

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VW031723\  
 Data File : VW030237.D  
 Acq On : 17 Mar 2023 15:49  
 Operator : SY/MD  
 Sample : 01996-05  
 Misc : 25.0mL/MSVOA\_V/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: Mar 17 22:59:08 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR022323WMA.M  
 Quant Title : TRACE VOA SFAM1.0  
 QLast Update : Fri Mar 17 22:49:08 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min)  |
|-------------------------------|--------|-------|----------|----------|--------|-----------|
| -----                         |        |       |          |          |        |           |
| Internal Standards            |        |       |          |          |        |           |
| 1) 1,4-Difluorobenzene        | 5.545  | 114   | 130266   | 5.000    | ug/L   | 0.00      |
| 28) Chlorobenzene-d5          | 8.796  | 117   | 118735   | 5.000    | ug/L   | 0.00      |
| 58) 1,4-Dichlorobenzene-d4    | 11.194 | 152   | 59821    | 5.000    | ug/L   | 0.00      |
| System Monitoring Compounds   |        |       |          |          |        |           |
| 4) Vinyl Chloride-d3          | 1.281  | 65    | 32754    | 3.886    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 40 - 130 | Recovery | =      | 77.800%   |
| 7) Chloroethane-d5            | 1.539  | 69    | 30668    | 3.876    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 65 - 130 | Recovery | =      | 77.600%   |
| 11) 1,1-Dichloroethene-d2     | 2.076  | 63    | 721835   | 41.655   | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 60 - 125 | Recovery | =      | 833.200%# |
| 20) 2-Butanone-d5             | 3.812  | 46    | 80666    | 51.908   | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range | 40 - 130 | Recovery | =      | 103.820%  |
| 24) Chloroform-d              | 4.262  | 84    | 74580    | 4.332    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =      | 86.600%   |
| 26) 1,2-Dichloroethane-d4     | 4.953  | 65    | 36226    | 5.154    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =      | 103.000%  |
| 32) Benzene-d6                | 4.973  | 84    | 129090   | 4.040    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =      | 80.800%   |
| 36) 1,2-Dichloropropane-d6    | 5.998  | 67    | 41208    | 4.287    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 60 - 140 | Recovery | =      | 85.800%   |
| 41) Toluene-d8                | 7.252  | 98    | 114956   | 3.796    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =      | 76.000%   |
| 43) trans-1,3-Dichloroprop... | 7.564  | 79    | 14955    | 4.548    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 55 - 130 | Recovery | =      | 91.000%   |
| 46) 2-Hexanone-d5             | 8.037  | 63    | 66314    | 48.744   | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range | 45 - 130 | Recovery | =      | 97.480%   |
| 56) 1,1,2,2-Tetrachloroeth... | 10.162 | 84    | 27633    | 4.041    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 65 - 120 | Recovery | =      | 80.800%   |
| 66) 1,2-Dichlorobenzene-d4    | 11.570 | 152   | 43505    | 4.298    | ug/L   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 80 - 120 | Recovery | =      | 86.000%   |
| Target Compounds              |        |       |          |          |        |           |
|                               |        |       |          |          | Qvalue |           |
| 3) Chloromethane              | 1.220  | 50    | 3083     | 0.185    | ug/L   | 95        |
| 6) Bromomethane               | 1.490  | 94    | 319      | 0.160    | ug/L   | 85        |
| 10) 1,1,2-Trichloro-1,2,2-... | 2.076  | 101   | 3830     | 0.388    | ug/L # | 44        |
| 12) 1,1-Dichloroethene        | 2.076  | 96    | 1154414  | 132.051  | ug/L # | 71        |
| 19) 1,1-Dichloroethane        | 3.124  | 63    | 21305    | 1.375    | ug/L   | 95        |
| 22) cis-1,2-Dichloroethene    | 3.825  | 96    | 36301    | 3.949    | ug/L   | 91        |
| 25) Chloroform                | 4.288  | 83    | 66098    | 4.101    | ug/L   | 99        |
| 27) 1,2-Dichloroethane        | 5.066  | 62    | 1109     | 0.132    | ug/L # | 71        |
| 29) 1,1,1-Trichloroethane     | 4.526  | 97    | 158035   | 11.330   | ug/L   | 96        |
| 31) Carbon tetrachloride      | 4.747  | 117   | 60332    | 4.812    | ug/L   | 97        |
| 33) Benzene                   | 5.024  | 78    | 15611    | 0.481    | ug/L   | 100       |
| 34) Trichloroethene           | 5.844  | 95    | 3979269  | 437.938  | ug/L   | 94        |
| 35) Methylcyclohexane         | 5.998  | 83    | 9758     | 0.710    | ug/L # | 20        |
| 37) 1,2-Dichloropropane       | 5.998  | 63    | 5642     | 0.684    | ug/L # | 87        |
| 39) cis-1,3-Dichloropropene   | 6.924  | 75    | 1247     | 0.103    | ug/L # | 56        |
| 45) 1,1,2-Trichloroethane     | 7.940  | 97    | 268125   | 45.422   | ug/L # | 20        |
| 47) Tetrachloroethene         | 7.943  | 164   | 24659453 | 3161.685 | ug/L   | 85        |
| 49) Dibromochloromethane      | 7.943  | 129   | 24104233 | 3489.583 | ug/L # | 10        |
| 61) 1,2,3-Trichloropropane    | 11.127 | 75    | 1989     | 0.497    | ug/L # | 53        |

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Data File : VV030237.D  
Acq On : 17 Mar 2023 15:49  
Operator : SY/MD  
Sample : 01996-05  
Misc : 25.0mL/MSVOA\_V/WATER  
ALS Vial : 11 Sample Multiplier: 1

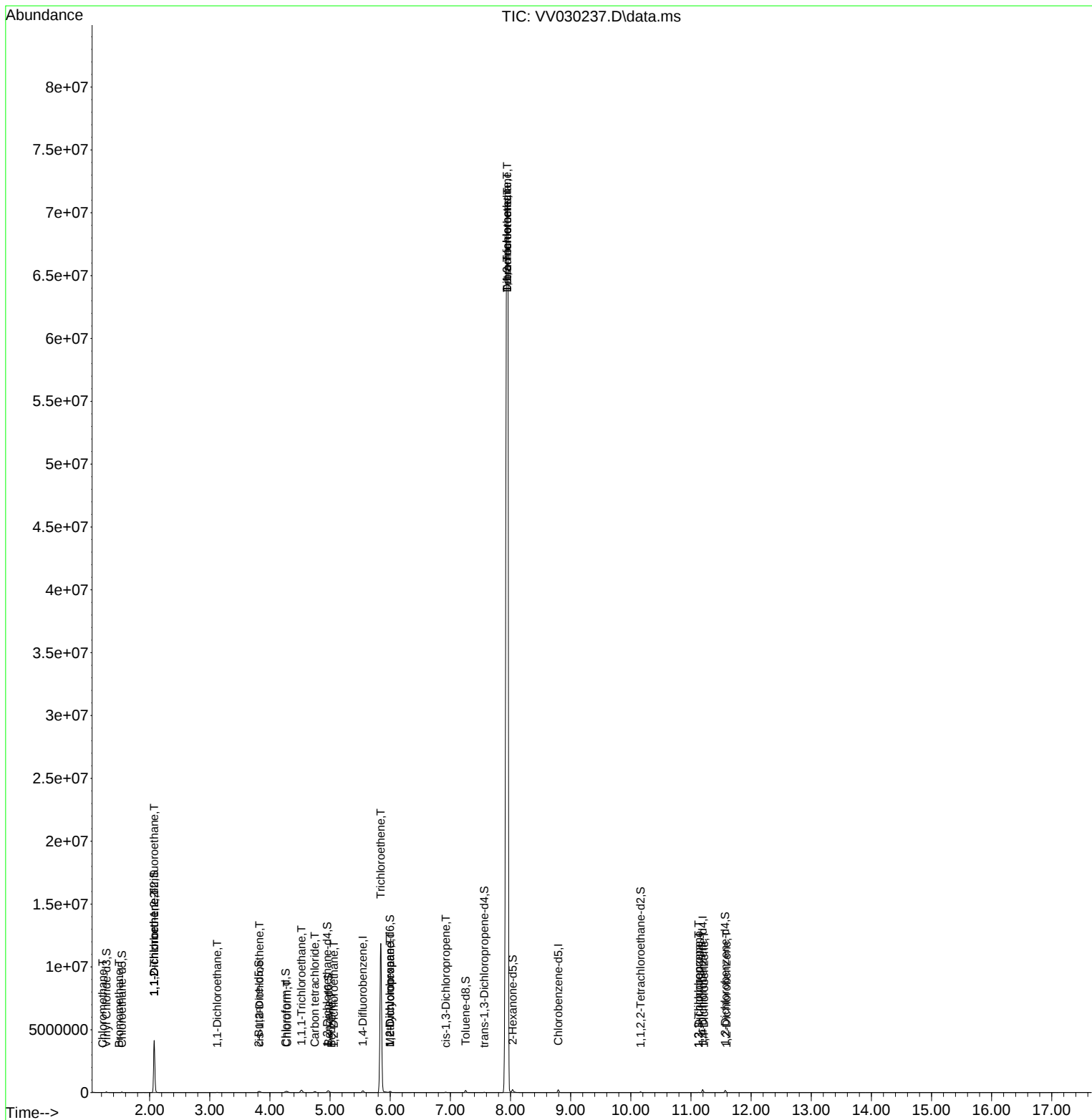
Instrument :  
MSVOA\_V  
ClientSampleId :

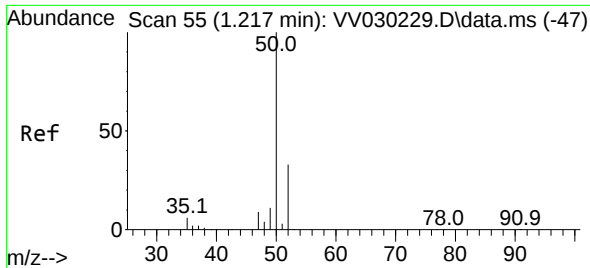
Quant Time: Mar 17 22:59:08 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR022323WMA.M  
Quant Title : TRACE VOA SFAM1.0  
QLast Update : Fri Mar 17 22:49:08 2023  
Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|--------|------|----------|-------|-------|----------|
| 64) 1,3-Dichlorobenzene | 11.127 | 146  | 6984     | 0.390 | ug/L  | 94       |
| 65) 1,4-Dichlorobenzene | 11.220 | 146  | 6026     | 0.333 | ug/L  | 97       |
| 67) 1,2-Dichlorobenzene | 11.590 | 146  | 8367     | 0.529 | ug/L  | 98       |

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

Quant Time: Mar 17 22:59:08 2023  
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Quant Title : TRACE VOA SFAM1.0  
QLast Update : Fri Mar 17 22:49:08 2023  
Response via : Initial Calibration

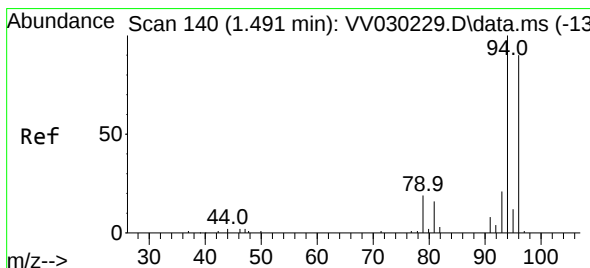
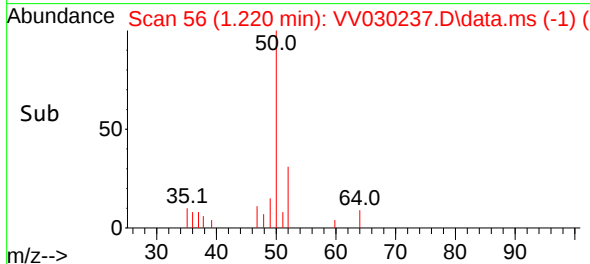
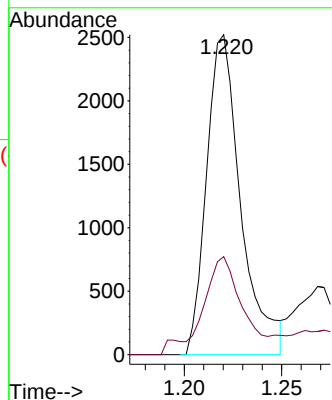
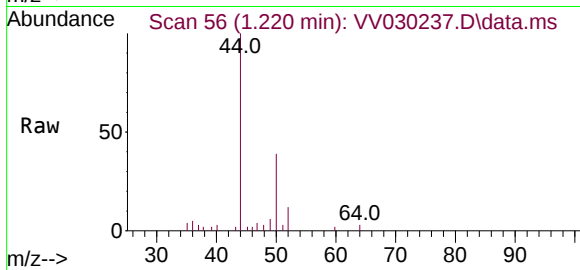




#3  
Chloromethane  
Concen: 0.185 ug/L  
RT: 1.220 min Scan# 50  
Delta R.T. 0.003 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

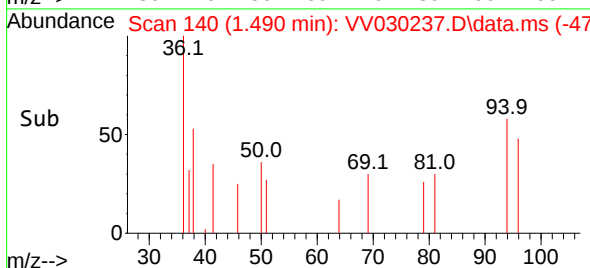
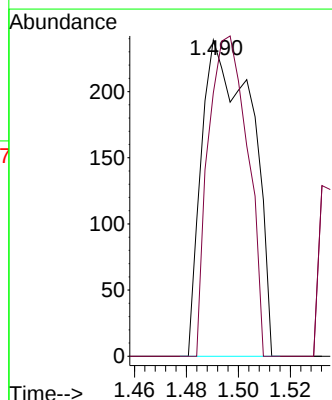
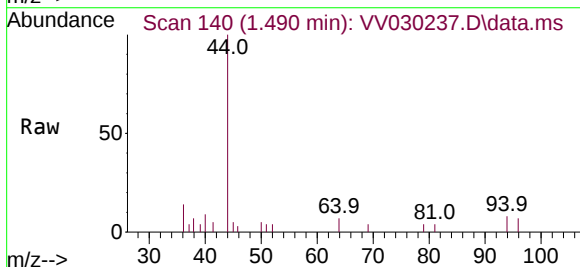
Instrument :  
MSVOA\_V  
ClientSampleId :

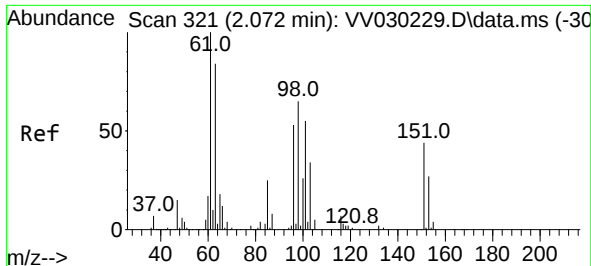
Tgt Ion: 50 Resp: 3083  
Ion Ratio Lower Upper  
50 100  
52 30.7 23.6 43.8



#6  
Bromomethane  
Concen: 0.160 ug/L  
RT: 1.490 min Scan# 140  
Delta R.T. -0.000 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Tgt Ion: 94 Resp: 319  
Ion Ratio Lower Upper  
94 100  
96 83.3 68.4 127.0

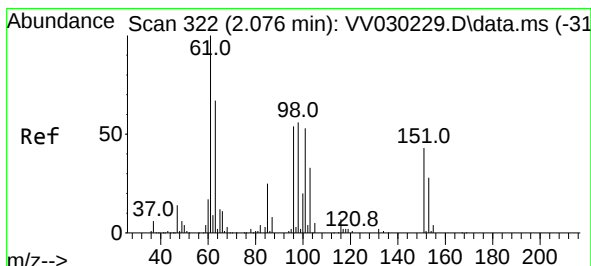
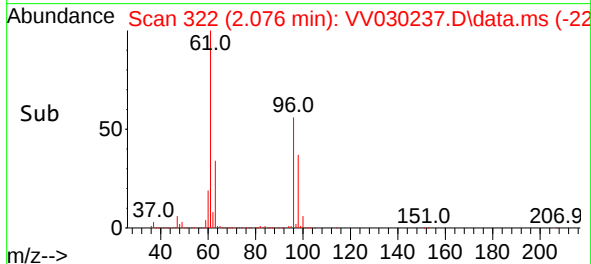
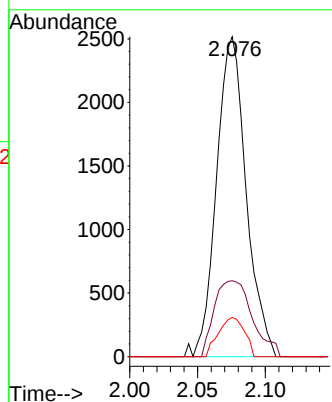
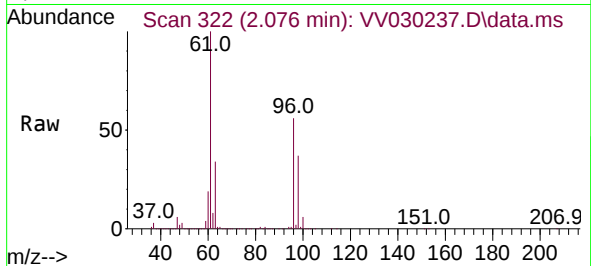




#10  
1,1,2-Trichloro-1,2,2-trifluoroethane  
Concen: 0.388 ug/L  
RT: 2.076 min Scan# 31  
Delta R.T. 0.003 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

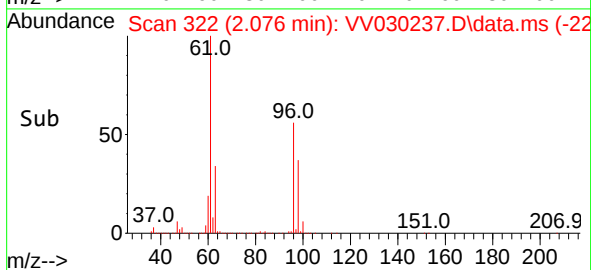
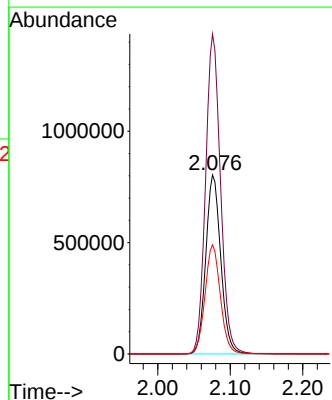
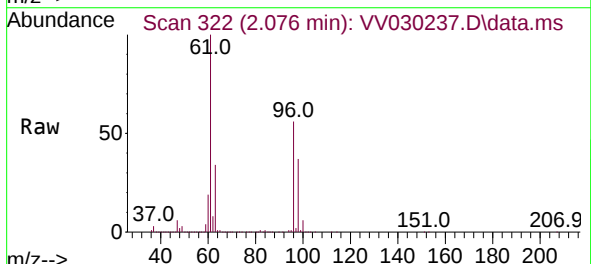
Instrument :  
MSVOA\_V  
ClientSampleId :

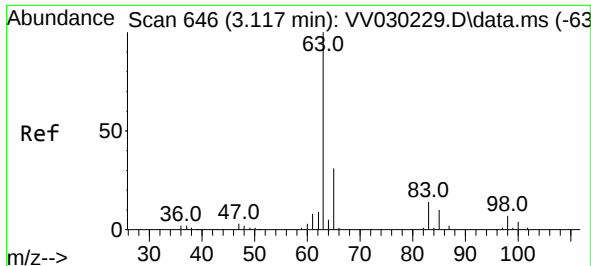
Tgt Ion:101 Resp: 3830  
Ion Ratio Lower Upper  
101 100  
85 30.3 33.5 50.3#  
151 10.8 61.6 92.4#



#12  
1,1-Dichloroethene  
Concen: 132.051 ug/L  
RT: 2.076 min Scan# 322  
Delta R.T. -0.000 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Tgt Ion: 96 Resp: 1154414  
Ion Ratio Lower Upper  
96 100  
61 178.7 115.6 214.6  
63 60.9 85.6 159.0#





#19

1,1-Dichloroethane

Concen: 1.375 ug/L

RT: 3.124 min Scan# 64

Delta R.T. 0.006 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

ClientSampleId :

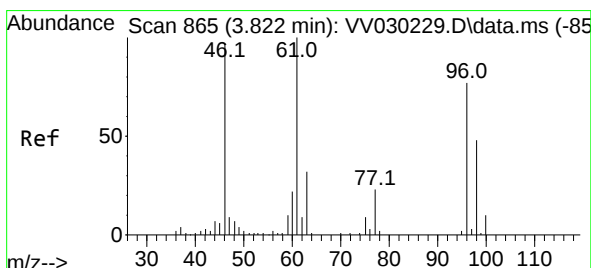
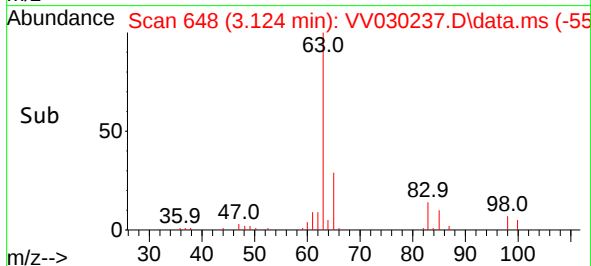
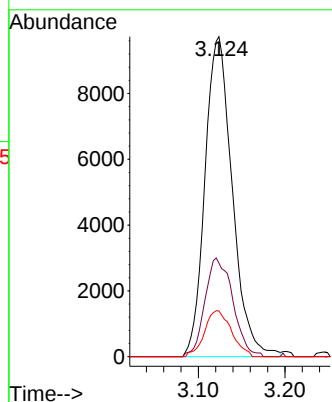
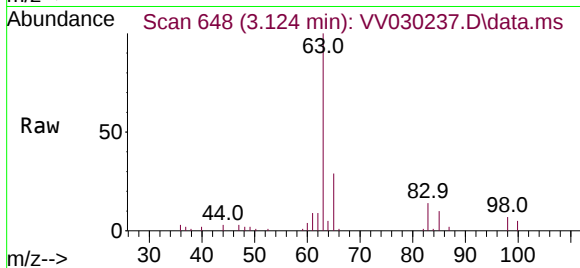
Tgt Ion: 63 Resp: 21305

Ion Ratio Lower Upper

63 100

65 29.2 23.0 42.8

83 14.3 9.6 17.8



#22

cis-1,2-Dichloroethene

Concen: 3.949 ug/L

RT: 3.825 min Scan# 866

Delta R.T. 0.003 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

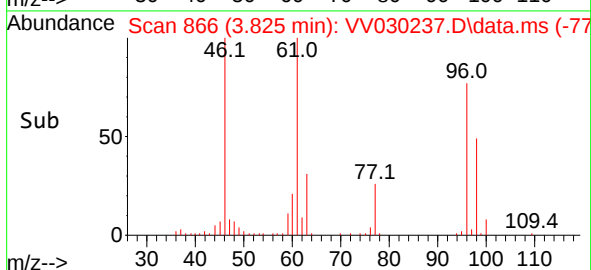
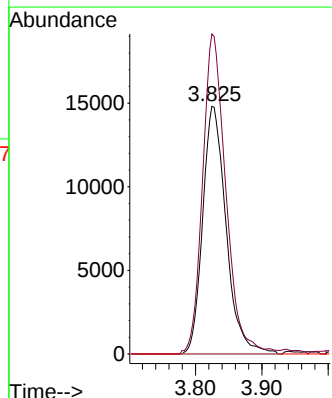
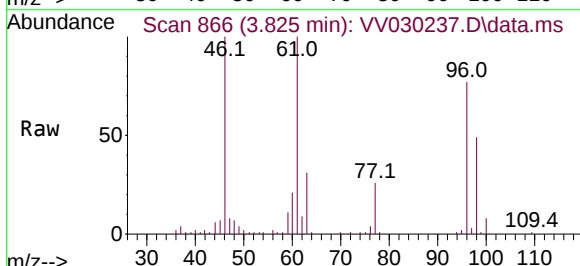
Tgt Ion: 96 Resp: 36301

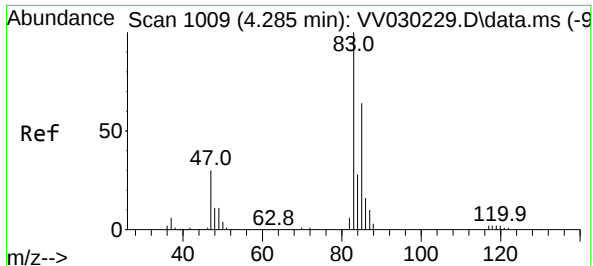
Ion Ratio Lower Upper

96 100

61 129.2 83.4 154.8

68 0.0 0.0 0.0





#25

Chloroform

Concen: 4.101 ug/L

RT: 4.288 min Scan# 1009

Delta R.T. 0.003 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

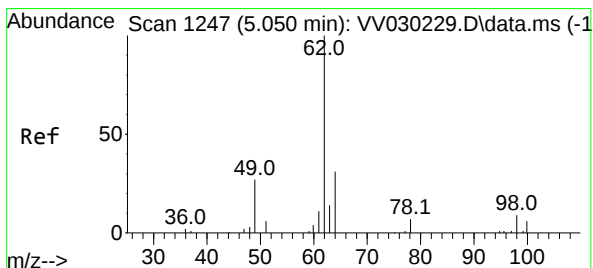
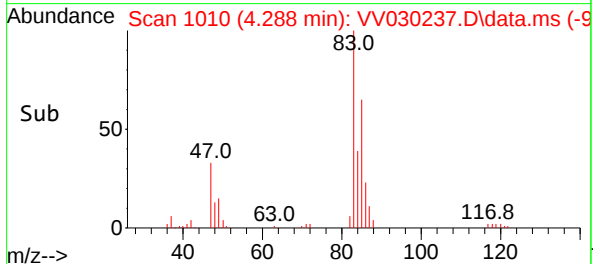
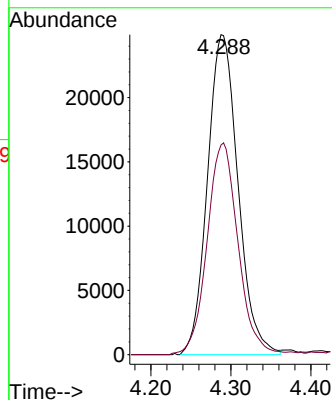
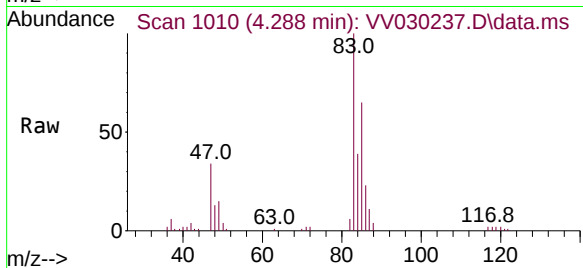
ClientSampleId :

Tgt Ion: 83 Resp: 66098

Ion Ratio Lower Upper

83 100

85 65.5 46.5 86.5



#27

1,2-Dichloroethane

Concen: 0.132 ug/L

RT: 5.066 min Scan# 1252

Delta R.T. 0.016 min

Lab File: VV030237.D

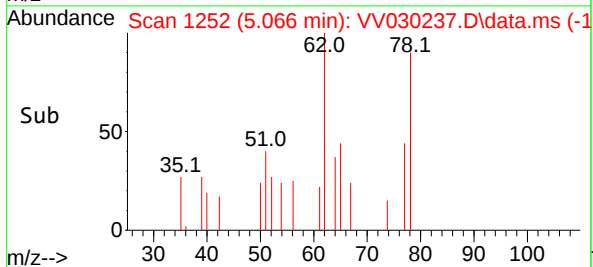
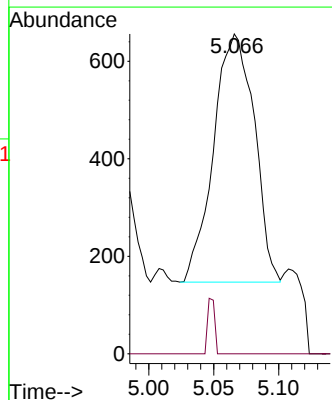
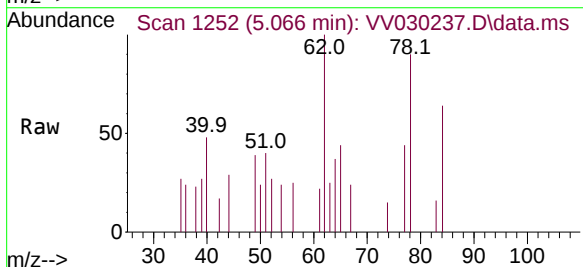
Acq: 17 Mar 2023 15:49

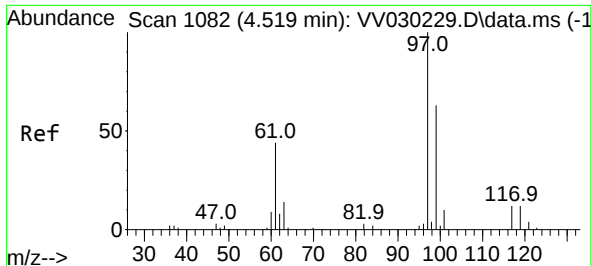
Tgt Ion: 62 Resp: 1109

Ion Ratio Lower Upper

62 100

98 0.0 9.0 13.4#





#29

1,1,1-Trichloroethane

Concen: 11.330 ug/L

RT: 4.526 min Scan# 110

Delta R.T. 0.006 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

ClientSampleId :

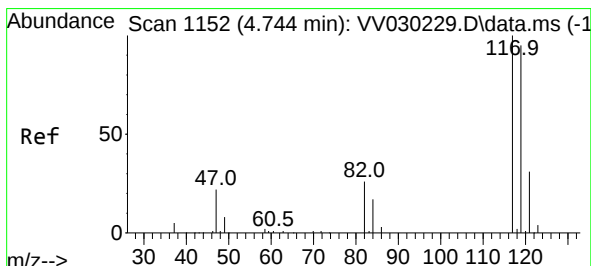
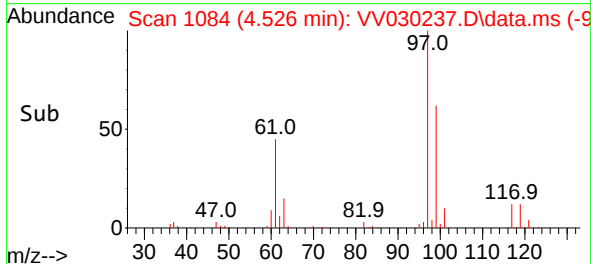
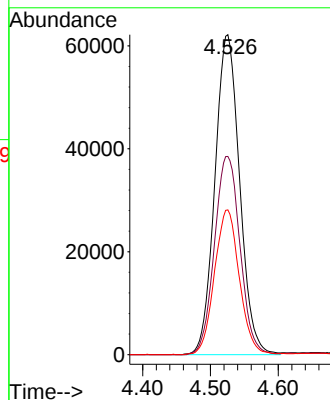
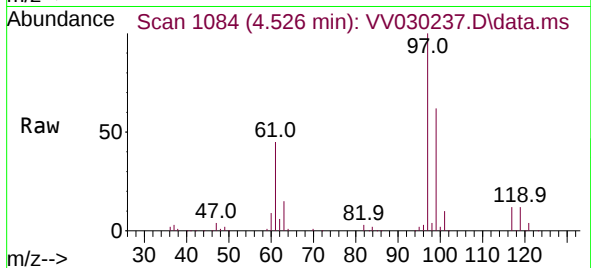
Tgt Ion: 97 Resp: 158035

Ion Ratio Lower Upper

97 100

99 64.1 51.3 76.9

61 45.5 31.5 47.3



#31

Carbon tetrachloride

Concen: 4.812 ug/L

RT: 4.747 min Scan# 1153

Delta R.T. 0.003 min

Lab File: VV030237.D

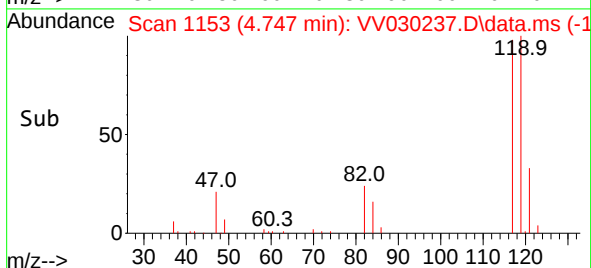
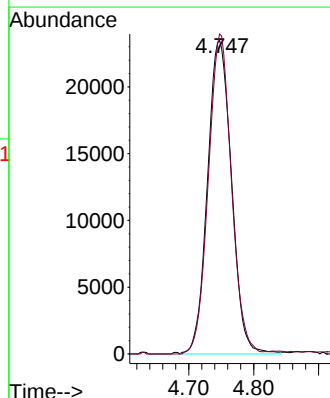
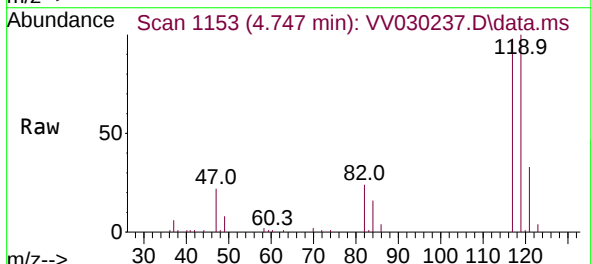
Acq: 17 Mar 2023 15:49

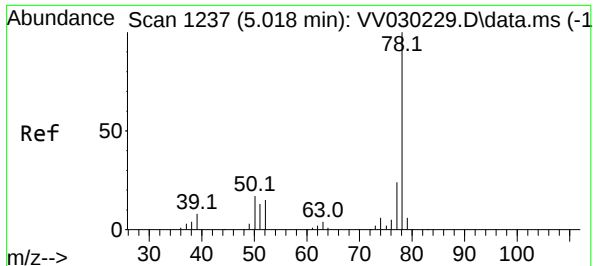
Tgt Ion: 117 Resp: 60332

Ion Ratio Lower Upper

117 100

119 97.9 76.1 114.1

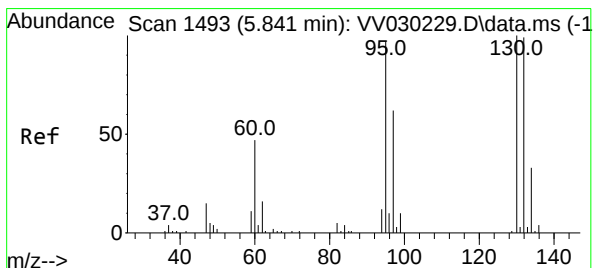
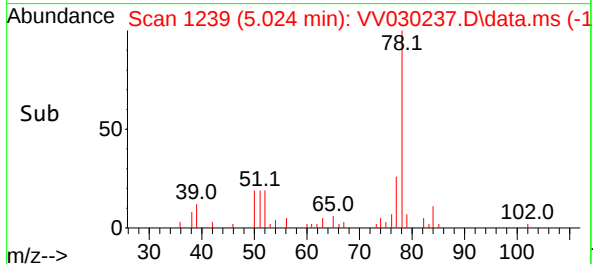
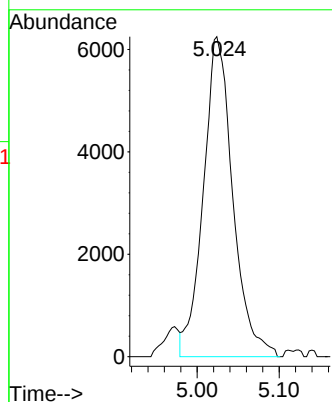
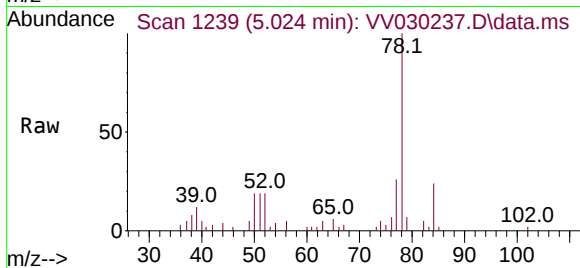




#33  
Benzene  
Concen: 0.481 ug/L  
RT: 5.024 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Instrument :  
MSVOA\_V  
ClientSampleId :

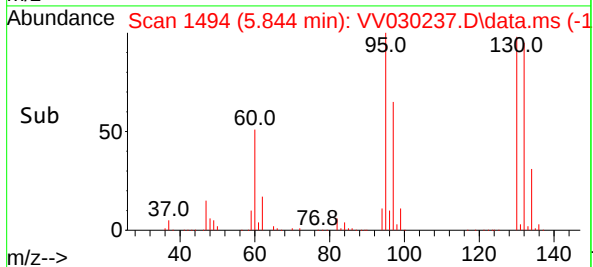
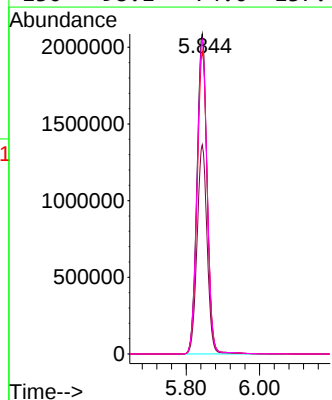
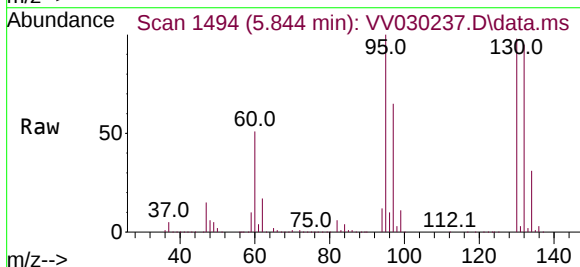
Tgt Ion: 78 Resp: 15611

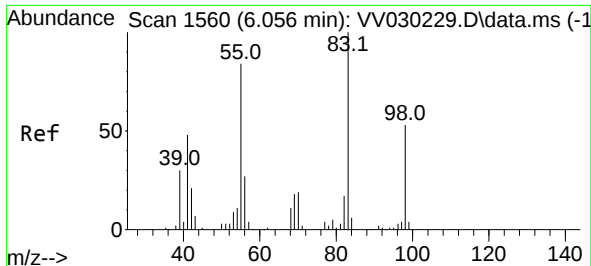


#34  
Trichloroethene  
Concen: 437.938 ug/L  
RT: 5.844 min Scan# 1494  
Delta R.T. 0.003 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Tgt Ion: 95 Resp: 3979269

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 97  | 65.4  | 46.5  | 86.5  |
| 132 | 94.6  | 71.7  | 133.3 |
| 130 | 98.1  | 74.0  | 137.4 |





#35

Methylcyclohexane

Concen: 0.710 ug/L

RT: 5.998 min Scan# 1542

Delta R.T. -0.058 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

ClientSampleId :

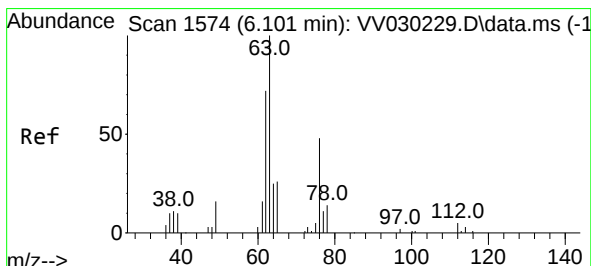
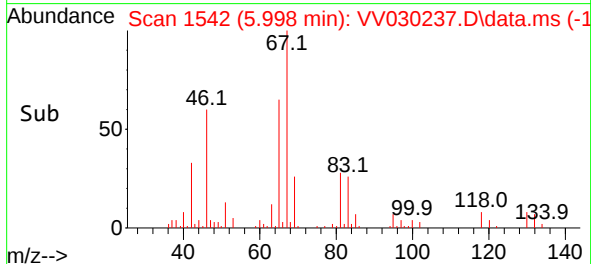
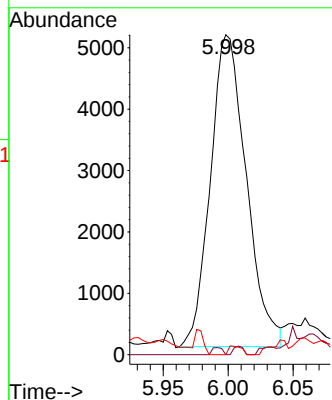
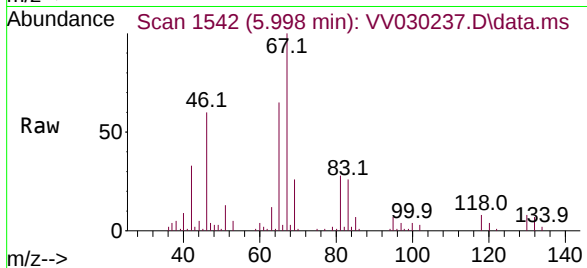
Tgt Ion: 83 Resp: 9758

Ion Ratio Lower Upper

83 100

55 0.6 57.6 86.4#

98 0.0 38.8 58.2#



#37

1,2-Dichloropropane

Concen: 0.684 ug/L

RT: 5.998 min Scan# 1542

Delta R.T. -0.103 min

Lab File: VV030237.D

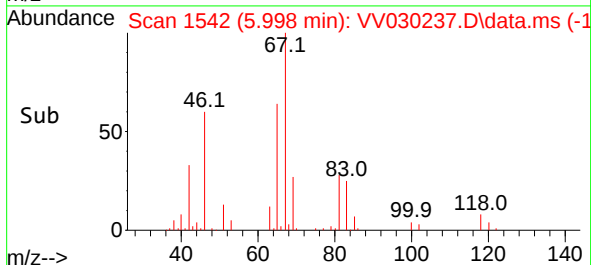
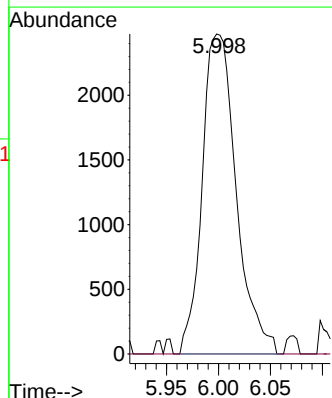
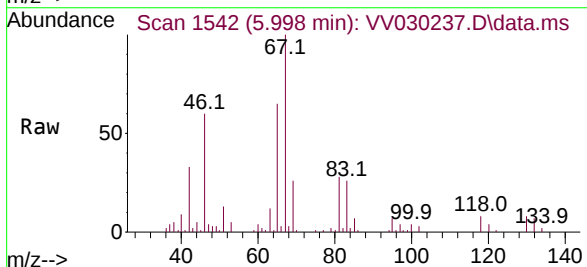
Acq: 17 Mar 2023 15:49

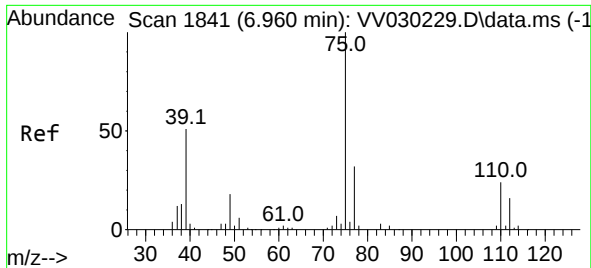
Tgt Ion: 63 Resp: 5642

Ion Ratio Lower Upper

63 100

112 0.4 3.8 5.6#





#39

cis-1,3-Dichloropropene

Concen: 0.103 ug/L

RT: 6.924 min Scan# 11

Delta R.T. -0.036 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

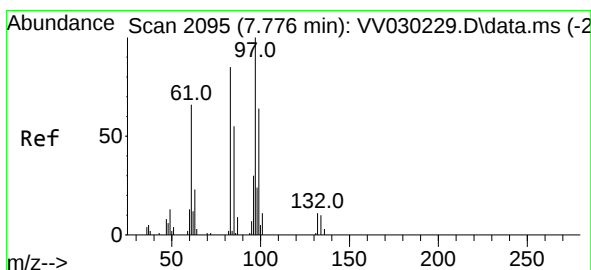
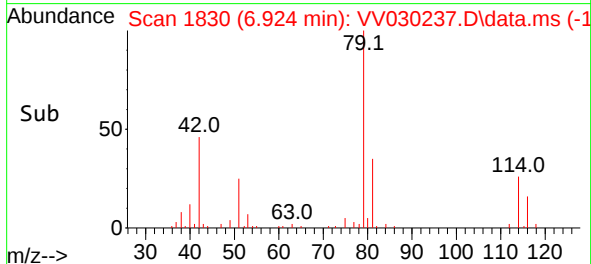
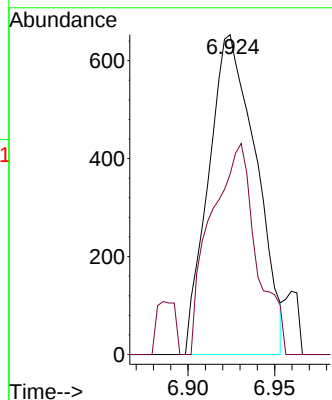
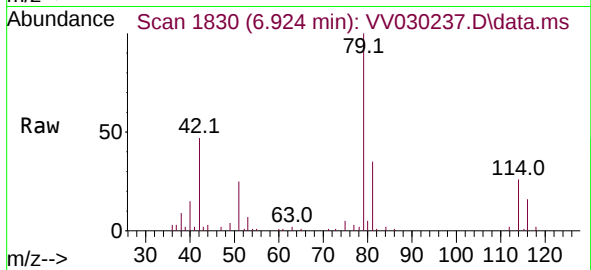
ClientSampleId :

Tgt Ion: 75 Resp: 1247

Ion Ratio Lower Upper

75 100

77 56.4 22.3 41.3#



#45

1,1,2-Trichloroethane

Concen: 45.422 ug/L

RT: 7.940 min Scan# 2146

Delta R.T. 0.164 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Tgt Ion: 97 Resp: 268125

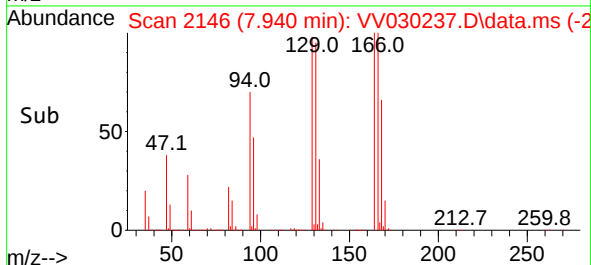
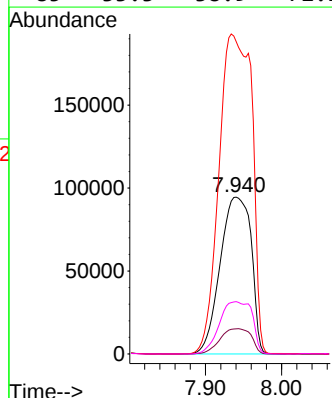
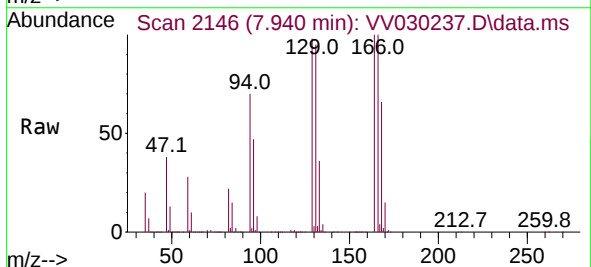
Ion Ratio Lower Upper

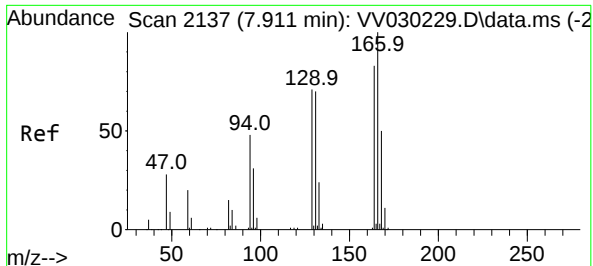
97 100

99 16.1 42.6 79.2#

83 199.1 57.7 107.3#

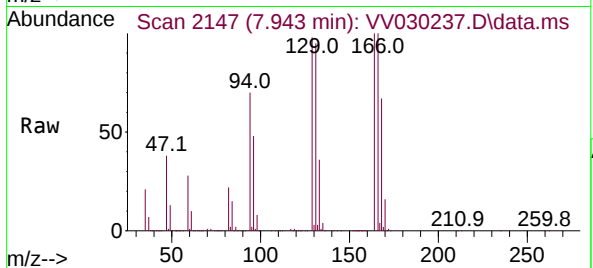
85 33.3 38.9 72.2#





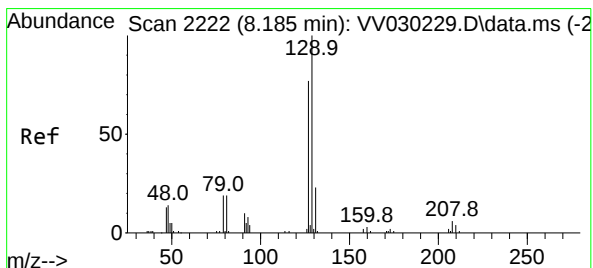
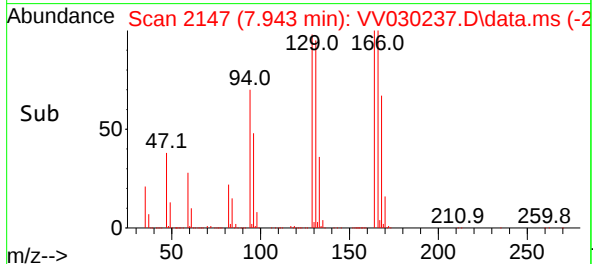
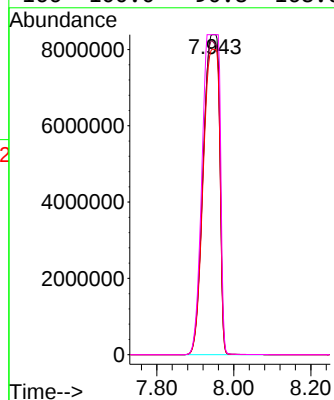
#47  
Tetrachloroethene  
Concen: 3161.685 ug/L  
RT: 7.943 min Scan# 2147  
Delta R.T. 0.032 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Instrument :  
MSVOA\_V  
ClientSampleId :



Tgt Ion:164 Resp:24659453

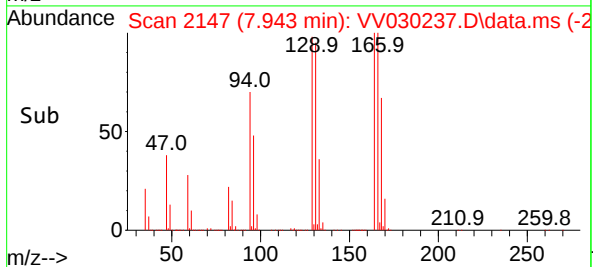
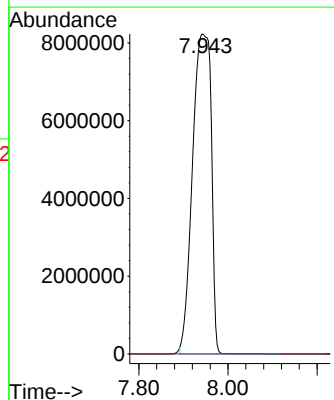
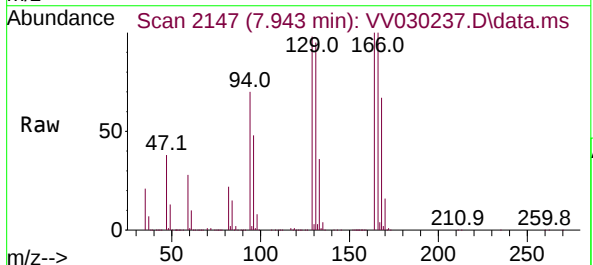
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 129 | 98.1  | 63.6  | 118.2 |
| 131 | 95.4  | 61.7  | 114.7 |
| 166 | 100.0 | 90.8  | 168.6 |

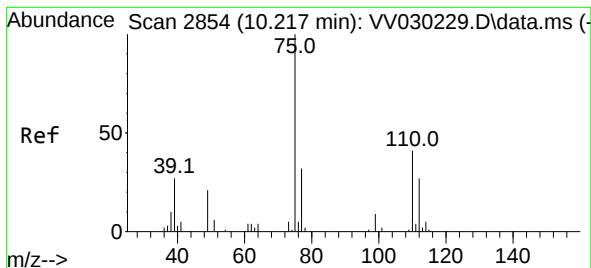


#49  
Dibromochloromethane  
Concen: 3489.583 ug/L  
RT: 7.943 min Scan# 2147  
Delta R.T. -0.241 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Tgt Ion:129 Resp:24104233

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 129 | 100   |       |        |
| 127 | 0.0   | 54.7  | 101.5# |





#61

1,2,3-Trichloropropane

Concen: 0.497 ug/L

RT: 11.127 min Scan# 3137

Delta R.T. 0.910 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

Instrument :

MSVOA\_V

ClientSampleId :

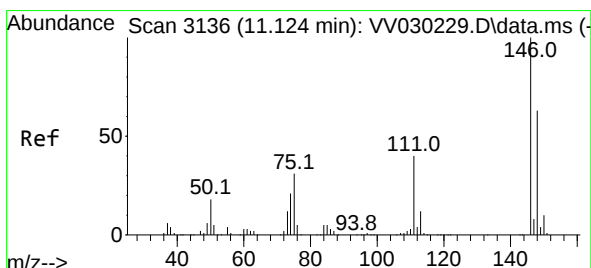
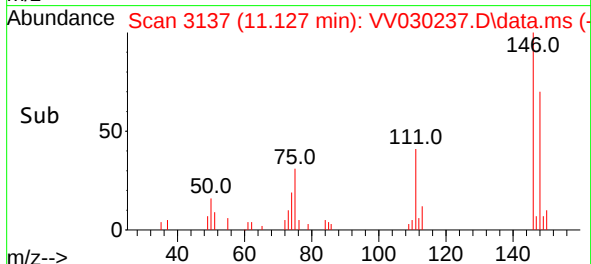
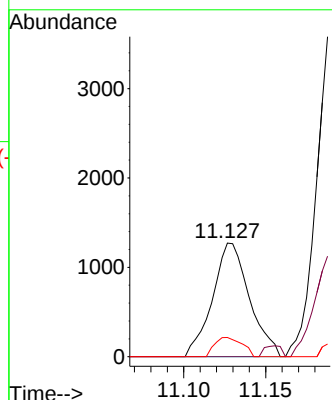
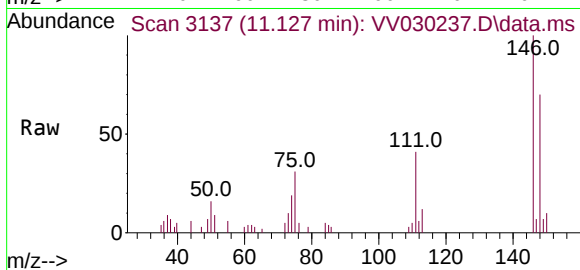
Tgt Ion: 75 Resp: 1989

Ion Ratio Lower Upper

75 100

77 4.4 26.5 39.7#

110 12.6 31.8 47.6#



#64

1,3-Dichlorobenzene

Concen: 0.390 ug/L

RT: 11.127 min Scan# 3137

Delta R.T. 0.003 min

Lab File: VV030237.D

Acq: 17 Mar 2023 15:49

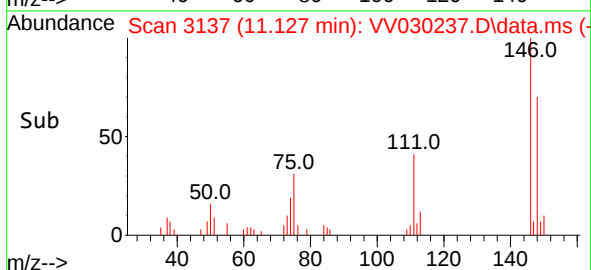
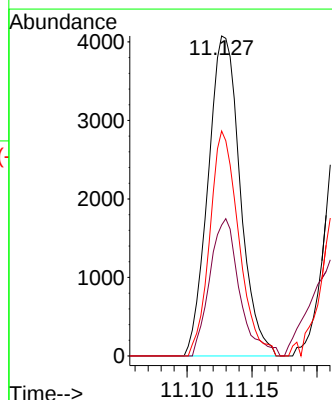
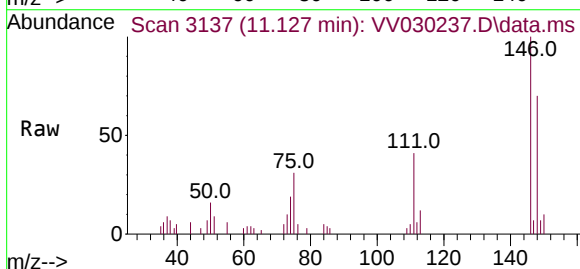
Tgt Ion: 146 Resp: 6984

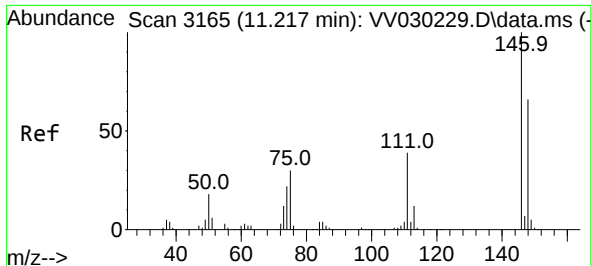
Ion Ratio Lower Upper

146 100

111 40.9 27.7 51.5

148 70.3 44.5 82.7

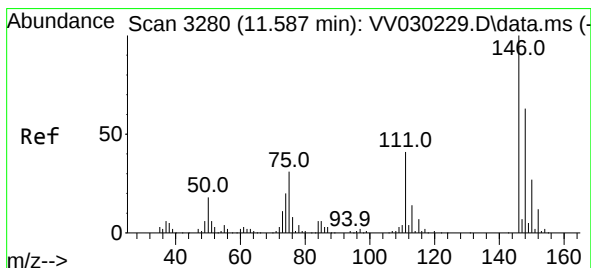
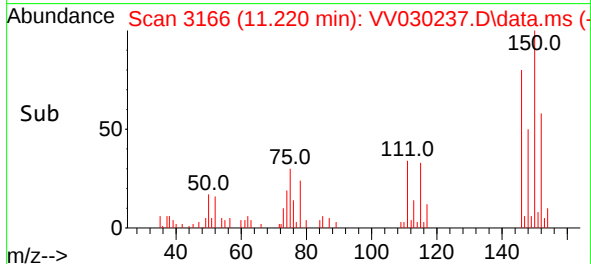
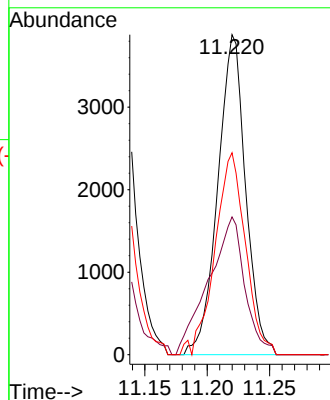
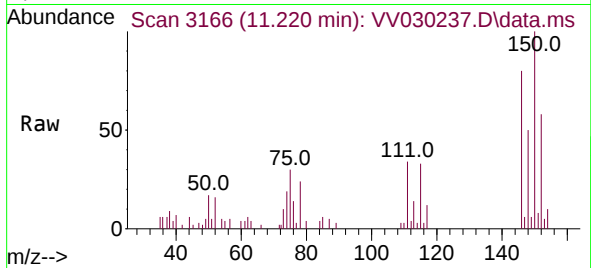




#65  
1,4-Dichlorobenzene  
Concen: 0.333 ug/L  
RT: 11.220 min Scan# 3166  
Delta R.T. 0.003 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Instrument :  
MSVOA\_V  
ClientSampleId :

Tgt Ion:146 Resp: 6026  
Ion Ratio Lower Upper  
146 100  
111 43.1 27.4 51.0  
148 63.1 44.1 81.9



#67  
1,2-Dichlorobenzene  
Concen: 0.529 ug/L  
RT: 11.590 min Scan# 3281  
Delta R.T. 0.003 min  
Lab File: VV030237.D  
Acq: 17 Mar 2023 15:49

Tgt Ion:146 Resp: 8367  
Ion Ratio Lower Upper  
146 100  
111 44.3 33.5 50.3  
148 65.0 51.3 76.9

