

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD062019\  
 Data File : VD062799.D  
 Acq On : 20 Jun 2019 17:37  
 Operator : VA/AP  
 Sample : K3159-05  
 Misc : 7.22g/5ml/MSVOA D/SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Jun 21 06:36:02 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      | 7.07  | 168  | 596813   | 50.00 | ug/l  | 0.02     |
| 34) 1,4-Difluorobenzene    | 8.25  | 114  | 786033   | 50.00 | ug/l  | 0.03     |
| 63) Chlorobenzene-d5       | 12.38 | 117  | 567478   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.53 | 152  | 221308   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.48  | 65   | 365165   | 56.29 | ug/l    | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 112.58% |          |
| 35) Dibromofluoromethane    | 6.95  | 113  | 383435   | 57.85 | ug/l    | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 115.70% |          |
| 50) Toluene-d8              | 10.44 | 98   | 674550   | 46.76 | ug/l    | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 93.52%  |          |
| 62) 4-Bromofluorobenzene    | 13.57 | 95   | 278209   | 42.41 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 84.82%  |          |

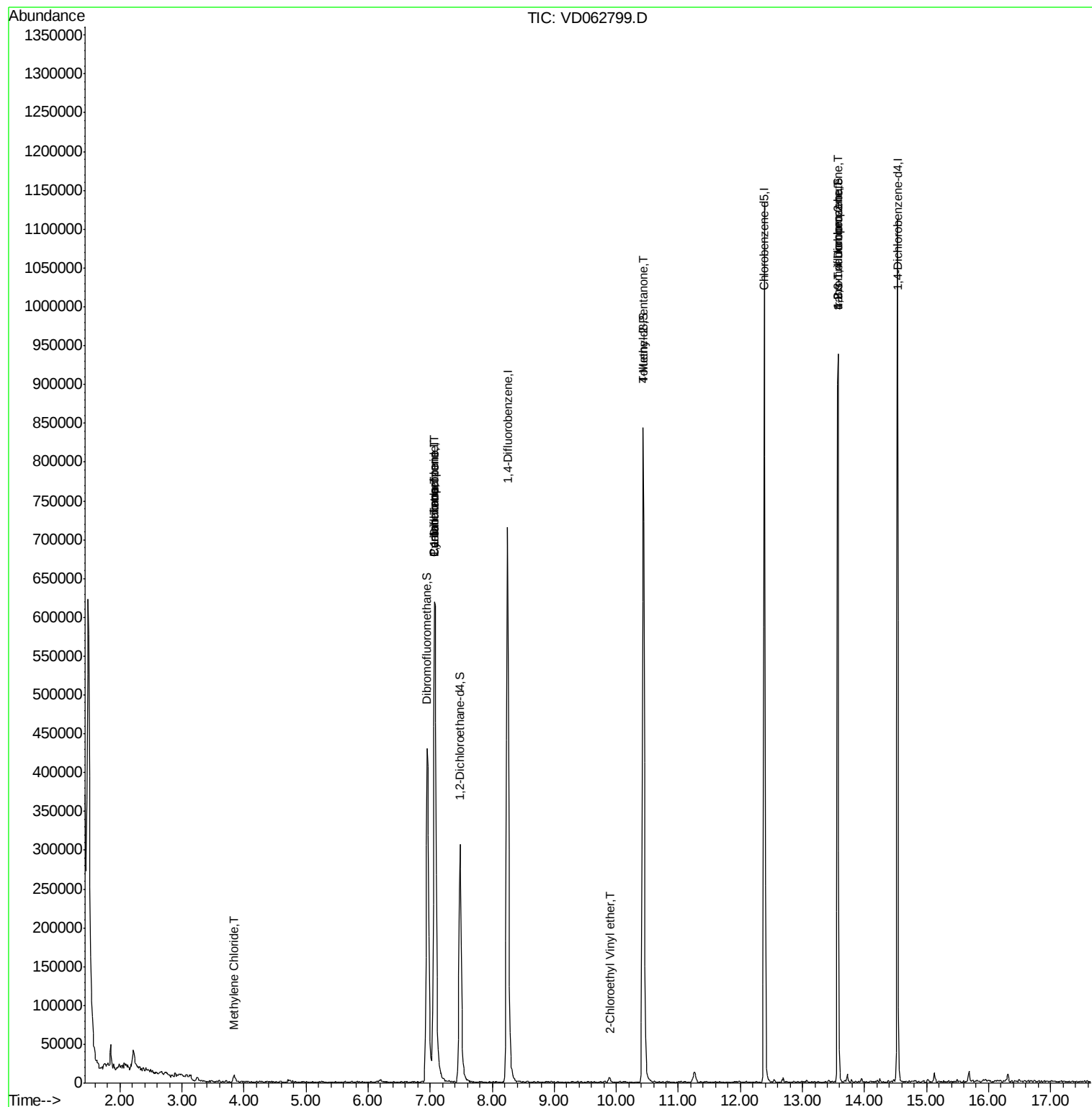
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 20) Methylene Chloride         | 3.83  | 84   | 5050     | 1.021     | ug/l # | 64     |
| 31) Cyclohexane                | 7.08  | 56   | 14471    | 2.375     | ug/l # | 23     |
| 36) 1,1-Dichloropropene        | 7.08  | 75   | 50314    | 6.762     | ug/l # | 58     |
| 37) Ethyl Acetate              | 6.20  | 43   | 191      | Below Cal | #      | 69     |
| 38) Carbon Tetrachloride       | 7.08  | 117  | 59885    | 5.351     | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 10.45 | 43   | 4647     | 1.680     | ug/l # | 10     |
| 58) 2-Chloroethyl Vinyl ether  | 9.89  | 63   | 3005     | 1.588     | ug/l   | 91     |
| 76) 1,2,3-Trichloropropane     | 13.57 | 75   | 117481   | 45.984    | ug/l # | 46     |
| 81) trans-1,4-Dichloro-2-buten | 13.57 | 75   | 133294   | 199.070   | ug/l # | 2      |

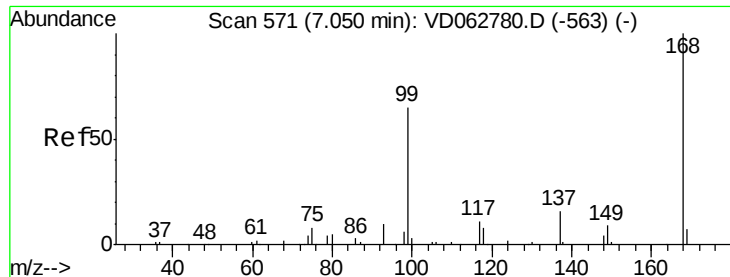
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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: 7.07 min Scan# 573

Delta R.T. 0.02 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :

MSVOA\_D

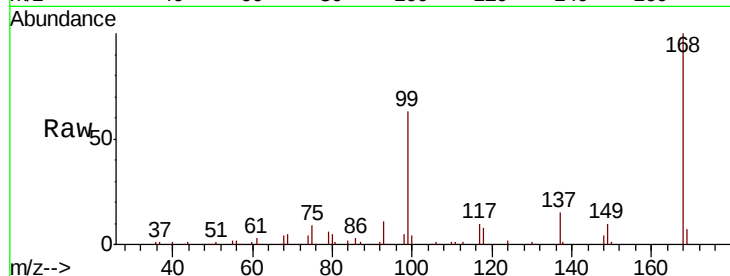
ClientSampleId :

Tot Ion:168 Resp: 596813

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

7.07

200000

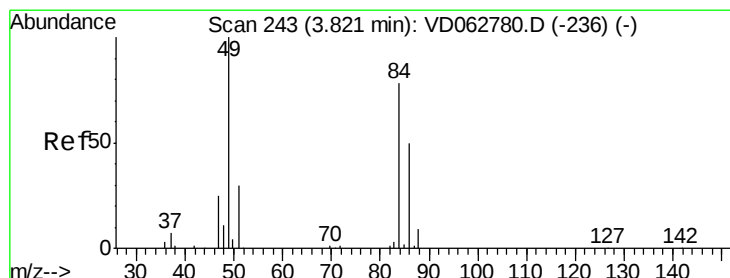
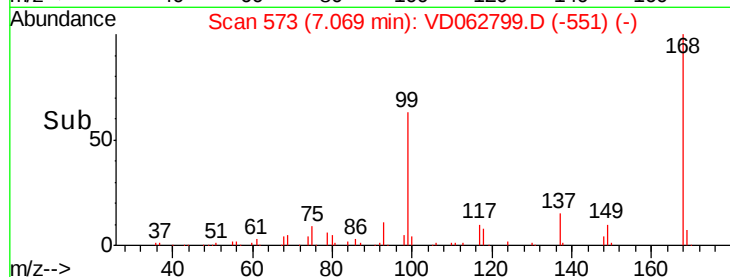
150000

100000

50000

0

Time--> 6.90 7.00 7.10 7.20



#20

Methylene Chloride

Concen: 1.021 ug/l

RT: 3.83 min Scan# 244

Delta R.T. 0.01 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Tgt Ion: 84 Resp: 5050

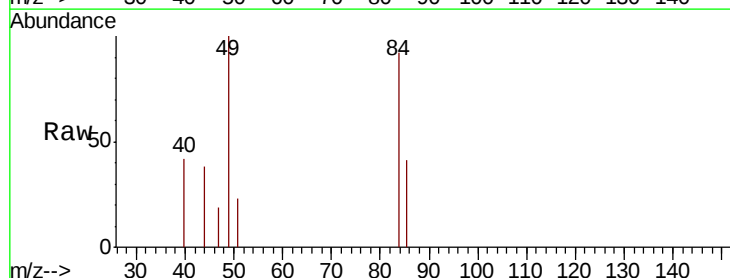
Ion Ratio Lower Upper

84 100

49 108.6 102.9 154.3

51 25.1 31.2 46.8#

86 0.0 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

3.83

4000

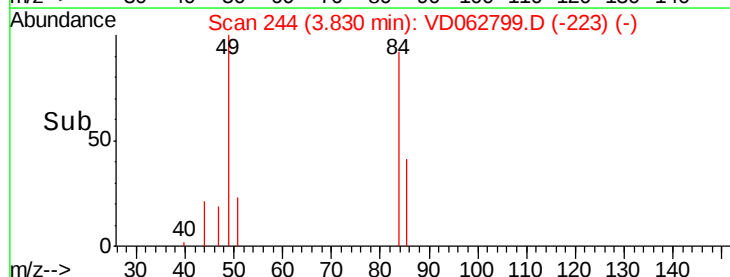
3000

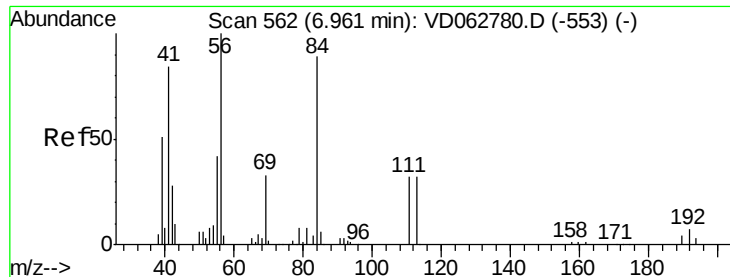
2000

1000

0

Time--> 3.75 3.80 3.85 3.90 3.95

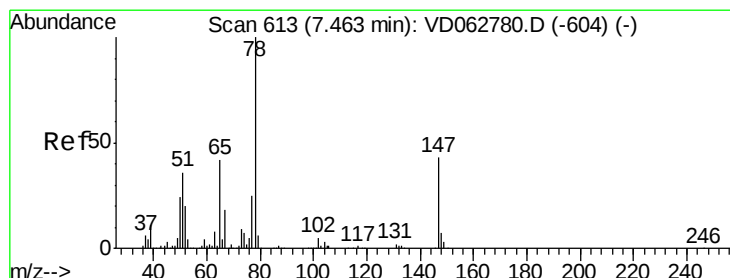
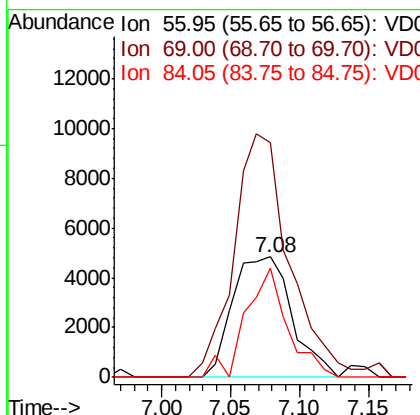
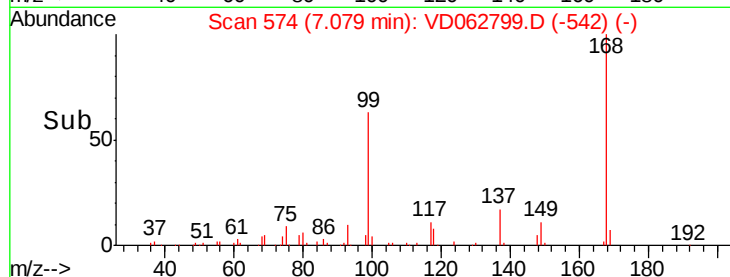
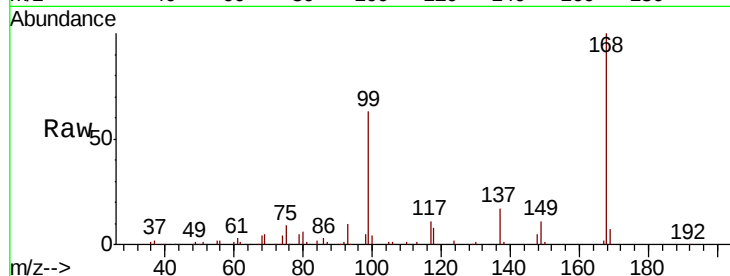




#31  
Cvclohexane  
Concen: 2.375 ug/l  
RT: 7.08 min Scan# 574  
Delta R.T. 0.12 min  
Lab File: VD062799.D  
Acq: 20 Jun 2019 17:37

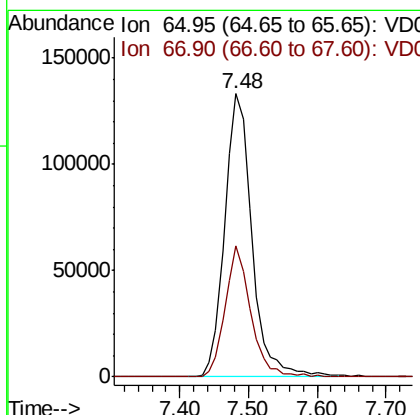
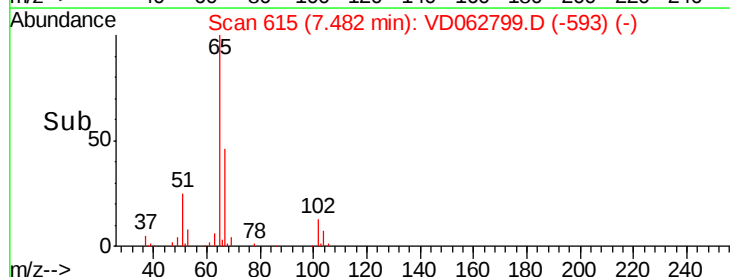
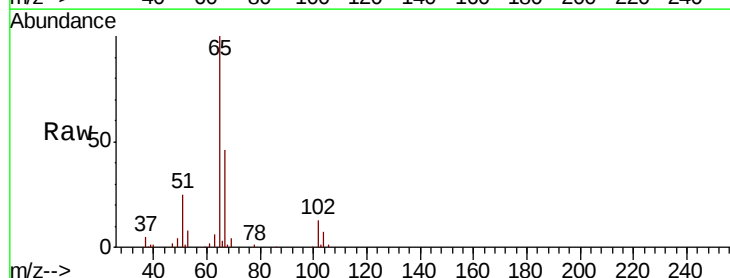
Instrument :  
MSVOA\_D  
ClientSampleId :

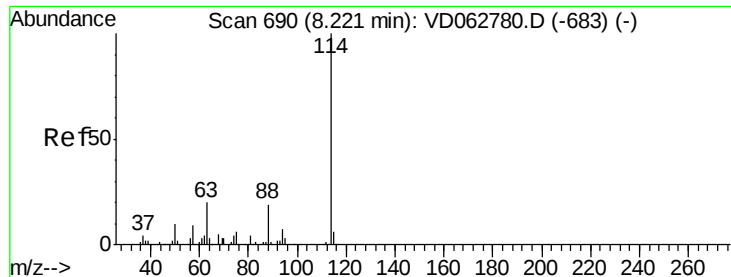
Tot Ion: 56 Resp: 14471  
Ion Ratio Lower Upper  
56 100  
69 194.5 26.6 39.8#  
84 90.7 75.5 113.3



#33  
1,2-Dichloroethane-d4  
Concen: 56.289 ug/l  
RT: 7.48 min Scan# 615  
Delta R.T. 0.02 min  
Lab File: VD062799.D  
Acq: 20 Jun 2019 17:37

Tgt Ion: 65 Resp: 365165  
Ion Ratio Lower Upper  
65 100  
67 46.1 0.0 87.4





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.25 min Scan# 693

Delta R.T. 0.03 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :

MSVOA\_D

ClientSampleId :

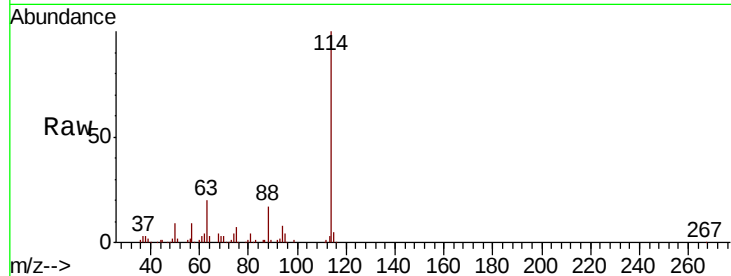
Tot Ion:114 Resp: 786033

Ion Ratio Lower Upper

114 100

63 20.3 0.0 40.0

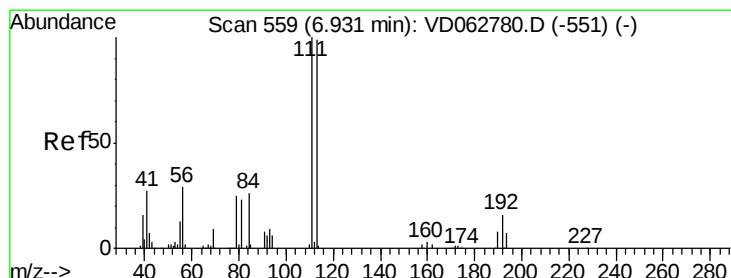
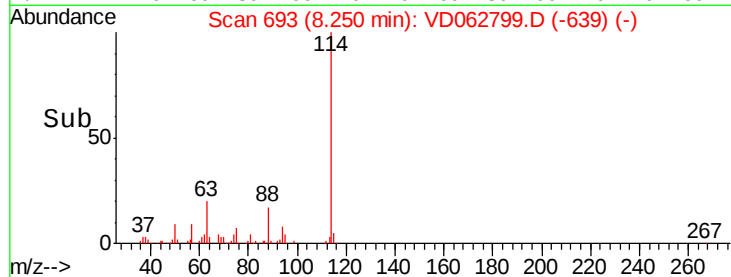
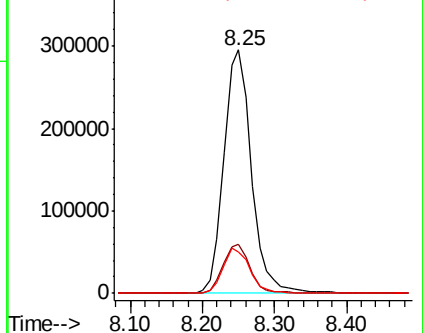
88 17.0 0.0 38.8



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: 57.853 ug/l

RT: 6.95 min Scan# 561

Delta R.T. 0.02 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

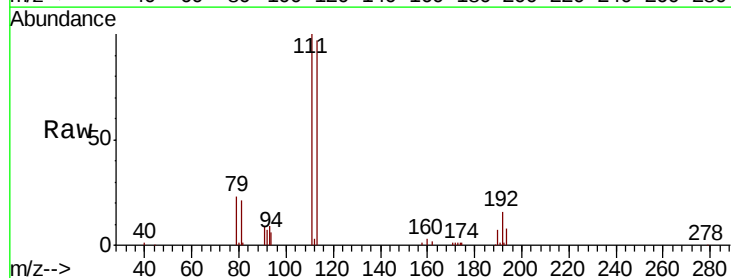
Tgt Ion:113 Resp: 383435

Ion Ratio Lower Upper

113 100

111 102.9 81.2 121.8

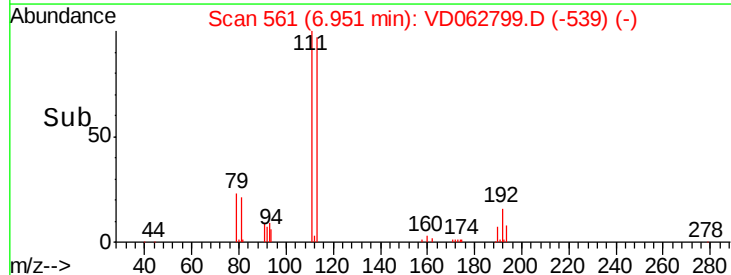
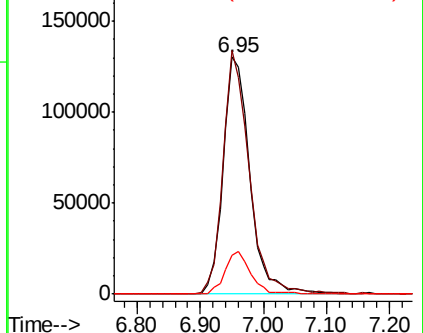
192 16.4 12.9 19.3

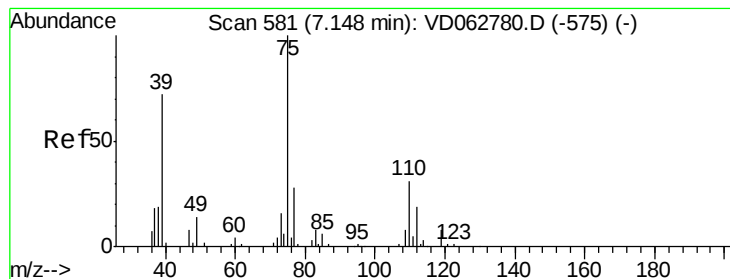


Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 191.80 (191.50 to 192.50): V





#36

1,1-Dichloropropene

Concen: 6.762 ug/l

RT: 7.08 min Scan# 574

Delta R.T. -0.07 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :  
MSVOA\_D  
ClientSampleId :

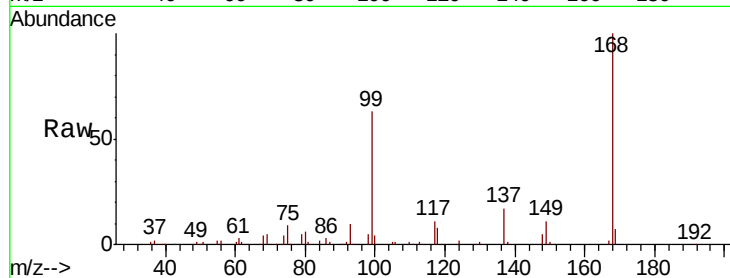
Tot Ion: 75 Resp: 50314

Ion Ratio Lower Upper

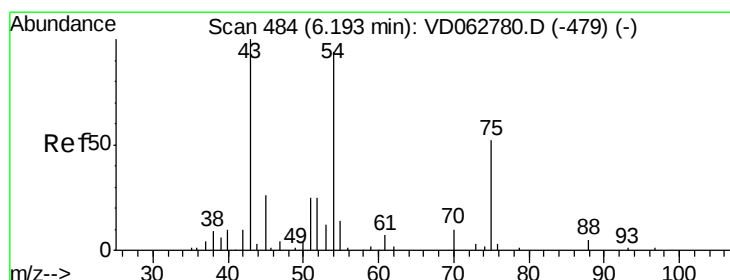
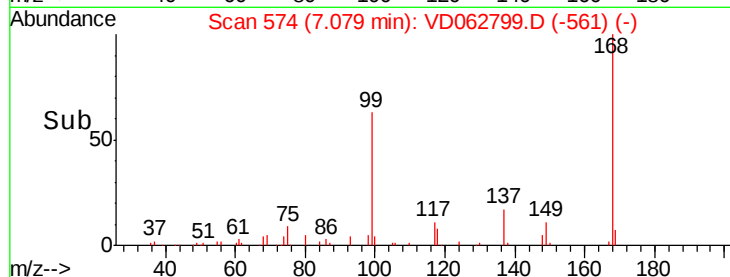
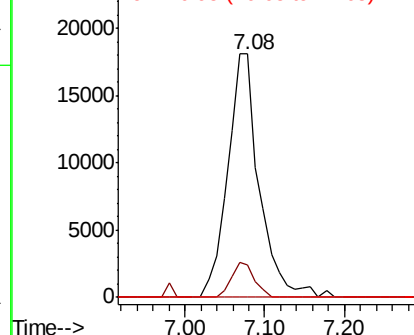
75 100

110 13.2 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: 6.20 min Scan# 485

Delta R.T. 0.01 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

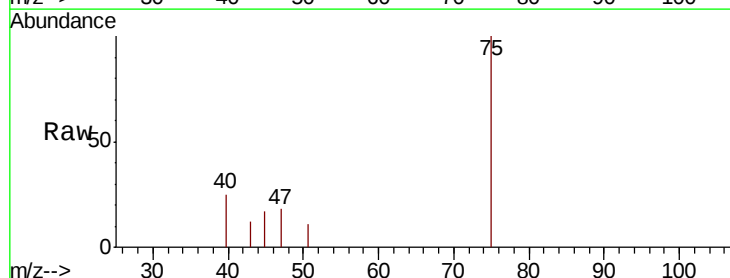
Tgt Ion: 43 Resp: 191

Ion Ratio Lower Upper

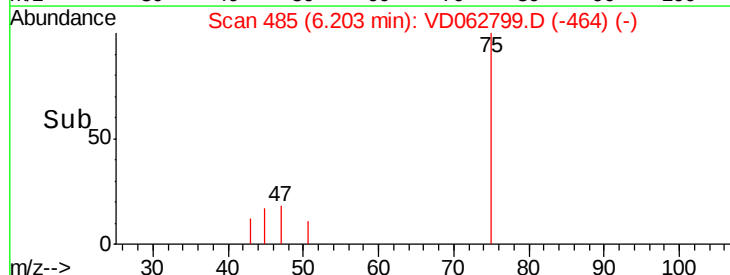
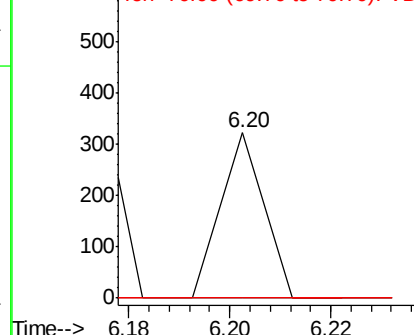
43 100

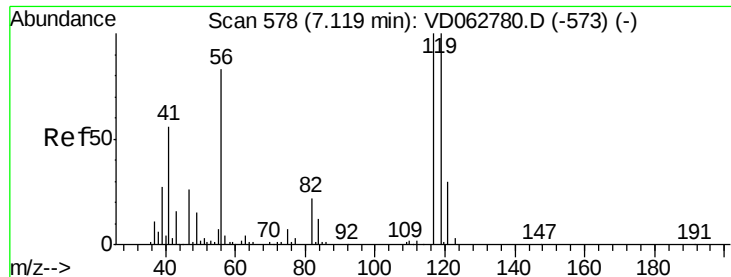
61 0.0 11.6 17.4#

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: 5.351 ug/l

RT: 7.08 min Scan# 574

Delta R.T. -0.04 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :  
MSVOA\_D  
ClientSampleId :

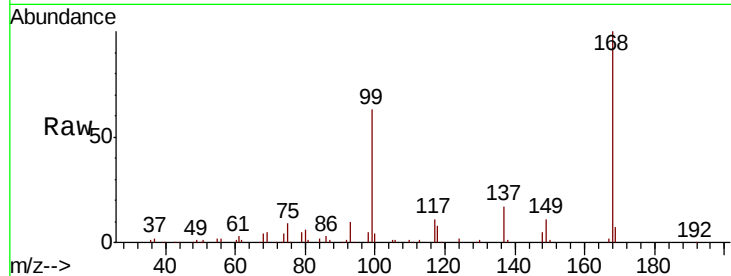
Tot Ion:117 Resp: 59885

Ion Ratio Lower Upper

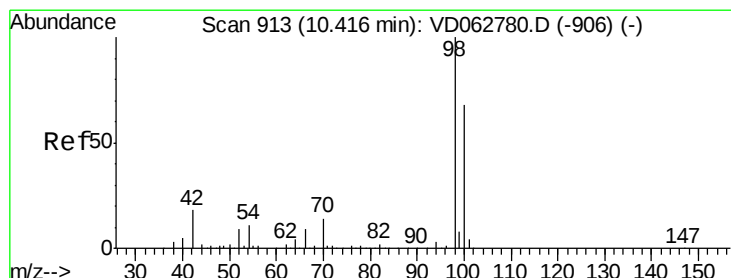
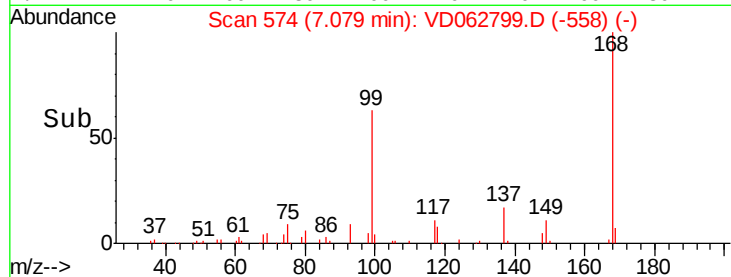
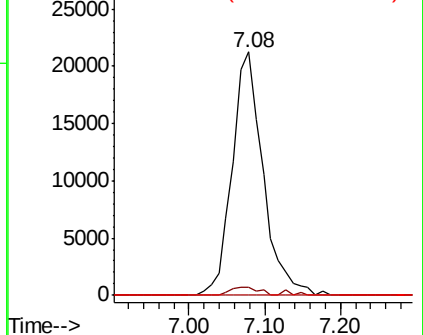
117 100

119 3.3 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



#50

Toluene-d8

Concen: 46.762 ug/l

RT: 10.44 min Scan# 915

Delta R.T. 0.02 min

Lab File: VD062799.D

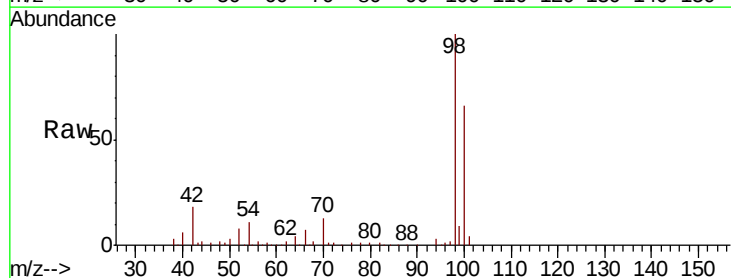
Acq: 20 Jun 2019 17:37

Tgt Ion: 98 Resp: 674550

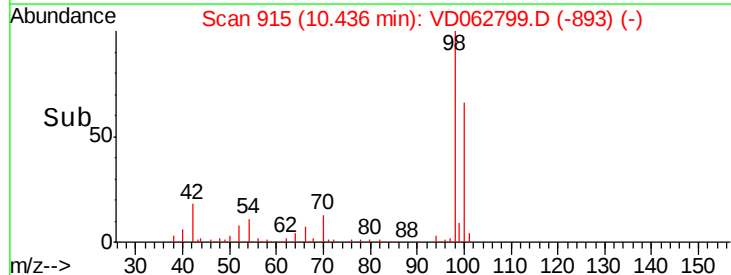
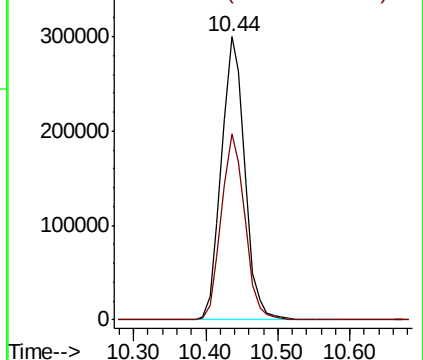
Ion Ratio Lower Upper

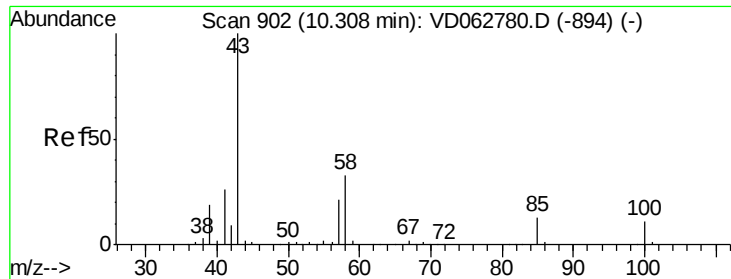
98 100

100 65.6 54.7 82.1



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





#51

4-Methyl-2-Pentanone

Concen: 1.680 ug/l

RT: 10.45 min Scan# 916

Delta R.T. 0.14 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :

MSVOA\_D

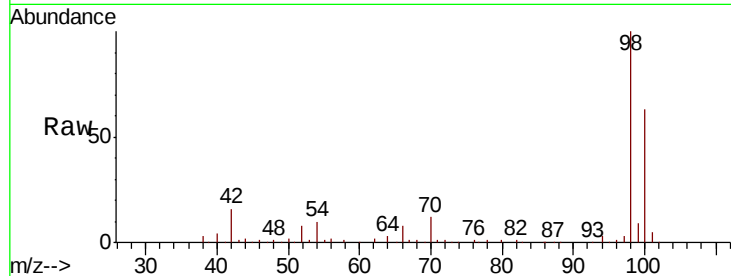
ClientSampleId :

Tot Ion: 43 Resp: 4647

Ion Ratio Lower Upper

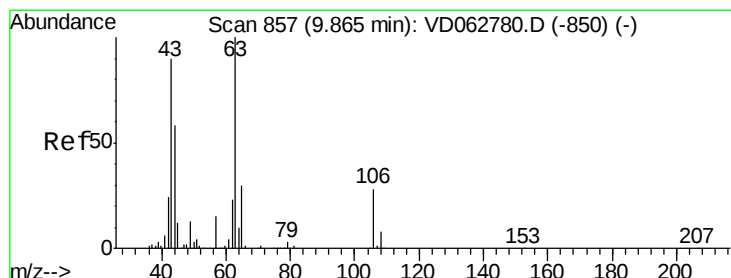
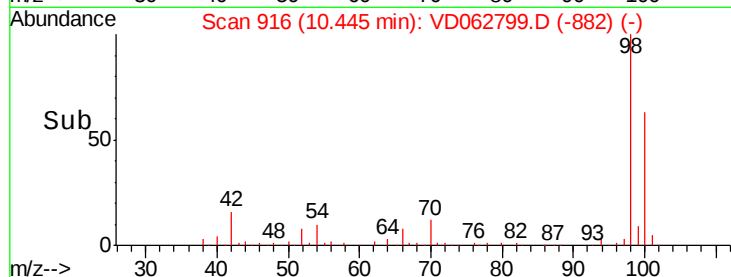
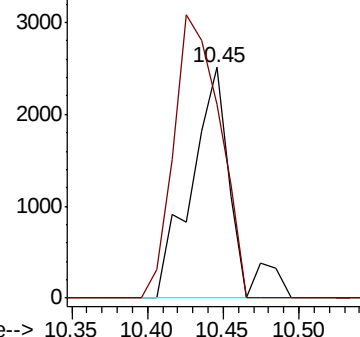
43 100

58 84.1 26.6 40.0#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#58

2-Chloroethyl Vinyl ether

Concen: 1.588 ug/l

RT: 9.89 min Scan# 860

Delta R.T. 0.03 min

Lab File: VD062799.D

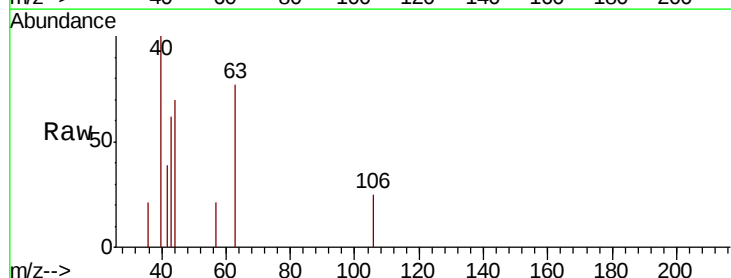
Acq: 20 Jun 2019 17:37

Tgt Ion: 63 Resp: 3005

Ion Ratio Lower Upper

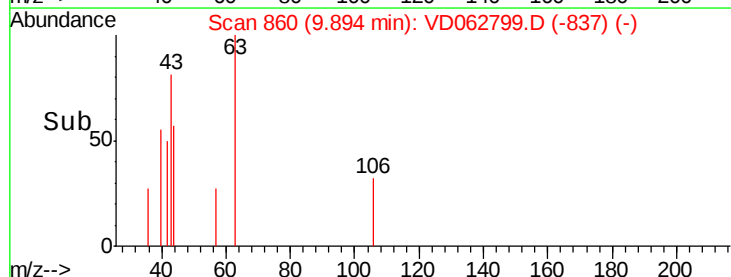
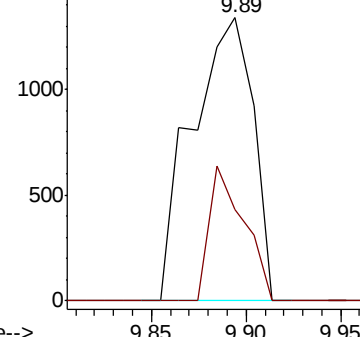
63 100

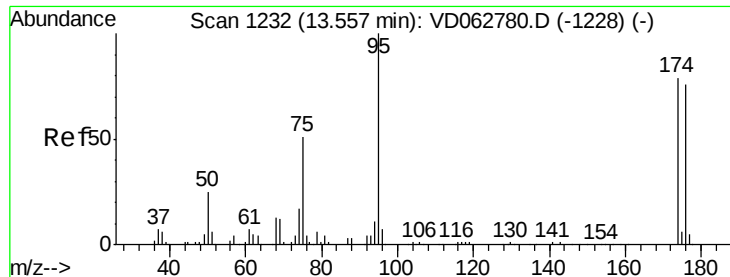
106 32.3 22.1 33.1



Abundance Ion 62.95 (62.65 to 63.65): VDC

Ion 105.95 (105.65 to 106.65): VDC





#62

4-Bromofluorobenzene

Concen: 42.415 ug/l

RT: 13.57 min Scan# 1233

Delta R.T. 0.01 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :

MSVOA\_D

ClientSampleId :

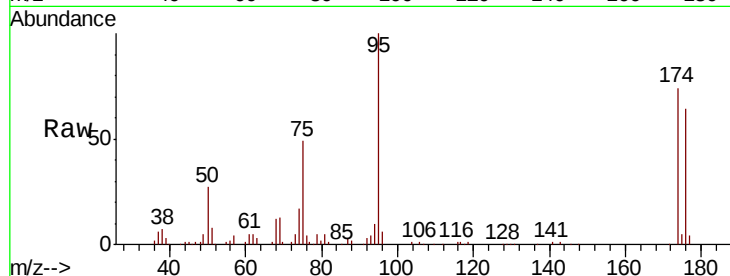
Tot Ion: 95 Resp: 278209

Ion Ratio Lower Upper

95 100

174 73.9 0.0 158.0

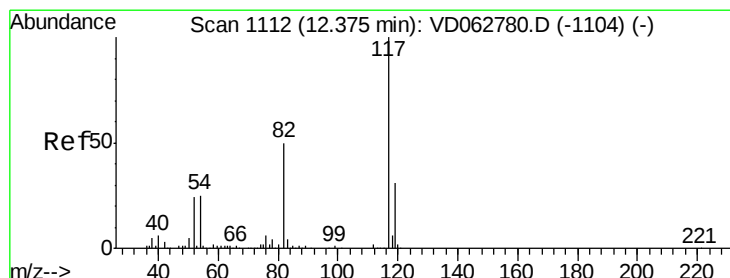
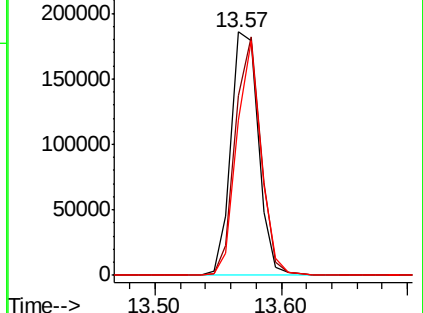
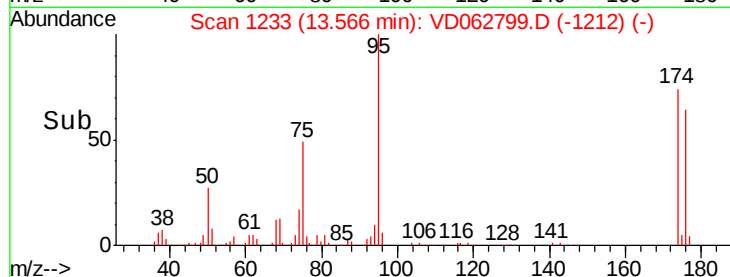
176 63.8 0.0 151.6



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: 12.38 min Scan# 1113

Delta R.T. 0.01 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

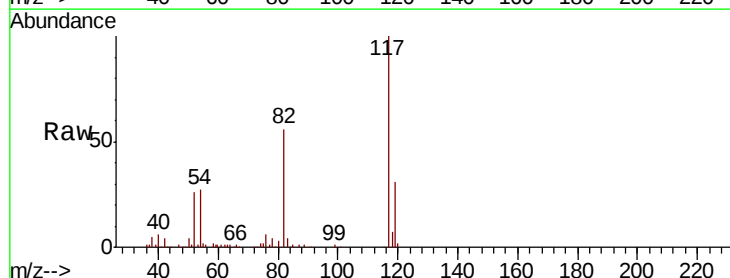
Tgt Ion: 117 Resp: 567478

Ion Ratio Lower Upper

117 100

82 56.1 40.4 60.6

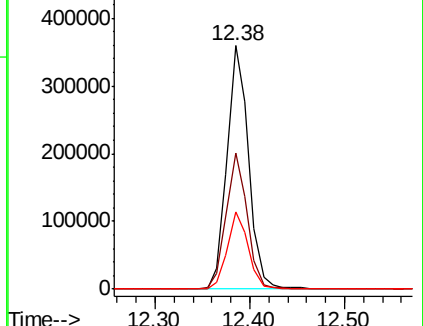
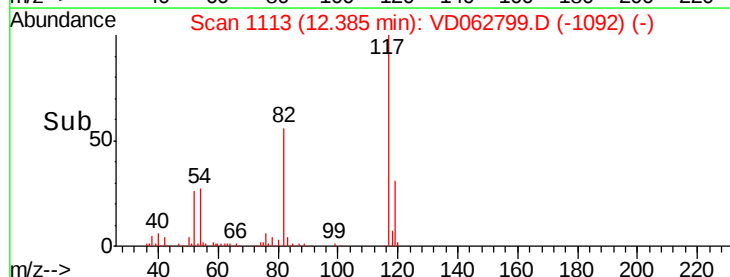
119 31.5 25.2 37.8

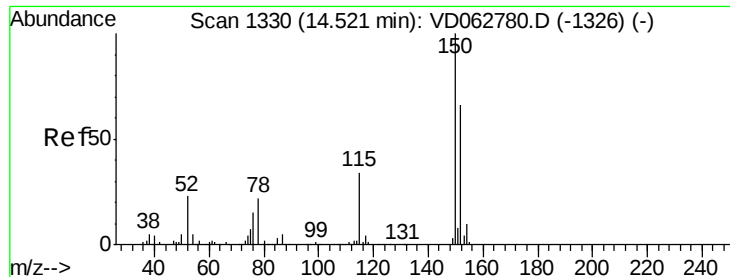


Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): V

Ion 118.95 (118.65 to 119.65): V



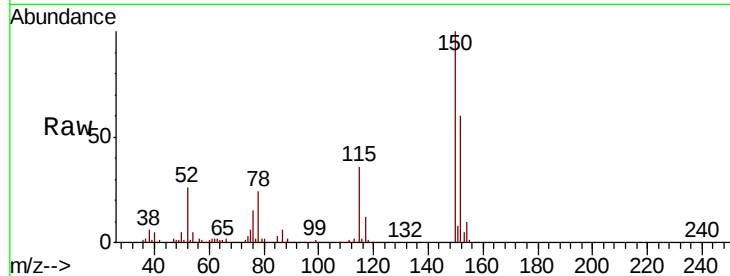


#72

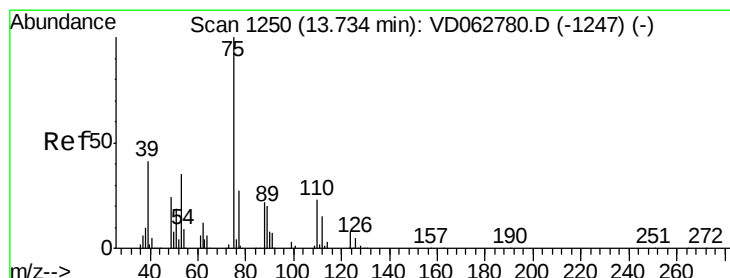
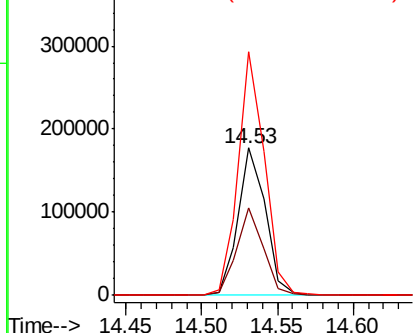
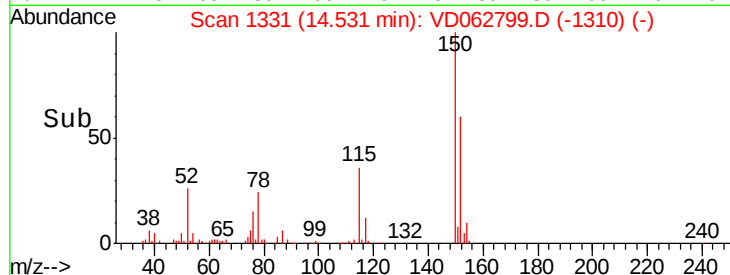
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.53 min Scan# 1331  
Delta R.T. 0.01 min  
Lab File: VD062799.D  
Acq: 20 Jun 2019 17:37

Instrument :  
MSVOA\_D  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 59.5  | 29.2  | 87.6  |
| 150     | 165.5 | 0.0   | 305.8 |



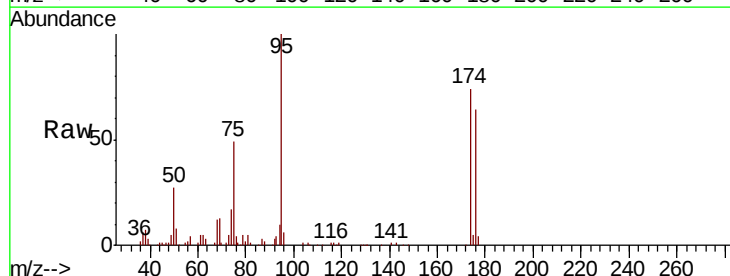
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 115.00 (114.70 to 115.70): V  
Ion 149.90 (149.60 to 150.60): V



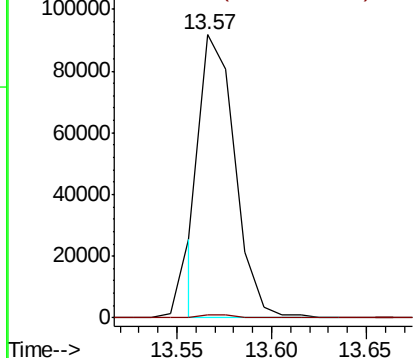
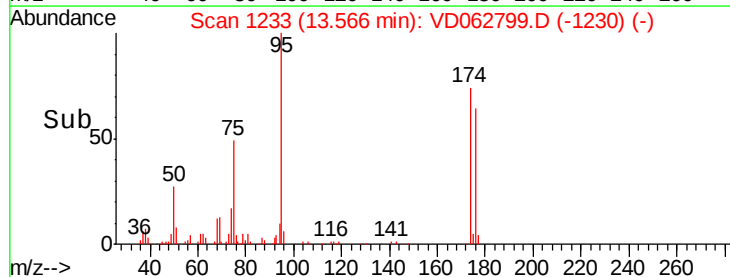
#76

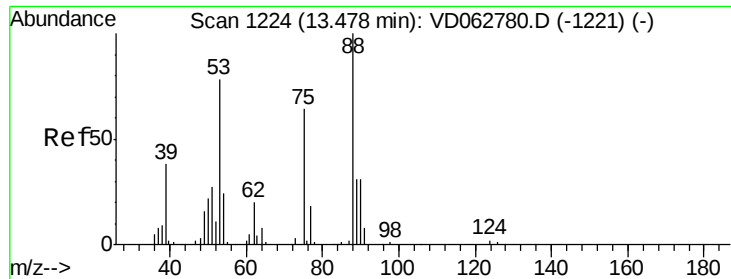
1,2,3-Trichloropropane  
Concen: 45.984 ug/l  
RT: 13.57 min Scan# 1233  
Delta R.T. -0.17 min  
Lab File: VD062799.D  
Acq: 20 Jun 2019 17:37

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.0   | 15.0  | 45.1# |



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





#81

trans-1,4-Dichloro-2-butene

Concen: 199.070 ug/l

RT: 13.57 min Scan# 1233

Delta R.T. 0.09 min

Lab File: VD062799.D

Acq: 20 Jun 2019 17:37

Instrument :

MSVOA\_D

ClientSampleId :

Tot Ion: 75 Resp: 133294

Ion Ratio Lower Upper

75 100

53 0.0 97.8 146.8#

89 0.0 39.4 59.2#

