

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101719\  
 Data File : VL034336.D  
 Acq On : 18 Oct 2019 9:19  
 Operator : SY/AP  
 Sample : VIBLK  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VIBLK

Manual Integrations  
 APPROVED

MMDadoda  
 10/22/2019 2:56:23 PM

Quant Time: Oct 20 19:25:30 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 18 2019  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 803053   | 10.00 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 7.20  | 114  | 1690689  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.14 | 117  | 1726532  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.48  | 95    | 1408232  | 9.63     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.30% |

## Target Compounds

|                              | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane     | 2.96  | 51   | 9373     | 0.100 | ppbv   | 98     |
| 4) Chloromethane             | 3.12  | 50   | 6001     | 0.108 | ppbv   | 91     |
| 9) Propene                   | 2.98  | 41   | 9224m    | 0.221 | ppbv   |        |
| 14) Bromoethene              | 3.73  | 108  | 3933m    | 0.116 | ppbv   |        |
| 15) Acetone                  | 3.85  | 43   | 58976    | 0.513 | ppbv   | 92     |
| 16) 1,3-Butadiene            | 3.31  | 39   | 8111m    | 0.174 | ppbv   |        |
| 17) tert-Butyl alcohol       | 4.32  | 59   | 9086m    | 0.124 | ppbv   |        |
| 18) 1,1-Dichloroethene       | 4.28  | 96   | 3638     | 0.096 | ppbv # | 68     |
| 19) Isopropyl Alcohol        | 3.98  | 45   | 8624m    | 0.135 | ppbv   |        |
| 20) Methylene Chloride       | 4.34  | 84   | 10471    | 0.252 | ppbv # | 92     |
| 22) trans-1,2-Dichloroethene | 4.89  | 96   | 4778m    | 0.127 | ppbv   |        |
| 23) Vinyl Acetate            | 5.08  | 43   | 15924    | 0.111 | ppbv # | 85     |
| 24) 1,1-Dichloroethane       | 5.01  | 63   | 10678m   | 0.100 | ppbv   |        |
| 25) Ethyl Acetate            | 5.70  | 43   | 22440m   | 0.116 | ppbv   |        |
| 26) Hexane                   | 5.70  | 57   | 10304    | 0.125 | ppbv   | 91     |
| 28) Methyl tert-Butyl Ether  | 5.06  | 73   | 12441m   | 0.099 | ppbv   |        |
| 29) Chloroform               | 5.77  | 83   | 13655m   | 0.104 | ppbv   |        |
| 30) Cyclohexane              | 7.18  | 84   | 8040m    | 0.132 | ppbv   |        |
| 31) cis-1,2-Dichloroethene   | 5.56  | 61   | 8266m    | 0.099 | ppbv   |        |
| 32) 1,1,1-Trichloroethane    | 6.53  | 97   | 10144    | 0.080 | ppbv # | 87     |
| 34) 2-Butanone               | 5.27  | 43   | 16659m   | 0.121 | ppbv   |        |
| 35) Carbon Tetrachloride     | 7.05  | 117  | 9590     | 0.065 | ppbv # | 75     |
| 36) Benzene                  | 6.92  | 78   | 15452    | 0.095 | ppbv # | 78     |
| 38) Trichloroethene          | 7.87  | 130  | 6671m    | 0.102 | ppbv   |        |
| 52) Tetrachloroethene        | 11.27 | 164  | 18503m   | 0.291 | ppbv   |        |
| 59) m/p-Xylene               | 13.02 | 91   | 34631m   | 0.166 | ppbv   |        |
| 70) n-Butylbenzene           | 18.63 | 91   | 23216    | 0.076 | ppbv   | 93     |
| 71) 2-Chlorotoluene          | 15.52 | 91   | 17191m   | 0.081 | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene   | 16.83 | 105  | 20877m   | 0.086 | ppbv   |        |
| 75) 1,3-Dichlorobenzene      | 17.07 | 146  | 14113m   | 0.097 | ppbv   |        |
| 76) 1,4-Dichlorobenzene      | 17.21 | 146  | 13470m   | 0.095 | ppbv   |        |
| 77) 1,2-Dichlorobenzene      | 17.89 | 146  | 13771m   | 0.097 | ppbv   |        |
| 78) Hexachloro-1,3-Butadiene | 23.45 | 225  | 9925m    | 0.084 | ppbv   |        |
| 79) Naphthalene              | 22.30 | 128  | 15848m   | 0.090 | ppbv   |        |
| 80) Naphthalene,2-methyl-    | 25.05 | 142  | 5892     | 0.115 | ppbv   | 98     |
| 81) 1,2,4-Trichlorobenzene   | 22.04 | 180  | 12525m   | 0.109 | ppbv   |        |

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

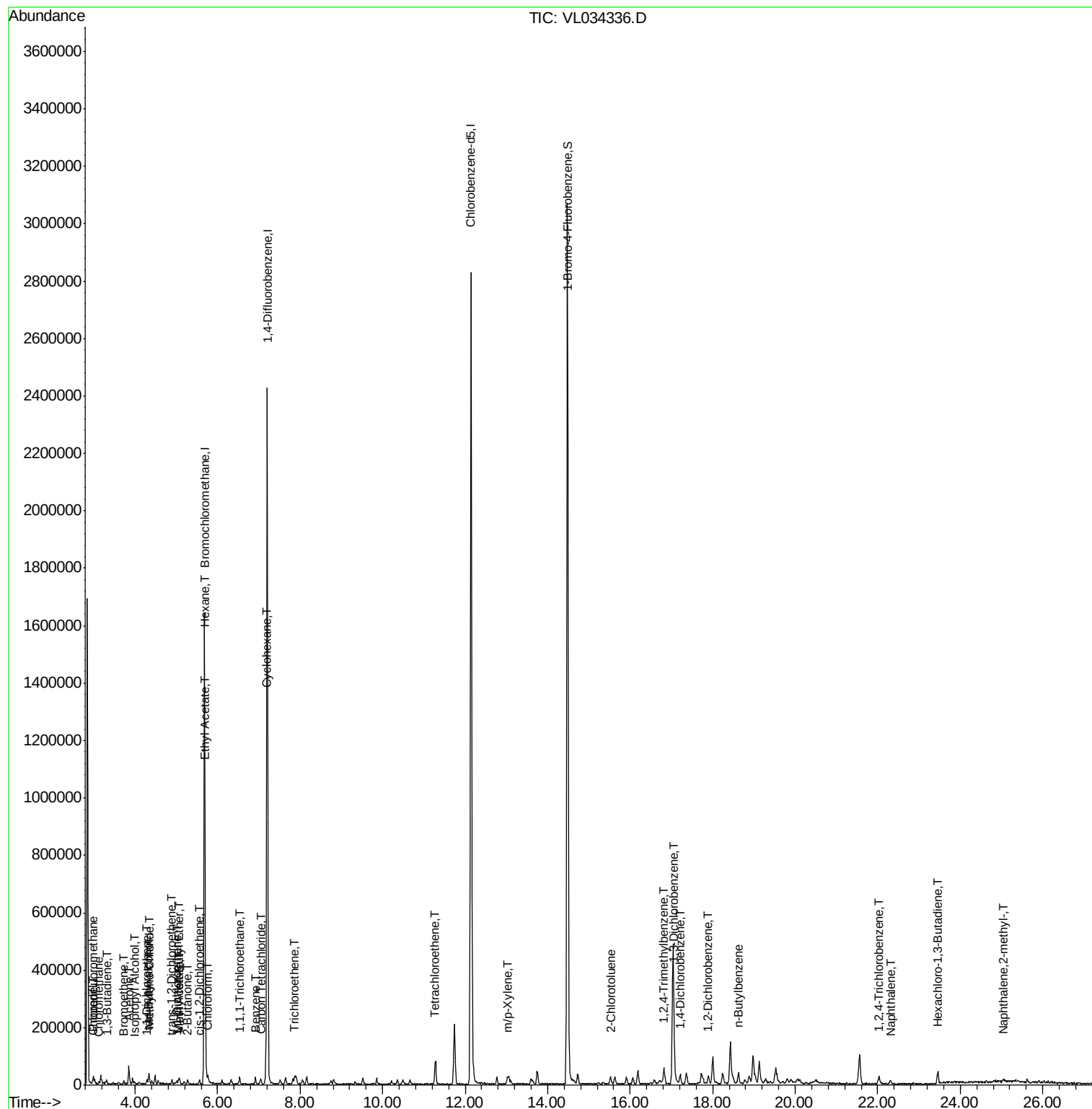
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101719\  
Data File : VL034336.D  
Acq On : 18 Oct 2019 9:19  
Operator : SY/AP  
Sample : VIBLK  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

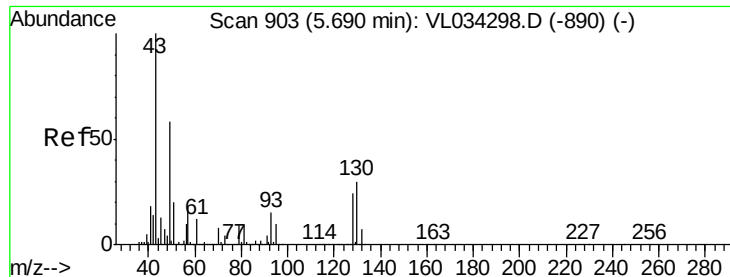
Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

Manual Integrations  
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10/22/2019 2:56:23 PM

Quant Time: Oct 20 19:25:30 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101619AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct  
QLast Update : Thu Oct 17 05:12:37 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

ClientSampled :

VIBLK

Tot Ion: 49 Resp: 803053  
Ion Ratio Lower Upper

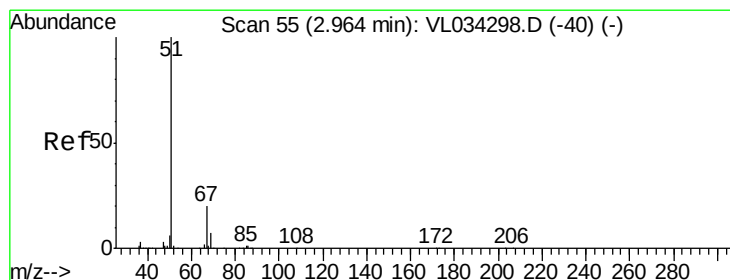
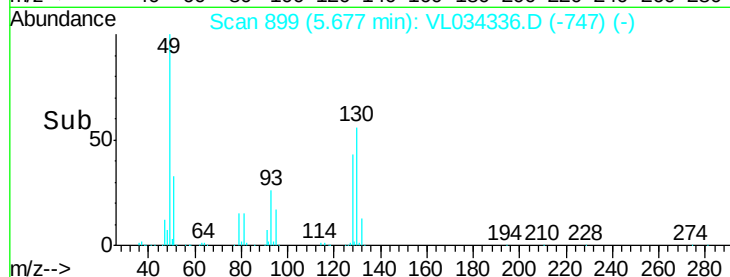
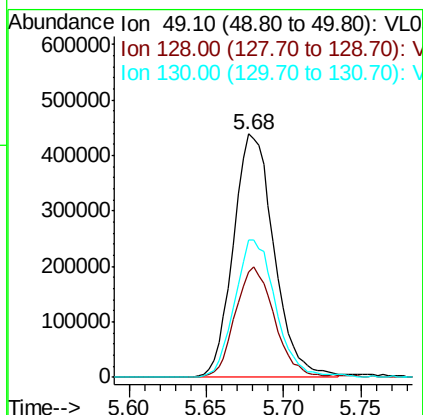
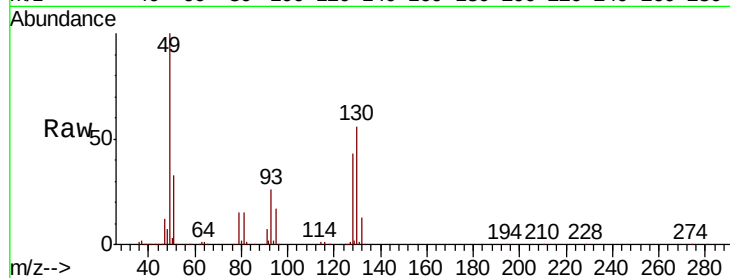
49 100

128 44.5 20.6 61.8

130 57.0 26.2 78.5

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#3

Chlorodifluoromethane

Concen: 0.100 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.00 min

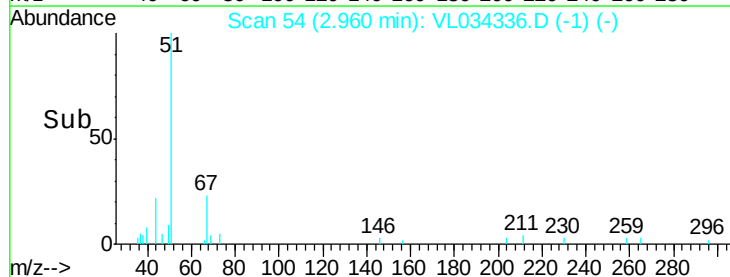
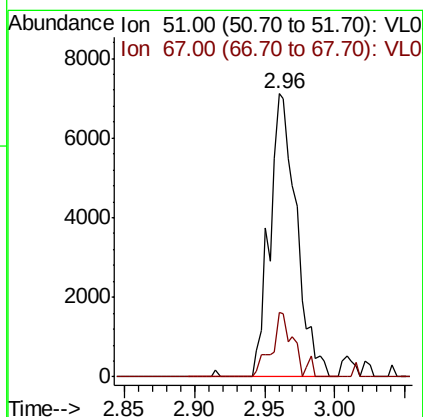
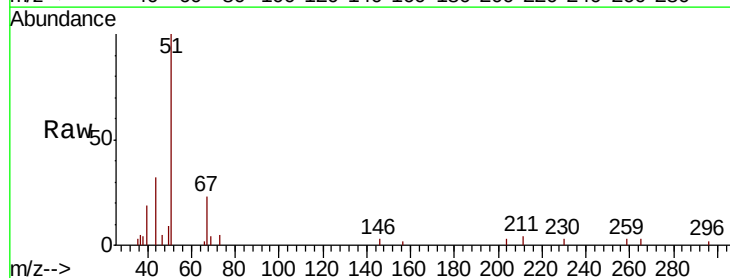
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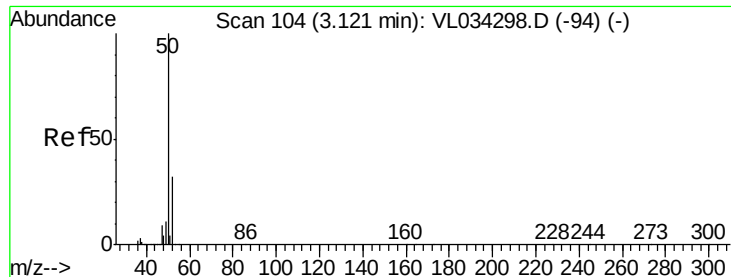
Acq: 18 Oct 2019 9:19

Tgt Ion: 51 Resp: 9373  
Ion Ratio Lower Upper

51 100

67 18.9 15.8 23.8





#4

Chloromethane

Concen: 0.108 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.00 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

ClientSampled :

VIBLK

Tot Ion: 50 Resp: 6001

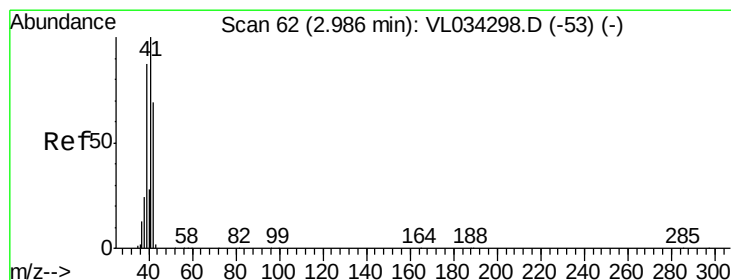
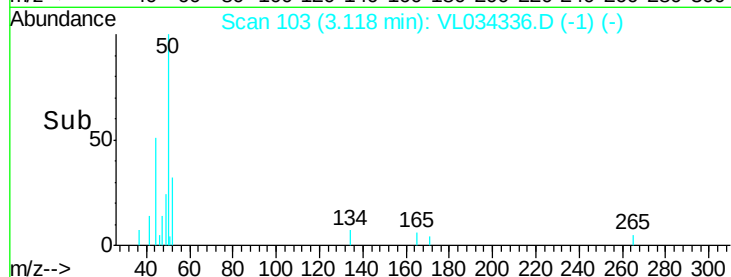
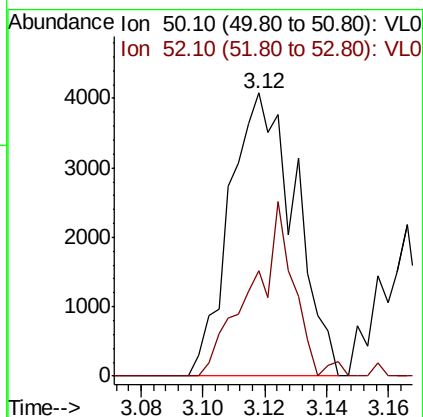
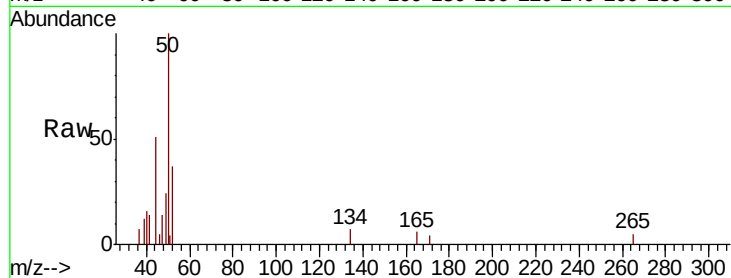
Ion Ratio Lower Upper

50 100

52 37.0 25.4 38.2

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#9

Propene

Concen: 0.221 ppbv m

RT: 2.98 min Scan# 61

Delta R.T. -0.00 min

Lab File: VL034336.D

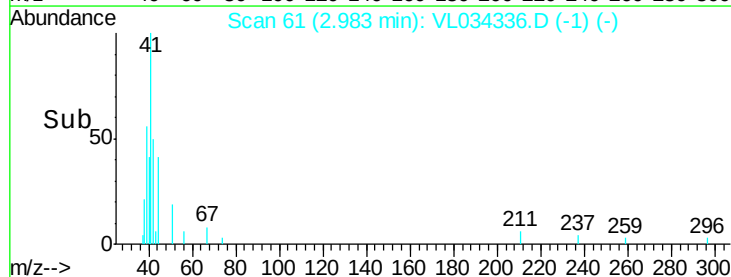
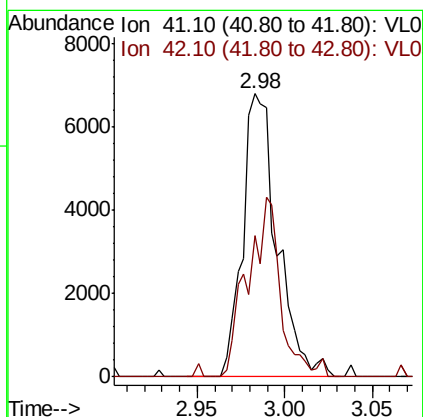
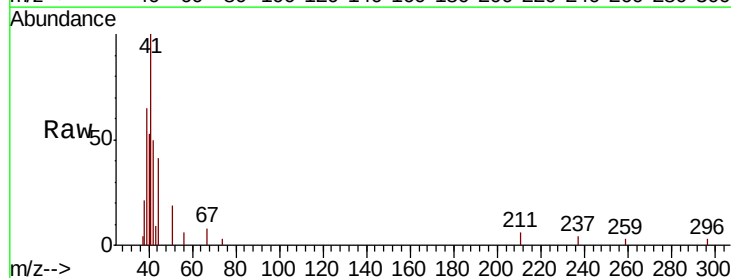
Acq: 18 Oct 2019 9:19

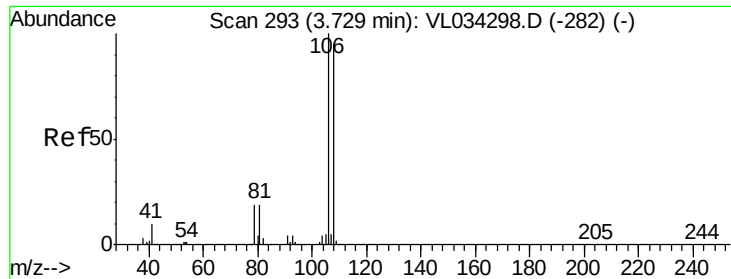
Tgt Ion: 41 Resp: 9224

Ion Ratio Lower Upper

41 100

42 5.9 53.9 80.9#





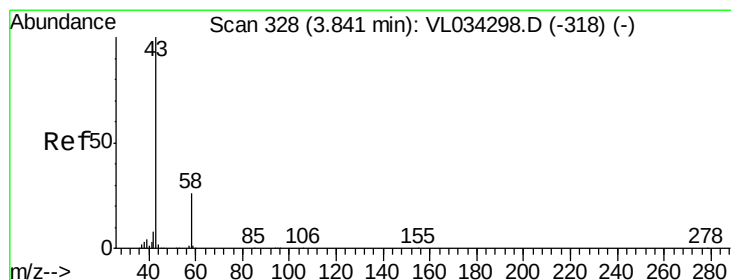
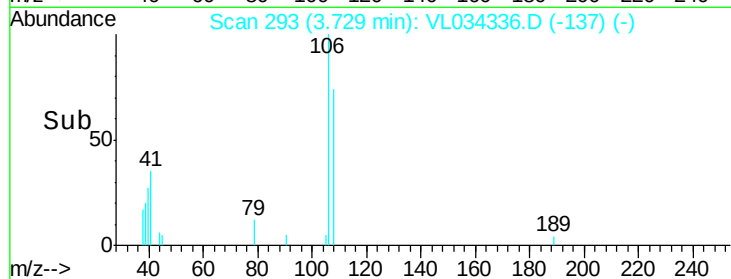
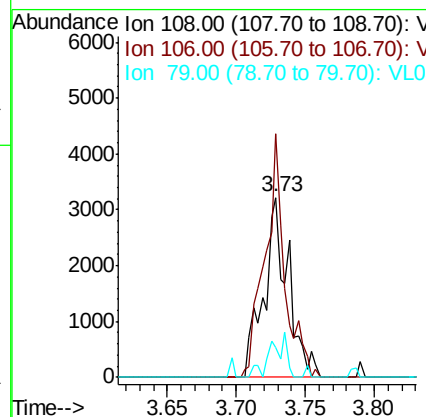
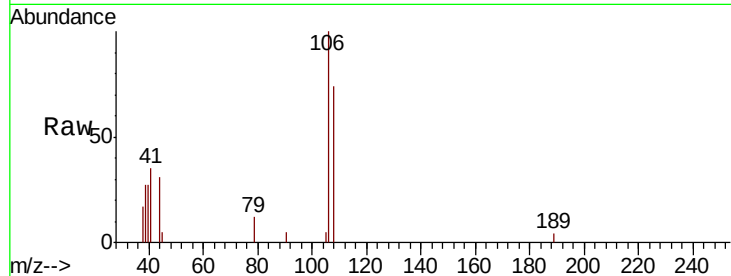
#14  
Bromoethene  
Concen: 0.116 ppbv m  
RT: 3.73 min Scan# 293  
Delta R.T. 0.00 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 108     | 100   |       |        |
| 106     | 0.0   | 84.8  | 127.2# |
| 79      | 18.7  | 17.0  | 25.4   |

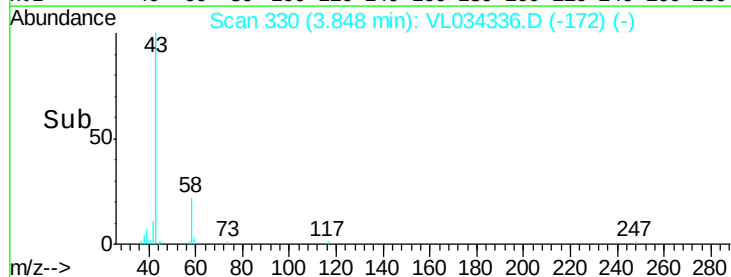
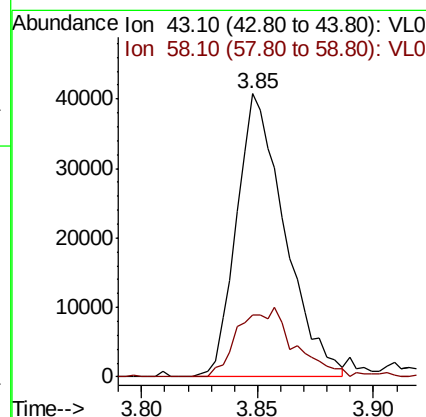
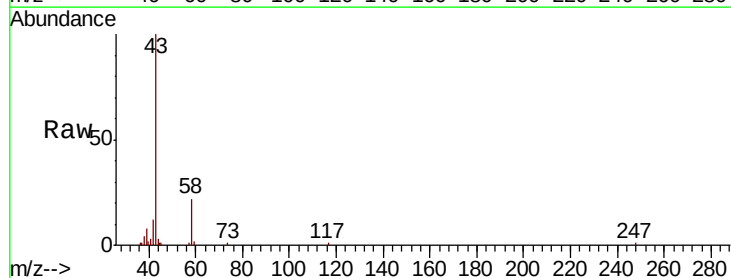
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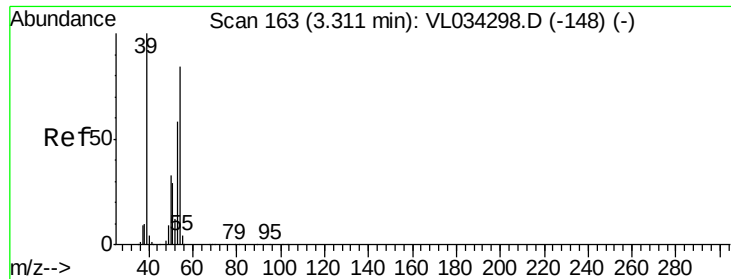
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#15  
Acetone  
Concen: 0.513 ppbv  
RT: 3.85 min Scan# 330  
Delta R.T. 0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 29.5  | 20.4  | 30.6  |





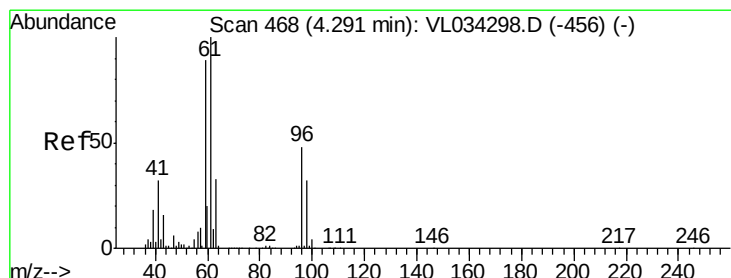
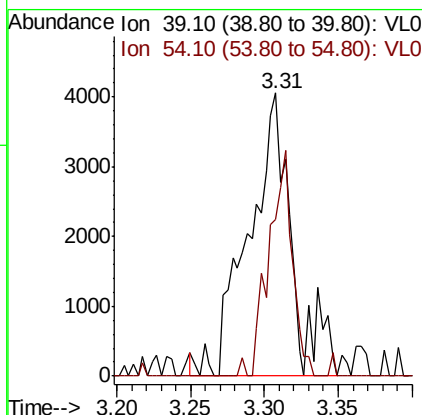
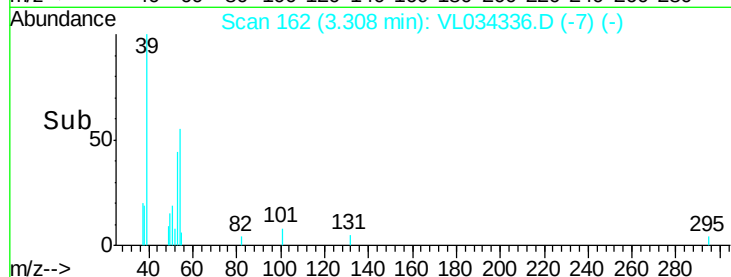
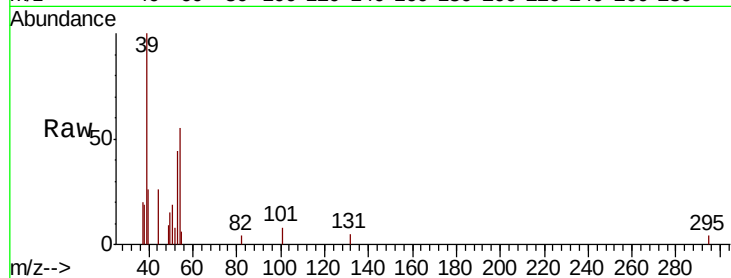
#16  
1,3-Butadiene  
Concen: 0.174 ppbv m  
RT: 3.31 min Scan# 162  
Delta R.T. -0.00 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 39      | 100   |       |       |
| 54      | 44.1  | 63.9  | 95.9# |

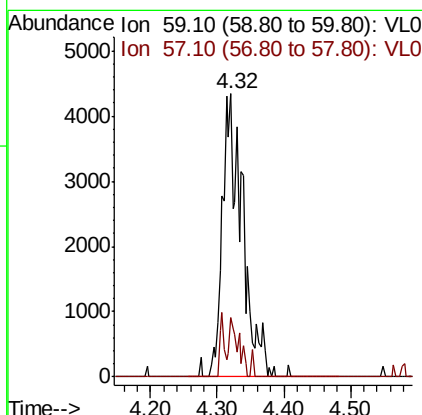
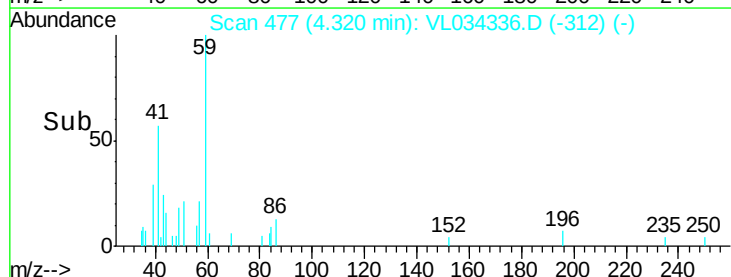
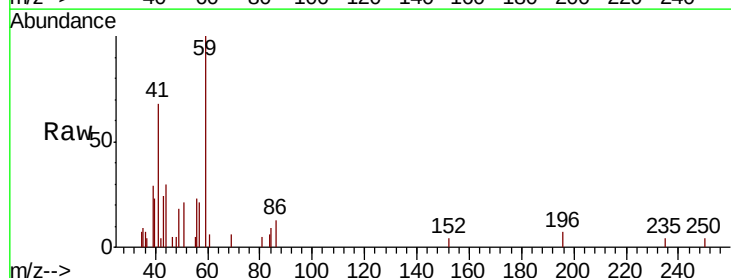
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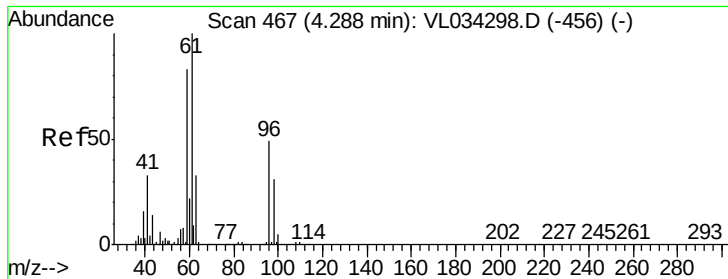
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#17  
tert-Butyl alcohol  
Concen: 0.124 ppbv m  
RT: 4.32 min Scan# 477  
Delta R.T. 0.03 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 15.7  | 8.8   | 13.2# |





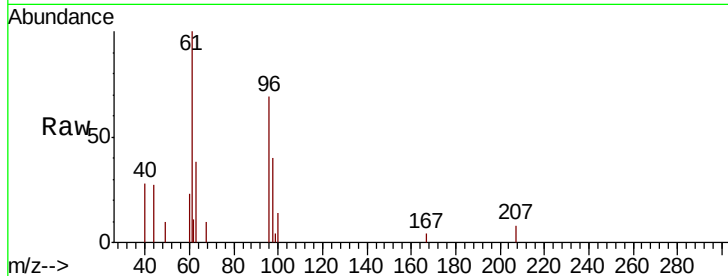
#18  
 1,1-Dichloroethene  
 Concen: 0.096 ppbv  
 RT: 4.28 min Scan# 465  
 Delta R.T. -0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VIBLK

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 96      | 100   |       |        |
| 61      | 144.3 | 164.5 | 246.7# |
| 98      | 57.6  | 51.7  | 77.5   |

Manual Integrations  
 APPROVED

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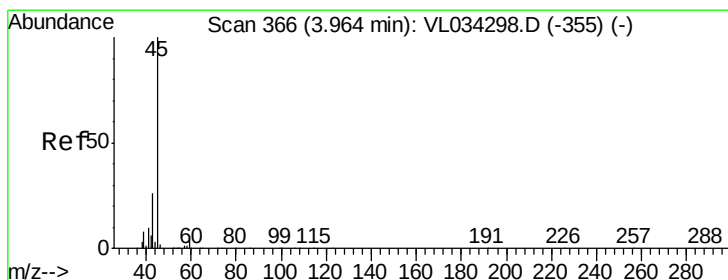
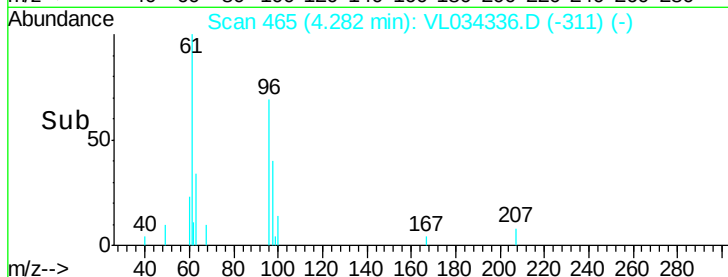
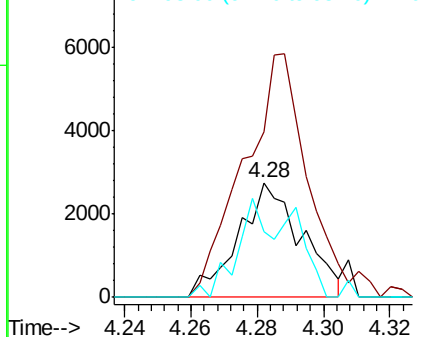


Abundance

Ion 96.00 (95.70 to 96.70): VL0

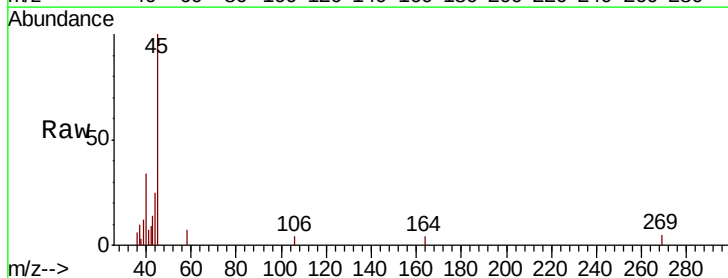
Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#19  
 Isopropyl Alcohol  
 Concen: 0.135 ppbv m  
 RT: 3.98 min Scan# 370  
 Delta R.T. 0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

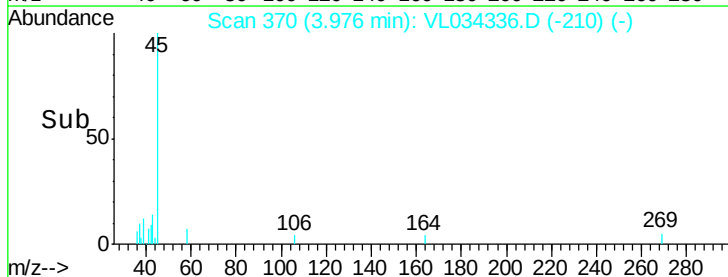
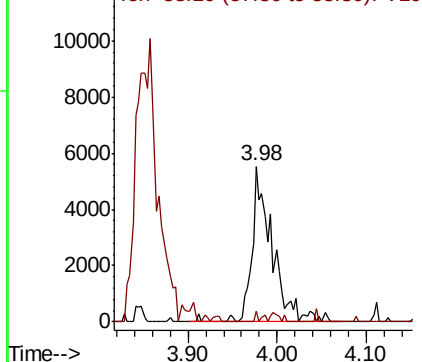
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 58      | 0.0   | 1.4   | 2.2#  |

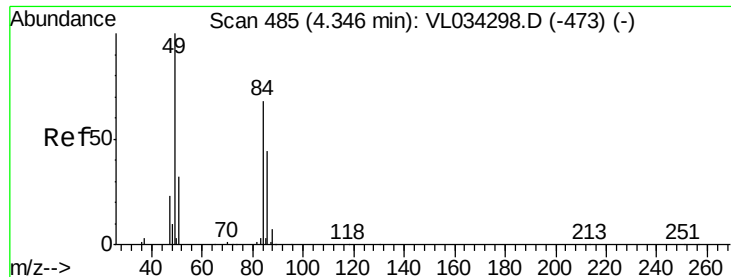


Abundance

Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





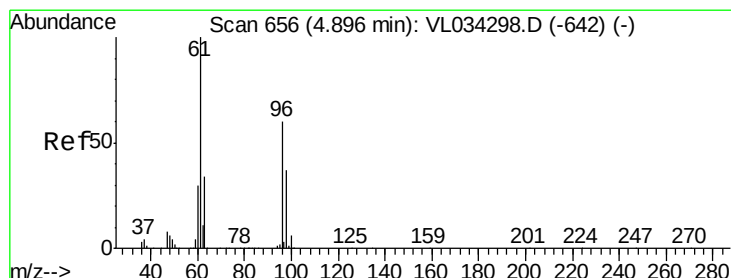
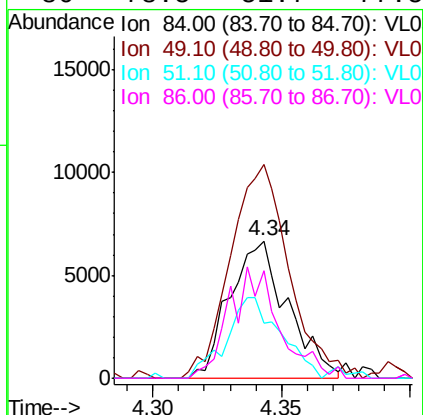
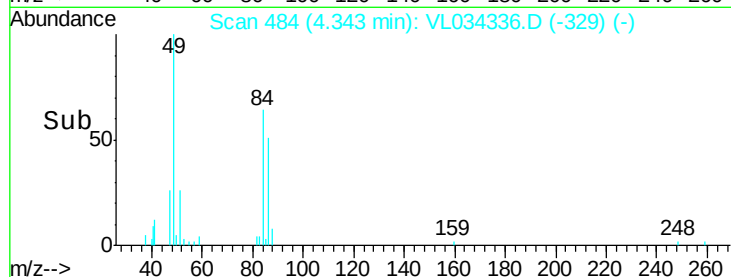
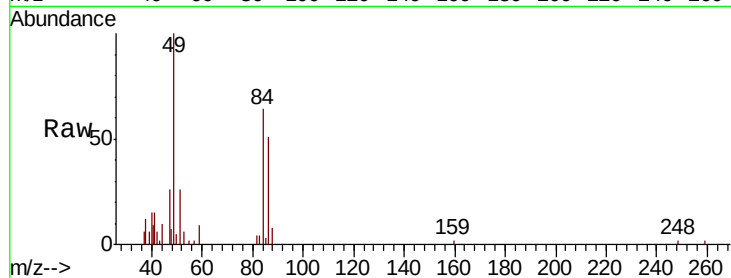
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Methylene Chloride  
Concen: 0.252 ppbv  
RT: 4.34 min Scan# 484  
Delta R.T. -0.00 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampleId :  
VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 150.7 | 118.5 | 177.7 |
| 51      | 39.9  | 38.8  | 58.2  |
| 86      | 78.5  | 51.7  | 77.5# |

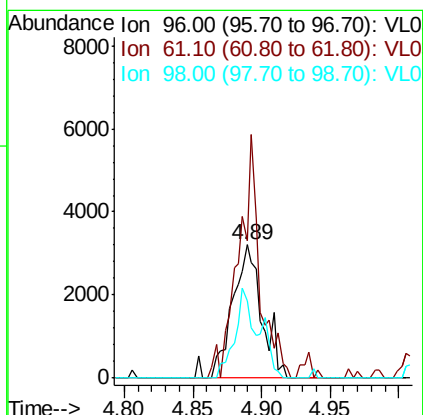
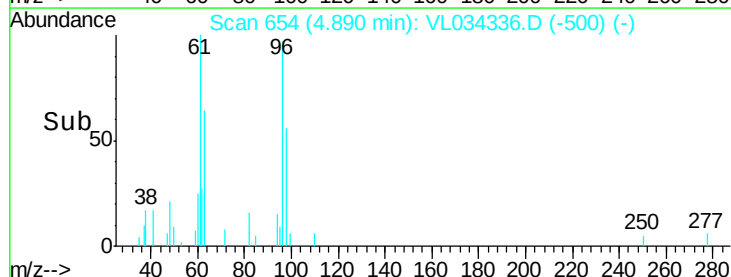
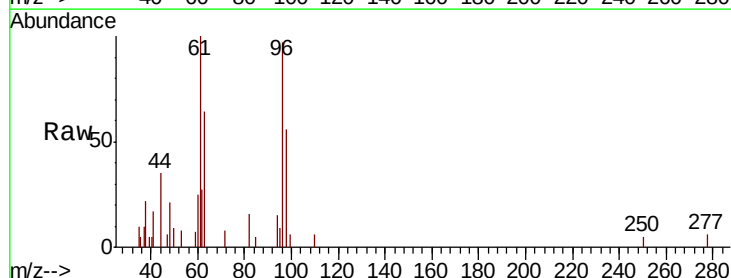
Manual Integrations  
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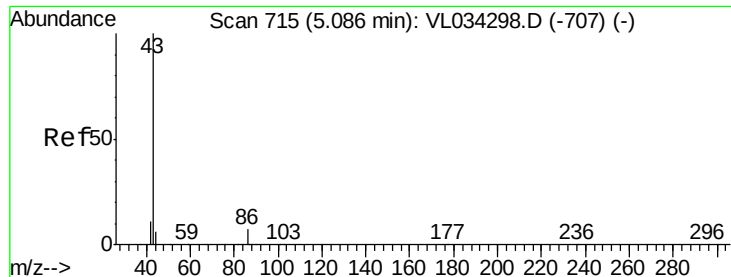


#22  
trans-1,2-Dichloroethene  
Concen: 0.127 ppbv m  
RT: 4.89 min Scan# 654  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 96      | 100   |       |        |
| 61      | 103.4 | 133.8 | 200.6# |
| 98      | 58.4  | 49.4  | 74.0   |







#23

Vinyl Acetate

Concen: 0.111 ppbv

RT: 5.08 min Scan# 714

Delta R.T. -0.00 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

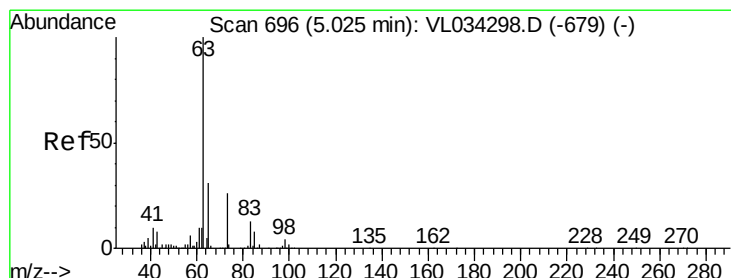
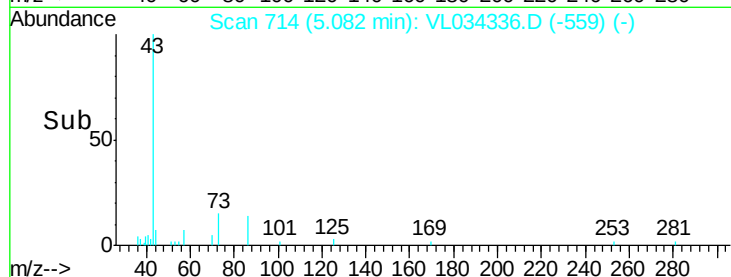
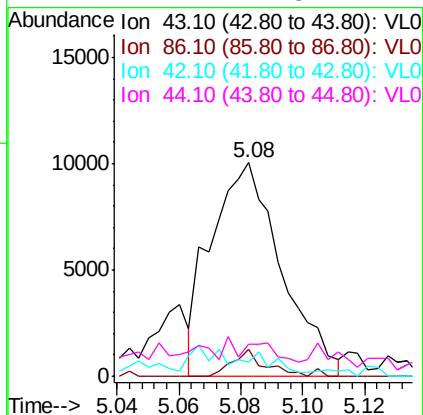
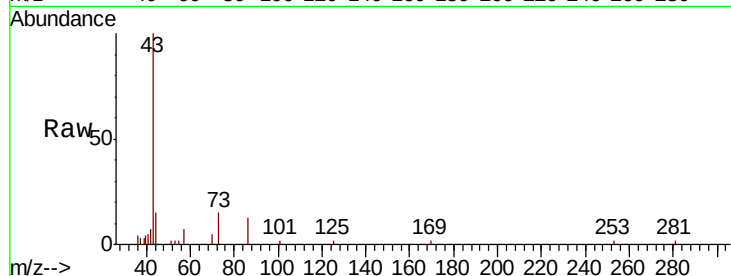
ClientSampled :

VIBLK

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 15924 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 13.9  | 5.0   | 7.4#  |
| 42       | 4.6   | 8.6   | 13.0# |
| 44       | 4.1   | 4.8   | 7.2#  |

Manual Integrations  
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#24

1,1-Dichloroethane

Concen: 0.100 ppbv m

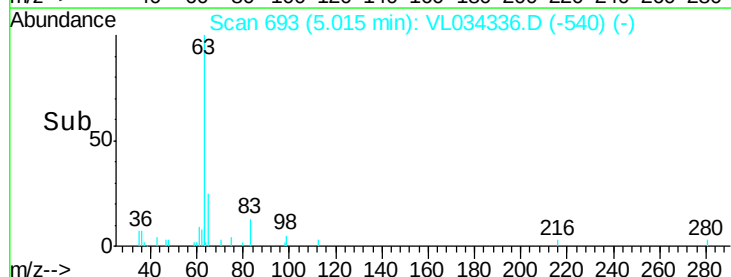
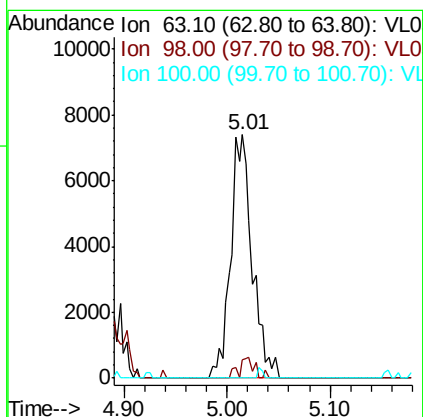
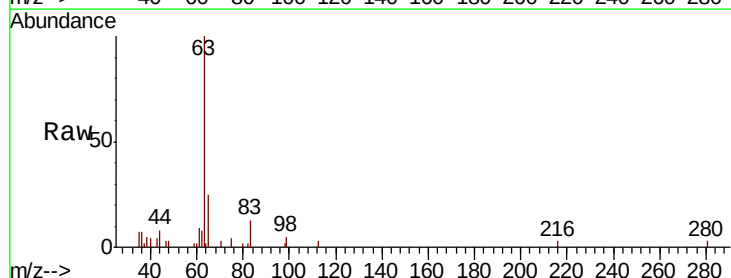
RT: 5.01 min Scan# 693

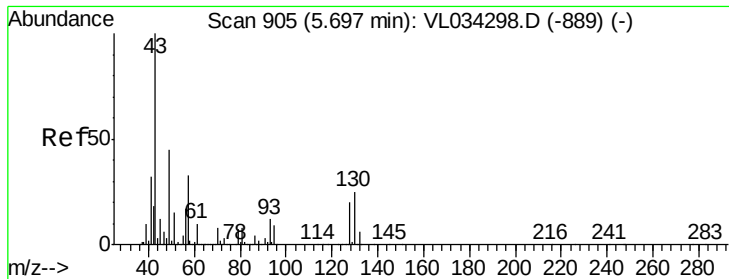
Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 10678 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 98       | 5.4   | 2.0   | 6.0   |
| 100      | 0.0   | 1.1   | 3.5#  |





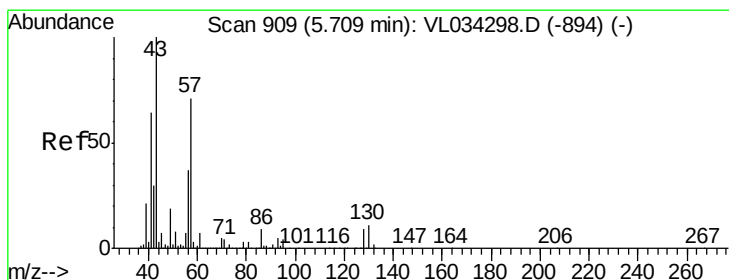
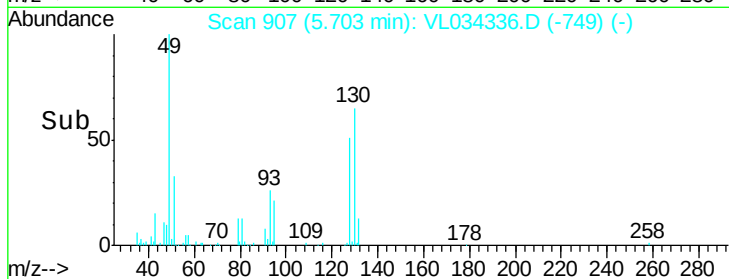
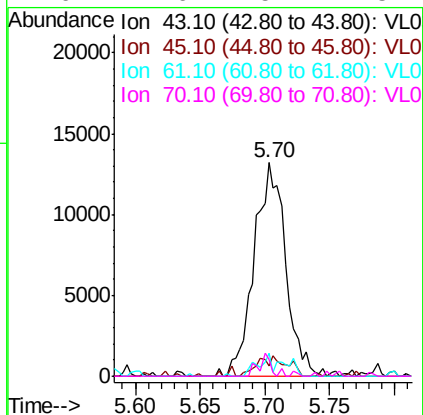
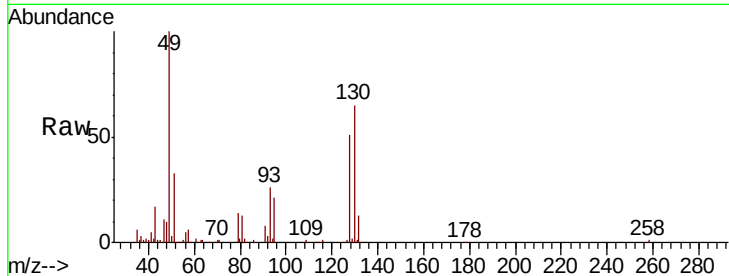
#25  
Ethyl Acetate  
Concen: 0.116 ppbv m  
RT: 5.70 min Scan# 907  
Delta R.T. 0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 9.3   | 8.3   | 12.5  |
| 61      | 8.4   | 7.7   | 11.5  |
| 70      | 4.6   | 5.4   | 8.2#  |

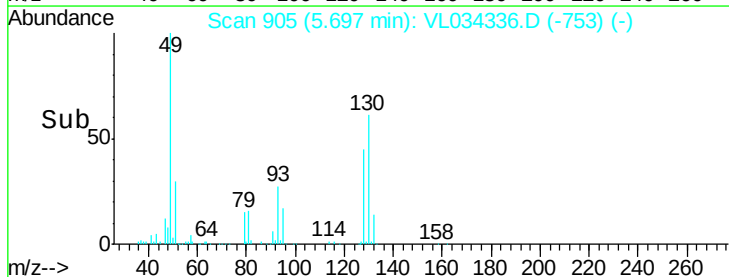
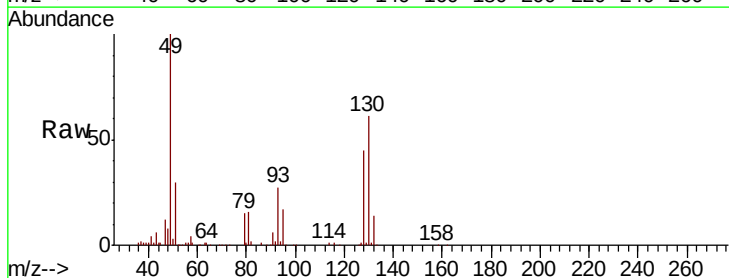
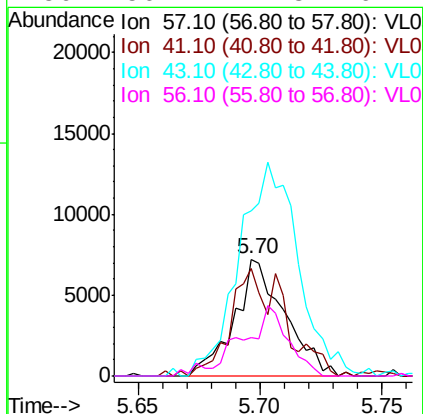
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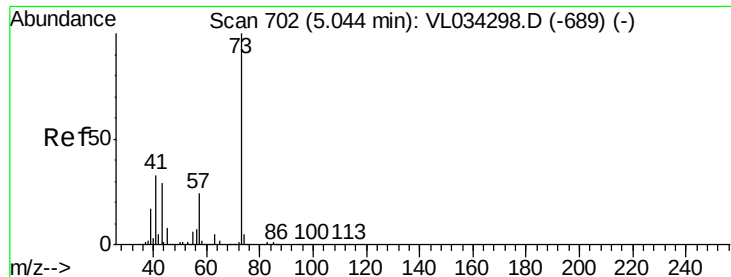
MMDadoda  
10/22/2019 2:56:23 PM



#26  
Hexane  
Concen: 0.125 ppbv  
RT: 5.70 min Scan# 905  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 102.6 | 76.5  | 114.7 |
| 43      | 216.6 | 188.5 | 282.7 |
| 56      | 56.2  | 42.8  | 64.2  |





#28

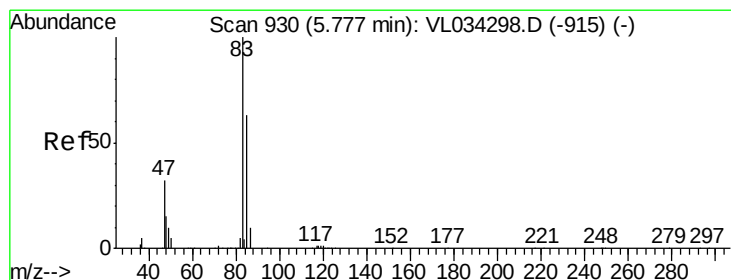
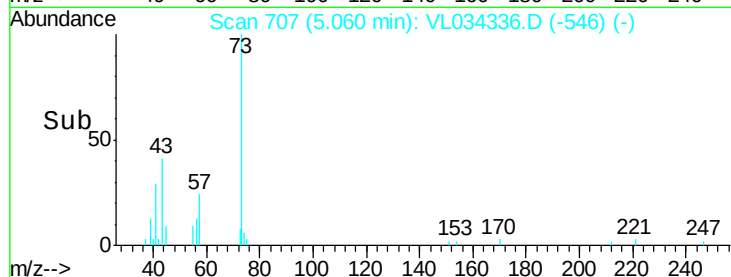
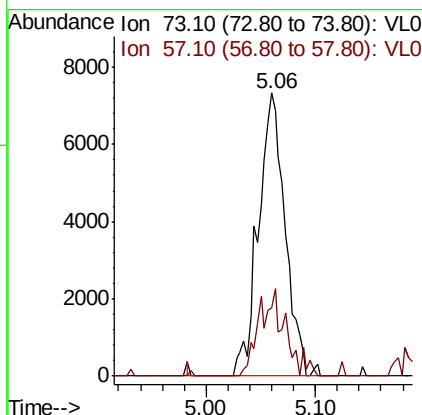
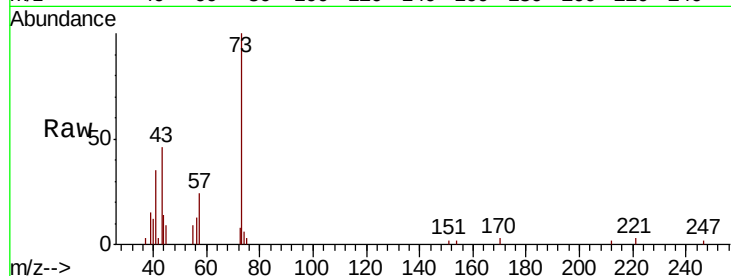
Methyl tert-Butyl Ether  
 Concen: 0.099 ppbv m  
 RT: 5.06 min Scan# 707  
 Delta R.T. 0.02 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VIBLK

| Tot Ion   | 73    | Resp  | 12441 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 73        | 100   |       |       |
| 57        | 0.0   | 19.2  | 28.8# |

Manual Integrations  
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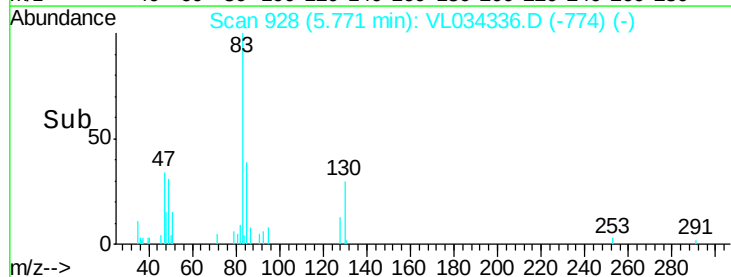
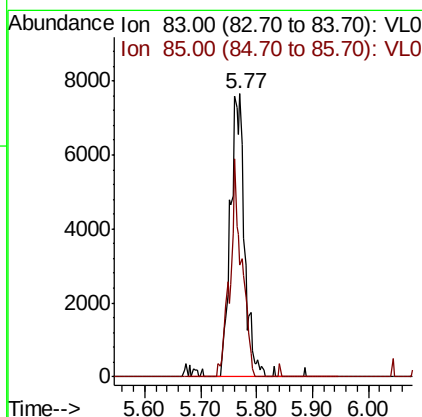
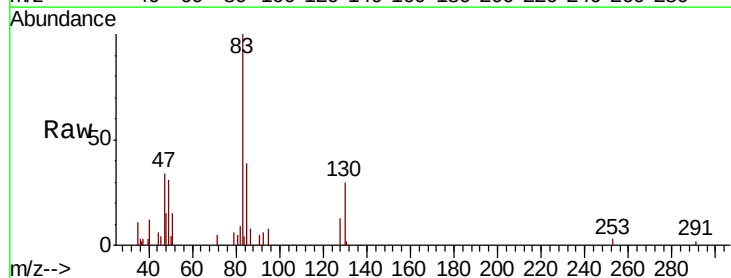
MMDadoda  
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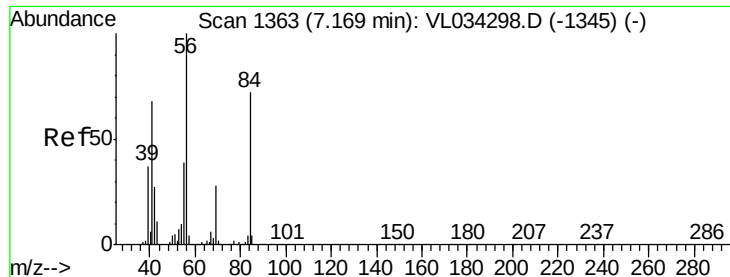


#29

Chloroform  
 Concen: 0.104 ppbv m  
 RT: 5.77 min Scan# 928  
 Delta R.T. -0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

| Tgt Ion   | 83    | Resp  | 13655 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 85        | 39.5  | 50.5  | 75.7# |





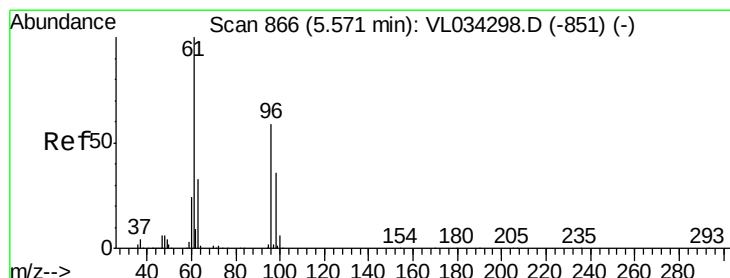
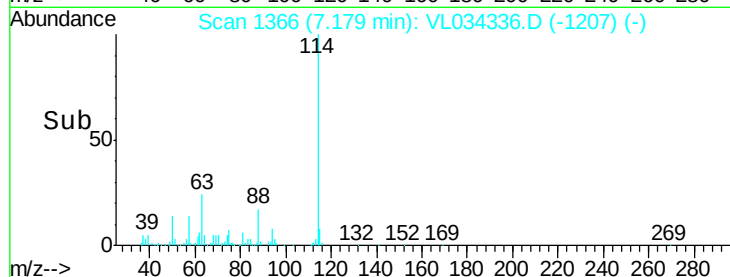
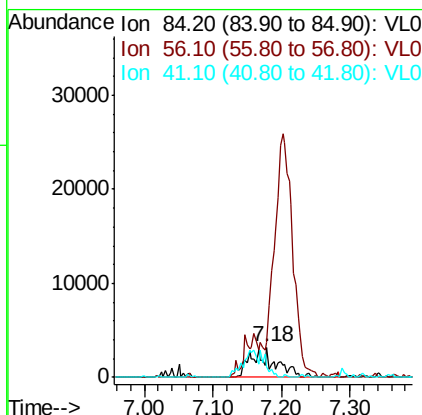
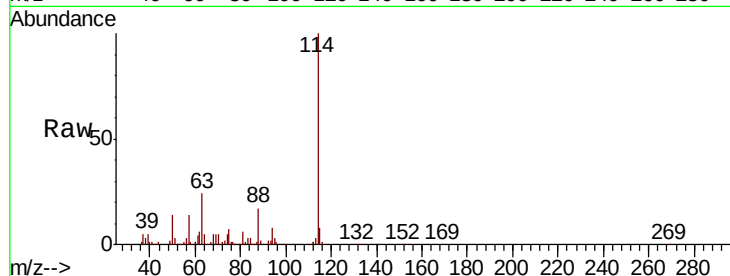
#30  
Cyclohexane  
Concen: 0.132 ppbv m  
RT: 7.18 min Scan# 1366  
Delta R.T. 0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 84      | 100   |       |        |
| 56      | 0.0   | 119.4 | 179.0# |
| 41      | 0.0   | 78.7  | 118.1# |

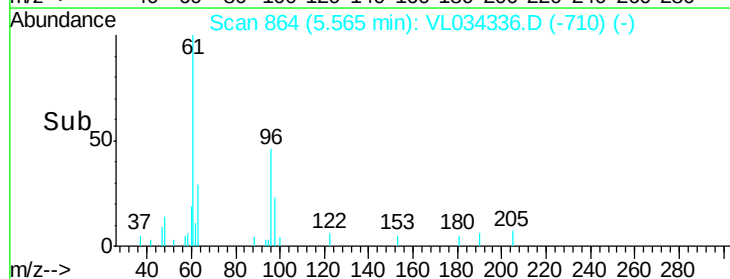
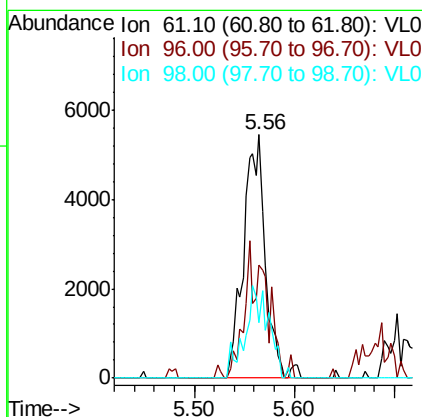
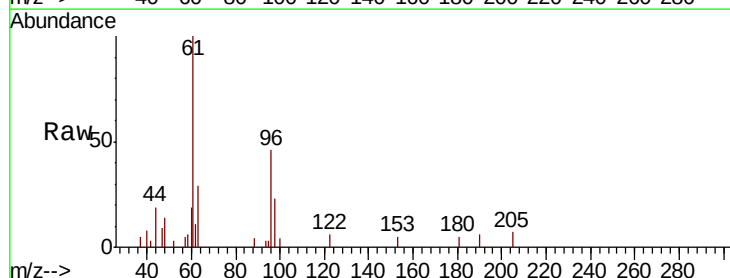
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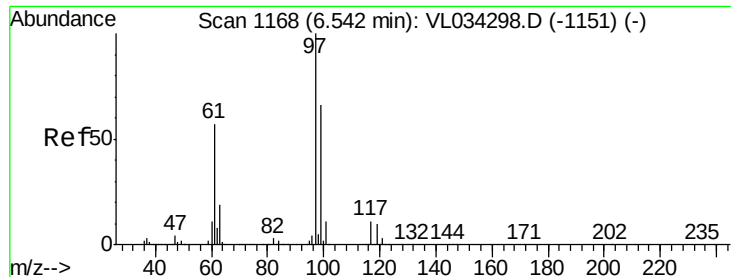
MMDadoda  
10/22/2019 2:56:23 PM



#31  
cis-1,2-Dichloroethene  
Concen: 0.099 ppbv m  
RT: 5.56 min Scan# 864  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 46.3  | 47.5  | 71.3# |
| 98      | 22.6  | 28.8  | 43.2# |





#32

1,1,1-Trichloroethane

Concen: 0.080 ppbv

RT: 6.53 min Scan# 1165

Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

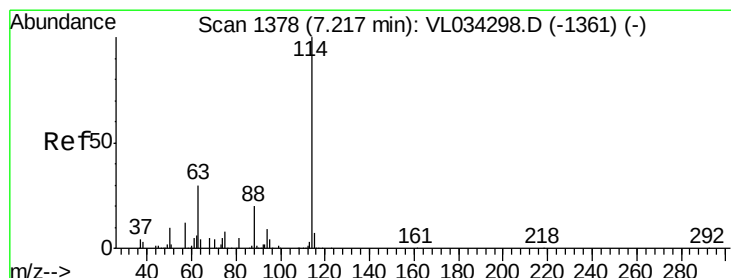
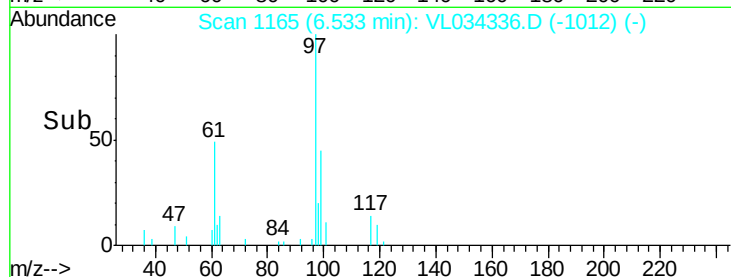
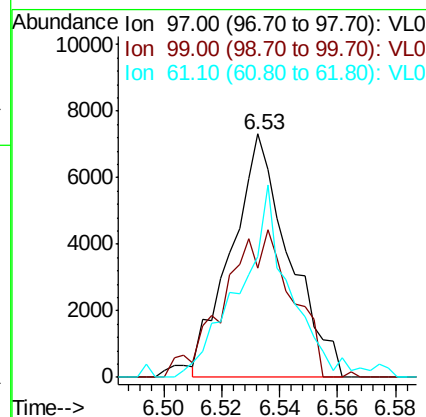
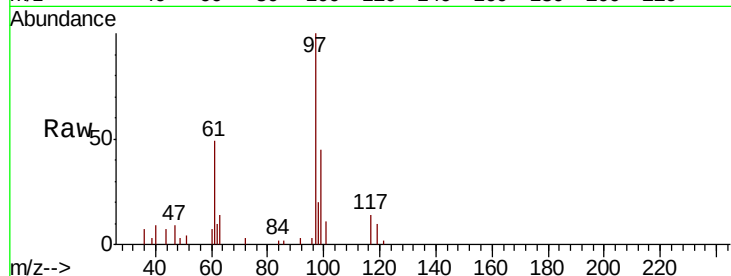
ClientSampled :

VIBLK

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 97    | Resp: | 10144 |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 71.4  | 52.6  | 78.8  |
| 61        | 70.6  | 44.5  | 66.7# |

Manual Integrations  
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10/22/2019 2:56:23 PM



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

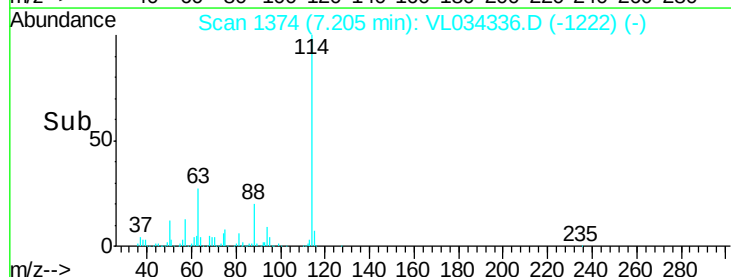
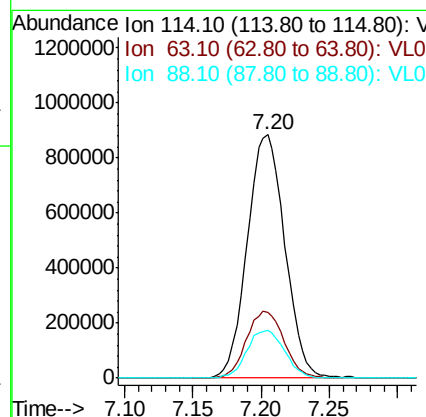
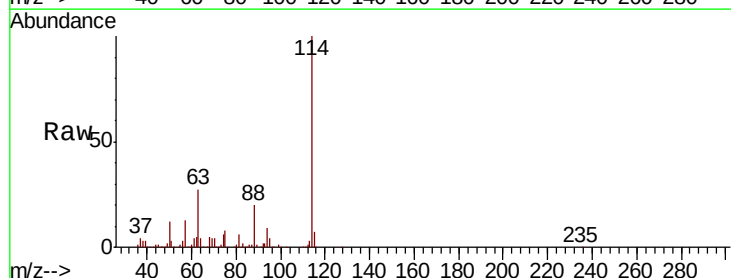
RT: 7.20 min Scan# 1374

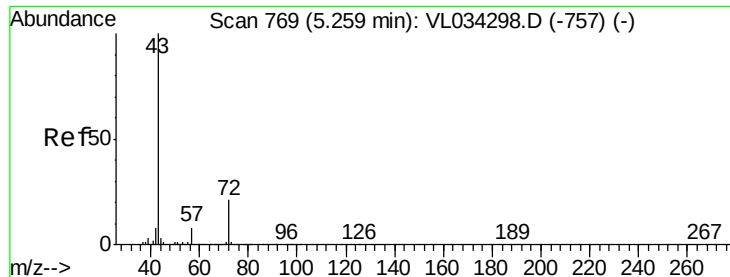
Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 1690689 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 27.8  | 25.2  | 37.8    |
| 88        | 19.8  | 16.0  | 24.0    |





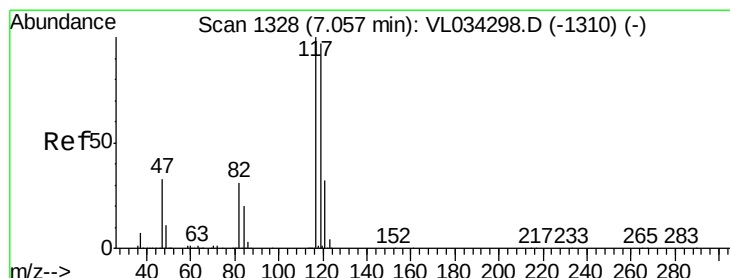
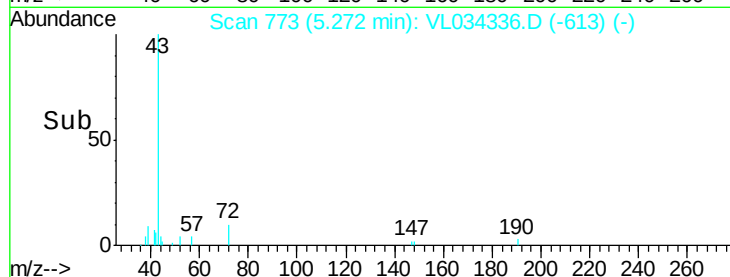
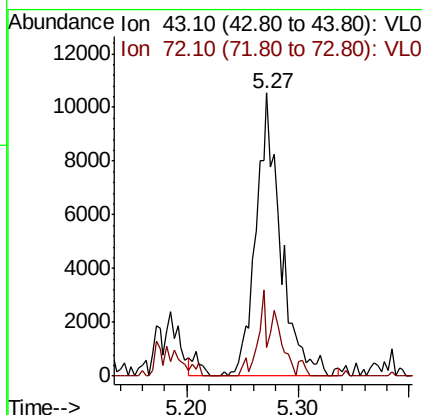
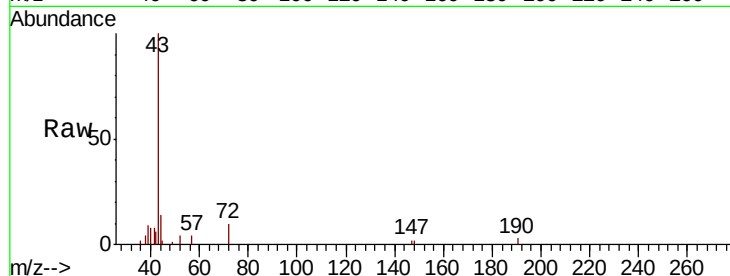
#34  
2-Butanone  
Concen: 0.121 ppbv m  
RT: 5.27 min Scan# 773  
Delta R.T. 0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

Tot Ion: 43 Resp: 16659  
Ion Ratio Lower Upper  
43 100  
72 22.4 16.3 24.5

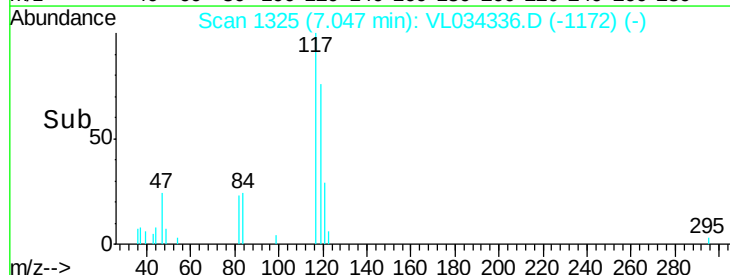
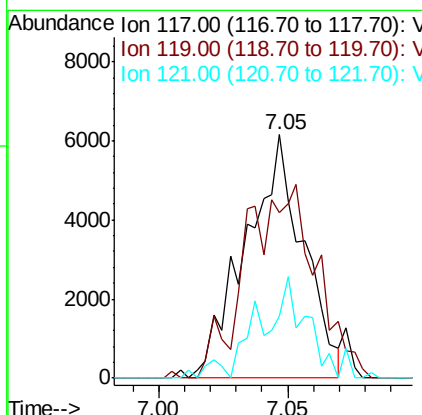
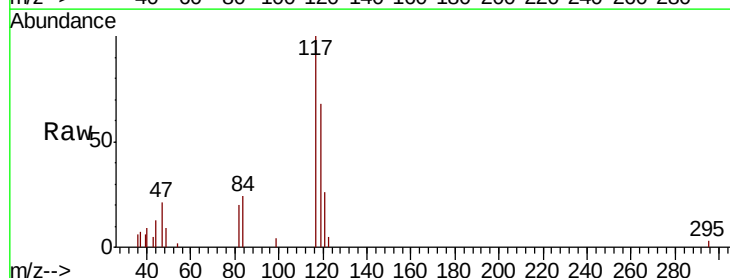
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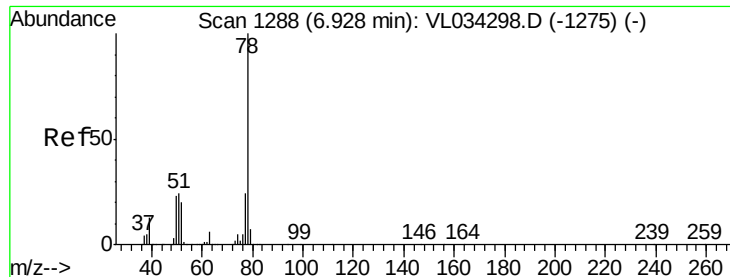
MMDadoda  
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#35  
Carbon Tetrachloride  
Concen: 0.065 ppbv  
RT: 7.05 min Scan# 1325  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Tgt Ion: 117 Resp: 9590  
Ion Ratio Lower Upper  
117 100  
119 67.9 77.3 115.9#  
121 25.6 25.5 38.3





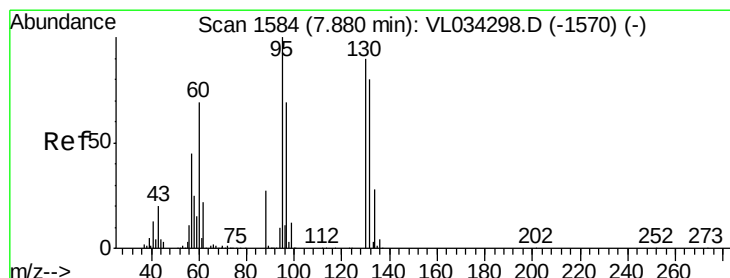
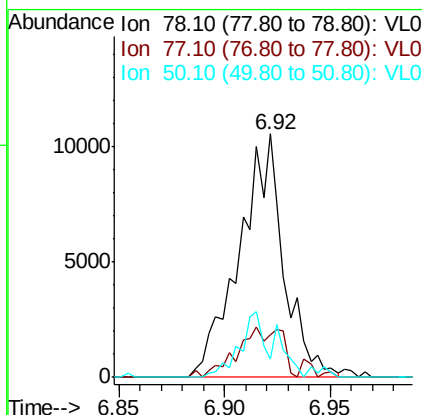
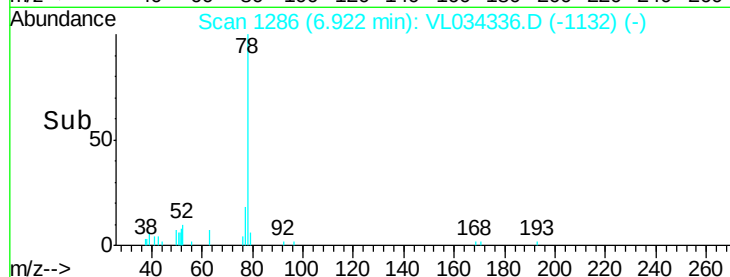
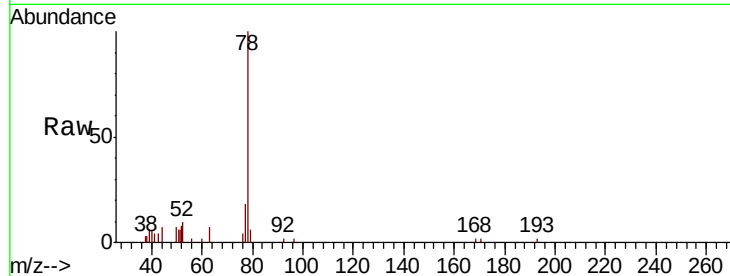
#36  
Benzene  
Concen: 0.095 ppbv  
RT: 6.92 min Scan# 1286  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampled :  
VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 17.6  | 19.0  | 28.4# |
| 50      | 7.3   | 18.6  | 27.8# |

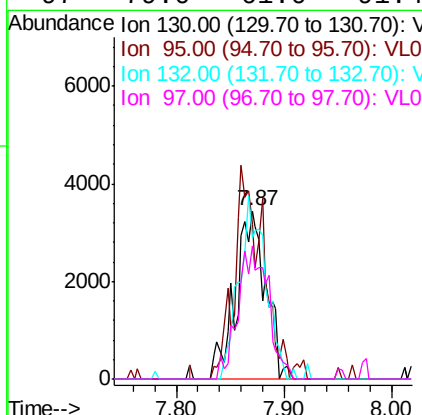
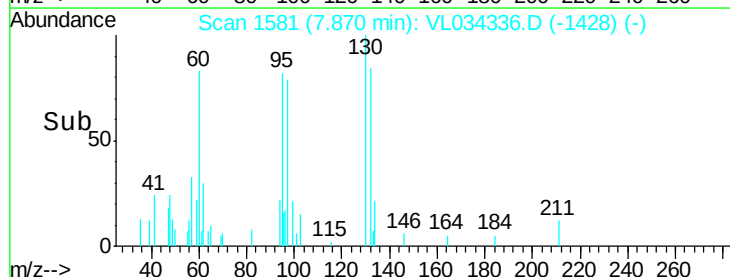
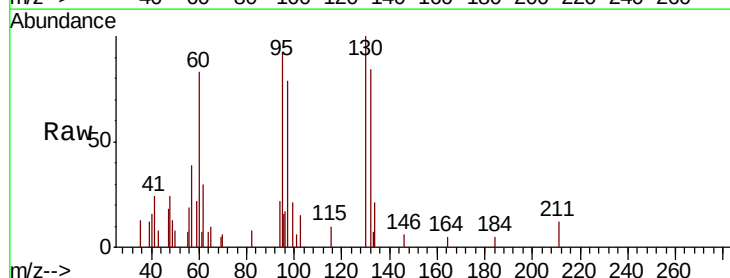
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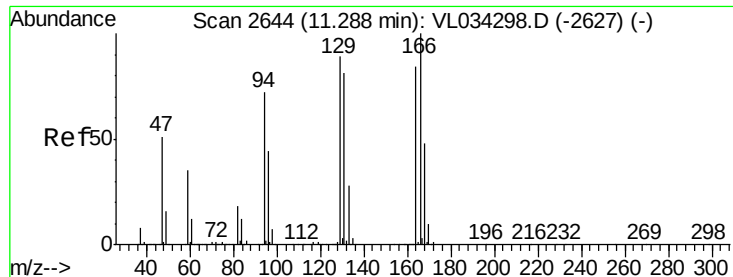
MMDadoda  
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#38  
Trichloroethene  
Concen: 0.102 ppbv m  
RT: 7.87 min Scan# 1581  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 92.2  | 88.6  | 132.8 |
| 132     | 83.8  | 71.2  | 106.8 |
| 97      | 79.0  | 61.0  | 91.4  |





#52

Tetrachloroethene

Concen: 0.291 ppbv m

RT: 11.27 min Scan# 2638

Delta R.T. -0.02 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

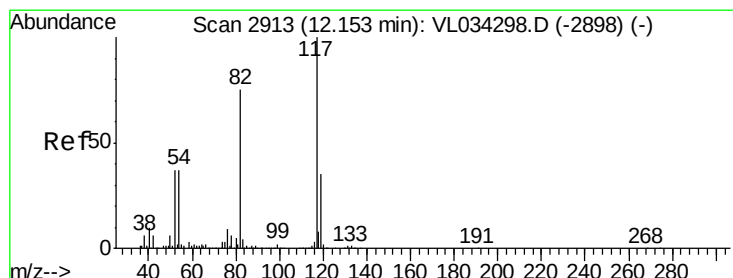
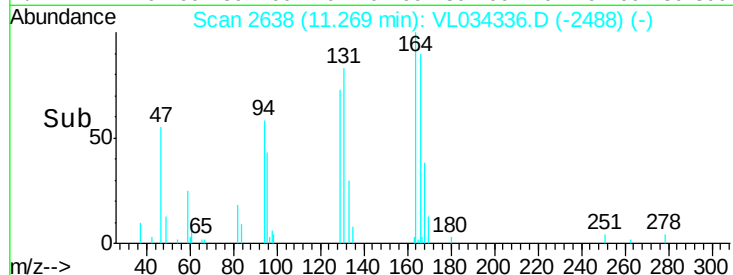
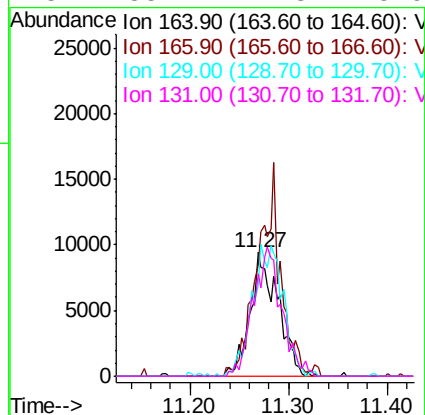
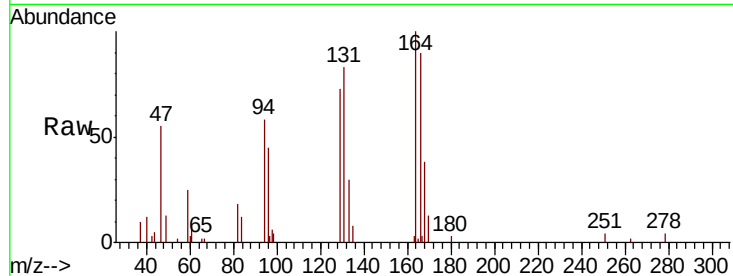
ClientSampled :

VIBLK

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 164   | Resp: | 18503  |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 166       | 90.1  | 95.3  | 142.9# |
| 129       | 73.0  | 84.5  | 126.7# |
| 131       | 83.2  | 77.3  | 115.9  |

Manual Integrations  
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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

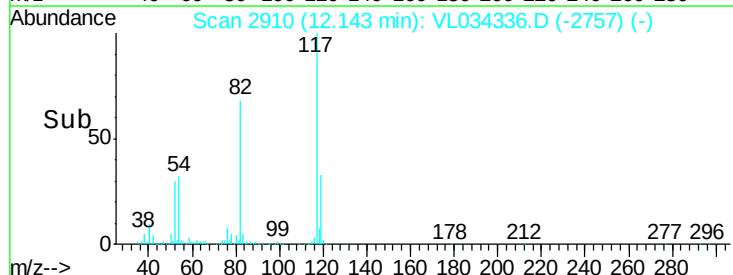
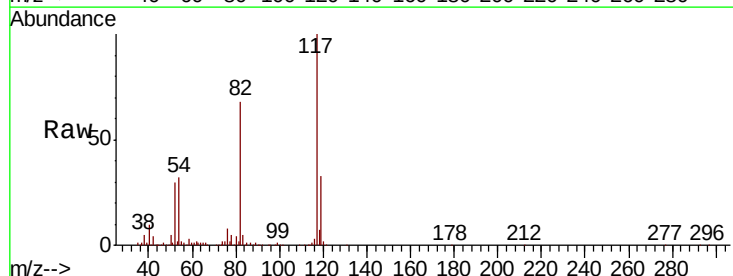
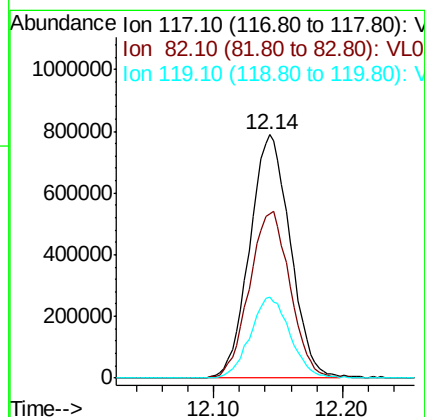
RT: 12.14 min Scan# 2910

Delta R.T. -0.01 min

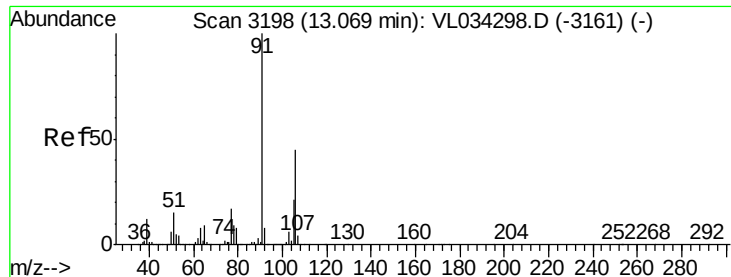
Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 117   | Resp: | 1726532 |
| Ion Ratio | Lower | Upper |         |
| 117       | 100   |       |         |
| 82        | 69.3  | 55.5  | 83.3    |
| 119       | 32.9  | 26.5  | 39.7    |







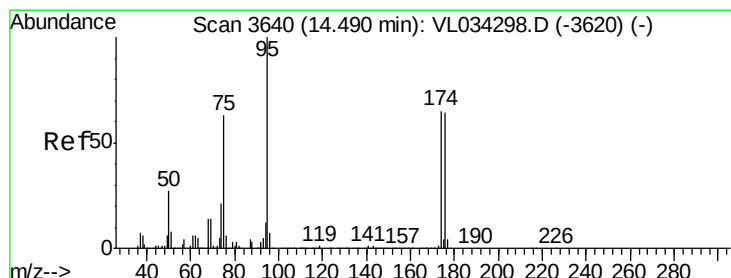
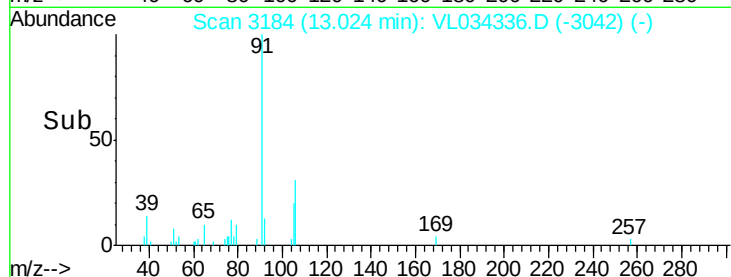
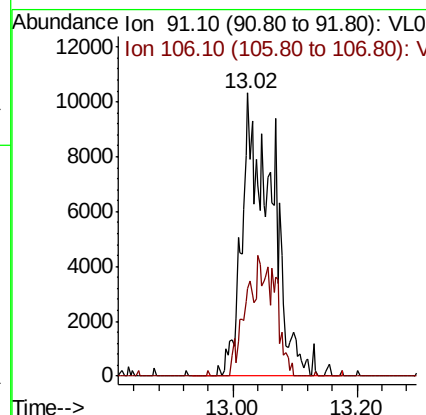
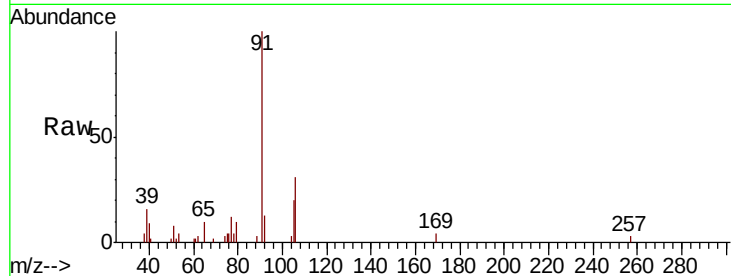
#59  
m/p-Xylene  
Concen: 0.166 ppbv m  
RT: 13.02 min Scan# 3184  
Delta R.T. -0.04 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampleId :  
VIBLK

Tot Ion: 91 Resp: 34631  
Ion Ratio Lower Upper  
91 100  
106 0.0 35.4 53.2#

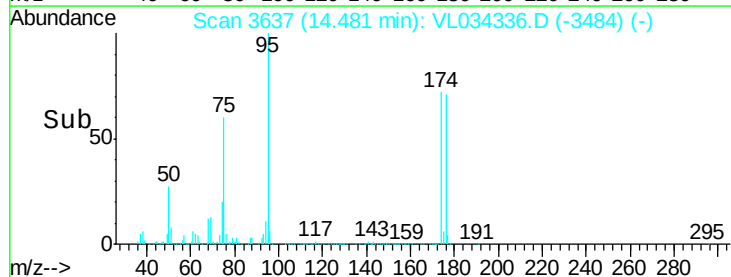
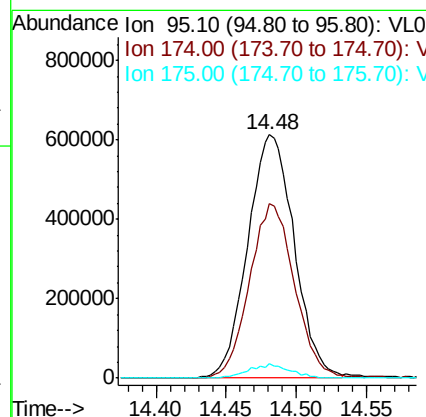
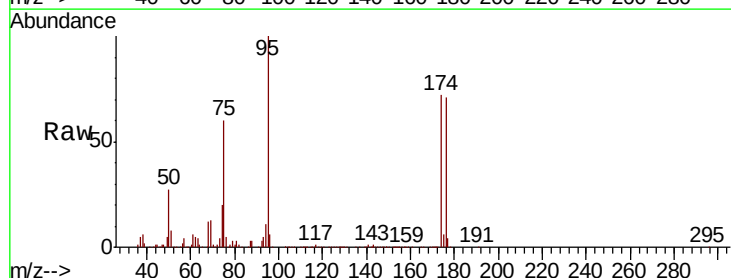
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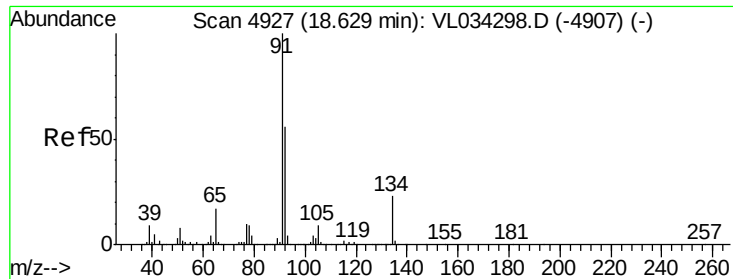
MMDadoda  
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#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.631 ppbv  
RT: 14.48 min Scan# 3637  
Delta R.T. -0.01 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Tgt Ion: 95 Resp: 1408232  
Ion Ratio Lower Upper  
95 100  
174 69.6 52.6 78.8  
175 5.1 3.8 5.6





#70

n-Butylbenzene

Concen: 0.076 ppbv

RT: 18.63 min Scan# 4926

Delta R.T. -0.00 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

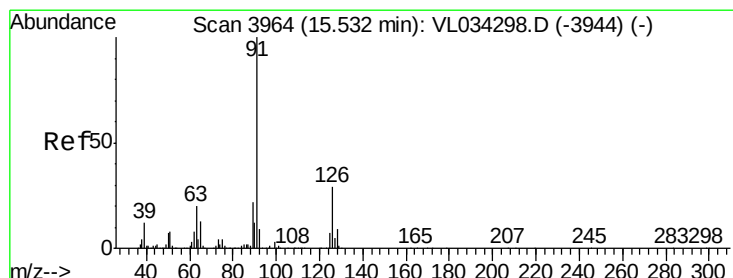
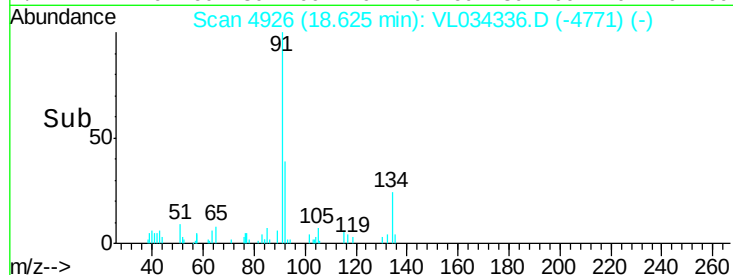
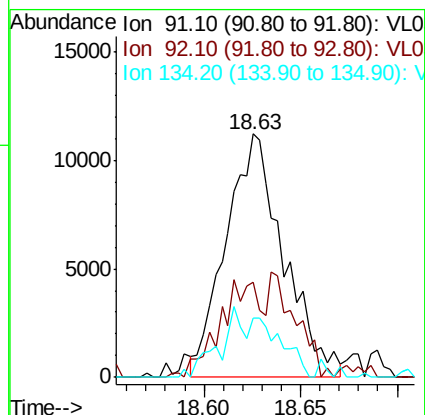
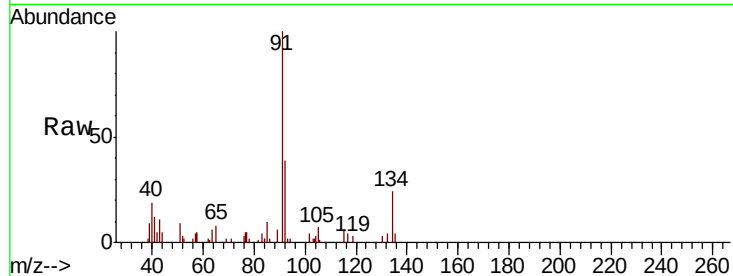
ClientSampled :

VIBLK

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 91    | Resp: | 23216 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 51.0  | 44.5  | 66.7  |
| 134      | 27.2  | 18.2  | 27.2  |

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#71

2-Chlorotoluene

Concen: 0.081 ppbv m

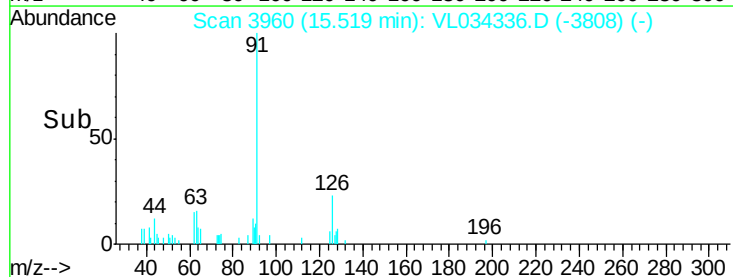
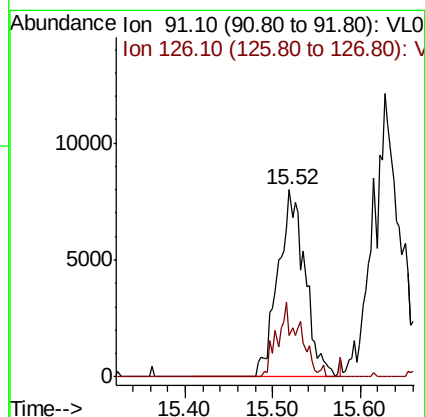
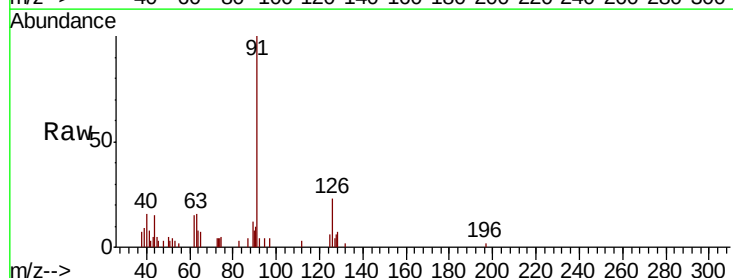
RT: 15.52 min Scan# 3960

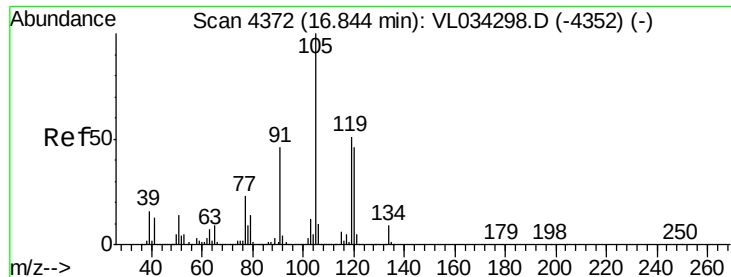
Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 17191 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 126      | 33.4  | 11.9  | 47.5  |





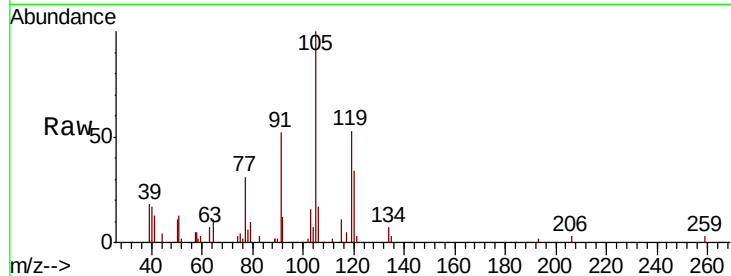
#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.086 ppbv m  
 RT: 16.83 min Scan# 4367  
 Delta R.T. -0.02 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 34.3  | 37.0  | 55.6# |
| 91      | 51.9  | 38.2  | 57.2  |
| 77      | 31.1  | 19.0  | 28.4# |

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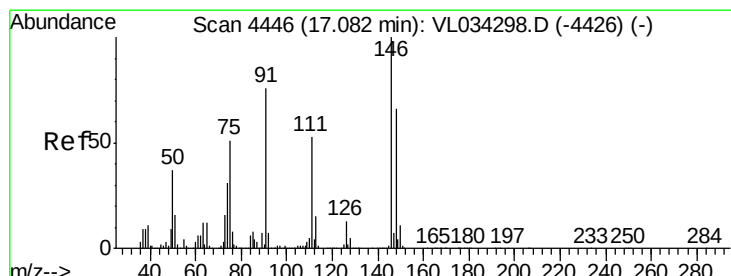
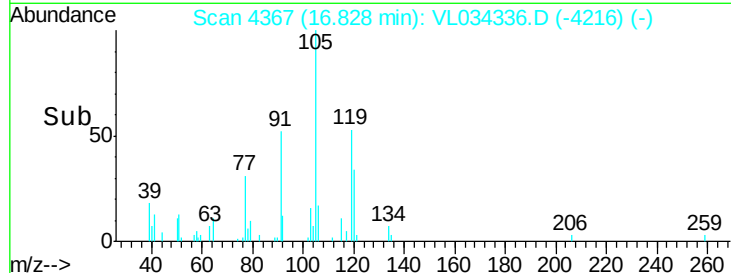
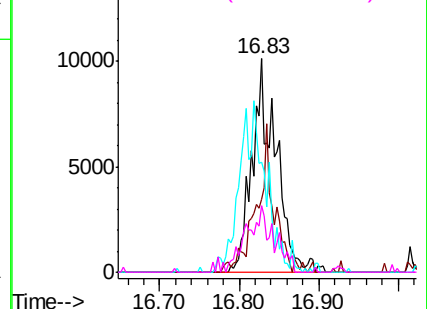
Abundance

Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

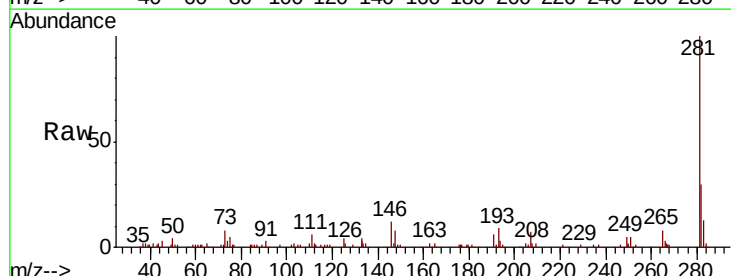
Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#75  
 1,3-Dichlorobenzene  
 Concen: 0.097 ppbv m  
 RT: 17.07 min Scan# 4442  
 Delta R.T. -0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 24.5  | 73.5# |
| 148     | 60.0  | 32.3  | 96.8  |

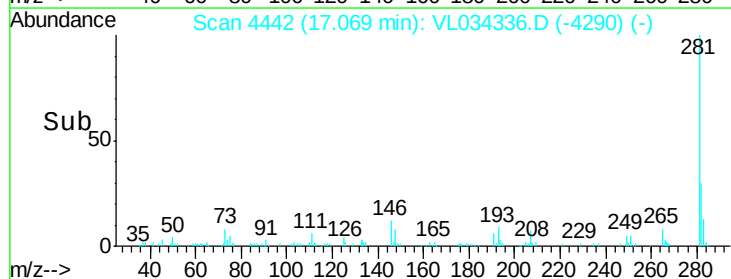
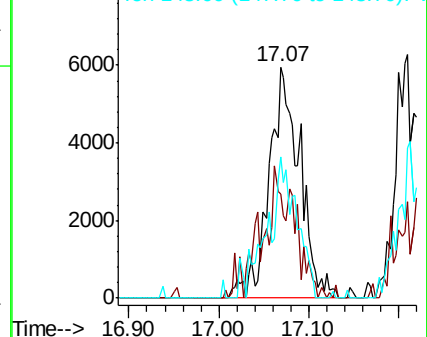


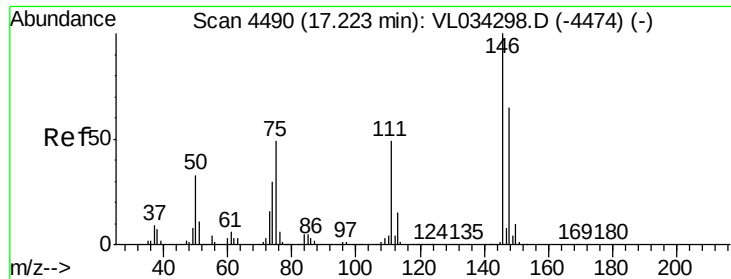
Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





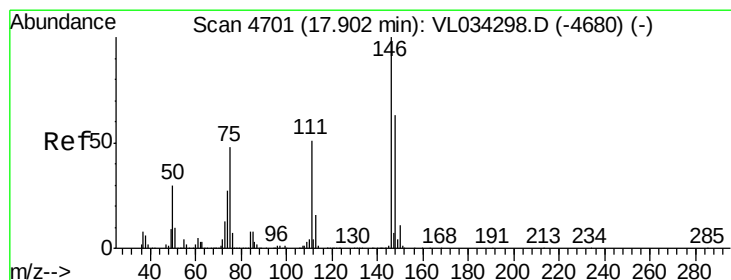
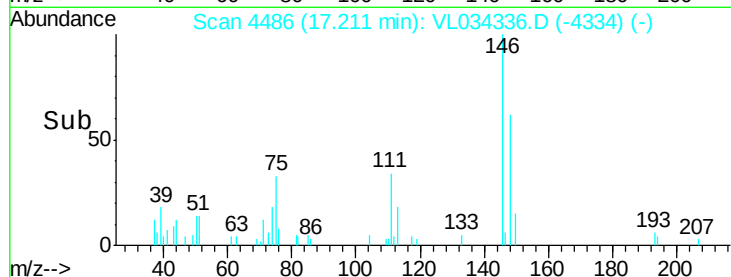
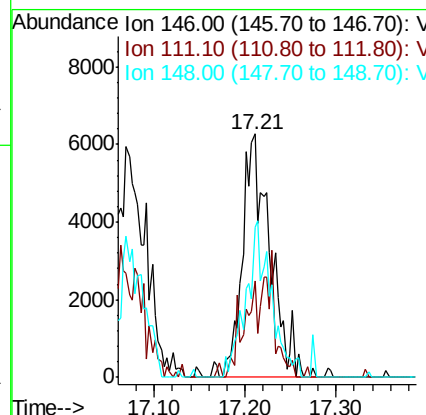
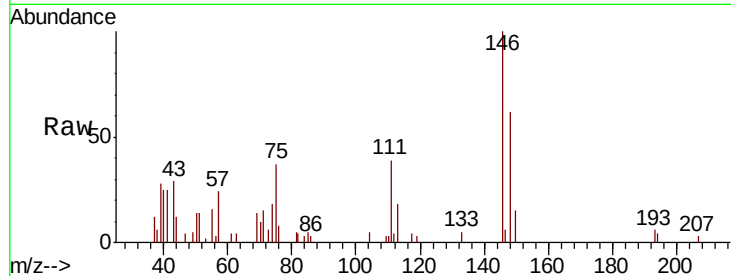
#76  
 1,4-Dichlorobenzene  
 Concen: 0.095 ppbv m  
 RT: 17.21 min Scan# 4486  
 Delta R.T. -0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 23.9  | 71.7# |
| 148     | 0.0   | 33.1  | 99.2# |

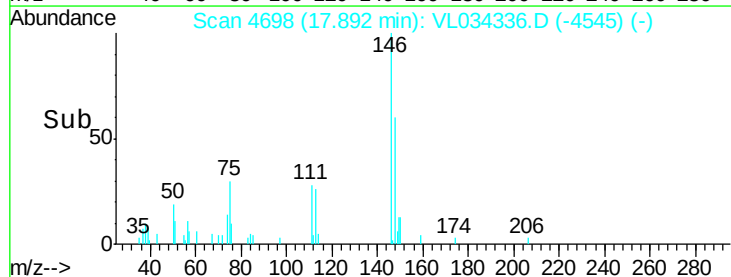
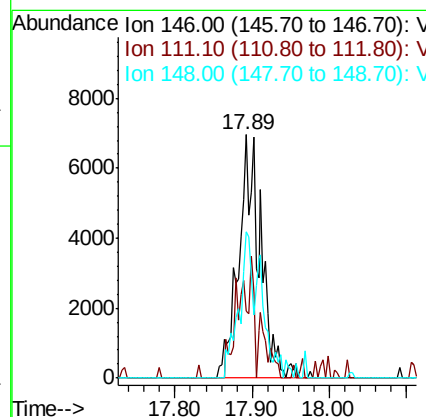
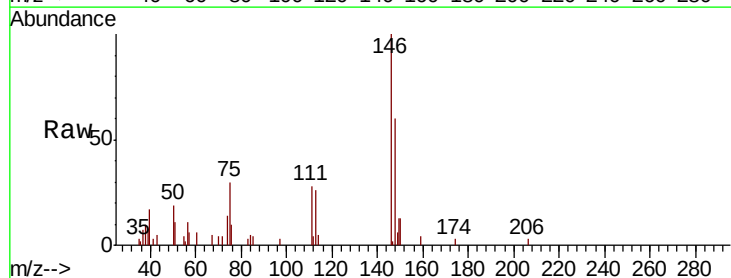
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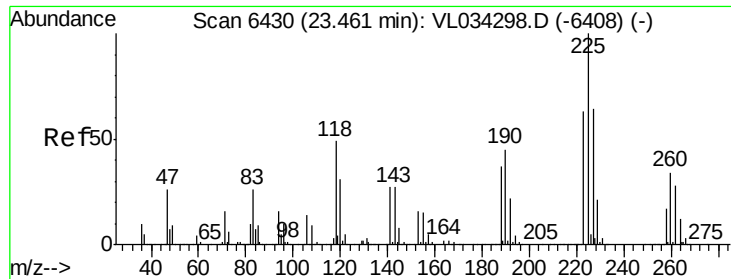
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#77  
 1,2-Dichlorobenzene  
 Concen: 0.097 ppbv m  
 RT: 17.89 min Scan# 4698  
 Delta R.T. -0.01 min  
 Lab File: VL034336.D  
 Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 25.1  | 75.3# |
| 148     | 63.0  | 32.3  | 96.8  |





#78

Hexachloro-1,3-Butadiene

Concen: 0.084 ppbv m

RT: 23.45 min Scan# 6428

Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

Instrument :

MSVOA\_L

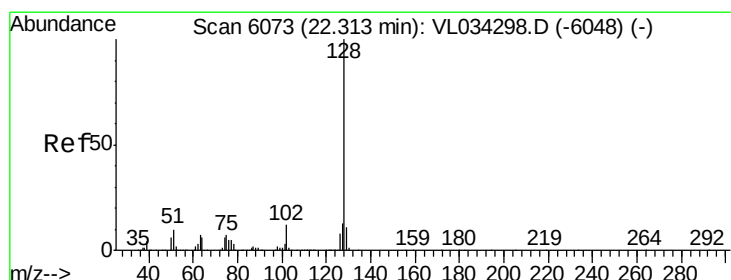
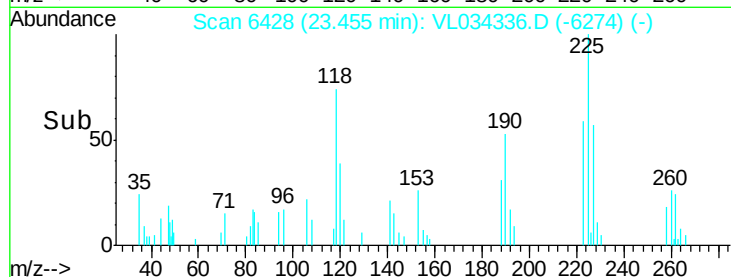
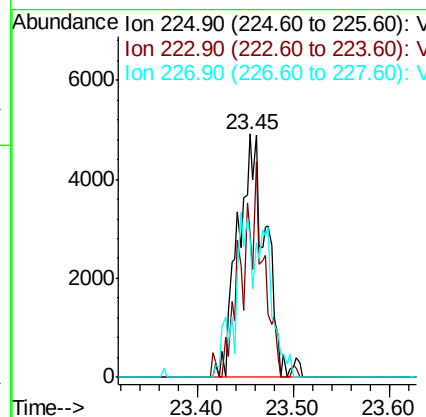
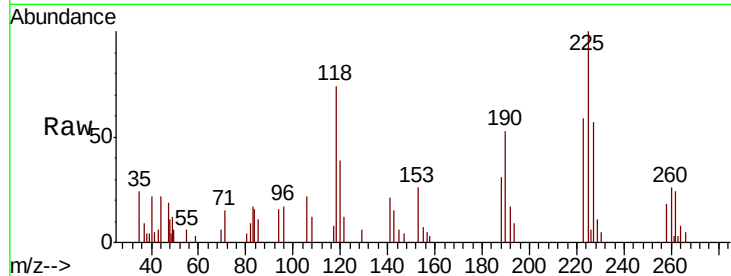
ClientSampled :

VIBLK

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 225   | Resp: | 9925 |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 69.1  | 50.8  | 76.2 |
| 227       | 77.3  | 51.5  | 77.3 |

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#79

Naphthalene

Concen: 0.090 ppbv m

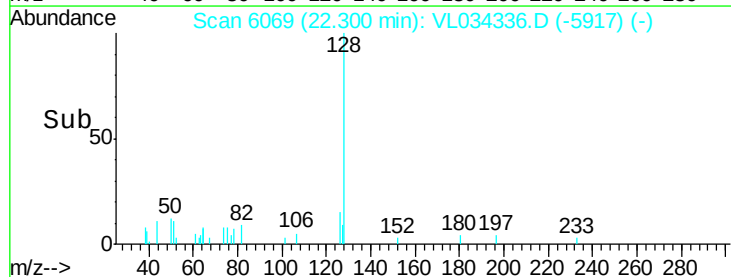
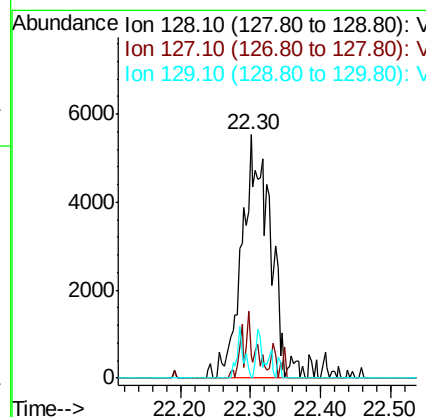
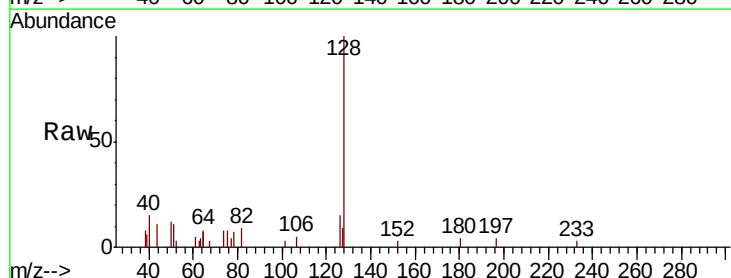
RT: 22.30 min Scan# 6069

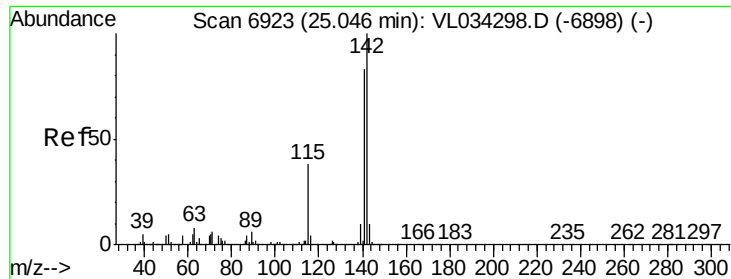
Delta R.T. -0.01 min

Lab File: VL034336.D

Acq: 18 Oct 2019 9:19

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 15848 |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 127       | 9.0   | 10.2  | 15.4# |
| 129       | 0.0   | 8.9   | 13.3# |





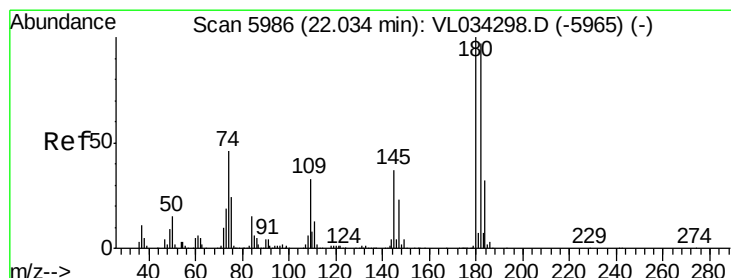
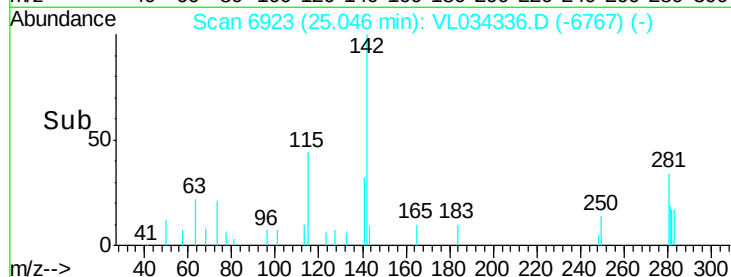
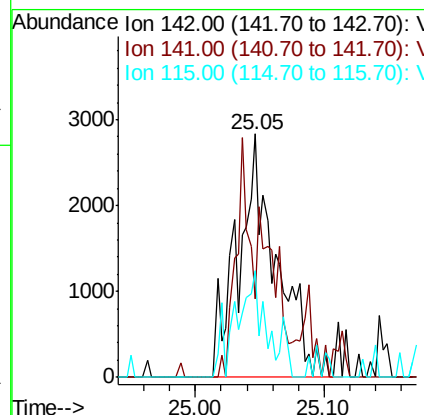
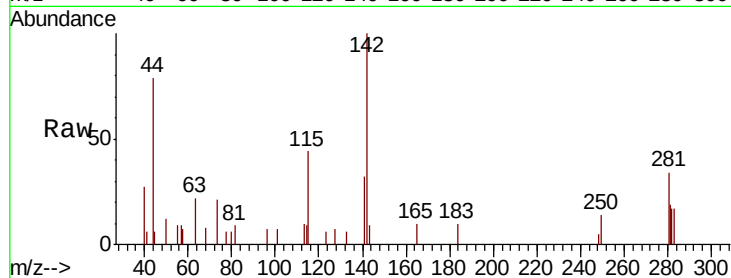
#80  
Naphthalene, 2-methyl-  
Concen: 0.115 ppbv  
RT: 25.05 min Scan# 6923  
Delta R.T. 0.00 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

Instrument :  
MSVOA\_L  
ClientSampleId :  
VIBLK

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 81.6  | 65.7  | 98.5  |
| 115     | 35.2  | 30.9  | 46.3  |

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#81  
1,2,4-Trichlorobenzene  
Concen: 0.109 ppbv m  
RT: 22.04 min Scan# 5987  
Delta R.T. 0.00 min  
Lab File: VL034336.D  
Acq: 18 Oct 2019 9:19

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 180     | 100   |       |        |
| 182     | 0.0   | 77.8  | 116.8# |
| 184     | 32.9  | 25.4  | 38.2   |

