

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL050224\  
 Data File : VL041205.D  
 Acq On : 2 May 2024 21:25  
 Operator : SY/MD  
 Sample : P2334-09  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BA-03-IA01-20240425

Quant Time: May 03 03:44:54 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL042924AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri May 03 03:34:47 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 5.192  | 49    | 810652   | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene       | 6.652  | 114   | 2026912  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          | 11.462 | 117   | 1920859  | 10.000   | ppbv   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   | 13.770 | 95    | 1424946  | 9.826    | ppbv   | 0.00     |
| Spiked Amount                 | 10.000 | Range | 65 - 135 | Recovery | =      | 98.300%  |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane    | 2.739  | 85    | 41110    | 0.375    | ppbv   | 89       |
| 3) Chlorodifluoromethane      | 2.658  | 51    | 1291365  | 10.489   | ppbv # | 61       |
| 4) Chloromethane              | 2.822  | 50    | 27156    | 0.562    | ppbv # | 79       |
| 9) Propene                    | 2.880  | 41    | 59683    | 1.239    | ppbv   | 86       |
| 10) Heptane                   | 7.584  | 43    | 3940     | 0.034    | ppbv # | 1        |
| 11) Trichlorofluoromethane    | 3.568  | 101   | 26862    | 0.241    | ppbv   | 88       |
| 12) 1,1,2-Trichlorotrifluo... | 4.070  | 101   | 3666     | 0.044    | ppbv # | 52       |
| 13) Ethanol                   | 3.240  | 45    | 1716411  | 158.911  | ppbv   | 99       |
| 15) Acetone                   | 3.472  | 43    | 894497   | 9.350    | ppbv   | 98       |
| 17) tert-Butyl alcohol        | 3.896  | 59    | 10015    | 0.097    | ppbv # | 80       |
| 19) Isopropyl Alcohol         | 3.581  | 45    | 816312   | 13.003   | ppbv # | 44       |
| 20) Methylene Chloride        | 3.938  | 84    | 58150    | 1.748    | ppbv   | 96       |
| 23) Vinyl Acetate             | 4.616  | 43    | 16736    | 0.159    | ppbv # | 1        |
| 25) Ethyl Acetate             | 5.211  | 43    | 203943   | 1.068    | ppbv # | 91       |
| 26) Hexane                    | 5.211  | 57    | 192516   | 2.259    | ppbv # | 56       |
| 30) Cyclohexane               | 6.594  | 84    | 2954     | 0.044    | ppbv # | 1        |
| 34) 2-Butanone                | 4.790  | 43    | 73262    | 0.710    | ppbv   | 100      |
| 36) Benzene                   | 6.362  | 78    | 35131    | 0.207    | ppbv # | 90       |
| 37) 1,2-Dichloroethane        | 5.806  | 62    | 8010     | 0.090    | ppbv # | 82       |
| 39) 1,2-Dichloropropane       | 6.693  | 63    | 6992     | 0.107    | ppbv # | 20       |
| 44) 2,2,4-Trimethylpentane    | 7.324  | 57    | 30935    | 0.105    | ppbv # | 75       |
| 52) Tetrachloroethene         | 10.616 | 164   | 9265     | 0.155    | ppbv   | 91       |
| 53) Toluene                   | 9.217  | 91    | 153230   | 0.777    | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.082 | 91    | 20868    | 0.079    | ppbv   | 93       |
| 60) o-Xylene                  | 13.053 | 91    | 7219     | 0.035    | ppbv # | 1        |
| -----                         |        |       |          |          |        |          |

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

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Sample : P2334-09  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

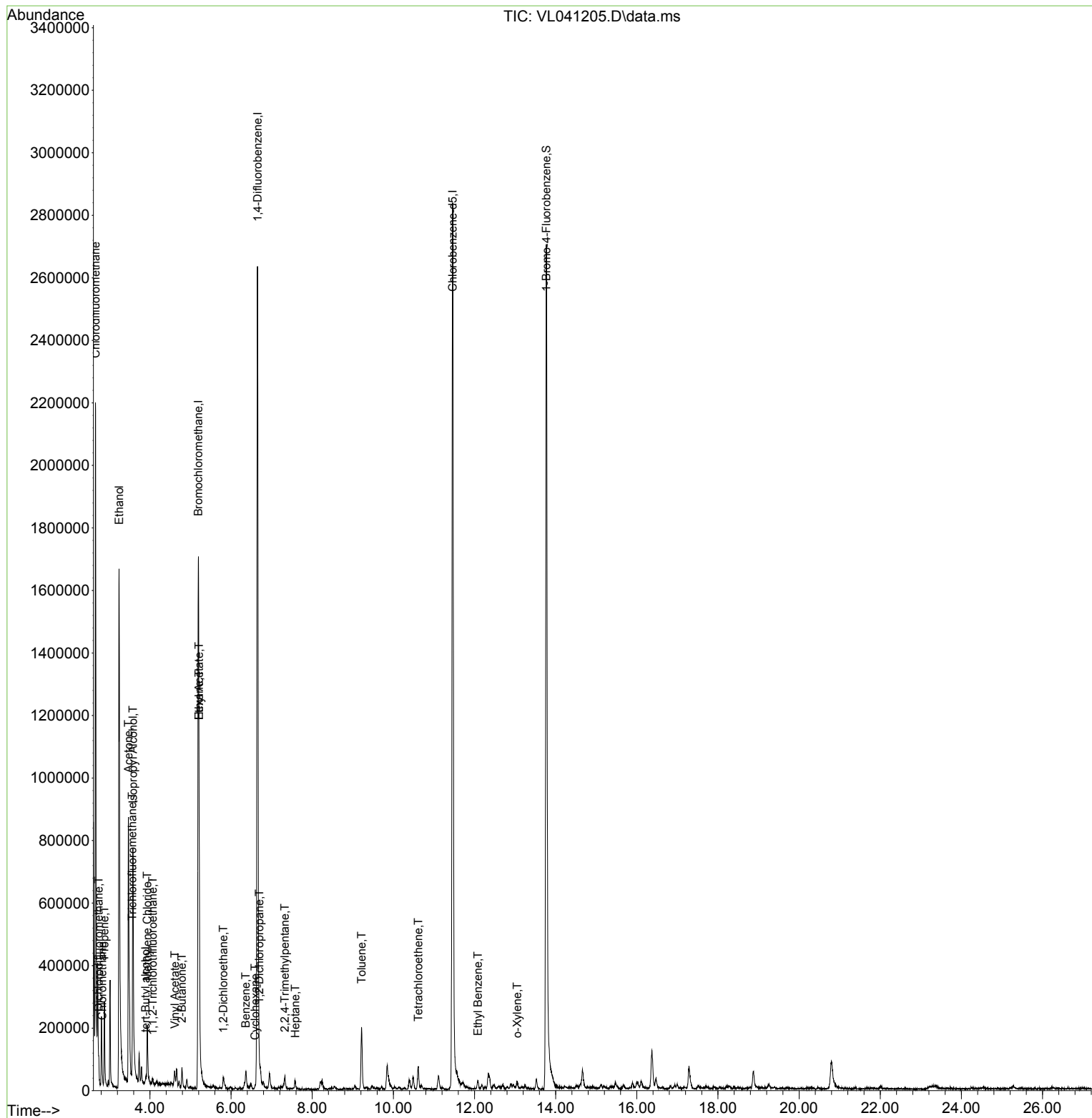
Quant Time: May 03 03:44:54 2024

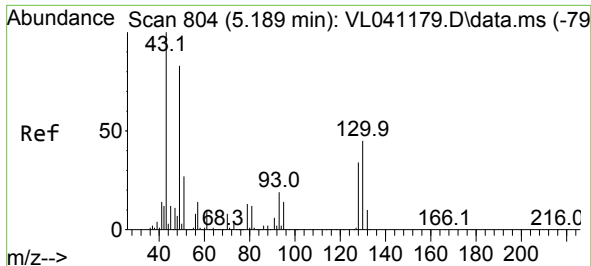
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL042924AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022

QLast Update : Fri May 03 03:34:47 2024

Response via : Initial Calibration

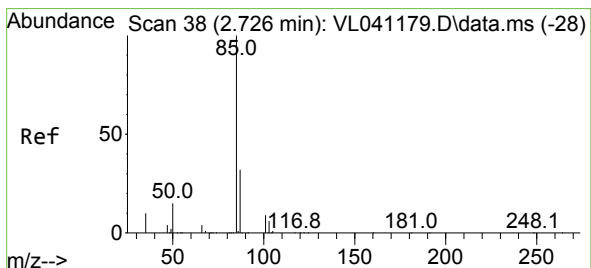
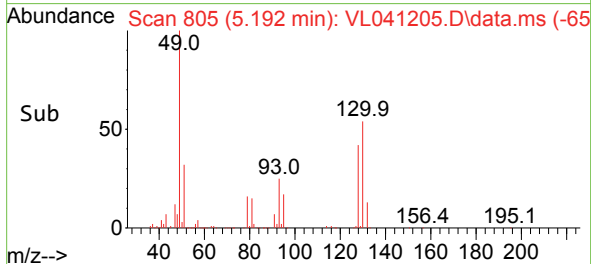
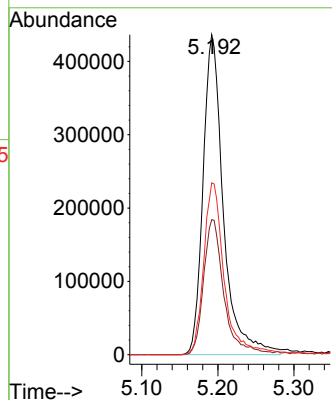
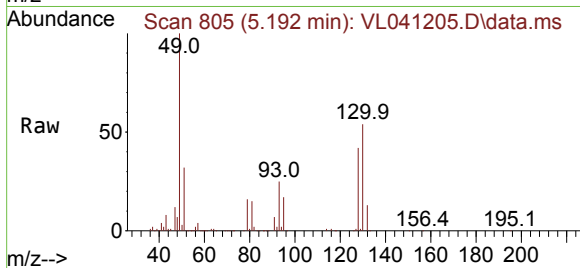




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.192 min Scan# 80  
Delta R.T. -0.000 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

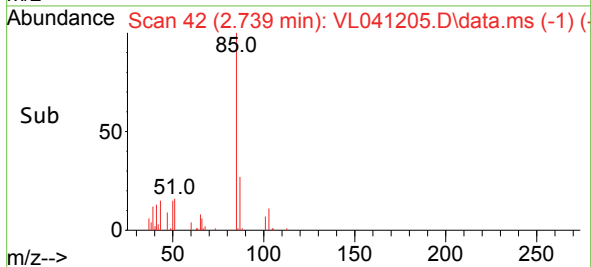
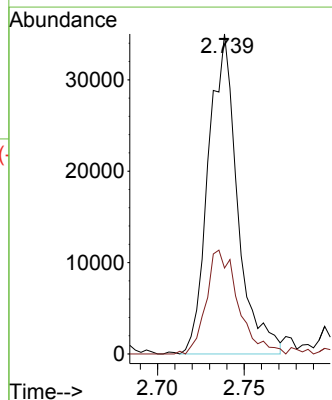
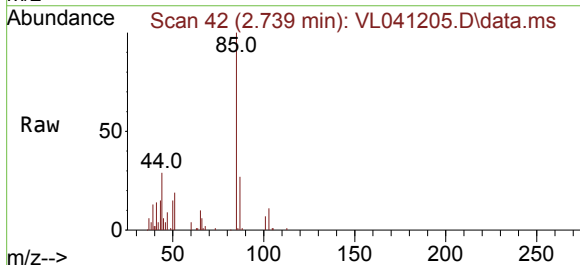
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

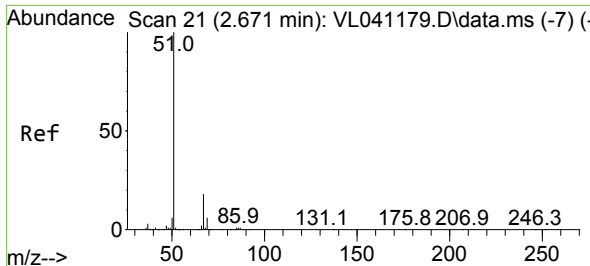
Tgt Ion: 49 Resp: 810652  
Ion Ratio Lower Upper  
49 100  
128 43.0 21.5 64.5  
130 55.8 27.2 81.6



#2  
Dichlorodifluoromethane  
Concen: 0.375 ppbv  
RT: 2.739 min Scan# 42  
Delta R.T. 0.010 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 85 Resp: 41110  
Ion Ratio Lower Upper  
85 100  
87 26.0 25.7 38.5

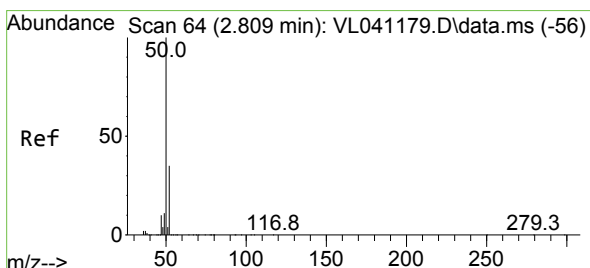
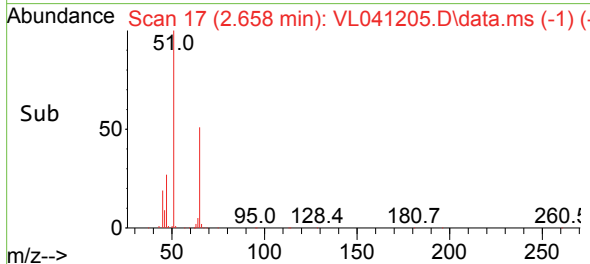
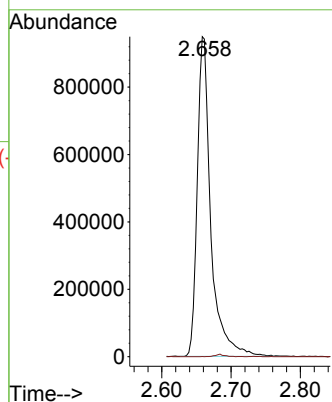
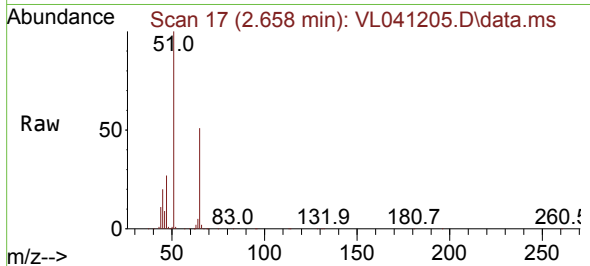




#3  
Chlorodifluoromethane  
Concen: 10.489 ppbv  
RT: 2.658 min Scan# 11  
Delta R.T. -0.016 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

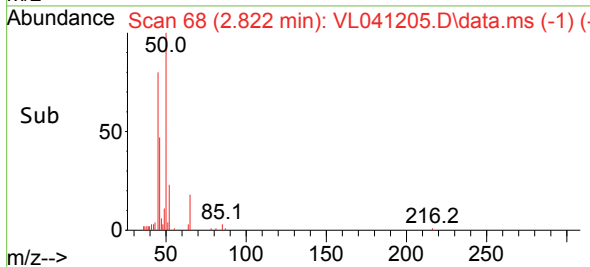
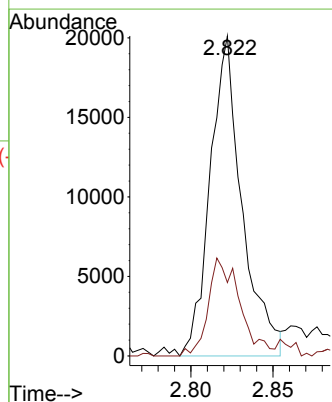
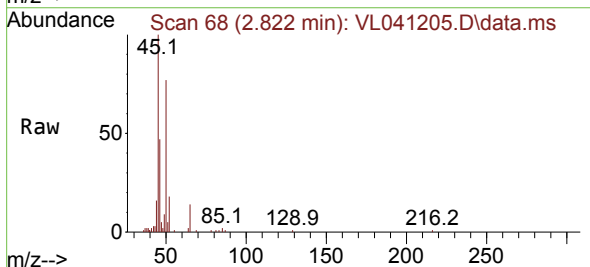
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

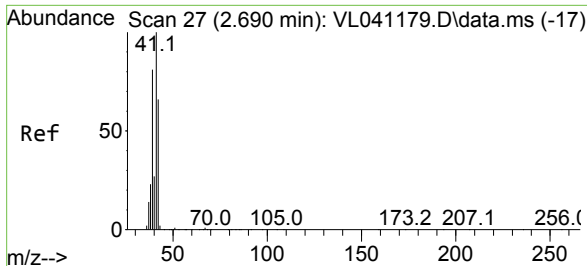
Tgt Ion: 51 Resp: 1291365  
Ion Ratio Lower Upper  
51 100  
67 0.5 14.0 21.0#



#4  
Chloromethane  
Concen: 0.562 ppbv  
RT: 2.822 min Scan# 68  
Delta R.T. 0.010 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 50 Resp: 27156  
Ion Ratio Lower Upper  
50 100  
52 23.0 28.3 42.5#

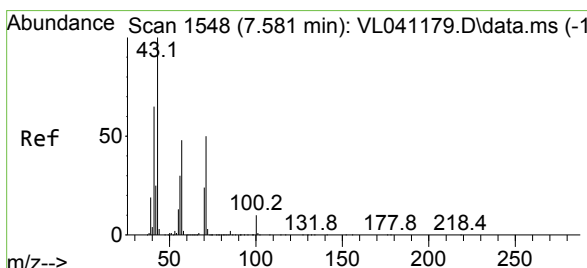
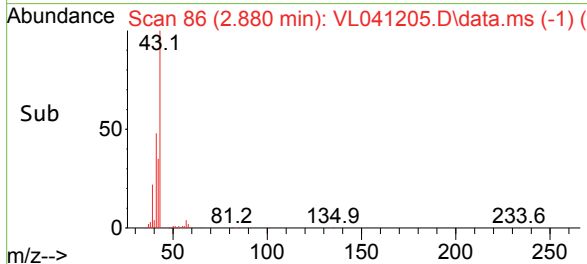
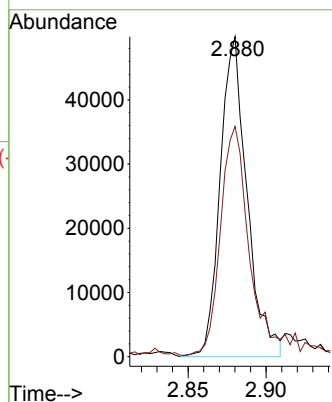
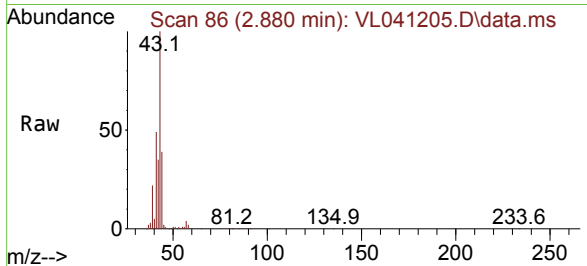




#9  
Propene  
Concen: 1.239 ppbv  
RT: 2.880 min Scan# 80  
Delta R.T. 0.187 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

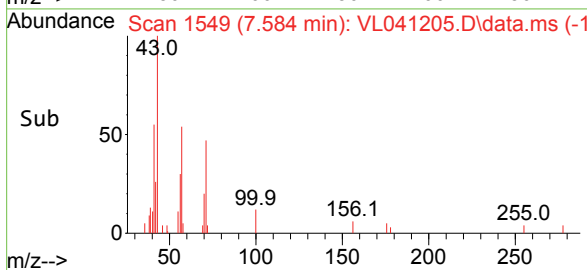
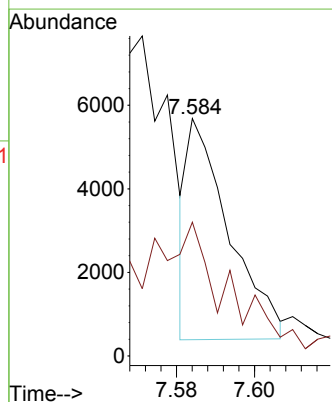
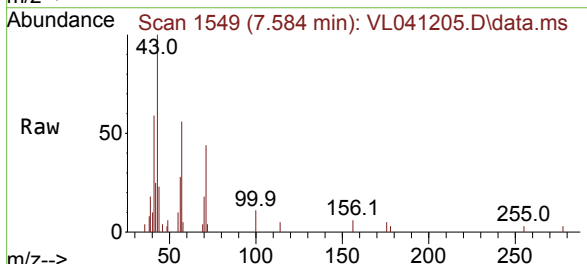
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

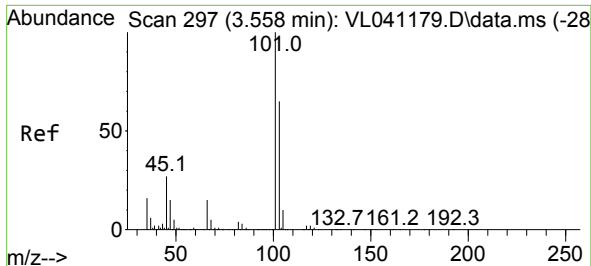
Tgt Ion: 41 Resp: 59683  
Ion Ratio Lower Upper  
41 100  
42 80.8 55.3 82.9



#10  
Heptane  
Concen: 0.034 ppbv  
RT: 7.584 min Scan# 1549  
Delta R.T. 0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 43 Resp: 3940  
Ion Ratio Lower Upper  
43 100  
57 171.5 38.7 58.1#

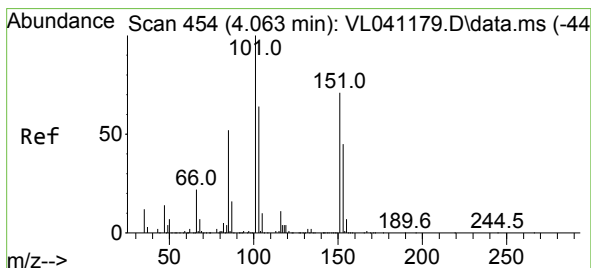
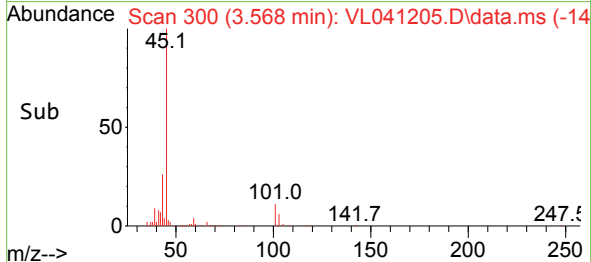
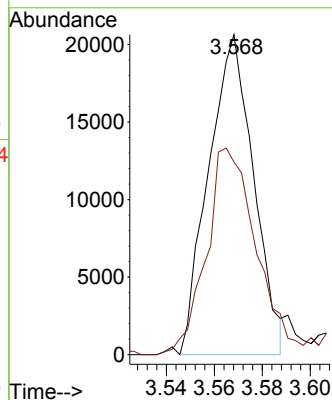
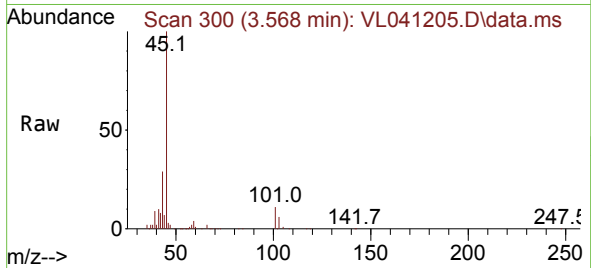




#11  
 Trichlorofluoromethane  
 Concen: 0.241 ppbv  
 RT: 3.568 min Scan# 30  
 Delta R.T. 0.010 min  
 Lab File: VL041205.D  
 Acq: 2 May 2024 21:25

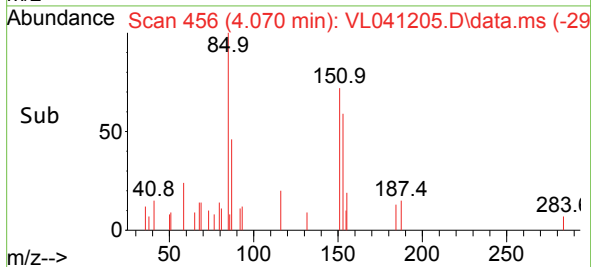
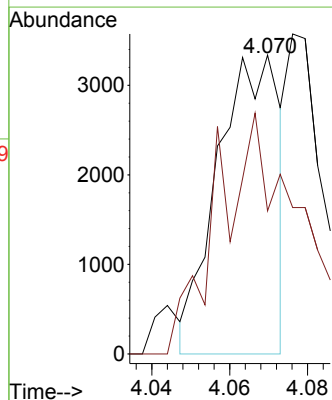
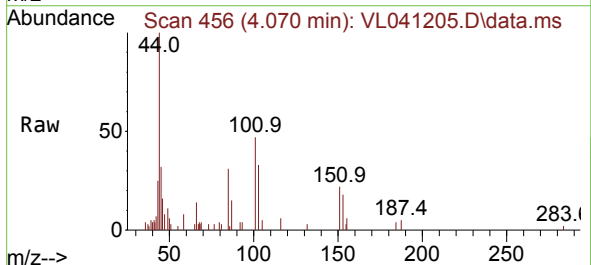
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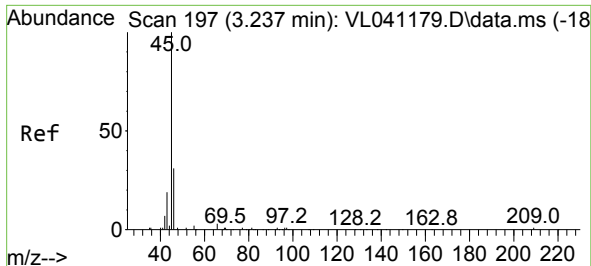
Tgt Ion:101 Resp: 26862  
 Ion Ratio Lower Upper  
 101 100  
 103 55.1 51.6 77.4



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.044 ppbv  
 RT: 4.070 min Scan# 456  
 Delta R.T. 0.007 min  
 Lab File: VL041205.D  
 Acq: 2 May 2024 21:25

Tgt Ion:101 Resp: 3666  
 Ion Ratio Lower Upper  
 101 100  
 151 111.0 56.8 85.2#

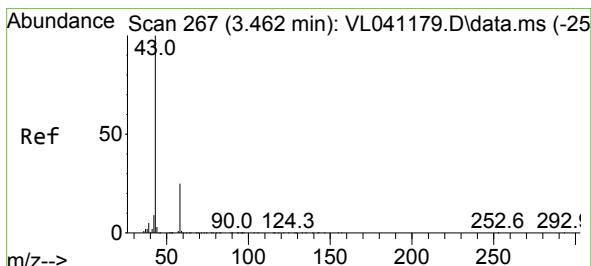
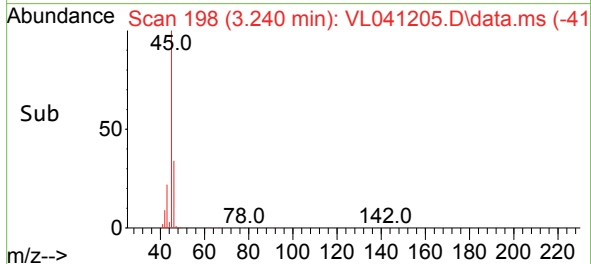
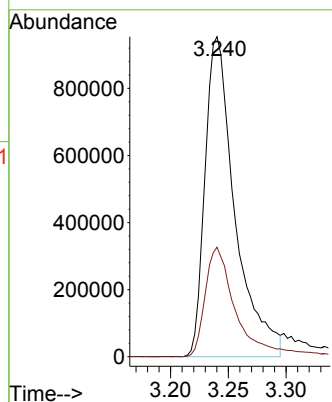
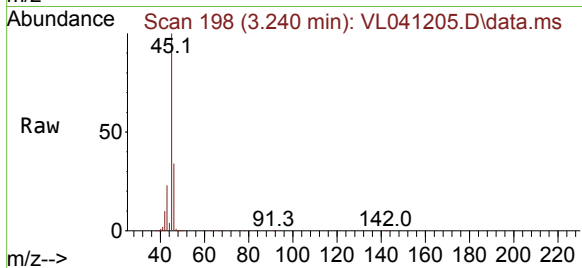




#13  
Ethanol  
Concen: 158.911 ppbv  
RT: 3.240 min Scan# 197  
Delta R.T. 0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

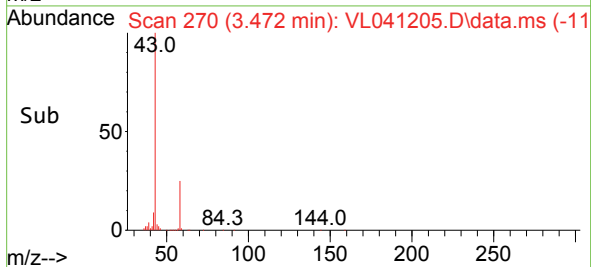
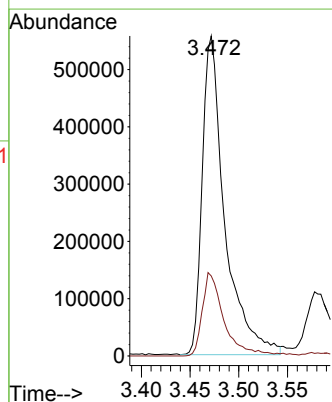
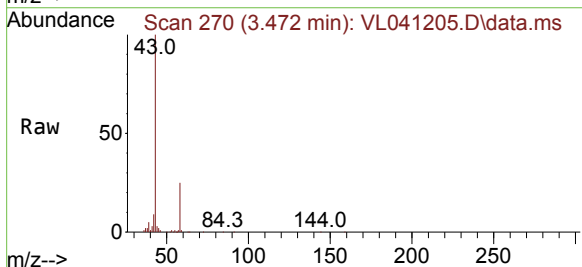
Instrument :  
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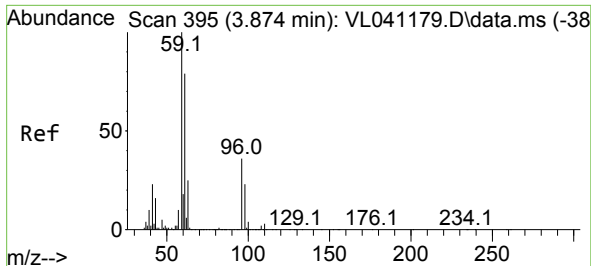
Tgt Ion: 45 Resp: 1716411  
Ion Ratio Lower Upper  
45 100  
46 37.5 14.8 59.0



#15  
Acetone  
Concen: 9.350 ppbv  
RT: 3.472 min Scan# 270  
Delta R.T. 0.007 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 43 Resp: 894497  
Ion Ratio Lower Upper  
43 100  
58 25.5 21.4 32.0





#17

tert-Butyl alcohol

Concen: 0.097 ppbv

RT: 3.896 min Scan# 402

Delta R.T. 0.023 min

Lab File: VL041205.D

Acq: 2 May 2024 21:25

Instrument :

MSVOA\_L

ClientSampleId :

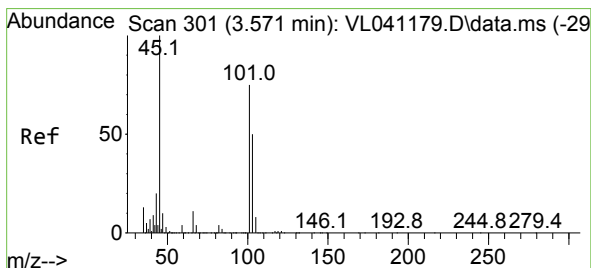
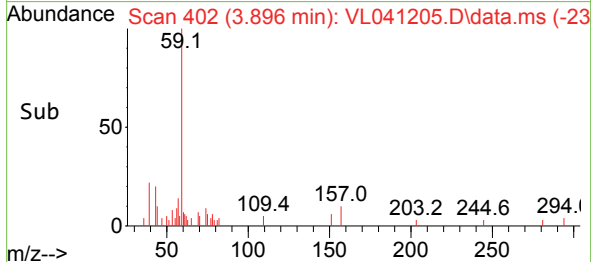
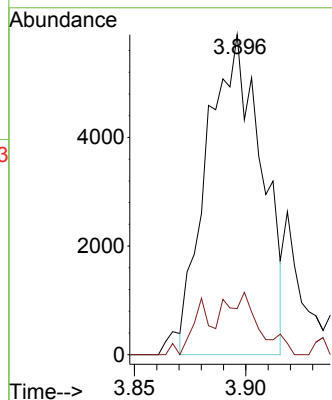
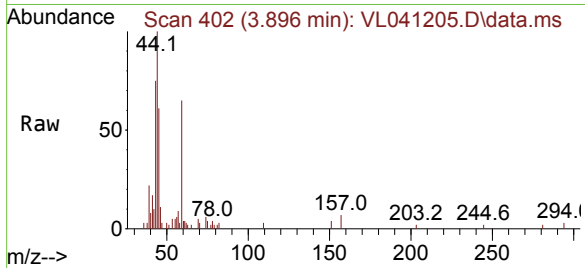
BA-03-IA01-20240425

Tgt Ion: 59 Resp: 10015

Ion Ratio Lower Upper

59 100

57 18.1 8.4 12.6#



#19

Isopropyl Alcohol

Concen: 13.003 ppbv

RT: 3.581 min Scan# 304

Delta R.T. 0.010 min

Lab File: VL041205.D

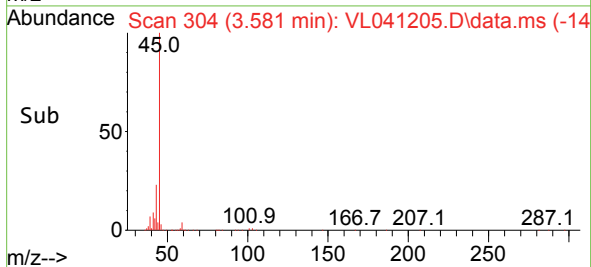
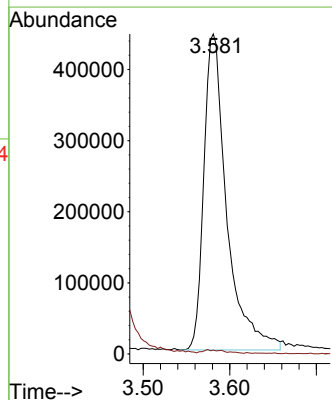
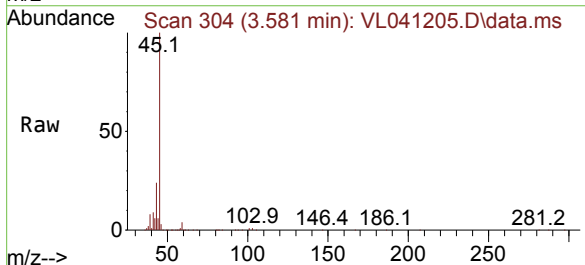
Acq: 2 May 2024 21:25

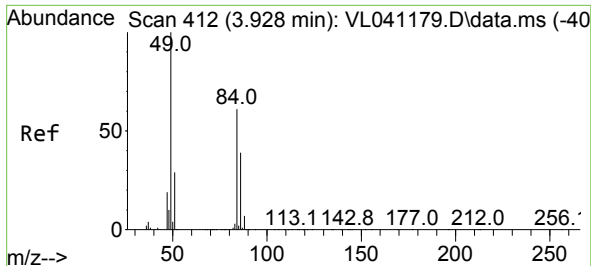
Tgt Ion: 45 Resp: 816312

Ion Ratio Lower Upper

45 100

58 1.5 26.8 40.2#

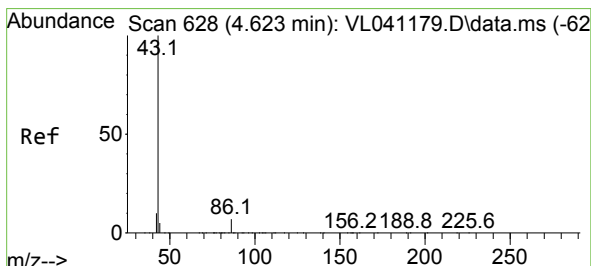
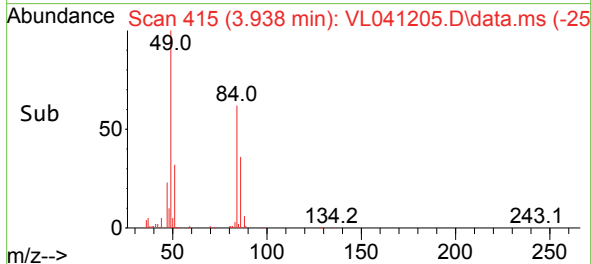
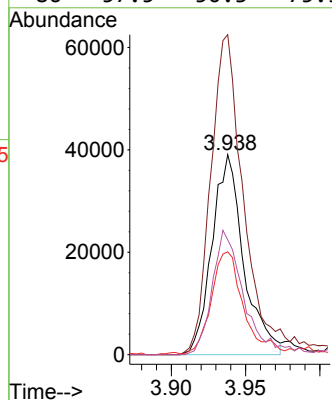
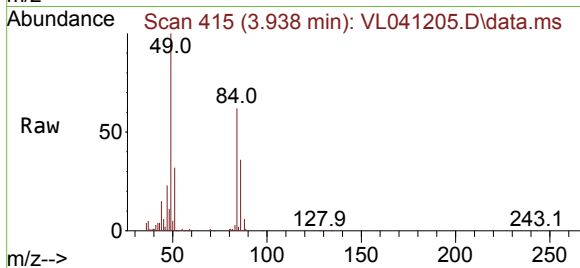




#20  
Methylene Chloride  
Concen: 1.748 ppbv  
RT: 3.938 min Scan# 412  
Delta R.T. 0.007 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

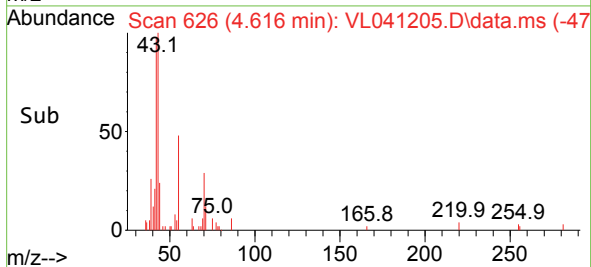
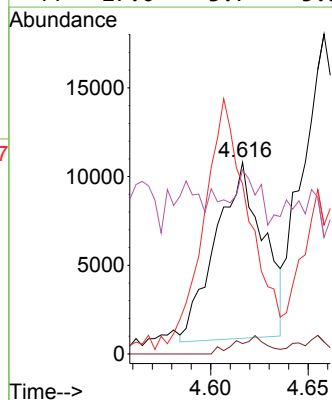
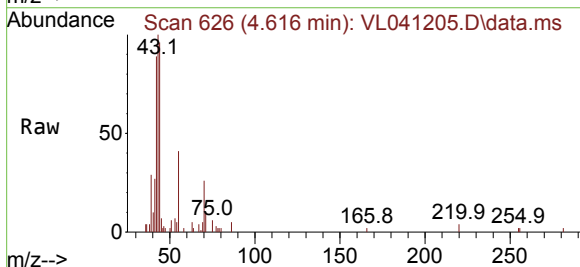
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

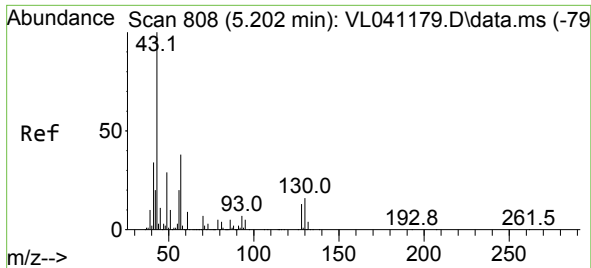
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 58150 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 160.1 | 130.4 | 195.6 |
| 51       | 51.0  | 38.0  | 57.0  |
| 86       | 57.5  | 50.3  | 75.5  |



#23  
Vinyl Acetate  
Concen: 0.159 ppbv  
RT: 4.616 min Scan# 626  
Delta R.T. -0.009 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 16736 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 6.0   | 4.9   | 7.3   |
| 42       | 78.4  | 8.0   | 12.0# |
| 44       | 27.0  | 3.7   | 5.5#  |

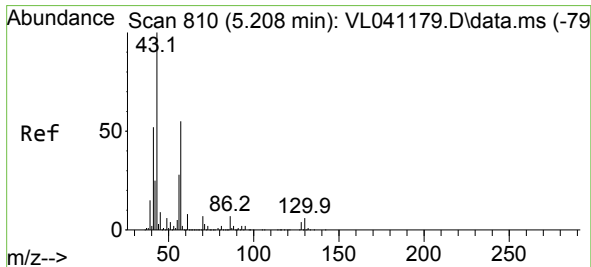
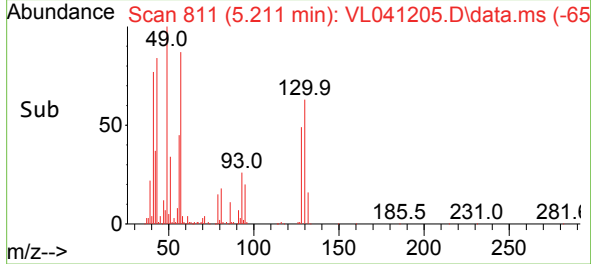
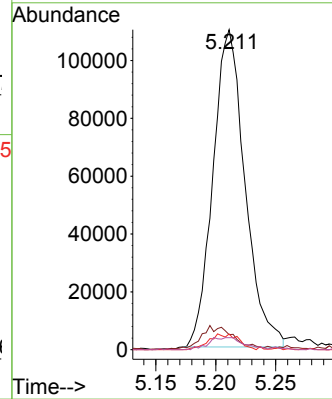
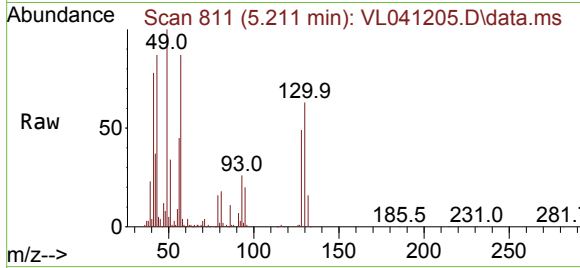




#25  
Ethyl Acetate  
Concen: 1.068 ppbv  
RT: 5.211 min Scan# 811  
Delta R.T. 0.010 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

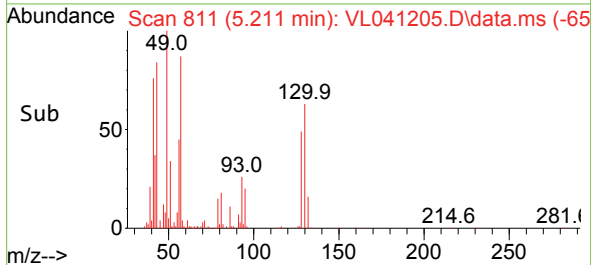
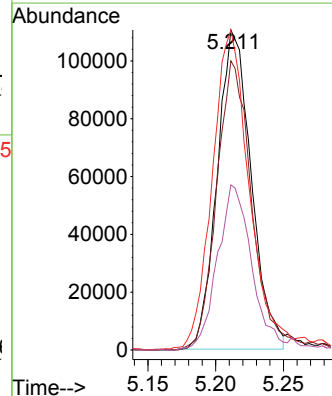
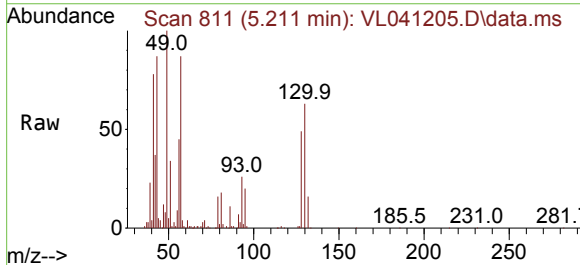
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

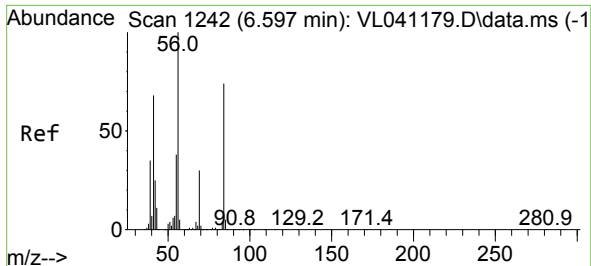
Tgt Ion: 43 Resp: 203943  
Ion Ratio Lower Upper  
43 100  
45 8.1 8.2 12.2#  
61 4.9 7.7 11.5#  
70 4.5 5.8 8.6#



#26  
Hexane  
Concen: 2.259 ppbv  
RT: 5.211 min Scan# 811  
Delta R.T. 0.000 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 57 Resp: 192516  
Ion Ratio Lower Upper  
57 100  
41 95.8 75.8 113.8  
43 114.5 187.0 280.4#  
56 54.5 42.7 64.1

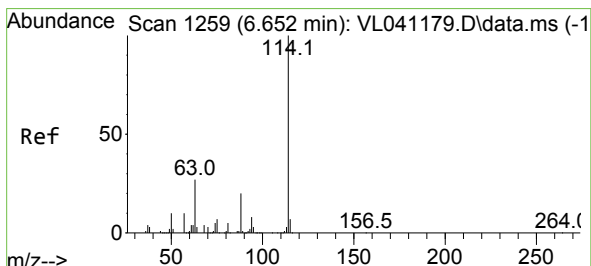
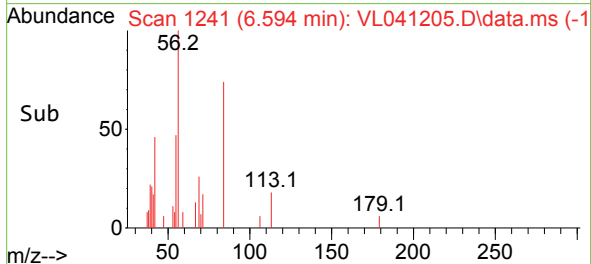
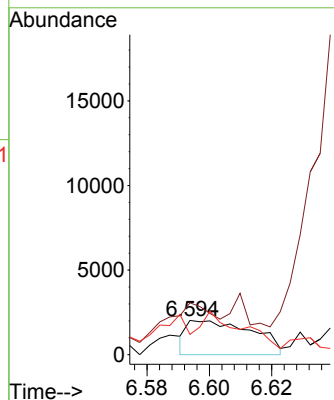
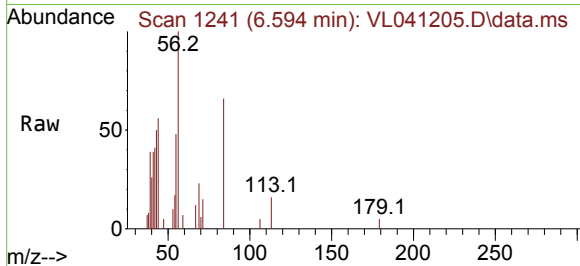




#30  
Cyclohexane  
Concen: 0.044 ppbv  
RT: 6.594 min Scan# 11  
Delta R.T. -0.006 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

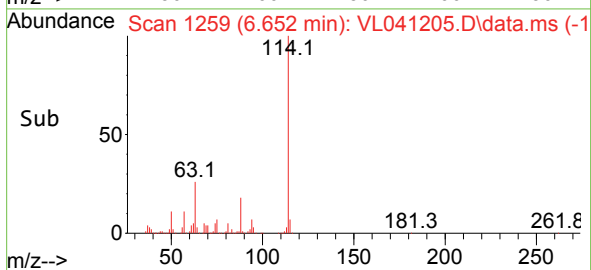
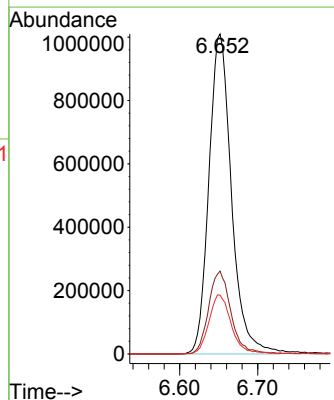
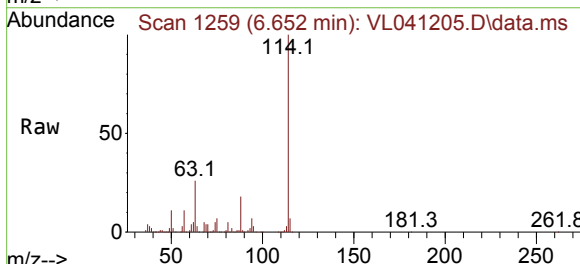
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

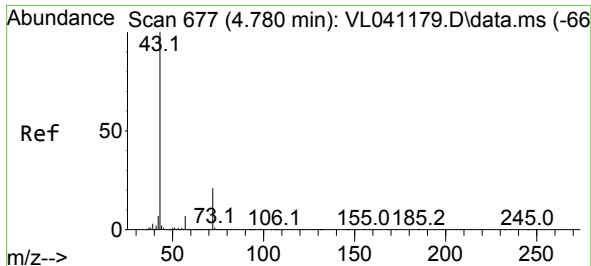
Tgt Ion: 84 Resp: 2954  
Ion Ratio Lower Upper  
84 100  
56 0.0 116.8 175.2#  
41 197.2 73.8 110.8#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.652 min Scan# 1259  
Delta R.T. 0.000 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 114 Resp: 2026912  
Ion Ratio Lower Upper  
114 100  
63 26.0 21.8 32.6  
88 18.4 15.2 22.8

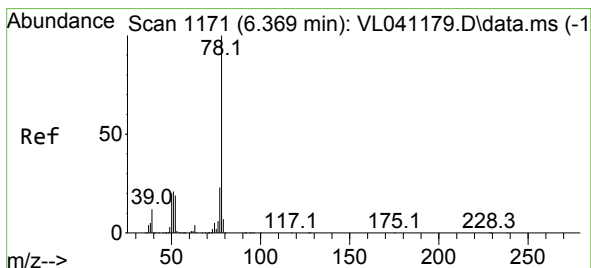
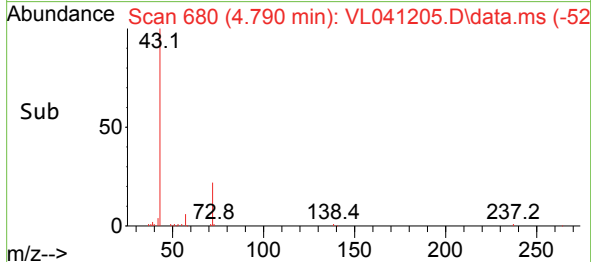
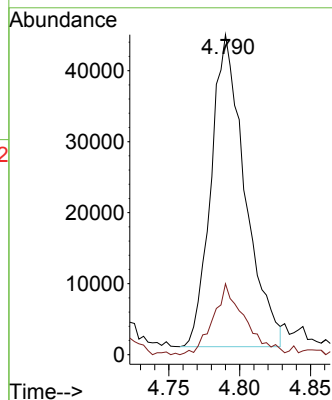
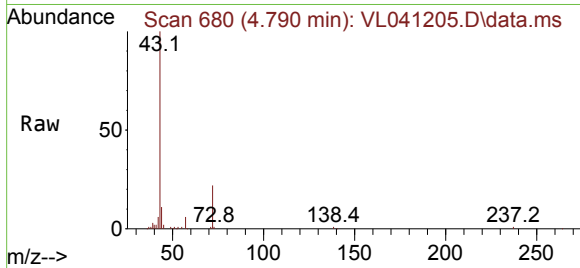




#34  
2-Butanone  
Concen: 0.710 ppbv  
RT: 4.790 min Scan# 61  
Delta R.T. 0.007 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

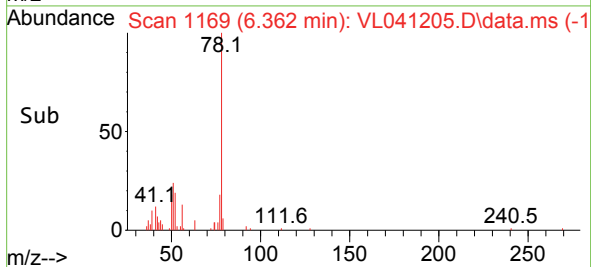
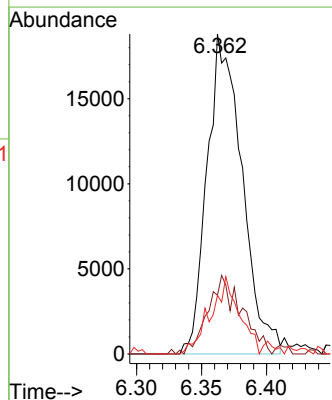
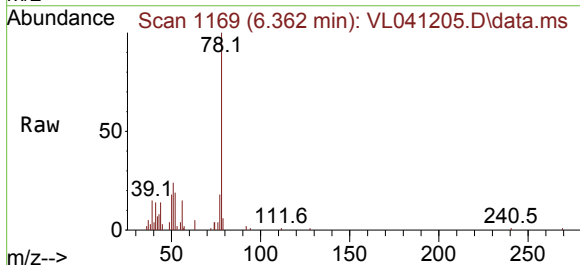
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

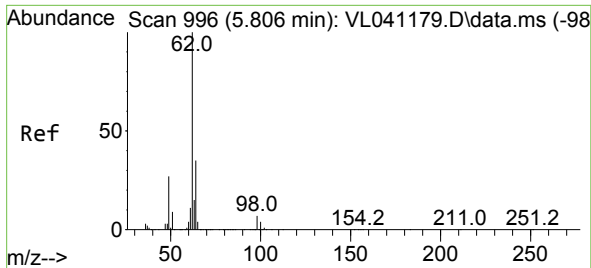
Tgt Ion: 43 Resp: 73262  
Ion Ratio Lower Upper  
43 100  
72 21.7 17.3 25.9



#36  
Benzene  
Concen: 0.207 ppbv  
RT: 6.362 min Scan# 1169  
Delta R.T. -0.006 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 78 Resp: 35131  
Ion Ratio Lower Upper  
78 100  
77 17.2 18.3 27.5#  
50 16.6 15.9 23.9





#37

1,2-Dichloroethane

Concen: 0.090 ppbv

RT: 5.806 min Scan# 996

Delta R.T. 0.000 min

Lab File: VL041205.D

Acq: 2 May 2024 21:25

Instrument :

MSVOA\_L

ClientSampleId :

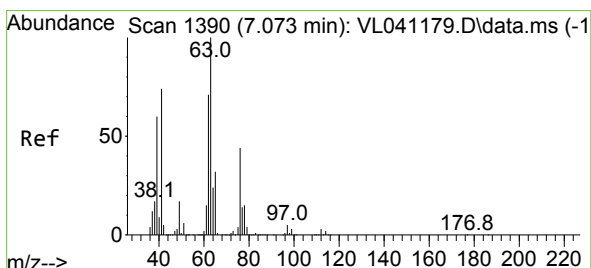
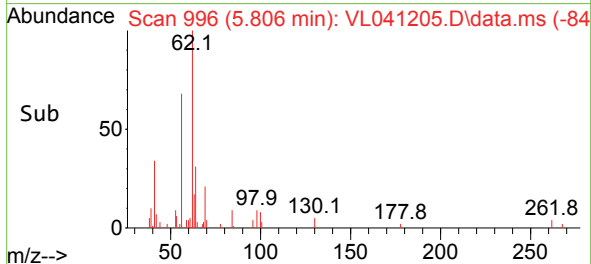
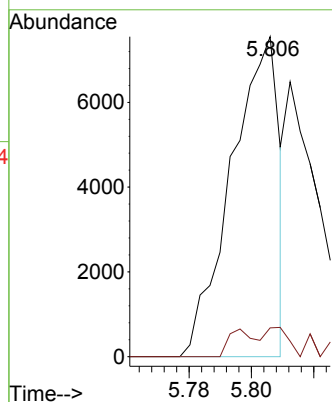
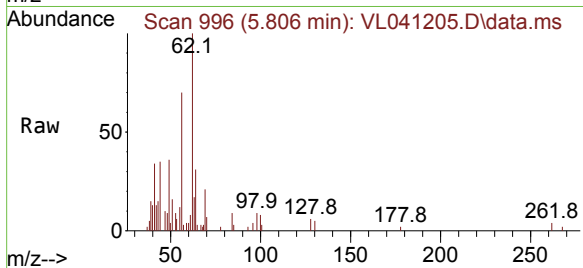
BA-03-IA01-20240425

Tgt Ion: 62 Resp: 8010

Ion Ratio Lower Upper

62 100

98 0.0 5.0 7.4#



#39

1,2-Dichloropropane

Concen: 0.107 ppbv

RT: 6.693 min Scan# 1272

Delta R.T. -0.379 min

Lab File: VL041205.D

Acq: 2 May 2024 21:25

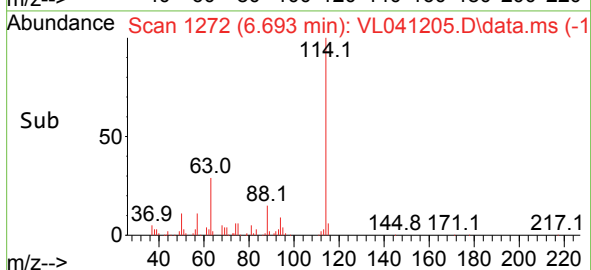
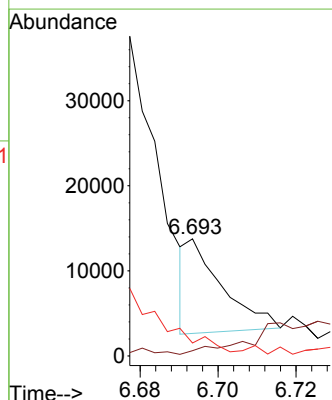
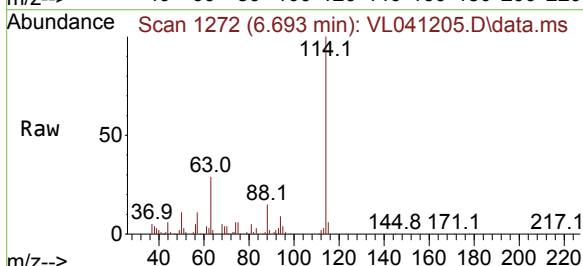
Tgt Ion: 63 Resp: 6992

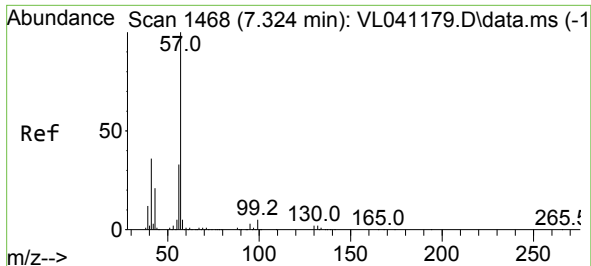
Ion Ratio Lower Upper

63 100

41 6.2 59.4 89.0#

62 4.6 56.8 85.2#

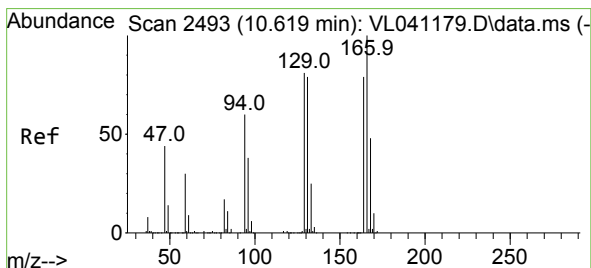
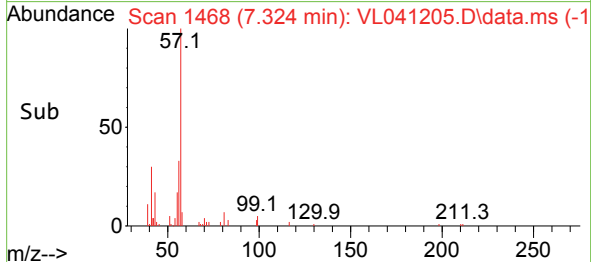
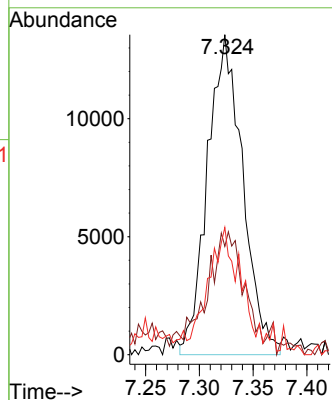
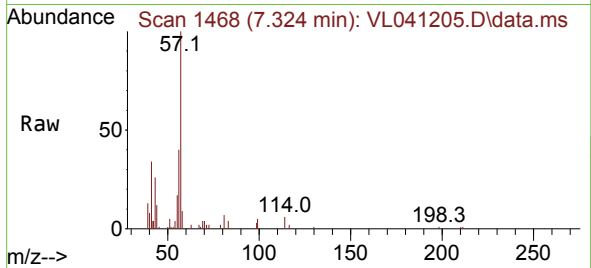




#44  
2,2,4-Trimethylpentane  
Concen: 0.105 ppbv  
RT: 7.324 min Scan# 1468  
Delta R.T. -0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

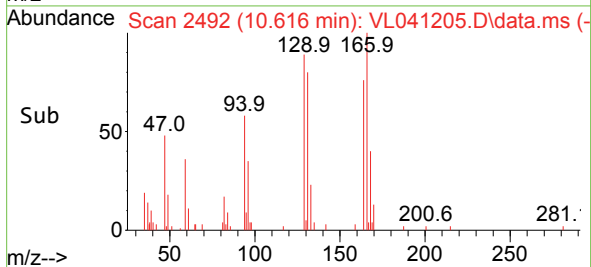
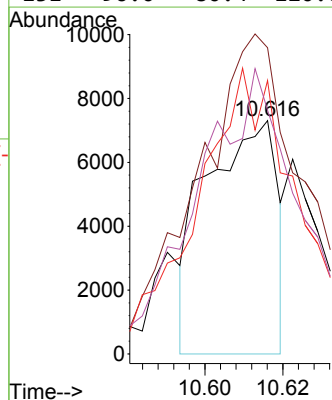
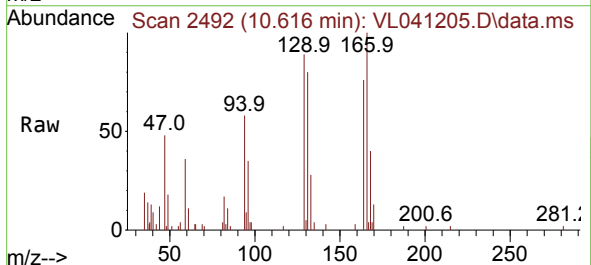
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

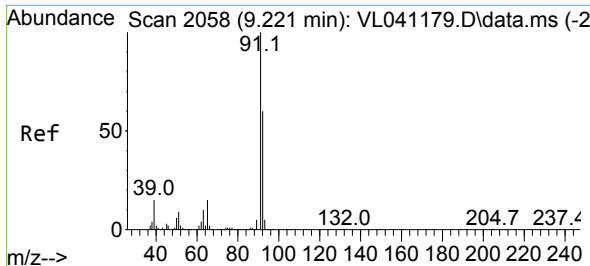
Tgt Ion: 57 Resp: 30935  
Ion Ratio Lower Upper  
57 100  
41 56.2 29.5 44.3#  
56 40.6 25.3 37.9#



#52  
Tetrachloroethene  
Concen: 0.155 ppbv  
RT: 10.616 min Scan# 2492  
Delta R.T. 0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 164 Resp: 9265  
Ion Ratio Lower Upper  
164 100  
166 131.0 101.1 151.7  
129 122.4 81.7 122.5  
131 96.0 80.4 120.6

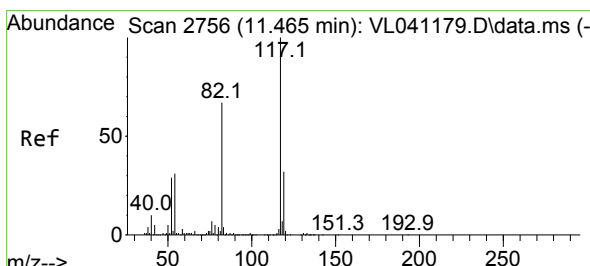
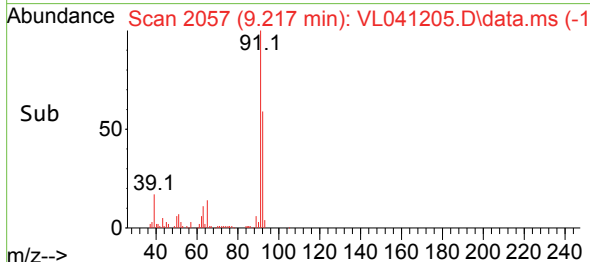
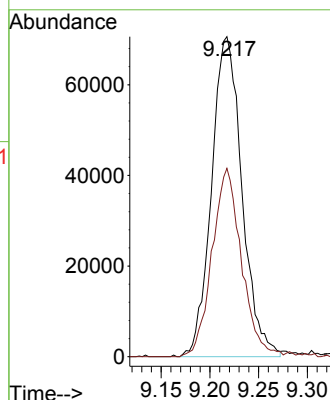
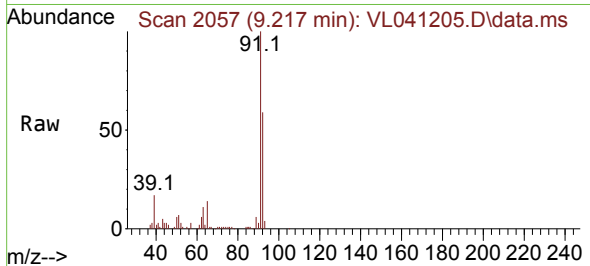




#53  
Toluene  
Concen: 0.777 ppbv  
RT: 9.217 min Scan# 2058  
Delta R.T. -0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

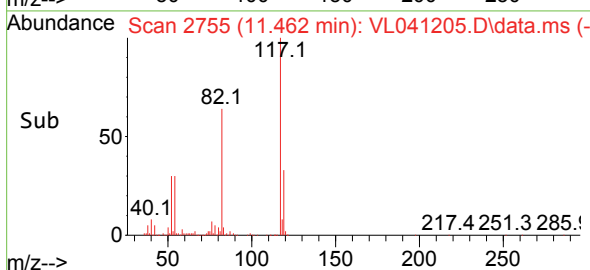
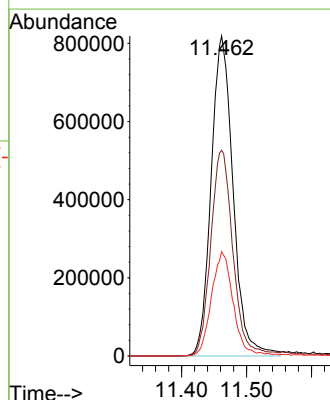
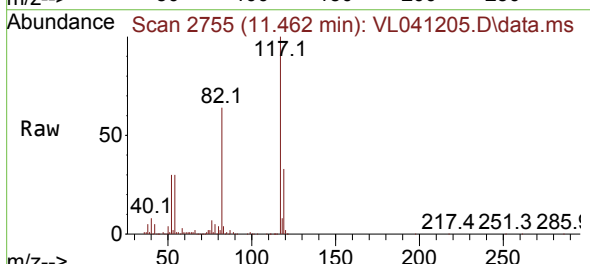
Instrument :  
MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

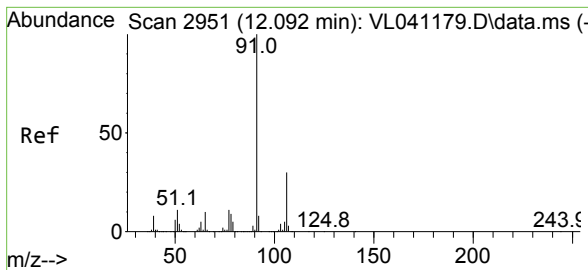
Tgt Ion: 91 Resp: 153230  
Ion Ratio Lower Upper  
91 100  
92 57.6 48.2 72.4



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.462 min Scan# 2755  
Delta R.T. -0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

Tgt Ion: 117 Resp: 1920859  
Ion Ratio Lower Upper  
117 100  
82 66.7 53.6 80.4  
119 33.1 27.2 40.8

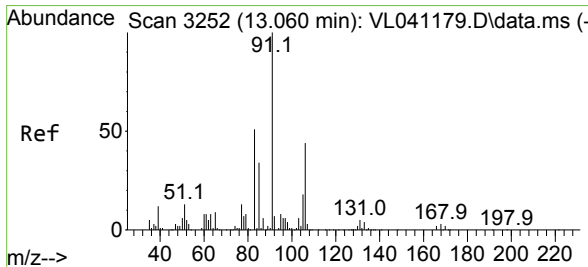
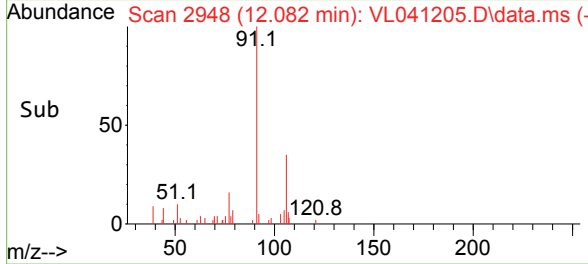
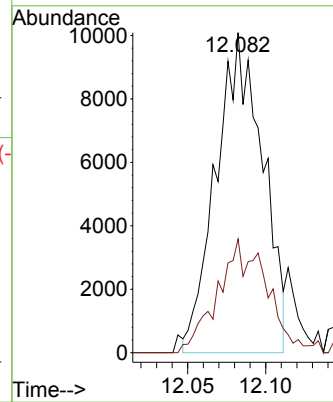
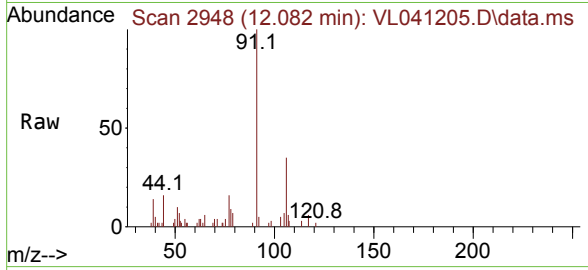




#58  
Ethyl Benzene  
Concen: 0.079 ppbv  
RT: 12.082 min Scan# 2951  
Delta R.T. -0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

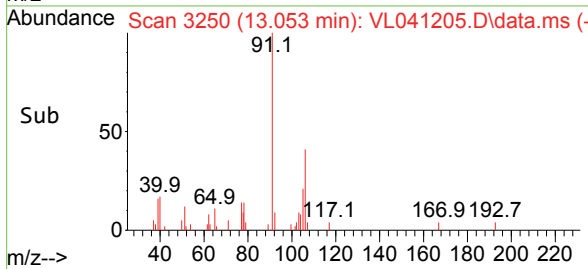
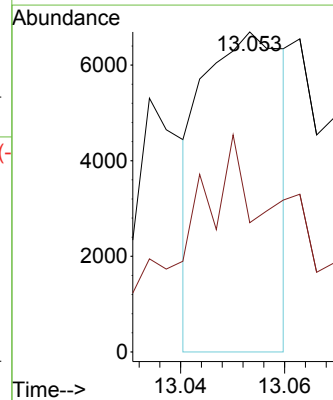
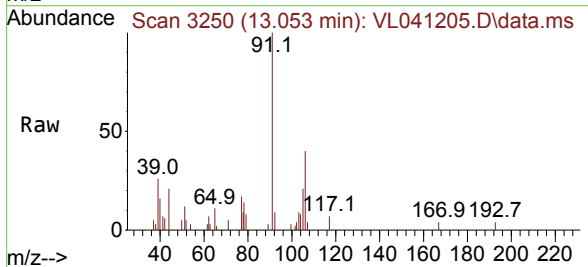
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MSVOA\_L  
ClientSampleId :  
BA-03-IA01-20240425

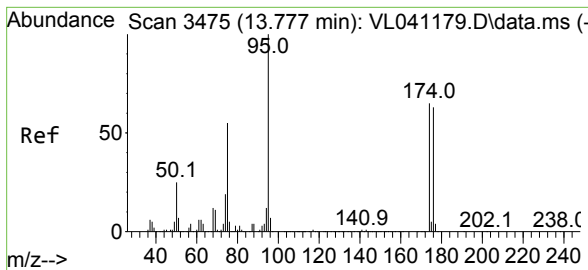
Tgt Ion: 91 Resp: 20868  
Ion Ratio Lower Upper  
91 100  
106 34.4 24.3 36.5



#60  
o-Xylene  
Concen: 0.035 ppbv  
RT: 13.053 min Scan# 3250  
Delta R.T. -0.003 min  
Lab File: VL041205.D  
Acq: 2 May 2024 21:25

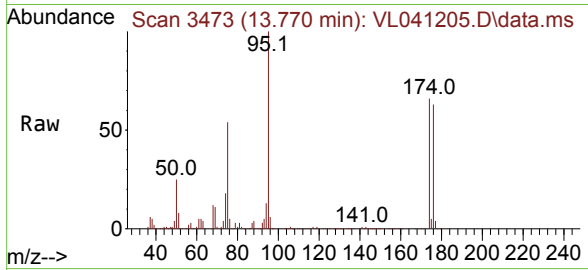
Tgt Ion: 91 Resp: 7219  
Ion Ratio Lower Upper  
91 100  
106 114.6 22.4 67.3#





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.826 ppbv  
 RT: 13.770 min Scan# 34  
 Delta R.T. -0.003 min  
 Lab File: VL041205.D  
 Acq: 2 May 2024 21:25

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 BA-03-IA01-20240425



Tgt Ion: 95 Resp: 1424946

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 174 | 67.9  | 53.6  | 80.4  |
| 175 | 5.1   | 4.2   | 6.4   |

