

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX010720\  
 Data File : VX014456.D  
 Acq On : 07 Jan 2020 18:31  
 Operator : JC/SP  
 Sample : IBLK  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jan 08 01:34:27 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X010720W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jan 07 15:54:41 2020  
 Response via : Initial Calibration

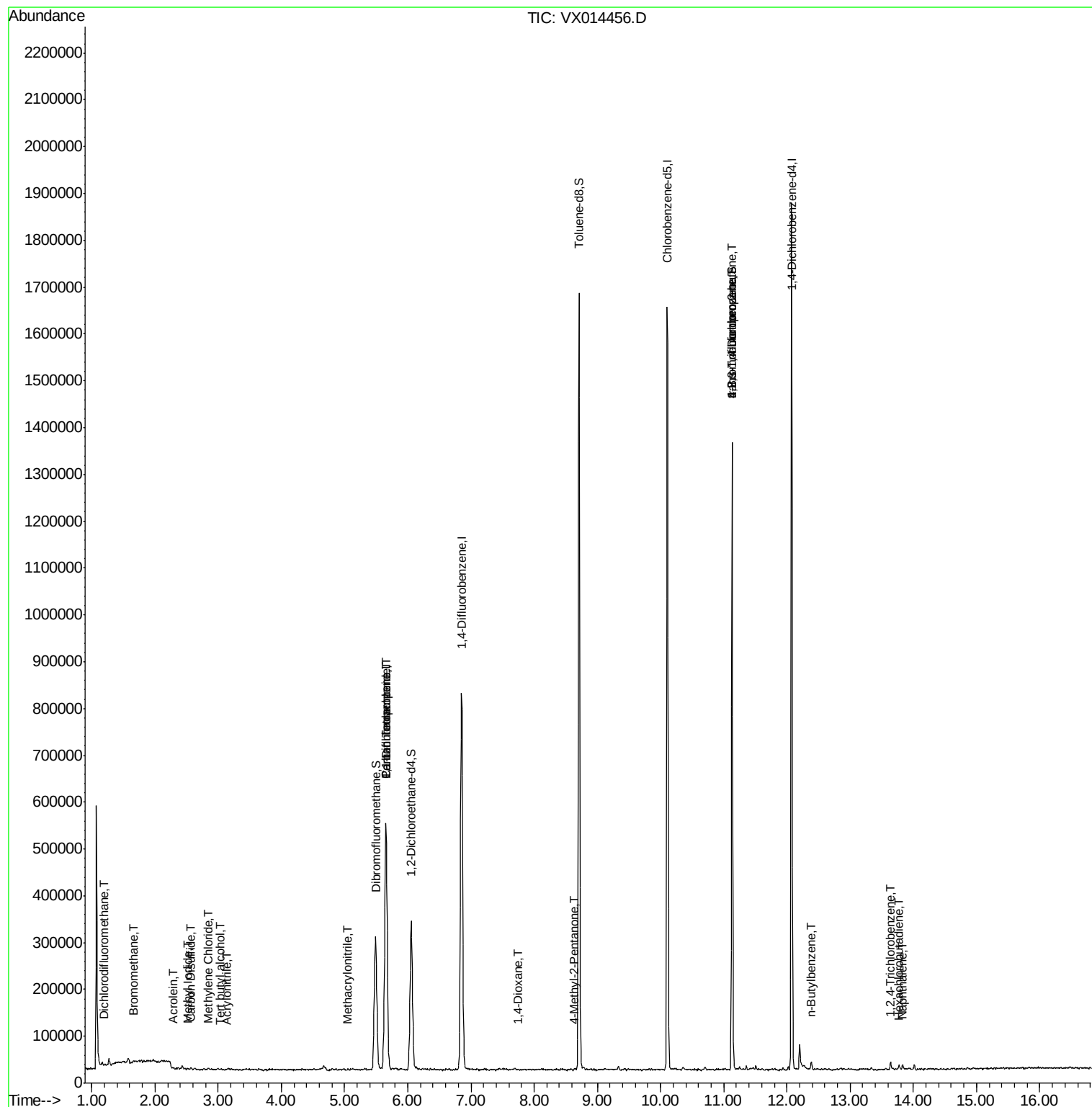
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 5.65   | 168  | 549379   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.85   | 114  | 835665   | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 10.11  | 117  | 764048   | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.07  | 152  | 391762   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |        |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 6.05   | 65   | 293088   | 47.79     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 95.58%  |          |
| 35) Dibromofluoromethane       | 5.49   | 113  | 244684   | 48.37     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 96.74%  |          |
| 50) Toluene-d8                 | 8.71   | 98   | 991176   | 50.49     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 100.98% |          |
| 62) 4-Bromofluorobenzene       | 11.13  | 95   | 353282   | 49.02     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 98.04%  |          |
| Target Compounds               |        |      |          |           |         |          |
|                                |        |      |          |           | Qvalue  |          |
| 2) Dichlorodifluoromethane     | 1.19   | 85   | 413      | 0.313     | ug/l #  | 42       |
| 5) Bromomethane                | 1.66   | 94   | 2872     | 0.555     | ug/l    | 99       |
| 6) Chloroethane                | 1.72   | 64   | 415      | Below Cal | #       | 61       |
| 10) Methyl Iodide              | 2.52   | 142  | 1635     | 0.254     | ug/l #  | 51       |
| 11) Tert butyl alcohol         | 3.02   | 59   | 916      | 0.715     | ug/l #  | 85       |
| 13) Acrolein                   | 2.29   | 56   | 399      | 0.389     | ug/l #  | 80       |
| 15) Acrylonitrile              | 3.13   | 53   | 664      | 0.215     | ug/l    | 93       |
| 16) Acetone                    | 2.43   | 43   | 7819     | Below Cal |         | 98       |
| 17) Carbon Disulfide           | 2.56   | 76   | 4952     | 0.327     | ug/l #  | 94       |
| 20) Methylene Chloride         | 2.85   | 84   | 1706     | 0.277     | ug/l #  | 64       |
| 36) 1,1-Dichloropropene        | 5.65   | 75   | 35854    | 4.562     | ug/l #  | 49       |
| 38) Carbon Tetrachloride       | 5.65   | 117  | 48699    | 6.734     | ug/l #  | 18       |
| 41) Methacrylonitrile          | 5.05   | 41   | 1158     | 0.254     | ug/l #  | 23       |
| 49) 1,4-Dioxane                | 7.75   | 88   | 564      | 4.030     | ug/l #  | 74       |
| 51) 4-Methyl-2-Pentanone       | 8.64   | 43   | 2071     | 0.246     | ug/l    | 96       |
| 76) 1,2,3-Trichloropropane     | 11.13  | 75   | 172636   | 21.298    | ug/l #  | 34       |
| 81) trans-1,4-Dichloro-2-buten | 11.13  | 75   | 172636   | 56.309    | ug/l #  | 12       |
| 88) 1,4-Dichlorobenzene        | 12.03  | 146  | 2696     | Below Cal |         | 87       |
| 89) n-Butylbenzene             | 12.39  | 91   | 4856     | 0.213     | ug/l    | 81       |
| 93) 1,2,4-Trichlorobenzene     | 13.64  | 180  | 4133     | 0.327     | ug/l    | 97       |
| 94) Hexachlorobutadiene        | 13.78  | 225  | 1484     | 0.398     | ug/l    | 96       |
| 95) Naphthalene                | 13.83  | 128  | 7036     | 0.241     | ug/l #  | 80       |

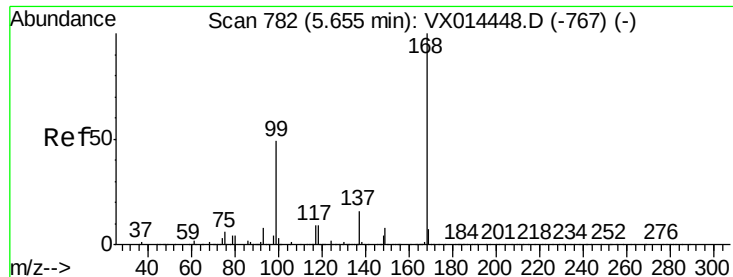
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Jan 07 15:54:41 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: VX014456.D

Acq: 07 Jan 2020 18:31

Instrument :

MSVOA\_X

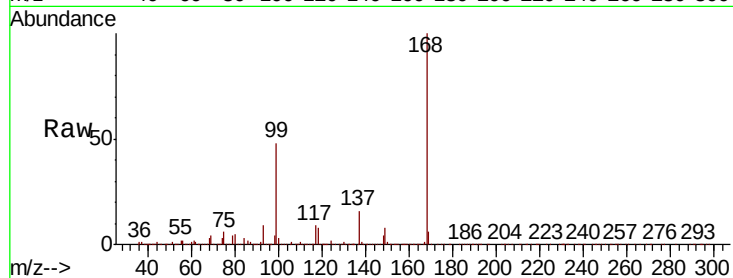
ClientSampleId :

Tot Ion:168 Resp: 549379

Ion Ratio Lower Upper

168 100

99 47.8 39.2 58.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

200000

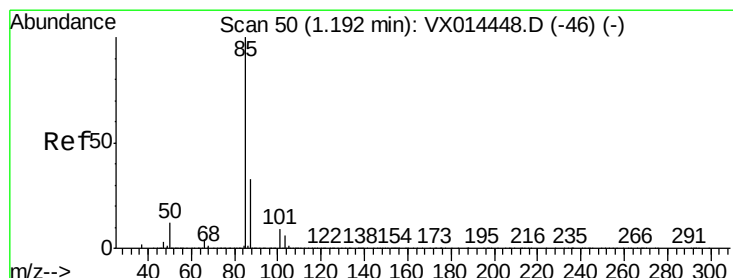
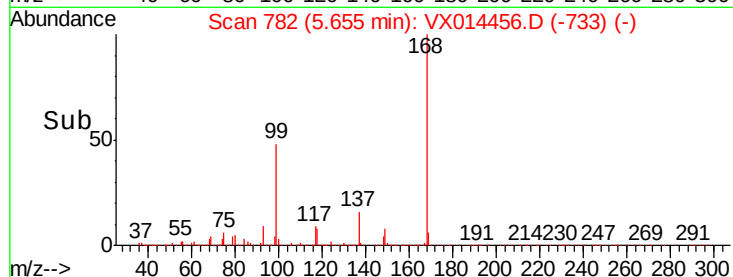
150000

100000

50000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.313 ug/l

RT: 1.19 min Scan# 50

Delta R.T. 0.00 min

Lab File: VX014456.D

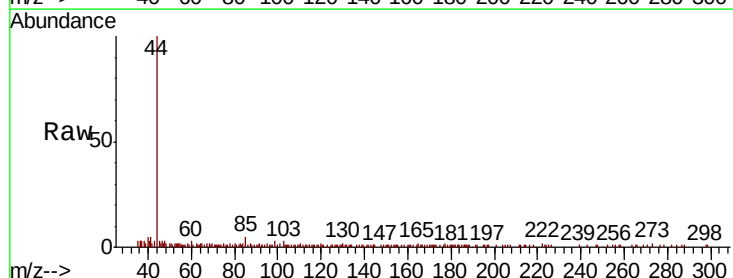
Acq: 07 Jan 2020 18:31

Tgt Ion: 85 Resp: 413

Ion Ratio Lower Upper

85 100

87 0.0 16.5 49.5#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.19

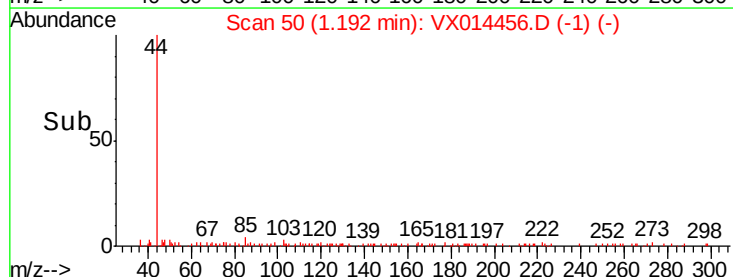
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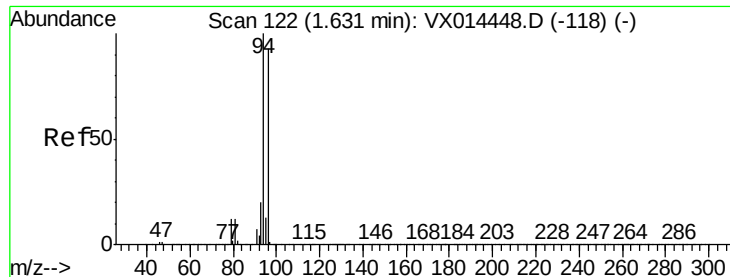
400

200

0

Time-->





#5

Bromomethane

Concen: 0.555 ug/l

RT: 1.66 min Scan# 126

Delta R.T. 0.02 min

Lab File: VX014456.D

Acq: 07 Jan 2020 18:31

Instrument :

MSVOA\_X

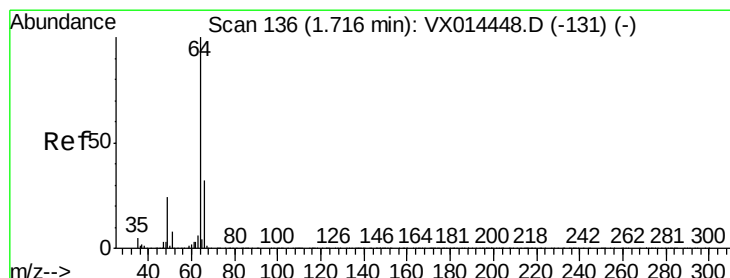
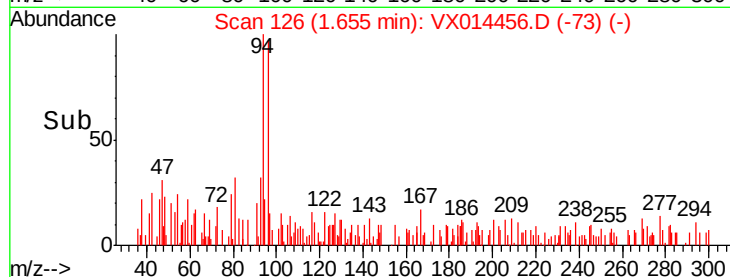
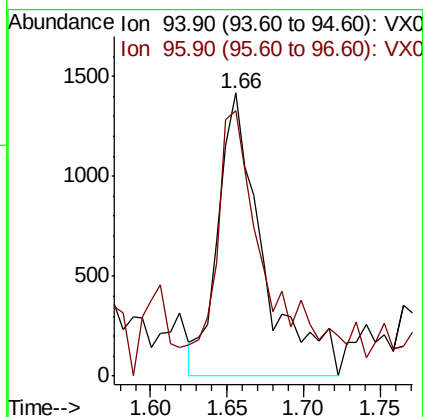
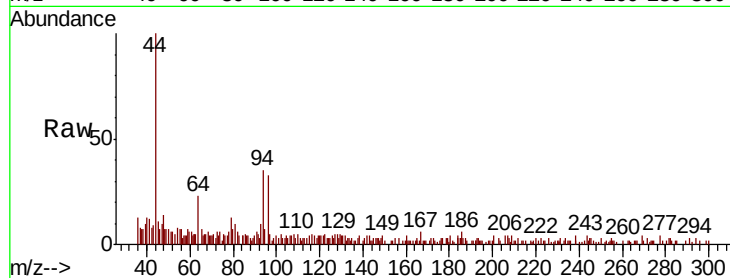
ClientSampleId :

Tot Ion: 94 Resp: 2872

Ion Ratio Lower Upper

94 100

96 93.7 74.2 111.2



#6

Chloroethane

Concen: Below Cal

RT: 1.72 min Scan# 136

Delta R.T. 0.00 min

Lab File: VX014456.D

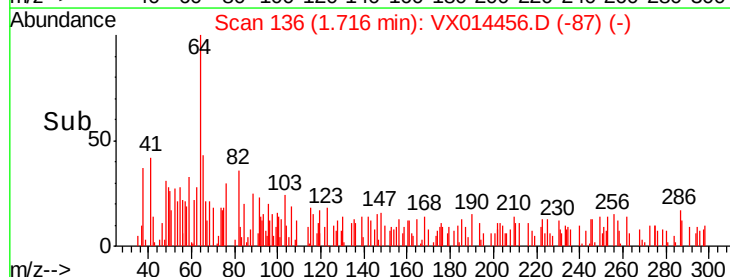
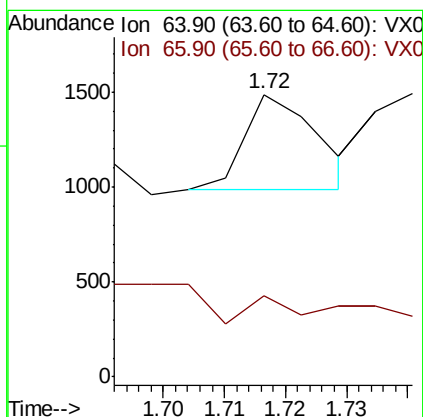
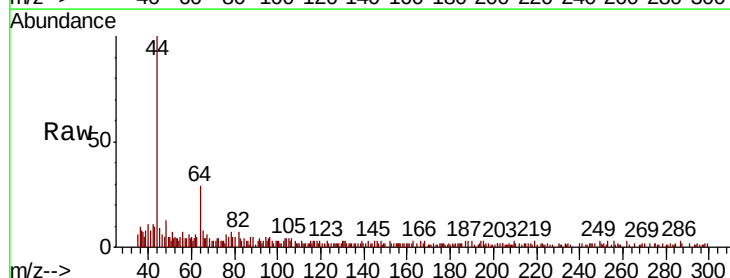
Acq: 07 Jan 2020 18:31

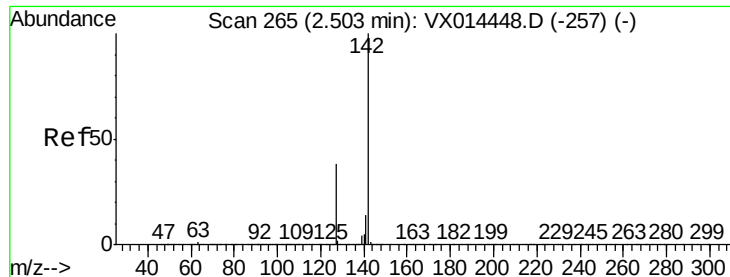
Tgt Ion: 64 Resp: 415

Ion Ratio Lower Upper

64 100

66 10.2 25.3 37.9#

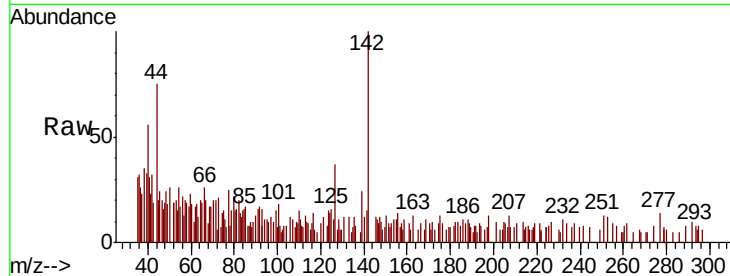




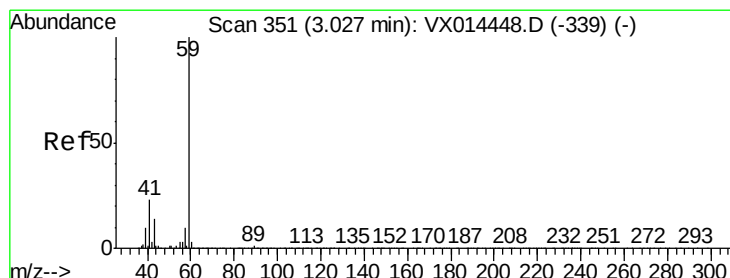
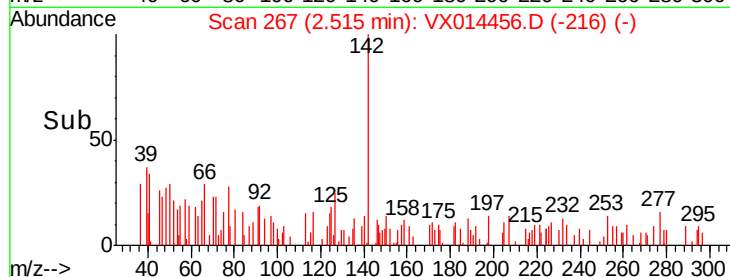
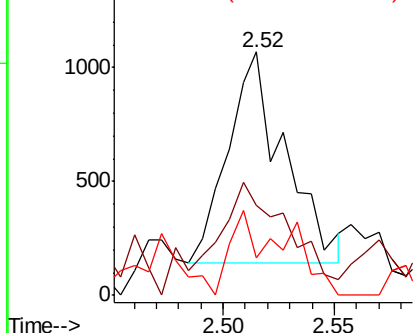
#10  
Methvl Iodide  
Concen: 0.254 ug/l  
RT: 2.52 min Scan# 267  
Delta R.T. 0.01 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion:142 Resp: 1635  
Ion Ratio Lower Upper  
142 100  
127 73.1 31.2 46.8#  
141 27.3 11.4 17.2#

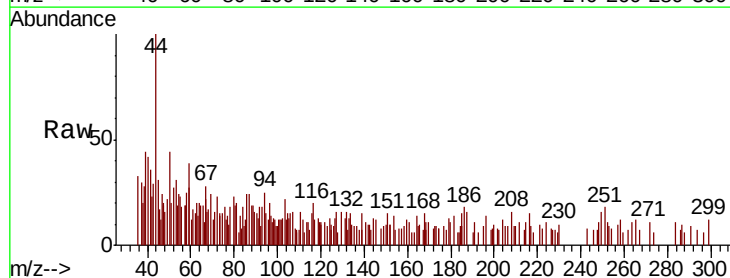


Abundance Ion 141.80 (141.50 to 142.50): V  
Ion 126.80 (126.50 to 127.50): V  
Ion 140.80 (140.50 to 141.50): V

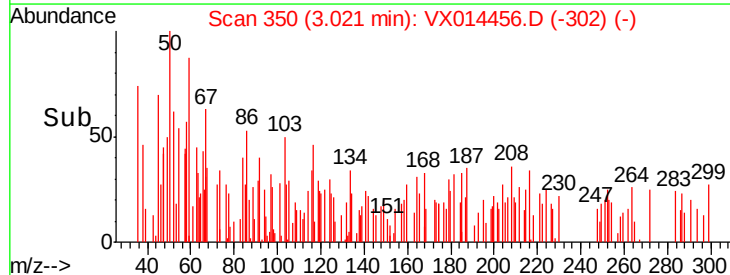
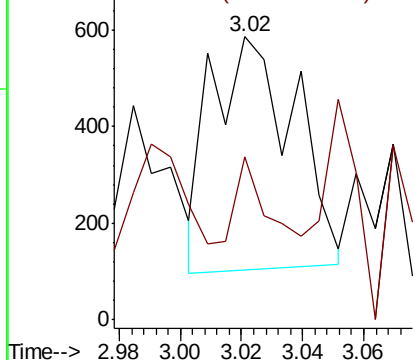


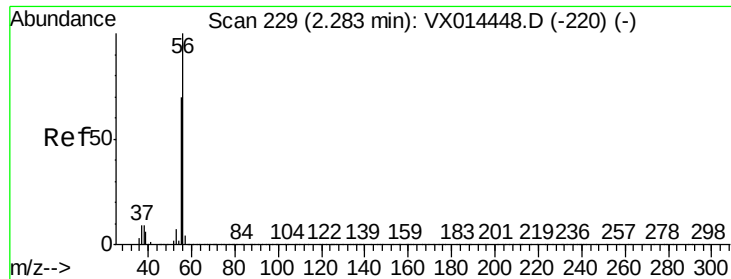
#11  
Tert butyl alcohol  
Concen: 0.715 ug/l  
RT: 3.02 min Scan# 350  
Delta R.T. -0.01 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 59 Resp: 916  
Ion Ratio Lower Upper  
59 100  
57 16.2 8.5 12.7#



Abundance Ion 59.00 (58.70 to 59.70): VX0  
Ion 57.00 (56.70 to 57.70): VX0

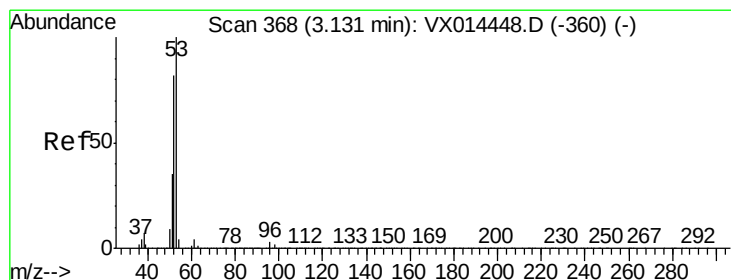
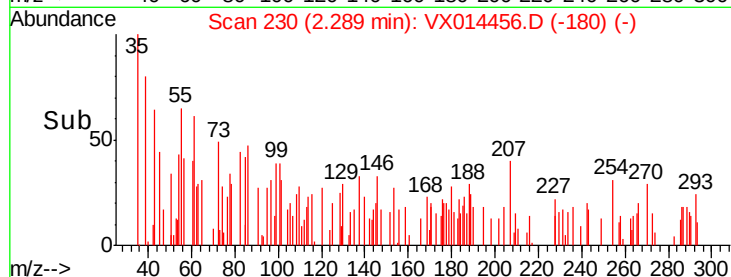
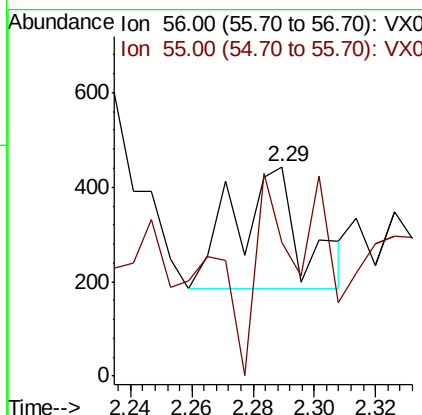
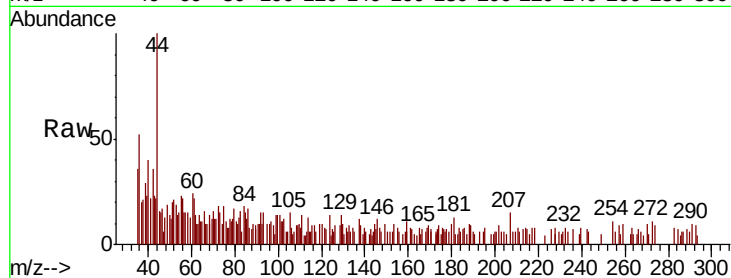




#13  
Acrolein  
Concen: 0.389 ug/l  
RT: 2.29 min Scan# 230  
Delta R.T. 0.01 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

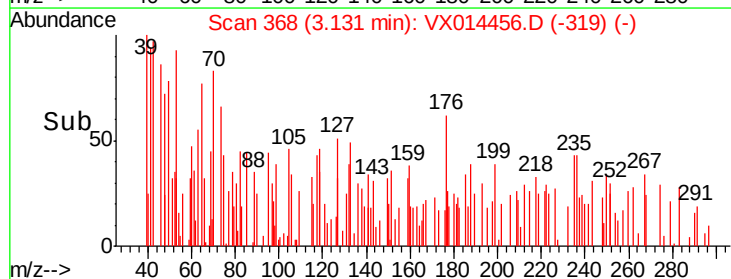
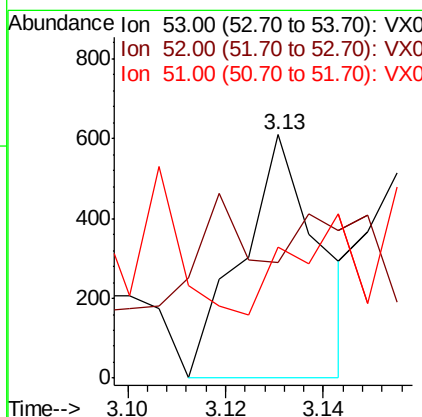
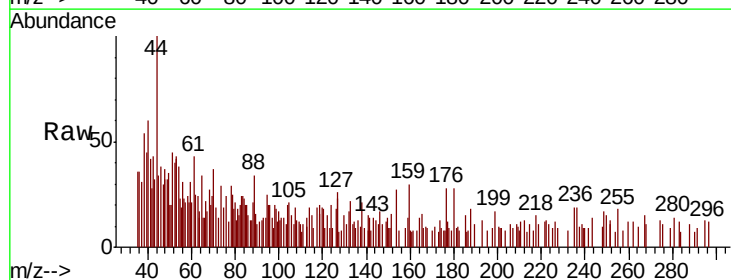
Instrument :  
MSVOA\_X  
ClientSampled :

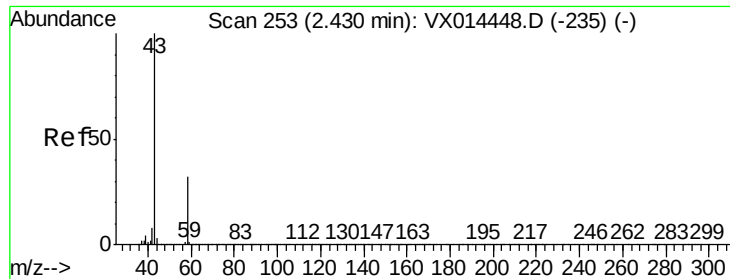
Tot Ion: 56 Resp: 399  
Ion Ratio Lower Upper  
56 100  
55 84.7 55.0 82.6#



#15  
Acrylonitrile  
Concen: 0.215 ug/l  
RT: 3.13 min Scan# 368  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 53 Resp: 664  
Ion Ratio Lower Upper  
53 100  
52 75.5 67.0 100.4  
51 33.6 28.5 42.7

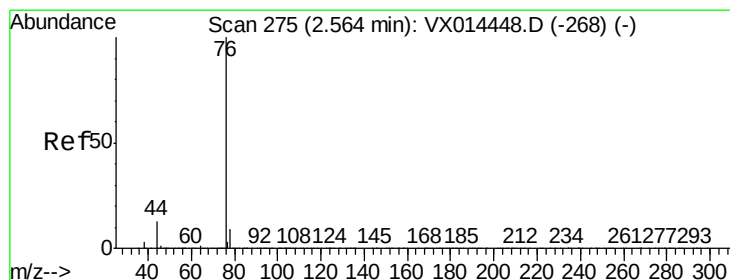
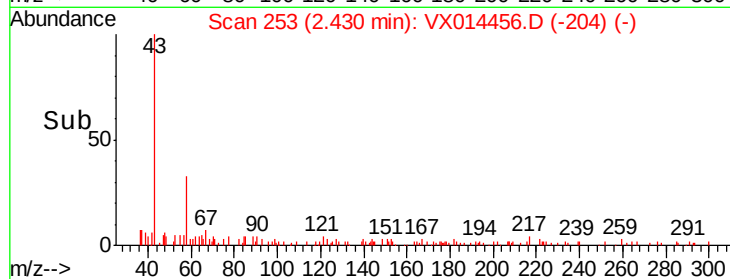
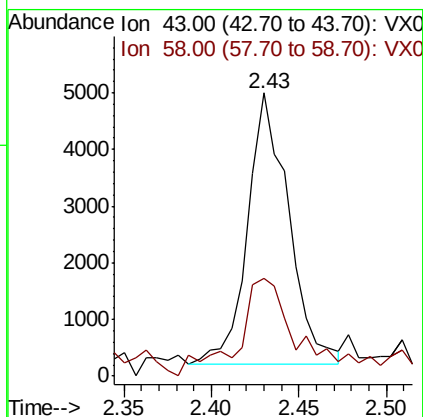
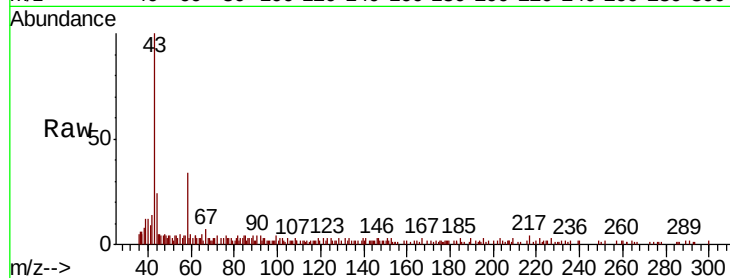




#16  
Acetone  
Concen: Below Cal  
RT: 2.43 min Scan# 253  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

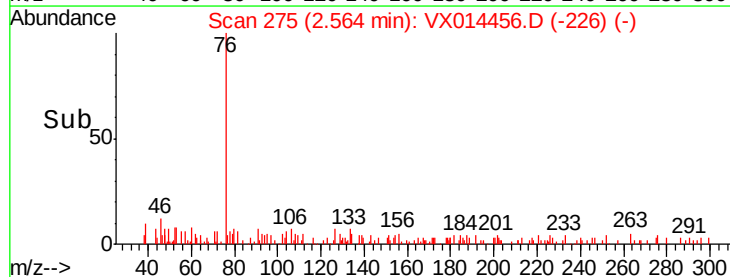
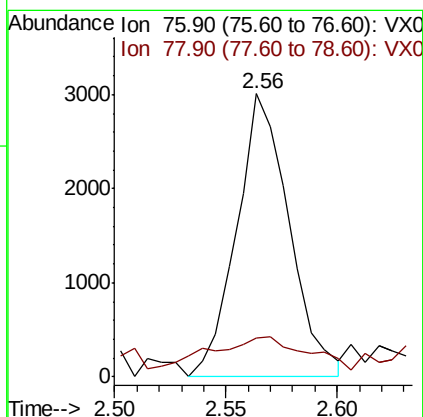
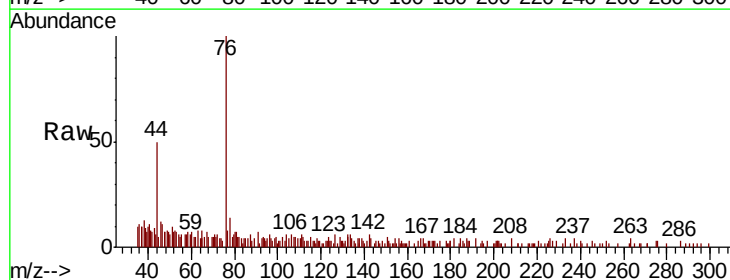
Instrument :  
MSVOA\_X  
ClientSampleId :

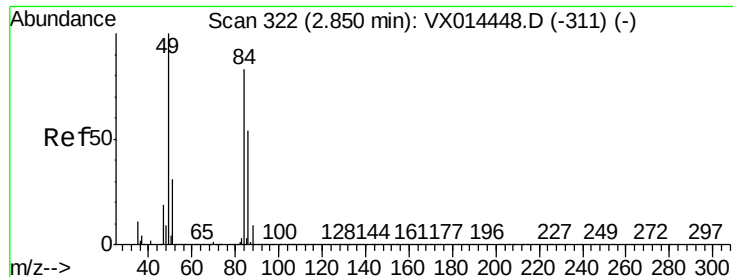
Tot Ion: 43 Resp: 7819  
Ion Ratio Lower Upper  
43 100  
58 30.8 25.4 38.0



#17  
Carbon Disulfide  
Concen: 0.327 ug/l  
RT: 2.56 min Scan# 275  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 76 Resp: 4952  
Ion Ratio Lower Upper  
76 100  
78 7.1 7.4 11.2#

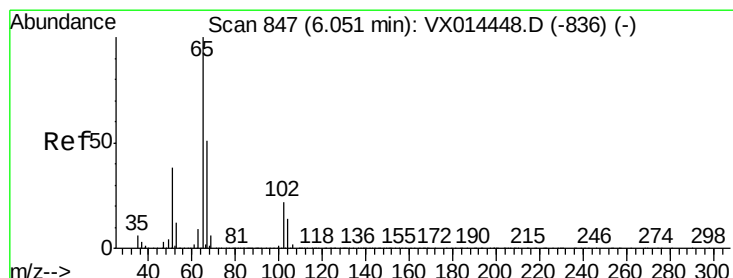
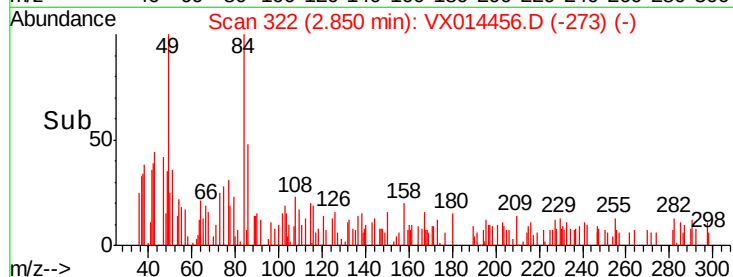
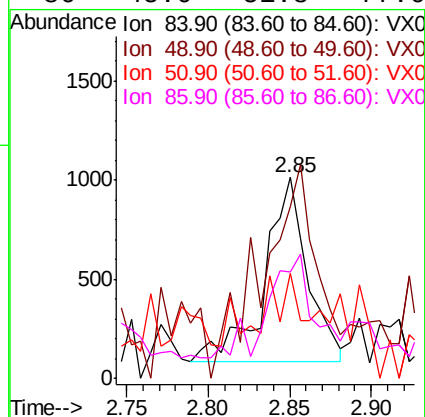
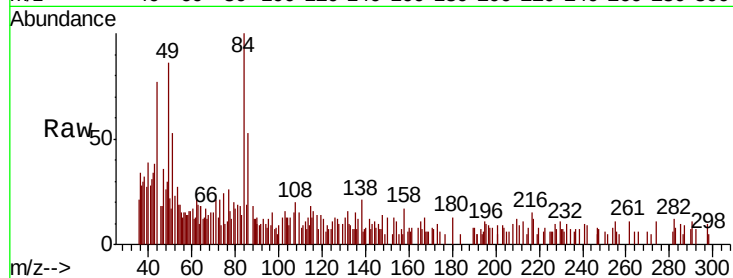




#20  
Methylene Chloride  
Concen: 0.277 ug/l  
RT: 2.85 min Scan# 322  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

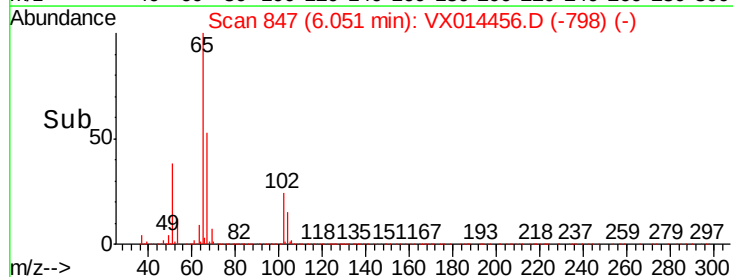
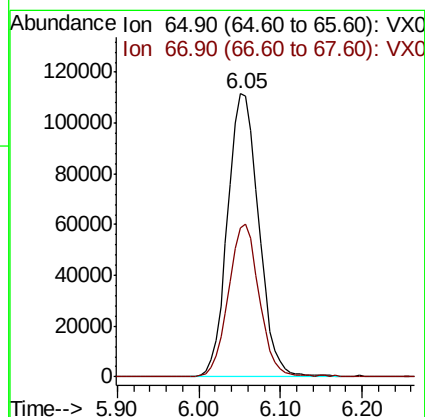
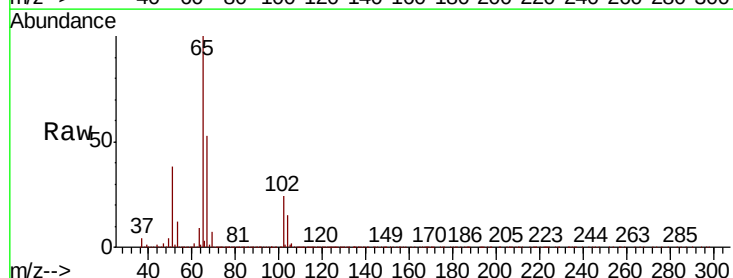
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 84 Resp: 1706  
Ion Ratio Lower Upper  
84 100  
49 70.0 95.8 143.8#  
51 23.3 30.2 45.4#  
86 45.0 51.8 77.6#

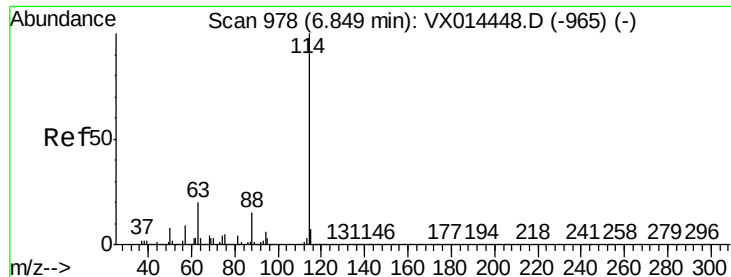


#33  
1,2-Dichloroethane-d4  
Concen: 47.789 ug/l  
RT: 6.05 min Scan# 847  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 65 Resp: 293088  
Ion Ratio Lower Upper  
65 100  
67 53.3 0.0 106.2







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX014456.D

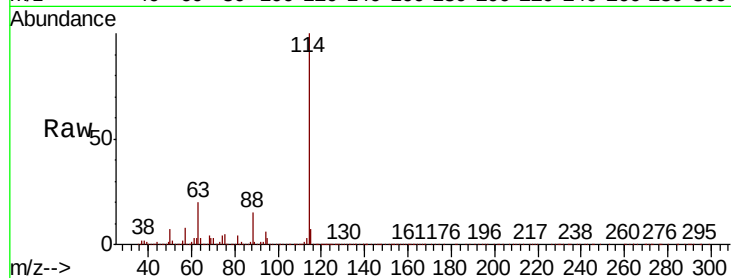
Acq: 07 Jan 2020 18:31

Instrument :

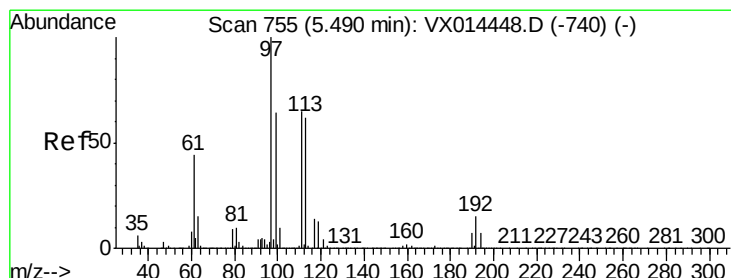
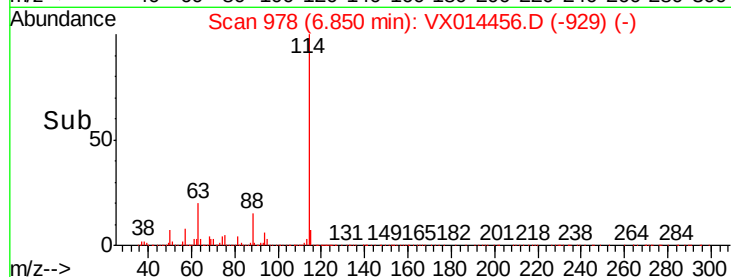
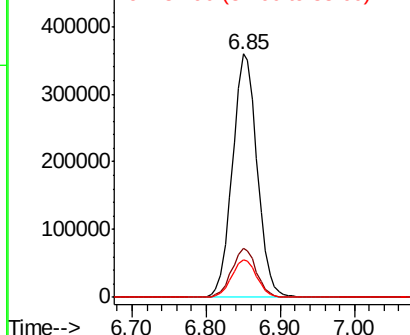
MSVOA\_X

ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 114   | Resp: | 835665 |
| Ion      | Ratio | Lower | Upper  |
| 114      | 100   |       |        |
| 63       | 20.4  | 0.0   | 39.6   |
| 88       | 15.4  | 0.0   | 30.8   |



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: 48.369 ug/l

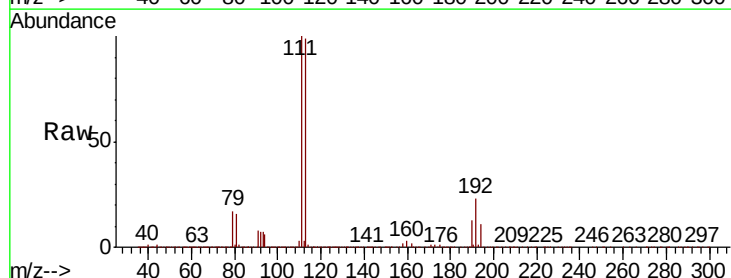
RT: 5.49 min Scan# 755

Delta R.T. 0.00 min

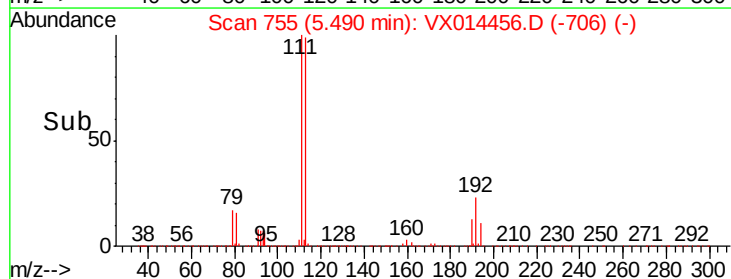
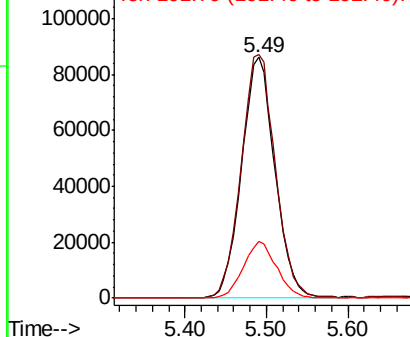
Lab File: VX014456.D

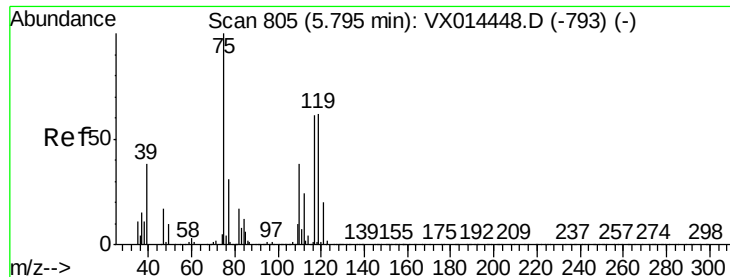
Acq: 07 Jan 2020 18:31

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 113   | Resp: | 244684 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 103.8 | 81.5  | 122.3  |
| 192      | 23.7  | 19.2  | 28.8   |



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

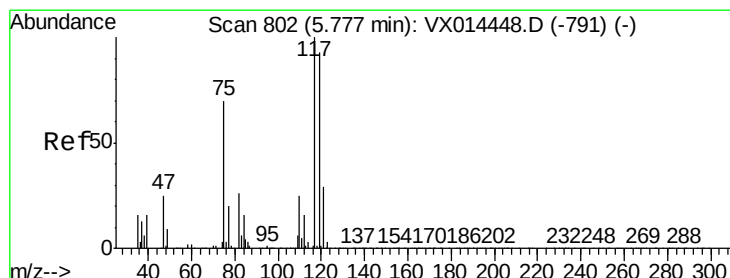
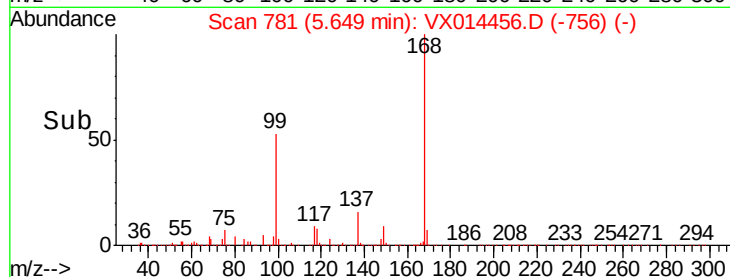
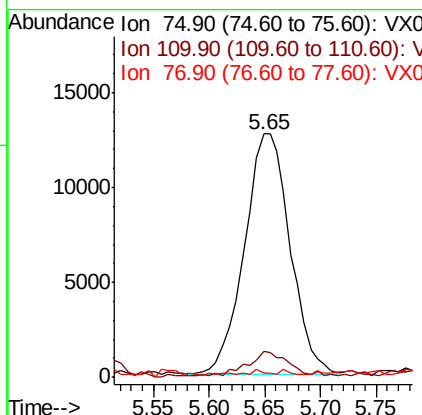
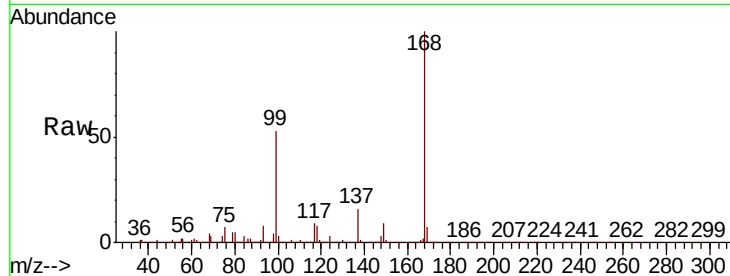




#36  
 1,1-Dichloropropene  
 Concen: 4.562 ug/l  
 RT: 5.65 min Scan# 781  
 Delta R.T. -0.15 min  
 Lab File: VX014456.D  
 Acq: 07 Jan 2020 18:31

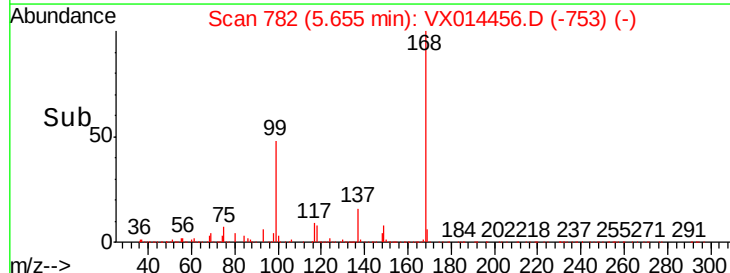
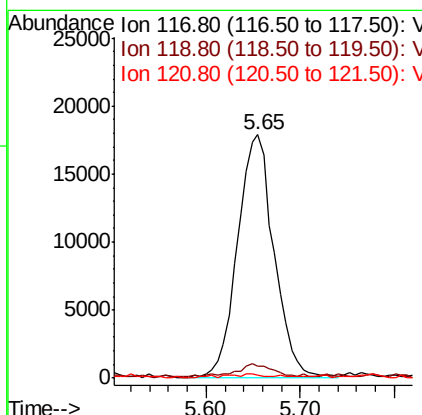
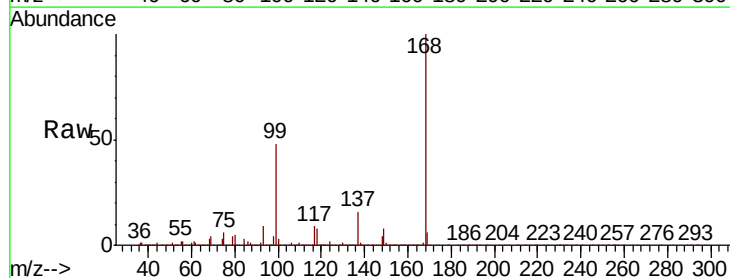
Instrument :  
 MSVOA\_X  
 ClientSampleId :

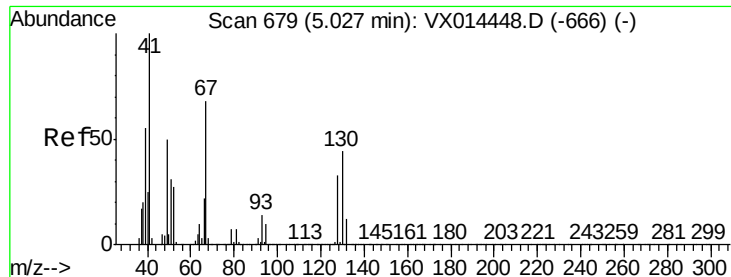
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.6   | 18.6  | 55.8# |
| 77      | 1.2   | 24.5  | 36.7# |



#38  
 Carbon Tetrachloride  
 Concen: 6.734 ug/l  
 RT: 5.65 min Scan# 782  
 Delta R.T. -0.12 min  
 Lab File: VX014456.D  
 Acq: 07 Jan 2020 18:31

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.5   | 73.8  | 110.8# |
| 121     | 1.3   | 23.4  | 35.0#  |

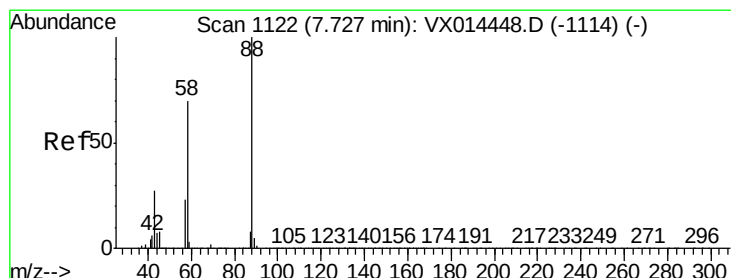
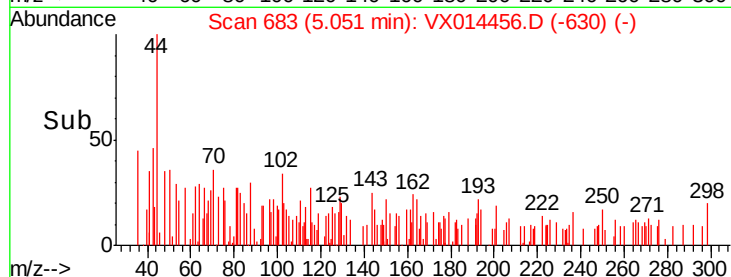
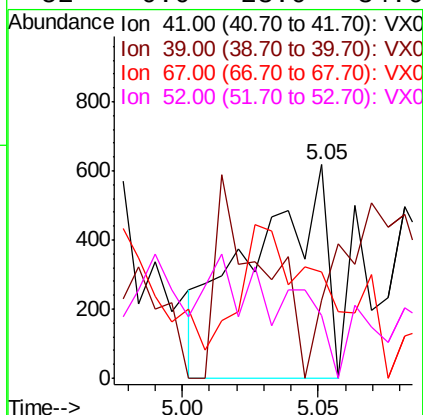
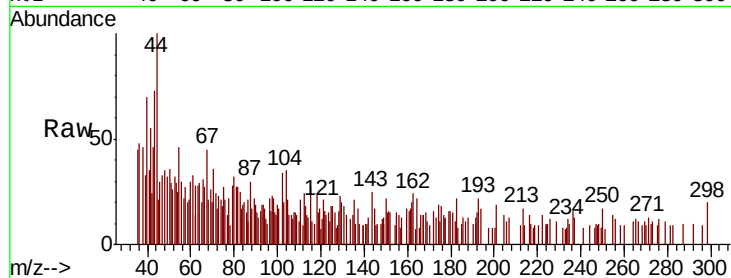




#41  
Methacrylonitrile  
Concen: 0.254 ug/l  
RT: 5.05 min Scan# 683  
Delta R.T. 0.02 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

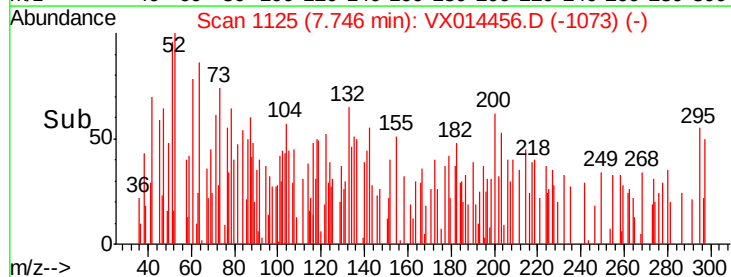
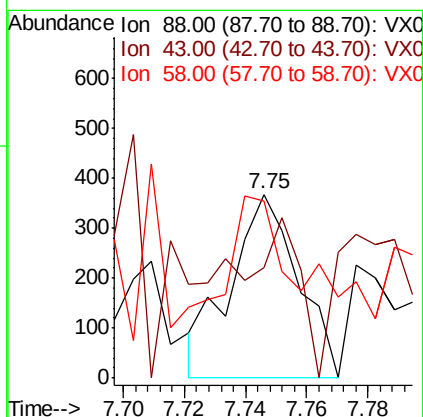
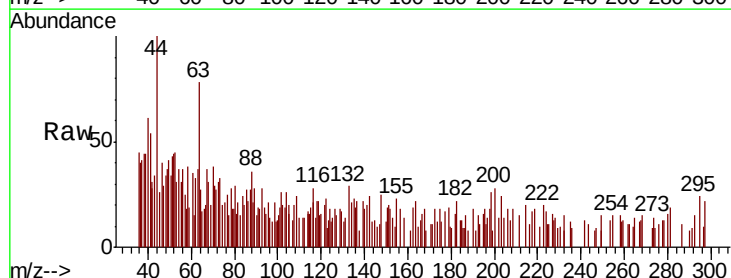
Instrument :  
MSVOA\_X  
ClientSampled :

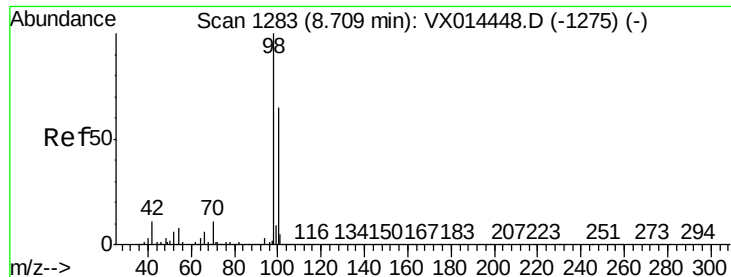
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 1158  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 0.0   | 43.6  | 65.4# |
| 67       | 0.0   | 57.9  | 86.9# |
| 52       | 0.0   | 23.0  | 34.6# |



#49  
1,4-Dioxane  
Concen: 4.030 ug/l  
RT: 7.75 min Scan# 1125  
Delta R.T. 0.02 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 564   |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 49.1  | 27.4  | 41.0# |
| 58       | 50.2  | 57.1  | 85.7# |

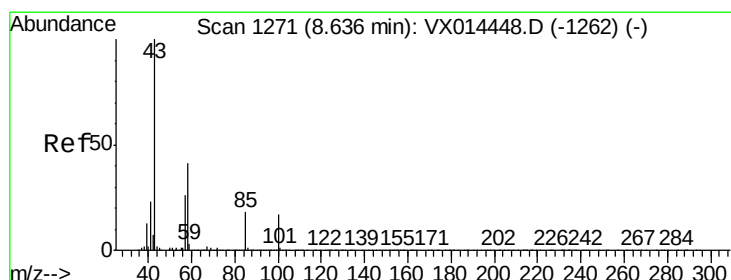
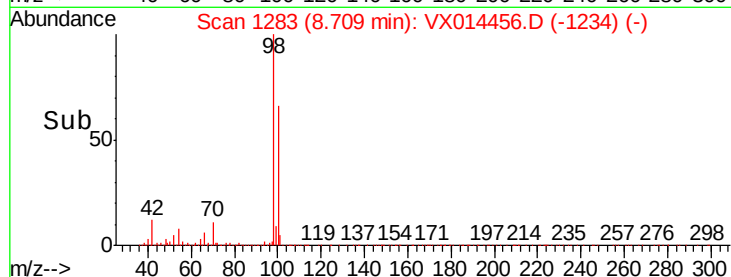
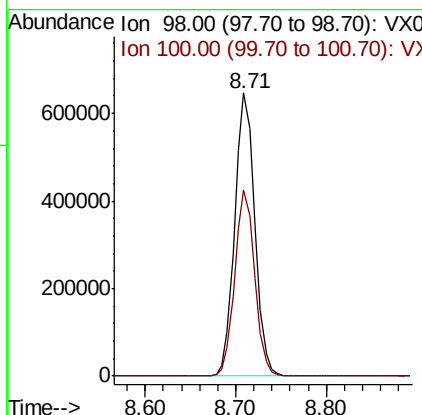
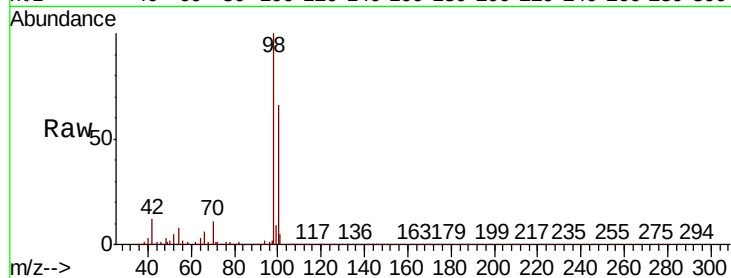




#50  
Toluene-d8  
Concen: 50.491 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

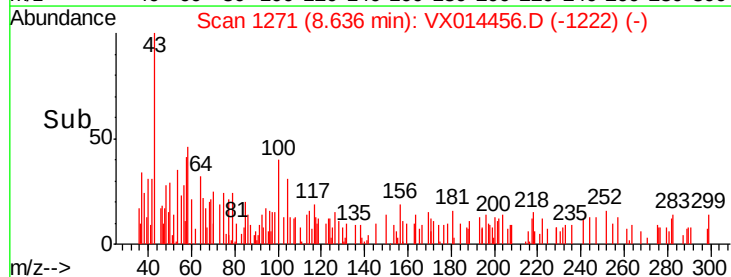
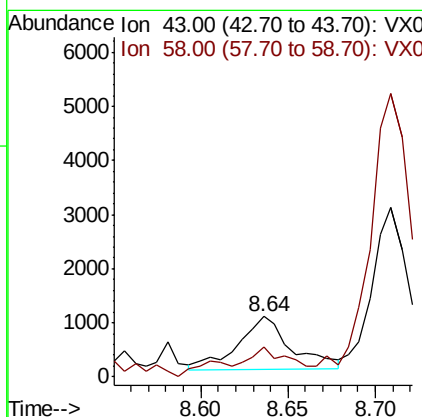
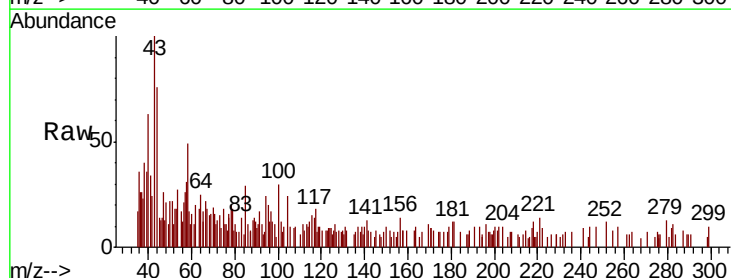
Instrument :  
MSVOA\_X  
ClientSampleId :

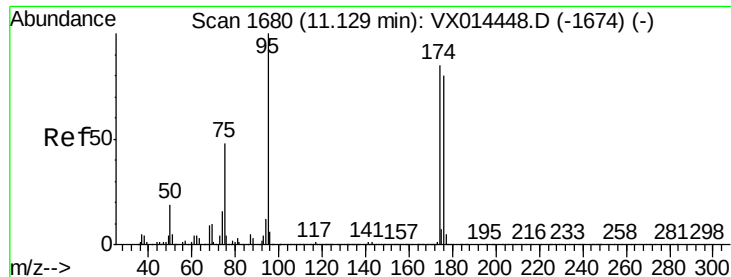
Tot Ion: 98 Resp: 991176  
Ion Ratio Lower Upper  
98 100  
100 65.3 53.2 79.8



#51  
4-Methyl-2-Pentanone  
Concen: 0.246 ug/l  
RT: 8.64 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 43 Resp: 2071  
Ion Ratio Lower Upper  
43 100  
58 43.0 32.4 48.6

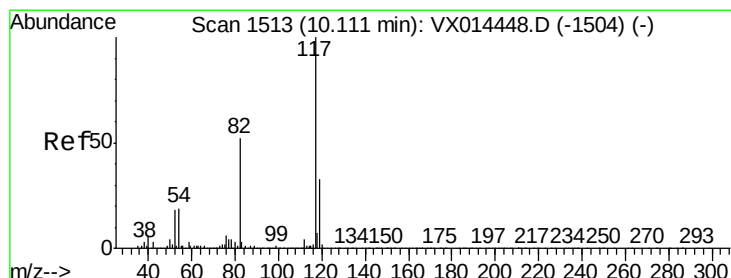
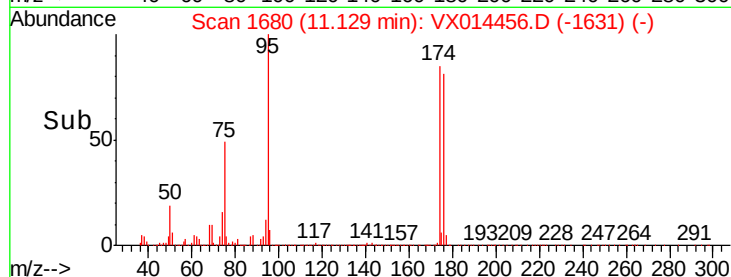
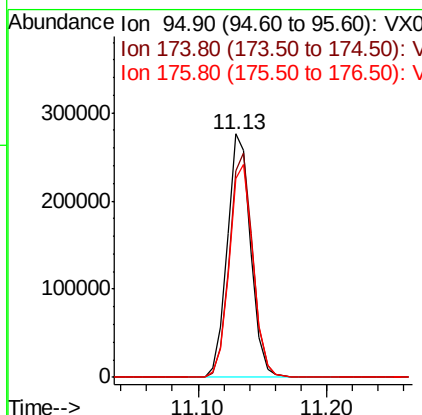
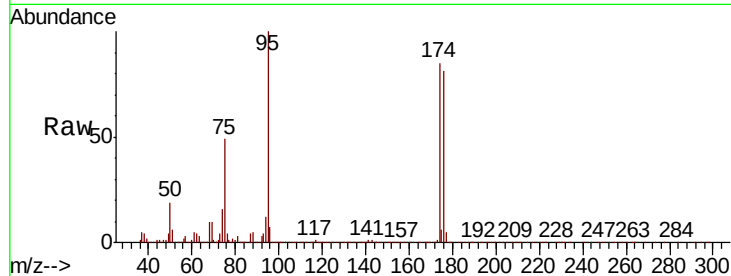




#62  
4-Bromofluorobenzene  
Concen: 49.021 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

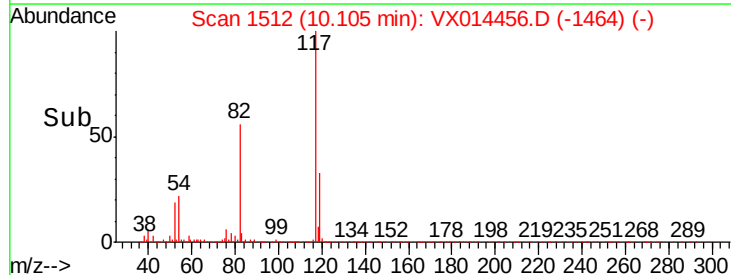
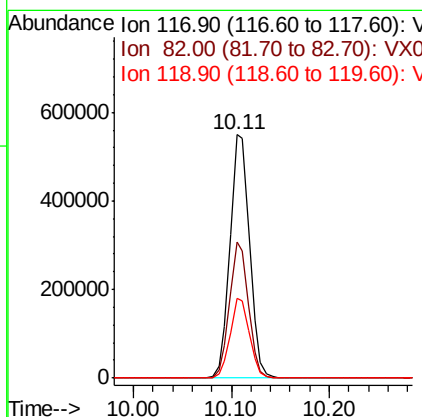
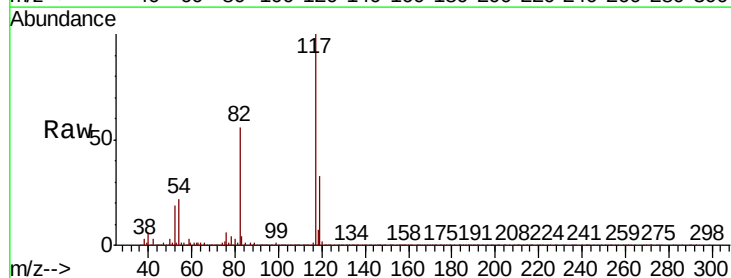
Instrument :  
MSVOA\_X  
ClientSampleId :

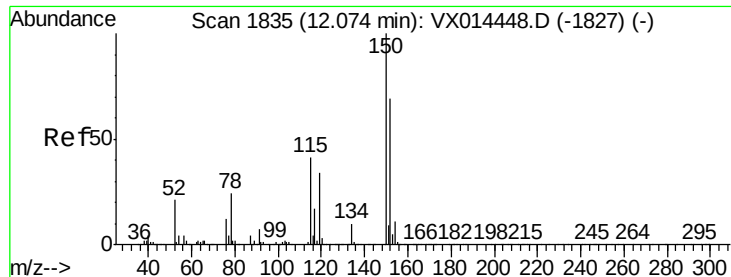
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 92.6  | 0.0   | 180.8 |
| 176     | 88.8  | 0.0   | 172.8 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1512  
Delta R.T. -0.01 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 55.9  | 41.8  | 62.6  |
| 119     | 32.7  | 26.2  | 39.4  |

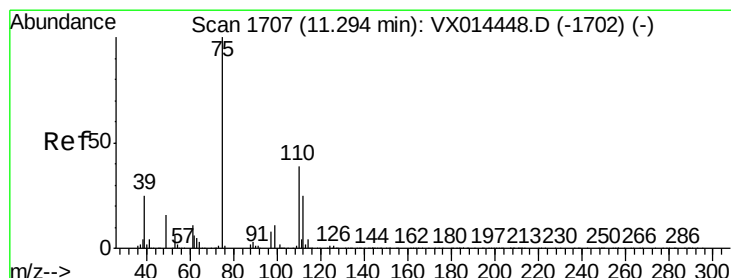
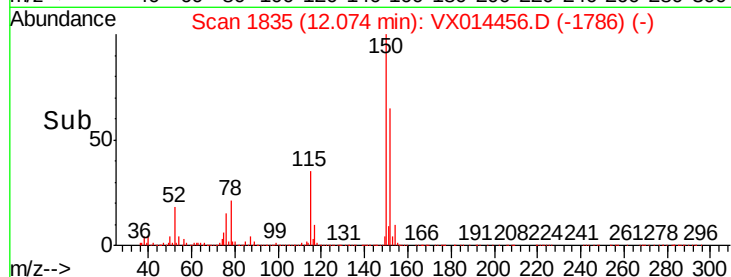
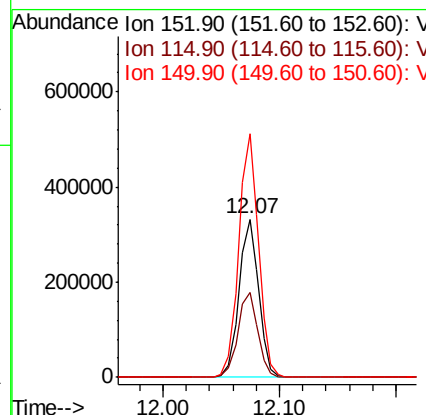
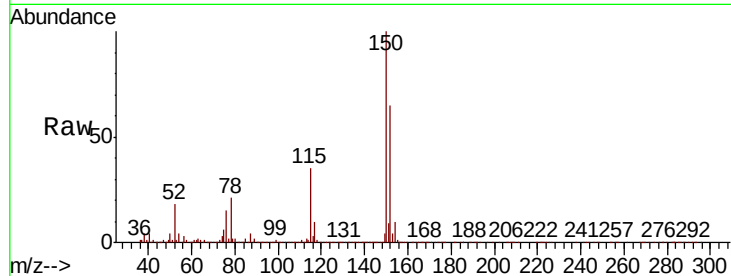




#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 12.07 min Scan# 1835  
 Delta R.T. 0.00 min  
 Lab File: VX014456.D  
 Acq: 07 Jan 2020 18:31

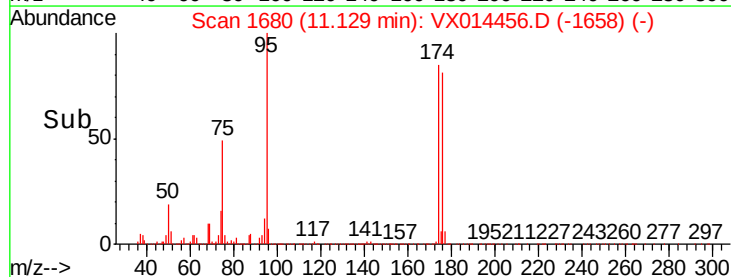
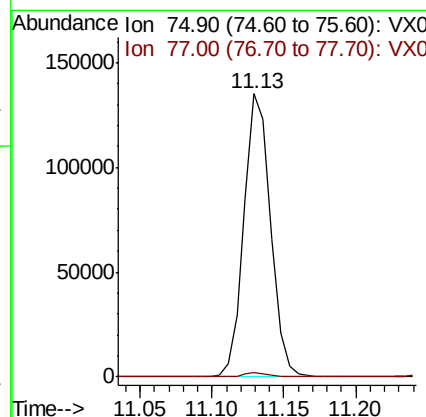
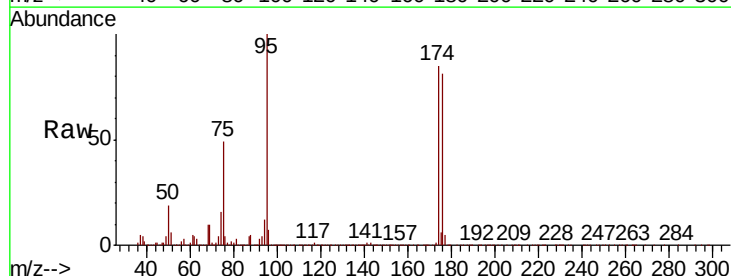
Instrument :  
 MSVOA\_X  
 ClientSampleId :

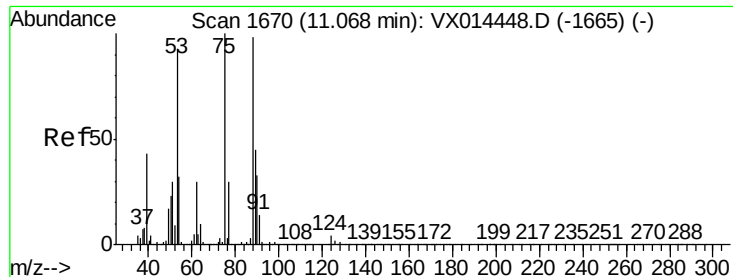
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 54.2  | 39.5  | 118.3 |
| 150     | 154.2 | 0.0   | 350.2 |



#76  
 1,2,3-Trichloropropane  
 Concen: 21.298 ug/l  
 RT: 11.13 min Scan# 1680  
 Delta R.T. -0.16 min  
 Lab File: VX014456.D  
 Acq: 07 Jan 2020 18:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.4   | 21.9  | 65.7# |

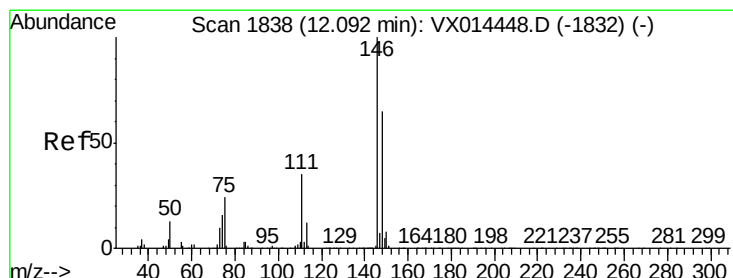
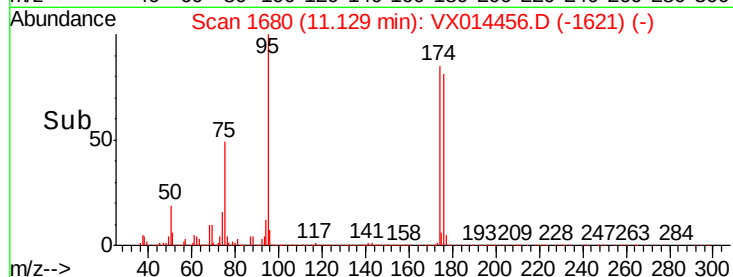
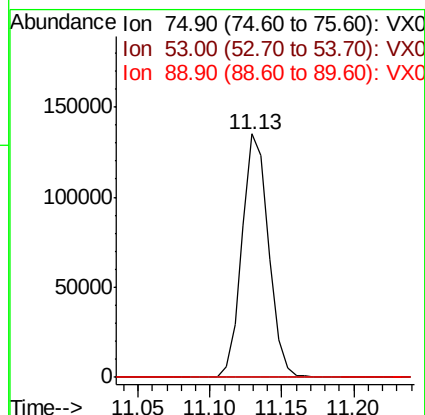
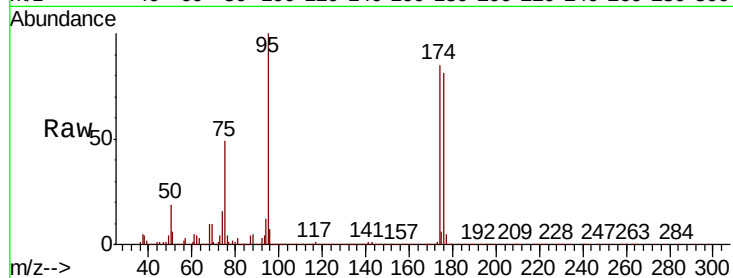




#81  
trans-1,4-Dichloro-2-butene  
Concen: 56.309 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. 0.06 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

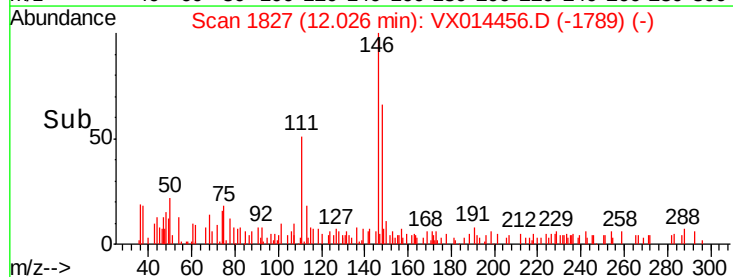
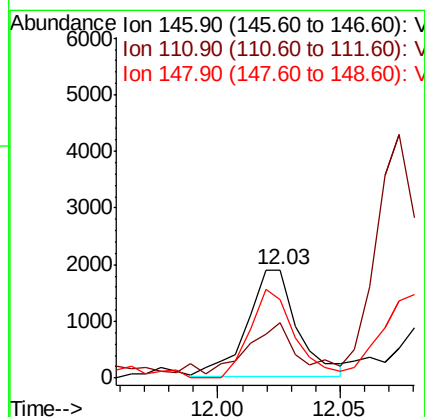
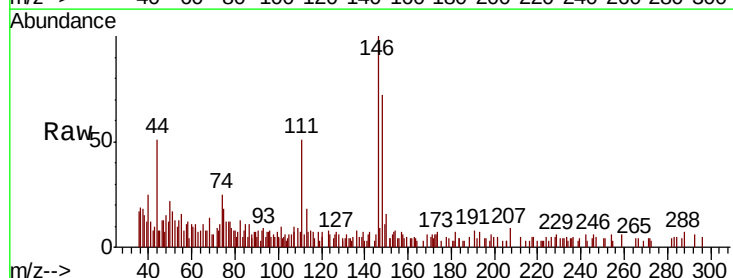
Instrument :  
MSVOA\_X  
ClientSampleId :

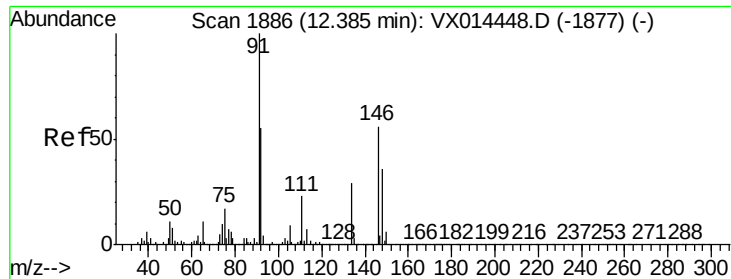
Tot Ion: 75 Resp: 172636  
Ion Ratio Lower Upper  
75 100  
53 0.2 74.8 112.2#  
89 0.2 36.3 54.5#



#88  
1,4-Dichlorobenzene  
Concen: Below Cal  
RT: 12.03 min Scan# 1827  
Delta R.T. -0.07 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

Tgt Ion: 146 Resp: 2696  
Ion Ratio Lower Upper  
146 100  
111 44.1 18.1 54.1  
148 74.4 32.1 96.3

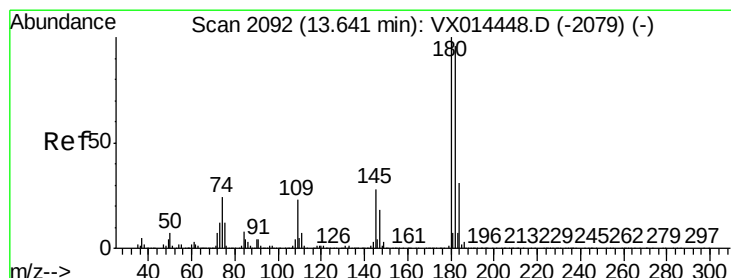
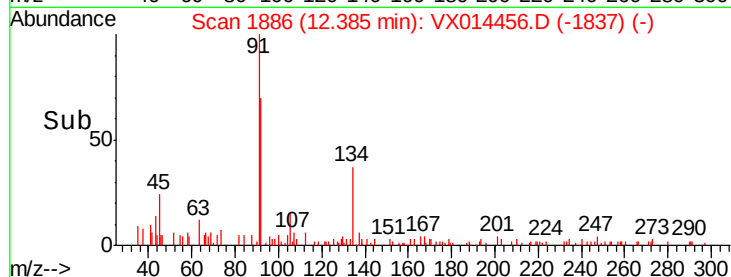
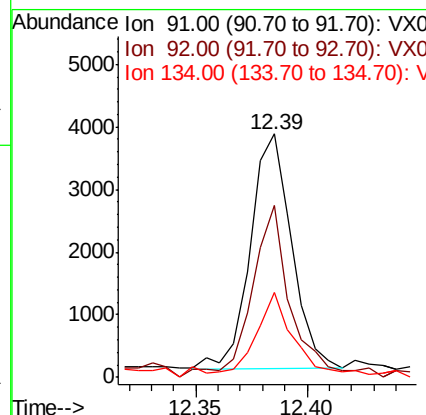
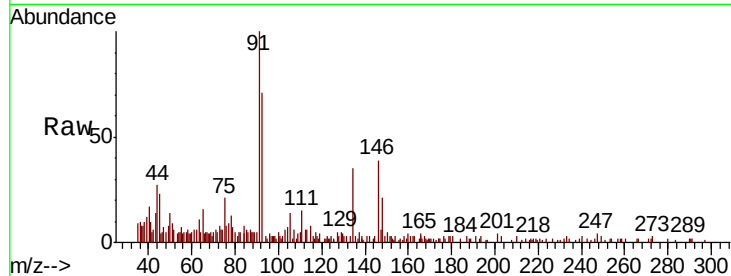




#89  
n-Butylbenzene  
Concen: 0.213 ug/l  
RT: 12.39 min Scan# 1886  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

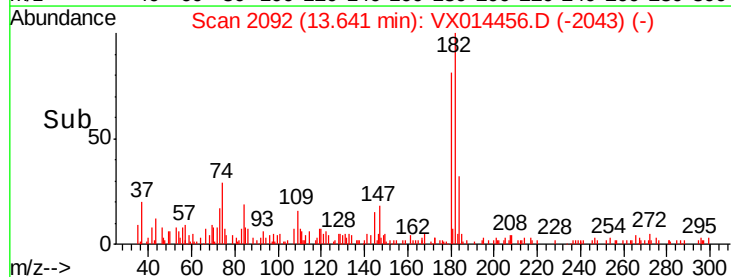
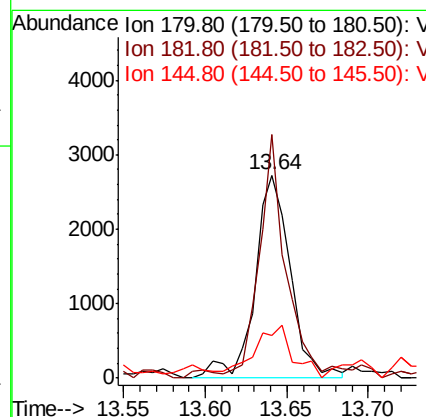
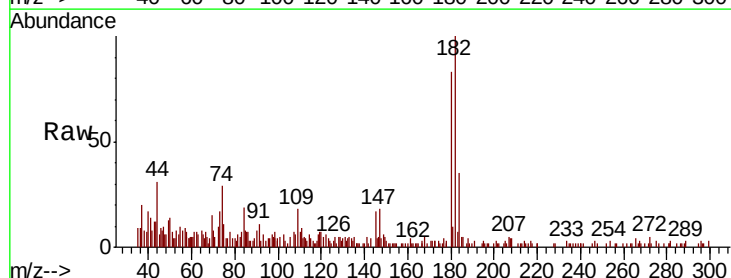
Instrument :  
MSVOA\_X  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 70.2  | 27.4  | 82.2  |
| 134     | 35.3  | 13.9  | 41.7  |

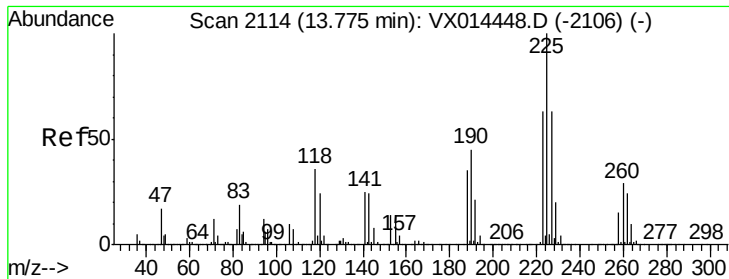


#93  
1,2,4-Trichlorobenzene  
Concen: 0.327 ug/l  
RT: 13.64 min Scan# 2092  
Delta R.T. 0.00 min  
Lab File: VX014456.D  
Acq: 07 Jan 2020 18:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 92.0  | 47.5  | 142.5 |
| 145     | 29.0  | 13.9  | 41.6  |







#94

Hexachlorobutadiene

Concen: 0.398 ug/l

RT: 13.78 min Scan# 2114

Delta R.T. 0.00 min

Lab File: VX014456.D

Acq: 07 Jan 2020 18:31

Instrument :

MSVOA\_X

ClientSampleId :

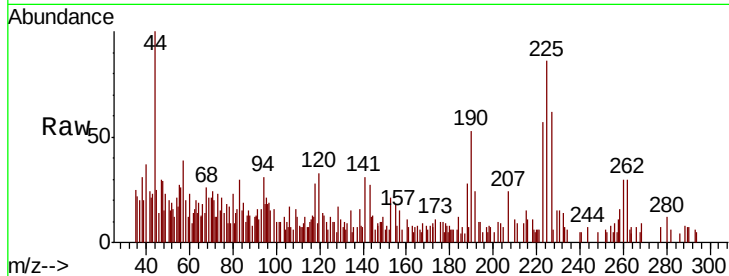
Tot Ion:225 Resp: 1484

Ion Ratio Lower Upper

225 100

223 61.4 31.1 93.2

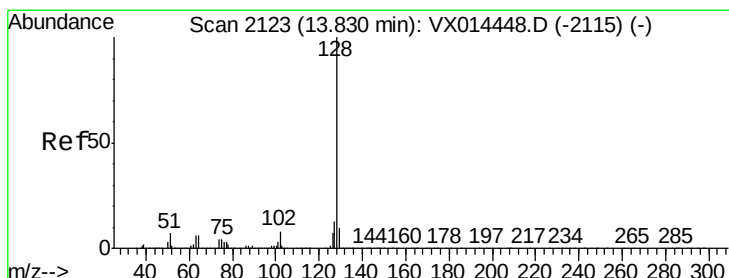
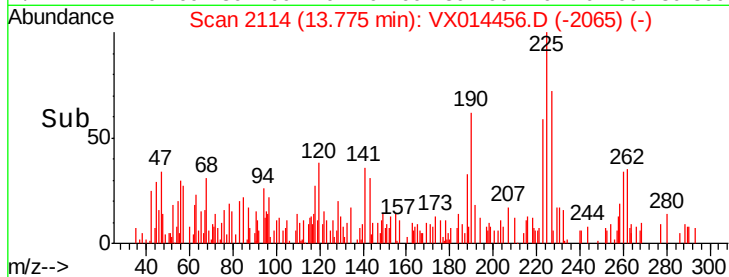
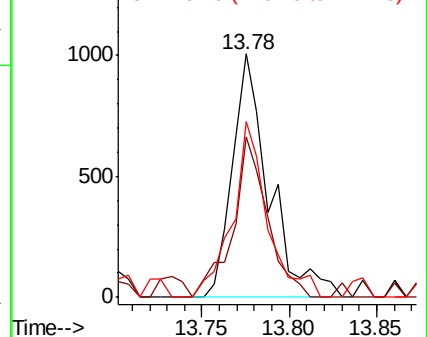
227 68.1 31.4 94.2



Abundance Ion 224.70 (224.40 to 225.40): V

Ion 222.70 (222.40 to 223.40): V

Ion 226.70 (226.40 to 227.40): V



#95

Naphthalene

Concen: 0.241 ug/l

RT: 13.83 min Scan# 2123

Delta R.T. 0.00 min

Lab File: VX014456.D

Acq: 07 Jan 2020 18:31

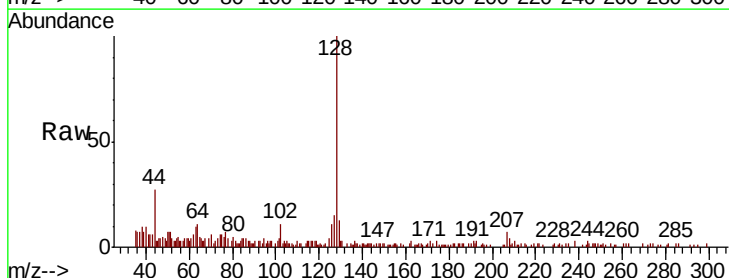
Tgt Ion:128 Resp: 7036

Ion Ratio Lower Upper

128 100

127 21.8 10.3 15.5#

129 17.2 8.7 13.1#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

