

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX072618\  
 Data File : VX003680.D  
 Acq On : 26 Jul 2018 19:45  
 Operator : JC/SP  
 Sample : J4073-13  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE109D1-071618

Quant Time: Jul 27 05:37:35 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jul 27 02:16:51 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 91491    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 138833   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 130269   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 62885    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 78787    | 58.14 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 116.28% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 64724    | 57.03 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 114.06% |          |
| 50) Toluene-d8              | 8.72  | 98   | 236078   | 54.50 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 109.00% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 72844    | 46.11 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.22%  |          |

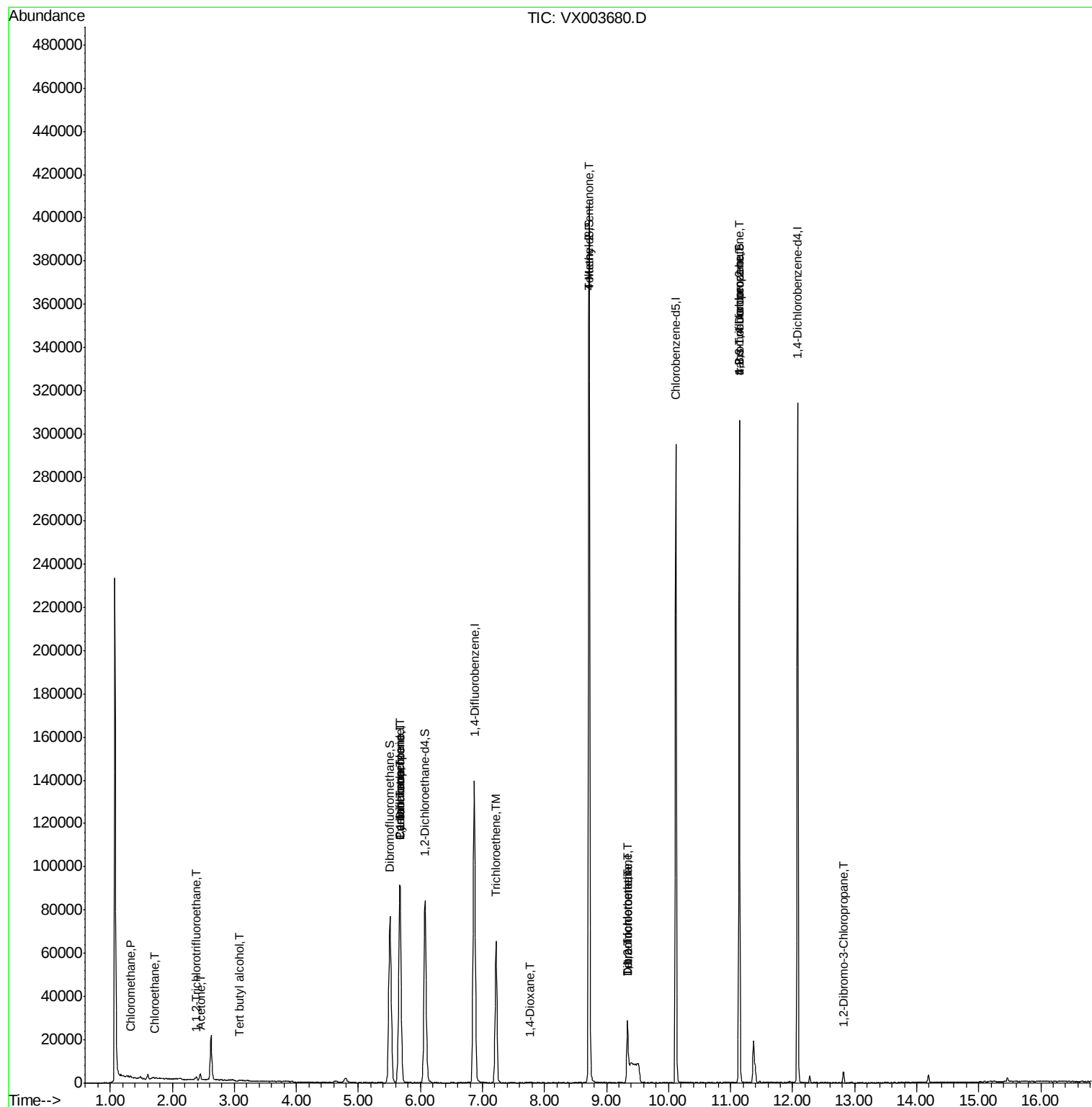
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------------|-------|------|----------|-------|-------|--------|
| 3) Chloromethane               | 1.32  | 50   | 389      | 0.28  | ug/l  | 95     |
| 6) Chloroethane                | 1.72  | 64   | 2235     | 3.90  | ug/l  | # 42   |
| 9) 1,1,2-Trichlorotrifluoroet  | 2.39  | 101  | 433      | 0.39  | ug/l  | 93     |
| 11) Tert butyl alcohol         | 3.07  | 59   | 135      | 0.42  | ug/l  | # 72   |
| 16) Acetone                    | 2.45  | 43   | 2924     | 4.59  | ug/l  | 92     |
| 31) Cyclohexane                | 5.67  | 56   | 1649     | 0.90  | ug/l  | # 1    |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 6411     | 3.95  | ug/l  | # 48   |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 8256     | 5.28  | ug/l  | # 14   |
| 44) Trichloroethene            | 7.22  | 130  | 26316    | 20.44 | ug/l  | 100    |
| 49) 1,4-Dioxane                | 7.76  | 88   | 327      | 10.15 | ug/l  | # 82   |
| 51) 4-Methyl-2-Pentanone       | 8.72  | 43   | 1045     | 0.54  | ug/l  | # 1    |
| 55) 1,1,2-Trichloroethane      | 9.33  | 97   | 347      | 0.28  | ug/l  | # 15   |
| 60) Dibromochloromethane       | 9.34  | 129  | 257      | 0.22  | ug/l  | # 11   |
| 64) Tetrachloroethene          | 9.34  | 164  | 346      | 0.29  | ug/l  | # 79   |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 37413    | 28.36 | ug/l  | # 35   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 37413    | 87.88 | ug/l  | # 11   |
| 92) 1,2-Dibromo-3-Chloropropan | 12.82 | 75   | 151      | 0.46  | ug/l  | # 1    |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X072418W.M  
Quant Title : SW846 8260  
QLast Update : Fri Jul 27 02:16:51 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.01 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

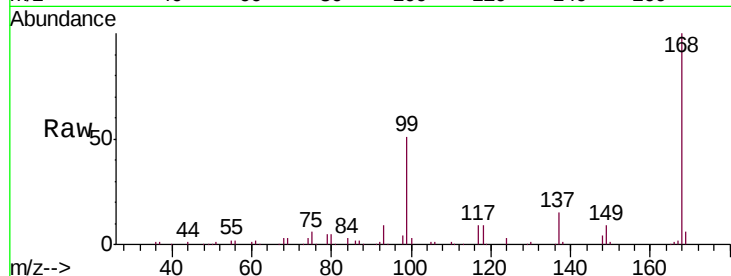
RE109D1-071618

Tot Ion:168 Resp: 91491

Ion Ratio Lower Upper

168 100

99 51.4 49.5 74.3



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

30000

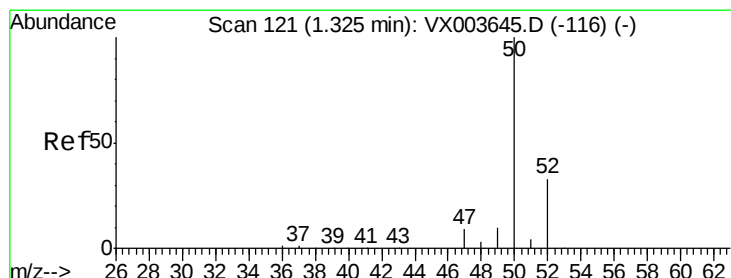
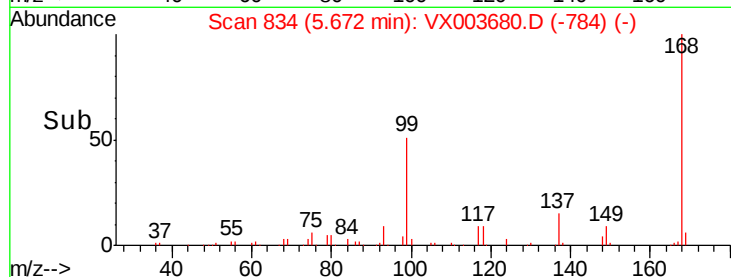
20000

10000

0

5.60 5.70 5.80

Time-->



#3

Chloromethane

Concen: 0.28 ug/l

RT: 1.32 min Scan# 121

Delta R.T. 0.00 min

Lab File: VX003680.D

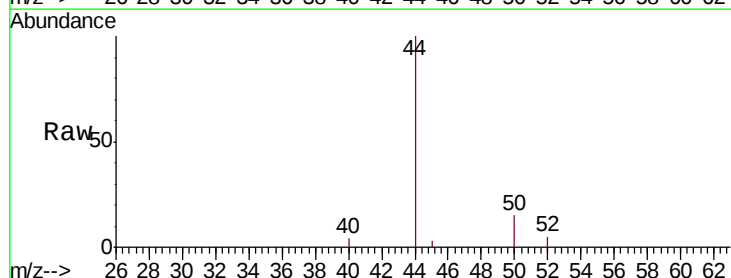
Acq: 26 Jul 2018 19:45

Tgt Ion: 50 Resp: 389

Ion Ratio Lower Upper

50 100

52 30.3 26.3 39.5



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.32

400

300

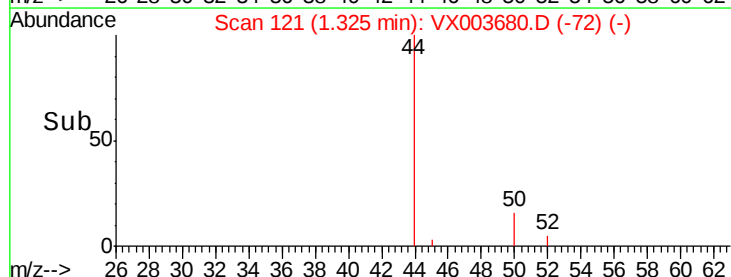
200

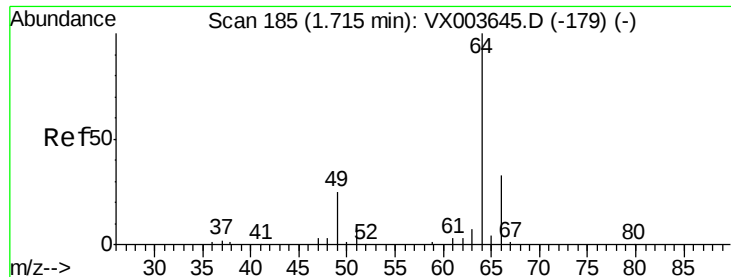
100

0

1.30 1.32 1.34 1.36

Time-->





#6

Chloroethane

Concen: 3.90 ug/l

RT: 1.72 min Scan# 186

Delta R.T. 0.01 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

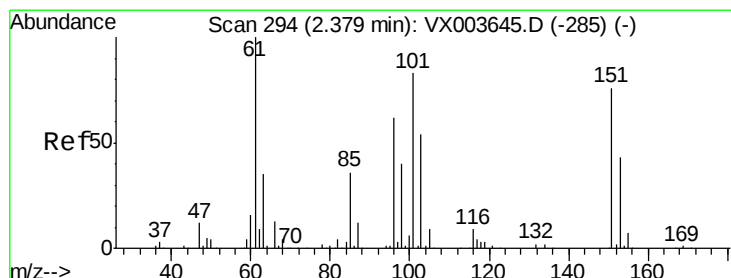
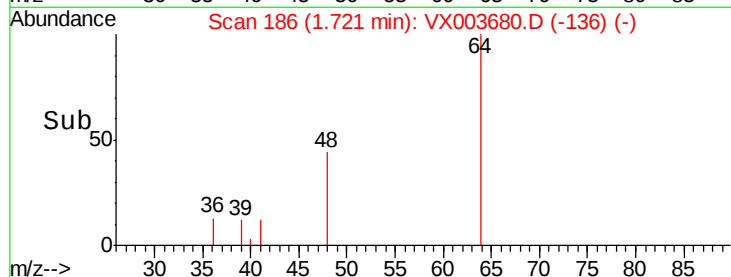
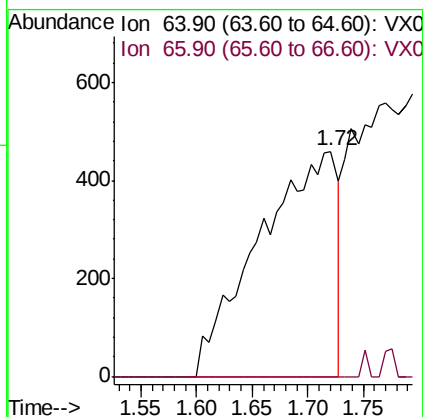
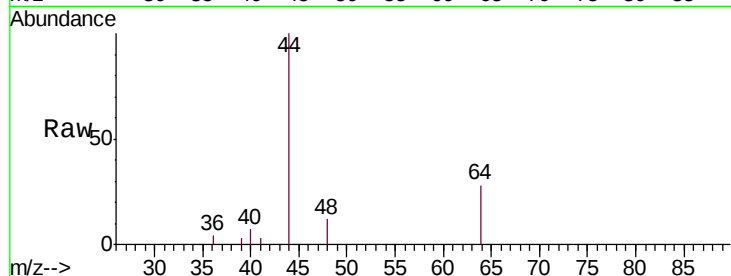
RE109D1-071618

Tot Ion: 64 Resp: 2235

Ion Ratio Lower Upper

64 100

66 0.0 26.3 39.5#



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.39 ug/l

RT: 2.39 min Scan# 295

Delta R.T. 0.01 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

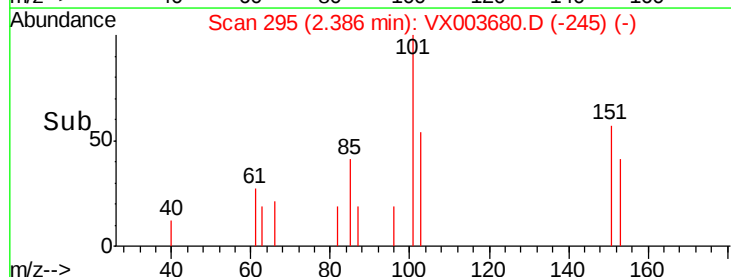
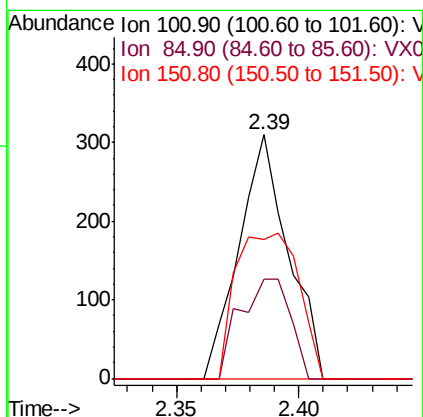
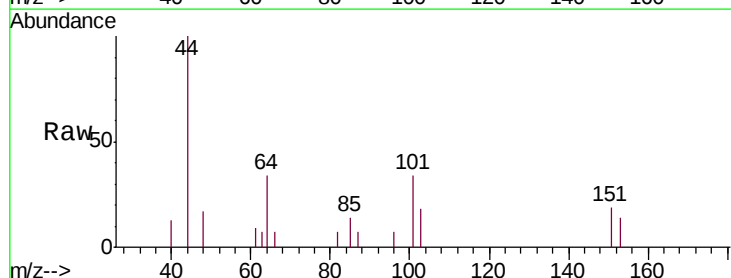
Tgt Ion: 101 Resp: 433

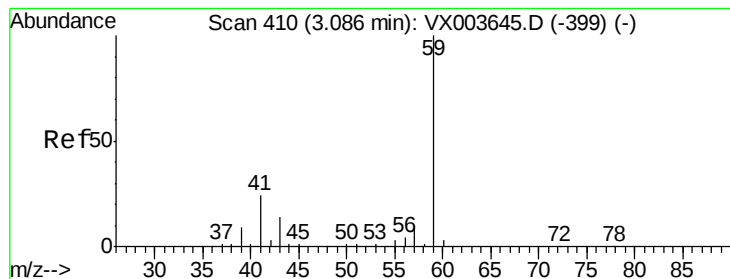
Ion Ratio Lower Upper

101 100

85 41.8 34.6 52.0

151 76.2 67.5 101.3



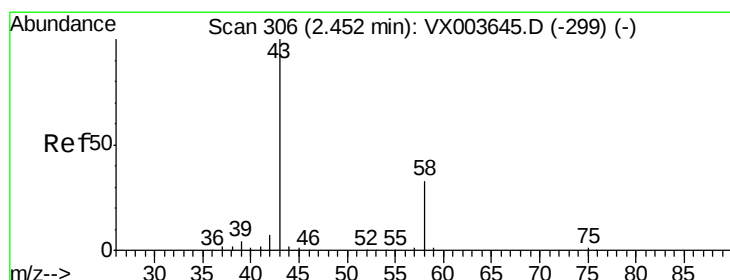
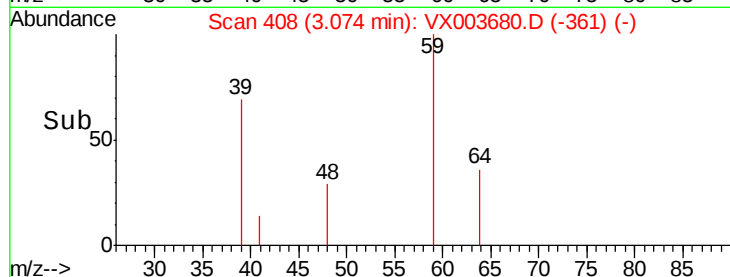
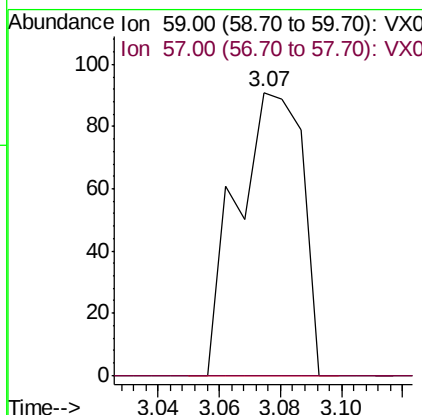
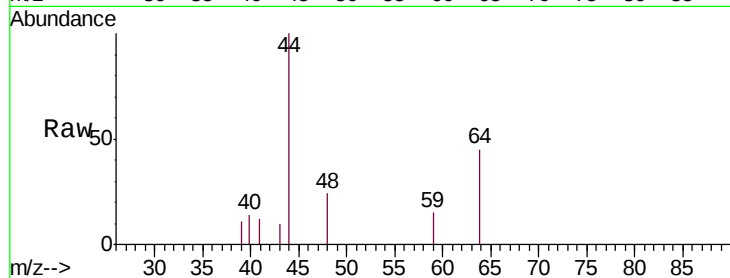


#11

Tert butyl alcohol  
 Concen: 0.42 ug/l  
 RT: 3.07 min Scan# 408  
 Delta R.T. -0.01 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
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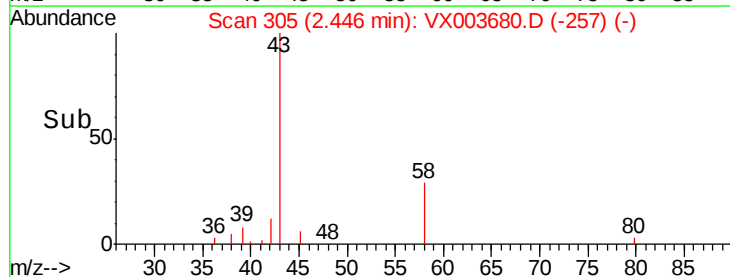
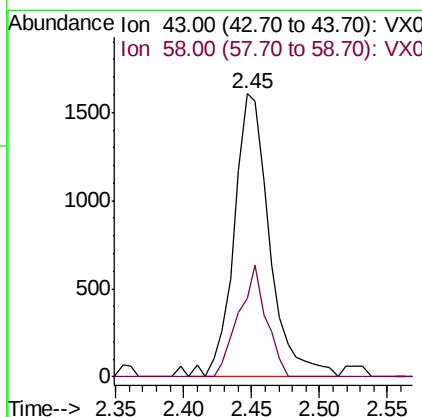
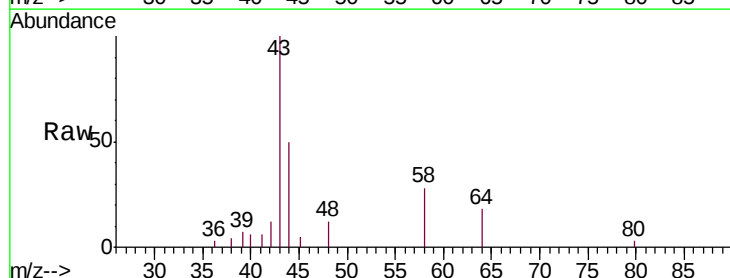
Tot Ion: 59 Resp: 135  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.2 12.4#

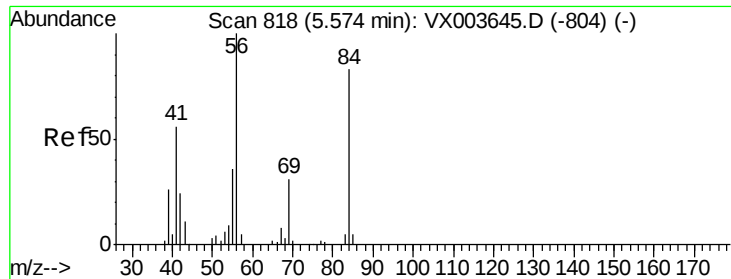


#16

Acetone  
 Concen: 4.59 ug/l  
 RT: 2.45 min Scan# 305  
 Delta R.T. -0.01 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

Tgt Ion: 43 Resp: 2924  
 Ion Ratio Lower Upper  
 43 100  
 58 27.9 26.1 39.1

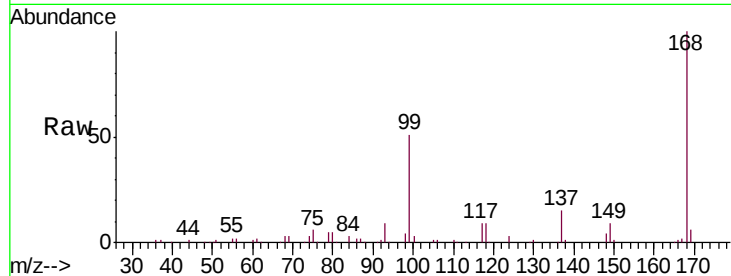




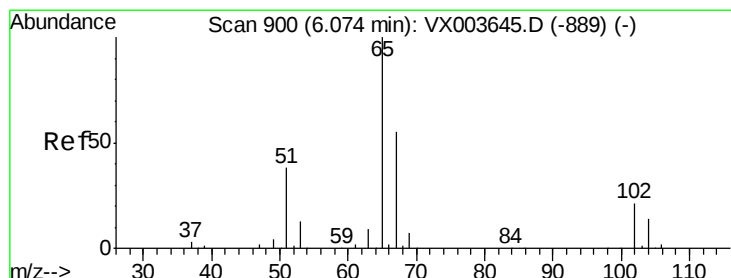
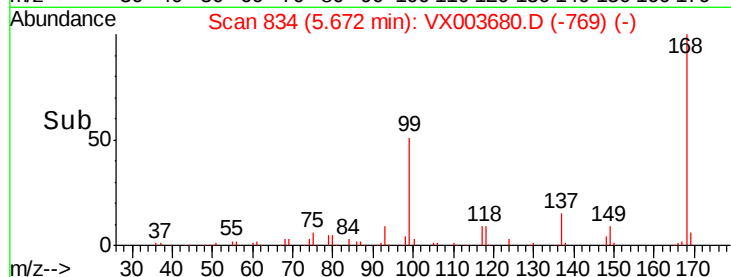
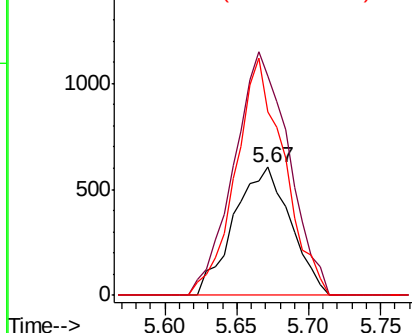
#31  
Cyclohexane  
Concen: 0.90 ug/l  
RT: 5.67 min Scan# 834  
Delta R.T. 0.10 min  
Lab File: VX003680.D  
Acq: 26 Jul 2018 19:45

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE109D1-071618

Tot Ion: 56 Resp: 1649  
Ion Ratio Lower Upper  
56 100  
69 171.7 25.0 37.6#  
84 143.4 66.5 99.7#

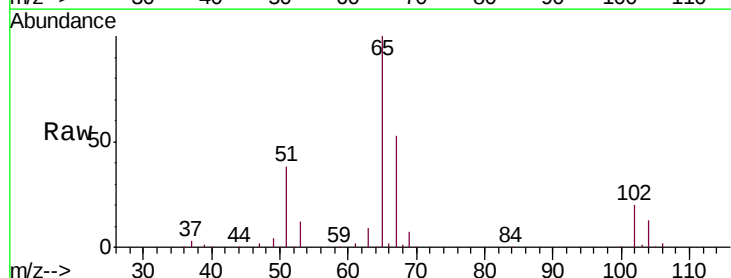


Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0

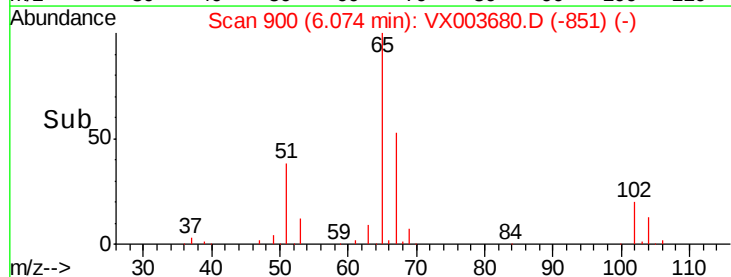
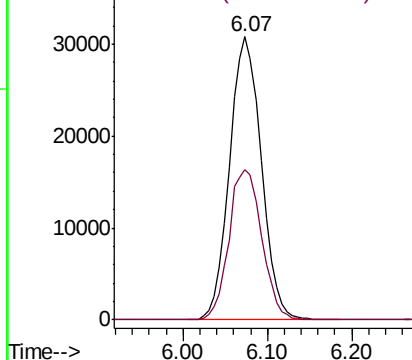


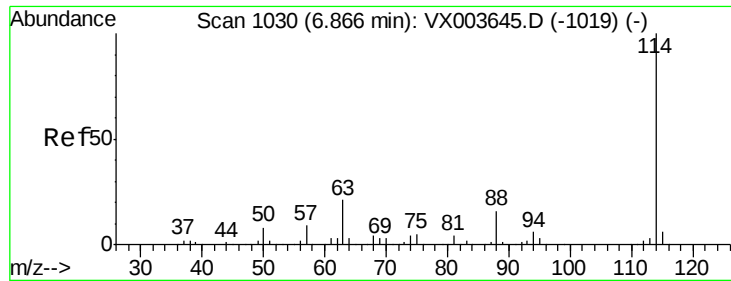
#33  
1,2-Dichloroethane-d4  
Concen: 58.14 ug/l  
RT: 6.07 min Scan# 900  
Delta R.T. 0.00 min  
Lab File: VX003680.D  
Acq: 26 Jul 2018 19:45

Tgt Ion: 65 Resp: 78787  
Ion Ratio Lower Upper  
65 100  
67 54.8 0.0 107.8



Abundance Ion 64.90 (64.60 to 65.60): VX0  
Ion 66.90 (66.60 to 67.60): VX0





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 6.87 min Scan# 1030

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

RE109D1-071618

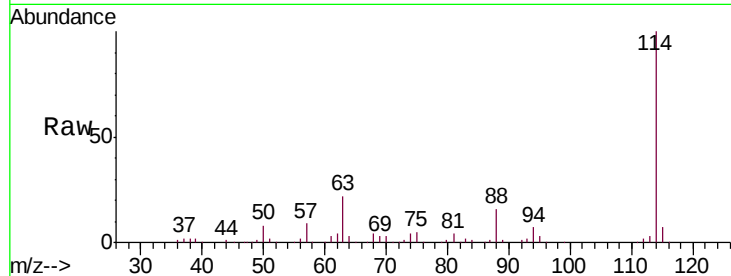
Tot Ion:114 Resp: 138833

Ion Ratio Lower Upper

114 100

63 21.7 0.0 41.0

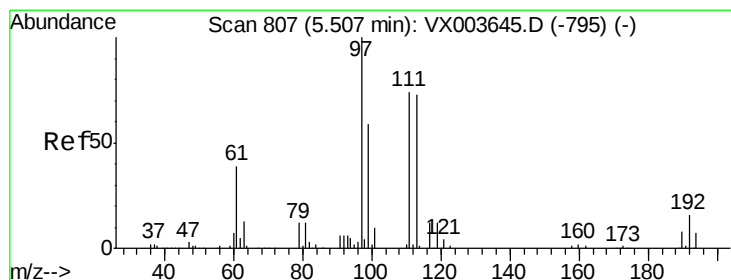
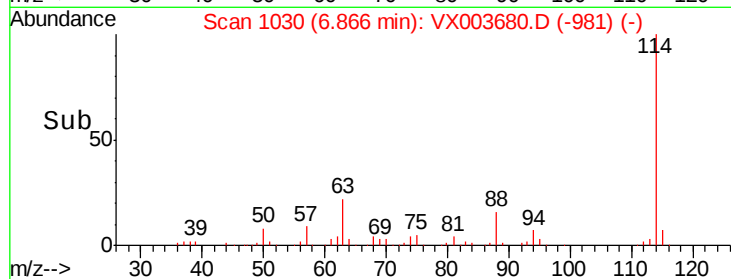
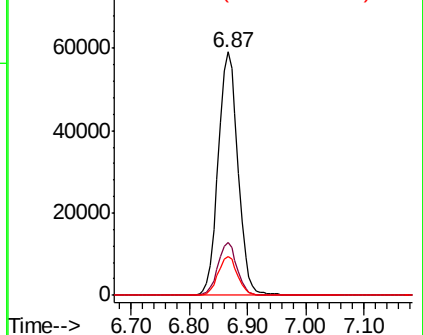
88 15.8 0.0 31.8



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 57.03 ug/l

RT: 5.51 min Scan# 807

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

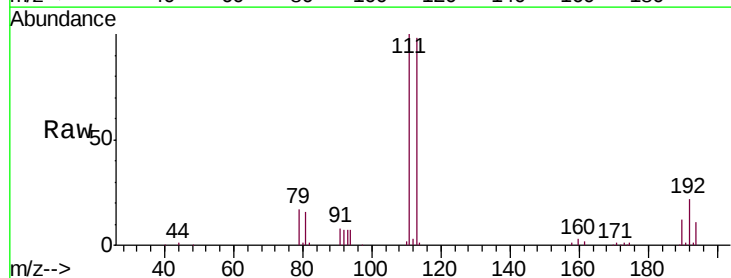
Tgt Ion:113 Resp: 64724

Ion Ratio Lower Upper

113 100

111 102.4 81.2 121.8

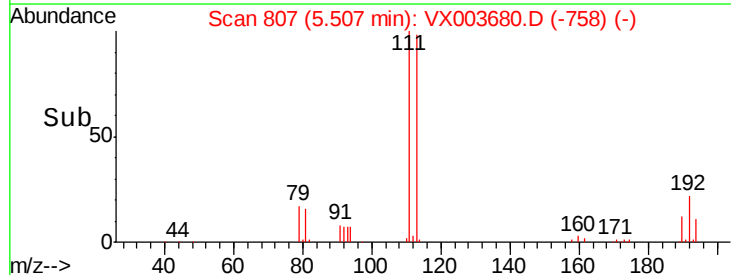
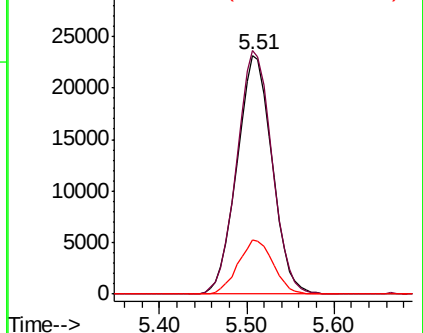
192 22.7 18.2 27.4

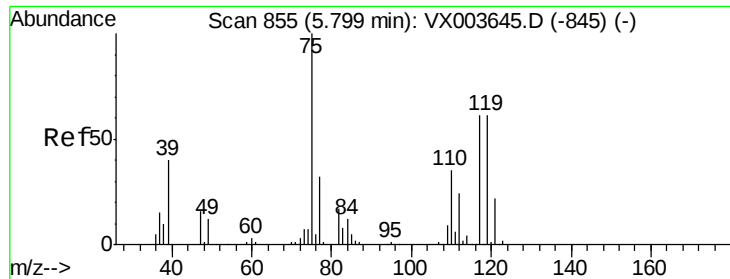


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

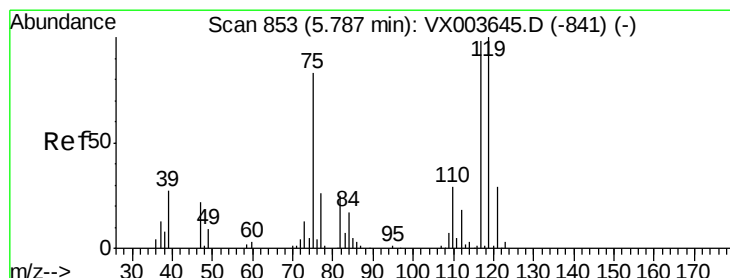
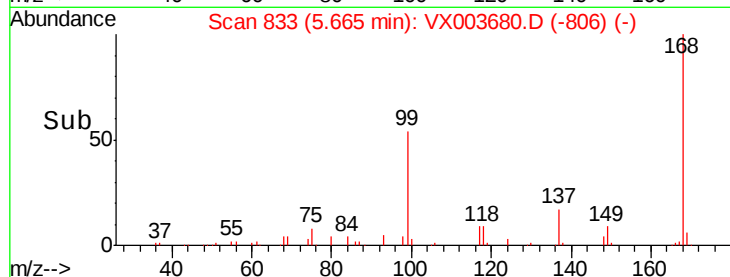
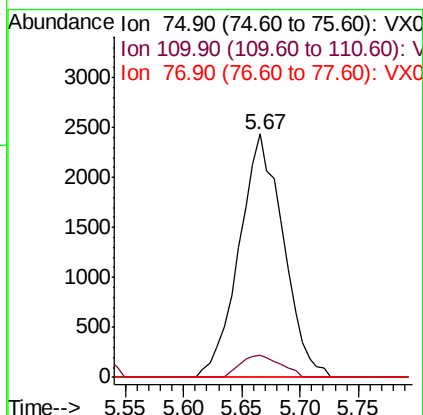
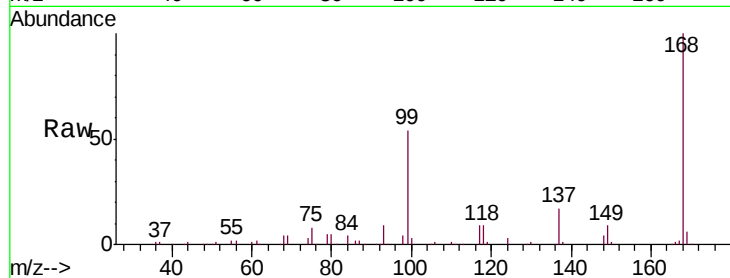




#36  
 1,1-Dichloropropene  
 Concen: 3.95 ug/l  
 RT: 5.67 min Scan# 833  
 Delta R.T. -0.13 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

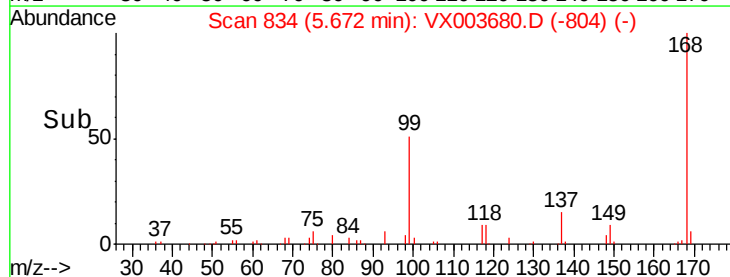
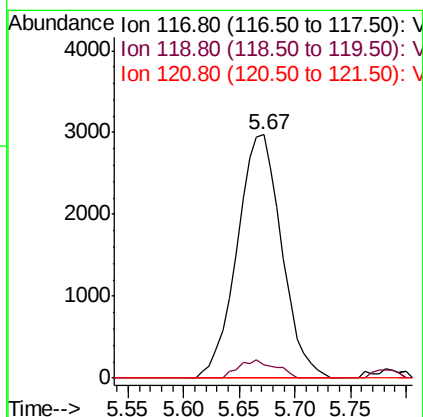
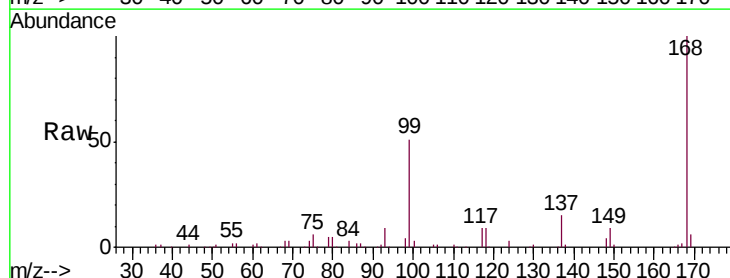
Instrument :  
 MSVOA\_X  
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 RE109D1-071618

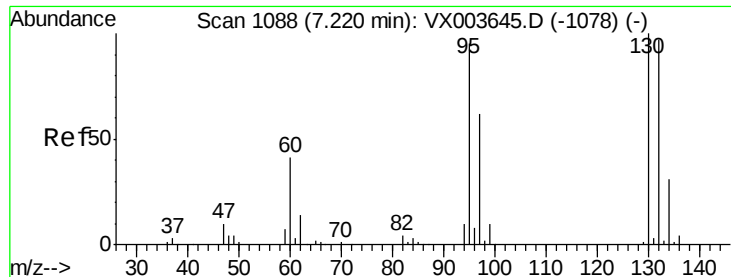
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.3   | 18.1  | 54.1# |
| 77      | 0.0   | 25.1  | 37.7# |



#38  
 Carbon Tetrachloride  
 Concen: 5.28 ug/l  
 RT: 5.67 min Scan# 834  
 Delta R.T. -0.12 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 5.2   | 81.0  | 121.4# |
| 121     | 0.0   | 23.7  | 35.5#  |





#44

Trichloroethene

Concen: 20.44 ug/l

RT: 7.22 min Scan# 1088

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

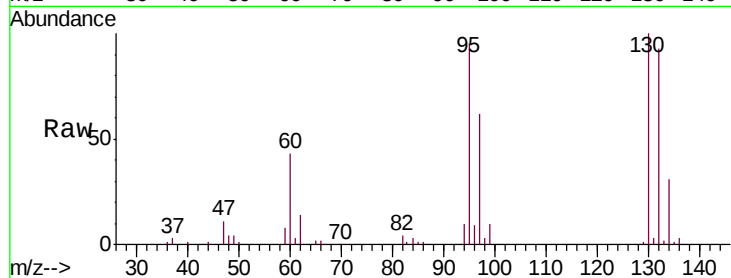
RE109D1-071618

Tot Ion:130 Resp: 26316

Ion Ratio Lower Upper

130 100

95 95.4 0.0 190.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

7.22

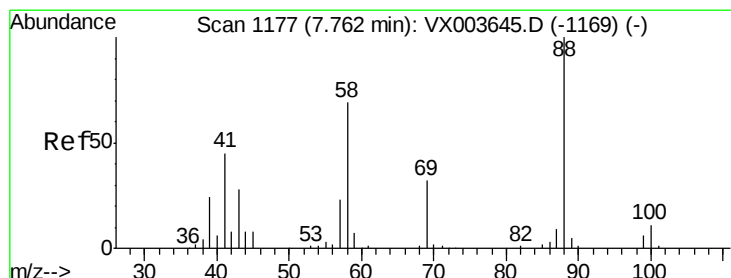
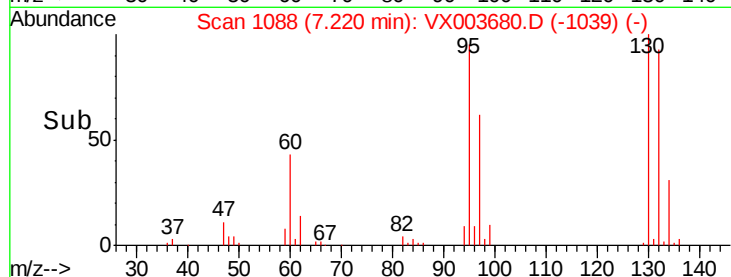
10000

5000

0

Time-->

7.15 7.20 7.25 7.30



#49

1,4-Dioxane

Concen: 10.15 ug/l

RT: 7.76 min Scan# 1177

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

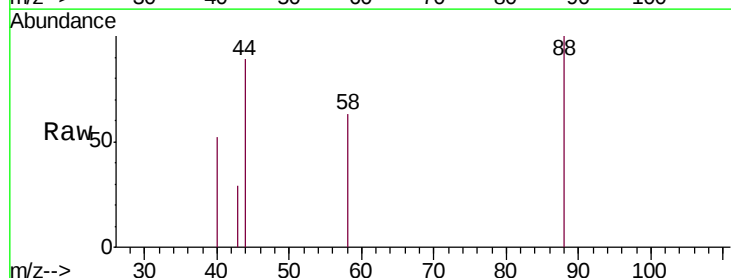
Tgt Ion: 88 Resp: 327

Ion Ratio Lower Upper

88 100

43 19.6 25.8 38.6#

58 59.9 58.3 87.5



Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

250

200

150

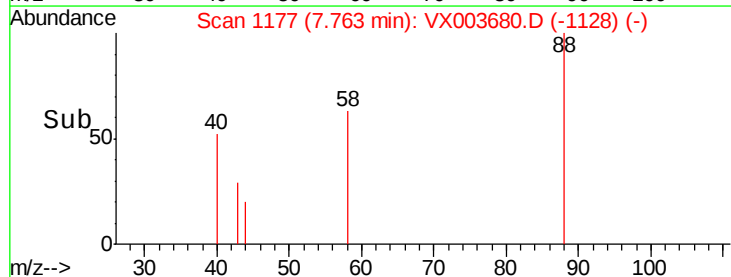
100

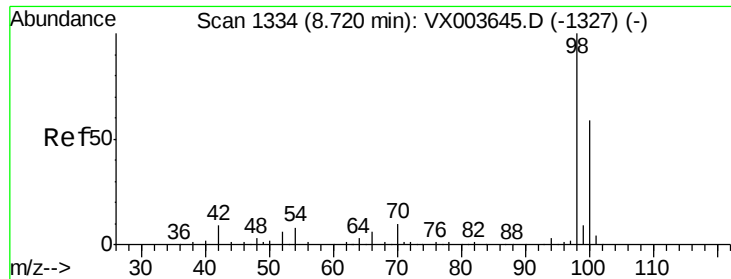
50

0

Time-->

7.75 7.76 7.77 7.78 7.79 7.80





#50

Toluene-d8

Concen: 54.50 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

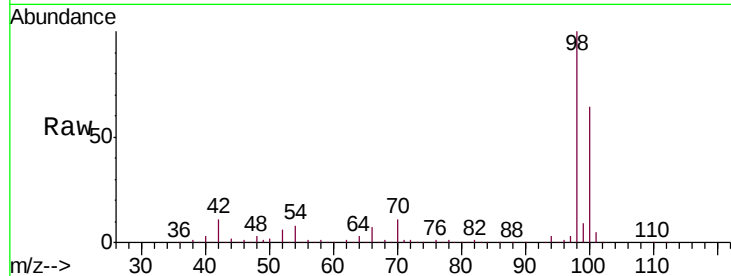
RE109D1-071618

Tot Ion: 98 Resp: 236078

Ion Ratio Lower Upper

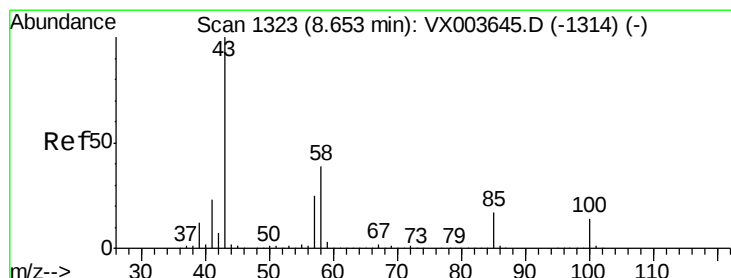
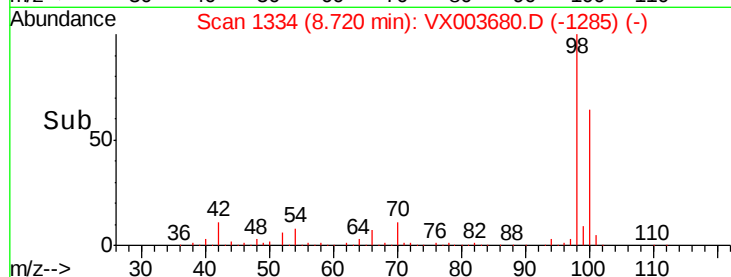
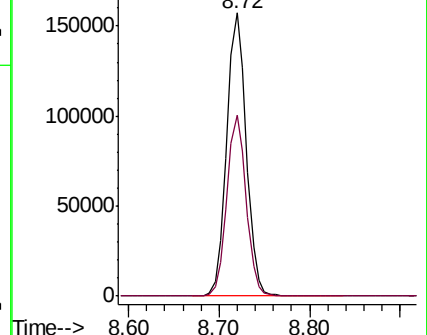
98 100

100 63.3 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0



#51

4-Methyl-2-Pentanone

Concen: 0.54 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.07 min

Lab File: VX003680.D

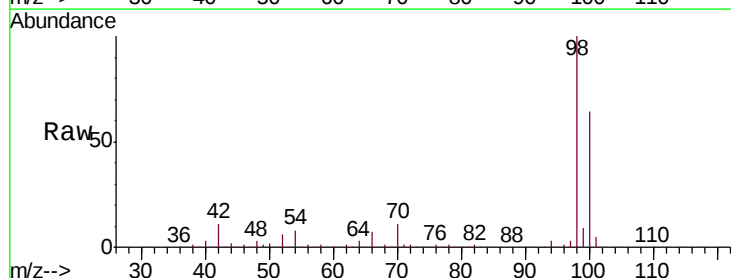
Acq: 26 Jul 2018 19:45

Tgt Ion: 43 Resp: 1045

Ion Ratio Lower Upper

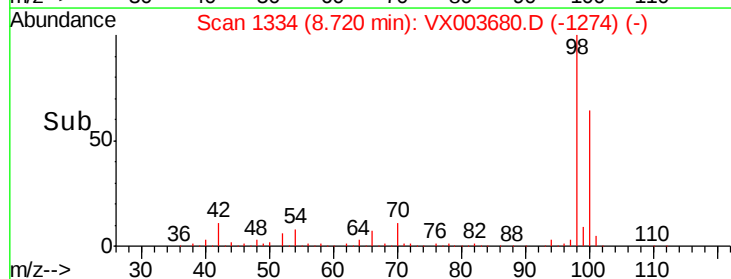
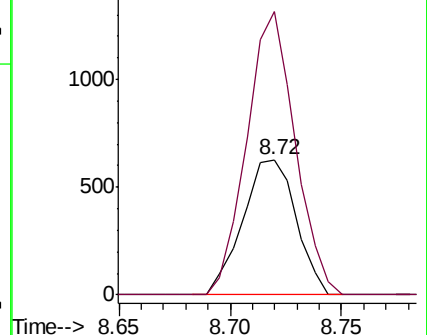
43 100

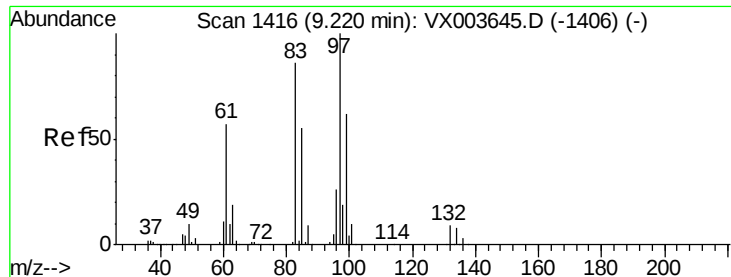
58 190.2 31.5 47.3#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

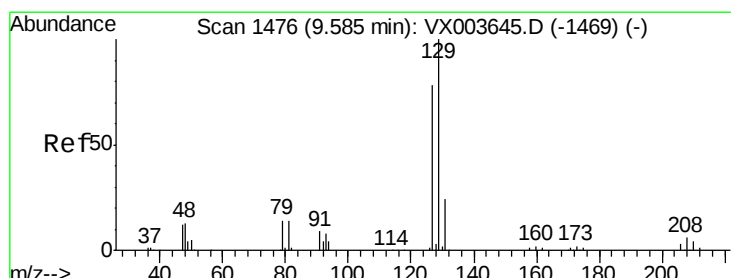
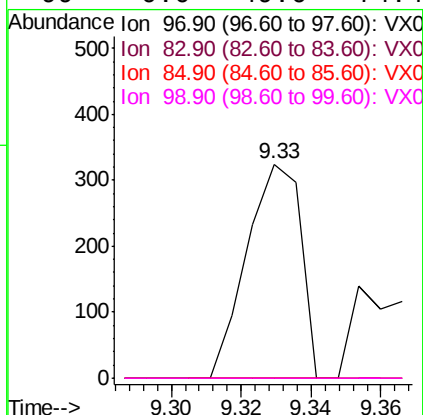
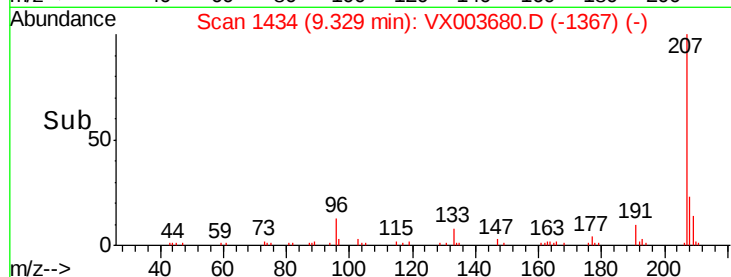
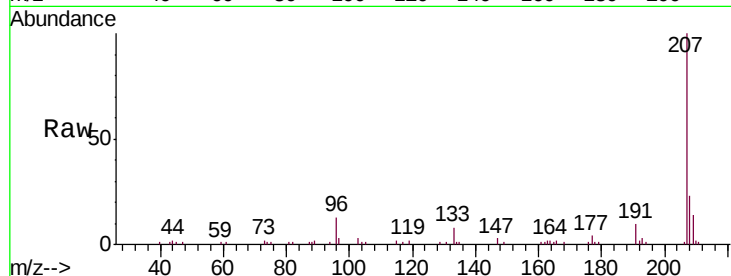




#55  
 1,1,2-Trichloroethane  
 Concen: 0.28 ug/l  
 RT: 9.33 min Scan# 1434  
 Delta R.T. 0.11 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

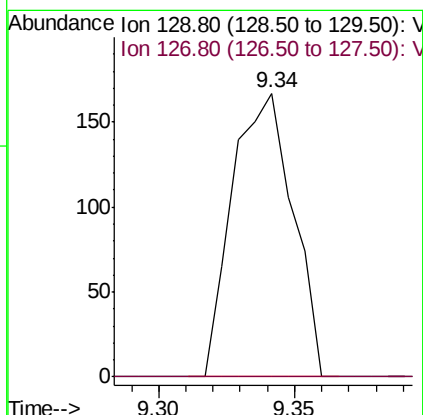
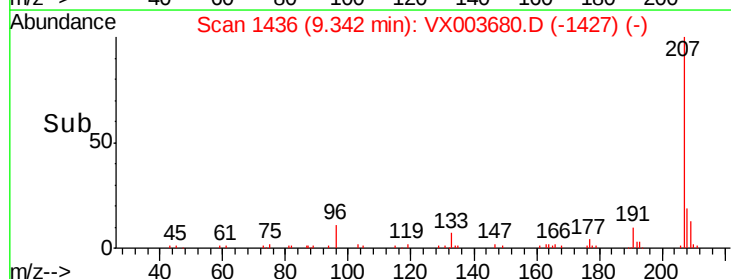
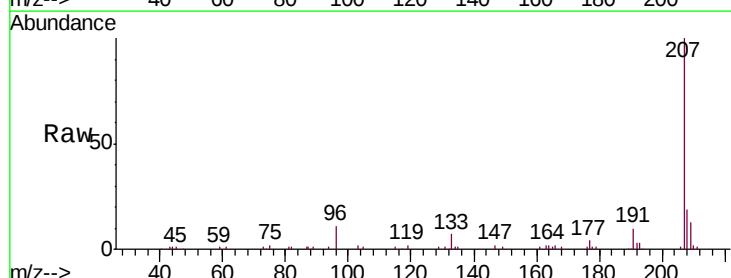
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE109D1-071618

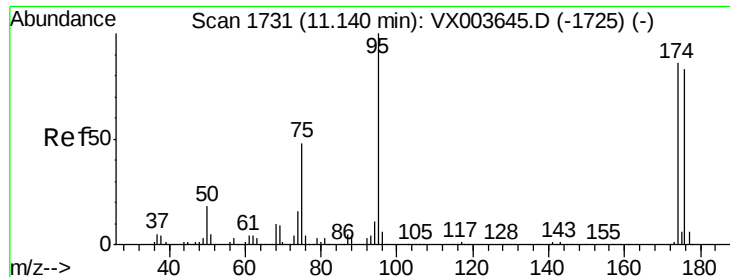
Tot Ion: 97 Resp: 347  
 Ion Ratio Lower Upper  
 97 100  
 83 0.0 68.7 103.1#  
 85 0.0 43.7 65.5#  
 99 0.0 49.6 74.4#



#60  
 Dibromochloromethane  
 Concen: 0.22 ug/l  
 RT: 9.34 min Scan# 1436  
 Delta R.T. -0.24 min  
 Lab File: VX003680.D  
 Acq: 26 Jul 2018 19:45

Tgt Ion: 129 Resp: 257  
 Ion Ratio Lower Upper  
 129 100  
 127 0.0 38.7 116.1#

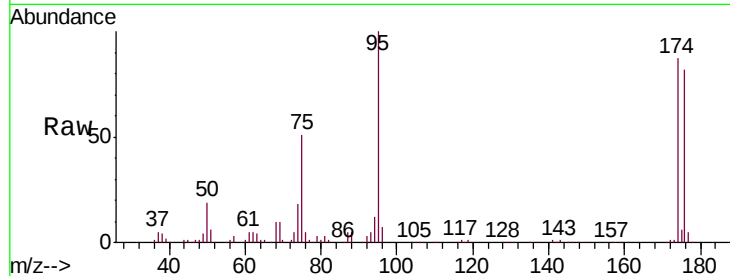




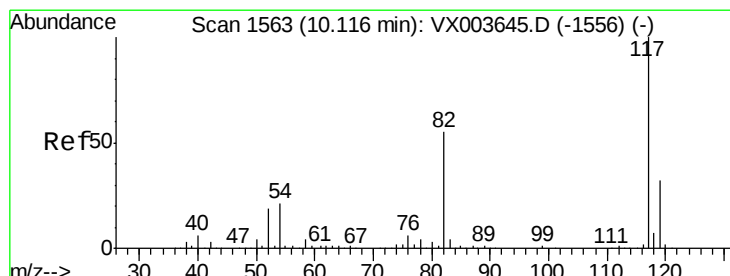
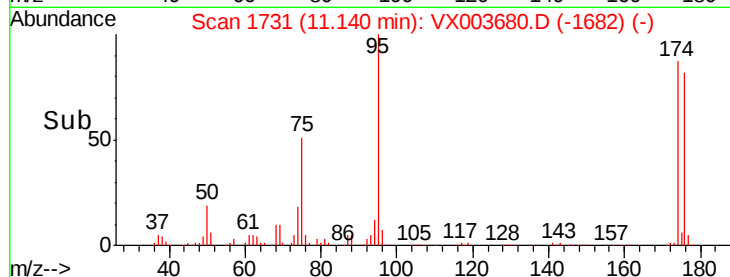
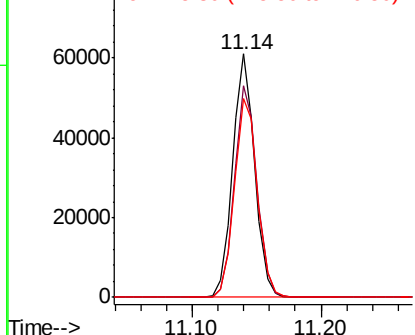
#62  
4-Bromofluorobenzene  
Concen: 46.11 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.00 min  
Lab File: VX003680.D  
Acq: 26 Jul 2018 19:45

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE109D1-071618

Tot Ion: 95 Resp: 72844  
Ion Ratio Lower Upper  
95 100  
174 88.7 0.0 179.0  
176 85.3 0.0 173.0

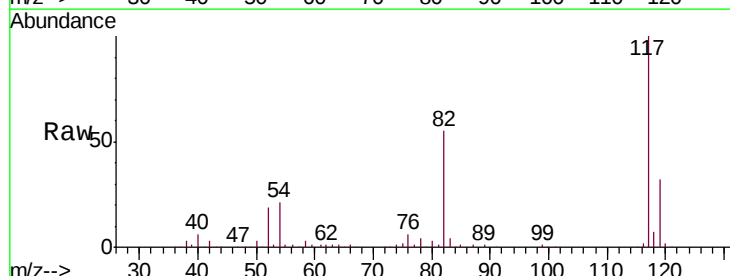


Abundance Ion 94.90 (94.60 to 95.60): VX0  
Ion 173.80 (173.50 to 174.50): V  
Ion 175.80 (175.50 to 176.50): V

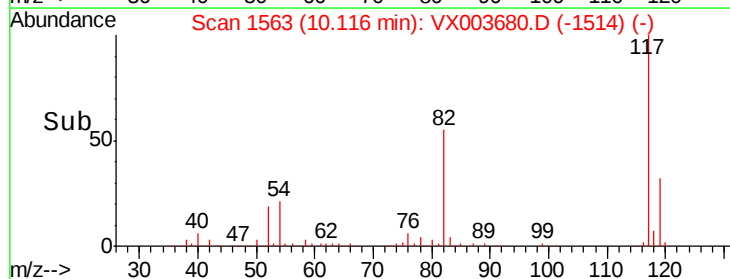
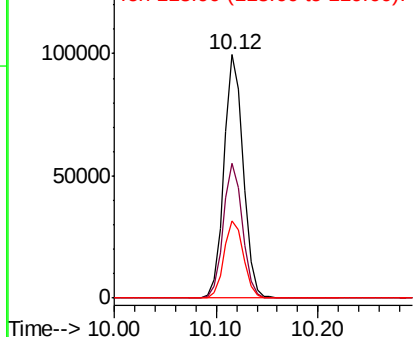


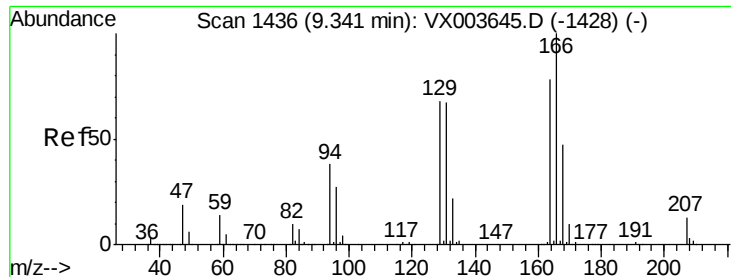
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. 0.00 min  
Lab File: VX003680.D  
Acq: 26 Jul 2018 19:45

Tgt Ion: 117 Resp: 130269  
Ion Ratio Lower Upper  
117 100  
82 55.5 44.3 66.5  
119 31.8 25.6 38.4



Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V





#64

Tetrachloroethene

Concen: 0.29 ug/l

RT: 9.34 min Scan# 1436

Delta R.T. 0.00 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

RE109D1-071618

Tot Ion:164 Resp: 346

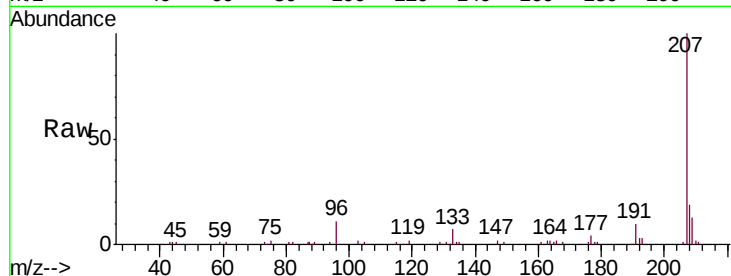
Ion Ratio Lower Upper

164 100

166 92.8 102.4 153.6#

129 70.5 69.6 104.4

131 76.4 69.0 103.4

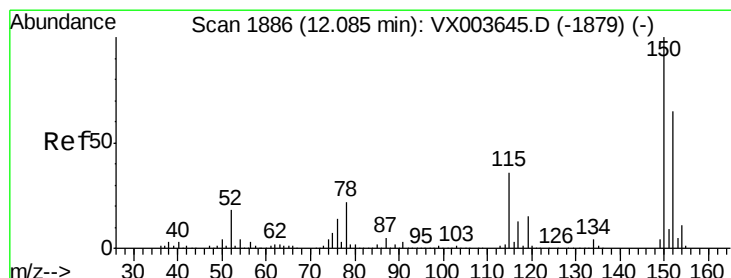
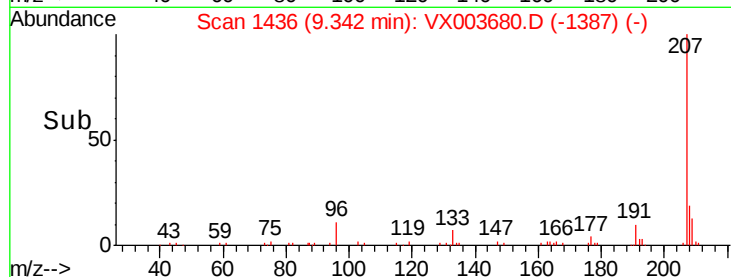
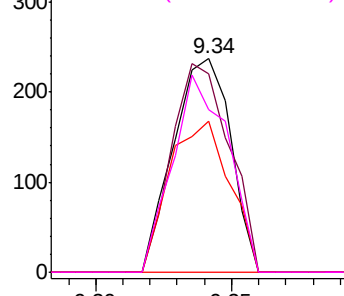


Abundance Ion 163.80 (163.50 to 164.50): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.80 (128.50 to 129.50): V

Ion 130.80 (130.50 to 131.50): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.08 min Scan# 1885

Delta R.T. -0.01 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

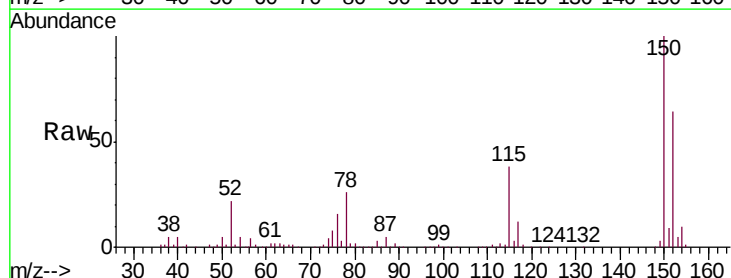
Tgt Ion:152 Resp: 62885

Ion Ratio Lower Upper

152 100

115 57.0 40.0 119.9

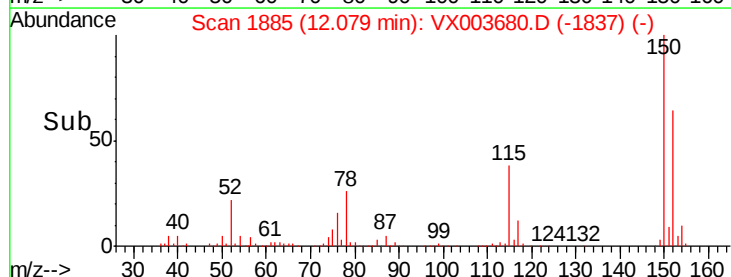
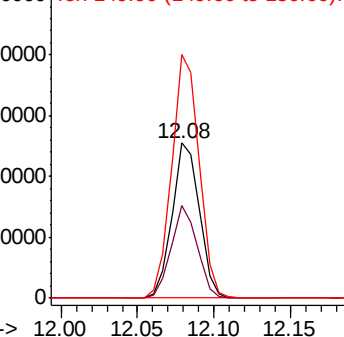
150 157.7 0.0 348.4

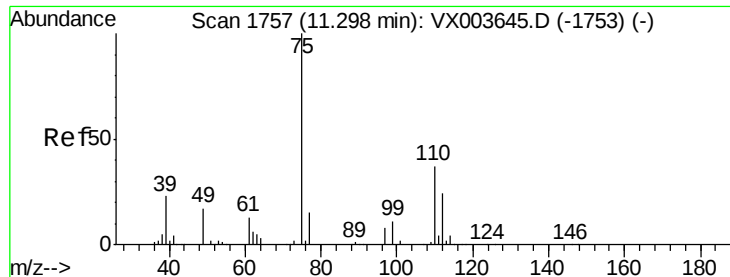


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 28.36 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

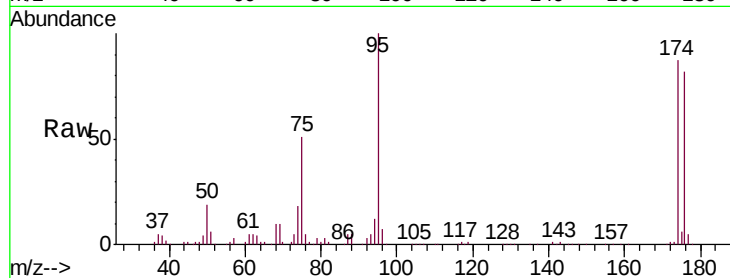
RE109D1-071618

Tot Ion: 75 Resp: 37413

Ion Ratio Lower Upper

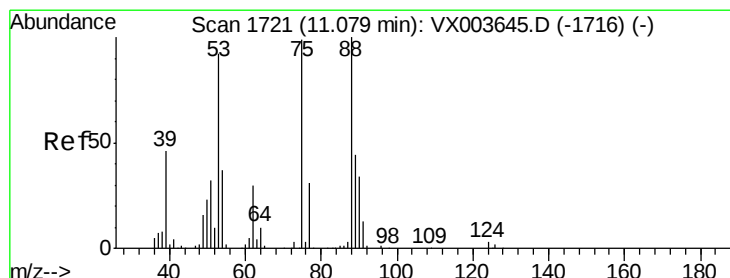
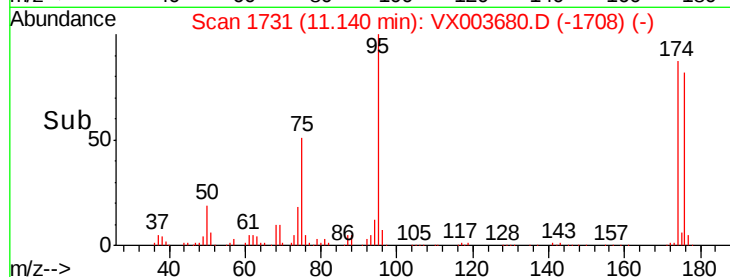
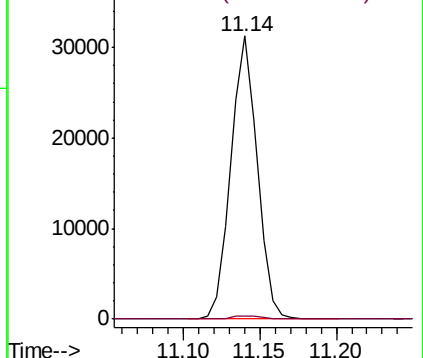
75 100

77 1.3 21.6 64.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0



#81

trans-1,4-Dichloro-2-butene

Concen: 87.88 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

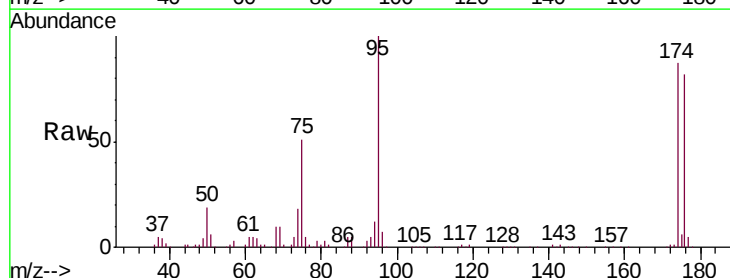
Tgt Ion: 75 Resp: 37413

Ion Ratio Lower Upper

75 100

53 0.1 77.8 116.8#

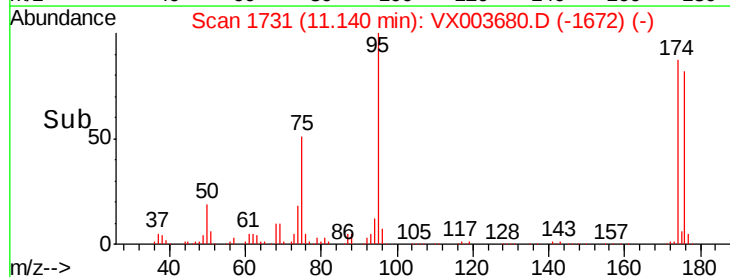
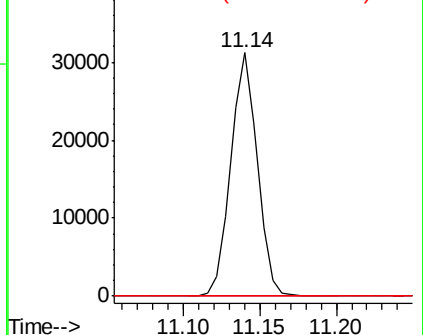
89 0.1 36.6 54.8#

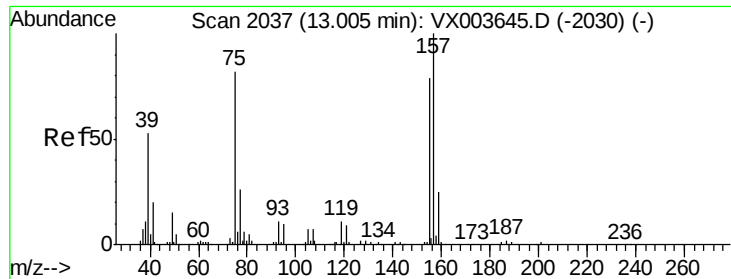


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0





#92

1,2-Dibromo-3-Chloropropane

Concen: 0.46 ug/l

RT: 12.82 min Scan# 2006

Delta R.T. -0.19 min

Lab File: VX003680.D

Acq: 26 Jul 2018 19:45

Instrument :

MSVOA\_X

ClientSampleId :

RE109D1-071618

Tot Ion: 75 Resp: 151

Ion Ratio Lower Upper

75 100

155 0.0 46.1 138.3#

157 0.0 59.7 179.0#

