

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\  
 Data File : VX006646.D  
 Acq On : 19 Dec 2018 19:24  
 Operator : JC/MD  
 Sample : J6479-03  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Dec 20 04:04:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 19 15:20:58 2018  
 Response via : Initial Calibration

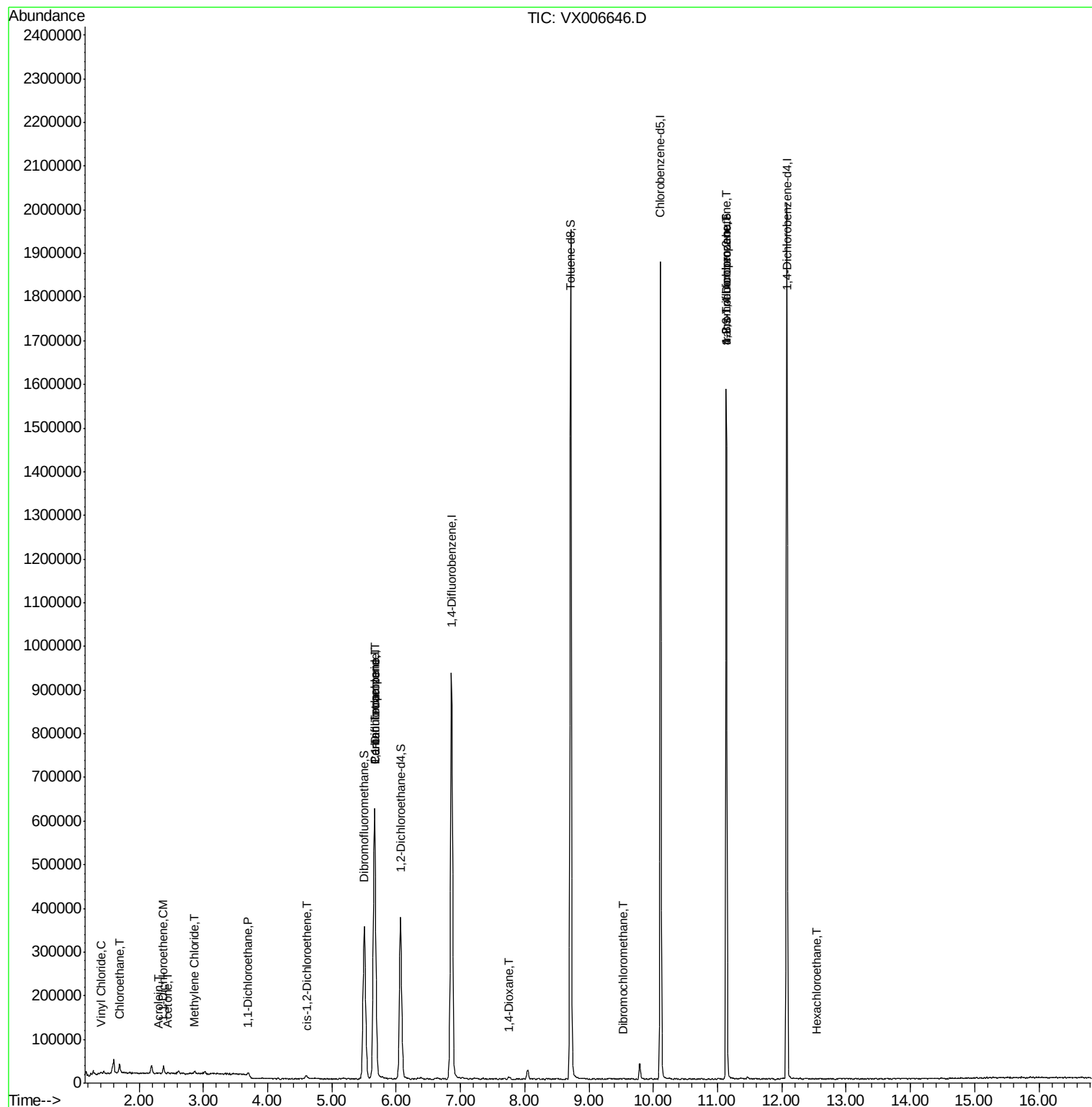
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 5.67   | 168  | 618948   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.86   | 114  | 991167   | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 10.11  | 117  | 914295   | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.08  | 152  | 424266   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |        |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 6.07   | 65   | 348121   | 52.19     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 104.38% |          |
| 35) Dibromofluoromethane       | 5.50   | 113  | 298023   | 47.55     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 95.10%  |          |
| 50) Toluene-d8                 | 8.71   | 98   | 1178040  | 49.85     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 99.70%  |          |
| 62) 4-Bromofluorobenzene       | 11.13  | 95   | 424851   | 49.09     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 98.18%  |          |
| Target Compounds               |        |      |          |           |         |          |
|                                |        |      |          |           | Qvalue  |          |
| 4) Vinyl Chloride              | 1.41   | 62   | 2603     | 0.409     | ug/l #  | 85       |
| 5) Bromomethane                | 1.65   | 94   | 561      | Below Cal | #       | 41       |
| 6) Chloroethane                | 1.70   | 64   | 1057     | 0.240     | ug/l #  | 60       |
| 12) 1,1-Dichloroethene         | 2.39   | 96   | 6594     | 1.192     | ug/l    | 93       |
| 13) Acrolein                   | 2.29   | 56   | 359      | 0.357     | ug/l #  | 54       |
| 16) Acetone                    | 2.45   | 43   | 2604     | 0.850     | ug/l    | 95       |
| 20) Methylene Chloride         | 2.86   | 84   | 2415     | 0.381     | ug/l    | 93       |
| 24) 1,1-Dichloroethane         | 3.70   | 63   | 10792    | 1.062     | ug/l    | 99       |
| 27) cis-1,2-Dichloroethene     | 4.60   | 96   | 4720     | 0.698     | ug/l    | 85       |
| 28) Bromochloromethane         | 5.04   | 49   | 466      | Below Cal | #       | 18       |
| 36) 1,1-Dichloropropene        | 5.66   | 75   | 42285    | 5.151     | ug/l #  | 48       |
| 38) Carbon Tetrachloride       | 5.66   | 117  | 59801    | 7.496     | ug/l #  | 13       |
| 49) 1,4-Dioxane                | 7.76   | 88   | 4485     | 6.172     | ug/l #  | 89       |
| 60) Dibromochloromethane       | 9.53   | 129  | 93       | 2.337     | ug/l    | 88       |
| 76) 1,2,3-Trichloropropane     | 11.13  | 75   | 200157   | 25.386    | ug/l #  | 40       |
| 81) trans-1,4-Dichloro-2-buten | 11.13  | 75   | 200157   | 74.949    | ug/l #  | 10       |
| 90) Hexachloroethane           | 12.55  | 117  | 44       | 3.303     | ug/l    | 83       |

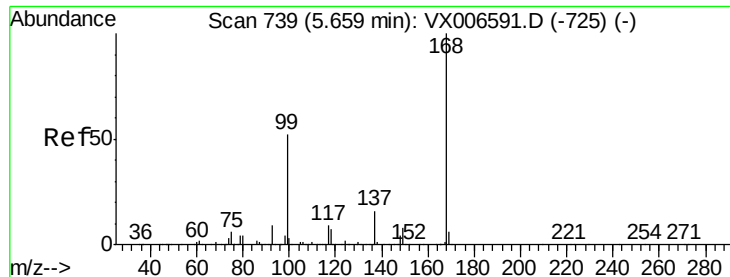
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 19 15:20:58 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.01 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Instrument :

MSVOA\_X

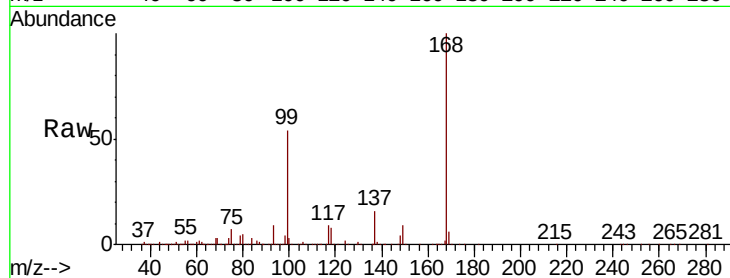
ClientSampleId :

Tot Ion:168 Resp: 618948

Ion Ratio Lower Upper

168 100

99 53.5 41.8 62.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

200000

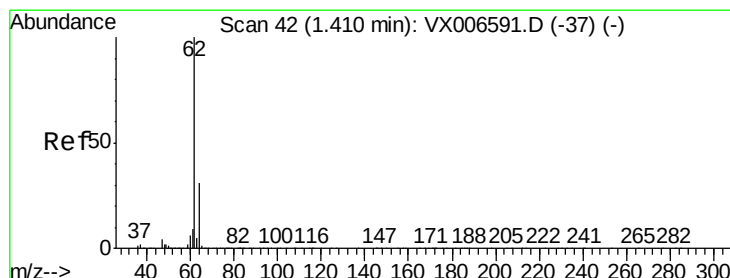
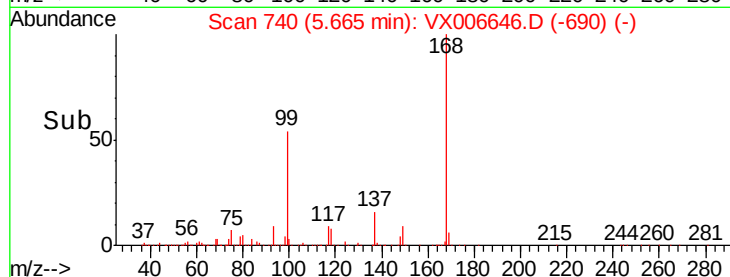
150000

100000

50000

0

Time--> 5.50 5.60 5.70 5.80



#4

Vinyl Chloride

Concen: 0.409 ug/l

RT: 1.41 min Scan# 42

Delta R.T. 0.00 min

Lab File: VX006646.D

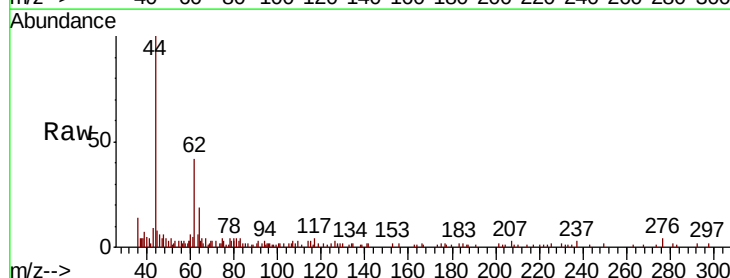
Acq: 19 Dec 2018 19:24

Tgt Ion: 62 Resp: 2603

Ion Ratio Lower Upper

62 100

64 39.8 25.1 37.7#



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0

1.41

2500

2000

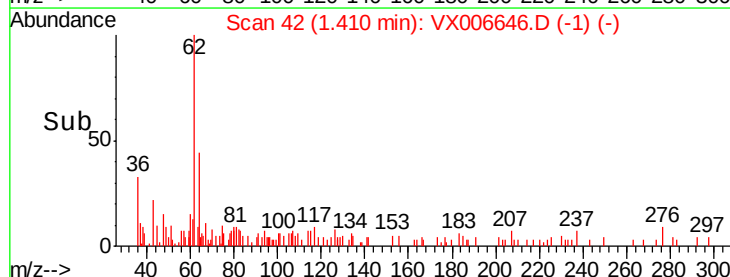
1500

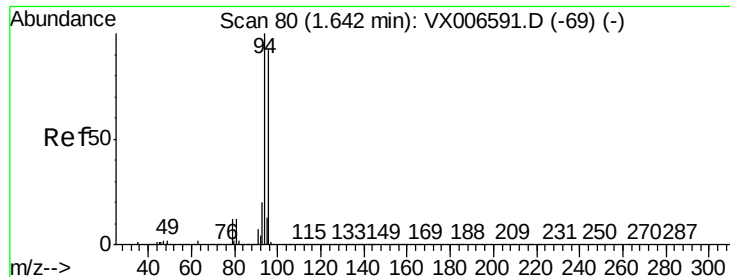
1000

500

0

Time--> 1.40 1.45





#5

Bromomethane

Concen: Below Cal

RT: 1.65 min Scan# 82

Delta R.T. 0.01 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

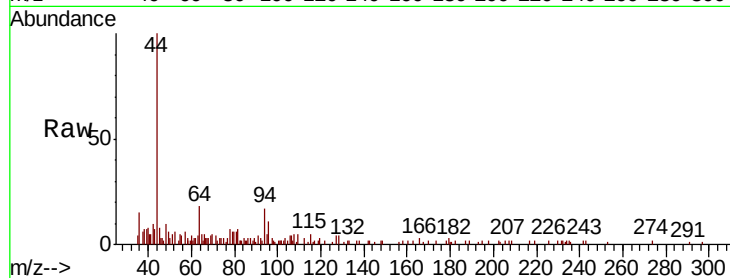
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 94 Resp: 561

Ion Ratio Lower Upper

94 100

96 35.3 73.4 110.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

800

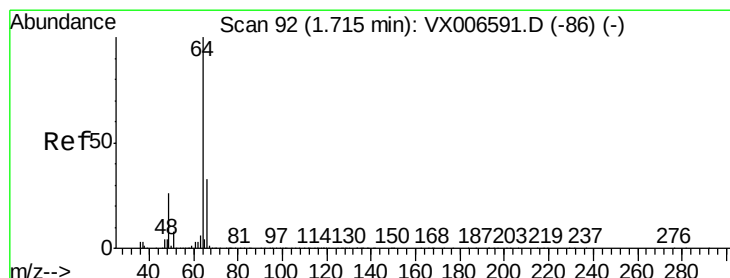
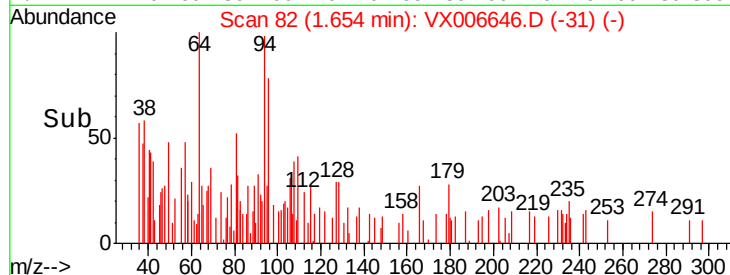
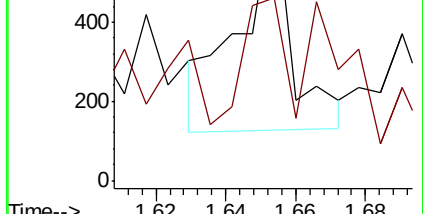
600

400

200

0

1.62 1.64 1.66 1.68



#6

Chloroethane

Concen: 0.240 ug/l

RT: 1.70 min Scan# 90

Delta R.T. -0.01 min

Lab File: VX006646.D

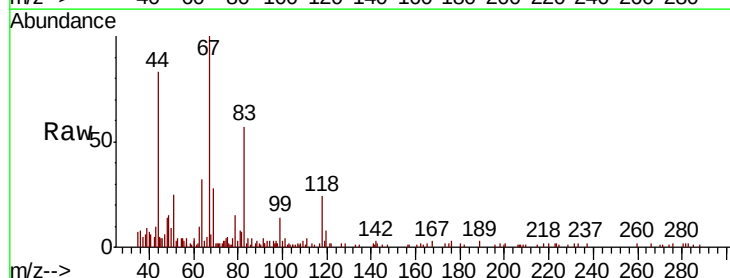
Acq: 19 Dec 2018 19:24

Tgt Ion: 64 Resp: 1057

Ion Ratio Lower Upper

64 100

66 10.5 26.4 39.6#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

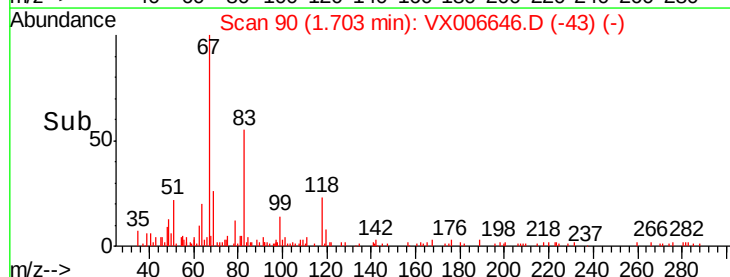
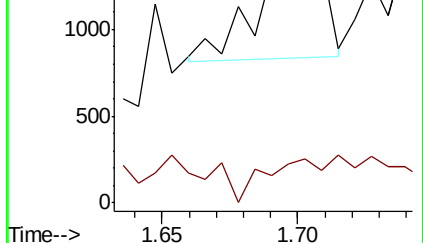
1500

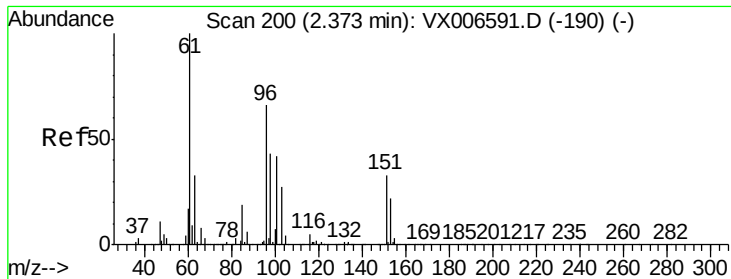
1000

500

0

1.65 1.70





#12

1,1-Dichloroethene

Concen: 1.192 ug/l

RT: 2.39 min Scan# 202

Delta R.T. 0.01 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Instrument :

MSVOA\_X

ClientSampleId :

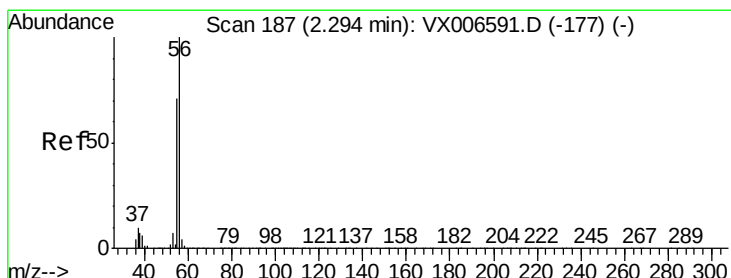
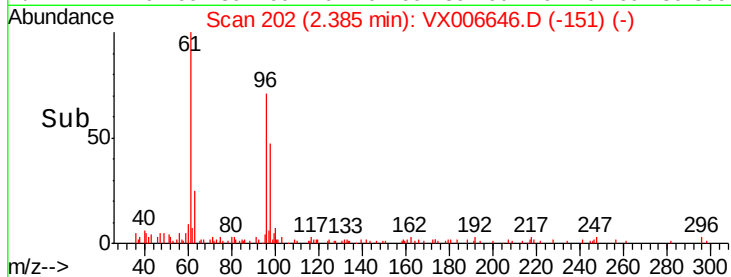
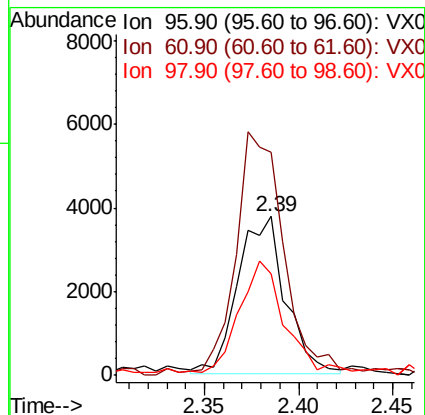
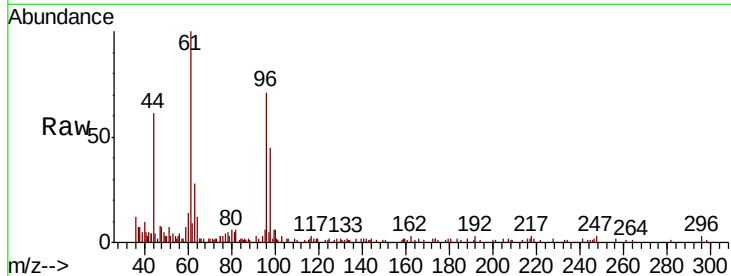
Tot Ion: 96 Resp: 6594

Ion Ratio Lower Upper

96 100

61 142.4 121.4 182.2

98 61.3 51.9 77.9



#13

Acrolein

Concen: 0.357 ug/l

RT: 2.29 min Scan# 187

Delta R.T. 0.00 min

Lab File: VX006646.D

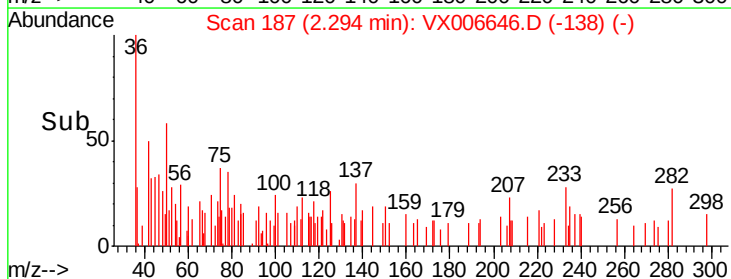
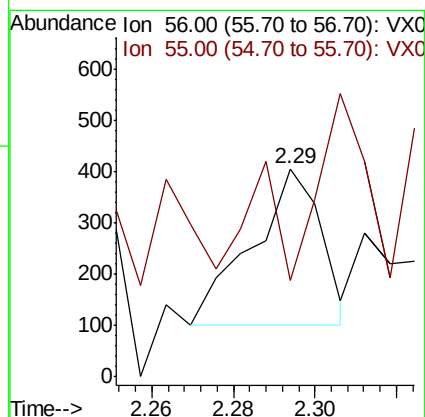
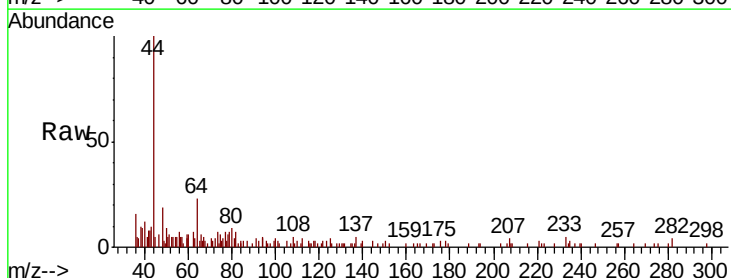
Acq: 19 Dec 2018 19:24

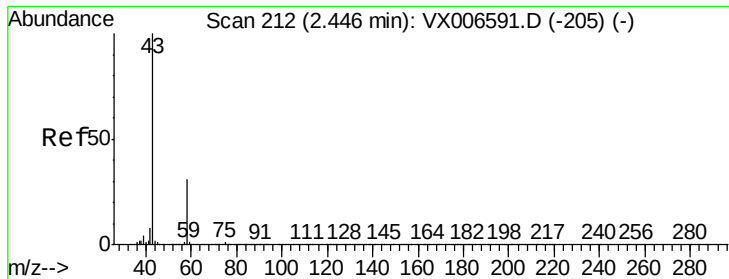
Tgt Ion: 56 Resp: 359

Ion Ratio Lower Upper

56 100

55 34.0 58.2 87.4#

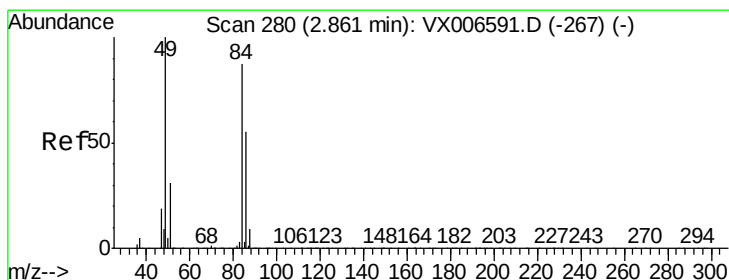
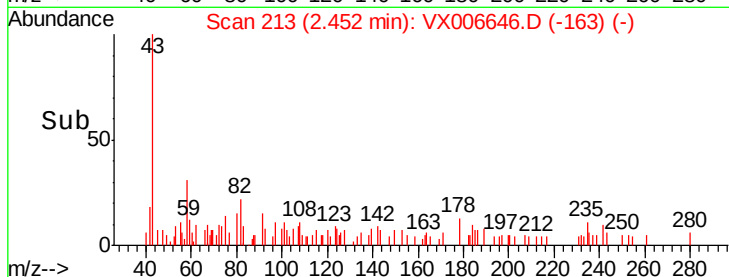
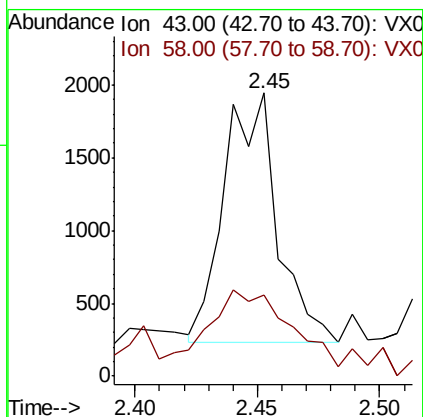
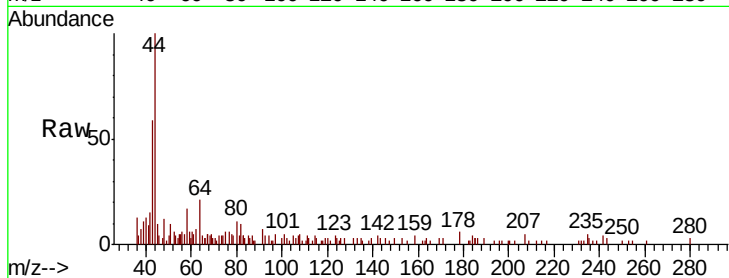




#16  
Acetone  
Concen: 0.850 ug/l  
RT: 2.45 min Scan# 213  
Delta R.T. 0.01 min  
Lab File: VX006646.D  
Acq: 19 Dec 2018 19:24

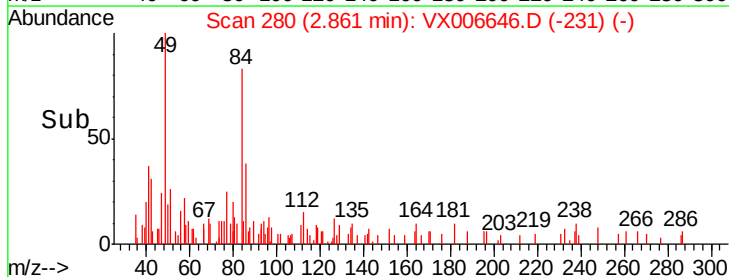
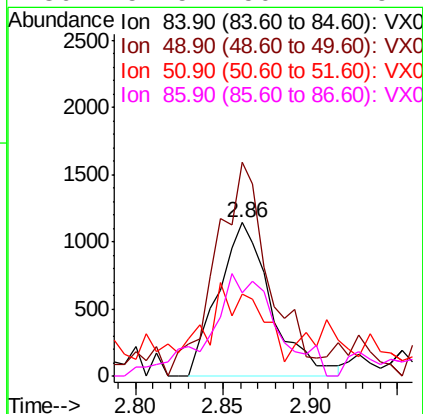
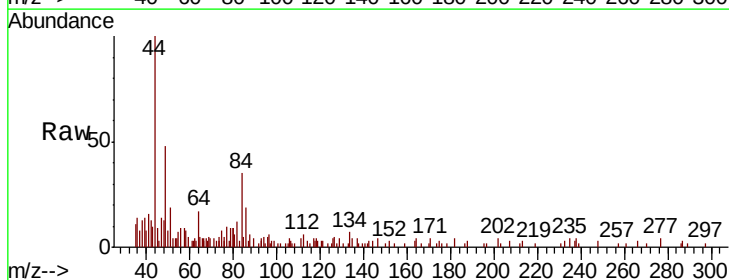
Instrument :  
MSVOA\_X  
ClientSampleId :

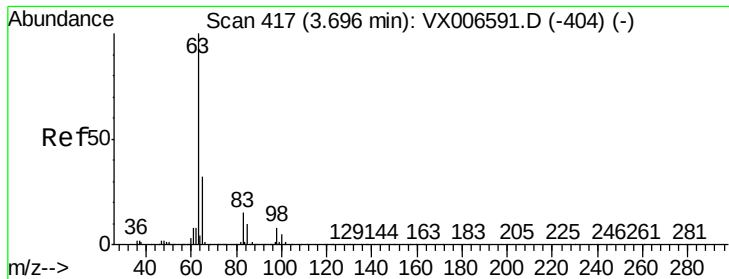
Tot Ion: 43 Resp: 2604  
Ion Ratio Lower Upper  
43 100  
58 28.6 25.0 37.6



#20  
Methylene Chloride  
Concen: 0.381 ug/l  
RT: 2.86 min Scan# 280  
Delta R.T. 0.00 min  
Lab File: VX006646.D  
Acq: 19 Dec 2018 19:24

Tgt Ion: 84 Resp: 2415  
Ion Ratio Lower Upper  
84 100  
49 118.6 91.8 137.6  
51 29.7 28.5 42.7  
86 54.5 50.2 75.2





#24

1,1-Dichloroethane

Concen: 1.062 ug/l

RT: 3.70 min Scan# 417

Delta R.T. 0.00 min

Lab File: VX006646.D

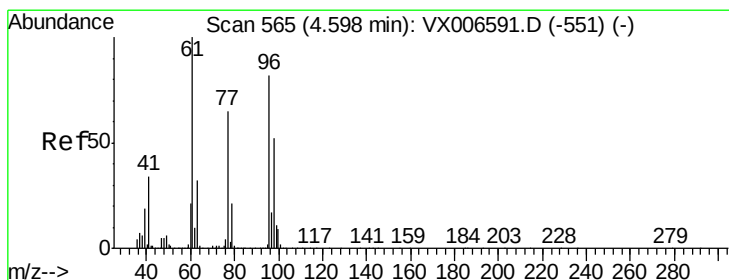
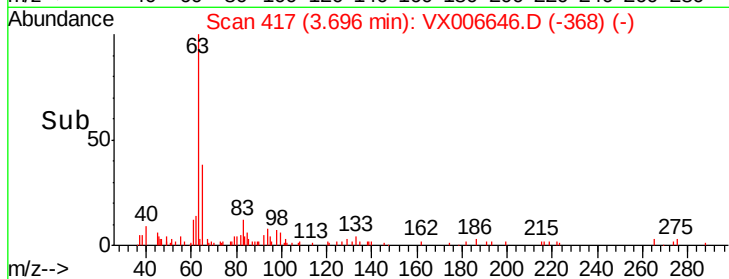
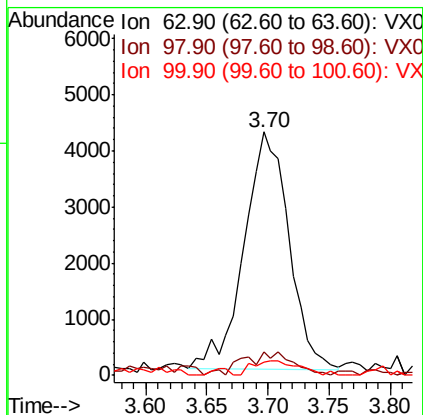
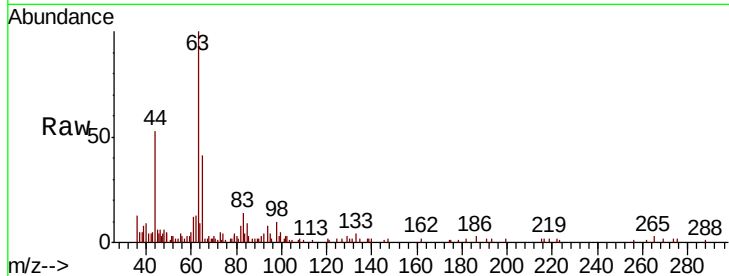
Acq: 19 Dec 2018 19:24

Instrument :

MSVOA\_X

ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 10792 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 98       | 8.0   | 3.9   | 11.5  |
| 100      | 5.5   | 2.4   | 7.2   |



#27

cis-1,2-Dichloroethene

Concen: 0.698 ug/l

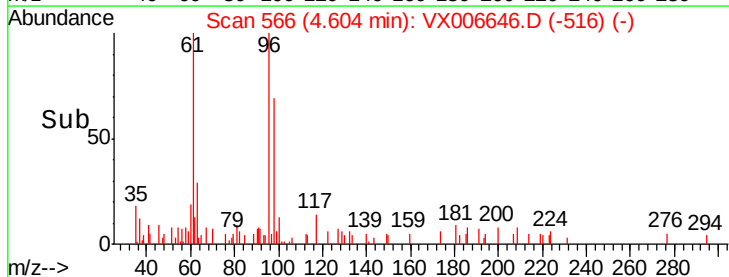
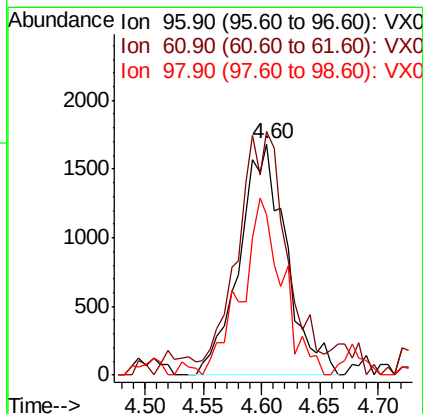
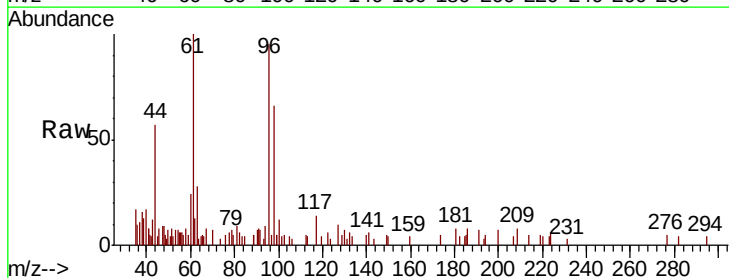
RT: 4.60 min Scan# 566

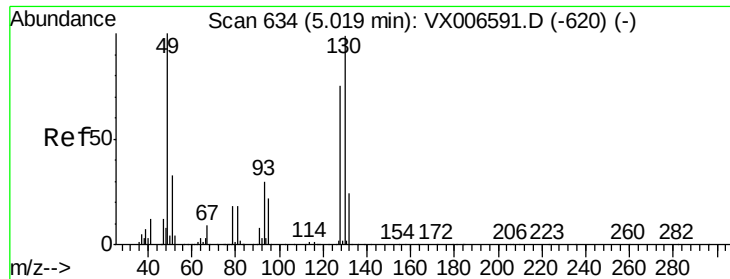
Delta R.T. 0.01 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 4720  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 104.6 | 0.0   | 258.6 |
| 98       | 67.2  | 0.0   | 132.0 |





#28

Bromochloromethane

Concen: Below Cal

RT: 5.04 min Scan# 638

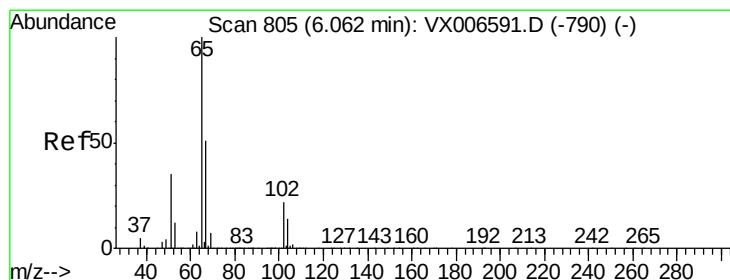
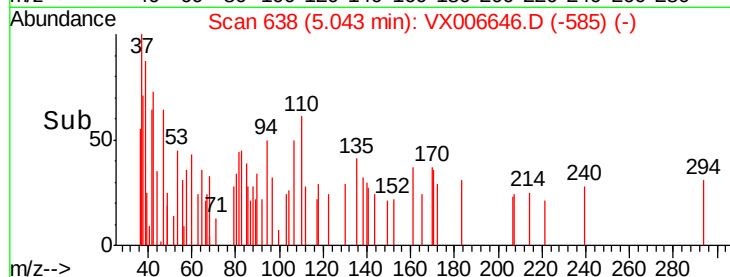
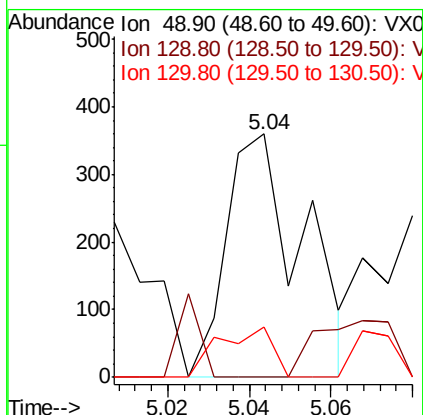
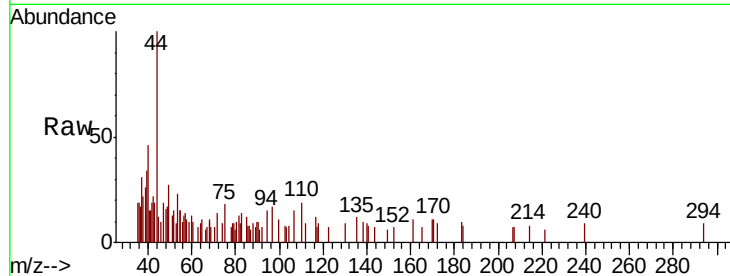
Delta R.T. 0.02 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 49 Resp: 466  
Ion Ratio Lower Upper  
49 100  
129 9.7 0.0 5.4#  
130 14.4 77.7 116.5#



#33

1,2-Dichloroethane-d4

Concen: 52.186 ug/l

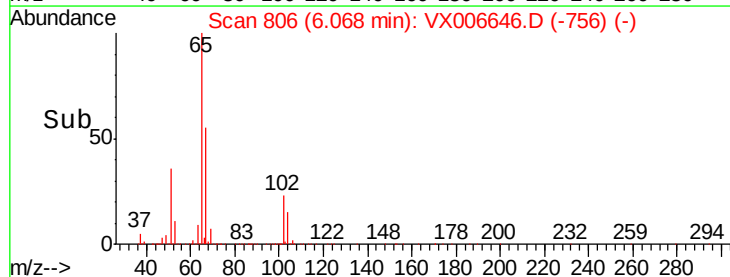
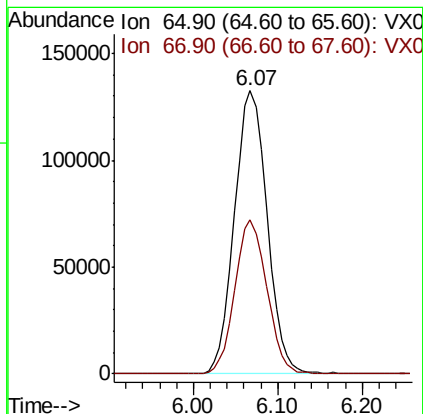
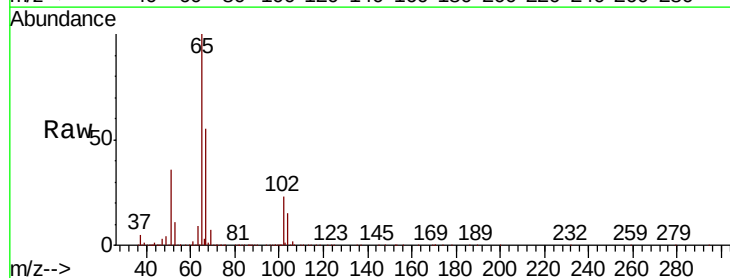
RT: 6.07 min Scan# 806

Delta R.T. 0.01 min

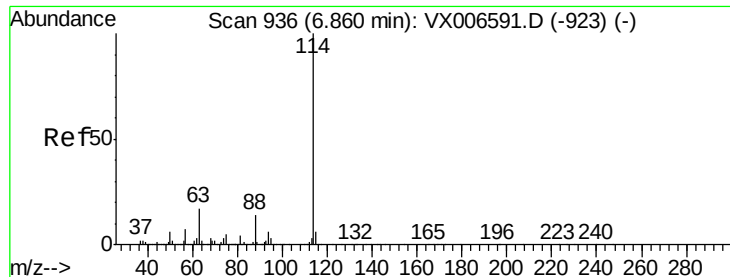
Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Tgt Ion: 65 Resp: 348121  
Ion Ratio Lower Upper  
65 100  
67 53.0 0.0 105.0







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Instrument :

MSVOA\_X

ClientSampled :

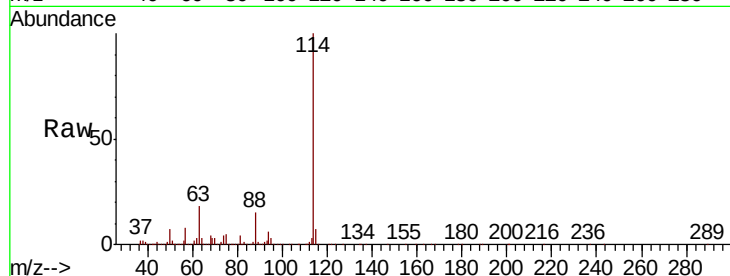
Tot Ion:114 Resp: 991167

Ion Ratio Lower Upper

114 100

63 18.2 0.0 34.8

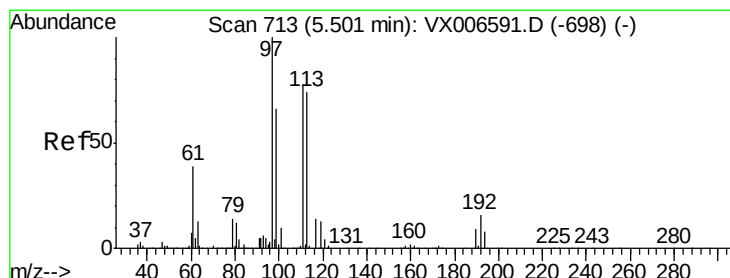
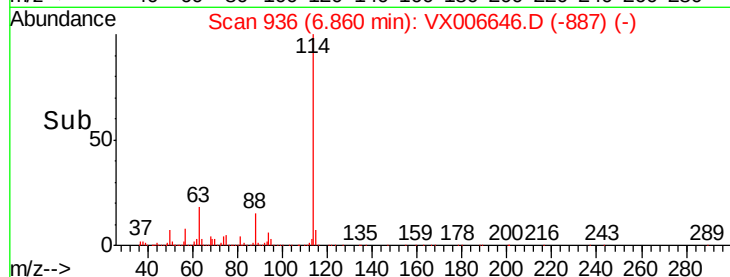
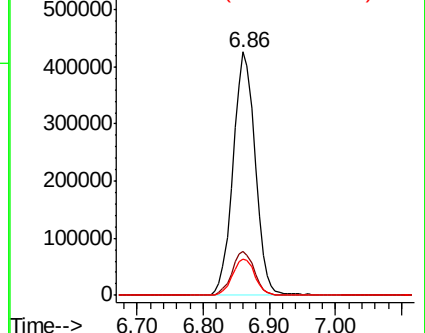
88 14.8 0.0 28.8



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: 47.547 ug/l

RT: 5.50 min Scan# 713

Delta R.T. 0.00 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

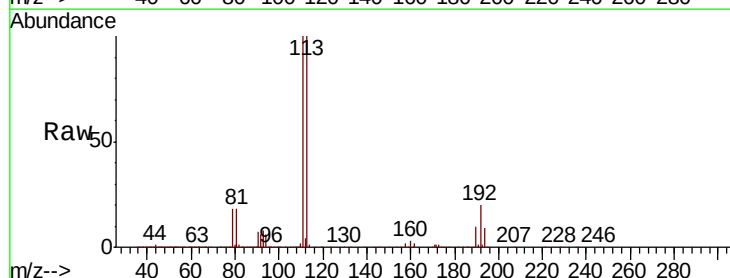
Tgt Ion:113 Resp: 298023

Ion Ratio Lower Upper

113 100

111 102.2 81.6 122.4

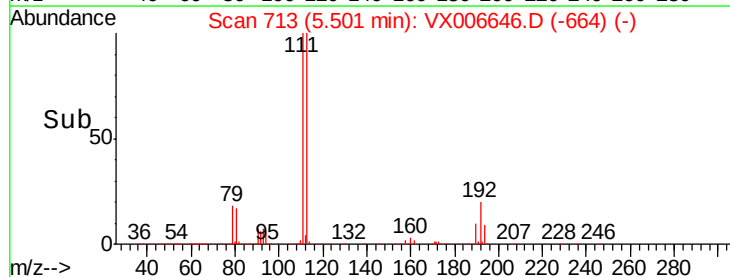
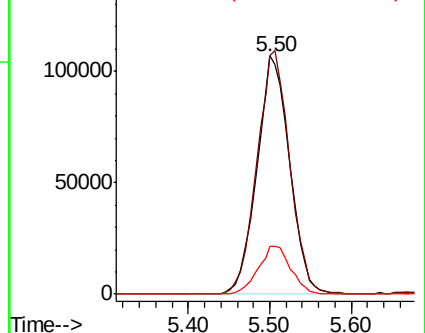
192 20.1 16.7 25.1

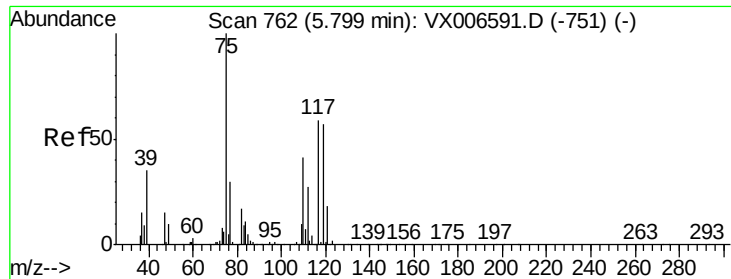


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

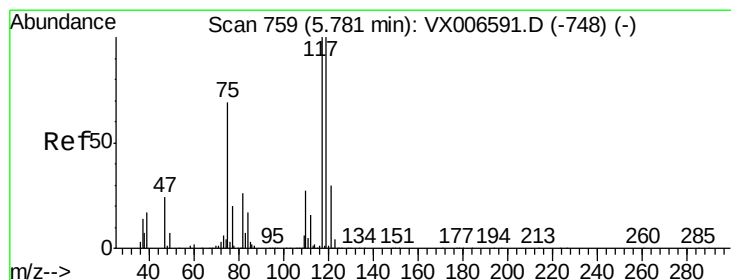
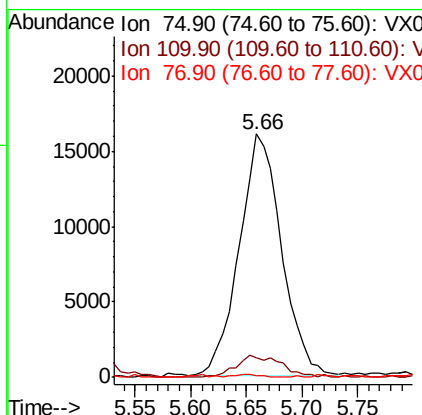
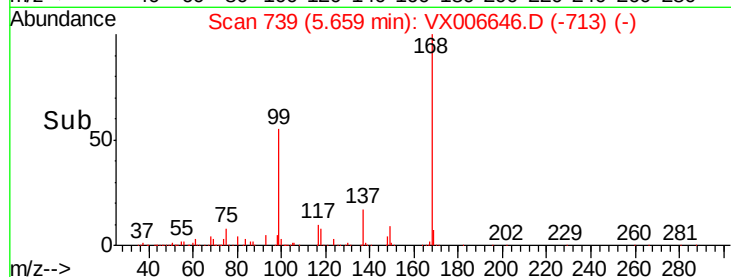
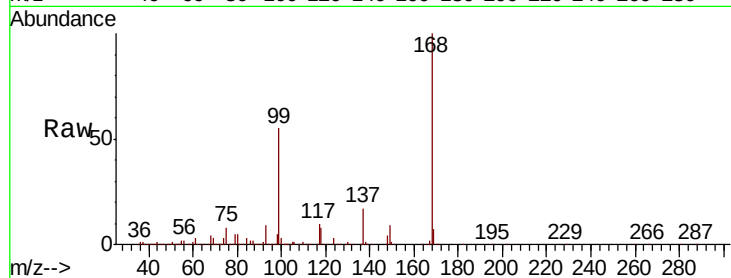




#36  
 1,1-Dichloropropene  
 Concen: 5.151 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.14 min  
 Lab File: VX006646.D  
 Acq: 19 Dec 2018 19:24

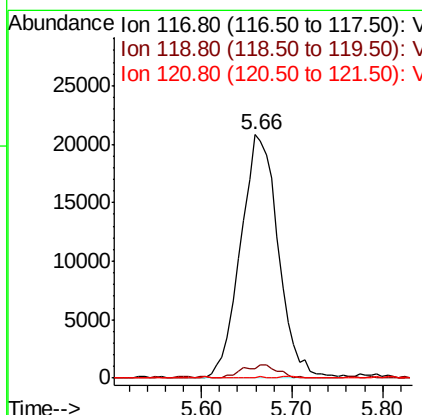
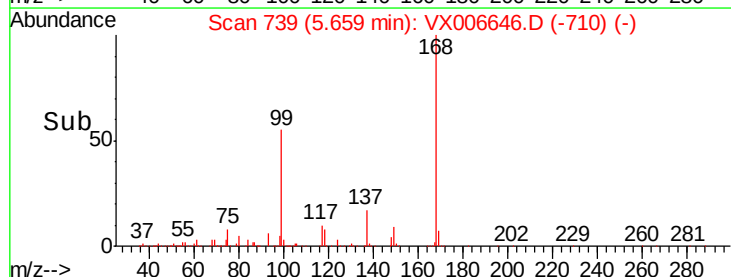
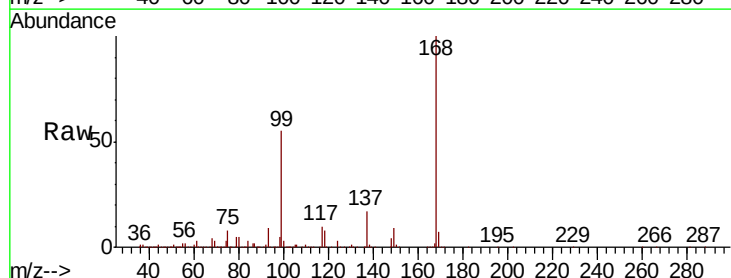
Instrument :  
 MSVOA\_X  
 ClientSampleId :

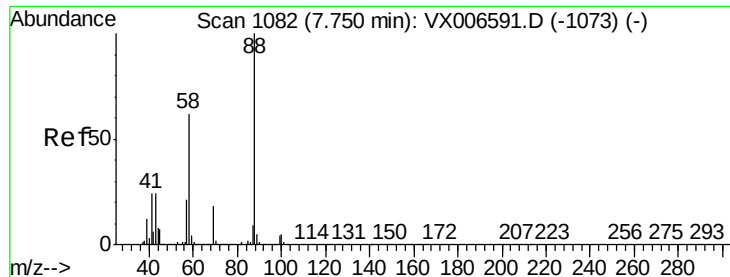
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.2  | 20.2  | 60.5# |
| 77      | 0.6   | 24.8  | 37.2# |



#38  
 Carbon Tetrachloride  
 Concen: 7.496 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.12 min  
 Lab File: VX006646.D  
 Acq: 19 Dec 2018 19:24

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 3.4   | 79.4  | 119.2# |
| 121     | 0.3   | 24.0  | 36.0#  |





#49

1,4-Dioxane

Concen: 6.172 ug/l

RT: 7.76 min Scan# 1083

Delta R.T. 0.01 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

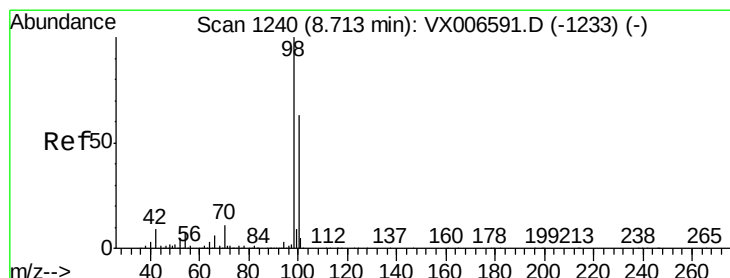
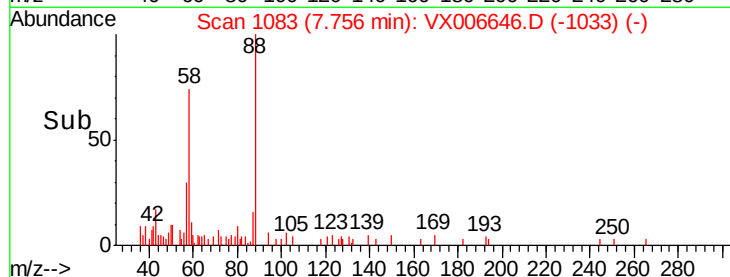
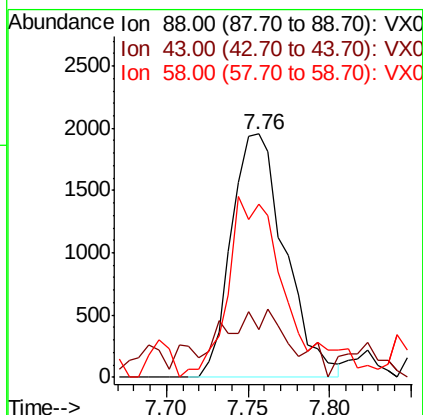
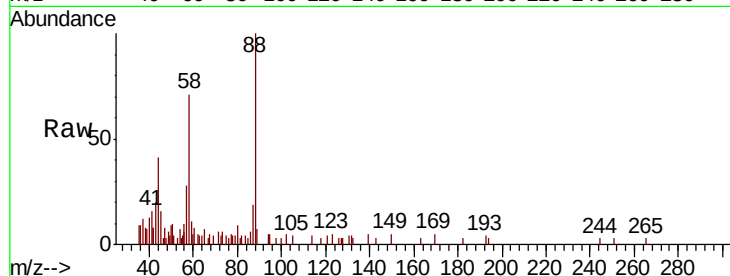
Instrument :

MSVOA\_X

ClientSampled :

Tot Ion: 88 Resp: 4485

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 88  | 100   |       |       |
| 43  | 34.0  | 22.2  | 33.4# |
| 58  | 72.3  | 51.0  | 76.4  |



#50

Toluene-d8

Concen: 49.853 ug/l

RT: 8.71 min Scan# 1240

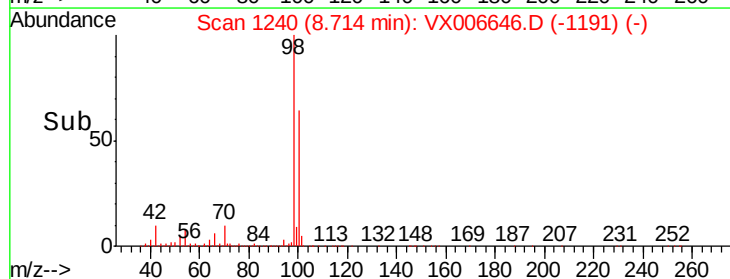
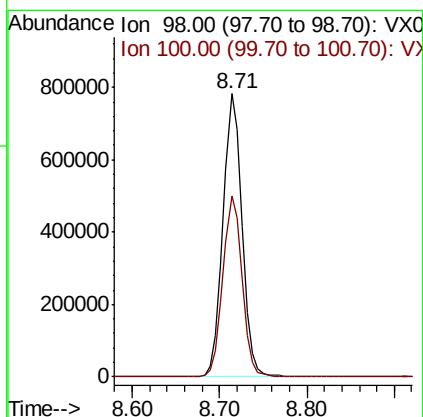
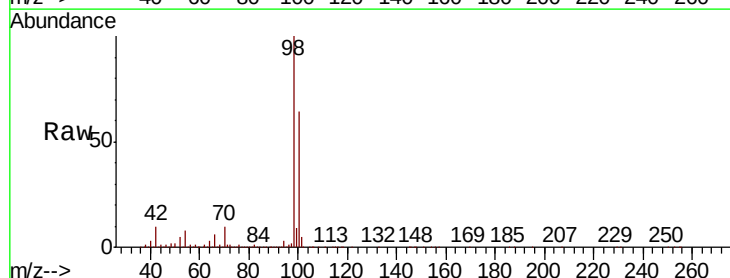
Delta R.T. 0.00 min

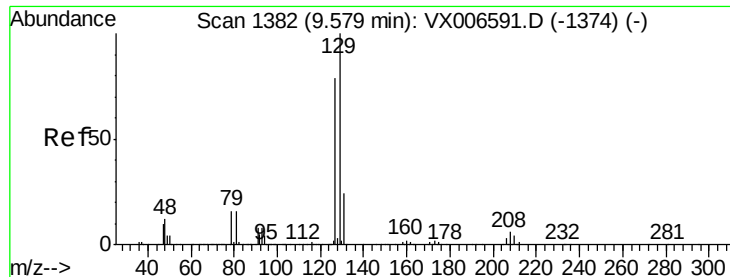
Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Tgt Ion: 98 Resp: 1178040

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 98  | 100   |       |       |
| 100 | 64.6  | 52.0  | 78.0  |





#60

Dibromochloromethane

Concen: 2.337 ug/l

RT: 9.53 min Scan# 1374

Delta R.T. -0.05 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

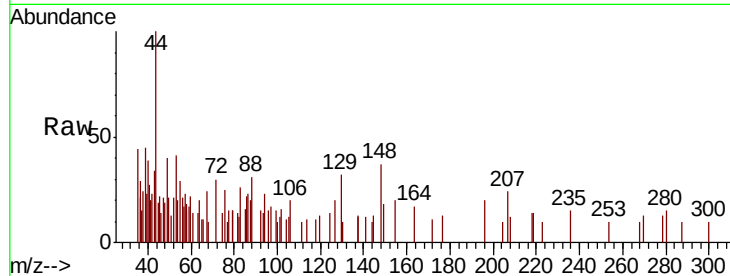
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:129 Resp: 93

Ion Ratio Lower Upper

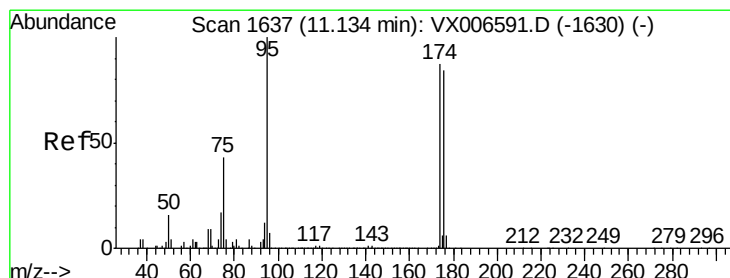
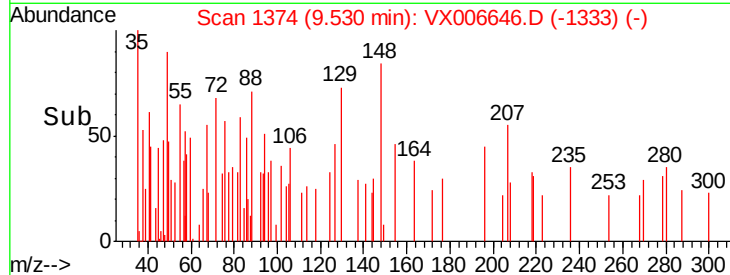
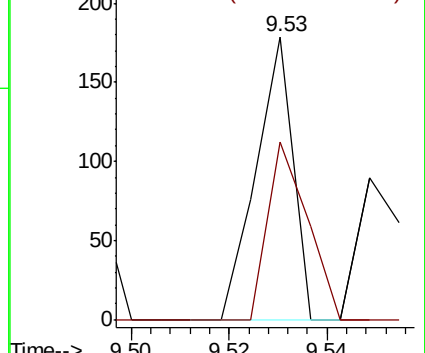
129 100

127 67.7 39.3 117.8



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V



#62

4-Bromofluorobenzene

Concen: 49.091 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

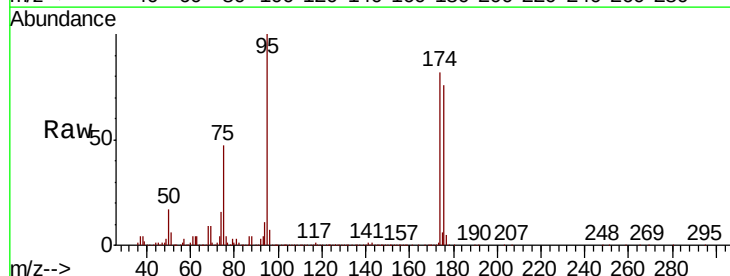
Tgt Ion: 95 Resp: 424851

Ion Ratio Lower Upper

95 100

174 85.5 0.0 182.2

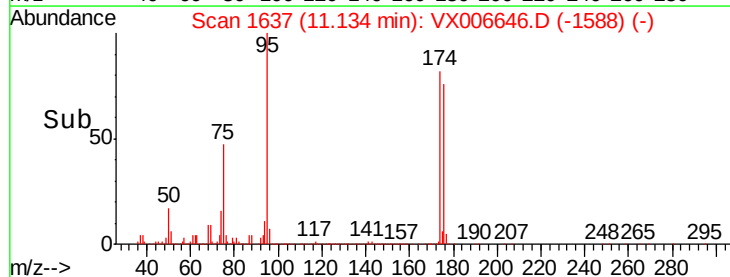
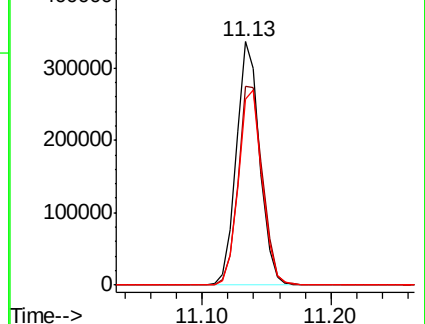
176 81.7 0.0 178.8

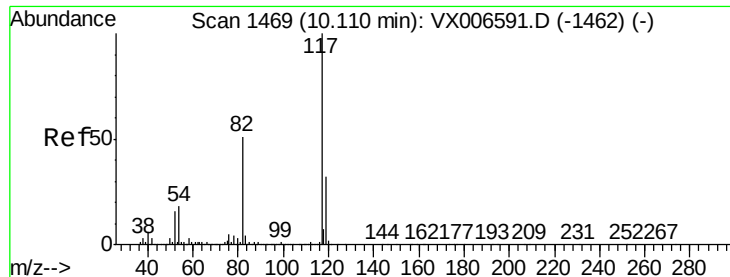


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

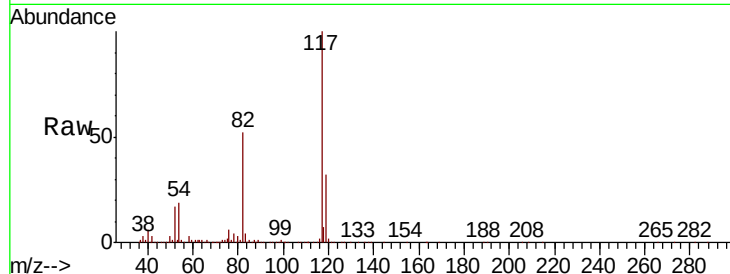




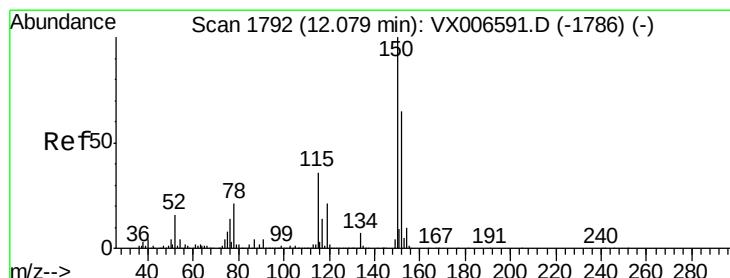
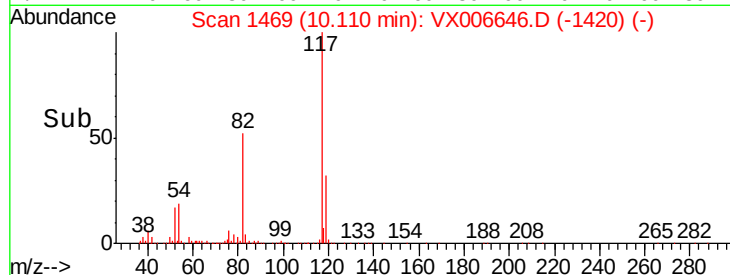
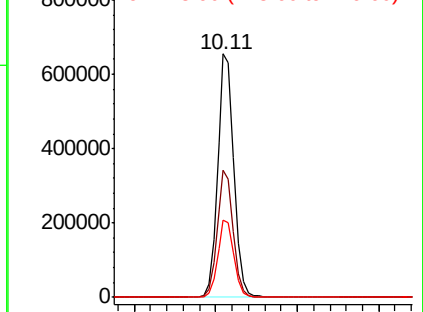
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. 0.00 min  
Lab File: VX006646.D  
Acq: 19 Dec 2018 19:24

Instrument :  
MSVOA\_X  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 52.4  | 41.0  | 61.6  |
| 119     | 31.7  | 25.4  | 38.0  |

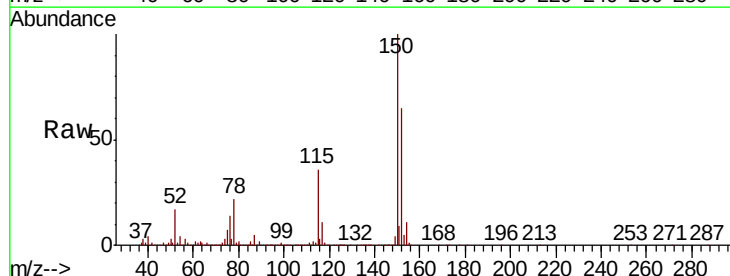


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

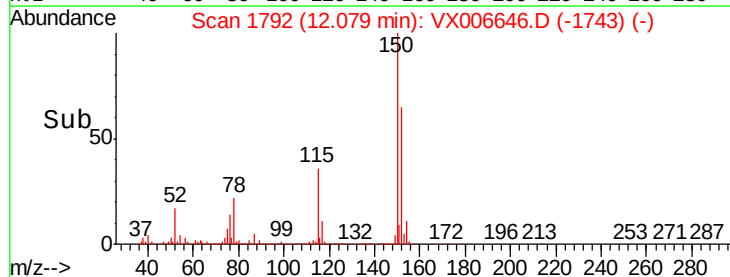
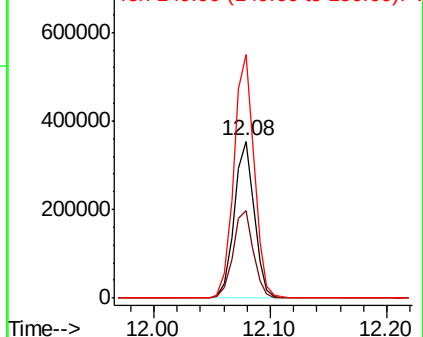


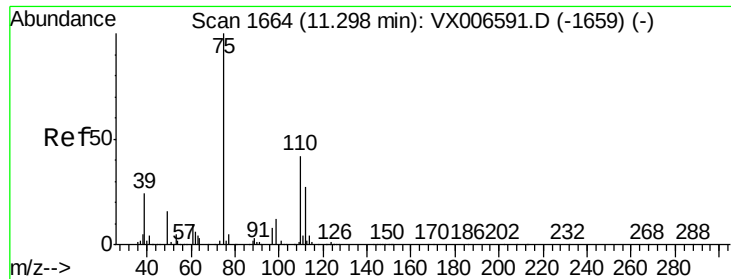
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. 0.00 min  
Lab File: VX006646.D  
Acq: 19 Dec 2018 19:24

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 56.9  | 39.1  | 117.2 |
| 150     | 157.2 | 0.0   | 344.8 |



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

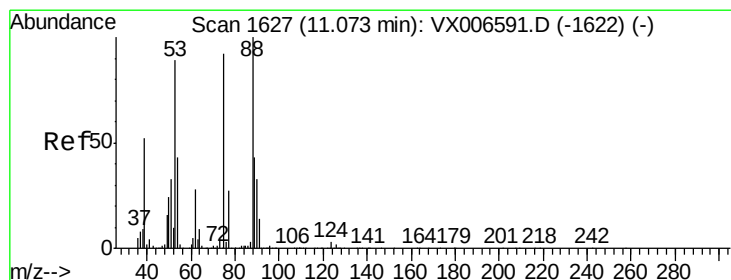
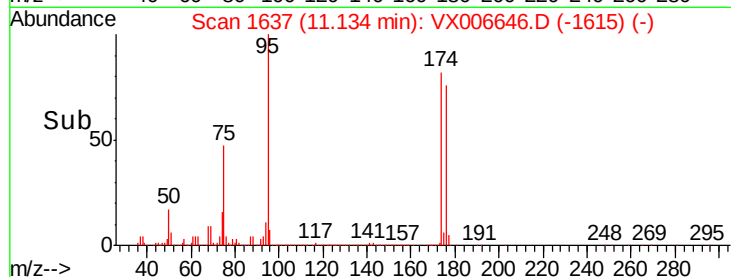
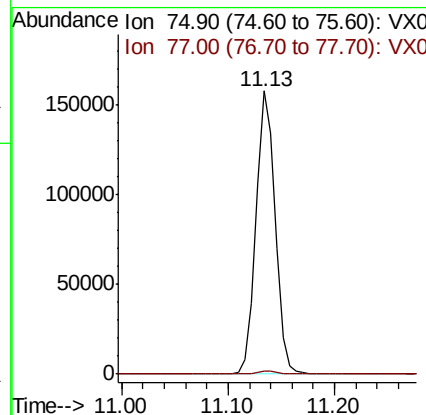
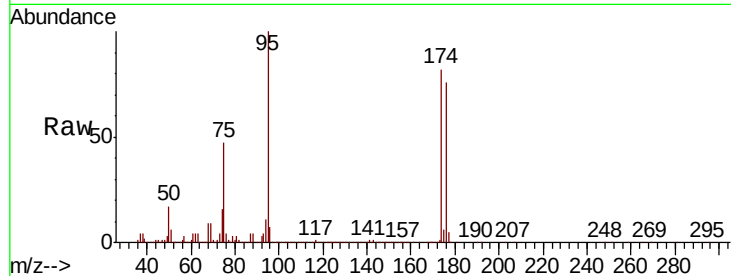




#76  
 1,2,3-Trichloropropane  
 Concen: 25.386 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.16 min  
 Lab File: VX006646.D  
 Acq: 19 Dec 2018 19:24

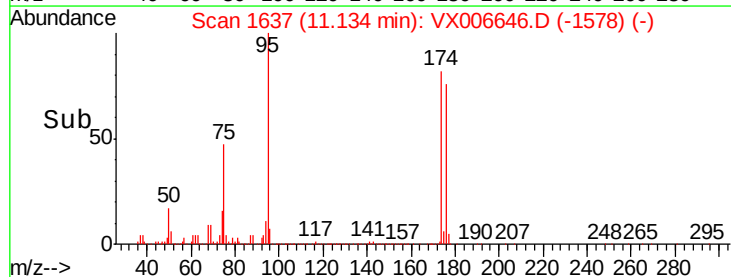
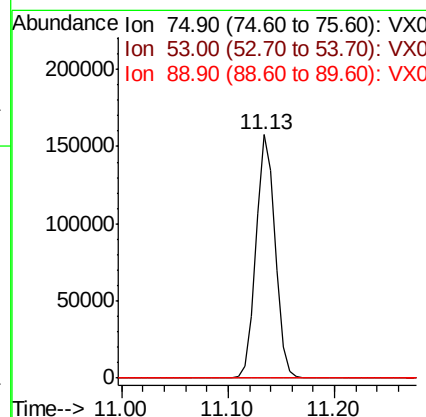
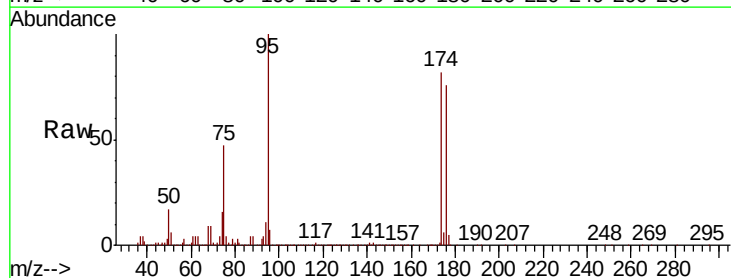
Instrument :  
 MSVOA\_X  
 ClientSampleId :

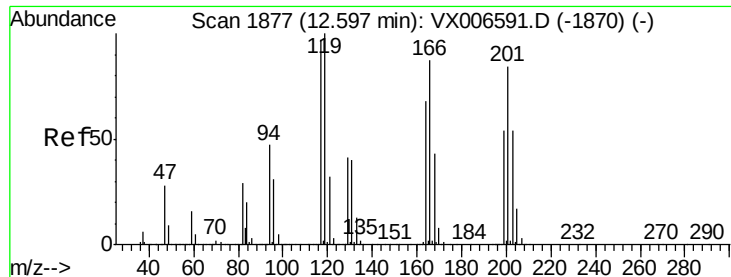
Tot Ion: 75 Resp: 200157  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 18.5 55.5#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 74.949 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. 0.06 min  
 Lab File: VX006646.D  
 Acq: 19 Dec 2018 19:24

Tgt Ion: 75 Resp: 200157  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 79.7 119.5#  
 89 0.0 38.0 57.0#





#90

Hexachloroethane

Concen: 3.303 ug/l

RT: 12.55 min Scan# 1869

Delta R.T. -0.05 min

Lab File: VX006646.D

Acq: 19 Dec 2018 19:24

Instrument :

MSVOA\_X

ClientSampleId :

Tot Ion:117 Resp: 44

Ion Ratio Lower Upper

117 100

201 70.5 42.9 128.7

