

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL031025\  
 Data File : VL042127.D  
 Acq On : 10 Mar 2025 16:15  
 Operator : SY/MD  
 Sample : Q1532-04  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 4

Quant Time: Mar 11 01:26:48 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL022525AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Wed Feb 26 01:08:36 2025  
 Response via : Initial Calibration

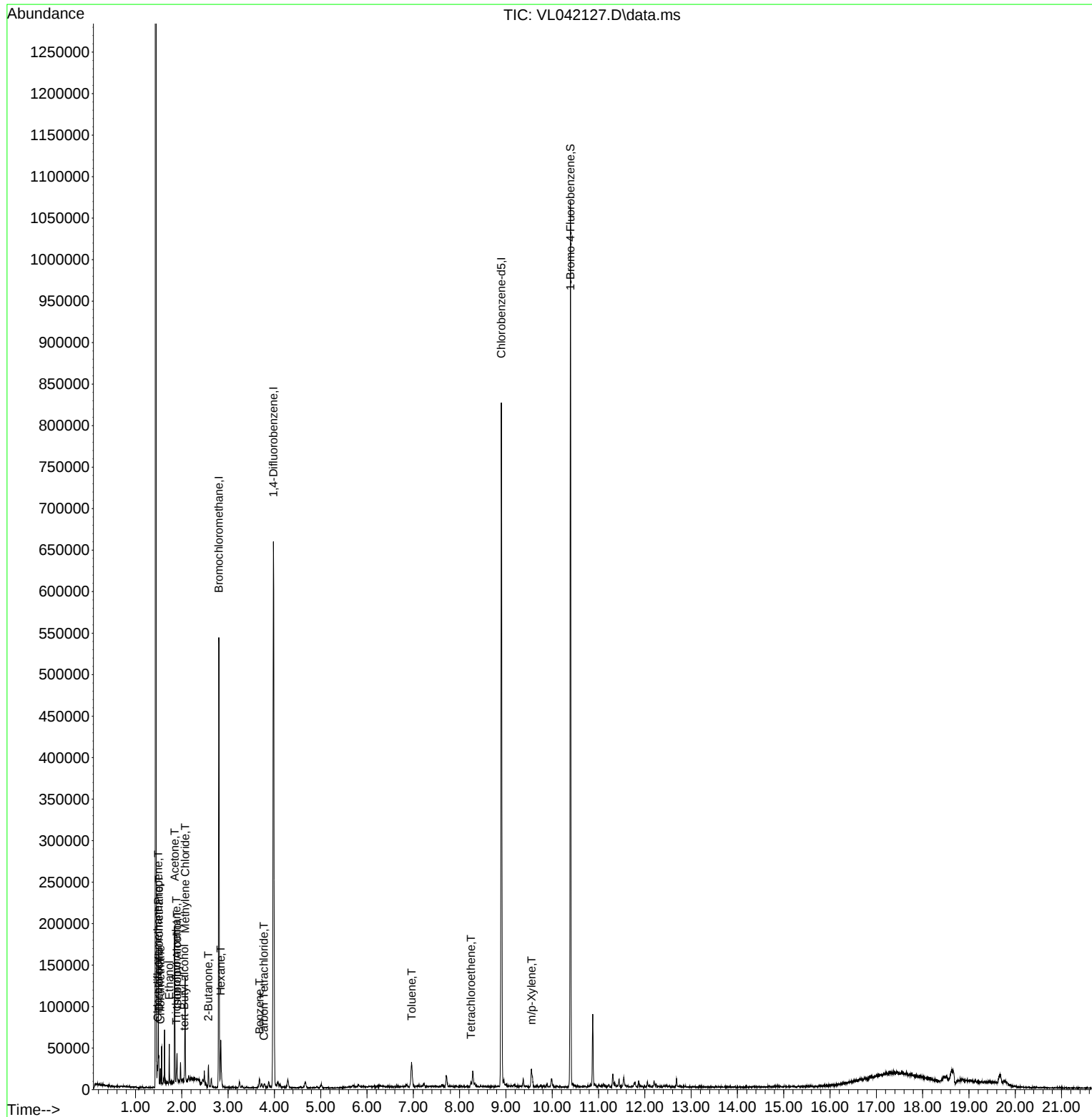
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 2.800  | 49    | 162703   | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene     | 3.978  | 114   | 379717   | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 8.901  | 117   | 323671   | 10.000   | ppbv   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.393 | 95    | 255866   | 10.275   | ppbv   | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 102.800% |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 1.505  | 85    | 8600     | 0.508    | ppbv   | 98       |
| 3) Chlorodifluoromethane    | 1.483  | 51    | 5780m    | 0.244    | ppbv   |          |
| 4) Chloromethane            | 1.538  | 50    | 3589     | 0.574    | ppbv   | 95       |
| 9) Propene                  | 1.492  | 41    | 13301m   | 1.381    | ppbv   |          |
| 11) Trichlorofluoromethane  | 1.884  | 101   | 4374     | 0.258    | ppbv   | 94       |
| 13) Ethanol                 | 1.729  | 45    | 14167    | 23.166   | ppbv   | 99       |
| 15) Acetone                 | 1.845  | 43    | 82899    | 5.770    | ppbv   | 98       |
| 17) tert-Butyl alcohol      | 2.055  | 59    | 2587     | 0.144    | ppbv # | 86       |
| 19) Isopropyl Alcohol       | 1.897  | 45    | 14092    | 1.707    | ppbv # | 1        |
| 20) Methylene Chloride      | 2.072  | 84    | 18587    | 3.420    | ppbv   | 97       |
| 26) Hexane                  | 2.842  | 57    | 9963m    | 0.428    | ppbv   |          |
| 34) 2-Butanone              | 2.573  | 43    | 16205    | 0.548    | ppbv   | 97       |
| 35) Carbon Tetrachloride    | 3.774  | 117   | 1880m    | 0.072    | ppbv   |          |
| 36) Benzene                 | 3.677  | 78    | 6120     | 0.154    | ppbv   | 96       |
| 52) Tetrachloroethene       | 8.247  | 164   | 872m     | 0.064    | ppbv   |          |
| 53) Toluene                 | 6.965  | 91    | 19451    | 0.438    | ppbv   | 96       |
| 59) m/p-Xylene              | 9.551  | 91    | 14475m   | 0.305    | ppbv   |          |
| -----                       |        |       |          |          |        |          |

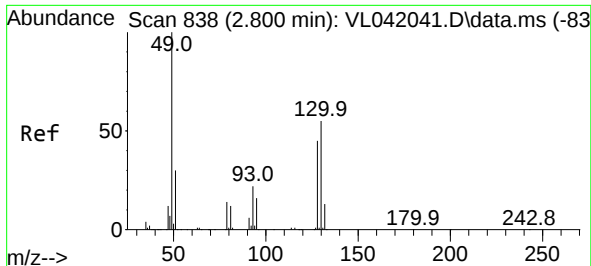
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Mar 11 01:26:48 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL022525AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Wed Feb 26 01:08:36 2025  
Response via : Initial Calibration

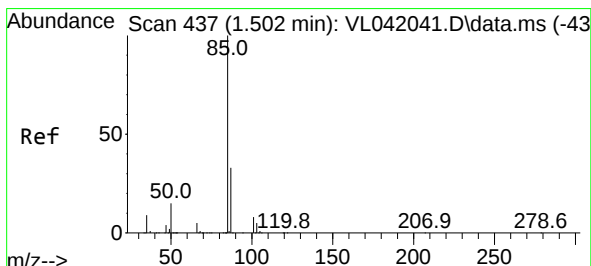
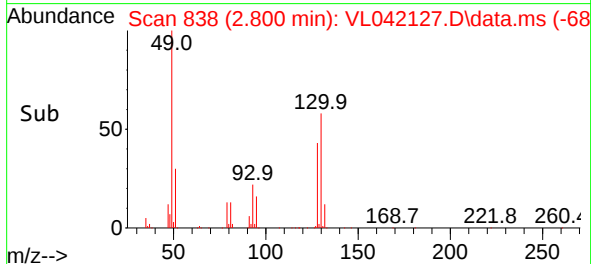
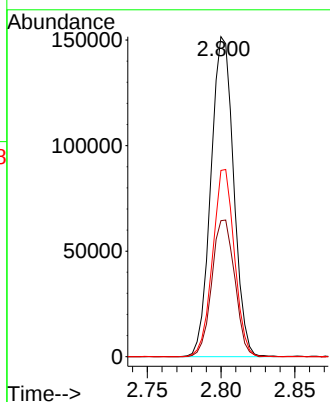
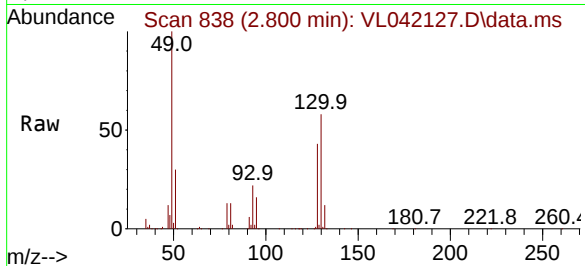




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.800 min Scan# 81  
Delta R.T. -0.000 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

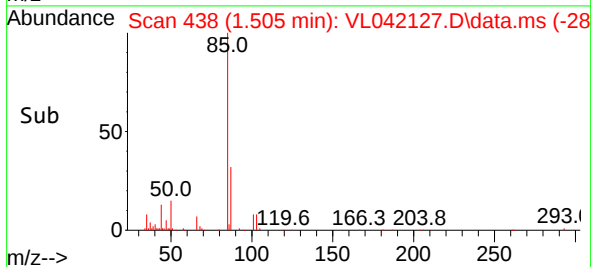
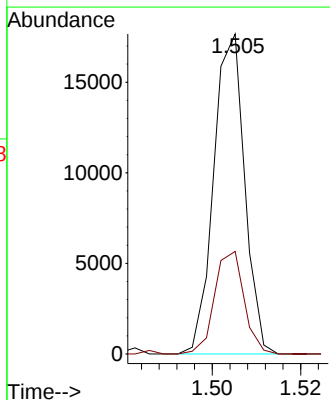
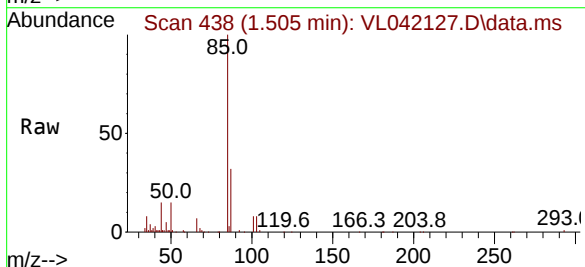
Instrument :  
MSVOA\_L  
ClientSampleId :  
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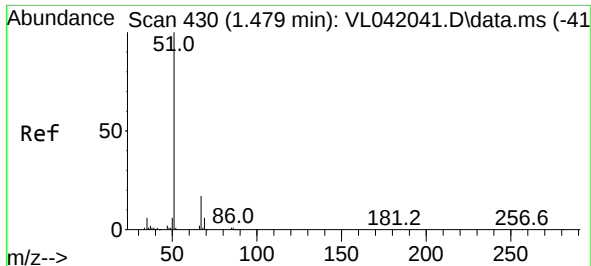
Tgt Ion: 49 Resp: 162703  
Ion Ratio Lower Upper  
49 100  
128 43.0 21.6 64.8  
130 56.1 27.8 83.4



#2  
Dichlorodifluoromethane  
Concen: 0.508 ppbv  
RT: 1.505 min Scan# 438  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 85 Resp: 8600  
Ion Ratio Lower Upper  
85 100  
87 32.1 26.4 39.6

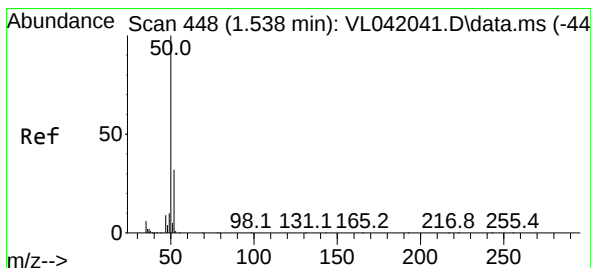
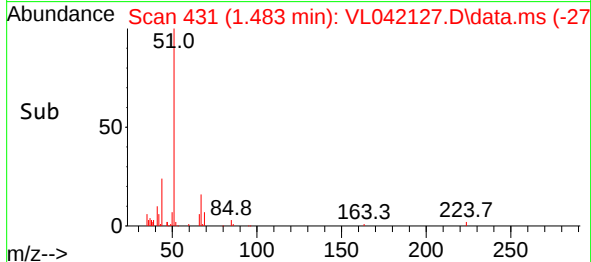
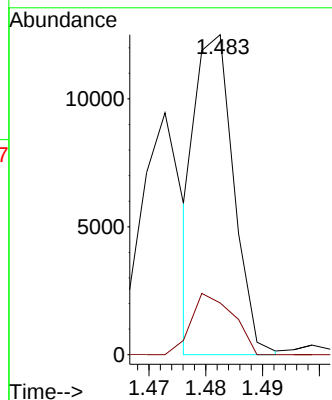
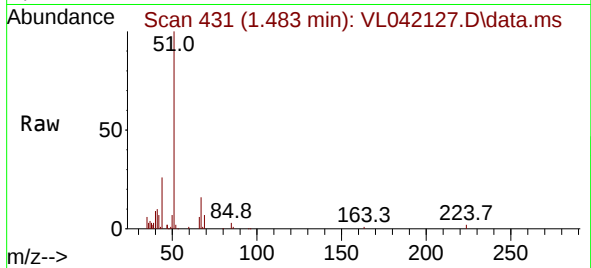




#3  
Chlorodifluoromethane  
Concen: 0.244 ppbv m  
RT: 1.483 min Scan# 41  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

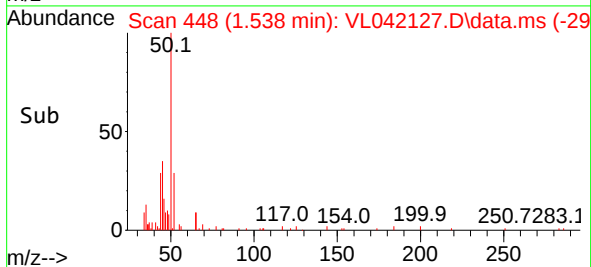
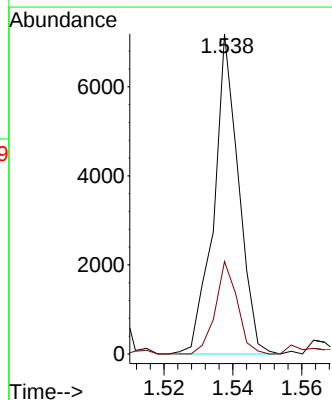
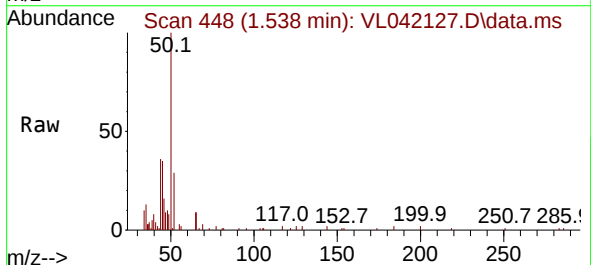
Instrument :  
MSVOA\_L  
ClientSampleId :  
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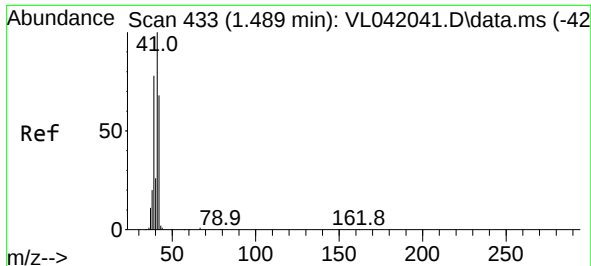
Tgt Ion: 51 Resp: 5780  
Ion Ratio Lower Upper  
51 100  
67 2.1 13.7 20.5#



#4  
Chloromethane  
Concen: 0.574 ppbv  
RT: 1.538 min Scan# 448  
Delta R.T. -0.000 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 50 Resp: 3589  
Ion Ratio Lower Upper  
50 100  
52 28.9 25.4 38.0





#9

Propene

Concen: 1.381 ppbv m

RT: 1.492 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042127.D

Acq: 10 Mar 2025 16:15

Instrument :

MSVOA\_L

ClientSampleId :

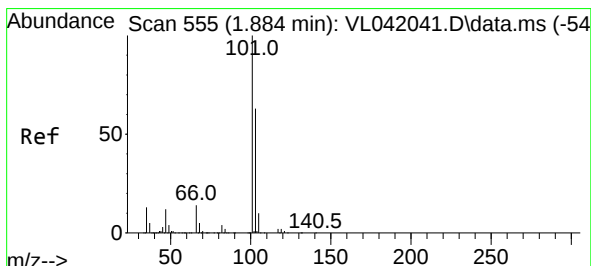
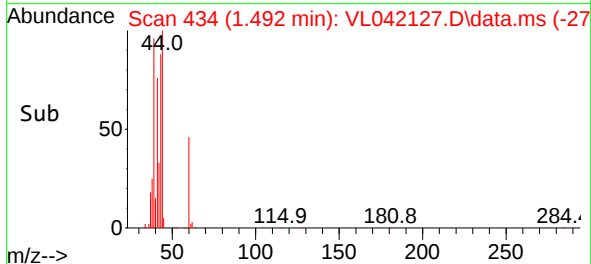
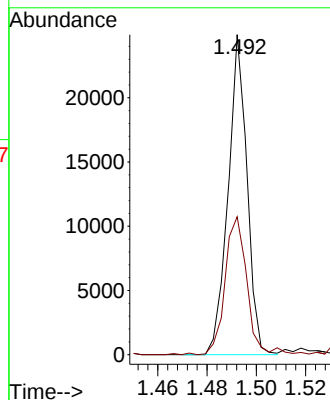
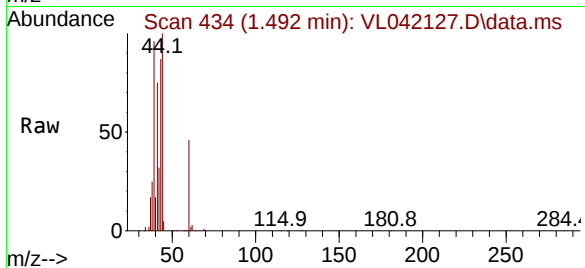
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Tgt Ion: 41 Resp: 13301

Ion Ratio Lower Upper

41 100

42 7.7 55.8 83.6#



#11

Trichlorofluoromethane

Concen: 0.258 ppbv

RT: 1.884 min Scan# 555

Delta R.T. -0.000 min

Lab File: VL042127.D

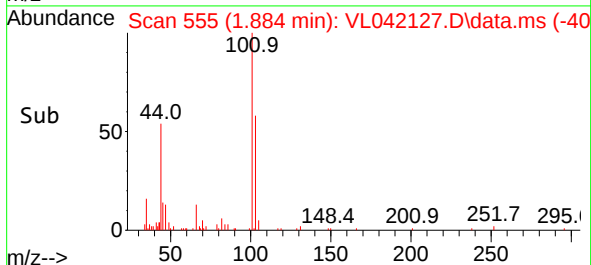
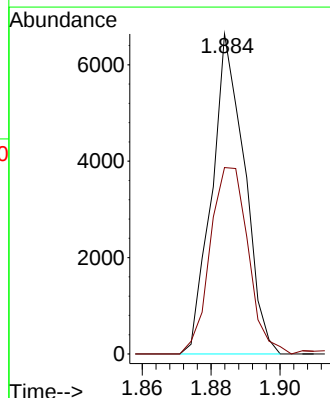
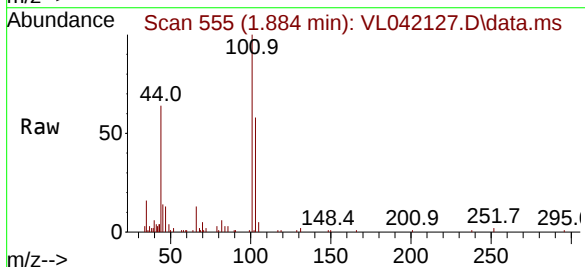
Acq: 10 Mar 2025 16:15

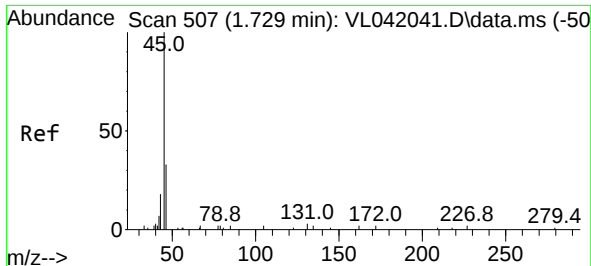
Tgt Ion:101 Resp: 4374

Ion Ratio Lower Upper

101 100

103 58.3 50.6 75.8

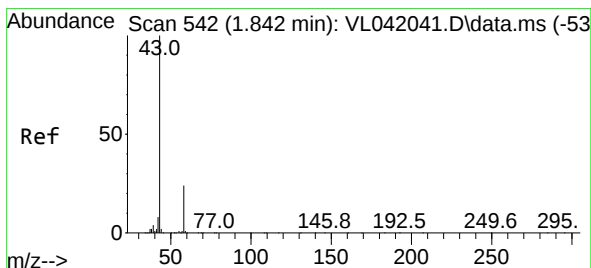
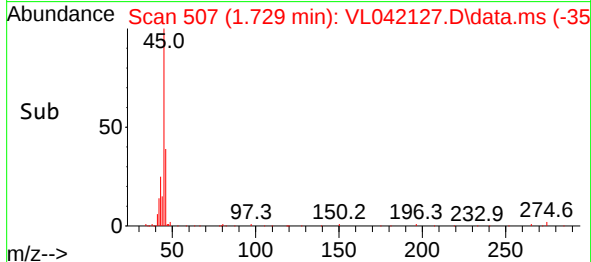
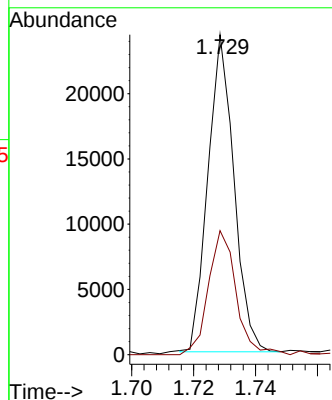
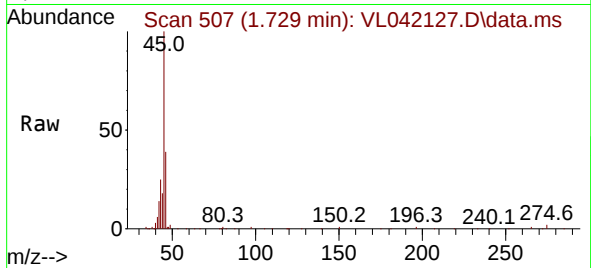




#13  
Ethanol  
Concen: 23.166 ppbv  
RT: 1.729 min Scan# 50  
Delta R.T. -0.000 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

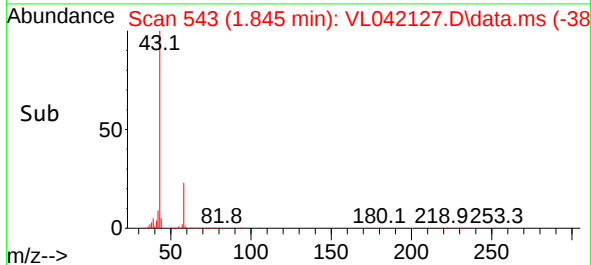
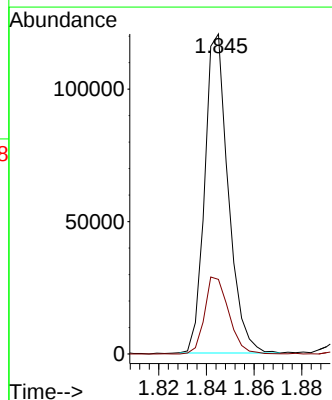
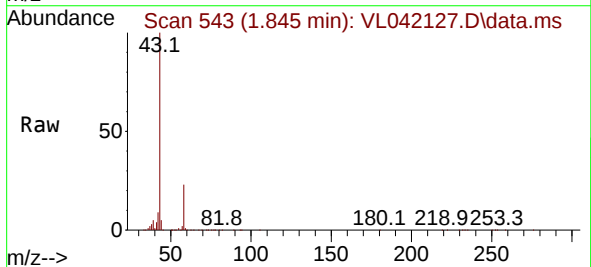
Instrument :  
MSVOA\_L  
ClientSampleId :  
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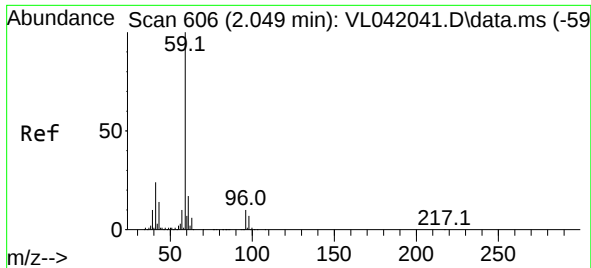
Tgt Ion: 45 Resp: 14167  
Ion Ratio Lower Upper  
45 100  
46 43.5 17.1 68.3



#15  
Acetone  
Concen: 5.770 ppbv  
RT: 1.845 min Scan# 543  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 43 Resp: 82899  
Ion Ratio Lower Upper  
43 100  
58 24.9 20.7 31.1

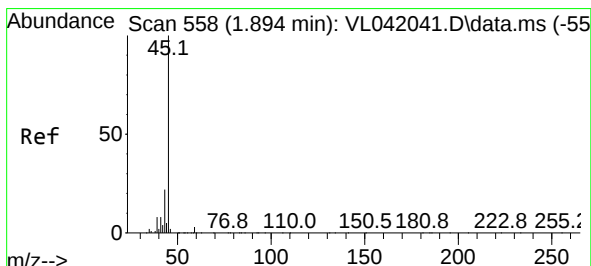
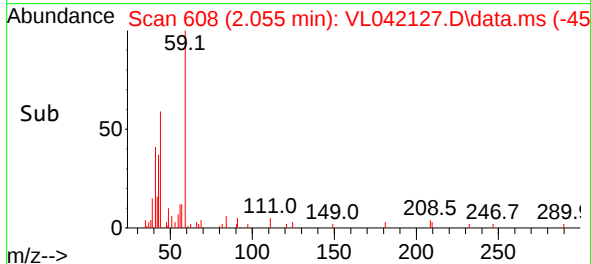
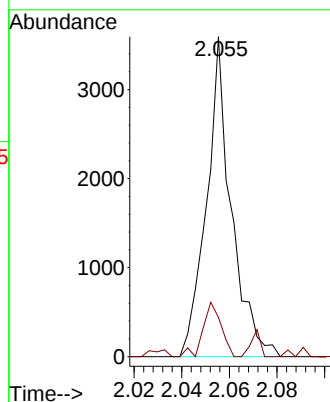
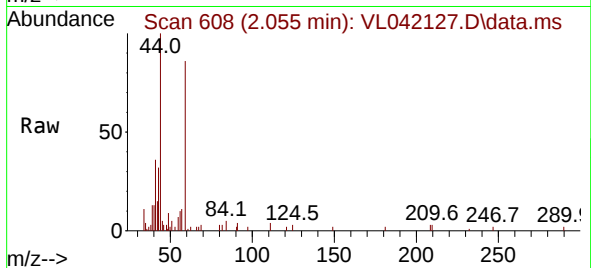




#17  
tert-Butyl alcohol  
Concen: 0.144 ppbv  
RT: 2.055 min Scan# 606  
Delta R.T. 0.006 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

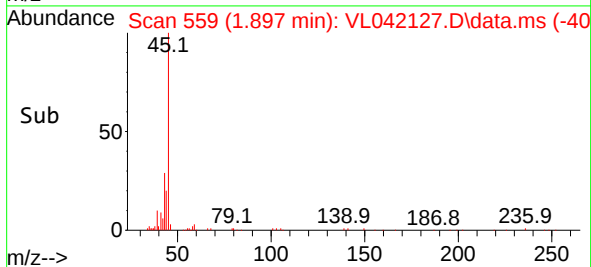
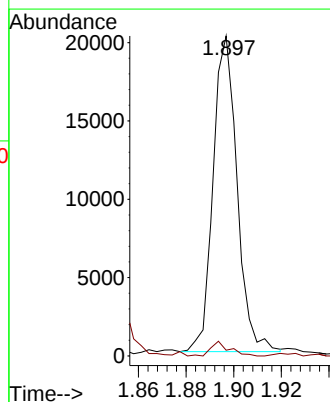
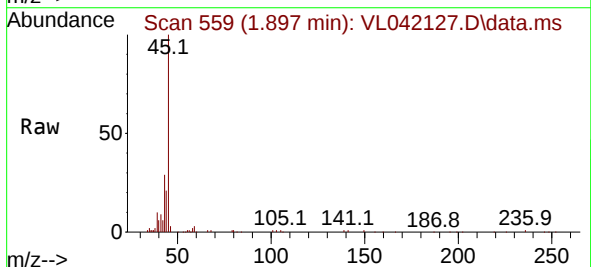
Instrument :  
MSVOA\_1  
ClientSampleId :  
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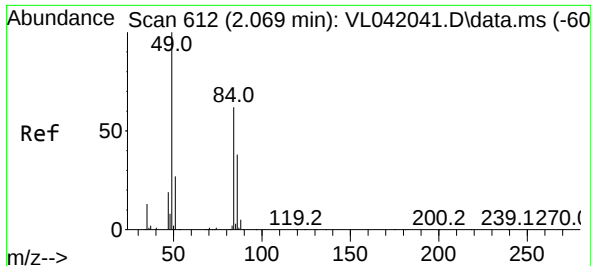
Tgt Ion: 59 Resp: 2587  
Ion Ratio Lower Upper  
59 100  
57 17.1 9.3 13.9#



#19  
Isopropyl Alcohol  
Concen: 1.707 ppbv  
RT: 1.897 min Scan# 559  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 45 Resp: 14092  
Ion Ratio Lower Upper  
45 100  
58 146.3 35.3 52.9#

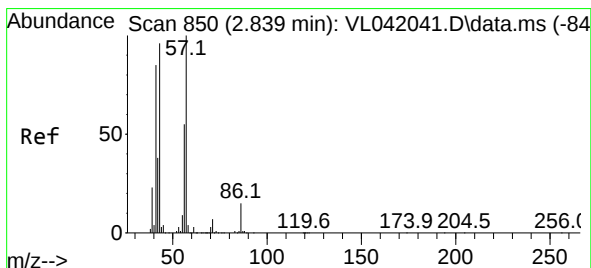
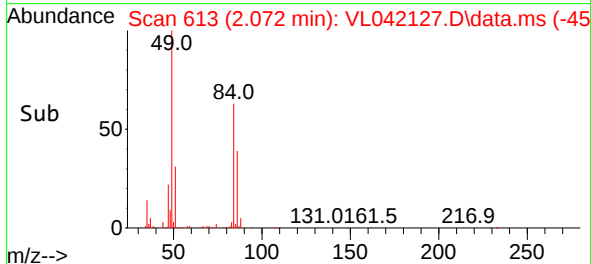
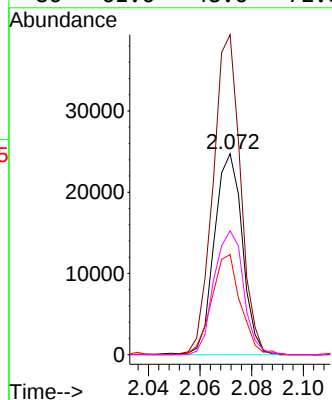
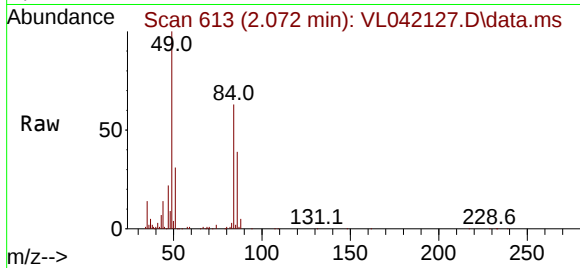




#20  
Methylene Chloride  
Concen: 3.420 ppbv  
RT: 2.072 min Scan# 612  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

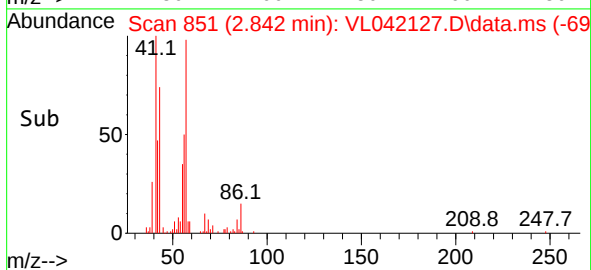
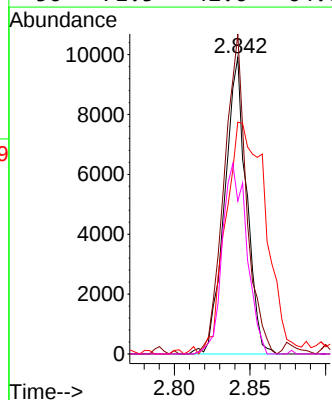
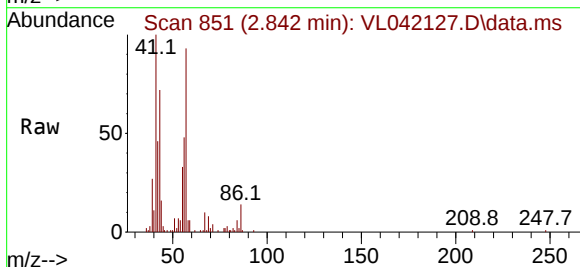
Instrument :  
MSVOA\_L  
ClientSampleId :  
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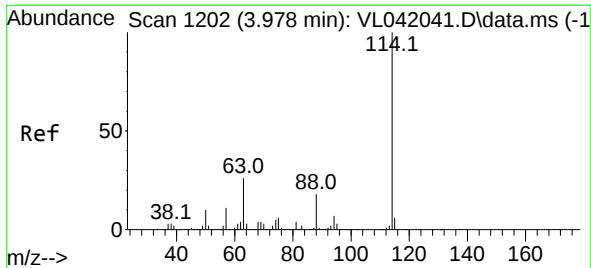
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|-------------|-------------|-------|-------|
| Tgt Ion: 84 | Resp: 18587 |       |       |
| Ion         | Ratio       | Lower | Upper |
| 84          | 100         |       |       |
| 49          | 158.6       | 130.0 | 195.0 |
| 51          | 49.8        | 37.4  | 56.0  |
| 86          | 61.6        | 48.6  | 72.8  |



#26  
Hexane  
Concen: 0.428 ppbv m  
RT: 2.842 min Scan# 851  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

|             |              |
|-------------|--------------|
| Tgt Ion: 57 | Resp: 9963   |
| Ion Ratio   | Lower Upper  |
| 57 100      |              |
| 41 113.1    | 70.6 106.0#  |
| 43 147.6    | 199.4 299.0# |
| 56 71.5     | 42.6 64.0#   |

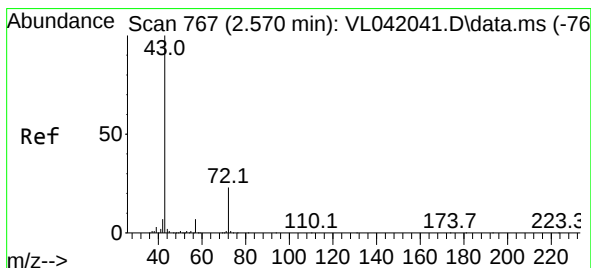
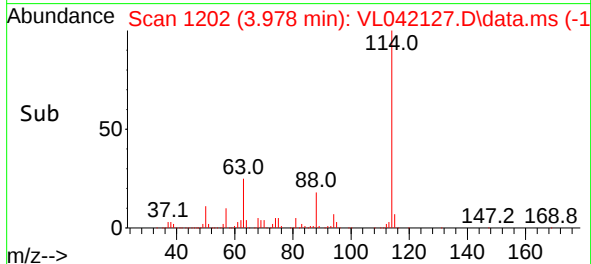
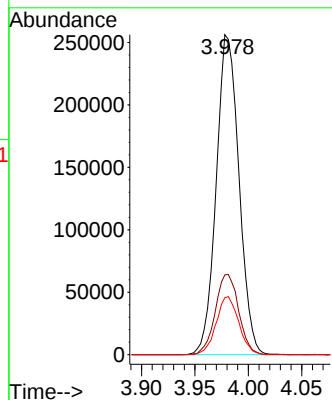
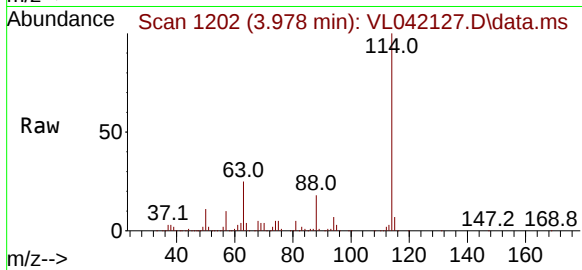




#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 3.978 min Scan# 11  
 Delta R.T. -0.000 min  
 Lab File: VL042127.D  
 Acq: 10 Mar 2025 16:15

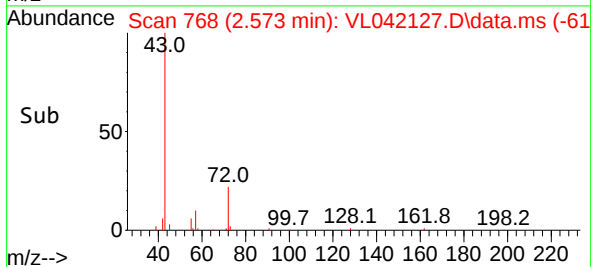
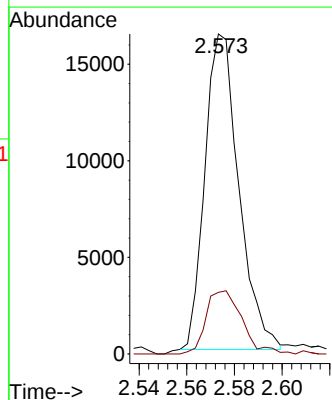
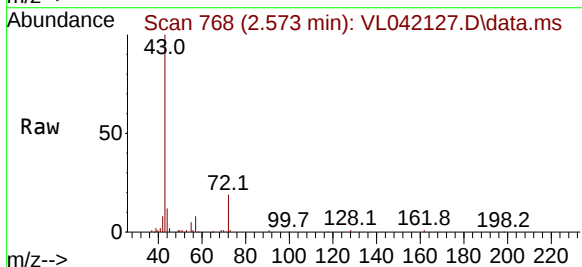
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
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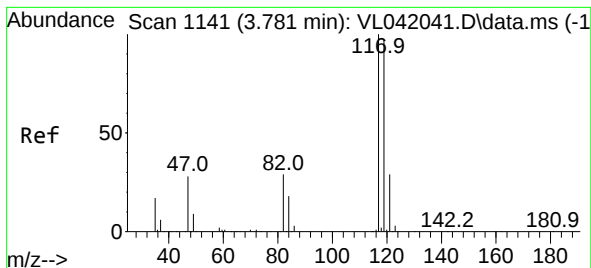
Tgt Ion:114 Resp: 379717  
 Ion Ratio Lower Upper  
 114 100  
 63 25.8 20.1 30.1  
 88 18.1 14.3 21.5



#34  
 2-Butanone  
 Concen: 0.548 ppbv  
 RT: 2.573 min Scan# 768  
 Delta R.T. 0.003 min  
 Lab File: VL042127.D  
 Acq: 10 Mar 2025 16:15

Tgt Ion: 43 Resp: 16205  
 Ion Ratio Lower Upper  
 43 100  
 72 21.5 18.5 27.7





#35

Carbon Tetrachloride

Concen: 0.072 ppbv m

RT: 3.774 min Scan# 1139

Delta R.T. -0.007 min

Lab File: VL042127.D

Acq: 10 Mar 2025 16:15

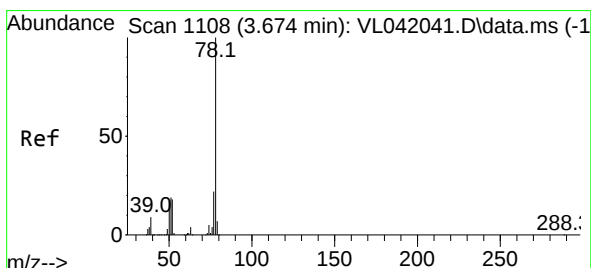
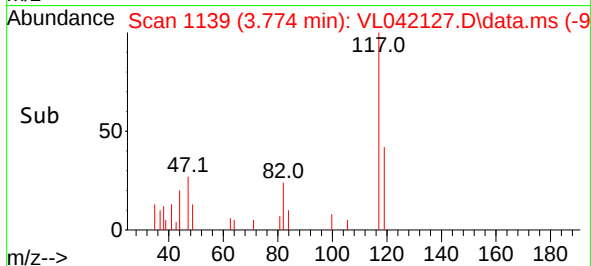
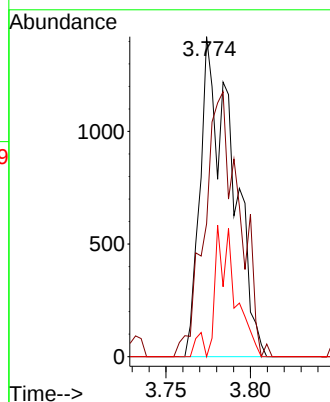
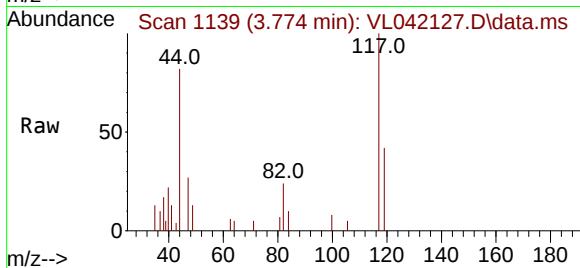
Instrument :

MSVOA\_L

ClientSampleId :

4

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 1880   |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 119      | 41.5  | 77.8  | 116.8# |
| 121      | 0.0   | 23.4  | 35.0#  |



#36

Benzene

Concen: 0.154 ppbv

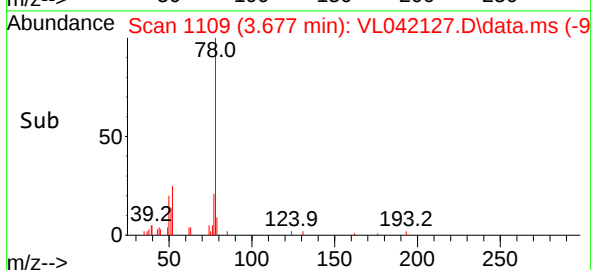
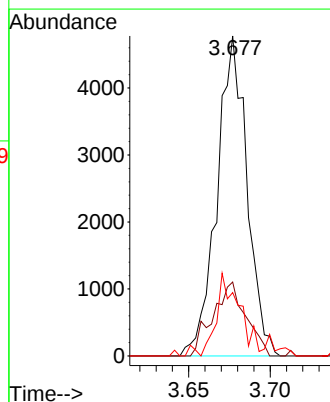
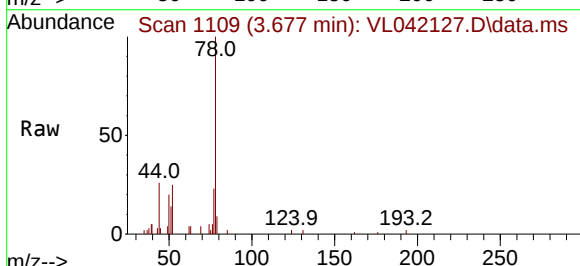
RT: 3.677 min Scan# 1109

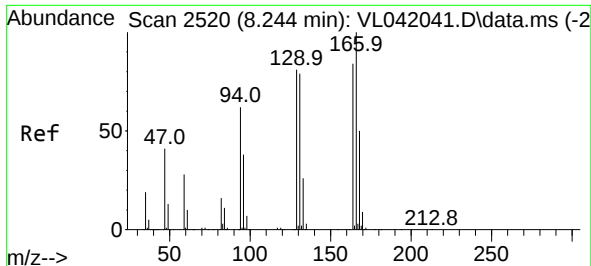
Delta R.T. 0.003 min

Lab File: VL042127.D

Acq: 10 Mar 2025 16:15

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 78    | Resp: | 6120  |
| Ion      | Ratio | Lower | Upper |
| 78       | 100   |       |       |
| 77       | 23.1  | 17.7  | 26.5  |
| 50       | 19.8  | 13.9  | 20.9  |

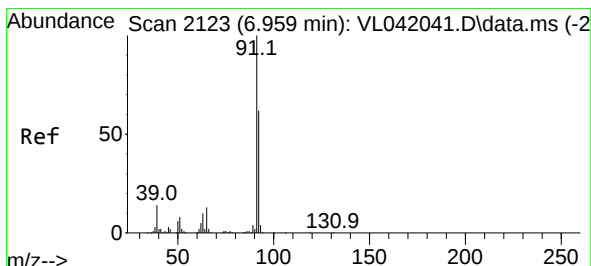
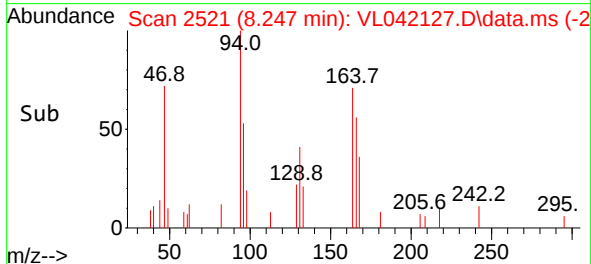
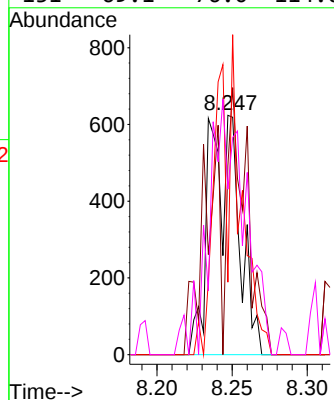
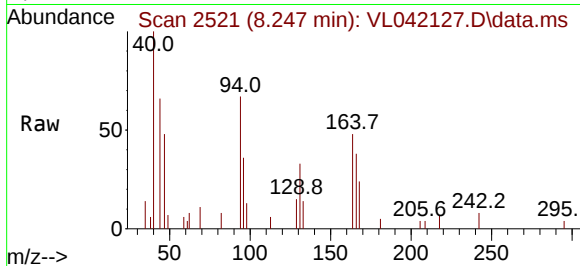




#52  
Tetrachloroethene  
Concen: 0.064 ppbv m  
RT: 8.247 min Scan# 2125  
Delta R.T. 0.003 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

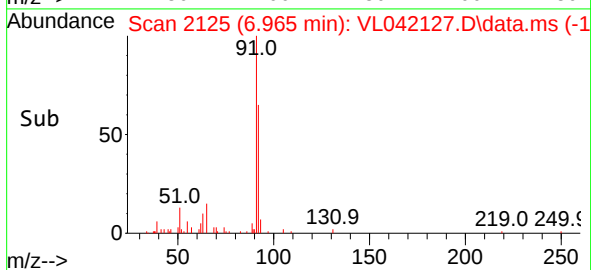
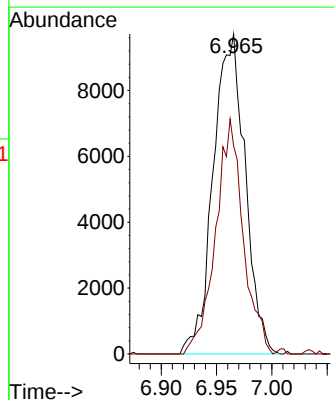
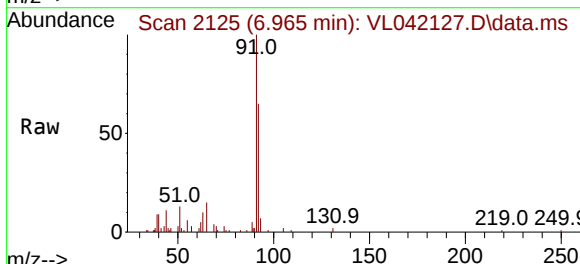
Instrument :  
MSVOA\_L  
ClientSampleId :  
4

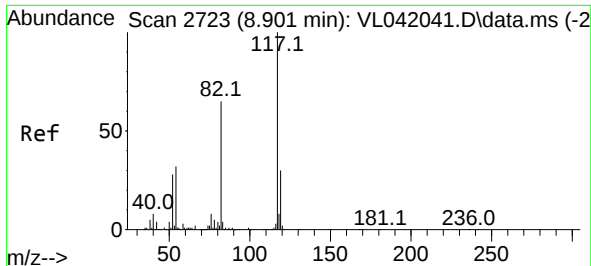
Tgt Ion:164 Resp: 872  
Ion Ratio Lower Upper  
164 100  
166 79.0 95.7 143.5#  
129 30.3 77.1 115.7#  
131 69.1 76.0 114.0#



#53  
Toluene  
Concen: 0.438 ppbv  
RT: 6.965 min Scan# 2125  
Delta R.T. 0.006 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 91 Resp: 19451  
Ion Ratio Lower Upper  
91 100  
92 64.4 49.0 73.6

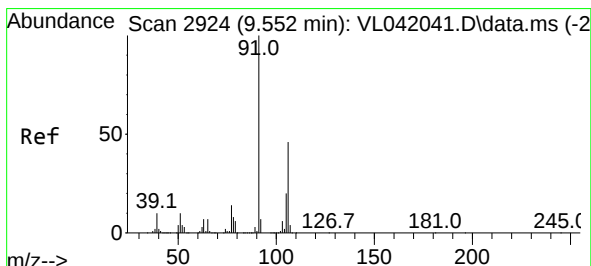
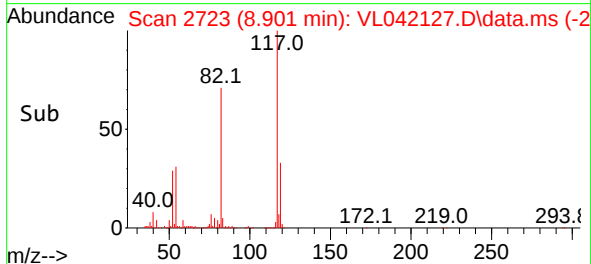
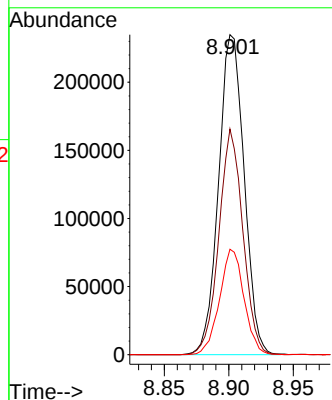
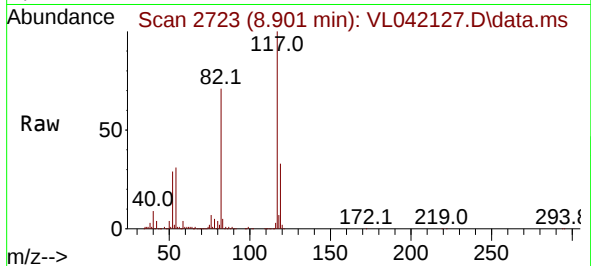




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.901 min Scan# 21  
Delta R.T. -0.000 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

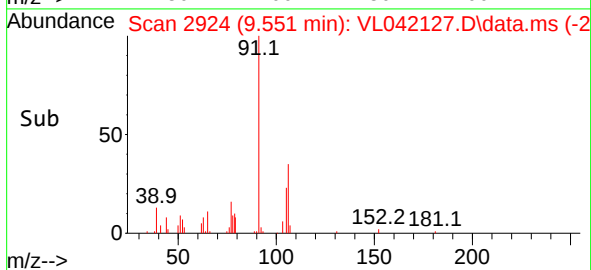
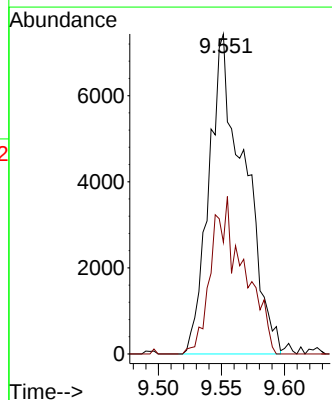
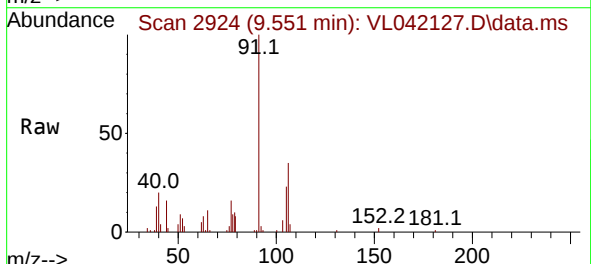
Instrument :  
MSVOA\_L  
ClientSampleId :  
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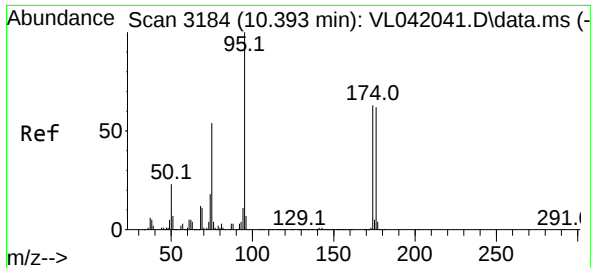
Tgt Ion:117 Resp: 323671  
Ion Ratio Lower Upper  
117 100  
82 66.2 55.0 82.6  
119 31.6 25.9 38.9



#59  
m/p-Xylene  
Concen: 0.305 ppbv m  
RT: 9.551 min Scan# 2924  
Delta R.T. -0.000 min  
Lab File: VL042127.D  
Acq: 10 Mar 2025 16:15

Tgt Ion: 91 Resp: 14475  
Ion Ratio Lower Upper  
91 100  
106 45.8 0.0 0.0#





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.275 ppbv  
 RT: 10.393 min Scan# 31  
 Delta R.T. -0.000 min  
 Lab File: VL042127.D  
 Acq: 10 Mar 2025 16:15

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 4

Tgt Ion: 95 Resp: 255866  
 Ion Ratio Lower Upper  
 95 100  
 174 61.8 51.8 77.6  
 175 4.6 3.9 5.9

