

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL101525\  
 Data File : VL043121.D  
 Acq On : 15 Oct 2025 15:11  
 Operator : SY/MD  
 Sample : Q3247-01DL2 5X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 RR-VOAS-AIRDL2

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/16/2025  
 Supervised By :Mahesh Dadoda 10/17/2025

Quant Time: Oct 16 01:18:06 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101425AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 2

QLast Update : Wed Oct 15 02:12:58 2025

Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 2.793  | 49    | 92136    | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene       | 3.968  | 114   | 292972   | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          | 8.891  | 117   | 254650   | 10.000   | ppbv   | 0.00     |
|                               |        |       |          |          |        |          |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   | 10.383 | 95    | 208819   | 10.550   | ppbv   | 0.00     |
| Spiked Amount                 | 10.000 | Range | 65 - 135 | Recovery | =      | 105.500% |
|                               |        |       |          |          |        |          |
| Target Compounds              |        |       |          |          |        |          |
| 22) trans-1,2-Dichloroethene  | 2.347  | 96    | 22149    | 4.120    | ppbv   | 96       |
| 24) 1,1-Dichloroethane        | 2.415  | 63    | 69615    | 6.703    | ppbv   | 99       |
| 29) Chloroform                | 2.855  | 83    | 240303   | 11.687   | ppbv   | 99       |
| 31) cis-1,2-Dichloroethene    | 2.729  | 61    | 102767   | 7.584    | ppbv   | 97       |
| 36) Benzene                   | 3.667  | 78    | 44470    | 1.612    | ppbv   | 98       |
| 37) 1,2-Dichloroethane        | 3.227  | 62    | 146724   | 9.230    | ppbv   | 96       |
| 39) 1,2-Dichloropropane       | 4.324  | 63    | 64397    | 6.384    | ppbv # | 89       |
| 47) 1,1,2-Trichloroethane     | 6.597  | 97    | 59117    | 5.427    | ppbv   | 92       |
| 52) Tetrachloroethene         | 8.234  | 164   | 81732    | 8.214    | ppbv   | 98       |
| 53) Toluene                   | 6.946  | 91    | 143216   | 4.373    | ppbv   | 98       |
| 58) Ethyl Benzene             | 9.364  | 91    | 273590   | 6.260    | ppbv   | 95       |
| 59) m/p-Xylene                | 9.561  | 91    | 429301   | 12.316   | ppbv   | 97       |
| 60) o-Xylene                  | 9.972  | 91    | 96398    | 2.800    | ppbv   | 97       |
| 63) 1,1,2,2-Tetrachloroethane | 9.972  | 83    | 84199    | 3.652    | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 11.212 | 105   | 518652   | 14.856   | ppbv   | 94       |
| 74) 1,2,4-Trimethylbenzene    | 11.542 | 105   | 324541   | 8.307    | ppbv # | 50       |
| 75) 1,3-Dichlorobenzene       | 11.613 | 146   | 104757   | 4.623    | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 11.678 | 146   | 173354   | 7.587    | ppbv   | 98       |
| -----                         |        |       |          |          |        |          |

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

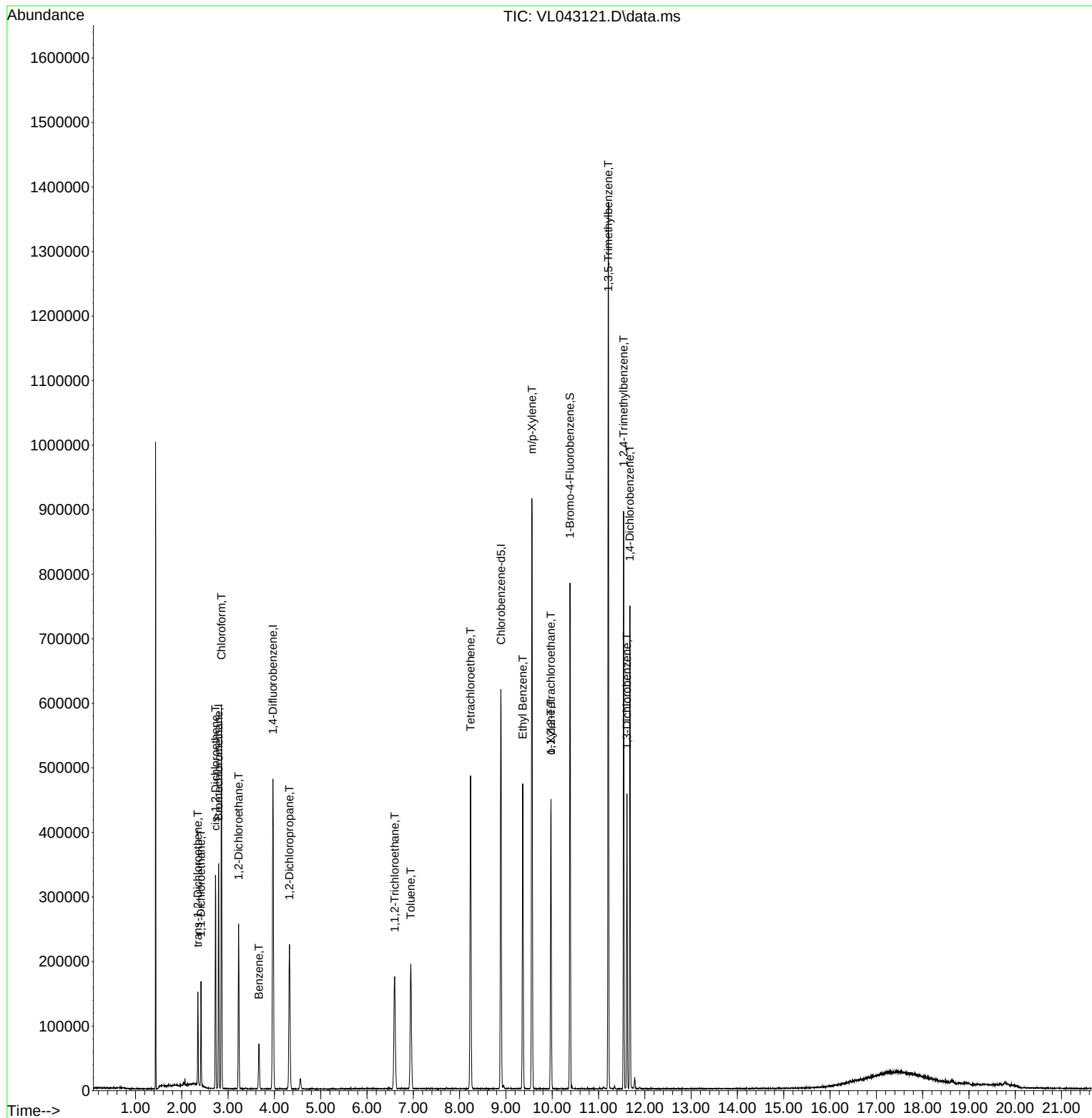
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL101525\  
Data File : VL043121.D  
Acq On : 15 Oct 2025 15:11  
Operator : SY/MD  
Sample : Q3247-01DL2 5X  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

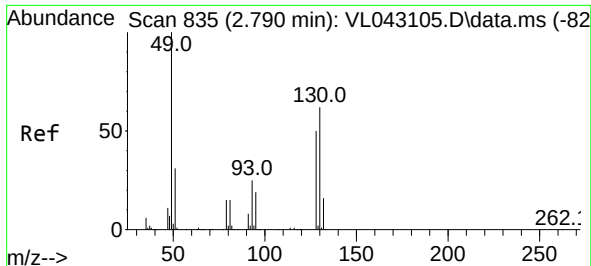
Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2

Quant Time: Oct 16 01:18:06 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101425AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug  
QLast Update : Wed Oct 15 02:12:58 2025  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By : Semsettin Yesilyurt 10/16/2025  
Supervised By : Mahesh Dadoda 10/17/2025





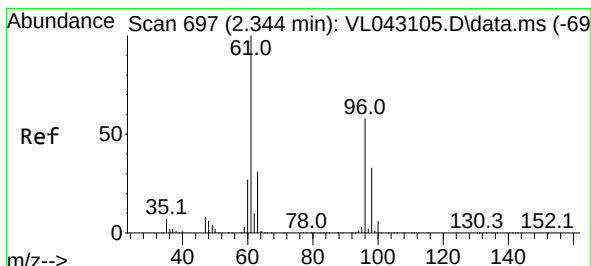
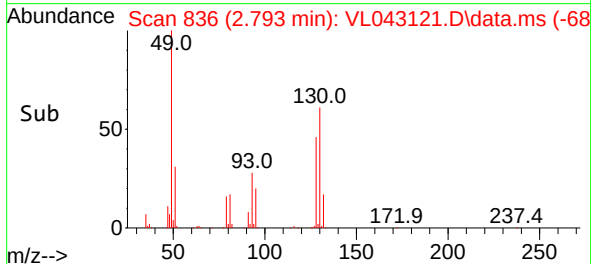
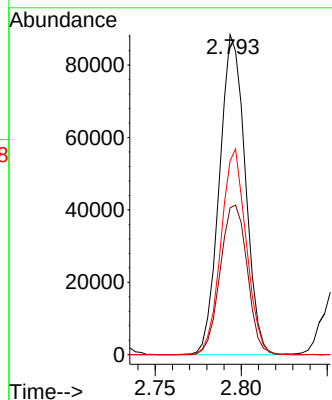
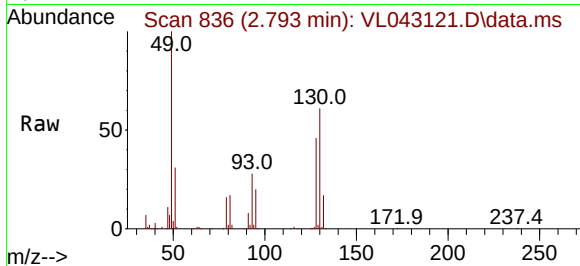
#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.793 min Scan# 81  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2

Tgt Ion: 49 Resp: 92130  
Ion Ratio Lower Upper  
49 100  
128 49.0 24.4 73.4  
130 63.0 31.0 93.0

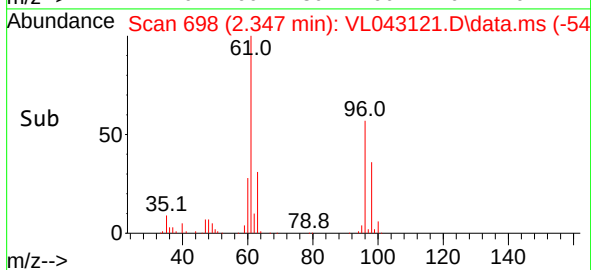
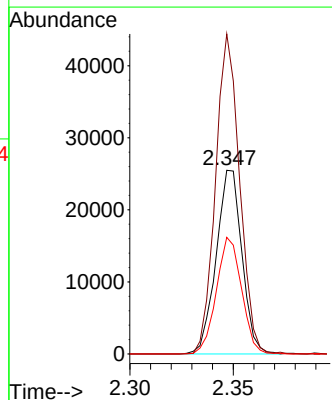
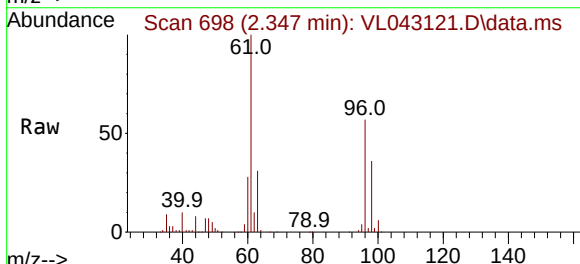
Manual Integrations  
APPROVED

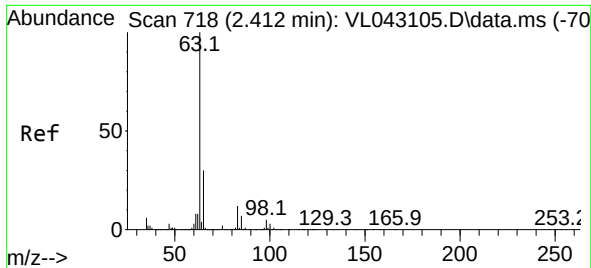
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#22  
trans-1,2-Dichloroethene  
Concen: 4.120 ppbv  
RT: 2.347 min Scan# 698  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Tgt Ion: 96 Resp: 22149  
Ion Ratio Lower Upper  
96 100  
61 174.2 137.0 205.6  
98 63.5 45.5 68.3





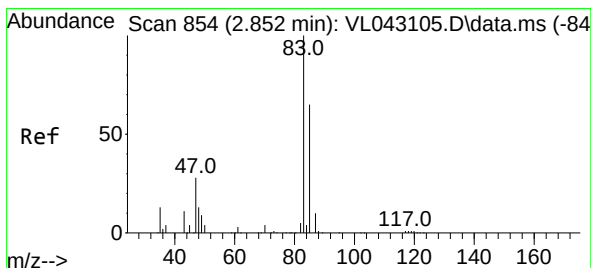
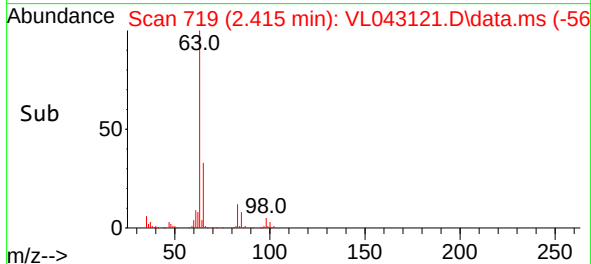
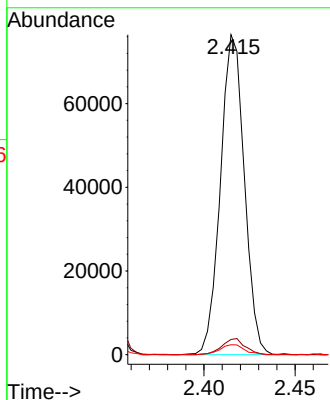
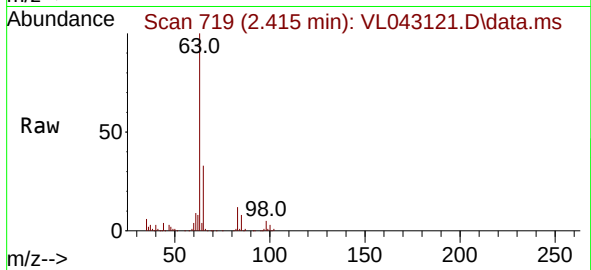
#24  
1,1-Dichloroethane  
Concen: 6.703 ppbv  
RT: 2.415 min Scan# 718  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2

Tgt Ion: 63 Resp: 69615  
Ion Ratio Lower Upper  
63 100  
98 4.8 2.6 7.8  
100 3.1 1.5 4.4

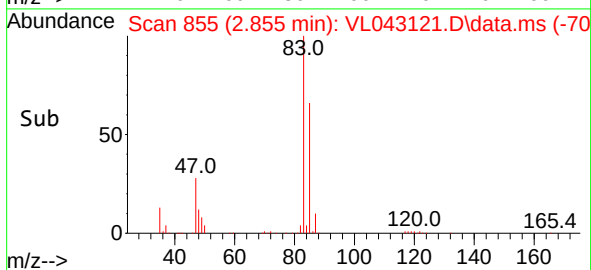
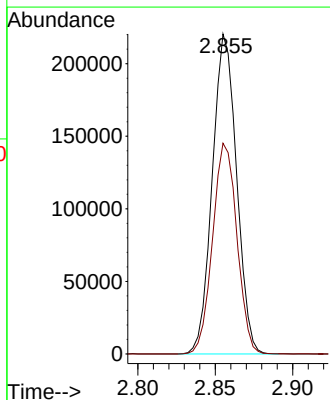
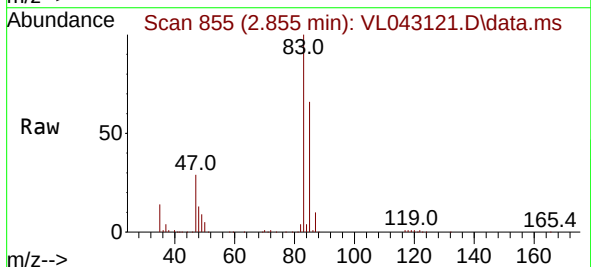
Manual Integrations  
APPROVED

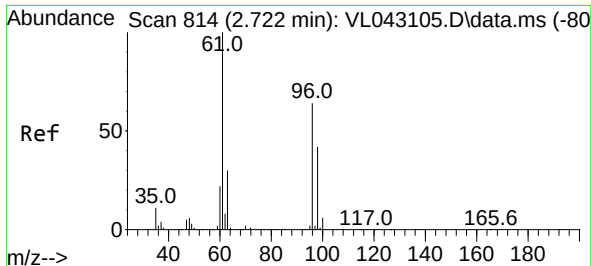
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#29  
Chloroform  
Concen: 11.687 ppbv  
RT: 2.855 min Scan# 855  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

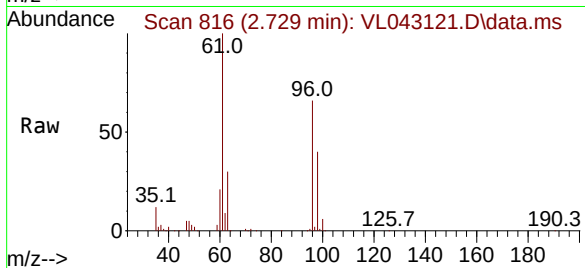
Tgt Ion: 83 Resp: 240303  
Ion Ratio Lower Upper  
83 100  
85 65.8 51.8 77.6





#31  
 cis-1,2-Dichloroethene  
 Concen: 7.584 ppbv  
 RT: 2.729 min Scan# 814  
 Delta R.T. 0.006 min  
 Lab File: VL043121.D  
 Acq: 15 Oct 2025 15:11

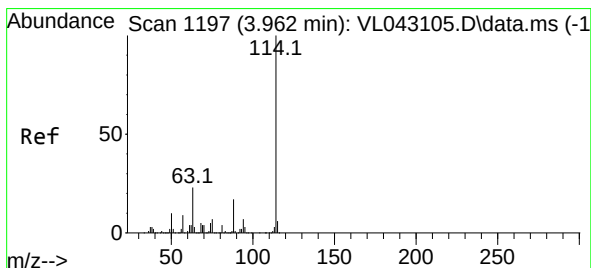
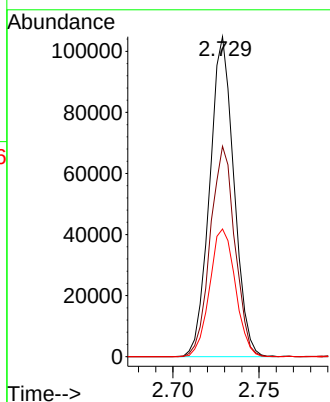
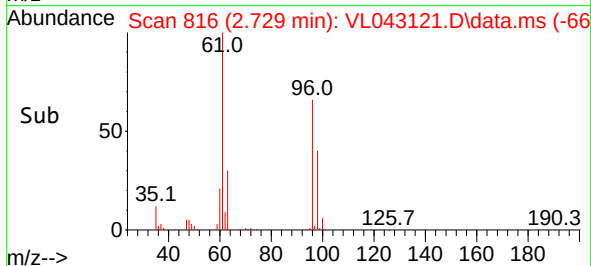
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 RR-VOAS-AIRDL2



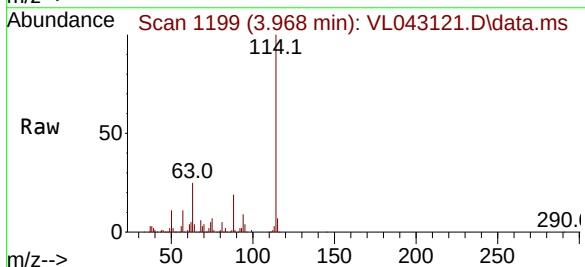
Tgt Ion: 61 Resp: 102761  
 Ion Ratio Lower Upper  
 61 100  
 96 65.7 51.0 76.6  
 98 39.9 33.5 50.3

Manual Integrations  
 APPROVED

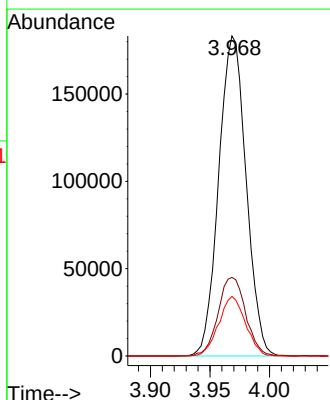
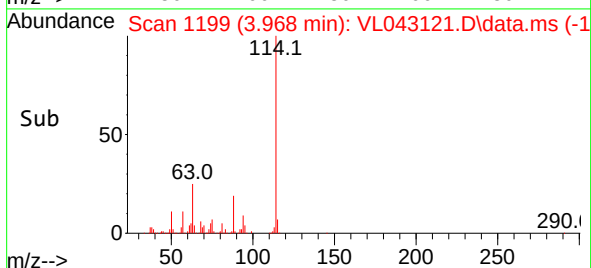
Reviewed By :Semsettin Yesilyurt 10/16/2025  
 Supervised By :Mahesh Dadoda 10/17/2025

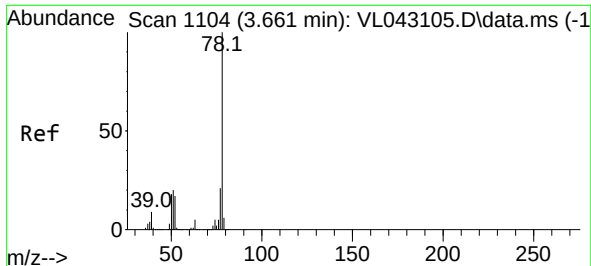


#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 3.968 min Scan# 1199  
 Delta R.T. 0.006 min  
 Lab File: VL043121.D  
 Acq: 15 Oct 2025 15:11



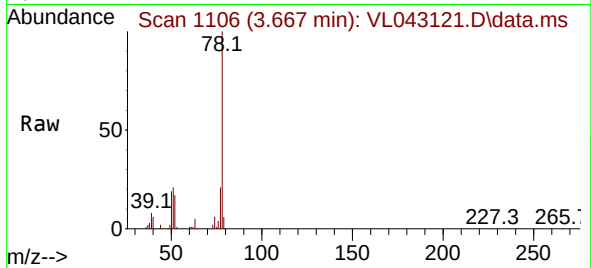
Tgt Ion:114 Resp: 292972  
 Ion Ratio Lower Upper  
 114 100  
 63 24.7 19.3 28.9  
 88 18.2 13.9 20.9





#36  
Benzene  
Concen: 1.612 ppbv  
RT: 3.667 min Scan# 1106  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

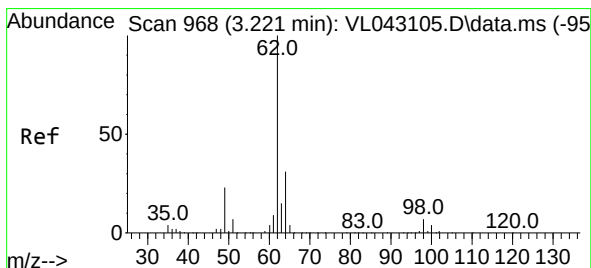
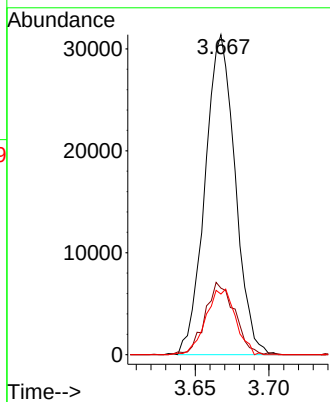
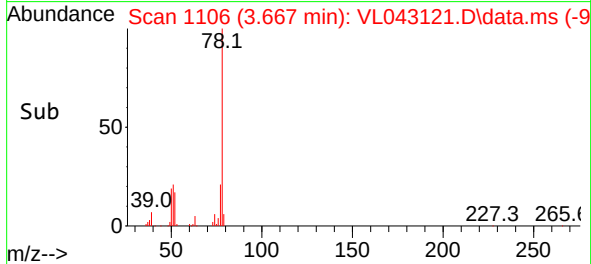
Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2



Tgt Ion: 78 Resp: 44470  
Ion Ratio Lower Upper  
78 100  
77 20.5 17.0 25.6  
50 19.0 14.6 22.0

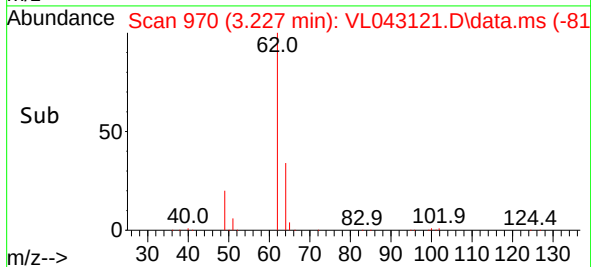
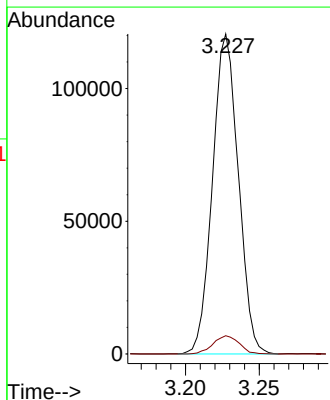
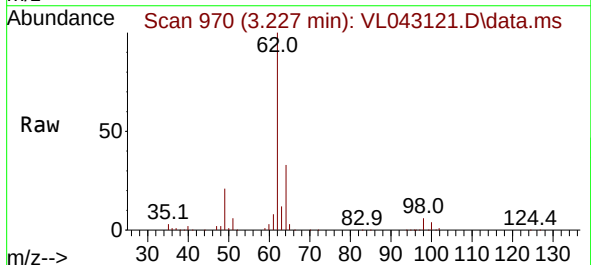
Manual Integrations  
APPROVED

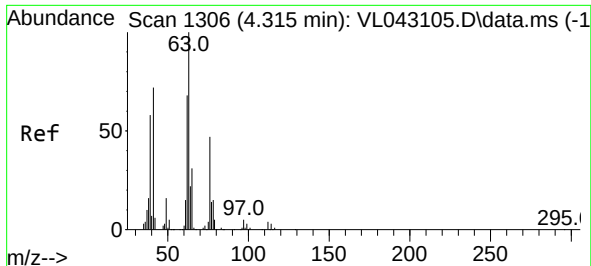
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#37  
1,2-Dichloroethane  
Concen: 9.230 ppbv  
RT: 3.227 min Scan# 970  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Tgt Ion: 62 Resp: 146724  
Ion Ratio Lower Upper  
62 100  
98 5.8 5.8 8.6





#39

1,2-Dichloropropane

Concen: 6.384 ppbv

RT: 4.324 min Scan# 11

Delta R.T. 0.010 min

Lab File: VL043121.D

Acq: 15 Oct 2025 15:11

Instrument :

MSVOA\_L

ClientSampleId :

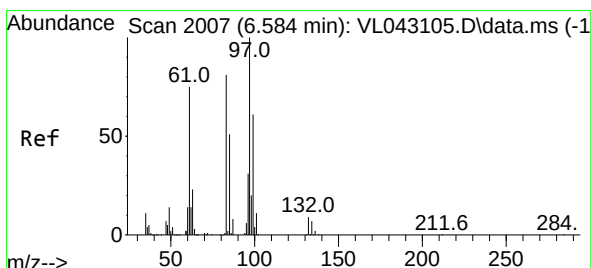
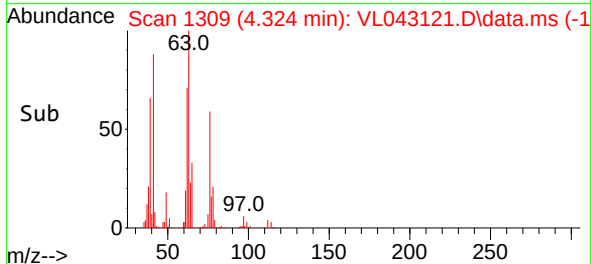
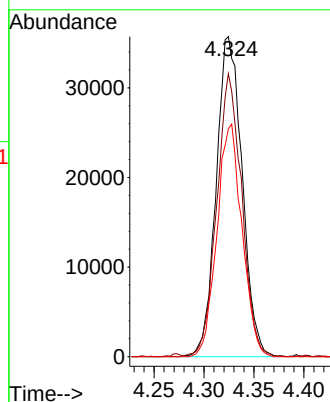
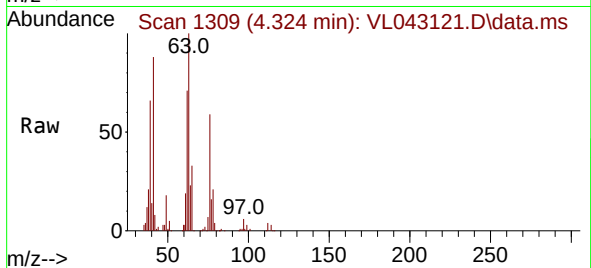
RR-VOAS-AIRDL2

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 63    | Resp: | 6439 |
| Ion Ratio | Lower | Upper |      |
| 63        | 100   |       |      |
| 41        | 88.1  | 58.0  | 87.0 |
| 62        | 71.2  | 54.7  | 82.1 |

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#47

1,1,2-Trichloroethane

Concen: 5.427 ppbv

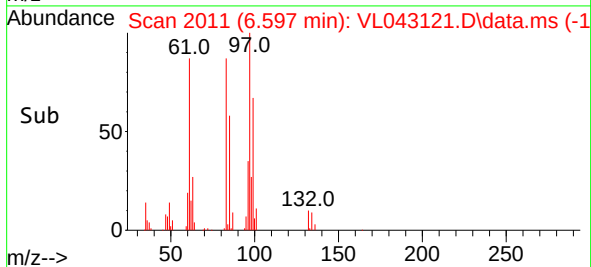
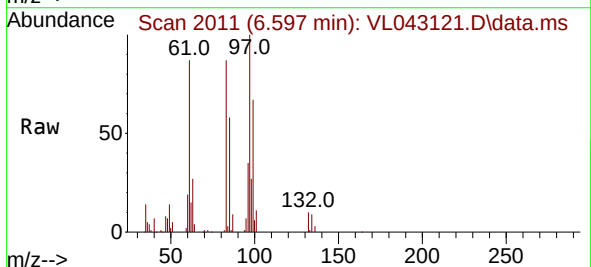
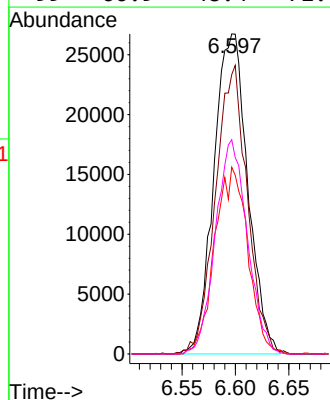
RT: 6.597 min Scan# 2011

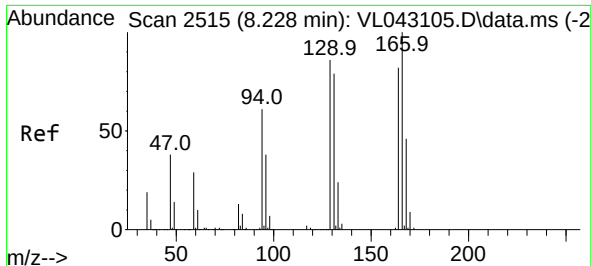
Delta R.T. 0.013 min

Lab File: VL043121.D

Acq: 15 Oct 2025 15:11

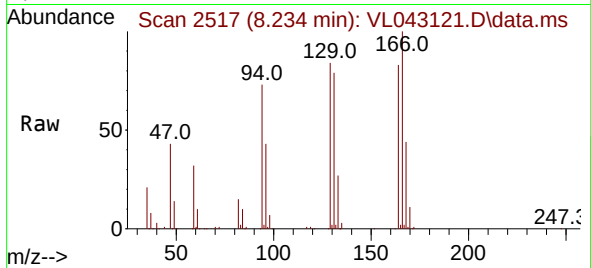
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 97    | Resp: | 59117 |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 83        | 86.8  | 64.6  | 96.8  |
| 85        | 58.3  | 40.6  | 60.8  |
| 99        | 66.9  | 48.4  | 72.6  |





#52  
Tetrachloroethene  
Concen: 8.214 ppbv  
RT: 8.234 min Scan# 2119  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

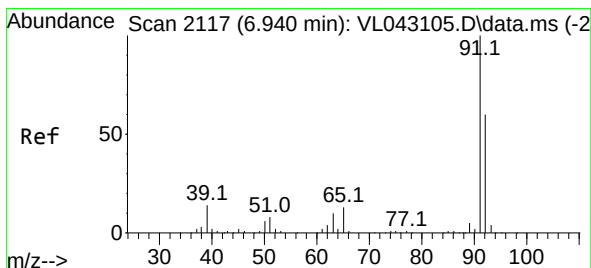
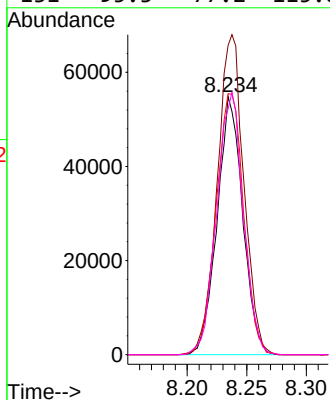
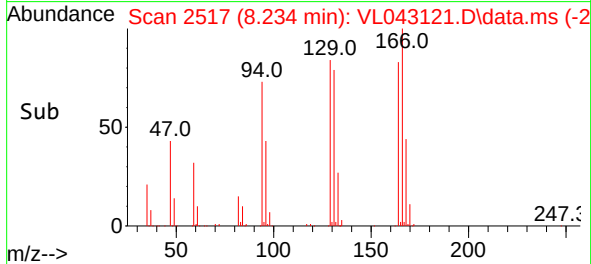
Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2



Tgt Ion:164 Resp: 8173  
Ion Ratio Lower Upper  
164 100  
166 119.9 97.6 146.4  
129 101.1 84.5 126.7  
131 95.3 77.2 115.8

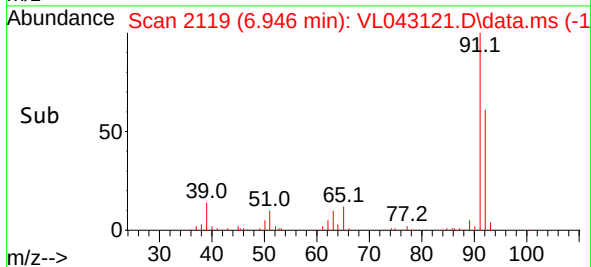
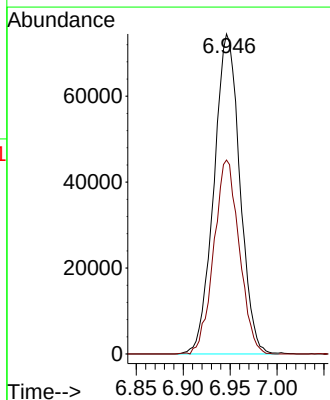
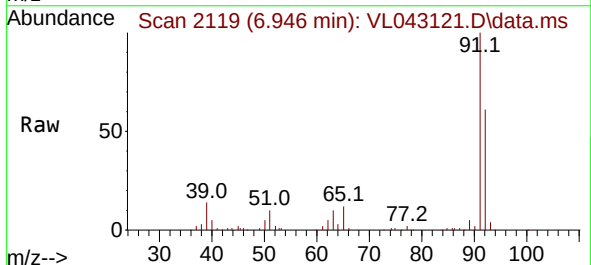
Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025

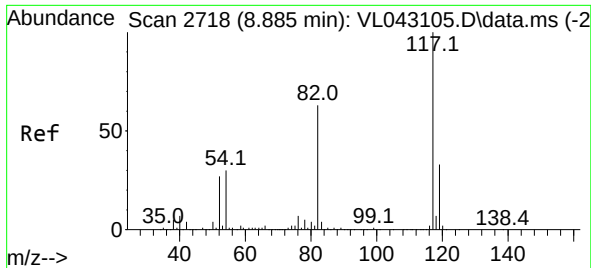


#53  
Toluene  
Concen: 4.373 ppbv  
RT: 6.946 min Scan# 2119  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Tgt Ion: 91 Resp: 143216  
Ion Ratio Lower Upper  
91 100  
92 59.4 48.8 73.2

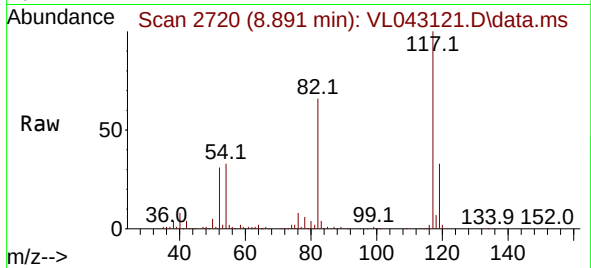






#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.891 min Scan# 21  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

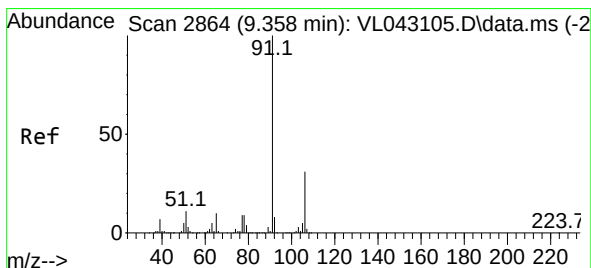
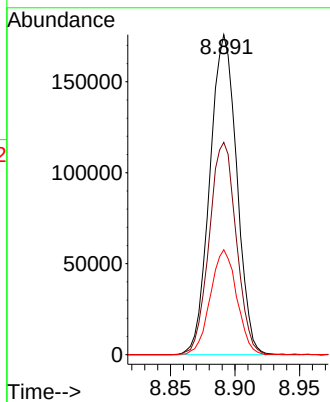
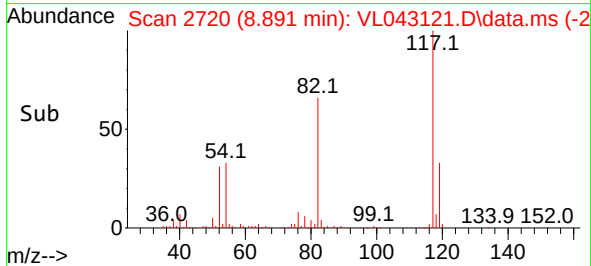
Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2



Tgt Ion:117 Resp: 254650  
Ion Ratio Lower Upper  
117 100  
82 66.8 53.8 80.8  
119 32.2 25.4 38.0

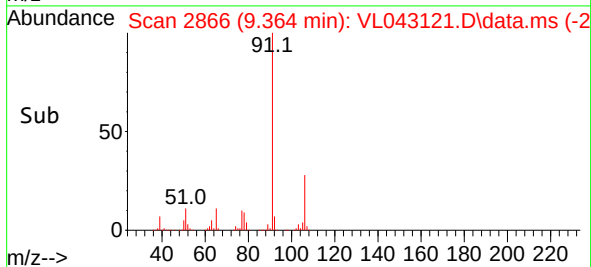
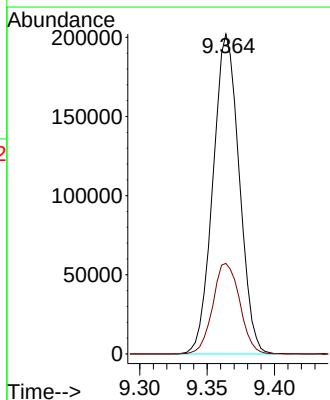
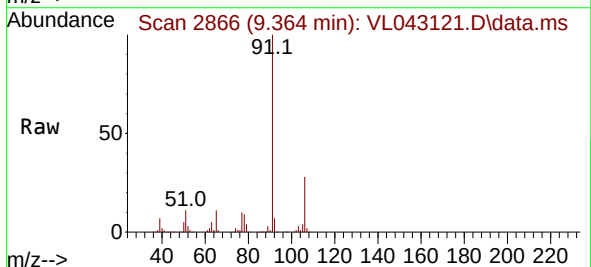
Manual Integrations  
APPROVED

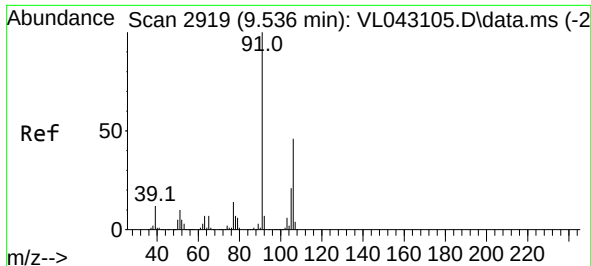
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#58  
Ethyl Benzene  
Concen: 6.260 ppbv  
RT: 9.364 min Scan# 2866  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

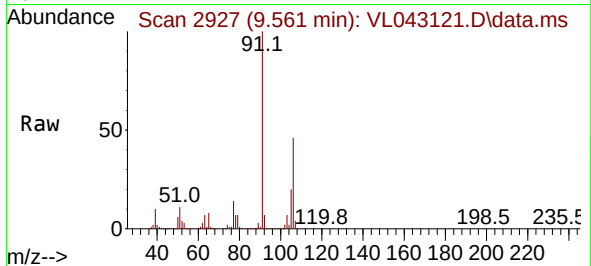
Tgt Ion: 91 Resp: 273590  
Ion Ratio Lower Upper  
91 100  
106 28.3 24.8 37.2





#59  
m/p-Xylene  
Concen: 12.316 ppbv  
RT: 9.561 min Scan# 2919  
Delta R.T. 0.026 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

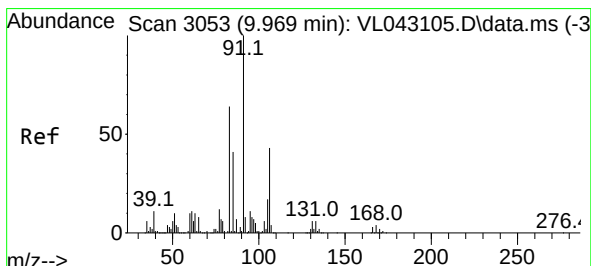
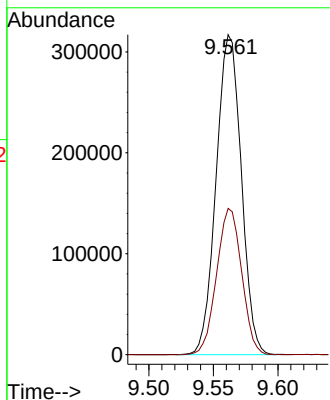
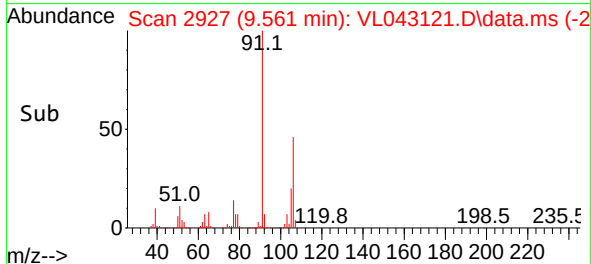
Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2



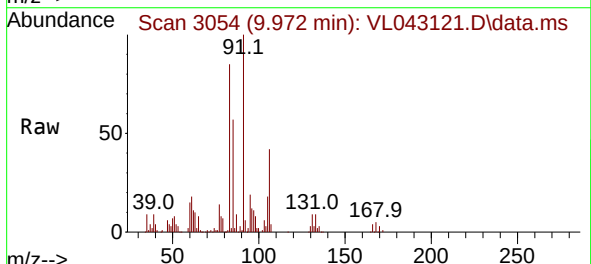
Tgt Ion: 91 Resp: 42930  
Ion Ratio Lower Upper  
91 100  
106 45.6 38.0 57.0

Manual Integrations  
APPROVED

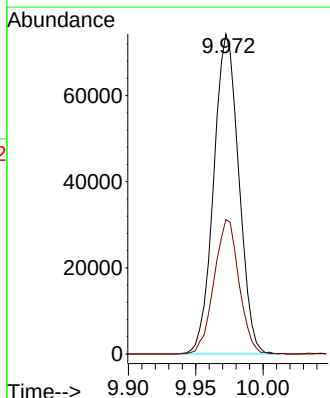
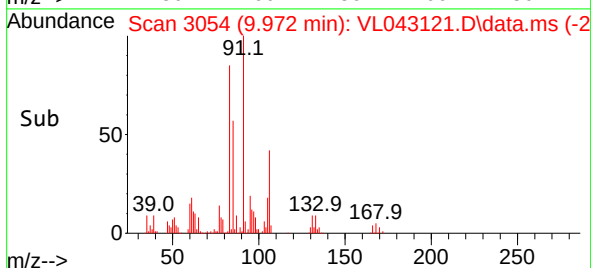
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025

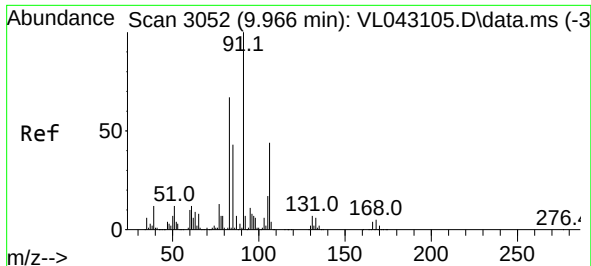


#60  
o-Xylene  
Concen: 2.800 ppbv  
RT: 9.972 min Scan# 3054  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11



Tgt Ion: 91 Resp: 96398  
Ion Ratio Lower Upper  
91 100  
106 41.7 21.9 65.8





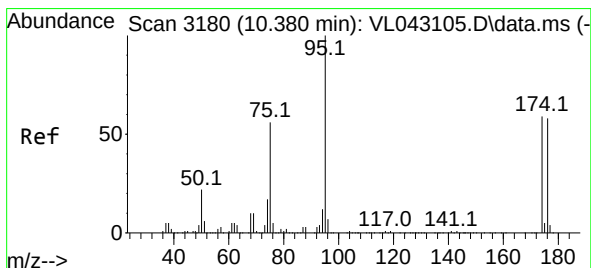
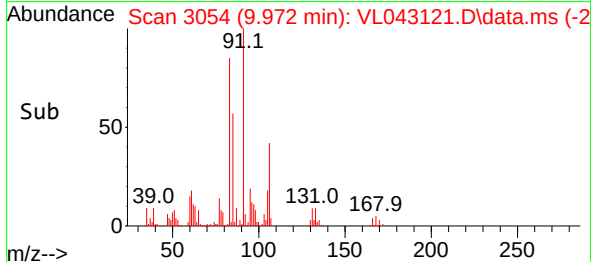
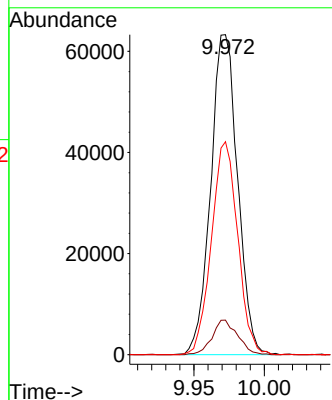
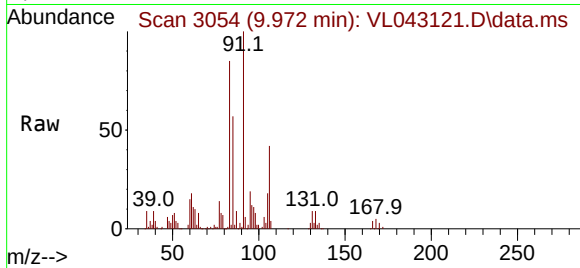
#63  
1,1,2,2-Tetrachloroethane  
Concen: 3.652 ppbv  
RT: 9.972 min Scan# 3052  
Delta R.T. 0.006 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2

Tgt Ion: 83 Resp: 84199  
Ion Ratio Lower Upper  
83 100  
131 10.2 4.8 14.3  
85 65.0 32.0 96.0

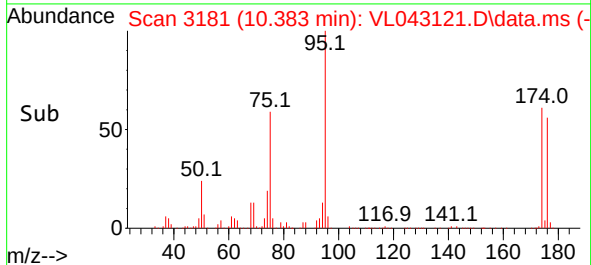
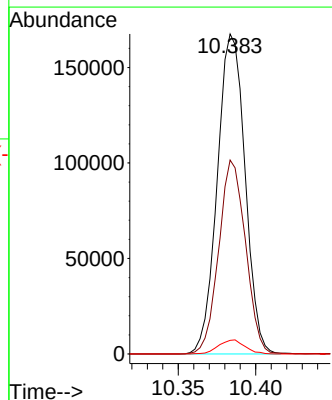
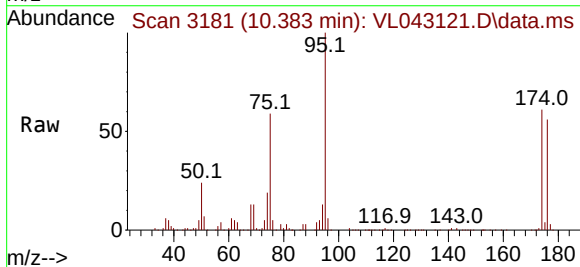
Manual Integrations  
APPROVED

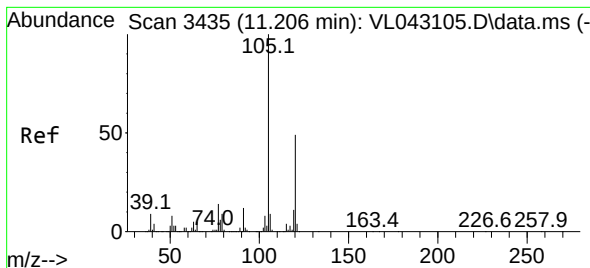
Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.550 ppbv  
RT: 10.383 min Scan# 3181  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Tgt Ion: 95 Resp: 208819  
Ion Ratio Lower Upper  
95 100  
174 58.5 48.3 72.5  
175 4.2 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 14.856 ppbv

RT: 11.212 min Scan# 3435

Delta R.T. 0.006 min

Lab File: VL043121.D

Acq: 15 Oct 2025 15:11

Instrument :

MSVOA\_L

ClientSampleId :

RR-VOAS-AIRDL2

Tgt Ion:105 Resp: 518652

Ion Ratio Lower Upper

105 100

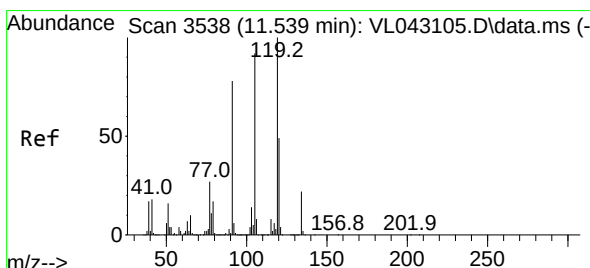
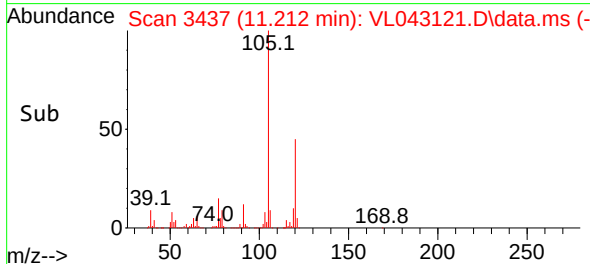
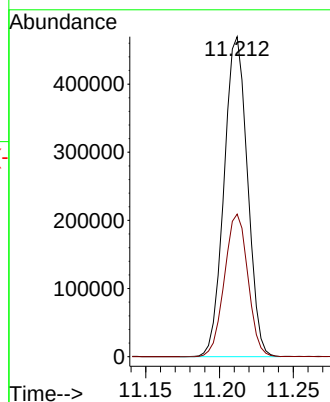
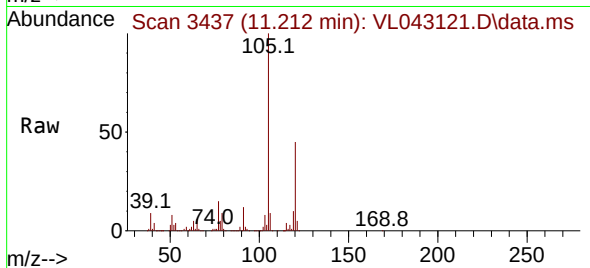
120 44.6 39.0 58.6

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 10/16/2025

Supervised By :Mahesh Dadoda 10/17/2025



#74

1,2,4-Trimethylbenzene

Concen: 8.307 ppbv

RT: 11.542 min Scan# 3539

Delta R.T. 0.003 min

Lab File: VL043121.D

Acq: 15 Oct 2025 15:11

Tgt Ion:105 Resp: 324541

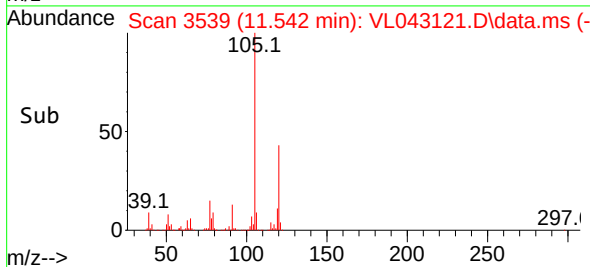
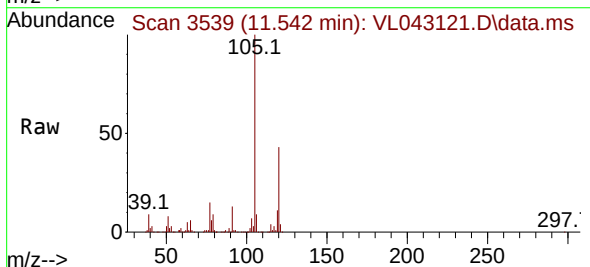
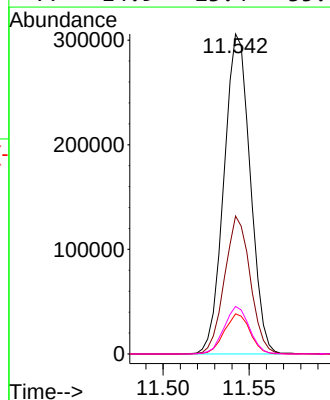
Ion Ratio Lower Upper

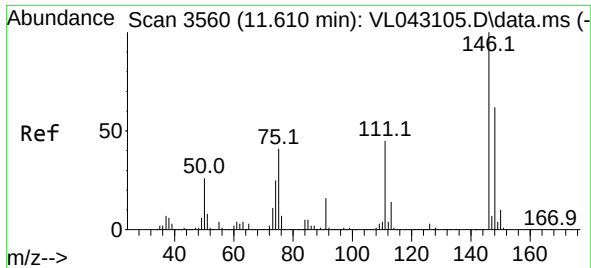
105 100

120 43.1 42.8 64.2

91 12.5 68.3 102.5#

77 14.9 23.4 35.0#





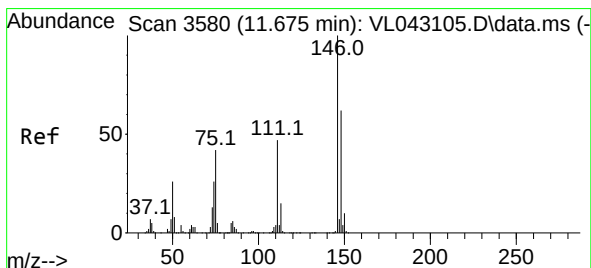
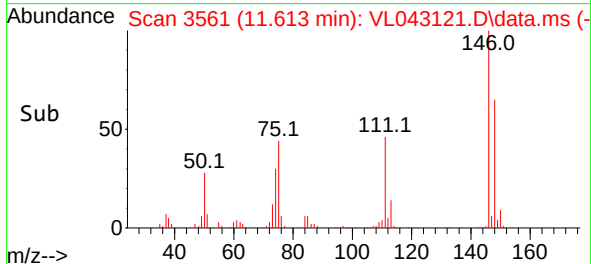
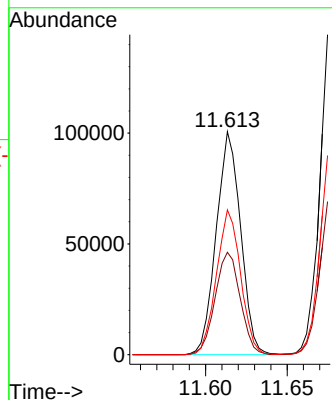
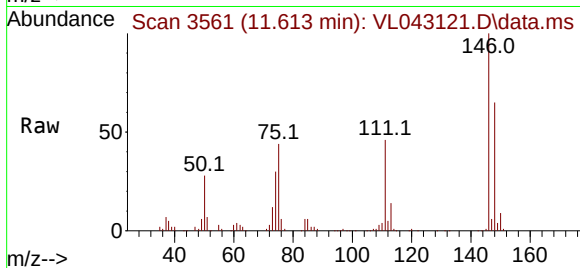
#75  
1,3-Dichlorobenzene  
Concen: 4.623 ppbv  
RT: 11.613 min Scan# 3561  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Instrument :  
MSVOA\_L  
ClientSampleId :  
RR-VOAS-AIRDL2

Tgt Ion:146 Resp: 10475  
Ion Ratio Lower Upper  
146 100  
111 47.3 23.3 69.9  
148 64.2 31.6 95.0

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 10/16/2025  
Supervised By :Mahesh Dadoda 10/17/2025



#76  
1,4-Dichlorobenzene  
Concen: 7.587 ppbv  
RT: 11.678 min Scan# 3581  
Delta R.T. 0.003 min  
Lab File: VL043121.D  
Acq: 15 Oct 2025 15:11

Tgt Ion:146 Resp: 173354  
Ion Ratio Lower Upper  
146 100  
111 46.6 22.4 67.0  
148 64.1 31.6 94.7

