

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101818\  
 Data File : VL032673.D  
 Acq On : 19 Oct 2018 7:42  
 Operator : SY/AP  
 Sample : J5581-03  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 A-3

Manual Integrations  
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 10/24/2018 12:05:59 PM

Quant Time: Oct 19 08:20:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Oct 19 08:20:27 2018  
 QLast Update : Fri Oct 19 01:25:37 2018  
 Response via : Initial Calibration

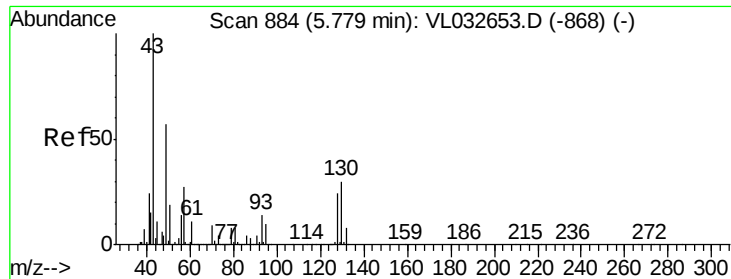
| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1412811  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.31  | 114  | 3493238  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3335682  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2437547  | 9.81     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.10% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.08  | 85   | 73816    | 0.513  | ppbv   | 95     |
| 3) Chlorodifluoromethane   | 3.02  | 51   | 303024m  | 2.743  | ppbv   |        |
| 4) Chloromethane           | 3.18  | 50   | 30243    | 0.490  | ppbv   | 95     |
| 9) Propene                 | 3.06  | 41   | 27663m   | 0.608  | ppbv   |        |
| 11) Trichlorofluoromethane | 4.02  | 101  | 42278    | 0.225  | ppbv   | 99     |
| 13) Ethanol                | 3.67  | 45   | 1023668  | 78.769 | ppbv   | 98     |
| 15) Acetone                | 3.91  | 43   | 863074   | 6.616  | ppbv   | 100    |
| 19) Isopropyl Alcohol      | 4.05  | 45   | 573516   | 6.173  | ppbv   | 100    |
| 20) Methylene Chloride     | 4.42  | 84   | 167171   | 2.524  | ppbv   | 92     |
| 26) Hexane                 | 5.79  | 57   | 340479   | 2.396  | ppbv # | 46     |
| 34) 2-Butanone             | 5.35  | 43   | 74872    | 0.400  | ppbv   | 100    |
| 35) Carbon Tetrachloride   | 7.14  | 117  | 19203    | 0.077  | ppbv   | 85     |
| 36) Benzene                | 7.02  | 78   | 38346    | 0.135  | ppbv # | 84     |
| 53) Toluene                | 9.96  | 91   | 959902   | 2.952  | ppbv   | 98     |
| 59) m/p-Xylene             | 13.13 | 91   | 38646m   | 0.112  | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.94 | 105  | 47113m   | 0.128  | ppbv   |        |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA\_L

ClientSampled :

A-3

Tot Ion: 49 Resp: 1412811

Ion Ratio Lower Upper

49 100

128 48.4 22.3 66.8

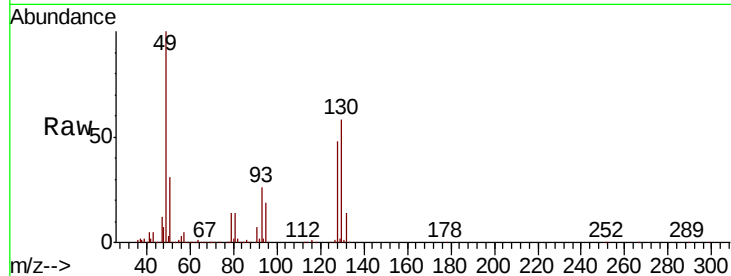
130 62.5 28.4 85.3

Manual Integrations

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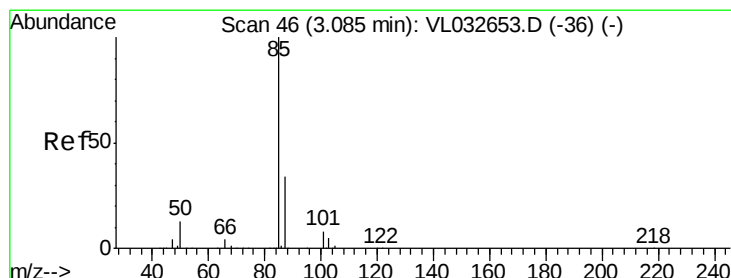
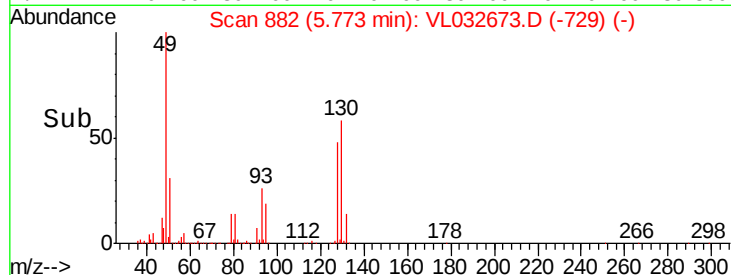
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

5.77

Time-->



#2

Dichlorodifluoromethane

Concen: 0.513 ppbv

RT: 3.08 min Scan# 46

Delta R.T. -0.00 min

Lab File: VL032673.D

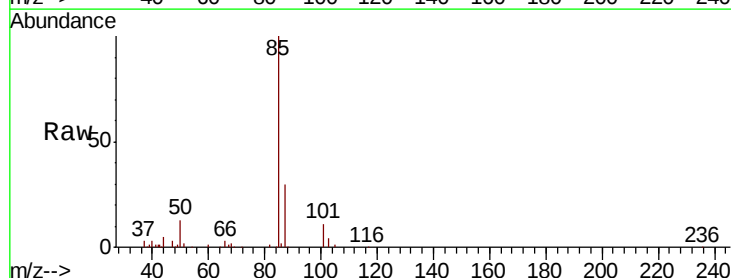
Acq: 19 Oct 2018 7:42

Tgt Ion: 85 Resp: 73816

Ion Ratio Lower Upper

85 100

87 29.8 26.2 39.2

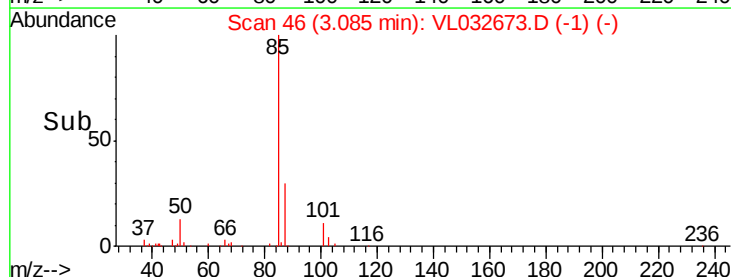


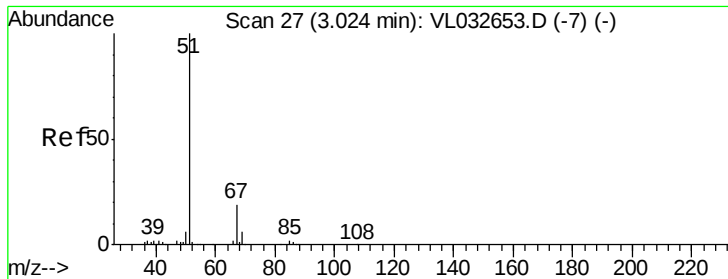
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.08

Time-->





#3

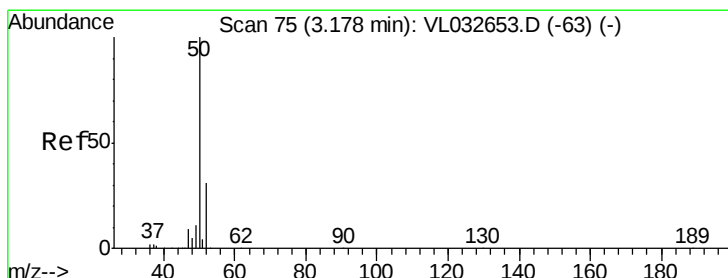
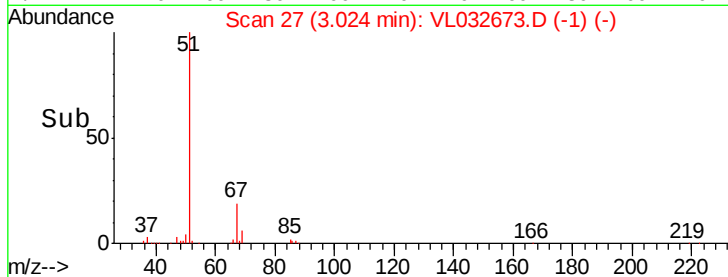
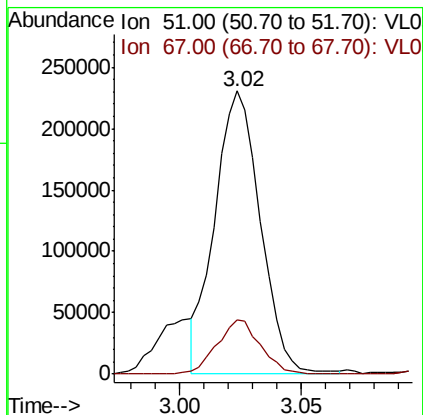
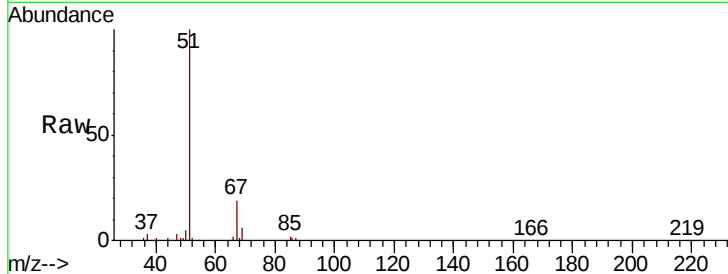
Chlorodifluoromethane  
 Concen: 2.743 ppbv  
 RT: 3.02 min Scan# 27  
 Delta R.T. -0.00 min  
 Lab File: VL032673.D  
 Acq: 19 Oct 2018 7:42

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 A-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 18.1  | 15.2  | 22.8  |

Manual Integrations  
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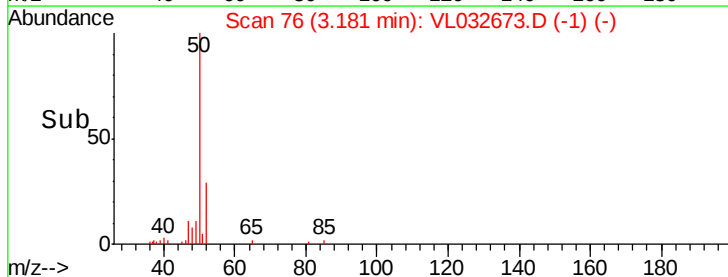
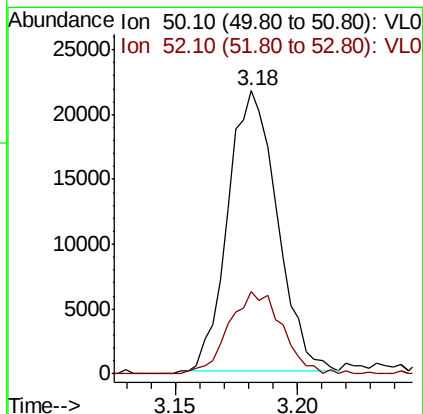
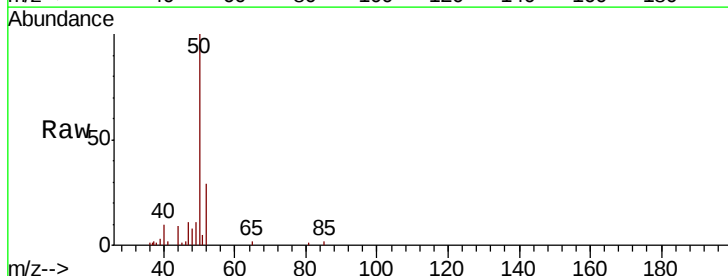
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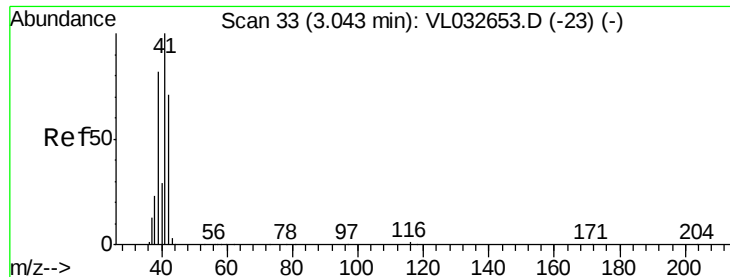


#4

Chloromethane  
 Concen: 0.490 ppbv  
 RT: 3.18 min Scan# 76  
 Delta R.T. 0.00 min  
 Lab File: VL032673.D  
 Acq: 19 Oct 2018 7:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 29.5  | 25.9  | 38.9  |





#9

Propene

Concen: 0.608 ppbv m

RT: 3.06 min Scan# 37

Delta R.T. 0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA\_L

ClientSampled :

A-3

Tot Ion: 41 Resp: 27663

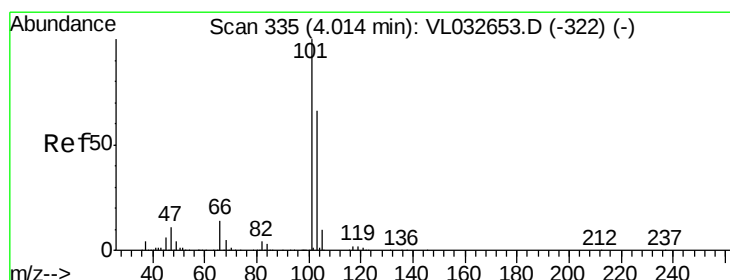
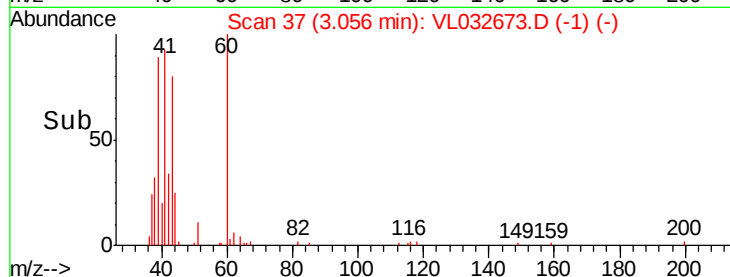
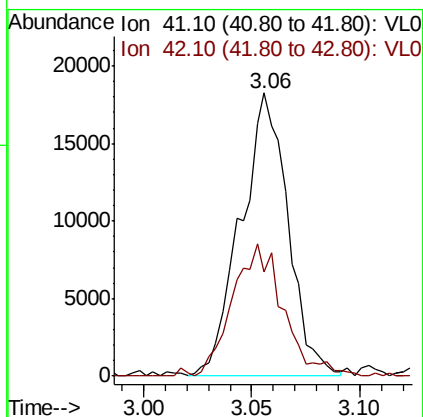
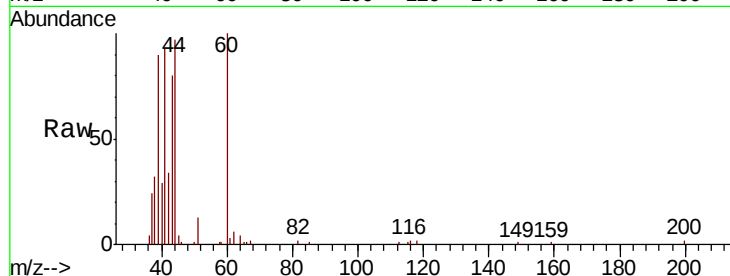
Ion Ratio Lower Upper

41 100

42 51.0 55.4 83.0#

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#11

Trichlorofluoromethane

Concen: 0.225 ppbv

RT: 4.02 min Scan# 336

Delta R.T. 0.00 min

Lab File: VL032673.D

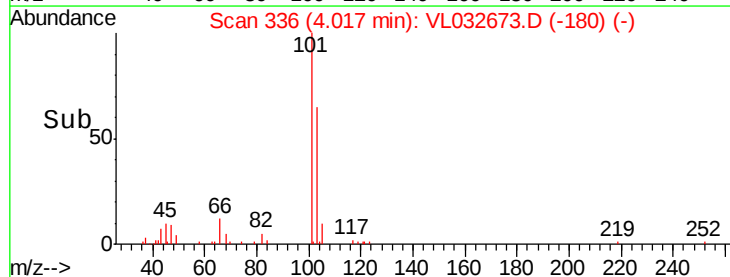
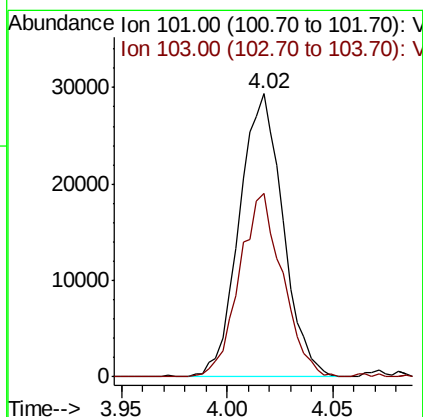
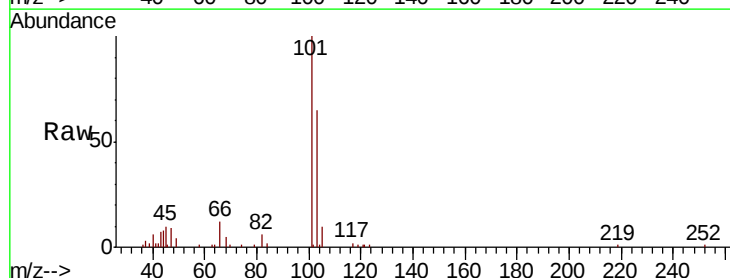
Acq: 19 Oct 2018 7:42

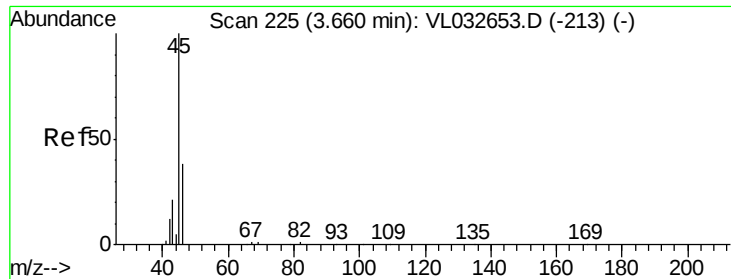
Tgt Ion: 101 Resp: 42278

Ion Ratio Lower Upper

101 100

103 65.1 51.4 77.2





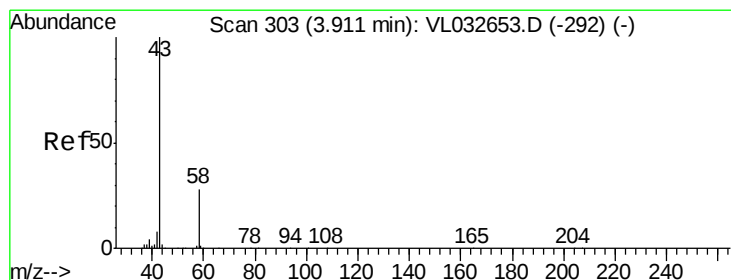
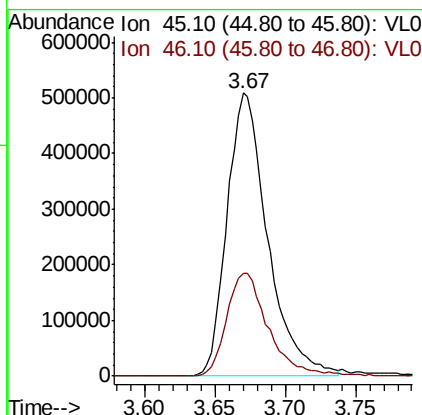
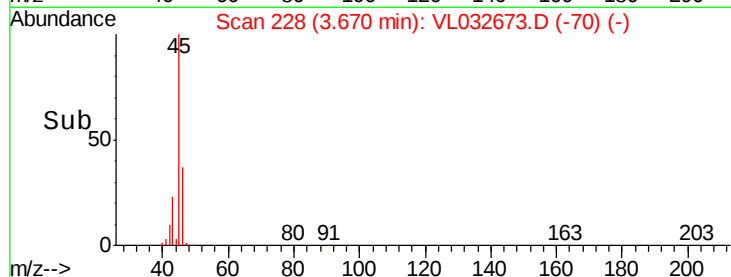
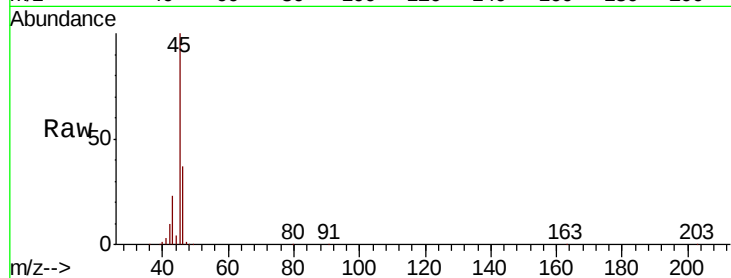
#13  
Ethanol  
Concen: 78.769 ppbv  
RT: 3.67 min Scan# 228  
Delta R.T. 0.01 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Instrument :  
MSVOA\_L  
ClientSampled :  
A-3

Tot Ion: 45 Resp: 1023668  
Ion Ratio Lower Upper  
45 100  
46 37.5 15.4 61.8

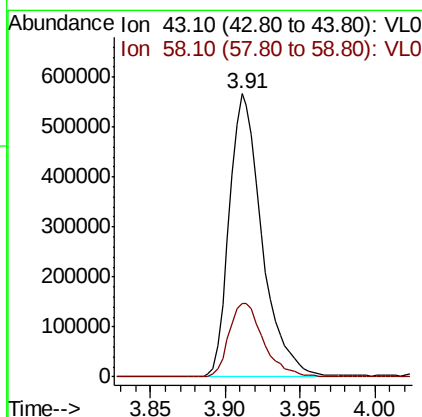
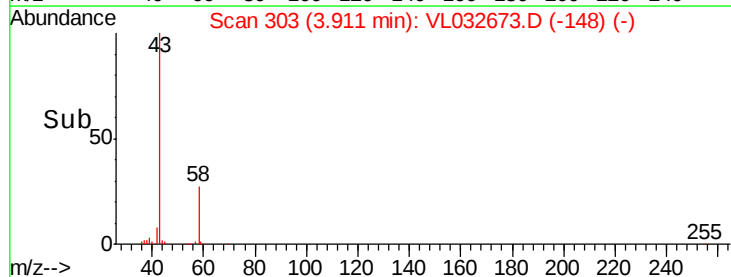
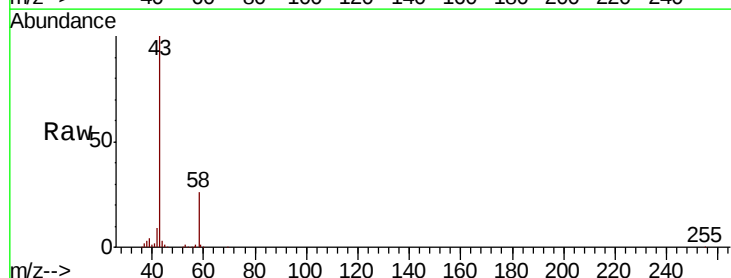
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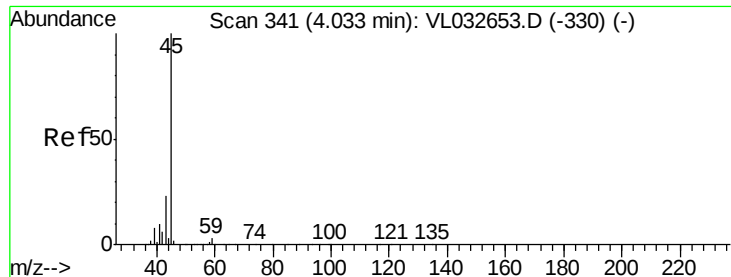
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#15  
Acetone  
Concen: 6.616 ppbv  
RT: 3.91 min Scan# 303  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Tgt Ion: 43 Resp: 863074  
Ion Ratio Lower Upper  
43 100  
58 27.4 22.1 33.1





#19

Isopropyl Alcohol

Concen: 6.173 ppbv

RT: 4.05 min Scan# 345

Delta R.T. 0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA\_L

ClientSampleId :

A-3

Tot Ion: 45 Resp: 573516

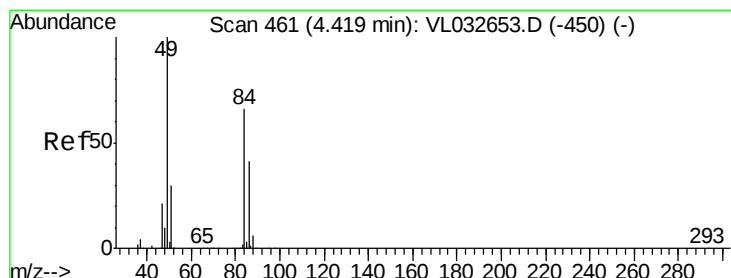
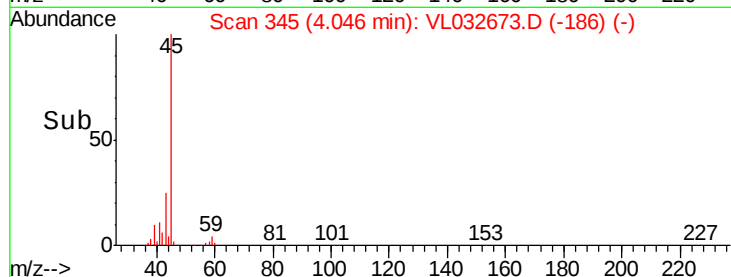
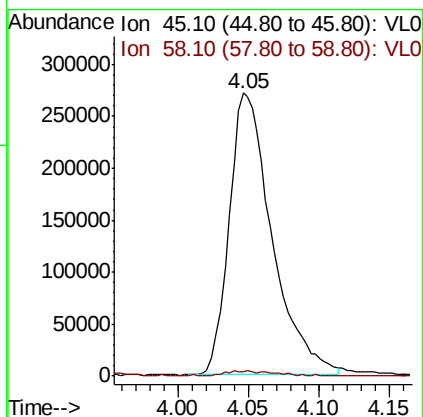
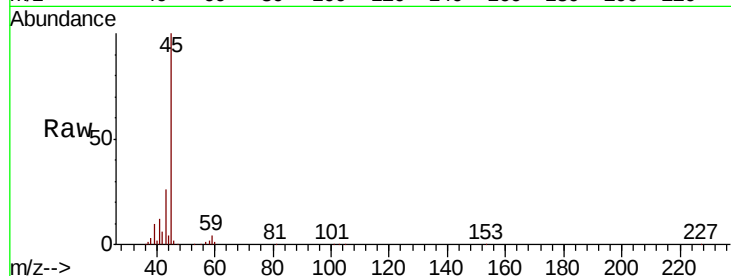
Ion Ratio Lower Upper

45 100

58 2.4 2.0 3.0

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#20

Methylene Chloride

Concen: 2.524 ppbv

RT: 4.42 min Scan# 461

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Tgt Ion: 84 Resp: 167171

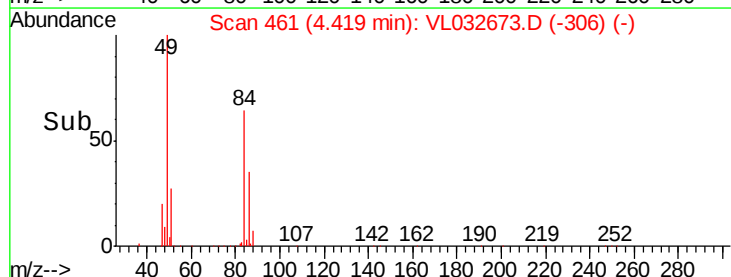
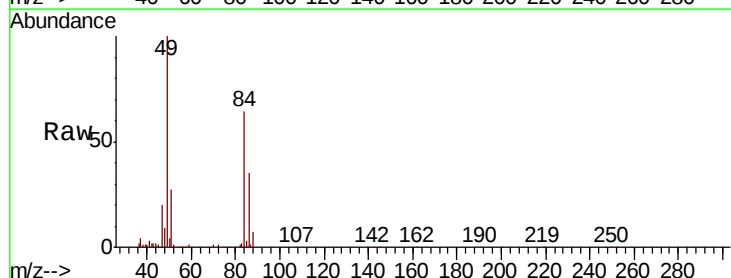
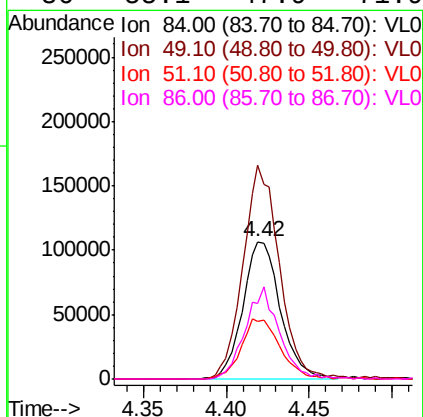
Ion Ratio Lower Upper

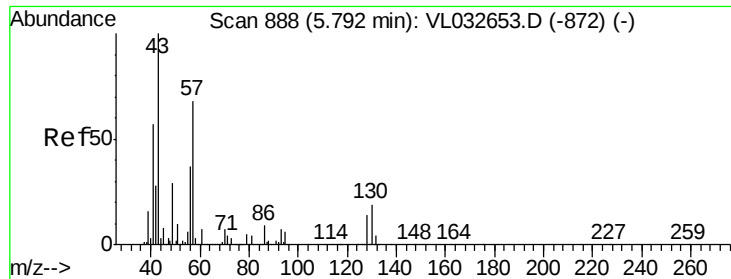
84 100

49 155.2 113.5 170.3

51 41.8 34.8 52.2

86 55.1 47.9 71.9





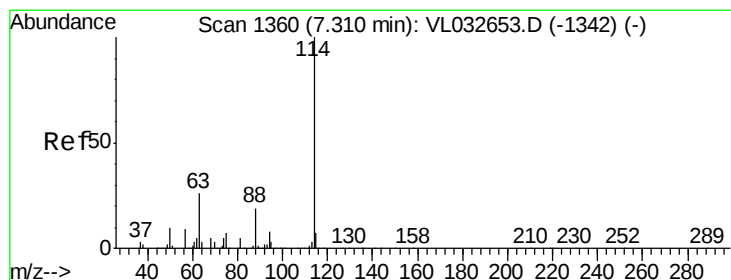
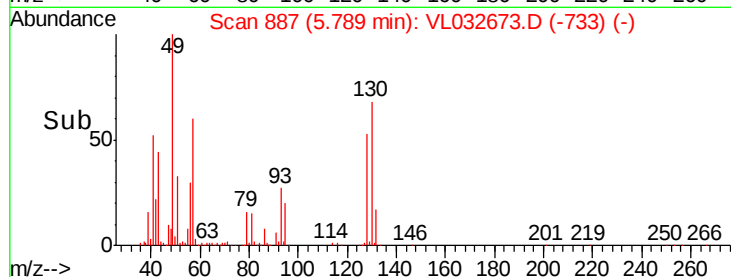
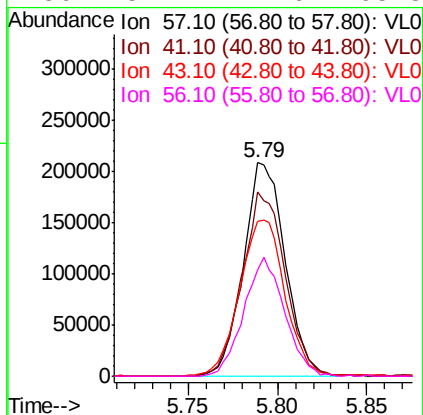
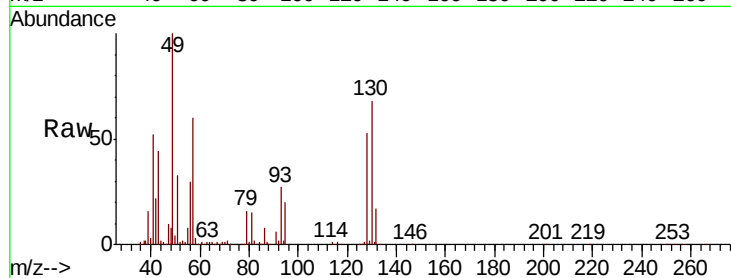
#26  
Hexane  
Concen: 2.396 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Instrument :  
MSVOA\_L  
ClientSampled :  
A-3

| Tot Ion | Ion  | Ratio | Lower  | Upper |
|---------|------|-------|--------|-------|
| 57      | 100  |       |        |       |
| 41      | 90.0 | 67.4  | 101.0  |       |
| 43      | 80.1 | 171.9 | 257.9# |       |
| 56      | 54.7 | 42.6  | 63.8   |       |

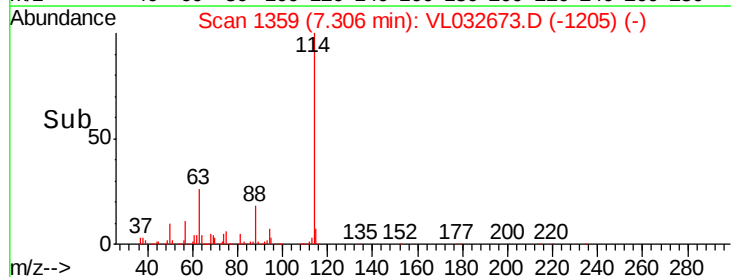
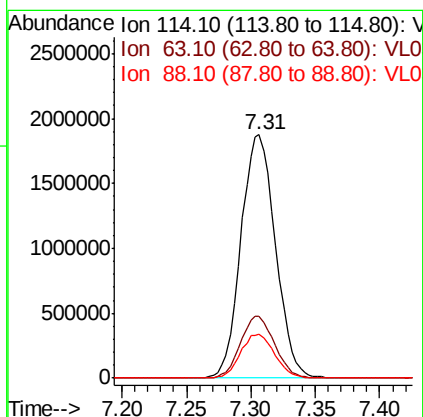
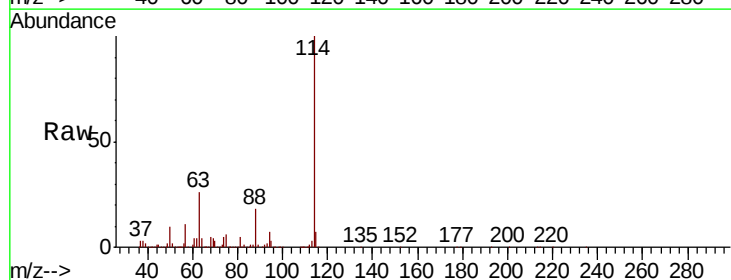
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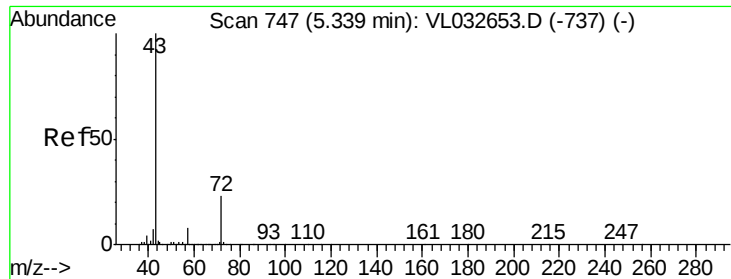
MMDadoda  
10/24/2018 12:05:59 PM



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.31 min Scan# 1359  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 114     | 100  |       |       |       |
| 63      | 25.2 | 21.7  | 32.5  |       |
| 88      | 18.0 | 14.9  | 22.3  |       |





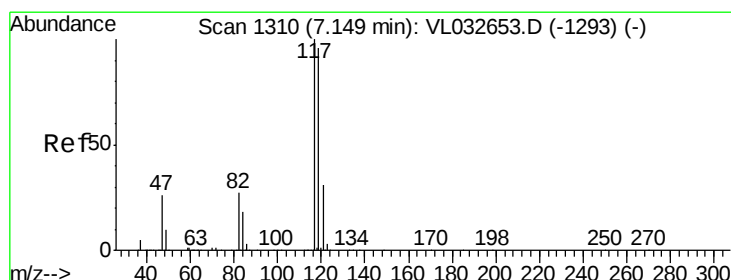
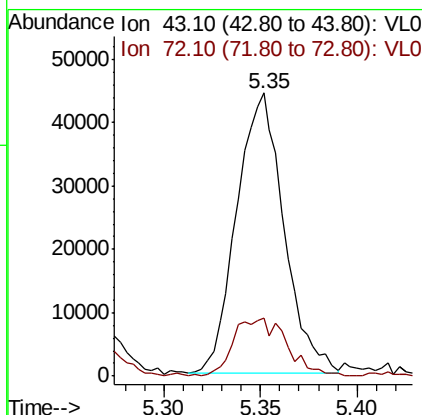
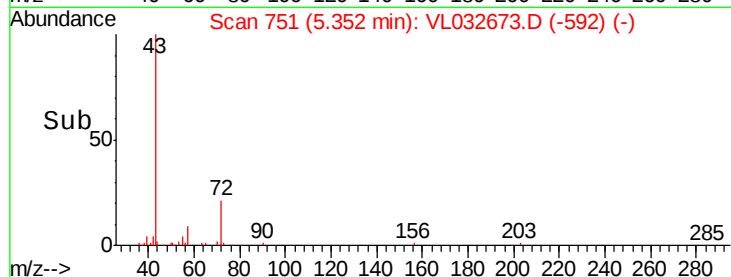
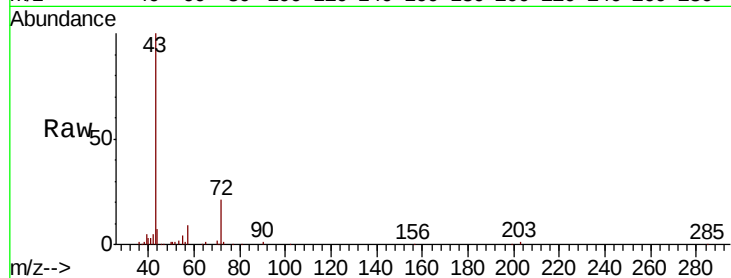
#34  
2-Butanone  
Concen: 0.400 ppbv  
RT: 5.35 min Scan# 751  
Delta R.T. 0.01 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
A-3

Tot Ion: 43 Resp: 74872  
Ion Ratio Lower Upper  
43 100  
72 23.4 18.6 27.8

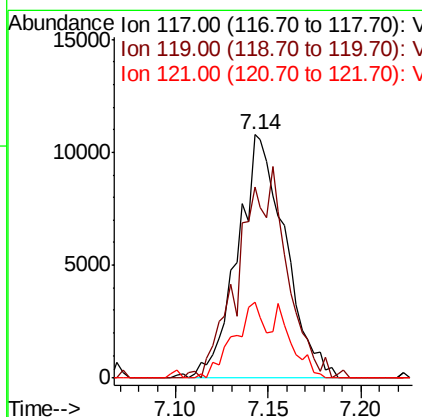
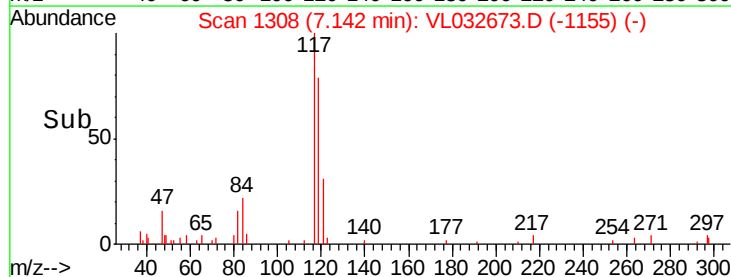
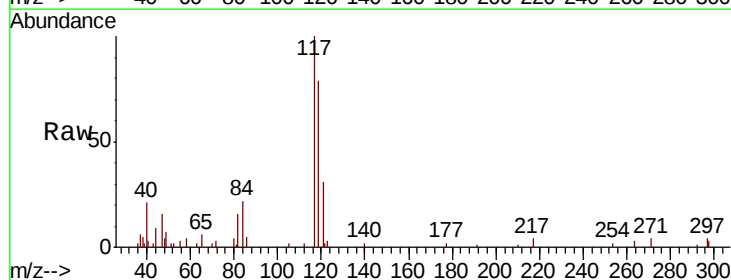
Manual Integrations  
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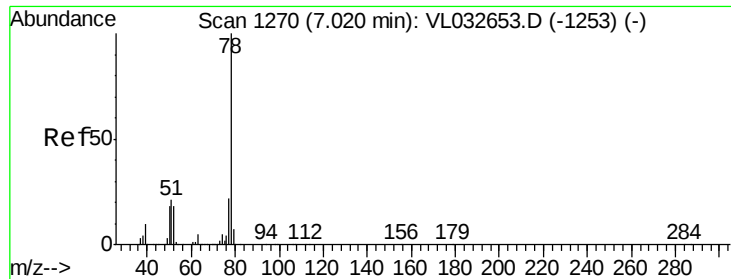
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10/24/2018 12:05:59 PM



#35  
Carbon Tetrachloride  
Concen: 0.077 ppbv  
RT: 7.14 min Scan# 1308  
Delta R.T. -0.01 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Tgt Ion: 117 Resp: 19203  
Ion Ratio Lower Upper  
117 100  
119 76.9 75.7 113.5  
121 33.0 24.7 37.1





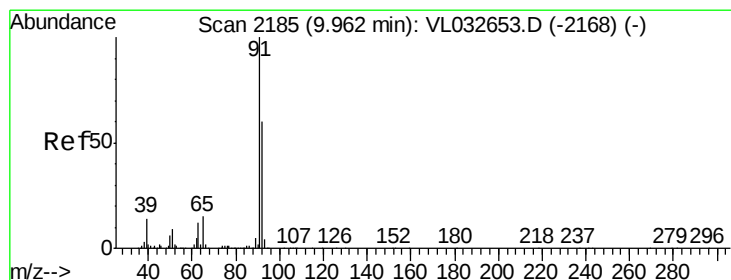
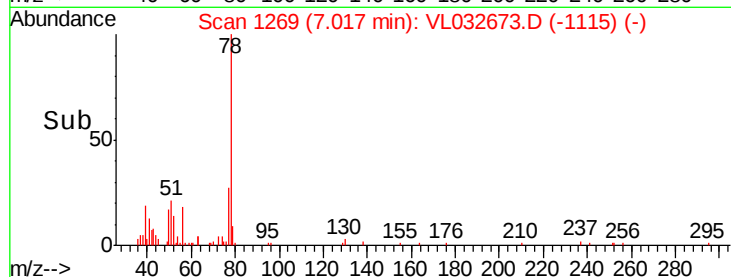
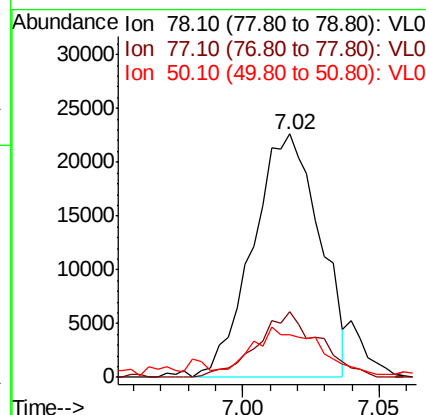
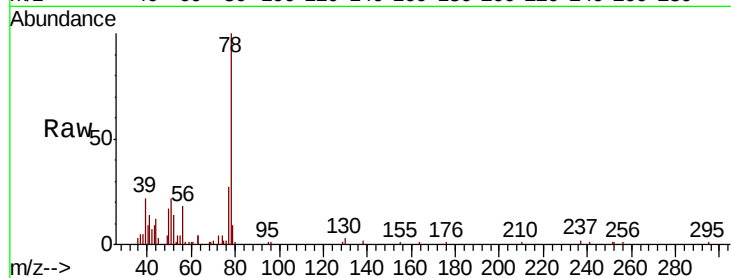
#36  
Benzene  
Concen: 0.135 ppbv  
RT: 7.02 min Scan# 1269  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
A-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 26.8  | 18.1  | 27.1  |
| 50      | 8.2   | 15.1  | 22.7# |

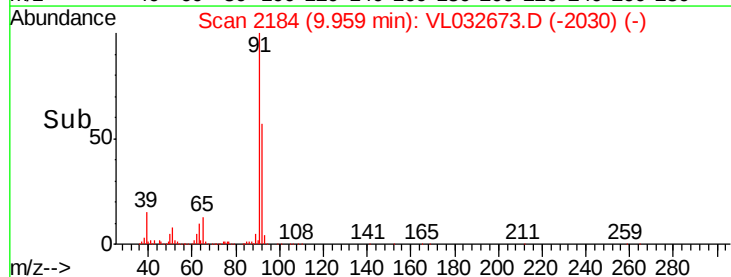
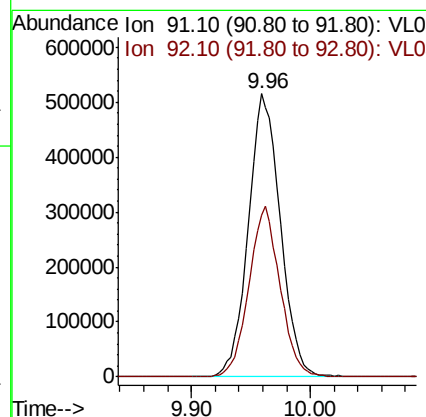
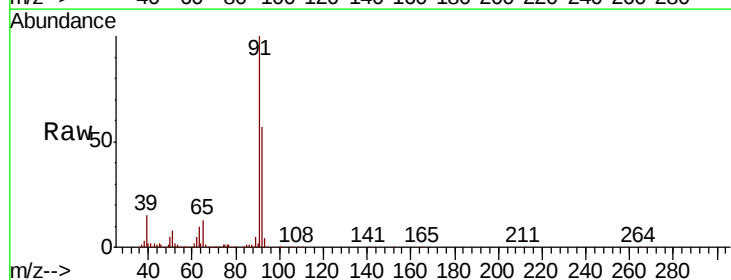
Manual Integrations  
APPROVED

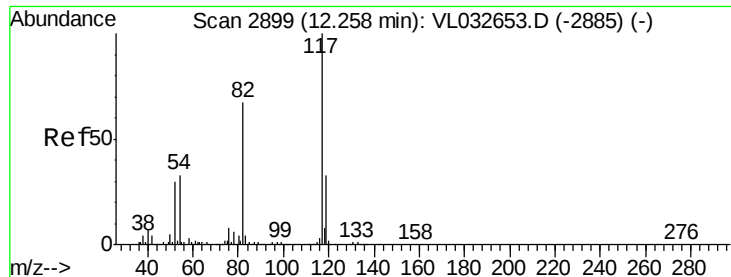
MMDadoda  
10/24/2018 12:05:59 PM



#53  
Toluene  
Concen: 2.952 ppbv  
RT: 9.96 min Scan# 2184  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 58.8  | 48.4  | 72.6  |





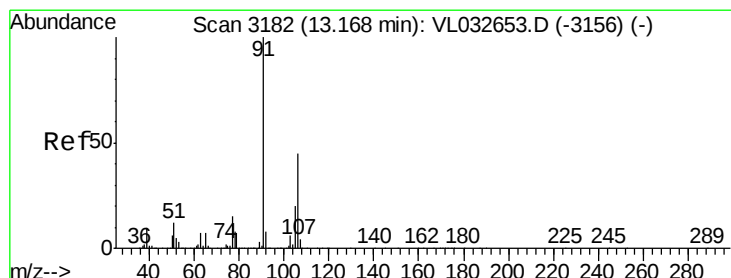
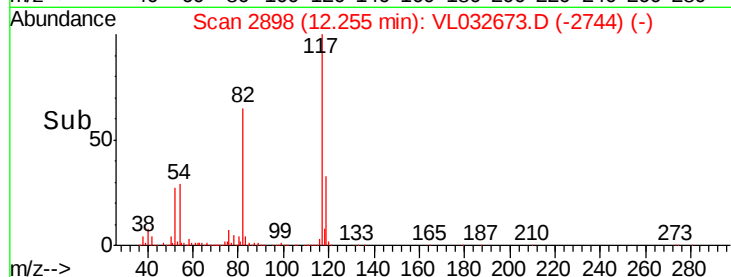
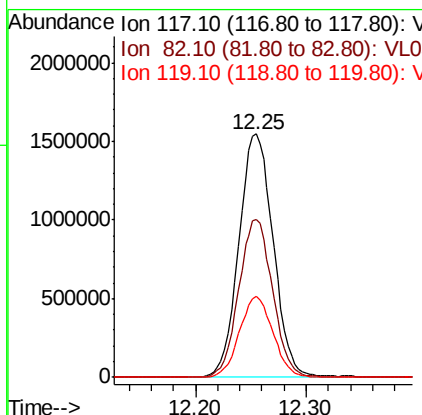
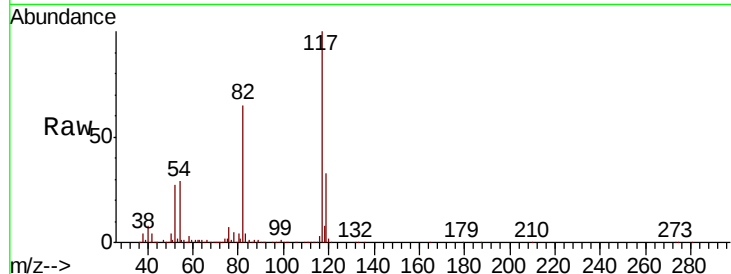
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2898  
Delta R.T. -0.00 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
A-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 64.4  | 52.7  | 79.1  |
| 119     | 32.5  | 26.7  | 40.1  |

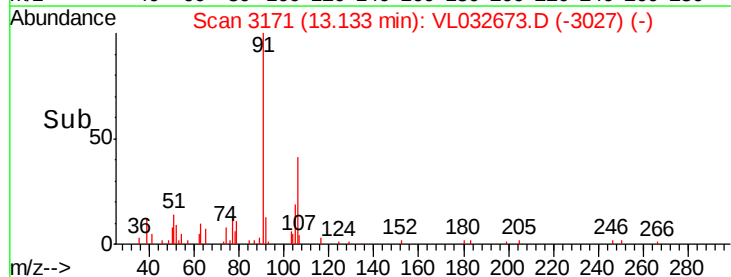
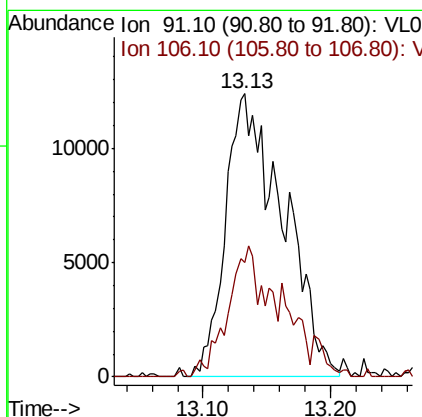
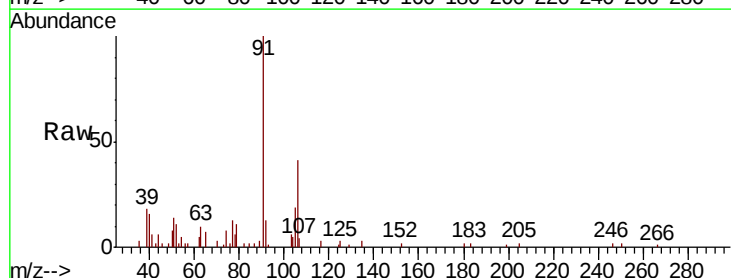
Manual Integrations  
APPROVED

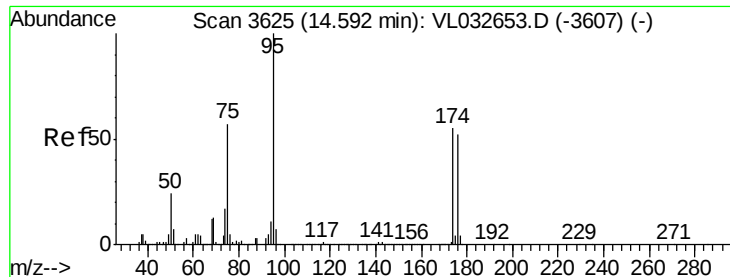
MMDadoda  
10/24/2018 12:05:59 PM



#59  
m/p-Xylene  
Concen: 0.112 ppbv m  
RT: 13.13 min Scan# 3171  
Delta R.T. -0.04 min  
Lab File: VL032673.D  
Acq: 19 Oct 2018 7:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 0.0   | 35.9  | 53.9# |





#68

1-Bromo-4-Fluorobenzene

Concen: 9.814 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA\_L

ClientSampled :

A-3

Tot Ion: 95 Resp: 2437547

Ion Ratio Lower Upper

95 100

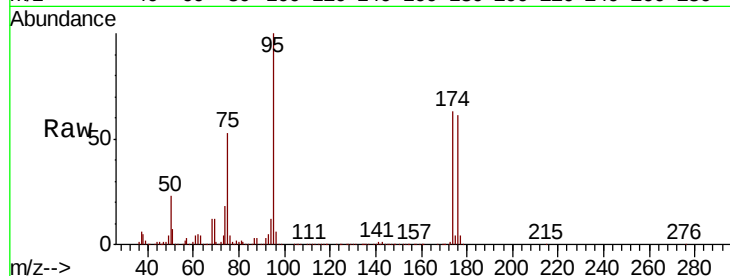
174 64.0 46.0 69.0

175 4.6 3.4 5.0

Manual Integrations  
APPROVED

MMDadoda

10/24/2018 12:05:59 PM

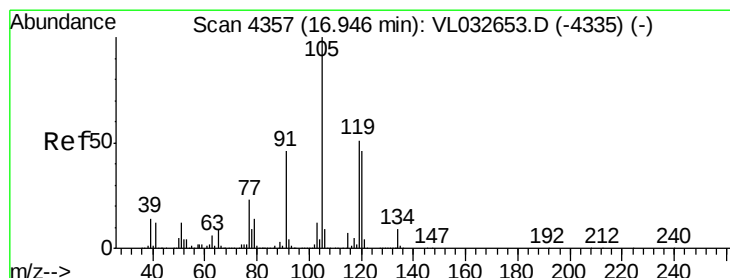
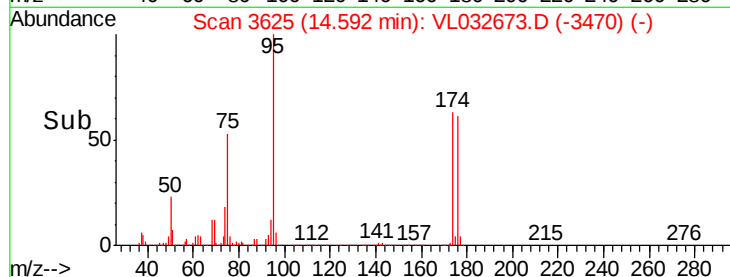
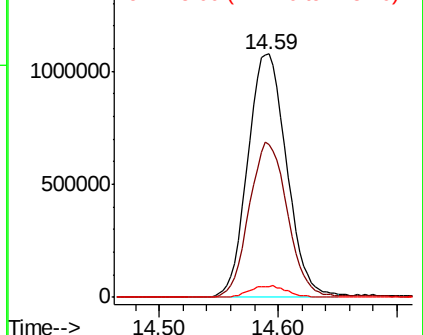


Abundance

Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.128 ppbv m

RT: 16.94 min Scan# 4354

Delta R.T. -0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Tgt Ion: 105 Resp: 47113

Ion Ratio Lower Upper

105 100

120 35.6 35.8 53.8#

91 17.5 33.2 49.8#

77 22.0 16.2 24.4

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

