

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051220\  
 Data File : VL034999.D  
 Acq On : 12 May 2020 22:57  
 Operator : SY/AP  
 Sample : L2567-06  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 AA-1

Manual Integrations  
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Quant Time: May 14 14:07:40 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.64  | 49   | 1030354  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 2404650  | 10.00 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2184463  | 10.00 | ppbv  | -0.02    |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 1795016  | 10.15    | ppbv | -0.02   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.50% |

| Target Compounds           | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane | 3.00  | 85   | 44804    | 0.306 | ppbv   | 100    |
| 3) Chlorodifluoromethane   | 2.94  | 51   | 31188m   | 0.265 | ppbv   |        |
| 4) Chloromethane           | 3.09  | 50   | 31801    | 0.472 | ppbv   | 99     |
| 11) Trichlorofluoromethane | 3.92  | 101  | 31618m   | 0.210 | ppbv   |        |
| 13) Ethanol                | 3.56  | 45   | 76217    | 4.525 | ppbv   | 92     |
| 15) Acetone                | 3.81  | 43   | 215825m  | 1.584 | ppbv   |        |
| 19) Isopropyl Alcohol      | 3.94  | 45   | 88296    | 0.972 | ppbv # | 89     |
| 20) Methylene Chloride     | 4.31  | 84   | 47824    | 1.061 | ppbv # | 96     |
| 26) Hexane                 | 5.66  | 57   | 372516   | 3.755 | ppbv # | 42     |
| 35) Carbon Tetrachloride   | 7.01  | 117  | 8947m    | 0.059 | ppbv   |        |
| 36) Benzene                | 6.87  | 78   | 30555m   | 0.154 | ppbv   |        |
| 44) 2,2,4-Trimethylpentane | 7.86  | 57   | 103407m  | 0.293 | ppbv   |        |
| 52) Tetrachloroethene      | 11.24 | 164  | 4752m    | 0.067 | ppbv   |        |
| 53) Toluene                | 9.81  | 91   | 324825   | 1.546 | ppbv   | 99     |
| 58) Ethyl Benzene          | 12.73 | 91   | 28763m   | 0.106 | ppbv   |        |
| 59) m/p-Xylene             | 12.98 | 91   | 54911m   | 0.231 | ppbv   |        |

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

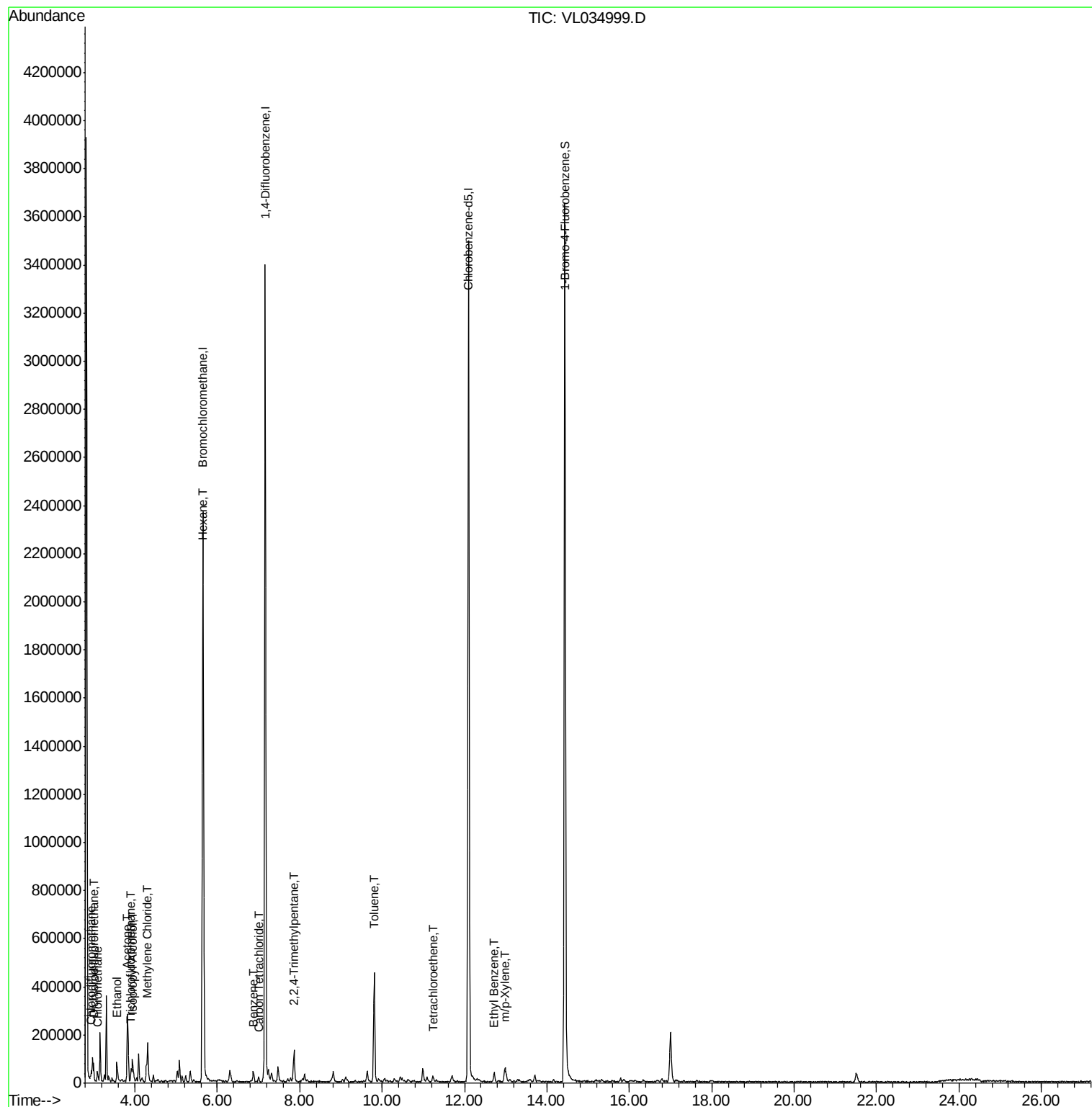
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051220\  
Data File : VL034999.D  
Acq On : 12 May 2020 22:57  
Operator : SY/AP  
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Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

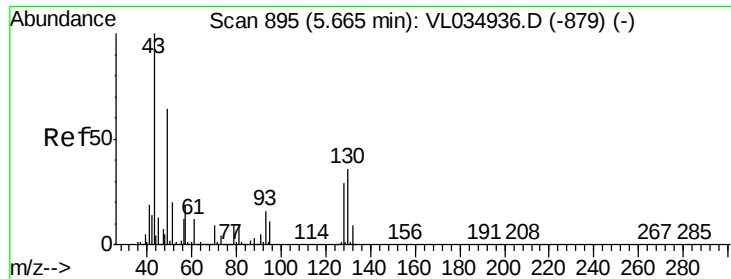
Instrument :  
MSVOA\_L  
ClientSampleId :  
AA-1

Manual Integrations  
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Quant Time: May 14 14:07:40 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed May  
QLast Update : Wed May 06 14:49:39 2020  
Response via : Initial Calibration





#1

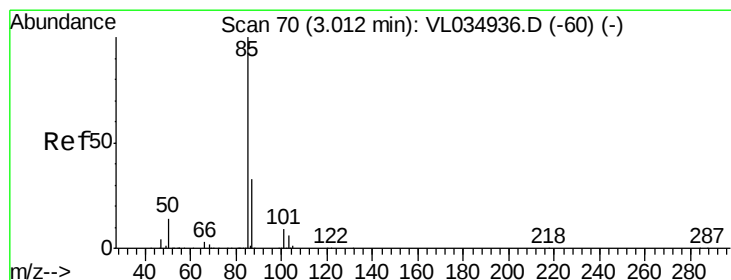
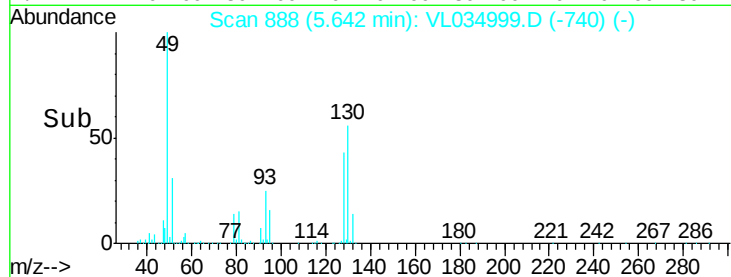
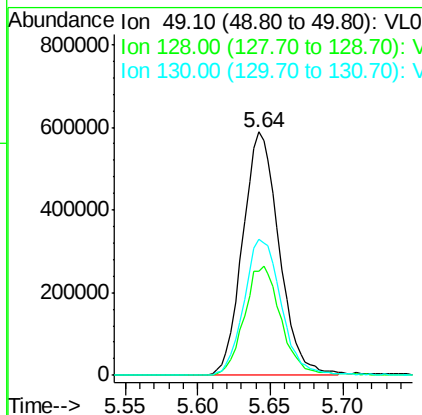
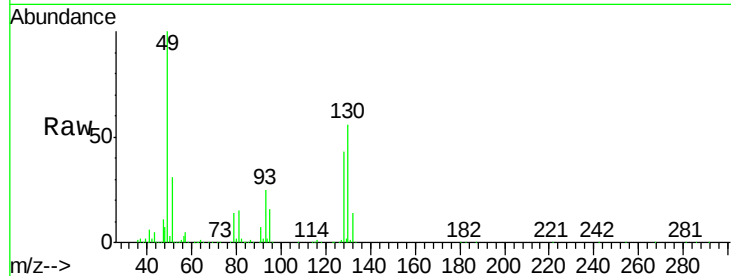
Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.64 min Scan# 888  
 Delta R.T. -0.02 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 AA-1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 128     | 45.3  | 22.1  | 66.5  |
| 130     | 57.6  | 29.1  | 87.3  |

Manual Integrations  
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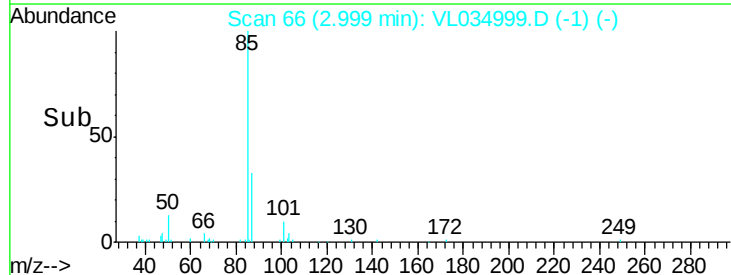
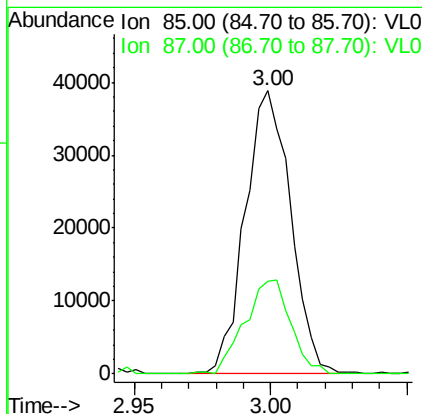
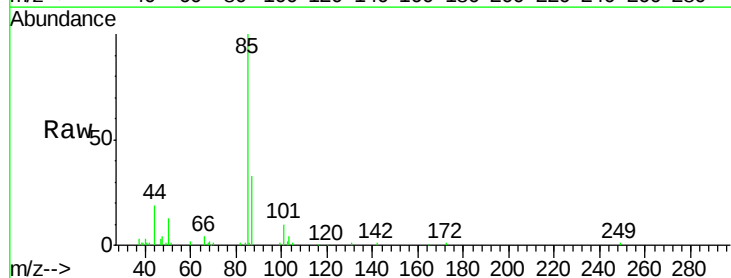
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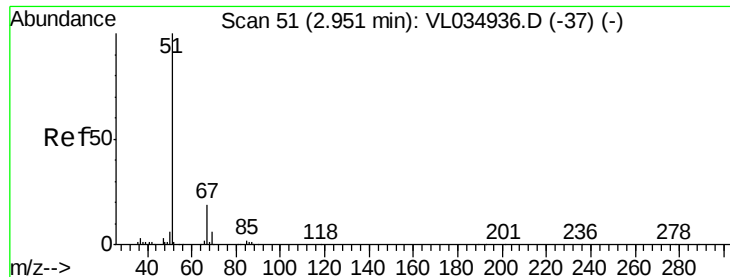


#2

Dichlorodifluoromethane  
 Concen: 0.306 ppbv  
 RT: 3.00 min Scan# 66  
 Delta R.T. -0.01 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 85      | 100   |       |       |
| 87      | 32.5  | 26.2  | 39.2  |





#3

Chlorodifluoromethane

Concen: 0.265 ppbv

RT: 2.94 min Scan# 47

Delta R.T. -0.01 min

Lab File: VL034999.D

Acq: 12 May 2020 22:57

Instrument :

MSVOA\_L

ClientSampleId :

AA-1

Tot Ion: 51 Resp: 31188

Ion Ratio Lower Upper

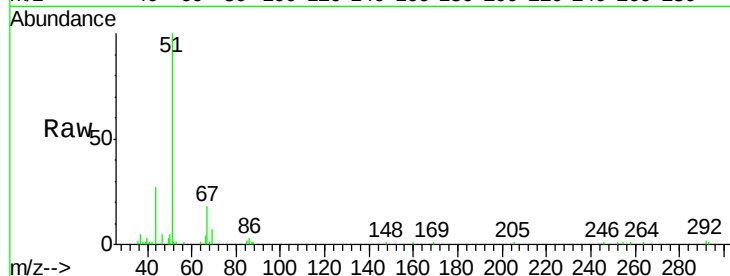
51 100

67 17.5 15.0 22.6

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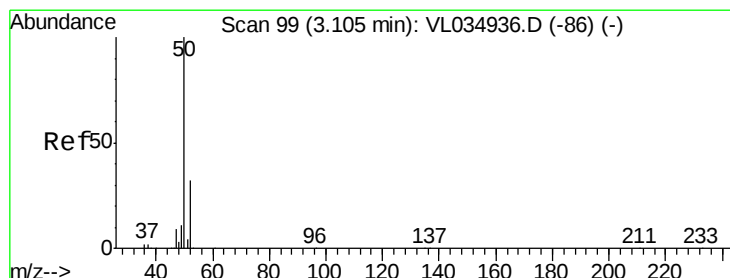
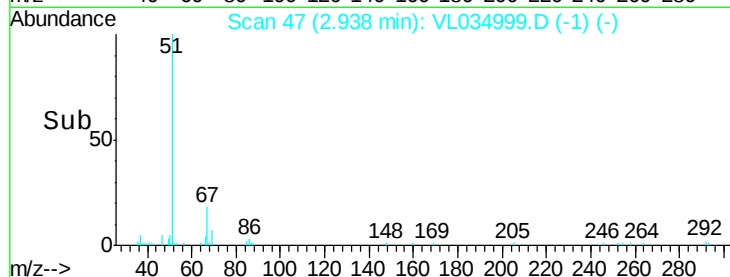
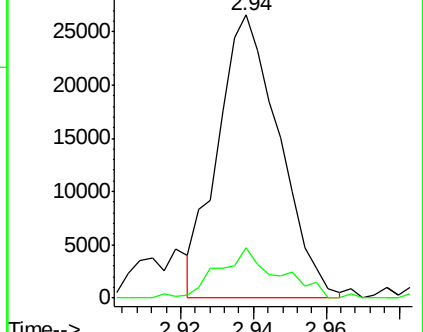
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.472 ppbv

RT: 3.09 min Scan# 94

Delta R.T. -0.02 min

Lab File: VL034999.D

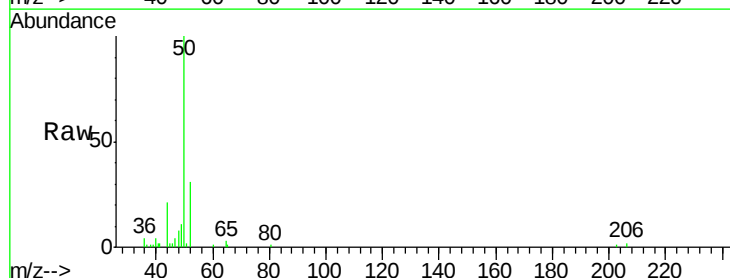
Acq: 12 May 2020 22:57

Tgt Ion: 50 Resp: 31801

Ion Ratio Lower Upper

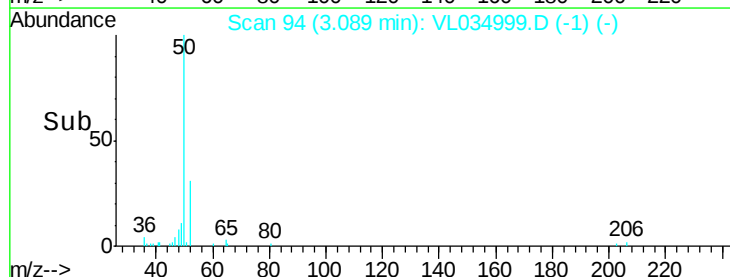
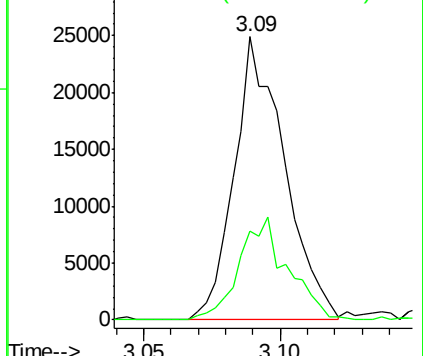
50 100

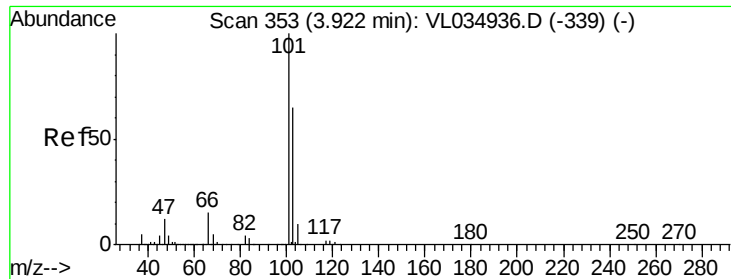
52 31.5 25.4 38.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





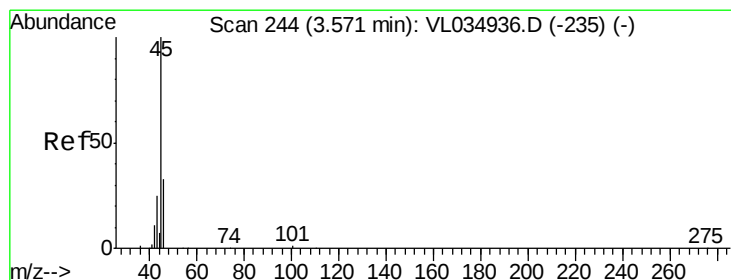
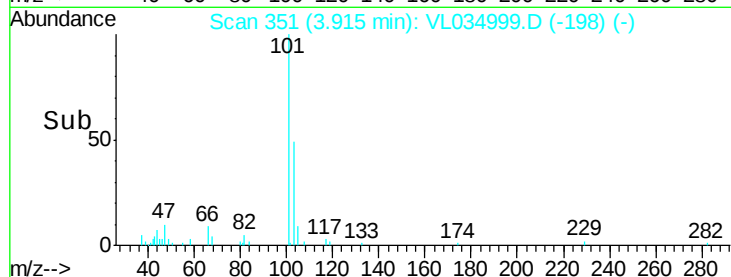
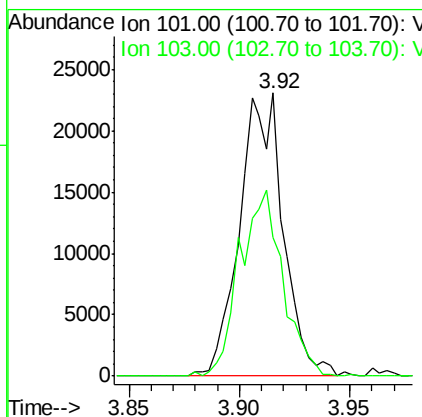
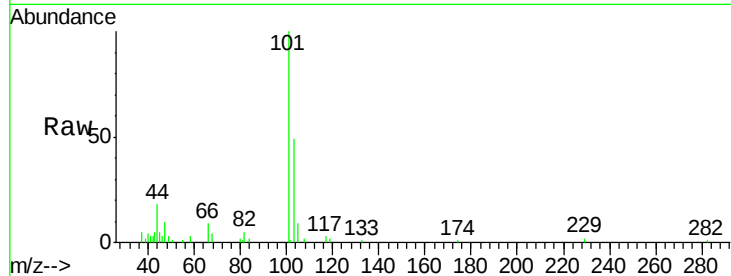
#11  
 Trichlorofluoromethane  
 Concen: 0.210 ppbv m  
 RT: 3.92 min Scan# 351  
 Delta R.T. -0.01 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 AA-1

Tot Ion:101 Resp: 31618  
 Ion Ratio Lower Upper  
 101 100  
 103 49.2 51.9 77.9#

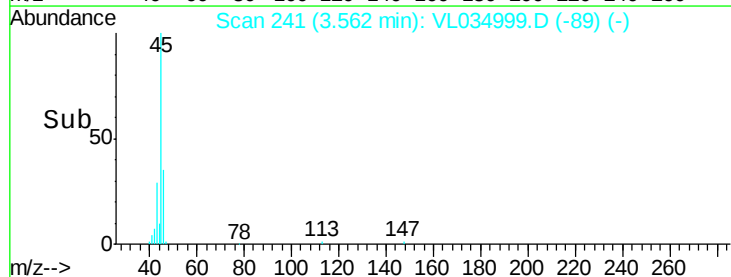
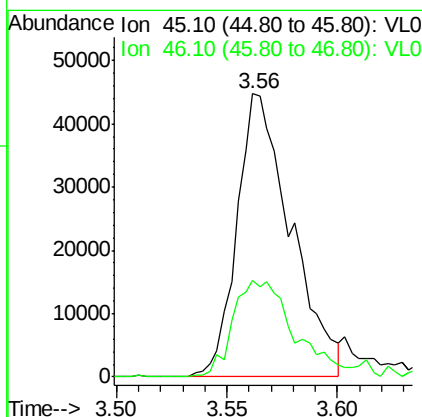
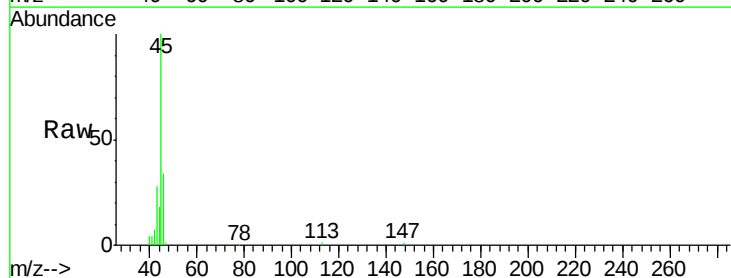
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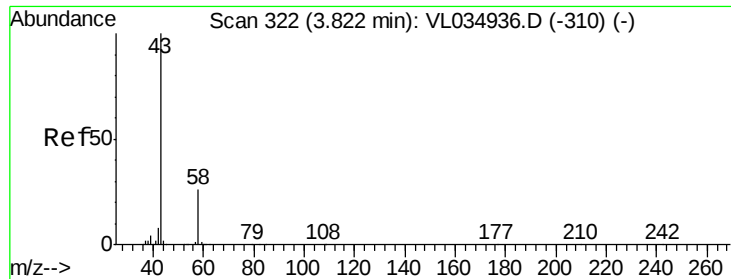
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#13  
 Ethanol  
 Concen: 4.525 ppbv  
 RT: 3.56 min Scan# 241  
 Delta R.T. -0.01 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

Tgt Ion: 45 Resp: 76217  
 Ion Ratio Lower Upper  
 45 100  
 46 40.5 14.3 57.3





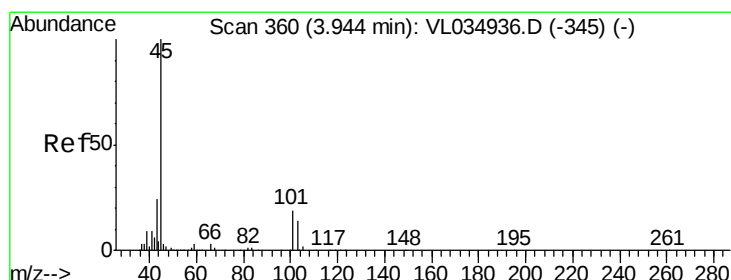
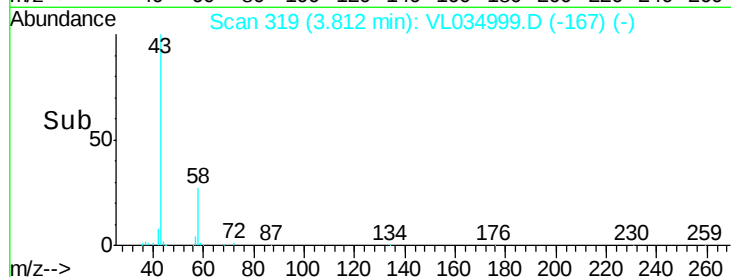
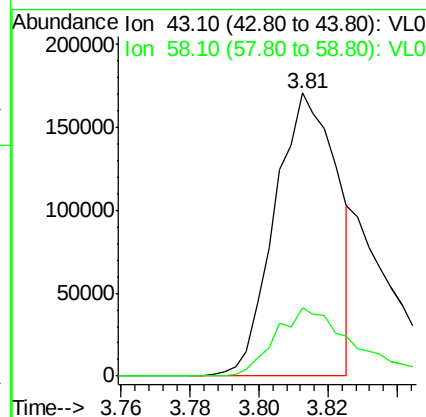
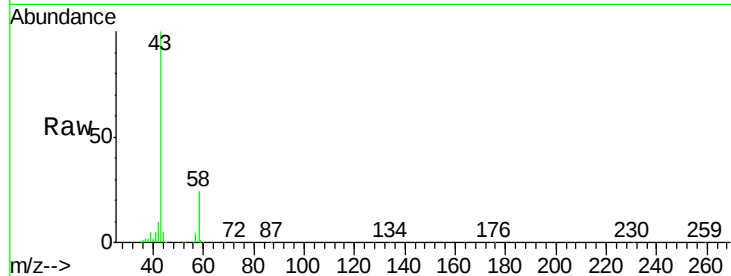
#15  
Acetone  
Concen: 1.584 ppbv m  
RT: 3.81 min Scan# 319  
Delta R.T. -0.01 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
AA-1

Tot Ion: 43 Resp: 215825  
Ion Ratio Lower Upper  
43 100  
58 30.8 21.7 32.5

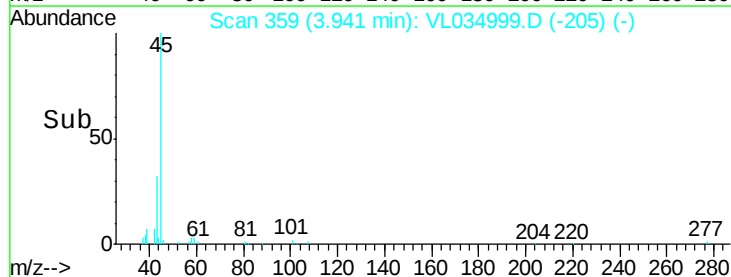
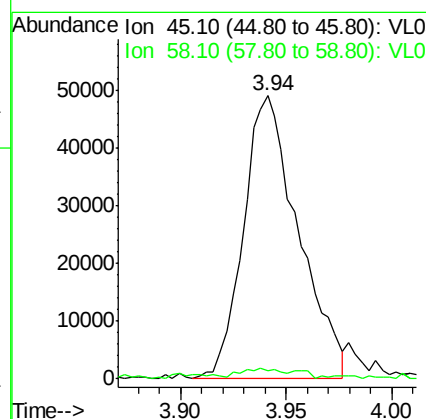
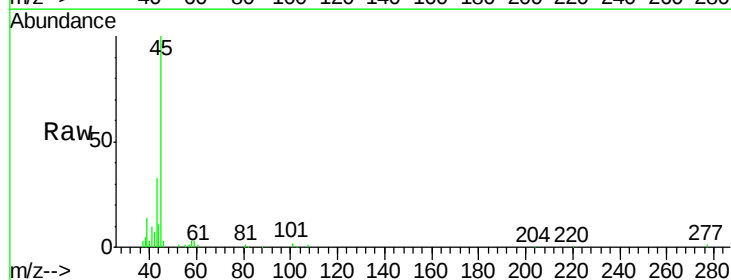
Manual Integrations  
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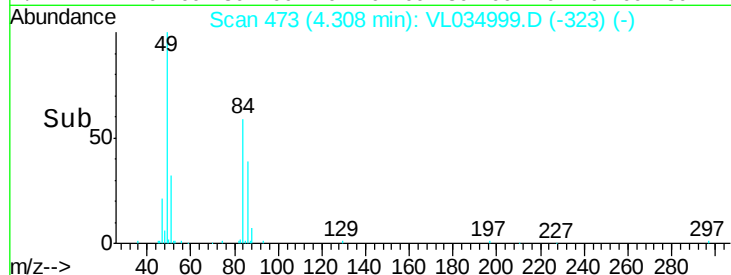
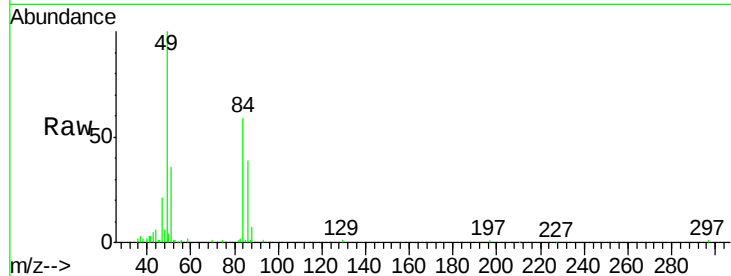
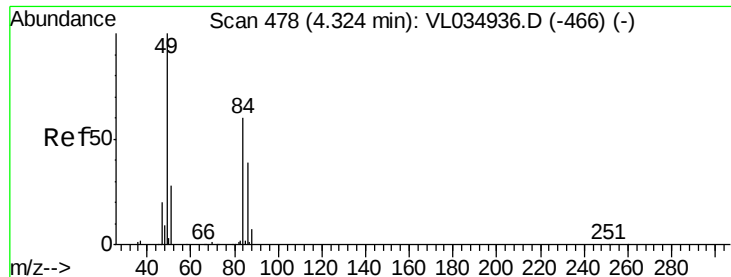
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#19  
Isopropyl Alcohol  
Concen: 0.972 ppbv  
RT: 3.94 min Scan# 359  
Delta R.T. -0.00 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Tgt Ion: 45 Resp: 88296  
Ion Ratio Lower Upper  
45 100  
58 6.0 1.7 2.5#





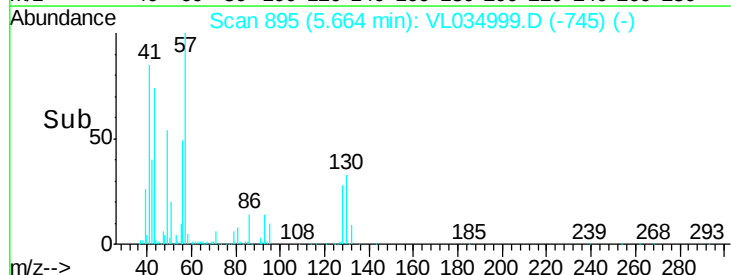
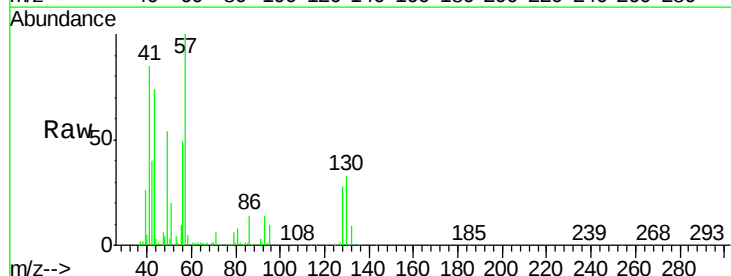
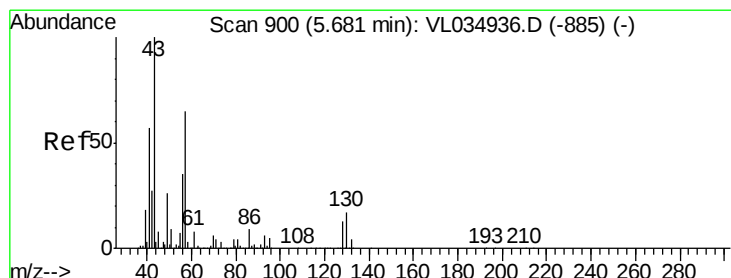
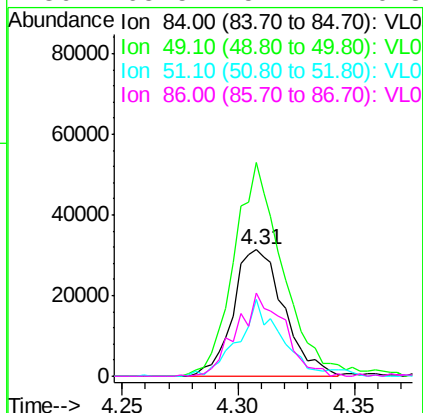
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Methvlene Chloride  
Concen: 1.061 ppbv  
RT: 4.31 min Scan# 473  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 167.1 | 132.5 | 198.7 |
| 51      | 59.3  | 38.4  | 57.6# |
| 86      | 65.5  | 51.2  | 76.8  |

Instrument :  
MSVOA\_L  
ClientSampled :  
AA-1

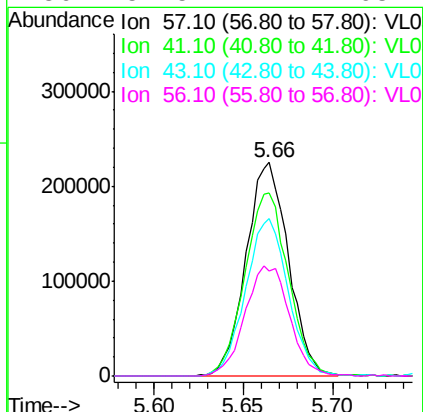
Manual Integrations  
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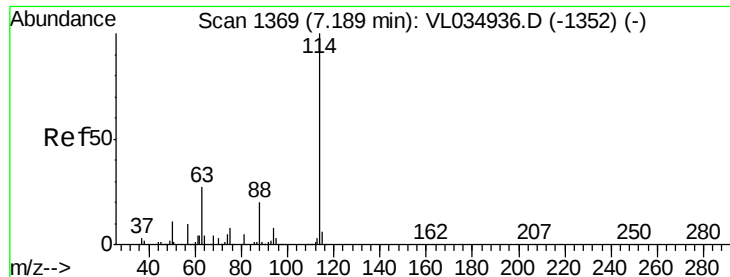
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#26  
Hexane  
Concen: 3.755 ppbv  
RT: 5.66 min Scan# 895  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 57      | 100   |       |        |
| 41      | 88.5  | 72.7  | 109.1  |
| 43      | 74.9  | 182.1 | 273.1# |
| 56      | 54.5  | 42.2  | 63.2   |





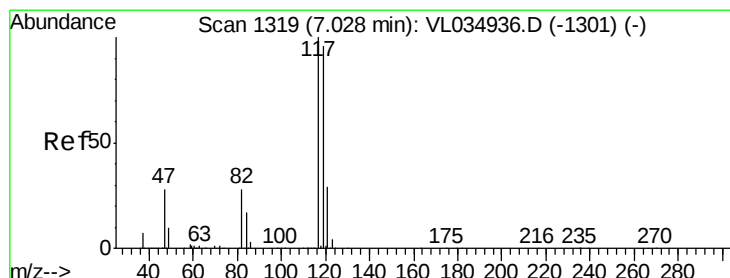
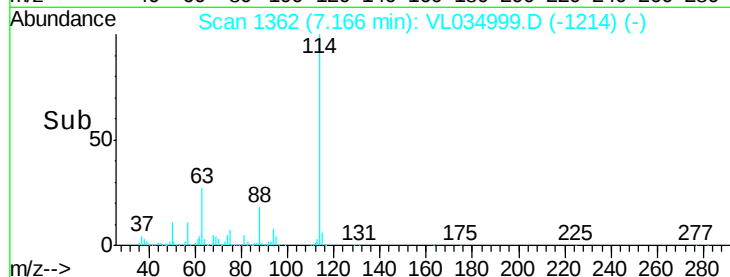
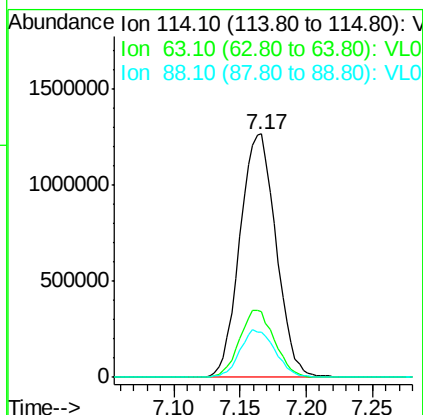
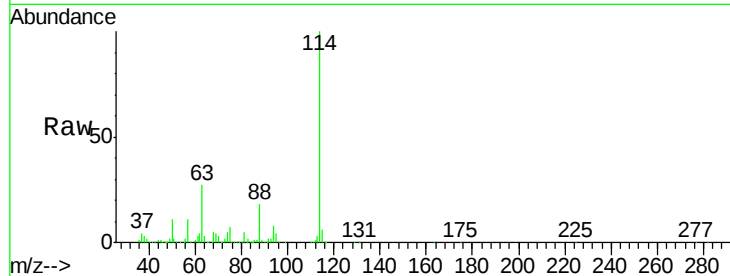
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 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.17 min Scan# 1362  
 Delta R.T. -0.02 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 AA-1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 26.9  | 22.2  | 33.4  |
| 88      | 19.1  | 15.5  | 23.3  |

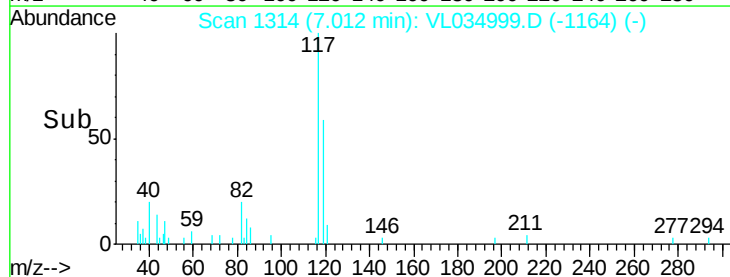
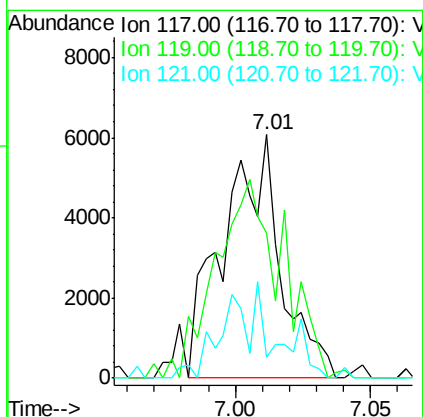
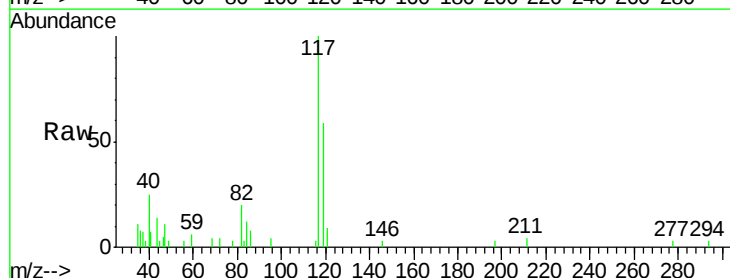
Manual Integrations  
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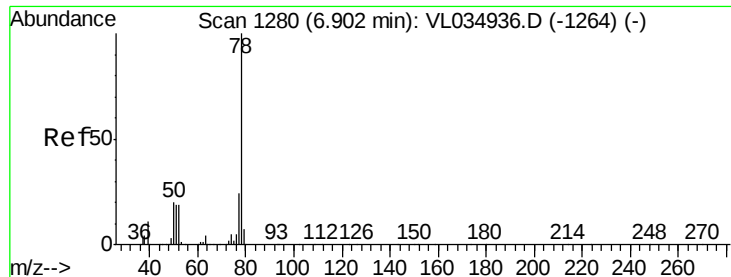
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#35  
 Carbon Tetrachloride  
 Concen: 0.059 ppbv m  
 RT: 7.01 min Scan# 1314  
 Delta R.T. -0.02 min  
 Lab File: VL034999.D  
 Acq: 12 May 2020 22:57

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 59.5  | 77.0  | 115.6# |
| 121     | 8.5   | 23.0  | 34.6#  |





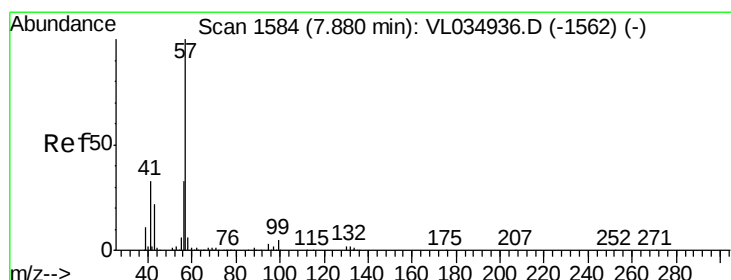
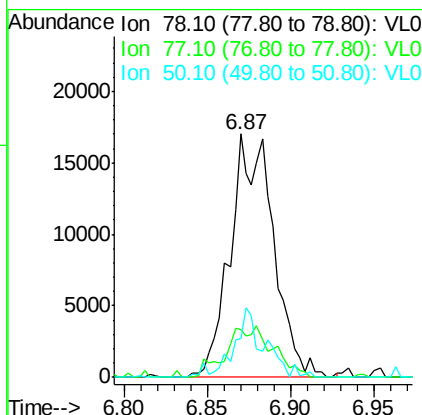
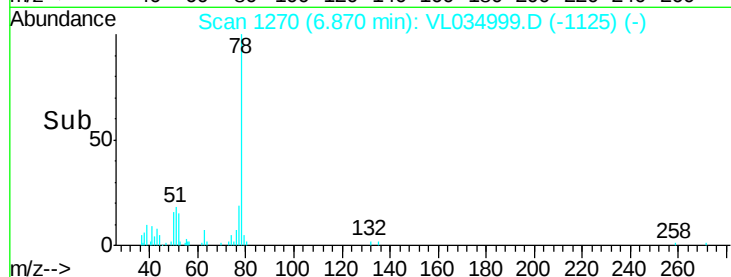
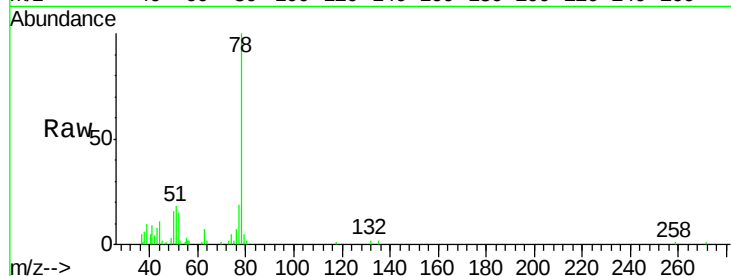
#36  
Benzene  
Concen: 0.154 ppbv m  
RT: 6.87 min Scan# 1270  
Delta R.T. -0.03 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
AA-1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 19.5  | 19.0  | 28.6  |
| 50      | 15.8  | 15.8  | 23.8# |

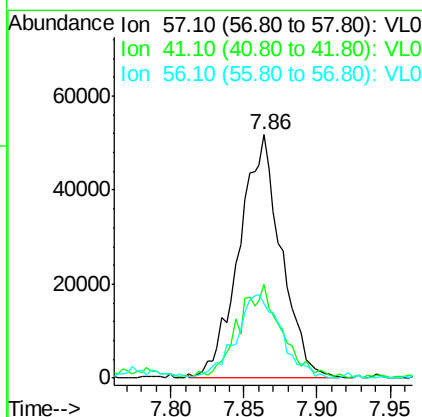
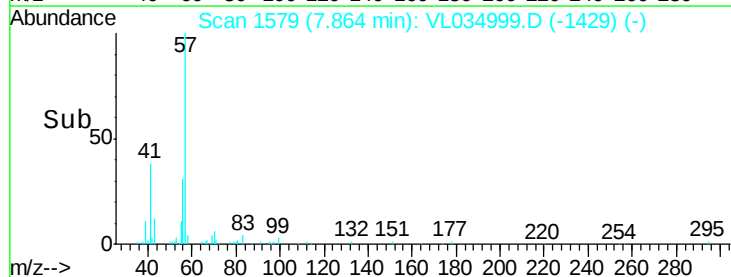
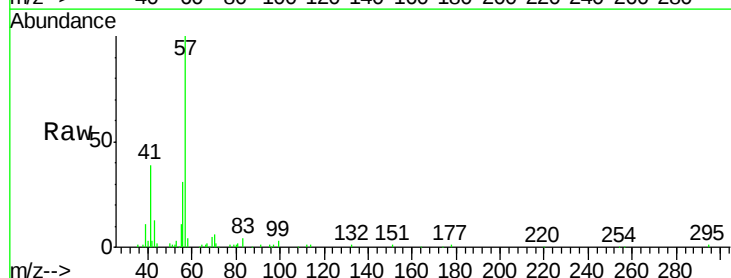
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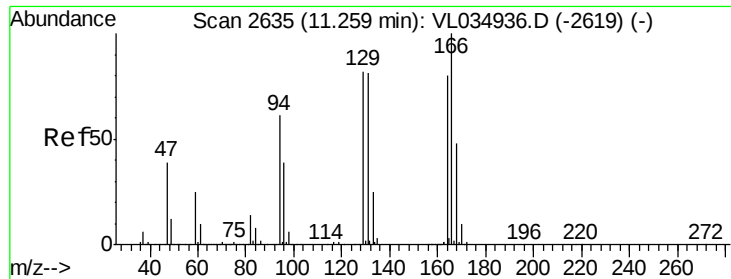
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#44  
2,2,4-Trimethylpentane  
Concen: 0.293 ppbv m  
RT: 7.86 min Scan# 1579  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 37.2  | 26.4  | 39.6  |
| 56      | 37.5  | 25.5  | 38.3  |





#52

Tetrachloroethene

Concen: 0.067 ppbv m

RT: 11.24 min Scan# 2628

Delta R.T. -0.02 min

Lab File: VL034999.D

Acq: 12 May 2020 22:57

Instrument :

MSVOA\_L

ClientSampleId :

AA-1

Tot Ion:164 Resp: 4752

Ion Ratio Lower Upper

164 100

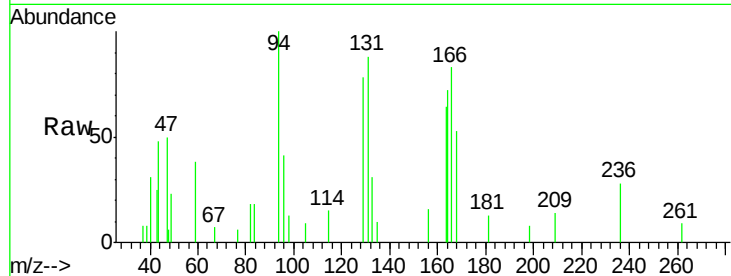
166 113.9 100.7 151.1

129 107.3 83.0 124.4

131 121.7 81.0 121.4#

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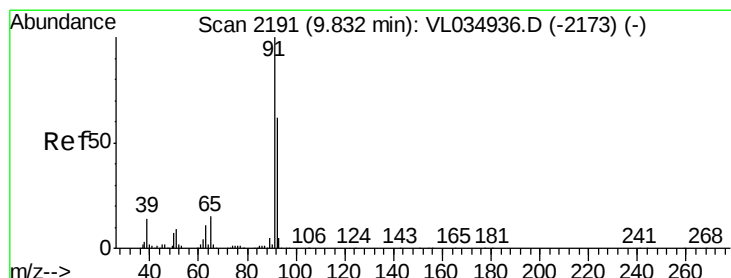
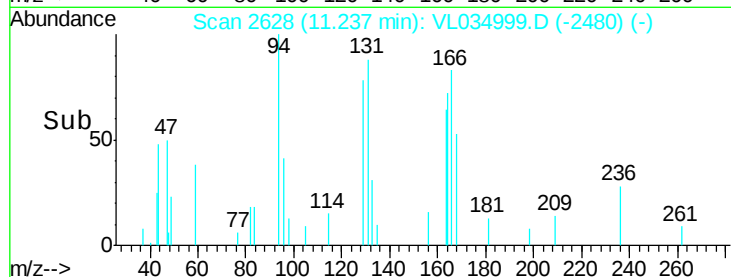
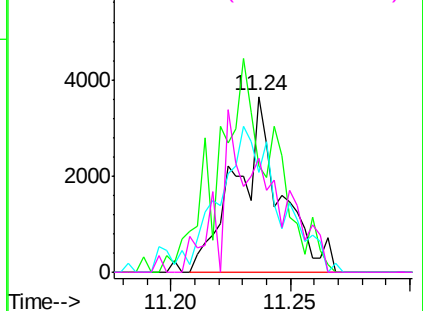


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 1.546 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.02 min

Lab File: VL034999.D

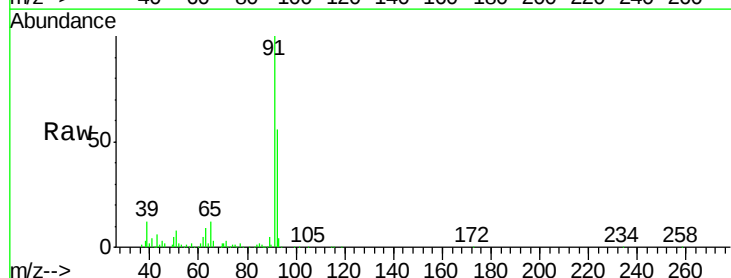
Acq: 12 May 2020 22:57

Tgt Ion: 91 Resp: 324825

Ion Ratio Lower Upper

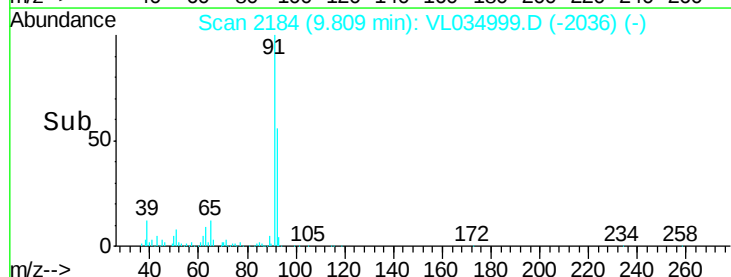
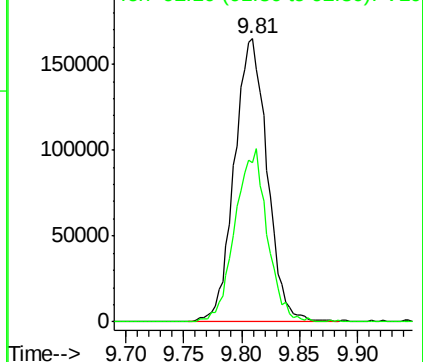
91 100

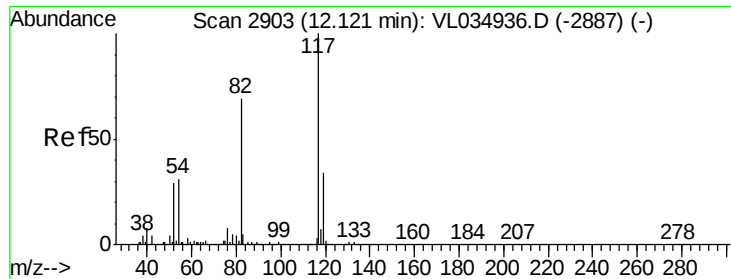
92 59.9 48.6 73.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





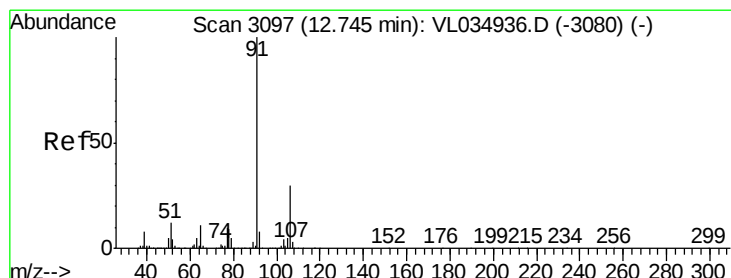
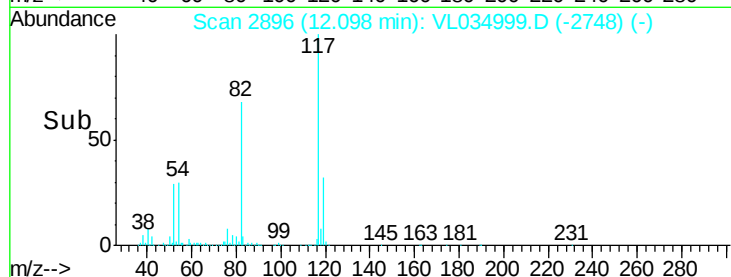
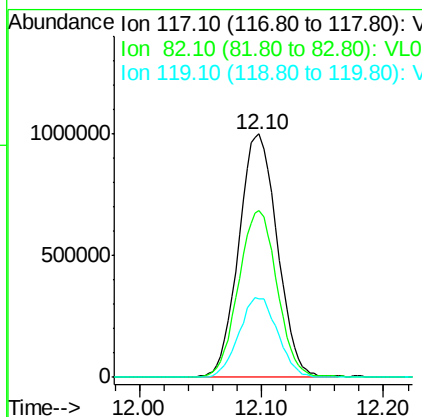
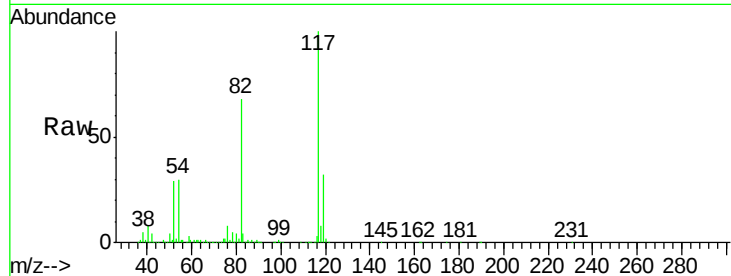
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.10 min Scan# 2896  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Instrument :  
MSVOA\_L  
ClientSampled :  
AA-1

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 68.9  | 53.1  | 79.7  |
| 119     | 33.0  | 26.7  | 40.1  |

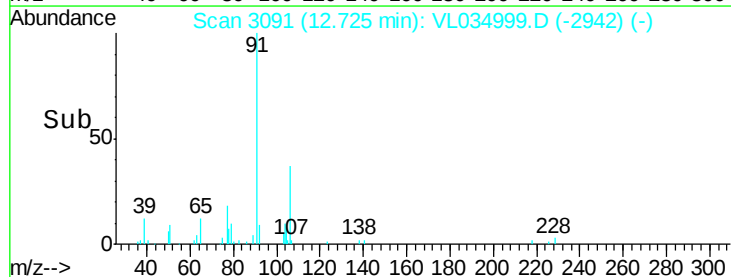
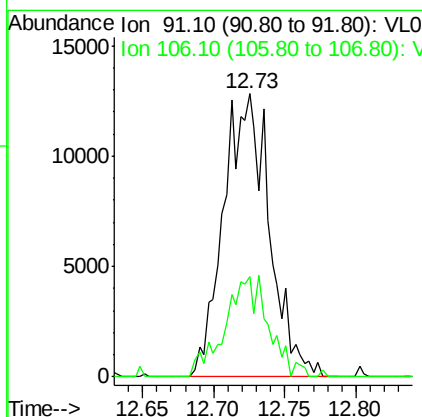
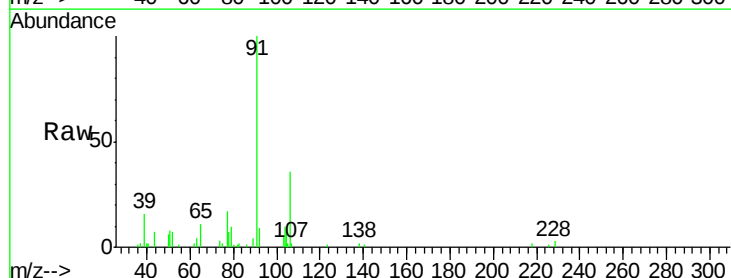
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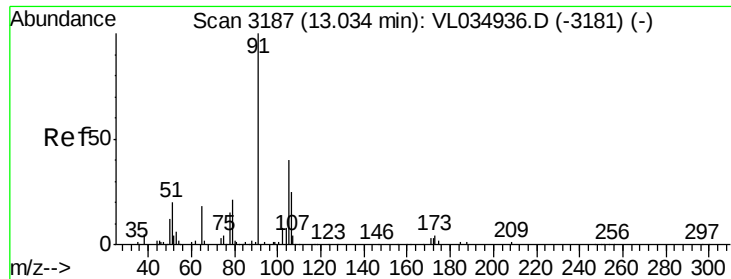
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#58  
Ethyl Benzene  
Concen: 0.106 ppbv m  
RT: 12.73 min Scan# 3091  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 35.6  | 24.2  | 36.4  |





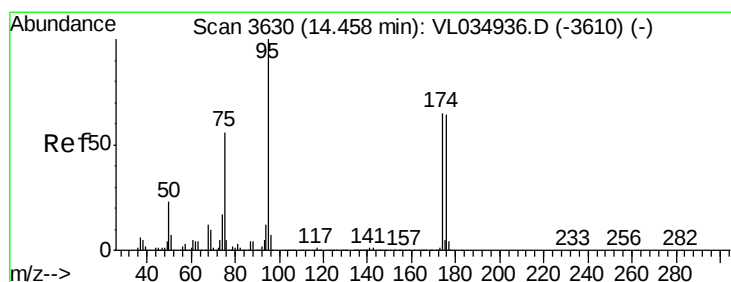
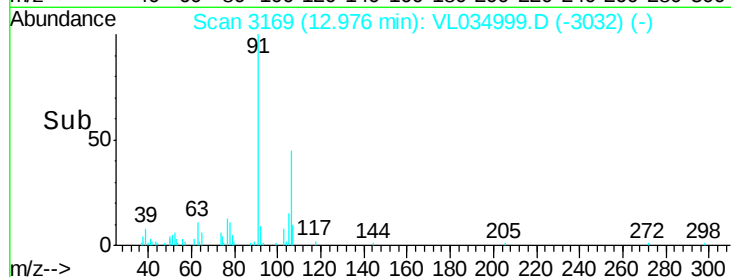
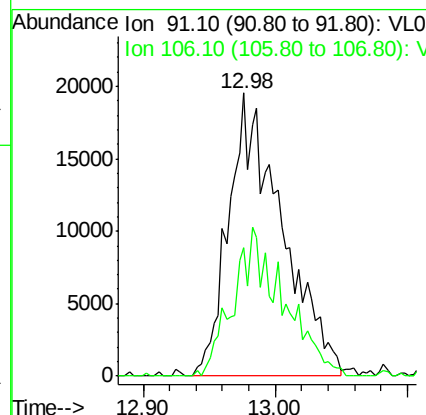
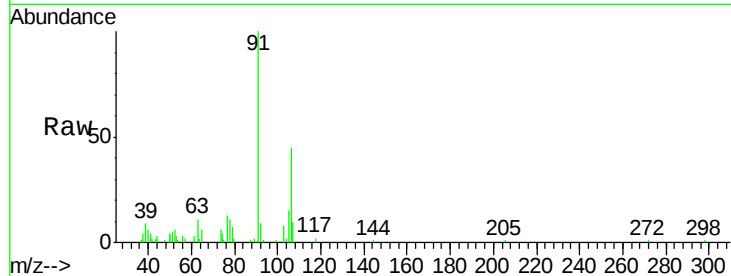
#59  
m/p-Xylene  
Concen: 0.231 ppbv m  
RT: 12.98 min Scan# 3169  
Delta R.T. -0.06 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Instrument :  
MSVOA\_L  
ClientSampleId :  
AA-1

Tot Ion: 91 Resp: 54911  
Ion Ratio Lower Upper  
91 100  
106 0.0 66.0 99.0#

Manual Integrations  
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#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.152 ppbv  
RT: 14.44 min Scan# 3623  
Delta R.T. -0.02 min  
Lab File: VL034999.D  
Acq: 12 May 2020 22:57

Tgt Ion: 95 Resp: 1795016  
Ion Ratio Lower Upper  
95 100  
174 66.3 51.5 77.3  
175 5.1 3.8 5.8

