

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL090821\  
 Data File : VL037582.D  
 Acq On : 8 Sep 2021 21:55  
 Operator : SY/AP  
 Sample : M3663-03  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 OA-1

Manual Integrations  
 APPROVED

MMDadoda  
 9/10/2021 10:53:27 AM

Quant Time: Sep 09 09:14:33 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL081621AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Aug 17 02:13:47 2021  
 QLast Update : Tue Aug 17 02:13:47 2021  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.677  | 49    | 1505405  | 10.000   | ppbv   | 0.03     |
| 33) 1,4-Difluorobenzene     | 7.188  | 114   | 4478416  | 10.000   | ppbv   | 0.03     |
| 55) Chlorobenzene-d5        | 12.098 | 117   | 3737560  | 10.000   | ppbv   | 0.04     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 14.426 | 95    | 2681219  | 10.097   | ppbv   | 0.03     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 101.000% |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane  | 3.057  | 85    | 34077m   | 0.141    | ppbv   |          |
| 3) Chlorodifluoromethane    | 2.992  | 51    | 93067    | 0.323    | ppbv # | 84       |
| 4) Chloromethane            | 3.147  | 50    | 104577   | 1.015    | ppbv   | 91       |
| 9) Propene                  | 3.021  | 41    | 80556    | 0.781    | ppbv   | 95       |
| 10) Heptane                 | 8.134  | 43    | 30882m   | 0.130    | ppbv   |          |
| 11) Trichlorofluoromethane  | 3.957  | 101   | 44768m   | 0.197    | ppbv   |          |
| 13) Ethanol                 | 3.613  | 45    | 393065m  | 39.164   | ppbv   |          |
| 15) Acetone                 | 3.857  | 43    | 1715812  | 11.199   | ppbv   | 96       |
| 19) Isopropyl Alcohol       | 3.980  | 45    | 297395m  | 3.388    | ppbv   |          |
| 20) Methylene Chloride      | 4.353  | 84    | 605783   | 7.897    | ppbv   | 95       |
| 26) Hexane                  | 5.697  | 57    | 764583   | 4.021    | ppbv # | 50       |
| 29) Chloroform              | 5.764  | 83    | 79947m   | 0.297    | ppbv   |          |
| 30) Cyclohexane             | 7.140  | 84    | 34819m   | 0.220    | ppbv   |          |
| 34) 2-Butanone              | 5.262  | 43    | 234018m  | 1.280    | ppbv   |          |
| 35) Carbon Tetrachloride    | 7.031  | 117   | 16345m   | 0.062    | ppbv   |          |
| 36) Benzene                 | 6.899  | 78    | 111754m  | 0.297    | ppbv   |          |
| 44) 2,2,4-Trimethylpentane  | 7.883  | 57    | 165074   | 0.261    | ppbv # | 88       |
| 50) 4-Methyl-2-Pentanone    | 8.774  | 43    | 60088m   | 0.252    | ppbv   |          |
| 52) Tetrachloroethene       | 11.233 | 164   | 87693m   | 0.568    | ppbv   |          |
| 53) Toluene                 | 9.815  | 91    | 1310014  | 3.047    | ppbv   | 100      |
| 58) Ethyl Benzene           | 12.725 | 91    | 114618m  | 0.221    | ppbv   |          |
| 59) m/p-Xylene              | 12.979 | 91    | 427971m  | 0.952    | ppbv   |          |
| 60) o-Xylene                | 13.706 | 91    | 139308m  | 0.332    | ppbv   |          |
| 74) 1,2,4-Trimethylbenzene  | 16.783 | 105   | 58589m   | 0.119    | ppbv   |          |
| -----                       |        |       |          |          |        |          |

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

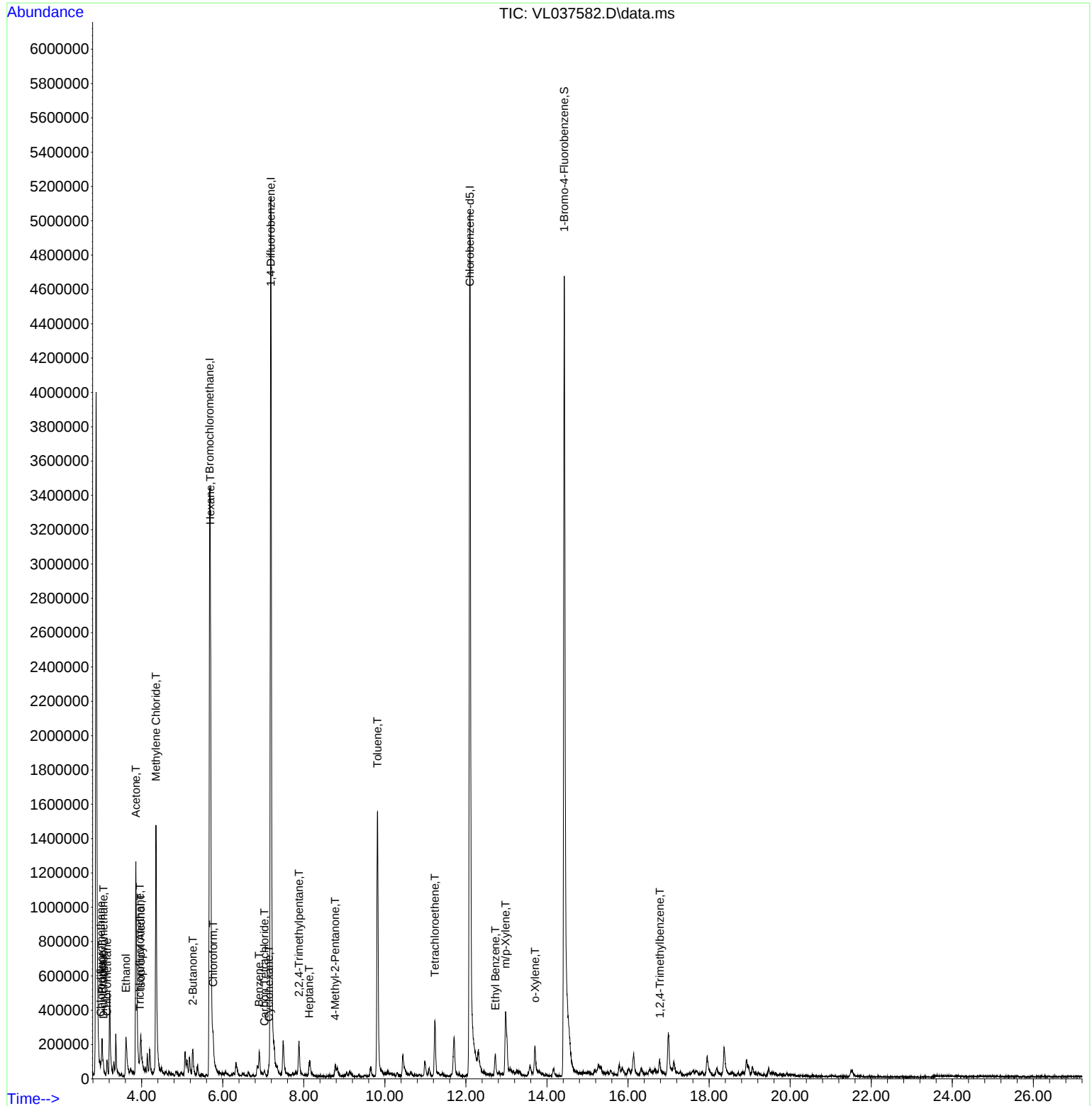
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Data File : VL037582.D  
Acq On : 8 Sep 2021 21:55  
Operator : SY/AP  
Sample : M3663-03  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

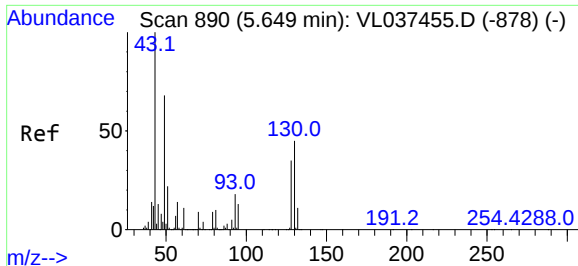
Instrument :  
MSVOA\_L  
ClientSampleId :  
OA-1

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Quant Time: Sep 09 09:14:33 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL081621AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Aug 17 02:13:47 2021  
QLast Update : Tue Aug 17 02:13:47 2021  
Response via : Initial Calibration





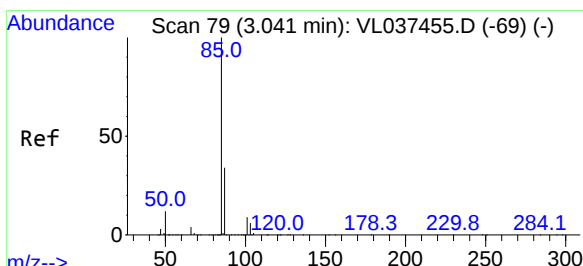
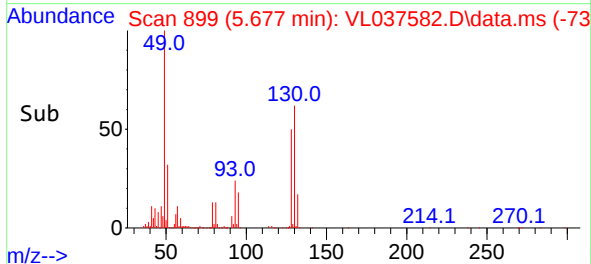
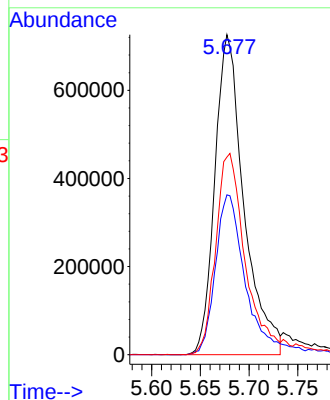
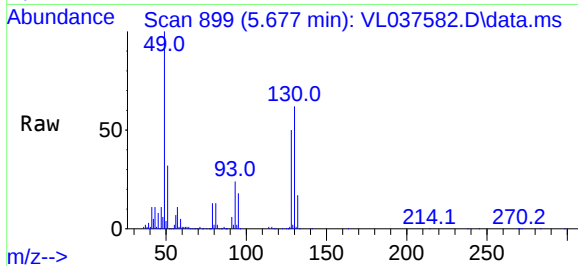
#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.677 min Scan# 899  
Delta R.T. 0.029 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Tgt Ion: 49 Resp: 1505405  
Ion Ratio Lower Upper  
49 100  
128 55.0 27.5 82.4  
130 68.8 34.0 101.8

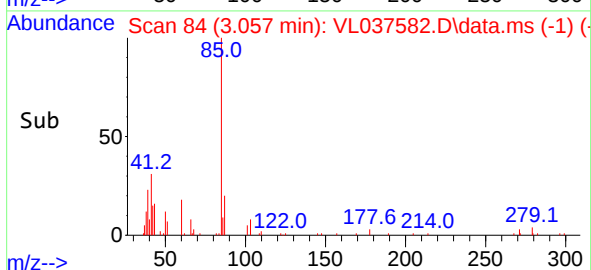
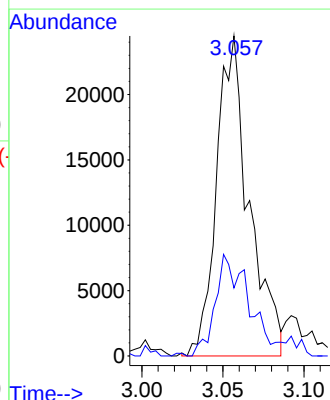
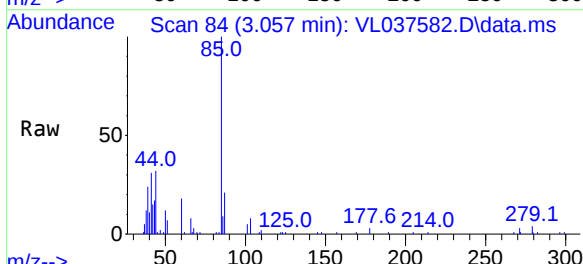
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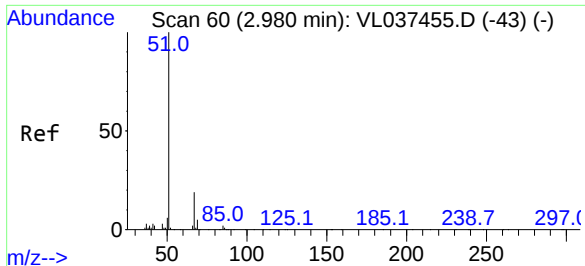
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#2  
Dichlorodifluoromethane  
Concen: 0.141 ppbv m  
RT: 3.057 min Scan# 84  
Delta R.T. 0.016 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 85 Resp: 34077  
Ion Ratio Lower Upper  
85 100  
87 21.2 27.6 41.4#





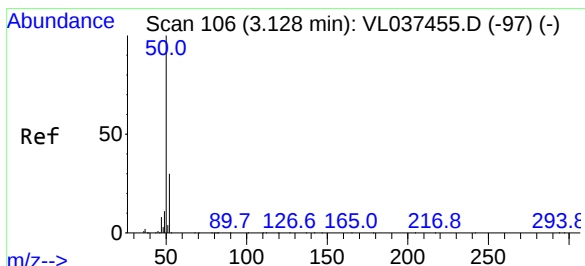
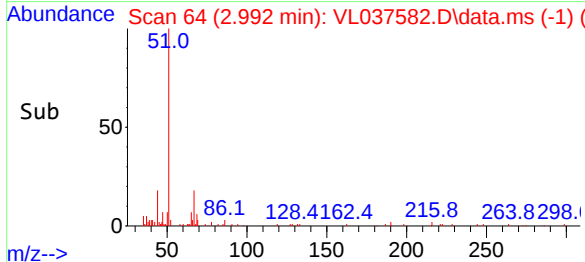
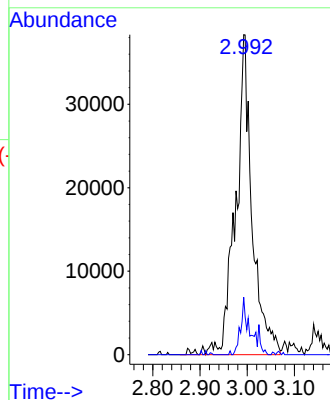
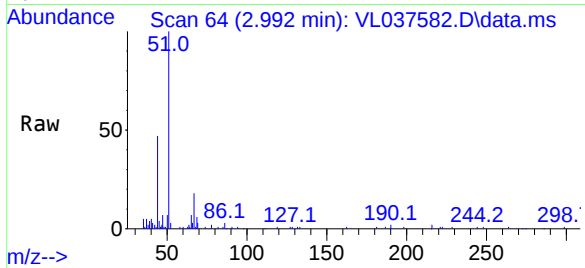
#3  
Chlorodifluoromethane  
Concen: 0.323 ppbv  
RT: 2.992 min Scan# 64  
Delta R.T. 0.013 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 51 Resp: 93067  
Ion Ratio Lower Upper  
51 100  
67 10.7 14.2 21.2#

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

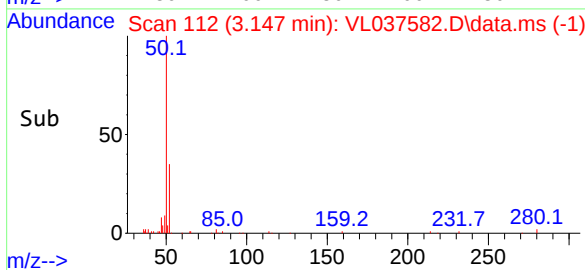
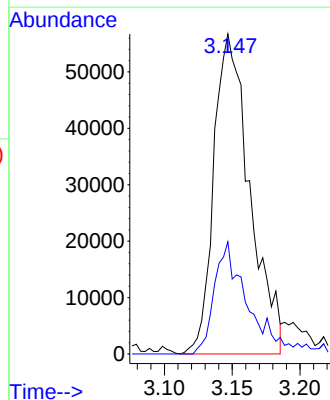
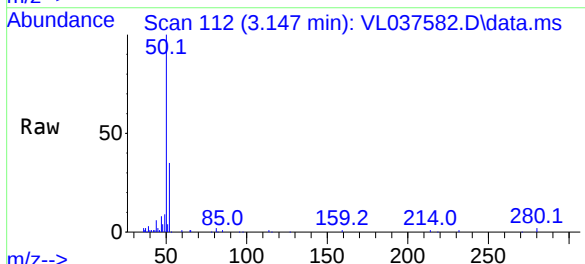
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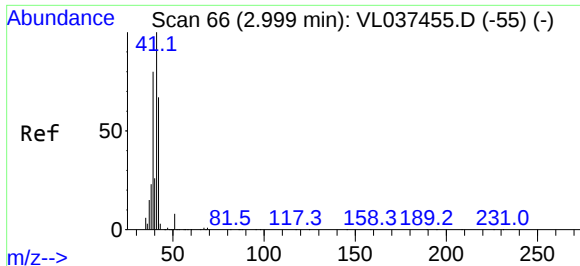
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#4  
Chloromethane  
Concen: 1.015 ppbv  
RT: 3.147 min Scan# 112  
Delta R.T. 0.019 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

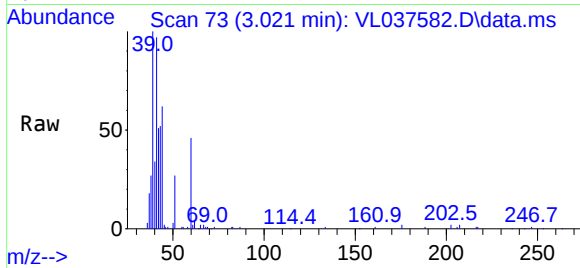
Tgt Ion: 50 Resp: 104577  
Ion Ratio Lower Upper  
50 100  
52 35.1 24.0 36.0





#9  
Propene  
Concen: 0.781 ppbv  
RT: 3.021 min Scan# 73  
Delta R.T. 0.022 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

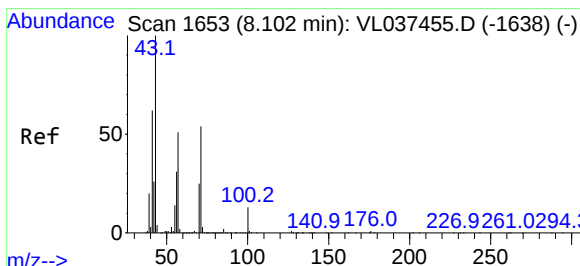
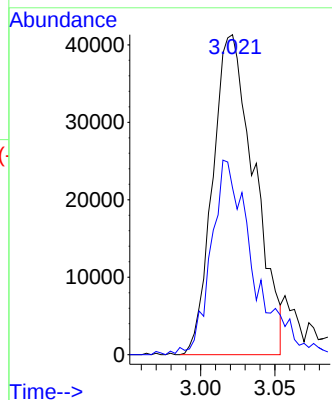
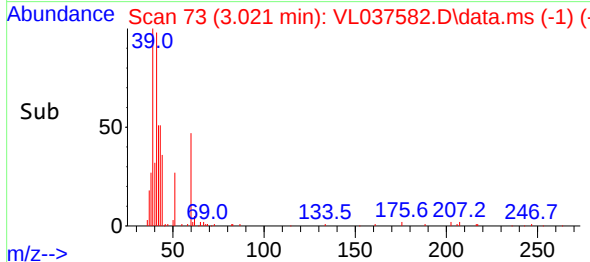
Instrument :  
MSVOA\_L  
ClientSampleId :  
OA-1



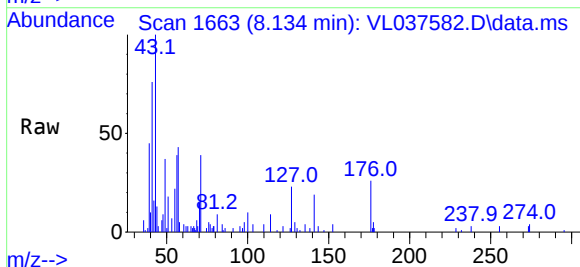
Tgt Ion: 41 Resp: 80556  
Ion Ratio Lower Upper  
41 100  
42 63.3 53.7 80.5

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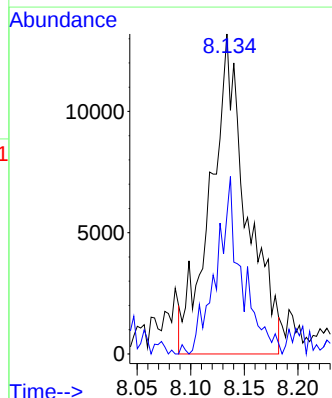
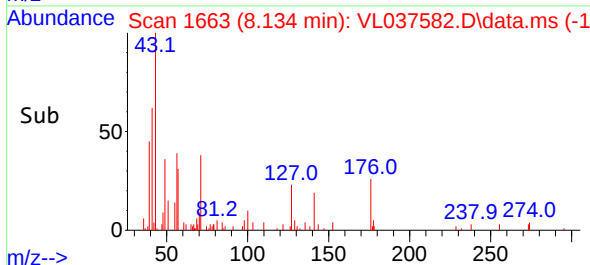
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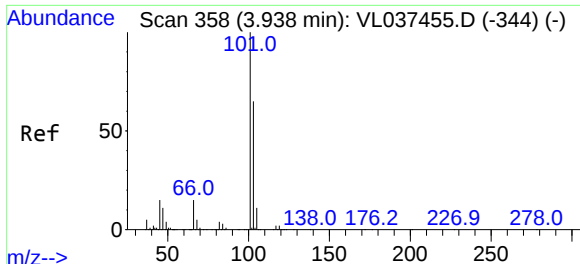


#10  
Heptane  
Concen: 0.130 ppbv m  
RT: 8.134 min Scan# 1663  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55



Tgt Ion: 43 Resp: 30882  
Ion Ratio Lower Upper  
43 100  
57 39.4 41.0 61.6#





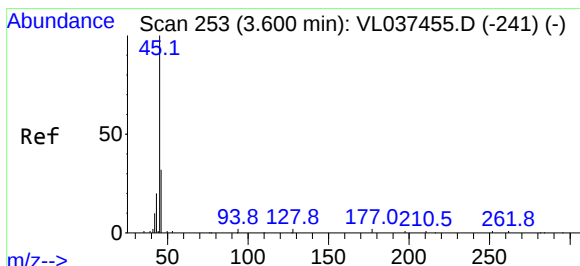
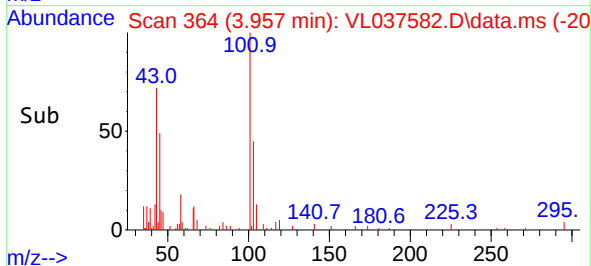
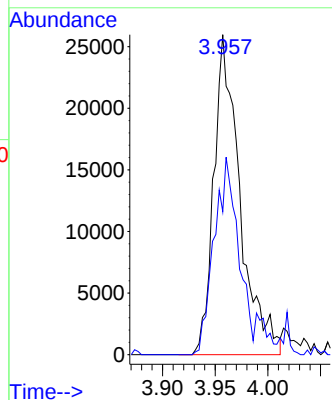
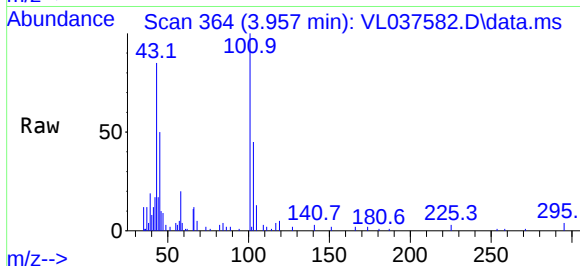
#11  
Trichlorofluoromethane  
Concen: 0.197 ppbv m  
RT: 3.957 min Scan# 364  
Delta R.T. 0.019 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Tgt Ion:101 Resp: 44768  
Ion Ratio Lower Upper  
101 100  
103 44.7 51.8 77.6#

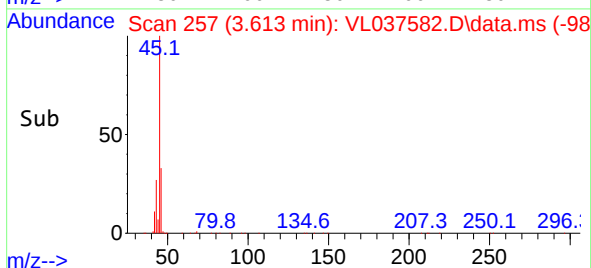
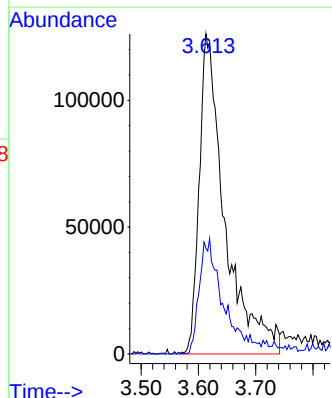
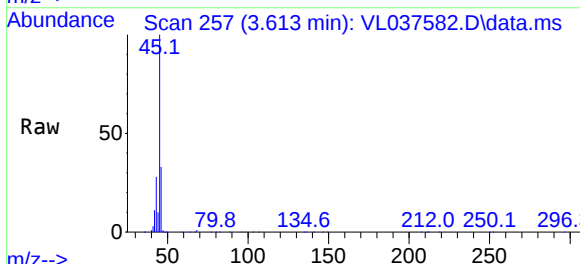
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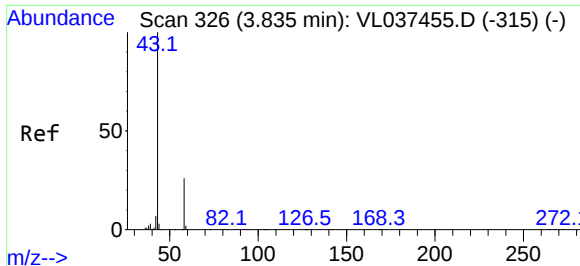
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#13  
Ethanol  
Concen: 39.164 ppbv m  
RT: 3.613 min Scan# 257  
Delta R.T. 0.013 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

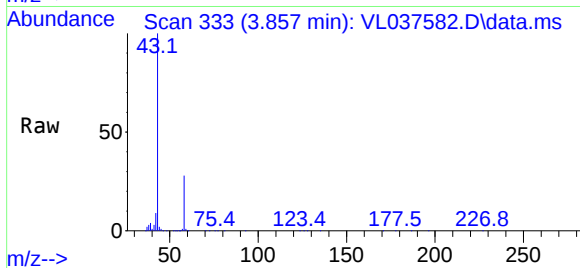
Tgt Ion: 45 Resp: 393065  
Ion Ratio Lower Upper  
45 100  
46 33.4 14.1 56.5





#15  
Acetone  
Concen: 11.199 ppbv  
RT: 3.857 min Scan# 333  
Delta R.T. 0.022 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

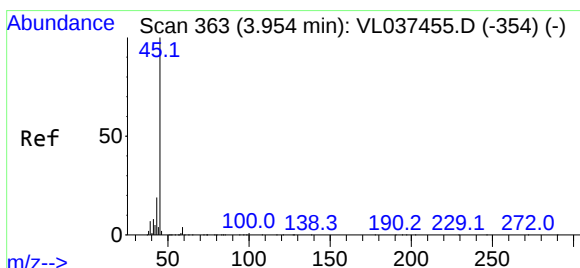
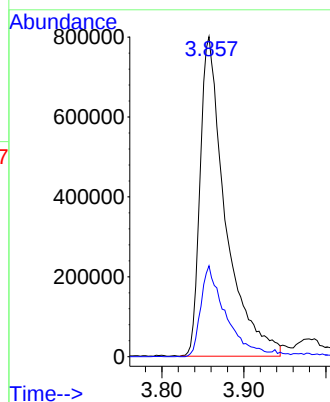
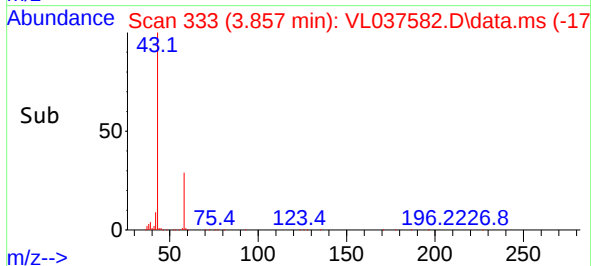
Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1



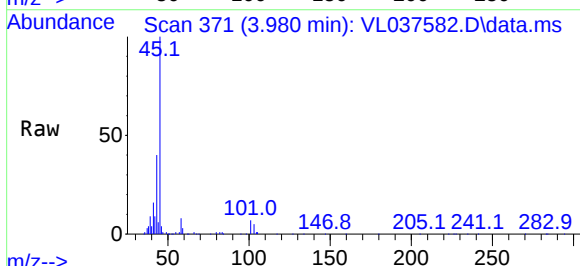
Tgt Ion: 43 Resp: 1715812  
Ion Ratio Lower Upper  
43 100  
58 28.6 24.8 37.2

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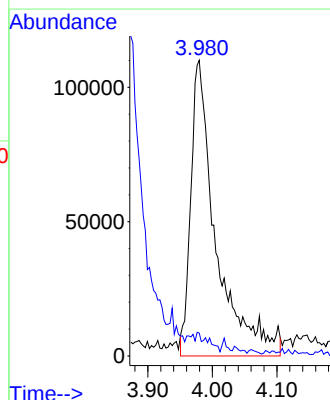
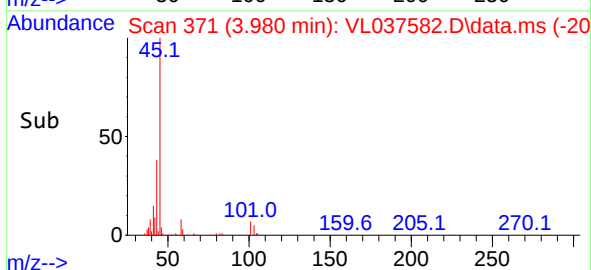
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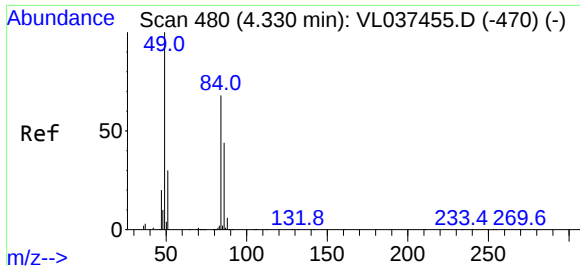


#19  
Isopropyl Alcohol  
Concen: 3.388 ppbv m  
RT: 3.980 min Scan# 371  
Delta R.T. 0.025 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55



Tgt Ion: 45 Resp: 297395  
Ion Ratio Lower Upper  
45 100  
58 0.0 1.4 2.2#





#20  
Methylene Chloride  
Concen: 7.897 ppbv  
RT: 4.353 min Scan# 487  
Delta R.T. 0.022 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

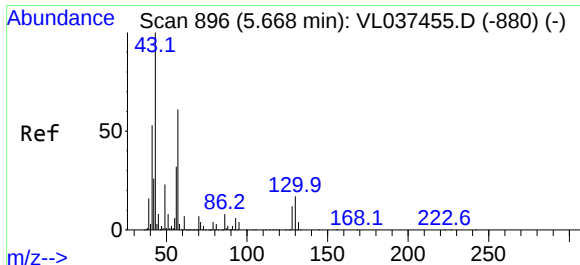
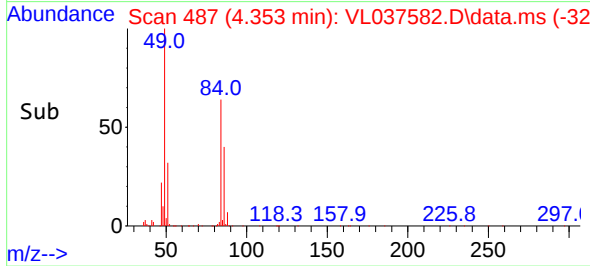
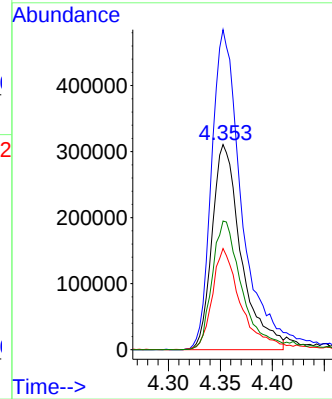
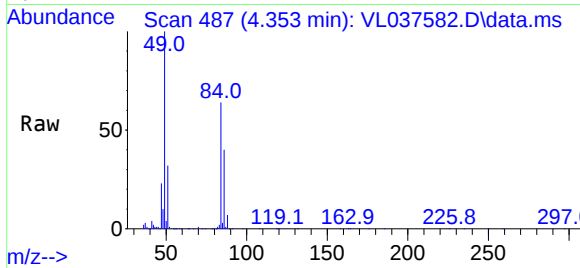
Tgt Ion: 84 Resp: 605783

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 84  | 100   |       |       |
| 49  | 156.0 | 118.2 | 177.2 |
| 51  | 49.3  | 36.6  | 55.0  |
| 86  | 62.6  | 51.8  | 77.6  |

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Manual Integrations  
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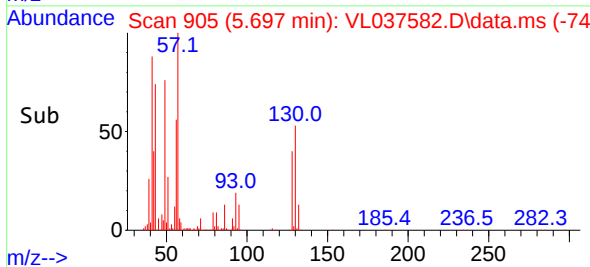
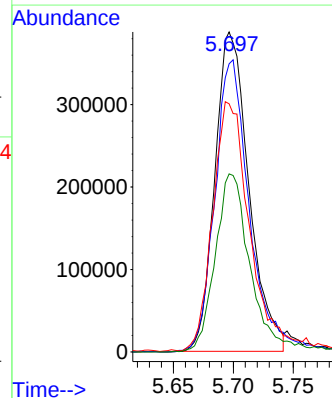
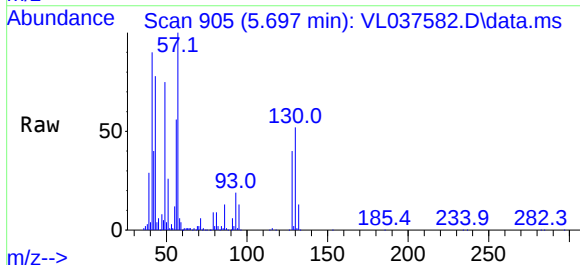
MMDadoda  
9/10/2021 10:53:27 AM

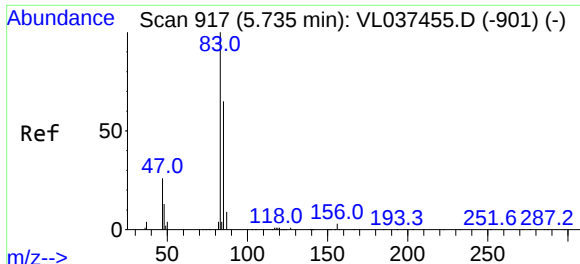


#26  
Hexane  
Concen: 4.021 ppbv  
RT: 5.697 min Scan# 905  
Delta R.T. 0.029 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 57 Resp: 764583

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 57  | 100   |       |        |
| 41  | 94.2  | 72.3  | 108.5  |
| 43  | 88.2  | 172.3 | 258.5# |
| 56  | 58.4  | 42.8  | 64.2   |





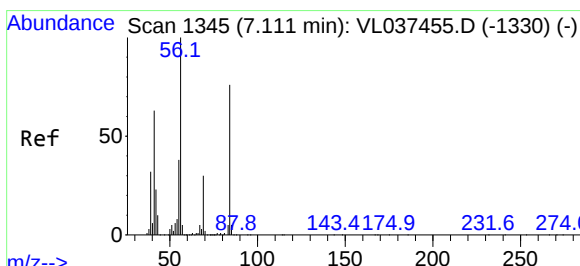
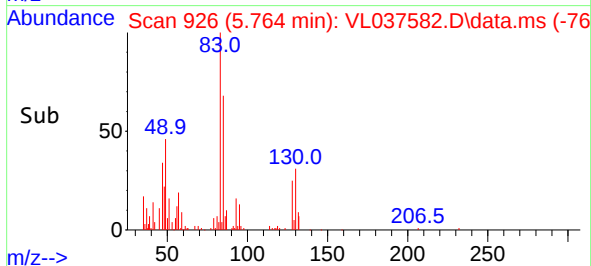
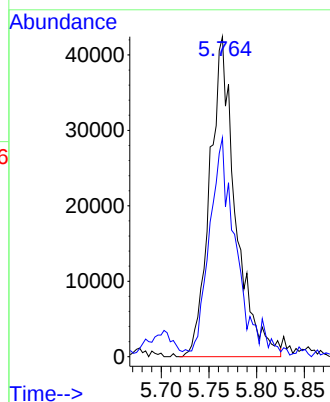
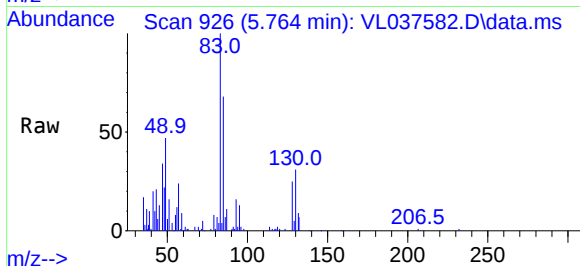
#29  
Chloroform  
Concen: 0.297 ppbv m  
RT: 5.764 min Scan# 926  
Delta R.T. 0.029 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Tgt Ion: 83 Resp: 79947  
Ion Ratio Lower Upper  
83 100  
85 68.4 52.3 78.5

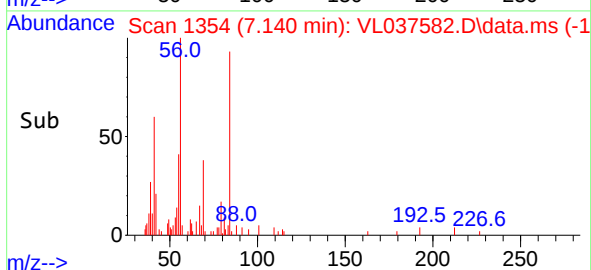
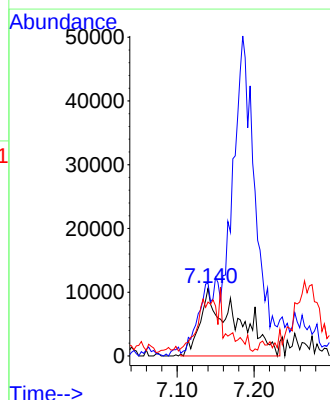
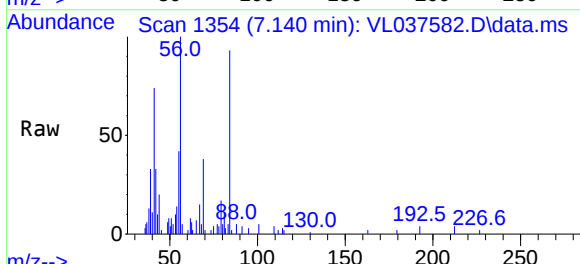
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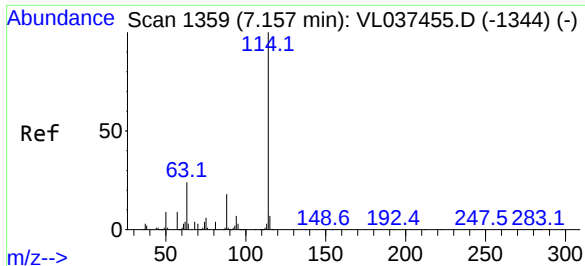
MMDadoda  
9/10/2021 10:53:27 AM



#30  
Cyclohexane  
Concen: 0.220 ppbv m  
RT: 7.140 min Scan# 1354  
Delta R.T. 0.029 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

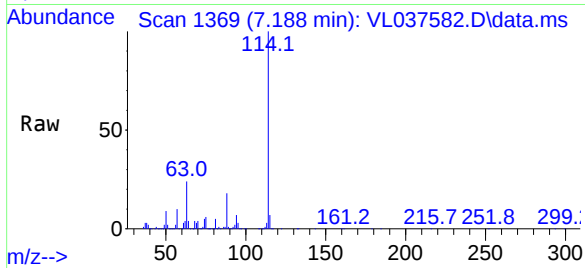
Tgt Ion: 84 Resp: 34819  
Ion Ratio Lower Upper  
84 100  
56 0.0 110.6 165.8#  
41 0.0 67.0 100.6#





#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.188 min Scan# 1369  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

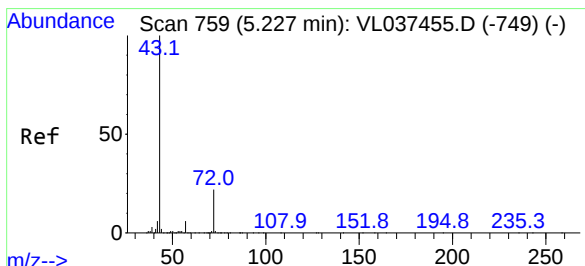
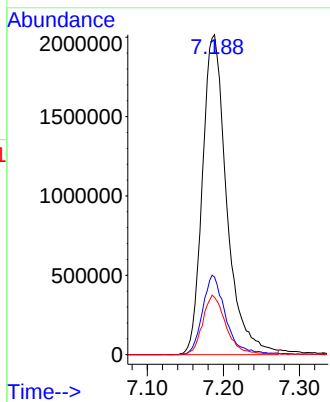
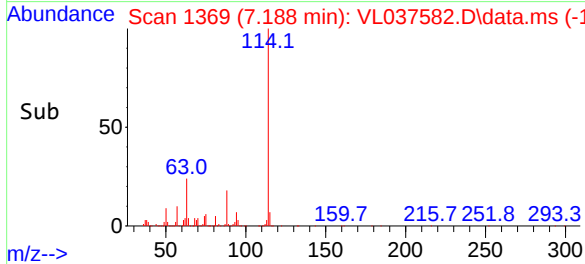
Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1



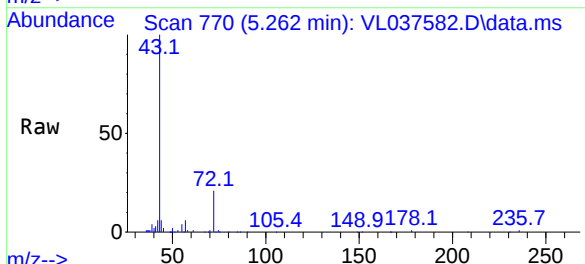
Tgt Ion:114 Resp: 4478416  
Ion Ratio Lower Upper  
114 100  
63 24.1 19.3 28.9  
88 17.9 14.2 21.4

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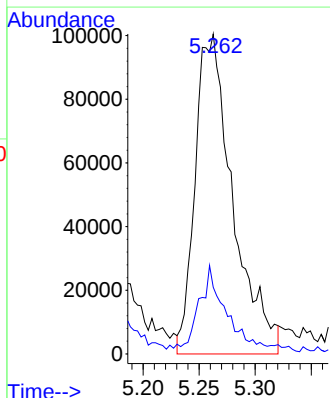
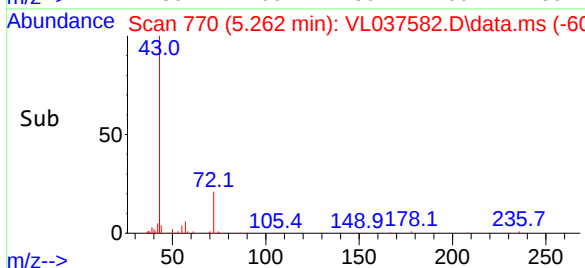
MMDadoda  
9/10/2021 10:53:27 AM

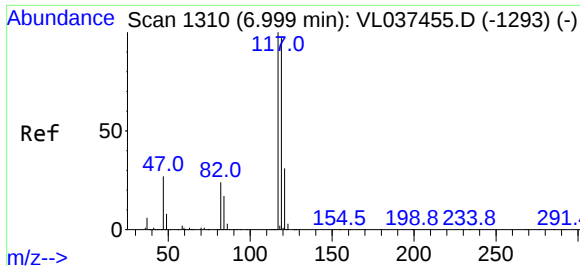


#34  
2-Butanone  
Concen: 1.280 ppbv m  
RT: 5.262 min Scan# 770  
Delta R.T. 0.035 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55



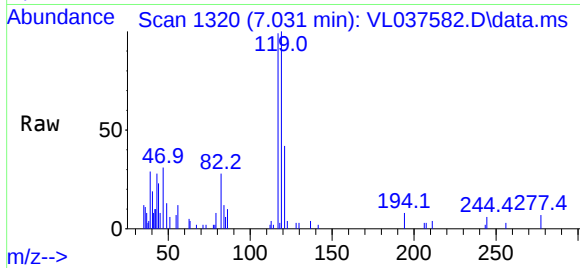
Tgt Ion: 43 Resp: 234018  
Ion Ratio Lower Upper  
43 100  
72 0.0 17.4 26.0#





#35  
Carbon Tetrachloride  
Concen: 0.062 ppbv m  
RT: 7.031 min Scan# 1320  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

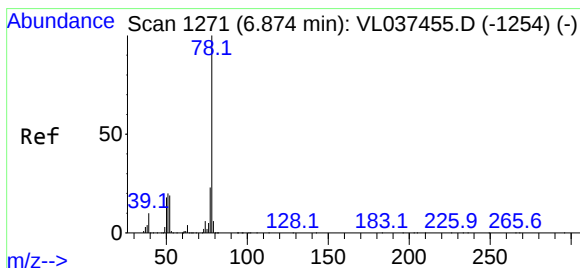
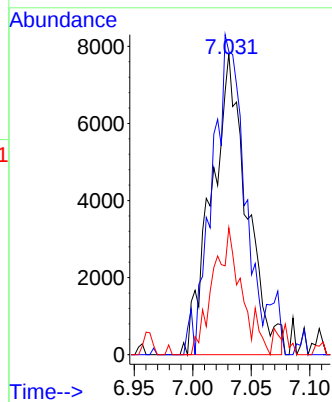
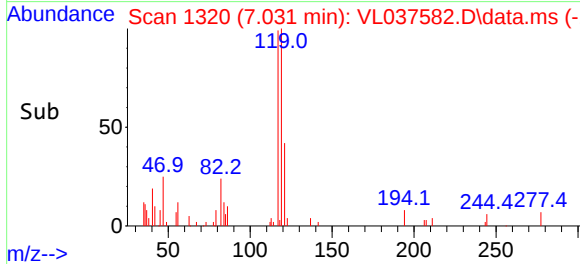
Instrument :  
MSVOA\_L  
ClientSampleId :  
OA-1



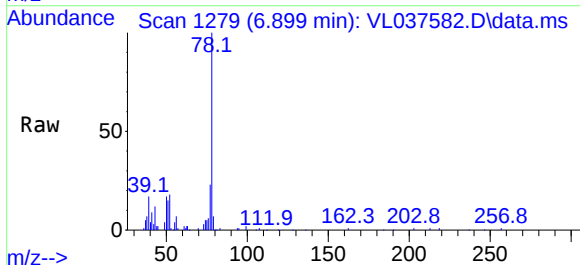
Tgt Ion: 117 Resp: 16345  
Ion Ratio Lower Upper  
117 100  
119 100.5 77.3 115.9  
121 42.1 25.2 37.8#

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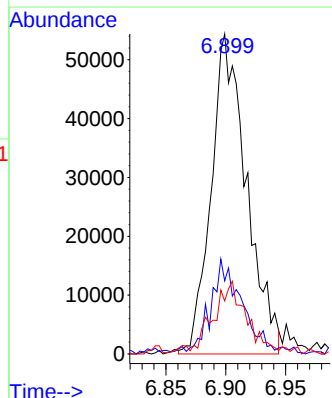
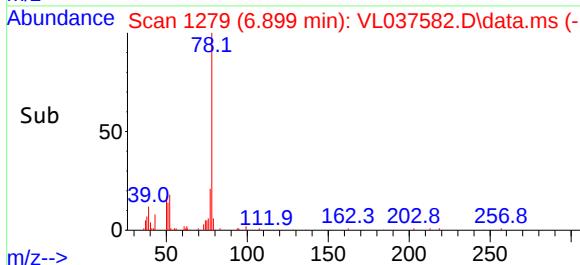
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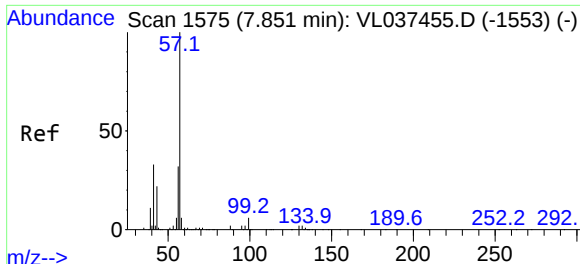


#36  
Benzene  
Concen: 0.297 ppbv m  
RT: 6.899 min Scan# 1279  
Delta R.T. 0.025 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55



Tgt Ion: 78 Resp: 111754  
Ion Ratio Lower Upper  
78 100  
77 22.8 18.2 27.4  
50 16.5 14.6 21.8





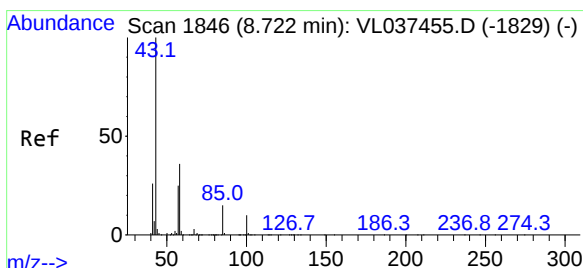
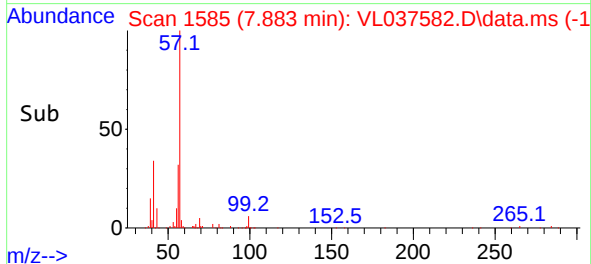
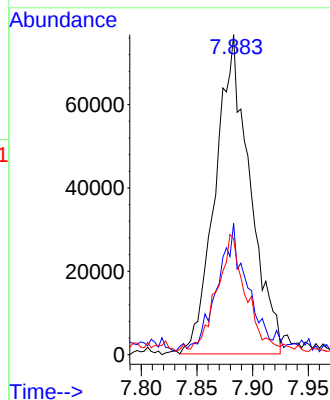
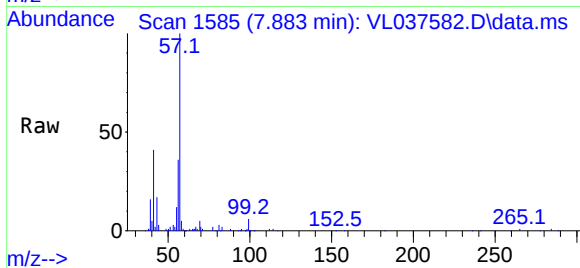
#44  
2,2,4-Trimethylpentane  
Concen: 0.261 ppbv  
RT: 7.883 min Scan# 1585  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Tgt Ion: 57 Resp: 165074  
Ion Ratio Lower Upper  
57 100  
41 40.4 26.2 39.4#  
56 37.9 25.4 38.2

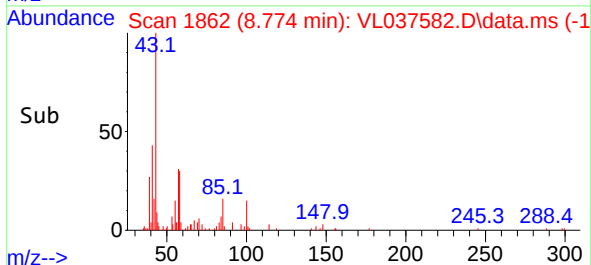
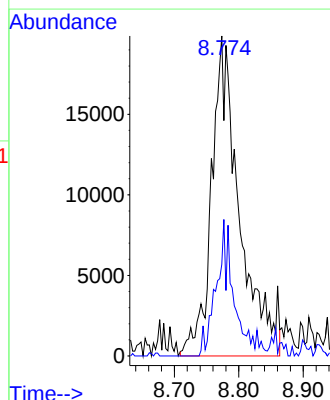
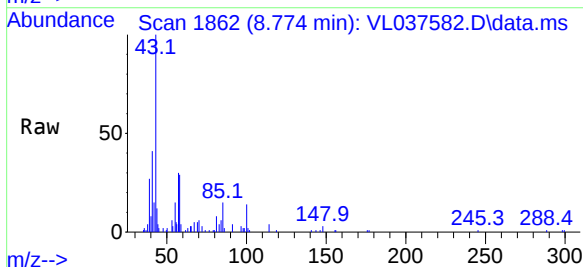
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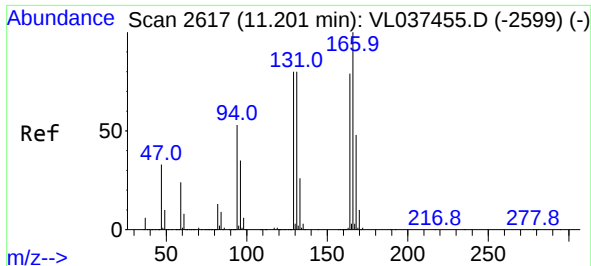
MMDadoda  
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#50  
4-Methyl-2-Pentanone  
Concen: 0.252 ppbv m  
RT: 8.774 min Scan# 1862  
Delta R.T. 0.051 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 43 Resp: 60088  
Ion Ratio Lower Upper  
43 100  
58 0.0 29.9 44.9#





#52  
Tetrachloroethene  
Concen: 0.568 ppbv m  
RT: 11.233 min Scan# 2627  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

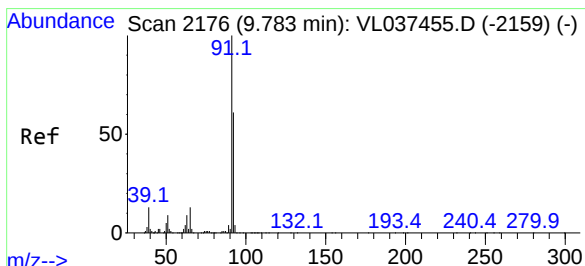
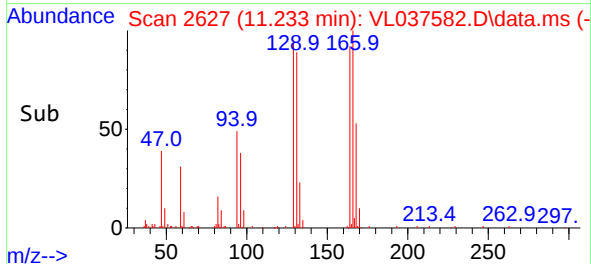
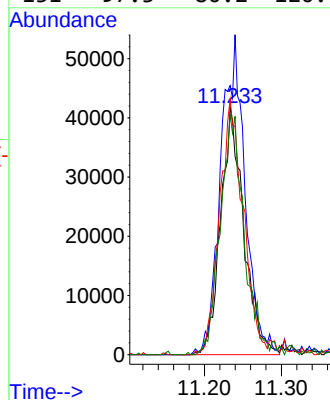
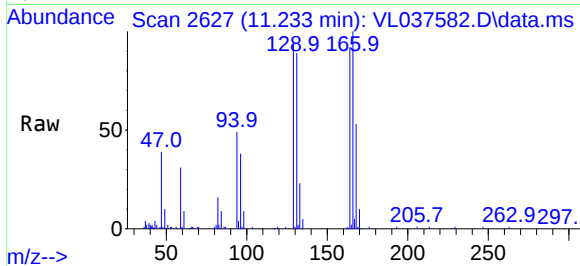
Tgt Ion: 164 Resp: 87693

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 166 | 108.8 | 100.7 | 151.1 |
| 129 | 103.3 | 80.9  | 121.3 |
| 131 | 97.3  | 80.2  | 120.4 |

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Manual Integrations  
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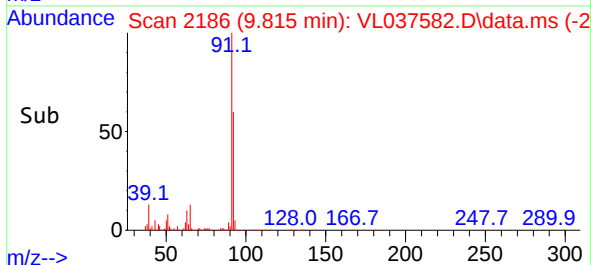
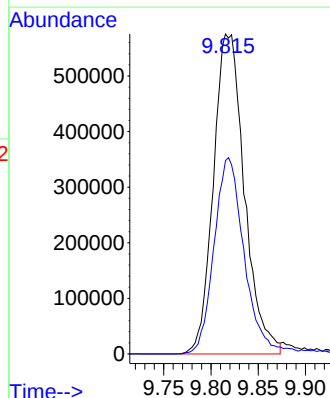
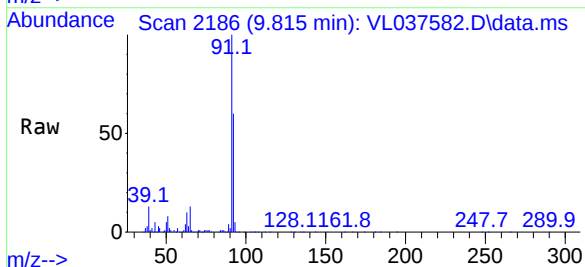
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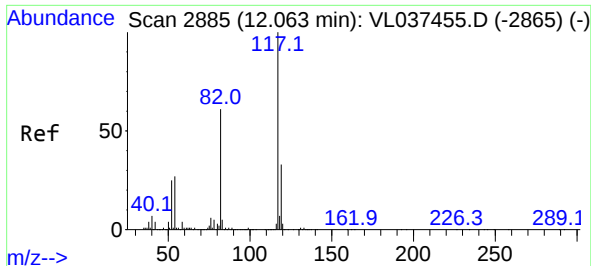


#53  
Toluene  
Concen: 3.047 ppbv  
RT: 9.815 min Scan# 2186  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 91 Resp: 1310014

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 91  | 100   |       |       |
| 92  | 61.2  | 48.8  | 73.2  |





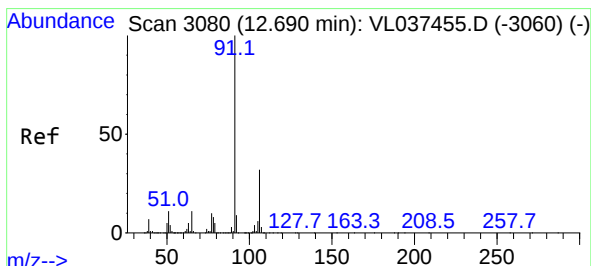
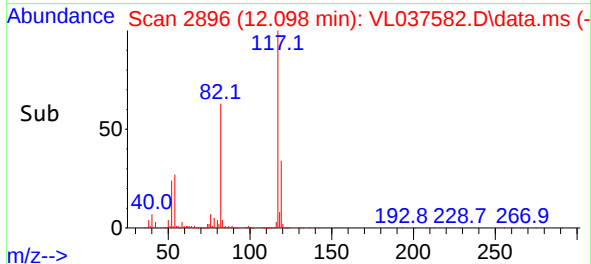
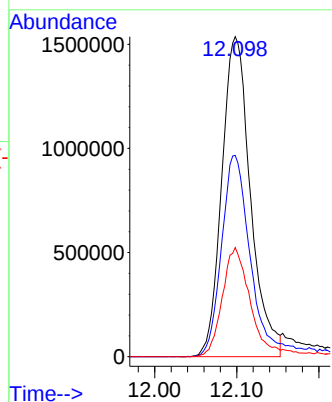
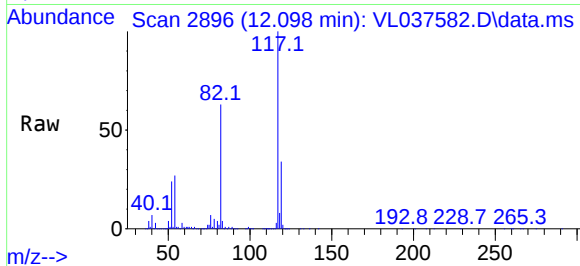
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.098 min Scan# 2896  
Delta R.T. 0.035 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

Tgt Ion:117 Resp: 3737560  
Ion Ratio Lower Upper  
117 100  
82 69.4 52.9 79.3  
119 36.0 24.8 37.2

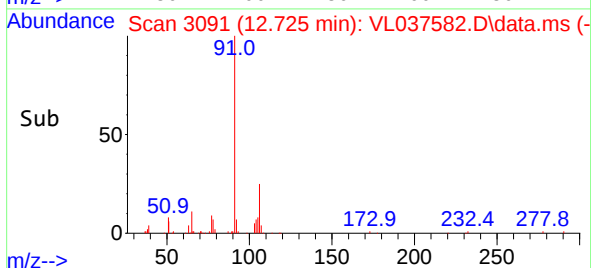
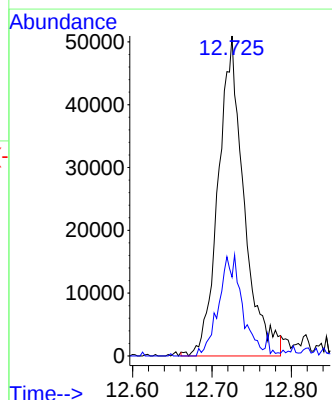
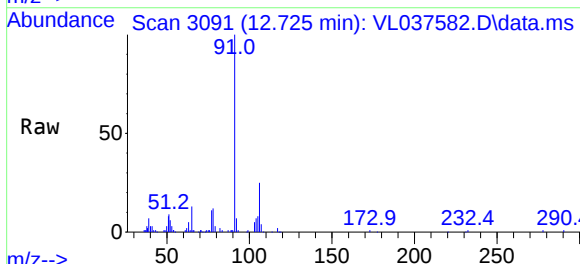
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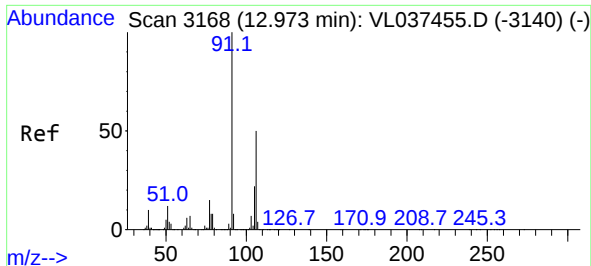
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#58  
Ethyl Benzene  
Concen: 0.221 ppbv m  
RT: 12.725 min Scan# 3091  
Delta R.T. 0.035 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 91 Resp: 114618  
Ion Ratio Lower Upper  
91 100  
106 24.6 25.7 38.5#





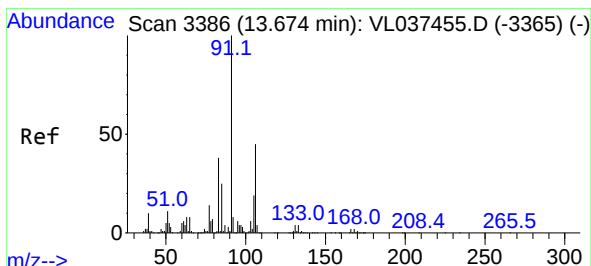
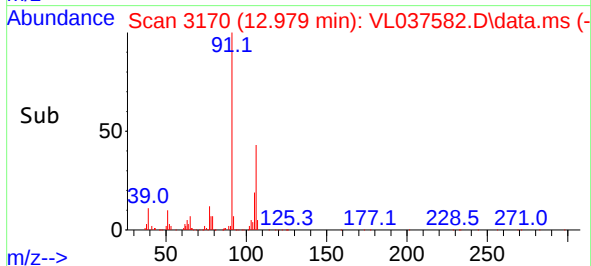
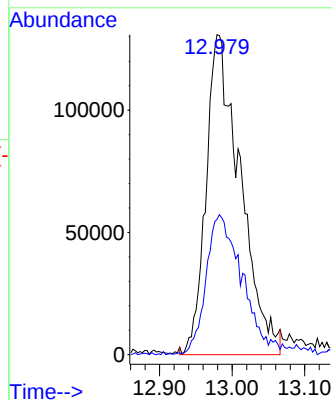
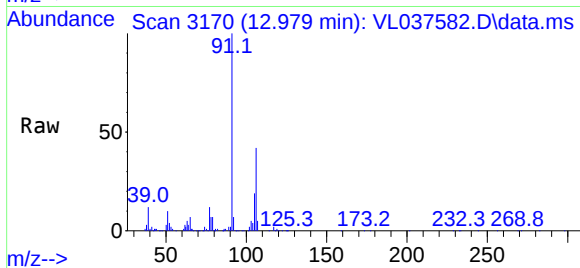
#59  
m/p-Xylene  
Concen: 0.952 ppbv m  
RT: 12.979 min Scan# 3170  
Delta R.T. 0.006 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

Tgt Ion: 91 Resp: 427971  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.9 55.3#

Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1

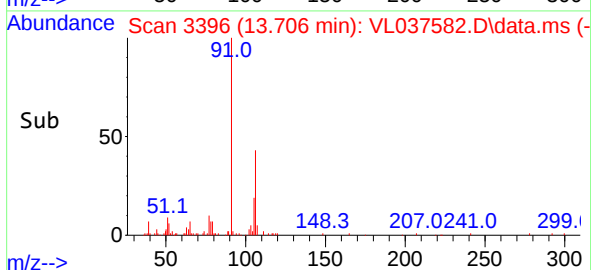
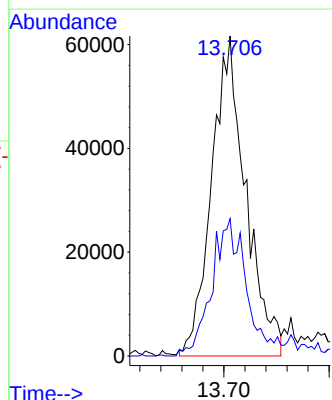
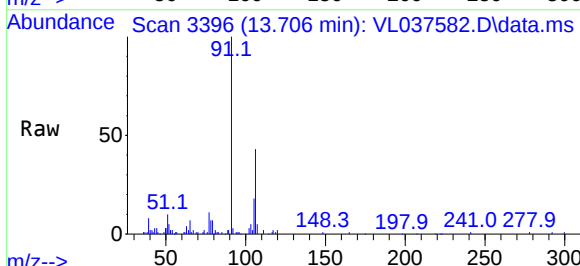
Manual Integrations  
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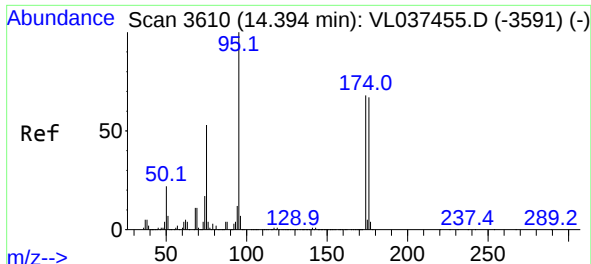
MMDadoda  
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#60  
o-Xylene  
Concen: 0.332 ppbv m  
RT: 13.706 min Scan# 3396  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

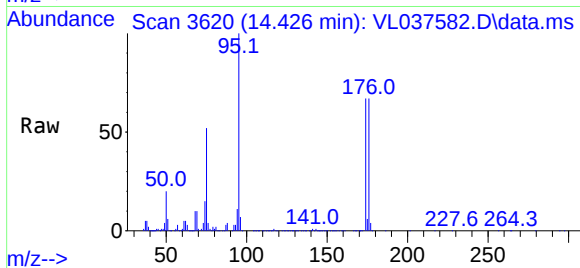
Tgt Ion: 91 Resp: 139308  
Ion Ratio Lower Upper  
91 100  
106 43.4 23.7 71.1





#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.097 ppbv  
RT: 14.426 min Scan# 3620  
Delta R.T. 0.032 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55

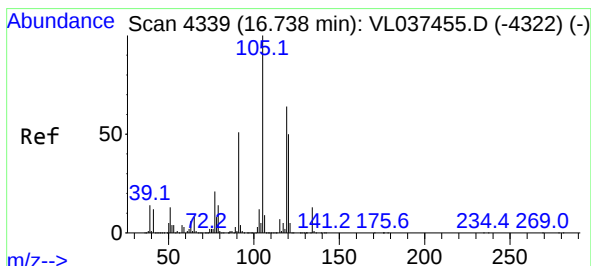
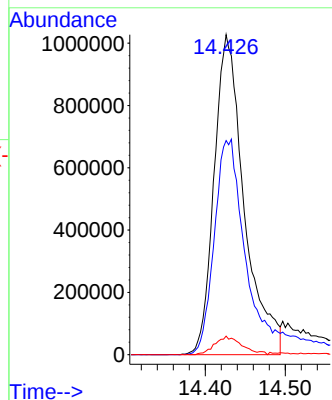
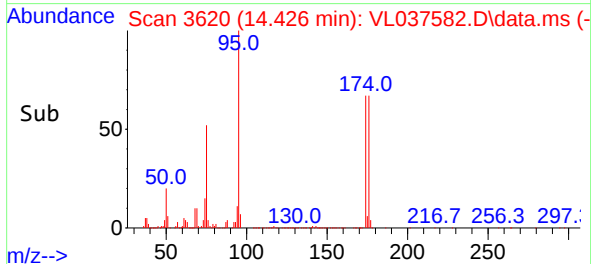
Instrument :  
MSVOA\_L  
ClientSampled :  
OA-1



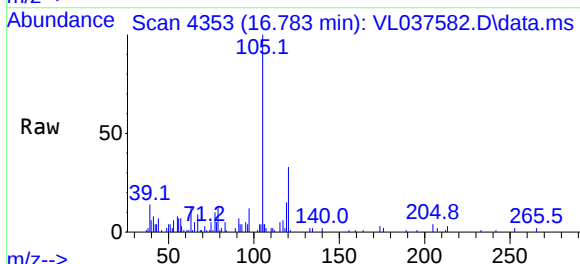
Tgt Ion: 95 Resp: 2681219  
Ion Ratio Lower Upper  
95 100  
174 78.9 59.6 89.4  
175 5.7 4.6 7.0

Manual Integrations  
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#74  
1,2,4-Trimethylbenzene  
Concen: 0.119 ppbv m  
RT: 16.783 min Scan# 4353  
Delta R.T. 0.045 min  
Lab File: VL037582.D  
Acq: 8 Sep 2021 21:55



Tgt Ion: 105 Resp: 58589  
Ion Ratio Lower Upper  
105 100  
120 33.4 40.4 60.6#  
91 7.0 44.6 67.0#  
77 9.8 17.8 26.6#

