

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL100121\  
 Data File : VL037741.D  
 Acq On : 1 Oct 2021 14:43  
 Operator : SY/AP  
 Sample : M4012-08 10X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 C0P00

Manual Integrations  
 APPROVED

MMDadoda  
 10/4/2021 5:49:56 PM

Quant Time: Oct 02 01:52:24 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Sep 1  
 QLast Update : Thu Sep 16 13:42:46 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1537906  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 4405424  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.06 | 117  | 3713150  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.39  | 95    | 2586885  | 9.64     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.40% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane      | 2.98  | 51   | 29231    | 0.101 | ppbv   | 93     |
| 5) Vinyl Chloride             | 3.25  | 62   | 7435m    | 0.074 | ppbv   |        |
| 9) Propene                    | 3.00  | 41   | 27227m   | 0.266 | ppbv   |        |
| 13) Ethanol                   | 3.63  | 45   | 9590m    | 0.958 | ppbv   |        |
| 15) Acetone                   | 3.86  | 43   | 98239    | 0.615 | ppbv # | 88     |
| 20) Methylene Chloride        | 4.33  | 84   | 96516    | 1.265 | ppbv   | 97     |
| 26) Hexane                    | 5.68  | 57   | 78451m   | 0.427 | ppbv   |        |
| 32) 1,1,1-Trichloroethane     | 6.49  | 97   | 18364m   | 0.073 | ppbv   |        |
| 35) Carbon Tetrachloride      | 7.00  | 117  | 17019m   | 0.068 | ppbv   |        |
| 36) Benzene                   | 6.88  | 78   | 73874m   | 0.201 | ppbv   |        |
| 38) Trichloroethene           | 7.81  | 130  | 9971m    | 0.065 | ppbv   |        |
| 44) 2,2,4-Trimethylpentane    | 7.85  | 57   | 65992m   | 0.107 | ppbv   |        |
| 52) Tetrachloroethene         | 11.20 | 164  | 10249m   | 0.073 | ppbv   |        |
| 53) Toluene                   | 9.78  | 91   | 53548m   | 0.131 | ppbv   |        |
| 59) m/p-Xylene                | 12.97 | 91   | 72693m   | 0.169 | ppbv   |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.67 | 83   | 26930m   | 0.084 | ppbv   |        |

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

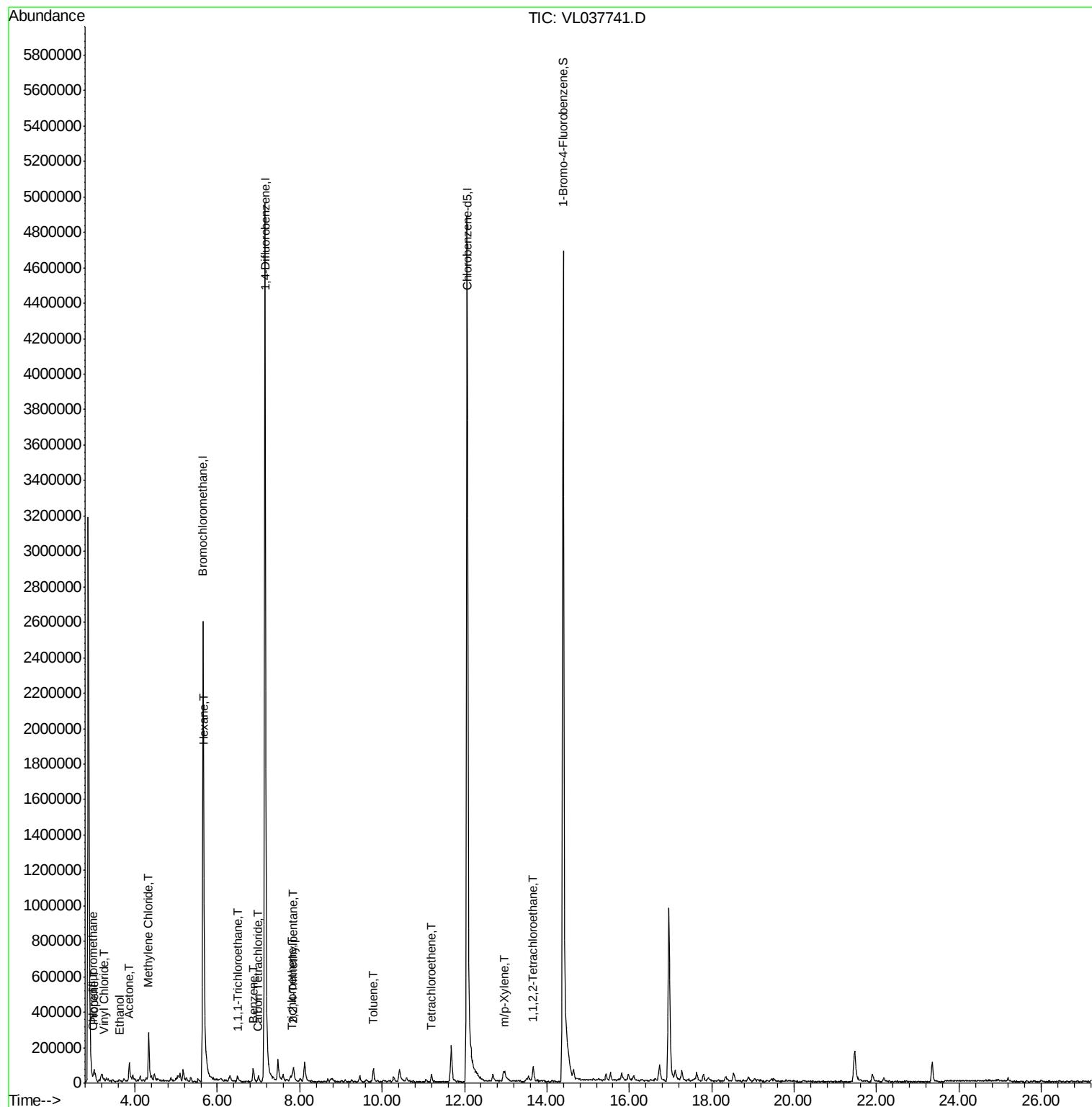
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL100121\  
Data File : VL037741.D  
Acq On : 1 Oct 2021 14:43  
Operator : SY/AP  
Sample : M4012-08 10X  
Misc : 400mL/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

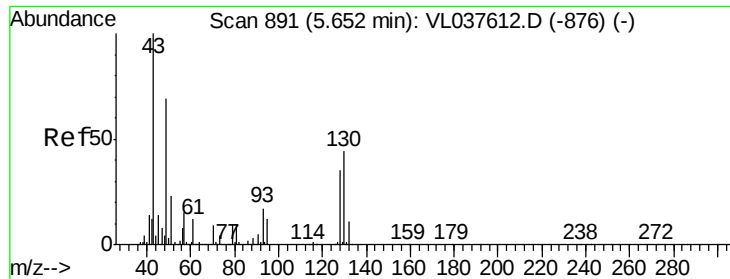
Instrument :  
MSVOA\_L  
ClientSampleId :  
C0P00

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Quant Time: Oct 02 01:52:24 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Sep  
QLast Update : Thu Sep 16 13:42:46 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

Lab File: VL037741.D

Acq: 1 Oct 2021 14:43

Instrument :

MSVOA\_L

ClientSampled :

C0P00

Tot Ion: 49 Resp: 1537906

Ion Ratio Lower Upper

49 100

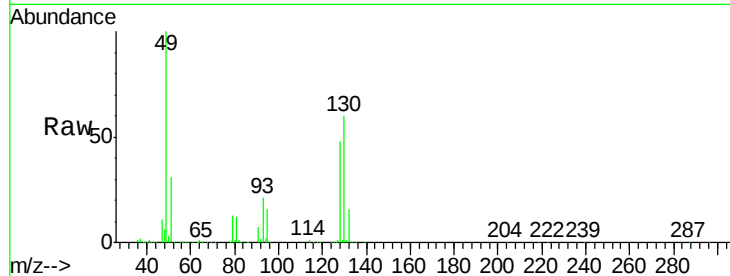
128 52.1 27.9 83.6

130 68.6 33.9 101.7

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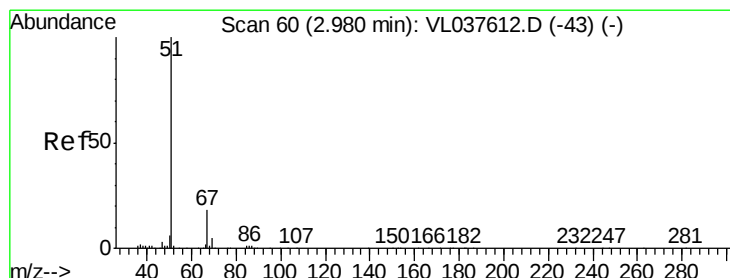
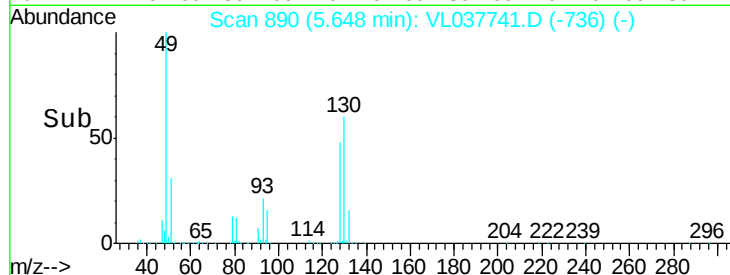
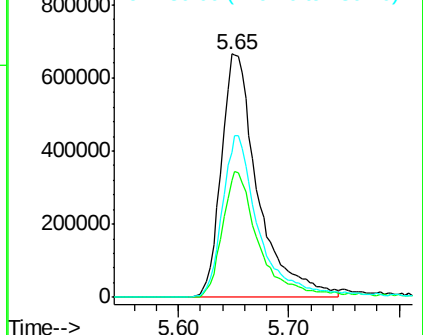
10/4/2021 5:49:56 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.101 ppbv

RT: 2.98 min Scan# 60

Delta R.T. -0.00 min

Lab File: VL037741.D

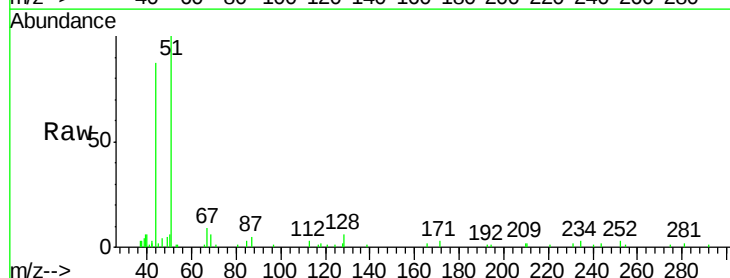
Acq: 1 Oct 2021 14:43

Tgt Ion: 51 Resp: 29231

Ion Ratio Lower Upper

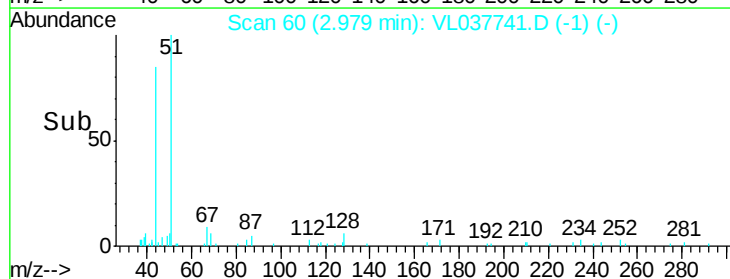
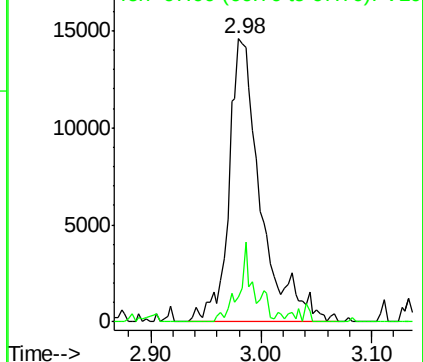
51 100

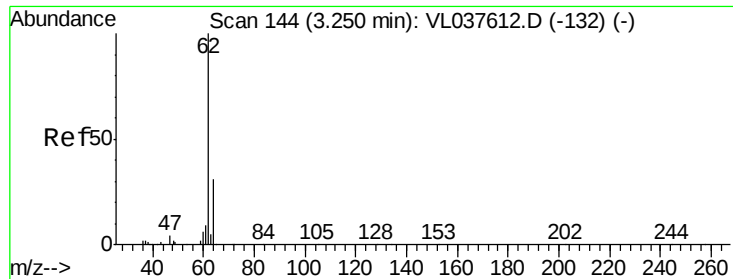
67 14.4 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#5

Vinyl Chloride

Concen: 0.074 ppbv m

RT: 3.25 min Scan# 144

Delta R.T. -0.00 min

Lab File: VL037741.D

Acq: 1 Oct 2021 14:43

Instrument :

MSVOA\_L

ClientSampled :

C0P00

Tot Ion: 62 Resp: 7435

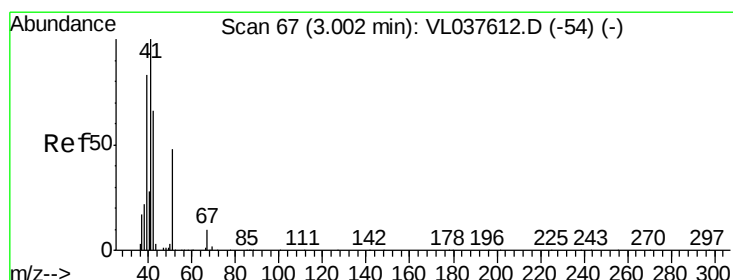
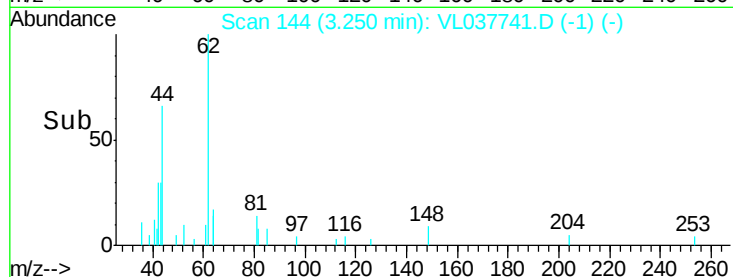
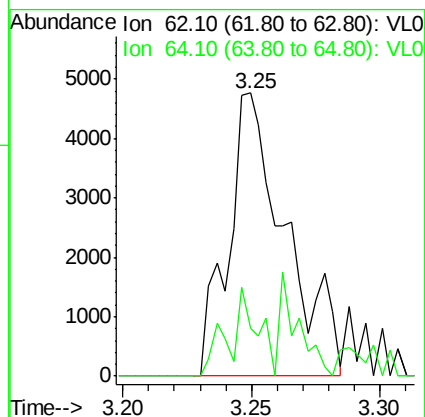
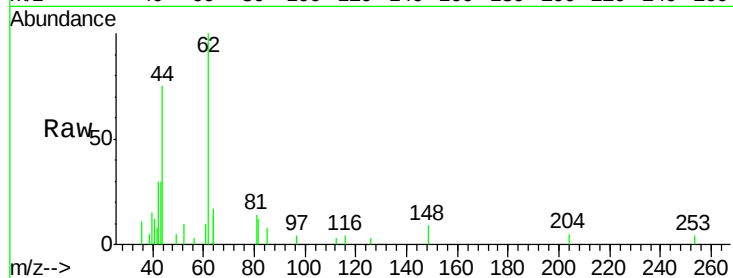
Ion Ratio Lower Upper

62 100

64 16.9 24.9 37.3#

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#9

Propene

Concen: 0.266 ppbv m

RT: 3.00 min Scan# 66

Delta R.T. -0.00 min

Lab File: VL037741.D

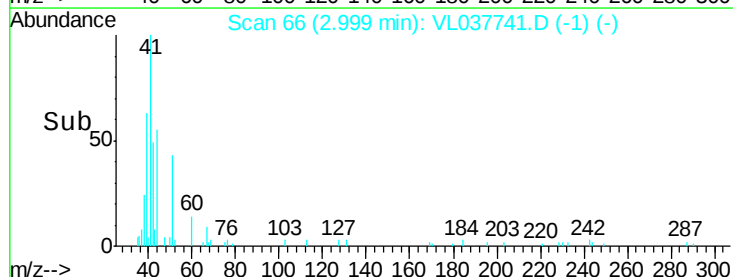
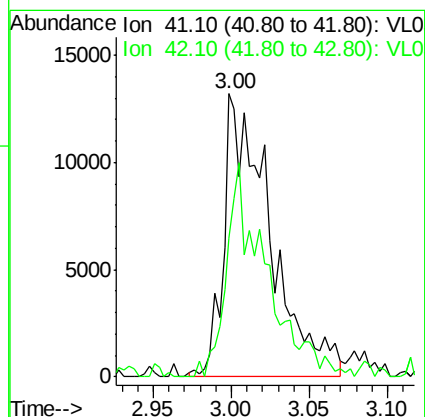
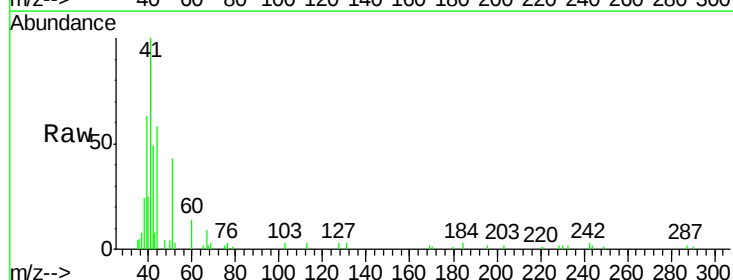
Acq: 1 Oct 2021 14:43

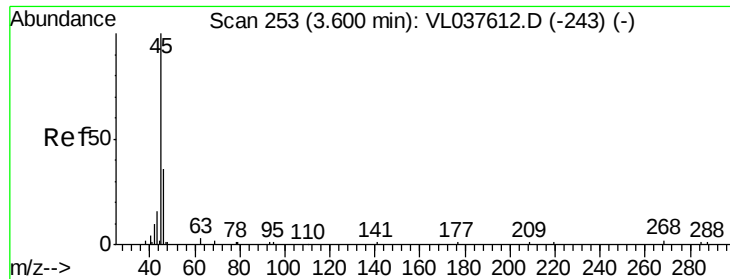
Tgt Ion: 41 Resp: 27227

Ion Ratio Lower Upper

41 100

42 2.0 57.2 85.8#





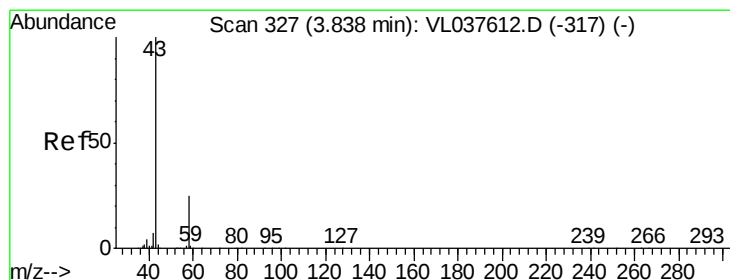
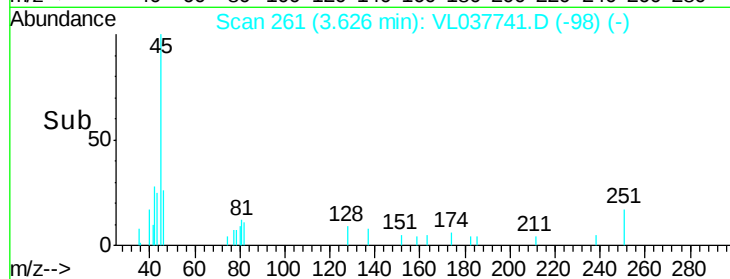
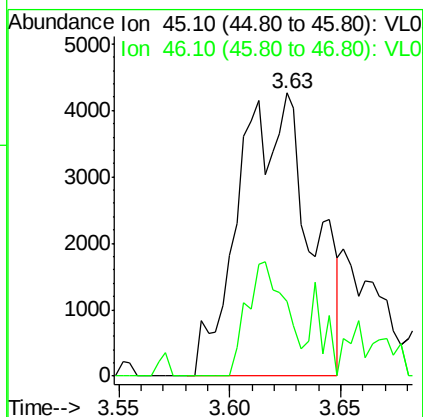
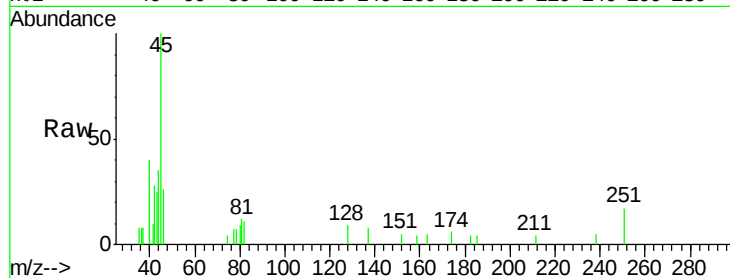
#13  
Ethanol  
Concen: 0.958 ppbv m  
RT: 3.63 min Scan# 261  
Delta R.T. 0.03 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Instrument :  
MSVOA\_L  
ClientSampled :  
C0P00

Tot Ion: 45 Resp: 9590  
Ion Ratio Lower Upper  
45 100  
46 28.2 17.2 68.8

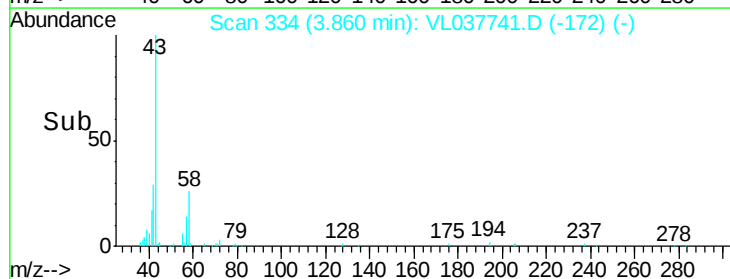
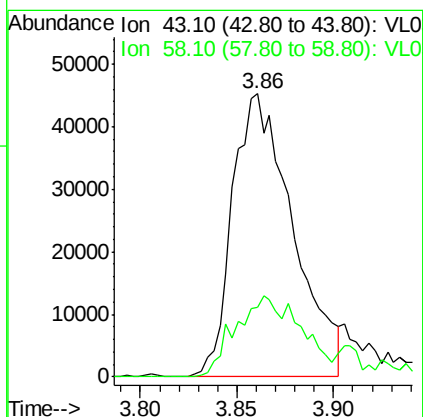
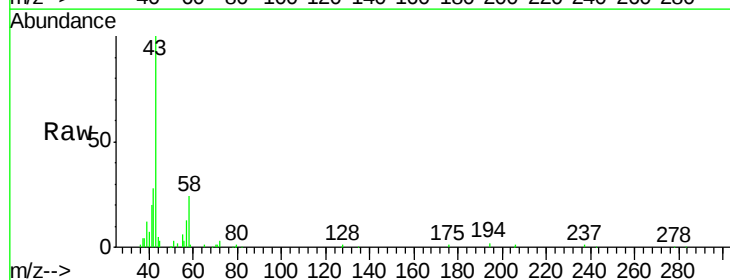
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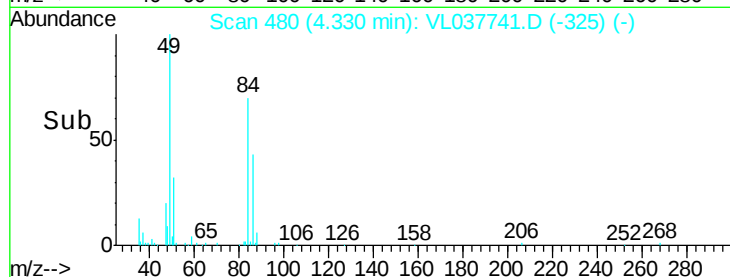
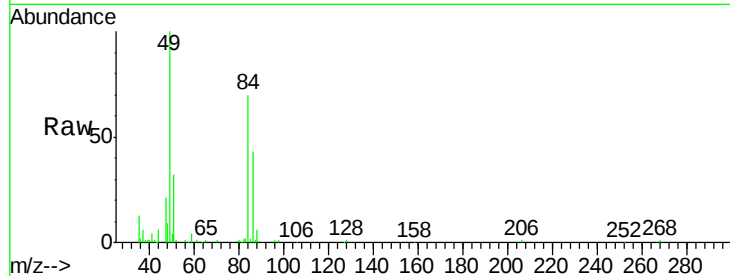
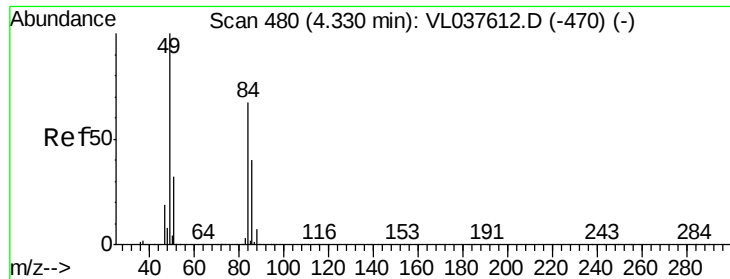
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#15  
Acetone  
Concen: 0.615 ppbv  
RT: 3.86 min Scan# 334  
Delta R.T. 0.02 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Tgt Ion: 43 Resp: 98239  
Ion Ratio Lower Upper  
43 100  
58 37.5 24.9 37.3#





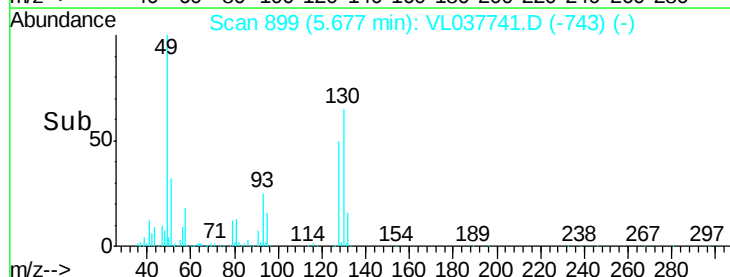
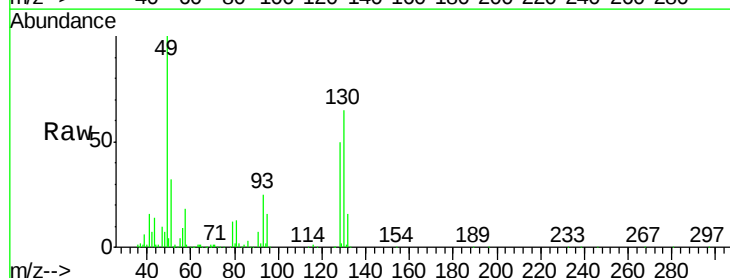
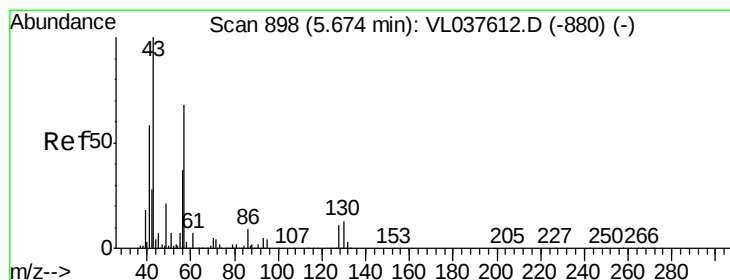
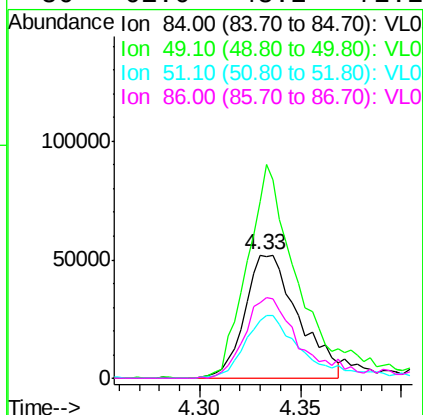
#20  
Methvlene Chloride  
Concen: 1.265 ppbv  
RT: 4.33 min Scan# 480  
Delta R.T. -0.00 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 143.6 | 120.0 | 180.0 |
| 51      | 46.3  | 38.0  | 57.0  |
| 86      | 61.0  | 48.2  | 72.2  |

Instrument :  
MSVOA\_L  
ClientSampled :  
C0P00

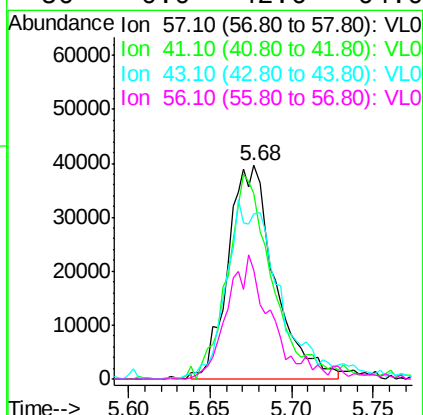
Manual Integrations  
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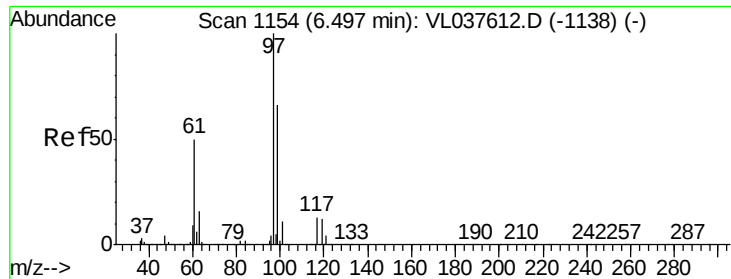
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#26  
Hexane  
Concen: 0.427 ppbv m  
RT: 5.68 min Scan# 899  
Delta R.T. 0.00 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 57      | 100   |       |        |
| 41      | 94.5  | 70.9  | 106.3  |
| 43      | 98.0  | 170.4 | 255.6# |
| 56      | 0.0   | 42.6  | 64.0#  |





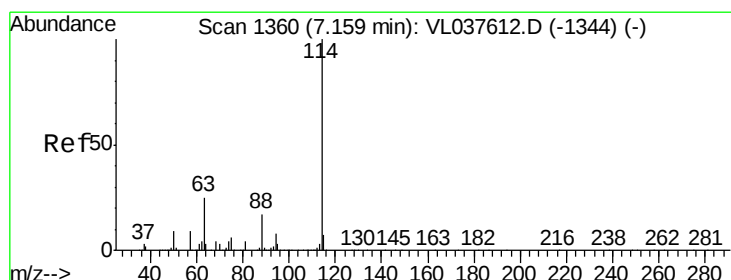
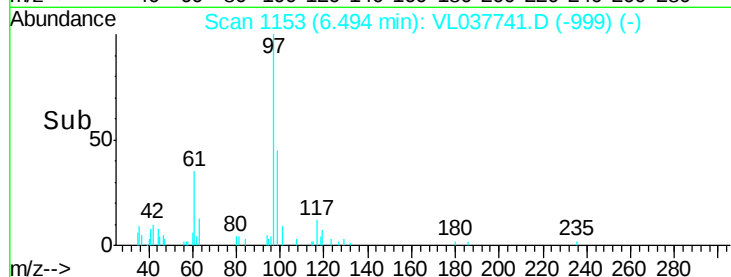
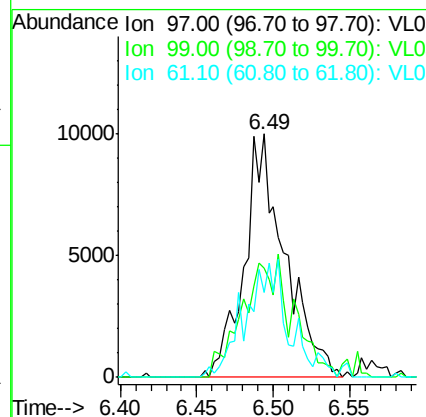
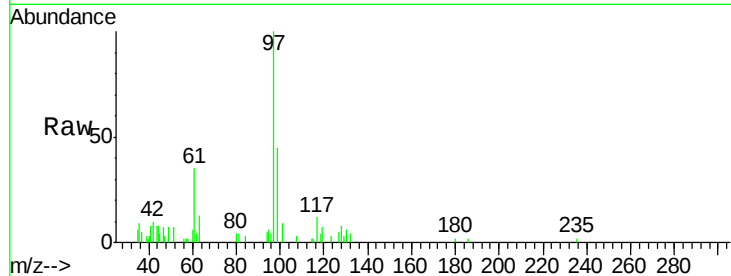
#32  
 1,1,1-Trichloroethane  
 Concen: 0.073 ppbv m  
 RT: 6.49 min Scan# 1153  
 Delta R.T. -0.00 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 C0P00

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 61.8  | 52.3  | 78.5  |
| 61      | 52.7  | 39.5  | 59.3  |

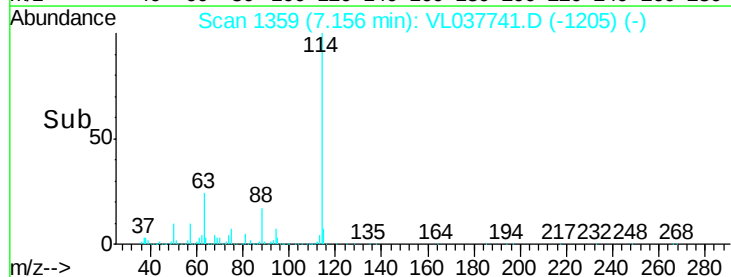
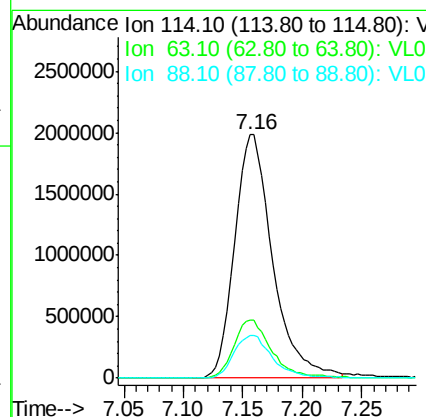
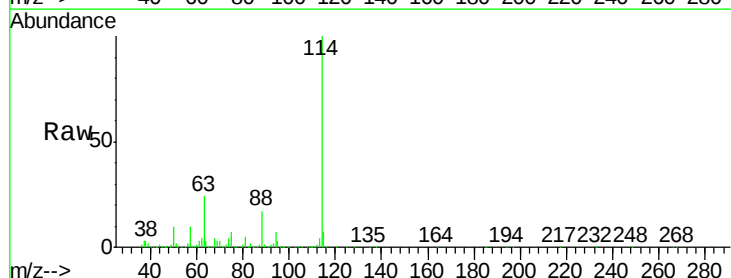
Manual Integrations  
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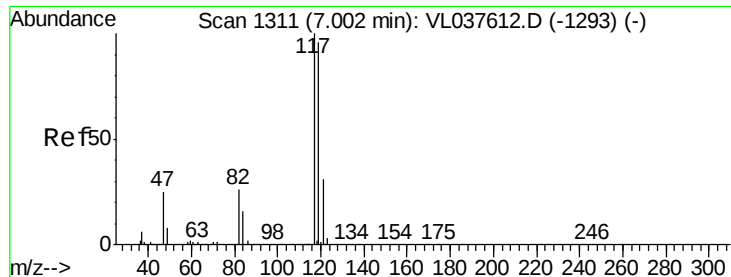
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#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.16 min Scan# 1359  
 Delta R.T. -0.00 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 24.1  | 19.6  | 29.4  |
| 88      | 18.0  | 14.2  | 21.4  |





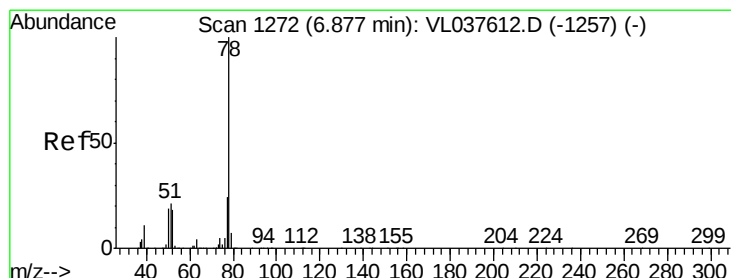
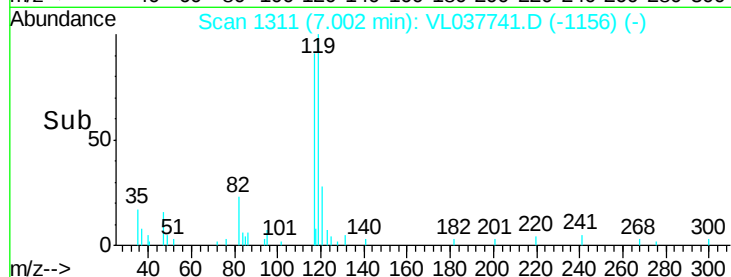
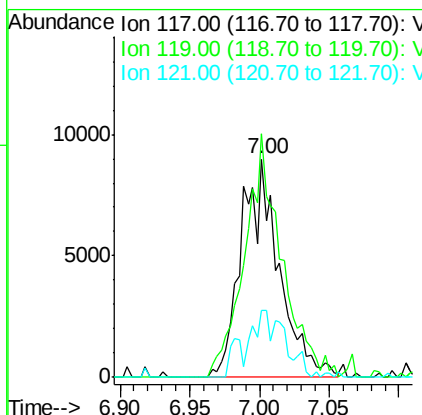
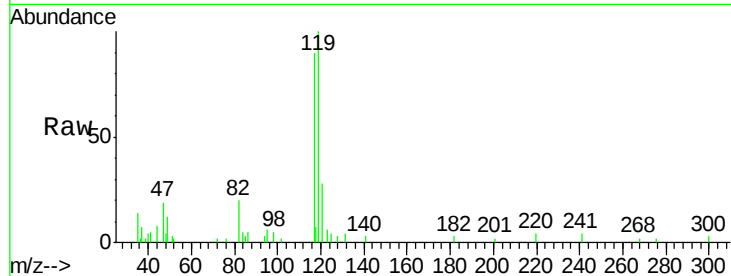
#35  
Carbon Tetrachloride  
Concen: 0.068 ppbv m  
RT: 7.00 min Scan# 1311  
Delta R.T. -0.00 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
C0P00

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 111.5 | 77.0  | 115.6 |
| 121     | 30.7  | 24.5  | 36.7  |

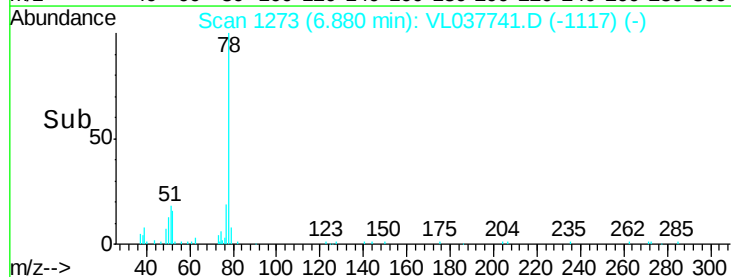
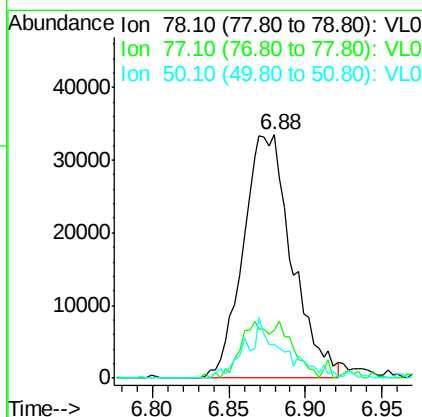
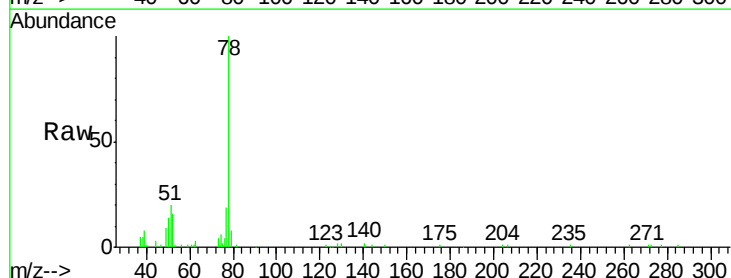
Manual Integrations  
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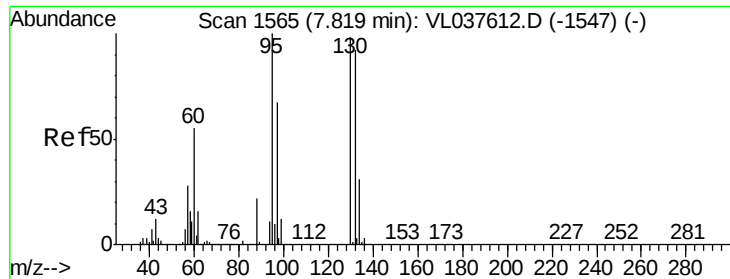
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#36  
Benzene  
Concen: 0.201 ppbv m  
RT: 6.88 min Scan# 1273  
Delta R.T. 0.00 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 19.4  | 19.0  | 28.4  |
| 50      | 14.0  | 14.8  | 22.2# |





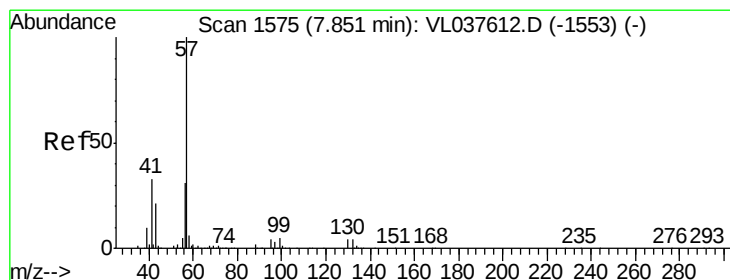
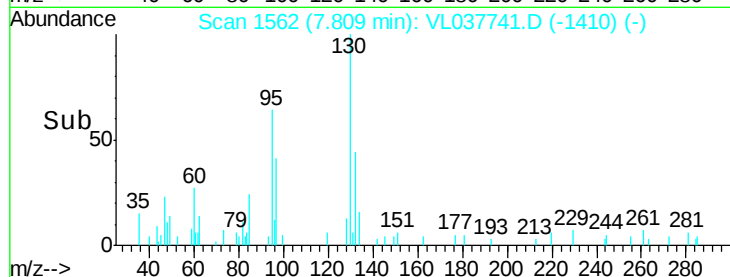
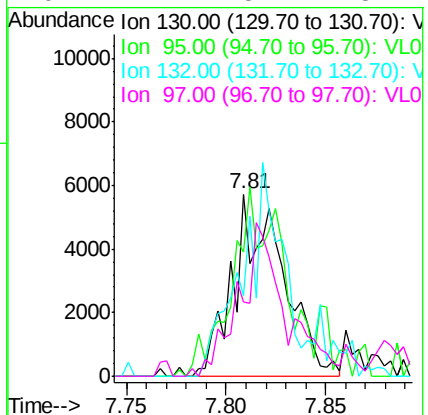
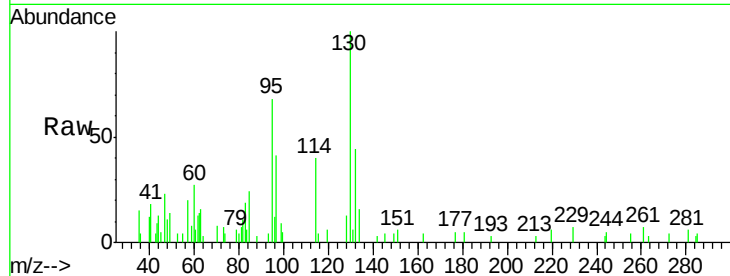
#38  
 Trichloroethene  
 Concen: 0.065 ppbv m  
 RT: 7.81 min Scan# 1562  
 Delta R.T. -0.01 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 C0P00

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 130     | 100   |       |        |
| 95      | 68.2  | 81.8  | 122.6# |
| 132     | 44.4  | 75.3  | 112.9# |
| 97      | 41.1  | 54.7  | 82.1#  |

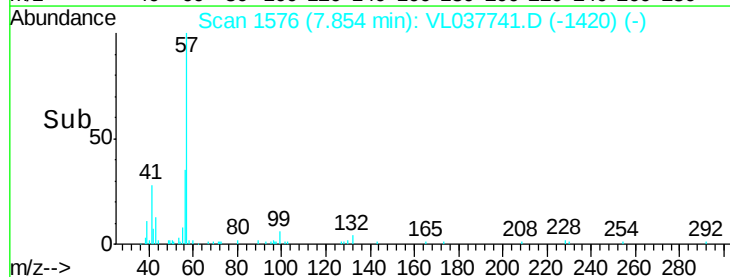
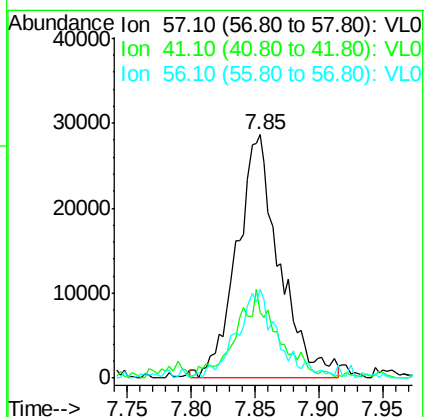
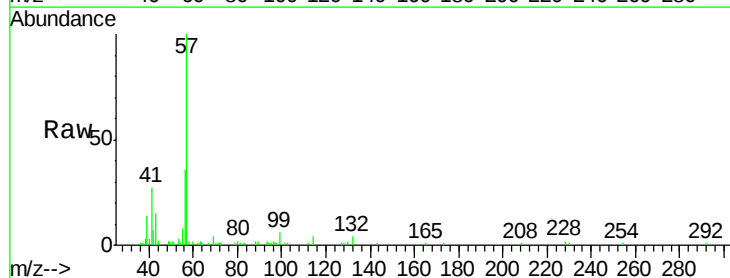
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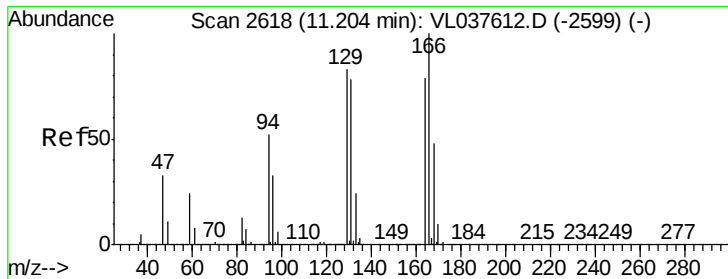
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#44  
 2,2,4-Trimethylpentane  
 Concen: 0.107 ppbv m  
 RT: 7.85 min Scan# 1576  
 Delta R.T. 0.00 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 34.8  | 26.1  | 39.1  |
| 56      | 34.4  | 25.7  | 38.5  |





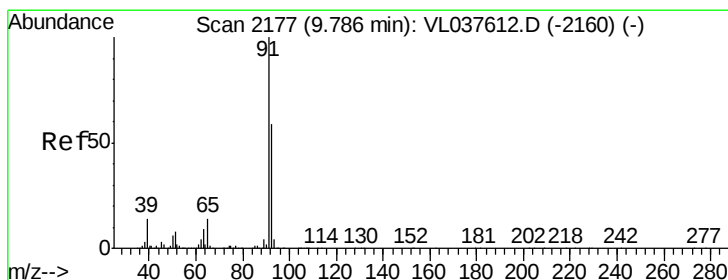
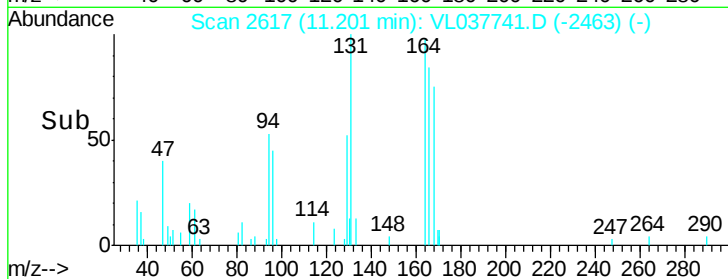
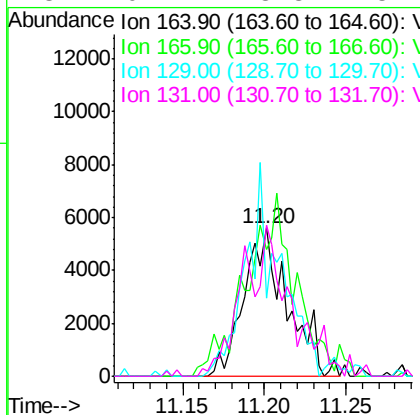
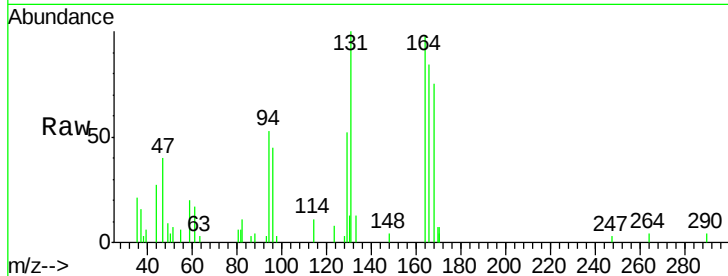
#52  
Tetrachloroethene  
Concen: 0.073 ppbv m  
RT: 11.20 min Scan# 2617  
Delta R.T. -0.00 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
C0P00

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 85.5  | 101.2 | 151.8# |
| 129     | 52.9  | 84.0  | 126.0# |
| 131     | 102.2 | 78.8  | 118.2  |

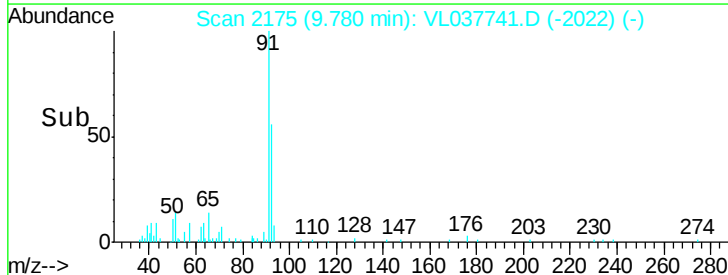
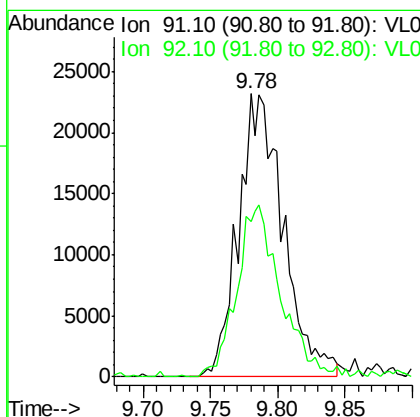
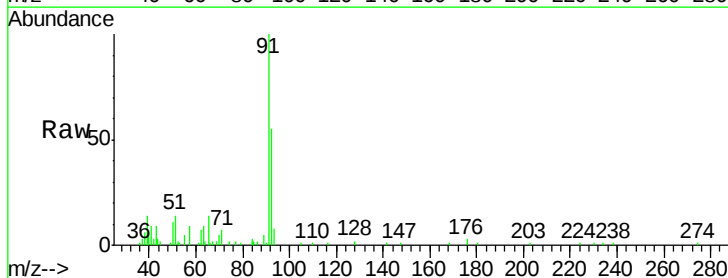
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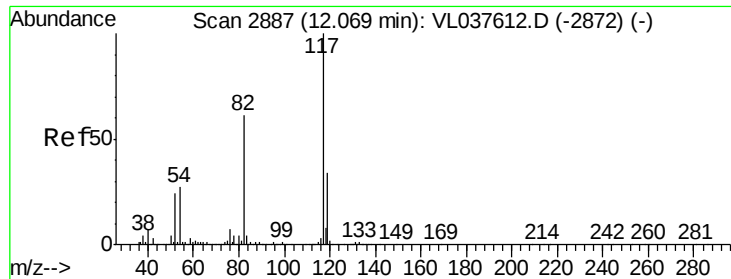
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#53  
Toluene  
Concen: 0.131 ppbv m  
RT: 9.78 min Scan# 2175  
Delta R.T. -0.01 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 0.0   | 48.9  | 73.3# |





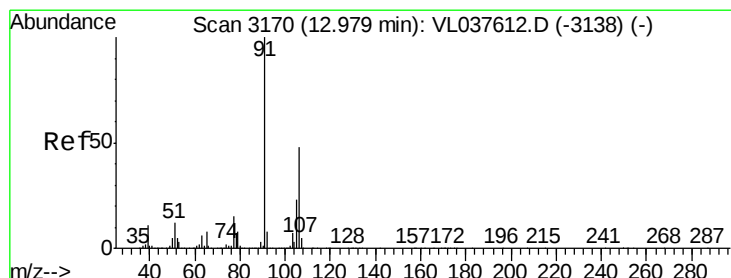
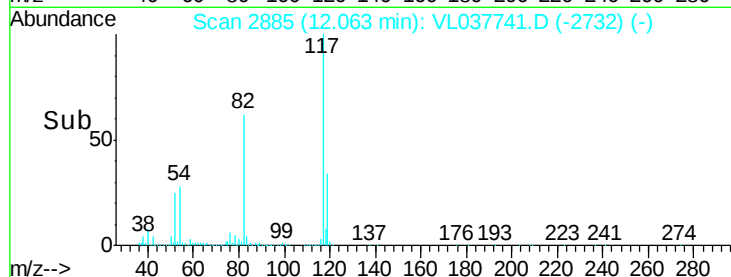
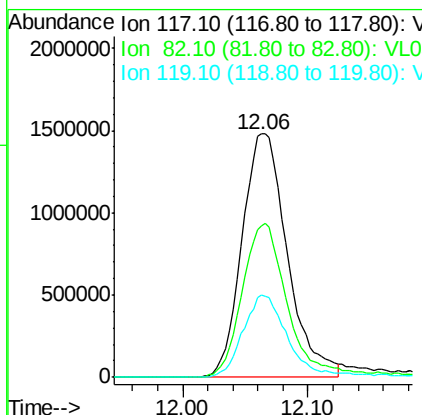
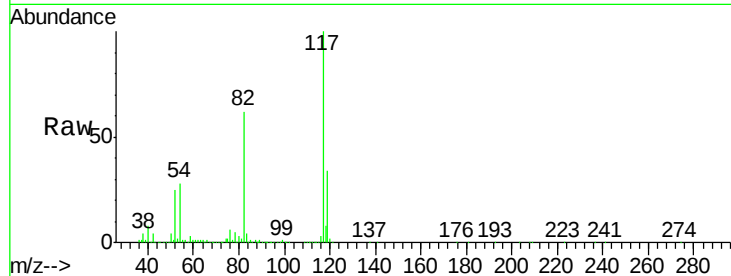
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.06 min Scan# 2885  
Delta R.T. -0.01 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Instrument :  
MSVOA\_L  
ClientSampleId :  
C0P00

Tot Ion:117 Resp: 3713150  
Ion Ratio Lower Upper  
117 100  
82 65.7 50.6 75.8  
119 34.6 26.2 39.2

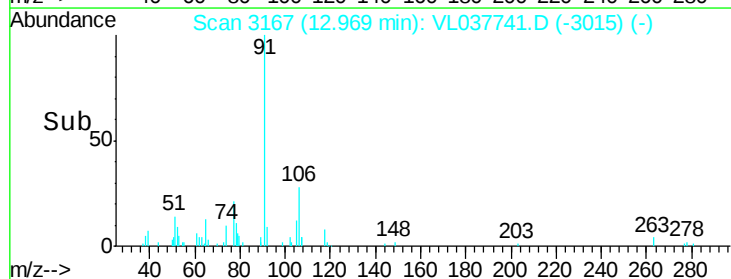
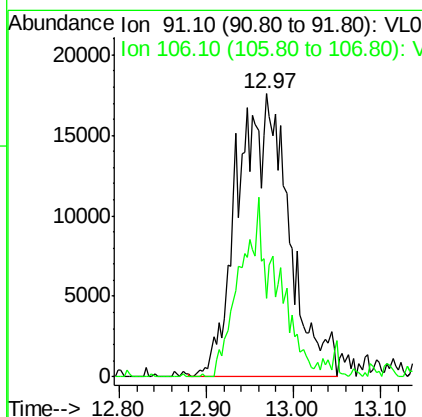
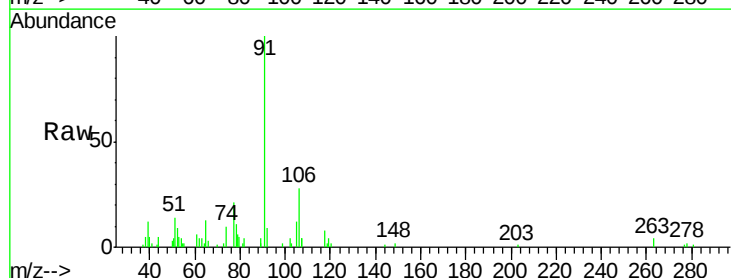
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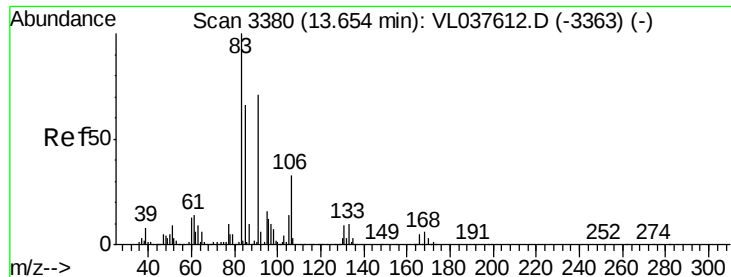
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#59  
m/p-Xylene  
Concen: 0.169 ppbv m  
RT: 12.97 min Scan# 3167  
Delta R.T. -0.01 min  
Lab File: VL037741.D  
Acq: 1 Oct 2021 14:43

Tgt Ion: 91 Resp: 72693  
Ion Ratio Lower Upper  
91 100  
106 0.0 36.6 55.0#





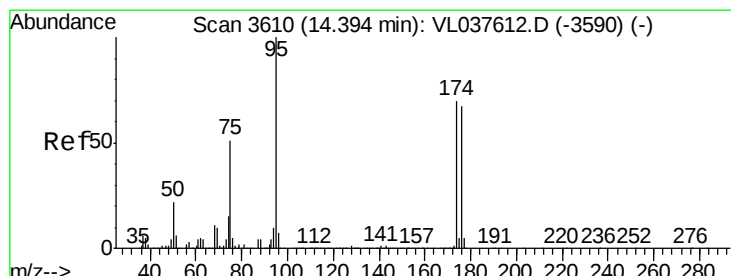
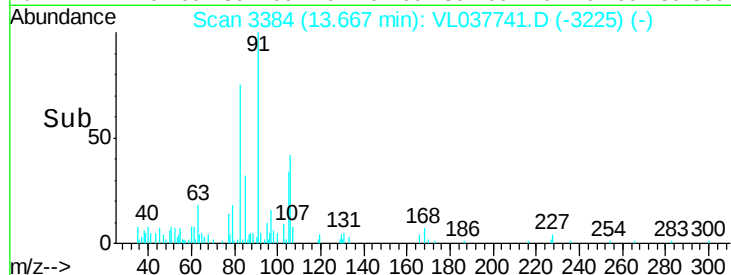
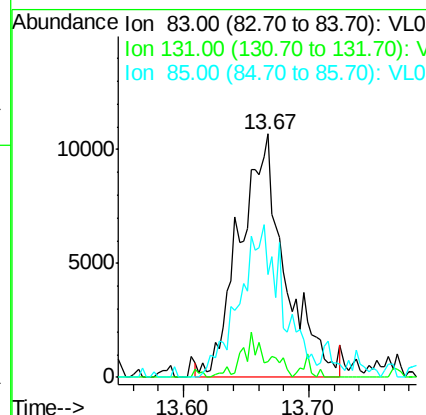
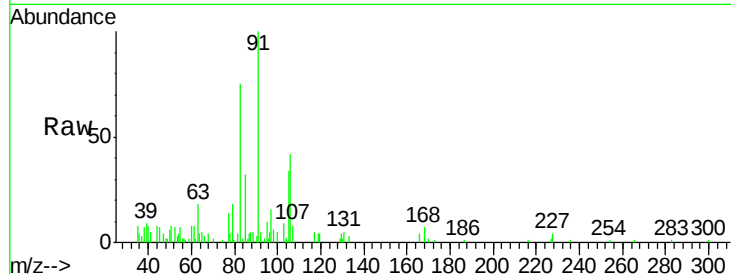
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.084 ppbv m  
 RT: 13.67 min Scan# 3384  
 Delta R.T. 0.01 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 C0P00

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 0.0   | 5.1   | 15.3# |
| 85      | 0.0   | 33.3  | 99.9# |

Manual Integrations  
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#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.640 ppbv  
 RT: 14.39 min Scan# 3610  
 Delta R.T. -0.00 min  
 Lab File: VL037741.D  
 Acq: 1 Oct 2021 14:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 76.1  | 56.3  | 84.5  |
| 175     | 5.2   | 4.4   | 6.6   |

