

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN032223\  
 Data File : VN077137.D  
 Acq On : 23 Mar 2023 09:02  
 Operator : JC\MD  
 Sample : 02018-02  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 46 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Mar 23 09:31:09 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N031723W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Mar 20 08:50:30 2023  
 Response via : Initial Calibration

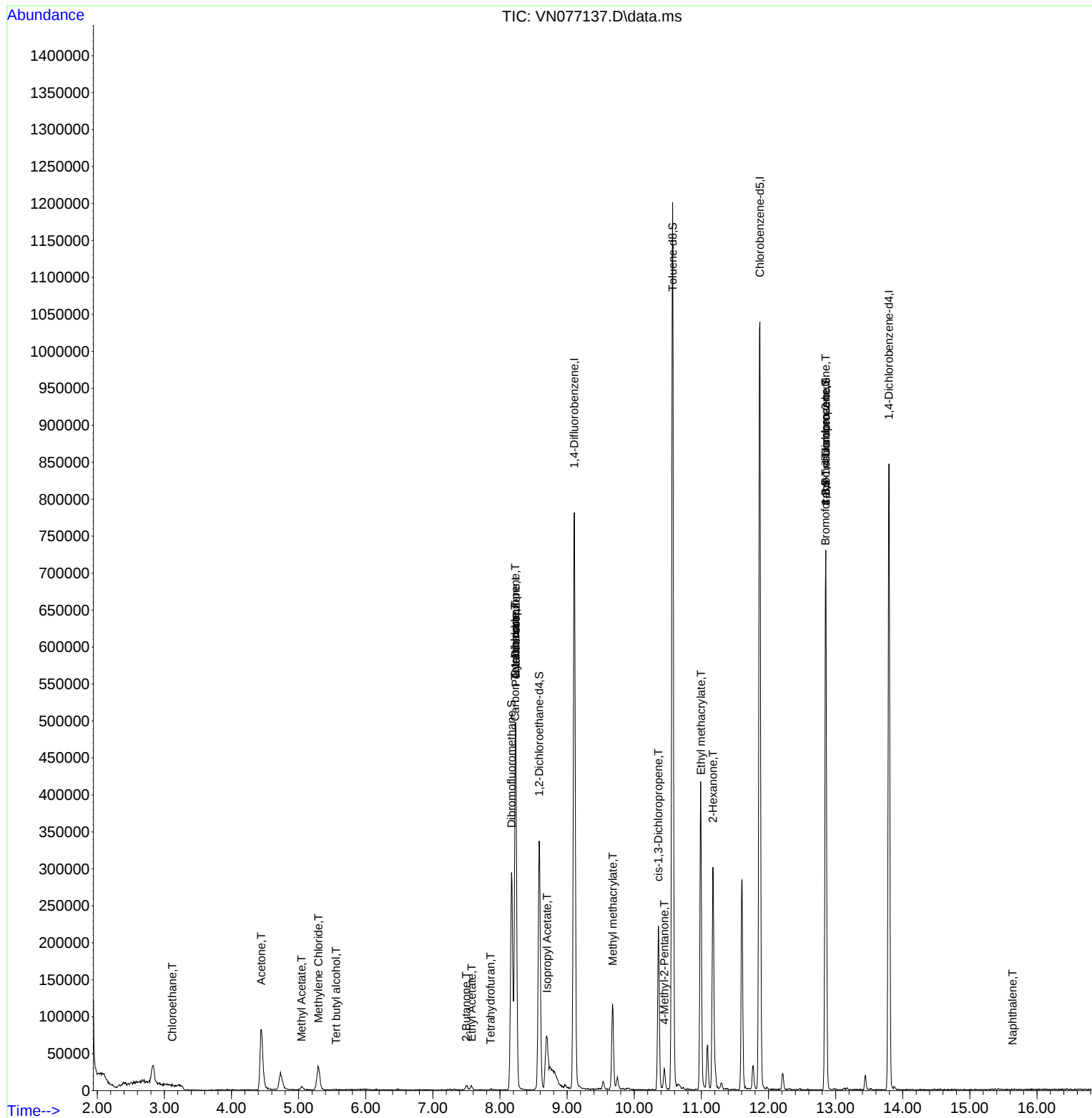
| Compound                      | R.T.           | QIon | Response   | Conc      | Units  | Dev(Min) |
|-------------------------------|----------------|------|------------|-----------|--------|----------|
| -----                         |                |      |            |           |        |          |
| Internal Standards            |                |      |            |           |        |          |
| 1) Pentafluorobenzene         | 8.236          | 168  | 345745     | 50.000    | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 9.107          | 114  | 629638     | 50.000    | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.871         | 117  | 573229     | 50.000    | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.795         | 152  | 212580     | 50.000    | ug/l   | 0.00     |
|                               |                |      |            |           |        |          |
| System Monitoring Compounds   |                |      |            |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.583          | 65   | 271864     | 49.227    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 74 - 125 |      | Recovery = | 98.460%   |        |          |
| 35) Dibromofluoromethane      | 8.172          | 113  | 204187     | 46.307    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 75 - 124 |      | Recovery = | 92.620%   |        |          |
| 50) Toluene-d8                | 10.572         | 98   | 782156     | 49.657    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 86 - 113 |      | Recovery = | 99.320%   |        |          |
| 62) 4-Bromofluorobenzene      | 12.854         | 95   | 233928     | 42.029    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 83 - 123 |      | Recovery = | 84.060%   |        |          |
|                               |                |      |            |           |        |          |
| Target Compounds              |                |      | Qvalue     |           |        |          |
| 2) Dichlorodifluoromethane    | 2.390          | 85   | 138        | Below Cal | #      | 42       |
| 6) Chloroethane               | 3.119          | 64   | 754        | 0.317     | ug/l # | 42       |
| 11) Tert butyl alcohol        | 5.560          | 59   | 670        | 0.833     | ug/l # | 72       |
| 16) Acetone                   | 4.443          | 43   | 160803     | 65.347    | ug/l   | 94       |
| 18) Methyl Acetate            | 5.042          | 43   | 9042       | 0.974     | ug/l # | 78       |
| 20) Methylene Chloride        | 5.295          | 84   | 22885      | 4.285     | ug/l   | 95       |
| 25) 2-Butanone                | 7.495          | 43   | 9569       | 2.658     | ug/l   | 96       |
| 29) Tetrahydrofuran           | 7.860          | 42   | 630        | 0.270     | ug/l # | 76       |
| 31) Cyclohexane               | 8.231          | 56   | 10515      | 1.164     | ug/l # | 49       |
| 36) 1,1-Dichloropropene       | 8.231          | 75   | 31874      | 4.628     | ug/l # | 52       |
| 37) Ethyl Acetate             | 7.578          | 43   | 8572       | 1.163     | ug/l # | 87       |
| 38) Carbon Tetrachloride      | 8.225          | 117  | 39807      | 5.934     | ug/l # | 15       |
| 43) Isopropyl Acetate         | 8.701          | 43   | 95268      | 8.276     | ug/l # | 75       |
| 48) Methyl methacrylate       | 9.683          | 41   | 5009       | 0.910     | ug/l # | 17       |
| 51) 4-Methyl-2-Pentanone      | 10.448         | 43   | 22223      | 3.100     | ug/l   | 89       |
| 54) cis-1,3-Dichloropropene   | 10.360         | 75   | 34255      | 4.221     | ug/l # | 78       |
| 56) Ethyl methacrylate        | 10.995         | 69   | 2650       | 0.358     | ug/l # | 1        |
| 59) 2-Hexanone                | 11.172         | 43   | 244547     | 47.035    | ug/l # | 24       |
| 71) Bromoform                 | 12.848         | 173  | 1049       | 0.317     | ug/l # | 28       |
| 76) 1,2,3-Trichloropropane    | 12.854         | 75   | 132361     | 24.071    | ug/l # | 1        |
| 81) trans-1,4-Dichloro-2-b... | 12.854         | 75   | 132361     | 66.258    | ug/l # | 10       |
| 95) Naphthalene               | 15.636         | 128  | 341        | 1.935     | ug/l # | 70       |
| -----                         |                |      |            |           |        |          |

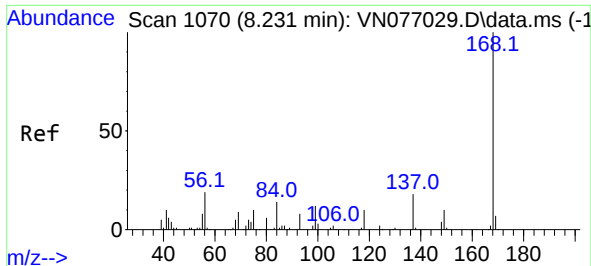
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN032223\  
Data File : VN077137.D  
Acq On : 23 Mar 2023 09:02  
Operator : JC\MD  
Sample : 02018-02  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 46 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :

Quant Time: Mar 23 09:31:09 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N031723W.M  
Quant Title : SW846 8260  
QLast Update : Mon Mar 20 08:50:30 2023  
Response via : Initial Calibration

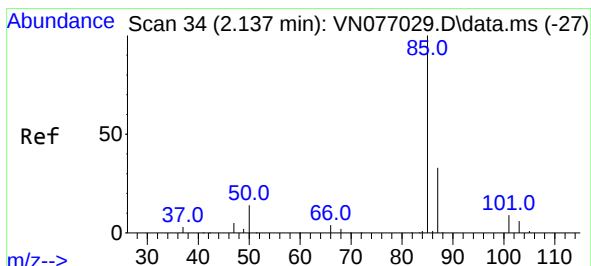
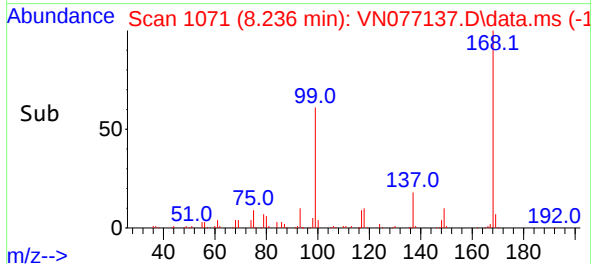
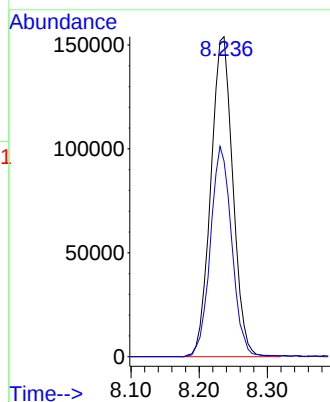
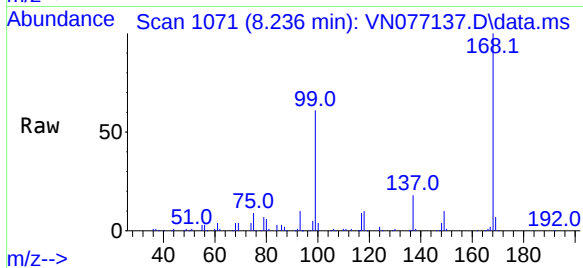




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.236 min Scan# 10  
Delta R.T. 0.005 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

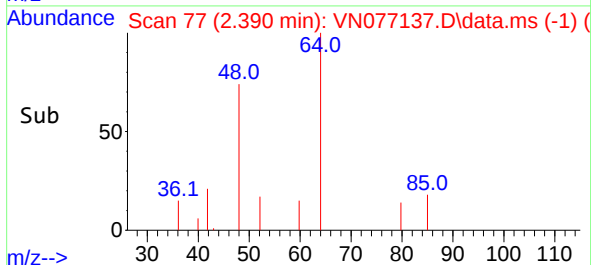
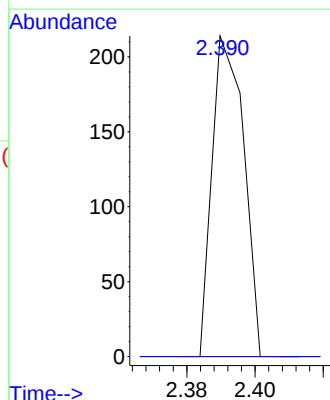
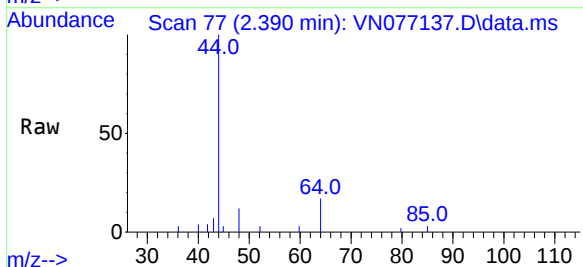
Instrument :  
MSVOA\_N  
ClientSampleId :

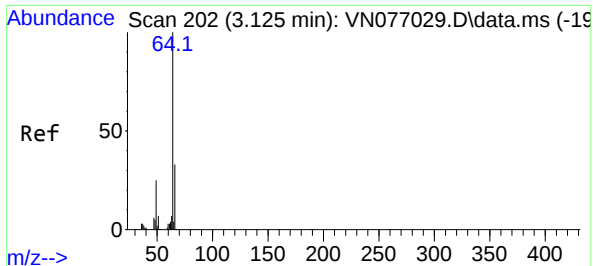
Tgt Ion:168 Resp: 345745  
Ion Ratio Lower Upper  
168 100  
99 61.1 53.9 80.9



#2  
Dichlorodifluoromethane  
Concen: Below Cal  
RT: 2.390 min Scan# 77  
Delta R.T. 0.253 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

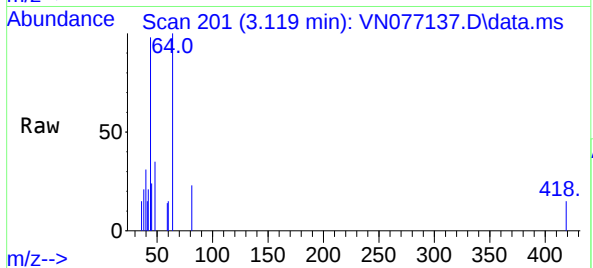
Tgt Ion: 85 Resp: 138  
Ion Ratio Lower Upper  
85 100  
87 0.0 16.4 49.2#



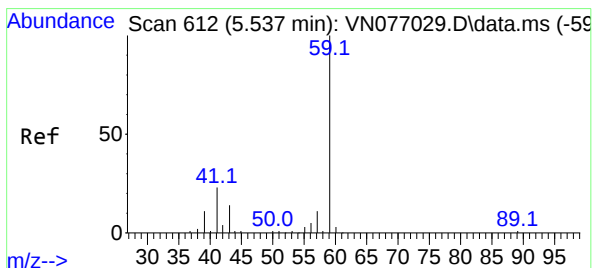
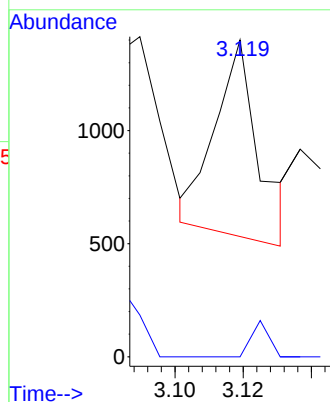
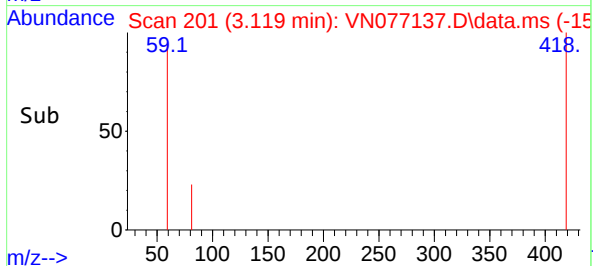


#6  
Chloroethane  
Concen: 0.317 ug/l  
RT: 3.119 min Scan# 20  
Delta R.T. -0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Instrument :  
MSVOA\_N  
ClientSampleId :

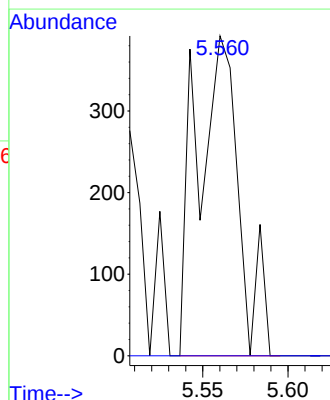
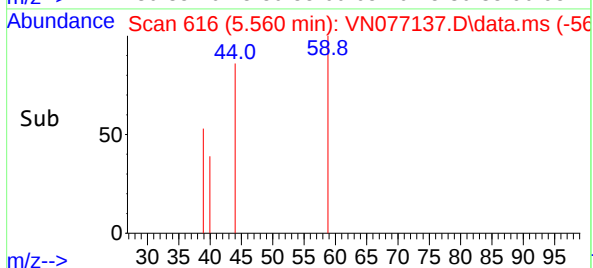
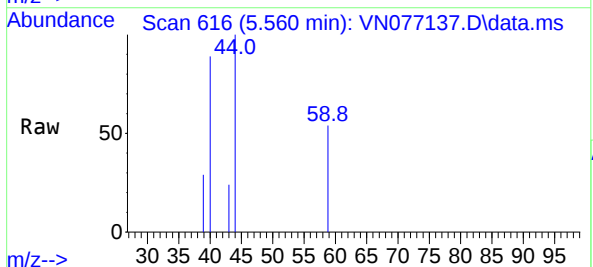


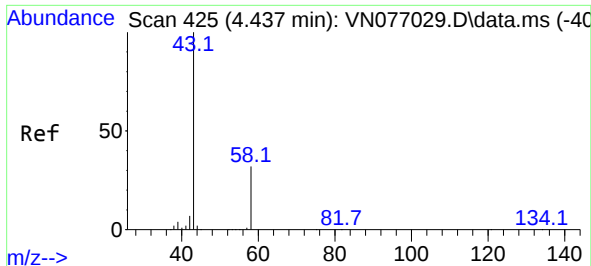
Tgt Ion: 64 Resp: 754  
Ion Ratio Lower Upper  
64 100  
66 0.0 26.3 39.5#



#11  
Tert butyl alcohol  
Concen: 0.833 ug/l  
RT: 5.560 min Scan# 616  
Delta R.T. 0.023 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Tgt Ion: 59 Resp: 670  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.6 12.8#

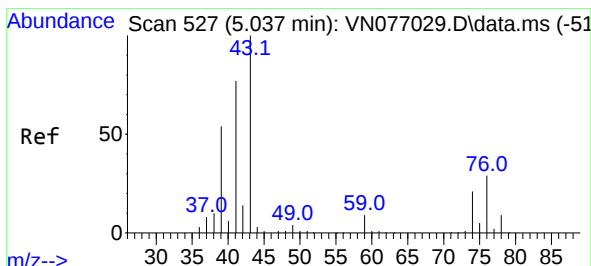
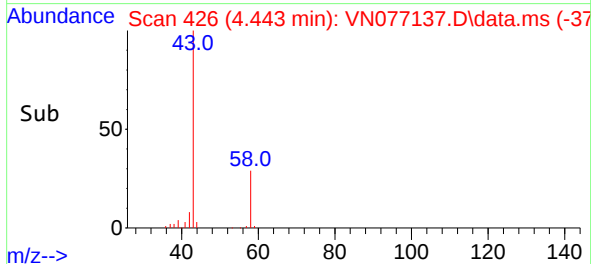
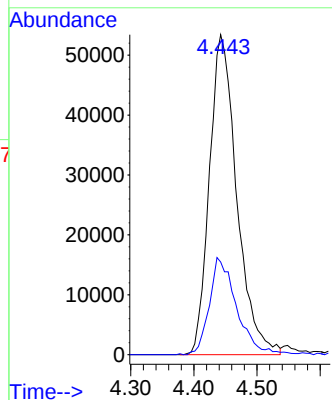
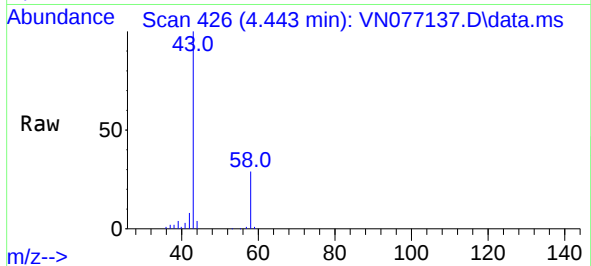




#16  
Acetone  
Concen: 65.347 ug/l  
RT: 4.443 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

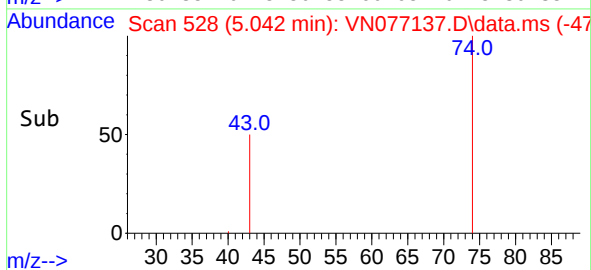
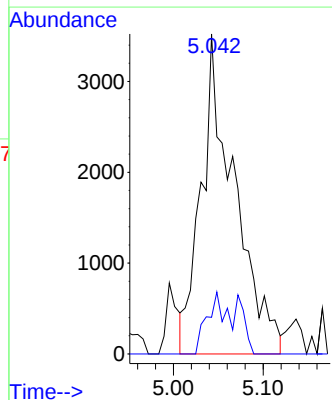
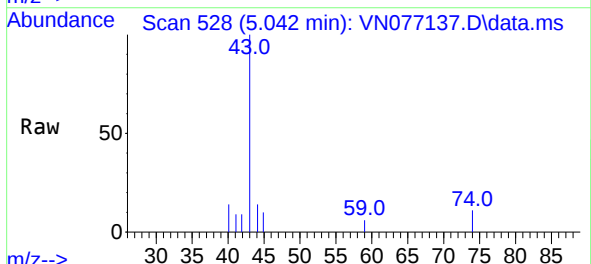
Instrument :  
MSVOA\_N  
ClientSampleId :

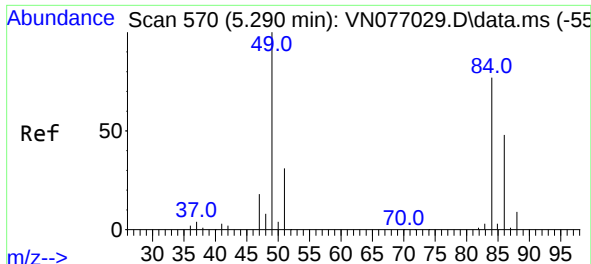
Tgt Ion: 43 Resp: 160803  
Ion Ratio Lower Upper  
43 100  
58 28.6 25.4 38.0



#18  
Methyl Acetate  
Concen: 0.974 ug/l  
RT: 5.042 min Scan# 528  
Delta R.T. 0.005 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

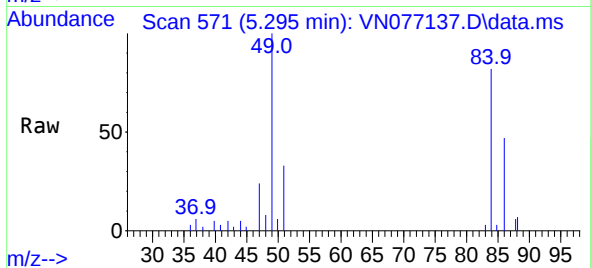
Tgt Ion: 43 Resp: 9042  
Ion Ratio Lower Upper  
43 100  
74 11.5 17.7 26.5#



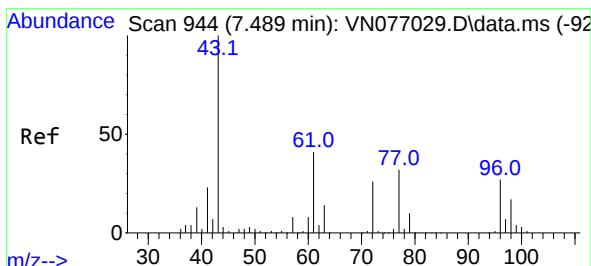
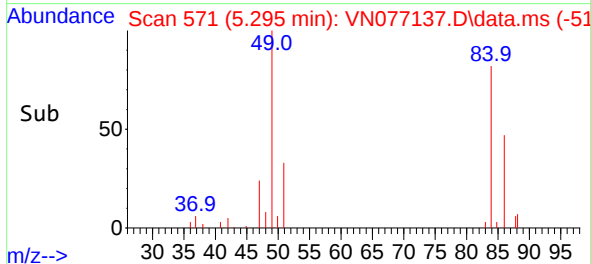
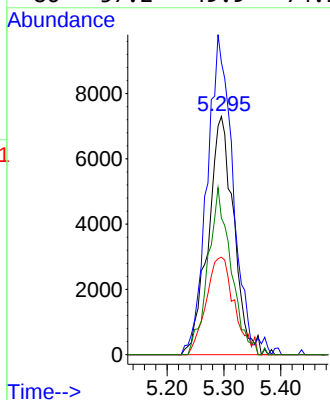


#20  
Methylene Chloride  
Concen: 4.285 ug/l  
RT: 5.295 min Scan# 51  
Delta R.T. 0.005 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Instrument :  
MSVOA\_N  
ClientSampleId :

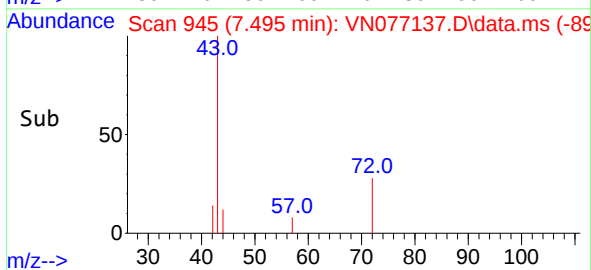
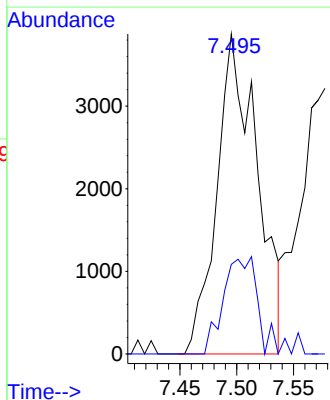
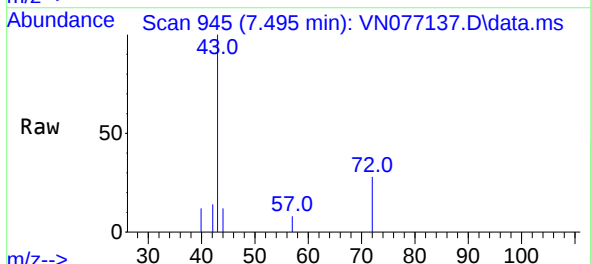


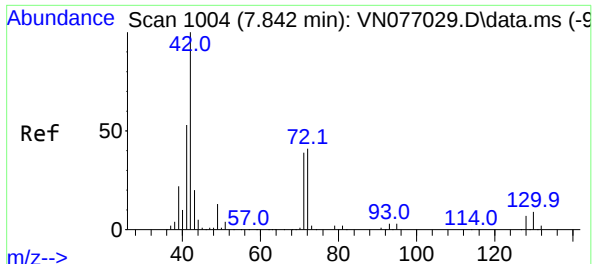
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 22885 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 122.7 | 103.8 | 155.6 |
| 51       | 40.9  | 32.3  | 48.5  |
| 86       | 57.2  | 49.9  | 74.9  |



#25  
2-Butanone  
Concen: 2.658 ug/l  
RT: 7.495 min Scan# 945  
Delta R.T. 0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

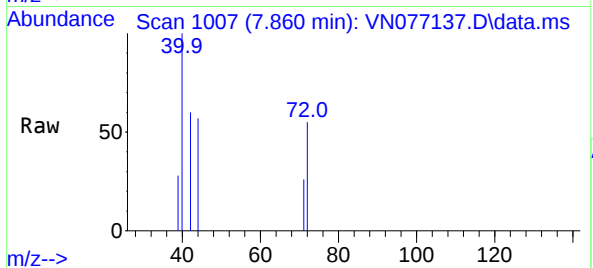
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 9569  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 28.0  | 20.7  | 31.1  |



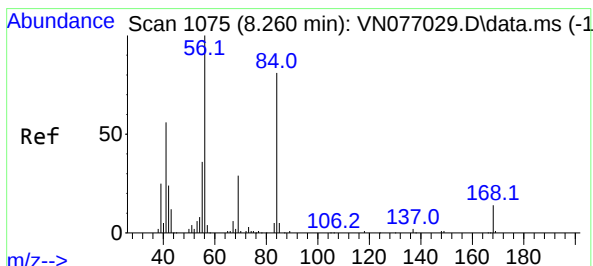
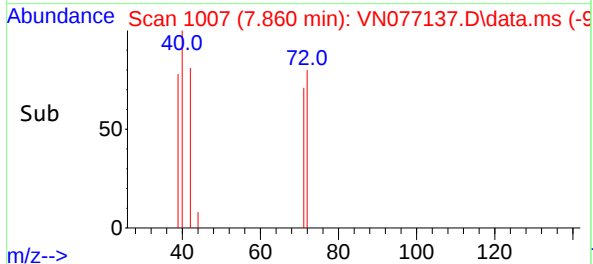
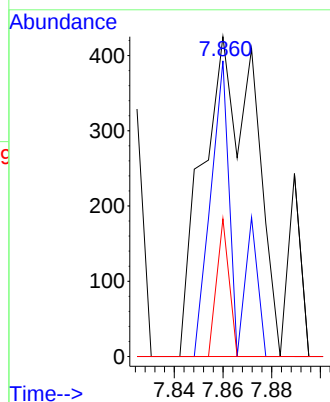


#29  
Tetrahydrofuran  
Concen: 0.270 ug/l  
RT: 7.860 min Scan# 10  
Delta R.T. 0.018 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Instrument :  
MSVOA\_N  
ClientSampleId :

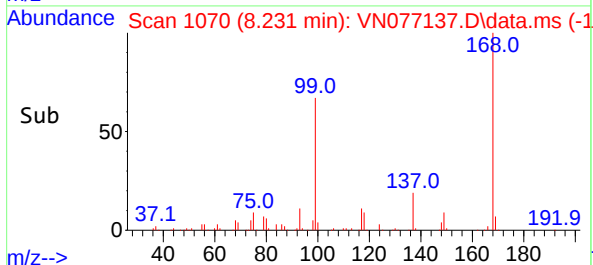
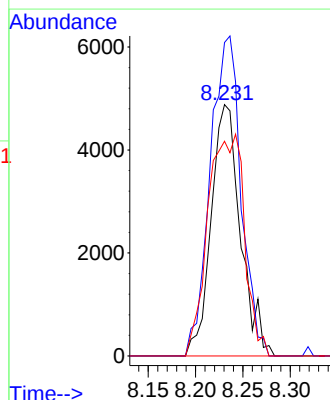
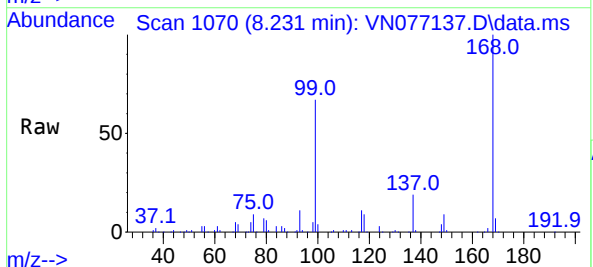


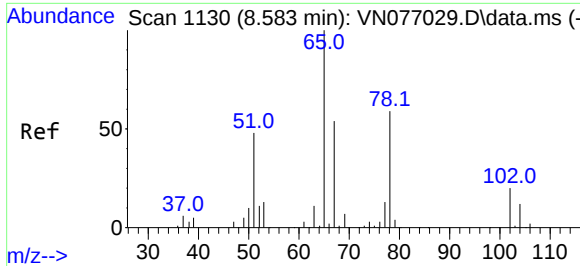
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 630   |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 42.7  | 33.2  | 49.8  |
| 71       | 10.3  | 31.0  | 46.4# |



#31  
Cyclohexane  
Concen: 1.164 ug/l  
RT: 8.231 min Scan# 1070  
Delta R.T. -0.029 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 10515 |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 124.8 | 22.8  | 34.2# |
| 84       | 85.4  | 64.7  | 97.1  |

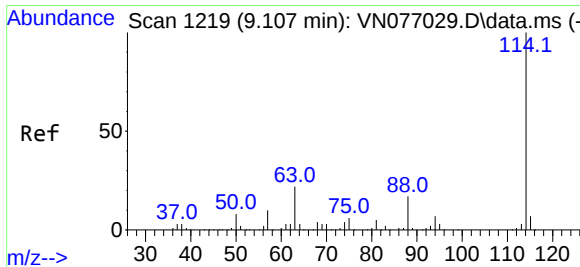
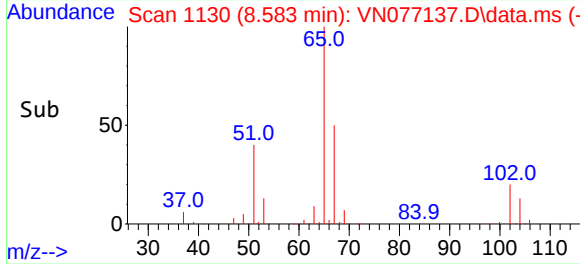
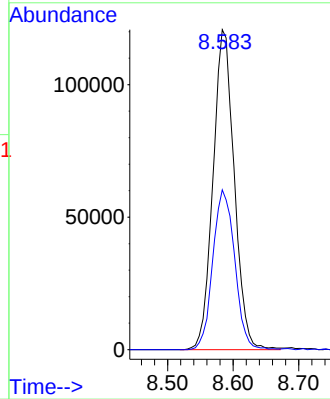
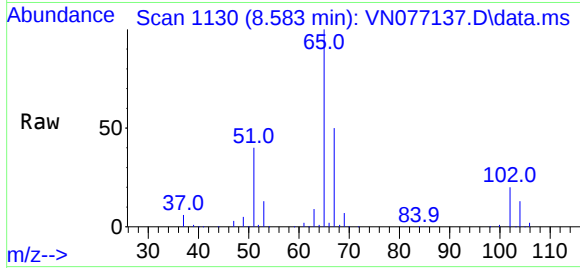




#33  
 1,2-Dichloroethane-d4  
 Concen: 49.227 ug/l  
 RT: 8.583 min Scan# 1130  
 Delta R.T. 0.000 min  
 Lab File: VN077137.D  
 Acq: 23 Mar 2023 09:02

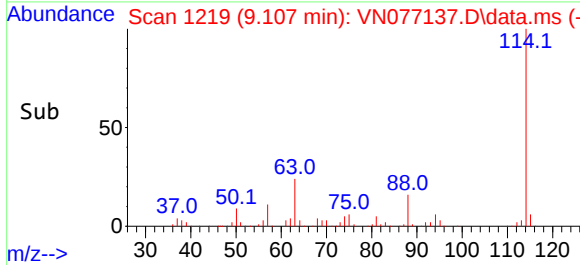
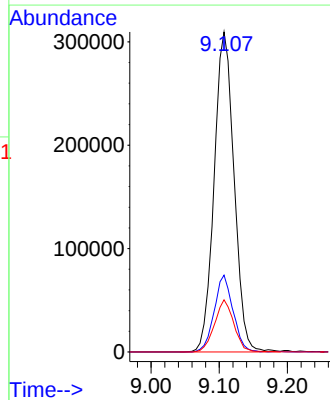
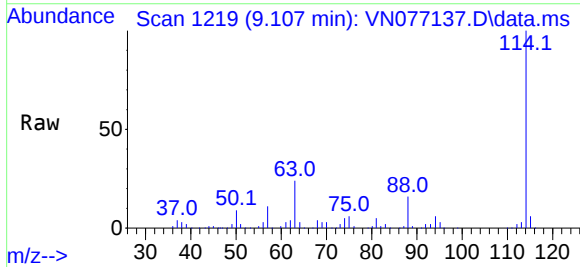
Instrument :  
 MSVOA\_N  
 ClientSampleId :

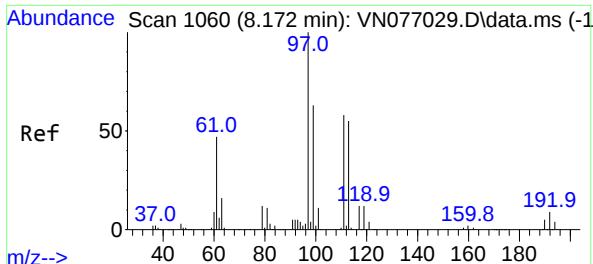
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 65    | Resp: | 271864 |
| Ion Ratio | Lower | Upper |        |
| 65        | 100   |       |        |
| 67        | 51.5  | 0.0   | 105.2  |



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 9.107 min Scan# 1219  
 Delta R.T. -0.000 min  
 Lab File: VN077137.D  
 Acq: 23 Mar 2023 09:02

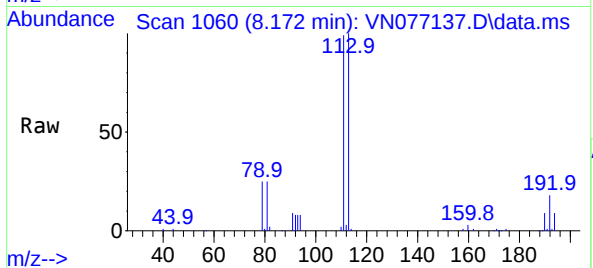
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 114   | Resp: | 629638 |
| Ion Ratio | Lower | Upper |        |
| 114       | 100   |       |        |
| 63        | 24.0  | 0.0   | 44.6   |
| 88        | 16.3  | 0.0   | 33.8   |



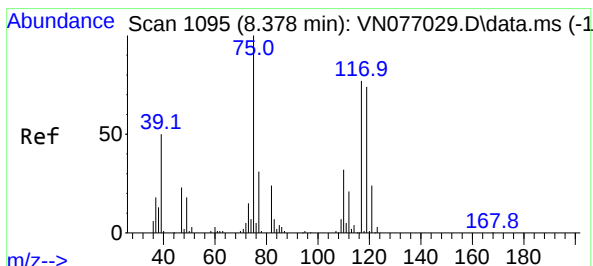
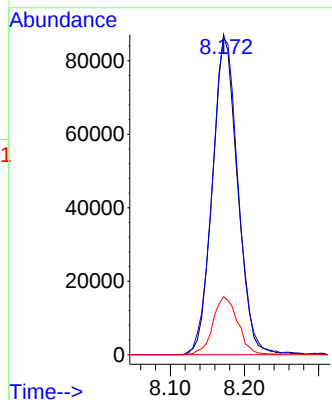
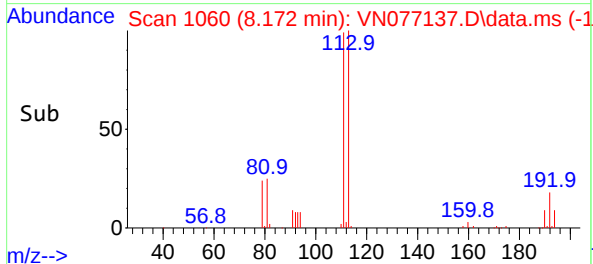


#35  
Dibromofluoromethane  
Concen: 46.307 ug/l  
RT: 8.172 min Scan# 1060  
Delta R.T. -0.000 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

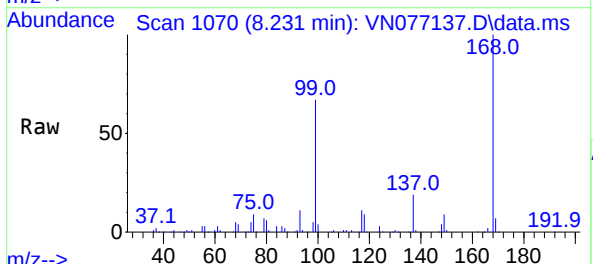
Instrument :  
MSVOA\_N  
ClientSampleId :



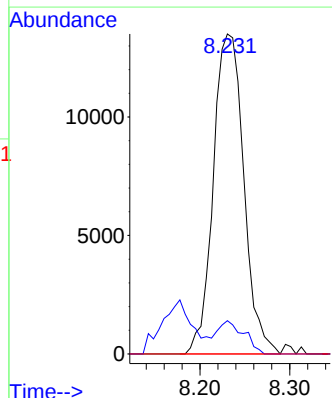
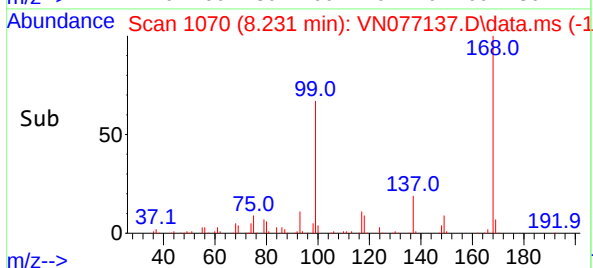
Tgt Ion:113 Resp: 204187  
Ion Ratio Lower Upper  
113 100  
111 102.5 82.2 123.2  
192 18.0 13.0 19.6

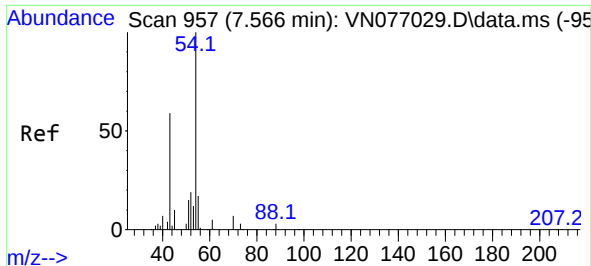


#36  
1,1-Dichloropropene  
Concen: 4.628 ug/l  
RT: 8.231 min Scan# 1070  
Delta R.T. -0.147 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02



Tgt Ion: 75 Resp: 31874  
Ion Ratio Lower Upper  
75 100  
110 8.9 15.9 47.7#  
77 0.0 24.3 36.5#





#37

Ethyl Acetate

Concen: 1.163 ug/l

RT: 7.578 min Scan# 91

Delta R.T. 0.012 min

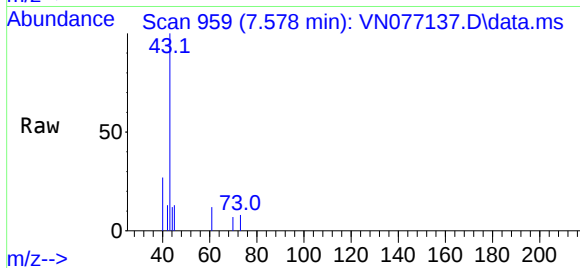
Lab File: VN077137.D

Acq: 23 Mar 2023 09:02

Instrument :

MSVOA\_N

ClientSampleId :



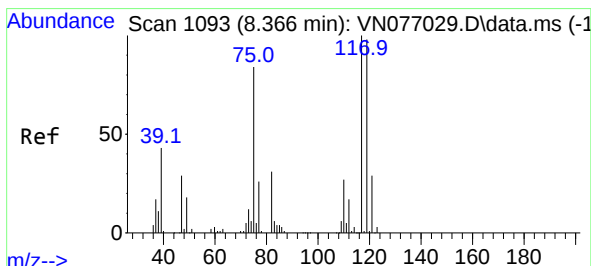
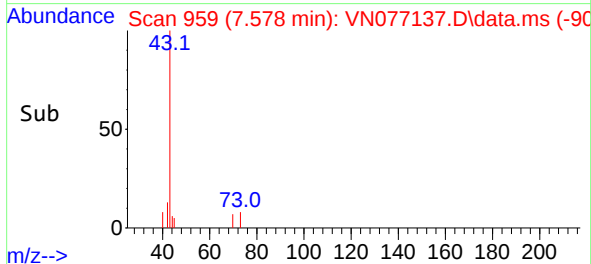
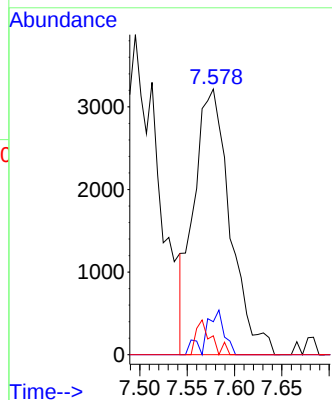
Tgt Ion: 43 Resp: 8572

Ion Ratio Lower Upper

43 100

61 8.6 11.0 16.6#

70 5.4 8.4 12.6#



#38

Carbon Tetrachloride

Concen: 5.934 ug/l

RT: 8.225 min Scan# 1069

Delta R.T. -0.141 min

Lab File: VN077137.D

Acq: 23 Mar 2023 09:02

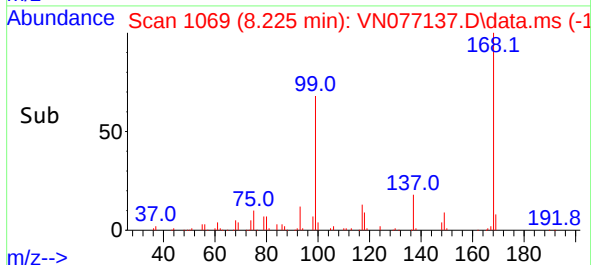
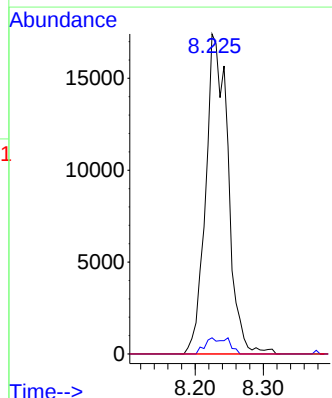
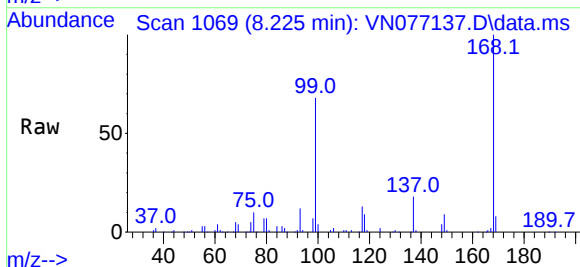
Tgt Ion: 117 Resp: 39807

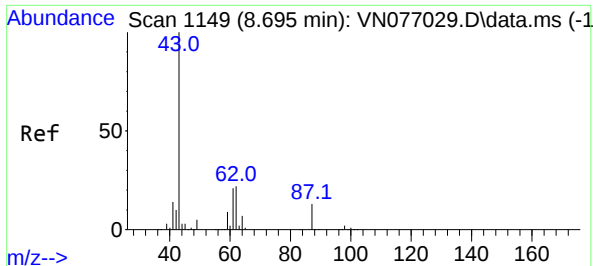
Ion Ratio Lower Upper

117 100

119 5.0 78.2 117.2#

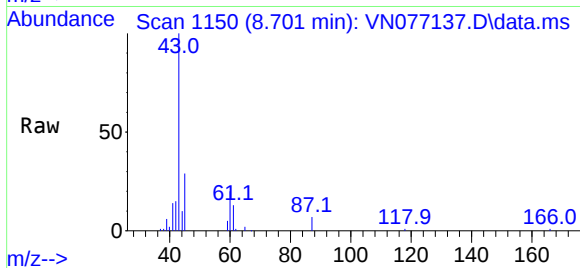
121 0.0 23.2 34.8#



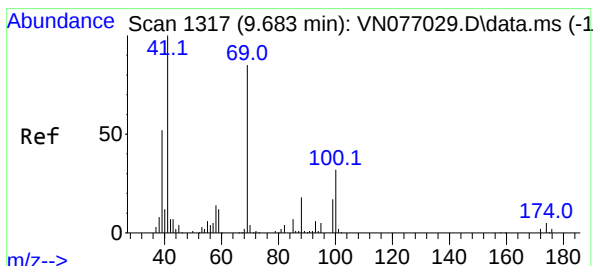
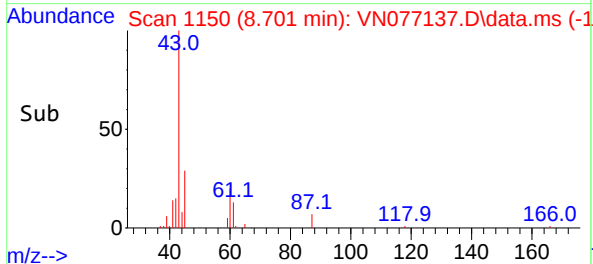
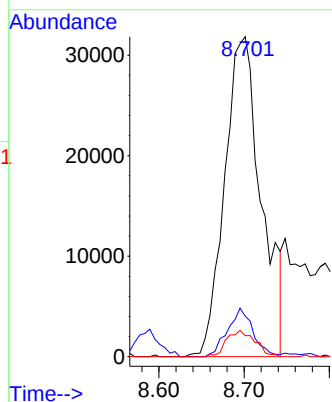


#43  
Isopropyl Acetate  
Concen: 8.276 ug/l  
RT: 8.701 min Scan# 1149  
Delta R.T. 0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Instrument :  
MSVOA\_N  
ClientSampleId :

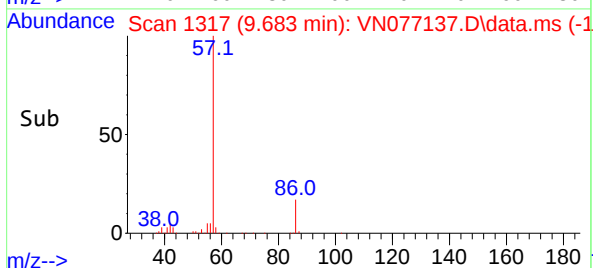
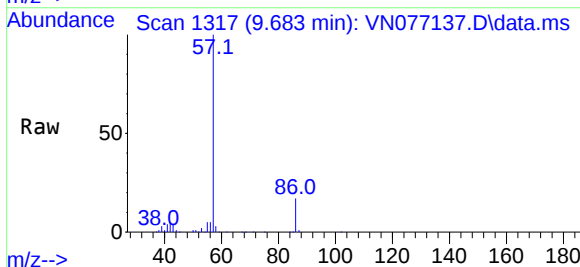
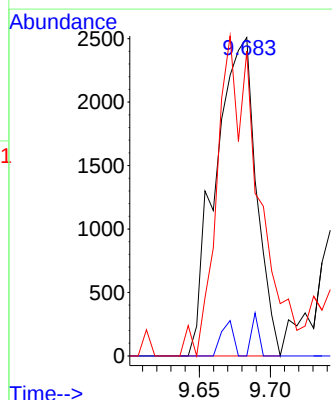


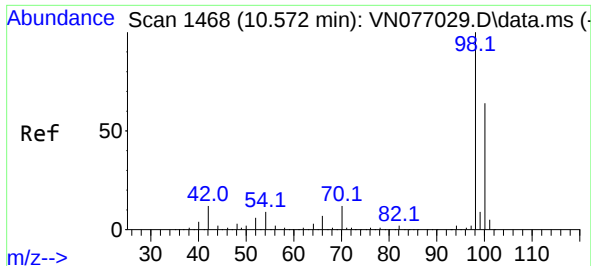
Tgt Ion: 43 Resp: 95268  
Ion Ratio Lower Upper  
43 100  
61 10.6 20.6 30.8#  
87 6.4 10.0 15.0#



#48  
Methyl methacrylate  
Concen: 0.910 ug/l  
RT: 9.683 min Scan# 1317  
Delta R.T. -0.000 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Tgt Ion: 41 Resp: 5009  
Ion Ratio Lower Upper  
41 100  
69 2.4 64.3 96.5#  
39 0.0 43.2 64.8#

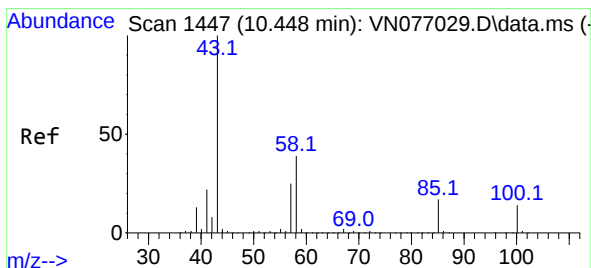
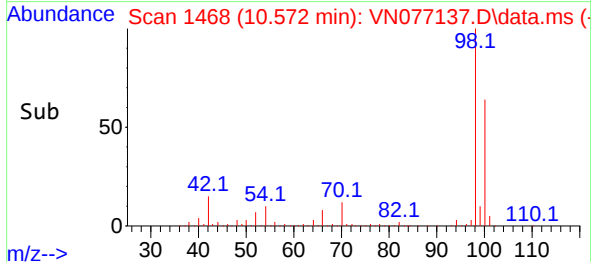
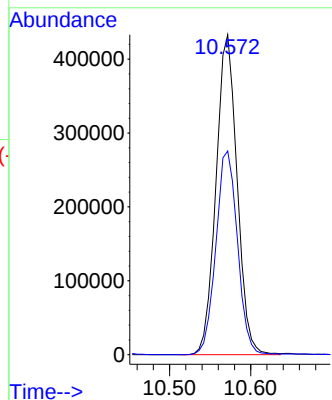
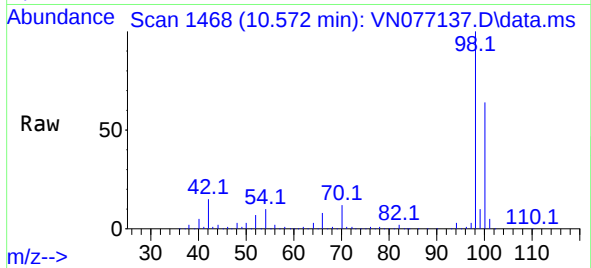




#50  
Toluene-d8  
Concen: 49.657 ug/l  
RT: 10.572 min Scan# 1468  
Delta R.T. -0.000 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

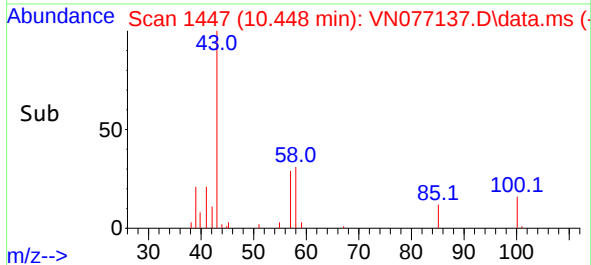
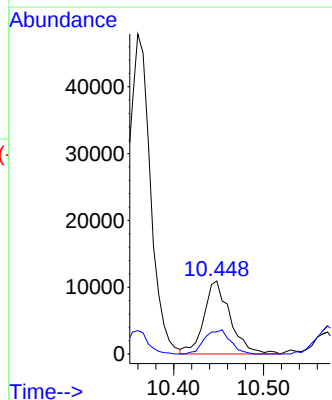
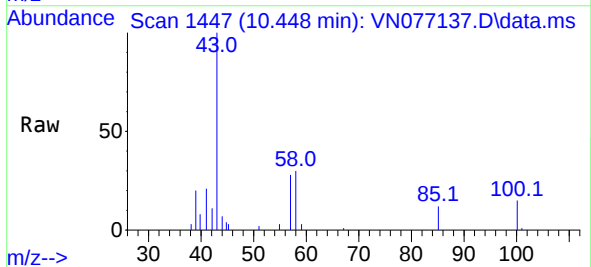
Instrument :  
MSVOA\_N  
ClientSampleId :

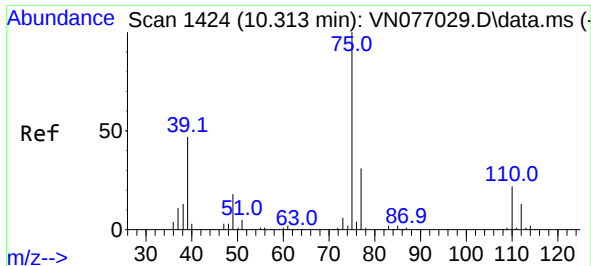
Tgt Ion: 98 Resp: 782156  
Ion Ratio Lower Upper  
98 100  
100 65.1 51.6 77.4



#51  
4-Methyl-2-Pentanone  
Concen: 3.100 ug/l  
RT: 10.448 min Scan# 1447  
Delta R.T. -0.000 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Tgt Ion: 43 Resp: 22223  
Ion Ratio Lower Upper  
43 100  
58 32.3 31.1 46.7

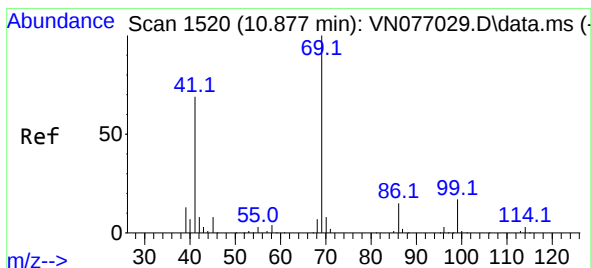
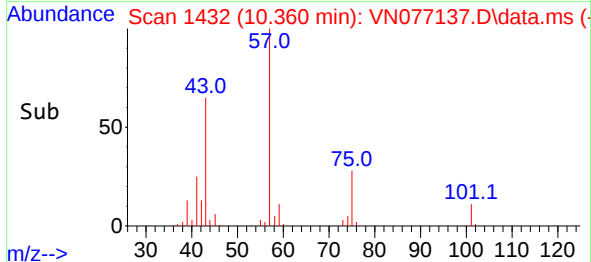
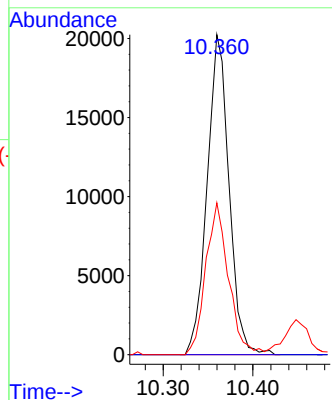
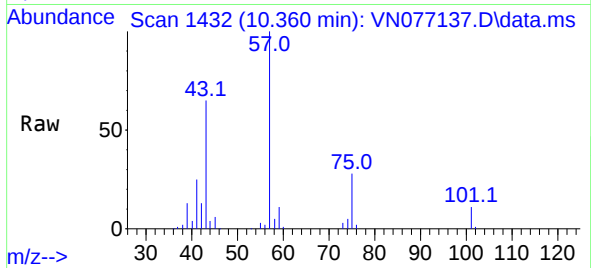




#54  
 cis-1,3-Dichloropropene  
 Concen: 4.221 ug/l  
 RT: 10.360 min Scan# 14  
 Delta R.T. 0.047 min  
 Lab File: VN077137.D  
 Acq: 23 Mar 2023 09:02

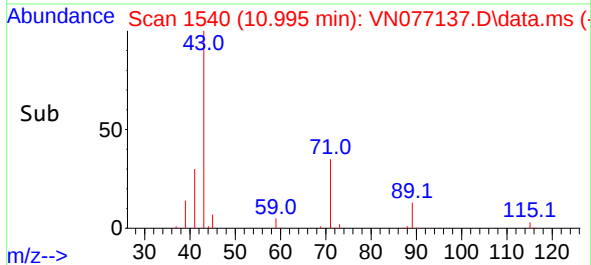
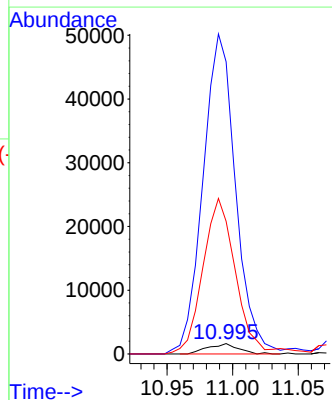
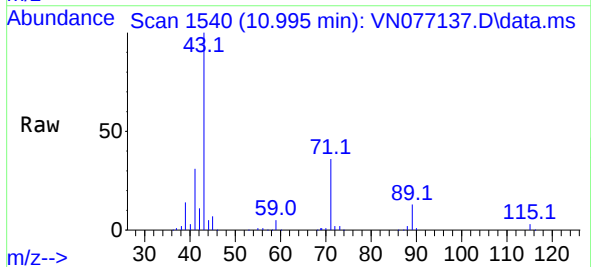
Instrument :  
 MSVOA\_N  
 ClientSampleId :

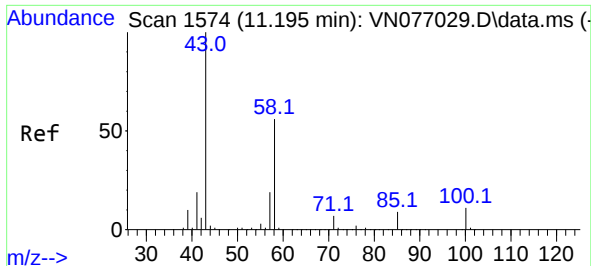
Tgt Ion: 75 Resp: 34255  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 24.5 36.7#  
 39 47.5 37.8 56.6



#56  
 Ethyl methacrylate  
 Concen: 0.358 ug/l  
 RT: 10.995 min Scan# 1540  
 Delta R.T. 0.118 min  
 Lab File: VN077137.D  
 Acq: 23 Mar 2023 09:02

Tgt Ion: 69 Resp: 2650  
 Ion Ratio Lower Upper  
 69 100  
 41 3275.1 54.9 82.3#  
 39 1575.7 26.6 40.0#

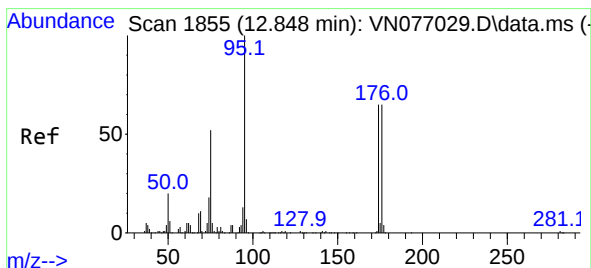
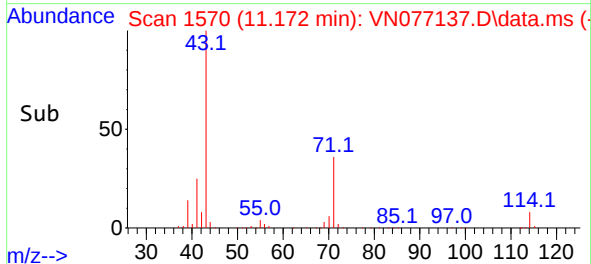
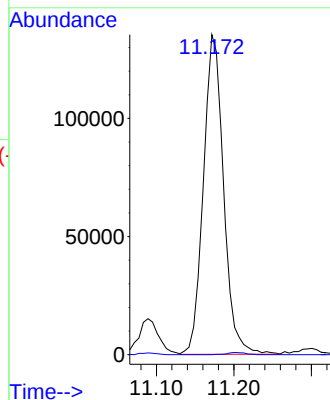
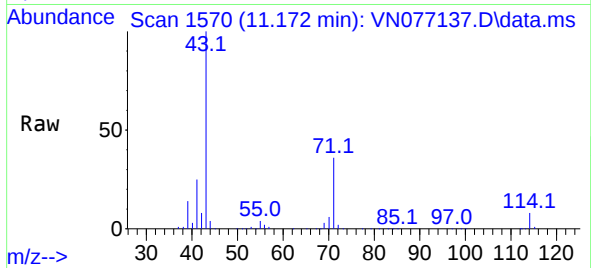




#59  
2-Hexanone  
Concen: 47.035 ug/l  
RT: 11.172 min Scan# 11  
Delta R.T. -0.024 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

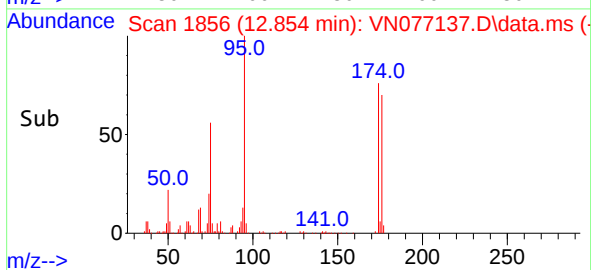
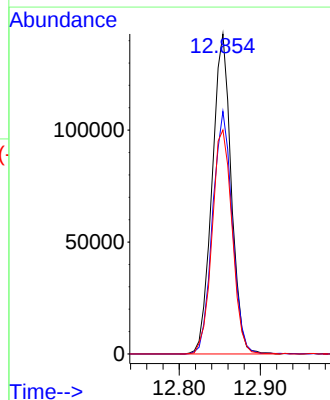
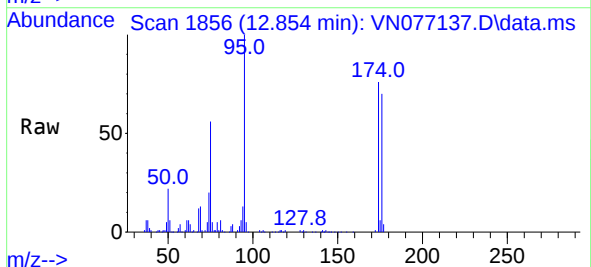
Instrument :  
MSVOA\_N  
ClientSampleId :

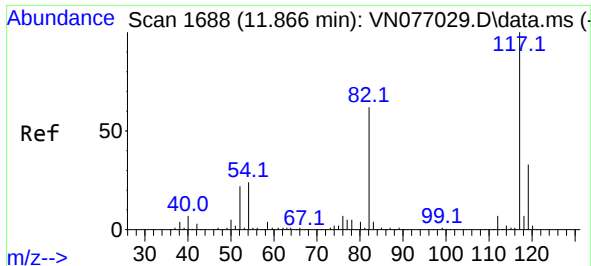
Tgt Ion: 43 Resp: 244547  
Ion Ratio Lower Upper  
43 100  
58 0.0 27.7 83.1#



#62  
4-Bromofluorobenzene  
Concen: 42.029 ug/l  
RT: 12.854 min Scan# 1856  
Delta R.T. 0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Tgt Ion: 95 Resp: 233928  
Ion Ratio Lower Upper  
95 100  
174 78.0 0.0 136.6  
176 73.4 0.0 130.0

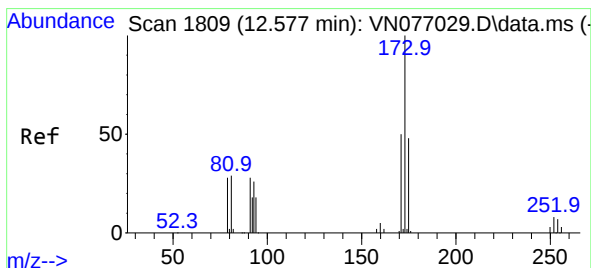
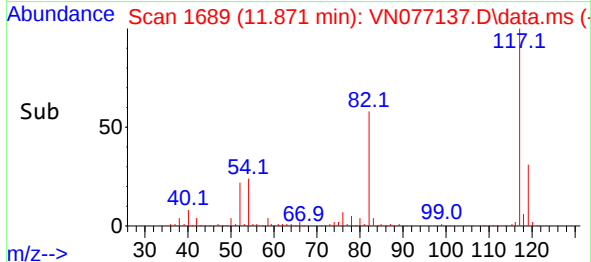
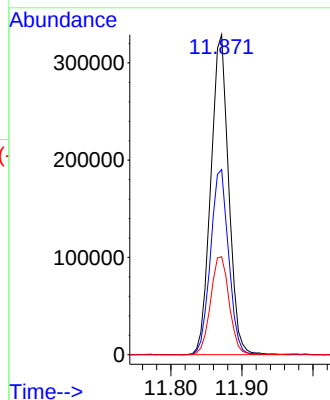
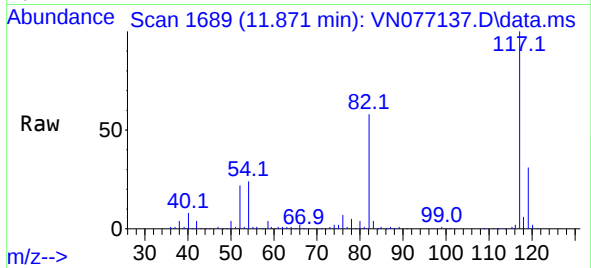




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.871 min Scan# 11  
Delta R.T. 0.005 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

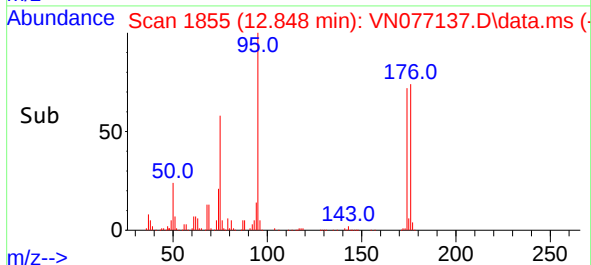
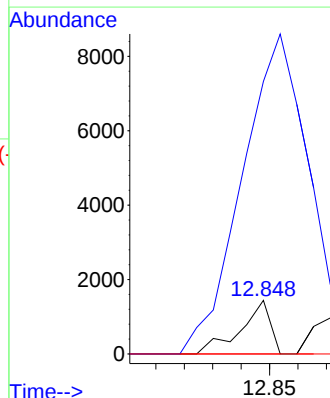
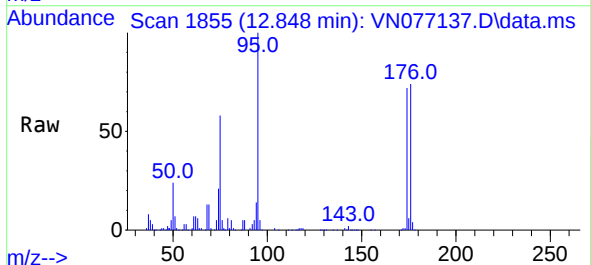
Instrument :  
MSVOA\_N  
ClientSampleId :

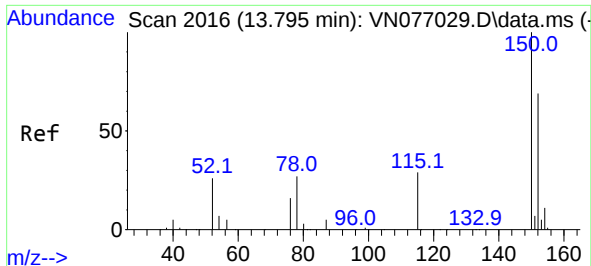
Tgt Ion:117 Resp: 573229  
Ion Ratio Lower Upper  
117 100  
82 57.9 49.4 74.0  
119 30.6 26.5 39.7



#71  
Bromoform  
Concen: 0.317 ug/l  
RT: 12.848 min Scan# 1855  
Delta R.T. 0.271 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

Tgt Ion:173 Resp: 1049  
Ion Ratio Lower Upper  
173 100  
175 0.0 24.5 73.5#  
254 0.0 0.1 0.1#

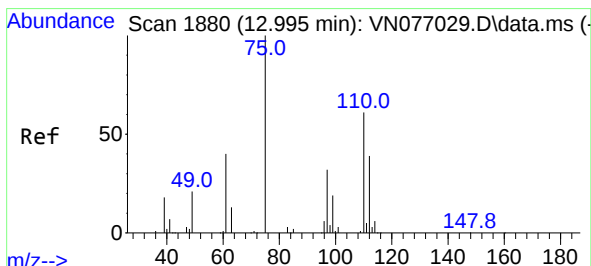
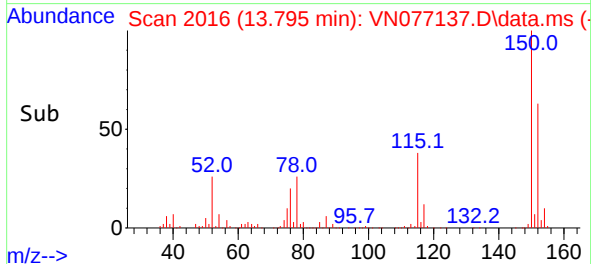
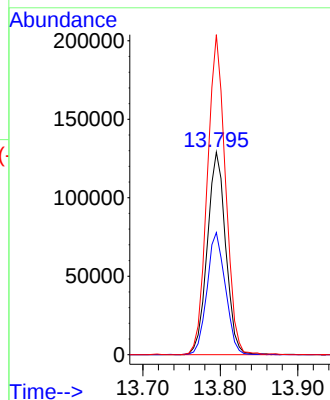
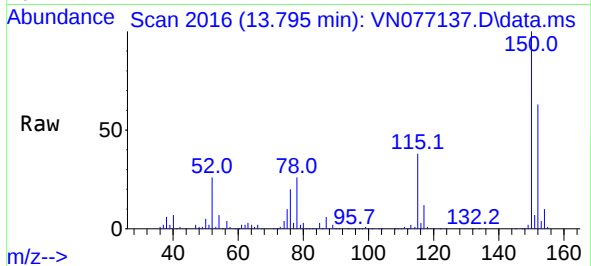




#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.795 min Scan# 2016  
Delta R.T. -0.000 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

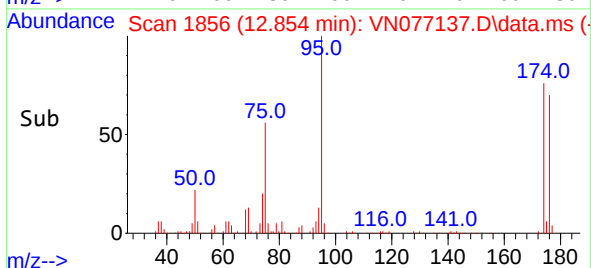
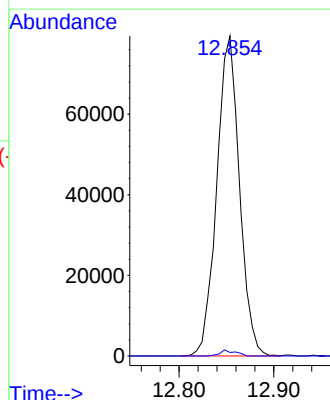
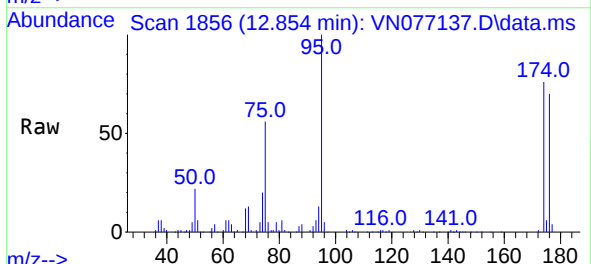
Instrument :  
MSVOA\_N  
ClientSampleId :

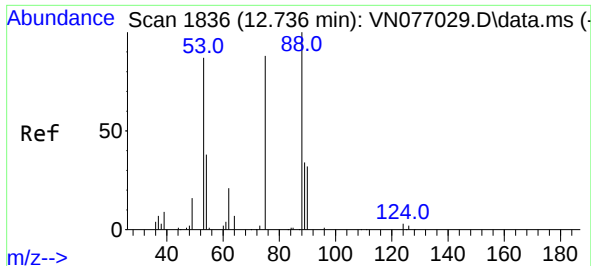
Tgt Ion:152 Resp: 212580  
Ion Ratio Lower Upper  
152 100  
115 60.2 31.9 95.7  
150 156.1 0.0 348.0



#76  
1,2,3-Trichloropropane  
Concen: 24.071 ug/l  
RT: 12.854 min Scan# 1856  
Delta R.T. -0.141 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

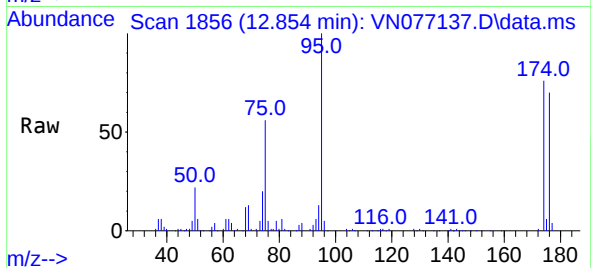
Tgt Ion: 75 Resp: 132361  
Ion Ratio Lower Upper  
75 100  
77 1.3 107.3 322.0#



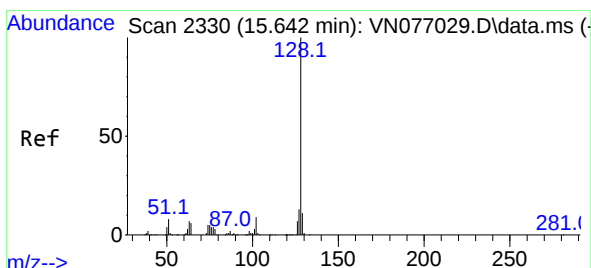
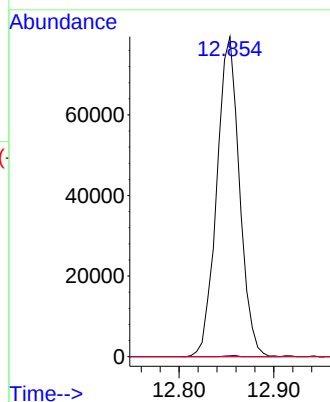
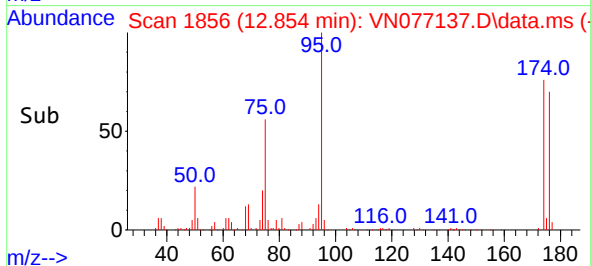


#81  
trans-1,4-Dichloro-2-butene  
Concen: 66.258 ug/l  
RT: 12.854 min Scan# 1856  
Delta R.T. 0.118 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02

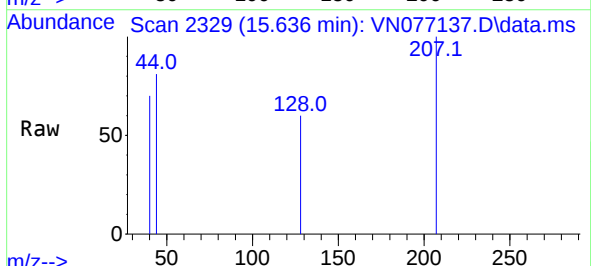
Instrument :  
MSVOA\_N  
ClientSampleId :



Tgt Ion: 75 Resp: 132361  
Ion Ratio Lower Upper  
75 100  
53 0.2 80.8 121.2#  
89 0.0 34.2 51.4#



#95  
Naphthalene  
Concen: 1.935 ug/l  
RT: 15.636 min Scan# 2329  
Delta R.T. -0.006 min  
Lab File: VN077137.D  
Acq: 23 Mar 2023 09:02



Tgt Ion:128 Resp: 341  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.0 15.0#  
129 0.0 8.6 13.0#

