

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD040419\  
 Data File : VD061581.D  
 Acq On : 4 Apr 2019 16:17  
 Operator : VA/AP  
 Sample : K2219-01RE  
 Misc : 5.61g/5ml/MSVOA D/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Apr 05 01:11:07 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D032719S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 28 09:22:37 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.03  | 168  | 509883   | 50.00 | ug/l  | 0.01     |
| 34) 1,4-Difluorobenzene    | 8.20  | 114  | 825183   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 12.35 | 117  | 639968   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.51 | 152  | 264196   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.43  | 65   | 191772   | 44.03 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 88.06% |          |
| 35) Dibromofluoromethane    | 6.90  | 113  | 72551    | 11.51 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 23.02% |          |
| 50) Toluene-d8              | 10.38 | 98   | 631241   | 41.74 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.48% |          |
| 62) 4-Bromofluorobenzene    | 13.54 | 95   | 247920   | 42.75 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 85.50% |          |

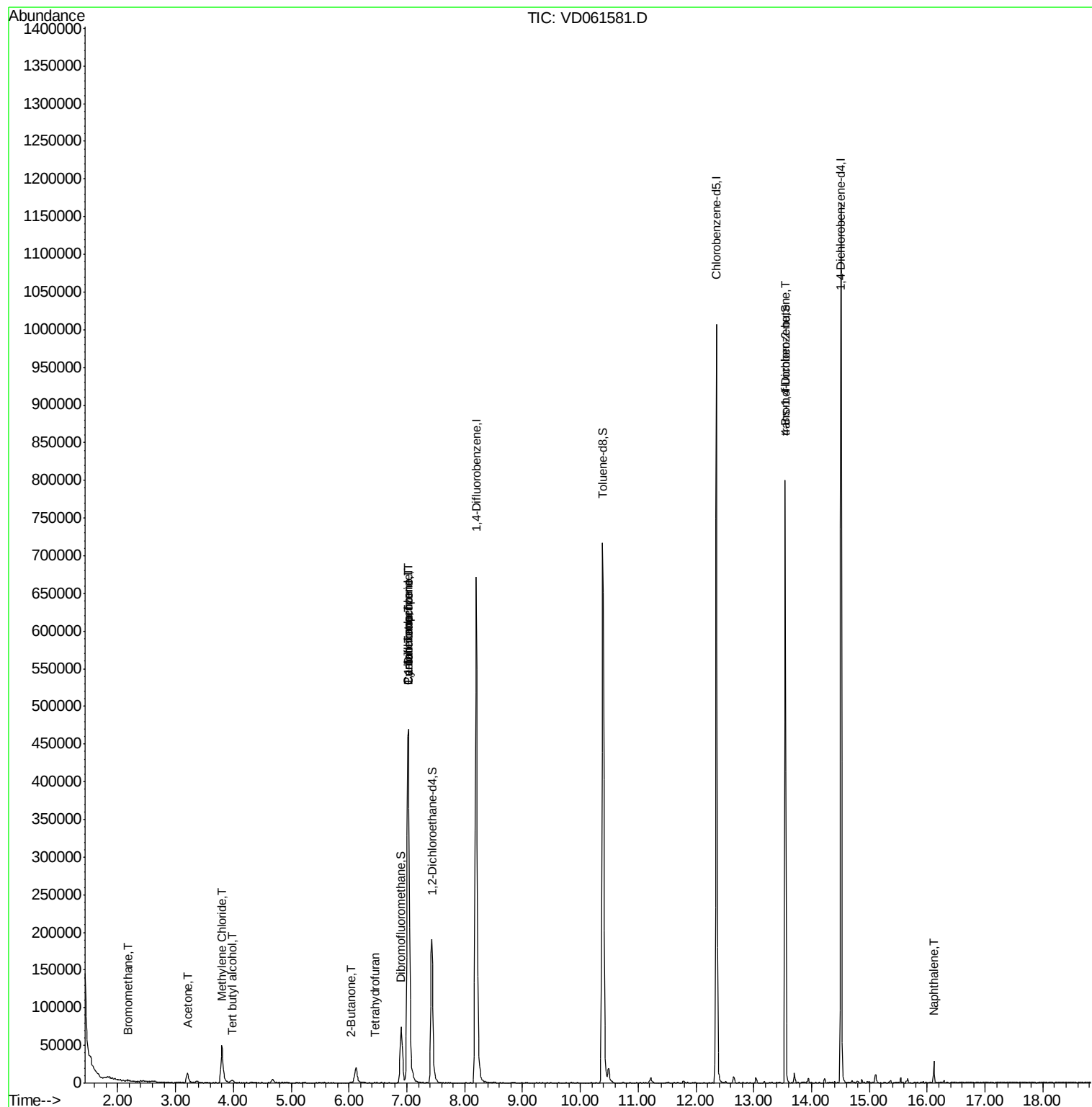
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 2.17  | 94   | 1096     | 1.355  | ug/l # | 10     |
| 11) Tert butyl alcohol         | 3.98  | 59   | 3980     | 14.673 | ug/l # | 76     |
| 16) Acetone                    | 3.21  | 43   | 26097    | 23.307 | ug/l   | 99     |
| 20) Methylene Chloride         | 3.80  | 84   | 36995    | 4.137  | ug/l   | 93     |
| 25) 2-Butanone                 | 6.04  | 43   | 2879     | 2.044  | ug/l # | 54     |
| 29) Tetrahydrofuran            | 6.45  | 42   | 744      | 1.090  | ug/l # | 30     |
| 31) Cyclohexane                | 7.02  | 56   | 8291     | 1.105  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.02  | 75   | 35601    | 4.943  | ug/l # | 45     |
| 38) Carbon Tetrachloride       | 7.02  | 117  | 48419    | 5.851  | ug/l # | 14     |
| 81) trans-1,4-Dichloro-2-buten | 13.54 | 75   | 90996    | 78.201 | ug/l # | 18     |
| 95) Naphthalene                | 16.11 | 128  | 18930    | 3.601  | ug/l   | 98     |

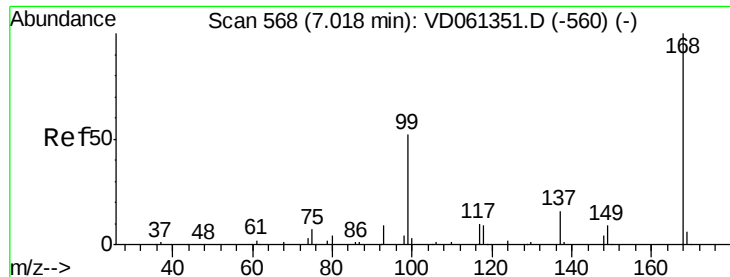
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD040419\  
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MSVOA\_D  
ClientSampleId :

Quant Time: Apr 05 01:11:07 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D032719S.M  
Quant Title : SW846 8260  
QLast Update : Thu Mar 28 09:22:37 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.03 min Scan# 569

Delta R.T. 0.01 min

Lab File: VD061581.D

Acq: 4 Apr 2019 16:17

Instrument :

MSVOA\_D

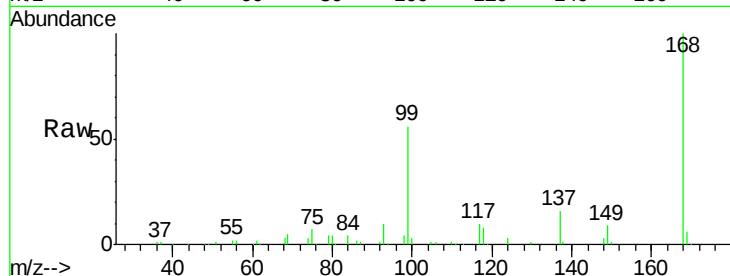
ClientSampleId :

Tot Ion:168 Resp: 509883

Ion Ratio Lower Upper

168 100

99 56.0 43.1 64.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.03

150000

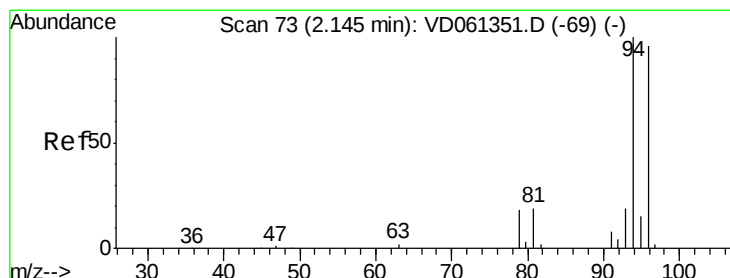
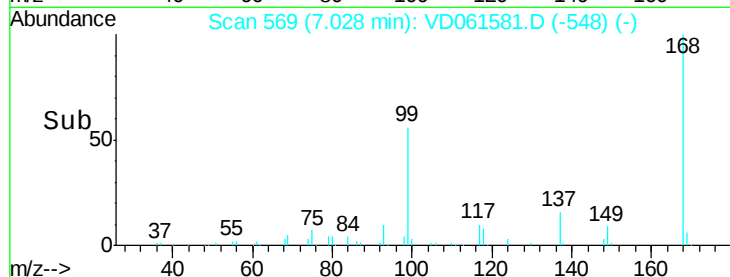
100000

50000

0

6.90 7.00 7.10 7.20

Time-->



#5

Bromomethane

Concen: 1.355 ug/l

RT: 2.17 min Scan# 76

Delta R.T. 0.03 min

Lab File: VD061581.D

Acq: 4 Apr 2019 16:17

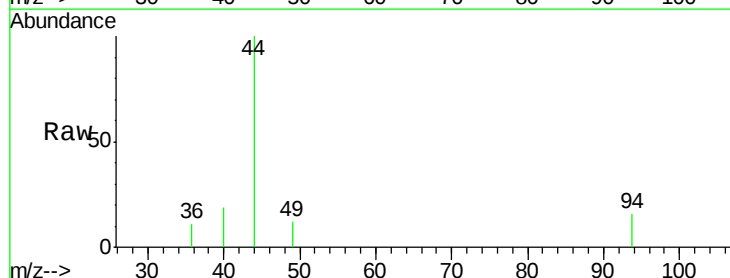
Tgt Ion: 94 Resp: 1096

Ion Ratio Lower Upper

94 100

96 0.0 78.3 117.5#

93 0.0 15.6 23.4#



Abundance Ion 94.00 (93.70 to 94.70): VDC

Ion 96.00 (95.70 to 96.70): VDC

Ion 93.00 (92.70 to 93.70): VDC

600

500

400

300

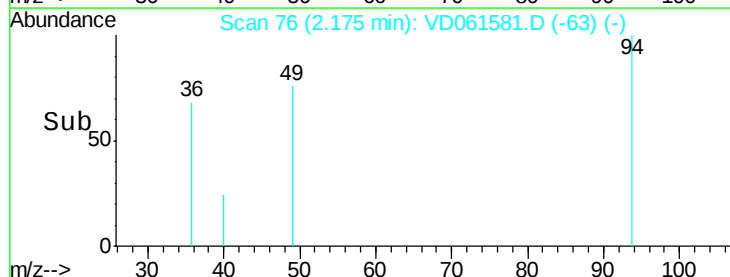
200

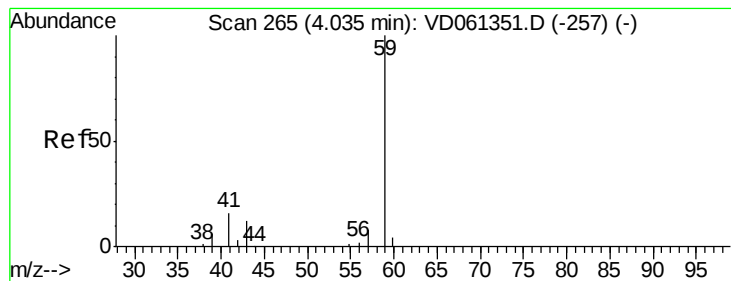
100

0

2.15 2.20

Time-->



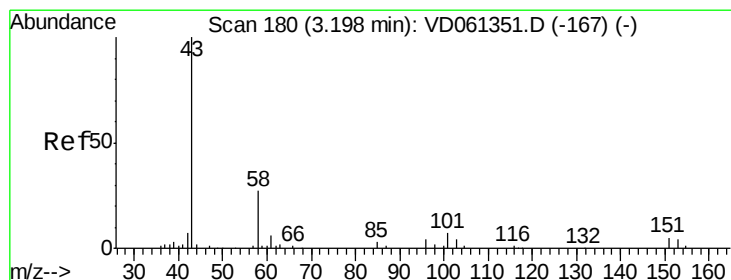
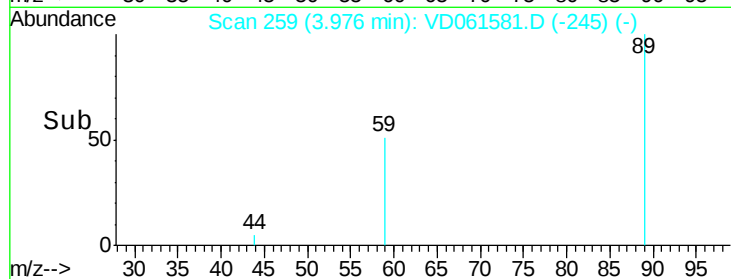
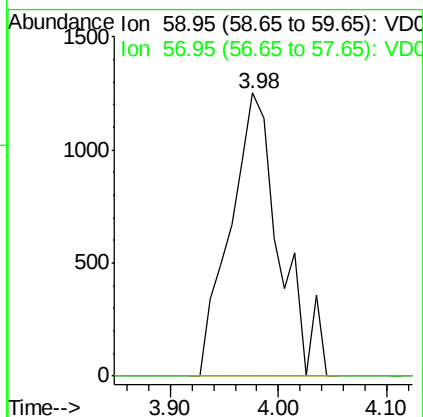
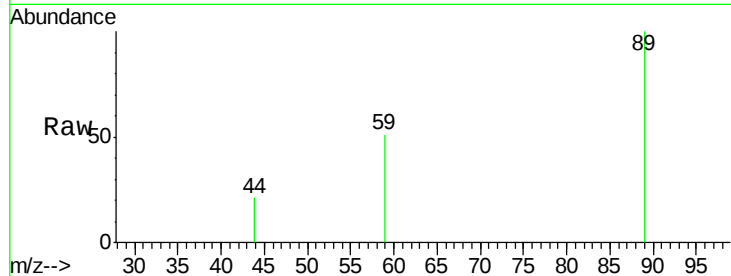


#11

Tert butyl alcohol  
 Concen: 14.673 ug/l  
 RT: 3.98 min Scan# 259  
 Delta R.T. -0.06 min  
 Lab File: VD061581.D  
 Acq: 4 Apr 2019 16:17

Instrument :  
 MSVOA\_D  
 ClientSampleId :

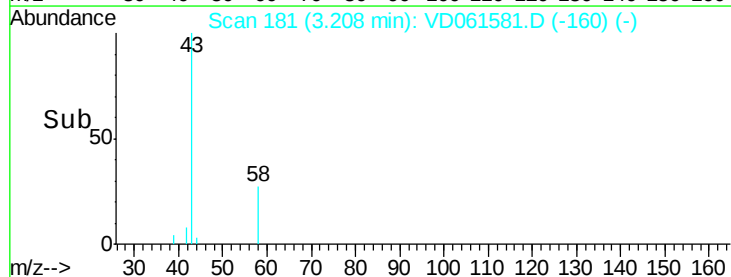
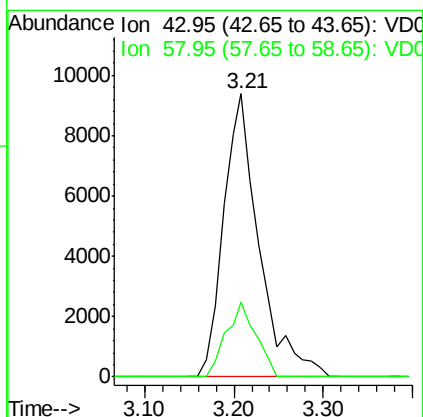
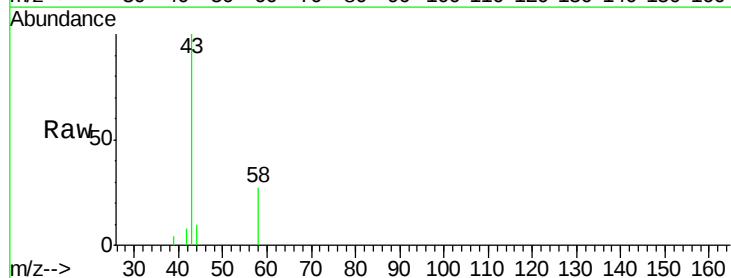
Tot Ion: 59 Resp: 3980  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 6.7 10.1#

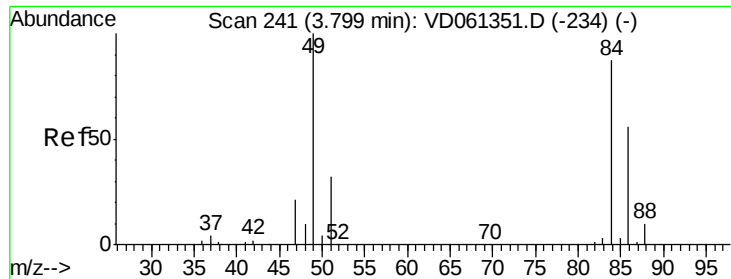


#16

Acetone  
 Concen: 23.307 ug/l  
 RT: 3.21 min Scan# 181  
 Delta R.T. 0.01 min  
 Lab File: VD061581.D  
 Acq: 4 Apr 2019 16:17

Tgt Ion: 43 Resp: 26097  
 Ion Ratio Lower Upper  
 43 100  
 58 26.5 21.5 32.3

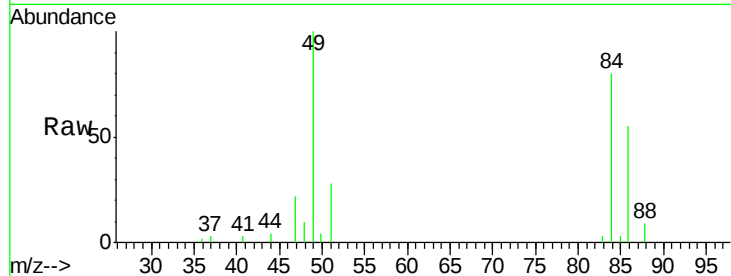




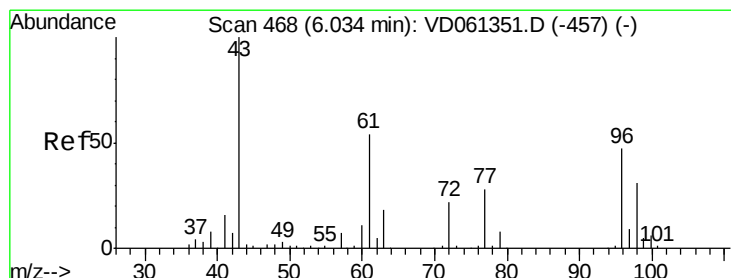
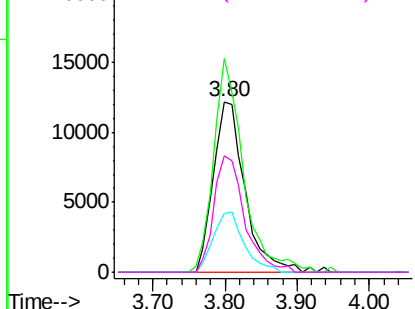
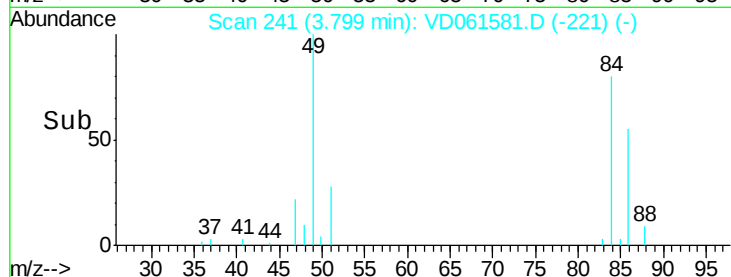
#20  
Methvlene Chloride  
Concen: 4.137 ug/l  
RT: 3.80 min Scan# 241  
Delta R.T. 0.00 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 84 Resp: 36995  
Ion Ratio Lower Upper  
84 100  
49 125.4 91.8 137.8  
51 34.9 29.8 44.8  
86 68.7 51.8 77.6

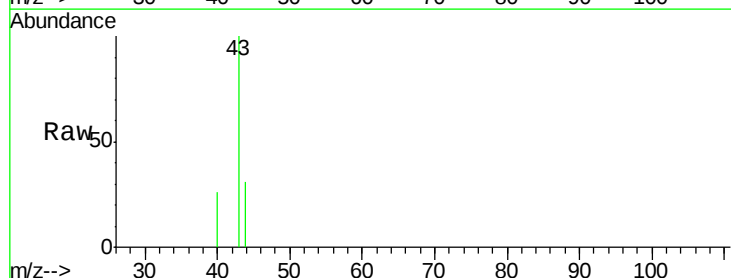


Abundance Ion 83.95 (83.65 to 84.65): VDC  
Ion 48.90 (48.60 to 49.60): VDC  
Ion 50.90 (50.60 to 51.60): VDC  
Ion 85.90 (85.60 to 86.60): VDC

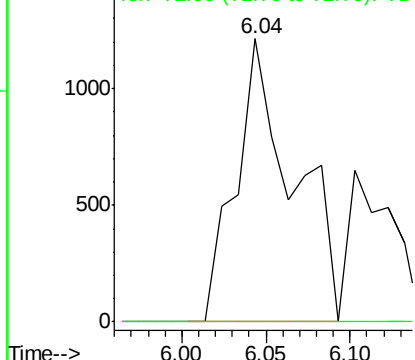
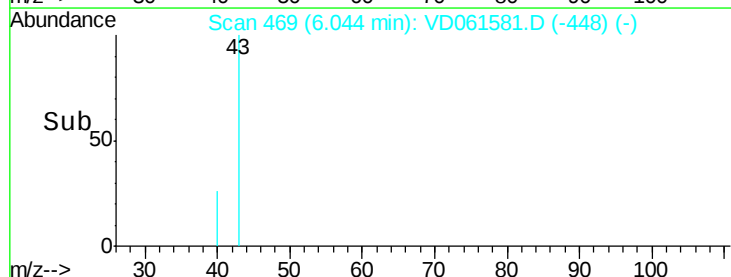


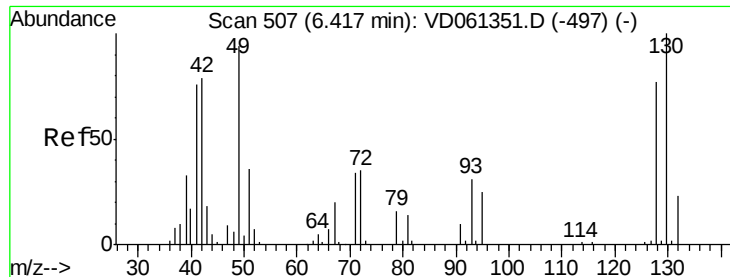
#25  
2-Butanone  
Concen: 2.044 ug/l  
RT: 6.04 min Scan# 468  
Delta R.T. 0.01 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Tgt Ion: 43 Resp: 2879  
Ion Ratio Lower Upper  
43 100  
72 0.0 17.2 25.8#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
Ion 72.00 (71.70 to 72.70): VDC

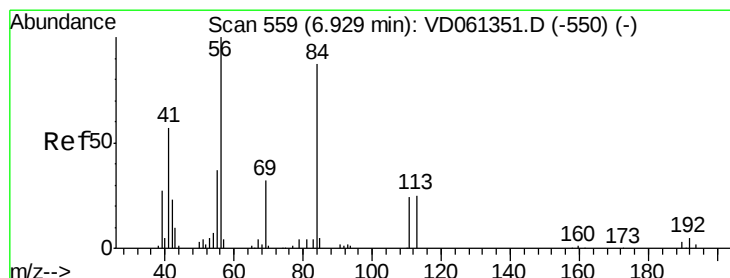
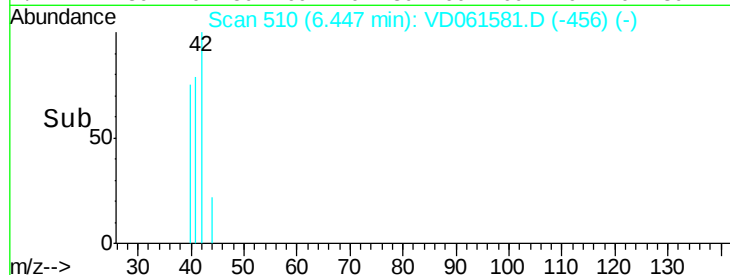
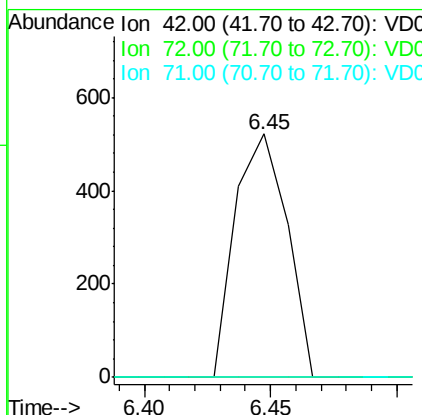
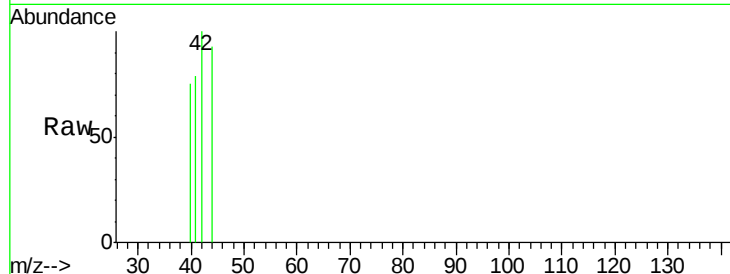




#29  
Tetrahydrofuran  
Concen: 1.090 ug/l  
RT: 6.45 min Scan# 510  
Delta R.T. 0.03 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

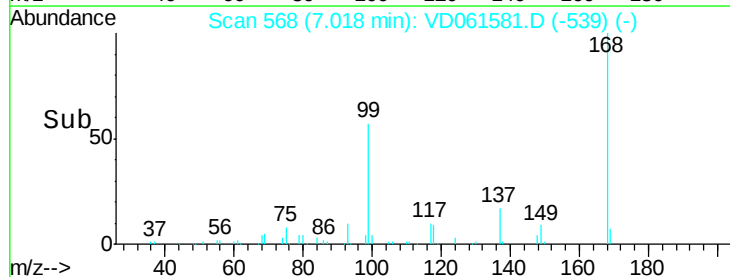
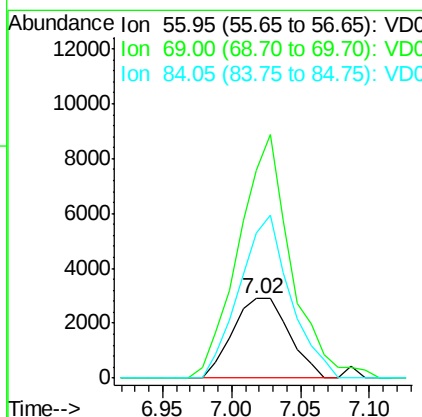
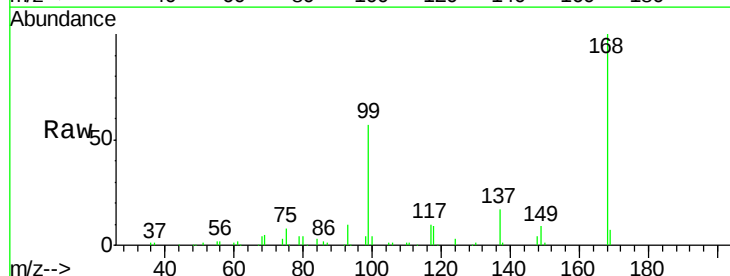
Instrument :  
MSVOA\_D  
ClientSampleId :

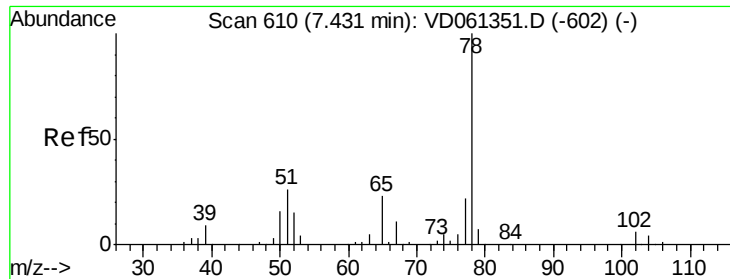
Tot Ion: 42 Resp: 744  
Ion Ratio Lower Upper  
42 100  
72 0.0 37.4 56.0#  
71 0.0 36.7 55.1#



#31  
Cyclohexane  
Concen: 1.105 ug/l  
RT: 7.02 min Scan# 568  
Delta R.T. 0.09 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Tgt Ion: 56 Resp: 8291  
Ion Ratio Lower Upper  
56 100  
69 260.1 25.7 38.5#  
84 181.8 70.6 105.8#

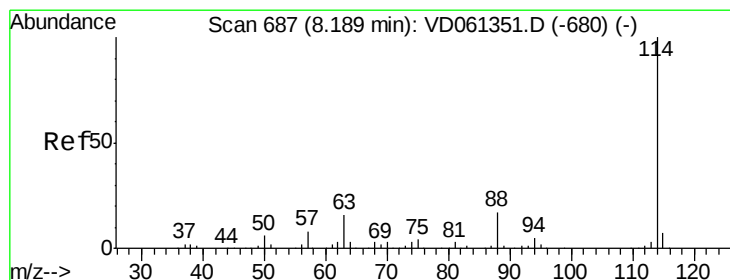
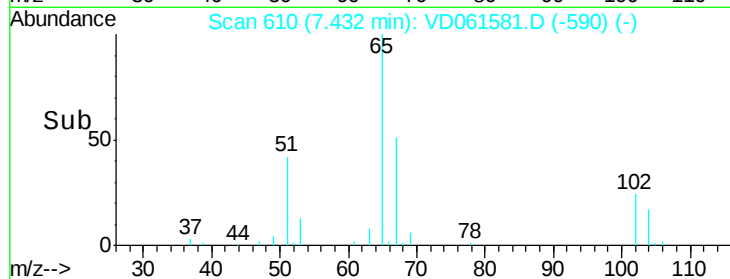
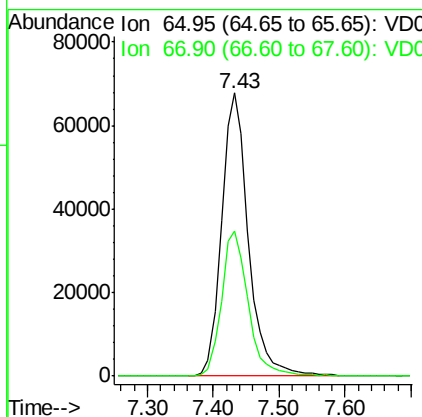
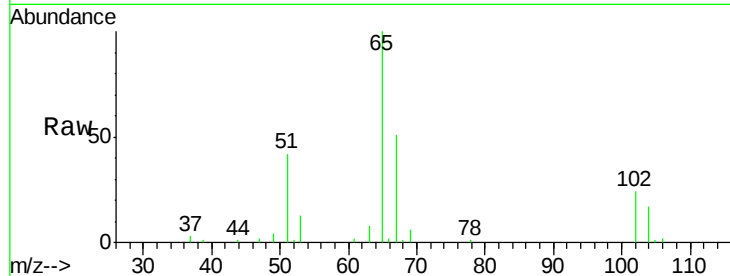




#33  
 1,2-Dichloroethane-d4  
 Concen: N.D. ug/l  
 RT: 7.43 min Scan# 610  
 Delta R.T. 0.00 min  
 Lab File: VD061581.D  
 Acq: 4 Apr 2019 16:17

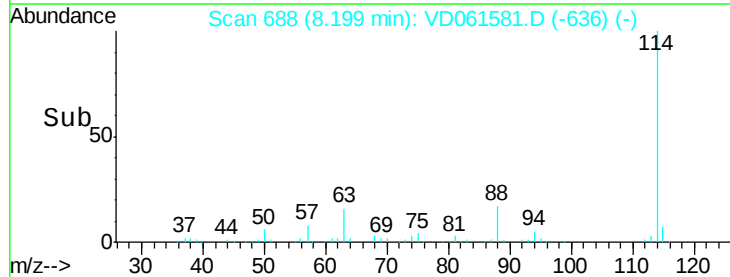
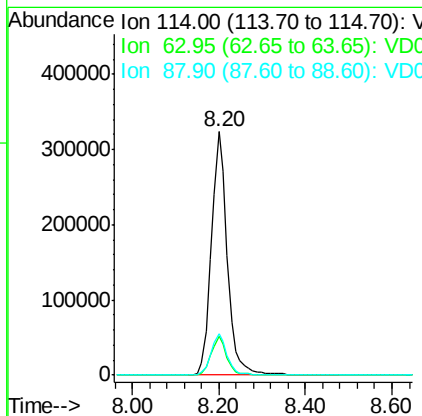
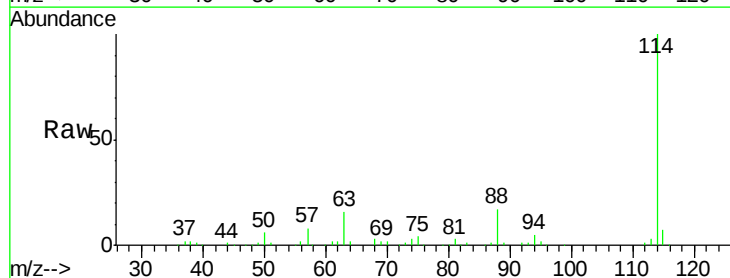
Instrument :  
 MSVOA\_D  
 ClientSampleId :

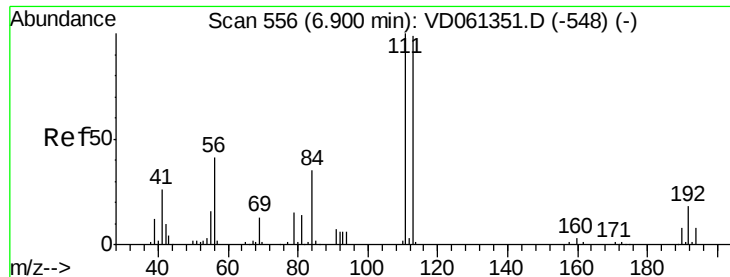
Tot Ion: 65 Resp: 191772  
 Ion Ratio Lower Upper  
 65 100  
 67 51.3 0.0 99.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.20 min Scan# 688  
 Delta R.T. 0.01 min  
 Lab File: VD061581.D  
 Acq: 4 Apr 2019 16:17

Tgt Ion: 114 Resp: 825183  
 Ion Ratio Lower Upper  
 114 100  
 63 15.7 0.0 31.6  
 88 17.0 0.0 33.4





#35

Dibromofluoromethane

Concen: 50.000 ug/l

RT: 6.90 min Scan# 556

Delta R.T. 0.00 min

Lab File: VD061581.D

Acq: 4 Apr 2019 16:17

Instrument :  
MSVOA\_D  
ClientSampleId :

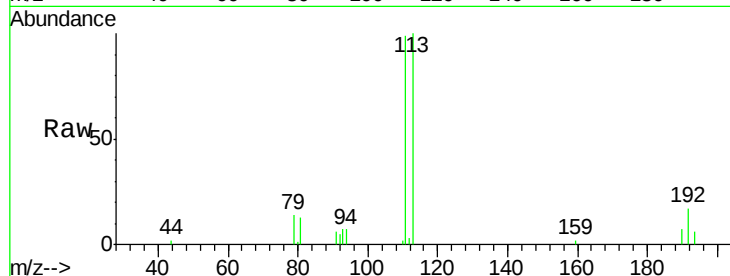
Tot Ion:113 Resp: 72551

Ion Ratio Lower Upper

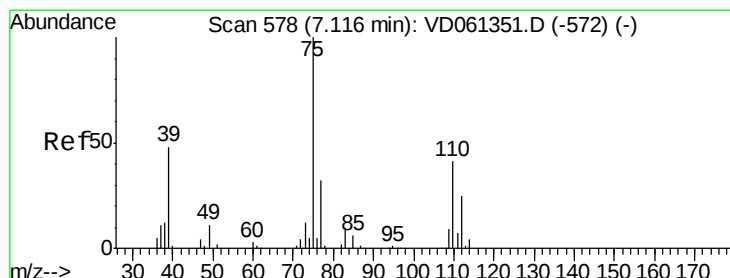
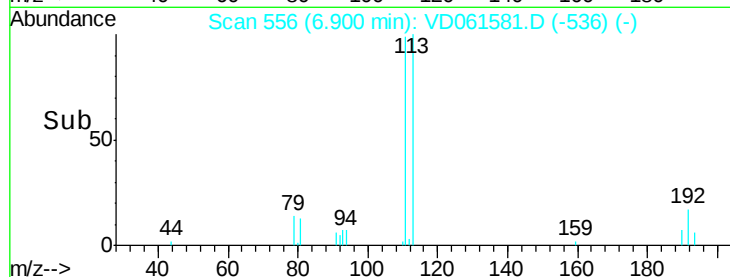
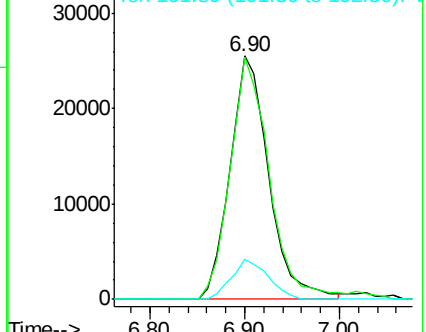
113 100

111 99.3 81.0 121.6

192 16.5 14.4 21.6



Abundance Ion 112.90 (112.60 to 113.60): V  
Ion 110.90 (110.60 to 111.60): V  
Ion 191.80 (191.50 to 192.50): V



#36

1,1-Dichloropropene

Concen: 4.943 ug/l

RT: 7.02 min Scan# 568

Delta R.T. -0.10 min

Lab File: VD061581.D

Acq: 4 Apr 2019 16:17

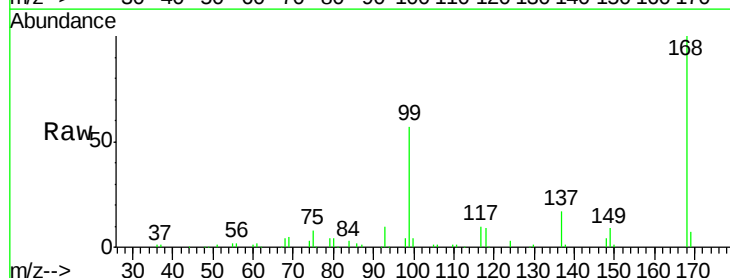
Tgt Ion: 75 Resp: 35601

Ion Ratio Lower Upper

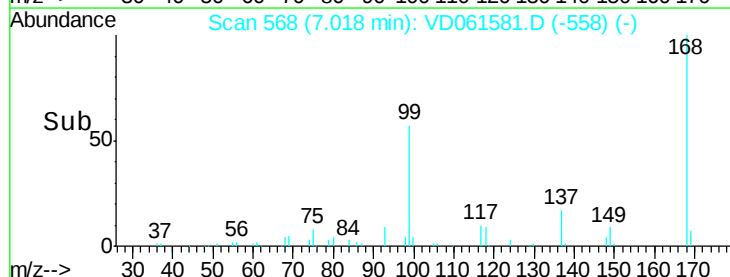
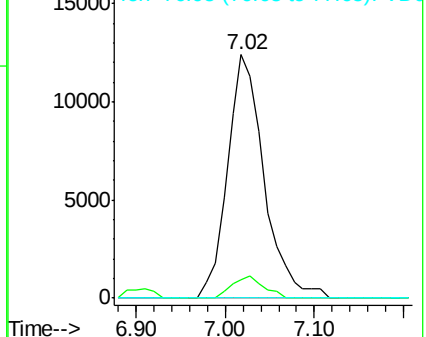
75 100

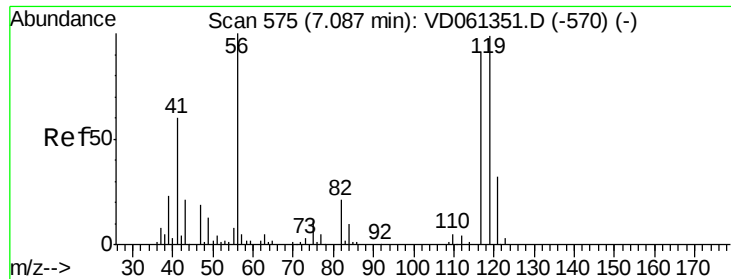
110 7.6 20.4 61.3#

77 0.0 24.9 37.3#



Abundance Ion 75.00 (74.70 to 75.70): VDC  
Ion 109.90 (109.60 to 110.60): V  
Ion 76.95 (76.65 to 77.65): VDC





#38

Carbon Tetrachloride

Concen: 5.851 ug/l

RT: 7.02 min Scan# 568

Delta R.T. -0.07 min

Lab File: VD061581.D

Acq: 4 Apr 2019 16:17

Instrument :

MSVOA\_D

ClientSampleId :

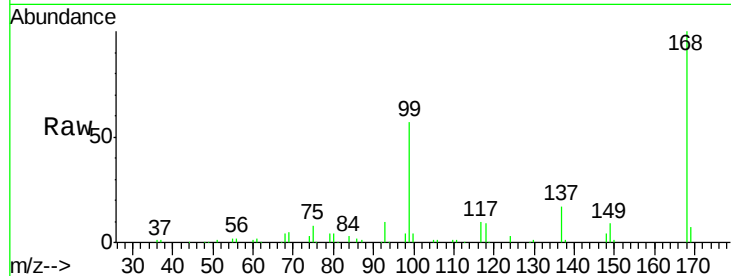
Tot Ion:117 Resp: 48419

Ion Ratio Lower Upper

117 100

119 4.7 80.1 120.1#

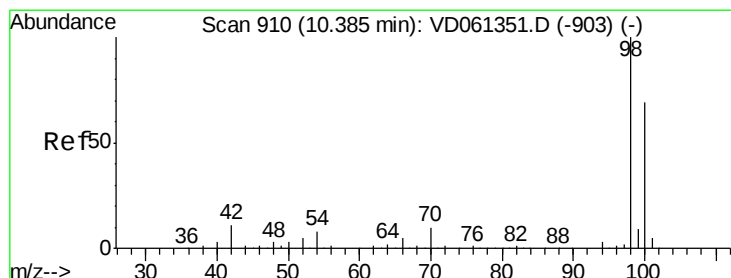
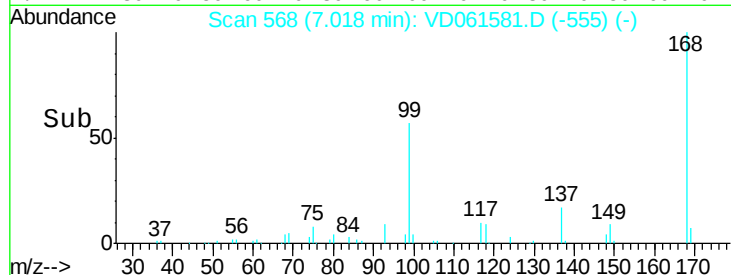
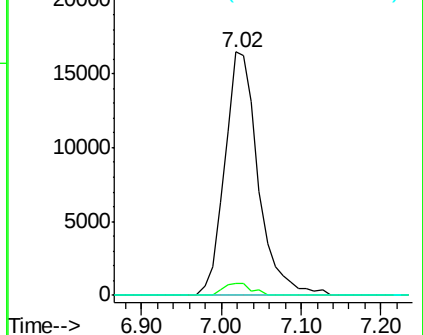
121 0.0 25.6 38.4#



Abundance Ion 116.85 (116.55 to 117.55): V

Ion 118.85 (118.55 to 119.55): V

Ion 120.85 (120.55 to 121.55): V



#50

Toluene-d8

Concen: N.D. ug/l

RT: 10.38 min Scan# 910

Delta R.T. 0.00 min

Lab File: VD061581.D

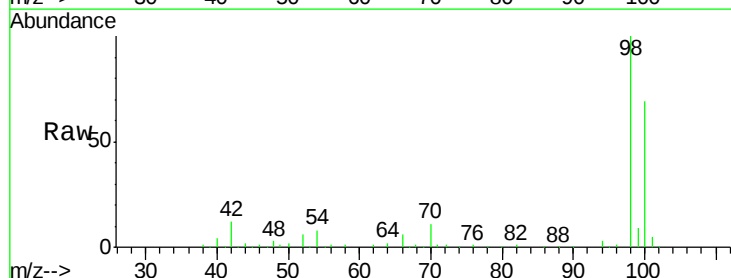
Acq: 4 Apr 2019 16:17

Tgt Ion: 98 Resp: 631241

Ion Ratio Lower Upper

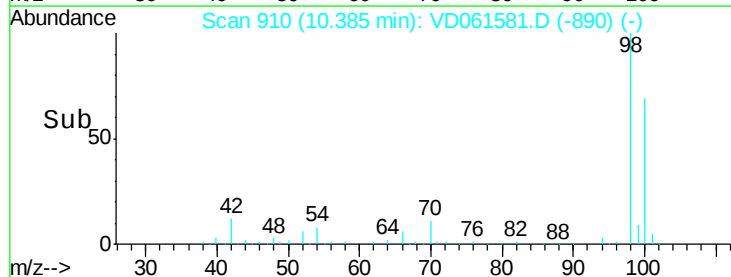
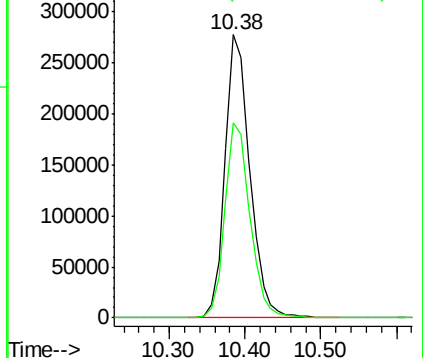
98 100

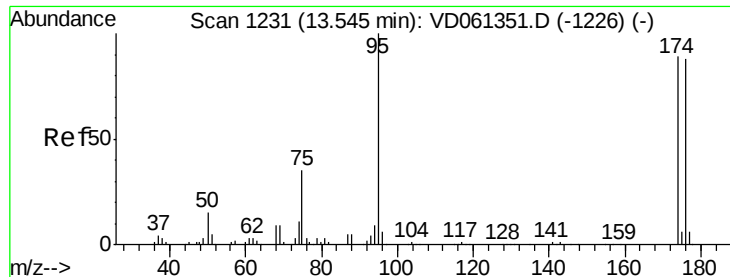
100 68.9 56.2 84.2



Abundance Ion 98.05 (97.75 to 98.75): V

Ion 100.05 (99.75 to 100.75): V

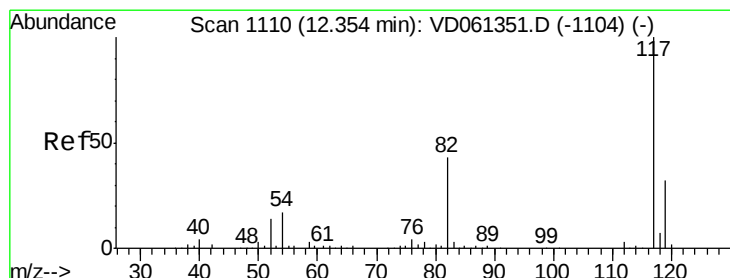
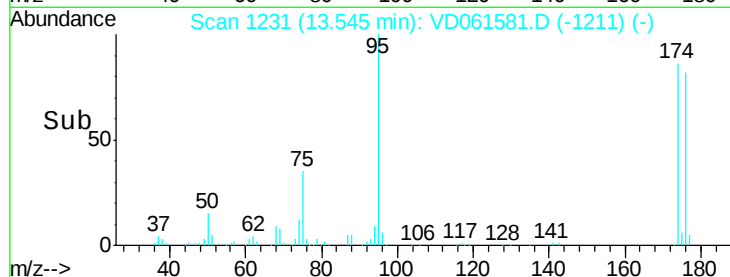
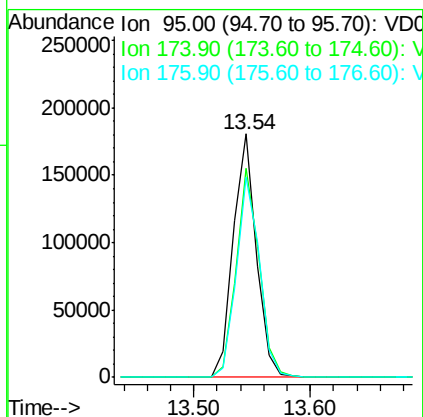
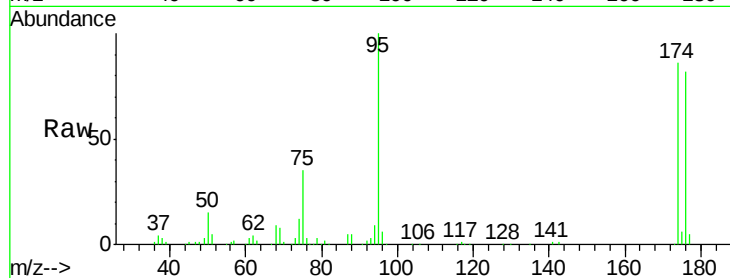




#62  
4-Bromofluorobenzene  
Concen: N.D. ug/l  
RT: 13.54 min Scan# 1231  
Delta R.T. 0.00 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

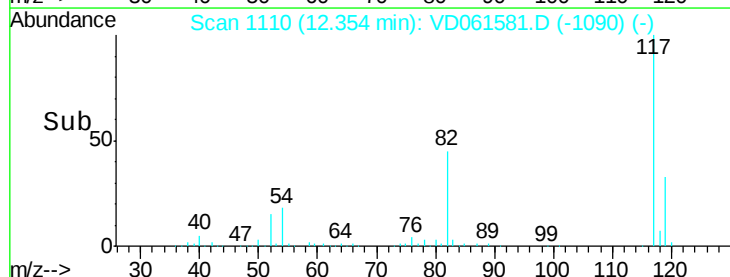
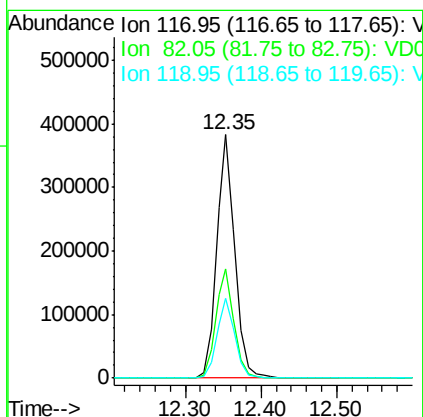
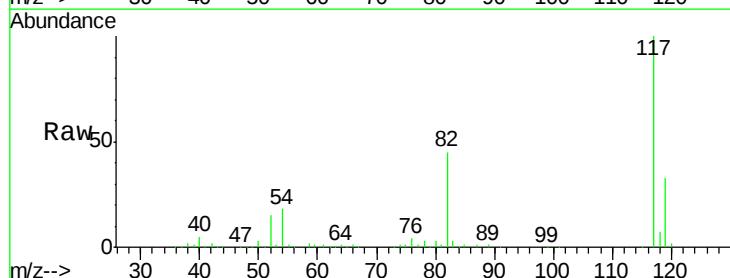
Instrument :  
MSVOA\_D  
ClientSampleId :

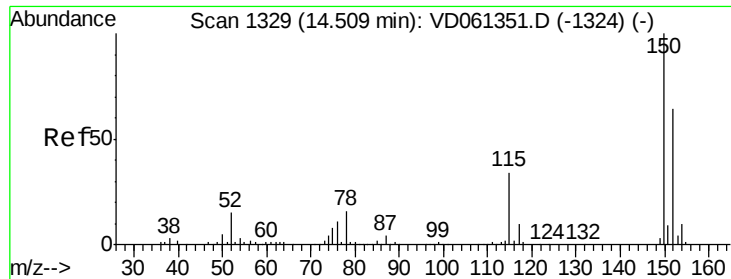
Tot Ion: 95 Resp: 247920  
Ion Ratio Lower Upper  
95 100  
174 85.9 0.0 178.0  
176 82.3 0.0 175.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.35 min Scan# 1110  
Delta R.T. 0.00 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Tgt Ion: 117 Resp: 639968  
Ion Ratio Lower Upper  
117 100  
82 45.0 34.4 51.6  
119 32.9 25.8 38.6



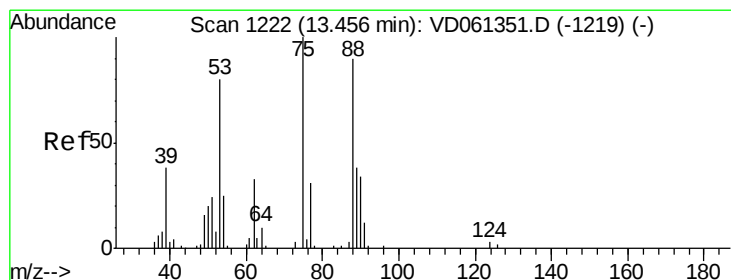
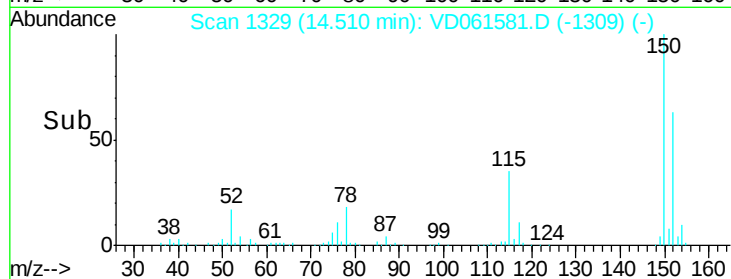
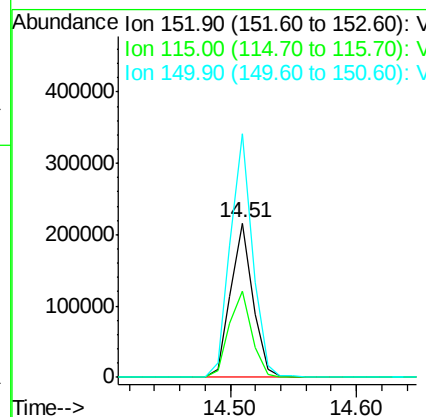
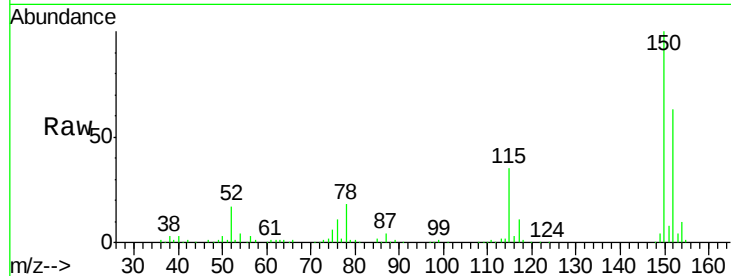


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.51 min Scan# 1329  
Delta R.T. 0.00 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Instrument :  
MSVOA\_D  
ClientSampleId :

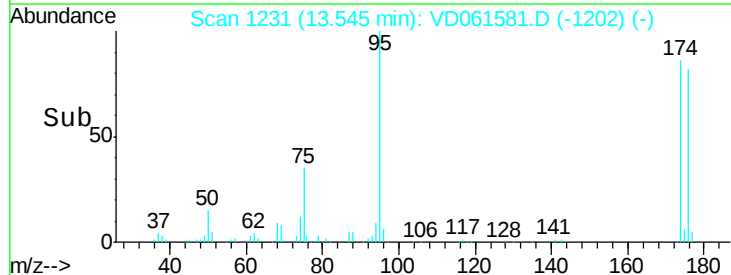
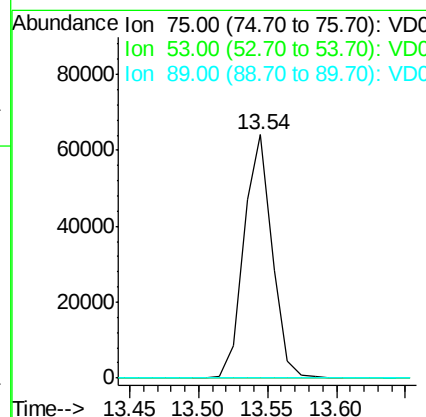
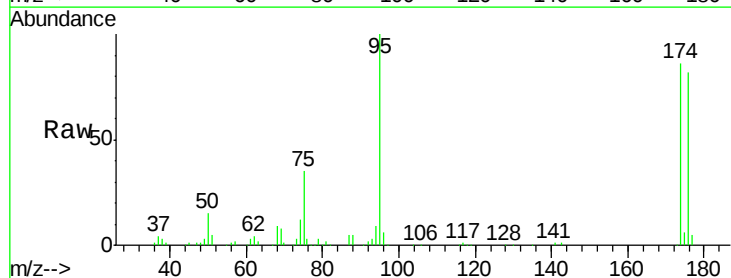
Tot Ion:152 Resp: 264196  
Ion Ratio Lower Upper  
152 100  
115 55.7 26.9 80.6  
150 157.6 0.0 318.0

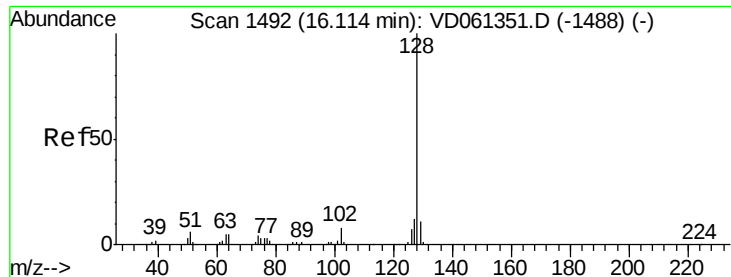


#81

trans-1,4-Dichloro-2-butene  
Concen: 78.201 ug/l  
RT: 13.54 min Scan# 1231  
Delta R.T. 0.09 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Tgt Ion: 75 Resp: 90996  
Ion Ratio Lower Upper  
75 100  
53 0.0 63.8 95.8#  
89 0.0 30.5 45.7#

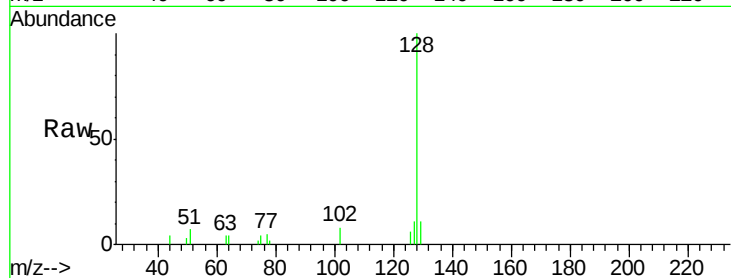




#95  
Naphthalene  
Concen: 3.601 ug/l  
RT: 16.11 min Scan# 1492  
Delta R.T. 0.00 min  
Lab File: VD061581.D  
Acq: 4 Apr 2019 16:17

Instrument :  
MSVOA\_D  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 10.8  | 9.9   | 14.9  |
| 129     | 11.0  | 8.9   | 13.3  |



Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 127.00 (126.70 to 127.70): V  
Ion 129.00 (128.70 to 129.70): V

