

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD040219\  
 Data File : VD061516.D  
 Acq On : 2 Apr 2019 16:06  
 Operator : VA/AP  
 Sample : K2189-10RE  
 Misc : 5.01g/5ml/MSVOA D/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 BP-VPB201R-GW-758-760

Quant Time: Apr 03 01:52:02 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      | 7.04  | 168  | 204310   | 50.00 | ug/l  | 0.02     |
| 34) 1,4-Difluorobenzene    | 8.21  | 114  | 367278   | 50.00 | ug/l  | 0.02     |
| 63) Chlorobenzene-d5       | 12.35 | 117  | 316759   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.51 | 152  | 125578   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.44  | 65   | 114133   | 65.39 | ug/l    | 0.01     |
| Spiked Amount               |       |      | Recovery | =     | 130.78% |          |
| 35) Dibromofluoromethane    | 6.92  | 113  | 145546   | 51.86 | ug/l    | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 103.72% |          |
| 50) Toluene-d8              | 10.39 | 98   | 293661   | 43.62 | ug/l    | 0.01     |
| Spiked Amount               |       |      | Recovery | =     | 87.24%  |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 113928   | 44.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 88.26%  |          |

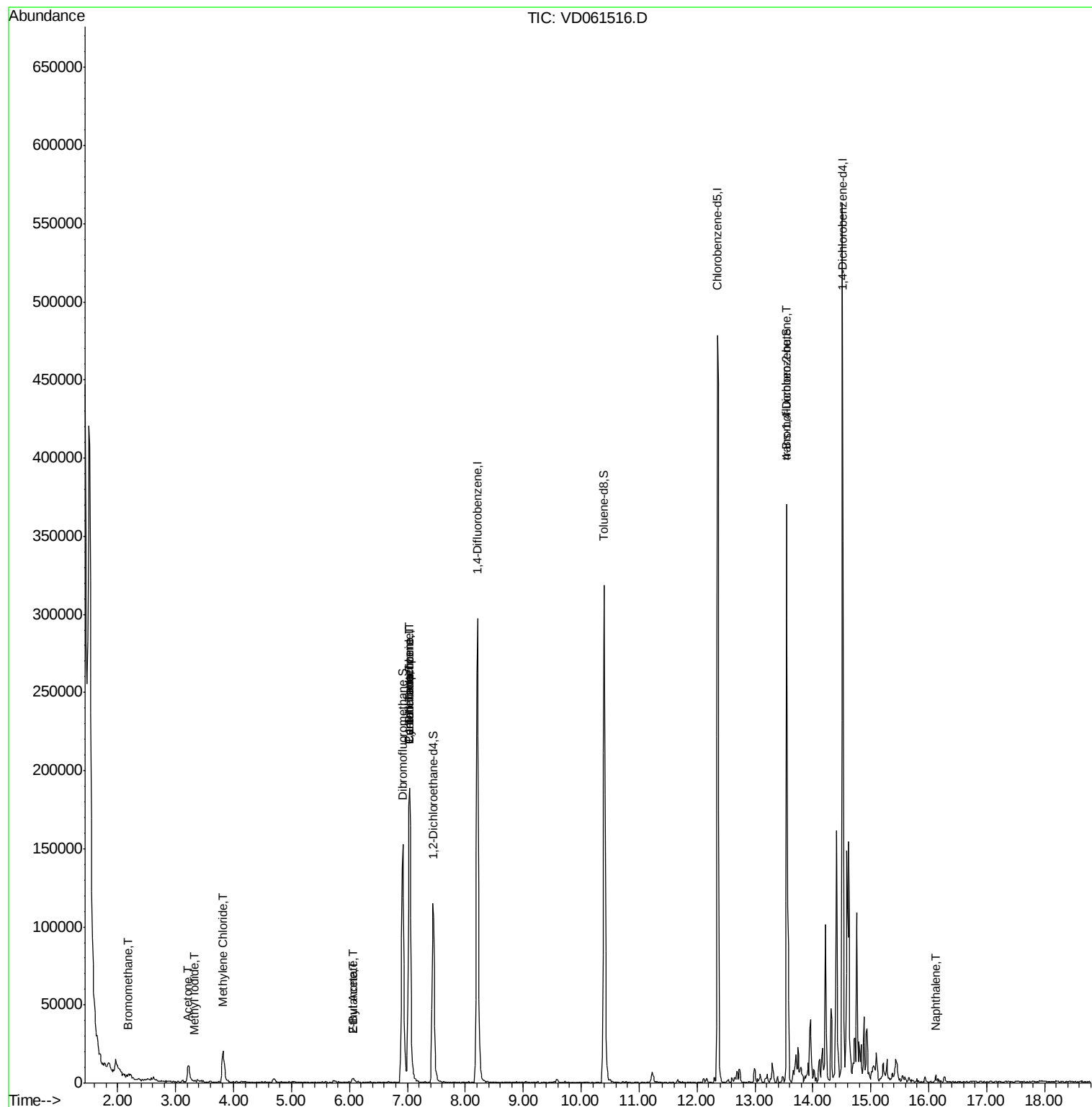
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 2.17  | 94   | 562      | 1.735  | ug/l # | 10     |
| 10) Methyl Iodide              | 3.33  | 142  | 1128     | 3.736  | ug/l # | 38     |
| 16) Acetone                    | 3.22  | 43   | 23556    | 52.503 | ug/l   | 97     |
| 20) Methylene Chloride         | 3.81  | 84   | 15872    | 4.571  | ug/l   | 98     |
| 25) 2-Butanone                 | 6.06  | 43   | 6984     | 12.375 | ug/l # | 89     |
| 31) Cyclohexane                | 7.03  | 56   | 3320     | 1.104  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.03  | 75   | 14592    | 4.552  | ug/l # | 44     |
| 37) Ethyl Acetate              | 6.06  | 43   | 6984     | 5.094  | ug/l # | 65     |
| 38) Carbon Tetrachloride       | 7.04  | 117  | 18411    | 4.998  | ug/l # | 10     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 41169    | 74.434 | ug/l # | 18     |
| 95) Naphthalene                | 16.11 | 128  | 3404     | 1.362  | ug/l # | 83     |

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

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Sample : K2189-10RE  
Misc : 5.01µl/5ml/MSVOA D/SOIL  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
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BP-VPB201R-GW-758-760

Quant Time: Apr 03 01:52:02 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: 7.04 min Scan# 570

Delta R.T. 0.02 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

Instrument :

MSVOA\_D

ClientSampleId :

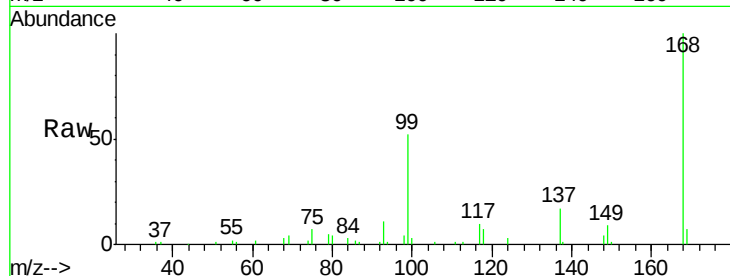
BP-VPB201R-GW-758-760

Tot Ion:168 Resp: 204310

Ion Ratio Lower Upper

168 100

99 51.9 43.1 64.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.04

80000

60000

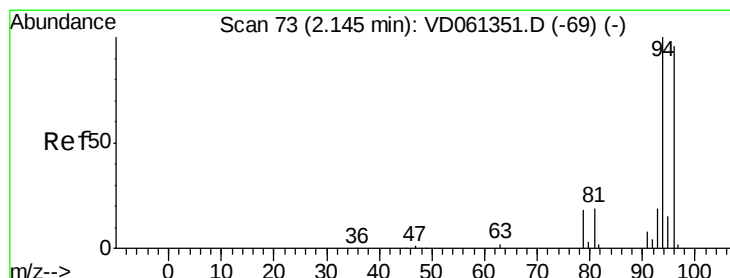
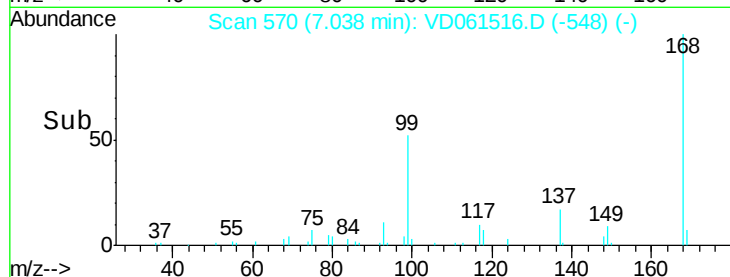
40000

20000

0

Time-->

6.90 7.00 7.10 7.20



#5

Bromomethane

Concen: 1.735 ug/l

RT: 2.17 min Scan# 76

Delta R.T. 0.03 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

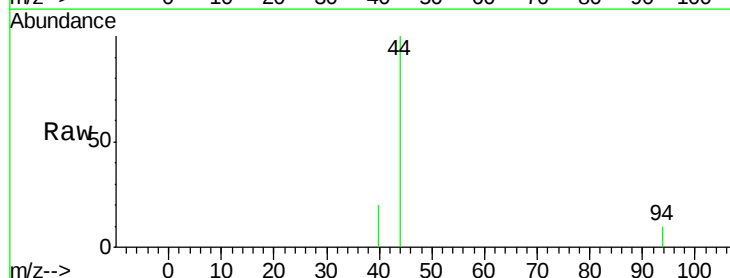
Tgt Ion: 94 Resp: 562

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

500

400

300

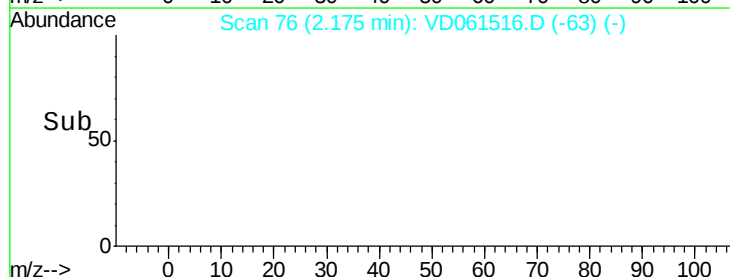
200

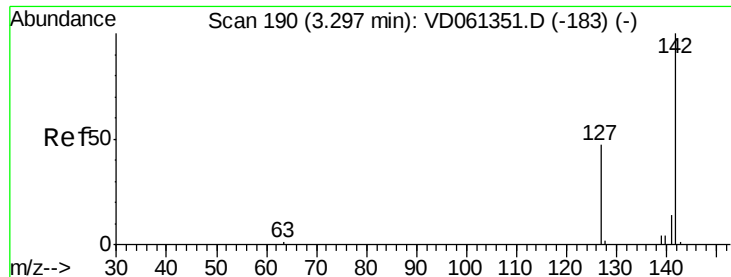
100

0

Time-->

2.14 2.16 2.18 2.20

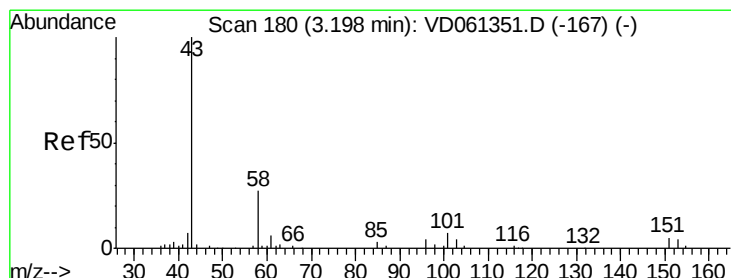
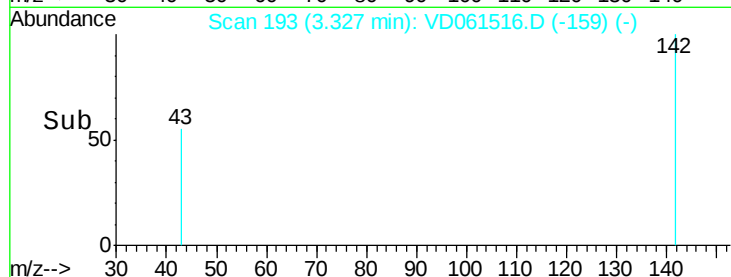
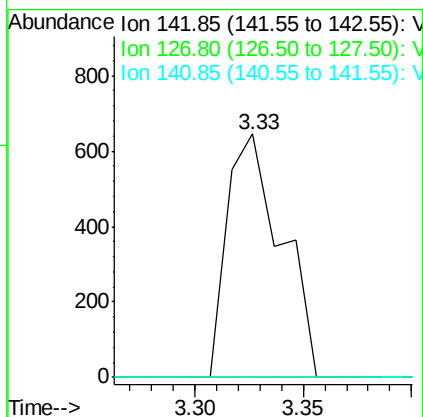
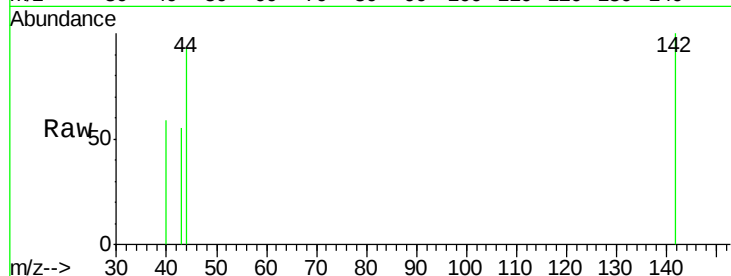




#10  
Methvl Iodide  
Concen: 3.736 ug/l  
RT: 3.33 min Scan# 193  
Delta R.T. 0.03 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

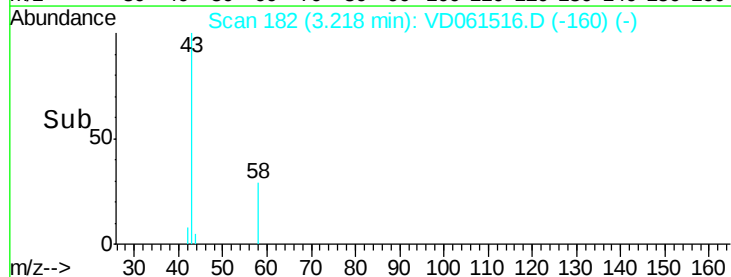
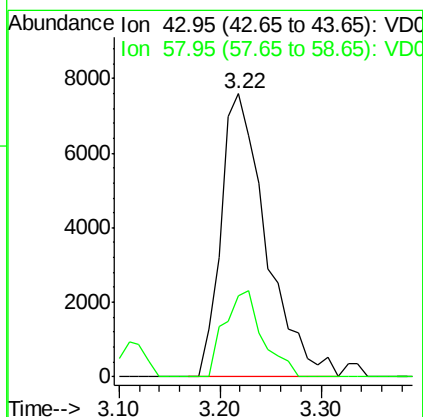
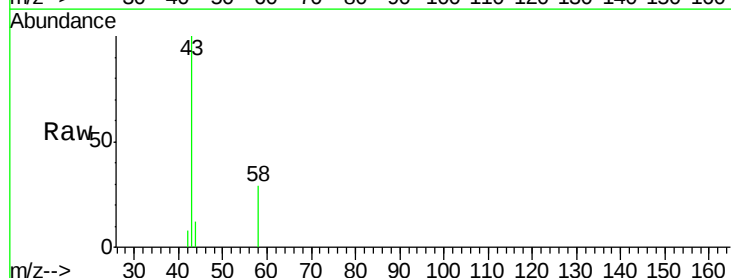
Instrument :  
MSVOA\_D  
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BP-VPB201R-GW-758-760

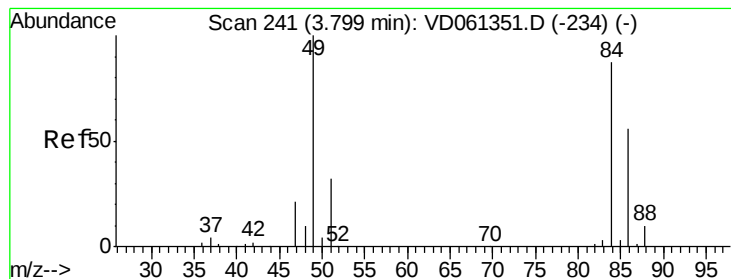
Tot Ion:142 Resp: 1128  
Ion Ratio Lower Upper  
142 100  
127 0.0 37.7 56.5#  
141 0.0 11.5 17.3#



#16  
Acetone  
Concen: 52.503 ug/l  
RT: 3.22 min Scan# 182  
Delta R.T. 0.02 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

Tgt Ion: 43 Resp: 23556  
Ion Ratio Lower Upper  
43 100  
58 28.6 21.5 32.3





#20

Methylene Chloride

Concen: 4.571 ug/l

RT: 3.81 min Scan# 242

Delta R.T. 0.01 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

Instrument :

MSVOA\_D

ClientSampleId :

BP-VPB201R-GW-758-760

Tot Ion: 84 Resp: 15872

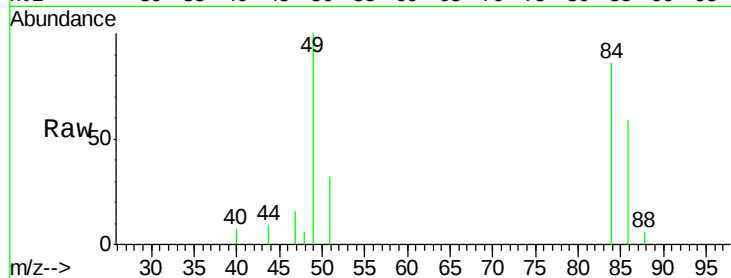
Ion Ratio Lower Upper

84 100

49 115.6 91.8 137.8

51 36.6 29.8 44.8

86 68.6 51.8 77.6

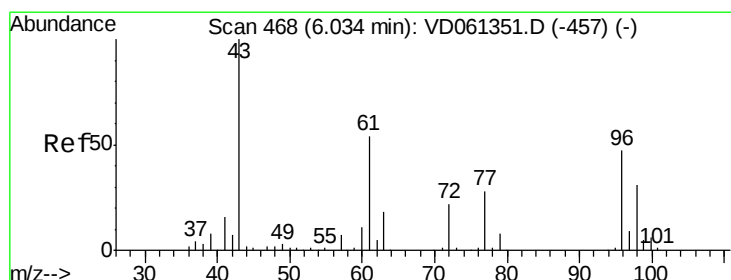
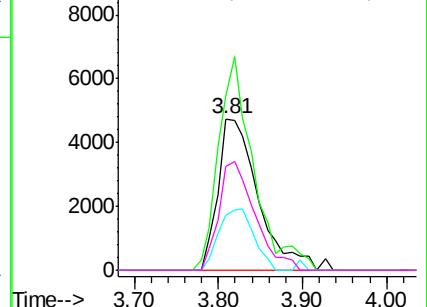
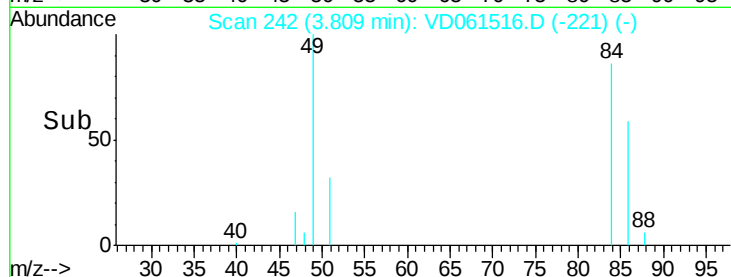


Abundance Ion 83.95 (83.65 to 84.65): VDC

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: 12.375 ug/l

RT: 6.06 min Scan# 471

Delta R.T. 0.03 min

Lab File: VD061516.D

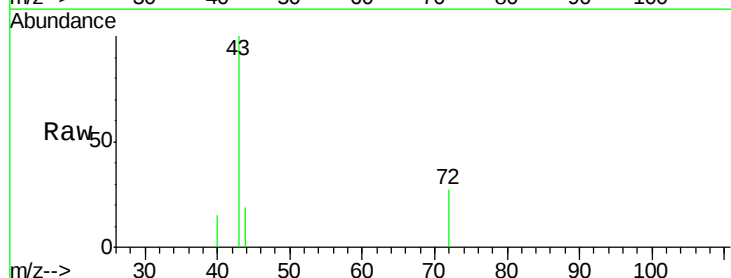
Acq: 2 Apr 2019 16:06

Tgt Ion: 43 Resp: 6984

Ion Ratio Lower Upper

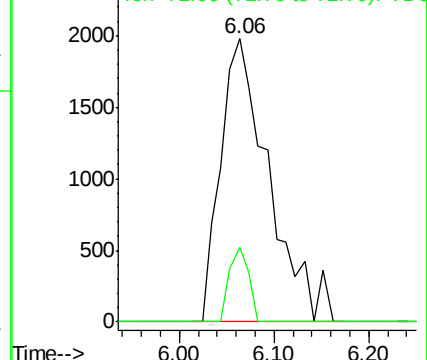
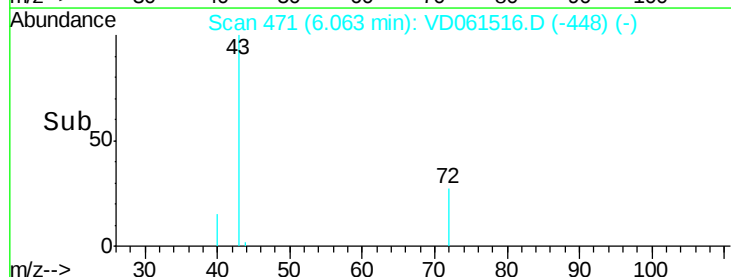
43 100

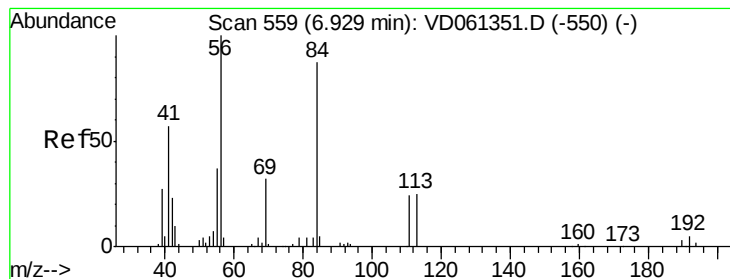
72 26.5 17.2 25.8#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC





#31

Cyclohexane

Concen: 1.104 ug/l

RT: 7.03 min Scan# 569

Delta R.T. 0.10 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

Instrument :

MSVOA\_D

ClientSampleId :

BP-VPB201R-GW-758-760

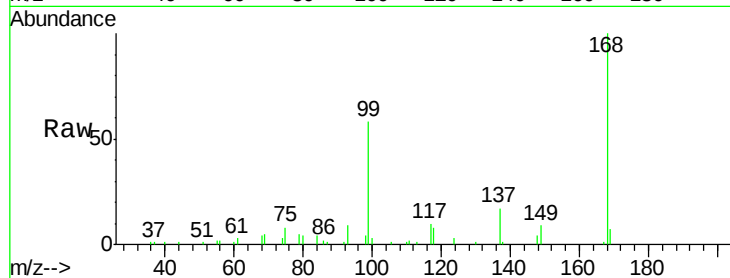
Tot Ion: 56 Resp: 3320

Ion Ratio Lower Upper

56 100

69 243.8 25.7 38.5#

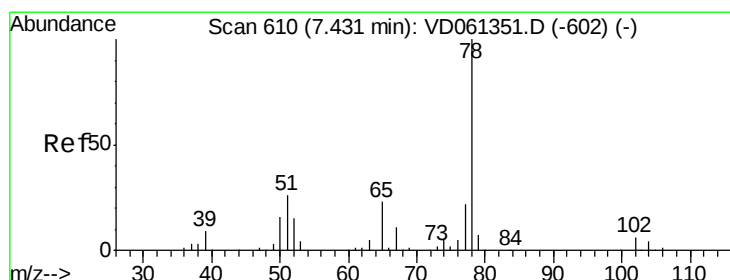
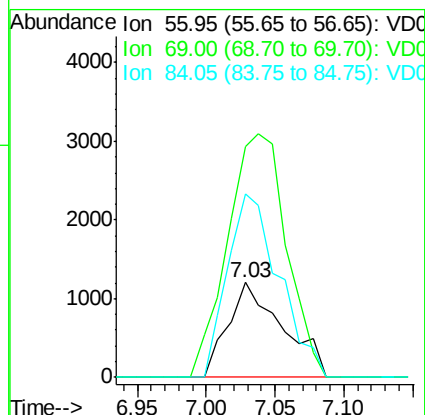
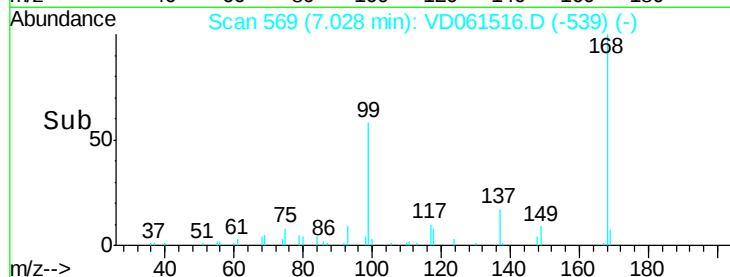
84 194.4 70.6 105.8#



Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 69.00 (68.70 to 69.70): VDC

Ion 84.05 (83.75 to 84.75): VDC



#33

1,2-Dichloroethane-d4

Concen: N.D. ug/l

RT: 7.44 min Scan# 611

Delta R.T. 0.01 min

Lab File: VD061516.D

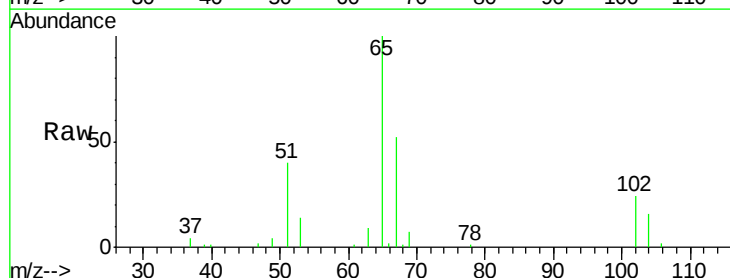
Acq: 2 Apr 2019 16:06

Tgt Ion: 65 Resp: 114133

Ion Ratio Lower Upper

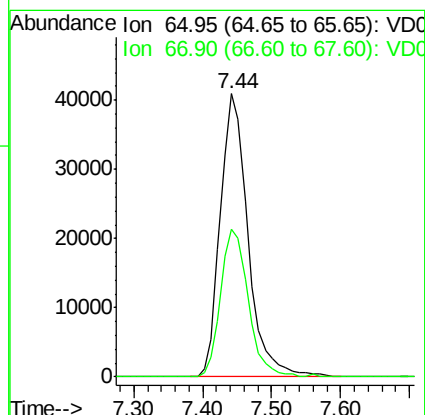
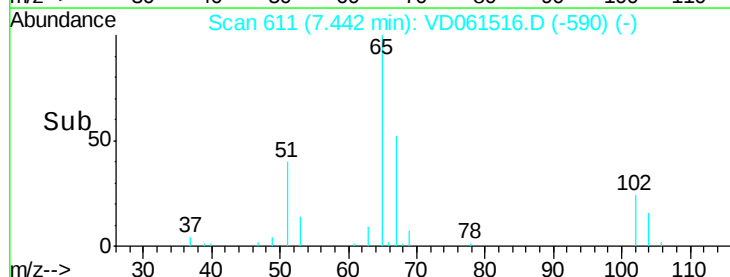
65 100

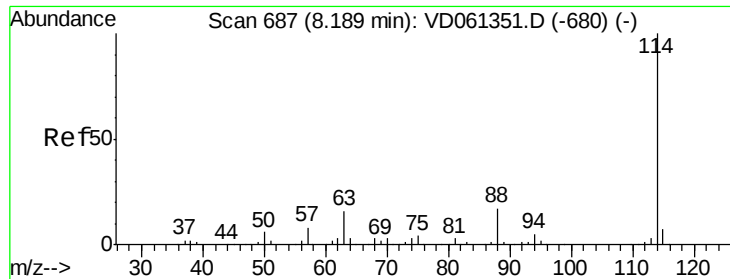
67 52.3 0.0 99.8



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC

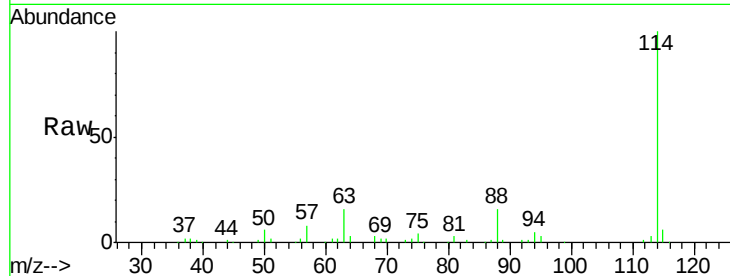




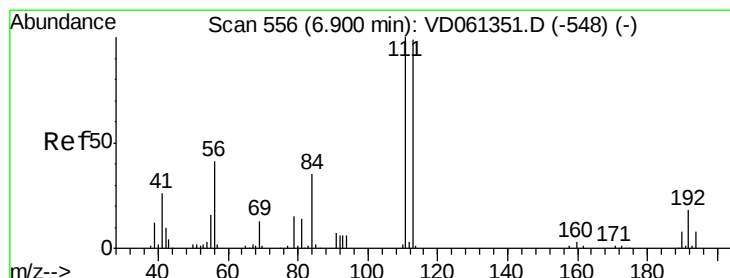
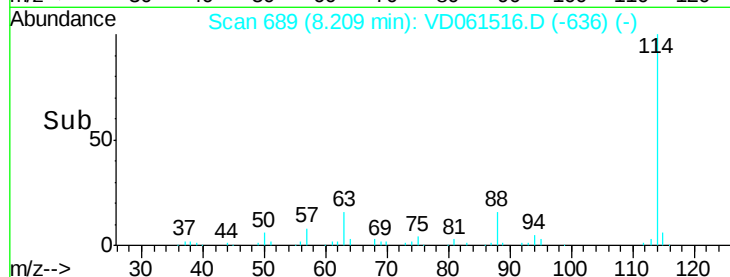
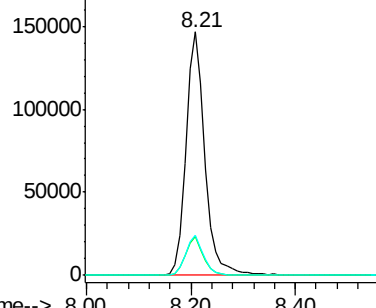
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.21 min Scan# 689  
 Delta R.T. 0.02 min  
 Lab File: VD061516.D  
 Acq: 2 Apr 2019 16:06

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 BP-VPB201R-GW-758-760

Tot Ion:114 Resp: 367278  
 Ion Ratio Lower Upper  
 114 100  
 63 15.8 0.0 31.6  
 88 16.4 0.0 33.4

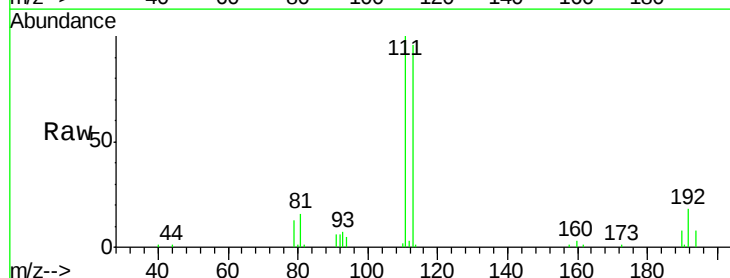


Abundance Ion 114.00 (113.70 to 114.70): V  
 Ion 62.95 (62.65 to 63.65): V  
 Ion 87.90 (87.60 to 88.60): V

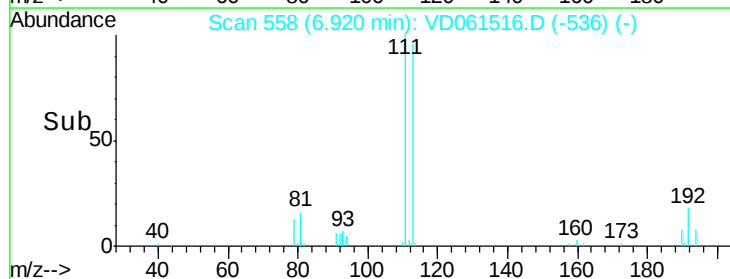
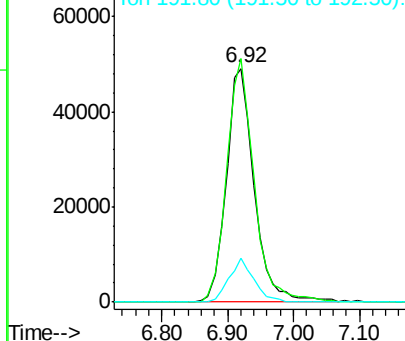


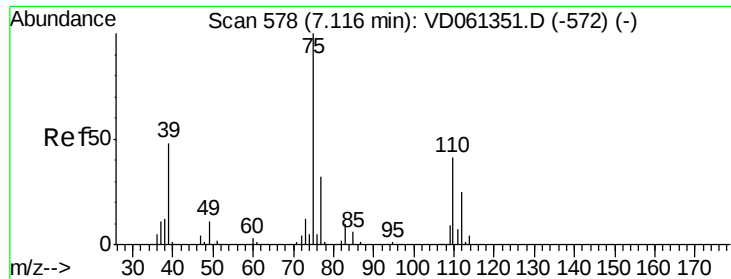
#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 6.92 min Scan# 558  
 Delta R.T. 0.02 min  
 Lab File: VD061516.D  
 Acq: 2 Apr 2019 16:06

Tgt Ion:113 Resp: 145546  
 Ion Ratio Lower Upper  
 113 100  
 111 104.3 81.0 121.6  
 192 18.6 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: 4.552 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.09 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

Instrument :

MSVOA\_D

ClientSampleId :

BP-VPB201R-GW-758-760

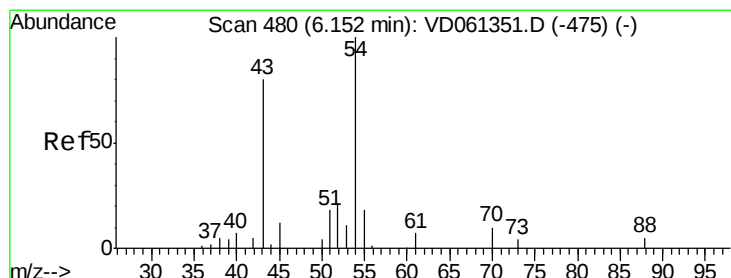
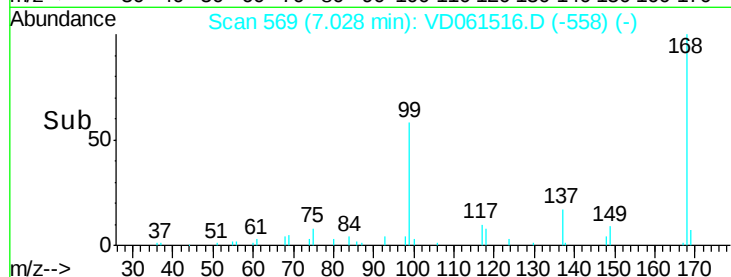
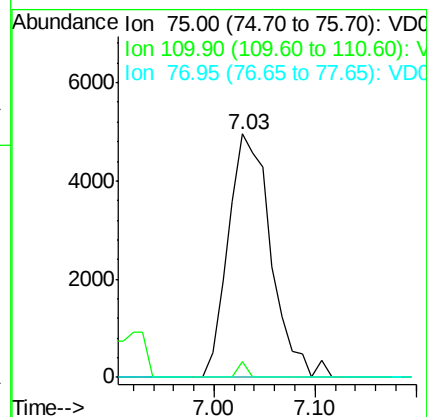
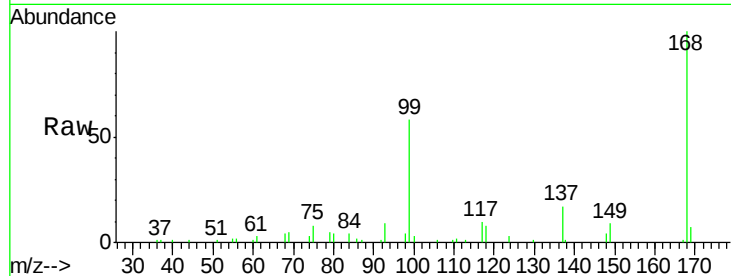
Tot Ion: 75 Resp: 14592

Ion Ratio Lower Upper

75 100

110 6.5 20.4 61.3#

77 0.0 24.9 37.3#



#37

Ethyl Acetate

Concen: 5.094 ug/l

RT: 6.06 min Scan# 471

Delta R.T. -0.09 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

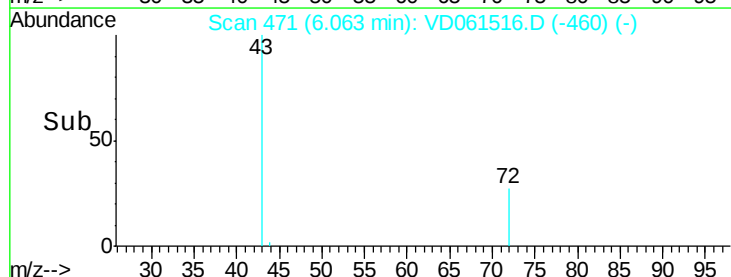
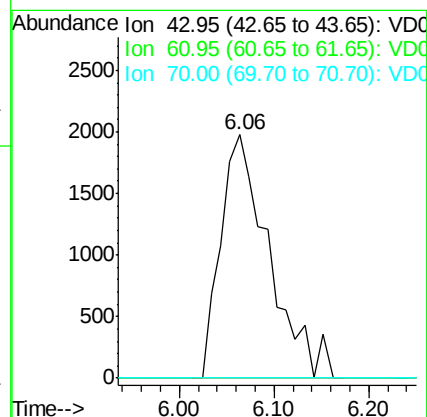
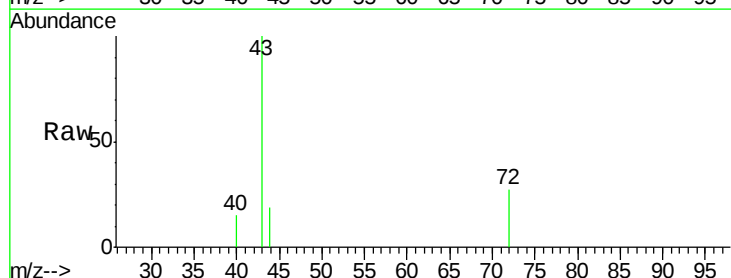
Tgt Ion: 43 Resp: 6984

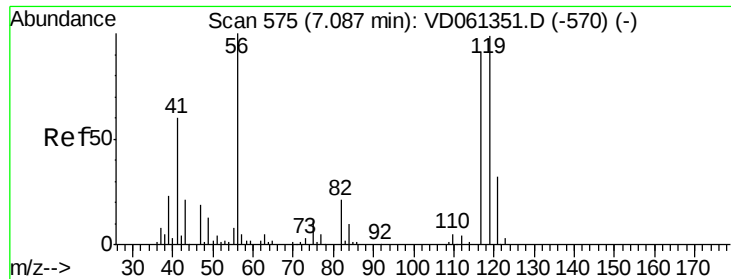
Ion Ratio Lower Upper

43 100

61 0.0 13.8 20.8#

70 0.0 7.8 11.8#

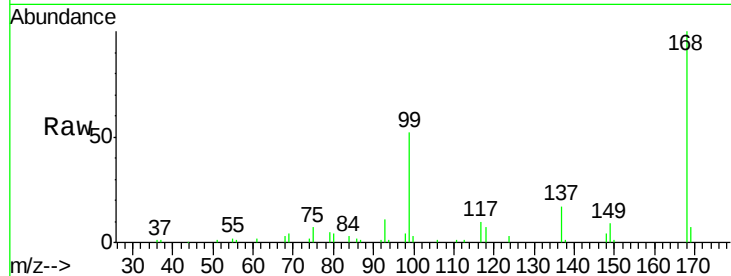




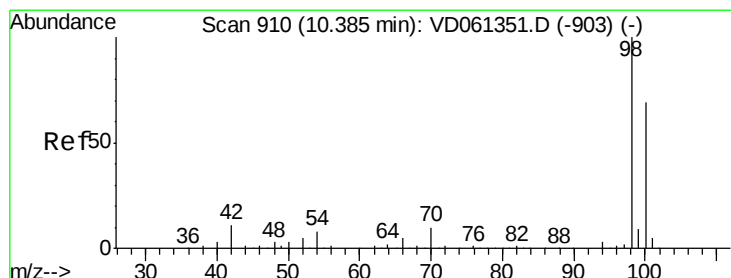
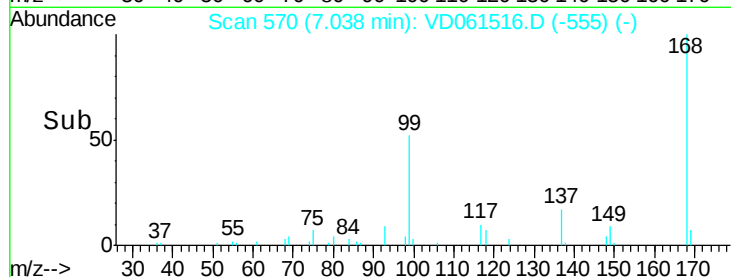
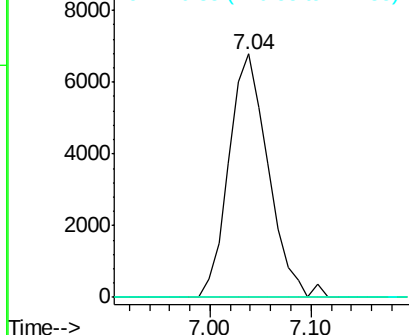
#38  
Carbon Tetrachloride  
Concen: 4.998 ug/l  
RT: 7.04 min Scan# 570  
Delta R.T. -0.05 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

Instrument :  
MSVOA\_D  
ClientSampleId :  
BP-VPB201R-GW-758-760

Tot Ion:117 Resp: 18411  
Ion Ratio Lower Upper  
117 100  
119 0.0 80.1 120.1#  
121 0.0 25.6 38.4#

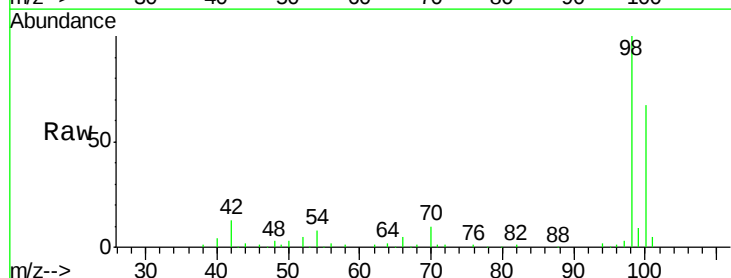


Abundance Ion 116.85 (116.55 to 117.55): V  
Ion 118.85 (118.55 to 119.55): V  
Ion 120.85 (120.55 to 121.55): V

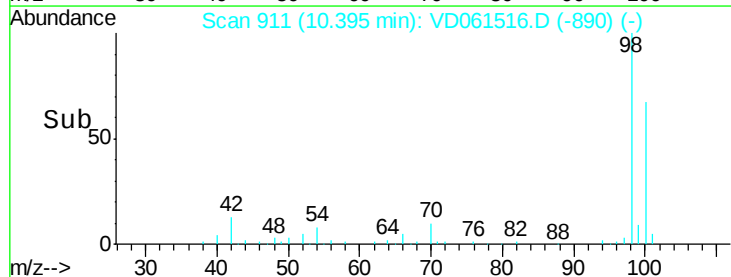
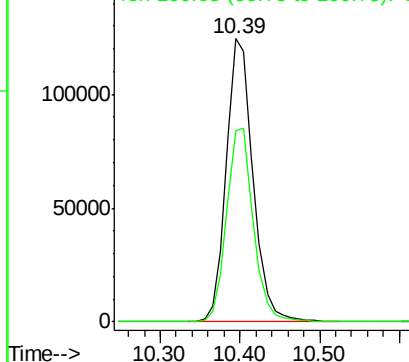


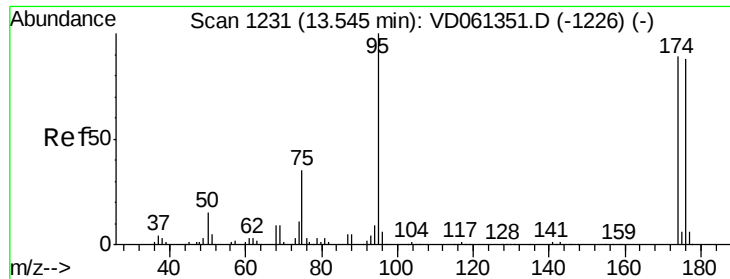
#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.39 min Scan# 911  
Delta R.T. 0.01 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

Tgt Ion: 98 Resp: 293661  
Ion Ratio Lower Upper  
98 100  
100 67.4 56.2 84.2



Abundance Ion 98.05 (97.75 to 98.75): V  
Ion 100.05 (99.75 to 100.75): V

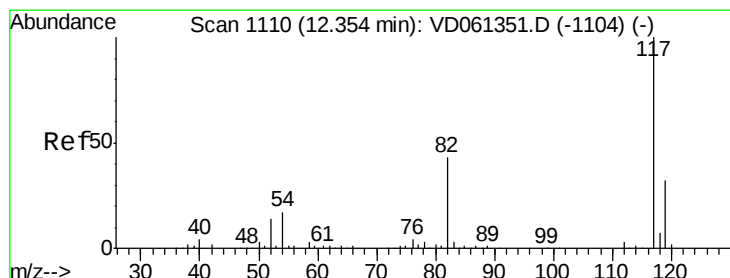
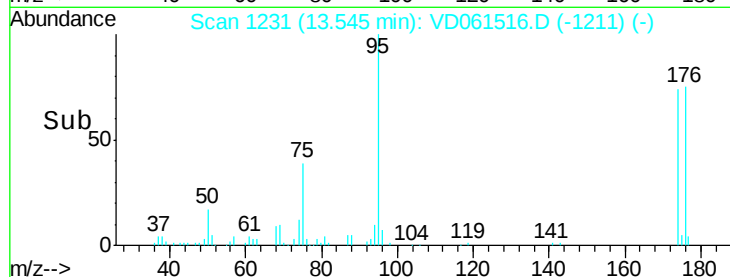
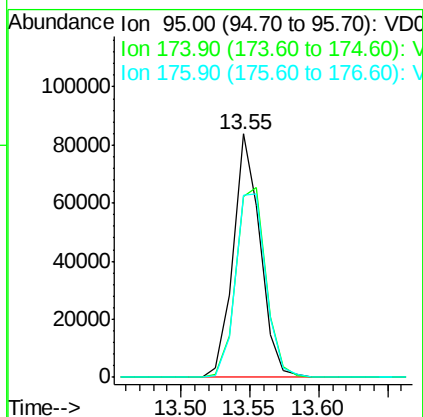
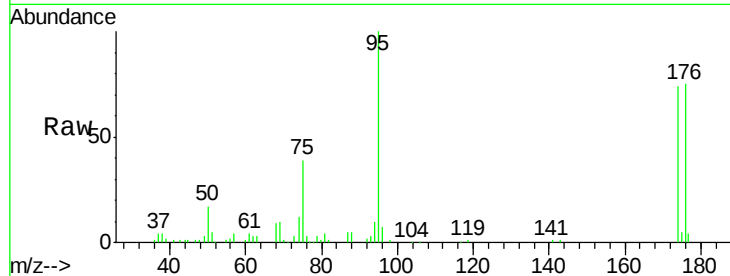




#62  
4-Bromofluorobenzene  
Concen: N.D. ug/l  
RT: 13.55 min Scan# 1231  
Delta R.T. 0.00 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

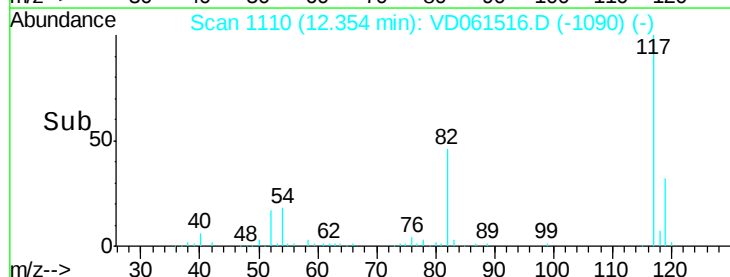
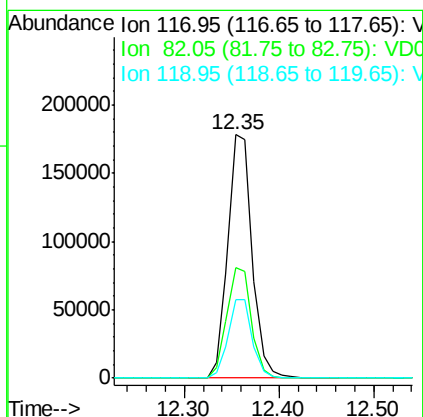
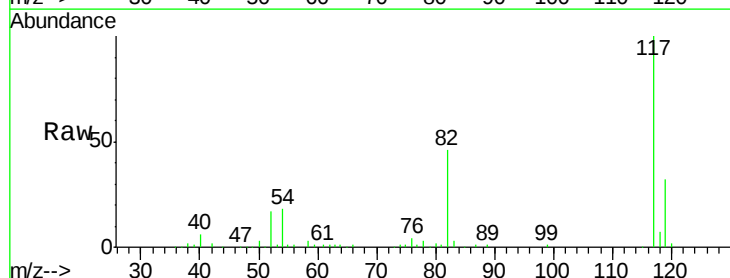
Instrument :  
MSVOA\_D  
ClientSampleId :  
BP-VPB201R-GW-758-760

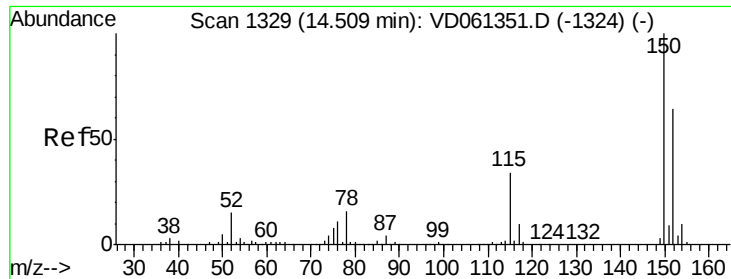
Tot Ion: 95 Resp: 113928  
Ion Ratio Lower Upper  
95 100  
174 74.2 0.0 178.0  
176 74.7 0.0 175.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.35 min Scan# 1110  
Delta R.T. 0.00 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

Tgt Ion: 117 Resp: 316759  
Ion Ratio Lower Upper  
117 100  
82 45.5 34.4 51.6  
119 32.3 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: VD061516.D

Acq: 2 Apr 2019 16:06

Instrument :

MSVOA\_D

ClientSampleId :

BP-VPB201R-GW-758-760

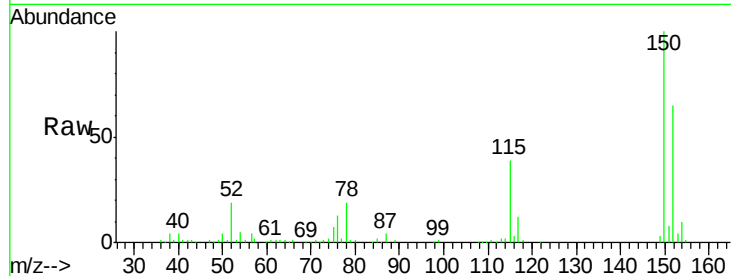
Tot Ion:152 Resp: 125578

Ion Ratio Lower Upper

152 100

115 60.2 26.9 80.6

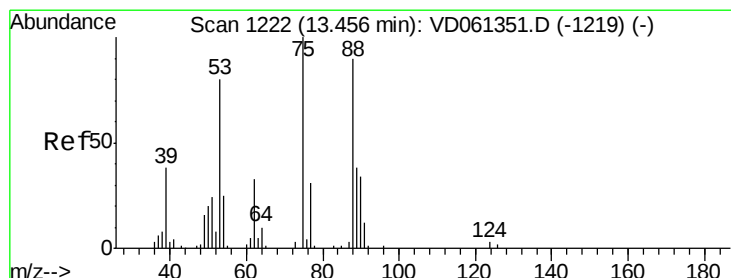
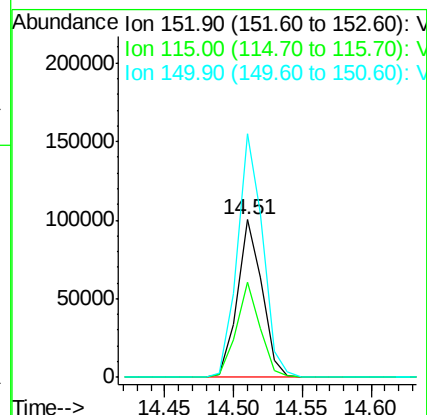
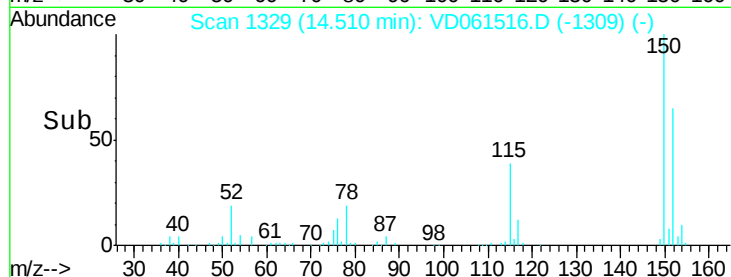
150 154.3 0.0 318.0



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 115.00 (114.70 to 115.70): V

Ion 149.90 (149.60 to 150.60): V



#81

trans-1,4-Dichloro-2-butene

Concen: 74.434 ug/l

RT: 13.55 min Scan# 1231

Delta R.T. 0.09 min

Lab File: VD061516.D

Acq: 2 Apr 2019 16:06

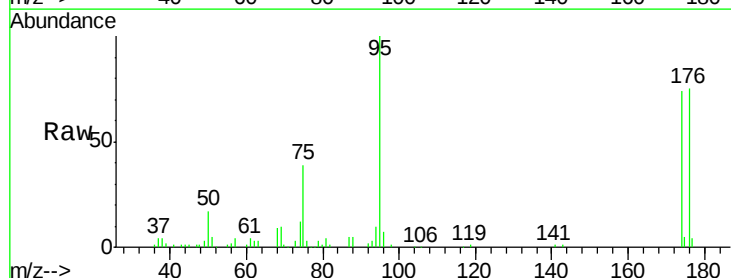
Tgt Ion: 75 Resp: 41169

Ion Ratio Lower Upper

75 100

53 0.0 63.8 95.8#

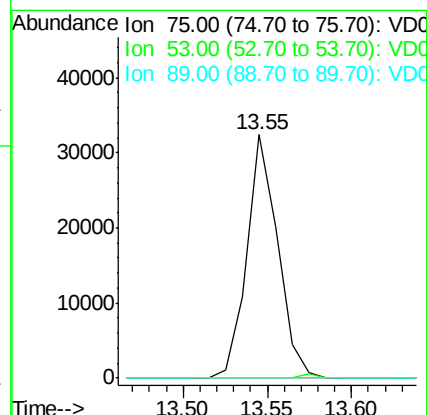
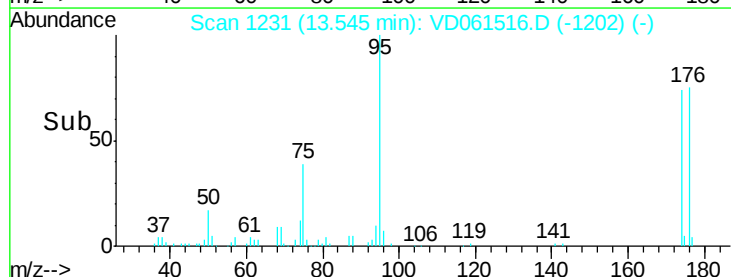
89 0.0 30.5 45.7#

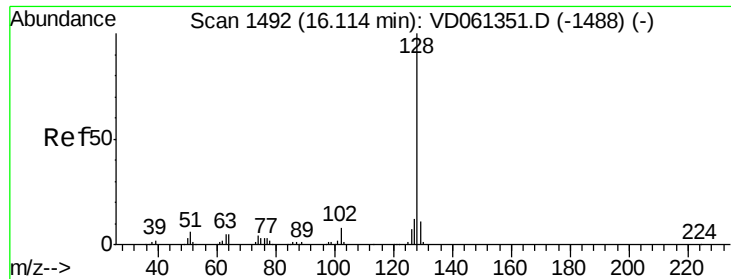


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC





#95  
Naphthalene  
Concen: 1.362 ug/l  
RT: 16.11 min Scan# 1492  
Delta R.T. 0.00 min  
Lab File: VD061516.D  
Acq: 2 Apr 2019 16:06

Instrument :  
MSVOA\_D  
ClientSampleId :  
BP-VPB201R-GW-758-760

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 14.5  | 9.9   | 14.9  |
| 129     | 0.0   | 8.9   | 13.3  |

