

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101118\  
 Data File : VL032610.D  
 Acq On : 11 Oct 2018 18:45  
 Operator : SY/AP  
 Sample : J5370-05DUP  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 AMBIENT-SVI-100518DUP

Manual Integrations  
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MMDadoda  
 10/12/2018 2:07:34 PM

Quant Time: Oct 12 12:11:41 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Oct 08 2018  
 QLast Update : Mon Oct 01 06:49:26 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.79  | 49   | 1343896  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.32  | 114  | 2719616  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.27 | 117  | 2964097  | 10.00 | ppbv  | -0.03    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.61  | 95    | 2089286  | 9.35     | ppbv | -0.03  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 93.50% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.09  | 85   | 22331m   | 0.180  | ppbv   |        |
| 3) Chlorodifluoromethane   | 3.03  | 51   | 28928    | 0.259  | ppbv   | 97     |
| 4) Chloromethane           | 3.18  | 50   | 30981    | 0.475  | ppbv   | 92     |
| 9) Propene                 | 3.05  | 41   | 453650   | 9.356  | ppbv   | 98     |
| 11) Trichlorofluoromethane | 4.02  | 101  | 33559    | 0.227  | ppbv   | 86     |
| 13) Ethanol                | 3.67  | 45   | 243940   | 16.737 | ppbv   | 98     |
| 15) Acetone                | 3.91  | 43   | 5218302  | 44.236 | ppbv   | 91     |
| 17) tert-Butyl alcohol     | 4.39  | 59   | 84731    | 5.716  | ppbv # | 100    |
| 19) Isopropyl Alcohol      | 4.05  | 45   | 47979m   | 0.584  | ppbv   |        |
| 20) Methylene Chloride     | 4.43  | 84   | 89610    | 1.569  | ppbv   | 93     |
| 26) Hexane                 | 5.80  | 57   | 177233   | 1.371  | ppbv # | 46     |
| 34) 2-Butanone             | 5.35  | 43   | 3678693  | 22.715 | ppbv   | 98     |
| 35) Carbon Tetrachloride   | 7.16  | 117  | 13671m   | 0.072  | ppbv   |        |
| 36) Benzene                | 7.03  | 78   | 92824    | 0.422  | ppbv # | 95     |
| 51) 2-Hexanone             | 10.30 | 43   | 823209   | 3.910  | ppbv # | 99     |
| 53) Toluene                | 9.98  | 91   | 199790   | 0.746  | ppbv   | 99     |

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

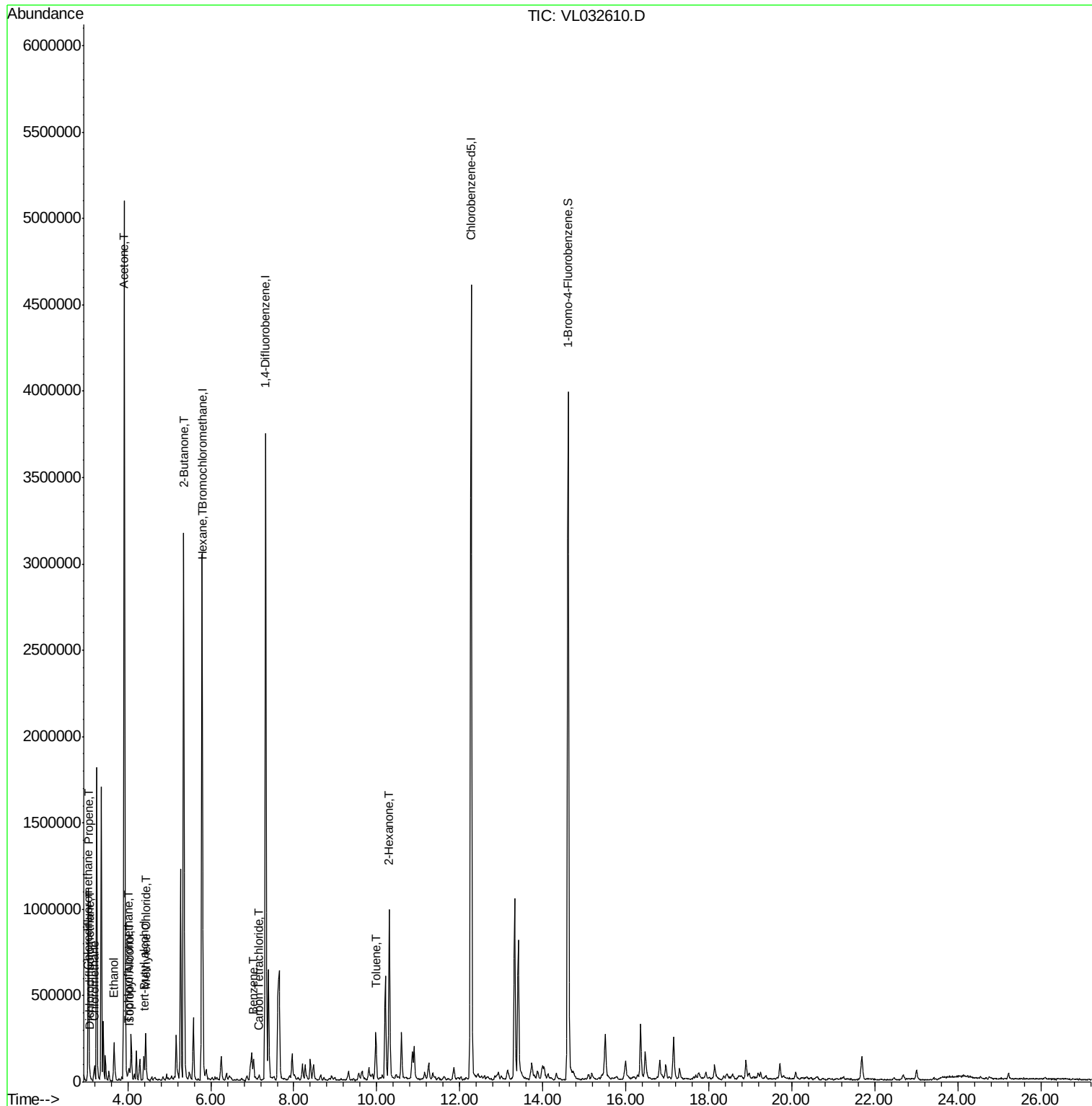
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101118\  
Data File : VL032610.D  
Acq On : 11 Oct 2018 18:45  
Operator : SY/AP  
Sample : J5370-05DUP  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

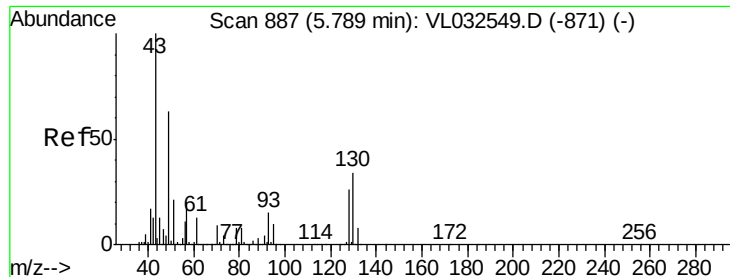
**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
AMBIENT-SVI-100518DUP

## Manual Integrations APPROVED

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10/12/2018 2:07:34 PM

Quant Time: Oct 12 12:11:41 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LMon Oct  
QLast Update : Mon Oct 01 06:49:26 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 887

Delta R.T. -0.02 min

Lab File: VL032610.D

Acq: 11 Oct 2018 18:45

Instrument :

MSVOA\_L

ClientSampleId :

AMBIENT-SVI-100518DUP

Tot Ion: 49 Resp: 1343896

Ion Ratio Lower Upper

49 100

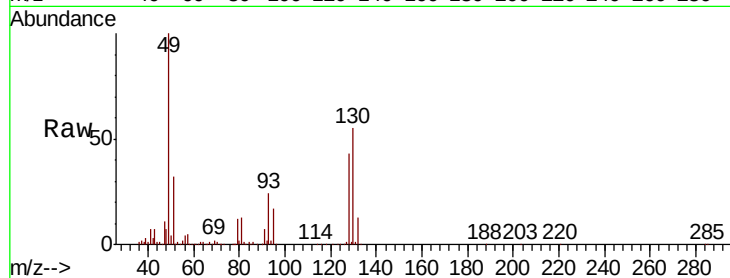
128 42.8 20.7 62.1

130 55.1 26.6 79.7

Manual Integrations  
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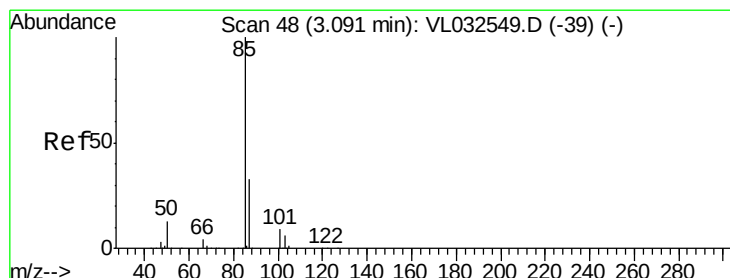
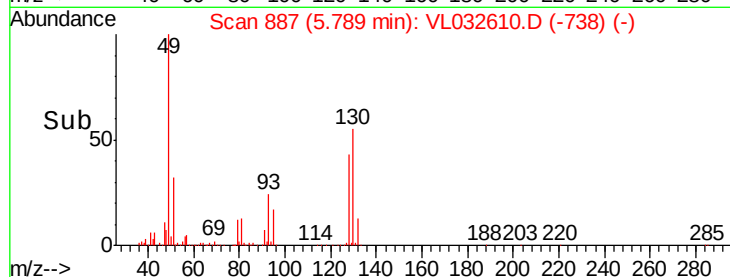
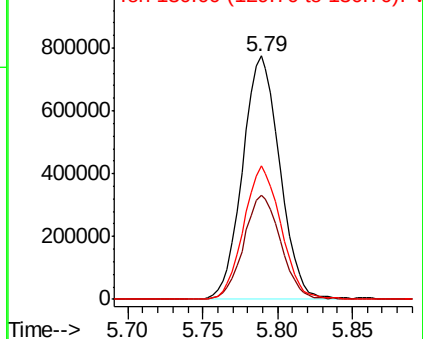


Abundance

Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.180 ppbv m

RT: 3.09 min Scan# 49

Delta R.T. -0.01 min

Lab File: VL032610.D

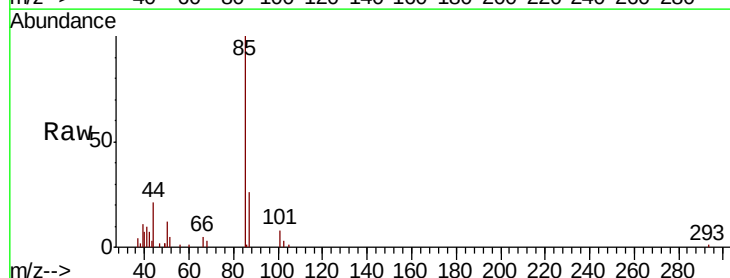
Acq: 11 Oct 2018 18:45

Tgt Ion: 85 Resp: 22331

Ion Ratio Lower Upper

85 100

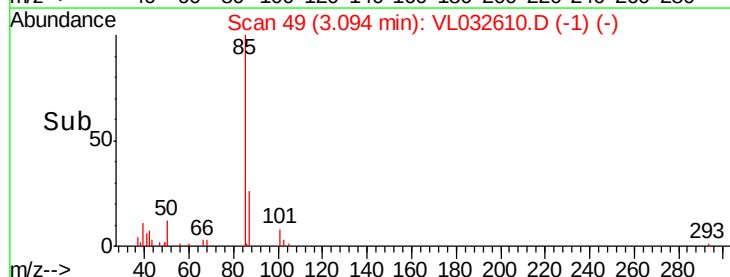
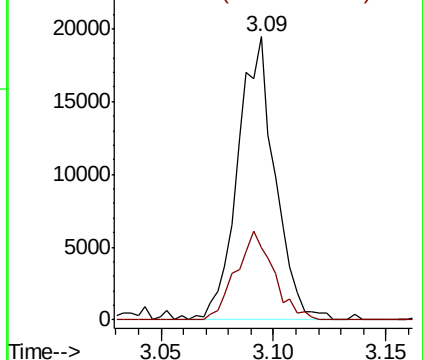
87 25.6 26.2 39.4#

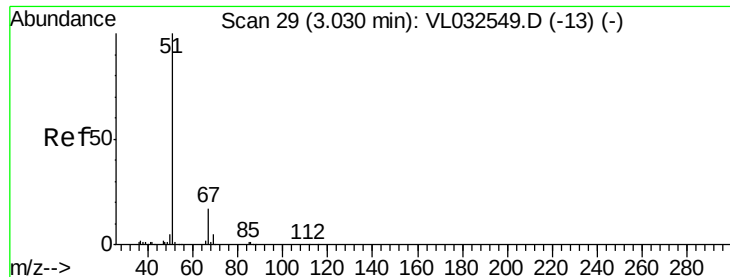


Abundance

Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





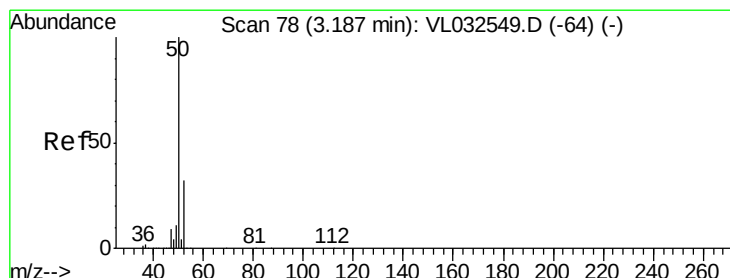
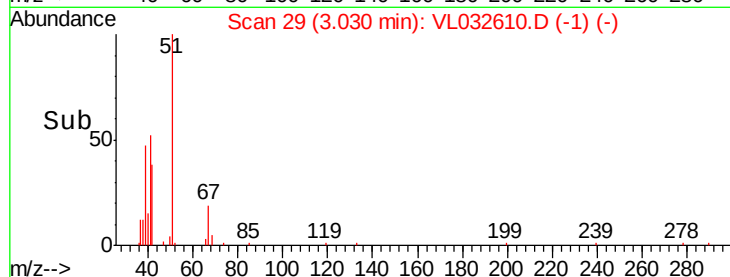
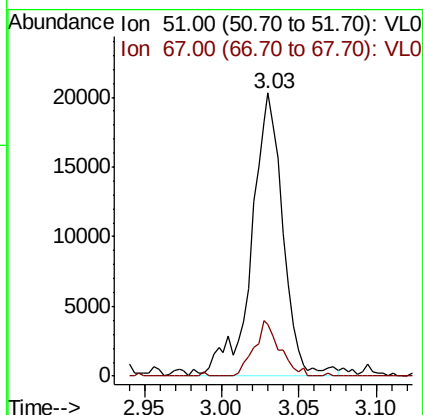
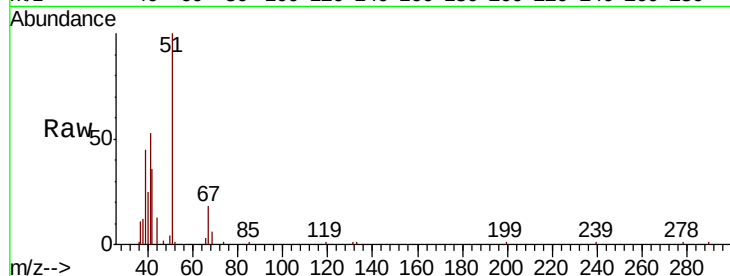
#3  
Chlorodifluoromethane  
Concen: 0.259 ppbv  
RT: 3.03 min Scan# 29  
Delta R.T. -0.01 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Instrument :  
MSVOA\_L  
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AMBIENT-SVI-100518DUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 16.2  | 13.8  | 20.8  |

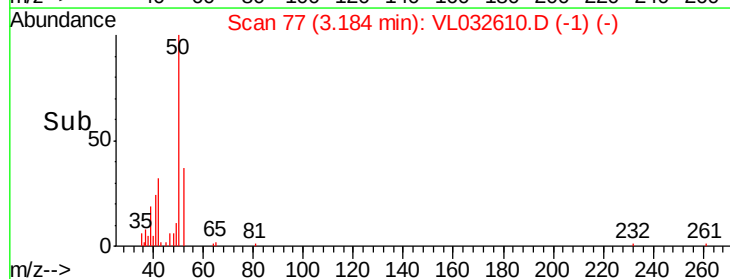
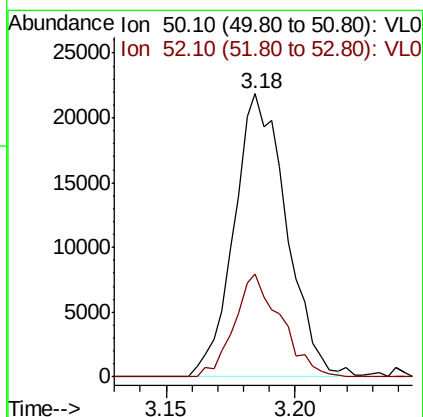
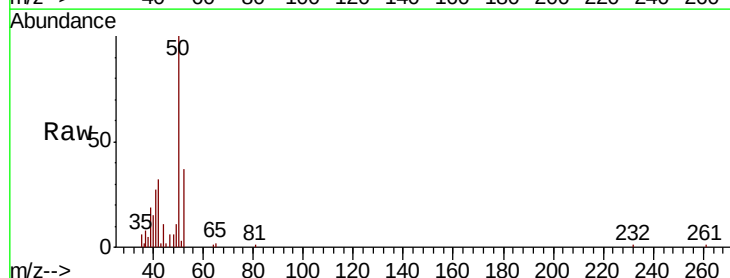
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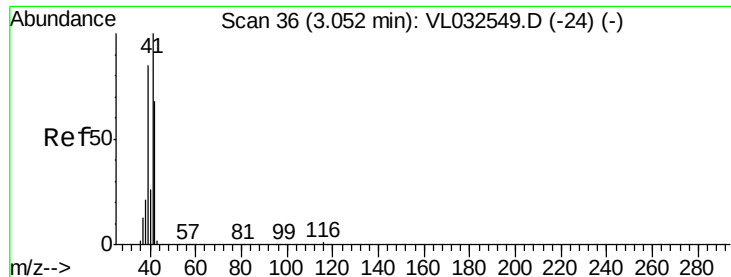
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#4  
Chloromethane  
Concen: 0.475 ppbv  
RT: 3.18 min Scan# 77  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 36.5  | 25.6  | 38.4  |





#9

Propene

Concen: 9.356 ppbv

RT: 3.05 min Scan# 35

Delta R.T. -0.02 min

Lab File: VL032610.D

Acq: 11 Oct 2018 18:45

Instrument :

MSVOA\_L

ClientSampleId :

AMBIENT-SVI-100518DUP

Tot Ion: 41 Resp: 453650

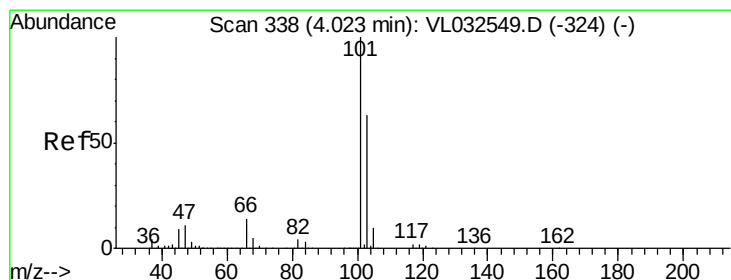
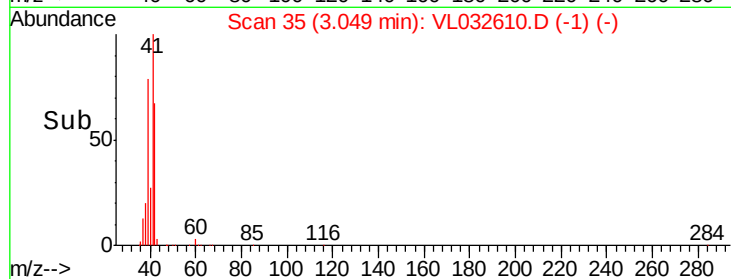
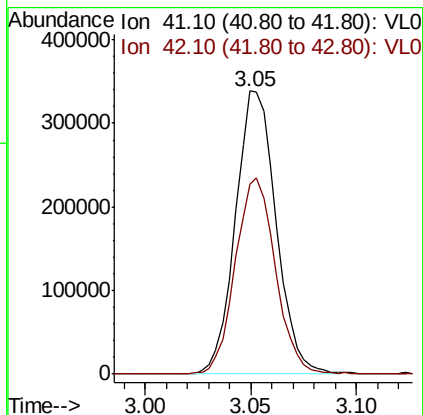
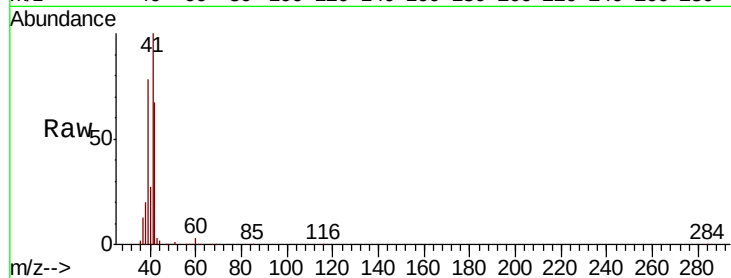
Ion Ratio Lower Upper

41 100

42 68.8 56.6 84.8

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#11

Trichlorofluoromethane

Concen: 0.227 ppbv

RT: 4.02 min Scan# 338

Delta R.T. -0.02 min

Lab File: VL032610.D

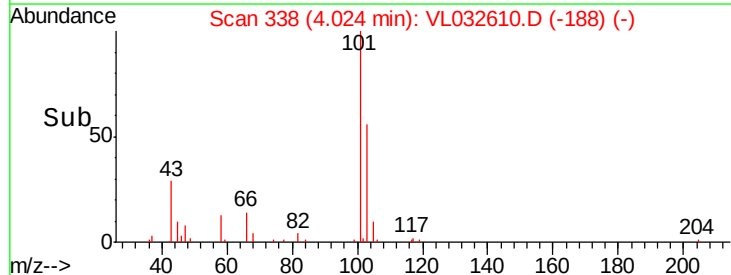
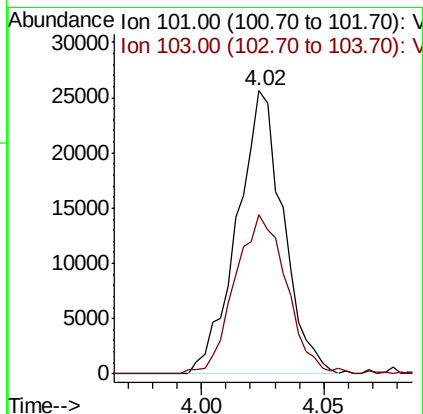
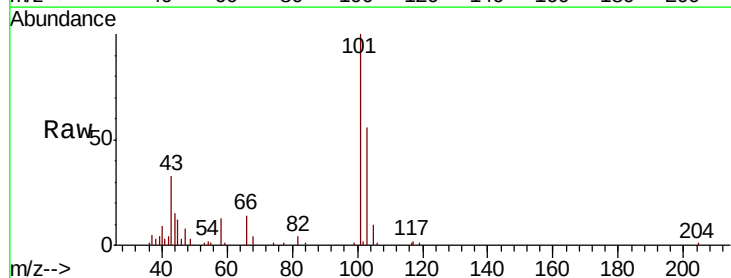
Acq: 11 Oct 2018 18:45

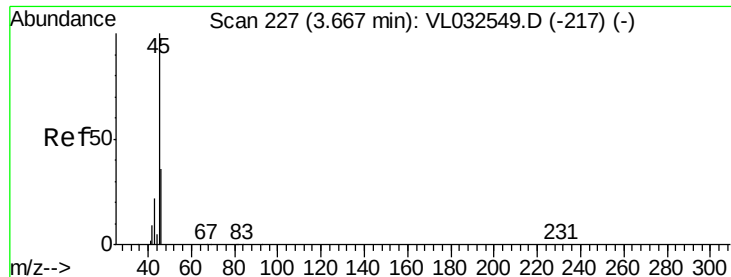
Tgt Ion: 101 Resp: 33559

Ion Ratio Lower Upper

101 100

103 55.0 52.8 79.2





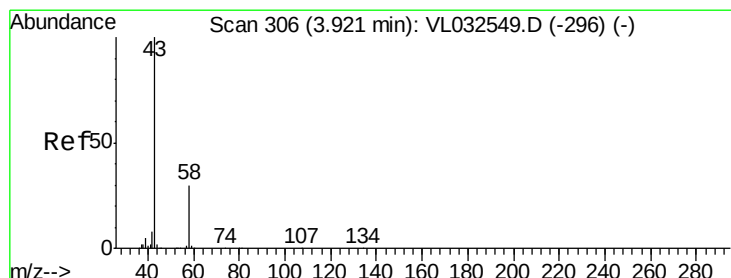
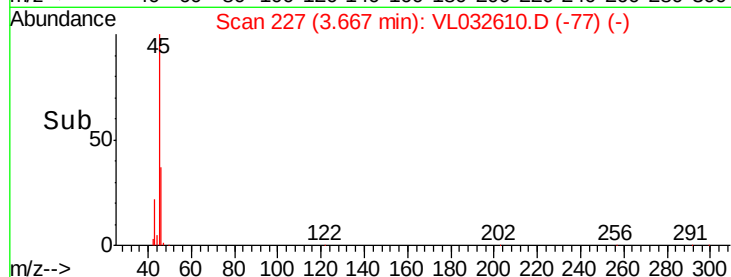
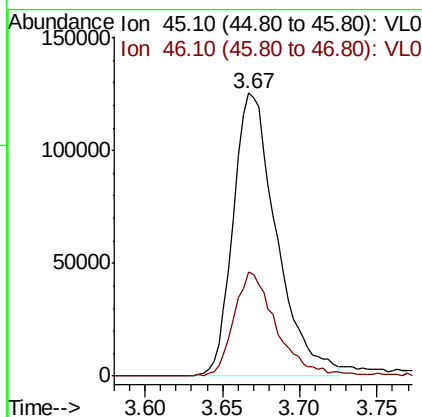
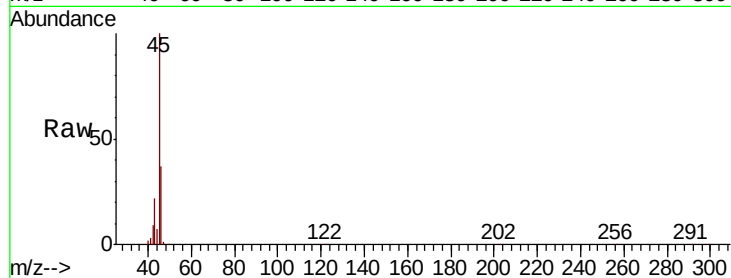
#13  
Ethanol  
Concen: 16.737 ppbv  
RT: 3.67 min Scan# 227  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
AMBIENT-SVI-100518DUP

Tot Ion: 45 Resp: 243940  
Ion Ratio Lower Upper  
45 100  
46 36.5 14.2 56.8

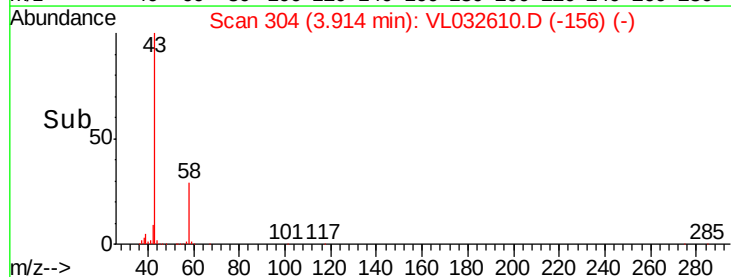
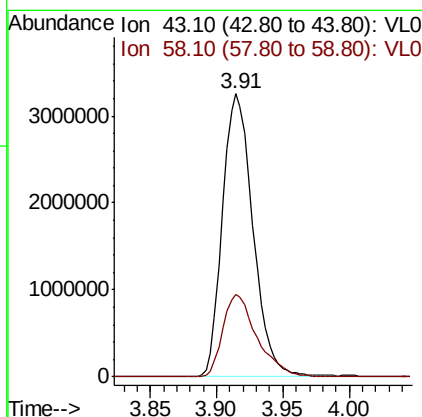
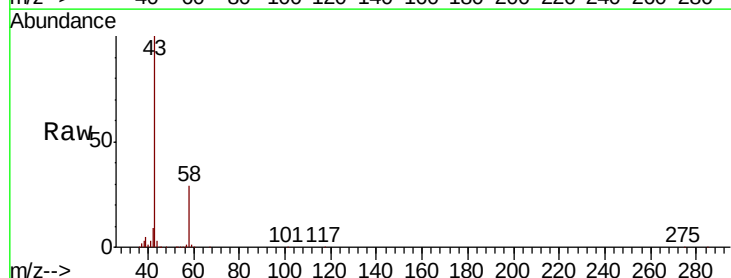
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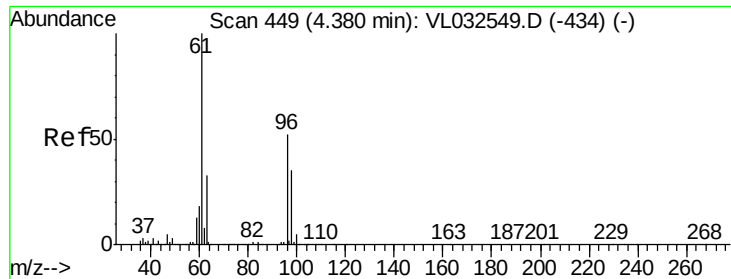
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#15  
Acetone  
Concen: 44.236 ppbv  
RT: 3.91 min Scan# 304  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Tgt Ion: 43 Resp: 5218302  
Ion Ratio Lower Upper  
43 100  
58 32.8 22.6 33.8





#17

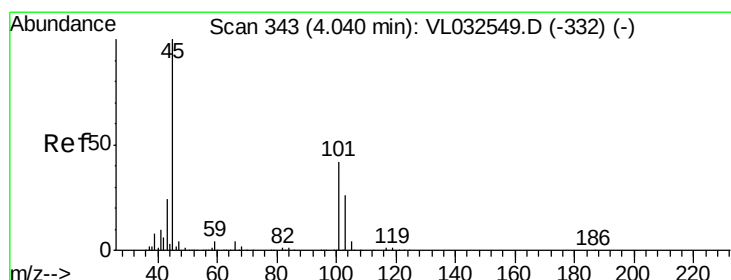
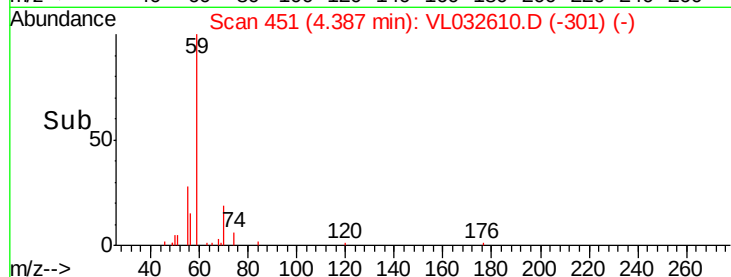
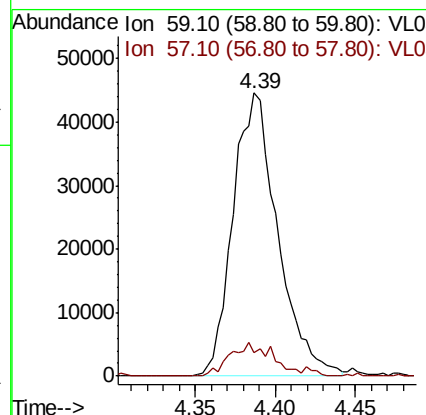
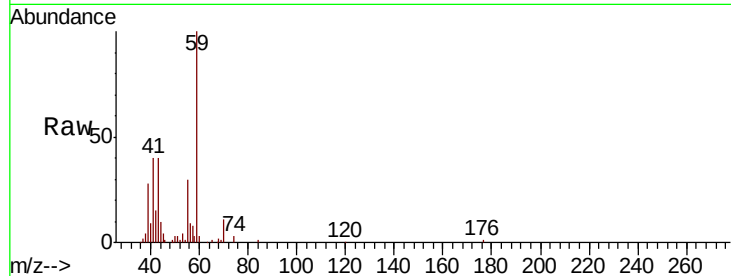
tert-Butyl alcohol  
 Concen: 5.716 ppbv  
 RT: 4.39 min Scan# 451  
 Delta R.T. -0.02 min  
 Lab File: VL032610.D  
 Acq: 11 Oct 2018 18:45

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 AMBIENT-SVI-100518DUP

Tot Ion: 59 Resp: 84731  
 Ion Ratio Lower Upper  
 59 100  
 57 12.0 0.0 0.0#

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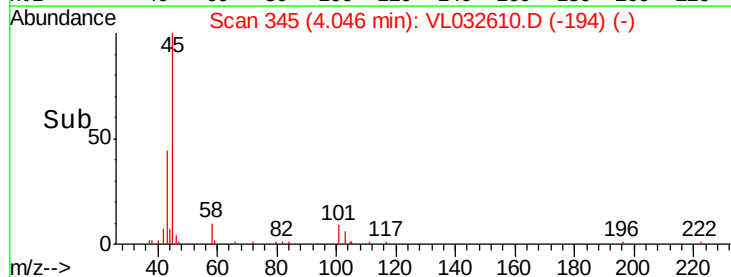
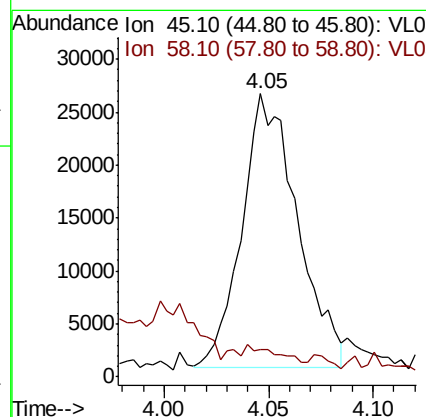
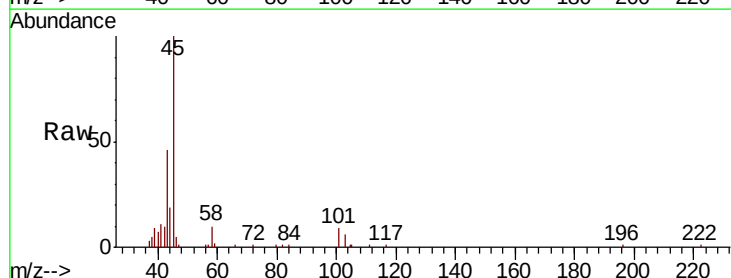
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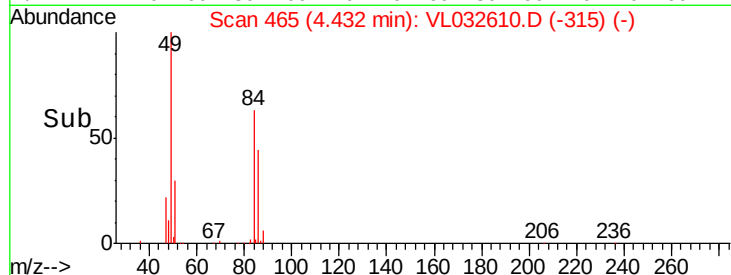
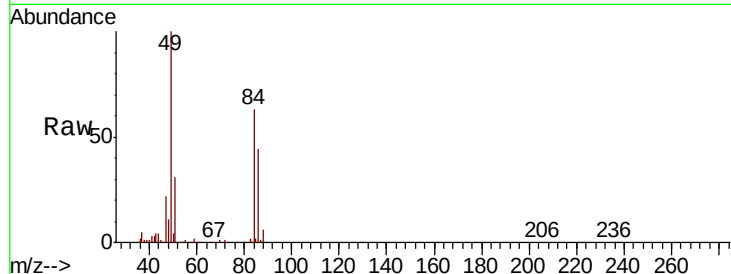
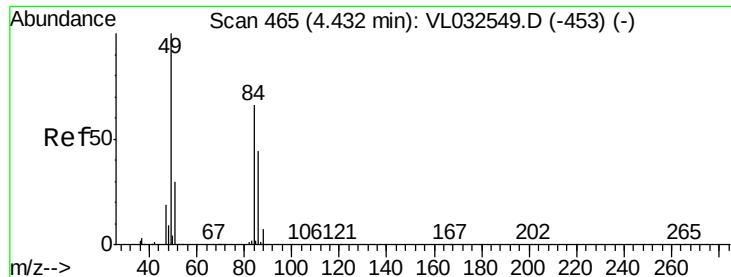


#19

Isopropyl Alcohol  
 Concen: 0.584 ppbv m  
 RT: 4.05 min Scan# 345  
 Delta R.T. -0.01 min  
 Lab File: VL032610.D  
 Acq: 11 Oct 2018 18:45

Tgt Ion: 45 Resp: 47979  
 Ion Ratio Lower Upper  
 45 100  
 58 0.0 2.0 3.0#





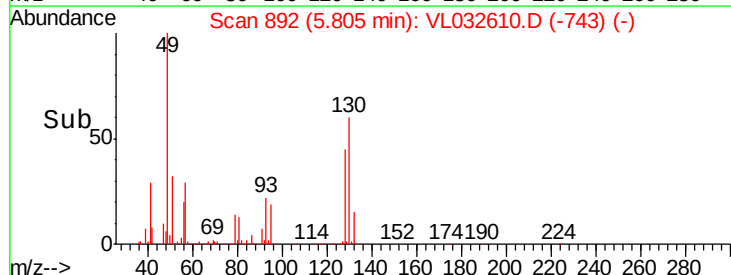
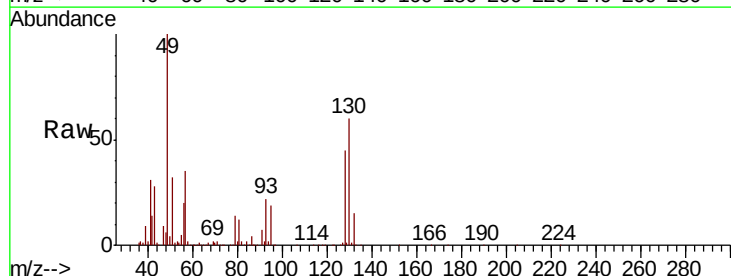
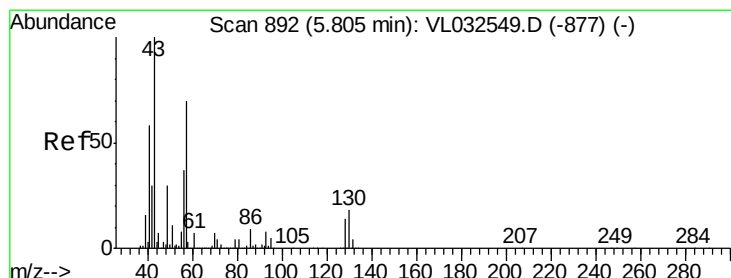
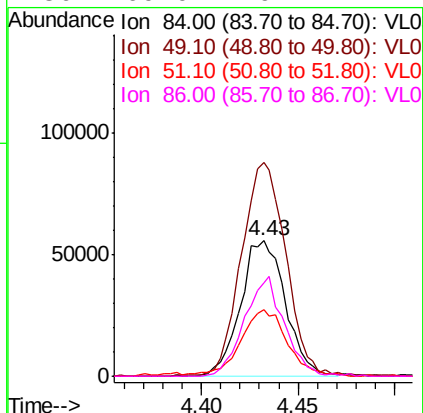
#20  
Methvlene Chloride  
Concen: 1.569 ppbv  
RT: 4.43 min Scan# 465  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 157.0 | 119.1 | 178.7 |
| 51      | 47.4  | 35.2  | 52.8  |
| 86      | 69.0  | 49.4  | 74.2  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
AMBIENT-SVI-100518DUP

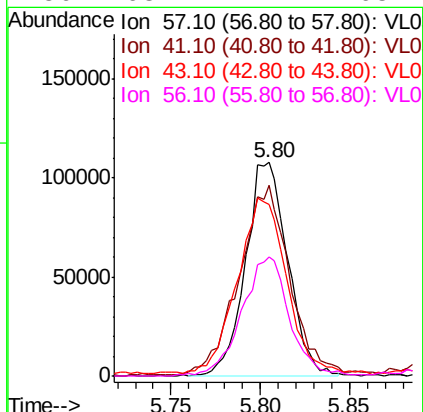
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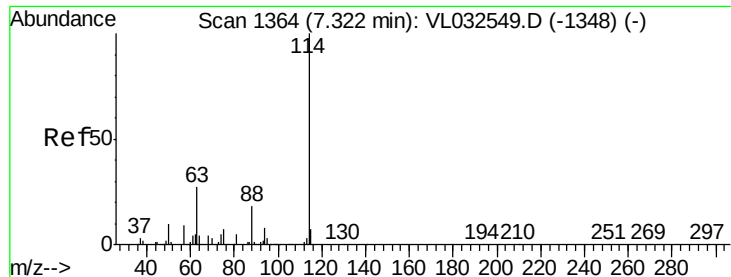


#26  
Hexane  
Concen: 1.371 ppbv  
RT: 5.80 min Scan# 892  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 57      | 100   |       |        |
| 41      | 108.1 | 69.0  | 103.4# |
| 43      | 96.0  | 172.1 | 258.1# |
| 56      | 63.1  | 42.2  | 63.2   |







#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.32 min Scan# 1363

Delta R.T. -0.03 min

Lab File: VL032610.D

Acq: 11 Oct 2018 18:45

Instrument :

MSVOA\_L

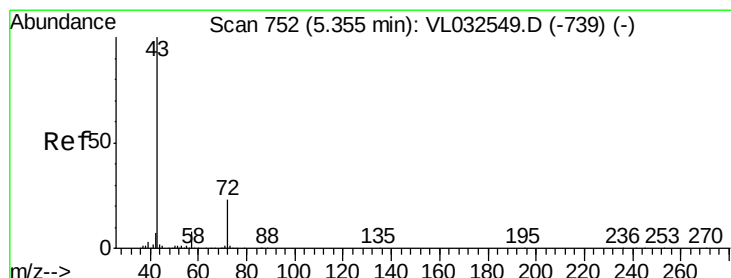
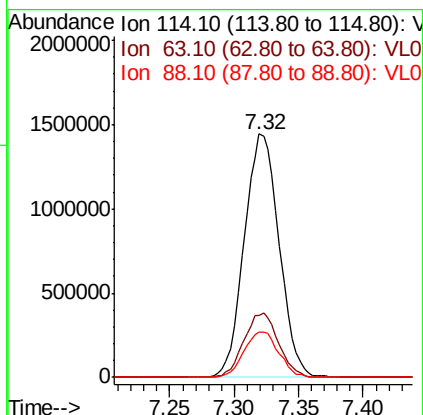
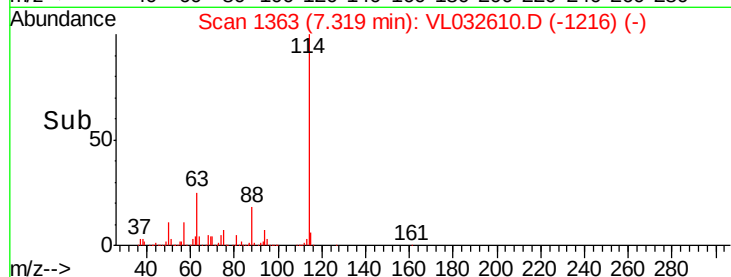
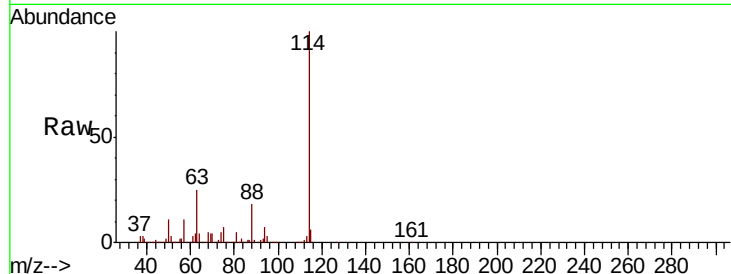
ClientSampleId :

AMBIENT-SVI-100518DUP

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 114   | Resp: | 2719616 |
| Ion      | Ratio | Lower | Upper   |
| 114      | 100   |       |         |
| 63       | 26.4  | 22.2  | 33.4    |
| 88       | 18.7  | 15.0  | 22.4    |

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#34

2-Butanone

Concen: 22.715 ppbv

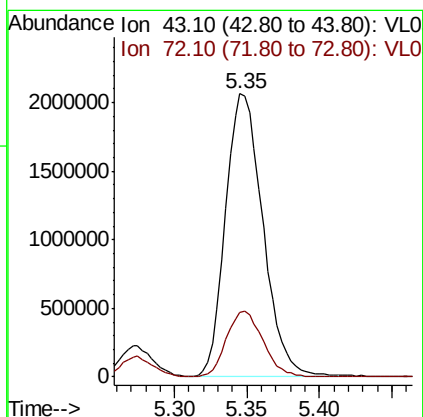
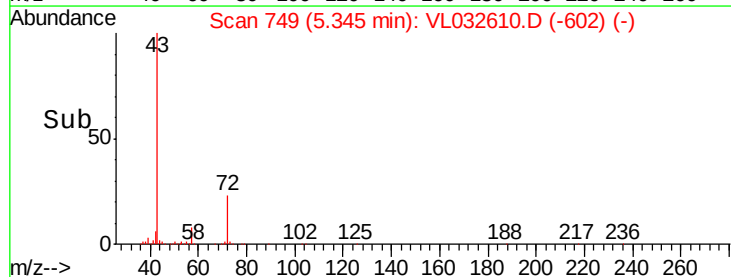
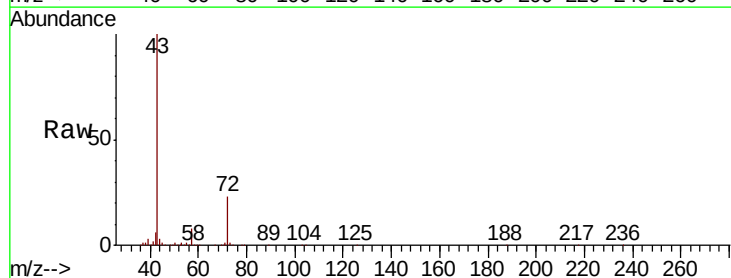
RT: 5.35 min Scan# 749

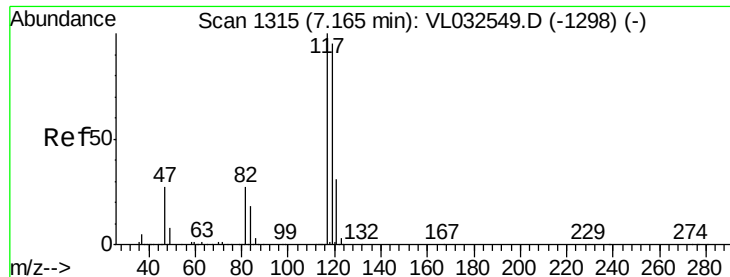
Delta R.T. -0.03 min

Lab File: VL032610.D

Acq: 11 Oct 2018 18:45

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 43    | Resp: | 3678693 |
| Ion      | Ratio | Lower | Upper   |
| 43       | 100   |       |         |
| 72       | 23.0  | 17.8  | 26.6    |





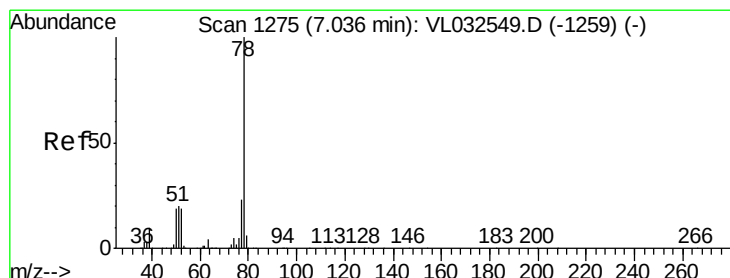
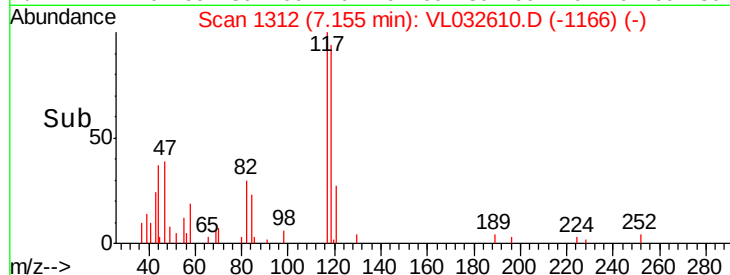
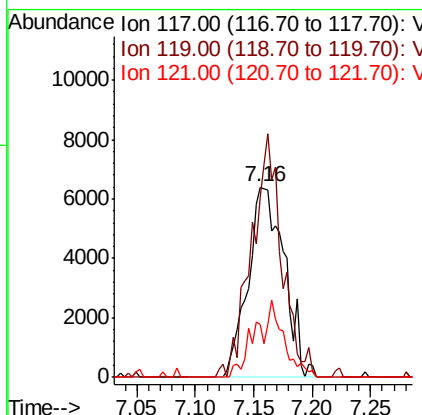
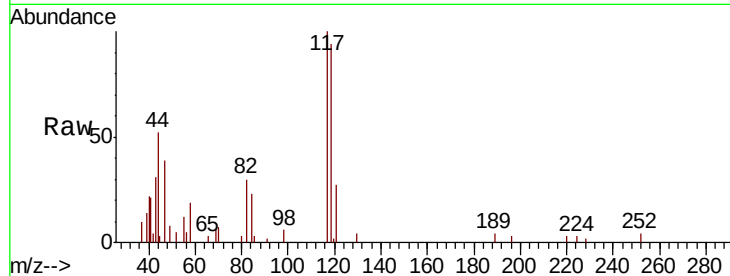
#35  
Carbon Tetrachloride  
Concen: 0.072 ppbv m  
RT: 7.16 min Scan# 1312  
Delta R.T. -0.03 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
AMBIENT-SVI-100518DUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 94.3  | 76.6  | 115.0 |
| 121     | 27.5  | 24.6  | 36.8  |

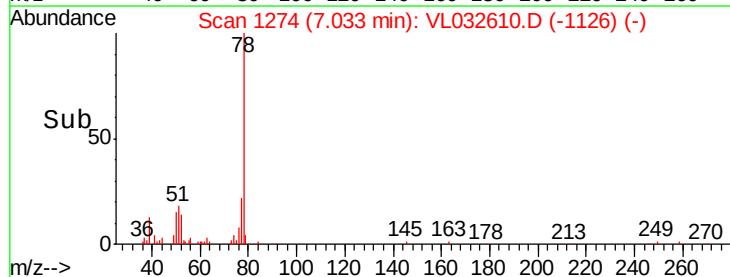
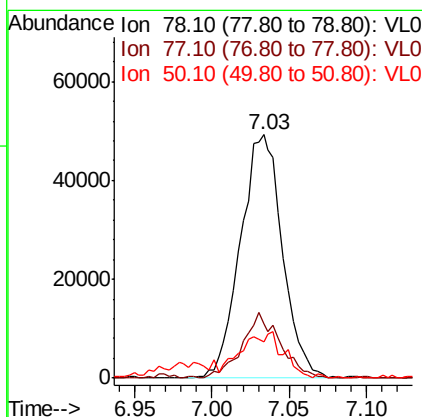
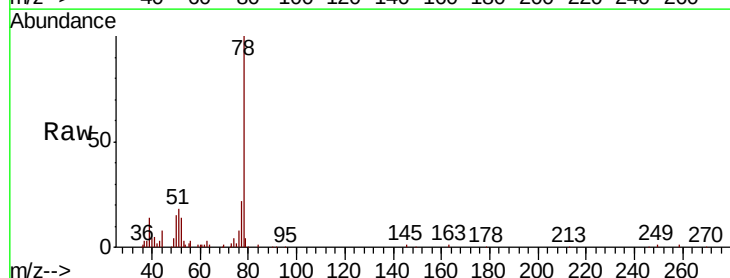
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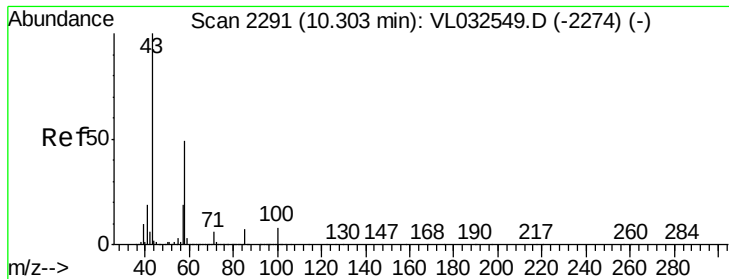
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10/12/2018 2:07:34 PM



#36  
Benzene  
Concen: 0.422 ppbv  
RT: 7.03 min Scan# 1274  
Delta R.T. -0.02 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.3  | 18.4  | 27.6  |
| 50      | 13.8  | 14.4  | 21.6# |





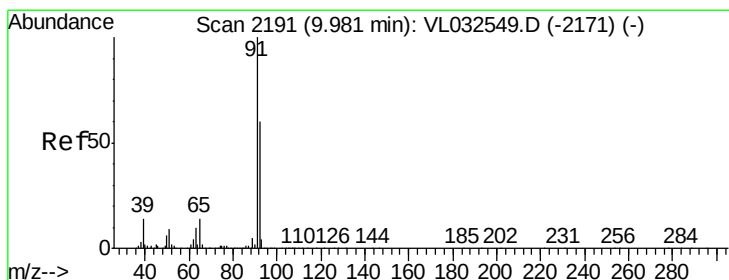
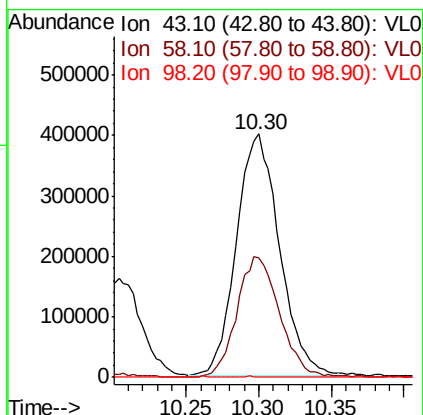
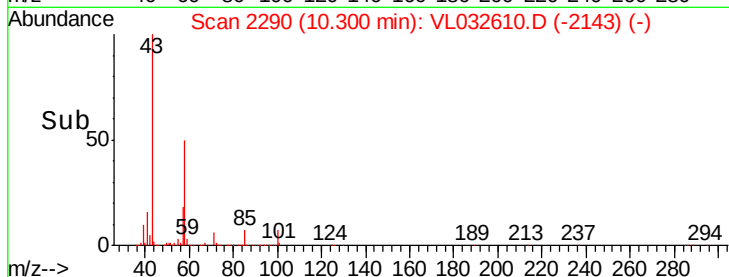
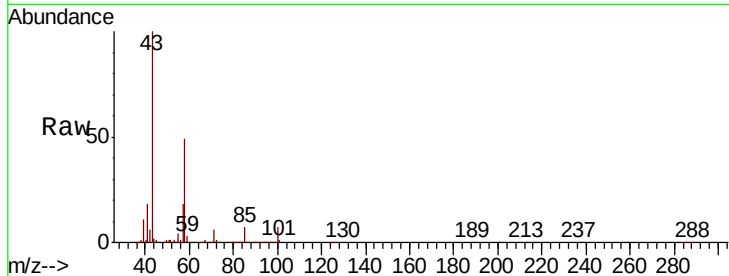
#51  
2-Hexanone  
Concen: 3.910 ppbv  
RT: 10.30 min Scan# 2290  
Delta R.T. -0.03 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
AMBIENT-SVI-100518DUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 49.8  | 39.2  | 58.8  |
| 98      | 0.6   | 0.4   | 0.6#  |

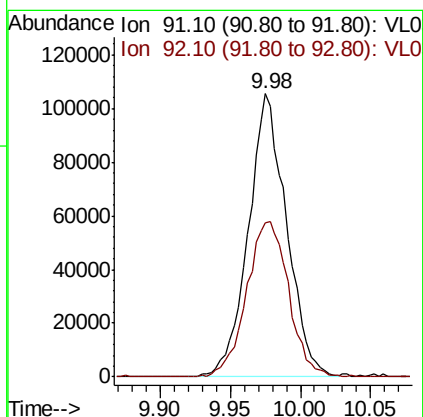
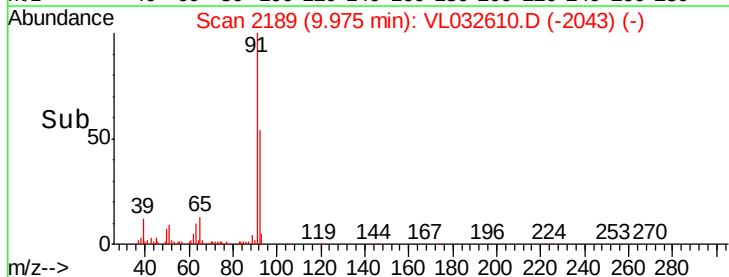
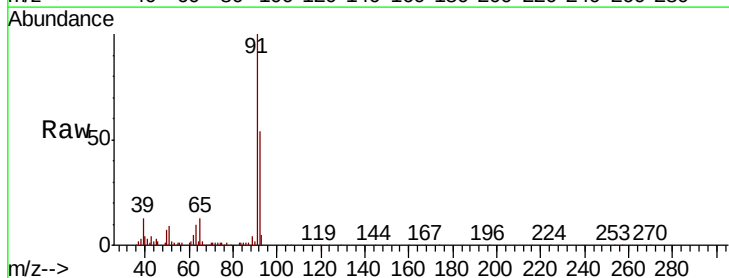
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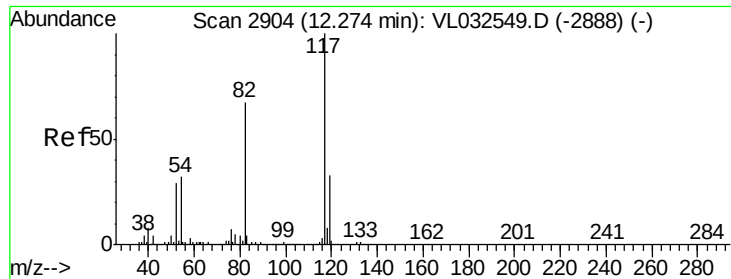
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10/12/2018 2:07:34 PM



#53  
Toluene  
Concen: 0.746 ppbv  
RT: 9.98 min Scan# 2189  
Delta R.T. -0.03 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 60.5  | 48.1  | 72.1  |





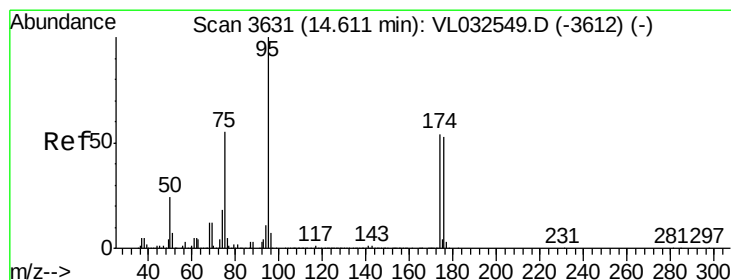
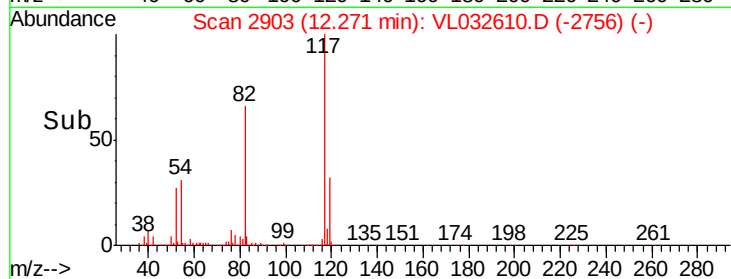
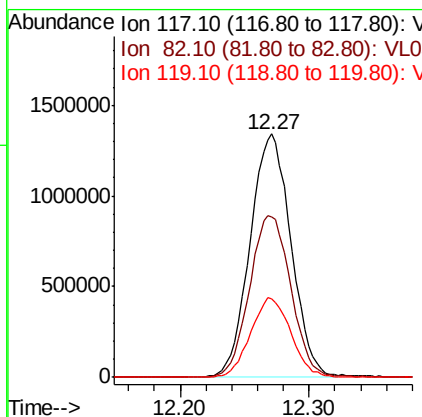
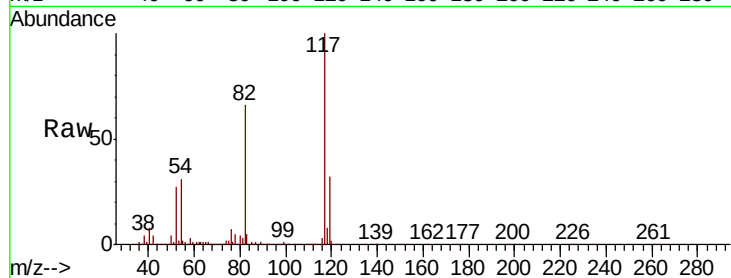
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.27 min Scan# 2903  
Delta R.T. -0.03 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

Instrument :  
MSVOA\_L  
ClientSampleId :  
AMBIENT-SVI-100518DUP

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 67.6  | 53.0  | 79.6  |
| 119     | 32.4  | 45.9  | 68.9# |

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#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.347 ppbv  
RT: 14.61 min Scan# 3630  
Delta R.T. -0.03 min  
Lab File: VL032610.D  
Acq: 11 Oct 2018 18:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 57.7  | 46.3  | 69.5  |
| 175     | 4.2   | 3.4   | 5.0   |

