

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL080923\  
 Data File : VL040623.D  
 Acq On : 10 Aug 2023 2:43  
 Operator : SY/MD  
 Sample : 03950-04RE  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

Quant Time: Aug 10 04:57:33 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL071023AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Mon Jul 10 16:32:00 2023  
 Response via : Initial Calibration

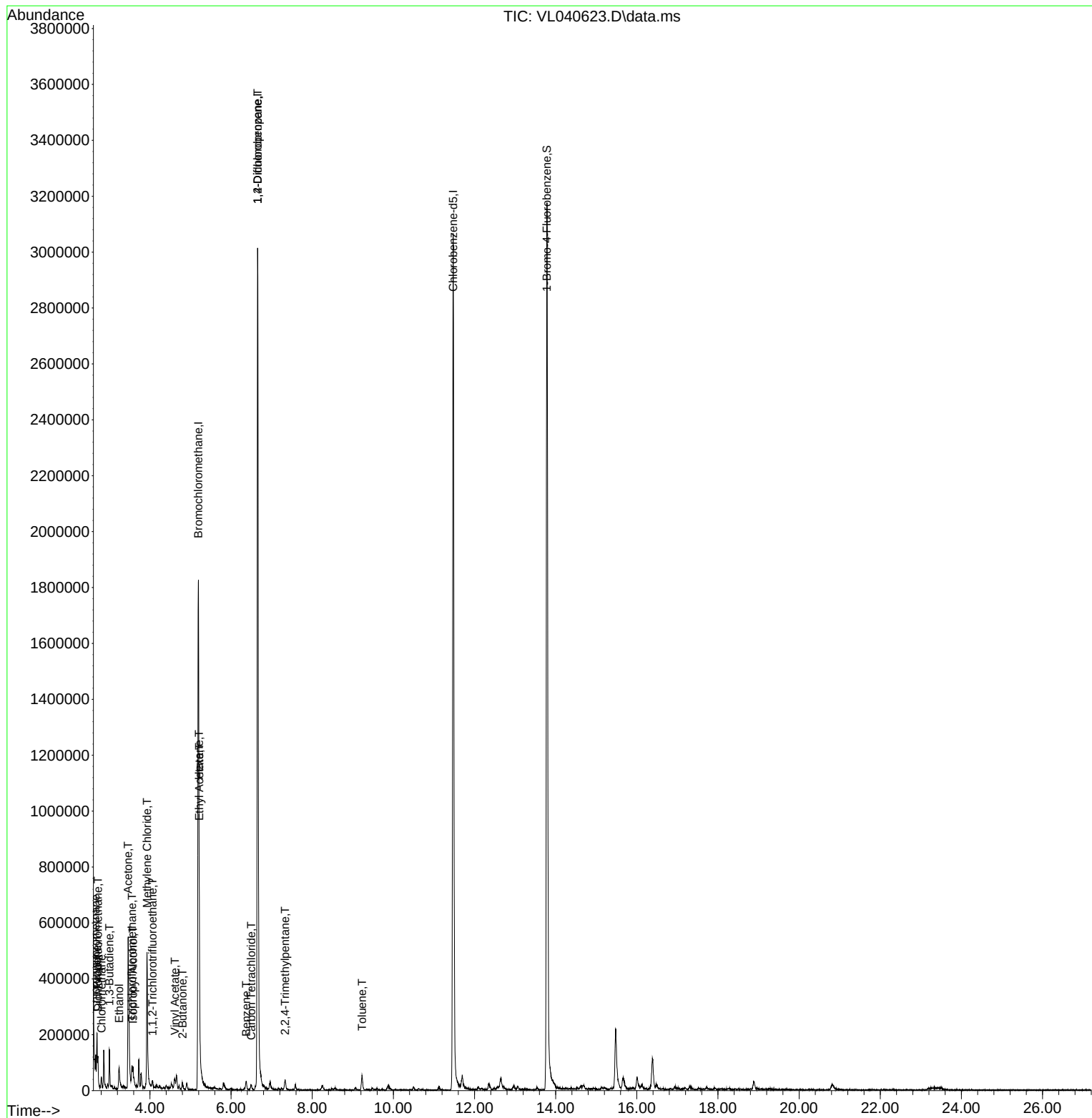
| Compound                      |  | R.T. QIon |       | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--|-----------|-------|----------|----------|--------|----------|
| -----                         |  |           |       |          |          |        |          |
| Internal Standards            |  |           |       |          |          |        |          |
| 1) Bromochloromethane         |  | 5.192     | 49    | 866560   | 10.000   | ppbv   | -0.01    |
| 33) 1,4-Difluorobenzene       |  | 6.655     | 114   | 2062195  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          |  | 11.475    | 117   | 1821185  | 10.000   | ppbv   | 0.00     |
| System Monitoring Compounds   |  |           |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   |  | 13.786    | 95    | 1543919  | 10.712   | ppbv   | 0.00     |
| Spiked Amount                 |  | 10.000    | Range | 65 - 135 | Recovery | =      | 107.100% |
| Target Compounds              |  |           |       |          |          |        |          |
|                               |  |           |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane    |  | 2.719     | 85    | 62092    | 0.358    | ppbv   | 91       |
| 3) Chlorodifluoromethane      |  | 2.661     | 51    | 104291   | 0.759    | ppbv   | 95       |
| 4) Chloromethane              |  | 2.806     | 50    | 29877    | 0.549    | ppbv   | 96       |
| 9) Propene                    |  | 2.694     | 41    | 38145    | 0.811    | ppbv # | 82       |
| 11) Trichlorofluoromethane    |  | 3.555     | 101   | 39926    | 0.285    | ppbv   | 85       |
| 12) 1,1,2-Trichlorotrifluo... |  | 4.063     | 101   | 6281     | 0.064    | ppbv # | 80       |
| 13) Ethanol                   |  | 3.243     | 45    | 78161    | 7.640    | ppbv   | 92       |
| 15) Acetone                   |  | 3.462     | 43    | 614656   | 6.162    | ppbv   | 97       |
| 16) 1,3-Butadiene             |  | 3.002     | 39    | 16718    | 0.332    | ppbv # | 23       |
| 19) Isopropyl Alcohol         |  | 3.584     | 45    | 61560    | 1.075    | ppbv # | 76       |
| 20) Methylene Chloride        |  | 3.928     | 84    | 167353   | 3.944    | ppbv   | 93       |
| 23) Vinyl Acetate             |  | 4.620     | 43    | 5870     | 0.062    | ppbv # | 31       |
| 25) Ethyl Acetate             |  | 5.214     | 43    | 91583    | 0.482    | ppbv # | 80       |
| 26) Hexane                    |  | 5.211     | 57    | 120791   | 1.369    | ppbv # | 36       |
| 34) 2-Butanone                |  | 4.803     | 43    | 19908    | 0.195    | ppbv # | 85       |
| 35) Carbon Tetrachloride      |  | 6.494     | 117   | 6618     | 0.053    | ppbv   | 96       |
| 36) Benzene                   |  | 6.372     | 78    | 21646    | 0.130    | ppbv # | 91       |
| 39) 1,2-Dichloropropane       |  | 6.655     | 63    | 545895   | 8.546    | ppbv # | 26       |
| 44) 2,2,4-Trimethylpentane    |  | 7.333     | 57    | 13417    | 0.050    | ppbv # | 30       |
| 53) Toluene                   |  | 9.227     | 91    | 23971    | 0.133    | ppbv # | 76       |
| -----                         |  |           |       |          |          |        |          |

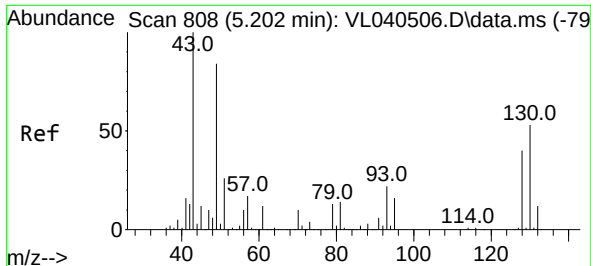
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL080923\  
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Sample : 03950-04RE  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

Quant Time: Aug 10 04:57:33 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL071023AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Mon Jul 10 16:32:00 2023  
Response via : Initial Calibration

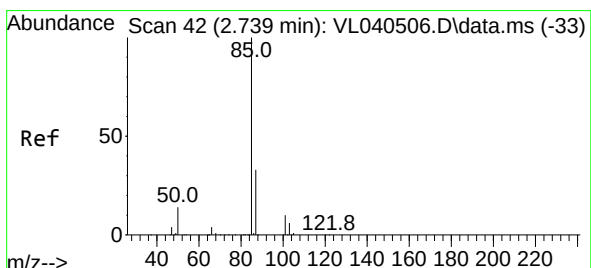
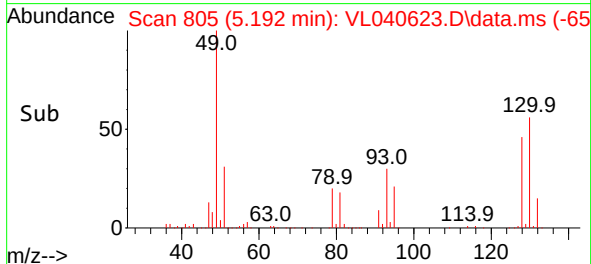
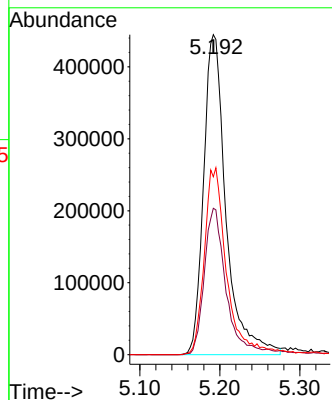
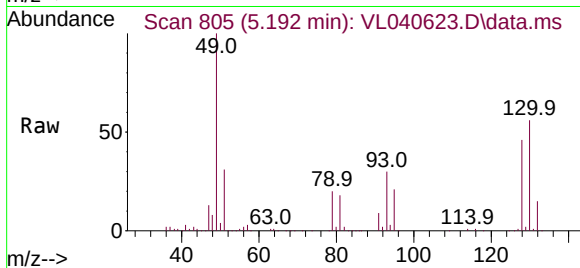




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.192 min Scan# 80  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

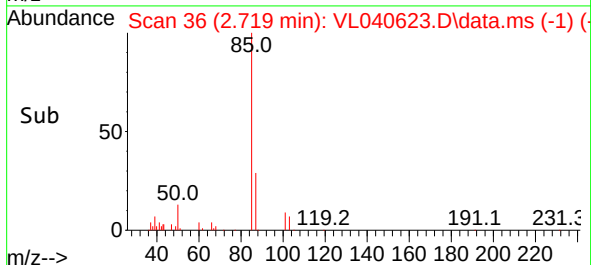
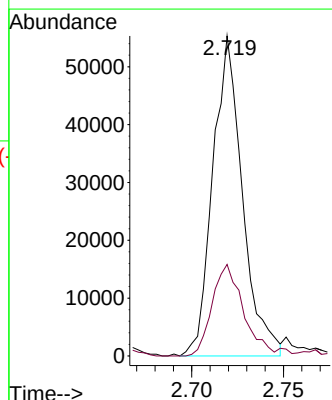
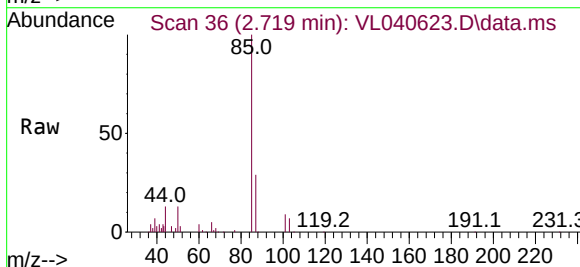
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

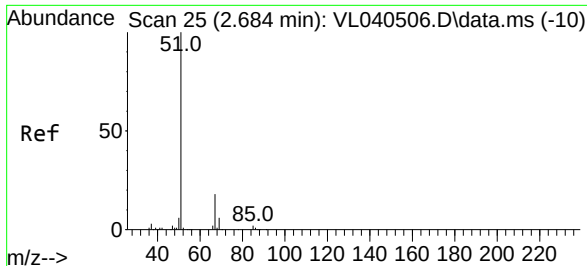
Tgt Ion: 49 Resp: 866560  
Ion Ratio Lower Upper  
49 100  
128 45.8 25.1 75.4  
130 58.6 31.6 94.7



#2  
Dichlorodifluoromethane  
Concen: 0.358 ppbv  
RT: 2.719 min Scan# 36  
Delta R.T. -0.019 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 85 Resp: 62092  
Ion Ratio Lower Upper  
85 100  
87 28.6 26.8 40.2

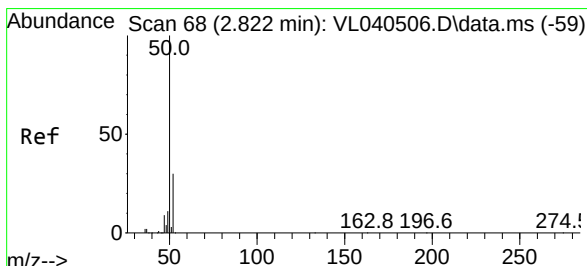
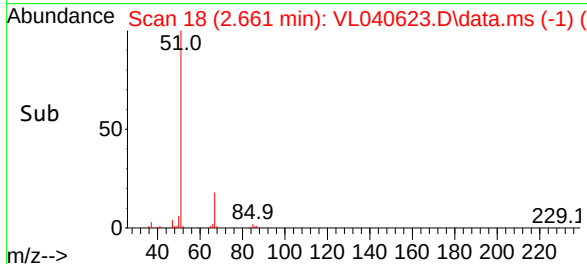
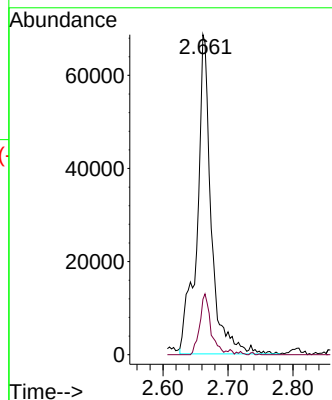
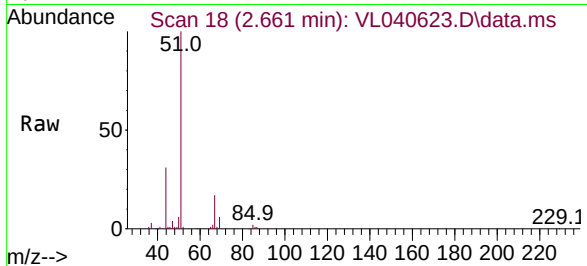




#3  
Chlorodifluoromethane  
Concen: 0.759 ppbv  
RT: 2.661 min Scan# 18  
Delta R.T. -0.023 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

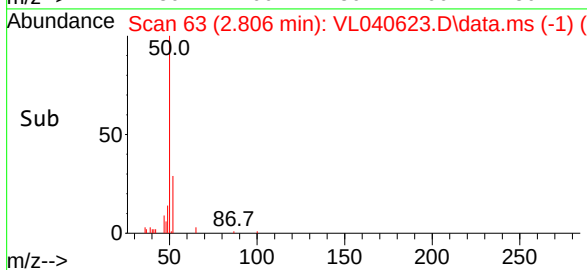
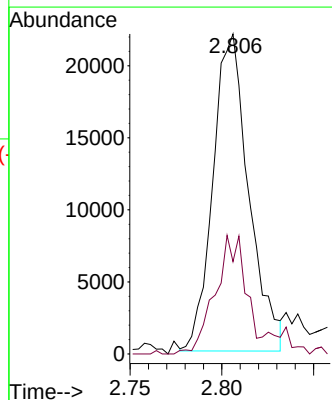
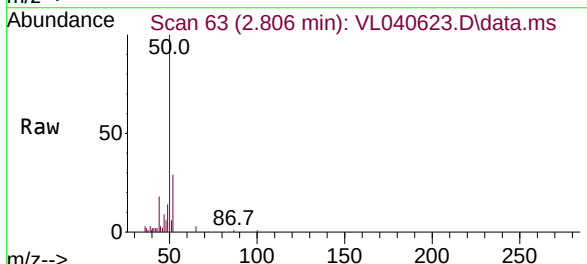
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

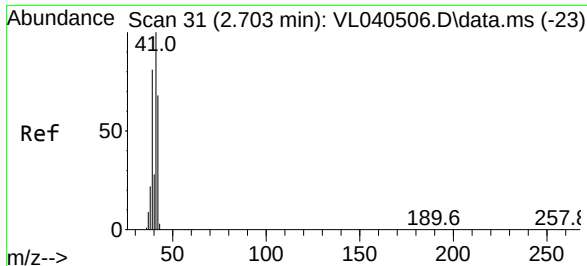
Tgt Ion: 51 Resp: 104291  
Ion Ratio Lower Upper  
51 100  
67 15.9 14.6 21.8



#4  
Chloromethane  
Concen: 0.549 ppbv  
RT: 2.806 min Scan# 63  
Delta R.T. -0.016 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 50 Resp: 29877  
Ion Ratio Lower Upper  
50 100  
52 28.5 24.4 36.6

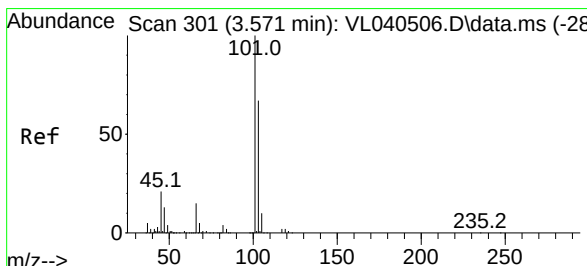
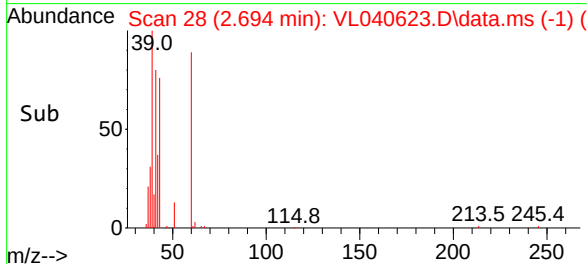
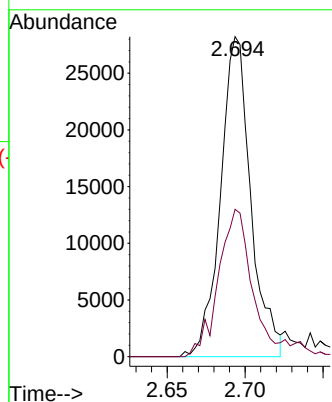
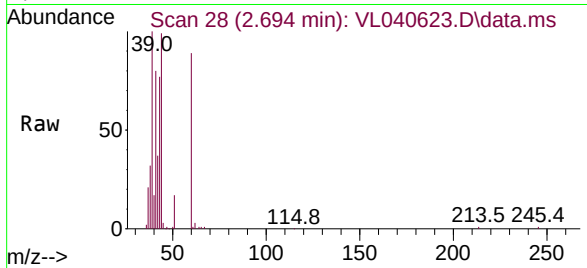




#9  
Propene  
Concen: 0.811 ppbv  
RT: 2.694 min Scan# 21  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

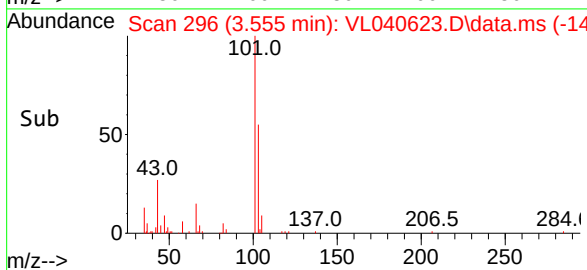
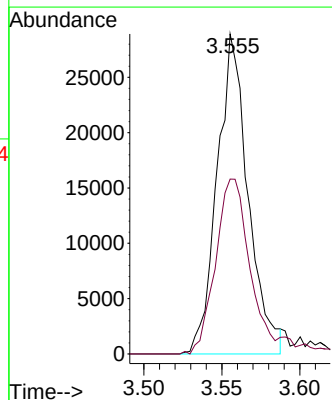
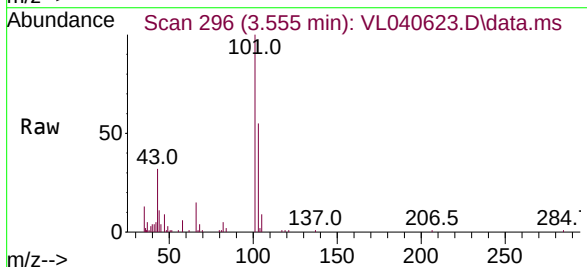
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

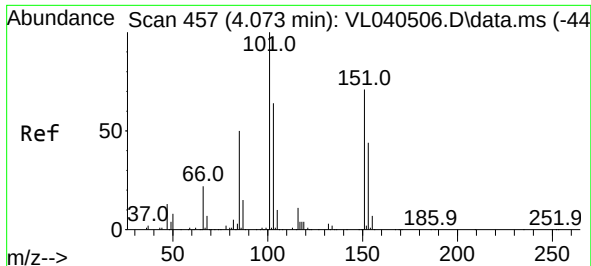
Tgt Ion: 41 Resp: 38145  
Ion Ratio Lower Upper  
41 100  
42 54.3 55.0 82.6#



#11  
Trichlorofluoromethane  
Concen: 0.285 ppbv  
RT: 3.555 min Scan# 296  
Delta R.T. -0.016 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 101 Resp: 39926  
Ion Ratio Lower Upper  
101 100  
103 54.6 53.4 80.0





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.064 ppbv

RT: 4.063 min Scan# 4

Delta R.T. -0.010 min

Lab File: VL040623.D

Acq: 10 Aug 2023 2:43

Instrument :

MSVOA\_L

ClientSampleId :

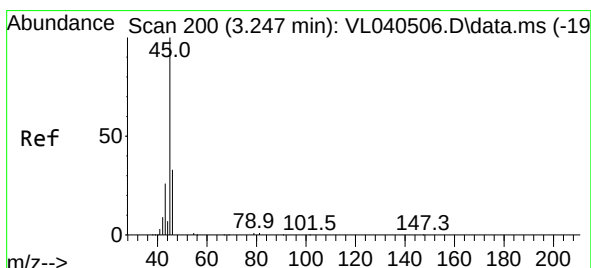
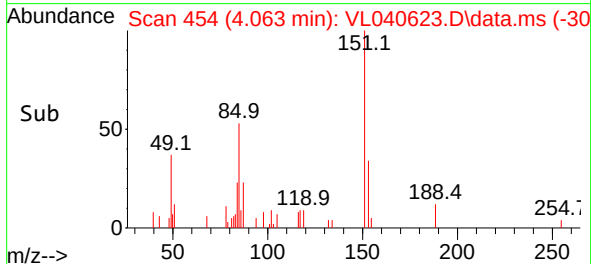
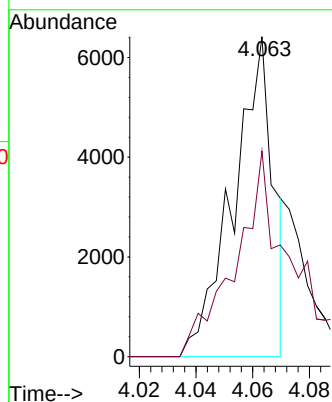
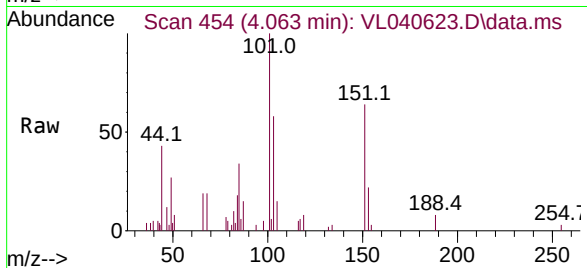
IA2

Tgt Ion:101 Resp: 6281

Ion Ratio Lower Upper

101 100

151 89.2 58.2 87.4#



#13

Ethanol

Concen: 7.640 ppbv

RT: 3.243 min Scan# 199

Delta R.T. -0.003 min

Lab File: VL040623.D

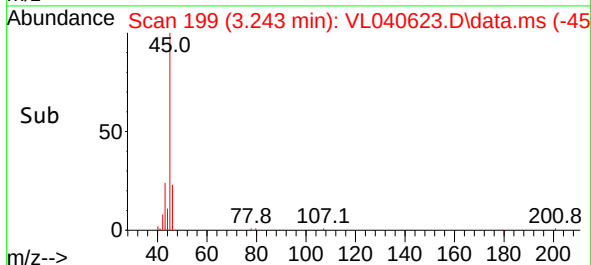
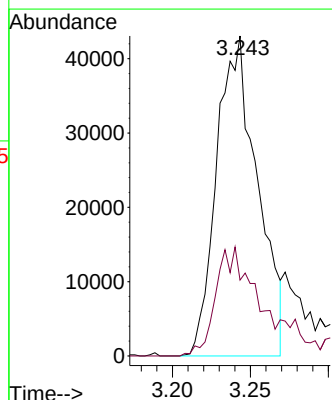
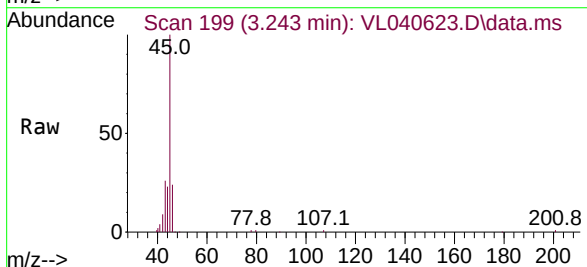
Acq: 10 Aug 2023 2:43

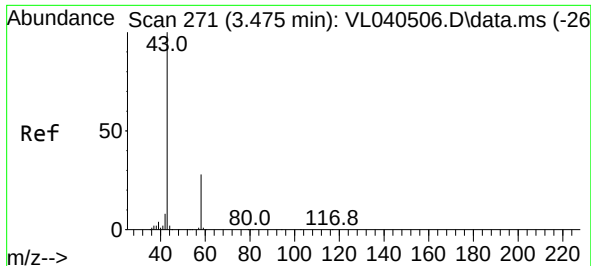
Tgt Ion: 45 Resp: 78161

Ion Ratio Lower Upper

45 100

46 42.7 15.3 61.1

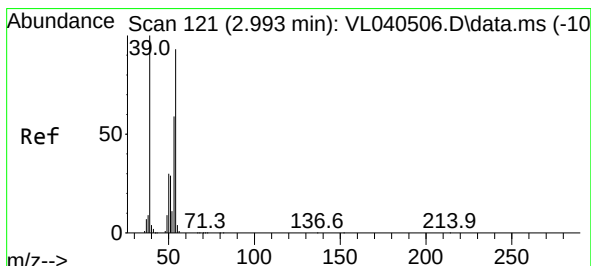
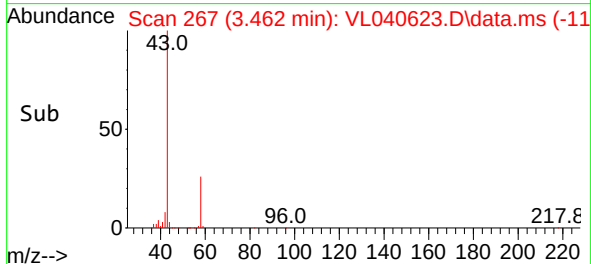
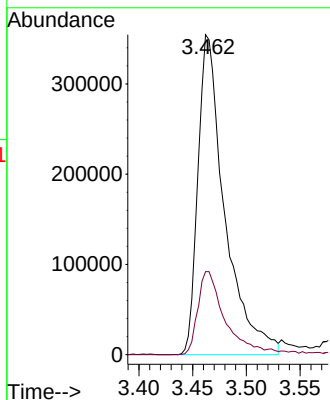
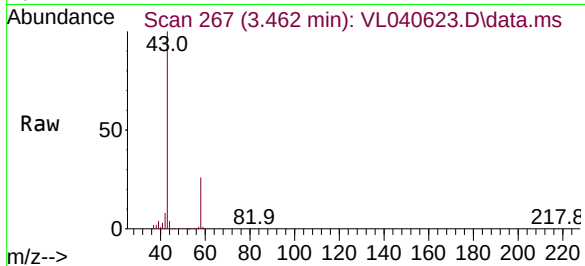




#15  
Acetone  
Concen: 6.162 ppbv  
RT: 3.462 min Scan# 21  
Delta R.T. -0.013 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

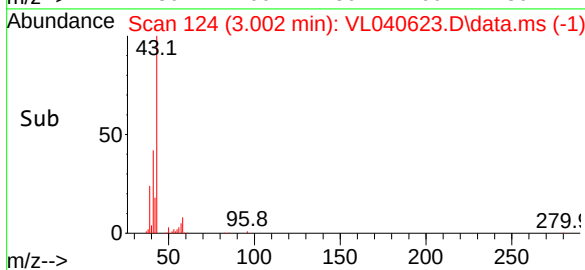
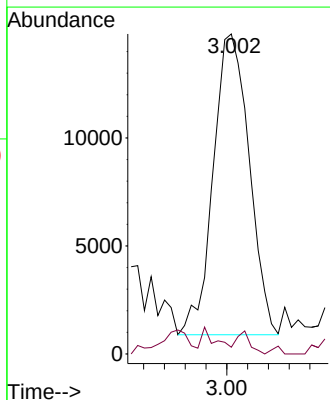
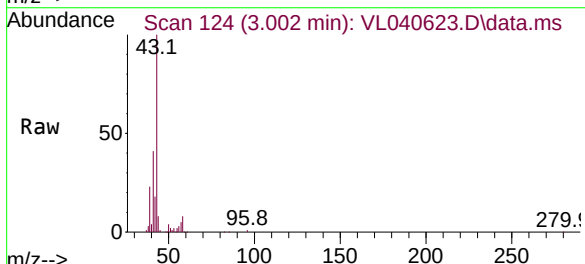
Instrument :  
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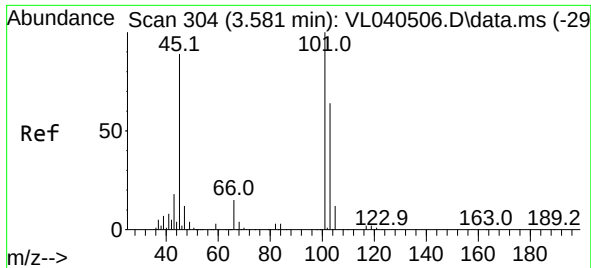
Tgt Ion: 43 Resp: 614656  
Ion Ratio Lower Upper  
43 100  
58 27.0 22.9 34.3



#16  
1,3-Butadiene  
Concen: 0.332 ppbv  
RT: 3.002 min Scan# 124  
Delta R.T. 0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 39 Resp: 16718  
Ion Ratio Lower Upper  
39 100  
54 13.7 66.6 100.0#

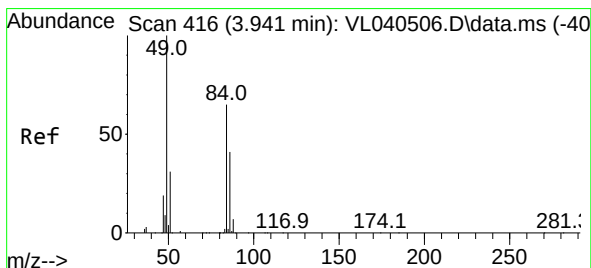
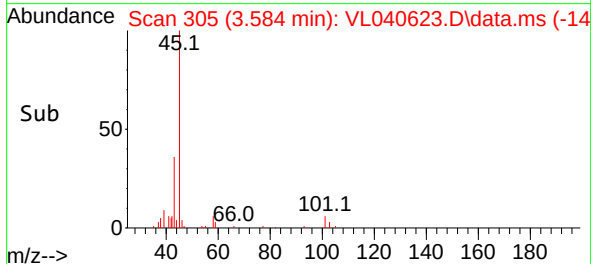
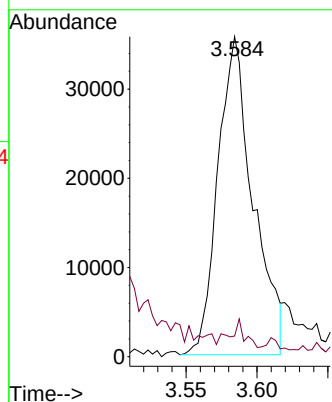
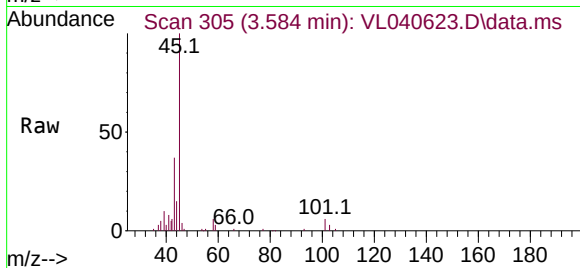




#19  
Isopropyl Alcohol  
Concen: 1.075 ppbv  
RT: 3.584 min Scan# 304  
Delta R.T. 0.003 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

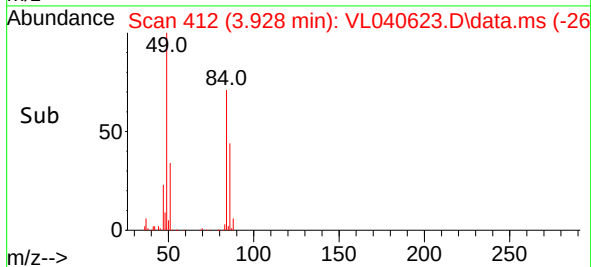
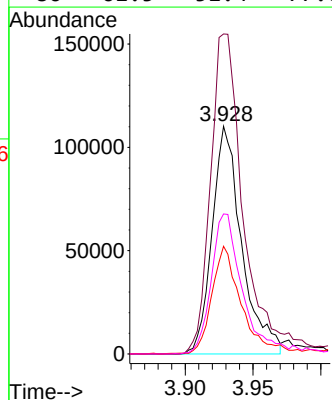
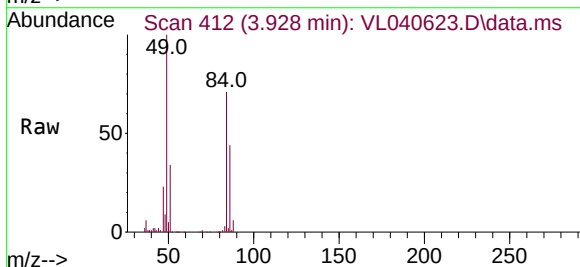
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

Tgt Ion: 45 Resp: 61560  
Ion Ratio Lower Upper  
45 100  
58 10.6 1.1 1.7#

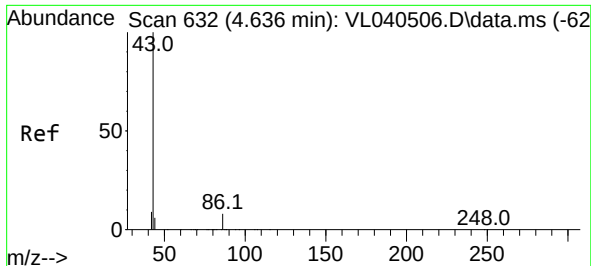


#20  
Methylene Chloride  
Concen: 3.944 ppbv  
RT: 3.928 min Scan# 412  
Delta R.T. -0.013 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 84 Resp: 167353  
Ion Ratio Lower Upper  
84 100  
49 140.6 123.4 185.2  
51 47.0 38.3 57.5  
86 61.5 51.4 77.0



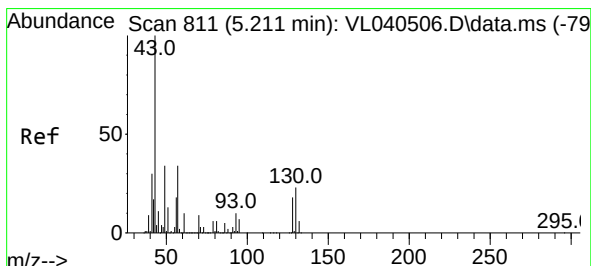
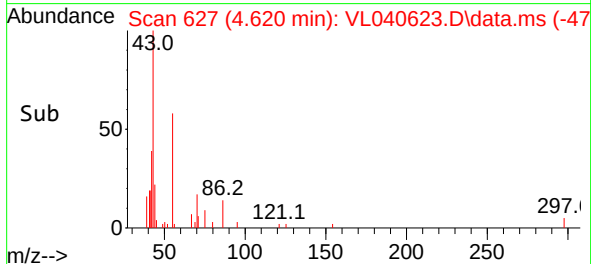
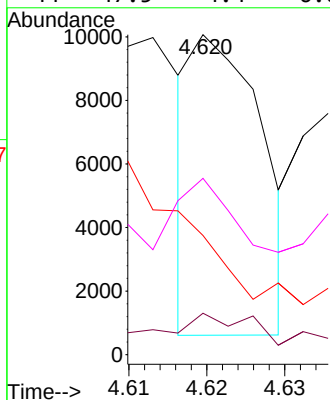
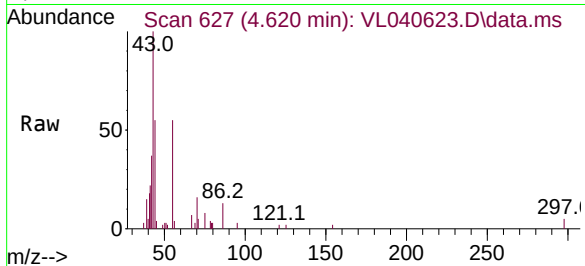




#23  
 Vinyl Acetate  
 Concen: 0.062 ppbv  
 RT: 4.620 min Scan# 61  
 Delta R.T. -0.016 min  
 Lab File: VL040623.D  
 Acq: 10 Aug 2023 2:43

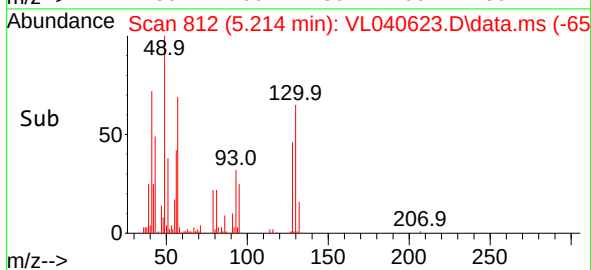
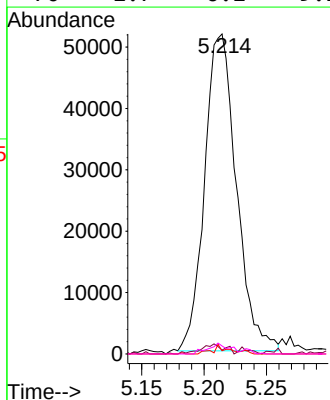
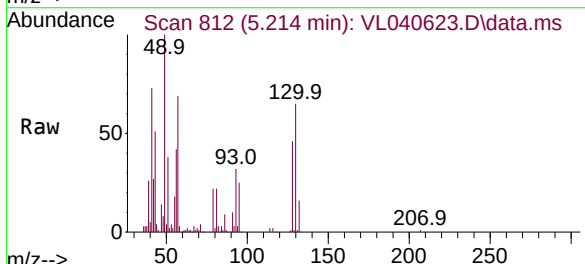
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

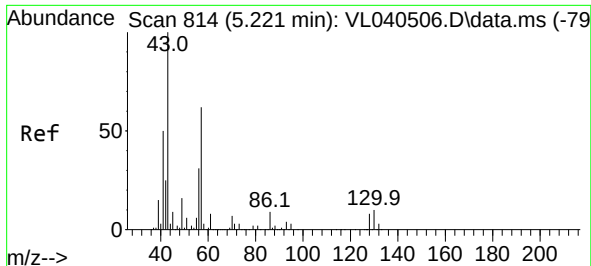
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 5870  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 20.6  | 5.6   | 8.4#  |
| 42       | 30.5  | 7.4   | 11.2# |
| 44       | 47.5  | 4.4   | 6.6#  |



#25  
 Ethyl Acetate  
 Concen: 0.482 ppbv  
 RT: 5.214 min Scan# 812  
 Delta R.T. 0.003 min  
 Lab File: VL040623.D  
 Acq: 10 Aug 2023 2:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 91583 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 2.3   | 8.2   | 12.4# |
| 61       | 1.6   | 8.3   | 12.5# |
| 70       | 2.7   | 6.2   | 9.2#  |

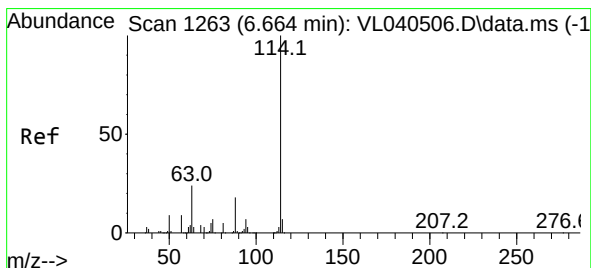
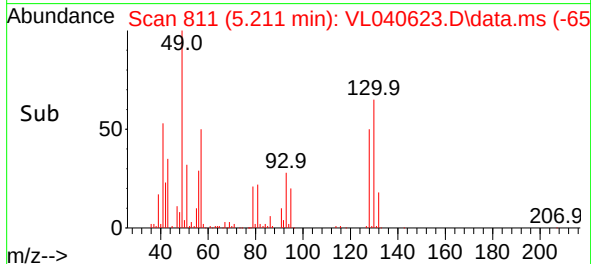
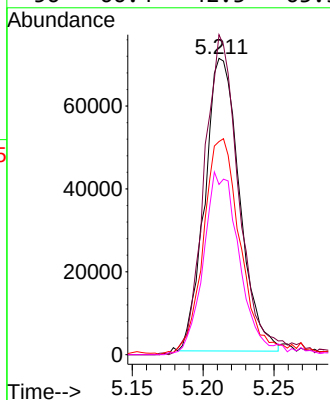
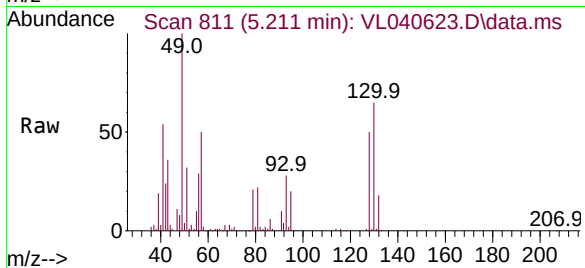




#26  
Hexane  
Concen: 1.369 ppbv  
RT: 5.211 min Scan# 814  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

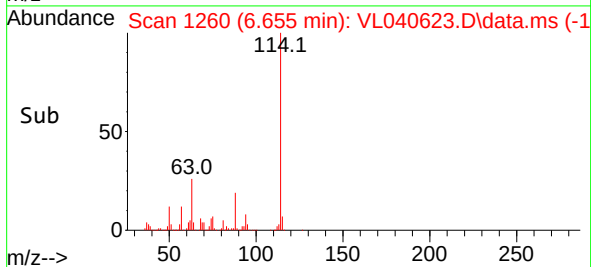
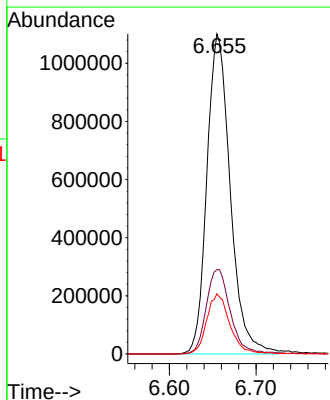
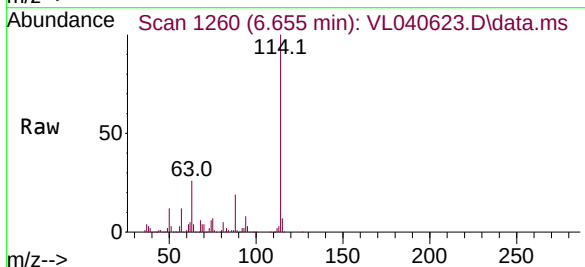
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

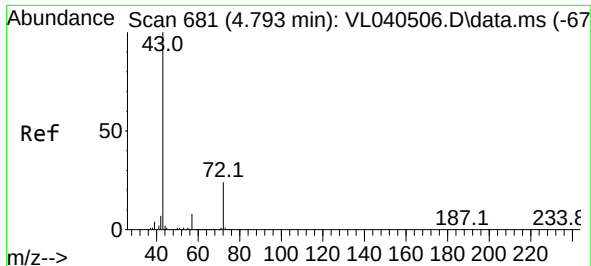
Tgt Ion: 57 Resp: 120791  
Ion Ratio Lower Upper  
57 100  
41 112.0 69.5 104.3#  
43 78.7 177.1 265.7#  
56 66.4 42.3 63.5#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.655 min Scan# 1260  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 114 Resp: 2062195  
Ion Ratio Lower Upper  
114 100  
63 27.5 19.6 29.4  
88 18.7 14.2 21.2

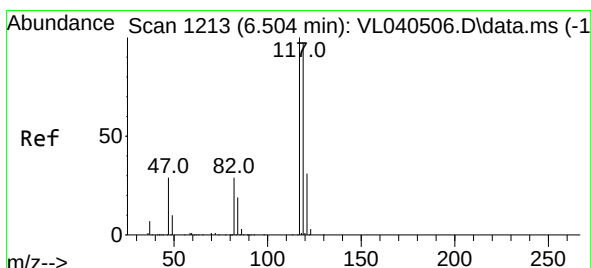
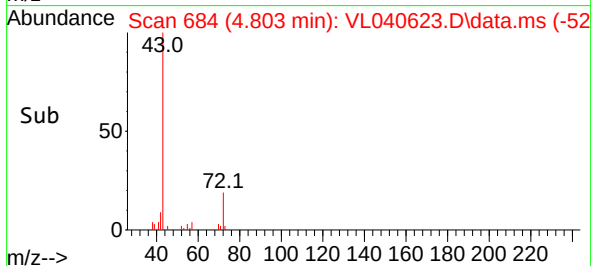
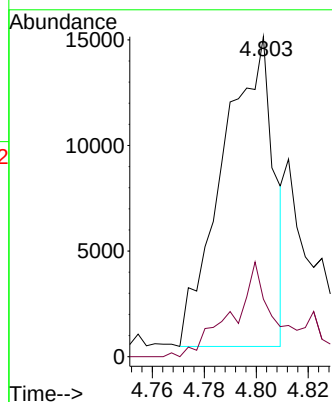
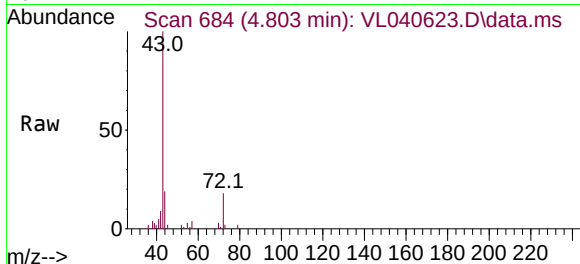




#34  
2-Butanone  
Concen: 0.195 ppbv  
RT: 4.803 min Scan# 61  
Delta R.T. 0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

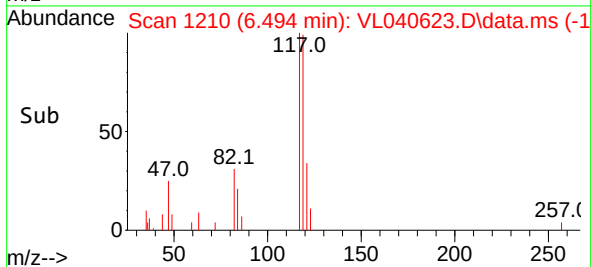
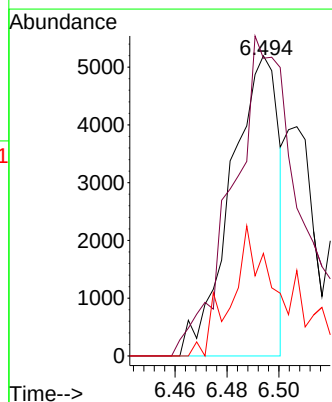
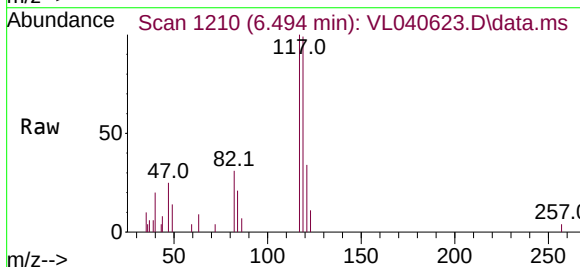
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

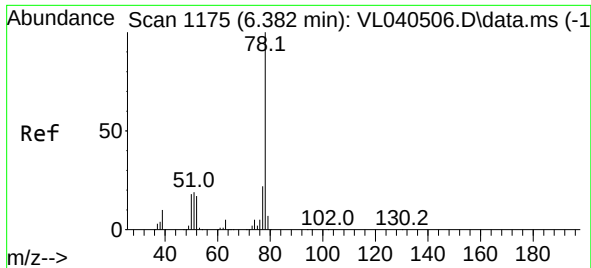
Tgt Ion: 43 Resp: 19908  
Ion Ratio Lower Upper  
43 100  
72 31.5 19.1 28.7#



#35  
Carbon Tetrachloride  
Concen: 0.053 ppbv  
RT: 6.494 min Scan# 1210  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 117 Resp: 6618  
Ion Ratio Lower Upper  
117 100  
119 93.8 77.8 116.6  
121 34.2 24.8 37.2

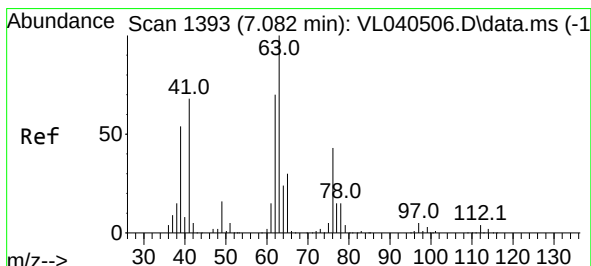
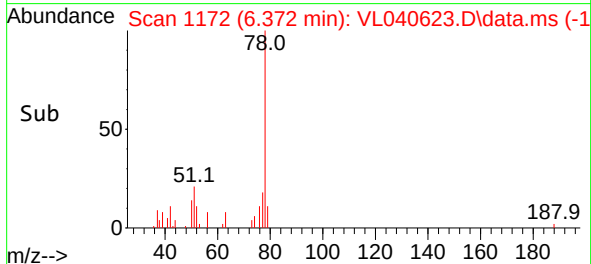
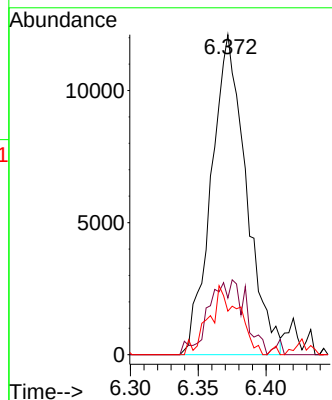
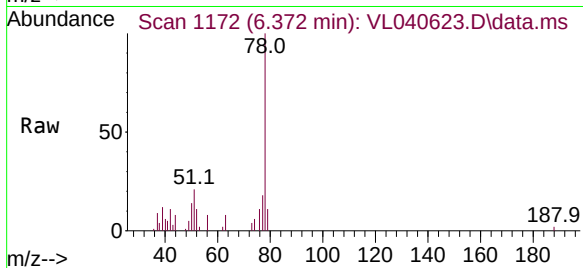




#36  
Benzene  
Concen: 0.130 ppbv  
RT: 6.372 min Scan# 1175  
Delta R.T. -0.010 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

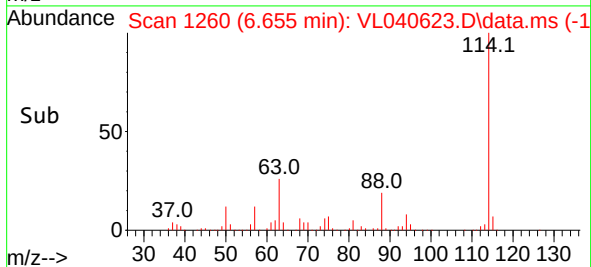
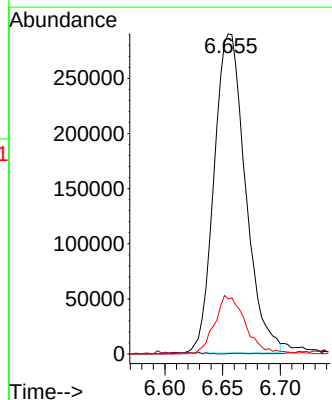
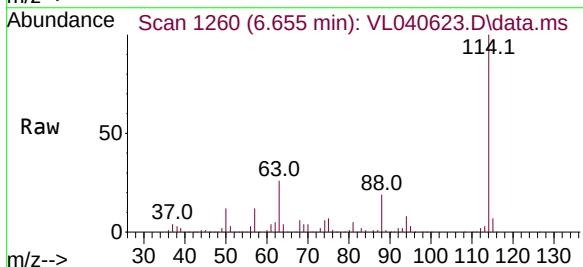
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

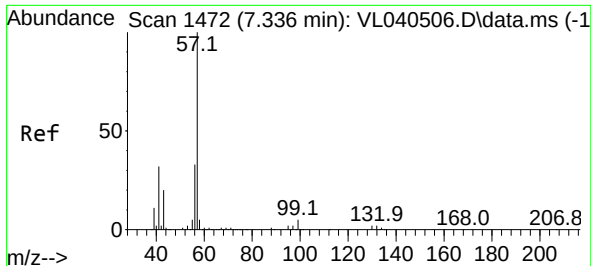
Tgt Ion: 78 Resp: 21646  
Ion Ratio Lower Upper  
78 100  
77 17.7 17.4 26.0  
50 13.6 14.4 21.6#



#39  
1,2-Dichloropropane  
Concen: 8.546 ppbv  
RT: 6.655 min Scan# 1260  
Delta R.T. -0.428 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 63 Resp: 545895  
Ion Ratio Lower Upper  
63 100  
41 0.0 54.3 81.5#  
62 17.3 55.6 83.4#

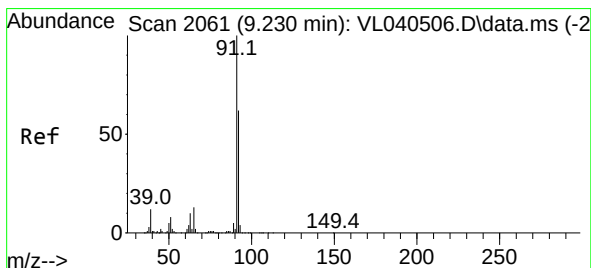
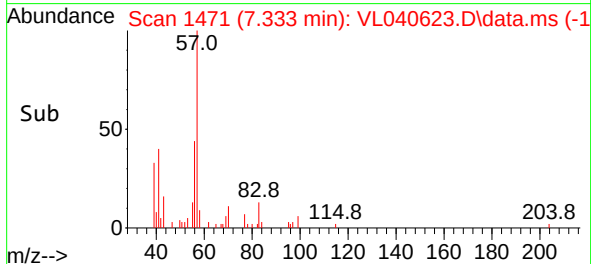
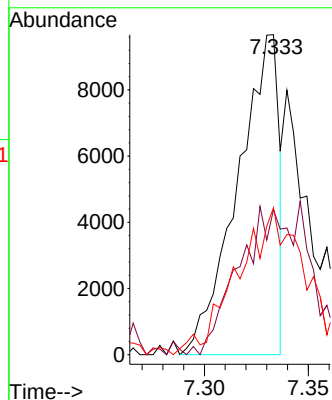
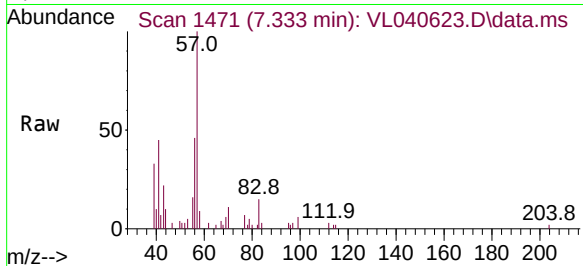




#44  
2,2,4-Trimethylpentane  
Concen: 0.050 ppbv  
RT: 7.333 min Scan# 1472  
Delta R.T. -0.003 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

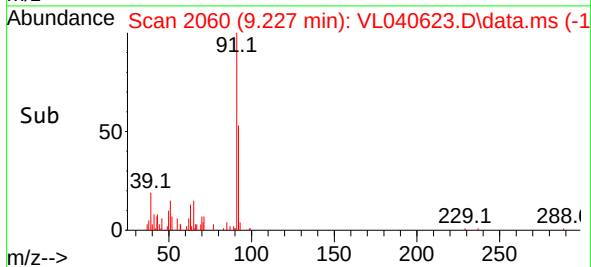
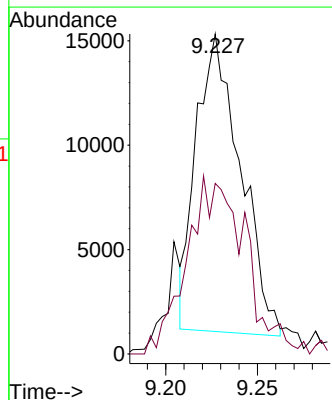
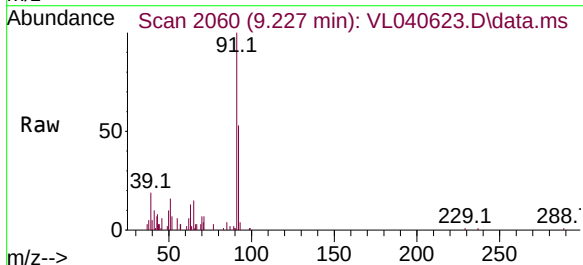
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

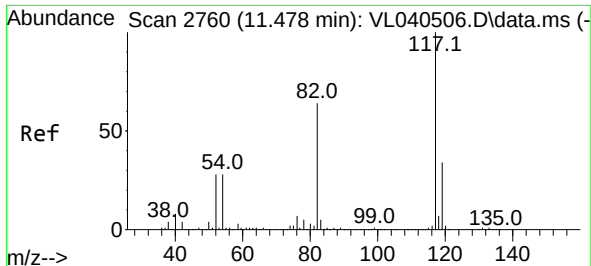
Tgt Ion: 57 Resp: 13417  
Ion Ratio Lower Upper  
57 100  
41 0.0 25.5 38.3#  
56 76.8 25.1 37.7#



#53  
Toluene  
Concen: 0.133 ppbv  
RT: 9.227 min Scan# 2060  
Delta R.T. -0.003 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 91 Resp: 23971  
Ion Ratio Lower Upper  
91 100  
92 80.1 49.1 73.7#

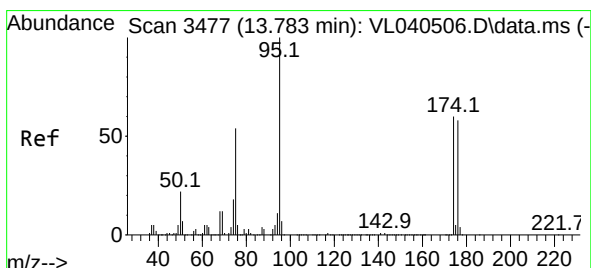
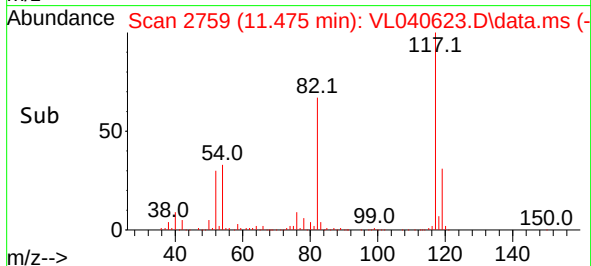
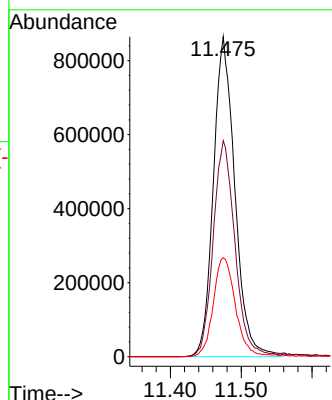
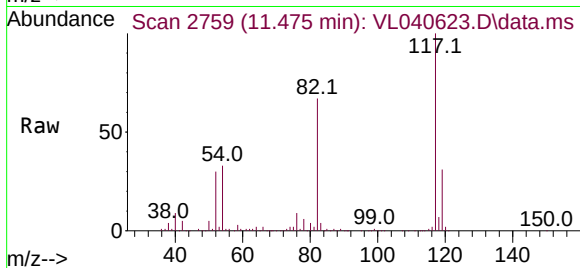




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.475 min Scan# 21  
Delta R.T. -0.003 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

Tgt Ion:117 Resp: 1821185  
Ion Ratio Lower Upper  
117 100  
82 69.9 50.2 75.4  
119 32.5 26.9 40.3



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.712 ppbv  
RT: 13.786 min Scan# 3478  
Delta R.T. 0.003 min  
Lab File: VL040623.D  
Acq: 10 Aug 2023 2:43

Tgt Ion: 95 Resp: 1543919  
Ion Ratio Lower Upper  
95 100  
174 59.0 50.6 75.8  
175 4.1 3.7 5.5

