

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX053118\  
 Data File : VX002181.D  
 Acq On : 31 May 2018 17:00  
 Operator : JC/MD  
 Sample : J3180-11  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jun 01 03:21:49 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X052418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu May 24 13:09:03 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 244296   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 350306   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 307202   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 162910   | 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   | 199426   | 45.67 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.34% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 146471   | 41.81 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.62% |          |
| 50) Toluene-d8              | 8.72  | 98   | 582379   | 45.92 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.84% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 197215   | 39.74 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 79.48% |          |

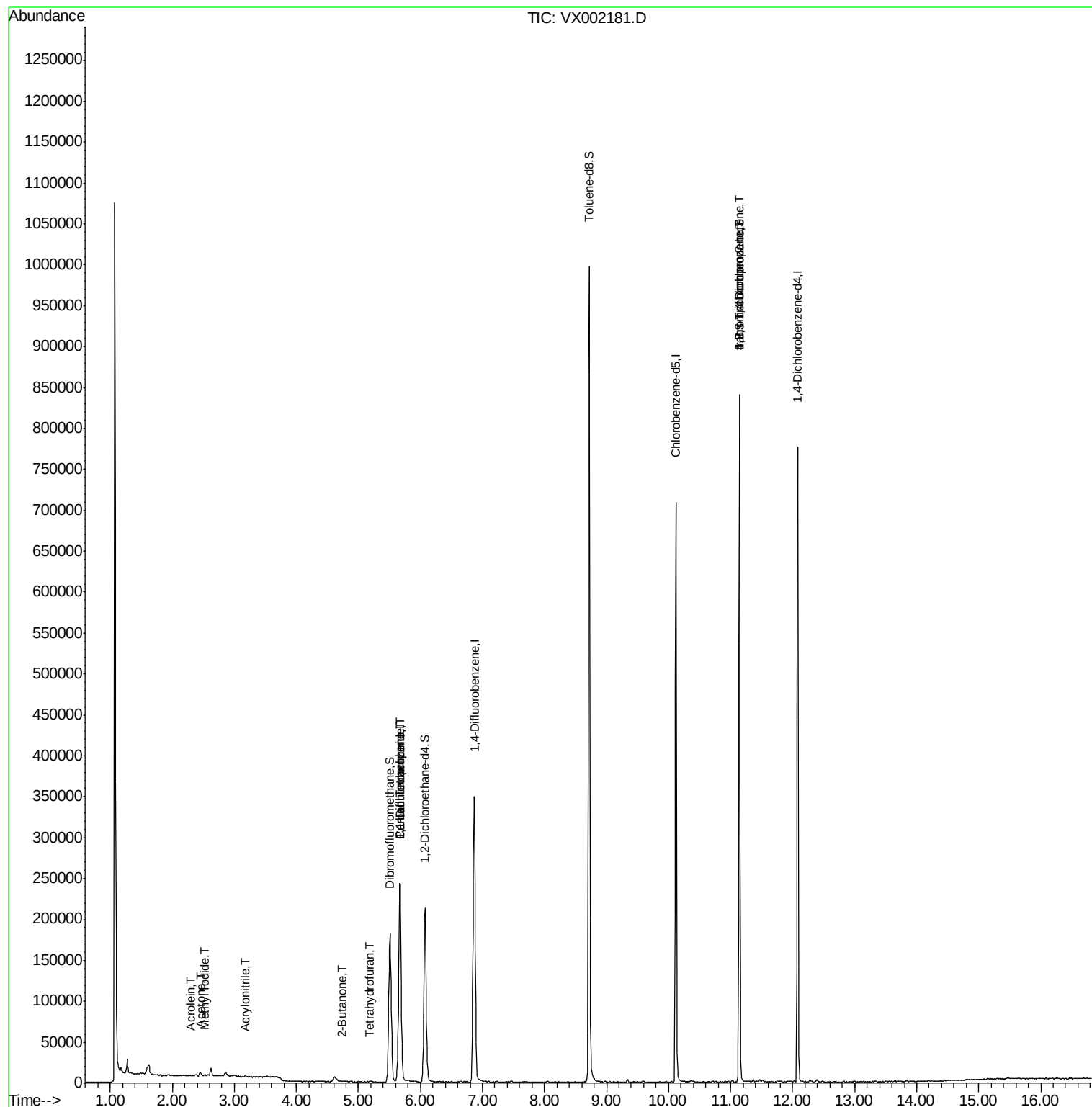
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.20  | 85   | 196      | Below Cal |        | 85     |
| 5) Bromomethane                | 1.65  | 94   | 1313     | Below Cal | #      | 69     |
| 10) Methyl Iodide              | 2.53  | 142  | 1346     | 0.33      | ug/l # | 93     |
| 13) Acrolein                   | 2.29  | 56   | 121      | 0.33      | ug/l # | 74     |
| 15) Acrylonitrile              | 3.16  | 53   | 537      | 0.30      | ug/l # | 65     |
| 16) Acetone                    | 2.45  | 43   | 5143     | 3.05      | ug/l   | 97     |
| 18) Methyl Acetate             | 2.78  | 43   | 873      | Below Cal | #      | 89     |
| 20) Methylene Chloride         | 2.86  | 84   | 2032     | Below Cal |        | 90     |
| 21) trans-1,2-Dichloroethene   | 3.18  | 96   | 270      | Below Cal | #      | 61     |
| 25) 2-Butanone                 | 4.73  | 43   | 1295     | 0.42      | ug/l # | 82     |
| 28) Bromochloromethane         | 5.03  | 49   | 142      | Below Cal | #      | 14     |
| 29) Tetrahydrofuran            | 5.19  | 42   | 749      | 0.37      | ug/l # | 46     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 17413    | 3.57      | ug/l # | 53     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 22835    | 4.02      | ug/l # | 16     |
| 41) Methacrylonitrile          | 5.07  | 41   | 45       | Below Cal | #      | 25     |
| 74) N-amyl acetate             | 6.48  | 43   | 117      | Below Cal | #      | 59     |
| 75) 1,1,2,2-Tetrachloroethane  | 11.36 | 83   | 45       | Below Cal | #      | 25     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 104977   | 26.83     | ug/l # | 32     |
| 79) 2-Chlorotoluene            | 11.52 | 91   | 676      | Below Cal |        | 78     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 104977   | 64.48     | ug/l # | 10     |

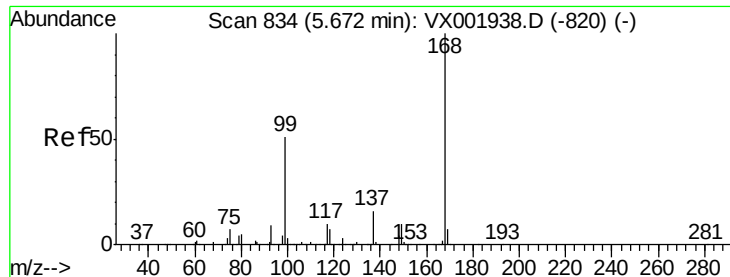
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX053118\  
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Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :

Quant Time: Jun 01 03:21:49 2018  
Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X052418W.M  
Quant Title : SW846 8260  
QLast Update : Thu May 24 13:09:03 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

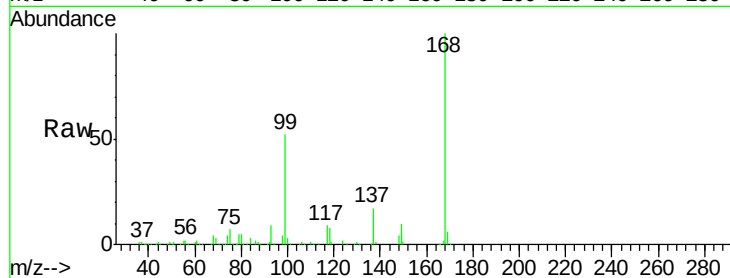
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:168 Resp: 244296

Ion Ratio Lower Upper

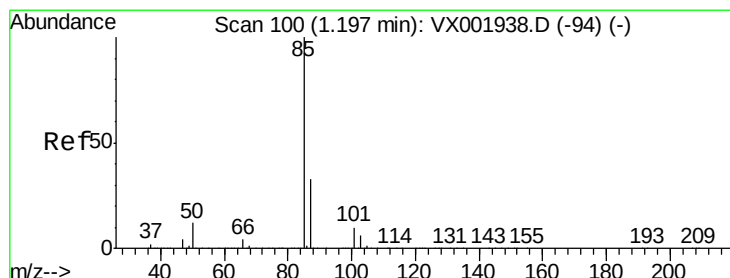
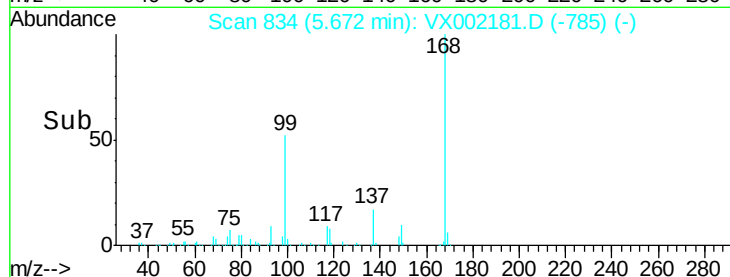
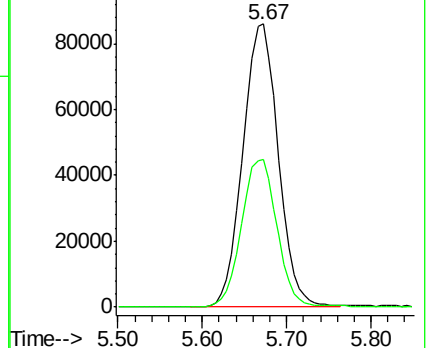
168 100

99 52.1 41.0 61.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.20 min Scan# 100

Delta R.T. 0.00 min

Lab File: VX002181.D

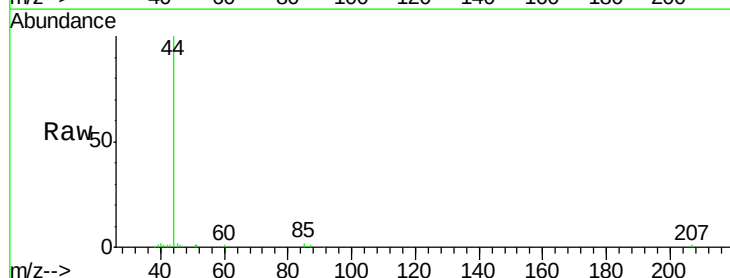
Acq: 31 May 2018 17:00

Tgt Ion: 85 Resp: 196

Ion Ratio Lower Upper

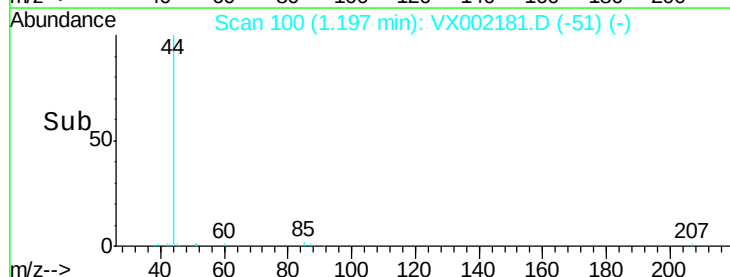
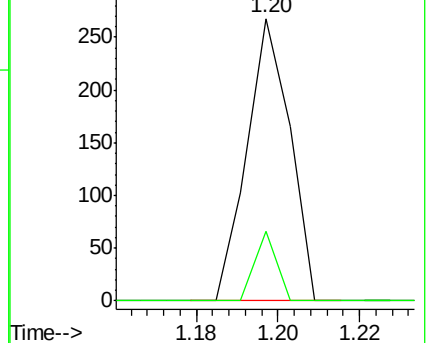
85 100

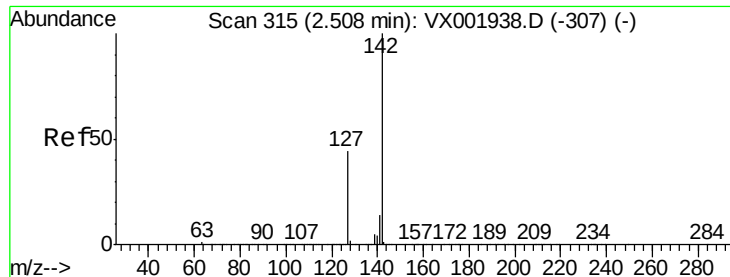
87 24.6 16.7 50.0



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

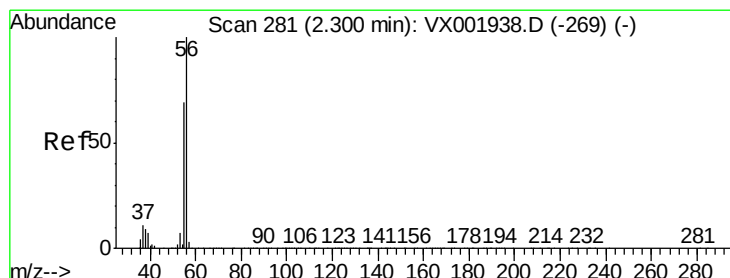
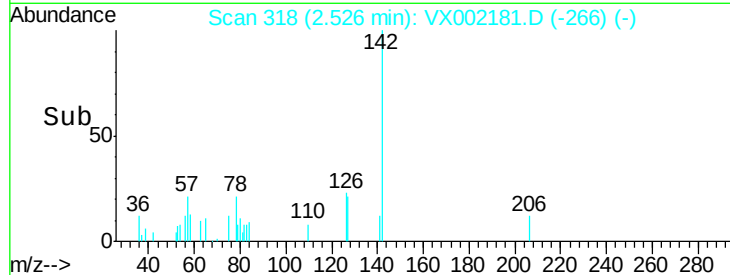
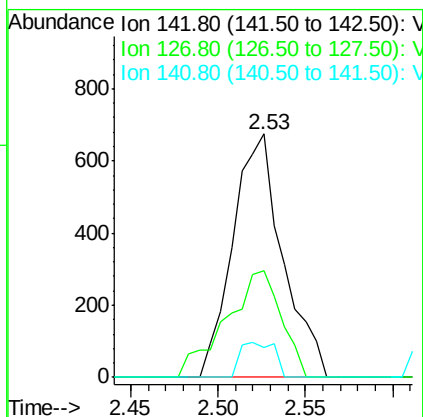
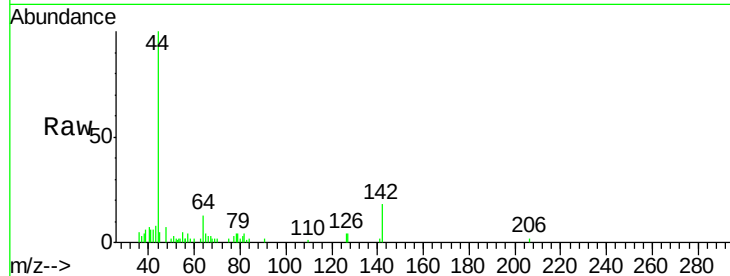




#10  
Methvl Iodide  
Concen: 0.33 ug/l  
RT: 2.53 min Scan# 318  
Delta R.T. 0.02 min  
Lab File: VX002181.D  
Acq: 31 May 2018 17:00

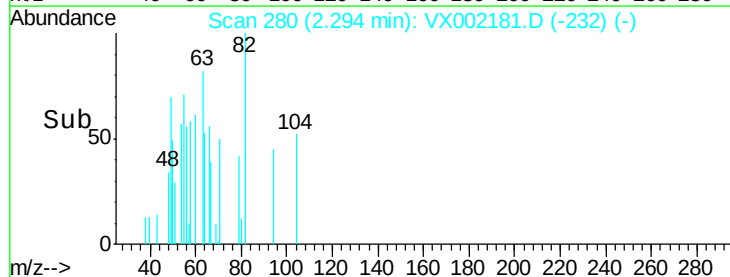
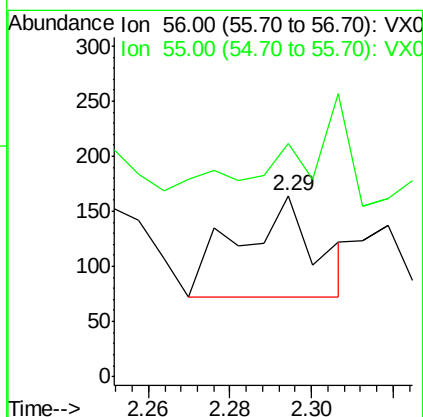
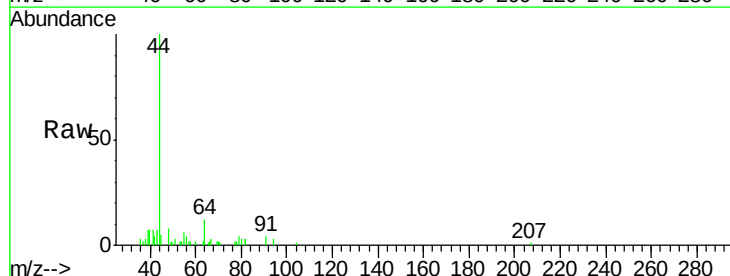
Instrument :  
MSVOA\_X  
ClientSampleId :

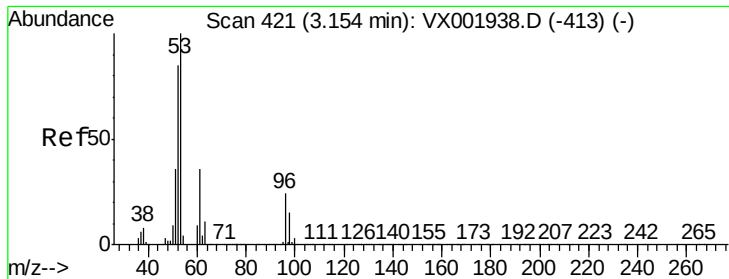
Tot Ion:142 Resp: 1346  
Ion Ratio Lower Upper  
142 100  
127 48.4 35.5 53.3  
141 9.8 11.3 16.9#



#13  
Acrolein  
Concen: 0.33 ug/l  
RT: 2.29 min Scan# 280  
Delta R.T. -0.01 min  
Lab File: VX002181.D  
Acq: 31 May 2018 17:00

Tgt Ion: 56 Resp: 121  
Ion Ratio Lower Upper  
56 100  
55 49.6 56.8 85.2#





#15

Acrylonitrile

Concen: 0.30 ug/l

RT: 3.16 min Scan# 422

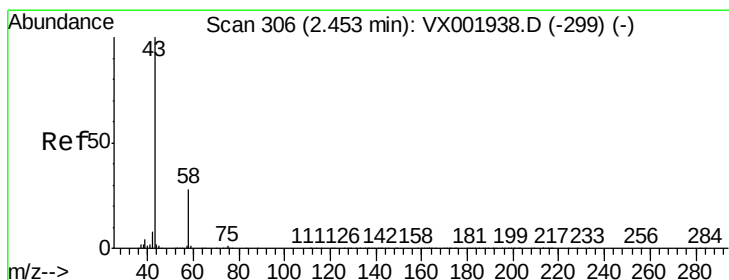
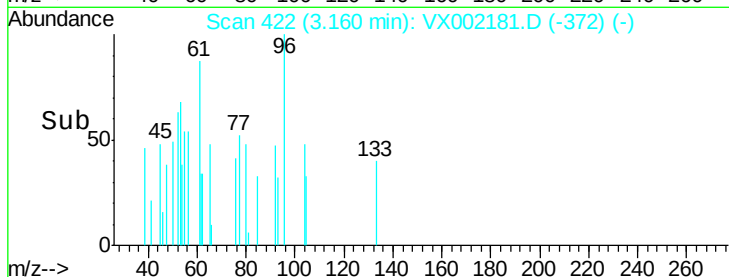
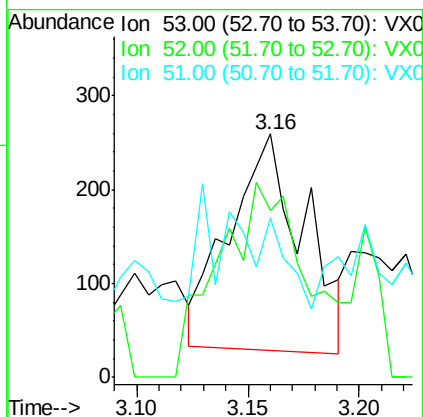
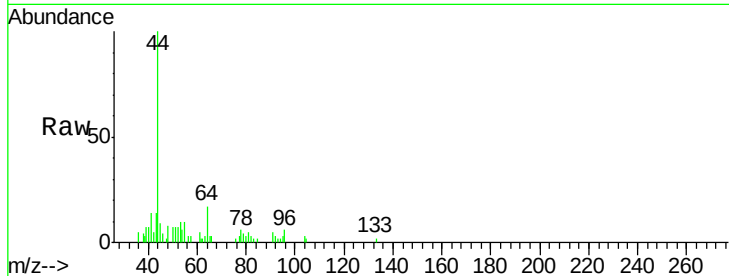
Delta R.T. 0.01 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :  
MSVOA\_X  
ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 53    | Resp: | 537   |
| Ion      | Ratio | Lower | Upper |
| 53       | 100   |       |       |
| 52       | 104.5 | 66.4  | 99.6# |
| 51       | 0.0   | 29.3  | 43.9# |



#16

Acetone

Concen: 3.05 ug/l

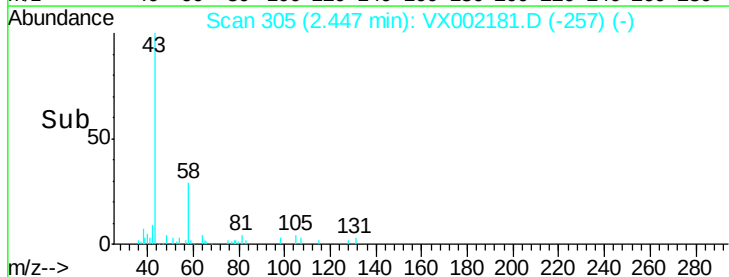
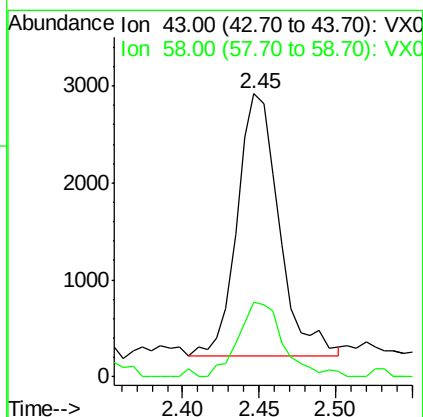
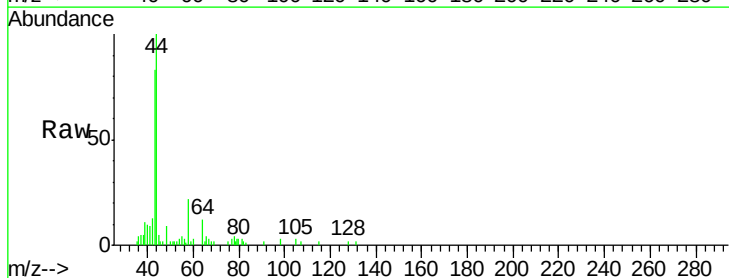
RT: 2.45 min Scan# 305

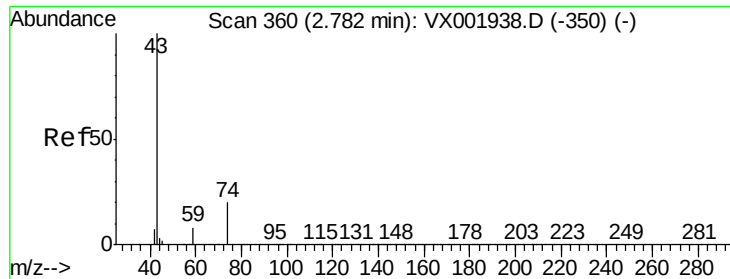
Delta R.T. -0.01 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 5143  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 26.4  | 22.3  | 33.5  |

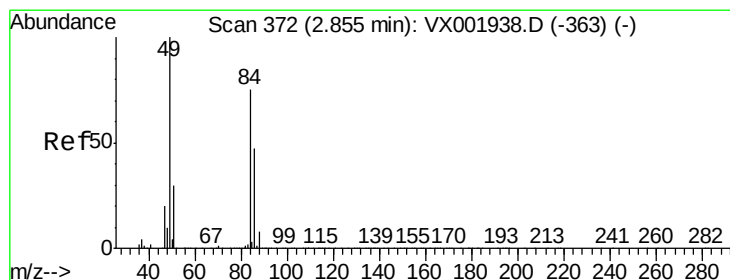
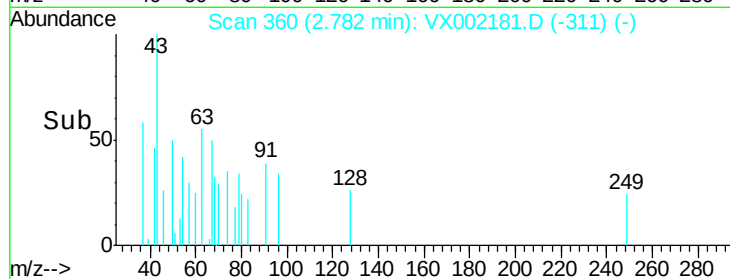
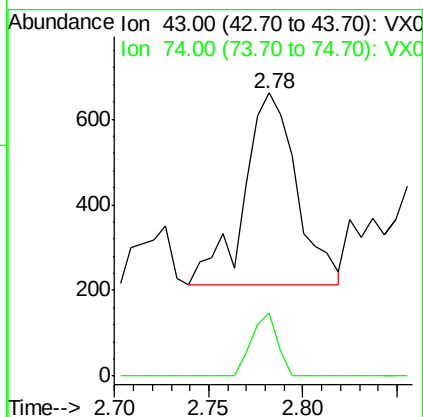
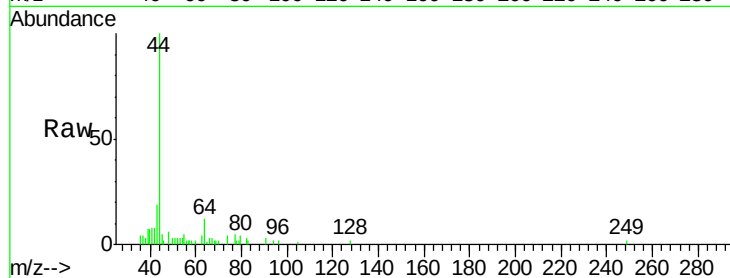




#18  
Methyl Acetate  
Concen: Below Cal  
RT: 2.78 min Scan# 360  
Delta R.T. 0.00 min  
Lab File: VX002181.D  
Acq: 31 May 2018 17:00

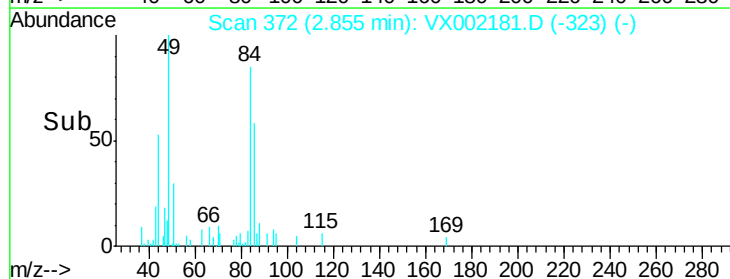
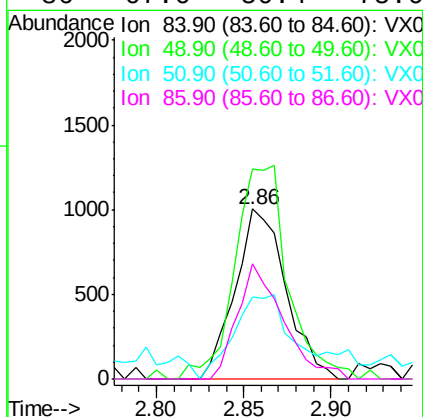
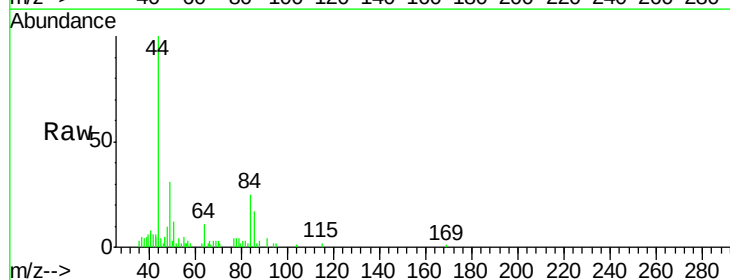
Instrument :  
MSVOA\_X  
ClientSampled :

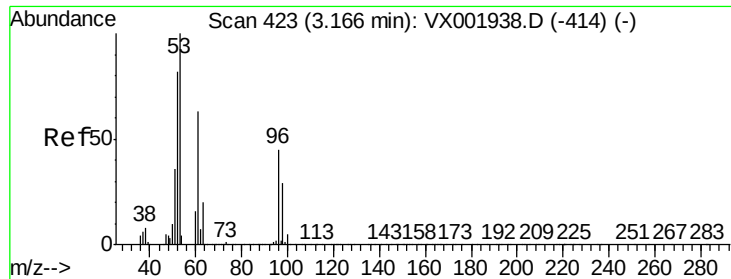
Tot Ion: 43 Resp: 873  
Ion Ratio Lower Upper  
43 100  
74 15.9 16.8 25.2#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.86 min Scan# 372  
Delta R.T. 0.00 min  
Lab File: VX002181.D  
Acq: 31 May 2018 17:00

Tgt Ion: 84 Resp: 2032  
Ion Ratio Lower Upper  
84 100  
49 116.3 107.2 160.8  
51 39.2 32.4 48.6  
86 67.6 50.4 75.6





#21

trans-1,2-Dichloroethene

Concen: Below Cal

RT: 3.18 min Scan# 425

Delta R.T. 0.01 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

ClientSampled :

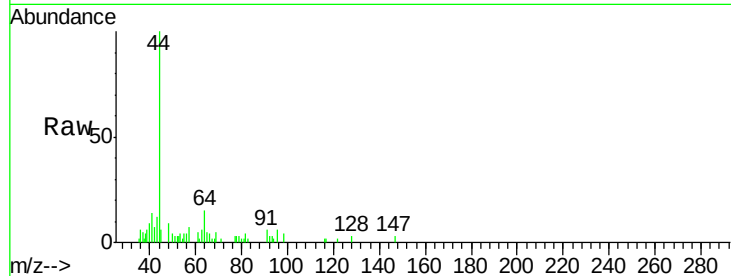
Tot Ion: 96 Resp: 270

Ion Ratio Lower Upper

96 100

61 73.0 113.3 169.9#

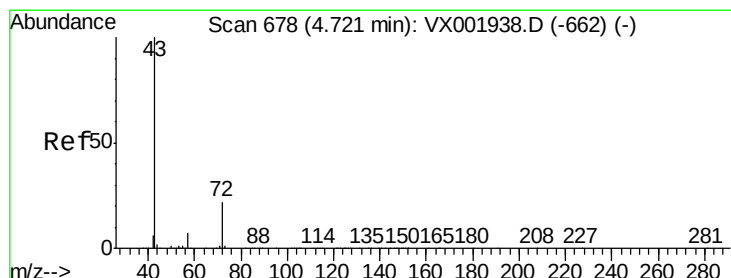
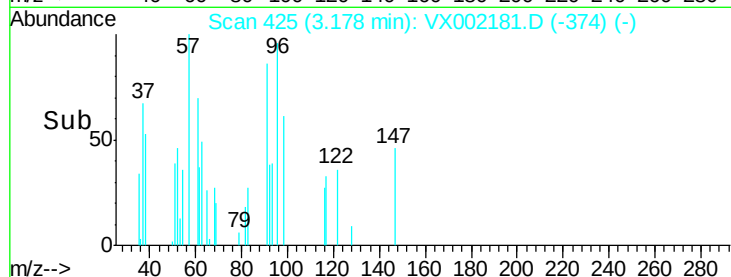
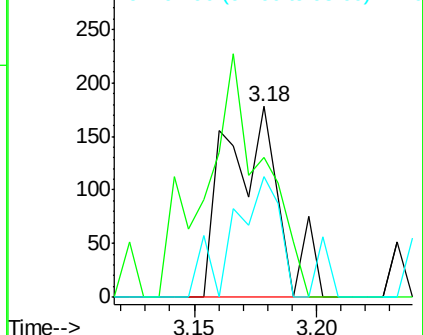
98 63.5 51.7 77.5



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



#25

2-Butanone

Concen: 0.42 ug/l

RT: 4.73 min Scan# 679

Delta R.T. 0.01 min

Lab File: VX002181.D

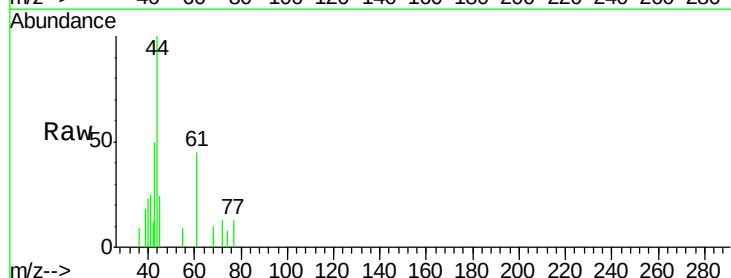
Acq: 31 May 2018 17:00

Tgt Ion: 43 Resp: 1295

Ion Ratio Lower Upper

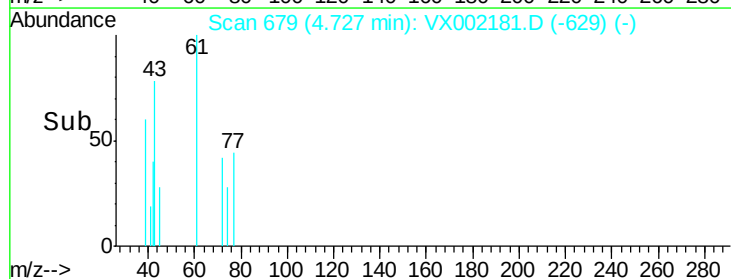
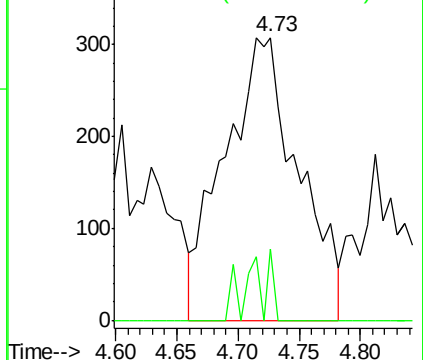
43 100

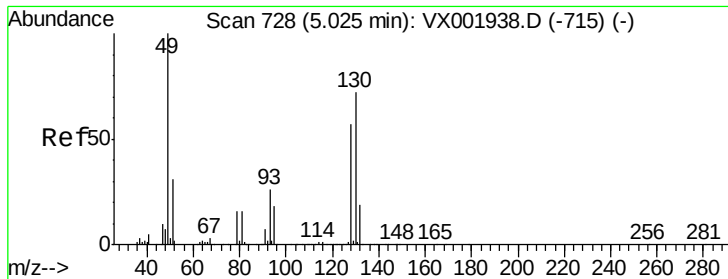
72 31.0 17.9 26.9#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





#28

Bromochloromethane

Concen: Below Cal

RT: 5.03 min Scan# 729

Delta R.T. 0.01 min

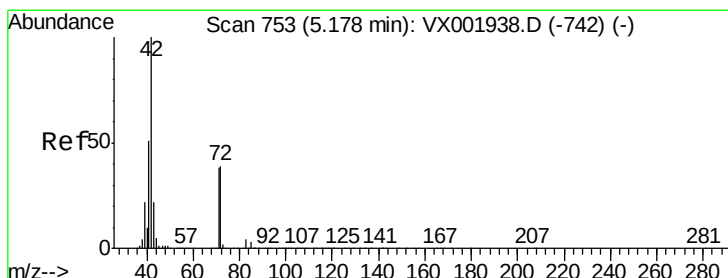
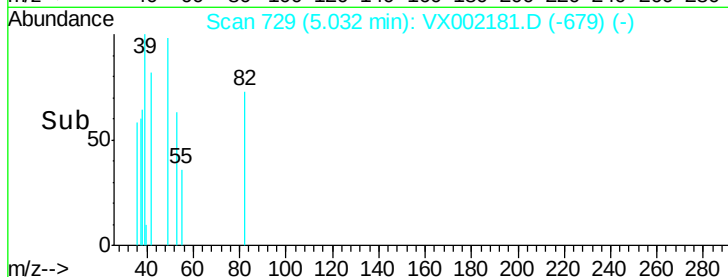
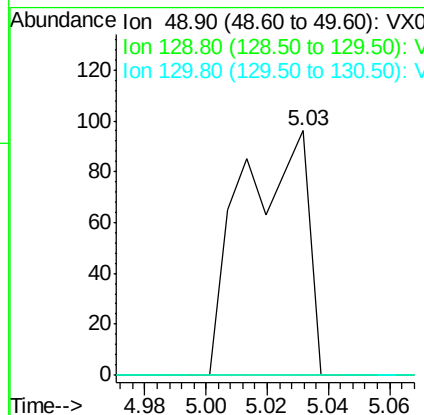
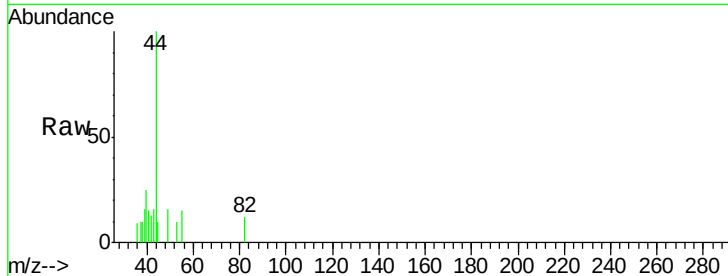
Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 49 Resp: 142

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 49  | 100   |       |       |
| 129 | 0.0   | 0.0   | 3.8   |
| 130 | 0.0   | 59.4  | 89.2# |



#29

Tetrahydrofuran

Concen: 0.37 ug/l

RT: 5.19 min Scan# 755

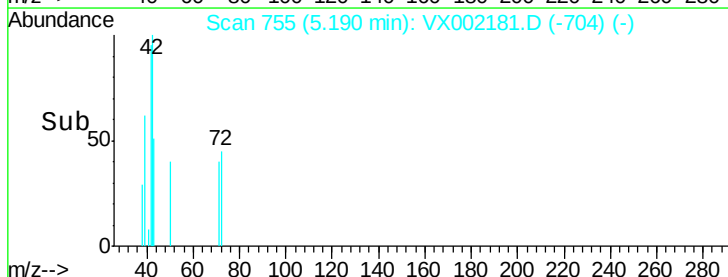
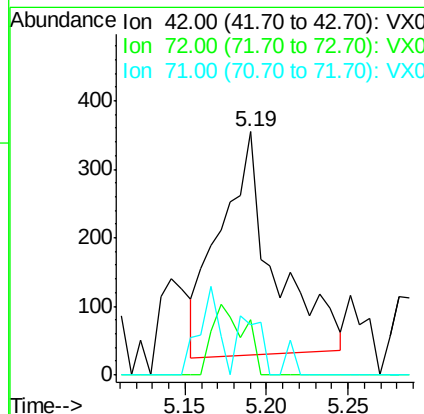
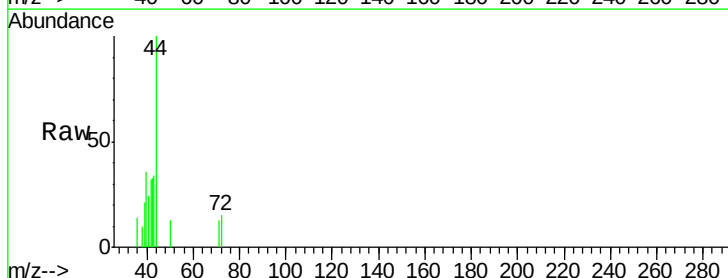
Delta R.T. 0.01 min

Lab File: VX002181.D

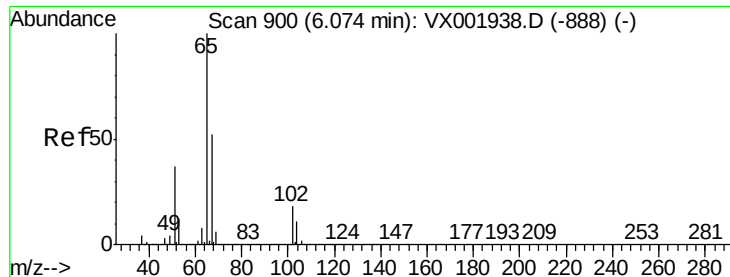
Acq: 31 May 2018 17:00

Tgt Ion: 42 Resp: 749

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 42  | 100   |       |       |
| 72  | 0.0   | 31.4  | 47.0# |
| 71  | 11.5  | 29.5  | 44.3# |



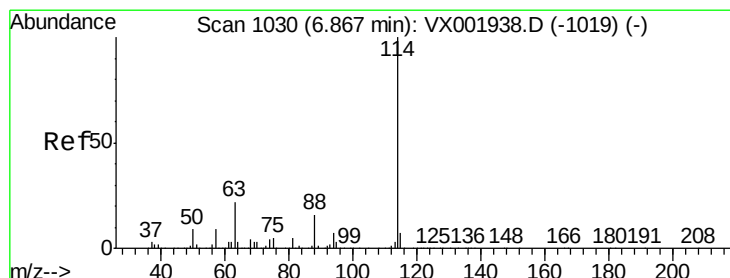
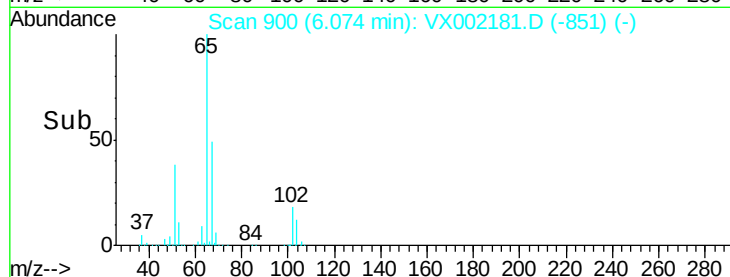
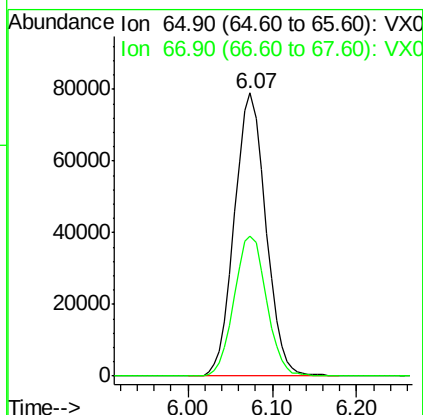
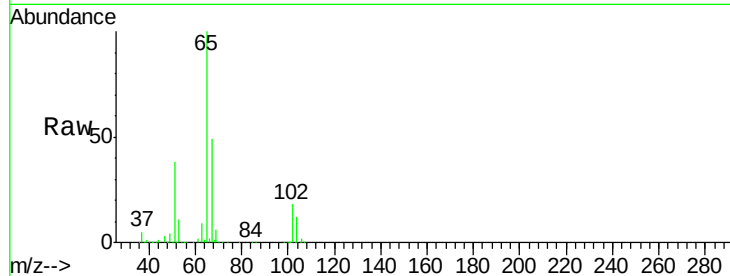




#33  
 1,2-Dichloroethane-d4  
 Concen: 45.67 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.00 min  
 Lab File: VX002181.D  
 Acq: 31 May 2018 17:00

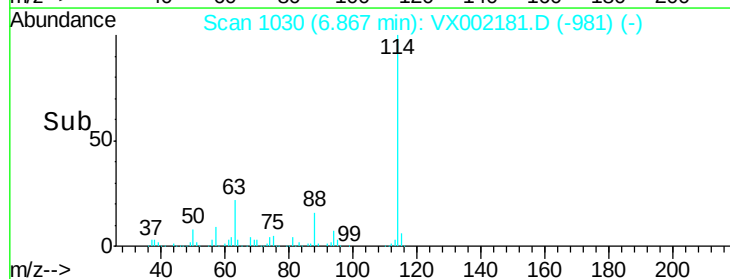
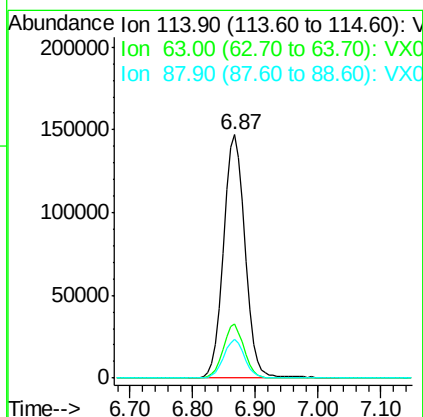
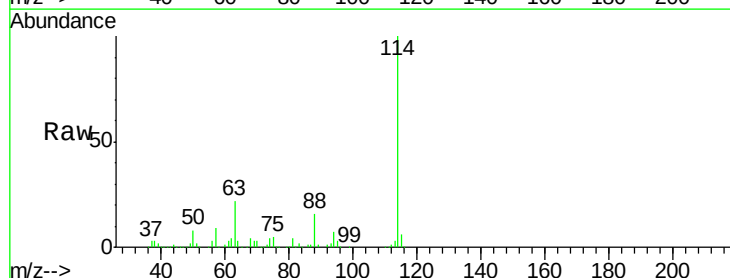
Instrument :  
 MSVOA\_X  
 ClientSampleId :

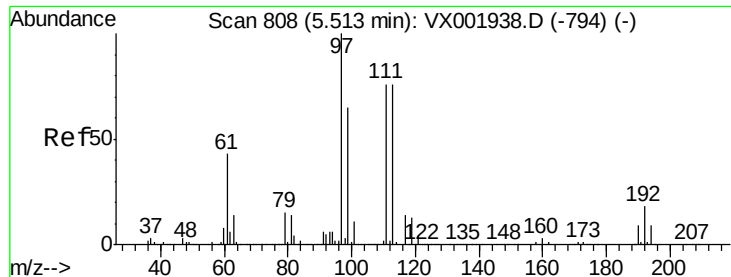
Tot Ion: 65 Resp: 199426  
 Ion Ratio Lower Upper  
 65 100  
 67 51.0 0.0 104.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. 0.00 min  
 Lab File: VX002181.D  
 Acq: 31 May 2018 17:00

Tgt Ion: 114 Resp: 350306  
 Ion Ratio Lower Upper  
 114 100  
 63 22.1 0.0 43.2  
 88 15.7 0.0 31.6

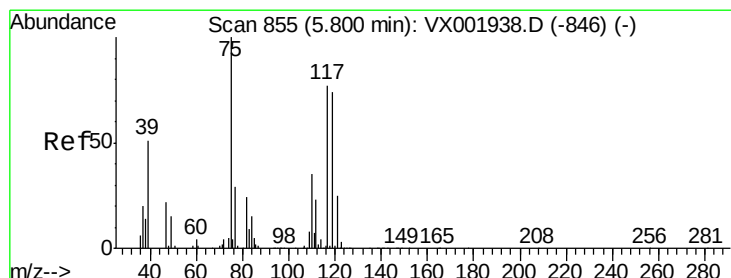
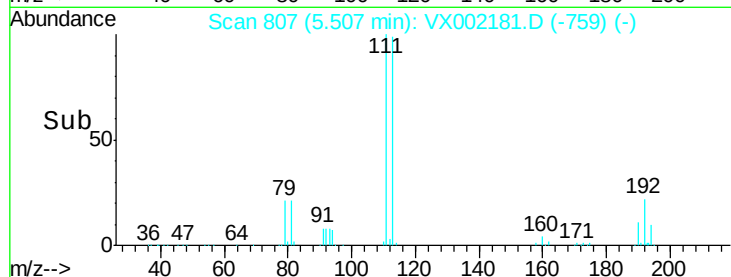
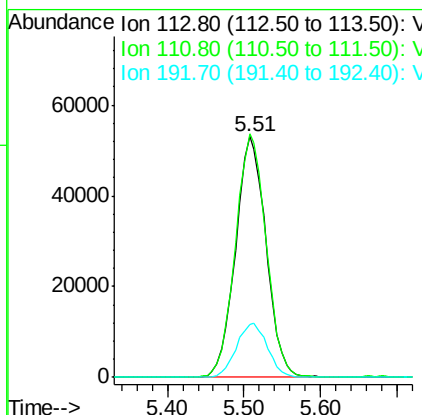
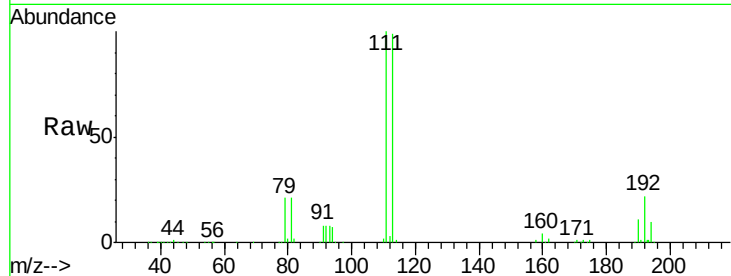




#35  
 Dibromofluoromethane  
 Concen: 41.81 ug/l  
 RT: 5.51 min Scan# 807  
 Delta R.T. -0.01 min  
 Lab File: VX002181.D  
 Acq: 31 May 2018 17:00

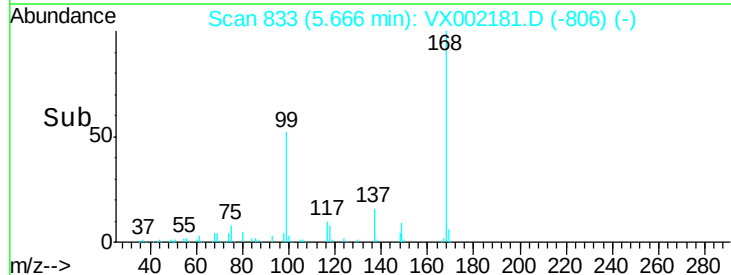
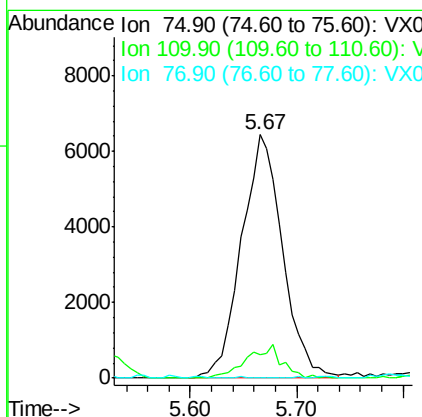
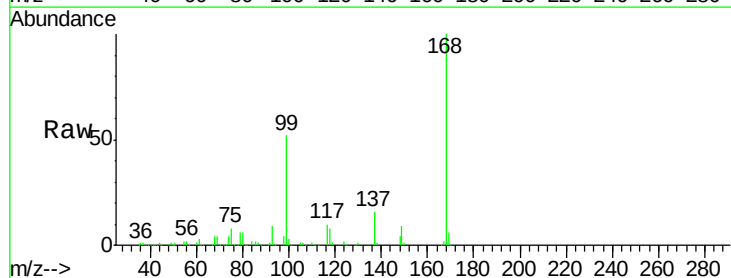
Instrument :  
 MSVOA\_X  
 ClientSampleId :

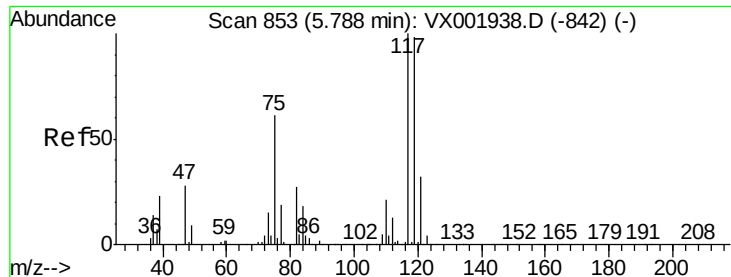
Tot Ion:113 Resp: 146471  
 Ion Ratio Lower Upper  
 113 100  
 111 102.0 82.0 123.0  
 192 22.9 18.9 28.3



#36  
 1,1-Dichloropropene  
 Concen: 3.57 ug/l  
 RT: 5.67 min Scan# 833  
 Delta R.T. -0.13 min  
 Lab File: VX002181.D  
 Acq: 31 May 2018 17:00

Tgt Ion: 75 Resp: 17413  
 Ion Ratio Lower Upper  
 75 100  
 110 11.7 17.4 52.2#  
 77 0.0 24.4 36.6#





#38

Carbon Tetrachloride

Concen: 4.02 ua/l

RT: 5.67 min Scan# 833

Delta R.T. -0.12 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

ClientSampled :

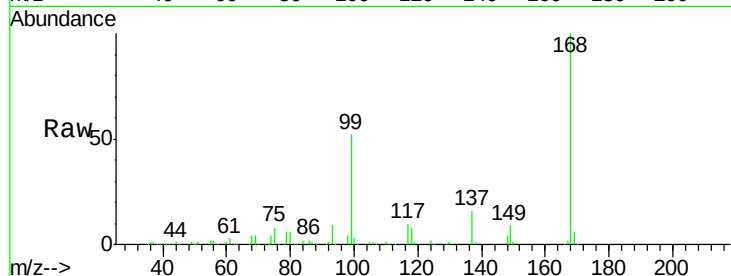
Tot Ion:117 Resp: 22835

Ion Ratio Lower Upper

117 100

119 6.1 78.5 117.7#

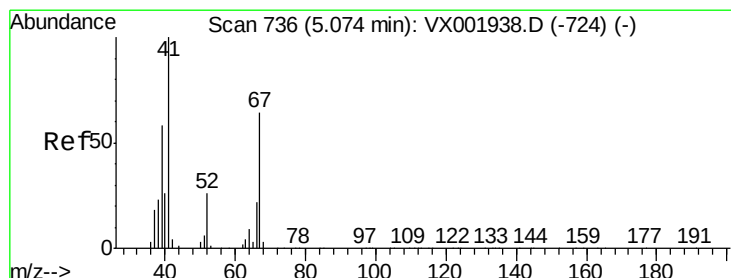
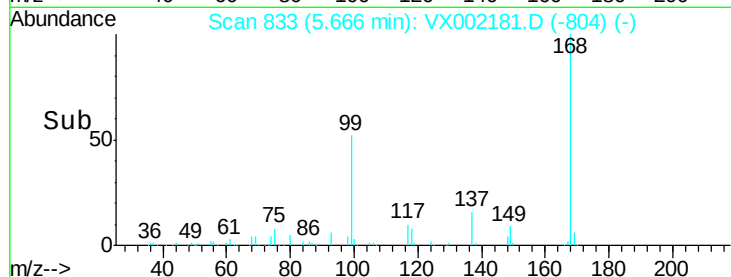
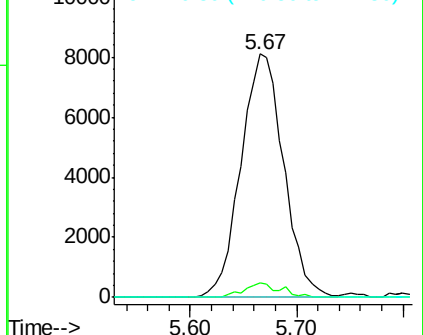
121 0.0 25.5 38.3#



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



#41

Methacrylonitrile

Concen: Below Cal

RT: 5.07 min Scan# 736

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Tgt Ion: 41 Resp: 45

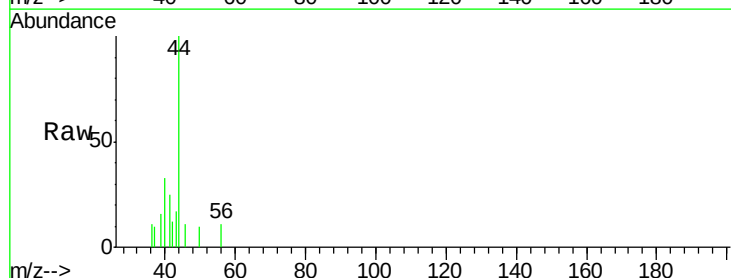
Ion Ratio Lower Upper

41 100

39 0.0 46.0 69.0#

67 0.0 50.6 75.8#

52 0.0 21.9 32.9#

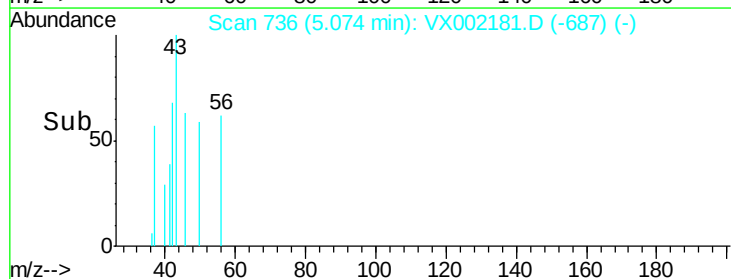
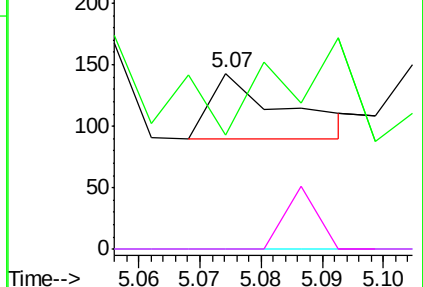


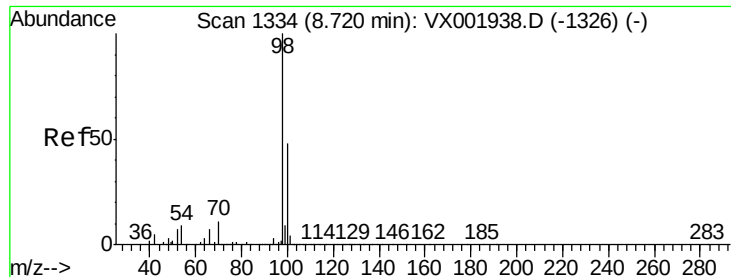
Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 67.00 (66.70 to 67.70): VX0

Ion 52.00 (51.70 to 52.70): VX0





#50

Toluene-d8

Concen: 45.92 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

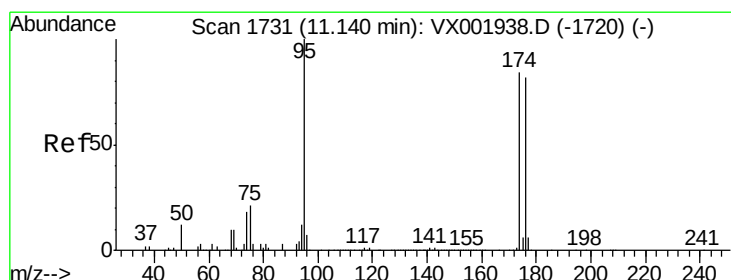
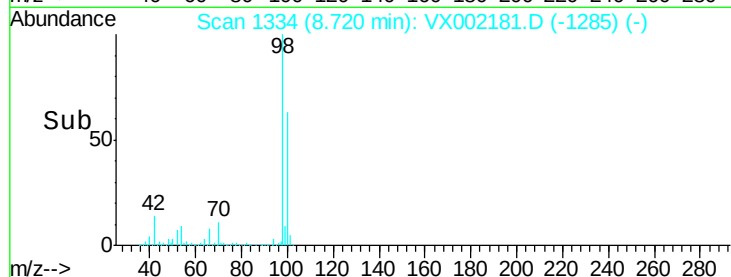
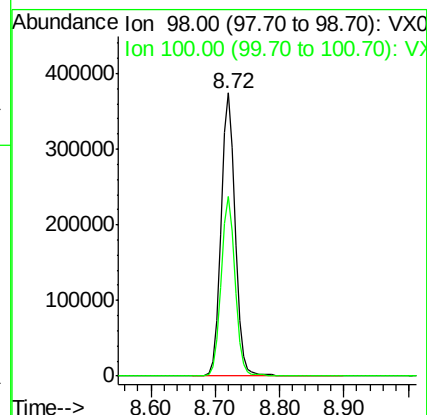
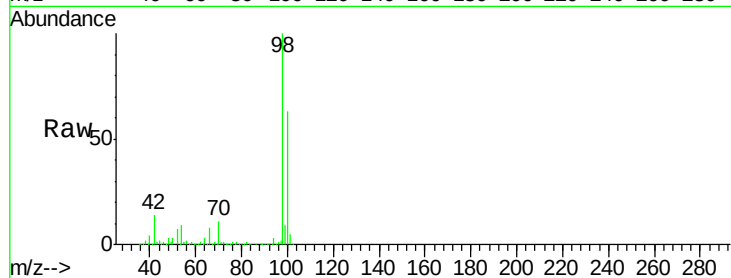
ClientSampleId :

Tot Ion: 98 Resp: 582379

Ion Ratio Lower Upper

98 100

100 63.0 51.5 77.3



#62

4-Bromofluorobenzene

Concen: 39.74 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

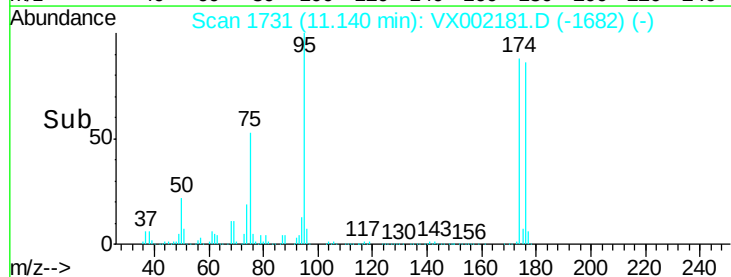
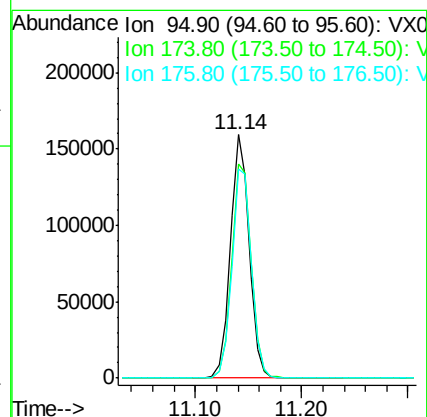
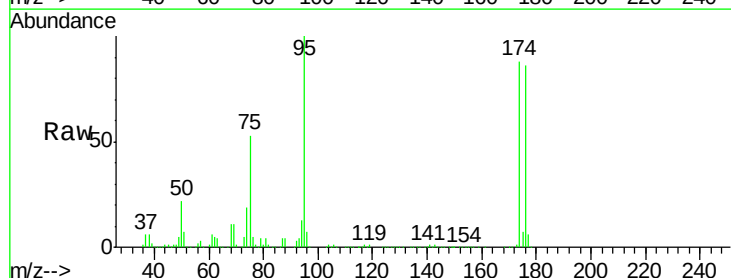
Tgt Ion: 95 Resp: 197215

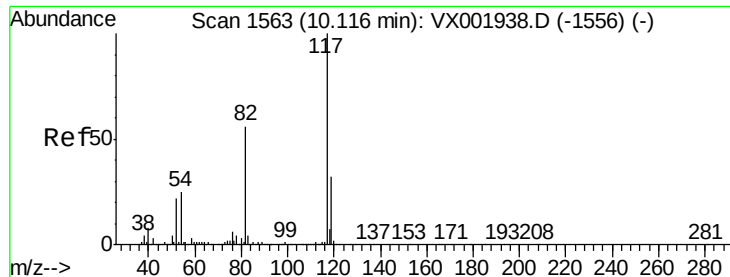
Ion Ratio Lower Upper

95 100

174 91.4 0.0 178.8

176 89.5 0.0 175.6





#63

Chlorobenzene-d5

Concen: 50.00 ug/l

RT: 10.12 min Scan# 1563

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

ClientSampled :

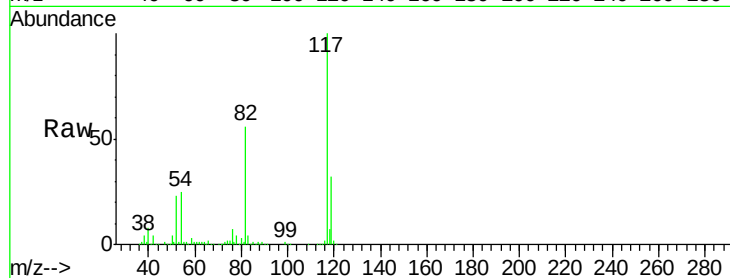
Tot Ion:117 Resp: 307202

Ion Ratio Lower Upper

117 100

82 55.5 44.8 67.2

119 31.7 25.5 38.3



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): V

Ion 118.90 (118.60 to 119.60): V

10.12

250000

200000

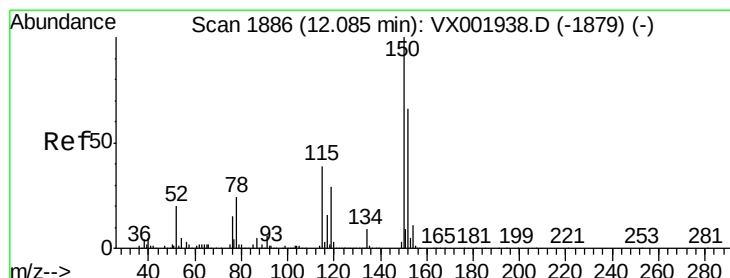
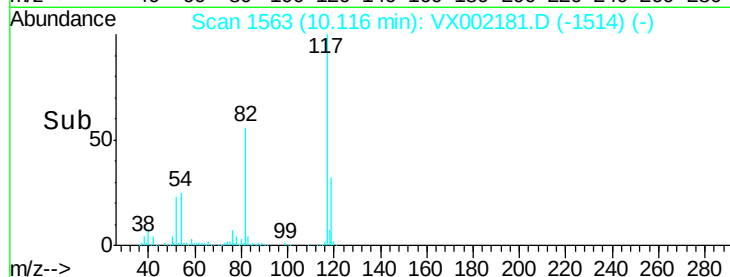
150000

100000

50000

0

Time--> 10.00 10.10 10.20 10.30



#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.09 min Scan# 1886

Delta R.T. 0.00 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

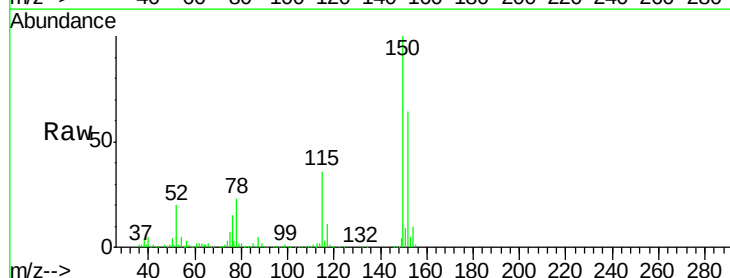
Tgt Ion:152 Resp: 162910

Ion Ratio Lower Upper

152 100

115 56.5 42.3 126.8

150 156.7 0.0 351.0



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

12.09

250000

200000

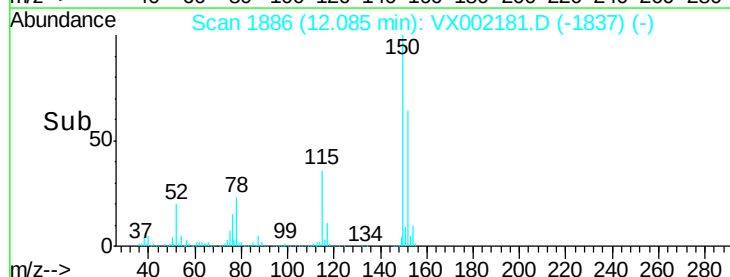
150000

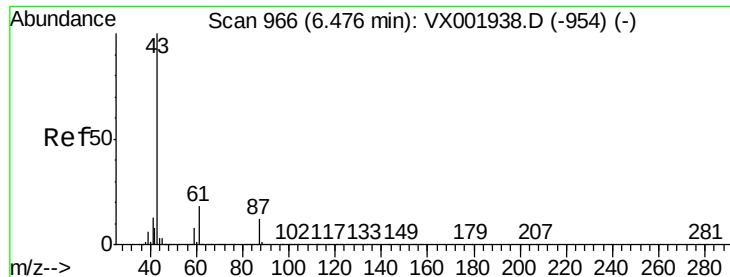
100000

50000

0

Time--> 12.00 12.05 12.10 12.15





#74

N-amvl acetate

Concen: Below Cal

RT: 6.48 min Scan# 967

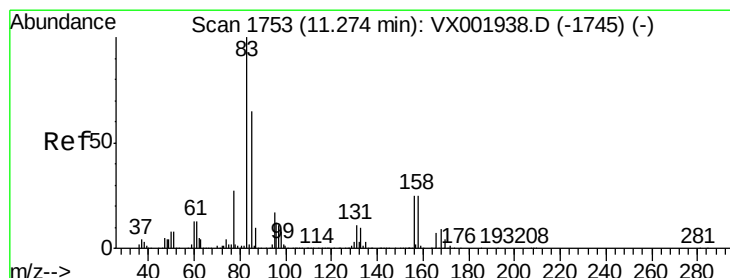
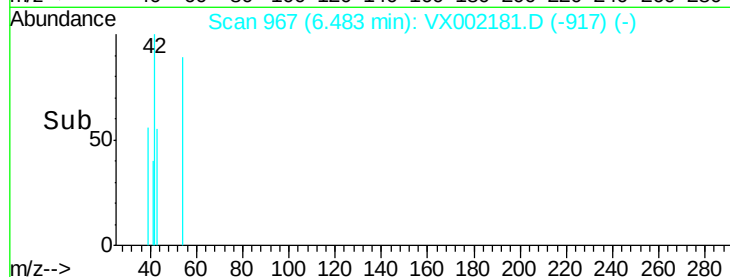
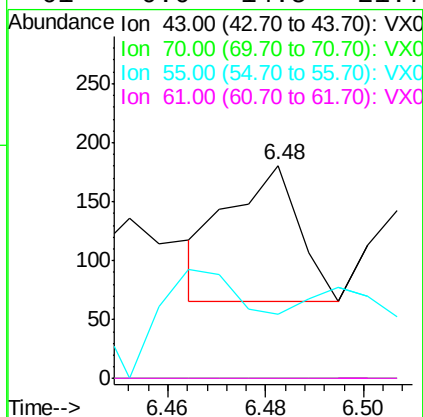
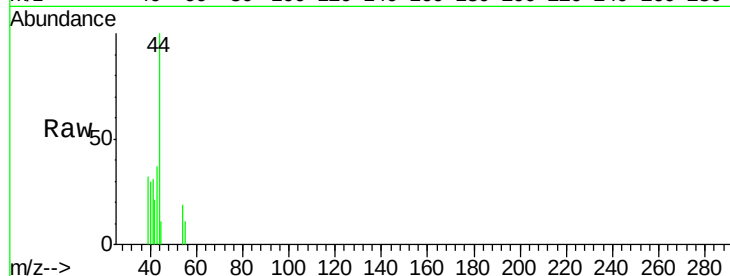
Delta R.T. 0.01 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :  
MSVOA\_X  
ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 117   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 70       | 0.0   | 0.1   | 0.1#  |
| 55       | 74.4  | 0.1   | 0.1#  |
| 61       | 0.0   | 14.5  | 21.7# |



#75

1,1,2,2-Tetrachloroethane

Concen: Below Cal

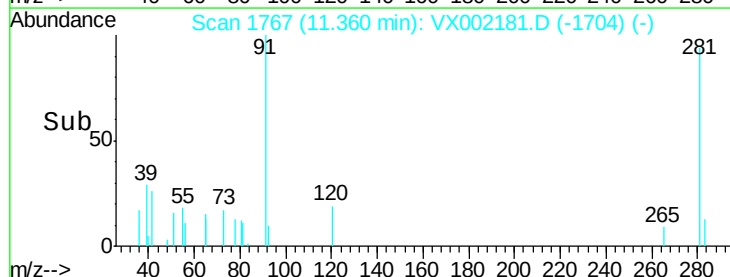
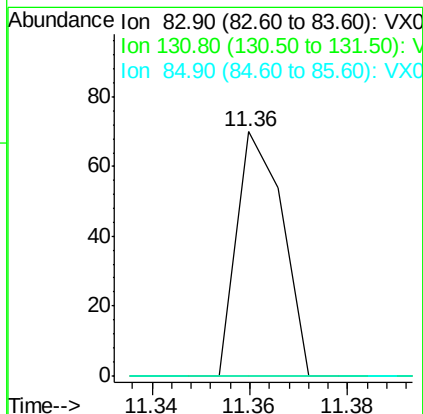
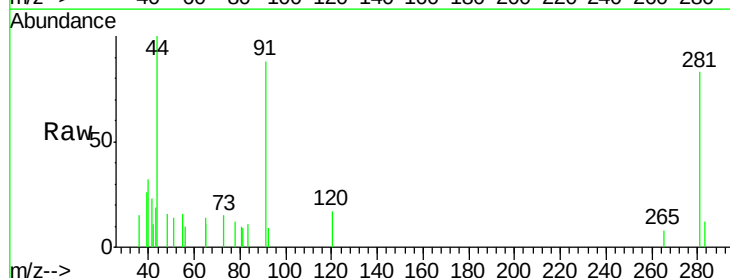
RT: 11.36 min Scan# 1767

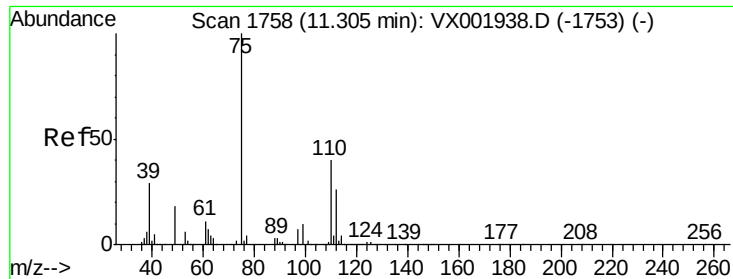
Delta R.T. 0.09 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 45    |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 0.0   | 5.7   | 17.0# |
| 85       | 0.0   | 32.6  | 97.7# |





#76

1,2,3-Trichloropropane

Concen: 26.83 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

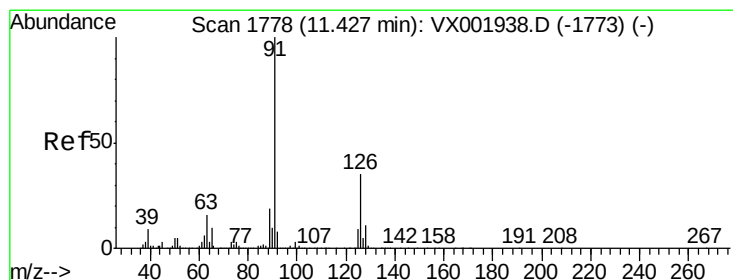
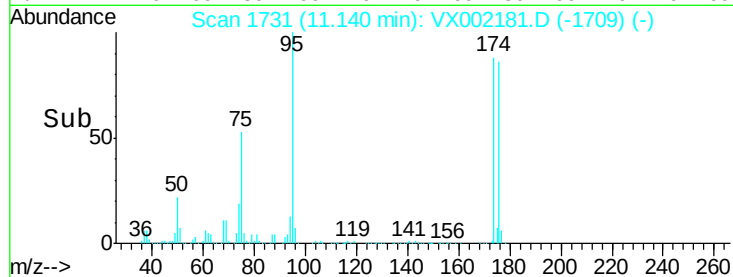
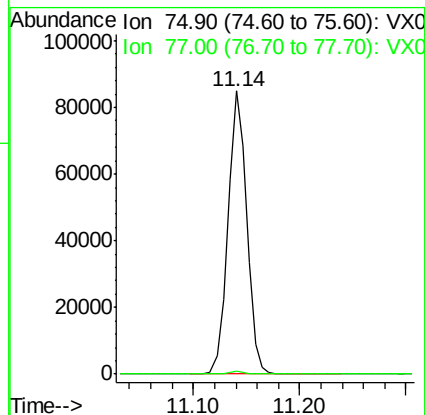
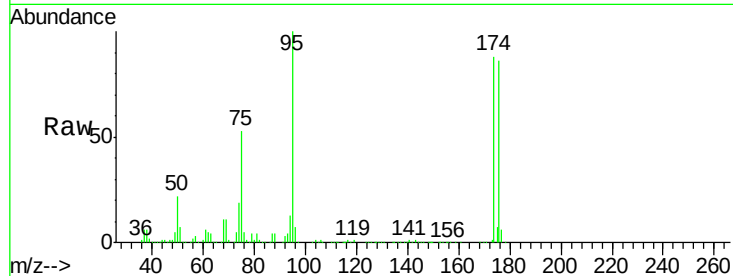
ClientSampleId :

Tot Ion: 75 Resp: 104977

Ion Ratio Lower Upper

75 100

77 1.1 22.8 68.3#



#79

2-Chlorotoluene

Concen: Below Cal

RT: 11.52 min Scan# 1793

Delta R.T. 0.09 min

Lab File: VX002181.D

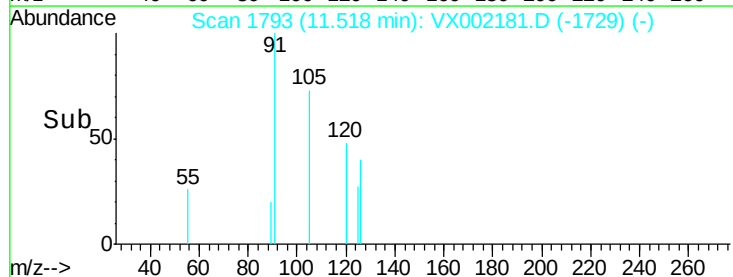
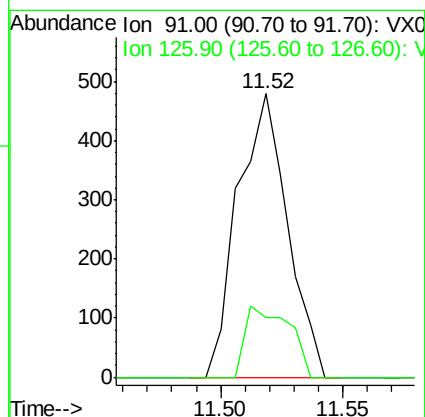
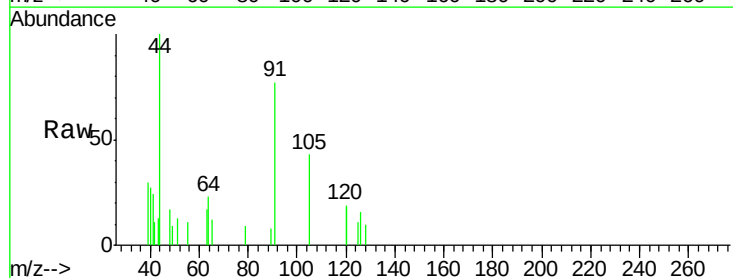
Acq: 31 May 2018 17:00

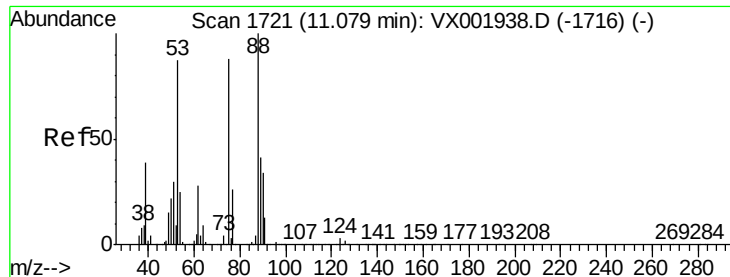
Tgt Ion: 91 Resp: 676

Ion Ratio Lower Upper

91 100

126 22.0 17.4 52.2





#81

trans-1,4-Dichloro-2-butene

Concen: 64.48 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX002181.D

Acq: 31 May 2018 17:00

Instrument :

MSVOA\_X

ClientSampleId :

Tot Ion: 75 Resp: 104977

Ion Ratio Lower Upper

75 100

53 0.1 78.0 117.0#

89 0.0 39.4 59.2#

