

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU011121\  
 Data File : VU041953.D  
 Acq On : 12 Jan 2021 04:35  
 Operator : SY/MD  
 Sample : M1027-16  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 45 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFXL0

Quant Time: Jan 12 05:54:11 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR011121WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue Jan 12 05:50:11 2021  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 113427   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 111250   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 45882    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |          |
|--------------------------------|--------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 46341    | 4.84     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 96.80%   |
| 7) Chloroethane-d5             | 1.92   | 69    | 43881    | 4.96     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 99.20%   |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 68864    | 3.80     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 76.00%   |
| 20) 2-Butanone-d5              | 4.65   | 46    | 172739   | 65.02    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 130.04%# |
| 24) Chloroform-d               | 5.08   | 84    | 90721    | 5.21     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 104.20%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 54104    | 5.89     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 117.80%  |
| 32) Benzene-d6                 | 5.74   | 84    | 179772   | 5.47     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 109.40%  |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 57326    | 5.55     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 111.00%  |
| 41) Toluene-d8                 | 7.90   | 98    | 147281   | 4.94     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 98.80%   |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 22954    | 5.33     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 106.60%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 144849   | 66.43    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 132.86%# |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 53064    | 5.81     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 116.20%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 45994    | 5.30     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 106.00%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 3) Chloromethane               | 1.53 | 50   | 634      | 0.053 | ug/L   | 88     |
| 8) Chloroethane                | 1.94 | 64   | 621      | 0.078 | ug/L # | 43     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.58 | 101  | 657      | 0.072 | ug/L # | 20     |
| 12) 1,1-Dichloroethene         | 2.58 | 96   | 503      | 0.057 | ug/L # | 1      |
| 13) Acetone                    | 2.67 | 43   | 4087     | 2.369 | ug/L   | 83     |
| 16) Methylene chloride         | 3.06 | 84   | 1798     | 0.162 | ug/L   | 86     |
| 17) Methyl tert-butyl Ether    | 3.38 | 73   | 3882     | 0.183 | ug/L # | 87     |
| 22) cis-1,2-Dichloroethene     | 4.69 | 96   | 1721     | 0.187 | ug/L   | 97     |
| 25) Chloroform                 | 5.10 | 83   | 1162     | 0.069 | ug/L   | 89     |
| 27) 1,2-Dichloroethane         | 5.81 | 62   | 485      | 0.045 | ug/L # | 73     |
| 29) 1,1,1-Trichloroethane      | 5.33 | 97   | 1148     | 0.079 | ug/L   | 96     |
| 34) Trichloroethene            | 6.55 | 95   | 43519    | 4.624 | ug/L   | 96     |
| 35) Methylcyclohexane          | 6.70 | 83   | 12913    | 0.933 | ug/L # | 17     |
| 37) 1,2-Dichloropropane        | 6.70 | 63   | 6159     | 0.689 | ug/L # | 88     |
| 39) cis-1,3-Dichloropropene    | 7.57 | 75   | 1323     | 0.100 | ug/L # | 68     |
| 44) trans-1,3-Dichloropropene  | 8.19 | 75   | 813      | 0.070 | ug/L   | 94     |
| 47) Tetrachloroethene          | 8.56 | 164  | 16777    | 2.562 | ug/L   | 87     |

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Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 45 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFXL0

Quant Time: Jan 12 05:54:11 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR011121WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Tue Jan 12 05:50:11 2021  
Response via : Initial Calibration

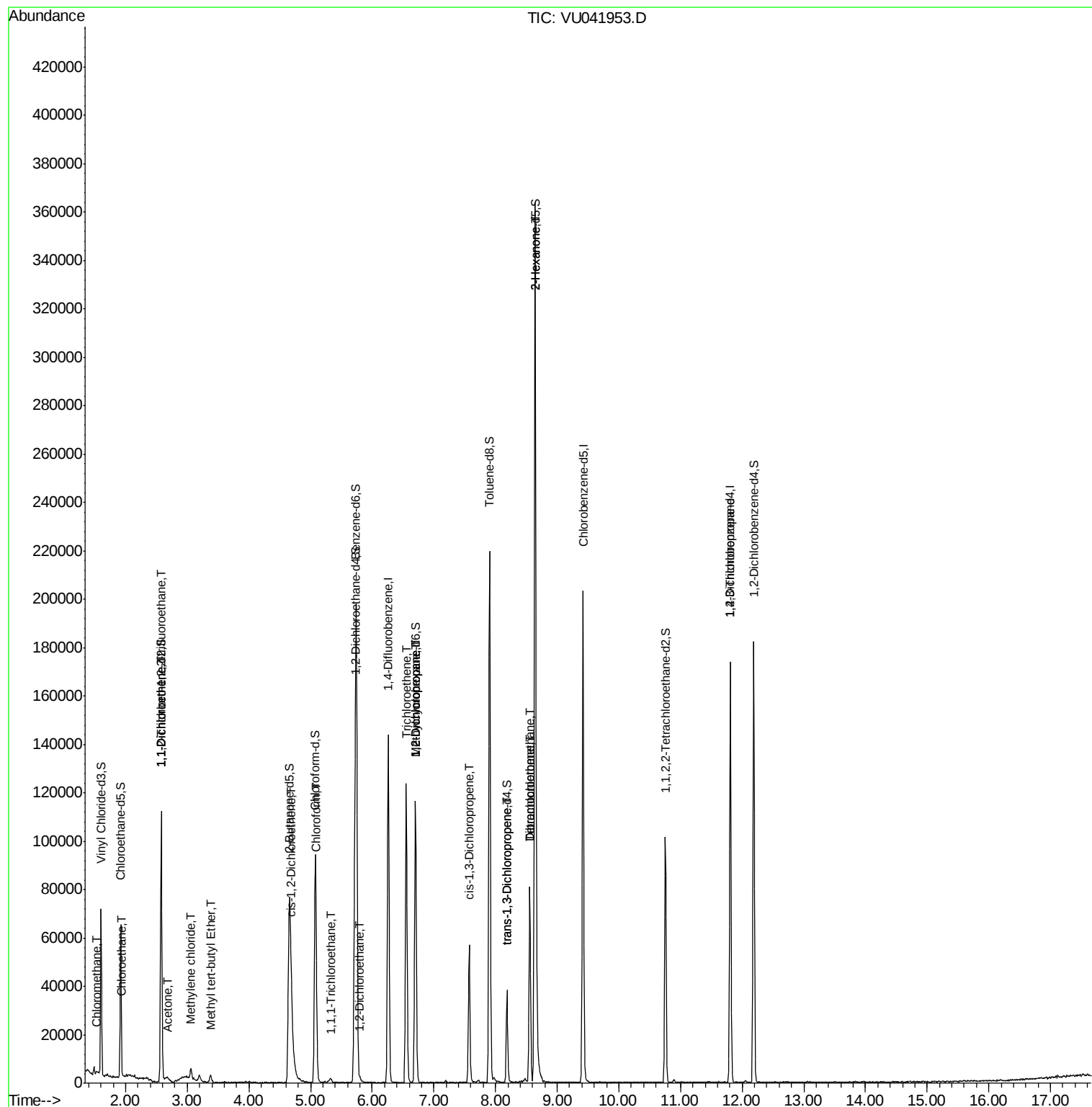
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 48) 2-Hexanone             | 8.64  | 43   | 17942    | 4.288 | ug/L # | 68       |
| 49) Dibromochloromethane   | 8.56  | 129  | 18463    | 2.213 | ug/L # | 10       |
| 59) 1,2,3-Trichloropropane | 11.81 | 75   | 5686     | 0.871 | ug/L   | 89       |

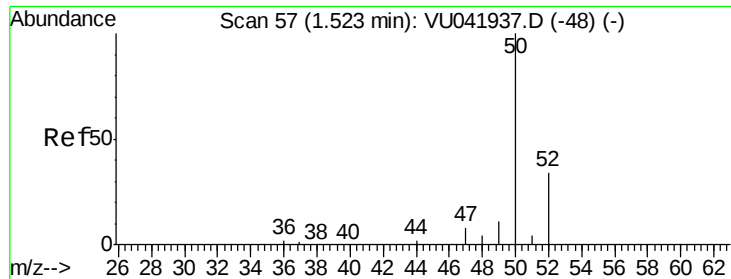
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#3

Chloromethane

Concen: 0.053 ug/L

RT: 1.53 min Scan# 58

Delta R.T. 0.00 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampleId :

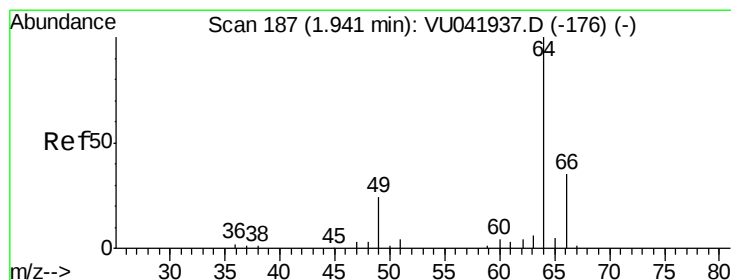
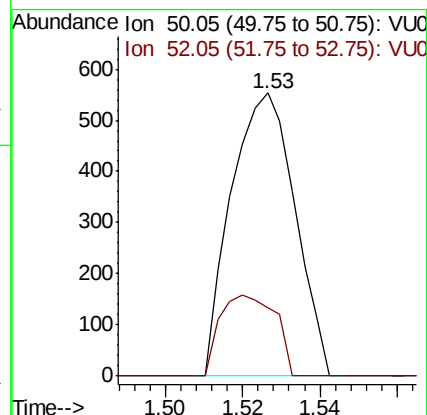
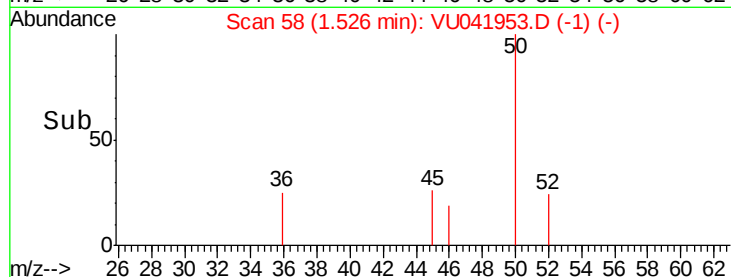
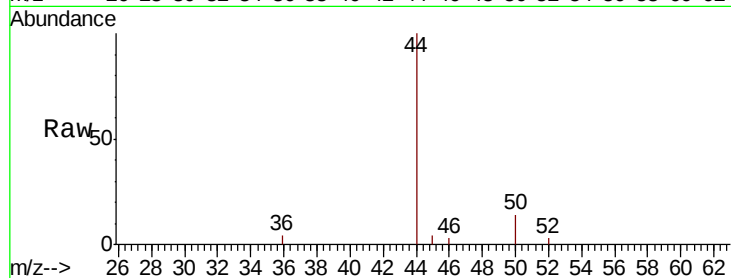
BFXL0

Tot Ion: 50 Resp: 634

Ion Ratio Lower Upper

50 100

52 24.2 21.4 39.8



#8

Chloroethane

Concen: 0.078 ug/L

RT: 1.94 min Scan# 188

Delta R.T. 0.00 min

Lab File: VU041953.D

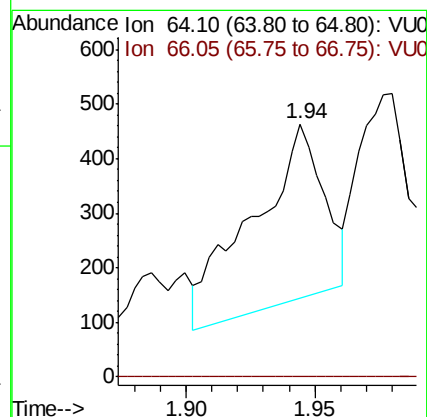
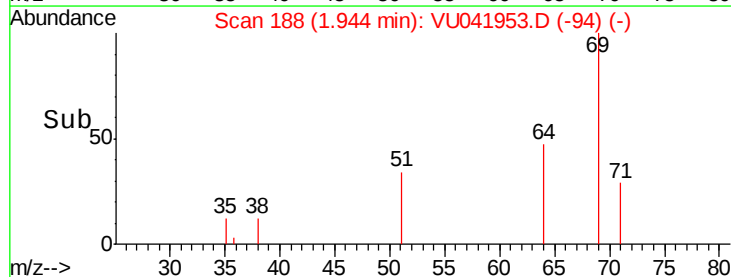
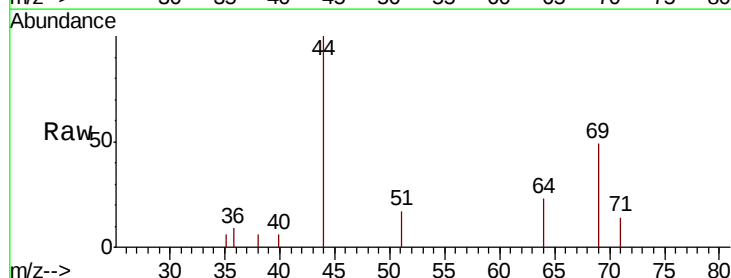
Acq: 12 Jan 2021 04:35

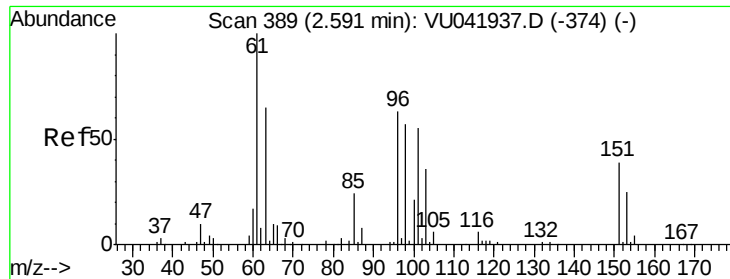
Tgt Ion: 64 Resp: 621

Ion Ratio Lower Upper

64 100

66 0.0 22.1 41.1#





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 0.072 ug/L

RT: 2.58 min Scan# 385

Delta R.T. -0.01 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampleId :

BFXL0

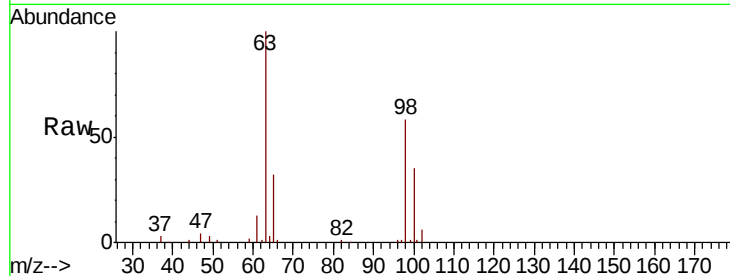
Tot Ion:101 Resp: 657

Ion Ratio Lower Upper

101 100

85 0.0 35.1 52.7#

151 0.0 58.2 87.2#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V

600

500

400

300

200

100

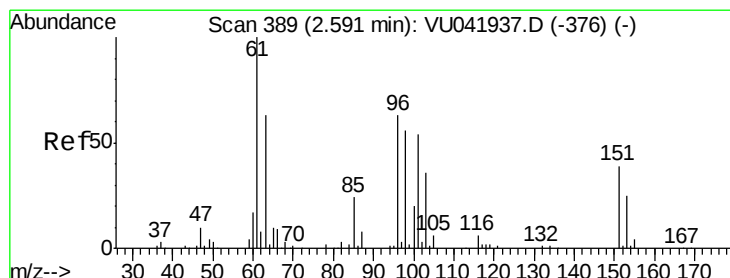
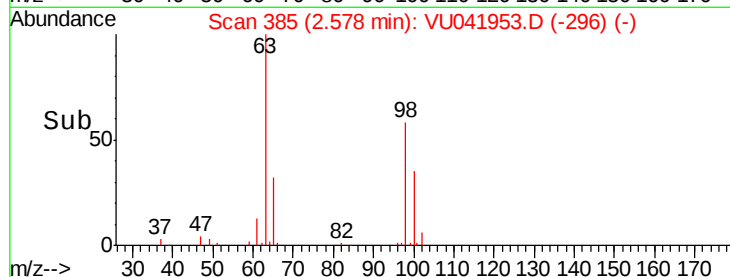
0

2.55

2.58

2.60

Time-->



#12

1,1-Dichloroethene

Concen: 0.057 ug/L

RT: 2.58 min Scan# 385

Delta R.T. -0.01 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

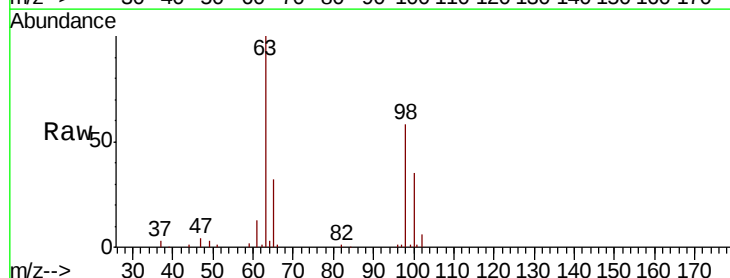
Tgt Ion: 96 Resp: 503

Ion Ratio Lower Upper

96 100

61 1204.7 123.5 229.4#

63 9456.2 93.5 173.7#



Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0

50000

40000

30000

20000

10000

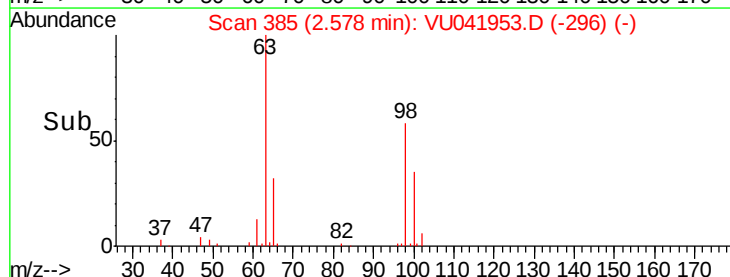
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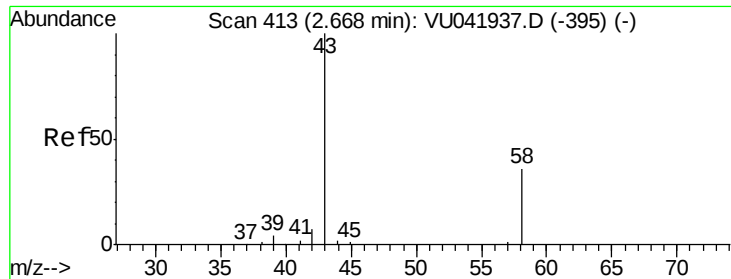
2.56

2.58

2.60

Time-->





#13

Acetone

Concen: 2.369 ug/L

RT: 2.67 min Scan# 415

Delta R.T. 0.01 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampled :

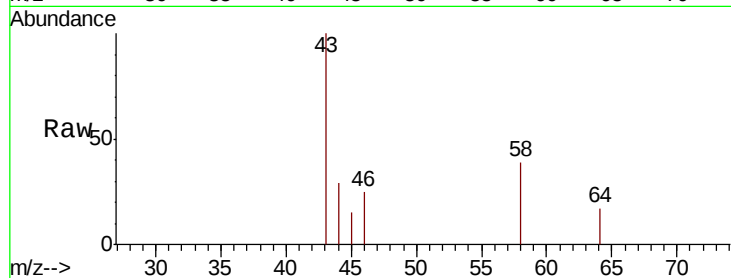
BFXL0

Tot Ion: 43 Resp: 4087

Ion Ratio Lower Upper

43 100

58 5.3 0.0 23.6



Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 58.05 (57.75 to 58.75): VU0

2.67

1200

1000

800

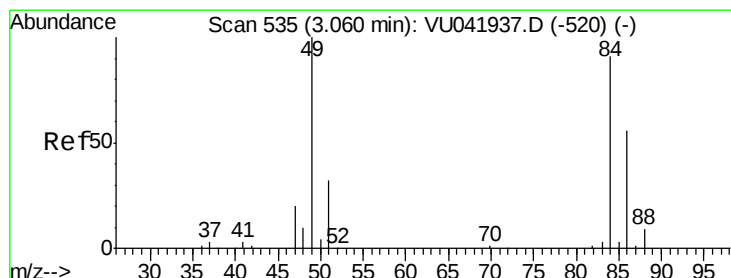
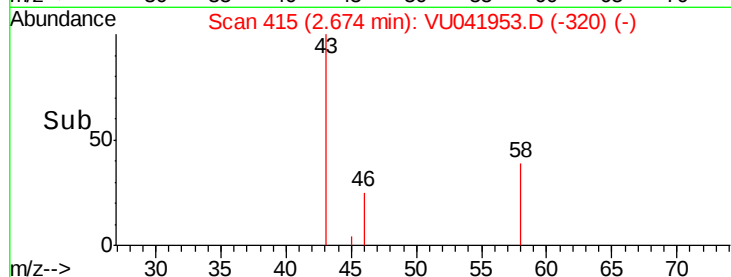
600

400

200

0

Time-->



#16

Methylene chloride

Concen: 0.162 ug/L

RT: 3.06 min Scan# 535

Delta R.T. -0.00 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

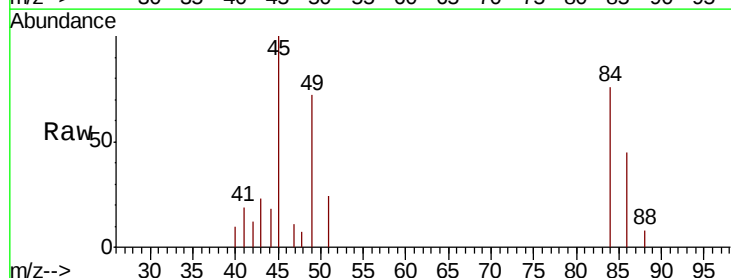
Tgt Ion: 84 Resp: 1798

Ion Ratio Lower Upper

84 100

86 59.9 43.5 80.7

49 95.3 81.8 151.8



Abundance Ion 84.05 (83.75 to 84.75): VU0

Ion 86.00 (85.70 to 86.70): VU0

Ion 49.10 (48.80 to 49.80): VU0

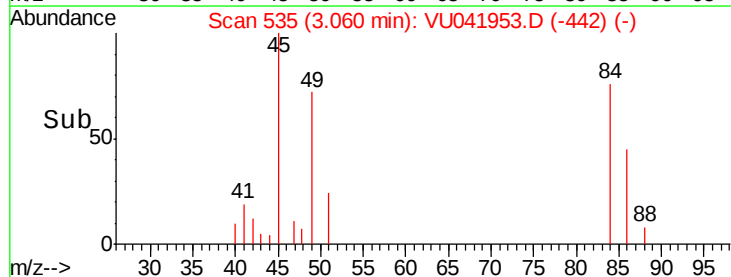
1500

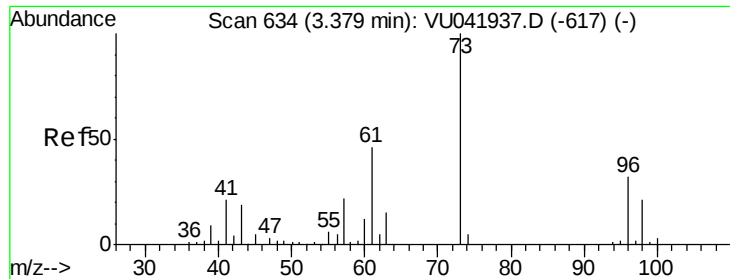
1000

500

0

Time-->

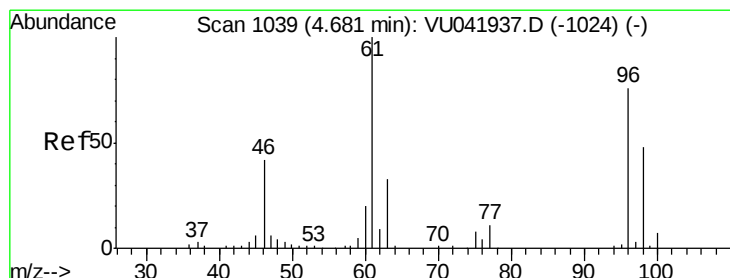
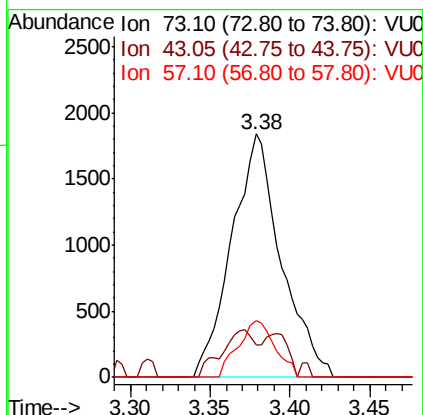
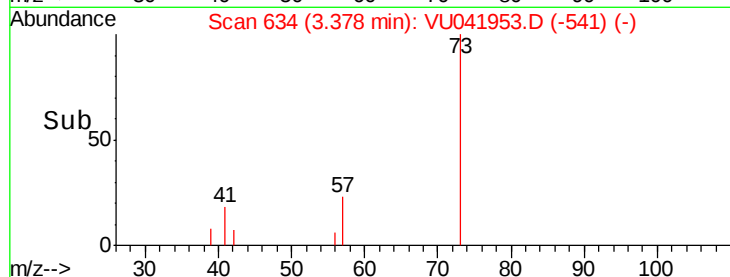
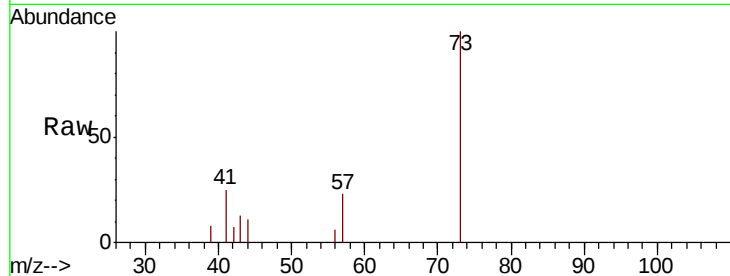




#17  
Methvl tert-butvl Ether  
Concen: 0.183 ug/L  
RT: 3.38 min Scan# 634  
Delta R.T. -0.00 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

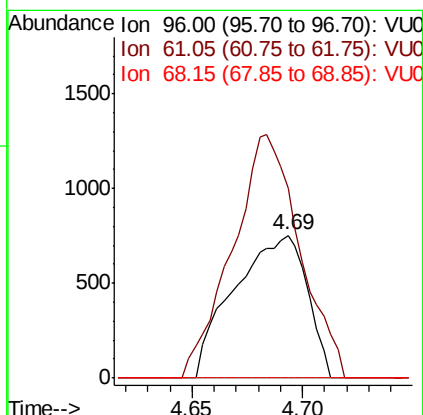
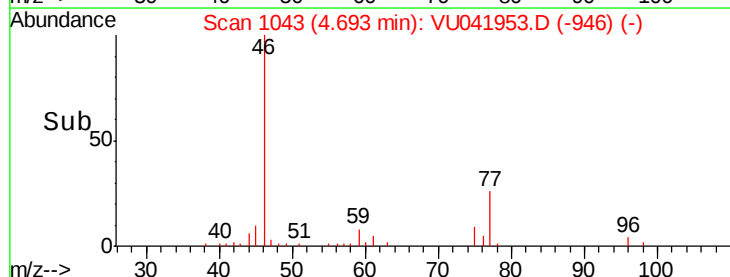
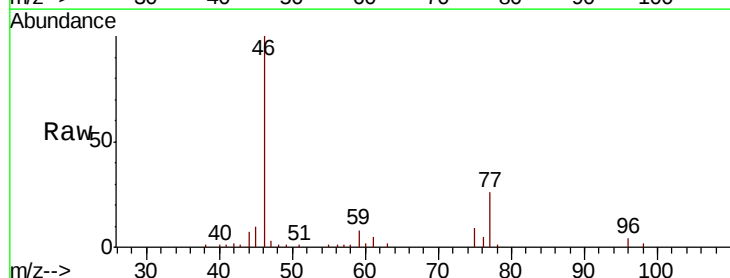
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFXL0

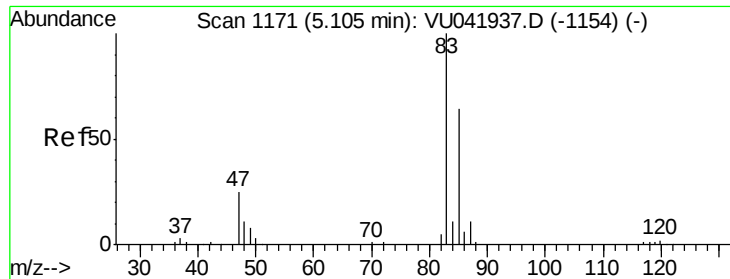
Tot Ion: 73 Resp: 3882  
Ion Ratio Lower Upper  
73 100  
43 12.9 15.8 23.8#  
57 17.1 18.3 27.5#



#22  
cis-1,2-Dichloroethene  
Concen: 0.187 ug/L  
RT: 4.69 min Scan# 1043  
Delta R.T. 0.01 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

Tgt Ion: 96 Resp: 1721  
Ion Ratio Lower Upper  
96 100  
61 132.6 90.3 167.7  
68 0.0 0.0 0.0

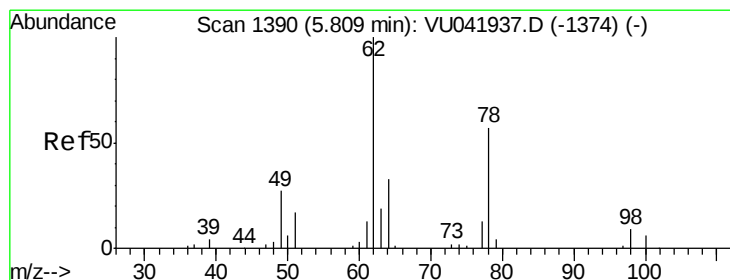
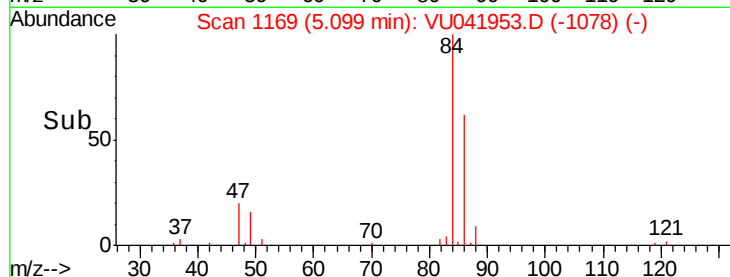
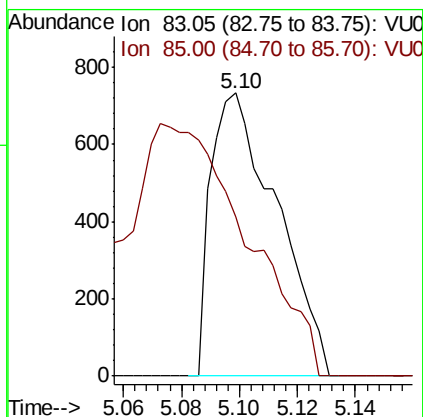
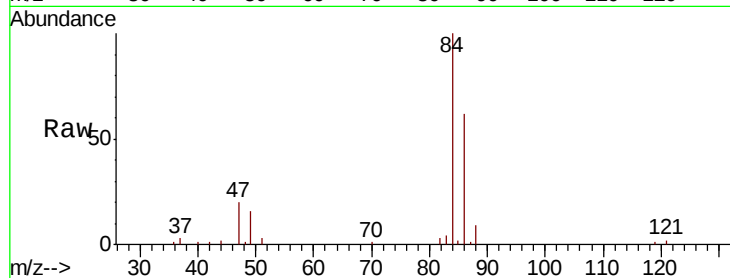




#25  
Chloroform  
Concen: 0.069 ug/L  
RT: 5.10 min Scan# 1169  
Delta R.T. -0.01 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

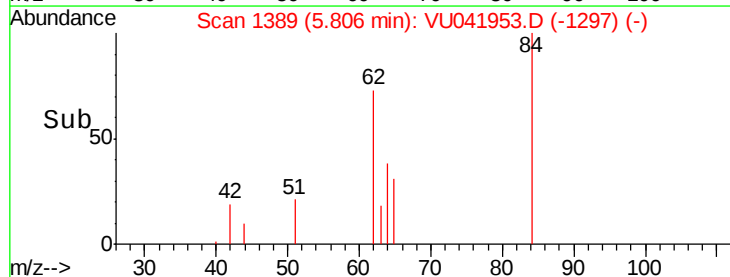
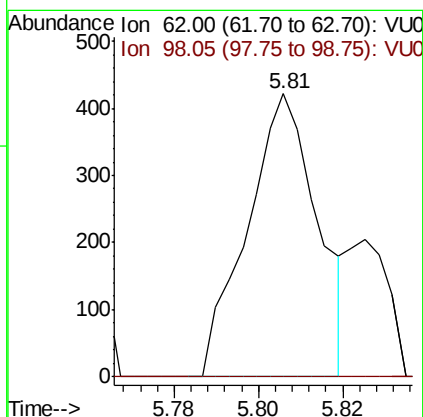
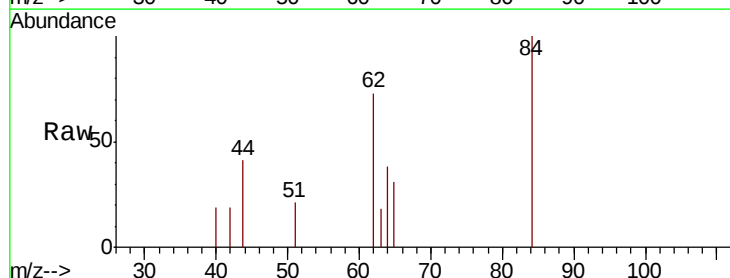
Instrument :  
MSVOA\_U  
ClientSampled :  
BFXL0

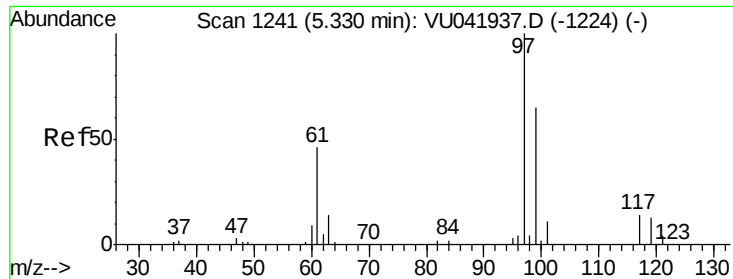
Tot Ion: 83 Resp: 1162  
Ion Ratio Lower Upper  
83 100  
85 56.2 45.1 83.9



#27  
1,2-Dichloroethane  
Concen: 0.045 ug/L  
RT: 5.81 min Scan# 1389  
Delta R.T. -0.00 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

Tgt Ion: 62 Resp: 485  
Ion Ratio Lower Upper  
62 100  
98 0.0 7.8 11.8#

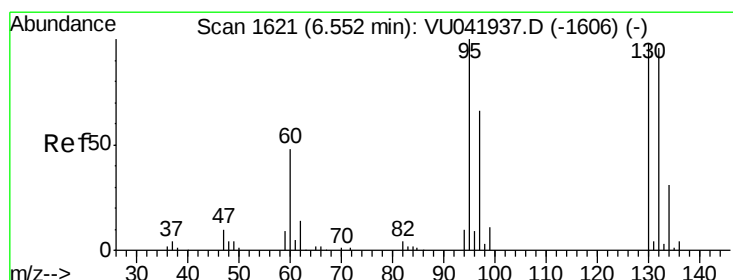
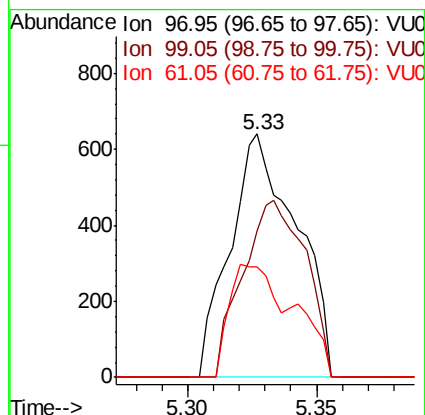
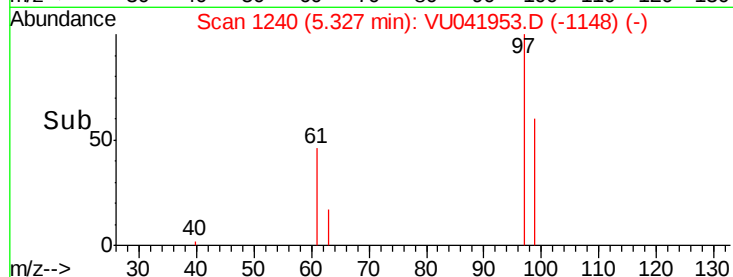
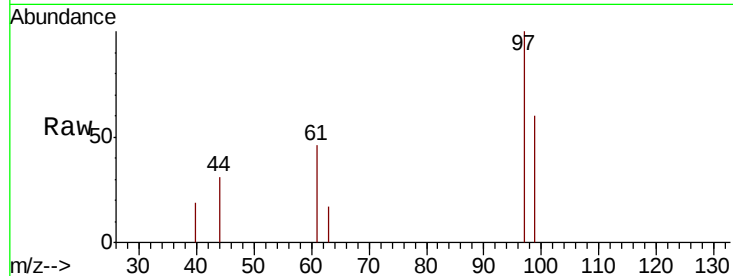




#29  
1,1,1-Trichloroethane  
Concen: 0.079 ug/L  
RT: 5.33 min Scan# 1240  
Delta R.T. -0.00 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

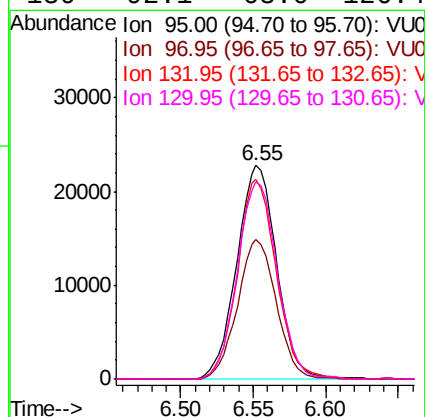
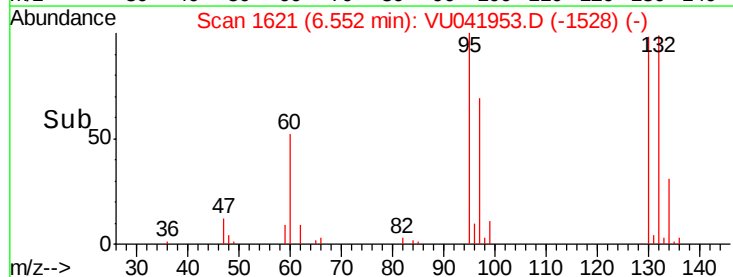
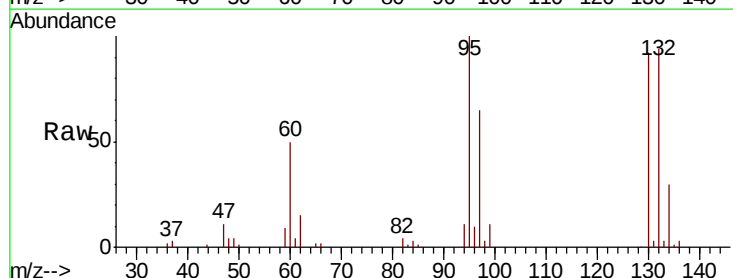
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFXL0

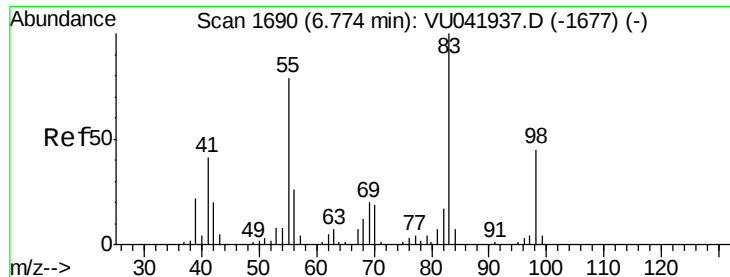
Tot Ion: 97 Resp: 1148  
Ion Ratio Lower Upper  
97 100  
99 69.1 51.4 77.2  
61 44.9 35.3 52.9



#34  
Trichloroethene  
Concen: 4.624 ug/L  
RT: 6.55 min Scan# 1621  
Delta R.T. -0.00 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

Tgt Ion: 95 Resp: 43519  
Ion Ratio Lower Upper  
95 100  
97 65.1 45.2 84.0  
132 93.5 68.7 127.5  
130 92.1 68.0 126.4





#35

Methylcyclohexane

Concen: 0.933 ug/L

RT: 6.70 min Scan# 1667

Delta R.T. -0.07 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampleId :

BFXL0

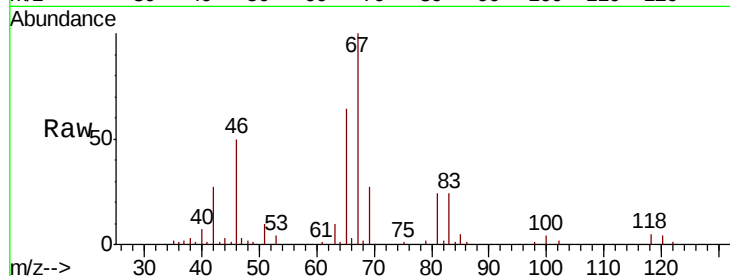
Tot Ion: 83 Resp: 12913

Ion Ratio Lower Upper

83 100

55 0.0 64.3 96.5#

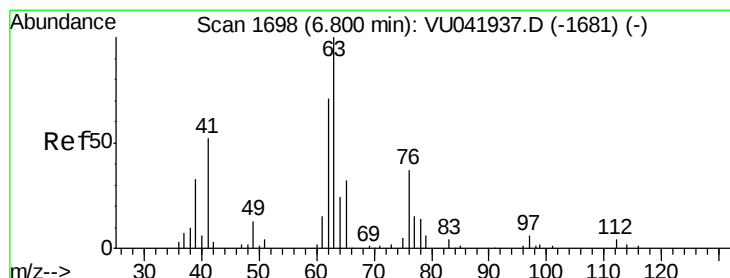
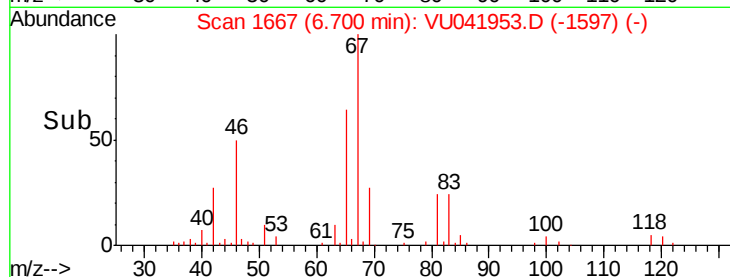
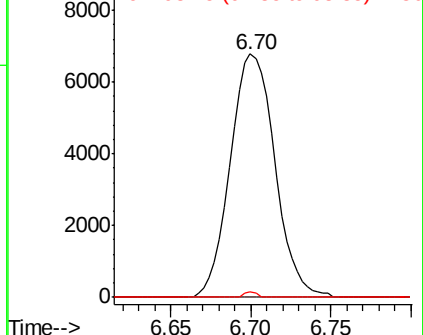
98 0.6 36.6 54.8#



Abundance Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0



#37

1,2-Dichloropropane

Concen: 0.689 ug/L

RT: 6.70 min Scan# 1668

Delta R.T. -0.10 min

Lab File: VU041953.D

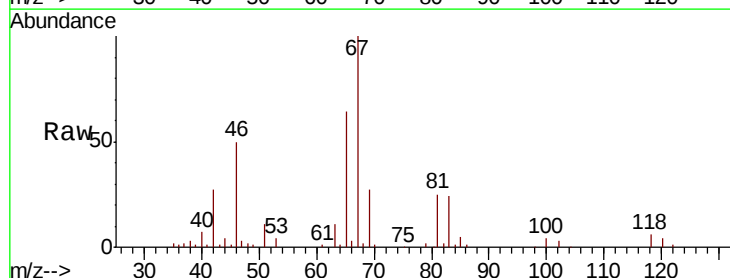
Acq: 12 Jan 2021 04:35

Tgt Ion: 63 Resp: 6159

Ion Ratio Lower Upper

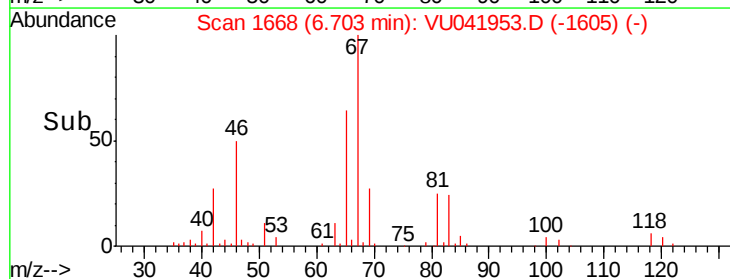
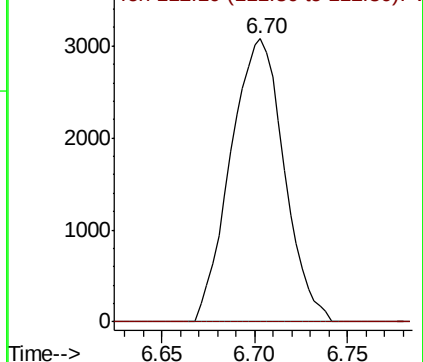
63 100

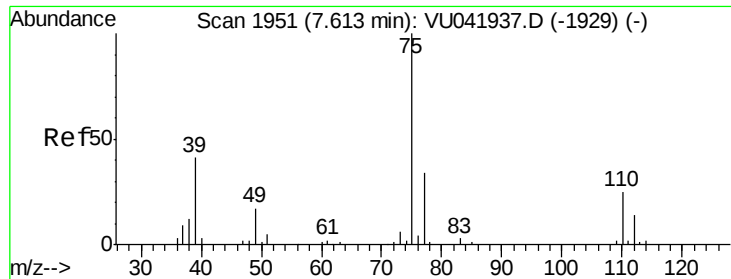
112 0.0 3.3 4.9#



Abundance Ion 63.10 (62.80 to 63.80): VU0

Ion 112.10 (111.80 to 112.80): V

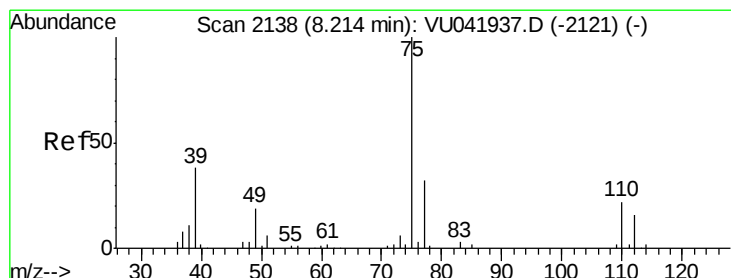
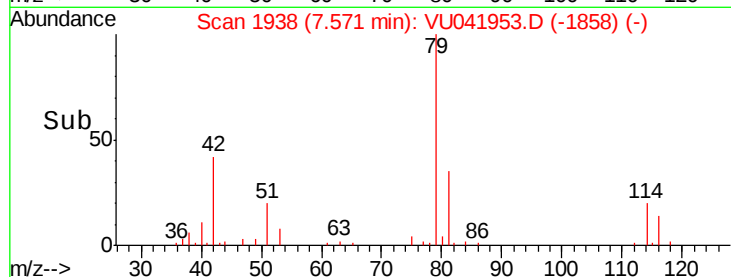
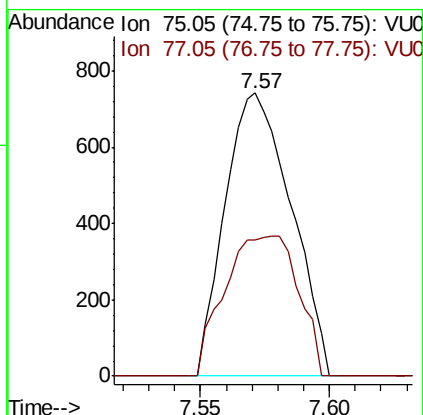
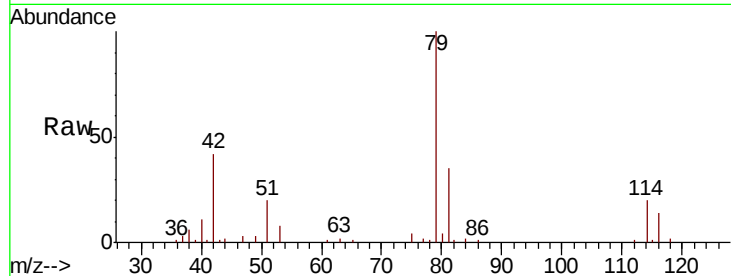




#39  
cis-1,3-Dichloropropene  
Concen: 0.100 ug/L  
RT: 7.57 min Scan# 1938  
Delta R.T. -0.04 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

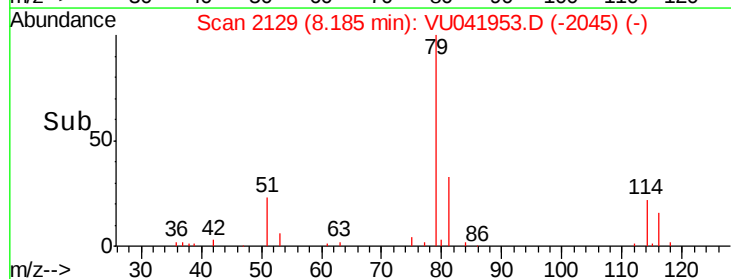
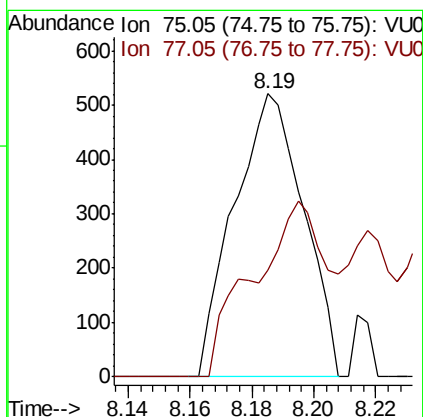
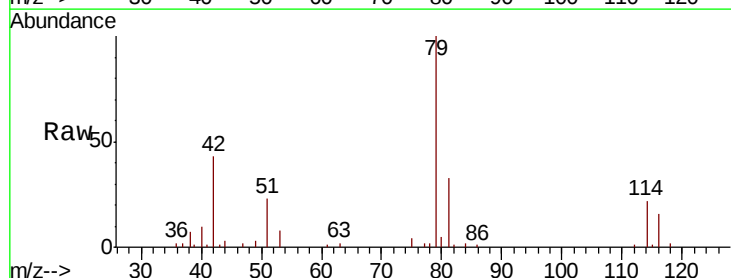
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFXL0

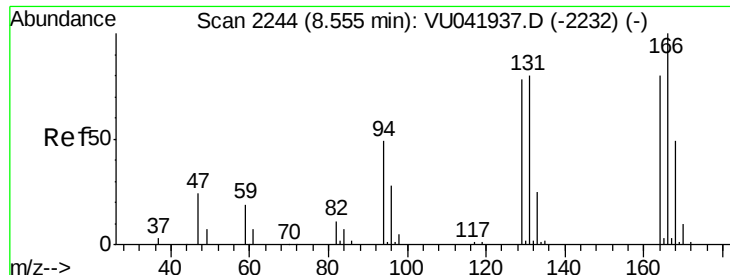
Tot Ion: 75 Resp: 1323  
Ion Ratio Lower Upper  
75 100  
77 48.0 21.5 39.9#



#44  
trans-1,3-Dichloropropene  
Concen: 0.070 ug/L  
RT: 8.19 min Scan# 2129  
Delta R.T. -0.03 min  
Lab File: VU041953.D  
Acq: 12 Jan 2021 04:35

Tgt Ion: 75 Resp: 813  
Ion Ratio Lower Upper  
75 100  
77 37.4 23.7 44.1





#47

Tetrachloroethene

Concen: 2.562 ug/L

RT: 8.56 min Scan# 2244

Delta R.T. -0.00 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampleId :

BFXL0

Tot Ion:164 Resp: 16777

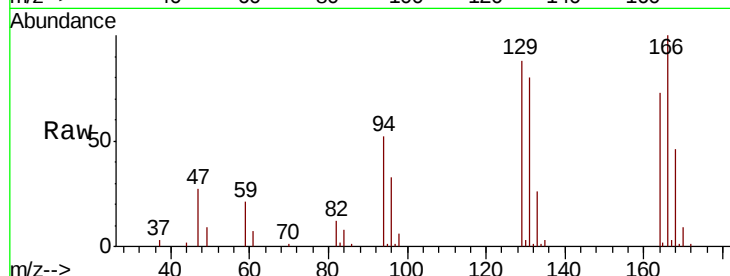
Ion Ratio Lower Upper

164 100

129 120.5 69.2 128.6

131 109.2 69.7 129.5

166 136.7 89.2 165.8

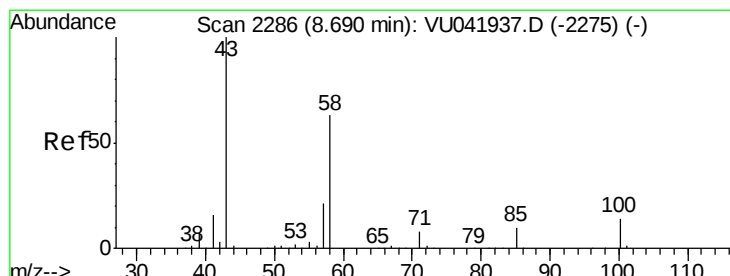
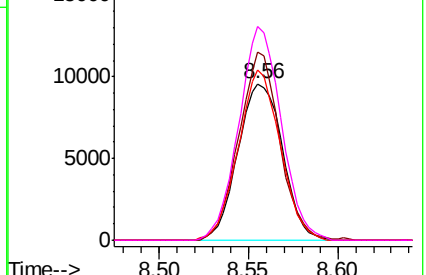
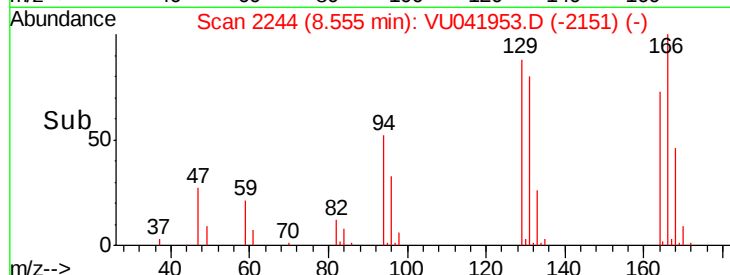


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V



#48

2-Hexanone

Concen: 4.288 ug/L

RT: 8.64 min Scan# 2271

Delta R.T. -0.05 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Tgt Ion: 43 Resp: 17942

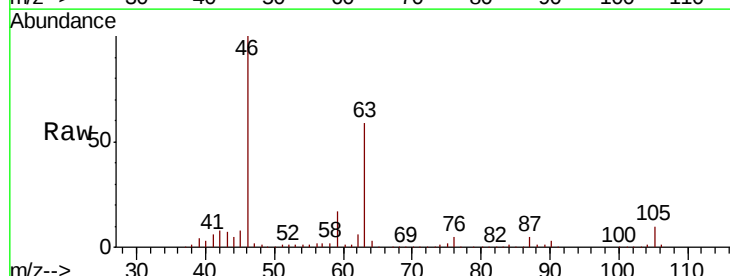
Ion Ratio Lower Upper

43 100

58 30.5 47.6 71.4#

57 28.0 17.1 25.7#

100 0.8 10.4 15.6#

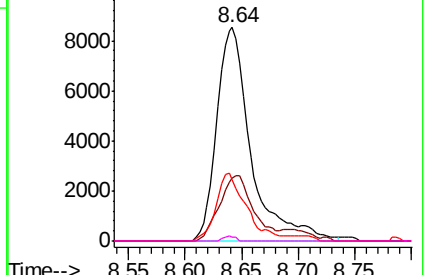
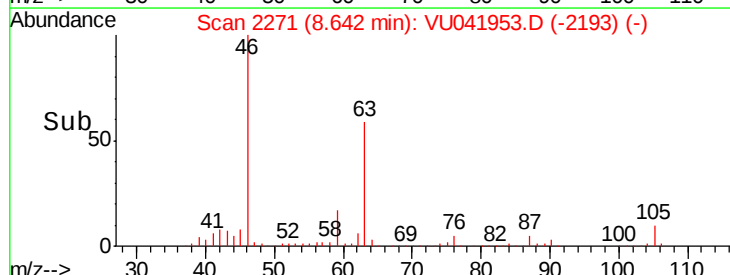


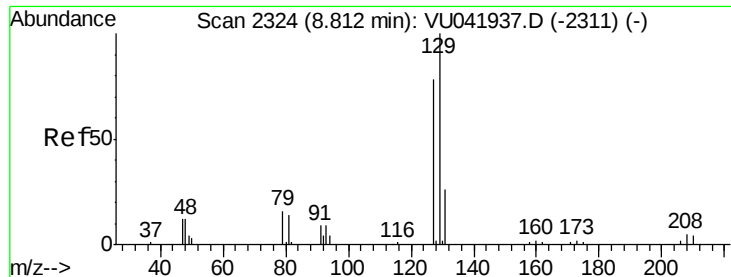
Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 58.05 (57.75 to 58.75): VU0

Ion 57.20 (56.90 to 57.90): VU0

Ion 100.15 (99.85 to 100.85): VU0





#49

Dibromochloromethane

Concen: 2.213 ug/L

RT: 8.56 min Scan# 2244

Delta R.T. -0.26 min

Lab File: VU041953.D

Acq: 12 Jan 2021 04:35

Instrument :

MSVOA\_U

ClientSampled :

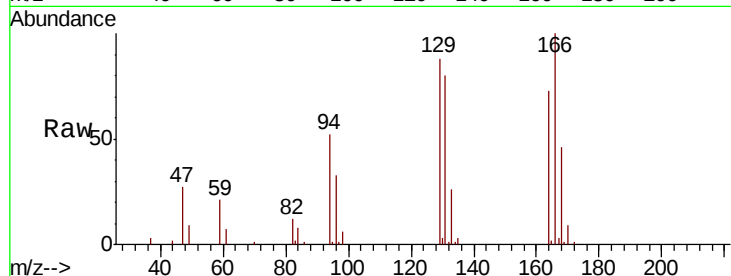
BFXL0

Tot Ion:129 Resp: 18463

Ion Ratio Lower Upper

129 100

127 0.0 54.9 101.9#



Abundance Ion 128.95 (128.65 to 129.65): V

Ion 126.90 (126.60 to 127.60): V

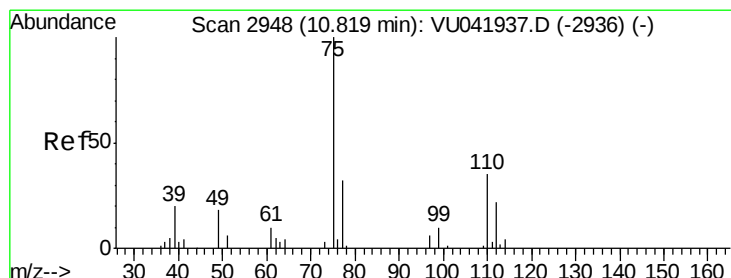
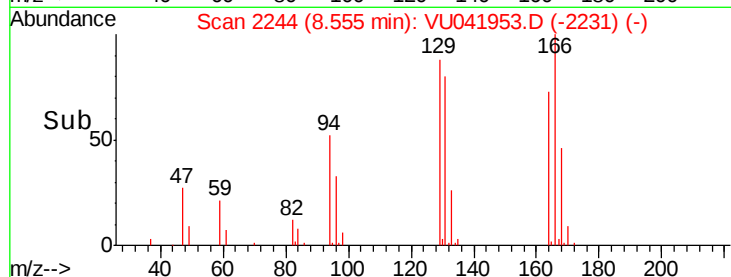
8.56

10000

5000

0

Time-->



#59

1,2,3-Trichloropropane

Concen: 0.871 ug/L

RT: 11.81 min Scan# 3255

Delta R.T. 0.99 min

Lab File: VU041953.D

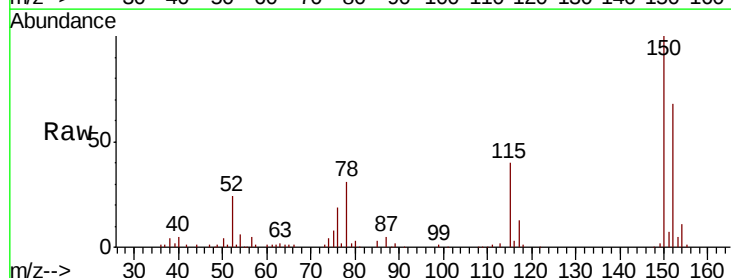
Acq: 12 Jan 2021 04:35

Tgt Ion: 75 Resp: 5686

Ion Ratio Lower Upper

75 100

77 27.6 27.0 40.4



Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 77.00 (76.70 to 77.70): VU0

11.81

4000

3000

2000

1000

0

Time-->

