

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY042224\  
 Data File : VY018011.D  
 Acq On : 22 Apr 2024 15:25  
 Operator : SY/MD  
 Sample : P2189-02  
 Misc : 5.05g/5.0mL/MSVOA\_Y/SOIL/B  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :

Quant Time: Apr 23 01:43:27 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y041624S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 17 06:24:42 2024  
 Response via : Initial Calibration

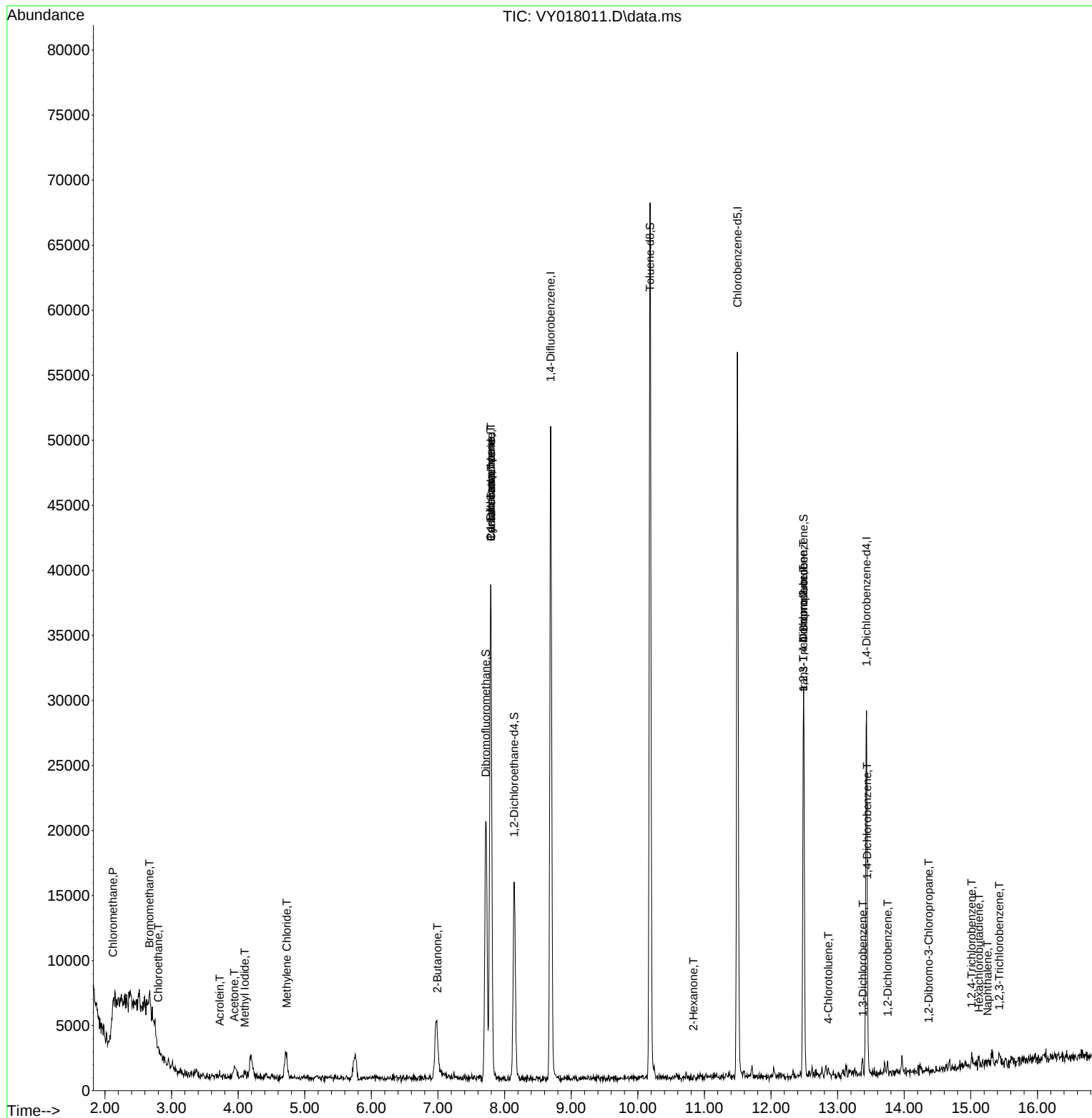
| Compound                      | R.T.   | QIon  | Response | Conc      | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|-----------|--------|----------|
| -----                         |        |       |          |           |        |          |
| Internal Standards            |        |       |          |           |        |          |
| 1) Pentafluorobenzene         | 7.795  | 168   | 31950    | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.691  | 114   | 44932    | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.496 | 117   | 32700    | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.434 | 152   | 7954     | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.143  | 65    | 11745    | 42.48     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 50 - 163 | Recovery  | =      | 84.96%   |
| 35) Dibromofluoromethane      | 7.716  | 113   | 15343    | 55.35     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 54 - 147 | Recovery  | =      | 110.70%  |
| 50) Toluene-d8                | 10.185 | 98    | 48515    | 46.12     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 58 - 134 | Recovery  | =      | 92.24%   |
| 62) 4-Bromofluorobenzene      | 12.489 | 95    | 9059     | 27.81     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 30 - 143 | Recovery  | =      | 55.62%   |
| Target Compounds              |        |       |          |           |        |          |
|                               |        |       |          |           | Qvalue |          |
| 3) Chloromethane              | 2.119  | 50    | 464      | 1.10      | ug/l # | 59       |
| 5) Bromomethane               | 2.668  | 94    | 767      | 2.43      | ug/l # | 56       |
| 6) Chloroethane               | 2.802  | 64    | 396      | 1.33      | ug/l # | 42       |
| 10) Methyl Iodide             | 4.101  | 142   | 534      | 1.21      | ug/l # | 87       |
| 11) Tert butyl alcohol        | 4.991  | 59    | 20       | Below Cal | #      | 88       |
| 13) Acrolein                  | 3.723  | 56    | 74       | 3.44      | ug/l # | 79       |
| 16) Acetone                   | 3.942  | 43    | 866      | 15.85     | ug/l # | 86       |
| 20) Methylene Chloride        | 4.728  | 84    | 1630     | 4.40      | ug/l # | 78       |
| 25) 2-Butanone                | 6.990  | 43    | 236      | 2.94      | ug/l # | 41       |
| 31) Cyclohexane               | 7.795  | 56    | 576      | 1.09      | ug/l # | 2        |
| 36) 1,1-Dichloropropene       | 7.789  | 75    | 2471     | 6.13      | ug/l # | 43       |
| 38) Carbon Tetrachloride      | 7.795  | 117   | 2914     | 7.15      | ug/l # | 16       |
| 59) 2-Hexanone                | 10.837 | 43    | 169      | 1.51      | ug/l # | 19       |
| 76) 1,2,3-Trichloropropane    | 12.483 | 75    | 4544     | 60.88     | ug/l # | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.483 | 75    | 4544     | 125.52    | ug/l # | 16       |
| 82) 4-Chlorotoluene           | 12.861 | 91    | 453      | 1.11      | ug/l   | 82       |
| 87) 1,3-Dichlorobenzene       | 13.379 | 146   | 472      | 1.70      | ug/l   | 87       |
| 88) 1,4-Dichlorobenzene       | 13.446 | 146   | 418      | 1.53      | ug/l   | 76       |
| 91) 1,2-Dichlorobenzene       | 13.751 | 146   | 454      | 1.89      | ug/l # | 75       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.367 | 75    | 18       | 1.29      | ug/l # | 1        |
| 93) 1,2,4-Trichlorobenzene    | 15.013 | 180   | 334      | 2.39      | ug/l # | 83       |
| 94) Hexachlorobutadiene       | 15.123 | 225   | 214      | 2.58      | ug/l # | 57       |
| 95) Naphthalene               | 15.251 | 128   | 592      | 2.57      | ug/l # | 69       |
| 96) 1,2,3-Trichlorobenzene    | 15.428 | 180   | 403      | 3.44      | ug/l # | 71       |
| -----                         |        |       |          |           |        |          |

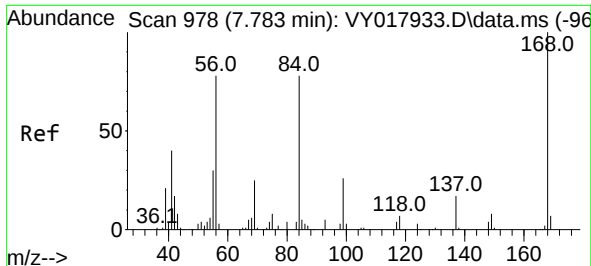
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Wed Apr 17 06:24:42 2024  
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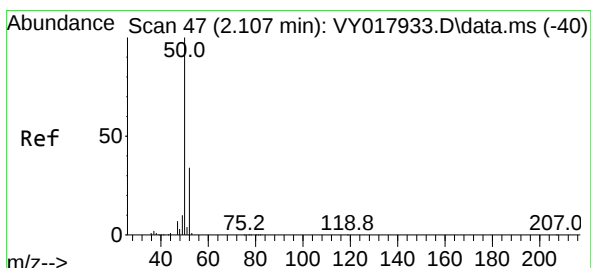
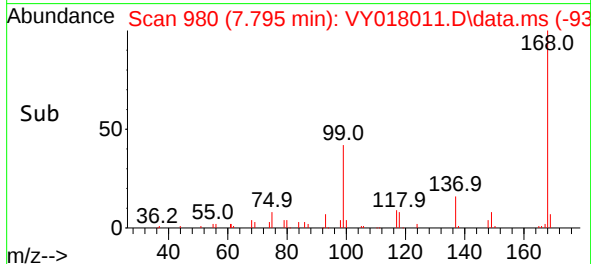
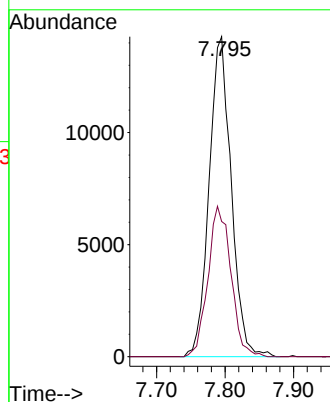
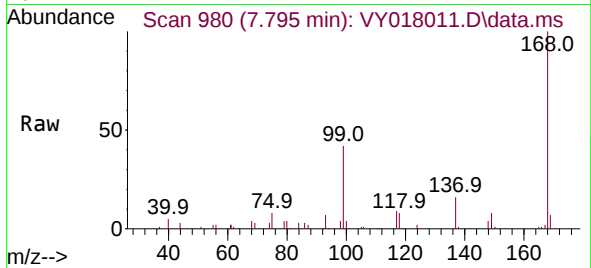




#1  
Pentafluorobenzene  
Concen: 50.00 ug/l  
RT: 7.795 min Scan# 91  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

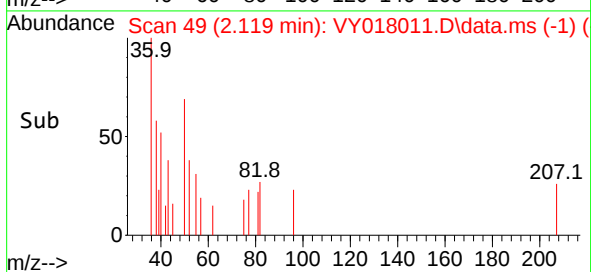
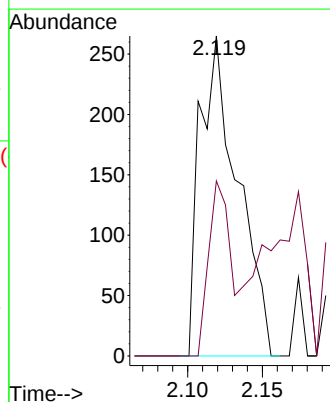
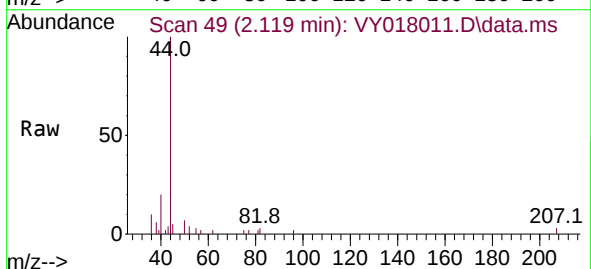
Instrument :  
MSVOA\_Y  
ClientSampleId :

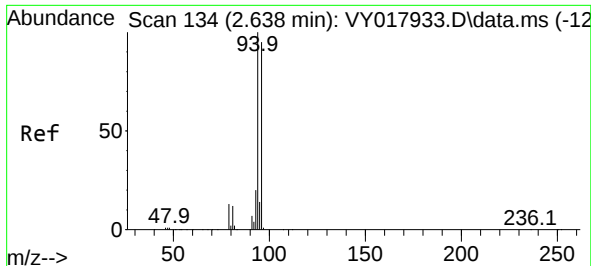
Tgt Ion:168 Resp: 31950  
Ion Ratio Lower Upper  
168 100  
99 42.3 39.1 58.7



#3  
Chloromethane  
Concen: 1.10 ug/l  
RT: 2.119 min Scan# 49  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 50 Resp: 464  
Ion Ratio Lower Upper  
50 100  
52 54.7 25.6 38.4#

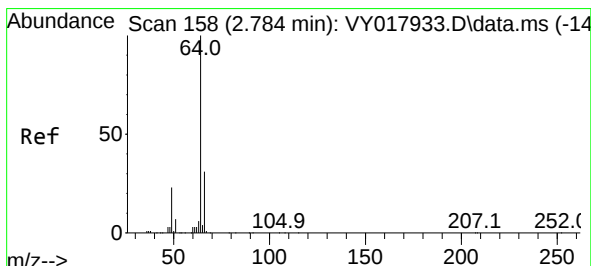
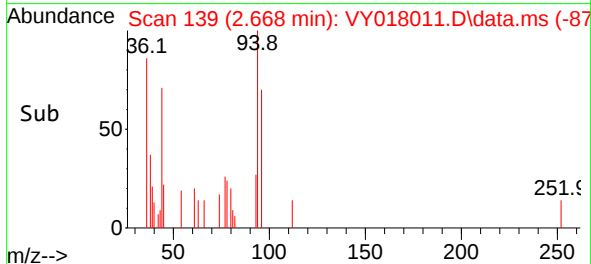
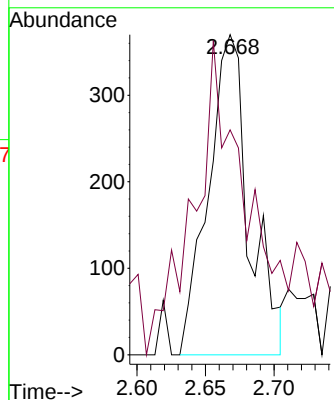
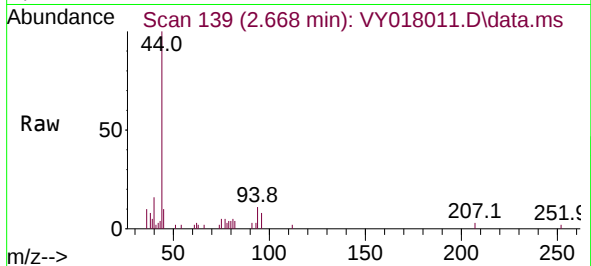




#5  
Bromomethane  
Concen: 2.43 ug/l  
RT: 2.668 min Scan# 111  
Delta R.T. 0.018 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

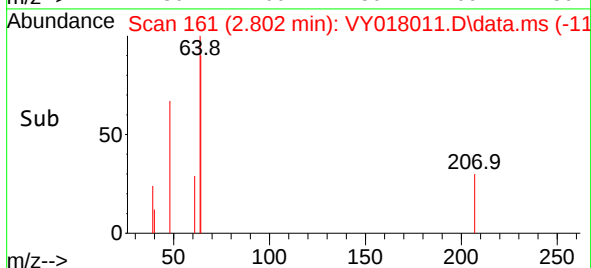
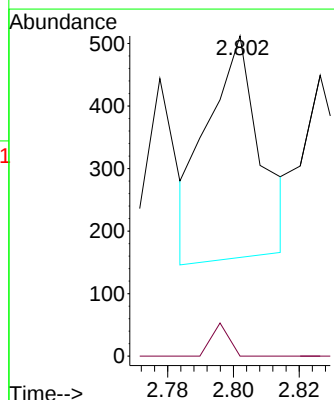
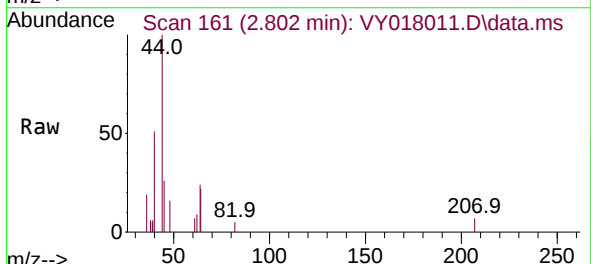
Instrument :  
MSVOA\_Y  
ClientSampleId :

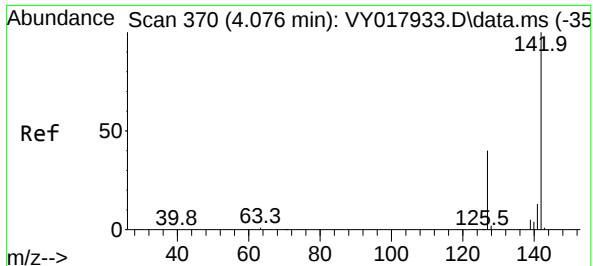
Tgt Ion: 94 Resp: 767  
Ion Ratio Lower Upper  
94 100  
96 50.5 74.1 111.1#



#6  
Chloroethane  
Concen: 1.33 ug/l  
RT: 2.802 min Scan# 161  
Delta R.T. 0.012 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

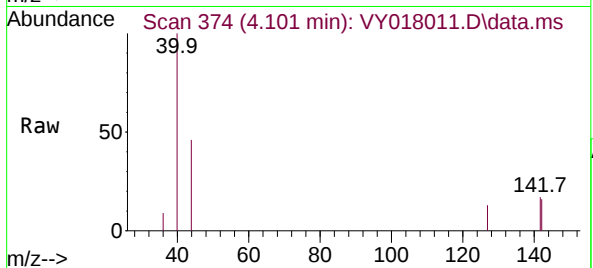
Tgt Ion: 64 Resp: 396  
Ion Ratio Lower Upper  
64 100  
66 0.0 26.1 39.1#



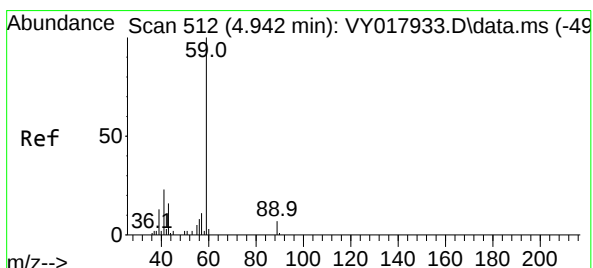
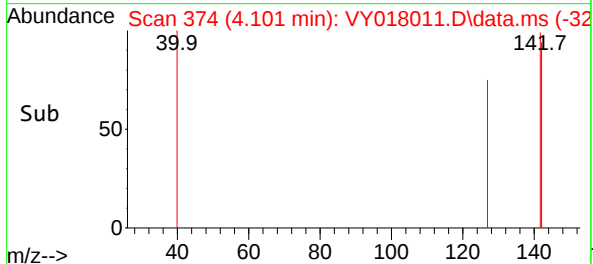
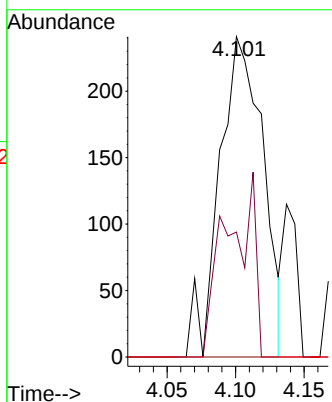


#10  
Methyl Iodide  
Concen: 1.21 ug/l  
RT: 4.101 min Scan# 31  
Delta R.T. 0.012 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Instrument :  
MSVOA\_Y  
ClientSampleId :

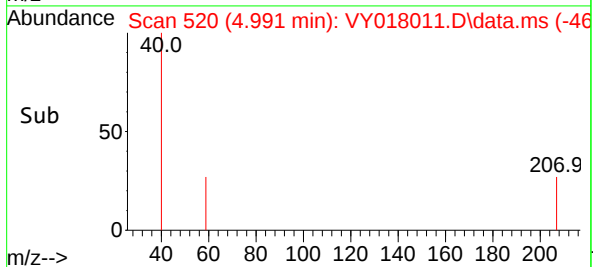
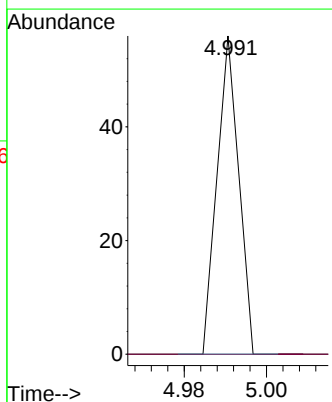
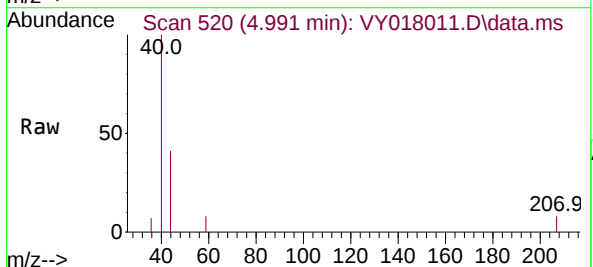


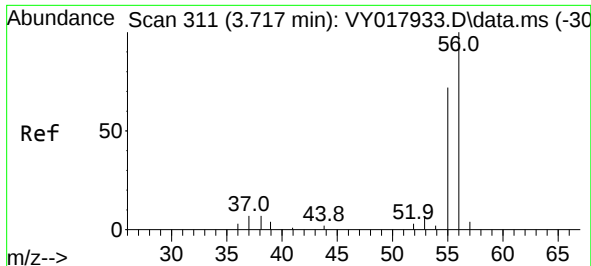
Tgt Ion:142 Resp: 534  
Ion Ratio Lower Upper  
142 100  
127 37.8 32.8 49.2  
141 0.0 11.4 17.2#



#11  
Tert butyl alcohol  
Concen: Below Cal  
RT: 4.991 min Scan# 520  
Delta R.T. 0.037 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 59 Resp: 20  
Ion Ratio Lower Upper  
59 100  
57 0.0 3.0 4.6#





#13

Acrolein

Concen: 3.44 ug/l

RT: 3.723 min Scan# 311

Delta R.T. -0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

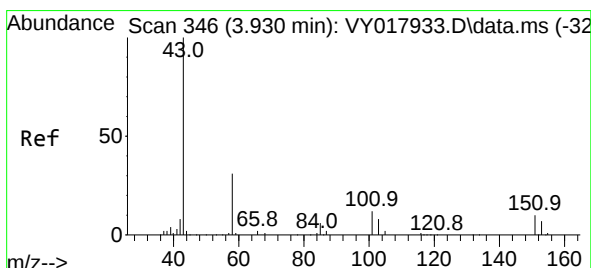
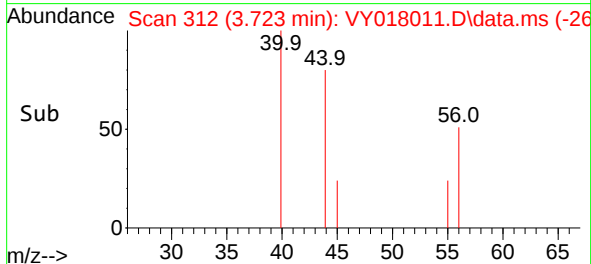
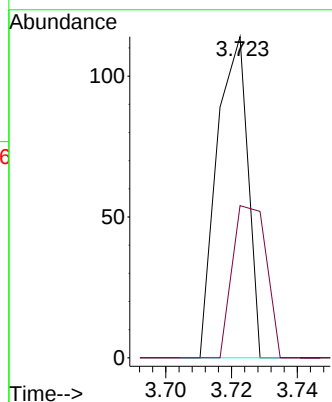
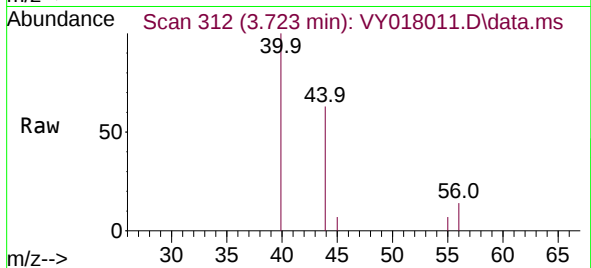
ClientSampleId :

Tgt Ion: 56 Resp: 74

Ion Ratio Lower Upper

56 100

55 52.7 55.7 83.5#



#16

Acetone

Concen: 15.85 ug/l

RT: 3.942 min Scan# 348

Delta R.T. -0.006 min

Lab File: VY018011.D

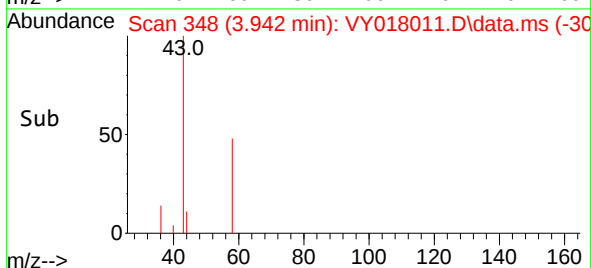
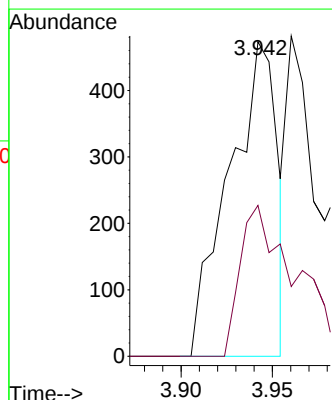
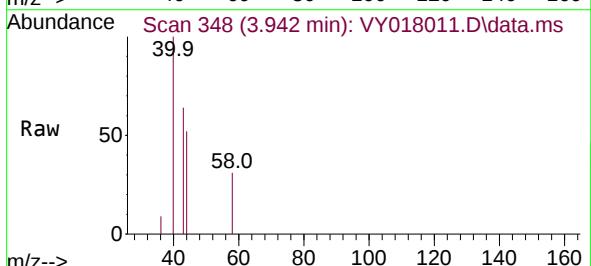
Acq: 22 Apr 2024 15:25

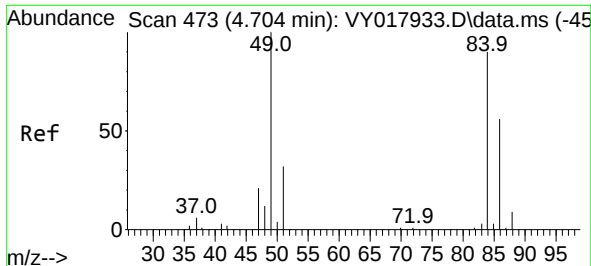
Tgt Ion: 43 Resp: 866

Ion Ratio Lower Upper

43 100

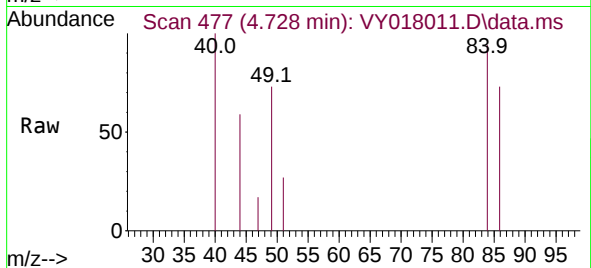
58 48.0 31.7 47.5#



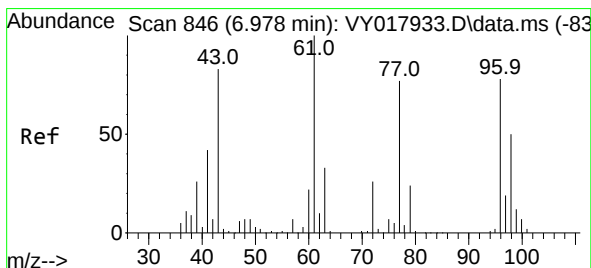
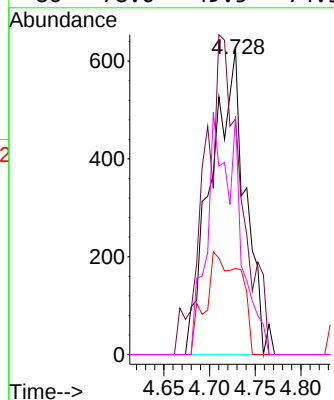


#20  
Methylene Chloride  
Concen: 4.40 ug/l  
RT: 4.728 min Scan# 41  
Delta R.T. 0.012 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Instrument :  
MSVOA\_Y  
ClientSampleId :

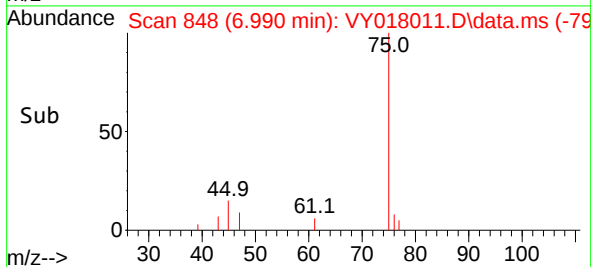
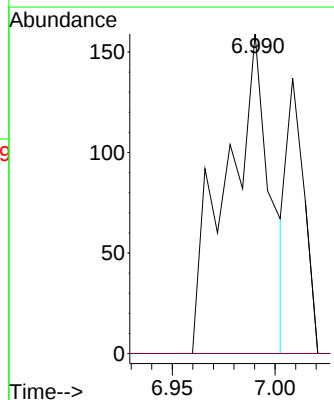
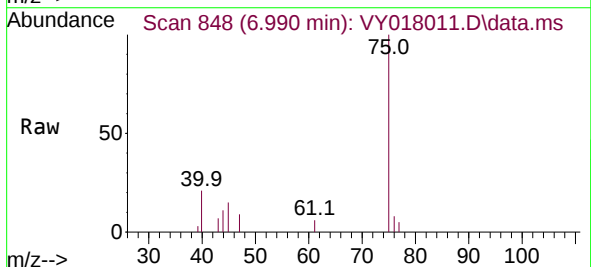


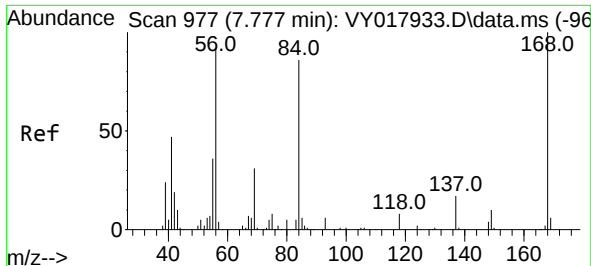
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|----------|-------|-------|--------|
| Tgt Ion: | 84    | Resp: | 1630   |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 77.2  | 84.4  | 126.6# |
| 51       | 28.2  | 26.0  | 39.0   |
| 86       | 78.0  | 49.5  | 74.3#  |



#25  
2-Butanone  
Concen: 2.94 ug/l  
RT: 6.990 min Scan# 848  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

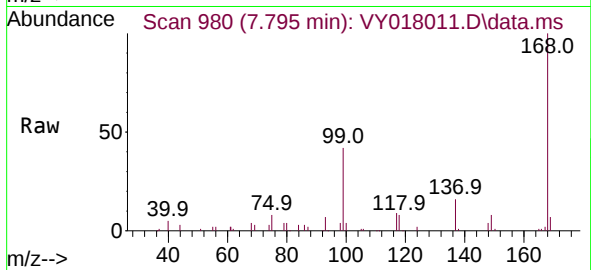
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 236   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 0.0   | 27.3  | 40.9# |



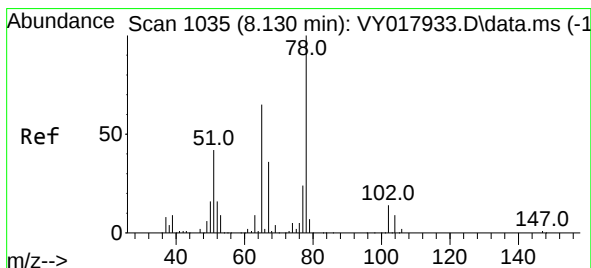
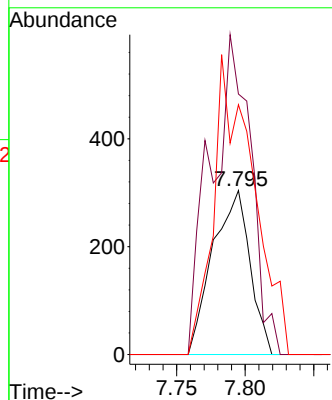
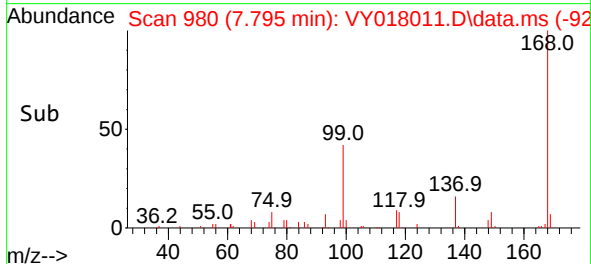


#31  
Cyclohexane  
Concen: 1.09 ug/l  
RT: 7.795 min Scan# 91  
Delta R.T. 0.012 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Instrument :  
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ClientSampleId :

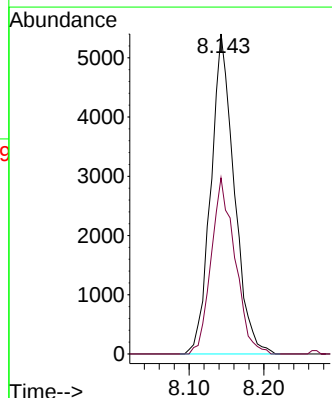
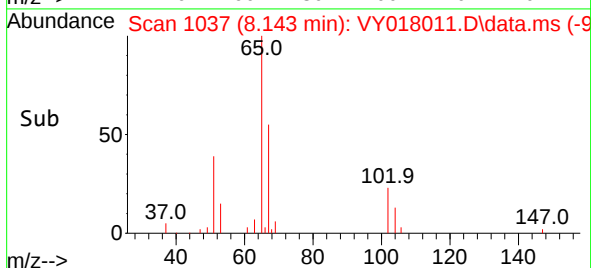
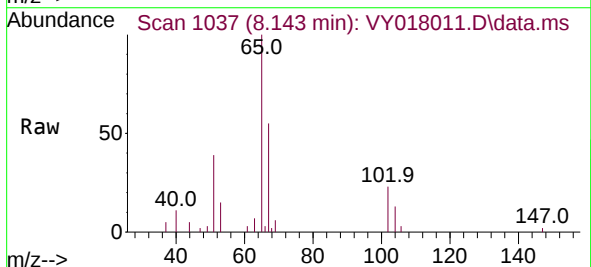


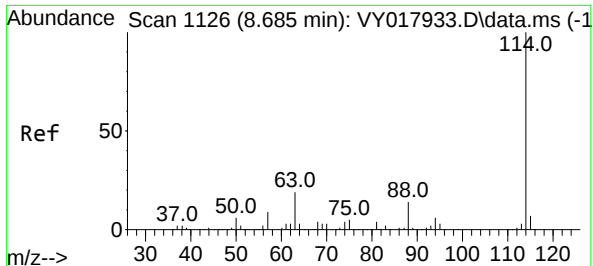
Tgt Ion: 56 Resp: 576  
Ion Ratio Lower Upper  
56 100  
69 158.9 28.7 43.1#  
84 152.3 77.7 116.5#



#33  
1,2-Dichloroethane-d4  
Concen: 42.48 ug/l  
RT: 8.143 min Scan# 1037  
Delta R.T. 0.000 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 65 Resp: 11745  
Ion Ratio Lower Upper  
65 100  
67 56.2 0.0 109.6





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 8.691 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VY018011.D

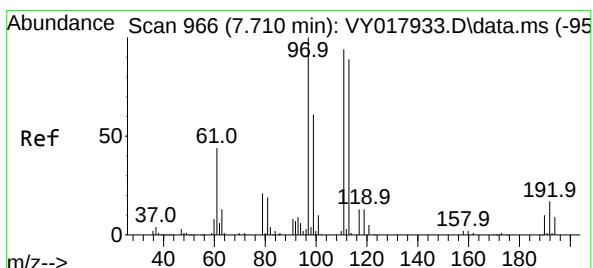
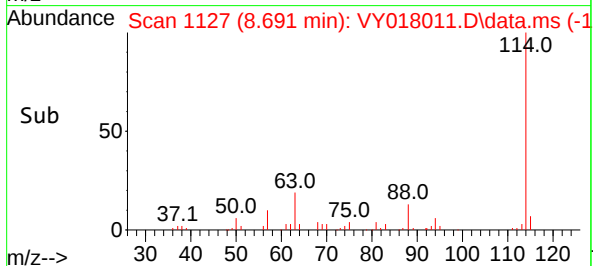
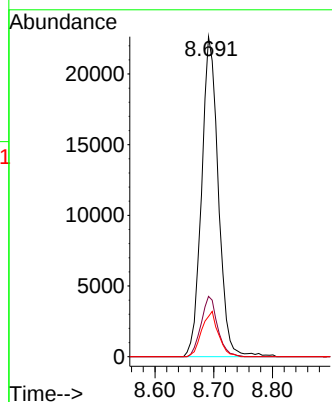
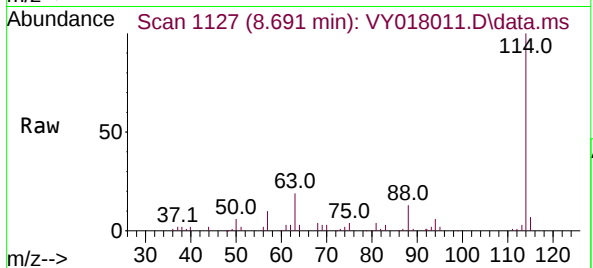
Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

|             |       |          |
|-------------|-------|----------|
| Tgt Ion:114 | Resp: | 44932    |
| Ion Ratio   | Lower | Upper    |
| 114         | 100   |          |
| 63          | 18.8  | 0.0 35.0 |
| 88          | 12.6  | 0.0 27.2 |



#35

Dibromofluoromethane

Concen: 55.35 ug/l

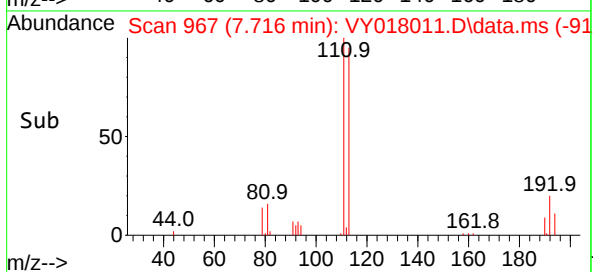
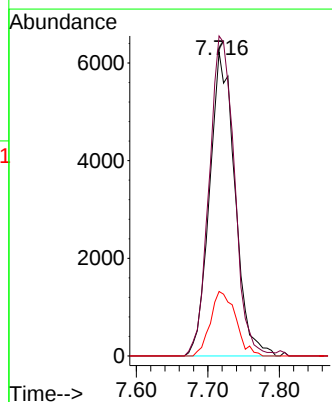
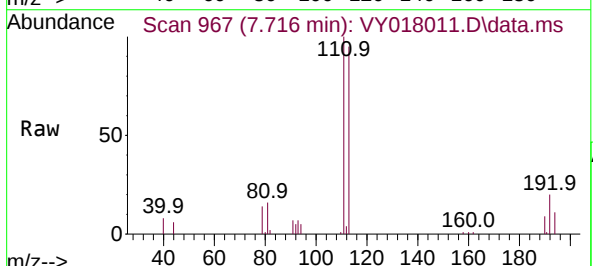
RT: 7.716 min Scan# 967

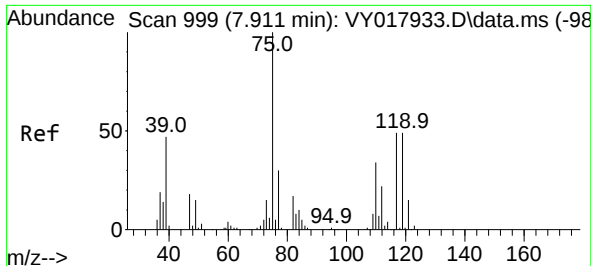
Delta R.T. -0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

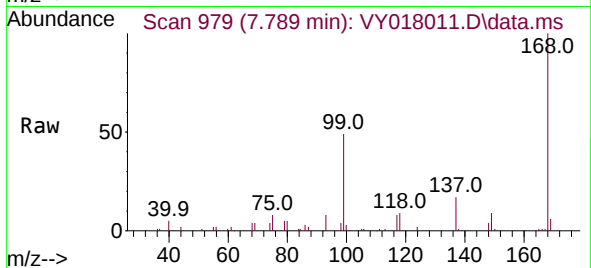
|             |       |            |
|-------------|-------|------------|
| Tgt Ion:113 | Resp: | 15343      |
| Ion Ratio   | Lower | Upper      |
| 113         | 100   |            |
| 111         | 104.8 | 82.2 123.4 |
| 192         | 21.1  | 15.9 23.9  |



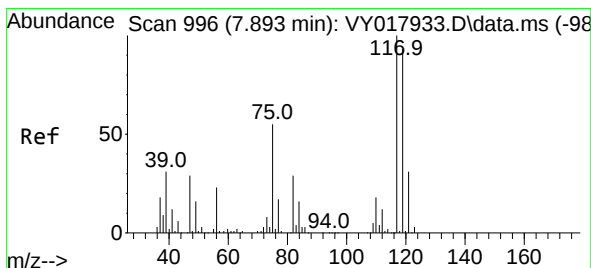
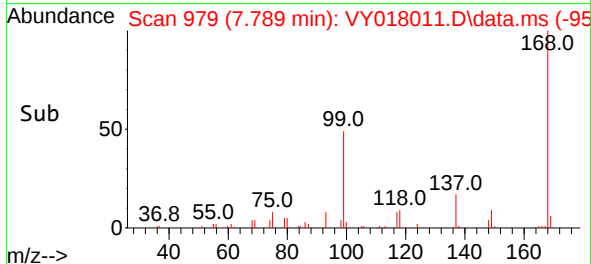
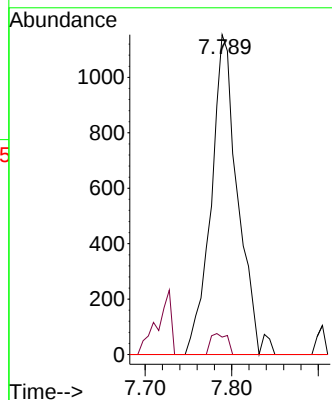


#36  
1,1-Dichloropropene  
Concen: 6.13 ug/l  
RT: 7.789 min Scan# 91  
Delta R.T. -0.128 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Instrument :  
MSVOA\_Y  
ClientSampleId :

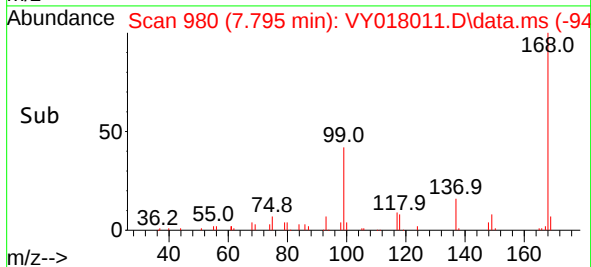
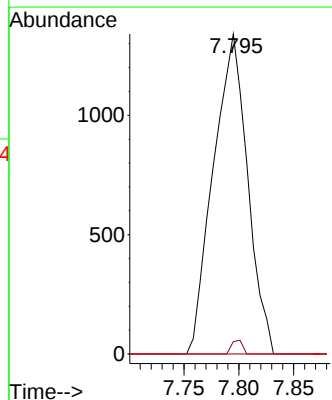
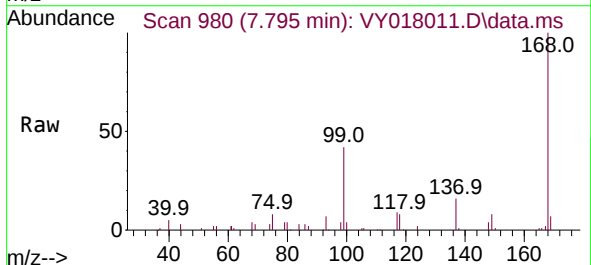


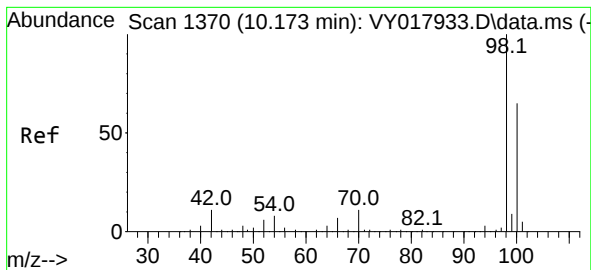
Tgt Ion: 75 Resp: 2471  
Ion Ratio Lower Upper  
75 100  
110 4.1 19.0 57.0#  
77 0.0 25.3 37.9#



#38  
Carbon Tetrachloride  
Concen: 7.15 ug/l  
RT: 7.795 min Scan# 980  
Delta R.T. -0.110 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 117 Resp: 2914  
Ion Ratio Lower Upper  
117 100  
119 3.9 75.8 113.6#  
121 0.0 24.0 36.0#





#50

Toluene-d8

Concen: 46.12 ug/l

RT: 10.185 min Scan# 11

Delta R.T. 0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

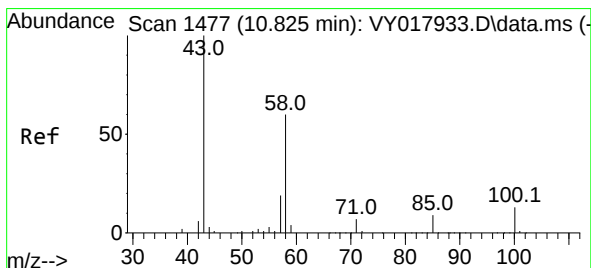
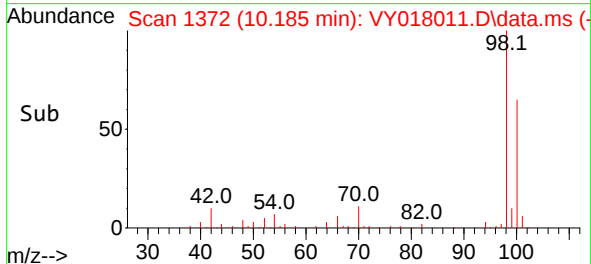
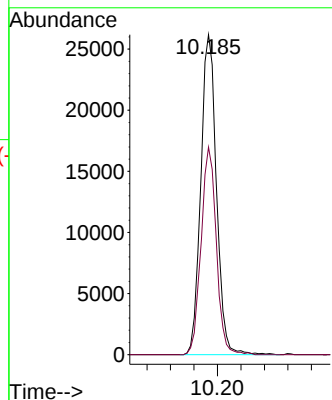
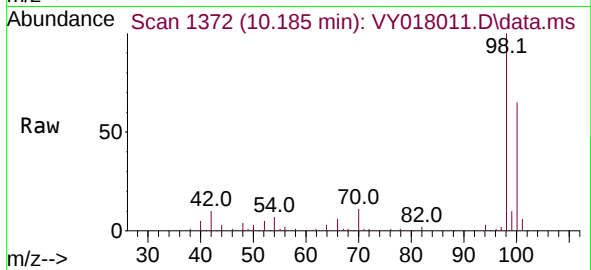
ClientSampleId :

Tgt Ion: 98 Resp: 48515

Ion Ratio Lower Upper

98 100

100 63.2 52.0 78.0



#59

2-Hexanone

Concen: 1.51 ug/l

RT: 10.837 min Scan# 1479

Delta R.T. 0.006 min

Lab File: VY018011.D

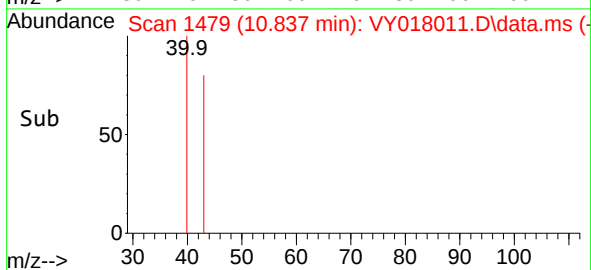
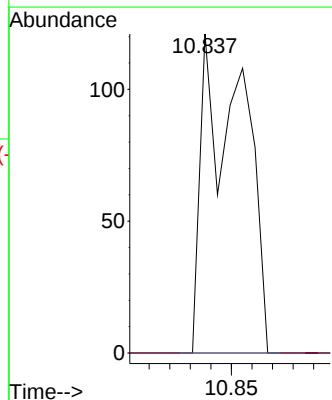
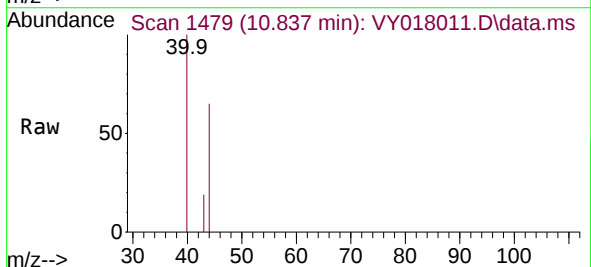
Acq: 22 Apr 2024 15:25

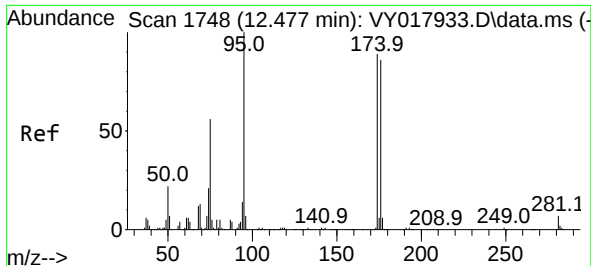
Tgt Ion: 43 Resp: 169

Ion Ratio Lower Upper

43 100

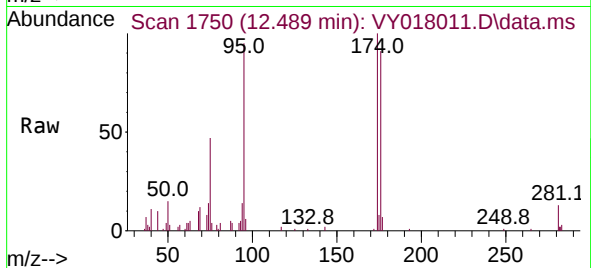
58 0.0 31.4 94.0#



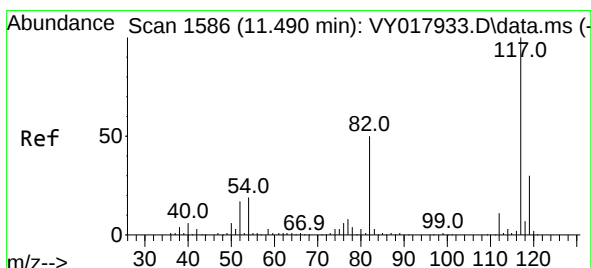
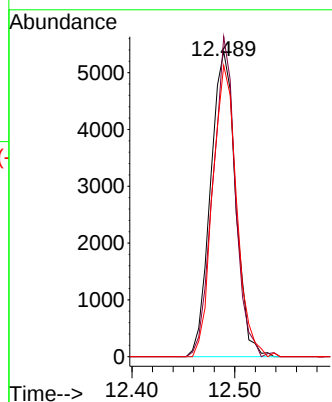
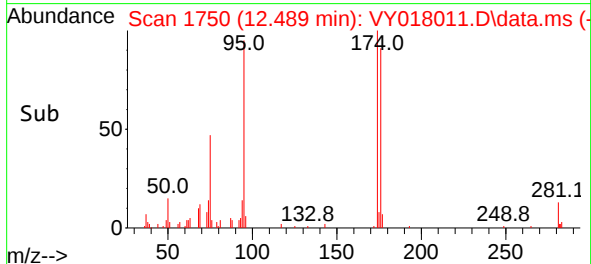


#62  
4-Bromofluorobenzene  
Concen: 27.81 ug/l  
RT: 12.489 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Instrument :  
MSVOA\_Y  
ClientSampleId :

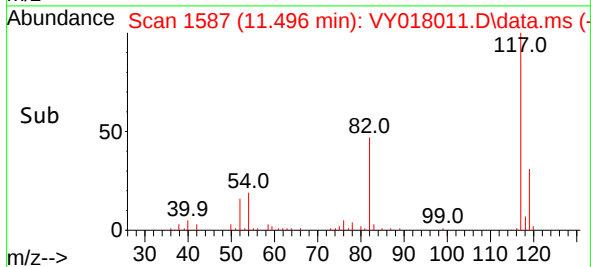
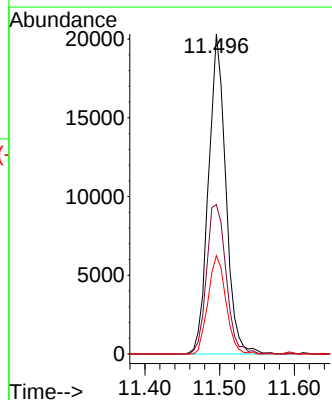
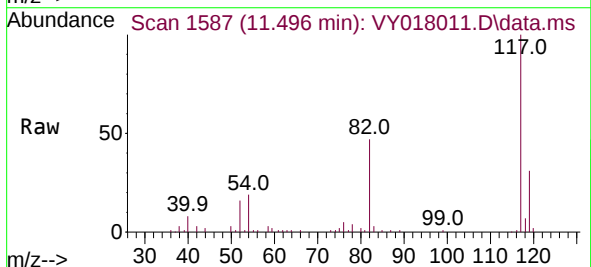


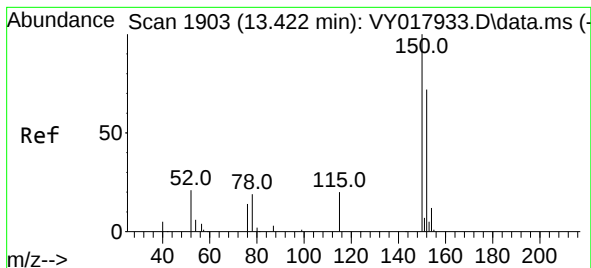
Tgt Ion: 95 Resp: 9059  
Ion Ratio Lower Upper  
95 100  
174 94.0 0.0 175.6  
176 91.7 0.0 171.4



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.496 min Scan# 1587  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 117 Resp: 32700  
Ion Ratio Lower Upper  
117 100  
82 46.6 42.4 63.6  
119 30.7 25.9 38.9





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 13.434 min Scan# 1903

Delta R.T. 0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

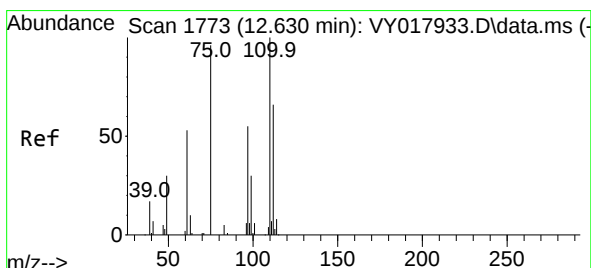
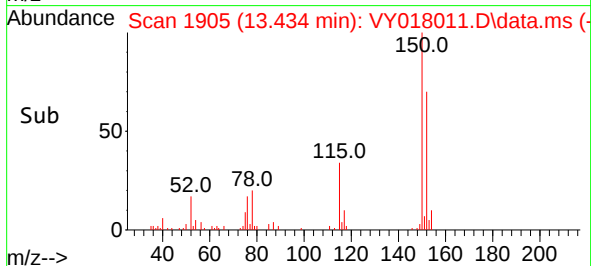
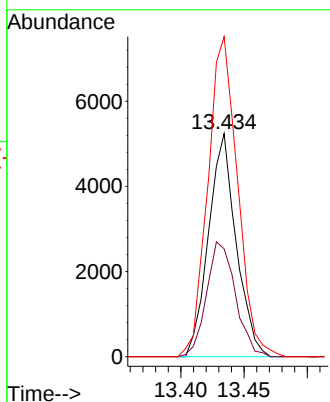
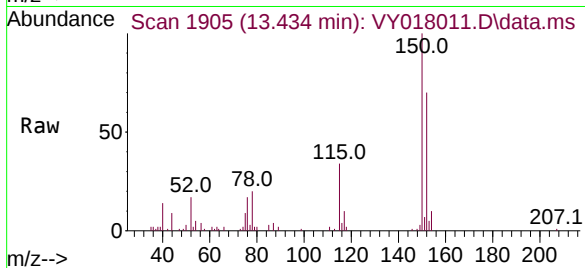
Tgt Ion:152 Resp: 7954

Ion Ratio Lower Upper

152 100

115 53.8 28.2 84.7

150 154.3 0.0 345.6



#76

1,2,3-Trichloropropane

Concen: 60.88 ug/l

RT: 12.483 min Scan# 1749

Delta R.T. -0.152 min

Lab File: VY018011.D

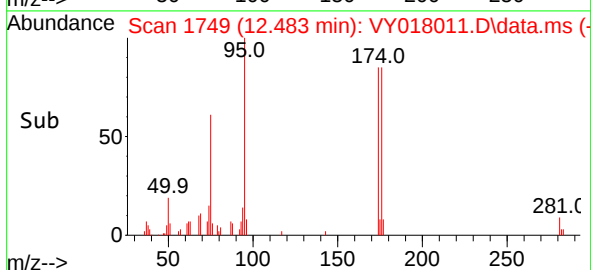
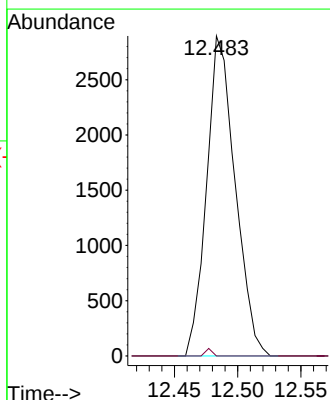
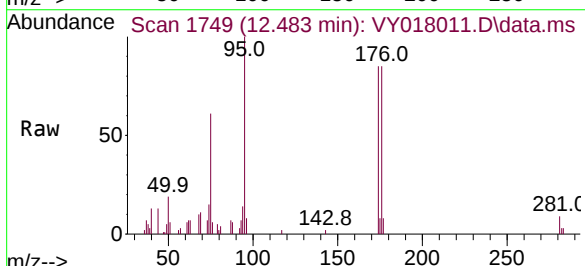
Acq: 22 Apr 2024 15:25

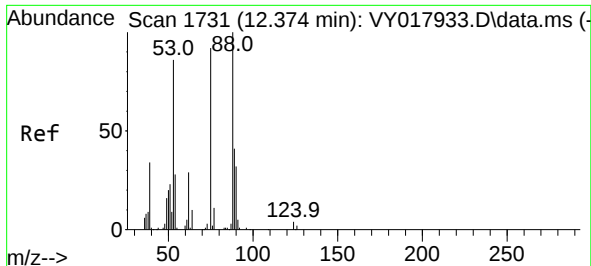
Tgt Ion: 75 Resp: 4544

Ion Ratio Lower Upper

75 100

77 0.6 0.0 0.0#

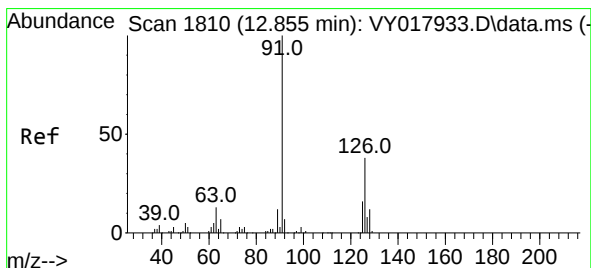
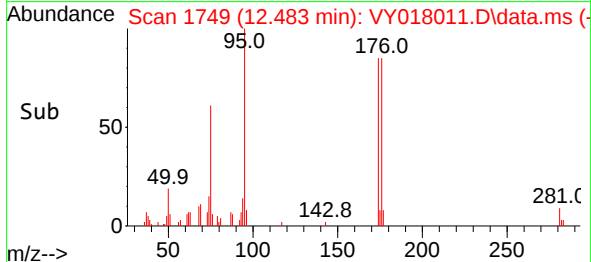
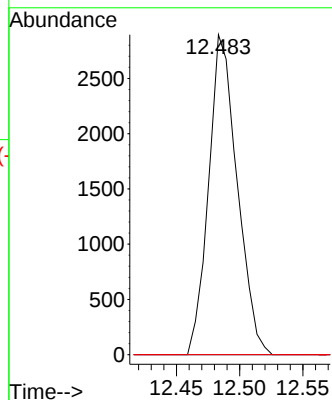
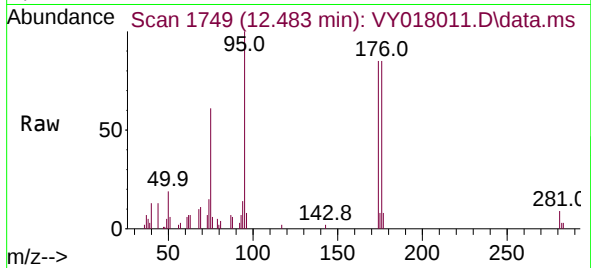




#81  
trans-1,4-Dichloro-2-butene  
Concen: 125.52 ug/l  
RT: 12.483 min Scan# 11  
Delta R.T. 0.104 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

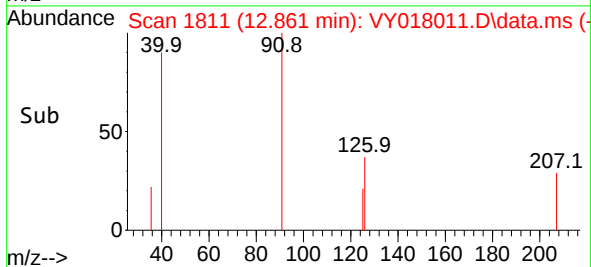
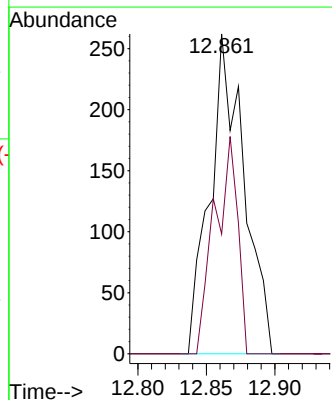
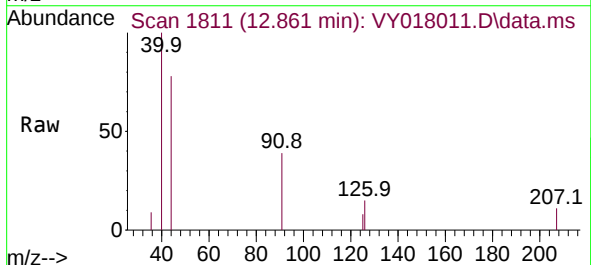
Instrument :  
MSVOA\_Y  
ClientSampleId :

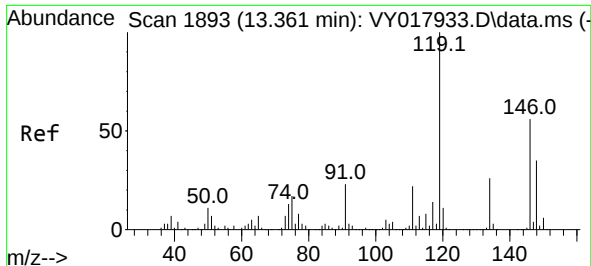
Tgt Ion: 75 Resp: 4544  
Ion Ratio Lower Upper  
75 100  
53 0.0 66.8 100.2#  
89 0.0 35.8 53.6#



#82  
4-Chlorotoluene  
Concen: 1.11 ug/l  
RT: 12.861 min Scan# 1811  
Delta R.T. 0.006 min  
Lab File: VY018011.D  
Acq: 22 Apr 2024 15:25

Tgt Ion: 91 Resp: 453  
Ion Ratio Lower Upper  
91 100  
126 45.7 17.6 52.9





#87

1,3-Dichlorobenzene

Concen: 1.70 ug/l

RT: 13.379 min Scan# 11

Delta R.T. 0.012 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

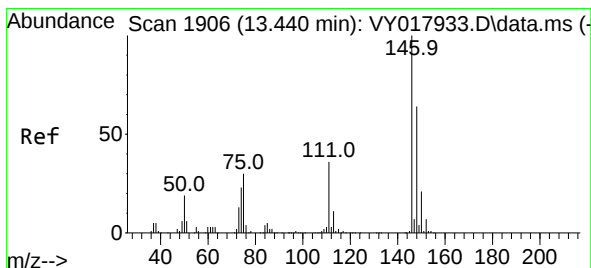
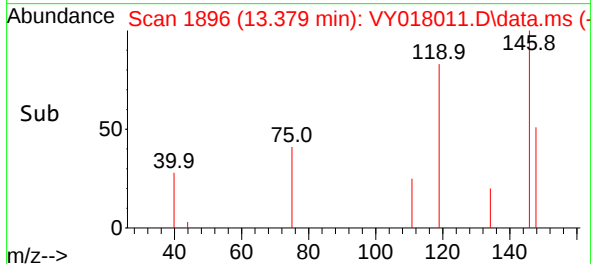
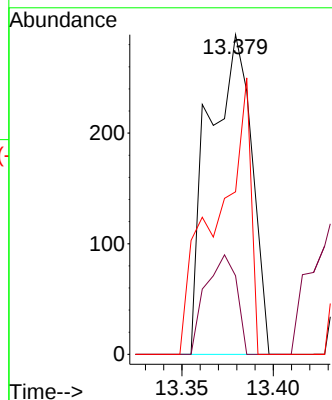
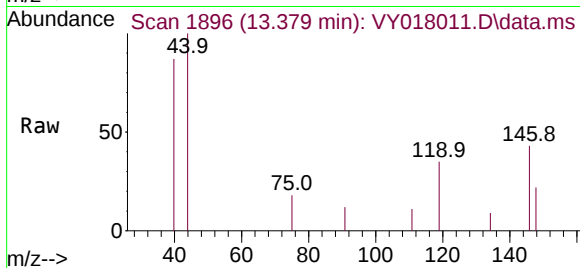
Tgt Ion:146 Resp: 472

Ion Ratio Lower Upper

146 100

111 22.5 19.0 57.0

148 67.6 31.7 95.1



#88

1,4-Dichlorobenzene

Concen: 1.53 ug/l

RT: 13.446 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

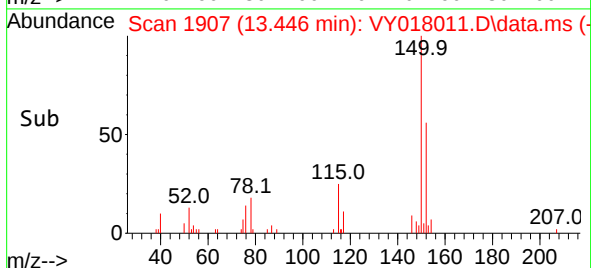
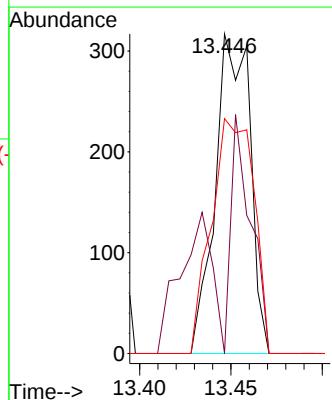
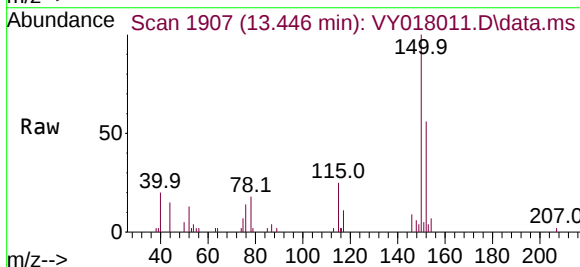
Tgt Ion:146 Resp: 418

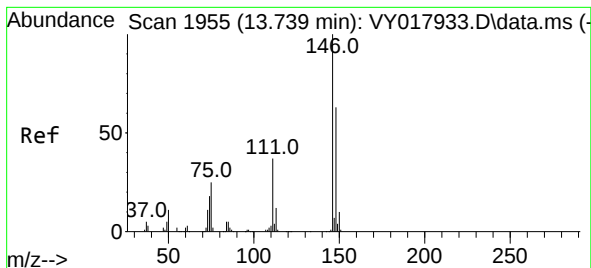
Ion Ratio Lower Upper

146 100

111 42.8 18.4 55.4

148 90.0 32.4 97.2





#91

1,2-Dichlorobenzene

Concen: 1.89 ug/l

RT: 13.751 min Scan# 1955

Delta R.T. 0.012 min

Lab File: VY018011.D

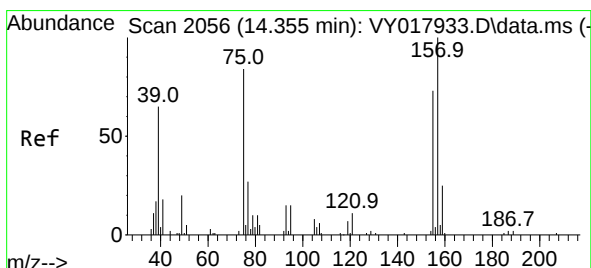
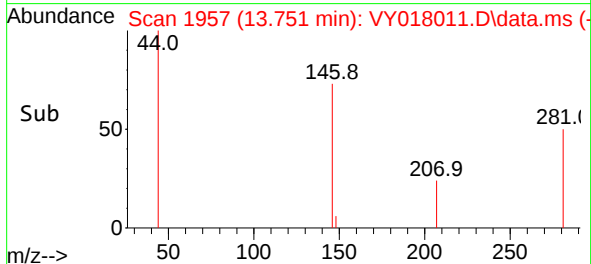
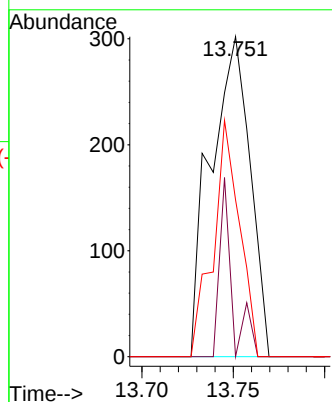
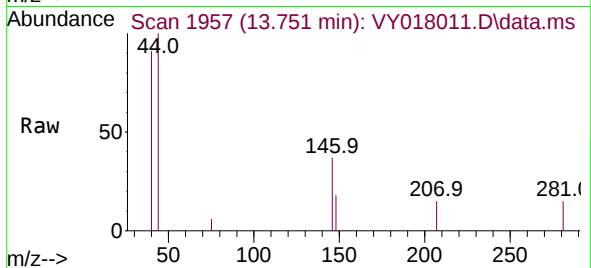
Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 454   |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 17.6  | 19.9  | 59.7# |
| 148      | 49.3  | 31.8  | 95.4  |



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.29 ug/l

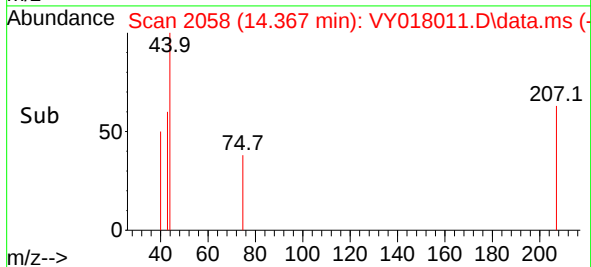
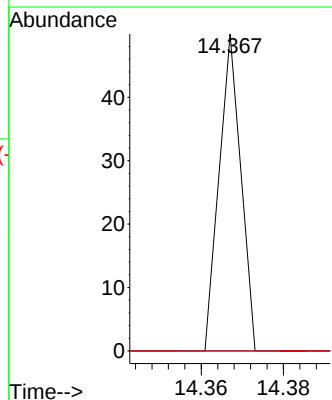
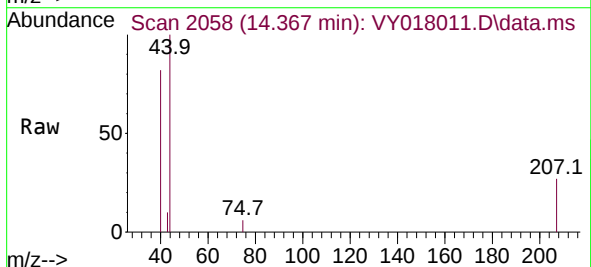
RT: 14.367 min Scan# 2058

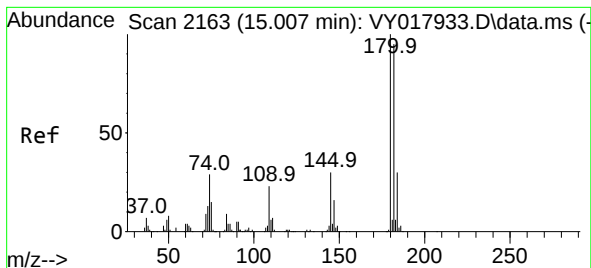
Delta R.T. 0.012 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 18     |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 155      | 0.0   | 48.6  | 145.8# |
| 157      | 0.0   | 62.7  | 188.2# |





#93

1,2,4-Trichlorobenzene

Concen: 2.39 ug/l

RT: 15.013 min Scan# 2163

Delta R.T. 0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

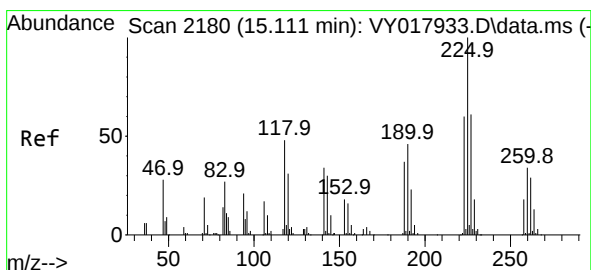
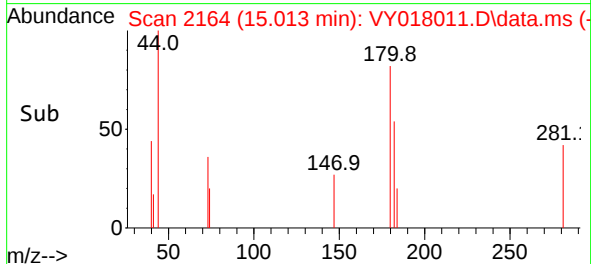
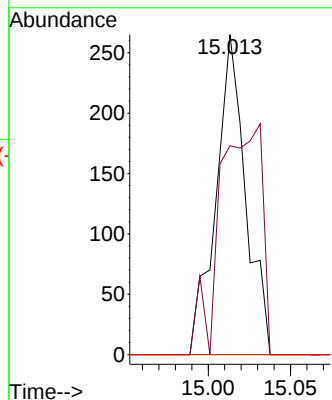
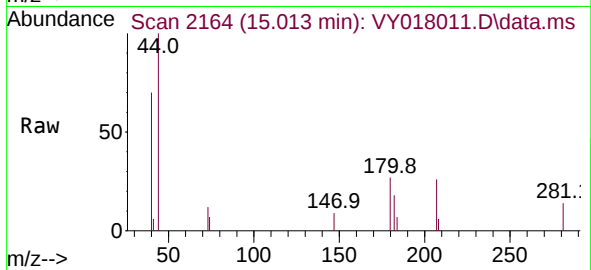
Tgt Ion:180 Resp: 334

Ion Ratio Lower Upper

180 100

182 102.4 47.9 143.8

145 0.0 14.2 42.6#



#94

Hexachlorobutadiene

Concen: 2.58 ug/l

RT: 15.123 min Scan# 2182

Delta R.T. 0.012 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

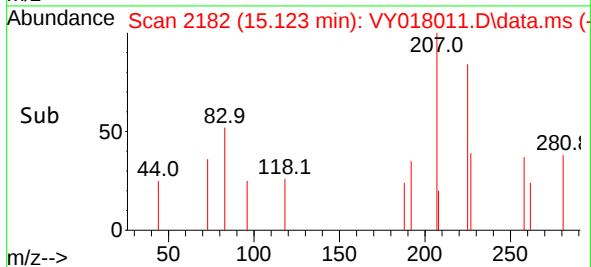
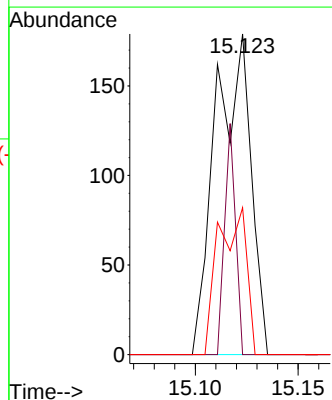
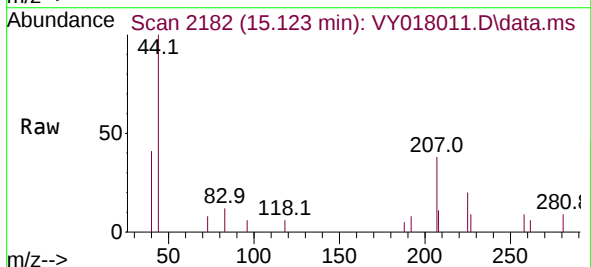
Tgt Ion:225 Resp: 214

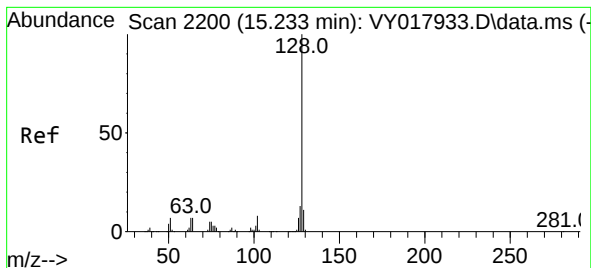
Ion Ratio Lower Upper

225 100

223 22.0 30.4 91.2#

227 36.4 31.9 95.9





#95

Naphthalene

Concen: 2.57 ug/l

RT: 15.251 min Scan# 21

Delta R.T. 0.018 min

Lab File: VY018011.D

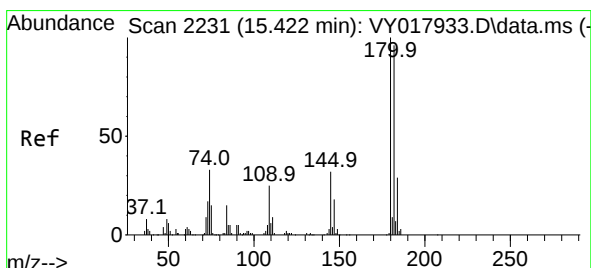
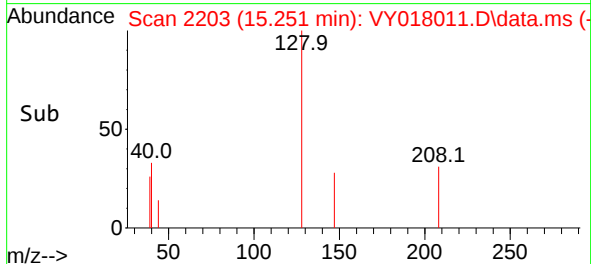
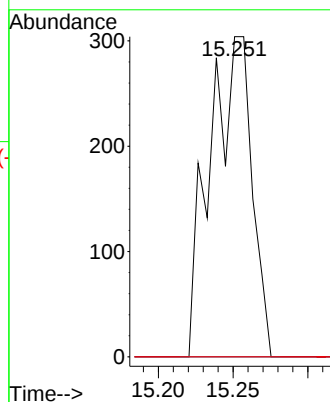
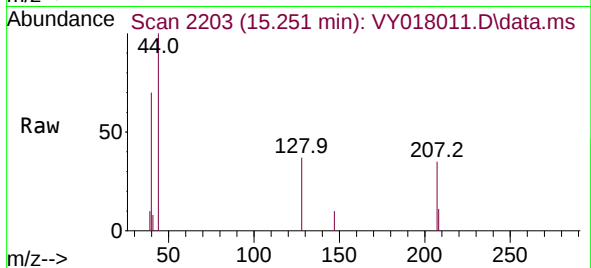
Acq: 22 Apr 2024 15:25

Instrument :

MSVOA\_Y

ClientSampleId :

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:128 | Resp: | 592        |
| Ion Ratio   | Lower | Upper      |
| 128         | 100   |            |
| 127         | 0.0   | 10.6 16.0# |
| 129         | 0.0   | 8.6 13.0#  |



#96

1,2,3-Trichlorobenzene

Concen: 3.44 ug/l

RT: 15.428 min Scan# 2232

Delta R.T. 0.006 min

Lab File: VY018011.D

Acq: 22 Apr 2024 15:25

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:180 | Resp: | 403        |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 76.2  | 47.6 142.9 |
| 145         | 0.0   | 15.4 46.1# |

