15-SIMSTD2.5 | TO15_SFS | R125423 | SS12-044C 125ML 2.5 | |
| 8 | ITO15-SIMSTD5.0 | TO15_SFS | R125424 | SS12-044C 250ML 5.0 | |
| 9 | ITO15-SIMSTD10.0 | TO15_SFS | R125425 | SS12-044B 125ML 10.0 | |
| 9 | ITO15-SIMSTD20.0 | TO15_SFS | R125426 | SS12-044B 250ML 20.0 | |
| 10 | ITO15-SIMSTD50.0 | TO15_SFS | R125427 | SS12-044A 125ML 50.0 | |
| 10 | ITO15-LLSTD100.0 | TO15_SFS | R125428 | SS12-044A 250ML 100.0 | FULL SCAN ONLY |
| 1 | BA1121101 | TO15_SFS | R125429 | 250ml | |
| | | Pause | | | |
| 1 | BA1121102 | TO15_SFS | R125430 | 250ml | |
| 2 | CTO15-LLSTD10 | TO15_SFS | R125431 | SS12-041C 250ML 10.0 | FULL SCAN ICV |
| 2 | CTO15-SIMSTD5.0 | TO15_SFS | R125432 | SS12-041C 125ML 5.0 | SIM ICV |
| | | | | | |
| | | | | | |

# Alpha Analytical Air Lab
# Instrument Run Log

Instrument ID: AirPiano1

Internal Standard/Surrogate IDs: CSS11-004 CSS12-007

Date: 02/08/13

Internal Standard/Surrogate Volume: 100 mL

Analyst Initials: MB/AR

EM Voltage: 1918

SIM ICAL# 7589 Full Scan ICAL# 7588 PIANO ICAL # APH ICAL # 7587

| AS Position # | Sample ID | Acquisition Method | Data File ID | Misc Info | Comment |
|---|---|---|---|---|---|
| 1 | TA1020801 | TO15_SFS | R126424 | 250ml | TUNE |
| 2 | CAPH-10STD10 | TO15_SFS | R126425 | SS12-047B 125ML 10.0 | APH CC |
| 3 | CTO15-LLSTD10.0 | TO15_SFS | R126426 | SS13-001B 250ML 10.0 | LL LCS |
| 3 | CTO15-SIMSTD5.0 | TO15_SFS | R126427 | SS13-001B 125ML 10.0 | SIM LCS |
| 1 | BA1020801 | TO15_SFS | R126428 | 250ml | INST. BLANK |
| 1 | BA1020802 | TO15_SFS | R126429 | 250ml | BLANK |
| 2 | L1301988-01,3,250,250 | TO15_SFS | R126430 | WG589501,ICAL7587 | |
| 3 | L1302052-01,3,250,250 | TO15_SFS | R126431 | WG589501,ICAL7587 | |
| 4 | L1302169-01,3,250,250 | TO15_SFS | R126432 | WG589501,ICAL7587 | |
| 5 | L1302169-02,3,250,250 | TO15_SFS | R126433 | WG589501,ICAL7587 | |
| 6 | L1302354-01,3,250,250 | TO15_SFS | R126434 | WG589501,ICAL7587 | |
| 7 | L1302352-01,3,250,250 | TO15_SFS | R126435 | WG589501,ICAL7587 | |
| 8 | L1302352-02,3,250,250 | TO15_SFS | R126436 | WG589501,ICAL7587 | |
| 9 | L1302352-03,3,250,250 | TO15_SFS | R126437 | WG589501,ICAL7587 | |
| 10 | L1302224-01,3,250,250 | TO15_SFS | R126438 | WG589501,ICAL7587 | |
| 10 | L1302224-01DUP,3,250,250 | TO15_SFS | R126439 | WG589501,ICAL7587 | APH, SIM, TO15-LL DUP |
| 11 | L1302224-02,3,250,250 | TO15_SFS | R126440 | WG589501,ICAL7587 | |
| 12 | L1302224-03,3,250,250 | TO15_SFS | R126441 | WG589501,ICAL7587 | |
| 13 | L1302224-04,3,250,250 | TO15_SFS | R126442 | WG589501,ICAL7587 | |
| 14 | L1302224-05,3,250,250 | TO15_SFS | R126443 | WG589501,ICAL7587 | |
| 15 | L1302224-06,3,250,250 | TO15_SFS | R126444 | WG589501,ICAL7587 | |

# Alpha Analytical Air Lab
# Instrument Run Log

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

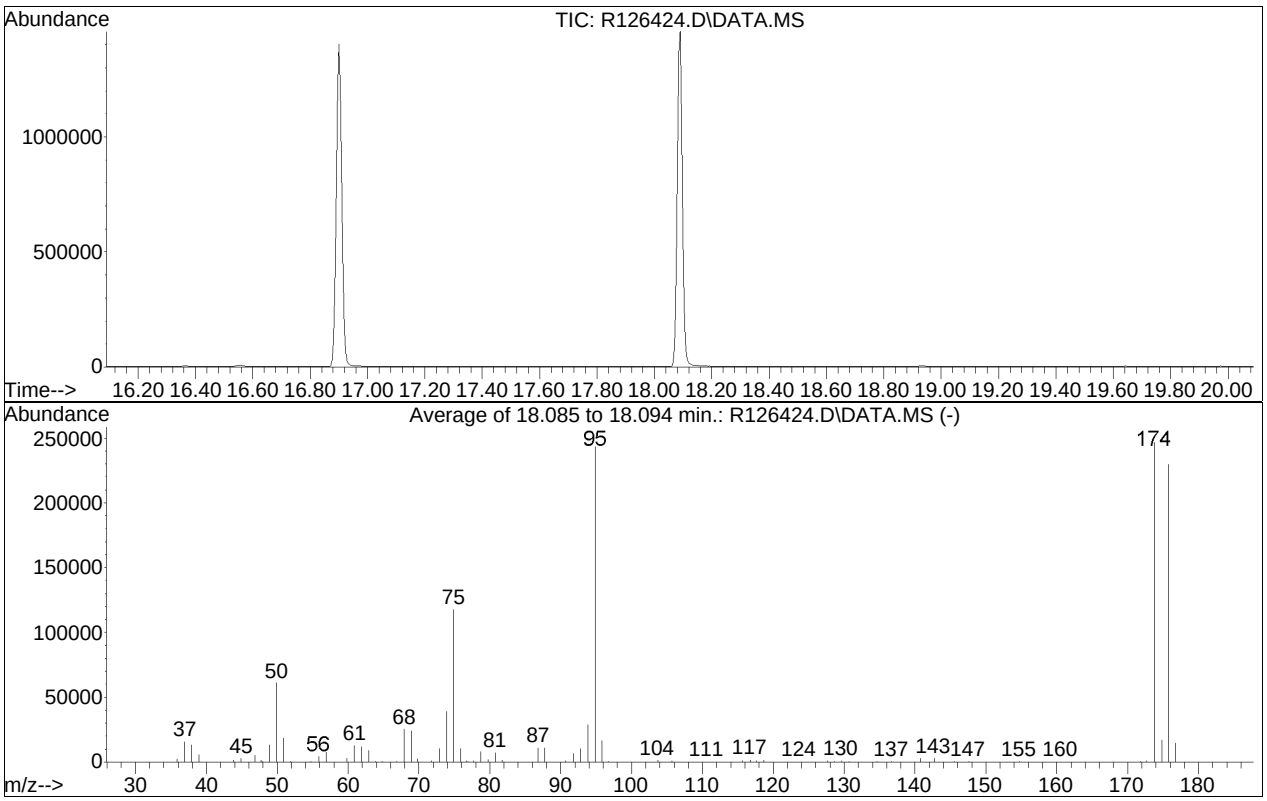
# Analytical Event

# Continuing Calibration
# BFB Tune

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126424.D
Acq On : 8 Feb 2013 10:47 am
Operator : AIRPIANO1:RY
Sample : WG589503-1,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 3246

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 25.1 | 61168 | PASS |
| 75 | 95 | 30 | 66 | 48.3 | 117757 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 243627 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 16787 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 904 | PASS |
| 174 | 95 | 50 | 120 | 101.2 | 246507 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 17143 | PASS |
| 176 | 174 | 93 | 101 | 93.1 | 229611 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 14686 | PASS |

# Continuing Calibration

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-2,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 3 | | propylene | 0.591 | 0.532 | 10.0 | 91 | 0.00 |
| 15 | | ethanol | 0.528 | 0.395 | 25.2 | 70 | 0.00 |
| 17 | C | vinyl bromide | 0.586 | 0.510 | 13.0 | 82 | 0.00 |
| 19 | | acetone | 1.230 | 1.104 | 10.2 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 1.632 | 1.385 | 15.1 | 81 | 0.00 |
| 29 | C | 3-chloropropene | 0.971 | 0.812 | 16.4 | 81 | 0.00 |
| 30 | C | carbon disulfide | 1.734 | 1.346 | 22.4 | 75 | 0.00 |
| 35 | C | vinyl acetate | 1.974 | 1.670 | 15.4 | 80 | 0.00 |
| 36 | C | 2-butanone | 1.673 | 1.545 | 7.7 | 91 | 0.00 |
| 38 | | Ethyl Acetate | 0.232 | 0.197 | 15.1 | 76 | 0.00 |
| 40 | | Tetrahydrofuran | 1.007 | 0.841 | 16.5 | 79 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 44 | C | hexane | 0.497 | 0.462 | 7.0 | 79 | 0.00 |
| 53 | | cyclohexane | 0.546 | 0.498 | 8.8 | 81 | 0.00 |
| 58 | C | 1,4-dioxane | 0.188 | 0.165 | 12.2 | 77 | 0.00 |
| 60 | C | 2,2,4-trimethylpentane | 1.712 | 1.574 | 8.1 | 82 | 0.00 |
| 62 | | heptane | 0.727 | 0.674 | 7.3 | 81 | 0.00 |
| 64 | C | 4-methyl-2-pentanone | 1.010 | 0.927 | 8.2 | 79 | 0.00 |
| 67 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 72 | | 2-hexanone | 3.654 | 3.492 | 4.4 | 79 | 0.00 |
| 96 | | 4-ethyl toluene | 6.049 | 5.707 | 5.7 | 80 | 0.00 |
| 101 | C | Benzyl Chloride | 4.301 | 4.120 | 4.2 | 76 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-2,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

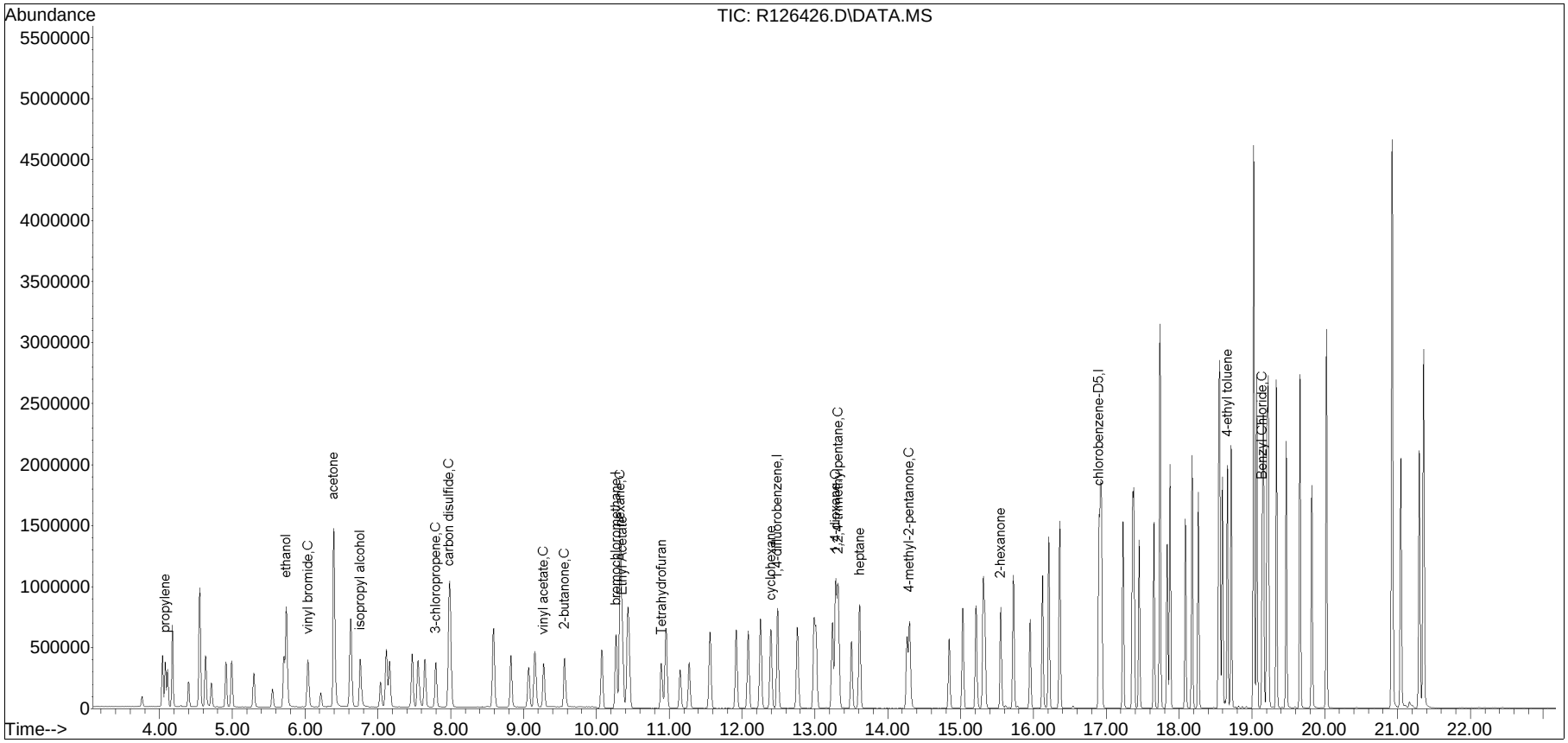
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 322657 | 10.000 ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery = 100.00% | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 648175 | 10.000 ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery = 100.00% | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 166114 | 10.000 ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery = 100.00% | | |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 171626 | 8.995 ppbV | 95 |
| 15) ethanol | 5.74 | 31 | 637808 | 37.453 ppbV | 94 |
| 17) vinyl bromide | 6.04 | 106 | 164419 | 8.698 ppbV | 96 |
| 19) acetone | 6.39 | 43 | 1780941 | 44.864 ppbV | 97 |
| 22) isopropyl alcohol | 6.76 | 45 | 446857 | 8.488 ppbV | 99 |
| 29) 3-chloropropene | 7.80 | 41 | 262063 | 8.362 ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 434347 | 7.765 ppbV | 96 |
| 35) vinyl acetate | 9.27 | 43 | 538722 | 8.457 ppbV | 99 |
| 36) 2-butanone | 9.56 | 43 | 498480 | 9.234 ppbV | 97 |
| 38) Ethyl Acetate | 10.36 | 61 | 63659 | 8.491 ppbV | 100 |
| 40) Tetrahydrofuran | 10.89 | 42 | 271245 | 8.350 ppbV | 96 |
| 44) hexane | 10.32 | 57 | 299729 | 9.296 ppbV | 92 |
| 53) cyclohexane | 12.40 | 56 | 322979 | 9.132 ppbV | 99 |
| 58) 1,4-dioxane | 13.28 | 88 | 106762 | 8.766 ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 1019954 | 9.194 ppbV | 100 |
| 62) heptane | 13.61 | 43 | 436957 | 9.268 ppbV | 96 |
| 64) 4-methyl-2-pentanone | 14.30 | 43 | 600589 | 9.172 ppbV | 97 |
| 72) 2-hexanone | 15.55 | 43 | 580032 | 9.556 ppbV # | 93 |
| 96) 4-ethyl toluene | 18.66 | 105 | 948092 | 9.436 ppbV | 98 |
| 101) Benzyl Chloride | 19.14 | 91 | 684398 | 9.580 ppbV | 97 |

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

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-2,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126426.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:50 am | Instrument | : Air Piano 1 |
| Sample | : WG589503-2,3,250,250 | Quant Date | : 2/8/2013 12:17 pm |

There are no manual integrations or false positives in this file.

# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 10:00:03 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

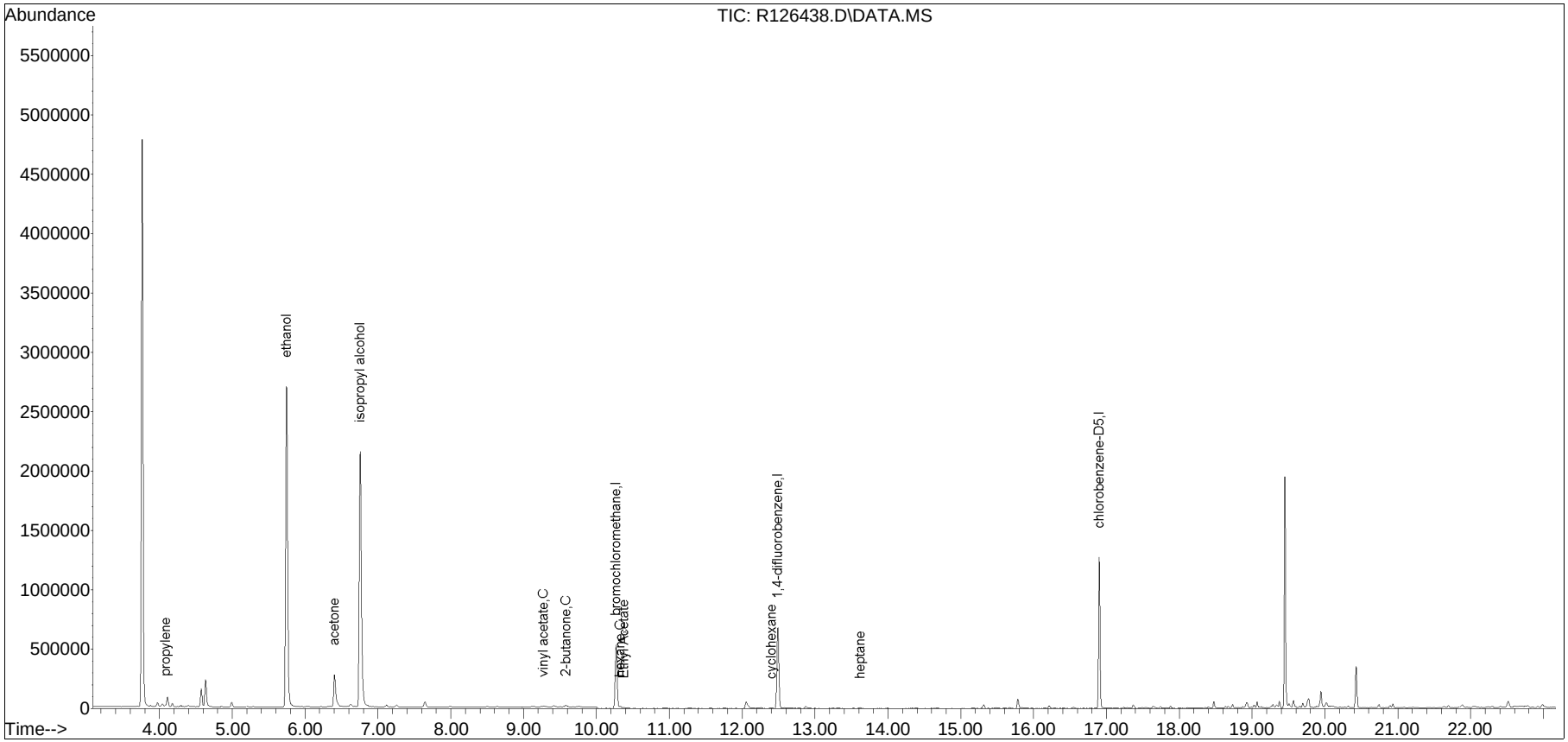
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 286463 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 88.78% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 542848 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 83.75% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 147159 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 88.59% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 2398 | 0.142 | ppbV | 93 |
| 15) ethanol | 5.75 | 31 | 2135867 | 141.268 | ppbV | 95 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.40 | 43 | 332646 | 9.439 | ppbV # | 96 |
| 22) isopropyl alcohol | 6.76 | 45 | 2613284 | 55.913 | ppbV | 99 |
| 29) 3-chloropropene | 7.80 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.98 | | 0 | N.D. | | |
| 35) vinyl acetate | 9.27 | 43 | 5009M6 | 0.089 | ppbV | |
| 36) 2-butanone | 9.58 | 43 | 17426 | 0.364 | ppbV # | 97 |
| 38) Ethyl Acetate | 10.38 | 61 | 863M1 | 0.130 | ppbV | |
| 40) Tetrahydrofuran | 0.00 | | 0 | N.D. | d | |
| 44) hexane | 10.33 | 57 | 6235 | 0.231 | ppbV # | 42 |
| 53) cyclohexane | 12.40 | 56 | 1753 | 0.059 | ppbV | 97 |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.32 | | 0 | N.D. | | |
| 62) heptane | 13.62 | 43 | 2711 | 0.069 | ppbV # | 66 |
| 64) 4-methyl-2-pentanone | 14.34 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.59 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.15 | | 0 | N.D. | | |

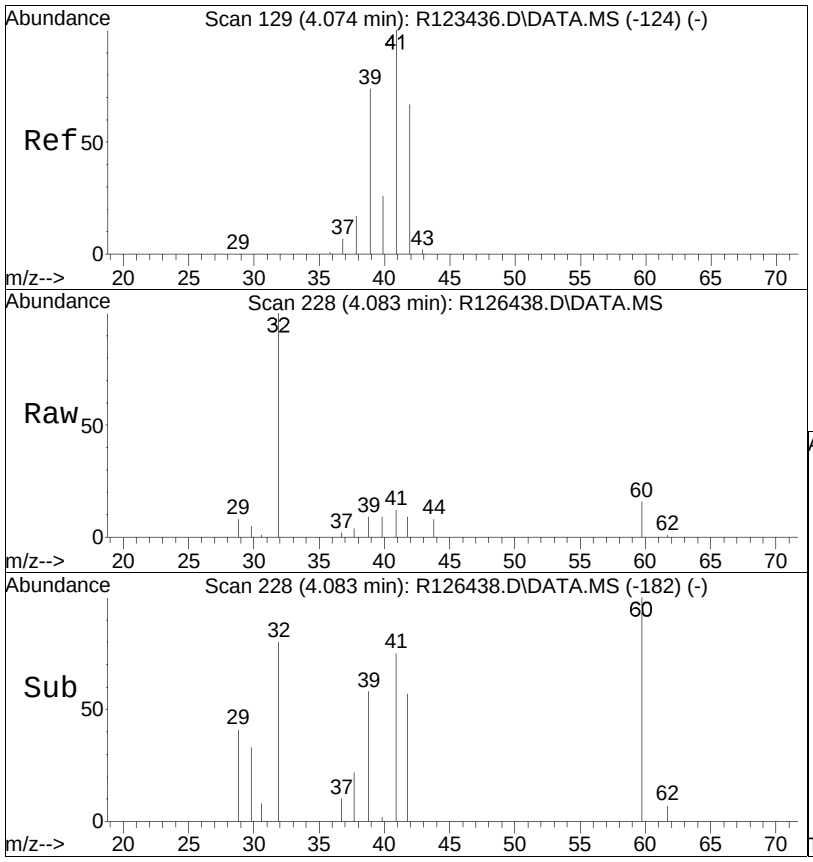
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126438.D
Acq On : 8 Feb 2013 6:56 pm
Operator : AIRPIANO1:MB
Sample : L1302224-01,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 10:00:03 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

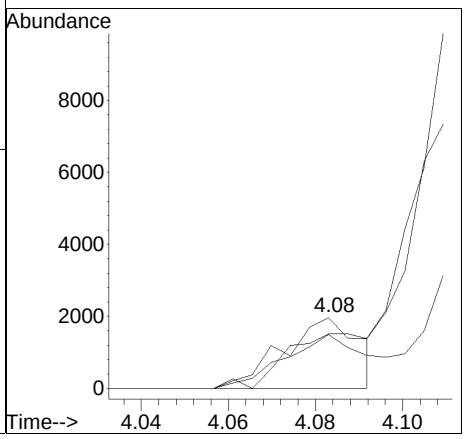


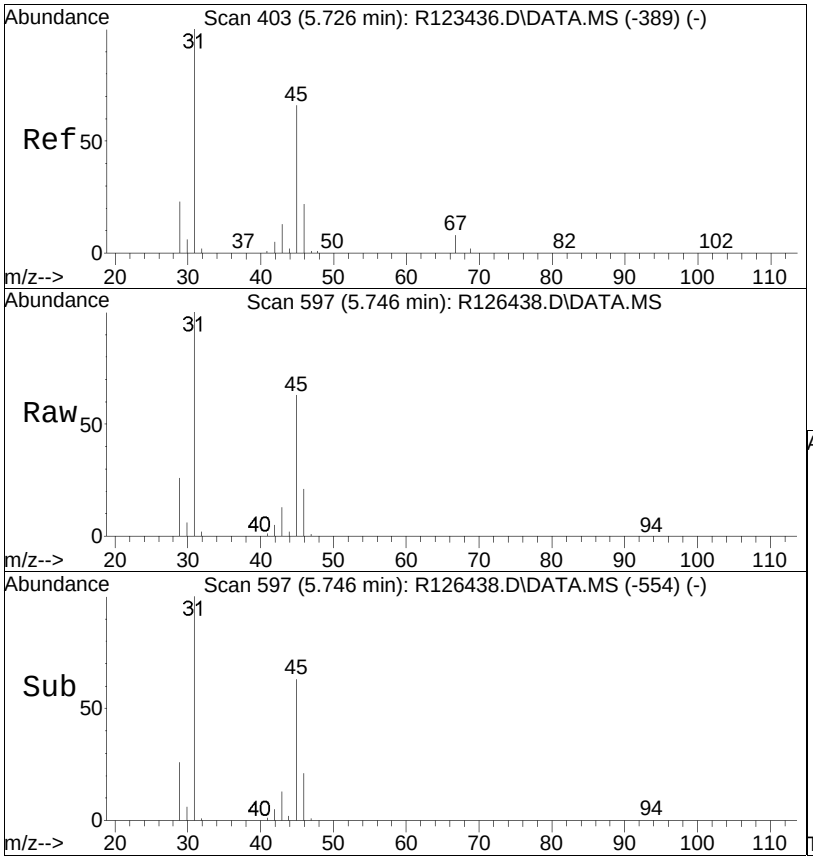



#3
propylene
Concen: 0.14 ppbV
RT: 4.08 min Scan# 228
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 41 Resp: 2398

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 76.1 | 52.8 | 79.2 |
| 39 | 76.8 | 60.6 | 90.8 |

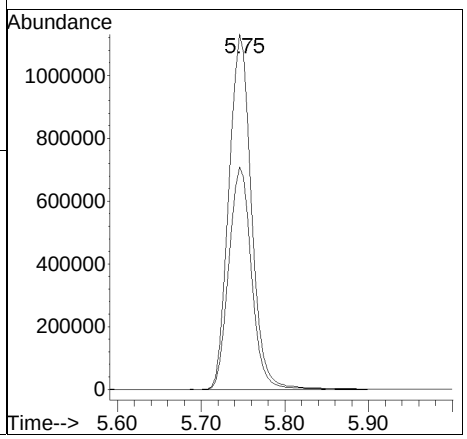


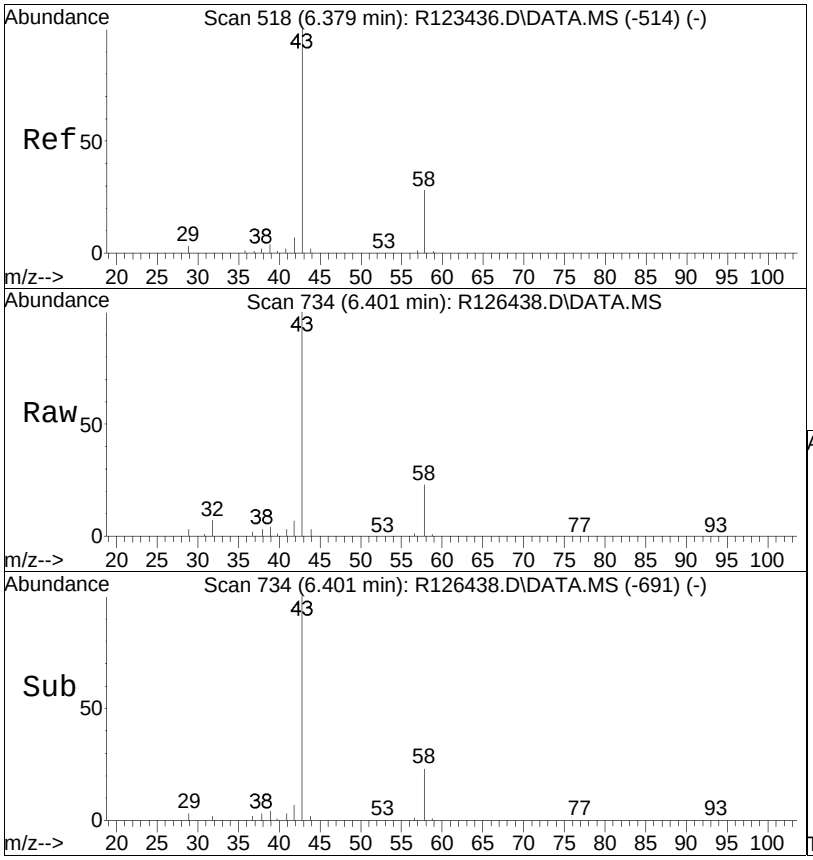



#15
ethanol
Concen: 141.27 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 31 Resp: 2135867

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 62.6 | 46.8 | 70.2 |

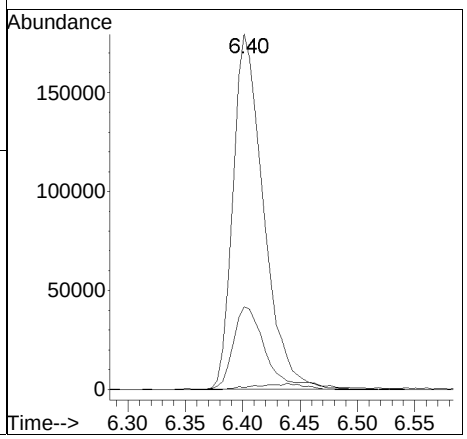


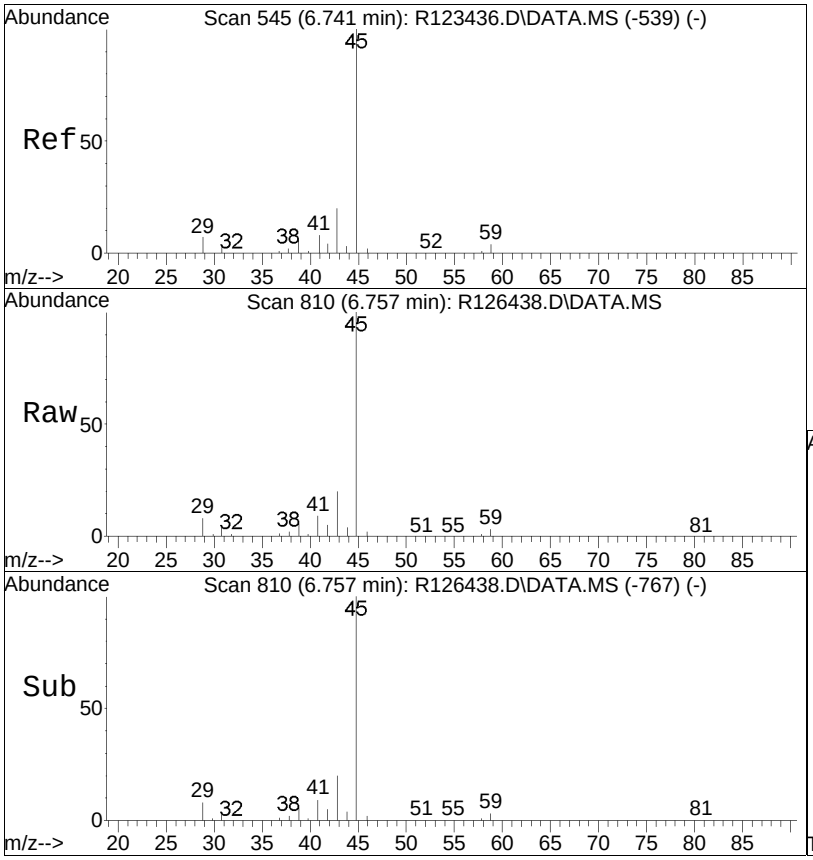



#19
acetone
Concen: 9.44 ppbV
RT: 6.40 min Scan# 734
Delta R.T. 0.005 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 43 Resp: 332646

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.3 | 20.5 | 30.7 |
| 57 | 0.6 | 0.6 | 1.0# |

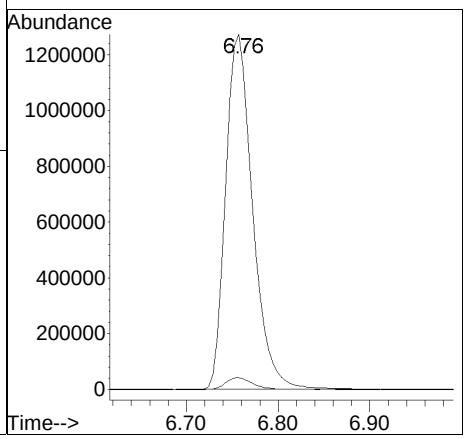


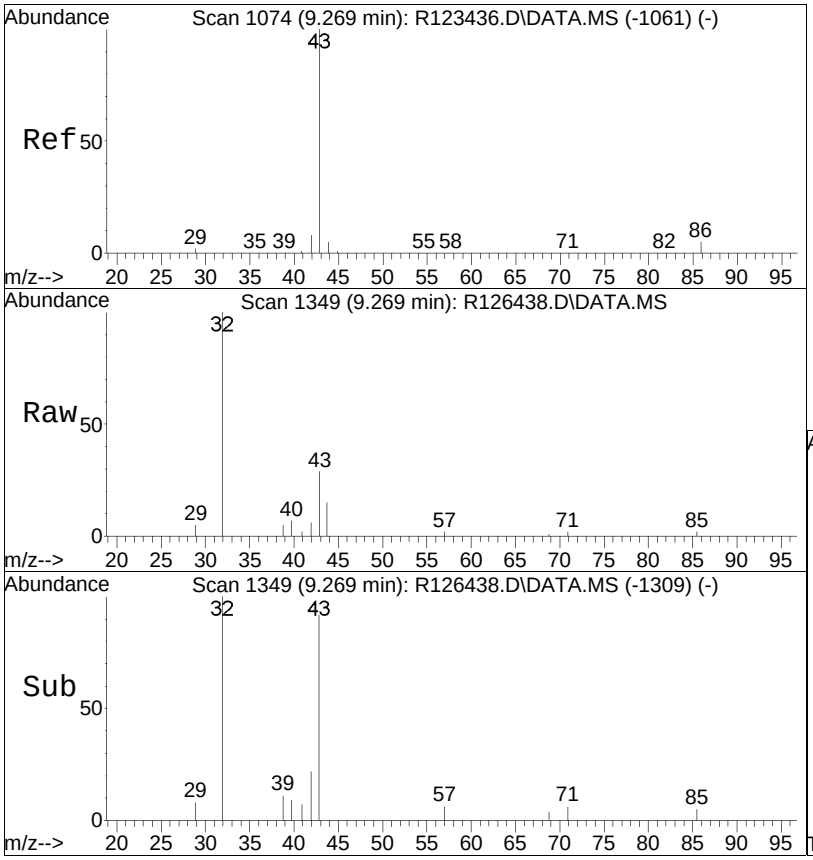



#22
isopropyl alcohol
Concen: 55.91 ppbV
RT: 6.76 min Scan# 810
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 45 Resp: 2613284

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.3 | 2.5 | 3.7 |

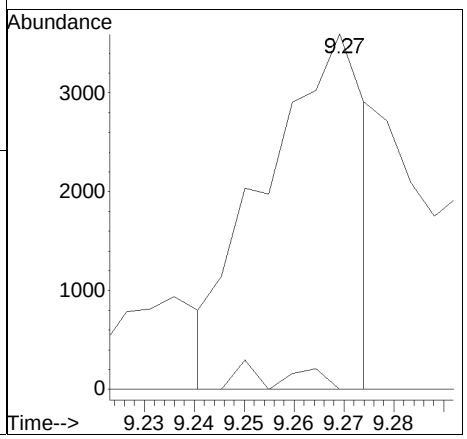


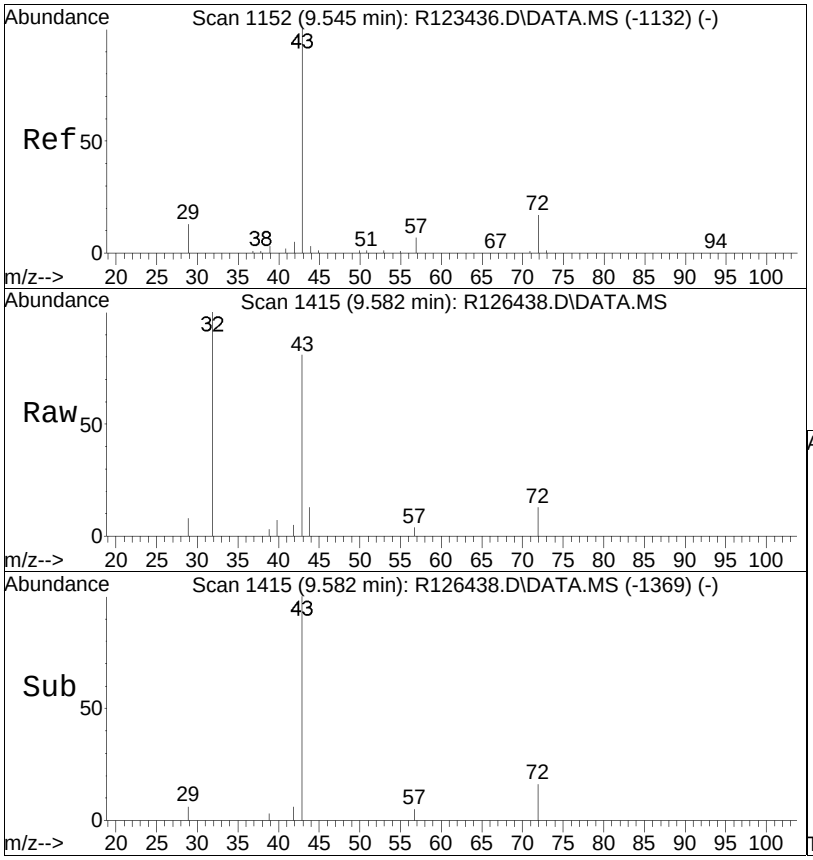



#35
vinyl acetate
Concen: 0.09 ppbV m
RT: 9.27 min Scan# 1349
Delta R.T. -0.010 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 43 Resp: 5009

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 0.0 | 3.5 | 5.3# |

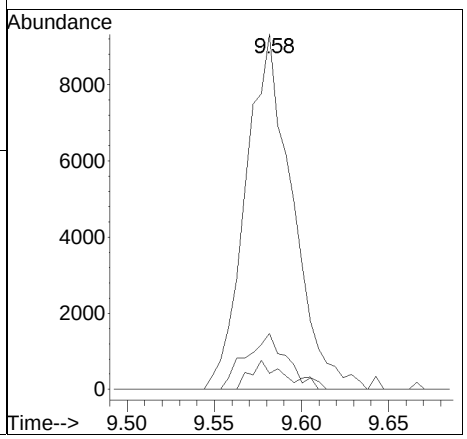


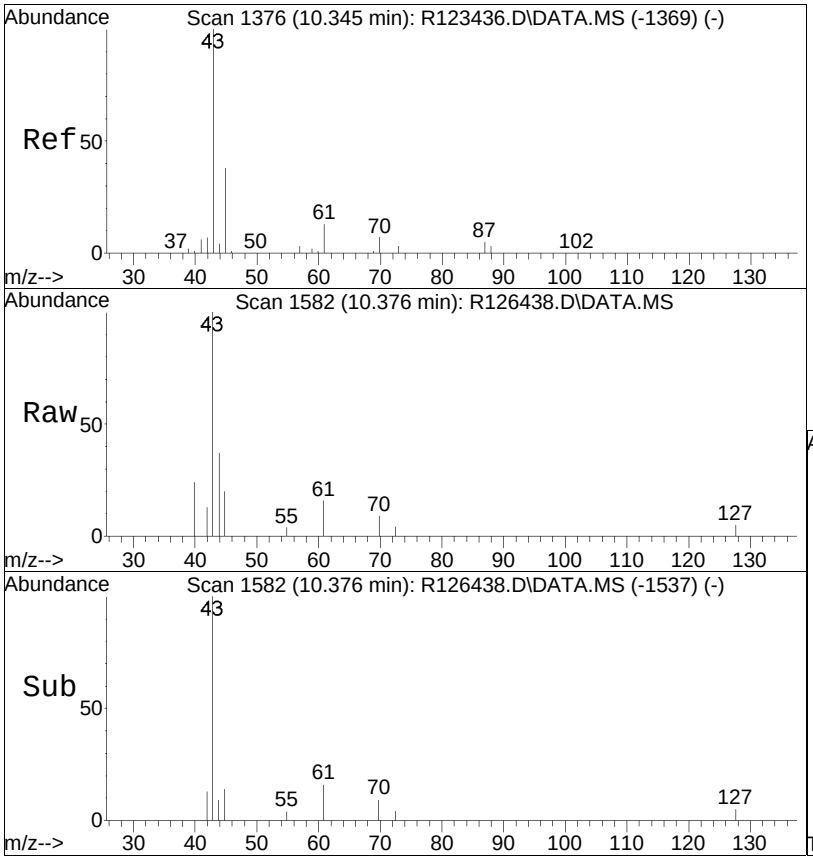



#36
2-butanone
Concen: 0.36 ppbV
RT: 9.58 min Scan# 1415
Delta R.T. 0.018 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 43 Resp: 17426

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 15.8 | 11.8 | 17.8 |
| 57 | 4.5 | 4.8 | 7.2# |

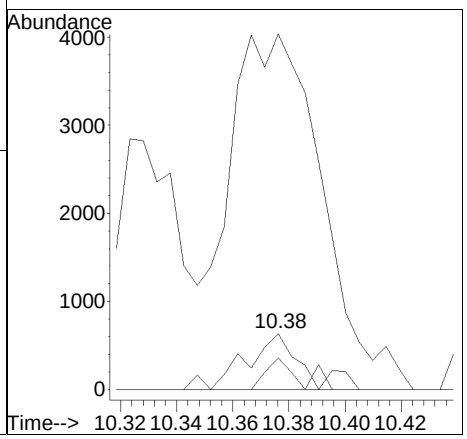


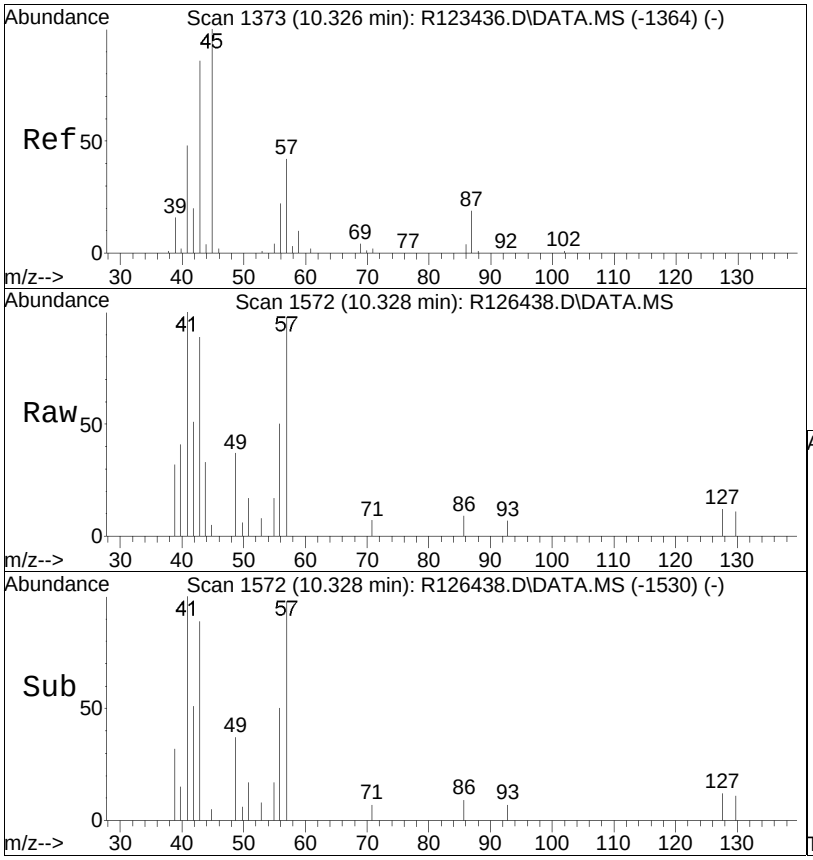



#38
Ethyl Acetate
Concen: 0.13 ppbV m
RT: 10.38 min Scan# 1582
Delta R.T. 0.014 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 61 Resp: 863

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 56.3 | 44.1 | 66.1 |
| 43 | 636.6 | 768.4 | 1152.6# |

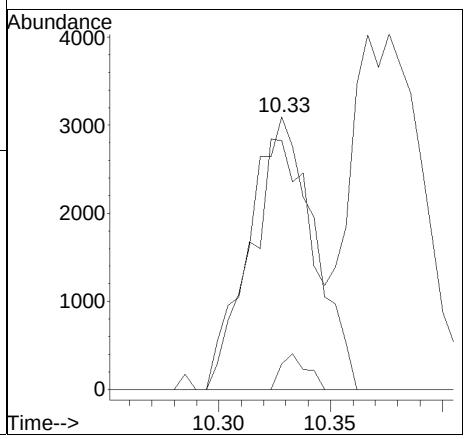


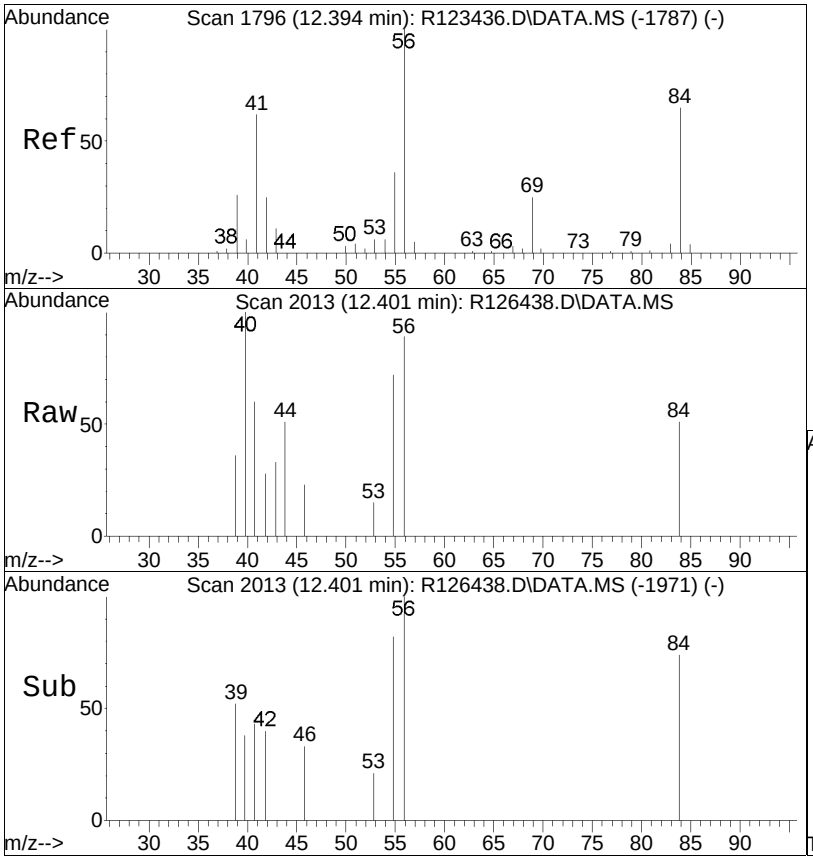



#44
hexane
Concen: 0.23 ppbV
RT: 10.33 min Scan# 1572
Delta R.T. -0.000 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 57 Resp: 6235

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 91.3 | 141.7 | 212.5# |
| 86 | 9.4 | 7.5 | 11.3 |

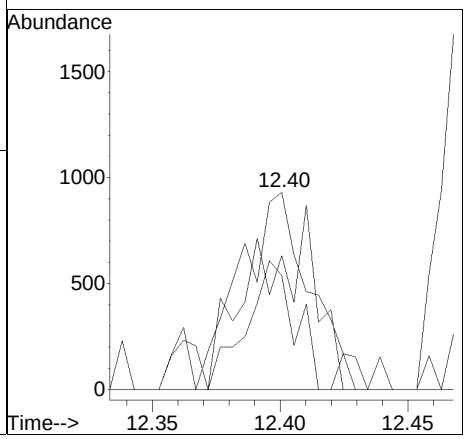


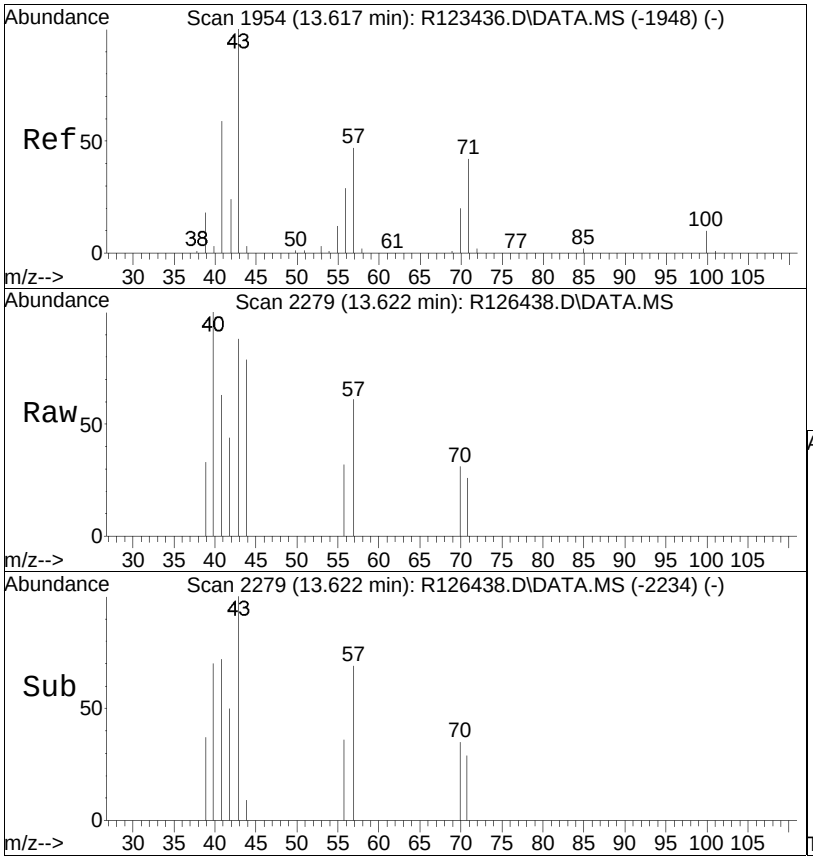



#53
cyclohexane
Concen: 0.06 ppbV
RT: 12.40 min Scan# 2013
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 56 Resp: 1753

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 84 | 57.8 | 47.3 | 70.9 |
| 41 | 68.0 | 51.2 | 76.8 |

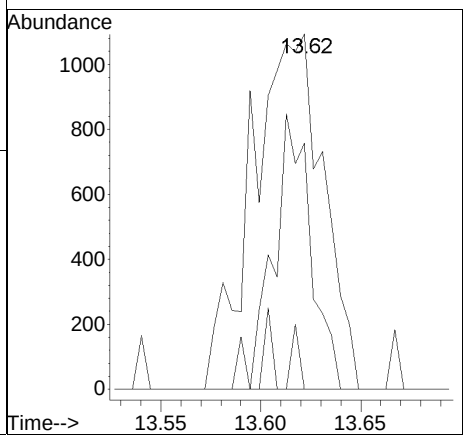





#62
heptane
Concen: 0.07 ppbV
RT: 13.62 min Scan# 2279
Delta R.T. 0.004 min
Lab File: R126438.D
Acq: 8 Feb 2013 6:56 pm

Tgt Ion: 43 Resp: 2711

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 69.3 | 36.6 | 54.8# |
| 100 | 0.0 | 6.7 | 10.1# |

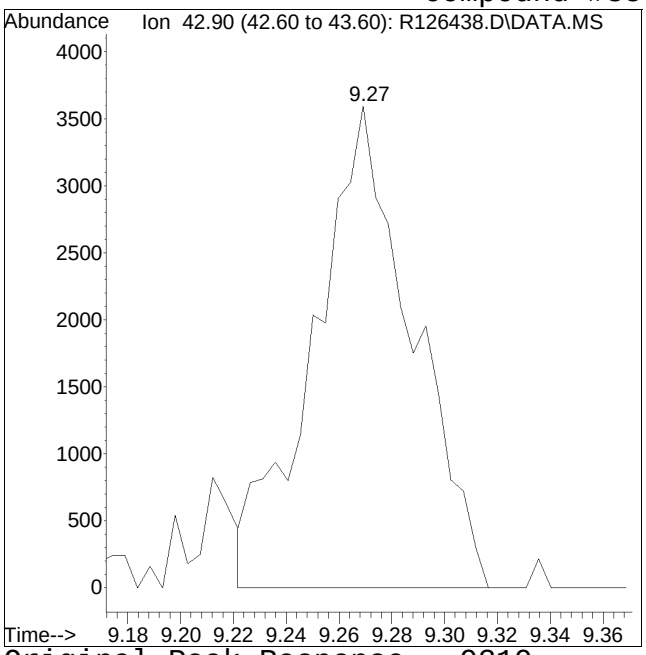


Manual Integration/Negative Proof Report

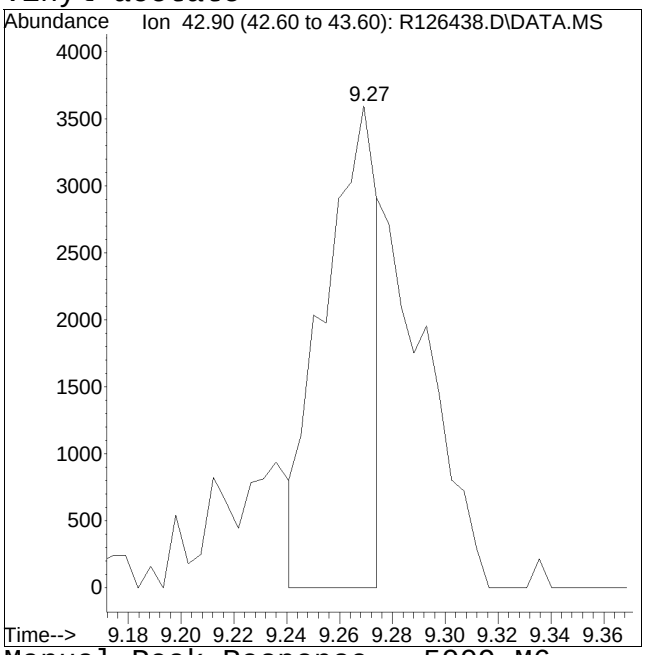
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #35: vinyl acetate




Original Peak Response = 9319




Manual Peak Response = 5009 M6

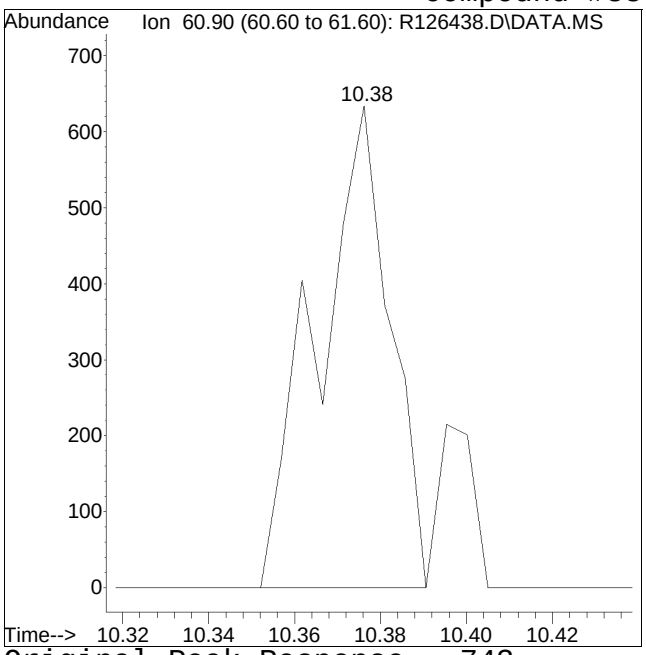
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

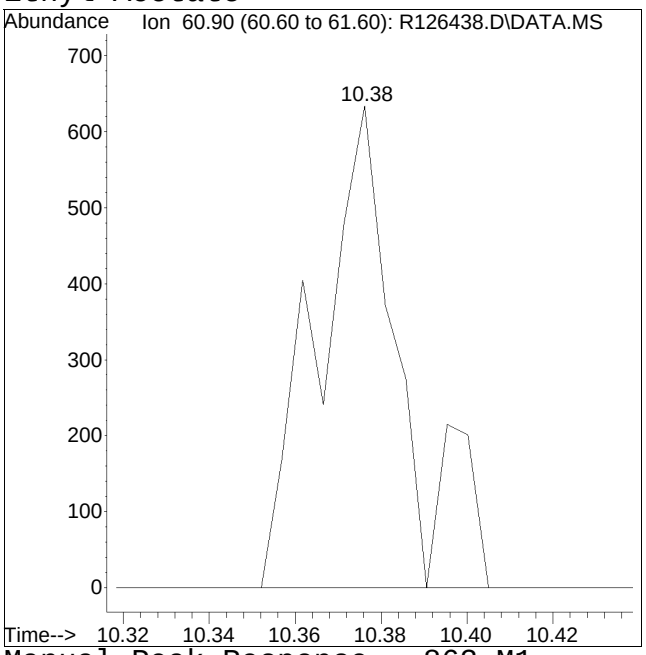
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #38: Ethyl Acetate




Original Peak Response = 743




Manual Peak Response = 863 M1

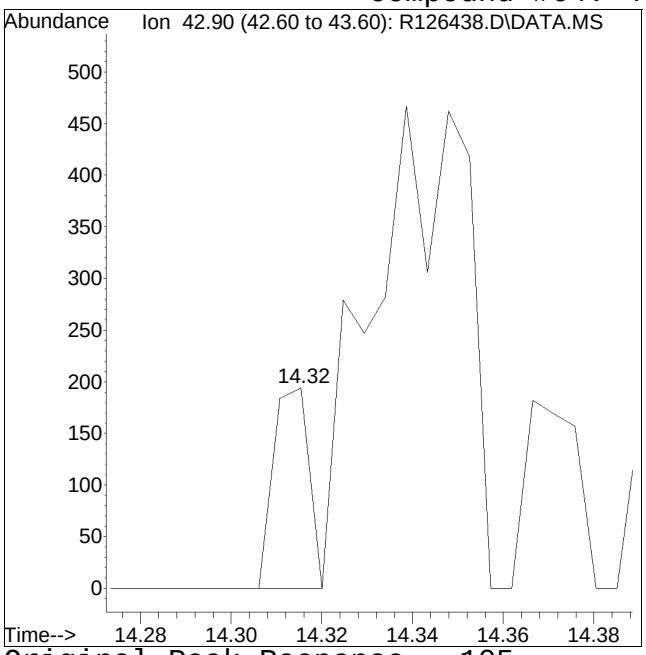
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

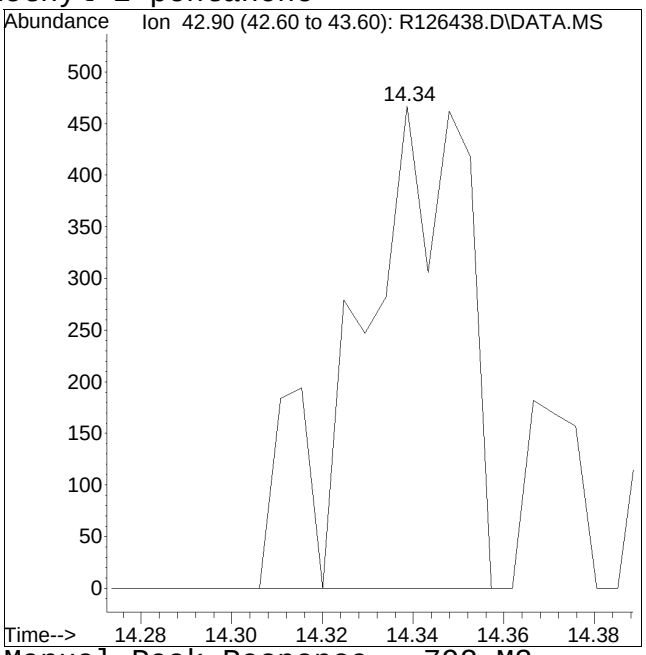
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #64: 4-methyl-2-pentanone




Original Peak Response = 105 Manual Peak Response = 792 M3

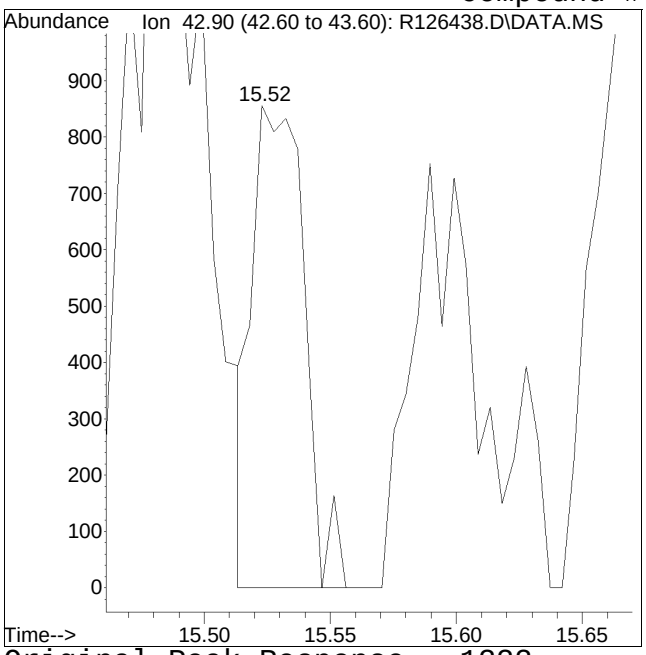
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

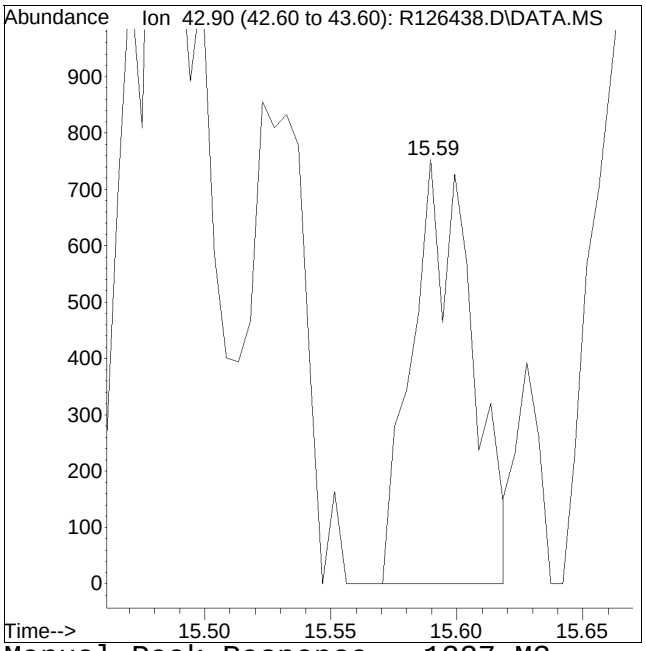
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126438.D
Date Inj'd : 2/8/2013 6:56 pm
Sample : L1302224-01,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #72: 2-hexanone




Original Peak Response = 1222 Manual Peak Response = 1237 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 10:01:11 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

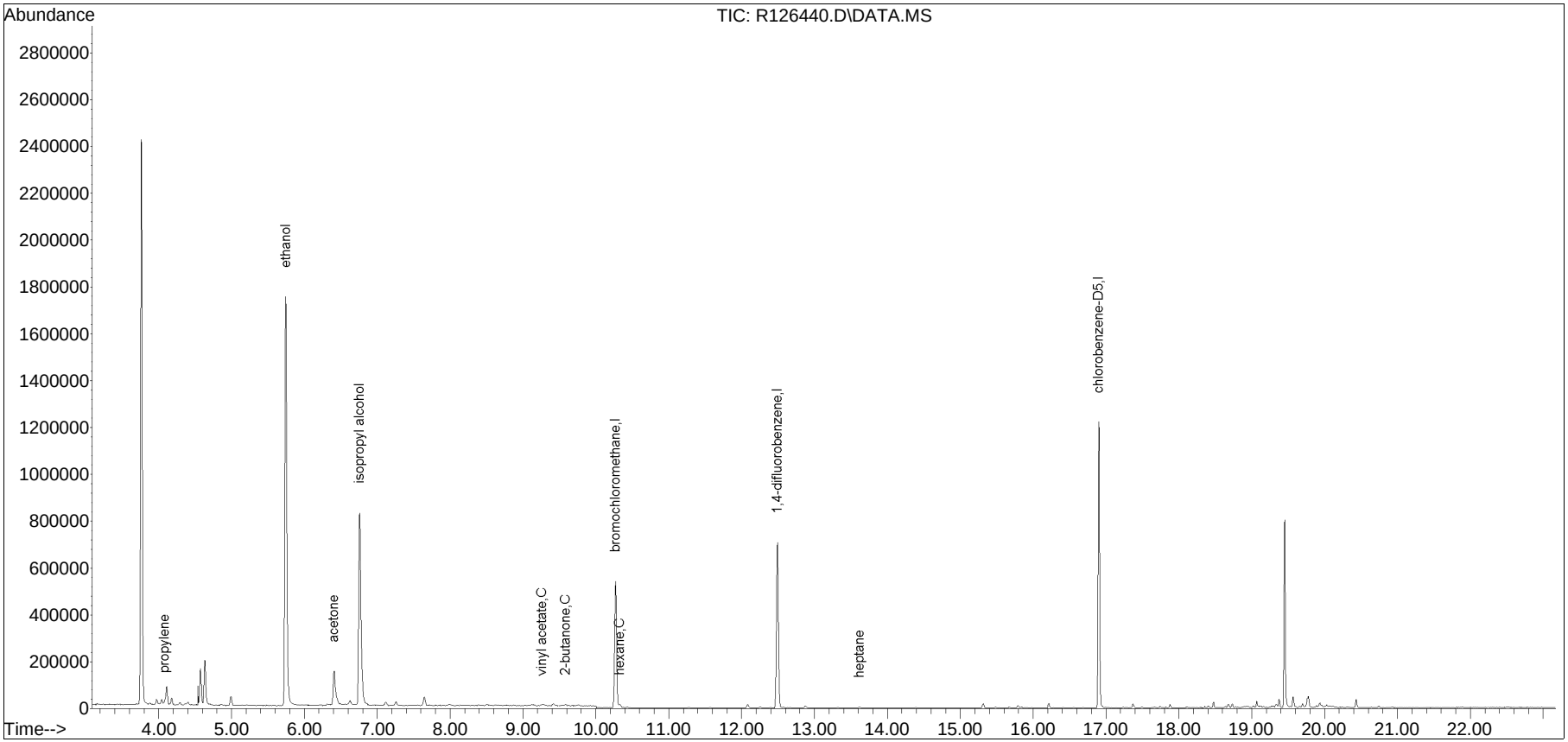
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 286192 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 88.70% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 546899 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 84.38% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 144272 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 86.85% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 2668 | 0.158 | ppbV # | 87 |
| 15) ethanol | 5.75 | 31 | 1387927 | 91.885 | ppbV | 94 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.41 | 43 | 180731 | 5.133 | ppbV # | 98 |
| 22) isopropyl alcohol | 6.76 | 45 | 1024749 | 21.946 | ppbV | 100 |
| 29) 3-chloropropene | 7.77 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.97 | | 0 | N.D. | | |
| 35) vinyl acetate | 9.26 | 43 | 3274M6 | 0.058 | ppbV | |
| 36) 2-butanone | 9.59 | 43 | 6990 | 0.146 | ppbV # | 84 |
| 38) Ethyl Acetate | 10.36 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.93 | | 0 | N.D. | | |
| 44) hexane | 10.33 | 57 | 5694 | 0.209 | ppbV # | 22 |
| 53) cyclohexane | 12.39 | | 0 | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.33 | | 0 | N.D. | | |
| 62) heptane | 13.61 | 43 | 2334 | 0.059 | ppbV # | 56 |
| 64) 4-methyl-2-pentanone | 14.29 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.53 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.15 | | 0 | N.D. | | |

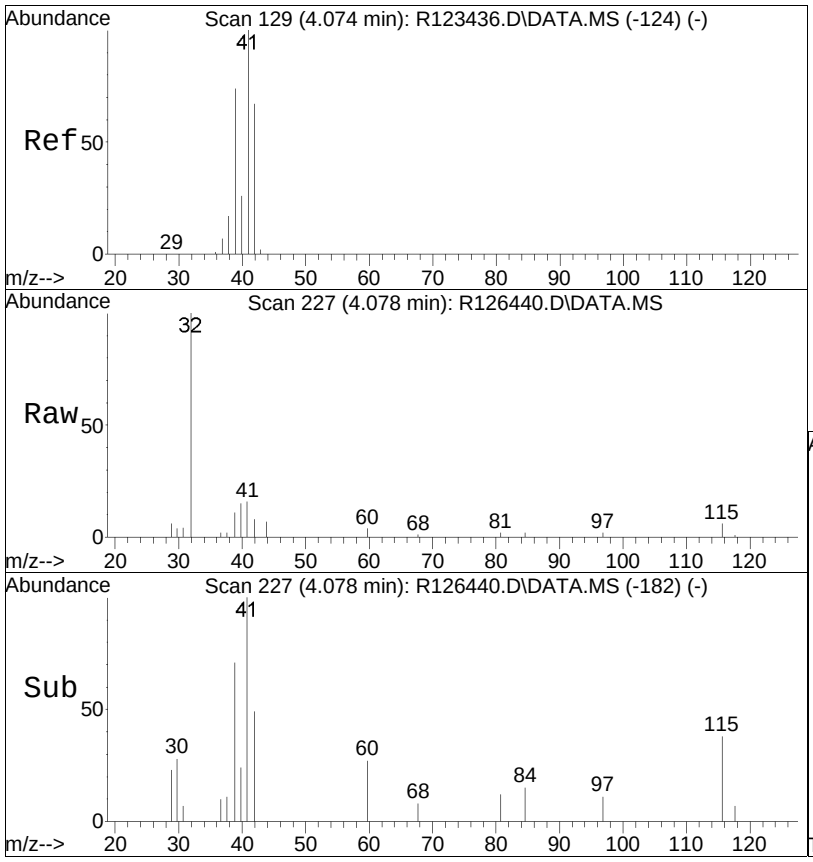
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126440.D
Acq On : 8 Feb 2013 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1302224-02,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 10:01:11 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

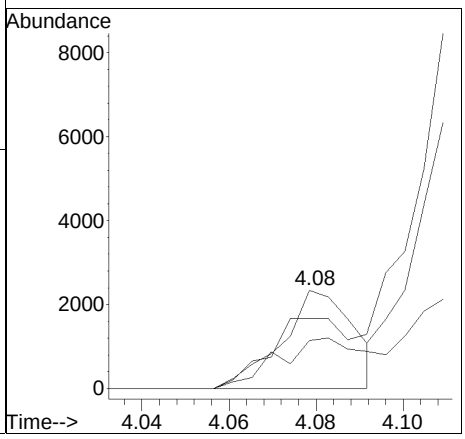


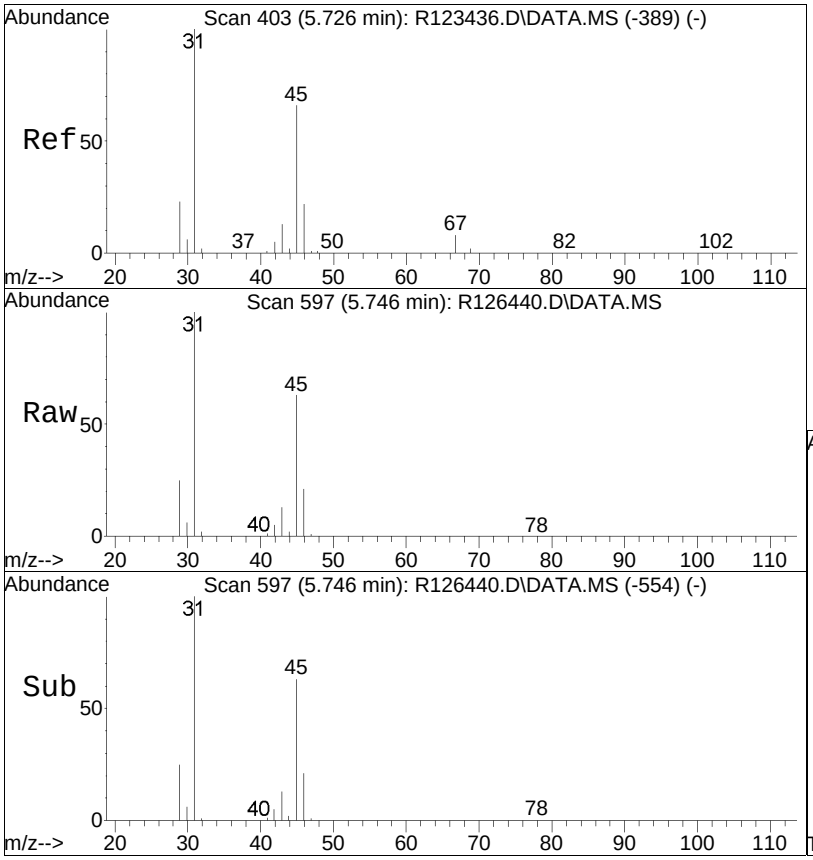



#3
propylene
Concen: 0.16 ppbV
RT: 4.08 min Scan# 227
Delta R.T. -0.005 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 41 Resp: 2668

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 48.9 | 52.8 | 79.2# |
| 39 | 71.0 | 60.6 | 90.8 |

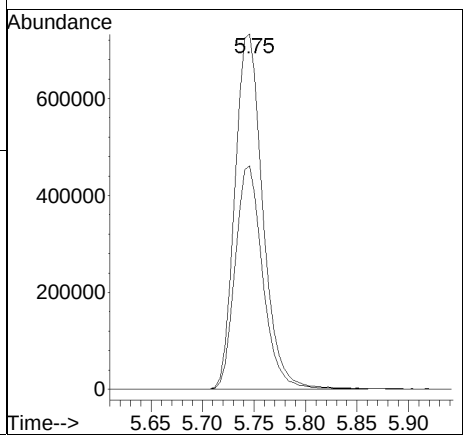


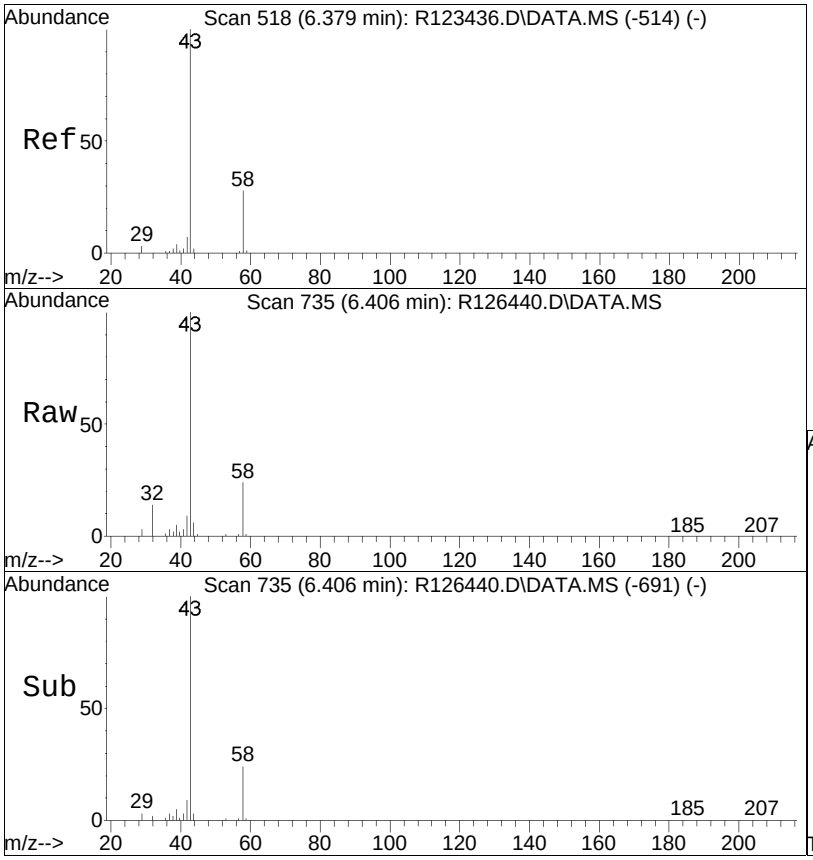



#15
ethanol
Concen: 91.89 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 31 Resp: 1387927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 62.9 | 46.8 | 70.2 |

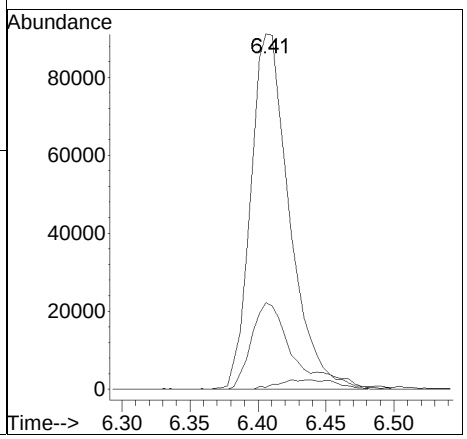


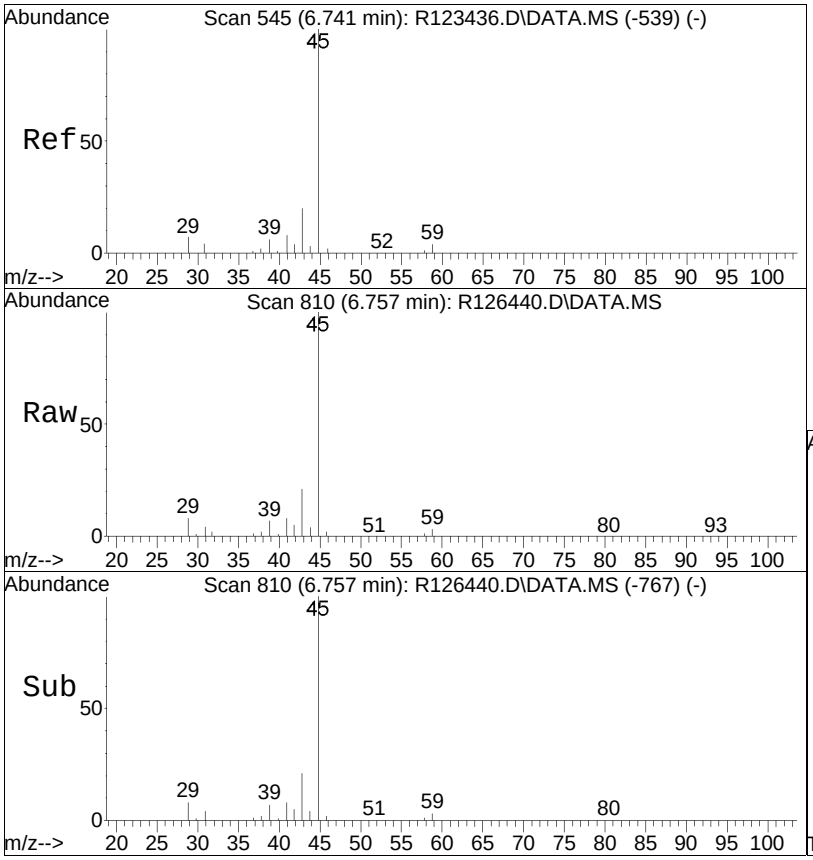



#19
acetone
Concen: 5.13 ppbV
RT: 6.41 min Scan# 735
Delta R.T. 0.009 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 43 Resp: 180731

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 24.4 | 20.5 | 30.7 |
| 57 | 0.6 | 0.6 | 1.0# |

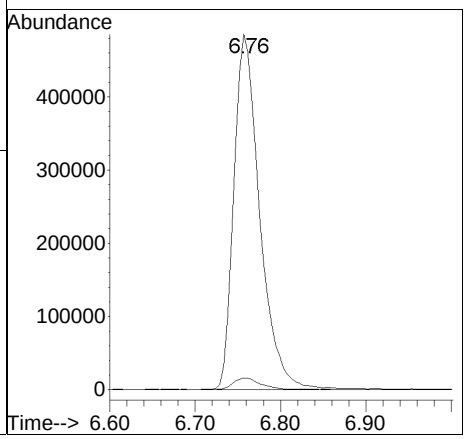


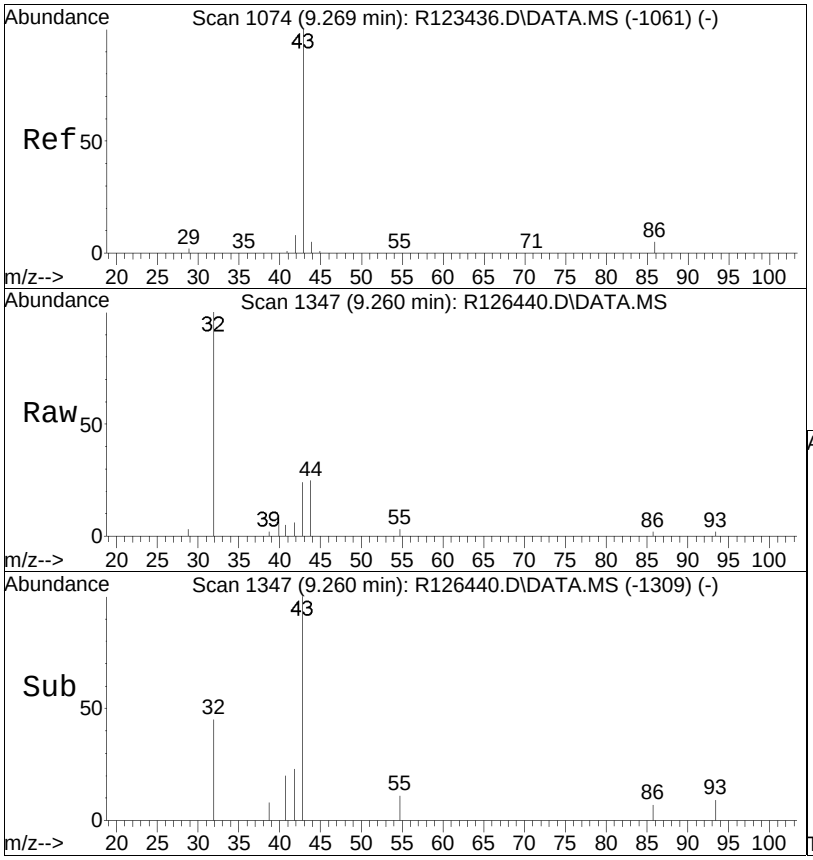



#22
isopropyl alcohol
Concen: 21.95 ppbV
RT: 6.76 min Scan# 810
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 45 Resp: 1024749

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.2 | 2.5 | 3.7 |

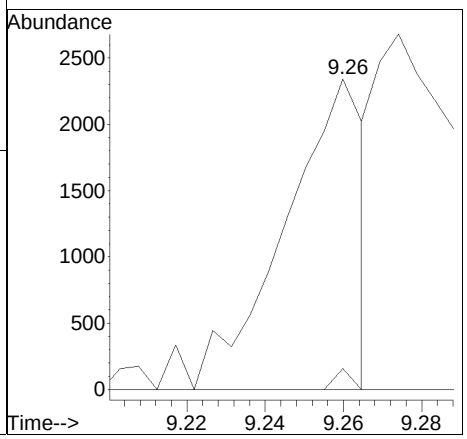


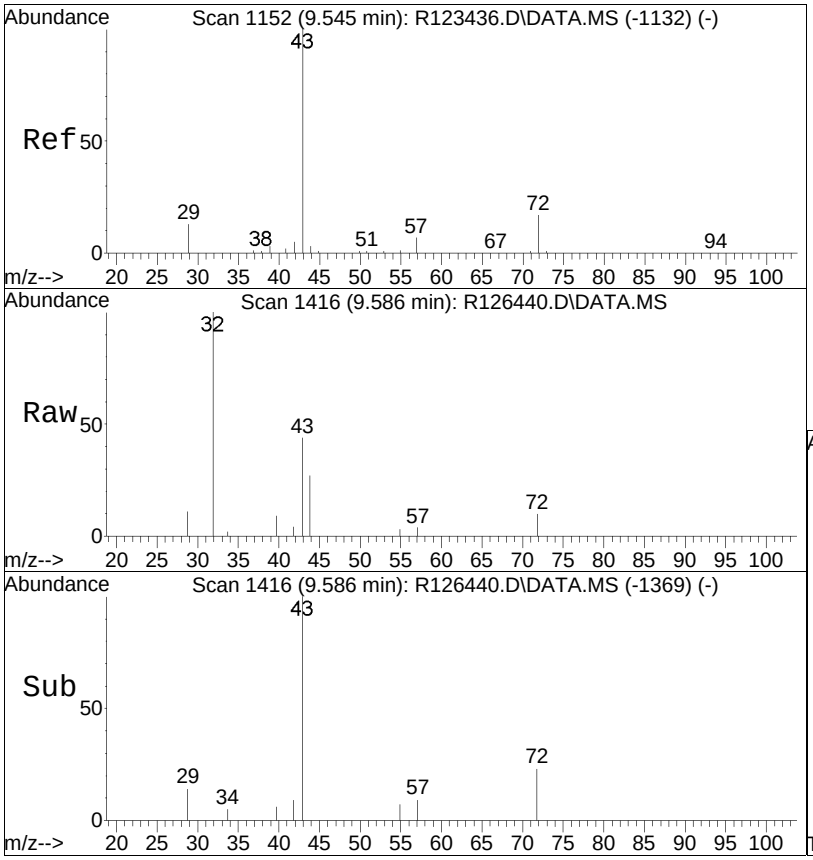



#35
vinyl acetate
Concen: 0.06 ppbV m
RT: 9.26 min Scan# 1347
Delta R.T. -0.019 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 43 Resp: 3274

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 6.7 | 3.5 | 5.3# |

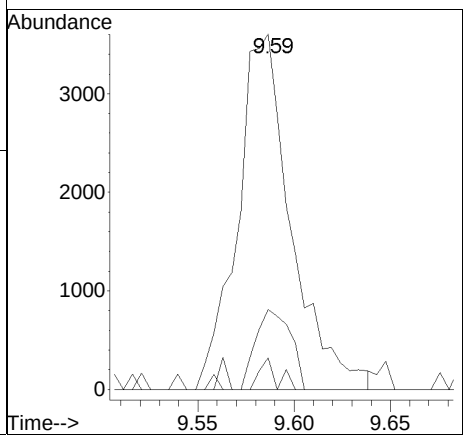


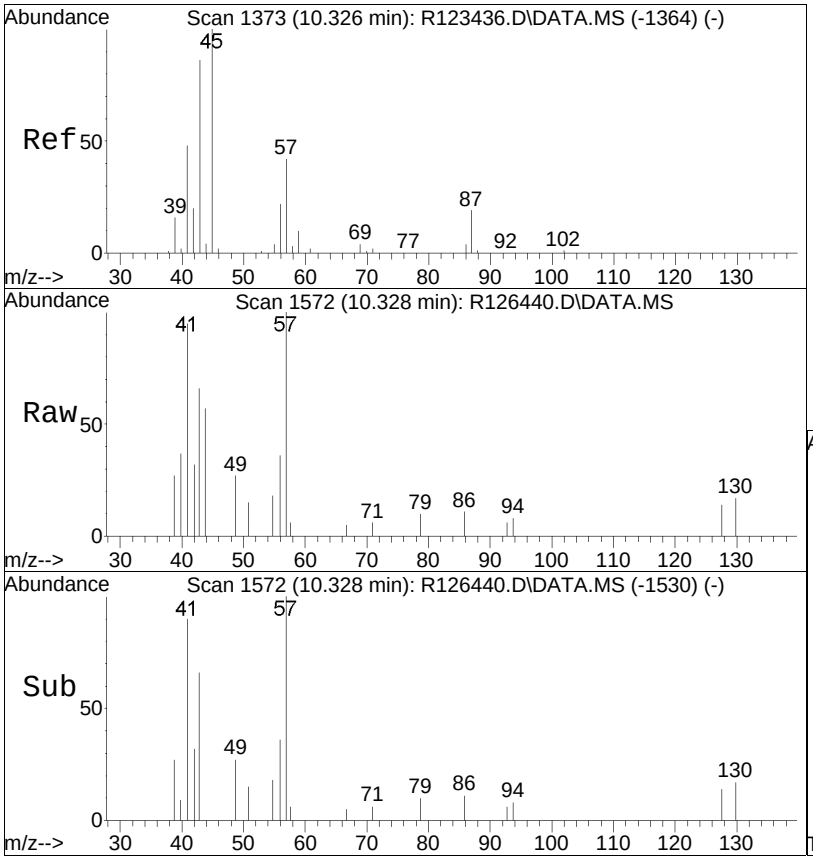



#36
2-butanone
Concen: 0.15 ppbV
RT: 9.59 min Scan# 1416
Delta R.T. 0.023 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 43 Resp: 6990

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 22.5 | 11.8 | 17.8# |
| 57 | 8.9 | 4.8 | 7.2# |

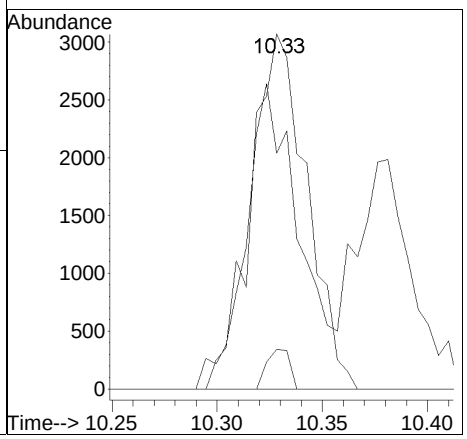


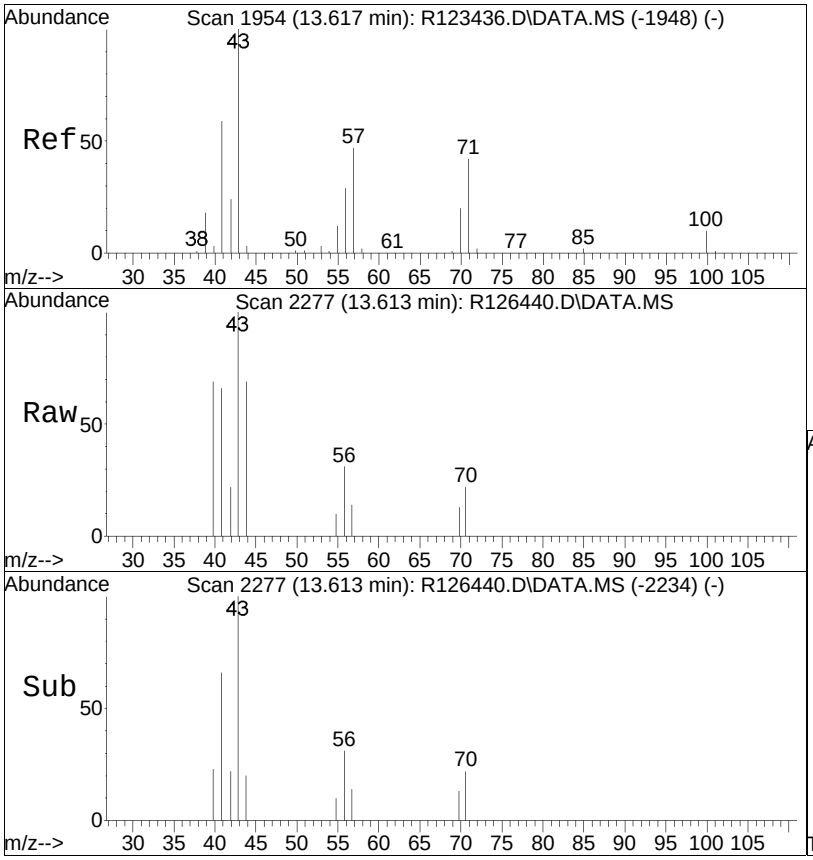



#44
hexane
Concen: 0.21 ppbV
RT: 10.33 min Scan# 1572
Delta R.T. -0.000 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 57 Resp: 5694

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 62.5 | 141.7 | 212.5# |
| 86 | 10.6 | 7.5 | 11.3 |

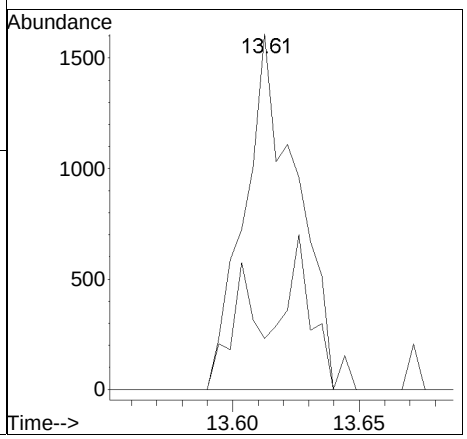





#62
heptane
Concen: 0.06 ppbV
RT: 13.61 min Scan# 2277
Delta R.T. -0.005 min
Lab File: R126440.D
Acq: 8 Feb 2013 7:59 pm

Tgt Ion: 43 Resp: 2334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 14.4 | 36.6 | 54.8# |
| 100 | 0.0 | 6.7 | 10.1# |

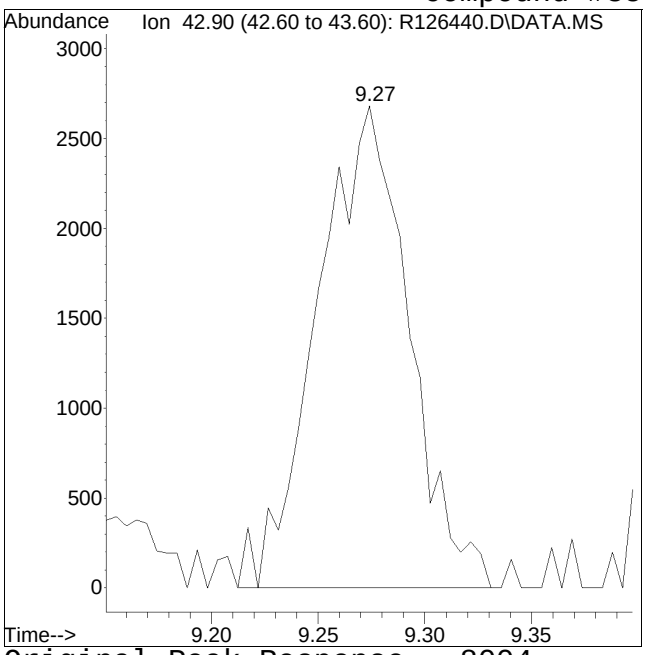


Manual Integration/Negative Proof Report

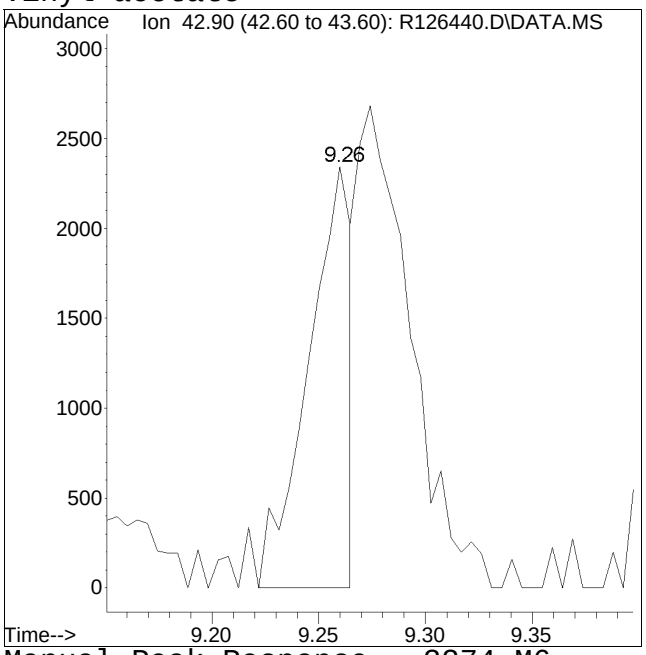
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126440.D
Date Inj'd : 2/8/2013 7:59 pm
Sample : L1302224-02,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #35: vinyl acetate




Original Peak Response = 8004




Manual Peak Response = 3274 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:03:25 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

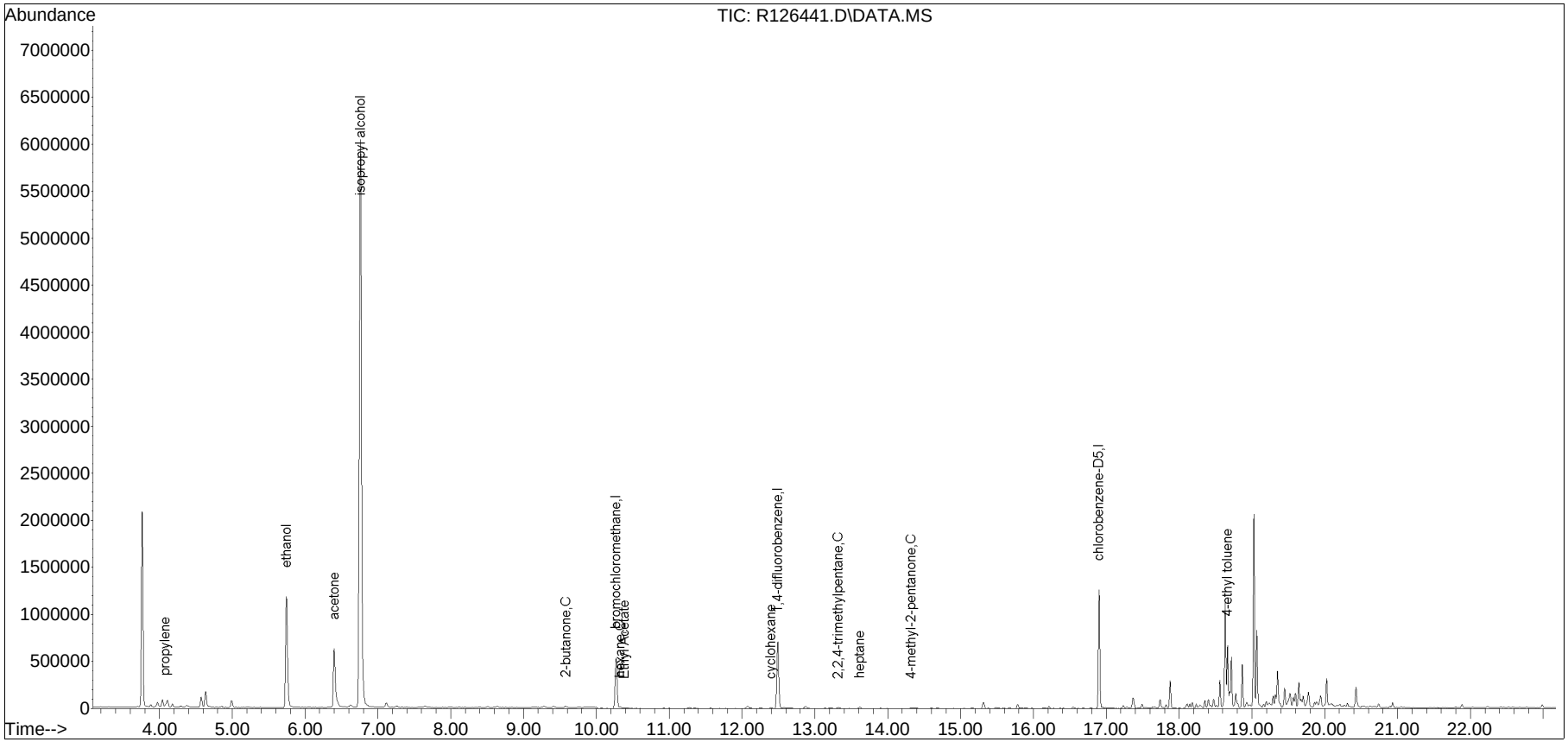
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 286119 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 88.68% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 549657 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 84.80% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 143767 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 86.55% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 4221 | 0.249 | ppbV # | 81 |
| 15) ethanol | 5.75 | 31 | 924224 | 61.202 | ppbV | 94 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.40 | 43 | 761077 | 21.621 | ppbV | 100 |
| 22) isopropyl alcohol | 6.76 | 45 | 7302842 | 156.439 | ppbV | 99 |
| 29) 3-chloropropene | 7.82 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.98 | | 0 | N.D. | | |
| 35) vinyl acetate | 0.00 | | 0 | N.D. | d | |
| 36) 2-butanone | 9.58 | 43 | 16875 | 0.353 | ppbV | 96 |
| 38) Ethyl Acetate | 10.38 | 61 | 593 | 0.089 | ppbV # | 1 |
| 40) Tetrahydrofuran | 10.89 | | 0 | N.D. | | |
| 44) hexane | 10.33 | 57 | 5807 | 0.212 | ppbV # | 44 |
| 53) cyclohexane | 12.40 | 56 | 3070 | 0.102 | ppbV | 89 |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 6631 | 0.070 | ppbV # | 92 |
| 62) heptane | 13.61 | 43 | 6542 | 0.164 | ppbV # | 77 |
| 64) 4-methyl-2-pentanone | 14.32 | 43 | 4470M6 | 0.080 | ppbV | |
| 72) 2-hexanone | 15.59 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | 105 | 219988 | 2.530 | ppbV | 97 |
| 101) Benzyl Chloride | 0.00 | | 0 | N.D. | d | |

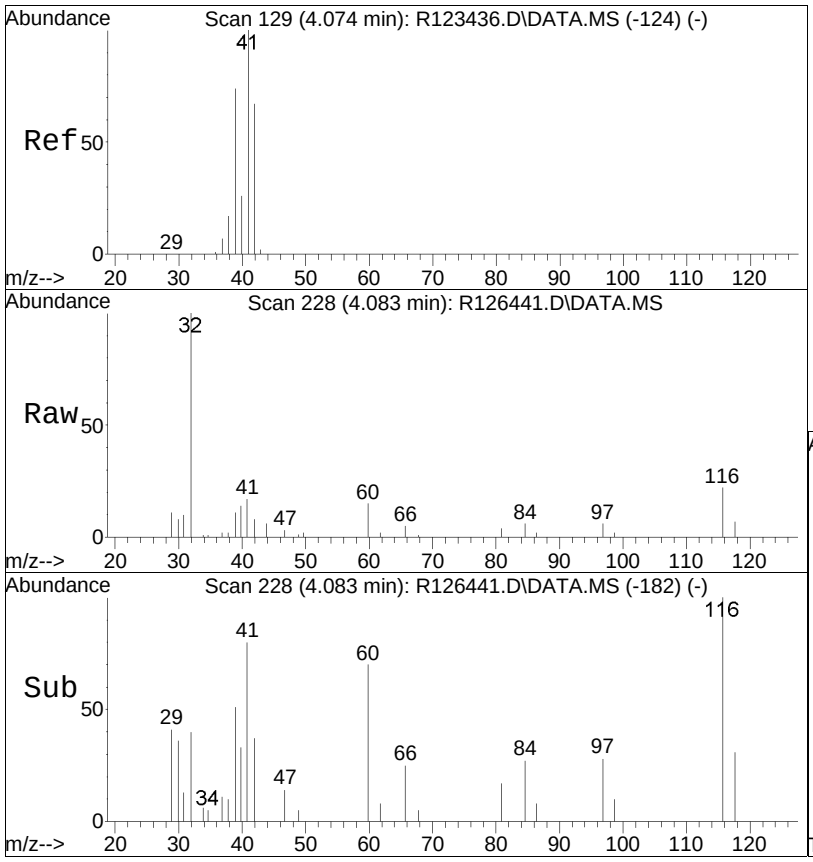
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126441.D
Acq On : 8 Feb 2013 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:03:25 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

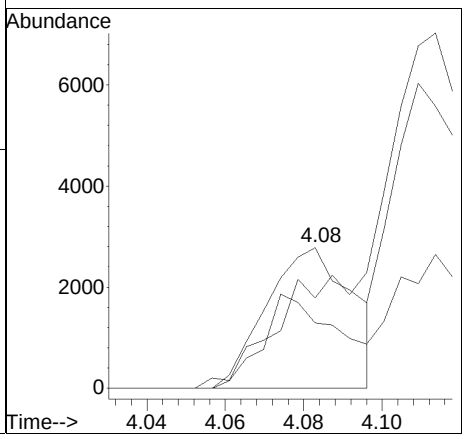


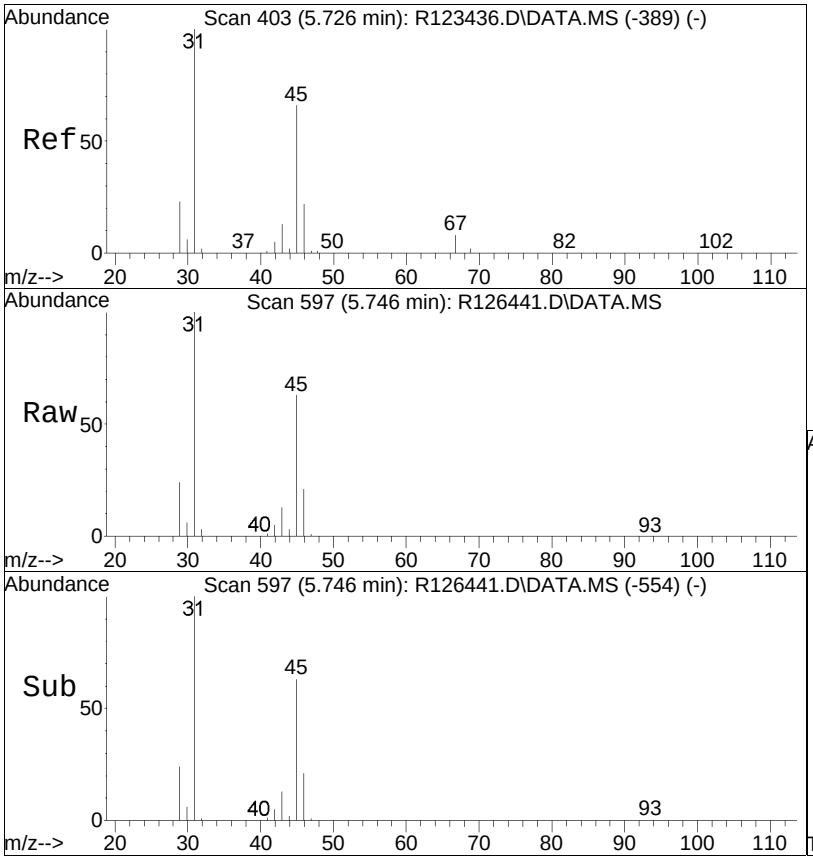



#3
propylene
Concen: 0.25 ppbV
RT: 4.08 min Scan# 228
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 41 Resp: 4221

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 46.5 | 52.8 | 79.2# |
| 39 | 64.3 | 60.6 | 90.8 |

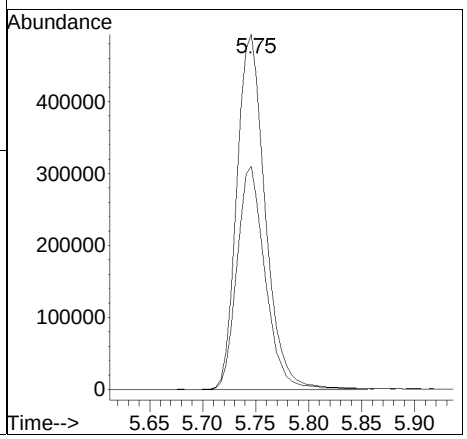


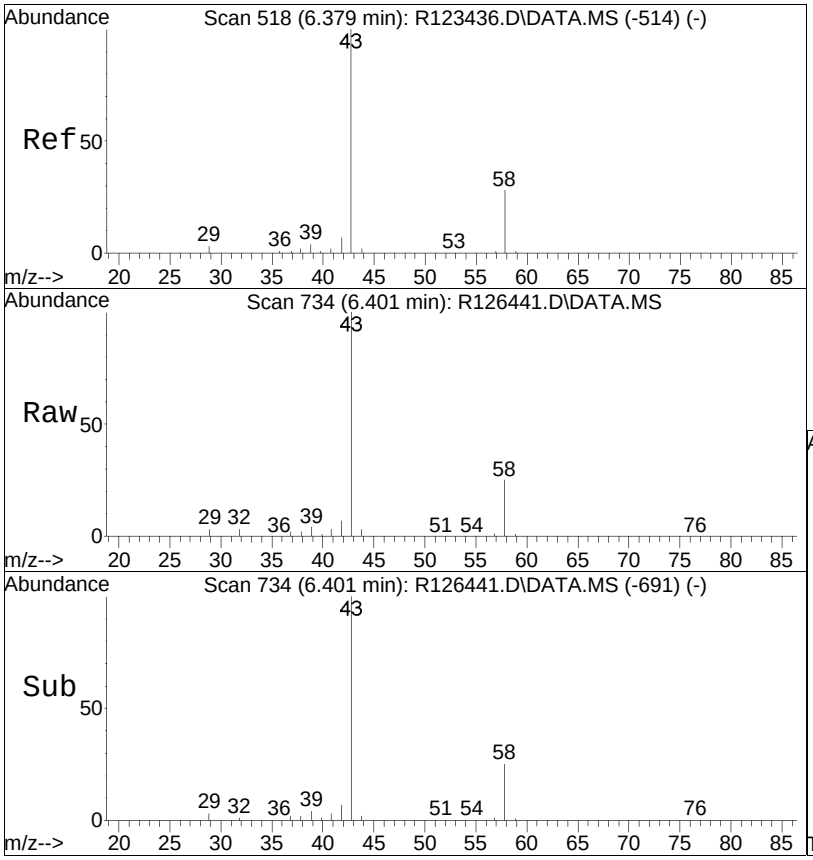



#15
ethanol
Concen: 61.20 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 31 Resp: 924224

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 62.9 | 46.8 | 70.2 |

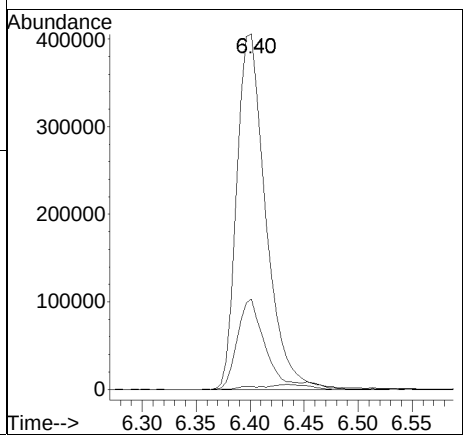


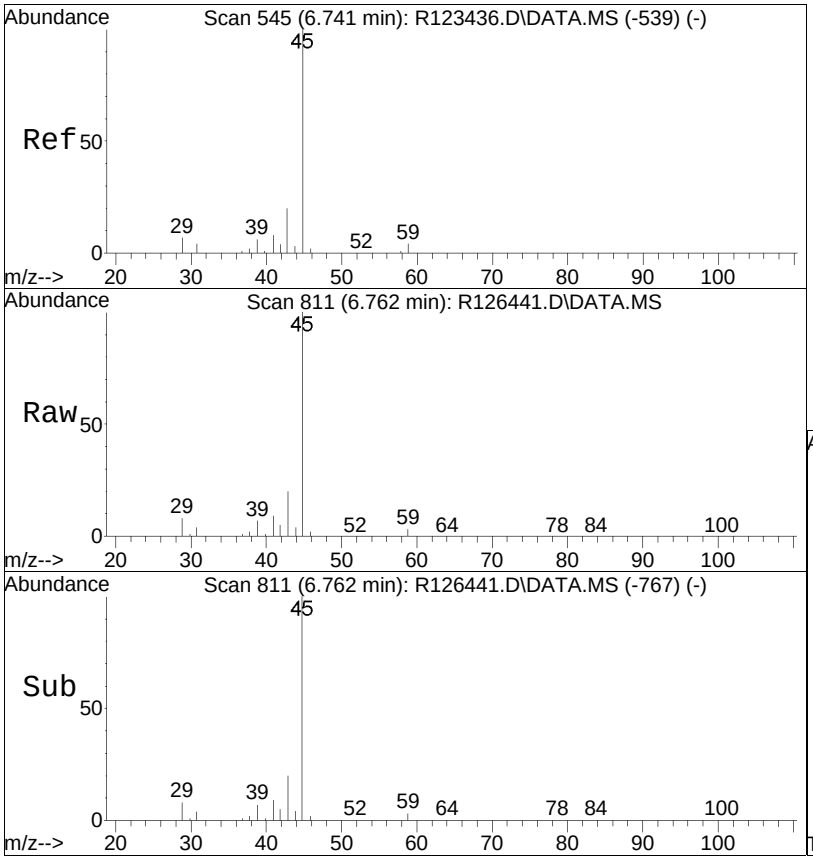



#19
acetone
Concen: 21.62 ppbV
RT: 6.40 min Scan# 734
Delta R.T. 0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 43 Resp: 761077

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 25.5 | 20.5 | 30.7 |
| 57 | 0.8 | 0.6 | 1.0 |

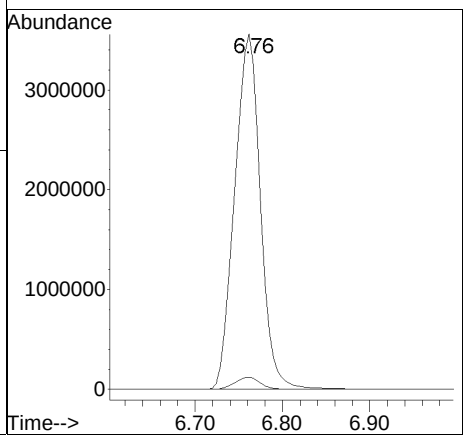


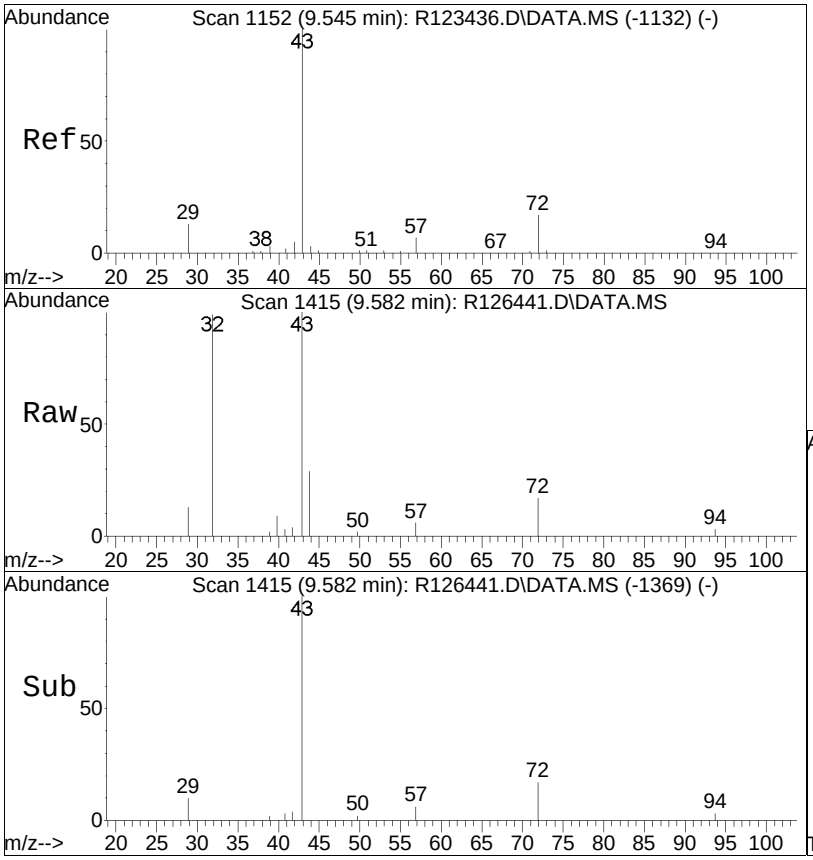



#22
isopropyl alcohol
Concen: 156.44 ppbV
RT: 6.76 min Scan# 811
Delta R.T. 0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 45 Resp: 7302842

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.4 | 2.5 | 3.7 |

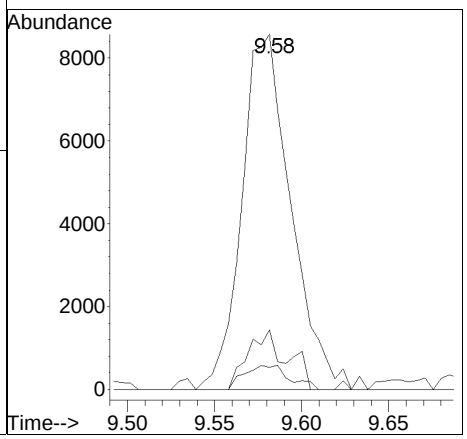


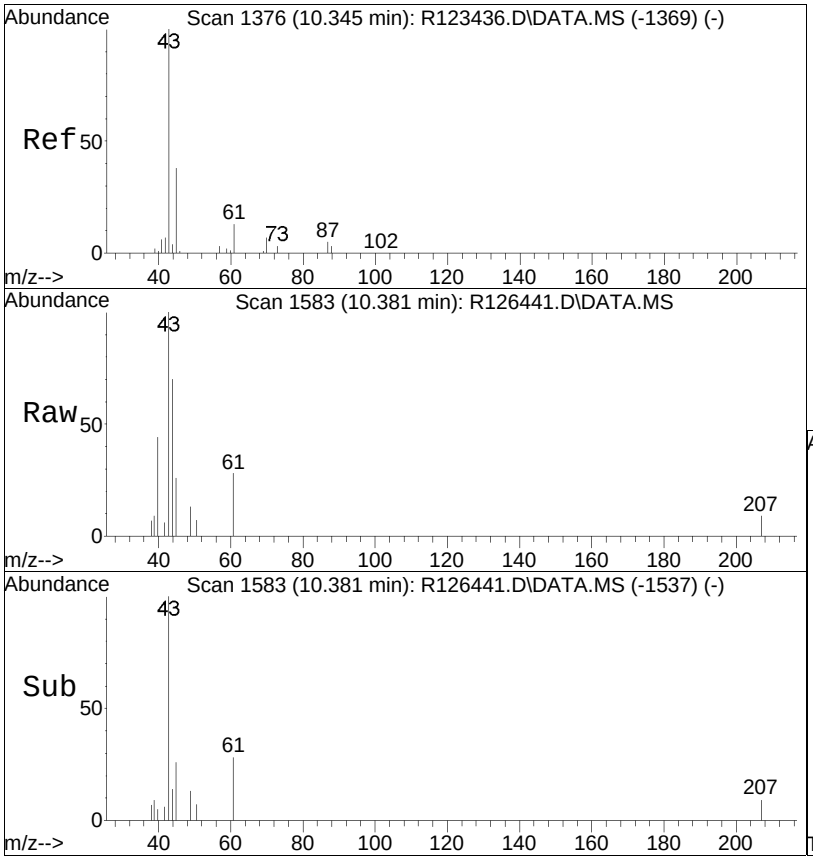



#36
2-butanone
Concen: 0.35 ppbV
RT: 9.58 min Scan# 1415
Delta R.T. 0.018 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 43 Resp: 16875

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 16.8 | 11.8 | 17.8 |
| 57 | 6.2 | 4.8 | 7.2 |

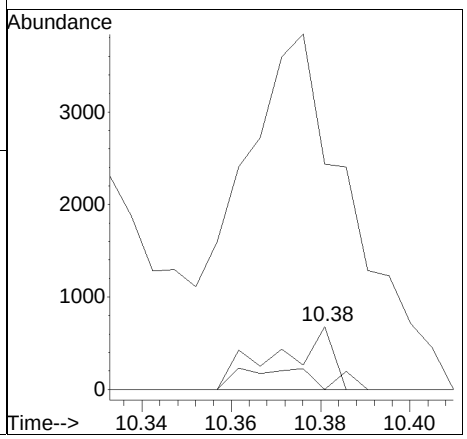


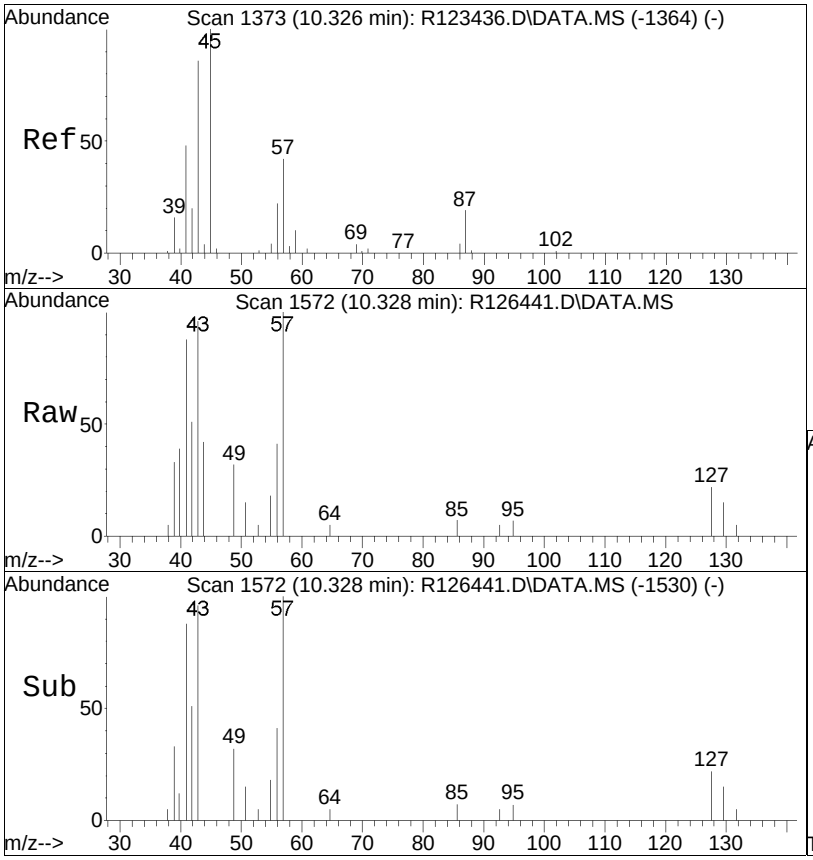



#38
Ethyl Acetate
Concen: 0.09 ppbV
RT: 10.38 min Scan# 1583
Delta R.T. 0.019 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 61 Resp: 593

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 0.0 | 44.1 | 66.1# |
| 43 | 358.6 | 768.4 | 1152.6# |

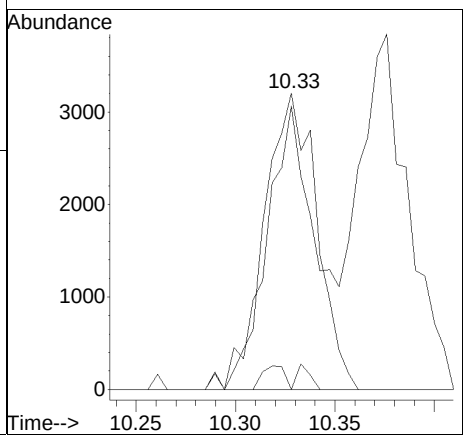


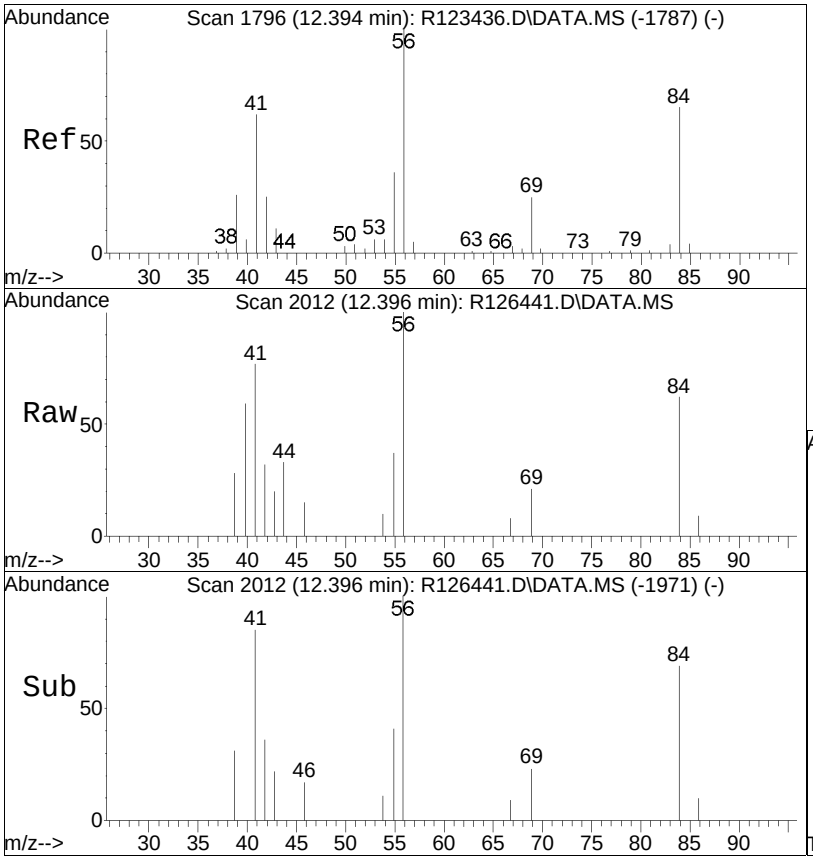



#44
hexane
Concen: 0.21 ppbV
RT: 10.33 min Scan# 1572
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 57 Resp: 5807

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 95.6 | 141.7 | 212.5# |
| 86 | 0.0 | 7.5 | 11.3# |

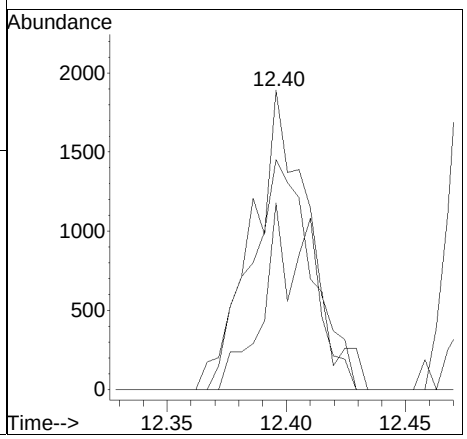


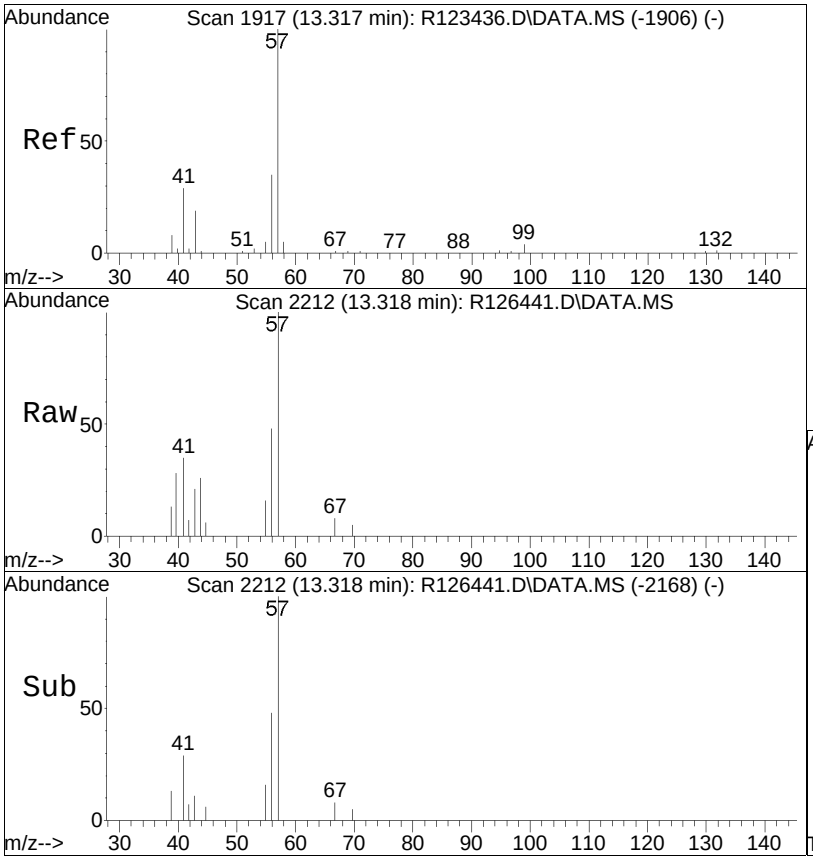



#53
cyclohexane
Concen: 0.10 ppbV
RT: 12.40 min Scan# 2012
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 56 Resp: 3070

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 84 | 62.3 | 47.3 | 70.9 |
| 41 | 76.8 | 51.2 | 76.8 |

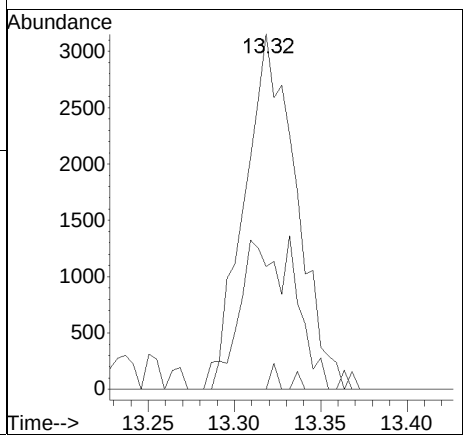


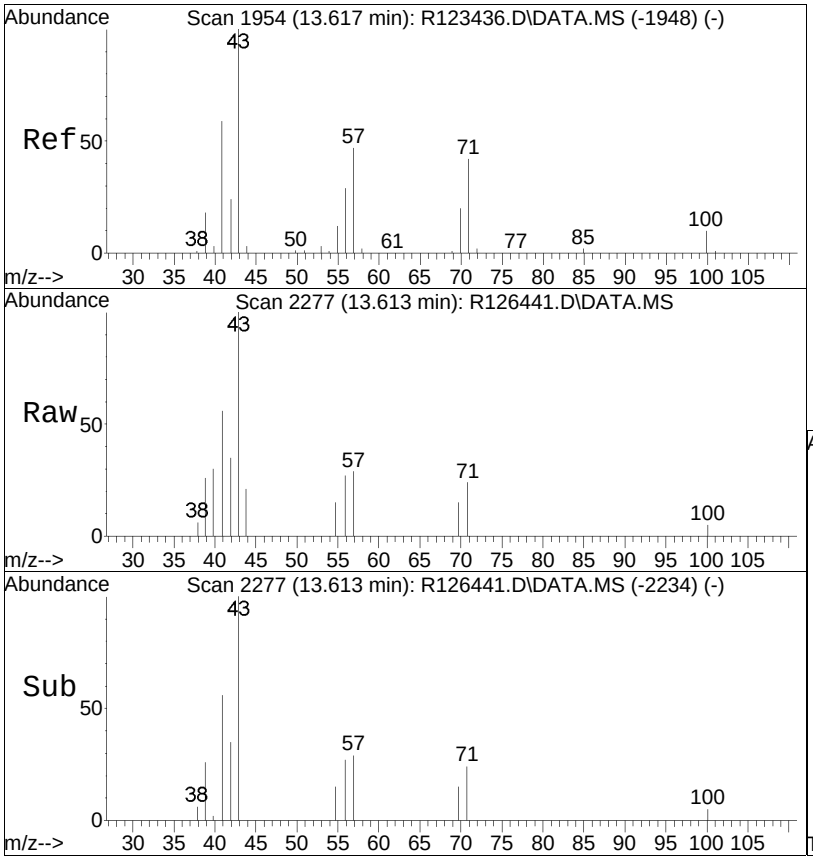



#60
2,2,4-trimethylpentane
Concen: 0.07 ppbV
RT: 13.32 min Scan# 2212
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 57 Resp: 6631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 99 | 0.0 | 2.9 | 4.3# |
| 41 | 34.6 | 24.3 | 36.5 |

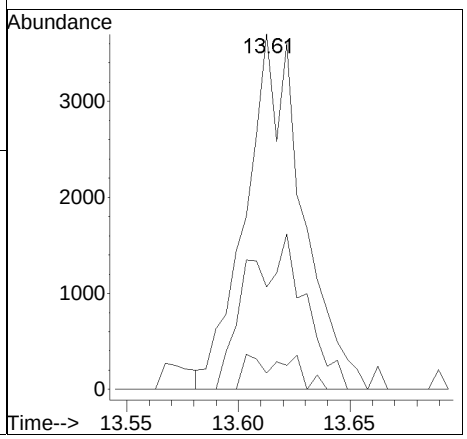


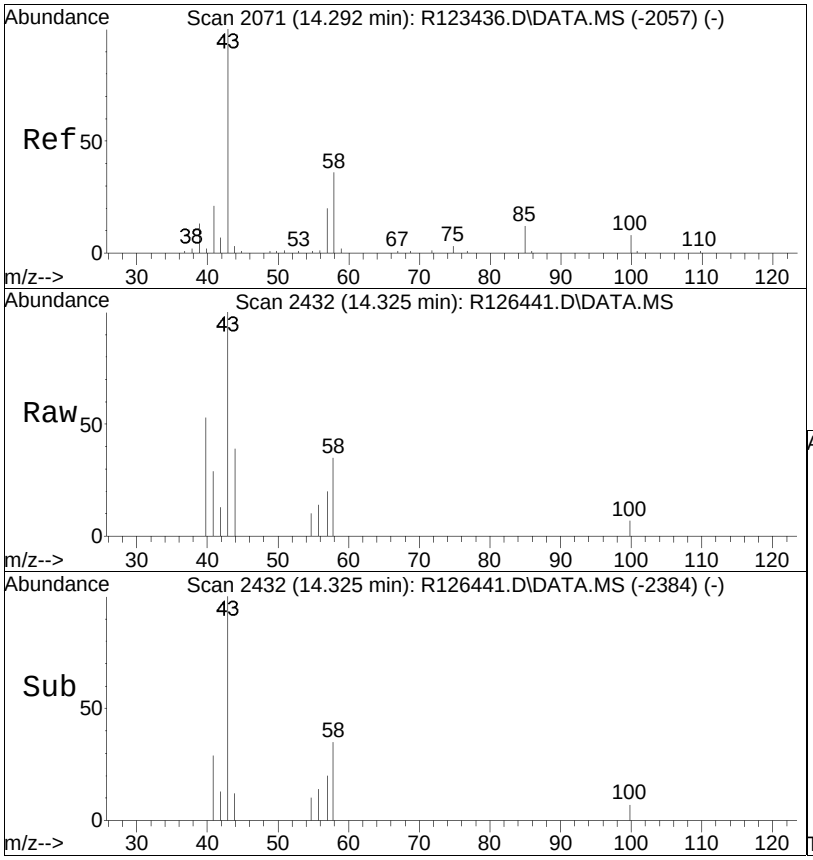



#62
heptane
Concen: 0.16 ppbV
RT: 13.61 min Scan# 2277
Delta R.T. -0.005 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 43 Resp: 6542

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 28.8 | 36.6 | 54.8# |
| 100 | 4.6 | 6.7 | 10.1# |

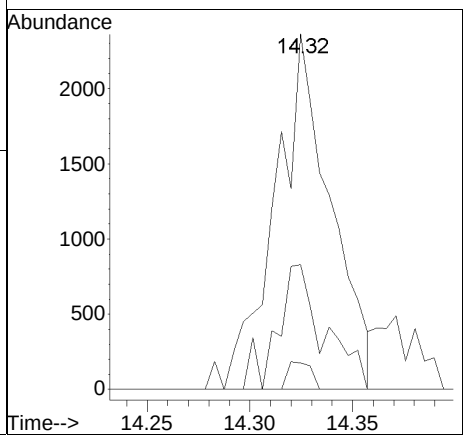


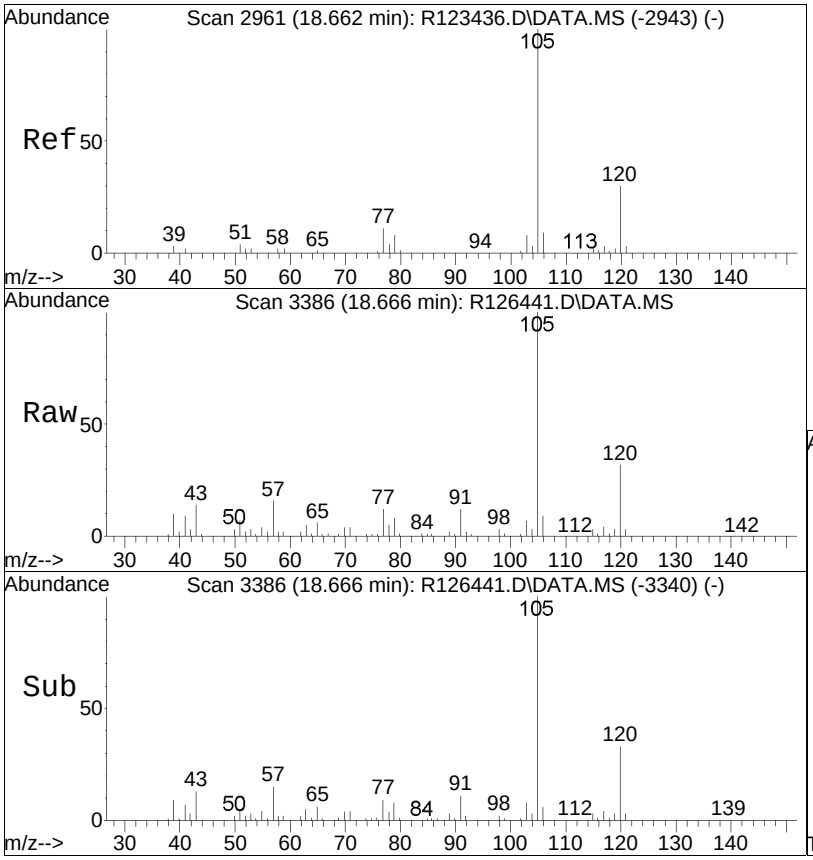



#64
4-methyl-2-pentanone
Concen: 0.08 ppbV m
RT: 14.32 min Scan# 2432
Delta R.T. 0.023 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion: 43 Resp: 4470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.1 | 26.3 | 39.5 |
| 100 | 7.4 | 6.2 | 9.4 |

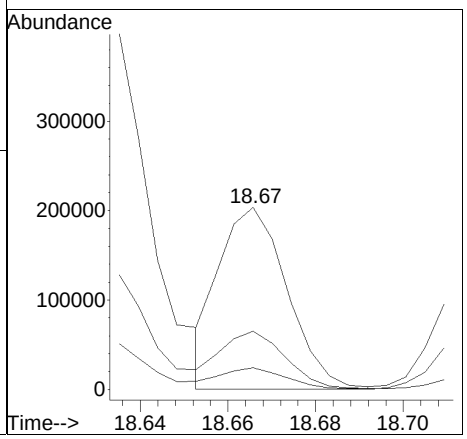





#96
4-ethyl toluene
Concen: 2.53 ppbV
RT: 18.67 min Scan# 3386
Delta R.T. -0.000 min
Lab File: R126441.D
Acq: 8 Feb 2013 8:31 pm

Tgt Ion:105 Resp: 219988

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 32.0 | 24.0 | 36.0 |
| 91 | 11.9 | 8.9 | 13.3 |

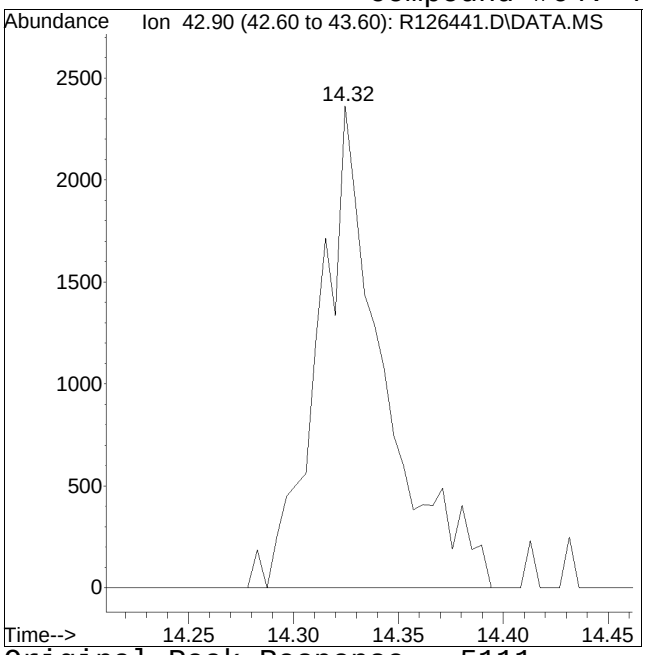


Manual Integration/Negative Proof Report

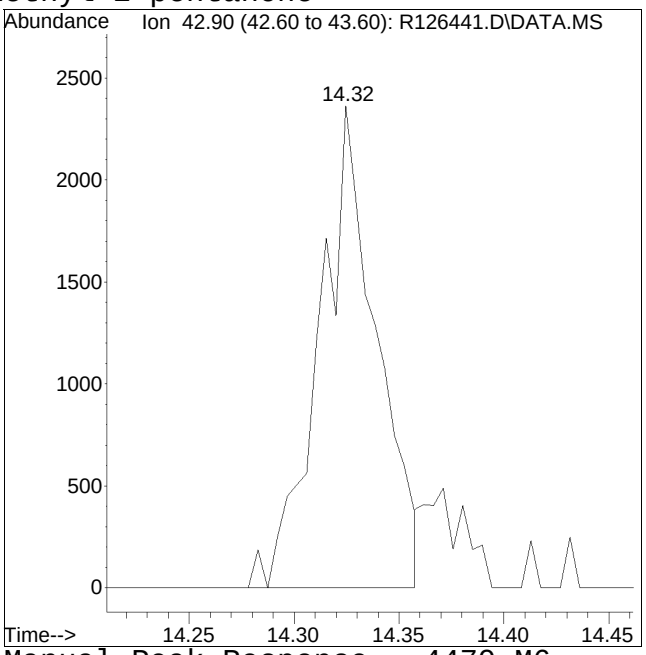
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #64: 4-methyl-2-pentanone




Original Peak Response = 5111




Manual Peak Response = 4470 M6

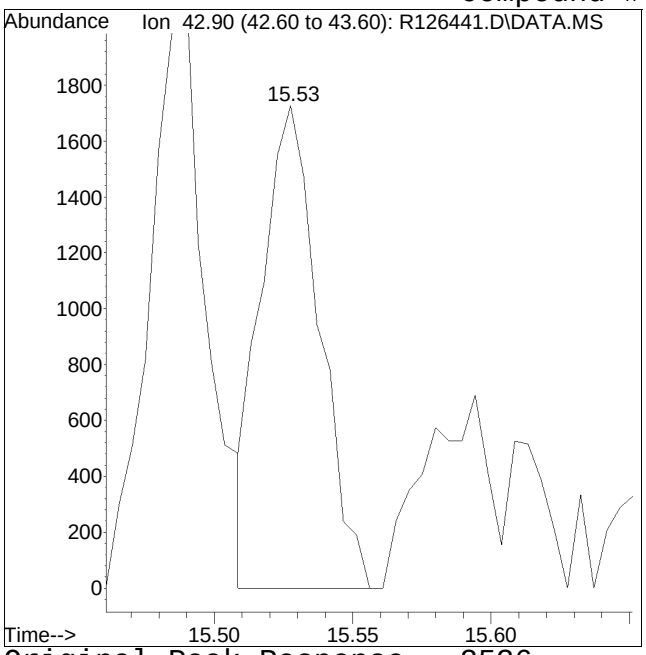
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

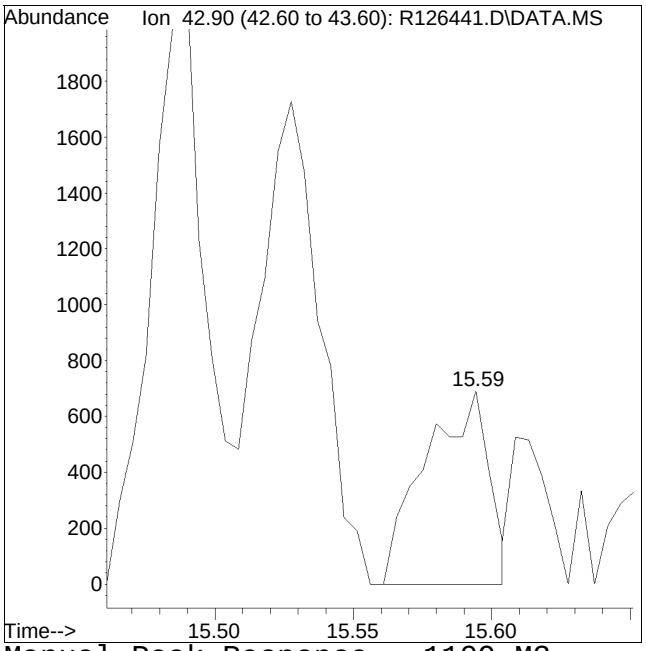
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126441.D
Date Inj'd : 2/8/2013 8:31 pm
Sample : L1302224-03,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #72: 2-hexanone




Original Peak Response = 2536 Manual Peak Response = 1109 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:05:16 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

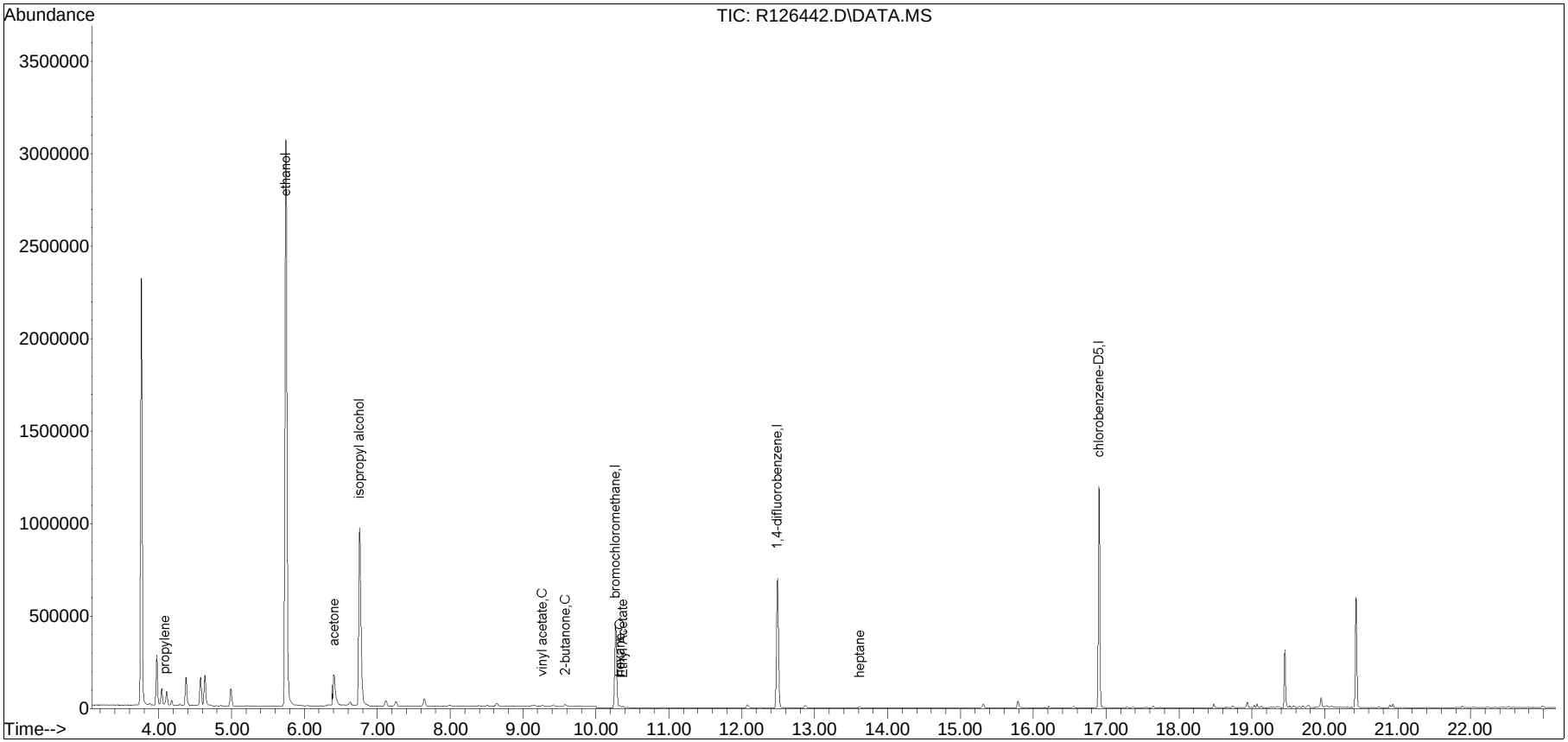
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 227022 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 70.36% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 549924 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 84.84% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 141084 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 84.93% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 1615M6 | 0.120 | ppbV | |
| 15) ethanol | 5.75 | 31 | 2442281 | 203.828 | ppbV | 94 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.41 | 43 | 214682 | 7.686 | ppbV # | 96 |
| 22) isopropyl alcohol | 6.76 | 45 | 1196362 | 32.299 | ppbV | 98 |
| 29) 3-chloropropene | 7.85 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.98 | | 0 | N.D. | | |
| 35) vinyl acetate | 9.26 | 43 | 4857M6 | 0.108 | ppbV | |
| 36) 2-butanone | 9.58 | 43 | 14775 | 0.389 | ppbV | 95 |
| 38) Ethyl Acetate | 10.37 | 61 | 950 | 0.180 | ppbV # | 17 |
| 40) Tetrahydrofuran | 10.88 | | 0 | N.D. | | |
| 44) hexane | 10.33 | 57 | 3915 | 0.143 | ppbV # | 14 |
| 53) cyclohexane | 12.40 | | 0 | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.33 | | 0 | N.D. | | |
| 62) heptane | 13.62 | 43 | 3984M4 | 0.100 | ppbV | |
| 64) 4-methyl-2-pentanone | 14.35 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.59 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.20 | | 0 | N.D. | | |

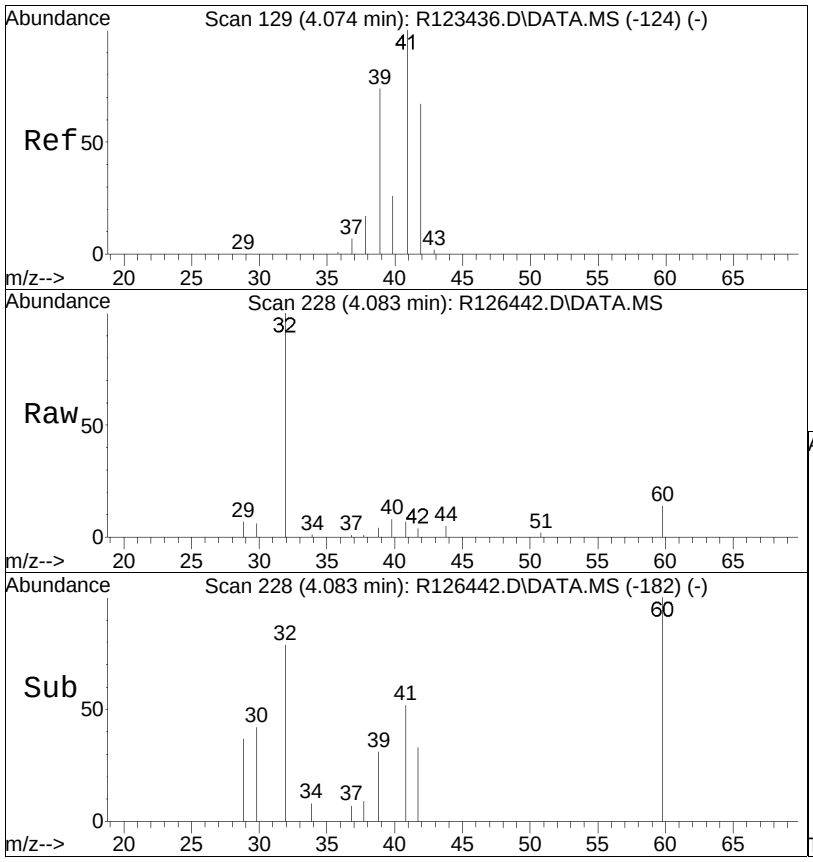
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126442.D
Acq On : 8 Feb 2013 9:03 pm
Operator : AIRPIANO1:MB
Sample : L1302224-04,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:05:16 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

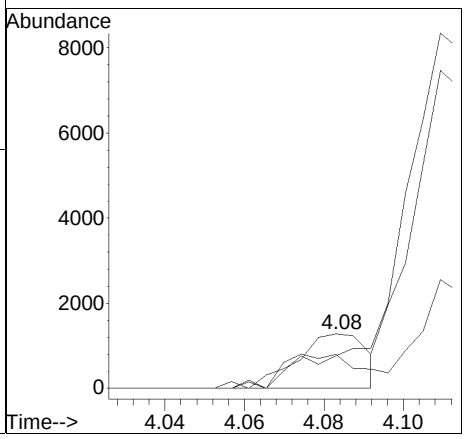


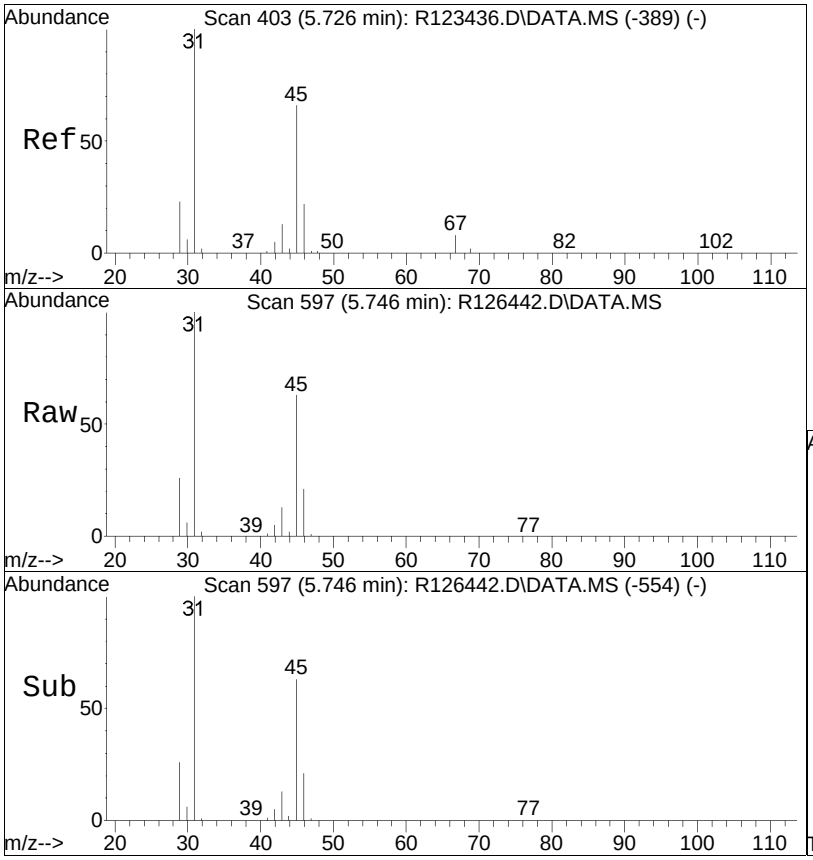



#3
propylene
Concen: 0.12 ppbV m
RT: 4.08 min Scan# 228
Delta R.T. -0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 41 Resp: 1615

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 62.5 | 52.8 | 79.2 |
| 39 | 59.8 | 60.6 | 90.8# |

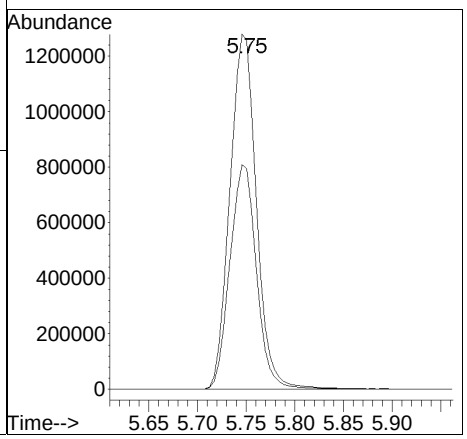


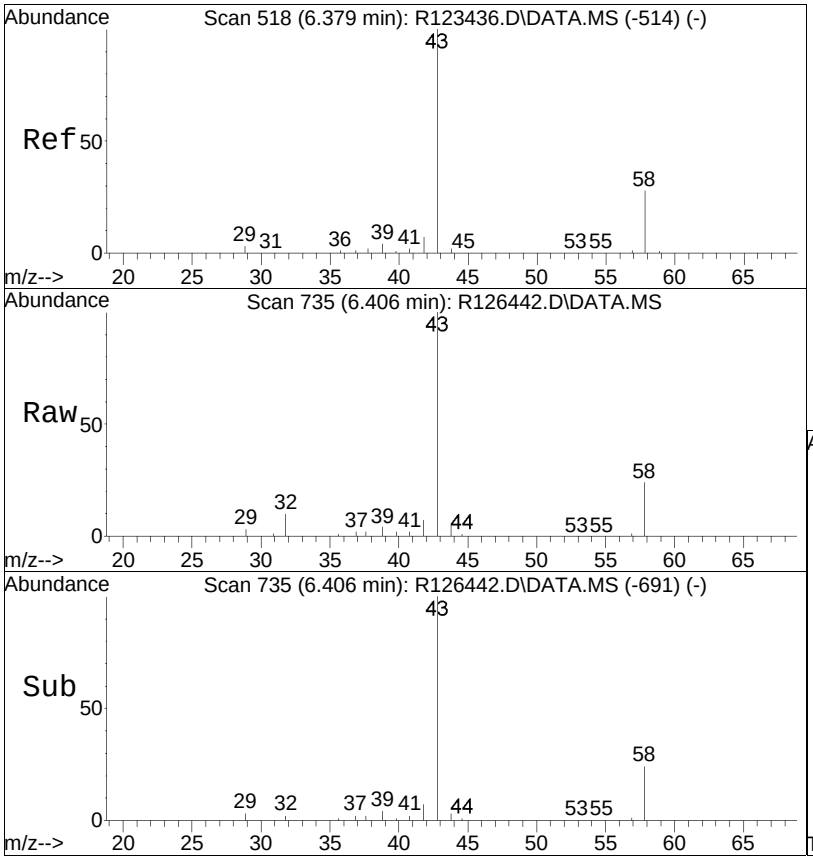



#15
ethanol
Concen: 203.83 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 31 Resp: 2442281

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 63.3 | 46.8 | 70.2 |

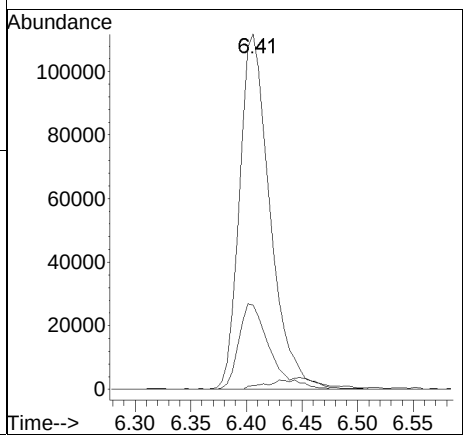


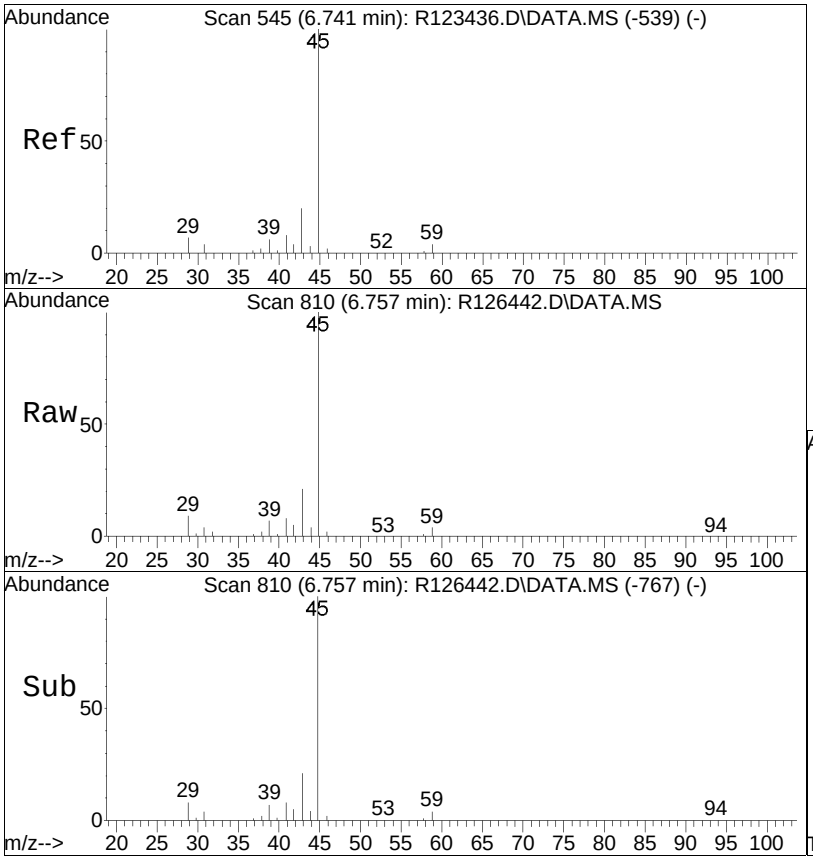



#19
acetone
Concen: 7.69 ppbV
RT: 6.41 min Scan# 735
Delta R.T. 0.009 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 43 Resp: 214682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.7 | 20.5 | 30.7 |
| 57 | 1.1 | 0.6 | 1.0# |

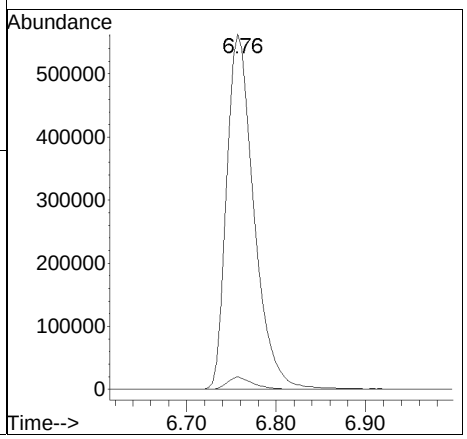


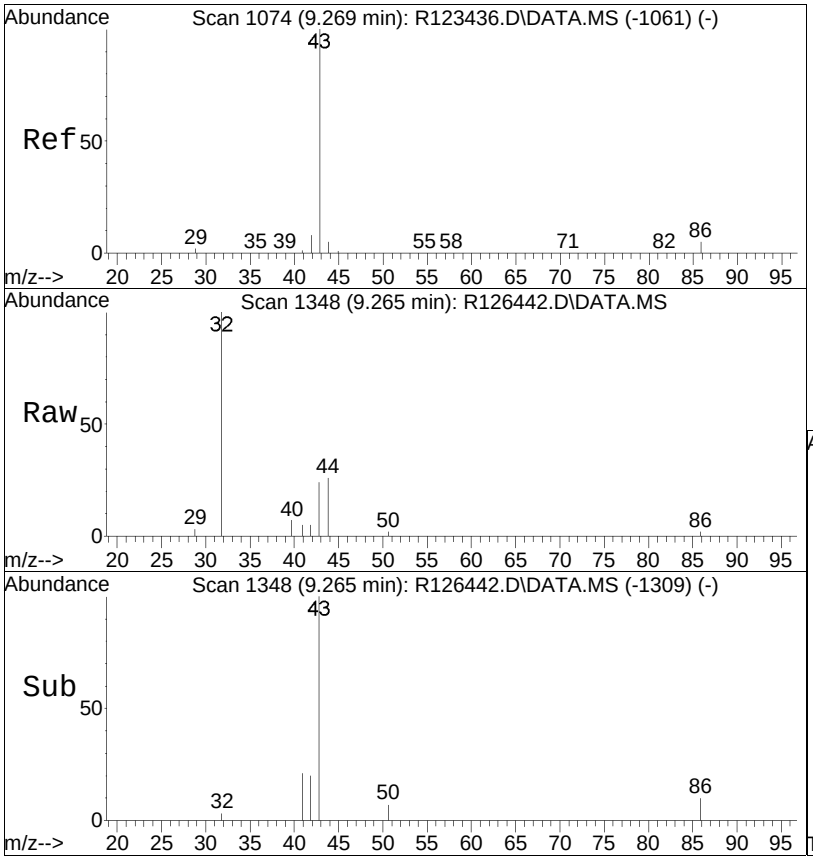



#22
isopropyl alcohol
Concen: 32.30 ppbV
RT: 6.76 min Scan# 810
Delta R.T. -0.000 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 45 Resp: 1196362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.6 | 2.5 | 3.7 |

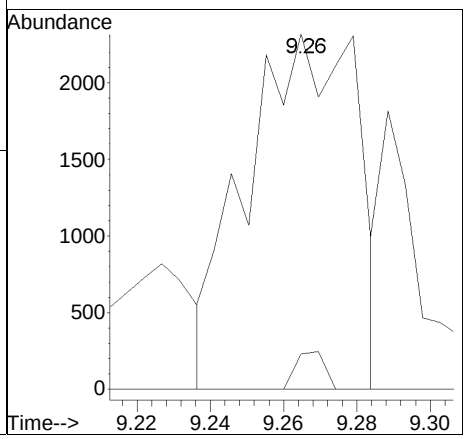


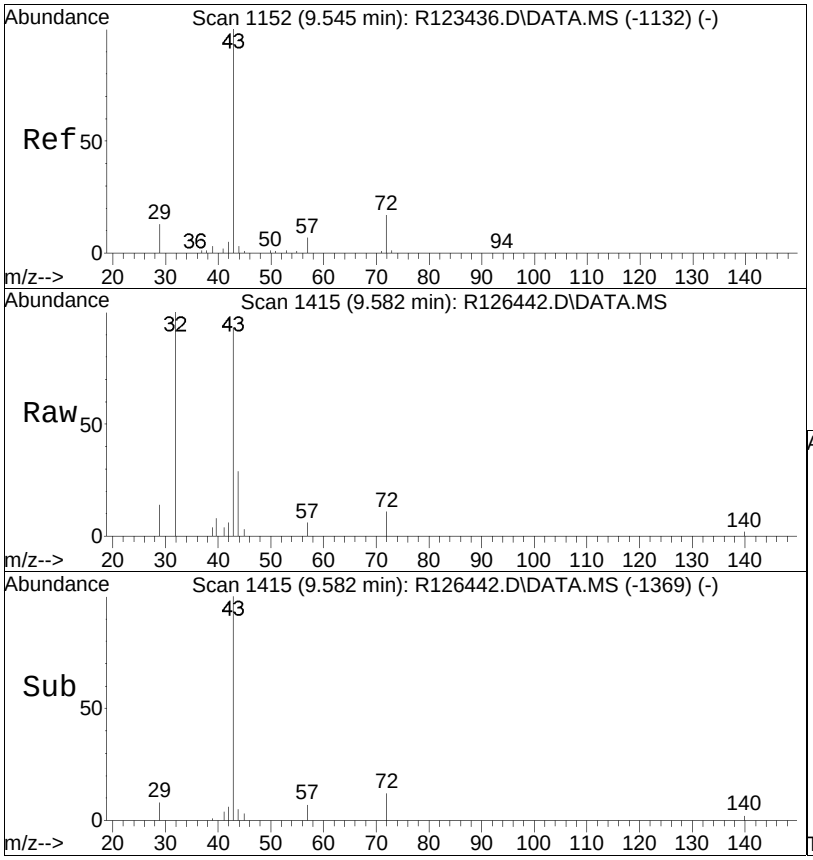



#35
vinyl acetate
Concen: 0.11 ppbV m
RT: 9.26 min Scan# 1348
Delta R.T. -0.014 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 43 Resp: 4857

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 9.9 | 3.5 | 5.3# |

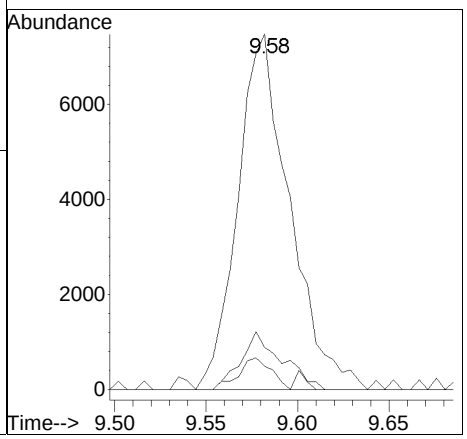


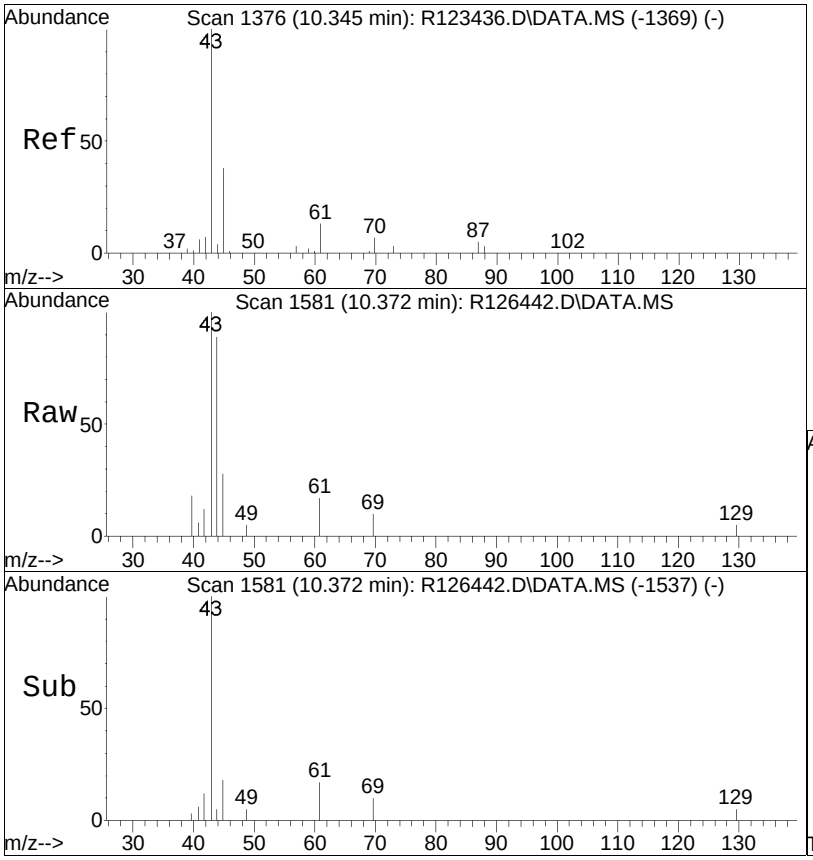



#36
2-butanone
Concen: 0.39 ppbV
RT: 9.58 min Scan# 1415
Delta R.T. 0.019 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 43 Resp: 14775

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 11.9 | 11.8 | 17.8 |
| 57 | 6.5 | 4.8 | 7.2 |

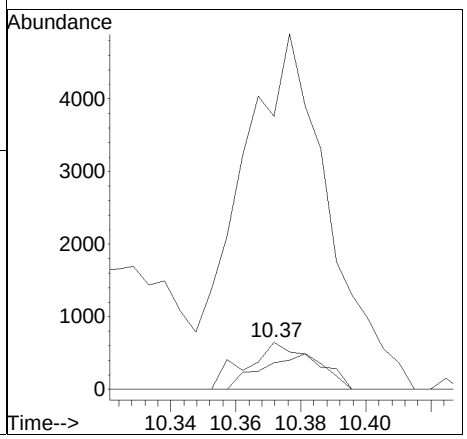


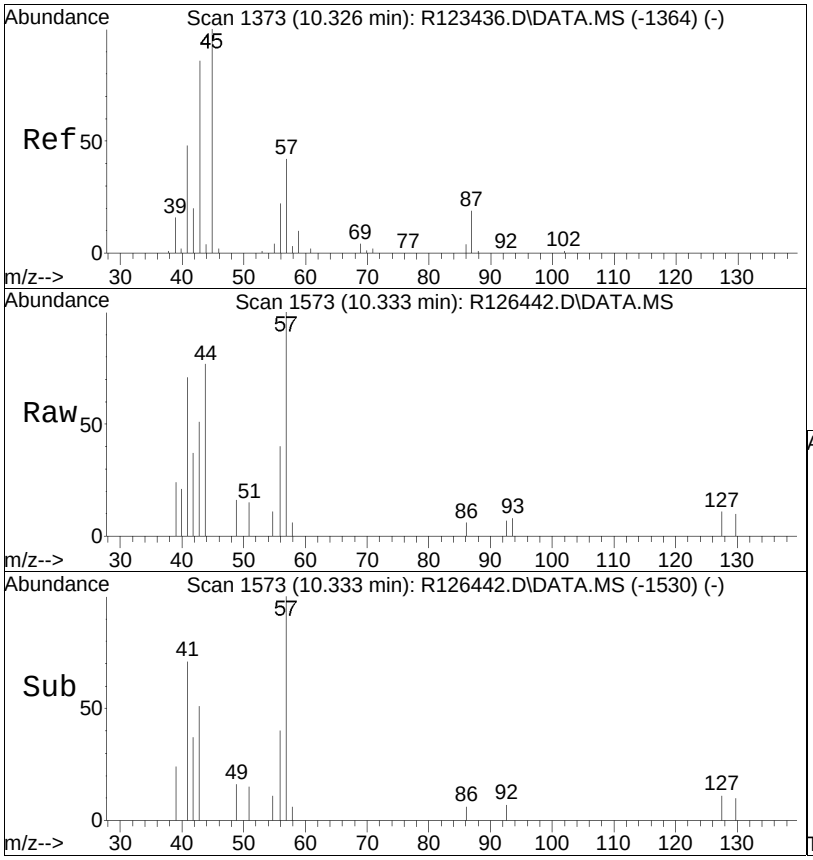



#38
Ethyl Acetate
Concen: 0.18 ppbV
RT: 10.37 min Scan# 1581
Delta R.T. 0.010 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 61 Resp: 950

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 56.6 | 44.1 | 66.1 |
| 43 | 578.6 | 768.4 | 1152.6# |

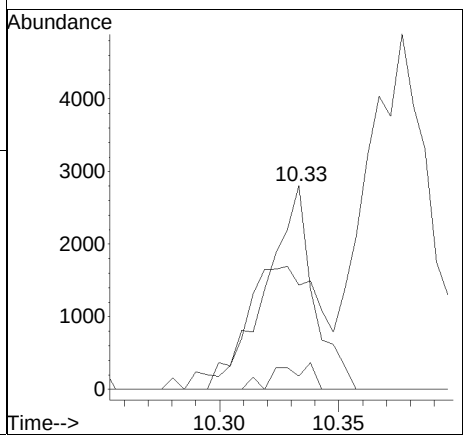


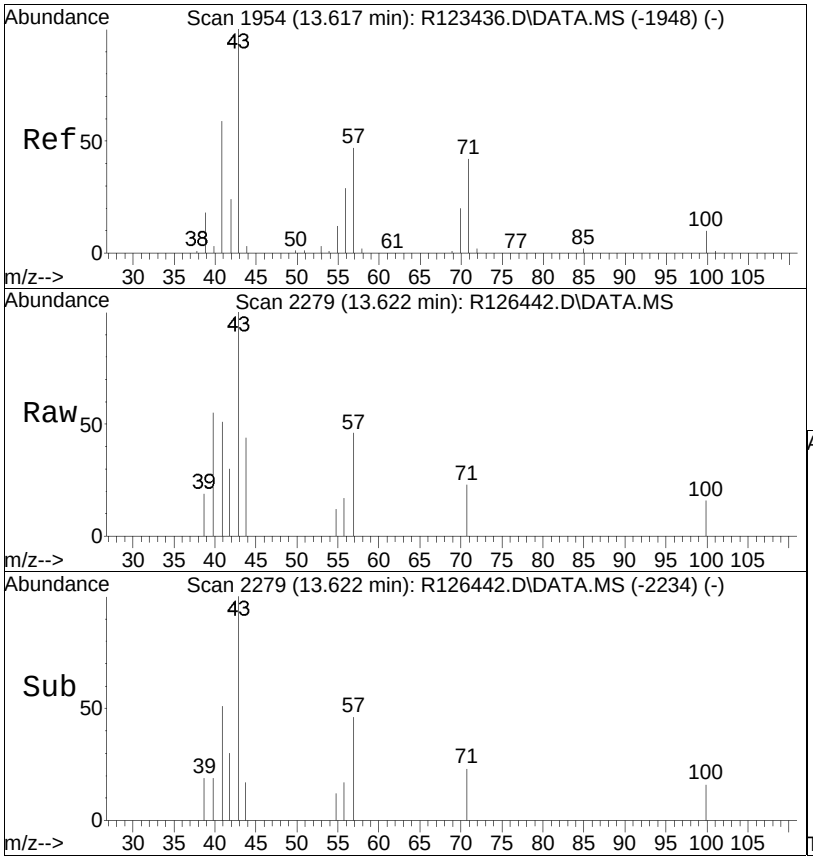



#44
hexane
Concen: 0.14 ppbV
RT: 10.33 min Scan# 1573
Delta R.T. 0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 57 Resp: 3915

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 51.2 | 141.7 | 212.5# |
| 86 | 6.5 | 7.5 | 11.3# |

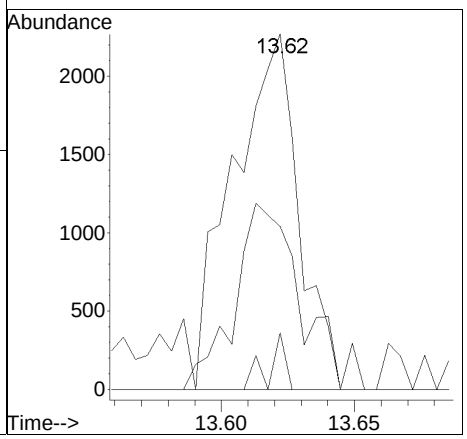





#62
heptane
Concen: 0.10 ppbV m
RT: 13.62 min Scan# 2279
Delta R.T. 0.005 min
Lab File: R126442.D
Acq: 8 Feb 2013 9:03 pm

Tgt Ion: 43 Resp: 3984

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 45.9 | 36.6 | 54.8 |
| 100 | 16.0 | 6.7 | 10.1# |

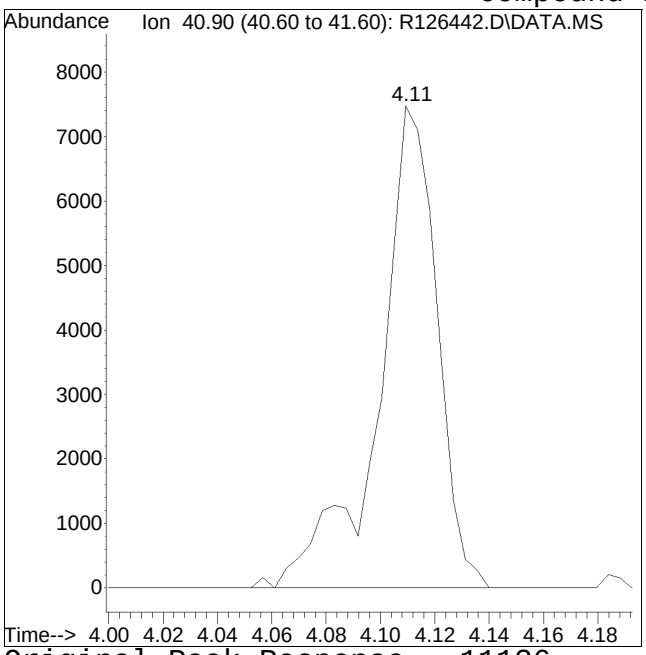


Manual Integration/Negative Proof Report

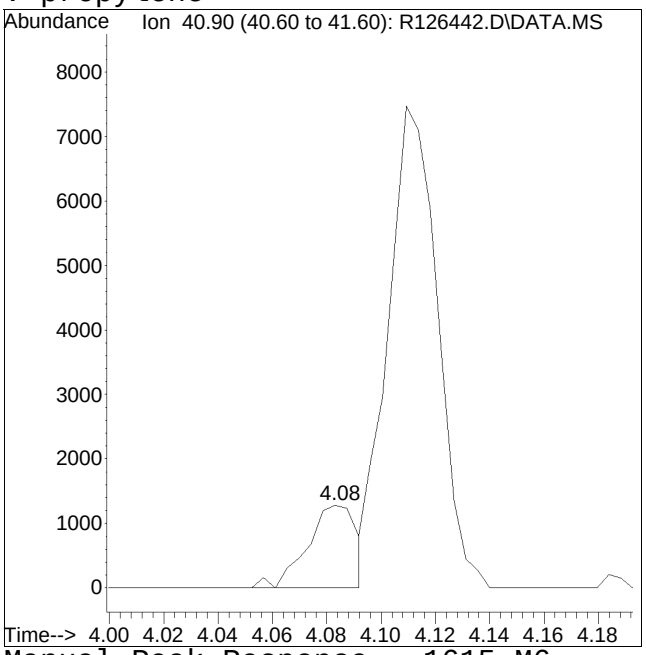
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #3: propylene




Original Peak Response = 11136




Manual Peak Response = 1615 M6

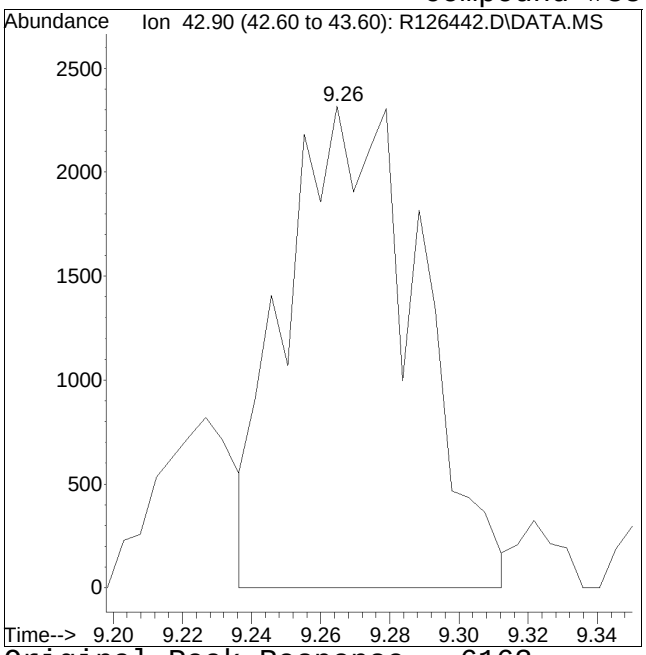
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

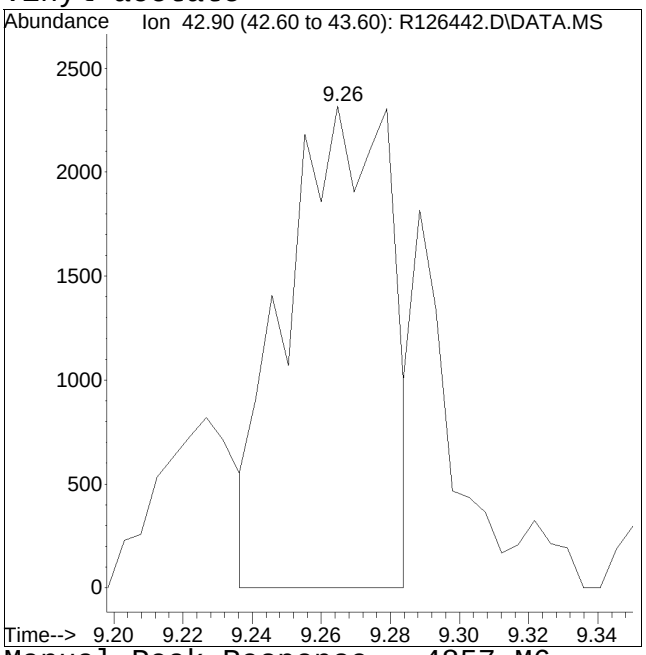
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #35: vinyl acetate




Original Peak Response = 6163




Manual Peak Response = 4857 M6

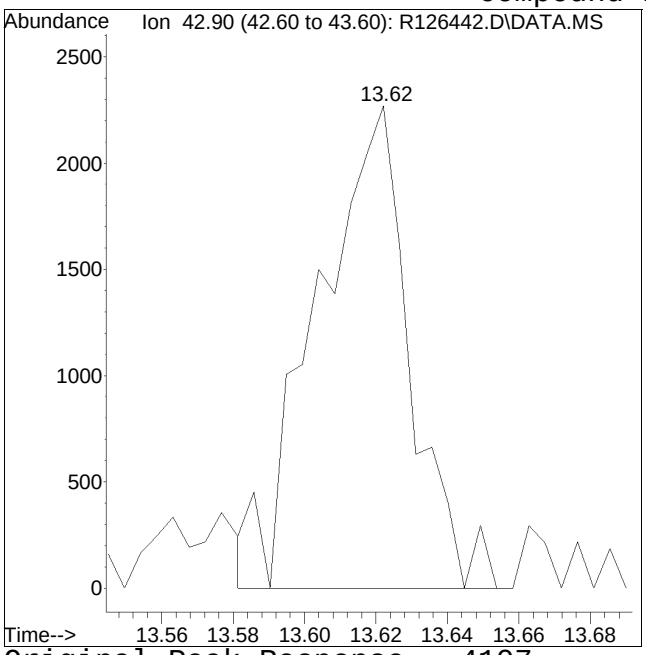
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

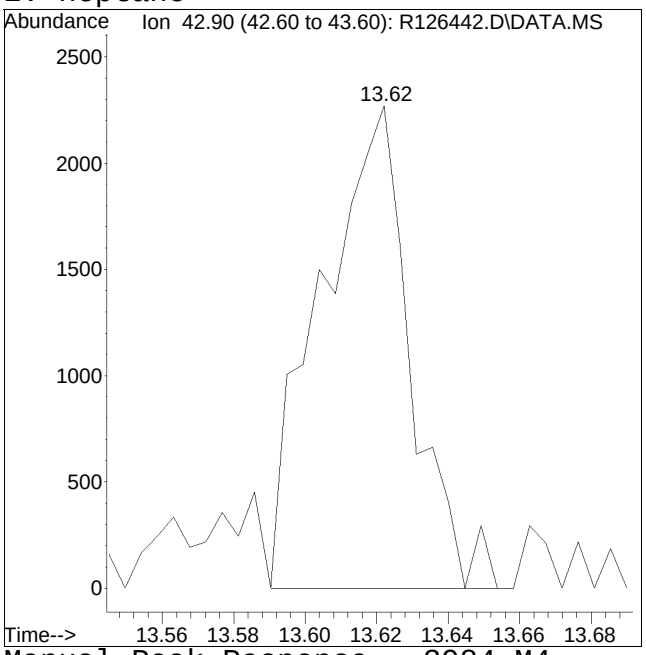
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #62: heptane




Original Peak Response = 4107




Manual Peak Response = 3984 M4

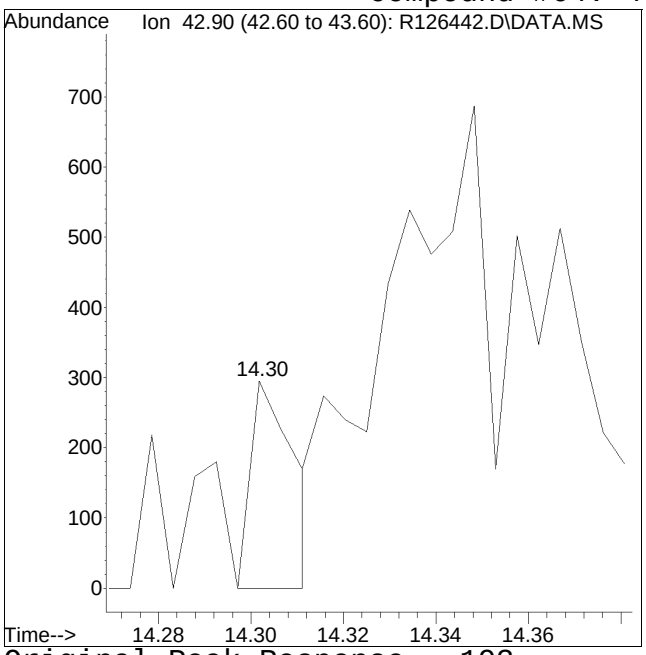
M4 = Poor automated baseline construction.

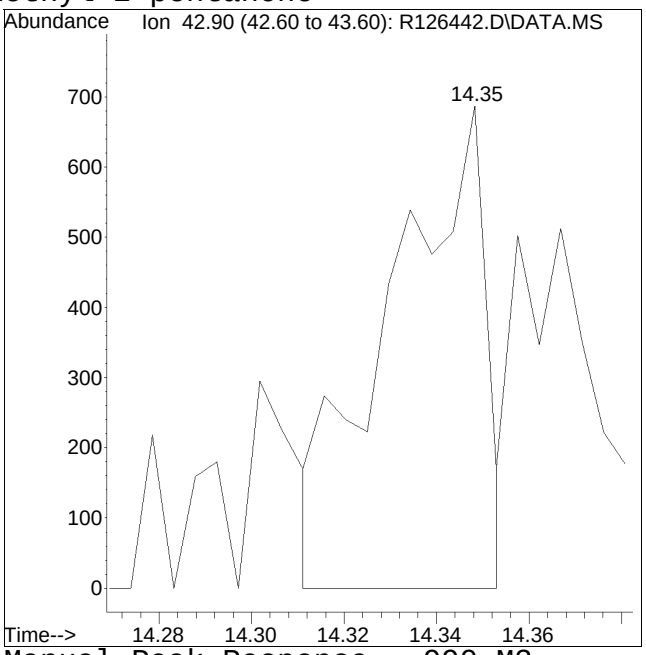
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #64: 4-methyl-2-pentanone




Original Peak Response = 193 Manual Peak Response = 990 M3

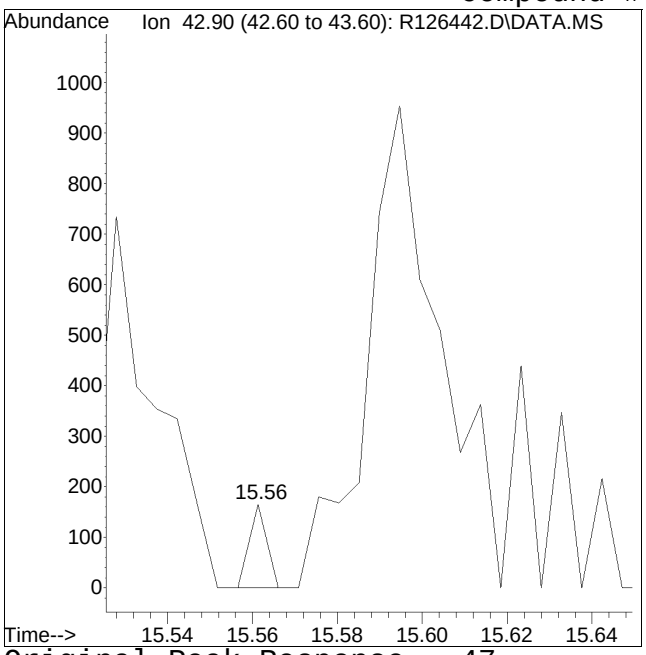
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

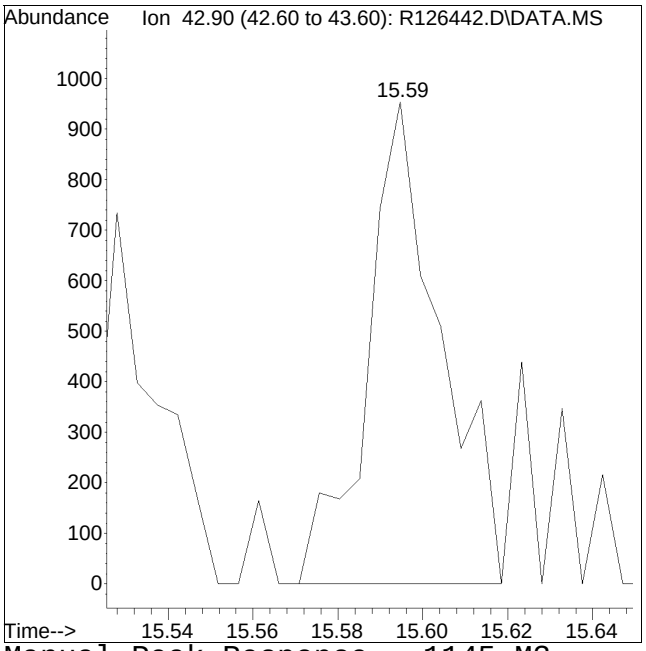
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126442.D
Date Inj'd : 2/8/2013 9:03 pm
Sample : L1302224-04,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #72: 2-hexanone




Original Peak Response = 47 Manual Peak Response = 1145 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 10:06:31 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

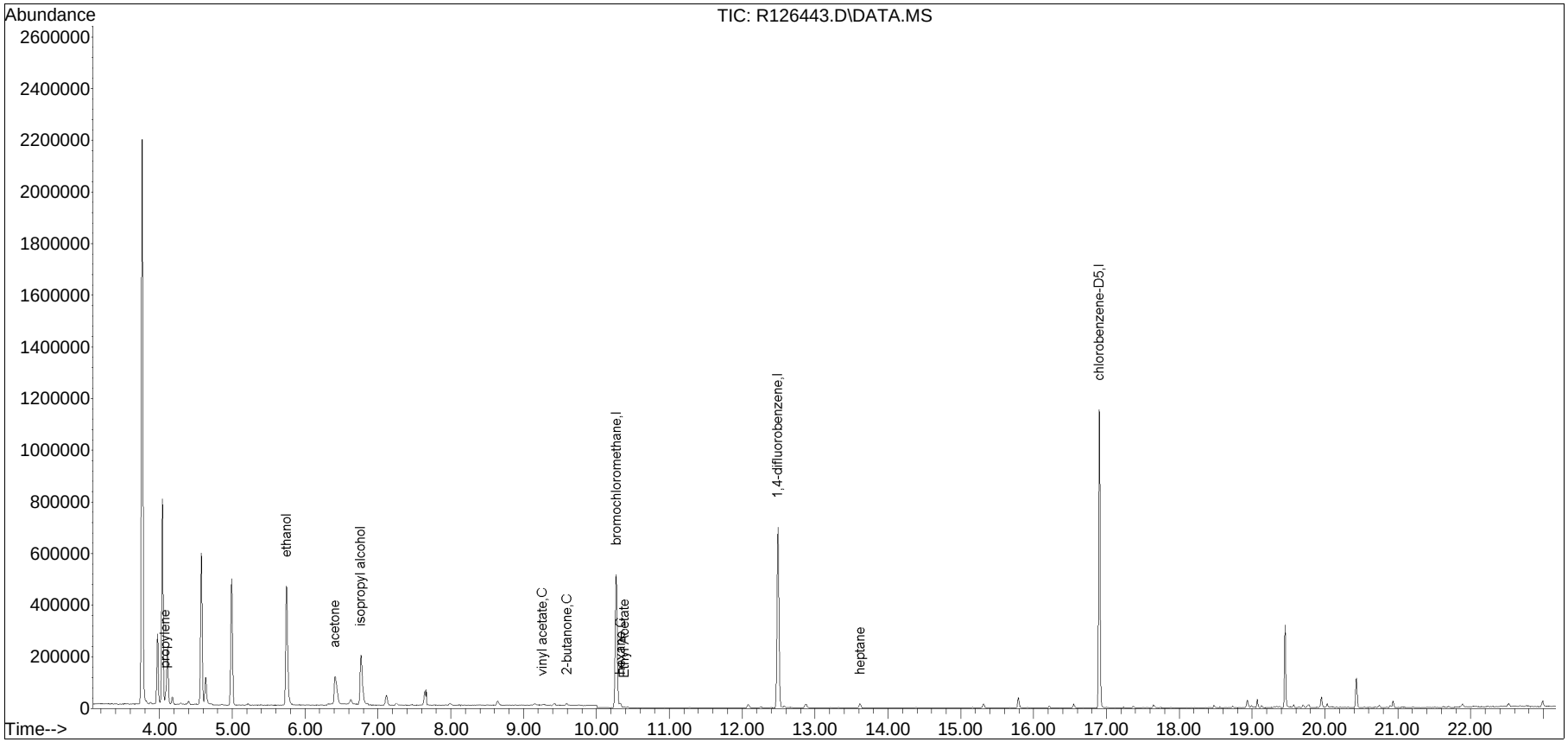
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 278702 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 86.38% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 546666 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 84.34% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 135632 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 81.65% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 1522M6 | 0.092 | ppbV | |
| 15) ethanol | 5.75 | 31 | 365345 | 24.837 | ppbV | 98 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.41 | 43 | 127578M6 | 3.721 | ppbV | |
| 22) isopropyl alcohol | 6.77 | 45 | 241454 | 5.310 | ppbV | 99 |
| 29) 3-chloropropene | 7.87 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.97 | | 0 | N.D. | | |
| 35) vinyl acetate | 9.26 | 43 | 6383 | 0.116 | ppbV # | 87 |
| 36) 2-butanone | 9.60 | 43 | 9832M6 | 0.211 | ppbV | |
| 38) Ethyl Acetate | 10.38 | 61 | 336M1 | 0.052 | ppbV | |
| 40) Tetrahydrofuran | 10.93 | | 0 | N.D. | | |
| 44) hexane | 10.33 | 57 | 6268 | 0.230 | ppbV # | 26 |
| 53) cyclohexane | 12.39 | | 0 | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.31 | | 0 | N.D. | | |
| 62) heptane | 13.62 | 43 | 8294 | 0.209 | ppbV # | 72 |
| 64) 4-methyl-2-pentanone | 14.36 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.59 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.19 | | 0 | N.D. | | |

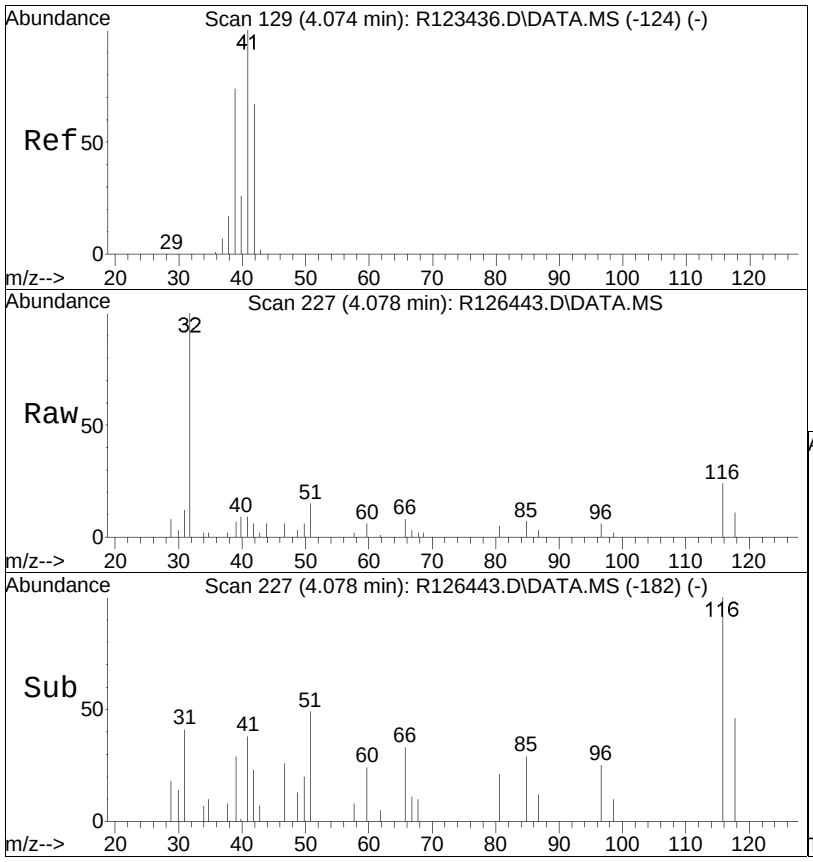
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126443.D
Acq On : 8 Feb 2013 9:34 pm
Operator : AIRPIANO1:MB
Sample : L1302224-05,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 10:06:31 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

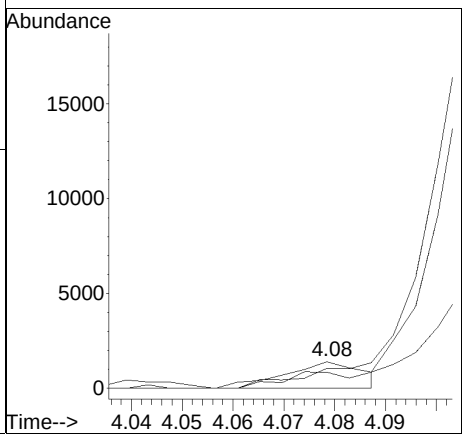


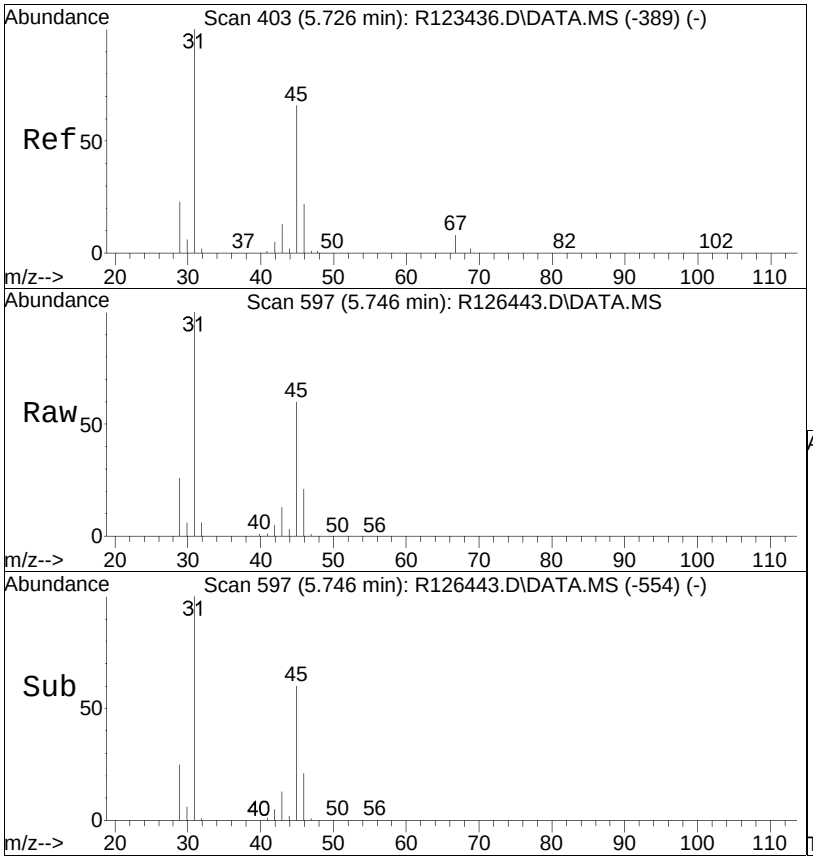



#3
propylene
Concen: 0.09 ppbV m
RT: 4.08 min Scan# 227
Delta R.T. -0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 41 Resp: 1522

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 61.0 | 52.8 | 79.2 |
| 39 | 75.1 | 60.6 | 90.8 |

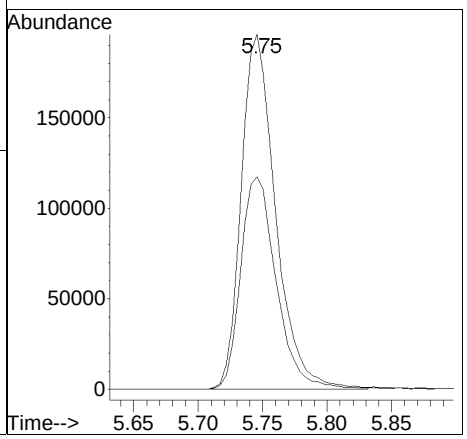


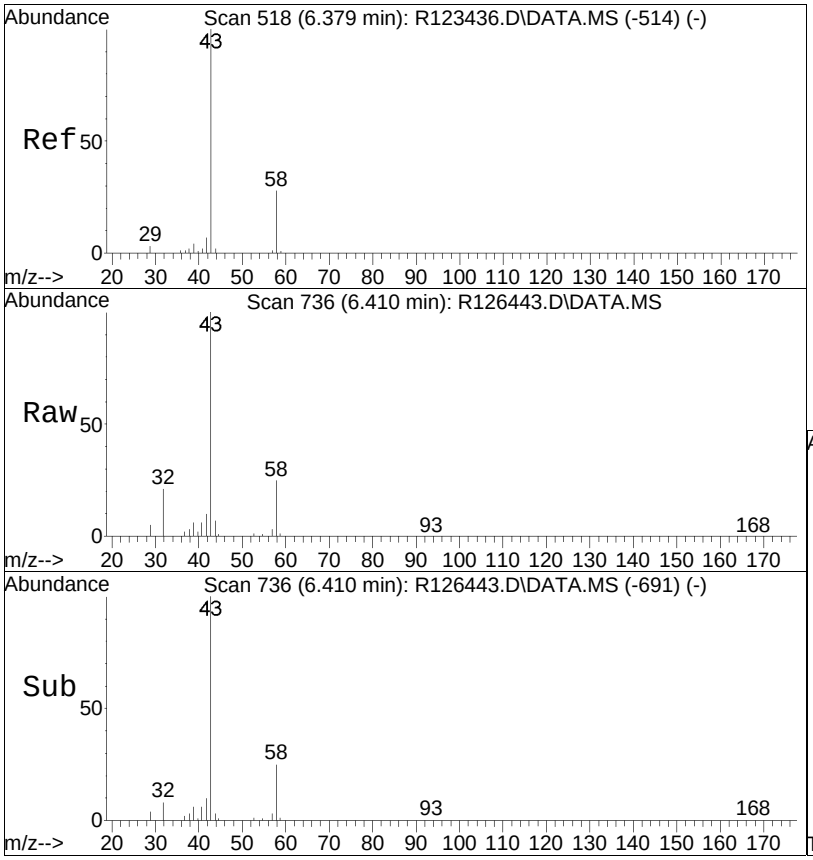



#15
ethanol
Concen: 24.84 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 31 Resp: 365345

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 59.9 | 46.8 | 70.2 |

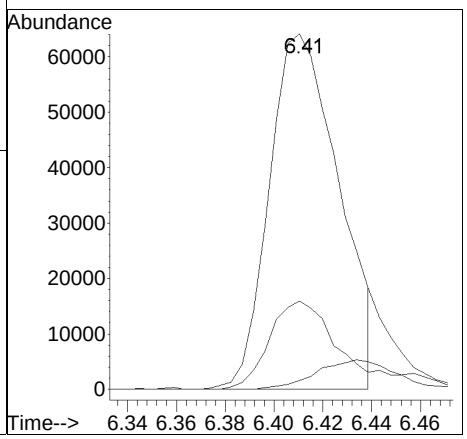


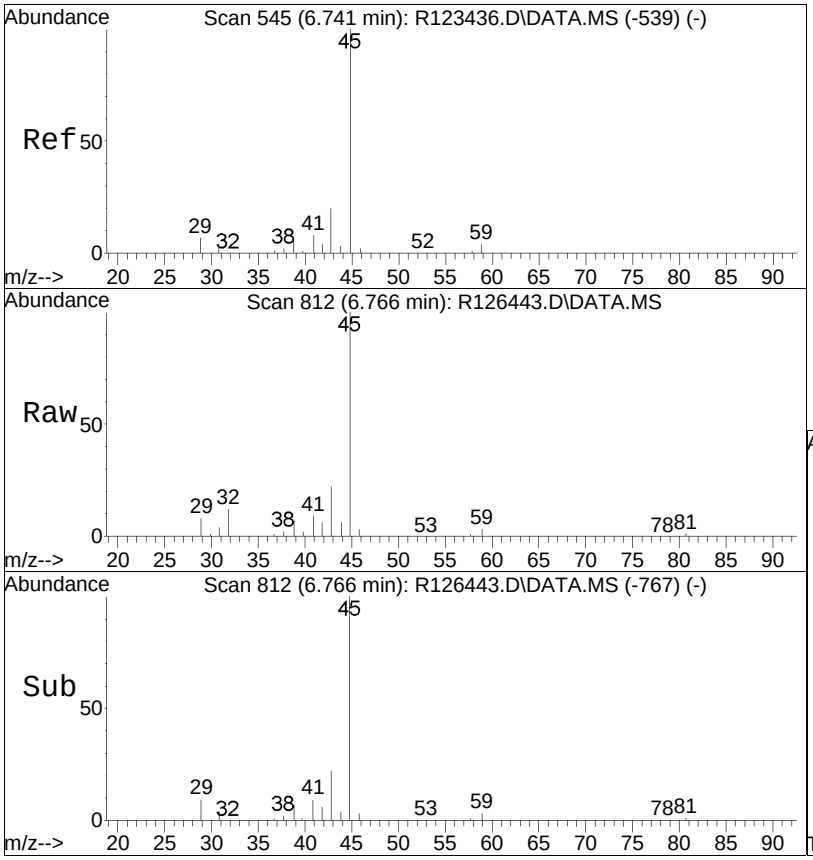



#19
acetone
Concen: 3.72 ppbV m
RT: 6.41 min Scan# 736
Delta R.T. 0.014 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 43 Resp: 127578

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 24.9 | 20.5 | 30.7 |
| 57 | 2.5 | 0.6 | 1.0# |

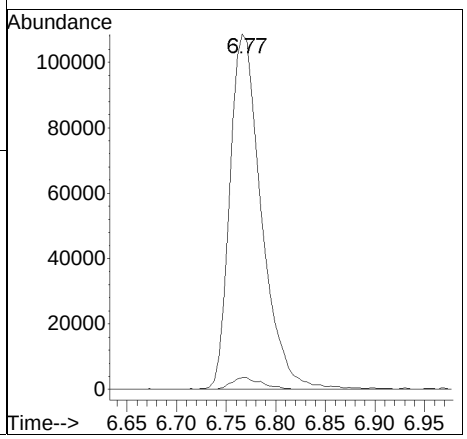


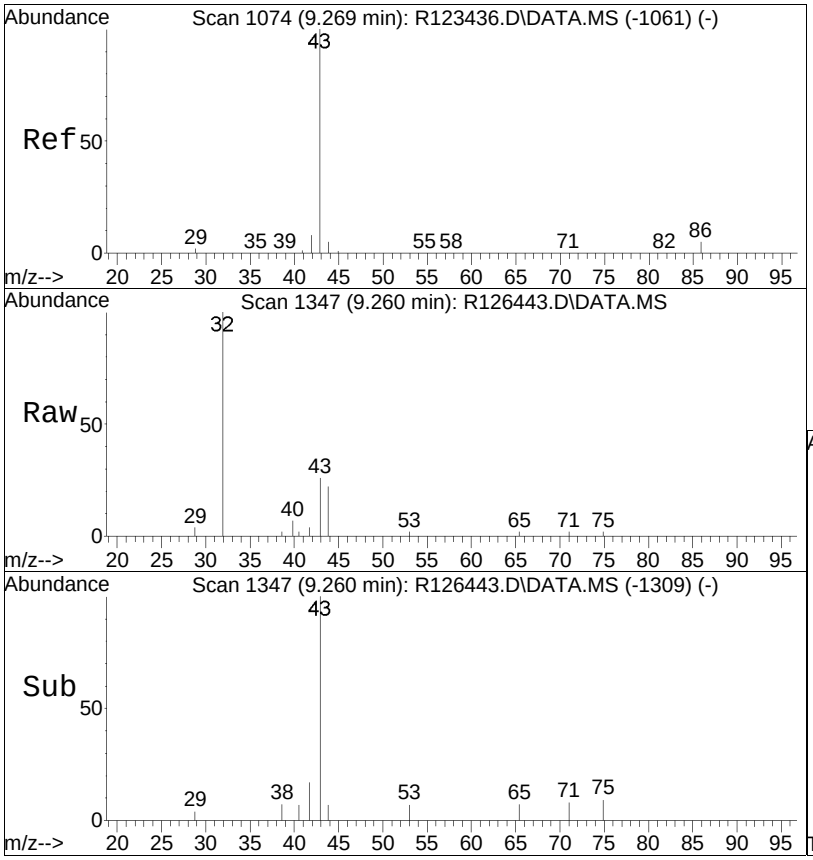



#22
isopropyl alcohol
Concen: 5.31 ppbV
RT: 6.77 min Scan# 812
Delta R.T. 0.009 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 45 Resp: 241454

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.3 | 2.5 | 3.7 |

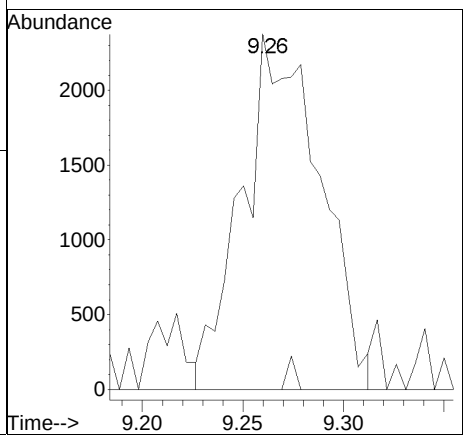


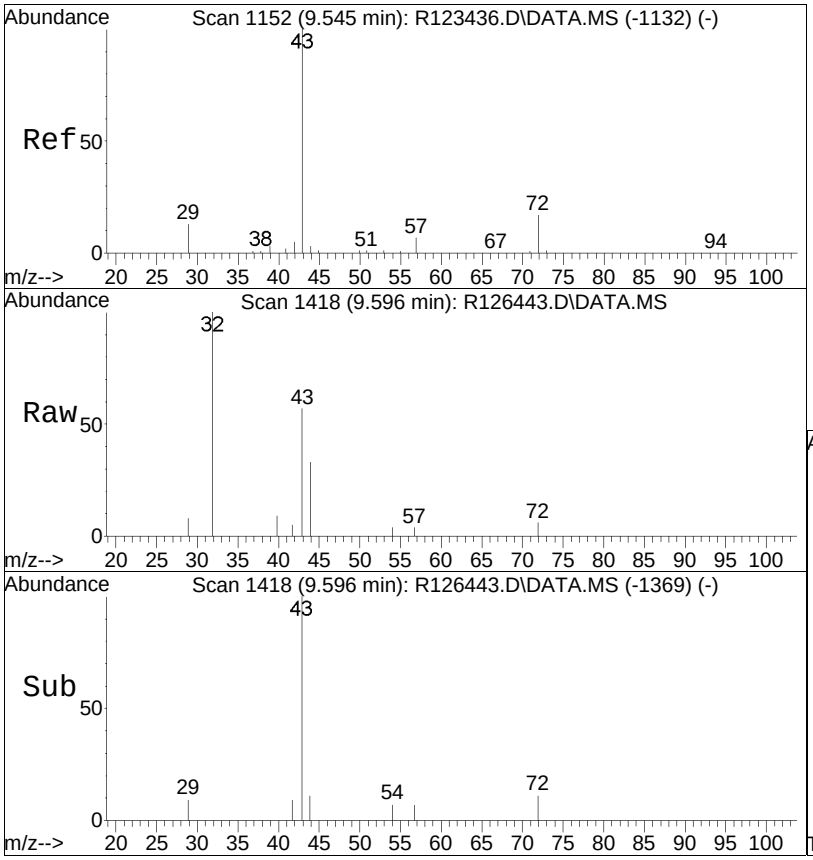



#35
vinyl acetate
Concen: 0.12 ppbV
RT: 9.26 min Scan# 1347
Delta R.T. -0.019 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 43 Resp: 6383

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 0.0 | 3.5 | 5.3# |

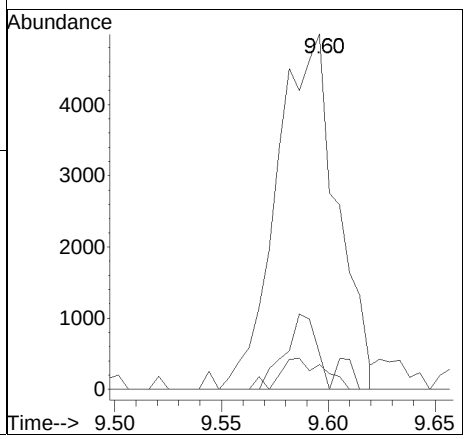


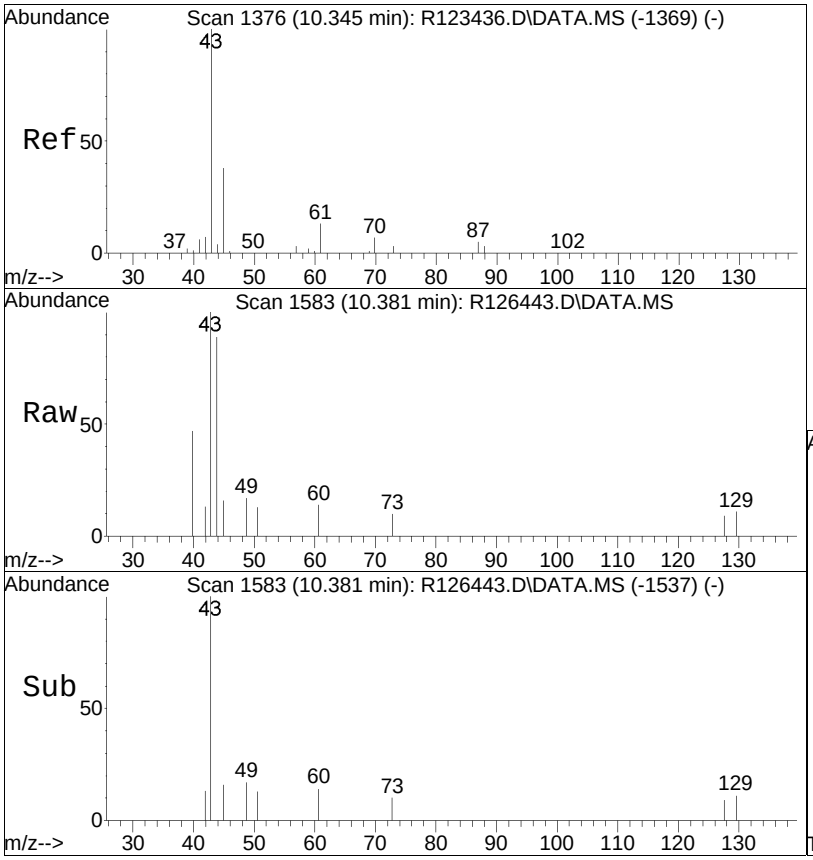



#36
2-butanone
Concen: 0.21 ppbV m
RT: 9.60 min Scan# 1418
Delta R.T. 0.033 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 43 Resp: 9832

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 10.2 | 11.8 | 17.8# |
| 57 | 7.0 | 4.8 | 7.2 |

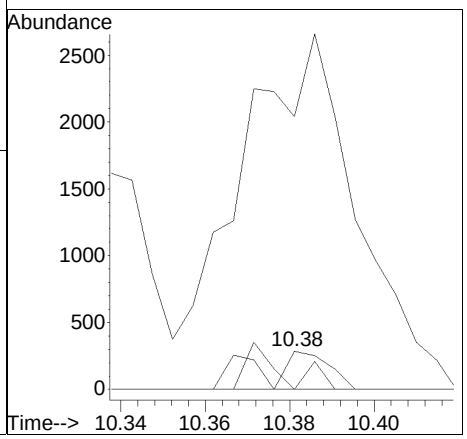


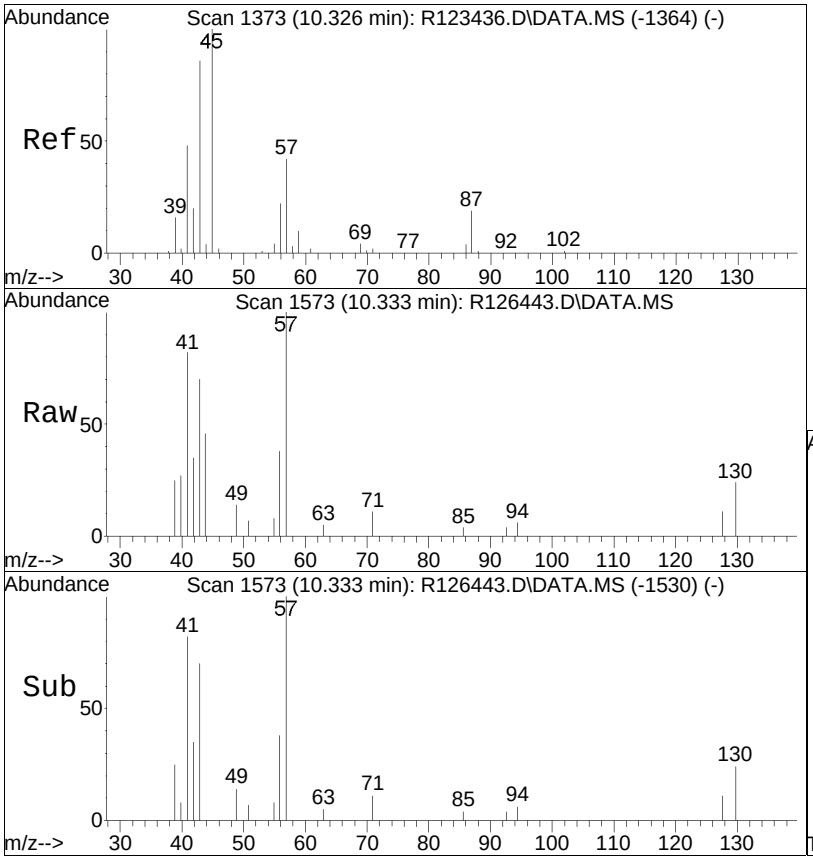



#38
Ethyl Acetate
Concen: 0.05 ppbV m
RT: 10.38 min Scan# 1583
Delta R.T. 0.019 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 61 Resp: 336

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 0.0 | 44.1 | 66.1# |
| 43 | 715.8 | 768.4 | 1152.6# |

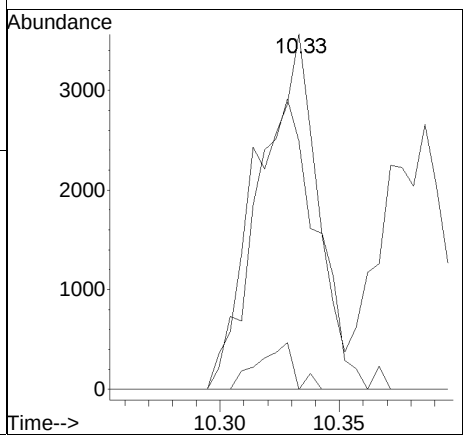


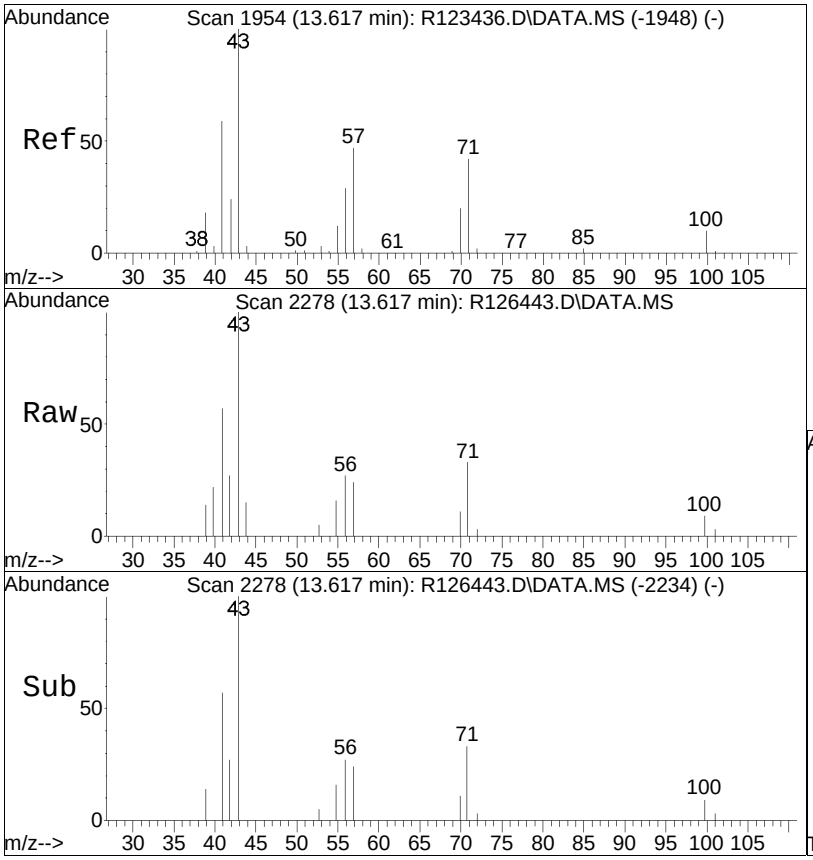



#44
hexane
Concen: 0.23 ppbV
RT: 10.33 min Scan# 1573
Delta R.T. 0.005 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 57 Resp: 6268

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 69.8 | 141.7 | 212.5# |
| 86 | 0.0 | 7.5 | 11.3# |

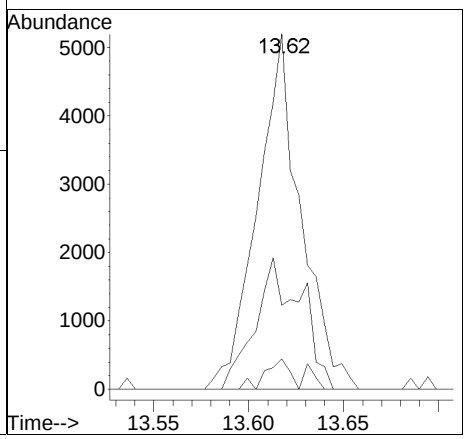





#62
heptane
Concen: 0.21 ppbV
RT: 13.62 min Scan# 2278
Delta R.T. -0.000 min
Lab File: R126443.D
Acq: 8 Feb 2013 9:34 pm

Tgt Ion: 43 Resp: 8294

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 23.8 | 36.6 | 54.8# |
| 100 | 8.6 | 6.7 | 10.1 |

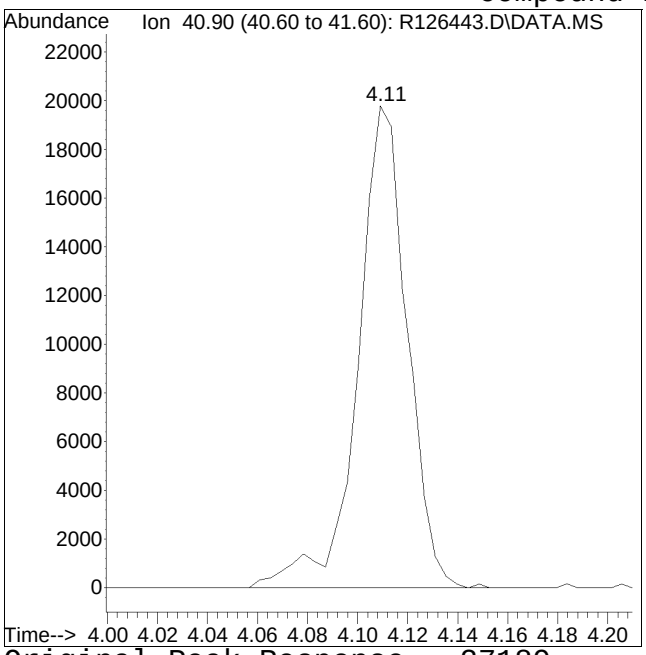


Manual Integration/Negative Proof Report

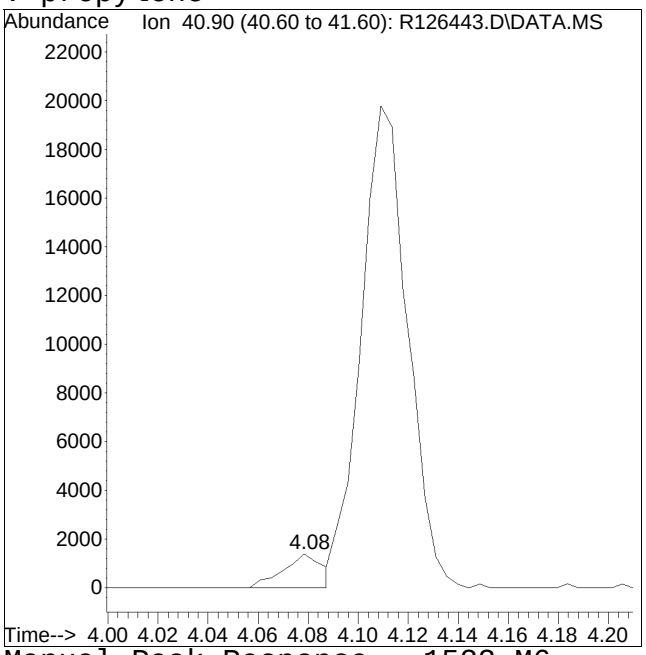
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #3: propylene




Original Peak Response = 27189




Manual Peak Response = 1522 M6

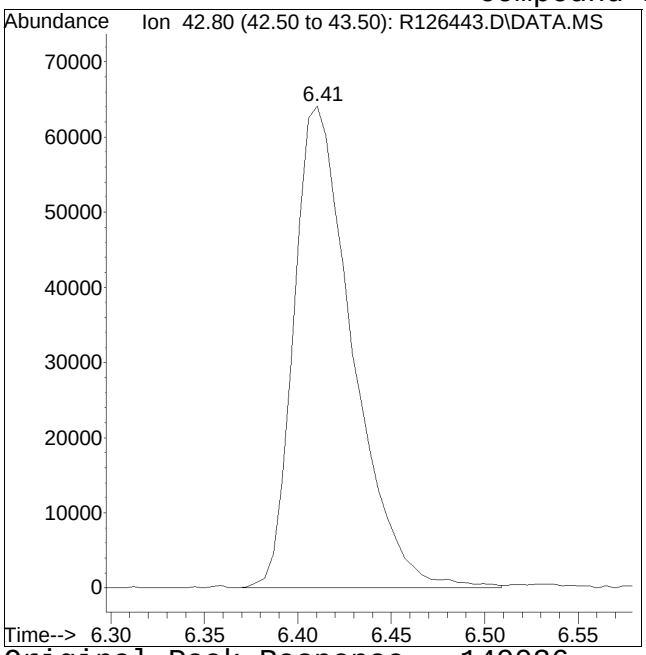
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

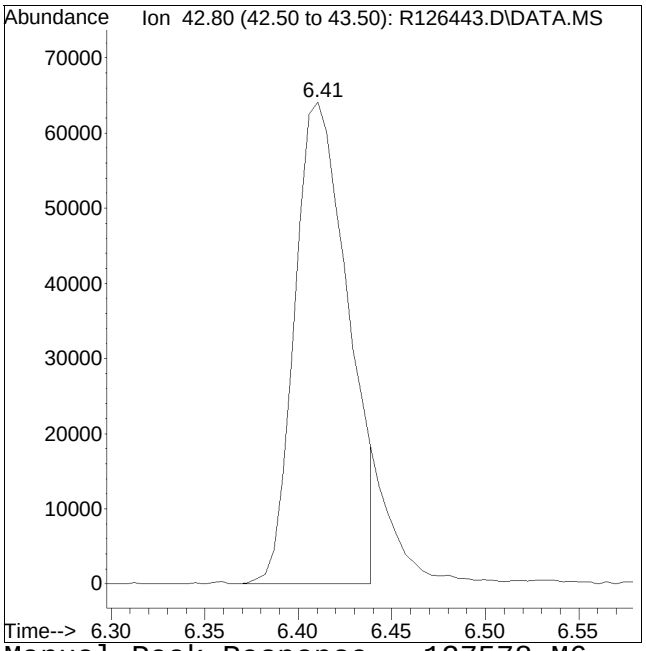
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #19: acetone




Original Peak Response = 140036




Manual Peak Response = 127578 M6

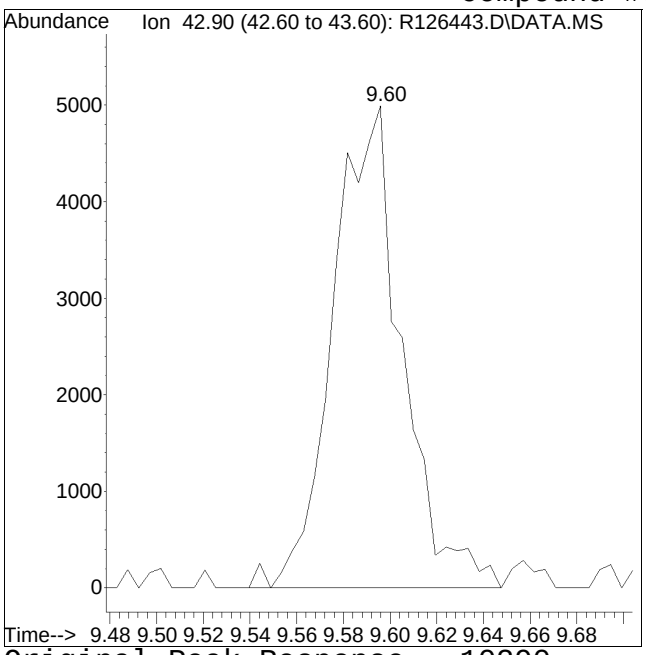
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

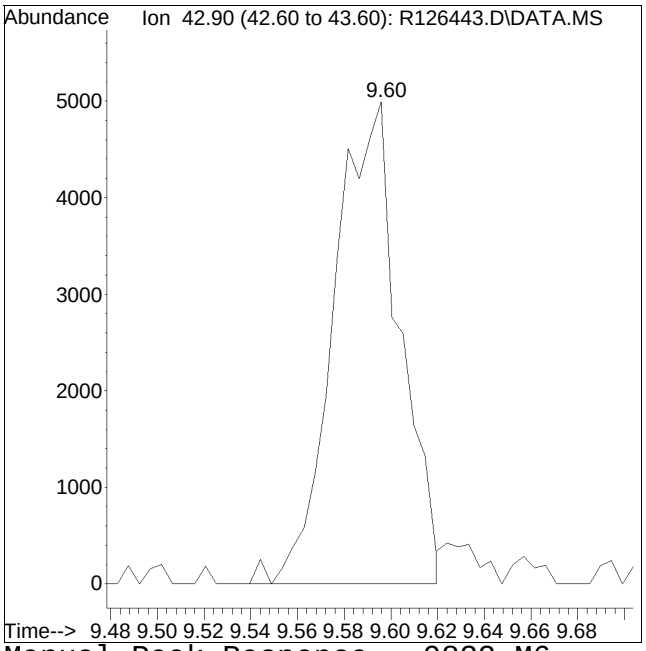
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #36: 2-butanone




Original Peak Response = 10290




Manual Peak Response = 9832 M6

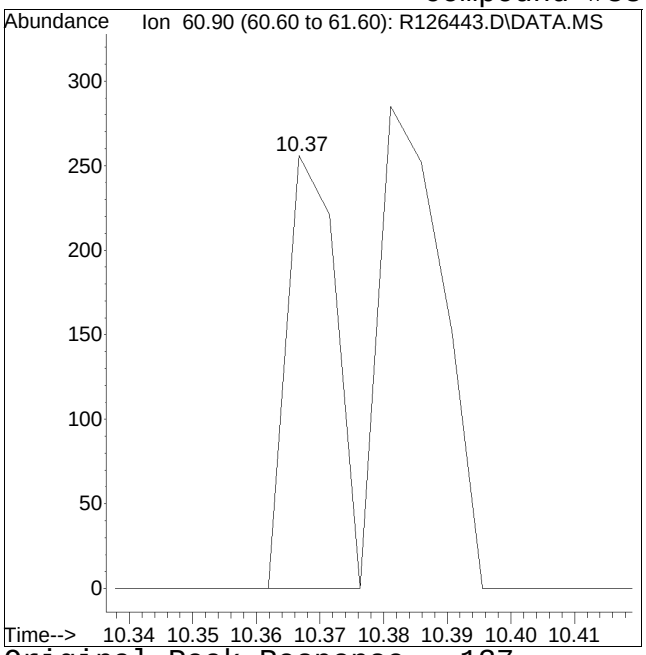
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

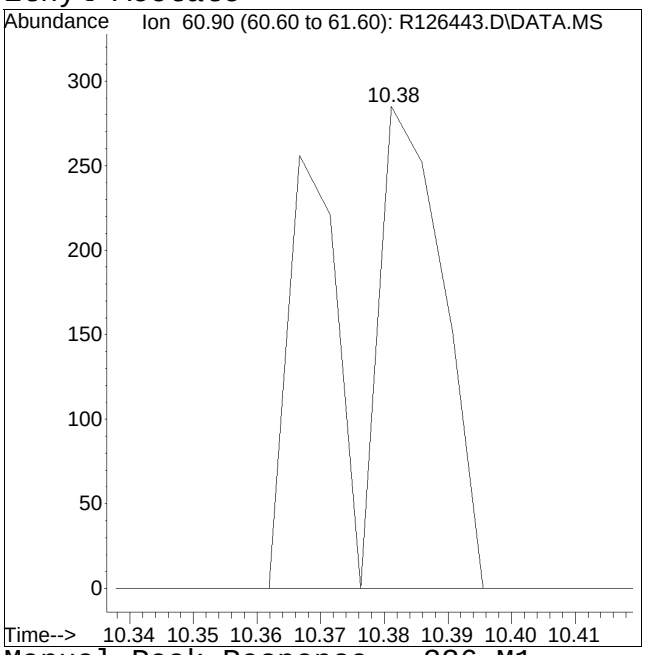
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #38: Ethyl Acetate




Original Peak Response = 137 Manual Peak Response = 336 M1

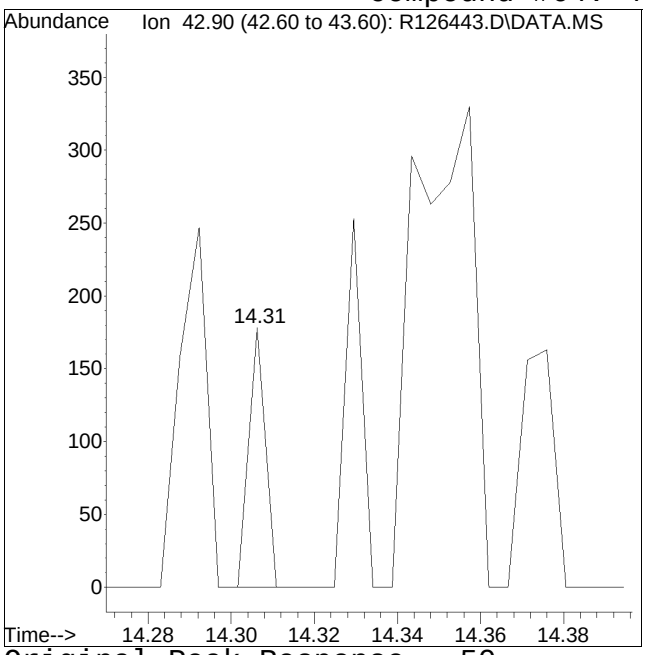
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

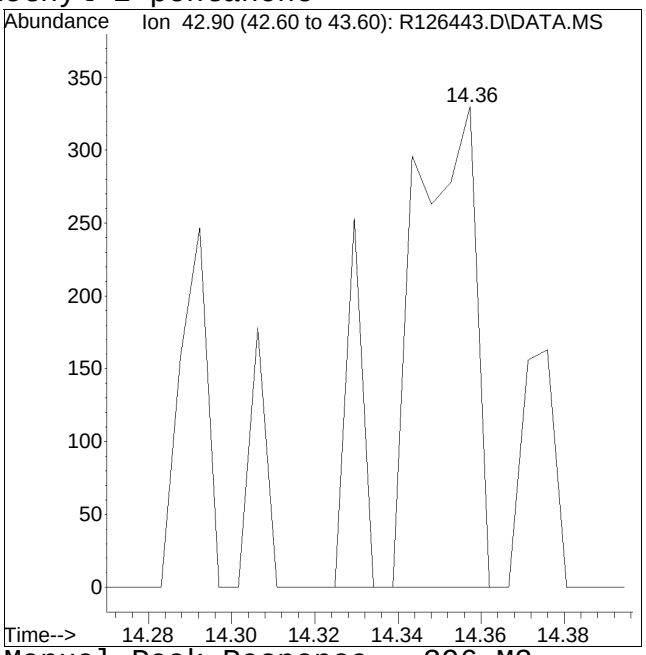
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #64: 4-methyl-2-pentanone




Original Peak Response = 50 Manual Peak Response = 396 M3

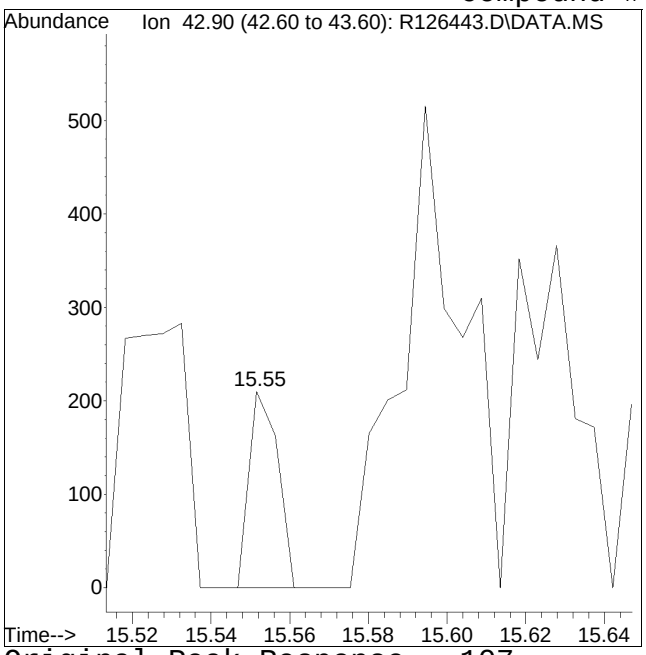
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

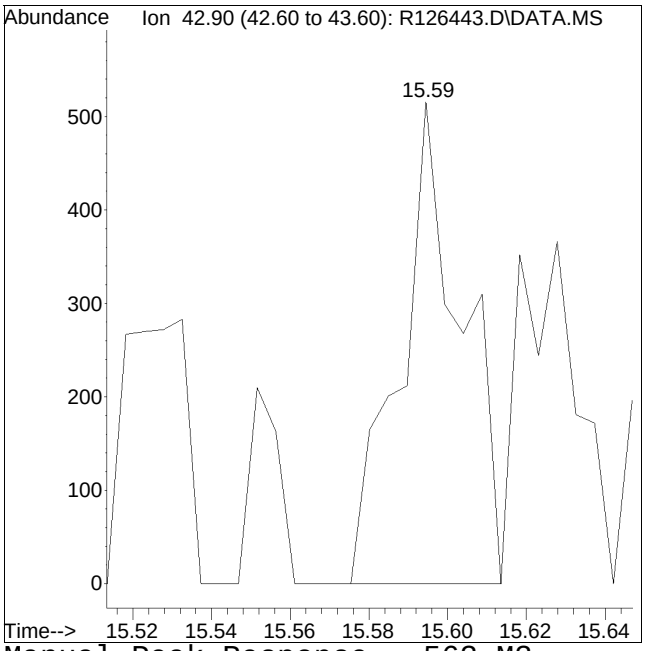
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126443.D
Date Inj'd : 2/8/2013 9:34 pm
Sample : L1302224-05,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #72: 2-hexanone




Original Peak Response = 107 Manual Peak Response = 563 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:07:19 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

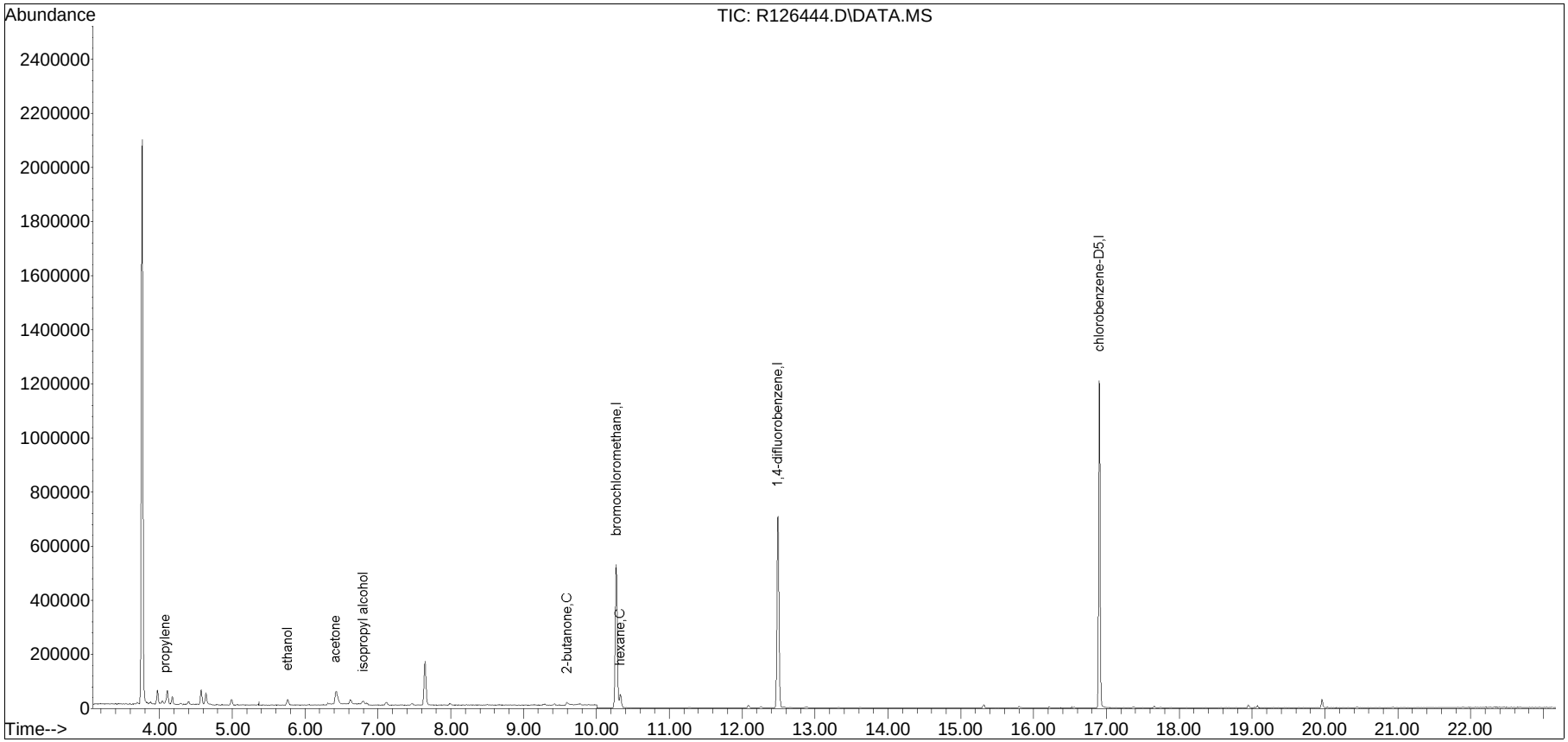
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 289375 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 89.69% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 563810 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 86.98% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 145009 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 87.29% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 1822 | 0.106 | ppbV | 87 |
| 15) ethanol | 5.76 | 31 | 14938 | 0.978 | ppbV | 93 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.42 | 43 | 57053 | 1.603 | ppbV # | 88 |
| 22) isopropyl alcohol | 6.80 | 45 | 11120 | 0.236 | ppbV # | 91 |
| 29) 3-chloropropene | 7.74 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.98 | | 0 | N.D. | | |
| 35) vinyl acetate | 0.00 | | 0 | N.D. | d | |
| 36) 2-butanone | 9.60 | 43 | 10190 | 0.210 | ppbV # | 97 |
| 38) Ethyl Acetate | 10.39 | | 0 | N.D. | | |
| 40) Tetrahydrofuran | 10.89 | | 0 | N.D. | | |
| 44) hexane | 10.32 | 57 | 18667 | 0.666 | ppbV # | 34 |
| 53) cyclohexane | 12.40 | | 0 | N.D. | | |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.34 | | 0 | N.D. | | |
| 62) heptane | 13.62 | | 0 | N.D. | | |
| 64) 4-methyl-2-pentanone | 14.32 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.56 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.02 | | 0 | N.D. | | |

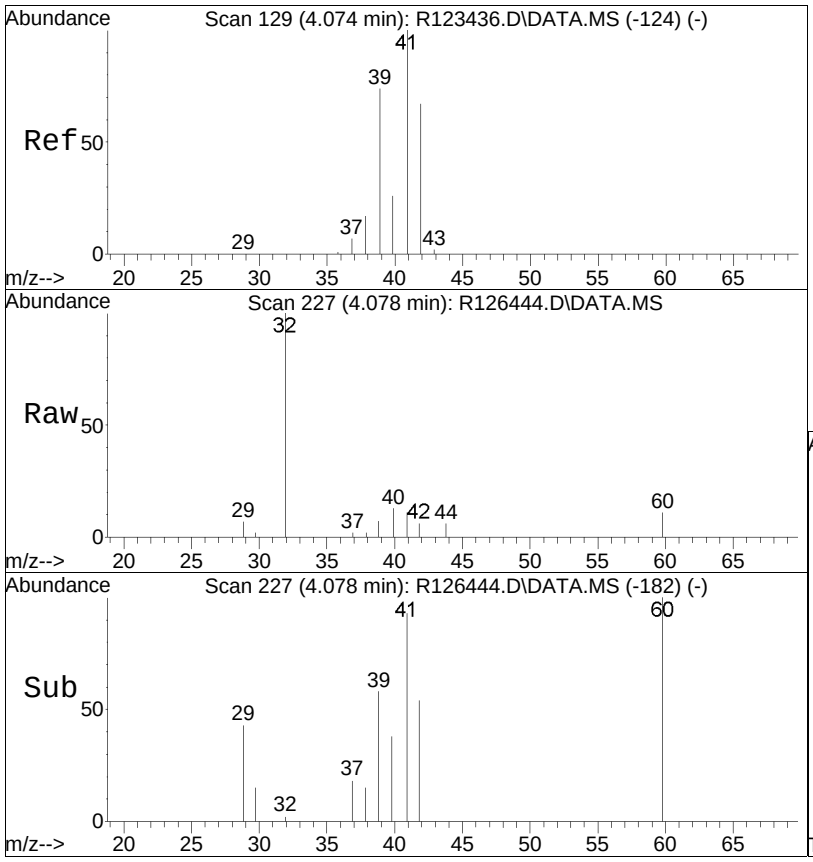
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126444.D
Acq On : 8 Feb 2013 10:06 pm
Operator : AIRPIANO1:MB
Sample : L1302224-06,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:07:19 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

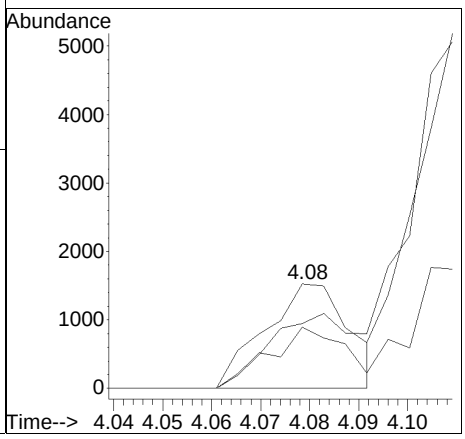


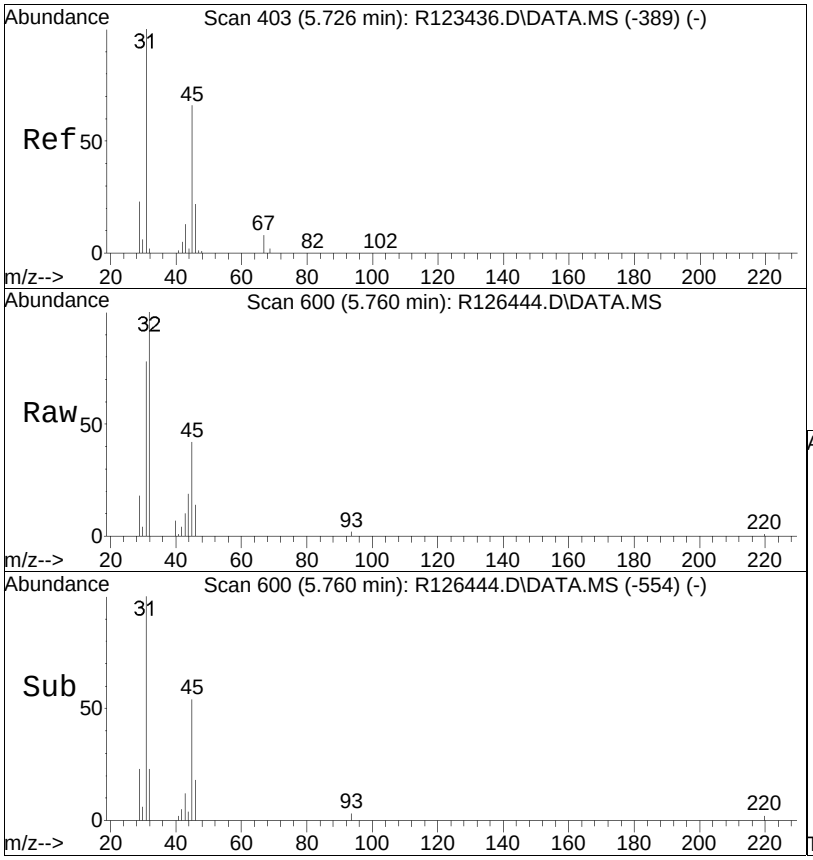



#3
propylene
Concen: 0.11 ppbV
RT: 4.08 min Scan# 227
Delta R.T. -0.005 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 41 Resp: 1822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 58.7 | 52.8 | 79.2 |
| 39 | 62.1 | 60.6 | 90.8 |

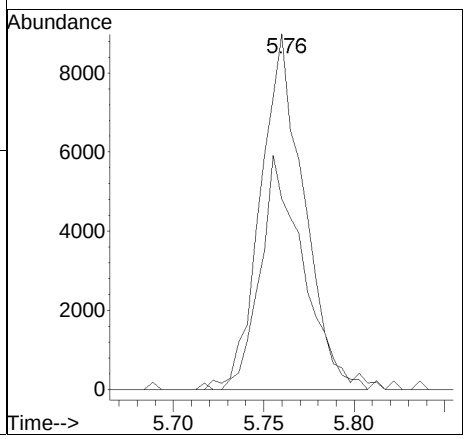


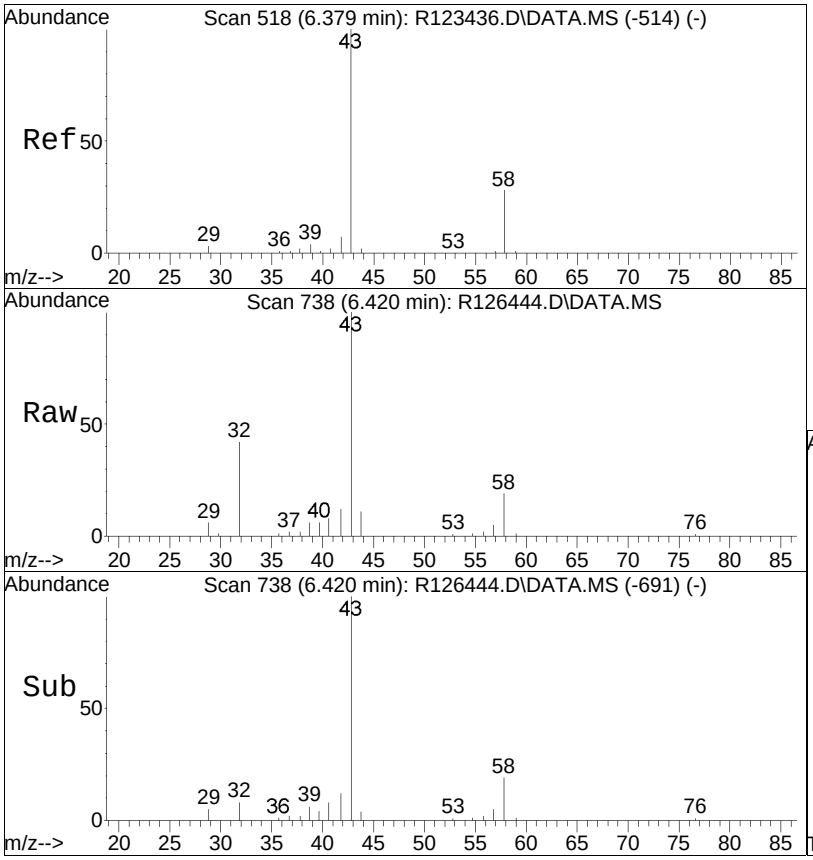



#15
ethanol
Concen: 0.98 ppbV
RT: 5.76 min Scan# 600
Delta R.T. 0.019 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 31 Resp: 14938

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 53.6 | 46.8 | 70.2 |

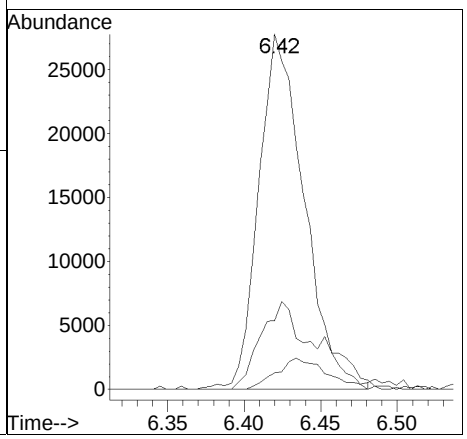


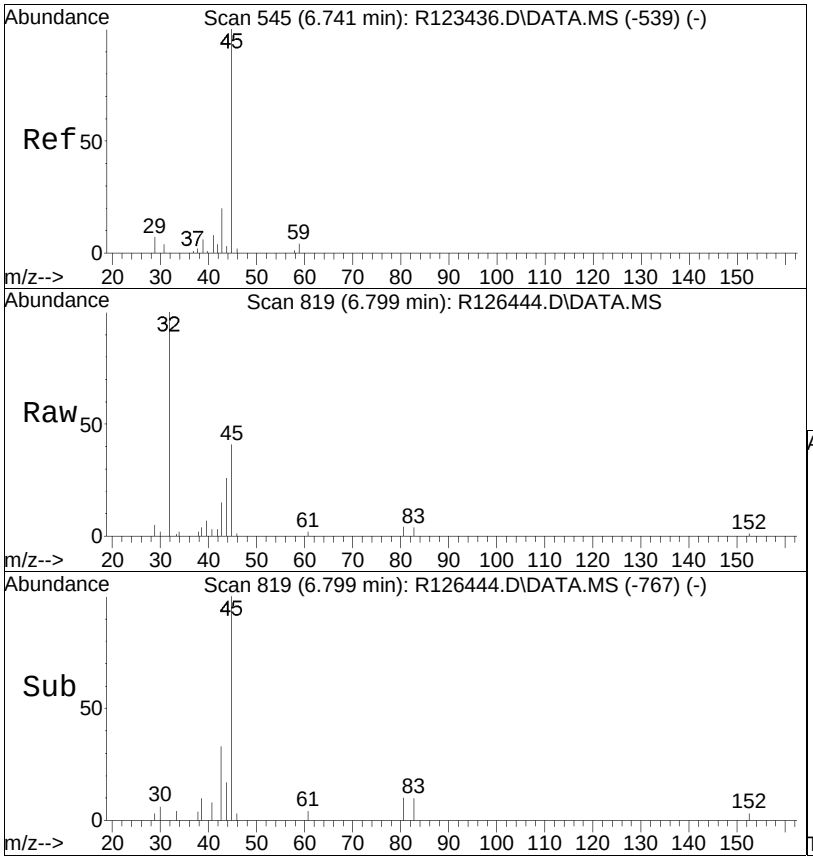



#19
acetone
Concen: 1.60 ppbV
RT: 6.42 min Scan# 738
Delta R.T. 0.023 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 43 Resp: 57053

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 19.3 | 20.5 | 30.7# |
| 57 | 4.6 | 0.6 | 1.0# |

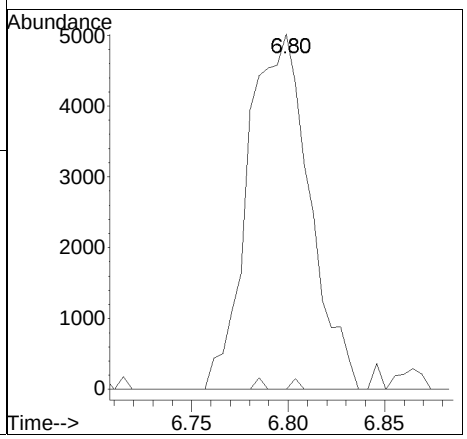


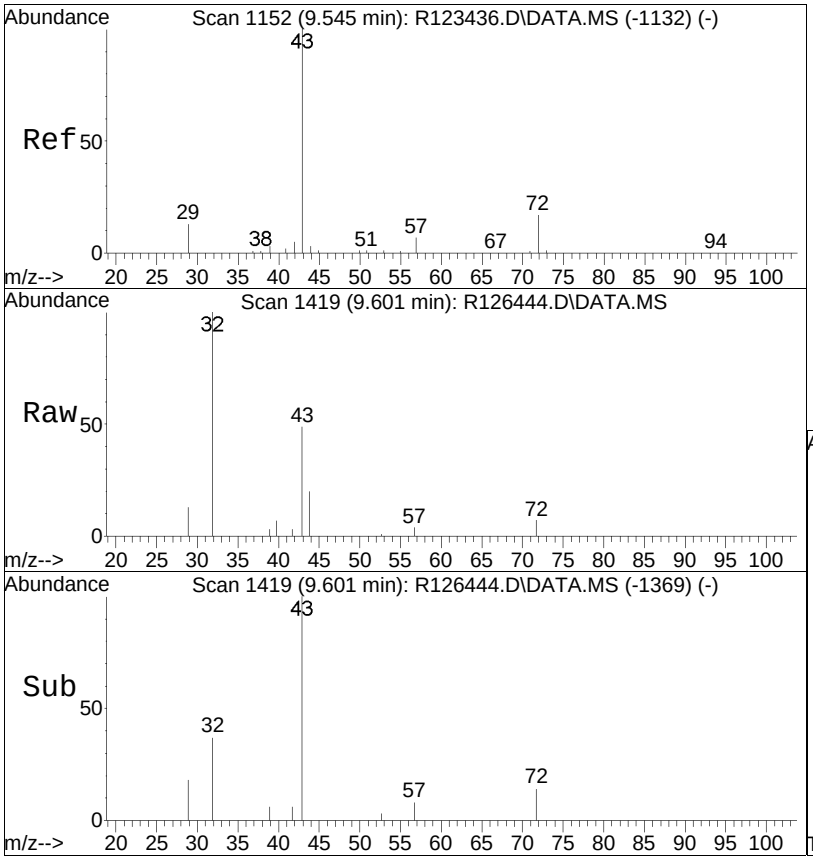



#22
isopropyl alcohol
Concen: 0.24 ppbV
RT: 6.80 min Scan# 819
Delta R.T. 0.042 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 45 Resp: 11120

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 0.0 | 2.5 | 3.7# |

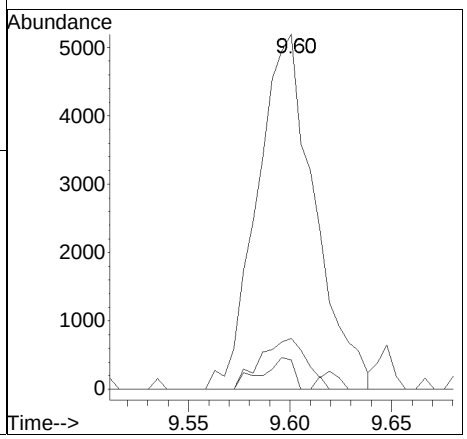


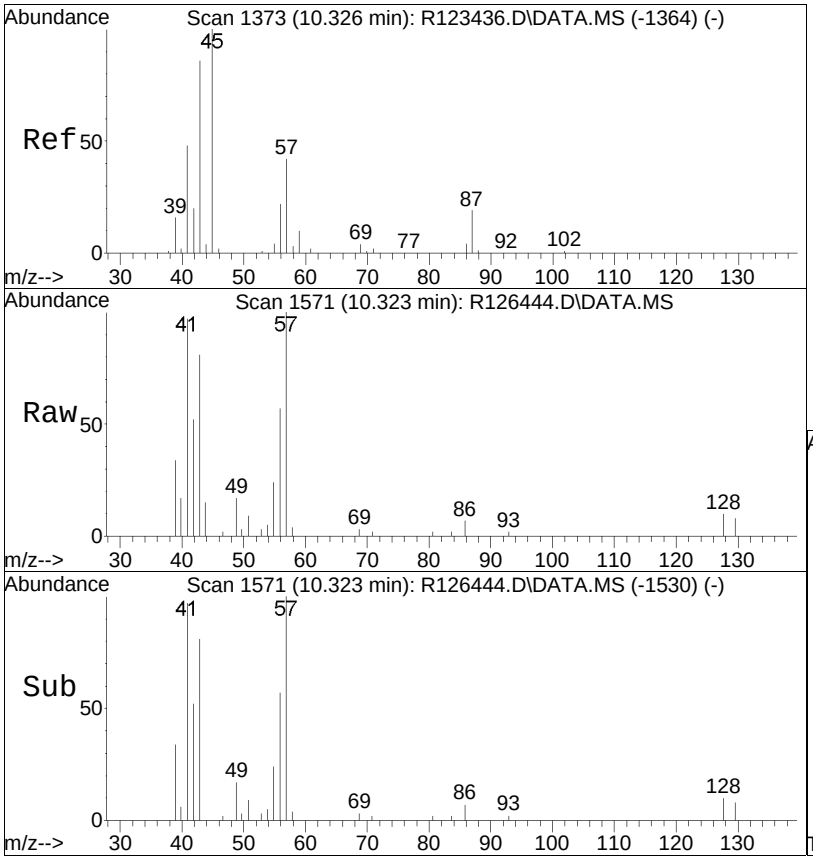



#36
2-butanone
Concen: 0.21 ppbV
RT: 9.60 min Scan# 1419
Delta R.T. 0.037 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 43 Resp: 10190

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.4 | 11.8 | 17.8 |
| 57 | 8.3 | 4.8 | 7.2# |

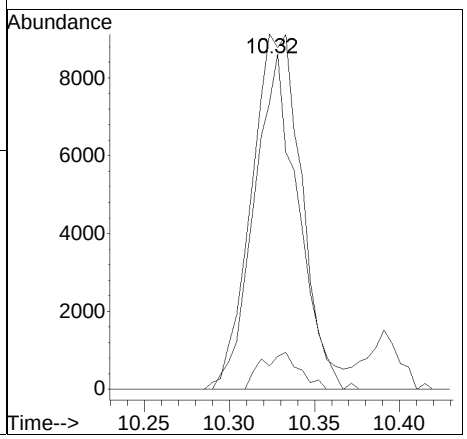





#44
hexane
Concen: 0.67 ppbV
RT: 10.32 min Scan# 1571
Delta R.T. -0.005 min
Lab File: R126444.D
Acq: 8 Feb 2013 10:06 pm

Tgt Ion: 57 Resp: 18667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 80.6 | 141.7 | 212.5# |
| 86 | 6.6 | 7.5 | 11.3# |

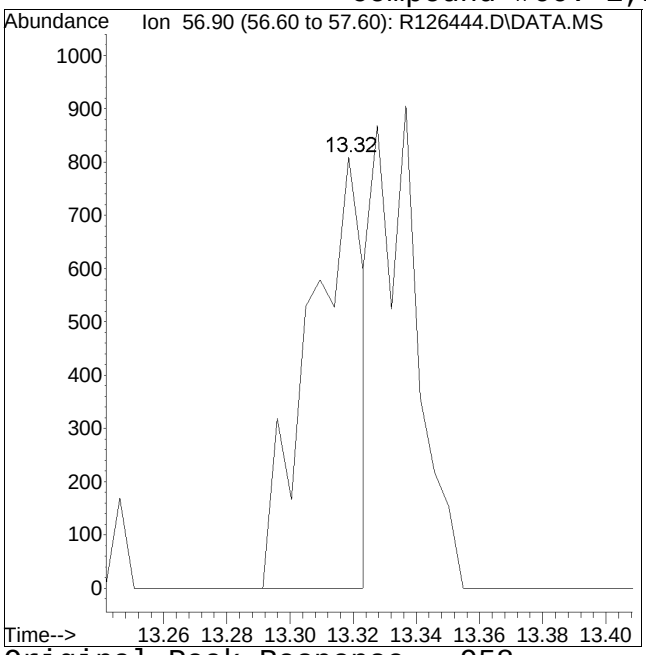


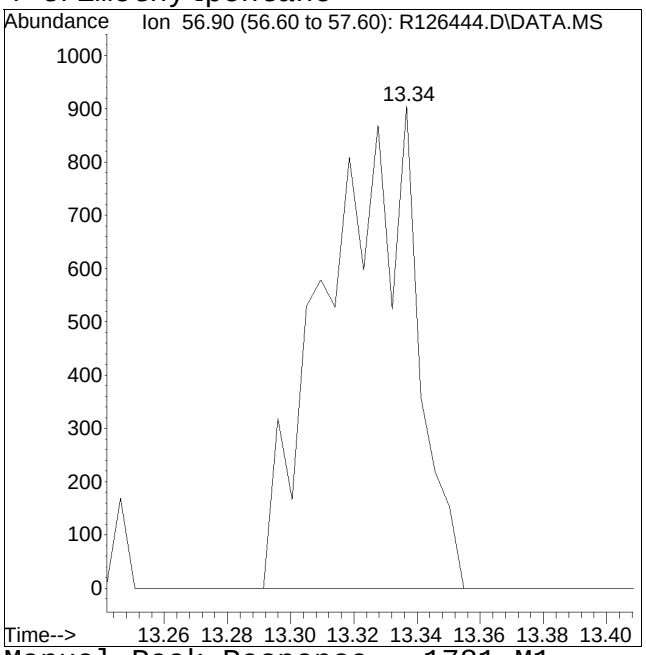
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126444.D
Date Inj'd : 2/8/2013 10:06 pm
Sample : L1302224-06,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:27 am

Compound #60: 2,2,4-trimethylpentane




Original Peak Response = 958 Manual Peak Response = 1781 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

# Method Blank
# Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:MB
Sample : WG589503-4,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 10:25:54 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:08:20 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 304935 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery = | | 94.51% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 621112 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery = | | 95.82% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 155249 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery = | | 93.46% | |

System Monitoring Compounds

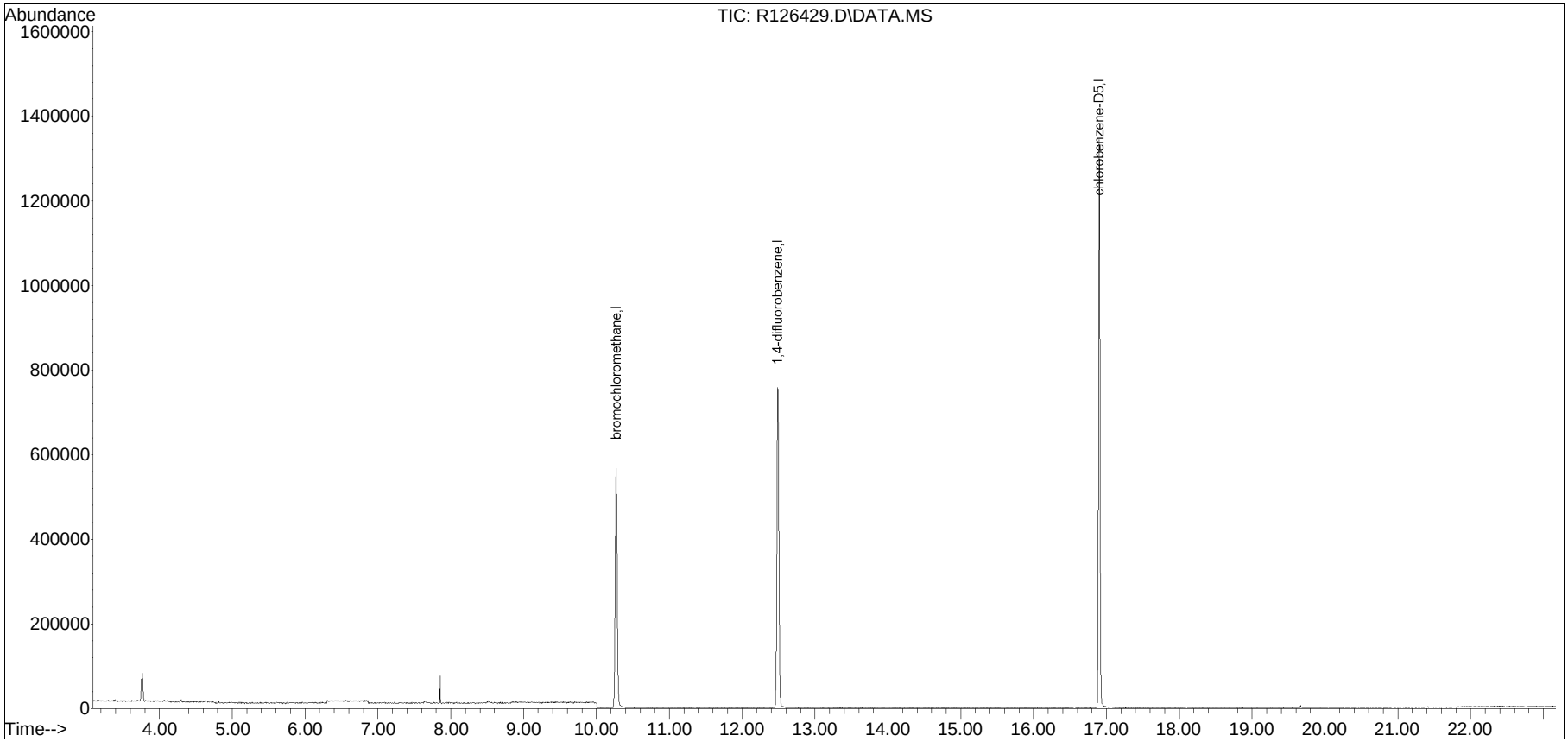
| Target Compounds | | | | Qvalue |
|---|---|---|---|---|
| 3) propylene | 0.00 | 0 | N.D. | |
| 15) ethanol | 5.77 | 0 | N.D. | |
| 17) vinyl bromide | 0.00 | 0 | N.D. | |
| 19) acetone | 6.44 | 0 | N.D. | |
| 22) isopropyl alcohol | 6.80 | 0 | N.D. | |
| 29) 3-chloropropene | 7.89 | 0 | N.D. | |
| 30) carbon disulfide | 7.98 | 0 | N.D. | |
| 35) vinyl acetate | 9.39 | 0 | N.D. | |
| 36) 2-butanone | 9.60 | 0 | N.D. | |
| 38) Ethyl Acetate | 0.00 | 0 | N.D. | |
| 40) Tetrahydrofuran | 0.00 | 0 | N.D. | |
| 44) hexane | 0.00 | 0 | N.D. | |
| 53) cyclohexane | 0.00 | 0 | N.D. | d |
| 58) 1,4-dioxane | 13.37 | 0 | N.D. | |
| 60) 2,2,4-trimethylpentane | 0.00 | 0 | N.D. | |
| 62) heptane | 13.54 | 0 | N.D. | |
| 64) 4-methyl-2-pentanone | 14.21 | 0 | N.D. | |
| 72) 2-hexanone | 0.00 | 0 | N.D. | |
| 96) 4-ethyl toluene | 0.00 | 0 | N.D. | |
| 101) Benzyl Chloride | 19.16 | 0 | N.D. | |

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

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126429.D
Acq On : 8 Feb 2013 2:12 pm
Operator : AIRPIANO1:MB
Sample : WG589503-4,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 10:25:54 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:08:20 2012
Response via : Initial Calibration

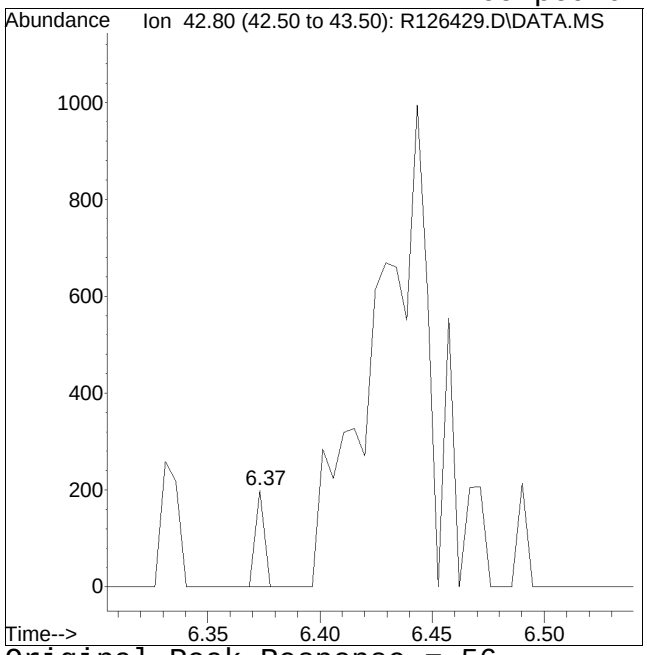


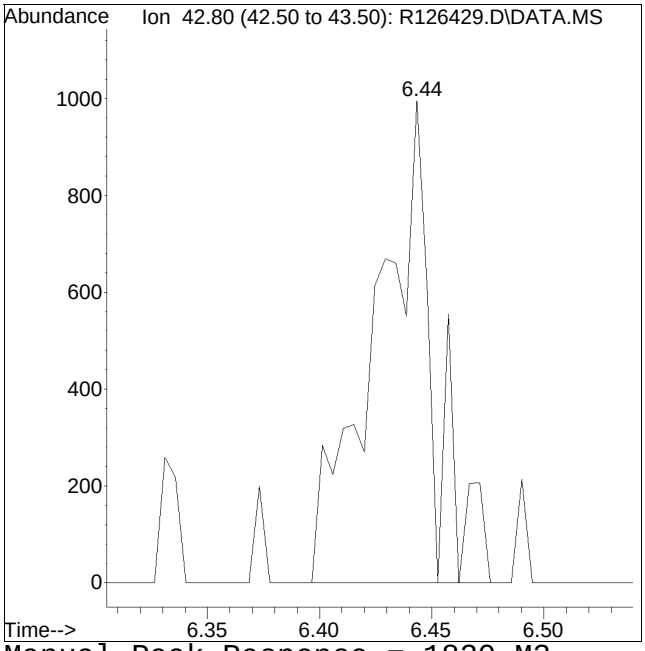
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589503-4,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #19: acetone




Original Peak Response = 56 Manual Peak Response = 1820 M3

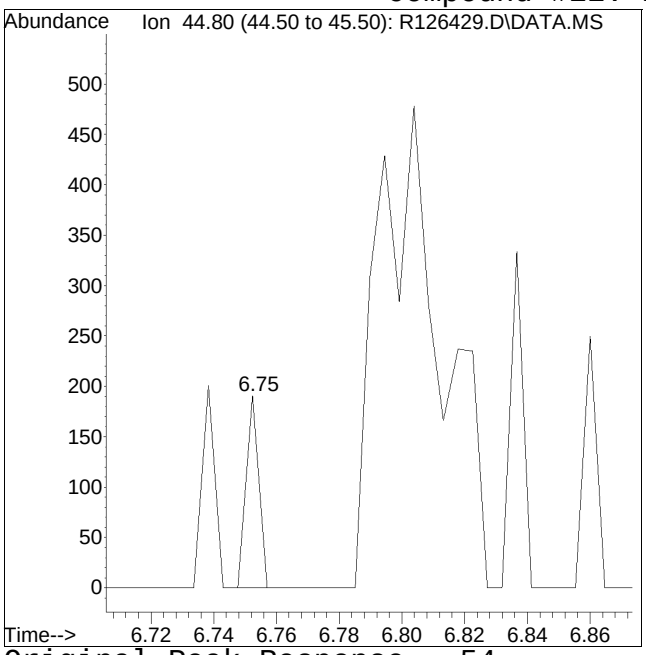
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

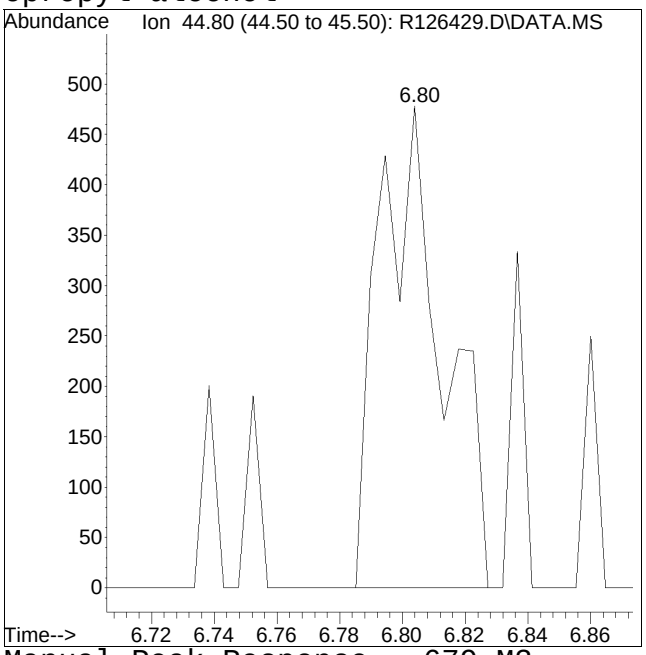
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126429.D
Date Inj'd : 2/8/2013 2:12 pm
Sample : WG589503-4,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #22: isopropyl alcohol




Original Peak Response = 54 Manual Peak Response = 679 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

# Analytical Event

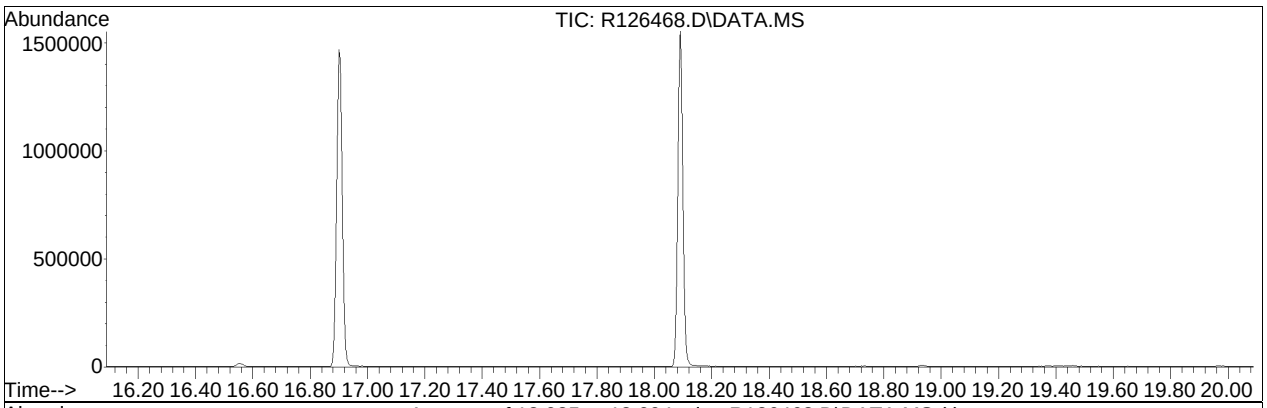
# Continuing Calibration
# BFB Tune

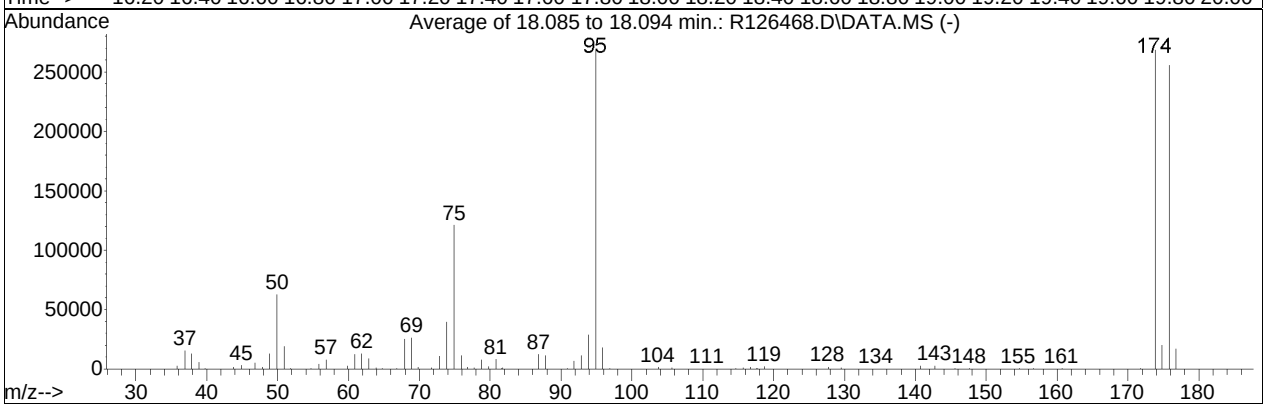
BFB

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126468.D
Acq On : 12 Feb 2013 10:31 am
Operator : AIRPIANO1:MB
Sample : WG589503-6,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Wed Dec 12 10:08:20 2012




AutoFind: Scans 3254, 3255, 3256; Background Corrected with Scan 3246

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 23.3 | 62720 | PASS |
| 75 | 95 | 30 | 66 | 45.2 | 121315 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 268693 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 17736 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 100.0 | 268608 | PASS |
| 175 | 174 | 4 | 9 | 7.5 | 20237 | PASS |
| 176 | 174 | 93 | 101 | 95.1 | 255424 | PASS |
| 177 | 176 | 5 | 9 | 6.7 | 16993 | PASS |

# Continuing Calibration

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-7,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 1.632 | 1.388 | 15.0 | 80 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 67 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 85 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-7,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : IPA_ONLY - .

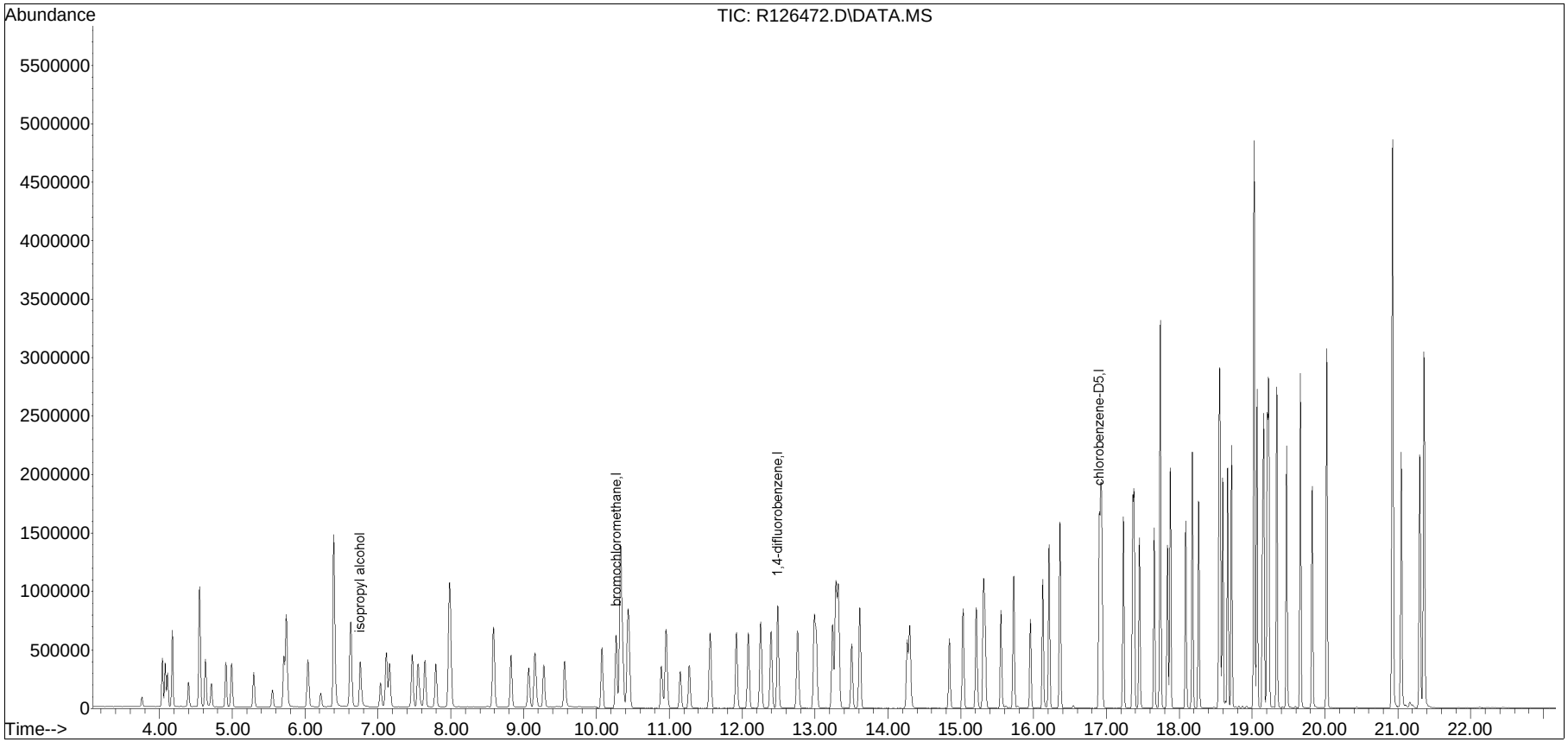
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 317256 | 10.000 | ppbV | 0.00 |
| Standard Area = 317256 | | | Recovery = 100.00% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 707897 | 10.000 | ppbV | 0.00 |
| Standard Area = 707897 | | | Recovery = 100.00% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 163723 | 10.000 | ppbV | 0.00 |
| Standard Area = 163723 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 22) isopropyl alcohol | 6.76 | 45 | 440488 | 8.510 | ppbV | 100 |

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

Sub List : IPA_ONLY - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-7,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126472.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/12/2013 12:51 pm | Instrument | : Air Piano 1 |
| Sample | : WG589503-7,3,250,250 | Quant Date | : 2/12/2013 1:22 pm |

There are no manual integrations or false positives in this file.

# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126482.D
Acq On : 12 Feb 2013 8:43 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03D,3,100,250
Misc : WG589503,ICAL7588
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 12 22:42:21 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : IPA_ONLY - .

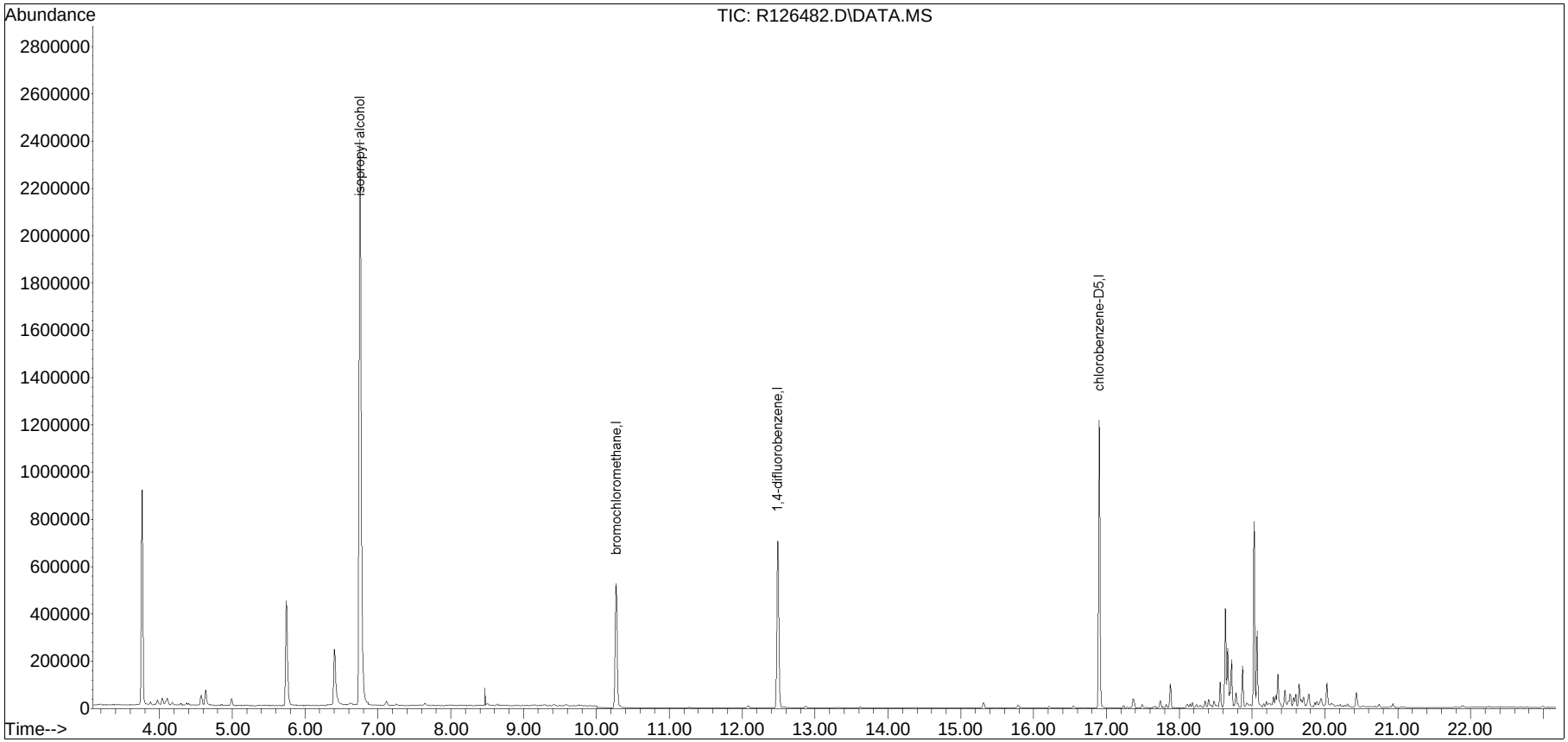
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 276574 | 10.000 | ppbV | 0.00 |
| Standard Area = 317256 | | | Recovery = | | 87.18% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 576022 | 10.000 | ppbV | 0.00 |
| Standard Area = 707897 | | | Recovery = | | 81.37% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 132975 | 10.000 | ppbV | 0.00 |
| Standard Area = 163723 | | | Recovery = | | 81.22% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 22) isopropyl alcohol | 6.75 | 45 | 2900113 | 64.269 | ppbV | 99 |

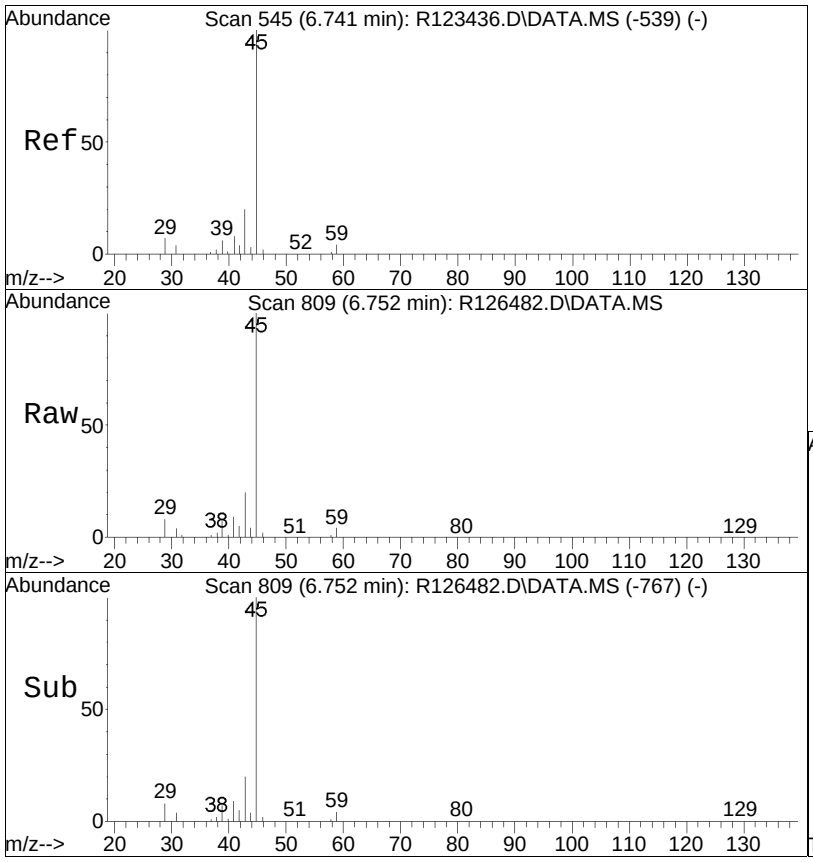
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IPA_ONLY - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126482.D
Acq On : 12 Feb 2013 8:43 pm
Operator : AIRPIANO1:MB
Sample : L1302224-03D,3,100,250
Misc : WG589503,ICAL7588
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 12 22:42:21 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

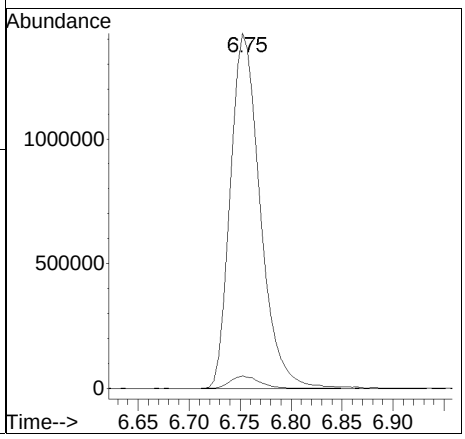





#22
isopropyl alcohol
Concen: 64.27 ppbV
RT: 6.75 min Scan# 809
Delta R.T. -0.005 min
Lab File: R126482.D
Acq: 12 Feb 2013 8:43 pm

Tgt Ion: 45 Resp: 2900113

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.5 | 2.5 | 3.7 |



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126482.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/12/2013 8:43 pm | Instrument | : Air Piano 1 |
| Sample | : L1302224-03D,3,100,250 | Quant Date | : 2/12/2013 10:42 pm |

There are no manual integrations or false positives in this file.

R126482.D TALL121211.M Wed Feb 13 10:13:12 2013 Report VerPage 1.0

# Method Blank
# Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126474.D
Acq On : 12 Feb 2013 2:40 pm
Operator : AIRPIANO1:MB
Sample : WG589503-9,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 15:02:35 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : IPA_ONLY - .

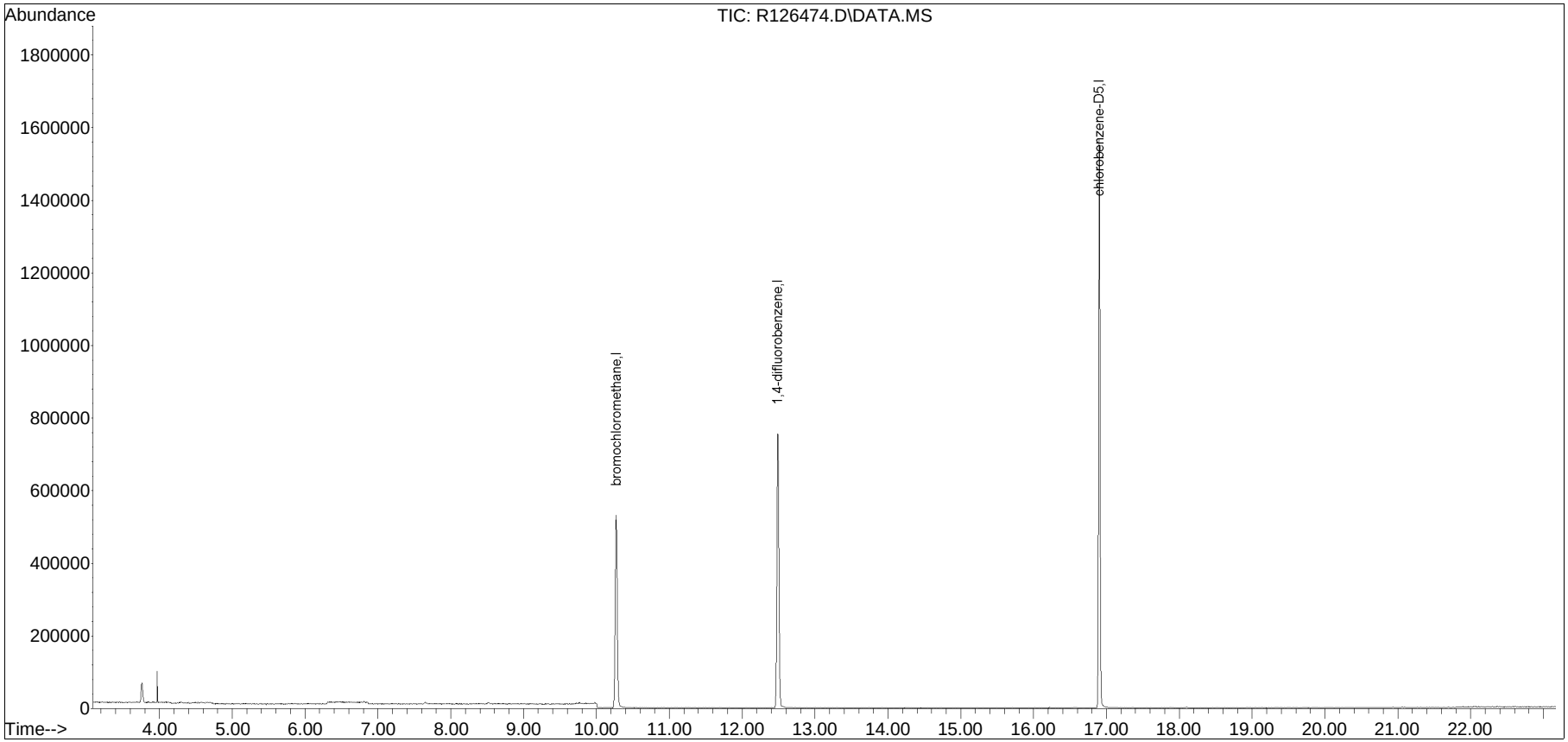
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 283318 | 10.000 | ppbV | 0.00 |
| Standard Area = 317256 | | | Recovery = 89.30% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 625038 | 10.000 | ppbV | 0.00 |
| Standard Area = 707897 | | | Recovery = 88.30% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 171693 | 10.000 | ppbV | 0.00 |
| Standard Area = 163723 | | | Recovery = 104.87% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 22) isopropyl alcohol | 6.76 | | 0 | N.D. | | |

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

Sub List : IPA_ONLY - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126474.D
Acq On : 12 Feb 2013 2:40 pm
Operator : AIRPIANO1:MB
Sample : WG589503-9,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 12 15:02:35 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126474.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/12/2013 2:40 pm | Instrument | : Air Piano 1 |
| Sample | : WG589503-9,3,250,250 | Quant Date | : 2/12/2013 3:01 pm |

There are no manual integrations or false positives in this file.

# Batch Quality Control

# LCS Raw Data

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-3,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 10.000 | 10.000 | 0.0 | 90 | 0.00 |
| 3 | | propylene | 10.000 | 8.995 | 10.1 | 91 | 0.00 |
| 15 | | ethanol | 50.000 | 37.453 | 25.1 | 70 | 0.00 |
| 17 | C | vinyl bromide | 10.000 | 8.698 | 13.0 | 82 | 0.00 |
| 19 | | acetone | 50.000 | 44.864 | 10.3 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 10.000 | 8.488 | 15.1 | 81 | 0.00 |
| 29 | C | 3-chloropropene | 10.000 | 8.362 | 16.4 | 81 | 0.00 |
| 30 | C | carbon disulfide | 10.000 | 7.765 | 22.4 | 75 | 0.00 |
| 35 | C | vinyl acetate | 10.000 | 8.457 | 15.4 | 80 | 0.00 |
| 36 | C | 2-butanone | 10.000 | 9.234 | 7.7 | 91 | 0.00 |
| 38 | | Ethyl Acetate | 10.000 | 8.491 | 15.1 | 76 | 0.00 |
| 40 | | Tetrahydrofuran | 10.000 | 8.350 | 16.5 | 79 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 88 | 0.00 |
| 44 | C | hexane | 10.000 | 9.296 | 7.0 | 79 | 0.00 |
| 53 | | cyclohexane | 10.000 | 9.132 | 8.7 | 81 | 0.00 |
| 58 | C | 1,4-dioxane | 10.000 | 8.766 | 12.3 | 77 | 0.00 |
| 60 | C | 2,2,4-trimethylpentane | 10.000 | 9.194 | 8.1 | 82 | 0.00 |
| 62 | | heptane | 10.000 | 9.268 | 7.3 | 81 | 0.00 |
| 64 | C | 4-methyl-2-pentanone | 10.000 | 9.172 | 8.3 | 79 | 0.00 |
| 67 | I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 87 | 0.00 |
| 72 | | 2-hexanone | 10.000 | 9.556 | 4.4 | 79 | 0.00 |
| 96 | | 4-ethyl toluene | 10.000 | 9.436 | 5.6 | 80 | 0.00 |
| 101 | C | Benzyl Chloride | 10.000 | 9.580 | 4.2 | 76 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

# Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-8,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 10.000 | 10.000 | 0.0 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 10.000 | 8.510 | 14.9 | 80 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 10.000 | 10.000 | 0.0 | 96 | 0.00 |
| 67 | I | chlorobenzene-D5 | 10.000 | 10.000 | 0.0 | 85 | 0.00 |

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-3,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

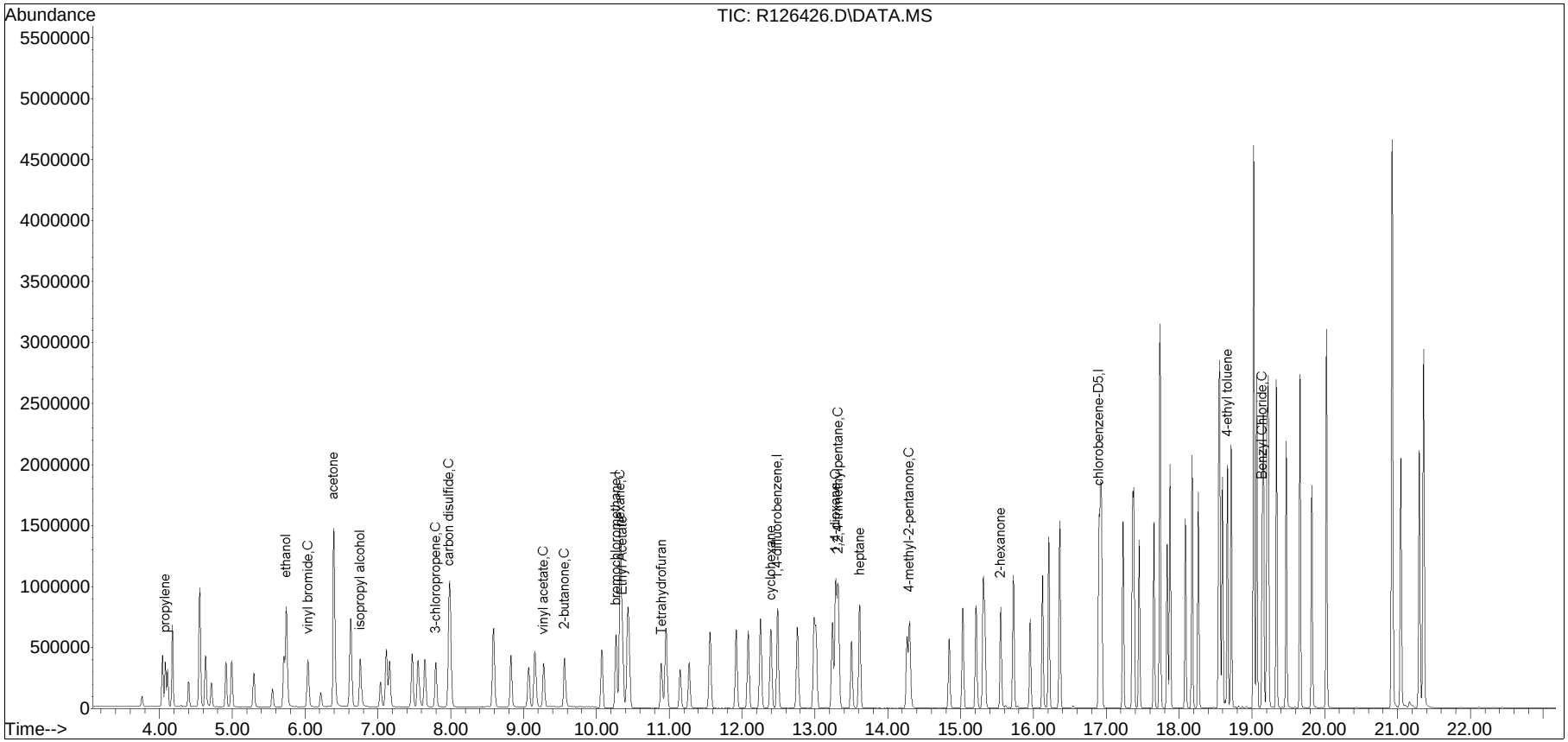
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 322657 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery = 100.00% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 648175 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery = 100.00% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 166114 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 171626 | 8.995 | ppbV | 95 |
| 15) ethanol | 5.74 | 31 | 637808 | 37.453 | ppbV | 94 |
| 17) vinyl bromide | 6.04 | 106 | 164419 | 8.698 | ppbV | 96 |
| 19) acetone | 6.39 | 43 | 1780941 | 44.864 | ppbV | 97 |
| 22) isopropyl alcohol | 6.76 | 45 | 446857 | 8.488 | ppbV | 99 |
| 29) 3-chloropropene | 7.80 | 41 | 262063 | 8.362 | ppbV | 98 |
| 30) carbon disulfide | 7.98 | 76 | 434347 | 7.765 | ppbV | 96 |
| 35) vinyl acetate | 9.27 | 43 | 538722 | 8.457 | ppbV | 99 |
| 36) 2-butanone | 9.56 | 43 | 498480 | 9.234 | ppbV | 97 |
| 38) Ethyl Acetate | 10.36 | 61 | 63659 | 8.491 | ppbV | 100 |
| 40) Tetrahydrofuran | 10.89 | 42 | 271245 | 8.350 | ppbV | 96 |
| 44) hexane | 10.32 | 57 | 299729 | 9.296 | ppbV | 92 |
| 53) cyclohexane | 12.40 | 56 | 322979 | 9.132 | ppbV | 99 |
| 58) 1,4-dioxane | 13.28 | 88 | 106762 | 8.766 | ppbV | 99 |
| 60) 2,2,4-trimethylpentane | 13.32 | 57 | 1019954 | 9.194 | ppbV | 100 |
| 62) heptane | 13.61 | 43 | 436957 | 9.268 | ppbV | 96 |
| 64) 4-methyl-2-pentanone | 14.30 | 43 | 600589 | 9.172 | ppbV | 97 |
| 72) 2-hexanone | 15.55 | 43 | 580032 | 9.556 | ppbV # | 93 |
| 96) 4-ethyl toluene | 18.66 | 105 | 948092 | 9.436 | ppbV | 98 |
| 101) Benzyl Chloride | 19.14 | 91 | 684398 | 9.580 | ppbV | 97 |

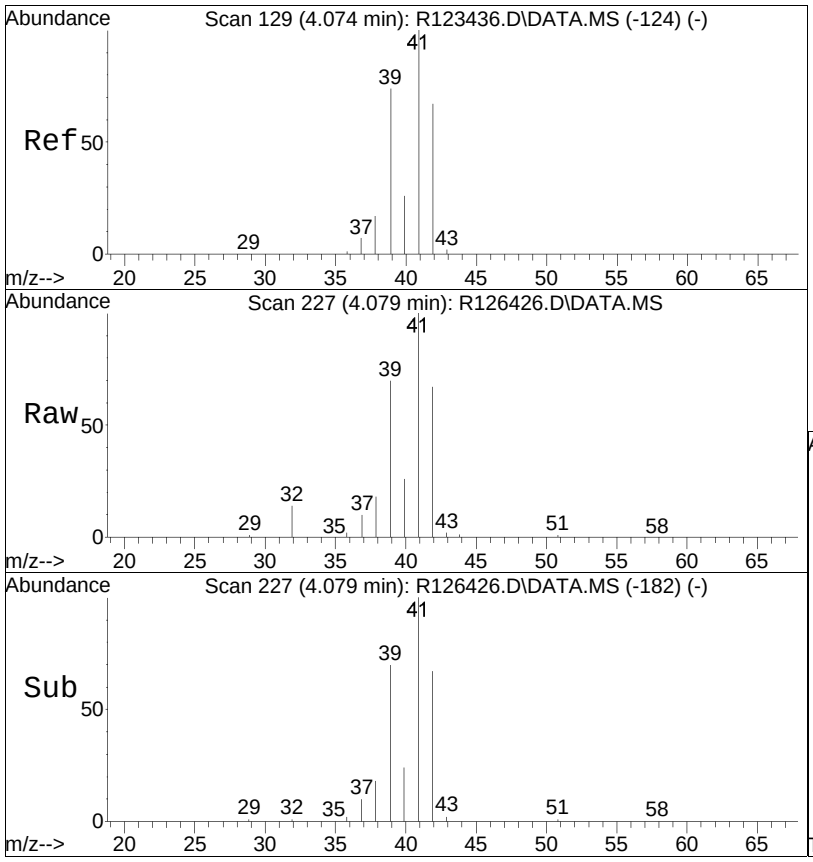
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126426.D
Acq On : 8 Feb 2013 11:50 am
Operator : AIRPIANO1:RY
Sample : WG589503-3,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 08 12:18:44 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

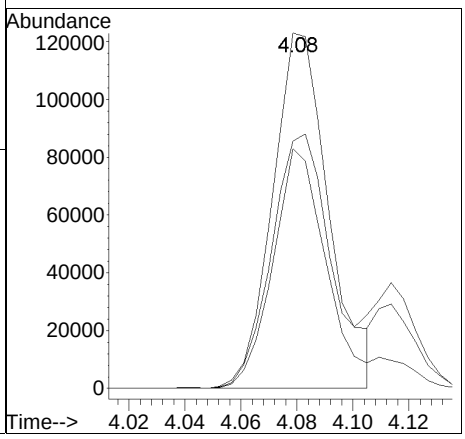


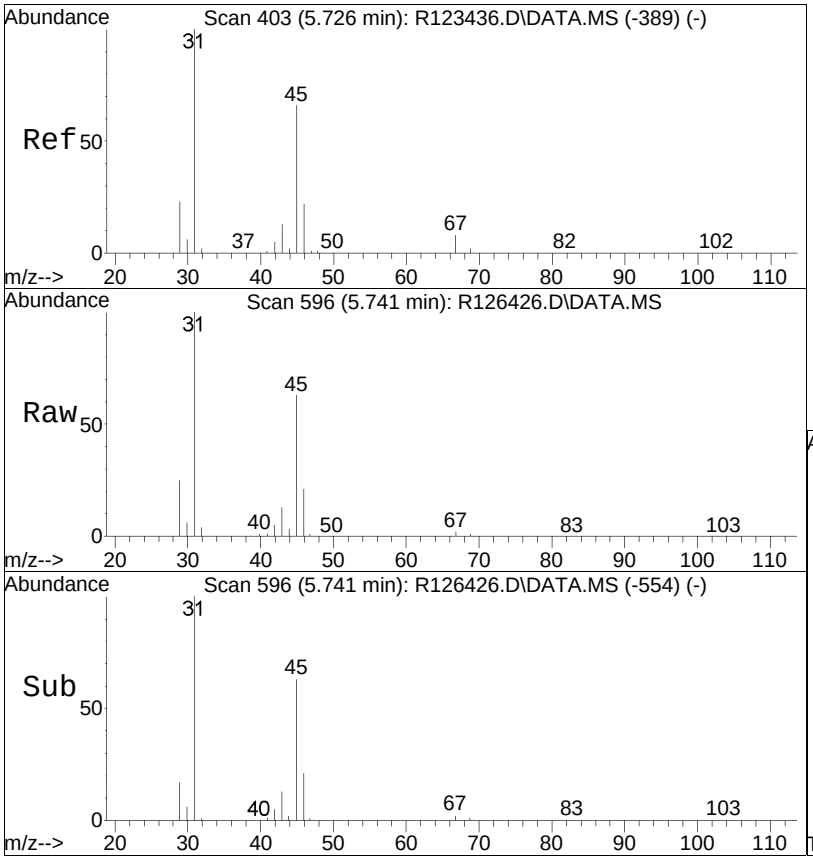



#3
propylene
Concen: 8.99 ppbV
RT: 4.08 min Scan# 227
Delta R.T. -0.004 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 41 Resp: 171626

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 67.5 | 52.8 | 79.2 |
| 39 | 69.6 | 60.6 | 90.8 |

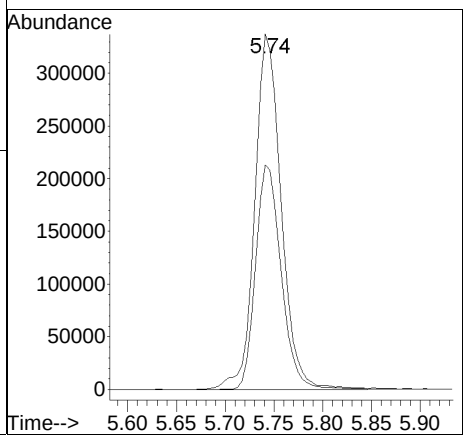


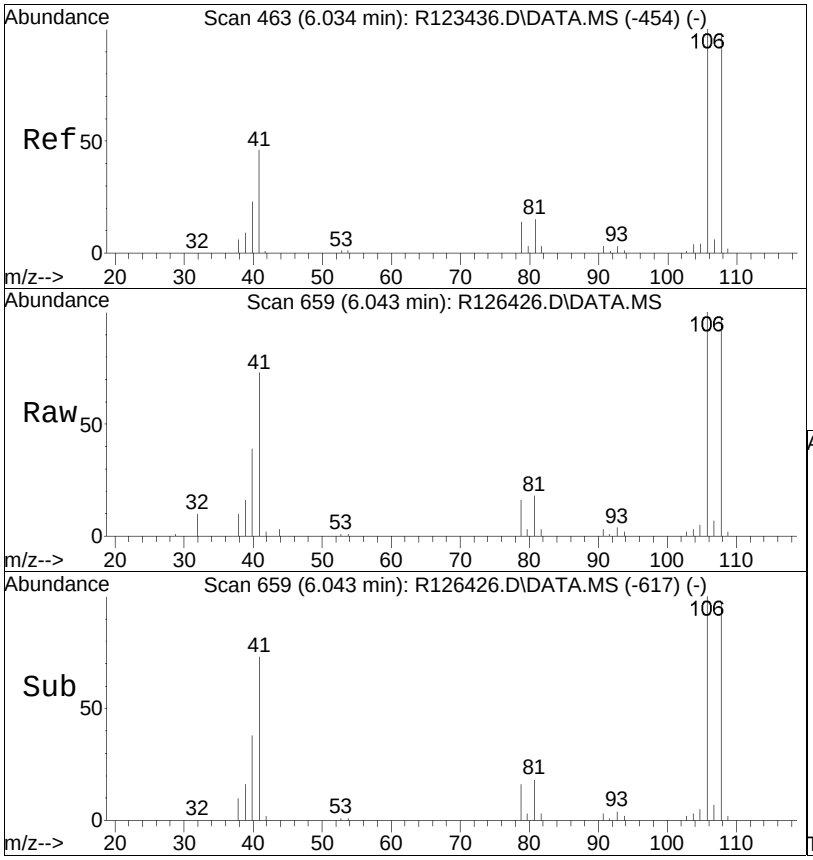



#15
ethanol
Concen: 37.45 ppbV
RT: 5.74 min Scan# 596
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 31 Resp: 637808

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 63.2 | 46.8 | 70.2 |

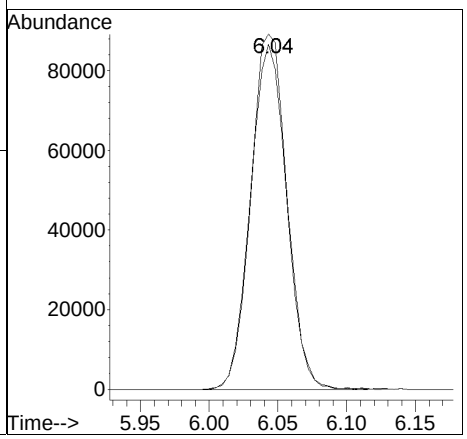


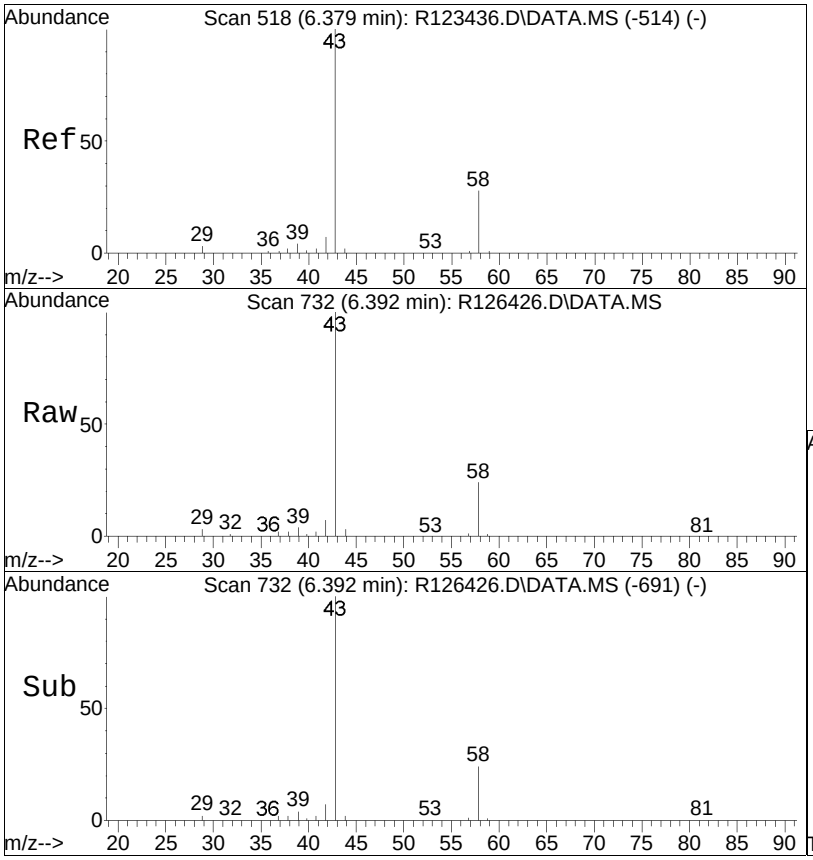



#17
vinyl bromide
Concen: 8.70 ppbV
RT: 6.04 min Scan# 659
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion:106 Resp: 164419

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 108 | 97.1 | 74.5 | 111.7 |

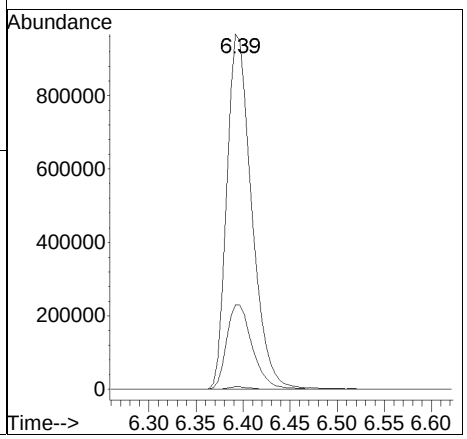


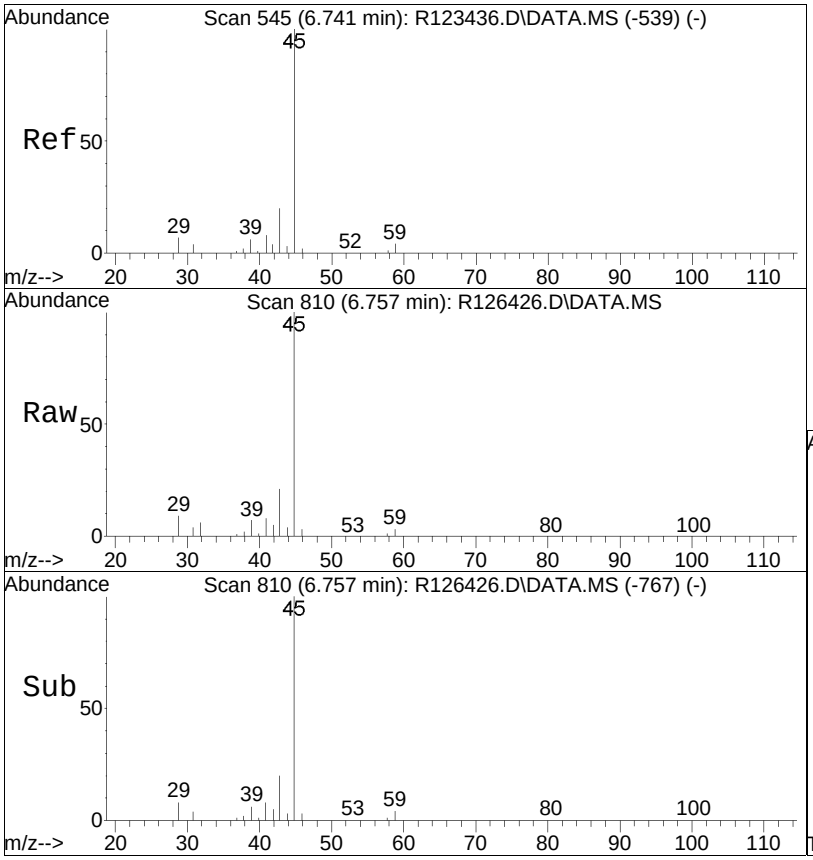



#19
acetone
Concen: 44.86 ppbV
RT: 6.39 min Scan# 732
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 1780941

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.8 | 20.5 | 30.7 |
| 57 | 0.7 | 0.6 | 1.0 |

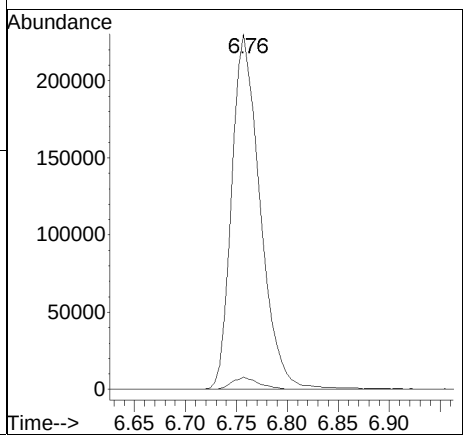


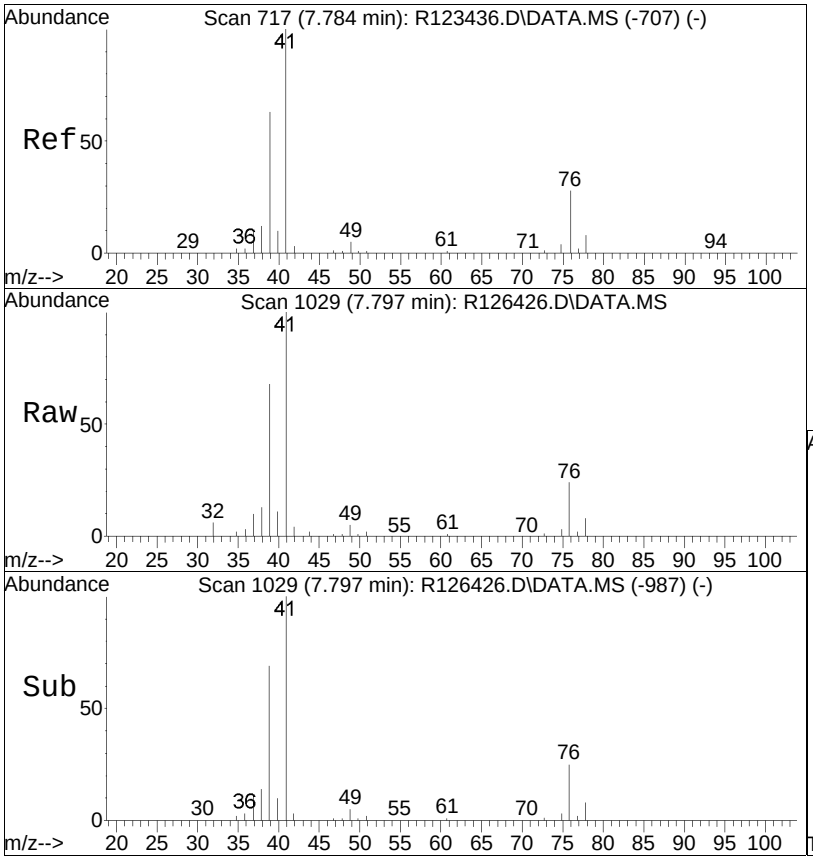



#22
isopropyl alcohol
Concen: 8.49 ppbV
RT: 6.76 min Scan# 810
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 45 Resp: 446857

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.5 | 2.5 | 3.7 |

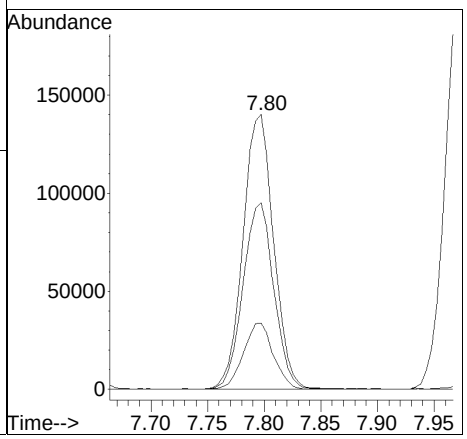


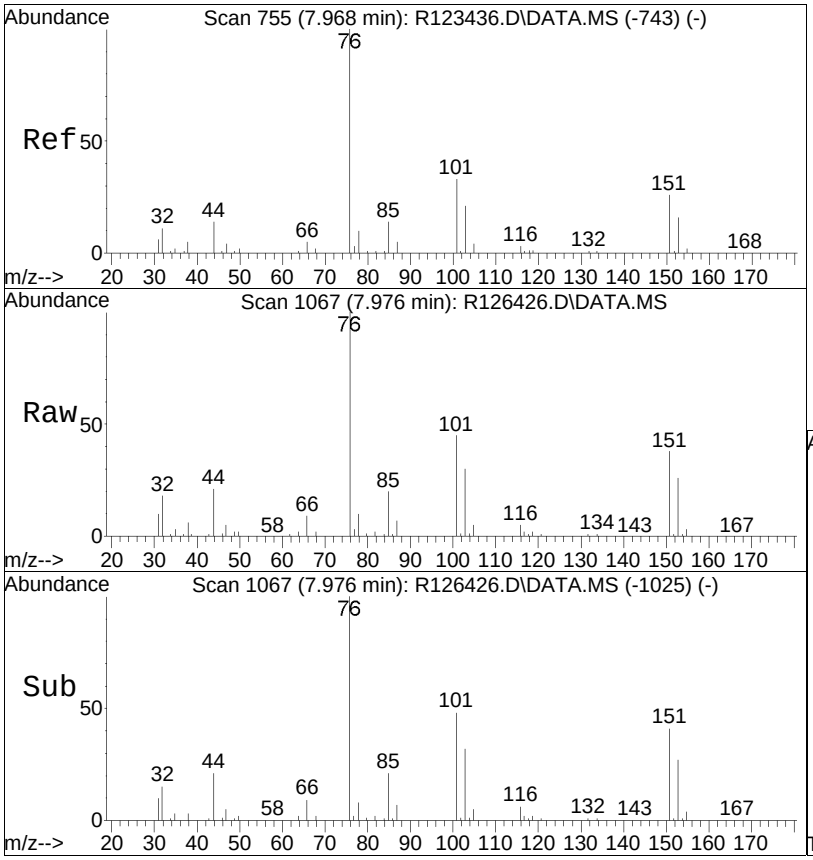



#29
3-chloropropene
Concen: 8.36 ppbV
RT: 7.80 min Scan# 1029
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 41 Resp: 262063

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 67.8 | 53.0 | 79.6 |
| 76 | 24.1 | 17.8 | 26.8 |

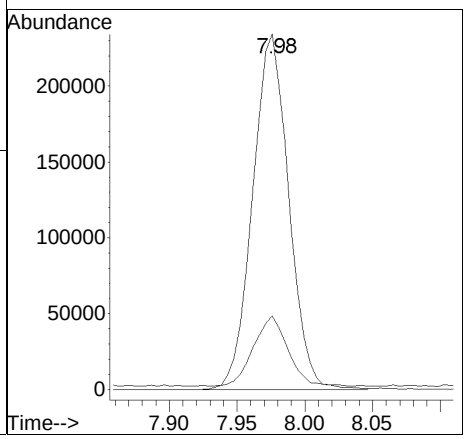


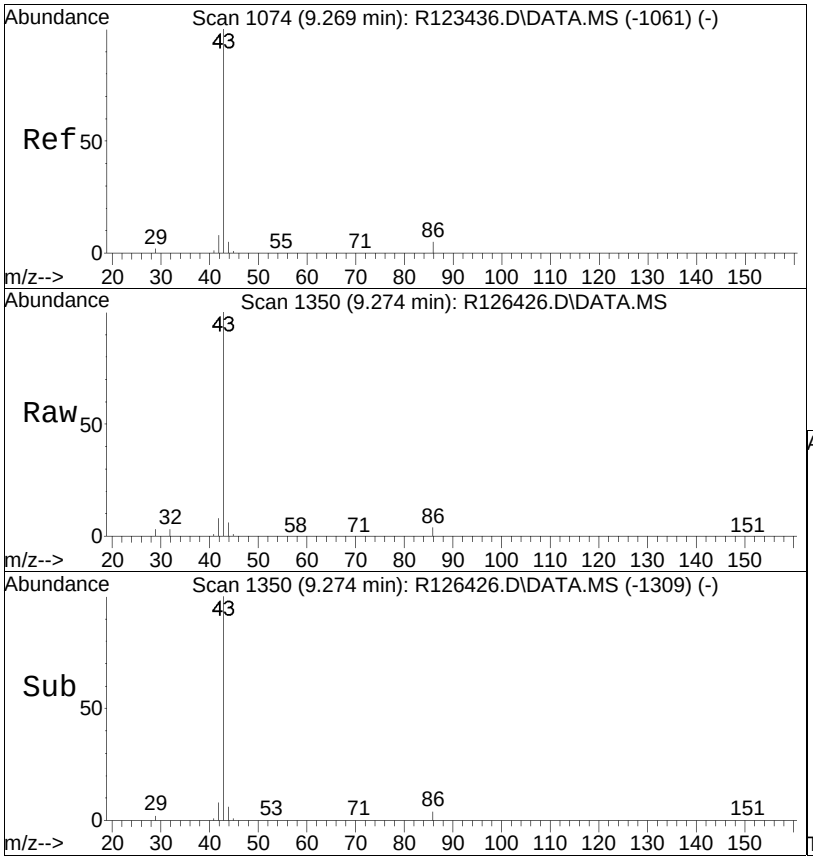



#30
carbon disulfide
Concen: 7.76 ppbV
RT: 7.98 min Scan# 1067
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 76 Resp: 434347

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 44 | 20.7 | 15.0 | 22.4 |

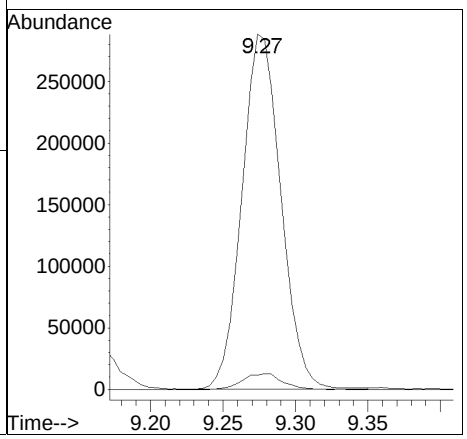


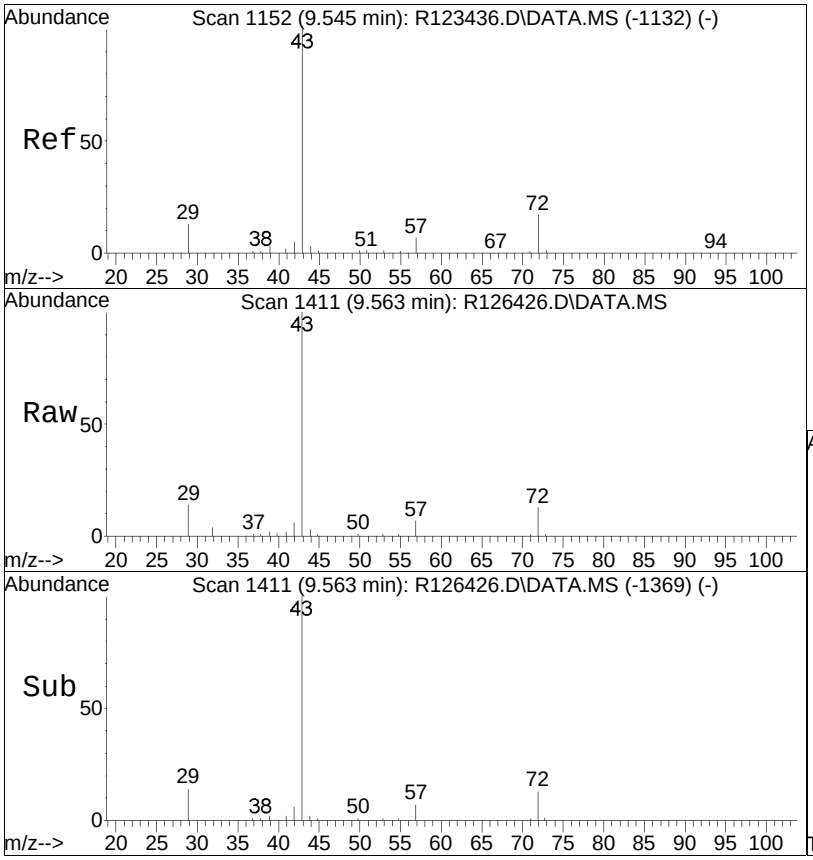



#35
vinyl acetate
Concen: 8.46 ppbV
RT: 9.27 min Scan# 1350
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 538722

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 4.1 | 3.5 | 5.3 |

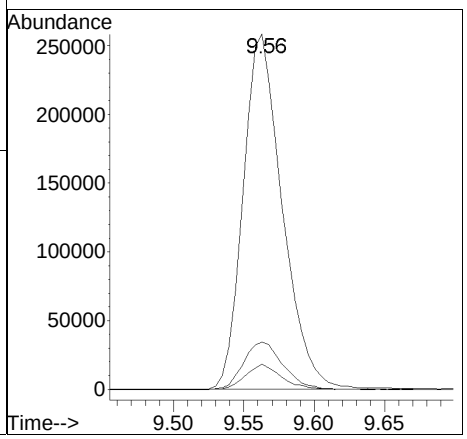


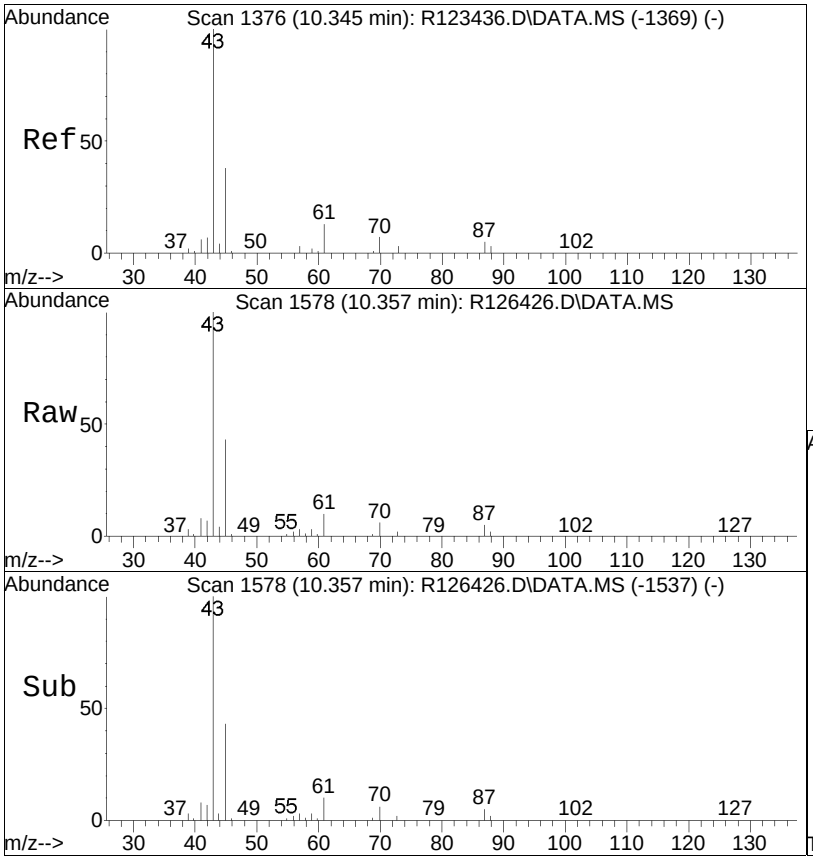



#36
2-butanone
Concen: 9.23 ppbV
RT: 9.56 min Scan# 1411
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 498480

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 13.3 | 11.8 | 17.8 |
| 57 | 7.1 | 4.8 | 7.2 |

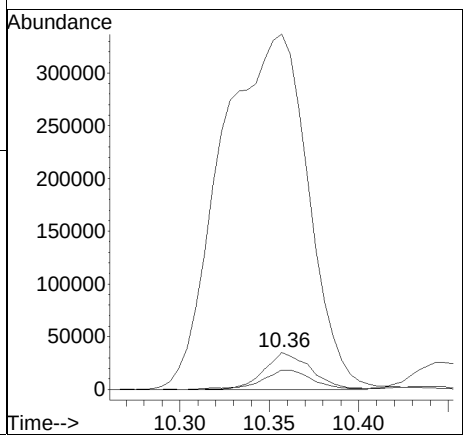


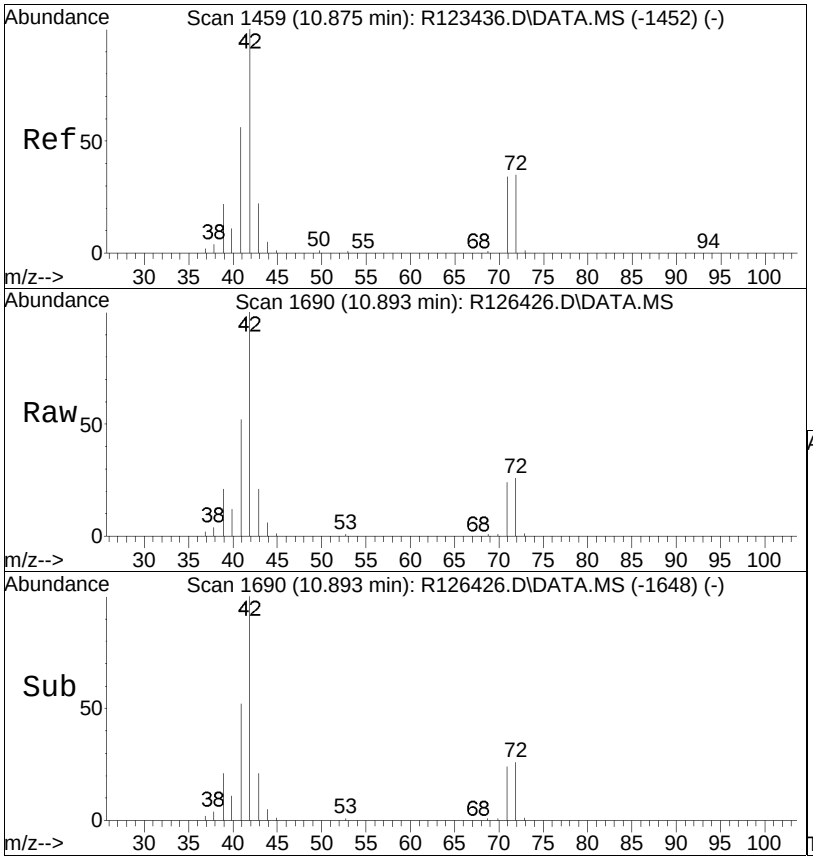



#38
Ethyl Acetate
Concen: 8.49 ppbV
RT: 10.36 min Scan# 1578
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 61 Resp: 63659

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 52.9 | 44.1 | 66.1 |
| 43 | 961.4 | 768.4 | 1152.6 |

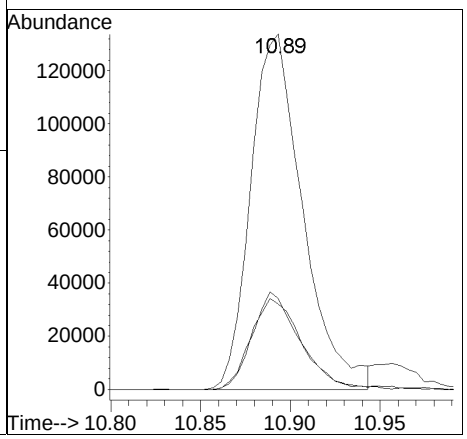


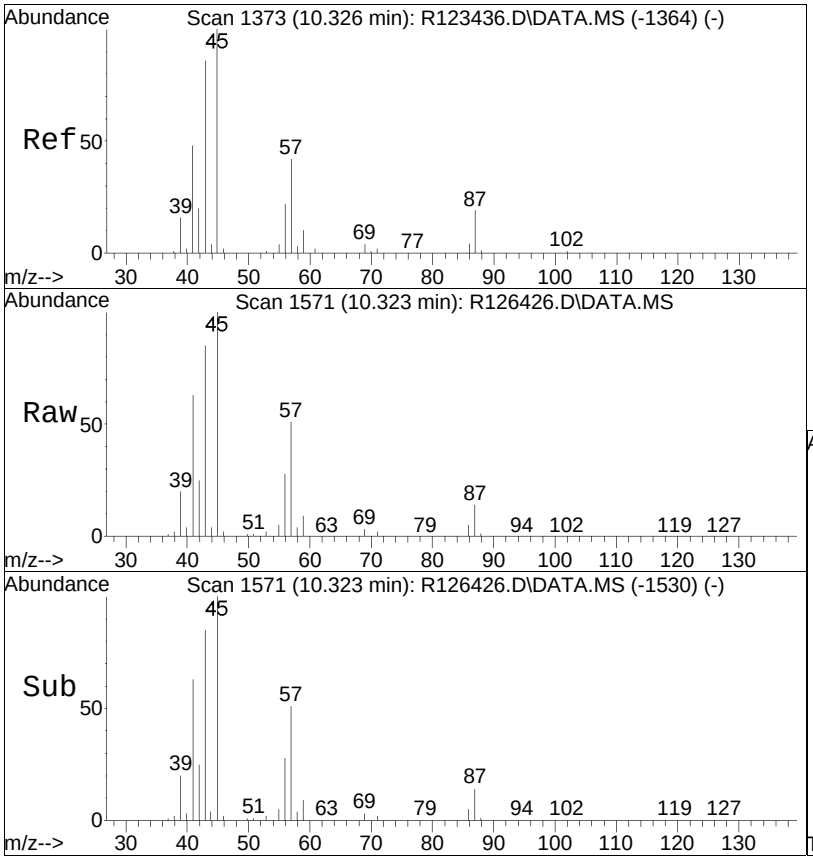



#40
Tetrahydrofuran
Concen: 8.35 ppbV
RT: 10.89 min Scan# 1690
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 42 Resp: 271245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 24.1 | 21.5 | 32.3 |
| 72 | 25.6 | 21.9 | 32.9 |

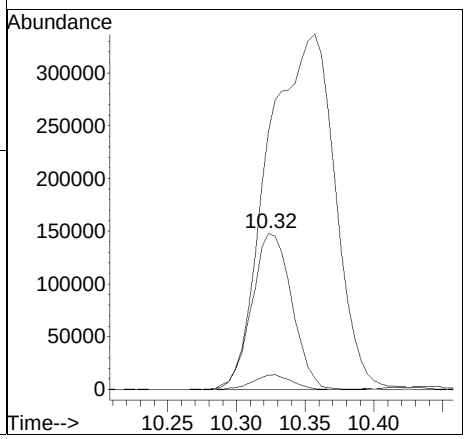


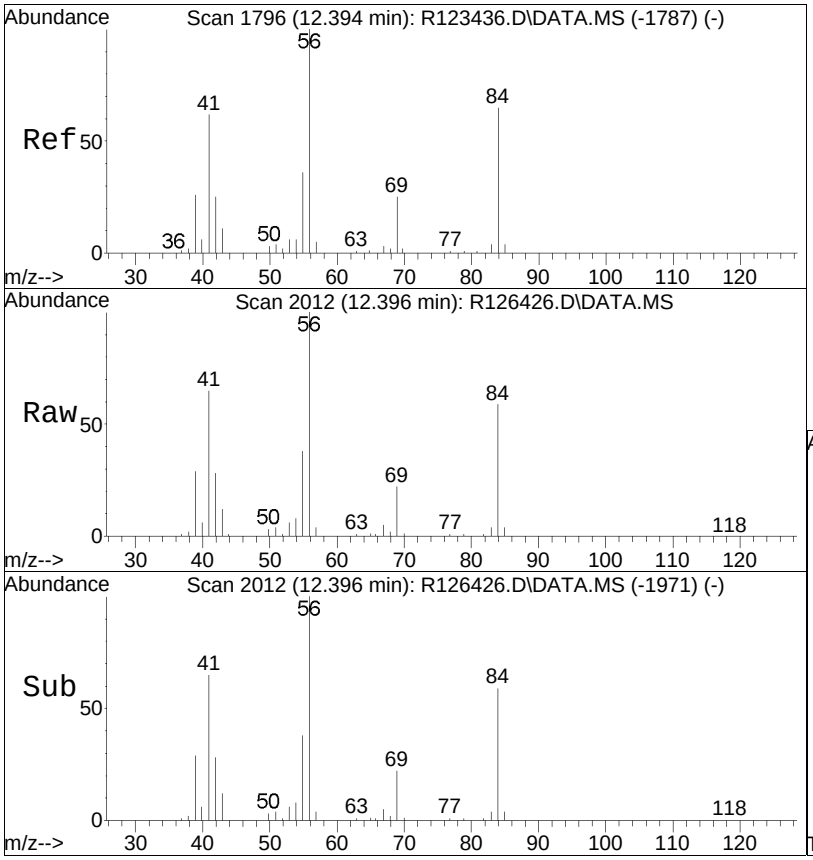



#44
hexane
Concen: 9.30 ppbV
RT: 10.32 min Scan# 1571
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 57 Resp: 299729

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 165.4 | 141.7 | 212.5 |
| 86 | 9.1 | 7.5 | 11.3 |

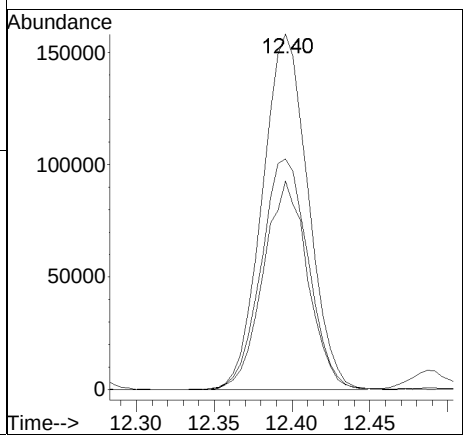


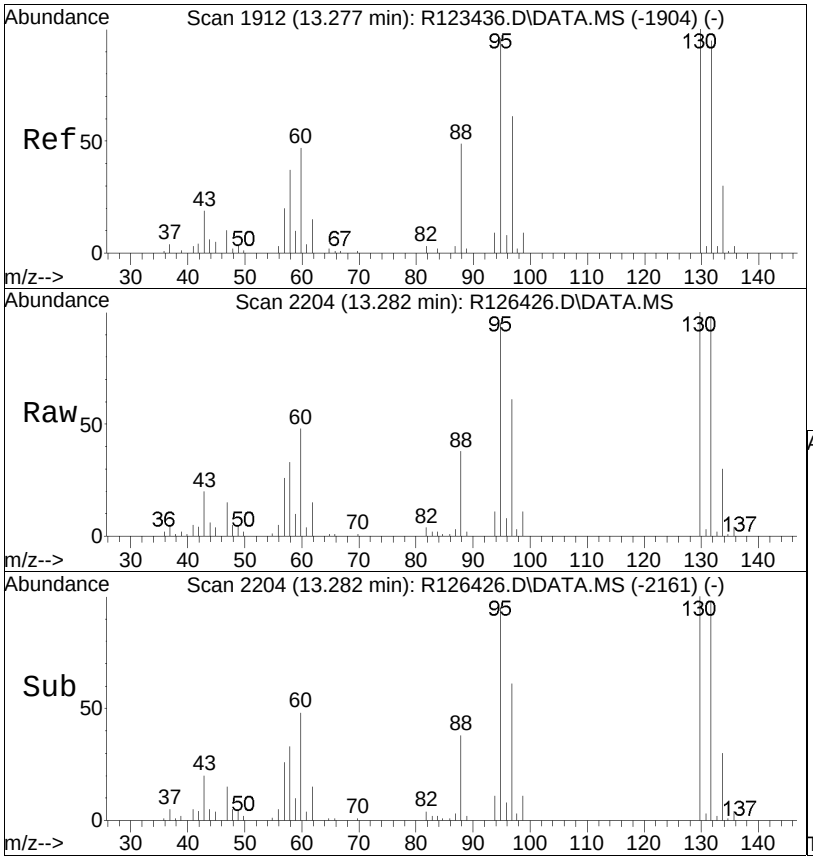



#53
cyclohexane
Concen: 9.13 ppbV
RT: 12.40 min Scan# 2012
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 56 Resp: 322979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 84 | 58.6 | 47.3 | 70.9 |
| 41 | 64.8 | 51.2 | 76.8 |

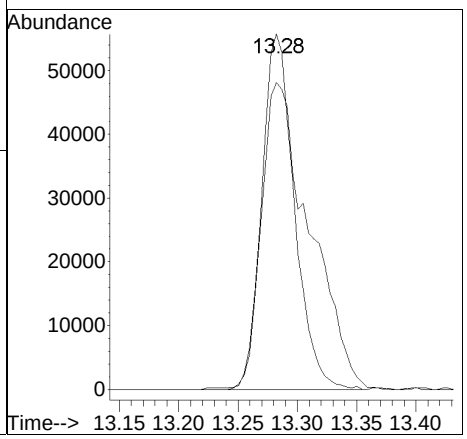


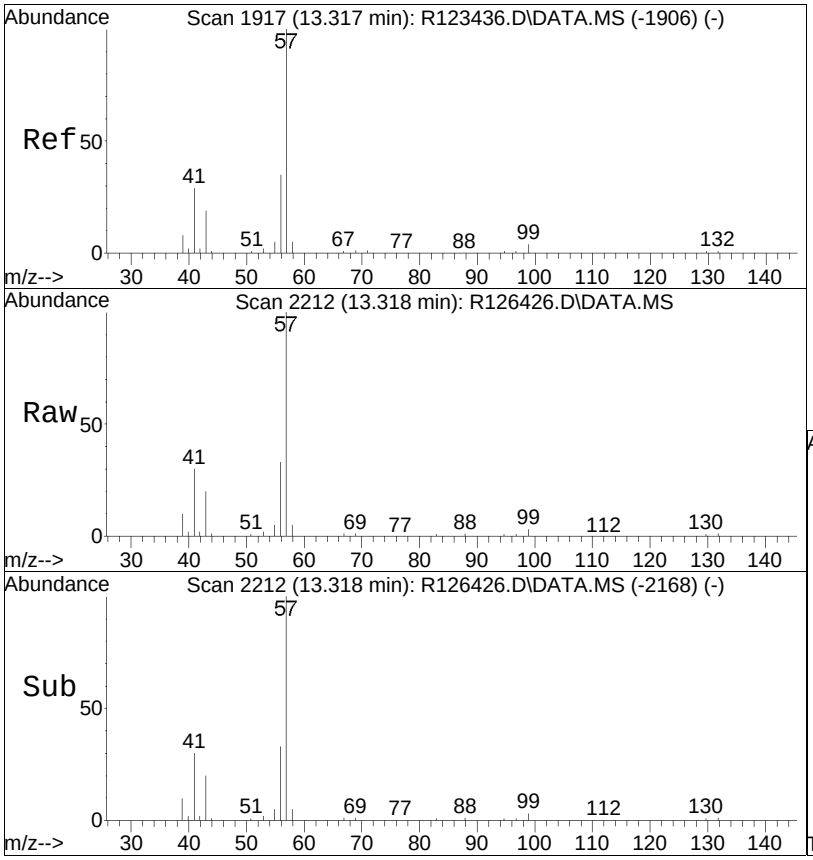



#58
1,4-dioxane
Concen: 8.77 ppbV
RT: 13.28 min Scan# 2204
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 88 Resp: 106762

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 58 | 86.4 | 68.3 | 102.5 |

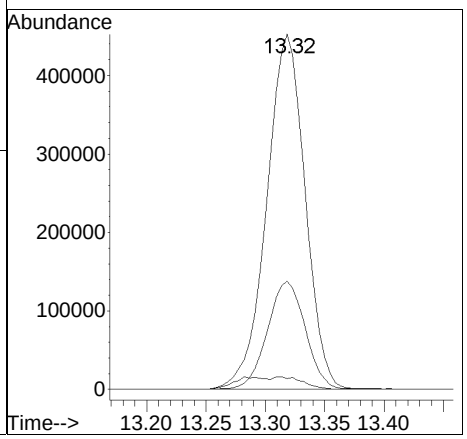


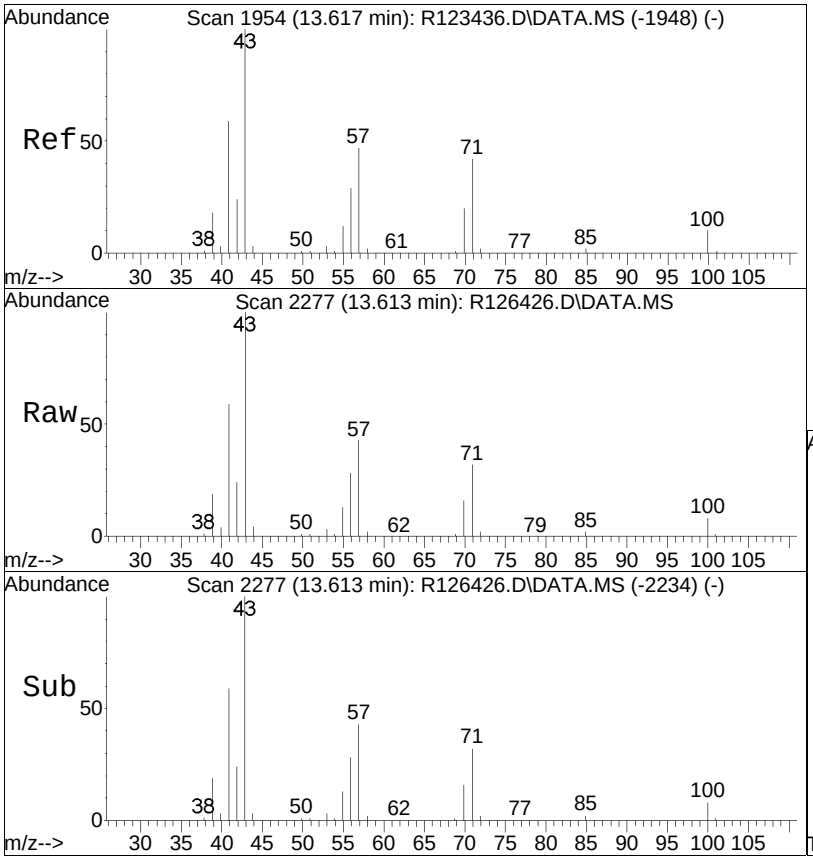



#60
2,2,4-trimethylpentane
Concen: 9.19 ppbV
RT: 13.32 min Scan# 2212
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 57 Resp: 1019954

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 99 | 3.0 | 2.9 | 4.3 |
| 41 | 30.5 | 24.3 | 36.5 |

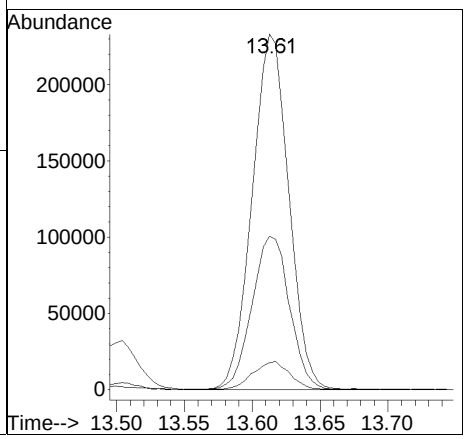


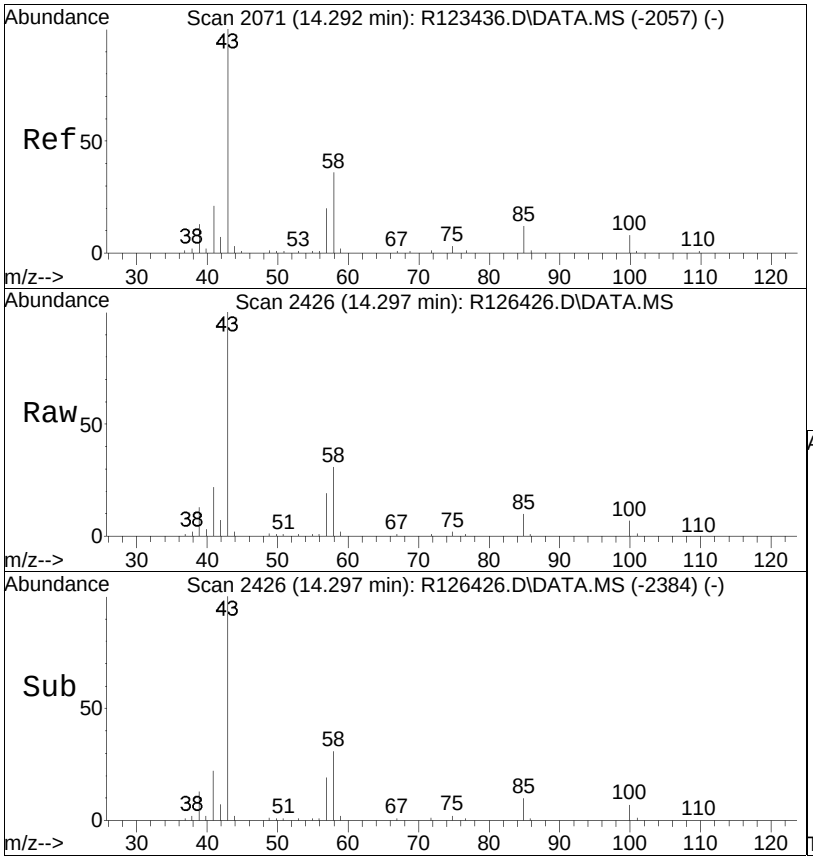



#62
heptane
Concen: 9.27 ppbV
RT: 13.61 min Scan# 2277
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 436957

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 43.2 | 36.6 | 54.8 |
| 100 | 7.5 | 6.7 | 10.1 |

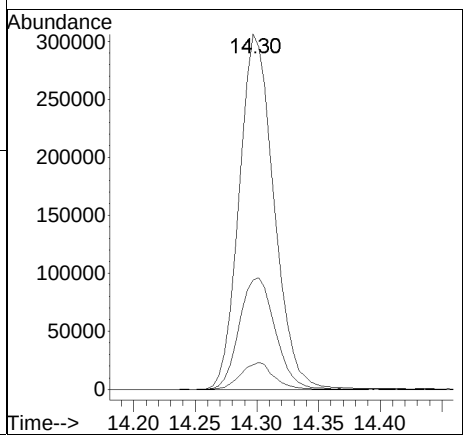


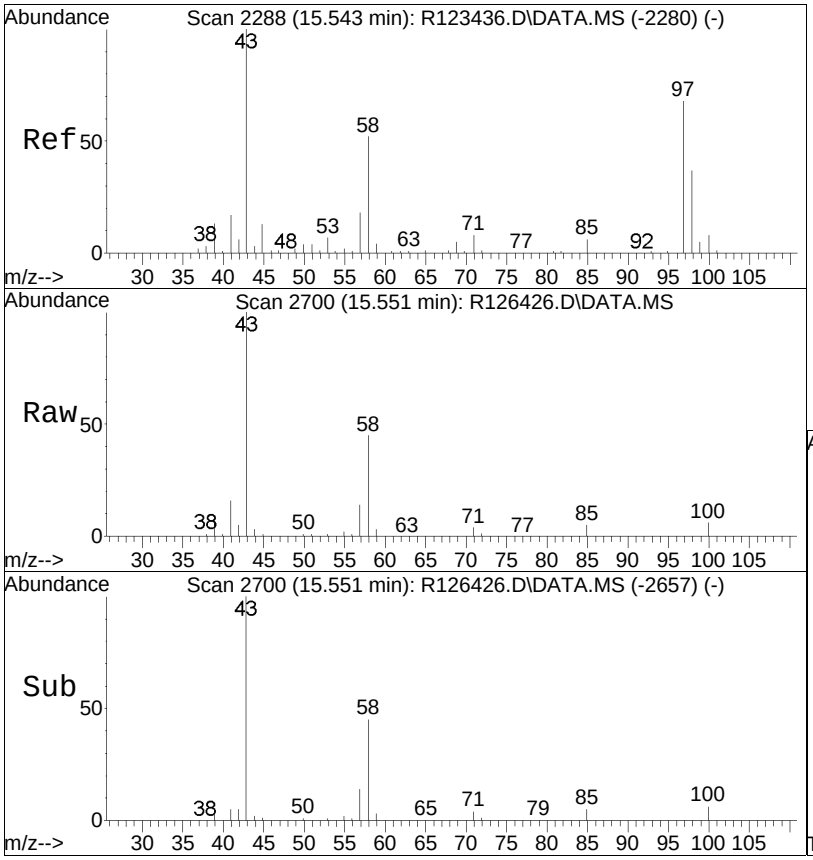



#64
4-methyl-2-pentanone
Concen: 9.17 ppbV
RT: 14.30 min Scan# 2426
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 600589

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.8 | 26.3 | 39.5 |
| 100 | 6.9 | 6.2 | 9.4 |

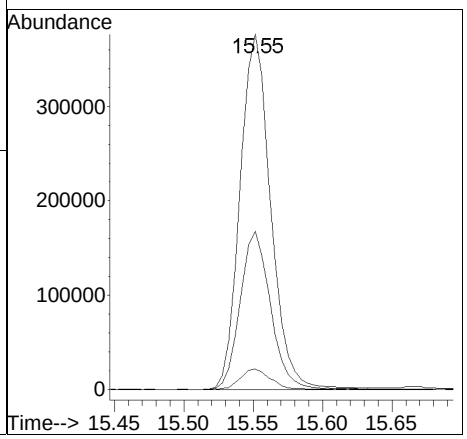


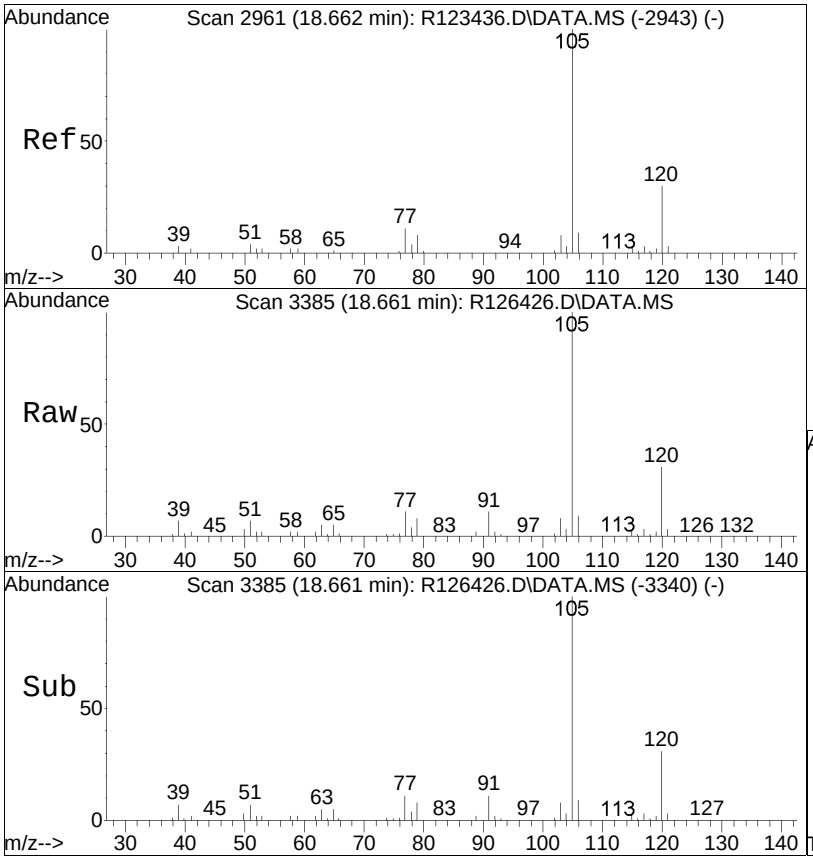



#72
2-hexanone
Concen: 9.56 ppbV
RT: 15.55 min Scan# 2700
Delta R.T. -0.000 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 43 Resp: 580032

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 44.5 | 39.7 | 59.5 |
| 100 | 5.7 | 6.2 | 9.2# |

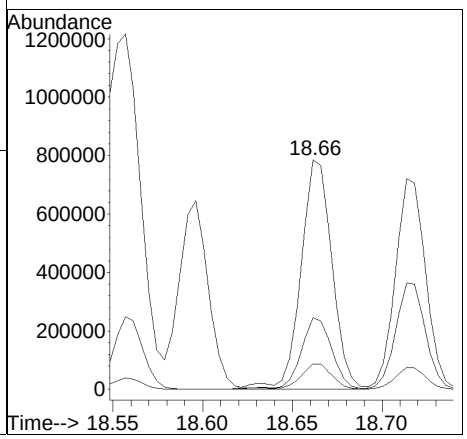


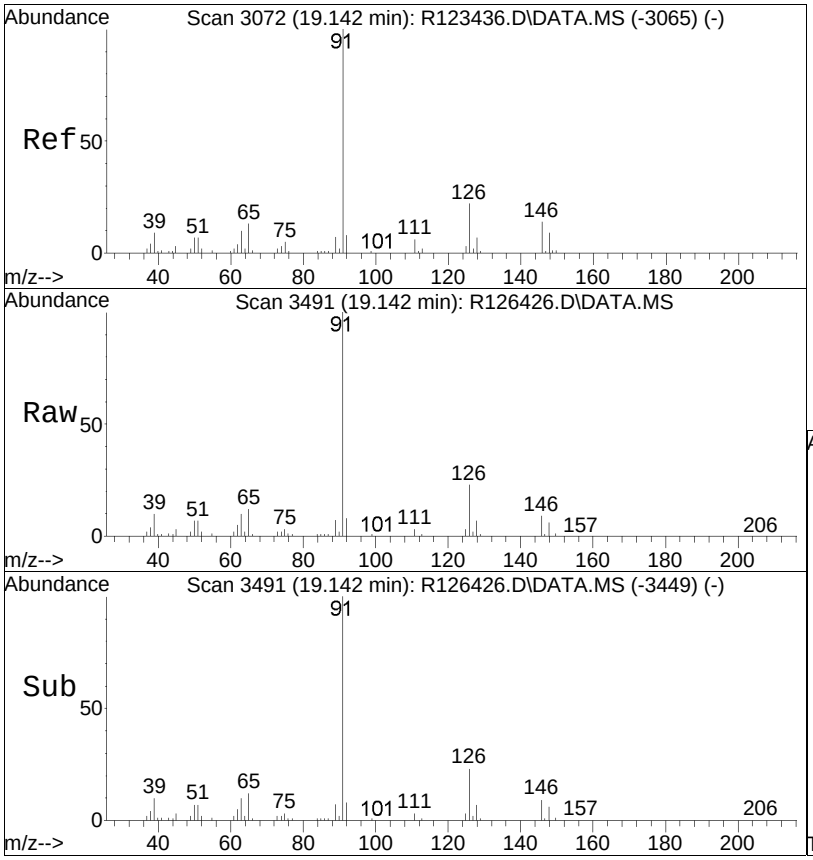



#96
4-ethyl toluene
Concen: 9.44 ppbV
RT: 18.66 min Scan# 3385
Delta R.T. -0.005 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion:105 Resp: 948092

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 31.3 | 24.0 | 36.0 |
| 91 | 11.1 | 8.9 | 13.3 |

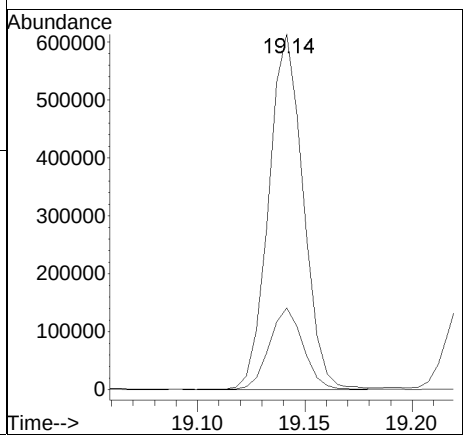





#101
Benzyl Chloride
Concen: 9.58 ppbV
RT: 19.14 min Scan# 3491
Delta R.T. -0.001 min
Lab File: R126426.D
Acq: 8 Feb 2013 11:50 am

Tgt Ion: 91 Resp: 684398

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 22.9 | 17.2 | 25.8 |



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126426.D | Operator | : AIRPIANO1:RY |
| Date Inj'd | : 2/8/2013 11:50 am | Instrument | : Air Piano 1 |
| Sample | : WG589503-3,3,250,250 | Quant Date | : 2/8/2013 12:17 pm |

There are no manual integrations or false positives in this file.

R126426.D TALL121211.M Thu Feb 14 09:56:43 2013 Report VerPage 1.0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-8,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : IPA_ONLY - .

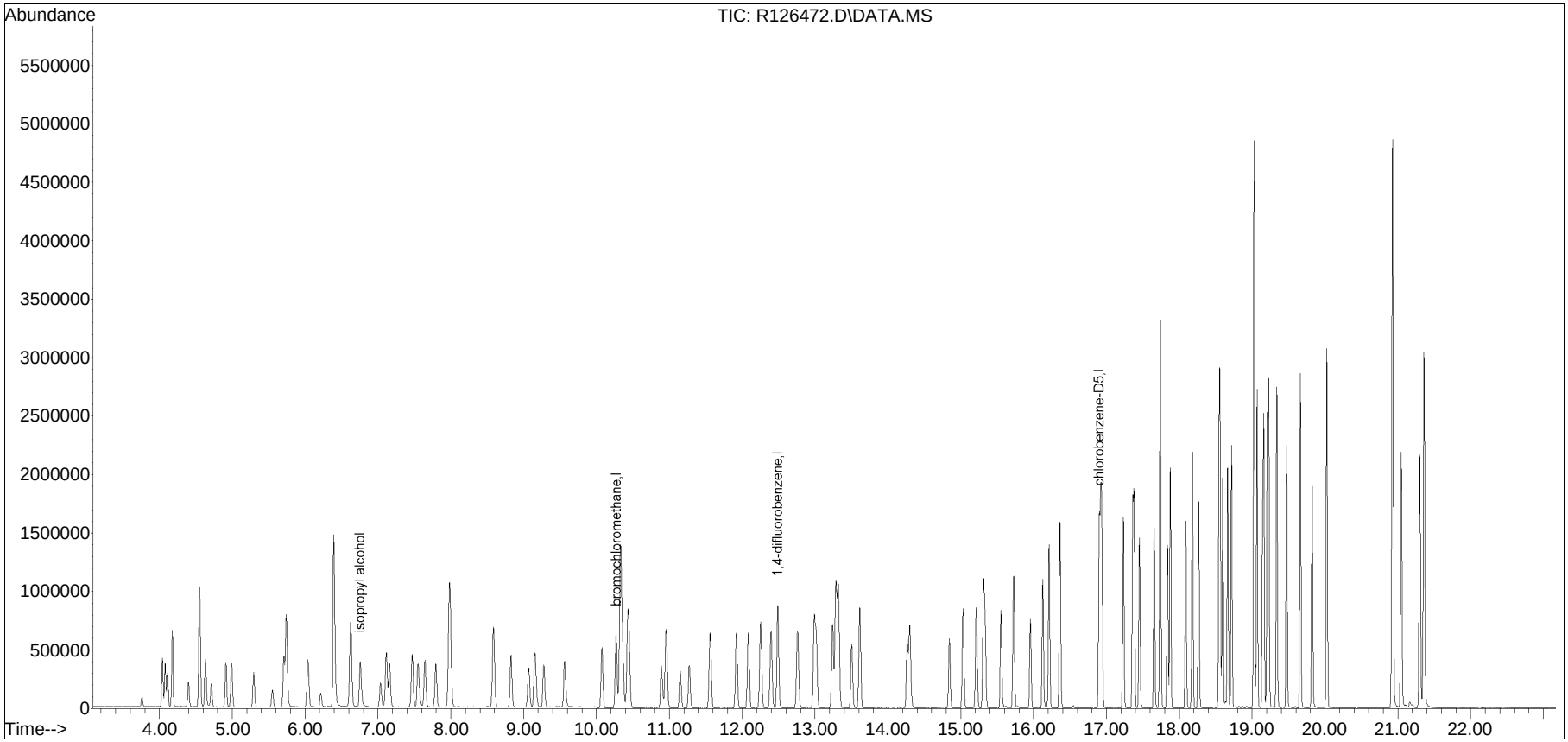
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 317256 | 10.000 | ppbV | 0.00 |
| Standard Area = 317256 | | | Recovery = 100.00% | | | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 707897 | 10.000 | ppbV | 0.00 |
| Standard Area = 707897 | | | Recovery = 100.00% | | | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 163723 | 10.000 | ppbV | 0.00 |
| Standard Area = 163723 | | | Recovery = 100.00% | | | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 22) isopropyl alcohol | 6.76 | 45 | 440488 | 8.510 | ppbV | 100 |

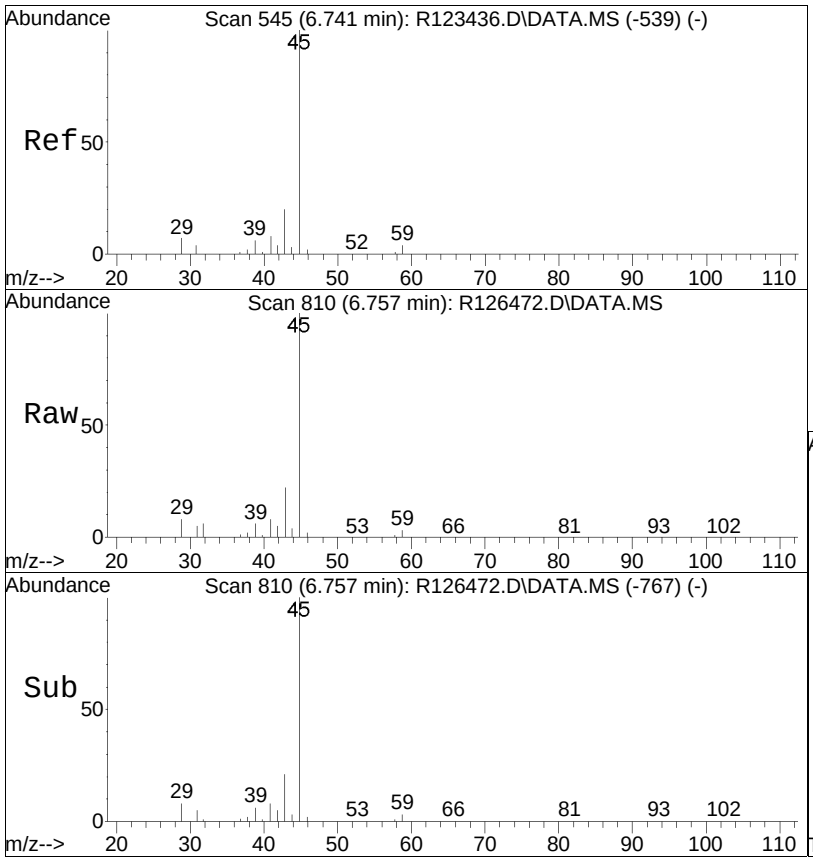
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IPA_ONLY - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130212T\
Data File : R126472.D
Acq On : 12 Feb 2013 12:51 pm
Operator : AIRPIANO1:MB
Sample : WG589503-8,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 13:23:14 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130212T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

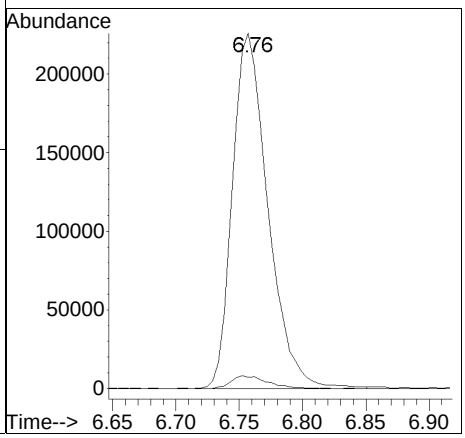





#22
isopropyl alcohol
Concen: 8.51 ppbV
RT: 6.76 min Scan# 810
Delta R.T. -0.000 min
Lab File: R126472.D
Acq: 12 Feb 2013 12:51 pm

Tgt Ion: 45 Resp: 440488

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.1 | 2.5 | 3.7 |



Manual Integration/Negative Proof Report

| | | | |
|---|---|---|---|
| Data Path | : O:\Forensics\Data\AIR1\2013Q | Method | : TALL121211.M |
| Data File | : R126472.D | Operator | : AIRPIANO1:MB |
| Date Inj'd | : 2/12/2013 12:51 pm | Instrument | : Air Piano 1 |
| Sample | : WG589503-8,3,250,250 | Quant Date | : 2/12/2013 1:22 pm |

There are no manual integrations or false positives in this file.

# Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589503-5,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:59:15 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

Sub List : Geo_MCP2 - .

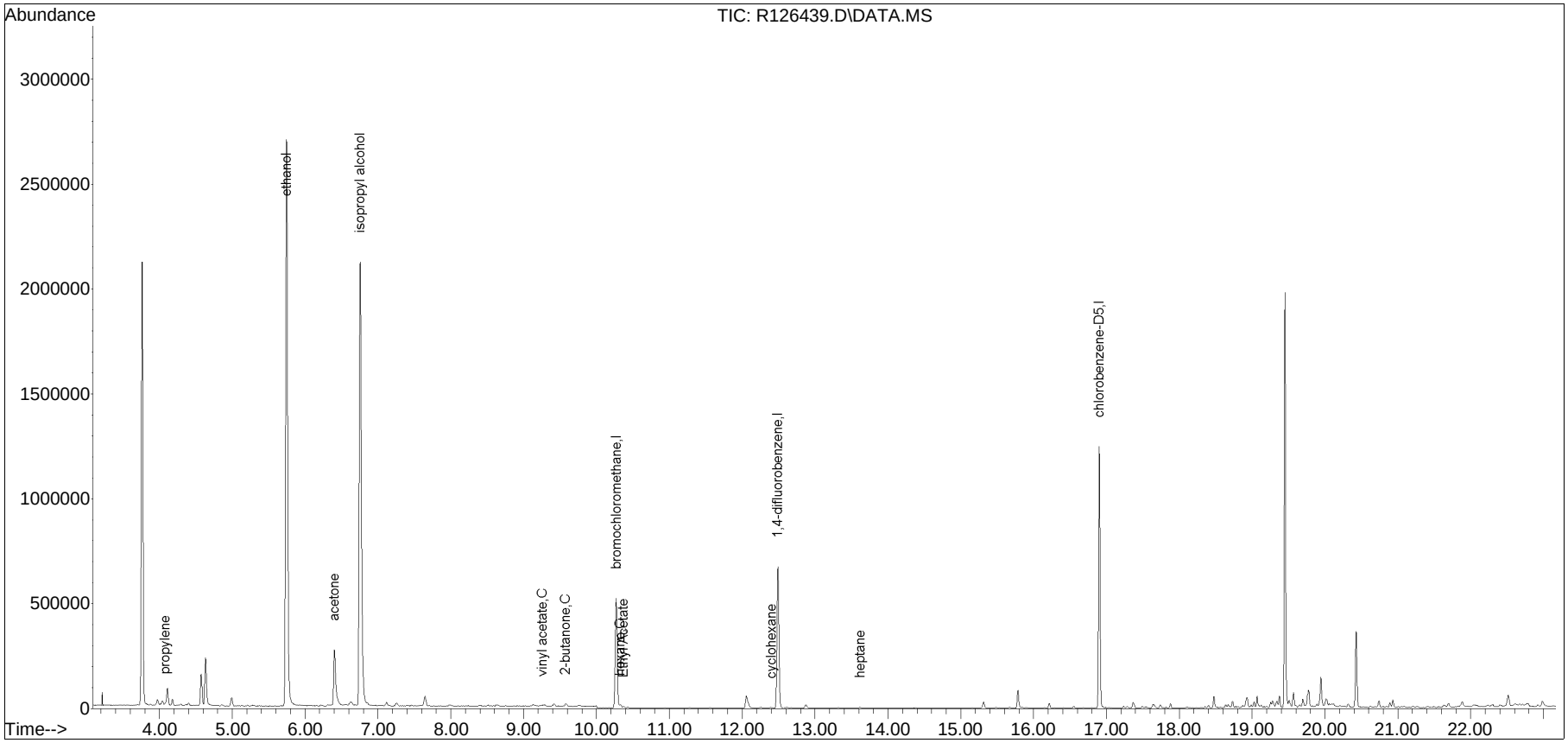
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) bromochloromethane | 10.27 | 49 | 281429 | 10.000 | ppbV | 0.00 |
| Standard Area = 322657 | | | Recovery | = | 87.22% | |
| 43) 1,4-difluorobenzene | 12.49 | 114 | 531949 | 10.000 | ppbV | 0.00 |
| Standard Area = 648175 | | | Recovery | = | 82.07% | |
| 67) chlorobenzene-D5 | 16.90 | 54 | 141399 | 10.000 | ppbV | 0.00 |
| Standard Area = 166114 | | | Recovery | = | 85.12% | |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 3) propylene | 4.08 | 41 | 2091 | 0.126 | ppbV # | 83 |
| 15) ethanol | 5.75 | 31 | 2136912 | 143.865 | ppbV | 94 |
| 17) vinyl bromide | 0.00 | | 0 | N.D. | | |
| 19) acetone | 6.40 | 43 | 323979 | 9.357 | ppbV # | 98 |
| 22) isopropyl alcohol | 6.76 | 45 | 2606761 | 56.772 | ppbV | 100 |
| 29) 3-chloropropene | 7.75 | | 0 | N.D. | | |
| 30) carbon disulfide | 7.98 | | 0 | N.D. | | |
| 35) vinyl acetate | 9.26 | 43 | 4884M6 | 0.088 | ppbV | |
| 36) 2-butanone | 9.58 | 43 | 15341 | 0.326 | ppbV | 95 |
| 38) Ethyl Acetate | 10.37 | 61 | 1005 | 0.154 | ppbV # | 37 |
| 40) Tetrahydrofuran | 10.93 | | 0 | N.D. | | |
| 44) hexane | 10.32 | 57 | 6042 | 0.228 | ppbV # | 33 |
| 53) cyclohexane | 12.40 | 56 | 1898 | 0.065 | ppbV # | 72 |
| 58) 1,4-dioxane | 0.00 | | 0 | N.D. | | |
| 60) 2,2,4-trimethylpentane | 13.32 | | 0 | N.D. | | |
| 62) heptane | 13.62 | 43 | 2631 | 0.068 | ppbV # | 88 |
| 64) 4-methyl-2-pentanone | 14.34 | | 0 | N.D. | | |
| 72) 2-hexanone | 15.58 | | 0 | N.D. | | |
| 96) 4-ethyl toluene | 18.67 | | 0 | N.D. | | |
| 101) Benzyl Chloride | 19.12 | | 0 | N.D. | | |

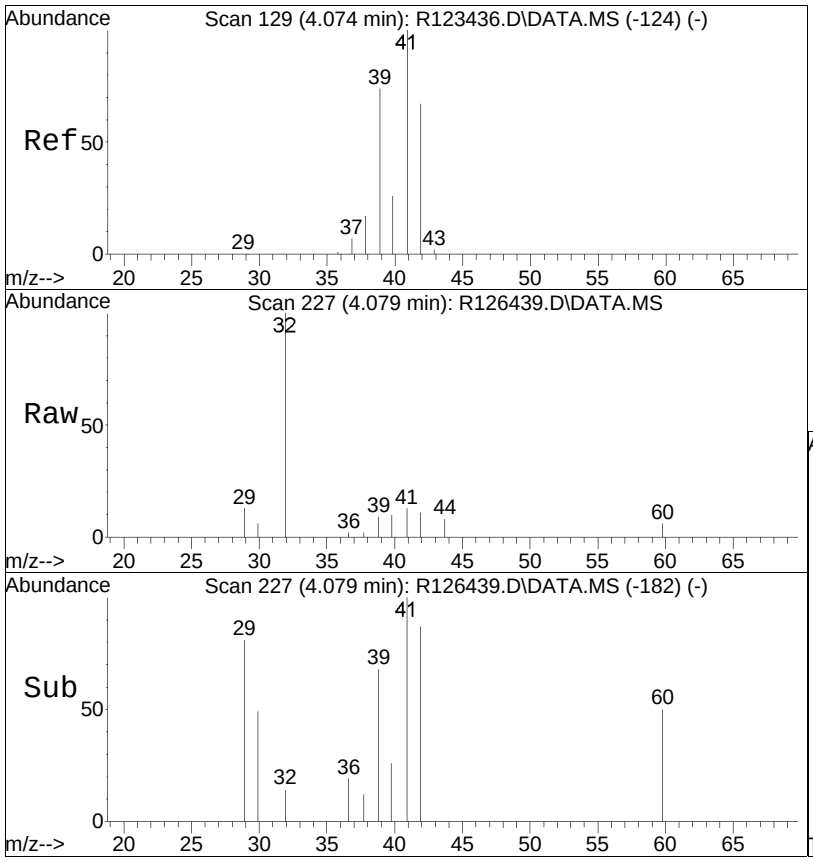
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Geo_MCP2 - .tion Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2013\130208T\
Data File : R126439.D
Acq On : 8 Feb 2013 7:27 pm
Operator : AIRPIANO1:MB
Sample : WG589503-5,3,250,250
Misc : WG589503,ICAL7588
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:59:15 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208T\TALL121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 10:06:46 2012
Response via : Initial Calibration

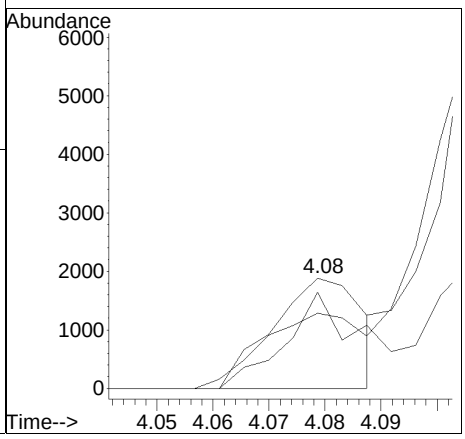


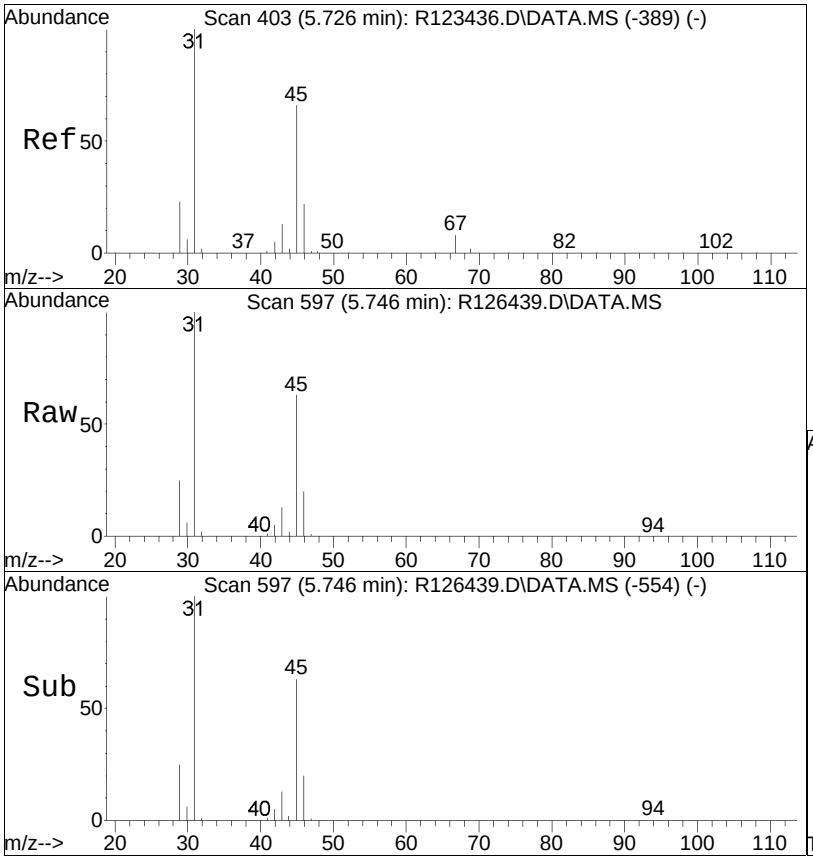



#3
propylene
Concen: 0.13 ppbV
RT: 4.08 min Scan# 227
Delta R.T. -0.004 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 41 Resp: 2091

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 87.3 | 52.8 | 79.2# |
| 39 | 68.2 | 60.6 | 90.8 |

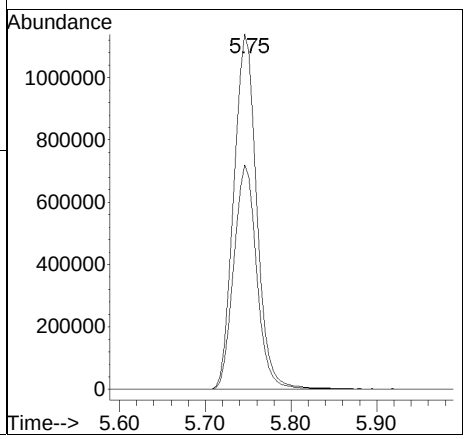


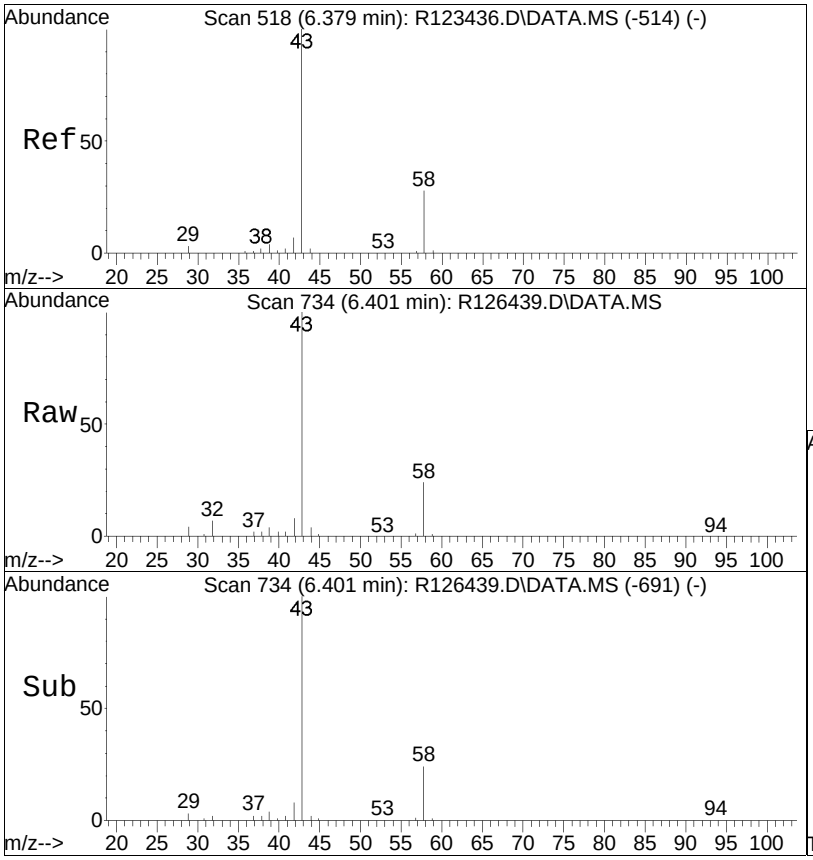



#15
ethanol
Concen: 143.86 ppbV
RT: 5.75 min Scan# 597
Delta R.T. 0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 31 Resp: 2136912

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 31 | 100 | | |
| 45 | 63.2 | 46.8 | 70.2 |

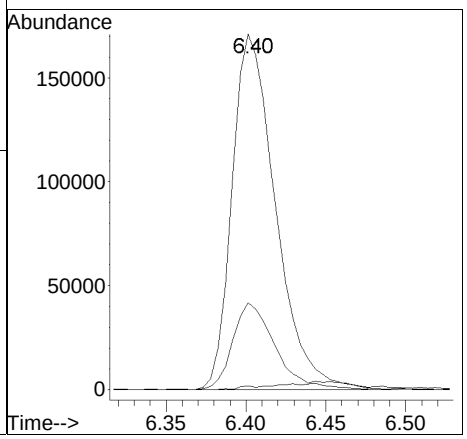


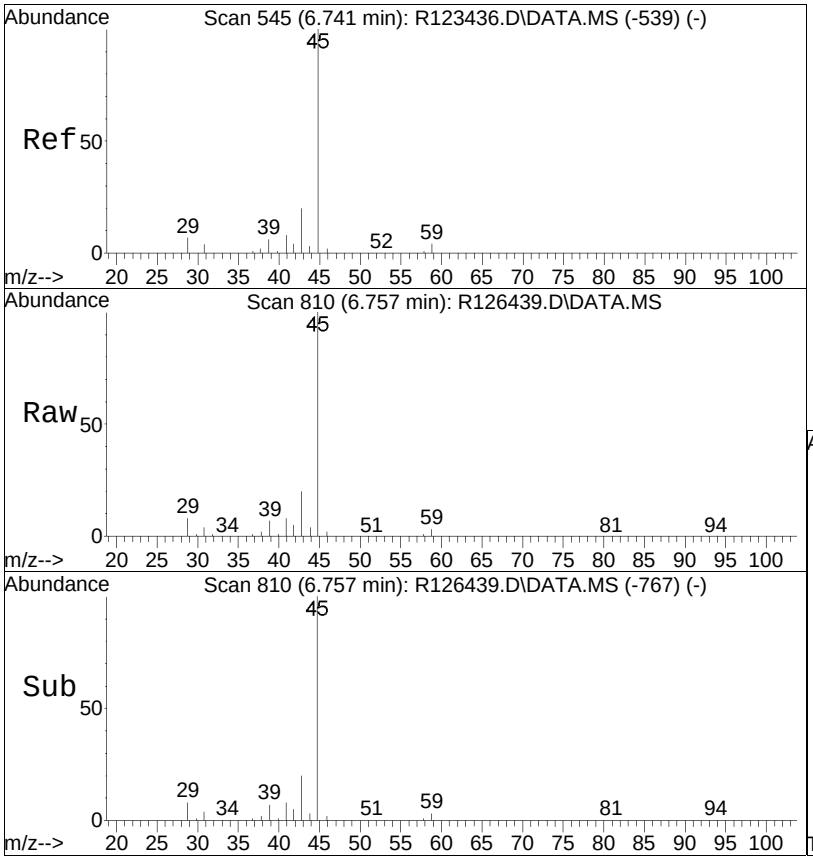



#19
acetone
Concen: 9.36 ppbV
RT: 6.40 min Scan# 734
Delta R.T. 0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 43 Resp: 323979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 24.4 | 20.5 | 30.7 |
| 57 | 1.0 | 0.6 | 1.0# |

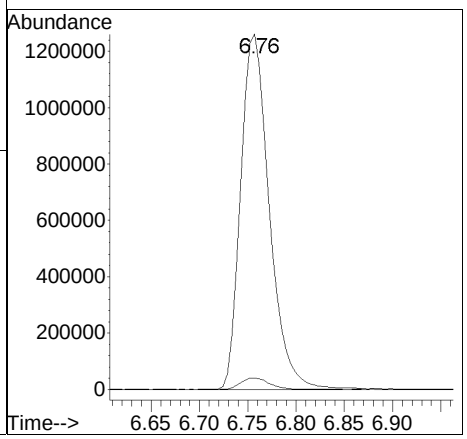


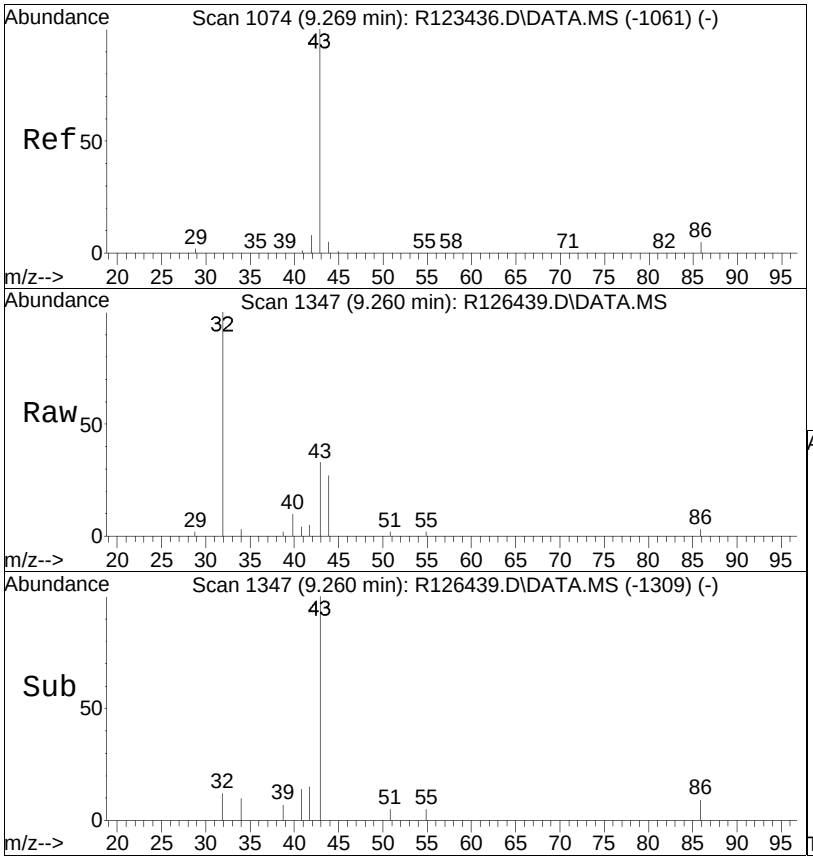



#22
isopropyl alcohol
Concen: 56.77 ppbV
RT: 6.76 min Scan# 810
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 45 Resp: 2606761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 59 | 3.2 | 2.5 | 3.7 |

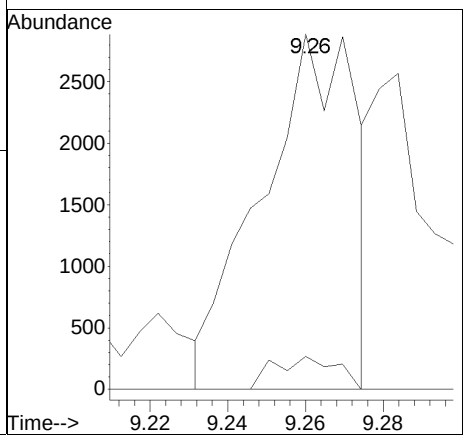


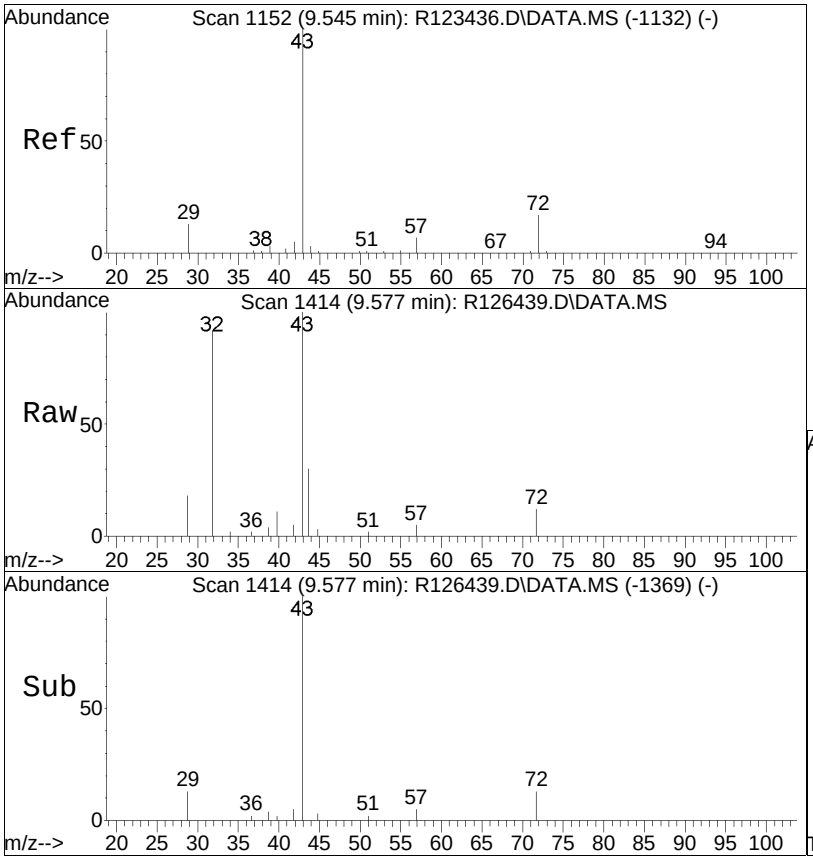



#35
vinyl acetate
Concen: 0.09 ppbV m
RT: 9.26 min Scan# 1347
Delta R.T. -0.019 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 43 Resp: 4884

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 9.3 | 3.5 | 5.3# |

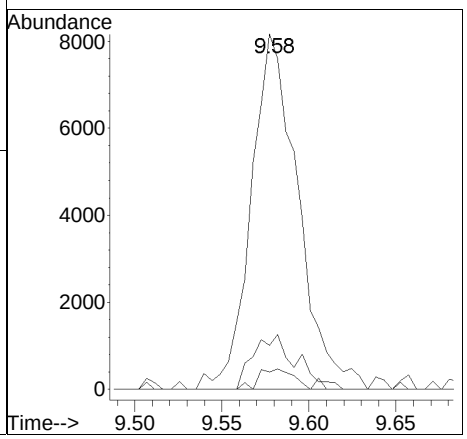


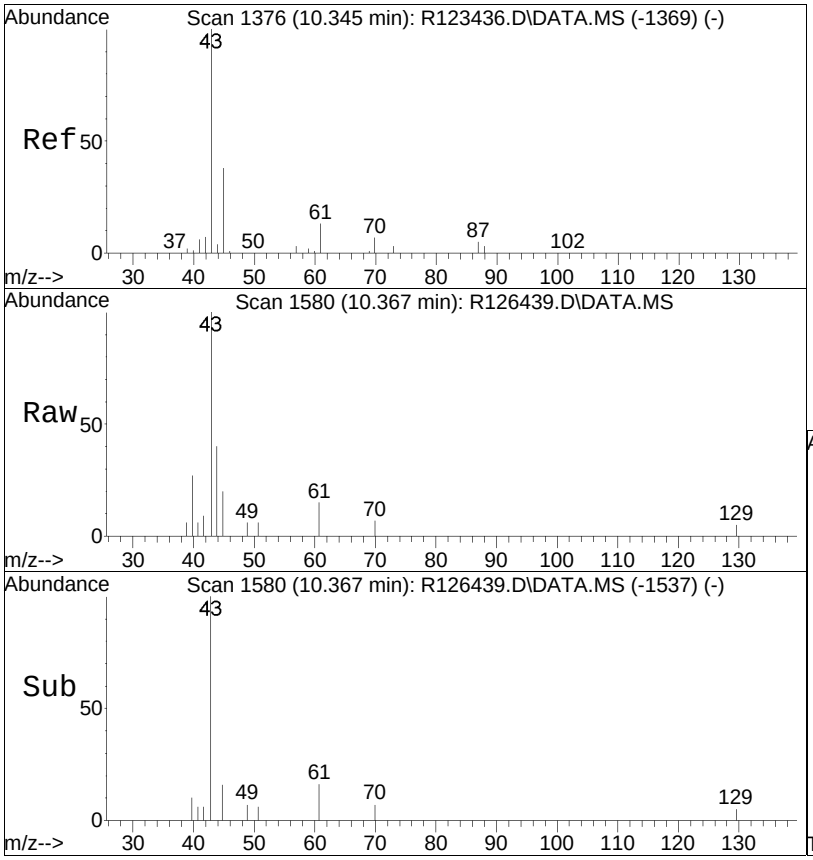



#36
2-butanone
Concen: 0.33 ppbV
RT: 9.58 min Scan# 1414
Delta R.T. 0.014 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 43 Resp: 15341

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 12.4 | 11.8 | 17.8 |
| 57 | 4.9 | 4.8 | 7.2 |

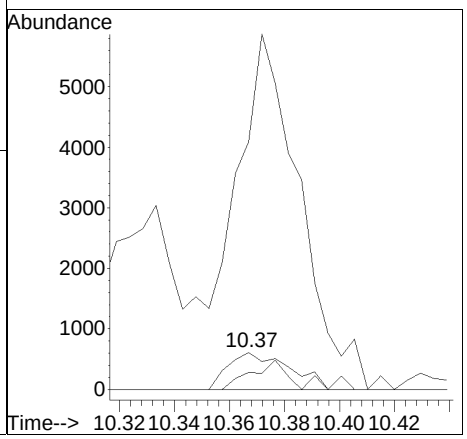


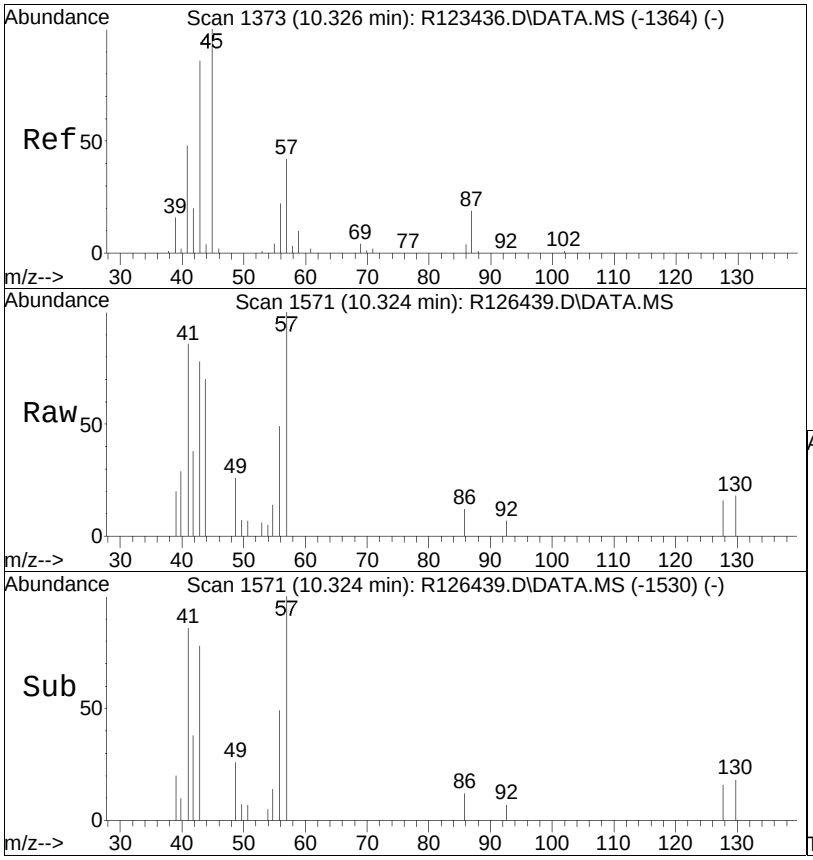



#38
Ethyl Acetate
Concen: 0.15 ppbV
RT: 10.37 min Scan# 1580
Delta R.T. 0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 61 Resp: 1005

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 46.4 | 44.1 | 66.1 |
| 43 | 673.2 | 768.4 | 1152.6# |

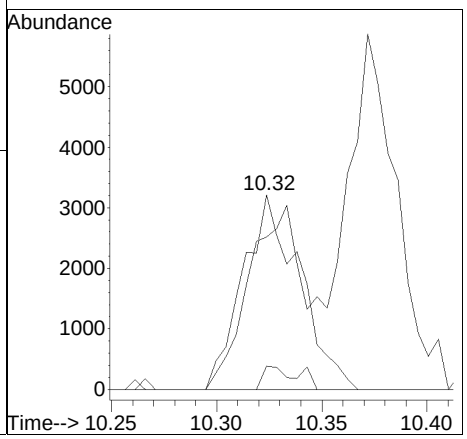


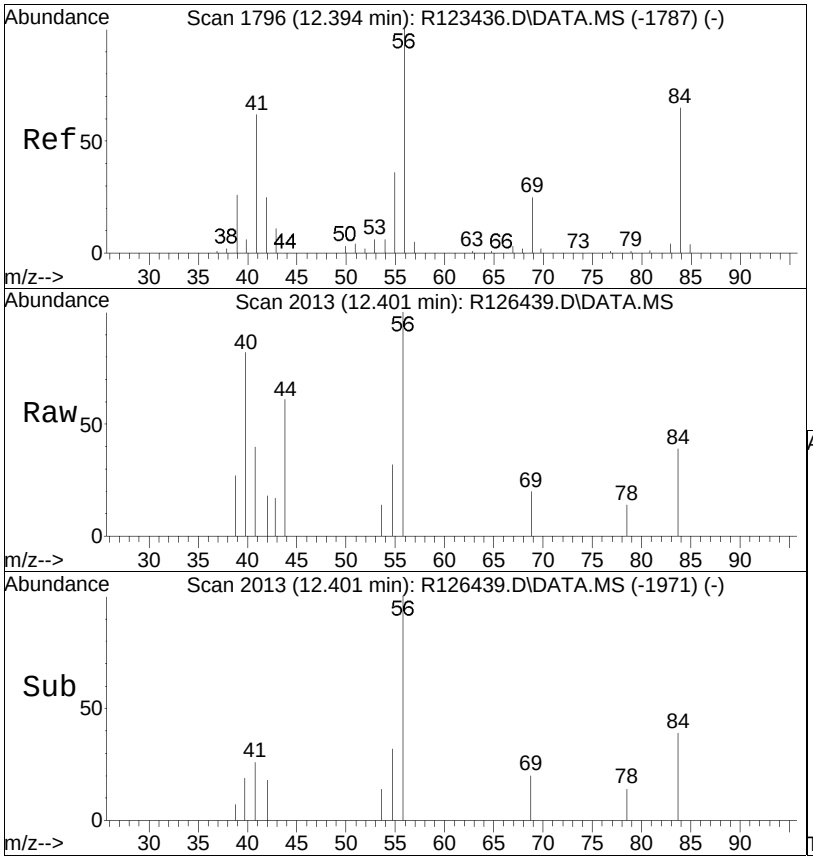



#44
hexane
Concen: 0.23 ppbV
RT: 10.32 min Scan# 1571
Delta R.T. -0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 57 Resp: 6042

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 43 | 78.4 | 141.7 | 212.5# |
| 86 | 12.0 | 7.5 | 11.3# |

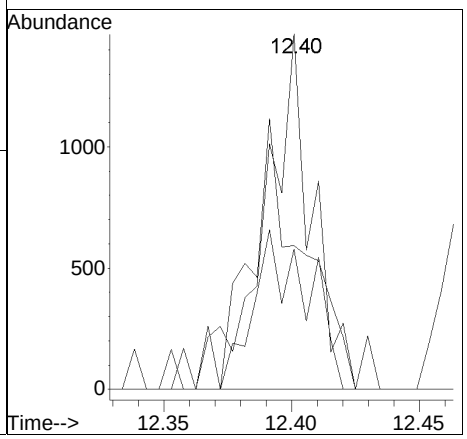


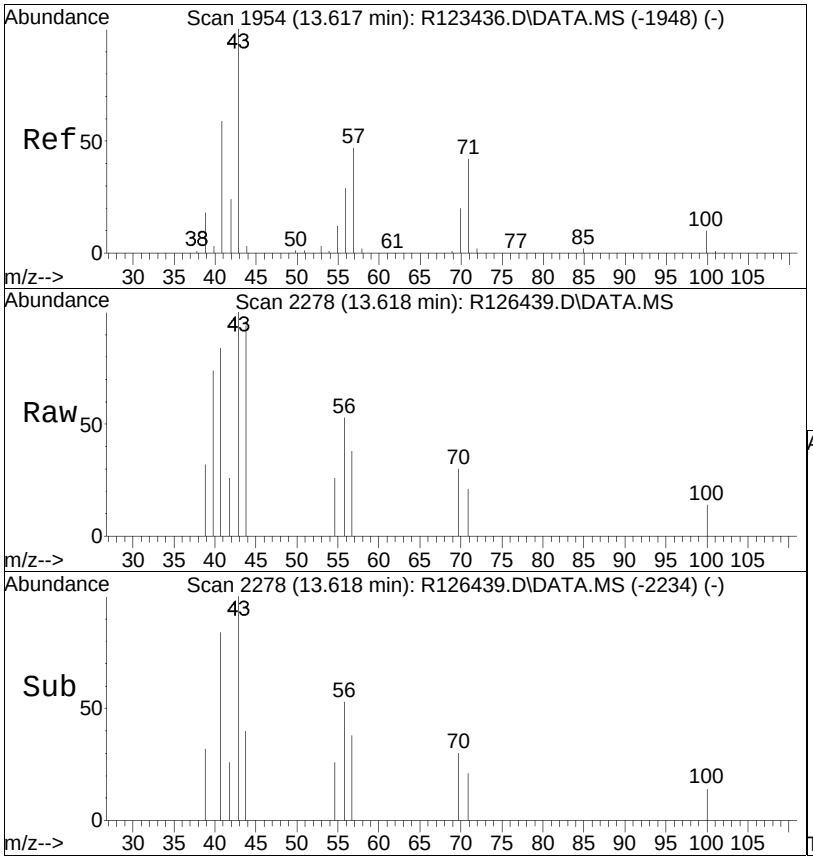



#53
cyclohexane
Concen: 0.07 ppbV
RT: 12.40 min Scan# 2013
Delta R.T. 0.005 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 56 Resp: 1898

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 84 | 39.5 | 47.3 | 70.9# |
| 41 | 40.5 | 51.2 | 76.8# |

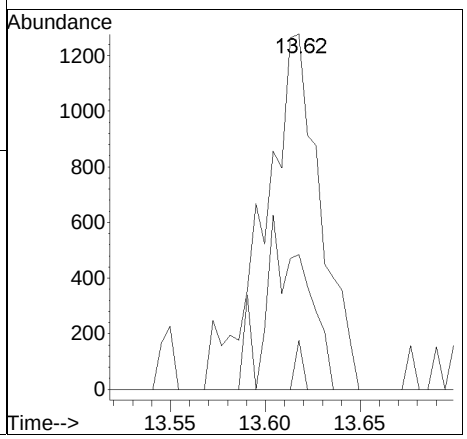





#62
heptane
Concen: 0.07 ppbV
RT: 13.62 min Scan# 2278
Delta R.T. 0.000 min
Lab File: R126439.D
Acq: 8 Feb 2013 7:27 pm

Tgt Ion: 43 Resp: 2631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 38.0 | 36.6 | 54.8 |
| 100 | 13.9 | 6.7 | 10.1# |

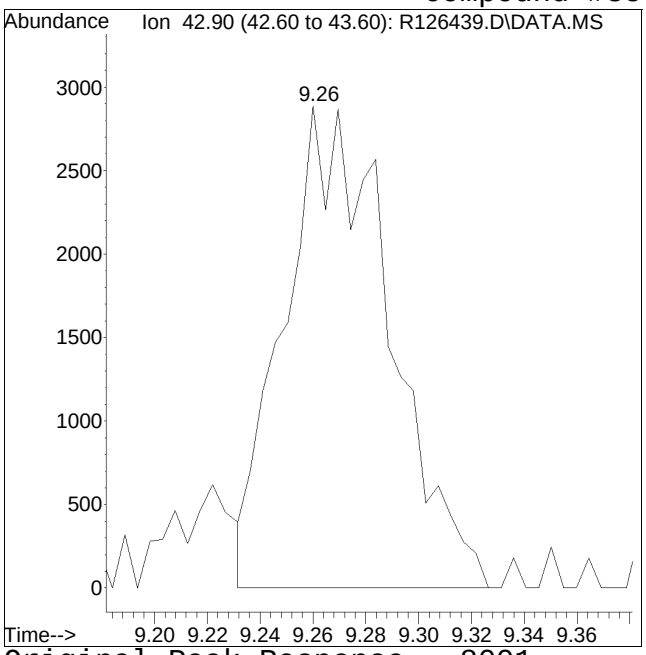


Manual Integration/Negative Proof Report

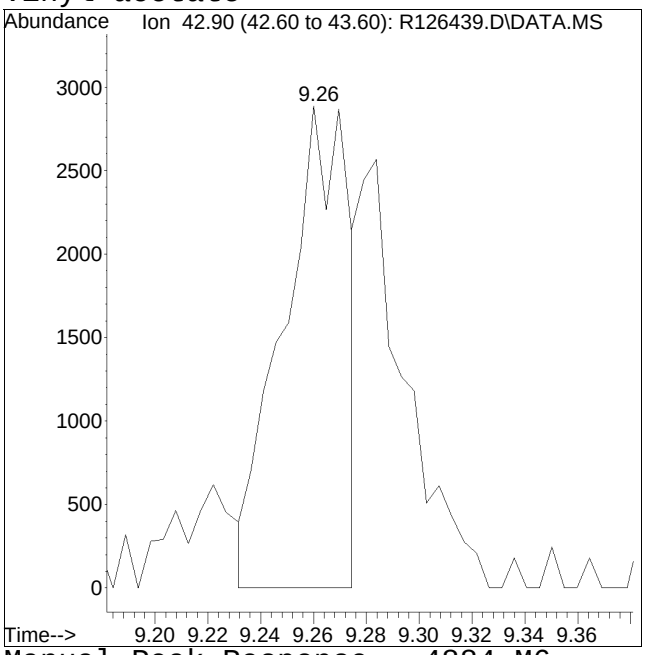
Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589503-5,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #35: vinyl acetate




Original Peak Response = 8001




Manual Peak Response = 4884 M6

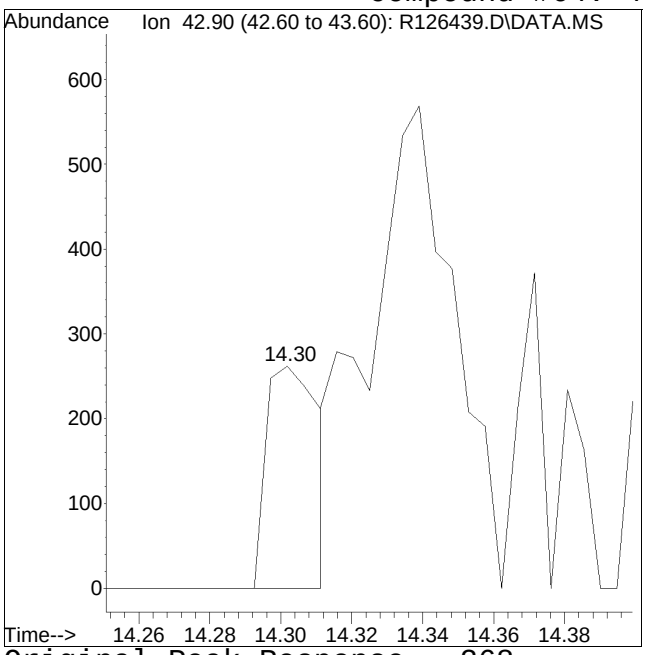
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

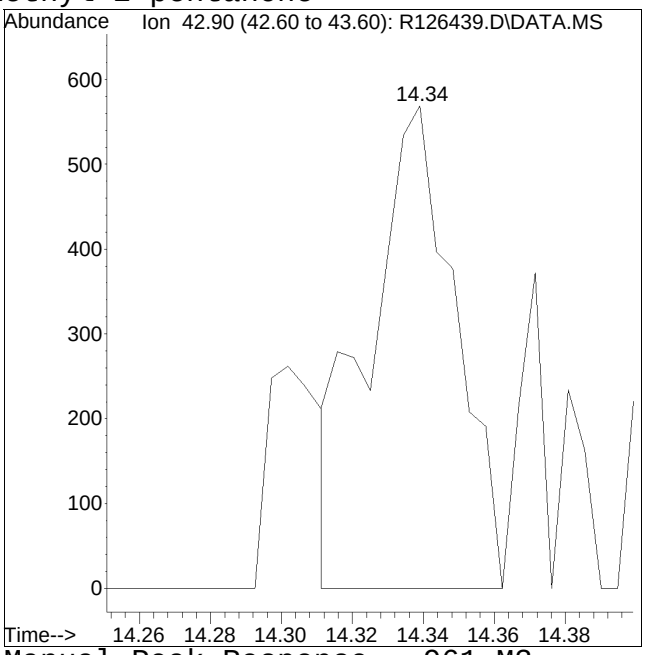
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589503-5,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #64: 4-methyl-2-pentanone




Original Peak Response = 268 Manual Peak Response = 961 M3

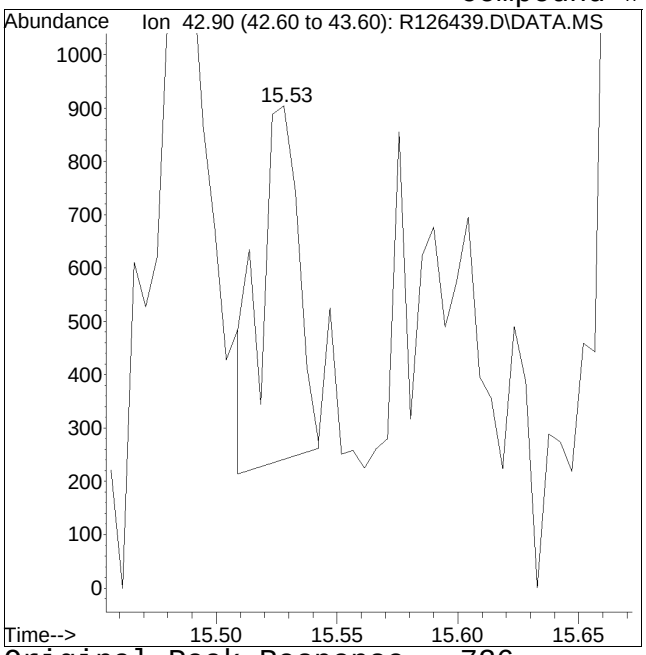
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

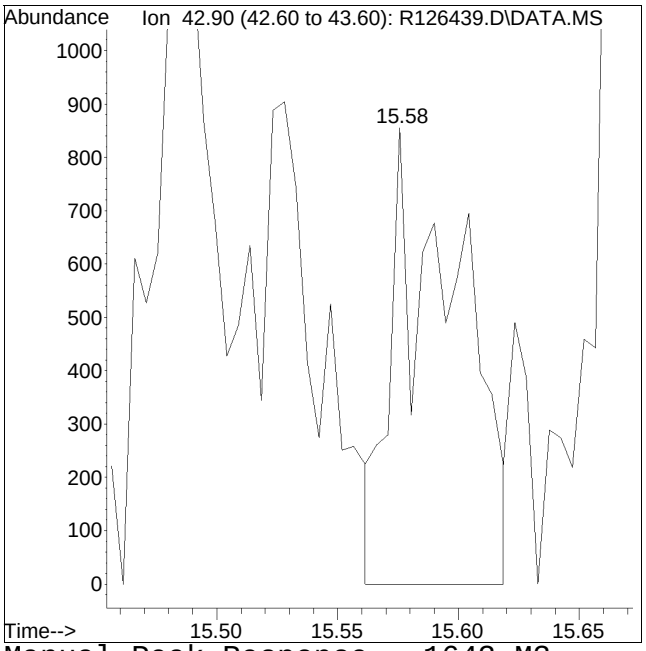
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2013Q
Data File : R126439.D
Date Inj'd : 2/8/2013 7:27 pm
Sample : WG589503-5,3,250,250

Method : TALL121211.M
Operator : AIRPIANO1:MB
Instrument : Air Piano 1
Quant Date : 2/9/2013 8:26 am

Compound #72: 2-hexanone




Original Peak Response = 726 Manual Peak Response = 1643 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

# Alpha Report

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1302224 |
| Client: | Geosphere Environmental Mgmt, Inc<br>51 Portsmouth Avenue<br>Exeter, NH 03833 |
| ATTN: | Bruce Hoskins |
| Phone: | (603) 773-0075 |
| Project Name: | CUMMINGS BEVERLY AIR SAMPLING |
| Project Number: | 12201 |
| Report Date: | 02/15/13 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Alpha Sample ID | Client ID | Sample Location | Collection Date/Time |
|---|---|---|---|
| L1302224-01 | S-149-J | BEVERLY, MA | 02/04/13 15:05 |
| L1302224-02 | DUP | BEVERLY, MA | 02/04/13 15:07 |
| L1302224-03 | S-157-J | BEVERLY, MA | 02/04/13 15:14 |
| L1302224-04 | S-1100 | BEVERLY, MA | 02/04/13 15:40 |
| L1302224-05 | S-171-X | BEVERLY, MA | 02/04/13 15:30 |
| L1302224-06 | NEPD | BEVERLY, MA | 02/04/13 15:20 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## MADEP MCP Response Action Analytical Report Certification

**This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.**

| **An affirmative response to questions A through F is required for "Presumptive Certainty" status** | | |
|---|---|---|
| A | Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times? | YES |
| B | Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed? | YES |
| C | Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances? | YES |
| D | Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?" | YES |
| E a. | VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). | YES |
| E b. | APH and TO-15 Methods only: Was the complete analyte list reported for each method? | YES |
| F | Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)? | YES |

| **A response to questions G, H and I is required for "Presumptive Certainty" status** | | |
|---|---|---|
| G | Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)? | NO |
| H | Were all QC performance standards specified in the CAM protocol(s) achieved? | YES |
| I | Were results reported for the complete analyte list specified in the selected CAM protocol(s)? | YES |

**For any questions answered "No", please refer to the case narrative section on the following page(s).**

**Please note that sample matrix information is located in the Sample Results section of this report.**

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224
**Project Number:** 12201 **Report Date:** 02/15/13

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | CUMMINGS BEVERLY AIR SAMPLING | **Lab Number:** | L1302224 |
| **Project Number:** | 12201 | **Report Date:** | 02/15/13 |

**Case Narrative (continued)**

REISSUE

Report Submission

This report replaces the report issued February 13, 2013. The report has been revised to include additional target compounds omitted from the original submittal.

MCP Related Narratives

Canisters were released from the laboratory on February 1, 2013. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

TO-15

L1302224-03 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

TO15-SIM

L1302224-04 results for Chloromethane should be considered estimated due to co-elution with a non-target peak.

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1302224-01 through -06 All significant concentrations of non-petroleum VOCs detected in the TO-15

| | | | |
|---|---|---|---|
| **Project Name:** | CUMMINGS BEVERLY AIR SAMPLING | **Lab Number:** | L1302224 |
| **Project Number:** | 12201 | **Report Date:** | 02/15/13 |

**Case Narrative (continued)**

analysis were subtracted from the corresponding hydrocarbon ranges.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 02/15/13

# AIR

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-01
Client ID: S-149-J
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 18:56
Analyst: RY

Date Collected: 02/04/13 15:05
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | 141 | 2.50 | -- | 266 | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 9.44 | 1.00 | -- | 22.4 | 2.38 | -- | | 1 |
| Isopropanol | 55.9 | 0.500 | -- | 137 | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | 0.364 | 0.200 | -- | 1.07 | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | 0.231 | 0.200 | -- | 0.814 | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-01 | Date Collected: | 02/04/13 15:05 |
| Client ID: | S-149-J | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 84 | | 60-140 |
| Bromochloromethane | 89 | | 60-140 |
| chlorobenzene-d5 | 89 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-01
Client ID: S-149-J
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 18:56
Analyst: RY

Date Collected: 02/04/13 15:05
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | 0.038 | 0.020 | -- | 0.207 | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | 0.117 | 0.020 | -- | 0.575 | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | 0.026 | 0.020 | -- | 0.105 | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | 0.035 | 0.020 | -- | 0.172 | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.183 | 0.100 | -- | 0.585 | 0.319 | -- | | 1 |
| Bromodichloromethane | 0.021 | 0.020 | -- | 0.141 | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.094 | 0.020 | -- | 0.591 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | 0.092 | 0.020 | -- | 0.449 | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-01
Client ID: S-149-J
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:05
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | ND | 0.500 | -- | 1.03 | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.475 | 0.050 | -- | 2.35 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.067 | 0.020 | -- | 0.291 | 0.087 | -- | | 1 |
| Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | 0.208 | 0.040 | -- | 0.903 | 0.174 | -- | | 1 |
| o-Xylene | 0.091 | 0.020 | -- | 0.395 | 0.087 | -- | | 1 |
| Styrene | 0.083 | 0.020 | -- | 0.353 | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | 0.290 | 0.050 | -- | 1.09 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.221 | 0.050 | -- | 1.24 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 83 | | 60-140 |
| bromochloromethane | 89 | | 60-140 |
| chlorobenzene-d5 | 89 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-02
Client ID: DUP
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 19:59
Analyst: RY

Date Collected: 02/04/13 15:07
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | 91.9 | 2.50 | -- | 173 | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 5.13 | 1.00 | -- | 12.2 | 2.38 | -- | | 1 |
| Isopropanol | 21.9 | 0.500 | -- | 53.8 | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | 0.209 | 0.200 | -- | 0.737 | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-02 | Date Collected: | 02/04/13 15:07 |
| Client ID: | DUP | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier | Dilution Factor |
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 84 | | 60-140 |
| Bromochloromethane | 89 | | 60-140 |
| chlorobenzene-d5 | 87 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-02
Client ID: DUP
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 19:59
Analyst: RY

Date Collected: 02/04/13 15:07
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | 0.036 | 0.020 | -- | 0.196 | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | 0.025 | 0.020 | -- | 0.123 | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | 0.023 | 0.020 | -- | 0.093 | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.161 | 0.100 | -- | 0.514 | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.089 | 0.020 | -- | 0.560 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | 0.086 | 0.020 | -- | 0.420 | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-02
Client ID: DUP
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:07
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.455 | 0.050 | -- | 2.25 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.040 | 0.020 | -- | 0.174 | 0.087 | -- | | 1 |
| Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | 0.106 | 0.040 | -- | 0.460 | 0.174 | -- | | 1 |
| o-Xylene | 0.046 | 0.020 | -- | 0.200 | 0.087 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | 0.222 | 0.050 | -- | 0.837 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.218 | 0.050 | -- | 1.23 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 84 | | 60-140 |
| bromochloromethane | 90 | | 60-140 |
| chlorobenzene-d5 | 86 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-03
Client ID: S-157-J
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 20:31
Analyst: RY

Date Collected: 02/04/13 15:14
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | 61.2 | 2.50 | -- | 115 | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 21.6 | 1.00 | -- | 51.3 | 2.38 | -- | | 1 |
| Isopropanol | 156 | 0.500 | -- | 383 | 1.23 | -- | E | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | 0.353 | 0.200 | -- | 1.04 | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | 0.212 | 0.200 | -- | 0.747 | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | 2.53 | 0.200 | -- | 12.4 | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-03 | Date Collected: | 02/04/13 15:14 |
| Client ID: | S-157-J | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 85 | | 60-140 |
| Bromochloromethane | 89 | | 60-140 |
| chlorobenzene-d5 | 87 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-03
Client ID: S-157-J
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 20:31
Analyst: RY

Date Collected: 02/04/13 15:14
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | 0.020 | 0.020 | -- | 0.109 | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | 11.1 | 0.020 | -- | 54.6 | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | 0.023 | 0.020 | -- | 0.093 | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | 2.74 | 0.020 | -- | 13.5 | 0.098 | -- | | 1 |
| 1,3-Butadiene | 0.023 | 0.020 | -- | 0.051 | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.218 | 0.100 | -- | 0.696 | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.091 | 0.020 | -- | 0.572 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | 0.059 | 0.020 | -- | 0.288 | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-03
Client ID: S-157-J
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:14
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | 0.033 | 0.020 | -- | 0.131 | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.447 | 0.050 | -- | 2.21 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.222 | 0.020 | -- | 0.964 | 0.087 | -- | | 1 |
| Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | 0.070 | 0.050 | -- | 0.367 | 0.262 | -- | | 1 |
| p/m-Xylene | 0.738 | 0.040 | -- | 3.21 | 0.174 | -- | | 1 |
| o-Xylene | 0.539 | 0.020 | -- | 2.34 | 0.087 | -- | | 1 |
| Styrene | 0.089 | 0.020 | -- | 0.379 | 0.085 | -- | | 1 |
| Tetrachloroethene | 0.027 | 0.020 | -- | 0.183 | 0.136 | -- | | 1 |
| Toluene | 0.666 | 0.050 | -- | 2.51 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.225 | 0.050 | -- | 1.26 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 85 | | 60-140 |
| bromochloromethane | 90 | | 60-140 |
| chlorobenzene-d5 | 88 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-03 D | Date Collected: | 02/04/13 15:14 |
| Client ID: | S-157-J | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Anaytical Method: | 101,TO-15 | | |
| Analytical Date: | 02/12/13 20:43 | | |
| Analyst: | RY | | |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Isopropanol | 161 | 1.25 | -- | 396 | 3.07 | -- | | 2.5 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-Difluorobenzene | 81 | | 60-140 |
| Bromochloromethane | 87 | | 60-140 |
| chlorobenzene-d5 | 81 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-04
Client ID: S-1100
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 21:03
Analyst: RY

Date Collected: 02/04/13 15:40
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | 204 | 2.50 | -- | 384 | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 7.69 | 1.00 | -- | 18.3 | 2.38 | -- | | 1 |
| Isopropanol | 32.3 | 0.500 | -- | 79.4 | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | 0.389 | 0.200 | -- | 1.15 | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-04
Client ID: S-1100
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:40
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 85 | | 60-140 |
| Bromochloromethane | 70 | | 60-140 |
| chlorobenzene-d5 | 85 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-04
Client ID: S-1100
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 21:03
Analyst: RY

Date Collected: 02/04/13 15:40
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | 0.067 | 0.020 | -- | 0.329 | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | 0.038 | 0.020 | -- | 0.154 | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.090 | 0.020 | -- | 0.566 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | 0.078 | 0.020 | -- | 0.381 | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-04
Client ID: S-1100
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:40
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | 0.657 | 0.500 | -- | 1.36 | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.583 | 0.050 | -- | 2.88 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.027 | 0.020 | -- | 0.117 | 0.087 | -- | | 1 |
| Freon-113 | 0.082 | 0.050 | -- | 0.628 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | 0.062 | 0.040 | -- | 0.269 | 0.174 | -- | | 1 |
| o-Xylene | 0.026 | 0.020 | -- | 0.113 | 0.087 | -- | | 1 |
| Styrene | 0.024 | 0.020 | -- | 0.102 | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | 0.229 | 0.050 | -- | 0.863 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.283 | 0.050 | -- | 1.59 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 85 | | 60-140 |
| bromochloromethane | 70 | | 60-140 |
| chlorobenzene-d5 | 85 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-05
Client ID: S-171-X
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 21:34
Analyst: RY

Date Collected: 02/04/13 15:30
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | 24.8 | 2.50 | -- | 46.7 | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 3.72 | 1.00 | -- | 8.84 | 2.38 | -- | | 1 |
| Isopropanol | 5.31 | 0.500 | -- | 13.1 | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | 0.211 | 0.200 | -- | 0.622 | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | 0.230 | 0.200 | -- | 0.811 | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | 0.209 | 0.200 | -- | 0.857 | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-05 | Date Collected: | 02/04/13 15:30 |
| Client ID: | S-171-X | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 84 | | 60-140 |
| Bromochloromethane | 86 | | 60-140 |
| chlorobenzene-d5 | 82 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-05
Client ID: S-171-X
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 21:34
Analyst: RY

Date Collected: 02/04/13 15:30
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | 0.024 | 0.020 | -- | 0.118 | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | 0.024 | 0.020 | -- | 0.097 | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.090 | 0.020 | -- | 0.566 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | 0.085 | 0.020 | -- | 0.415 | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-05
Client ID: S-171-X
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:30
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.454 | 0.050 | -- | 2.24 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.026 | 0.020 | -- | 0.113 | 0.087 | -- | | 1 |
| Freon-113 | 0.078 | 0.050 | -- | 0.598 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | 0.066 | 0.040 | -- | 0.287 | 0.174 | -- | | 1 |
| o-Xylene | 0.027 | 0.020 | -- | 0.117 | 0.087 | -- | | 1 |
| Styrene | 0.029 | 0.020 | -- | 0.123 | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | 0.164 | 0.050 | -- | 0.618 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.233 | 0.050 | -- | 1.31 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 84 | | 60-140 |
| bromochloromethane | 88 | | 60-140 |
| chlorobenzene-d5 | 82 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-06
Client ID: NEPD
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO-15
Analytical Date: 02/08/13 22:06
Analyst: RY

Date Collected: 02/04/13 15:20
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | 1.60 | 1.00 | -- | 3.80 | 2.38 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | 0.210 | 0.200 | -- | 0.619 | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | 0.666 | 0.200 | -- | 2.35 | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-06
Client ID: NEPD
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:20
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 87 | | 60-140 |
| Bromochloromethane | 90 | | 60-140 |
| chlorobenzene-d5 | 87 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-06
Client ID: NEPD
Sample Location: BEVERLY, MA
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 22:06
Analyst: RY

Date Collected: 02/04/13 15:20
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | 0.087 | 0.020 | -- | 0.547 | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

## SAMPLE RESULTS

Lab ID: L1302224-06
Client ID: NEPD
Sample Location: BEVERLY, MA
Date Collected: 02/04/13 15:20
Date Received: 02/06/13
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | 0.451 | 0.050 | -- | 2.23 | 0.247 | -- | | 1 |
| Ethylbenzene | 0.020 | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Freon-113 | 0.063 | 0.050 | -- | 0.483 | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | 3.82 | 1.40 | -- | 13.3 | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | 0.054 | 0.040 | -- | 0.235 | 0.174 | -- | | 1 |
| o-Xylene | 0.022 | 0.020 | -- | 0.096 | 0.087 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | 0.141 | 0.050 | -- | 0.531 | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | 0.215 | 0.050 | -- | 1.21 | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 87 | | 60-140 |
| bromochloromethane | 92 | | 60-140 |
| chlorobenzene-d5 | 88 | | 60-140 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 02/08/13 14:12

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG589503-4 | | | | | | | | |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201
**Lab Number:** L1302224
**Report Date:** 02/15/13

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 02/12/13 14:40

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab for sample(s): 03 Batch: WG589503-9 | | | | | | | | |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 14:12

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG589504-4 | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 02/08/13 14:12

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG589504-4 | | | | | | | | |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.050 | -- | ND | 0.247 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |
| Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG589503-3 | | | | | | | | |
| Propylene | 90 | | - | | 70-130 | - | | |
| Ethyl Alcohol | 75 | | - | | 70-130 | - | | |
| Vinyl bromide | 87 | | - | | 70-130 | - | | |
| Acetone | 90 | | - | | 50-150 | - | | |
| iso-Propyl Alcohol | 85 | | - | | 70-130 | - | | |
| 3-Chloropropene | 84 | | - | | 70-130 | - | | |
| Carbon disulfide | 78 | | - | | 70-130 | - | | |
| Vinyl acetate | 85 | | - | | 70-130 | - | | |
| 2-Butanone | 92 | | - | | 70-130 | - | | |
| Ethyl Acetate | 85 | | - | | 70-130 | - | | |
| Tetrahydrofuran | 84 | | - | | 70-130 | - | | |
| n-Hexane | 93 | | - | | 70-130 | - | | |
| Cyclohexane | 91 | | - | | 70-130 | - | | |
| 1,4-Dioxane | 88 | | - | | 50-150 | - | | |
| 2,2,4-Trimethylpentane | 92 | | - | | 70-130 | - | | |
| Heptane | 93 | | - | | 70-130 | - | | |
| 4-Methyl-2-pentanone | 92 | | - | | 70-130 | - | | |
| 2-Hexanone | 96 | | - | | 70-130 | - | | |
| 4-Ethyltoluene | 94 | | - | | 70-130 | - | | |
| Benzyl chloride | 96 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 03 Batch: WG589503-8 | | | | | | | | |
| iso-Propyl Alcohol | 85 | | - | | 70-130 | - | | |
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG589504-3 | | | | | | | | |
| 1,1,1-Trichloroethane | 106 | | - | | 70-130 | - | | |
| 1,1,2,2-Tetrachloroethane | 101 | | - | | 70-130 | - | | |
| 1,1,2-Trichloroethane | 99 | | - | | 70-130 | - | | |
| 1,1-Dichloroethane | 83 | | - | | 70-130 | - | | |
| 1,1-Dichloroethene | 86 | | - | | 70-130 | - | | |
| 1,2,4-Trichlorobenzene | 121 | | - | | 50-150 | - | | |
| 1,2,4-Trimethylbenzene | 108 | | - | | 70-130 | - | | |
| 1,2-Dibromoethane | 102 | | - | | 70-130 | - | | |
| 1,2-Dichlorobenzene | 112 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG589504-3 | | | | | | | | |
| 1,2-Dichloroethane | 92 | | - | | 70-130 | - | | |
| 1,2-Dichloropropane | 92 | | - | | 70-130 | - | | |
| 1,3,5-Trimethylbenzene | 103 | | - | | 70-130 | - | | |
| 1,3-Butadiene | 87 | | - | | 70-130 | - | | |
| 1,3-Dichlorobenzene | 111 | | - | | 70-130 | - | | |
| 1,4-Dichlorobenzene | 110 | | - | | 70-130 | - | | |
| 1,4-Dioxane | 86 | | - | | 50-150 | - | | |
| Acetone | 87 | | - | | 50-150 | - | | |
| Benzene | 87 | | - | | 70-130 | - | | |
| Bromodichloromethane | 100 | | - | | 70-130 | - | | |
| Bromoform | 97 | | - | | 70-130 | - | | |
| Bromomethane | 83 | | - | | 70-130 | - | | |
| Carbon tetrachloride | 109 | | - | | 70-130 | - | | |
| Chlorobenzene | 102 | | - | | 70-130 | - | | |
| Chloroethane | 78 | | - | | 70-130 | - | | |
| Chloroform | 96 | | - | | 70-130 | - | | |
| Chloromethane | 83 | | - | | 70-130 | - | | |
| cis-1,2-Dichloroethene | 89 | | - | | 70-130 | - | | |
| cis-1,3-Dichloropropene | 96 | | - | | 70-130 | - | | |
| Dibromochloromethane | 103 | | - | | 70-130 | - | | |
| Dichlorodifluoromethane | 95 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG589504-3 | | | | | | | | |
| Ethylbenzene | 98 | | - | | 70-130 | - | | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 89 | | - | | 70-130 | - | | |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | 86 | | - | | 70-130 | - | | |
| Hexachlorobutadiene | 119 | | - | | 50-150 | - | | |
| 2-Butanone | 73 | | - | | 70-130 | - | | |
| 4-Methyl-2-pentanone | 92 | | - | | 70-130 | - | | |
| Methylene chloride | 85 | | - | | 70-130 | - | | |
| Methyl tert butyl ether | 81 | | - | | 70-130 | - | | |
| Naphthalene | 103 | | - | | 50-150 | - | | |
| p/m-Xylene | 99 | | - | | 70-130 | - | | |
| o-Xylene | 102 | | - | | 70-130 | - | | |
| Styrene | 100 | | - | | 70-130 | - | | |
| Tetrachloroethene | 102 | | - | | 70-130 | - | | |
| Toluene | 91 | | - | | 70-130 | - | | |
| trans-1,2-Dichloroethene | 76 | | - | | 70-130 | - | | |
| trans-1,3-Dichloropropene | 84 | | - | | 70-130 | - | | |
| Trichloroethene | 101 | | - | | 70-130 | - | | |
| Trichlorofluoromethane | 97 | | - | | 70-130 | - | | |
| Vinyl chloride | 81 | | - | | 70-130 | - | | |
| Halothane | 77 | | - | | 70-130 | - | | |
| 1,2,3-Trichlorobenzene | 119 | | - | | 70-130 | - | | |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589503-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | | |
| Propylene | ND | ND | ppbV | NC | | 25 |
| Ethanol | 141 | 144 | ppbV | 2 | | 25 |
| Vinyl bromide | ND | ND | ppbV | NC | | 25 |
| Acetone | 9.44 | 9.36 | ppbV | 1 | | 25 |
| Isopropanol | 55.9 | 56.8 | ppbV | 2 | | 25 |
| 3-Chloropropene | ND | ND | ppbV | NC | | 25 |
| Carbon disulfide | ND | ND | ppbV | NC | | 25 |
| Vinyl acetate | ND | ND | ppbV | NC | | 25 |
| 2-Butanone | 0.364 | 0.326 | ppbV | 11 | | 25 |
| Ethyl Acetate | ND | ND | ppbV | NC | | 25 |
| Tetrahydrofuran | ND | ND | ppbV | NC | | 25 |
| n-Hexane | 0.231 | 0.228 | ppbV | 1 | | 25 |
| Cyclohexane | ND | ND | ppbV | NC | | 25 |
| 1,4-Dioxane | ND | ND | ppbV | NC | | 25 |
| 2,2,4-Trimethylpentane | ND | ND | ppbV | NC | | 25 |
| Heptane | ND | ND | ppbV | NC | | 25 |
| 4-Methyl-2-pentanone | ND | ND | ppbV | NC | | 25 |
| 2-Hexanone | ND | ND | ppbV | NC | | 25 |
| 4-Ethyltoluene | ND | ND | ppbV | NC | | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589503-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | |
| Benzyl chloride | ND | ND | ppbV | NC | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589504-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | |
| 1,1,1-Trichloroethane | 0.038 | 0.039 | ppbV | 3 | 25 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ppbV | NC | 25 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ppbV | NC | 25 |
| 1,1,2-Trichloroethane | ND | ND | ppbV | NC | 25 |
| 1,1-Dichloroethane | ND | ND | ppbV | NC | 25 |
| 1,1-Dichloroethene | ND | ND | ppbV | NC | 25 |
| 1,2,4-Trichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2,4-Trimethylbenzene | 0.117 | 0.124 | ppbV | 6 | 25 |
| 1,2-Dibromoethane | ND | ND | ppbV | NC | 25 |
| 1,2-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2-Dichloroethane | 0.026 | 0.027 | ppbV | 4 | 25 |
| 1,2-Dichloropropane | ND | ND | ppbV | NC | 25 |
| 1,3,5-Trimethybenzene | 0.035 | 0.036 | ppbV | 3 | 25 |
| 1,3-Butadiene | ND | ND | ppbV | NC | 25 |
| 1,3-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,4-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| Benzene | 0.183 | 0.187 | ppbV | 2 | 25 |
| Bromodichloromethane | 0.021 | 0.022 | ppbV | 5 | 25 |
| Bromoform | ND | ND | ppbV | NC | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589504-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | |
| Bromomethane | ND | ND | ppbV | NC | 25 |
| Carbon tetrachloride | 0.094 | 0.094 | ppbV | 0 | 25 |
| Chlorobenzene | ND | ND | ppbV | NC | 25 |
| Chloroethane | ND | ND | ppbV | NC | 25 |
| Chloroform | 0.092 | 0.093 | ppbV | 1 | 25 |
| Chloromethane | ND | 0.501 | ppbV | NC | 25 |
| cis-1,2-Dichloroethene | ND | ND | ppbV | NC | 25 |
| cis-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| Dibromochloromethane | ND | ND | ppbV | NC | 25 |
| Dichlorodifluoromethane | 0.475 | 0.452 | ppbV | 5 | 25 |
| Ethylbenzene | 0.067 | 0.071 | ppbV | 6 | 25 |
| Freon-113 | 0.064 | 0.065 | ppbV | 2 | 25 |
| Freon-114 | ND | ND | ppbV | NC | 25 |
| Hexachlorobutadiene | ND | ND | ppbV | NC | 25 |
| Methylene chloride | ND | ND | ppbV | NC | 25 |
| Methyl tert butyl ether | ND | ND | ppbV | NC | 25 |
| Naphthalene | ND | ND | ppbV | NC | 25 |
| p/m-Xylene | 0.208 | 0.221 | ppbV | 6 | 25 |
| o-Xylene | 0.091 | 0.097 | ppbV | 6 | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589504-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | |
| Styrene | 0.083 | 0.088 | ppbV | 6 | 25 |
| Tetrachloroethene | ND | ND | ppbV | NC | 25 |
| Toluene | 0.290 | 0.306 | ppbV | 5 | 25 |
| trans-1,2-Dichloroethene | ND | ND | ppbV | NC | 25 |
| trans-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| Trichloroethene | ND | ND | ppbV | NC | 25 |
| Trichlorofluoromethane | 0.221 | 0.224 | ppbV | 1 | 25 |
| Vinyl chloride | ND | ND | ppbV | NC | 25 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-01 | Date Collected: | 02/04/13 15:05 |
| Client ID: | S-149-J | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 18:56 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 Liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | 24 | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | 110 | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 81 | | 50-200 |
| Bromochloromethane | 87 | | 50-200 |
| Chlorobenzene-d5 | 83 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-02 | Date Collected: | 02/04/13 15:07 |
| Client ID: | DUP | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 19:59 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | 16 | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | 43 | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 81 | | 50-200 |
| Bromochloromethane | 89 | | 50-200 |
| Chlorobenzene-d5 | 82 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-03 | Date Collected: | 02/04/13 15:14 |
| Client ID: | S-157-J | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 20:31 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 Liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | 41 | | ug/m3 | 12 | -- | 1 |
| Toluene | 2.5 | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | 2.3 | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | 200 | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | 160 | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 82 | | 50-200 |
| Bromochloromethane | 90 | | 50-200 |
| Chlorobenzene-d5 | 81 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-04 | Date Collected: | 02/04/13 15:40 |
| Client ID: | S-1100 | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 21:03 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 Liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | 18 | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | 44 | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 82 | | 50-200 |
| Bromochloromethane | 78 | | 50-200 |
| Chlorobenzene-d5 | 79 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-05 | Date Collected: | 02/04/13 15:30 |
| Client ID: | S-171-X | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 21:34 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 Liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | 18 | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | 25 | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 81 | | 50-200 |
| Bromochloromethane | 85 | | 50-200 |
| Chlorobenzene-d5 | 76 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

## SAMPLE RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1302224-06 | Date Collected: | 02/04/13 15:20 |
| Client ID: | NEPD | Date Received: | 02/06/13 |
| Sample Location: | BEVERLY, MA | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 02/08/13 22:06 | | |
| Analyst: | RY | | |

### Quality Control Information

| | |
|---|---|
| Sample Type: | 24 Hour Composite |
| Sample Container Type: | Canister - 6 Liter |
| Sampling Flow Controller: | Mechanical |
| Sampling Zone: | Unknown |
| Sampling Flow Meter RPD of pre & post-sampling calibration check: | <=20% |
| Were all QA/QC procedures REQUIRED by the method followed? | Yes |
| Were all performance/acceptance standards for the required procedures achieved? | Yes |
| Were significant modifications made to the method as specified in Sect 11.1.2? | No |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | ND | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | ND | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 84 | | 50-200 |
| Bromochloromethane | 89 | | 50-200 |
| Chlorobenzene-d5 | 82 | | 50-200 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224

**Project Number:** 12201 **Report Date:** 02/15/13

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 02/08/13 14:12
Analyst: RY

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-06 Batch: WG589501-4 | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- |
| Benzene | ND | | ug/m3 | 2.0 | -- |
| C5-C8 Aliphatics, Adjusted | ND | | ug/m3 | 12 | -- |
| Toluene | ND | | ug/m3 | 2.0 | -- |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- |
| o-Xylene | ND | | ug/m3 | 2.0 | -- |
| Naphthalene | ND | | ug/m3 | 2.0 | -- |
| C9-C12 Aliphatics, Adjusted | ND | | ug/m3 | 14 | -- |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG589501-3 | | | | | | | | |
| 1,3-Butadiene | 82 | | - | | 70-130 | - | | |
| Methyl tert butyl ether | 76 | | - | | 70-130 | - | | |
| Benzene | 88 | | - | | 70-130 | - | | |
| C5-C8 Aliphatics, Adjusted | 94 | | - | | 70-130 | - | | |
| Toluene | 90 | | - | | 70-130 | - | | |
| Ethylbenzene | 94 | | - | | 70-130 | - | | |
| p/m-Xylene | 94 | | - | | 70-130 | - | | |
| o-Xylene | 96 | | - | | 70-130 | - | | |
| Naphthalene | 128 | | - | | 50-150 | - | | |
| C9-C12 Aliphatics, Adjusted | 105 | | - | | 70-130 | - | | |
| C9-C10 Aromatics Total | 89 | | - | | 70-130 | - | | |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG589501-5 QC Sample: L1302224-01 Client ID: S-149-J | | | | | | |
| 1,3-Butadiene | ND | ND | ug/m3 | NC | | 30 |
| Methyl tert butyl ether | ND | ND | ug/m3 | NC | | 30 |
| Benzene | ND | ND | ug/m3 | NC | | 30 |
| C5-C8 Aliphatics, Adjusted | 24 | 24 | ug/m3 | 0 | | 30 |
| Toluene | ND | ND | ug/m3 | NC | | 30 |
| Ethylbenzene | ND | ND | ug/m3 | NC | | 30 |
| p/m-Xylene | ND | ND | ug/m3 | NC | | 30 |
| o-Xylene | ND | ND | ug/m3 | NC | | 30 |
| Naphthalene | ND | ND | ug/m3 | NC | | 30 |
| C9-C12 Aliphatics, Adjusted | 110 | 120 | ug/m3 | 9 | | 30 |
| C9-C10 Aromatics Total | ND | ND | ug/m3 | NC | | 30 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING

**Lab Number:** L1302224

**Project Number:** 12201

**Report Date:** 02/15/13

## Canister and Flow Controller Information

| Samplenum | Client ID | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controler Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1302224-01 | S-149-J | 0241 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.3 | 3.2 | 3 |
| L1302224-01 | S-149-J | 1000 | 6.0L Can | 02/01/13 | 85229 | L1301300-02 | Pass | -29.5 | -7.9 | - | - | - | - |
| L1302224-02 | DUP | 0354 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.2 | 3.1 | 3 |
| L1302224-02 | DUP | 1608 | 6.0L Can | 02/01/13 | 85229 | L1301300-02 | Pass | -29.5 | -9.1 | - | - | - | - |
| L1302224-03 | S-157-J | 0223 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.1 | 3.3 | 6 |
| L1302224-03 | S-157-J | 1583 | 6.0L Can | 02/01/13 | 85229 | L1301300-03 | Pass | -29.5 | -8.1 | - | - | - | - |
| L1302224-04 | S-1100 | 0373 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.0 | 3.0 | 0 |
| L1302224-04 | S-1100 | 967 | 6.0L Can | 02/01/13 | 85229 | L1301300-02 | Pass | -29.5 | -10.4 | - | - | - | - |
| L1302224-05 | S-171-X | 0427 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.0 | 3.1 | 3 |
| L1302224-05 | S-171-X | 608 | 6.0L Can | 02/01/13 | 85229 | L1301300-03 | Pass | -29.5 | -9.8 | - | - | - | - |
| L1302224-06 | NEPD | 0286 | #16 AMB | 02/01/13 | 85229 | | - | - | - | Pass | 3.0 | 3.1 | 3 |
| L1302224-06 | NEPD | 985 | 6.0L Can | 02/01/13 | 85229 | L1301300-02 | Pass | -28.9 | -5.0 | - | - | - | - |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-02 | Date Collected: | 01/21/13 13:54 |
| Client ID: | CAN 1608 SHELF 37 | Date Received: | 01/22/13 |
| Sample Location: | | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Anaytical Method: | 48,TO-15 | | |
| Analytical Date: | 01/26/13 16:46 | | |
| Analyst: | RY | | |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.200 | -- | ND | 0.361 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.200 | -- | ND | 0.434 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Methylene chloride | ND | 1.00 | -- | ND | 3.47 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| | Results | Qualifier | Units | RDL | Dilution Factor |
|---|---|---|---|---|---|
| Tentatively Identified Compounds | | | | | |
| No Tentatively Identified Compounds | | | | | |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 90 | | 60-140 |
| Bromochloromethane | 91 | | 60-140 |
| chlorobenzene-d5 | 87 | | 60-140 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT

**Lab Number:** L1301300
**Report Date:** 02/15/13

# Air Canister Certification Results

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-02 | Date Collected: | 01/21/13 13:54 |
| Client ID: | CAN 1608 SHELF 37 | Date Received: | 01/22/13 |
| Sample Location: | | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Anaytical Method: | 48,TO-15-SIM | | |
| Analytical Date: | 01/22/13 20:47 | | |
| Analyst: | MB | | |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.050 | -- | ND | 0.247 | -- | | 1 |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Acetone | ND | 2.00 | -- | ND | 4.75 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 1.00 | -- | ND | 3.47 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| Halothane | ND | 0.050 | -- | ND | 0.404 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.500 | -- | ND | 2.46 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| n-Butylbenzene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-02 Date Collected: 01/21/13 13:54

Client ID: CAN 1608 SHELF 37 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-difluorobenzene | 94 | | 60-140 |
| bromochloromethane | 95 | | 60-140 |
| chlorobenzene-d5 | 95 | | 60-140 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-03 | Date Collected: | 01/21/13 14:24 |
| Client ID: | CAN 959 SHELF 47 | Date Received: | 01/22/13 |
| Sample Location: | | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Anaytical Method: | 48,TO-15 | | |
| Analytical Date: | 01/26/13 17:17 | | |
| Analyst: | RY | | |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.200 | -- | ND | 0.361 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.200 | -- | ND | 0.434 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Methylene chloride | ND | 1.00 | -- | ND | 3.47 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | | 1 |
| 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Xylenes, total | ND | 0.600 | -- | ND | 2.61 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| | Results | Qualifier | Units | RDL | Dilution Factor |
|---|---|---|---|---|---|
| Tentatively Identified Compounds | | | | | |
| No Tentatively Identified Compounds | | | | | |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 89 | | 60-140 |
| Bromochloromethane | 91 | | 60-140 |
| chlorobenzene-d5 | 86 | | 60-140 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT

**Lab Number:** L1301300
**Report Date:** 02/15/13

# Air Canister Certification Results

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-03 | Date Collected: | 01/21/13 14:24 |
| Client ID: | CAN 959 SHELF 47 | Date Received: | 01/22/13 |
| Sample Location: | | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Anaytical Method: | 48,TO-15-SIM | | |
| Analytical Date: | 01/22/13 21:19 | | |
| Analyst: | MB | | |

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.050 | -- | ND | 0.247 | -- | | 1 |
| Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Acetone | ND | 2.00 | -- | ND | 4.75 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 1.00 | -- | ND | 3.47 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| Halothane | ND | 0.050 | -- | ND | 0.404 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.500 | -- | ND | 2.46 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| n-Butylbenzene | ND | 0.500 | -- | ND | 2.74 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

# Air Canister Certification Results

Lab ID: L1301300-03 Date Collected: 01/21/13 14:24

Client ID: CAN 959 SHELF 47 Date Received: 01/22/13

Sample Location: Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-difluorobenzene | 91 | | 60-140 |
| bromochloromethane | 93 | | 60-140 |
| chlorobenzene-d5 | 93 | | 60-140 |

# AIR Petro Can Certification

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

## AIR CAN CERTIFICATION RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-02 | Date Collected: | 01/21/13 13:54 |
| Client ID: | CAN 1608 SHELF 37 | Date Received: | 01/22/13 |
| Sample Location: | Not Specified | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 01/22/13 20:47 | | |
| Analyst: | MB | | |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | ND | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | ND | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1301300

**Project Number:** CANISTER QC BAT **Report Date:** 02/15/13

## AIR CAN CERTIFICATION RESULTS

| | | | |
|---|---|---|---|
| Lab ID: | L1301300-03 | Date Collected: | 01/21/13 14:24 |
| Client ID: | CAN 959 SHELF 47 | Date Received: | 01/22/13 |
| Sample Location: | Not Specified | Field Prep: | Not Specified |
| Matrix: | Air | | |
| Analytical Method: | 96,APH | | |
| Analytical Date: | 01/22/13 21:19 | | |
| Analyst: | MB | | |

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Petroleum Hydrocarbons in Air - Mansfield Lab** | | | | | | |
| 1,3-Butadiene | ND | | ug/m3 | 2.0 | -- | 1 |
| Methyl tert butyl ether | ND | | ug/m3 | 2.0 | -- | 1 |
| Benzene | ND | | ug/m3 | 2.0 | -- | 1 |
| C5-C8 Aliphatics, Adjusted | ND | | ug/m3 | 12 | -- | 1 |
| Toluene | ND | | ug/m3 | 2.0 | -- | 1 |
| Ethylbenzene | ND | | ug/m3 | 2.0 | -- | 1 |
| p/m-Xylene | ND | | ug/m3 | 4.0 | -- | 1 |
| o-Xylene | ND | | ug/m3 | 2.0 | -- | 1 |
| Naphthalene | ND | | ug/m3 | 2.0 | -- | 1 |
| C9-C12 Aliphatics, Adjusted | ND | | ug/m3 | 14 | -- | 1 |
| C9-C10 Aromatics Total | ND | | ug/m3 | 10 | -- | 1 |

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING
**Project Number:** 12201

**Lab Number:** L1302224
**Report Date:** 02/15/13

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

| Cooler Information Cooler | Custody Seal |
|---|---|
| N/A | Absent |

**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|---|---|---|---|---|---|---|---|
| L1302224-01A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |
| L1302224-02A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |
| L1302224-03A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |
| L1302224-04A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |
| L1302224-05A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |
| L1302224-06A | Canister - 6 Liter | N/A | N/A | | Y | Absent | MCP-TO15-SIM(30),APH-10(30),MCP-TO15(30) |

*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | CUMMINGS BEVERLY AIR SAMPLING | **Lab Number:** | L1302224 |
| **Project Number:** | 12201 | **Report Date:** | 02/15/13 |

# GLOSSARY

### *Acronyms*

| | |
|---|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NI | - Not Ignitable. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |

### *Footnotes*

| | |
|---|---|
| 1 | - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method. |

### *Terms*

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### *Data Qualifiers*

| | |
|---|---|
| **A** | - Spectra identified as "Aldol Condensation Product". |
| **B** | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. |
| **C** | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses. |
| **D** | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte. |
| **E** | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument. |
| **G** | - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated. |
| **H** | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection. |
| **I** | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported |

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | CUMMINGS BEVERLY AIR SAMPLING | **Lab Number:** | L1302224 |
| **Project Number:** | 12201 | **Report Date:** | 02/15/13 |

***Data Qualifiers***

due to obvious interference.

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

*Report Format:* Data Usability Report

**Project Name:** CUMMINGS BEVERLY AIR SAMPLING **Lab Number:** L1302224
**Project Number:** 12201 **Report Date:** 02/15/13

## REFERENCES


96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.


## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

**Connecticut Department of Public Health** Certificate/Lab ID: PH-0141.

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

**Florida Department of Health** Certificate/Lab ID: E87814. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

**Louisiana Department of Environmental Quality** Certificate/Lab ID: 03090. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

**New Hampshire Department of Environmental Services** Certificate/Lab ID: 2206. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

**New Jersey Department of Environmental Protection** Certificate/Lab ID: MA015. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Atmospheric Organic Parameters* (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

*Biological Tissue* (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

*Air & Emissions* (EPA TO-15, TO-10A.)

**Pennsylvania** Certificate/Lab ID: 68-02089 ***NELAP Accredited***

*Non-Potable Water* (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Virginia Division of Consolidated Laboratory Services** Certificate/Lab ID:460194. ***NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

**U.S. Army Corps of Engineers**

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

*Air & Emissions* (EPA TO-15.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

# AIR ANALYSIS

PAGE 1 OF 1

**CHAIN OF CUSTODY**

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

**ALPHA Job #:** L1302224

## Client Information

Client: Geosphere Environmental Management, Inc
Address: 51 Portsmouth Ave.
Exeter, NH 03833
Phone: 603-773-0075 x14
Fax: 603-773-0077
Email: bhoskins@geospherenh.com

☐ These samples have been previously analyzed by Alpha

## Project Information

Project Name: Cummings Beverly Air Sampling
Project Location: Beverly, MA
Project #: 12201
Project Manager: Bruce Hoskins
ALPHA Quote #:

## Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

## Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☒ Additional Deliverables: Hard copy in mail
Report to: (if different than Project Manager)

## Billing Information

☒ Same as Client info PO #:

## Regulatory Requirements/Report Limits

| State/Fed | Program | Criteria |
|---|---|---|
| | | |
| | | |
| | | |

Other Project Specific Requirements/Comments: Run entire TO-15 compound list - Quantify per TO-15 SIM where applicable

## All Columns Below Must Be Filled Out

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Start Time | End Time | Initial Vacuum | Final Vacuum | Sample Matrix* | Sampler's Initials | Can Size | I D Can | I D - Flow Controller | TO-14A by TO-15 | TO-15 | TO-15 SIM | APH | FIXED GASES | TO-13A | TO-4 / TO-10 | Sample Comments (i.e. PID) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | S-149-J | 2/4/2013 | 3:05pm | 3:05pm | -29.36 | -7.35 | AA | CB | 6L | 1000 | 0241 | | X | X | X | | | | |
| -2 | DUP | | 3:07pm | 3:07pm | -29.55 | -8.63 | AA | CB | 6L | 1608 | 0354 | | X | X | X | | | | |
| -3 | S-157-J | | 3:14pm | 3:14pm | -29.67 | -7.80 | AA | CB | 6L | 1583 | 0223 | | X | X | X | | | | |
| -4 | S-1100 | | 3:40pm | 3:40pm | -29.53 | -9.93 | AA | CB | 6L | 967 | 0373 | | X | X | X | | | | |
| -5 | S-171-X | | 3:30pm | 3:30pm | -29.81 | -9.30 | AA | CB | 6L | 608 | 0427 | | X | X | X | | | | |
| -6 | NEPD | | 3:20pm | 3:20pm | -28.92 | -6.04 | AA | CB | 6L | 985 | 0286 | | X | X | X | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

| Container Type | | | CS | CS | CS | | | |
|---|---|---|---|---|---|---|---|---|

| Relinquished By: | Date/Time | Received By: | Date/Time: |
|---|---|---|---|
| [signature] | 2/6/13 11:25 | [signature] | 2/6/13 1125 |
| [signature] | 2/6/13 1630 | [signature] | 2/7/13 0985 |
| [signature] | 2/7/13 1055 | [signature] | 2/7/13 1055 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

# Alpha
# Summary Forms

# Organic Summary Forms

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-01 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 18:56 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126438 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 24 | 12 | -- | 24 | 12 | -- | |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 110 | 14 | -- | 110 | 14 | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-02 | Date Collected : | 02/04/13 15:07 |
| Client ID | : DUP | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 19:59 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126440 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 16 | 12 | -- | 16 | 12 | -- | |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 43 | 14 | -- | 43 | 14 | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-03 | Date Collected : | 02/04/13 15:14 |
| Client ID | : S-157-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 20:31 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126441 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 41 | 12 | -- | 41 | 12 | -- | |
| 108-88-3 | Toluene | 2.5 | 2.0 | -- | 2.5 | 2.0 | -- | |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | 2.3 | 2.0 | -- | 2.3 | 2.0 | -- | |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 200 | 14 | -- | 200 | 14 | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | 160 | 10 | -- | 160 | 10 | -- | |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-04 | Date Collected : | 02/04/13 15:40 |
| Client ID | : S-1100 | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:03 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126442 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 18 | 12 | -- | 18 | 12 | -- | |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 44 | 14 | -- | 44 | 14 | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-05 | Date Collected : | 02/04/13 15:30 |
| Client ID | : S-171-X | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:34 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126443 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 18 | 12 | -- | 18 | 12 | -- | |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 25 | 14 | -- | 25 | 14 | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-06 | Date Collected : | 02/04/13 15:20 |
| Client ID | : NEPD | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 22:06 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126444 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | ND | 12 | -- | ND | 12. | -- | U |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | ND | 14 | -- | ND | 14. | -- | U |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589501-4 | Date Collected : | NA |
| Client ID | : WG589501-4BLANK | Date Received : | NA |
| Sample Location | : | Date Analyzed : | 02/08/13 14:12 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126429 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | ND | 12 | -- | ND | 12. | -- | U |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | ND | 14 | -- | ND | 14. | -- | U |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589501-5 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-JDUP | Date Received : | 02/06/13 |
| Sample Location | : | Date Analyzed : | 02/08/13 19:27 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 96,APH | Analyst | : RY |
| Lab File ID | : R126439 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 106-99-0 | 1,3-Butadiene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 71-43-2 | Benzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C5-C8-ALPHA-J | C5-C8 Aliphatics, Adjusted | 24. | 12 | -- | 24. | 12. | -- | |
| 108-88-3 | Toluene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 4.0 | -- | ND | 4.0 | -- | U |
| 95-47-6 | o-Xylene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| 91-20-3 | Naphthalene | ND | 2.0 | -- | ND | 2.0 | -- | U |
| C9-C12-ALPHA-J | C9-C12 Aliphatics, Adjusted | 120 | 14 | -- | 120 | 14. | -- | |
| C9-C10-ALPHA-UJ | C9-C10 Aromatics Total | ND | 10 | -- | ND | 10. | -- | U |

3B
LAB DUPLICATE
SOIL VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1302224 Matrix: Soil
Lab Sample ID : WG589501-5 Injected: 02/08/13 19:27 Lab File ID: R126439
Client Sample ID : S-149-J

| COMPOUND | SAMPLE CONCENTRATION (ug/m3) | DUP CONCENTRATION (ug/m3) | DUP % RPD | DUP RPD LIMIT |
|---|---|---|---|---|
| 1,3-Butadiene | ND | ND | NC | 30 |
| Methyl tert butyl ether | ND | ND | NC | 30 |
| Benzene | ND | ND | NC | 30 |
| C5-C8 Aliphatics, Adjust | 24 | 24 | 0 | 30 |
| Toluene | ND | ND | NC | 30 |
| Ethylbenzene | ND | ND | NC | 30 |
| p/m-Xylene | ND | ND | NC | 30 |
| o-Xylene | ND | ND | NC | 30 |
| Naphthalene | ND | ND | NC | 30 |
| C9-C12 Aliphatics, Adjus | 110 | 120 | 9 | 30 |
| C9-C10 Aromatics Total | ND | ND | NC | 30 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III APH-10

3B
LAB CONTROL SAMPLE RECOVERY
SOIL VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1302224 Matrix: Soil
Lab Control Sample: WG589501-3LCS Injected: 02/08/13 11:50 Lab File ID: R126426

| COMPOUND | SPIKE ADDED ug/m3 | SAMPLE CONC ug/m3 | LCS CONC ug/m3 | LCS % REC | LCSD CONC ug/m3 | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Butadiene | 22.1 | NA | 18 | 82 | - | - | - | | 70-130 |
| Methyl tert butyl ether | 36 | NA | 27 | 76 | - | - | - | | 70-130 |
| Benzene | 32 | NA | 28 | 88 | - | - | - | | 70-130 |
| C5-C8 Aliphatics, Adjust | 122 | NA | 110 | 94 | - | - | - | | 70-130 |
| Toluene | 37.8 | NA | 34 | 90 | - | - | - | | 70-130 |
| Ethylbenzene | 43.5 | NA | 41 | 94 | - | - | - | | 70-130 |
| m/p-xylenes | 87 | NA | 82 | 94 | - | - | - | | 70-130 |
| o-Xylene | 43.5 | NA | 42 | 96 | - | - | - | | 70-130 |
| Naphthalene | 52.2 | NA | 67 | 128 | - | - | - | | 50-150 |
| C9-C12 Aliphatics, Adjus | 174 | NA | 180 | 105 | - | - | - | | 70-130 |
| C9-C10 Aromatics Total | 465 | NA | 410 | 89 | - | - | - | | 70-130 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III APH-10

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG589501-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126429 Lab Sample ID: WG589501-4

Date Analyzed: 02/08/13 Time Analyzed: 14:12

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | WG589501-3LCS | WG589501-3 | R126426 | 02/08/13 11:50 |
| 02 | S-149-J | L1302224-01 | R126438 | 02/08/13 18:56 |
| 03 | S-149-JDUP | WG589501-5 | R126439 | 02/08/13 19:27 |
| 04 | DUP | L1302224-02 | R126440 | 02/08/13 19:59 |
| 05 | S-157-J | L1302224-03 | R126441 | 02/08/13 20:31 |
| 06 | S-1100 | L1302224-04 | R126442 | 02/08/13 21:03 |
| 07 | S-171-X | L1302224-05 | R126443 | 02/08/13 21:34 |
| 08 | NEPD | L1302224-06 | R126444 | 02/08/13 22:06 |

COMMENTS: _____

page 1 of 1

FORM IV APH-10 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R125405_tune BFB Injection Date: 12/11/12

Instrument ID: AIRPIANO1 BFB Injection Time: 08:21

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 22.8 |
| 75 | 30.0 - 60.0% of mass 95 | 44.8 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0 (0 )1 |
| 174 | Greater than 50.0 of mass 95 | 99.2 |
| 175 | 5.0 - 9.0% of mass 174 | 7.1 (7.1 )1 |
| 176 | 95.0 - 101% of mass 174 | 92.7 (93.4)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 (6.2 )2 |

1-Value is % of mass 174 2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0.4 | 0.4 | R125406 | 12/11/12 | 08:53 |
| 02 | 0.8 | 0.8 | R125407 | 12/11/12 | 09:24 |
| 03 | 2.0 | 2.0 | R125408 | 12/11/12 | 09:56 |
| 04 | 10 | 10 | R125409 | 12/11/12 | 10:28 |
| 05 | 20 | 20 | R125410 | 12/11/12 | 11:00 |
| 06 | 50 | 50 | R125411 | 12/11/12 | 11:32 |
| 07 | 80.0 | 80.0 | R125412 | 12/11/12 | 12:04 |
| 08 | 100.0 | 100.0 | R125413 | 12/11/12 | 12:35 |
| 09 | ICV Quant | ICV Quant | R125416 | 12/11/12 | 14:56 |

page 1 of 1

FORM V APH-10

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126424_tune  BFB Injection Date: 02/08/13

Instrument ID: AIRPIANO1  BFB Injection Time: 10:47

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 25.1 |
| 75 | 30.0 - 60.0% of mass 95 | 48.3 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.4 (.4 )1 |
| 174 | Greater than 50.0 of mass 95 | 101.2 |
| 175 | 5.0 - 9.0% of mass 174 | 7 (7 )1 |
| 176 | 95.0 - 101% of mass 174 | 94.2 (93.1)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6 (6.4 )2 |

1-Value is % of mass 174  2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | CCAL | WG589501-2 | R126425 | 02/08/13 | 11:19 |
| 02 | WG589501-3LCS | WG589501-3 | R126426 | 02/08/13 | 11:50 |
| 03 | WG589501-4BLANK | WG589501-4 | R126429 | 02/08/13 | 14:12 |
| 04 | S-149-J | L1302224-01 | R126438 | 02/08/13 | 18:56 |
| 05 | S-149-JDUP | WG589501-5 | R126439 | 02/08/13 | 19:27 |
| 06 | DUP | L1302224-02 | R126440 | 02/08/13 | 19:59 |
| 07 | S-157-J | L1302224-03 | R126441 | 02/08/13 | 20:31 |
| 08 | S-1100 | L1302224-04 | R126442 | 02/08/13 | 21:03 |
| 09 | S-171-X | L1302224-05 | R126443 | 02/08/13 | 21:34 |
| 10 | NEPD | L1302224-06 | R126444 | 02/08/13 | 22:06 |

page 1 of 1

FORM V APH-10

6A

# VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 08:53 12:35

Calibration Files
0.4 =R125406.D 0.8 =R125407.D 2.0 =R125408.D 10 =R125409.D 20 =R125410.D 50 =R125411.D
80 =R125412.D 100 =R125413.D

| | | Compound | 0.4 | 0.8 | 2.0 | 10 | 20 | 50 | 80 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | | | | |
| 2) | T | 1,3-butadiene | 0.462 | 0.517 | 0.506 | 0.443 | 0.629 | 0.683 | 0.512 | 0.444 | 0.5244 | 16.66 |
| 3) | | isopentane | 4.475 | 5.092 | 3.807 | 3.344 | 4.790 | 5.172 | 3.834 | 3.353 | 4.2333 | 17.62 |
| 4) | T | methyl tert butyl ether | 0.894 | 1.007 | 0.824 | 0.767 | 1.072 | 1.178 | 0.875 | 0.768 | 0.9230 | 16.14 |
| 5) | | hexane | 3.520 | 3.138 | 3.109 | 2.618 | 3.054 | 3.156 | 2.356 | 2.607 | 2.9447 | 12.96 |
| 6) | | cyclohexane | 3.612 | 3.861 | 3.021 | 2.801 | 3.934 | 4.284 | 3.194 | 2.787 | 3.4368 | 16.43 |
| 7) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 8) | | 2,3-dimethylpentane | 0.730 | 0.676 | 0.675 | 0.596 | 0.762 | 0.814 | 0.612 | 0.609 | 0.6841 | 11.56 |
| 9) | T | benzene | 0.284 | 0.265 | 0.258 | 0.231 | 0.293 | 0.315 | 0.235 | 0.236 | 0.2646 | 11.59 |
| 10) | | heptane | 0.672 | 0.649 | 0.636 | 0.575 | 0.729 | 0.777 | 0.575 | 0.576 | 0.6486 | 11.61 |
| 11) | H | C5-C8 Aliphatics Total | 0.752 | 0.684 | 0.669 | 0.594 | 0.737 | 0.778 | 0.579 | 0.594 | 0.6734 | 11.59 |
| 12) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | |
| 13) | | toluene | 1.257 | 1.196 | 1.084 | 0.984 | 1.074 | 1.257 | 0.963 | 0.978 | 1.0990 | 11.23 |
| 14) | | n-octane | 3.046 | 2.900 | 2.704 | 2.481 | 2.695 | 3.085 | 2.337 | 2.324 | 2.6966 | 11.11 |
| 15) | | 2,3-dimethylheptane | 3.325 | 3.217 | 3.025 | 2.725 | 2.915 | 3.335 | 2.489 | 2.468 | 2.9372 | 11.94 |
| 16) | T | ethyl benzene | 1.382 | 1.319 | 1.240 | 1.132 | 1.225 | 1.416 | 1.084 | 1.087 | 1.2355 | 10.46 |
| 17) | T | m+p-xylene | 1.077 | 1.027 | 0.958 | 0.888 | 0.960 | 1.147 | 0.889 | 0.900 | 0.9809 | 9.68 |
| 18) | | n-nonane | 3.257 | 3.155 | 2.989 | 2.716 | 2.951 | 3.365 | 2.501 | 2.450 | 2.9231 | 11.64 |
| 19) | T | o-xylene | 1.078 | 1.061 | 1.000 | 0.899 | 0.999 | 1.178 | 0.893 | 0.892 | 1.0002 | 10.35 |
| 20) | | decane | 3.320 | 3.338 | 3.125 | 2.862 | 3.113 | 3.497 | 2.520 | 2.473 | 3.0308 | 12.54 |
| 21) | | butylcyclohexane | 3.298 | 3.476 | 3.201 | 2.944 | 3.209 | 3.942 | 2.743 | 2.676 | 3.1860 | 12.91 |
| 22) | | n-undecane | 3.256 | 3.231 | 2.979 | 2.862 | 3.175 | 3.573 | 2.608 | 2.526 | 3.0261 | 11.66 |
| 23) | T | naphthalene | 1.183 | 1.157 | 1.147 | 1.161 | 1.307 | 1.563 | 1.206 | 1.201 | 1.2406 | 11.25 |
| 24) | | n-dodecane | 2.879 | 2.947 | 2.795 | 2.801 | 3.132 | 3.625 | 2.635 | 2.539 | 2.9193 | 11.58 |
| 25) | H | C9-C12 Aliphatics Total | 3.210 | 3.219 | 3.011 | 2.821 | 3.090 | 3.561 | 2.587 | 2.524 | 3.0029 | 11.56 |
| 27) | | C9-C10 Aromatics Total | 0.449 | 0.430 | 0.420 | 0.387 | 0.425 | 0.503 | 0.378 | 0.376 | 0.4209 | 10.16 |
| 28) | s | bromochloromethane (TIC) | 6.096 | 5.399 | 6.424 | 6.272 | 4.611 | 4.743 | 4.934 | 5.901 | 5.5474 | 13.00 |
| 29) | s | 1,4-difluorobenzene (TIC) | 9.695 | 9.718 | 9.536 | 9.519 | 8.162 | 8.788 | 9.144 | 9.340 | 9.2376 | 5.77 |
| 30) | s | chlorobenzene-D5 (TIC) | 1.207 | 1.204 | 1.186 | 1.193 | 1.186 | 1.192 | 1.149 | 1.149 | 1.1832 | 1.89 |
| 31) | s | 1,2-dichloroethane-D4 (TIC) | 3.639 | 3.666 | 3.591 | 3.478 | 3.863 | 3.509 | 3.445 | 3.551 | 3.5927 | 3.70 |
| 32) | s | toluene-D8 (TIC) | 0.927 | 0.972 | 0.945 | 0.935 | 1.030 | 1.214 | 0.952 | 0.961 | 0.9920 | 9.60 |
| 33) | s | bromofluorobenzene (TIC) | 1.167 | 1.207 | 1.158 | 1.141 | 1.275 | 1.423 | 1.143 | 1.171 | 1.2107 | 7.93 |

FORM VI-APH-10

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date: 02/08/2013 Time: 11:19

Lab File ID: R126425 Init. Calib. Date(s): 12/11/12 12/11/12

Sample No: WG589501-2,3,25 Init. Calib. Times : 08:53 12:35

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 2 | T | 1,3-butadiene | 0.524 | 0.414 | 21.0 | 88 | 0.00 |
| 3 | | isopentane | 4.233 | 3.218 | 24.0 | 90 | 0.00 |
| 4 | T | methyl tert butyl ether | 0.923 | 0.687 | 25.6 | 84 | 0.00 |
| 5 | | hexane | 2.945 | 2.472 | 16.1 | 89 | 0.00 |
| 6 | | cyclohexane | 3.437 | 2.526 | 26.5 | 85 | 0.00 |
| 7 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 8 | | 2,3-dimethylpentane | 0.684 | 0.601 | 12.1 | 88 | 0.00 |
| 9 | T | benzene | 0.265 | 0.213 | 19.6 | 80 | 0.00 |
| 10 | | heptane | 0.649 | 0.565 | 12.9 | 86 | 0.00 |
| 11 | H | C5-C8 Aliphatics Total | 0.673 | 0.593 | 11.9 | 87 | 0.00 |
| 12 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 13 | | toluene | 1.099 | 0.880 | 19.9 | 83 | 0.00 |
| 14 | | n-octane | 2.697 | 2.296 | 14.9 | 86 | 0.00 |
| 15 | | 2,3-dimethylheptane | 2.937 | 2.573 | 12.4 | 88 | 0.00 |
| 16 | T | ethyl benzene | 1.235 | 1.035 | 16.2 | 85 | 0.00 |
| 17 | T | m+p-xylene | 0.981 | 0.819 | 16.5 | 86 | 0.00 |
| 18 | | n-nonane | 2.923 | 2.558 | 12.5 | 87 | 0.00 |
| 19 | T | o-xylene | 1.000 | 0.853 | 14.7 | 88 | 0.00 |
| 20 | | decane | 3.031 | 2.830 | 6.6 | 92 | 0.00 |
| 21 | | butylcyclohexane | 3.186 | 2.873 | 9.8 | 91 | 0.00 |
| 22 | | n-undecane | 3.026 | 2.883 | 4.7 | 93 | 0.00 |
| 23 | T | naphthalene | 1.241 | 1.287 | -3.7 | 103 | 0.00 |
| 24 | | n-dodecane | 2.919 | 2.907 | 0.4 | 96 | 0.00 |
| 25 | H | C9-C12 Aliphatics Total | 3.003 | 2.792 | 7.0 | 92 | 0.00 |
| 27 | | C9-C10 Aromatics Total | 0.421 | 0.378 | 10.2 | 91 | -0.66# |
| 28 | s | bromochloromethane (TIC) | 5.547 | 6.396 | -15.3 | 95 | 0.00 |
| 29 | s | 1,4-difluorobenzene (TIC) | 9.238 | 8.906 | 3.6 | 87 | 0.00 |
| 30 | s | chlorobenzene-D5 (TIC) | 11.832 | 11.582 | 2.1 | 90 | 0.00 |
| 31 | s | 1,2-dichloroethane-D4 (TIC) | 3.593 | 3.474 | 3.3 | 93 | 0.00 |
| 32 | s | toluene-D8 (TIC) | 9.920 | 8.614 | 13.2 | 85 | 0.00 |
| 33 | s | bromofluorobenzene (TIC) | 12.107 | 10.826 | 10.6 | 88 | 0.00 |

* Evaluation of CC level amount vs concentration.

FORM VII APH-10

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID (Standard): R126425 Date Analyzed: 02/08/13

Instrument ID : AIRPIANO1 Time Analyzed: 11:19

| | | IS1(BRO) AREA | RT | IS2(1,4) AREA | RT | IS3(CBZ) AREA | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 1478420 | 10.27 | 6732125 | 12.49 | 1774225 | 16.90 |
| | UPPER LIMIT | 2956840 | 10.77 | 13464250 | 12.99 | 3548450 | 17.40 |
| | LOWER LIMIT | 739210 | 9.77 | 3366063 | 11.99 | 887113 | 16.40 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | WG589501-3LCS | 1479917 | 10.27 | 6472341 | 12.49 | 1661340 | 16.90 |
| 02 | WG589501-4BLANK | 1433934 | 10.27 | 6184714 | 12.49 | 1551973 | 16.90 |
| 03 | S-149-J | 1289883 | 10.27 | 5433272 | 12.49 | 1478355 | 16.90 |
| 04 | WG589501-5DUP | 1291976 | 10.27 | 5313509 | 12.49 | 1411361 | 16.90 |
| 05 | DUP | 1314294 | 10.27 | 5472855 | 12.49 | 1447588 | 16.90 |
| 06 | S-157-J | 1337811 | 10.27 | 5502736 | 12.49 | 1436645 | 16.90 |
| 07 | S-1100 | 1145703 | 10.27 | 5492996 | 12.49 | 1408084 | 16.90 |
| 08 | S-171-X | 1262616 | 10.27 | 5472078 | 12.49 | 1355291 | 16.90 |
| 09 | NEPD | 1319520 | 10.27 | 5626026 | 12.49 | 1447928 | 16.90 |

IS1(BRO) = BROMOCHLOROMETHANE
IS2(1,4) = 1,4-DIFLUOROBENZENE
IS3(CBZ) = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - APH-10

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-01 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 18:56 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126438 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | 0.038 | 0.020 | -- | 0.207 | 0.109 | -- | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.117 | 0.020 | -- | 0.575 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.026 | 0.020 | -- | 0.105 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | 0.035 | 0.020 | -- | 0.172 | 0.098 | -- | |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.183 | 0.100 | -- | 0.585 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | 0.021 | 0.020 | -- | 0.141 | 0.134 | -- | |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.094 | 0.020 | -- | 0.591 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.092 | 0.020 | -- | 0.449 | 0.098 | -- | |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | 1.03 | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-01 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 18:56 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126438 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.475 | 0.050 | -- | 2.35 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.067 | 0.020 | -- | 0.291 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.208 | 0.040 | -- | 0.903 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.091 | 0.020 | -- | 0.395 | 0.087 | -- | |
| 100-42-5 | Styrene | 0.083 | 0.020 | -- | 0.353 | 0.085 | -- | |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.290 | 0.050 | -- | 1.09 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.221 | 0.050 | -- | 1.24 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-02 | Date Collected : | 02/04/13 15:07 |
| Client ID | : DUP | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 19:59 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126440 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | 0.036 | 0.020 | -- | 0.196 | 0.109 | -- | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.025 | 0.020 | -- | 0.123 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.023 | 0.020 | -- | 0.093 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.161 | 0.100 | -- | 0.514 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.089 | 0.020 | -- | 0.560 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.086 | 0.020 | -- | 0.420 | 0.098 | -- | |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-02 | Date Collected : | 02/04/13 15:07 |
| Client ID | : DUP | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 19:59 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126440 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.455 | 0.050 | -- | 2.25 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.040 | 0.020 | -- | 0.174 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.106 | 0.040 | -- | 0.460 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.046 | 0.020 | -- | 0.200 | 0.087 | -- | |
| 100-42-5 | Styrene | ND | 0.020 | -- | ND | 0.085 | -- | U |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.222 | 0.050 | -- | 0.837 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.218 | 0.050 | -- | 1.23 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-03 | Date Collected : | 02/04/13 15:14 |
| Client ID | : S-157-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 20:31 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126441 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | 0.020 | 0.020 | -- | 0.109 | 0.109 | -- | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 11.1 | 0.020 | -- | 54.6 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.023 | 0.020 | -- | 0.093 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | 2.74 | 0.020 | -- | 13.5 | 0.098 | -- | |
| 106-99-0 | 1,3-Butadiene | 0.023 | 0.020 | -- | 0.051 | 0.044 | -- | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.218 | 0.100 | -- | 0.696 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.091 | 0.020 | -- | 0.572 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.059 | 0.020 | -- | 0.288 | 0.098 | -- | |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.033 | 0.020 | -- | 0.131 | 0.079 | -- | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-03 | Date Collected : | 02/04/13 15:14 |
| Client ID | : S-157-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 20:31 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126441 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.447 | 0.050 | -- | 2.21 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.222 | 0.020 | -- | 0.964 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.064 | 0.050 | -- | 0.491 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | 0.070 | 0.050 | -- | 0.367 | 0.262 | -- | |
| 179601-23-1 | p/m-Xylene | 0.738 | 0.040 | -- | 3.21 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.539 | 0.020 | -- | 2.34 | 0.087 | -- | |
| 100-42-5 | Styrene | 0.089 | 0.020 | -- | 0.379 | 0.085 | -- | |
| 127-18-4 | Tetrachloroethene | 0.027 | 0.020 | -- | 0.183 | 0.136 | -- | |
| 108-88-3 | Toluene | 0.666 | 0.050 | -- | 2.51 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.225 | 0.050 | -- | 1.26 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-04 | Date Collected : | 02/04/13 15:40 |
| Client ID | : S-1100 | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:03 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126442 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.067 | 0.020 | -- | 0.329 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.038 | 0.020 | -- | 0.154 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.090 | 0.020 | -- | 0.566 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.078 | 0.020 | -- | 0.381 | 0.098 | -- | |
| 74-87-3 | Chloromethane | 0.657 | 0.500 | -- | 1.36 | 1.03 | -- | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-04 | Date Collected : | 02/04/13 15:40 |
| Client ID | : S-1100 | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:03 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126442 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.583 | 0.050 | -- | 2.88 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.027 | 0.020 | -- | 0.117 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.082 | 0.050 | -- | 0.628 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.062 | 0.040 | -- | 0.269 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.026 | 0.020 | -- | 0.113 | 0.087 | -- | |
| 100-42-5 | Styrene | 0.024 | 0.020 | -- | 0.102 | 0.085 | -- | |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.229 | 0.050 | -- | 0.863 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.283 | 0.050 | -- | 1.59 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-05 | Date Collected : | 02/04/13 15:30 |
| Client ID | : S-171-X | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:34 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126443 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.024 | 0.020 | -- | 0.118 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.024 | 0.020 | -- | 0.097 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.090 | 0.020 | -- | 0.566 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.085 | 0.020 | -- | 0.415 | 0.098 | -- | |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-05 | Date Collected : | 02/04/13 15:30 |
| Client ID | : S-171-X | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:34 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126443 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.454 | 0.050 | -- | 2.24 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.026 | 0.020 | -- | 0.113 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.078 | 0.050 | -- | 0.598 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.066 | 0.040 | -- | 0.287 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.027 | 0.020 | -- | 0.117 | 0.087 | -- | |
| 100-42-5 | Styrene | 0.029 | 0.020 | -- | 0.123 | 0.085 | -- | |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.164 | 0.050 | -- | 0.618 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.233 | 0.050 | -- | 1.31 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-06 | Date Collected : | 02/04/13 15:20 |
| Client ID | : NEPD | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 22:06 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126444 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.152 | 0.100 | -- | 0.486 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.087 | 0.020 | -- | 0.547 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-06 | Date Collected : | 02/04/13 15:20 |
| Client ID | : NEPD | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 22:06 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126444 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.451 | 0.050 | -- | 2.23 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.020 | 0.020 | -- | ND | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.063 | 0.050 | -- | 0.483 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | 3.82 | 1.40 | -- | 13.3 | 4.86 | -- | |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.054 | 0.040 | -- | 0.235 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.022 | 0.020 | -- | 0.096 | 0.087 | -- | |
| 100-42-5 | Styrene | ND | 0.020 | -- | ND | 0.085 | -- | U |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.141 | 0.050 | -- | 0.531 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.215 | 0.050 | -- | 1.21 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589504-4 | Date Collected : | NA |
| Client ID | : WG589504-4BLANK | Date Received : | NA |
| Sample Location | : | Date Analyzed : | 02/08/13 14:12 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126429 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | ND | 0.100 | -- | ND | 0.319 | -- | U |
| 75-27-4 | Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | U |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | U |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | U |
| 74-87-3 | Chloromethane | ND | 0.500 | -- | ND | 1.03 | -- | U |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589504-4 | Date Collected : | NA |
| Client ID | : WG589504-4BLANK | Date Received : | NA |
| Sample Location | : | Date Analyzed : | 02/08/13 14:12 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126429 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | ND | 0.050 | -- | ND | 0.247 | -- | U |
| 100-41-4 | Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | U |
| 76-13-1 | Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | U |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | U |
| 95-47-6 | o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | U |
| 100-42-5 | Styrene | ND | 0.020 | -- | ND | 0.085 | -- | U |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | ND | 0.050 | -- | ND | 0.188 | -- | U |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | U |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589504-5 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-JDUP | Date Received : | 02/06/13 |
| Sample Location | : | Date Analyzed : | 02/08/13 19:27 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126439 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 71-55-6 | 1,1,1-Trichloroethane | 0.039 | 0.020 | -- | 0.213 | 0.109 | -- | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | U |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | U |
| 75-34-3 | 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | U |
| 75-35-4 | 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.124 | 0.020 | -- | 0.610 | 0.098 | -- | |
| 106-93-4 | 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | U |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 107-06-2 | 1,2-Dichloroethane | 0.027 | 0.020 | -- | 0.109 | 0.081 | -- | |
| 78-87-5 | 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 108-67-8 | 1,3,5-Trimethybenzene | 0.036 | 0.020 | -- | 0.177 | 0.098 | -- | |
| 106-99-0 | 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | U |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | U |
| 71-43-2 | Benzene | 0.187 | 0.100 | -- | 0.597 | 0.319 | -- | |
| 75-27-4 | Bromodichloromethane | 0.022 | 0.020 | -- | 0.147 | 0.134 | -- | |
| 75-25-2 | Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | U |
| 74-83-9 | Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | U |
| 56-23-5 | Carbon tetrachloride | 0.094 | 0.020 | -- | 0.591 | 0.126 | -- | |
| 108-90-7 | Chlorobenzene | ND | 0.020 | -- | ND | 0.092 | -- | U |
| 75-00-3 | Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | U |
| 67-66-3 | Chloroform | 0.093 | 0.020 | -- | 0.454 | 0.098 | -- | |
| 74-87-3 | Chloromethane | 0.501 | 0.500 | -- | 1.03 | 1.03 | -- | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 124-48-1 | Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589504-5 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-JDUP | Date Received : | 02/06/13 |
| Sample Location | : | Date Analyzed : | 02/08/13 19:27 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO15-SIM | Analyst | : RY |
| Lab File ID | : R126439 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 75-71-8 | Dichlorodifluoromethane | 0.452 | 0.050 | -- | 2.24 | 0.247 | -- | |
| 100-41-4 | Ethylbenzene | 0.071 | 0.020 | -- | 0.308 | 0.087 | -- | |
| 76-13-1 | Freon-113 | 0.065 | 0.050 | -- | 0.498 | 0.383 | -- | |
| 76-14-2 | Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | U |
| 87-68-3 | Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | U |
| 75-09-2 | Methylene chloride | ND | 1.40 | -- | ND | 4.86 | -- | U |
| 1634-04-4 | Methyl tert butyl ether | ND | 0.020 | -- | ND | 0.072 | -- | U |
| 91-20-3 | Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | U |
| 179601-23-1 | p/m-Xylene | 0.221 | 0.040 | -- | 0.960 | 0.174 | -- | |
| 95-47-6 | o-Xylene | 0.097 | 0.020 | -- | 0.421 | 0.087 | -- | |
| 100-42-5 | Styrene | 0.088 | 0.020 | -- | 0.375 | 0.085 | -- | |
| 127-18-4 | Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | U |
| 108-88-3 | Toluene | 0.306 | 0.050 | -- | 1.15 | 0.188 | -- | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | U |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | U |
| 79-01-6 | Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | U |
| 75-69-4 | Trichlorofluoromethane | 0.224 | 0.050 | -- | 1.26 | 0.281 | -- | |
| 75-01-4 | Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | U |

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1302224 Matrix: Air
Lab Sample ID : WG589504-5 Injected: 02/08/13 19:27 Lab File ID: R126439
Client Sample ID : S-149-J

| COMPOUND | SAMPLE CONCENTRATION (ppbV ) | DUP CONCENTRATION (ppbV ) | DUP % RPD | DUP RPD LIMIT |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.038 | 0.039 | 3 | 25 |
| 1,1,1,2-Tetrachloroethan | ND | ND | NC | 25 |
| 1,1,2,2-Tetrachloroethan | ND | ND | NC | 25 |
| 1,1,2-Trichloroethane | ND | ND | NC | 25 |
| 1,1-Dichloroethane | ND | ND | NC | 25 |
| 1,1-Dichloroethene | ND | ND | NC | 25 |
| 1,2,4-Trichlorobenzene | ND | ND | NC | 25 |
| 1,2,4-Trimethylbenzene | 0.117 | 0.124 | 6 | 25 |
| 1,2-Dibromoethane | ND | ND | NC | 25 |
| 1,2-Dichlorobenzene | ND | ND | NC | 25 |
| 1,2-Dichloroethane | 0.026 | 0.027 | 4 | 25 |
| 1,2-Dichloropropane | ND | ND | NC | 25 |
| 1,3,5-Trimethybenzene | 0.035 | 0.036 | 3 | 25 |
| 1,3-Butadiene | ND | ND | NC | 25 |
| 1,3-Dichlorobenzene | ND | ND | NC | 25 |
| 1,4-Dichlorobenzene | ND | ND | NC | 25 |
| Benzene | 0.183 | 0.187 | 2 | 25 |
| Bromodichloromethane | 0.021 | 0.022 | 5 | 25 |
| Bromoform | ND | ND | NC | 25 |
| Bromomethane | ND | ND | NC | 25 |
| Carbon tetrachloride | 0.094 | 0.094 | 0 | 25 |
| Chlorobenzene | ND | ND | NC | 25 |
| Chloroethane | ND | ND | NC | 25 |
| Chloroform | 0.092 | 0.093 | 1 | 25 |
| Chloromethane | ND | 0.501 | NC | 25 |
| cis-1,2-Dichloroethene | ND | ND | NC | 25 |
| cis-1,3-Dichloropropene | ND | ND | NC | 25 |
| Dibromochloromethane | ND | ND | NC | 25 |
| Dichlorodifluoromethane | 0.475 | 0.452 | 5 | 25 |
| Ethylbenzene | 0.067 | 0.071 | 6 | 25 |
| Freon-113 | 0.064 | 0.065 | 2 | 25 |
| Freon-114 | ND | ND | NC | 25 |
| Hexachlorobutadiene | ND | ND | NC | 25 |
| Methylene chloride | ND | ND | NC | 25 |
| Methyl tert butyl ether | ND | ND | NC | 25 |
| Naphthalene | ND | ND | NC | 25 |
| p/m-Xylene | 0.208 | 0.221 | 6 | 25 |
| o-Xylene | 0.091 | 0.097 | 6 | 25 |
| Styrene | 0.083 | 0.088 | 6 | 25 |
| Tetrachloroethene | ND | ND | NC | 25 |

* Values outside of QC limits.

COMMENTS: _____

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FORM III MCP-TO15-SIM

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1302224 Matrix: Air
Lab Sample ID : WG589504-5 Injected: 02/08/13 19:27 Lab File ID: R126439
Client Sample ID : S-149-J

| COMPOUND | SAMPLE CONCENTRATION (ppbV ) | DUP CONCENTRATION (ppbV ) | DUP % RPD | DUP RPD LIMIT |
|---|---|---|---|---|
| Toluene | 0.290 | 0.306 | 5 | 25 |
| trans-1,2-Dichloroethene | ND | ND | NC | 25 |
| trans-1,3-Dichloropropen | ND | ND | NC | 25 |
| Trichloroethene | ND | ND | NC | 25 |
| Trichlorofluoromethane | 0.221 | 0.224 | 1 | 25 |
| Vinyl chloride | ND | ND | NC | 25 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III MCP-TO15-SIM

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1302224 Matrix: Air

Lab Control Sample: WG589504-3LCS Injected: 02/08/13 12:22 Lab File ID: R126427

| COMPOUND | SPIKE ADDED ppbV | SAMPLE CONC ppbV | LCS CONC ppbV | LCS % REC | LCSD CONC ppbV | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5 | NA | 5.32 | 106 | - | - | - | | 70-130 |
| 1,1,2,2-Tetrachloroethan | 5 | NA | 5.06 | 101 | - | - | - | | 70-130 |
| 1,1,2-Trichloroethane | 5 | NA | 4.97 | 99 | - | - | - | | 70-130 |
| 1,1-Dichloroethane | 5 | NA | 4.17 | 83 | - | - | - | | 70-130 |
| 1,1-Dichloroethene | 5 | NA | 4.28 | 86 | - | - | - | | 70-130 |
| 1,2,4-Trichlorobenzene | 5 | NA | 6.05 | 121 | - | - | - | | 50-150 |
| 1,2,4-Trimethylbenzene | 5 | NA | 5.42 | 108 | - | - | - | | 70-130 |
| 1,2-Dibromoethane | 5 | NA | 5.12 | 102 | - | - | - | | 70-130 |
| 1,2-Dichlorobenzene | 5 | NA | 5.59 | 112 | - | - | - | | 70-130 |
| 1,2-Dichloroethane | 5 | NA | 4.58 | 92 | - | - | - | | 70-130 |
| 1,2-Dichloropropane | 5 | NA | 4.59 | 92 | - | - | - | | 70-130 |
| 1,3,5-Trimethybenzene | 5 | NA | 5.17 | 103 | - | - | - | | 70-130 |
| 1,3-Butadiene | 5 | NA | 4.35 | 87 | - | - | - | | 70-130 |
| 1,3-Dichlorobenzene | 5 | NA | 5.54 | 111 | - | - | - | | 70-130 |
| 1,4-Dichlorobenzene | 5 | NA | 5.48 | 110 | - | - | - | | 70-130 |
| 1,4-Dioxane | 5 | NA | 4.32 | 86 | - | - | - | | 50-150 |
| Acetone | 25 | NA | 21.8 | 87 | - | - | - | | 50-150 |
| Benzene | 5 | NA | 4.37 | 87 | - | - | - | | 70-130 |
| Bromodichloromethane | 5 | NA | 4.98 | 100 | - | - | - | | 70-130 |
| Bromoform | 5 | NA | 4.83 | 97 | - | - | - | | 70-130 |
| Bromomethane | 5 | NA | 4.15 | 83 | - | - | - | | 70-130 |
| Carbon tetrachloride | 5 | NA | 5.44 | 109 | - | - | - | | 70-130 |
| Chlorobenzene | 5 | NA | 5.11 | 102 | - | - | - | | 70-130 |
| Chloroethane | 5 | NA | 3.89 | 78 | - | - | - | | 70-130 |
| Chloroform | 5 | NA | 4.81 | 96 | - | - | - | | 70-130 |
| Chloromethane | 5 | NA | 4.13 | 83 | - | - | - | | 70-130 |
| cis-1,2-Dichloroethene | 5 | NA | 4.46 | 89 | - | - | - | | 70-130 |
| cis-1,3-Dichloropropene | 5 | NA | 4.80 | 96 | - | - | - | | 70-130 |
| Dibromochloromethane | 5 | NA | 5.17 | 103 | - | - | - | | 70-130 |
| Dichlorodifluoromethane | 5 | NA | 4.73 | 95 | - | - | - | | 70-130 |
| Ethylbenzene | 5 | NA | 4.88 | 98 | - | - | - | | 70-130 |
| Freon-113 | 5 | NA | 4.46 | 89 | - | - | - | | 70-130 |
| Freon-114 | 5 | NA | 4.30 | 86 | - | - | - | | 70-130 |
| Hexachlorobutadiene | 5 | NA | 5.96 | 119 | - | - | - | | 50-150 |
| 2-Butanone | 5 | NA | 3.63 | 73 | - | - | - | | 70-130 |
| 4-Methyl-2-pentanone | 5 | NA | 4.61 | 92 | - | - | - | | 70-130 |
| Methylene chloride | 5 | NA | 4.26 | 85 | - | - | - | | 70-130 |
| Methyl tert butyl ether | 5 | NA | 4.06 | 81 | - | - | - | | 70-130 |
| Naphthalene | 5 | NA | 5.16 | 103 | - | - | - | | 50-150 |
| p/m-Xylene | 10 | NA | 9.86 | 99 | - | - | - | | 70-130 |

* Values outside of QC limits.

COMMENTS: _____

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FORM III MCP-TO15-SIM

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1302224 Matrix: Air

Lab Control Sample: WG589504-3LCS Injected: 02/08/13 12:22 Lab File ID: R126427

| COMPOUND | SPIKE ADDED ppbV | SAMPLE CONC ppbV | LCS CONC ppbV | LCS % REC | LCSD CONC ppbV | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | 5 | NA | 5.09 | 102 | - | - | - | | 70-130 |
| Styrene | 5 | NA | 5.00 | 100 | - | - | - | | 70-130 |
| Tetrachloroethene | 5 | NA | 5.10 | 102 | - | - | - | | 70-130 |
| Toluene | 5 | NA | 4.56 | 91 | - | - | - | | 70-130 |
| trans-1,2-Dichloroethene | 5 | NA | 3.81 | 76 | - | - | - | | 70-130 |
| trans-1,3-Dichloropropen | 5 | NA | 4.21 | 84 | - | - | - | | 70-130 |
| Trichloroethene | 5 | NA | 5.07 | 101 | - | - | - | | 70-130 |
| Trichlorofluoromethane | 5 | NA | 4.86 | 97 | - | - | - | | 70-130 |
| Vinyl chloride | 5 | NA | 4.07 | 81 | - | - | - | | 70-130 |
| Halothane | 5 | NA | 3.85 | 77 | - | - | - | | 70-130 |
| 1,2,3-Trichlorobenzene | 5 | NA | 5.94 | 119 | - | - | - | | 70-130 |

* Values outside of QC limits.

COMMENTS: _____

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FORM III MCP-TO15-SIM

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG589504-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126429 Lab Sample ID: WG589504-4

Date Analyzed: 02/08/13 Time Analyzed: 14:12

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | WG589504-3LCS | WG589504-3 | R126427 | 02/08/13 12:22 |
| 02 | S-149-J | L1302224-01 | R126438 | 02/08/13 18:56 |
| 03 | S-149-JDUP | WG589504-5 | R126439 | 02/08/13 19:27 |
| 04 | DUP | L1302224-02 | R126440 | 02/08/13 19:59 |
| 05 | S-157-J | L1302224-03 | R126441 | 02/08/13 20:31 |
| 06 | S-1100 | L1302224-04 | R126442 | 02/08/13 21:03 |
| 07 | S-171-X | L1302224-05 | R126443 | 02/08/13 21:34 |
| 08 | NEPD | L1302224-06 | R126444 | 02/08/13 22:06 |

COMMENTS: _____

page 1 of 1

FORM IV MCP-TO15-SIM LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R125416_tune  BFB Injection Date: 12/11/12

Instrument ID: AIRPIANO1  BFB Injection Time: 16:25

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 24.9 |
| 75 | 30.0 - 66.0% of mass 95 | 46.2 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0 (0 )1 |
| 174 | 50.0 - 120.0% of mass 95 | 91.9 |
| 175 | 4.0 - 9.0% of mass 174 | 6.9 (7.5 )1 |
| 176 | 93.0 - 101% of mass 174 | 88 (95.7)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.7 (6.4 )2 |

1-Value is % of mass 174  2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0.02 | 0.02 | R125417 | 12/11/12 | 16:57 |
| 02 | 0.04 | 0.04 | R125418 | 12/11/12 | 17:29 |
| 03 | 0.1 | 0.1 | R125419 | 12/11/12 | 18:01 |
| 04 | 0.2 | 0.2 | R125420 | 12/11/12 | 18:33 |
| 05 | 0.5 | 0.5 | R125421 | 12/11/12 | 19:04 |
| 06 | 1.0 | 1.0 | R125422 | 12/11/12 | 19:36 |
| 07 | 2.5 | 2.5 | R125423 | 12/11/12 | 20:08 |
| 08 | 5.0 | 5.0 | R125424 | 12/11/12 | 20:40 |
| 09 | 10.0 | 10.0 | R125425 | 12/11/12 | 21:12 |
| 10 | 20.0 | 20.0 | R125426 | 12/11/12 | 21:43 |
| 11 | 50.0 | 50.0 | R125427 | 12/11/12 | 22:15 |
| 12 | ICV QUANT REPORT | ICV QUANT REPO | R125432 | 12/12/12 | 11:44 |

page 1 of 1

FORM V MCP-TO15-SIM

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126424_tune  BFB Injection Date: 02/08/13

Instrument ID: AIRPIANO1  BFB Injection Time: 10:47

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 25.1 |
| 75 | 30.0 - 66.0% of mass 95 | 48.3 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.9 |
| 173 | Less than 2.0% of mass 174 | 0.4 (.4 )1 |
| 174 | 50.0 - 120.0% of mass 95 | 101.2 |
| 175 | 4.0 - 9.0% of mass 174 | 7 (7 )1 |
| 176 | 93.0 - 101% of mass 174 | 94.2 (93.1)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6 (6.4 )2 |

1-Value is % of mass 174  2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | CCAL | WG589504-2 | R126427 | 02/08/13 | 12:22 |
| 02 | WG589504-3LCS | WG589504-3 | R126427 | 02/08/13 | 12:22 |
| 03 | WG589504-4BLANK | WG589504-4 | R126429 | 02/08/13 | 14:12 |
| 04 | S-149-J | L1302224-01 | R126438 | 02/08/13 | 18:56 |
| 05 | S-149-JDUP | WG589504-5 | R126439 | 02/08/13 | 19:27 |
| 06 | DUP | L1302224-02 | R126440 | 02/08/13 | 19:59 |
| 07 | S-157-J | L1302224-03 | R126441 | 02/08/13 | 20:31 |
| 08 | S-1100 | L1302224-04 | R126442 | 02/08/13 | 21:03 |
| 09 | S-171-X | L1302224-05 | R126443 | 02/08/13 | 21:34 |
| 10 | NEPD | L1302224-06 | R126444 | 02/08/13 | 22:06 |

page 1 of 1

FORM V MCP-TO15-SIM

6A

# VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 16:57 22:15

Calibration Files

0.02=R125417.D 0.04=R125418.D 0.1 =R125419.D 0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D

2.5 =R125423.D 5.0 =R125424.D 10.0=R125425.D 20.0=R125426.D 50.0=R125427.D

| | | Compound | 0.02 | 0.04 | 0.1 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | | | | | | | |
| 2) | | propylene | 0.873 | 0.783 | 0.605 | 0.683 | 0.592 | 0.687 | 0.557 | 0.533 | 0.525 | 0.502 | 0.589 | 0.6300 | 18.38 |
| 3) | | dichlorodifluoromethane | 1.779 | 1.663 | 1.407 | 1.579 | 1.426 | 1.645 | 1.383 | 1.292 | 1.318 | 1.248 | 1.462 | 1.4730 | 11.62 |
| 4) | C | chloromethane | | 1.077 | 0.747 | 0.803 | 0.683 | 0.775 | 0.645 | 0.614 | 0.612 | 0.582 | 0.677 | 0.7216 | 20.06 |
| 5) | | Freon-114 | 1.886 | 1.781 | 1.547 | 1.788 | 1.579 | 1.850 | 1.520 | 1.464 | 1.460 | 1.384 | 1.602 | 1.6237 | 10.69 |
| 6) | C | vinyl chloride | 0.752 | 0.706 | 0.614 | 0.707 | 0.621 | 0.730 | 0.604 | 0.580 | 0.580 | 0.554 | 0.651 | 0.6454 | 10.55 |
| 7) | C | 1,3-butadiene | 0.555 | 0.541 | 0.492 | 0.547 | 0.490 | 0.569 | 0.472 | 0.454 | 0.453 | 0.432 | 0.510 | 0.5014 | 9.28 |
| 8) | C | bromomethane | 0.701 | 0.654 | 0.563 | 0.635 | 0.572 | 0.661 | 0.548 | 0.526 | 0.528 | 0.504 | 0.595 | 0.5898 | 10.94 |
| 9) | C | chloroethane | 0.375 | 0.329 | 0.277 | 0.321 | 0.280 | 0.327 | 0.268 | 0.260 | 0.260 | 0.248 | 0.293 | 0.2943 | 13.28 |
| 10) | | ethanol | | | 0.541 | 0.619 | 0.539 | 0.635 | 0.527 | 0.509 | 0.484 | 0.449 | 0.502 | 0.5339 | 11.24 |
| 11) | C | vinyl bromide | 0.654 | 0.617 | 0.565 | 0.640 | 0.568 | 0.659 | 0.546 | 0.530 | 0.531 | 0.508 | 0.603 | 0.5836 | 9.18 |
| 12) | | acetone | | | 1.392 | 1.544 | 1.235 | 1.430 | 1.139 | 1.095 | 1.068 | 1.000 | 1.129 | 1.2258 | 15.28 |
| 13) | | trichlorofluoromethane | 1.972 | 1.883 | 1.652 | 1.927 | 1.717 | 2.000 | 1.657 | 1.591 | 1.594 | 1.523 | 1.795 | 1.7555 | 9.58 |
| 14) | | isopropyl alcohol | | | | | 1.813 | 2.072 | 1.518 | 1.458 | 1.448 | 1.378 | 1.614 | 1.6143 | 15.31 |
| 15) | C | acrylonitrile | 0.803 | 0.651 | 0.553 | 0.630 | 0.555 | 0.656 | 0.554 | 0.532 | 0.536 | 0.515 | 0.609 | 0.5994 | 14.00 |
| 16) | C | 1,1-dichloroethene | 1.217 | 1.170 | 1.026 | 1.191 | 1.063 | 1.240 | 1.031 | 0.984 | 0.991 | 0.947 | 1.110 | 1.0882 | 9.43 |
| 17) | C | methylene chloride | | | | | 1.114 | 1.199 | 0.938 | 0.890 | 0.878 | 0.833 | 0.967 | 0.9741 | 13.75 |
| 18) | C | 3-chloropropene | 1.154 | 1.059 | 0.910 | 1.074 | 0.945 | 1.105 | 0.911 | 0.886 | 0.879 | 0.843 | 0.985 | 0.9775 | 10.71 |
| 19) | C | carbon disulfide | | | 2.007 | 2.099 | 1.725 | 1.967 | 1.609 | 1.551 | 1.559 | 1.488 | 1.750 | 1.7506 | 12.78 |
| 20) | | Freon 113 | 1.349 | 1.300 | 1.154 | 1.332 | 1.191 | 1.392 | 1.152 | 1.110 | 1.115 | 1.067 | 1.256 | 1.2198 | 9.07 |
| 21) | | Halothane | 1.005 | 0.993 | 0.883 | 1.014 | 0.897 | 1.059 | 0.886 | 0.859 | 0.846 | 0.811 | 0.976 | 0.9300 | 8.78 |
| 22) | | trans-1,2-dichloroethene | 1.085 | 1.101 | 0.971 | 1.138 | 1.022 | 1.192 | 0.995 | 0.960 | 0.955 | 0.983 | 1.072 | 1.0430 | 7.63 |
| 23) | C | 1,1-dichloroethane | 1.283 | 1.298 | 1.142 | 1.327 | 1.180 | 1.376 | 1.145 | 1.107 | 1.105 | 1.147 | 1.230 | 1.2127 | 7.82 |
| 24) | C | MTBE | 1.619 | 1.527 | 1.350 | 1.586 | 1.396 | 1.633 | 1.357 | 1.308 | 1.301 | 1.362 | 1.461 | 1.4453 | 8.70 |
| 25) | C | vinyl acetate | 2.497 | 2.261 | 1.868 | 2.172 | 1.907 | 2.238 | 1.860 | 1.807 | 1.816 | 1.958 | 2.020 | 2.0368 | 11.04 |
| 26) | C | 2-butanone | 2.284 | 2.054 | 1.614 | 1.851 | 1.605 | 1.875 | 1.771 | 1.491 | 1.486 | 1.626 | 1.628 | 1.7531 | 14.09 |
| 27) | | cis-1,2-dichloroethene | 0.989 | 0.945 | 0.839 | 0.995 | 0.936 | 1.037 | 0.982 | 0.955 | 0.836 | 0.913 | 0.930 | 0.9415 | 6.60 |
| 28) | | Ethyl Acetate | 0.269 | 0.250 | 0.226 | 0.231 | 0.242 | 0.240 | 0.232 | 0.227 | 0.229 | 0.218 | 0.215 | 0.2345 | 6.49 |
| 29) | C | chloroform | 1.299 | 1.404 | 1.255 | 1.443 | 1.312 | 1.320 | 1.274 | 1.231 | 1.231 | 1.177 | 1.168 | 1.2830 | 6.68 |
| 30) | | Tetrahydrofuran | 0.813 | 1.149 | 1.042 | 1.123 | 0.998 | 0.844 | 0.983 | 0.947 | 0.939 | 0.890 | 1.044 | 0.9793 | 10.94 |
| 31) | C | 1,2-dichloroethane | 1.054 | 1.177 | 0.967 | 1.130 | 0.979 | 0.928 | 0.950 | 0.917 | 0.920 | 0.878 | 1.025 | 0.9932 | 9.49 |
| 32) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | | | | |
| 33) | C | hexane | 0.442 | 0.511 | 0.524 | 0.415 | 0.534 | 0.431 | 0.512 | 0.497 | 0.501 | 0.481 | 0.384 | 0.4757 | 10.45 |
| 34) | s | 1,2-dichloroethane-D4 | 0.261 | 0.322 | 0.323 | 0.321 | 0.324 | 0.259 | 0.323 | 0.322 | 0.324 | 0.325 | 0.328 | 0.3119 | 8.28 |
| 35) | C | 1,1,1-trichloroethane | 0.547 | 0.533 | 0.576 | 0.563 | 0.607 | 0.581 | 0.593 | 0.581 | 0.579 | 0.559 | 0.570 | 0.5716 | 3.59 |
| 36) | C | benzene | | 0.838 | 0.858 | 0.803 | 0.868 | 0.824 | 0.831 | 0.806 | 0.813 | 0.786 | 0.793 | 0.8219 | 3.29 |
| 37) | C | carbon tetrachloride | 0.574 | 0.552 | 0.597 | 0.575 | 0.627 | 0.597 | 0.619 | 0.605 | 0.614 | 0.601 | 0.609 | 0.5972 | 3.72 |
| 38) | | cyclohexane | 0.570 | 0.506 | 0.540 | 0.510 | 0.551 | 0.531 | 0.533 | 0.515 | 0.520 | 0.499 | 0.507 | 0.5257 | 4.13 |
| 39) | C | 1,2-dichloropropane | 0.377 | 0.351 | 0.381 | 0.365 | 0.394 | 0.376 | 0.381 | 0.369 | 0.374 | 0.360 | 0.364 | 0.3720 | 3.19 |
| 40) | | bromodichloromethane | 0.625 | 0.589 | 0.639 | 0.619 | 0.670 | 0.649 | 0.658 | 0.655 | 0.654 | 0.649 | 0.657 | 0.6421 | 3.59 |
| 41) | C | 1,4-dioxane | 0.207 | 0.173 | 0.185 | 0.179 | 0.191 | 0.183 | 0.185 | 0.181 | 0.185 | 0.180 | 0.185 | 0.1848 | 4.66 |
| 42) | C | trichloroethene | 0.391 | 0.371 | 0.406 | 0.392 | 0.422 | 0.403 | 0.414 | 0.403 | 0.402 | 0.394 | 0.401 | 0.3999 | 3.29 |
| 43) | C | 2,2,4-trimethylpentane | 1.663 | 1.590 | 1.699 | 1.640 | 1.780 | 1.713 | 1.720 | 1.664 | 1.655 | 1.600 | 1.578 | 1.6638 | 3.70 |

6A

# VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 16:57 22:15

| | | Compound | 0.02 | 0.04 | 0.1 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10.0 | 20.0 | 50.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44) | | heptane | 0.775 | 0.737 | 0.733 | 0.696 | 0.753 | 0.714 | 0.725 | 0.703 | 0.707 | 0.675 | 0.676 | 0.7177 | 4.31 |
| 45) | C | cis-1,3-dichloropropene | 0.434 | 0.412 | 0.454 | 0.439 | 0.479 | 0.461 | 0.473 | 0.463 | 0.474 | 0.462 | 0.470 | 0.4565 | 4.47 |
| 46) | C | 4-methyl-2-pentanone | 1.017 | 0.897 | 0.972 | 0.943 | 1.034 | 1.011 | 1.023 | 1.002 | 1.006 | 0.969 | 0.963 | 0.9852 | 4.16 |
| 47) | | trans-1,3-dichloropropene | 0.435 | 0.405 | 0.449 | 0.434 | 0.480 | 0.466 | 0.479 | 0.473 | 0.485 | 0.475 | 0.487 | 0.4608 | 5.72 |
| 48) | C | 1,1,2-trichloroethane | 0.357 | 0.329 | 0.361 | 0.353 | 0.380 | 0.367 | 0.373 | 0.360 | 0.366 | 0.357 | 0.361 | 0.3603 | 3.58 |
| 49) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | | | | |
| 50) | C | toluene | | 4.123 | 4.133 | 3.985 | 4.334 | 4.129 | 4.123 | 4.013 | 4.001 | 3.852 | 3.824 | 4.0516 | 3.71 |
| 51) | s | toluene-D8 | 2.966 | 2.968 | 2.952 | 2.956 | 2.964 | 2.910 | 2.940 | 2.941 | 2.964 | 2.941 | 2.969 | 2.9518 | 0.60 |
| 52) | | 2-hexanone | 3.139 | 2.996 | 3.515 | 3.446 | 3.730 | 3.754 | 3.857 | 3.842 | 3.876 | 3.684 | 3.574 | 3.5831 | 8.16 |
| 53) | | dibromochloromethane | 2.536 | 2.438 | 2.682 | 2.593 | 2.865 | 2.768 | 2.904 | 2.899 | 2.946 | 2.886 | 3.007 | 2.7748 | 6.72 |
| 54) | C | 1,2-dibromoethane | 2.318 | 2.185 | 2.399 | 2.338 | 2.568 | 2.484 | 2.536 | 2.478 | 2.493 | 2.412 | 2.446 | 2.4233 | 4.55 |
| 55) | C | tetrachloroethene | 1.907 | 1.846 | 1.985 | 1.920 | 2.096 | 2.005 | 2.040 | 1.998 | 2.014 | 1.954 | 2.019 | 1.9804 | 3.51 |
| 56) | | 1,1,1,2-tetrachloroethane | 2.223 | 1.957 | 1.993 | 1.921 | 2.093 | 2.001 | 2.103 | 2.072 | 2.088 | 2.033 | 2.049 | 2.0483 | 4.02 |
| 57) | C | chlorobenzene | 3.407 | 3.193 | 3.402 | 3.262 | 3.582 | 3.425 | 3.485 | 3.423 | 3.442 | 3.319 | 3.324 | 3.3875 | 3.18 |
| 58) | C | ethylbenzene | 5.399 | 4.958 | 5.208 | 4.991 | 5.506 | 5.248 | 5.364 | 5.248 | 5.269 | 5.055 | 5.009 | 5.2048 | 3.49 |
| 59) | C | m+p-xylene | 4.156 | 3.832 | 4.015 | 3.891 | 4.303 | 4.108 | 4.225 | 4.123 | 4.147 | 3.982 | 3.893 | 4.0614 | 3.70 |
| 60) | C | bromoform | 3.400 | 2.622 | 2.633 | 2.452 | 2.712 | 2.606 | 2.808 | 2.826 | 2.929 | 2.932 | 3.075 | 2.8178 | 9.34 |
| 61) | C | styrene | 2.904 | 2.671 | 3.126 | 3.072 | 3.255 | 3.163 | 3.274 | 3.238 | 3.279 | 3.166 | 3.175 | 3.1203 | 5.90 |
| 62) | C | 1,1,2,2-tetrachloroethane | 3.113 | 3.044 | 3.305 | 3.203 | 3.576 | 3.456 | 3.568 | 3.501 | 3.540 | 3.395 | 3.312 | 3.3647 | 5.51 |
| 63) | C | o-xylene | 4.239 | 3.947 | 4.223 | 4.071 | 4.422 | 4.243 | 4.347 | 4.251 | 4.278 | 4.102 | 3.927 | 4.1864 | 3.75 |
| 64) | s | bromofluorobenzene | 2.280 | 2.281 | 2.284 | 2.278 | 2.289 | 2.241 | 2.274 | 2.286 | 2.321 | 2.289 | 2.337 | 2.2874 | 1.09 |
| 65) | C | isopropylbenzene | 5.912 | 5.587 | 5.898 | 5.790 | 6.338 | 6.070 | 6.338 | 6.173 | 6.149 | 5.849 | 5.686 | 5.9809 | 4.22 |
| 66) | | 4-ethyl toluene | 5.501 | 5.228 | 5.702 | 5.788 | 6.458 | 6.169 | 6.437 | 6.324 | 6.308 | 6.061 | 5.836 | 5.9829 | 6.76 |
| 67) | | 1,3,5-trimethylbenzene | 5.143 | 4.547 | 4.994 | 4.798 | 5.258 | 4.986 | 5.168 | 5.051 | 5.113 | 4.888 | 4.813 | 4.9781 | 4.11 |
| 68) | | tert-butylbenzene | 5.323 | 4.981 | 5.327 | 5.261 | 5.892 | 5.667 | 5.948 | 5.836 | 5.813 | 5.465 | 5.041 | 5.5050 | 6.27 |
| 69) | | 1,2,4-trimethylbenzene | 4.839 | 4.446 | 4.672 | 4.637 | 5.181 | 5.009 | 5.178 | 5.108 | 5.177 | 4.873 | 4.559 | 4.8799 | 5.54 |
| 70) | C | Benzyl Chloride | 3.726 | 3.164 | 3.452 | 3.424 | 4.069 | 4.028 | 4.423 | 4.540 | 4.739 | 4.686 | 4.654 | 4.0820 | 13.97 |
| 71) | | 1,3-dichlorobenzene | 3.492 | 3.187 | 3.424 | 3.454 | 3.887 | 3.770 | 3.923 | 3.875 | 3.959 | 3.826 | 3.843 | 3.6946 | 6.99 |
| 72) | C | 1,4-dichlorobenzene | 3.842 | 3.320 | 3.561 | 3.506 | 4.022 | 3.850 | 3.995 | 3.951 | 4.016 | 3.919 | 3.915 | 3.8090 | 6.22 |
| 73) | | sec-butylbenzene | 7.009 | 6.767 | 7.233 | 7.199 | 8.127 | 7.770 | 8.239 | 8.074 | 7.944 | 7.628 | 7.162 | 7.5592 | 6.71 |
| 74) | | p-isopropyltoluene | 7.038 | 6.161 | 6.935 | 6.536 | 7.431 | 7.108 | 7.410 | 7.349 | 7.258 | 6.902 | 6.504 | 6.9666 | 5.96 |
| 75) | | 1,2-dichlorobenzene | 3.529 | 3.152 | 3.286 | 3.269 | 3.752 | 3.614 | 3.753 | 3.714 | 3.775 | 3.665 | 3.706 | 3.5649 | 6.31 |
| 76) | | n-butylbenzene | 5.620 | 5.363 | 5.679 | 5.730 | 6.625 | 6.494 | 6.909 | 6.870 | 6.738 | 6.437 | 6.155 | 6.2383 | 8.90 |
| 77) | C | 1,2,4-trichlorobenzene | 2.933 | 2.134 | 2.271 | 2.329 | 2.945 | 2.949 | 2.971 | 3.231 | 3.368 | 3.301 | 3.165 | 2.8723 | 15.05 |
| 78) | | naphthalene | | 8.724 | 9.694 | 8.353 | 8.218 | 7.817 | 7.511 | 8.062 | 8.300 | 8.080 | 7.938 | 8.2696 | 7.23 |
| 79) | | 1,2,3-trichlorobenzene | 2.887 | 2.191 | 2.295 | 2.369 | 3.053 | 3.036 | 2.866 | 3.142 | 3.428 | 3.393 | 3.423 | 2.9166 | 15.50 |
| 80) | C | hexachlorobutadiene | 2.026 | 1.834 | 1.898 | 1.913 | 2.356 | 2.271 | 2.289 | 2.439 | 2.542 | 2.499 | 2.509 | 2.2341 | 12.03 |

FORM VI-MCP-TO15-SIM

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date: 02/08/2013 Time: 12:22

Lab File ID: R126427 Init. Calib. Date(s): 12/11/12 12/11/12

Sample No: WG589504-2,3,25 Init. Calib. Times : 16:57 22:15

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 89 | 0.00 |
| 3 | | dichlorodifluoromethane | 1.473 | 1.392 | 5.5 | 96 | 0.00 |
| 4 | C | chloromethane | 0.722 | 0.596 | 17.5 | 86 | 0.00 |
| 5 | | Freon-114 | 1.624 | 1.397 | 14.0 | 85 | 0.00 |
| 6 | C | vinyl chloride | 0.645 | 0.526 | 18.4 | 81 | 0.00 |
| 7 | C | 1,3-butadiene | 0.501 | 0.436 | 13.0 | 86 | 0.00 |
| 8 | C | bromomethane | 0.590 | 0.489 | 17.1 | 83 | 0.00 |
| 9 | C | chloroethane | 0.294 | 0.229 | 22.1 | 78 | 0.00 |
| 12 | | acetone | 1.226 | 1.071 | 12.6 | 87 | 0.00 |
| 13 | | trichlorofluoromethane | 1.755 | 1.706 | 2.8 | 96 | 0.00 |
| 15 | C | acrylonitrile | 0.599 | 0.456 | 23.9 | 76 | 0.00 |
| 16 | C | 1,1-dichloroethene | 1.088 | 0.932 | 14.3 | 84 | 0.00 |
| 17 | C | methylene chloride | 0.974 | 0.830 | 14.8 | 83 | 0.00 |
| 20 | | Freon 113 | 1.220 | 1.088 | 10.8 | 87 | 0.00 |
| 21 | | Halothane | 0.930 | 0.717 | 22.9 | 74 | 0.00 |
| 22 | | trans-1,2-dichloroethene | 1.043 | 0.795 | 23.8 | 74 | 0.00 |
| 23 | C | 1,1-dichloroethane | 1.213 | 1.012 | 16.6 | 81 | 0.00 |
| 24 | C | MTBE | 1.445 | 1.174 | 18.8 | 80 | 0.00 |
| 26 | C | 2-butanone | 1.753 | 1.273 | 27.4 | 76 | 0.00 |
| 27 | | cis-1,2-dichloroethene | 0.942 | 0.839 | 10.9 | 78 | 0.00 |
| 29 | C | chloroform | 1.283 | 1.235 | 3.7 | 89 | 0.00 |
| 31 | C | 1,2-dichloroethane | 0.993 | 0.911 | 8.3 | 88 | 0.00 |
| 32 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 89 | 0.00 |
| 35 | C | 1,1,1-trichloroethane | 0.572 | 0.608 | -6.3 | 93 | 0.00 |
| 36 | C | benzene | 0.822 | 0.718 | 12.7 | 79 | 0.00 |
| 37 | C | carbon tetrachloride | 0.597 | 0.649 | -8.7 | 95 | 0.00 |
| 39 | C | 1,2-dichloropropane | 0.372 | 0.342 | 8.1 | 82 | 0.00 |
| 40 | | bromodichloromethane | 0.642 | 0.639 | 0.5 | 86 | 0.00 |
| 41 | C | 1,4-dioxane | 0.185 | 0.160 | 13.5 | 78 | 0.00 |
| 42 | C | trichloroethene | 0.400 | 0.405 | -1.3 | 89 | 0.00 |
| 45 | C | cis-1,3-dichloropropene | 0.456 | 0.438 | 3.9 | 84 | 0.00 |
| 46 | C | 4-methyl-2-pentanone | 0.985 | 0.909 | 7.7 | 80 | 0.00 |
| 47 | | trans-1,3-dichloropropene | 0.461 | 0.388 | 15.8 | 73 | 0.00 |
| 48 | C | 1,1,2-trichloroethane | 0.360 | 0.358 | 0.6 | 88 | 0.00 |
| 49 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 50 | C | toluene | 4.052 | 3.693 | 8.9 | 80 | 0.00 |
| 53 | | dibromochloromethane | 2.775 | 2.869 | -3.4 | 86 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2013\130208SIM\
Data File : R126427.D
Acq On : 8 Feb 2013 12:22 pm
Operator : AIRPIANO1:RY
Sample : WG589504-2,3,250,250
Misc : WG589504,ICAL7589
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 11 21:26:18 2013
Quant Method : O:\Forensics\Data\AIR1\2013\130208SIM\TSIM121211.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Wed Dec 12 12:36:12 2012

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 54 C | 1,2-dibromoethane | 2.423 | 2.481 | -2.4 | 87 | 0.00 |
| 55 C | tetrachloroethene | 1.980 | 2.021 | -2.1 | 88 | 0.00 |
| 56 | 1,1,1,2-tetrachloroethane | 2.048 | 2.052 | -0.2 | 86 | 0.00 |
| 57 C | chlorobenzene | 3.388 | 3.461 | -2.2 | 88 | 0.00 |
| 58 C | ethylbenzene | 5.205 | 5.084 | 2.3 | 84 | 0.00 |
| 59 C | m+p-xylene | 4.061 | 4.004 | 1.4 | 85 | 0.00 |
| 60 C | bromoform | 2.818 | 2.723 | 3.4 | 84 | 0.00 |
| 61 C | styrene | 3.120 | 3.123 | -0.1 | 84 | 0.00 |
| 62 C | 1,1,2,2-tetrachloroethane | 3.365 | 3.407 | -1.2 | 85 | 0.00 |
| 63 C | o-xylene | 4.186 | 4.265 | -1.9 | 87 | 0.00 |
| 65 C | isopropylbenzene | 5.981 | 6.078 | -1.6 | 86 | 0.00 |
| 66 | 4-ethyl toluene | 5.983 | 5.645 | 5.6 | 78 | 0.00 |
| 67 | 1,3,5-trimethylbenzene | 4.978 | 5.146 | -3.4 | 89 | 0.00 |
| 69 | 1,2,4-trimethylbenzene | 4.880 | 5.294 | -8.5 | 90 | 0.00 |
| 71 | 1,3-dichlorobenzene | 3.695 | 4.097 | -10.9 | 92 | 0.00 |
| 72 C | 1,4-dichlorobenzene | 3.809 | 4.176 | -9.6 | 92 | 0.00 |
| 73 | sec-butylbenzene | 7.559 | 7.739 | -2.4 | 83 | 0.00 |
| 74 | p-isopropyltoluene | 6.967 | 6.675 | 4.2 | 79 | 0.00 |
| 75 | 1,2-dichlorobenzene | 3.565 | 3.988 | -11.9 | 93 | 0.00 |
| 76 | n-butylbenzene | 6.238 | 6.630 | -6.3 | 84 | 0.00 |
| 77 C | 1,2,4-trichlorobenzene | 2.872 | 3.476 | -21.0 | 94 | 0.00 |
| 78 | naphthalene | 8.270 | 8.528 | -3.1 | 92 | 0.00 |
| 79 | 1,2,3-trichlorobenzene | 2.917 | 3.462 | -18.7 | 96 | 0.00 |
| 80 C | hexachlorobutadiene | 2.234 | 2.662 | -19.2 | 95 | 0.00 |

* Evaluation of CC level amount vs concentration.

FORM VII MCP-TO15-SIM

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID (Standard): R126427 Date Analyzed: 02/08/13

Instrument ID : AIRPIANO1 Time Analyzed: 12:22

| | | IS1 AREA | RT | IS2 AREA | RT | IS3 AREA | RT |
|---|---|---|---|---|---|---|---|
| | 24 HOUR STD | 364674 | 10.27 | 755678 | 12.49 | 185873 | 16.90 |
| | UPPER LIMIT | 510544 | 10.60 | 1057949 | 12.82 | 260222 | 17.23 |
| | LOWER LIMIT | 218804 | 9.94 | 453407 | 12.16 | 111524 | 16.57 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | WG589504-3LCS | 364674 | 10.27 | 755678 | 12.49 | 185873 | 16.90 |
| 02 | WG589504-4BLANK | 350471 | 10.27 | 709057 | 12.49 | 175684 | 16.90 |
| 03 | S-149-J | 326059 | 10.27 | 628536 | 12.49 | 166188 | 16.90 |
| 04 | WG589504-5DUP | 320703 | 10.27 | 615371 | 12.49 | 157837 | 16.90 |
| 05 | DUP | 327725 | 10.27 | 636735 | 12.49 | 160635 | 16.90 |
| 06 | S-157-J | 329913 | 10.27 | 639221 | 12.49 | 163978 | 16.90 |
| 07 | S-1100 | 254267 | 10.27 | 639423 | 12.49 | 158519 | 16.90 |
| 08 | S-171-X | 322631 | 10.27 | 637029 | 12.49 | 152584 | 16.90 |
| 09 | NEPD | 333806 | 10.27 | 656312 | 12.49 | 162809 | 16.90 |

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - MCP-TO15-SIM

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-01 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 18:56 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126438 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 141 | 2.50 | -- | 266 | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 9.44 | 1.00 | -- | 22.4 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 55.9 | 0.500 | -- | 137 | 1.23 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.364 | 0.200 | -- | 1.07 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.231 | 0.200 | -- | 0.814 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-02 | Date Collected : | 02/04/13 15:07 |
| Client ID | : DUP | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 19:59 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126440 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 91.9 | 2.50 | -- | 173 | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 5.13 | 1.00 | -- | 12.2 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 21.9 | 0.500 | -- | 53.8 | 1.23 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.209 | 0.200 | -- | 0.737 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-03 | Date Collected : | 02/04/13 15:14 |
| Client ID | : S-157-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 20:31 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126441 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 61.2 | 2.50 | -- | 115 | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 21.6 | 1.00 | -- | 51.3 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 156 | 0.500 | -- | 383 | 1.23 | -- | E |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.353 | 0.200 | -- | 1.04 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.212 | 0.200 | -- | 0.747 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | 2.53 | 0.200 | -- | 12.4 | 0.983 | -- | |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-03D | Date Collected : | 02/04/13 15:14 |
| Client ID | : S-157-J | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/12/13 20:43 |
| Sample Matrix | : AIR | Dilution Factor : | 2.5 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126482 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 100 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 67-63-0 | Isopropanol | 161 | 1.25 | -- | 396 | 3.07 | -- | |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-04 | Date Collected : | 02/04/13 15:40 |
| Client ID | : S-1100 | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:03 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126442 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 204 | 2.50 | -- | 384 | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 7.69 | 1.00 | -- | 18.3 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 32.3 | 0.500 | -- | 79.4 | 1.23 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.389 | 0.200 | -- | 1.15 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | U |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-05 | Date Collected : | 02/04/13 15:30 |
| Client ID | : S-171-X | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 21:34 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126443 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 24.8 | 2.50 | -- | 46.7 | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 3.72 | 1.00 | -- | 8.84 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 5.31 | 0.500 | -- | 13.1 | 1.23 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.211 | 0.200 | -- | 0.622 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.230 | 0.200 | -- | 0.811 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | 0.209 | 0.200 | -- | 0.857 | 0.820 | -- | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : L1302224-06 | Date Collected : | 02/04/13 15:20 |
| Client ID | : NEPD | Date Received : | 02/06/13 |
| Sample Location | : BEVERLY, MA | Date Analyzed : | 02/08/13 22:06 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126444 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 1.60 | 1.00 | -- | 3.80 | 2.38 | -- | |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | U |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.210 | 0.200 | -- | 0.619 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.666 | 0.200 | -- | 2.35 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589503-4 | Date Collected : | NA |
| Client ID | : WG589503-4BLANK | Date Received : | NA |
| Sample Location | : | Date Analyzed : | 02/08/13 14:12 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126429 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | ND | 2.50 | -- | ND | 4.71 | -- | U |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | ND | 1.00 | -- | ND | 2.38 | -- | U |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | U |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | U |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589503-5 | Date Collected : | 02/04/13 15:05 |
| Client ID | : S-149-JDUP | Date Received : | 02/06/13 |
| Sample Location | : | Date Analyzed : | 02/08/13 19:27 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126439 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 115-07-1 | Propylene | ND | 0.500 | -- | ND | 0.861 | -- | U |
| 64-17-5 | Ethanol | 144. | 2.50 | -- | 271. | 4.71 | -- | |
| 593-60-2 | Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | U |
| 67-64-1 | Acetone | 9.36 | 1.00 | -- | 22.2 | 2.38 | -- | |
| 67-63-0 | Isopropanol | 56.8 | 0.500 | -- | 140. | 1.23 | -- | |
| 107-05-1 | 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | U |
| 75-15-0 | Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | U |
| 108-05-4 | Vinyl acetate | ND | 0.200 | -- | ND | 0.704 | -- | U |
| 78-93-3 | 2-Butanone | 0.326 | 0.200 | -- | 0.961 | 0.590 | -- | |
| 141-78-6 | Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | U |
| 109-99-9 | Tetrahydrofuran | ND | 0.200 | -- | ND | 0.590 | -- | U |
| 110-54-3 | n-Hexane | 0.228 | 0.200 | -- | 0.804 | 0.705 | -- | |
| 110-82-7 | Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | U |
| 123-91-1 | 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | U |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | U |
| 142-82-5 | Heptane | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 591-78-6 | 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | U |
| 622-96-8 | 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | U |
| 100-44-7 | Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | U |

# Form 1
# Volatile Organics

| | | | |
|---|---|---|---|
| Client | : Geosphere Environmental Mgmt, Inc | Lab Number | : L1302224 |
| Project Name | : CUMMINGS BEVERLY AIR SAMPLING | Project Number: | 12201 |
| Lab ID | : WG589503-9 | Date Collected : | NA |
| Client ID | : WG589503-9BLANK | Date Received : | NA |
| Sample Location | : | Date Analyzed : | 02/12/13 14:40 |
| Sample Matrix | : AIR | Dilution Factor : | 1 |
| Analytical Method | : 101,TO-15 | Analyst | : RY |
| Lab File ID | : R126474 | Instrument ID | : AIRPIANO1 |
| Sample Amount | : 250 ml | GC Column | : RTX-1 |

| | | ppbV | | | ug/m3 | | | |
|---|---|---|---|---|---|---|---|---|
| CAS NO. | Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier |
| 67-63-0 | Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | U |

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1302224 Matrix: Air
Lab Sample ID : WG589503-5 Injected: 02/08/13 19:27 Lab File ID: R126439
Client Sample ID : S-149-J

| COMPOUND | SAMPLE CONCENTRATION (ppbV ) | DUP CONCENTRATION (ppbV ) | DUP % RPD | DUP RPD LIMIT |
|---|---|---|---|---|
| Propylene | ND | ND | NC | 25 |
| Ethanol | 141 | 144 | 2 | 25 |
| Vinyl bromide | ND | ND | NC | 25 |
| Acetone | 9.44 | 9.36 | 1 | 25 |
| Isopropanol | 55.9 | 56.8 | 2 | 25 |
| 3-Chloropropene | ND | ND | NC | 25 |
| Carbon disulfide | ND | ND | NC | 25 |
| Vinyl acetate | ND | ND | NC | 25 |
| 2-Butanone | 0.364 | 0.326 | 11 | 25 |
| Ethyl Acetate | ND | ND | NC | 25 |
| Tetrahydrofuran | ND | ND | NC | 25 |
| n-Hexane | 0.231 | 0.228 | 1 | 25 |
| Cyclohexane | ND | ND | NC | 25 |
| 1,4-Dioxane | ND | ND | NC | 25 |
| 2,2,4-Trimethylpentane | ND | ND | NC | 25 |
| Heptane | ND | ND | NC | 25 |
| 4-Methyl-2-pentanone | ND | ND | NC | 25 |
| 2-Hexanone | ND | ND | NC | 25 |
| 4-Ethyltoluene | ND | ND | NC | 25 |
| Benzyl chloride | ND | ND | NC | 25 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III MCP-TO15

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1302224 Matrix: Air

Lab Control Sample: WG589503-3LCS Injected: 02/08/13 11:50 Lab File ID: R126426

| COMPOUND | SPIKE ADDED ppbV | SAMPLE CONC ppbV | LCS CONC ppbV | LCS % REC | LCSD CONC ppbV | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|
| Propylene | 10 | NA | 9.00 | 90 | - | - | - | | 70-130 |
| Ethanol | 50 | NA | 37.4 | 75 | - | - | - | | 70-130 |
| Vinyl bromide | 10 | NA | 8.70 | 87 | - | - | - | | 70-130 |
| Acetone | 50 | NA | 44.9 | 90 | - | - | - | | 50-150 |
| Isopropanol | 10 | NA | 8.49 | 85 | - | - | - | | 70-130 |
| 3-Chloropropene | 10 | NA | 8.36 | 84 | - | - | - | | 70-130 |
| Carbon disulfide | 10 | NA | 7.76 | 78 | - | - | - | | 70-130 |
| Vinyl acetate | 10 | NA | 8.46 | 85 | - | - | - | | 70-130 |
| 2-Butanone | 10 | NA | 9.23 | 92 | - | - | - | | 70-130 |
| Ethyl Acetate | 10 | NA | 8.49 | 85 | - | - | - | | 70-130 |
| Tetrahydrofuran | 10 | NA | 8.35 | 84 | - | - | - | | 70-130 |
| n-Hexane | 10 | NA | 9.30 | 93 | - | - | - | | 70-130 |
| Cyclohexane | 10 | NA | 9.13 | 91 | - | - | - | | 70-130 |
| 1,4-Dioxane | 10 | NA | 8.77 | 88 | - | - | - | | 50-150 |
| 2,2,4-Trimethylpentane | 10 | NA | 9.19 | 92 | - | - | - | | 70-130 |
| Heptane | 10 | NA | 9.27 | 93 | - | - | - | | 70-130 |
| 4-Methyl-2-pentanone | 10 | NA | 9.17 | 92 | - | - | - | | 70-130 |
| 2-Hexanone | 10 | NA | 9.56 | 96 | - | - | - | | 70-130 |
| 4-Ethyltoluene | 10 | NA | 9.44 | 94 | - | - | - | | 70-130 |
| Benzyl chloride | 10 | NA | 9.58 | 96 | - | - | - | | 70-130 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III MCP-TO15

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1302224 Matrix: Air

Lab Control Sample: WG589503-8LCS Injected: 02/12/13 12:51 Lab File ID: R126472

| COMPOUND | SPIKE ADDED ppbV | SAMPLE CONC ppbV | LCS CONC ppbV | LCS % REC | LCSD CONC ppbV | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|
| Isopropanol | 10 | NA | 8.51 | 85 | - | - | - | | 70-130 |

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III MCP-TO15

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG589503-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126429 Lab Sample ID: WG589503-4

Date Analyzed: 02/08/13 Time Analyzed: 14:12

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | WG589503-3LCS | WG589503-3 | R126426 | 02/08/13 11:50 |
| 02 | S-149-J | L1302224-01 | R126438 | 02/08/13 18:56 |
| 03 | S-149-JDUP | WG589503-5 | R126439 | 02/08/13 19:27 |
| 04 | DUP | L1302224-02 | R126440 | 02/08/13 19:59 |
| 05 | S-157-J | L1302224-03 | R126441 | 02/08/13 20:31 |
| 06 | S-1100 | L1302224-04 | R126442 | 02/08/13 21:03 |
| 07 | S-171-X | L1302224-05 | R126443 | 02/08/13 21:34 |
| 08 | NEPD | L1302224-06 | R126444 | 02/08/13 22:06 |

COMMENTS: _____

page 1 of 1

FORM IV MCP-TO15 LOW

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG589503-9BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126474 Lab Sample ID: WG589503-9

Date Analyzed: 02/12/13 Time Analyzed: 14:40

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | WG589503-8LCS | WG589503-8 | R126472 | 02/12/13 12:51 |
| 02 | S-157-J | L1302224-03D | R126482 | 02/12/13 20:43 |

COMMENTS: _____

page 1 of 1

FORM IV MCP-TO15 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R125416_tune BFB Injection Date: 12/11/12

Instrument ID: AIRPIANO1 BFB Injection Time: 16:25

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 24.9 |
| 75 | 30.0 - 66.0% of mass 95 | 46.2 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0 (0 )1 |
| 174 | 50.0 - 120.0% of mass 95 | 91.9 |
| 175 | 4.0 - 9.0% of mass 174 | 6.9 (7.5 )1 |
| 176 | 93.0 - 101% of mass 174 | 88 (95.7)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.7 (6.4 )2 |

1-Value is % of mass 174 2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | 0.2 | 0.2 | R125420 | 12/11/12 | 18:33 |
| 02 | 0.5 | 0.5 | R125421 | 12/11/12 | 19:04 |
| 03 | 1.0 | 1.0 | R125422 | 12/11/12 | 19:36 |
| 04 | 2.5 | 2.5 | R125423 | 12/11/12 | 20:08 |
| 05 | 5.0 | 5.0 | R125424 | 12/11/12 | 20:40 |
| 06 | 10 | 10 | R125425 | 12/11/12 | 21:12 |
| 07 | 20.0 | 20.0 | R125426 | 12/11/12 | 21:43 |
| 08 | 50.0 | 50.0 | R125427 | 12/11/12 | 22:15 |
| 09 | 100.0 | 100.0 | R125428 | 12/11/12 | 22:47 |
| 10 | ICV Quant | ICV Quant | R125431 | 12/12/12 | 11:12 |

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FORM V MCP-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126424_tune  BFB Injection Date: 02/08/13

Instrument ID: AIRPIANO1  BFB Injection Time: 10:47

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 25.1 |
| 75 | 30.0 - 66.0% of mass 95 | 48.3 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.9 |
| 173 | Less than 2.0% of mass 174 | 0.4 (.4 )1 |
| 174 | 50.0 - 120.0% of mass 95 | 101.2 |
| 175 | 4.0 - 9.0% of mass 174 | 7 (7 )1 |
| 176 | 93.0 - 101% of mass 174 | 94.2 (93.1)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6 (6.4 )2 |

1-Value is % of mass 174  2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | CCAL | WG589503-2 | R126426 | 02/08/13 | 11:50 |
| 02 | WG589503-3LCS | WG589503-3 | R126426 | 02/08/13 | 11:50 |
| 03 | WG589503-4BLANK | WG589503-4 | R126429 | 02/08/13 | 14:12 |
| 04 | S-149-J | L1302224-01 | R126438 | 02/08/13 | 18:56 |
| 05 | S-149-JDUP | WG589503-5 | R126439 | 02/08/13 | 19:27 |
| 06 | DUP | L1302224-02 | R126440 | 02/08/13 | 19:59 |
| 07 | S-157-J | L1302224-03 | R126441 | 02/08/13 | 20:31 |
| 08 | S-1100 | L1302224-04 | R126442 | 02/08/13 | 21:03 |
| 09 | S-171-X | L1302224-05 | R126443 | 02/08/13 | 21:34 |
| 10 | NEPD | L1302224-06 | R126444 | 02/08/13 | 22:06 |

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FORM V MCP-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID: R126468_tune  BFB Injection Date: 02/12/13

Instrument ID: AIRPIANO1  BFB Injection Time: 10:31

| m/e | ION ABUNDANCE CRITERIA | % Relative Abundance |
|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 23.3 |
| 75 | 30.0 - 66.0% of mass 95 | 45.2 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.6 |
| 173 | Less than 2.0% of mass 174 | 0 (0 )1 |
| 174 | 50.0 - 120.0% of mass 95 | 100 |
| 175 | 4.0 - 9.0% of mass 174 | 7.5 (7.5 )1 |
| 176 | 93.0 - 101% of mass 174 | 95.1 (95.1)1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.3 (6.7 )2 |

1-Value is % of mass 174  2-Value is % of mass 176

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

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | CCAL | WG589503-7 | R126472 | 02/12/13 | 12:51 |
| 02 | WG589503-8LCS | WG589503-8 | R126472 | 02/12/13 | 12:51 |
| 03 | WG589503-9BLANK | WG589503-9 | R126474 | 02/12/13 | 14:40 |
| 04 | S-157-J | L1302224-03D | R126482 | 02/12/13 | 20:43 |

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FORM V MCP-TO15

6A

# VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 18:33 22:47

Calibration Files
0.2 =R125420.D 0.5 =R125421.D 1.0 =R125422.D 2.5 =R125423.D 5.0 =R125424.D 10 =R125425.D
20 =R125426.D 50 =R125427.D 100 =R125428.D

| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | bromochloromethane | ----------ISTD---------- | | | | | | | | | | |
| 2) | | chlorodifluoromethane | 1.518 | 1.416 | 1.584 | 1.328 | 1.269 | 1.257 | 1.213 | 1.365 | 1.022 | 1.3303 | 12.64 |
| 3) | | propylene | 0.802 | 0.598 | 0.721 | 0.571 | 0.561 | 0.526 | 0.524 | 0.580 | 0.438 | 0.5914 | 18.44 |
| 4) | | propane | 0.972 | 0.802 | 0.865 | 0.659 | 0.633 | 0.618 | 0.597 | 0.696 | 0.516 | 0.7063 | 20.56 |
| 5) | | dichlorodifluoromethane | 1.658 | 1.476 | 1.651 | 1.427 | 1.331 | 1.360 | 1.287 | 1.483 | 1.086 | 1.4176 | 12.66 |
| 6) | C | chloromethane | 0.911 | 0.743 | 0.795 | 0.669 | 0.625 | 0.616 | 0.592 | 0.674 | 0.517 | 0.6825 | 17.35 |
| 7) | | Freon-114 | 1.802 | 1.673 | 1.869 | 1.574 | 1.515 | 1.505 | 1.439 | 1.637 | 1.210 | 1.5806 | 12.49 |
| 8) | C | methanol | | 0.300 | 0.322 | 0.256 | 0.249 | 0.230 | 0.220 | 0.242 | 0.180 | 0.2497 | 17.90 |
| 9) | C | vinyl chloride | 0.789 | 0.631 | 0.746 | 0.599 | 0.593 | 0.590 | 0.566 | 0.654 | 0.504 | 0.6301 | 14.09 |
| 10) | C | 1,3-butadiene | 0.644 | 0.530 | 0.579 | 0.501 | 0.468 | 0.473 | 0.447 | 0.518 | 0.390 | 0.5056 | 14.79 |
| 11) | | butane | 1.515 | 1.222 | 1.337 | 1.090 | 1.068 | 1.040 | 0.995 | 1.129 | 0.834 | 1.1368 | 17.55 |
| 12) | C | acetaldehyde | 0.447 | 0.339 | 0.389 | 0.300 | 0.283 | 0.253 | 0.226 | 0.258 | 0.183 | 0.2976 | 27.63 |
| 13) | C | bromomethane | 0.842 | 0.643 | 0.714 | 0.596 | 0.559 | 0.557 | 0.534 | 0.621 | 0.471 | 0.6154 | 17.84 |
| 14) | C | chloroethane | 0.318 | 0.305 | 0.331 | 0.279 | 0.264 | 0.266 | 0.254 | 0.291 | 0.223 | 0.2813 | 12.01 |
| 15) | | ethanol | 0.654 | 0.566 | 0.625 | 0.535 | 0.515 | 0.503 | 0.468 | 0.512 | 0.371 | 0.5278 | 15.88 |
| 16) | | dichlorofluoromethane | 1.506 | 1.368 | 1.575 | 1.342 | 1.284 | 1.265 | 1.222 | 1.410 | 1.070 | 1.3379 | 11.33 |
| 17) | C | vinyl bromide | 0.620 | 0.612 | 0.685 | 0.591 | 0.561 | 0.560 | 0.536 | 0.627 | 0.480 | 0.5859 | 10.15 |
| 18) | C | acrolein | 0.480 | 0.351 | 0.393 | 0.309 | 0.293 | 0.296 | 0.281 | 0.331 | 0.254 | 0.3319 | 20.75 |
| 19) | | acetone | 1.680 | 1.326 | 1.510 | 1.198 | 1.154 | 1.126 | 1.059 | 1.178 | 0.840 | 1.2303 | 20.15 |
| 20) | C | acetonitrile | 0.788 | 0.774 | 0.807 | 0.685 | 0.645 | 0.651 | 0.616 | 0.696 | 0.515 | 0.6866 | 13.60 |
| 21) | | trichlorofluoromethane | 2.038 | 1.966 | 2.197 | 1.865 | 1.798 | 1.791 | 1.708 | 1.974 | 1.492 | 1.8697 | 10.96 |
| 22) | | isopropyl alcohol | | 1.918 | 2.108 | 1.594 | 1.529 | 1.528 | 1.446 | 1.669 | 1.261 | 1.6316 | 16.46 |
| 23) | C | acrylonitrile | 0.741 | 0.595 | 0.689 | 0.568 | 0.554 | 0.546 | 0.529 | 0.617 | 0.469 | 0.5896 | 14.12 |
| 24) | | pentane | 1.647 | 1.349 | 1.607 | 1.279 | 1.236 | 1.230 | 1.193 | 1.325 | 0.987 | 1.3171 | 15.50 |
| 25) | | ethyl ether | 1.153 | 1.039 | 1.126 | 0.974 | 0.935 | 0.924 | 0.877 | 0.979 | 0.711 | 0.9687 | 13.73 |
| 26) | C | 1,1-dichloroethene | 1.209 | 1.080 | 1.237 | 1.029 | 1.012 | 1.007 | 0.963 | 1.115 | 0.838 | 1.0543 | 11.68 |
| 27) | | tertiary butyl alcohol | 1.708 | 1.600 | 1.785 | 1.435 | 1.381 | 1.384 | 1.320 | 1.514 | 1.145 | 1.4749 | 13.55 |
| 28) | C | methylene chloride | | 1.181 | 1.189 | 0.968 | 0.903 | 0.897 | 0.853 | 0.968 | 0.724 | 0.9603 | 16.48 |
| 29) | C | 3-chloropropene | 1.280 | 0.982 | 1.136 | 0.945 | 0.909 | 0.896 | 0.859 | 0.995 | 0.739 | 0.9712 | 16.27 |
| 30) | C | carbon disulfide | 2.211 | 1.809 | 2.000 | 1.673 | 1.622 | 1.615 | 1.555 | 1.788 | 1.330 | 1.7337 | 14.88 |
| 31) | | Freon 113 | 1.465 | 1.287 | 1.460 | 1.217 | 1.176 | 1.185 | 1.125 | 1.310 | 0.986 | 1.2457 | 12.42 |
| 32) | | trans-1,2-dichloroethene | 1.182 | 1.034 | 1.202 | 1.009 | 0.973 | 0.962 | 0.982 | 1.076 | 0.817 | 1.0263 | 11.46 |
| 33) | C | 1,1-dichloroethane | 1.398 | 1.218 | 1.346 | 1.145 | 1.111 | 1.095 | 1.124 | 1.220 | 0.927 | 1.1761 | 11.97 |
| 34) | C | MTBE | 1.708 | 1.480 | 1.638 | 1.410 | 1.360 | 1.345 | 1.381 | 1.486 | 1.136 | 1.4382 | 11.71 |
| 35) | C | vinyl acetate | 2.324 | 1.991 | 2.287 | 1.916 | 1.873 | 1.860 | 1.976 | 2.026 | 1.516 | 1.9743 | 12.15 |
| 36) | C | 2-butanone | 2.041 | 1.709 | 1.913 | 1.820 | 1.527 | 1.524 | 1.639 | 1.650 | 1.235 | 1.6731 | 14.21 |
| 37) | | cis-1,2-dichloroethene | 1.064 | 0.981 | 1.071 | 0.979 | 0.951 | 0.858 | 0.905 | 0.928 | 0.699 | 0.9375 | 12.03 |
| 38) | | Ethyl Acetate | 0.224 | 0.261 | 0.257 | 0.246 | 0.229 | 0.232 | 0.219 | 0.222 | 0.200 | 0.2324 | 8.36 |
| 39) | C | chloroform | 1.493 | 1.304 | 1.399 | 1.302 | 1.271 | 1.263 | 1.207 | 1.200 | 1.070 | 1.2787 | 9.45 |
| 40) | | Tetrahydrofuran | 1.332 | 1.069 | 0.960 | 0.997 | 0.971 | 0.959 | 0.924 | 1.058 | 0.791 | 1.0068 | 14.55 |
| 41) | | 2,2-dichloropropane | 1.355 | 1.155 | 1.175 | 1.108 | 1.078 | 1.070 | 1.035 | 1.041 | 0.924 | 1.1045 | 10.79 |
| 42) | C | 1,2-dichloroethane | 1.131 | 0.982 | 0.931 | 0.923 | 0.908 | 0.914 | 0.870 | 1.000 | 0.757 | 0.9351 | 10.85 |
| 43) | I | 1,4-difluorobenzene | ----------ISTD---------- | | | | | | | | | | |

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 18:33 22:47

| | | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44) | C | hexane | 0.494 | 0.580 | 0.481 | 0.531 | 0.517 | 0.514 | 0.495 | 0.408 | 0.457 | 0.4975 | 9.65 |
| 45) | | diisopropyl ether | 0.172 | 0.237 | 0.183 | 0.224 | 0.217 | 0.220 | 0.212 | 0.183 | 0.203 | 0.2057 | 10.73 |
| 46) | | tert-butyl ethyl ether | 1.109 | 1.182 | 0.947 | 1.151 | 1.130 | 1.120 | 1.091 | 1.087 | 1.017 | 1.0928 | 6.52 |
| 47) | s | 1,2-dichloroethane-D4 | 0.320 | 0.323 | 0.269 | 0.323 | 0.324 | 0.328 | 0.324 | 0.331 | 0.319 | 0.3179 | 5.93 |
| 48) | C | 1,1,1-trichloroethane | 0.602 | 0.621 | 0.602 | 0.610 | 0.599 | 0.595 | 0.576 | 0.587 | 0.558 | 0.5945 | 3.12 |
| 49) | | 1,1-dichloropropene | 0.457 | 0.468 | 0.452 | 0.464 | 0.445 | 0.446 | 0.439 | 0.445 | 0.421 | 0.4486 | 3.15 |
| 50) | C | benzene | 0.836 | 0.908 | 0.843 | 0.850 | 0.828 | 0.831 | 0.809 | 0.813 | 0.765 | 0.8314 | 4.58 |
| 51) | | thiophene | 0.525 | 0.555 | 0.518 | 0.530 | 0.520 | 0.507 | 0.491 | 0.505 | 0.484 | 0.5150 | 4.16 |
| 52) | C | carbon tetrachloride | 0.613 | 0.661 | 0.644 | 0.656 | 0.655 | 0.659 | 0.646 | 0.652 | 0.622 | 0.6452 | 2.63 |
| 53) | | cyclohexane | 0.586 | 0.585 | 0.565 | 0.561 | 0.540 | 0.538 | 0.518 | 0.525 | 0.493 | 0.5457 | 5.75 |
| 54) | | tert-amyl methyl ether | 0.775 | 0.861 | 0.825 | 0.861 | 0.831 | 0.833 | 0.804 | 0.809 | 0.766 | 0.8184 | 4.10 |
| 55) | | dibromomethane | 0.433 | 0.464 | 0.440 | 0.438 | 0.436 | 0.428 | 0.420 | 0.425 | 0.406 | 0.4321 | 3.72 |
| 56) | C | 1,2-dichloropropane | 0.378 | 0.385 | 0.386 | 0.378 | 0.365 | 0.370 | 0.359 | 0.363 | 0.346 | 0.3701 | 3.53 |
| 57) | | bromodichloromethane | 0.668 | 0.706 | 0.656 | 0.679 | 0.680 | 0.672 | 0.672 | 0.682 | 0.647 | 0.6735 | 2.50 |
| 58) | C | 1,4-dioxane | 0.185 | 0.194 | 0.194 | 0.188 | 0.188 | 0.188 | 0.184 | 0.191 | 0.181 | 0.1879 | 2.34 |
| 59) | C | trichloroethene | 0.424 | 0.434 | 0.410 | 0.438 | 0.428 | 0.424 | 0.420 | 0.427 | 0.408 | 0.4235 | 2.38 |
| 60) | C | 2,2,4-trimethylpentane | 1.737 | 1.861 | 1.790 | 1.780 | 1.729 | 1.695 | 1.652 | 1.639 | 1.522 | 1.7116 | 5.80 |
| 61) | | methyl methacrylate | 0.607 | 0.554 | 0.529 | 0.514 | 0.507 | 0.495 | 0.486 | 0.518 | 0.481 | 0.5214 | 7.49 |
| 62) | | heptane | 0.784 | 0.781 | 0.742 | 0.750 | 0.728 | 0.728 | 0.695 | 0.701 | 0.638 | 0.7274 | 6.23 |
| 63) | C | cis-1,3-dichloropropene | 0.427 | 0.479 | 0.456 | 0.482 | 0.462 | 0.474 | 0.458 | 0.470 | 0.448 | 0.4617 | 3.72 |
| 64) | C | 4-methyl-2-pentanone | 0.981 | 1.066 | 1.039 | 1.056 | 1.031 | 1.029 | 0.994 | 0.988 | 0.909 | 1.0102 | 4.80 |
| 65) | | trans-1,3-dichloropropene | 0.421 | 0.465 | 0.474 | 0.470 | 0.477 | 0.478 | 0.475 | 0.488 | 0.465 | 0.4681 | 4.08 |
| 66) | C | 1,1,2-trichloroethane | 0.357 | 0.393 | 0.377 | 0.389 | 0.372 | 0.376 | 0.370 | 0.373 | 0.357 | 0.3737 | 3.27 |
| 67) | I | chlorobenzene-D5 | ----------ISTD---------- | | | | | | | | | | |
| 68) | C | toluene | 4.087 | 4.292 | 4.187 | 4.094 | 4.047 | 3.971 | 3.846 | 3.863 | 3.824 | 4.0233 | 4.01 |
| 69) | s | toluene-D8 | 3.036 | 2.985 | 2.982 | 3.006 | 3.041 | 2.990 | 2.993 | 3.008 | 3.110 | 3.0168 | 1.36 |
| 70) | | 2-methylthiophene | 3.036 | 3.348 | 3.242 | 3.202 | 3.184 | 3.014 | 2.865 | 3.135 | 3.153 | 3.1309 | 4.54 |
| 71) | | 1,3-dichloropropane | 1.856 | 2.102 | 2.002 | 1.995 | 1.996 | 1.938 | 1.865 | 1.918 | 1.913 | 1.9538 | 3.98 |
| 72) | | 2-hexanone | 3.380 | 3.761 | 3.837 | 3.761 | 3.848 | 3.831 | 3.648 | 3.588 | 3.233 | 3.6541 | 5.98 |
| 73) | | 3-methylthiophene | 3.215 | 3.538 | 3.402 | 3.375 | 3.325 | 3.149 | 3.051 | 3.276 | 3.170 | 3.2778 | 4.55 |
| 74) | | dibromochloromethane | 2.845 | 3.126 | 2.984 | 3.085 | 3.132 | 3.122 | 3.100 | 3.185 | 3.122 | 3.0779 | 3.33 |
| 75) | C | 1,2-dibromoethane | 2.335 | 2.540 | 2.484 | 2.520 | 2.537 | 2.479 | 2.453 | 2.486 | 2.447 | 2.4758 | 2.52 |
| 76) | | butyl acetate | 0.470 | 0.443 | 0.440 | 0.467 | 0.443 | 0.444 | 0.423 | 0.441 | 0.441 | 0.4457 | 3.18 |
| 77) | | octane | 1.168 | 1.204 | 1.127 | 1.172 | 1.170 | 1.133 | 1.087 | 1.116 | 1.094 | 1.1411 | 3.44 |
| 78) | C | tetrachloroethene | 2.141 | 2.205 | 2.105 | 2.171 | 2.151 | 2.132 | 2.087 | 2.170 | 2.151 | 2.1460 | 1.66 |
| 79) | | 1,1,1,2-tetrachloroethane | 1.997 | 2.102 | 2.069 | 2.061 | 2.109 | 2.078 | 2.049 | 2.091 | 2.014 | 2.0636 | 1.85 |
| 80) | C | chlorobenzene | 3.158 | 3.440 | 3.325 | 3.338 | 3.347 | 3.343 | 3.223 | 3.303 | 3.200 | 3.2975 | 2.66 |
| 81) | C | ethylbenzene | 4.938 | 5.315 | 5.242 | 5.296 | 5.312 | 5.215 | 5.044 | 5.068 | 4.868 | 5.1442 | 3.29 |
| 82) | | 2-ethylthiophene | 3.532 | 3.851 | 3.726 | 3.832 | 3.795 | 3.606 | 3.519 | 3.646 | 3.572 | 3.6755 | 3.51 |
| 83) | C | m+p-xylene | 3.879 | 4.298 | 4.083 | 4.185 | 4.106 | 4.078 | 3.964 | 3.927 | 3.743 | 4.0292 | 4.18 |
| 84) | C | bromoform | 2.758 | 3.058 | 2.937 | 3.121 | 3.151 | 3.249 | 3.288 | 3.474 | 3.350 | 3.1539 | 6.92 |
| 85) | C | styrene | 3.164 | 3.230 | 3.149 | 3.243 | 3.248 | 3.223 | 3.161 | 3.204 | 3.120 | 3.1938 | 1.45 |
| 86) | C | 1,1,2,2-tetrachloroethane | 3.339 | 3.556 | 3.548 | 3.552 | 3.593 | 3.535 | 3.450 | 3.404 | 3.004 | 3.4422 | 5.36 |
| 87) | C | o-xylene | 4.017 | 4.422 | 4.220 | 4.277 | 4.289 | 4.181 | 4.098 | 4.022 | 3.611 | 4.1264 | 5.67 |
| 88) | | 1,2,3-trichloropropane | 2.533 | 2.677 | 2.637 | 2.719 | 2.645 | 2.597 | 2.546 | 2.582 | 2.509 | 2.6051 | 2.69 |
| 89) | | nonane | 4.898 | 4.551 | 4.578 | 4.753 | 4.622 | 4.473 | 4.244 | 4.078 | 3.518 | 4.4129 | 9.43 |
| 90) | s | bromofluorobenzene | 2.226 | 2.199 | 2.179 | 2.197 | 2.244 | 2.228 | 2.218 | 2.246 | 2.328 | 2.2296 | 1.93 |

6A

# VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date(s): 12/11/12 12/11/12

Calibration Times: 18:33 22:47

| | Compound | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 20 | 50 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 91) C | isopropylbenzene | 5.950 | 6.219 | 6.114 | 6.340 | 6.195 | 6.140 | 5.896 | 5.871 | 5.469 | 6.0215 | 4.32 |
| 92) | bromobenzene | 3.057 | 3.363 | 3.219 | 3.284 | 3.292 | 3.198 | 3.141 | 3.189 | 3.038 | 3.1979 | 3.36 |
| 93) | 2-chlorotoluene | 1.678 | 1.820 | 1.731 | 1.805 | 1.784 | 1.730 | 1.712 | 1.763 | | 1.7528 | 2.77 |
| 94) | n-propylbenzene | 1.696 | 1.772 | 1.725 | 1.818 | 1.790 | 1.775 | 1.739 | 1.787 | | 1.7626 | 2.26 |
| 95) | 4-chlorotoluene | 4.251 | 4.887 | 4.754 | 4.828 | 4.840 | 4.702 | 4.591 | 4.503 | 4.394 | 4.6389 | 4.73 |
| 96) | 4-ethyl toluene | 5.716 | 6.392 | 6.131 | 6.279 | 6.243 | 6.158 | 6.030 | 5.956 | 5.534 | 6.0487 | 4.57 |
| 97) | 1,3,5-trimethylbenzene | 4.830 | 5.143 | 4.903 | 5.057 | 5.004 | 5.068 | 4.910 | 4.943 | 4.594 | 4.9390 | 3.27 |
| 98) | tert-butylbenzene | 5.380 | 5.792 | 5.707 | 5.915 | 5.906 | 5.905 | 5.607 | 5.400 | 4.531 | 5.5715 | 7.92 |
| 99) | 1,2,4-trimethylbenzene | 4.725 | 5.071 | 5.030 | 5.154 | 5.104 | 5.174 | 4.975 | 4.783 | 4.009 | 4.8915 | 7.48 |
| 100) | decane | 4.190 | 4.536 | 4.313 | 4.567 | 4.484 | 4.418 | 4.212 | 4.088 | 3.518 | 4.2584 | 7.59 |
| 101) C | Benzyl Chloride | 3.324 | 3.975 | 3.993 | 4.331 | 4.572 | 4.688 | 4.663 | 4.728 | 4.434 | 4.3007 | 10.75 |
| 102) | 1,3-dichlorobenzene | 3.594 | 3.842 | 3.777 | 3.827 | 3.867 | 3.866 | 3.821 | 3.891 | 3.627 | 3.7901 | 2.83 |
| 103) C | 1,4-dichlorobenzene | 3.734 | 4.048 | 3.766 | 3.918 | 3.898 | 3.934 | 3.929 | 3.984 | 3.568 | 3.8644 | 3.83 |
| 104) | sec-butylbenzene | 7.052 | 8.032 | 7.762 | 8.152 | 8.185 | 7.877 | 7.701 | 7.473 | 6.275 | 7.6121 | 8.07 |
| 105) | 1,2,3-trimethylbenzene | 4.831 | 5.605 | 5.363 | 4.737 | 4.776 | 4.293 | 4.105 | 5.290 | 4.642 | 4.8490 | 10.19 |
| 106) | p-isopropyltoluene | 6.563 | 7.370 | 7.201 | 7.402 | 7.434 | 7.250 | 7.050 | 6.949 | 5.909 | 7.0141 | 7.08 |
| 107) | 1,2-dichlorobenzene | 3.062 | 3.677 | 3.557 | 3.667 | 3.702 | 3.710 | 3.640 | 3.740 | 3.565 | 3.5911 | 5.79 |
| 108) | n-butylbenzene | 5.819 | 6.617 | 6.517 | 6.828 | 6.822 | 6.668 | 6.480 | 6.325 | 5.747 | 6.4248 | 6.19 |
| 109) | indan | 4.025 | 4.696 | 4.605 | 5.009 | 4.966 | 4.674 | 4.552 | 4.591 | 4.343 | 4.6067 | 6.49 |
| 110) | indene | 5.336 | 5.969 | 6.008 | 4.983 | 5.056 | 4.609 | 4.518 | 6.113 | 5.554 | 5.3495 | 11.26 |
| 111) C | 1,2-dibromo-3-chloropropane | 1.435 | 1.698 | 1.716 | 1.827 | 1.873 | 1.812 | 1.790 | 1.811 | 1.719 | 1.7422 | 7.43 |
| 112) | undecane | 5.037 | 4.905 | 4.872 | 5.109 | 5.305 | 5.081 | 4.942 | 4.750 | 3.983 | 4.8873 | 7.67 |
| 113) | 1,2,4,5-tetramethylbenzene | 6.343 | 7.316 | 7.444 | 6.762 | 7.142 | 7.150 | 6.970 | 7.500 | 6.607 | 7.0259 | 5.58 |
| 114) | dodecane | 5.256 | 4.786 | 4.865 | 4.966 | 5.513 | 5.542 | 5.324 | 4.618 | 3.457 | 4.9253 | 12.98 |
| 115) C | 1,2,4-trichlorobenzene | 2.199 | 2.788 | 2.857 | 2.899 | 3.217 | 3.300 | 3.321 | 3.302 | 2.843 | 2.9694 | 12.29 |
| 116) | naphthalene | 8.154 | 7.890 | 7.604 | 7.309 | 7.976 | 8.103 | 8.086 | 8.121 | 7.357 | 7.8444 | 4.27 |
| 117) | 1,2,3-trichlorobenzene | 2.339 | 2.988 | 2.977 | 2.783 | 3.112 | 3.365 | 3.399 | 3.511 | 3.410 | 3.0982 | 12.14 |
| 118) | benzothiophene | | 5.605 | 5.839 | 4.933 | 5.507 | 5.724 | 5.721 | 6.686 | 6.436 | 5.8063 | 9.38 |
| 119) C | hexachlorobutadiene | 2.125 | 2.566 | 2.513 | 2.456 | 2.655 | 2.745 | 2.768 | 2.835 | 2.655 | 2.5909 | 8.24 |
| 120) | 2-methylnaphthalene | | 1.125 | 1.274 | 1.255 | 1.545 | 1.499 | 1.547 | 1.872 | 1.855 | 1.4963 | 18.23 |
| 121) | 1-methylnaphthalene | | 4.025 | 4.418 | 2.979 | 3.516 | 4.324 | 4.425 | 6.030 | 5.494 | 4.4015 | 22.40 |

FORM VI-MCP-TO15

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date: 02/08/2013 Time: 11:50

Lab File ID: R126426 Init. Calib. Date(s): 12/11/12 12/11/12

Sample No: WG589503-2,3,25 Init. Calib. Times : 18:33 22:47

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 3 | | propylene | 0.591 | 0.532 | 10.0 | 91 | 0.00 |
| 15 | | ethanol | 0.528 | 0.395 | 25.2 | 70 | 0.00 |
| 17 | C | vinyl bromide | 0.586 | 0.510 | 13.0 | 82 | 0.00 |
| 19 | | acetone | 1.230 | 1.104 | 10.2 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 1.632 | 1.385 | 15.1 | 81 | 0.00 |
| 29 | C | 3-chloropropene | 0.971 | 0.812 | 16.4 | 81 | 0.00 |
| 30 | C | carbon disulfide | 1.734 | 1.346 | 22.4 | 75 | 0.00 |
| 35 | C | vinyl acetate | 1.974 | 1.670 | 15.4 | 80 | 0.00 |
| 36 | C | 2-butanone | 1.673 | 1.545 | 7.7 | 91 | 0.00 |
| 38 | | Ethyl Acetate | 0.232 | 0.197 | 15.1 | 76 | 0.00 |
| 40 | | Tetrahydrofuran | 1.007 | 0.841 | 16.5 | 79 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 44 | C | hexane | 0.497 | 0.462 | 7.0 | 79 | 0.00 |
| 53 | | cyclohexane | 0.546 | 0.498 | 8.8 | 81 | 0.00 |
| 58 | C | 1,4-dioxane | 0.188 | 0.165 | 12.2 | 77 | 0.00 |
| 60 | C | 2,2,4-trimethylpentane | 1.712 | 1.574 | 8.1 | 82 | 0.00 |
| 62 | | heptane | 0.727 | 0.674 | 7.3 | 81 | 0.00 |
| 64 | C | 4-methyl-2-pentanone | 1.010 | 0.927 | 8.2 | 79 | 0.00 |
| 67 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 72 | | 2-hexanone | 3.654 | 3.492 | 4.4 | 79 | 0.00 |
| 96 | | 4-ethyl toluene | 6.049 | 5.707 | 5.7 | 80 | 0.00 |
| 101 | C | Benzyl Chloride | 4.301 | 4.120 | 4.2 | 76 | 0.00 |

* Evaluation of CC level amount vs concentration.

FORM VII MCP-TO15

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Instrument ID: AIRPIANO1 Calibration Date: 02/12/2013 Time: 12:51

Lab File ID: R126472 Init. Calib. Date(s): 12/11/12 12/11/12

Sample No: WG589503-7,3,25 Init. Calib. Times : 18:33 22:47

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | bromochloromethane | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 22 | | isopropyl alcohol | 1.632 | 1.388 | 15.0 | 80 | 0.00 |
| 43 | I | 1,4-difluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 67 | I | chlorobenzene-D5 | 1.000 | 1.000 | 0.0 | 85 | 0.00 |

* Evaluation of CC level amount vs concentration.

FORM VII MCP-TO15

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID (Standard): R126426 Date Analyzed: 02/08/13

Instrument ID : AIRPIANO1 Time Analyzed: 11:50

| | | IS1 AREA | RT | IS2 AREA | RT | IS3 AREA | RT |
|---|---|---|---|---|---|---|---|
| | 24 HOUR STD | 322657 | 10.27 | 648175 | 12.49 | 166114 | 16.90 |
| | UPPER LIMIT | 451720 | 10.60 | 907445 | 12.82 | 232560 | 17.23 |
| | LOWER LIMIT | 193594 | 9.94 | 388905 | 12.16 | 99668 | 16.57 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | WG589503-3LCS | 322657 | 10.27 | 648175 | 12.49 | 166114 | 16.90 |
| 02 | WG589503-4BLANK | 304935 | 10.27 | 621112 | 12.49 | 155249 | 16.90 |
| 03 | S-149-J | 286463 | 10.27 | 542848 | 12.49 | 147159 | 16.90 |
| 04 | WG589503-5DUP | 281429 | 10.27 | 531949 | 12.49 | 141399 | 16.90 |
| 05 | DUP | 286192 | 10.27 | 546899 | 12.49 | 144272 | 16.90 |
| 06 | S-157-J | 286119 | 10.27 | 549657 | 12.49 | 143767 | 16.90 |
| 07 | S-1100 | 227022 | 10.27 | 549924 | 12.49 | 141084 | 16.90 |
| 08 | S-171-X | 278702 | 10.27 | 546666 | 12.49 | 135632 | 16.90 |
| 09 | NEPD | 289375 | 10.27 | 563810 | 12.49 | 145009 | 16.90 |
| 10 | WG589503-8LCS | 317256 | 10.27 | 707897 | 12.49 | 163723 | 16.90 |

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - MCP-TO15

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1302224

Lab File ID (Standard): R126472 Date Analyzed: 02/12/13

Instrument ID : AIRPIANO1 Time Analyzed: 12:51

| | | IS1 AREA | RT | IS2 AREA | RT | IS3 AREA | RT |
|---|---|---|---|---|---|---|---|
| | 24 HOUR STD | 317256 | 10.27 | 707897 | 12.49 | 163723 | 16.90 |
| | UPPER LIMIT | 444158 | 10.60 | 991056 | 12.82 | 229212 | 17.23 |
| | LOWER LIMIT | 190354 | 9.94 | 424738 | 12.16 | 98234 | 16.57 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | WG589503-8LCS | 317256 | 10.27 | 707897 | 12.49 | 163723 | 16.90 |
| 02 | WG589503-9BLANK | 283318 | 10.27 | 625038 | 12.49 | 171693 | 16.90 |
| 03 | S-157-J | 276574 | 10.27 | 576022 | 12.49 | 132975 | 16.90 |

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - MCP-TO15