

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121020\  
 Data File : VL036143.D  
 Acq On : 11 Dec 2020 00:48  
 Operator : SY/AP  
 Sample : L4948-16 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SS-4B

Manual Integrations  
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MMDadoda  
 12/15/2020 4:51:31 PM

Quant Time: Dec 14 22:12:20 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Dec 0  
 QLast Update : Mon Dec 07 16:56:49 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1347450  | 10.00 | ppbv  | -0.04    |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 2651162  | 10.00 | ppbv  | -0.04    |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 2392397  | 10.00 | ppbv  | -0.04    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2039906  | 10.74    | ppbv | -0.05   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 107.40% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.03  | 85   | 482927   | 3.075  | ppbv   | 100    |
| 3) Chlorodifluoromethane   | 2.97  | 51   | 41350    | 0.269  | ppbv   | 98     |
| 9) Propene                 | 3.01  | 41   | 42077m   | 0.546  | ppbv   |        |
| 13) Ethanol                | 3.59  | 45   | 529294   | 49.855 | ppbv   | 86     |
| 15) Acetone                | 3.84  | 43   | 706211   | 4.361  | ppbv   | 99     |
| 18) 1,1-Dichloroethene     | 4.28  | 96   | 5405m    | 0.097  | ppbv   |        |
| 19) Isopropyl Alcohol      | 3.96  | 45   | 206752   | 2.089  | ppbv # | 100    |
| 20) Methylene Chloride     | 4.33  | 84   | 67361m   | 1.015  | ppbv   |        |
| 24) 1,1-Dichloroethane     | 5.00  | 63   | 239184   | 1.577  | ppbv   | 99     |
| 29) Chloroform             | 5.74  | 83   | 26736m   | 0.140  | ppbv   |        |
| 31) cis-1,2-Dichloroethene | 5.53  | 61   | 27380    | 0.207  | ppbv # | 87     |
| 32) 1,1,1-Trichloroethane  | 6.49  | 97   | 1946664  | 9.867  | ppbv   | 96     |
| 38) Trichloroethene        | 7.82  | 130  | 518429   | 6.173  | ppbv   | 92     |
| 40) 1,4-Dioxane            | 7.83  | 88   | 82009m   | 2.939  | ppbv   |        |
| 52) Tetrachloroethene      | 11.22 | 164  | 5293978  | 65.089 | ppbv   | 96     |
| 58) Ethyl Benzene          | 12.70 | 91   | 87957m   | 0.268  | ppbv   |        |
| 59) m/p-Xylene             | 12.95 | 91   | 325562m  | 1.179  | ppbv   |        |
| 60) o-Xylene               | 13.67 | 91   | 112194   | 0.431  | ppbv   | 100    |

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

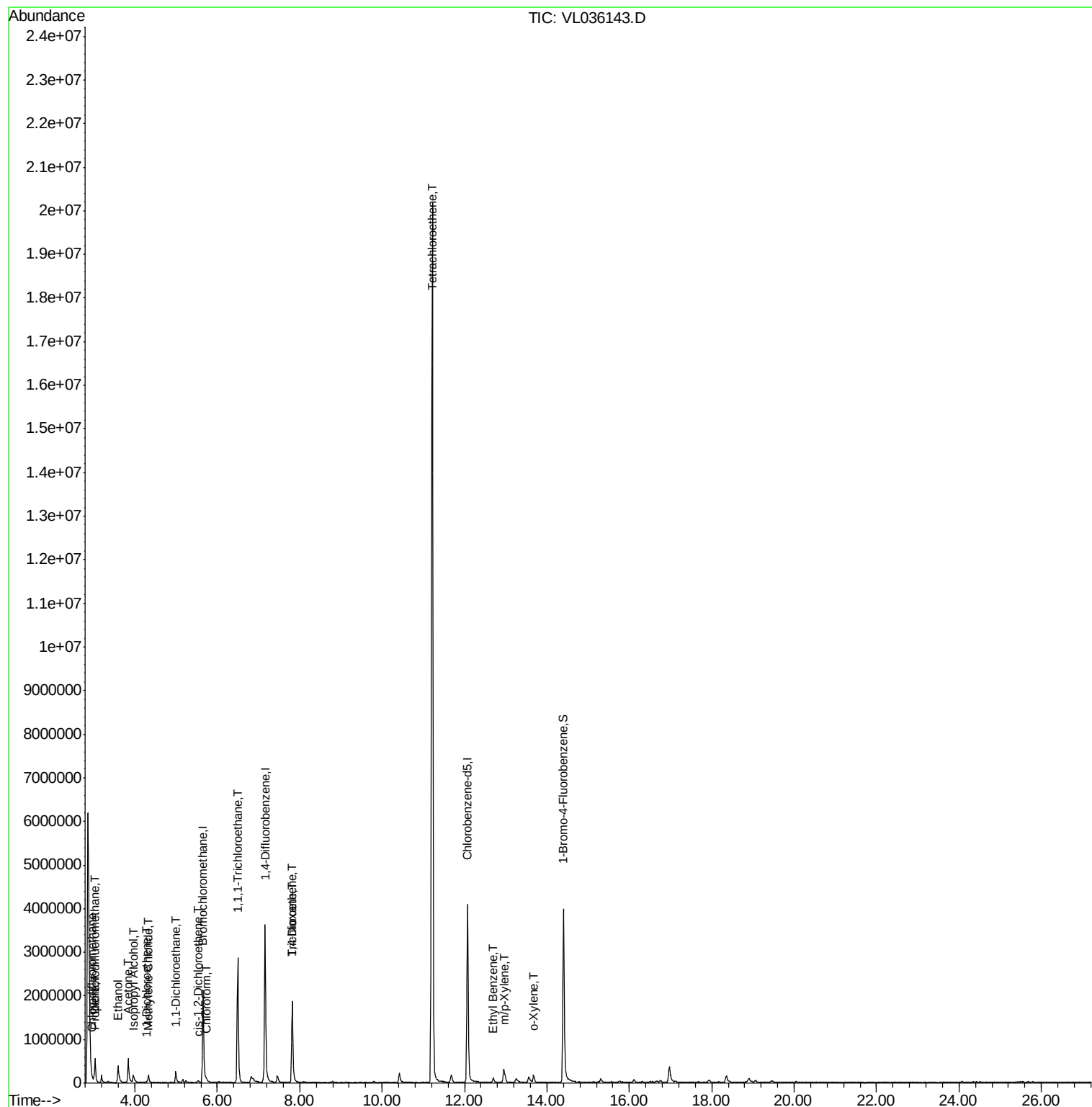
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL121020\  
Data File : VL036143.D  
Acq On : 11 Dec 2020 00:48  
Operator : SY/AP  
Sample : L4948-16 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

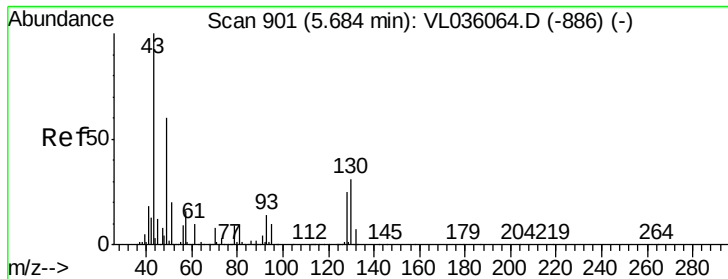
Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-4B

Manual Integrations  
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Quant Time: Dec 14 22:12:20 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Dec  
QLast Update : Mon Dec 07 16:56:49 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.04 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

Instrument :

MSVOA\_L

ClientSampled :

SS-4B

Tot Ion: 49 Resp: 1347450

Ion Ratio Lower Upper

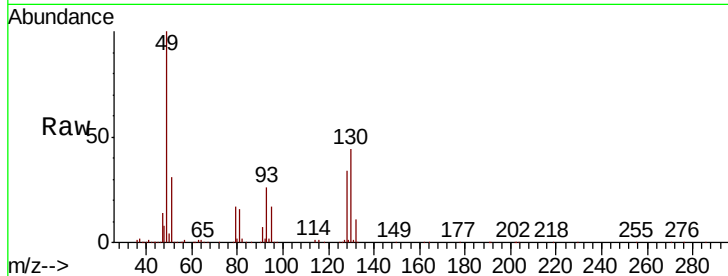
49 100

128 35.2 21.1 63.1

130 44.3 27.1 81.3

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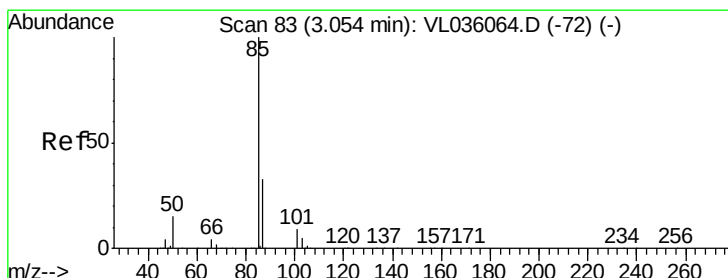
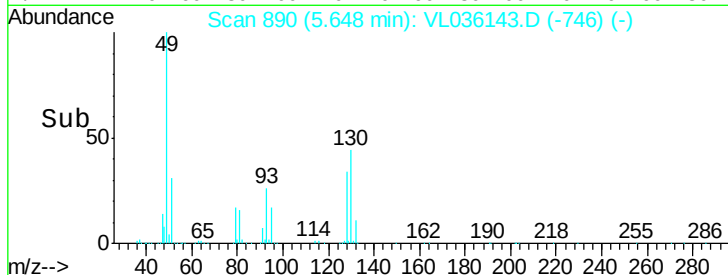
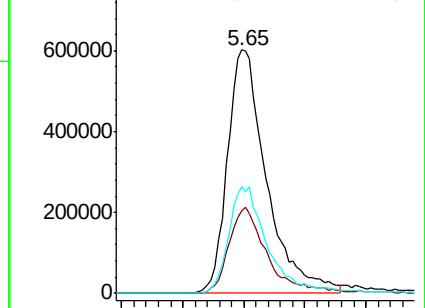
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 3.075 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.02 min

Lab File: VL036143.D

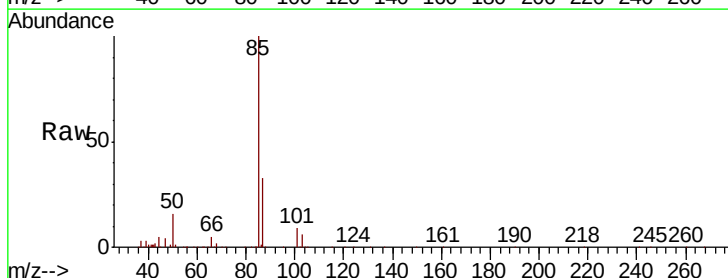
Acq: 11 Dec 2020 00:48

Tgt Ion: 85 Resp: 482927

Ion Ratio Lower Upper

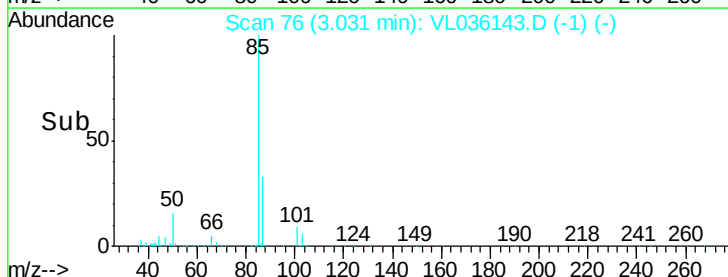
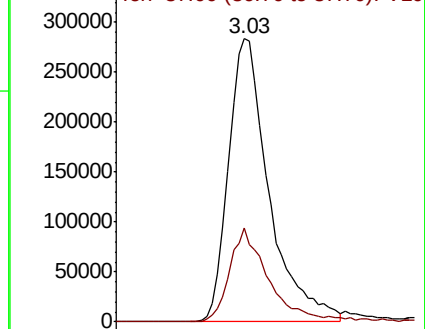
85 100

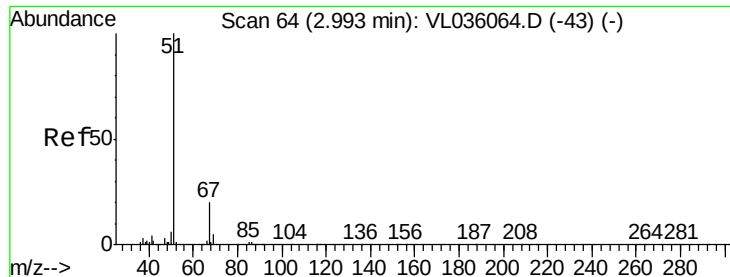
87 33.2 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.269 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.02 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

Instrument :

MSVOA\_L

ClientSampleId :

SS-4B

Tot Ion: 51 Resp: 41350

Ion Ratio Lower Upper

51 100

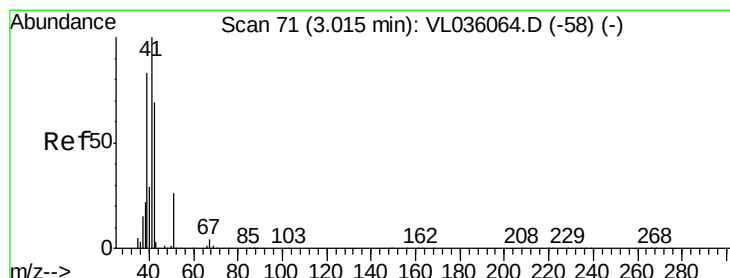
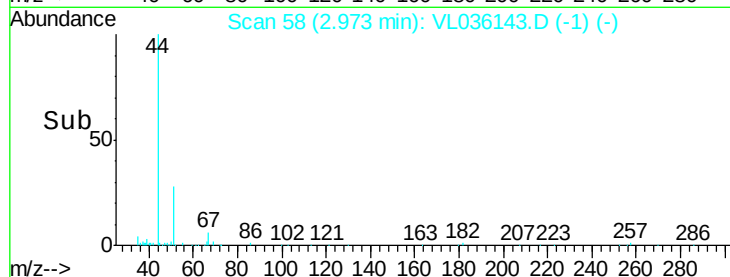
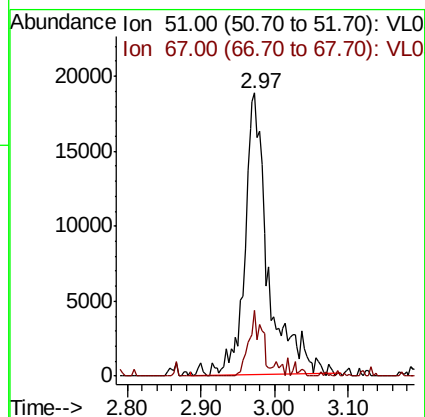
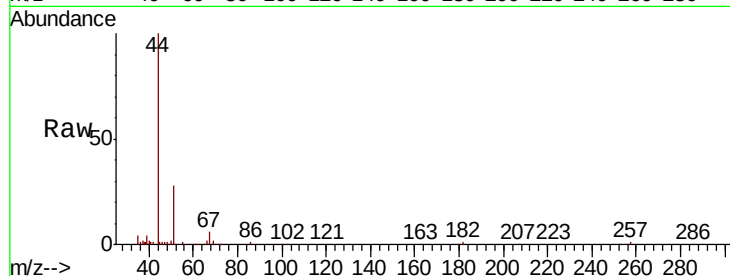
67 16.8 14.3 21.5

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#9

Propene

Concen: 0.546 ppbv m

RT: 3.01 min Scan# 68

Delta R.T. -0.01 min

Lab File: VL036143.D

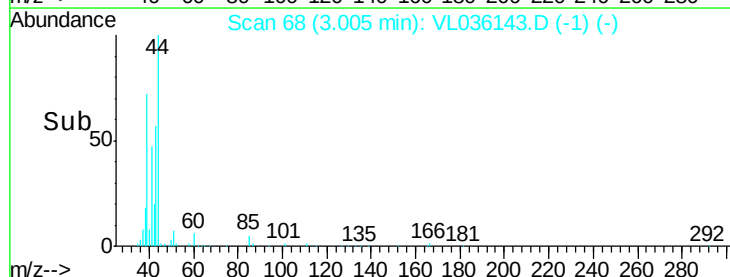
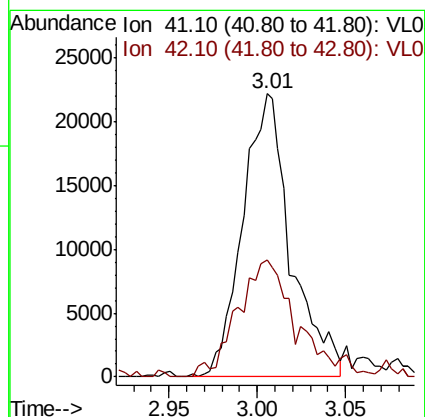
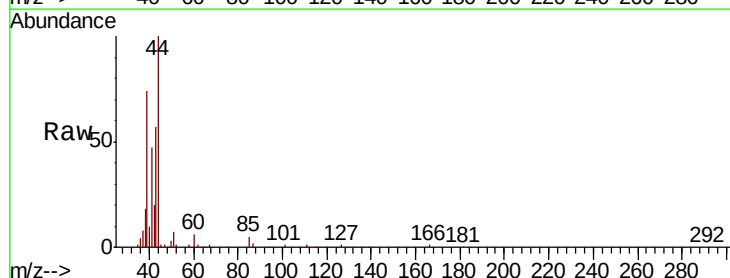
Acq: 11 Dec 2020 00:48

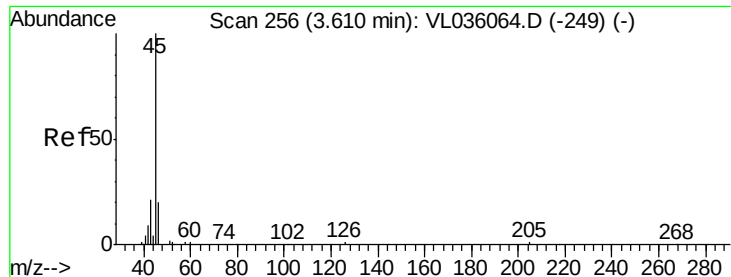
Tgt Ion: 41 Resp: 42077

Ion Ratio Lower Upper

41 100

42 52.8 57.0 85.6#





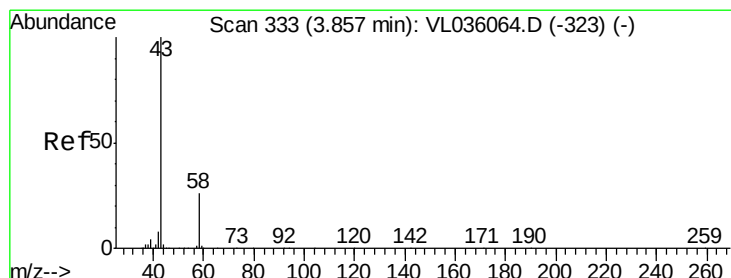
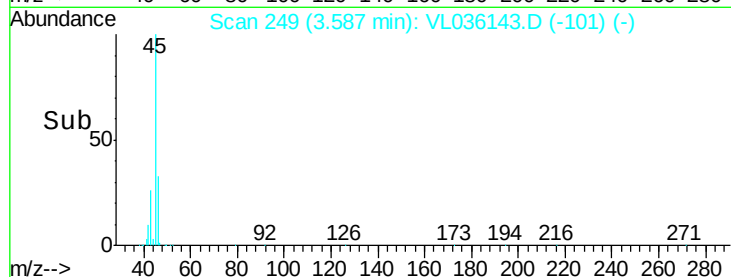
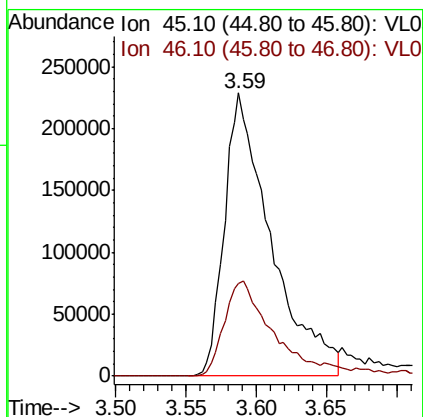
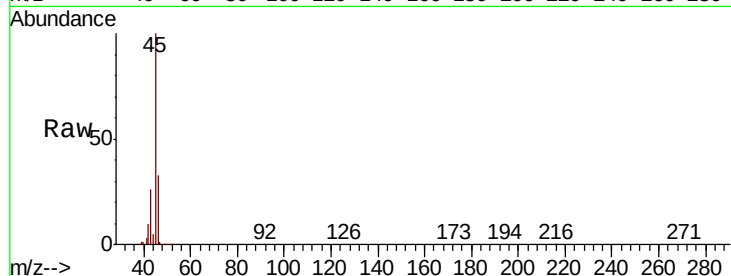
#13  
Ethanol  
Concen: 49.855 ppbv  
RT: 3.59 min Scan# 249  
Delta R.T. -0.02 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Instrument :  
MSVOA\_L  
ClientSampled :  
SS-4B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 46      | 37.7  | 19.0  | 75.8  |

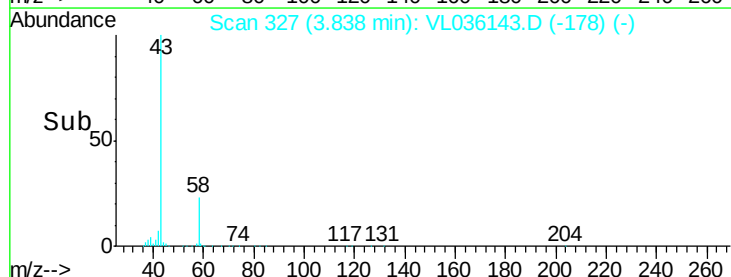
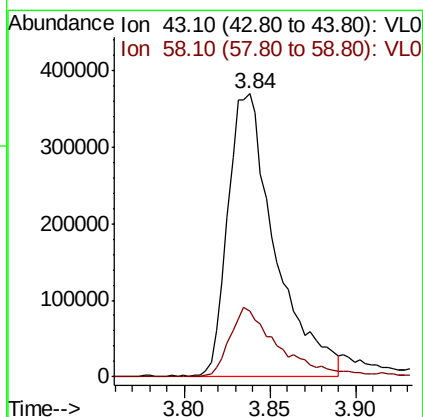
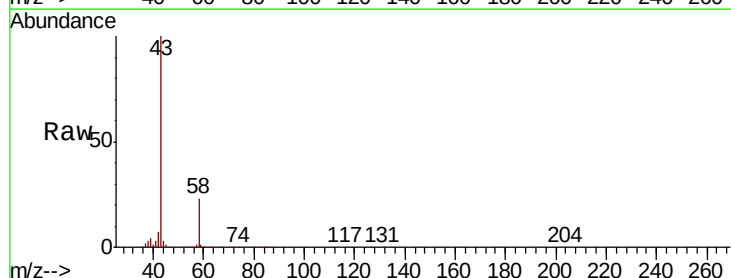
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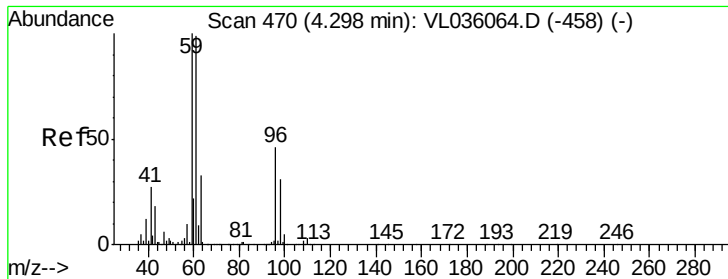
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#15  
Acetone  
Concen: 4.361 ppbv  
RT: 3.84 min Scan# 327  
Delta R.T. -0.02 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 26.4  | 20.9  | 31.3  |





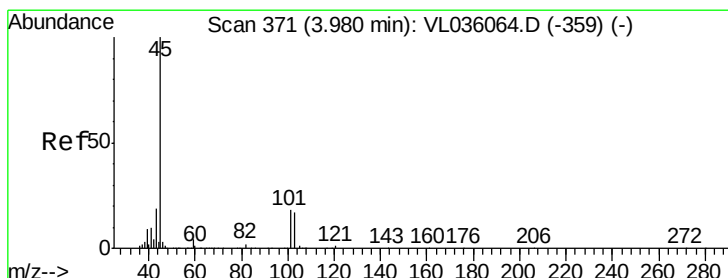
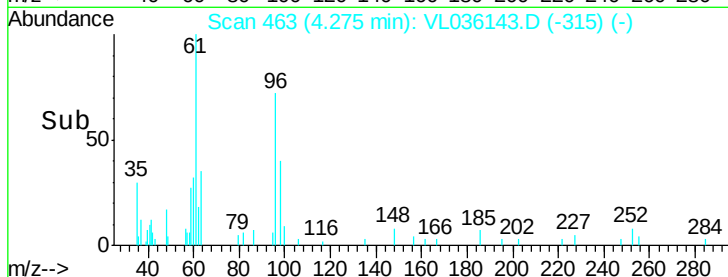
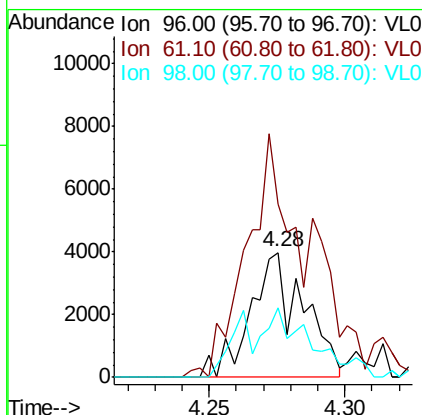
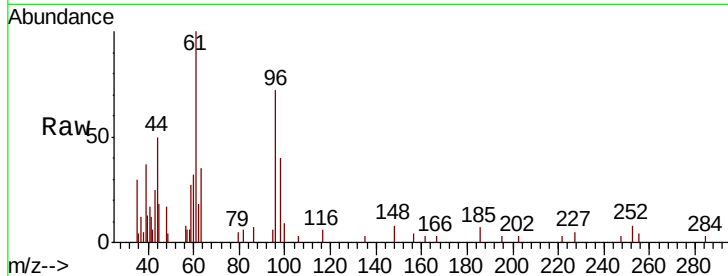
#18  
 1,1-Dichloroethene  
 Concen: 0.097 ppbv  
 RT: 4.28 min Scan# 463  
 Delta R.T. -0.02 min  
 Lab File: VL036143.D  
 Acq: 11 Dec 2020 00:48

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 SS-4B

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 96      | 100   |       |        |
| 61      | 138.1 | 171.4 | 257.2# |
| 98      | 55.4  | 54.2  | 81.2   |

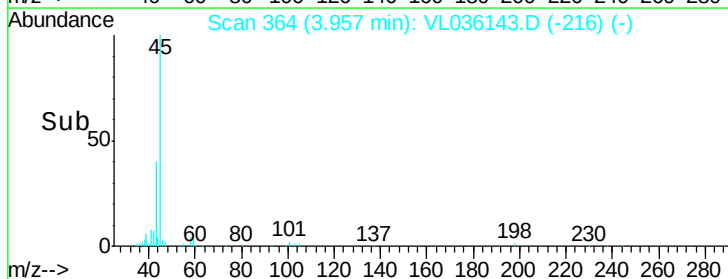
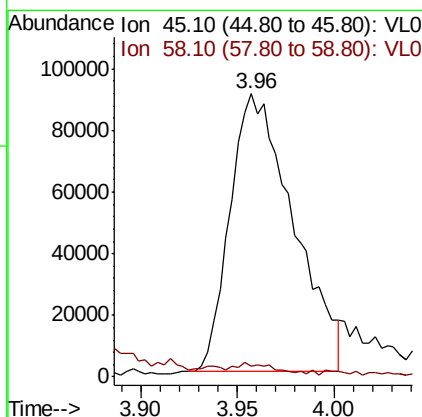
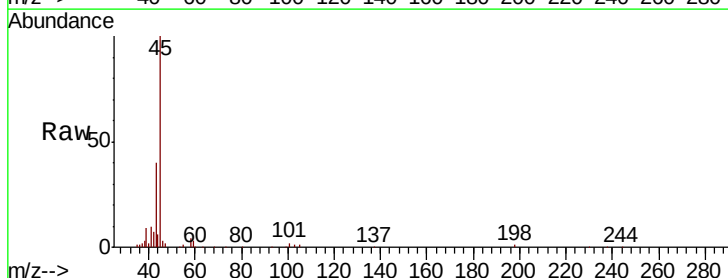
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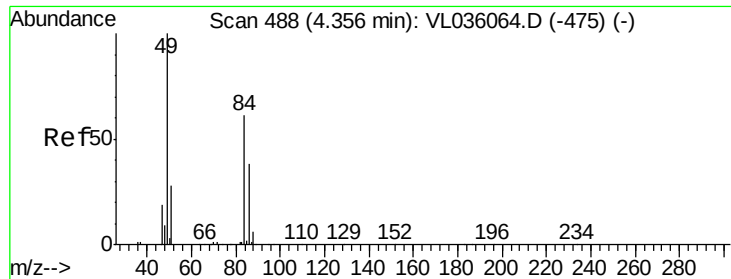
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#19  
 Isopropyl Alcohol  
 Concen: 2.089 ppbv  
 RT: 3.96 min Scan# 364  
 Delta R.T. -0.02 min  
 Lab File: VL036143.D  
 Acq: 11 Dec 2020 00:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 58      | 4.0   | 0.0   | 0.0#  |





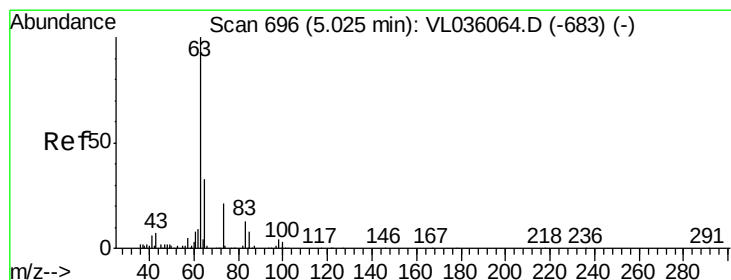
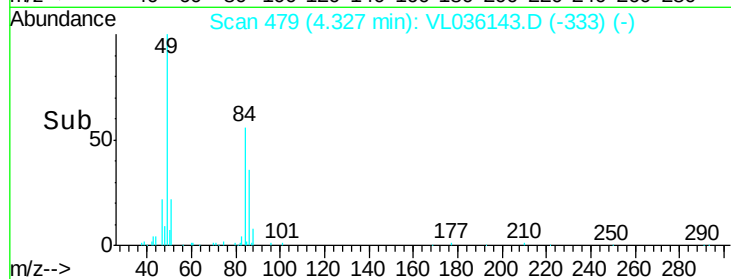
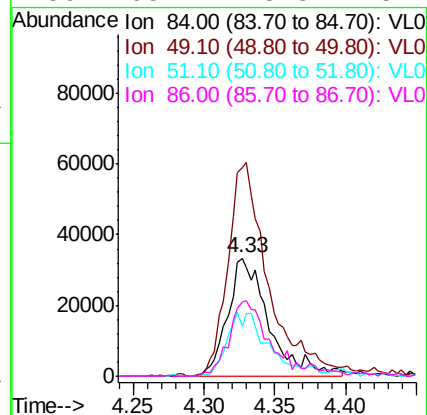
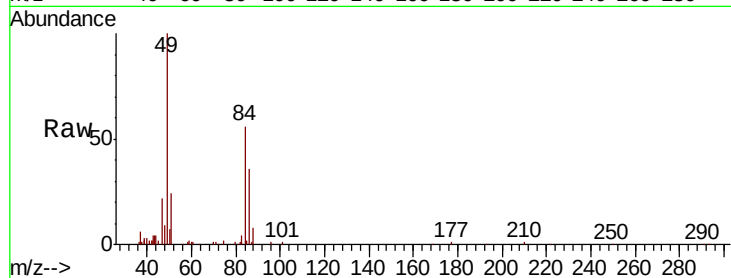
#20  
Methylene Chloride  
Concen: 1.015 ppbv  
RT: 4.33 min Scan# 479  
Delta R.T. -0.03 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Instrument :  
MSVOA\_L  
ClientSampleID :  
SS-4B

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 67361 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 177.4 | 133.0 | 199.4 |
| 51       | 42.3  | 38.9  | 58.3  |
| 86       | 63.4  | 48.8  | 73.2  |

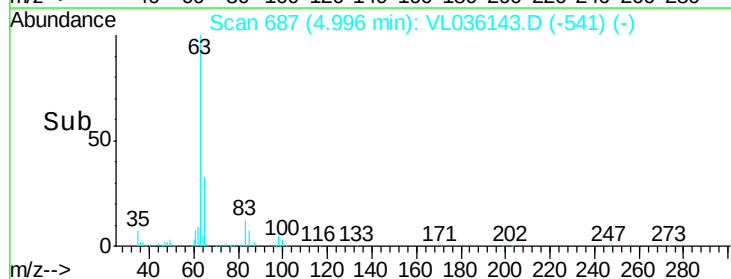
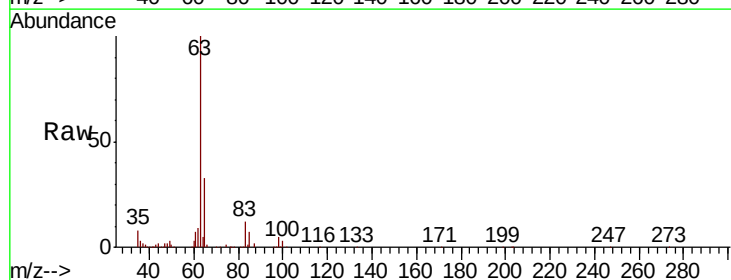
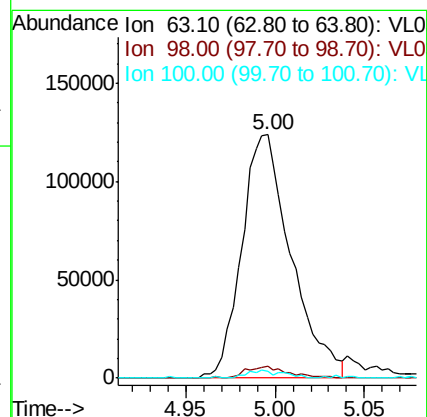
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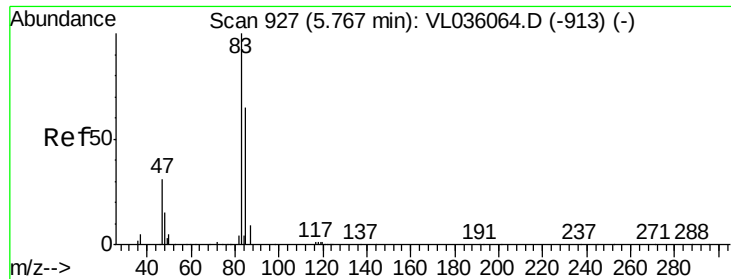
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#24  
1,1-Dichloroethane  
Concen: 1.577 ppbv  
RT: 5.00 min Scan# 687  
Delta R.T. -0.03 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 63    | Resp: | 239184 |
| Ion      | Ratio | Lower | Upper  |
| 63       | 100   |       |        |
| 98       | 4.8   | 2.2   | 6.6    |
| 100      | 2.6   | 1.5   | 4.4    |





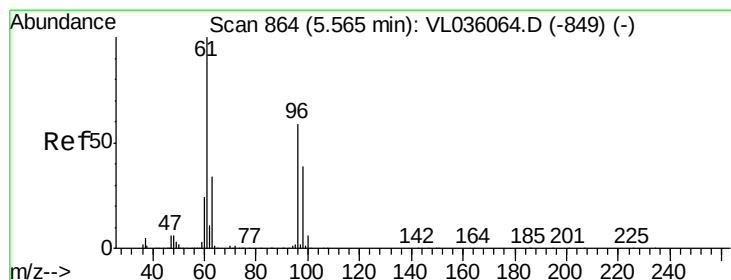
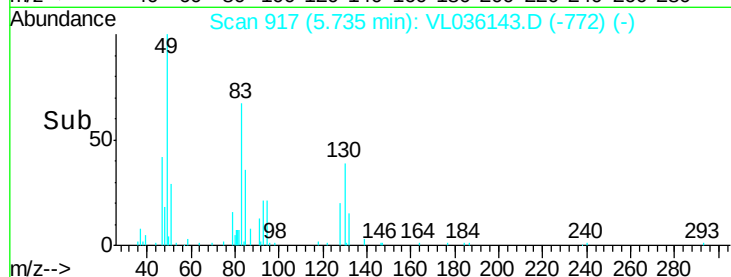
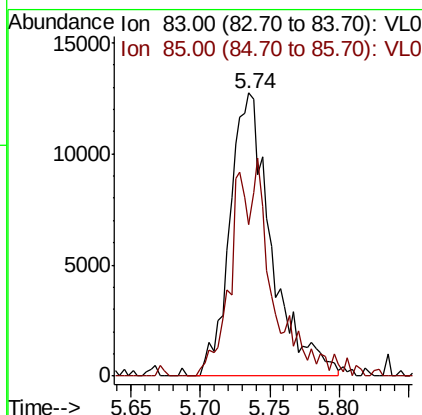
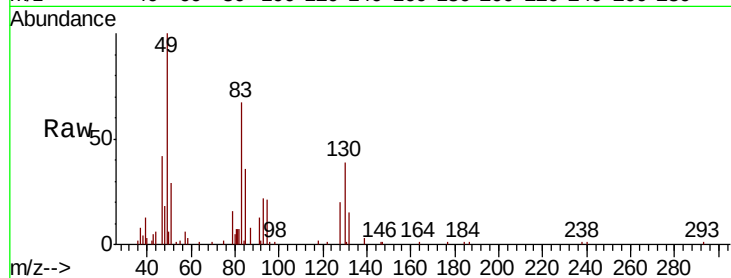
#29  
Chloroform  
Concen: 0.140 ppbv m  
RT: 5.74 min Scan# 917  
Delta R.T. -0.03 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Instrument :  
MSVOA\_L  
ClientSampleId :  
SS-4B

| Tot Ion   | 83   | Resp  | 26736 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 85        | 53.6 | 51.8  | 77.6  |

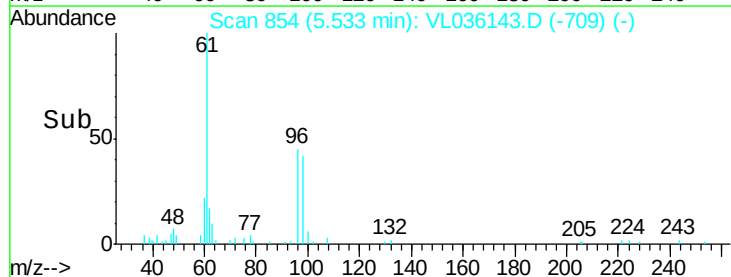
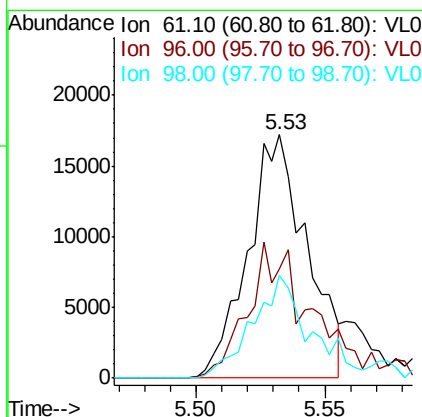
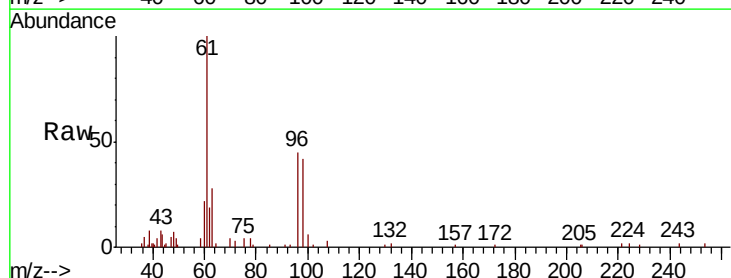
Manual Integrations  
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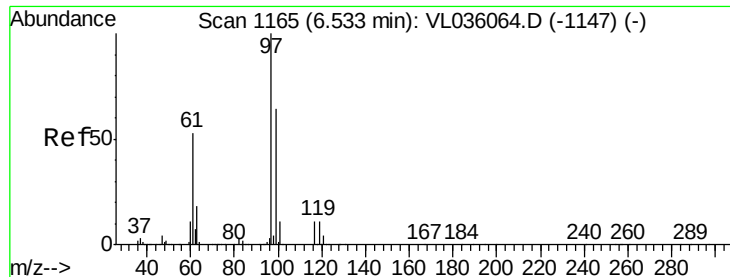


#31  
cis-1,2-Dichloroethene  
Concen: 0.207 ppbv  
RT: 5.53 min Scan# 854  
Delta R.T. -0.03 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

| Tgt Ion   | 61   | Resp  | 27380 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 96        | 45.0 | 47.3  | 70.9# |
| 98        | 42.3 | 31.4  | 47.0  |







#32

1,1,1-Trichloroethane

Concen: 9.867 ppbv

RT: 6.49 min Scan# 1153

Delta R.T. -0.04 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

Instrument :

MSVOA\_L

ClientSampleId :

SS-4B

Tot Ion: 97 Resp: 1946664

Ion Ratio Lower Upper

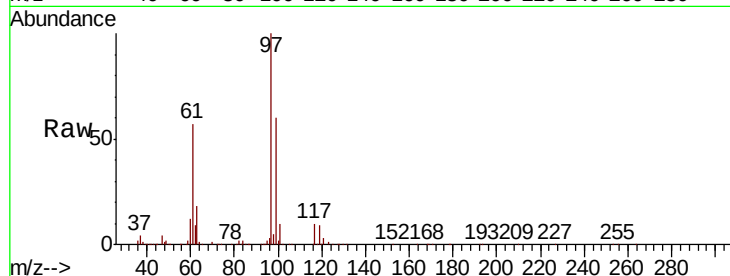
97 100

99 64.4 52.4 78.6

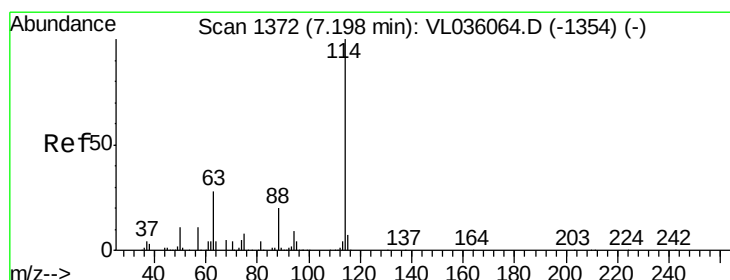
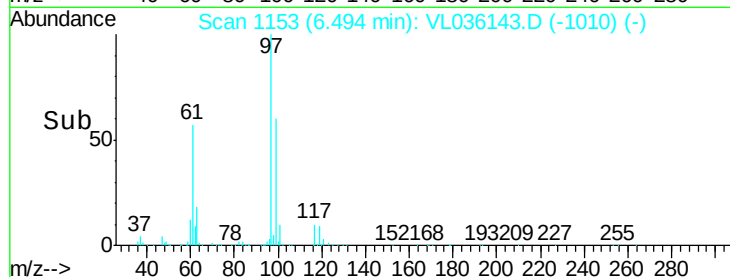
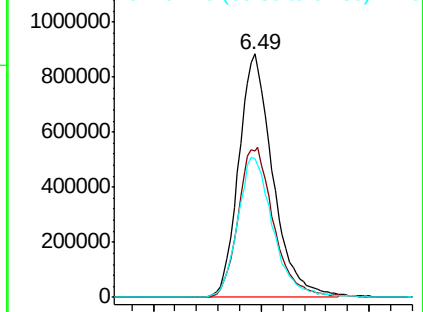
61 59.8 43.4 65.0

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Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.04 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

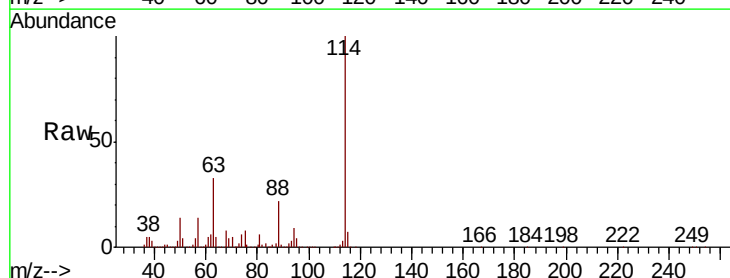
Tgt Ion: 114 Resp: 2651162

Ion Ratio Lower Upper

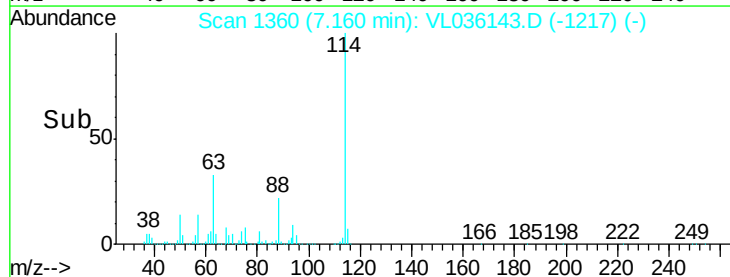
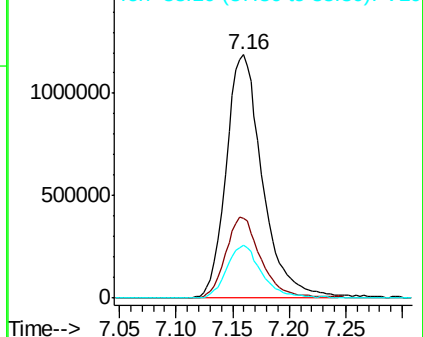
114 100

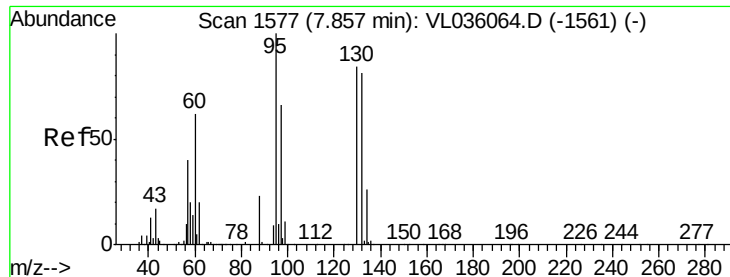
63 32.7 23.6 35.4

88 21.2 15.8 23.6



Abundance Ion 114.10 (113.80 to 114.80): V  
Ion 63.10 (62.80 to 63.80): VL0  
Ion 88.10 (87.80 to 88.80): VL0





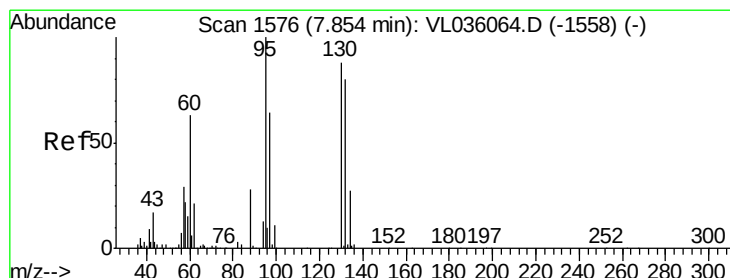
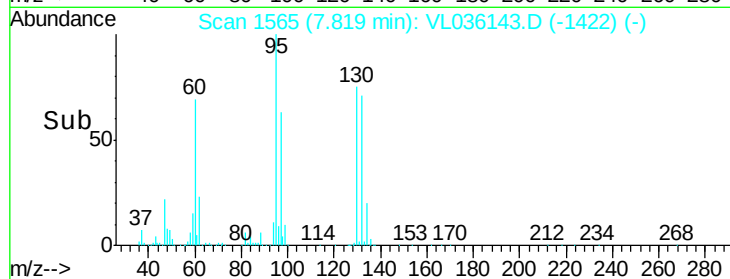
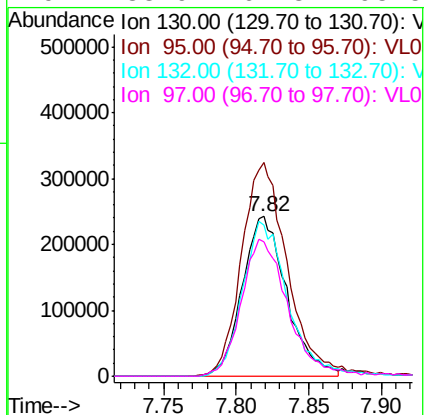
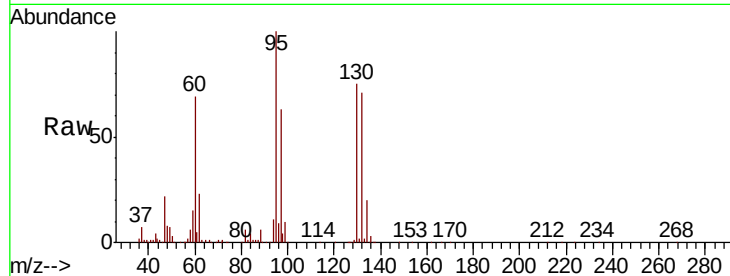
#38  
 Trichloroethene  
 Concen: 6.173 ppbv  
 RT: 7.82 min Scan# 1565  
 Delta R.T. -0.04 min  
 Lab File: VL036143.D  
 Acq: 11 Dec 2020 00:48

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 SS-4B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 133.4 | 95.2  | 142.8 |
| 132     | 94.3  | 76.9  | 115.3 |
| 97      | 83.9  | 62.3  | 93.5  |

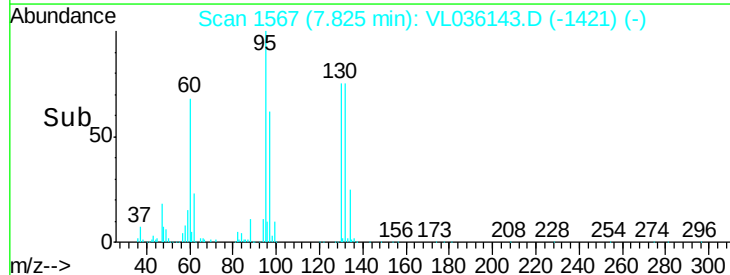
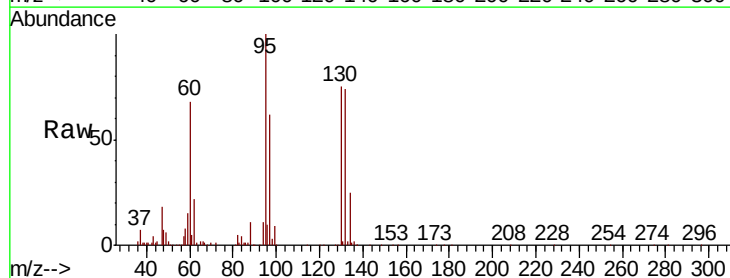
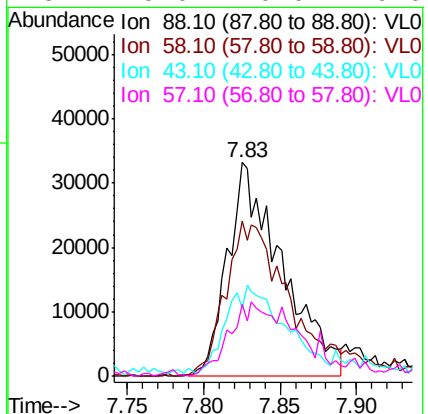
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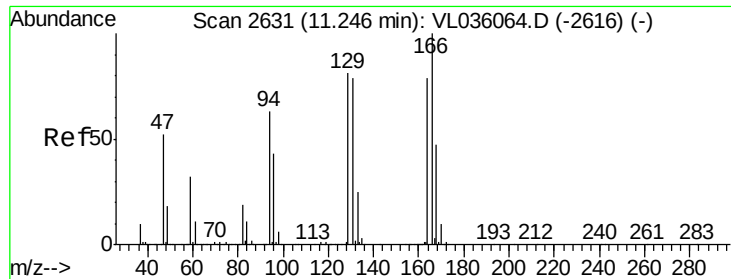
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#40  
 1,4-Dioxane  
 Concen: 2.939 ppbv m  
 RT: 7.83 min Scan# 1567  
 Delta R.T. -0.03 min  
 Lab File: VL036143.D  
 Acq: 11 Dec 2020 00:48

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 88      | 100   |       |        |
| 58      | 91.3  | 122.6 | 184.0# |
| 43      | 53.5  | 0.0   | 0.0#   |
| 57      | 49.0  | 0.0   | 0.0#   |





#52

Tetrachloroethene

Concen: 65.089 ppbv

RT: 11.22 min Scan# 2622

Delta R.T. -0.03 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

Instrument :

MSVOA\_L

ClientSampleId :

SS-4B

Tot Ion:164 Resp: 5293978

Ion Ratio Lower Upper

164 100

166 124.9 101.9 152.9

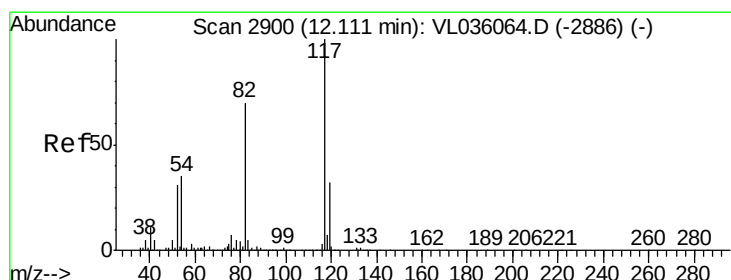
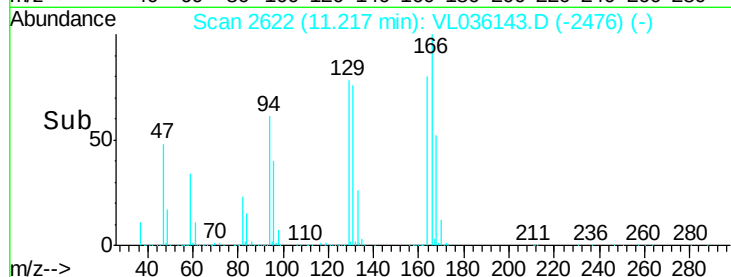
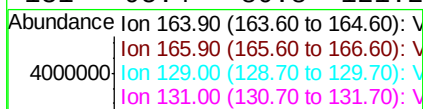
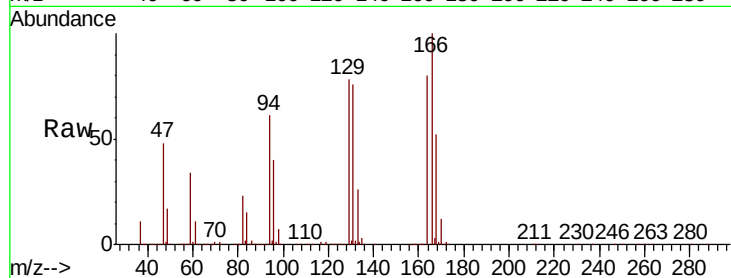
129 97.2 82.1 123.1

131 95.4 80.8 121.2

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2888

Delta R.T. -0.04 min

Lab File: VL036143.D

Acq: 11 Dec 2020 00:48

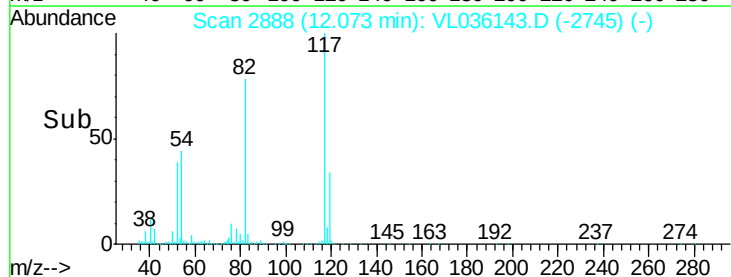
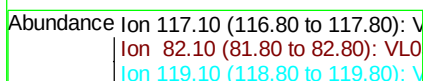
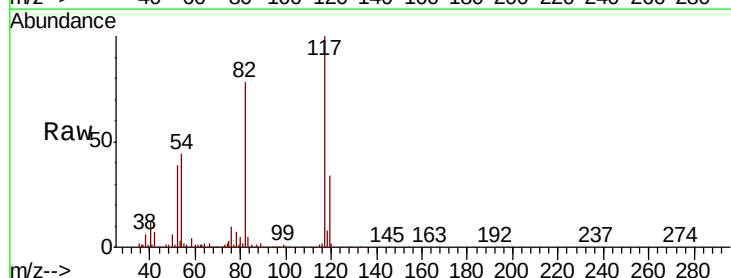
Tgt Ion:117 Resp: 2392397

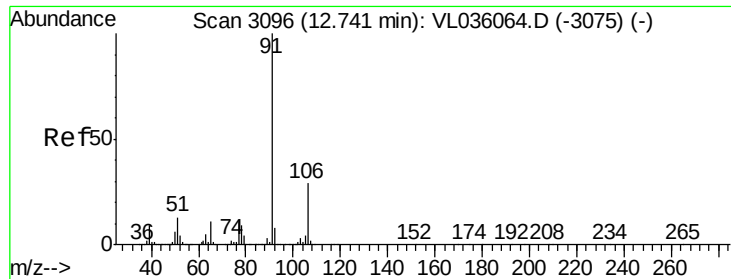
Ion Ratio Lower Upper

117 100

82 80.4 0.0 0.0#

119 32.6 0.0 0.0#





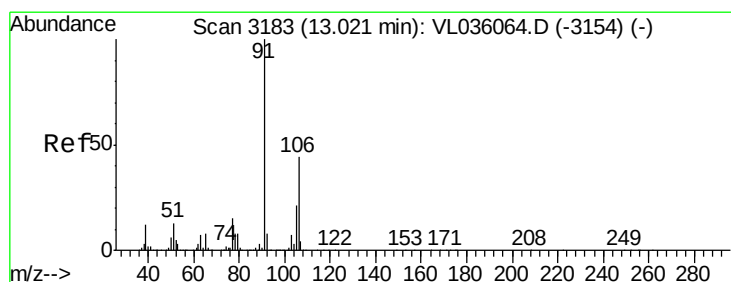
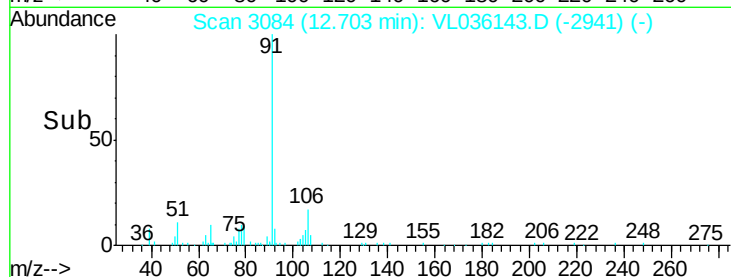
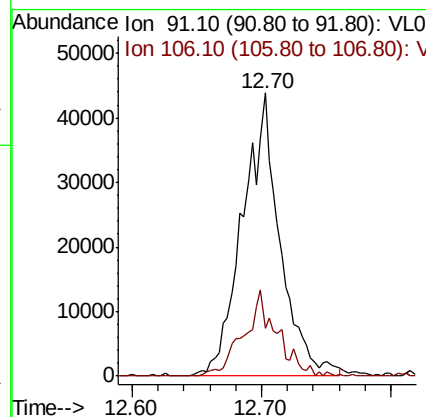
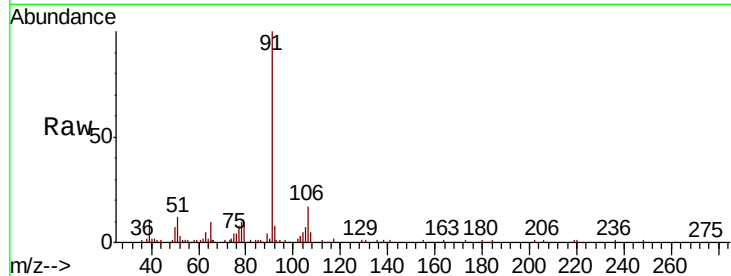
#58  
Ethyl Benzene  
Concen: 0.268 ppbv m  
RT: 12.70 min Scan# 3084  
Delta R.T. -0.04 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Instrument :  
MSVOA\_L  
ClientSampled :  
SS-4B

Tot Ion: 91 Resp: 87957  
Ion Ratio Lower Upper  
91 100  
106 16.8 23.0 34.4#

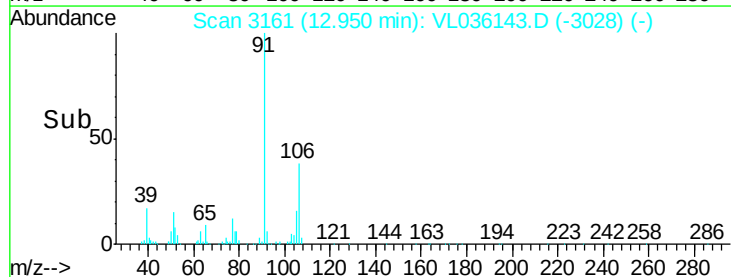
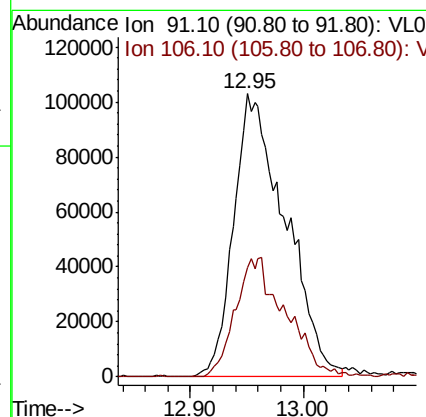
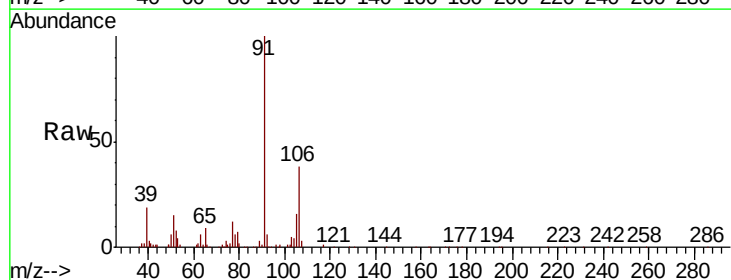
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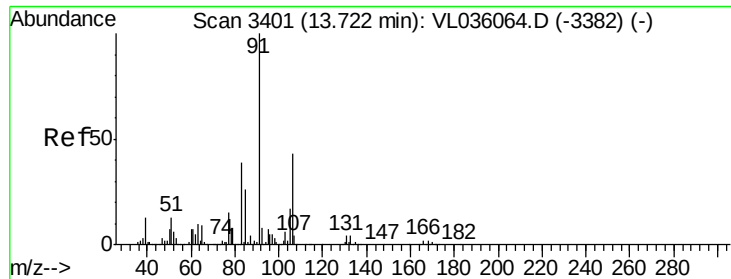
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#59  
m/p-Xylene  
Concen: 1.179 ppbv m  
RT: 12.95 min Scan# 3161  
Delta R.T. -0.07 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Tgt Ion: 91 Resp: 325562  
Ion Ratio Lower Upper  
91 100  
106 0.0 33.6 50.4#





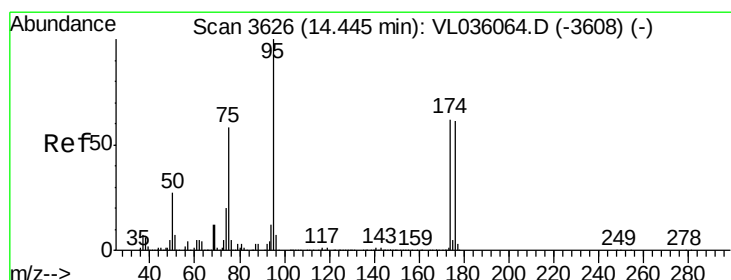
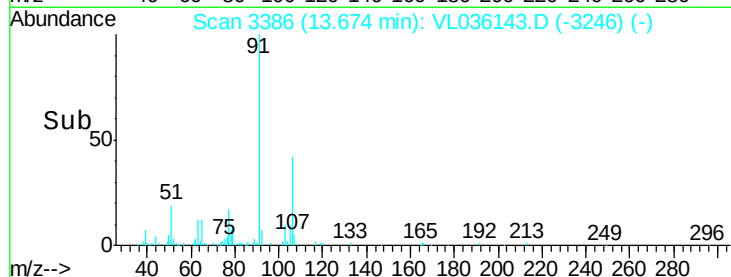
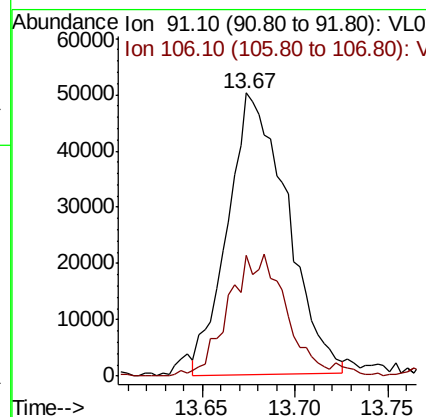
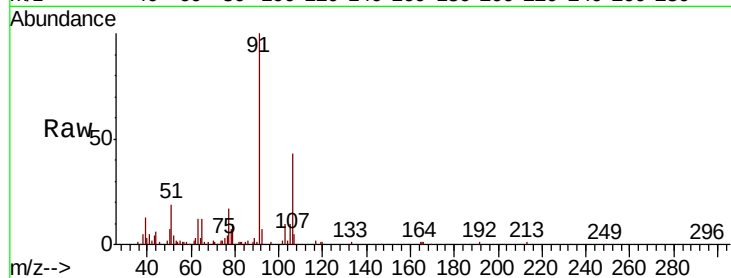
#60  
o-Xylene  
Concen: 0.431 ppbv  
RT: 13.67 min Scan# 3386  
Delta R.T. -0.05 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

Instrument :  
MSVOA\_L  
ClientSampled :  
SS-4B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 42.9  | 21.6  | 64.6  |

Manual Integrations  
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#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.738 ppbv  
RT: 14.40 min Scan# 3612  
Delta R.T. -0.05 min  
Lab File: VL036143.D  
Acq: 11 Dec 2020 00:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 55.5  | 50.7  | 76.1  |
| 175     | 3.9   | 4.0   | 6.0   |

