

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX050919\  
 Data File : VX009450.D  
 Acq On : 10 May 2019 00:44  
 Operator : JC/SP  
 Sample : K2782-02  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: May 10 07:11:51 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X042919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu May 09 07:31:15 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 192493   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 306671   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 269685   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 114619   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 125494   | 47.76 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.52% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 93106    | 48.30 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.60% |          |
| 50) Toluene-d8              | 8.71  | 98   | 383344   | 49.25 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.50% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 124341   | 43.97 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 87.94% |          |

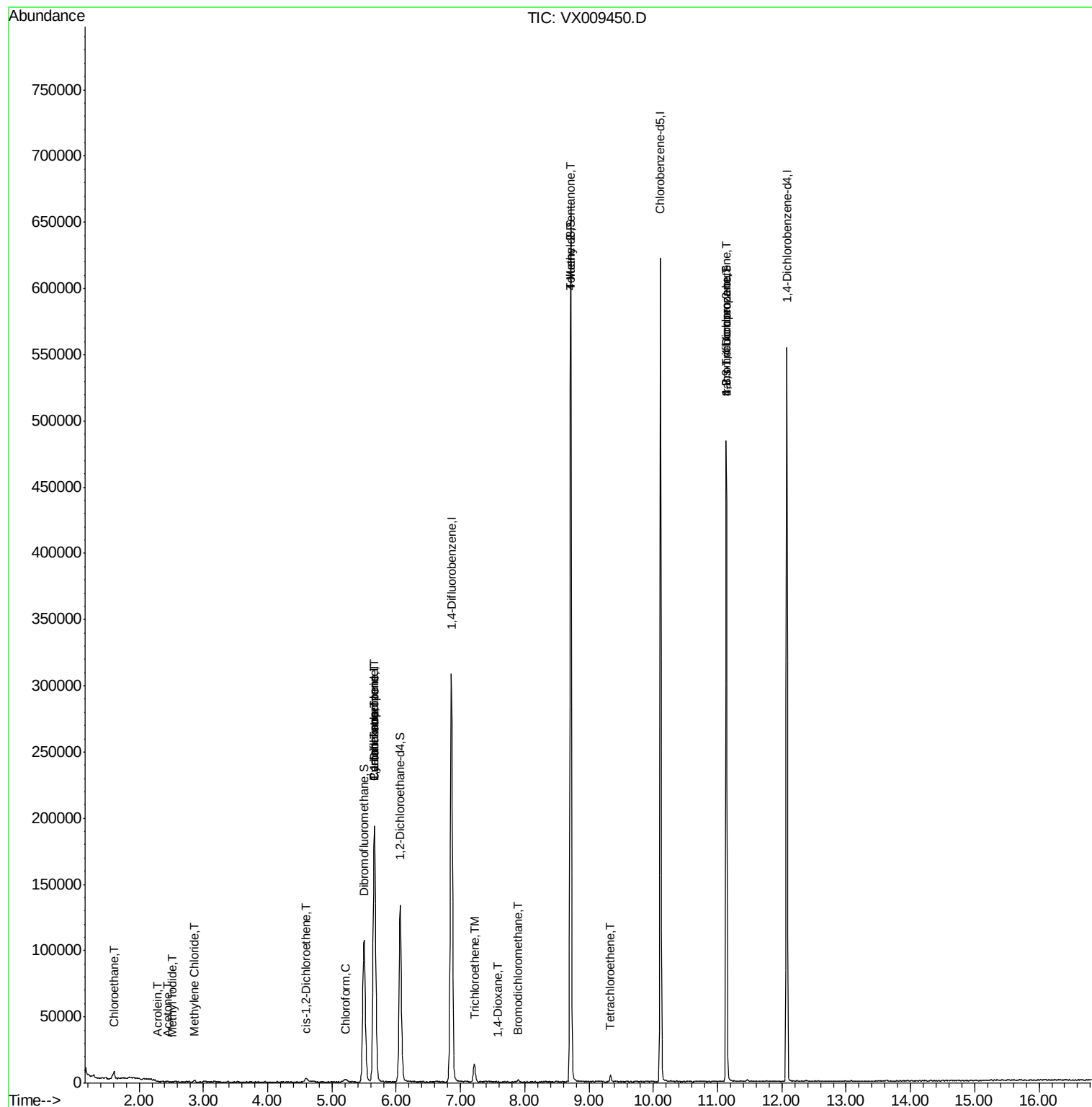
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 6) Chloroethane                | 1.61  | 64   | 311      | 0.205     | ug/l # | 25     |
| 10) Methyl Iodide              | 2.52  | 142  | 214      | 4.687     | ug/l # | 52     |
| 13) Acrolein                   | 2.29  | 56   | 226      | 0.410     | ug/l # | 58     |
| 16) Acetone                    | 2.44  | 43   | 566      | 0.401     | ug/l # | 87     |
| 20) Methylene Chloride         | 2.85  | 84   | 518      | 0.227     | ug/l # | 76     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 1798     | 0.769     | ug/l   | 91     |
| 28) Bromochloromethane         | 5.00  | 49   | 91       | Below Cal | #      | 20     |
| 30) Chloroform                 | 5.21  | 83   | 2393     | 0.634     | ug/l # | 83     |
| 31) Cyclohexane                | 5.66  | 56   | 4167     | 1.073     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 14588    | 5.119     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 17635    | 6.811     | ug/l # | 17     |
| 44) Trichloroethene            | 7.21  | 130  | 5285     | 2.479     | ug/l   | 99     |
| 47) Bromodichloromethane       | 7.90  | 83   | 885      | 0.306     | ug/l # | 84     |
| 49) 1,4-Dioxane                | 7.59  | 88   | 19       | 0.297     | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.71  | 43   | 2165     | 0.522     | ug/l # | 1      |
| 64) Tetrachloroethene          | 9.34  | 164  | 1047     | 0.566     | ug/l   | 83     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 64441    | 24.237    | ug/l # | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 64441    | 62.015    | ug/l # | 10     |

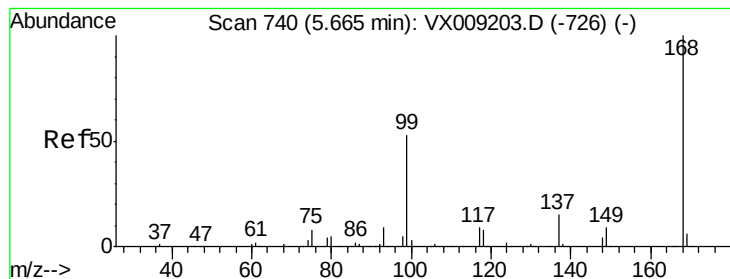
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX050919\  
Data File : VX009450.D  
Acq On : 10 May 2019 00:44  
Operator : JC/SP  
Sample : K2782-02  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 38 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: May 10 07:11:51 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X042919W.M  
Quant Title : SW846 8260  
QLast Update : Thu May 09 07:31:15 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.01 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

Instrument :

MSVOA\_X

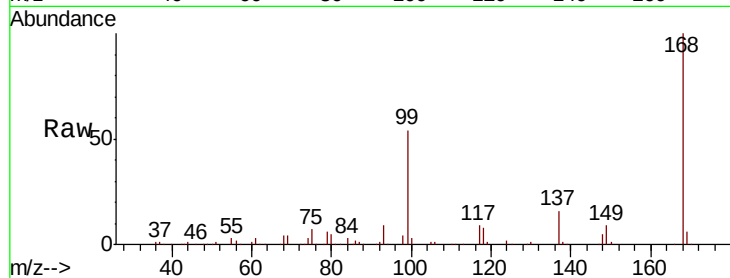
ClientSampleId :

Tot Ion:168 Resp: 192493

Ion Ratio Lower Upper

168 100

99 54.0 42.3 63.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

80000

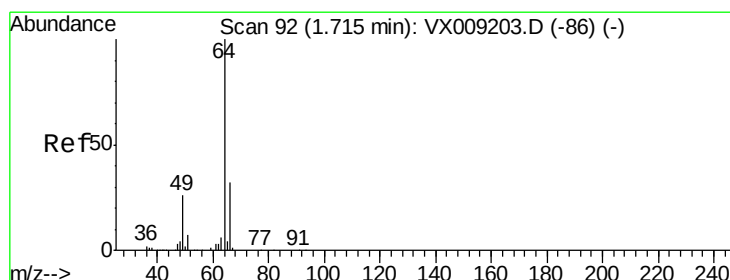
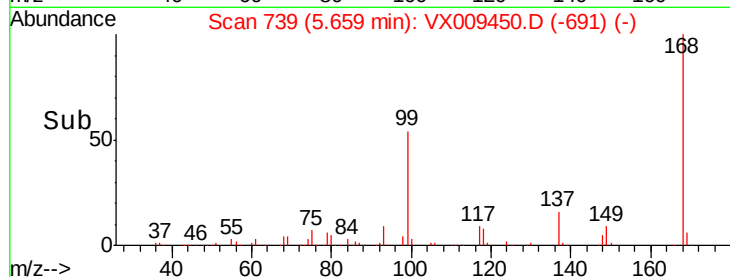
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#6

Chloroethane

Concen: 0.205 ug/l

RT: 1.61 min Scan# 75

Delta R.T. -0.10 min

Lab File: VX009450.D

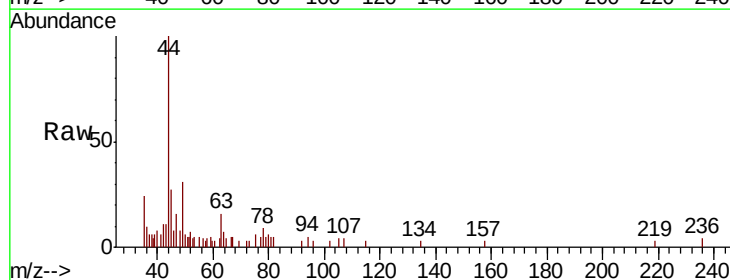
Acq: 10 May 2019 00:44

Tgt Ion: 64 Resp: 311

Ion Ratio Lower Upper

64 100

66 72.9 25.3 37.9#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

200

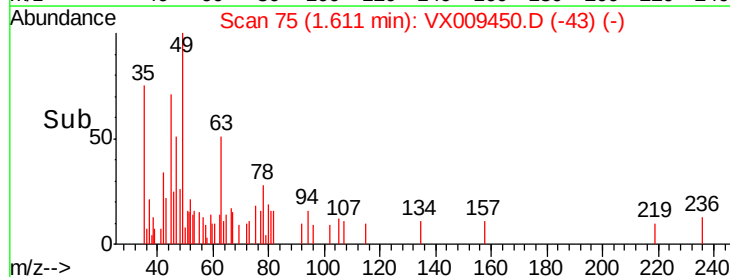
150

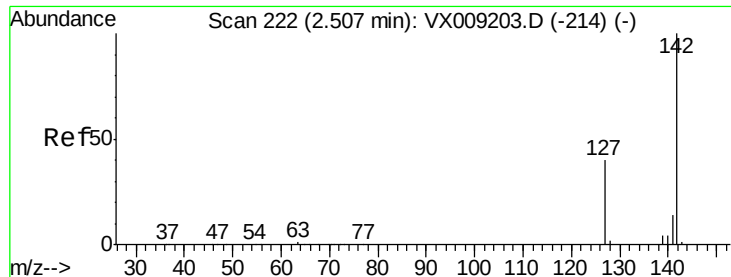
100

50

0

Time--> 1.55 1.60 1.65

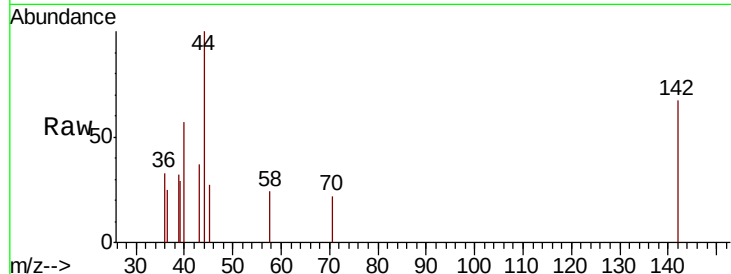




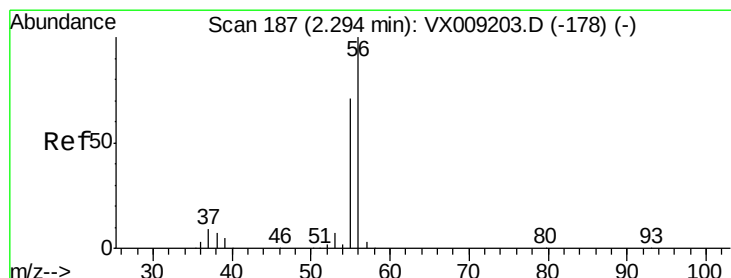
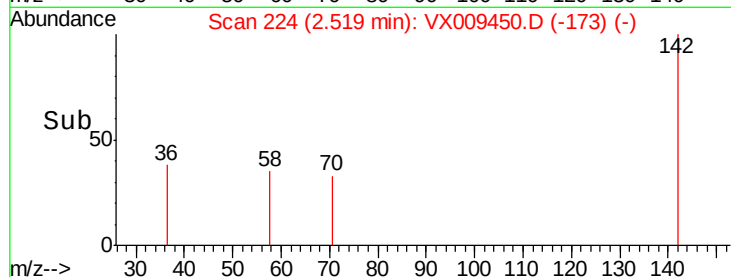
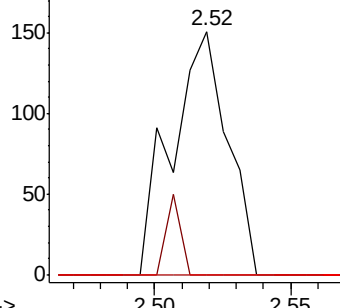
#10  
Methvl Iodide  
Concen: 4.687 ug/l  
RT: 2.52 min Scan# 224  
Delta R.T. 0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:142 Resp: 214  
Ion Ratio Lower Upper  
142 100  
127 8.4 32.7 49.1#  
141 0.0 11.5 17.3#

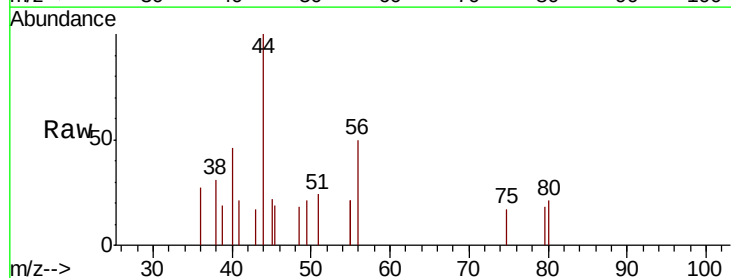


Abundance Ion 141.80 (141.50 to 142.50): V  
Ion 126.80 (126.50 to 127.50): V  
Ion 140.80 (140.50 to 141.50): V

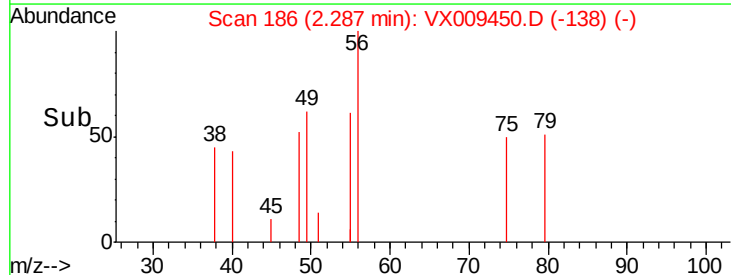
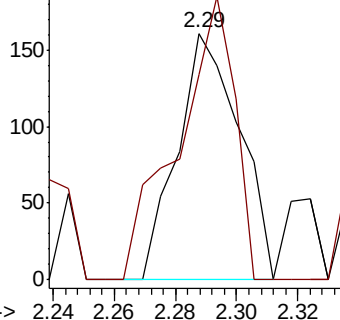


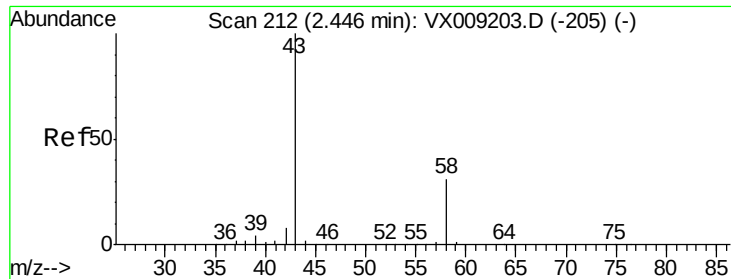
#13  
Acrolein  
Concen: 0.410 ug/l  
RT: 2.29 min Scan# 186  
Delta R.T. -0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion: 56 Resp: 226  
Ion Ratio Lower Upper  
56 100  
55 105.3 56.6 85.0#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 55.00 (54.70 to 55.70): VX0

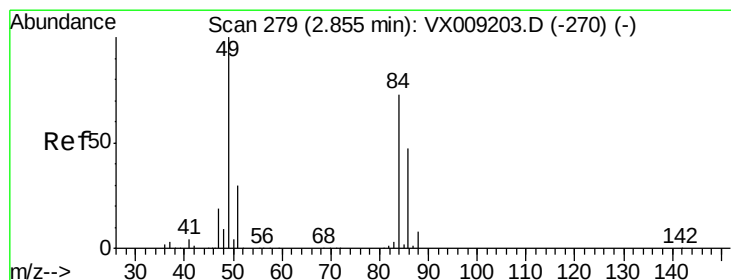
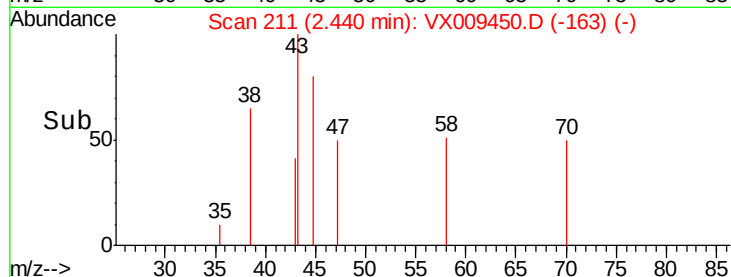
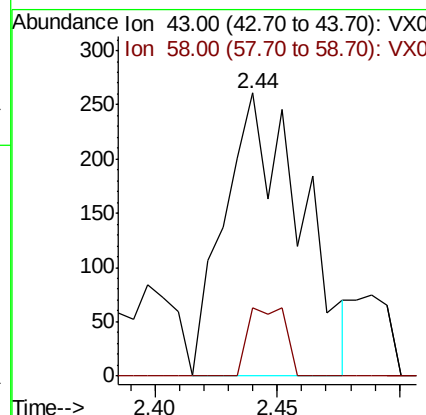
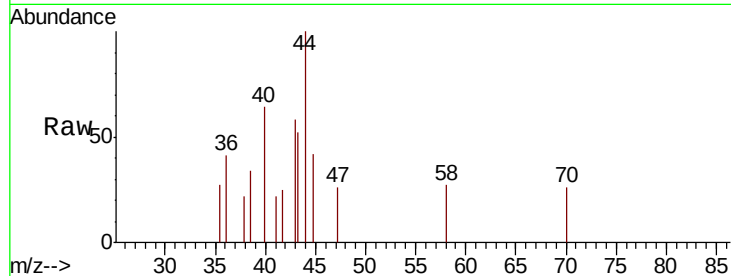




#16  
Acetone  
Concen: 0.401 ug/l  
RT: 2.44 min Scan# 211  
Delta R.T. -0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

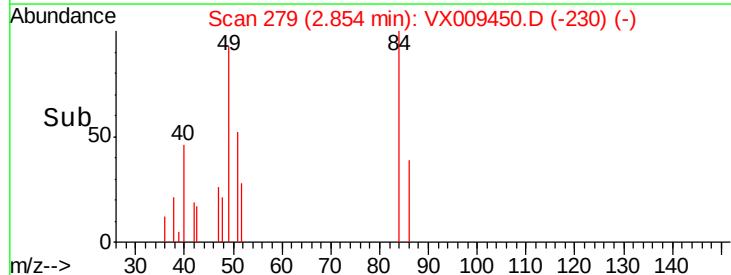
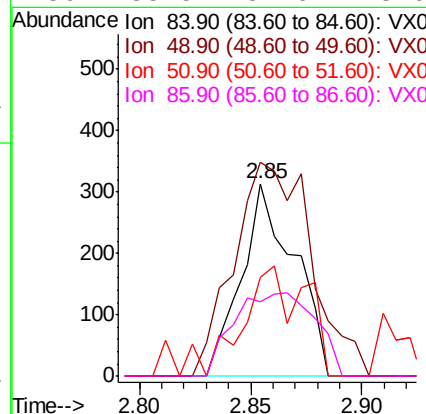
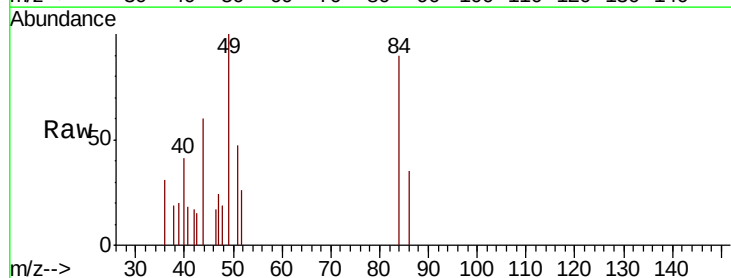
Instrument :  
MSVOA\_X  
ClientSampled :

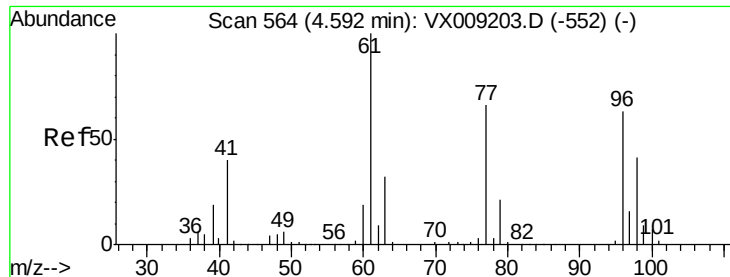
Tot Ion: 43 Resp: 566  
Ion Ratio Lower Upper  
43 100  
58 24.1 24.9 37.3#



#20  
Methylene Chloride  
Concen: 0.227 ug/l  
RT: 2.85 min Scan# 279  
Delta R.T. -0.00 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion: 84 Resp: 518  
Ion Ratio Lower Upper  
84 100  
49 110.8 109.9 164.9  
51 51.6 32.7 49.1#  
86 38.5 52.0 78.0#



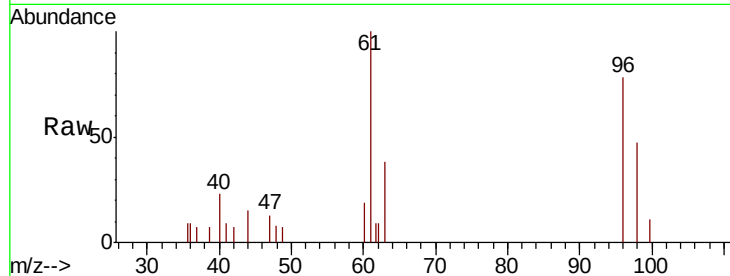


#27

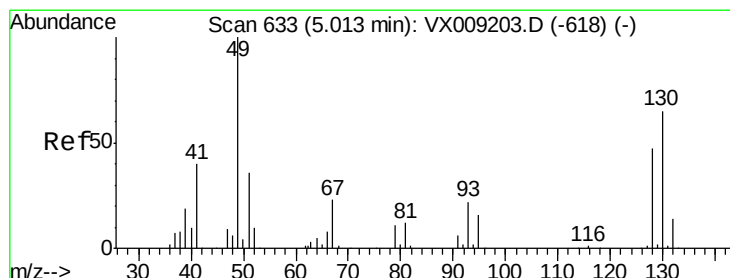
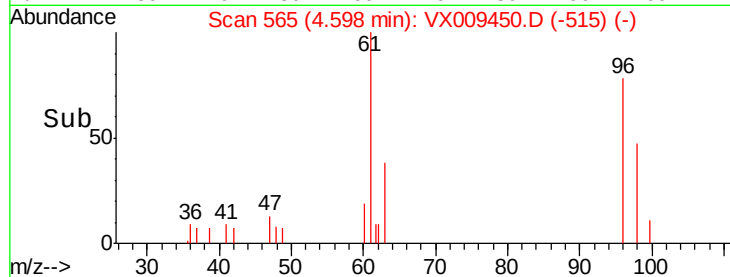
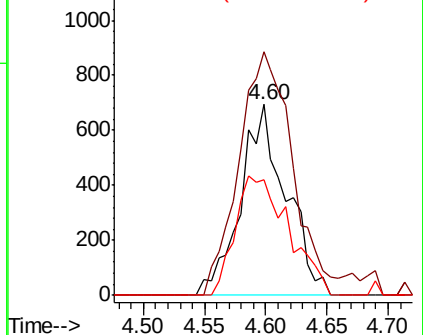
cis-1,2-Dichloroethene  
Concen: 0.769 ug/l  
RT: 4.60 min Scan# 565  
Delta R.T. 0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 96 Resp: 1798  
Ion Ratio Lower Upper  
96 100  
61 150.6 0.0 324.0  
98 73.1 0.0 130.4



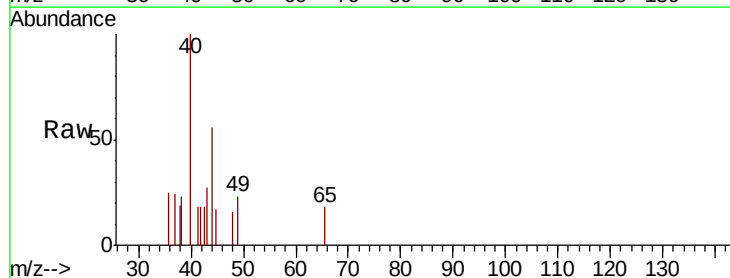
Abundance Ion 95.90 (95.60 to 96.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0



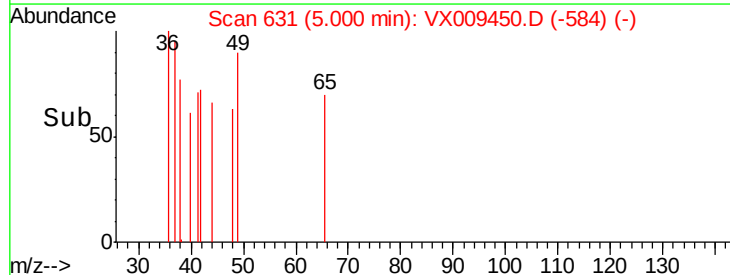
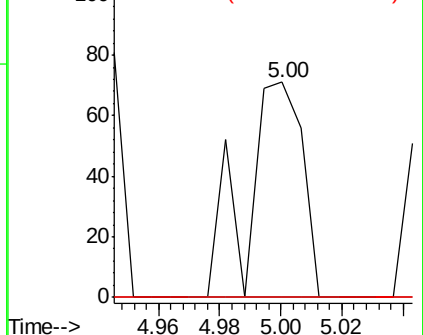
#28

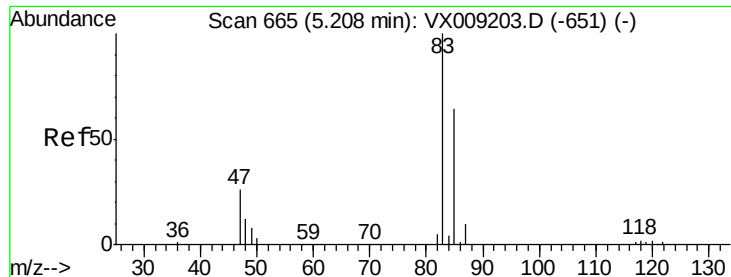
Bromochloromethane  
Concen: Below Cal  
RT: 5.00 min Scan# 631  
Delta R.T. -0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion: 49 Resp: 91  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 3.8  
130 0.0 51.2 76.8#



Abundance Ion 48.90 (48.60 to 49.60): VX0  
Ion 128.80 (128.50 to 129.50): V  
Ion 129.80 (129.50 to 130.50): V

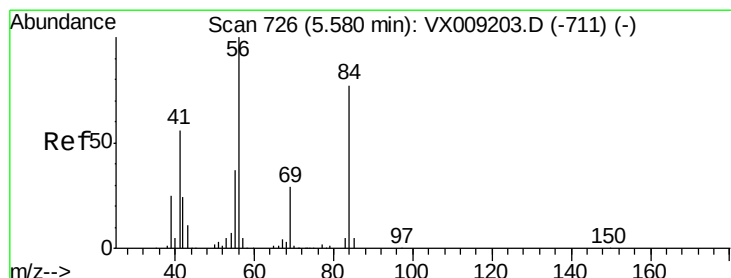
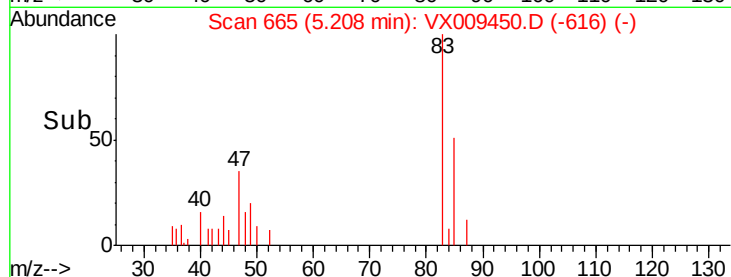
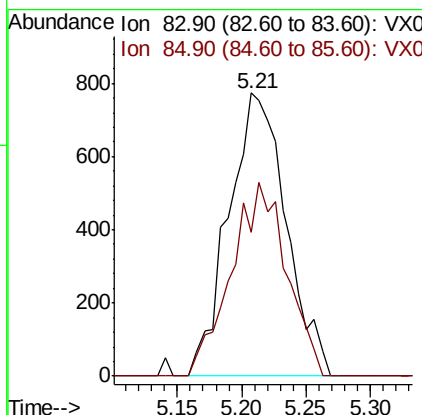
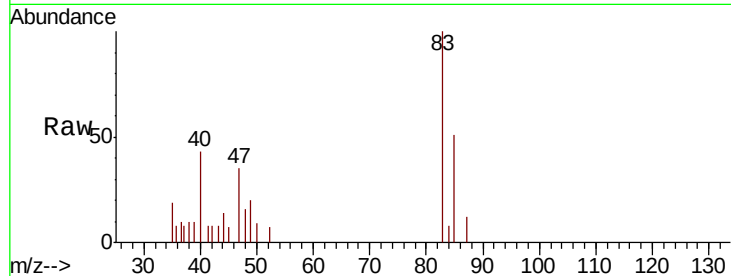




#30  
Chloroform  
Concen: 0.634 ug/l  
RT: 5.21 min Scan# 665  
Delta R.T. -0.00 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

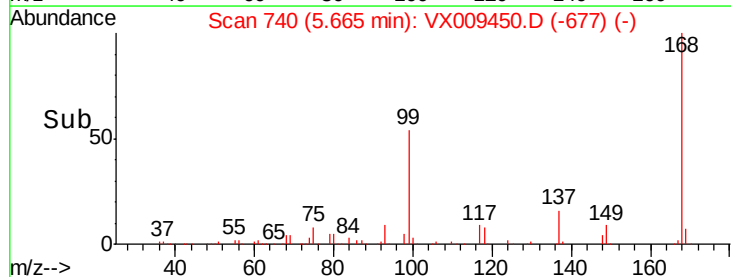
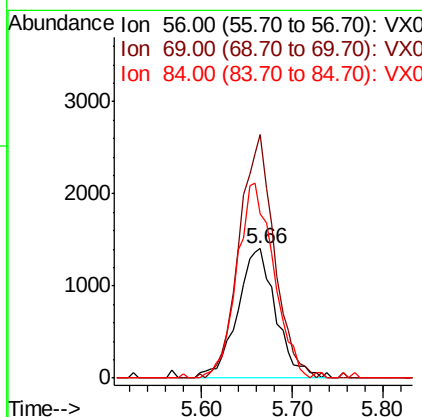
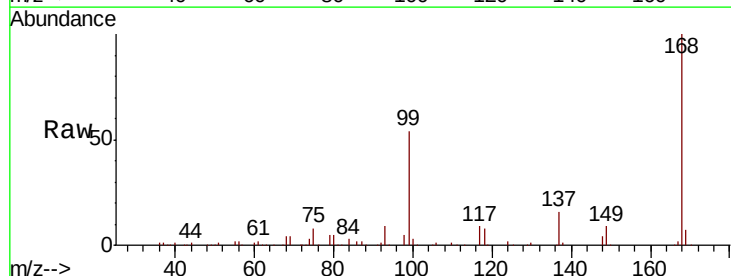
Instrument :  
MSVOA\_X  
ClientSampleId :

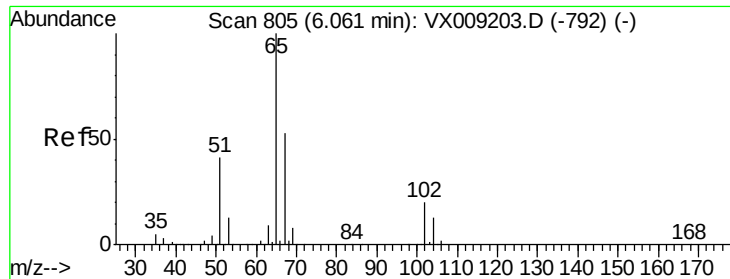
Tot Ion: 83 Resp: 2393  
Ion Ratio Lower Upper  
83 100  
85 50.8 51.5 77.3#



#31  
Cyclohexane  
Concen: 1.073 ug/l  
RT: 5.66 min Scan# 740  
Delta R.T. 0.09 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion: 56 Resp: 4167  
Ion Ratio Lower Upper  
56 100  
69 188.4 23.4 35.0#  
84 127.3 61.9 92.9#

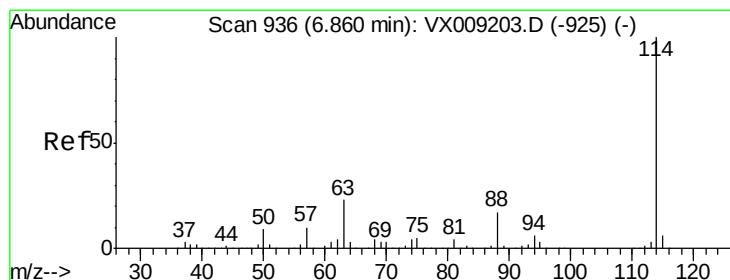
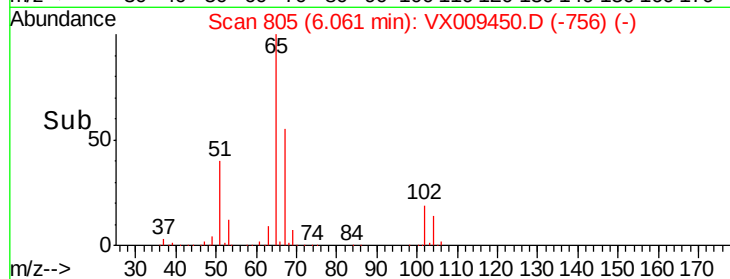
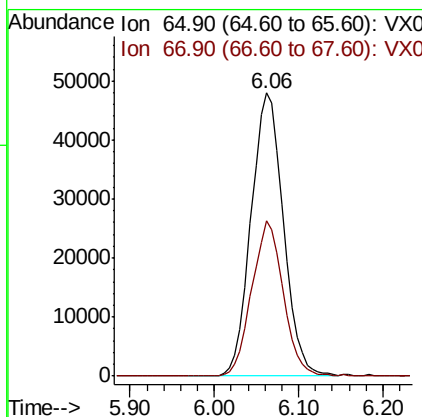
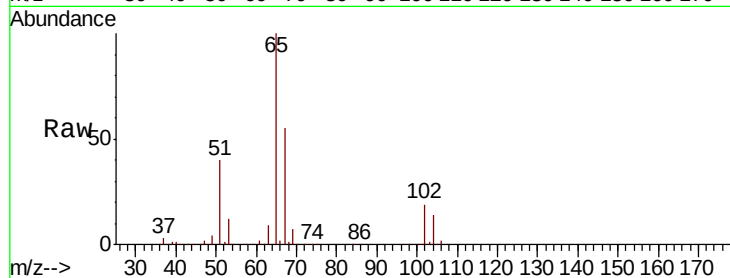




#33  
 1,2-Dichloroethane-d4  
 Concen: 47.757 ug/l  
 RT: 6.06 min Scan# 805  
 Delta R.T. -0.00 min  
 Lab File: VX009450.D  
 Acq: 10 May 2019 00:44

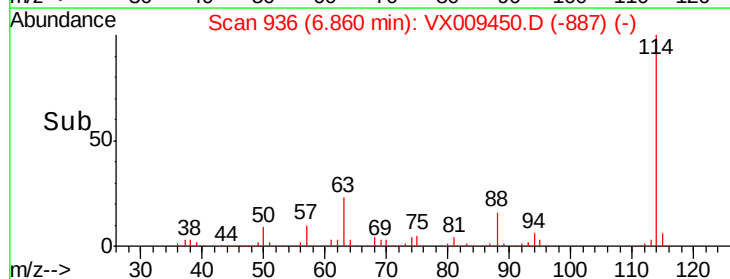
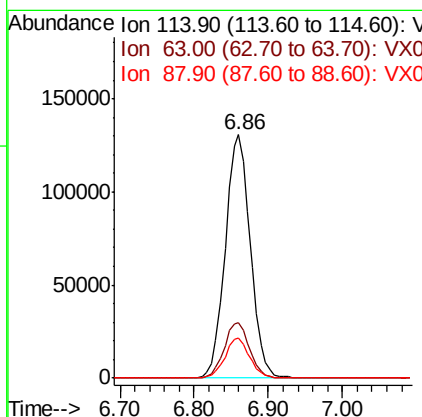
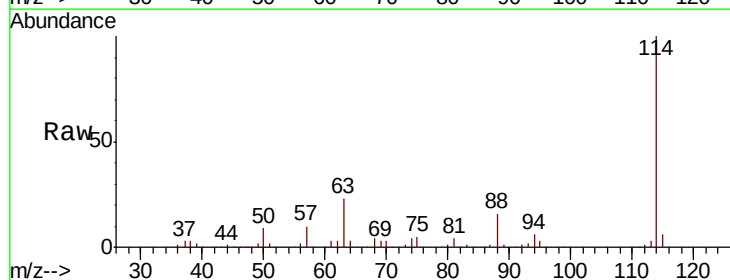
Instrument :  
 MSVOA\_X  
 ClientSampled :

Tot Ion: 65 Resp: 125494  
 Ion Ratio Lower Upper  
 65 100  
 67 53.2 0.0 106.6

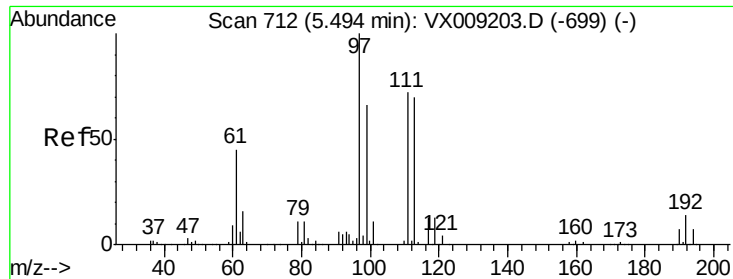


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. -0.00 min  
 Lab File: VX009450.D  
 Acq: 10 May 2019 00:44

Tgt Ion: 114 Resp: 306671  
 Ion Ratio Lower Upper  
 114 100  
 63 22.6 0.0 45.6  
 88 16.3 0.0 33.2



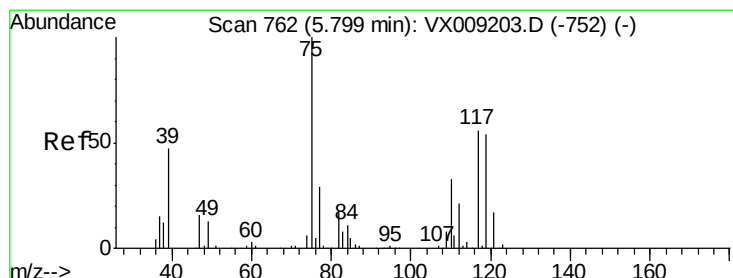
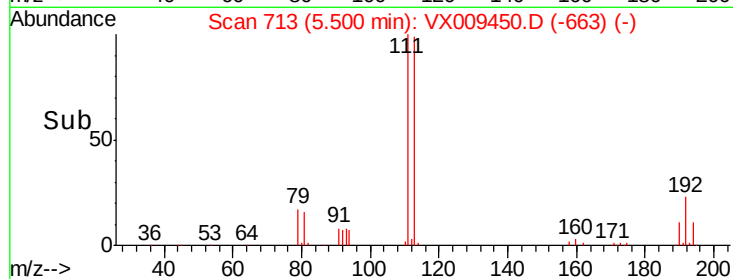
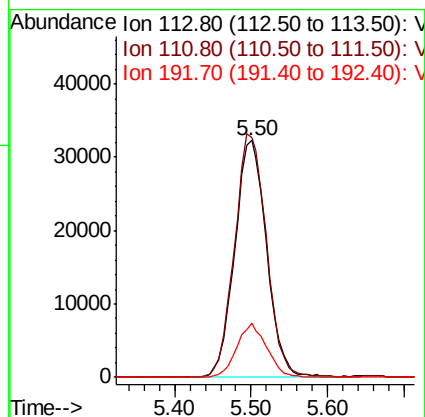
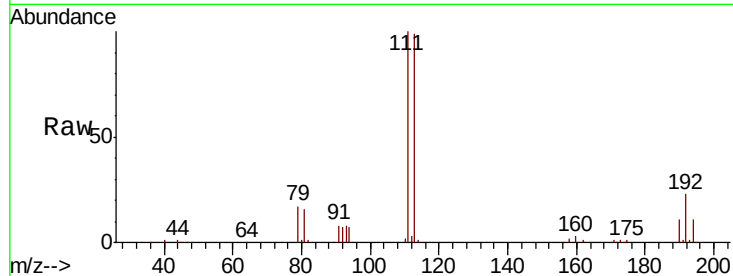




#35  
 Dibromofluoromethane  
 Concen: 48.295 ug/l  
 RT: 5.50 min Scan# 713  
 Delta R.T. 0.01 min  
 Lab File: VX009450.D  
 Acq: 10 May 2019 00:44

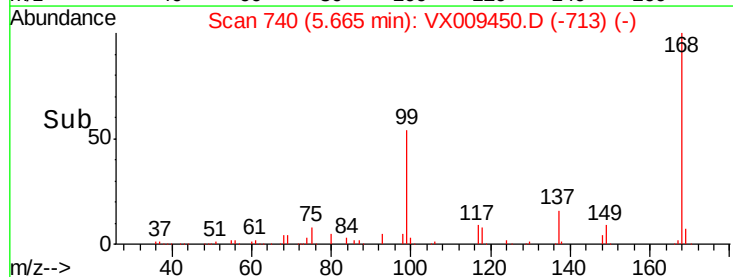
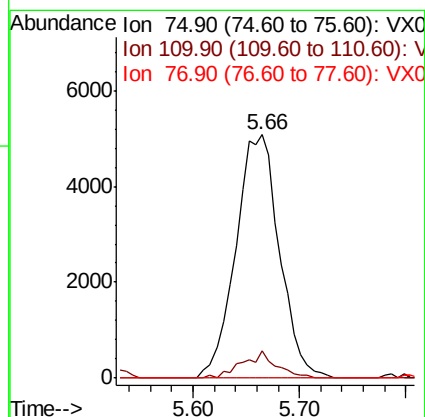
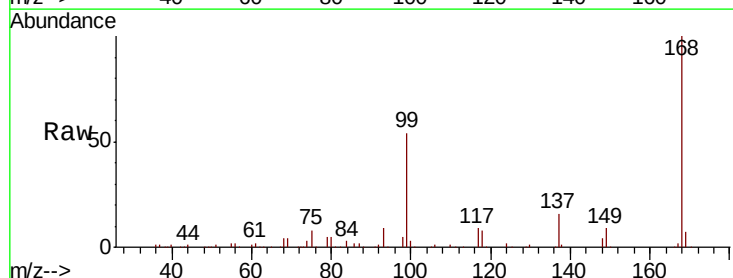
Instrument :  
 MSVOA\_X  
 ClientSampleId :

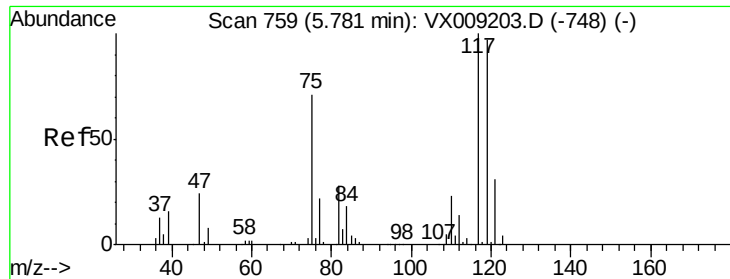
Tot Ion:113 Resp: 93106  
 Ion Ratio Lower Upper  
 113 100  
 111 103.0 82.8 124.2  
 192 21.6 17.0 25.6



#36  
 1,1-Dichloropropene  
 Concen: 5.119 ug/l  
 RT: 5.66 min Scan# 740  
 Delta R.T. -0.13 min  
 Lab File: VX009450.D  
 Acq: 10 May 2019 00:44

Tgt Ion: 75 Resp: 14588  
 Ion Ratio Lower Upper  
 75 100  
 110 8.7 16.9 50.6#  
 77 0.0 24.8 37.2#

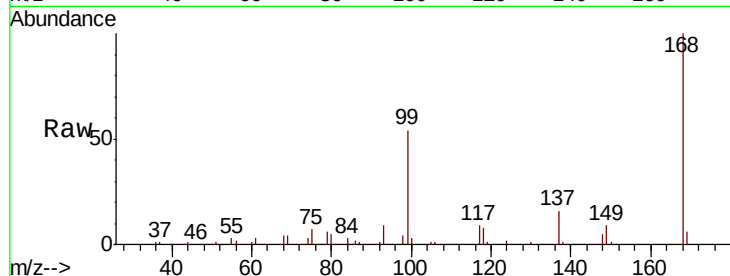




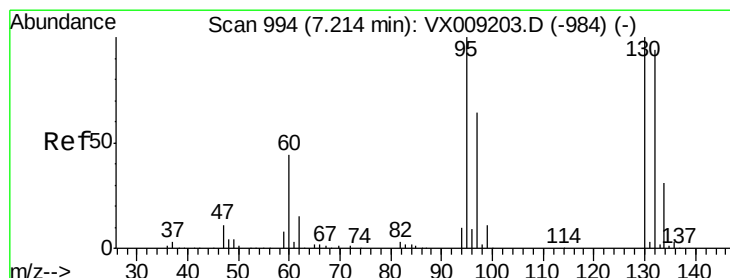
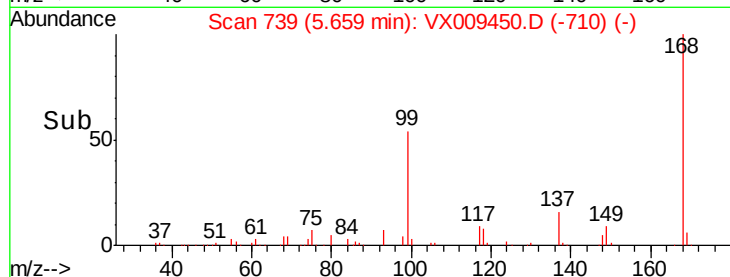
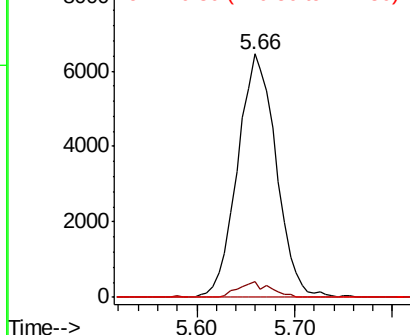
#38  
Carbon Tetrachloride  
Concen: 6.811 ug/l  
RT: 5.66 min Scan# 739  
Delta R.T. -0.12 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:117 Resp: 17635  
Ion Ratio Lower Upper  
117 100  
119 6.7 77.5 116.3#  
121 0.0 24.7 37.1#

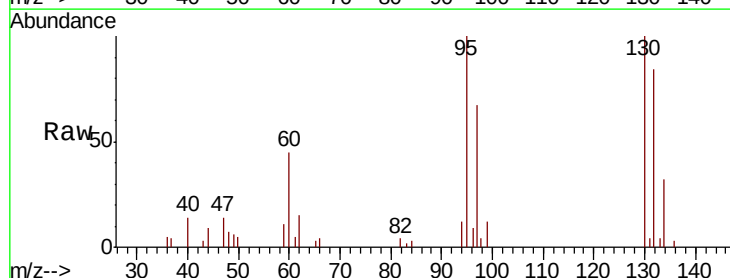


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

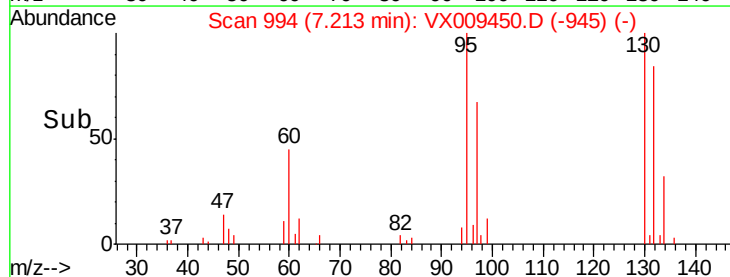
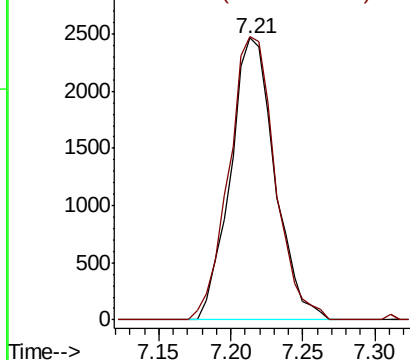


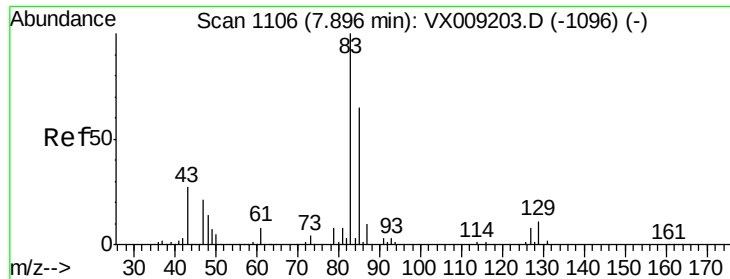
#44  
Trichloroethene  
Concen: 2.479 ug/l  
RT: 7.21 min Scan# 994  
Delta R.T. -0.00 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion:130 Resp: 5285  
Ion Ratio Lower Upper  
130 100  
95 100.4 0.0 199.2



Abundance Ion 129.80 (129.50 to 130.50): V  
Ion 94.90 (94.60 to 95.60): VX0





#47

Bromodichloromethane

Concen: 0.306 ug/l

RT: 7.90 min Scan# 1106

Delta R.T. -0.00 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

Instrument :

MSVOA\_X

ClientSampleId :

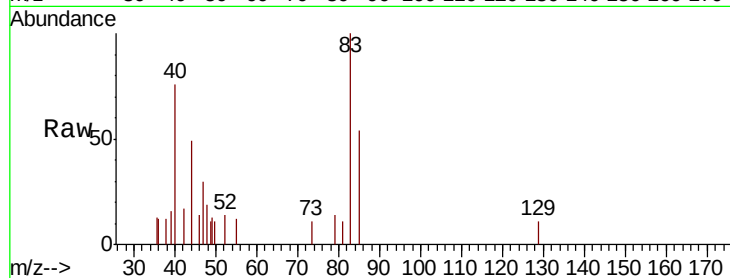
Tot Ion: 83 Resp: 885

Ion Ratio Lower Upper

83 100

85 53.8 52.4 78.6

127 0.0 6.6 10.0#



Abundance Ion 82.90 (82.60 to 83.60): VX0

Ion 84.90 (84.60 to 85.60): VX0

Ion 126.80 (126.50 to 127.50): V

7.90

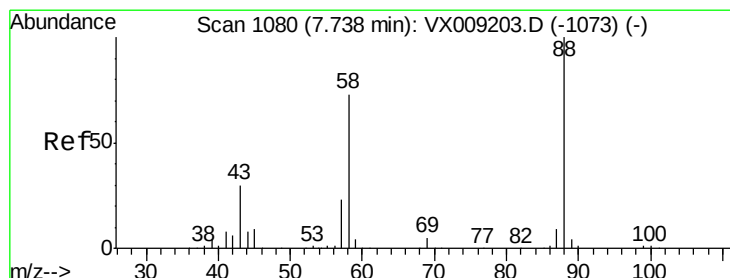
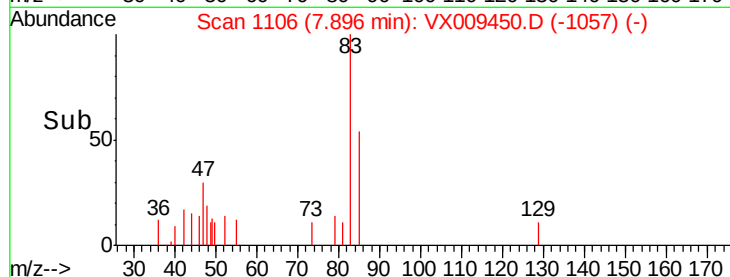
400

200

0

7.85 7.90 7.95

Time-->



#49

1,4-Dioxane

Concen: 0.297 ug/l

RT: 7.59 min Scan# 1056

Delta R.T. -0.15 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

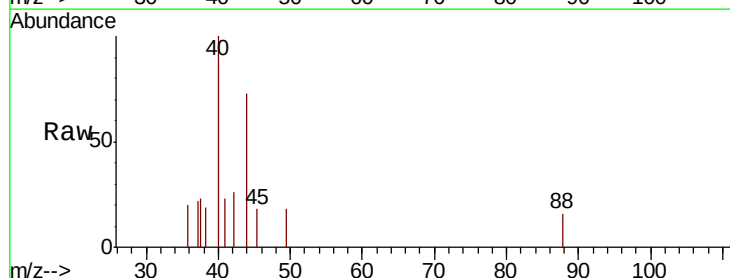
Tgt Ion: 88 Resp: 19

Ion Ratio Lower Upper

88 100

43 142.1 28.6 42.8#

58 0.0 61.7 92.5#



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

7.59

100

80

60

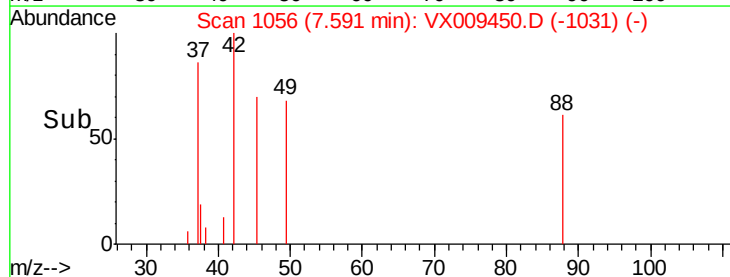
40

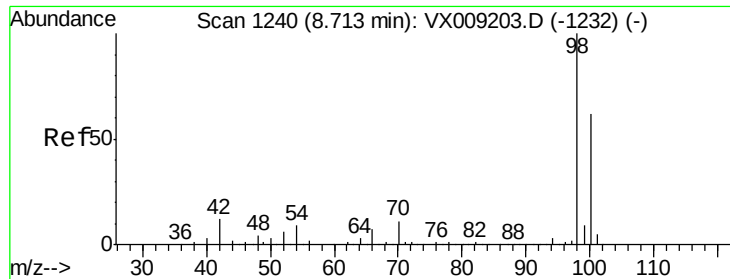
20

0

7.57 7.58 7.59 7.60 7.61

Time-->





#50

Toluene-d8

Concen: 49.253 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

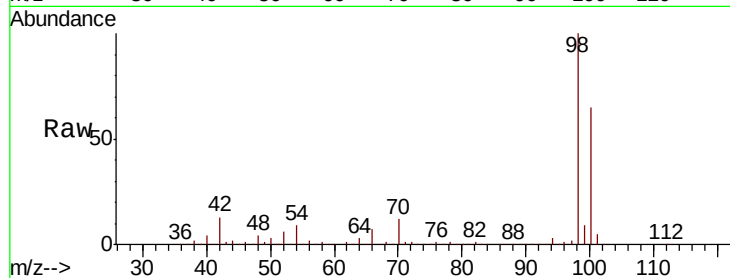
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 98 Resp: 383344

Ion Ratio Lower Upper

98 100

100 64.6 51.2 76.8



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0

250000

200000

150000

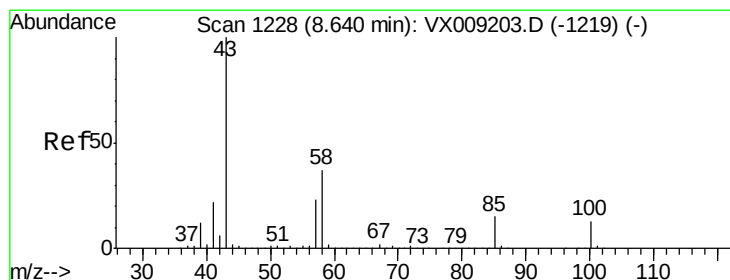
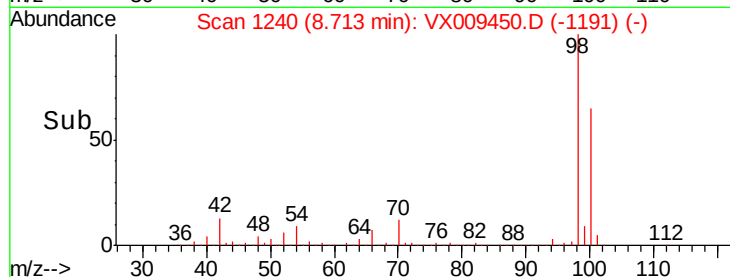
100000

50000

0

8.60 8.70 8.80

Time-->



#51

4-Methyl-2-Pentanone

Concen: 0.522 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.07 min

Lab File: VX009450.D

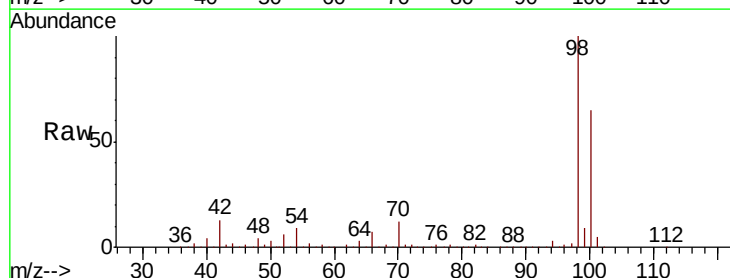
Acq: 10 May 2019 00:44

Tgt Ion: 43 Resp: 2165

Ion Ratio Lower Upper

43 100

58 153.4 29.5 44.3#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2500

2000

1500

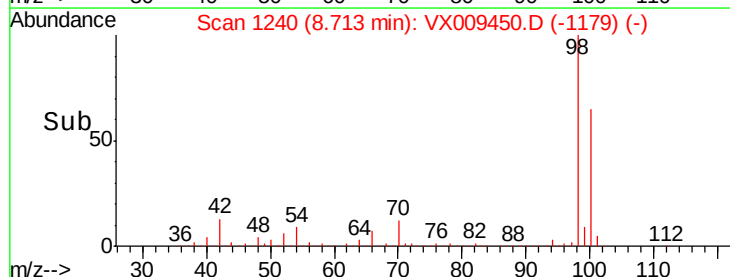
1000

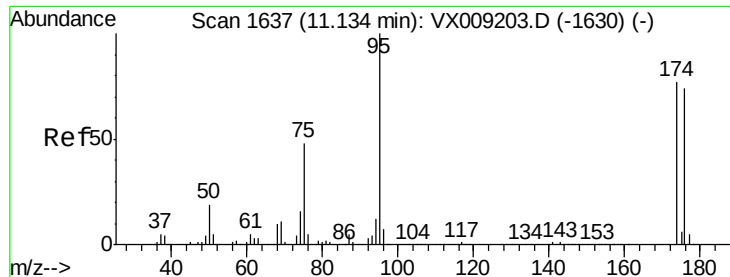
500

0

8.60 8.65 8.70 8.75 8.80

Time-->





#62

4-Bromofluorobenzene

Concen: 43.966 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

Instrument :

MSVOA\_X

ClientSampleId :

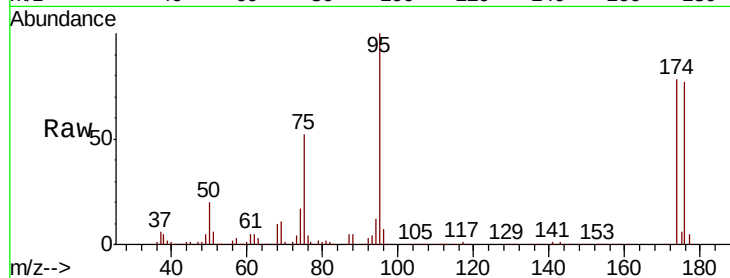
Tot Ion: 95 Resp: 124341

Ion Ratio Lower Upper

95 100

174 84.2 0.0 161.6

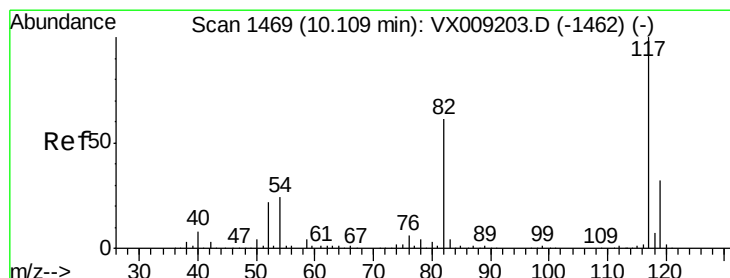
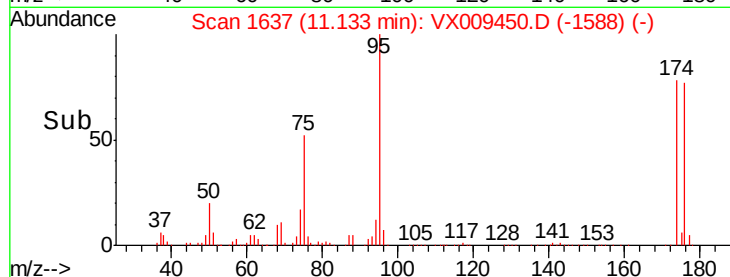
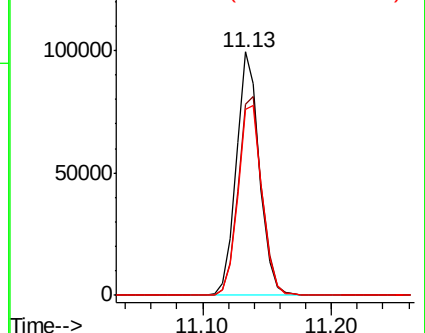
176 81.4 0.0 159.2



Abundance Ion 94.90 (94.60 to 95.60): VX009450.D (-1588) (-)

Ion 173.80 (173.50 to 174.50): VX009450.D (-1588) (-)

Ion 175.80 (175.50 to 176.50): VX009450.D (-1588) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. -0.00 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

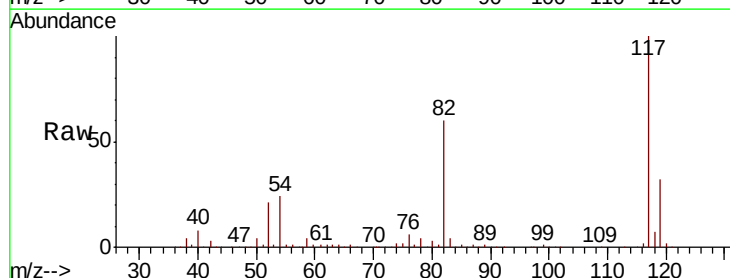
Tgt Ion: 117 Resp: 269685

Ion Ratio Lower Upper

117 100

82 60.0 48.8 73.2

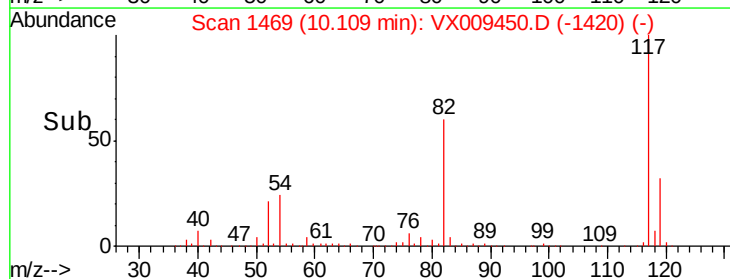
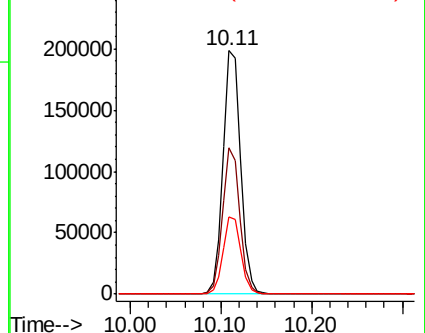
119 31.8 25.8 38.6

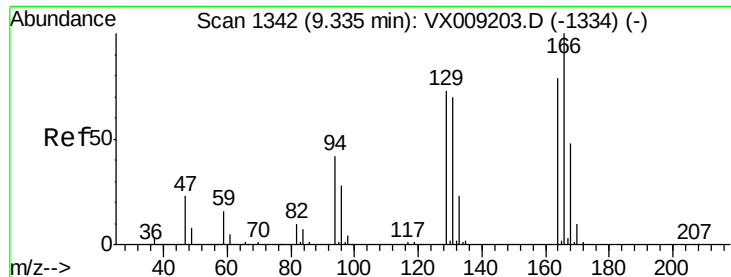


Abundance Ion 116.90 (116.60 to 117.60): VX009450.D (-1420) (-)

Ion 82.00 (81.70 to 82.70): VX009450.D (-1420) (-)

Ion 118.90 (118.60 to 119.60): VX009450.D (-1420) (-)

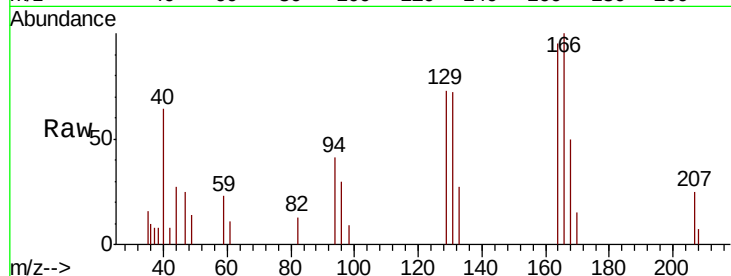




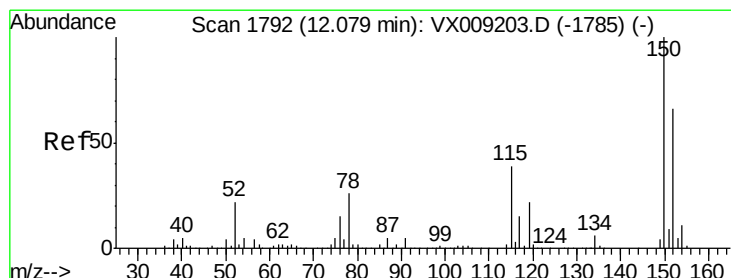
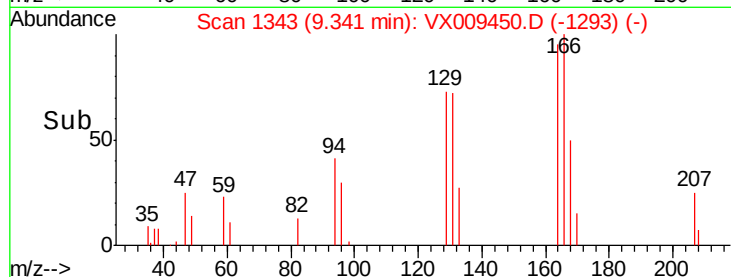
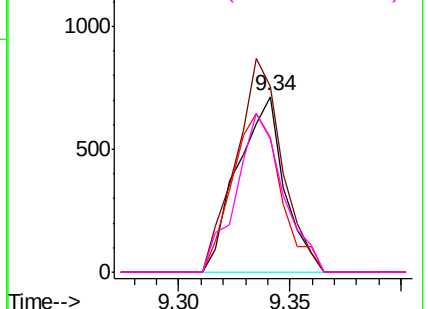
#64  
Tetrachloroethene  
Concen: 0.566 ug/l  
RT: 9.34 min Scan# 1343  
Delta R.T. 0.01 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion:164 Resp: 1047  
Ion Ratio Lower Upper  
164 100  
166 105.3 101.2 151.8  
129 76.4 74.3 111.5  
131 75.7 71.0 106.6

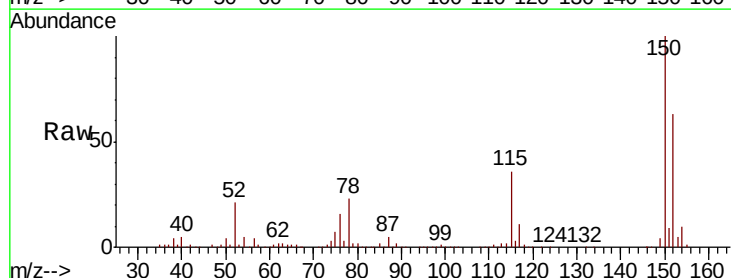


Abundance Ion 163.80 (163.50 to 164.50): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V

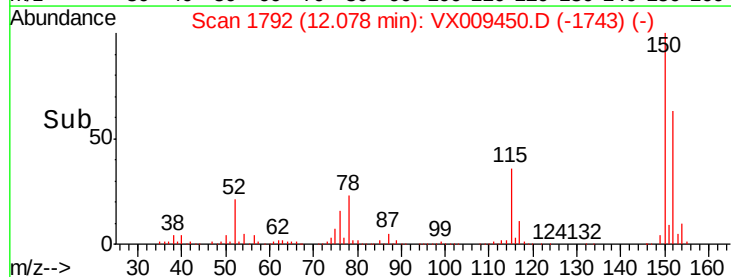
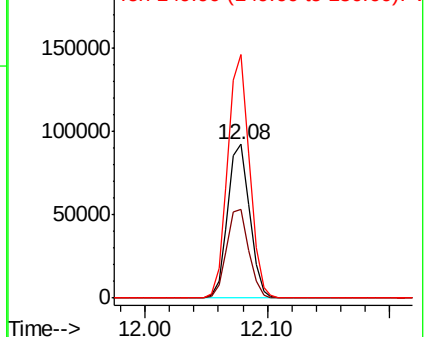


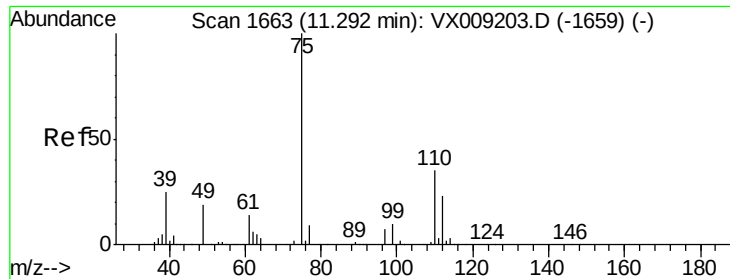
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX009450.D  
Acq: 10 May 2019 00:44

Tgt Ion:152 Resp: 114619  
Ion Ratio Lower Upper  
152 100  
115 58.7 41.2 123.6  
150 156.2 0.0 346.4



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: 24.237 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

Instrument :

MSVOA\_X

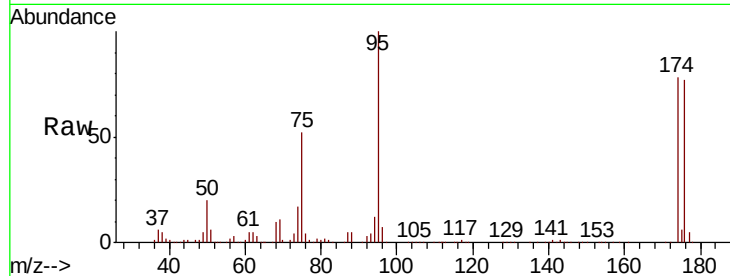
ClientSampled :

Tot Ion: 75 Resp: 64441

Ion Ratio Lower Upper

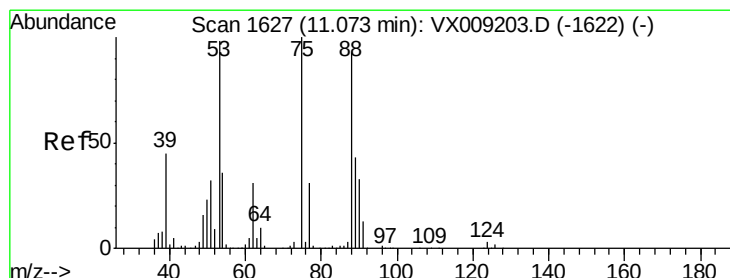
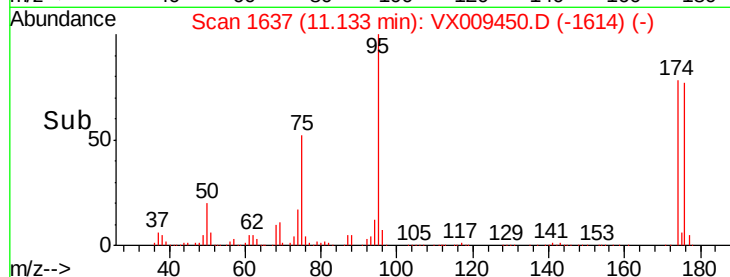
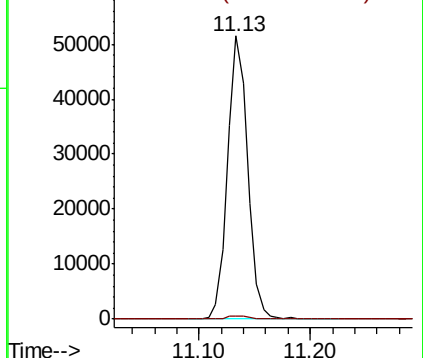
75 100

77 1.4 22.1 66.1#



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: 62.015 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009450.D

Acq: 10 May 2019 00:44

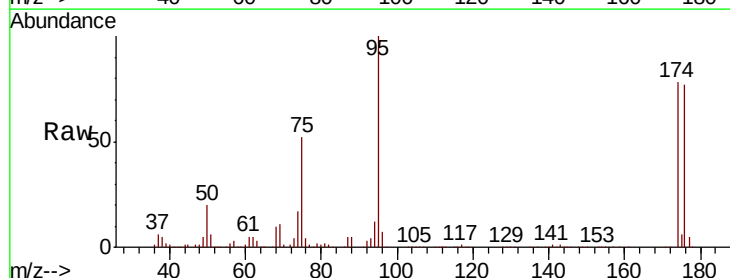
Tgt Ion: 75 Resp: 64441

Ion Ratio Lower Upper

75 100

53 0.1 79.0 118.6#

89 0.0 34.7 52.1#



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

