

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN083023\  
 Data File : VN079114.D  
 Acq On : 30 Aug 2023 13:57  
 Operator : JC\MD  
 Sample : 04223-02  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Aug 31 02:16:02 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N081723W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Aug 18 05:21:14 2023  
 Response via : Initial Calibration

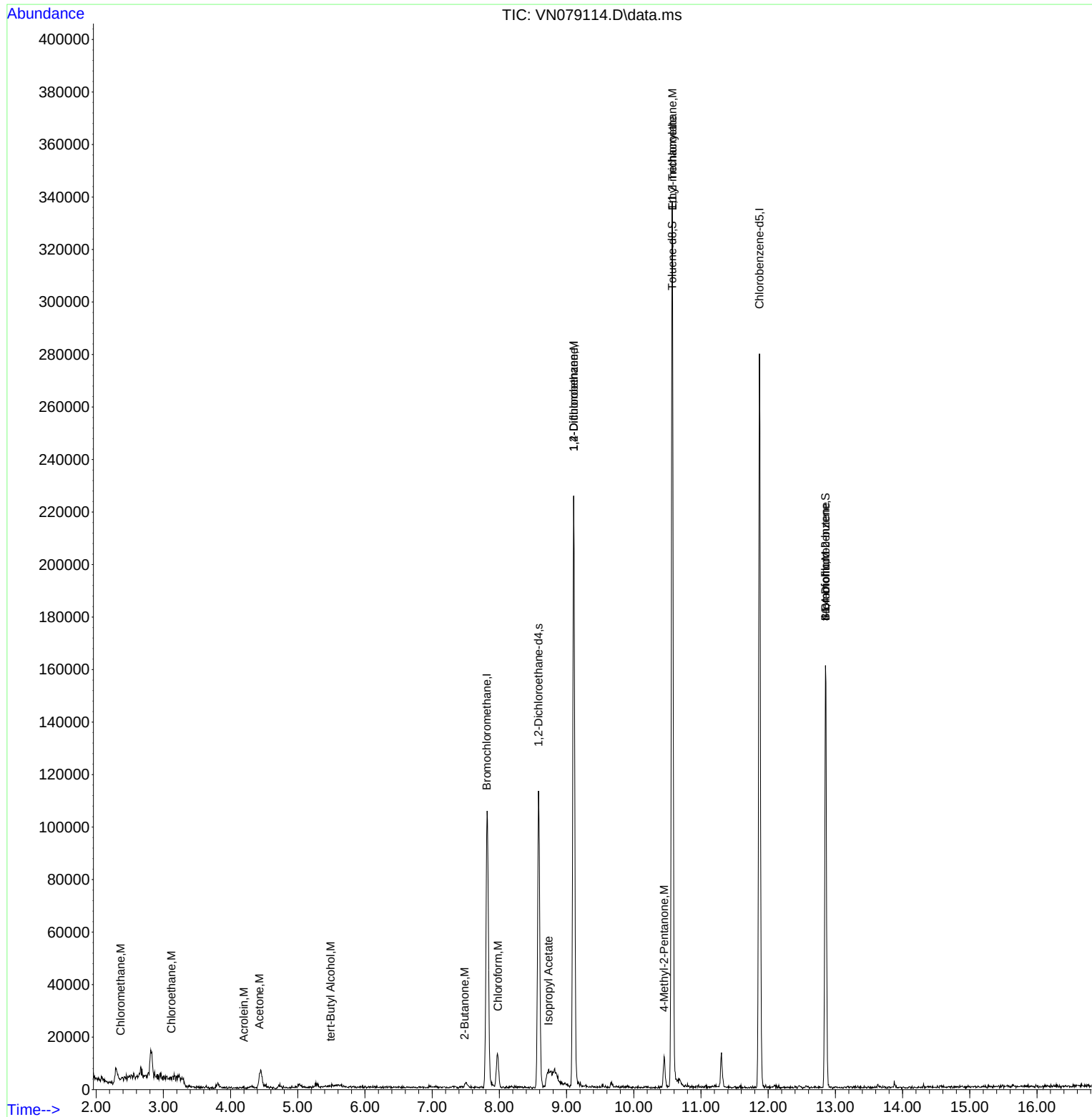
| Compound                    | R.T.   | QIon  | Response | Conc     | Units      | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|------------|----------|
| -----                       |        |       |          |          |            |          |
| Internal Standards          |        |       |          |          |            |          |
| 1) Bromochloromethane       | 7.812  | 128   | 35526    | 30.000   | ug/l       | -0.01    |
| 28) 1,4-Difluorobenzene     | 9.106  | 114   | 179698   | 30.000   | ug/l       | 0.00     |
| 57) Chlorobenzene-d5        | 11.871 | 117   | 156165   | 30.000   | ug/l       | 0.00     |
| System Monitoring Compounds |        |       |          |          |            |          |
| 27) 1,2-Dichloroethane-d4   | 8.583  | 65    | 89704    | 31.167   | ug/l       | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 110 | Recovery | = 103.900% |          |
| 60) 4-Bromofluorobenzene    | 12.853 | 95    | 52616    | 23.097   | ug/l       | 0.00     |
| Spiked Amount               | 30.000 | Range | 63 - 112 | Recovery | = 77.000%  |          |
| 63) Toluene-d8              | 10.571 | 98    | 221286   | 30.343   | ug/l       | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 112 | Recovery | = 101.133% |          |
| Target Compounds            |        |       |          |          |            |          |
|                             |        |       |          |          | Qvalue     |          |
| 3) Chloromethane            | 2.365  | 50    | 783      | 0.291    | ug/l #     | 44       |
| 6) Chloroethane             | 3.118  | 64    | 922      | 0.534    | ug/l #     | 44       |
| 13) Acrolein                | 4.200  | 56    | 225      | 0.732    | ug/l #     | 16       |
| 15) Acetone                 | 4.430  | 58    | 1620     | 4.555    | ug/l #     | 15       |
| 23) tert-Butyl Alcohol      | 5.489  | 59    | 113      | 0.261    | ug/l #     | 100      |
| 25) Chloroform              | 7.977  | 83    | 11911    | 2.840    | ug/l       | 93       |
| 30) 2-Butanone              | 7.483  | 43    | 798      | 0.499    | ug/l #     | 28       |
| 36) 1,2-Dichloroethane      | 9.106  | 62    | 7296     | 2.378    | ug/l #     | 73       |
| 44) Isopropyl Acetate       | 8.730  | 43    | 5613     | 1.026    | ug/l #     | 85       |
| 50) 1,1,2-Trichloroethane   | 10.577 | 97    | 7867     | 3.936    | ug/l #     | 1        |
| 51) Ethyl methacrylate      | 10.577 | 69    | 706      | 0.228    | ug/l       | 69       |
| 56) Bromoform               | 12.853 | 173   | 345      | 0.224    | ug/l #     | 1        |
| 58) 4-Methyl-2-Pentanone    | 10.453 | 43    | 8729     | 2.817    | ug/l #     | 95       |
| 77) t-1,4-Dichloro-2-butene | 12.853 | 75    | 29810    | 32.834   | ug/l #     | 3        |
| -----                       |        |       |          |          |            |          |

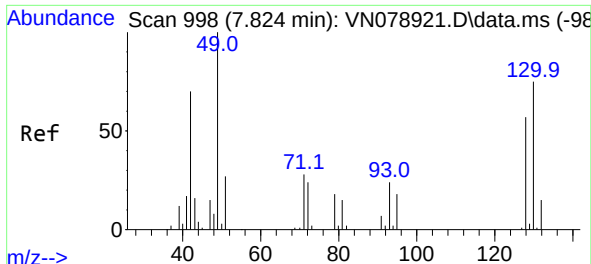
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN083023\  
Data File : VN079114.D  
Acq On : 30 Aug 2023 13:57  
Operator : JC\MD  
Sample : 04223-02  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :

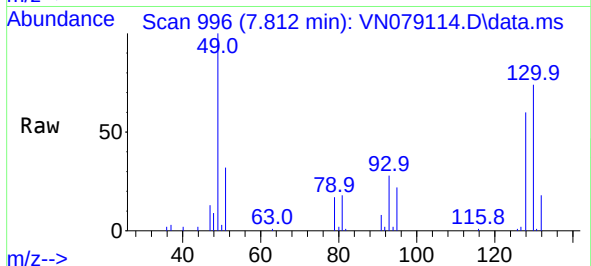
Quant Time: Aug 31 02:16:02 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N081723W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Fri Aug 18 05:21:14 2023  
Response via : Initial Calibration



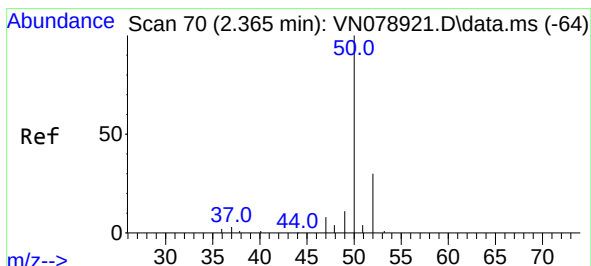
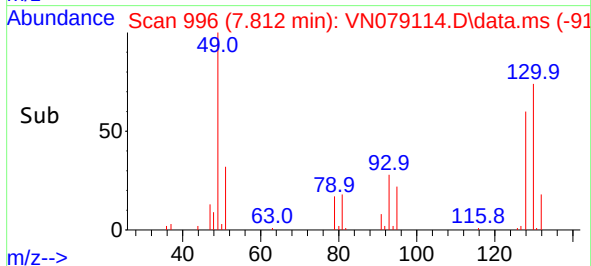
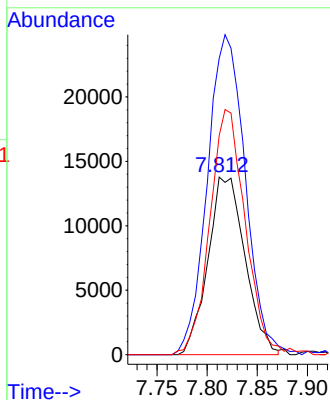


#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 91  
Delta R.T. -0.012 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Instrument :  
MSVOA\_N  
ClientSampleId :

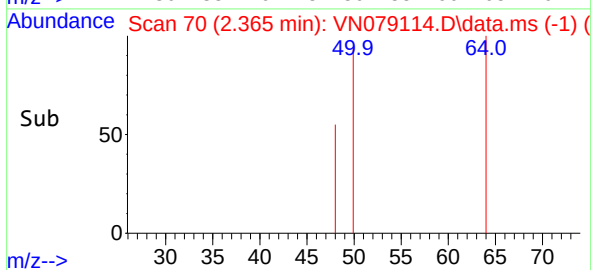
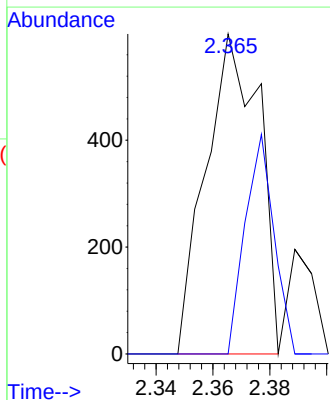
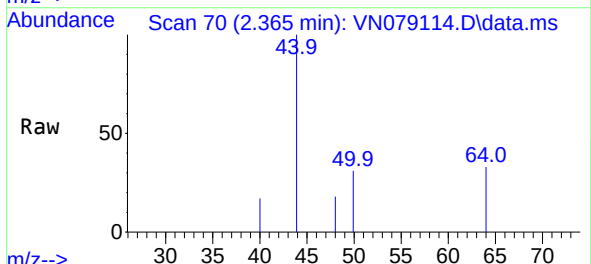


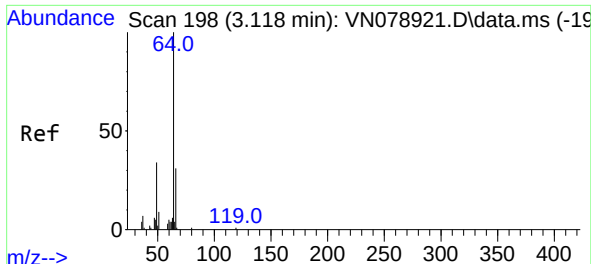
Tgt Ion:128 Resp: 35526  
Ion Ratio Lower Upper  
128 100  
49 183.8 0.0 481.8  
130 131.2 0.0 320.5



#3  
Chloromethane  
Concen: 0.291 ug/l  
RT: 2.365 min Scan# 70  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 50 Resp: 783  
Ion Ratio Lower Upper  
50 100  
52 0.0 24.2 36.4#

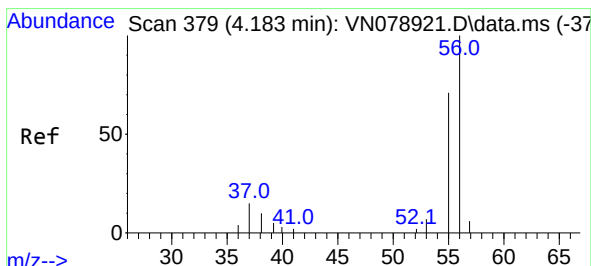
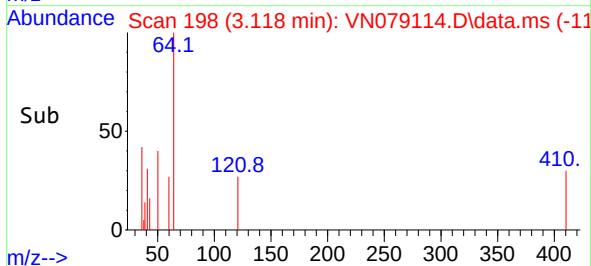
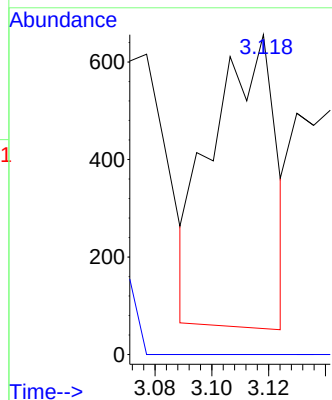
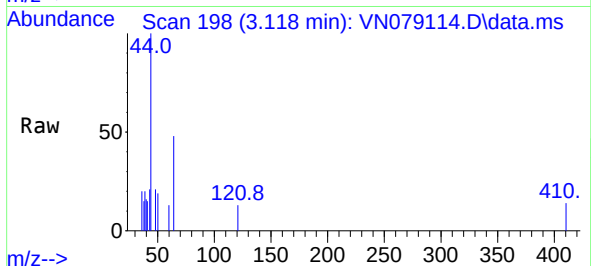




#6  
Chloroethane  
Concen: 0.534 ug/l  
RT: 3.118 min Scan# 198  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

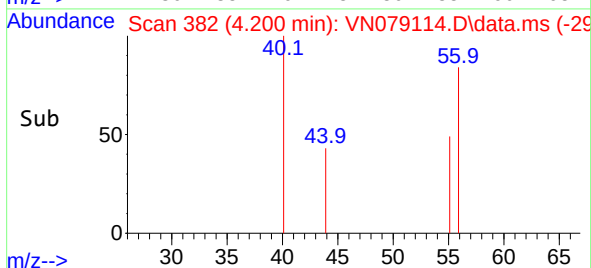
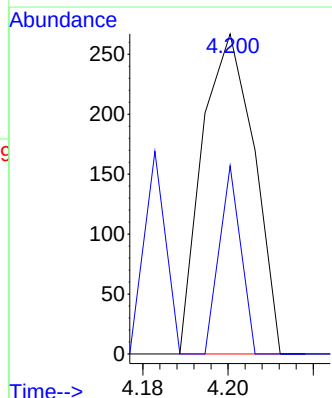
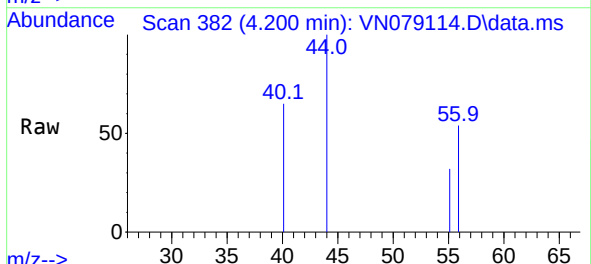
Instrument :  
MSVOA\_N  
ClientSampleId :

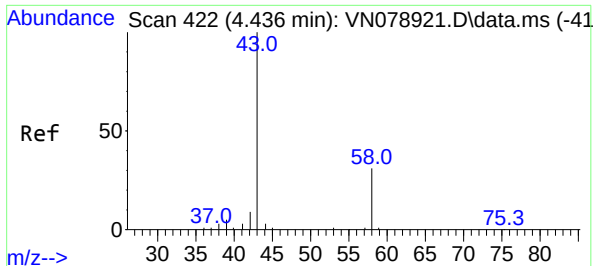
Tgt Ion: 64 Resp: 922  
Ion Ratio Lower Upper  
64 100  
66 0.0 24.9 37.3#



#13  
Acrolein  
Concen: 0.732 ug/l  
RT: 4.200 min Scan# 382  
Delta R.T. 0.018 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 56 Resp: 225  
Ion Ratio Lower Upper  
56 100  
55 0.0 54.5 81.7#





#15

Acetone

Concen: 4.555 ug/l

RT: 4.430 min Scan# 41

Delta R.T. -0.006 min

Lab File: VN079114.D

Acq: 30 Aug 2023 13:57

Instrument :

MSVOA\_N

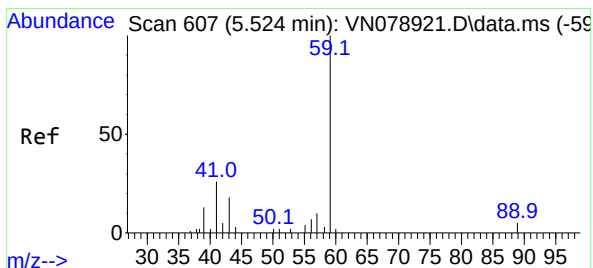
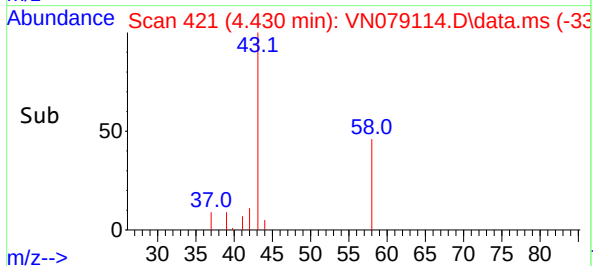
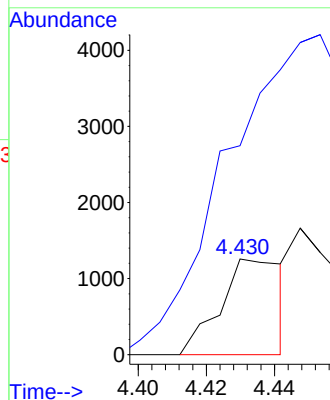
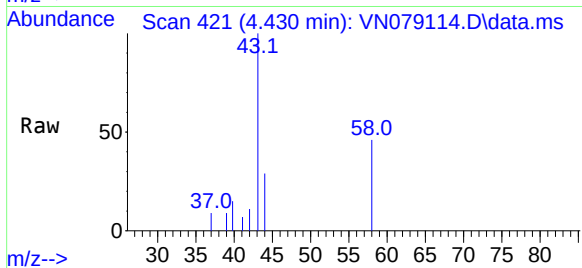
ClientSampleId :

Tgt Ion: 58 Resp: 1620

Ion Ratio Lower Upper

58 100

43 150.6 260.6 390.8#



#23

tert-Butyl Alcohol

Concen: 0.261 ug/l

RT: 5.489 min Scan# 601

Delta R.T. -0.035 min

Lab File: VN079114.D

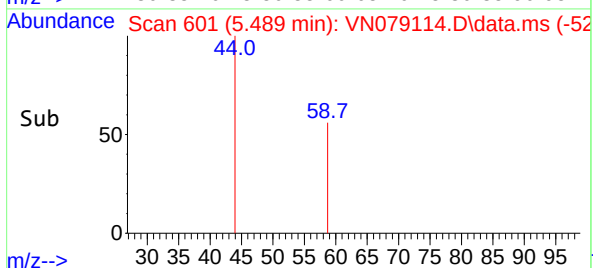
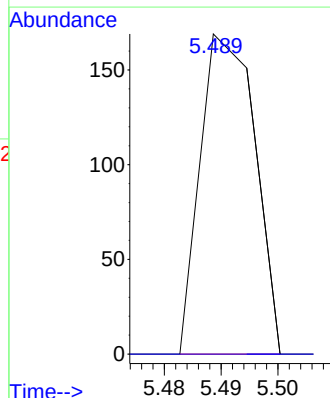
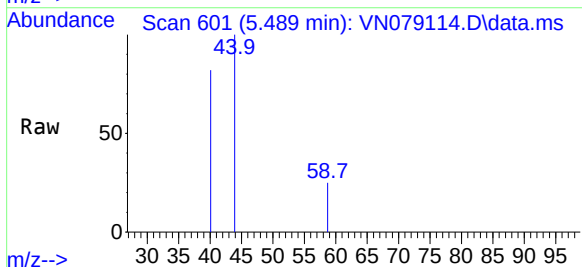
Acq: 30 Aug 2023 13:57

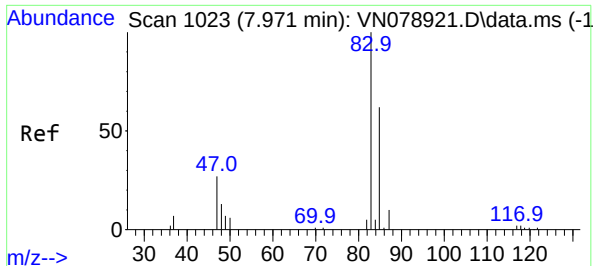
Tgt Ion: 59 Resp: 113

Ion Ratio Lower Upper

59 100

52 0.0 0.0 0.0

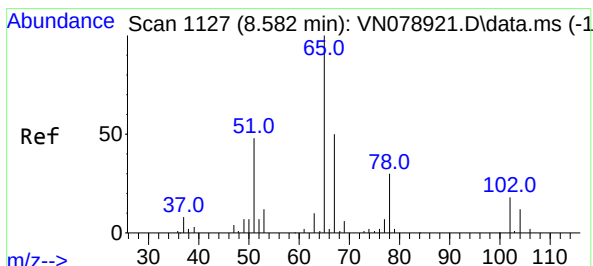
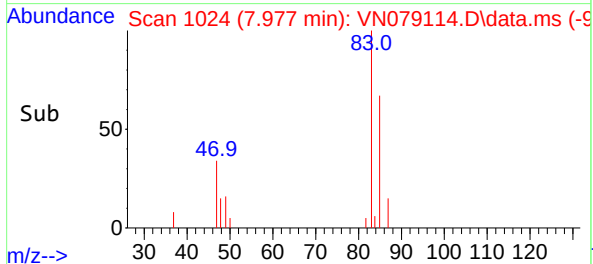
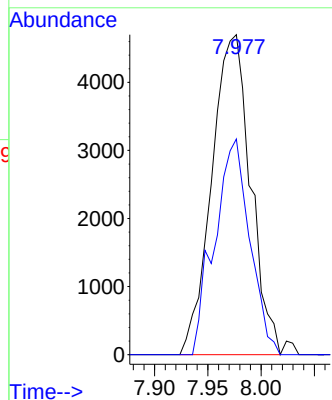
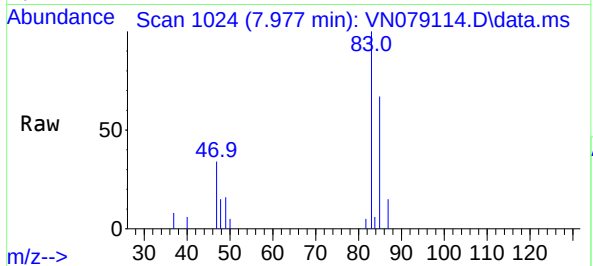




#25  
Chloroform  
Concen: 2.840 ug/l  
RT: 7.977 min Scan# 1023  
Delta R.T. 0.006 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

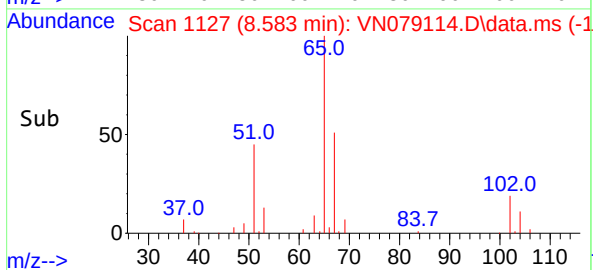
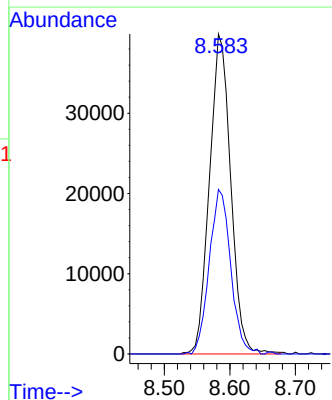
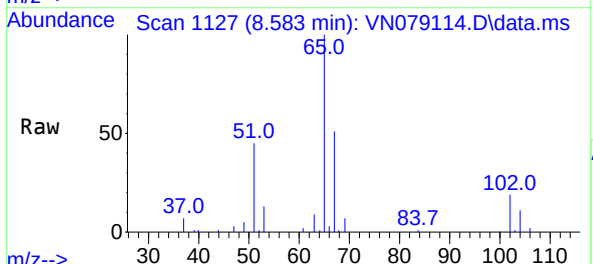
Instrument :  
MSVOA\_N  
ClientSampleId :

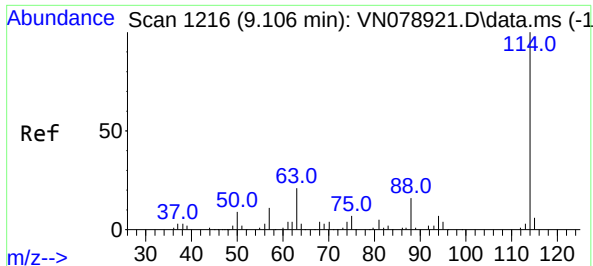
Tgt Ion: 83 Resp: 11911  
Ion Ratio Lower Upper  
83 100  
85 67.4 49.6 74.4



#27  
1,2-Dichloroethane-d4  
Concen: 31.167 ug/l  
RT: 8.583 min Scan# 1127  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 65 Resp: 89704  
Ion Ratio Lower Upper  
65 100  
67 51.5 40.7 61.1

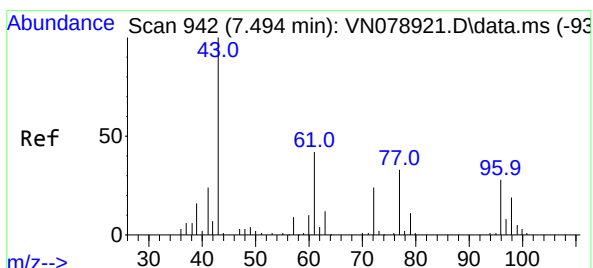
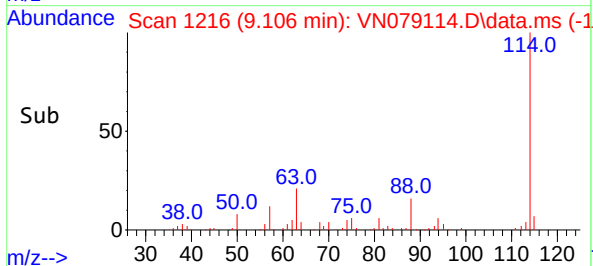
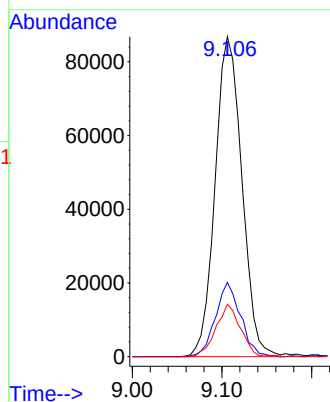
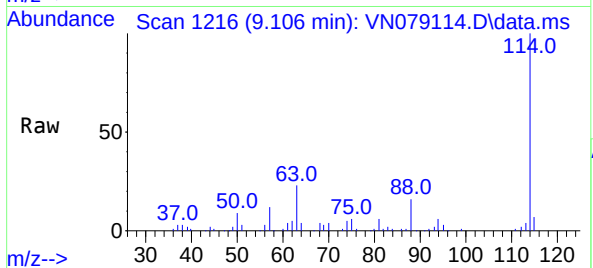




#28  
1,4-Difluorobenzene  
Concen: 30.000 ug/l  
RT: 9.106 min Scan# 114  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

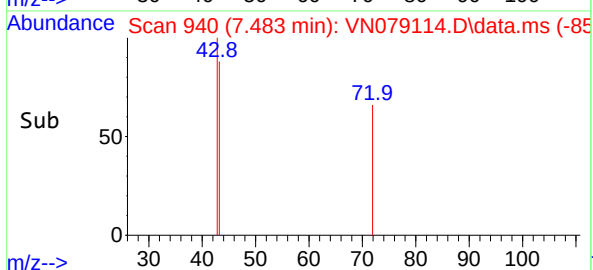
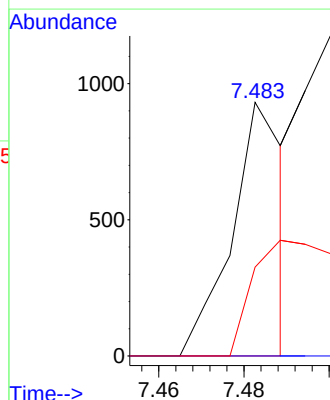
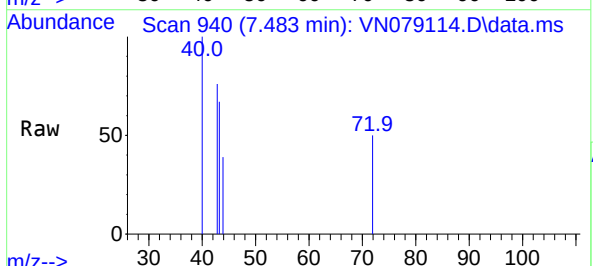
Instrument :  
MSVOA\_N  
ClientSampleId :

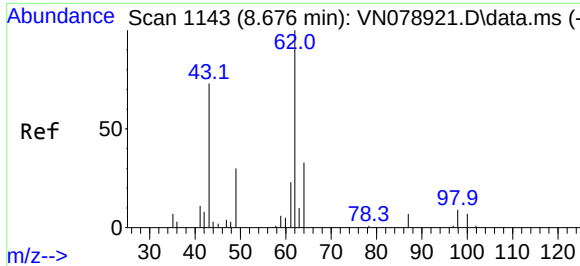
Tgt Ion:114 Resp: 179698  
Ion Ratio Lower Upper  
114 100  
63 21.8 17.4 26.2  
88 14.9 12.0 18.0



#30  
2-Butanone  
Concen: 0.499 ug/l  
RT: 7.483 min Scan# 940  
Delta R.T. -0.012 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 43 Resp: 798  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.2 9.4#  
72 68.0 19.4 29.2#

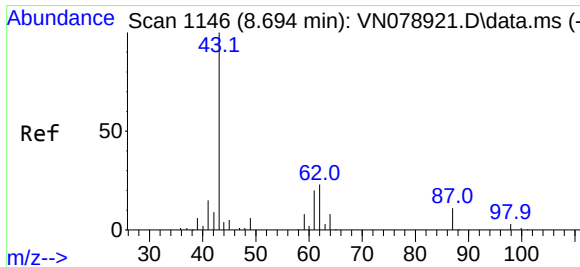
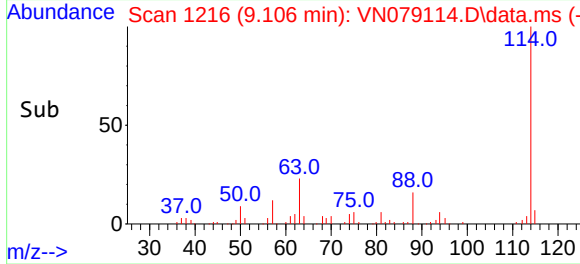
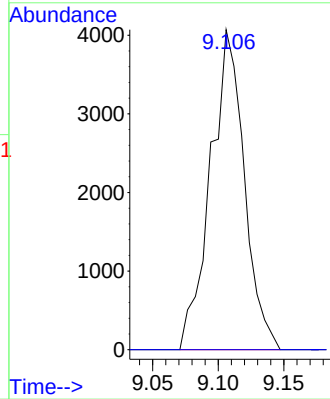
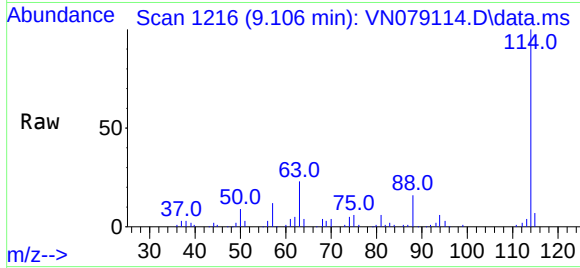




#36  
1,2-Dichloroethane  
Concen: 2.378 ug/l  
RT: 9.106 min Scan# 1152  
Delta R.T. 0.430 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

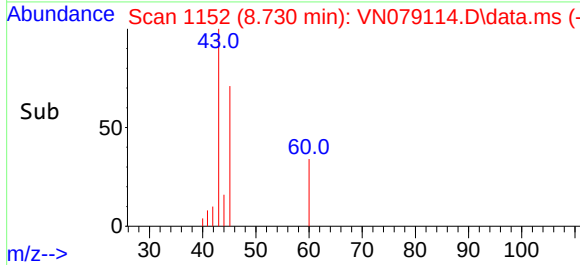
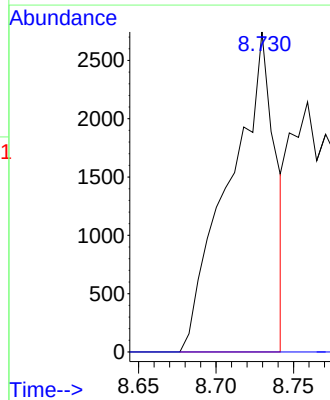
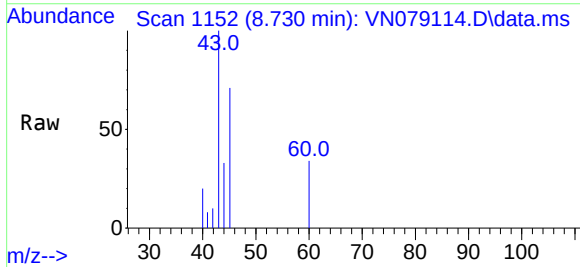
Instrument :  
MSVOA\_N  
ClientSampleId :

Tgt Ion: 62 Resp: 7296  
Ion Ratio Lower Upper  
62 100  
98 0.0 8.1 12.1#

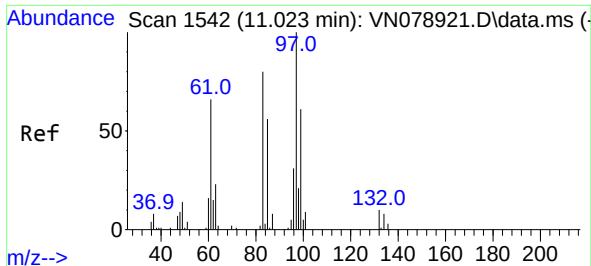


#44  
Isopropyl Acetate  
Concen: 1.026 ug/l  
RT: 8.730 min Scan# 1152  
Delta R.T. 0.035 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 43 Resp: 5613  
Ion Ratio Lower Upper  
43 100  
61 31.1 19.0 28.4#

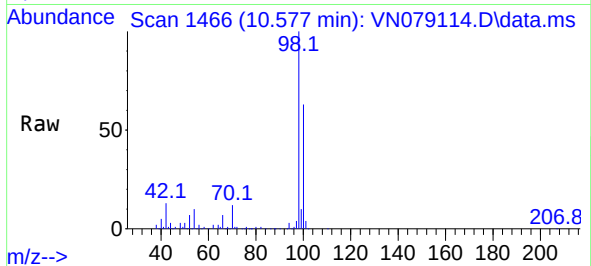




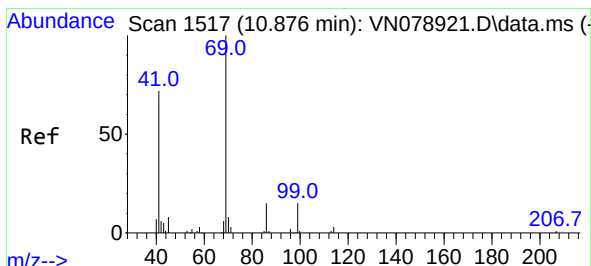
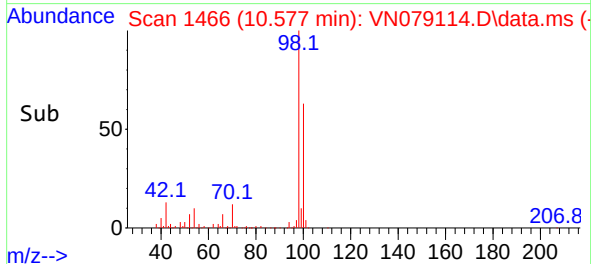
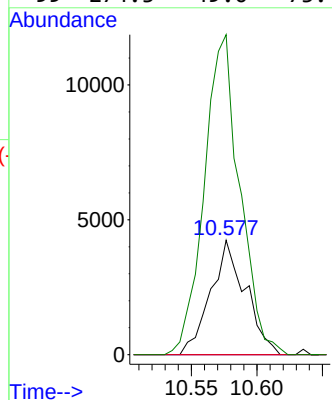


#50  
1,1,2-Trichloroethane  
Concen: 3.936 ug/l  
RT: 10.577 min Scan# 1466  
Delta R.T. -0.447 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Instrument :  
MSVOA\_N  
ClientSampleId :

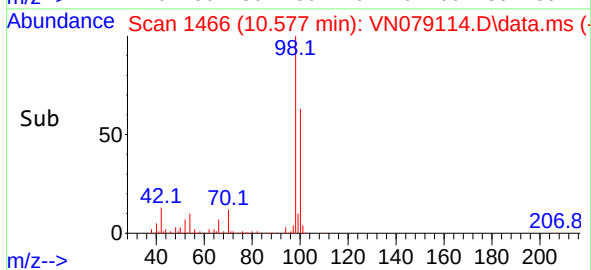
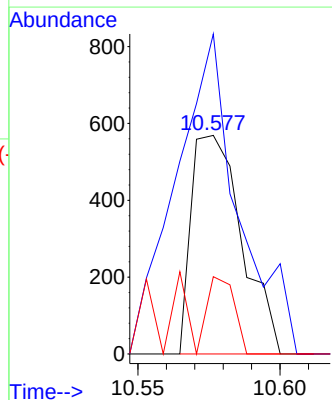
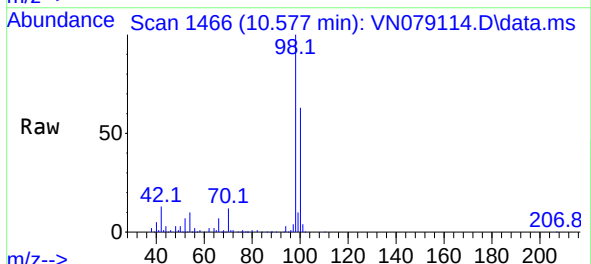


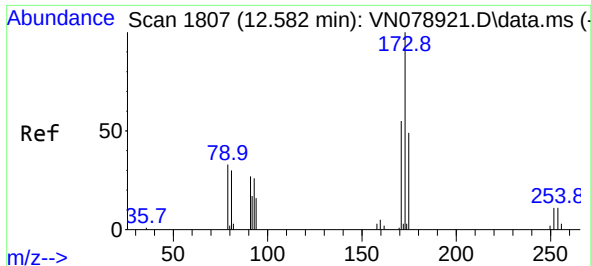
|             |       |             |
|-------------|-------|-------------|
| Tgt Ion: 97 | Resp: | 7867        |
| Ion         | Ratio | Lower Upper |
| 97          | 100   |             |
| 83          | 0.0   | 63.7 95.5#  |
| 85          | 0.0   | 44.9 67.3#  |
| 99          | 274.3 | 49.0 73.4#  |



#51  
Ethyl methacrylate  
Concen: 0.228 ug/l  
RT: 10.577 min Scan# 1466  
Delta R.T. -0.300 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion: 69 | Resp: | 706         |
| Ion         | Ratio | Lower Upper |
| 69          | 100   |             |
| 41          | 105.1 | 35.9 107.8  |
| 39          | 35.3  | 23.5 70.5   |

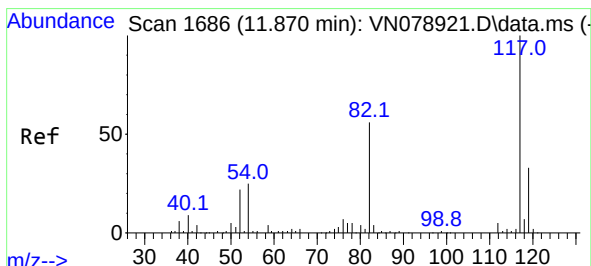
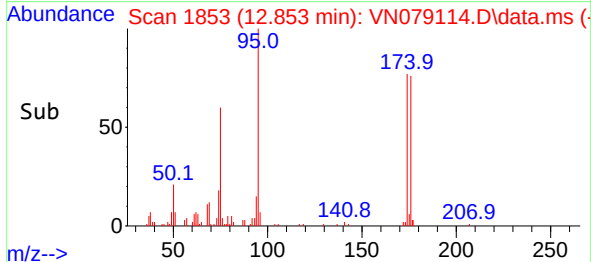
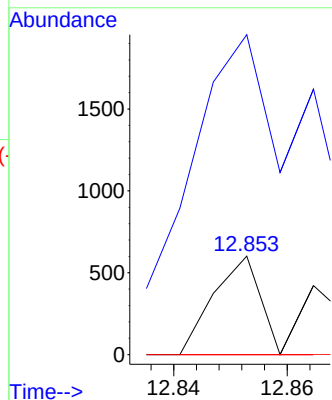
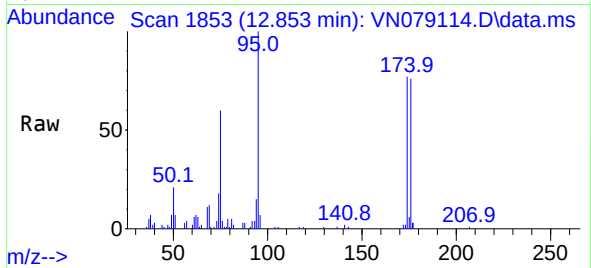




#56  
Bromoform  
Concen: 0.224 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.271 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

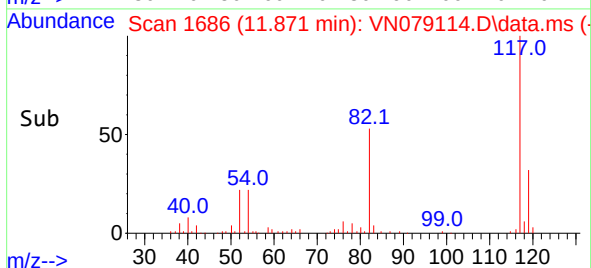
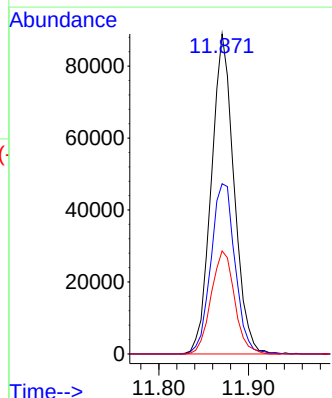
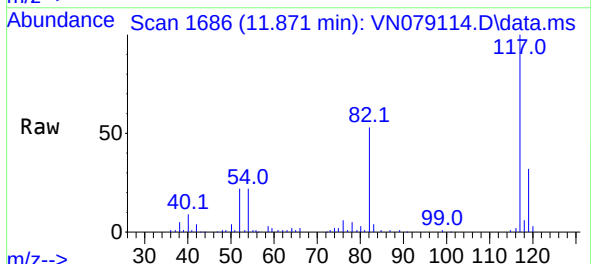
Instrument :  
MSVOA\_N  
ClientSampleId :

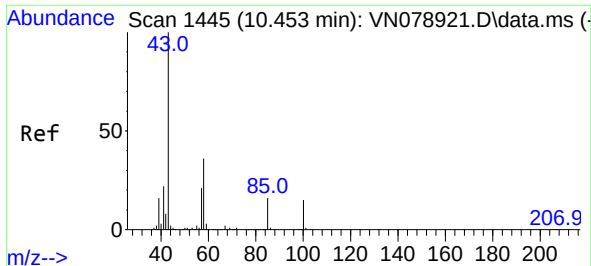
Tgt Ion:173 Resp: 345  
Ion Ratio Lower Upper  
173 100  
175 926.4 38.8 58.2#  
254 0.0 7.6 11.4#



#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.871 min Scan# 1686  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

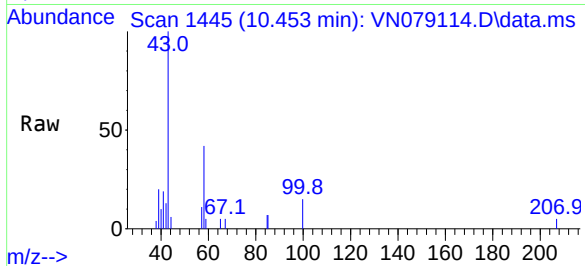
Tgt Ion:117 Resp: 156165  
Ion Ratio Lower Upper  
117 100  
82 56.7 43.4 65.0  
119 33.2 25.5 38.3



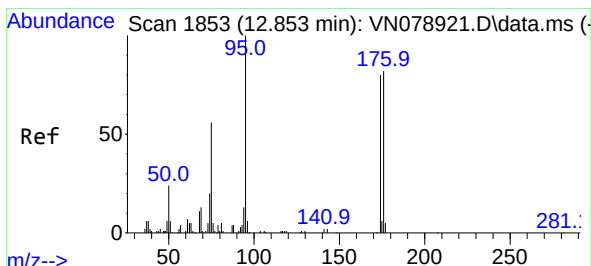
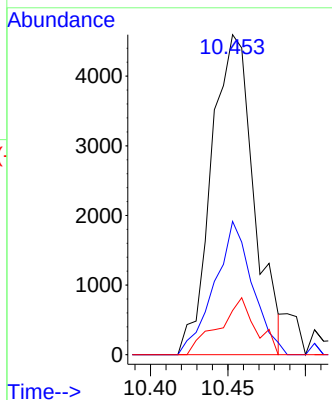
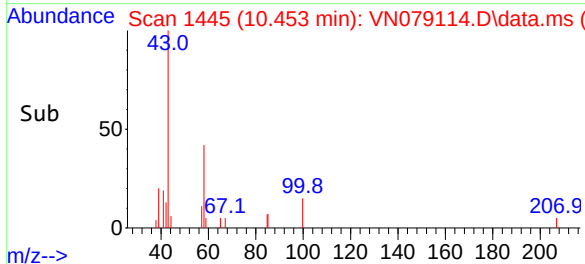


#58  
4-Methyl-2-Pentanone  
Concen: 2.817 ug/l  
RT: 10.453 min Scan# 1445  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Instrument :  
MSVOA\_N  
ClientSampleId :

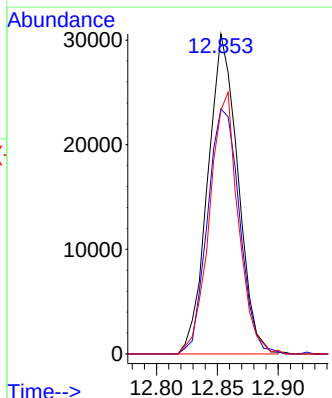
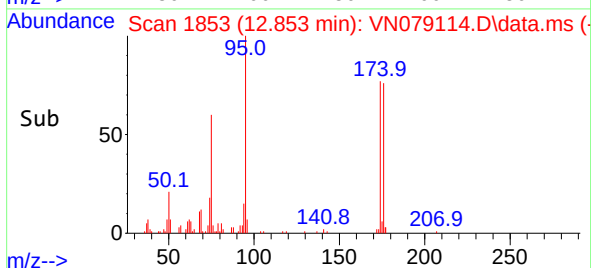
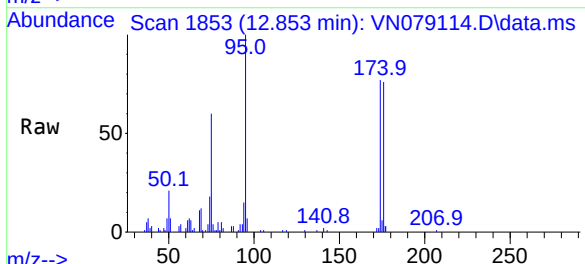


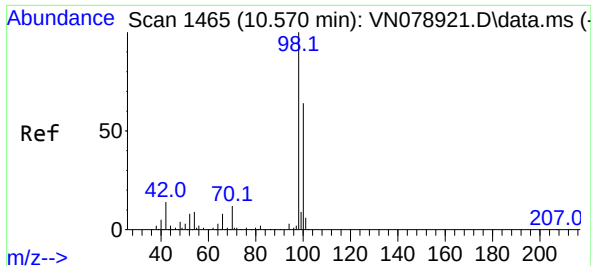
Tgt Ion: 43 Resp: 8729  
Ion Ratio Lower Upper  
43 100  
58 37.4 28.8 43.2  
85 11.8 12.7 19.1#



#60  
4-Bromofluorobenzene  
Concen: 23.097 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 95 Resp: 52616  
Ion Ratio Lower Upper  
95 100  
174 81.5 64.8 97.2  
176 77.9 63.0 94.6

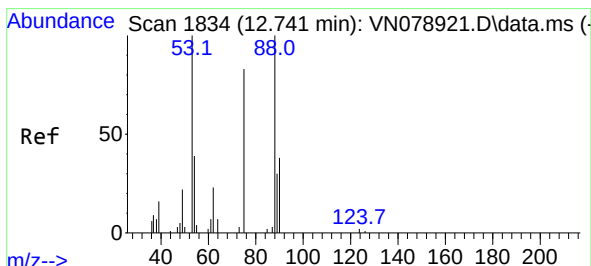
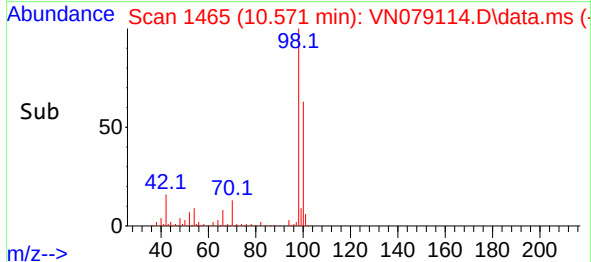
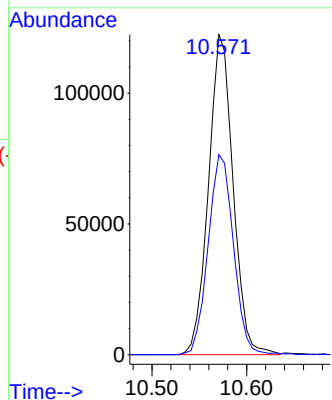
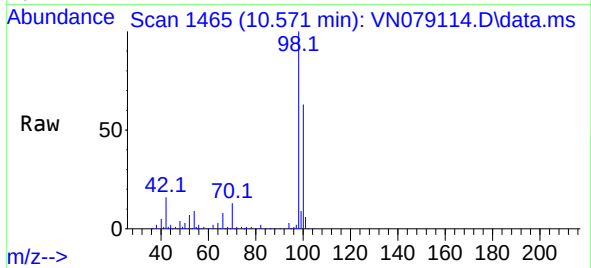




#63  
Toluene-d8  
Concen: 30.343 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. 0.000 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Instrument :  
MSVOA\_N  
ClientSampleId :

Tgt Ion: 98 Resp: 221286  
Ion Ratio Lower Upper  
98 100  
100 64.1 51.1 76.7



#77  
t-1,4-Dichloro-2-butene  
Concen: 32.834 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.112 min  
Lab File: VN079114.D  
Acq: 30 Aug 2023 13:57

Tgt Ion: 75 Resp: 29810  
Ion Ratio Lower Upper  
75 100  
53 0.0 60.1 180.3#  
89 0.0 22.9 68.8#

