

Data File : VL033861.D  
Acq On : 30 May 2019 8:16  
Operator : SY/AP  
Sample : K3067-09DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
SG-23-20190523-ODL

Quant Time: May 31 07:04:32 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL051719AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri May 17 08:15:41 2019  
QLast Update : Fri May 17 08:15:41 2019  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.75  | 49   | 673286   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.28  | 114  | 1551505  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 1531167  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1251665  | 10.08    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.80% |

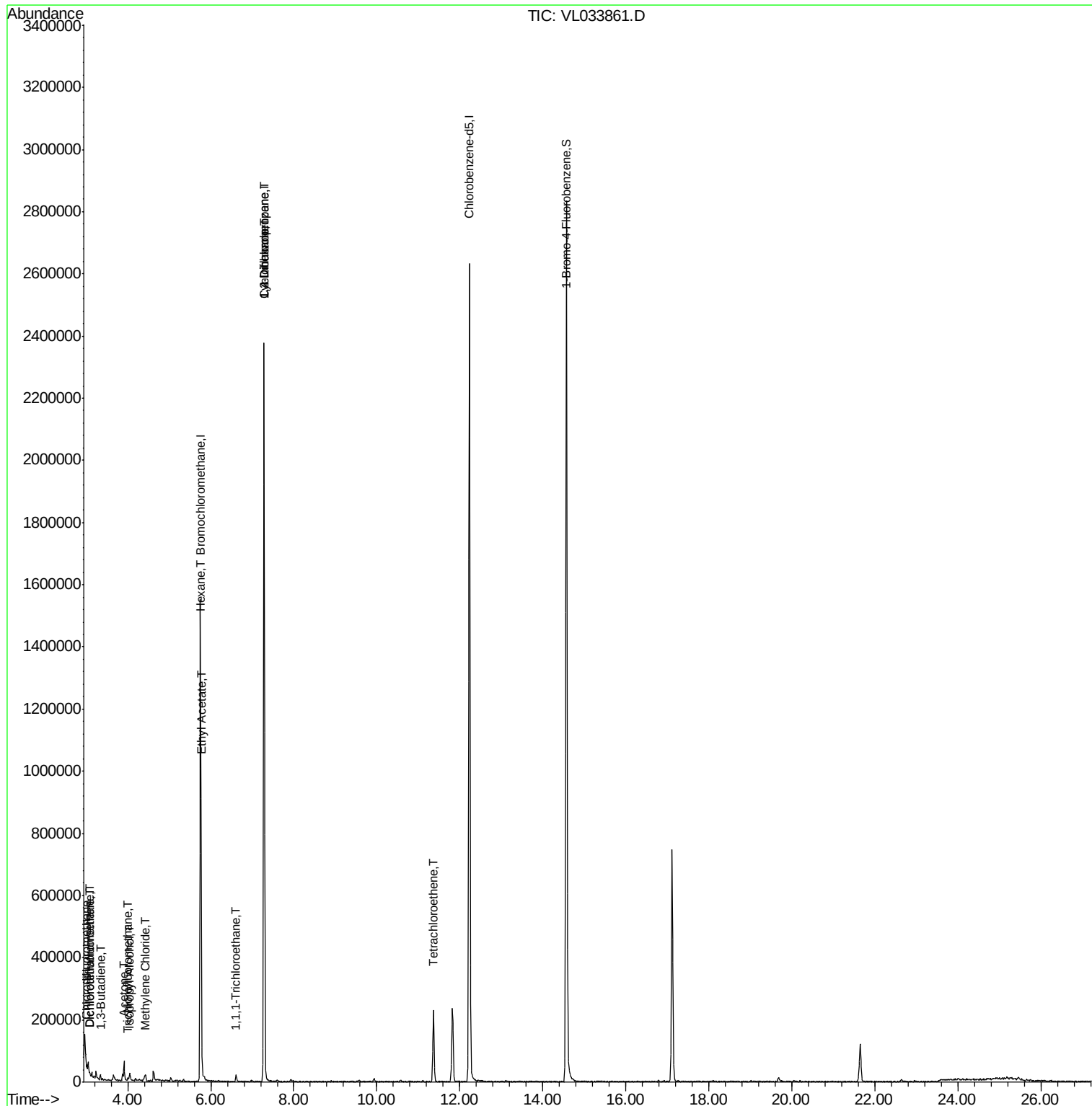
| Target Compounds             | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane   | 3.08  | 85   | 5394     | 0.038 | ppbv   | 96     |
| 3) Chlorodifluoromethane     | 3.01  | 51   | 3885     | 0.050 | ppbv # | 79     |
| 8) Dichlorotetrafluoroethane | 3.08  | 85   | 5394     | 0.047 | ppbv # | 16     |
| 11) Trichlorofluoromethane   | 4.00  | 101  | 5007     | 0.037 | ppbv   | 90     |
| 15) Acetone                  | 3.90  | 43   | 60017    | 0.642 | ppbv   | 94     |
| 16) 1,3-Butadiene            | 3.34  | 39   | 2905     | 0.078 | ppbv # | 11     |
| 19) Isopropyl Alcohol        | 4.04  | 45   | 13052    | 0.217 | ppbv # | 81     |
| 20) Methylene Chloride       | 4.40  | 84   | 1726     | 0.048 | ppbv # | 72     |
| 25) Ethyl Acetate            | 5.78  | 43   | 7606     | 0.046 | ppbv # | 86     |
| 26) Hexane                   | 5.77  | 57   | 4147     | 0.059 | ppbv # | 1      |
| 30) Cyclohexane              | 7.27  | 84   | 5086     | 0.086 | ppbv # | 1      |
| 32) 1,1,1-Trichloroethane    | 6.61  | 97   | 9451     | 0.073 | ppbv # | 45     |
| 39) 1,2-Dichloropropane      | 7.28  | 63   | 406877   | 7.733 | ppbv # | 23     |
| 52) Tetrachloroethene        | 11.37 | 164  | 35597    | 0.718 | ppbv   | 92     |

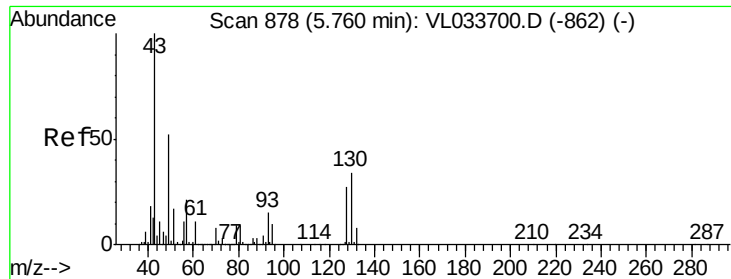
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033861.D

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Instrument :

MSVOA\_L

ClientSampleId :

SG-23-20190523-ODL

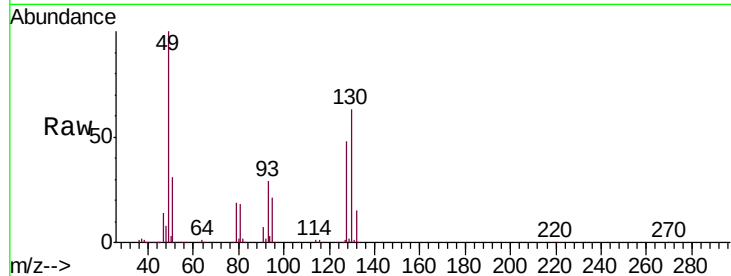
Tgt Ion: 49 Resp: 673286

Ion Ratio Lower Upper

49 100

128 50.2 25.2 75.6

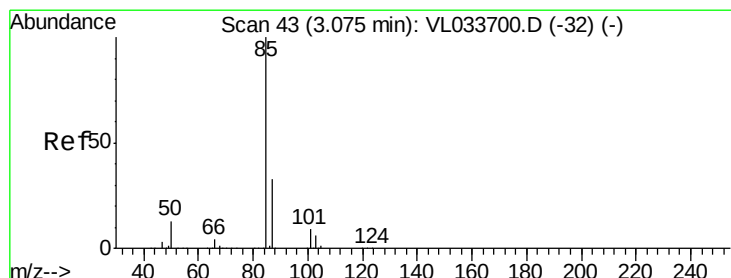
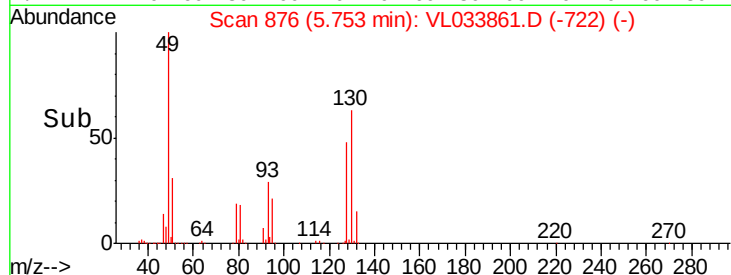
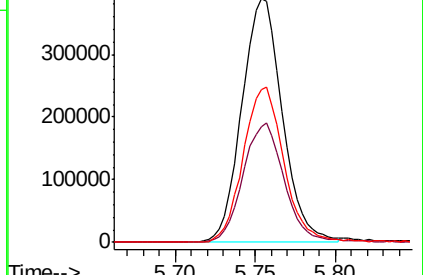
130 64.7 32.5 97.5



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: 0.038 ppbv

RT: 3.08 min Scan# 43

Delta R.T. 0.00 min

Lab File: VL033861.D

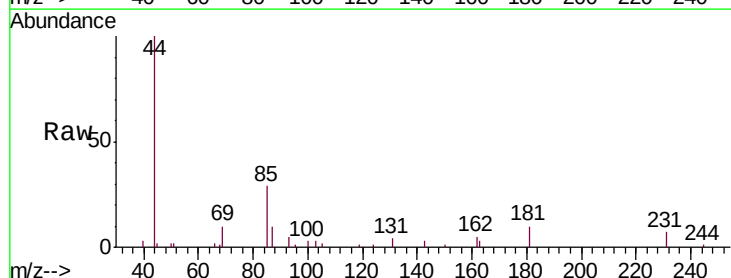
Acq: 30 May 2019 8:16

Tgt Ion: 85 Resp: 5394

Ion Ratio Lower Upper

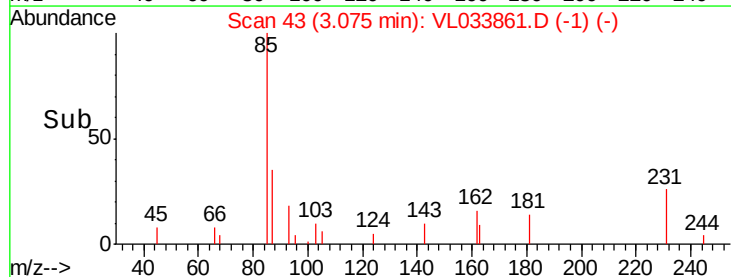
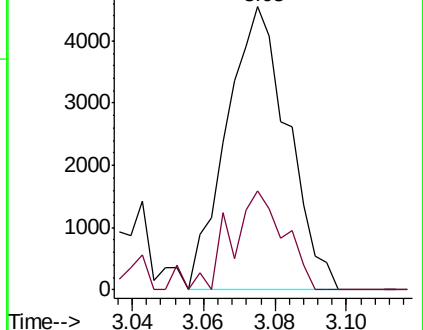
85 100

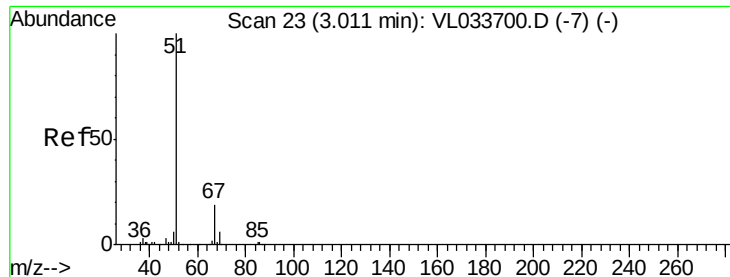
87 34.9 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

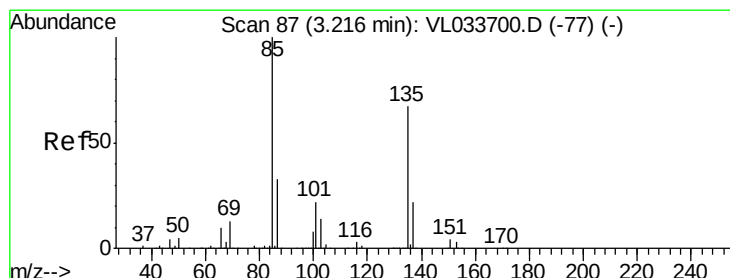
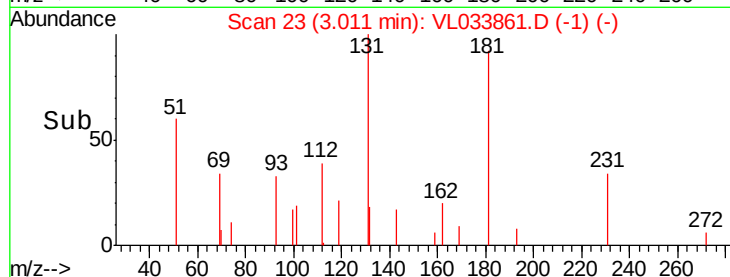
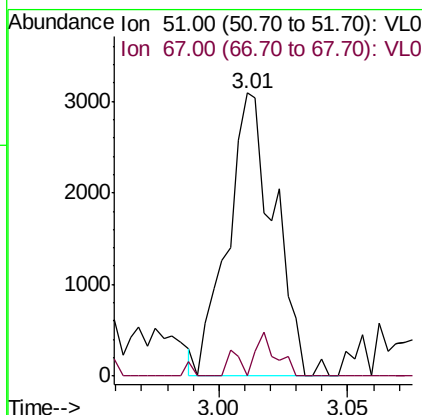
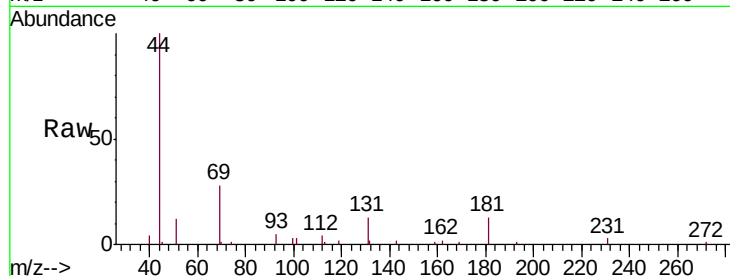




#3  
Chlorodifluoromethane  
Concen: 0.050 ppbv  
RT: 3.01 min Scan# 23  
Delta R.T. 0.00 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

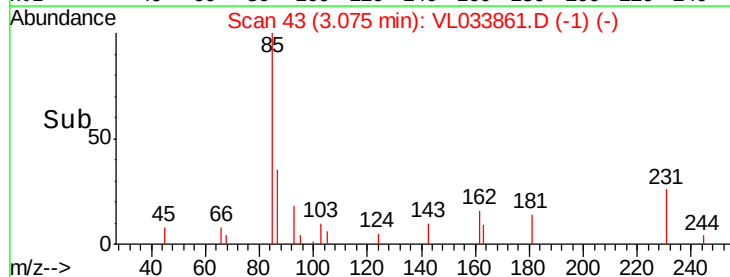
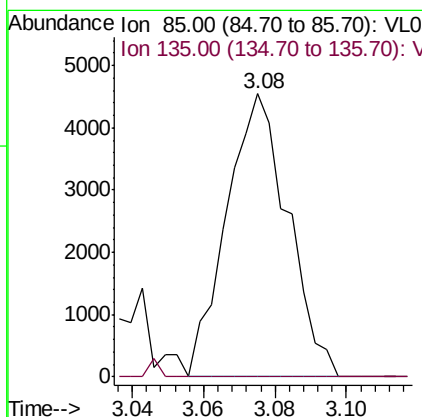
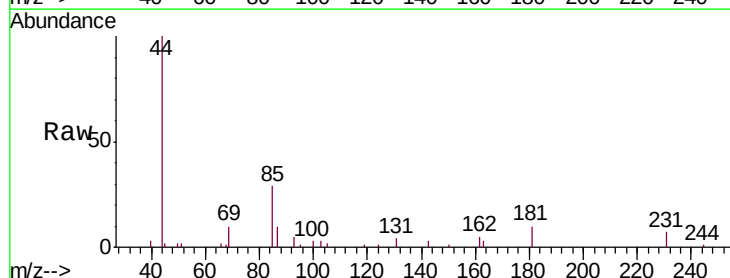
Instrument :  
MSVOA\_L  
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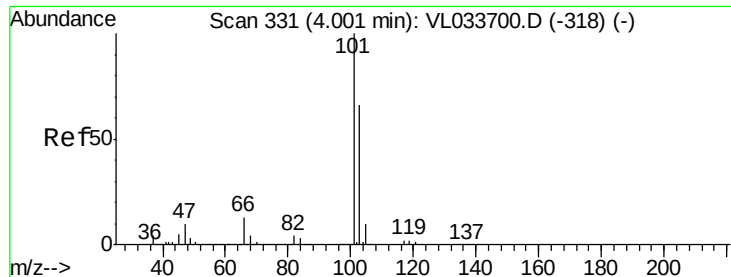
Tgt Ion: 51 Resp: 3885  
Ion Ratio Lower Upper  
51 100  
67 9.9 15.6 23.4#



#8  
Dichlorotetrafluoroethane  
Concen: 0.047 ppbv  
RT: 3.08 min Scan# 43  
Delta R.T. -0.14 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

Tgt Ion: 85 Resp: 5394  
Ion Ratio Lower Upper  
85 100  
135 0.0 54.5 81.7#





#11

Trichlorofluoromethane

Concen: 0.037 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033861.D

Acq: 30 May 2019 8:16

Instrument :

MSVOA\_L

ClientSampleId :

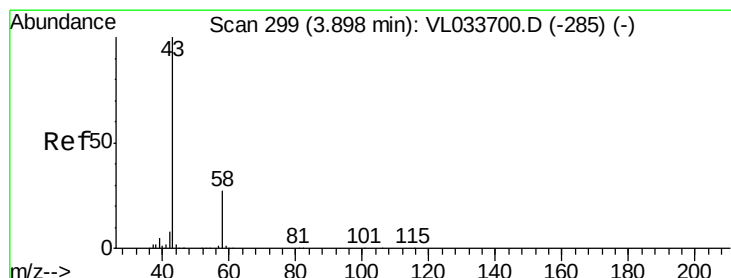
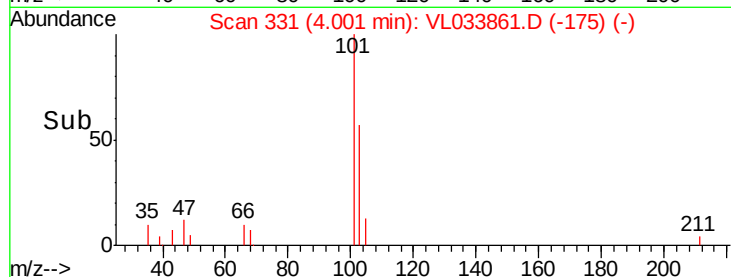
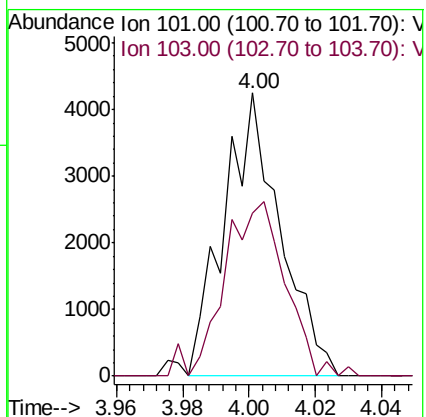
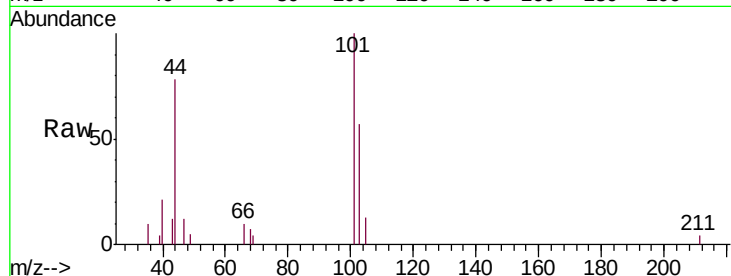
SG-23-20190523-ODL

Tgt Ion:101 Resp: 5007

Ion Ratio Lower Upper

101 100

103 57.4 52.6 78.8



#15

Acetone

Concen: 0.642 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.01 min

Lab File: VL033861.D

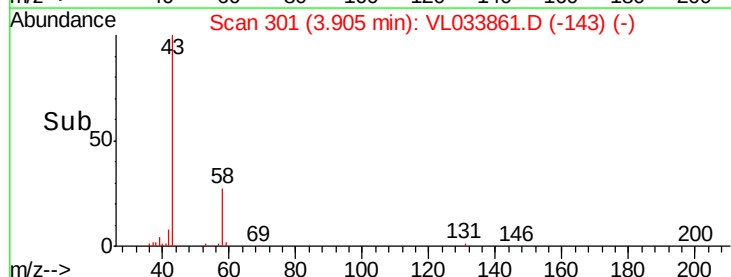
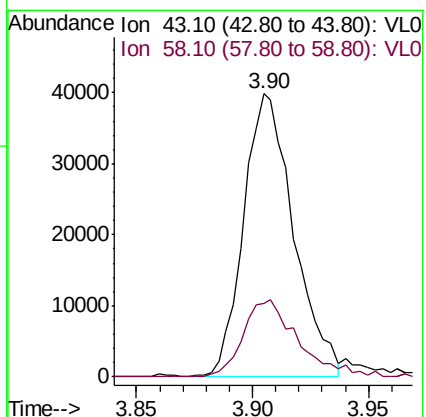
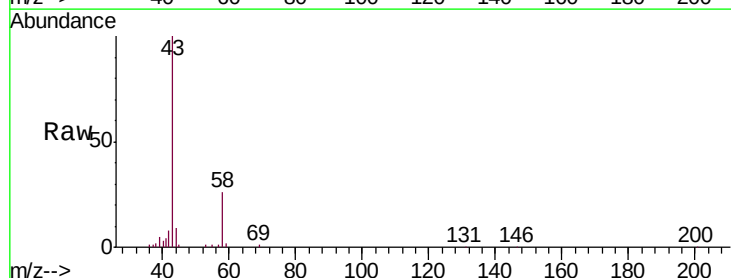
Acq: 30 May 2019 8:16

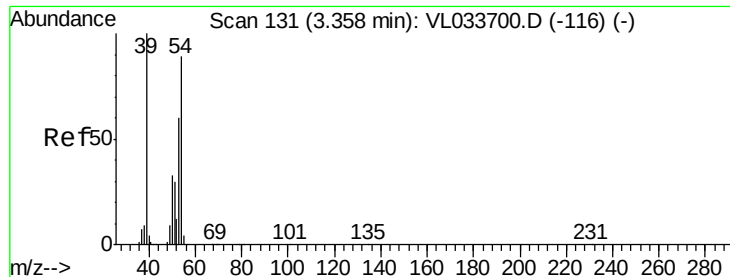
Tgt Ion: 43 Resp: 60017

Ion Ratio Lower Upper

43 100

58 29.9 21.3 31.9

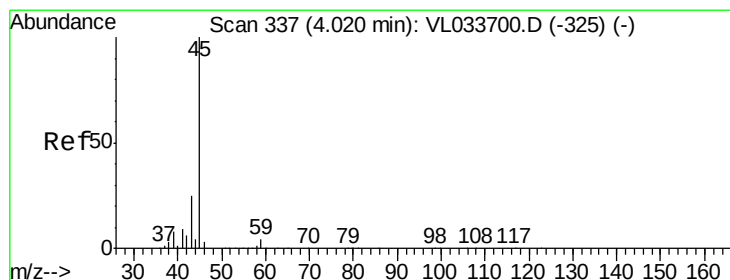
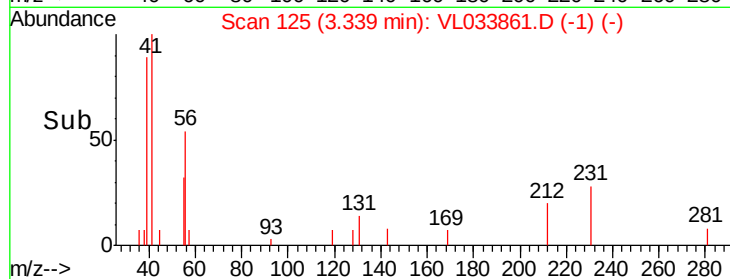
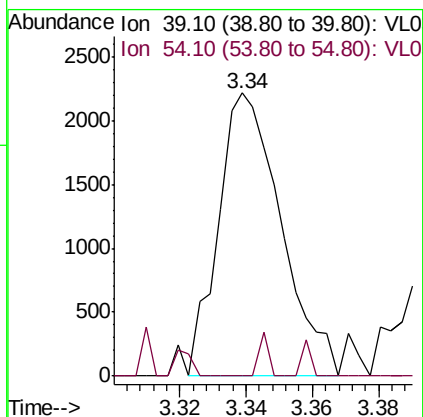
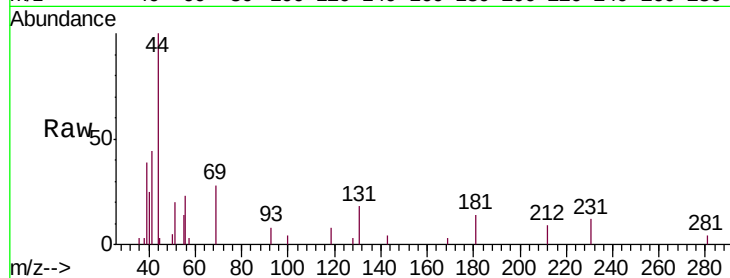




#16  
 1,3-Butadiene  
 Concen: 0.078 ppbv  
 RT: 3.34 min Scan# 125  
 Delta R.T. -0.02 min  
 Lab File: VL033861.D  
 Acq: 30 May 2019 8:16

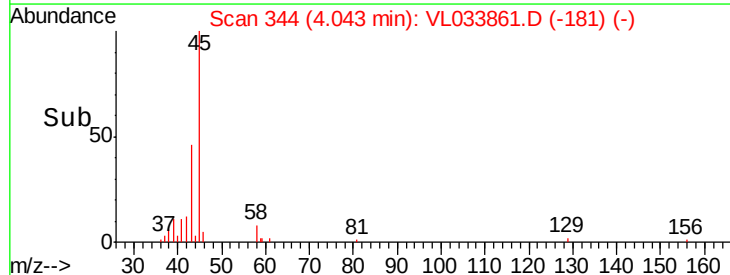
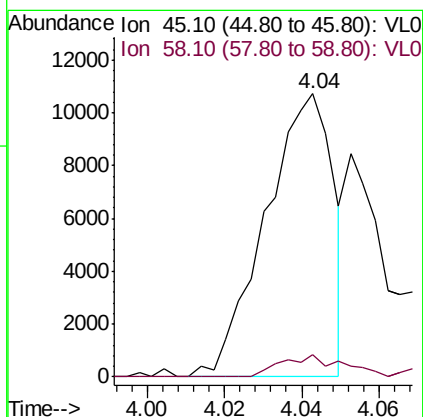
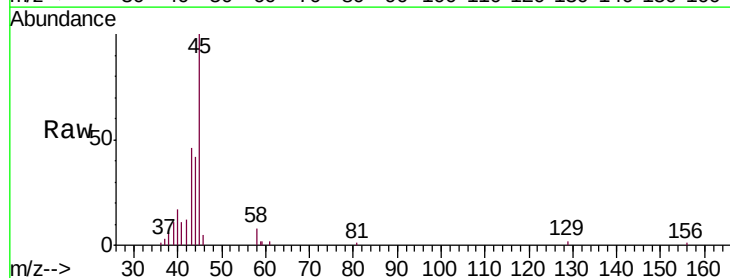
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SG-23-20190523-ODL

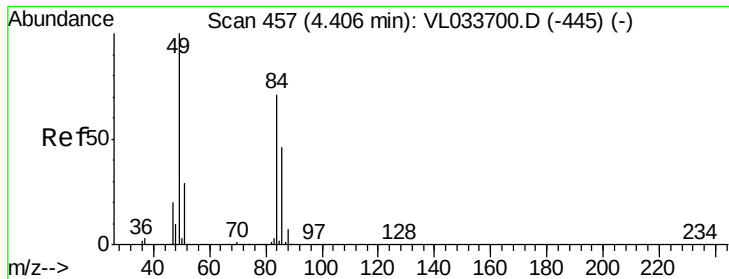
Tgt Ion: 39 Resp: 2905  
 Ion Ratio Lower Upper  
 39 100  
 54 4.2 69.0 103.6#



#19  
 Isopropyl Alcohol  
 Concen: 0.217 ppbv  
 RT: 4.04 min Scan# 344  
 Delta R.T. 0.02 min  
 Lab File: VL033861.D  
 Acq: 30 May 2019 8:16

Tgt Ion: 45 Resp: 13052  
 Ion Ratio Lower Upper  
 45 100  
 58 8.8 1.6 2.4#

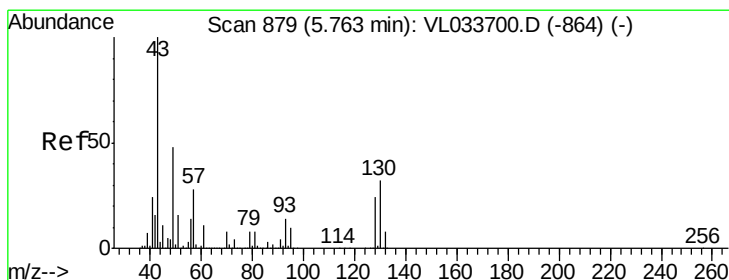
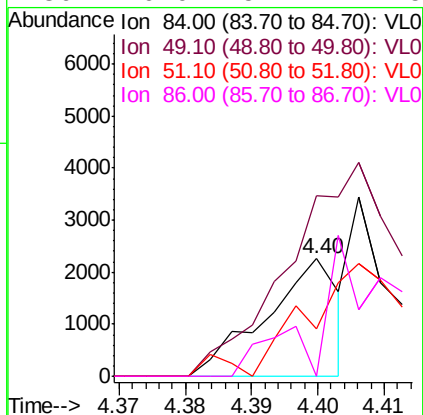
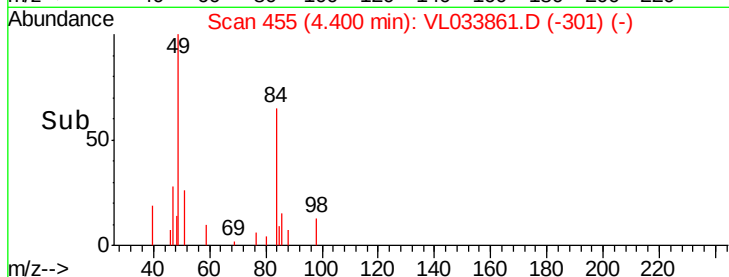
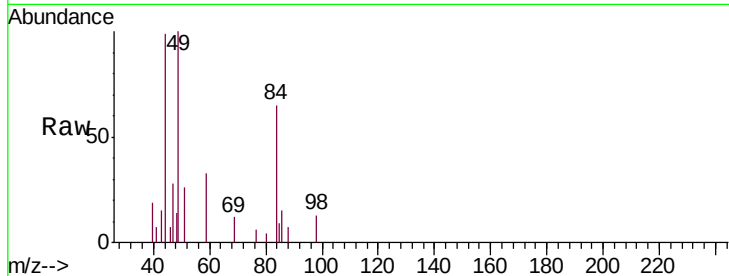




#20  
Methylene Chloride  
Concen: 0.048 ppbv  
RT: 4.40 min Scan# 455  
Delta R.T. -0.01 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

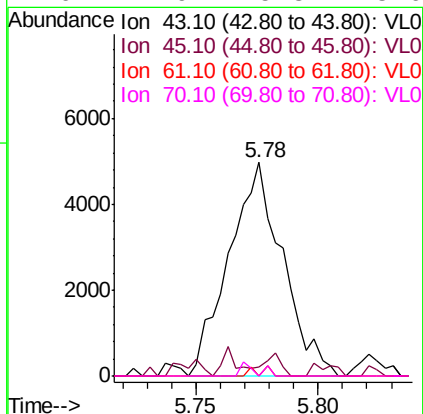
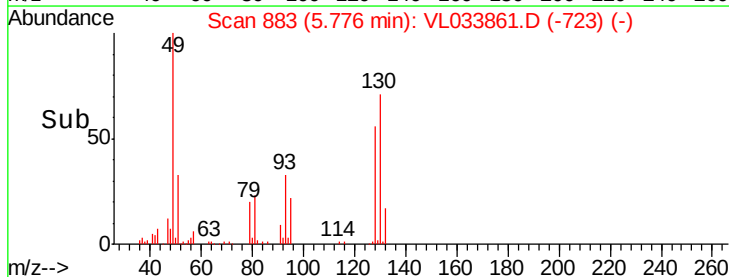
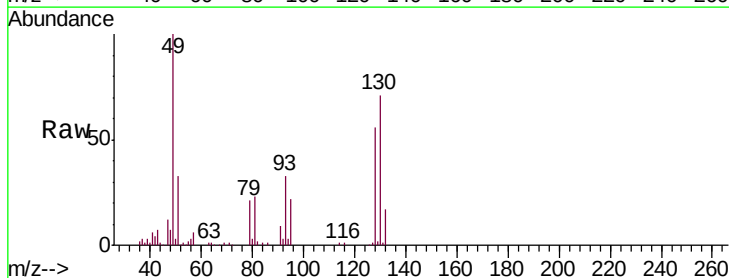
Instrument :  
MSVOA\_L  
ClientSampleId :  
SG-23-20190523-ODL

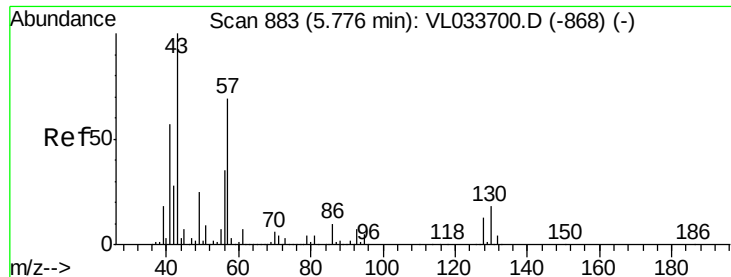
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 1726  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 153.6 | 112.8 | 169.2 |
| 51       | 40.0  | 33.4  | 50.0  |
| 86       | 0.0   | 51.7  | 77.5# |



#25  
Ethyl Acetate  
Concen: 0.046 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. 0.01 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 7606  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 11.0  | 7.9   | 11.9  |
| 61       | 1.1   | 7.7   | 11.5# |
| 70       | 1.9   | 5.8   | 8.6#  |

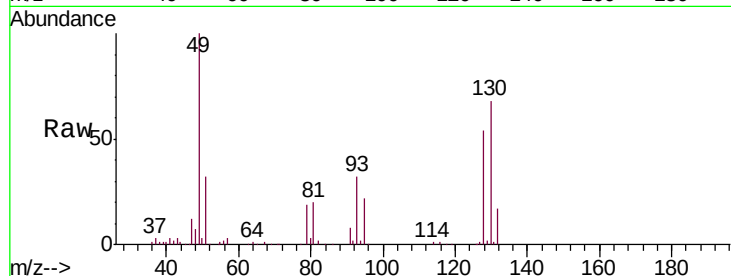




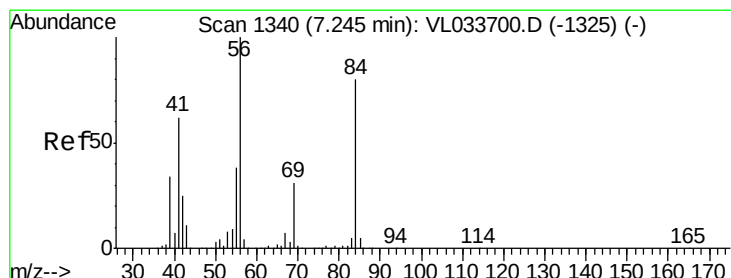
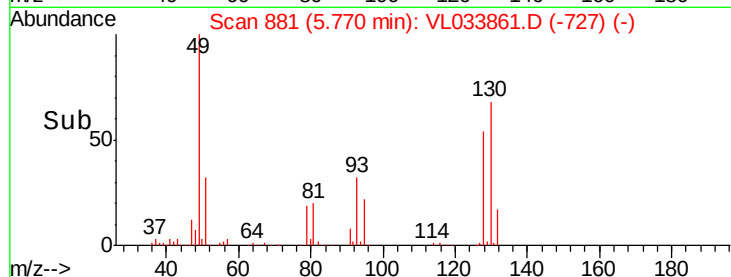
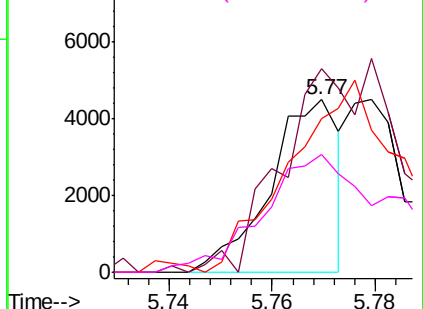
#26  
Hexane  
Concen: 0.059 ppbv  
RT: 5.77 min Scan# 881  
Delta R.T. -0.01 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

Instrument :  
MSVOA\_L  
ClientSampleId :  
SG-23-20190523-ODL

Tgt Ion: 57 Resp: 4147  
Ion Ratio Lower Upper  
57 100  
41 0.0 69.8 104.6#  
43 0.0 181.8 272.6#  
56 127.5 42.1 63.1#

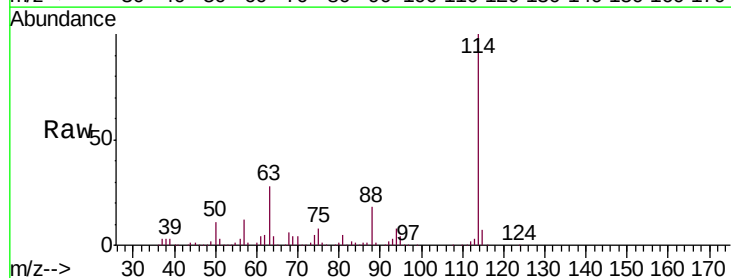


Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0

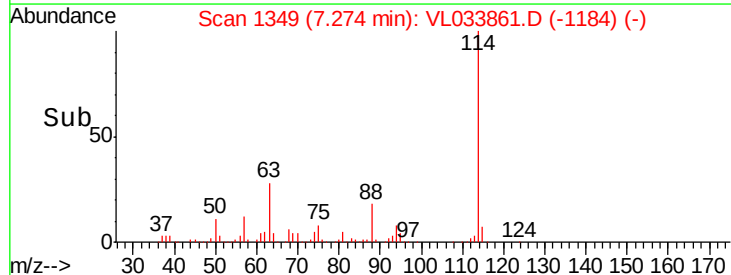
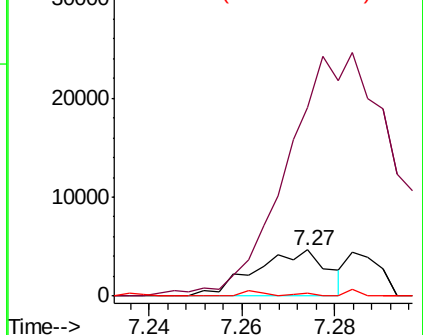


#30  
Cyclohexane  
Concen: 0.086 ppbv  
RT: 7.27 min Scan# 1349  
Delta R.T. 0.03 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

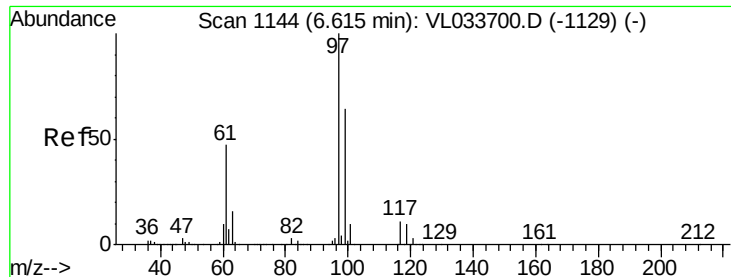
Tgt Ion: 84 Resp: 5086  
Ion Ratio Lower Upper  
84 100  
56 0.0 107.7 161.5#  
41 2.8 66.0 99.0#



Abundance Ion 84.20 (83.90 to 84.90): VL0  
Ion 56.10 (55.80 to 56.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0







#32

1,1,1-Trichloroethane

Concen: 0.073 ppbv

RT: 6.61 min Scan# 1142

Delta R.T. -0.01 min

Lab File: VL033861.D

Acq: 30 May 2019 8:16

Instrument :

MSVOA\_L

ClientSampleId :

SG-23-20190523-ODL

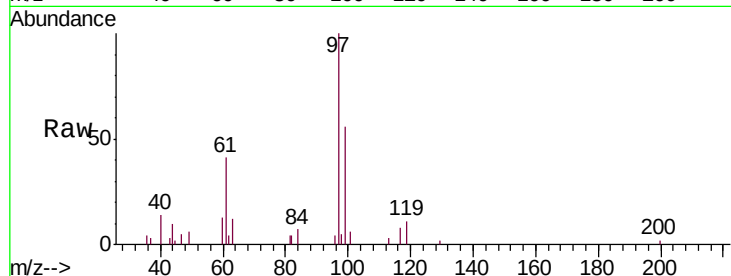
Tgt Ion: 97 Resp: 9451

Ion Ratio Lower Upper

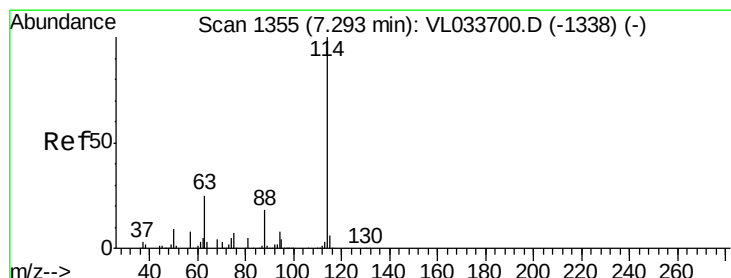
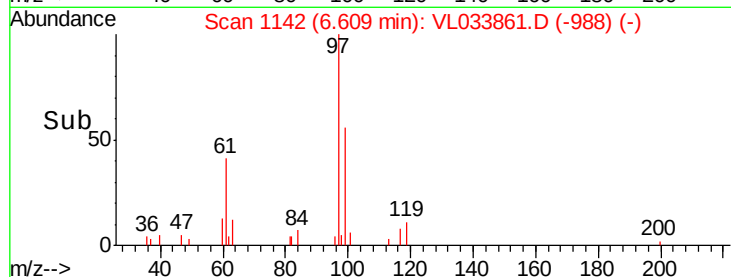
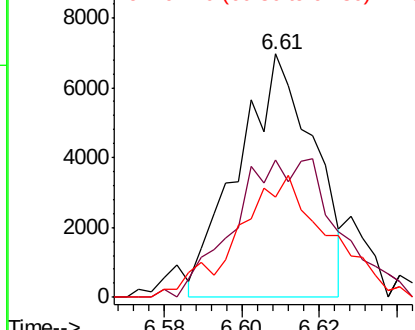
97 100

99 0.0 51.5 77.3#

61 59.8 37.8 56.8#



Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.01 min

Lab File: VL033861.D

Acq: 30 May 2019 8:16

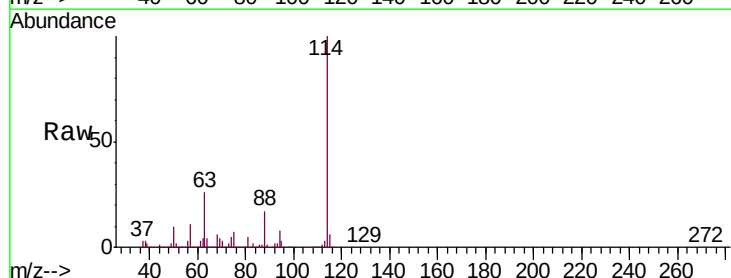
Tgt Ion: 114 Resp: 1551505

Ion Ratio Lower Upper

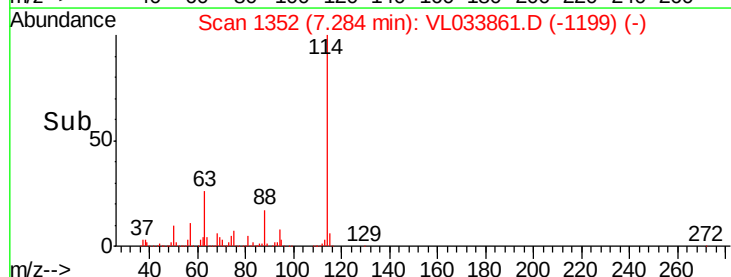
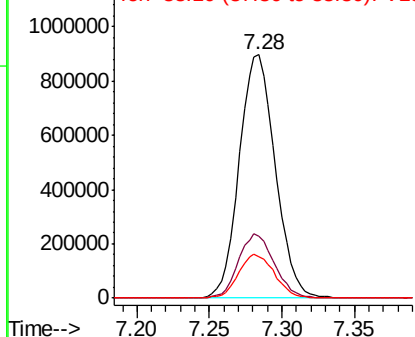
114 100

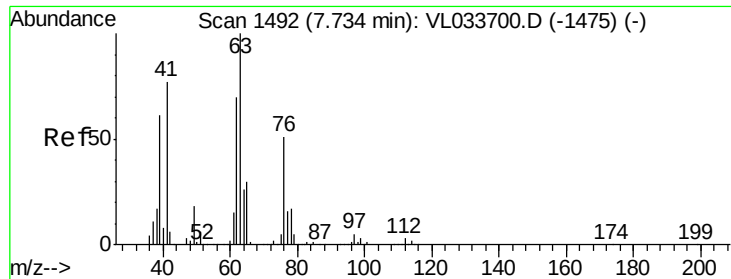
63 26.4 20.9 31.3

88 17.9 14.3 21.5



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





#39

1,2-Dichloropropane

Concen: 7.733 ppbv

RT: 7.28 min Scan# 1351

Delta R.T. -0.45 min

Lab File: VL033861.D

Acq: 30 May 2019 8:16

Instrument :

MSVOA\_L

ClientSampleId :

SG-23-20190523-ODL

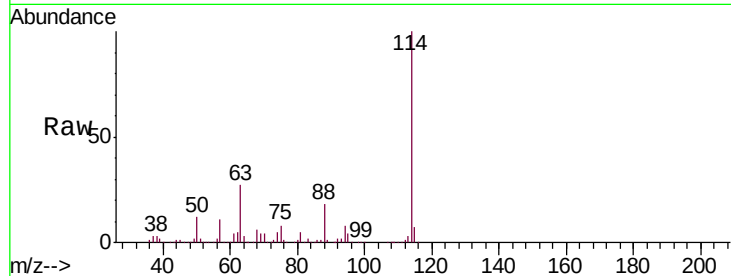
Tgt Ion: 63 Resp: 406877

Ion Ratio Lower Upper

63 100

41 0.0 61.5 92.3#

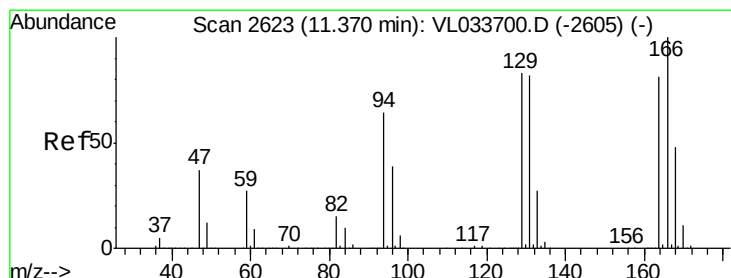
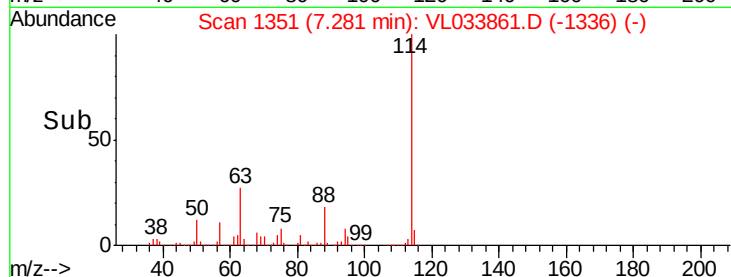
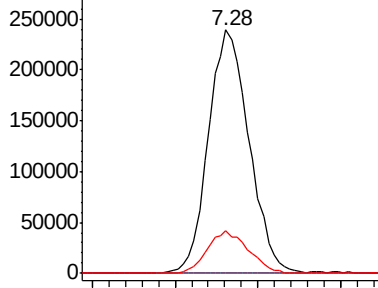
62 17.6 56.2 84.4#



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: 0.718 ppbv

RT: 11.37 min Scan# 2622

Delta R.T. -0.00 min

Lab File: VL033861.D

Acq: 30 May 2019 8:16

Tgt Ion: 164 Resp: 35597

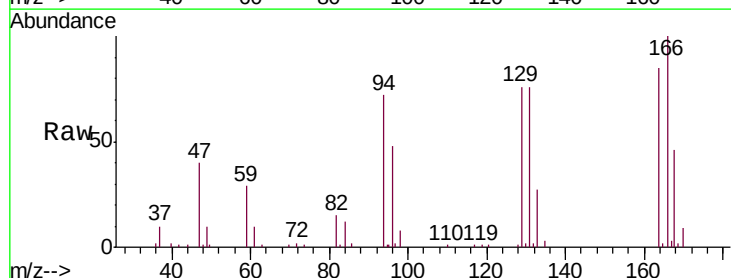
Ion Ratio Lower Upper

164 100

166 117.4 98.9 148.3

129 92.3 81.8 122.6

131 92.0 81.1 121.7

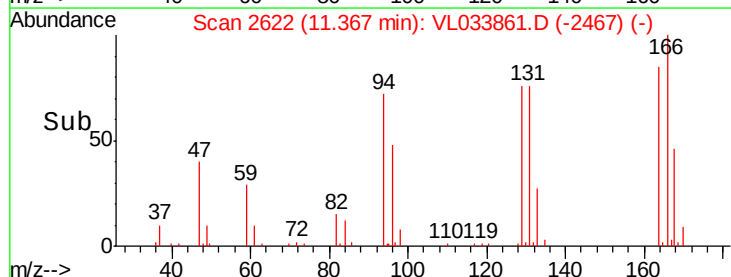
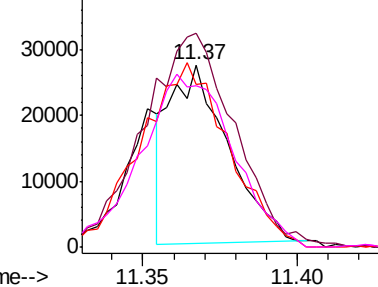


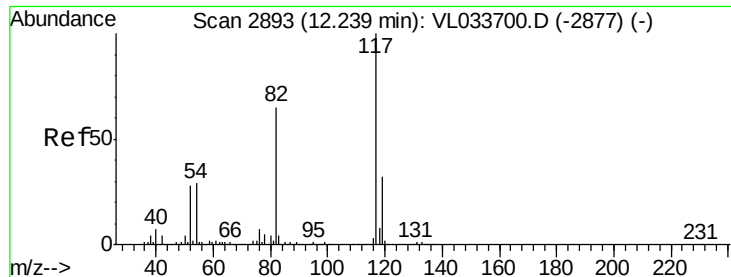
Abundance Ion 163.90 (163.60 to 164.60): V

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

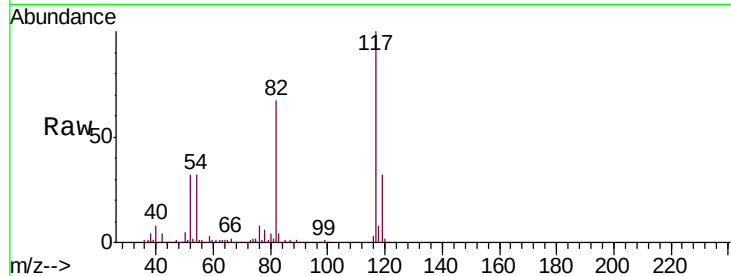




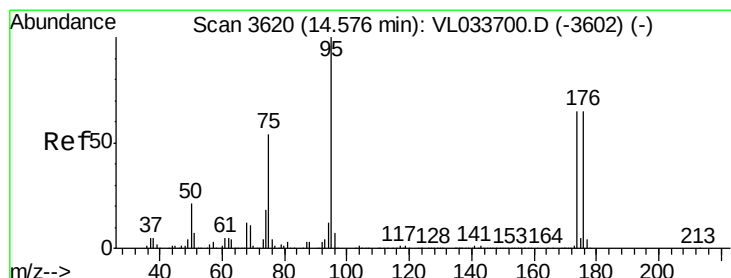
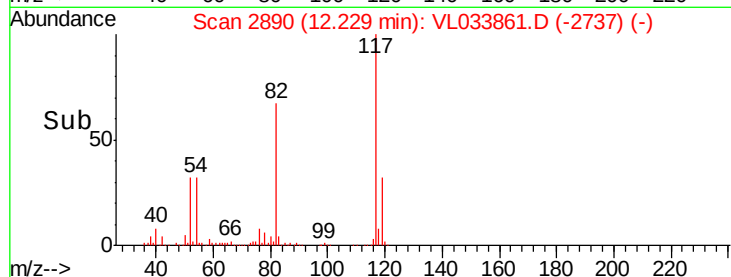
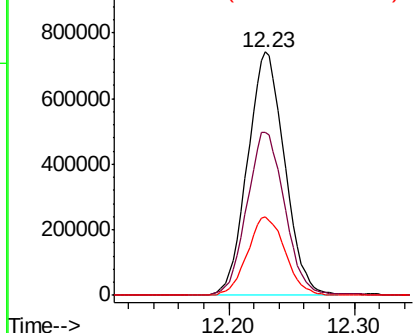
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.23 min Scan# 2890  
Delta R.T. -0.01 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

Instrument :  
MSVOA\_L  
ClientSampleId :  
SG-23-20190523-ODL

Tgt Ion: 117 Resp: 1531167  
Ion Ratio Lower Upper  
117 100  
82 68.5 49.4 74.0  
119 32.9 24.9 37.3

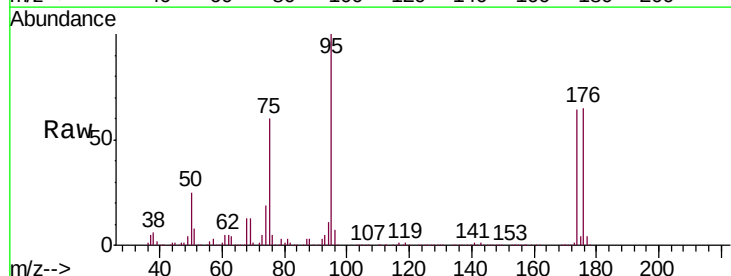


Abundance Ion 117.10 (116.80 to 117.80): V  
1000000 Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.084 ppbv  
RT: 14.57 min Scan# 3617  
Delta R.T. -0.01 min  
Lab File: VL033861.D  
Acq: 30 May 2019 8:16

Tgt Ion: 95 Resp: 1251665  
Ion Ratio Lower Upper  
95 100  
174 65.3 53.9 80.9  
175 4.8 3.8 5.8



Abundance Ion 95.10 (94.80 to 95.80): VL0  
800000 Ion 174.00 (173.70 to 174.70): V  
Ion 175.00 (174.70 to 175.70): V

