

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL110823\  
 Data File : VL040822.D  
 Acq On : 8 Nov 2023 22:35  
 Operator : SY/MD  
 Sample : 05276-04  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SH-IA-4

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023  
 Supervised By :Mahesh Dadoda 11/13/2023

Quant Time: Nov 09 00:34:35 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M

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

QLast Update : Thu Nov 09 00:25:02 2023

Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.211  | 49    | 1018457  | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene     | 6.664  | 114   | 2625984  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 11.461 | 117   | 2076906  | 10.000   | ppbv   | 0.00     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.770 | 95    | 1465100  | 9.587    | ppbv   | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 95.900%  |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane  | 2.774  | 85    | 103136   | 0.575    | ppbv   | 99       |
| 3) Chlorodifluoromethane    | 2.719  | 51    | 71123m   | 0.475    | ppbv   |          |
| 4) Chloromethane            | 2.857  | 50    | 28459m   | 0.482    | ppbv   |          |
| 9) Propene                  | 2.748  | 41    | 101256m  | 1.821    | ppbv   |          |
| 10) Heptane                 | 7.597  | 43    | 25705m   | 0.184    | ppbv   |          |
| 11) Trichlorofluoromethane  | 3.597  | 101   | 38699    | 0.280    | ppbv   | 100      |
| 13) Ethanol                 | 3.279  | 45    | 250493   | 19.960   | ppbv   | 99       |
| 15) Acetone                 | 3.507  | 43    | 479402m  | 4.553    | ppbv   |          |
| 19) Isopropyl Alcohol       | 3.626  | 45    | 155591   | 2.296    | ppbv # | 1        |
| 20) Methylene Chloride      | 3.967  | 84    | 871018   | 19.861   | ppbv   | 97       |
| 26) Hexane                  | 5.233  | 57    | 1478523  | 14.023   | ppbv # | 41       |
| 30) Cyclohexane             | 6.613  | 84    | 12790m   | 0.143    | ppbv   |          |
| 34) 2-Butanone              | 4.819  | 43    | 49628    | 0.418    | ppbv # | 90       |
| 35) Carbon Tetrachloride    | 6.503  | 117   | 11199m   | 0.076    | ppbv   |          |
| 36) Benzene                 | 6.385  | 78    | 98623    | 0.488    | ppbv # | 89       |
| 44) 2,2,4-Trimethylpentane  | 7.333  | 57    | 100891   | 0.295    | ppbv # | 82       |
| 52) Tetrachloroethene       | 10.619 | 164   | 3318m    | 0.040    | ppbv   |          |
| 53) Toluene                 | 9.217  | 91    | 181950   | 0.757    | ppbv   | 99       |
| 58) Ethyl Benzene           | 12.085 | 91    | 38739m   | 0.148    | ppbv   |          |
| 59) m/p-Xylene              | 12.346 | 91    | 96246m   | 0.447    | ppbv   |          |
| 60) o-Xylene                | 13.053 | 91    | 39708m   | 0.194    | ppbv   |          |
| 74) 1,2,4-Trimethylbenzene  | 16.104 | 105   | 43849m   | 0.190    | ppbv   |          |
| -----                       |        |       |          |          |        |          |

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

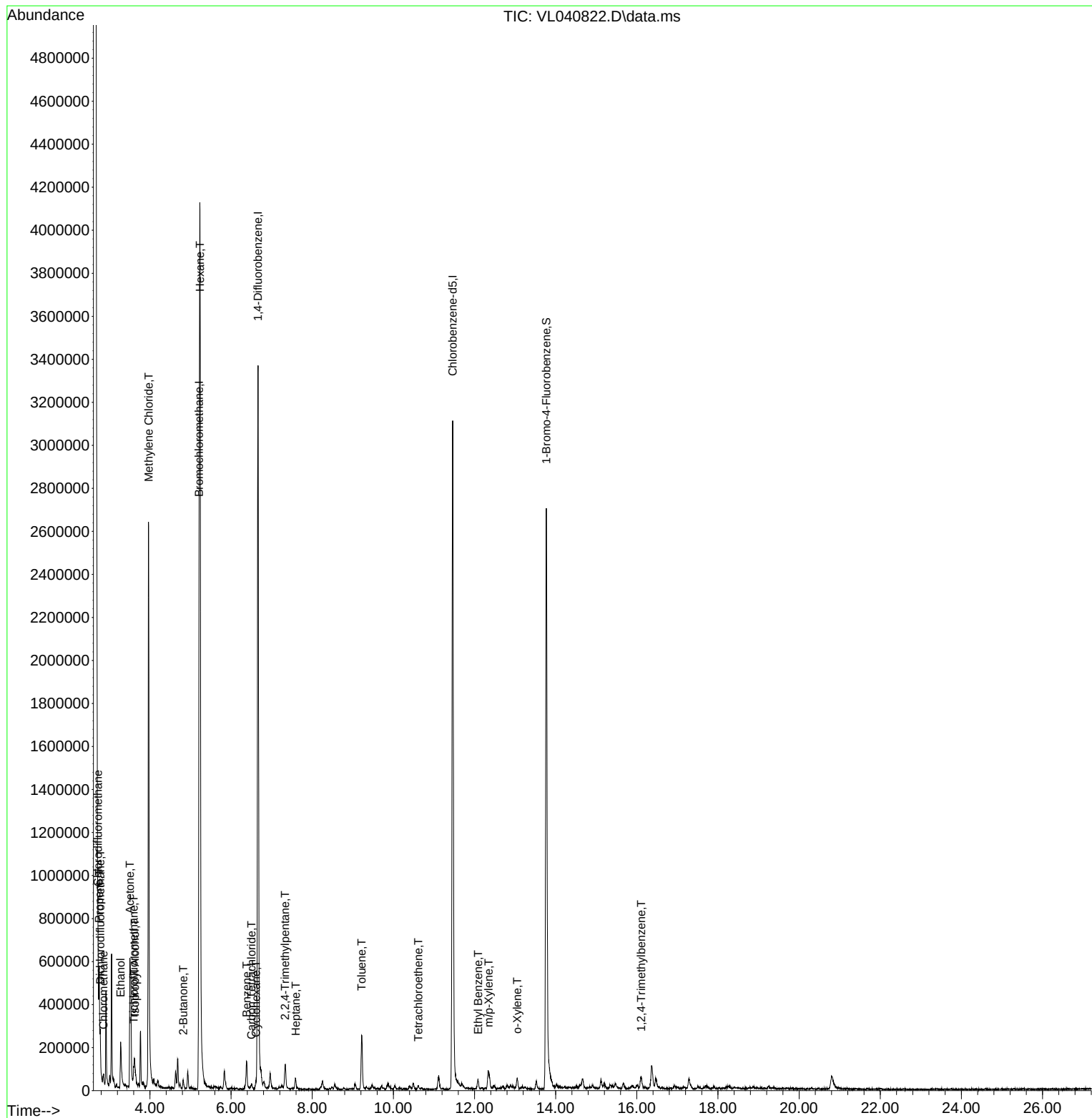
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL110823\  
Data File : VL040822.D  
Acq On : 8 Nov 2023 22:35  
Operator : SY/MD  
Sample : 05276-04  
Misc : 400mL/MSVOA\_L  
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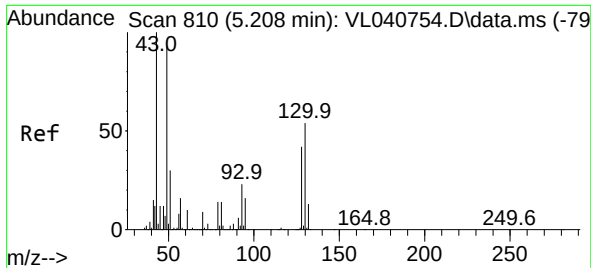
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4

Quant Time: Nov 09 00:34:35 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug  
QLast Update : Thu Nov 09 00:25:02 2023  
Response via : Initial Calibration

Manual Integrations  
APPROVED

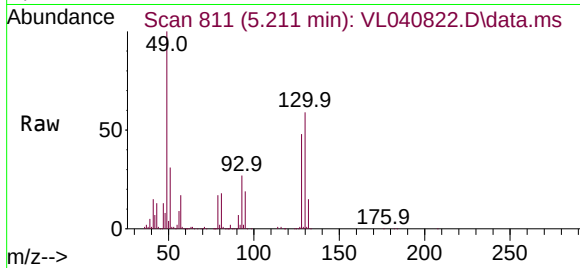
Reviewed By : Semsettin Yesilyurt 11/11/2023  
Supervised By : Mahesh Dadoda 11/13/2023





#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.211 min Scan# 81  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

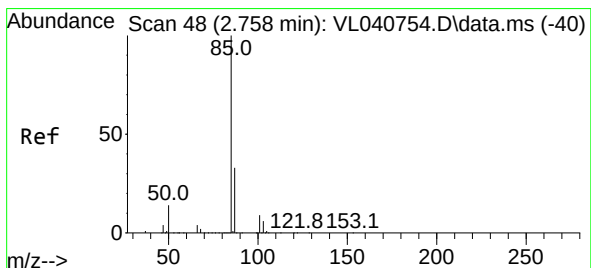
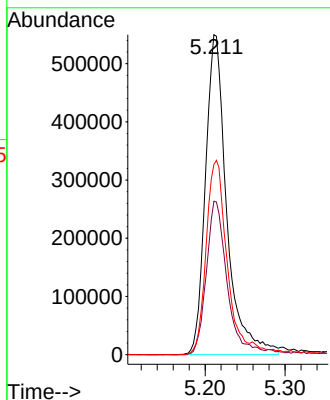
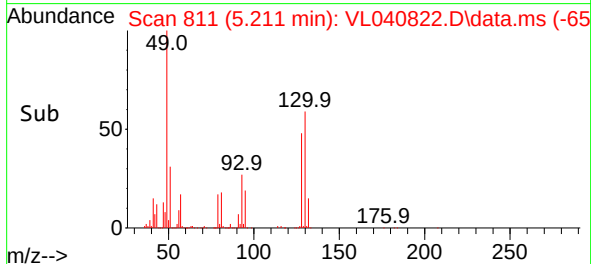
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



Tgt Ion: 49 Resp: 101845  
Ion Ratio Lower Upper  
49 100  
128 48.7 23.9 71.7  
130 61.1 30.7 92.1

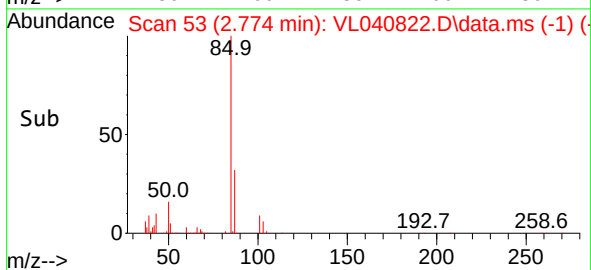
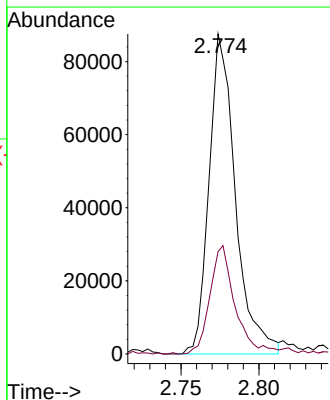
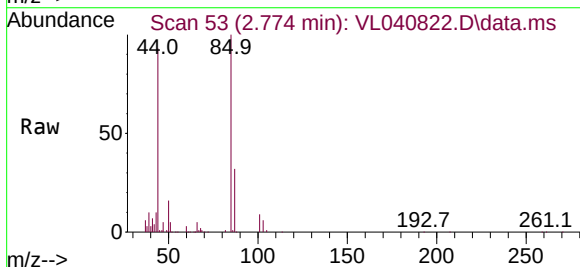
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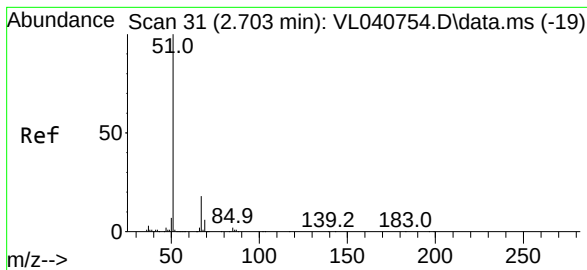
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#2  
Dichlorodifluoromethane  
Concen: 0.575 ppbv  
RT: 2.774 min Scan# 53  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Tgt Ion: 85 Resp: 103136  
Ion Ratio Lower Upper  
85 100  
87 32.0 26.0 39.0





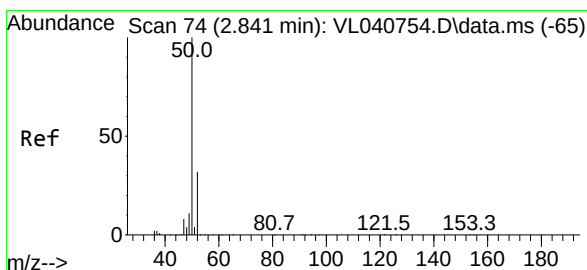
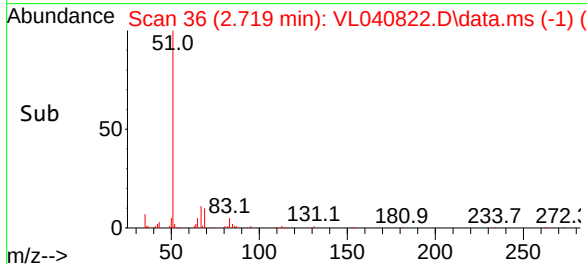
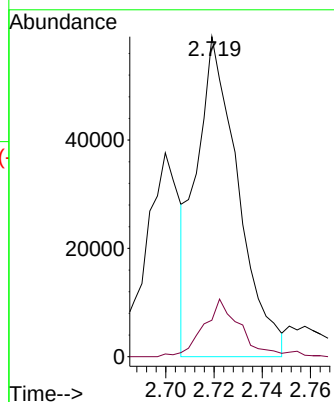
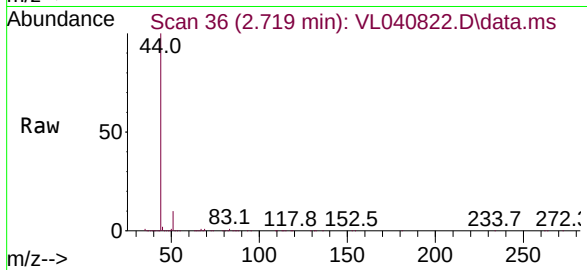
#3  
Chlorodifluoromethane  
Concen: 0.475 ppbv m  
RT: 2.719 min Scan# 30  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4

Tgt Ion: 51 Resp: 7112  
Ion Ratio Lower Upper  
51 100  
67 16.2 13.8 20.6

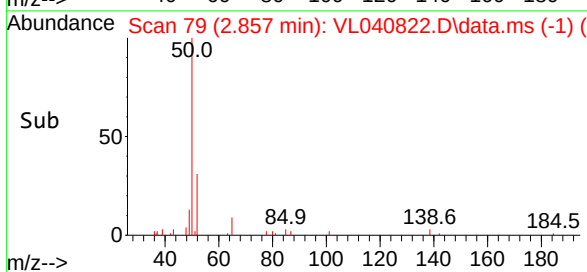
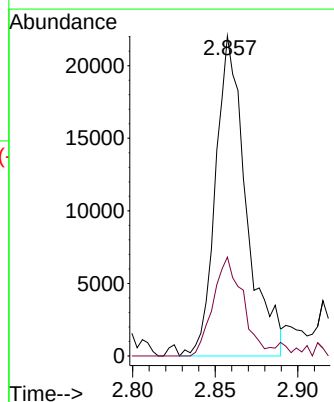
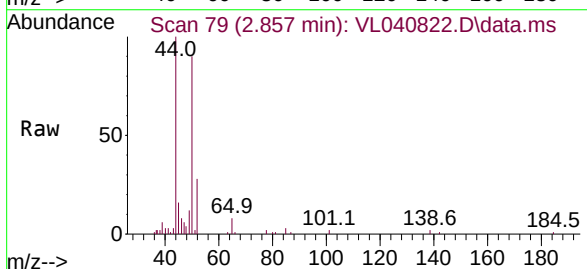
Manual Integrations  
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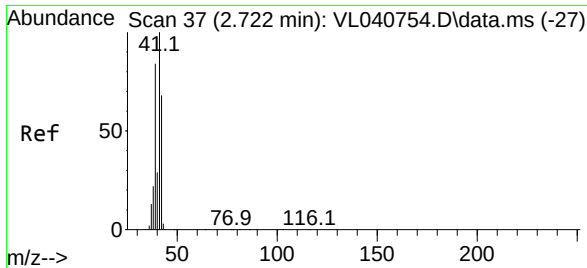
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#4  
Chloromethane  
Concen: 0.482 ppbv m  
RT: 2.857 min Scan# 79  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

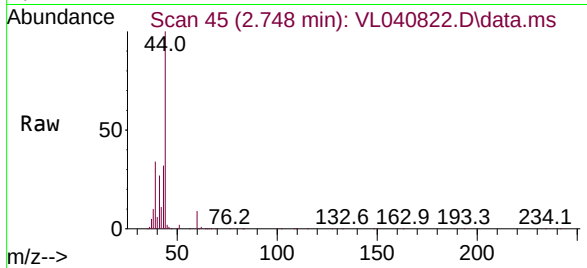
Tgt Ion: 50 Resp: 28459  
Ion Ratio Lower Upper  
50 100  
52 30.9 25.3 37.9





#9  
 Propene  
 Concen: 1.821 ppbv m  
 RT: 2.748 min Scan# 41  
 Delta R.T. 0.013 min  
 Lab File: VL040822.D  
 Acq: 8 Nov 2023 22:35

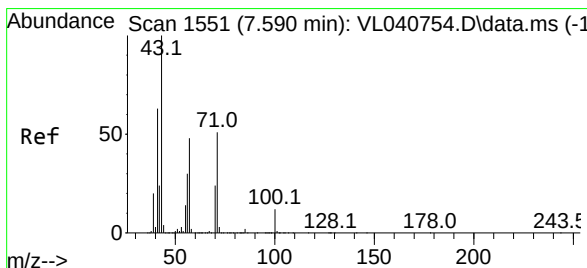
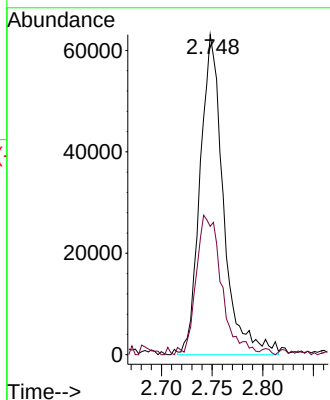
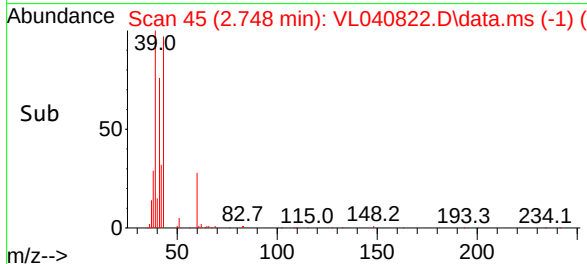
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SH-IA-4



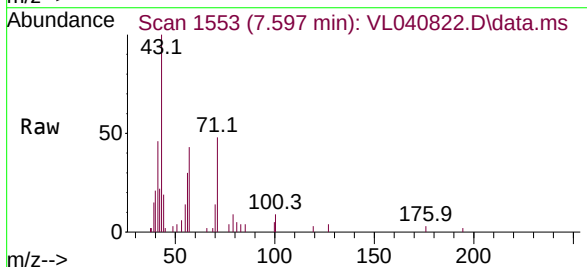
Tgt Ion: 41 Resp: 101250  
 Ion Ratio Lower Upper  
 41 100  
 42 80.9 57.1 85.7

Manual Integrations  
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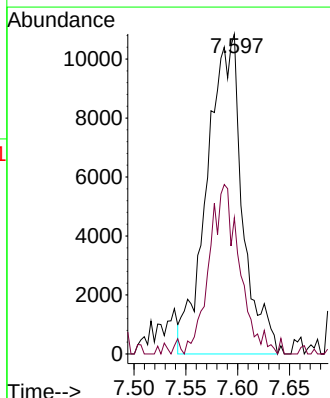
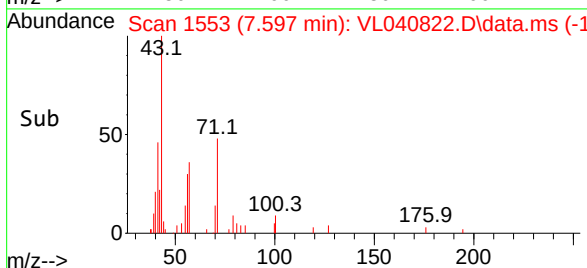
Reviewed By :Semsettin Yesilyurt 11/11/2023  
 Supervised By :Mahesh Dadoda 11/13/2023

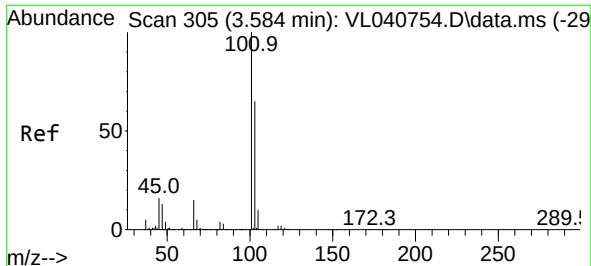


#10  
 Heptane  
 Concen: 0.184 ppbv m  
 RT: 7.597 min Scan# 1553  
 Delta R.T. 0.010 min  
 Lab File: VL040822.D  
 Acq: 8 Nov 2023 22:35



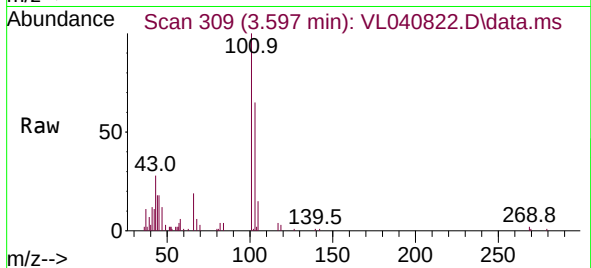
Tgt Ion: 43 Resp: 25705  
 Ion Ratio Lower Upper  
 43 100  
 57 46.9 40.0 60.0





#11  
Trichlorofluoromethane  
Concen: 0.280 ppbv  
RT: 3.597 min Scan# 305  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

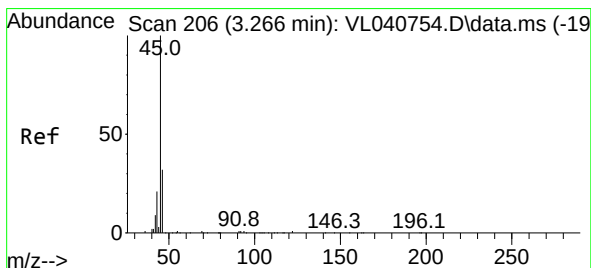
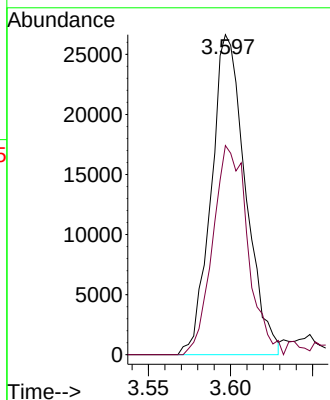
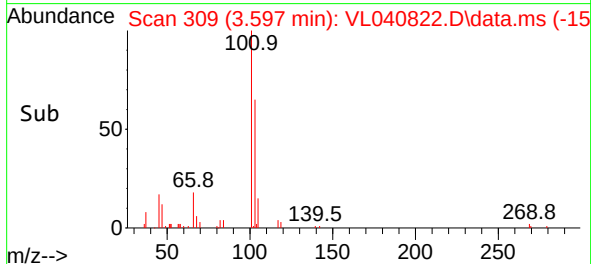
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



Tgt Ion:101 Resp: 3869  
Ion Ratio Lower Upper  
101 100  
103 65.3 52.2 78.2

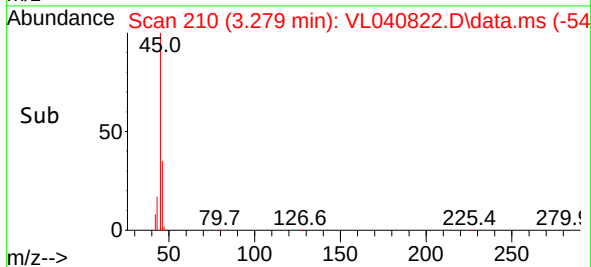
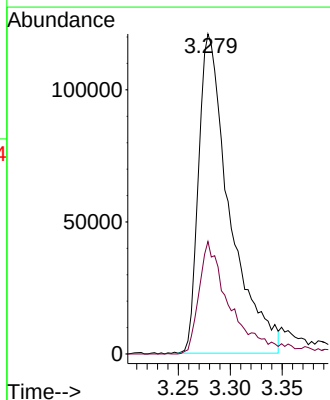
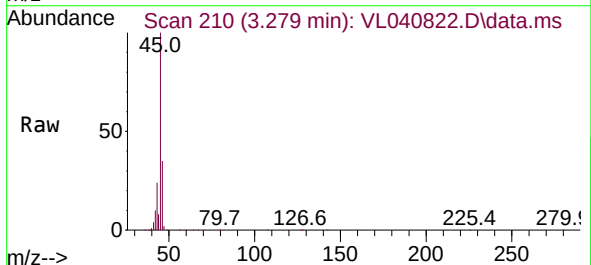
Manual Integrations  
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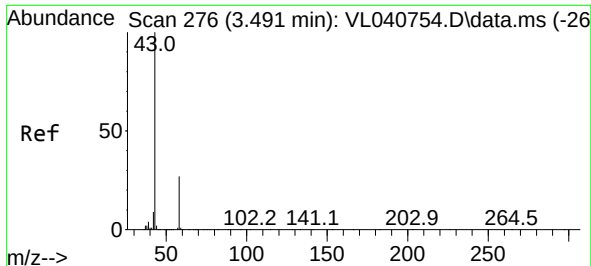
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#13  
Ethanol  
Concen: 19.960 ppbv  
RT: 3.279 min Scan# 210  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

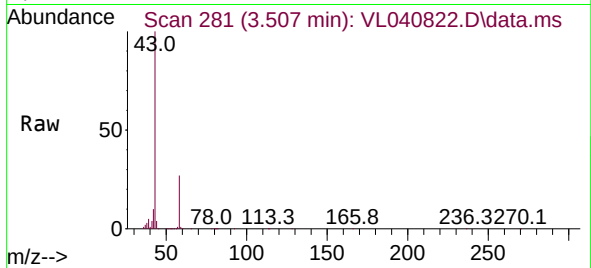
Tgt Ion: 45 Resp: 250493  
Ion Ratio Lower Upper  
45 100  
46 37.2 14.6 58.2





#15  
Acetone  
Concen: 4.553 ppbv m  
RT: 3.507 min Scan# 21  
Delta R.T. 0.006 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

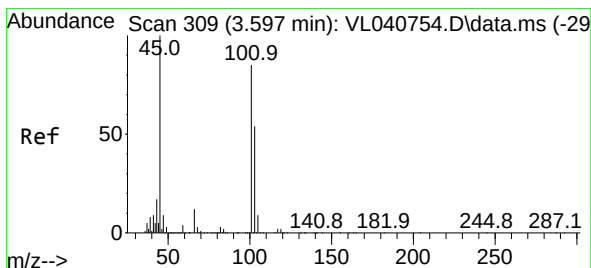
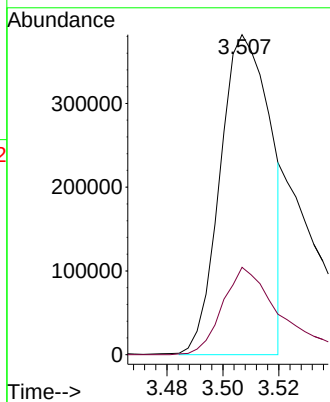
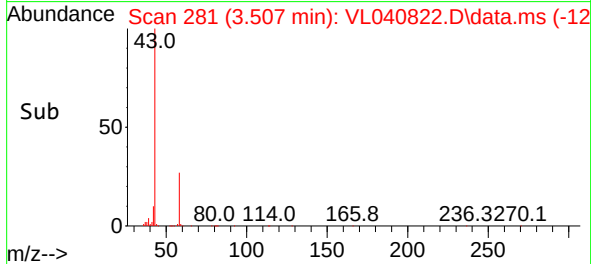
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



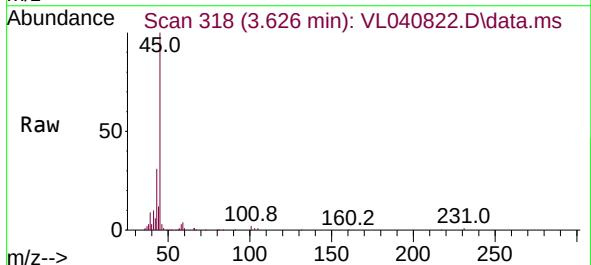
Tgt Ion: 43 Resp: 47940  
Ion Ratio Lower Upper  
43 100  
58 35.1 21.6 32.4

Manual Integrations  
APPROVED

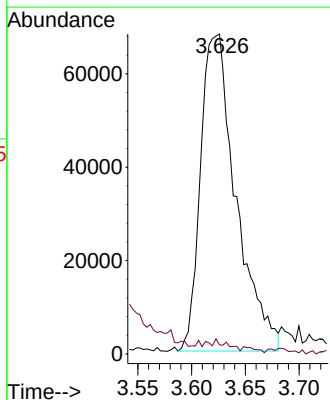
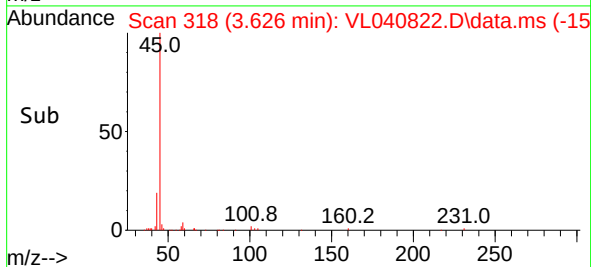
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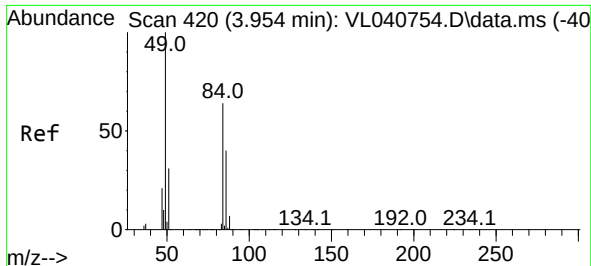


#19  
Isopropyl Alcohol  
Concen: 2.296 ppbv  
RT: 3.626 min Scan# 318  
Delta R.T. 0.019 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35



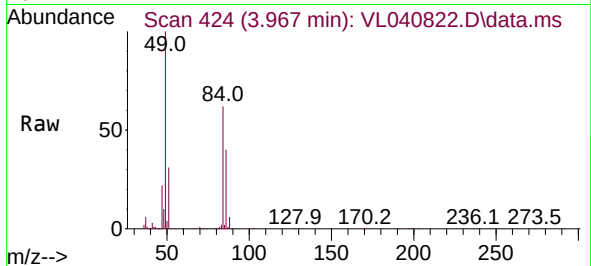
Tgt Ion: 45 Resp: 155591  
Ion Ratio Lower Upper  
45 100  
58 108.1 30.3 45.5





#20  
Methylene Chloride  
Concen: 19.861 ppbv  
RT: 3.967 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

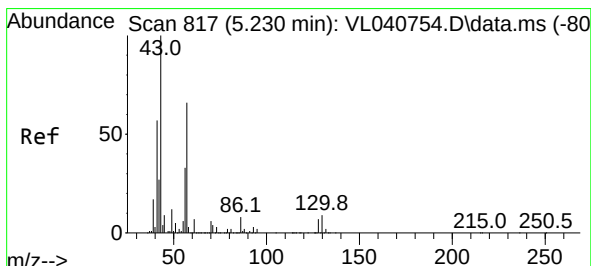
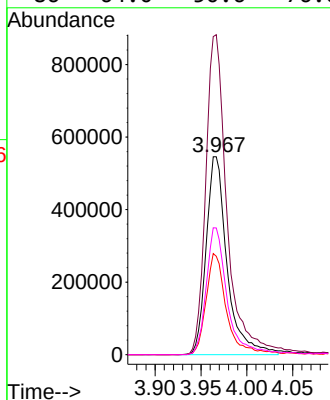
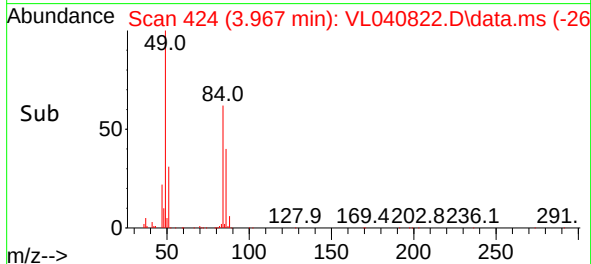
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



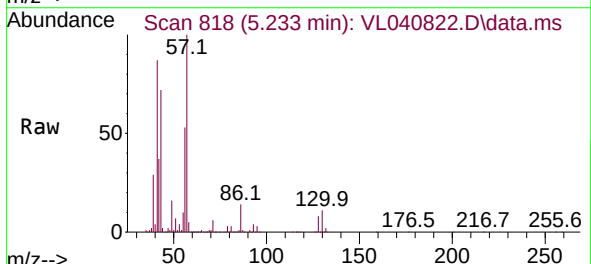
Tgt Ion: 84 Resp: 871018  
Ion Ratio Lower Upper  
84 100  
49 161.5 125.6 188.4  
51 49.7 38.9 58.3  
86 64.0 50.6 76.0

Manual Integrations  
APPROVED

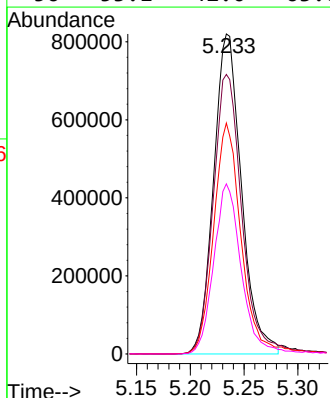
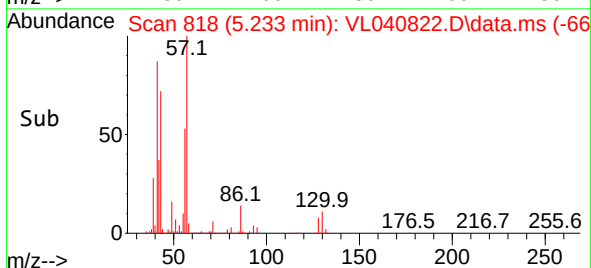
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



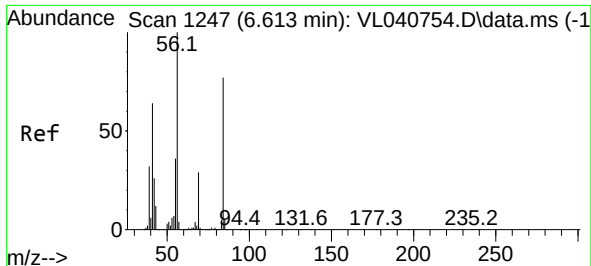
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Hexane  
Concen: 14.023 ppbv  
RT: 5.233 min Scan# 818  
Delta R.T. 0.006 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35



Tgt Ion: 57 Resp: 1478523  
Ion Ratio Lower Upper  
57 100  
41 91.0 71.4 107.2  
43 72.1 182.3 273.5#  
56 53.1 42.0 63.0

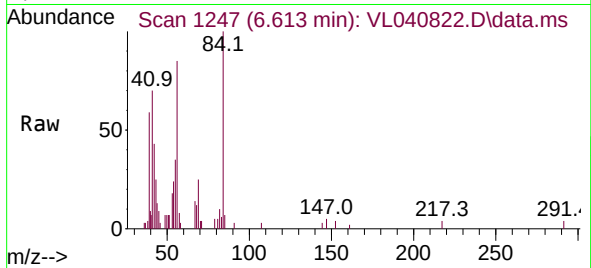






#30  
Cyclohexane  
Concen: 0.143 ppbv m  
RT: 6.613 min Scan# 1247  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

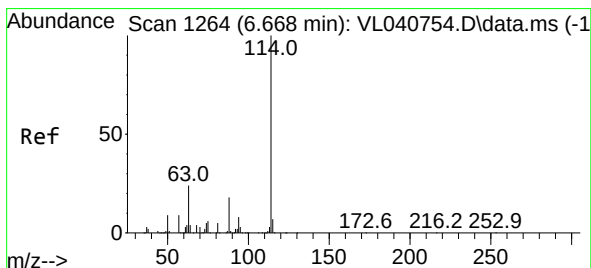
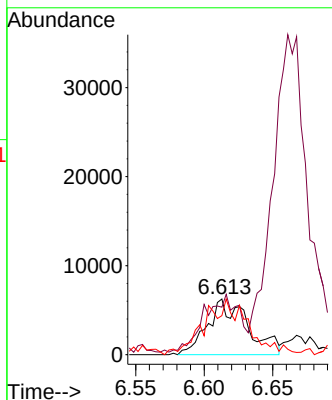
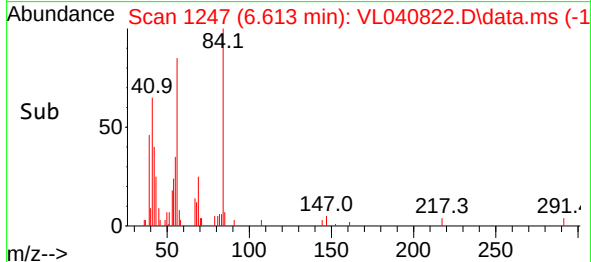
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



Tgt Ion: 84 Resp: 12790  
Ion Ratio Lower Upper  
84 100  
56 0.0 110.3 165.5  
41 94.5 67.4 101.2

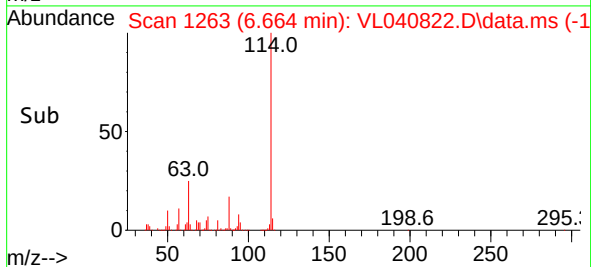
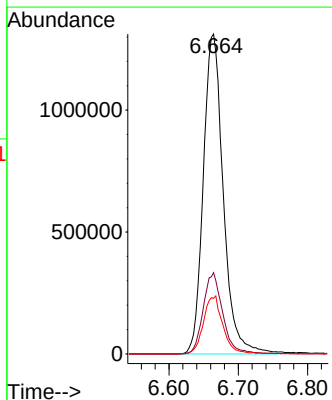
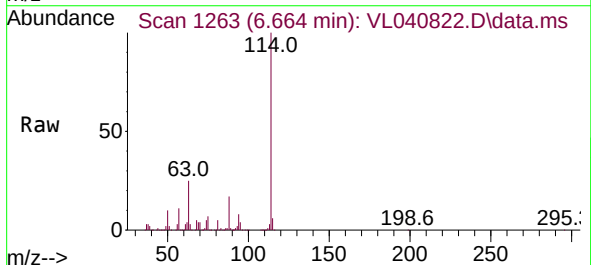
Manual Integrations  
APPROVED

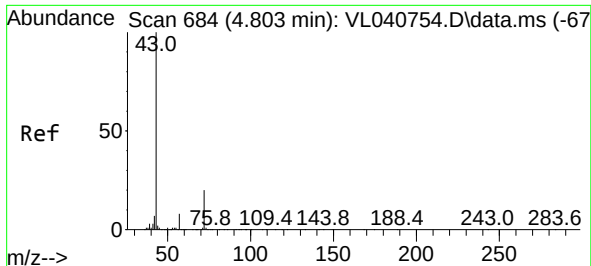
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 6.664 min Scan# 1263  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

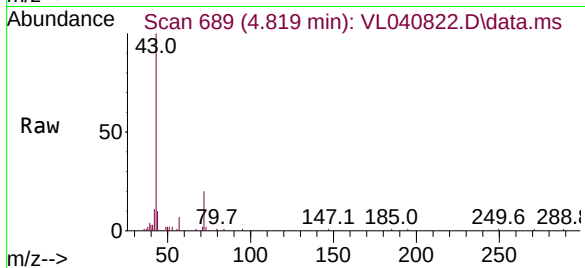
Tgt Ion:114 Resp: 2625984  
Ion Ratio Lower Upper  
114 100  
63 25.0 19.8 29.6  
88 17.7 14.2 21.2





#34  
2-Butanone  
Concen: 0.418 ppbv  
RT: 4.819 min Scan# 61  
Delta R.T. 0.013 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

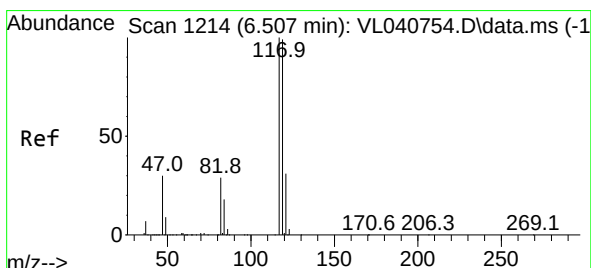
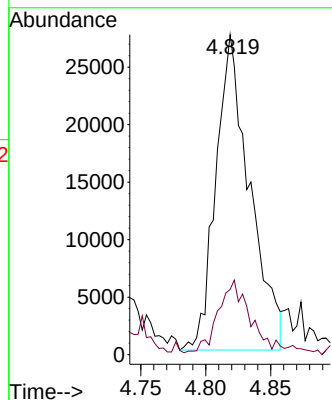
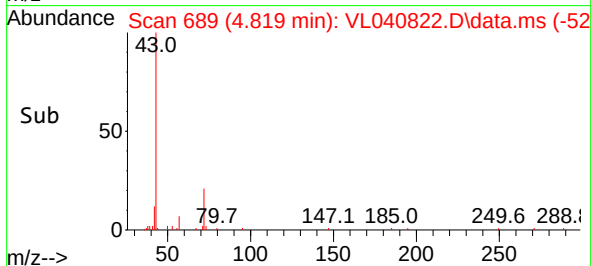
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



Tgt Ion: 43 Resp: 49628  
Ion Ratio Lower Upper  
43 100  
72 25.9 16.8 25.2

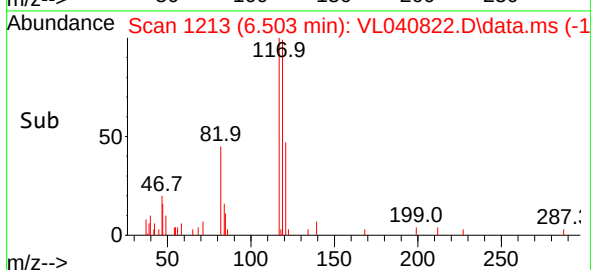
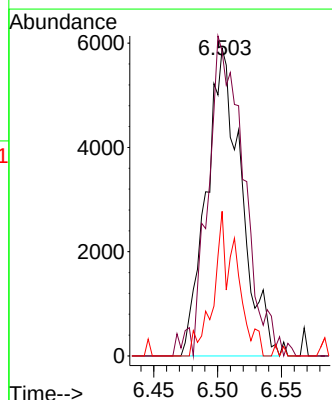
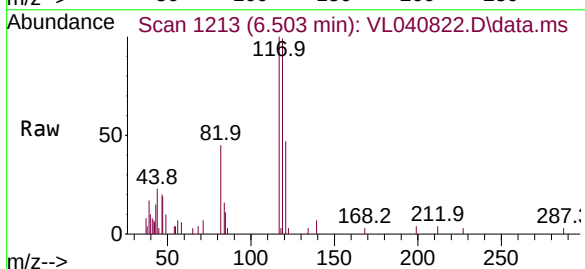
Manual Integrations  
APPROVED

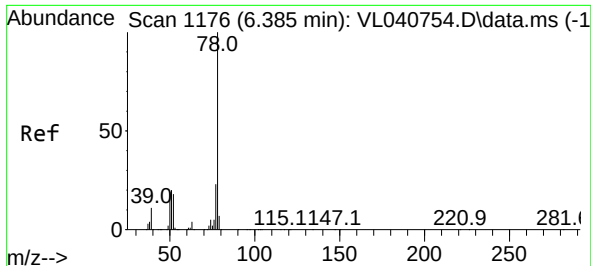
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#35  
Carbon Tetrachloride  
Concen: 0.076 ppbv m  
RT: 6.503 min Scan# 1213  
Delta R.T. -0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

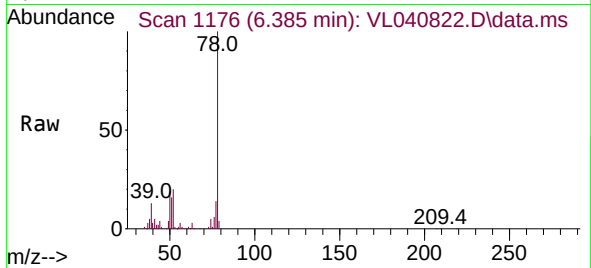
Tgt Ion:117 Resp: 11199  
Ion Ratio Lower Upper  
117 100  
119 99.0 79.4 119.0  
121 47.0 25.0 37.4





#36  
Benzene  
Concen: 0.488 ppbv  
RT: 6.385 min Scan# 1176  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

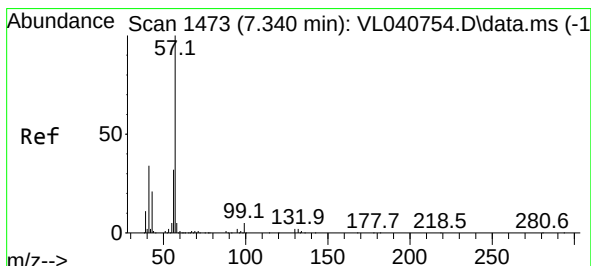
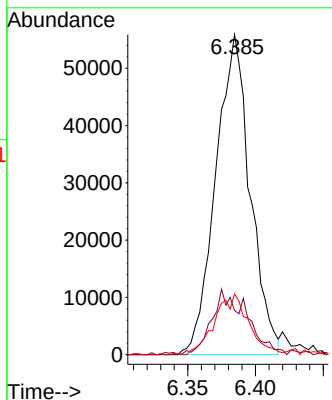
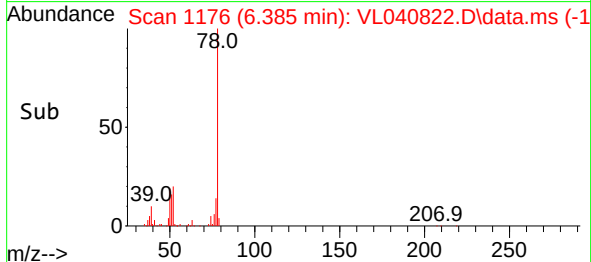
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



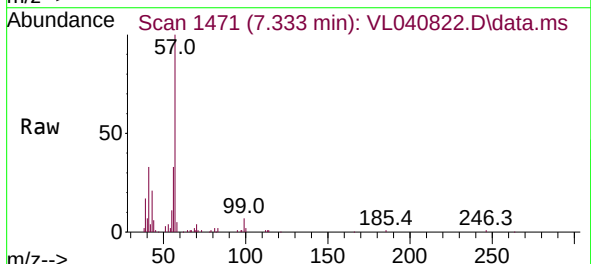
Tgt Ion: 78 Resp: 98623  
Ion Ratio Lower Upper  
78 100  
77 13.8 18.4 27.6#  
50 18.7 15.0 22.4#

Manual Integrations  
APPROVED

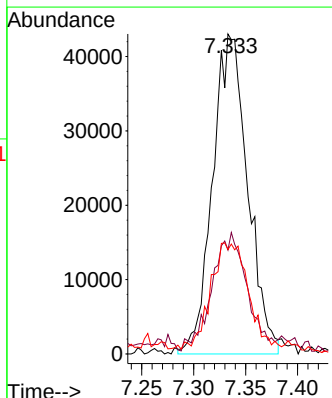
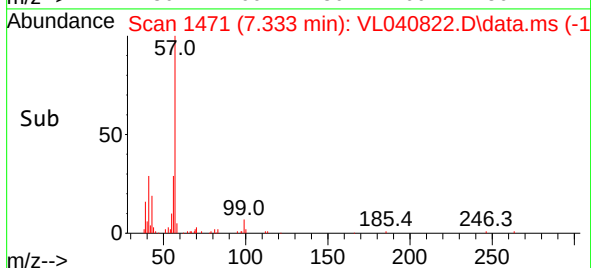
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023

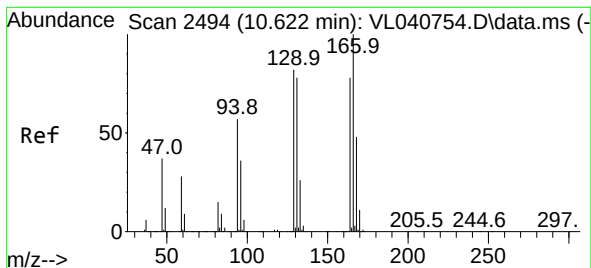


#44  
2,2,4-Trimethylpentane  
Concen: 0.295 ppbv  
RT: 7.333 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35



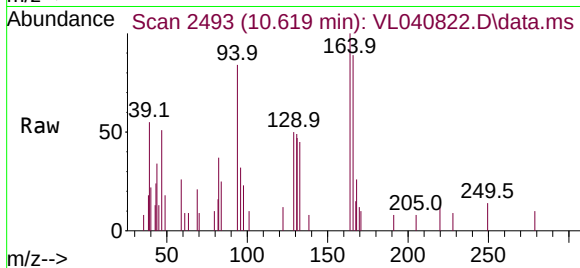
Tgt Ion: 57 Resp: 100891  
Ion Ratio Lower Upper  
57 100  
41 43.8 27.4 41.0#  
56 42.0 25.0 37.6#





#52  
Tetrachloroethene  
Concen: 0.040 ppbv m  
RT: 10.619 min Scan# 2493  
Delta R.T. 0.006 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

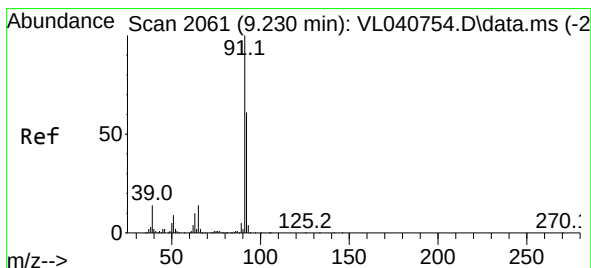
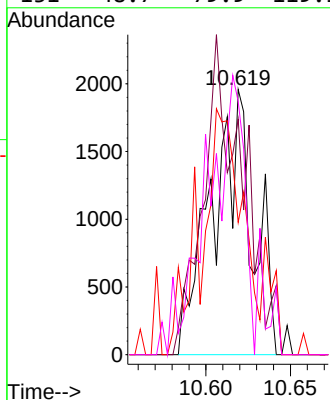
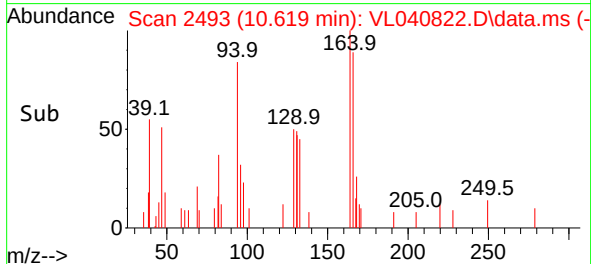
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



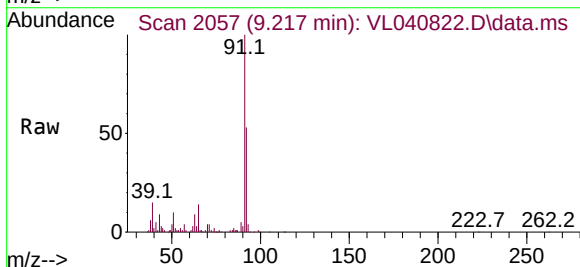
Tgt Ion:164 Resp: 3318  
Ion Ratio Lower Upper  
164 100  
166 88.8 102.4 153.6  
129 49.9 84.2 126.4  
131 48.7 79.9 119.9

Manual Integrations  
APPROVED

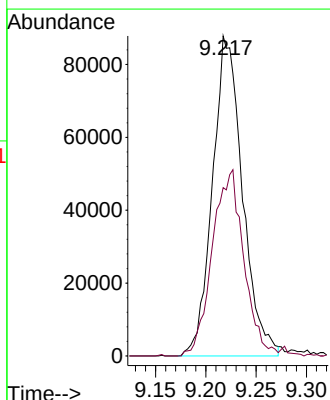
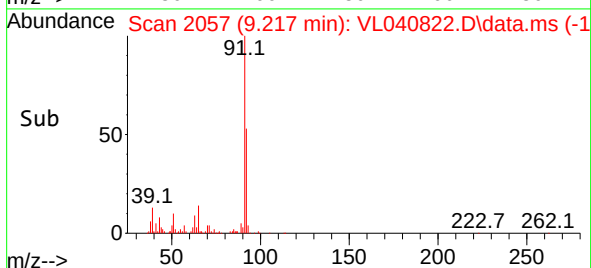
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023

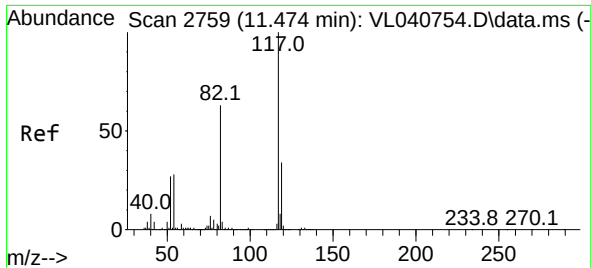


#53  
Toluene  
Concen: 0.757 ppbv  
RT: 9.217 min Scan# 2057  
Delta R.T. -0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35



Tgt Ion: 91 Resp: 181950  
Ion Ratio Lower Upper  
91 100  
92 62.1 50.2 75.2





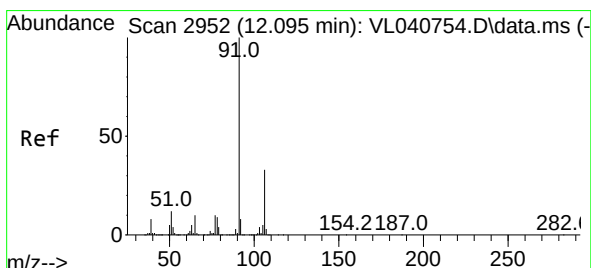
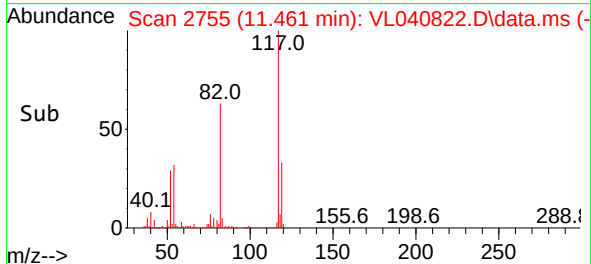
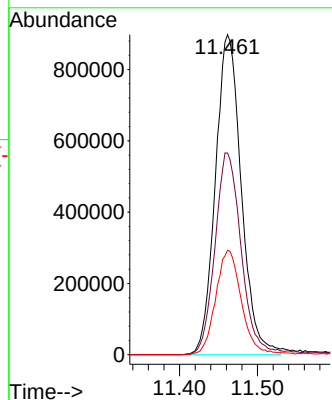
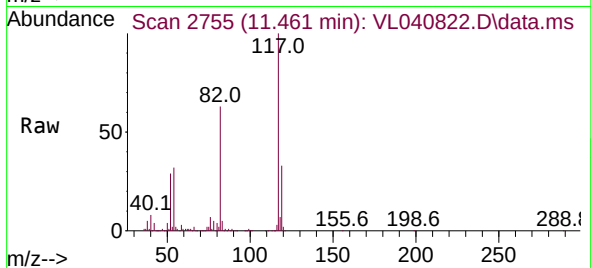
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.461 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4

Tgt Ion:117 Resp: 2076900  
Ion Ratio Lower Upper  
117 100  
82 65.1 46.6 70.0  
119 32.5 26.0 39.0

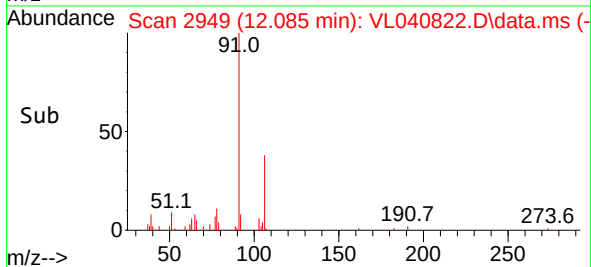
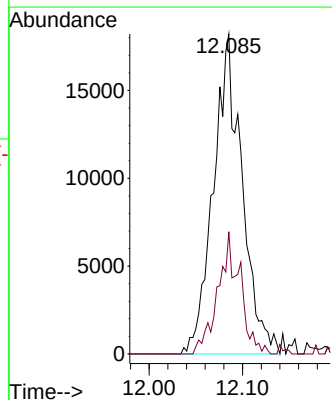
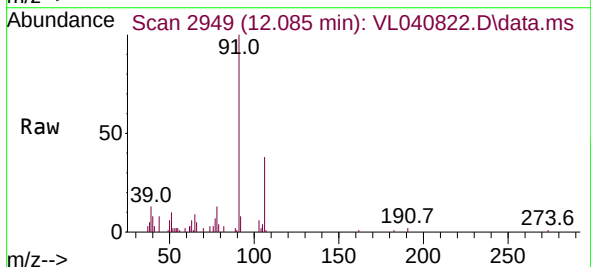
Manual Integrations  
APPROVED

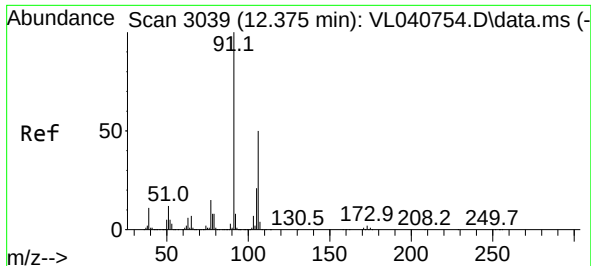
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#58  
Ethyl Benzene  
Concen: 0.148 ppbv m  
RT: 12.085 min Scan# 2949  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Tgt Ion: 91 Resp: 38739  
Ion Ratio Lower Upper  
91 100  
106 38.2 26.7 40.1





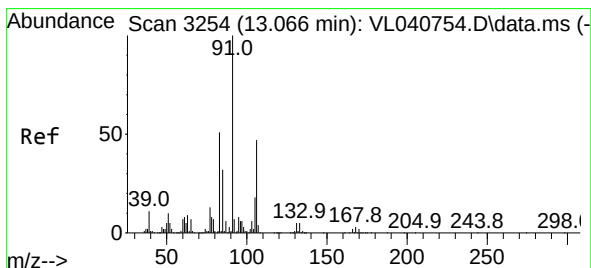
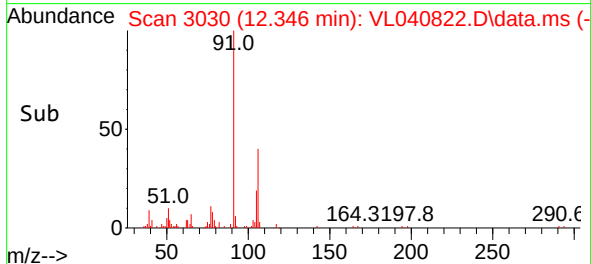
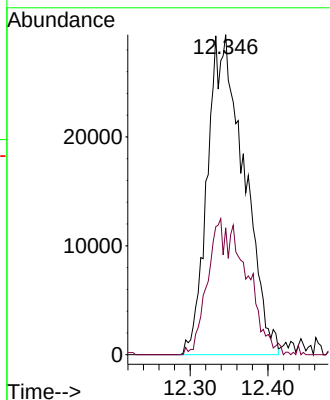
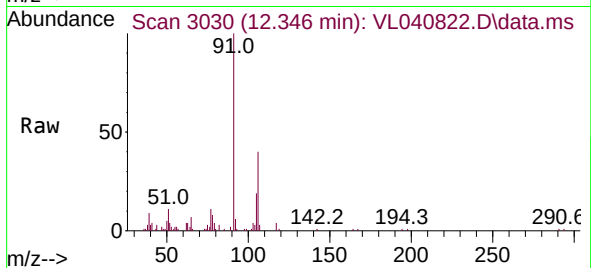
#59  
m/p-Xylene  
Concen: 0.447 ppbv m  
RT: 12.346 min Scan# 3039  
Delta R.T. -0.022 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4

Tgt Ion: 91 Resp: 96240  
Ion Ratio Lower Upper  
91 100  
106 0.0 37.7 56.5

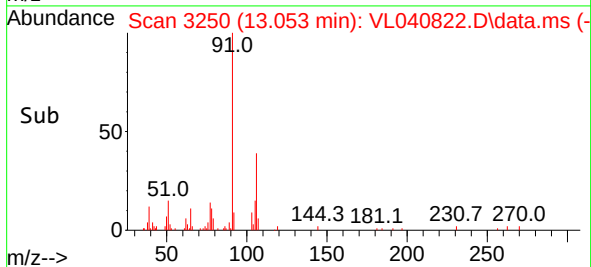
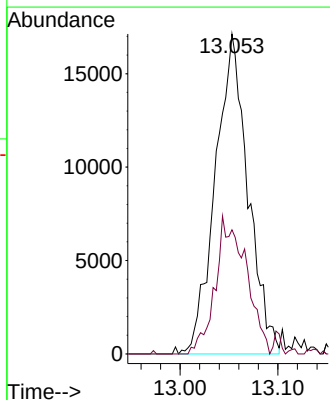
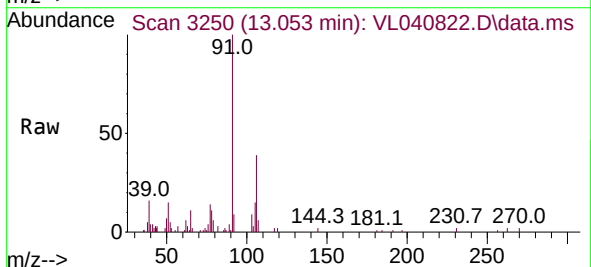
Manual Integrations  
APPROVED

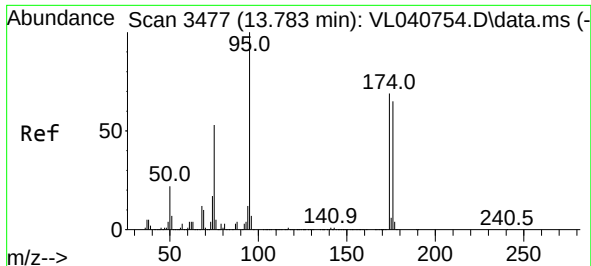
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#60  
o-Xylene  
Concen: 0.194 ppbv m  
RT: 13.053 min Scan# 3250  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

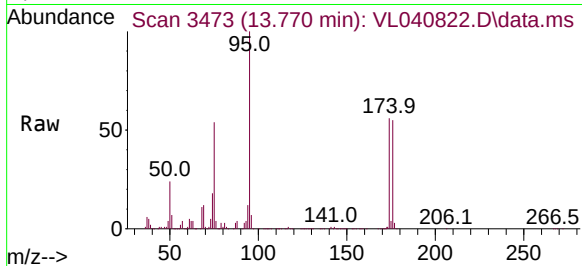
Tgt Ion: 91 Resp: 39708  
Ion Ratio Lower Upper  
91 100  
106 42.9 23.5 70.5





#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.587 ppbv  
RT: 13.770 min Scan# 3477  
Delta R.T. 0.000 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

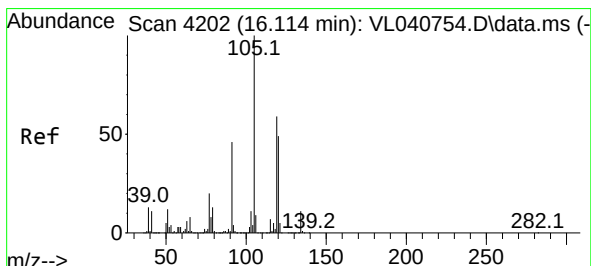
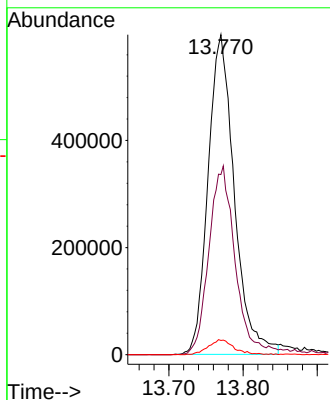
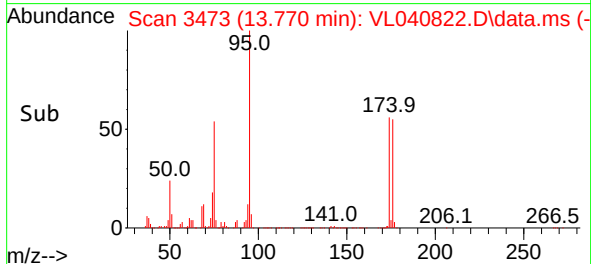
Instrument :  
MSVOA\_L  
ClientSampleId :  
SH-IA-4



Tgt Ion: 95 Resp: 1465100  
Ion Ratio Lower Upper  
95 100  
174 61.0 54.7 82.1  
175 4.6 4.2 6.4

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#74  
1,2,4-Trimethylbenzene  
Concen: 0.190 ppbv m  
RT: 16.104 min Scan# 4199  
Delta R.T. 0.003 min  
Lab File: VL040822.D  
Acq: 8 Nov 2023 22:35

Tgt Ion:105 Resp: 43849  
Ion Ratio Lower Upper  
105 100  
120 34.0 39.4 59.2#  
91 13.4 38.6 58.0#  
77 16.2 16.6 25.0#

