

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120418\  
 Data File : VL032889.D  
 Acq On : 4 Dec 2018 23:20  
 Operator : SY/AP  
 Sample : J6175-06DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MMSV-03DL

Manual Integrations  
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 12/10/2018 1:01:11 PM

Quant Time: Dec 05 07:28:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 07:28:50 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1453836  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 3608168  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 3629127  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 2587821  | 9.53     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.30% |

| Target Compounds         | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------|-------|------|----------|-------|--------|--------|
| 3) Chlorodifluoromethane | 3.02  | 51   | 245089   | 2.126 | ppbv   | 94     |
| 9) Propene               | 3.04  | 41   | 81165    | 1.760 | ppbv   | 95     |
| 13) Ethanol              | 3.66  | 45   | 31593m   | 2.091 | ppbv   |        |
| 15) Acetone              | 3.91  | 43   | 253707   | 1.911 | ppbv # | 81     |
| 20) Methylene Chloride   | 4.41  | 84   | 103771   | 1.510 | ppbv   | 94     |
| 26) Hexane               | 5.78  | 57   | 86489    | 0.628 | ppbv # | 43     |
| 27) Carbon Disulfide     | 4.63  | 76   | 19460    | 0.111 | ppbv # | 32     |
| 34) 2-Butanone           | 5.33  | 43   | 850992   | 4.547 | ppbv   | 100    |
| 36) Benzene              | 7.00  | 78   | 43795    | 0.152 | ppbv # | 95     |
| 41) Tetrahydrofuran      | 6.16  | 42   | 143813m  | 1.340 | ppbv   |        |
| 51) 2-Hexanone           | 10.31 | 43   | 50241m   | 0.267 | ppbv   |        |
| 53) Toluene              | 9.95  | 91   | 35624m   | 0.119 | ppbv   |        |

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

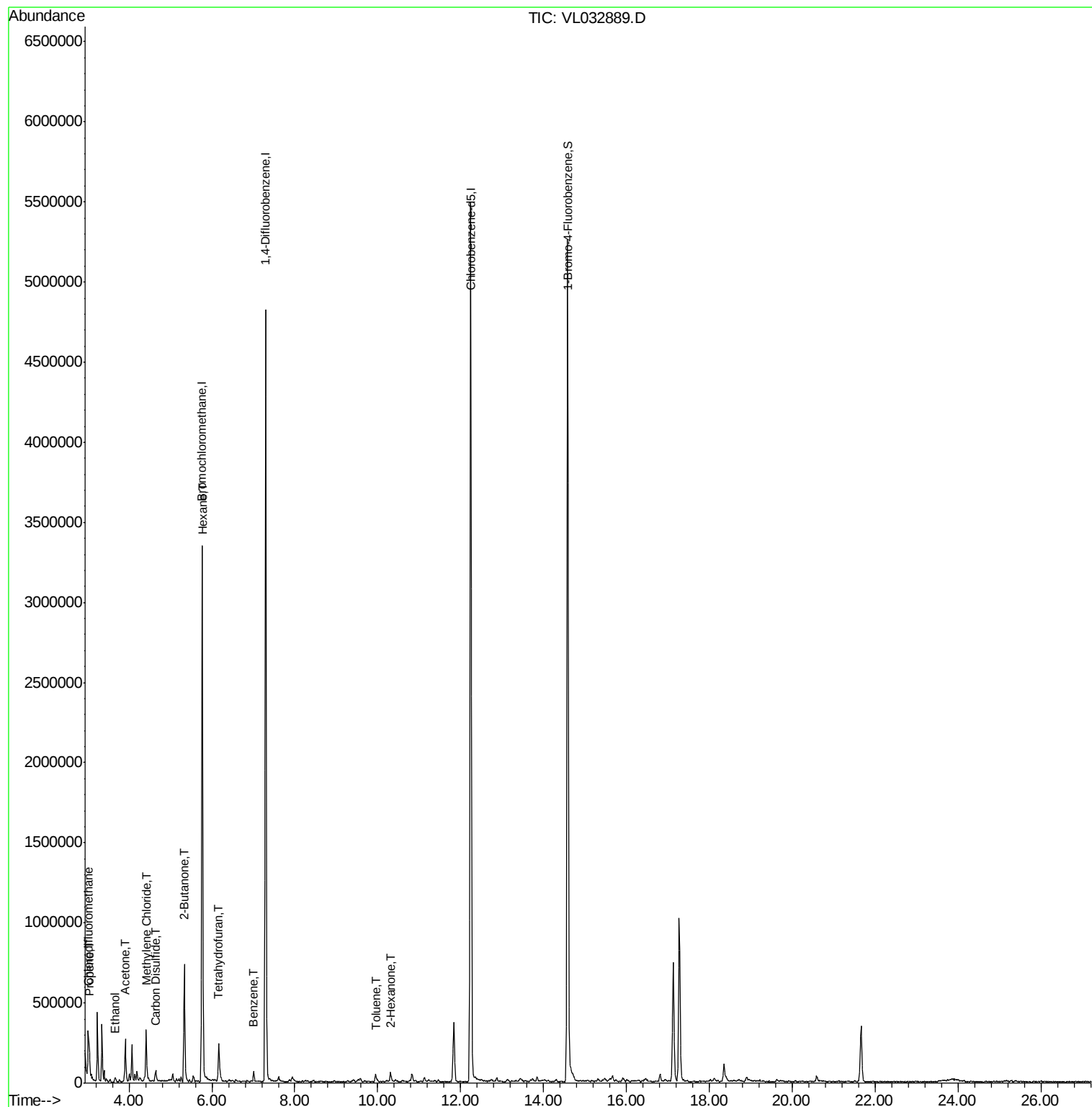
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120418\  
Data File : VL032889.D  
Acq On : 4 Dec 2018 23:20  
Operator : SY/AP  
Sample : J6175-06DL 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

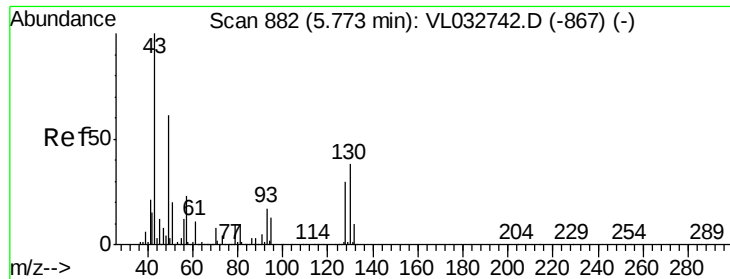
Instrument :  
MSVOA\_L  
ClientSampleId :  
MMSV-03DL

Manual Integrations  
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Quant Time: Dec 05 07:28:50 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.01 min

Lab File: VL032889.D

Acq: 4 Dec 2018 23:20

Instrument :

MSVOA\_L

ClientSampleId :

MMSV-03DL

Tot Ion: 49 Resp: 1453836

Ion Ratio Lower Upper

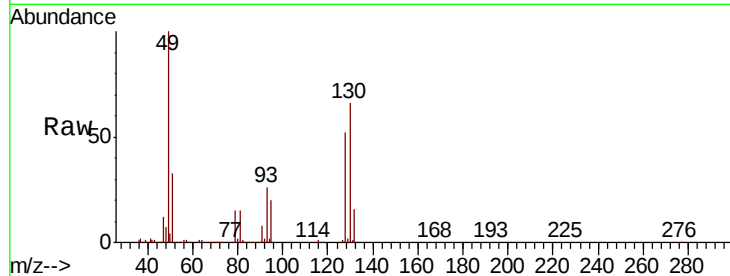
49 100

128 53.7 24.9 74.6

130 68.0 31.4 94.2

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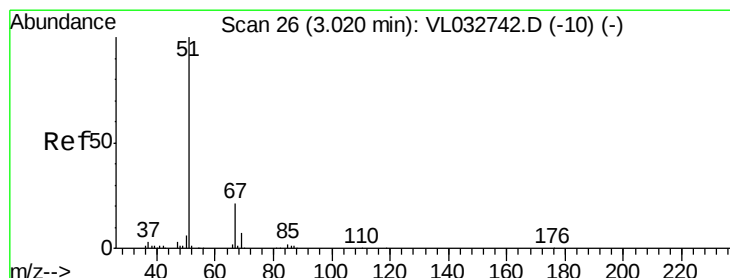
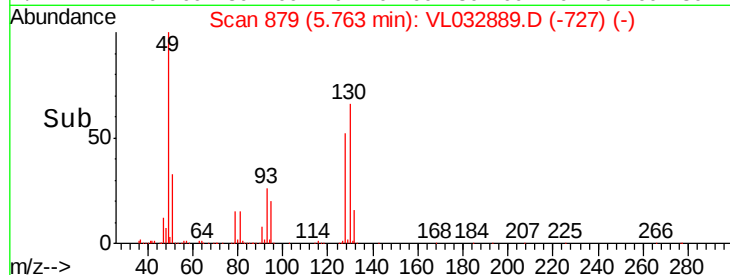
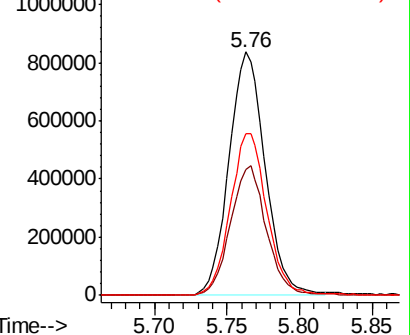
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 2.126 ppbv

RT: 3.02 min Scan# 25

Delta R.T. -0.00 min

Lab File: VL032889.D

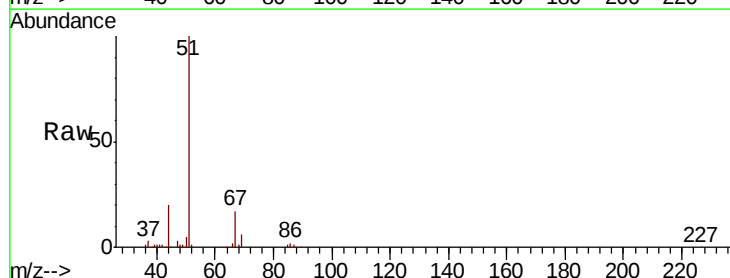
Acq: 4 Dec 2018 23:20

Tgt Ion: 51 Resp: 245089

Ion Ratio Lower Upper

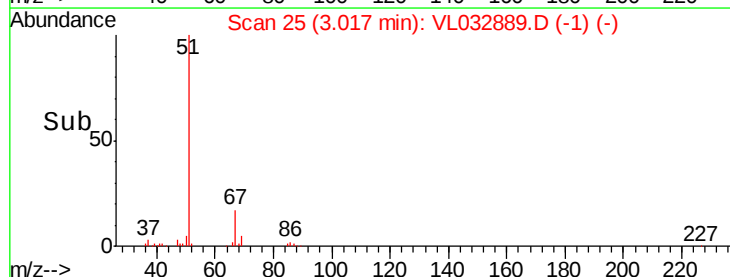
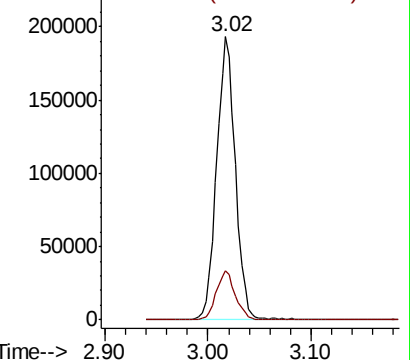
51 100

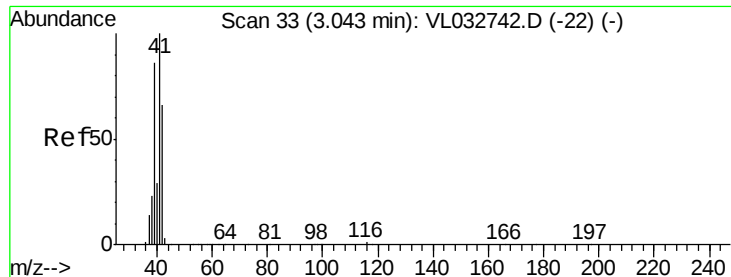
67 17.5 16.1 24.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 1.760 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.00 min

Lab File: VL032889.D

Acq: 4 Dec 2018 23:20

Instrument :

MSVOA\_L

ClientSampleId :

MMSV-03DL

Tot Ion: 41 Resp: 81165

Ion Ratio Lower Upper

41 100

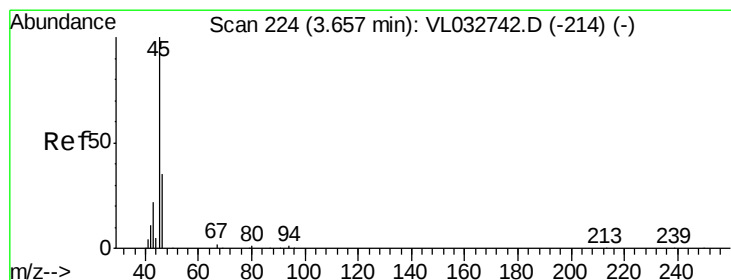
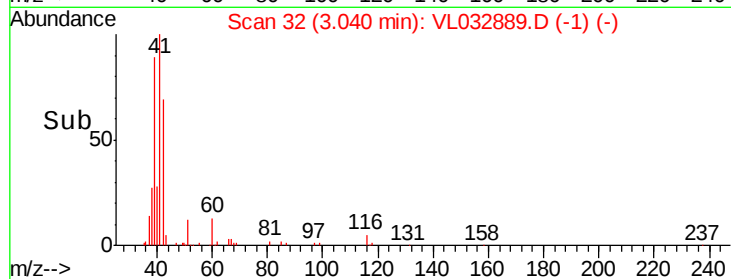
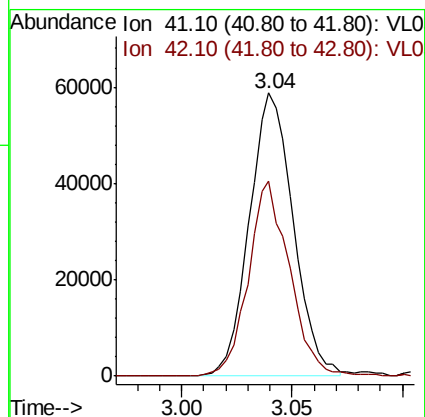
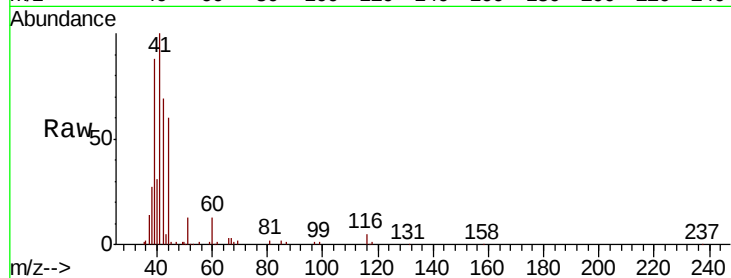
42 64.6 55.0 82.6

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#13

Ethanol

Concen: 2.091 ppbv m

RT: 3.66 min Scan# 226

Delta R.T. 0.01 min

Lab File: VL032889.D

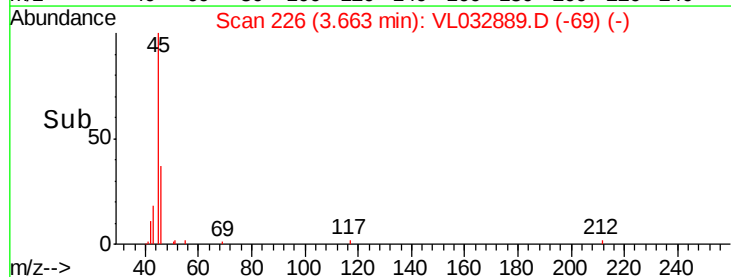
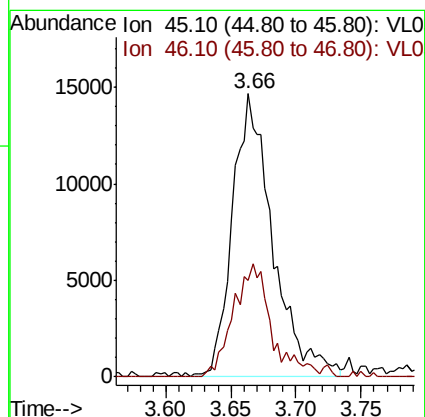
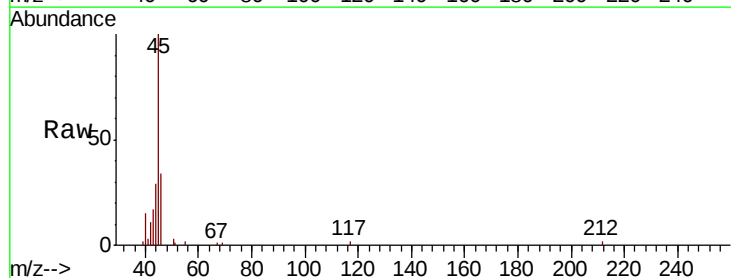
Acq: 4 Dec 2018 23:20

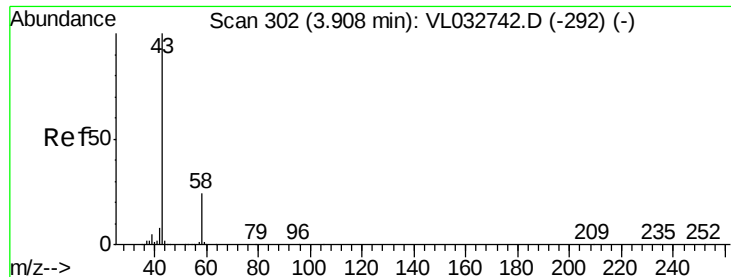
Tgt Ion: 45 Resp: 31593

Ion Ratio Lower Upper

45 100

46 38.3 14.5 57.9





#15

Acetone

Concen: 1.911 ppbv

RT: 3.91 min Scan# 302

Delta R.T. -0.00 min

Lab File: VL032889.D

Acq: 4 Dec 2018 23:20

Instrument :

MSVOA\_L

ClientSampleId :

MMSV-03DL

Tot Ion: 43 Resp: 253707

Ion Ratio Lower Upper

43 100

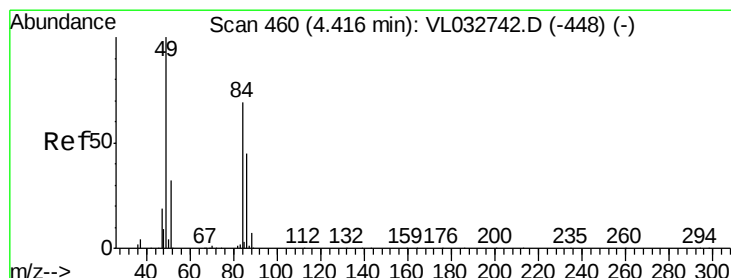
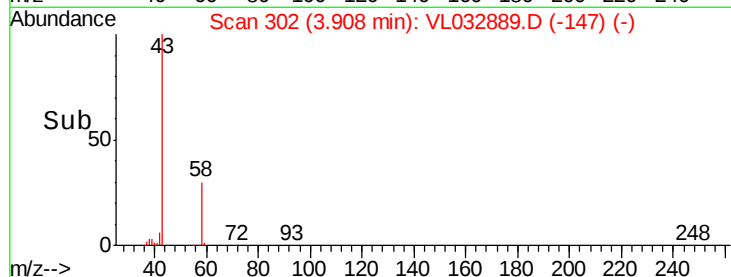
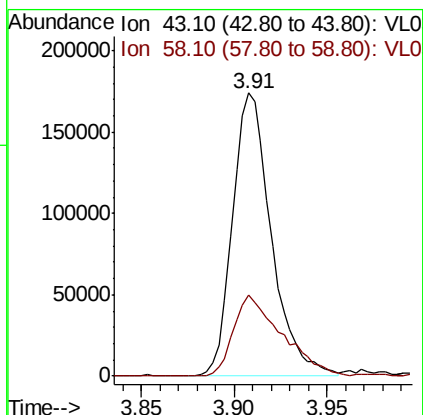
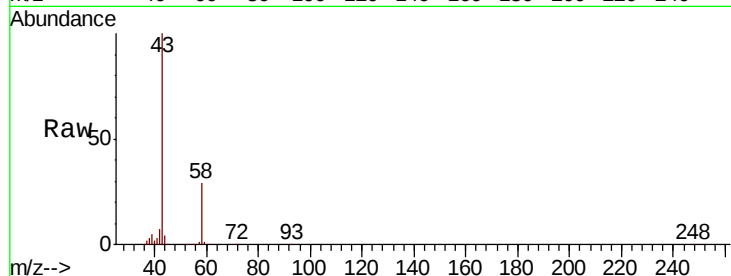
58 35.9 21.1 31.7#

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#20

Methylene Chloride

Concen: 1.510 ppbv

RT: 4.41 min Scan# 459

Delta R.T. -0.00 min

Lab File: VL032889.D

Acq: 4 Dec 2018 23:20

Tgt Ion: 84 Resp: 103771

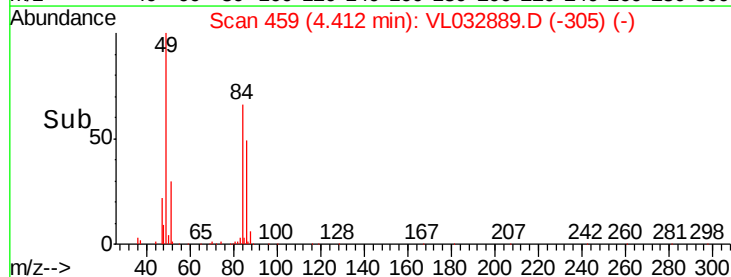
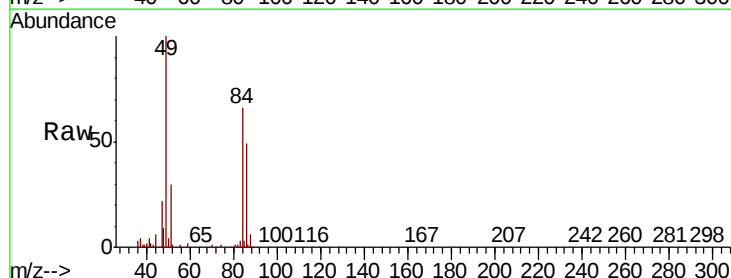
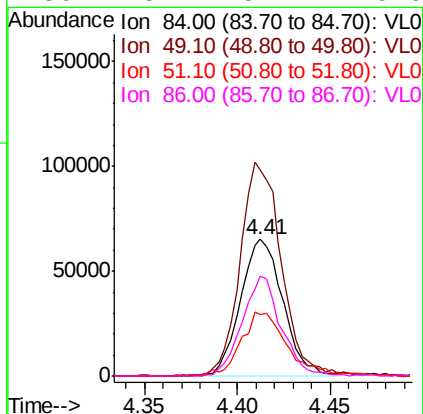
Ion Ratio Lower Upper

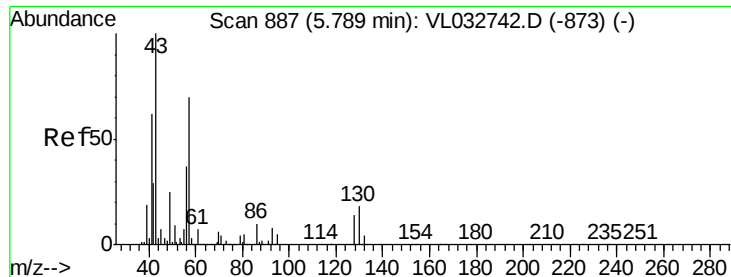
84 100

49 150.0 115.8 173.6

51 44.0 36.9 55.3

86 73.4 52.4 78.6





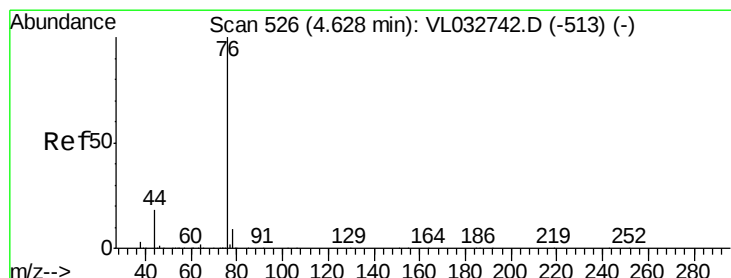
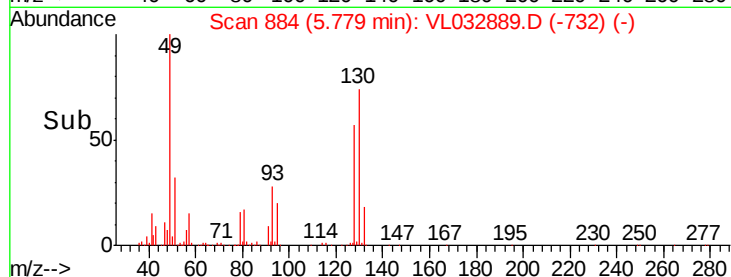
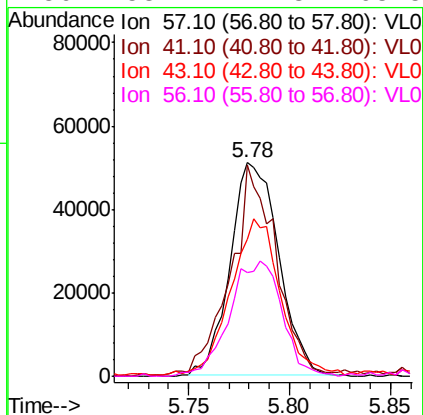
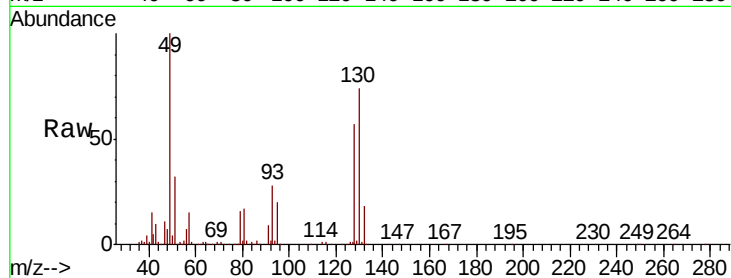
#26  
Hexane  
Concen: 0.628 ppbv  
RT: 5.78 min Scan# 884  
Delta R.T. -0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

Instrument :  
MSVOA\_L  
ClientSampleId :  
MMSV-03DL

| Tot Ion | 57    | Resp  | 86489  |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 57      | 100   |       |        |
| 41      | 95.6  | 70.3  | 105.5  |
| 43      | 75.5  | 174.0 | 261.0# |
| 56      | 58.2  | 42.3  | 63.5   |

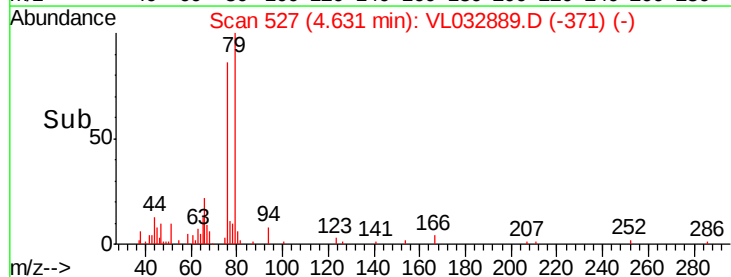
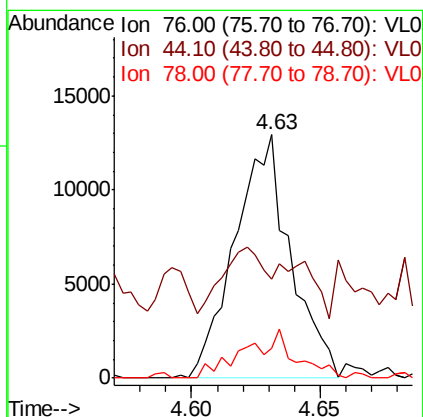
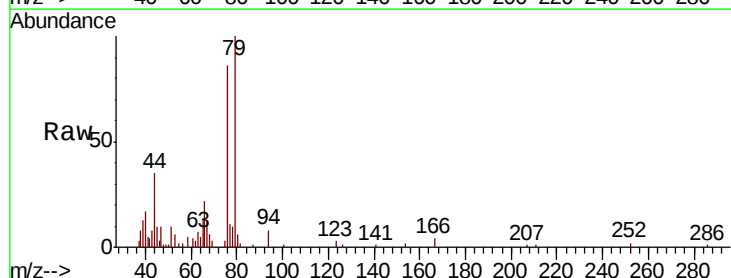
Manual Integrations  
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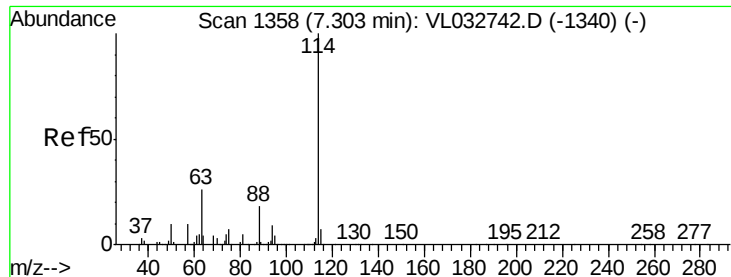
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#27  
Carbon Disulfide  
Concen: 0.111 ppbv  
RT: 4.63 min Scan# 527  
Delta R.T. 0.00 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

| Tgt Ion | 76    | Resp  | 19460 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 76      | 100   |       |       |
| 44      | 58.2  | 14.4  | 21.6# |
| 78      | 18.5  | 7.7   | 11.5# |





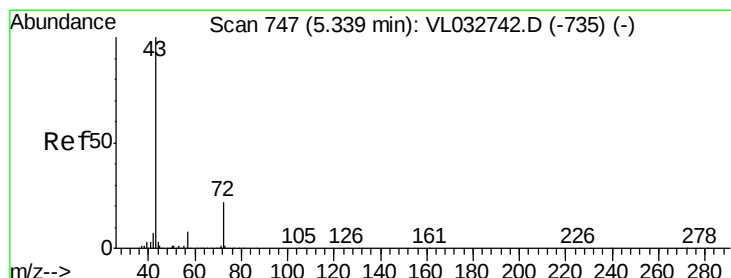
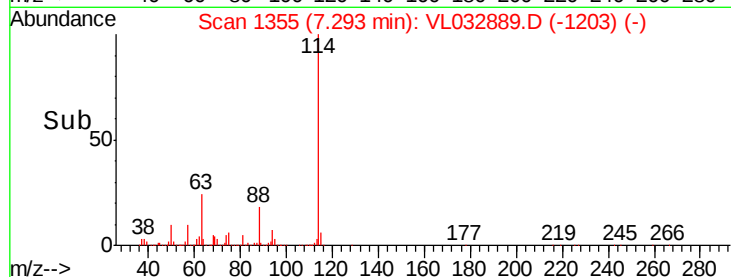
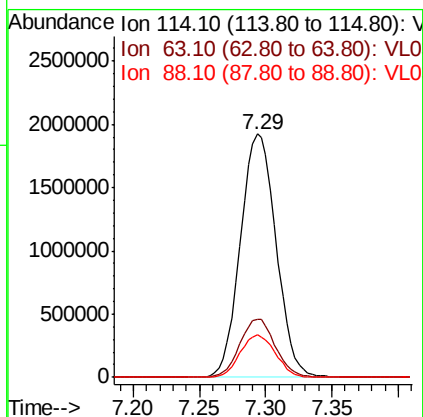
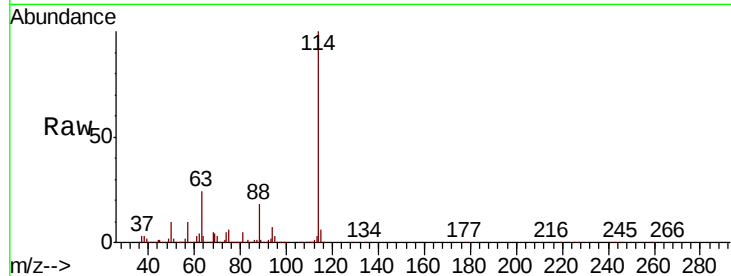
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1355  
 Delta R.T. -0.01 min  
 Lab File: VL032889.D  
 Acq: 4 Dec 2018 23:20

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MMSV-03DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 23.8  | 20.9  | 31.3  |
| 88      | 17.4  | 14.4  | 21.6  |

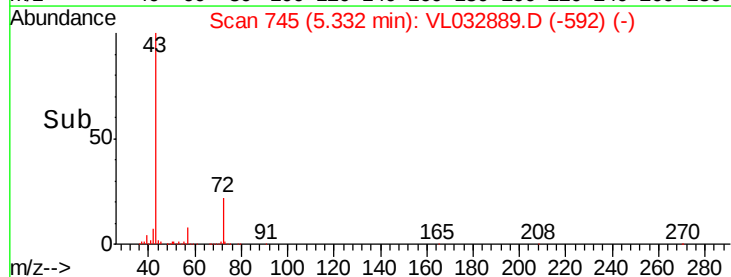
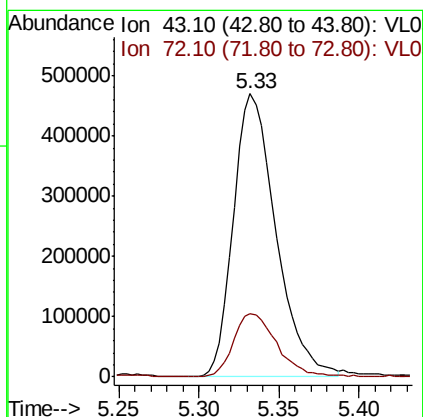
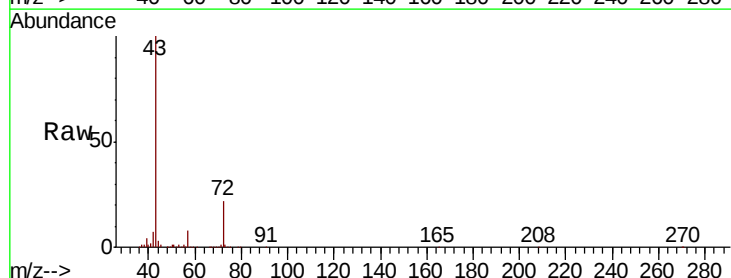
Manual Integrations  
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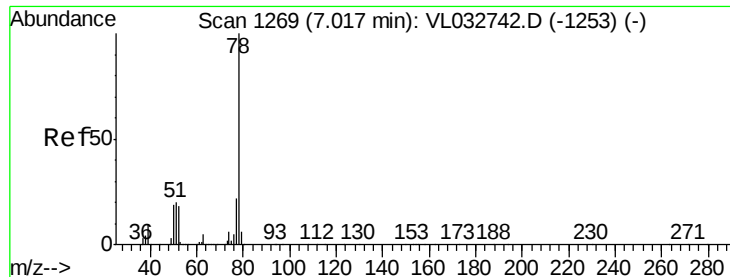
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 12/10/2018 1:01:11 PM



#34  
 2-Butanone  
 Concen: 4.547 ppbv  
 RT: 5.33 min Scan# 745  
 Delta R.T. -0.01 min  
 Lab File: VL032889.D  
 Acq: 4 Dec 2018 23:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.2  | 18.4  | 27.6  |





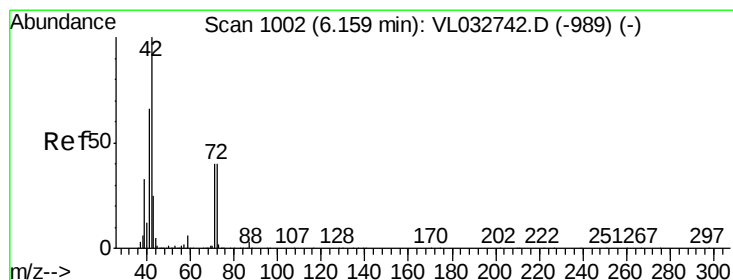
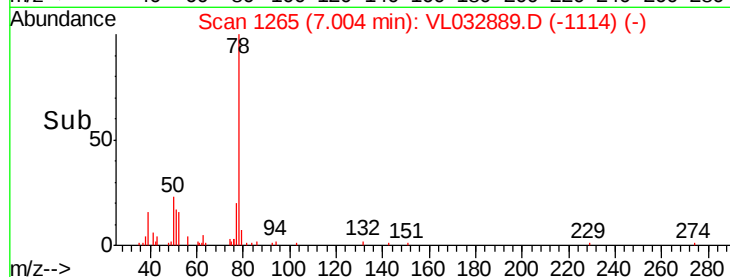
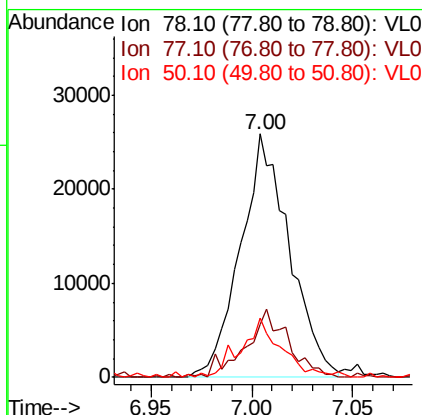
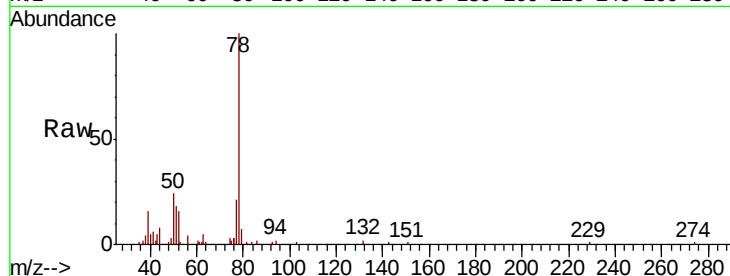
#36  
Benzene  
Concen: 0.152 ppbv  
RT: 7.00 min Scan# 1265  
Delta R.T. -0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

Instrument :  
MSVOA\_L  
ClientSampleId :  
MMSV-03DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 21.5  | 17.8  | 26.8  |
| 50      | 23.1  | 15.4  | 23.0  |

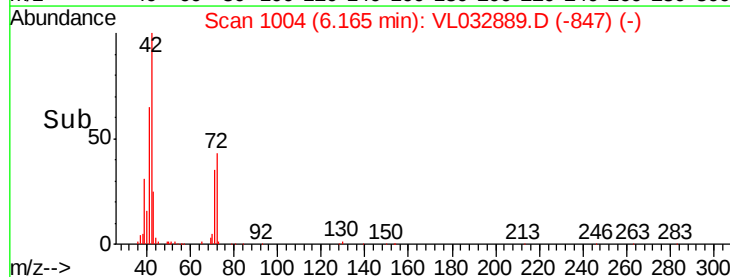
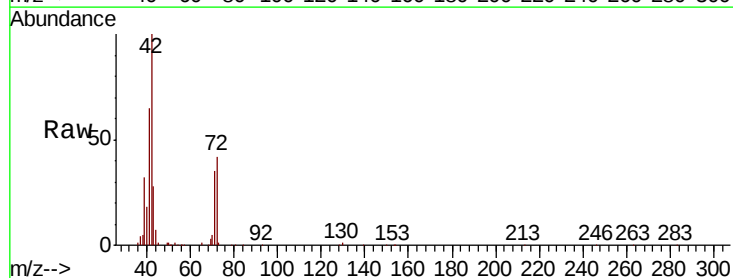
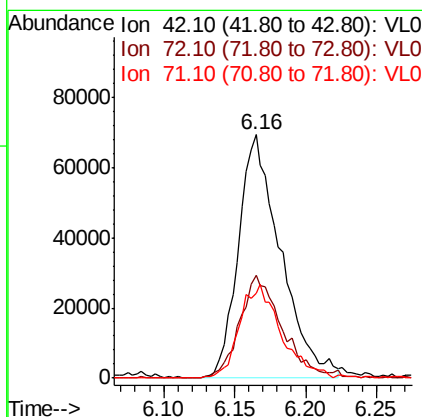
Manual Integrations  
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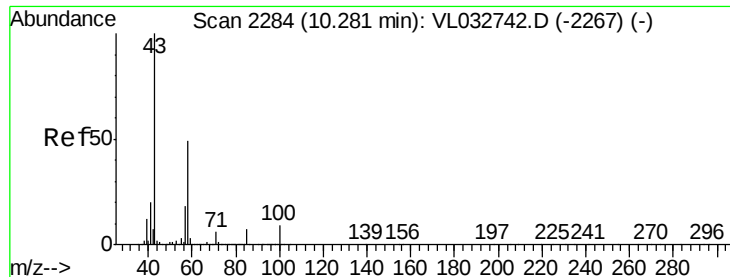
MMDadoda  
12/10/2018 1:01:11 PM



#41  
Tetrahydrofuran  
Concen: 1.340 ppbv m  
RT: 6.16 min Scan# 1004  
Delta R.T. 0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 42.2  | 32.4  | 48.6  |
| 71      | 38.1  | 31.6  | 47.4  |





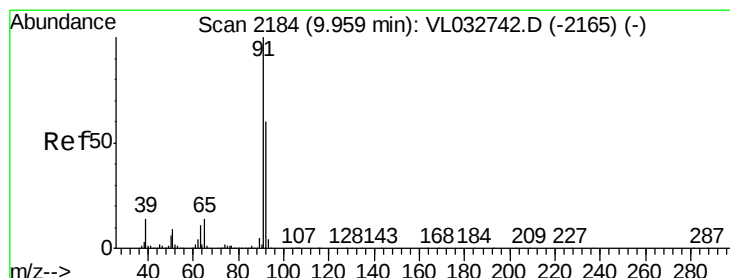
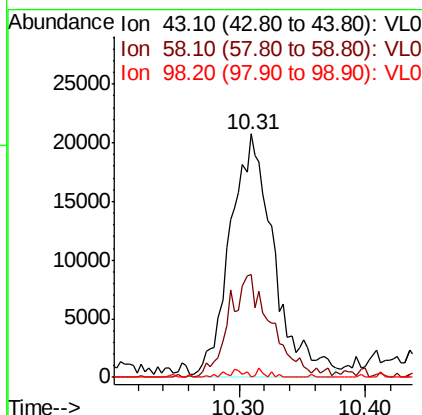
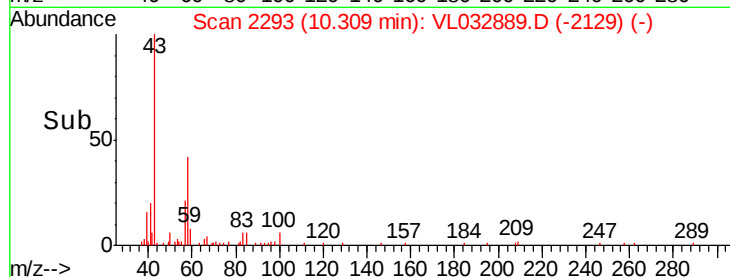
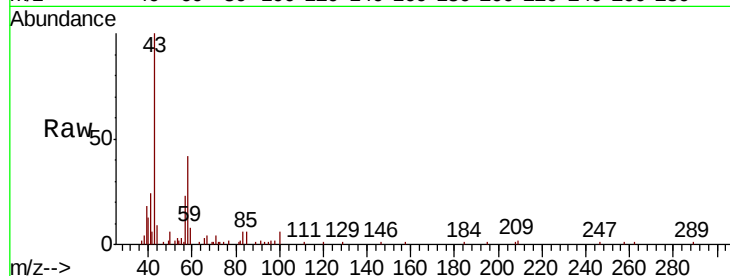
#51  
2-Hexanone  
Concen: 0.267 ppbv m  
RT: 10.31 min Scan# 2293  
Delta R.T. 0.03 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

Instrument :  
MSVOA\_L  
ClientSampleId :  
MMSV-03DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 38.9  | 58.3# |
| 98      | 0.1   | 0.2   | 0.4#  |

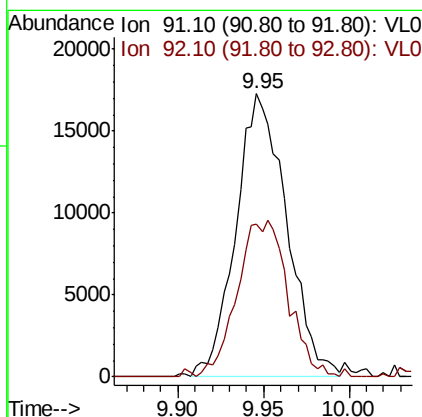
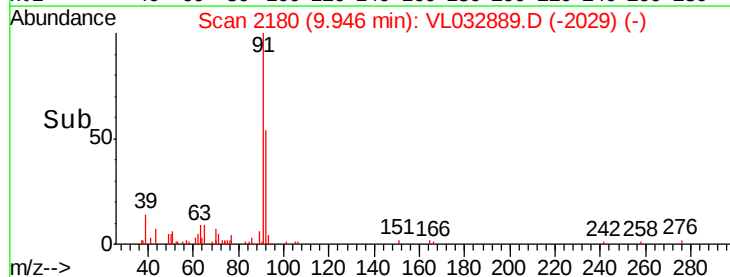
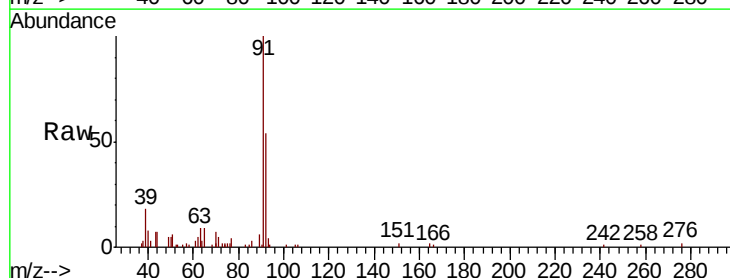
Manual Integrations  
APPROVED

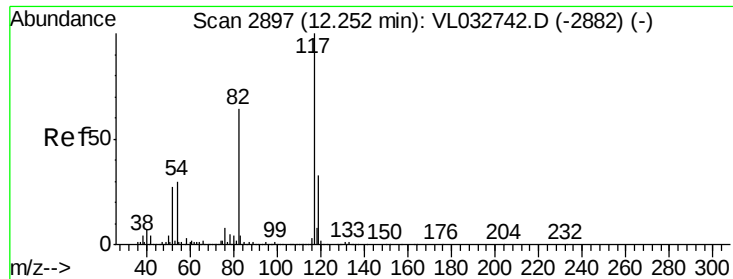
MMDadoda  
12/10/2018 1:01:11 PM



#53  
Toluene  
Concen: 0.119 ppbv m  
RT: 9.95 min Scan# 2180  
Delta R.T. -0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 55.9  | 47.9  | 71.9  |





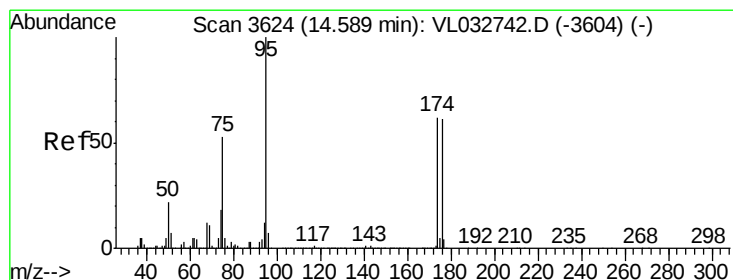
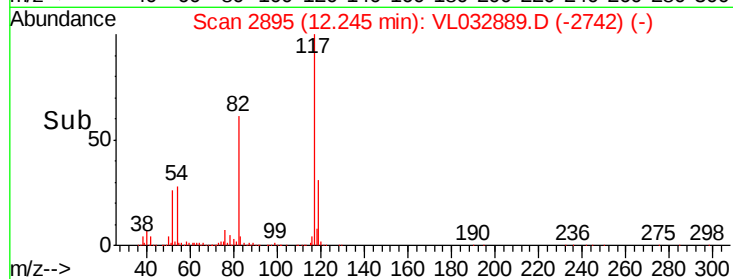
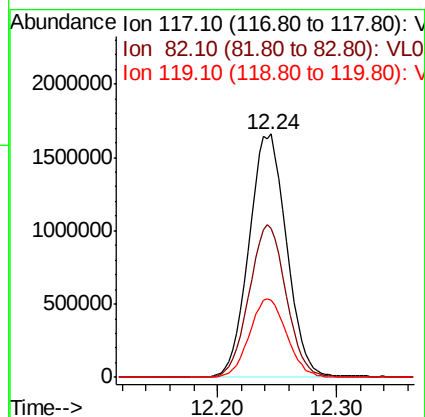
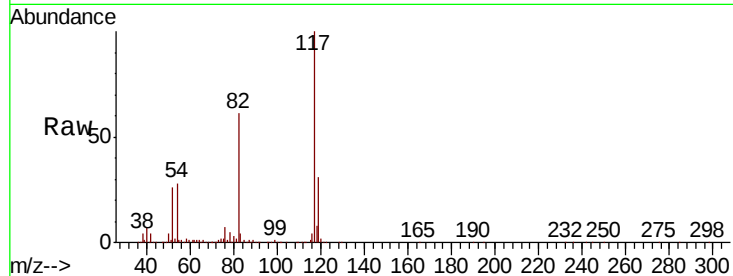
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2895  
Delta R.T. -0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

Instrument :  
MSVOA\_L  
ClientSampleId :  
MMSV-03DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 62.7  | 51.0  | 76.6  |
| 119     | 32.1  | 28.0  | 42.0  |

Manual Integrations  
APPROVED

MMDadoda  
12/10/2018 1:01:11 PM



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.534 ppbv  
RT: 14.58 min Scan# 3621  
Delta R.T. -0.01 min  
Lab File: VL032889.D  
Acq: 4 Dec 2018 23:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 67.0  | 50.7  | 76.1  |
| 175     | 5.0   | 3.8   | 5.6   |

