

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060121\  
 Data File : VL037090.D  
 Acq On : 2 Jun 2021 4:13  
 Operator : SY/AP  
 Sample : M2548-06  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA-3A

Manual Integrations  
 APPROVED

MMDadoda  
 6/7/2021 2:59:32 PM

Quant Time: Jun 02 06:59:17 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May 18 2021  
 QLast Update : Tue May 18 12:00:15 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1301198  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 3858385  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 3494717  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2532006  | 9.64     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.40% |

| Target Compounds           | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.03  | 85   | 72124    | 0.327   | ppbv   | 98     |
| 3) Chlorodifluoromethane   | 2.98  | 51   | 84174    | 0.353   | ppbv # | 89     |
| 4) Chloromethane           | 3.13  | 50   | 41025    | 0.506   | ppbv # | 79     |
| 9) Propene                 | 3.01  | 41   | 55029    | 0.645   | ppbv # | 76     |
| 11) Trichlorofluoromethane | 3.94  | 101  | 59719    | 0.292   | ppbv   | 94     |
| 13) Ethanol                | 3.59  | 45   | 1228488  | 107.865 | ppbv   | 99     |
| 15) Acetone                | 3.84  | 43   | 878816   | 6.594   | ppbv   | 96     |
| 19) Isopropyl Alcohol      | 3.96  | 45   | 1054157  | 14.714  | ppbv # | 36     |
| 20) Methylene Chloride     | 4.33  | 84   | 159677   | 2.235   | ppbv   | 97     |
| 26) Hexane                 | 5.67  | 57   | 130883   | 0.800   | ppbv # | 50     |
| 29) Chloroform             | 5.74  | 83   | 26629m   | 0.115   | ppbv   |        |
| 34) 2-Butanone             | 5.24  | 43   | 77000    | 0.548   | ppbv   | 94     |
| 35) Carbon Tetrachloride   | 7.01  | 117  | 13947m   | 0.054   | ppbv   |        |
| 36) Benzene                | 6.87  | 78   | 39082    | 0.118   | ppbv # | 89     |
| 53) Toluene                | 9.78  | 91   | 167663   | 0.424   | ppbv   | 98     |
| 59) m/p-Xylene             | 12.94 | 91   | 46084m   | 0.113   | ppbv   |        |
| 69) p-Isopropyltoluene     | 17.64 | 119  | 164125m  | 0.277   | ppbv   |        |

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

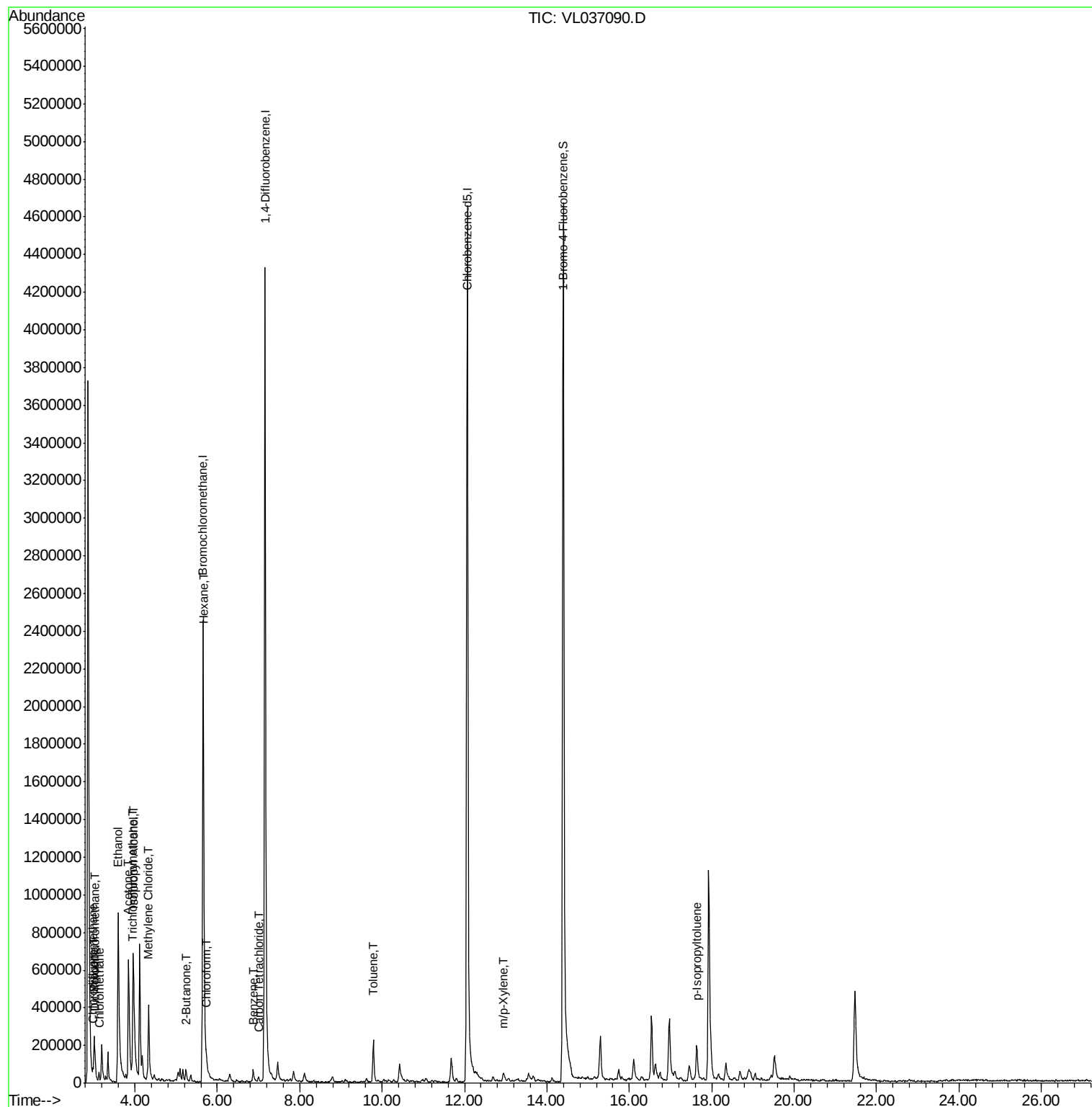
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL060121\  
Data File : VL037090.D  
Acq On : 2 Jun 2021 4:13  
Operator : SY/AP  
Sample : M2548-06  
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ALS Vial : 1 Sample Multiplier: 1

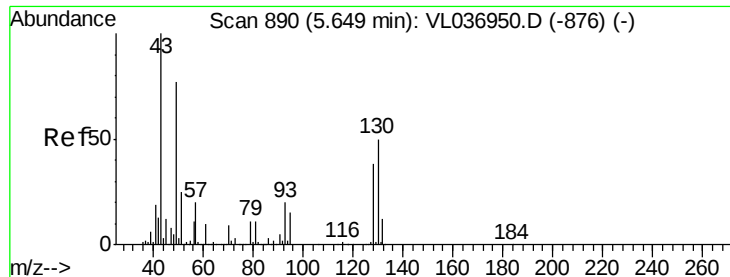
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA-3A

Manual Integrations  
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Quant Time: Jun 02 06:59:17 2021  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May  
QLast Update : Tue May 18 12:00:15 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

ClientSampled :

IA-3A

Tot Ion: 49 Resp: 1301198

Ion Ratio Lower Upper

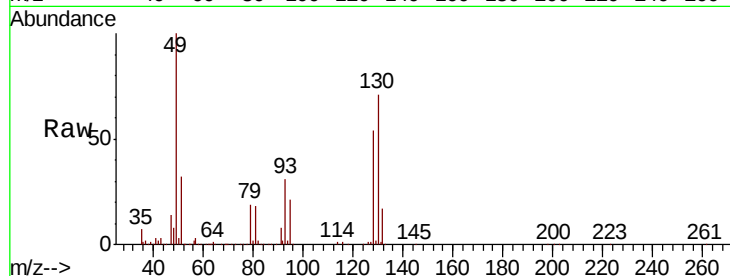
49 100

128 56.9 26.9 80.7

130 74.1 33.8 101.4

Manual Integrations  
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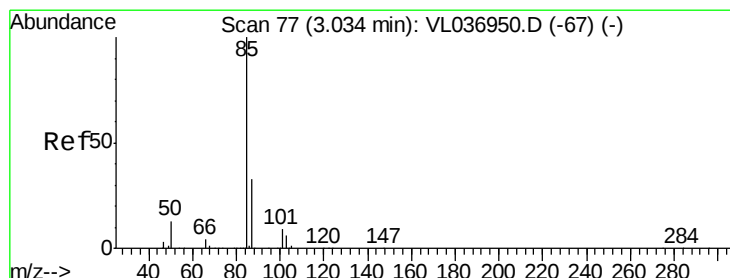
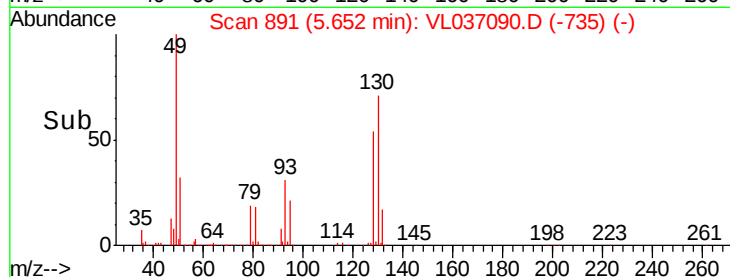
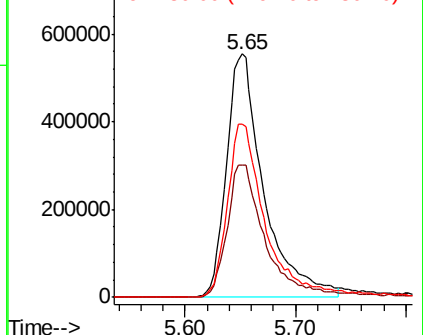
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.327 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.00 min

Lab File: VL037090.D

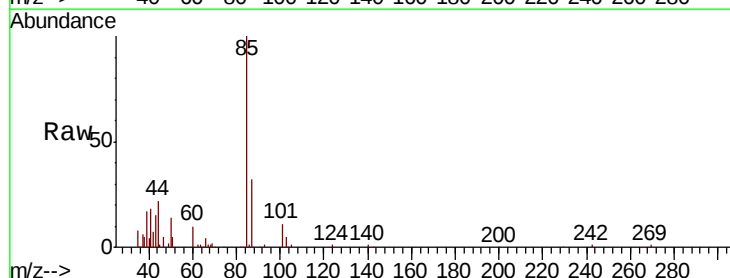
Acq: 2 Jun 2021 4:13

Tgt Ion: 85 Resp: 72124

Ion Ratio Lower Upper

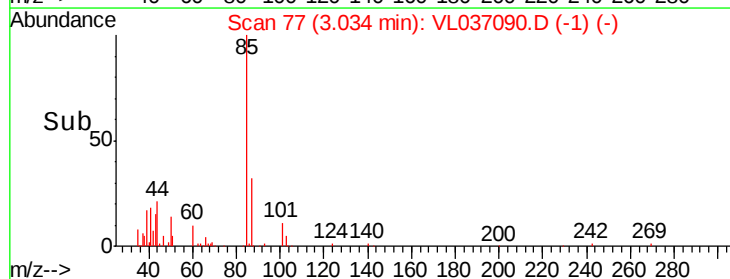
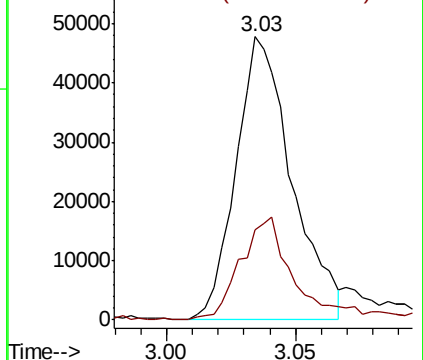
85 100

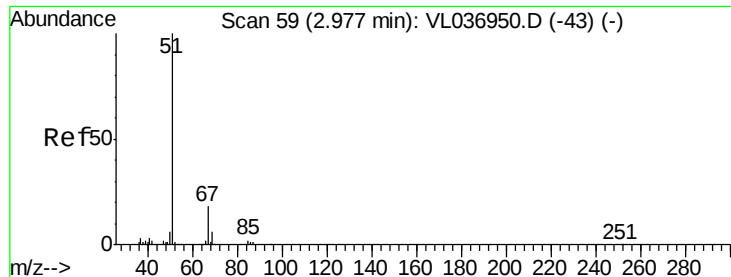
87 31.9 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.353 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

ClientSampleId :

IA-3A

Tot Ion: 51 Resp: 84174

Ion Ratio Lower Upper

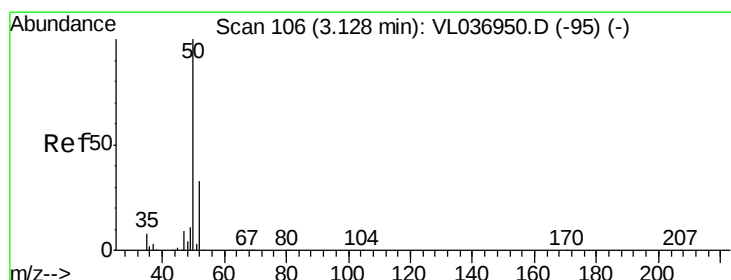
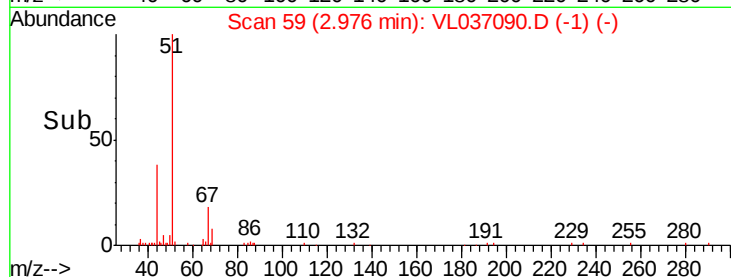
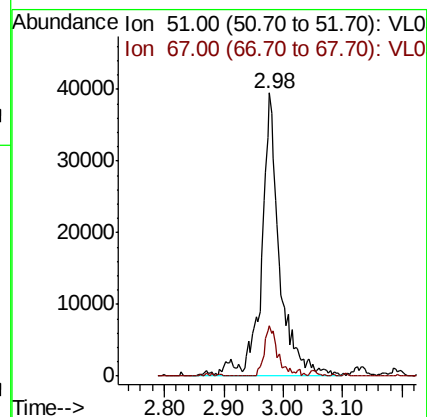
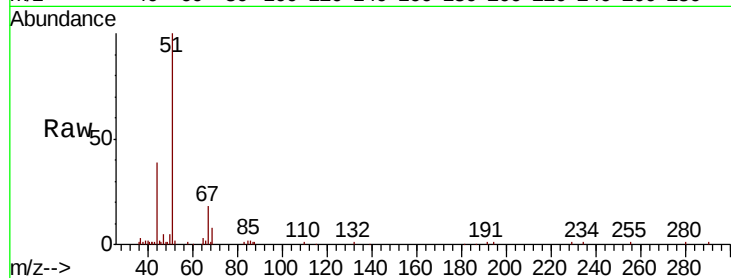
51 100

67 13.5 14.6 21.8#

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#4

Chloromethane

Concen: 0.506 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037090.D

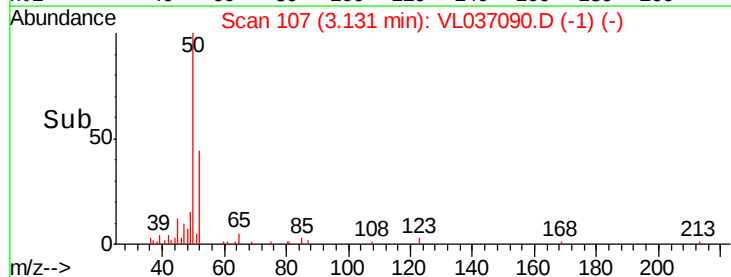
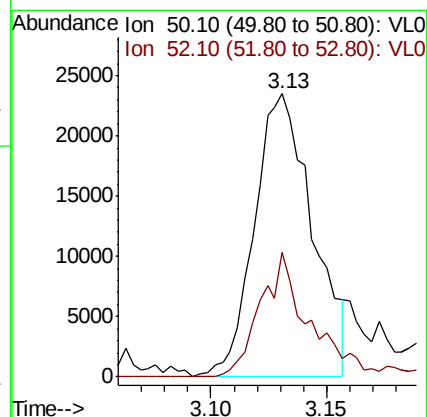
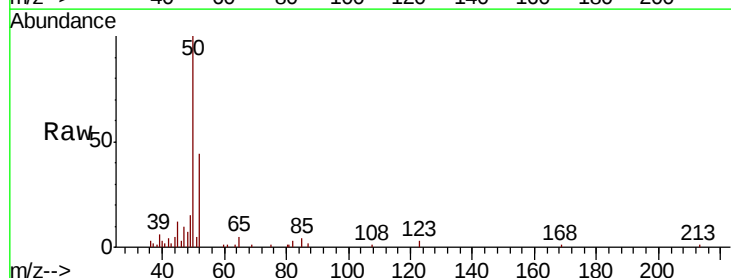
Acq: 2 Jun 2021 4:13

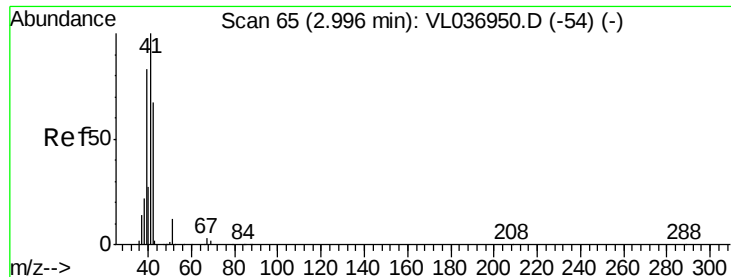
Tgt Ion: 50 Resp: 41025

Ion Ratio Lower Upper

50 100

52 44.2 26.1 39.1#





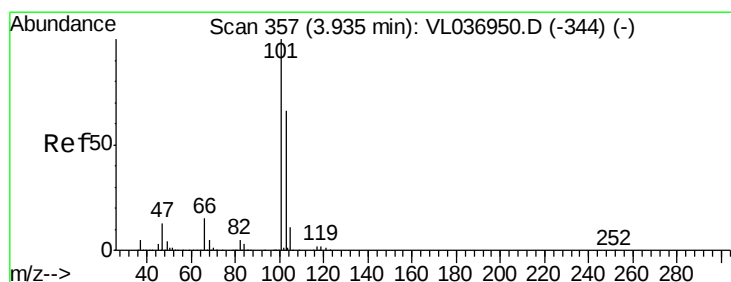
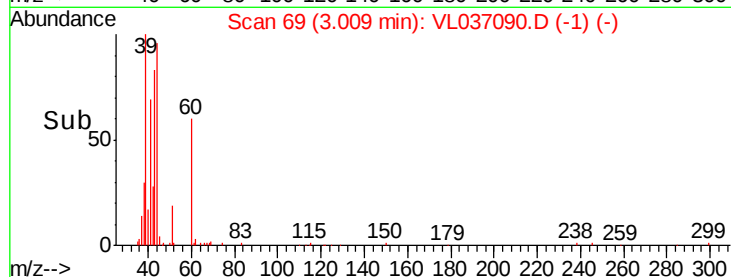
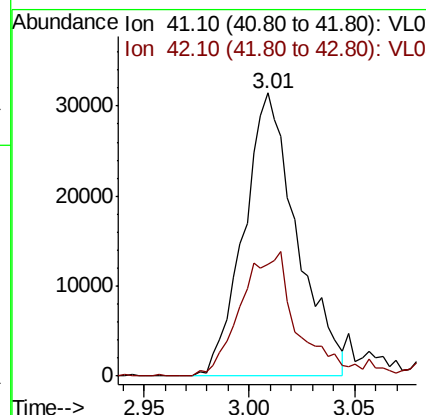
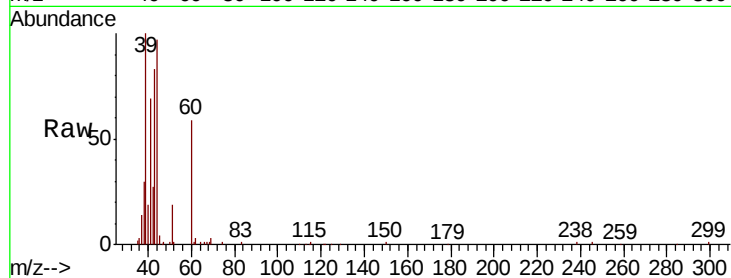
#9  
 Propene  
 Concen: 0.645 ppbv  
 RT: 3.01 min Scan# 69  
 Delta R.T. 0.01 min  
 Lab File: VL037090.D  
 Acq: 2 Jun 2021 4:13

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA-3A

Tot Ion: 41 Resp: 55029  
 Ion Ratio Lower Upper  
 41 100  
 42 48.2 53.9 80.9#

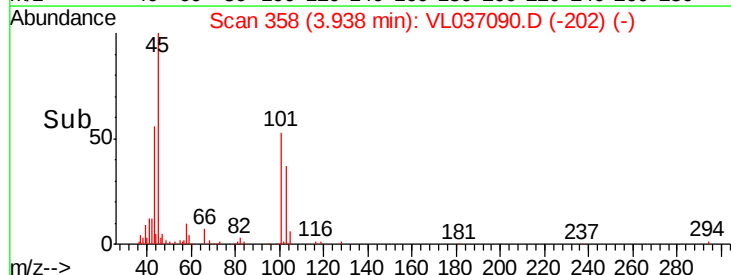
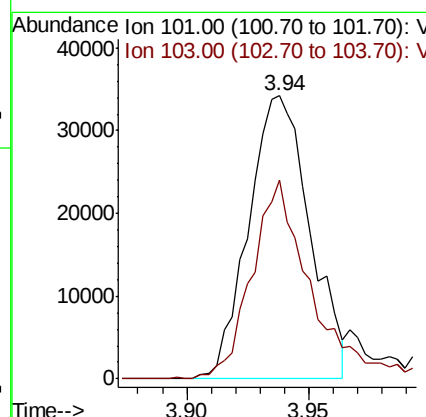
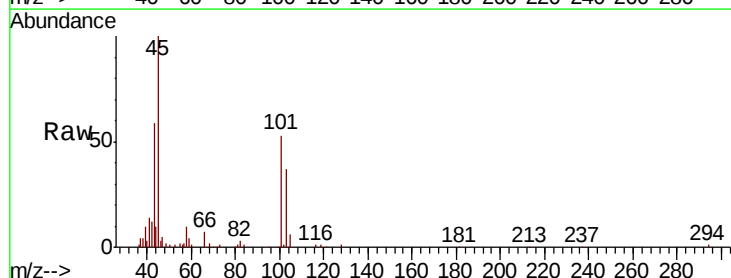
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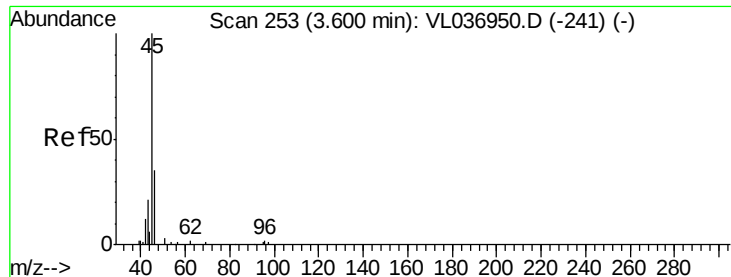
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#11  
 Trichlorofluoromethane  
 Concen: 0.292 ppbv  
 RT: 3.94 min Scan# 358  
 Delta R.T. 0.00 min  
 Lab File: VL037090.D  
 Acq: 2 Jun 2021 4:13

Tgt Ion: 101 Resp: 59719  
 Ion Ratio Lower Upper  
 101 100  
 103 70.3 52.6 79.0





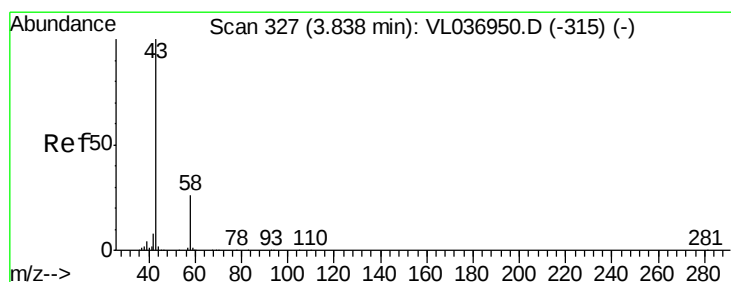
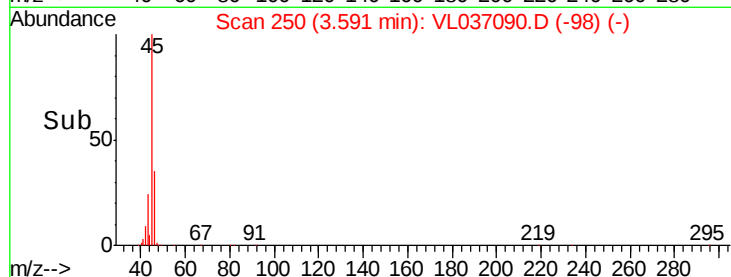
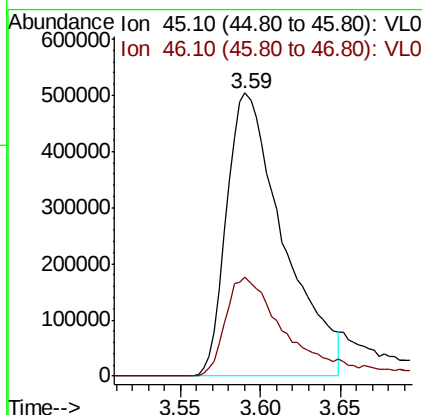
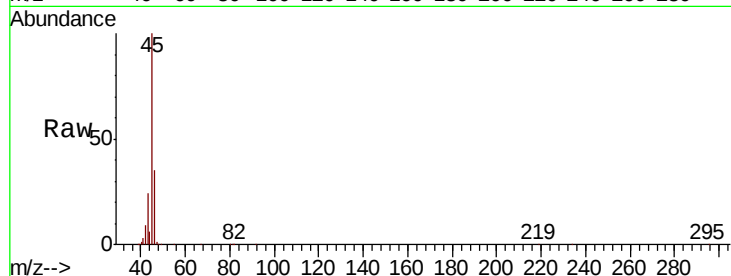
#13  
Ethanol  
Concen: 107.865 ppbv  
RT: 3.59 min Scan# 250  
Delta R.T. -0.01 min  
Lab File: VL037090.D  
Acq: 2 Jun 2021 4:13

Instrument :  
MSVOA\_L  
ClientSampled :  
IA-3A

Tot Ion: 45 Resp: 1228488  
Ion Ratio Lower Upper  
45 100  
46 40.4 16.3 65.3

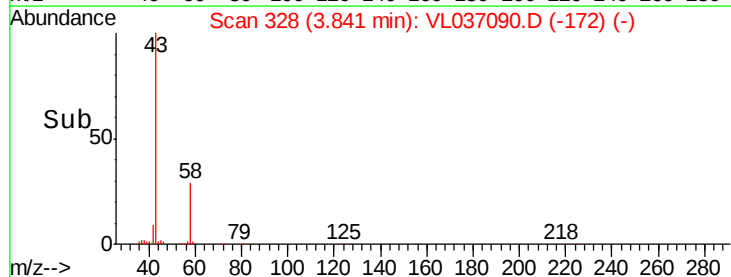
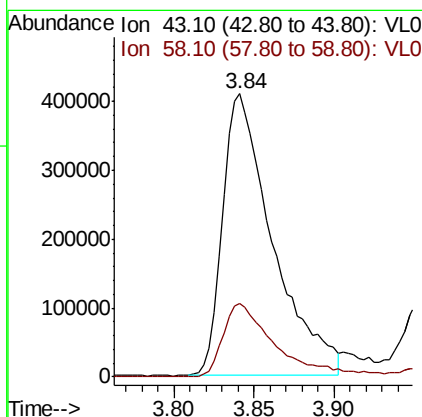
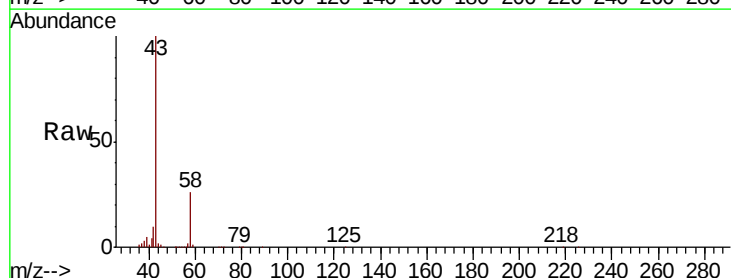
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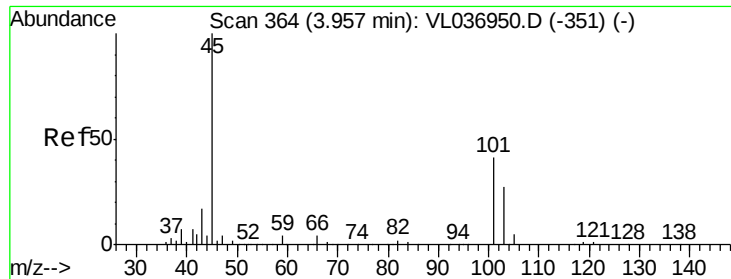
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#15  
Acetone  
Concen: 6.594 ppbv  
RT: 3.84 min Scan# 328  
Delta R.T. 0.00 min  
Lab File: VL037090.D  
Acq: 2 Jun 2021 4:13

Tgt Ion: 43 Resp: 878816  
Ion Ratio Lower Upper  
43 100  
58 27.7 24.0 36.0





#19

Isopropyl Alcohol

Concen: 14.714 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

ClientSampleId :

IA-3A

Tot Ion: 45 Resp: 1054157

Ion Ratio Lower Upper

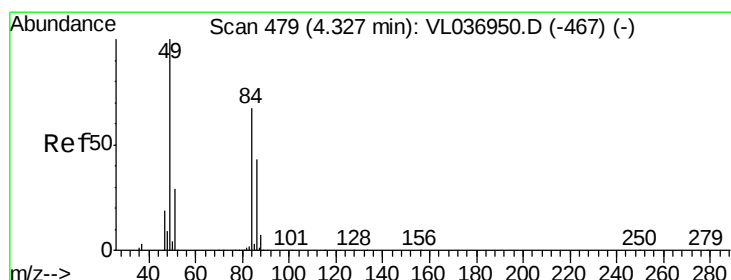
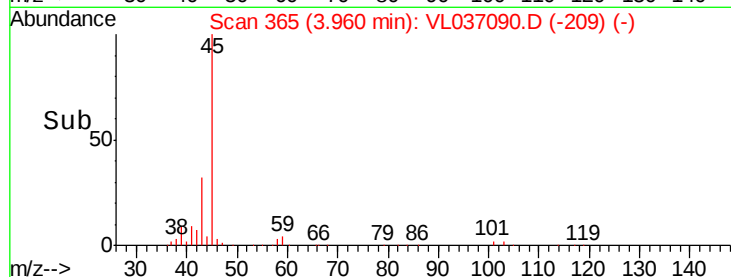
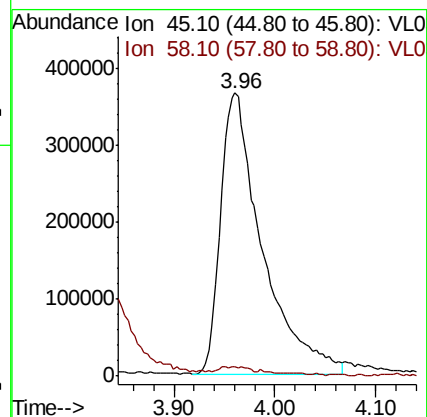
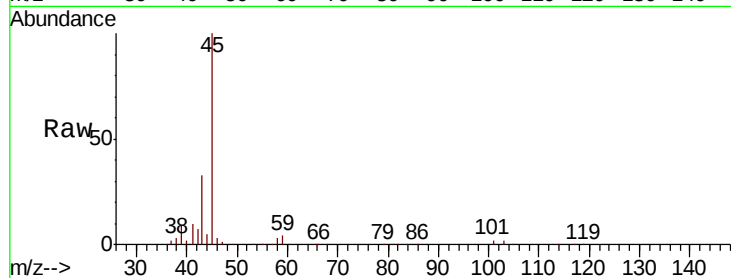
45 100

58 4.2 37.2 55.8#

Manual Integrations  
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#20

Methylene Chloride

Concen: 2.235 ppbv

RT: 4.33 min Scan# 480

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Tgt Ion: 84 Resp: 159677

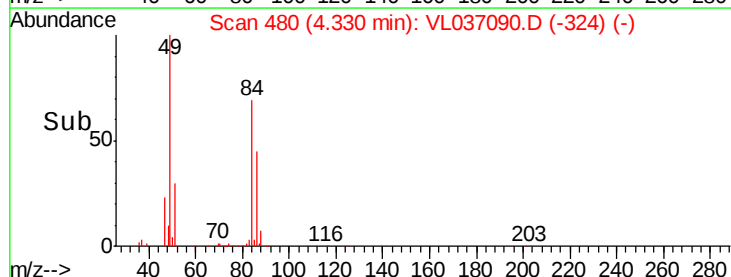
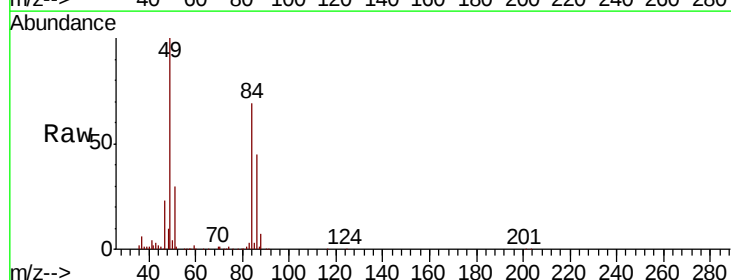
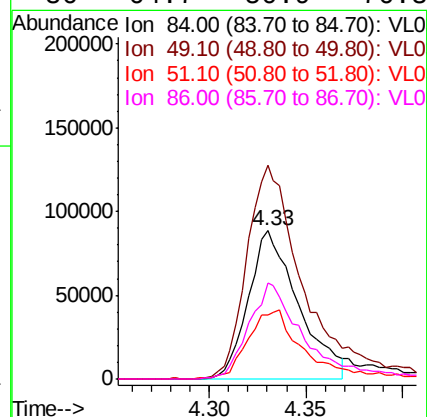
Ion Ratio Lower Upper

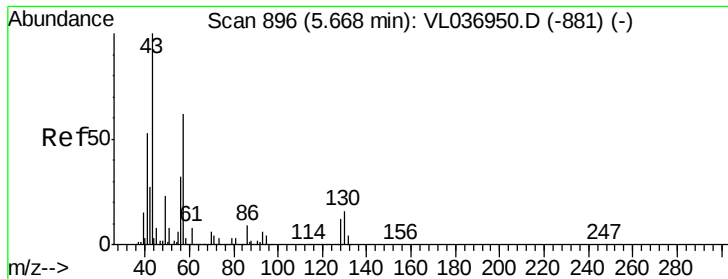
84 100

49 144.3 119.8 179.6

51 43.3 35.1 52.7

86 64.7 50.9 76.3





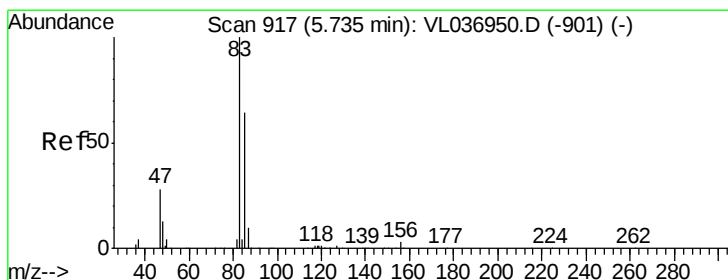
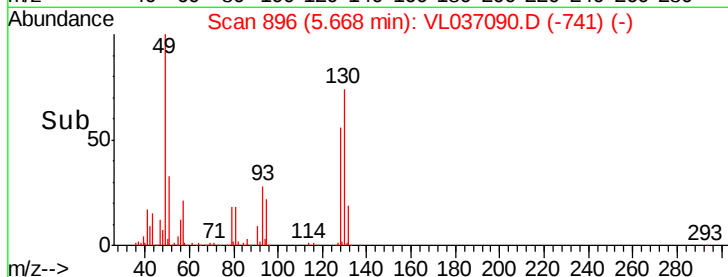
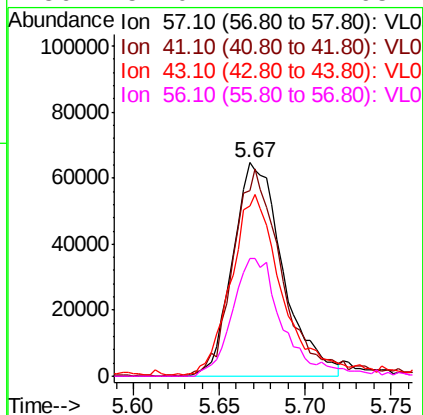
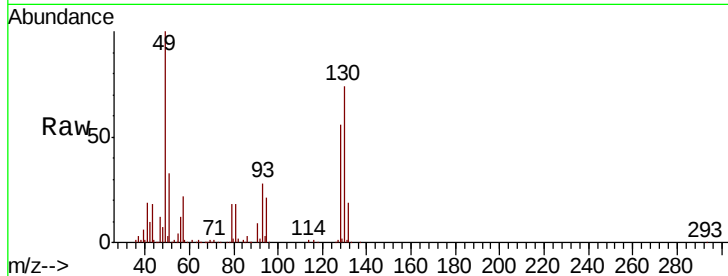
#26  
Hexane  
Concen: 0.800 ppbv  
RT: 5.67 min Scan# 896  
Delta R.T. -0.00 min  
Lab File: VL037090.D  
Acq: 2 Jun 2021 4:13

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA-3A

| Tot Ion | 57    | Resp  | 130883 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 57      | 100   |       |        |
| 41      | 99.7  | 70.5  | 105.7  |
| 43      | 88.9  | 165.8 | 248.8# |
| 56      | 57.0  | 42.2  | 63.4   |

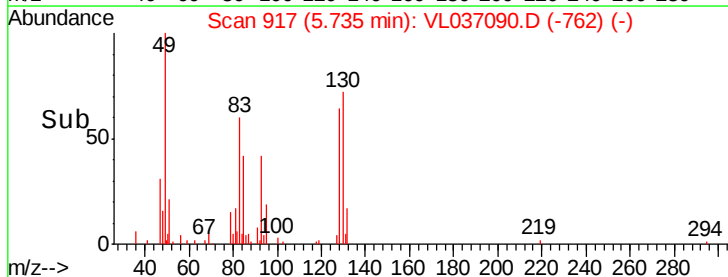
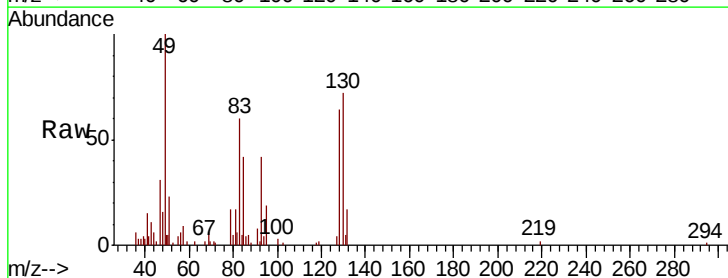
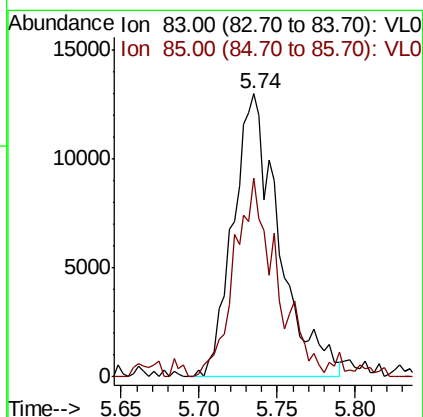
Manual Integrations  
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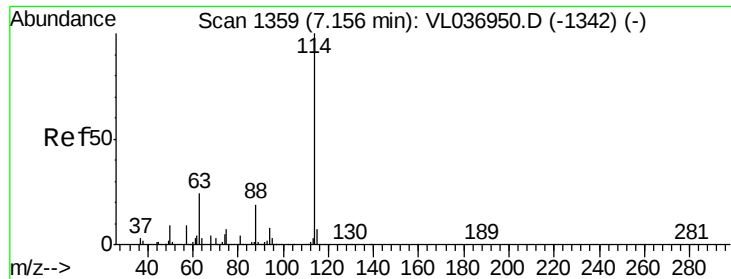
MMDadoda  
6/7/2021 2:59:32 PM



#29  
Chloroform  
Concen: 0.115 ppbv m  
RT: 5.74 min Scan# 917  
Delta R.T. -0.00 min  
Lab File: VL037090.D  
Acq: 2 Jun 2021 4:13

| Tgt Ion | 83    | Resp  | 26629 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 83      | 100   |       |       |
| 85      | 70.4  | 51.1  | 76.7  |





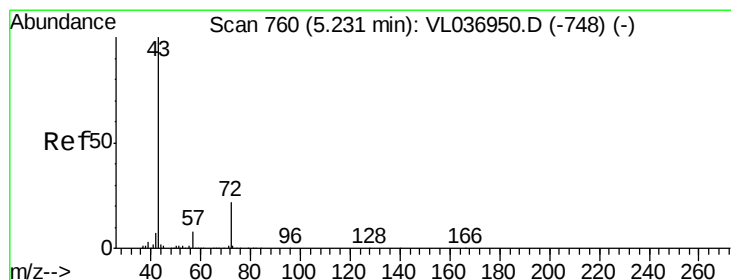
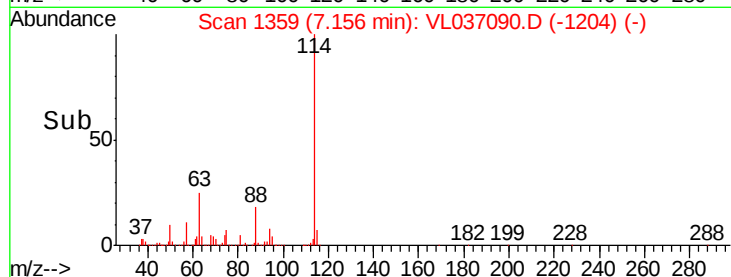
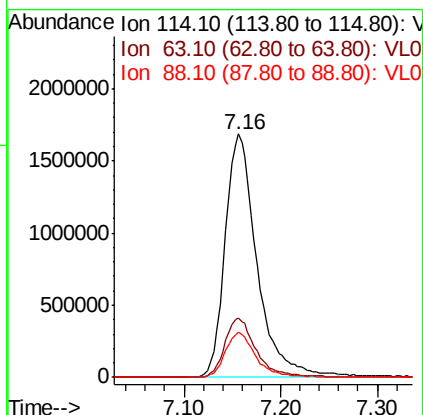
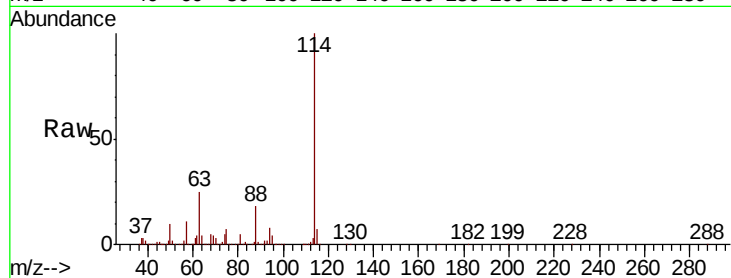
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.16 min Scan# 1359  
 Delta R.T. -0.00 min  
 Lab File: VL037090.D  
 Acq: 2 Jun 2021 4:13

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA-3A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 24.4  | 19.6  | 29.4  |
| 88      | 18.0  | 14.6  | 21.8  |

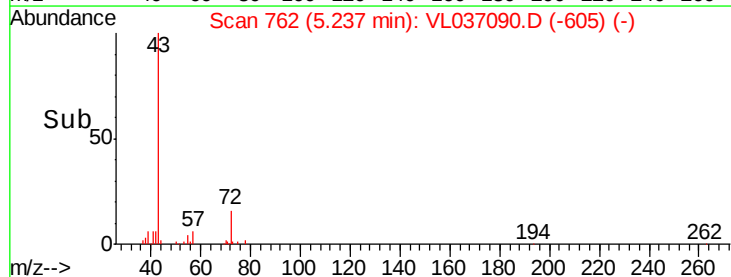
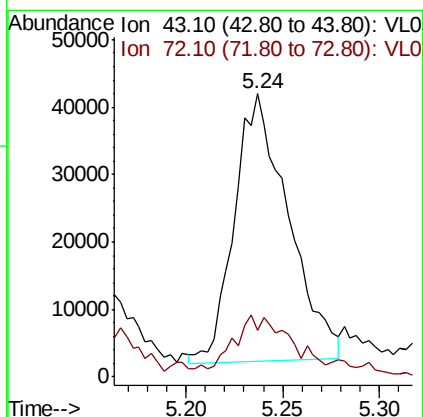
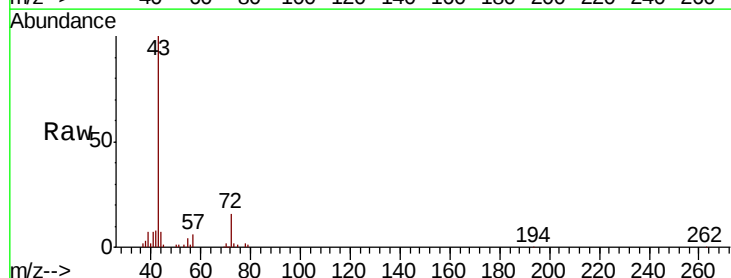
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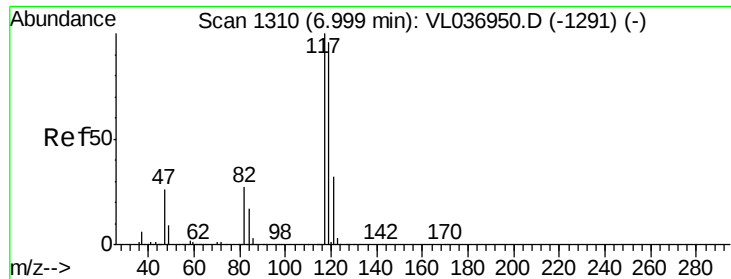
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#34  
 2-Butanone  
 Concen: 0.548 ppbv  
 RT: 5.24 min Scan# 762  
 Delta R.T. 0.01 min  
 Lab File: VL037090.D  
 Acq: 2 Jun 2021 4:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 26.7  | 19.0  | 28.4  |





#35

Carbon Tetrachloride

Concen: 0.054 ppbv m

RT: 7.01 min Scan# 1312

Delta R.T. 0.01 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

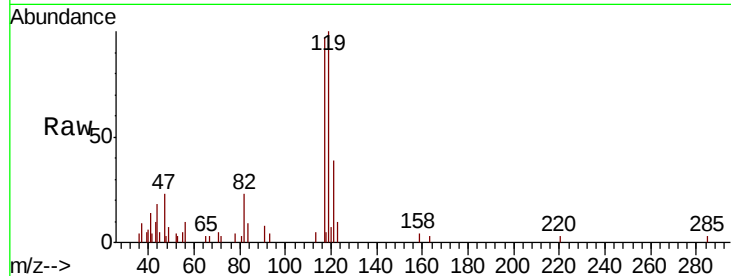
ClientSampleId :

IA-3A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 103.1 | 76.6  | 114.8 |
| 121     | 40.6  | 25.8  | 38.6  |

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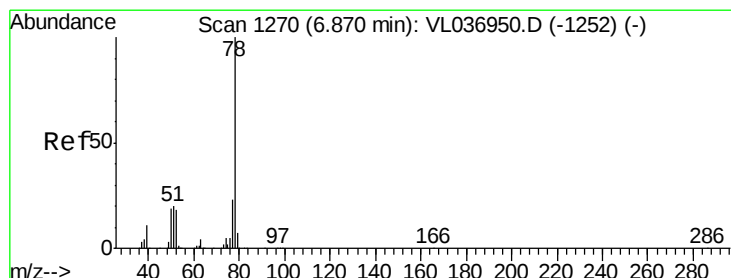
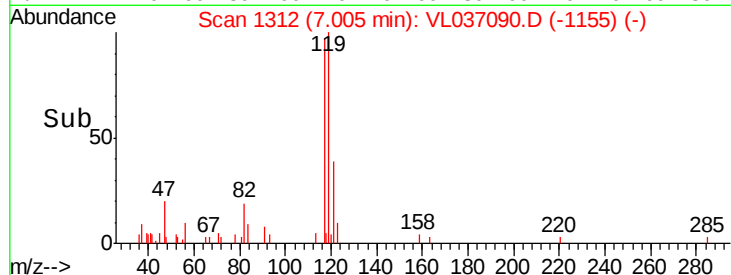
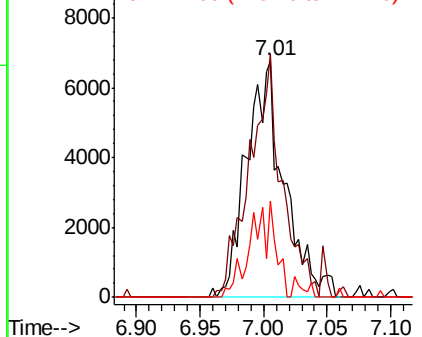


Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.118 ppbv

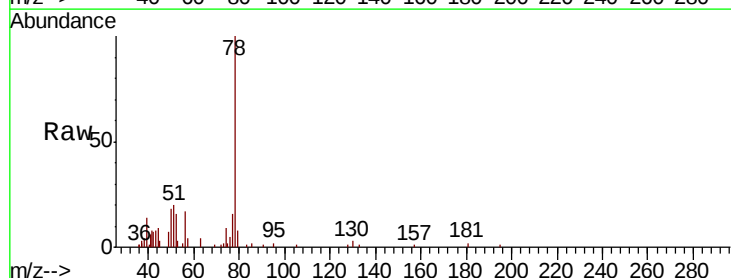
RT: 6.87 min Scan# 1271

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 14.7  | 18.6  | 28.0  |
| 50      | 17.2  | 15.0  | 22.4  |

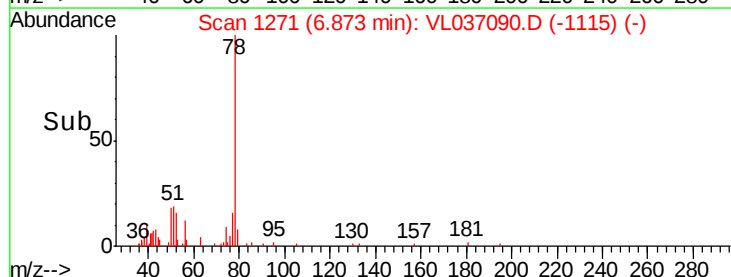
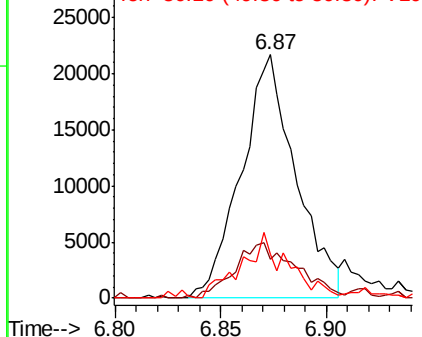


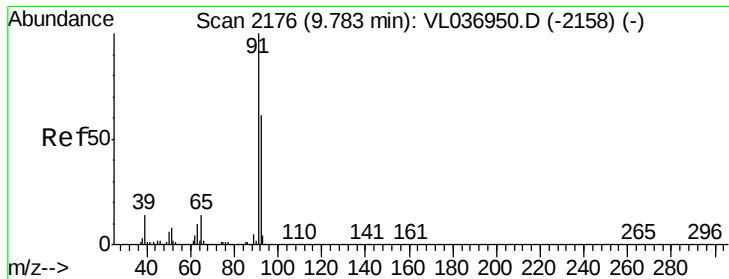
Abundance

Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#53

Toluene

Concen: 0.424 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

ClientSampleId :

IA-3A

Tot Ion: 91 Resp: 167663

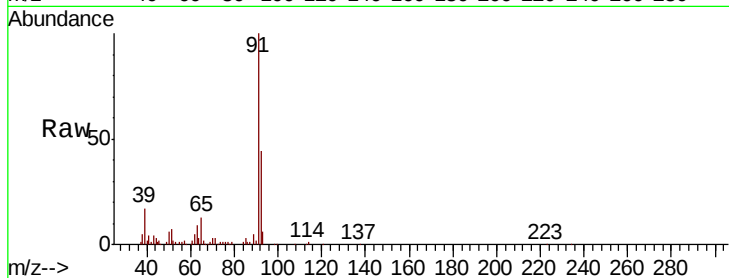
Ion Ratio Lower Upper

91 100

92 60.4 49.5 74.3

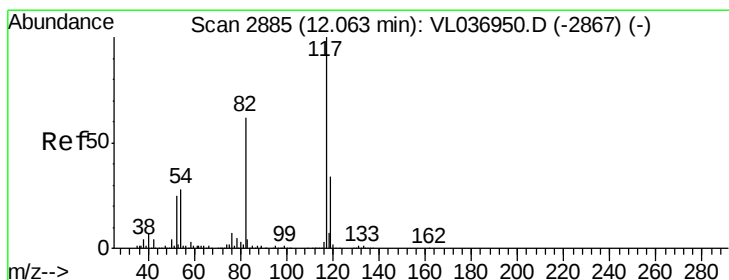
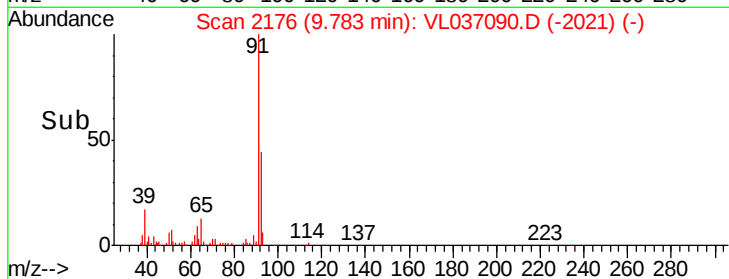
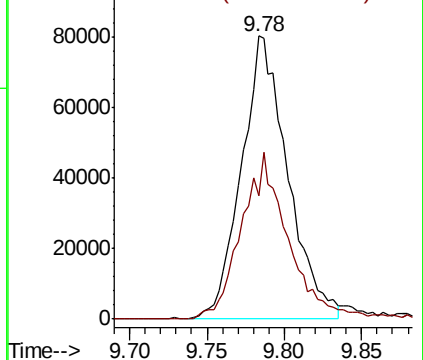
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

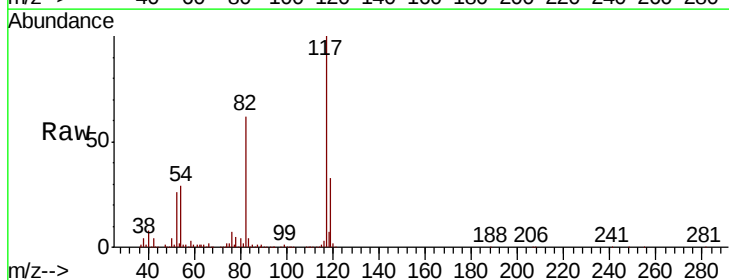
Tgt Ion: 117 Resp: 3494717

Ion Ratio Lower Upper

117 100

82 62.8 52.6 79.0

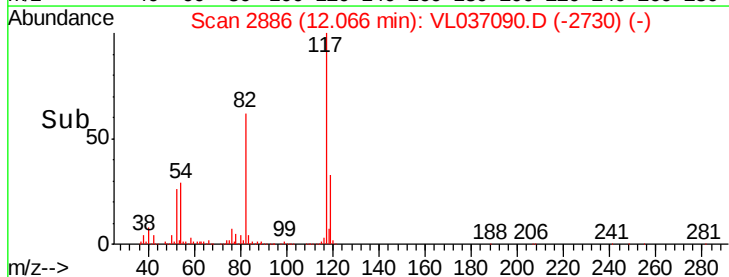
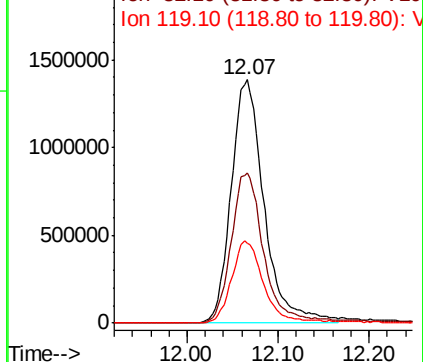
119 33.9 46.6 70.0#

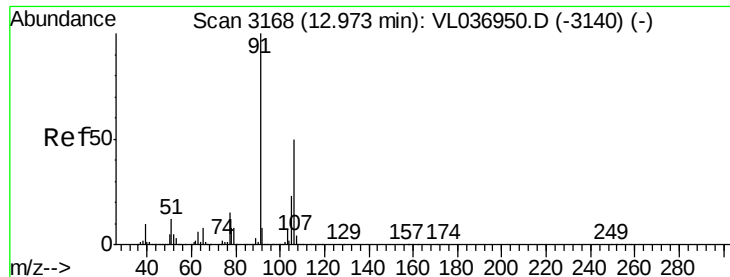


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#59

m/p-Xylene

Concen: 0.113 ppbv m

RT: 12.94 min Scan# 3158

Delta R.T. -0.03 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

Instrument :

MSVOA\_L

ClientSampled :

IA-3A

Tot Ion: 91 Resp: 46084

Ion Ratio Lower Upper

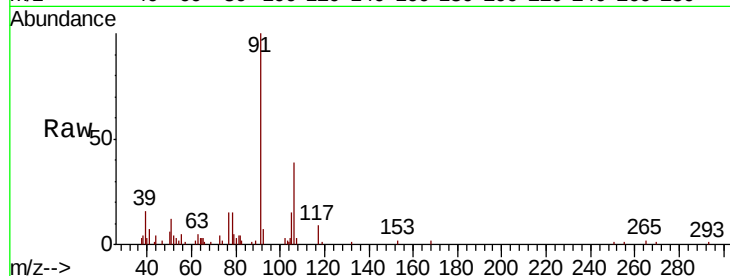
91 100

106 0.0 37.4 56.2#

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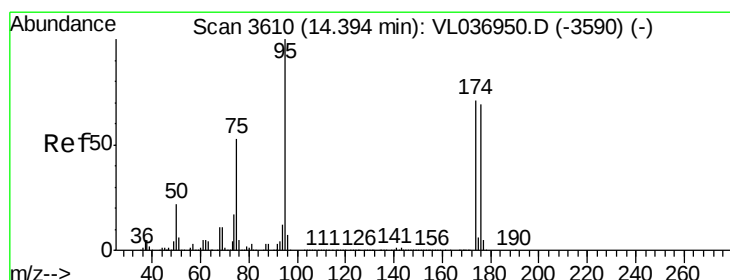
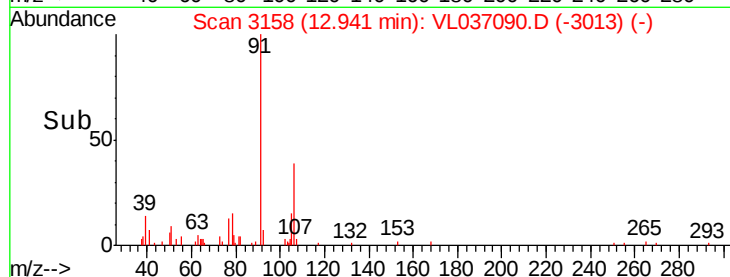
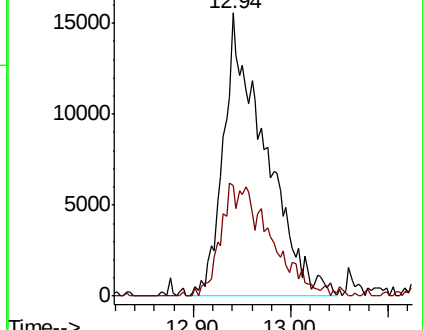
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Abundance Ion 91.10 (90.80 to 91.80): VL036950.D (-3140) (-)

Ion 106.10 (105.80 to 106.80): VL036950.D (-3140) (-)



#68

1-Bromo-4-Fluorobenzene

Concen: 9.645 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. 0.00 min

Lab File: VL037090.D

Acq: 2 Jun 2021 4:13

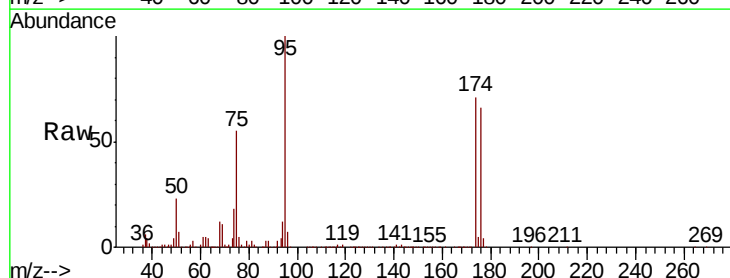
Tgt Ion: 95 Resp: 2532006

Ion Ratio Lower Upper

95 100

174 75.5 58.4 87.6

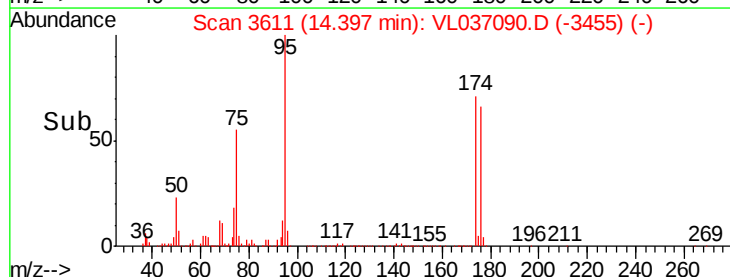
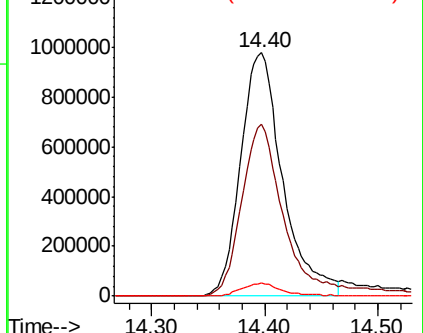
175 5.4 4.4 6.6

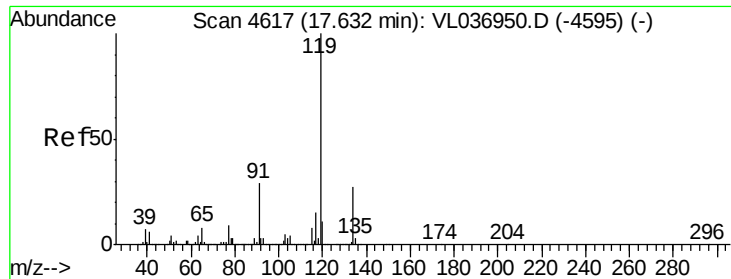


Abundance Ion 95.10 (94.80 to 95.80): VL036950.D (-3590) (-)

Ion 174.00 (173.70 to 174.70): VL036950.D (-3590) (-)

Ion 175.00 (174.70 to 175.70): VL036950.D (-3590) (-)





#69  
 p-Isopropyltoluene  
 Concen: 0.277 ppbv m  
 RT: 17.64 min Scan# 4620  
 Delta R.T. 0.01 min  
 Lab File: VL037090.D  
 Acq: 2 Jun 2021 4:13

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA-3A

| Tot Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 119     | 100   |            |            |
| 134     | 24.7  | 21.2       | 31.8       |
| 91      | 27.5  | 22.2       | 33.4       |

Manual Integrations  
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