

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU051920\  
 Data File : VU038226.D  
 Acq On : 19 May 2020 10:46  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: May 20 01:23:48 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR050720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue May 19 12:13:29 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 358630   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 351669   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 174682   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 163272   | 4.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 99.60%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 132517   | 4.67     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 93.40%  |
| 11) 1,1-Dichloroethene-d2      | 2.59   | 63    | 256223   | 4.67     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 93.40%  |
| 20) 2-Butanone-d5              | 4.67   | 46    | 464778   | 57.43    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 114.86% |
| 24) Chloroform-d               | 5.10   | 84    | 251001   | 5.04     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 100.80% |
| 26) 1,2-Dichloroethane-d4      | 5.74   | 65    | 147269   | 5.16     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 103.20% |
| 32) Benzene-d6                 | 5.76   | 84    | 512950   | 4.87     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 97.40%  |
| 36) 1,2-Dichloropropane-d6     | 6.72   | 67    | 170175   | 5.00     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 100.00% |
| 41) Toluene-d8                 | 7.93   | 98    | 478526   | 5.05     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 101.00% |
| 43) trans-1,3-Dichloropropene- | 8.20   | 79    | 70197    | 5.15     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 103.00% |
| 46) 2-Hexanone-d5              | 8.66   | 63    | 340061   | 52.86    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 105.72% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77  | 84    | 139571   | 5.20     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 104.00% |
| 64) 1,2-Dichlorobenzene-d4     | 12.21  | 152   | 169005   | 4.97     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 99.40%  |

## Target Compounds

|                                |      |     |        |        | Ovalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 146446 | 4.465  | ug/L 100 |
| 3) Chloromethane               | 1.53 | 50  | 171565 | 4.340  | ug/L 96  |
| 5) Vinyl chloride              | 1.62 | 62  | 179152 | 4.625  | ug/L 99  |
| 6) Bromomethane                | 1.87 | 94  | 91401  | 4.145  | ug/L 100 |
| 8) Chloroethane                | 1.95 | 64  | 109945 | 4.615  | ug/L 99  |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 191682 | 4.840  | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.61 | 101 | 122185 | 4.977  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.61 | 96  | 115645 | 4.647  | ug/L 92  |
| 13) Acetone                    | 2.67 | 43  | 287474 | 56.613 | ug/L 99  |
| 14) Carbon disulfide           | 2.82 | 76  | 372877 | 4.200  | ug/L 99  |
| 15) Methyl Acetate             | 2.98 | 43  | 69294  | 4.878  | ug/L 98  |
| 16) Methylene chloride         | 3.08 | 84  | 134695 | 4.643  | ug/L 98  |
| 17) Methyl tert-butyl Ether    | 3.40 | 73  | 322929 | 4.670  | ug/L 99  |
| 18) trans-1,2-Dichloroethene   | 3.39 | 96  | 124558 | 4.584  | ug/L 96  |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 248008 | 4.673  | ug/L 99  |
| 21) 2-Butanone                 | 4.75 | 43  | 485752 | 54.197 | ug/L 99  |
| 22) cis-1,2-Dichloroethene     | 4.71 | 96  | 137961 | 4.712  | ug/L 95  |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU051920\  
 Data File : VU038226.D  
 Acq On : 19 May 2020 10:46  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

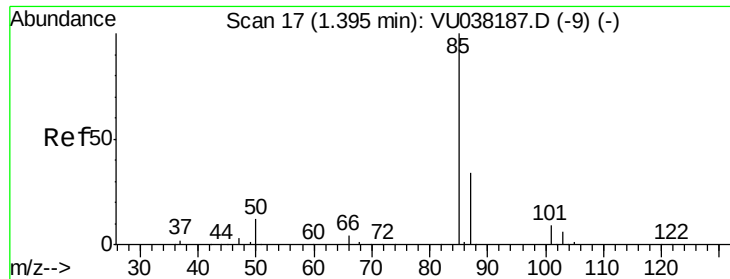
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: May 20 01:23:48 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR050720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue May 19 12:13:29 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 5.01  | 128  | 62491    | 4.959  | ug/L  | 94       |
| 25) Chloroform                  | 5.13  | 83   | 241480   | 4.878  | ug/L  | 98       |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 174767   | 5.002  | ug/L  | 96       |
| 29) 1,1,1-Trichloroethane       | 5.35  | 97   | 194707   | 4.832  | ug/L  | 98       |
| 30) Cyclohexane                 | 5.42  | 56   | 221041   | 4.647  | ug/L  | 99       |
| 31) Carbon tetrachloride        | 5.56  | 117  | 159597   | 4.928  | ug/L  | 99       |
| 33) Benzene                     | 5.81  | 78   | 542510   | 4.817  | ug/L  | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 133832   | 4.752  | ug/L  | 98       |
| 35) Methylcyclohexane           | 6.79  | 83   | 215874   | 4.731  | ug/L  | 96       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 146913   | 4.803  | ug/L  | 99       |
| 38) Bromodichloromethane        | 7.13  | 83   | 170816   | 4.831  | ug/L  | 98       |
| 39) cis-1,3-Dichloropropene     | 7.63  | 75   | 214126   | 4.891  | ug/L  | 97       |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 1093037  | 51.558 | ug/L  | 100      |
| 42) Toluene                     | 8.00  | 91   | 566521   | 4.766  | ug/L  | 98       |
| 44) trans-1,3-Dichloropropene   | 8.23  | 75   | 186987   | 5.023  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane       | 8.42  | 97   | 104592   | 4.924  | ug/L  | 98       |
| 47) Tetrachloroethene           | 8.57  | 164  | 95176    | 4.831  | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.71  | 43   | 819648   | 52.792 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.83  | 129  | 111754   | 5.069  | ug/L  | 100      |
| 50) 1,2-Dibromoethane           | 8.95  | 107  | 97160    | 4.928  | ug/L  | 98       |
| 51) Chlorobenzene               | 9.47  | 112  | 357093   | 4.840  | ug/L  | 100      |
| 52) Ethylbenzene                | 9.59  | 91   | 627700   | 4.874  | ug/L  | 100      |
| 53) m,p-Xylene                  | 9.71  | 106  | 240379   | 4.868  | ug/L  | 99       |
| 54) o-Xylene                    | 10.12 | 106  | 230526   | 4.829  | ug/L  | 97       |
| 55) Styrene                     | 10.13 | 104  | 393795   | 4.914  | ug/L  | 100      |
| 56) Isopropylbenzene            | 10.50 | 105  | 607545   | 4.954  | ug/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 135516   | 5.025  | ug/L  | 95       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 101673   | 4.952  | ug/L  | 96       |
| 61) Bromoform                   | 10.31 | 173  | 58924    | 4.990  | ug/L  | 97       |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 282246   | 4.966  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 281091   | 4.881  | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene         | 12.23 | 146  | 269915   | 4.936  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 22740    | 5.088  | ug/L  | 94       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 201430   | 4.884  | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene      | 13.87 | 180  | 185665   | 4.964  | ug/L  | 99       |
| 69) Naphthalene                 | 14.12 | 128  | 386197   | 4.904  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 14.37 | 180  | 172066   | 4.949  | ug/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 4.465 ug/L

RT: 1.39 min Scan# 17

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

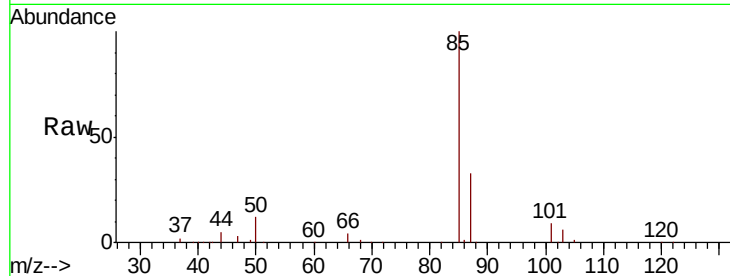
ClientSampleId :

Tot Ion: 85 Resp: 146446

Ion Ratio Lower Upper

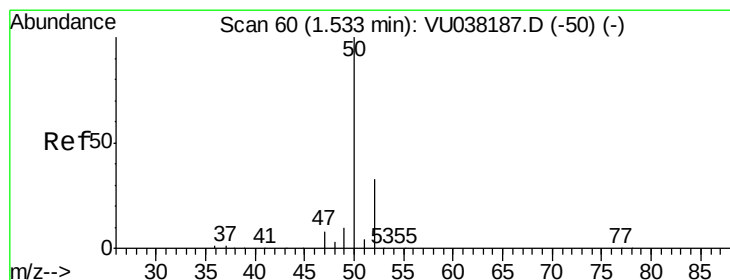
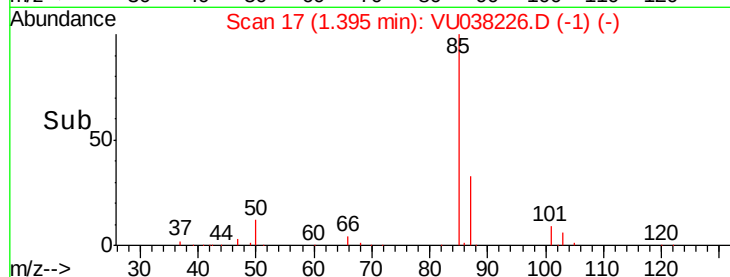
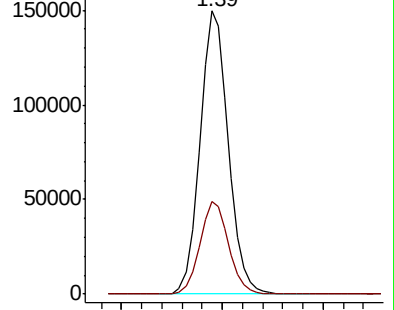
85 100

87 33.0 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VU038187.D (-9) (-)

Ion 87.00 (86.70 to 87.70): VU038187.D (-9) (-)



#3

Chloromethane

Concen: 4.340 ug/L

RT: 1.53 min Scan# 60

Delta R.T. -0.00 min

Lab File: VU038226.D

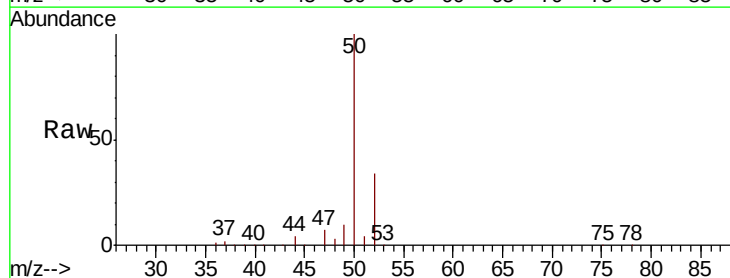
Acq: 19 May 2020 10:46

Tgt Ion: 50 Resp: 171565

Ion Ratio Lower Upper

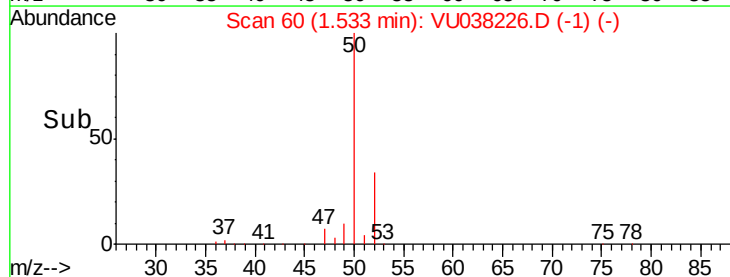
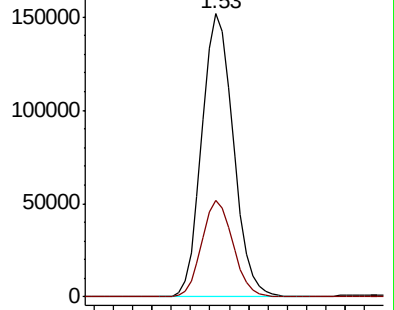
50 100

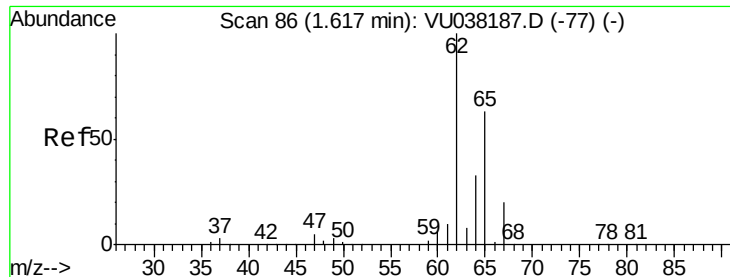
52 34.1 22.5 41.7



Abundance Ion 50.05 (49.75 to 50.75): VU038187.D (-50) (-)

Ion 52.05 (51.75 to 52.75): VU038187.D (-50) (-)





#5

Vinyl chloride

Concen: 4.625 ug/L

RT: 1.62 min Scan# 86

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

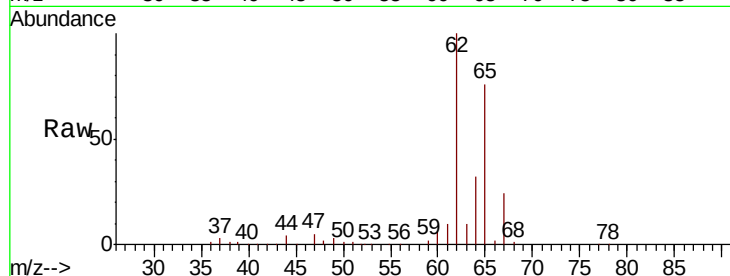
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 62 Resp: 179152

Ion Ratio Lower Upper

62 100

64 32.2 22.8 42.4



Abundance Ion 62.00 (61.70 to 62.70): VU038187.D (-77) (-)

Ion 64.10 (63.80 to 64.80): VU038187.D (-77) (-)

1.62

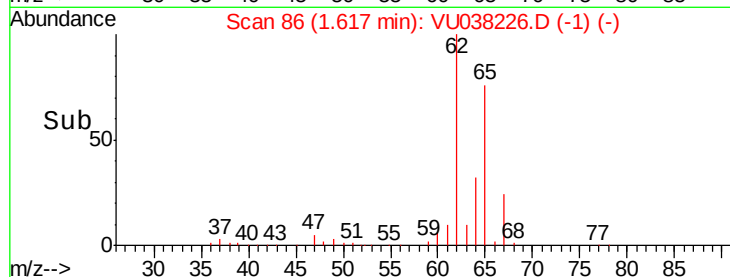
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100000

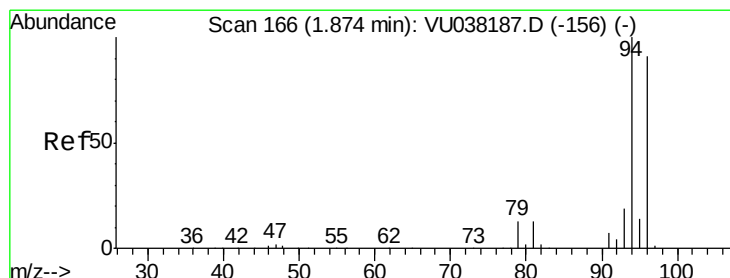
50000

0

Time-->



Time-->



#6

Bromomethane

Concen: 4.145 ug/L

RT: 1.87 min Scan# 166

Delta R.T. -0.00 min

Lab File: VU038226.D

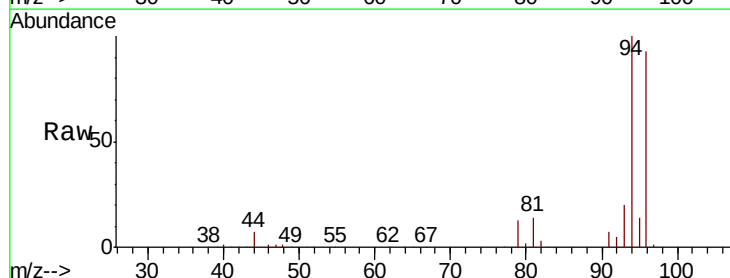
Acq: 19 May 2020 10:46

Tgt Ion: 94 Resp: 91401

Ion Ratio Lower Upper

94 100

96 92.5 65.0 120.8



Abundance Ion 94.00 (93.70 to 94.70): VU038187.D (-156) (-)

Ion 96.00 (95.70 to 96.70): VU038187.D (-156) (-)

1.87

80000

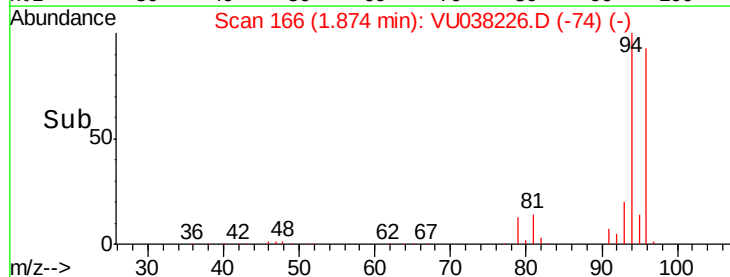
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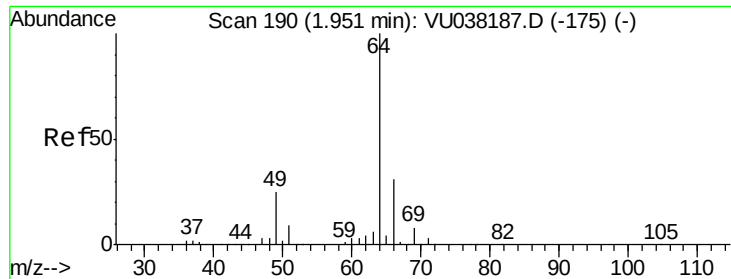
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Time-->



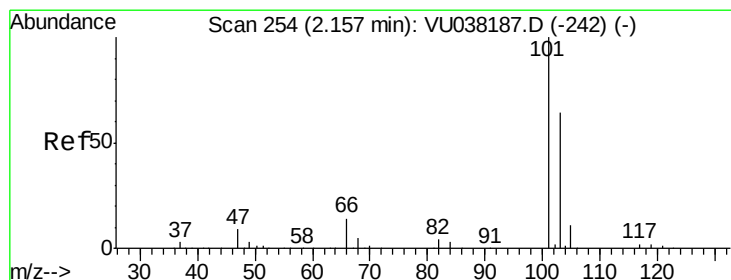
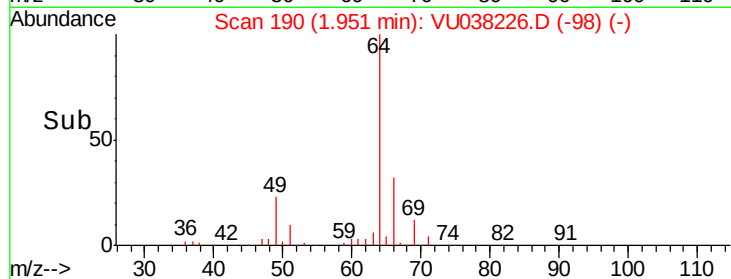
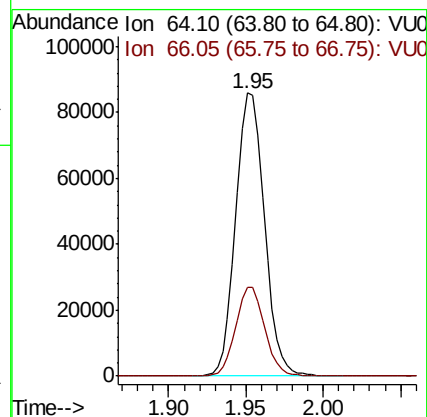
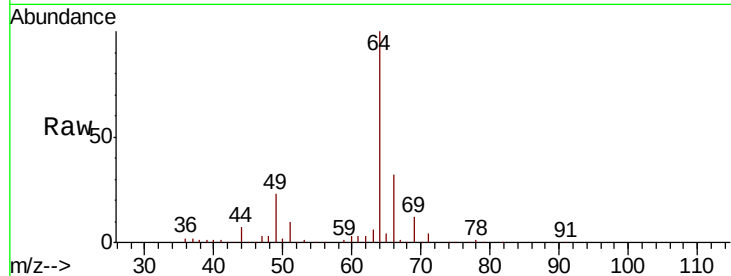
Time-->



#8  
Chloroethane  
Concen: 4.615 ug/L  
RT: 1.95 min Scan# 190  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

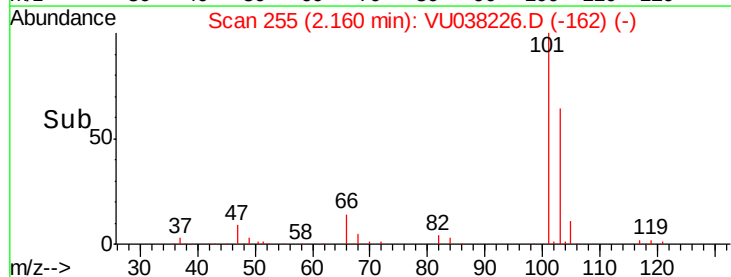
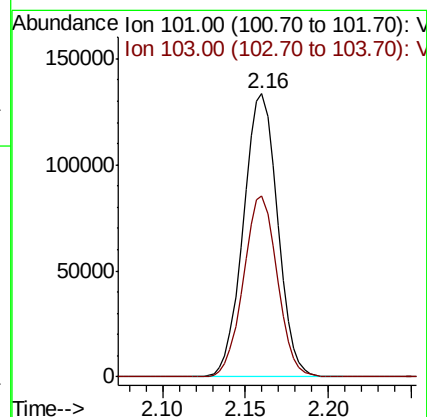
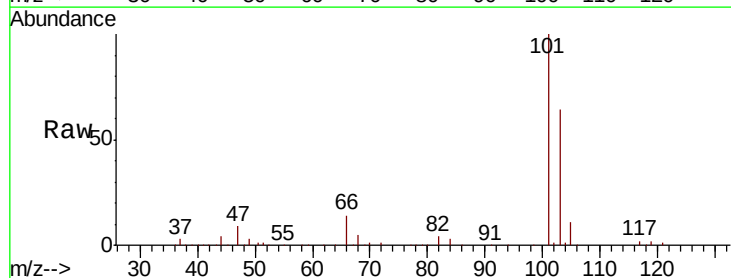
Instrument :  
MSVOA\_U  
ClientSampled :

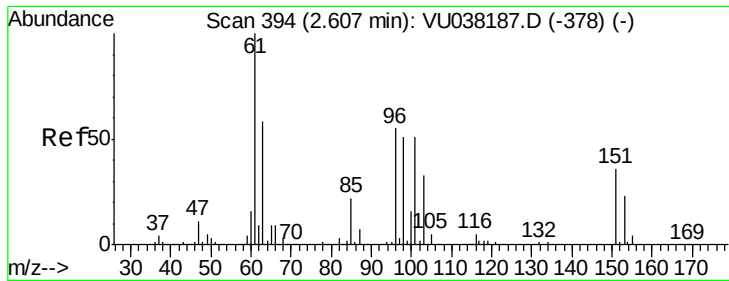
Tot Ion: 64 Resp: 109945  
Ion Ratio Lower Upper  
64 100  
66 31.5 21.8 40.4



#9  
Trichlorofluoromethane  
Concen: 4.840 ug/L  
RT: 2.16 min Scan# 255  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Tgt Ion:101 Resp: 191682  
Ion Ratio Lower Upper  
101 100  
103 63.3 51.0 76.4





#10

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

Concen: 4.977 ug/L

RT: 2.61 min Scan# 394

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampled :

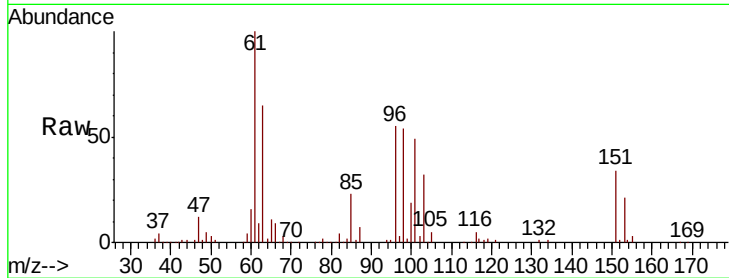
Tot Ion:101 Resp: 122185

Ion Ratio Lower Upper

101 100

85 44.3 35.3 52.9

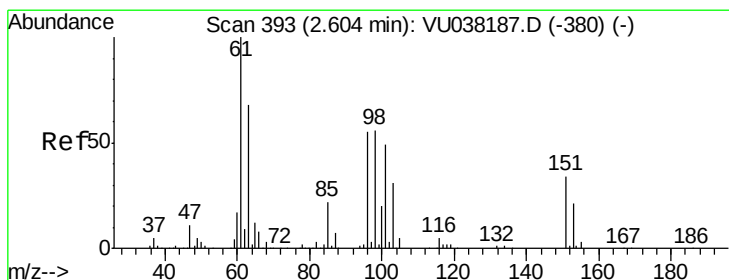
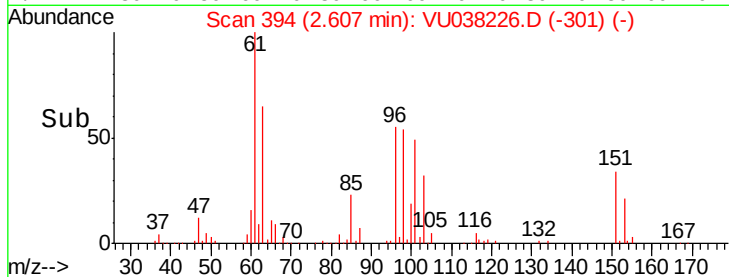
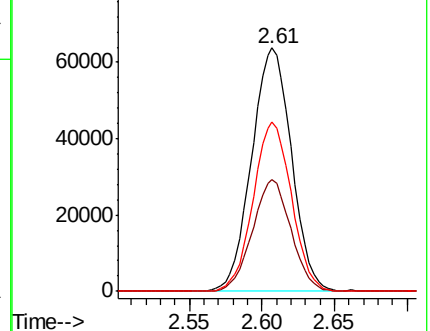
151 66.8 54.2 81.2



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



#12

1,1-Dichloroethene

Concen: 4.647 ug/L

RT: 2.61 min Scan# 394

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

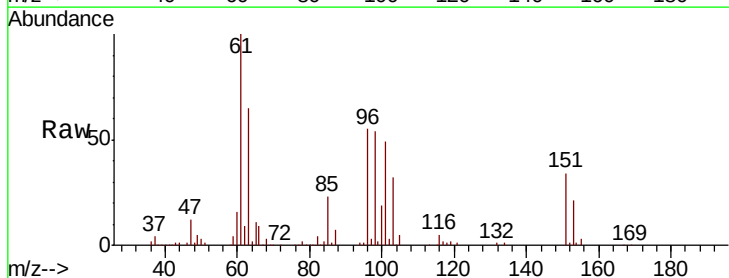
Tgt Ion: 96 Resp: 115645

Ion Ratio Lower Upper

96 100

61 181.3 126.2 234.4

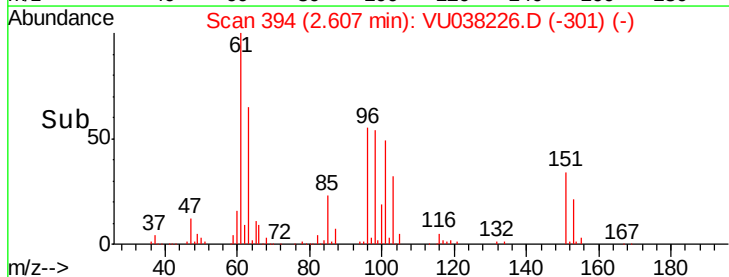
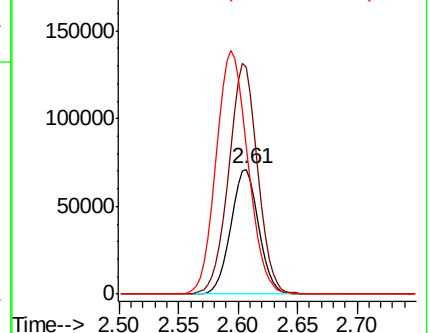
63 118.4 96.9 179.9

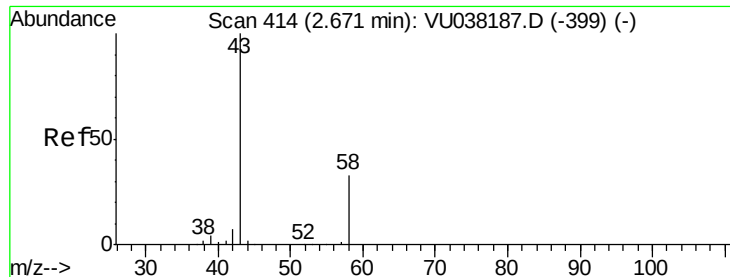


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 56.613 ug/L

RT: 2.67 min Scan# 414

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

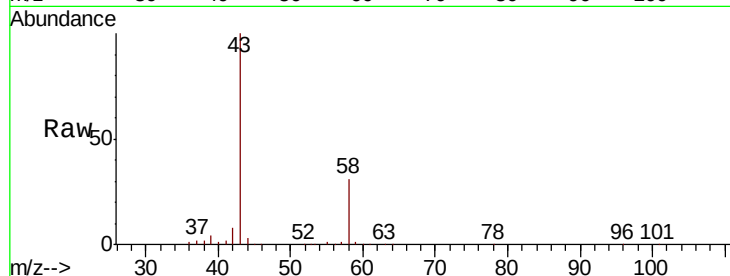
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 43 Resp: 287474

Ion Ratio Lower Upper

43 100

58 31.4 0.0 63.6



Abundance Ion 43.05 (42.75 to 43.75): VU038187.D (-399) (-)

Ion 58.05 (57.75 to 58.75): VU038187.D (-399) (-)

2.67

120000

100000

80000

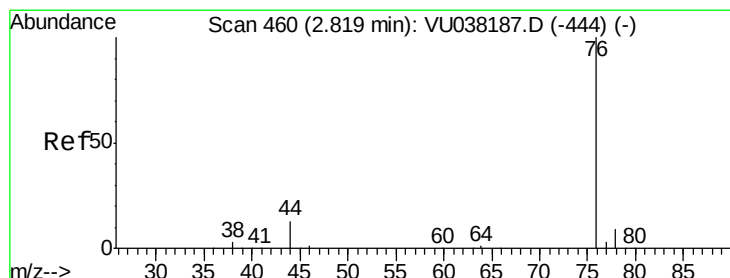
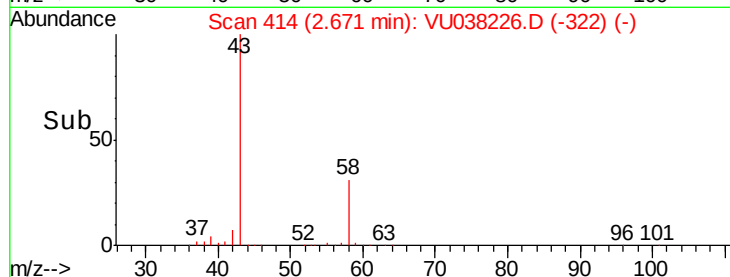
60000

40000

20000

0

Time-->



#14

Carbon disulfide

Concen: 4.200 ug/L

RT: 2.82 min Scan# 461

Delta R.T. -0.00 min

Lab File: VU038226.D

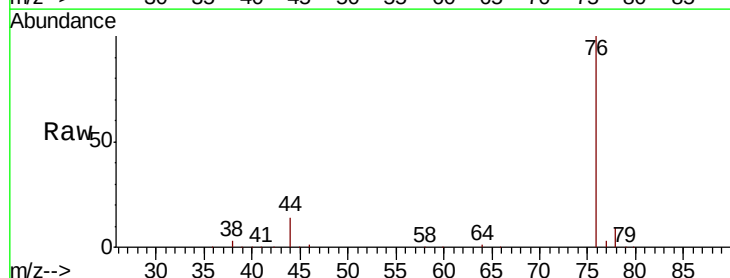
Acq: 19 May 2020 10:46

Tgt Ion: 76 Resp: 372877

Ion Ratio Lower Upper

76 100

78 9.1 7.1 10.7



Abundance Ion 76.05 (75.75 to 76.75): VU038187.D (-444) (-)

Ion 78.00 (77.70 to 78.70): VU038187.D (-444) (-)

2.82

250000

200000

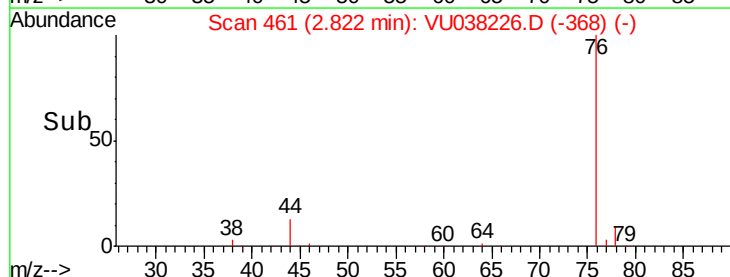
150000

100000

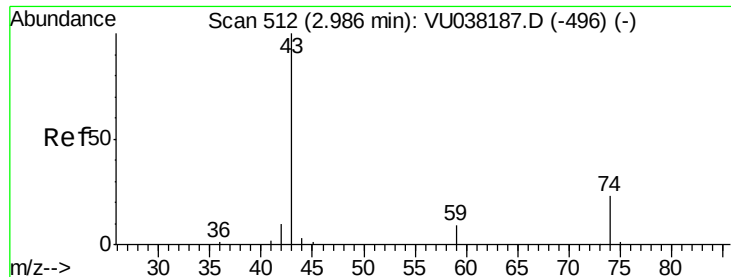
50000

0

Time-->



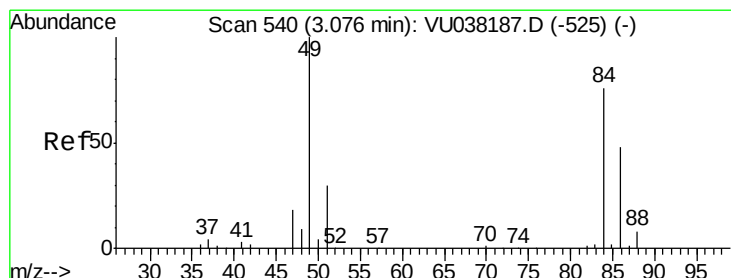
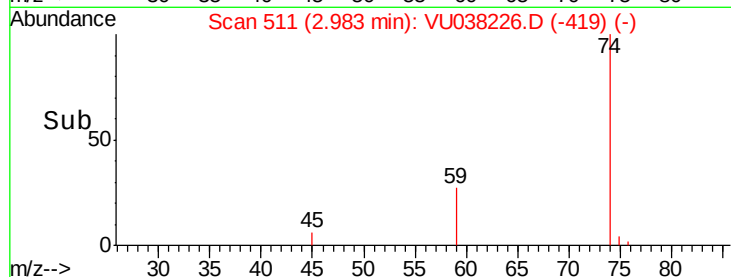
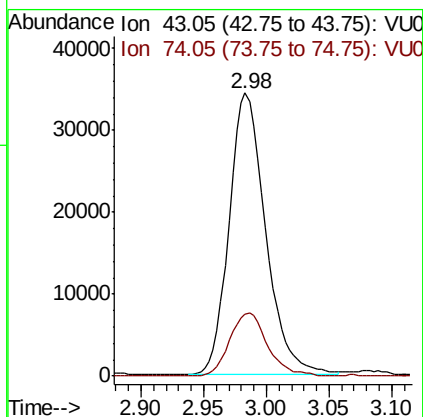
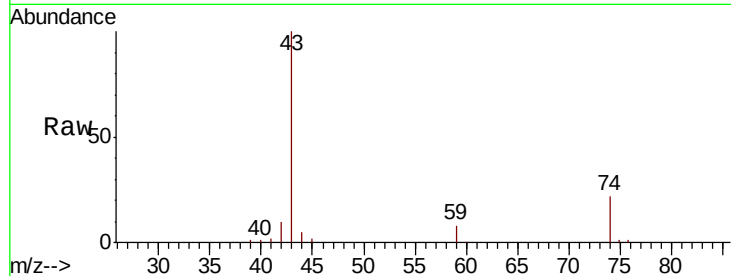




#15  
Methvl Acetate  
Concen: 4.878 ug/L  
RT: 2.98 min Scan# 511  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

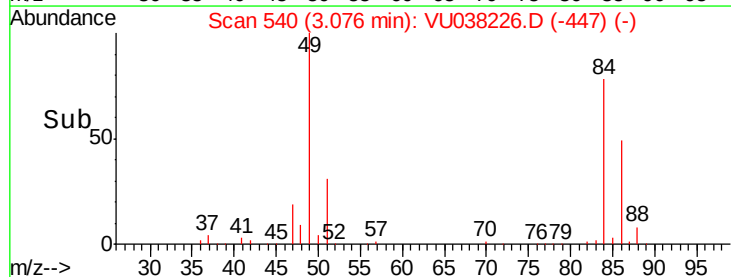
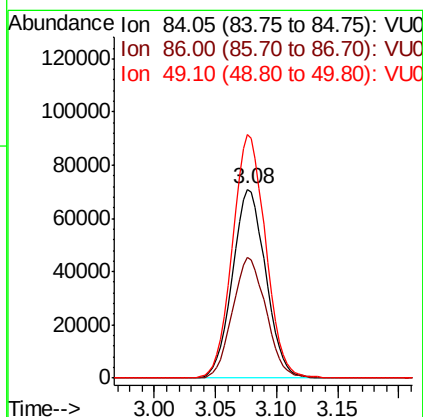
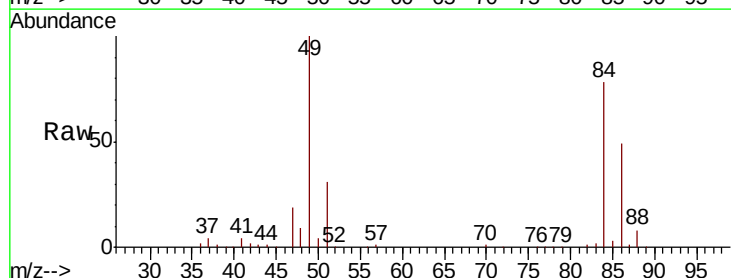
Instrument :  
MSVOA\_U  
ClientSampleId :

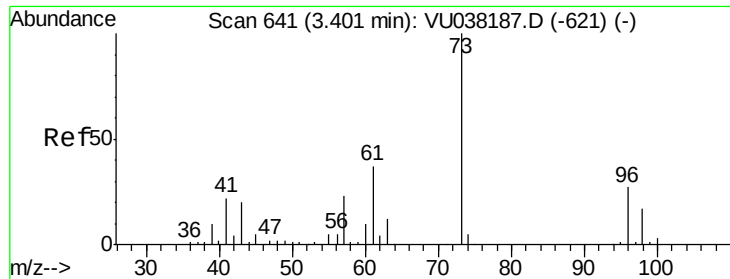
Tot Ion: 43 Resp: 69294  
Ion Ratio Lower Upper  
43 100  
74 23.5 18.0 27.0



#16  
Methylene chloride  
Concen: 4.643 ug/L  
RT: 3.08 min Scan# 540  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Tgt Ion: 84 Resp: 134695  
Ion Ratio Lower Upper  
84 100  
86 63.5 44.9 83.3  
49 128.7 92.0 170.9

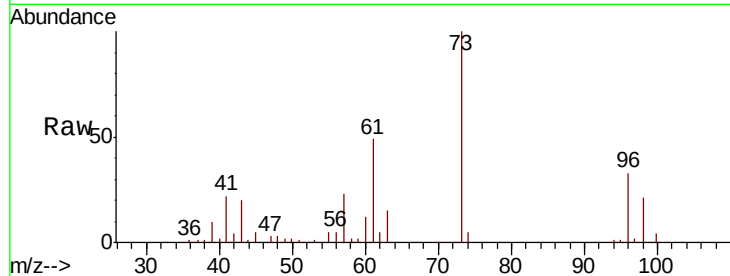




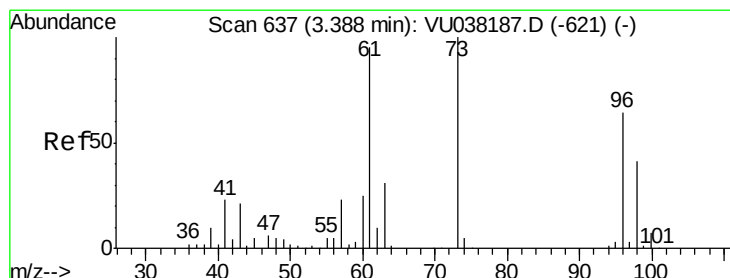
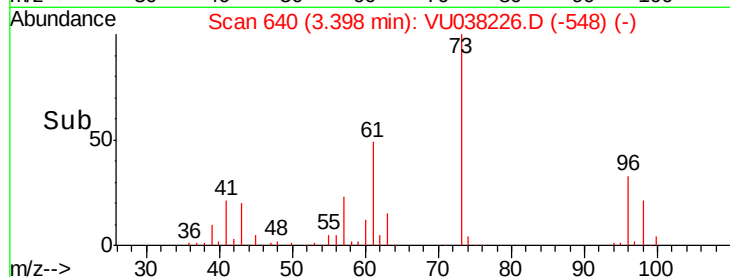
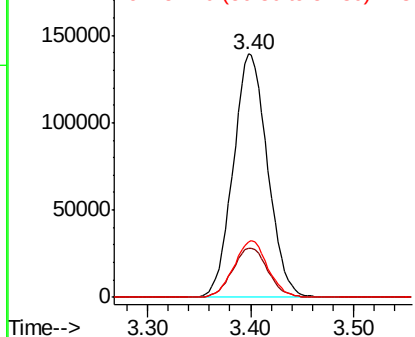
#17  
Methyl tert-butyl Ether  
Concen: 4.670 ug/L  
RT: 3.40 min Scan# 640  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 73 Resp: 322929  
Ion Ratio Lower Upper  
73 100  
43 20.7 16.9 25.3  
57 22.9 18.2 27.2

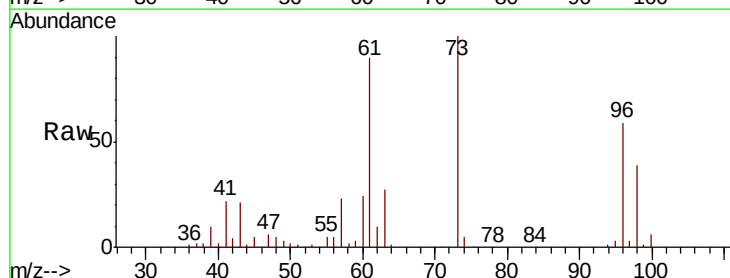


Abundance Ion 73.10 (72.80 to 73.80): VU0  
Ion 43.05 (42.75 to 43.75): VU0  
Ion 57.10 (56.80 to 57.80): VU0

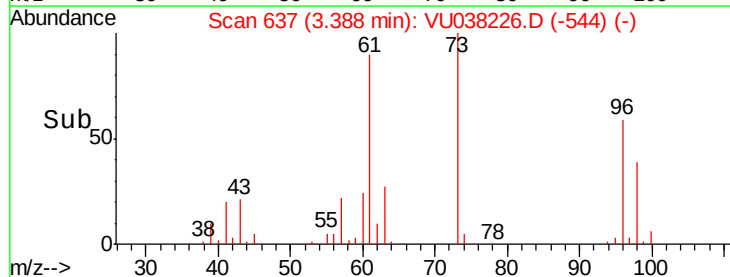
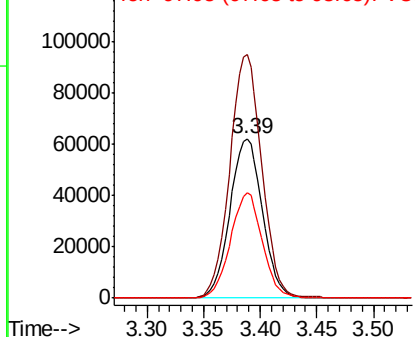


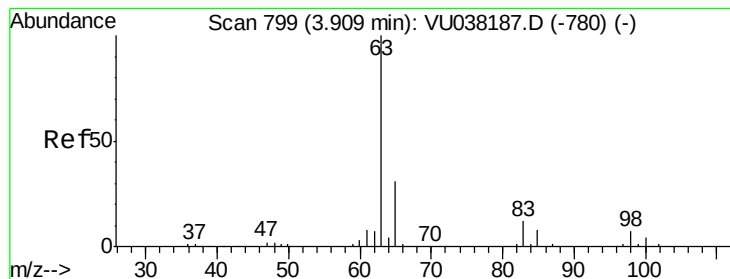
#18  
trans-1,2-Dichloroethene  
Concen: 4.584 ug/L  
RT: 3.39 min Scan# 637  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Tgt Ion: 96 Resp: 124558  
Ion Ratio Lower Upper  
96 100  
61 152.4 102.1 189.5  
98 66.3 45.6 84.8



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 97.95 (97.65 to 98.65): VU0





#19

1,1-Dichloroethane

Concen: 4.673 ug/L

RT: 3.91 min Scan# 799

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampled :

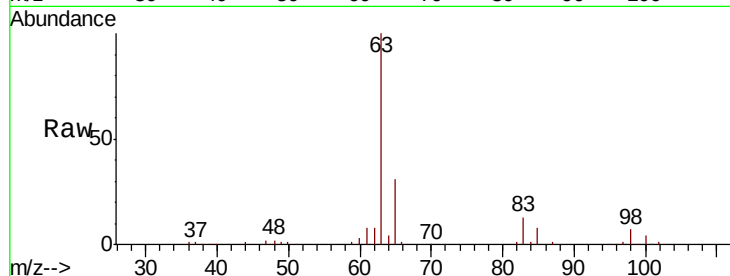
Tot Ion: 63 Resp: 248008

Ion Ratio Lower Upper

63 100

65 31.0 22.5 41.7

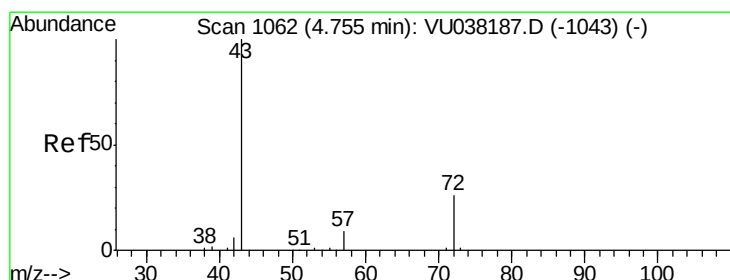
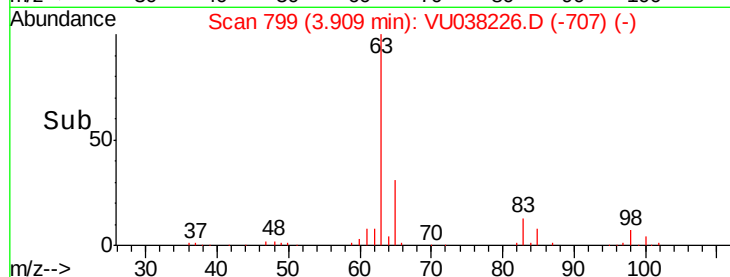
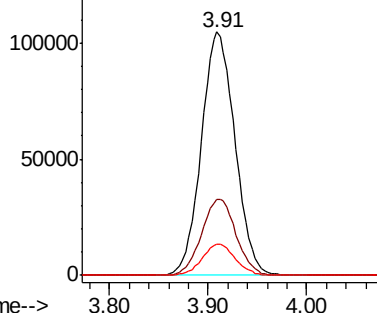
83 12.7 8.9 16.5



Abundance Ion 63.10 (62.80 to 63.80): VU038187.D (-780) (-)

Ion 65.10 (64.80 to 65.80): VU038187.D (-780) (-)

Ion 83.05 (82.75 to 83.75): VU038187.D (-780) (-)



#21

2-Butanone

Concen: 54.197 ug/L

RT: 4.75 min Scan# 1062

Delta R.T. -0.00 min

Lab File: VU038226.D

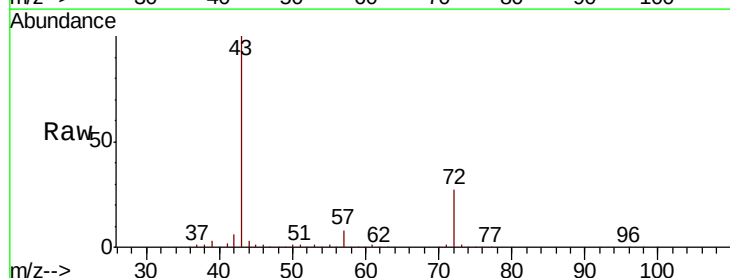
Acq: 19 May 2020 10:46

Tgt Ion: 43 Resp: 485752

Ion Ratio Lower Upper

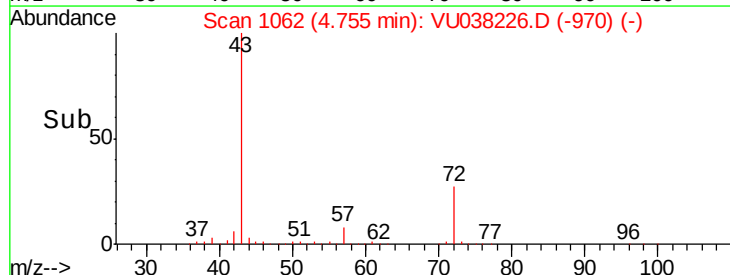
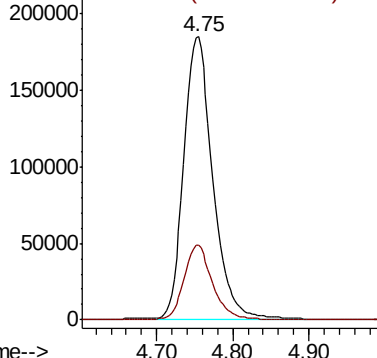
43 100

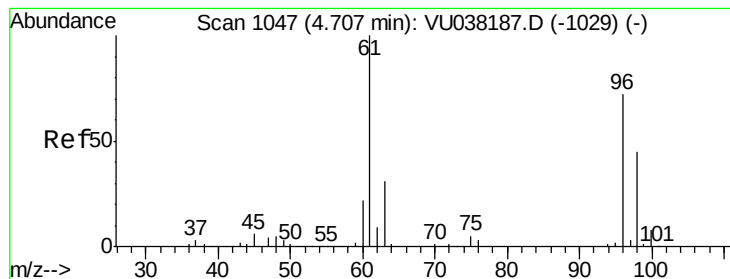
72 26.3 13.5 40.4



Abundance Ion 43.05 (42.75 to 43.75): VU038187.D (-1043) (-)

Ion 72.10 (71.80 to 72.80): VU038187.D (-1043) (-)





#22

cis-1,2-Dichloroethene

Concen: 4.712 ug/L

RT: 4.71 min Scan# 1047

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :  
MSVOA\_U  
ClientSampled :

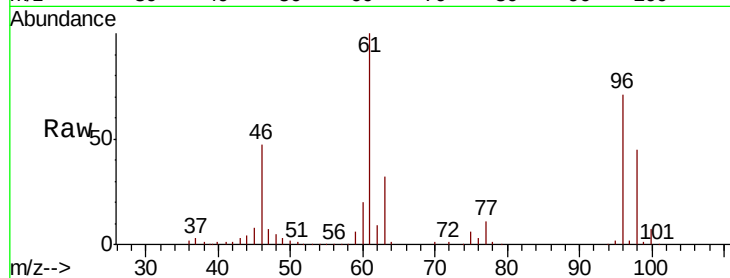
Tot Ion: 96 Resp: 137961

Ion Ratio Lower Upper

96 100

61 141.5 95.3 176.9

68 0.0 0.0 0.0

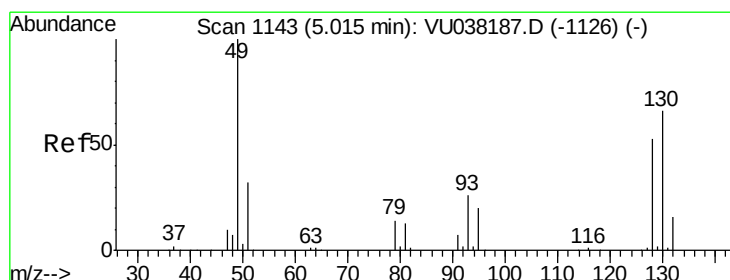
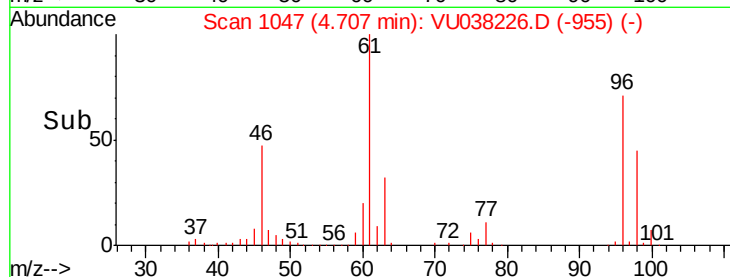
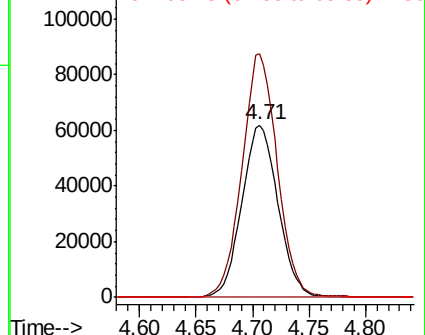


Abundance

Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 68.15 (67.85 to 68.85): VU0



#23

Bromochloromethane

Concen: 4.959 ug/L

RT: 5.01 min Scan# 1142

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Tgt Ion: 128 Resp: 62491

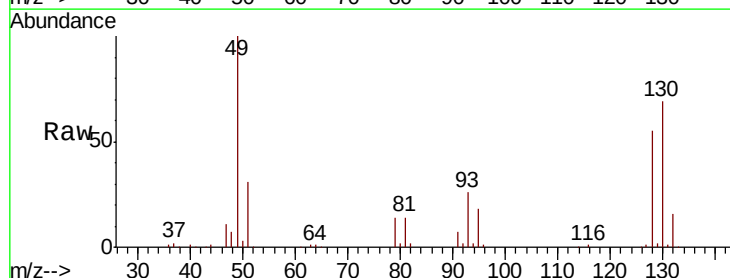
Ion Ratio Lower Upper

128 100

49 182.9 135.6 251.8

130 125.6 91.4 169.8

51 57.2 49.6 74.4



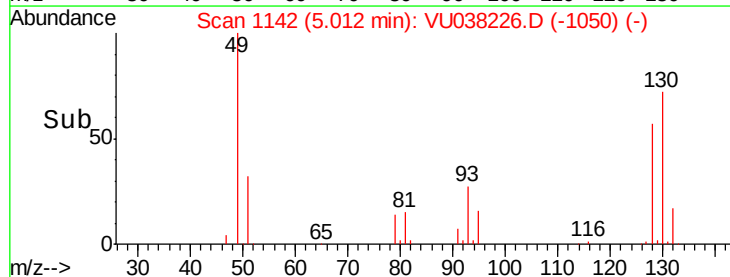
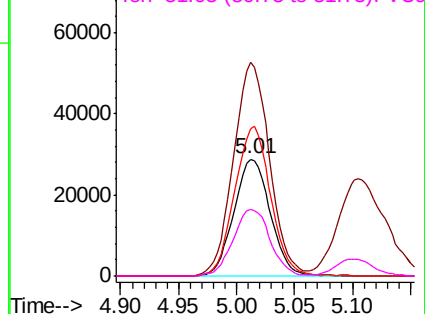
Abundance

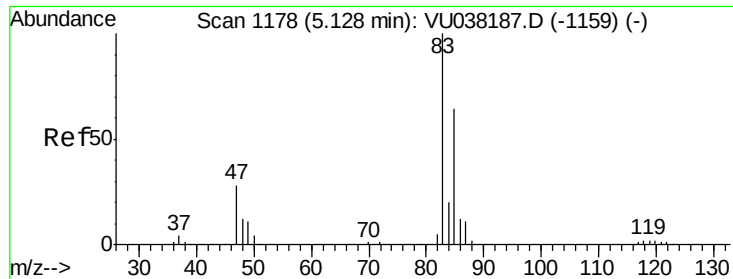
Ion 127.90 (127.60 to 128.60): V

Ion 49.10 (48.80 to 49.80): VU0

Ion 129.95 (129.65 to 130.65): V

Ion 51.05 (50.75 to 51.75): VU0

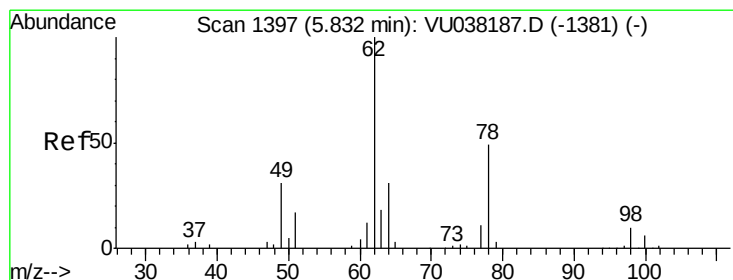
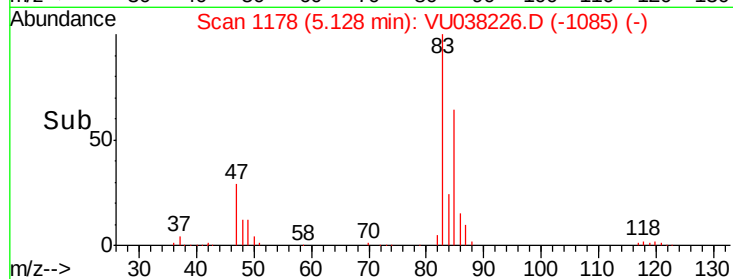
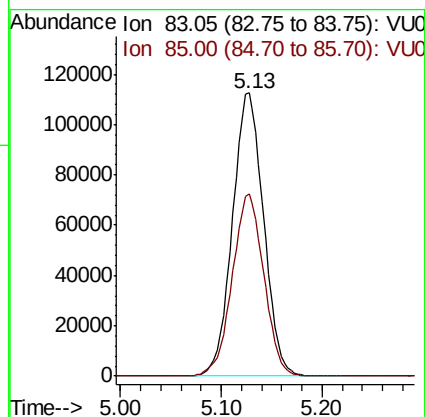
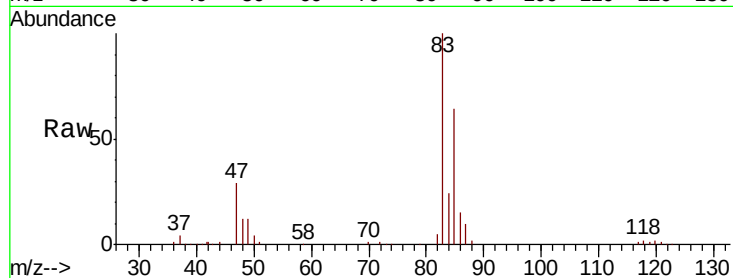




#25  
Chloroform  
Concen: 4.878 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

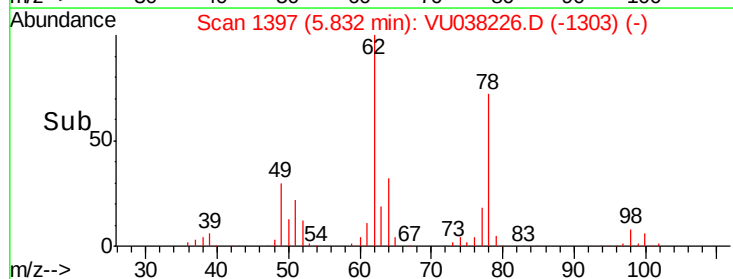
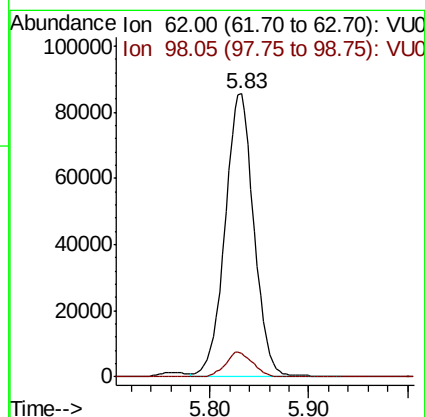
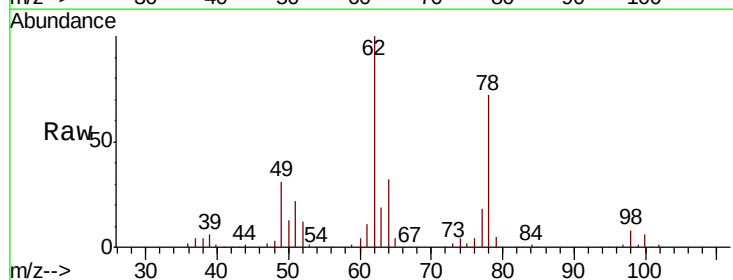
Instrument :  
MSVOA\_U  
ClientSampleId :

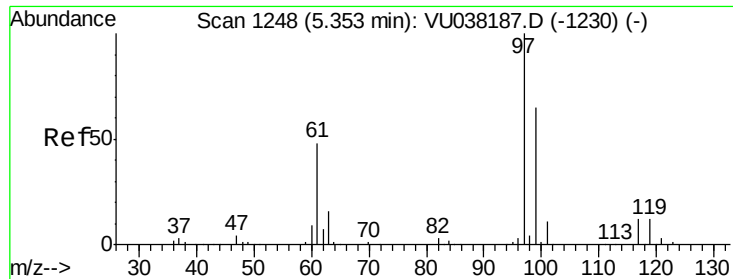
Tot Ion: 83 Resp: 241480  
Ion Ratio Lower Upper  
83 100  
85 64.4 46.2 85.8



#27  
1,2-Dichloroethane  
Concen: 5.002 ug/L  
RT: 5.83 min Scan# 1397  
Delta R.T. 0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Tgt Ion: 62 Resp: 174767  
Ion Ratio Lower Upper  
62 100  
98 8.3 7.8 11.8

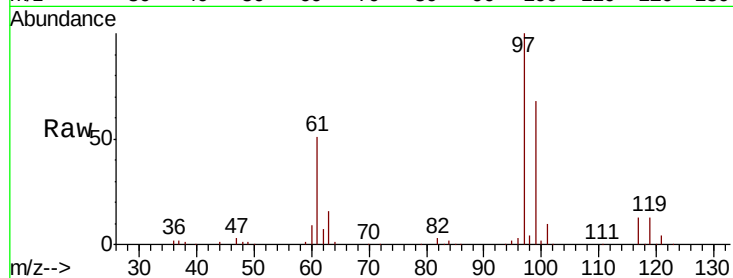




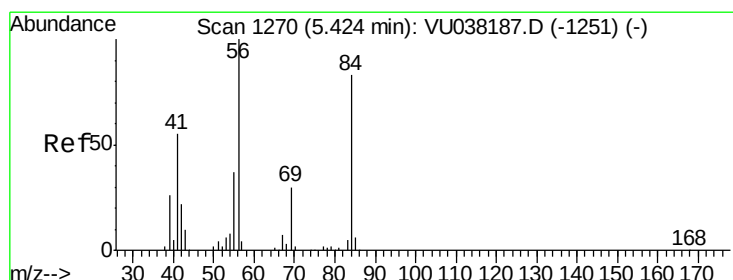
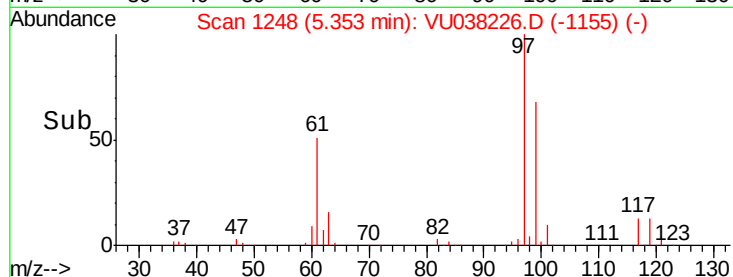
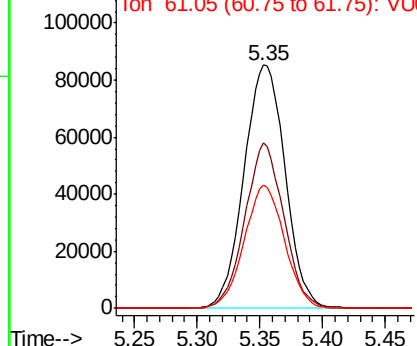
#29  
1,1,1-Trichloroethane  
Concen: 4.832 ug/L  
RT: 5.35 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Instrument :  
MSVOA\_U  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.6  | 51.0  | 76.4  |
| 61      | 49.5  | 38.2  | 57.4  |

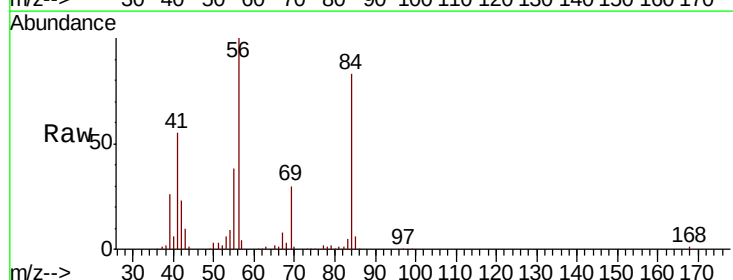


Abundance Ion 96.95 (96.65 to 97.65): VU0  
Ion 99.05 (98.75 to 99.75): VU0  
Ion 61.05 (60.75 to 61.75): VU0

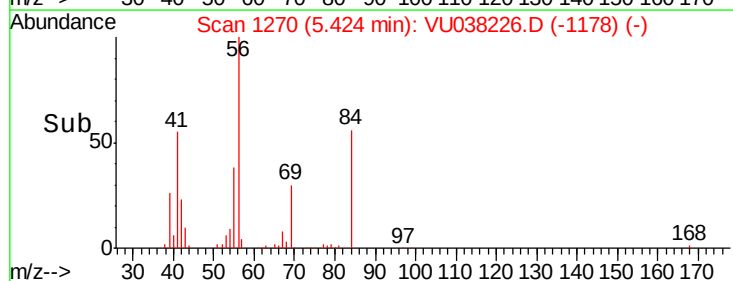
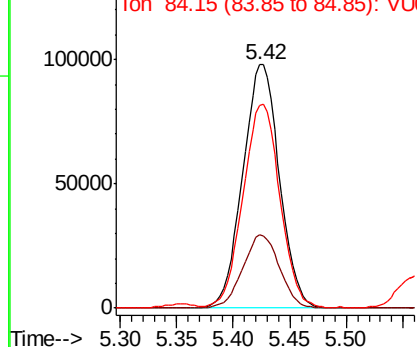


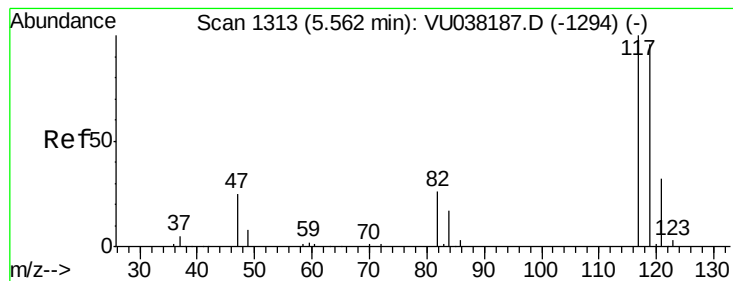
#30  
Cyclohexane  
Concen: 4.647 ug/L  
RT: 5.42 min Scan# 1270  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 30.0  | 24.2  | 36.4  |
| 84      | 84.6  | 68.5  | 102.7 |



Abundance Ion 56.10 (55.80 to 56.80): VU0  
Ion 69.15 (68.85 to 69.85): VU0  
Ion 84.15 (83.85 to 84.85): VU0





#31

Carbon tetrachloride

Concen: 4.928 ug/L

RT: 5.56 min Scan# 1313

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

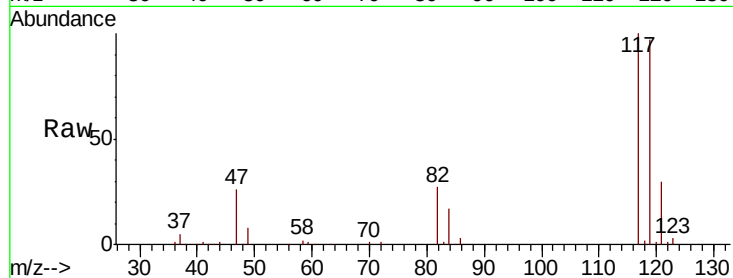
ClientSampleId :

Tot Ion:117 Resp: 159597

Ion Ratio Lower Upper

117 100

119 95.5 75.4 113.2



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V

5.56

80000

60000

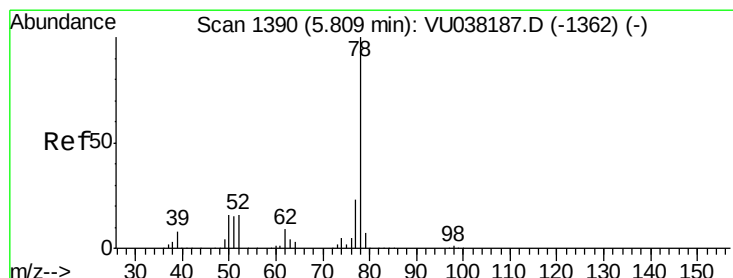
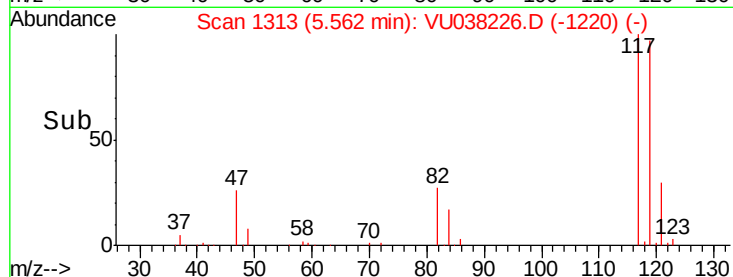
40000

20000

0

Time-->

5.45 5.50 5.55 5.60 5.65



#33

Benzene

Concen: 4.817 ug/L

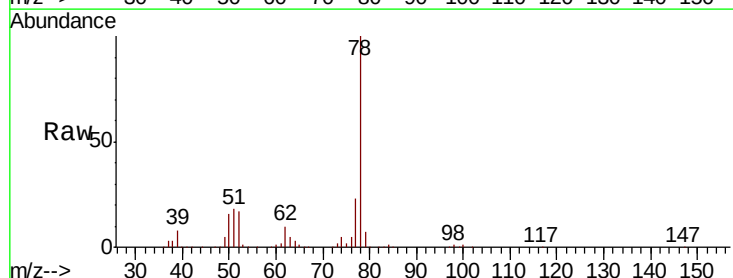
RT: 5.81 min Scan# 1390

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Tgt Ion: 78 Resp: 542510



Abundance Ion 78.10 (77.80 to 78.80): VU0

5.81

300000

250000

200000

150000

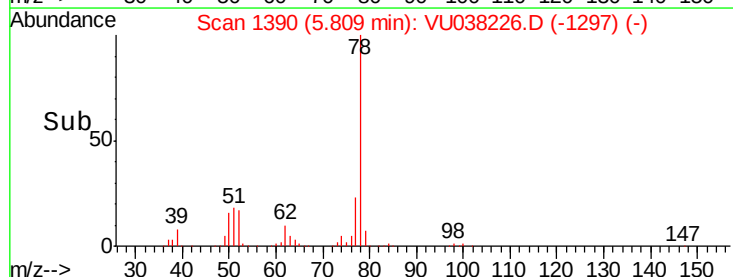
100000

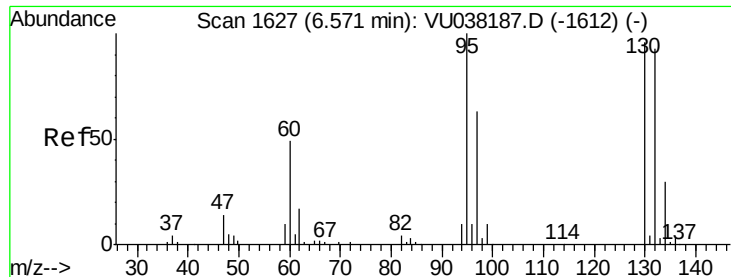
50000

0

Time-->

5.70 5.80 5.90

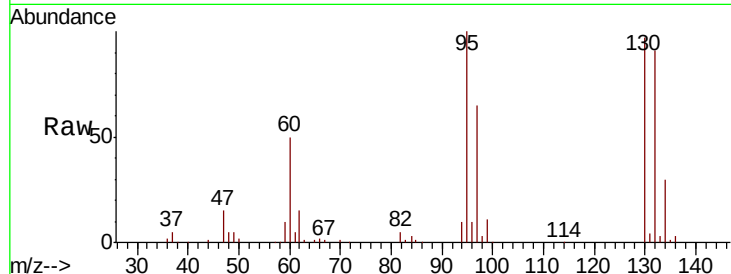




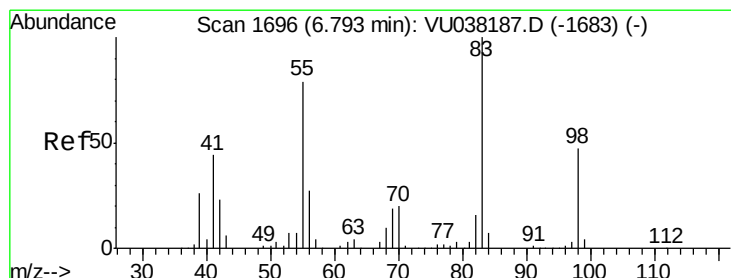
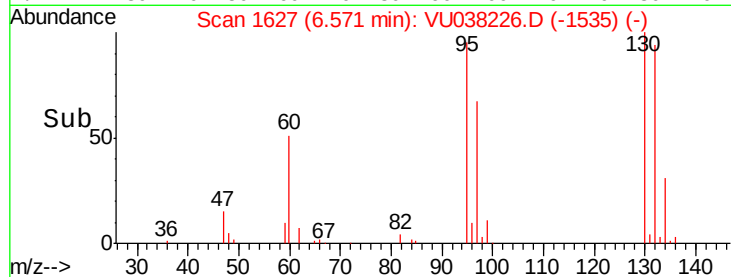
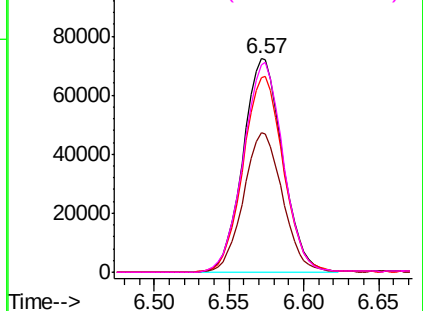
#34  
 Trichloroethene  
 Concen: 4.752 ug/L  
 RT: 6.57 min Scan# 1627  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion: 95 Resp: 133832  
 Ion Ratio Lower Upper  
 95 100  
 97 65.2 44.9 83.3  
 132 91.1 63.3 117.5  
 130 97.2 65.7 122.1

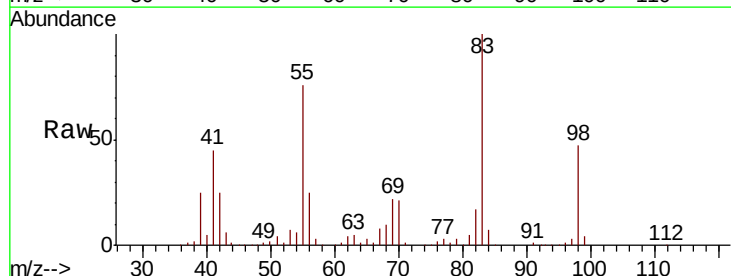


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 96.95 (96.65 to 97.65): VU0  
 Ion 131.95 (131.65 to 132.65): V  
 Ion 129.95 (129.65 to 130.65): V

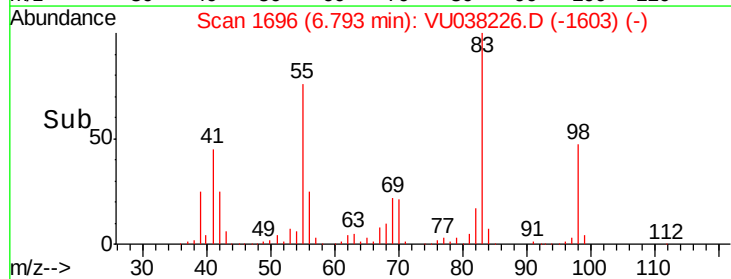
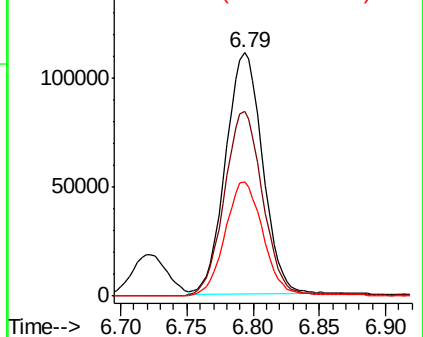


#35  
 Methylcyclohexane  
 Concen: 4.731 ug/L  
 RT: 6.79 min Scan# 1696  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

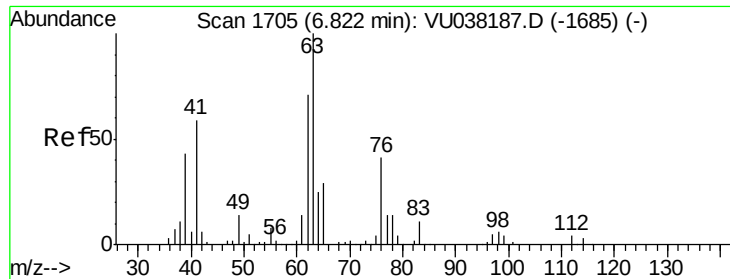
Tgt Ion: 83 Resp: 215874  
 Ion Ratio Lower Upper  
 83 100  
 55 79.0 66.7 100.1  
 98 48.4 39.4 59.2



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: 4.803 ug/L

RT: 6.82 min Scan# 1705

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

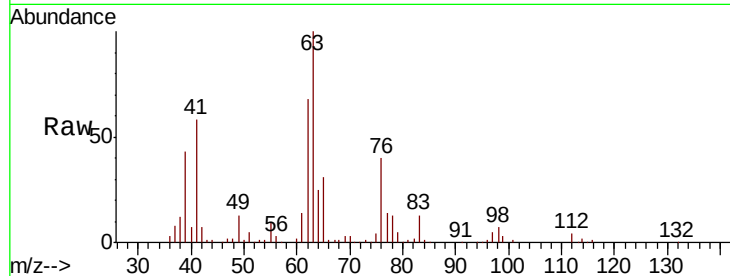
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 63 Resp: 146913

Ion Ratio Lower Upper

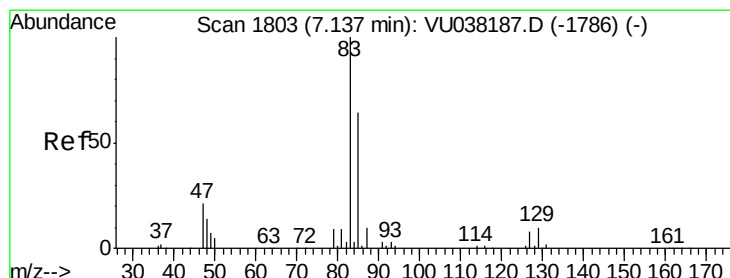
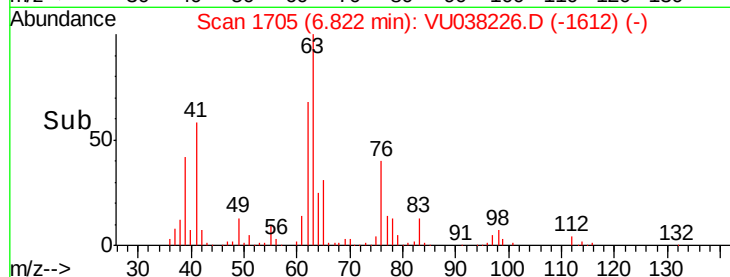
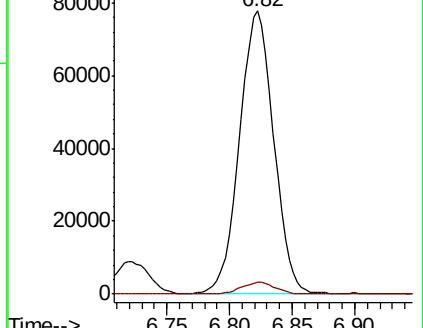
63 100

112 4.2 3.1 4.7



Abundance Ion 63.10 (62.80 to 63.80): VU038187.D (-1685) (-)

Ion 112.10 (111.80 to 112.80): VU038187.D (-1685) (-)



#38

Bromodichloromethane

Concen: 4.831 ug/L

RT: 7.13 min Scan# 1802

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

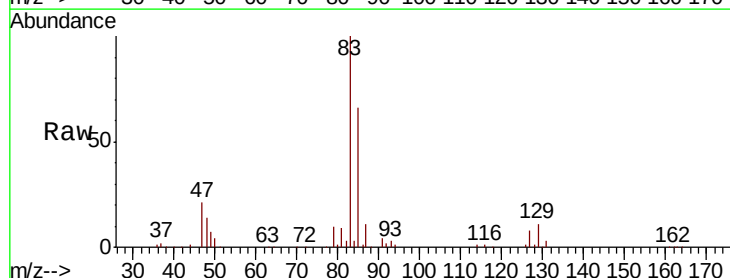
Tgt Ion: 83 Resp: 170816

Ion Ratio Lower Upper

83 100

85 65.7 44.6 82.8

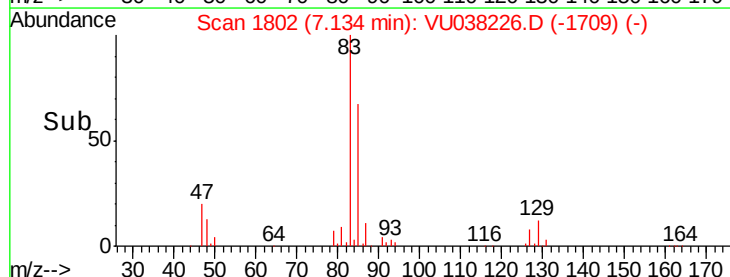
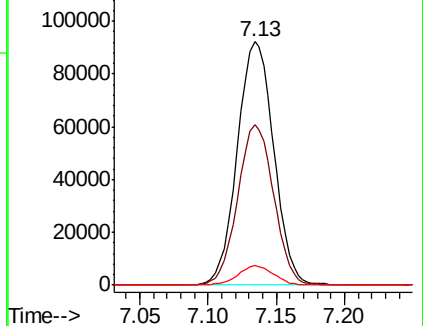
127 7.8 6.4 9.6

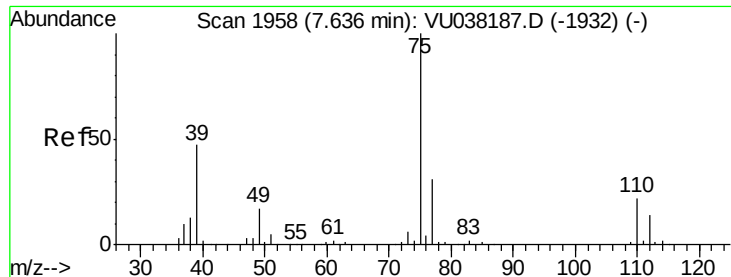


Abundance Ion 82.95 (82.65 to 83.65): VU038187.D (-1786) (-)

Ion 85.00 (84.70 to 85.70): VU038187.D (-1786) (-)

Ion 126.90 (126.60 to 127.60): VU038187.D (-1786) (-)

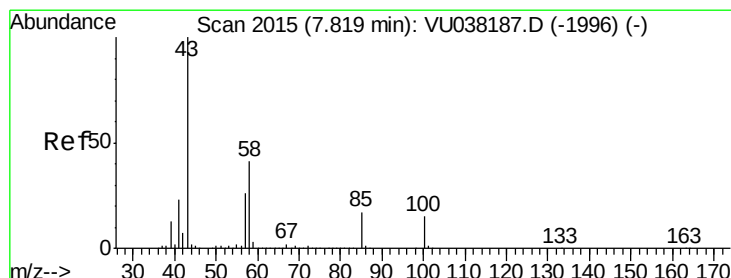
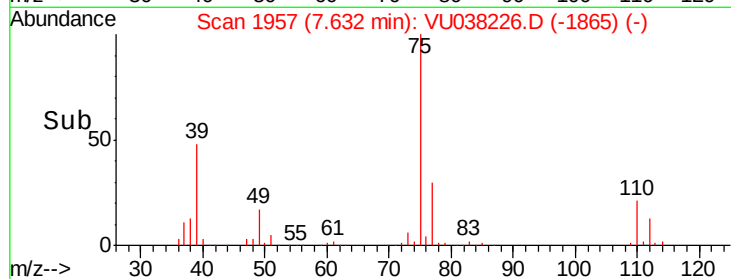
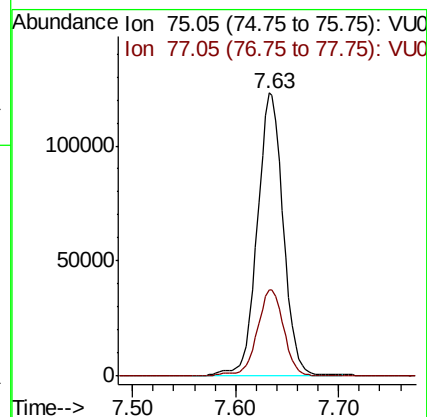
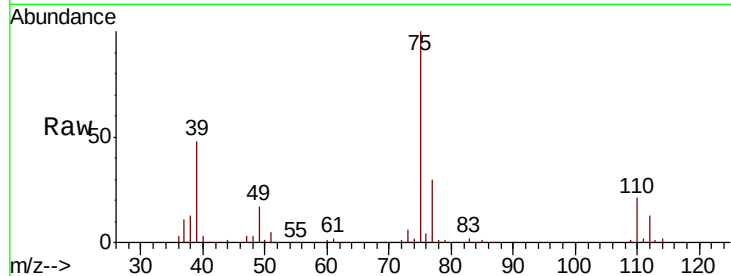




#39  
 cis-1,3-Dichloropropene  
 Concen: 4.891 ug/L  
 RT: 7.63 min Scan# 1957  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

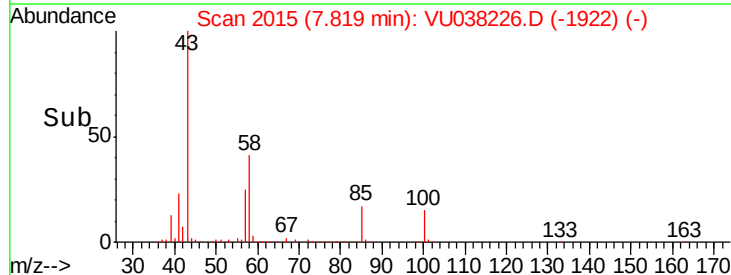
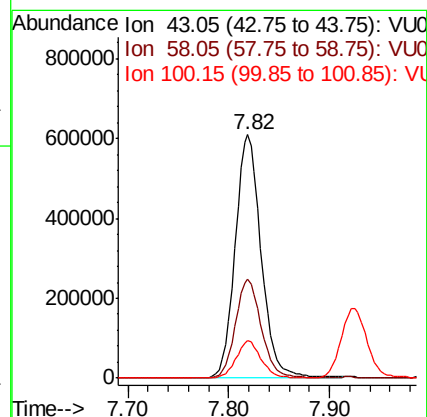
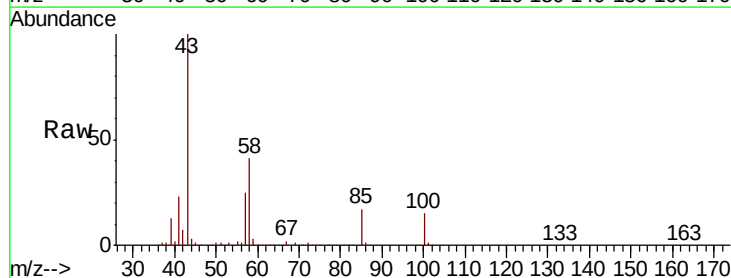
Instrument :  
 MSVOA\_U  
 ClientSampled :

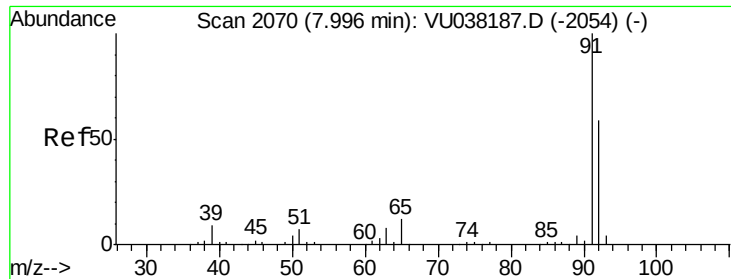
Tot Ion: 75 Resp: 214126  
 Ion Ratio Lower Upper  
 75 100  
 77 30.4 22.4 41.6



#40  
 4-Methyl-2-pentanone  
 Concen: 51.558 ug/L  
 RT: 7.82 min Scan# 2015  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Tgt Ion: 43 Resp: 1093037  
 Ion Ratio Lower Upper  
 43 100  
 58 40.5 32.2 48.4  
 100 14.9 12.1 18.1





#42

Toluene

Concen: 4.766 ug/L

RT: 8.00 min Scan# 2070

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

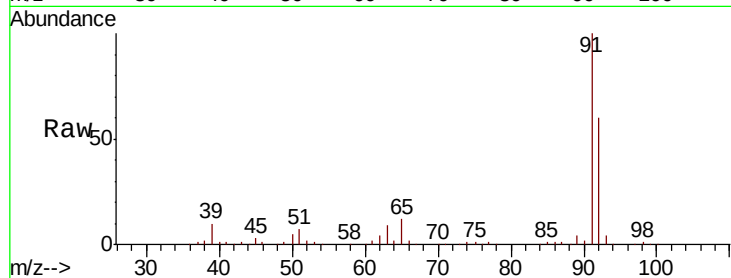
ClientSampleId :

Tot Ion: 91 Resp: 566521

Ion Ratio Lower Upper

91 100

92 59.9 40.9 75.9



Abundance Ion 91.15 (90.85 to 91.85): VU038187.D (-2054) (-)

Ion 92.15 (91.85 to 92.85): VU038187.D (-2054) (-)

8.00

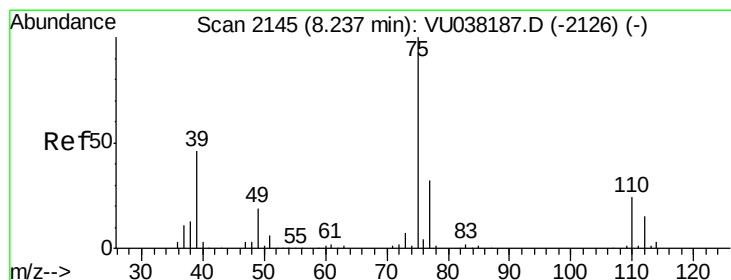
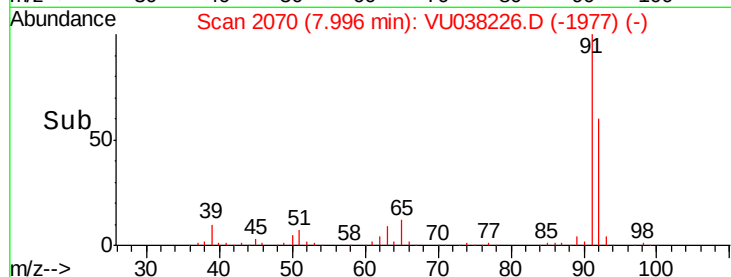
300000

200000

100000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 5.023 ug/L

RT: 8.23 min Scan# 2144

Delta R.T. -0.00 min

Lab File: VU038226.D

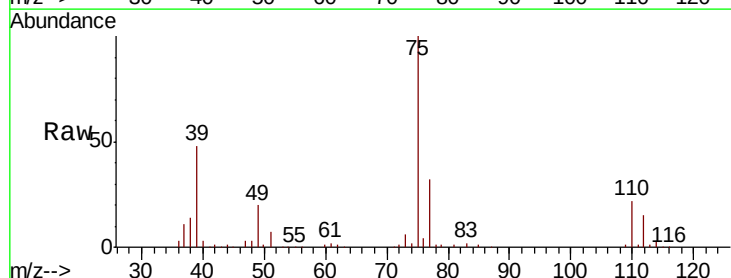
Acq: 19 May 2020 10:46

Tgt Ion: 75 Resp: 186987

Ion Ratio Lower Upper

75 100

77 31.6 22.4 41.6



Abundance Ion 75.05 (74.75 to 75.75): VU038187.D (-2126) (-)

Ion 77.05 (76.75 to 77.75): VU038187.D (-2126) (-)

8.23

120000

100000

80000

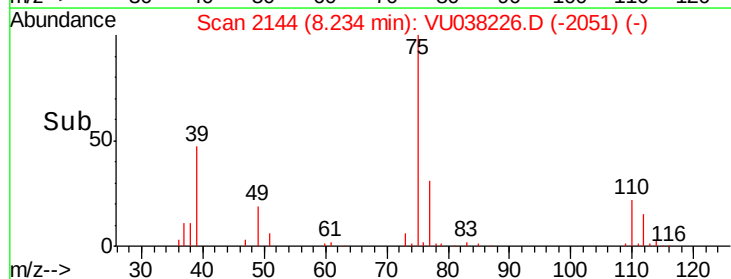
60000

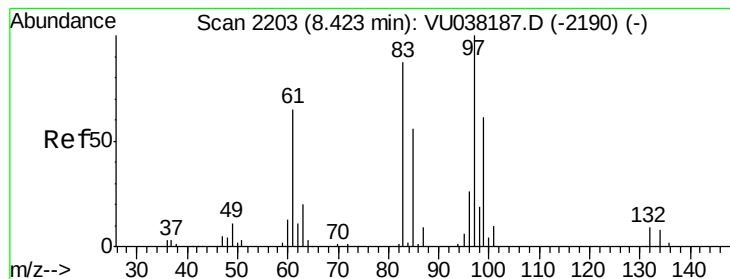
40000

20000

0

Time-->





#45

1,1,2-Trichloroethane

Concen: 4.924 ug/L

RT: 8.42 min Scan# 2203

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampled :

Tot Ion: 97 Resp: 104592

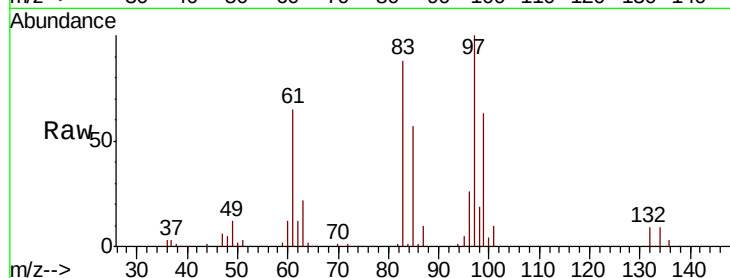
Ion Ratio Lower Upper

97 100

99 63.4 44.0 81.6

83 87.9 59.6 110.8

85 57.3 41.3 76.7

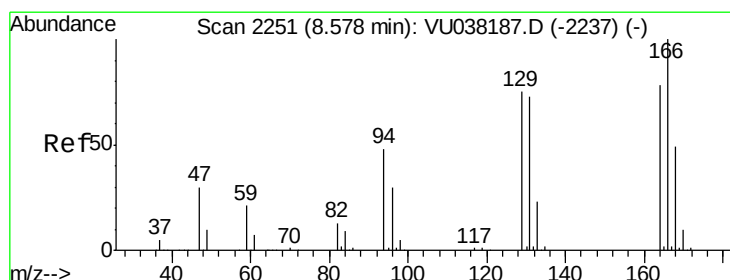
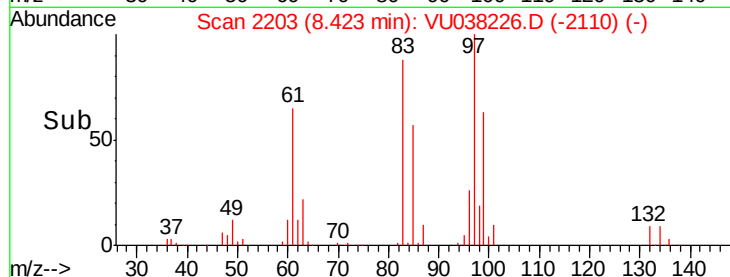
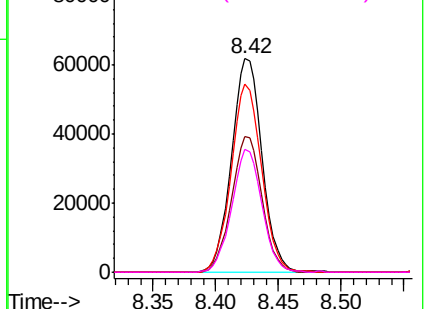


Abundance Ion 96.95 (96.65 to 97.65): VU0

Ion 99.05 (98.75 to 99.75): VU0

Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0



#47

Tetrachloroethene

Concen: 4.831 ug/L

RT: 8.57 min Scan# 2250

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Tgt Ion: 164 Resp: 95176

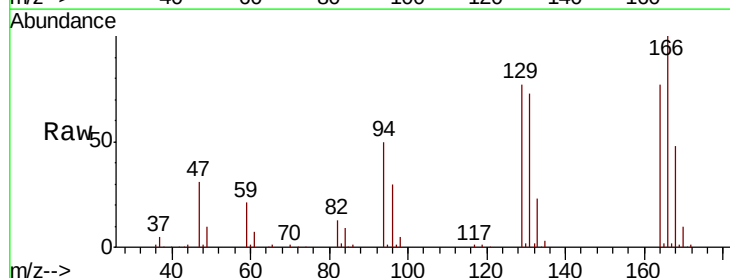
Ion Ratio Lower Upper

164 100

129 100.0 68.8 127.8

131 94.6 66.8 124.2

166 130.2 88.9 165.1

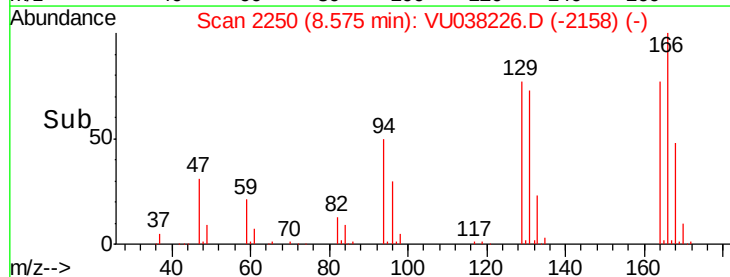
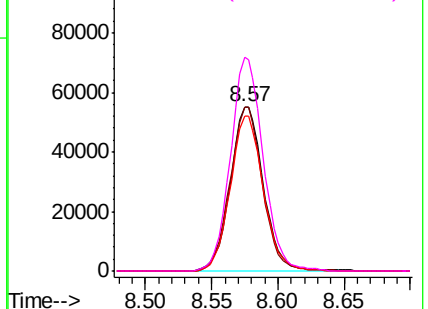


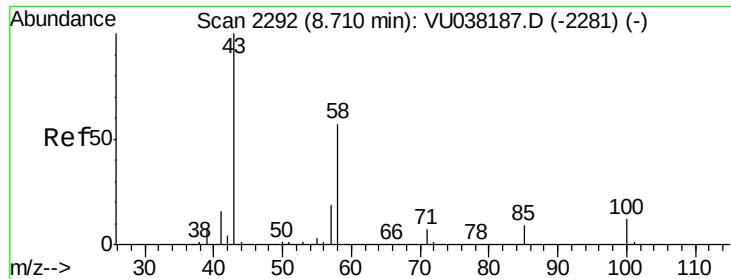
Abundance Ion 163.90 (163.60 to 164.60): V

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

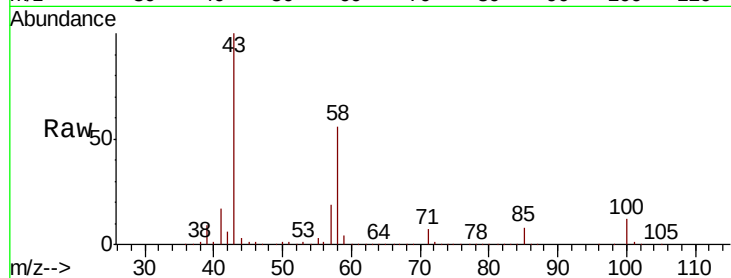




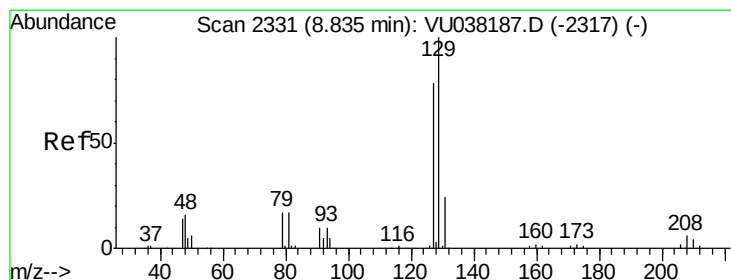
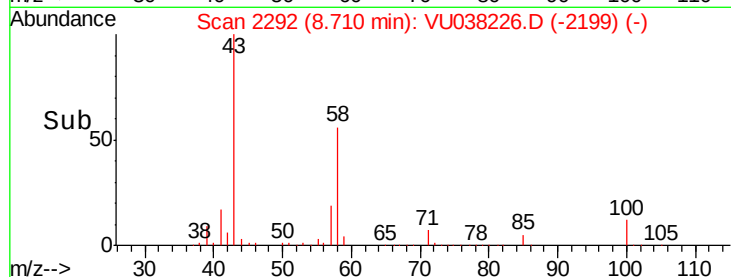
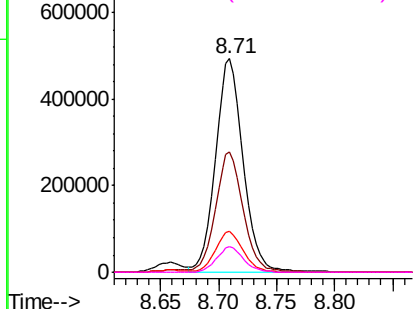
#48  
2-Hexanone  
Concen: 52.792 ug/L  
RT: 8.71 min Scan# 2292  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 819648  
Ion Ratio Lower Upper  
43 100  
58 56.9 45.2 67.8  
57 19.2 15.5 23.3  
100 11.7 9.5 14.3

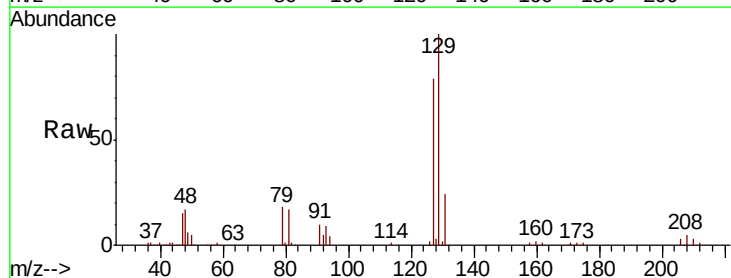


Abundance Ion 43.05 (42.75 to 43.75): VU0  
Ion 58.05 (57.75 to 58.75): VU0  
Ion 57.20 (56.90 to 57.90): VU0  
Ion 100.15 (99.85 to 100.85): VU0

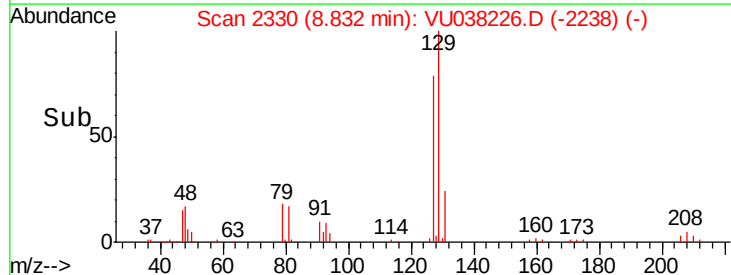
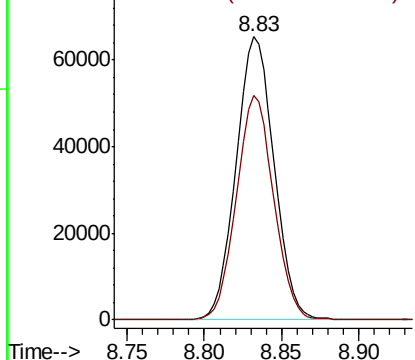


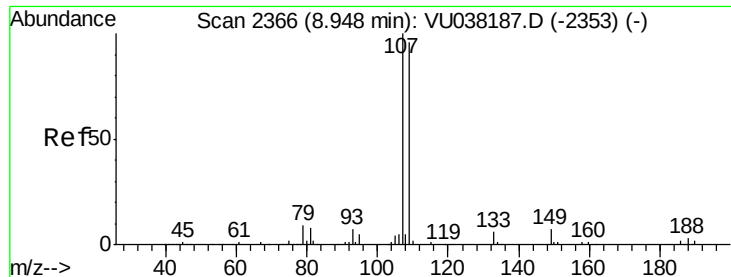
#49  
Dibromochloromethane  
Concen: 5.069 ug/L  
RT: 8.83 min Scan# 2330  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Tgt Ion: 129 Resp: 111754  
Ion Ratio Lower Upper  
129 100  
127 79.1 55.6 103.4



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V

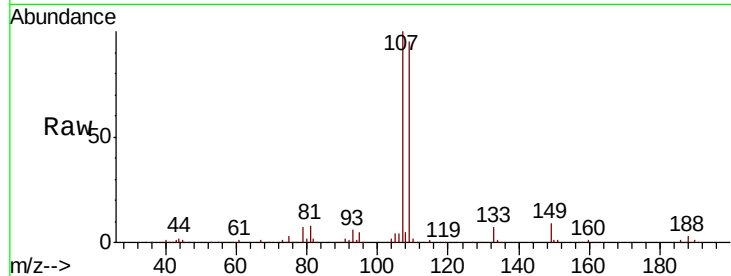




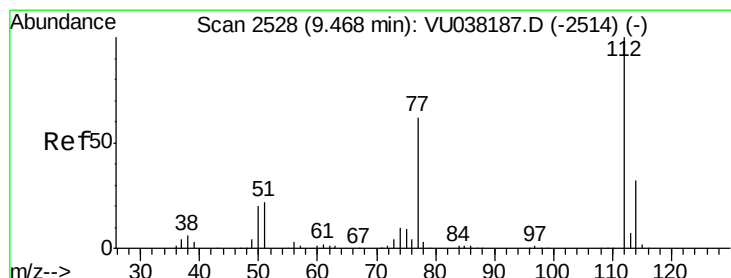
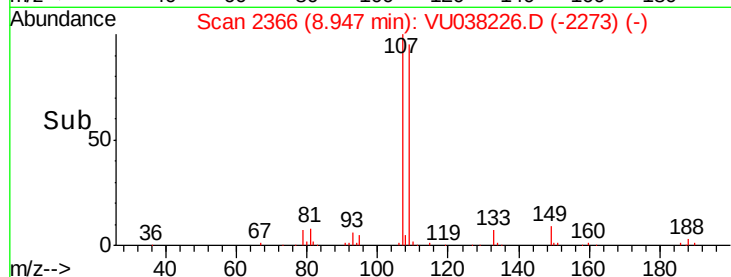
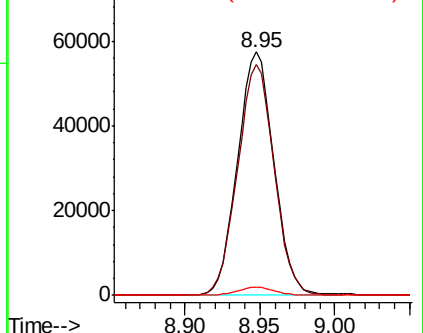
#50  
 1,2-Dibromoethane  
 Concen: 4.928 ug/L  
 RT: 8.95 min Scan# 2366  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion:107 Resp: 97160  
 Ion Ratio Lower Upper  
 107 100  
 109 94.9 65.1 120.9  
 188 3.4 2.6 4.0

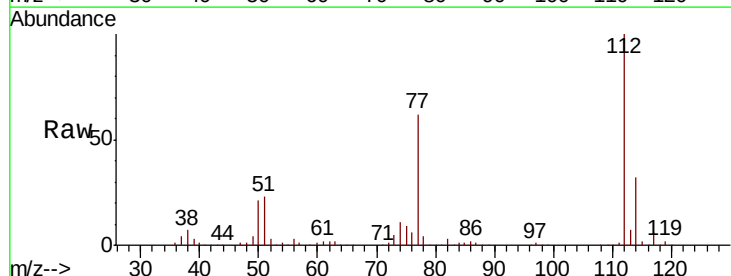


Abundance Ion 106.95 (106.65 to 107.65): V  
 Ion 109.00 (108.70 to 109.70): V  
 Ion 187.90 (187.60 to 188.60): V

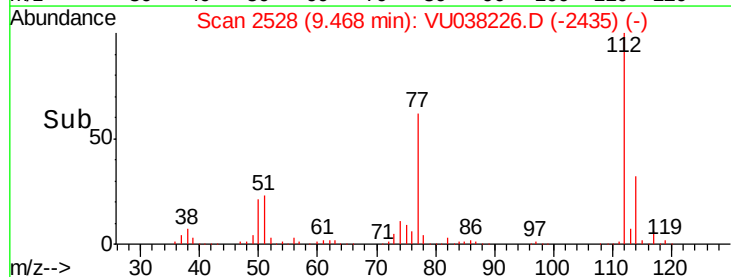
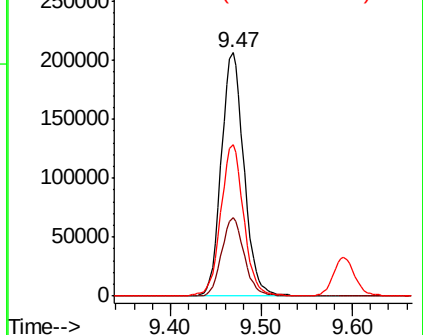


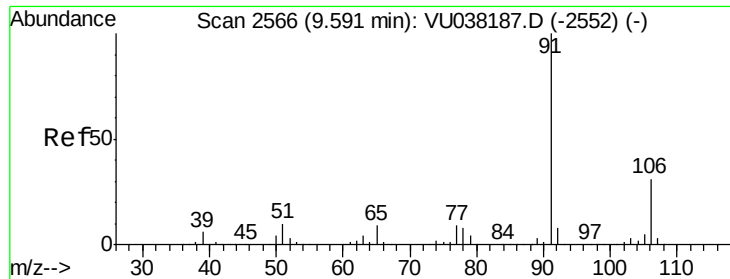
#51  
 Chlorobenzene  
 Concen: 4.840 ug/L  
 RT: 9.47 min Scan# 2528  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Tgt Ion:112 Resp: 357093  
 Ion Ratio Lower Upper  
 112 100  
 114 32.3 22.5 41.7  
 77 62.5 49.9 74.9



Abundance Ion 112.10 (111.80 to 112.80): V  
 Ion 114.05 (113.75 to 114.75): V  
 Ion 77.10 (76.80 to 77.80): VU0





#52

Ethylbenzene

Concen: 4.874 ug/L

RT: 9.59 min Scan# 2566

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

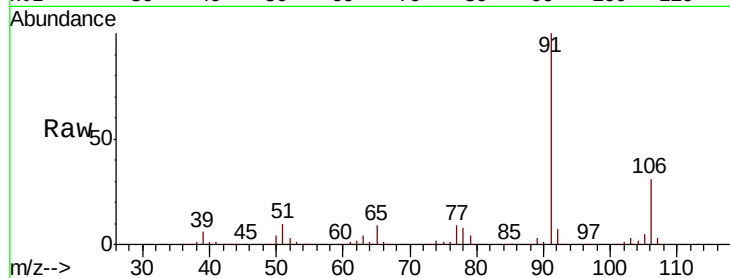
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 627700

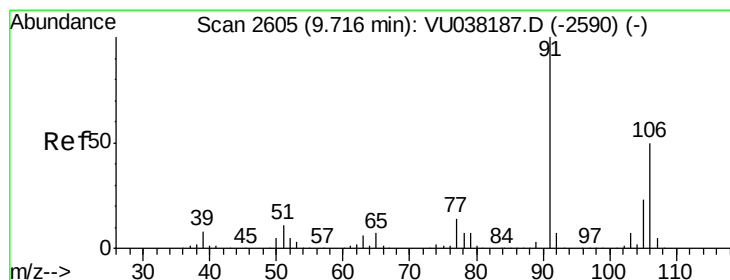
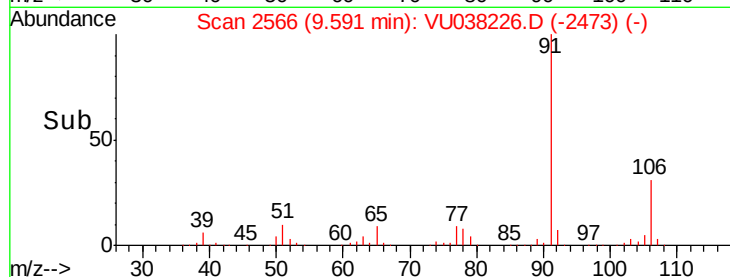
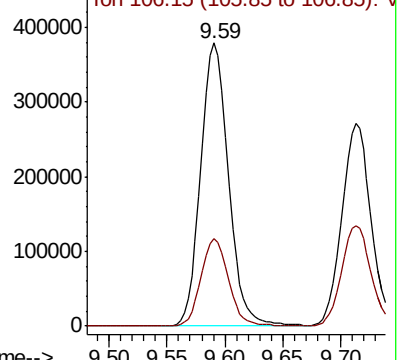
Ion Ratio Lower Upper

91 100

106 30.8 21.8 40.4



Abundance Ion 91.15 (90.85 to 91.85): VU038187.D (-2552) (-)



#53

m,p-Xylene

Concen: 4.868 ug/L

RT: 9.71 min Scan# 2604

Delta R.T. -0.00 min

Lab File: VU038226.D

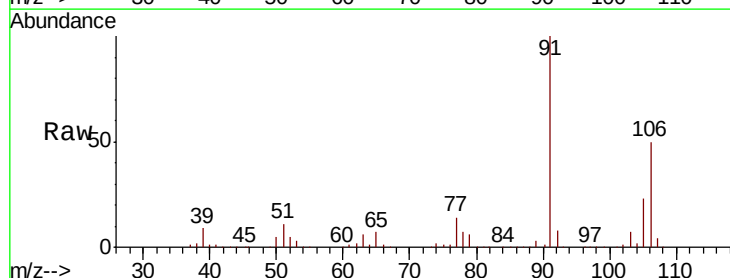
Acq: 19 May 2020 10:46

Tgt Ion: 106 Resp: 240379

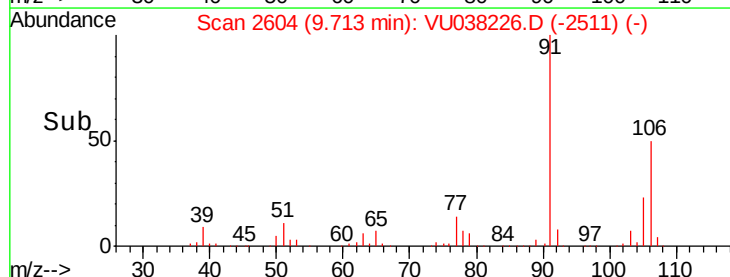
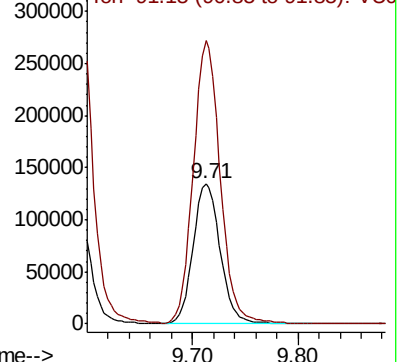
Ion Ratio Lower Upper

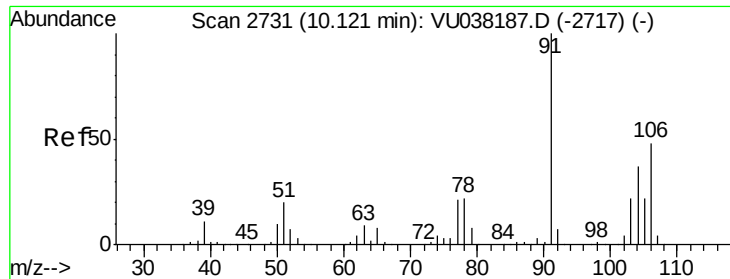
106 100

91 201.6 142.1 263.9



Abundance Ion 106.15 (105.85 to 106.85): VU038187.D (-2590) (-)

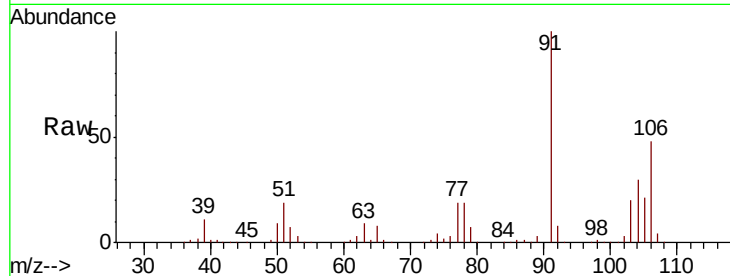




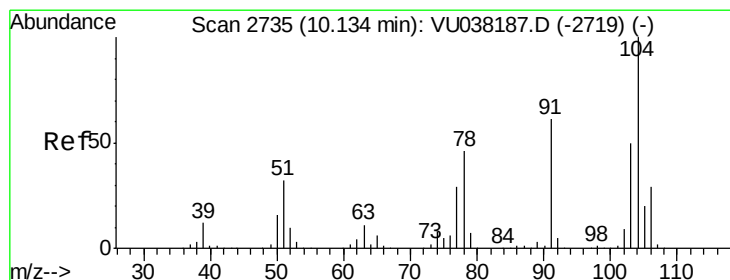
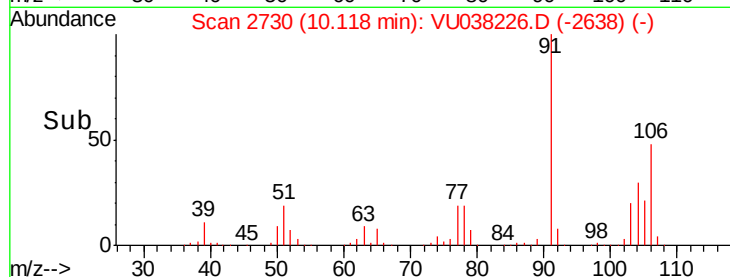
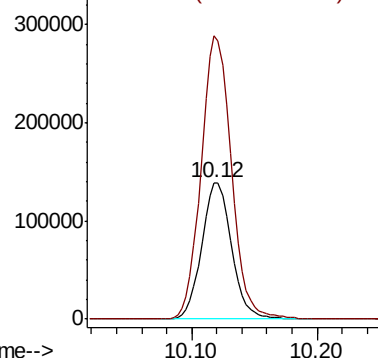
#54  
o-Xylene  
Concen: 4.829 ug/L  
RT: 10.12 min Scan# 2730  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 230526  
Ion Ratio Lower Upper  
106 100  
91 207.8 148.5 275.9

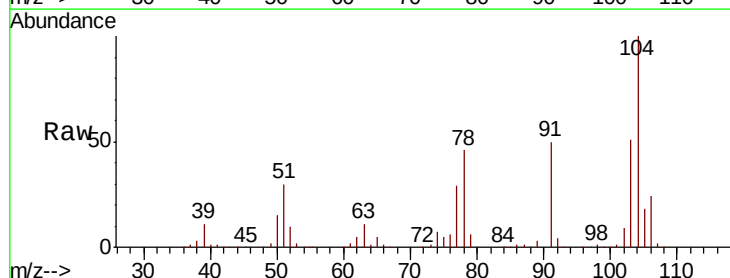


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

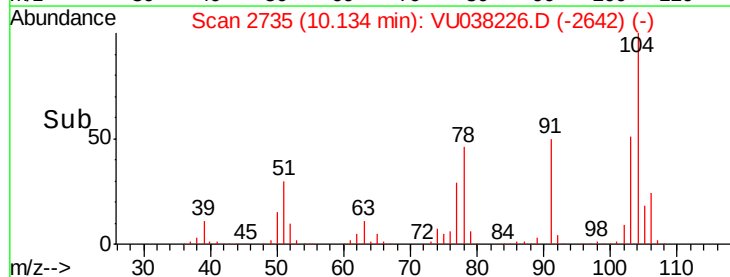
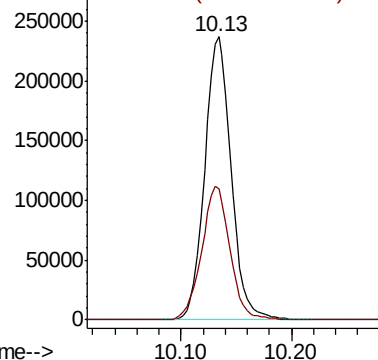


#55  
Styrene  
Concen: 4.914 ug/L  
RT: 10.13 min Scan# 2735  
Delta R.T. -0.00 min  
Lab File: VU038226.D  
Acq: 19 May 2020 10:46

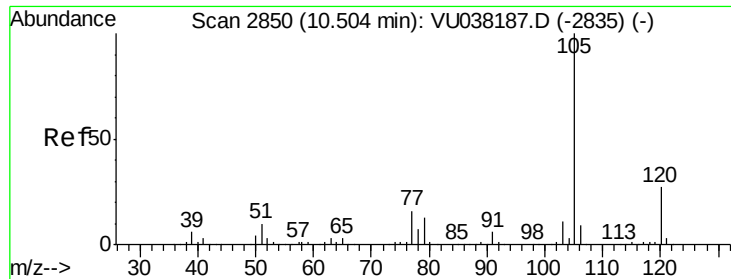
Tgt Ion:104 Resp: 393795  
Ion Ratio Lower Upper  
104 100  
78 46.4 32.3 59.9



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0







#56

Isopropylbenzene

Concen: 4.954 ug/L

RT: 10.50 min Scan# 2850

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampleId :

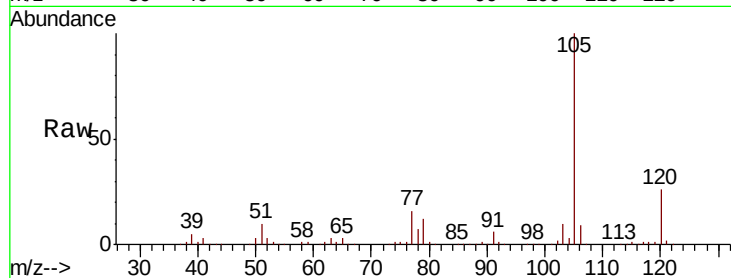
Tot Ion:105 Resp: 607545

Ion Ratio Lower Upper

105 100

120 26.1 21.0 31.6

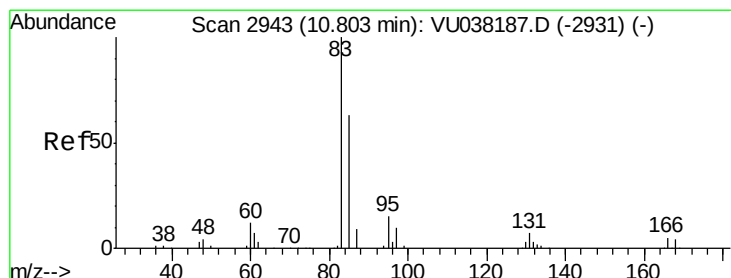
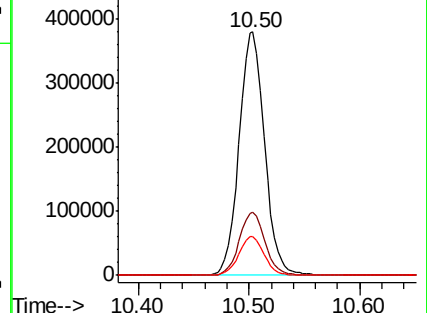
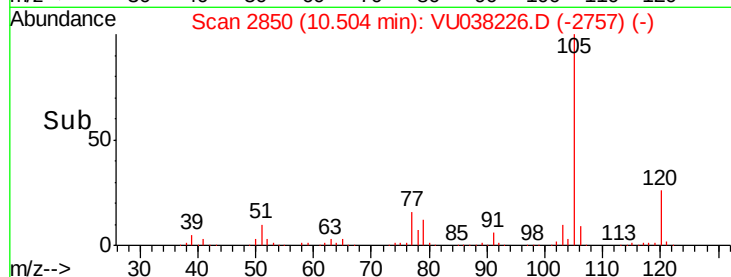
77 16.1 13.0 19.4



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 5.025 ug/L

RT: 10.80 min Scan# 2942

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

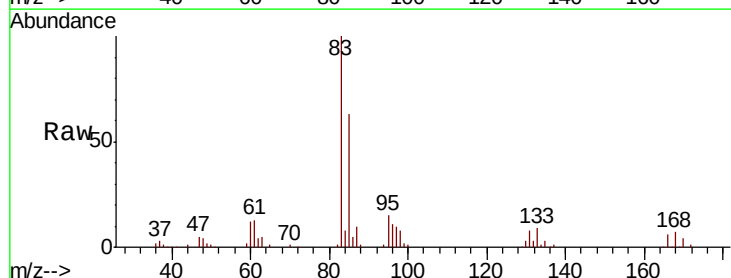
Tgt Ion: 83 Resp: 135516

Ion Ratio Lower Upper

83 100

85 63.2 47.0 87.2

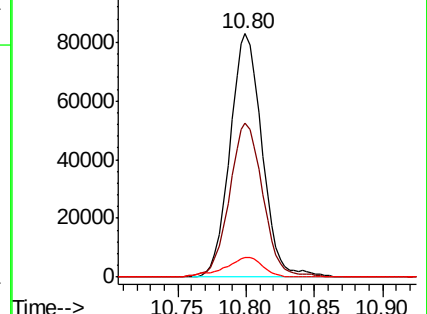
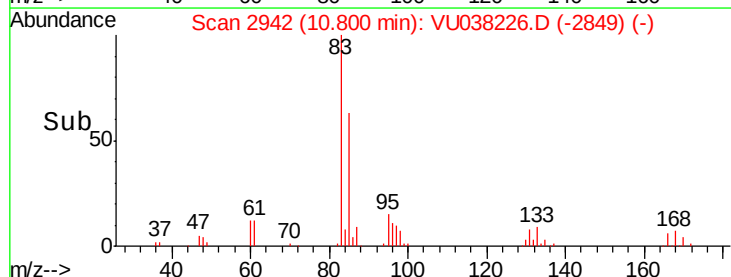
131 8.3 7.7 11.5

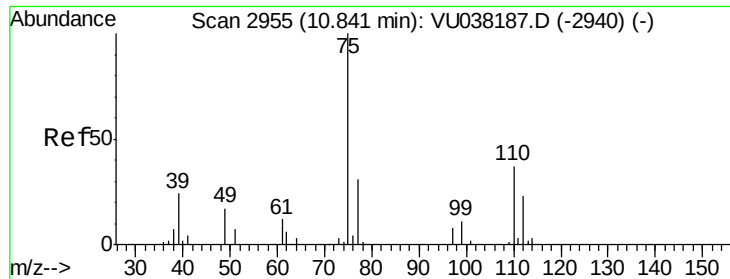


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.952 ug/L

RT: 10.84 min Scan# 2955

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

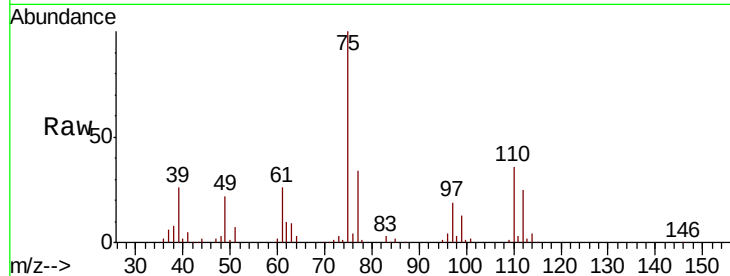
ClientSampleId :

Tot Ion: 75 Resp: 101673

Ion Ratio Lower Upper

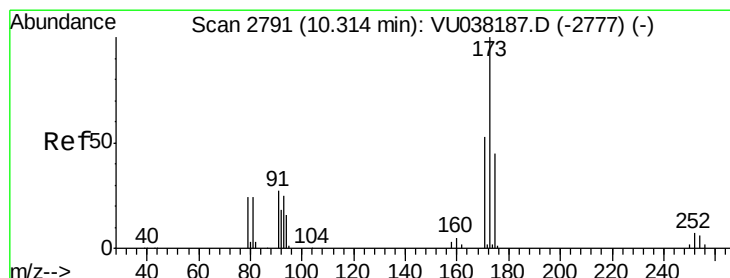
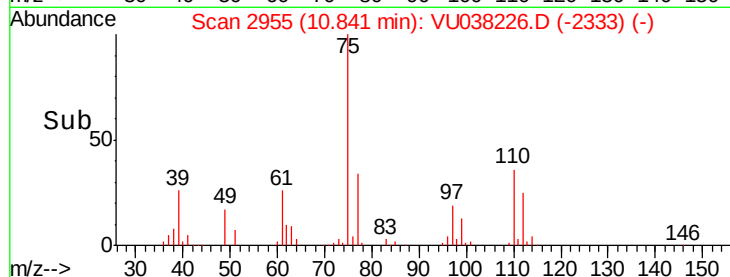
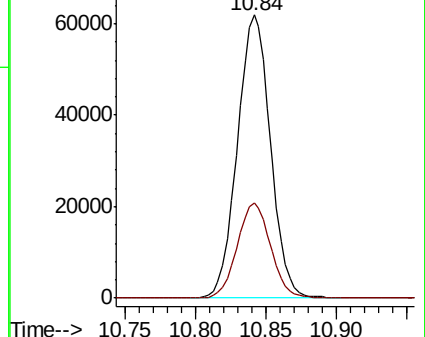
75 100

77 33.9 25.4 38.0



Abundance Ion 75.00 (74.70 to 75.70): VU038187.D (-2940) (-)

Ion 77.00 (76.70 to 77.70): VU038187.D (-2940) (-)



#61

Bromoform

Concen: 4.990 ug/L

RT: 10.31 min Scan# 2790

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

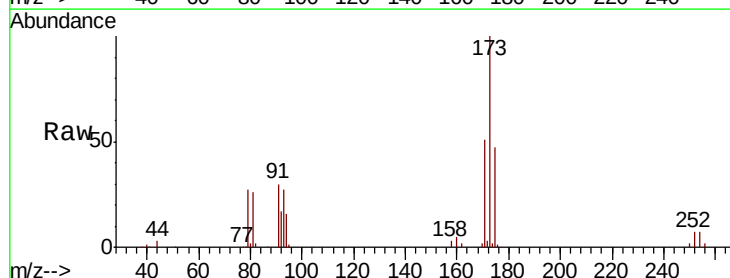
Tgt Ion: 173 Resp: 58924

Ion Ratio Lower Upper

173 100

175 47.6 39.5 59.3

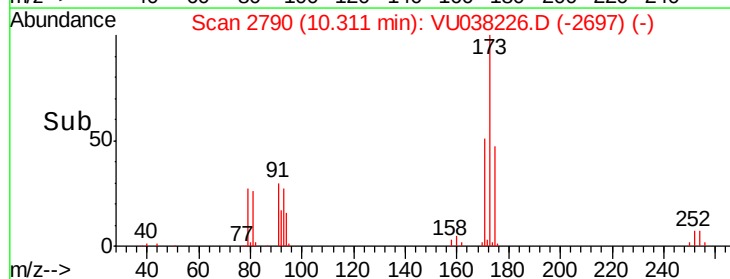
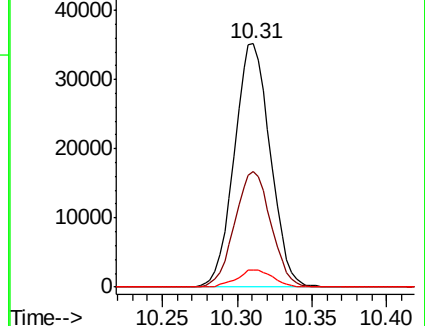
254 7.1 5.0 7.4

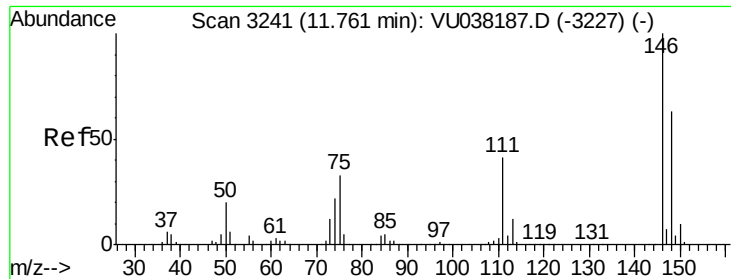


Abundance Ion 172.90 (172.60 to 173.60): VU038187.D (-2777) (-)

Ion 174.90 (174.60 to 175.60): VU038187.D (-2777) (-)

Ion 253.75 (253.45 to 254.45): VU038187.D (-2777) (-)

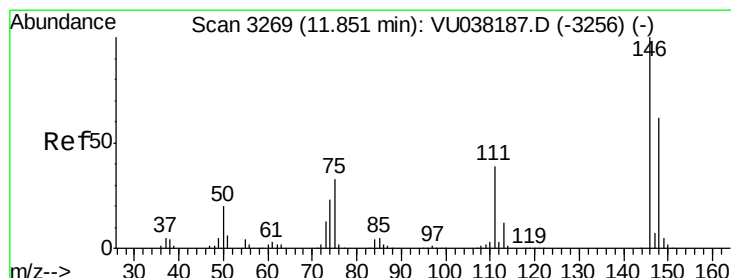
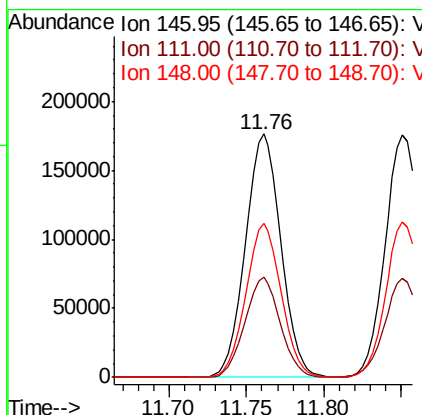
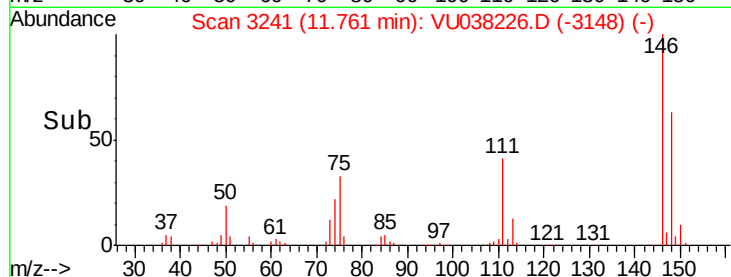
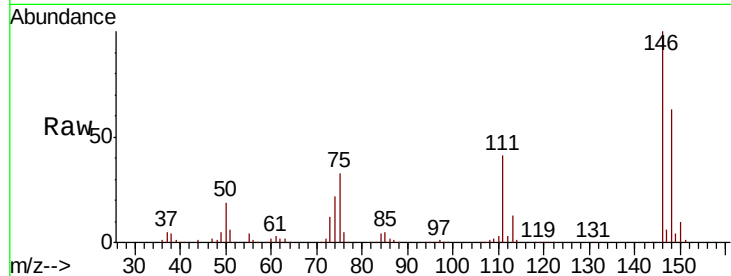




#62  
 1,3-Dichlorobenzene  
 Concen: 4.966 ug/L  
 RT: 11.76 min Scan# 3241  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

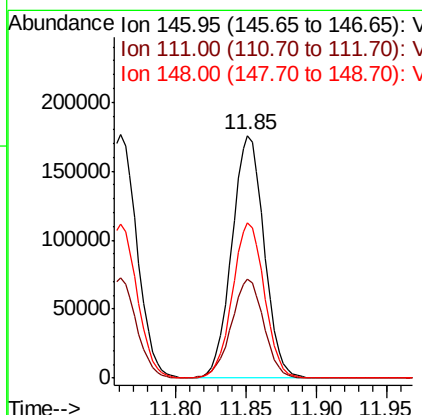
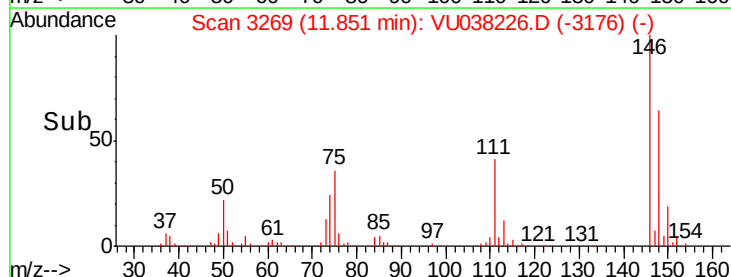
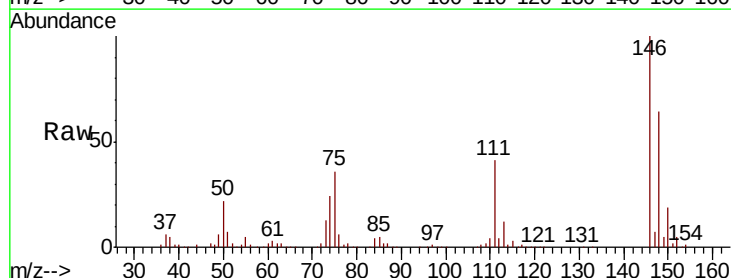
Instrument :  
 MSVOA\_U  
 ClientSampled :

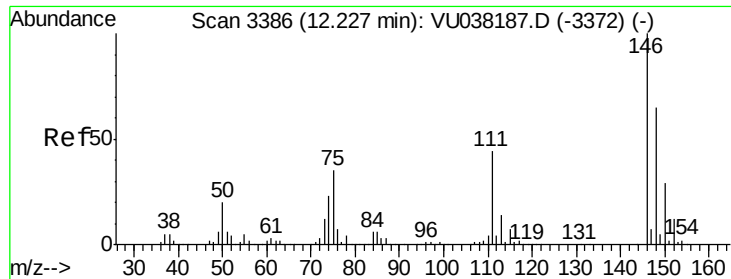
Tot Ion:146 Resp: 282246  
 Ion Ratio Lower Upper  
 146 100  
 111 41.0 28.6 53.2  
 148 63.3 45.2 84.0



#63  
 1,4-Dichlorobenzene  
 Concen: 4.881 ug/L  
 RT: 11.85 min Scan# 3269  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Tgt Ion:146 Resp: 281091  
 Ion Ratio Lower Upper  
 146 100  
 111 40.6 27.2 50.6  
 148 63.9 43.8 81.3





#65

1,2-Dichlorobenzene

Concen: 4.936 ug/L

RT: 12.23 min Scan# 3386

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampled :

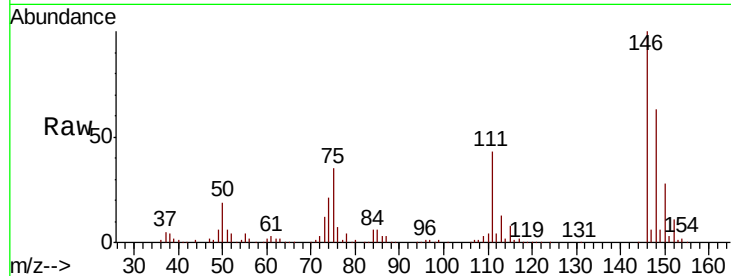
Tot Ion:146 Resp: 269915

Ion Ratio Lower Upper

146 100

111 42.9 35.3 52.9

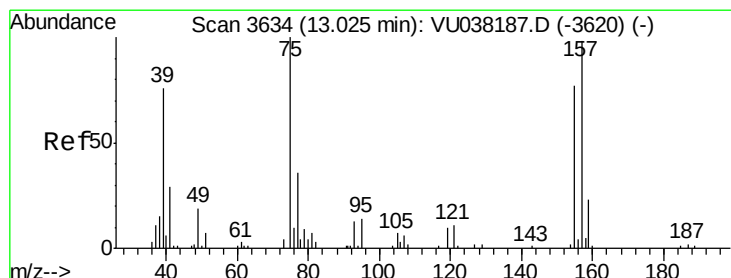
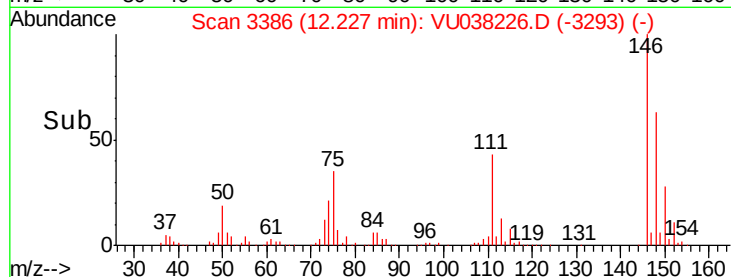
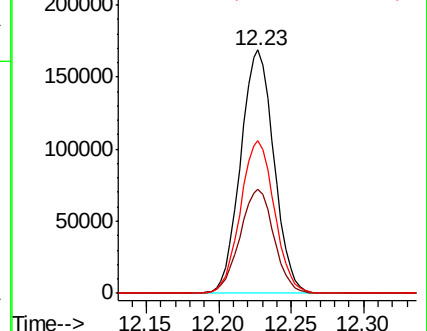
148 62.7 51.0 76.4



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 5.088 ug/L

RT: 13.02 min Scan# 3633

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

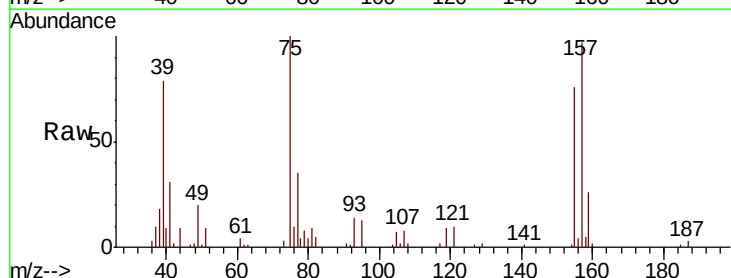
Tgt Ion: 75 Resp: 22740

Ion Ratio Lower Upper

75 100

155 76.2 58.2 87.2

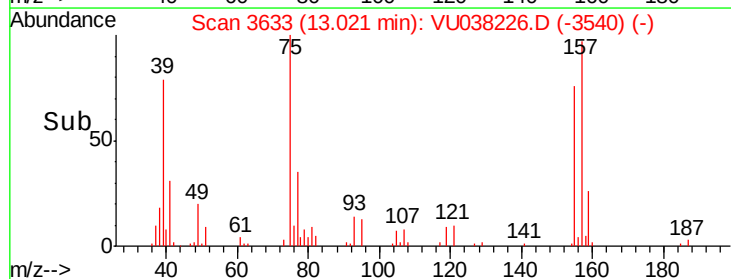
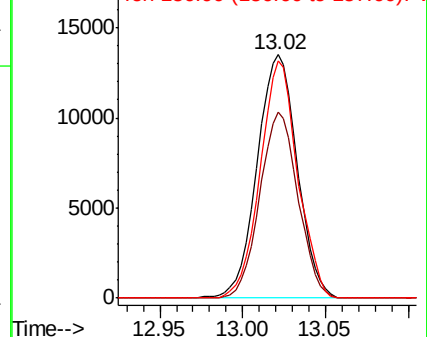
157 97.4 72.9 109.3

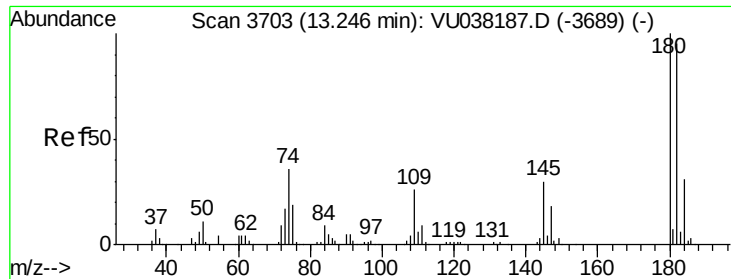


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

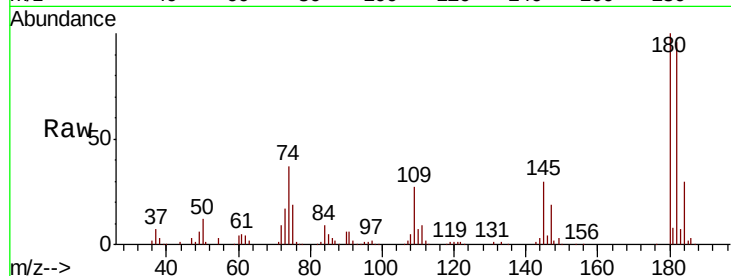




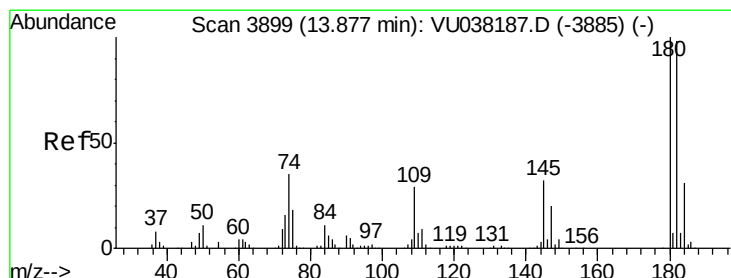
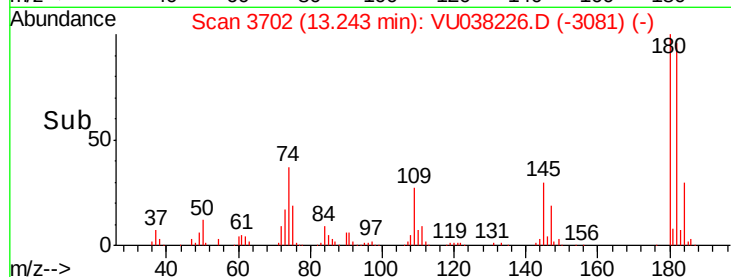
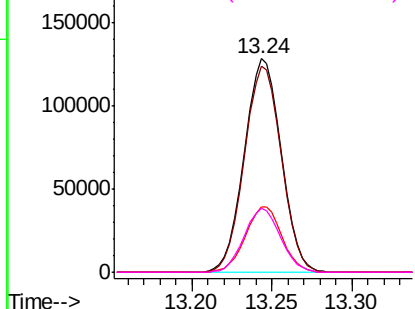
#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.884 ug/L  
 RT: 13.24 min Scan# 3702  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

Instrument :  
 MSVOA\_U  
 ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 180   | Resp: | 201430 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.5  | 77.4  | 116.2  |
| 184      | 30.3  | 24.2  | 36.2   |
| 145      | 29.4  | 24.0  | 36.0   |

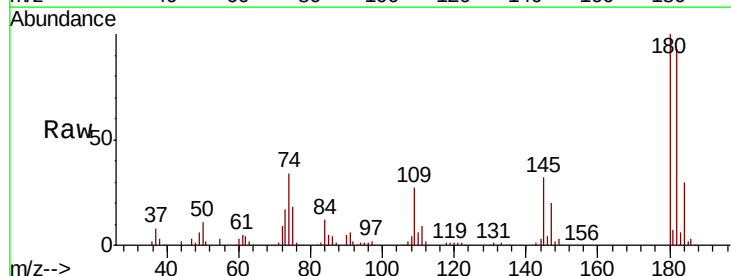


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

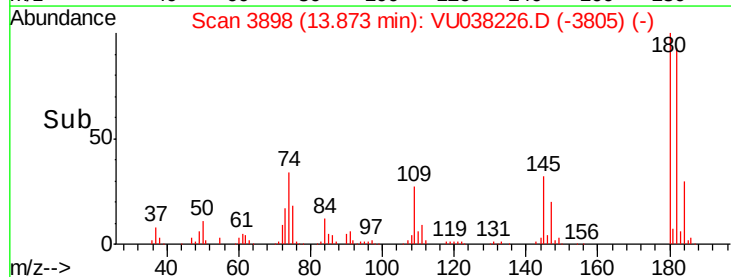
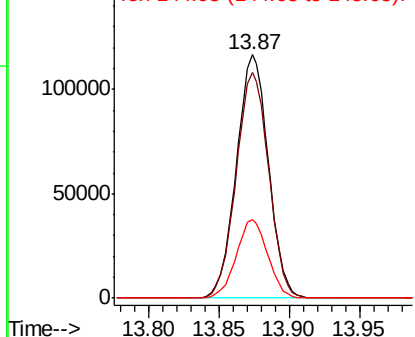


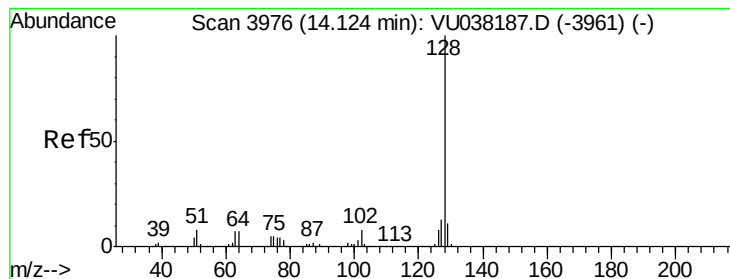
#68  
 1,2,4-trichlorobenzene  
 Concen: 4.964 ug/L  
 RT: 13.87 min Scan# 3898  
 Delta R.T. -0.00 min  
 Lab File: VU038226.D  
 Acq: 19 May 2020 10:46

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 185665 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 94.3  | 75.0  | 112.6  |
| 145      | 31.6  | 24.8  | 37.2   |



Abundance Ion 179.90 (179.60 to 180.60): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 4.904 ug/L

RT: 14.12 min Scan# 3975

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

Instrument :

MSVOA\_U

ClientSampleId :

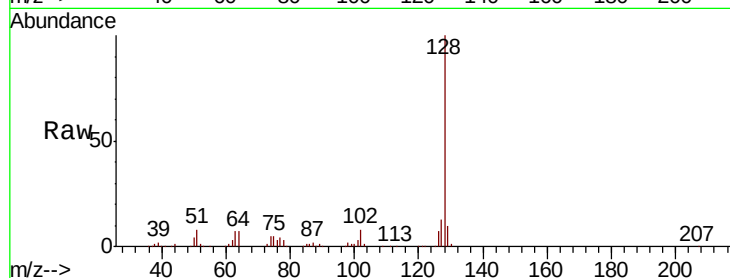
Tot Ion:128 Resp: 386197

Ion Ratio Lower Upper

128 100

129 10.5 8.7 13.1

127 13.3 10.2 15.4



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

300000

250000

200000

150000

100000

50000

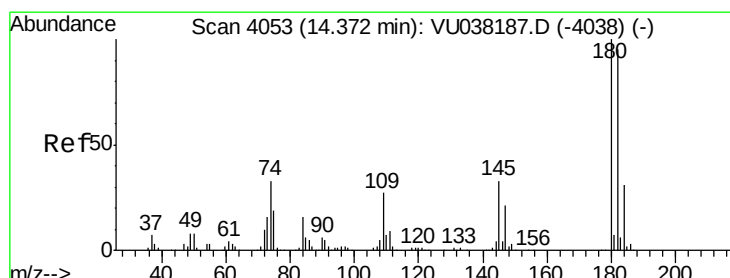
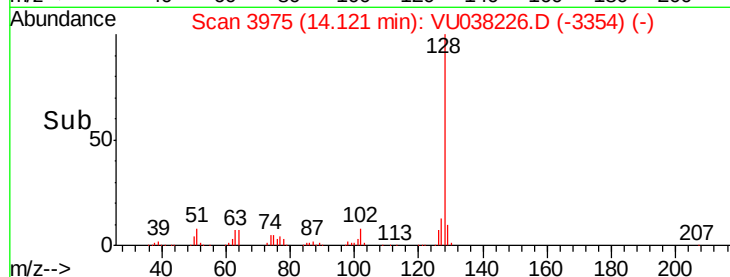
0

14.12

14.10

14.20

Time-->



#70

1,2,3-Trichlorobenzene

Concen: 4.949 ug/L

RT: 14.37 min Scan# 4052

Delta R.T. -0.00 min

Lab File: VU038226.D

Acq: 19 May 2020 10:46

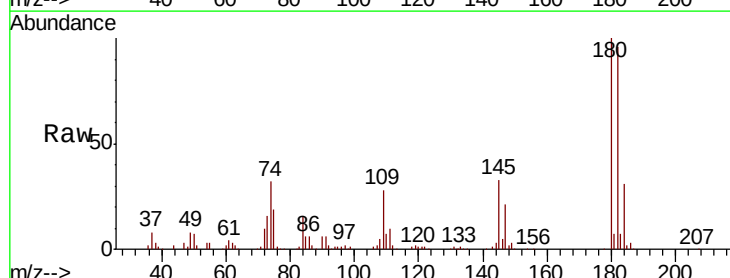
Tgt Ion:180 Resp: 172066

Ion Ratio Lower Upper

180 100

182 94.4 76.3 114.5

145 32.2 26.1 39.1



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

100000

50000

0

14.37

14.30

14.40

Time-->

