

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL122123\  
 Data File : VL040932.D  
 Acq On : 21 Dec 2023 16:35  
 Operator : SY/MD  
 Sample : VIBLK  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Dec 22 00:08:33 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL122023AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Thu Dec 21 07:32:42 2023  
 Response via : Initial Calibration

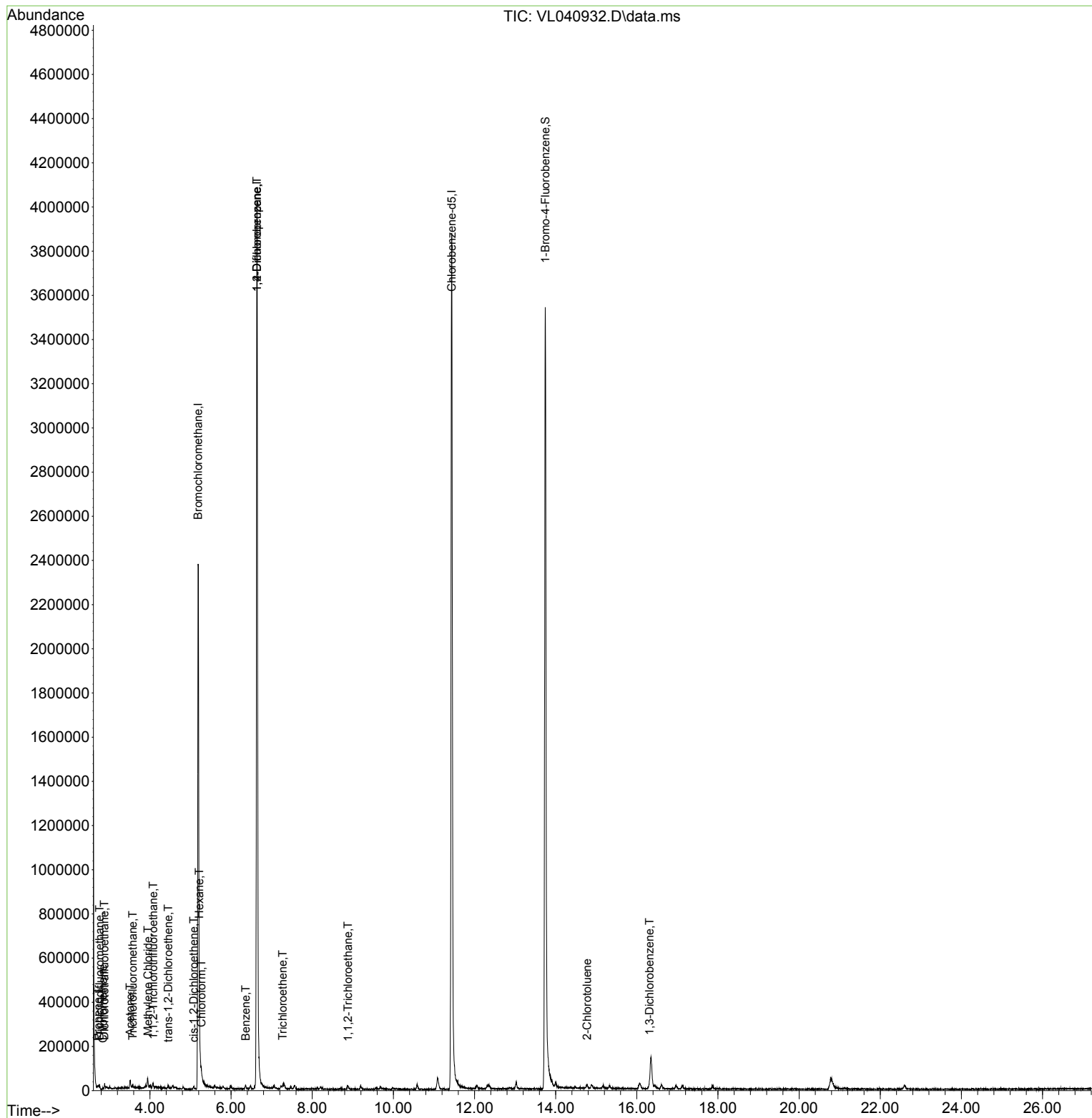
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 5.188  | 49    | 1223063  | 10.000   | ppbv   | 0.01     |
| 33) 1,4-Difluorobenzene       | 6.639  | 114   | 3082098  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          | 11.439 | 117   | 2615848  | 10.000   | ppbv   | 0.00     |
|                               |        |       |          |          |        |          |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   | 13.744 | 95    | 1922364  | 9.977    | ppbv   | 0.00     |
| Spiked Amount                 | 10.000 | Range | 65 - 135 | Recovery | =      | 99.800%  |
|                               |        |       |          |          |        |          |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane    | 2.758  | 85    | 10824    | 0.046    | ppbv   | 92       |
| 4) Chloromethane              | 2.838  | 50    | 3726     | 0.055    | ppbv   | 93       |
| 8) Dichlorotetrafluoroethane  | 2.880  | 85    | 8174     | 0.049    | ppbv   | 95       |
| 9) Propene                    | 2.722  | 41    | 4845     | 0.080    | ppbv   | 94       |
| 11) Trichlorofluoromethane    | 3.578  | 101   | 8528     | 0.047    | ppbv   | 99       |
| 12) 1,1,2-Trichlorotrifluo... | 4.082  | 101   | 6388     | 0.045    | ppbv # | 68       |
| 15) Acetone                   | 3.513  | 43    | 37484    | 0.256    | ppbv # | 85       |
| 20) Methylene Chloride        | 3.951  | 84    | 5190     | 0.099    | ppbv # | 66       |
| 22) trans-1,2-Dichloroethene  | 4.449  | 96    | 2943     | 0.044    | ppbv   | 83       |
| 26) Hexane                    | 5.214  | 57    | 5570     | 0.049    | ppbv # | 77       |
| 29) Chloroform                | 5.272  | 83    | 9088     | 0.048    | ppbv # | 68       |
| 31) cis-1,2-Dichloroethene    | 5.079  | 61    | 4038     | 0.035    | ppbv # | 77       |
| 36) Benzene                   | 6.362  | 78    | 9847     | 0.041    | ppbv   | 93       |
| 38) Trichloroethene           | 7.272  | 130   | 4472     | 0.049    | ppbv # | 81       |
| 39) 1,2-Dichloropropane       | 6.639  | 63    | 760535   | 8.033    | ppbv # | 24       |
| 47) 1,1,2-Trichloroethane     | 8.883  | 97    | 3372     | 0.034    | ppbv # | 70       |
| 71) 2-Chlorotoluene           | 14.773 | 91    | 11373    | 0.037    | ppbv   | 69       |
| 75) 1,3-Dichlorobenzene       | 16.313 | 146   | 4947     | 0.031    | ppbv # | 44       |
| -----                         |        |       |          |          |        |          |

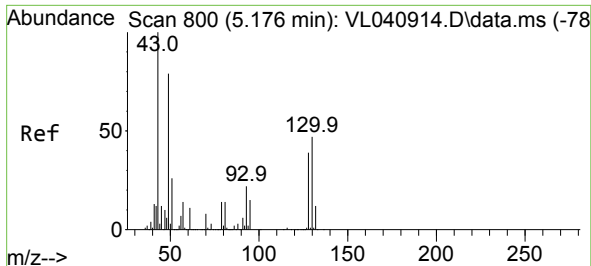
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL122123\  
Data File : VL040932.D  
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Operator : SY/MD  
Sample : VIBLK  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

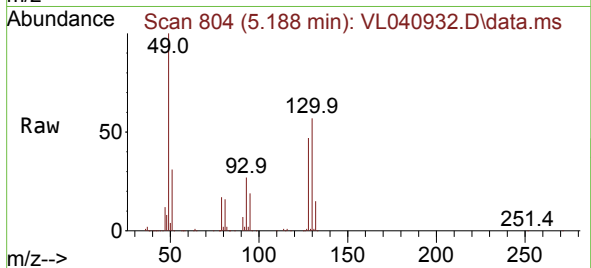
Quant Time: Dec 22 00:08:33 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL122023AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Thu Dec 21 07:32:42 2023  
Response via : Initial Calibration



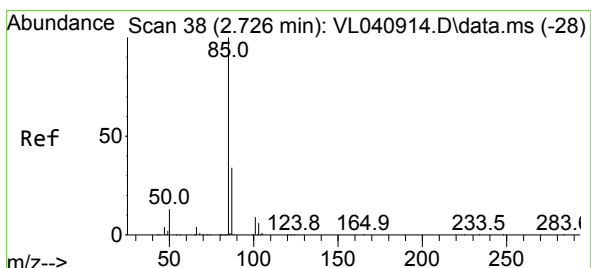
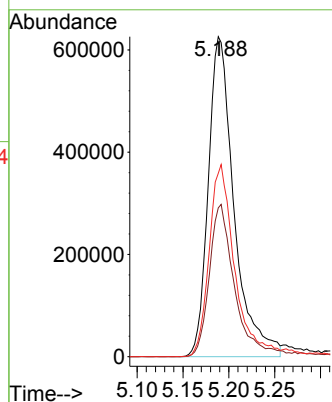
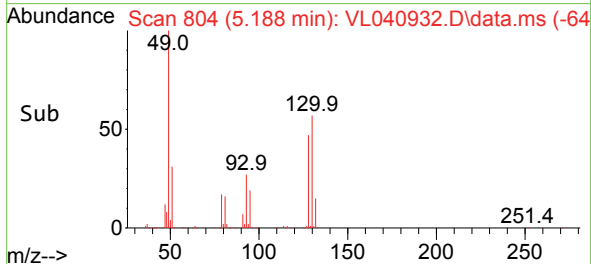


#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.188 min Scan# 80  
Delta R.T. 0.012 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

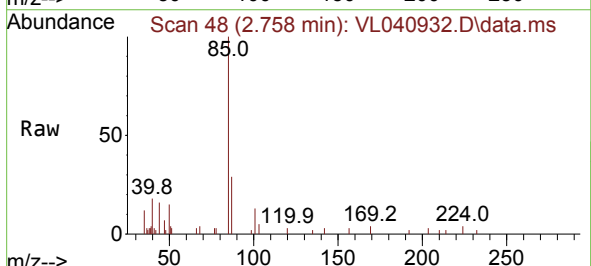
Instrument :  
MSVOA\_L  
ClientSampleId :



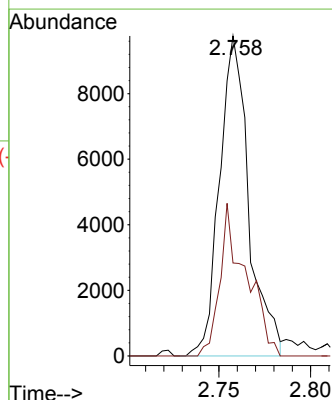
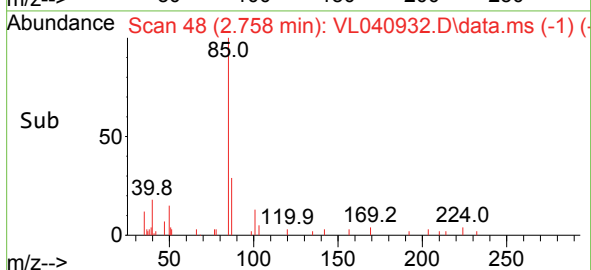
Tgt Ion: 49 Resp: 1223063  
Ion Ratio Lower Upper  
49 100  
128 49.1 23.8 71.2  
130 62.1 30.1 90.5

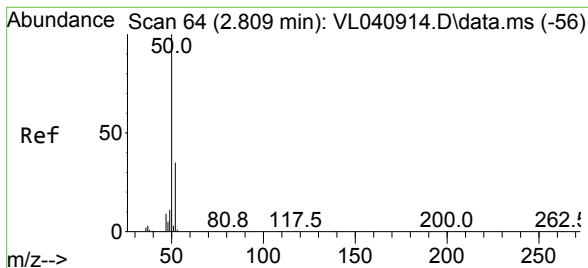


#2  
Dichlorodifluoromethane  
Concen: 0.046 ppbv  
RT: 2.758 min Scan# 48  
Delta R.T. 0.032 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35



Tgt Ion: 85 Resp: 10824  
Ion Ratio Lower Upper  
85 100  
87 29.1 27.0 40.6

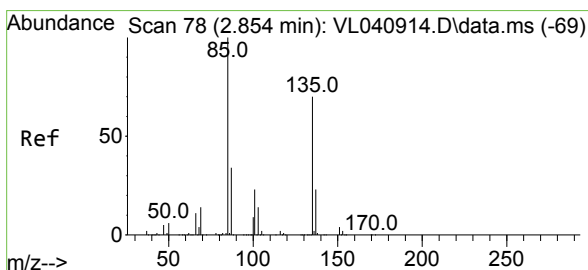
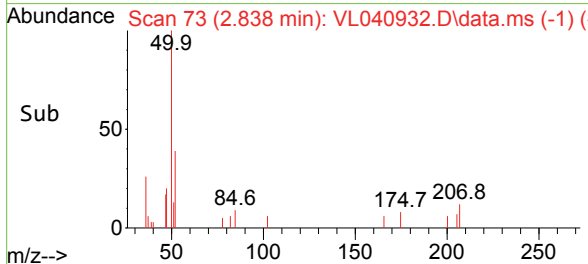
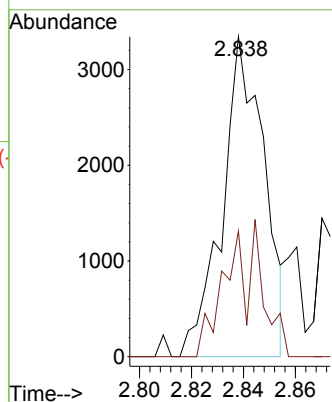
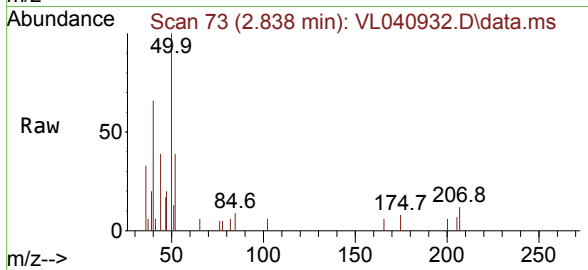




#4  
Chloromethane  
Concen: 0.055 ppbv  
RT: 2.838 min Scan# 71  
Delta R.T. 0.029 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

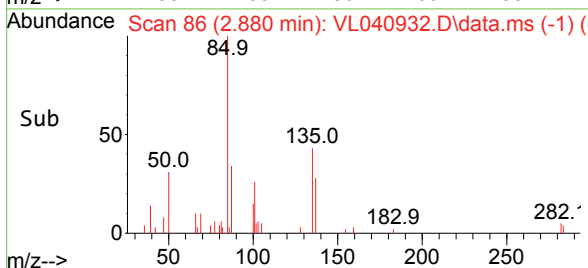
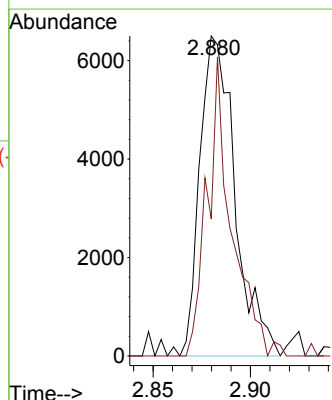
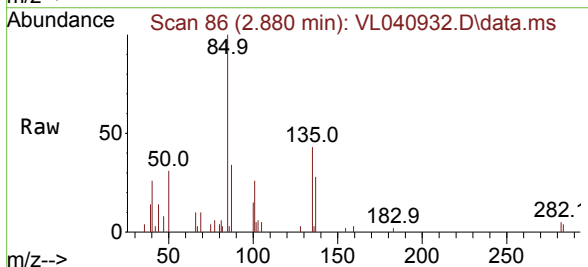
Instrument :  
MSVOA\_L  
ClientSampleId :

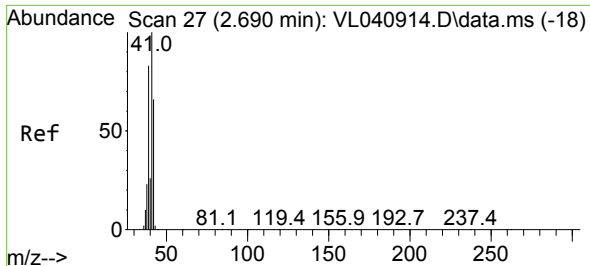
Tgt Ion: 50 Resp: 3726  
Ion Ratio Lower Upper  
50 100  
52 39.3 28.0 42.0



#8  
Dichlorotetrafluoroethane  
Concen: 0.049 ppbv  
RT: 2.880 min Scan# 86  
Delta R.T. 0.026 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion: 85 Resp: 8174  
Ion Ratio Lower Upper  
85 100  
135 65.5 55.8 83.8

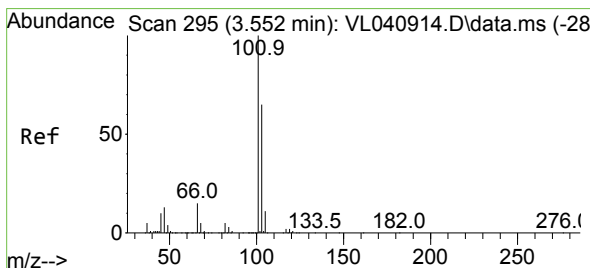
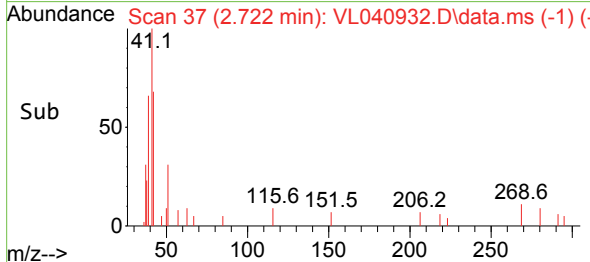
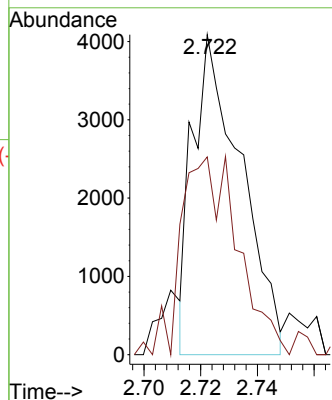
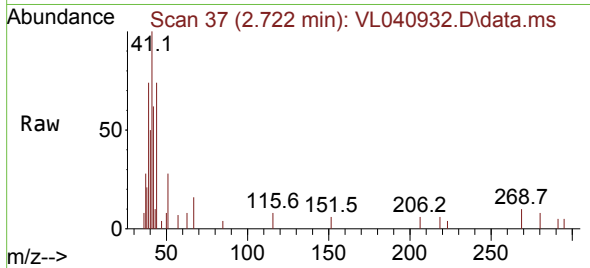




#9  
Propene  
Concen: 0.080 ppbv  
RT: 2.722 min Scan# 31  
Delta R.T. 0.032 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

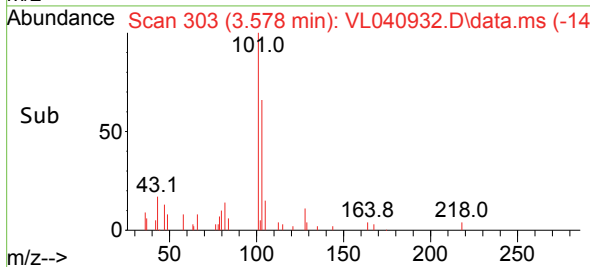
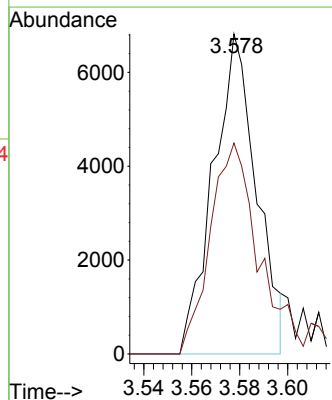
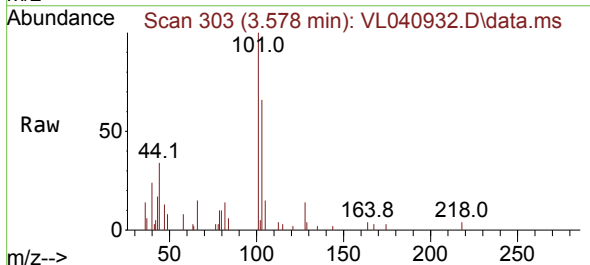
Instrument :  
MSVOA\_L  
ClientSampleId :

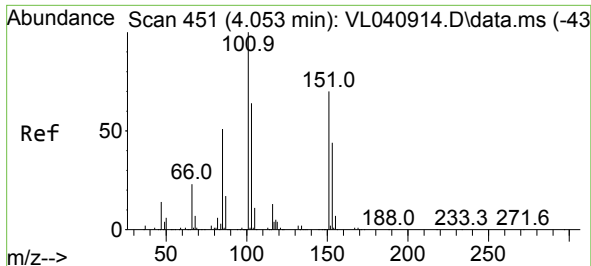
Tgt Ion: 41 Resp: 4845  
Ion Ratio Lower Upper  
41 100  
42 75.0 55.8 83.6



#11  
Trichlorofluoromethane  
Concen: 0.047 ppbv  
RT: 3.578 min Scan# 303  
Delta R.T. 0.026 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion: 101 Resp: 8528  
Ion Ratio Lower Upper  
101 100  
103 65.9 51.9 77.9

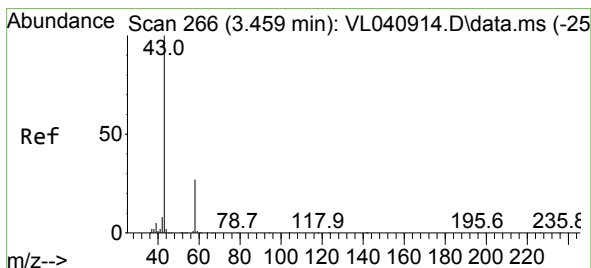
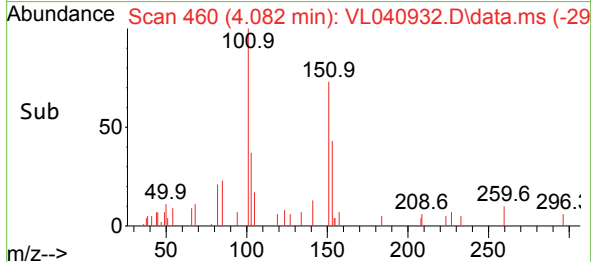
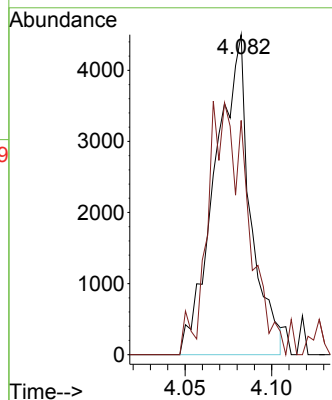
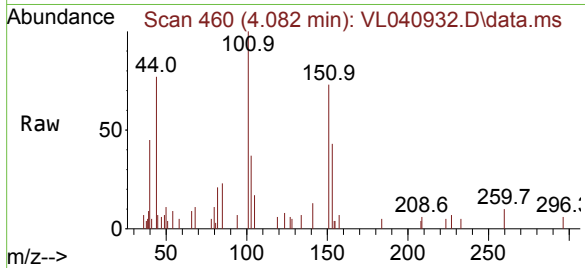




#12  
1,1,2-Trichlorotrifluoroethane  
Concen: 0.045 ppbv  
RT: 4.082 min Scan# 4  
Delta R.T. 0.029 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

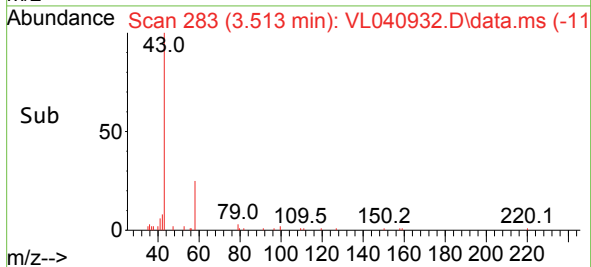
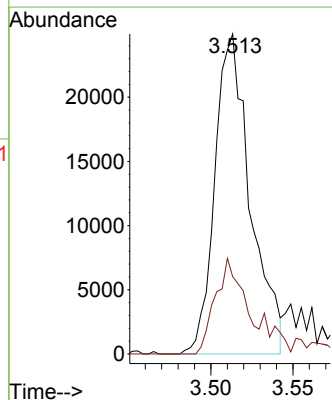
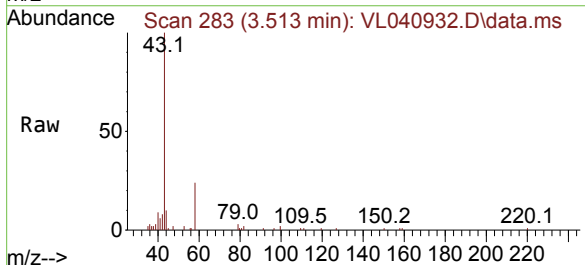
Instrument :  
MSVOA\_L  
ClientSampleId :

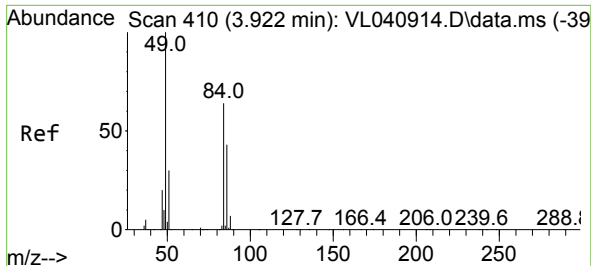
Tgt Ion:101 Resp: 6388  
Ion Ratio Lower Upper  
101 100  
151 96.0 55.8 83.8#



#15  
Acetone  
Concen: 0.256 ppbv  
RT: 3.513 min Scan# 283  
Delta R.T. 0.055 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

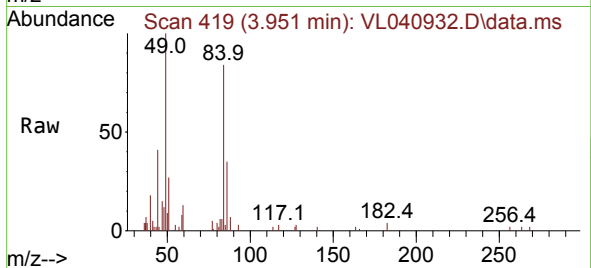
Tgt Ion: 43 Resp: 37484  
Ion Ratio Lower Upper  
43 100  
58 33.1 20.6 30.8#



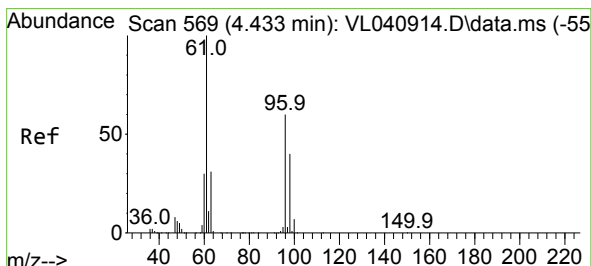
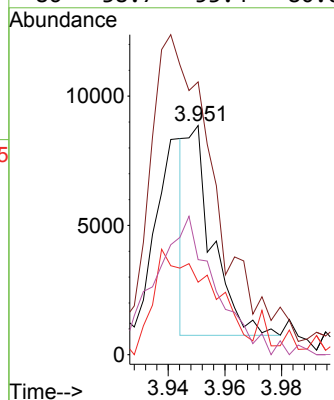
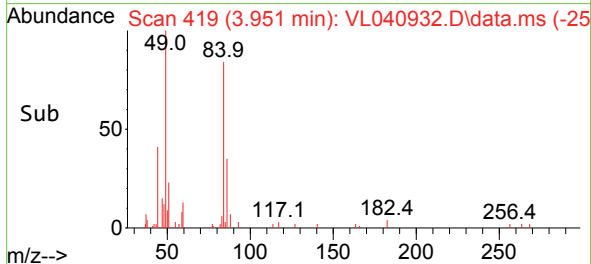


#20  
Methylene Chloride  
Concen: 0.099 ppbv  
RT: 3.951 min Scan# 410  
Delta R.T. 0.029 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Instrument :  
MSVOA\_L  
ClientSampleId :

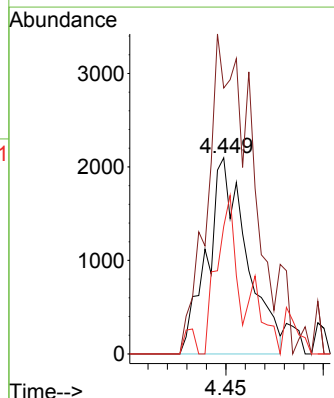
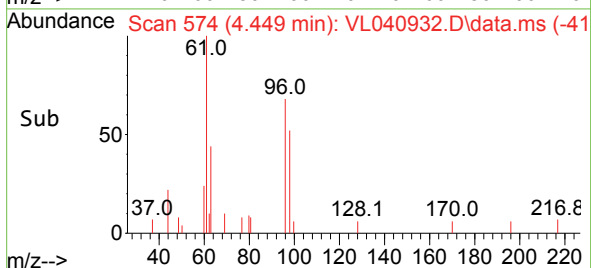
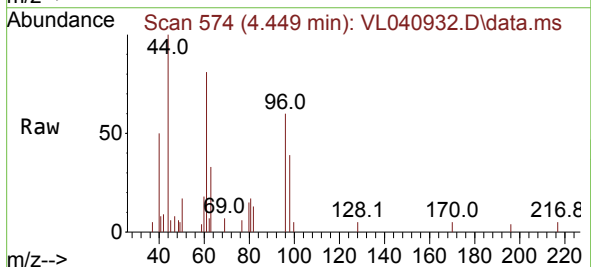


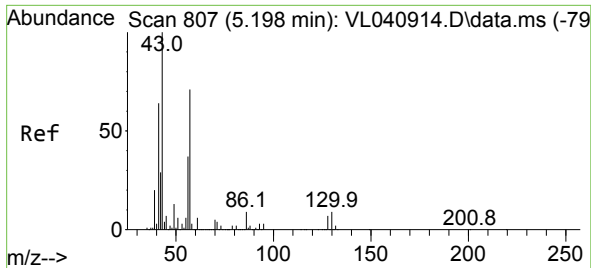
Tgt Ion: 84 Resp: 5190  
Ion Ratio Lower Upper  
84 100  
49 107.5 124.6 187.0#  
51 30.3 37.2 55.8#  
86 38.7 53.4 80.0#



#22  
trans-1,2-Dichloroethene  
Concen: 0.044 ppbv  
RT: 4.449 min Scan# 574  
Delta R.T. 0.016 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion: 96 Resp: 2943  
Ion Ratio Lower Upper  
96 100  
61 135.6 133.0 199.6  
98 65.0 53.7 80.5

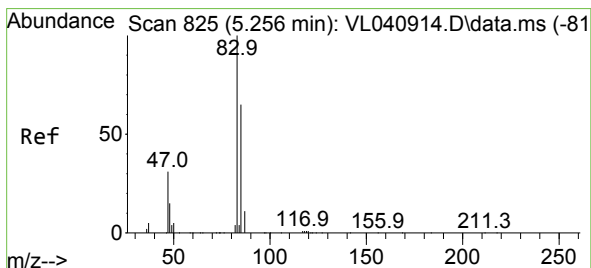
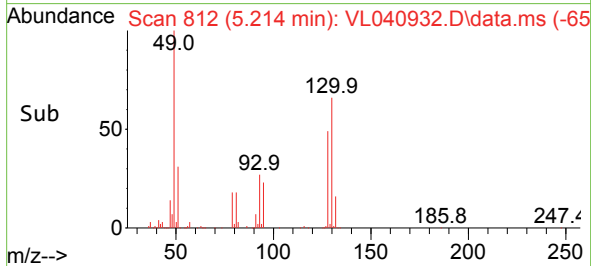
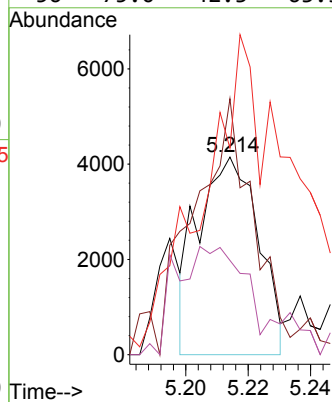
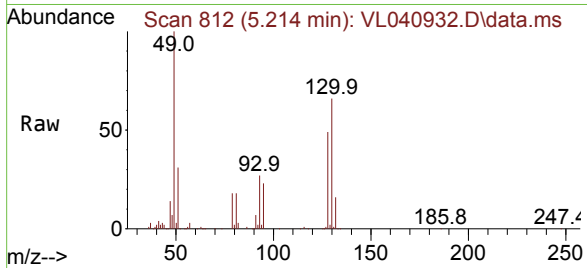




#26  
Hexane  
Concen: 0.049 ppbv  
RT: 5.214 min Scan# 811  
Delta R.T. 0.016 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

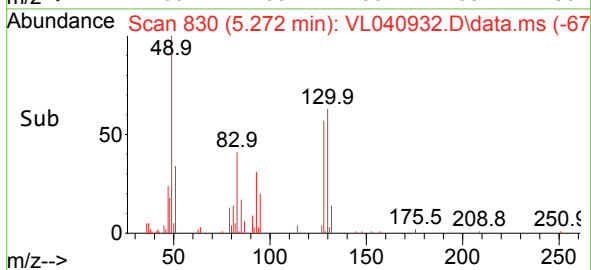
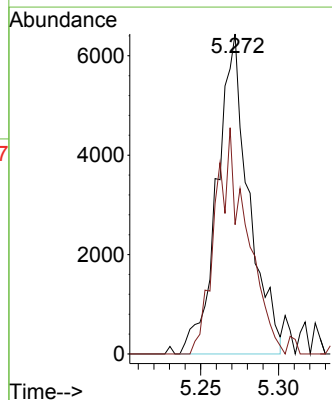
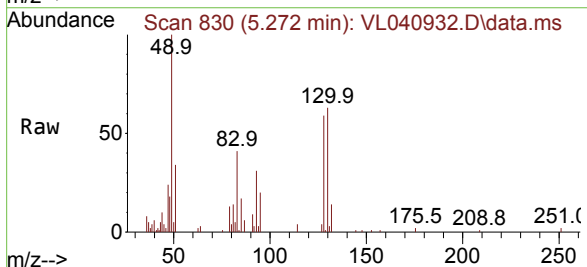
Instrument :  
MSVOA\_L  
ClientSampleId :

Tgt Ion: 57 Resp: 5570  
Ion Ratio Lower Upper  
57 100  
41 147.5 75.2 112.8#  
43 247.7 188.0 282.0  
56 75.0 42.3 63.5#

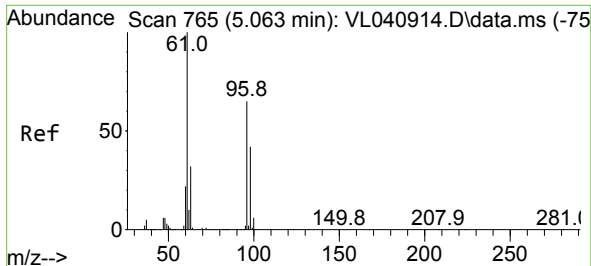


#29  
Chloroform  
Concen: 0.048 ppbv  
RT: 5.272 min Scan# 830  
Delta R.T. 0.016 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion: 83 Resp: 9088  
Ion Ratio Lower Upper  
83 100  
85 40.4 52.3 78.5#







#31

cis-1,2-Dichloroethene

Concen: 0.035 ppbv

RT: 5.079 min Scan# 7

Delta R.T. 0.016 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

Instrument :

MSVOA\_L

ClientSampleId :

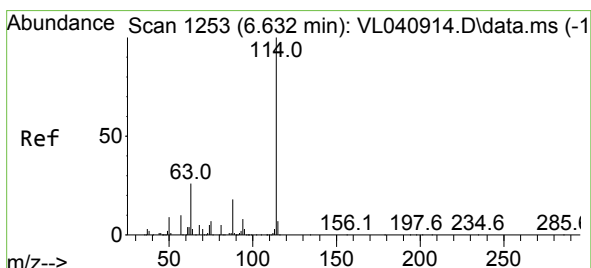
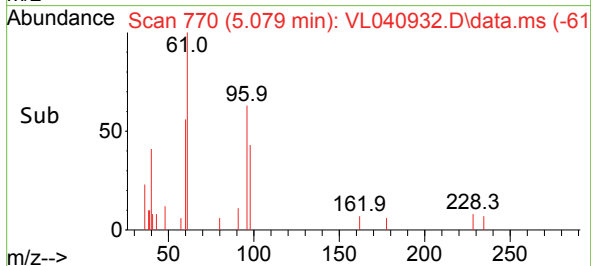
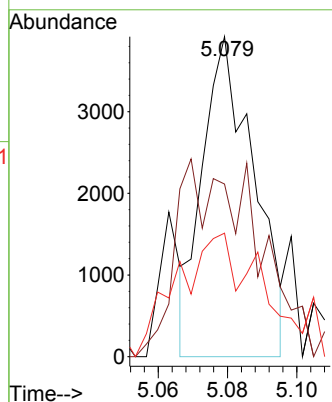
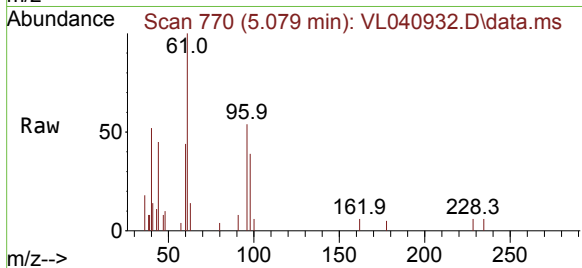
Tgt Ion: 61 Resp: 4038

Ion Ratio Lower Upper

61 100

96 41.1 51.7 77.5#

98 33.2 33.2 49.8#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.639 min Scan# 1255

Delta R.T. 0.006 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

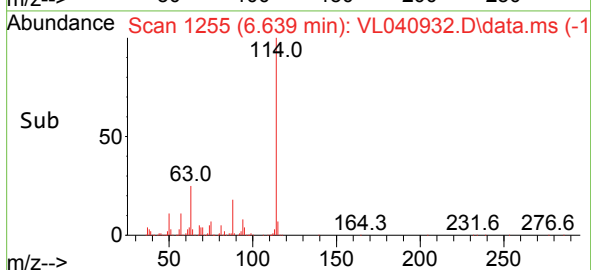
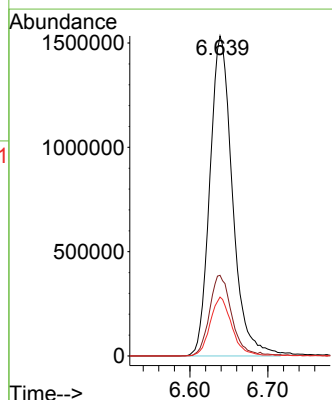
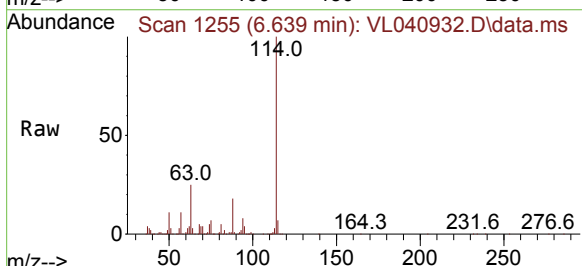
Tgt Ion:114 Resp: 3082098

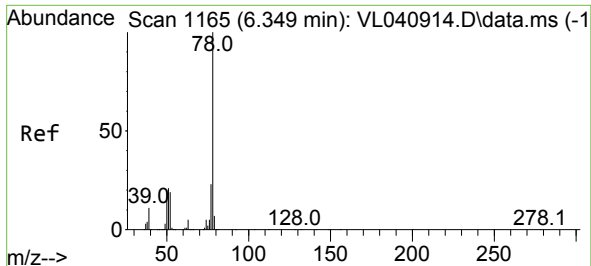
Ion Ratio Lower Upper

114 100

63 25.5 21.0 31.6

88 17.9 14.3 21.5

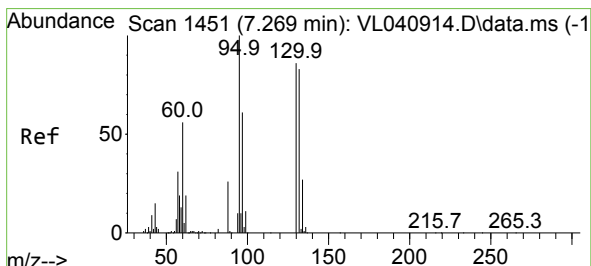
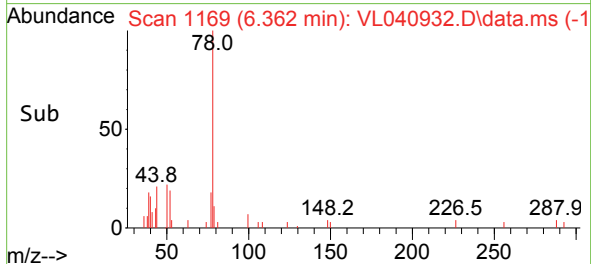
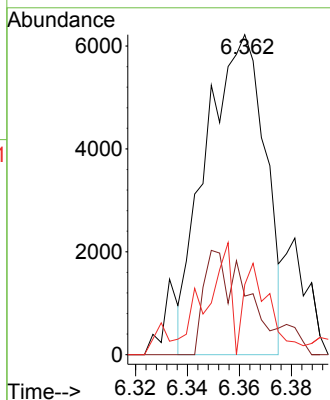
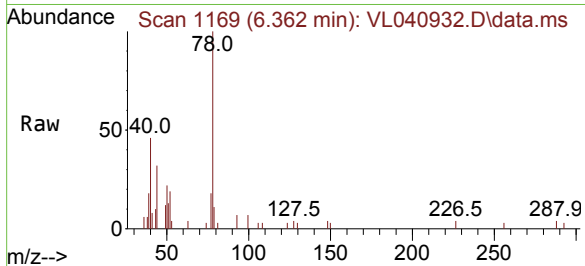




#36  
Benzene  
Concen: 0.041 ppbv  
RT: 6.362 min Scan# 1169  
Delta R.T. 0.013 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

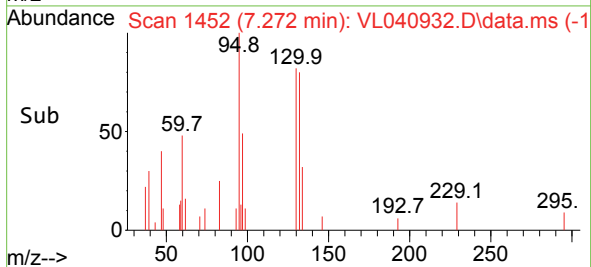
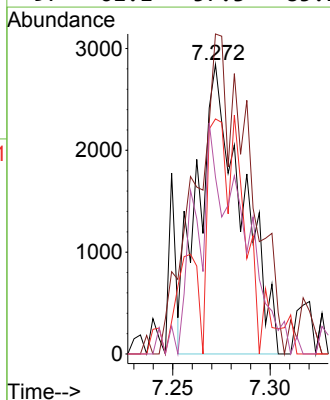
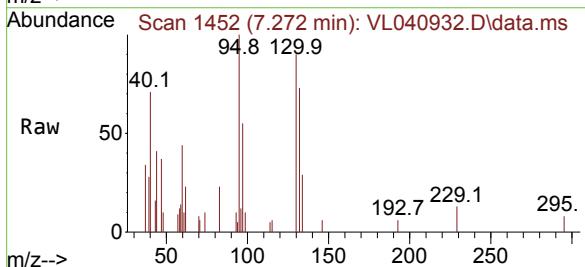
Instrument :  
MSVOA\_L  
ClientSampleId :

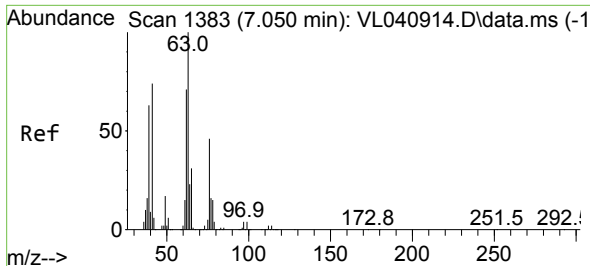
Tgt Ion: 78 Resp: 9847  
Ion Ratio Lower Upper  
78 100  
77 19.1 18.4 27.6  
50 17.8 16.0 24.0



#38  
Trichloroethene  
Concen: 0.049 ppbv  
RT: 7.272 min Scan# 1452  
Delta R.T. 0.003 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion:130 Resp: 4472  
Ion Ratio Lower Upper  
130 100  
95 96.2 93.5 140.3  
132 72.4 77.4 116.2#  
97 61.1 57.3 85.9





#39

1,2-Dichloropropane

Concen: 8.033 ppbv

RT: 6.639 min Scan# 11

Delta R.T. -0.412 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

Instrument :

MSVOA\_L

ClientSampleId :

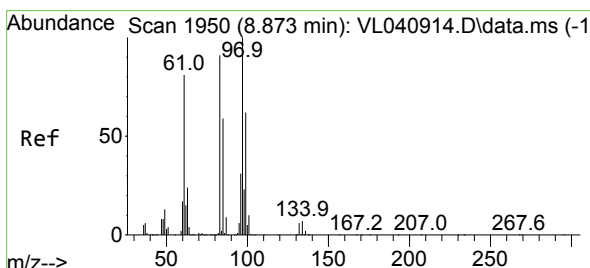
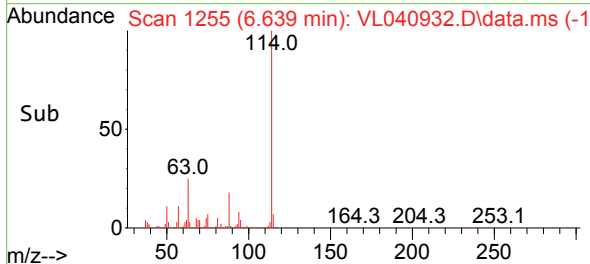
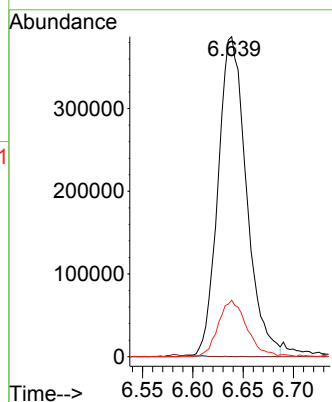
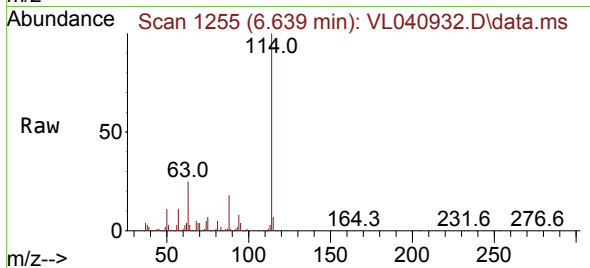
Tgt Ion: 63 Resp: 760535

Ion Ratio Lower Upper

63 100

41 0.0 59.0 88.6#

62 17.7 56.6 85.0#



#47

1,1,2-Trichloroethane

Concen: 0.034 ppbv

RT: 8.883 min Scan# 1953

Delta R.T. 0.010 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

Tgt Ion: 97 Resp: 3372

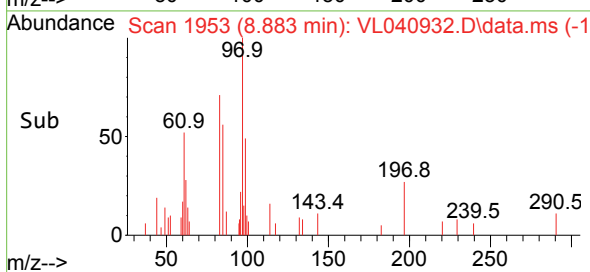
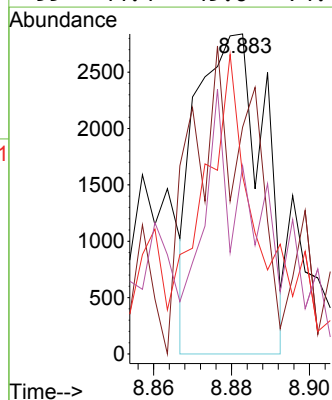
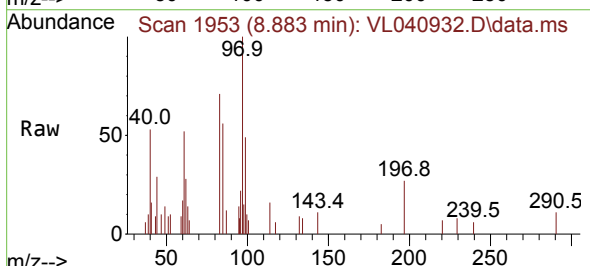
Ion Ratio Lower Upper

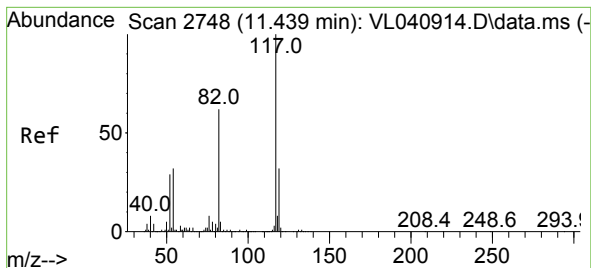
97 100

83 65.7 72.6 108.8#

85 25.7 47.4 71.0#

99 44.4 49.6 74.4#

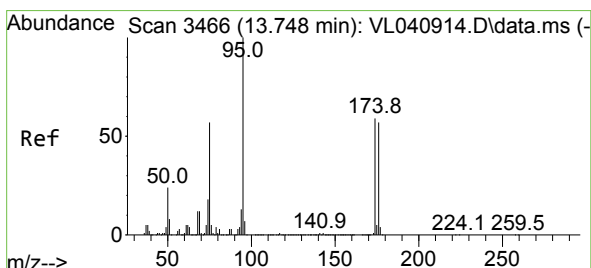
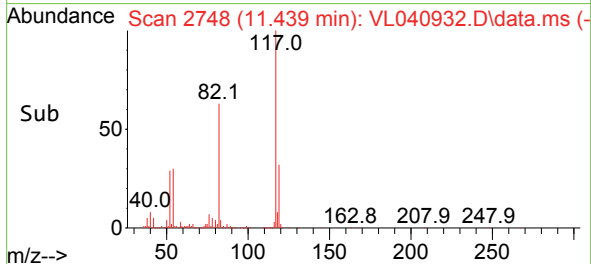
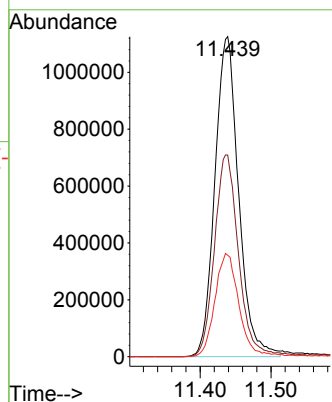
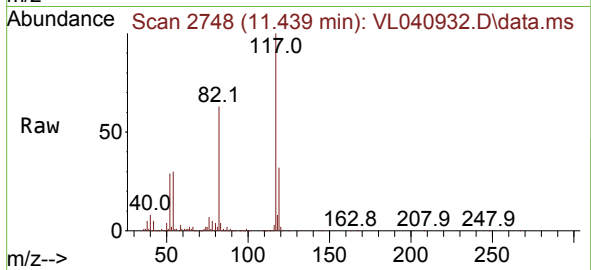




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.439 min Scan# 21  
Delta R.T. -0.000 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

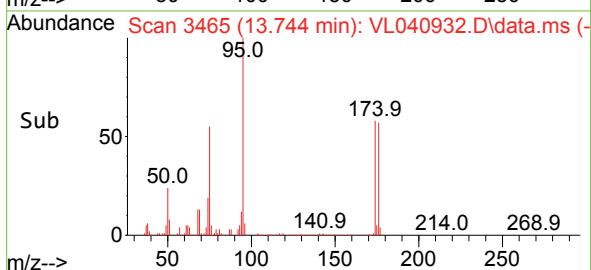
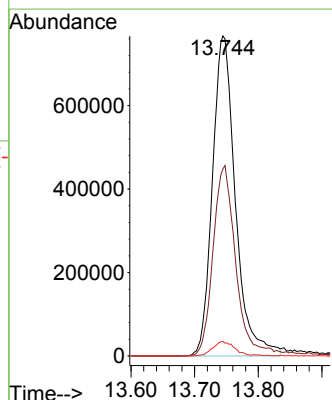
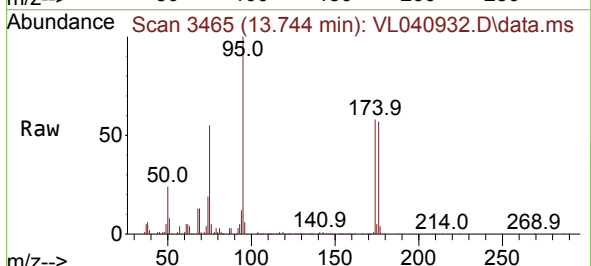
Instrument :  
MSVOA\_L  
ClientSampleId :

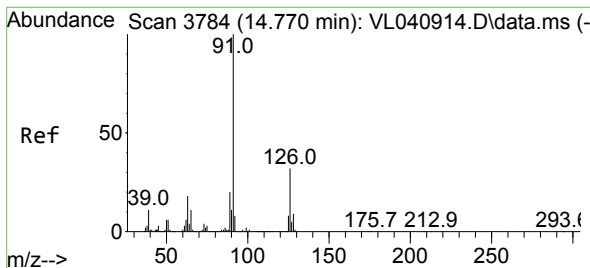
Tgt Ion:117 Resp: 2615848  
Ion Ratio Lower Upper  
117 100  
82 64.5 49.6 74.4  
119 32.9 23.4 35.0



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.977 ppbv  
RT: 13.744 min Scan# 3465  
Delta R.T. -0.003 min  
Lab File: VL040932.D  
Acq: 21 Dec 2023 16:35

Tgt Ion: 95 Resp: 1922364  
Ion Ratio Lower Upper  
95 100  
174 60.5 48.0 72.0  
175 4.5 3.7 5.5





#71

2-Chlorotoluene

Concen: 0.037 ppbv

RT: 14.773 min Scan# 31

Delta R.T. 0.003 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

Instrument :

MSVOA\_L

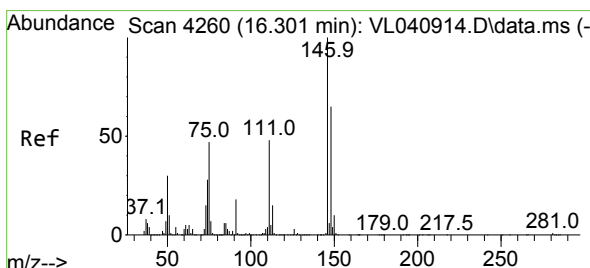
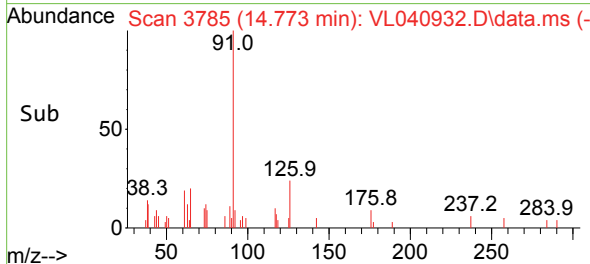
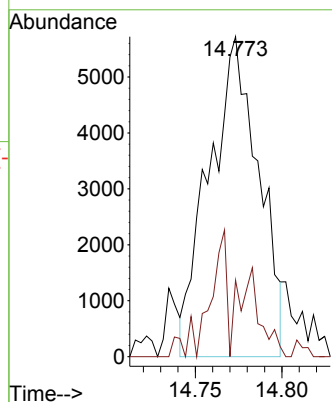
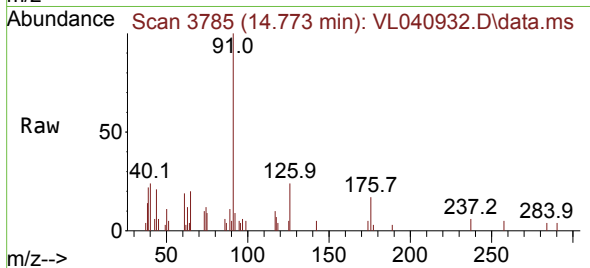
ClientSampleId :

Tgt Ion: 91 Resp: 11373

Ion Ratio Lower Upper

91 100

126 13.9 12.4 49.6



#75

1,3-Dichlorobenzene

Concen: 0.031 ppbv

RT: 16.313 min Scan# 4264

Delta R.T. 0.013 min

Lab File: VL040932.D

Acq: 21 Dec 2023 16:35

Tgt Ion:146 Resp: 4947

Ion Ratio Lower Upper

146 100

111 0.0 24.7 74.1#

148 98.9 32.1 96.5#

