

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX091120\  
 Data File : VX018371.D  
 Acq On : 11 Sep 2020 19:15  
 Operator : JC/SP  
 Sample : L3976-02  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Sep 12 06:00:46 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 21 03:03:56 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 427941   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 683697   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 681209   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 323517   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 300312   | 50.55 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.10% |          |
| 35) Dibromofluoromethane    | 5.47  | 113  | 237443   | 50.99 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.98% |          |
| 50) Toluene-d8              | 8.70  | 98   | 860590   | 49.62 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.24%  |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 323372   | 47.39 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.78%  |          |

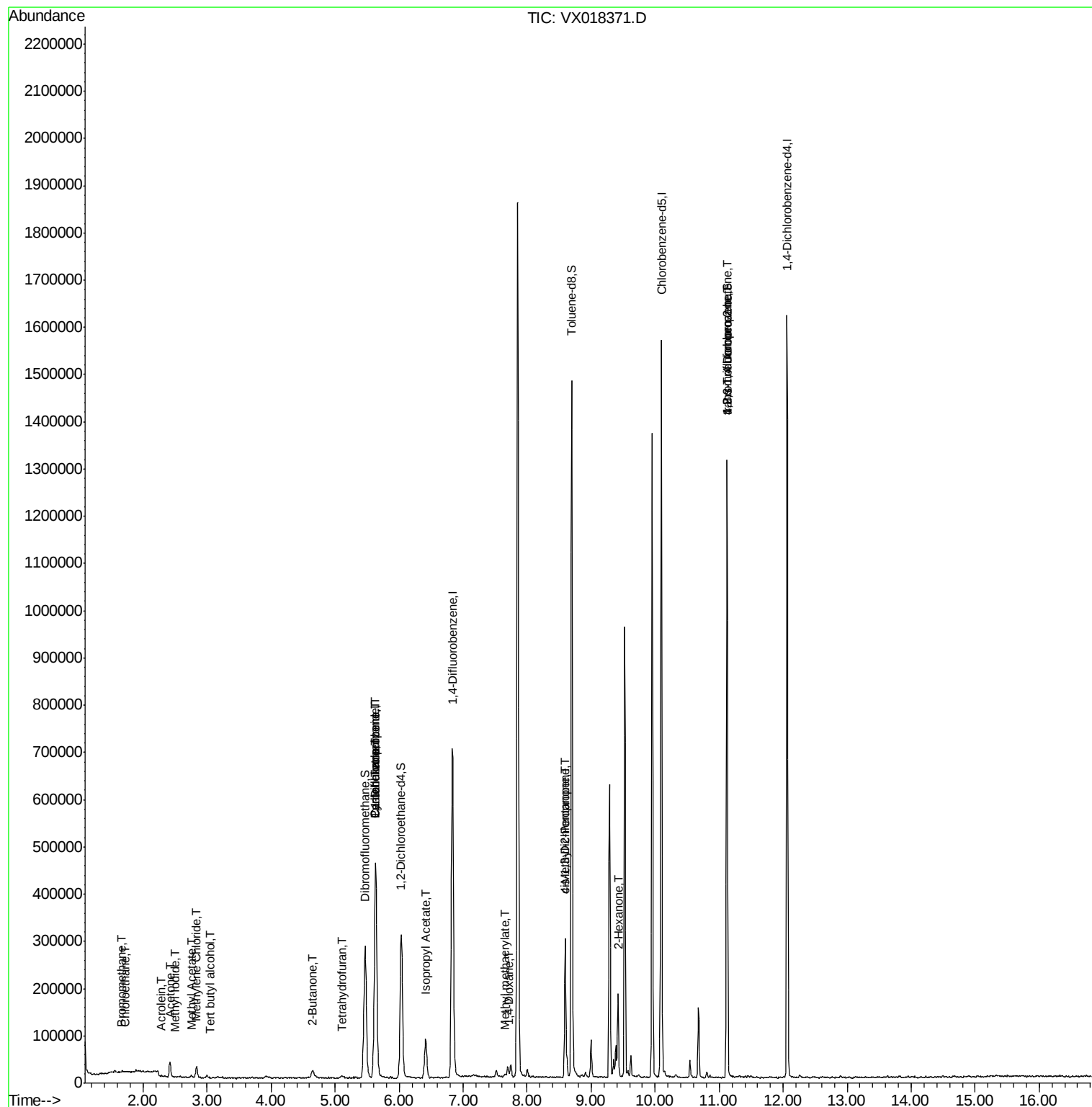
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 1.65  | 94   | 817      | 0.310  | ug/l # | 47     |
| 6) Chloroethane                | 1.71  | 64   | 635      | 0.216  | ug/l # | 41     |
| 10) Methyl Iodide              | 2.50  | 142  | 261      | 5.341  | ug/l # | 86     |
| 11) Tert butyl alcohol         | 3.06  | 59   | 413      | 0.358  | ug/l # | 76     |
| 13) Acrolein                   | 2.28  | 56   | 286      | 0.597  | ug/l # | 77     |
| 16) Acetone                    | 2.42  | 43   | 33493    | 14.468 | ug/l   | 91     |
| 18) Methyl Acetate             | 2.75  | 43   | 6609     | 1.183  | ug/l # | 84     |
| 20) Methylene Chloride         | 2.83  | 84   | 11701    | 1.335  | ug/l   | 94     |
| 25) 2-Butanone                 | 4.64  | 43   | 8561     | 2.250  | ug/l   | 98     |
| 29) Tetrahydrofuran            | 5.10  | 42   | 3366     | 1.390  | ug/l # | 82     |
| 31) Cyclohexane                | 5.62  | 56   | 9933     | 1.397  | ug/l # | 24     |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 33013    | 5.235  | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 44073    | 6.202  | ug/l # | 19     |
| 43) Isopropyl Acetate          | 6.42  | 43   | 112787   | 9.534  | ug/l   | 99     |
| 48) Methyl methacrylate        | 7.66  | 41   | 6720     | 1.141  | ug/l # | 16     |
| 49) 1,4-Dioxane                | 7.71  | 88   | 393      | 3.684  | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 113962   | 15.595 | ug/l # | 46     |
| 54) cis-1,3-Dichloropropene    | 8.60  | 75   | 45863    | 5.571  | ug/l # | 61     |
| 59) 2-Hexanone                 | 9.42  | 43   | 128241   | 23.080 | ug/l # | 25     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 168936   | 23.474 | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 168936   | 63.399 | ug/l # | 12     |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
Quant Title : SW846 8260  
QLast Update : Fri Aug 21 03:03:56 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 746

Delta R.T. 0.01 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

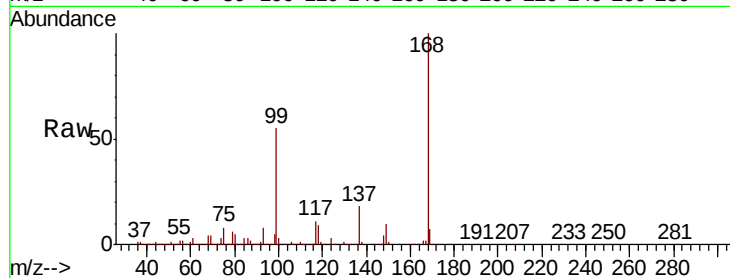
ClientSampleId :

Tot Ion:168 Resp: 427941

Ion Ratio Lower Upper

168 100

99 55.1 46.3 69.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

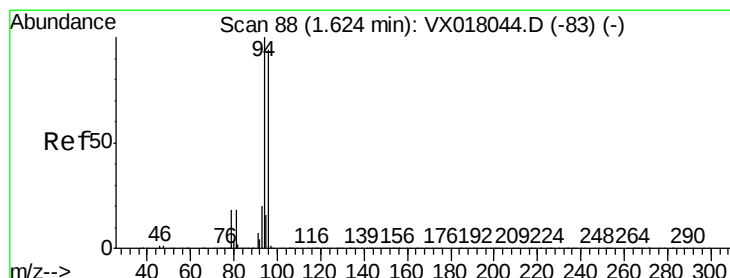
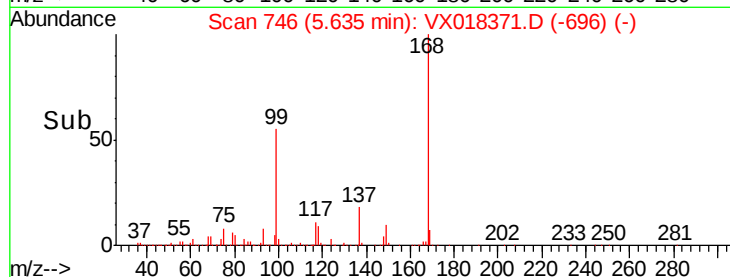
150000

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.310 ug/l

RT: 1.65 min Scan# 93

Delta R.T. 0.03 min

Lab File: VX018371.D

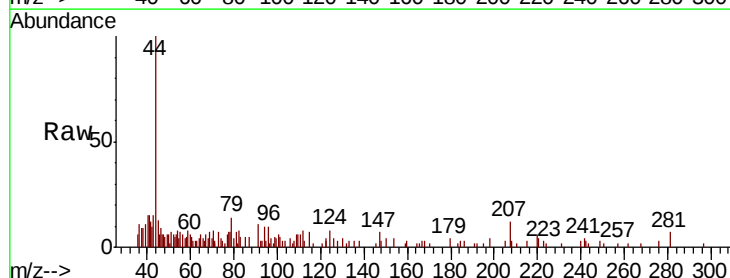
Acq: 11 Sep 2020 19:15

Tgt Ion: 94 Resp: 817

Ion Ratio Lower Upper

94 100

96 42.7 74.8 112.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

500

400

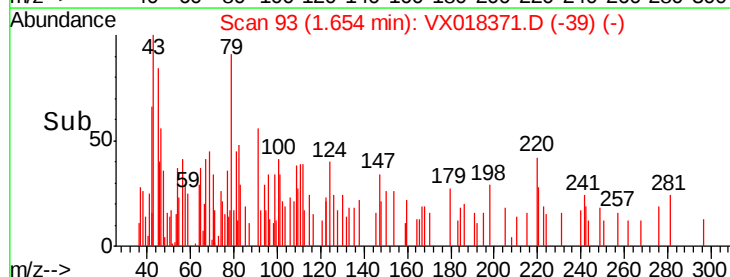
300

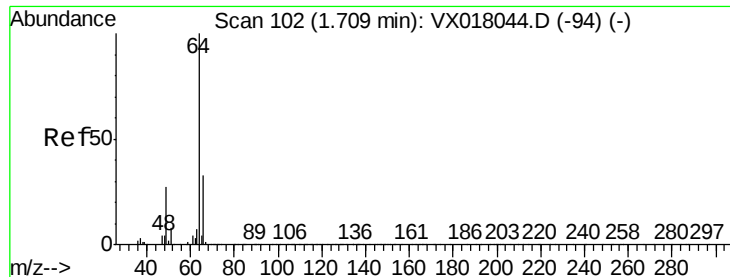
200

100

0

Time-->





#6

Chloroethane

Concen: 0.216 ug/l

RT: 1.71 min Scan# 103

Delta R.T. 0.01 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

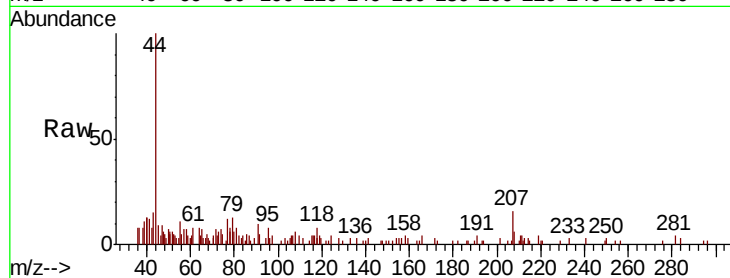
ClientSampled :

Tot Ion: 64 Resp: 635

Ion Ratio Lower Upper

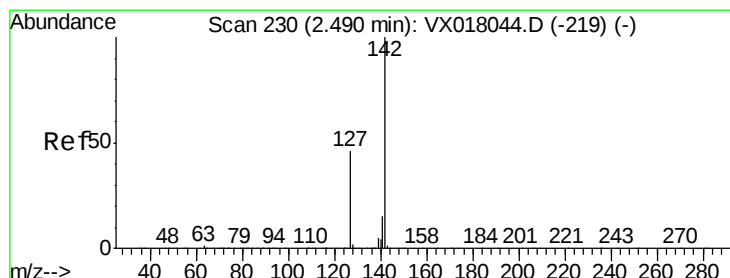
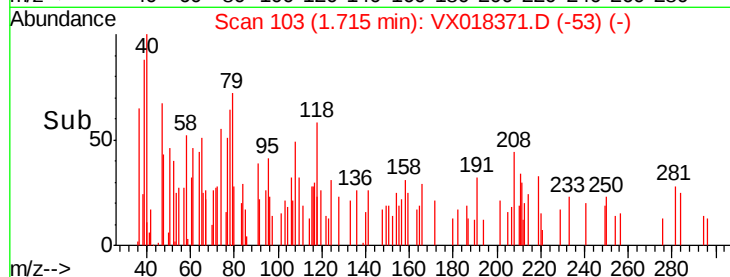
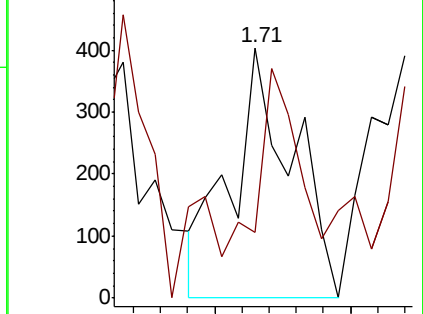
64 100

66 0.0 26.6 39.8#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



#10

Methyl Iodide

Concen: 5.341 ug/l

RT: 2.50 min Scan# 232

Delta R.T. 0.01 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

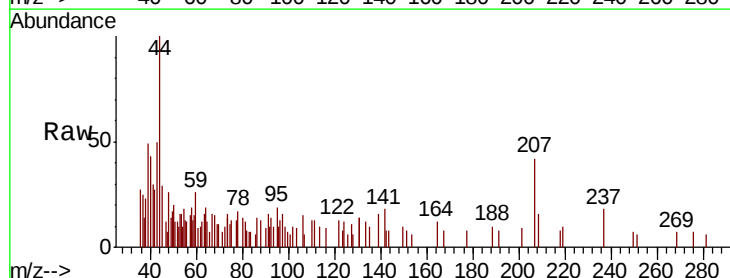
Tgt Ion: 142 Resp: 261

Ion Ratio Lower Upper

142 100

127 55.9 37.0 55.6#

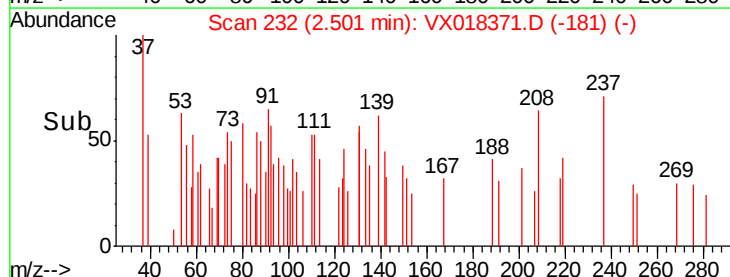
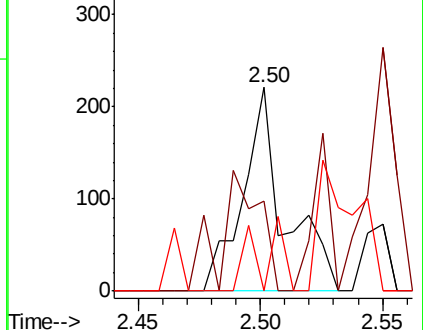
141 10.0 11.5 17.3#

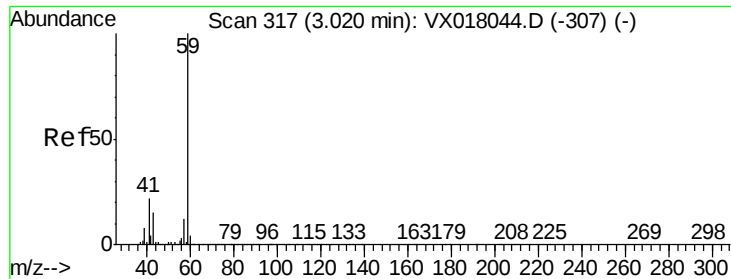


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

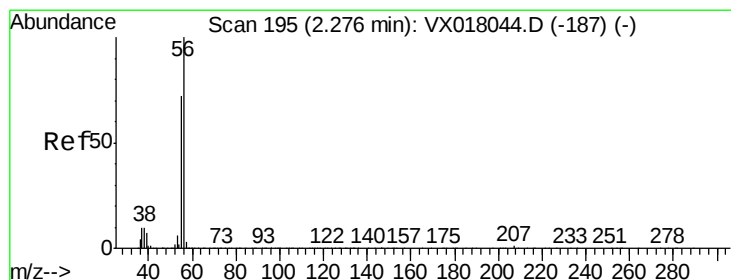
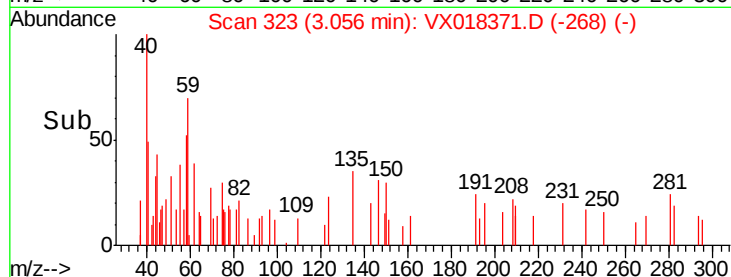
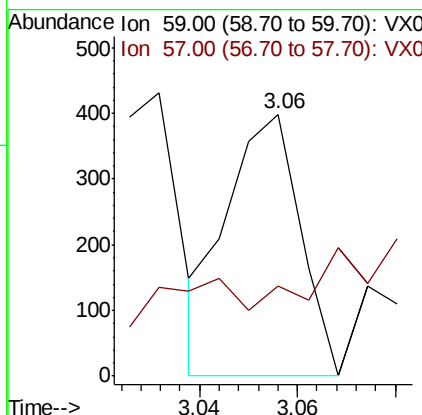
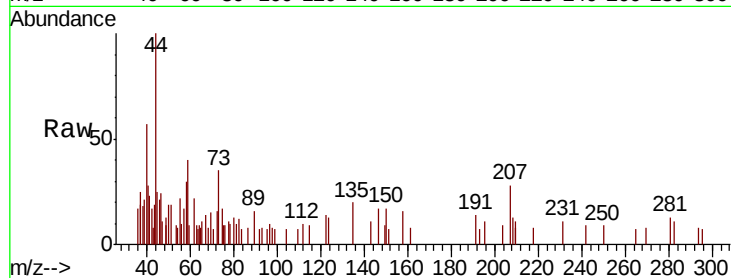




#11  
Tert butyl alcohol  
Concen: 0.358 ug/l  
RT: 3.06 min Scan# 323  
Delta R.T. 0.04 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

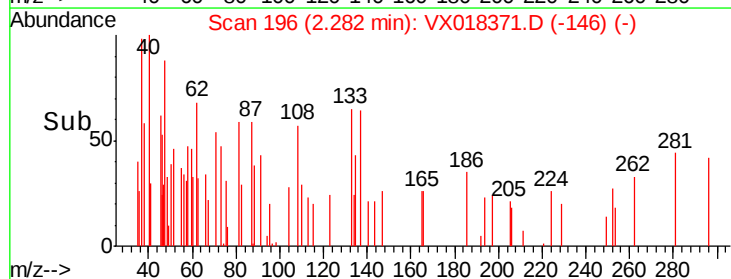
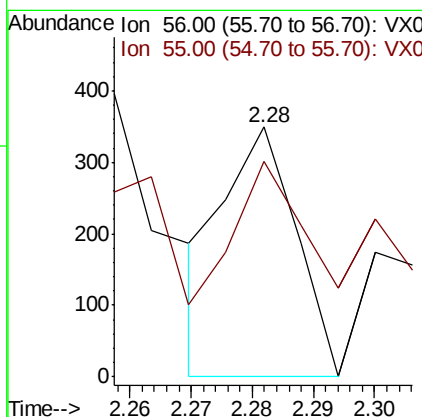
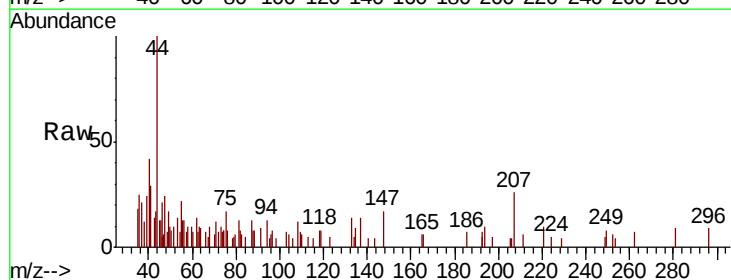
Instrument :  
MSVOA\_X  
ClientSampled :

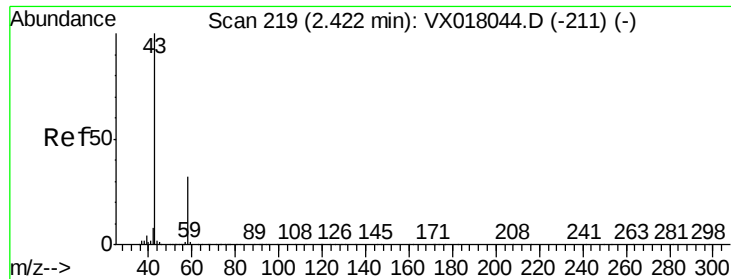
Tot Ion: 59 Resp: 413  
Ion Ratio Lower Upper  
59 100  
57 20.3 8.9 13.3#



#13  
Acrolein  
Concen: 0.597 ug/l  
RT: 2.28 min Scan# 196  
Delta R.T. 0.01 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Tgt Ion: 56 Resp: 286  
Ion Ratio Lower Upper  
56 100  
55 52.4 57.0 85.6#

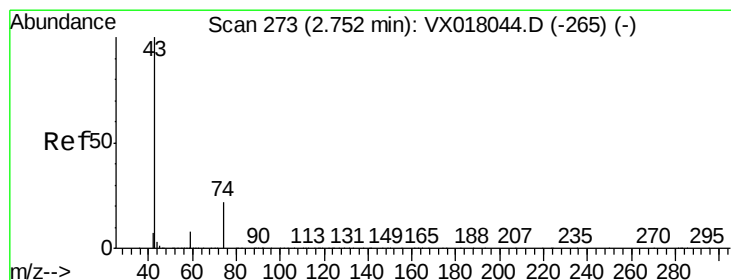
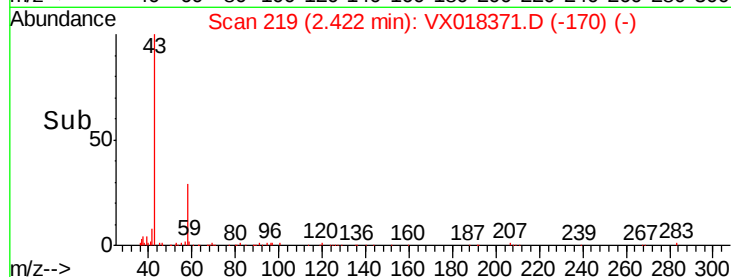
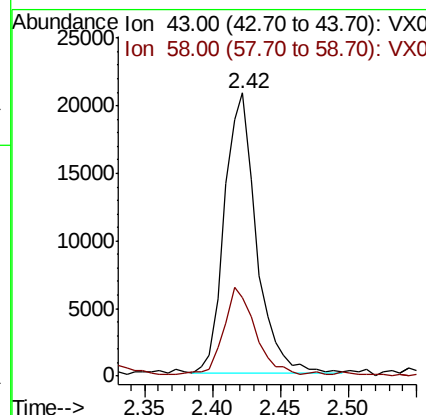
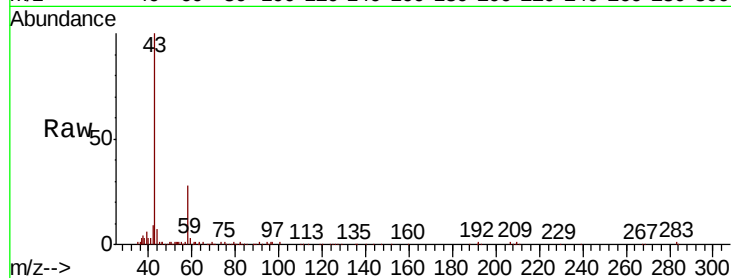




#16  
Acetone  
Concen: 14.468 ug/l  
RT: 2.42 min Scan# 219  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

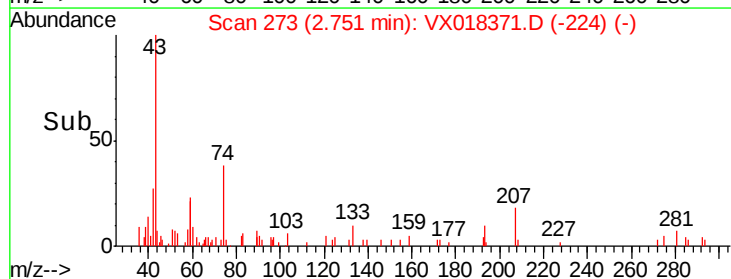
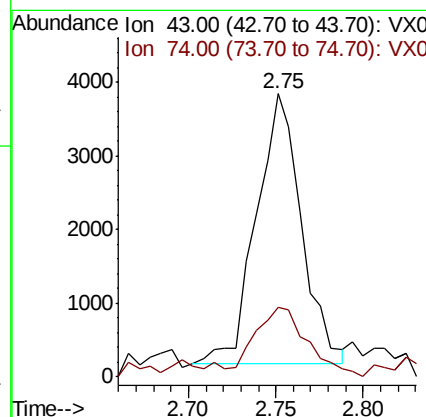
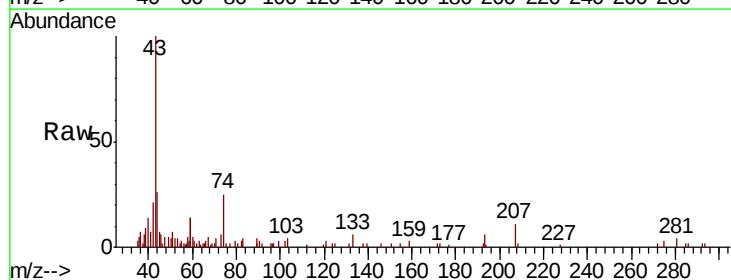
Instrument :  
MSVOA\_X  
ClientSampleId :

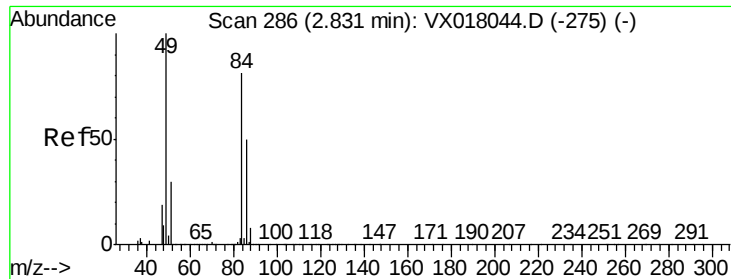
Tot Ion: 43 Resp: 33493  
Ion Ratio Lower Upper  
43 100  
58 26.7 25.5 38.3



#18  
Methyl Acetate  
Concen: 1.183 ug/l  
RT: 2.75 min Scan# 273  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Tgt Ion: 43 Resp: 6609  
Ion Ratio Lower Upper  
43 100  
74 30.3 18.2 27.4#

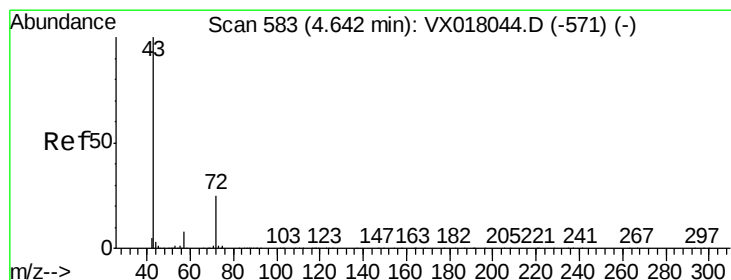
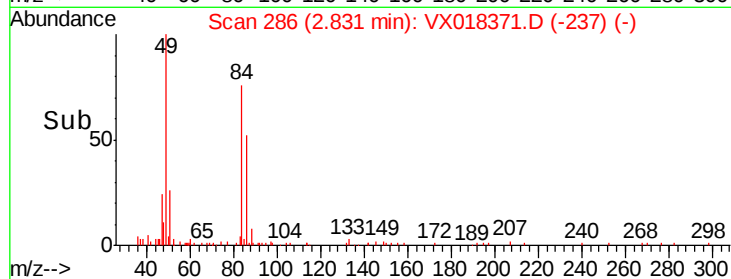
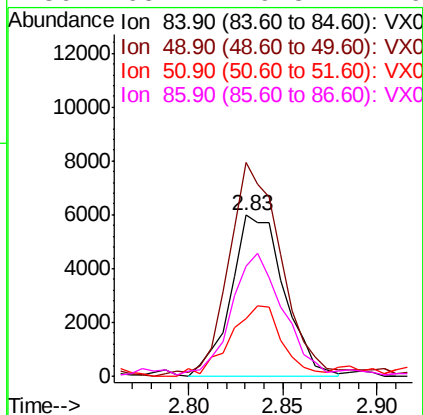
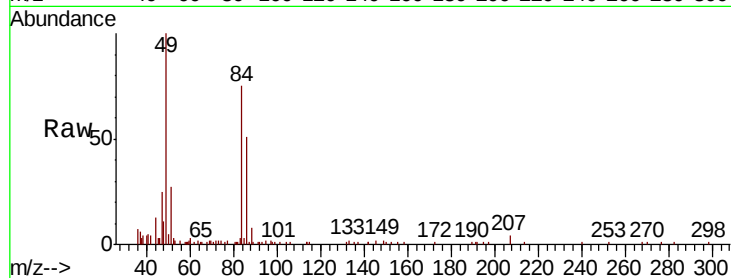




#20  
Methvlene Chloride  
Concen: 1.335 ug/l  
RT: 2.83 min Scan# 286  
Delta R.T. 0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

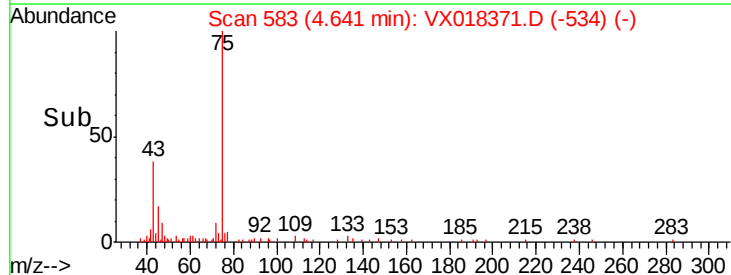
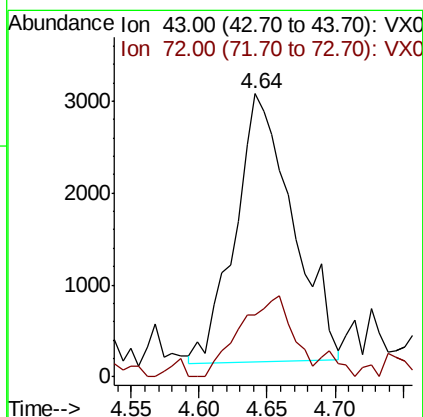
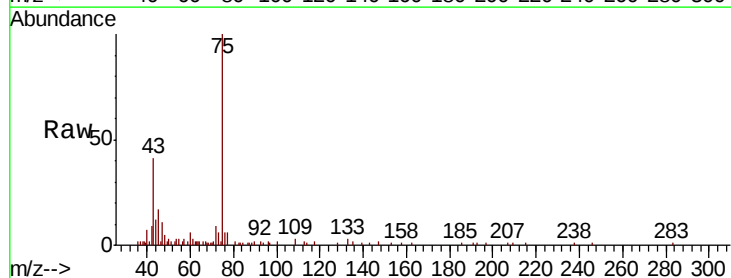
Instrument :  
MSVOA\_X  
ClientSampleId :

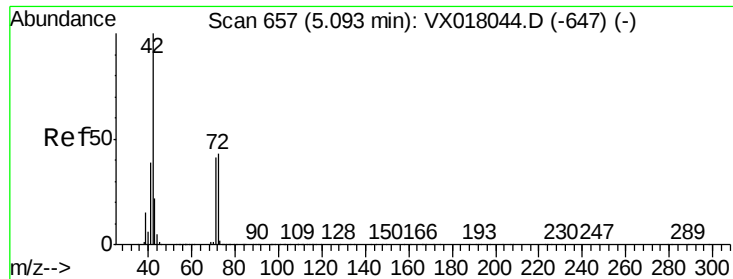
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 11701 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 130.6 | 98.6  | 148.0 |
| 51       | 31.2  | 29.6  | 44.4  |
| 86       | 65.2  | 49.8  | 74.6  |



#25  
2-Butanone  
Concen: 2.250 ug/l  
RT: 4.64 min Scan# 583  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 8561  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 23.8  | 19.8  | 29.6  |

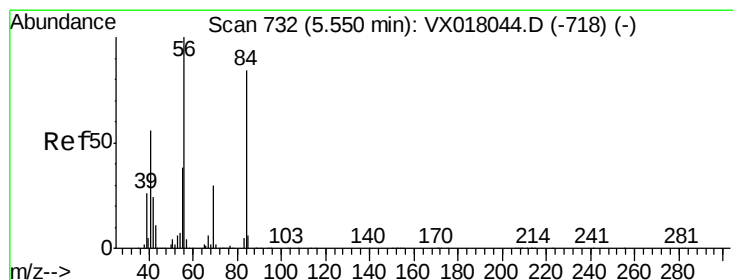
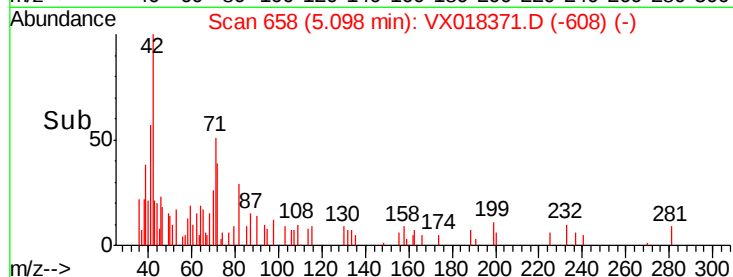
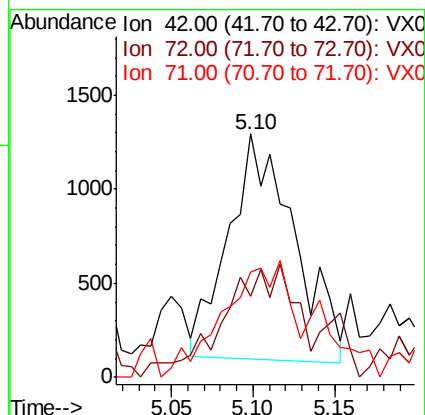
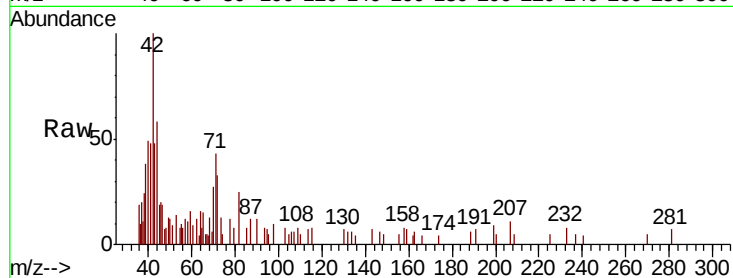




#29  
Tetrahydrofuran  
Concen: 1.390 ug/l  
RT: 5.10 min Scan# 658  
Delta R.T. 0.01 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

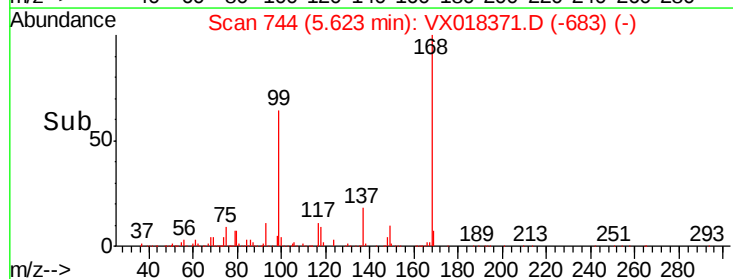
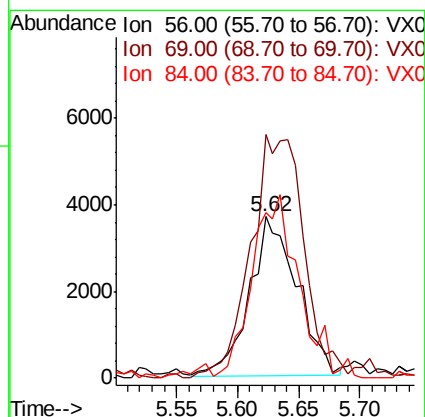
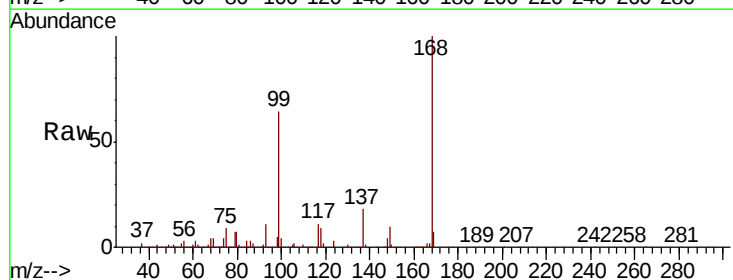
Instrument :  
MSVOA\_X  
ClientSampleId :

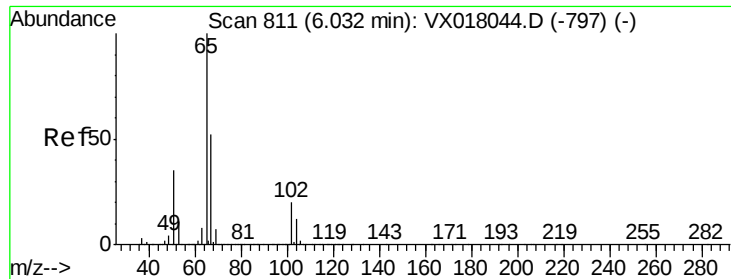
Tot Ion: 42 Resp: 3366  
Ion Ratio Lower Upper  
42 100  
72 54.0 34.2 51.4#  
71 51.0 32.1 48.1#



#31  
Cyclohexane  
Concen: 1.397 ug/l  
RT: 5.62 min Scan# 744  
Delta R.T. 0.07 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Tgt Ion: 56 Resp: 9933  
Ion Ratio Lower Upper  
56 100  
69 154.5 23.9 35.9#  
84 102.0 67.0 100.4#





#33

1,2-Dichloroethane-d4

Concen: 50.550 ug/l

RT: 6.03 min Scan# 811

Delta R.T. -0.00 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

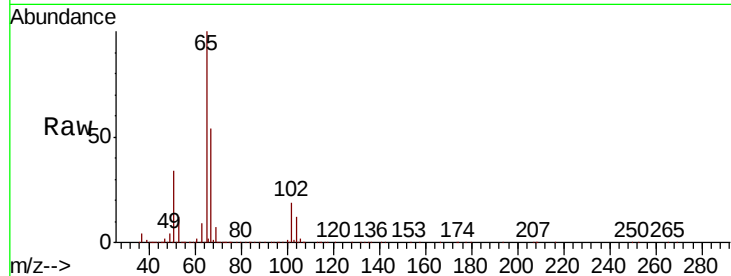
ClientSampled :

Tot Ion: 65 Resp: 300312

Ion Ratio Lower Upper

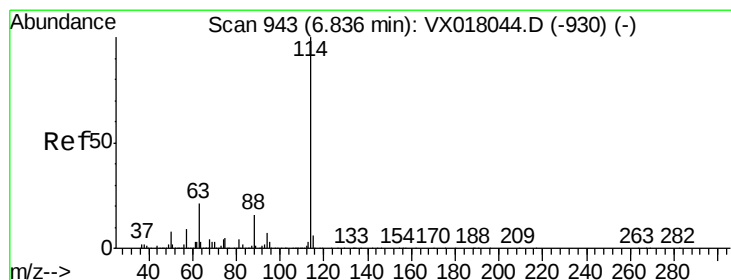
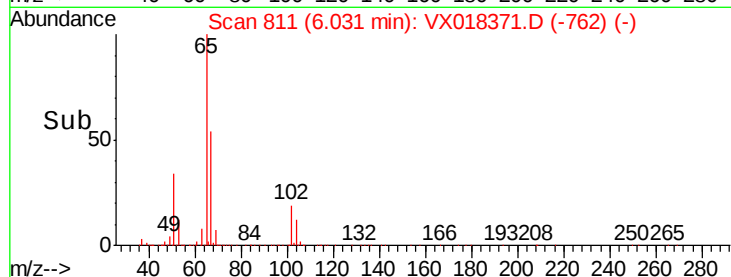
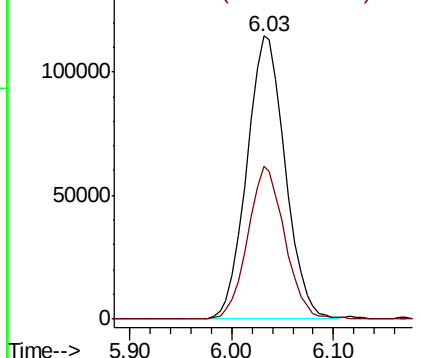
65 100

67 51.9 0.0 105.8



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: 6.83 min Scan# 942

Delta R.T. -0.01 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

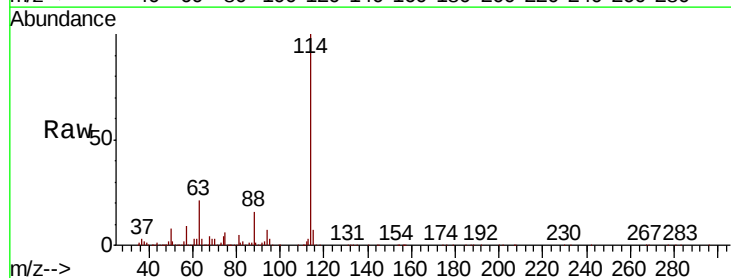
Tgt Ion: 114 Resp: 683697

Ion Ratio Lower Upper

114 100

63 21.0 0.0 42.6

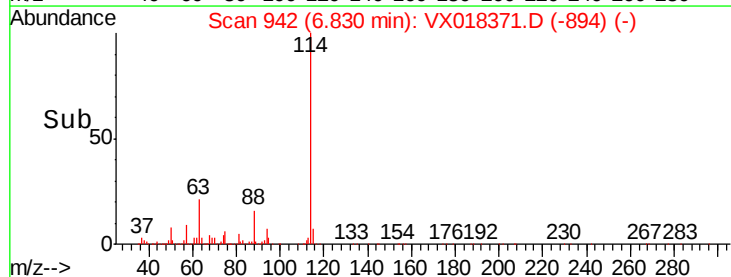
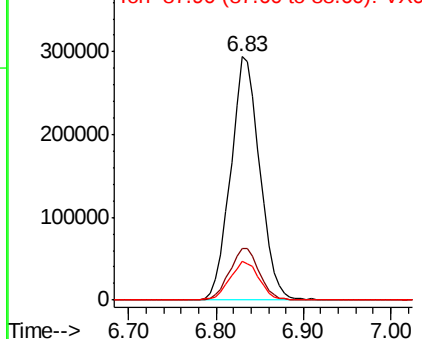
88 15.9 0.0 31.8

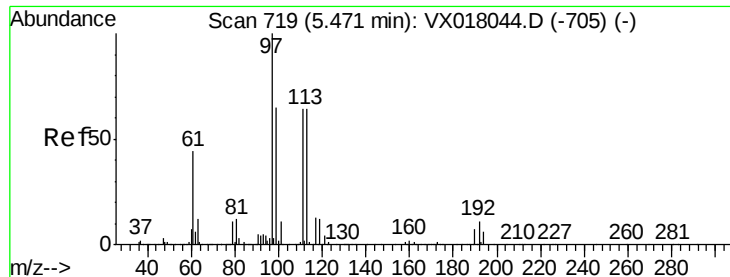


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0

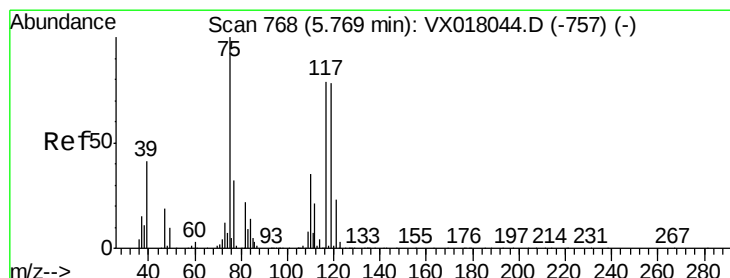
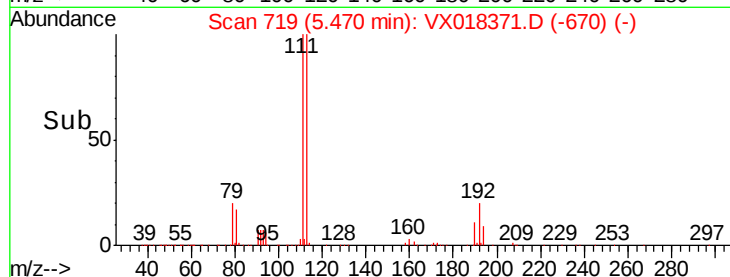
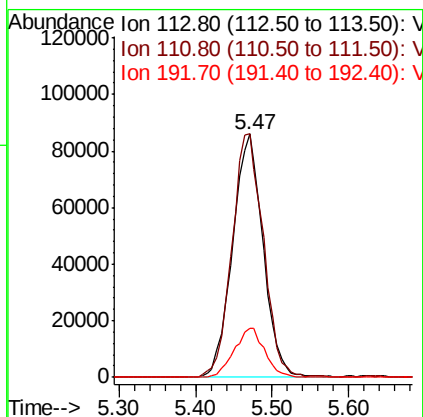
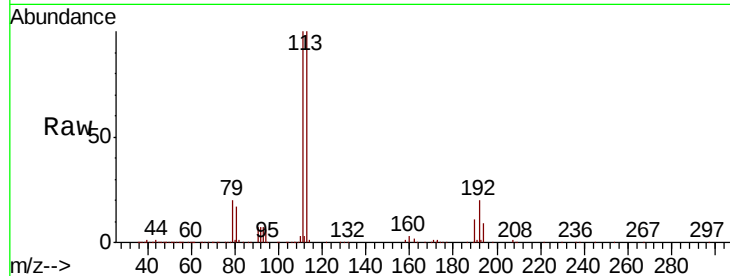




#35  
 Dibromofluoromethane  
 Concen: 50.994 ug/l  
 RT: 5.47 min Scan# 719  
 Delta R.T. -0.00 min  
 Lab File: VX018371.D  
 Acq: 11 Sep 2020 19:15

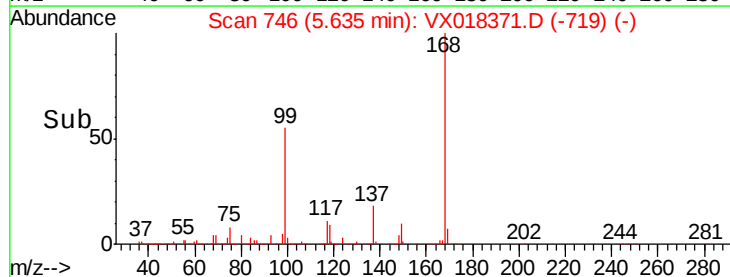
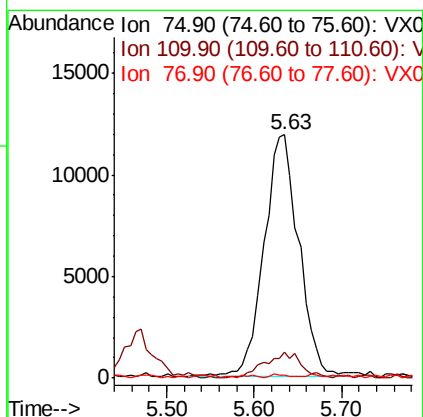
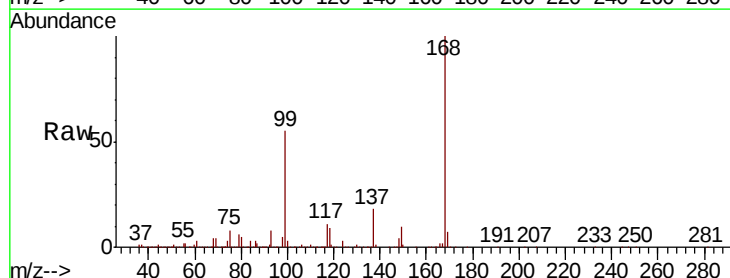
Instrument :  
 MSVOA\_X  
 ClientSampleId :

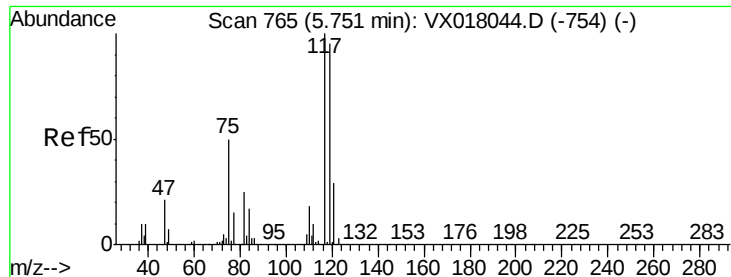
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.7 | 81.6  | 122.4 |
| 192     | 20.1  | 15.8  | 23.8  |



#36  
 1,1-Dichloropropene  
 Concen: 5.235 ug/l  
 RT: 5.63 min Scan# 746  
 Delta R.T. -0.13 min  
 Lab File: VX018371.D  
 Acq: 11 Sep 2020 19:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.3  | 18.0  | 54.0# |
| 77      | 0.8   | 24.4  | 36.6# |





#38

Carbon Tetrachloride

Concen: 6.202 ug/l

RT: 5.63 min Scan# 746

Delta R.T. -0.12 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

ClientSampleId :

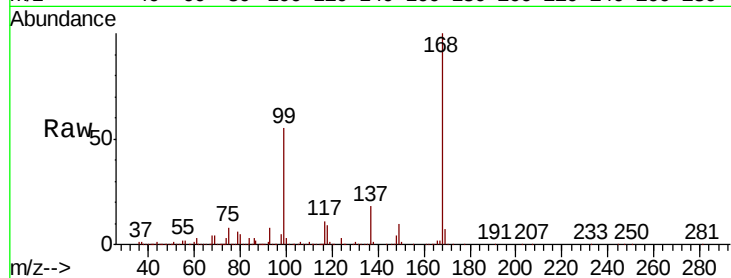
Tot Ion:117 Resp: 44073

Ion Ratio Lower Upper

117 100

119 8.7 75.8 113.6#

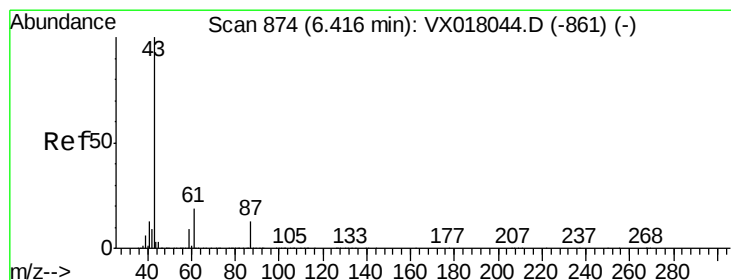
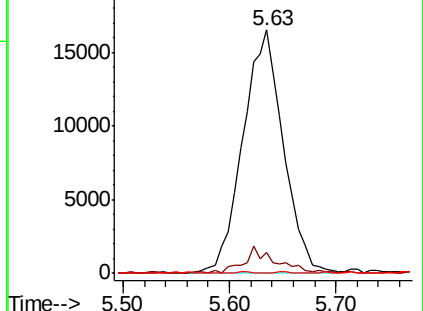
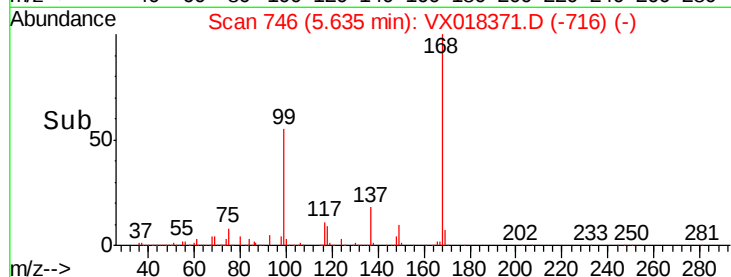
121 0.3 23.4 35.0#



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



#43

Isopropyl Acetate

Concen: 9.534 ug/l

RT: 6.42 min Scan# 874

Delta R.T. -0.00 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

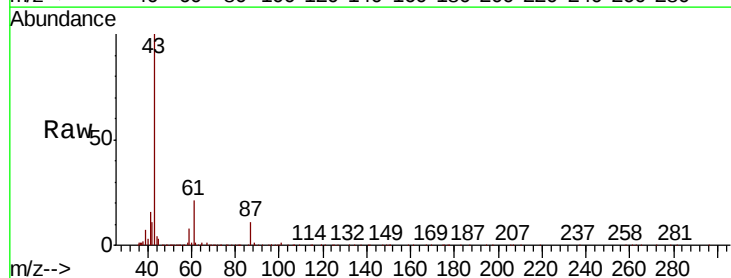
Tgt Ion: 43 Resp: 112787

Ion Ratio Lower Upper

43 100

61 19.1 15.7 23.5

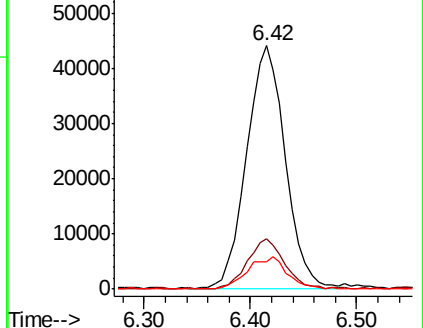
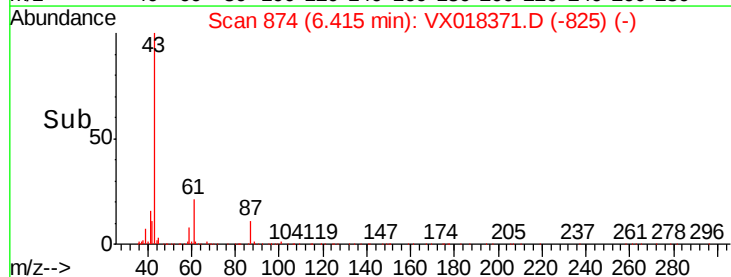
87 13.3 10.3 15.5

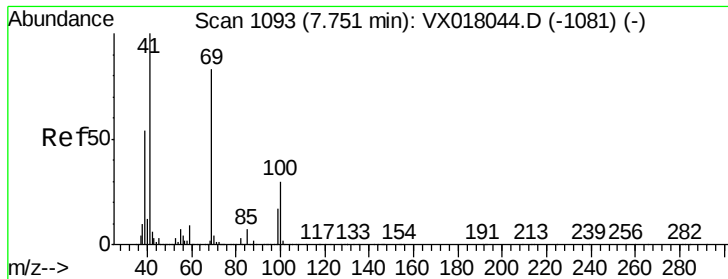


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

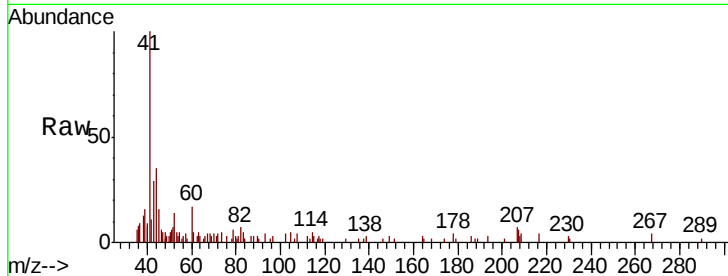




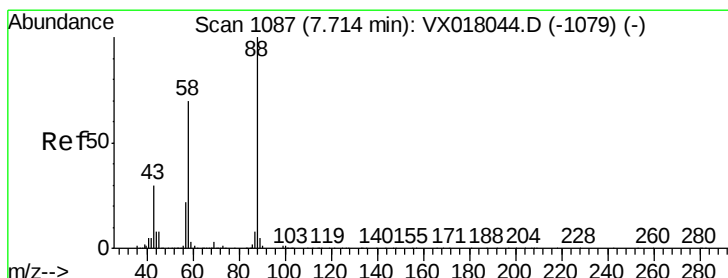
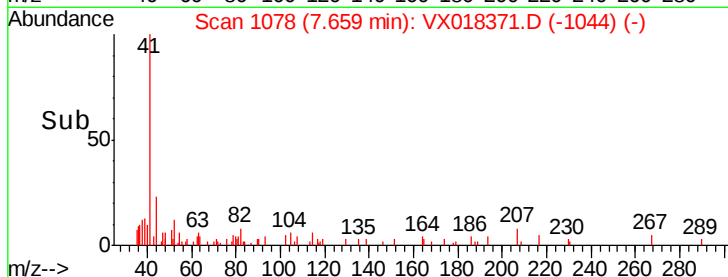
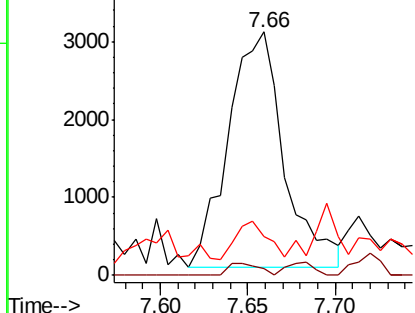
#48  
Methvl methacrylate  
Concen: 1.141 ug/l  
RT: 7.66 min Scan# 1078  
Delta R.T. -0.09 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Instrument :  
MSVOA\_X  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 69      | 2.9   | 65.5  | 98.3# |
| 39      | 0.0   | 44.5  | 66.7# |

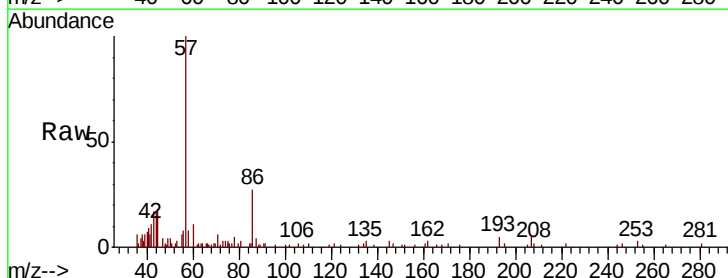


Abundance Ion 41.00 (40.70 to 41.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 39.00 (38.70 to 39.70): VX0

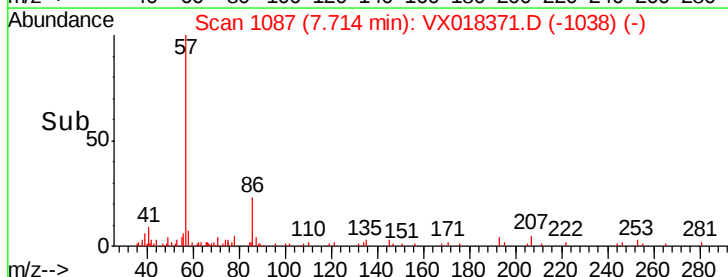
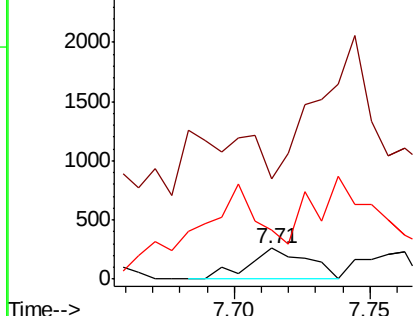


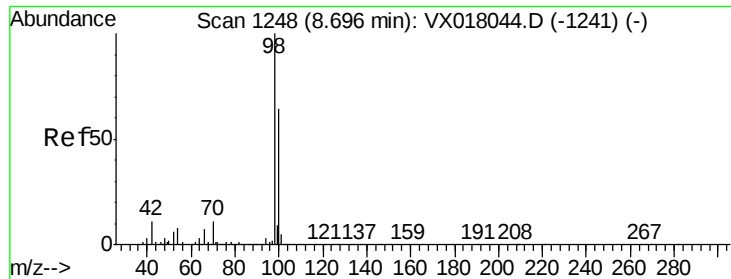
#49  
1,4-Dioxane  
Concen: 3.684 ug/l  
RT: 7.71 min Scan# 1087  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88      | 100   |       |       |
| 43      | 0.0   | 27.4  | 41.0# |
| 58      | 319.8 | 56.4  | 84.6# |



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

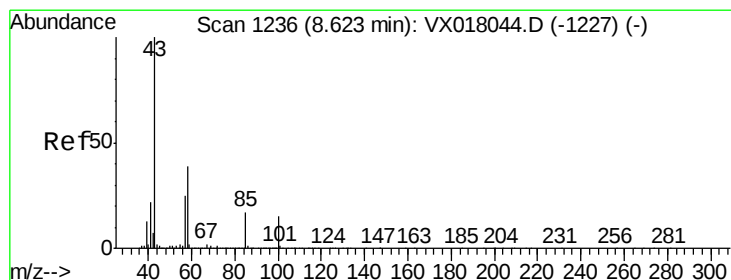
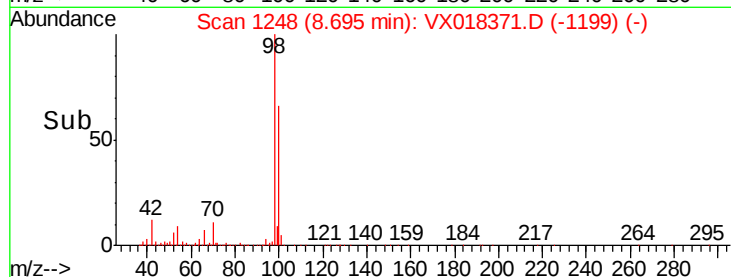
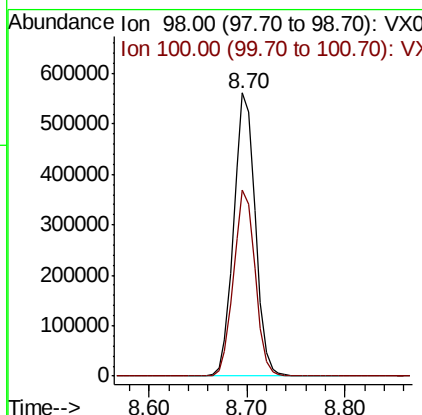
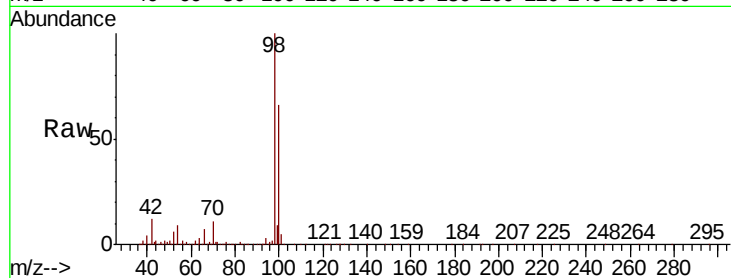




#50  
Toluene-d8  
Concen: 49.623 ug/l  
RT: 8.70 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

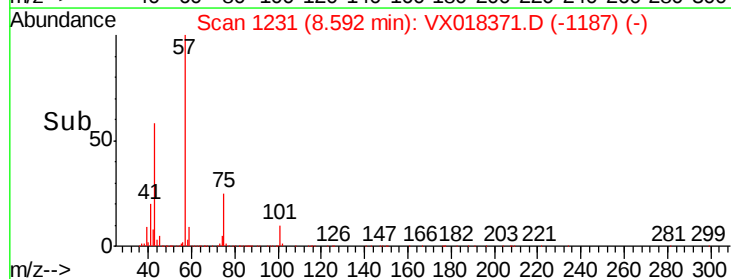
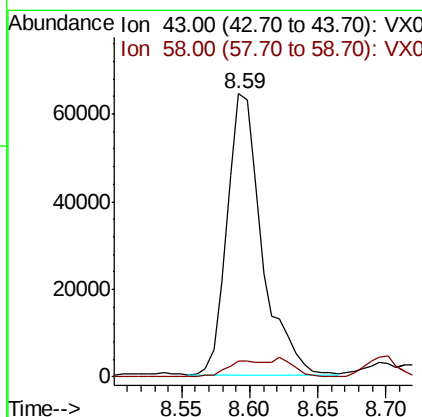
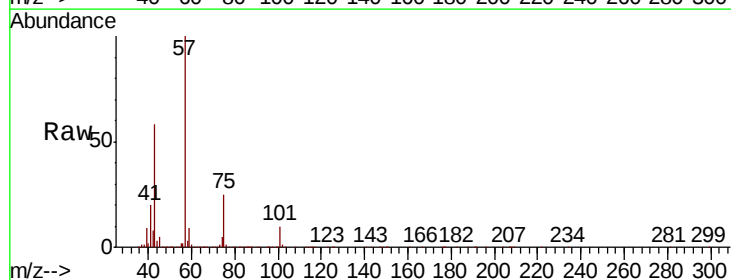
Instrument :  
MSVOA\_X  
ClientSampleId :

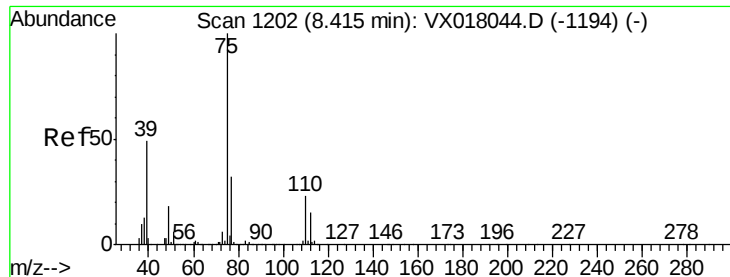
Tot Ion: 98 Resp: 860590  
Ion Ratio Lower Upper  
98 100  
100 65.6 52.2 78.4



#51  
4-Methyl-2-Pentanone  
Concen: 15.595 ug/l  
RT: 8.59 min Scan# 1231  
Delta R.T. -0.03 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Tgt Ion: 43 Resp: 113962  
Ion Ratio Lower Upper  
43 100  
58 5.8 30.7 46.1#





#54

cis-1,3-Dichloropropene

Concen: 5.571 ug/l

RT: 8.60 min Scan# 1232

Delta R.T. 0.18 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

ClientSampleId :

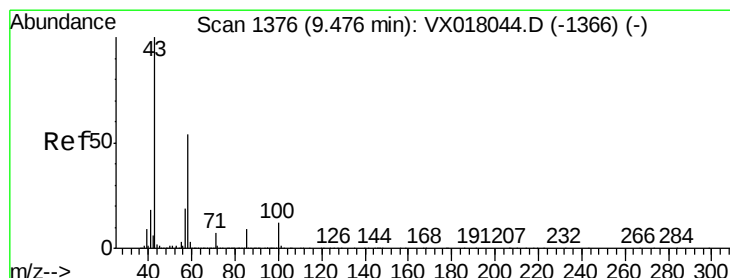
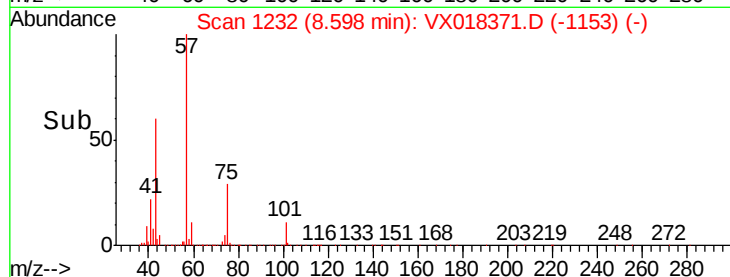
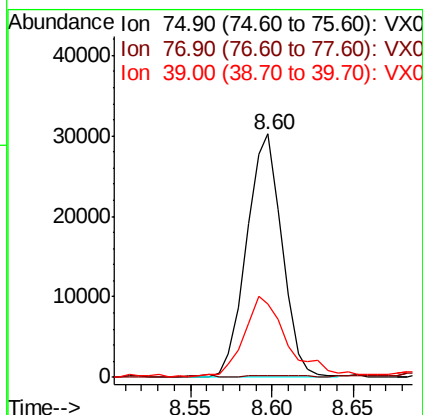
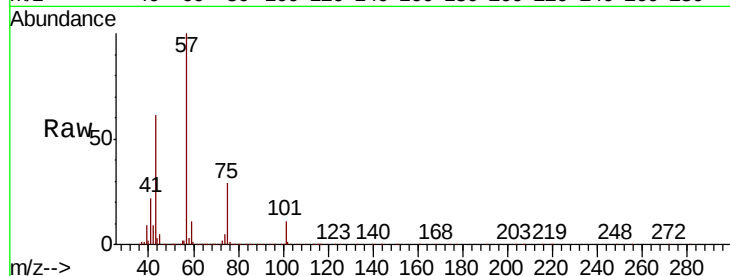
Tot Ion: 75 Resp: 45863

Ion Ratio Lower Upper

75 100

77 0.3 25.8 38.8#

39 30.0 38.8 58.2#



#59

2-Hexanone

Concen: 23.080 ug/l

RT: 9.42 min Scan# 1367

Delta R.T. -0.06 min

Lab File: VX018371.D

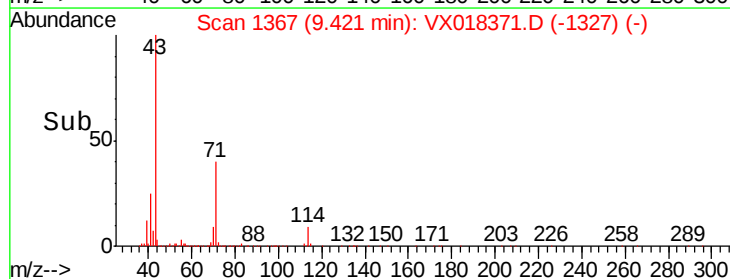
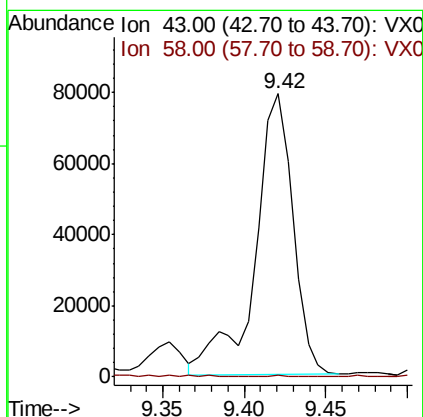
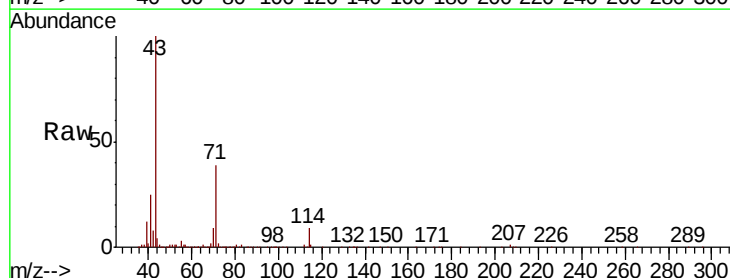
Acq: 11 Sep 2020 19:15

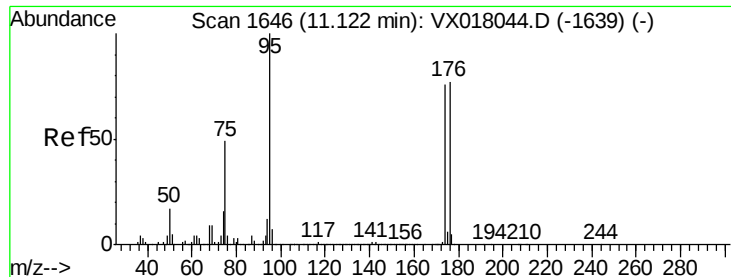
Tgt Ion: 43 Resp: 128241

Ion Ratio Lower Upper

43 100

58 0.0 26.6 79.7#

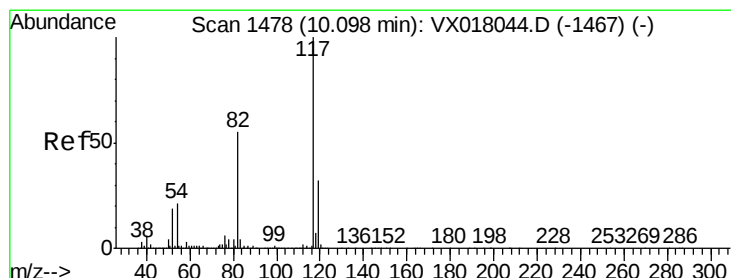
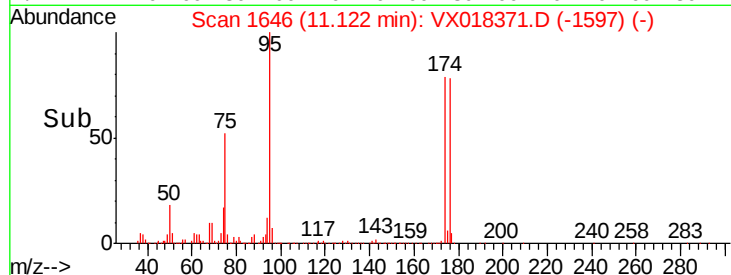
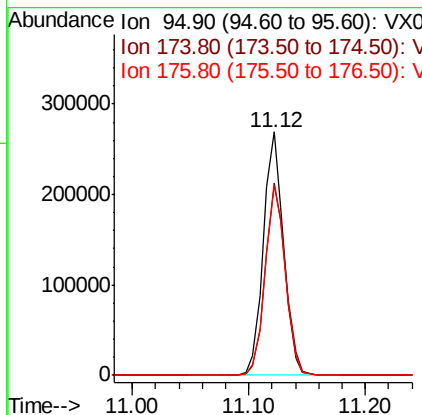
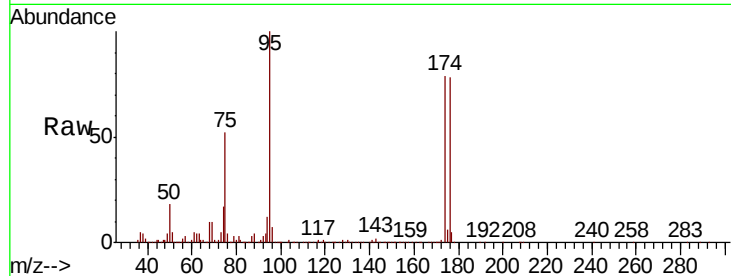




#62  
4-Bromofluorobenzene  
Concen: 47.392 ug/l  
RT: 11.12 min Scan# 1646  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

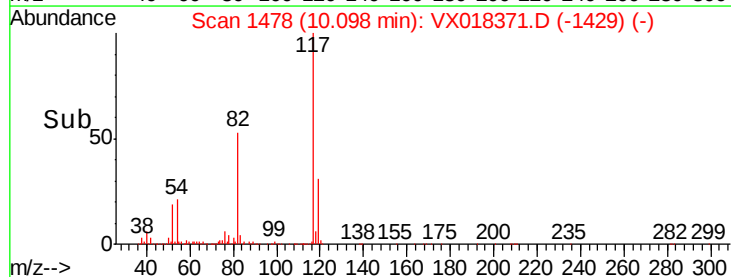
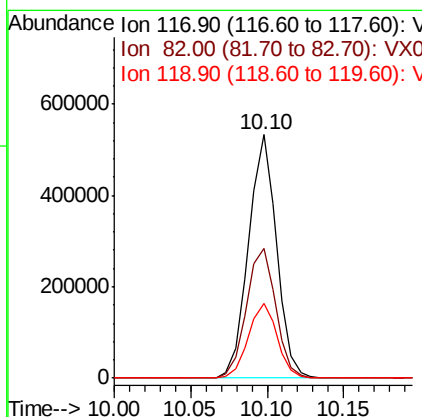
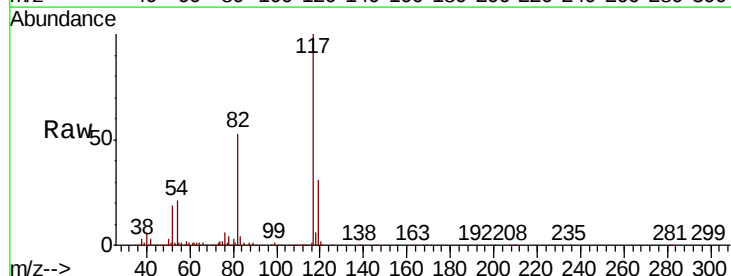
Instrument :  
MSVOA\_X  
ClientSampleId :

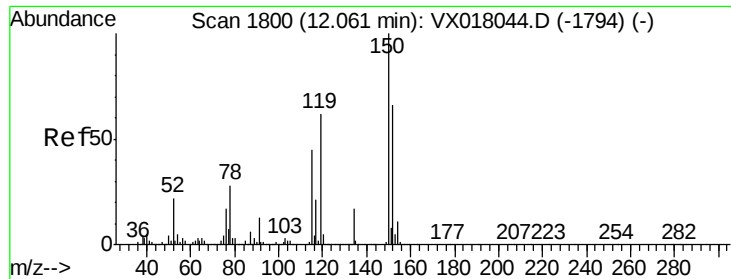
Tot Ion: 95 Resp: 323372  
Ion Ratio Lower Upper  
95 100  
174 79.3 0.0 160.2  
176 78.1 0.0 155.8



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX018371.D  
Acq: 11 Sep 2020 19:15

Tgt Ion: 117 Resp: 681209  
Ion Ratio Lower Upper  
117 100  
82 53.0 44.2 66.2  
119 30.7 25.7 38.5





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. -0.00 min

Lab File: VX018371.D

Acq: 11 Sep 2020 19:15

Instrument :

MSVOA\_X

ClientSampleId :

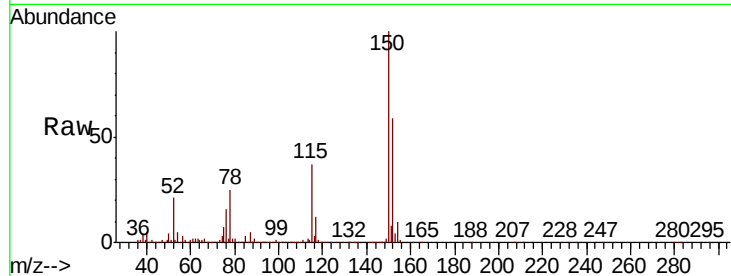
Tot Ion:152 Resp: 323517

Ion Ratio Lower Upper

152 100

115 59.9 41.5 124.5

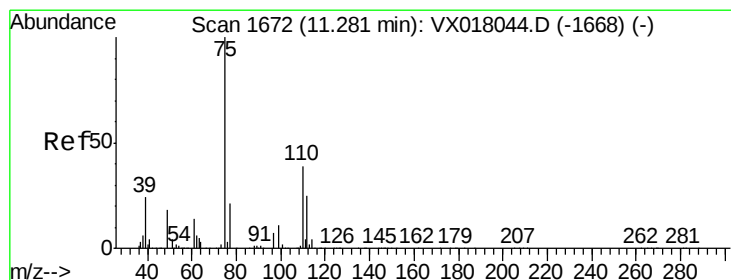
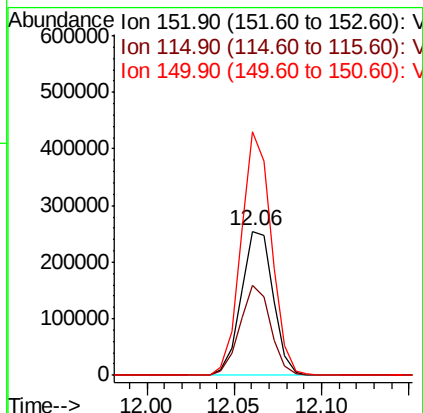
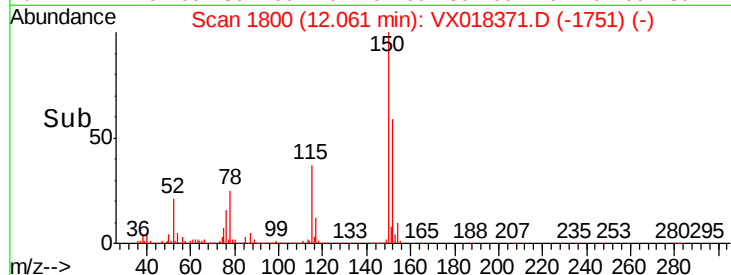
150 160.5 0.0 343.8



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 23.474 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX018371.D

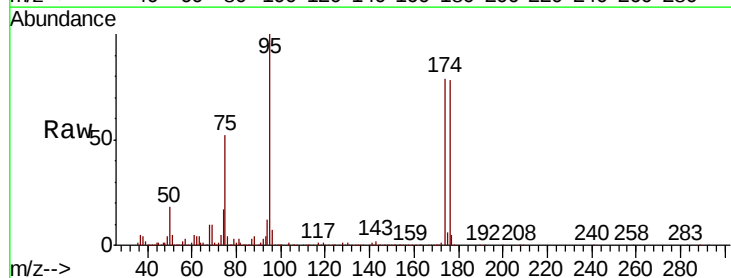
Acq: 11 Sep 2020 19:15

Tgt Ion: 75 Resp: 168936

Ion Ratio Lower Upper

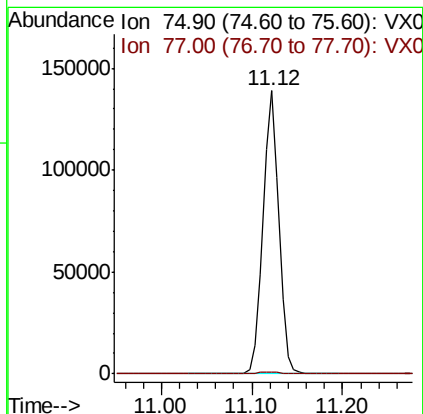
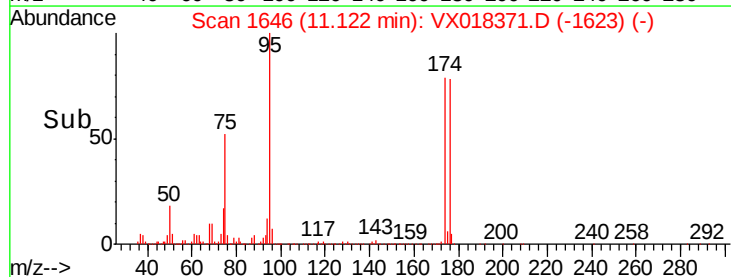
75 100

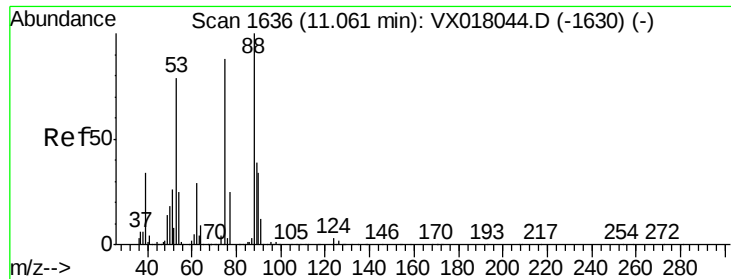
77 1.2 20.8 62.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0

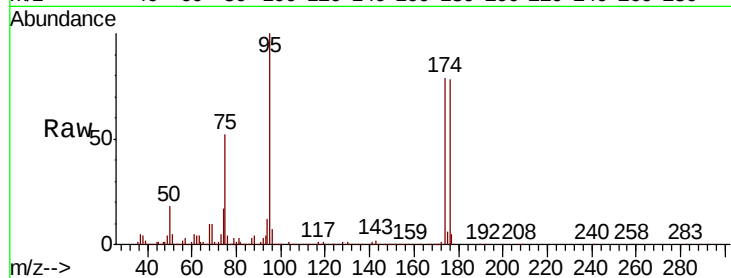




#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 63.399 ug/l  
 RT: 11.12 min Scan# 1646  
 Delta R.T. 0.06 min  
 Lab File: VX018371.D  
 Acq: 11 Sep 2020 19:15

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion: 75 Resp: 168936  
 Ion Ratio Lower Upper  
 75 100  
 53 0.3 74.7 112.1#  
 89 0.1 36.6 54.8#



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

