

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061319\  
 Data File : VL033916.D  
 Acq On : 14 Jun 2019 3:29  
 Operator : SY/AP  
 Sample : K3367-01DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Jun 14 05:38:01 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jun 07 08:53:27 2019  
 QLast Update : Fri Jun 07 08:53:27 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.75  | 49   | 879796   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.27  | 114  | 2001527  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.22 | 117  | 1892980  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.56  | 95    | 1554926  | 10.00    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.00% |

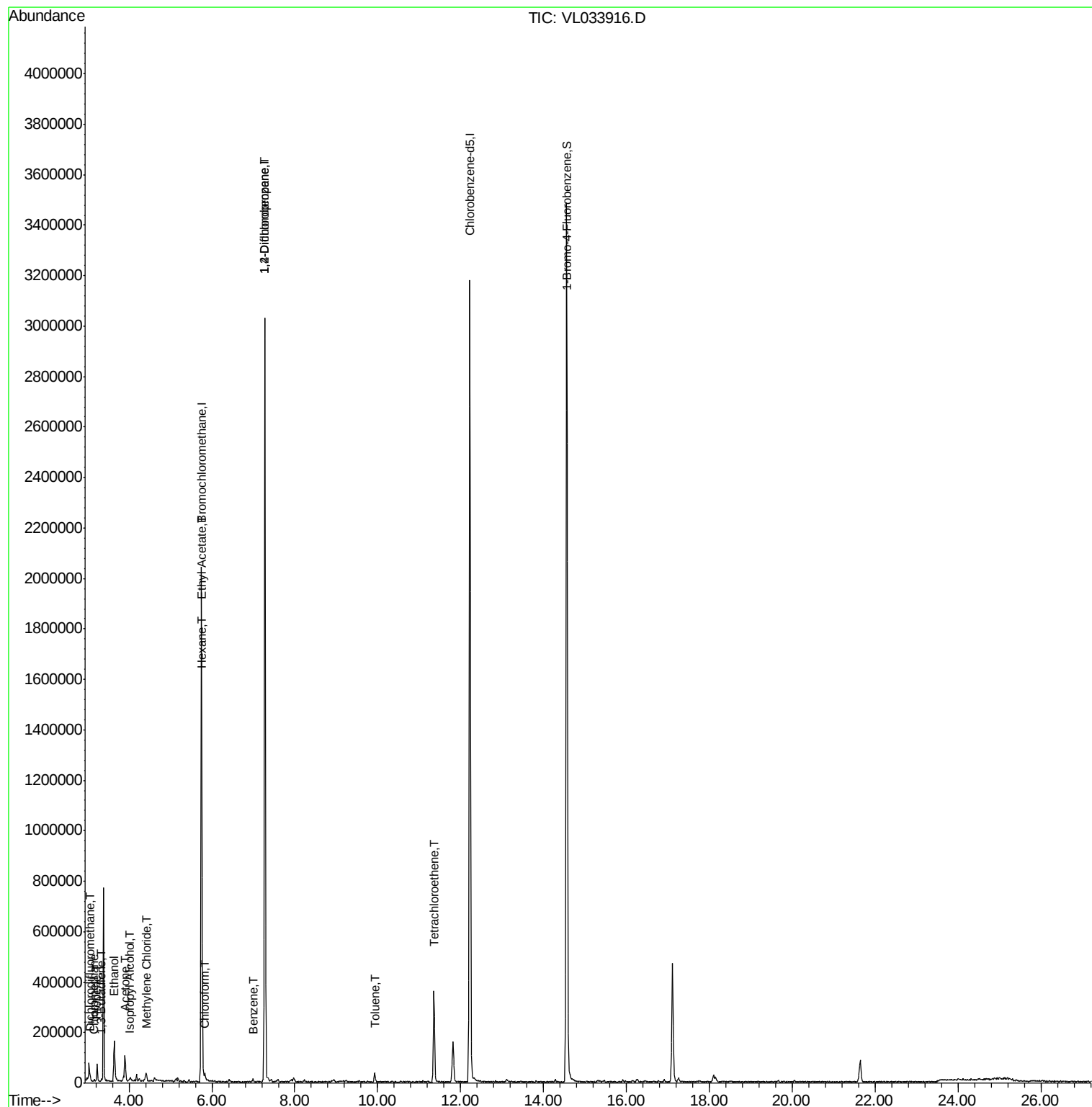
| Target Compounds           |       |     |        |              | Ovalue |
|----------------------------|-------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane | 3.07  | 85  | 4450   | 0.031 ppbv   | 92     |
| 4) Chloromethane           | 3.16  | 50  | 2558   | 0.043 ppbv   | 90     |
| 9) Propene                 | 3.23  | 41  | 14846  | 0.383 ppbv   | 93     |
| 13) Ethanol                | 3.64  | 45  | 171934 | 13.636 ppbv  | 97     |
| 15) Acetone                | 3.90  | 43  | 101711 | 0.793 ppbv   | 95     |
| 16) 1,3-Butadiene          | 3.34  | 39  | 1986   | 0.041 ppbv # | 6      |
| 19) Isopropyl Alcohol      | 4.03  | 45  | 7835   | 0.107 ppbv # | 73     |
| 20) Methylene Chloride     | 4.40  | 84  | 7082   | 0.142 ppbv # | 91     |
| 25) Ethyl Acetate          | 5.76  | 43  | 9883   | 0.051 ppbv # | 90     |
| 26) Hexane                 | 5.77  | 57  | 7533   | 0.085 ppbv # | 54     |
| 29) Chloroform             | 5.83  | 83  | 13307  | 0.087 ppbv # | 82     |
| 36) Benzene                | 6.98  | 78  | 7606   | 0.050 ppbv # | 95     |
| 39) 1,2-Dichloropropane    | 7.27  | 63  | 529025 | 8.965 ppbv # | 25     |
| 52) Tetrachloroethene      | 11.36 | 164 | 79863  | 1.484 ppbv   | 93     |
| 53) Toluene                | 9.93  | 91  | 13651  | 0.081 ppbv # | 52     |

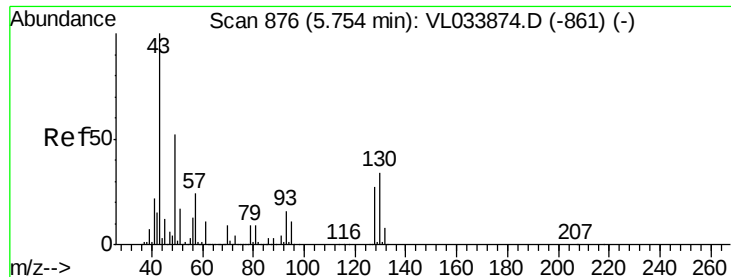
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_L  
ClientSampleId :

Quant Time: Jun 14 05:38:01 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jun 07 08:53:27 2019  
QLast Update : Fri Jun 07 08:53:27 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 874

Delta R.T. -0.01 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :

MSVOA\_L

ClientSampleId :

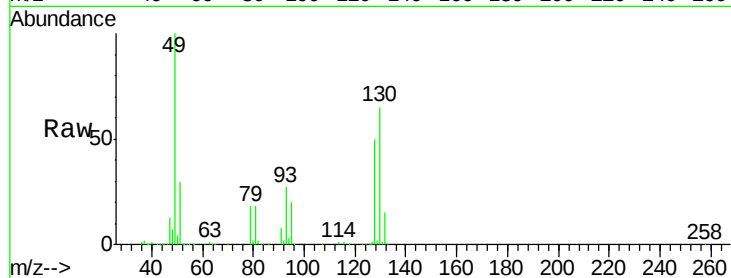
Tot Ion: 49 Resp: 879796

Ion Ratio Lower Upper

49 100

128 50.1 25.5 76.5

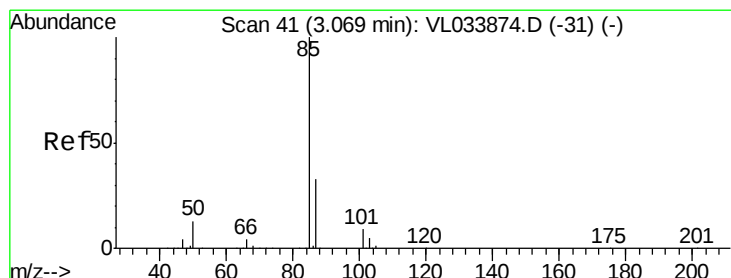
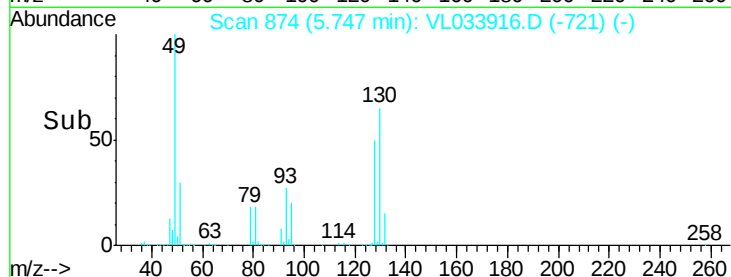
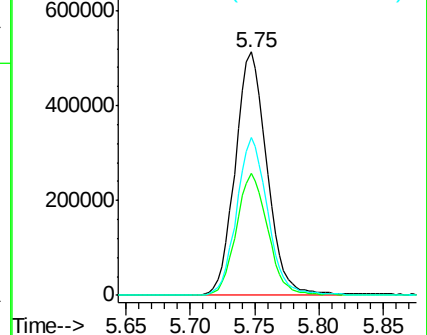
130 63.9 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.031 ppbv

RT: 3.07 min Scan# 40

Delta R.T. -0.00 min

Lab File: VL033916.D

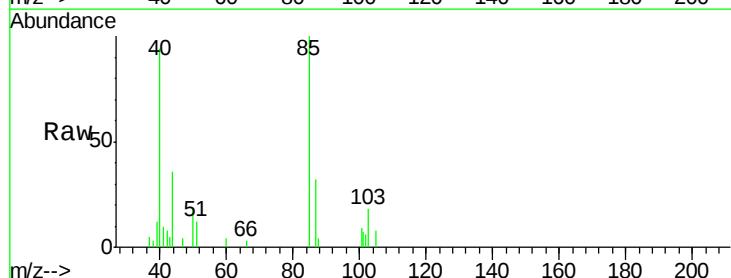
Acq: 14 Jun 2019 3:29

Tgt Ion: 85 Resp: 4450

Ion Ratio Lower Upper

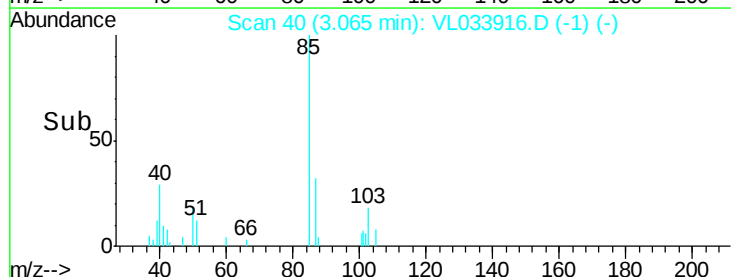
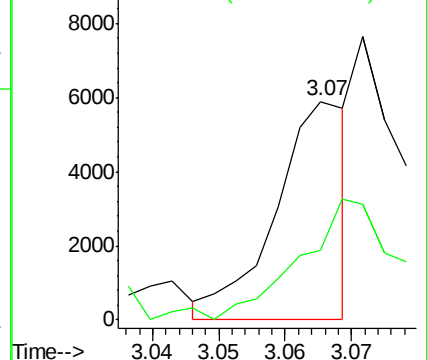
85 100

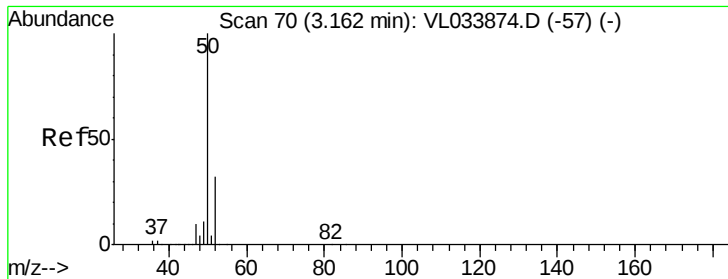
87 28.9 26.6 40.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.043 ppbv

RT: 3.16 min Scan# 70

Delta R.T. -0.00 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :

MSVOA\_L

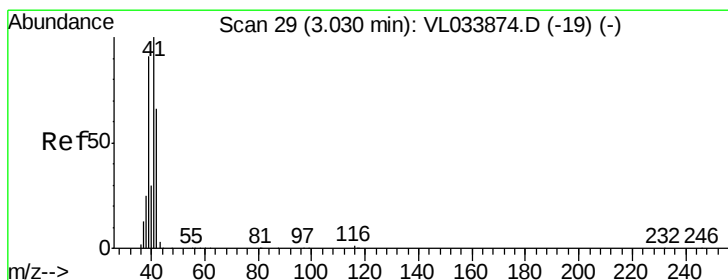
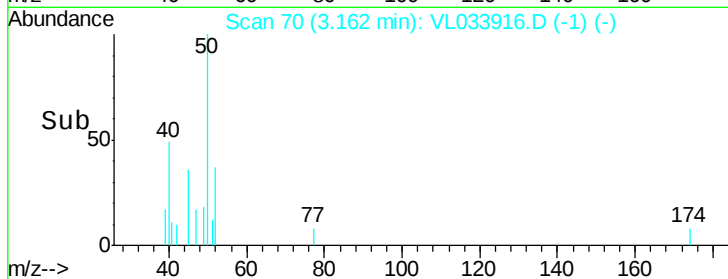
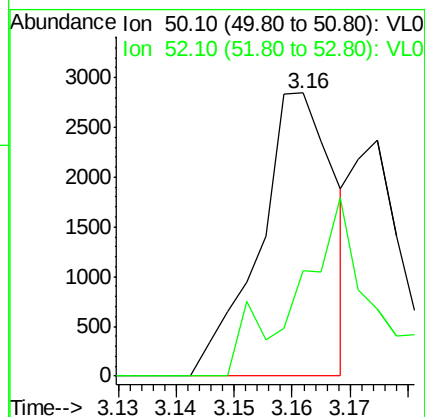
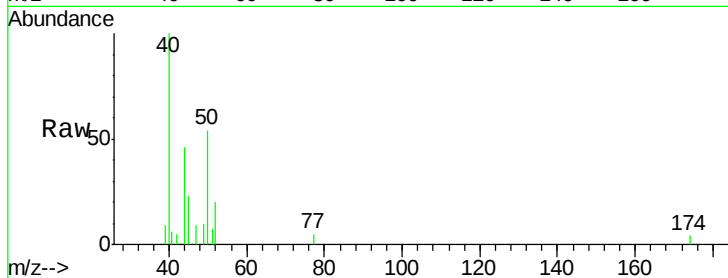
ClientSampleId :

Tot Ion: 50 Resp: 2558

Ion Ratio Lower Upper

50 100

52 37.3 25.4 38.0



#9

Propene

Concen: 0.383 ppbv

RT: 3.23 min Scan# 92

Delta R.T. 0.20 min

Lab File: VL033916.D

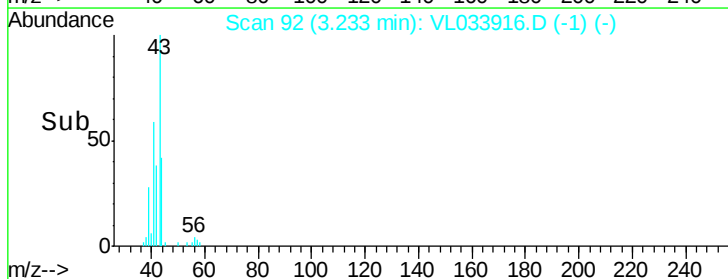
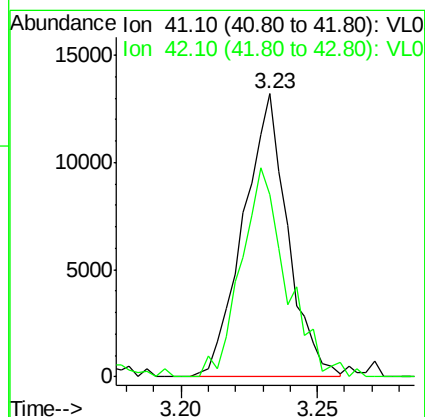
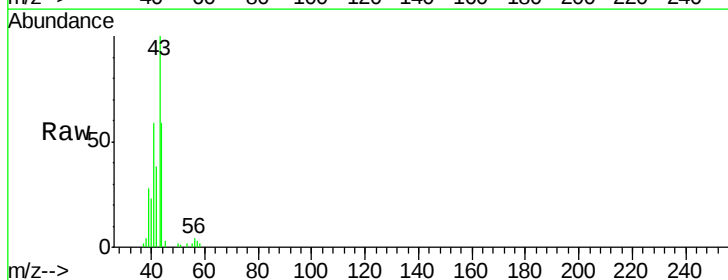
Acq: 14 Jun 2019 3:29

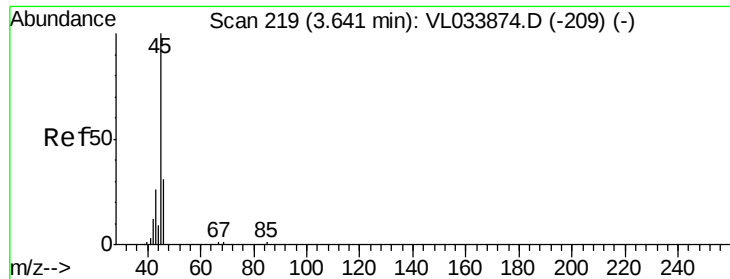
Tgt Ion: 41 Resp: 14846

Ion Ratio Lower Upper

41 100

42 76.2 56.3 84.5





#13

Ethanol

Concen: 13.636 ppbv

RT: 3.64 min Scan# 220

Delta R.T. 0.00 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :

MSVOA\_L

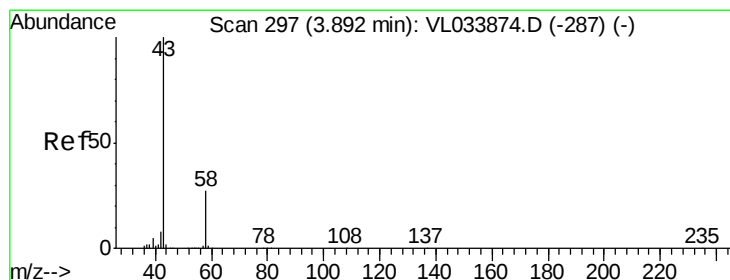
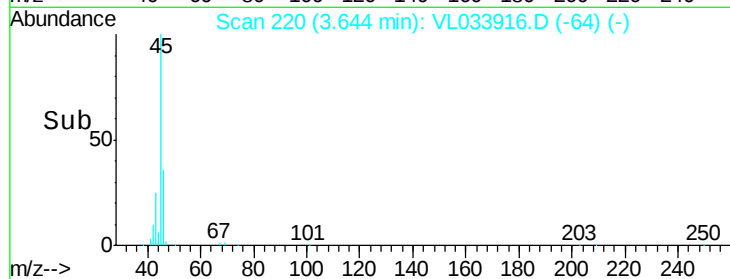
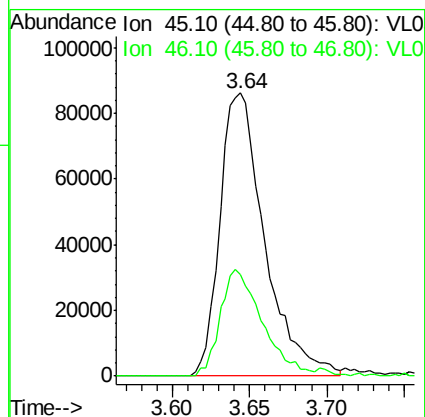
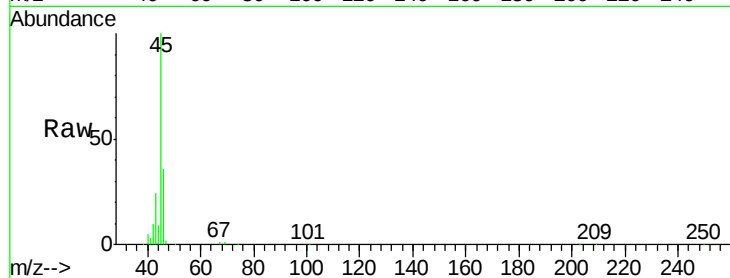
ClientSampleId :

Tot Ion: 45 Resp: 171934

Ion Ratio Lower Upper

45 100

46 36.7 15.3 61.1



#15

Acetone

Concen: 0.793 ppbv

RT: 3.90 min Scan# 299

Delta R.T. 0.01 min

Lab File: VL033916.D

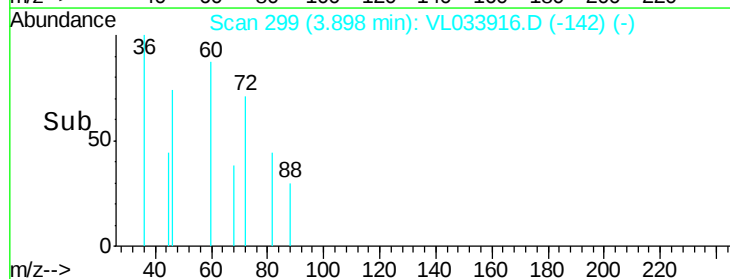
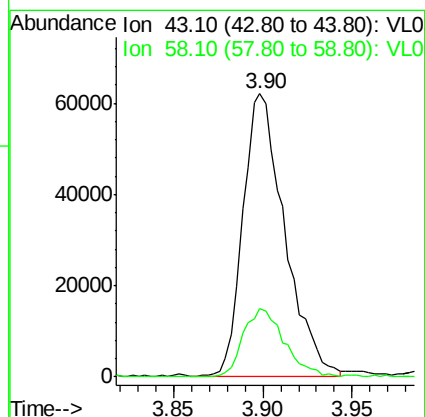
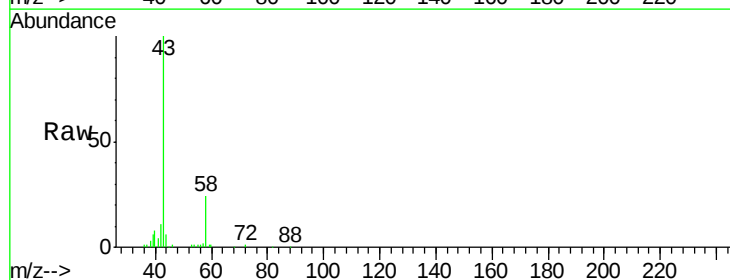
Acq: 14 Jun 2019 3:29

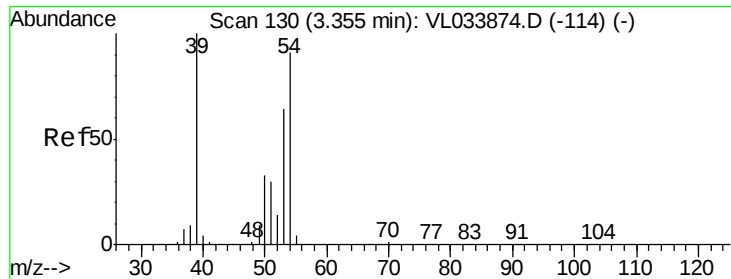
Tgt Ion: 43 Resp: 101711

Ion Ratio Lower Upper

43 100

58 24.0 21.3 31.9

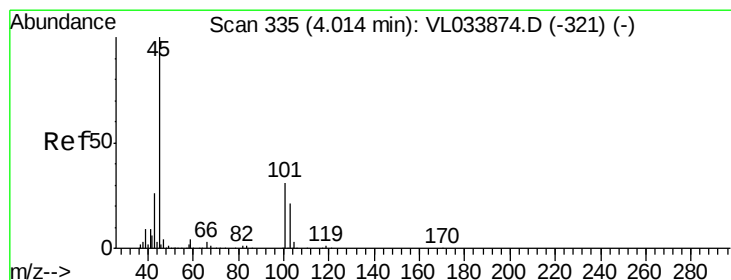
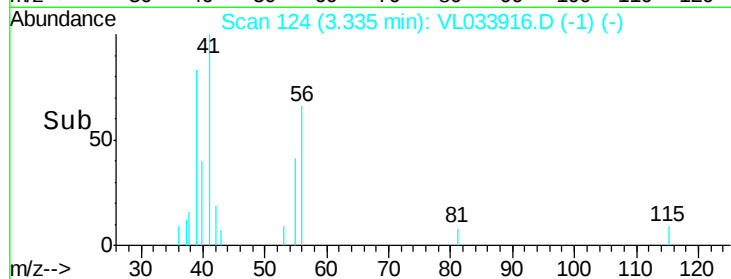
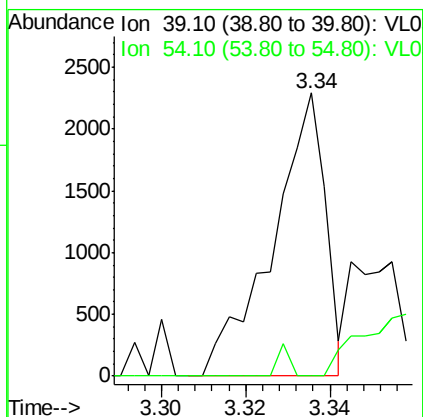
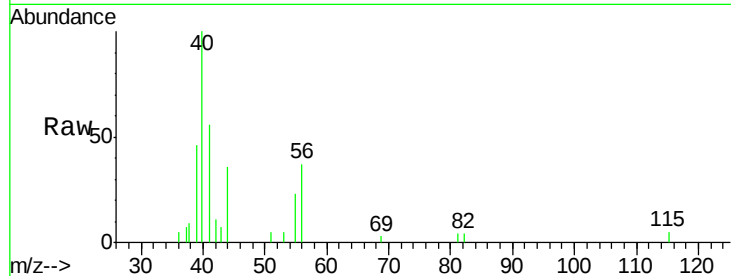




#16  
 1,3-Butadiene  
 Concen: 0.041 ppbv  
 RT: 3.34 min Scan# 124  
 Delta R.T. -0.02 min  
 Lab File: VL033916.D  
 Acq: 14 Jun 2019 3:29

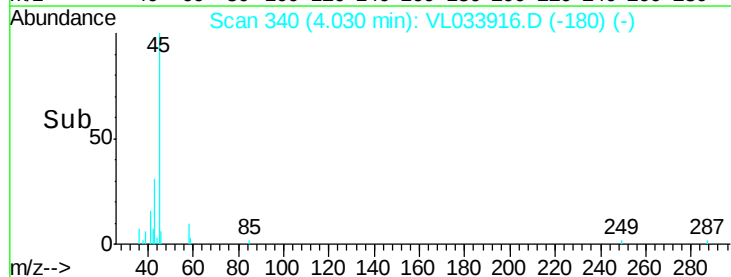
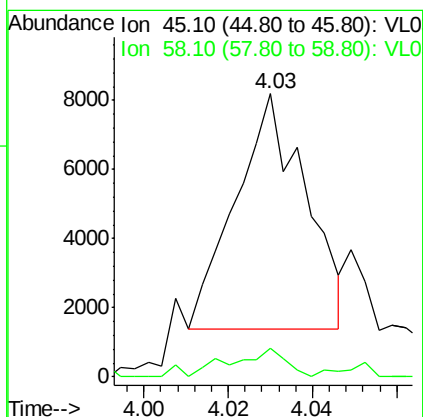
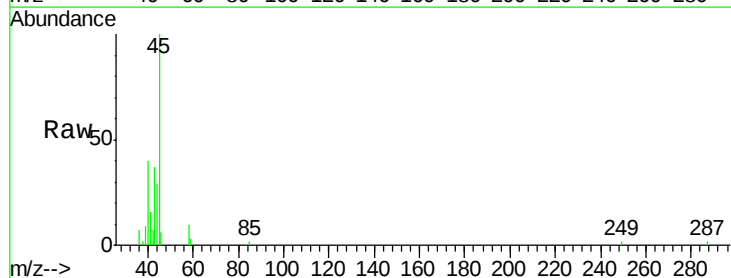
Instrument :  
 MSVOA\_L  
 ClientSampled :

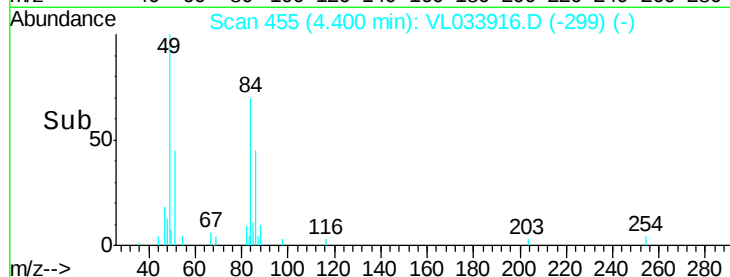
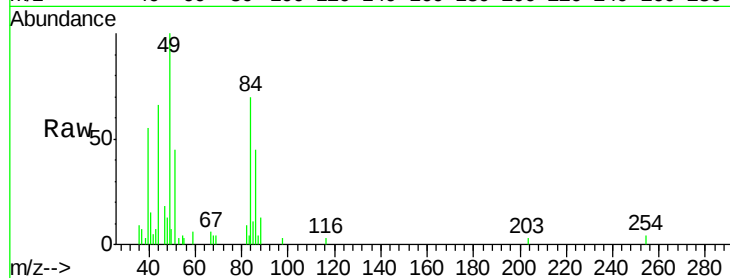
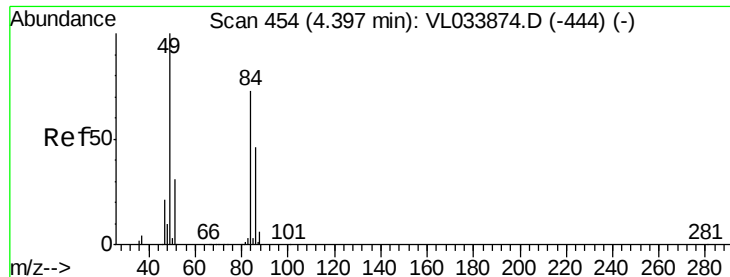
Tot Ion: 39 Resp: 1986  
 Ion Ratio Lower Upper  
 39 100  
 54 0.0 68.6 103.0#



#19  
 Isopropyl Alcohol  
 Concen: 0.107 ppbv  
 RT: 4.03 min Scan# 340  
 Delta R.T. 0.02 min  
 Lab File: VL033916.D  
 Acq: 14 Jun 2019 3:29

Tgt Ion: 45 Resp: 7835  
 Ion Ratio Lower Upper  
 45 100  
 58 11.6 1.8 2.6#

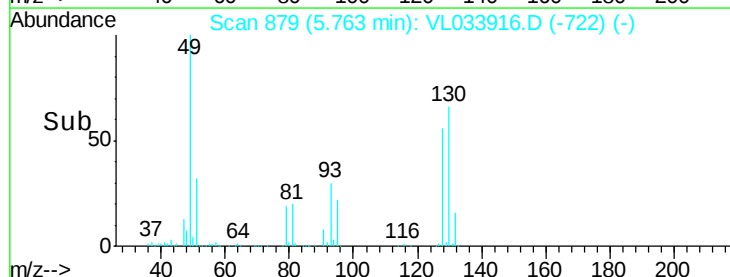
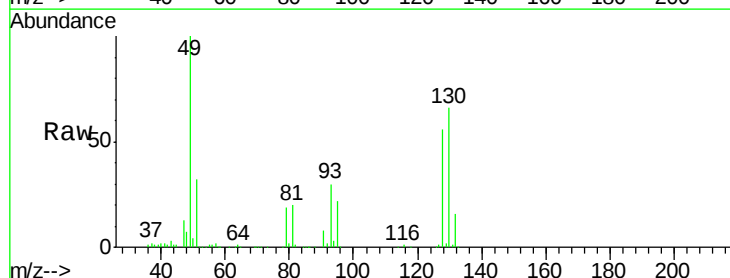
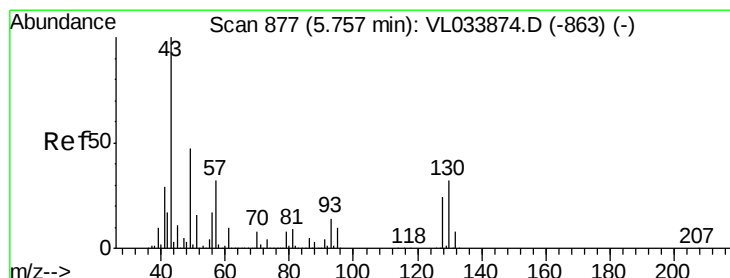
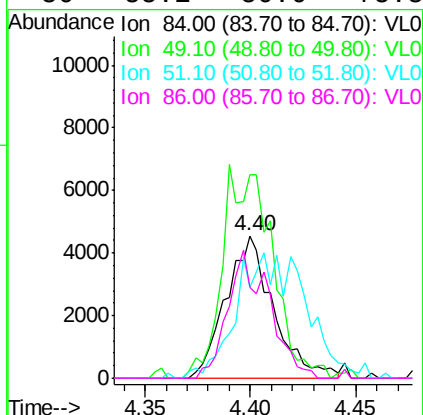




#20  
Methylene Chloride  
Concen: 0.142 ppbv  
RT: 4.40 min Scan# 455  
Delta R.T. 0.00 min  
Lab File: VL033916.D  
Acq: 14 Jun 2019 3:29

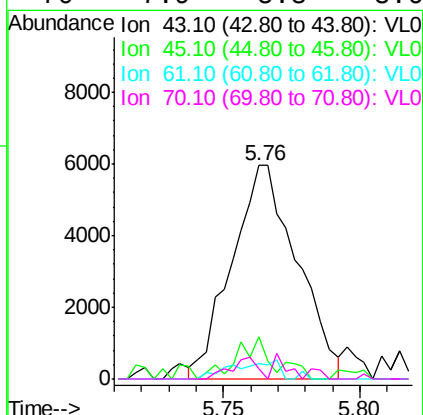
Instrument :  
MSVOA\_L  
ClientSampleId :

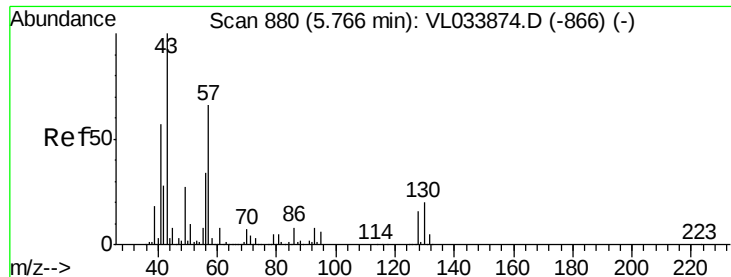
Tot Ion: 84 Resp: 7082  
Ion Ratio Lower Upper  
84 100  
49 128.9 110.0 165.0  
51 52.0 34.6 51.8#  
86 55.1 50.6 75.8



#25  
Ethyl Acetate  
Concen: 0.051 ppbv  
RT: 5.76 min Scan# 879  
Delta R.T. 0.01 min  
Lab File: VL033916.D  
Acq: 14 Jun 2019 3:29

Tgt Ion: 43 Resp: 9883  
Ion Ratio Lower Upper  
43 100  
45 16.4 7.9 11.9#  
61 6.4 7.8 11.6#  
70 7.9 5.8 8.6





#26

Hexane

Concen: 0.085 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :  
MSVOA\_L  
ClientSampled :

Tot Ion: 57 Resp: 7533

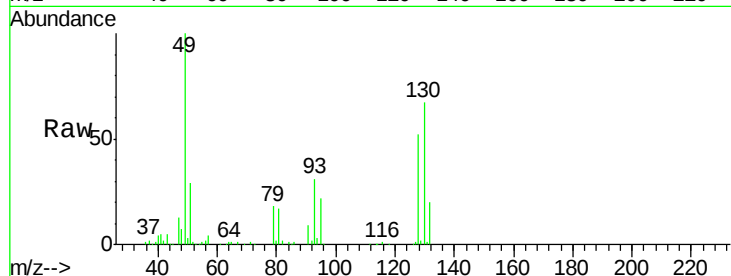
Ion Ratio Lower Upper

57 100

41 121.7 71.4 107.2#

43 142.4 183.7 275.5#

56 78.5 42.7 64.1#

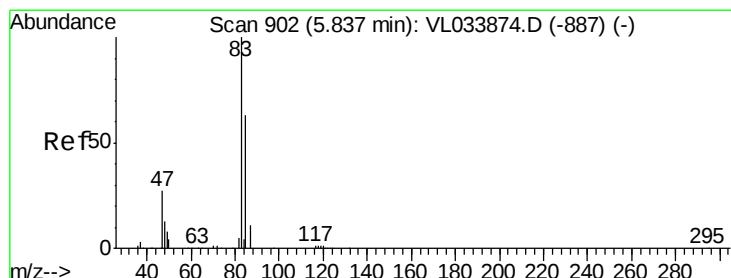
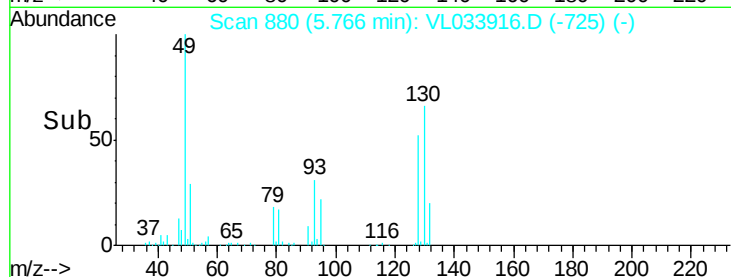
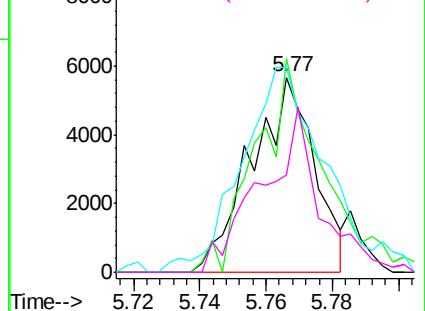


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.087 ppbv

RT: 5.83 min Scan# 900

Delta R.T. -0.01 min

Lab File: VL033916.D

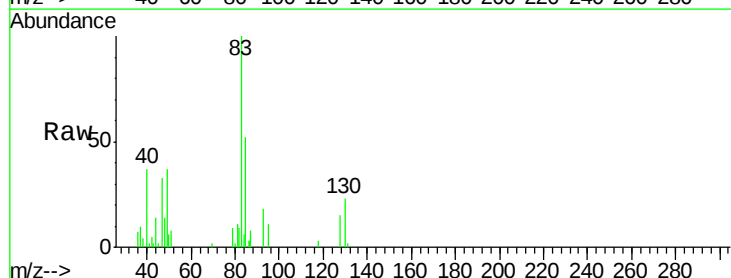
Acq: 14 Jun 2019 3:29

Tgt Ion: 83 Resp: 13307

Ion Ratio Lower Upper

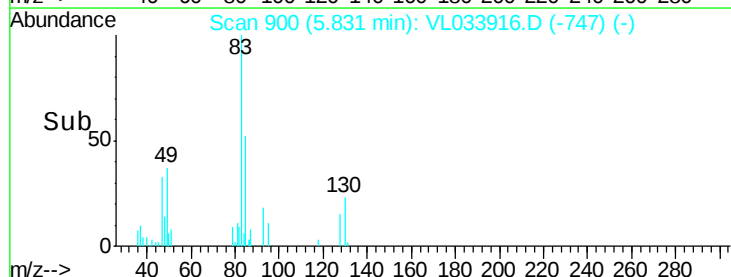
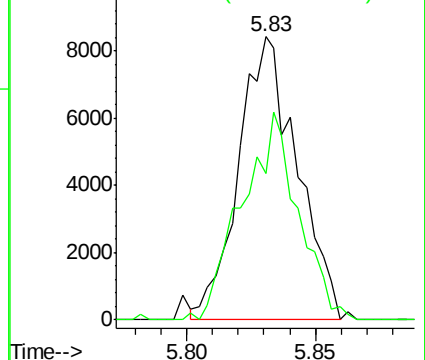
83 100

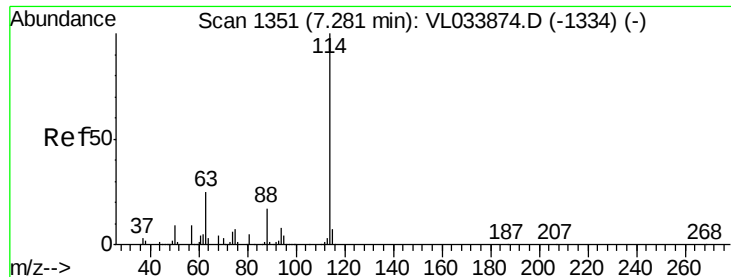
85 49.2 50.5 75.7#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

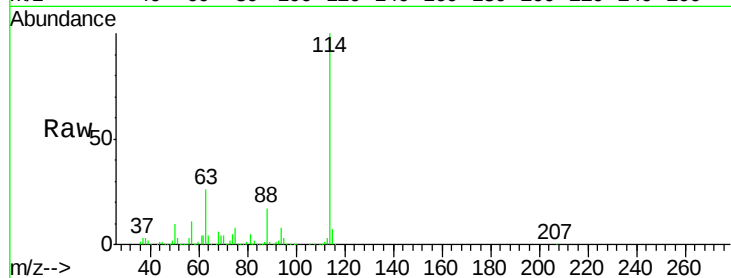




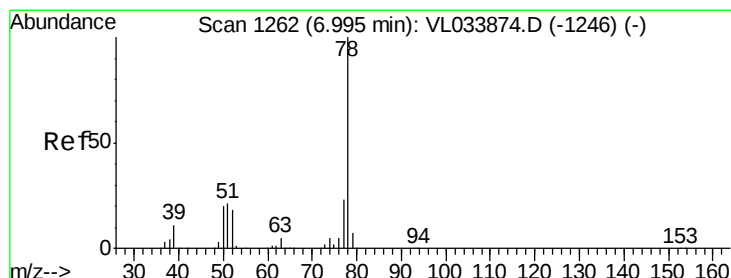
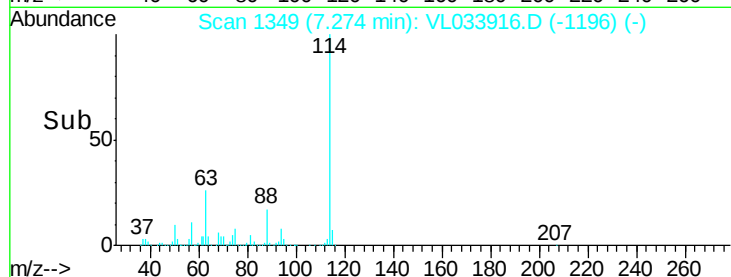
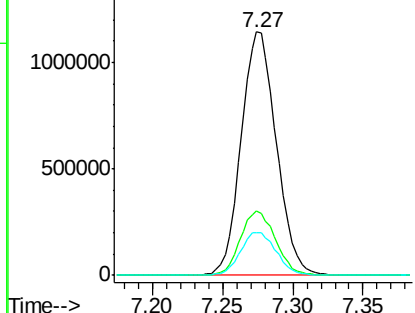
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.27 min Scan# 1349  
 Delta R.T. -0.01 min  
 Lab File: VL033916.D  
 Acq: 14 Jun 2019 3:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 2001527  
 Ion Ratio Lower Upper  
 114 100  
 63 26.5 21.1 31.7  
 88 18.0 14.2 21.4

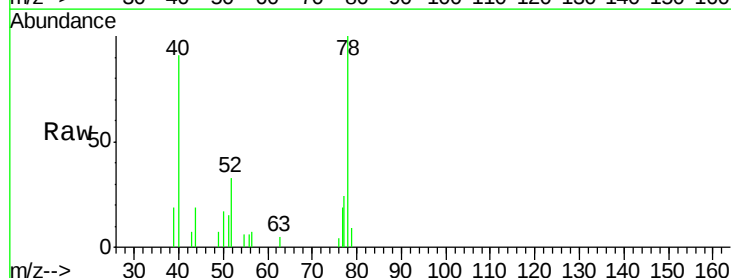


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

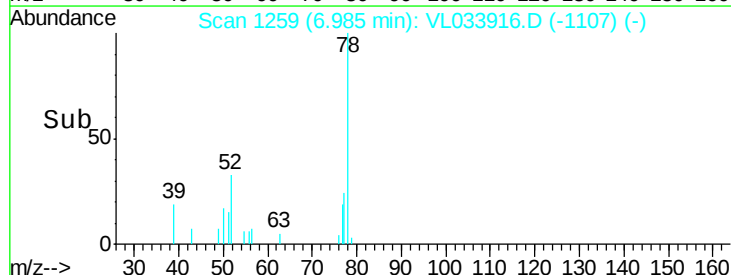
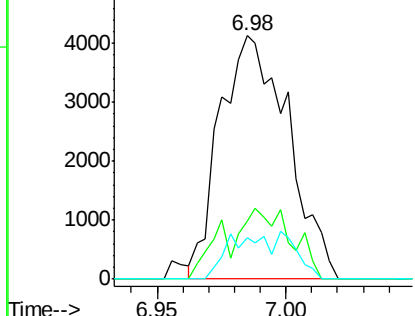


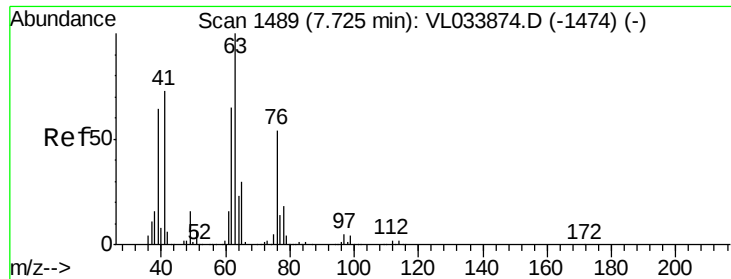
#36  
 Benzene  
 Concen: 0.050 ppbv  
 RT: 6.98 min Scan# 1259  
 Delta R.T. -0.01 min  
 Lab File: VL033916.D  
 Acq: 14 Jun 2019 3:29

Tgt Ion: 78 Resp: 7606  
 Ion Ratio Lower Upper  
 78 100  
 77 22.0 18.2 27.2  
 50 15.6 15.9 23.9#



Abundance Ion 78.10 (77.80 to 78.80): VL0  
 Ion 77.10 (76.80 to 77.80): VL0  
 Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.965 ppbv

RT: 7.27 min Scan# 1349

Delta R.T. -0.45 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :

MSVOA\_L

ClientSampleId :

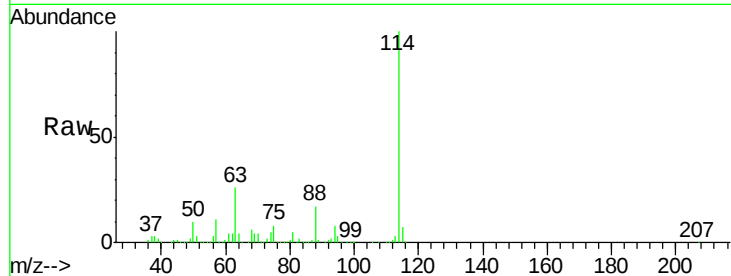
Tot Ion: 63 Resp: 529025

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

62 17.0 51.9 77.9#

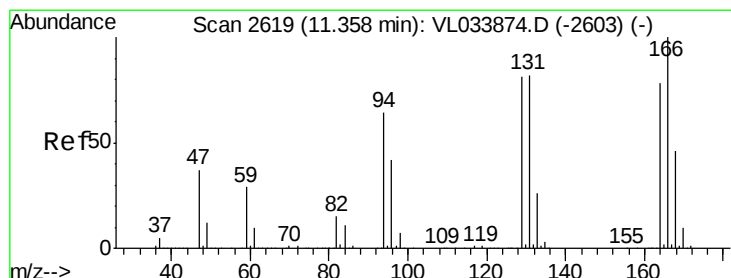
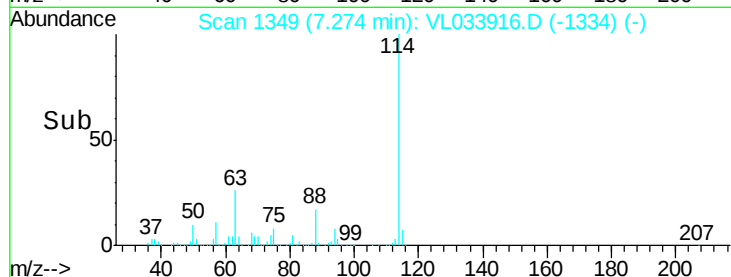
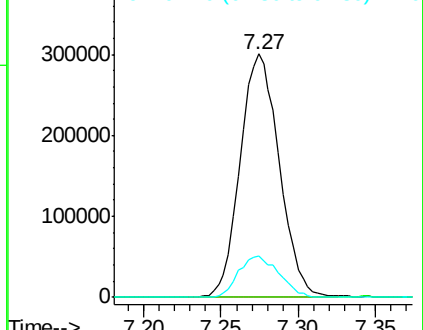


Abundance

Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#52

Tetrachloroethene

Concen: 1.484 ppbv

RT: 11.36 min Scan# 2619

Delta R.T. -0.00 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Tgt Ion:164 Resp: 79863

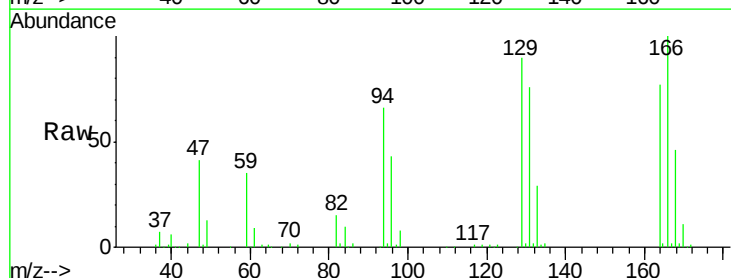
Ion Ratio Lower Upper

164 100

166 129.9 103.1 154.7

129 118.7 83.9 125.9

131 98.9 85.1 127.7



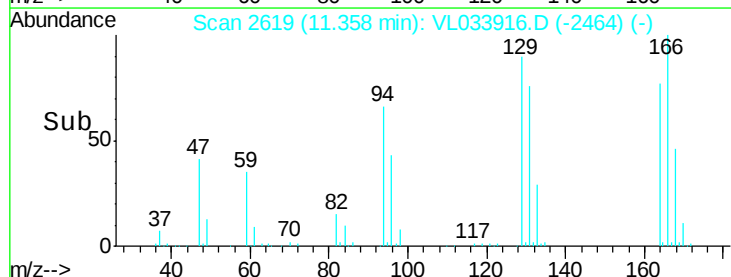
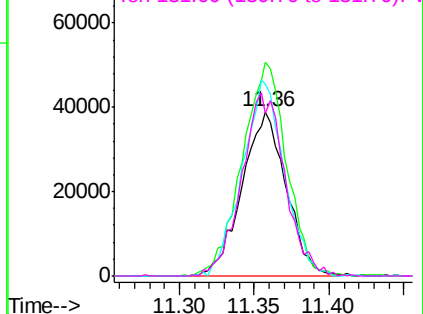
Abundance

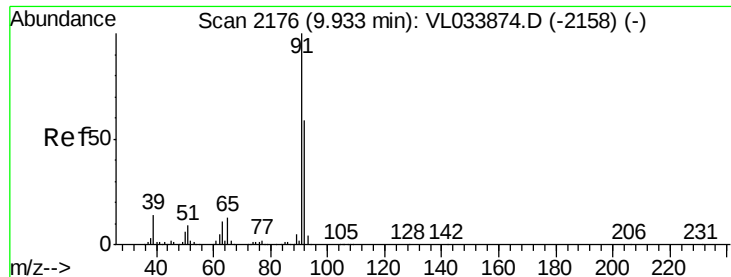
Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.081 ppbv

RT: 9.93 min Scan# 2175

Delta R.T. -0.00 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

Instrument :

MSVOA\_L

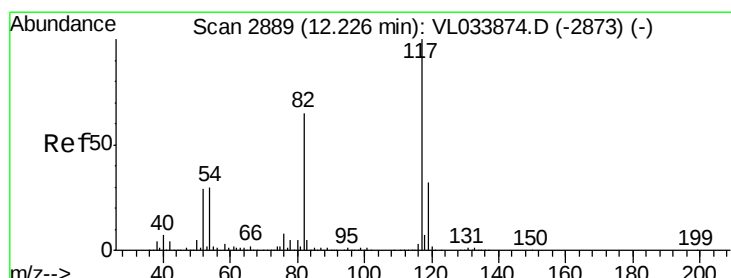
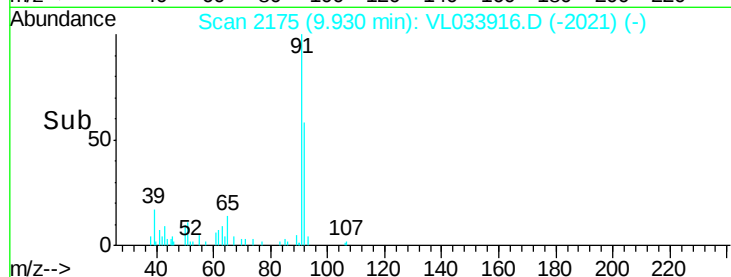
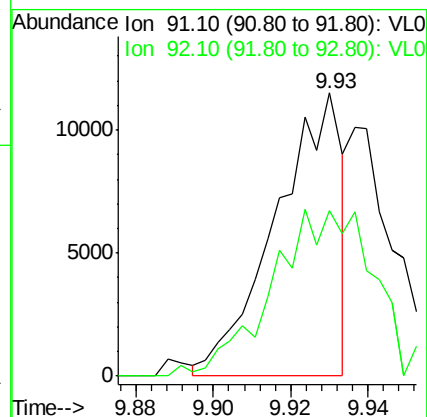
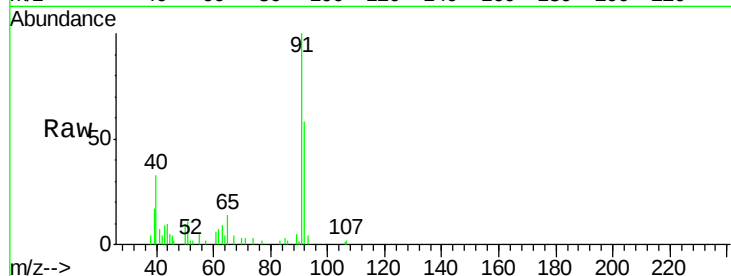
ClientSampleId :

Tot Ion: 91 Resp: 13651

Ion Ratio Lower Upper

91 100

92 94.7 47.0 70.6#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.22 min Scan# 2887

Delta R.T. -0.01 min

Lab File: VL033916.D

Acq: 14 Jun 2019 3:29

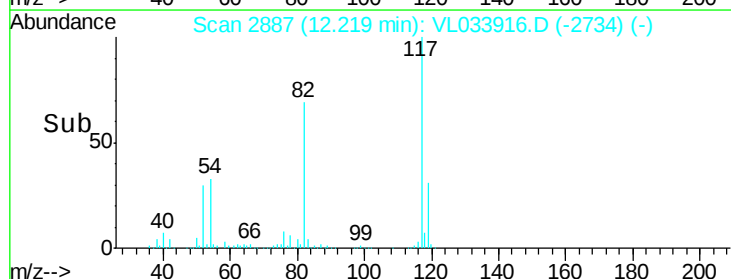
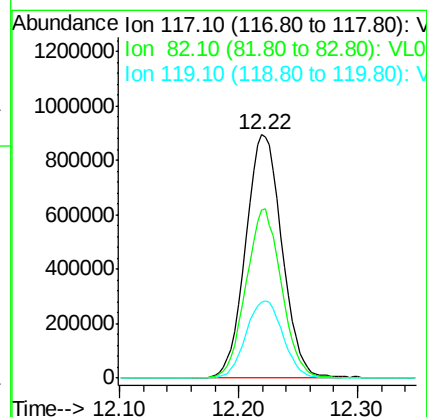
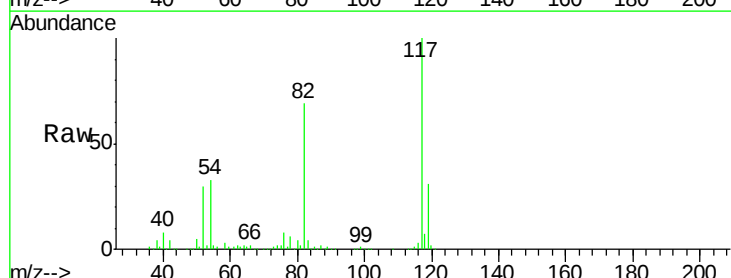
Tgt Ion: 117 Resp: 1892980

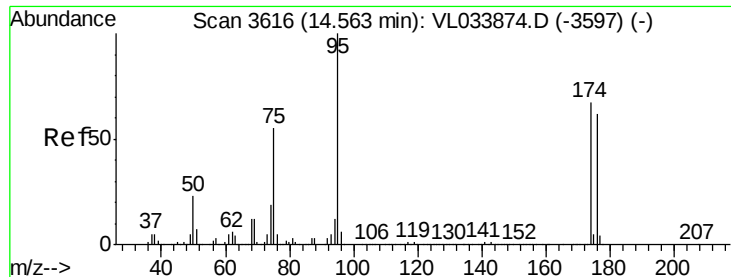
Ion Ratio Lower Upper

117 100

82 68.4 50.2 75.2

119 32.4 24.8 37.2





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.000 ppbv  
 RT: 14.56 min Scan# 3615  
 Delta R.T. -0.00 min  
 Lab File: VL033916.D  
 Acq: 14 Jun 2019 3:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion: 95 Resp: 1554926  
 Ion Ratio Lower Upper  
 95 100  
 174 66.1 54.0 81.0  
 175 4.7 3.8 5.8

