

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN102023\  
 Data File : VN079626.D  
 Acq On : 20 Oct 2023 14:16  
 Operator : JC\MD  
 Sample : 04966-01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 231013059-VOA

Quant Time: Oct 20 23:49:28 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N101723W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Oct 18 02:19:15 2023  
 Response via : Initial Calibration

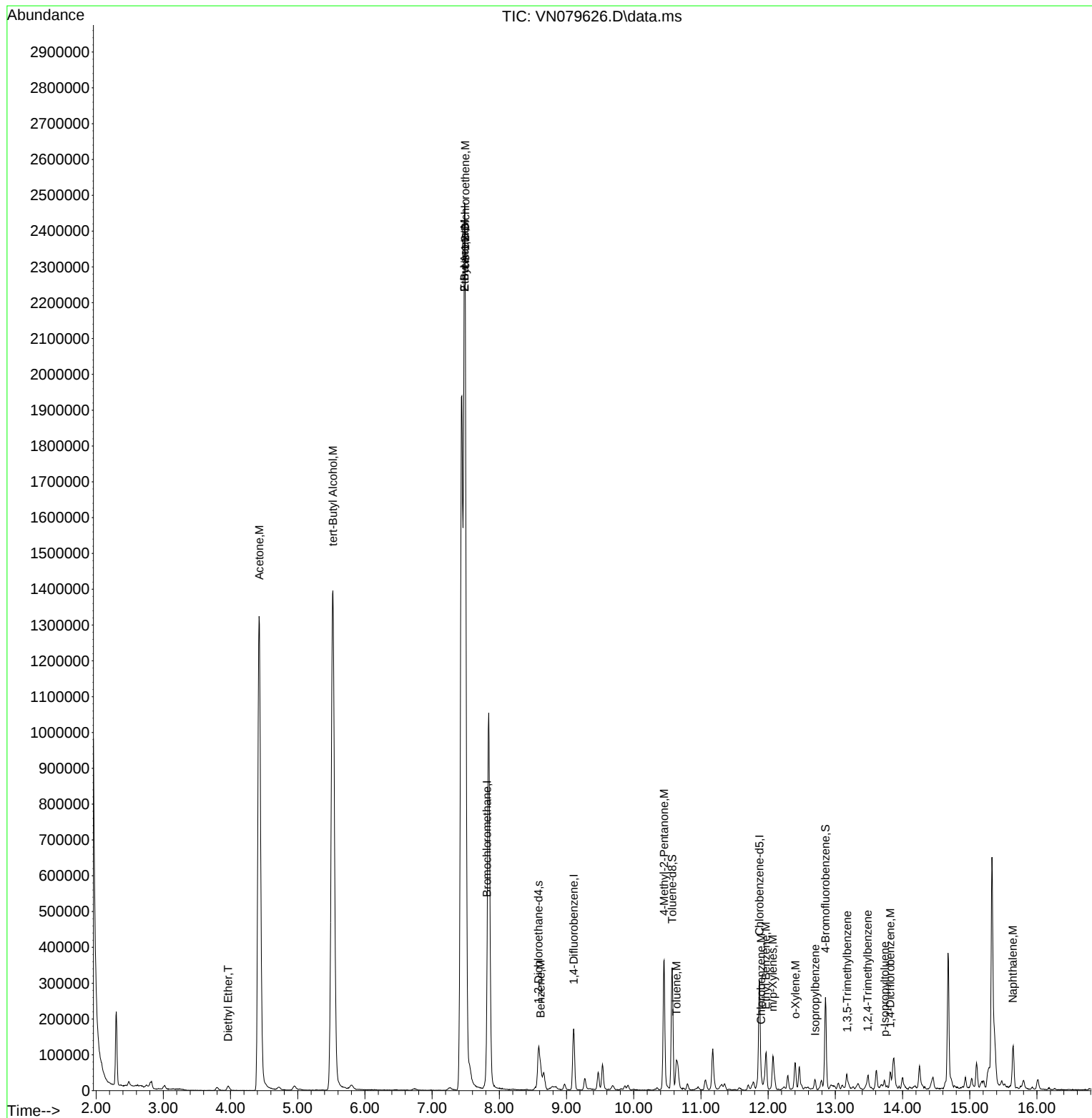
| Compound                    | R.T.           | QIon | Response            | Conc     | Units  | Dev(Min) |
|-----------------------------|----------------|------|---------------------|----------|--------|----------|
| -----                       |                |      |                     |          |        |          |
| Internal Standards          |                |      |                     |          |        |          |
| 1) Bromochloromethane       | 7.818          | 128  | 18785               | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene     | 9.106          | 114  | 140341              | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5        | 11.871         | 117  | 171470              | 30.000   | ug/l   | 0.00     |
|                             |                |      |                     |          |        |          |
| System Monitoring Compounds |                |      |                     |          |        |          |
| 27) 1,2-Dichloroethane-d4   | 8.583          | 65   | 84554               | 31.659   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 110 |      | Recovery = 105.533% |          |        |          |
| 60) 4-Bromofluorobenzene    | 12.853         | 95   | 82850               | 26.422   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 63 - 112 |      | Recovery = 88.067%  |          |        |          |
| 63) Toluene-d8              | 10.571         | 98   | 220773              | 30.047   | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 112 |      | Recovery = 100.167% |          |        |          |
|                             |                |      |                     |          |        |          |
| Target Compounds            |                |      |                     |          | Qvalue |          |
| 8) Diethyl Ether            | 3.965          | 74   | 6046                | 3.588    | ug/l   | 78       |
| 15) Acetone                 | 4.430          | 58   | 767894              | 1658.908 | ug/l   | 84       |
| 22) cis-1,2-Dichloroethene  | 7.494          | 96   | 3366                | 1.032    | ug/l # | 18       |
| 23) tert-Butyl Alcohol      | 5.524          | 59   | 2513875             | 5144.788 | ug/l # | 100      |
| 30) 2-Butanone              | 7.483          | 43   | 4044102             | 1967.167 | ug/l   | 99       |
| 34) Benzene                 | 8.612          | 78   | 42393               | 3.402    | ug/l # | 83       |
| 43) Ethyl Acetate           | 7.483          | 43   | 4044102             | 1046.142 | ug/l   | 96       |
| 58) 4-Methyl-2-Pentanone    | 10.453         | 43   | 245807              | 61.460   | ug/l   | 98       |
| 62) Toluene                 | 10.635         | 91   | 52236               | 3.986    | ug/l   | 100      |
| 64) Chlorobenzene           | 11.894         | 112  | 9778                | 1.286    | ug/l   | 94       |
| 66) Ethyl Benzene           | 11.965         | 91   | 65231               | 4.831    | ug/l   | 95       |
| 67) m/p-Xylenes             | 12.071         | 106  | 27803               | 5.567    | ug/l   | 91       |
| 68) o-Xylene                | 12.406         | 106  | 17937               | 3.757    | ug/l   | 98       |
| 70) Isopropylbenzene        | 12.700         | 105  | 13867               | 1.132    | ug/l   | 97       |
| 76) 1,3,5-Trimethylbenzene  | 13.176         | 105  | 4967                | 0.496    | ug/l   | 96       |
| 80) 1,2,4-Trimethylbenzene  | 13.482         | 105  | 17482               | 1.801    | ug/l   | 90       |
| 82) p-Isopropyltoluene      | 13.735         | 119  | 10362               | 1.155    | ug/l   | 93       |
| 84) 1,4-Dichlorobenzene     | 13.818         | 146  | 10434               | 2.300    | ug/l   | 99       |
| 91) Naphthalene             | 15.641         | 128  | 106360              | 24.867   | ug/l   | 99       |
| -----                       |                |      |                     |          |        |          |

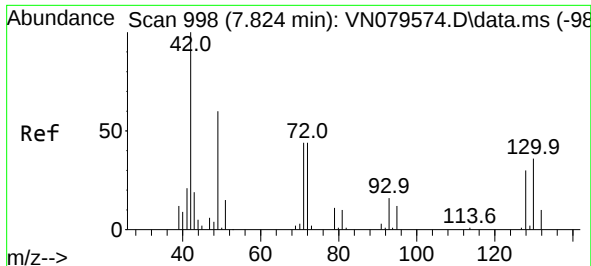
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN102023\  
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231013059-VOA

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N101723W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Wed Oct 18 02:19:15 2023  
Response via : Initial Calibration

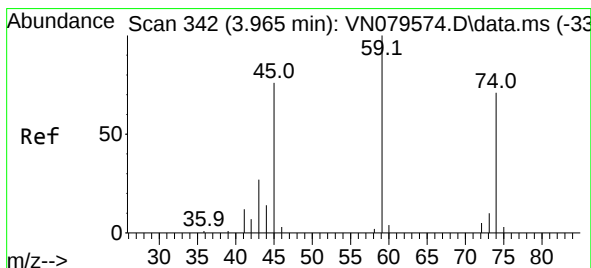
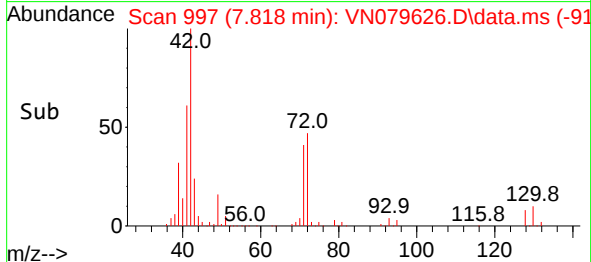
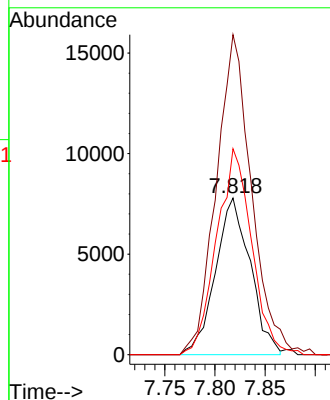
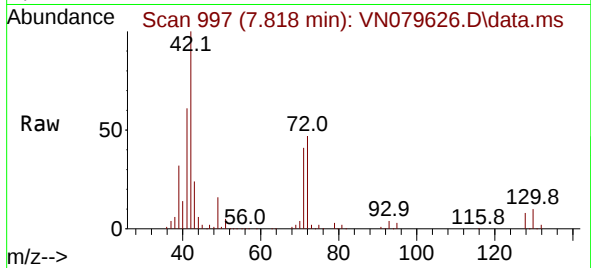




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.818 min Scan# 91  
Delta R.T. -0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

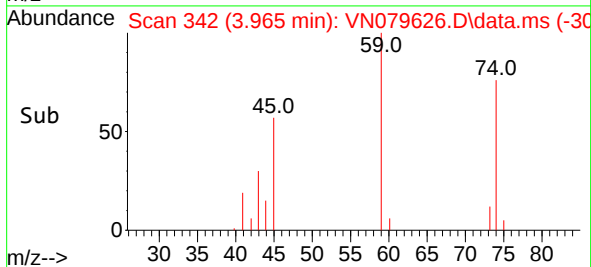
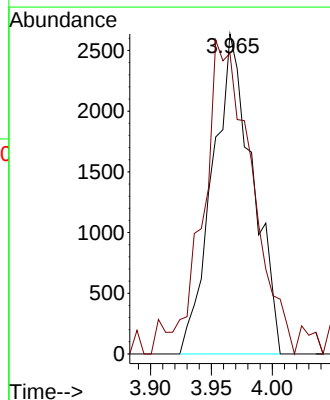
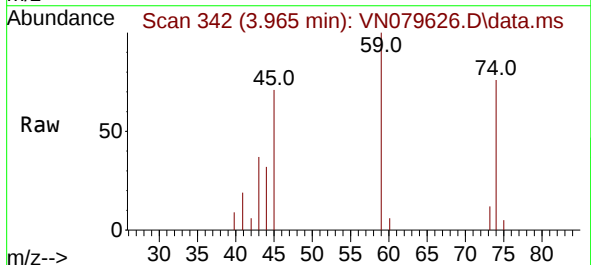
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MSVOA\_N  
ClientSampleId :  
231013059-VOA

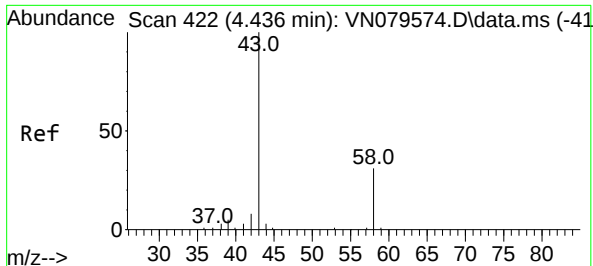
Tgt Ion:128 Resp: 18785  
Ion Ratio Lower Upper  
128 100  
49 207.7 0.0 468.5  
130 132.8 0.0 320.7



#8  
Diethyl Ether  
Concen: 3.588 ug/l  
RT: 3.965 min Scan# 342  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 74 Resp: 6046  
Ion Ratio Lower Upper  
74 100  
45 116.8 19.0 171.0

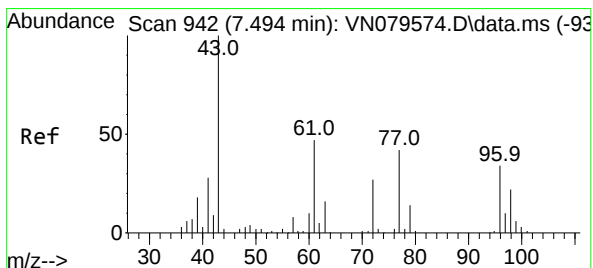
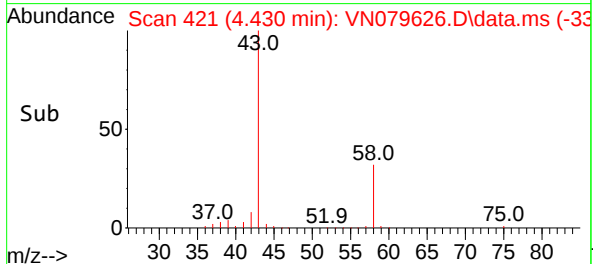
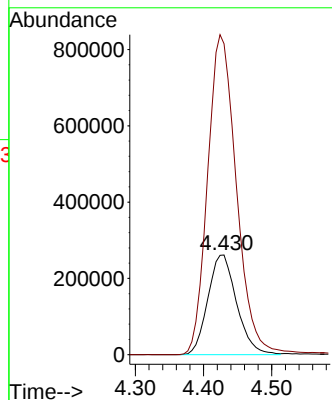
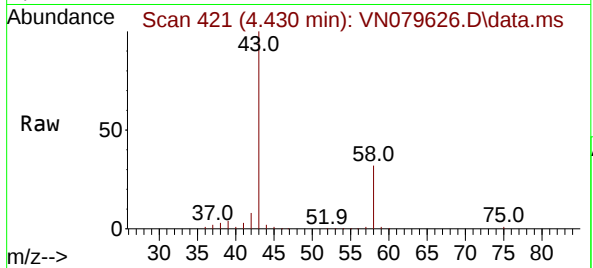




#15  
Acetone  
Concen: 1658.908 ug/l  
RT: 4.430 min Scan# 41  
Delta R.T. -0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

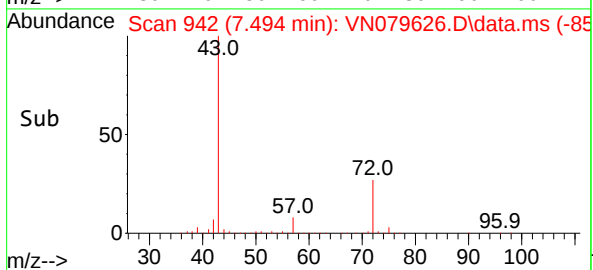
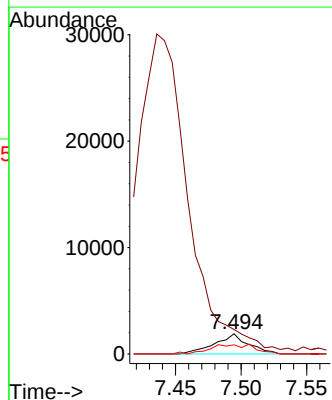
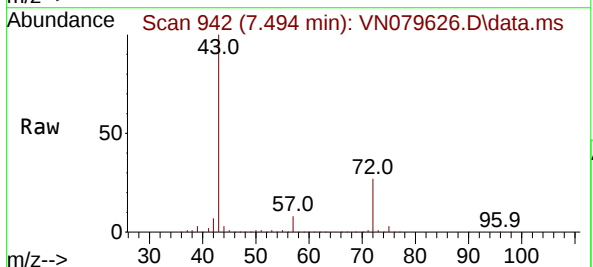
Instrument :  
MSVOA\_N  
ClientSampleId :  
231013059-VOA

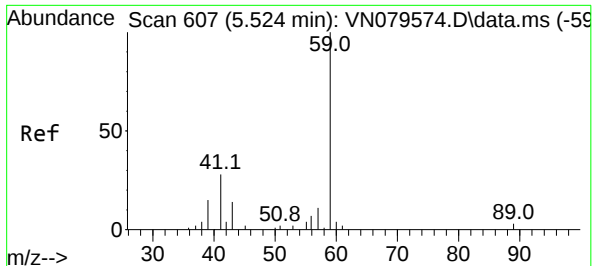
Tgt Ion: 58 Resp: 767894  
Ion Ratio Lower Upper  
58 100  
43 311.5 225.2 337.8



#22  
cis-1,2-Dichloroethene  
Concen: 1.032 ug/l  
RT: 7.494 min Scan# 942  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 96 Resp: 3366  
Ion Ratio Lower Upper  
96 100  
61 37.6 124.6 186.8#  
98 18.0 54.2 81.4#

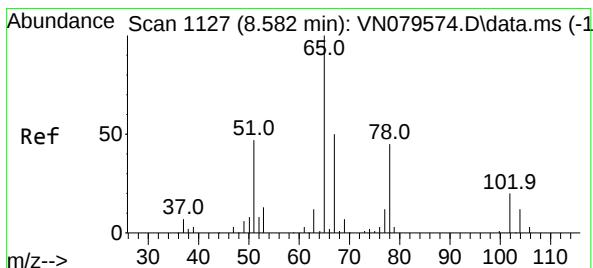
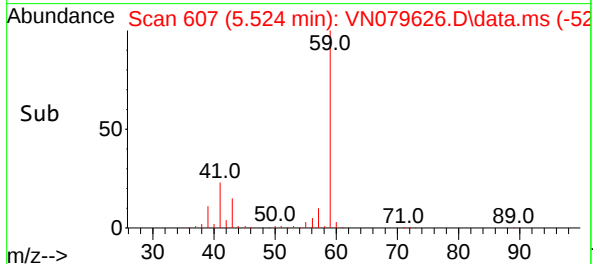
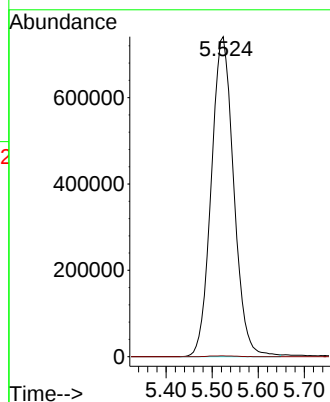
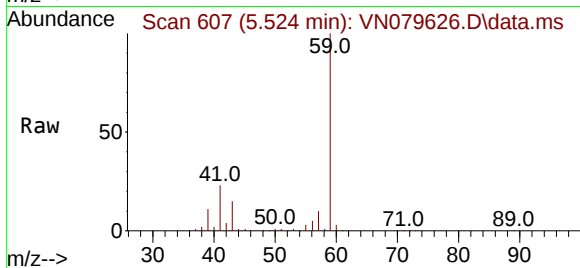




#23  
tert-Butyl Alcohol  
Concen: 5144.788 ug/l  
RT: 5.524 min Scan# 607  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

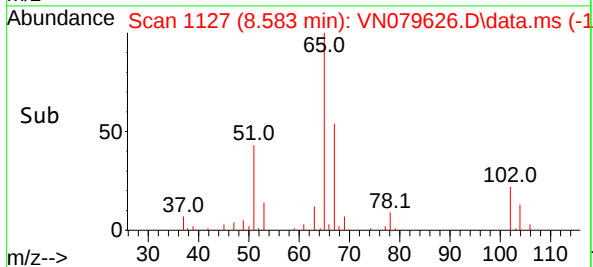
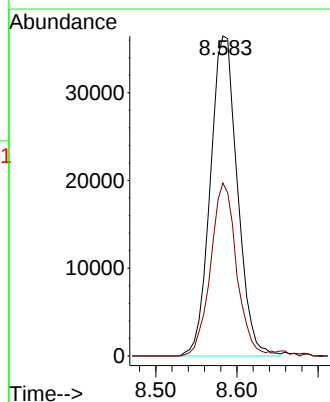
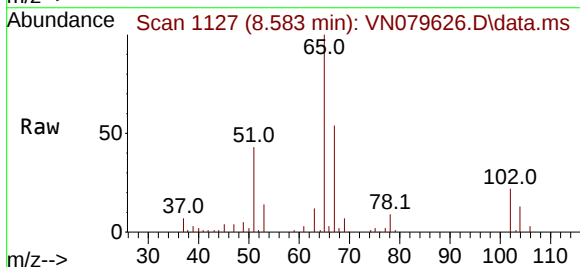
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ClientSampleId :  
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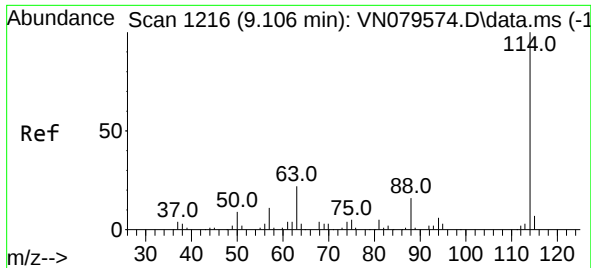
Tgt Ion: 59 Resp: 2513875  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.0 0.0#



#27  
1,2-Dichloroethane-d4  
Concen: 31.659 ug/l  
RT: 8.583 min Scan# 1127  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 65 Resp: 84554  
Ion Ratio Lower Upper  
65 100  
67 51.6 42.1 63.1

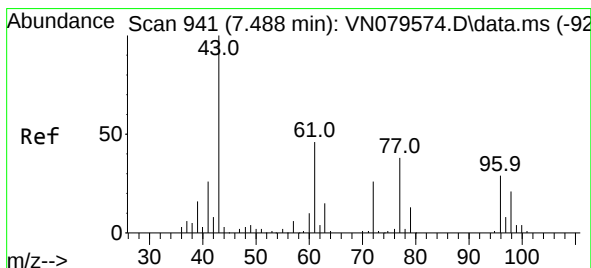
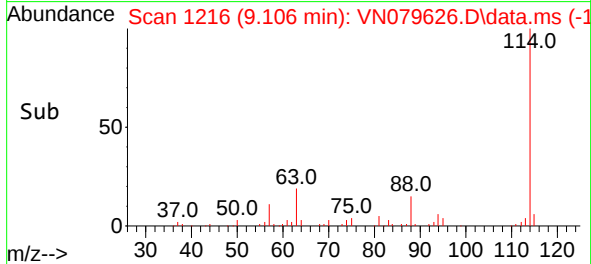
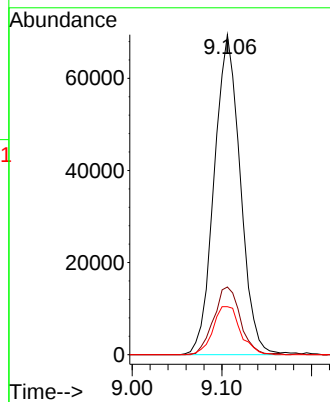
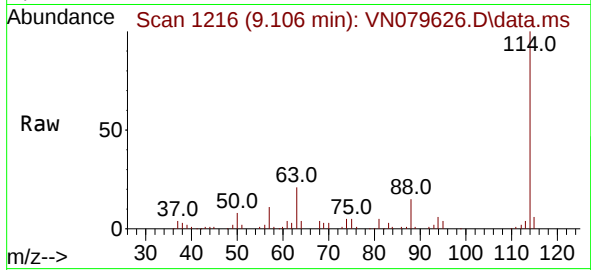




#28  
1,4-Difluorobenzene  
Concen: 30.000 ug/l  
RT: 9.106 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

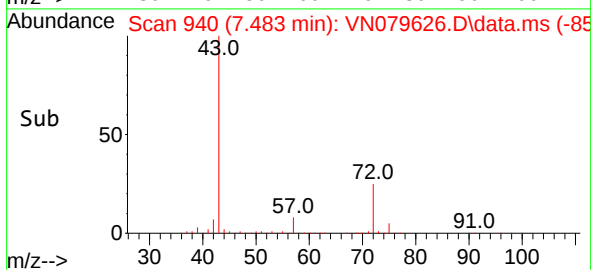
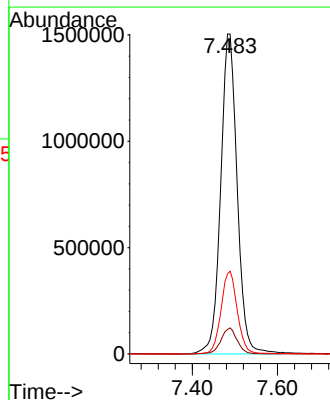
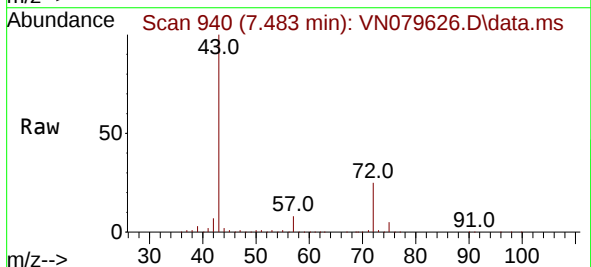
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ClientSampleId :  
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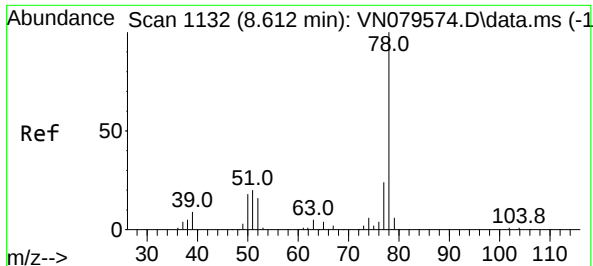
Tgt Ion:114 Resp: 140341  
Ion Ratio Lower Upper  
114 100  
63 21.4 18.1 27.1  
88 15.7 12.2 18.2



#30  
2-Butanone  
Concen: 1967.167 ug/l  
RT: 7.483 min Scan# 940  
Delta R.T. -0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 43 Resp: 4044102  
Ion Ratio Lower Upper  
43 100  
57 8.0 6.4 9.6  
72 25.3 20.7 31.1

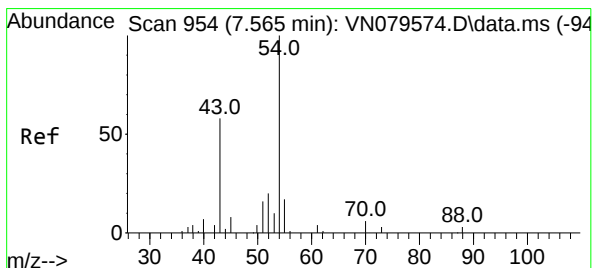
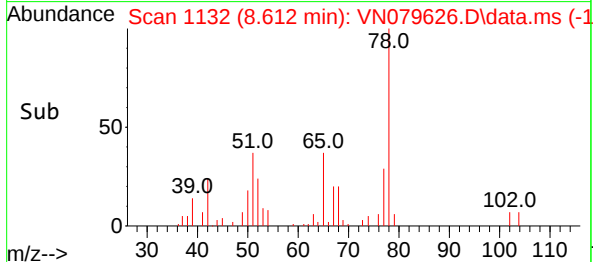
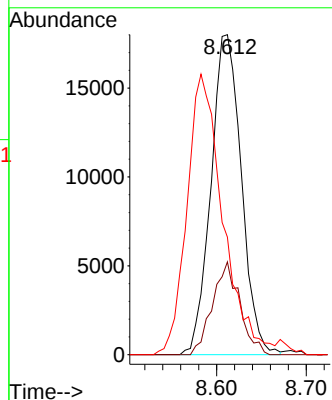
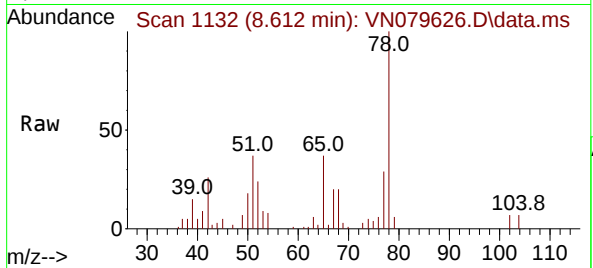




#34  
Benzene  
Concen: 3.402 ug/l  
RT: 8.612 min Scan# 1132  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

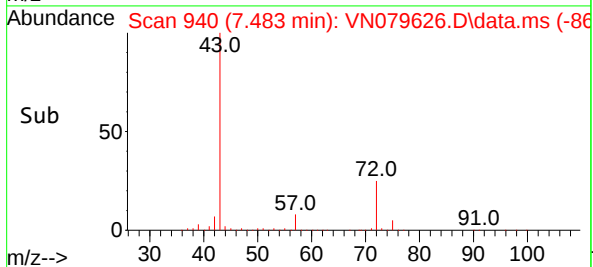
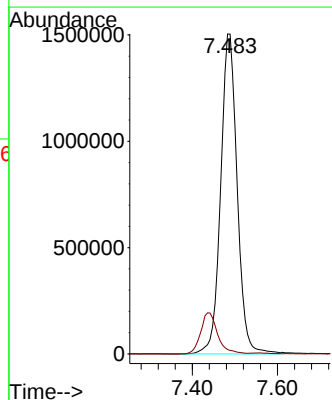
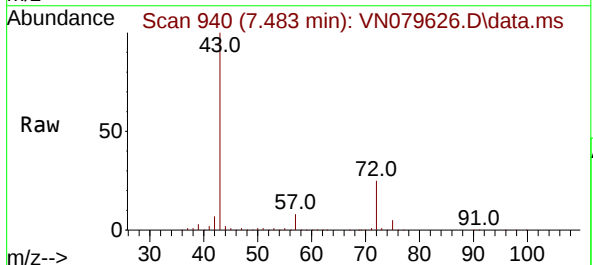
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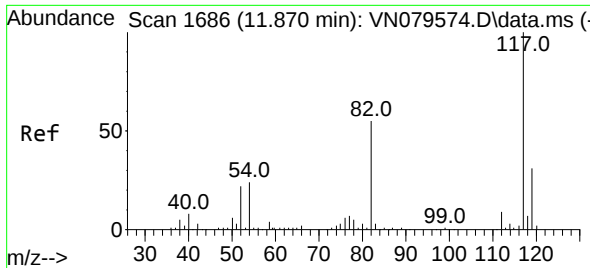
Tgt Ion: 78 Resp: 42393  
Ion Ratio Lower Upper  
78 100  
77 29.0 19.7 29.5  
51 32.0 15.8 23.6#



#43  
Ethyl Acetate  
Concen: 1046.142 ug/l  
RT: 7.483 min Scan# 940  
Delta R.T. -0.082 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 43 Resp: 4044102  
Ion Ratio Lower Upper  
43 100  
45 13.3 11.8 17.8

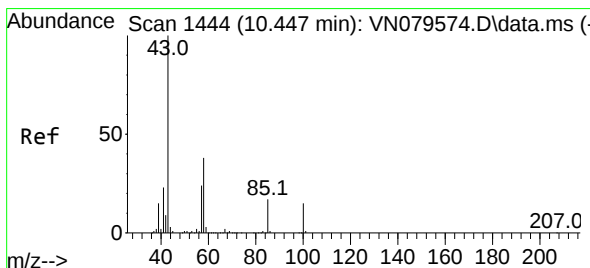
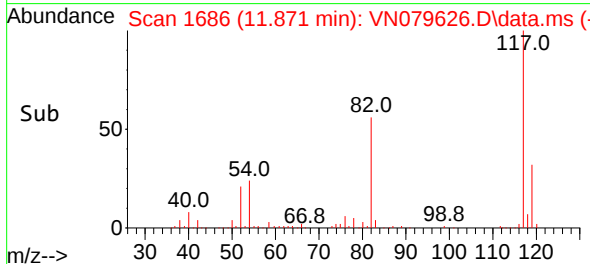
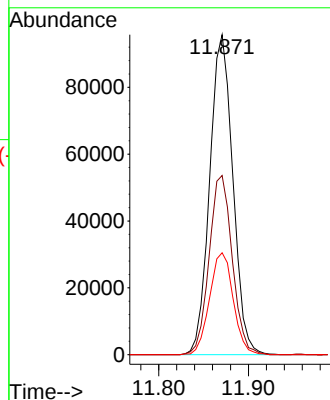
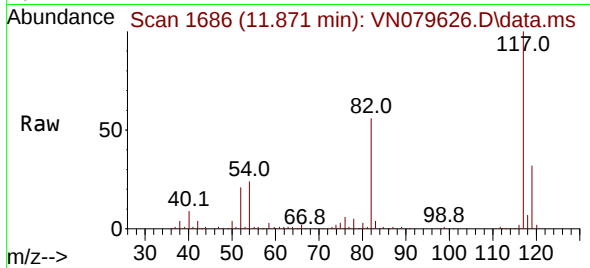




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.871 min Scan# 1186  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

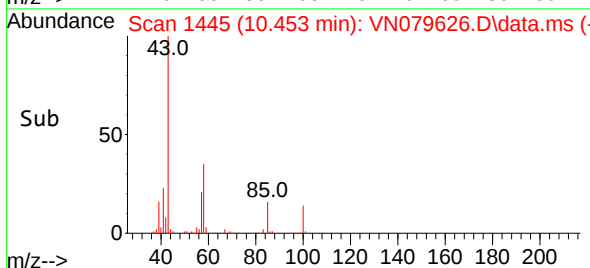
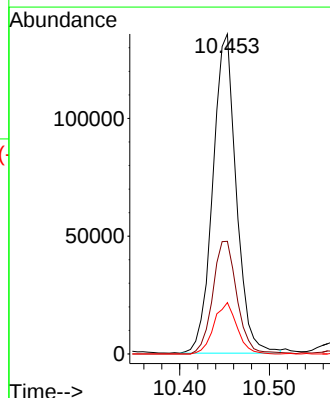
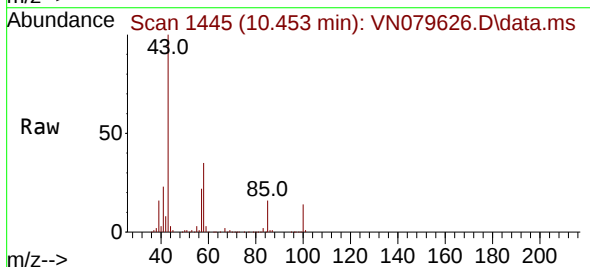
Instrument :  
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231013059-VOA

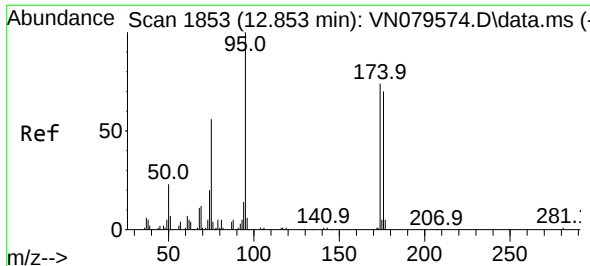
Tgt Ion:117 Resp: 171470  
Ion Ratio Lower Upper  
117 100  
82 56.1 46.2 69.2  
119 32.6 25.2 37.8



#58  
4-Methyl-2-Pentanone  
Concen: 61.460 ug/l  
RT: 10.453 min Scan# 1445  
Delta R.T. 0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 43 Resp: 245807  
Ion Ratio Lower Upper  
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58 36.6 30.4 45.6  
85 15.8 13.2 19.8

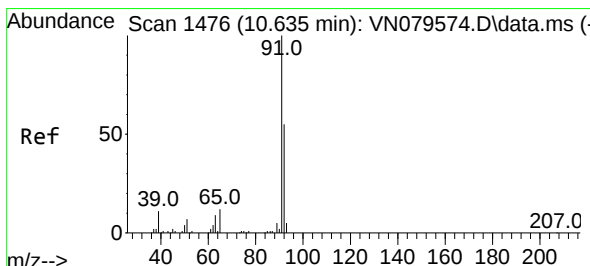
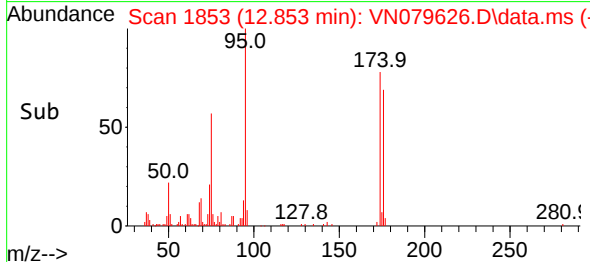
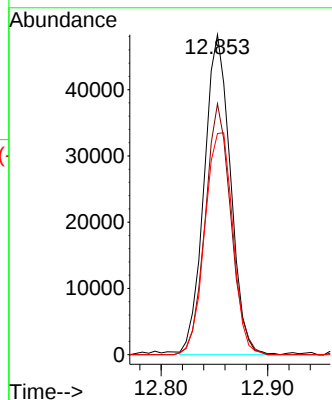
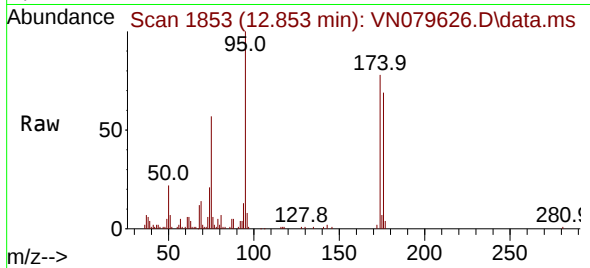




#60  
4-Bromofluorobenzene  
Concen: 26.422 ug/l  
RT: 12.853 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

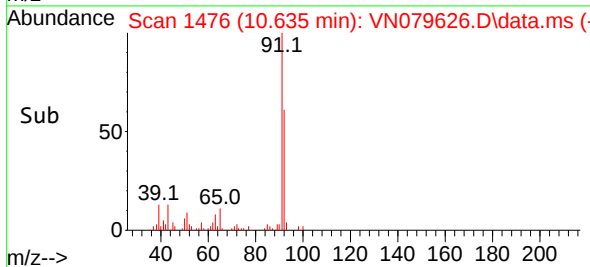
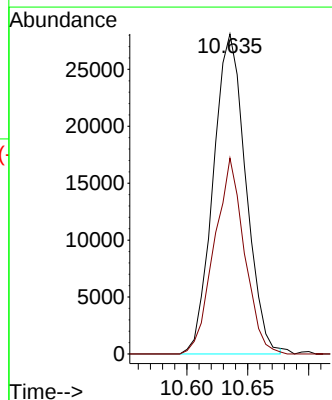
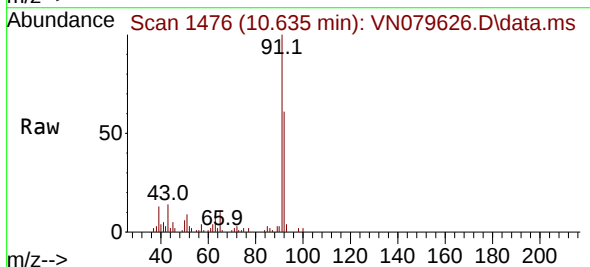
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ClientSampleId :  
231013059-VOA

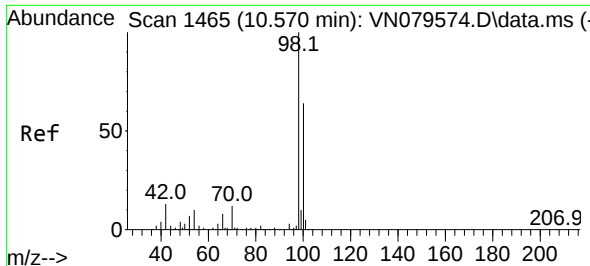
Tgt Ion: 95 Resp: 82850  
Ion Ratio Lower Upper  
95 100  
174 76.7 60.5 90.7  
176 73.9 57.2 85.8



#62  
Toluene  
Concen: 3.986 ug/l  
RT: 10.635 min Scan# 1476  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 91 Resp: 52236  
Ion Ratio Lower Upper  
91 100  
92 56.8 45.3 67.9

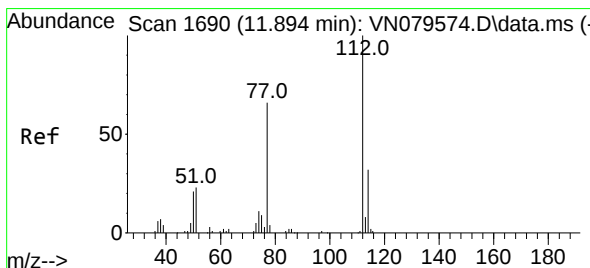
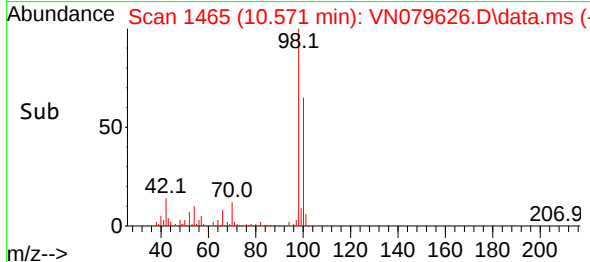
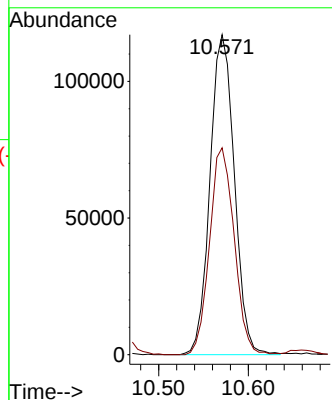
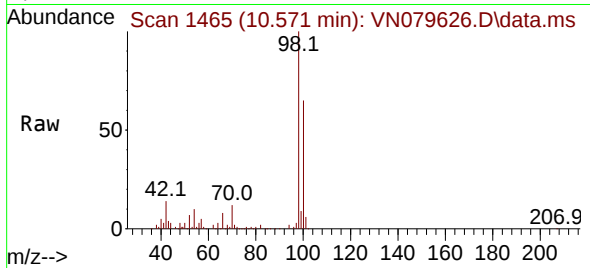




#63  
Toluene-d8  
Concen: 30.047 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

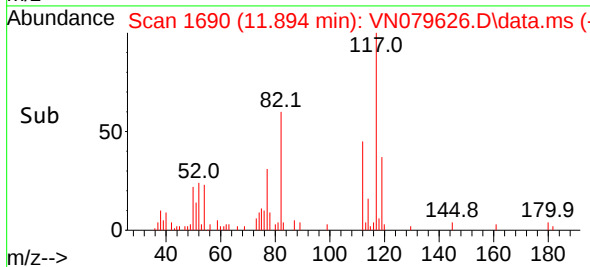
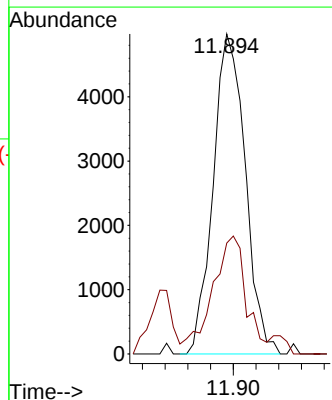
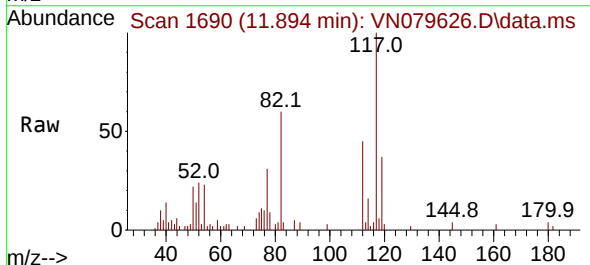
Instrument :  
MSVOA\_N  
ClientSampleId :  
231013059-VOA

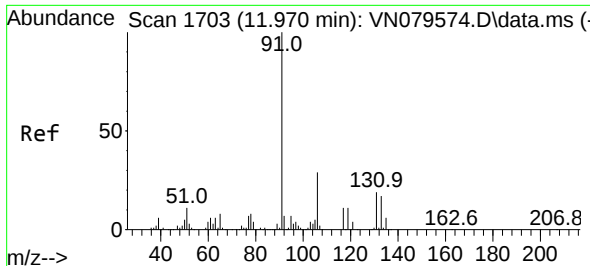
Tgt Ion: 98 Resp: 220773  
Ion Ratio Lower Upper  
98 100  
100 65.3 51.6 77.4



#64  
Chlorobenzene  
Concen: 1.286 ug/l  
RT: 11.894 min Scan# 1690  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 112 Resp: 9778  
Ion Ratio Lower Upper  
112 100  
114 31.5 28.1 42.1

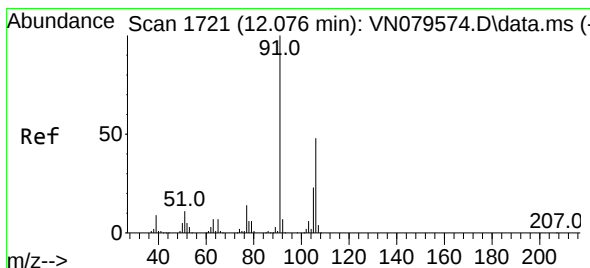
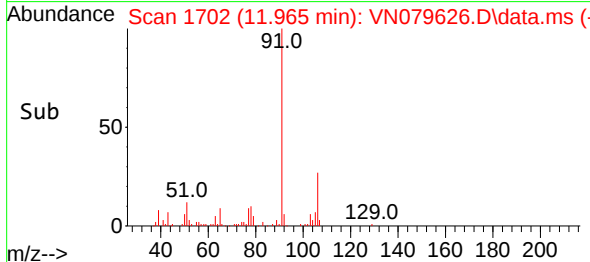
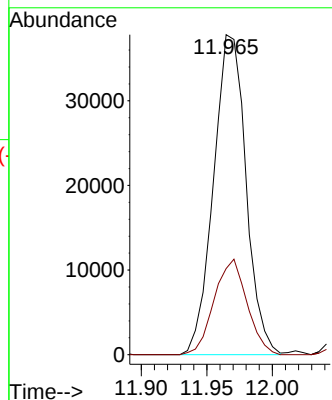
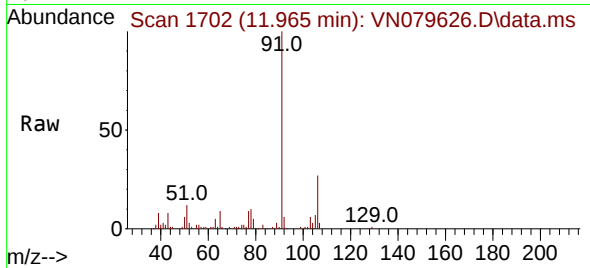




#66  
Ethyl Benzene  
Concen: 4.831 ug/l  
RT: 11.965 min Scan# 11  
Delta R.T. -0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

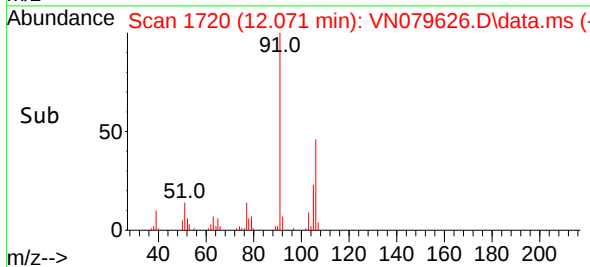
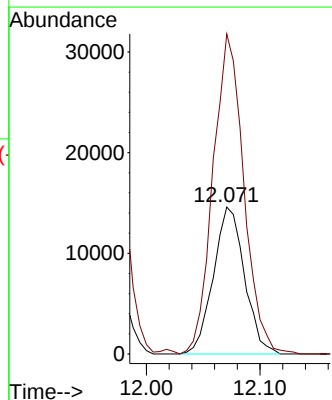
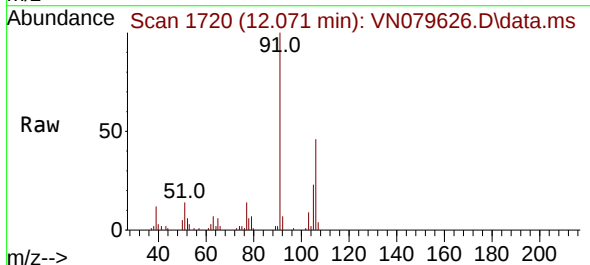
Instrument :  
MSVOA\_N  
ClientSampleId :  
231013059-VOA

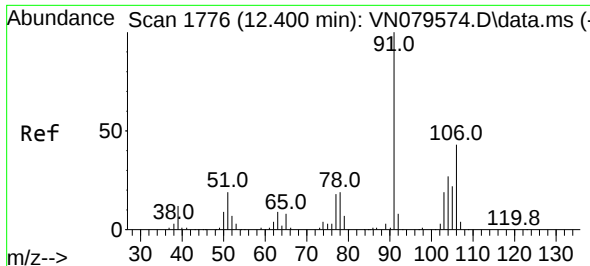
Tgt Ion: 91 Resp: 65231  
Ion Ratio Lower Upper  
91 100  
106 26.9 23.8 35.8



#67  
m/p-Xylenes  
Concen: 5.567 ug/l  
RT: 12.071 min Scan# 1720  
Delta R.T. -0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion: 106 Resp: 27803  
Ion Ratio Lower Upper  
106 100  
91 215.3 161.8 242.6

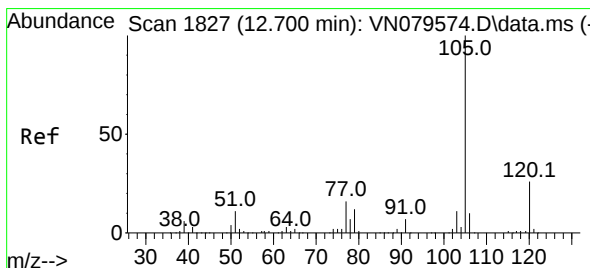
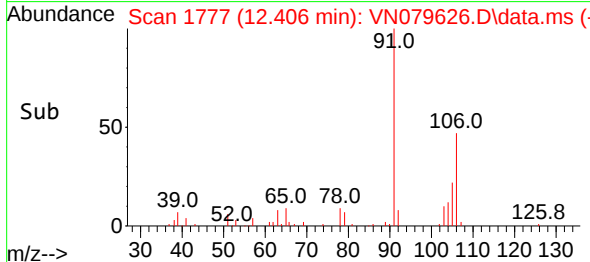
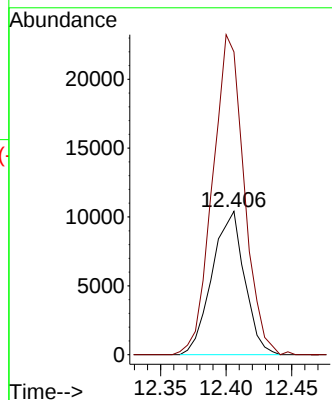
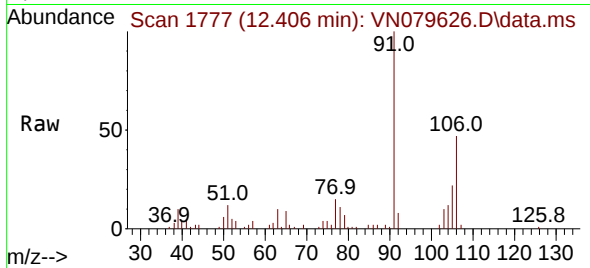




#68  
o-Xylene  
Concen: 3.757 ug/l  
RT: 12.406 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

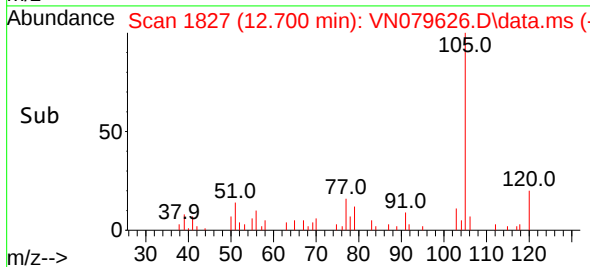
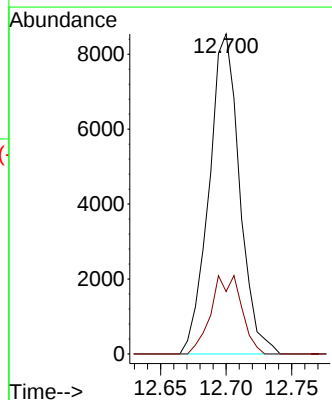
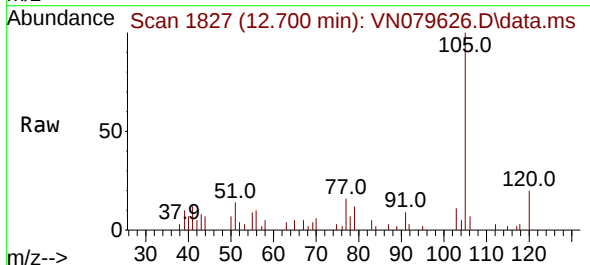
Instrument :  
MSVOA\_N  
ClientSampleId :  
231013059-VOA

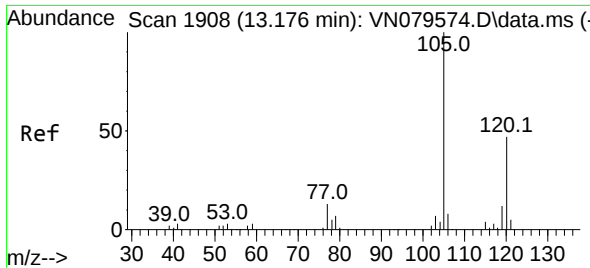
Tgt Ion:106 Resp: 17937  
Ion Ratio Lower Upper  
106 100  
91 216.3 109.9 329.7



#70  
Isopropylbenzene  
Concen: 1.132 ug/l  
RT: 12.700 min Scan# 1827  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

Tgt Ion:105 Resp: 13867  
Ion Ratio Lower Upper  
105 100  
120 24.4 18.1 33.5

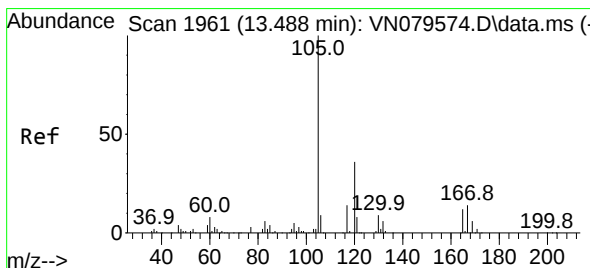
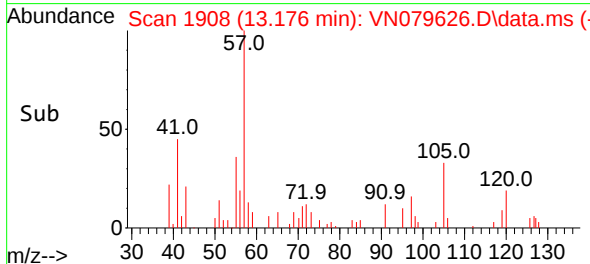
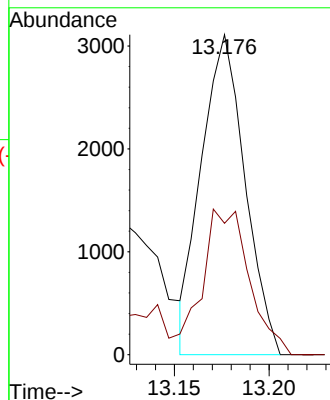
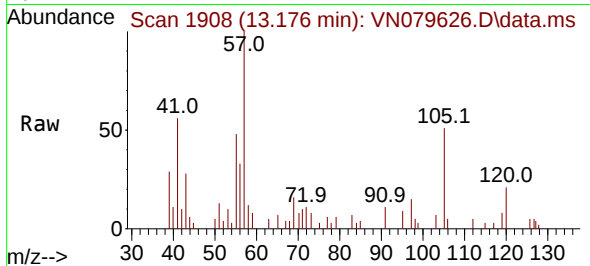




#76  
 1,3,5-Trimethylbenzene  
 Concen: 0.496 ug/l  
 RT: 13.176 min Scan# 1908  
 Delta R.T. 0.000 min  
 Lab File: VN079626.D  
 Acq: 20 Oct 2023 14:16

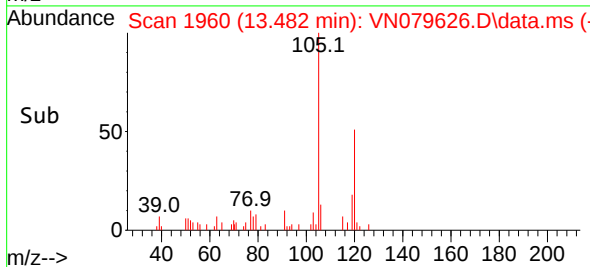
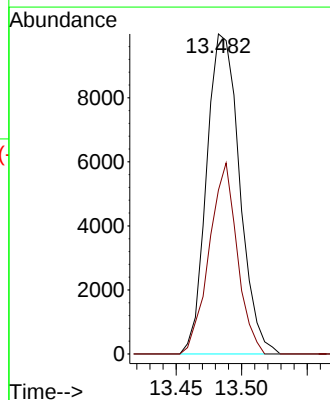
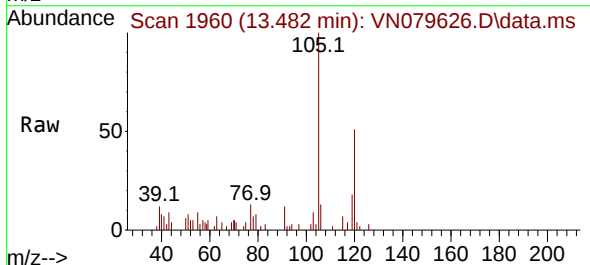
Instrument :  
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 ClientSampleId :  
 231013059-VOA

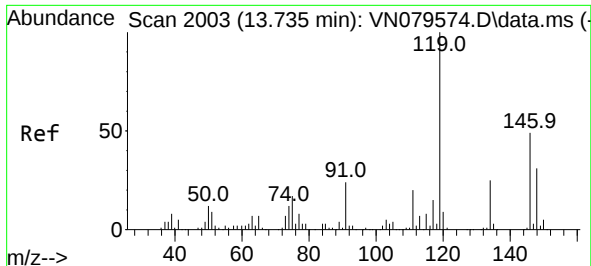
Tgt Ion:105 Resp: 4967  
 Ion Ratio Lower Upper  
 105 100  
 120 49.3 0.0 93.2



#80  
 1,2,4-Trimethylbenzene  
 Concen: 1.801 ug/l  
 RT: 13.482 min Scan# 1960  
 Delta R.T. -0.006 min  
 Lab File: VN079626.D  
 Acq: 20 Oct 2023 14:16

Tgt Ion:105 Resp: 17482  
 Ion Ratio Lower Upper  
 105 100  
 120 50.8 0.0 88.6

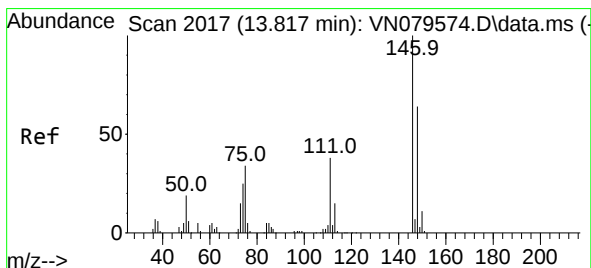
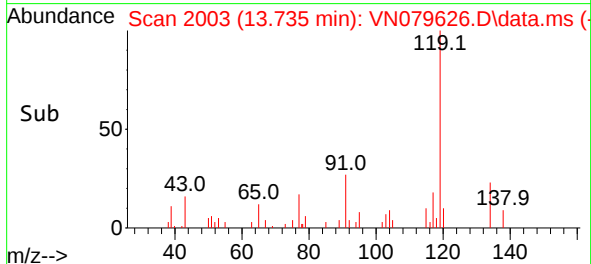
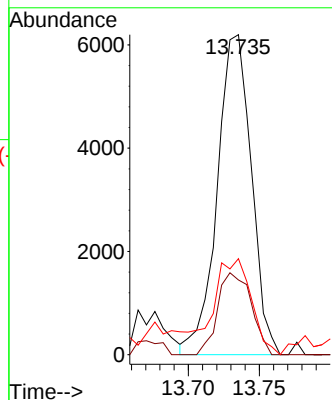
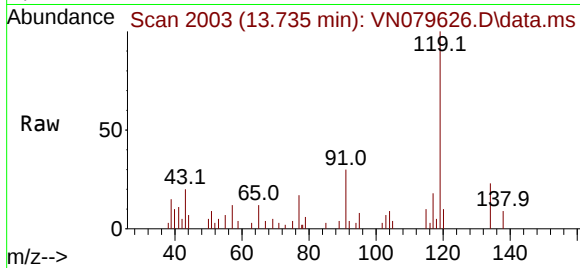




#82  
p-Isopropyltoluene  
Concen: 1.155 ug/l  
RT: 13.735 min Scan# 2003  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

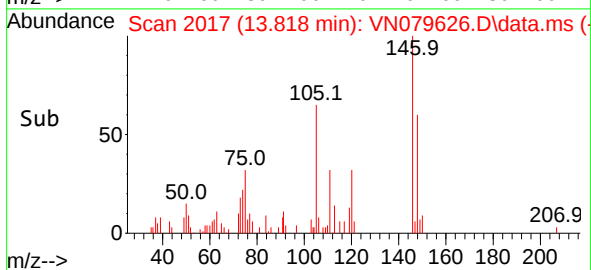
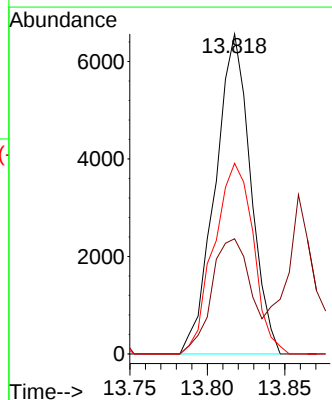
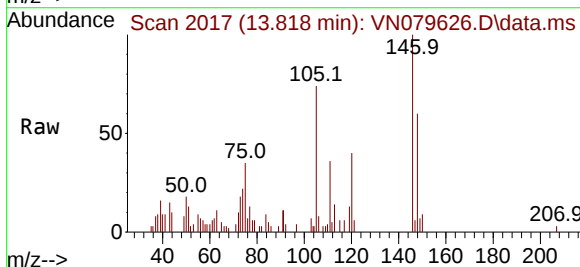
Instrument :  
MSVOA\_N  
ClientSampleId :  
231013059-VOA

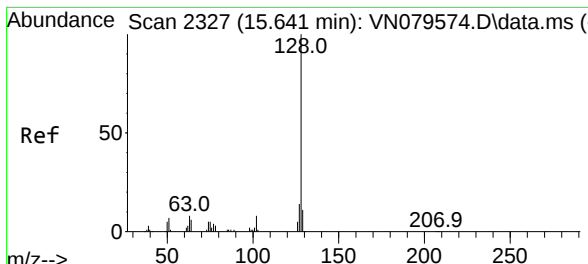
Tgt Ion:119 Resp: 10362  
Ion Ratio Lower Upper  
119 100  
134 25.1 0.0 52.2  
91 31.6 0.0 50.0



#84  
1,4-Dichlorobenzene  
Concen: 2.300 ug/l  
RT: 13.818 min Scan# 2017  
Delta R.T. 0.000 min  
Lab File: VN079626.D  
Acq: 20 Oct 2023 14:16

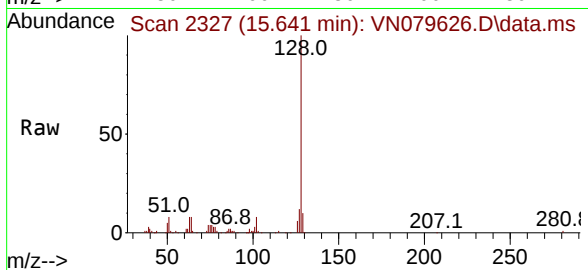
Tgt Ion:146 Resp: 10434  
Ion Ratio Lower Upper  
146 100  
111 39.8 19.9 59.7  
148 66.3 32.6 97.7





#91  
 Naphthalene  
 Concen: 24.867 ug/l  
 RT: 15.641 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: VN079626.D  
 Acq: 20 Oct 2023 14:16

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 231013059-VOA



Tgt Ion:128 Resp: 106360

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 127 | 13.4  | 10.9  | 16.3  |
| 129 | 11.7  | 8.6   | 12.8  |

