

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL031224\  
 Data File : VL041098.D  
 Acq On : 12 Mar 2024 14:27  
 Operator : SY/MD  
 Sample : P1718-02DUP  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1DUP

Quant Time: Mar 13 01:29:15 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL031124AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Wed Mar 13 01:22:02 2024  
 Response via : Initial Calibration

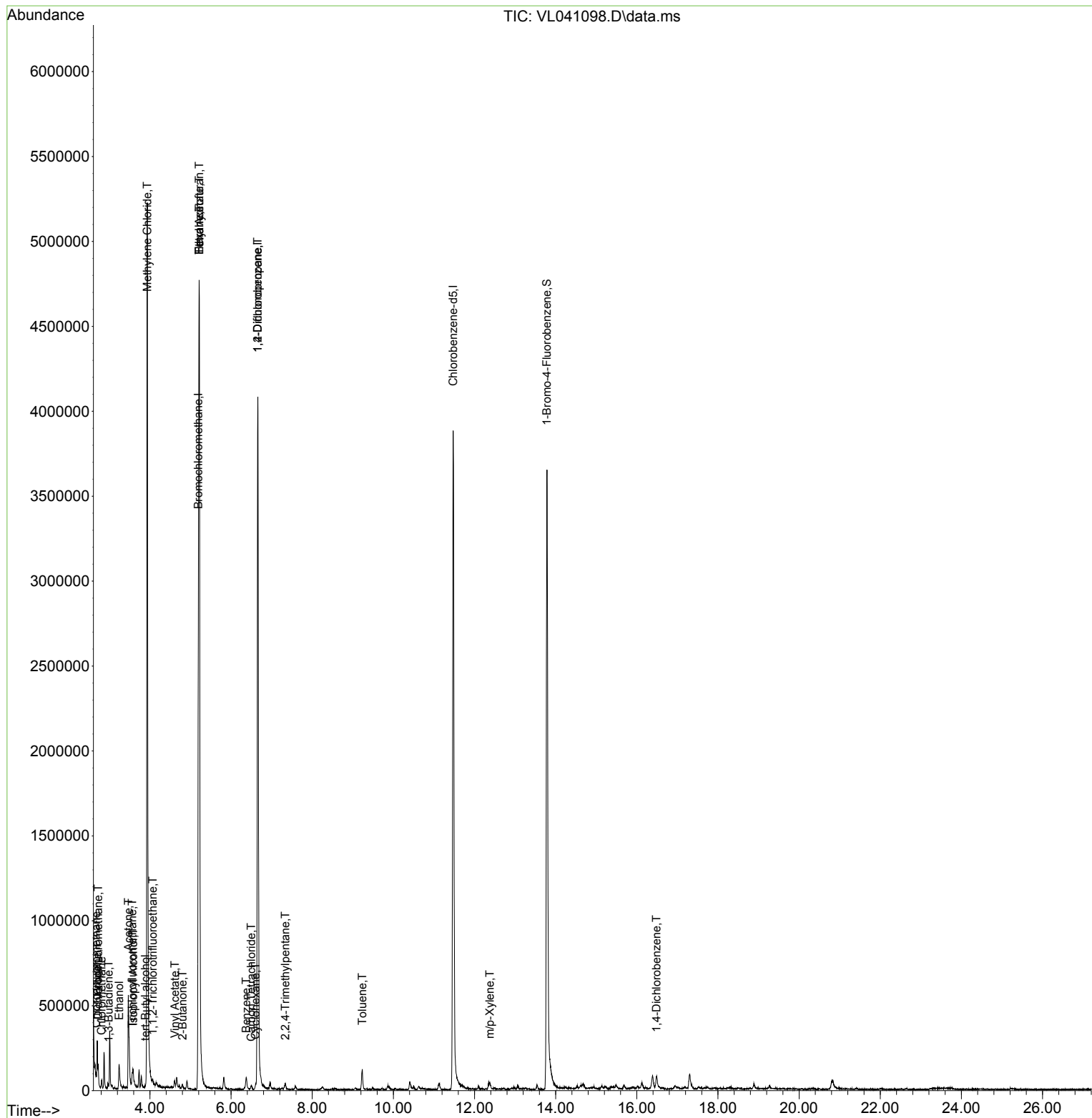
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 5.195  | 49    | 1215766  | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene       | 6.658  | 114   | 3065308  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          | 11.475 | 117   | 2562649  | 10.000   | ppbv   | 0.00     |
|                               |        |       |          |          |        |          |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   | 13.786 | 95    | 1967906  | 9.822    | ppbv   | 0.00     |
| Spiked Amount                 | 10.000 | Range | 65 - 135 | Recovery | =      | 98.200%  |
|                               |        |       |          |          |        |          |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane    | 2.726  | 85    | 74751    | 0.323    | ppbv   | 92       |
| 3) Chlorodifluoromethane      | 2.671  | 51    | 119901   | 0.671    | ppbv # | 83       |
| 4) Chloromethane              | 2.809  | 50    | 35897    | 0.531    | ppbv   | 96       |
| 9) Propene                    | 2.700  | 41    | 55695    | 0.937    | ppbv # | 77       |
| 11) Trichlorofluoromethane    | 3.565  | 101   | 40801    | 0.228    | ppbv   | 92       |
| 12) 1,1,2-Trichlorotrifluo... | 4.070  | 101   | 7212     | 0.055    | ppbv # | 57       |
| 13) Ethanol                   | 3.240  | 45    | 161804   | 10.211   | ppbv   | 94       |
| 15) Acetone                   | 3.468  | 43    | 581436   | 4.198    | ppbv   | 97       |
| 16) 1,3-Butadiene             | 2.983  | 39    | 2242     | 0.036    | ppbv # | 1        |
| 17) tert-Butyl alcohol        | 3.890  | 59    | 3632     | 0.035    | ppbv # | 70       |
| 19) Isopropyl Alcohol         | 3.587  | 45    | 109849   | 1.485    | ppbv # | 92       |
| 20) Methylene Chloride        | 3.935  | 84    | 1795339  | 33.249   | ppbv   | 93       |
| 23) Vinyl Acetate             | 4.620  | 43    | 12960    | 0.083    | ppbv # | 52       |
| 25) Ethyl Acetate             | 5.218  | 43    | 1172247  | 4.698    | ppbv # | 76       |
| 26) Hexane                    | 5.218  | 57    | 1671400  | 14.986   | ppbv # | 41       |
| 30) Cyclohexane               | 6.603  | 84    | 4269     | 0.046    | ppbv # | 1        |
| 34) 2-Butanone                | 4.803  | 43    | 20566    | 0.136    | ppbv # | 78       |
| 35) Carbon Tetrachloride      | 6.494  | 117   | 7556     | 0.042    | ppbv # | 65       |
| 36) Benzene                   | 6.372  | 78    | 47293    | 0.207    | ppbv # | 92       |
| 39) 1,2-Dichloropropane       | 6.658  | 63    | 766487   | 8.398    | ppbv # | 22       |
| 41) Tetrahydrofuran           | 5.218  | 42    | 632348   | 7.001    | ppbv # | 50       |
| 44) 2,2,4-Trimethylpentane    | 7.336  | 57    | 12118    | 0.032    | ppbv # | 1        |
| 53) Toluene                   | 9.233  | 91    | 82416    | 0.335    | ppbv   | 97       |
| 59) m/p-Xylene                | 12.381 | 91    | 9998     | 0.038    | ppbv # | 32       |
| 76) 1,4-Dichlorobenzene       | 16.484 | 146   | 5931     | 0.037    | ppbv # | 1        |
| -----                         |        |       |          |          |        |          |

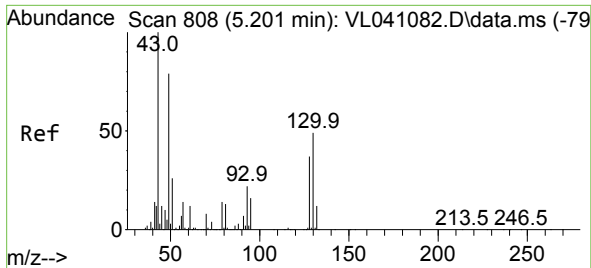
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL031224\  
Data File : VL041098.D  
Acq On : 12 Mar 2024 14:27  
Operator : SY/MD  
Sample : P1718-02DUP  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

Quant Time: Mar 13 01:29:15 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL031124AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Wed Mar 13 01:22:02 2024  
Response via : Initial Calibration

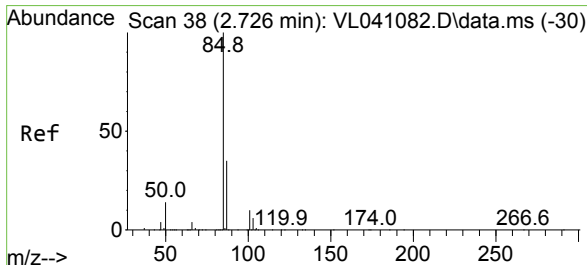
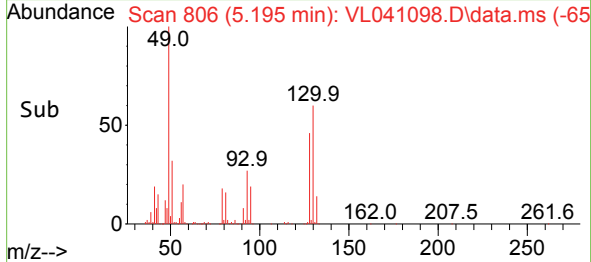
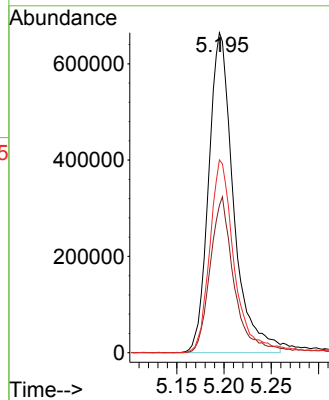
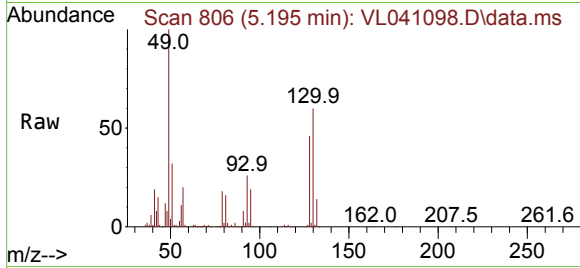




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.195 min Scan# 80  
Delta R.T. 0.003 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

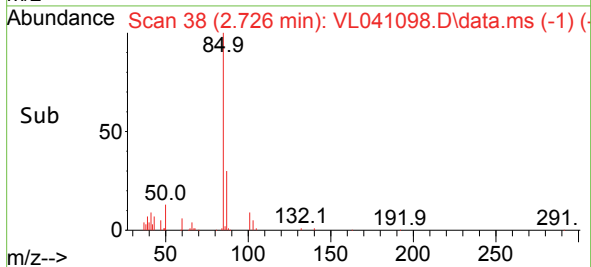
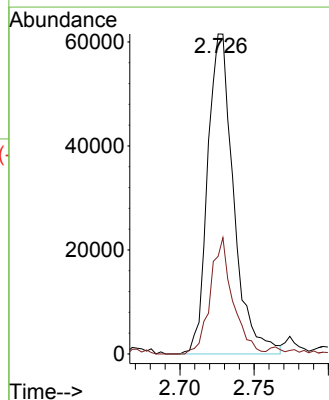
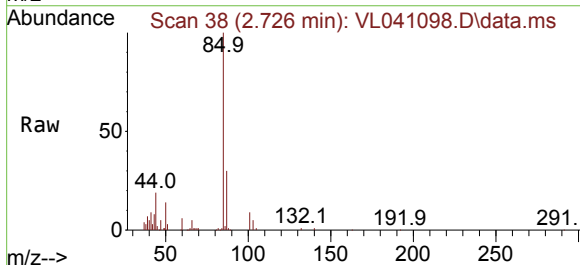
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

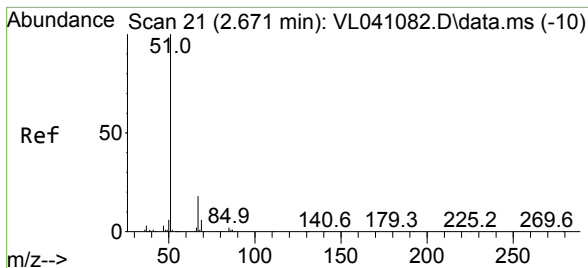
Tgt Ion: 49 Resp: 1215766  
Ion Ratio Lower Upper  
49 100  
128 48.3 23.8 71.5  
130 61.5 30.3 90.9



#2  
Dichlorodifluoromethane  
Concen: 0.323 ppbv  
RT: 2.726 min Scan# 38  
Delta R.T. 0.003 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 85 Resp: 74751  
Ion Ratio Lower Upper  
85 100  
87 30.5 28.1 42.1

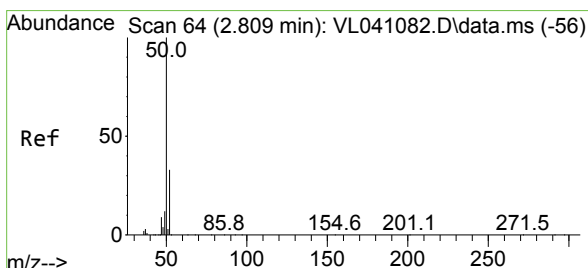
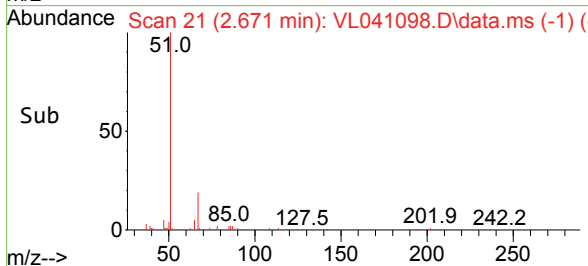
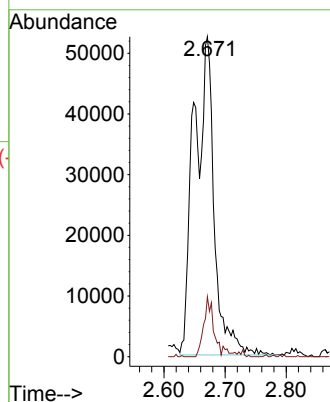
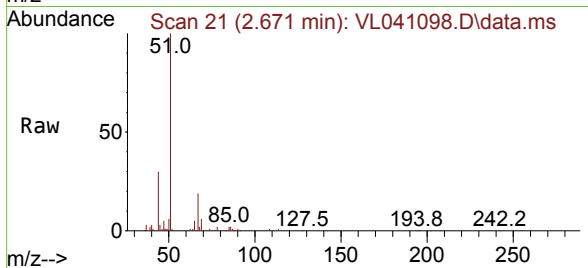




#3  
Chlorodifluoromethane  
Concen: 0.671 ppbv  
RT: 2.671 min Scan# 21  
Delta R.T. 0.006 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

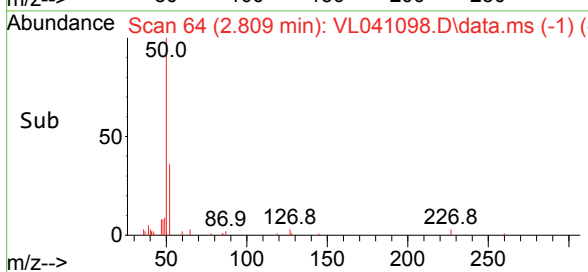
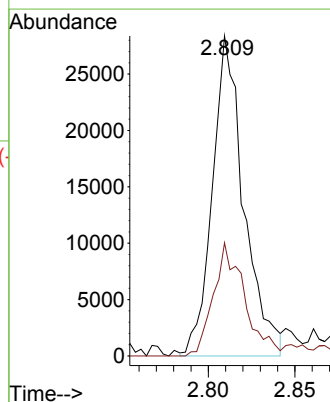
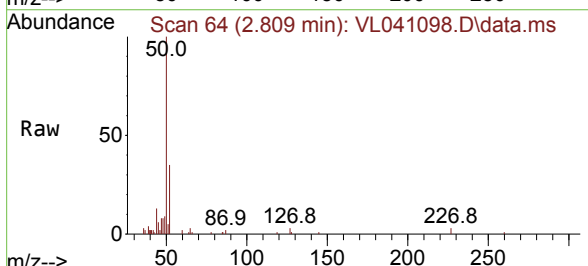
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

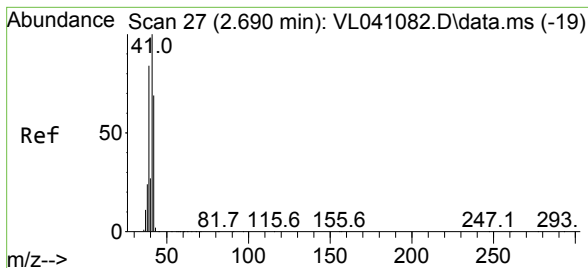
Tgt Ion: 51 Resp: 119901  
Ion Ratio Lower Upper  
51 100  
67 10.5 14.5 21.7#



#4  
Chloromethane  
Concen: 0.531 ppbv  
RT: 2.809 min Scan# 64  
Delta R.T. 0.006 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 50 Resp: 35897  
Ion Ratio Lower Upper  
50 100  
52 35.7 26.6 40.0





#9

Propene

Concen: 0.937 ppbv

RT: 2.700 min Scan# 30

Delta R.T. 0.016 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

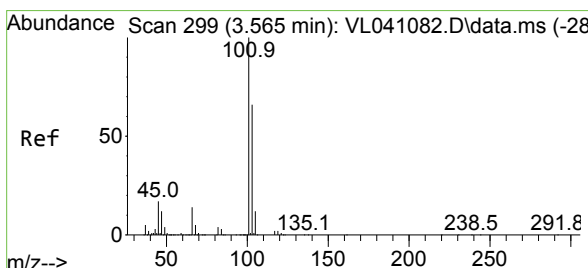
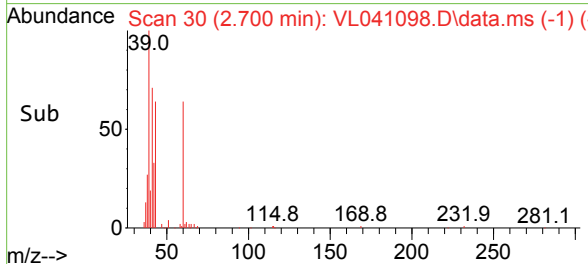
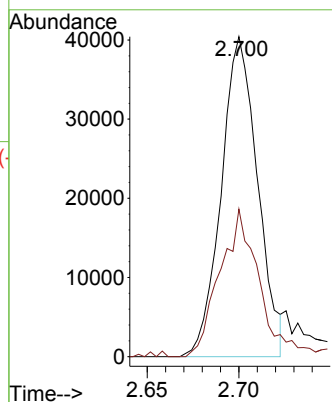
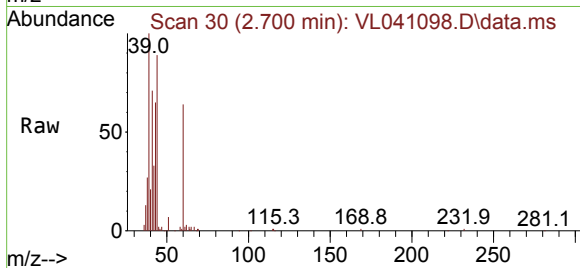
IA1DUP

Tgt Ion: 41 Resp: 55695

Ion Ratio Lower Upper

41 100

42 51.4 55.9 83.9#



#11

Trichlorofluoromethane

Concen: 0.228 ppbv

RT: 3.565 min Scan# 299

Delta R.T. 0.006 min

Lab File: VL041098.D

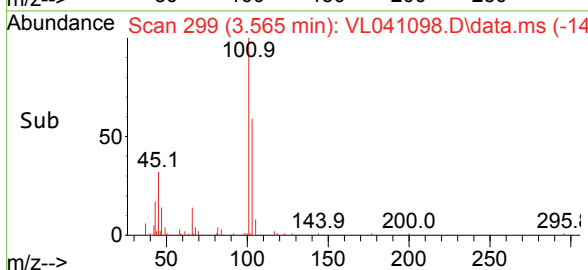
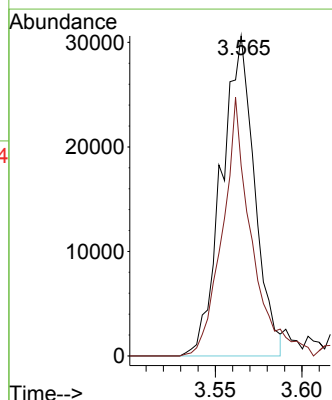
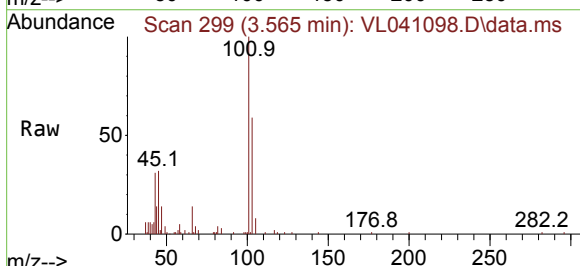
Acq: 12 Mar 2024 14:27

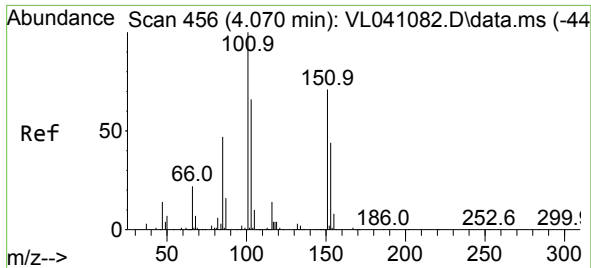
Tgt Ion: 101 Resp: 40801

Ion Ratio Lower Upper

101 100

103 59.5 53.0 79.4

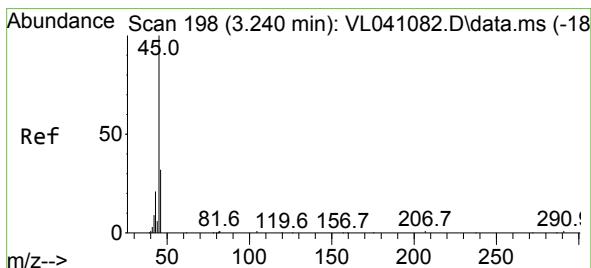
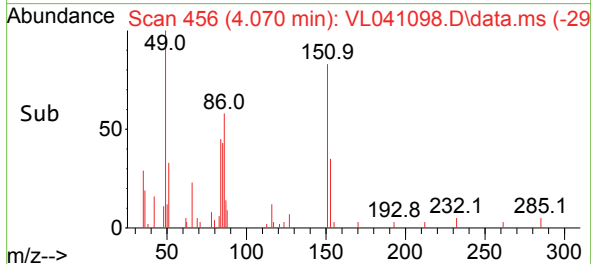
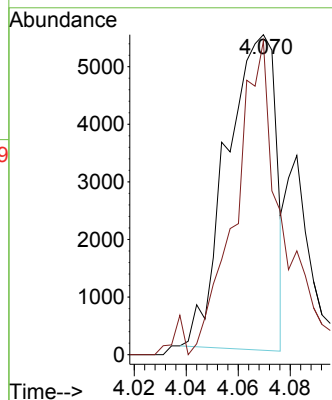
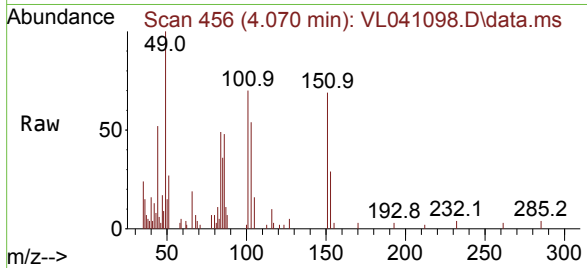




#12  
1,1,2-Trichlorotrifluoroethane  
Concen: 0.055 ppbv  
RT: 4.070 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

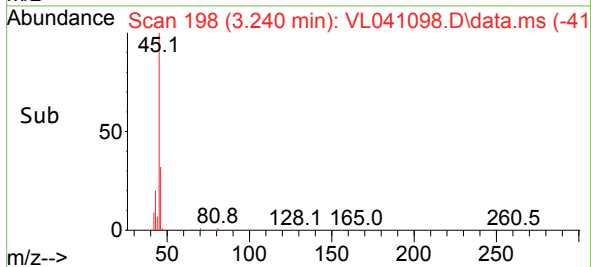
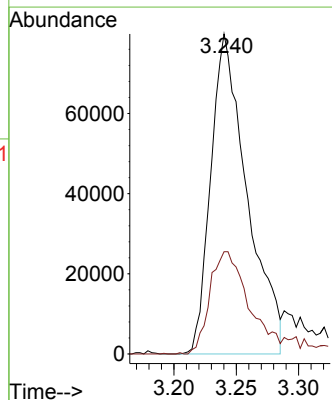
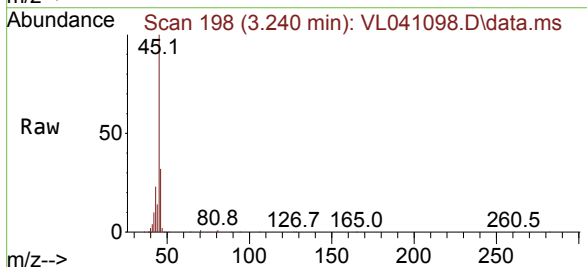
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

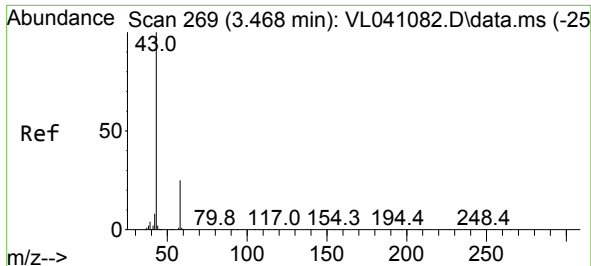
Tgt Ion:101 Resp: 7212  
Ion Ratio Lower Upper  
101 100  
151 104.7 55.8 83.8#



#13  
Ethanol  
Concen: 10.211 ppbv  
RT: 3.240 min Scan# 198  
Delta R.T. 0.006 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 45 Resp: 161804  
Ion Ratio Lower Upper  
45 100  
46 39.7 14.6 58.2





#15

Acetone

Concen: 4.198 ppbv

RT: 3.468 min Scan# 2

Delta R.T. 0.006 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

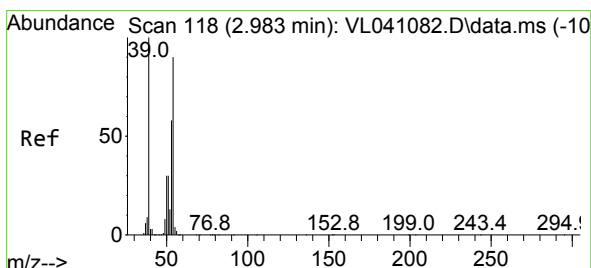
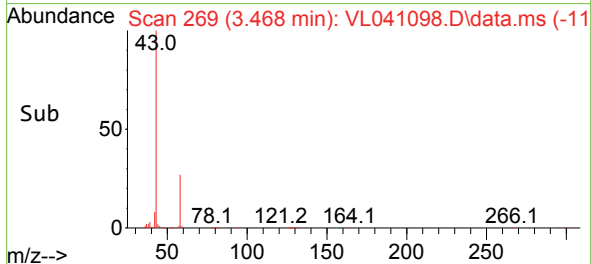
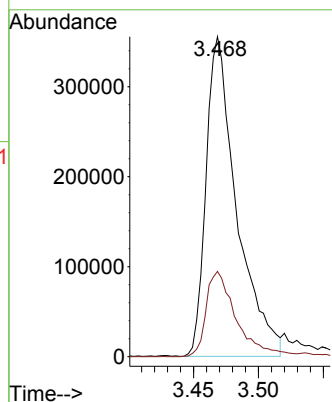
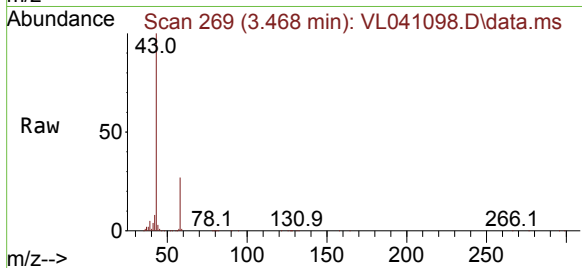
IA1DUP

Tgt Ion: 43 Resp: 581436

Ion Ratio Lower Upper

43 100

58 28.5 21.7 32.5



#16

1,3-Butadiene

Concen: 0.036 ppbv

RT: 2.983 min Scan# 118

Delta R.T. 0.006 min

Lab File: VL041098.D

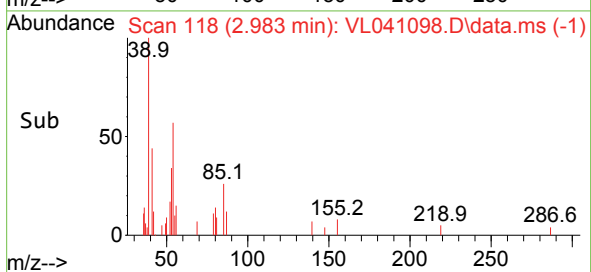
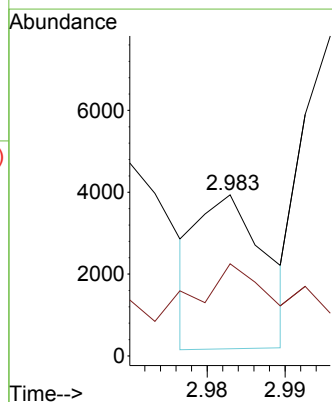
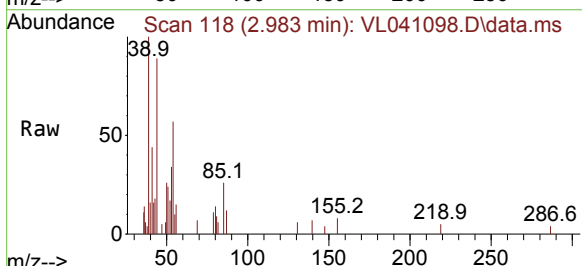
Acq: 12 Mar 2024 14:27

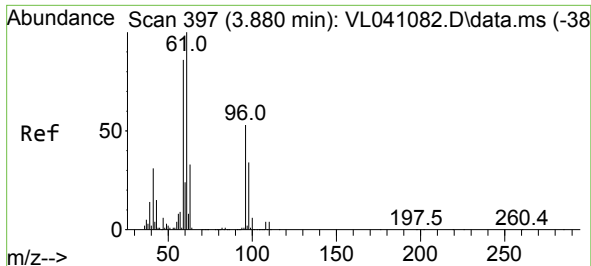
Tgt Ion: 39 Resp: 2242

Ion Ratio Lower Upper

39 100

54 173.1 64.0 96.0#





#17

tert-Butyl alcohol

Concen: 0.035 ppbv

RT: 3.890 min Scan# 400

Delta R.T. 0.019 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

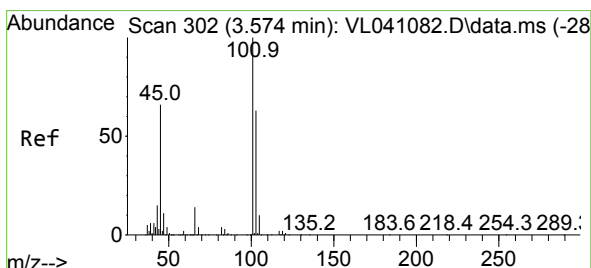
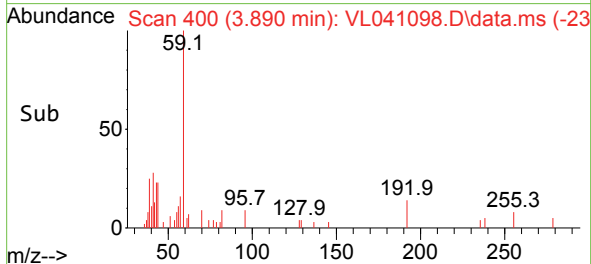
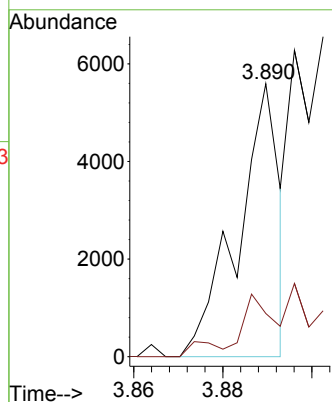
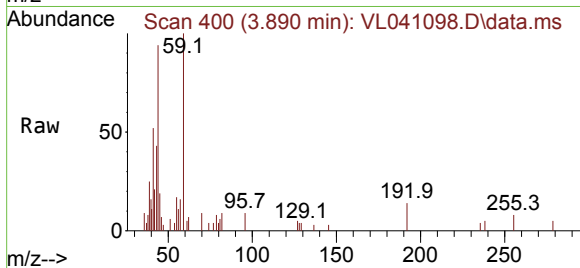
IA1DUP

Tgt Ion: 59 Resp: 3632

Ion Ratio Lower Upper

59 100

57 0.0 9.0 13.6#



#19

Isopropyl Alcohol

Concen: 1.485 ppbv

RT: 3.587 min Scan# 306

Delta R.T. 0.019 min

Lab File: VL041098.D

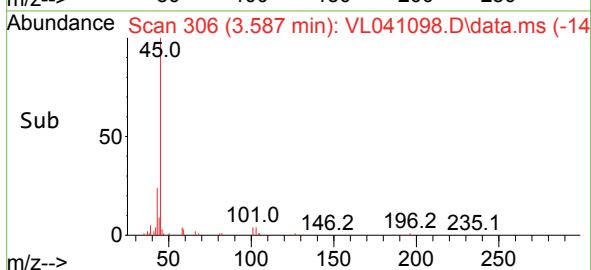
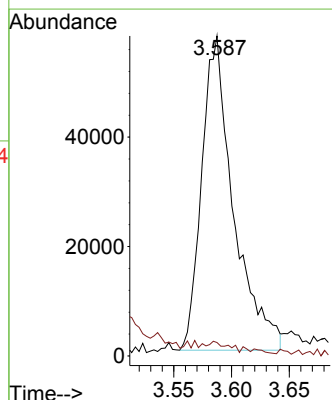
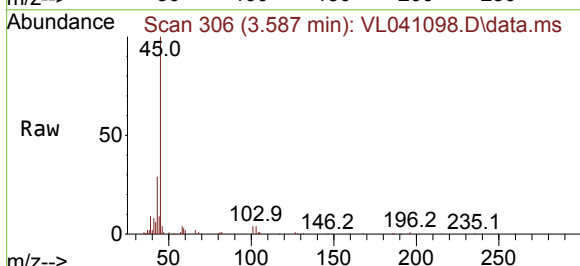
Acq: 12 Mar 2024 14:27

Tgt Ion: 45 Resp: 109849

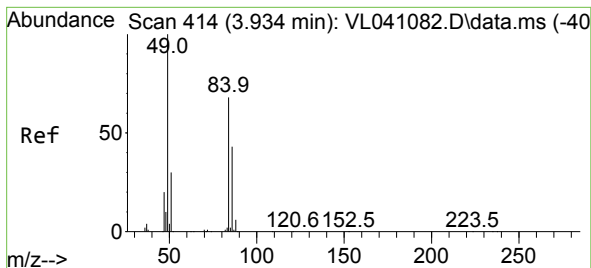
Ion Ratio Lower Upper

45 100

58 0.0 2.2 3.4#







#20

Methylene Chloride

Concen: 33.249 ppbv

RT: 3.935 min Scan# 414

Delta R.T. 0.006 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

IA1DUP

Tgt Ion: 84 Resp: 1795339

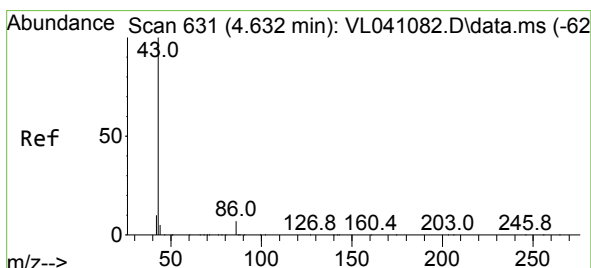
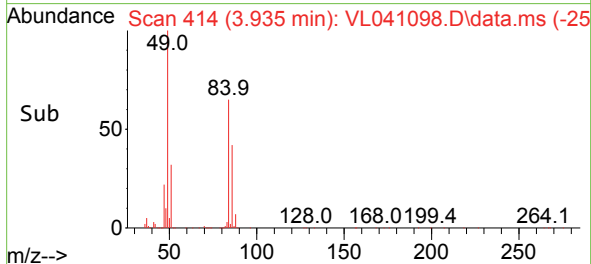
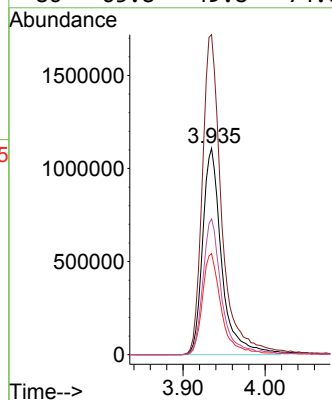
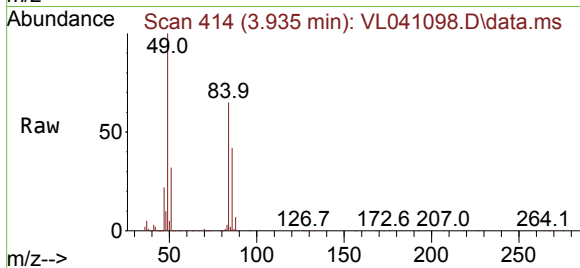
Ion Ratio Lower Upper

84 100

49 155.0 117.0 175.6

51 48.9 34.9 52.3

86 65.8 49.8 74.6



#23

Vinyl Acetate

Concen: 0.083 ppbv

RT: 4.620 min Scan# 627

Delta R.T. -0.003 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Tgt Ion: 43 Resp: 12960

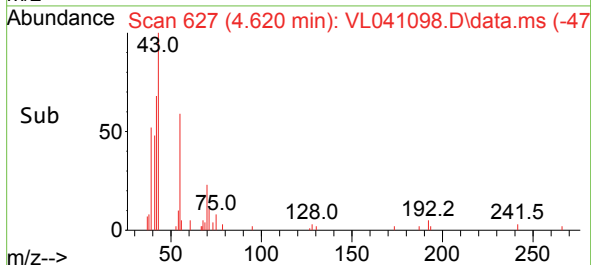
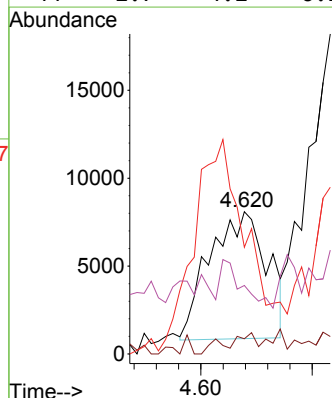
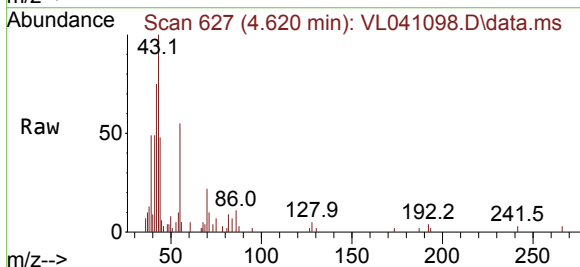
Ion Ratio Lower Upper

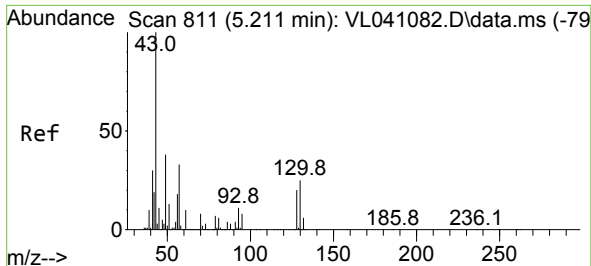
43 100

86 12.1 5.4 8.2#

42 43.8 8.0 12.0#

44 2.7 4.2 6.2#

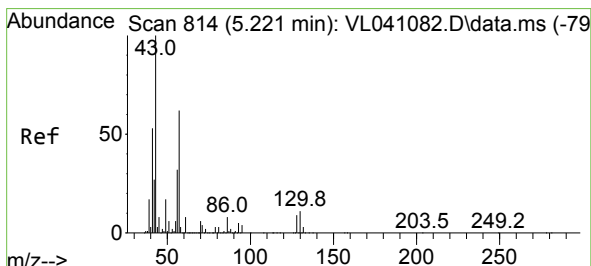
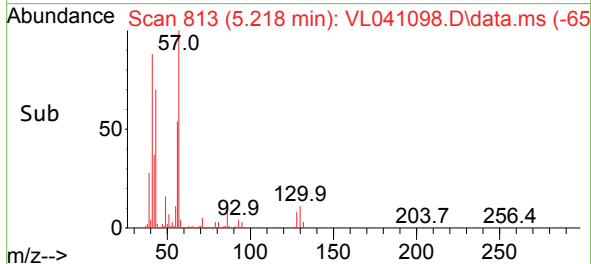
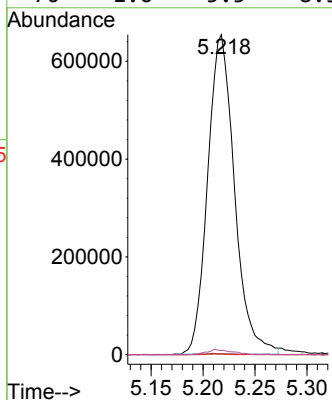
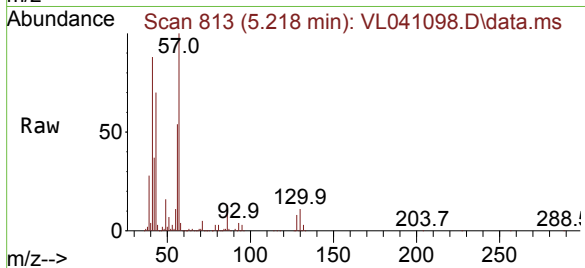




#25  
Ethyl Acetate  
Concen: 4.698 ppbv  
RT: 5.218 min Scan# 811  
Delta R.T. 0.013 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

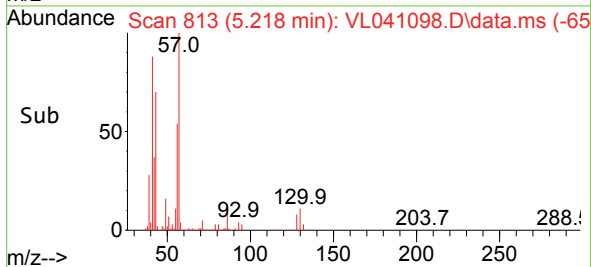
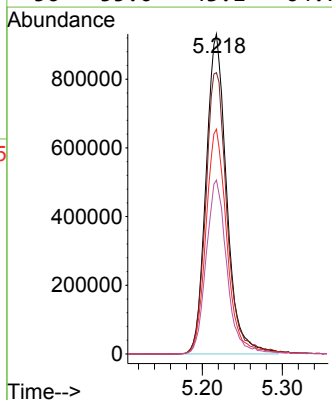
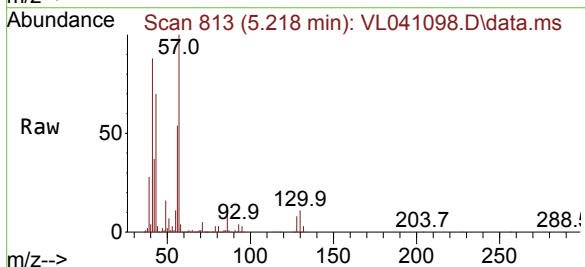
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

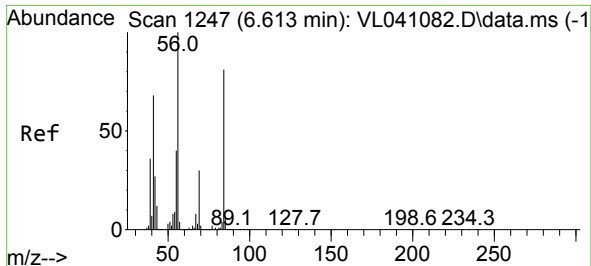
Tgt Ion: 43 Resp: 1172247  
Ion Ratio Lower Upper  
43 100  
45 0.4 8.2 12.2#  
61 0.2 8.2 12.2#  
70 1.6 5.5 8.3#



#26  
Hexane  
Concen: 14.986 ppbv  
RT: 5.218 min Scan# 813  
Delta R.T. 0.006 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 57 Resp: 1671400  
Ion Ratio Lower Upper  
57 100  
41 91.9 73.8 110.6  
43 71.9 184.2 276.2#  
56 55.0 43.1 64.7

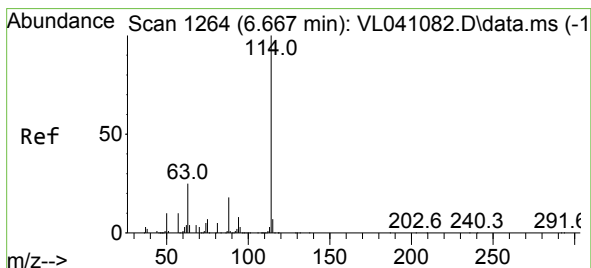
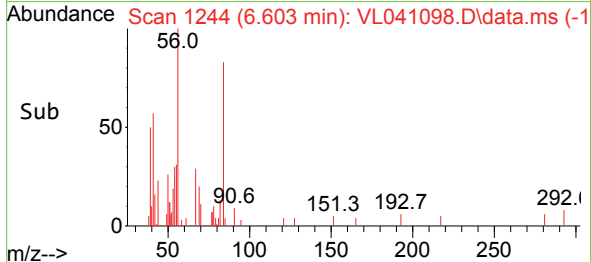
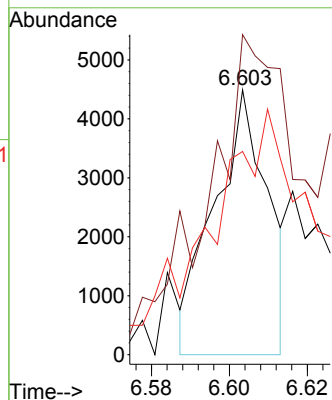
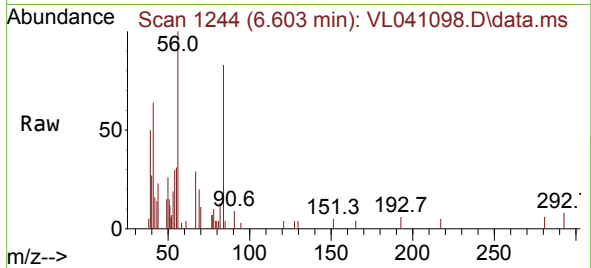




#30  
Cyclohexane  
Concen: 0.046 ppbv  
RT: 6.603 min Scan# 1244  
Delta R.T. -0.000 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

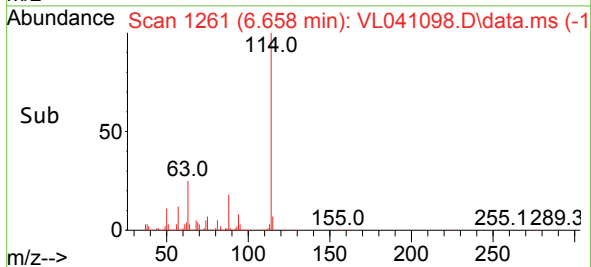
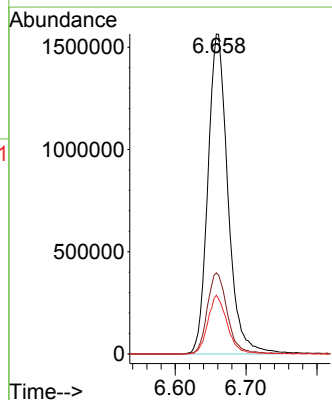
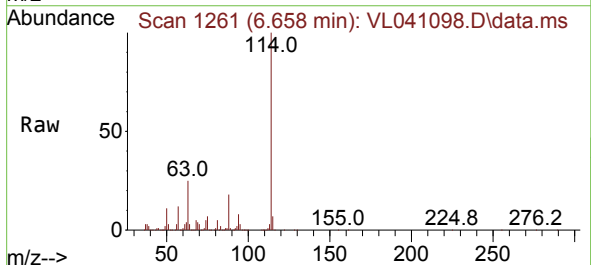
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

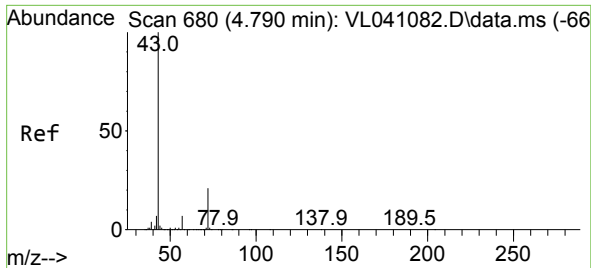
Tgt Ion: 84 Resp: 4269  
Ion Ratio Lower Upper  
84 100  
56 0.0 110.4 165.6#  
41 0.0 70.6 105.8#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.658 min Scan# 1261  
Delta R.T. 0.003 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 114 Resp: 3065308  
Ion Ratio Lower Upper  
114 100  
63 25.7 21.0 31.6  
88 17.8 14.6 22.0

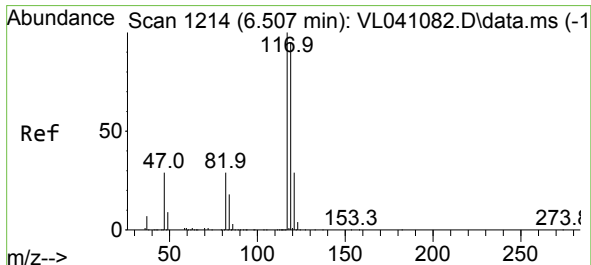
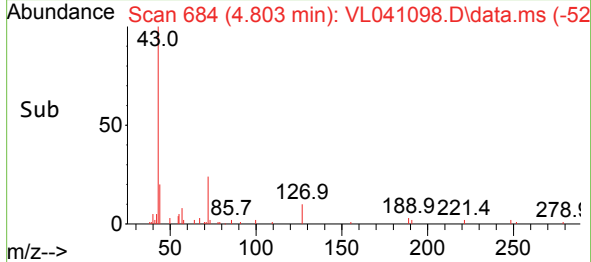
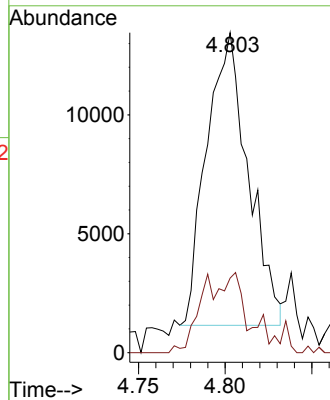
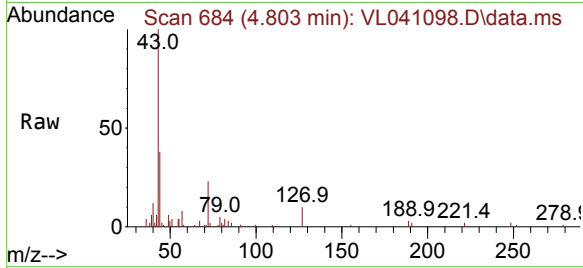




#34  
2-Butanone  
Concen: 0.136 ppbv  
RT: 4.803 min Scan# 61  
Delta R.T. 0.019 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

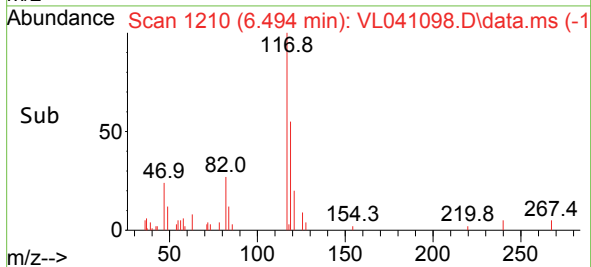
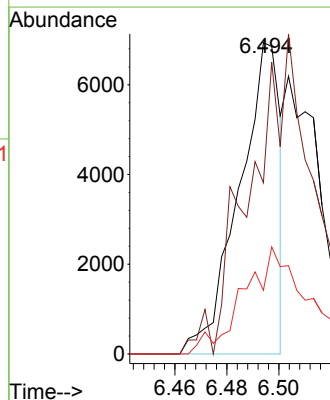
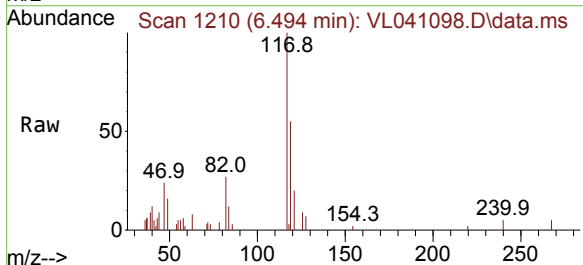
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

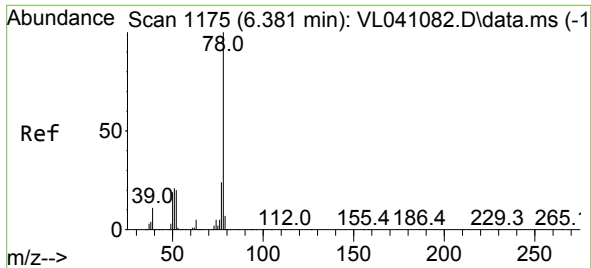
Tgt Ion: 43 Resp: 20566  
Ion Ratio Lower Upper  
43 100  
72 32.2 17.4 26.0#



#35  
Carbon Tetrachloride  
Concen: 0.042 ppbv  
RT: 6.494 min Scan# 1210  
Delta R.T. -0.000 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 117 Resp: 7556  
Ion Ratio Lower Upper  
117 100  
119 55.0 75.6 113.4#  
121 20.4 23.4 35.2#





#36

Benzene

Concen: 0.207 ppbv

RT: 6.372 min Scan# 1172

Delta R.T. -0.000 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

IA1DUP

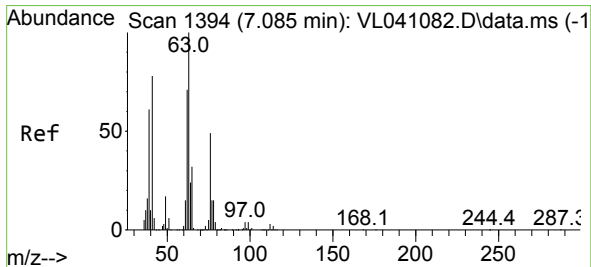
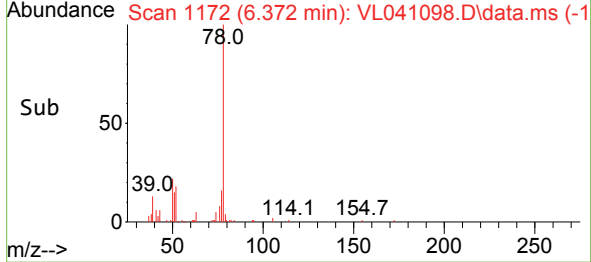
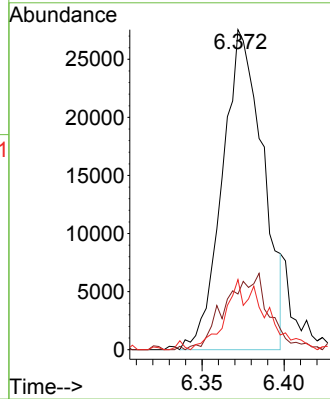
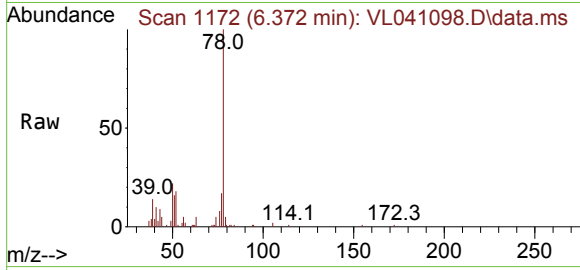
Tgt Ion: 78 Resp: 47293

Ion Ratio Lower Upper

78 100

77 16.3 18.8 28.2#

50 19.1 15.5 23.3



#39

1,2-Dichloropropane

Concen: 8.398 ppbv

RT: 6.658 min Scan# 1261

Delta R.T. -0.418 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

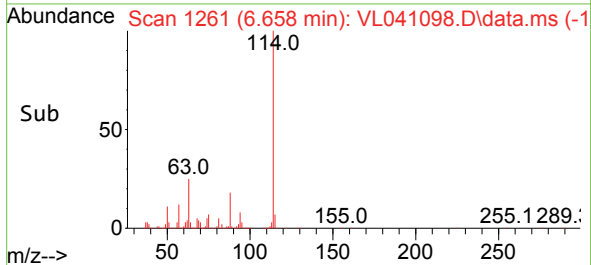
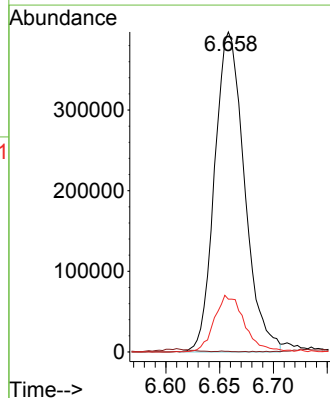
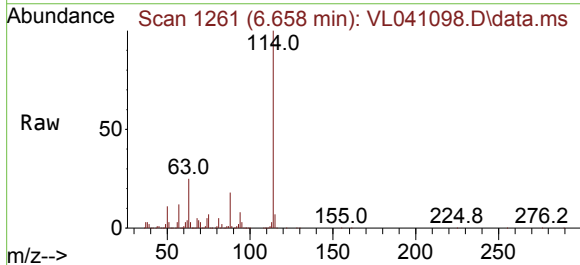
Tgt Ion: 63 Resp: 766487

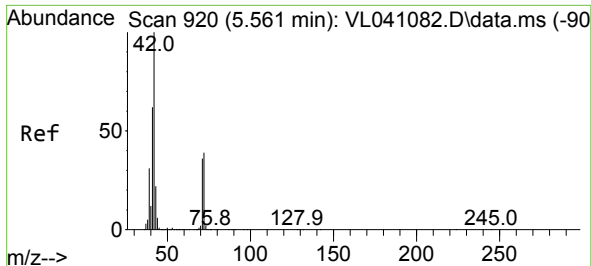
Ion Ratio Lower Upper

63 100

41 0.1 62.2 93.4#

62 16.4 57.0 85.4#





#41

Tetrahydrofuran

Concen: 7.001 ppbv

RT: 5.218 min Scan# 81

Delta R.T. -0.338 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

IA1DUP

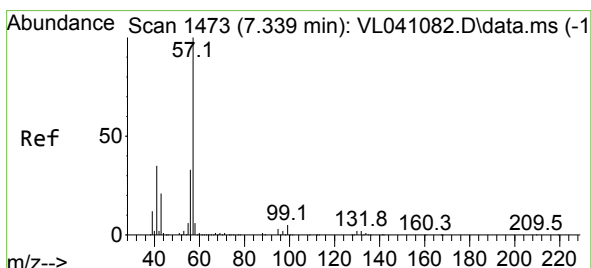
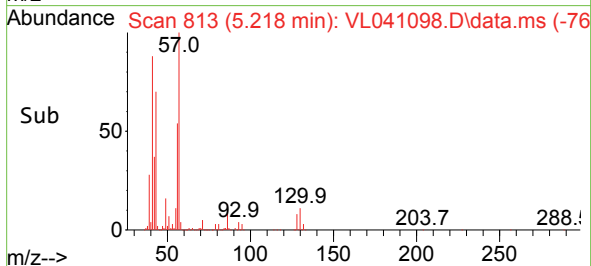
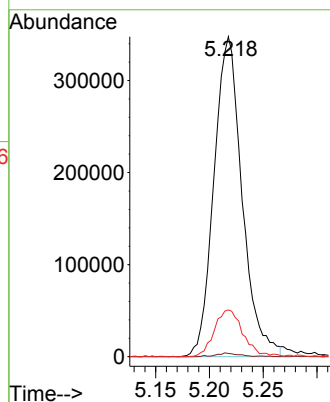
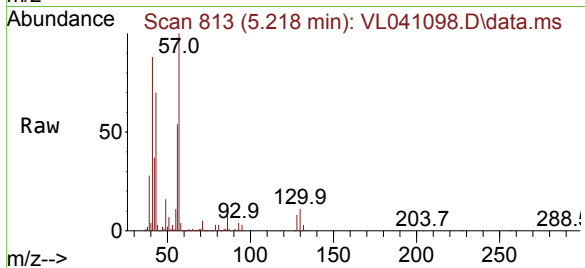
Tgt Ion: 42 Resp: 632348

Ion Ratio Lower Upper

42 100

72 1.0 30.7 46.1#

71 15.1 29.6 44.4#



#44

2,2,4-Trimethylpentane

Concen: 0.032 ppbv

RT: 7.336 min Scan# 1472

Delta R.T. 0.006 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

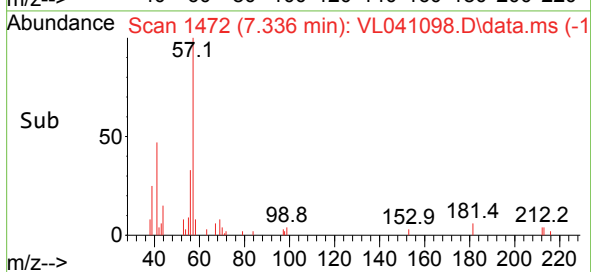
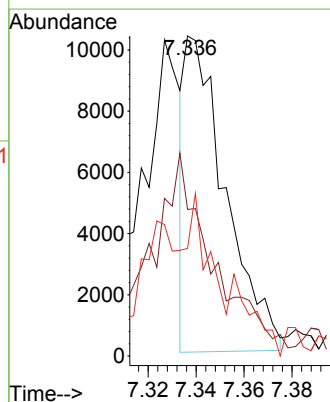
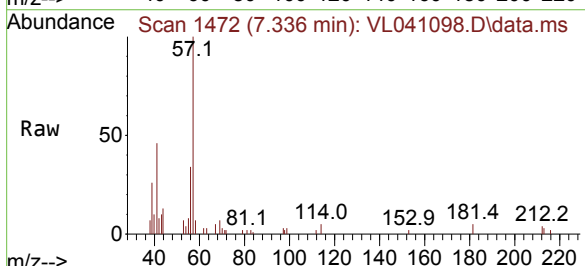
Tgt Ion: 57 Resp: 12118

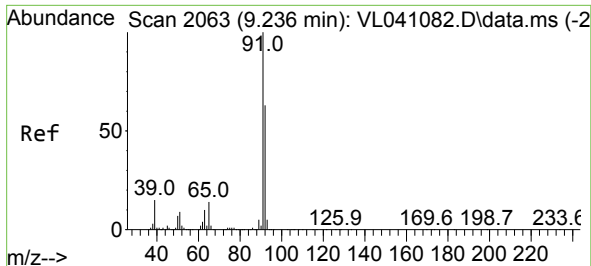
Ion Ratio Lower Upper

57 100

41 122.6 28.0 42.0#

56 92.6 25.7 38.5#





#53

Toluene

Concen: 0.335 ppbv

RT: 9.233 min Scan# 2063

Delta R.T. 0.010 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

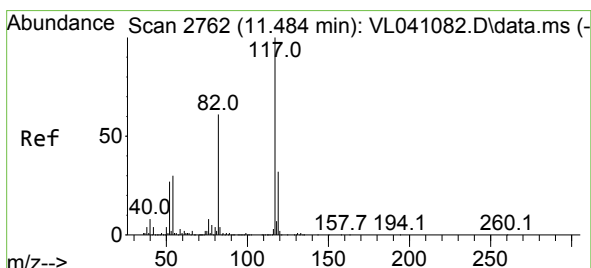
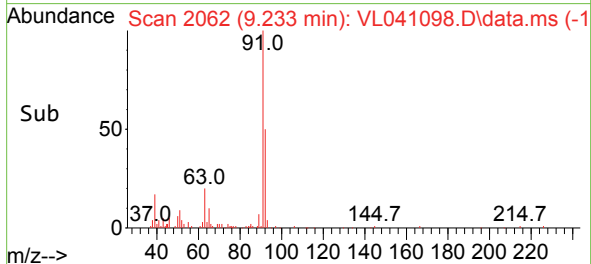
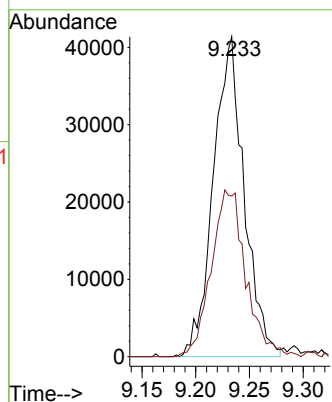
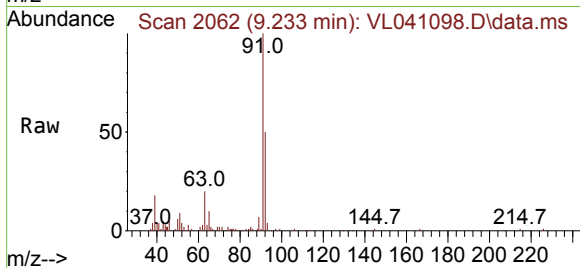
IA1DUP

Tgt Ion: 91 Resp: 82416

Ion Ratio Lower Upper

91 100

92 59.0 48.9 73.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.475 min Scan# 2759

Delta R.T. -0.000 min

Lab File: VL041098.D

Acq: 12 Mar 2024 14:27

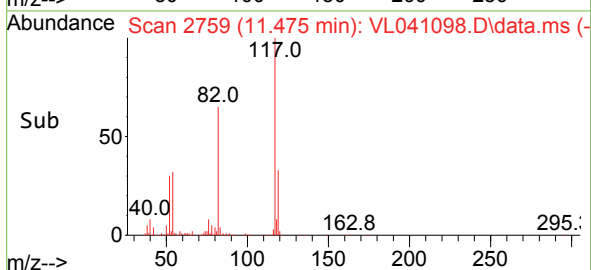
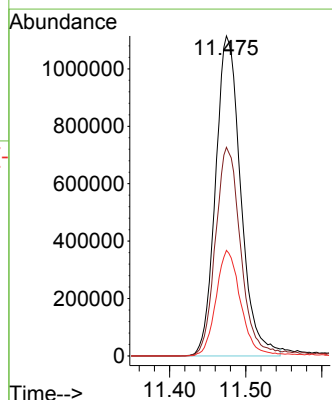
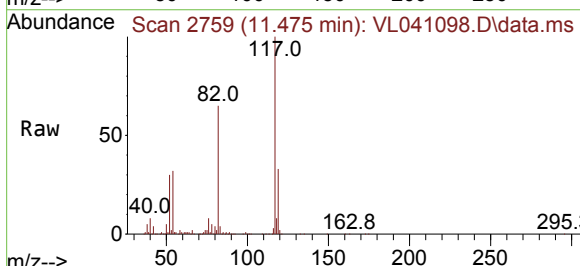
Tgt Ion: 117 Resp: 2562649

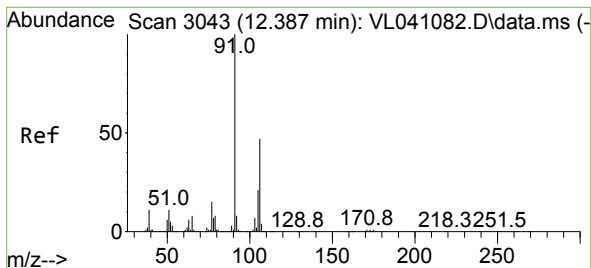
Ion Ratio Lower Upper

117 100

82 67.3 51.4 77.2

119 33.2 23.7 35.5

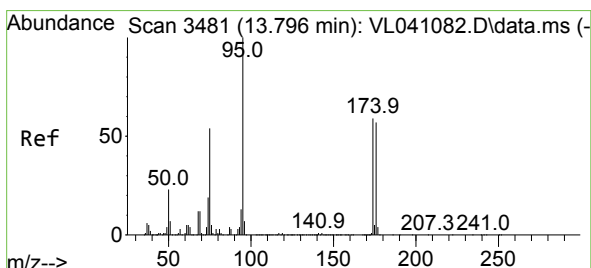
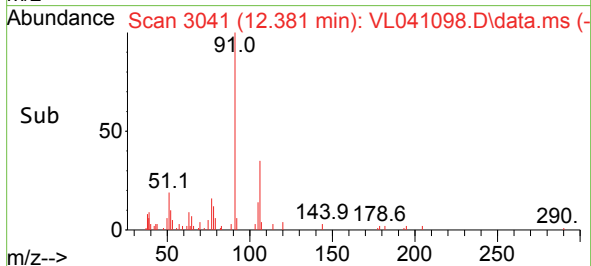
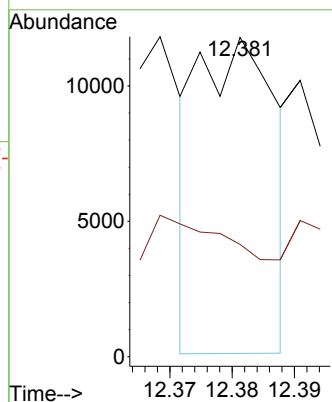
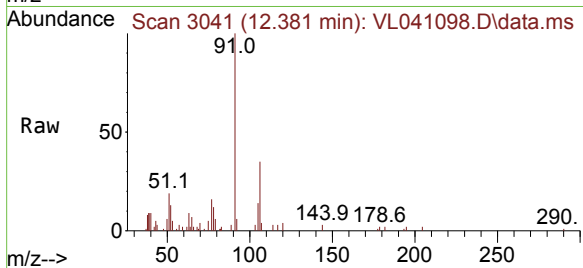




#59  
m/p-Xylene  
Concen: 0.038 ppbv  
RT: 12.381 min Scan# 3041  
Delta R.T. -0.000 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

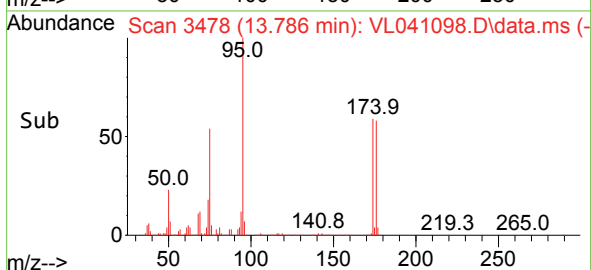
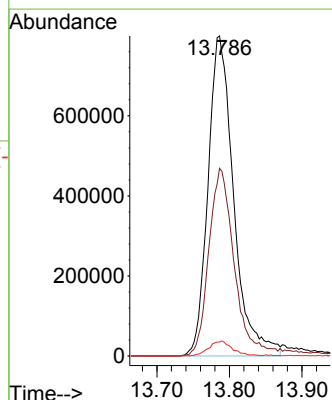
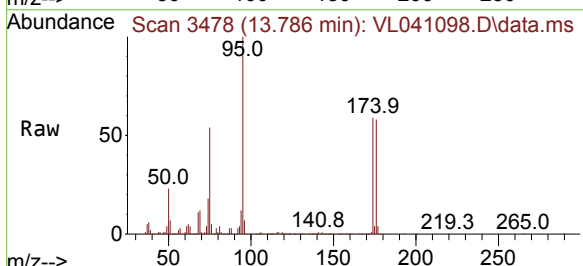
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1DUP

Tgt Ion: 91 Resp: 9998  
Ion Ratio Lower Upper  
91 100  
106 0.0 35.4 53.2#

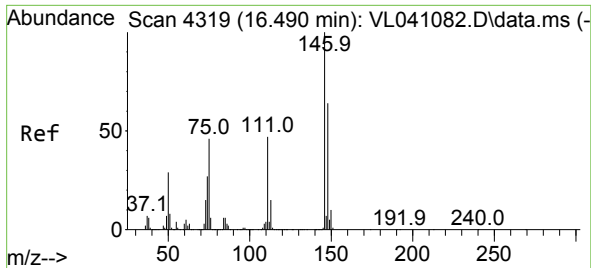


#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.822 ppbv  
RT: 13.786 min Scan# 3478  
Delta R.T. 0.003 min  
Lab File: VL041098.D  
Acq: 12 Mar 2024 14:27

Tgt Ion: 95 Resp: 1967906  
Ion Ratio Lower Upper  
95 100  
174 60.9 47.8 71.8  
175 4.5 3.5 5.3







#76

1,4-Dichlorobenzene

Concen: 0.037 ppbv

RT: 16.484 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL041098.D

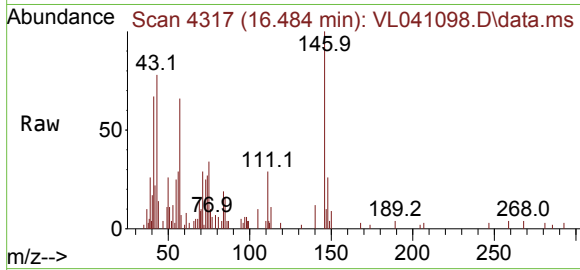
Acq: 12 Mar 2024 14:27

Instrument :

MSVOA\_L

ClientSampleId :

IA1DUP



Tgt Ion:146 Resp: 5931

Ion Ratio Lower Upper

146 100

111 0.0 23.9 71.7#

148 177.8 32.9 98.6#

