

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL040725\  
 Data File : VL042242.D  
 Acq On : 07 Apr 2025 20:50  
 Operator : SY/MD  
 Sample : Q1725-08DL 10X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 12 Sample Multiplier: 1

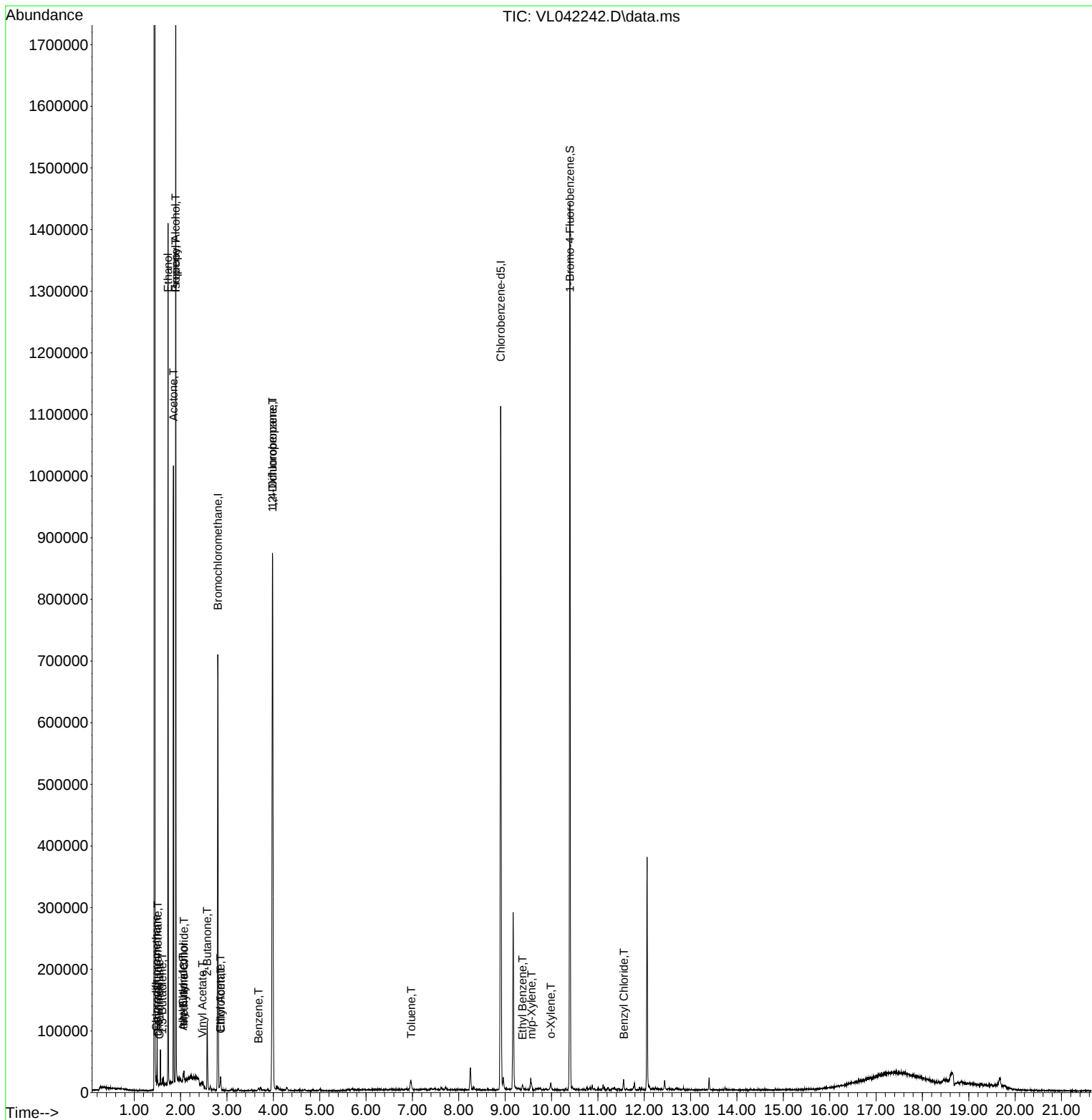
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SSSG-B10-2-03312025DL

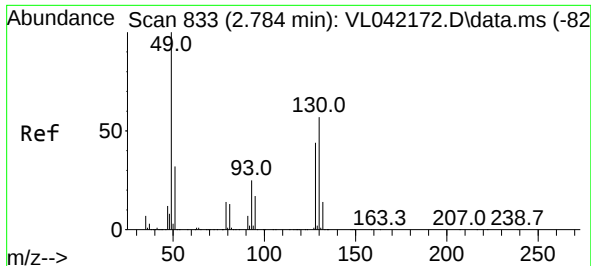
Quant Time: Apr 08 01:36:11 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL032725AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Mar 28 02:00:52 2025  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 2.803  | 49    | 195591   | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 3.981  | 114   | 504388   | 10.000   | ppbv   | 0.03     |
| 55) Chlorobenzene-d5        | 8.904  | 117   | 437623   | 10.000   | ppbv   | 0.03     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.396 | 95    | 344678   | 9.591    | ppbv   | 0.03     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 95.900%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 1.505  | 85    | 1577     | 0.055    | ppbv   | 97       |
| 3) Chlorodifluoromethane    | 1.473  | 51    | 5414     | 0.184    | ppbv # | 69       |
| 4) Chloromethane            | 1.541  | 50    | 765      | 0.065    | ppbv # | 82       |
| 9) Propene                  | 1.894  | 41    | 76235    | 5.638    | ppbv   | 88       |
| 13) Ethanol                 | 1.729  | 45    | 465996   | 364.544  | ppbv   | 82       |
| 15) Acetone                 | 1.845  | 43    | 430696   | 15.745   | ppbv   | 94       |
| 16) 1,3-Butadiene           | 1.606  | 39    | 1638     | 0.123    | ppbv # | 38       |
| 17) tert-Butyl alcohol      | 2.059  | 59    | 4197     | 0.123    | ppbv # | 75       |
| 19) Isopropyl Alcohol       | 1.894  | 45    | 776357   | 50.302   | ppbv # | 32       |
| 20) Methylene Chloride      | 2.072  | 84    | 2050     | 0.201    | ppbv # | 67       |
| 21) Allyl Chloride          | 2.052  | 41    | 1443     | 0.075    | ppbv # | 30       |
| 23) Vinyl Acetate           | 2.470  | 43    | 3541     | 0.299    | ppbv # | 42       |
| 25) Ethyl Acetate           | 2.861  | 43    | 4702     | 0.066    | ppbv # | 89       |
| 29) Chloroform              | 2.865  | 83    | 6239     | 0.155    | ppbv   | 94       |
| 34) 2-Butanone              | 2.573  | 43    | 69515    | 1.901    | ppbv   | 100      |
| 36) Benzene                 | 3.680  | 78    | 2210     | 0.044    | ppbv # | 80       |
| 39) 1,2-Dichloropropane     | 3.985  | 63    | 130448   | 7.163    | ppbv # | 22       |
| 53) Toluene                 | 6.975  | 91    | 2166     | 0.037    | ppbv # | 20       |
| 58) Ethyl Benzene           | 9.374  | 91    | 3704     | 0.048    | ppbv   | 99       |
| 59) m/p-Xylene              | 9.571  | 91    | 2622     | 0.042    | ppbv # | 31       |
| 60) o-Xylene                | 9.985  | 91    | 4577     | 0.074    | ppbv   | 99       |
| 66) Benzyl Chloride         | 11.562 | 91    | 368      | 0.040    | ppbv # | 85       |
| -----                       |        |       |          |          |        |          |

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

Quant Time: Apr 08 01:36:11 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL032725AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LFri Aug 26 06:05:16 2022  
QLast Update : Fri Mar 28 02:00:52 2025  
Response via : Initial Calibration

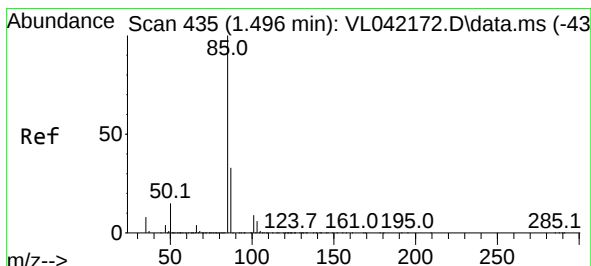
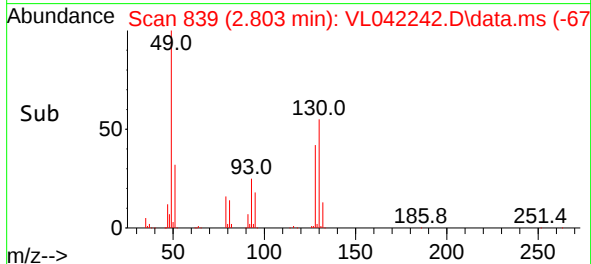
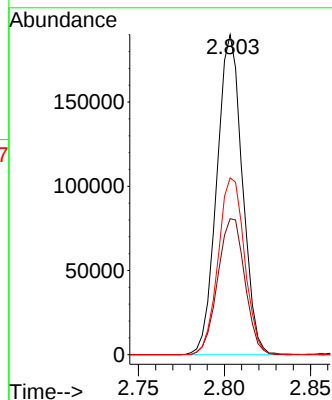
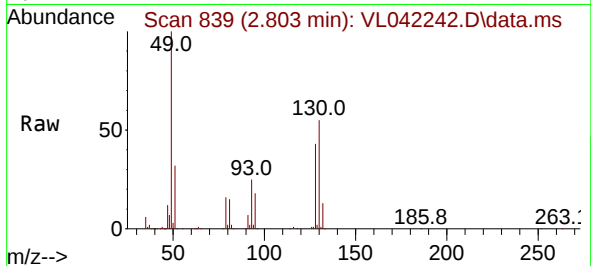




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.803 min Scan# 81  
Delta R.T. 0.019 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

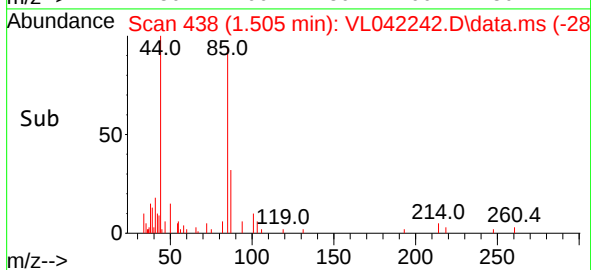
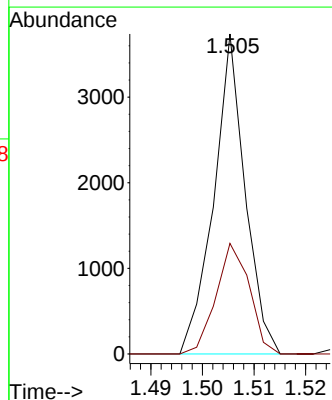
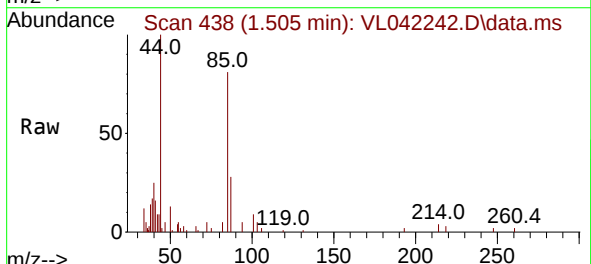
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B10-2-03312025DL

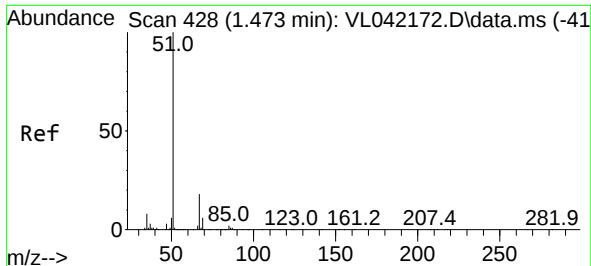
Tgt Ion: 49 Resp: 195591  
Ion Ratio Lower Upper  
49 100  
128 45.2 22.9 68.5  
130 57.4 28.8 86.4



#2  
Dichlorodifluoromethane  
Concen: 0.055 ppbv  
RT: 1.505 min Scan# 438  
Delta R.T. 0.010 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

Tgt Ion: 85 Resp: 1577  
Ion Ratio Lower Upper  
85 100  
87 34.6 26.1 39.1

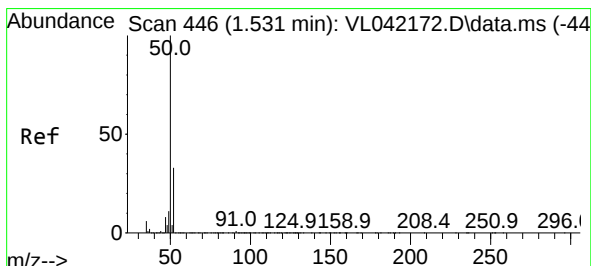
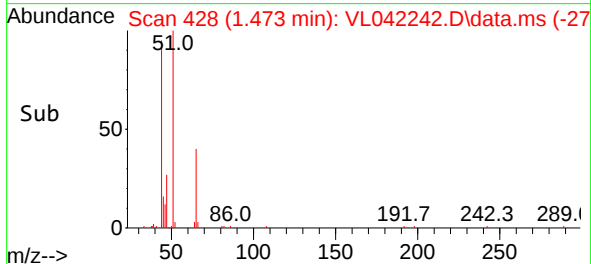
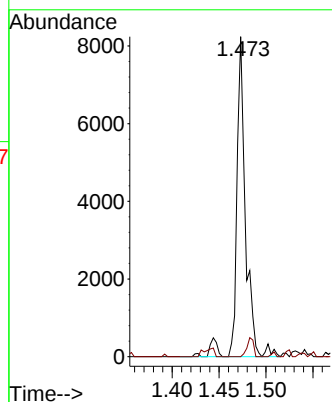
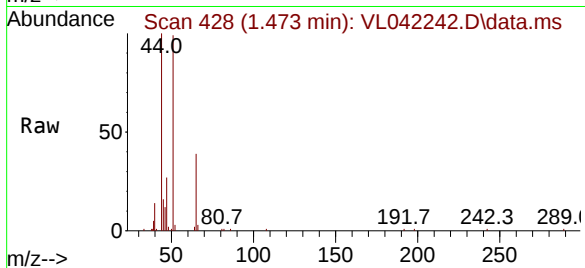




#3  
Chlorodifluoromethane  
Concen: 0.184 ppbv  
RT: 1.473 min Scan# 41  
Delta R.T. -0.000 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

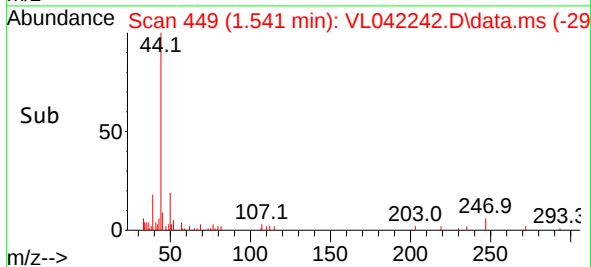
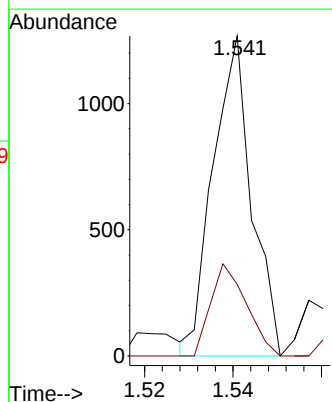
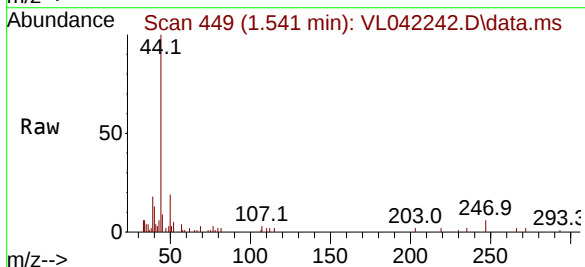
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B10-2-03312025DL

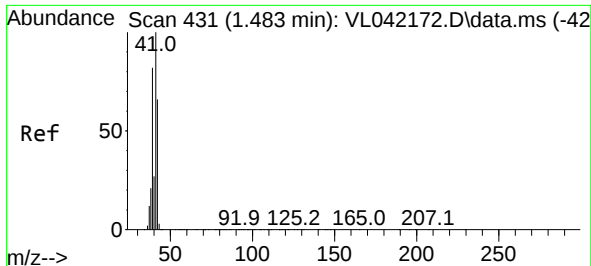
Tgt Ion: 51 Resp: 5414  
Ion Ratio Lower Upper  
51 100  
67 5.0 15.0 22.6#



#4  
Chloromethane  
Concen: 0.065 ppbv  
RT: 1.541 min Scan# 449  
Delta R.T. 0.010 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

Tgt Ion: 50 Resp: 765  
Ion Ratio Lower Upper  
50 100  
52 22.4 26.1 39.1#





#9

Propene

Concen: 5.638 ppbv

RT: 1.894 min Scan# 51

Delta R.T. 0.411 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

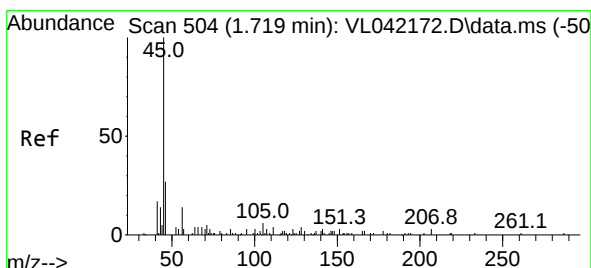
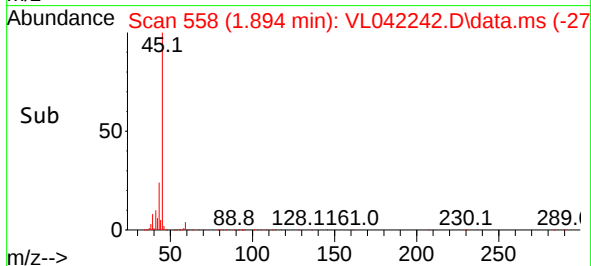
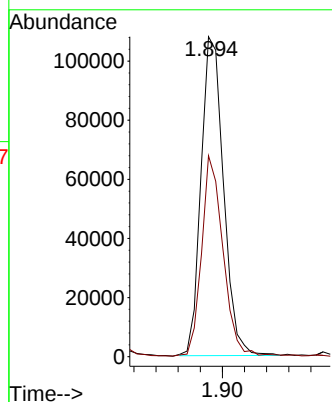
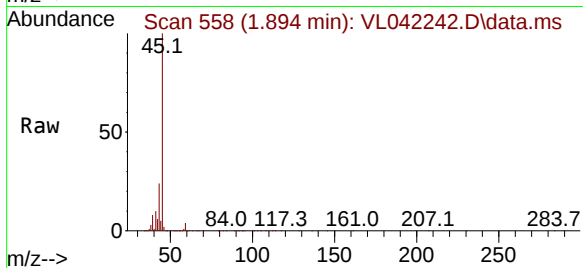
SSSG-B10-2-03312025DL

Tgt Ion: 41 Resp: 76235

Ion Ratio Lower Upper

41 100

42 59.8 55.4 83.2



#13

Ethanol

Concen: 364.544 ppbv

RT: 1.729 min Scan# 507

Delta R.T. 0.010 min

Lab File: VL042242.D

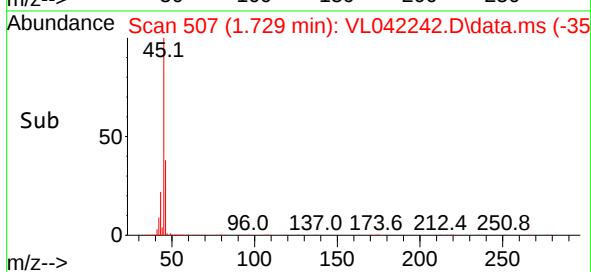
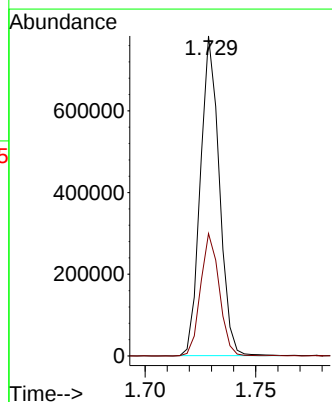
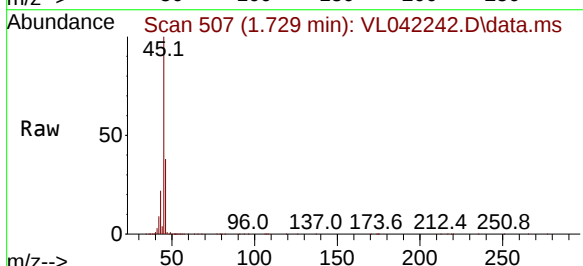
Acq: 07 Apr 2025 20:50

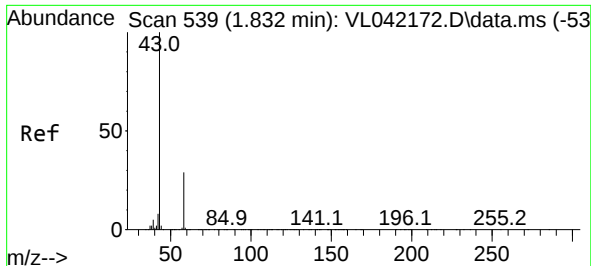
Tgt Ion: 45 Resp: 465996

Ion Ratio Lower Upper

45 100

46 38.2 20.2 80.8





#15

Acetone

Concen: 15.745 ppbv

RT: 1.845 min Scan# 54

Delta R.T. 0.013 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

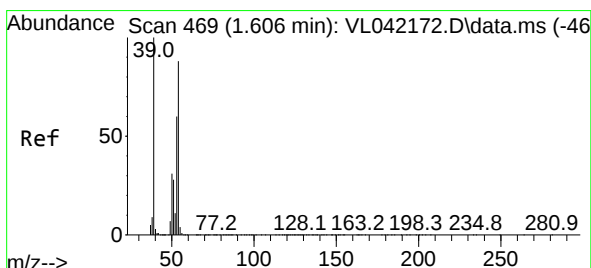
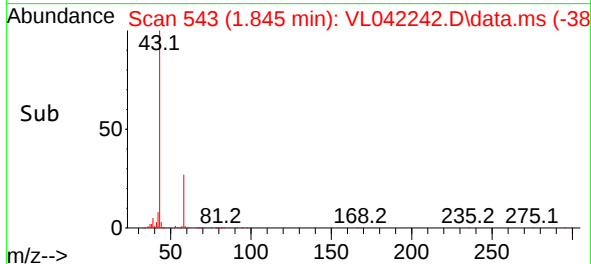
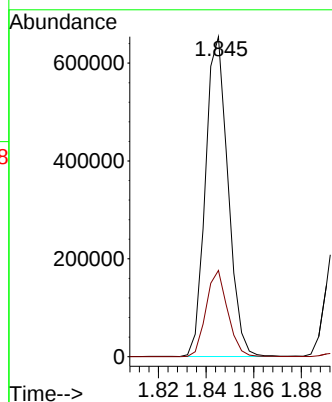
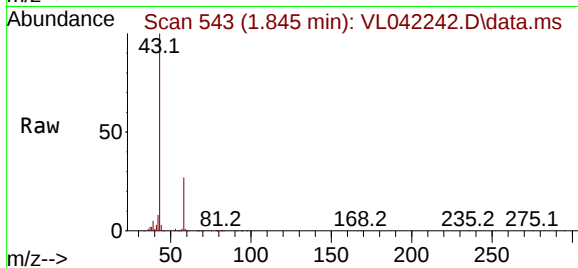
SSSG-B10-2-03312025DL

Tgt Ion: 43 Resp: 430696

Ion Ratio Lower Upper

43 100

58 25.9 23.2 34.8



#16

1,3-Butadiene

Concen: 0.123 ppbv

RT: 1.606 min Scan# 469

Delta R.T. -0.000 min

Lab File: VL042242.D

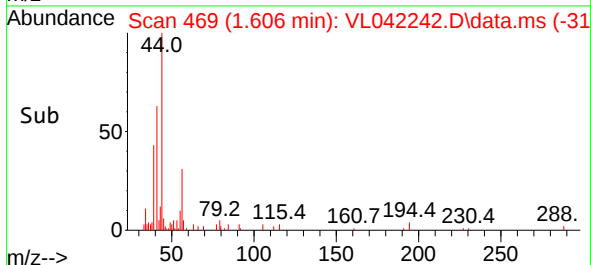
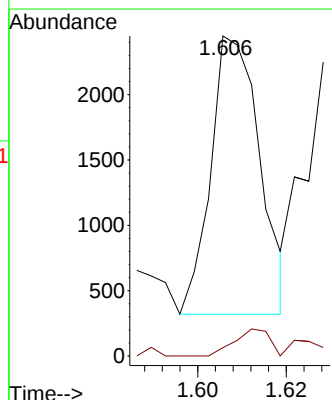
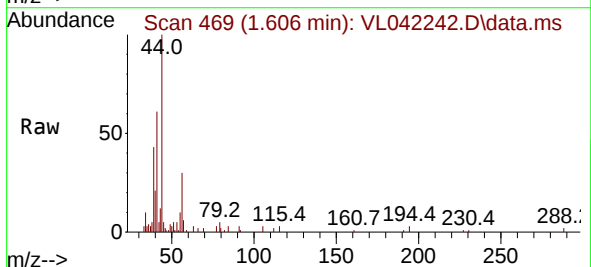
Acq: 07 Apr 2025 20:50

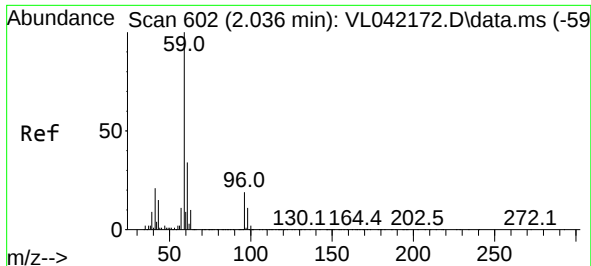
Tgt Ion: 39 Resp: 1638

Ion Ratio Lower Upper

39 100

54 22.6 60.7 91.1#





#17

tert-Butyl alcohol

Concen: 0.123 ppbv

RT: 2.059 min Scan# 602

Delta R.T. 0.023 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

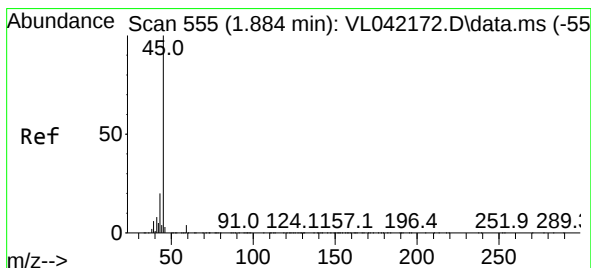
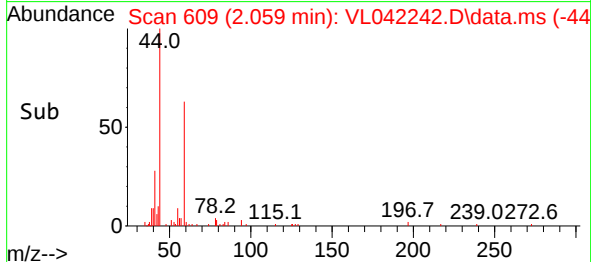
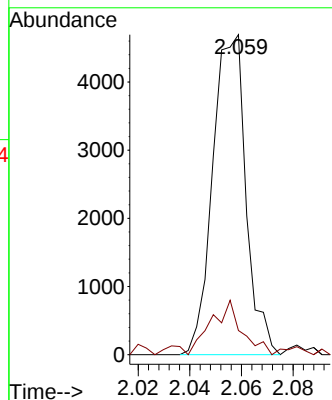
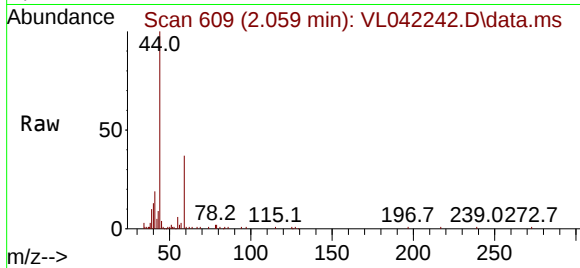
SSSG-B10-2-03312025DL

Tgt Ion: 59 Resp: 4197

Ion Ratio Lower Upper

59 100

57 20.5 8.9 13.3#



#19

Isopropyl Alcohol

Concen: 50.302 ppbv

RT: 1.894 min Scan# 558

Delta R.T. 0.010 min

Lab File: VL042242.D

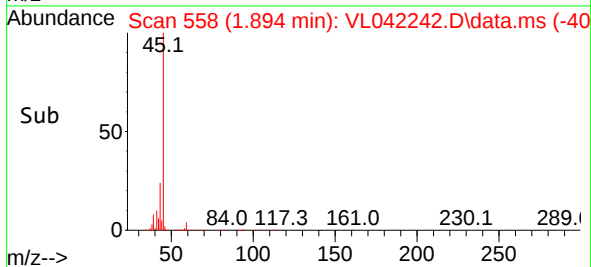
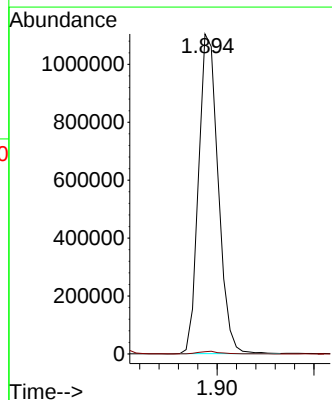
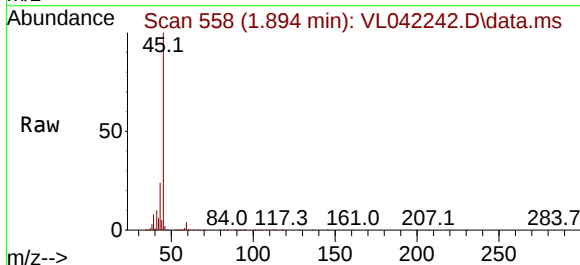
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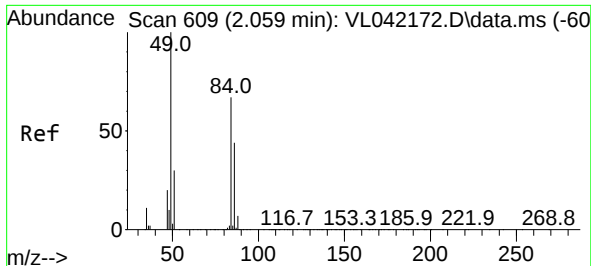
Tgt Ion: 45 Resp: 776357

Ion Ratio Lower Upper

45 100

58 1.0 36.9 55.3#

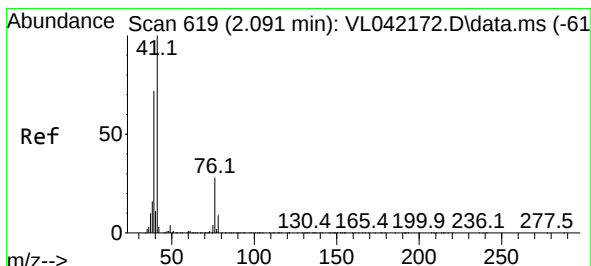
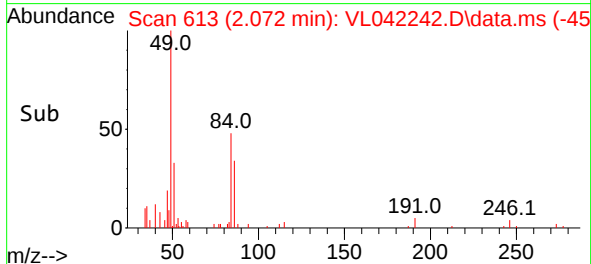
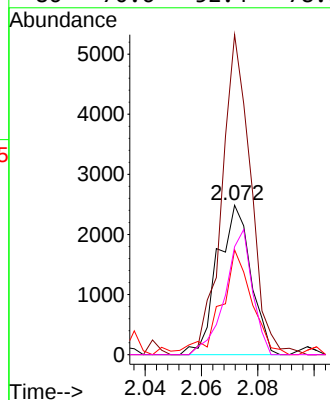
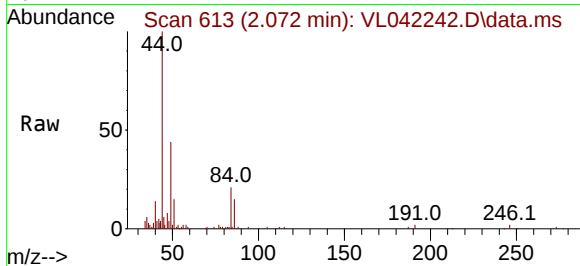




#20  
Methylene Chloride  
Concen: 0.201 ppbv  
RT: 2.072 min Scan# 613  
Delta R.T. 0.013 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

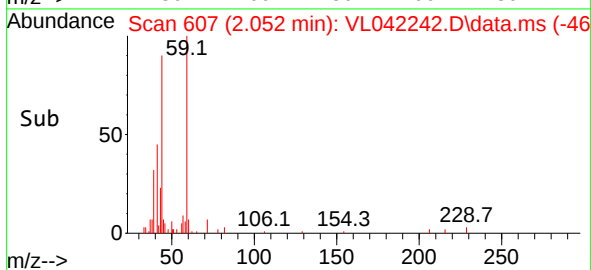
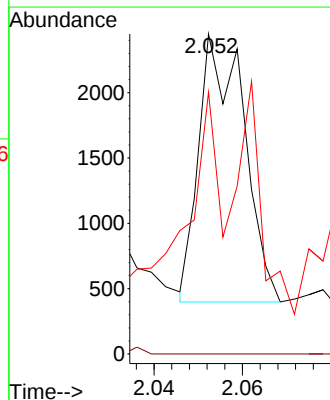
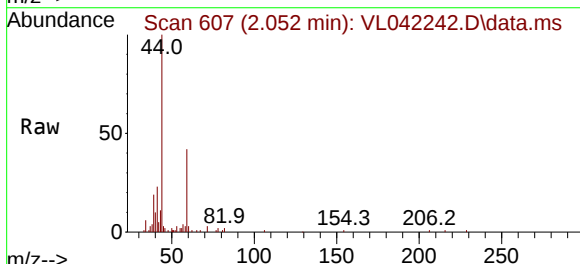
Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B10-2-03312025DL

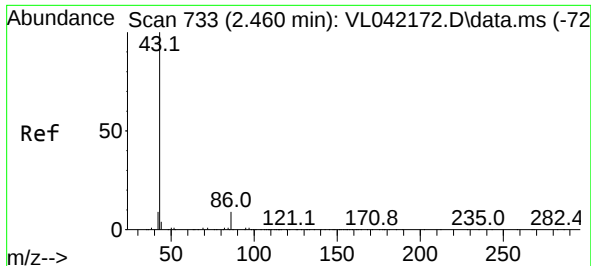
|             |              |
|-------------|--------------|
| Tgt Ion: 84 | Resp: 2050   |
| Ion Ratio   | Lower Upper  |
| 84 100      |              |
| 49 209.0    | 120.2 180.4# |
| 51 65.6     | 37.4 56.0#   |
| 86 70.6     | 52.4 78.6    |



#21  
Allyl Chloride  
Concen: 0.075 ppbv  
RT: 2.052 min Scan# 607  
Delta R.T. -0.039 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

|             |            |       |  |
|-------------|------------|-------|--|
| Tgt Ion: 41 | Resp: 1443 |       |  |
| Ion Ratio   | Lower      | Upper |  |
| 41 100      |            |       |  |
| 76 18.4     | 24.1       | 36.1# |  |
| 39 0.0      | 61.1       | 91.7# |  |

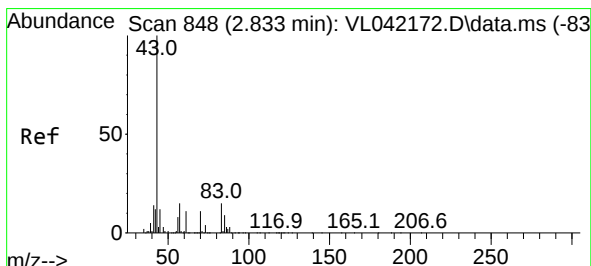
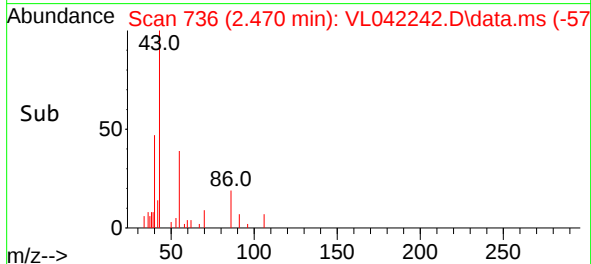
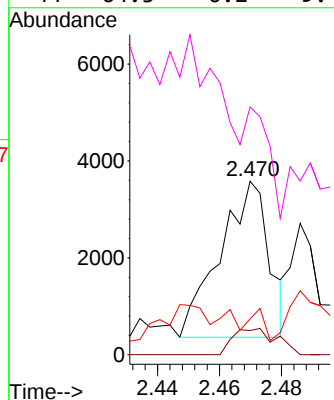
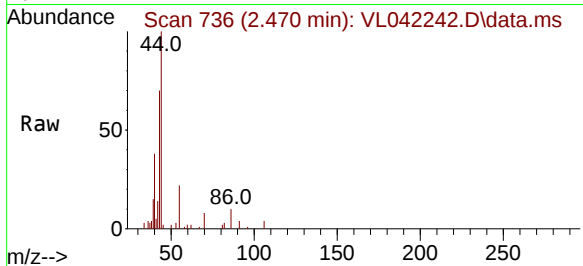




#23  
 Vinyl Acetate  
 Concen: 0.299 ppbv  
 RT: 2.470 min Scan# 71  
 Delta R.T. 0.010 min  
 Lab File: VL042242.D  
 Acq: 07 Apr 2025 20:50

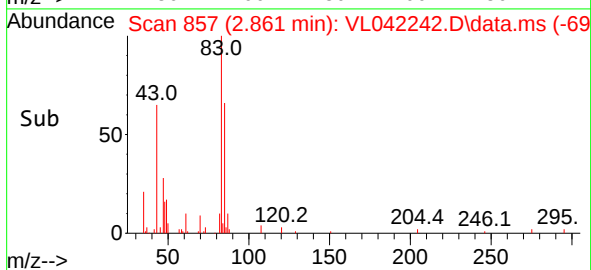
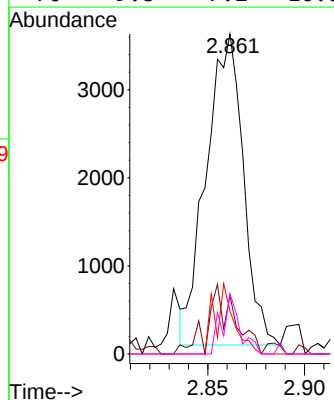
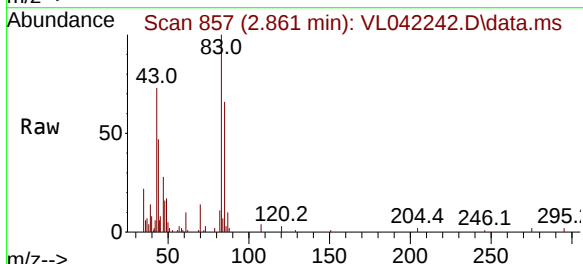
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SSSG-B10-2-03312025DL

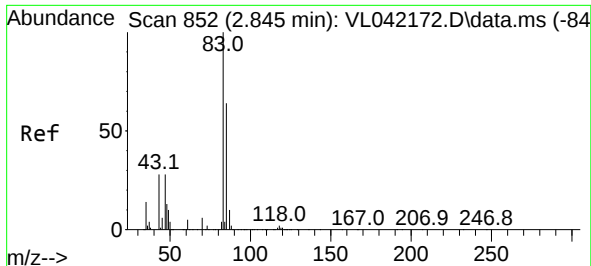
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 3541  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 15.5  | 5.5   | 8.3#  |
| 42       | 8.9   | 8.6   | 13.0  |
| 44       | 64.3  | 6.2   | 9.4#  |



#25  
 Ethyl Acetate  
 Concen: 0.066 ppbv  
 RT: 2.861 min Scan# 857  
 Delta R.T. 0.029 min  
 Lab File: VL042242.D  
 Acq: 07 Apr 2025 20:50

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 4702  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 18.3  | 8.2   | 12.2# |
| 61       | 11.5  | 7.3   | 10.9# |
| 70       | 9.8   | 7.2   | 10.8  |





#29

Chloroform

Concen: 0.155 ppbv

RT: 2.865 min Scan# 81

Delta R.T. 0.019 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

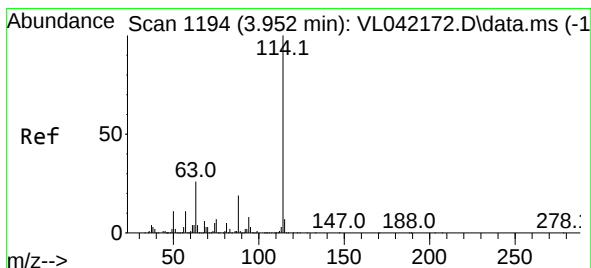
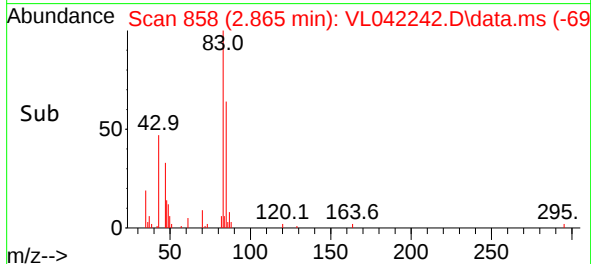
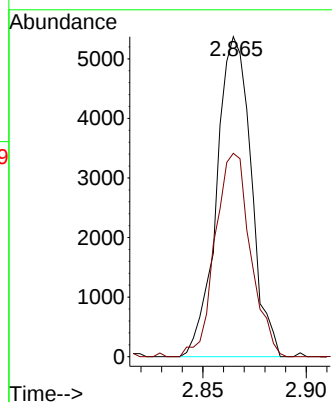
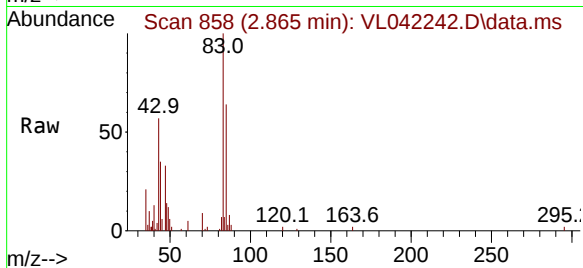
SSSG-B10-2-03312025DL

Tgt Ion: 83 Resp: 6239

Ion Ratio Lower Upper

83 100

85 59.5 51.4 77.2



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 1203

Delta R.T. 0.029 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

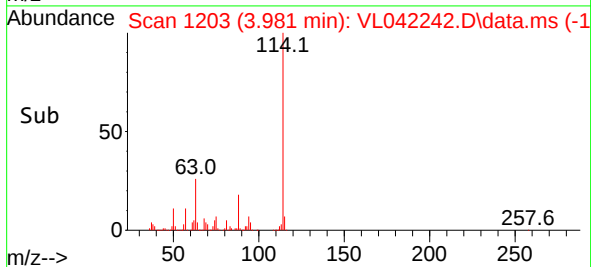
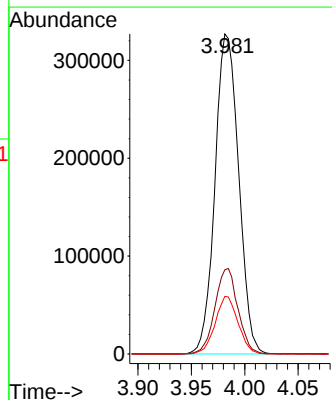
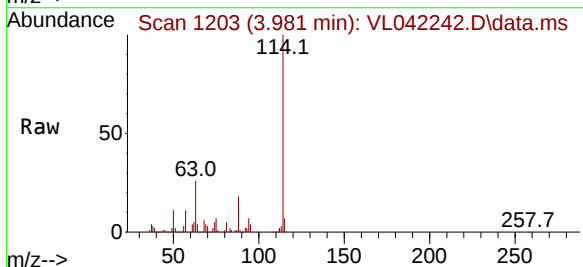
Tgt Ion: 114 Resp: 504388

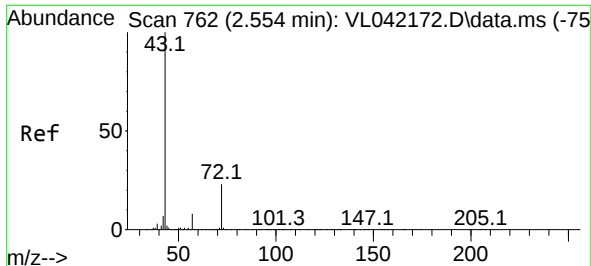
Ion Ratio Lower Upper

114 100

63 26.0 20.7 31.1

88 17.3 15.0 22.4





#34

2-Butanone

Concen: 1.901 ppbv

RT: 2.573 min Scan# 768

Delta R.T. 0.019 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

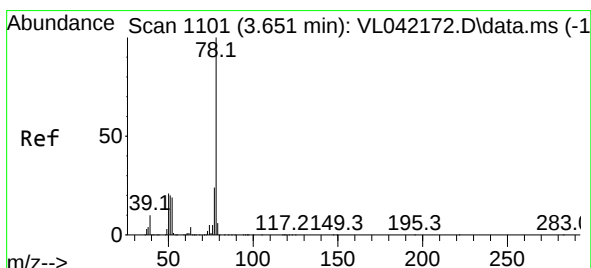
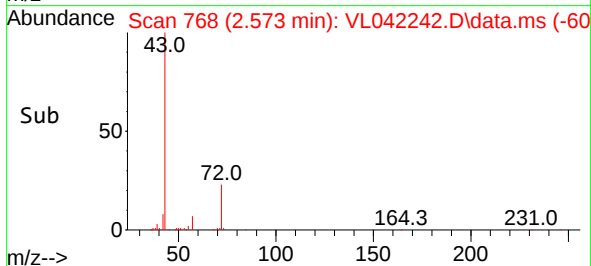
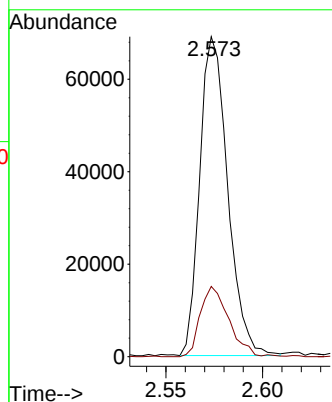
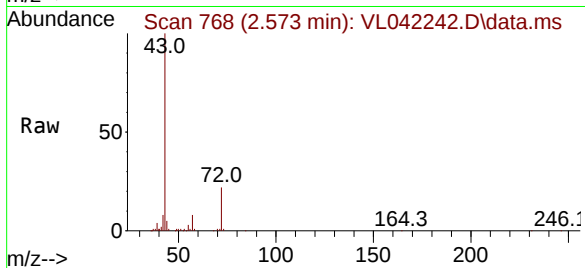
SSSG-B10-2-03312025DL

Tgt Ion: 43 Resp: 69515

Ion Ratio Lower Upper

43 100

72 22.8 18.2 27.2



#36

Benzene

Concen: 0.044 ppbv

RT: 3.680 min Scan# 1110

Delta R.T. 0.029 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

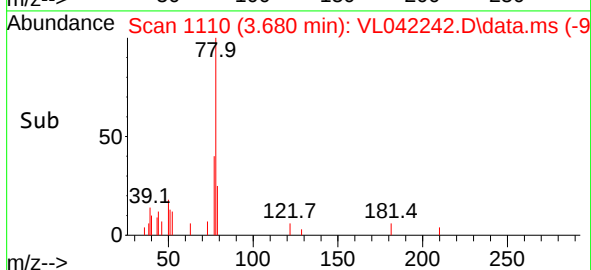
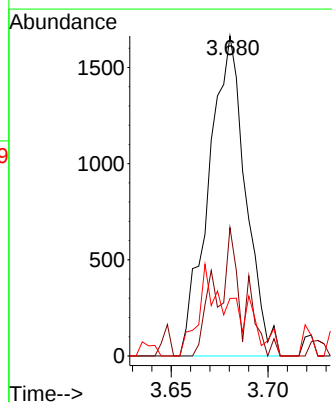
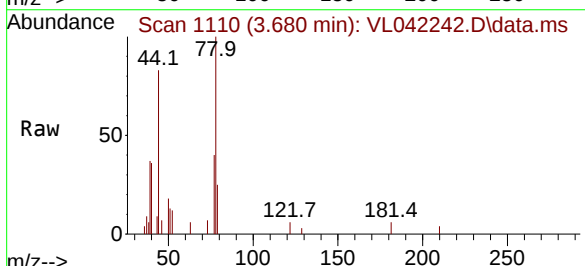
Tgt Ion: 78 Resp: 2210

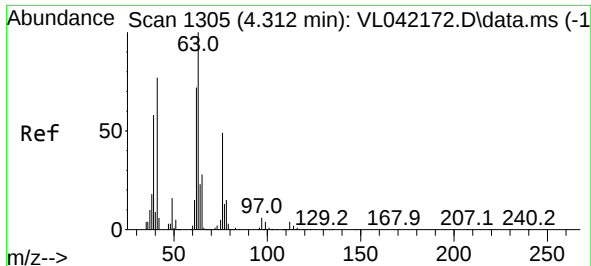
Ion Ratio Lower Upper

78 100

77 40.1 19.1 28.7#

50 18.0 16.6 24.8





#39

1,2-Dichloropropane

Concen: 7.163 ppbv

RT: 3.985 min Scan# 11

Delta R.T. -0.327 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

SSSG-B10-2-03312025DL

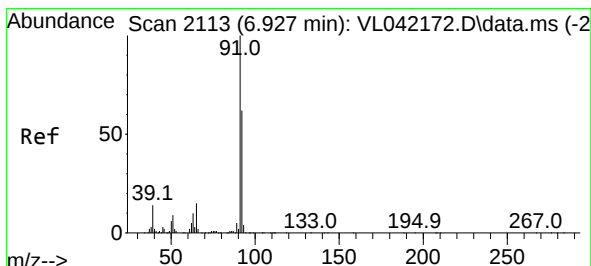
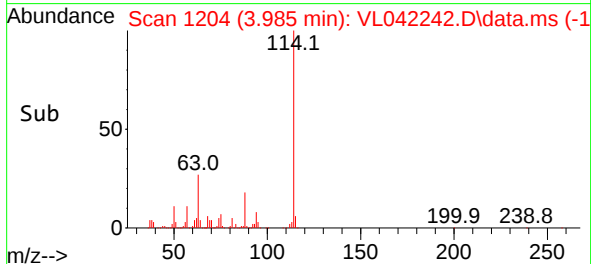
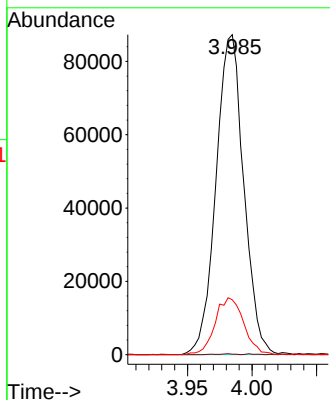
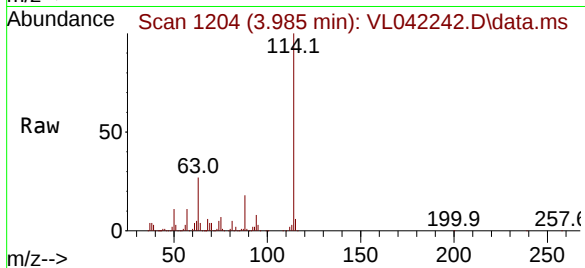
Tgt Ion: 63 Resp: 130448

Ion Ratio Lower Upper

63 100

41 0.1 61.7 92.5#

62 17.2 57.6 86.4#



#53

Toluene

Concen: 0.037 ppbv

RT: 6.975 min Scan# 2128

Delta R.T. 0.048 min

Lab File: VL042242.D

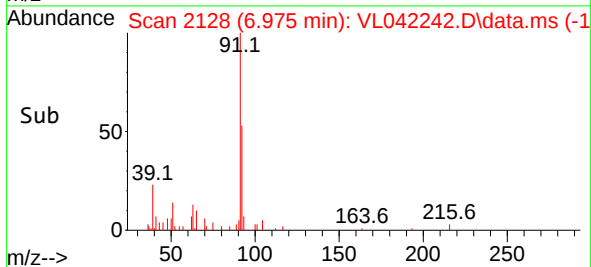
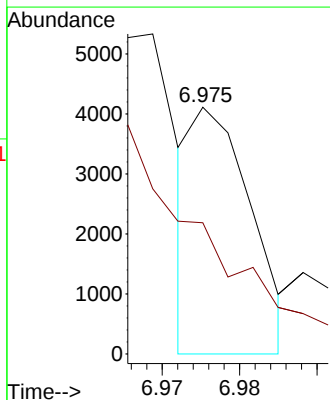
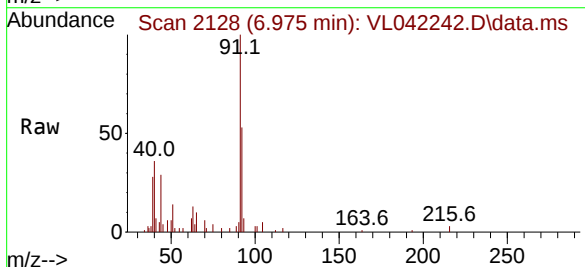
Acq: 07 Apr 2025 20:50

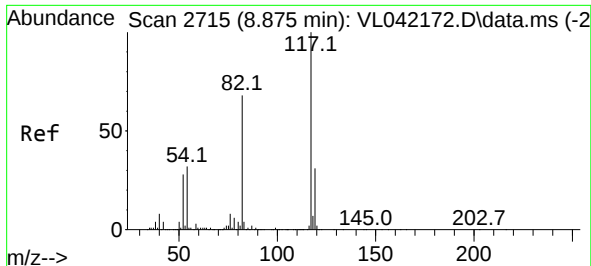
Tgt Ion: 91 Resp: 2166

Ion Ratio Lower Upper

91 100

92 0.0 48.4 72.6#

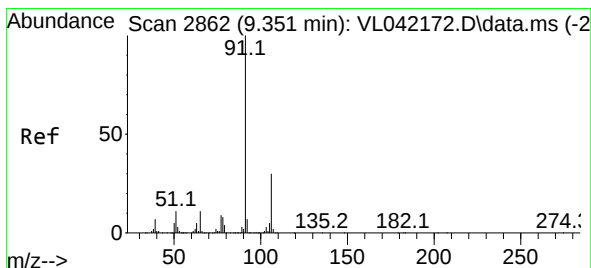
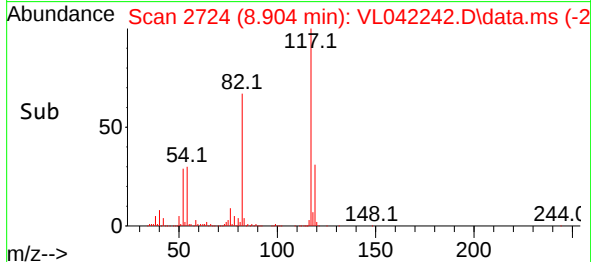
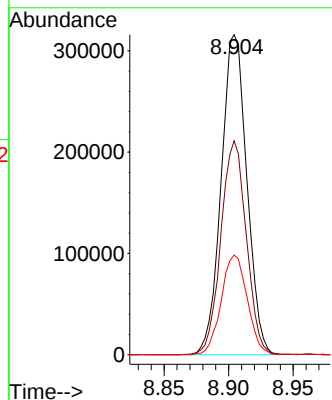
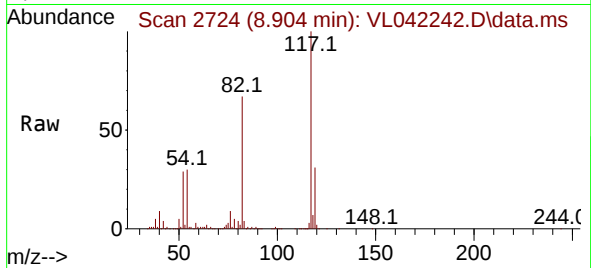




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.904 min Scan# 21  
Delta R.T. 0.029 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

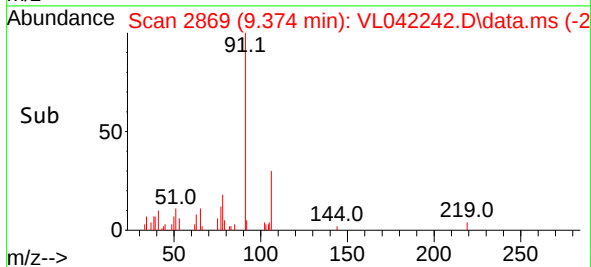
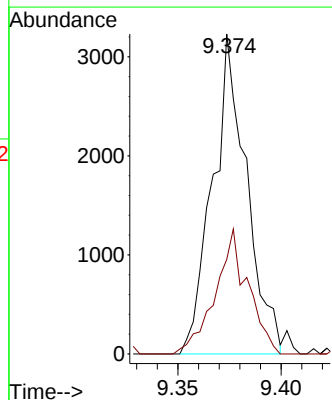
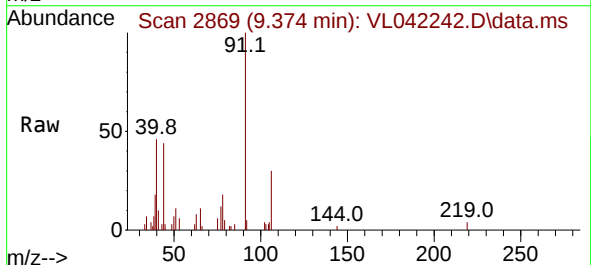
Instrument :  
MSVOA\_1  
ClientSampleId :  
SSSG-B10-2-03312025DL

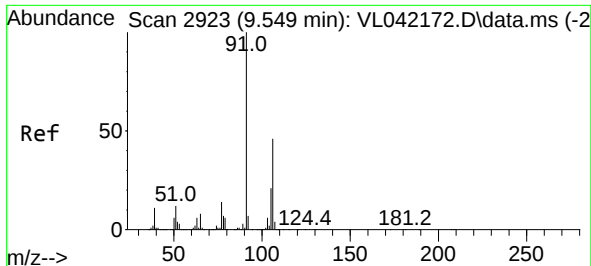
Tgt Ion:117 Resp: 437623  
Ion Ratio Lower Upper  
117 100  
82 66.0 55.8 83.6  
119 31.6 25.5 38.3



#58  
Ethyl Benzene  
Concen: 0.048 ppbv  
RT: 9.374 min Scan# 2869  
Delta R.T. 0.023 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

Tgt Ion: 91 Resp: 3704  
Ion Ratio Lower Upper  
91 100  
106 29.5 24.2 36.2





#59

m/p-Xylene

Concen: 0.042 ppbv

RT: 9.571 min Scan# 29

Delta R.T. 0.023 min

Lab File: VL042242.D

Acq: 07 Apr 2025 20:50

Instrument :

MSVOA\_L

ClientSampleId :

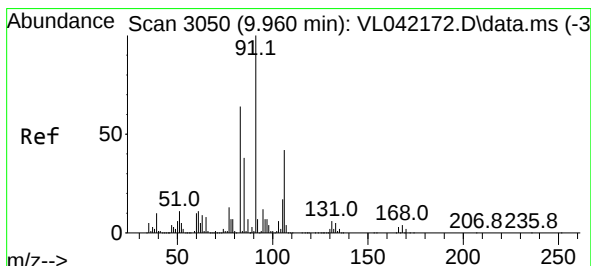
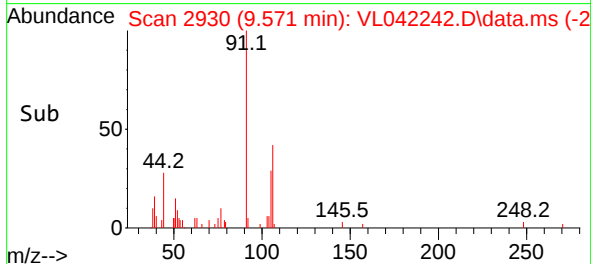
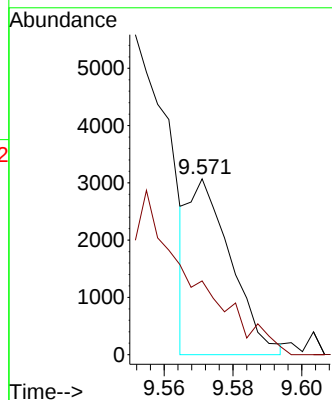
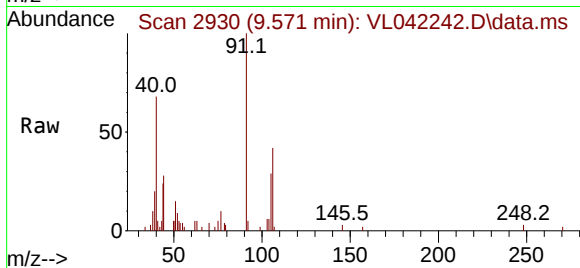
SSSG-B10-2-03312025DL

Tgt Ion: 91 Resp: 2622

Ion Ratio Lower Upper

91 100

106 0.0 36.4 54.6#



#60

o-Xylene

Concen: 0.074 ppbv

RT: 9.985 min Scan# 3058

Delta R.T. 0.026 min

Lab File: VL042242.D

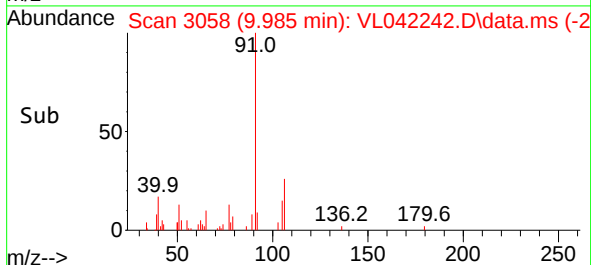
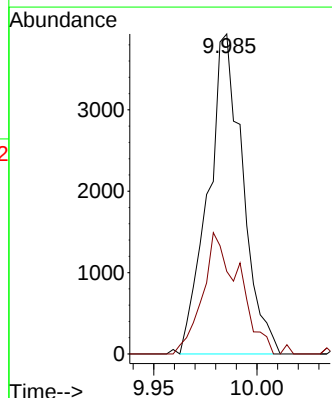
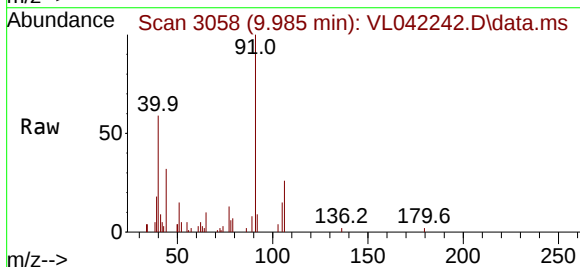
Acq: 07 Apr 2025 20:50

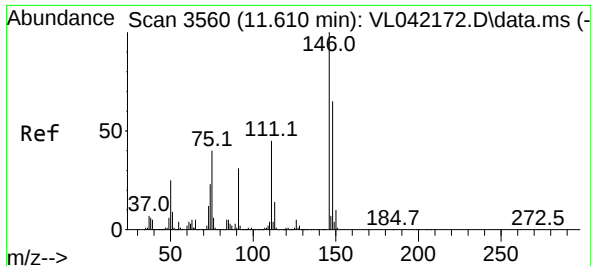
Tgt Ion: 91 Resp: 4577

Ion Ratio Lower Upper

91 100

106 41.0 20.8 62.5

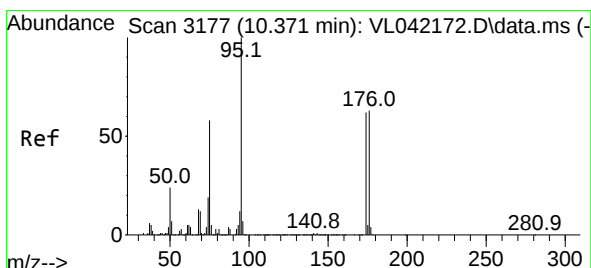
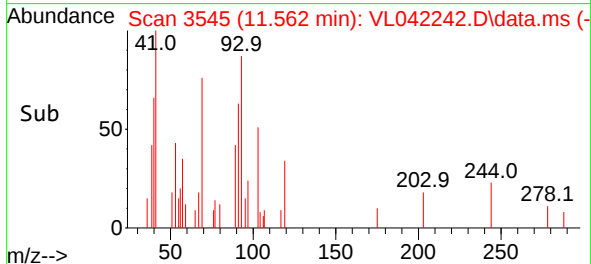
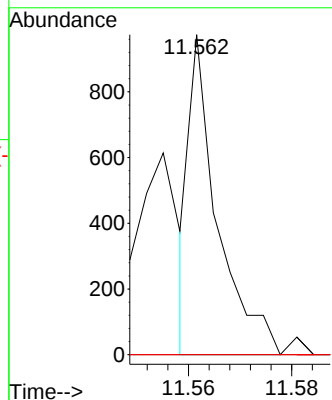
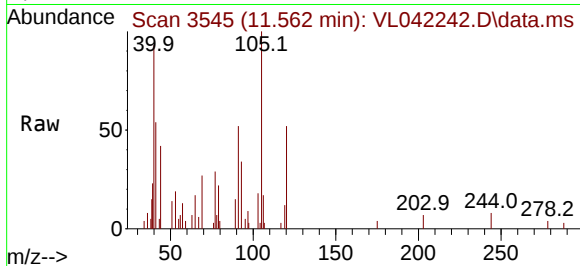




#66  
Benzyl Chloride  
Concen: 0.040 ppbv  
RT: 11.562 min Scan# 3185  
Delta R.T. -0.049 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

Instrument :  
MSVOA\_L  
ClientSampleId :  
SSSG-B10-2-03312025DL

Tgt Ion: 91 Resp: 368  
Ion Ratio Lower Upper  
91 100  
126 9.8 13.8 20.6#  
128 9.0 4.5 6.7#



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.591 ppbv  
RT: 10.396 min Scan# 3185  
Delta R.T. 0.026 min  
Lab File: VL042242.D  
Acq: 07 Apr 2025 20:50

Tgt Ion: 95 Resp: 344678  
Ion Ratio Lower Upper  
95 100  
174 59.8 50.6 76.0  
175 4.4 3.8 5.6

