

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD070119\  
 Data File : VD062989.D  
 Acq On : 1 Jul 2019 14:47  
 Operator : VA/AP  
 Sample : K3158-09  
 Misc : 6.41g/5ml/MSVOA D/SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Jul 02 07:34:56 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 01:50:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.05  | 168  | 819504   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.22  | 114  | 1131290  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.36 | 117  | 712686   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 295564   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.45  | 65   | 496139   | 55.70 | ug/l    | -0.01    |
| Spiked Amount               |       |      | Recovery | =     | 111.40% |          |
| 35) Dibromofluoromethane    | 6.93  | 113  | 497537   | 52.16 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.32% |          |
| 50) Toluene-d8              | 10.41 | 98   | 862979   | 41.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.14%  |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 312630   | 33.12 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 66.24%  |          |

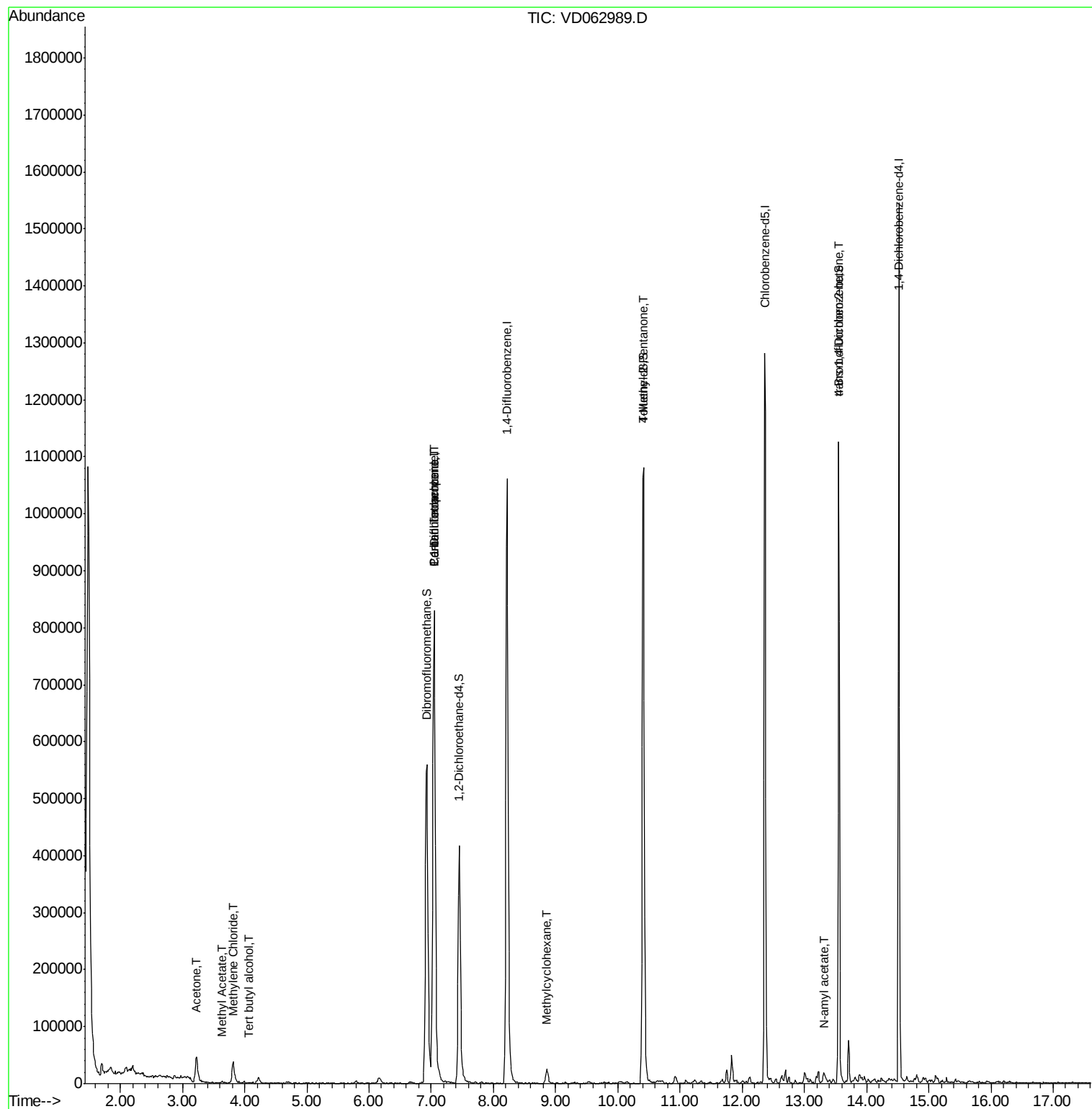
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 4.08  | 59   | 1464     | 3.609     | ug/l # | 77     |
| 16) Acetone                    | 3.23  | 43   | 96461    | 47.739    | ug/l   | 95     |
| 18) Methyl Acetate             | 3.64  | 43   | 5031     | 1.871     | ug/l # | 58     |
| 20) Methylene Chloride         | 3.82  | 84   | 22329    | 3.287     | ug/l # | 83     |
| 36) 1,1-Dichloropropene        | 7.05  | 75   | 65666    | 6.132     | ug/l # | 55     |
| 37) Ethyl Acetate              | 6.18  | 43   | 263      | Below Cal | #      | 69     |
| 38) Carbon Tetrachloride       | 7.05  | 117  | 81069    | 5.033     | ug/l # | 16     |
| 39) Methylcyclohexane          | 8.86  | 83   | 12000    | 1.273     | ug/l # | 88     |
| 51) 4-Methyl-2-Pentanone       | 10.40 | 43   | 6062     | 1.523     | ug/l # | 1      |
| 74) N-amyl acetate             | 13.33 | 43   | 4752     | 1.033     | ug/l # | 30     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 145443   | 162.642   | ug/l # | 2      |

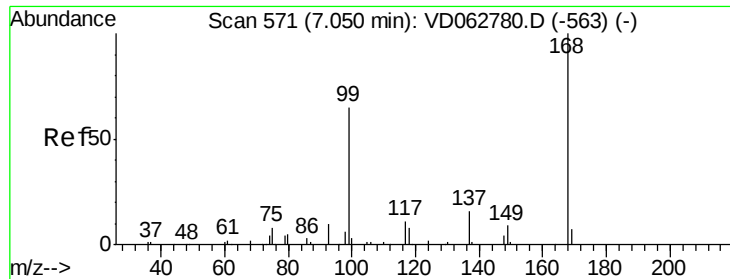
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_D  
ClientSampleId :

Quant Time: Jul 02 07:34:56 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
Quant Title : SW846 8260  
QLast Update : Thu Jun 20 01:50:56 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.05 min Scan# 571

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

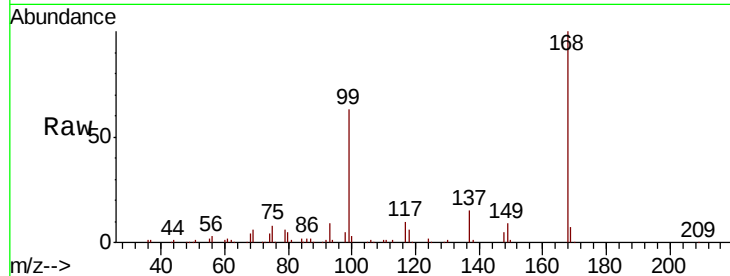
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion:168 Resp: 819504

Ion Ratio Lower Upper

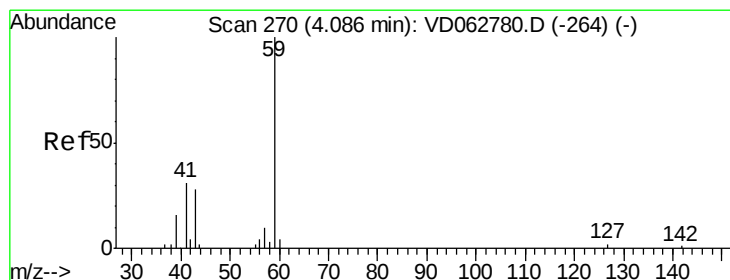
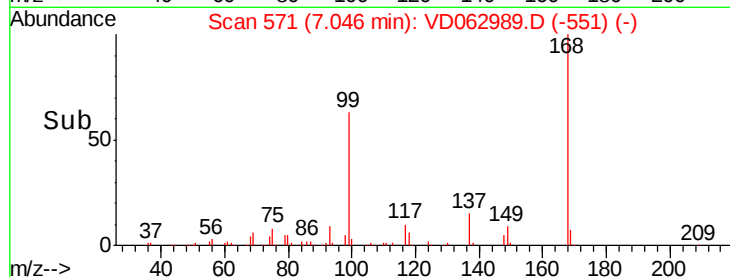
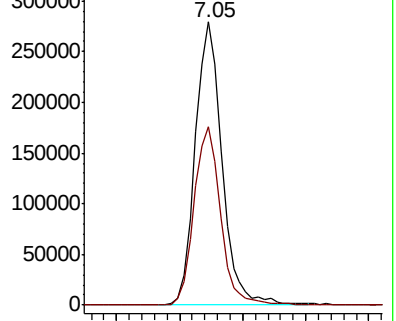
168 100

99 63.1 53.0 79.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 3.609 ug/l

RT: 4.08 min Scan# 270

Delta R.T. -0.00 min

Lab File: VD062989.D

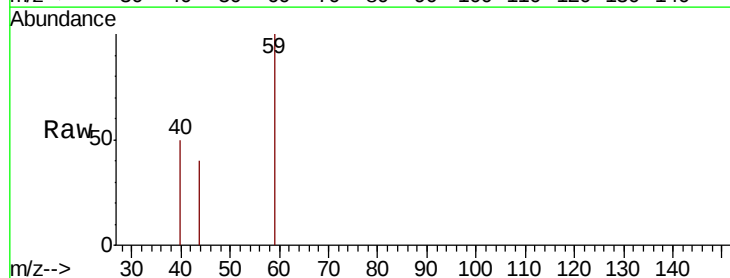
Acq: 1 Jul 2019 14:47

Tgt Ion: 59 Resp: 1464

Ion Ratio Lower Upper

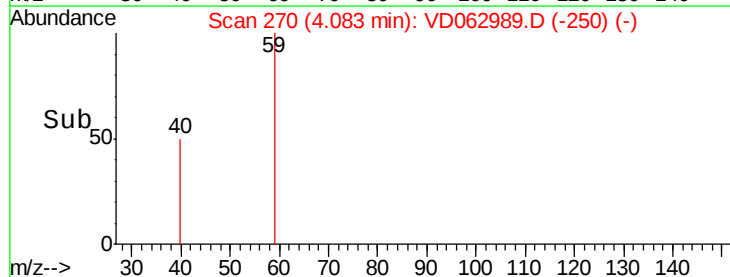
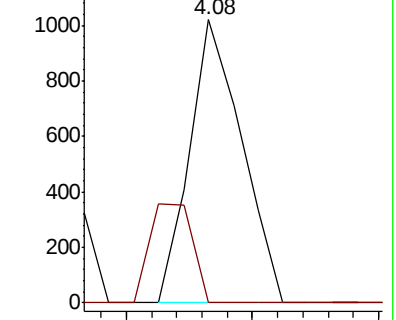
59 100

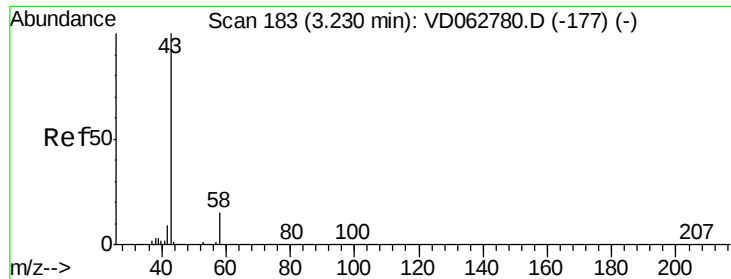
57 0.0 6.6 10.0#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#16

Acetone

Concen: 47.739 ug/l

RT: 3.23 min Scan# 183

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

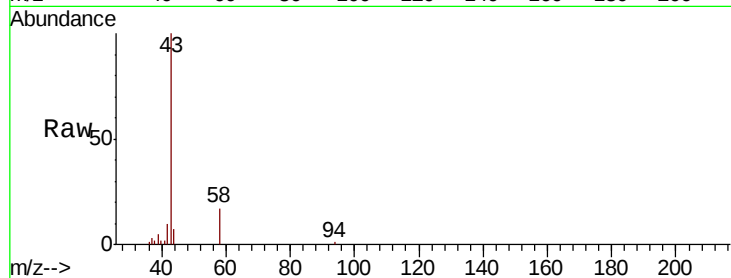
ClientSampleId :

Tot Ion: 43 Resp: 96461

Ion Ratio Lower Upper

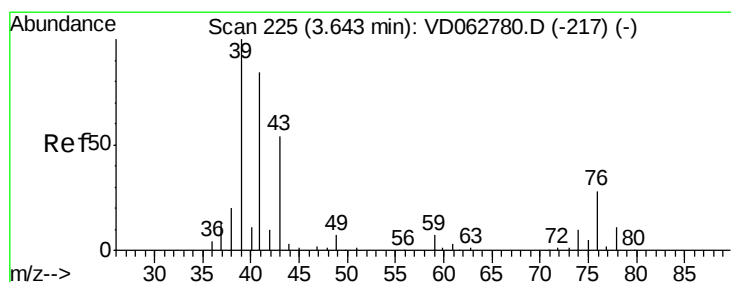
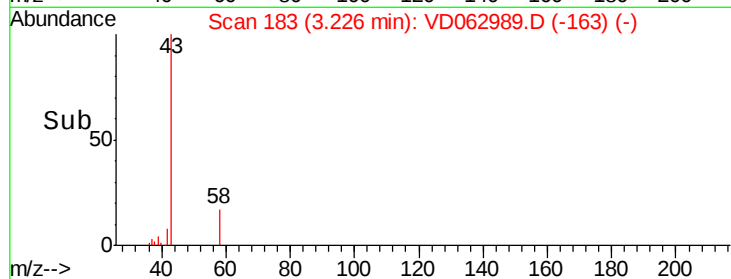
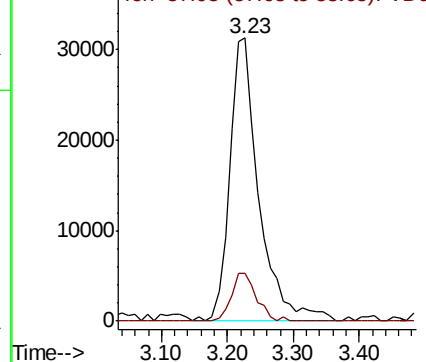
43 100

58 16.9 11.9 17.9



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#18

Methyl Acetate

Concen: 1.871 ug/l

RT: 3.64 min Scan# 225

Delta R.T. -0.00 min

Lab File: VD062989.D

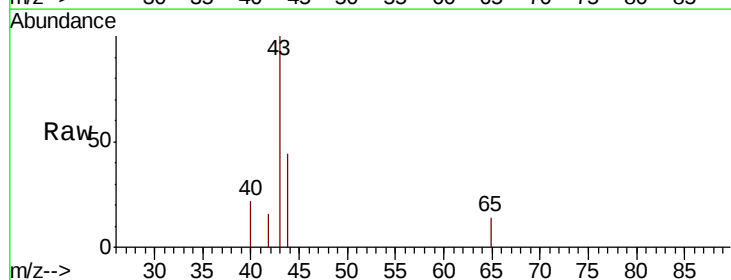
Acq: 1 Jul 2019 14:47

Tgt Ion: 43 Resp: 5031

Ion Ratio Lower Upper

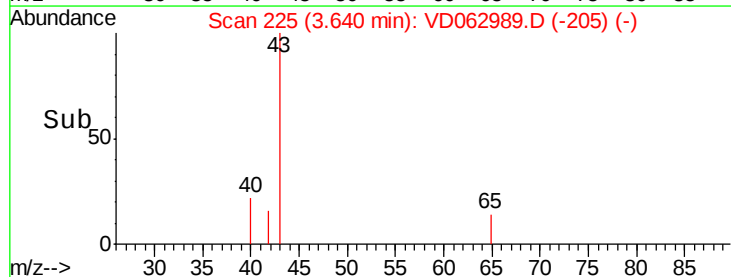
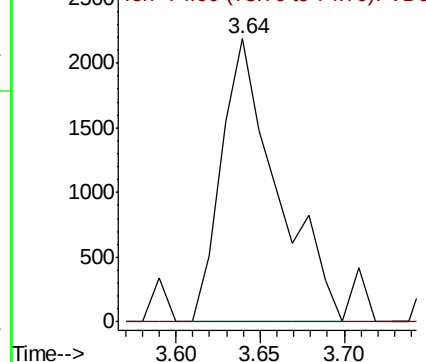
43 100

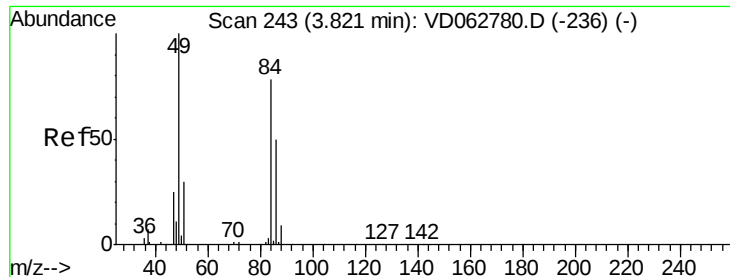
74 0.0 15.2 22.8#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 74.00 (73.70 to 74.70): VDC

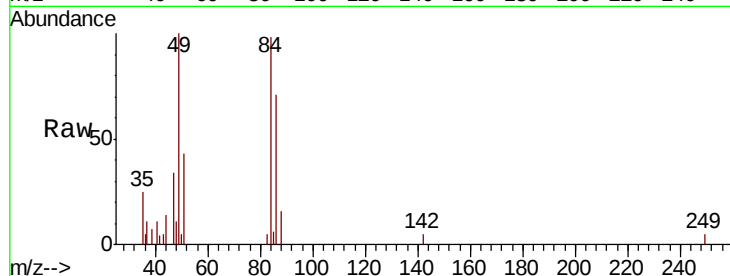




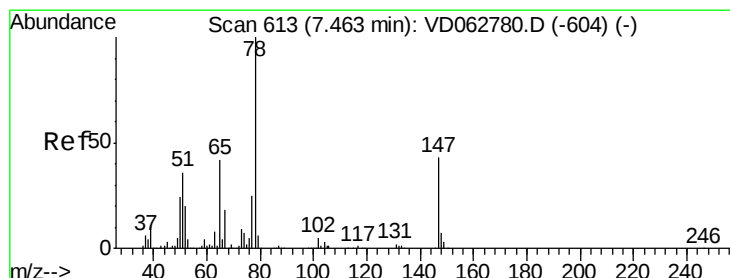
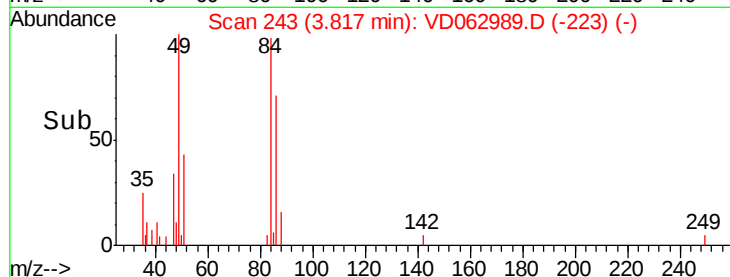
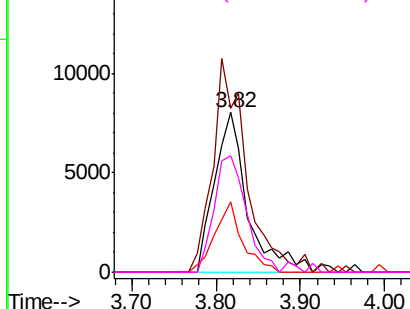
#20  
Methvlene Chloride  
Concen: 3.287 ug/l  
RT: 3.82 min Scan# 243  
Delta R.T. -0.00 min  
Lab File: VD062989.D  
Acq: 1 Jul 2019 14:47

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 84 Resp: 22329  
Ion Ratio Lower Upper  
84 100  
49 102.3 102.9 154.3#  
51 44.1 31.2 46.8  
86 72.8 51.4 77.2

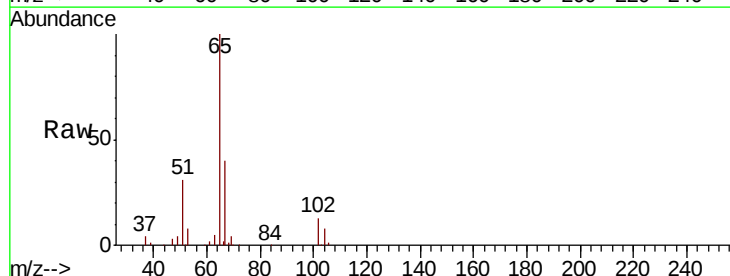


Abundance Ion 83.95 (83.65 to 84.65): VDC  
Ion 48.90 (48.60 to 49.60): VDC  
Ion 50.90 (50.60 to 51.60): VDC  
Ion 85.90 (85.60 to 86.60): VDC

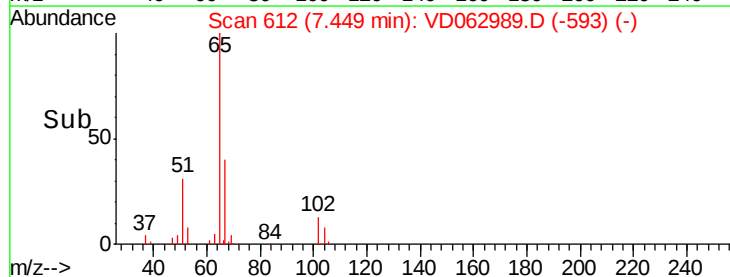
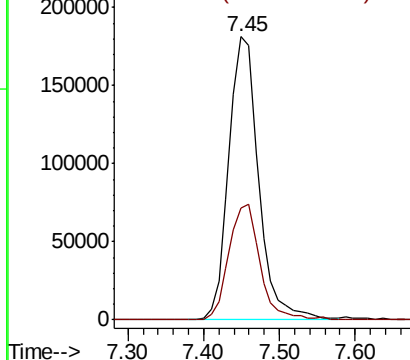


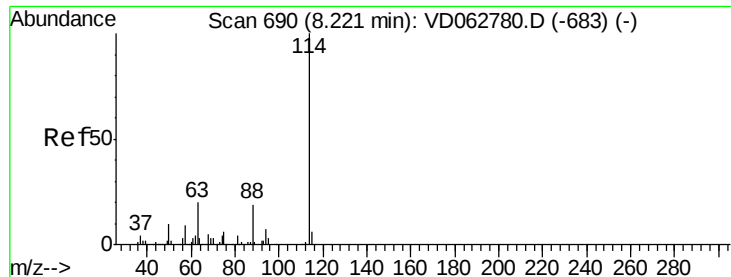
#33  
1,2-Dichloroethane-d4  
Concen: 55.697 ug/l  
RT: 7.45 min Scan# 612  
Delta R.T. -0.01 min  
Lab File: VD062989.D  
Acq: 1 Jul 2019 14:47

Tgt Ion: 65 Resp: 496139  
Ion Ratio Lower Upper  
65 100  
67 39.6 0.0 87.4



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: 8.22 min Scan# 690

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

ClientSampleId :

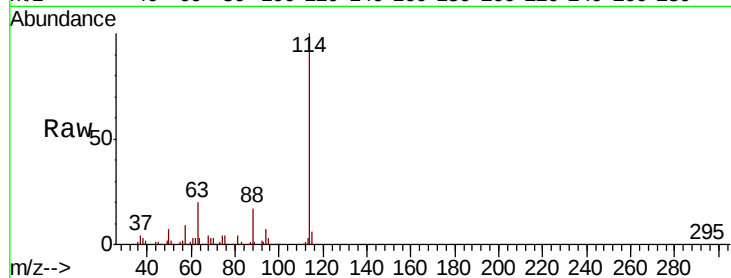
Tot Ion:114 Resp: 1131290

Ion Ratio Lower Upper

114 100

63 19.9 0.0 40.0

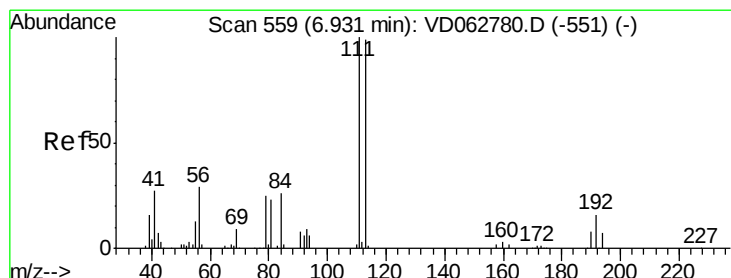
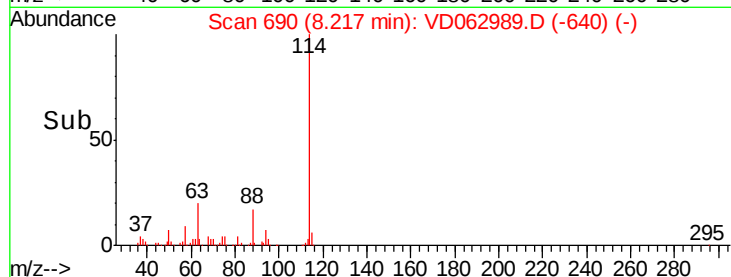
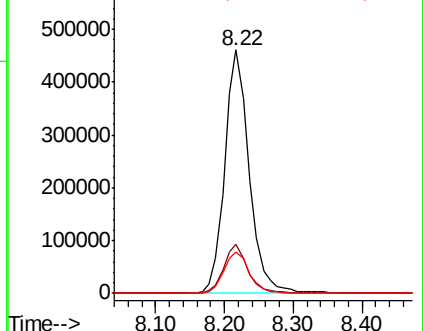
88 17.1 0.0 38.8



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: 52.158 ug/l

RT: 6.93 min Scan# 559

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

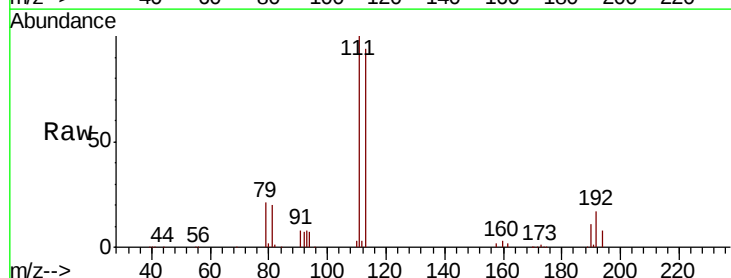
Tgt Ion:113 Resp: 497537

Ion Ratio Lower Upper

113 100

111 106.4 81.2 121.8

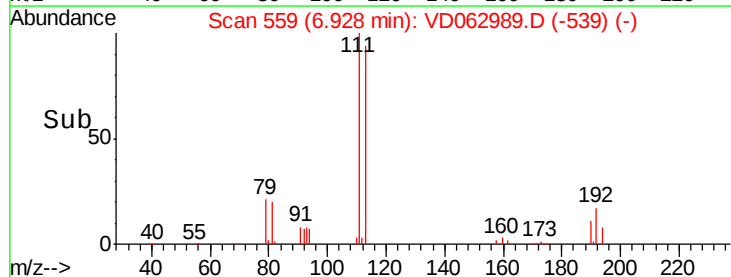
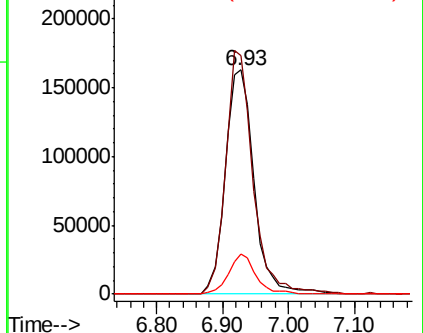
192 17.9 12.9 19.3

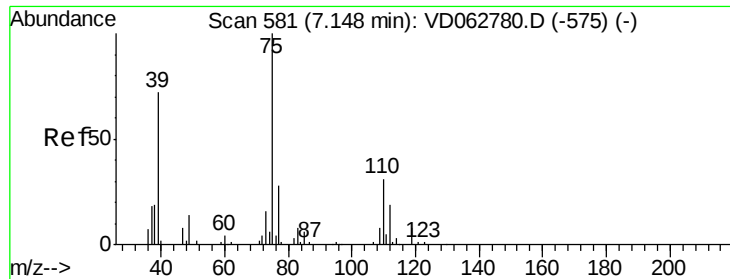


Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 191.80 (191.50 to 192.50): V





#36

1,1-Dichloropropene

Concen: 6.132 ug/l

RT: 7.05 min Scan# 571

Delta R.T. -0.10 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :  
MSVOA\_D  
ClientSampled :

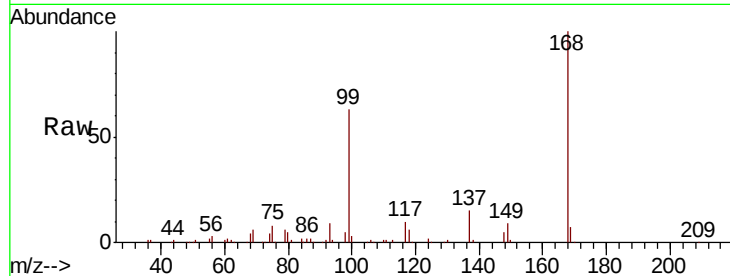
Tot Ion: 75 Resp: 65666

Ion Ratio Lower Upper

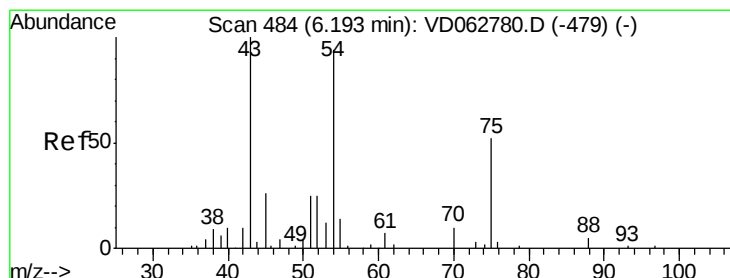
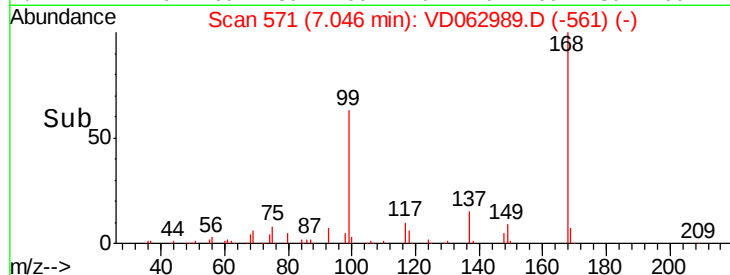
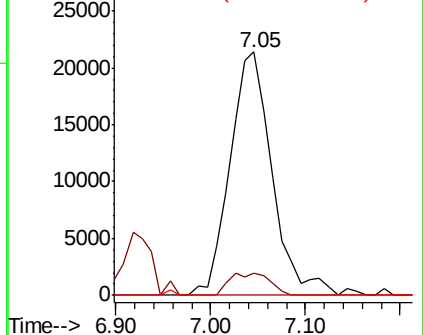
75 100

110 9.3 15.0 45.1#

77 0.0 22.2 33.2#



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



#37

Ethyl Acetate

Concen: Below Cal

RT: 6.18 min Scan# 483

Delta R.T. -0.01 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

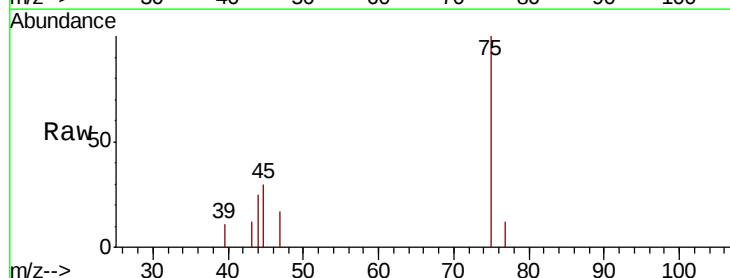
Tgt Ion: 43 Resp: 263

Ion Ratio Lower Upper

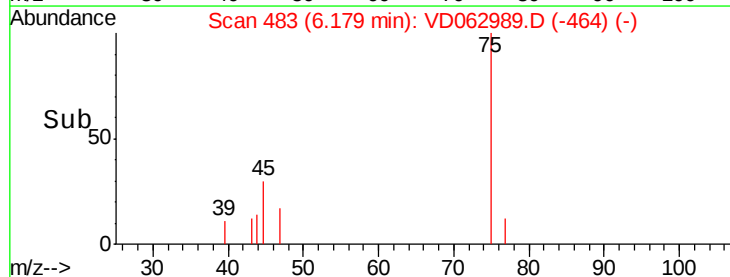
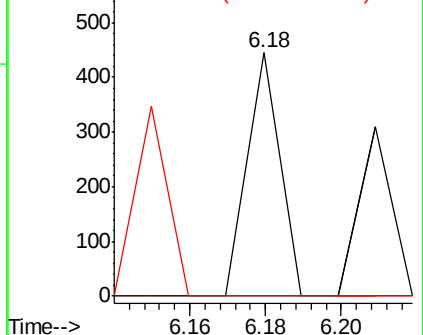
43 100

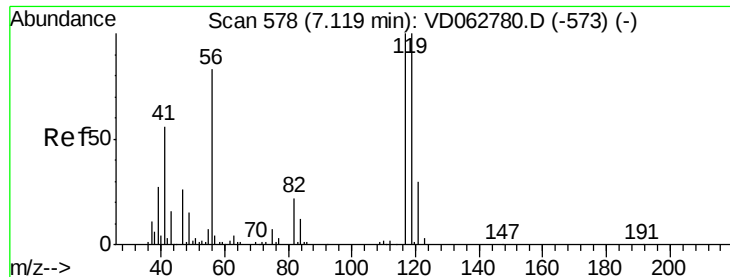
61 0.0 11.6 17.4#

70 0.0 6.4 9.6#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
Ion 60.95 (60.65 to 61.65): VDC  
Ion 70.00 (69.70 to 70.70): VDC





#38

Carbon Tetrachloride

Concen: 5.033 ug/l

RT: 7.05 min Scan# 571

Delta R.T. -0.07 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

ClientSampled :

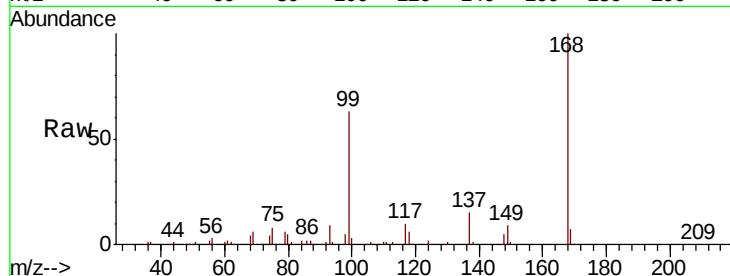
Tot Ion:117 Resp: 81069

Ion Ratio Lower Upper

117 100

119 4.0 75.4 113.2#

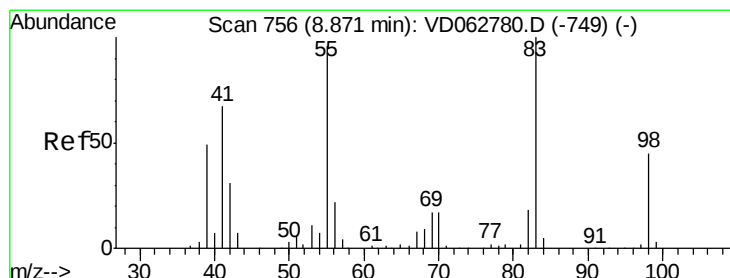
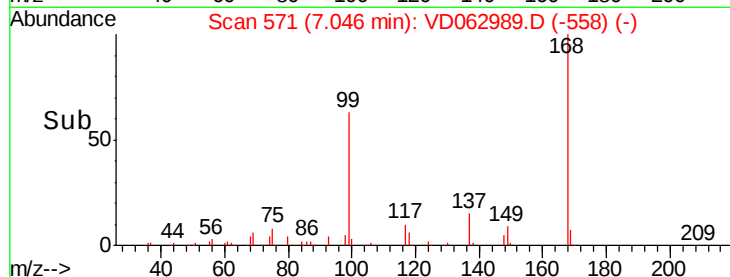
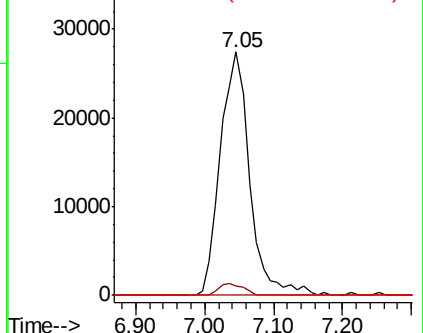
121 0.0 22.3 33.5#



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



#39

Methylcyclohexane

Concen: 1.273 ug/l

RT: 8.86 min Scan# 755

Delta R.T. -0.01 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

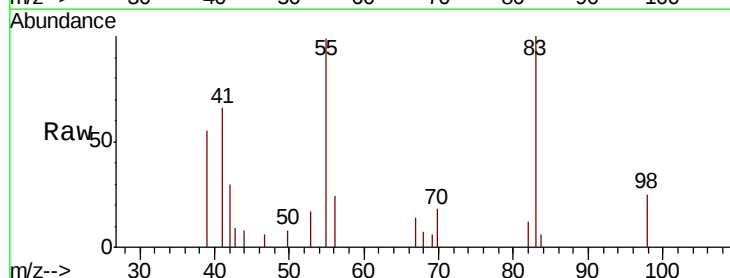
Tgt Ion: 83 Resp: 12000

Ion Ratio Lower Upper

83 100

55 92.6 76.6 115.0

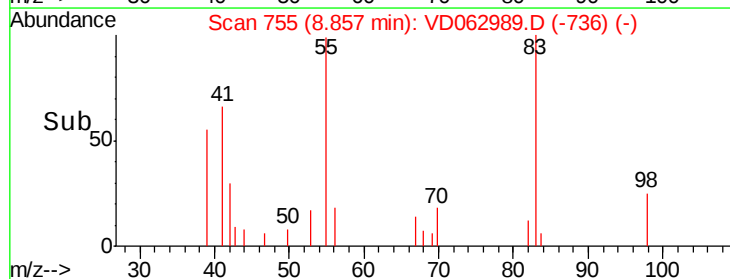
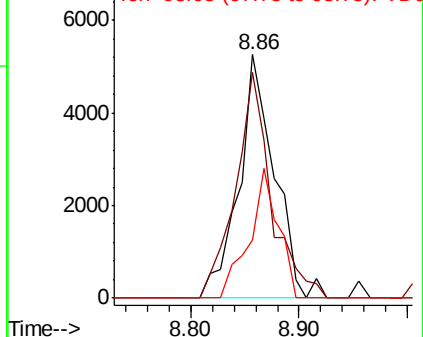
98 23.9 35.7 53.5#

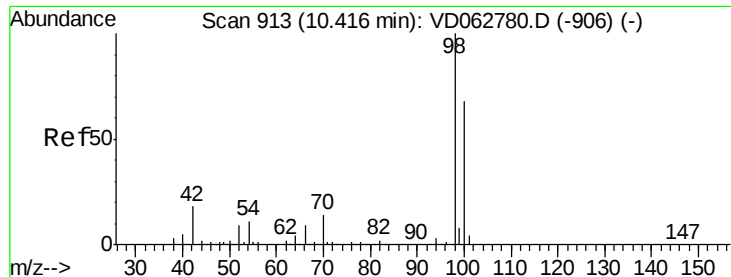


Abundance Ion 83.05 (82.75 to 83.75): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 98.05 (97.75 to 98.75): VDC





#50

Toluene-d8

Concen: 41.567 ug/l

RT: 10.41 min Scan# 913

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

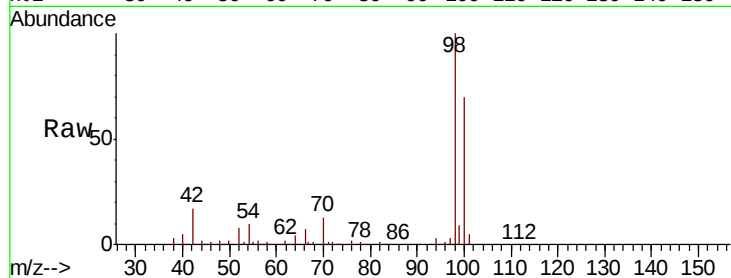
ClientSampleId :

Tot Ion: 98 Resp: 862979

Ion Ratio Lower Upper

98 100

100 69.8 54.7 82.1



Abundance Ion 98.05 (97.75 to 98.75): VD062780.D (-906) (-)

Ion 100.05 (99.75 to 100.75): VD062780.D (-906) (-)

10.41

400000

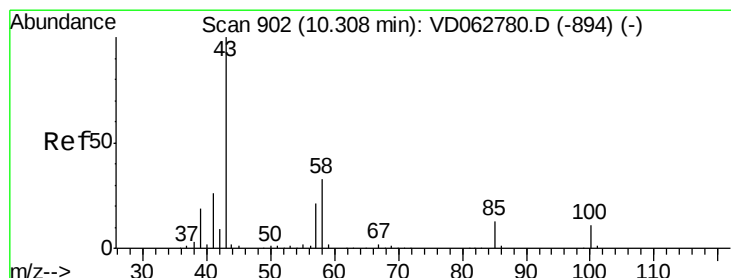
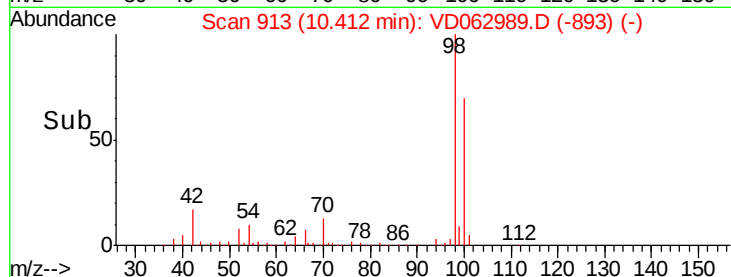
300000

200000

100000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 1.523 ug/l

RT: 10.40 min Scan# 912

Delta R.T. 0.09 min

Lab File: VD062989.D

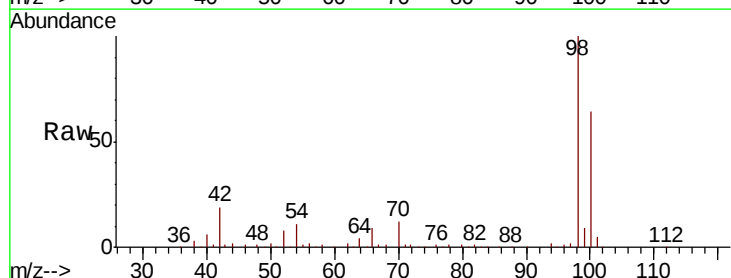
Acq: 1 Jul 2019 14:47

Tgt Ion: 43 Resp: 6062

Ion Ratio Lower Upper

43 100

58 112.8 26.6 40.0#



Abundance Ion 42.95 (42.65 to 43.65): VD062989.D (-882) (-)

Ion 57.95 (57.65 to 58.65): VD062989.D (-882) (-)

10.40

4000

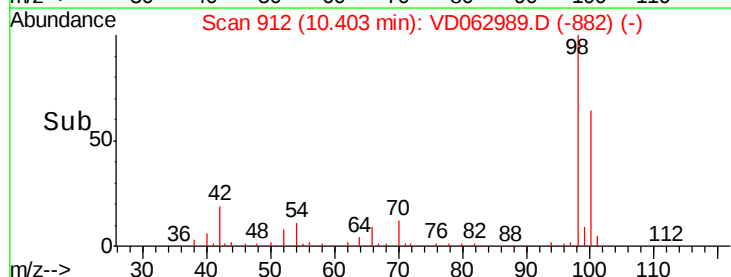
3000

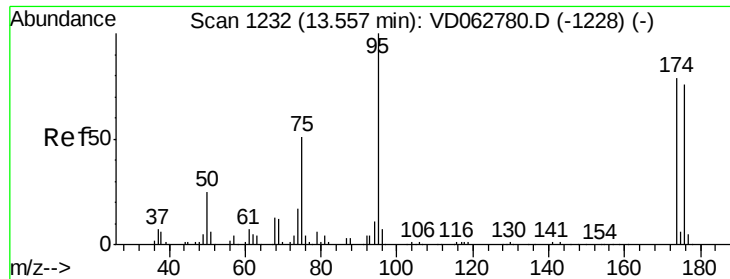
2000

1000

0

Time-->





#62

4-Bromofluorobenzene

Concen: 33.117 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. -0.00 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

ClientSampleId :

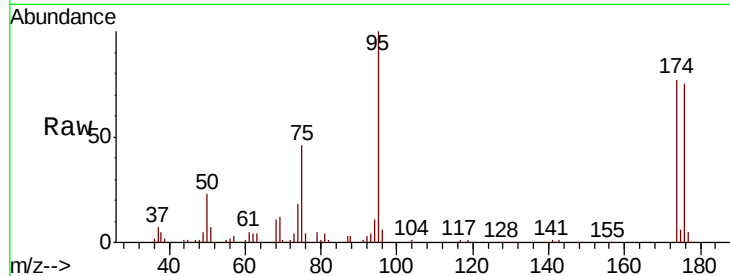
Tot Ion: 95 Resp: 312630

Ion Ratio Lower Upper

95 100

174 77.3 0.0 158.0

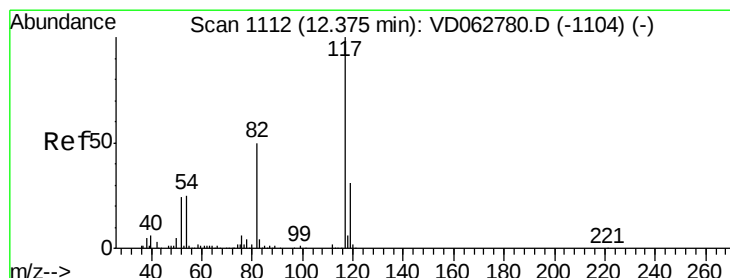
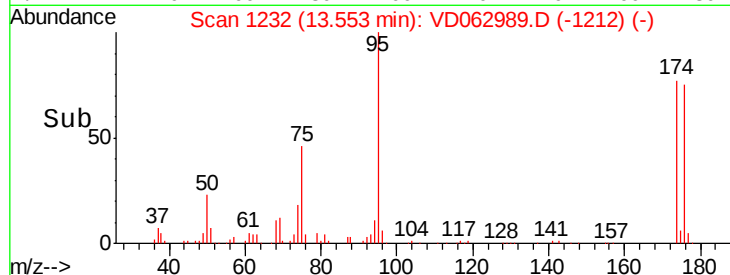
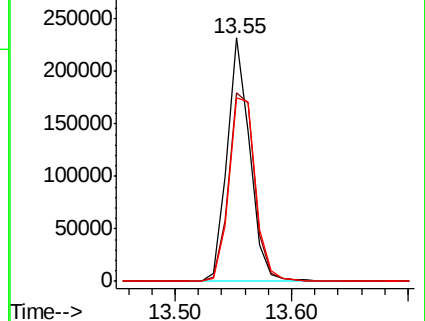
176 75.4 0.0 151.6



Abundance Ion 95.00 (94.70 to 95.70): V

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 12.36 min Scan# 1111

Delta R.T. -0.01 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

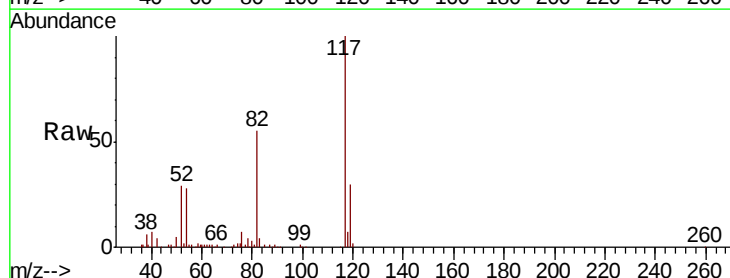
Tgt Ion: 117 Resp: 712686

Ion Ratio Lower Upper

117 100

82 55.2 40.4 60.6

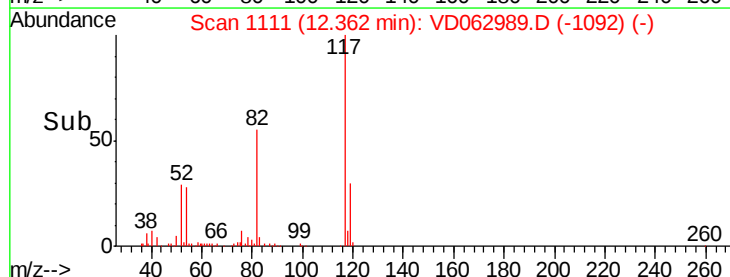
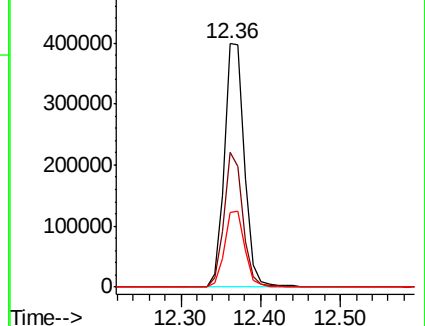
119 30.5 25.2 37.8

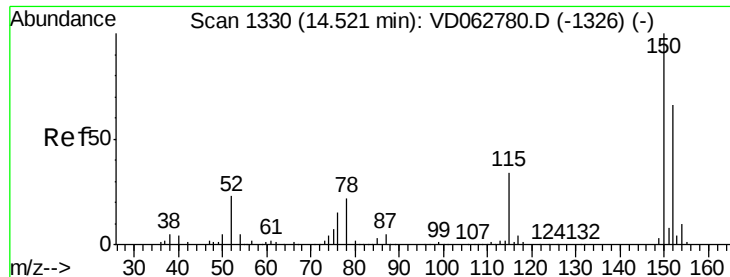


Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): V

Ion 118.95 (118.65 to 119.65): V



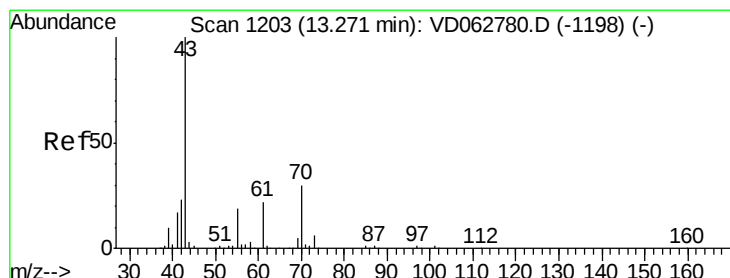
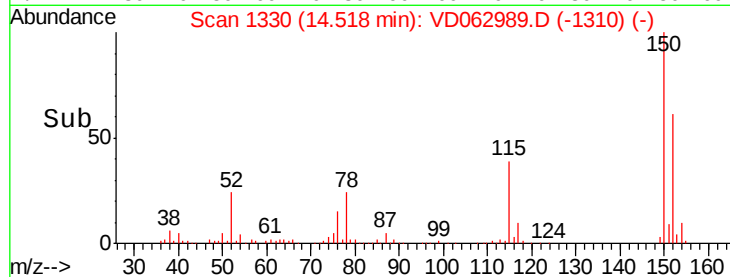
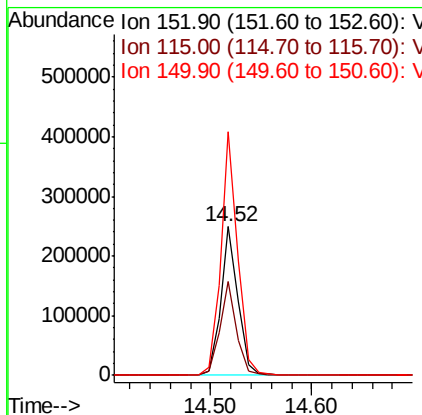
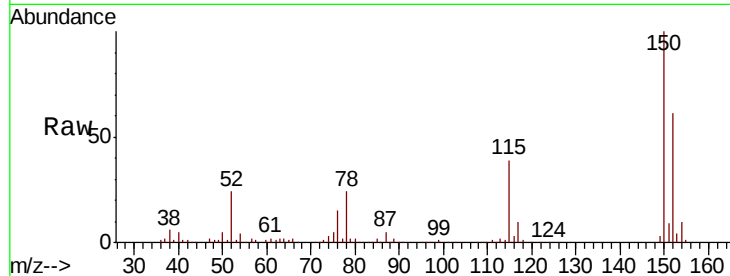


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.52 min Scan# 1330  
Delta R.T. -0.00 min  
Lab File: VD062989.D  
Acq: 1 Jul 2019 14:47

Instrument :  
MSVOA\_D  
ClientSampleId :

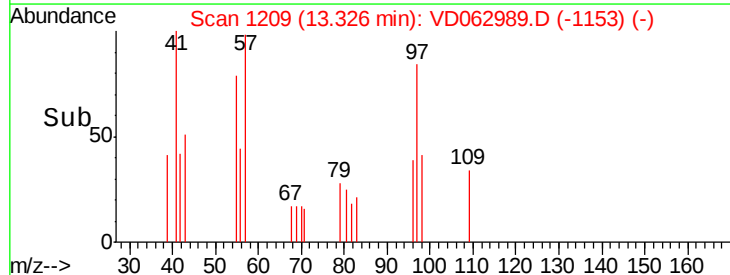
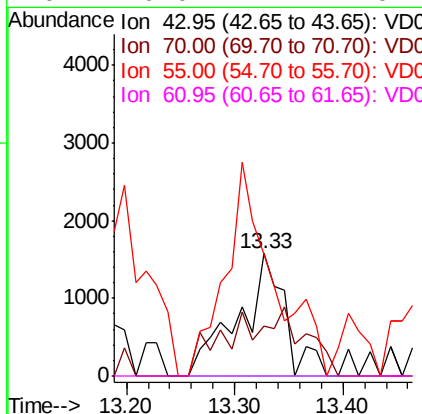
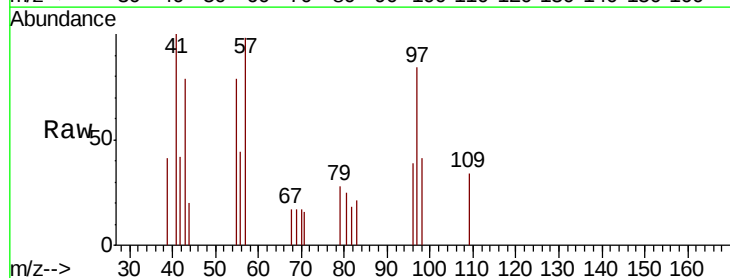
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 63.3  | 29.2  | 87.6  |
| 150     | 163.9 | 0.0   | 305.8 |

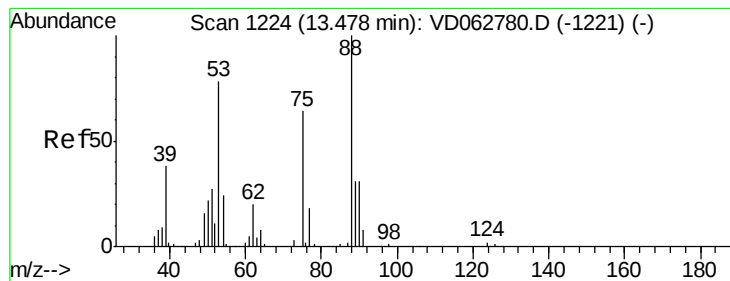


#74

N-ethyl acetate  
Concen: 1.033 ug/l  
RT: 13.33 min Scan# 1209  
Delta R.T. 0.06 min  
Lab File: VD062989.D  
Acq: 1 Jul 2019 14:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 70      | 40.9  | 24.4  | 36.6# |
| 55      | 99.4  | 15.2  | 22.8# |
| 61      | 0.0   | 17.4  | 26.2# |





#81

trans-1,4-Dichloro-2-butene

Concen: 162.642 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.07 min

Lab File: VD062989.D

Acq: 1 Jul 2019 14:47

Instrument :

MSVOA\_D

ClientSampleId :

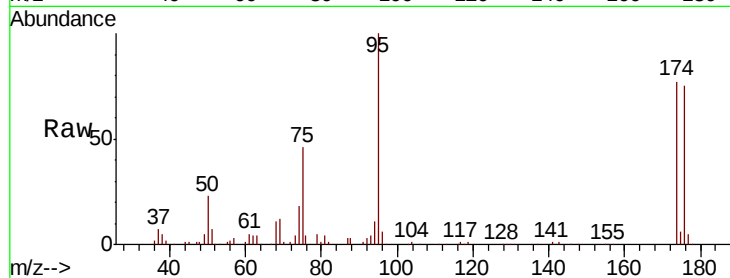
Tot Ion: 75 Resp: 145443

Ion Ratio Lower Upper

75 100

53 0.4 97.8 146.8#

89 0.0 39.4 59.2#



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

