

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061521\  
 Data File : VL037159.D  
 Acq On : 15 Jun 2021 16:29  
 Operator : SY/AP  
 Sample : M2702-02  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

Manual Integrations  
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MMDadoda  
 6/16/2021 5:01:36 PM

Quant Time: Jun 16 02:18:01 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL061421AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Jun 14 2021  
 QLast Update : Mon Jun 14 16:49:11 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 1410790  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 4075284  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 3705390  | 10.00 | ppbv  | 0.00     |

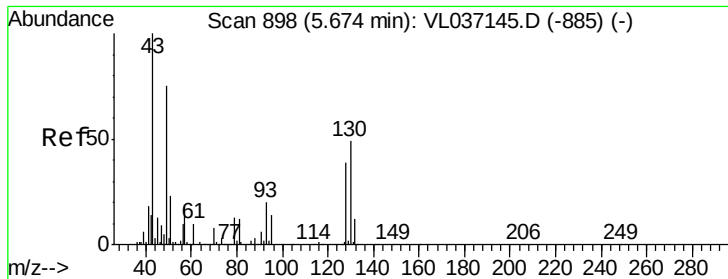
System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 2775283  | 10.17    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.70% |

| Target Compounds           | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.06  | 85   | 52044    | 0.232   | ppbv   | 97     |
| 3) Chlorodifluoromethane   | 2.99  | 51   | 136984m  | 0.518   | ppbv   |        |
| 4) Chloromethane           | 3.15  | 50   | 88807    | 0.985   | ppbv   | 98     |
| 9) Propene                 | 3.02  | 41   | 291210   | 3.336   | ppbv # | 81     |
| 10) Heptane                | 8.14  | 43   | 251261   | 1.207   | ppbv   | 98     |
| 11) Trichlorofluoromethane | 3.96  | 101  | 58274    | 0.229   | ppbv   | 96     |
| 13) Ethanol                | 3.62  | 45   | 6855842  | 568.407 | ppbv   | 98     |
| 15) Acetone                | 3.86  | 43   | 4659787  | 27.603  | ppbv   | 97     |
| 17) tert-Butyl alcohol     | 4.32  | 59   | 59344m   | 0.406   | ppbv   |        |
| 19) Isopropyl Alcohol      | 3.99  | 45   | 9113086  | 98.373  | ppbv   | 99     |
| 20) Methylene Chloride     | 4.36  | 84   | 541386   | 7.358   | ppbv   | 96     |
| 25) Ethyl Acetate          | 5.69  | 43   | 710524   | 2.148   | ppbv   | 99     |
| 29) Chloroform             | 5.76  | 83   | 183947   | 0.693   | ppbv   | 95     |
| 34) 2-Butanone             | 5.26  | 43   | 304402   | 1.989   | ppbv   | 99     |
| 35) Carbon Tetrachloride   | 7.03  | 117  | 16915m   | 0.068   | ppbv   |        |
| 36) Benzene                | 6.91  | 78   | 154294   | 0.477   | ppbv   | 98     |
| 43) Methyl Methacrylate    | 8.03  | 69   | 43842m   | 0.395   | ppbv   |        |
| 44) 2,2,4-Trimethylpentane | 7.88  | 57   | 84036m   | 0.155   | ppbv   |        |
| 50) 4-Methyl-2-Pentanone   | 8.77  | 43   | 41799m   | 0.186   | ppbv   |        |
| 52) Tetrachloroethene      | 11.24 | 164  | 38611m   | 0.289   | ppbv   |        |
| 53) Toluene                | 9.83  | 91   | 481995   | 1.254   | ppbv   | 99     |
| 58) Ethyl Benzene          | 12.73 | 91   | 158839m  | 0.316   | ppbv   |        |
| 59) m/p-Xylene             | 12.99 | 91   | 233464m  | 0.547   | ppbv   |        |
| 60) o-Xylene               | 13.72 | 91   | 63065m   | 0.154   | ppbv   |        |
| 76) 1,4-Dichlorobenzene    | 17.16 | 146  | 68265m   | 0.243   | ppbv   |        |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

Instrument :

MSVOA\_L

ClientSampled :

IA2

Tot Ion: 49 Resp: 1410790

Ion Ratio Lower Upper

49 100

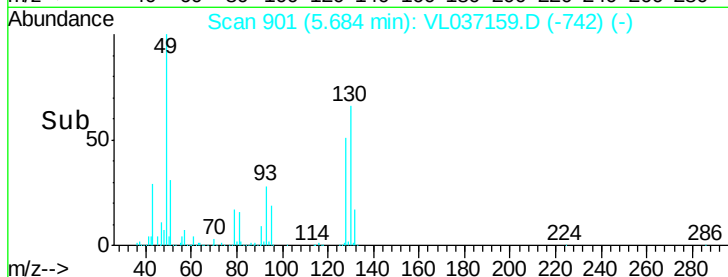
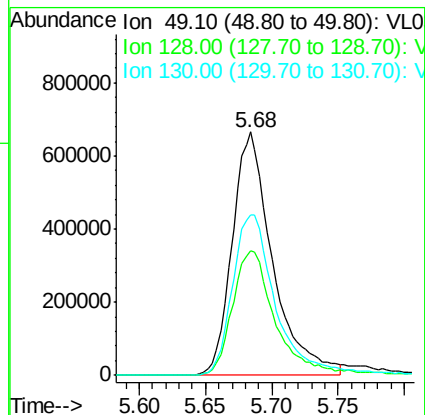
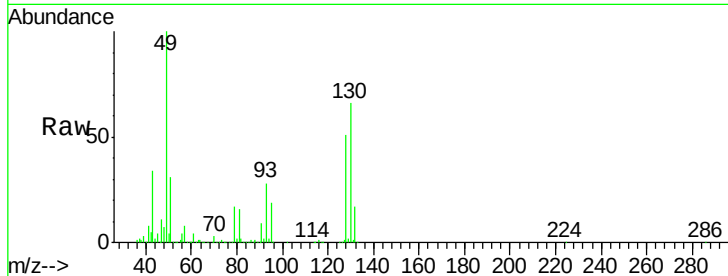
128 55.7 28.8 86.5

130 71.4 36.0 108.0

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#2

Dichlorodifluoromethane

Concen: 0.232 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL037159.D

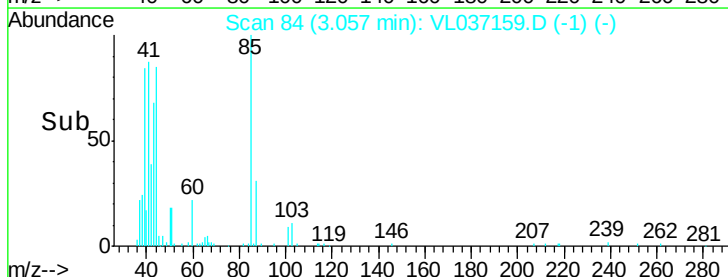
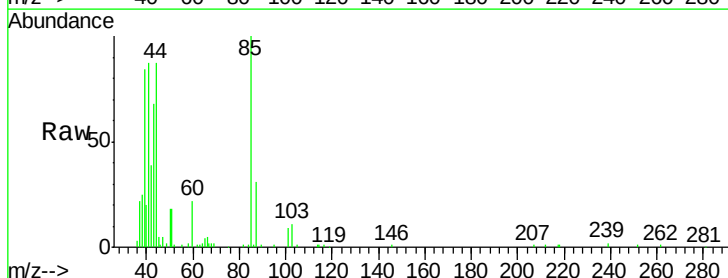
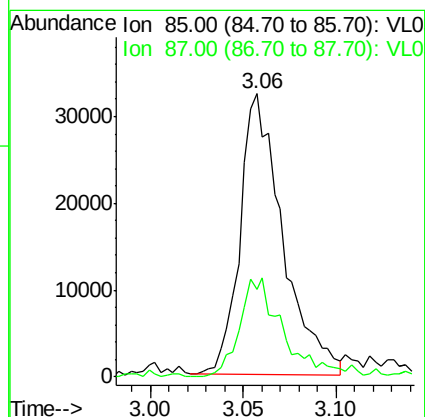
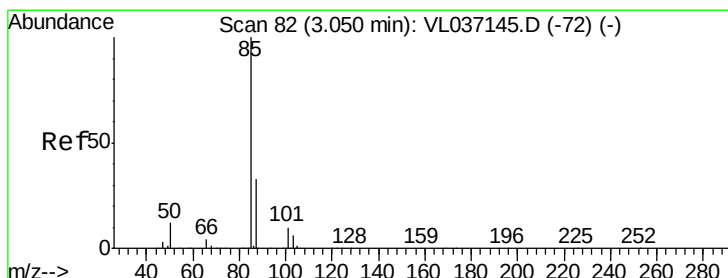
Acq: 15 Jun 2021 16:29

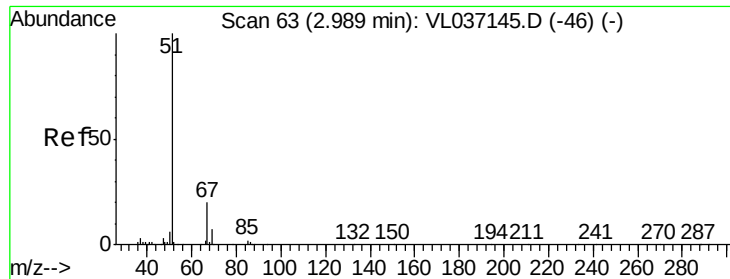
Tgt Ion: 85 Resp: 52044

Ion Ratio Lower Upper

85 100

87 31.4 26.4 39.6





#3

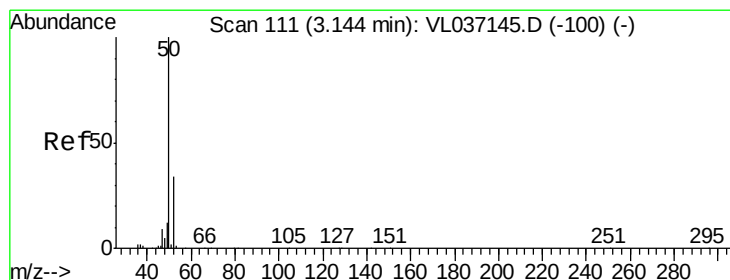
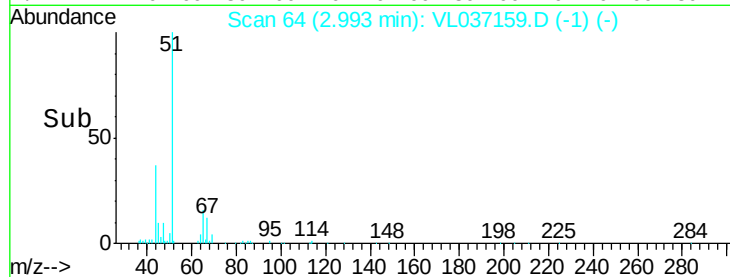
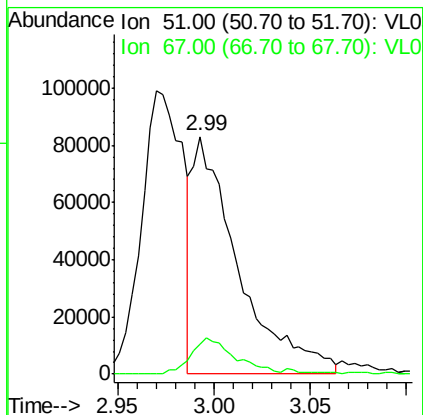
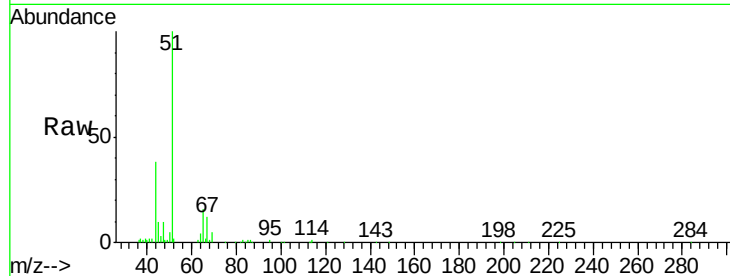
Chlorodifluoromethane  
 Concen: 0.518 ppbv  
 RT: 2.99 min Scan# 64  
 Delta R.T. 0.00 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

Tot Ion: 51 Resp: 136984  
 Ion Ratio Lower Upper  
 51 100  
 67 15.5 15.9 23.9#

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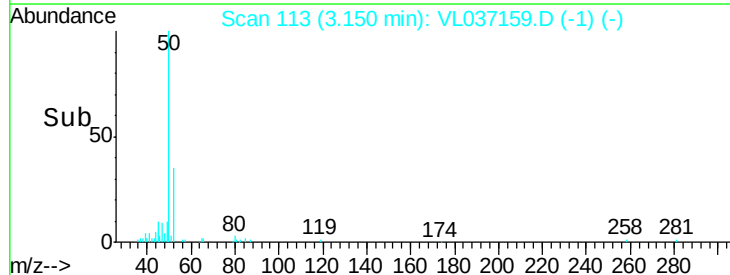
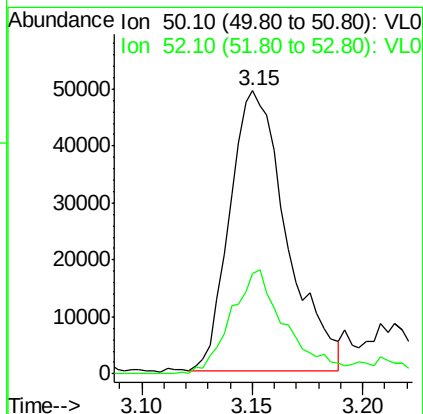
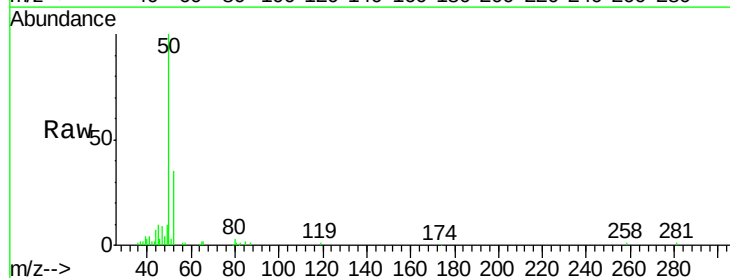
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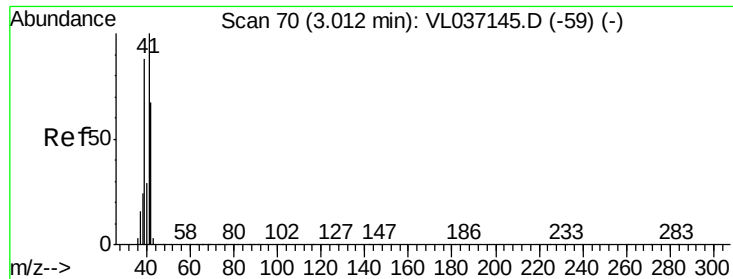


#4

Chloromethane  
 Concen: 0.985 ppbv  
 RT: 3.15 min Scan# 113  
 Delta R.T. 0.01 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Tgt Ion: 50 Resp: 88807  
 Ion Ratio Lower Upper  
 50 100  
 52 35.6 27.4 41.2





#9

Propene

Concen: 3.336 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

Instrument :

MSVOA\_L

ClientSampleId :

IA2

Tot Ion: 41 Resp: 291210

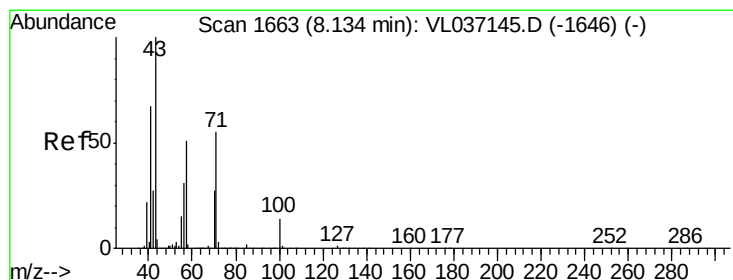
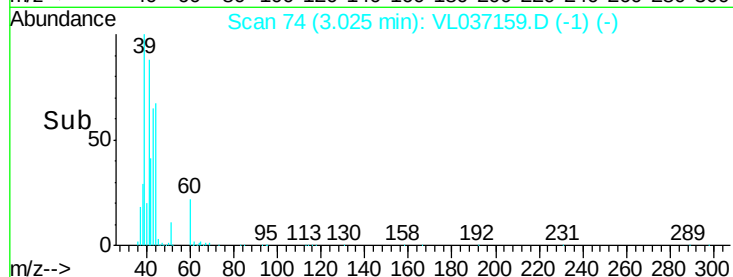
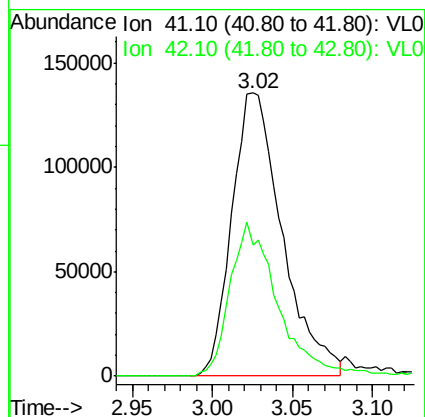
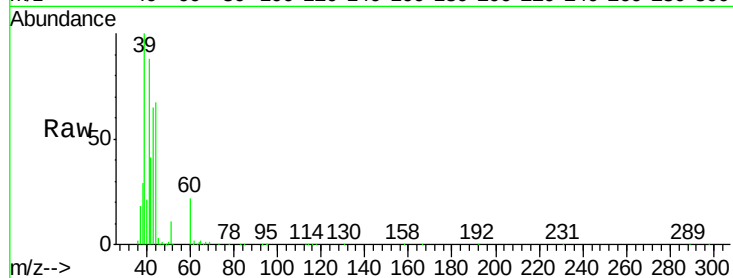
Ion Ratio Lower Upper

41 100

42 52.1 53.8 80.8#

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6/16/2021 5:01:36 PM



#10

Heptane

Concen: 1.207 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.00 min

Lab File: VL037159.D

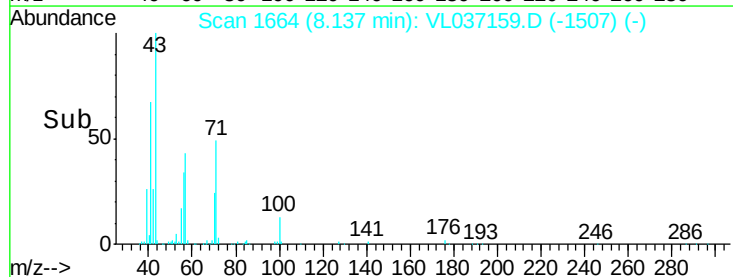
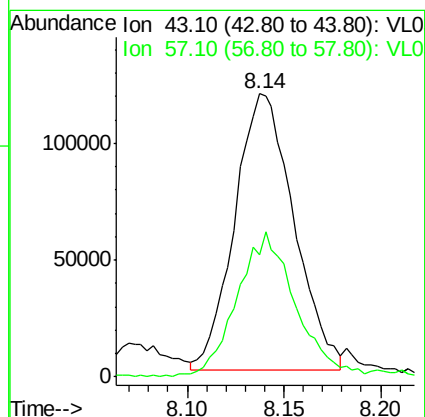
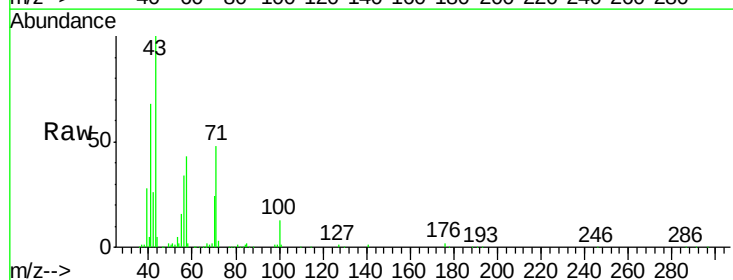
Acq: 15 Jun 2021 16:29

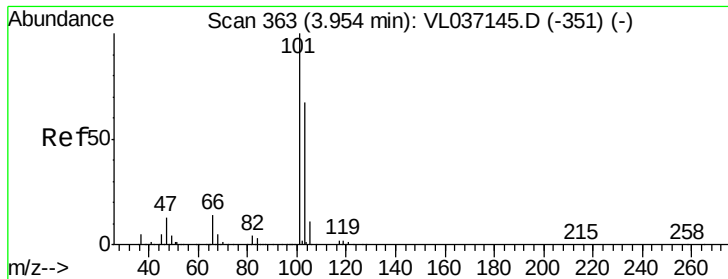
Tgt Ion: 43 Resp: 251261

Ion Ratio Lower Upper

43 100

57 52.3 40.5 60.7





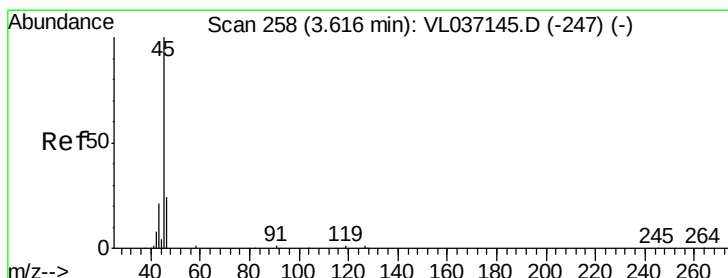
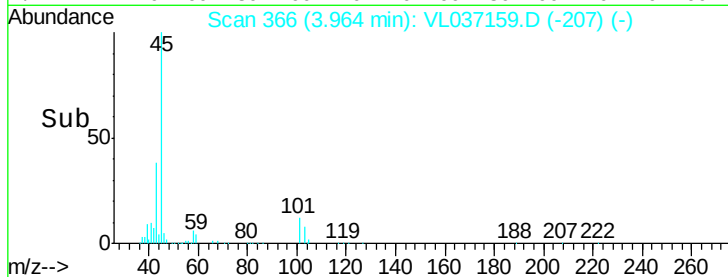
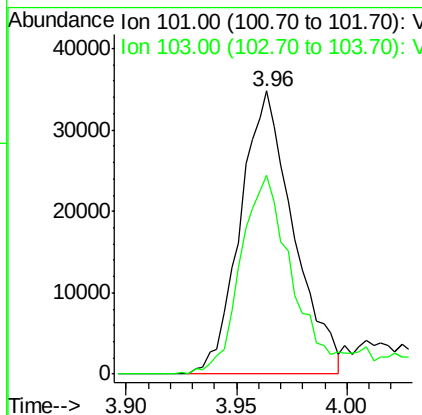
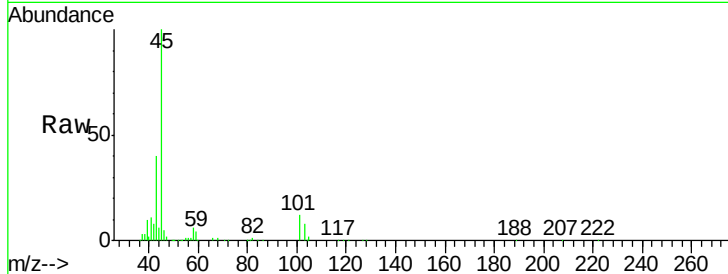
#11  
 Trichlorofluoromethane  
 Concen: 0.229 ppbv  
 RT: 3.96 min Scan# 366  
 Delta R.T. 0.01 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 103     | 70.1  | 53.6  | 80.4  |

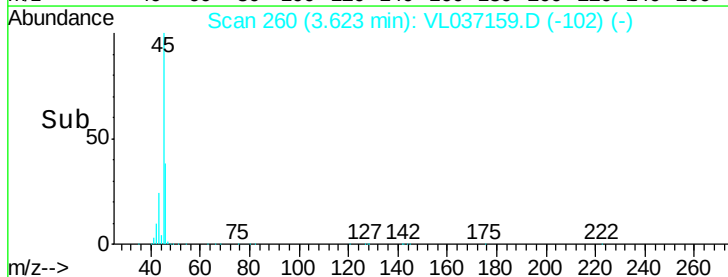
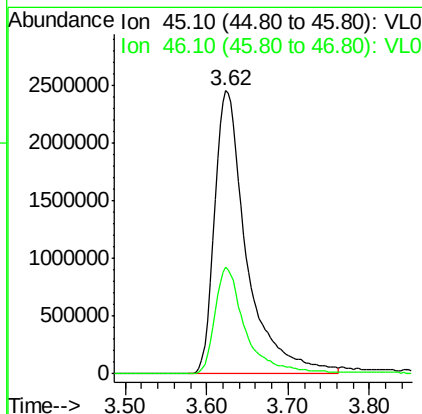
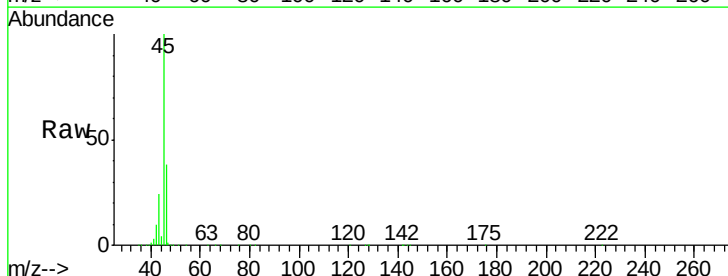
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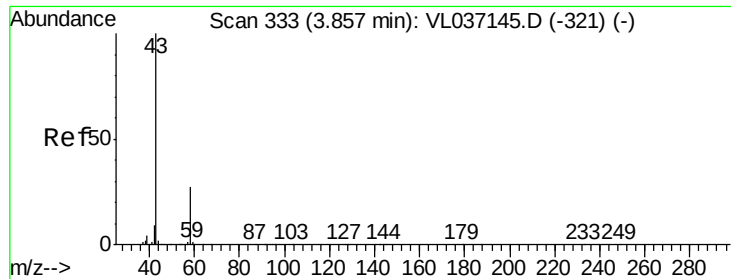
MMDadoda  
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#13  
 Ethanol  
 Concen: 568.407 ppbv  
 RT: 3.62 min Scan# 260  
 Delta R.T. 0.01 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 46      | 37.4  | 15.4  | 61.8  |





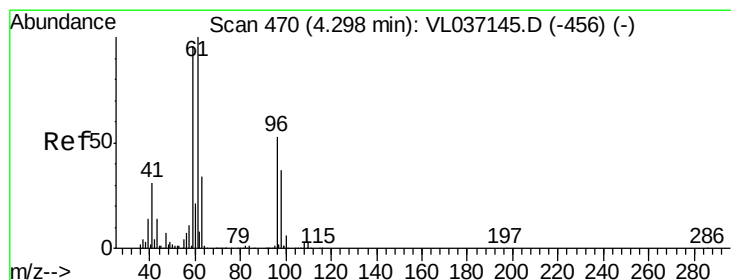
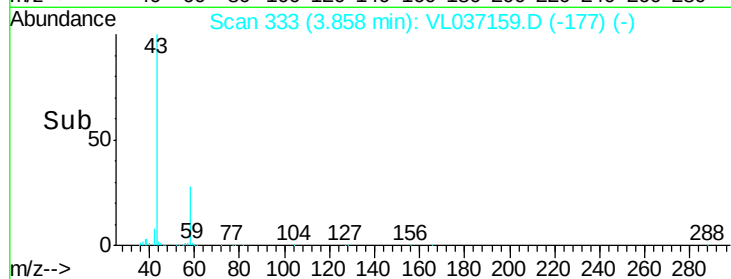
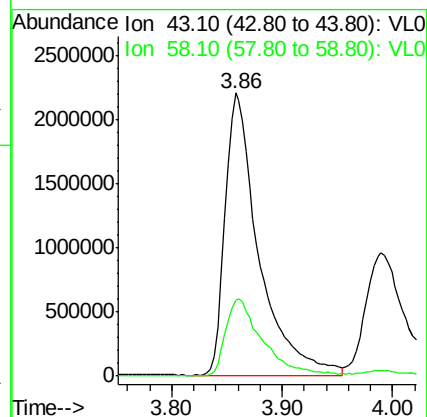
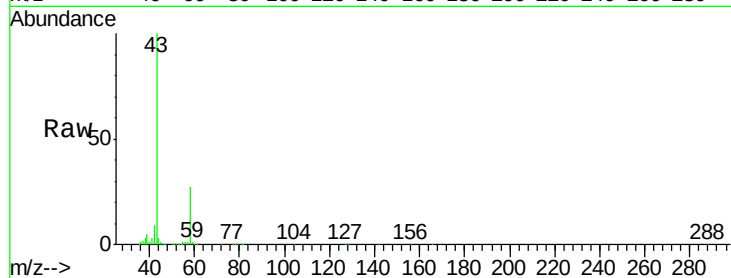
#15  
Acetone  
Concen: 27.603 ppbv  
RT: 3.86 min Scan# 333  
Delta R.T. 0.00 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

Tot Ion: 43 Resp: 4659787  
Ion Ratio Lower Upper  
43 100  
58 30.2 23.0 34.6

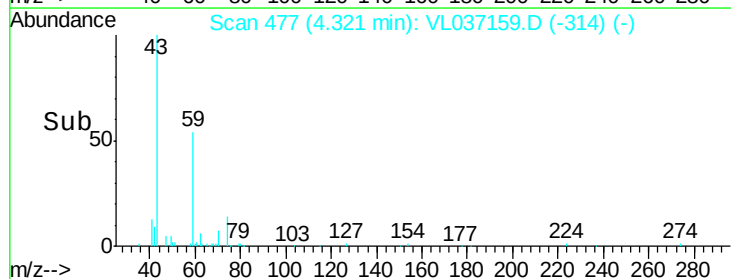
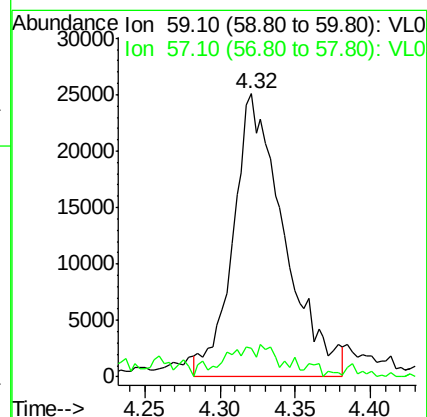
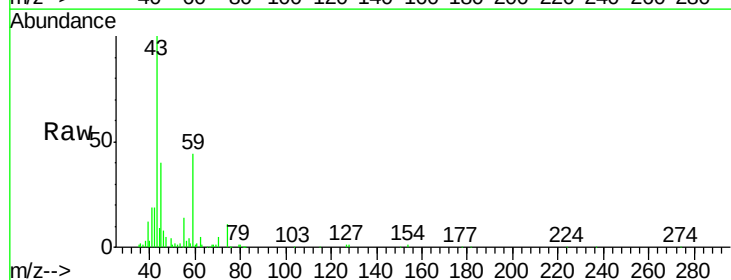
Manual Integrations  
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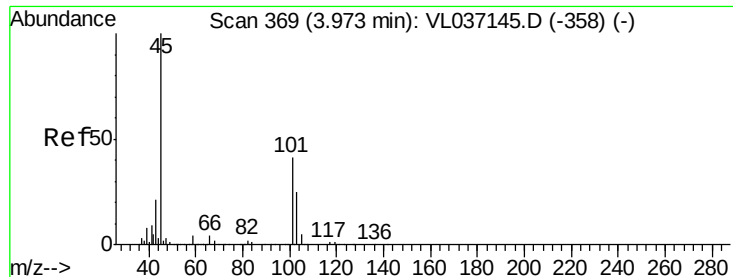
MMDadoda  
6/16/2021 5:01:36 PM



#17  
tert-Butyl alcohol  
Concen: 0.406 ppbv m  
RT: 4.32 min Scan# 477  
Delta R.T. 0.02 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Tgt Ion: 59 Resp: 59344  
Ion Ratio Lower Upper  
59 100  
57 59.7 8.8 13.2#





#19

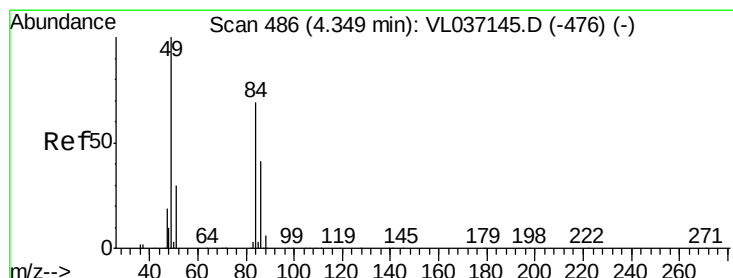
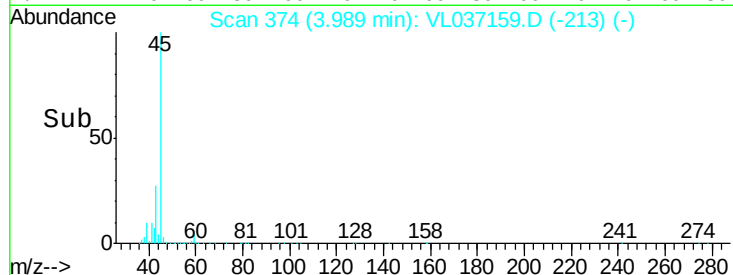
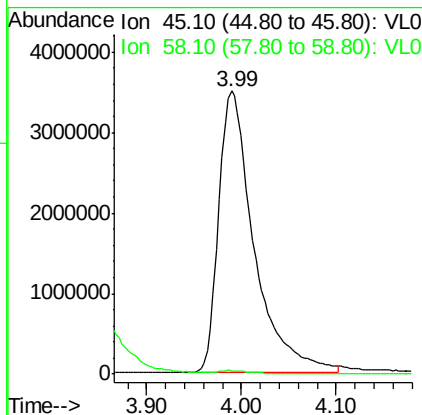
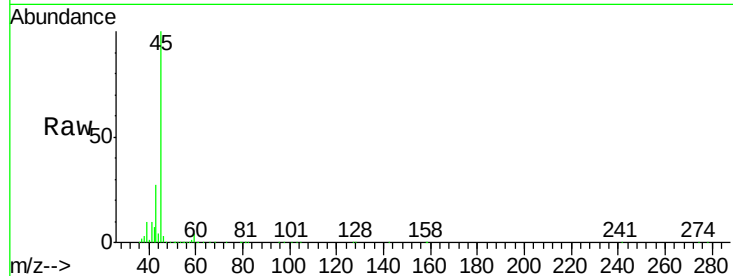
Isopropyl Alcohol  
 Concen: 98.373 ppbv  
 RT: 3.99 min Scan# 374  
 Delta R.T. 0.02 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

Tot Ion: 45 Resp: 9113086  
 Ion Ratio Lower Upper  
 45 100  
 58 1.5 1.4 2.2

Manual Integrations  
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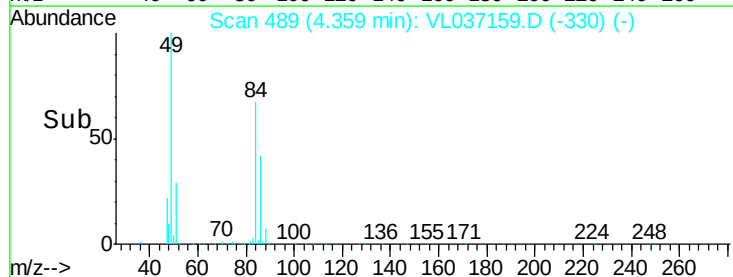
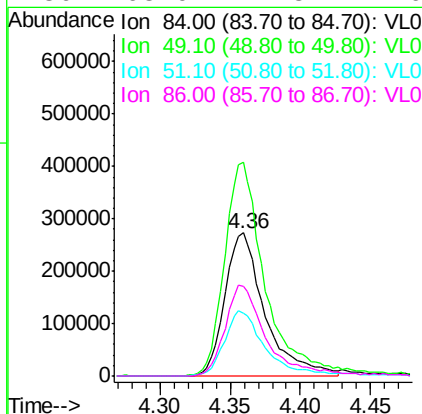
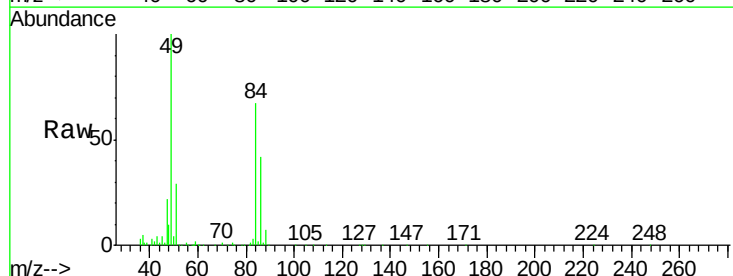
MMDadoda  
 6/16/2021 5:01:36 PM



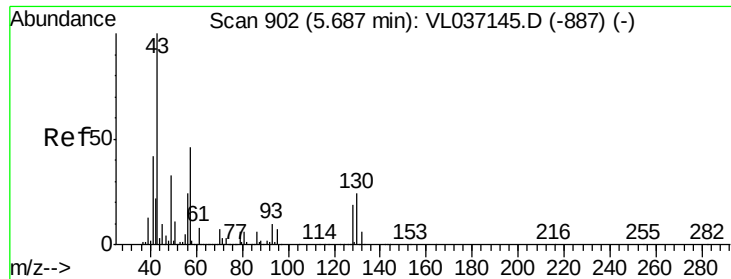
#20

Methylene Chloride  
 Concen: 7.358 ppbv  
 RT: 4.36 min Scan# 489  
 Delta R.T. 0.01 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Tgt Ion: 84 Resp: 541386  
 Ion Ratio Lower Upper  
 84 100  
 49 148.8 115.3 172.9  
 51 43.7 34.2 51.4  
 86 63.0 47.8 71.6







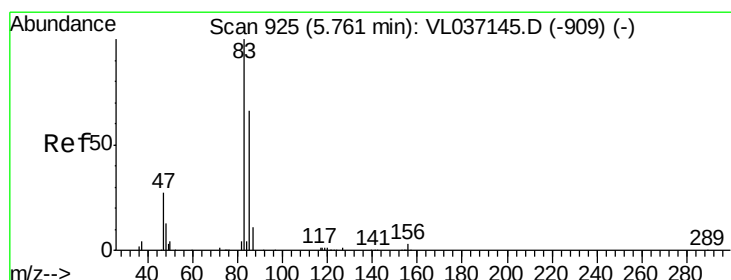
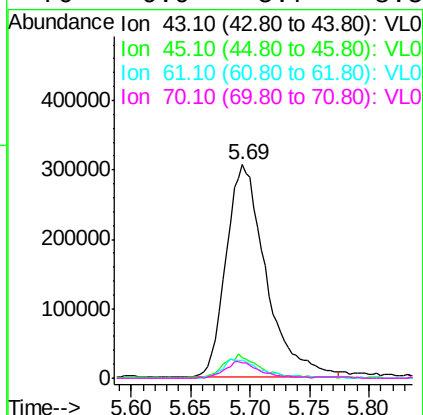
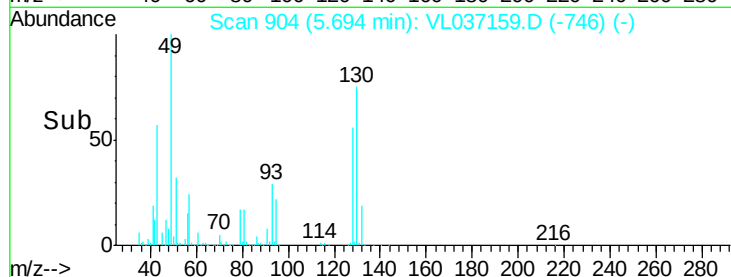
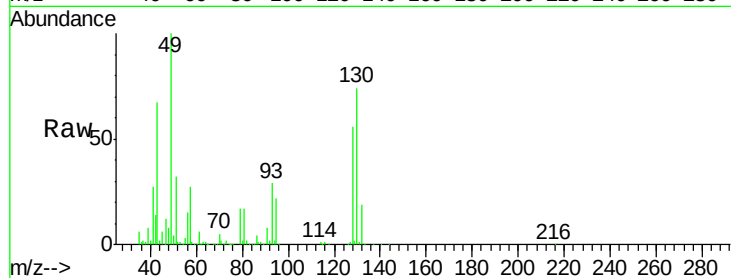
#25  
Ethyl Acetate  
Concen: 2.148 ppbv  
RT: 5.69 min Scan# 904  
Delta R.T. 0.01 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.9   | 7.8   | 11.8  |
| 61      | 9.0   | 7.5   | 11.3  |
| 70      | 6.9   | 5.7   | 8.5   |

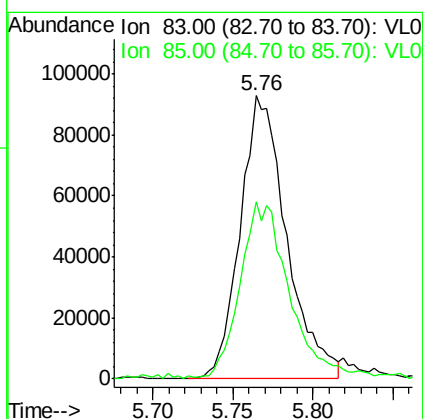
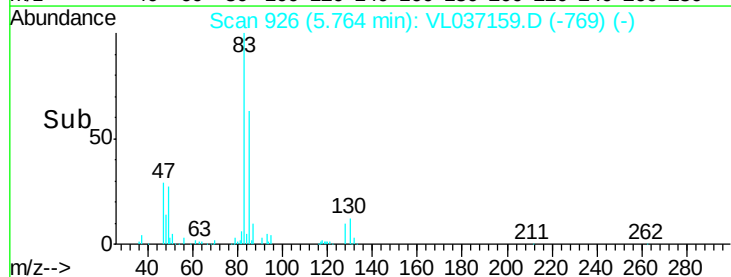
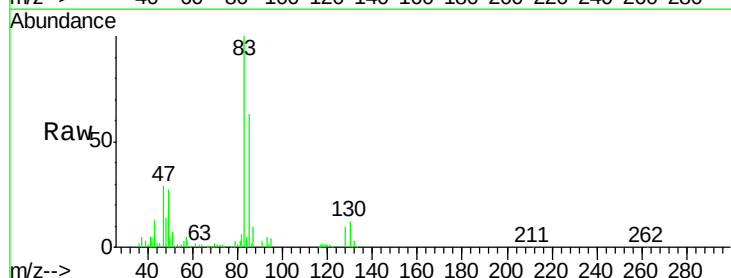
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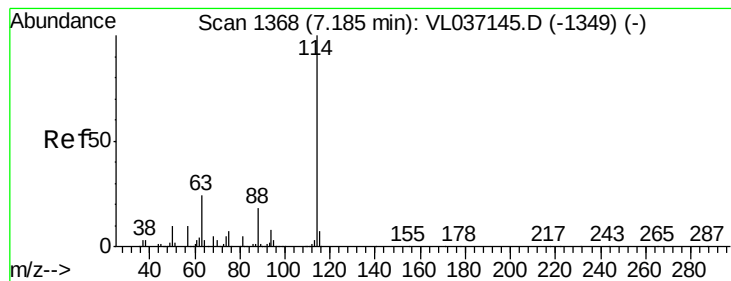
MMDadoda  
6/16/2021 5:01:36 PM



#29  
Chloroform  
Concen: 0.693 ppbv  
RT: 5.76 min Scan# 926  
Delta R.T. 0.00 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 61.5  | 52.6  | 78.8  |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1370

Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

Instrument :

MSVOA\_L

ClientSampleId :

IA2

Tot Ion:114 Resp: 4075284

Ion Ratio Lower Upper

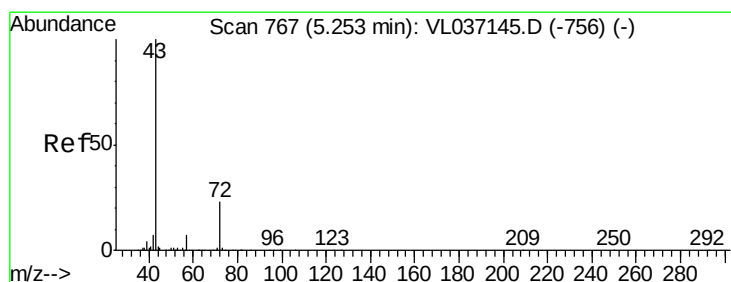
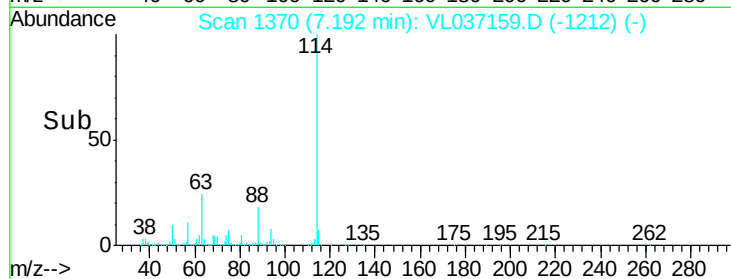
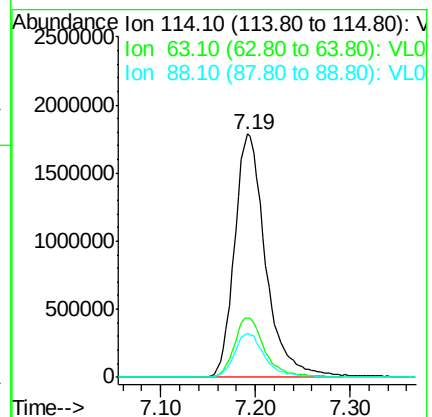
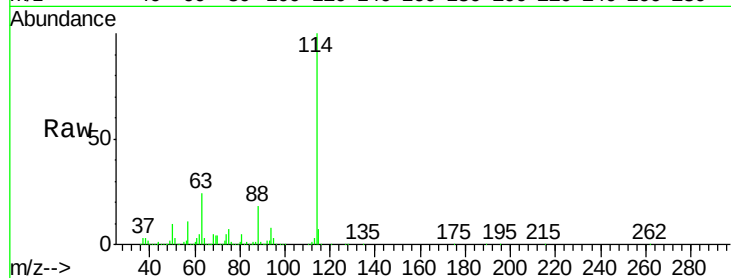
114 100

63 24.5 19.8 29.6

88 18.0 14.3 21.5

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6/16/2021 5:01:36 PM



#34

2-Butanone

Concen: 1.989 ppbv

RT: 5.26 min Scan# 769

Delta R.T. 0.01 min

Lab File: VL037159.D

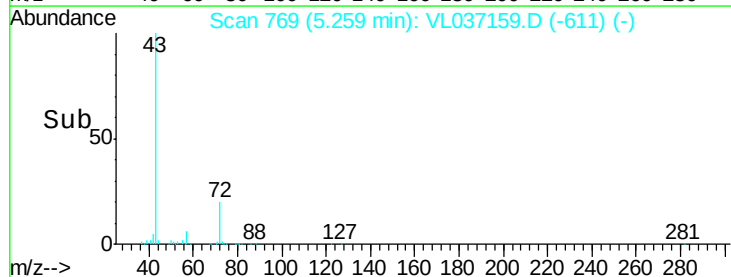
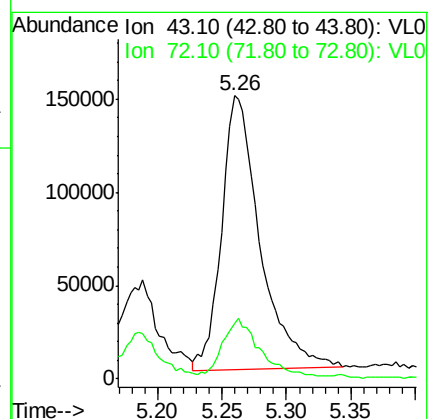
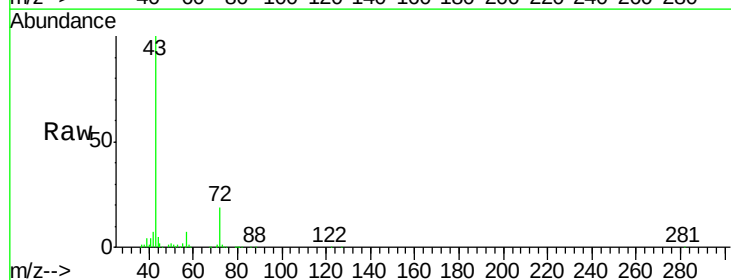
Acq: 15 Jun 2021 16:29

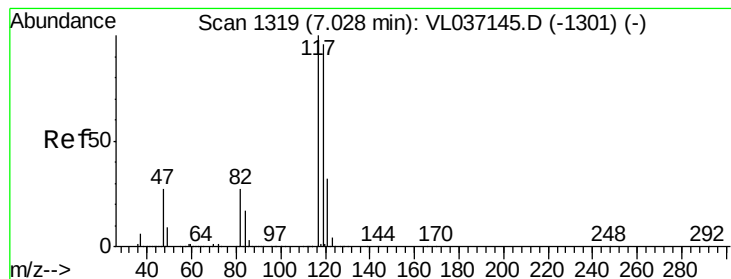
Tgt Ion: 43 Resp: 304402

Ion Ratio Lower Upper

43 100

72 23.6 18.6 28.0





#35

Carbon Tetrachloride

Concen: 0.068 ppbv m

RT: 7.03 min Scan# 1320

Delta R.T. 0.00 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

Instrument :

MSVOA\_L

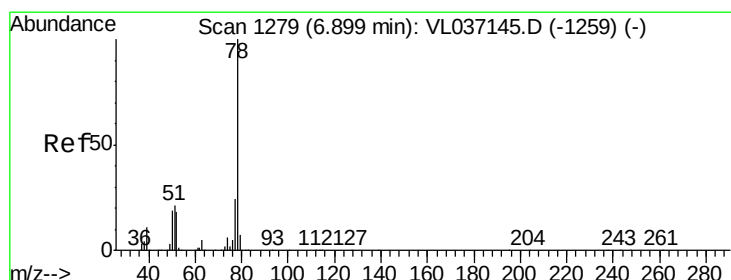
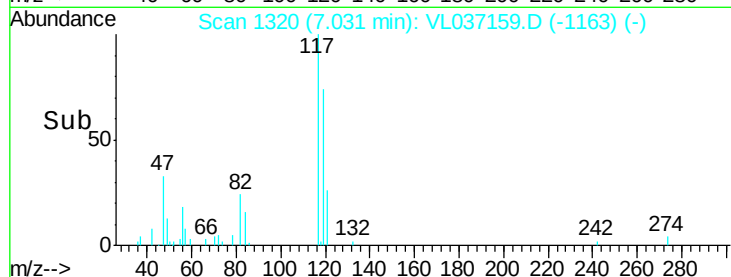
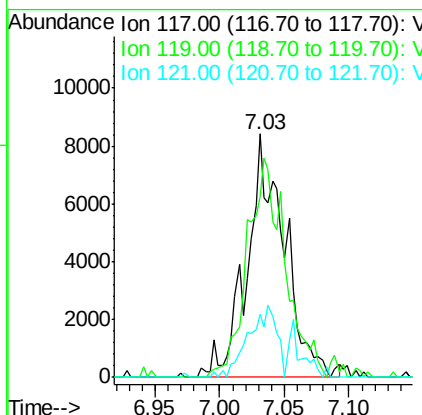
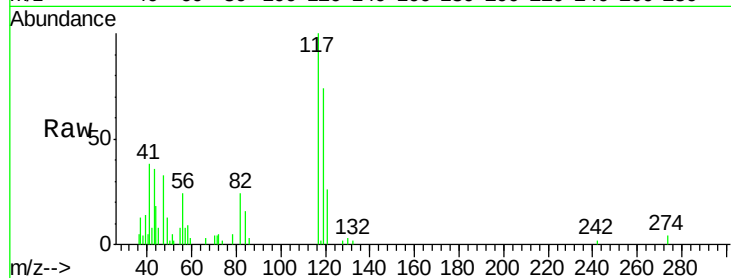
ClientSampled :

IA2

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 74.2  | 77.0  | 115.4# |
| 121     | 26.1  | 25.4  | 38.0   |

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6/16/2021 5:01:36 PM



#36

Benzene

Concen: 0.477 ppbv

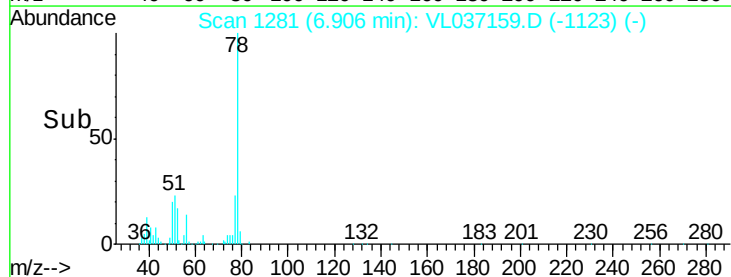
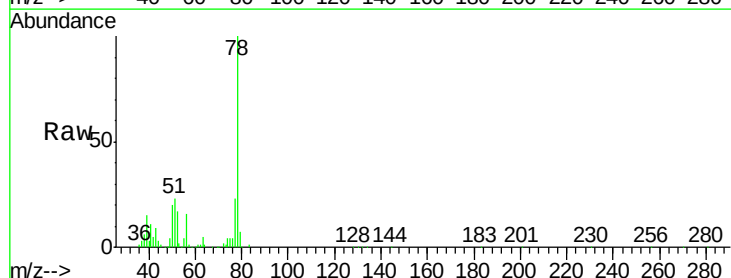
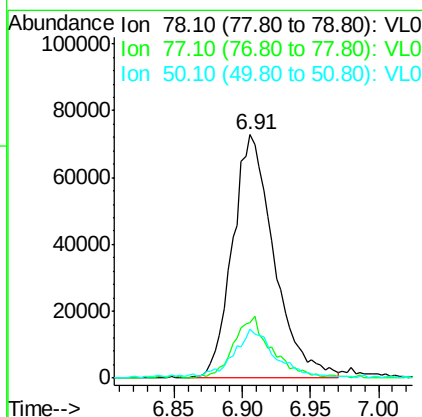
RT: 6.91 min Scan# 1281

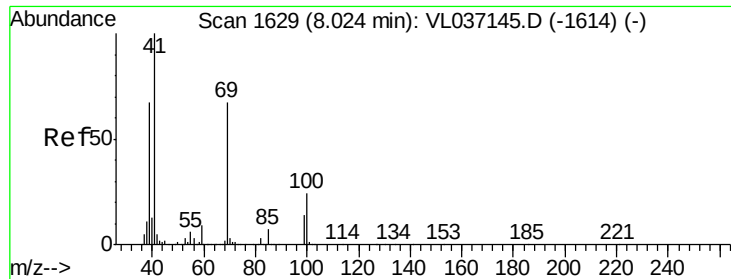
Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 22.3  | 19.5  | 29.3  |
| 50      | 19.5  | 15.5  | 23.3  |





#43

Methyl Methacrylate

Concen: 0.395 ppbv m

RT: 8.03 min Scan# 1631

Delta R.T. 0.01 min

Lab File: VL037159.D

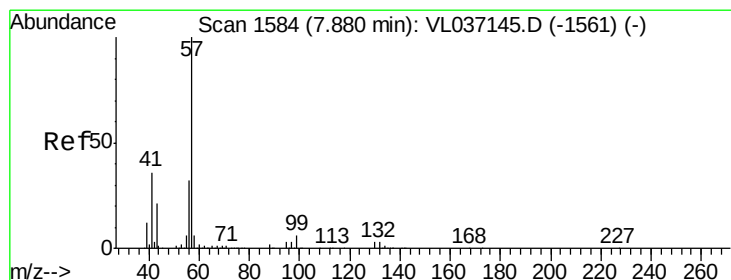
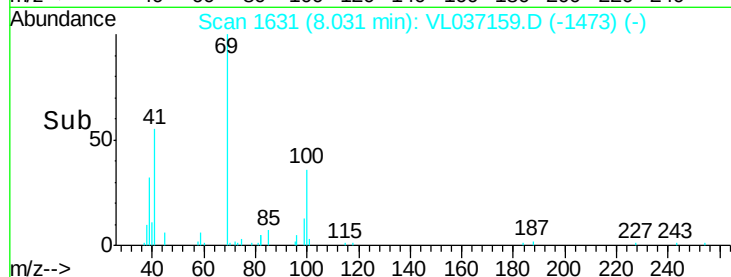
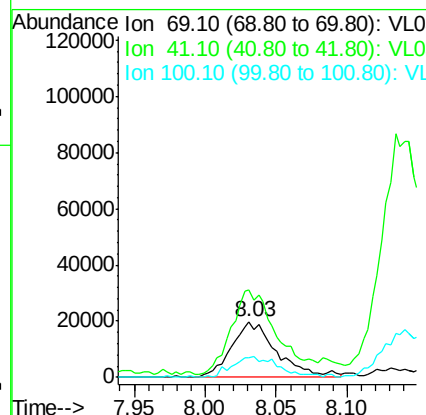
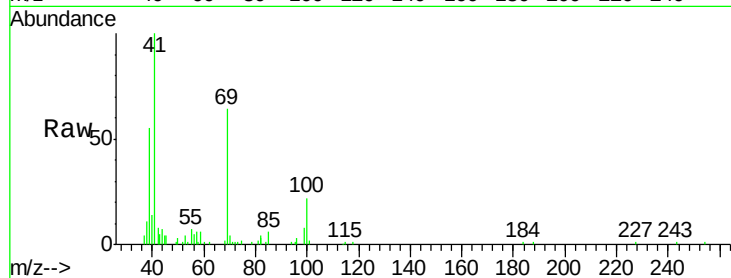
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 160.6 | 117.7 | 176.5 |
| 100     | 37.7  | 27.9  | 41.9  |

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#44

2,2,4-Trimethylpentane

Concen: 0.155 ppbv m

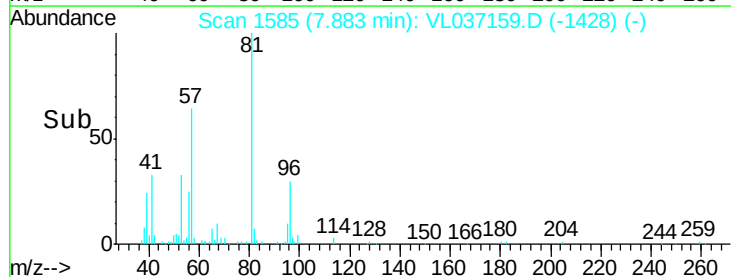
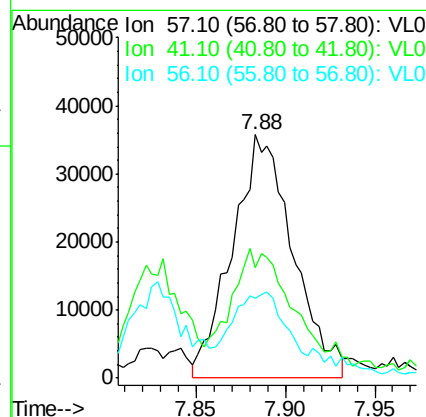
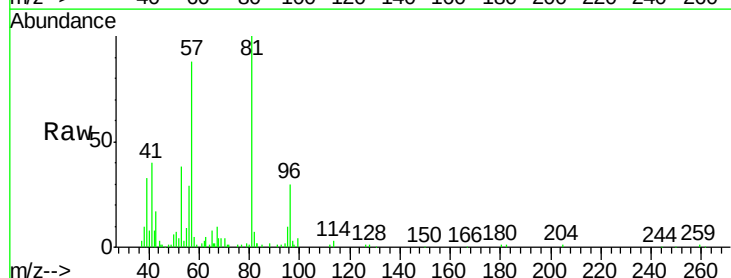
RT: 7.88 min Scan# 1585

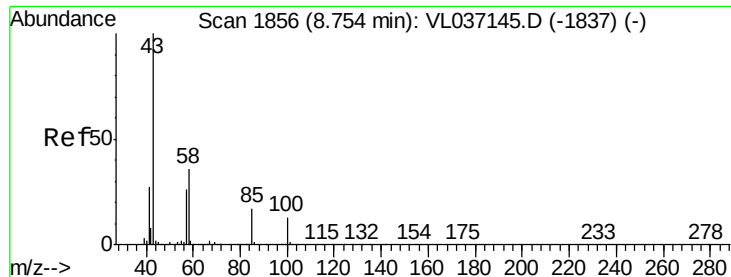
Delta R.T. 0.00 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 54.6  | 28.1  | 42.1# |
| 56      | 0.0   | 25.4  | 38.2# |





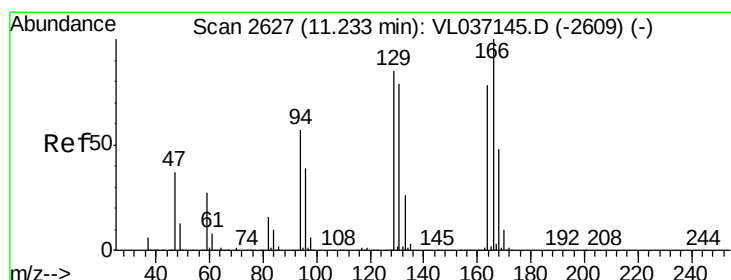
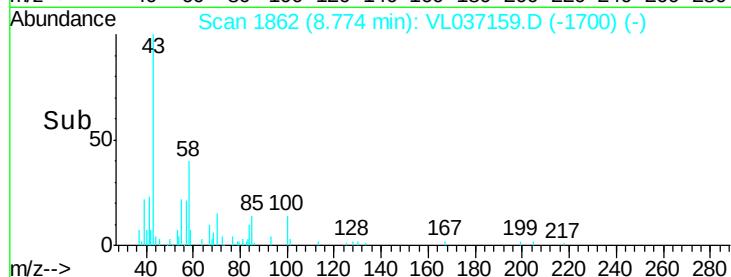
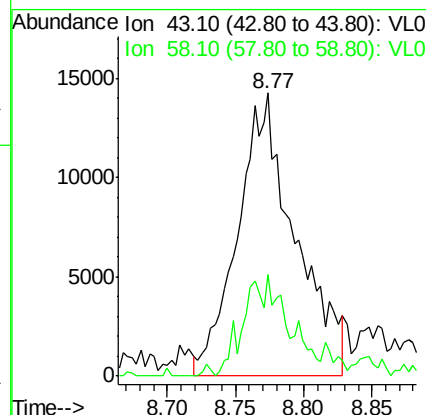
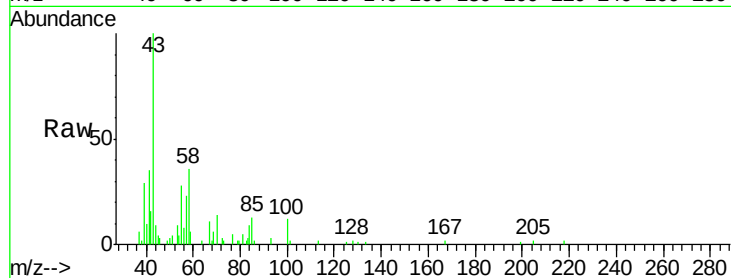
#50  
4-Methyl-2-Pentanone  
Concen: 0.186 ppbv m  
RT: 8.77 min Scan# 1862  
Delta R.T. 0.02 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

Tot Ion: 43 Resp: 41799  
Ion Ratio Lower Upper  
43 100  
58 0.0 29.0 43.6#

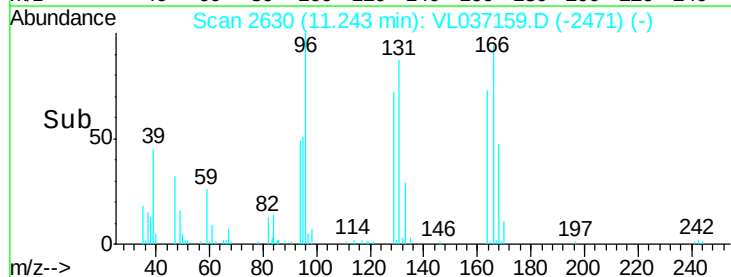
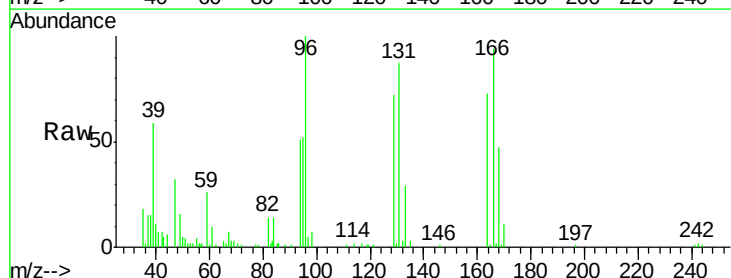
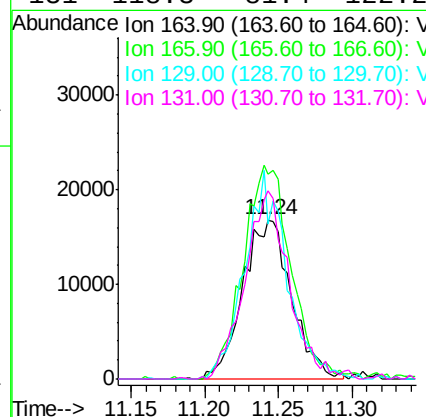
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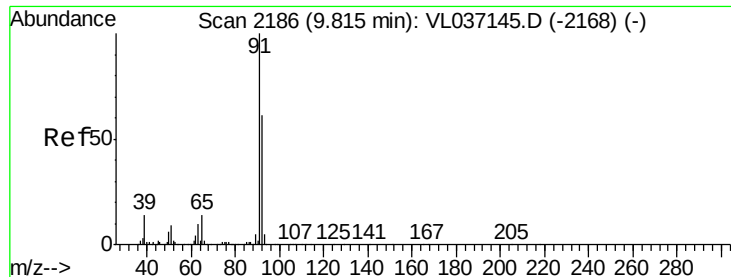
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6/16/2021 5:01:36 PM



#52  
Tetrachloroethene  
Concen: 0.289 ppbv m  
RT: 11.24 min Scan# 2630  
Delta R.T. 0.01 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Tgt Ion: 164 Resp: 38611  
Ion Ratio Lower Upper  
164 100  
166 128.4 102.6 154.0  
129 97.4 87.4 131.2  
131 118.3 81.4 122.2





#53

Toluene

Concen: 1.254 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

Instrument :

MSVOA\_L

ClientSampled :

IA2

Tot Ion: 91 Resp: 481995

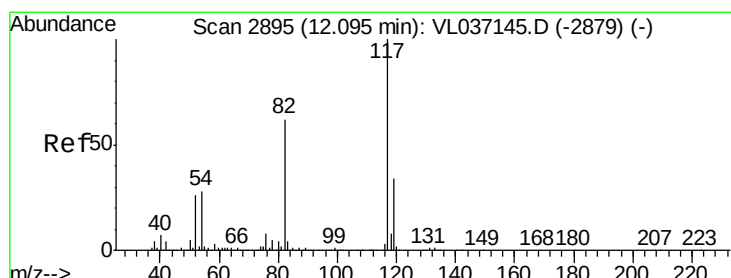
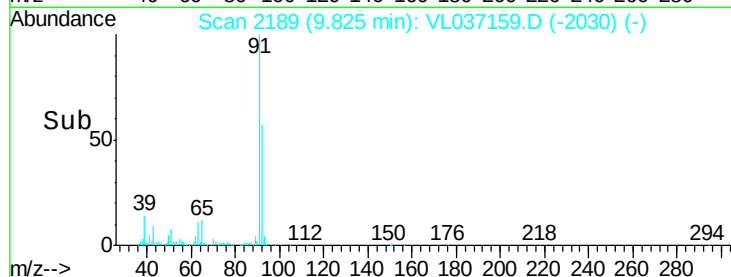
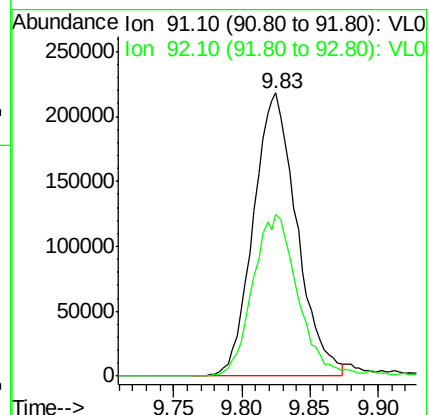
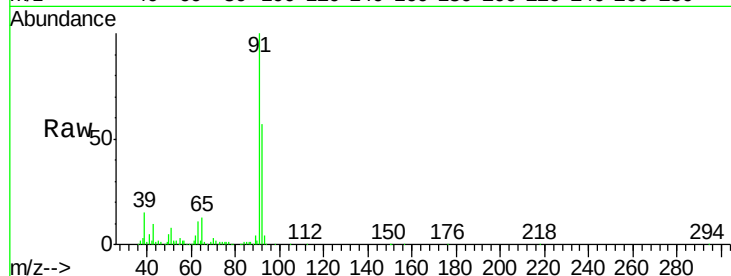
Ion Ratio Lower Upper

91 100

92 60.1 48.6 73.0

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. 0.01 min

Lab File: VL037159.D

Acq: 15 Jun 2021 16:29

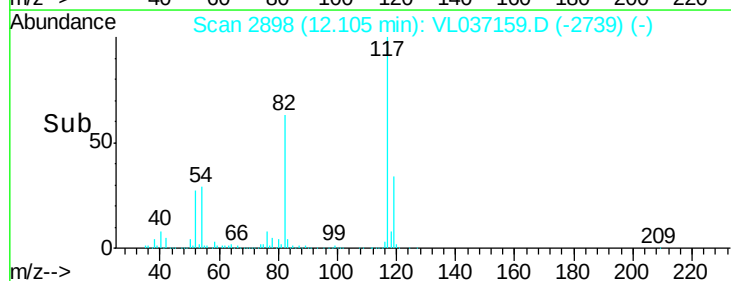
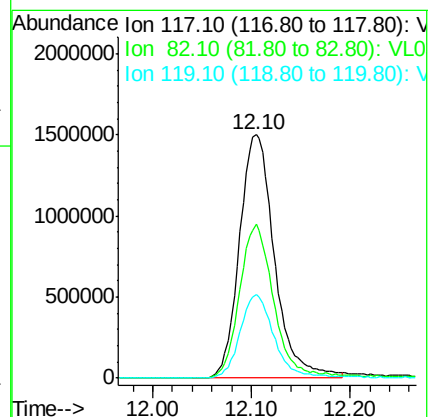
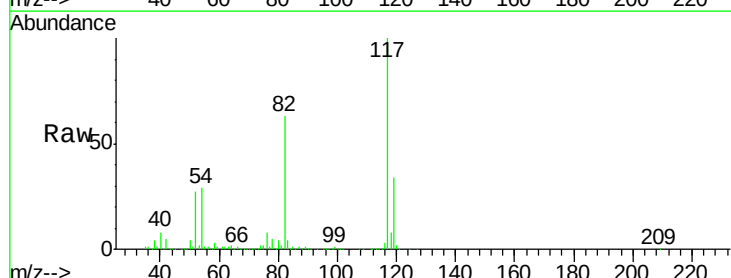
Tgt Ion: 117 Resp: 3705390

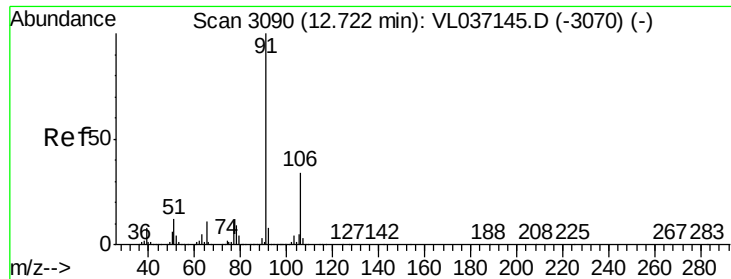
Ion Ratio Lower Upper

117 100

82 63.4 50.6 76.0

119 34.2 27.1 40.7





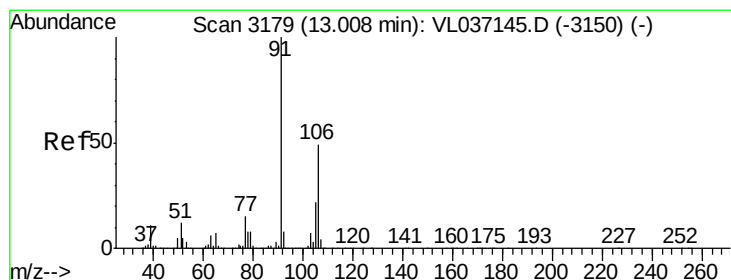
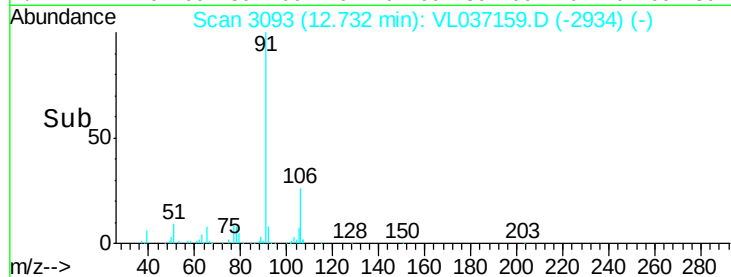
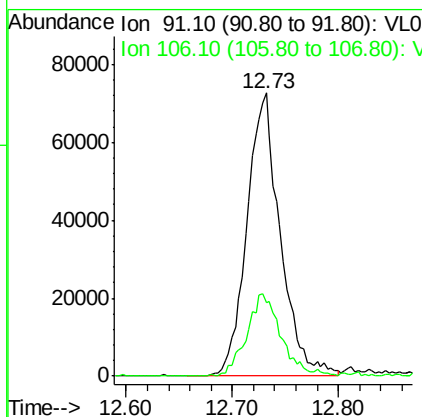
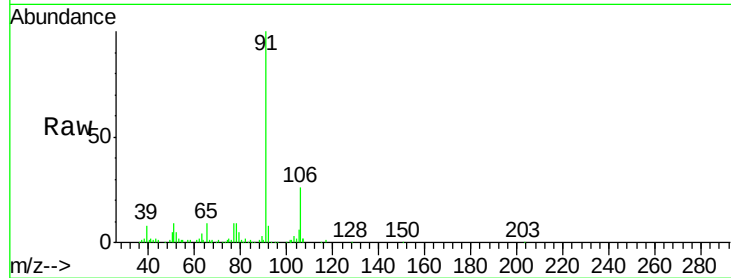
#58  
Ethyl Benzene  
Concen: 0.316 ppbv m  
RT: 12.73 min Scan# 3093  
Delta R.T. 0.01 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

Tot Ion: 91 Resp: 158839  
Ion Ratio Lower Upper  
91 100  
106 26.1 26.8 40.2#

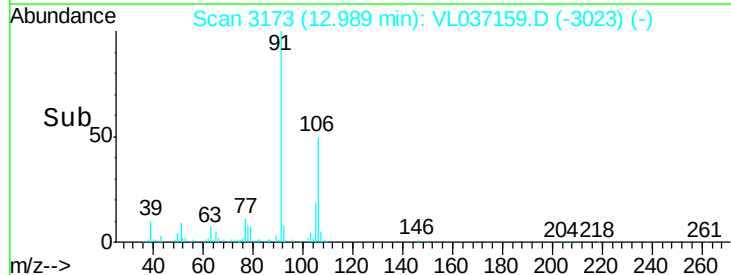
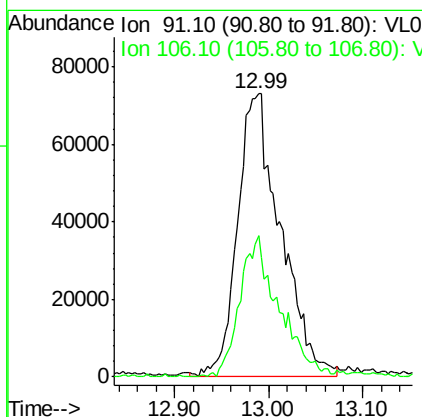
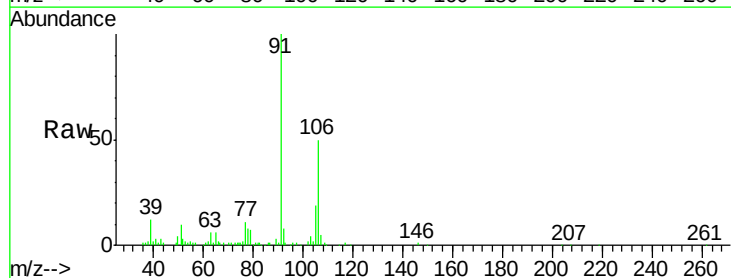
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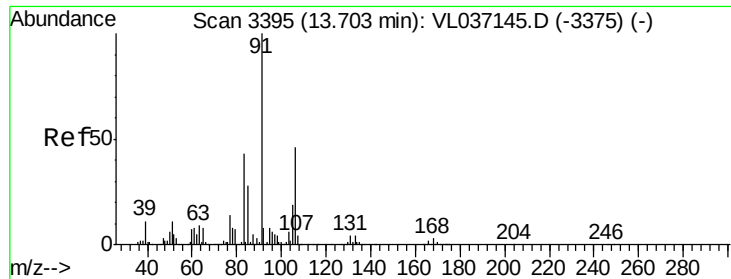
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#59  
m/p-Xylene  
Concen: 0.547 ppbv m  
RT: 12.99 min Scan# 3173  
Delta R.T. -0.02 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Tgt Ion: 91 Resp: 233464  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.9 55.3#





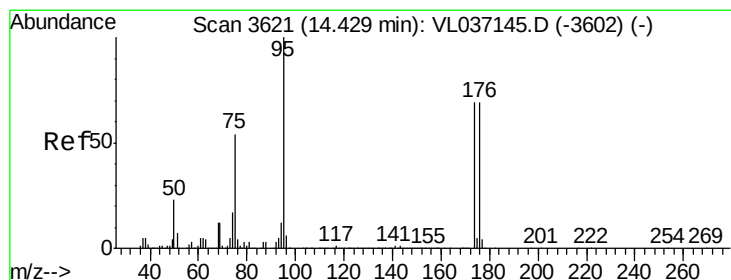
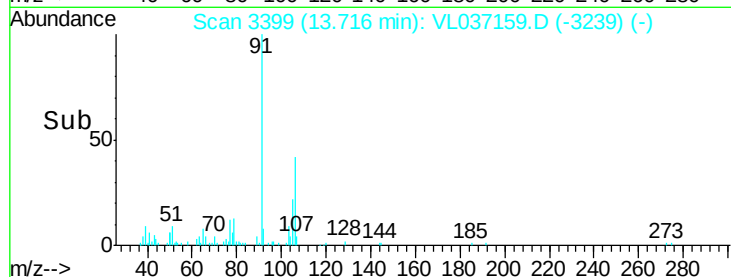
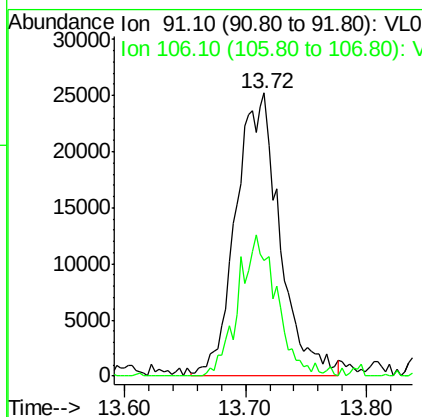
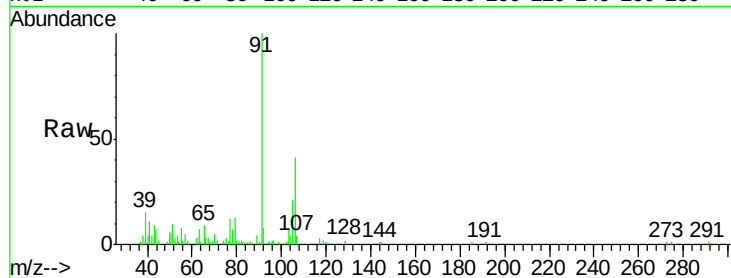
#60  
o-Xylene  
Concen: 0.154 ppbv m  
RT: 13.72 min Scan# 3399  
Delta R.T. 0.01 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

Tot Ion: 91 Resp: 63065  
Ion Ratio Lower Upper  
91 100  
106 0.0 23.1 69.3#

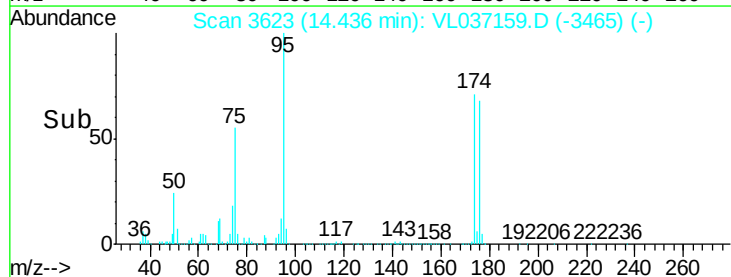
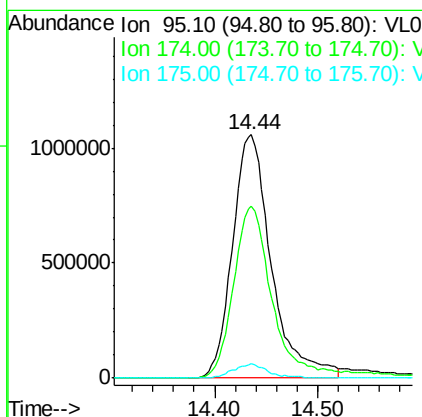
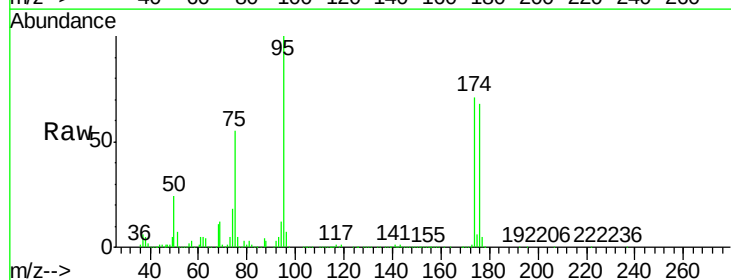
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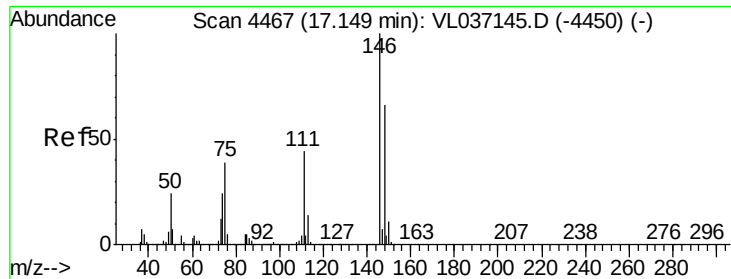


#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.169 ppbv  
RT: 14.44 min Scan# 3623  
Delta R.T. 0.01 min  
Lab File: VL037159.D  
Acq: 15 Jun 2021 16:29

Tgt Ion: 95 Resp: 2775283  
Ion Ratio Lower Upper  
95 100  
174 73.9 57.6 86.4  
175 5.5 4.4 6.6







#76  
 1,4-Dichlorobenzene  
 Concen: 0.243 ppbv m  
 RT: 17.16 min Scan# 4469  
 Delta R.T. 0.01 min  
 Lab File: VL037159.D  
 Acq: 15 Jun 2021 16:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 49.9  | 21.9  | 65.5  |
| 148     | 0.0   | 32.4  | 97.0# |

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