

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX021220\  
 Data File : VX014928.D  
 Acq On : 12 Feb 2020 16:09  
 Operator : JC/SP  
 Sample : L1503-02DL 10X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Feb 13 03:36:21 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X021020W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Feb 10 12:09:20 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 430763   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 682681   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 656763   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 345417   | 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   | 249812   | 51.39 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.78% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 209427   | 49.90 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.80%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 818702   | 51.10 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.20% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 305777   | 52.99 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.98% |          |

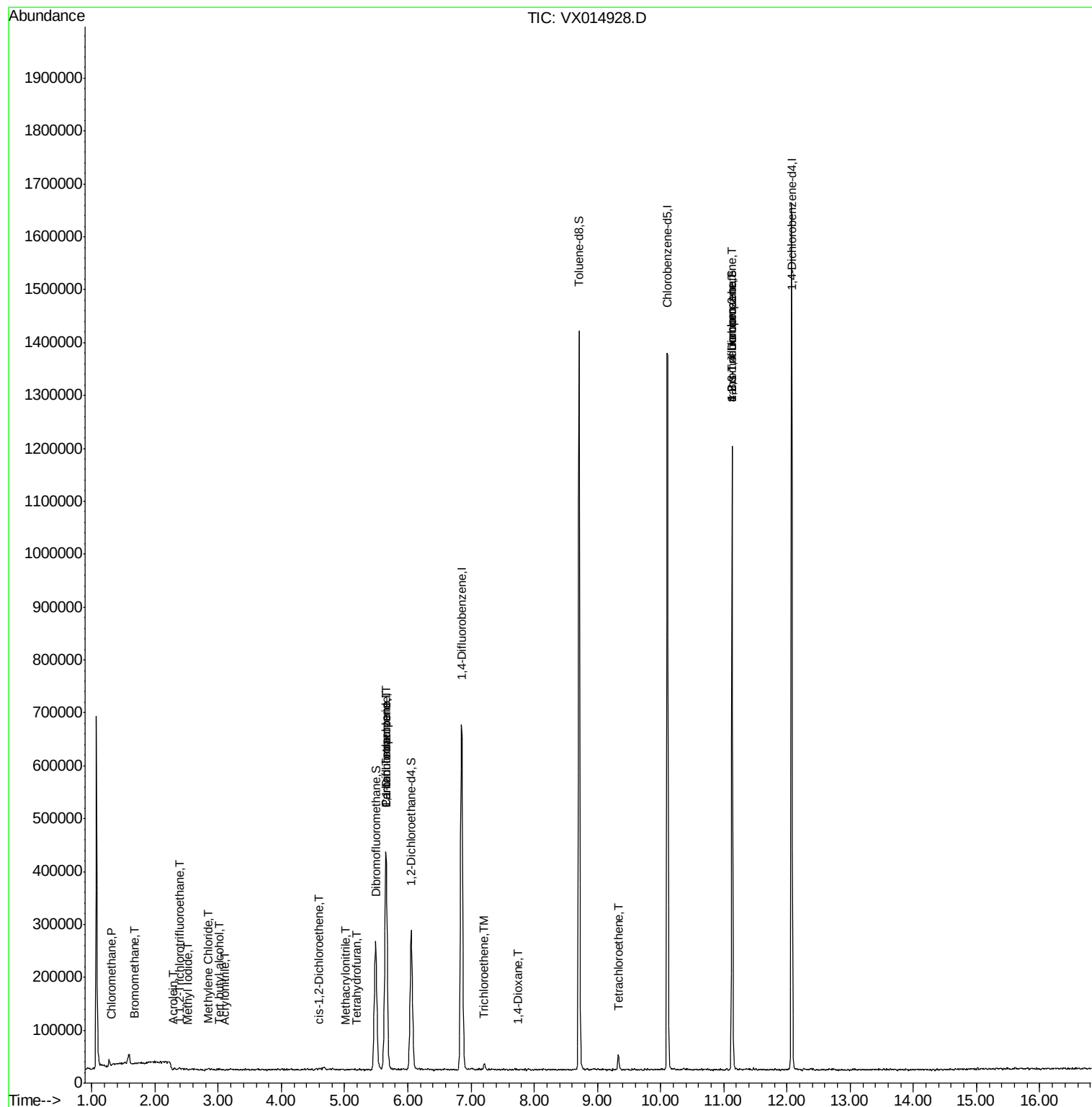
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.31  | 50   | 1437     | 0.311     | ug/l # | 75     |
| 5) Bromomethane                | 1.67  | 94   | 1438     | 0.446     | ug/l   | 90     |
| 9) 1,1,2-Trichlorotrifluoroet  | 2.39  | 101  | 1428     | 0.353     | ug/l # | 83     |
| 10) Methyl Iodide              | 2.52  | 142  | 627      | 4.496     | ug/l # | 83     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 758      | 0.883     | ug/l # | 58     |
| 13) Acrolein                   | 2.29  | 56   | 311      | 0.475     | ug/l # | 15     |
| 15) Acrylonitrile              | 3.11  | 53   | 821      | 0.377     | ug/l # | 57     |
| 16) Acetone                    | 2.44  | 43   | 2887     | Below Cal | #      | 60     |
| 20) Methylene Chloride         | 2.84  | 84   | 1531     | 0.327     | ug/l # | 92     |
| 27) cis-1,2-Dichloroethene     | 4.59  | 96   | 1109     | 0.228     | ug/l   | 28     |
| 29) Tetrahydrofuran            | 5.19  | 42   | 404      | 0.215     | ug/l   | 96     |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 29880    | 4.893     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 37735    | 6.341     | ug/l # | 16     |
| 41) Methacrylonitrile          | 5.01  | 41   | 915      | 0.267     | ug/l # | 47     |
| 44) Trichloroethene            | 7.21  | 130  | 5626     | 1.062     | ug/l   | 79     |
| 49) 1,4-Dioxane                | 7.74  | 88   | 330      | 3.413     | ug/l # | 48     |
| 64) Tetrachloroethene          | 9.33  | 164  | 6154     | 1.002     | ug/l # | 89     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 150716   | 24.129    | ug/l # | 40     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 150716   | 61.763    | ug/l # | 12     |

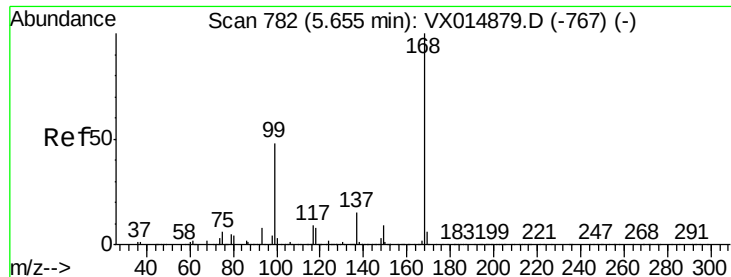
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Mon Feb 10 12:09:20 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

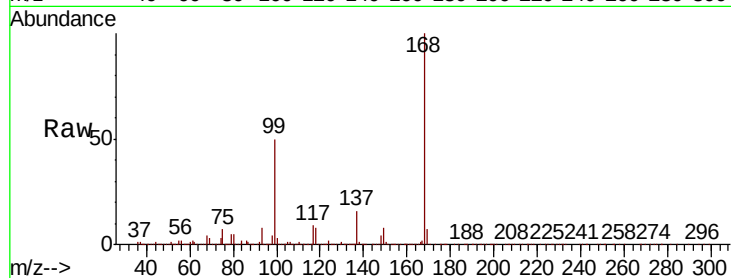
ClientSampleId :

Tot Ion:168 Resp: 430763

Ion Ratio Lower Upper

168 100

99 49.8 38.7 58.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

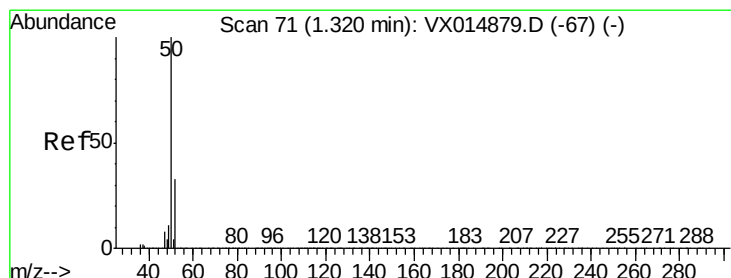
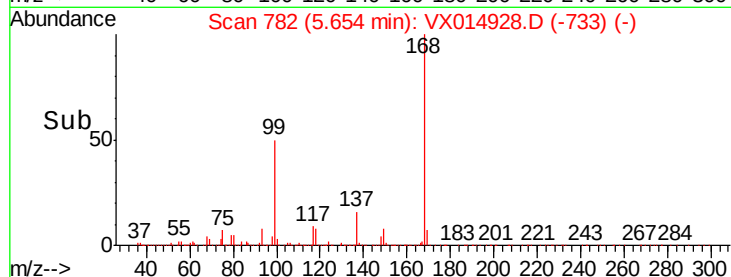
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 0.311 ug/l

RT: 1.31 min Scan# 70

Delta R.T. -0.01 min

Lab File: VX014928.D

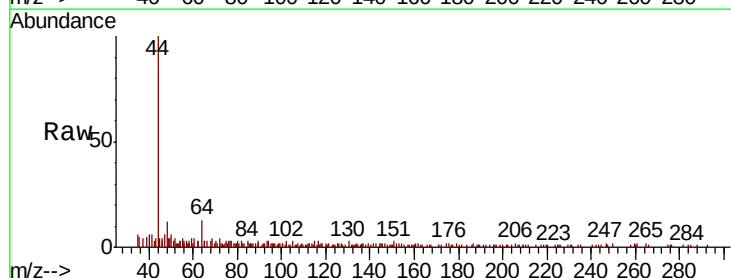
Acq: 12 Feb 2020 16:09

Tgt Ion: 50 Resp: 1437

Ion Ratio Lower Upper

50 100

52 46.8 26.2 39.2#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.31

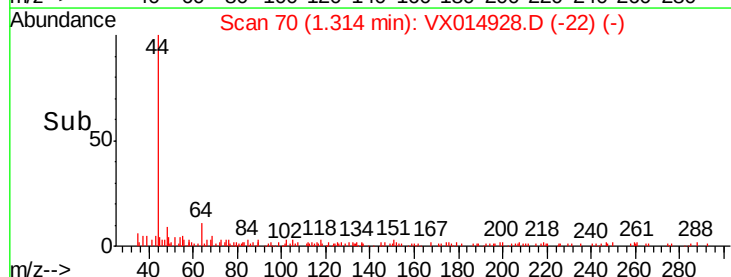
600

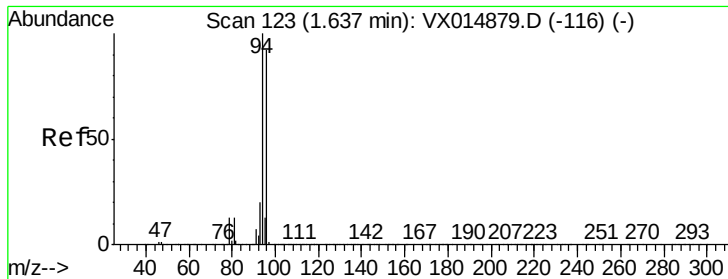
400

200

0

Time-->





#5

Bromomethane

Concen: 0.446 ug/l

RT: 1.67 min Scan# 128

Delta R.T. 0.03 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

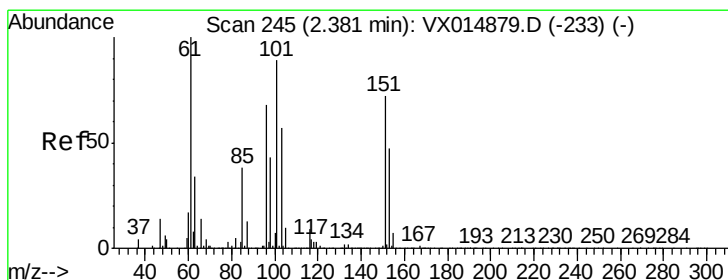
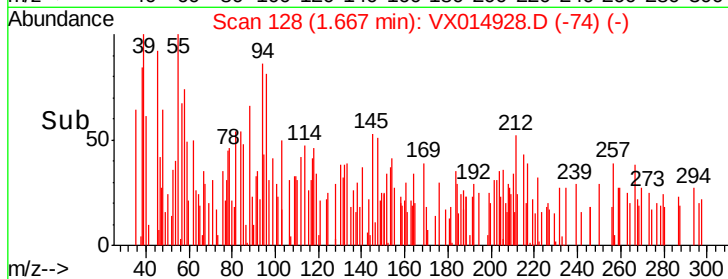
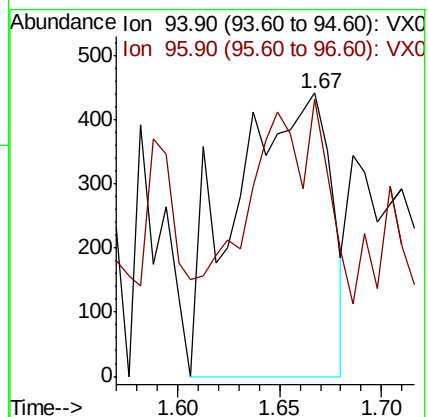
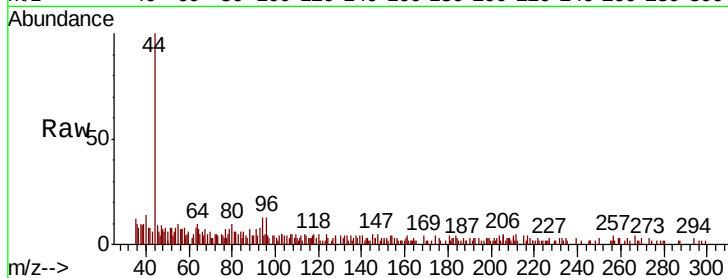
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 94 Resp: 1438

Ion Ratio Lower Upper

94 100

96 82.2 73.7 110.5



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.353 ug/l

RT: 2.39 min Scan# 246

Delta R.T. 0.01 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

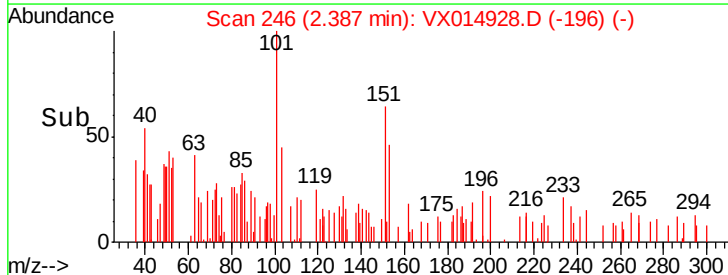
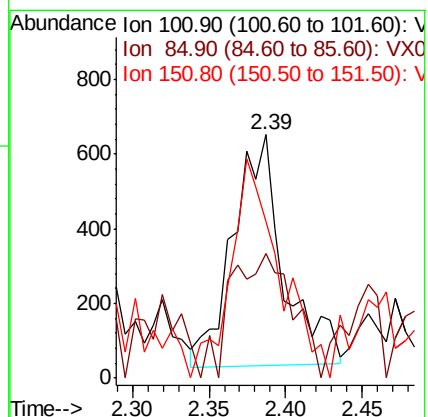
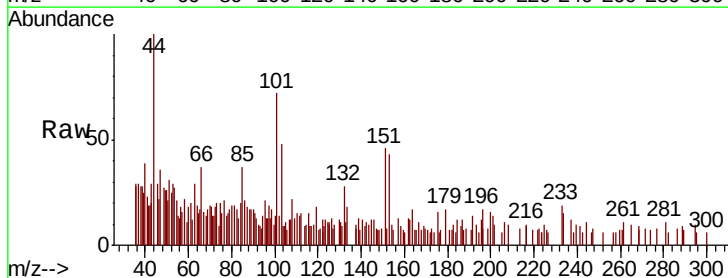
Tgt Ion: 101 Resp: 1428

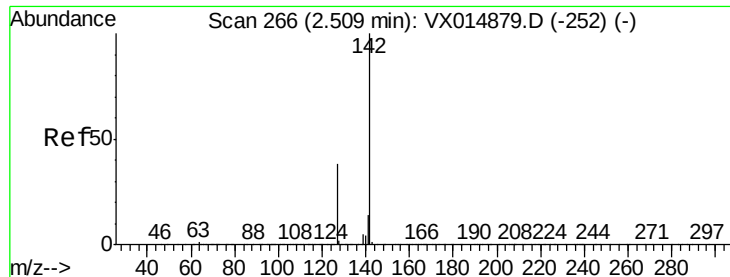
Ion Ratio Lower Upper

101 100

85 65.8 34.1 51.1#

151 91.2 67.3 100.9

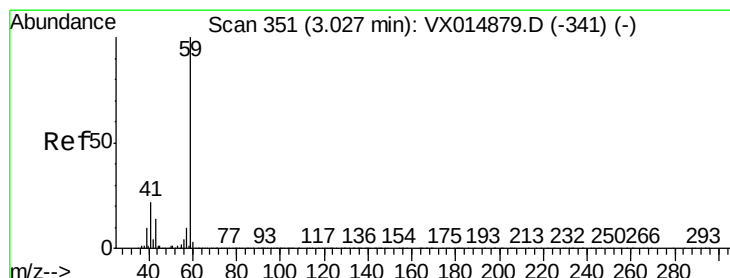
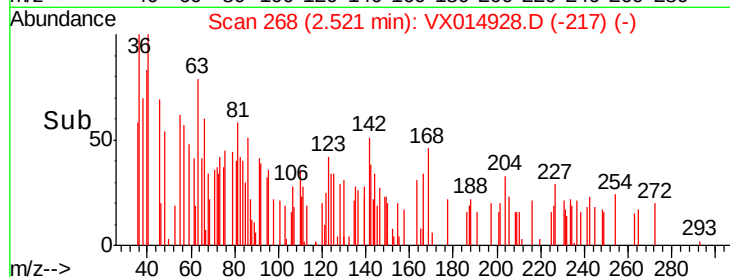
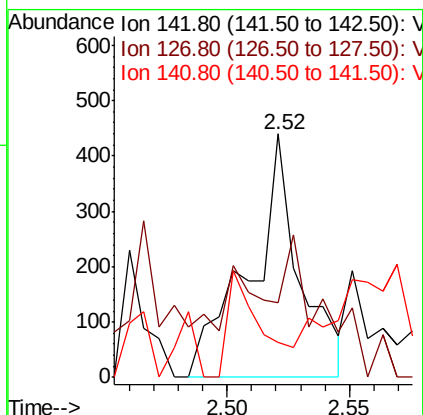
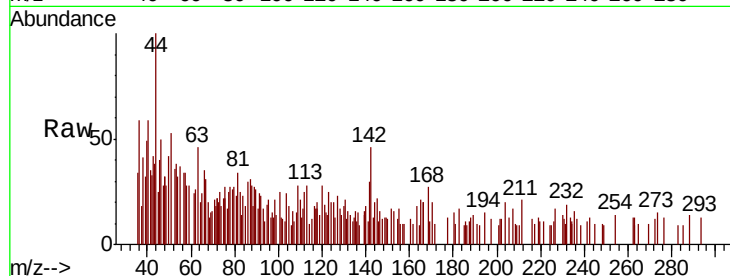




#10  
Methyl Iodide  
Concen: 4.496 ug/l  
RT: 2.52 min Scan# 268  
Delta R.T. 0.01 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

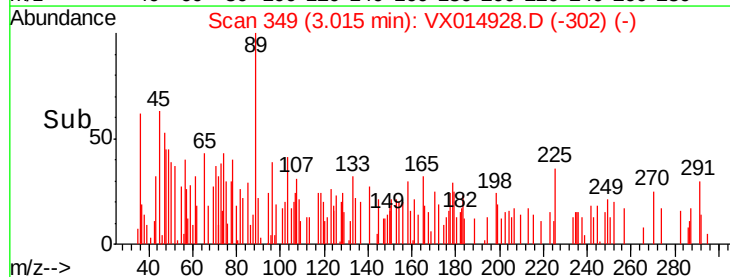
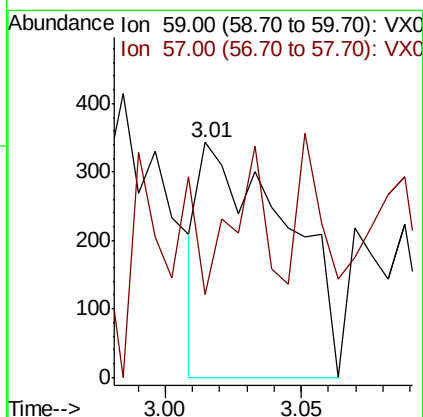
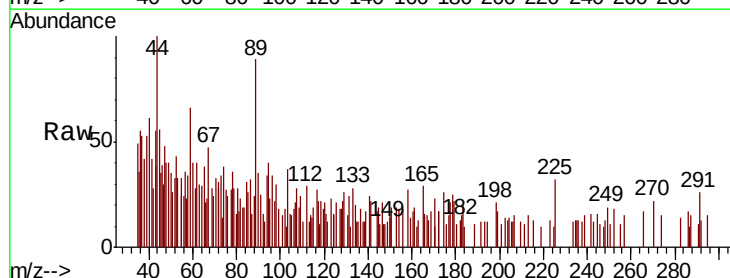
Instrument :  
MSVOA\_X  
ClientSampled :

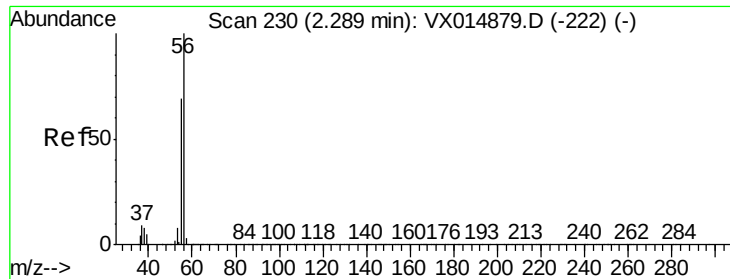
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 127     | 45.1  | 31.1  | 46.7  |
| 141     | 0.0   | 11.3  | 16.9# |



#11  
Tert butyl alcohol  
Concen: 0.883 ug/l  
RT: 3.01 min Scan# 349  
Delta R.T. -0.01 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 25.9  | 8.2   | 12.4# |





#13

Acrolein

Concen: 0.475 ug/l

RT: 2.29 min Scan# 230

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

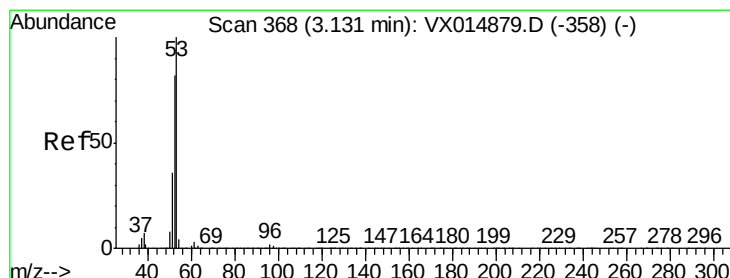
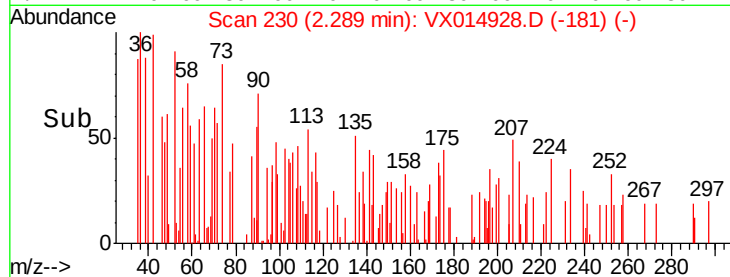
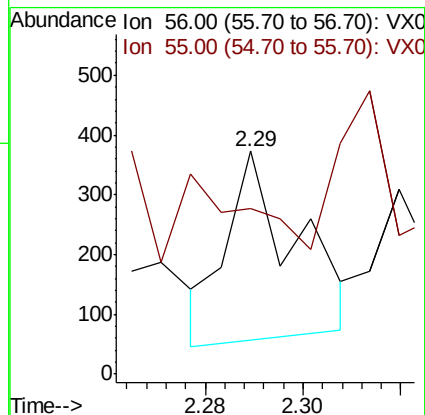
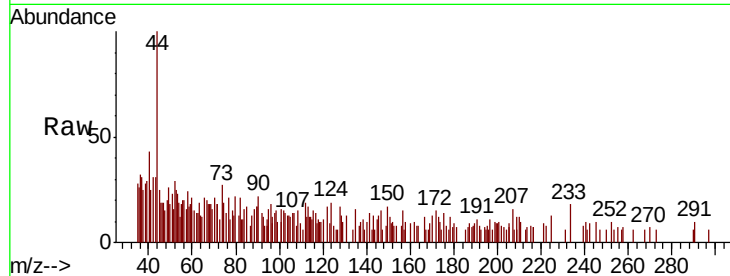
ClientSampleId :

Tot Ion: 56 Resp: 311

Ion Ratio Lower Upper

56 100

55 0.0 55.0 82.4#



#15

Acrylonitrile

Concen: 0.377 ug/l

RT: 3.11 min Scan# 364

Delta R.T. -0.02 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

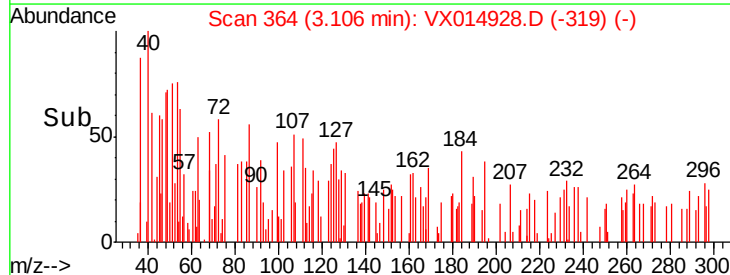
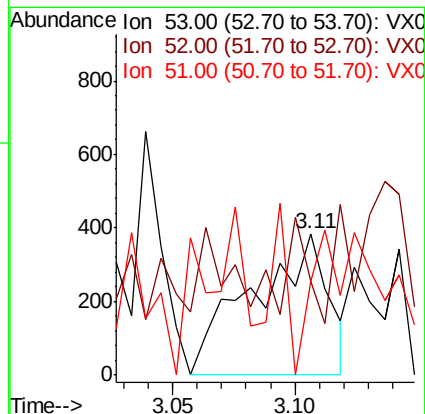
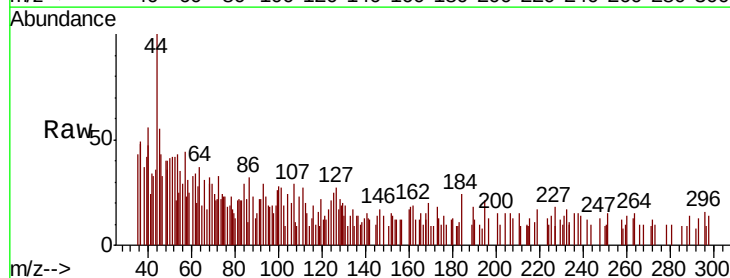
Tgt Ion: 53 Resp: 821

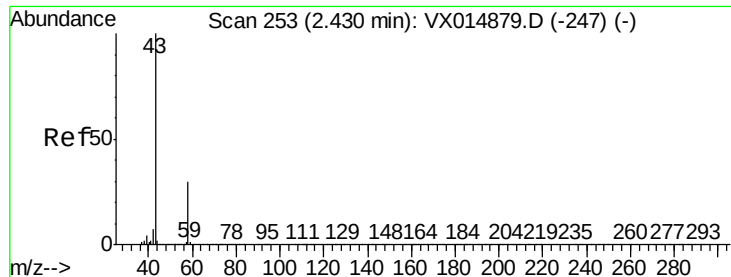
Ion Ratio Lower Upper

53 100

52 27.5 65.8 98.6#

51 38.6 29.1 43.7

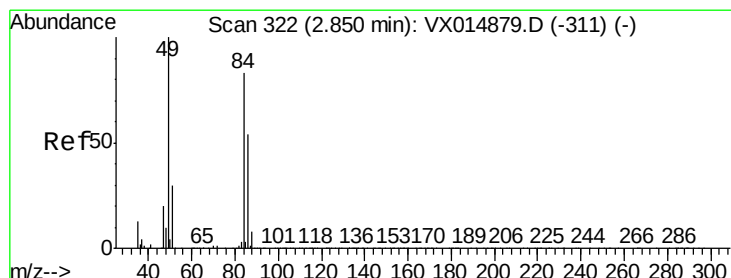
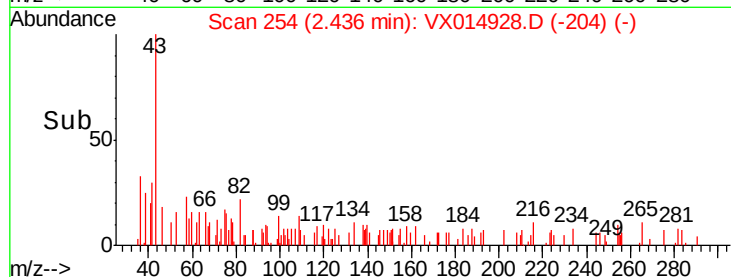
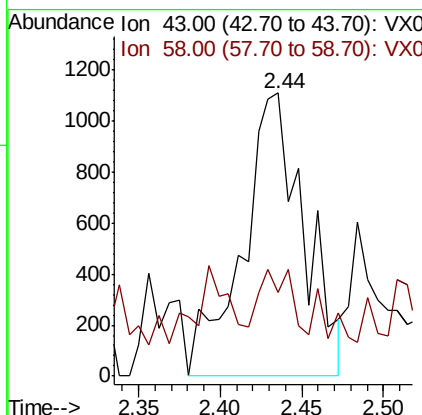
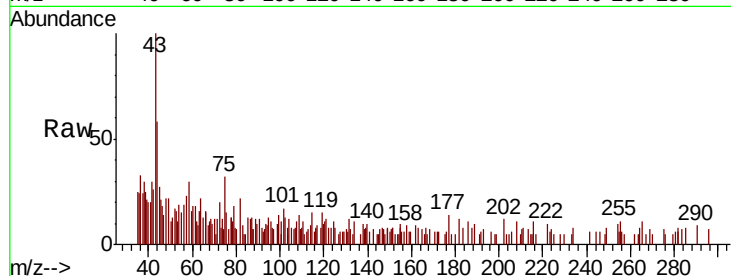




#16  
Acetone  
Concen: Below Cal  
RT: 2.44 min Scan# 254  
Delta R.T. 0.01 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

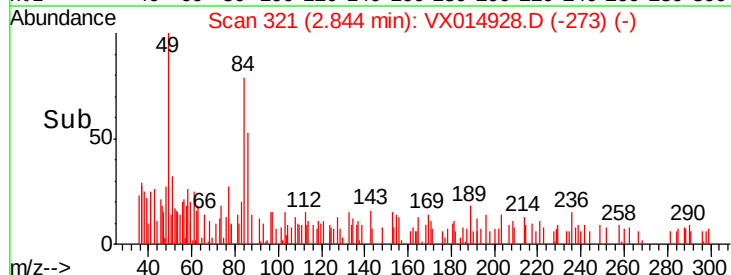
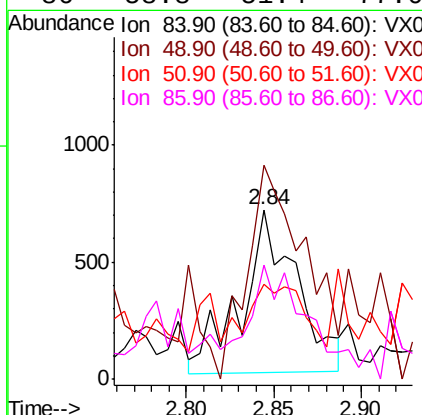
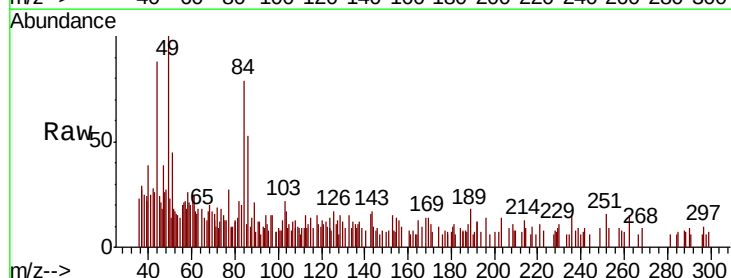
Instrument :  
MSVOA\_X  
ClientSampled :

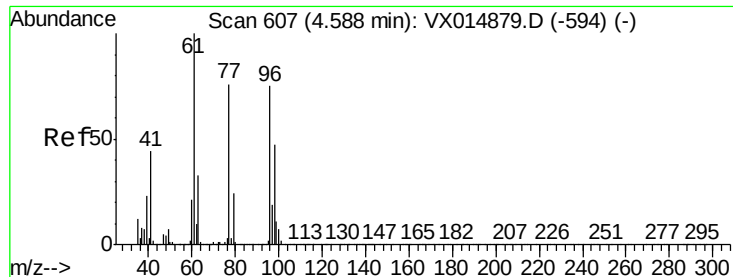
Tot Ion: 43 Resp: 2887  
Ion Ratio Lower Upper  
43 100  
58 8.6 24.1 36.1#



#20  
Methylene Chloride  
Concen: 0.327 ug/l  
RT: 2.84 min Scan# 321  
Delta R.T. -0.01 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

Tgt Ion: 84 Resp: 1531  
Ion Ratio Lower Upper  
84 100  
49 112.9 95.6 143.4  
51 44.8 29.0 43.6#  
86 58.8 51.4 77.0



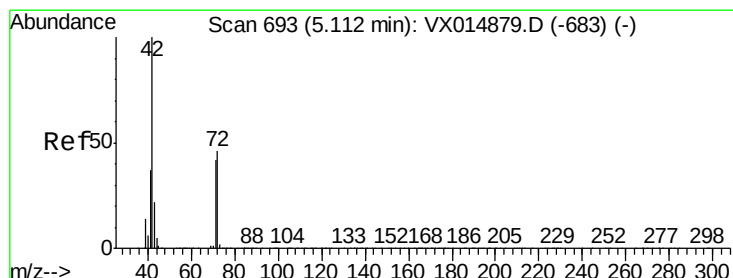
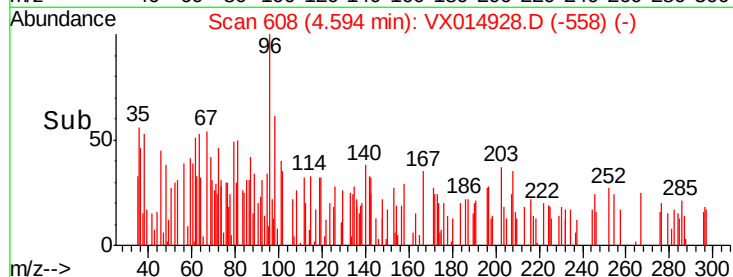
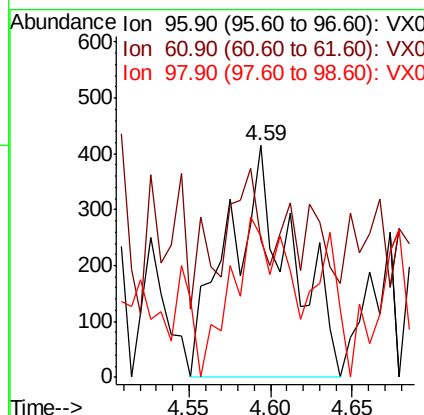
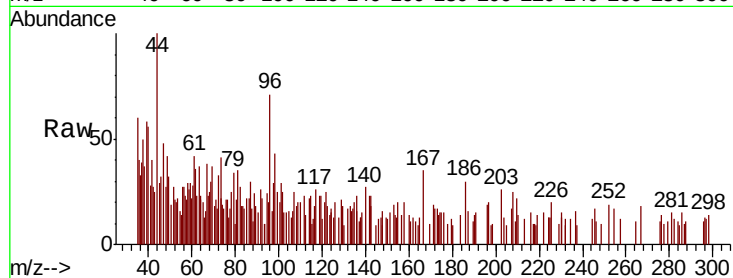


#27

cis-1,2-Dichloroethene  
 Concen: 0.228 ug/l  
 RT: 4.59 min Scan# 608  
 Delta R.T. 0.01 min  
 Lab File: VX014928.D  
 Acq: 12 Feb 2020 16:09

Instrument :  
 MSVOA\_X  
 ClientSampled :

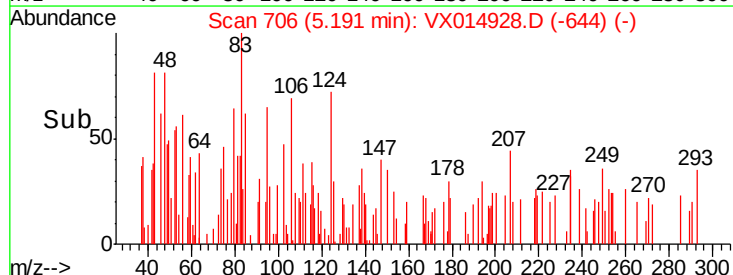
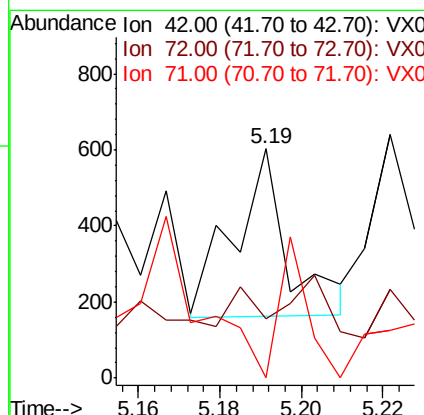
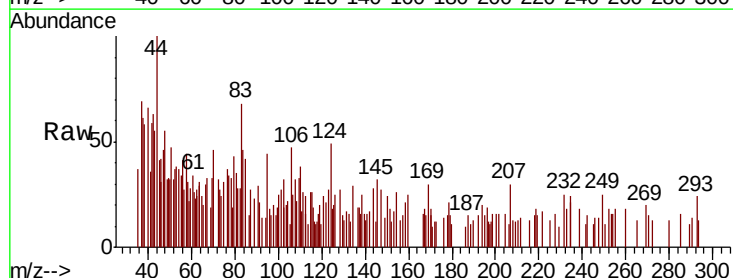
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 18.2  | 0.0   | 286.2 |
| 98      | 59.2  | 0.0   | 131.0 |



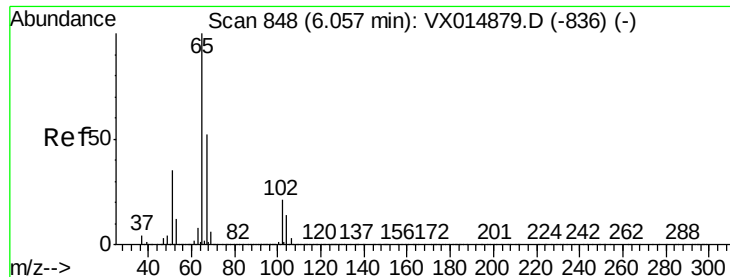
#29

Tetrahydrofuran  
 Concen: 0.215 ug/l  
 RT: 5.19 min Scan# 706  
 Delta R.T. 0.08 min  
 Lab File: VX014928.D  
 Acq: 12 Feb 2020 16:09

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 41.1  | 36.9  | 55.3  |
| 71      | 43.3  | 34.1  | 51.1  |







#33

1,2-Dichloroethane-d4

Concen: 51.386 ug/l

RT: 6.06 min Scan# 848

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

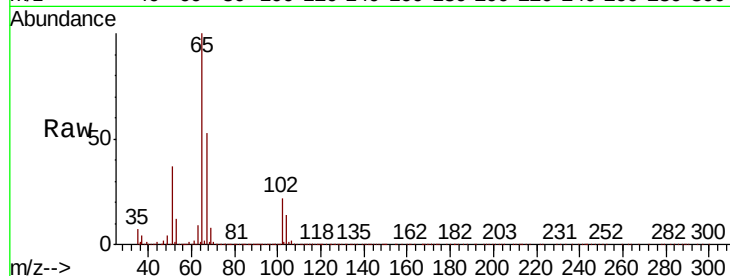
ClientSampleId :

Tot Ion: 65 Resp: 249812

Ion Ratio Lower Upper

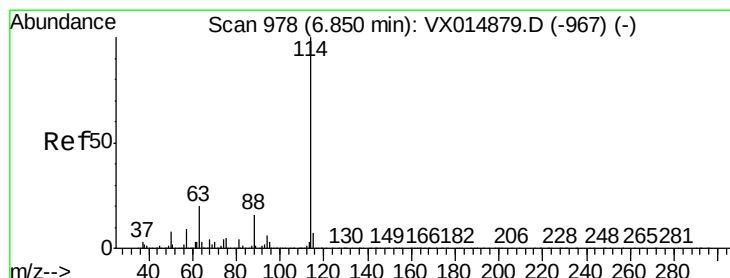
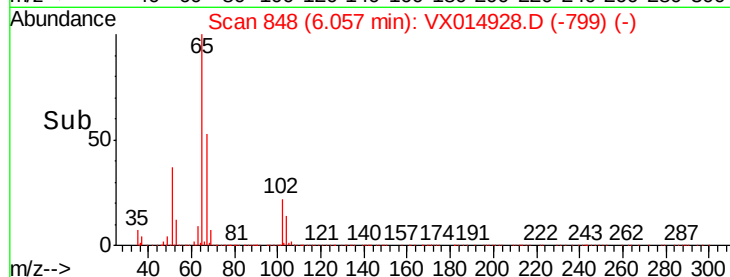
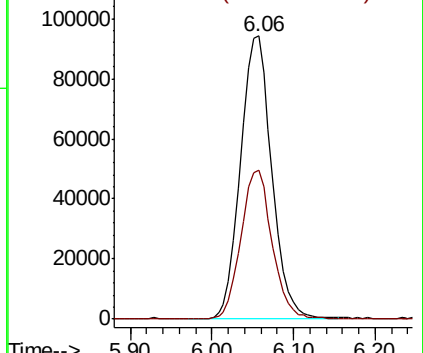
65 100

67 53.0 0.0 103.0



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

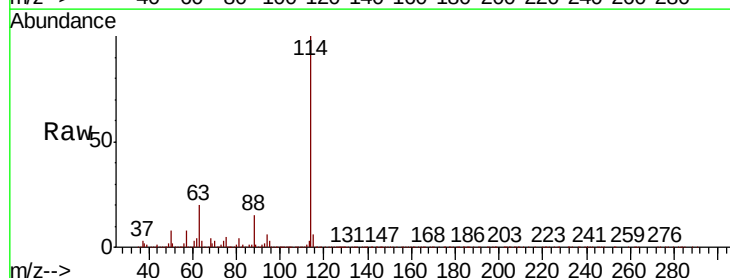
Tgt Ion: 114 Resp: 682681

Ion Ratio Lower Upper

114 100

63 19.9 0.0 39.2

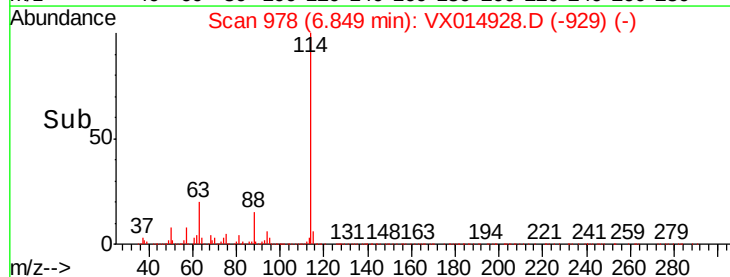
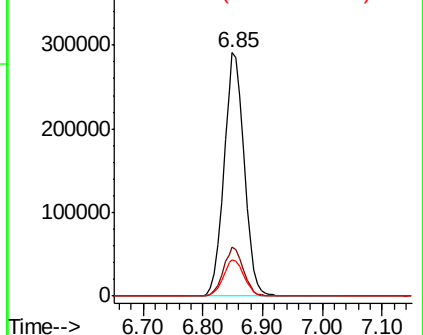
88 14.8 0.0 32.0

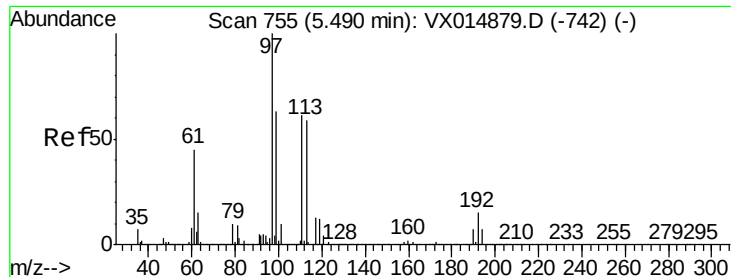


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 49.900 ug/l

RT: 5.49 min Scan# 755

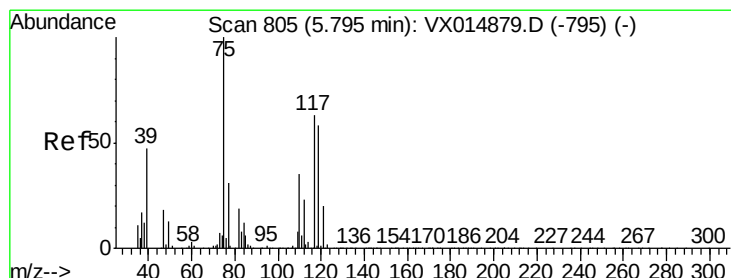
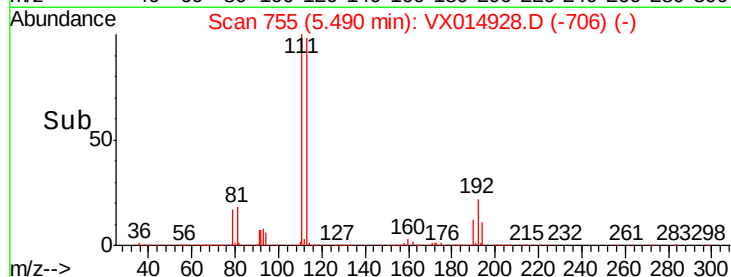
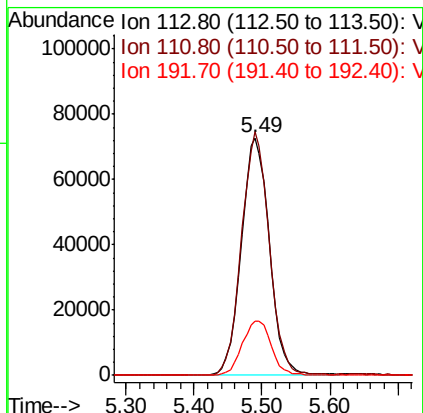
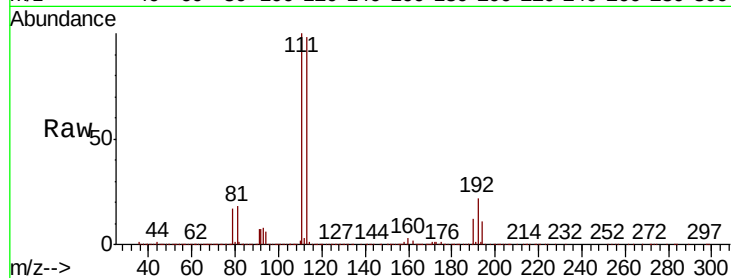
Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :  
MSVOA\_X  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 113   | Resp: | 209427 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 100.7 | 82.4  | 123.6  |
| 192      | 23.9  | 19.1  | 28.7   |



#36

1,1-Dichloropropene

Concen: 4.893 ug/l

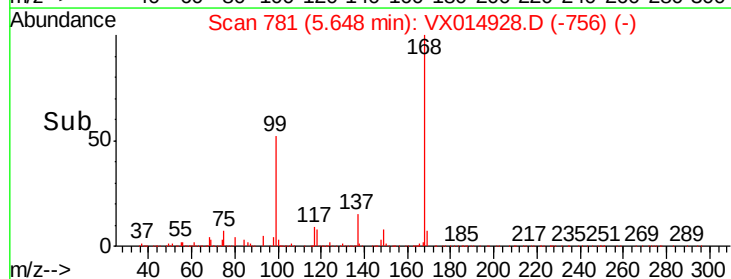
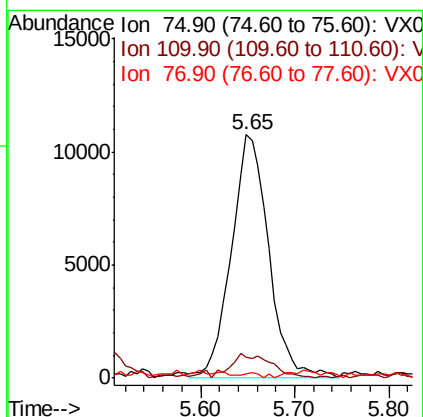
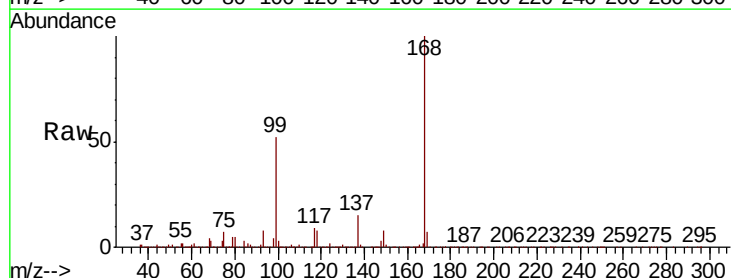
RT: 5.65 min Scan# 781

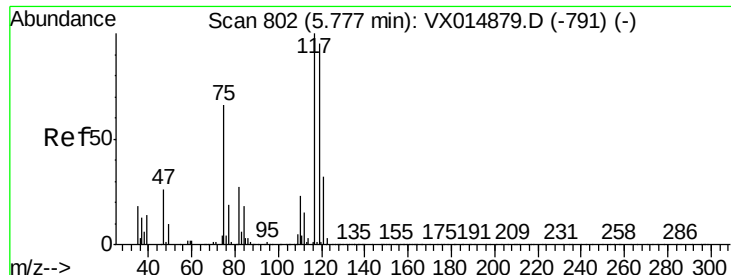
Delta R.T. -0.15 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 29880 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 10.7  | 18.3  | 54.8# |
| 77       | 1.0   | 24.6  | 36.8# |





#38

Carbon Tetrachloride

Concen: 6.341 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.12 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

ClientSampled :

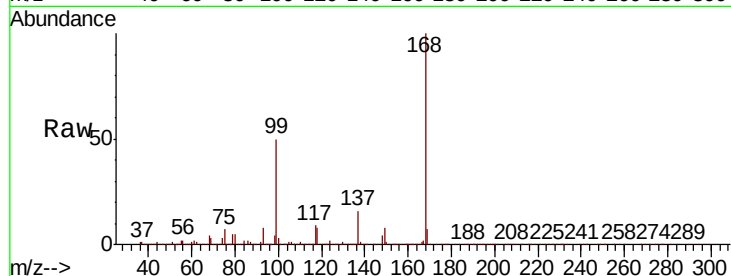
Tot Ion:117 Resp: 37735

Ion Ratio Lower Upper

117 100

119 4.7 76.0 114.0#

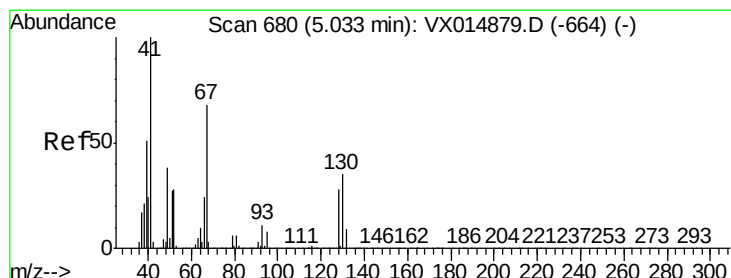
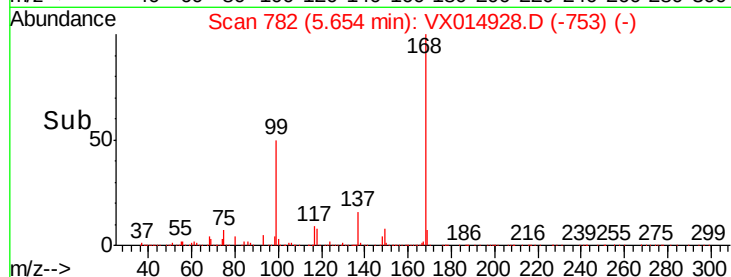
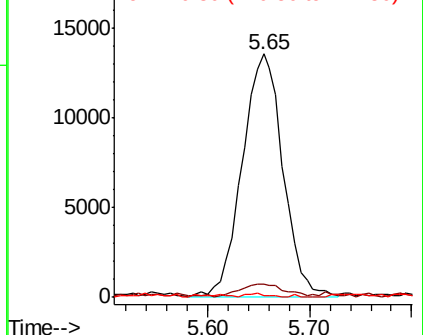
121 0.5 25.4 38.2#



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: 0.267 ug/l

RT: 5.01 min Scan# 676

Delta R.T. -0.02 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Tgt Ion: 41 Resp: 915

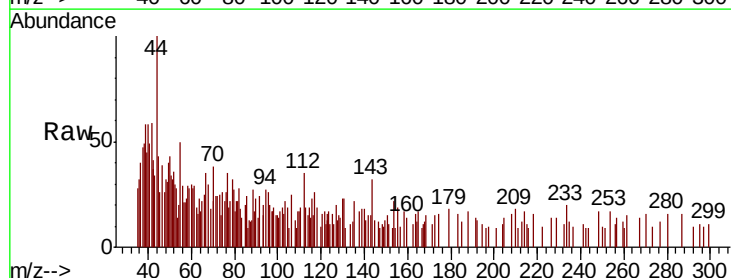
Ion Ratio Lower Upper

41 100

39 49.0 44.7 67.1

67 0.0 56.6 84.8#

52 57.4 22.3 33.5#

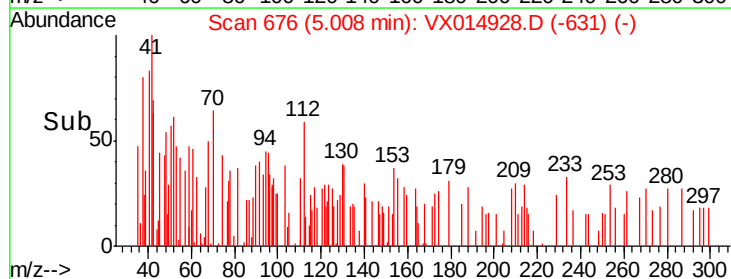
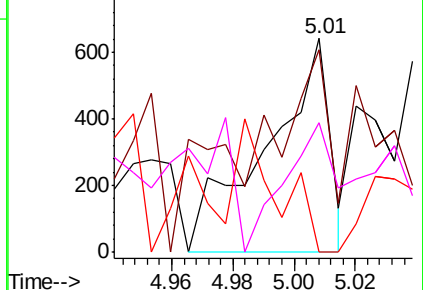


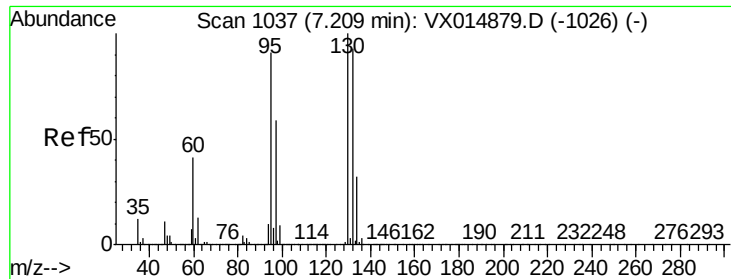
Abundance Ion 41.00 (40.70 to 41.70): VX0

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





#44

Trichloroethene

Concen: 1.062 ug/l

RT: 7.21 min Scan# 1037

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

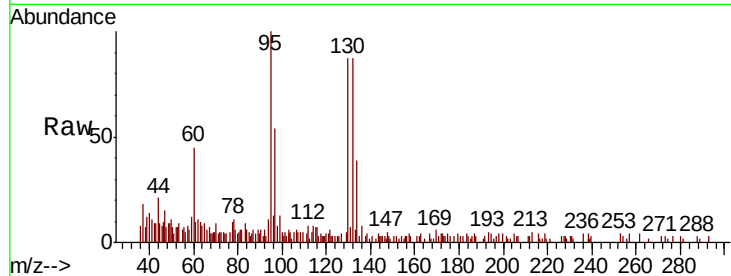
ClientSampled :

Tot Ion:130 Resp: 5626

Ion Ratio Lower Upper

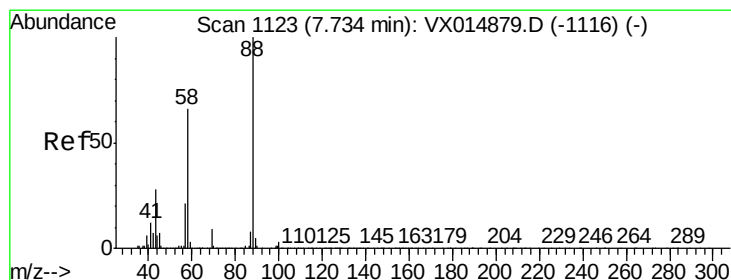
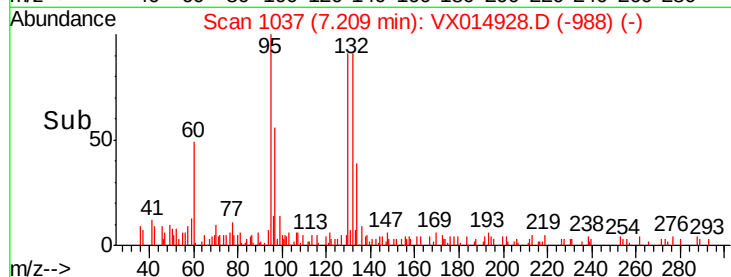
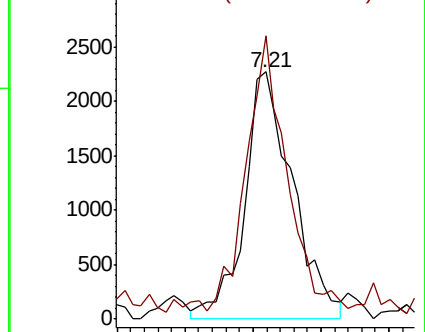
130 100

95 111.4 0.0 182.6



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0



#49

1,4-Dioxane

Concen: 3.413 ug/l

RT: 7.74 min Scan# 1124

Delta R.T. 0.01 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

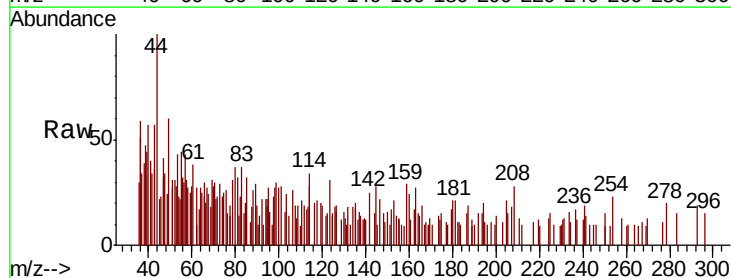
Tgt Ion: 88 Resp: 330

Ion Ratio Lower Upper

88 100

43 0.0 27.0 40.4#

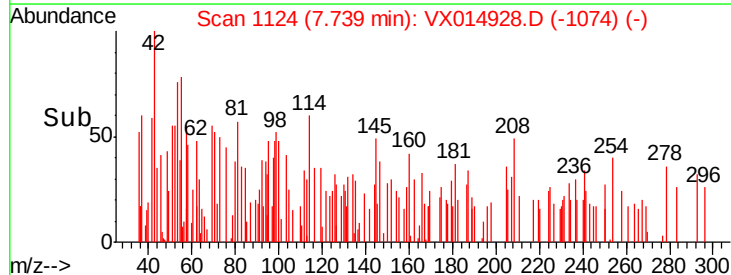
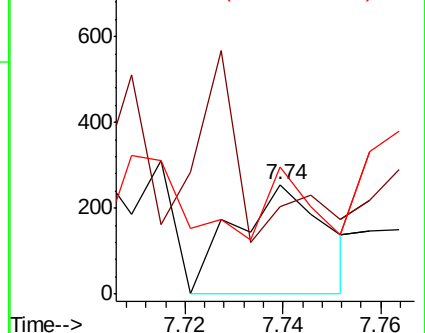
58 28.2 53.2 79.8#

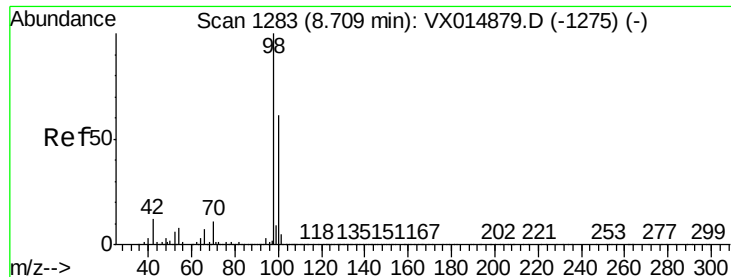


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

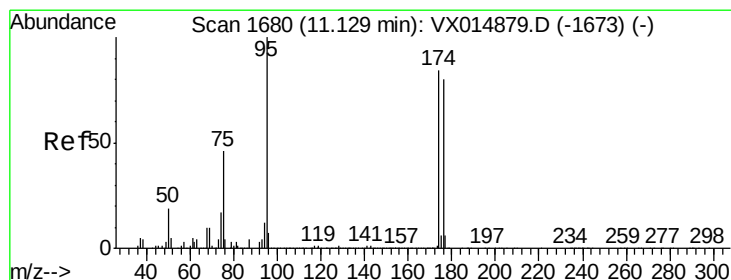
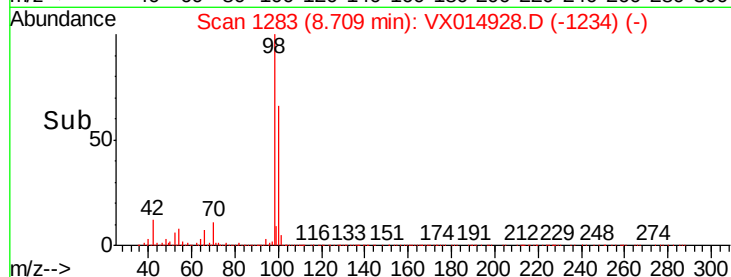
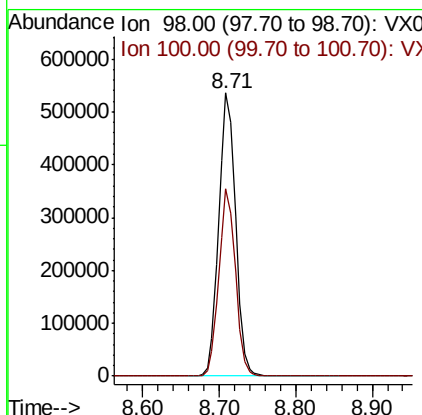
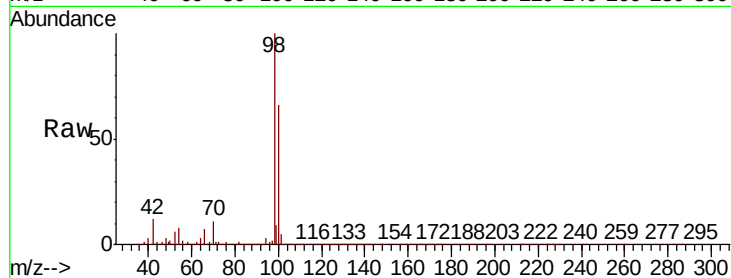




#50  
Toluene-d8  
Concen: 51.104 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. -0.00 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

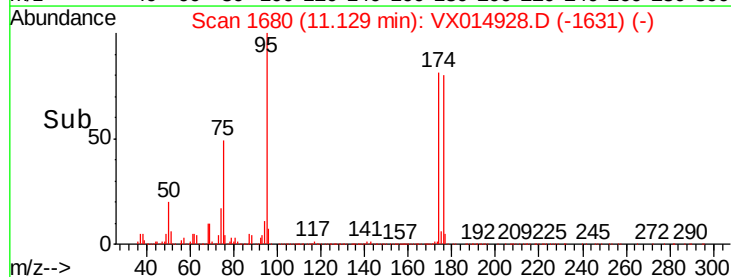
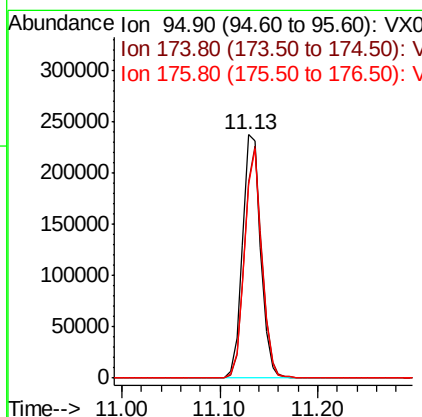
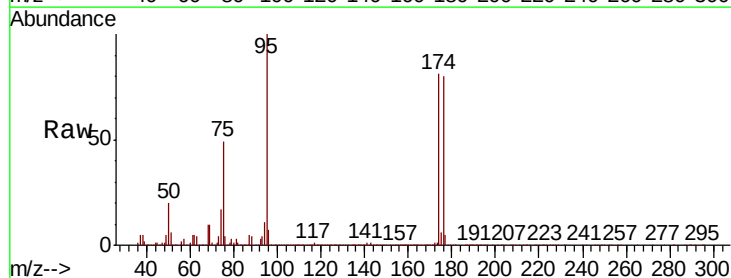
Instrument :  
MSVOA\_X  
ClientSampleId :

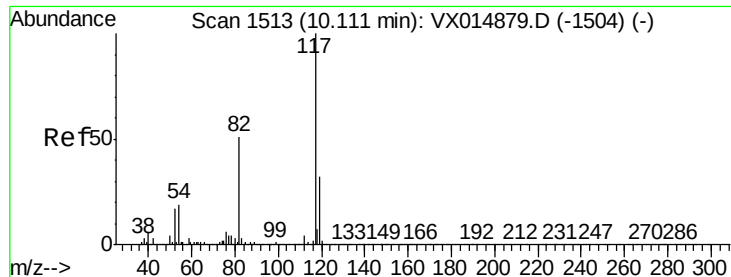
Tot Ion: 98 Resp: 818702  
Ion Ratio Lower Upper  
98 100  
100 65.0 52.4 78.6



#62  
4-Bromofluorobenzene  
Concen: 52.985 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. -0.00 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

Tgt Ion: 95 Resp: 305777  
Ion Ratio Lower Upper  
95 100  
174 90.7 0.0 183.0  
176 89.7 0.0 178.0

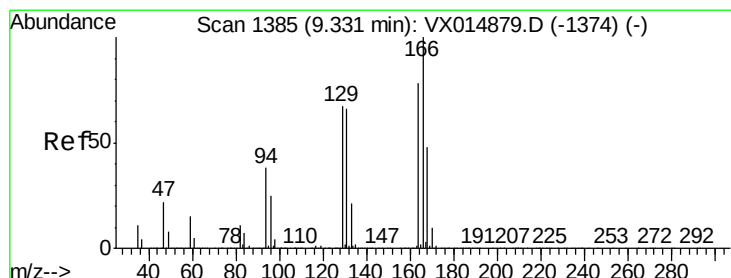
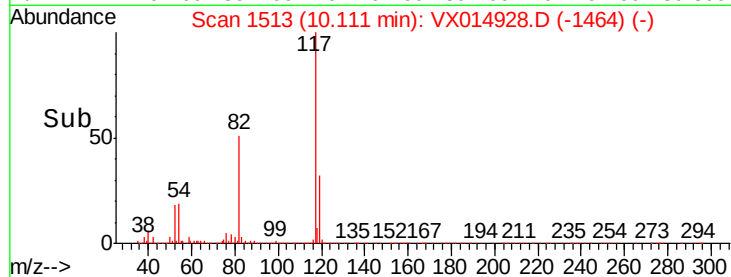
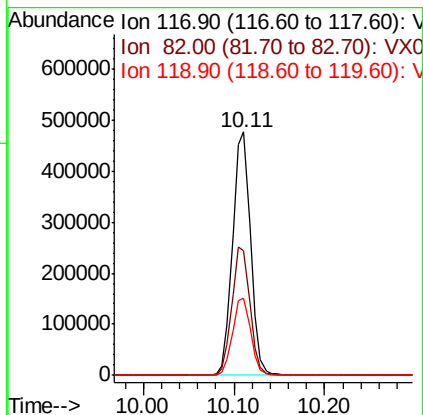
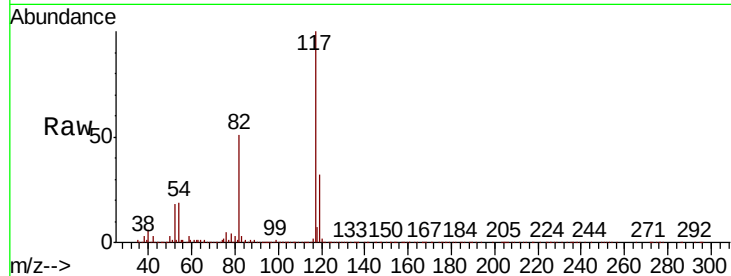




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. -0.00 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

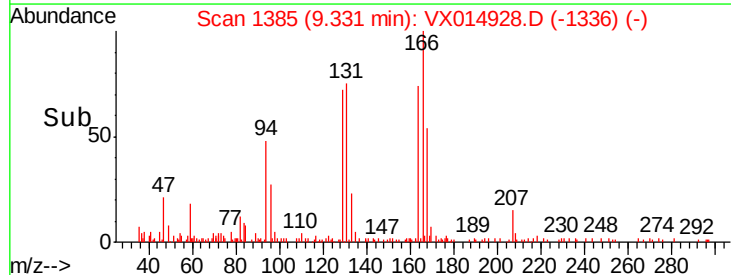
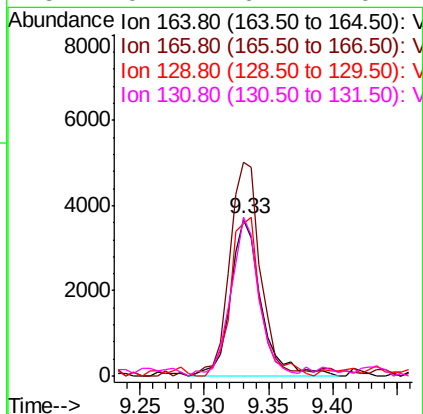
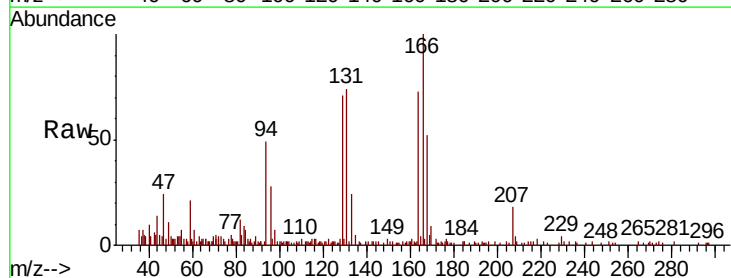
Instrument :  
MSVOA\_X  
ClientSampleId :

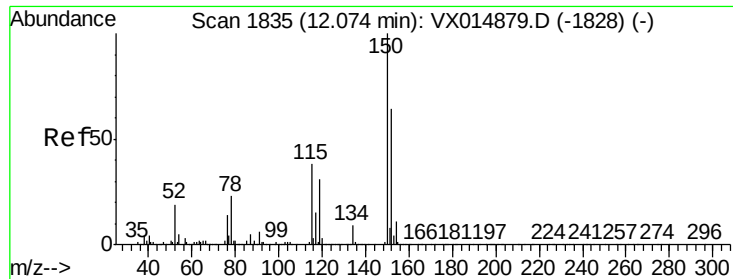
Tot Ion:117 Resp: 656763  
Ion Ratio Lower Upper  
117 100  
82 51.2 40.5 60.7  
119 31.6 25.8 38.6



#64  
Tetrachloroethene  
Concen: 1.002 ug/l  
RT: 9.33 min Scan# 1385  
Delta R.T. -0.00 min  
Lab File: VX014928.D  
Acq: 12 Feb 2020 16:09

Tgt Ion:164 Resp: 6154  
Ion Ratio Lower Upper  
164 100  
166 136.5 102.6 153.8  
129 94.1 68.3 102.5  
131 101.2 67.4 101.2#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. -0.00 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

ClientSampleId :

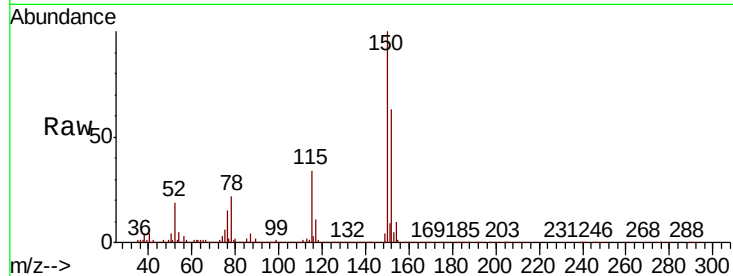
Tot Ion:152 Resp: 345417

Ion Ratio Lower Upper

152 100

115 54.8 38.6 116.0

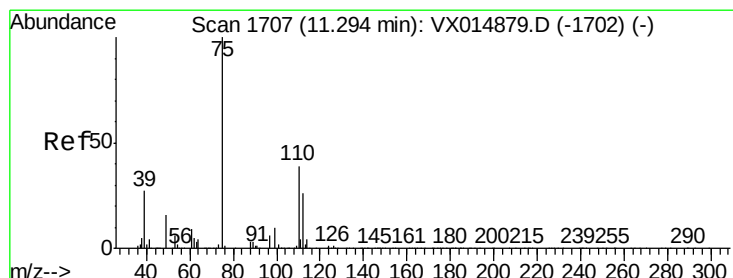
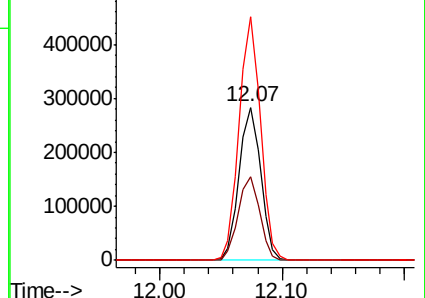
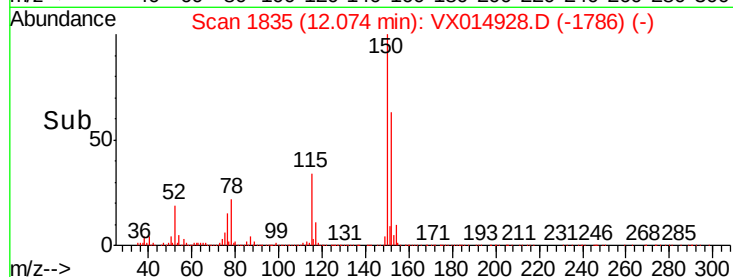
150 156.7 0.0 349.0



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



#76

1,2,3-Trichloropropane

Concen: 24.129 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX014928.D

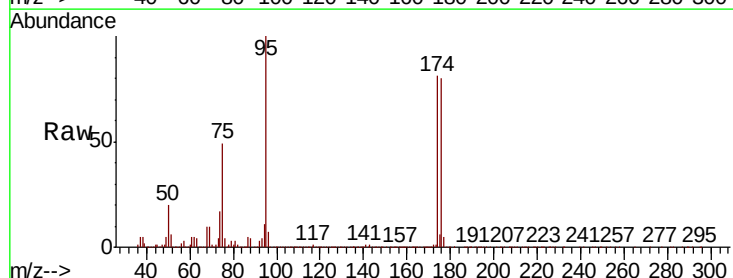
Acq: 12 Feb 2020 16:09

Tgt Ion: 75 Resp: 150716

Ion Ratio Lower Upper

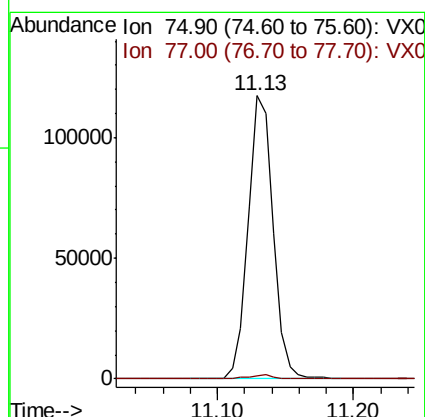
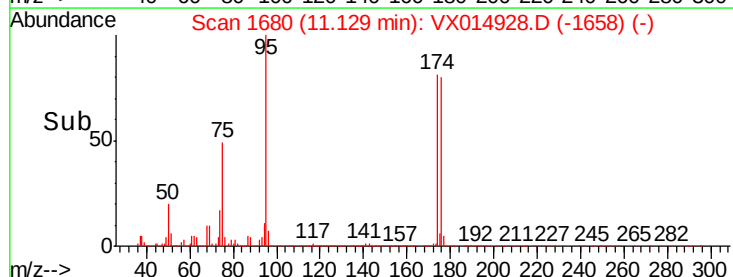
75 100

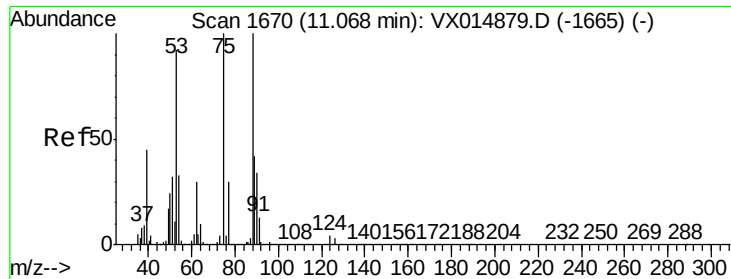
77 1.4 18.4 55.0#



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: 61.763 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX014928.D

Acq: 12 Feb 2020 16:09

Instrument :

MSVOA\_X

ClientSampleId :

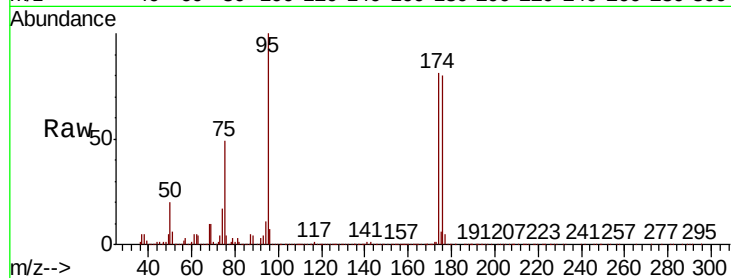
Tot Ion: 75 Resp: 150716

Ion Ratio Lower Upper

75 100

53 0.5 76.2 114.2#

89 0.1 35.8 53.6#



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

