

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD101119\  
 Data File : VD063945.D  
 Acq On : 11 Oct 2019 19:01  
 Operator : VA/SY  
 Sample : K5325-11  
 Misc : 5.65G/MSVOA D/SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Oct 12 01:39:20 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Oct 05 03:51:17 2019  
 Response via : Initial Calibration

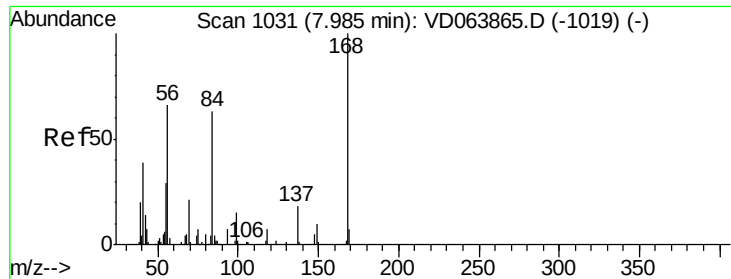
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 144140   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 256188   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 248034   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 113817   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.34  | 65   | 81106    | 57.80 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 115.60% |          |
| 35) Dibromofluoromethane    | 7.92  | 113  | 82303    | 52.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.14% |          |
| 50) Toluene-d8              | 10.34 | 98   | 330169   | 51.96 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.92% |          |
| 62) 4-Bromofluorobenzene    | 12.63 | 95   | 98652    | 44.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.34%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 2.20  | 50   | 580      | Below Cal | #      | 40     |
| 11) Tert butyl alcohol         | 5.24  | 59   | 71       | Below Cal | #      | 71     |
| 16) Acetone                    | 4.17  | 43   | 13018    | 35.631    | ug/l # | 85     |
| 20) Methylene Chloride         | 4.97  | 84   | 4404     | Below Cal | #      | 47     |
| 25) 2-Butanone                 | 7.23  | 43   | 4640     | 10.716    | ug/l   | 93     |
| 28) Bromochloromethane         | 7.57  | 49   | 59       | 1.923     | ug/l # | 10     |
| 31) Cyclohexane                | 7.98  | 56   | 3667     | Below Cal | #      | 38     |
| 36) 1,1-Dichloropropene        | 7.98  | 75   | 11315    | 4.831     | ug/l # | 52     |
| 37) Ethyl Acetate              | 7.23  | 43   | 4640     | 1.034     | ug/l # | 68     |
| 38) Carbon Tetrachloride       | 7.98  | 117  | 12739    | 5.382     | ug/l # | 18     |
| 49) 1,4-Dioxane                | 9.43  | 88   | 72       | 5.637     | ug/l # | 24     |
| 74) N-amyl acetate             | 12.27 | 43   | 3518     | 2.136     | ug/l # | 64     |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 51411    | 67.441    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.63 | 75   | 51411    | 119.343   | ug/l # | 12     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.51 | 75   | 117      | Below Cal | #      | 1      |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. -0.00 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

Instrument :

MSVOA\_D

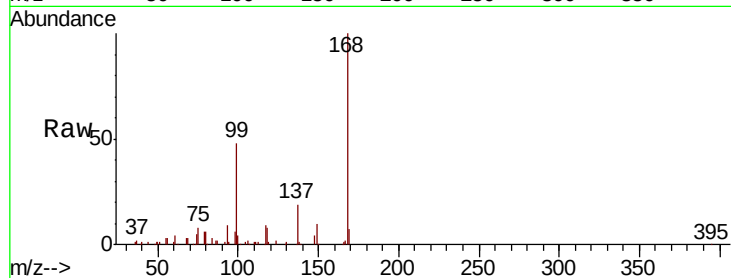
ClientSampleId :

Tot Ion:168 Resp: 144140

Ion Ratio Lower Upper

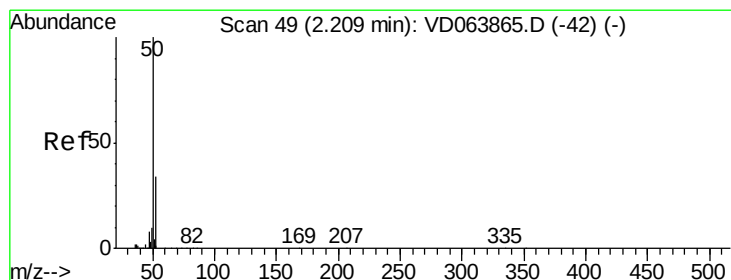
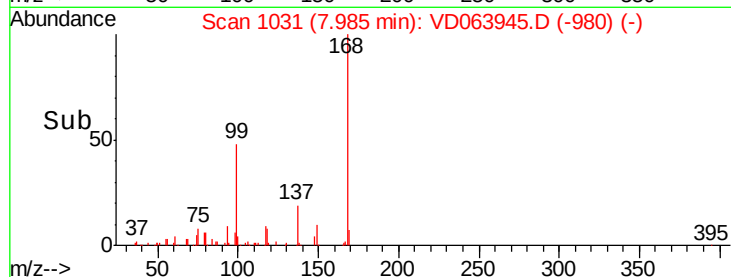
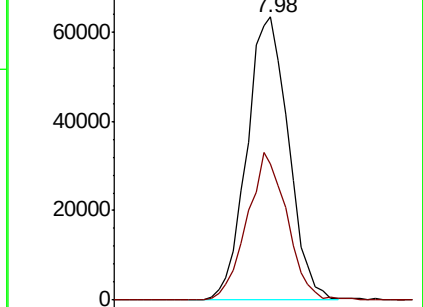
168 100

99 47.9 43.0 64.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC



#3

Chloromethane

Concen: Below Cal

RT: 2.20 min Scan# 47

Delta R.T. -0.01 min

Lab File: VD063945.D

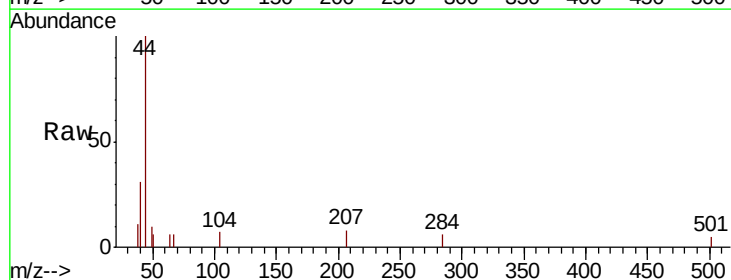
Acq: 11 Oct 2019 19:01

Tgt Ion: 50 Resp: 580

Ion Ratio Lower Upper

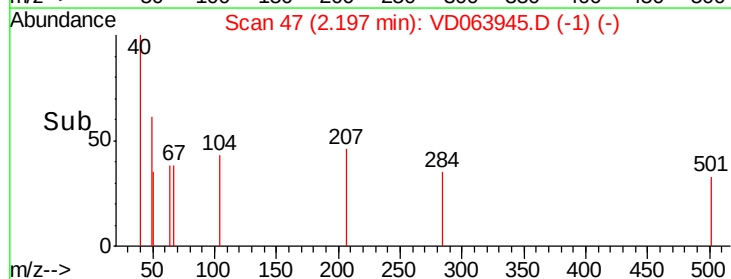
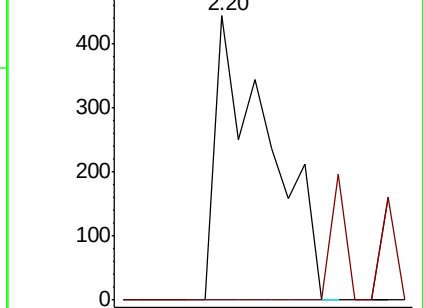
50 100

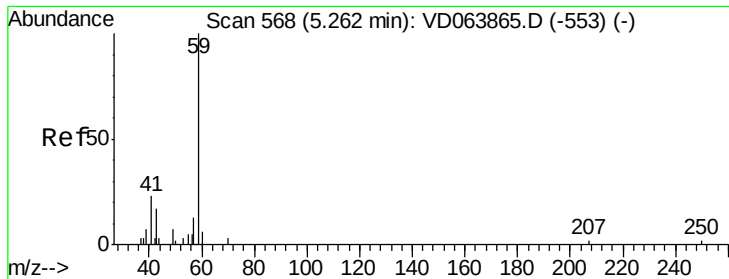
52 0.0 27.5 41.3#



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC



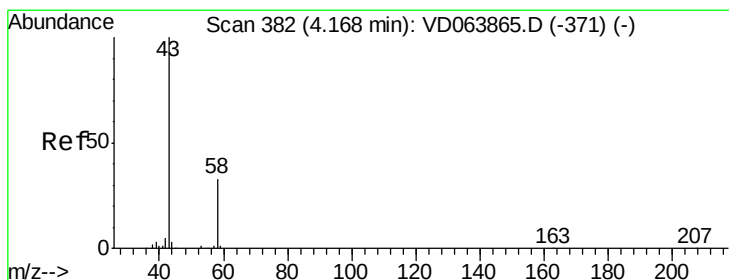
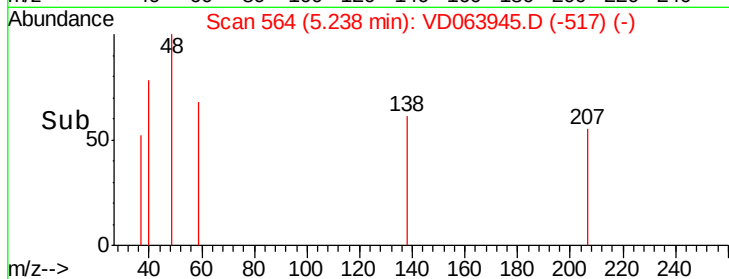
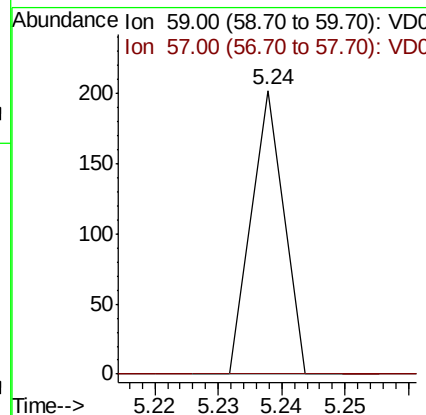
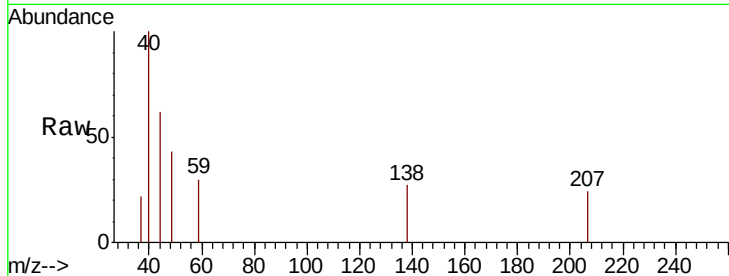


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.24 min Scan# 564  
 Delta R.T. -0.02 min  
 Lab File: VD063945.D  
 Acq: 11 Oct 2019 19:01

Instrument :  
 MSVOA\_D  
 ClientSampleId :

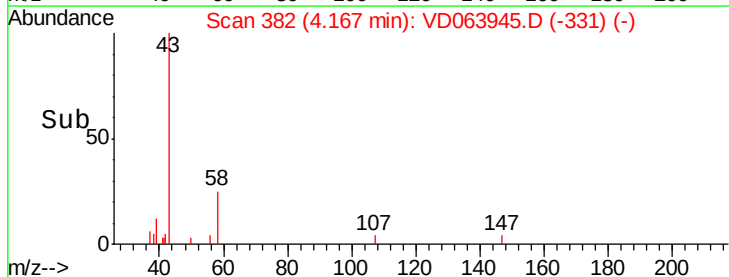
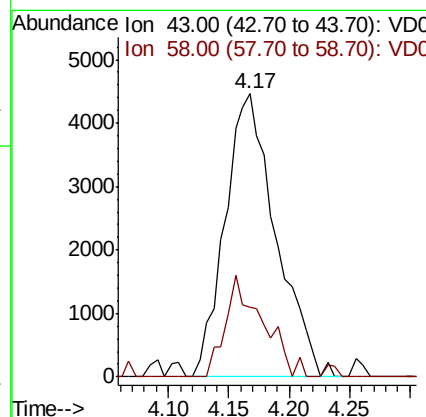
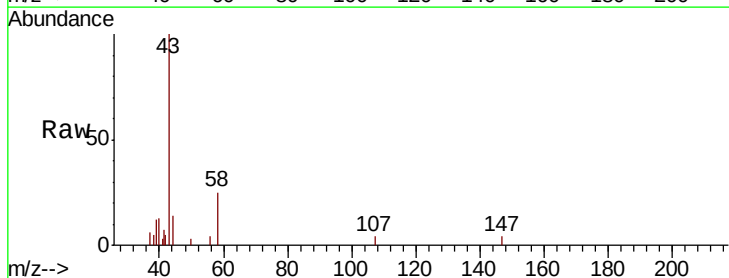
Tot Ion: 59 Resp: 71  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.8 13.2#

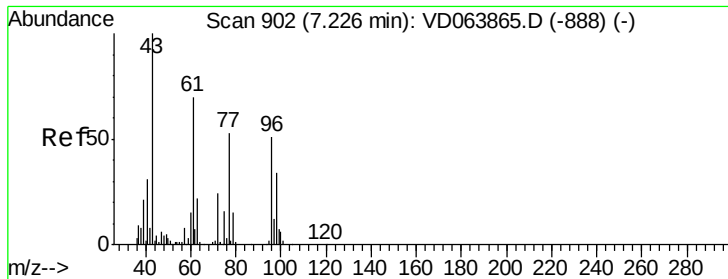


#16

Acetone  
 Concen: 35.631 ug/l  
 RT: 4.17 min Scan# 382  
 Delta R.T. -0.00 min  
 Lab File: VD063945.D  
 Acq: 11 Oct 2019 19:01

Tgt Ion: 43 Resp: 13018  
 Ion Ratio Lower Upper  
 43 100  
 58 24.6 26.2 39.4#





#25

2-Butanone

Concen: 10.716 ug/l

RT: 7.23 min Scan# 902

Delta R.T. -0.00 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

Instrument :

MSVOA\_D

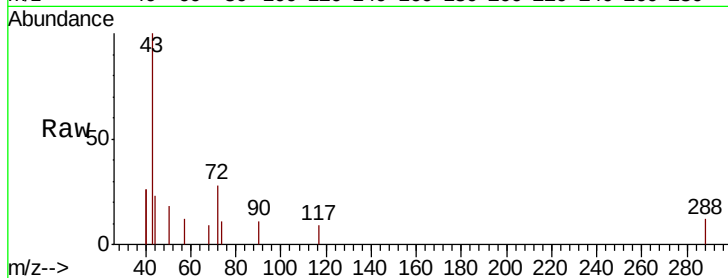
ClientSampleId :

Tot Ion: 43 Resp: 4640

Ion Ratio Lower Upper

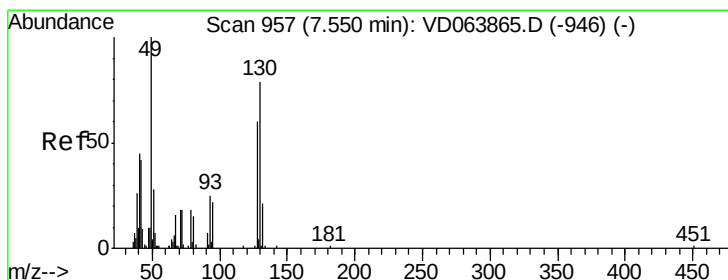
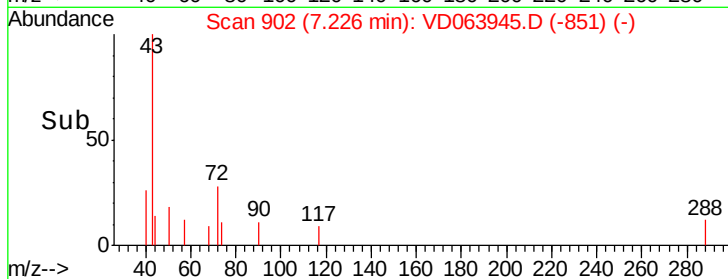
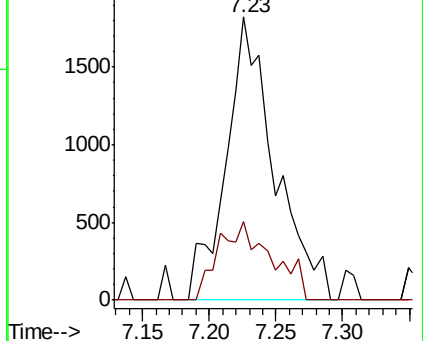
43 100

72 27.6 19.2 28.8



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 72.00 (71.70 to 72.70): VDC



#28

Bromochloromethane

Concen: 1.923 ug/l

RT: 7.57 min Scan# 960

Delta R.T. 0.02 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

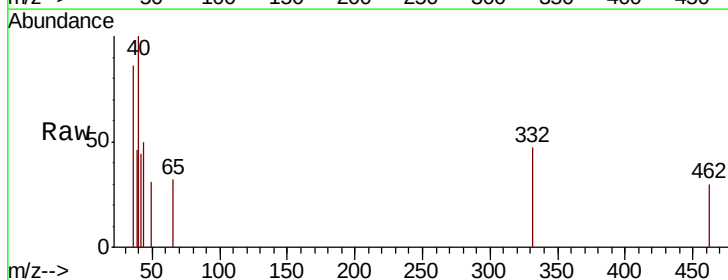
Tgt Ion: 49 Resp: 59

Ion Ratio Lower Upper

49 100

129 0.0 0.0 5.6

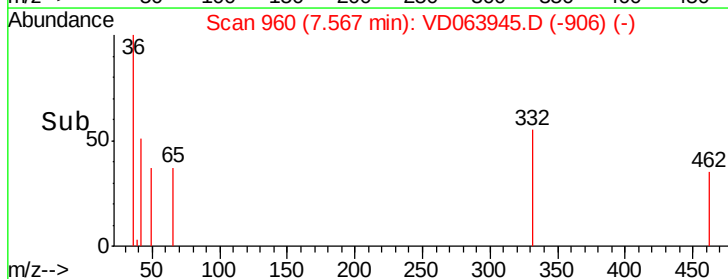
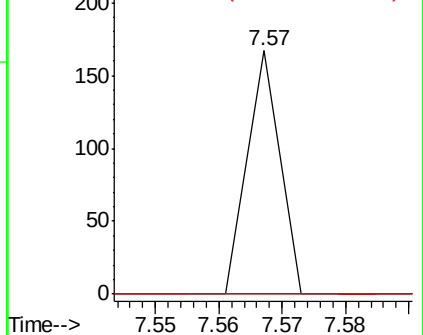
130 0.0 66.8 100.2#

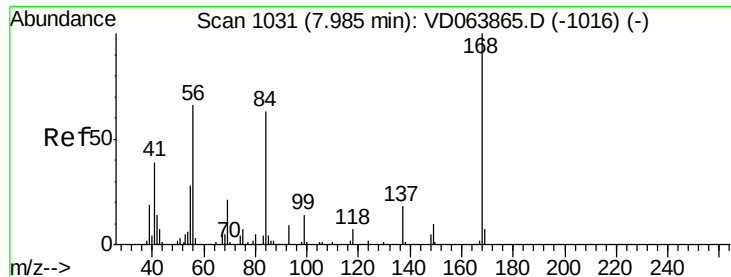


Abundance Ion 48.90 (48.60 to 49.60): VDC

Ion 128.80 (128.50 to 129.50): V

Ion 129.80 (129.50 to 130.50): V

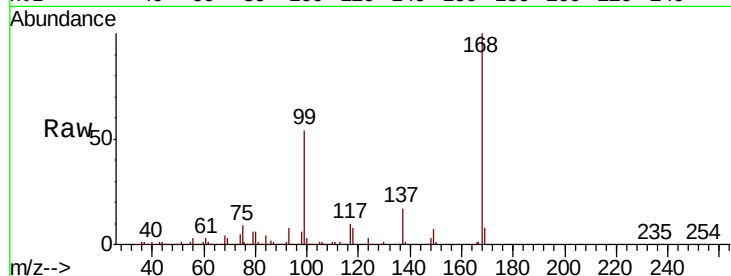




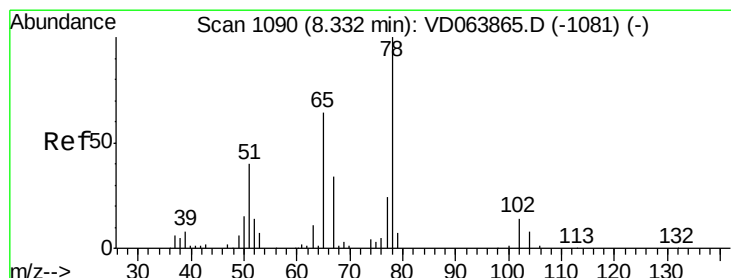
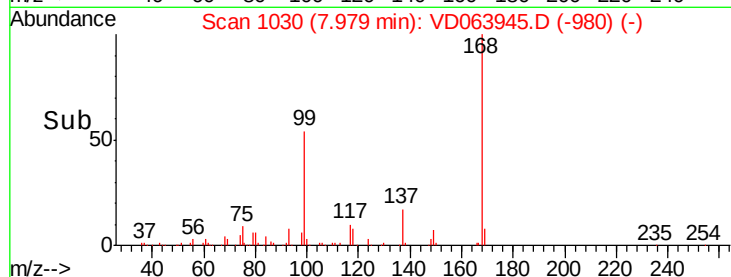
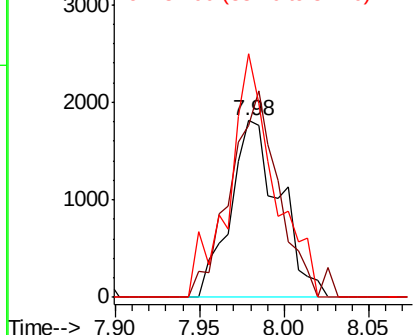
#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.98 min Scan# 1030  
Delta R.T. -0.01 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 56 Resp: 3667  
Ion Ratio Lower Upper  
56 100  
69 97.5 25.0 37.4#  
84 137.7 76.3 114.5#

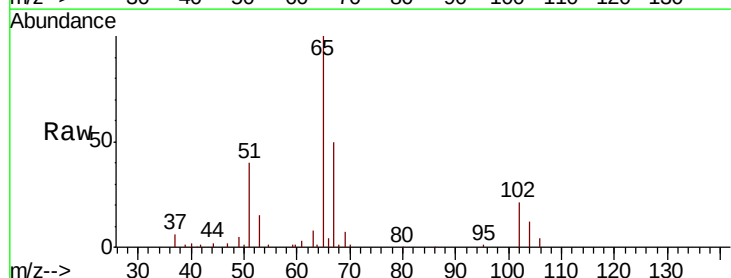


Abundance Ion 56.00 (55.70 to 56.70): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.00 (83.70 to 84.70): VDC

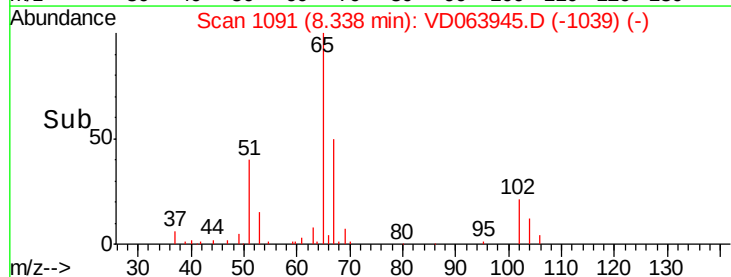
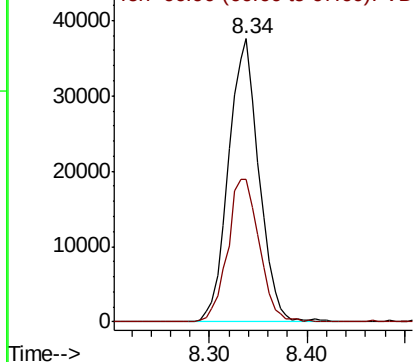


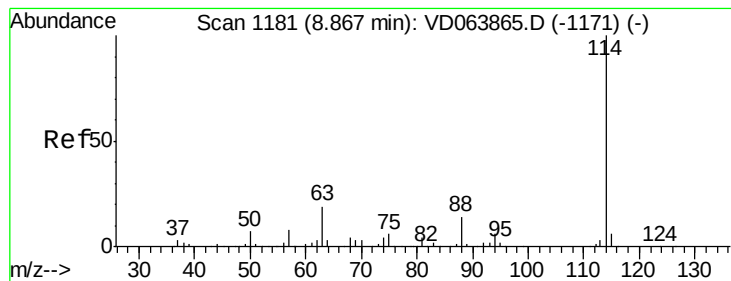
#33  
1,2-Dichloroethane-d4  
Concen: 57.796 ug/l  
RT: 8.34 min Scan# 1091  
Delta R.T. 0.01 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Tgt Ion: 65 Resp: 81106  
Ion Ratio Lower Upper  
65 100  
67 52.4 0.0 106.4



Abundance Ion 64.90 (64.60 to 65.60): VDC  
Ion 66.90 (66.60 to 67.60): VDC





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.87 min Scan# 1181

Delta R.T. -0.00 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

Instrument :

MSVOA\_D

ClientSampleId :

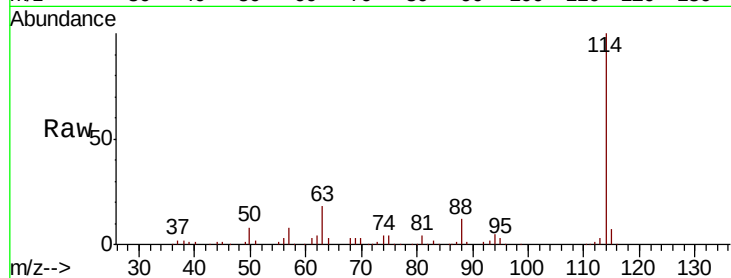
Tot Ion:114 Resp: 256188

Ion Ratio Lower Upper

114 100

63 18.4 0.0 38.4

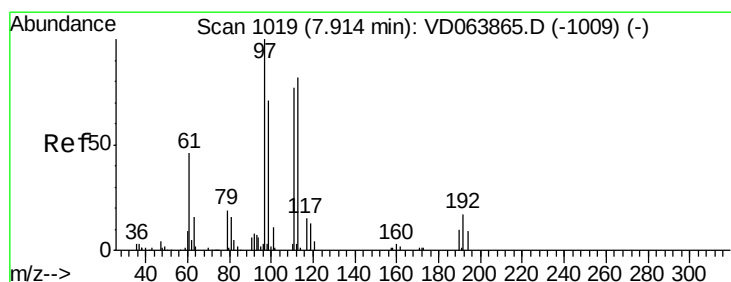
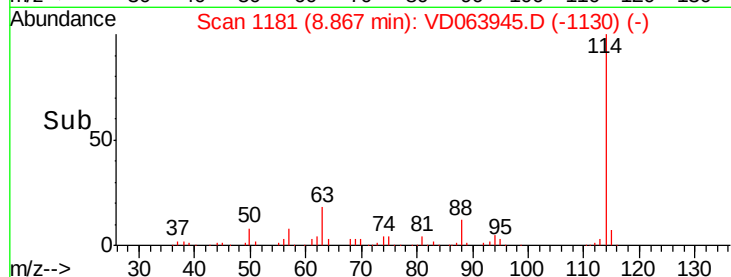
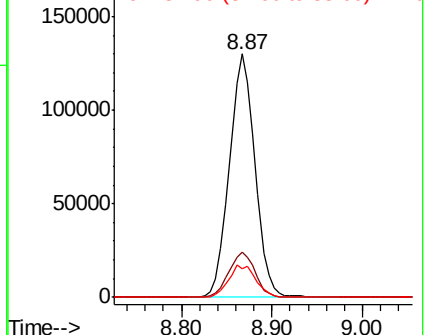
88 11.9 0.0 27.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): V

Ion 87.90 (87.60 to 88.60): V



#35

Dibromofluoromethane

Concen: 52.568 ug/l

RT: 7.92 min Scan# 1020

Delta R.T. 0.01 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

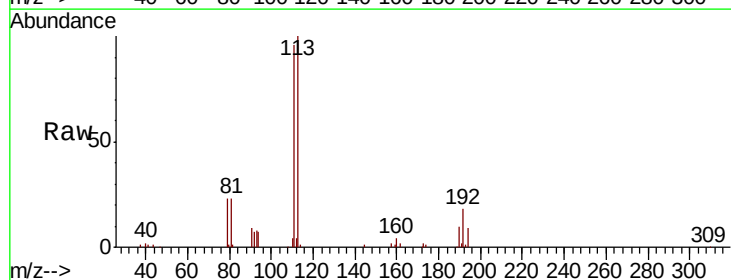
Tgt Ion:113 Resp: 82303

Ion Ratio Lower Upper

113 100

111 100.8 82.6 123.8

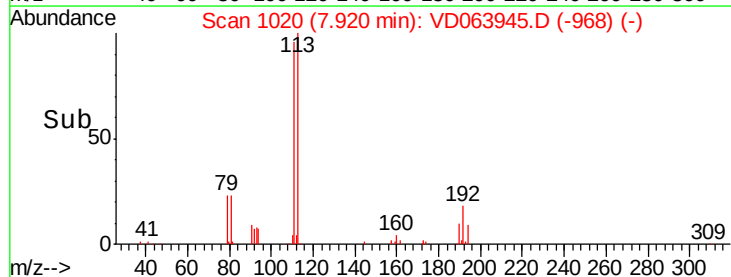
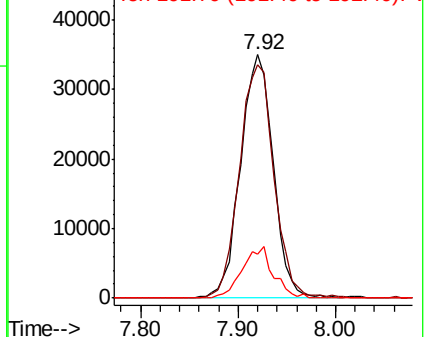
192 19.8 17.1 25.7

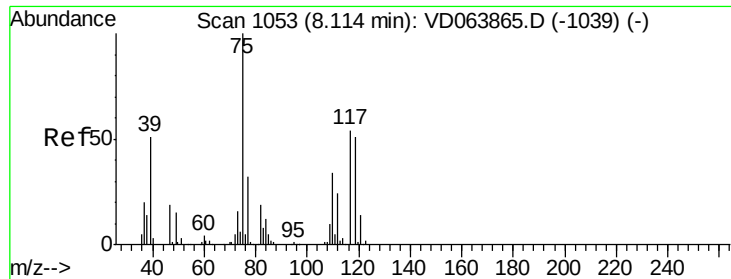


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

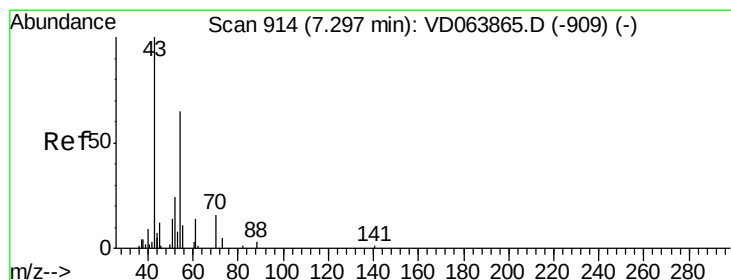
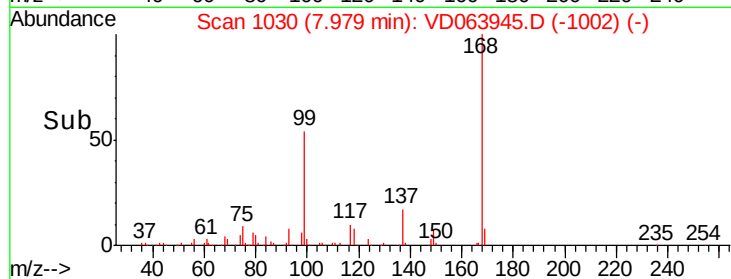
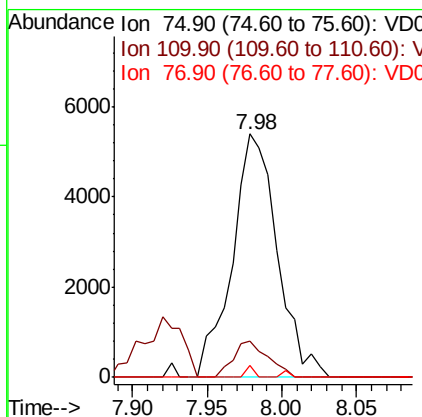
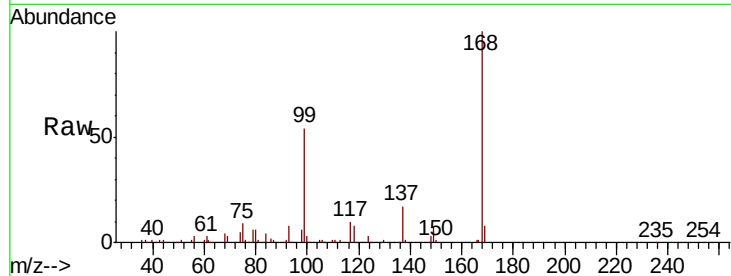




#36  
 1,1-Dichloropropene  
 Concen: 4.831 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.14 min  
 Lab File: VD063945.D  
 Acq: 11 Oct 2019 19:01

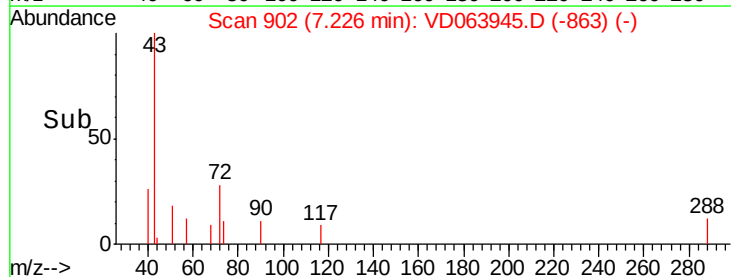
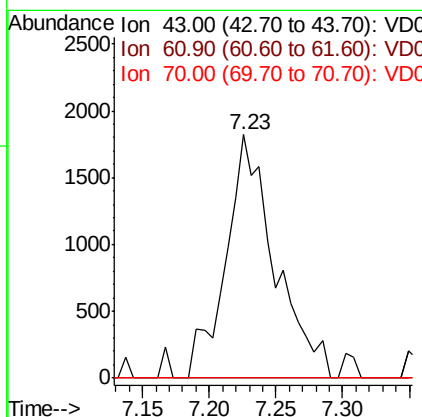
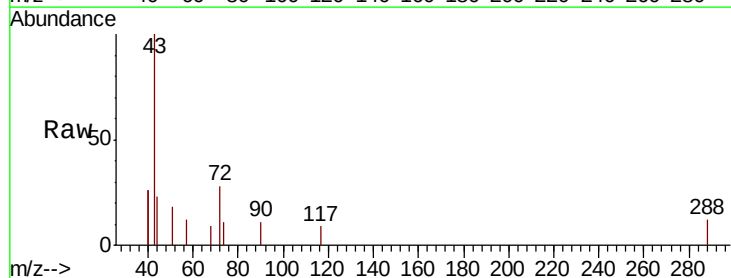
Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tot Ion: 75 Resp: 11315  
 Ion Ratio Lower Upper  
 75 100  
 110 11.5 17.4 52.3#  
 77 0.8 25.4 38.0#

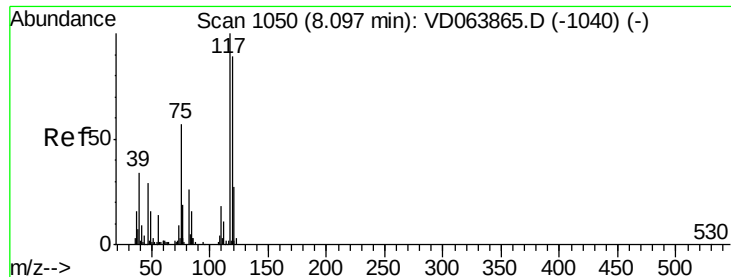


#37  
 Ethyl Acetate  
 Concen: 1.034 ug/l  
 RT: 7.23 min Scan# 902  
 Delta R.T. -0.07 min  
 Lab File: VD063945.D  
 Acq: 11 Oct 2019 19:01

Tgt Ion: 43 Resp: 4640  
 Ion Ratio Lower Upper  
 43 100  
 61 0.0 11.5 17.3#  
 70 0.0 8.2 12.4#







#38

Carbon Tetrachloride

Concen: 5.382 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.12 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

Instrument :

MSVOA\_D

ClientSampleId :

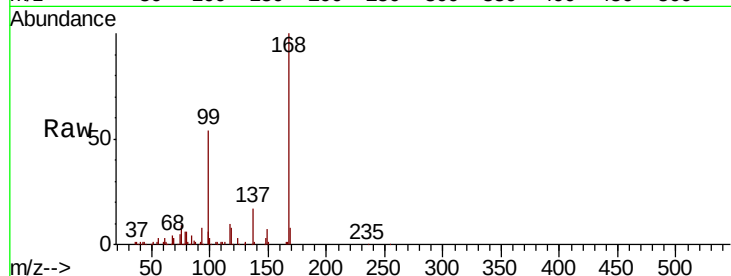
Tot Ion:117 Resp: 12739

Ion Ratio Lower Upper

117 100

119 3.6 70.8 106.2#

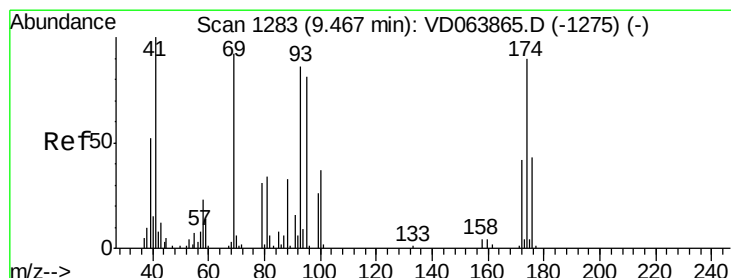
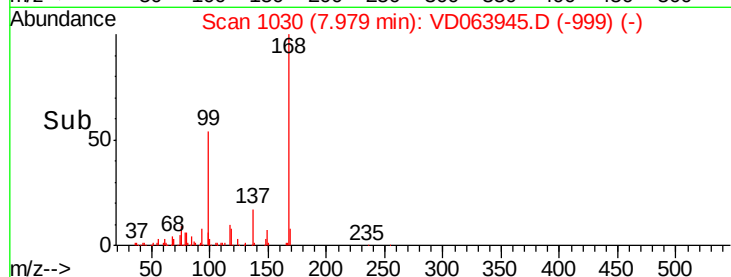
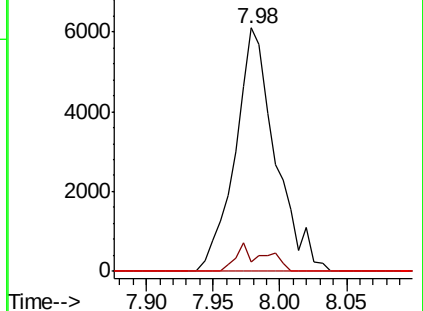
121 0.0 21.4 32.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#49

1,4-Dioxane

Concen: 5.637 ug/l

RT: 9.43 min Scan# 1276

Delta R.T. -0.04 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

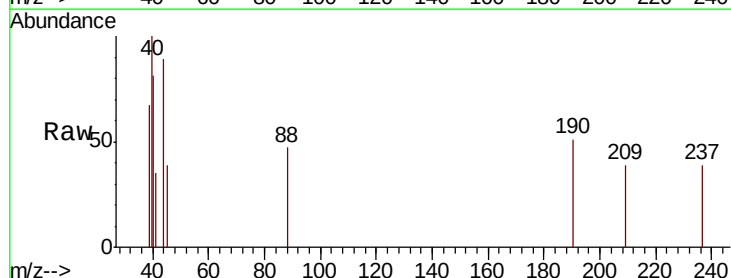
Tgt Ion: 88 Resp: 72

Ion Ratio Lower Upper

88 100

43 0.0 27.6 41.4#

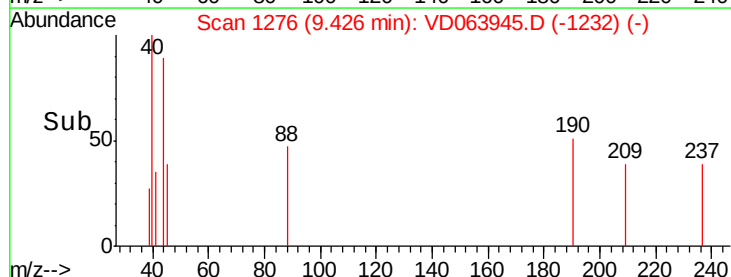
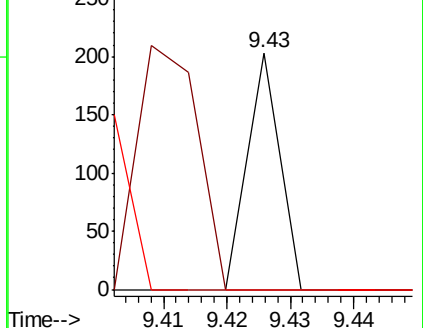
58 0.0 54.1 81.1#

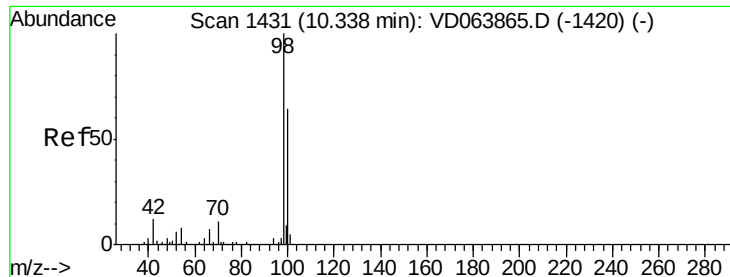


Abundance Ion 88.00 (87.70 to 88.70): VDC

Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC





#50

Toluene-d8

Concen: 51.957 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. -0.00 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

Instrument :

MSVOA\_D

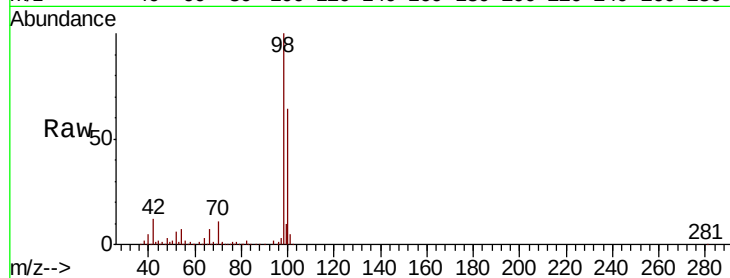
ClientSampleId :

Tot Ion: 98 Resp: 330169

Ion Ratio Lower Upper

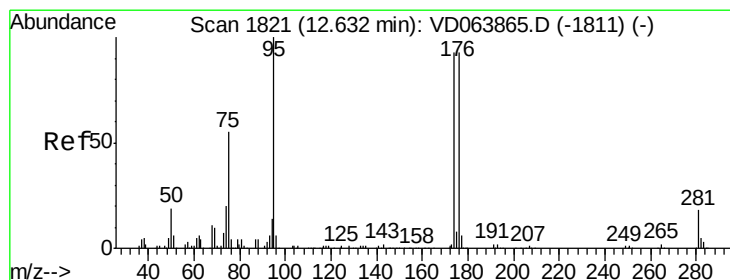
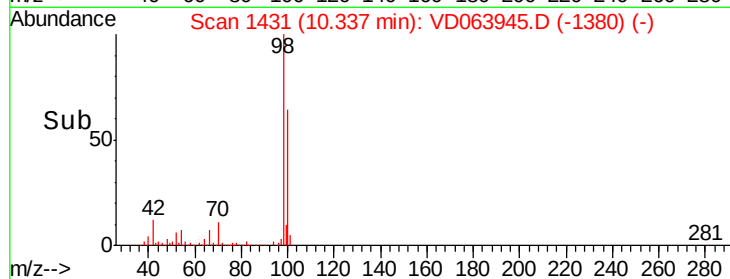
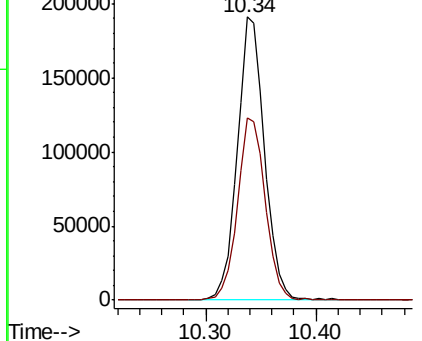
98 100

100 65.7 52.1 78.1



Abundance Ion 98.00 (97.70 to 98.70): VDC

Ion 100.00 (99.70 to 100.70): VDC



#62

4-Bromofluorobenzene

Concen: 44.674 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. -0.00 min

Lab File: VD063945.D

Acq: 11 Oct 2019 19:01

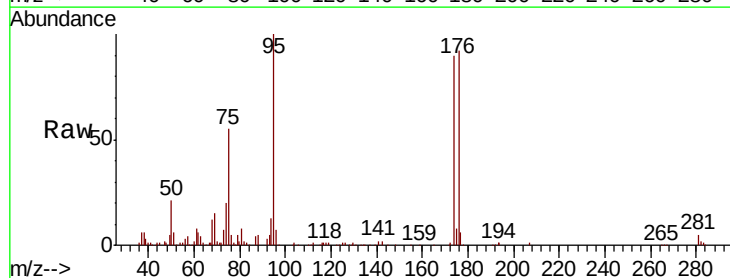
Tgt Ion: 95 Resp: 98652

Ion Ratio Lower Upper

95 100

174 93.6 0.0 186.4

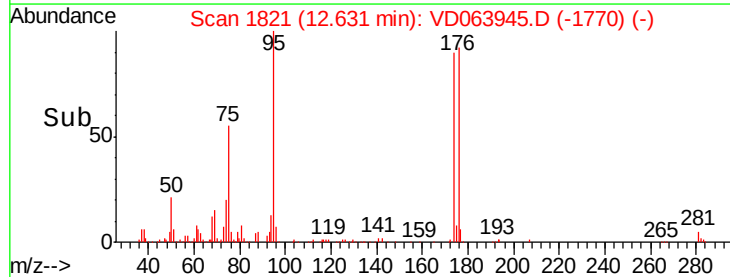
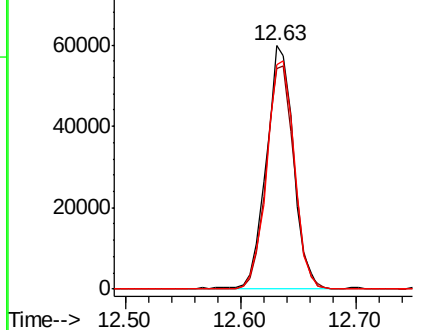
176 94.8 0.0 184.2

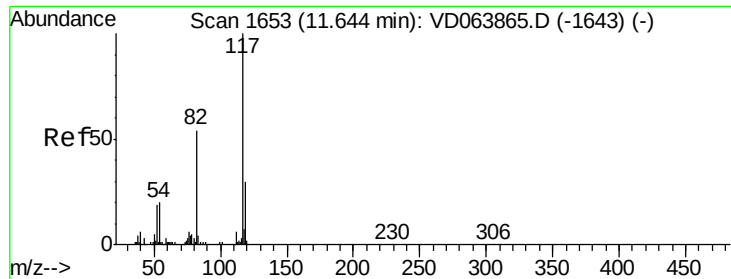


Abundance Ion 94.90 (94.60 to 95.60): VDC

Ion 173.80 (173.50 to 174.50): VDC

Ion 175.80 (175.50 to 176.50): VDC

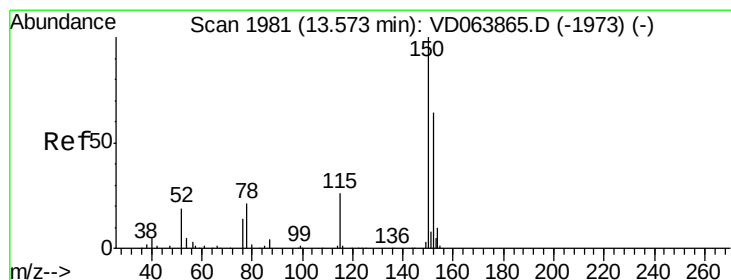
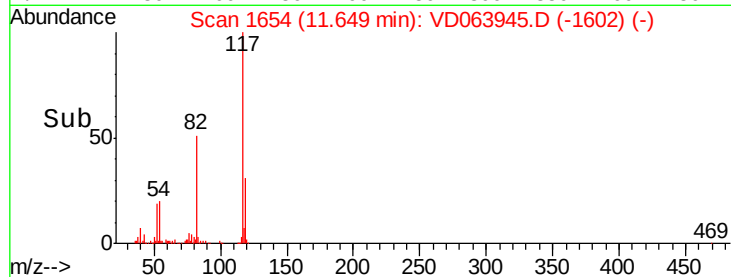
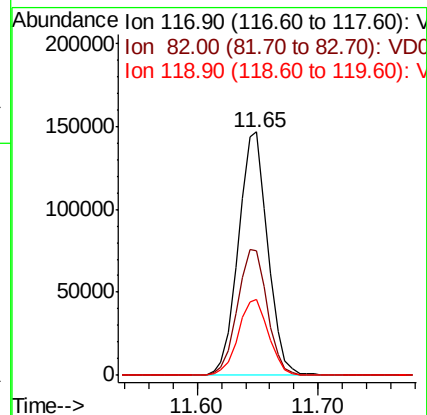
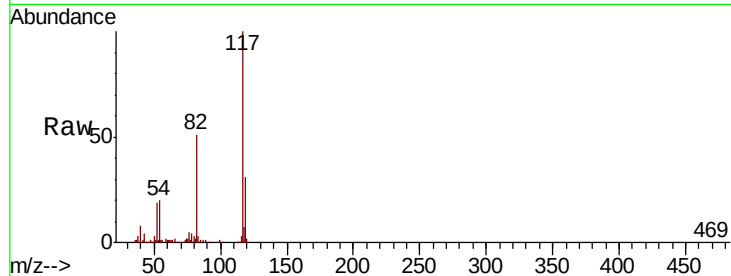




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. 0.01 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

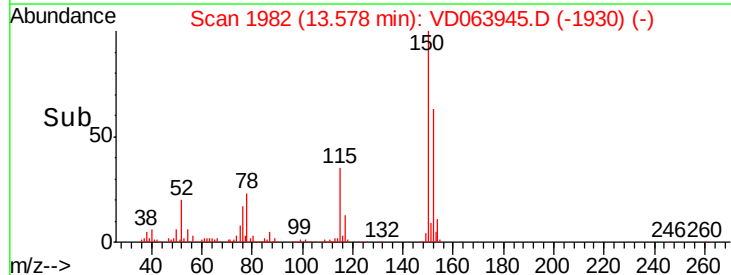
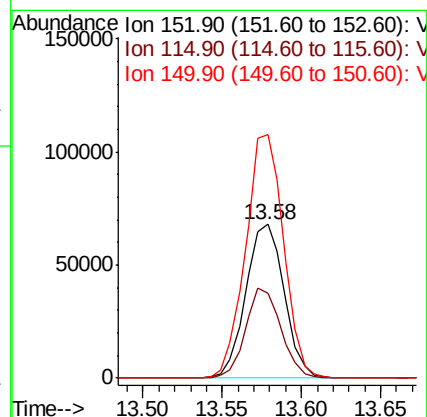
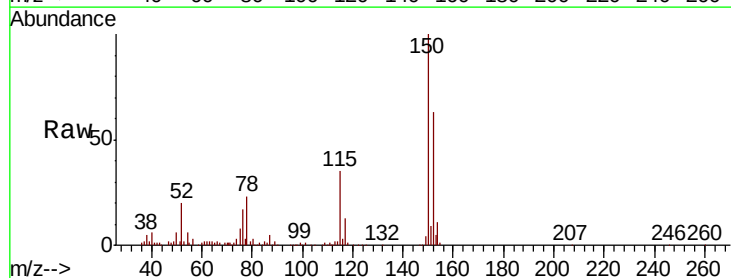
Instrument :  
MSVOA\_D  
ClientSampleId :

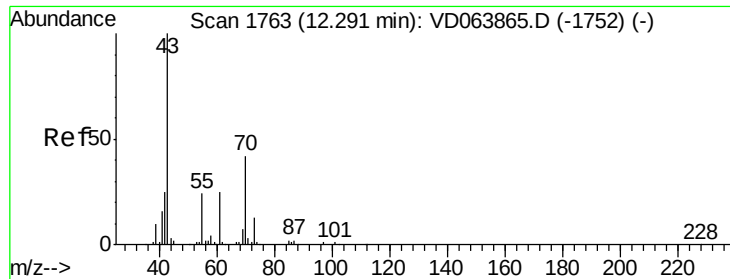
Tot Ion:117 Resp: 248034  
Ion Ratio Lower Upper  
117 100  
82 51.0 42.8 64.2  
119 31.0 24.4 36.6



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1982  
Delta R.T. 0.01 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Tgt Ion:152 Resp: 113817  
Ion Ratio Lower Upper  
152 100  
115 54.1 25.9 77.7  
150 158.0 0.0 344.2

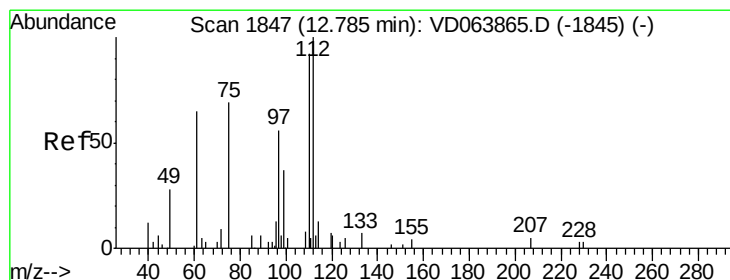
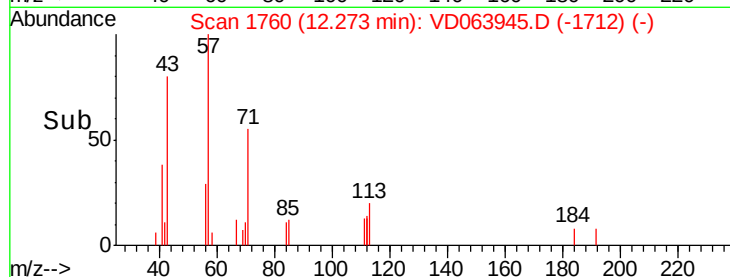
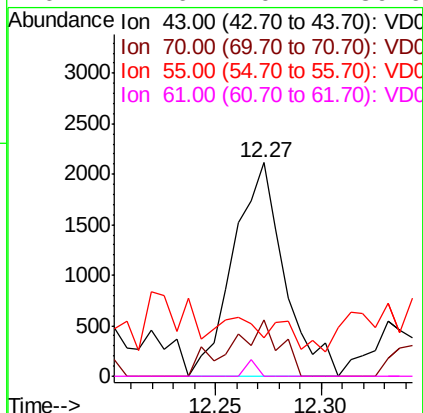
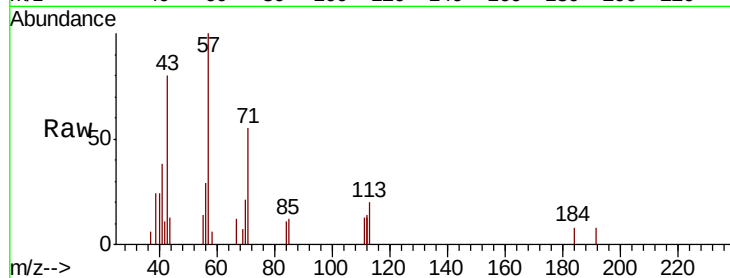




#74  
N-amvl acetate  
Concen: 2.136 ug/l  
RT: 12.27 min Scan# 1760  
Delta R.T. -0.02 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

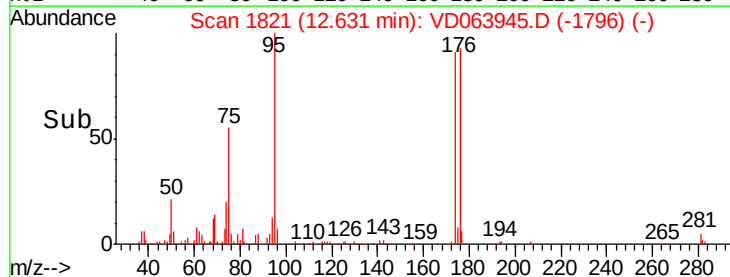
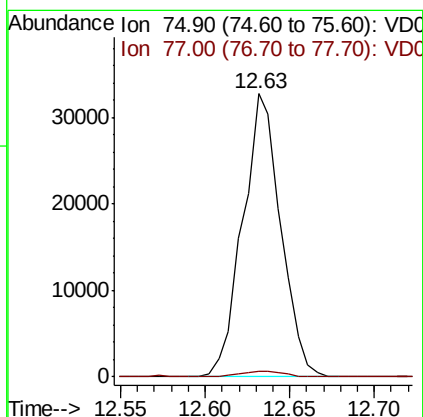
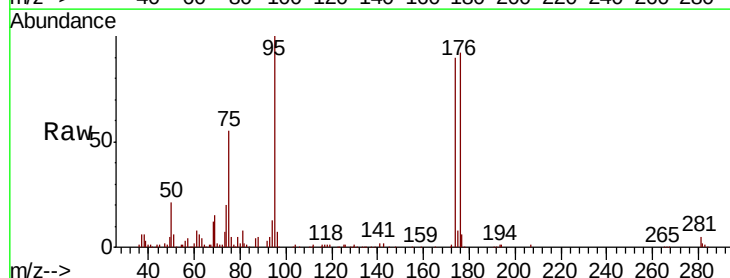
Instrument :  
MSVOA\_D  
ClientSampleId :

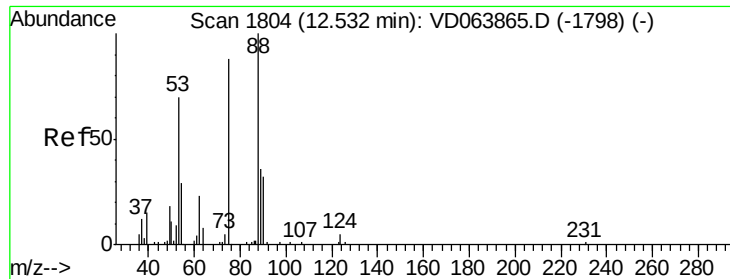
Tot Ion: 43 Resp: 3518  
Ion Ratio Lower Upper  
43 100  
70 25.6 35.8 53.6#  
55 6.0 19.4 29.0#  
61 1.6 20.4 30.6#



#76  
1,2,3-Trichloropropane  
Concen: 67.441 ug/l  
RT: 12.63 min Scan# 1821  
Delta R.T. -0.15 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Tgt Ion: 75 Resp: 51411  
Ion Ratio Lower Upper  
75 100  
77 2.1 0.0 0.0#

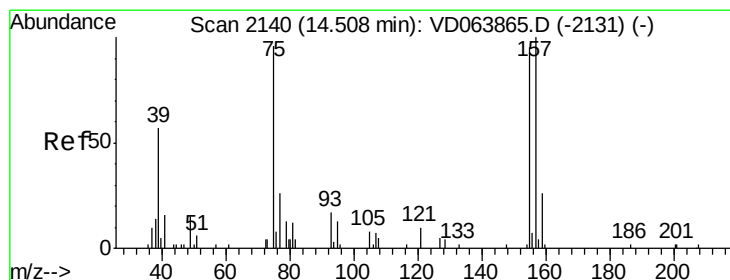
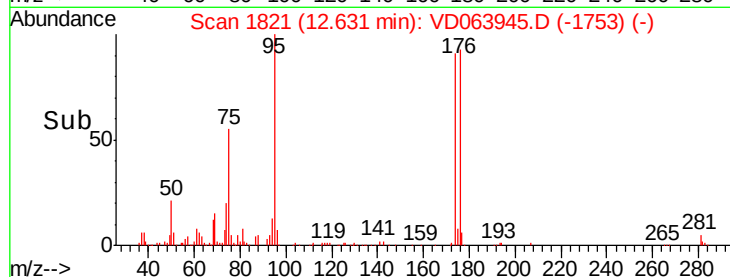
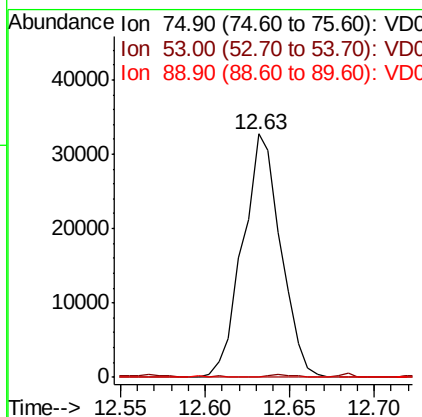
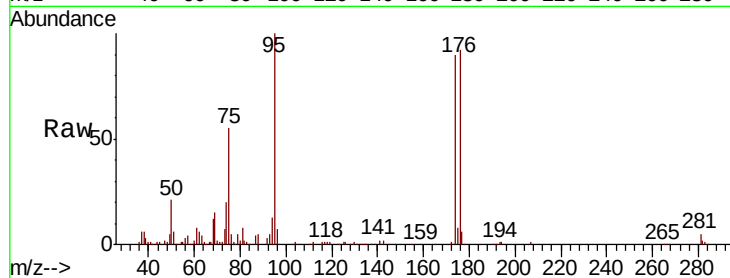




#81  
trans-1,4-Dichloro-2-butene  
Concen: 119.343 ug/l  
RT: 12.63 min Scan# 1821  
Delta R.T. 0.10 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 75 Resp: 51411  
Ion Ratio Lower Upper  
75 100  
53 0.7 75.0 112.6#  
89 0.0 38.2 57.4#



#92  
1,2-Dibromo-3-Chloropropane  
Concen: Below Cal  
RT: 14.51 min Scan# 2140  
Delta R.T. -0.00 min  
Lab File: VD063945.D  
Acq: 11 Oct 2019 19:01

Tgt Ion: 75 Resp: 117  
Ion Ratio Lower Upper  
75 100  
155 0.0 43.9 131.6#  
157 0.0 56.0 167.9#

