

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN061923\  
 Data File : VN078284.D  
 Acq On : 19 Jun 2023 17:01  
 Operator : JC\MD  
 Sample : 03310-06  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-VPB-RW11-EB-20230613

Quant Time: Jun 20 01:30:44 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N060623W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 07 05:05:00 2023  
 Response via : Initial Calibration

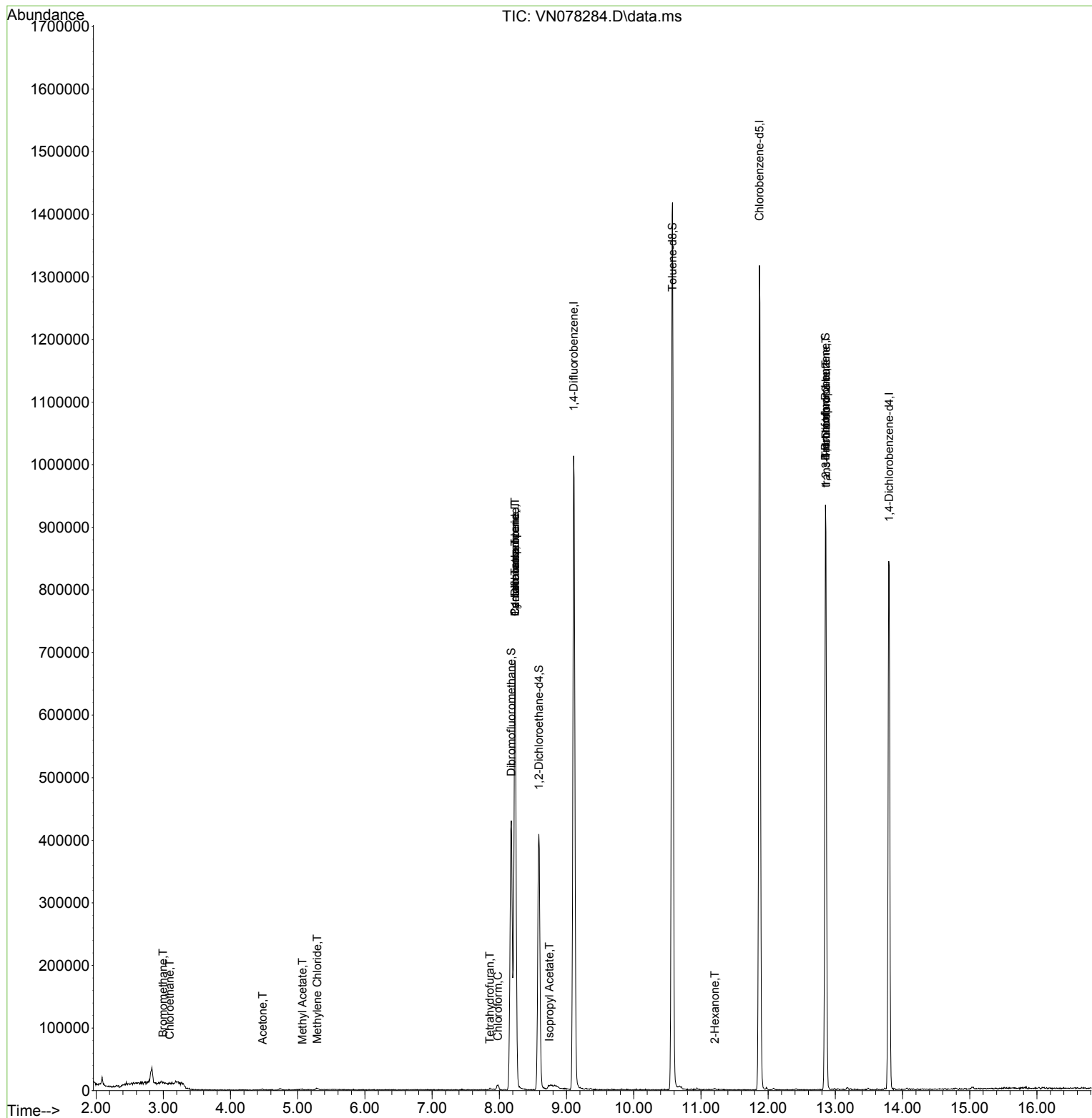
| Compound                      | R.T.           | QIon | Response            | Conc      | Units  | Dev(Min) |
|-------------------------------|----------------|------|---------------------|-----------|--------|----------|
| -----                         |                |      |                     |           |        |          |
| Internal Standards            |                |      |                     |           |        |          |
| 1) Pentafluorobenzene         | 8.236          | 168  | 490878              | 50.000    | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 9.106          | 114  | 900919              | 50.000    | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.871         | 117  | 781839              | 50.000    | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.800         | 152  | 236246              | 50.000    | ug/l   | 0.00     |
|                               |                |      |                     |           |        |          |
| System Monitoring Compounds   |                |      |                     |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.588          | 65   | 340115              | 51.966    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 74 - 125 |      | Recovery = 103.940% |           |        |          |
| 35) Dibromofluoromethane      | 8.177          | 113  | 316403              | 55.544    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 75 - 124 |      | Recovery = 111.080% |           |        |          |
| 50) Toluene-d8                | 10.577         | 98   | 1038081             | 47.271    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 86 - 113 |      | Recovery = 94.540%  |           |        |          |
| 62) 4-Bromofluorobenzene      | 12.853         | 95   | 328542              | 48.125    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 83 - 123 |      | Recovery = 96.240%  |           |        |          |
|                               |                |      |                     |           |        |          |
| Target Compounds              |                |      |                     |           |        |          |
|                               |                |      |                     |           | Qvalue |          |
| 3) Chloromethane              | 2.371          | 50   | 1174                | Below Cal | #      | 83       |
| 5) Bromomethane               | 2.995          | 94   | 2214                | 0.403     | ug/l   | 83       |
| 6) Chloroethane               | 3.095          | 64   | 1180                | 0.238     | ug/l # | 35       |
| 16) Acetone                   | 4.477          | 43   | 1790                | 0.950     | ug/l   | 97       |
| 18) Methyl Acetate            | 5.071          | 43   | 2566                | 0.296     | ug/l # | 42       |
| 20) Methylene Chloride        | 5.289          | 84   | 2086                | 0.335     | ug/l # | 70       |
| 29) Tetrahydrofuran           | 7.859          | 42   | 790                 | 0.408     | ug/l # | 66       |
| 30) Chloroform                | 7.977          | 83   | 7949                | 0.727     | ug/l   | 99       |
| 31) Cyclohexane               | 8.236          | 56   | 12130               | 1.445     | ug/l # | 48       |
| 36) 1,1-Dichloropropene       | 8.236          | 75   | 40914               | 5.007     | ug/l # | 49       |
| 38) Carbon Tetrachloride      | 8.236          | 117  | 54678               | 6.338     | ug/l # | 16       |
| 43) Isopropyl Acetate         | 8.747          | 43   | 4740                | 0.388     | ug/l # | 49       |
| 59) 2-Hexanone                | 11.206         | 43   | 1215                | 0.271     | ug/l   | 60       |
| 71) Bromoform                 | 12.853         | 173  | 2297                | 0.578     | ug/l # | 1        |
| 75) 1,1,2,2-Tetrachloroethane | 12.947         | 83   | 205                 | Below Cal | #      | 26       |
| 76) 1,2,3-Trichloropropane    | 12.859         | 75   | 178700              | 31.997    | ug/l # | 1        |
| 81) trans-1,4-Dichloro-2-b... | 12.859         | 75   | 178700              | 98.304    | ug/l # | 15       |
| 94) Hexachlorobutadiene       | 15.506         | 225  | 86                  | Below Cal | #      | 55       |
| -----                         |                |      |                     |           |        |          |

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

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 8.236 min Scan# 1

Delta R.T. 0.001 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

Instrument :

MSVOA\_N

ClientSampleId :

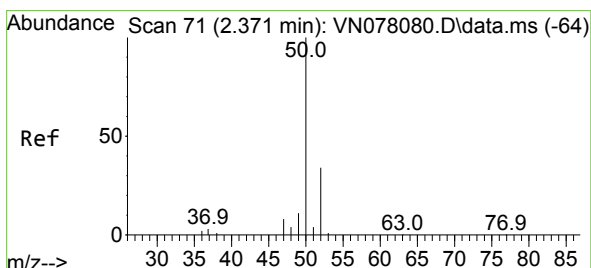
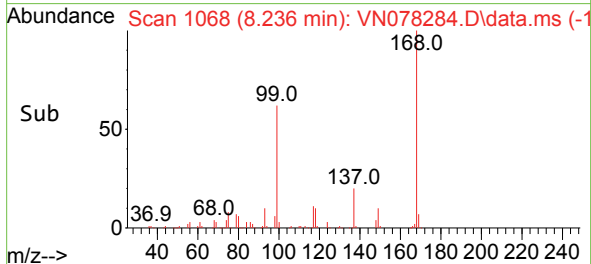
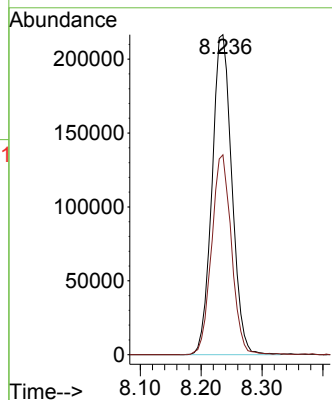
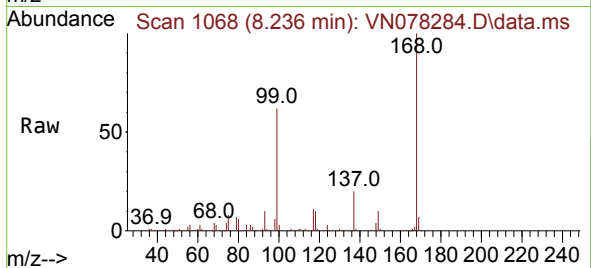
BP-VPB-RW11-EB-20230613

Tgt Ion:168 Resp: 490878

Ion Ratio Lower Upper

168 100

99 62.5 53.0 79.6



#3

Chloromethane

Concen: Below Cal

RT: 2.371 min Scan# 71

Delta R.T. 0.000 min

Lab File: VN078284.D

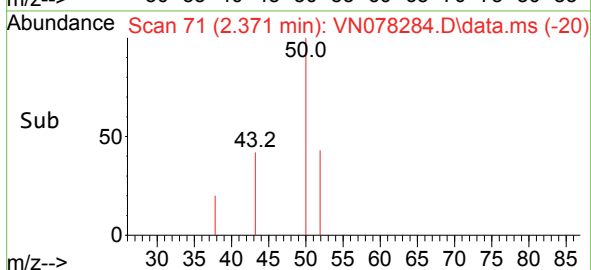
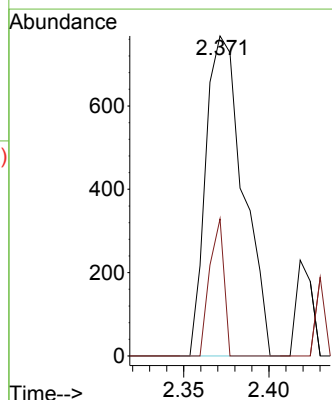
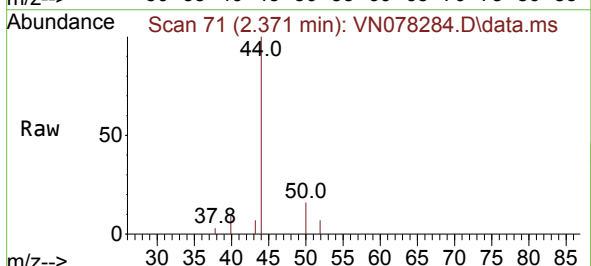
Acq: 19 Jun 2023 17:01

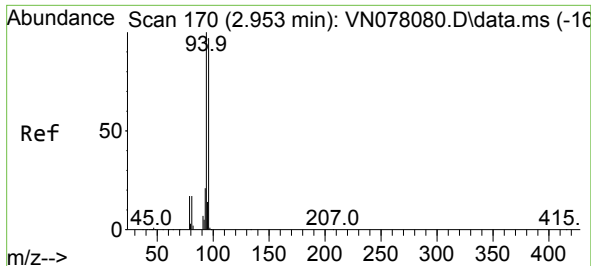
Tgt Ion: 50 Resp: 1174

Ion Ratio Lower Upper

50 100

52 42.8 26.5 39.7#

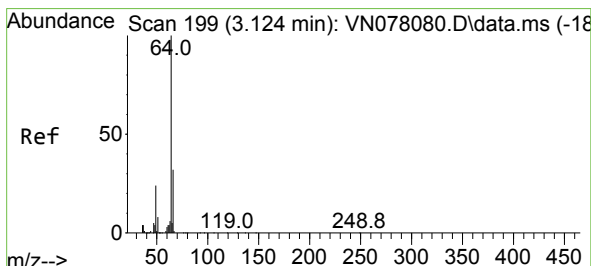
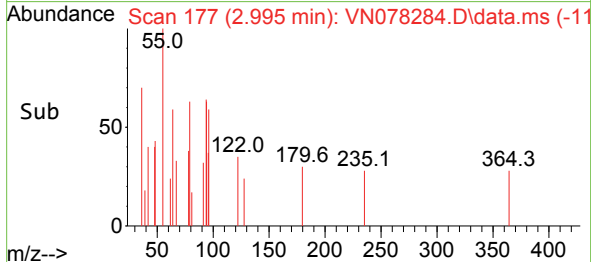
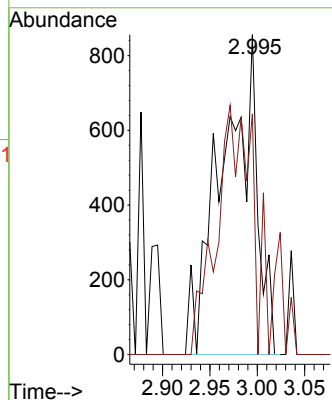
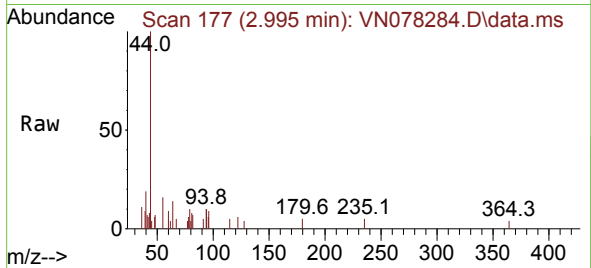




#5  
Bromomethane  
Concen: 0.403 ug/l  
RT: 2.995 min Scan# 11  
Delta R.T. 0.041 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

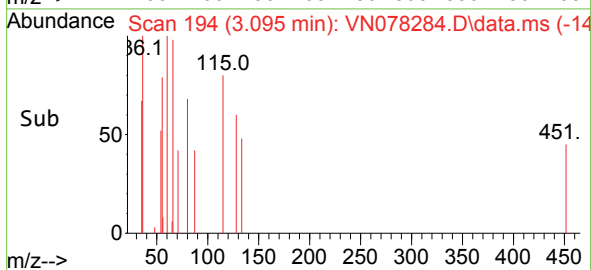
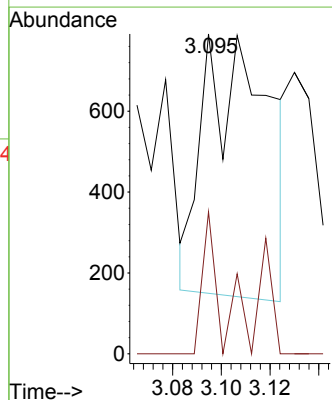
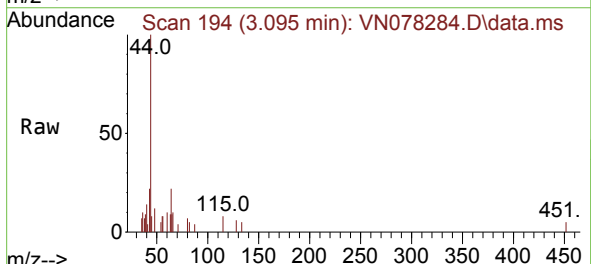
Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

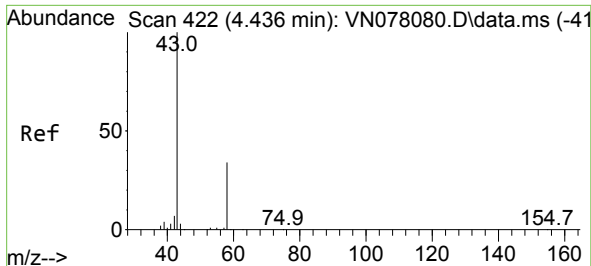
Tgt Ion: 94 Resp: 2214  
Ion Ratio Lower Upper  
94 100  
96 75.2 73.1 109.7



#6  
Chloroethane  
Concen: 0.238 ug/l  
RT: 3.095 min Scan# 194  
Delta R.T. -0.029 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 64 Resp: 1180  
Ion Ratio Lower Upper  
64 100  
66 67.8 25.4 38.2#

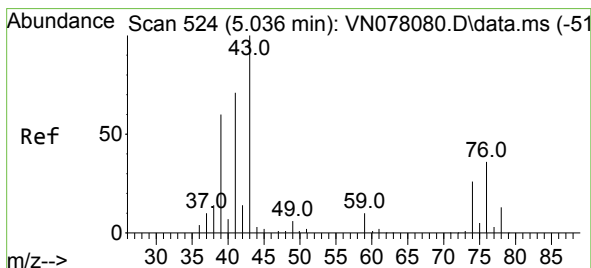
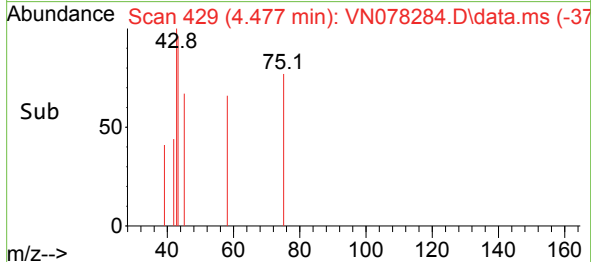
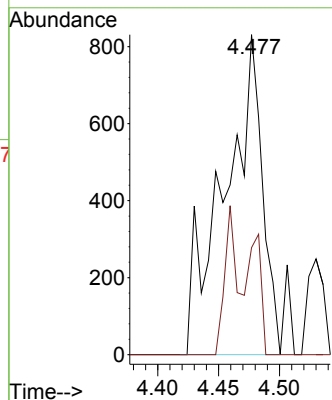
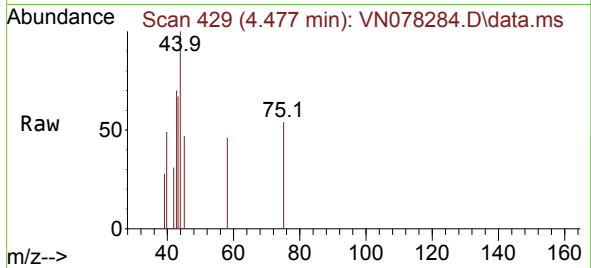




#16  
Acetone  
Concen: 0.950 ug/l  
RT: 4.477 min Scan# 41  
Delta R.T. 0.041 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

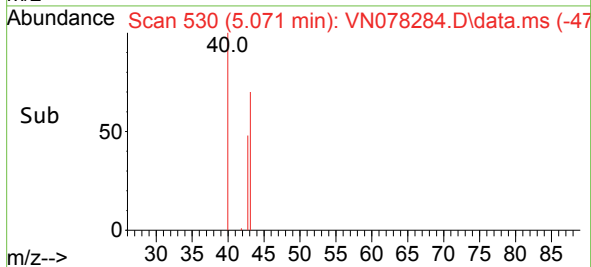
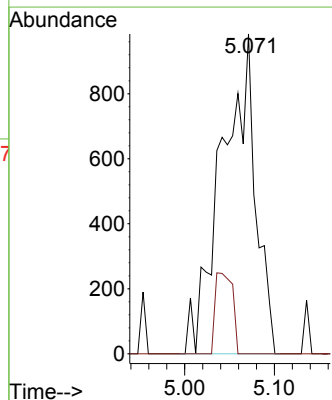
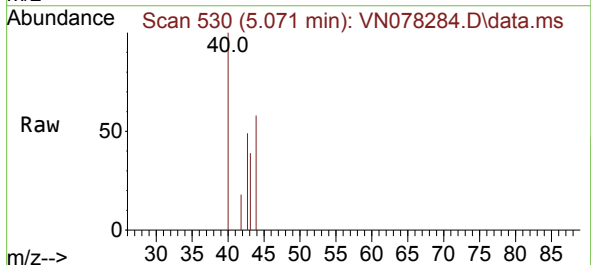
Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

Tgt Ion: 43 Resp: 1790  
Ion Ratio Lower Upper  
43 100  
58 33.5 28.0 42.0



#18  
Methyl Acetate  
Concen: 0.296 ug/l  
RT: 5.071 min Scan# 530  
Delta R.T. 0.035 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 43 Resp: 2566  
Ion Ratio Lower Upper  
43 100  
74 0.0 26.2 39.4#

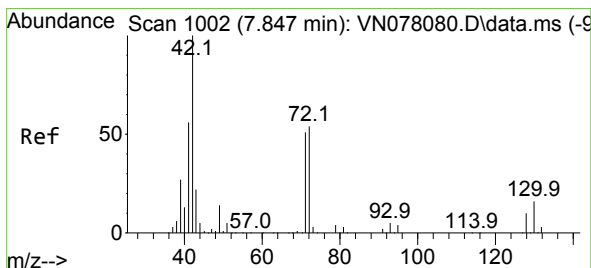
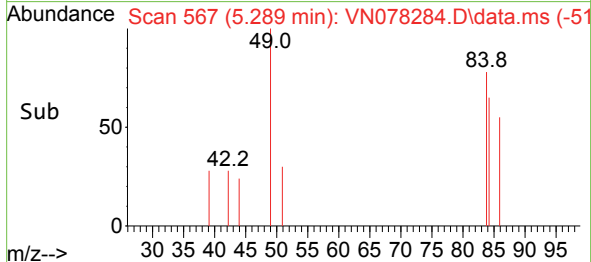
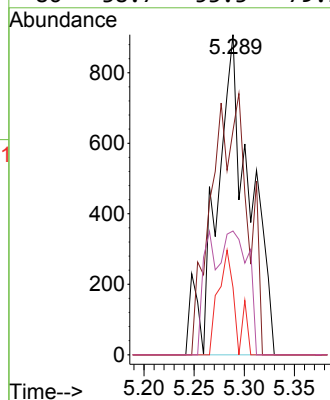
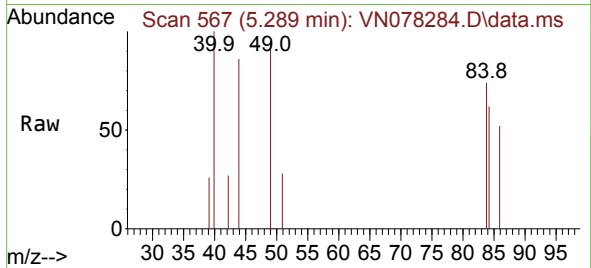




#20  
Methylene Chloride  
Concen: 0.335 ug/l  
RT: 5.289 min Scan# 51  
Delta R.T. 0.006 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

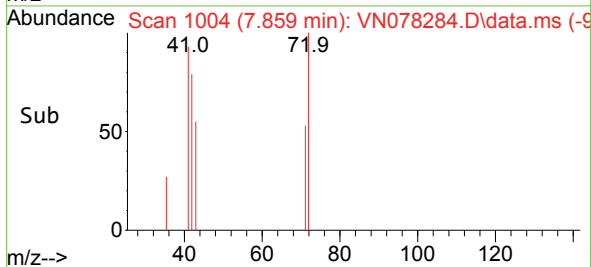
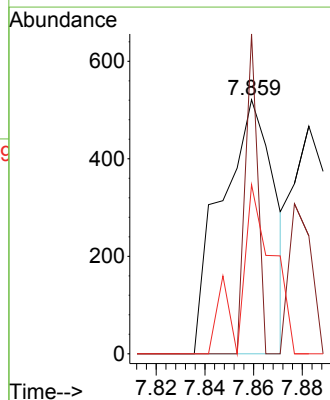
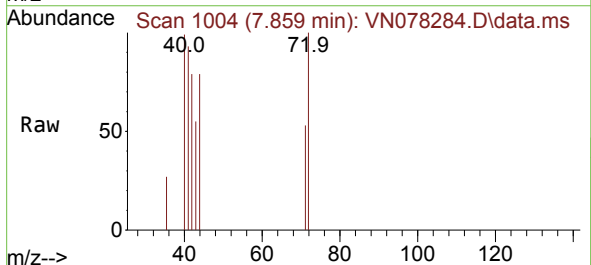
Instrument :  
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ClientSampleId :  
BP-VPB-RW11-EB-20230613

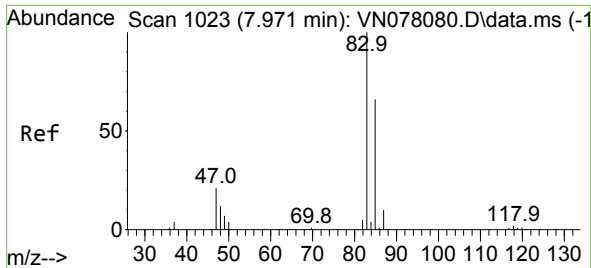
|             |             |
|-------------|-------------|
| Tgt Ion: 84 | Resp: 2086  |
| Ion Ratio   | Lower Upper |
| 84 100      |             |
| 49 70.0     | 79.7 119.5# |
| 51 21.0     | 25.2 37.8#  |
| 86 38.7     | 53.3 79.9#  |



#29  
Tetrahydrofuran  
Concen: 0.408 ug/l  
RT: 7.859 min Scan# 1004  
Delta R.T. 0.012 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

|             |       |       |       |
|-------------|-------|-------|-------|
| Tgt Ion: 42 | Resp: | 790   |       |
| Ion         | Ratio | Lower | Upper |
| 42          | 100   |       |       |
| 72          | 29.4  | 49.8  | 74.6# |
| 71          | 40.6  | 47.4  | 71.2# |

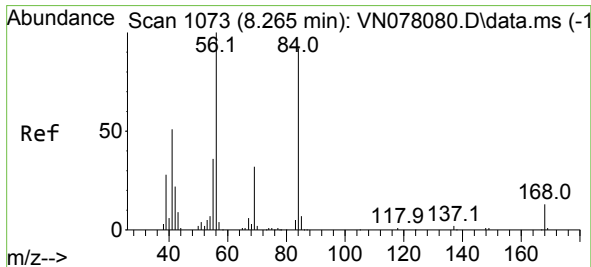
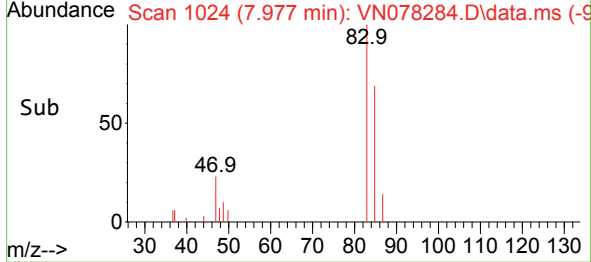
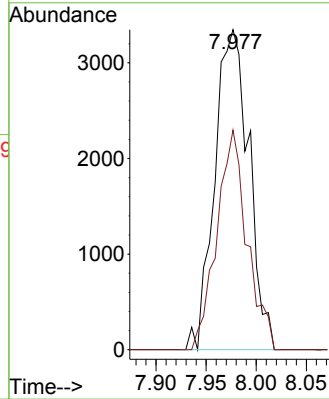
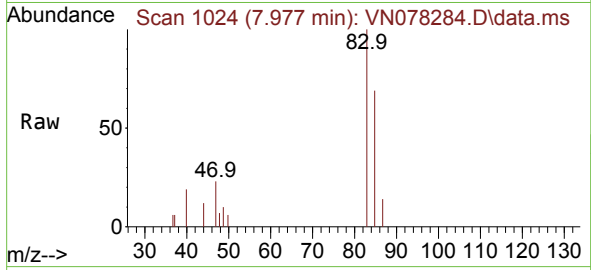




#30  
Chloroform  
Concen: 0.727 ug/l  
RT: 7.977 min Scan# 1023  
Delta R.T. 0.006 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

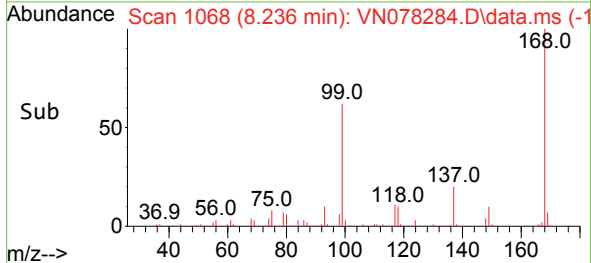
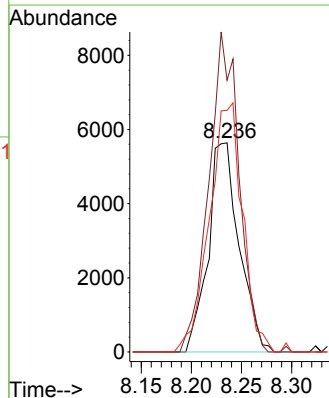
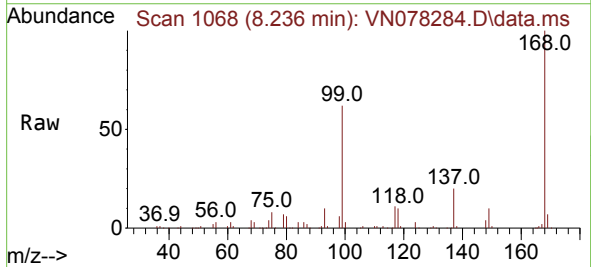
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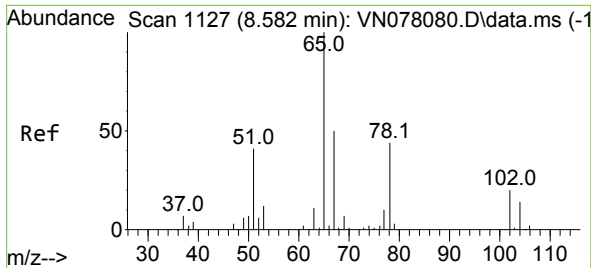
Tgt Ion: 83 Resp: 7949  
Ion Ratio Lower Upper  
83 100  
85 68.6 55.4 83.0



#31  
Cyclohexane  
Concen: 1.445 ug/l  
RT: 8.236 min Scan# 1068  
Delta R.T. -0.029 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 56 Resp: 12130  
Ion Ratio Lower Upper  
56 100  
69 129.9 26.8 40.2#  
84 115.5 81.8 122.6





#33

1,2-Dichloroethane-d4

Concen: 51.966 ug/l

RT: 8.588 min Scan# 1127

Delta R.T. 0.006 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

Instrument :

MSVOA\_N

ClientSampleId :

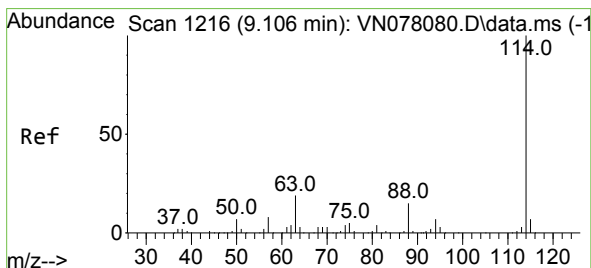
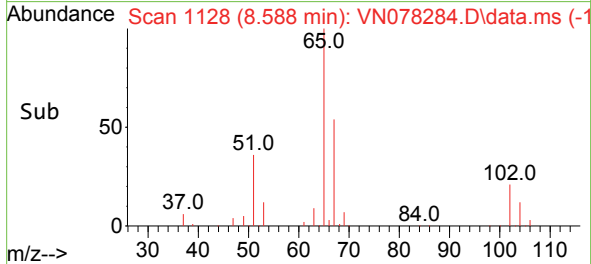
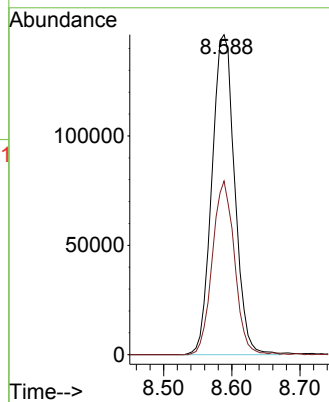
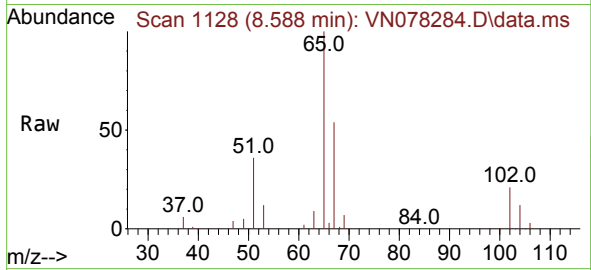
BP-VPB-RW11-EB-20230613

Tgt Ion: 65 Resp: 340115

Ion Ratio Lower Upper

65 100

67 52.7 0.0 106.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 1216

Delta R.T. 0.000 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

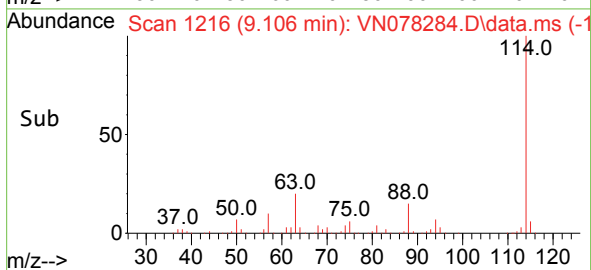
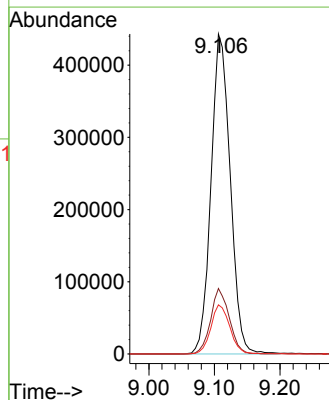
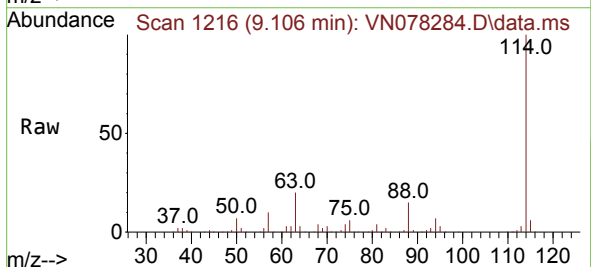
Tgt Ion: 114 Resp: 900919

Ion Ratio Lower Upper

114 100

63 20.4 0.0 36.4

88 15.3 0.0 30.6

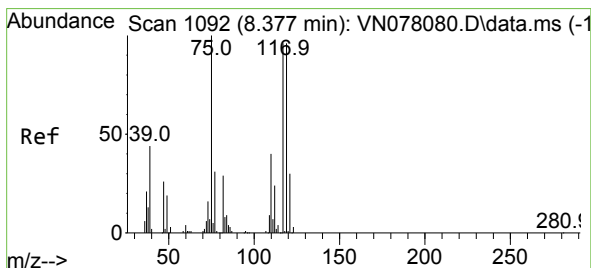
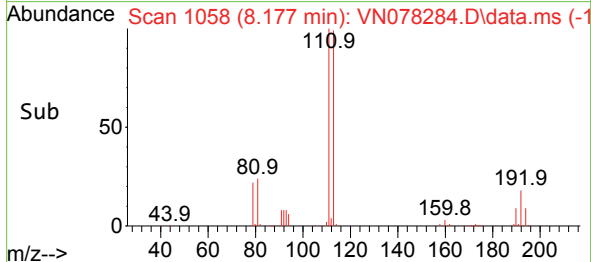
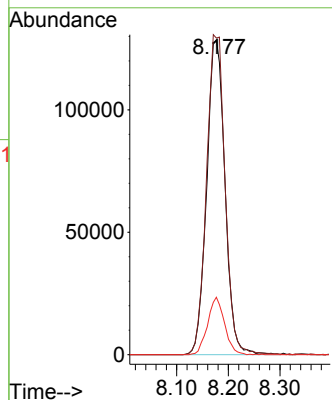
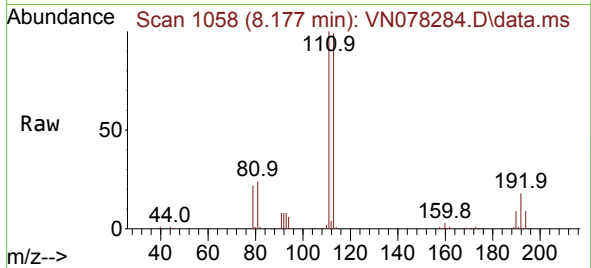




#35  
Dibromofluoromethane  
Concen: 55.544 ug/l  
RT: 8.177 min Scan# 1058  
Delta R.T. 0.000 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

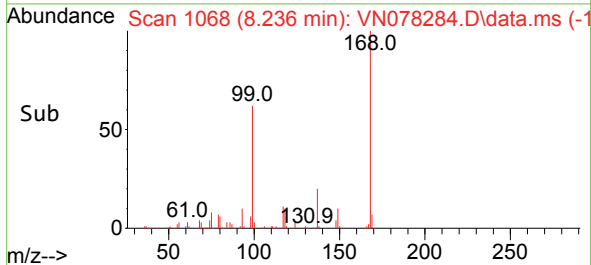
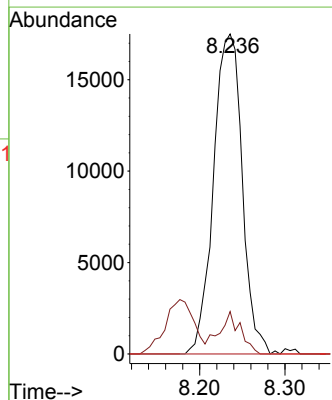
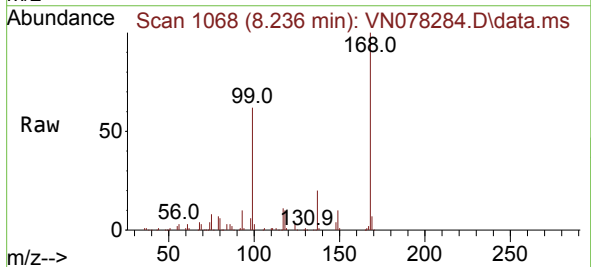
Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

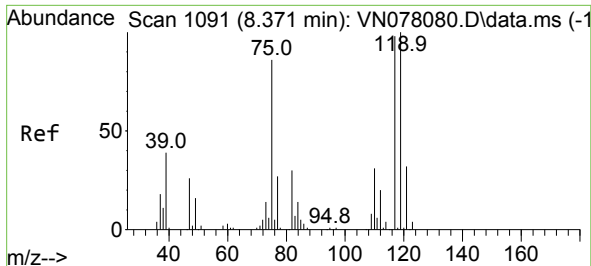
Tgt Ion:113 Resp: 316403  
Ion Ratio Lower Upper  
113 100  
111 103.5 82.6 123.8  
192 16.9 12.7 19.1



#36  
1,1-Dichloropropene  
Concen: 5.007 ug/l  
RT: 8.236 min Scan# 1068  
Delta R.T. -0.141 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

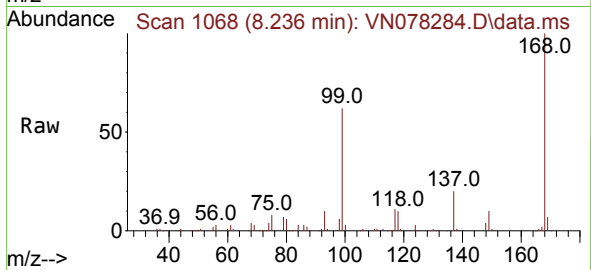
Tgt Ion: 75 Resp: 40914  
Ion Ratio Lower Upper  
75 100  
110 9.9 19.1 57.3#  
77 0.0 25.0 37.4#



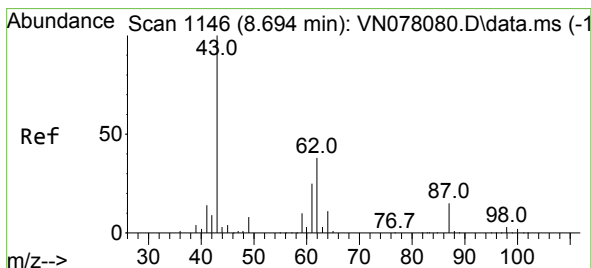
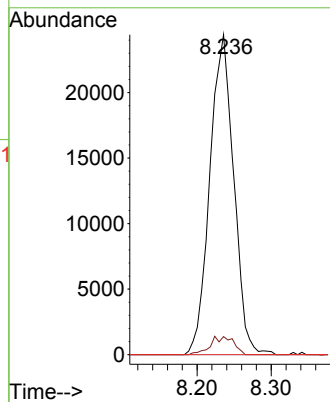
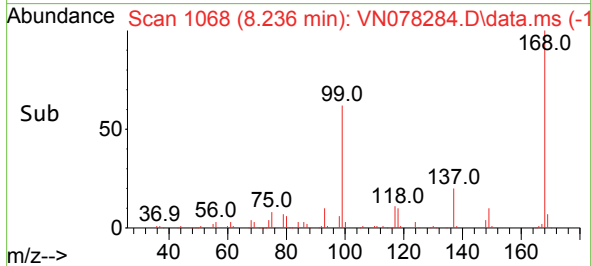


#38  
Carbon Tetrachloride  
Concen: 6.338 ug/l  
RT: 8.236 min Scan# 1105  
Delta R.T. -0.135 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

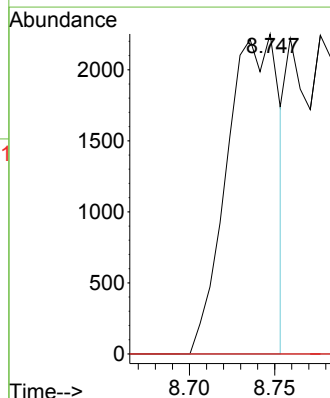
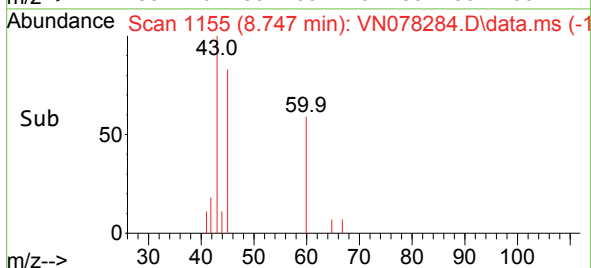
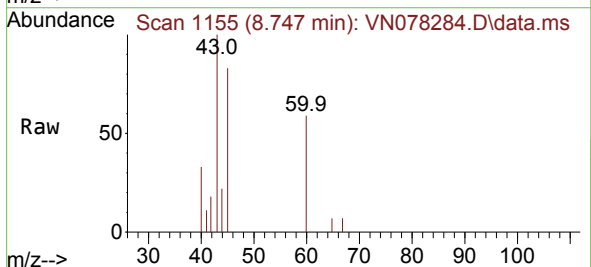


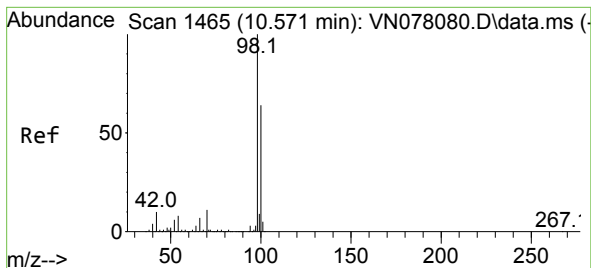
Tgt Ion:117 Resp: 54678  
Ion Ratio Lower Upper  
117 100  
119 5.6 77.3 115.9#  
121 0.0 23.3 34.9#



#43  
Isopropyl Acetate  
Concen: 0.388 ug/l  
RT: 8.747 min Scan# 1155  
Delta R.T. 0.053 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 43 Resp: 4740  
Ion Ratio Lower Upper  
43 100  
61 0.0 24.7 37.1#  
87 0.0 14.6 21.8#

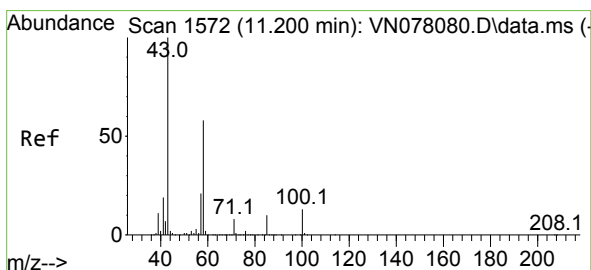
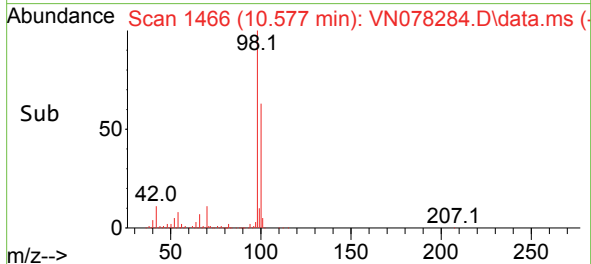
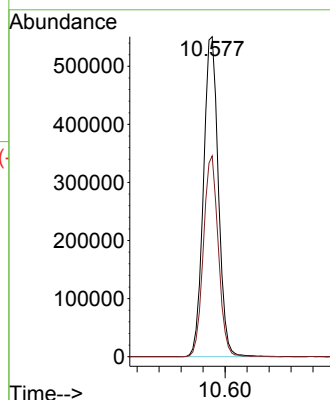
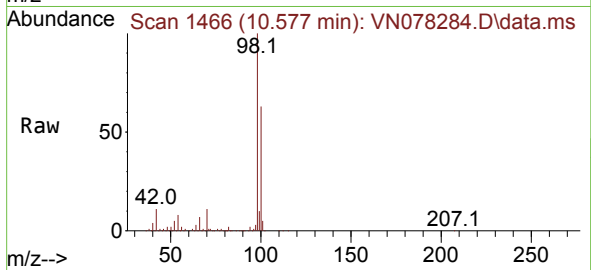




#50  
Toluene-d8  
Concen: 47.271 ug/l  
RT: 10.577 min Scan# 1466  
Delta R.T. 0.006 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

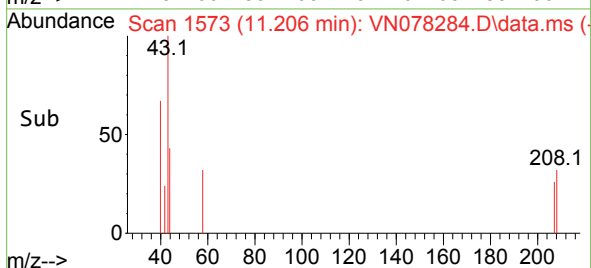
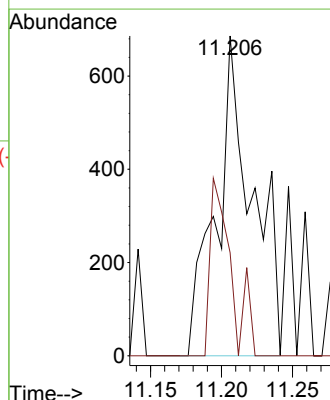
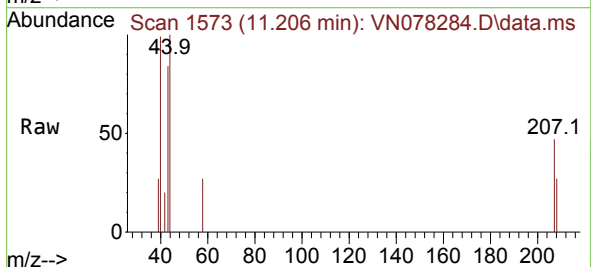
Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

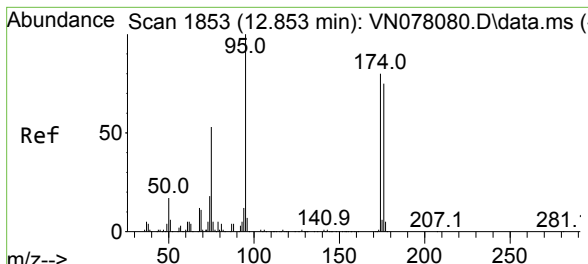
Tgt Ion: 98 Resp: 1038081  
Ion Ratio Lower Upper  
98 100  
100 62.7 52.0 78.0



#59  
2-Hexanone  
Concen: 0.271 ug/l  
RT: 11.206 min Scan# 1573  
Delta R.T. 0.006 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 43 Resp: 1215  
Ion Ratio Lower Upper  
43 100  
58 31.9 31.7 95.1

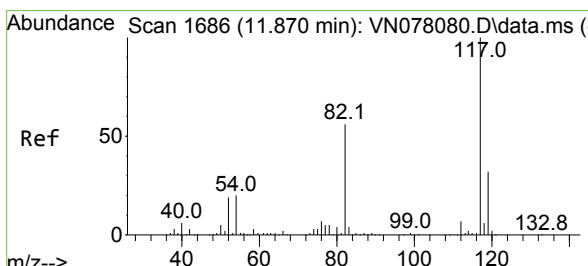
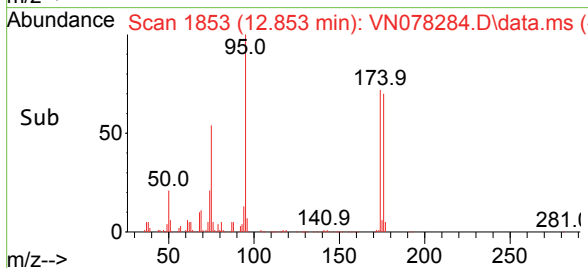
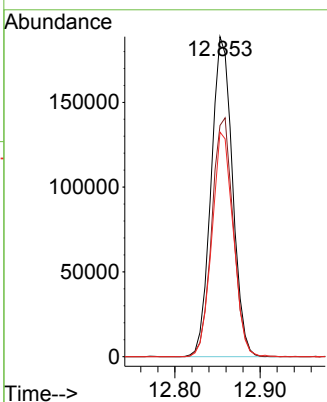
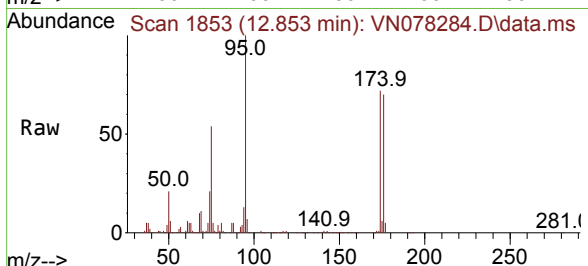




#62  
 4-Bromofluorobenzene  
 Concen: 48.125 ug/l  
 RT: 12.853 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: VN078284.D  
 Acq: 19 Jun 2023 17:01

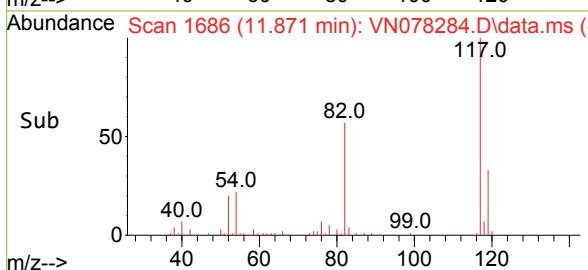
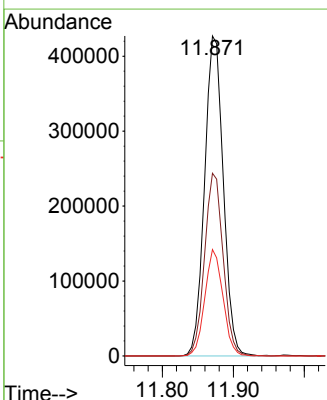
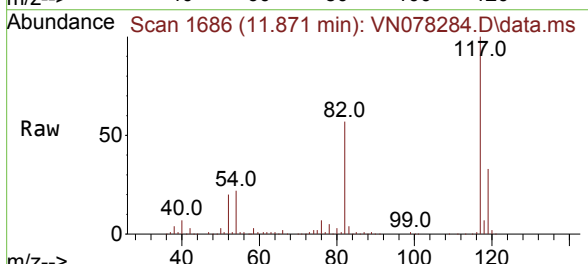
Instrument : MSVOA\_N  
 ClientSampleId : BP-VPB-RW11-EB-20230613

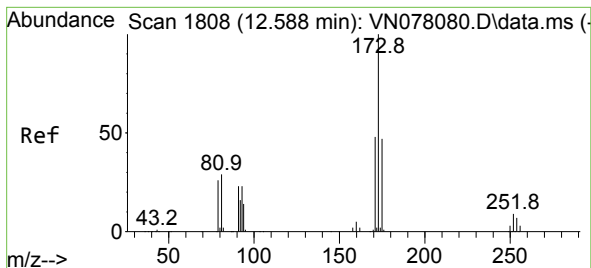
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 95    | Resp: | 328542 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 174      | 75.0  | 0.0   | 143.8  |
| 176      | 70.2  | 0.0   | 135.8  |



#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 11.871 min Scan# 1686  
 Delta R.T. 0.000 min  
 Lab File: VN078284.D  
 Acq: 19 Jun 2023 17:01

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 781839 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 82       | 57.1  | 44.0  | 66.0   |
| 119      | 33.3  | 25.6  | 38.4   |





#71

Bromoform

Concen: 0.578 ug/l

RT: 12.853 min Scan# 11

Delta R.T. 0.265 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

Instrument :

MSVOA\_N

ClientSampleId :

BP-VPB-RW11-EB-20230613

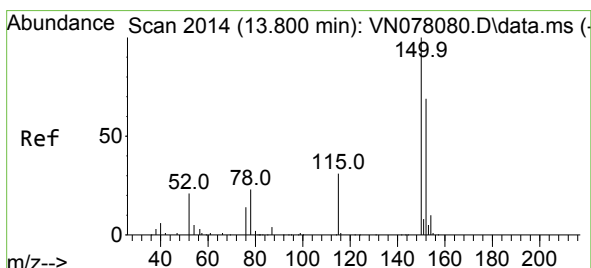
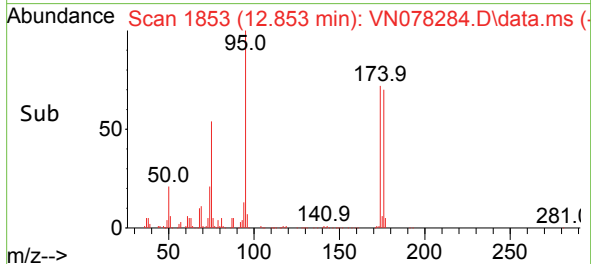
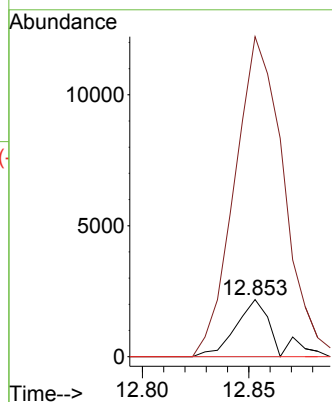
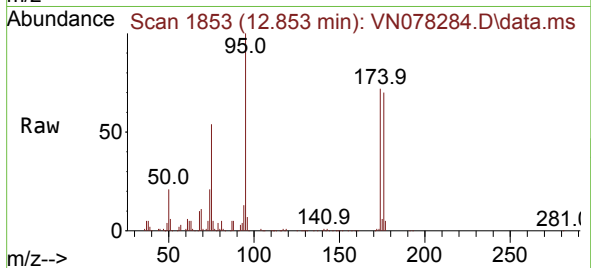
Tgt Ion:173 Resp: 2297

Ion Ratio Lower Upper

173 100

175 749.6 24.3 73.0#

254 0.0 0.0 0.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.800 min Scan# 2014

Delta R.T. 0.000 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

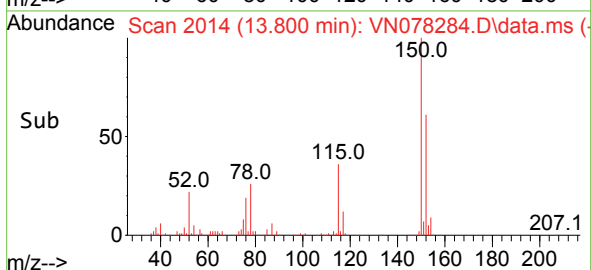
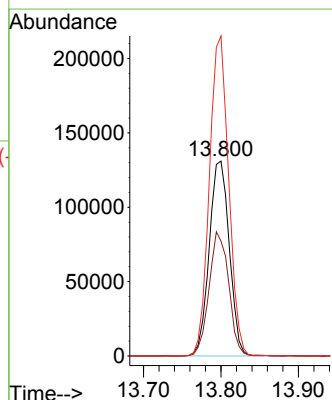
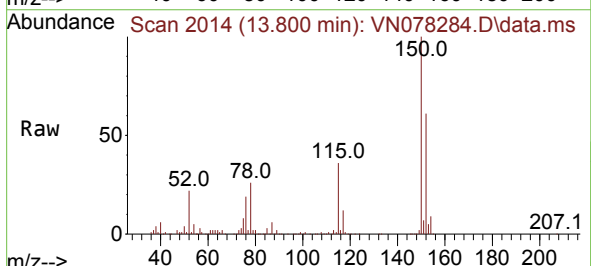
Tgt Ion:152 Resp: 236246

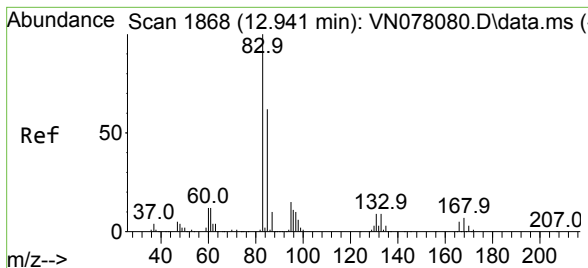
Ion Ratio Lower Upper

152 100

115 62.1 32.3 96.8

150 157.3 0.0 355.8





#75

1,1,2-Tetrachloroethane

Concen: Below Cal

RT: 12.947 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN078284.D

Acq: 19 Jun 2023 17:01

Instrument :

MSVOA\_N

ClientSampleId :

BP-VPB-RW11-EB-20230613

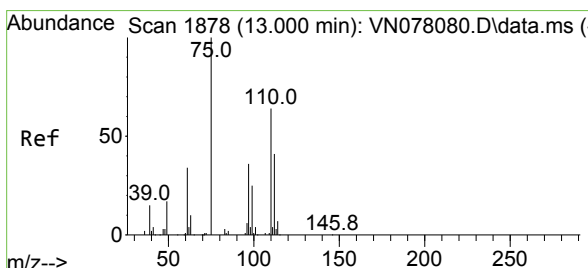
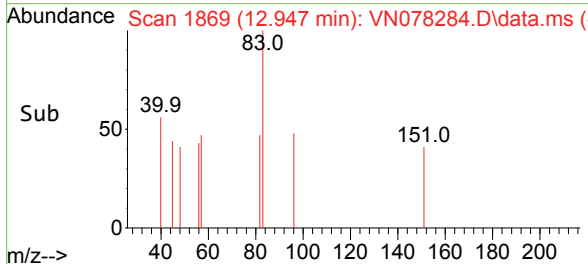
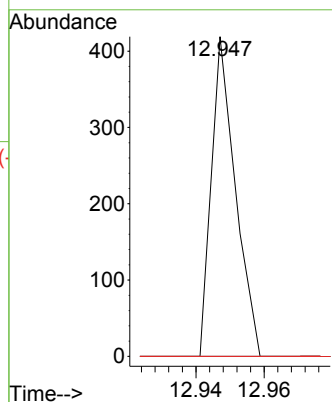
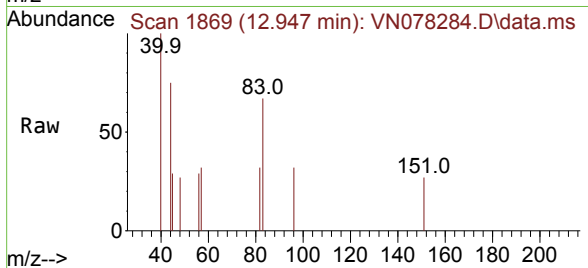
Tgt Ion: 83 Resp: 205

Ion Ratio Lower Upper

83 100

131 0.0 5.0 15.0#

85 0.0 31.9 95.7#



#76

1,2,3-Trichloropropane

Concen: 31.997 ug/l

RT: 12.859 min Scan# 1854

Delta R.T. -0.141 min

Lab File: VN078284.D

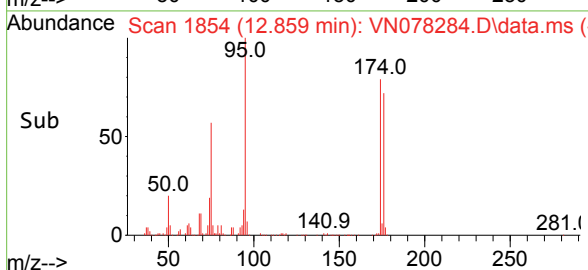
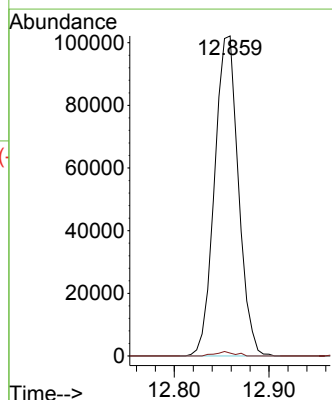
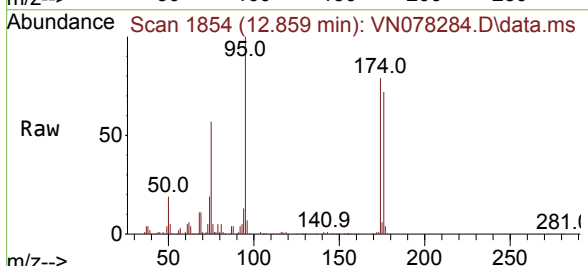
Acq: 19 Jun 2023 17:01

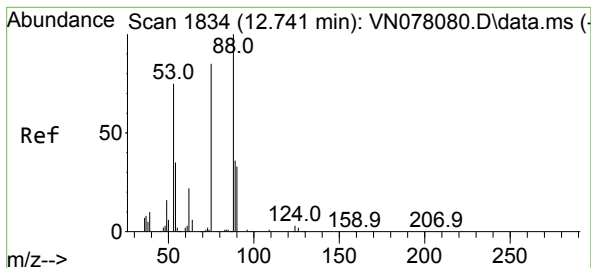
Tgt Ion: 75 Resp: 178700

Ion Ratio Lower Upper

75 100

77 1.1 84.5 253.5#

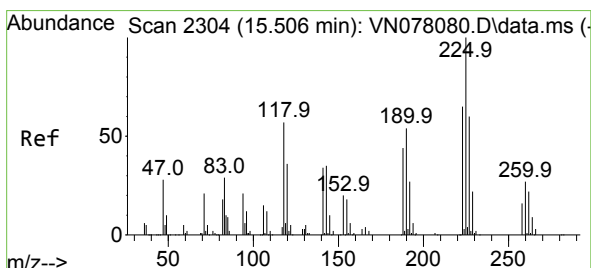
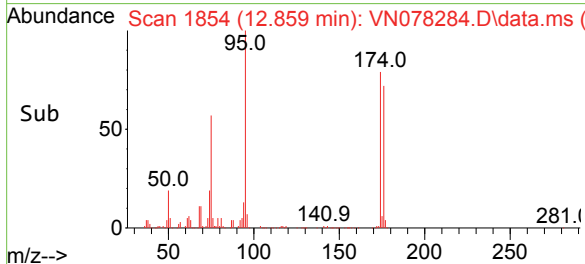
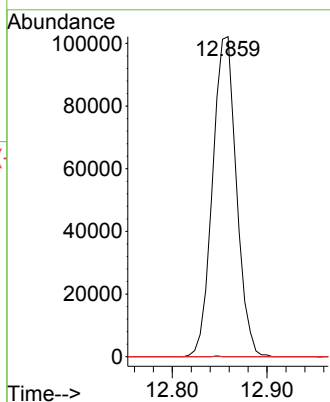
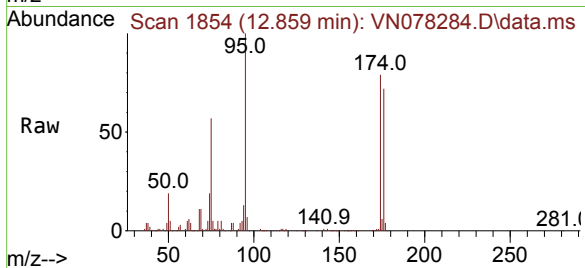




#81  
trans-1,4-Dichloro-2-butene  
Concen: 98.304 ug/l  
RT: 12.859 min Scan# 1854  
Delta R.T. 0.118 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-VPB-RW11-EB-20230613

Tgt Ion: 75 Resp: 178700  
Ion Ratio Lower Upper  
75 100  
53 0.0 67.4 101.2#  
89 0.1 38.8 58.2#



#94  
Hexachlorobutadiene  
Concen: Below Cal  
RT: 15.506 min Scan# 2304  
Delta R.T. -0.000 min  
Lab File: VN078284.D  
Acq: 19 Jun 2023 17:01

Tgt Ion: 225 Resp: 86  
Ion Ratio Lower Upper  
225 100  
223 0.0 31.3 93.8#  
227 72.1 31.9 95.9

